PERIODIC REVIEW REPORT
FOR PERIOD OF
SEPTEMBER 1, 2018 THROUGH AUGUST 31, 2020

ENVIRONMENTAL RESTORATION PROGRAM

ANDREWS STREET SITE
300, 304-308, 320 ANDREWS STREET, 25 EVANS STREET
ROCHESTER, NEW YORK, 14604
NYSDEC SITE #E828144

Prepared For: City of Rochester
Division of Environmental Quality
Rochester, New York

Prepared By: Day Environmental, Inc.
1563 Lyell Avenue
Rochester, New York

Date: September 29, 2020

TABLE OF CONTENTS

I. INTRODUCTION.....1

II. SITE OVERVIEW.....2

III. EVALUATION OF REMEDY PERFORMANCE, EFFECTIVENESS AND PROTECTIVENESS.....4

IV. IC/EC COMPLIANCE REPORT.....6

V. MONITORING PLAN COMPLIANCE REPORT.....7

VI. OPERATION & MAINTENANCE (O&M) PLAN COMPLIANCE REPORT.....9

VII. OVERALL PRR CONCLUSIONS AND RECOMMENDATIONS.....9

SITE OVERVIEW FIGURES

Figure 1: Project Locus Map

Figure 2: Site Plan

Figure 3: IRM and Supplemental IRM Soil Removal Areas, and Installed Cover System Site Plan

Figure 4: Site Plan with In-Situ Chemical Oxidation Treatment Measures

Figure 5: Site Plan with Decommissioned Wells, Post-Excavation Soil Sample Locations, and Excavation Cross-Section

Figure 6: Site Layout for Supplemental Polishing Phase Remedial Actions

Figure 7: Site Plan with ISCO Treatment Piping Locations and Post-Excavation Soil Sample Locations

ATTACHMENTS

Attachment A: Boring Logs and Construction Diagrams for Injection Wells IW-23 Through IW-30

Attachment B: IW-23 Through IW-30 Drill Cuttings Waste Characterization Analytical Laboratory Results and Disposal Documentation

Attachment C: Well Decommissioning Logs (MW-04, MW-06, MW-07 and MW-20)

Attachment D: Groundwater Monitoring Documentation

Attachment E: Site-Wide Inspection Forms

Attachment F: Institutional and Engineering Controls Certification Form

I. Introduction

A. Executive Summary

- Historic commercial and industrial uses of the Site since the early 1920s included plumbing supply, electrical supply, bakery, printer, commercial bus depot and bus repair garage, gasoline station, chemical sales/distribution, dry cleaning equipment distributor, fuel oil contractor, and warehousing.
- Types of contamination at the Site that required remediation included:
  - Tetrachloroethene (Perchloroethene or PCE) and other chlorinated volatile organic compounds (VOCs), petroleum-related constituents, polychlorinated biphenyls (PCBs), metals and semi-volatile organic compounds (SVOCs) in soil, urban fill material and/or groundwater.
- Remedial actions were performed at the Site as Interim Remedial Measures (IRMs) and Supplemental IRMs. Remedial actions taken included:
  - Removal and off-site disposal of soil contaminated with VOCs, metals, PCBs and SVOCs.
  - Removal and off-site disposal of two previously closed in-place underground storage tanks (USTs), some buried piping containing PCE-impacted sediments, and sewer piping in the former Evans Street right-of-way (ROW).
  - In-Situ Chemical Oxidation (ISCO) of VOC contamination in saturated soils and groundwater.
  - Installation of a cover system.
  - Execution and recording of an Environmental Easement.
  - Development and implementation of a Site Management Plan (SMP).

B. Effectiveness of the Remedial Program

1. Progress made during the reporting period toward meeting the remedial objectives for the Site included: removing a deep localized area of PCE-impacted soil as a supplemental polishing phase remedial action, continued ISCO groundwater polishing; and continued monitoring and/or inspection of the cover system and/or groundwater conditions.
2. The work completed to date shows that the remedial program has the ability to achieve the remedial objectives for the Site.

C. Compliance

1. There are no areas of non-compliance with the SMP as modified with NYSDEC approval.
2. Given compliance with the Site's SMP, no steps were needed to correct areas of non-compliance.

D. Recommendations

1. It is recommended that appropriate sections of the SMP be revised to reflect decommissioning of select monitoring wells, additional supplemental polishing phase localized soil removal and ISCO activities, and modifications to the groundwater monitoring program that have been, or will be, approved by the NYSDEC.

2. No change to the frequency of Periodic Review Report (PRR) submittals is recommended at this time.

3. Since residual contamination remains on the Site, it is recommended that SMP requirements continue to be implemented.

II. Site Overview

A. The 1.524-acre Site consists of four contiguous parcels that are addressed as 300, 304-308, and 320 Andrews Street and 25 Evans Street, and are located in the City of Rochester (City), County of Monroe, New York (refer to Figure 1 and Figure 2). The Site is owned by the City.

The Site is bounded by the Inner Loop highway ROW to the north, Andrews Street ROW with commercial property beyond to the south, Franklin Square ROW with a City-owned park beyond to the east, and Bristol Street ROW with commercial property beyond to the west.

Prior to remediation, multiple types of contamination at the Site were identified in various media. Refer to Figure 3 for the locations of IRM areas and significant former features of the Site that may have influenced Site contaminant migration and distribution for the following pre-remediation areas:

Soil

Area 1 (IRM-01): PCE source area in soil and groundwater at the Site.

Area 2 (IRM-02): A preferential PCE migration pathway along a sewer.

Area 3 (IRM-03): Two closed in-place USTs.

Area 4 (IRM-04): A localized PCB-impacted soil area.

Area 5 (IRM-05): A former trench drain area.

Area 6 (IRM-06): An area of buried piping.

Area 7: Heterogeneous historic urban fill material across most of the Site.

Miscellaneous Areas with VOCs.

Groundwater

A source and plume of VOCs primarily consisting of PCE, and one or more metals exceeding groundwater standards and guidance values primarily within the overburden groundwater table. Light non-aqueous phase liquid (LNAPL) or dense non-aqueous phase liquid (DNAPL) were not detected in groundwater.

B. Chronology

The Site was remediated in accordance with a NYSDEC-approved Interim Remedial Measures Work Plan (IRMWP) dated October 4, 2012, a Supplemental Interim Remedial Measure Work Plan (SIRMWP) dated June 14, 2014, an Addendum #1 to the SIRMWP dated December 10, 2014, and an Addendum #2 to the SIRMWP dated May 11, 2015.

A chronology of the Remedial Actions performed at the Site under the IRMWP is summarized below, and the specific IRM areas are shown on Figure 3:

- **IRM-01:** In November, 2012, a total of 1,673.06 tons of non-hazardous PCE-impacted soil, and 138.83 tons of characteristic hazardous PCE-impacted soil, were removed from Area 1 and disposed off-site at regulated landfills.
- **IRM-02:** In November and December 2012, approximately 115 linear feet (L.F.) of combined sanitary/storm sewer trunk line and approximately 101 tons of PCE-impacted soil were removed from Area 2 and disposed off-site at a regulated landfill as non-hazardous waste.
- **IRM-03:** In October and November 2012, two previously closed in-place petroleum USTs, their K-Crete contents and 48.82 tons of petroleum-contaminated soil were removed from Area 3. The steel USTs were recycled, and the K-Crete and contaminated soil were disposed off-site at a regulated landfill as non-hazardous wastes.
- **IRM-04:** In November 2012, a total of 15.64 tons of PCB-impacted soil was removed from Area 4 and disposed off-site at a regulated landfill as a non-hazardous waste.
- **IRM-05:** In October 2012, a total of 223.21 tons of non-hazardous petroleum and VOC-impacted soil was removed from Area 5 and disposed off-site at a regulated landfill as a non-hazardous waste.
- **IRM-06:** In October 2012, approximately 210 L.F. of piping, and a limited amount of soil, were removed from Area 6 and disposed off-site at a regulated landfill as a non-hazardous waste.

A chronology of the Remedial Actions performed at the Site under the SIRMWP, as amended by Addendum #1 and Addendum #2, is summarized below:

- **Supplemental IRM Soil Removal:** In June 2014 and July 2014, a total of 76.05 tons of PCE-impacted soil were removed south of Area 1 and disposed off-site at a regulated landfill as a non-hazardous waste (refer to Figure 3).
- **Supplemental IRM In-Situ Chemical Oxidation (ISCO):** Between June 2014 and June 2015, approximately 36,933 pounds of potassium permanganate were injected or otherwise placed in the ground by various methods to treat PCE in saturated soils and groundwater at Area 1 and surrounding PCE plume area (refer to Figure 4). During this work, approximately 134.32 tons of non-hazardous soil were generated and disposed off-site at a regulated landfill.
- **Cover System:** In November 2014, a site-wide cover system was installed (refer to Figure 3).
- **Environmental Easement:** In May 2015, an Environmental Easement was recorded.
- **Site Management Plan:** In August 2015, a Site Management Plan (SMP) was finalized.

Cleanup goals for groundwater are NYSDEC Technical and Operational Guidance Series (TOGS) 1.1.1 Groundwater Standards and Guidance Values.

Cleanup or on-site re-use goals for soil are NYSDEC Part 375 Restricted Residential soil cleanup objectives (SCOs) and Protection of Groundwater SCOs.

Work Conducted During the Reporting Period

Remaining remediation components include: continued implementation of site-wide inspections (e.g., monitoring wells and cover system) in accordance with the SMP; continued groundwater monitoring in accordance with the SMP; and continued polishing-phase treatment/remediation. During the reporting period (9/1/2018 through 8/31/2020), ISCO polishing treatment/remediation work included: installation of eight new injection wells (designated as IW-23 through IW-30 on Figure 4) in proximity to monitoring well MW-17; injection of a total of 330 pounds of potassium permanganate mixed with water at injection wells in proximity to monitoring wells MW-01, MW-03A and MW-17; and circulation of treated groundwater using the cumulative well field. Boring logs and construction diagrams for the eight new injection wells are included in Attachment A. The analytical laboratory report for a waste characterization sample of the soil cuttings from IW-23 through IW-30 [designated as Sample 962-IDW(Soil)], and the associated waste disposal documentation, are included in Attachment B.

In August/September 2019, supplemental polishing phase remedial actions were also completed that involved: decommissioning of select injection wells and monitoring well MW-17; excavation, removal and disposal of approximately 250 cubic yards of PCE-contaminated soil and 9,500 gallons of PCE-contaminated groundwater from the saturated zone (12 to 24 foot depth interval) within Area 1; injection of 950 gallons of approximate 5% potassium permanganate solution to a new ISCO injection gallery that was installed during backfilling of the excavation in Area 1; and installation of replacement monitoring well MW-17A. Refer to Figure5, Figure 6 and Figure 7. This work is further documented in a Construction Completion Report (CCR) that was submitted to the NYSDEC on February 27, 2020.

On April 16, 2020, overburden monitoring wells MW-04, MW-06, MW-07 and MW-20 were decommissioned in accordance with NYSDEC's CP-43 Groundwater Monitoring Well Decommissioning Procedure dated November 3, 2009. Decommissioning of these four wells was authorized by the NYSDEC in a letter dated September 4, 2019. Well Decommissioning Logs are included in Attachment C.

III. Evaluation of Remedy Performance, Effectiveness and Protectiveness

A. Effectiveness of Remedies

As documented in a Remedial Investigation/Alternatives Analysis Report (RI/AAR) dated November 2015 and the Supplemental Polishing Phase Remedial Actions CCR dated February 2020, soil removals and ISCO were implemented and subsequently evaluated with the collection and analysis of confirmatory soil samples and groundwater samples.

- As shown in the RI/AAR and CCR, the results of confirmatory soil samples collected in soil removal areas were successful at remediating the targeted contamination in those areas to levels that meet applicable SCOs.

- The results of previous groundwater monitoring (conducted between November 2014 and August 2018) and monitoring conducted during the reporting period (conducted between September 2018 and August 2020) showed that chlorinated VOCs (CVOCs) in groundwater have been significantly reduced as a result of previous source removals, ISCO, and polishing phase remedial actions.

- Documentation concerning the three groundwater monitoring events performed during this reporting period is included in Attachment D. This documentation includes Figure 8 through Figure 13, Table 1 through Table 4, Graph A through Graph I showing CVOC concentrations in groundwater samples over time for select monitoring wells, ASP Category B laboratory reports, and data validation summary reports (DUSRs) for the lab reports.

    - As shown on Graph I, cumulative CVOC concentrations detected in groundwater at wells MW-01, MW-02 and MW-03/MW-03A during a January 2012 pre-remediation sampling event (68,942 ug/l) have been reduced approximately 98% as of the date of a July 2020 post-supplemental polishing phase sampling event (1,364 ug/l).

    - Soil from a depth of 12 to 24 feet in the area of former well MW-17 and existing well MW-17A represented a last source area of CVOCs that were back diffusing from low permeability soil layers to groundwater. As shown on Graph E, the CVOC concentration in groundwater in this area during a March 2016 post-ISCO sampling event was 16,132 ug/l. Subsequent to completion of supplemental polishing phase remedial actions in this area (i.e., removal and disposal of 250 CY of CVOC-contaminated soil, removal and disposal of 9,500 gallons of PCE-contaminated groundwater, and injection of 950 gallons of approximate 5% potassium permanganate solution), the CVOC concentration in groundwater (i.e., 171 ug/l in the July 2020 sampling event) has been reduced approximately 99%. This monitoring data illustrates that the residual PCE that had been back diffusing from soil to groundwater at depth in this last CVOC source area was effectively eliminated by the supplemental polishing phase remedial actions.

    - GIS modeling for a September 2013 pre-ISCO groundwater sampling event (refer to attached Figure 33 originally included in a November 2015 Remedial Investigation/Alternatives Analysis Report) showed PCE concentrations greater than 500 ug/l covered an approximate 13,861 sq. ft. (i.e., approximate 0.32-acre) area of the Site. The July 2020 post-supplemental polishing phase groundwater sampling event shows no PCE detections in groundwater above 500 ug/l in the same general area of the Site (refer to Figure 13 in Attachment D), which further illustrates that the remedy successfully reduced the mass and concentrations of PCE in the former source area.

  Based on the remedial actions performed, it is anticipated that the CVOC concentrations in groundwater at the Site will continue to decrease with time.

The Site relies on a DER-10 compliant cover system engineering control to meet remedial action objectives. In accordance with the SMP, inspections were completed on December 4, 2018, December 6, 2019, and June 22, 2020. The results of these inspections are presented on the Site-Wide Inspection Forms included in Attachment E. As shown, the cover system has been observed to be in a condition that successfully inhibits contact with underlying Site media.

Based on the monitoring conducted to date, the remedy is shown to be effective at achieving the remedial goals for this Site.

IV. IC/EC Compliance Report

A. IC/EC Requirements/Compliance

1. A description of each control, its objective, and how performance of the control is evaluated is provided below:

- Site Management Plan: The objective of the SMP is to manage remaining contamination above regulatory criteria in a manner that is protective of human health and the environment. The SMP is a living document and is anticipated to be revised and updated as needed to reflect the current Site conditions and applicable restrictions. The SMP includes an Institutional and Engineering Control (IC/EC) Plan and a Site Monitoring Plan. An Operation and Maintenance Plan is not included in the SMP since the Site currently does not rely on any mechanical systems to protect public health and the environment. The performance of the controls is evaluated through monitoring and periodic certification. Controls on the Site include:
  - Management of soil and historic fill material during future activities that would penetrate, encounter, or disturb remaining contamination must be conducted in accordance with provisions of the SMP, including the Excavation Work Plan (EWP);
  - A requirement for evaluation of potential soil vapor intrusion into any new enclosed structures on the Site, and designing and implementing engineering controls to address soil vapor intrusion for those structures, if deemed warranted.
  - Requirements for monitoring and repair of the cover system engineering control;
  - Requirements for inspections and notifications for various reasons associated with Site conditions, change in use, change in ownership, etc.
  - Requirements for monitored natural attenuation groundwater sampling and analysis.
- Environmental Easement: Restricts use of the property; restricts use of groundwater; requires implementation of the SMP; requires evaluation of soil vapor intrusion into any new buildings, and mitigation, if needed; requires operating, maintaining and inspecting any engineering controls; requires groundwater and other environmental and public health monitoring; requires monitoring, maintaining and replacing groundwater wells as necessary as set forth in the SMP; requires reporting of SMP data

and information; requires implementation of the SMP for activities that would disturb remaining contaminated media; and requires monitoring to assess the performance and effectiveness of the remedy. The performance of each control is evaluated through periodic certification.

2. Status

Each control is fully in place, is being adhered to, and is effective.

3. Corrective Measures

None Required.

4. Conclusions and Recommendations for Changes

The controls are being implemented and no changes are being recommended.

B. Certification

Certification included as Attachment F.

V. Monitoring Plan Compliance Report

A. Components

- Groundwater Monitoring Plan: As identified in the SMP, monitored attenuation groundwater monitoring is to be completed over a three-year period. The monitored attenuation groundwater monitoring is to include quarterly monitoring the first year, and bi-annual (i.e., semi-annual) monitoring for two years thereafter. Any modifications in the monitoring frequency, sampling techniques, the number of wells to be sampled, and the test parameters will be determined by the NYSDEC. This plan also covers monitoring well repairs, replacement, and decommissioning. Per a September 4, 2019 letter, the NYSDEC provided guidance on modifications to the monitoring frequency, and the wells to be sampled. Also, as approved in the September 4, 2019 NYSDEC letter, monitoring wells MW-04, MW-06, MW-07 and MW-20 were decommissioned on April 16, 2020, and well decommissioning logs are included in Attachment C.
- Excavation Work Plan: An EWP is included as part of the SMP for management of soil and historic fill material that may contain residual contamination at the Site.
- Site-Wide Inspection: Site-wide inspections that include cover system monitoring and monitoring well inspection are required annually and also after severe weather conditions that may affect engineering controls or monitoring devices.

B. Summary of Monitoring Completed

- Groundwater Monitoring Plan: December 2018 4th bi-annual groundwater monitoring, December 2019 post-excavation performance groundwater monitoring, and June/July 2020 post-excavation performance groundwater monitoring were completed during the reporting period.
  - Monitoring wells MW-01, MW-02, MW-03A, MW-04, MW-05, MW-06, MW-07, MW-11, MW-15, MW-16, MW-17, MW-18, MW-19, and MW-

20 were sampled during the December 2018 4th bi-annual groundwater monitoring event.

- Monitoring wells MW-01, MW-02, MW-03A, MW-05, MW-11, MW-15, MW-16, MW-17A, MW-18, and MW-19 were sampled during the December 2019 post-excavation performance groundwater monitoring event.
- Monitoring wells MW-01, MW-02, MW-03A, MW-05, MW-11, MW-15, MW-16, MW-17A, MW-18, and MW-19 were sampled during the June/July 2020 post-excavation performance groundwater monitoring event.

Documentation concerning the above-referenced groundwater monitoring events are included in Attachment D, which includes Figure 8 through Figure 13, Table 1 through Table 4, Graph A through Graph I showing CVOC concentrations in groundwater samples over time for select monitoring wells, ASP Category B laboratory reports, and data validation summary reports (DUSRs) for the associated laboratory reports.

- Excavation Work Plan: No activities were performed during the reporting period that required the implementation of the EWP requirements.
- Site-Wide Inspection: Annual site-wide inspections were completed on December 4, 2018, December 6, 2019, and June 22, 2020. Copies of the Site-Wide Inspection Forms are included in Attachment E. The inspections revealed the following:
  - Monitoring wells present at the Site at the time of each inspection were in good condition.
  - The Site cover system at the time of each inspection was observed in good condition.

C. Comparison with Remedial Objectives

- Groundwater Monitoring Plan: The results of the groundwater monitoring completed during the reporting period showed some CVOC concentrations exceeded TOGS 1.1.1 groundwater standards and guidance values in select wells located generally within or downgradient of the PCE source area. There are some fluctuations in concentrations of CVOCs (i.e., increases and decreases) in relation to previous results, which in part may be attributable to back diffusion with seasonal changes in groundwater levels at the Site. Future ISCO polishing may continue to focus on treatment of the areas on the Site where highest CVOC concentrations are detected (e.g., areas of monitoring wells MW-01, MW-03A, etc.).
- Excavation Work Plan: N/A
- Site-Wide Inspection: The site cover engineering control continues to meet the remedial objective of protecting human health and the environment from coming into contact with residual contamination at the Site.

D. Monitoring Deficiencies

There are no monitoring deficiencies.

E. Conclusions and Recommendations for Changes

- Groundwater Monitoring Plan: Per the September 4, 2019 letter from the NYSDEC, a second bi-annual groundwater monitoring event in 2020 is scheduled for December 2020. During this groundwater monitoring event, samples will be collected from monitoring wells MW-01, MW-02, MW-03A, MW-05, MW-11, MW-15, MW-16, MW-17A, MW-18 and MW-19 using passive diffusion bag samplers. The resulting samples will be analyzed for TCL VOCs and tentatively identified compounds (TICs). A groundwater contour map will also be prepared for the December 2020 bi-annual groundwater monitoring event. Subsequent to this event, the groundwater monitoring program will be evaluated with the NYSDEC to determine if bi-annual sampling should continue, whether sample frequency and number of wells to be sampled can be reduced, whether any existing monitoring wells can be decommissioned in accordance with NYSDEC's CP-43 Groundwater Monitoring Well Decommissioning Procedure dated November 3, 2009, etc.
- Excavation Work Plan: No changes to the EWP are recommended.
- Site-Wide Inspection: No changes to the site-wide inspection are recommended.

VI. Operation & Maintenance (O&M) Plan Compliance Report

N/A

VII. Overall PRR Conclusions and Recommendations

A. Compliance with SMP

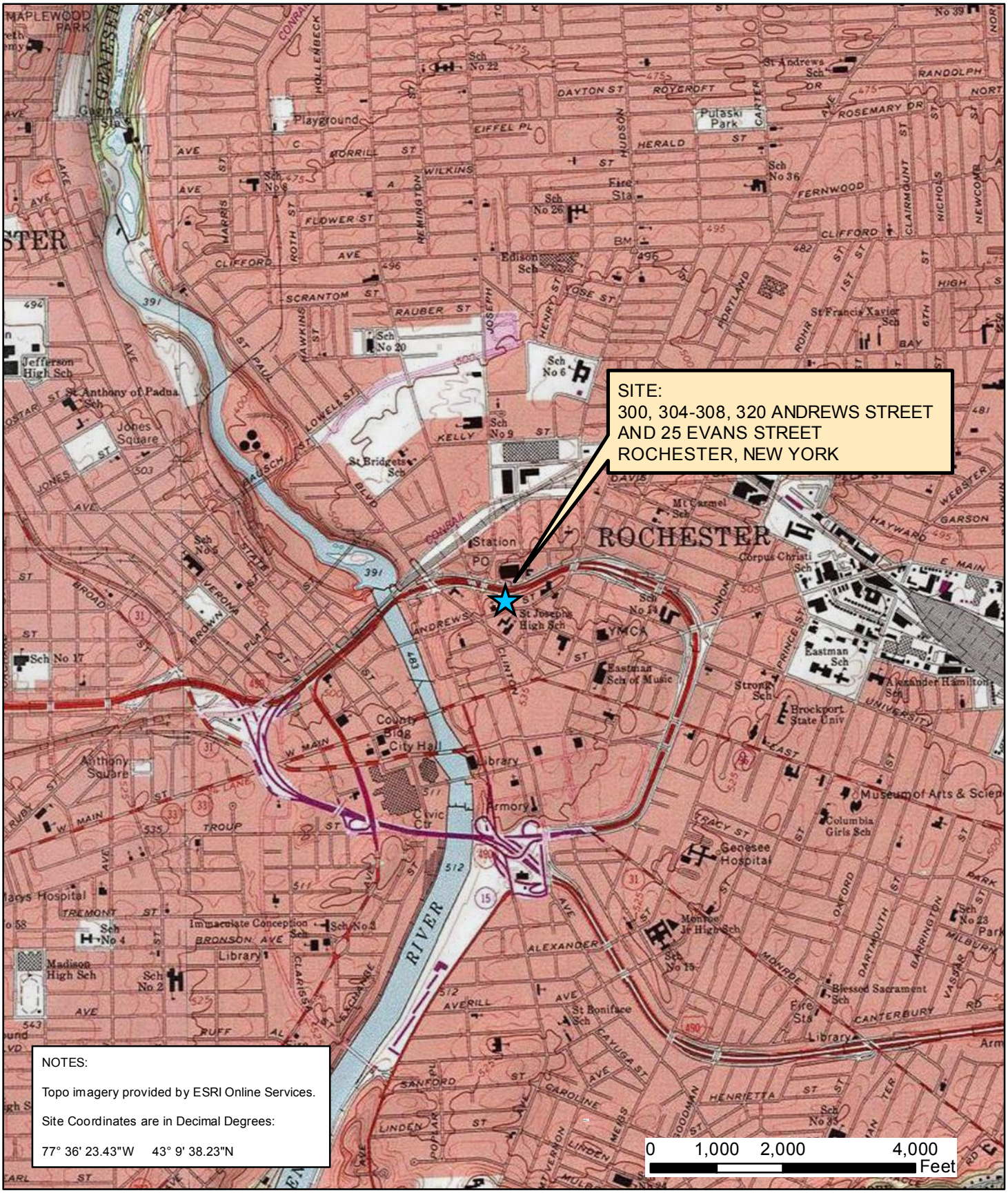
1. The requirements of the following plans were met during the reporting period:
   - IC/EC requirements.
   - Monitoring Plan requirements.
2. Identify any requirements not met: N/A
3. Identify any proposed plans and a schedule for coming into full compliance: N/A

B. Performance and Effectiveness of Remedy: An evaluation of the components of the SMP during this reporting period indicated that: the IC/EC controls were protective of human health and the environment; the monitoring plan continues to sufficiently monitor the performance of the remedy; and the remedial program is achieving the remedial objectives for the Site.

C. Future PRR submittals:

1. It is recommended that the frequency of PRR submittals remain unchanged.
2. Since residual contaminants remain beneath the cover system at the Site, it is recommended that related aspects of the SMP continue to be implemented at this Site. In addition, it is recommended that appropriate sections of the SMP be revised to reflect decommissioning of select monitoring wells, additional ISCO polishing activities, and modifications to the groundwater monitoring program that have been, or will be, approved by the NYSDEC.

SITE OVERVIEW FIGURES



Document Path: S:\DAYFTP\Dropbox\Andrews Street\Andrews_Street\GIS_Data\Andrews_Street\PRR15334S-13-PRR1-Locus Map.mxd

Date 09-26-2017 Drawn By CPS Scale AS NOTED	**DAY ENVIRONMENTAL, INC.** **Environmental Consultants** **Rochester, New York 14606** **New York, New York 10016-0701**	Project Title 300, 304-308, 320 ANDREWS STREET AND 25 EVANS STREET ROCHESTER, NEW YORK (NYSDEC SITE NO.: E828144) ENVIRONMENTAL RESTORATION PROJECT Drawing Title Project Locus Map	Project No. 5334S-17 FIGURE 1

Document Path: S:\DAY FTP\Dropbox\Andrews Street\Andrews_Street\GIS_Data\Andrews_Street\PRR15334S-10-PRR1-Post Demolition Site Conditions.mxd

DESIGNED BY	JAD
DATE	02-2015
DRAWN BY	CPS
DATE DRAWN	02-2015
SCALE	AS NOTED
DATE ISSUED	02-06-2015

DAY ENVIRONMENTAL, INC.
Environmental Consultants
Rochester, New York 14606
New York, New York 10170

Project Title
300, 304-308, 320 ANDREWS STREET
AND 25 EVANS STREET
ROCHESTER, NEW YORK

ENVIRONMENTAL RESTORATION PROJECT NYSDEC SITE NO.: E828144

Drawing Title
Site Plan

Project No.
5334S-17

FIGURE 2

St Paul St/N Clinton Ave/Joseph Ave to Inner Loop Ramp

Legend

- Bedrock monitoring well
- Overburden monitoring well
- Backfill wells
- Well Decommissioned in March 2017
- Approximate supplemental IRM soil removal on June 26, 2014 from ground surface to depth of 2 ft
- Approximate additional supplemental soil removal on July 16, 2014 from ground surface to depth of 2 ft
- Area of cover system including 2 ft approved cover material (CR-2) or imermeable surfaces (Asphalt and Concrete) at Andrews Street ERP Site
- Existing impermeable covers (i.e. Asphalt or Concrete)
- Former IRM excavation limits backfilled with 2 ft cover of NYSDEC approved material
- Former Evans Street right-of-way
- Former basements backfilled with NYSDEC approved material

N

NOTES:

Upper 2 feet + of former basement and former IRM excavation areas are backfilled with NYSDEC approved imported stone that meets NYSDEC DER-10 requirements.

Base mapping data provided by City of Rochester and Monroe County.

0 15 30 60 Feet

DESIGNED BY	DATE	DRAWN BY	DATE DRAWN	SCALE	DATE ISSUED
JAD	09-2018	CPS	09-2018	AS NOTED	09-04-2018

DAY ENVIRONMENTAL, INC.
Environmental Consultants
Rochester, New York 14606
New York, New York 10170

Project Title
300, 304-308, 320 ANDREWS STREET
AND 25 EVANS STREET
ROCHESTER, NEW YORK
ENVIRONMENTAL RESTORATION PROJECT NYSDEC SITE NO: E828144

Drawing Title
IRM and Supplemental IRM Soil Removal Areas, and Installed Cover System Site Plan

Project No.
5334S-17

FIGURE 3

Map document path: \\DAYGIS\GIS_Data\GIS Mapping\Rocky\Andrews_Street\GIS_Data\Andrews_Street\PRR2\5334S-01-PRR2 -Installed Cover System.mxd

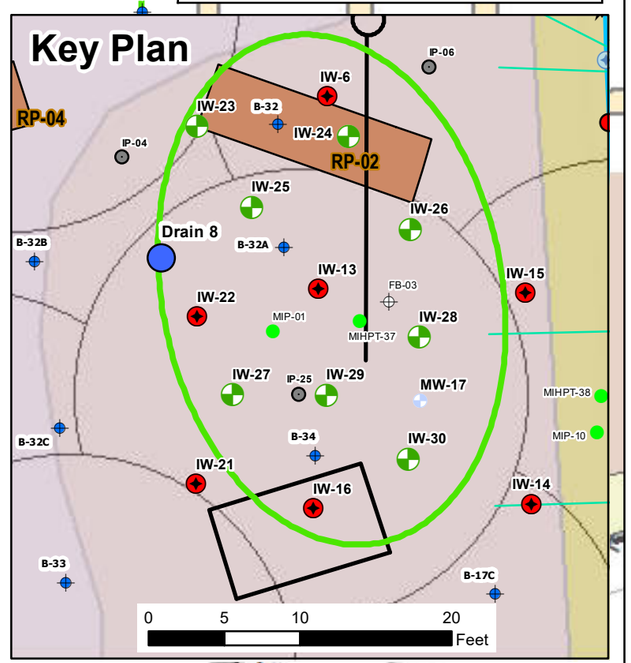
Last date document was saved: 25 Sep 2018

Legend

- Additional ISCO Injection Well
- Overburden injection well
- Overburden monitoring well
- Backfill well (decommissioned)
- Temporary ISCO Injection point
- Frac borings
- MIPHT locations
- Piping crack and bad joints
- Storm sewer inlet
- Manhole
- Catch basin
- Tar substance in pipe
- 4ft of tar substance in pipe
- Additional treatment area
- Storm sewer lateral
- Storm sewer
- Former foundation
- Remediation pits (RP-01 to RP-07)
- Completed 15 ft ISCO radius of influence from temporary injection points
- Former Evans Street right-of-way
- Approximate extent of observed potassium permanganate influence
- Former IRM excavation limits
- Former basements

N

Key Plan



NOTE:

Base mapping data provided by City of Rochester and Monroe County.

0 10 20 40 Feet

DESIGNED BY	DRAWN BY	SCALE
JAD	CPS	AS NOTED

DATE	DATE DRAWN	DATE ISSUED
10-2018	10-2018	10-29-2018

DAY ENVIRONMENTAL, INC.
Environmental Consultants
Rochester, New York 14606
New York, New York 10170

Project Title
300, 304-308, 320 ANDREWS STREET
AND 25 EVANS STREET
ROCHESTER, NEW YORK
ENVIRONMENTAL RESTORATION PROJECT NYSDEC SITE NO: E828144

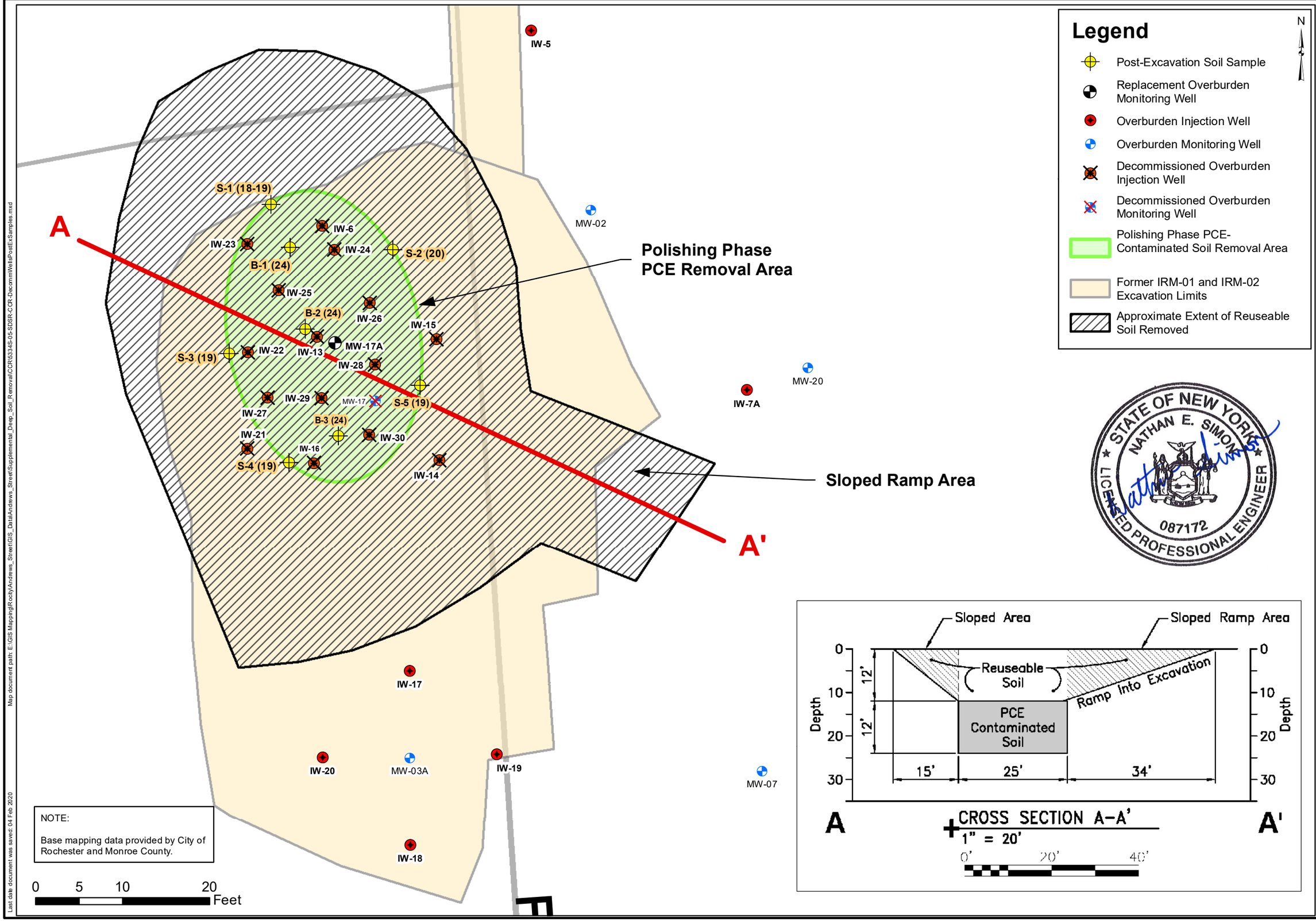
Drawing Title
Site Plan with In-Situ Chemical Oxidation Treatment Measures

Project No.
5334S-17

FIGURE 4

Map document path: E:\GIS Mapping\Rocky\Andrews_Street\GIS_Data\Andrews_Street\Supplemental_Deep_Soil_Removal\5334S-04-SDSR- ISCO Treatment Area 20181012.mxd

Last date document was saved: 29 Jul 2019



Legend

- Post-Excavation Soil Sample
- Replacement Overburden Monitoring Well
- Overburden Injection Well
- Overburden Monitoring Well
- Decommissioned Overburden Injection Well
- Decommissioned Overburden Monitoring Well
- Polishing Phase PCE-Contaminated Soil Removal Area
- Former IRM-01 and IRM-02 Excavation Limits
- Approximate Extent of Reuseable Soil Removed

N

PROJECT MANAGER	DRAWN BY	SCALE	DATE	DATE DRAWN	DATE ISSUED
JAD	CPS	AS NOTED	01-2020	01-2020	01-23-2020

day
DAY ENGINEERING, P.C.
Environmental Engineering Consultants
Rochester, New York 14606
New York, New York 10170

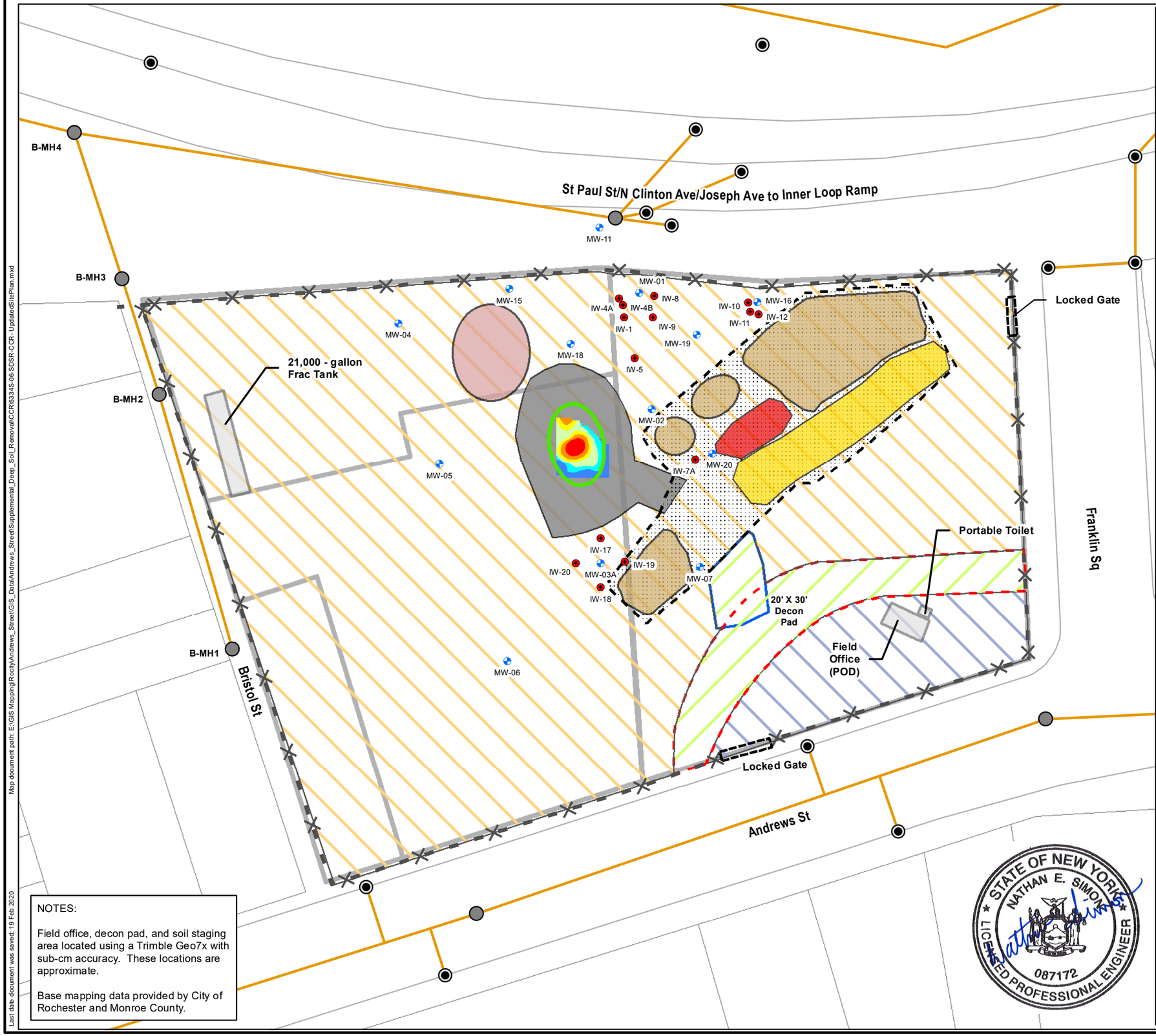
Project Title
300, 304-308, 320 ANDREWS STREET
AND 25 EVANS STREET
ROCHESTER, NEW YORK
ENVIRONMENTAL RESTORATION PROJECT NYSDEC SITE NO: E828144

Drawing Title
Site Plan with Decommissioned Wells, Post-Excavation Soil Sample Locations, and Excavation Cross-Section

Project No.
5334S-17

FIGURE 5

Map document path: E:\GIS Mapping\Rocity\Andrews_Street\GIS_Data\Andrews_StreetSupplemental_Deep_Soil_Removal\CCR\5334S-05-SDSR-CCR-DecommWellsPostExSamples.mxd
Last date document was saved: 04 Feb 2020



NOTES:

Field office, decon pad, and soil staging area located using a Trimble Geo7x with sub-cm accuracy. These locations are approximate.

Base mapping data provided by City of Rochester and Monroe County.

Legend

N

- Overburden Injection Well
- Overburden Monitoring Well
- Storm inlets
- Combined sewer manhole
- Combined sewer line
- Staged Reuseable Cover Material
- Staged Reuseable Soil (To be used under cover material)
- Pile 1: Staged PCE Contaminated Soil with PID readings < 1,000 ppm
- Pile 2: Staged PCE Contaminated Soil with PID readings ≥ 1,000 ppm
- Site features
- Soil staging area
- Polishing Phase PCE-Contaminated Soil Removal Area
- Approximate Extent of Reuseable Soil Removed
- Decon pad
- Exclusion Zone
- Contamination Reduction Zone
- Support Zone
- Andrews Street ERP Site

Peak PID Readings in Soil measured in parts per million (ppm)

- 0 - 5
- 5 - 100
- 100 - 200
- 200 - 500
- 500 - 1,000
- 1,000 - 2,000
- 2,000 - 5,000

0 20 40 80 Feet

STATE OF NEW YORK
NATHAN E. SIMON
087172
LICENSED PROFESSIONAL ENGINEER

PROJECT MANAGER	DRAWN BY	SCALE	DATE	DATE DRAWN	DATE ISSUED
JAD	CPS	AS NOTED	02-2020	02-2020	02-04-2020

day
DAY ENGINEERING, P.C.
Environmental Engineering Consultants
Rochester, New York 14606
New York, New York 10170

Project Title
300, 304-308, 320 ANDREWS STREET
AND 25 EVANS STREET
ROCHESTER, NEW YORK

ENVIRONMENTAL RESTORATION PROJECT NYSDEC SITE NO: E828144

Drawing Title
Site Layout for Supplemental Polishing Phase Remedial Actions

Project No.
5334S-17

FIGURE 6

Map document path: E:\GIS Mapping\Rocity\Andrews_Street\GIS_Data\Andrews_Street\SupplementalDeep_Soil_Removal\CCR\5334S-06-SDSR-CCR-UpdatedSitePlan.mxd

Last date document was saved: 19 Feb 2020

ISCO Treatment Piping (Horizontal)	Depth Below Ground Surface (ft)
ISCO-1	20.0
ISCO-2	20.0
ISCO-3	16.0
ISCO-4	16.0
ISCO-5	17.0
ISCO-6	15.0
ISCO-7	17.0
ISCO-8	17.0

Legend

- Solid ISCO Treatment Riser
- Perforated ISCO Treatment Piping
- Post-Excavation Soil Sample with Sample Depth in Feet in Parentheses, and Total TCL VOCs in mg/kg
- Replacement Overburden Monitoring Well
- Overburden Injection Well
- Overburden Monitoring Well
- Polishing Phase PCE-Contaminated Soil Removal Area
- Approximate Extent of Reuseable Soil Removed
- Former IRM excavation limits

N

S-1 (18-19) 27.31 mg/kg
S-2 (20) 7.51 mg/kg
B-2 (24) 0.0371 mg/kg
S-3 (19) 16.2165 mg/kg
S-4 (19) 13.7087 mg/kg
S-5 (19) 34.7642 mg/kg
B-3 (24) 0.4577 mg/kg

ISCO 1
ISCO 2
ISCO 3
ISCO 4
ISCO 5
ISCO 6
ISCO 7
ISCO 8

IW-5
MW-02
MW-17A
MW-20
IW-7A
IW-17
IW-20
MW-03A
IW-19
IW-18

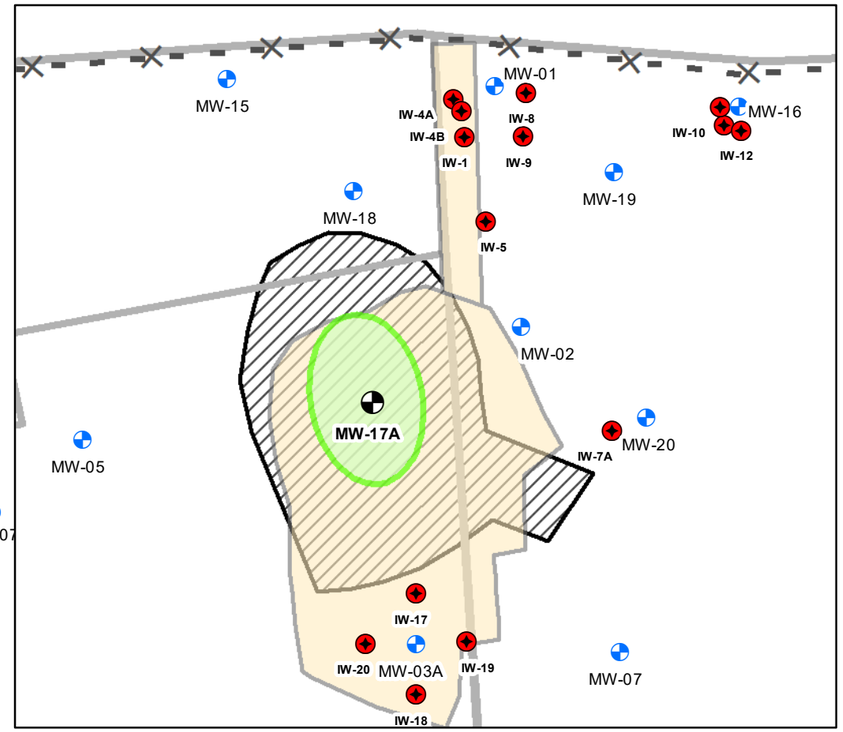
Sloped Ramp Area

NOTE:

Base mapping data provided by City of Rochester and Monroe County.

0 5 10 20 Feet

Key Plan



STATE OF NEW YORK
NATHAN E. SIMONS
LICENSED PROFESSIONAL ENGINEER
087172

PROJECT MANAGER	DRAWN BY	SCALE	DATE	DATE DRAWN	DATE ISSUED
JAD	CPS	AS NOTED	02-2020	02-2020	02-11-2020

DAY ENGINEERING, P.C.
Environmental Engineering Consultants
Rochester, New York 14606
New York, New York 10170

Project Title
300, 304-308, 320 ANDREWS STREET
AND 25 EVANS STREET
ROCHESTER, NEW YORK
ENVIRONMENTAL RESTORATION PROJECT NYSDEC SITE NO: E828144

Drawing Title
Site Plan with ISCO Treatment Piping Locations and Post-Excavation Soil Sample Locations

Project No.
5334S-17

FIGURE 7

Map document path: E:\GIS Mapping\Rocity\Andrews_Street\GIS_Data\Andrews_Street\Supplemental_Deep_Soil_Removal\CCR\5334S-07-SDSR-CCR-ISCO Treatment.mxd
Last date document was saved: 19 Feb 2020

Legend

MW-11
28.6 ppb
(15 ft)

Overburden monitoring well
Tetrachloroethene or PCE in ug/L (with depth of September 2013 groundwater sample in parentheses)

Former Evans Street righ-of-way (Officially abandoned by the City of Rochester in March 2013)

Site boundary

PCE in Groundwater (ug/l or ppb)
Prior to IRM ISCO Injections
based on GIS modeling

- 0 - 25
- 25 - 50
- 50 - 100
- 100 - 500
- 500 - 1,000
- 1,000 - 5,000
- 5,000 - 10,000
- 10,000 - 25,000
- 25,000 - 34,000

ND = Not Detected

N

NOTE:

ArcGIS Spatial Analyst Natural Neighbor interpolation used to model Peak PCE in groundwater concentrations.

Base mapping data provided by City of Rochester and Monroe County.

0 25 50 100 Feet

DESIGNED BY	JAD
DATE	03-2015
DRAWN BY	CPS
DATE DRAWN	03-2015
SCALE	AS NOTED
DATE ISSUED	04-01-2015

DAY ENVIRONMENTAL, INC.
Environmental Consultants
Rochester, New York 14606
New York, New York 10170

Project Title
300, 304-308, 320 ANDREWS STREET
AND 25 EVANS STREET
ROCHESTER, NEW YORK

ENVIRONMENTAL RESTORATION PROJECT NYSDEC SITE NO.: E828144

Drawing Title
Peak PCE Concentrations Detected in September 2013 Round 4 (Baseline) Pre-IRM ISCO Overburden Groundwater Samples

Project No.
4355S-10

FIGURE 33

Document Path: C:\Users\millera\Dropbox\Andrews Street\Andrews Street\GIS_Data\Andrews_Street\RIAA\4355S-32-RIAA - Peak PCE in Overburden Groundwater.mxd

Attachment A

Boring Logs and Construction Diagrams for Injection Wells IW-23 Through IW-30

day
DAY ENVIRONMENTAL, INC.
ENVIRONMENTAL CONSULTANTS
AN AFFILIATE OF DAY ENGINEERING, P.C.

Project #: 5334S-17
Project Address: 300, 304-308, 320 Andrews St, 25 Evans St
Rochester, New York
DAY Representative: D Peck
Drilling Contractor: Nothnagle Drilling
Sampling Method: Split Spoon 2"

Test Boring IW-23

Ground Elevation: NA Datum: NA
Date Started: 11/7/2018 Date Ended: 11/7/2018
Borehole Depth: 20.0' Borehole Diameter: 8"
Completion Method: ■ Injection Well Installed ☐ Backfilled with Grout ☐ Backfilled with Cuttings
Water Level (Date): 8.0' bgs (11/8/18)

Depth (ft)	Blows per 0.5 ft.	Sample Number	Sample Depth (ft)	% Recovery	N-Value or RQD%	Headspace PID (ppm)	PID Reading (ppm)	Sample Description	Notes
1								Auger to 10.0', no split spoon samples collected	
2									
3									
4									
5									
6									
7									
8									
9									
10	10							Tan, fine Sand and Silt, little Gravel, moist (FILL?)	
11	15	S-1	10-12	75	31	0.5	NA		
	16								
12	18								
	12								
13	28	S-2	12-14	80	59	10.6	NA		
	31								
14	24								
	30							Reddish Gray, SILT, little Sand, trace Gravel, moist (Native)	
15	62	S-3	14-16	NA	103	170.2	NA		
	41								
16	48								Perc odor

Notes:
1) Water levels were made at the times and under conditions stated. Fluctuations of groundwater levels may occur due to seasonal factors and other conditions.
2) Stratification lines represent approximate boundaries. Transitions may be gradual.
3) PID readings are referenced to a benzene standard measured in the headspace above the sample using a MiniRae 3000 equipped with a 10.6 eV lamp.
4) NA = Not Available or Not Applicable
5) Headspace PID readings may be influenced by moisture

Test Boring IW-23

1563 LYELL AVENUE
ROCHESTER, NEW YORK 14606
(585) 454-0210
FAX (585) 454-0825
www.dayenvironmental.com
420 LEXINGTON AVENUE, SUITE 300
NEW YORK, NEW YORK 10170
(212) 986-8645
FAX (212) 986-8657

day
DAY ENVIRONMENTAL, INC.
ENVIRONMENTAL CONSULTANTS
AN AFFILIATE OF DAY ENGINEERING, P.C.

Project #: 5334S-17
Project Address: 300, 304-308, 320 Andrews St, 25 Evans St
Rochester, New York
DAY Representative: D Peck
Drilling Contractor: Nothnagle Drilling
Sampling Method: Split Spoon 2"

Test Boring IW-23

Ground Elevation: NA Datum: NA
Date Started: 11/7/2018 Date Ended: 11/7/2018
Borehole Depth: 20.0' Borehole Diameter: 8"
Completion Method: ■ Injection Well Installed ☐ Backfilled with Grout ☐ Backfilled with Cuttings
Water Level (Date): 8.0' bgs (11/8/18)

Depth (ft)	Blows per 0.5 ft.	Sample Number	Sample Depth (ft)	% Recovery	N-Value or RQD%	Headspace PID (ppm)	PID Reading (ppm)	Sample Description	Notes
17	76 62 54 48	S-4	16-18	80	116	399	NA	...moist	**No water present, perc odor**
18	6 28 28 26	S-5	18-20	80	56	26.4	NA	Reddish Gray, fine SAND, trace Gravel, trace Silt, moist to wet	
20								Terminated @ 20.0'	
21									
22									
23									
24									
25									
26									
27									
28									
29									
30									
31									
32									

Notes:
1) Water levels were made at the times and under conditions stated. Fluctuations of groundwater levels may occur due to seasonal factors and other conditions.
2) Stratification lines represent approximate boundaries. Transitions may be gradual.
3) PID readings are referenced to a benzene standard measured in the headspace above the sample using a MiniRae 3000 equipped with a 10.6 eV lamp.
4) NA = Not Available or Not Applicable
5) Headspace PID readings may be influenced by moisture

Test Boring IW-23

1563 LYELL AVENUE
ROCHESTER, NEW YORK 14606
(585) 454-0210
FAX (585) 454-0825
www.dayenvironmental.com
420 LEXINGTON AVENUE, SUITE 300
NEW YORK, NEW YORK 10170
(212) 986-8645
FAX (212) 986-8657

day
DAY ENVIRONMENTAL, INC.
ENVIRONMENTAL CONSULTANTS
AN AFFILIATE OF DAY ENGINEERING, P.C.

Project #: 5334S-17
Project Address: 300, 304-308, 320 Andrews St, 25 Evans St
Rochester, New York
DAY Representative: D Peck
Drilling Contractor: Nothnagle Drilling
Sampling Method: Split Spoon 2"

Test Boring IW-24

Ground Elevation: NA Datum: NA
Date Started: 11/8/2018 Date Ended: 11/8/2018
Borehole Depth: 20.0' Borehole Diameter: 8"
Completion Method: ■ Injection Well Installed ☐ Backfilled with Grout ☐ Backfilled with Cuttings
Water Level (Date): 8.35' bgs (11/9/18)

Depth (ft)	Blows per 0.5 ft.	Sample Number	Sample Depth (ft)	% Recovery	N-Value or RQD%	Headspace PID (ppm)	PID Reading (ppm)	Sample Description	Notes
1–9								Auger to 10.0', no split spoon samples collected	
10	3							Gray, Silt and Gravel, Crusher Run, moist (FILL)	
11	6 15 31	S-1	10-12	60	21	0.9	NA	Tan, SILT, some Sand, trace Gravel, moist	
12	11								
13	28 22 31	S-2	12-14	70	50	2.6	NA		
14	89								
15	100/2	S-3	14-16	NA	NA	NA	NA	No recovery	
16									

Notes:
1) Water levels were made at the times and under conditions stated. Fluctuations of groundwater levels may occur due to seasonal factors and other conditions.
2) Stratification lines represent approximate boundaries. Transitions may be gradual.
3) PID readings are referenced to a benzene standard measured in the headspace above the sample using a MiniRae 3000 equipped with a 10.6 eV lamp.
4) NA = Not Available or Not Applicable
5) Headspace PID readings may be influenced by moisture

Test Boring IW-24

1563 LYELL AVENUE
ROCHESTER, NEW YORK 14606
(585) 454-0210
FAX (585) 454-0825
www.dayenvironmental.com
420 LEXINGTON AVENUE, SUITE 300
NEW YORK, NEW YORK 10170
(212) 986-8645
FAX (212) 986-8657

day
DAY ENVIRONMENTAL, INC.

ENVIRONMENTAL CONSULTANTS
AN AFFILIATE OF DAY ENGINEERING, P.C.

Project #: 5334S-17
Project Address: 300, 304-308, 320 Andrews St, 25 Evans St
Rochester, New York
DAY Representative: D Peck
Drilling Contractor: Nothnagle Drilling
Sampling Method: Split Spoon 2"

Test Boring IW-24

Ground Elevation: NA Datum: NA
Date Started: 11/8/2018 Date Ended: 11/8/2018
Borehole Depth: 20.0' Borehole Diameter: 8"
Completion Method: ■ Injection Well Installed ☐ Backfilled with Grout ☐ Backfilled with Cuttings
Water Level (Date): 8.35' bgs (11/9/18)

Depth (ft)	Blows per 0.5 ft.	Sample Number	Sample Depth (ft)	% Recovery	N-Value or RQD%	Headspace PID (ppm)	PID Reading (ppm)	Sample Description	Notes
17	25 81 37 36	S-4	16-18	50	118	113	NA	Tan, fine SAND, little Silt, trace Gravel, moist to wet	
18									
19	10 61 59 73	S-5	18-20	60	120	161	NA	fine SAND, trace Gravel	
20								Terminated @ 20.0'	
21									
22									
23									
24									
25									
26									
27									
28									
29									
30									
31									
32									

Notes:
1) Water levels were made at the times and under conditions stated. Fluctuations of groundwater levels may occur due to seasonal factors and other conditions.
2) Stratification lines represent approximate boundaries. Transitions may be gradual.
3) PID readings are referenced to a benzene standard measured in the headspace above the sample using a MiniRae 3000 equipped with a 10.6 eV lamp.
4) NA = Not Available or Not Applicable
5) Headspace PID readings may be influenced by moisture

Test Boring IW-24

1563 LYELL AVENUE
ROCHESTER, NEW YORK 14606
(585) 454-0210
FAX (585) 454-0825

www.dayenvironmental.com

420 LEXINGTON AVENUE, SUITE 300
NEW YORK, NEW YORK 10170
(212) 986-8645
FAX (212) 986-8657

day
DAY ENVIRONMENTAL, INC.
ENVIRONMENTAL CONSULTANTS
AN AFFILIATE OF DAY ENGINEERING, P.C.

Project #: 5334S-17
Project Address: 300, 304-308, 320 Andrews St, 25 Evans St
Rochester, New York
DAY Representative: D Peck
Drilling Contractor: Nothnagle Drilling
Sampling Method: Split Spoon 2"

Test Boring IW-25

Ground Elevation: NA Datum: NA
Date Started: 11/7/2018 Date Ended: 11/7/2018
Borehole Depth: 20.0' Borehole Diameter: 8"
Completion Method: ■ Injection Well Installed ☐ Backfilled with Grout ☐ Backfilled with Cuttings
Water Level (Date): 7.8' bgs (11/8/18)

Depth (ft)	Blows per 0.5 ft.	Sample Number	Sample Depth (ft)	% Recovery	N-Value or RQD%	Headspace PID (ppm)	PID Reading (ppm)	Sample Description	Notes
1–9								Auger to 10.0', no split spoon samples collected	
10	6							Gray, Silt and Gravel, wet (FILL)	
11	7 10 12	S-1	10-12	60	17	11.0	NA	Light Brown, SILT, little Sand, trace Gravel, moist	
12	16							...wet	
13	34 48 54	S-2	12-14	80	82	25.9	NA		
14	65								
15	47 78 74	S-3	14-16	70	125	407	NA	...fine SAND, little Silt, trace Gravel, wet	Perc odor
16									

Notes:
1) Water levels were made at the times and under conditions stated. Fluctuations of groundwater levels may occur due to seasonal factors and other conditions.
2) Stratification lines represent approximate boundaries. Transitions may be gradual.
3) PID readings are referenced to a benzene standard measured in the headspace above the sample using a MiniRae 3000 equipped with a 10.6 eV lamp.
4) NA = Not Available or Not Applicable
5) Headspace PID readings may be influenced by moisture

Test Boring IW-25

1563 LYELL AVENUE
ROCHESTER, NEW YORK 14606
(585) 454-0210
FAX (585) 454-0825
www.dayenvironmental.com
420 LEXINGTON AVENUE, SUITE 300
NEW YORK, NEW YORK 10170
(212) 986-8645
FAX (212) 986-8657

day
DAY ENVIRONMENTAL, INC.
ENVIRONMENTAL CONSULTANTS
AN AFFILIATE OF DAY ENGINEERING, P.C.

Project #: 5334S-17
Project Address: 300, 304-308, 320 Andrews St, 25 Evans St
Rochester, New York
DAY Representative: D Peck
Drilling Contractor: Nothnagle Drilling
Sampling Method: Split Spoon 2"

Test Boring IW-25

Ground Elevation: NA Datum: NA
Date Started: 11/7/2018 Date Ended: 11/7/2018
Borehole Depth: 20.0' Borehole Diameter: 8"
Completion Method: ■ Injection Well Installed ☐ Backfilled with Grout ☐ Backfilled with Cuttings
Water Level (Date): 7.8' bgs (11/8/18)

Depth (ft)	Blows per 0.5 ft.	Sample Number	Sample Depth (ft)	% Recovery	N-Value or RQD%	Headspace PID (ppm)	PID Reading (ppm)	Sample Description	Notes
17	71 58 61 85	S-4	16-18	90	119	258	NA	Fine SAND,, little Silt, trace Gravel, moist to wet	Perc odor
18	22 61 49 55	S-5	18-20	90	110	236	NA	...fine SAND, trace Gravel, moist to wet	
20								Terminated @ 20.0'	
21									
22									
23									
24									
25									
26									
27									
28									
29									
30									
31									
32									

Notes: 1) Water levels were made at the times and under conditions stated. Fluctuations of groundwater levels may occur due to seasonal factors and other conditions.
2) Stratification lines represent approximate boundaries. Transitions may be gradual.
3) PID readings are referenced to a benzene standard measured in the headspace above the sample using a MiniRae 3000 equipped with a 10.6 eV lamp.
4) NA = Not Available or Not Applicable
5) Headspace PID readings may be influenced by moisture

Test Boring IW-25

1563 LYELL AVENUE
ROCHESTER, NEW YORK 14606
(585) 454-0210
FAX (585) 454-0825
www.dayenvironmental.com
420 LEXINGTON AVENUE, SUITE 300
NEW YORK, NEW YORK 10170
(212) 986-8645
FAX (212) 986-8657

day
DAY ENVIRONMENTAL, INC.
ENVIRONMENTAL CONSULTANTS
AN AFFILIATE OF DAY ENGINEERING, P.C.

Project #: 5334S-17
Project Address: 300, 304-308, 320 Andrews St, 25 Evans St
Rochester, New York
DAY Representative: D Peck
Drilling Contractor: Nothnagle Drilling
Sampling Method: Split Spoon 2"

Test Boring IW-26

Ground Elevation: NA Datum: NA
Date Started: 11/8/2018 Date Ended: 11/8/2018
Borehole Depth: 20.0' Borehole Diameter: 8"
Completion Method: ■ Injection Well Installed ☐ Backfilled with Grout ☐ Backfilled with Cuttings
Water Level (Date): 8.5' bgs (11/9/18)

Depth (ft)	Blows per 0.5 ft.	Sample Number	Sample Depth (ft)	% Recovery	N-Value or RQD%	Headspace PID (ppm)	PID Reading (ppm)	Sample Description	Notes
1								Auger to 10.0', no split spoon samples collected	
2									
3									
4									
5									
6									
7									
8									
9									
10	34							Gray, Silt and Stone, Crusher Run (FILL)	
11	26	S-1	10-12	80	50	0.7	NA	Tan/Gray Sand/Gravel/Silt, moist (FILL)	
	24								
12	26								
	24							Coarse SAND, little Gravel, wet	Perc odor
13	38	S-2	12-14	70	88	20.3	NA	Tan, SILT, little Sand, moist	
	50								
14	57								
	19							Tan, fine SAND, little Silt, moist to wet	
15	45	S-3	14-16	80	85	100.5	NA		
	40								
16	36								

Notes:
1) Water levels were made at the times and under conditions stated. Fluctuations of groundwater levels may occur due to seasonal factors and other conditions.
2) Stratification lines represent approximate boundaries. Transitions may be gradual.
3) PID readings are referenced to a benzene standard measured in the headspace above the sample using a MiniRae 3000 equipped with a 10.6 eV lamp.
4) NA = Not Available or Not Applicable
5) Headspace PID readings may be influenced by moisture

Test Boring IW-26

1563 LYELL AVENUE
ROCHESTER, NEW YORK 14606
(585) 454-0210
FAX (585) 454-0825
www.dayenvironmental.com
420 LEXINGTON AVENUE, SUITE 300
NEW YORK, NEW YORK 10170
(212) 986-8645
FAX (212) 986-8657

day
DAY ENVIRONMENTAL, INC.

ENVIRONMENTAL CONSULTANTS
AN AFFILIATE OF DAY ENGINEERING, P.C.

Project #: 5334S-17
Project Address: 300, 304-308, 320 Andrews St, 25 Evans St
Rochester, New York
DAY Representative: D Peck
Drilling Contractor: Nothnagle Drilling
Sampling Method: Split Spoon 2"

Test Boring IW-26

Ground Elevation: NA Datum: NA
Date Started: 11/8/2018 Date Ended: 11/8/2018
Borehole Depth: 20.0' Borehole Diameter: 8"
Completion Method: ■ Injection Well Installed ☐ Backfilled with Grout ☐ Backfilled with Cuttings
Water Level (Date): 8.5' bgs (11/9/18)

Depth (ft)	Blows per 0.5 ft.	Sample Number	Sample Depth (ft)	% Recovery	N-Value or RQD%	Headspace PID (ppm)	PID Reading (ppm)	Sample Description	Notes
17	12 30 33 40	S-4	16-18	70	63	213	NA	Gray, fine SAND, trace Silt, little Gravel, moist to wet	Perc odor
18	8 33 37 35	S-5	18-20	NA	70	236	NA	...fine SAND, wet	Perc odor
20								Terminated @ 20.0'	
21									
22									
23									
24									
25									
26									
27									
28									
29									
30									
31									
32									

Notes:
1) Water levels were made at the times and under conditions stated. Fluctuations of groundwater levels may occur due to seasonal factors and other conditions.
2) Stratification lines represent approximate boundaries. Transitions may be gradual.
3) PID readings are referenced to a benzene standard measured in the headspace above the sample using a MiniRae 3000 equipped with a 10.6 eV lamp.
4) NA = Not Available or Not Applicable
5) Headspace PID readings may be influenced by moisture

Test Boring IW-26

1563 LYELL AVENUE
ROCHESTER, NEW YORK 14606
(585) 454-0210
FAX (585) 454-0825

www.dayenvironmental.com

420 LEXINGTON AVENUE, SUITE 300
NEW YORK, NEW YORK 10170
(212) 986-8645
FAX (212) 986-8657

day
DAY ENVIRONMENTAL, INC.
ENVIRONMENTAL CONSULTANTS
AN AFFILIATE OF DAY ENGINEERING, P.C.

Project #:	5334S-17
Project Address:	300, 304-308, 320 Andrews St, 25 Evans St
	Rochester, New York
DAY Representative:	D Peck
Drilling Contractor:	Nothnagle Drilling
Sampling Method:	Split Spoon 2"

Test Boring IW-27

Ground Elevation: NA Datum: NA
Date Started: 11/7/2018 Date Ended: 11/7/2018
Borehole Depth: 20.0' Borehole Diameter: 8"
Completion Method: ■ Injection Well Installed ☐ Backfilled with Grout ☐ Backfilled with Cuttings
Water Level (Date): 8.65' bgs (11/8/18)

Depth (ft)	Blows per 0.5 ft.	Sample Number	Sample Depth (ft)	% Recovery	N-Value or RQD%	Headspace PID (ppm)	PID Reading (ppm)	Sample Description	Notes
1–9								Auger to 10.0', no split spoon samples collected	
10	12 15 16 18	S-1	10-12	60	31	0	NA	Gray, Silt and Crushed Stone, moist (FILL)	
12	12 23 28 37	S-2	12-14	90	51	1.3	NA	Brown, fine SAND and SILT, little Gravel, moist	
14	14 36 52 50	S-3	14-16	100	88	5.5	NA		
16									

Notes:
1) Water levels were made at the times and under conditions stated. Fluctuations of groundwater levels may occur due to seasonal factors and other conditions.
2) Stratification lines represent approximate boundaries. Transitions may be gradual.
3) PID readings are referenced to a benzene standard measured in the headspace above the sample using a MiniRae 3000 equipped with a 10.6 eV lamp.
4) NA = Not Available or Not Applicable
5) Headspace PID readings may be influenced by moisture

Test Boring IW-27

1563 LYELL AVENUE
ROCHESTER, NEW YORK 14606
(585) 454-0210
FAX (585) 454-0825
www.dayenvironmental.com
420 LEXINGTON AVENUE, SUITE 300
NEW YORK, NEW YORK 10170
(212) 986-8645
FAX (212) 986-8657

day
DAY ENVIRONMENTAL, INC.
ENVIRONMENTAL CONSULTANTS
AN AFFILIATE OF DAY ENGINEERING, P.C.

Project #: 5334S-17
Project Address: 300, 304-308, 320 Andrews St, 25 Evans St
Rochester, New York
DAY Representative: D Peck
Drilling Contractor: Nothnagle Drilling
Sampling Method: Split Spoon 2"

Test Boring IW-27

Ground Elevation: NA Datum: NA
Date Started: 11/7/2018 Date Ended: 11/7/2018
Borehole Depth: 20.0' Borehole Diameter: 8"
Completion Method: ■ Injection Well Installed ☐ Backfilled with Grout ☐ Backfilled with Cuttings
Water Level (Date): 8.65' bgs (11/8/18)

Depth (ft)	Blows per 0.5 ft.	Sample Number	Sample Depth (ft)	% Recovery	N-Value or RQD%	Headspace PID (ppm)	PID Reading (ppm)	Sample Description	Notes
17	18 37 39 48	S-4	16-18	80	76	12.0	NA	Coarse SAND and GRAVEL, wet Fine SAND, little Silt, trace Gravel, very dense, moist	
18									
19	19 31 61 43	S-5	18-20	70	92	1.1	NA		
20								Terminated @ 20.0'	
21									
22									
23									
24									
25									
26									
27									
28									
29									
30									
31									
32									

Notes:
1) Water levels were made at the times and under conditions stated. Fluctuations of groundwater levels may occur due to seasonal factors and other conditions.
2) Stratification lines represent approximate boundaries. Transitions may be gradual.
3) PID readings are referenced to a benzene standard measured in the headspace above the sample using a MiniRae 3000 equipped with a 10.6 eV lamp.
4) NA = Not Available or Not Applicable
5) Headspace PID readings may be influenced by moisture

Test Boring IW-27

1563 LYELL AVENUE
ROCHESTER, NEW YORK 14606
(585) 454-0210
FAX (585) 454-0825
www.dayenvironmental.com
420 LEXINGTON AVENUE, SUITE 300
NEW YORK, NEW YORK 10170
(212) 986-8645
FAX (212) 986-8657

day
DAY ENVIRONMENTAL, INC.
ENVIRONMENTAL CONSULTANTS
AN AFFILIATE OF DAY ENGINEERING, P.C.

Project #: 5334S-17
Project Address: 300, 304-308, 320 Andrews St, 25 Evans St
Rochester, New York
DAY Representative: D Peck
Drilling Contractor: Nothnagle Drilling
Sampling Method: Split Spoon 2"

Test Boring IW-28

Ground Elevation: NA Datum: NA
Date Started: 11/8/2018 Date Ended: 11/8/2018
Borehole Depth: 20.0' Borehole Diameter: 8"
Completion Method: ■ Injection Well Installed ☐ Backfilled with Grout ☐ Backfilled with Cuttings
Water Level (Date): 7.9' bgs (11/9/18)

Depth (ft)	Blows per 0.5 ft.	Sample Number	Sample Depth (ft)	% Recovery	N-Value or RQD%	Headspace PID (ppm)	PID Reading (ppm)	Sample Description	Notes
1–9								Auger to 10.0', no split spoon samples collected	
10	9 24 19 17	S-1	10-12	80	43	0.5	NA	Gray, Silt and Gravel, Crusher Run, moist (FILL)	
11									
12	11 28 35 60	S-2	12-14	70	63	1.6	NA	Brown, SAND, trace Gravel, wet Brown, fine SAND, little Silt, trace Gravel, moist	
13									
14	18 57 59 70	S-3	14-16	70	116	321	NA	Reddish Gray, SILT, little Sand, trace Gravel, moist	**Perc odor**
15									
16									

Notes:
1) Water levels were made at the times and under conditions stated. Fluctuations of groundwater levels may occur due to seasonal factors and other conditions.
2) Stratification lines represent approximate boundaries. Transitions may be gradual.
3) PID readings are referenced to a benzene standard measured in the headspace above the sample using a MiniRae 3000 equipped with a 10.6 eV lamp.
4) NA = Not Available or Not Applicable
5) Headspace PID readings may be influenced by moisture

Test Boring IW-28

1563 LYELL AVENUE
ROCHESTER, NEW YORK 14606
(585) 454-0210
FAX (585) 454-0825
www.dayenvironmental.com
420 LEXINGTON AVENUE, SUITE 300
NEW YORK, NEW YORK 10170
(212) 986-8645
FAX (212) 986-8657

day
DAY ENVIRONMENTAL, INC.

ENVIRONMENTAL CONSULTANTS
AN AFFILIATE OF DAY ENGINEERING, P.C.

Project #:	5334S-17
Project Address:	300, 304-308, 320 Andrews St, 25 Evans St
	Rochester, New York
DAY Representative:	D Peck
Drilling Contractor:	Nothnagle Drilling
Sampling Method:	Split Spoon 2"

Test Boring IW-28

Ground Elevation: NA Datum: NA
Date Started: 11/8/2018 Date Ended: 11/8/2018
Borehole Depth: 20.0' Borehole Diameter: 8"
Completion Method: ■ Injection Well Installed ☐ Backfilled with Grout ☐ Backfilled with Cuttings
Water Level (Date): 7.9' bgs (11/9/18)

Depth (ft)	Blows per 0.5 ft.	Sample Number	Sample Depth (ft)	% Recovery	N-Value or RQD%	Headspace PID (ppm)	PID Reading (ppm)	Sample Description	Notes
17	39 52 40 37	S-4	16-18	70	92	29.6	NA	Reddish Gray, fine SAND, some Silt, trace Gravel, very dense, moist	
18	12 32 36 52	S-5	18-20	80	68	2.0	NA	Dark Brown, very fine SAND, moist	
19									
20								Terminated @ 20.0'	
21									
22									
23									
24									
25									
26									
27									
28									
29									
30									
31									
32									

Notes:
1) Water levels were made at the times and under conditions stated. Fluctuations of groundwater levels may occur due to seasonal factors and other conditions.
2) Stratification lines represent approximate boundaries. Transitions may be gradual.
3) PID readings are referenced to a benzene standard measured in the headspace above the sample using a MiniRae 3000 equipped with a 10.6 eV lamp.
4) NA = Not Available or Not Applicable
5) Headspace PID readings may be influenced by moisture

Test Boring IW-28

1563 LYELL AVENUE
ROCHESTER, NEW YORK 14606
(585) 454-0210
FAX (585) 454-0825

www.dayenvironmental.com

420 LEXINGTON AVENUE, SUITE 300
NEW YORK, NEW YORK 10170
(212) 986-8645
FAX (212) 986-8657

day
DAY ENVIRONMENTAL, INC.
ENVIRONMENTAL CONSULTANTS
AN AFFILIATE OF DAY ENGINEERING, P.C.

Project #: 5334S-17
Project Address: 300, 304-308, 320 Andrews St, 25 Evans St
Rochester, New York
DAY Representative: D Peck
Drilling Contractor: Nothnagle Drilling
Sampling Method: Split Spoon 2"

Test Boring IW-29

Ground Elevation: NA Datum: NA
Date Started: 11/6/2018 Date Ended: 11/7/2018
Borehole Depth: 20.0' Borehole Diameter: 8"
Completion Method: ■ Injection Well Installed ☐ Backfilled with Grout ☐ Backfilled with Cuttings
Water Level (Date): 8.5' bgs (11/8/18)

Depth (ft)	Blows per 0.5 ft.	Sample Number	Sample Depth (ft)	% Recovery	N-Value or RQD%	Headspace PID (ppm)	PID Reading (ppm)	Sample Description	Notes
1–9								Auger to 10.0', no split spoon samples collected	
10–11	100/2	S-1	10-12	NA	NA	NA	NA	No recovery (Auger through Dolomite Boulder)	
12–13	100 38 42 54	S-2	12-14	95	80	336	0.0	Light Brown/Tan, Sandy SILT, with trace Gravel	
14–15	30 50 74 100/3	S-3	14-16	75	124	15.8	0.0	... wet	
16									

Notes:
1) Water levels were made at the times and under conditions stated. Fluctuations of groundwater levels may occur due to seasonal factors and other conditions.
2) Stratification lines represent approximate boundaries. Transitions may be gradual.
3) PID readings are referenced to a benzene standard measured in the headspace above the sample using a MiniRae 3000 equipped with a 10.6 eV lamp.
4) NA = Not Available or Not Applicable
5) Headspace PID readings may be influenced by moisture

Test Boring IW-29

1563 LYELL AVENUE
ROCHESTER, NEW YORK 14606
(585) 454-0210
FAX (585) 454-0825
www.dayenvironmental.com
420 LEXINGTON AVENUE, SUITE 300
NEW YORK, NEW YORK 10170
(212) 986-8645
FAX (212) 986-8657

day
DAY ENVIRONMENTAL, INC.

ENVIRONMENTAL CONSULTANTS
AN AFFILIATE OF DAY ENGINEERING, P.C.

Project #:	5334S-17
Project Address:	300, 304-308, 320 Andrews St, 25 Evans St
	Rochester, New York
DAY Representative:	D Peck
Drilling Contractor:	Nothnagle Drilling
Sampling Method:	Split Spoon 2"

Test Boring IW-29

Ground Elevation: NA Datum: NA
Date Started: 11/6/2018 Date Ended: 11/7/2018
Borehole Depth: 20.0' Borehole Diameter: 8"
Completion Method: ■ Injection Well Installed ☐ Backfilled with Grout ☐ Backfilled with Cuttings
Water Level (Date): 8.5' bgs (11/8/18)

Depth (ft)	Blows per 0.5 ft.	Sample Number	Sample Depth (ft)	% Recovery	N-Value or RQD%	Headspace PID (ppm)	PID Reading (ppm)	Sample Description	Notes
17	32 60 41 27	S-4	16-18	75	101	62.7	0.0	Medium Brown, Sandy SILT, with trace rounded Gravel and Boulder cuttings, moist to wet	
18									
19	61 100/3	S-5	18-20	0	NA	NA	NA	No recovery	
20								Terminated @ 20.0'	
21									
22									
23									
24									
25									
26									
27									
28									
29									
30									
31									
32									

Notes:
1) Water levels were made at the times and under conditions stated. Fluctuations of groundwater levels may occur due to seasonal factors and other conditions.
2) Stratification lines represent approximate boundaries. Transitions may be gradual.
3) PID readings are referenced to a benzene standard measured in the headspace above the sample using a MiniRae 3000 equipped with a 10.6 eV lamp.
4) NA = Not Available or Not Applicable
5) Headspace PID readings may be influenced by moisture

Test Boring IW-29

1563 LYELL AVENUE
ROCHESTER, NEW YORK 14606
(585) 454-0210
FAX (585) 454-0825

www.dayenvironmental.com

420 LEXINGTON AVENUE, SUITE 300
NEW YORK, NEW YORK 10170
(212) 986-8645
FAX (212) 986-8657

day
DAY ENVIRONMENTAL, INC.
ENVIRONMENTAL CONSULTANTS
AN AFFILIATE OF DAY ENGINEERING, P.C.

Project #: 5334S-17
Project Address: 300, 304-308, 320 Andrews St, 25 Evans St
Rochester, New York
DAY Representative: D Peck
Drilling Contractor: Nothnagle Drilling
Sampling Method: Split Spoon 2"

Test Boring IW-30

Ground Elevation: NA Datum: NA
Date Started: 11/6/2018 Date Ended: 11/6/2018
Borehole Depth: 20.0' Borehole Diameter: 8"
Completion Method: ■ Injection Well Installed ☐ Backfilled with Grout ☐ Backfilled with Cuttings
Water Level (Date): 8.12' bgs (11/7/18)

Depth (ft)	Blows per 0.5 ft.	Sample Number	Sample Depth (ft)	% Recovery	N-Value or RQD%	Headspace PID (ppm)	PID Reading (ppm)	Sample Description	Notes
1–9								Auger to 10.0', no split spoon samples collected	
10	10 28 30 30	S-1	10-12	75	58	1.0	0.0	Gray, Silt and Gravel, moist (FILL)	
12	12 28 39 46	S-2	12-14	60	67	1.9	0.0	Light Brown, Sandy SILT, trace Gravel, dry	
14	40 76 100/5	S-3	14-16	70	NA	5.5	0.0	...wet …very dense, moist	
16									

Notes:
1) Water levels were made at the times and under conditions stated. Fluctuations of groundwater levels may occur due to seasonal factors and other conditions.
2) Stratification lines represent approximate boundaries. Transitions may be gradual.
3) PID readings are referenced to a benzene standard measured in the headspace above the sample using a MiniRae 3000 equipped with a 10.6 eV lamp.
4) NA = Not Available or Not Applicable
5) Headspace PID readings may be influenced by moisture

Test Boring IW-30

1563 LYELL AVENUE
ROCHESTER, NEW YORK 14606
(585) 454-0210
FAX (585) 454-0825
www.dayenvironmental.com
420 LEXINGTON AVENUE, SUITE 300
NEW YORK, NEW YORK 10170
(212) 986-8645
FAX (212) 986-8657

day
DAY ENVIRONMENTAL, INC.
ENVIRONMENTAL CONSULTANTS
AN AFFILIATE OF DAY ENGINEERING, P.C.

Project #: 5334S-17
Project Address: 300, 304-308, 320 Andrews St, 25 Evans St
Rochester, New York
DAY Representative: D Peck
Drilling Contractor: Nothnagle Drilling
Sampling Method: Split Spoon 2"

Test Boring IW-30

Ground Elevation: NA Datum: NA
Date Started: 11/6/2018 Date Ended: 11/6/2018
Borehole Depth: 20.0' Borehole Diameter: 8"
Completion Method: ■ Injection Well Installed ☐ Backfilled with Grout ☐ Backfilled with Cuttings
Water Level (Date): 8.12' bgs (11/7/18)

Depth (ft)	Blows per 0.5 ft.	Sample Number	Sample Depth (ft)	% Recovery	N-Value or RQD%	Headspace PID (ppm)	PID Reading (ppm)	Sample Description	Notes
17	25 52 100/5	S-4	16-18	60	NA	12.0	1.0	Light Brown, very fine SAND, little Silt, trace Gravel, very dense, wet	
18									
19	28 52 40 36	S-5	18-20	60	92	11.4	1.2		
20								Terminated @ 20.0'	
21									
22									
23									
24									
25									
26									
27									
28									
29									
30									
31									
32									

Notes:
1) Water levels were made at the times and under conditions stated. Fluctuations of groundwater levels may occur due to seasonal factors and other conditions.
2) Stratification lines represent approximate boundaries. Transitions may be gradual.
3) PID readings are referenced to a benzene standard measured in the headspace above the sample using a MiniRae 3000 equipped with a 10.6 eV lamp.
4) NA = Not Available or Not Applicable
5) Headspace PID readings may be influenced by moisture

Test Boring IW-30

1563 LYELL AVENUE
ROCHESTER, NEW YORK 14606
(585) 454-0210
FAX (585) 454-0825
www.dayenvironmental.com
420 LEXINGTON AVENUE, SUITE 300
NEW YORK, NEW YORK 10170
(212) 986-8645
FAX (212) 986-8657

day

DAY ENVIRONMENTAL, INC.

ENVIRONMENTAL CONSULTANTS

AN AFFILIATE OF DAY ENGINEERING, P.C.

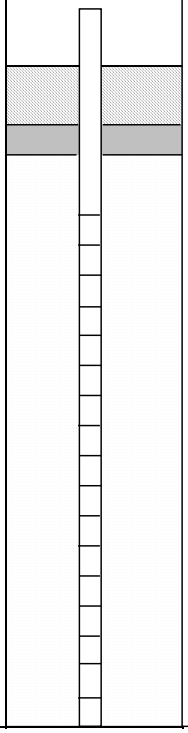
INJECTION WELL CONSTRUCTION DIAGRAM

Project #: 5334S-17
Project Address: Andrews Street
Rochester, NY
DAY Representative: D. Peck
Drilling Contractor: Nothnagle Drilling

INJECTION WELL IW-23

Ground Elevation: NA Datum: NA
Date Started: 11/7/2018 Date Ended: 11/7/2018
Water Level (Date): 8.0' bgs (11/8/18)

Refer to Test Boring Log IW-23 for Soil Description



3.1 Height to Top of Riser Pipe (ft)

0.0 Depth to Bottom of Cement Surface Patch (ft)
Backfill Type cement/bentonite grout

7.0 Depth to Top of Bentonite Seal (ft)
9.0 Depth to Bottom of Bentonite Seal (ft)

10.0 Depth to Top of Well Screen (ft)

8.0 Diameter of Borehole (in)

Backfill Type Sand

2.0 Inside Diameter of Well (in)

Type of Pipe 2" Schedule 40 PVC
Screen slot size 10-Slot

20.0 Depth to Bottom of Well Screen (ft)
20.0 Depth of Borehole (ft)

Notes: 1) Water levels were made at the times and under conditions stated. Fluctuations of groundwater levels may occur due to seasonal factors and other conditions.
2) NA = Not Available or Not Applicable

INJECTION WELL IW-23

1563 LYELL AVENUE
ROCHESTER, NEW YORK 14606
(585) 454-0210
FAX (585) 454-0825

www.dayenvironmental.com

420 LEXINGTON AVENUE, SUITE 300
NEW YORK, NEW YORK 10170
(212) 986-8645
FAX (212) 986-8657

day

DAY ENVIRONMENTAL, INC.

ENVIRONMENTAL CONSULTANTS

AN AFFILIATE OF DAY ENGINEERING, P.C.

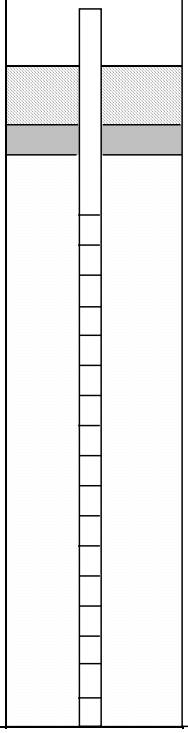
INJECTION WELL CONSTRUCTION DIAGRAM

Project #: 5334S-17
Project Address: Andrews Street
Rochester, NY
DAY Representative: D. Peck
Drilling Contractor: Nothnagle Drilling

INJECTION WELL IW-24

Ground Elevation: NA Datum: NA
Date Started: 11/8/2018 Date Ended: 11/8/2018
Water Level (Date): 8.23' bgs (11/9/18)

Refer to Test Boring Log IW-24 for Soil Description



7.1 Height to Top of Riser Pipe (ft)

0.0 Depth to Bottom of Cement Surface Patch (ft)
Backfill Type cement/bentonite grout

7.0 Depth to Top of Bentonite Seal (ft)
9.0 Depth to Bottom of Bentonite Seal (ft)

10.0 Depth to Top of Well Screen (ft)

8.0 Diameter of Borehole (in)

Backfill Type Sand

2.0 Inside Diameter of Well (in)

Type of Pipe 2" Schedule 40 PVC
Screen slot size 10-Slot

20.0 Depth to Bottom of Well Screen (ft)
20.0 Depth of Borehole (ft)

Notes: 1) Water levels were made at the times and under conditions stated. Fluctuations of groundwater levels may occur due to seasonal factors and other conditions.
2) NA = Not Available or Not Applicable

INJECTION WELL IW-24

1563 LYELL AVENUE
ROCHESTER, NEW YORK 14606
(585) 454-0210
FAX (585) 454-0825

www.dayenvironmental.com

420 LEXINGTON AVENUE, SUITE 300
NEW YORK, NEW YORK 10170
(212) 986-8645
FAX (212) 986-8657

day

DAY ENVIRONMENTAL, INC.

ENVIRONMENTAL CONSULTANTS

AN AFFILIATE OF DAY ENGINEERING, P.C.

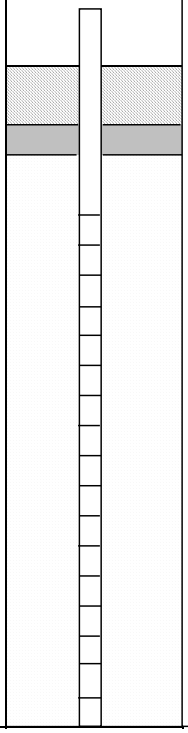
INJECTION WELL CONSTRUCTION DIAGRAM

Project #: 5334S-17
Project Address: Andrews Street
Rochester, NY
DAY Representative: D. Peck
Drilling Contractor: Nothnagle Drilling

INJECTION WELL IW-25

Ground Elevation: NA Datum: NA
Date Started: 11/7/2018 Date Ended: 11/7/2018
Water Level (Date): 7.8' bgs (11/8/18)

Refer to Test Boring Log IW-25 for Soil Description



2.6 Height to Top of Riser Pipe (ft)

0.0 Depth to Bottom of Cement Surface Patch (ft)
Backfill Type cement/bentonite grout

7.0 Depth to Top of Bentonite Seal (ft)
9.0 Depth to Bottom of Bentonite Seal (ft)

10.0 Depth to Top of Well Screen (ft)

8.0 Diameter of Borehole (in)

Backfill Type Sand

2.0 Inside Diameter of Well (in)

Type of Pipe 2" Schedule 40 PVC
Screen slot size 10-Slot

20.0 Depth to Bottom of Well Screen (ft)
20.0 Depth of Borehole (ft)

Notes: 1) Water levels were made at the times and under conditions stated. Fluctuations of groundwater levels may occur due to seasonal factors and other conditions.
2) NA = Not Available or Not Applicable

INJECTION WELL IW-25

1563 LYELL AVENUE
ROCHESTER, NEW YORK 14606
(585) 454-0210
FAX (585) 454-0825

www.dayenvironmental.com

420 LEXINGTON AVENUE, SUITE 300
NEW YORK, NEW YORK 10170
(212) 986-8645
FAX (212) 986-8657

day

DAY ENVIRONMENTAL, INC.

ENVIRONMENTAL CONSULTANTS

AN AFFILIATE OF DAY ENGINEERING, P.C.

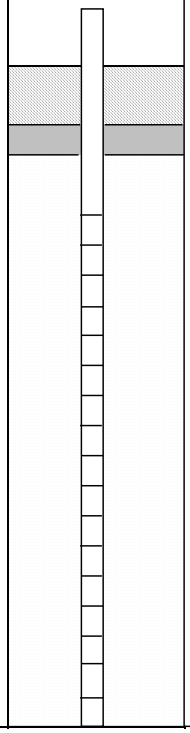
INJECTION WELL CONSTRUCTION DIAGRAM

Project #: 5334S-17
Project Address: Andrews Street
Rochester, NY
DAY Representative: D. Peck
Drilling Contractor: Nothnagle Drilling

INJECTION WELL IW-26

Ground Elevation: NA Datum: NA
Date Started: 11/8/2018 Date Ended: 11/8/2018
Water Level (Date): 8.5' bgs (11/9/18)

Refer to Test Boring Log IW-26 for Soil Description



2.4 Height to Top of Riser Pipe (ft)

0.0 Depth to Bottom of Cement Surface Patch (ft)
Backfill Type cement/bentonite grout

7.0 Depth to Top of Bentonite Seal (ft)
9.0 Depth to Bottom of Bentonite Seal (ft)

10.0 Depth to Top of Well Screen (ft)

8.0 Diameter of Borehole (in)

Backfill Type Sand

2.0 Inside Diameter of Well (in)

Type of Pipe 2" Schedule 40 PVC
Screen slot size 10-Slot

20.0 Depth to Bottom of Well Screen (ft)
20.0 Depth of Borehole (ft)

Notes: 1) Water levels were made at the times and under conditions stated. Fluctuations of groundwater levels may occur due to seasonal factors and other conditions.
2) NA = Not Available or Not Applicable

INJECTION WELL IW-26

1563 LYELL AVENUE
ROCHESTER, NEW YORK 14606
(585) 454-0210
FAX (585) 454-0825

www.dayenvironmental.com

420 LEXINGTON AVENUE, SUITE 300
NEW YORK, NEW YORK 10170
(212) 986-8645
FAX (212) 986-8657

day

DAY ENVIRONMENTAL, INC.

ENVIRONMENTAL CONSULTANTS

AN AFFILIATE OF DAY ENGINEERING, P.C.

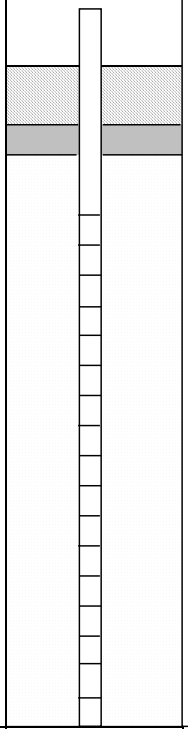
INJECTION WELL CONSTRUCTION DIAGRAM

Project #: 5334S-17
Project Address: Andrews Street
Rochester, NY
DAY Representative: D. Peck
Drilling Contractor: Nothnagle Drilling

INJECTION WELL IW-27

Ground Elevation: NA Datum: NA
Date Started: 11/7/2018 Date Ended: 11/7/2018
Water Level (Date): 8.65' bgs (11/8/18)

Refer to Test Boring Log IW-27 for Soil Description



1.8 Height to Top of Riser Pipe (ft)

0.0 Depth to Bottom of Cement Surface Patch (ft)
Backfill Type cement/bentonite grout

7.0 Depth to Top of Bentonite Seal (ft)
9.0 Depth to Bottom of Bentonite Seal (ft)

10.0 Depth to Top of Well Screen (ft)

8.0 Diameter of Borehole (in)

Backfill Type Sand

2.0 Inside Diameter of Well (in)

Type of Pipe 2" Schedule 40 PVC
Screen slot size 10-Slot

20.0 Depth to Bottom of Well Screen (ft)
20.0 Depth of Borehole (ft)

Notes: 1) Water levels were made at the times and under conditions stated. Fluctuations of groundwater levels may occur due to seasonal factors and other conditions.
2) NA = Not Available or Not Applicable

INJECTION WELL IW-27

1563 LYELL AVENUE
ROCHESTER, NEW YORK 14606
(585) 454-0210
FAX (585) 454-0825

www.dayenvironmental.com

420 LEXINGTON AVENUE, SUITE 300
NEW YORK, NEW YORK 10170
(212) 986-8645
FAX (212) 986-8657

day

DAY ENVIRONMENTAL, INC.

ENVIRONMENTAL CONSULTANTS

AN AFFILIATE OF DAY ENGINEERING, P.C.

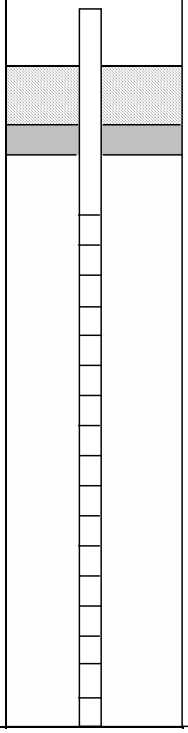
INJECTION WELL CONSTRUCTION DIAGRAM

Project #: 5334S-17
Project Address: Andrews Street
Rochester, NY
DAY Representative: D. Peck
Drilling Contractor: Nothnagle Drilling

INJECTION WELL IW-28

Ground Elevation: NA Datum: NA
Date Started: 11/7/2018 Date Ended: 11/7/2018
Water Level (Date): 7.9' bgs (11/9/18)

Refer to Test Boring Log IW-28 for Soil Description



2.7 Height to Top of Riser Pipe (ft)

0.0 Depth to Bottom of Cement Surface Patch (ft)
Backfill Type cement/bentonite grout

7.0 Depth to Top of Bentonite Seal (ft)
9.0 Depth to Bottom of Bentonite Seal (ft)

10.0 Depth to Top of Well Screen (ft)

8.0 Diameter of Borehole (in)

Backfill Type Sand

2.0 Inside Diameter of Well (in)

Type of Pipe 2" Schedule 40 PVC
Screen slot size 10-Slot

20.0 Depth to Bottom of Well Screen (ft)
20.0 Depth of Borehole (ft)

Notes: 1) Water levels were made at the times and under conditions stated. Fluctuations of groundwater levels may occur due to seasonal factors and other conditions.
2) NA = Not Available or Not Applicable

INJECTION WELL IW-28

1563 LYELL AVENUE
ROCHESTER, NEW YORK 14606
(585) 454-0210
FAX (585) 454-0825

www.dayenvironmental.com

420 LEXINGTON AVENUE, SUITE 300
NEW YORK, NEW YORK 10170
(212) 986-8645
FAX (212) 986-8657

day

DAY ENVIRONMENTAL, INC.

ENVIRONMENTAL CONSULTANTS

AN AFFILIATE OF DAY ENGINEERING, P.C.

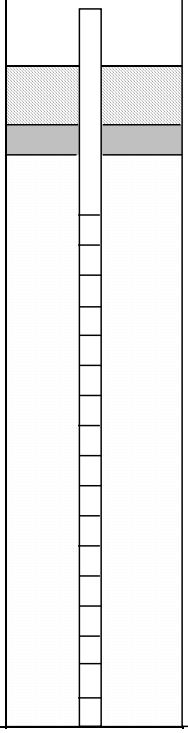
INJECTION WELL CONSTRUCTION DIAGRAM

Project #: 5334S-17
Project Address: Andrews Street
Rochester, NY
DAY Representative: D. Peck
Drilling Contractor: Nothnagle Drilling

INJECTION WELL IW-29

Ground Elevation: NA Datum: NA
Date Started: 11/6/2018 Date Ended: 11/7/2018
Water Level (Date): 8.5' bgs (11/8/18)

Refer to Test Boring Log IW-29 for Soil Description



2.7 Height to Top of Riser Pipe (ft)

0.0 Depth to Bottom of Cement Surface Patch (ft)
Backfill Type cement/bentonite grout

7.0 Depth to Top of Bentonite Seal (ft)
9.0 Depth to Bottom of Bentonite Seal (ft)

10.0 Depth to Top of Well Screen (ft)

8.0 Diameter of Borehole (in)

Backfill Type Sand

2.0 Inside Diameter of Well (in)

Type of Pipe 2" Schedule 40 PVC
Screen slot size 10-Slot

20.0 Depth to Bottom of Well Screen (ft)
20.0 Depth of Borehole (ft)

Notes: 1) Water levels were made at the times and under conditions stated. Fluctuations of groundwater levels may occur due to seasonal factors and other conditions.
2) NA = Not Available or Not Applicable

INJECTION WELL IW-29

1563 LYELL AVENUE
ROCHESTER, NEW YORK 14606
(585) 454-0210
FAX (585) 454-0825

www.dayenvironmental.com

420 LEXINGTON AVENUE, SUITE 300
NEW YORK, NEW YORK 10170
(212) 986-8645
FAX (212) 986-8657

day

DAY ENVIRONMENTAL, INC.

ENVIRONMENTAL CONSULTANTS

AN AFFILIATE OF DAY ENGINEERING, P.C.

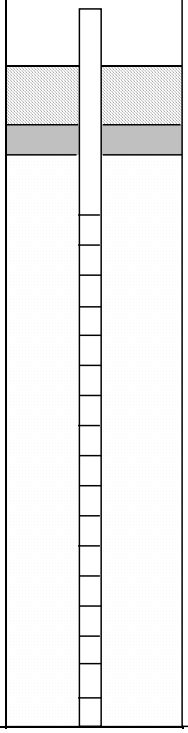
INJECTION WELL CONSTRUCTION DIAGRAM

Project #: 5334S-17
Project Address: Andrews Street
Rochester, NY
DAY Representative: D. Peck
Drilling Contractor: Nothnagle Drilling

INJECTION WELL IW-30

Ground Elevation: NA Datum: NA
Date Started: 11/6/2018 Date Ended: 11/7/2018
Water Level (Date): 8.12' bgs (11/7/18)

Refer to Test Boring Log IW-30 for Soil Description



2.0 Height to Top of Riser Pipe (ft)

0.0 Depth to Bottom of Cement Surface Patch (ft)
Backfill Type cement/bentonite grout

7.0 Depth to Top of Bentonite Seal (ft)
9.0 Depth to Bottom of Bentonite Seal (ft)

10.0 Depth to Top of Well Screen (ft)

8.0 Diameter of Borehole (in)

Backfill Type Sand

2.0 Inside Diameter of Well (in)

Type of Pipe 2" Schedule 40 PVC
Screen slot size 10-Slot

20.0 Depth to Bottom of Well Screen (ft)
20.0 Depth of Borehole (ft)

Notes: 1) Water levels were made at the times and under conditions stated. Fluctuations of groundwater levels may occur due to seasonal factors and other conditions.
2) NA = Not Available or Not Applicable

INJECTION WELL IW-30

1563 LYELL AVENUE
ROCHESTER, NEW YORK 14606
(585) 454-0210
FAX (585) 454-0825

www.dayenvironmental.com

420 LEXINGTON AVENUE, SUITE 300
NEW YORK, NEW YORK 10170
(212) 986-8645
FAX (212) 986-8657

Attachment B

IW-23 Through IW-30 Drill Cuttings Waste Characterization
Analytical Laboratory Results and Disposal Documentation

PARADIGM

PARADIGM
ENVIRONMENTAL SERVICES, INC.

Analytical Report For

Day Environmental, Inc.

For Lab Project ID

185350

Referencing

Andrews Street Site, Rochester, NY

Prepared

Wednesday, November 21, 2018

Any noncompliant QC parameters or other notes impacting data interpretation are flagged or documented on the final report or are noted below.

Certifies that this report has been approved by the Technical Director or Designee

179 Lake Avenue • Rochester, NY 14608 • (585) 647-2530 • Fax (585) 647-3311 • ELAP ID# 10958

This report is part of a multipage document and should only be evaluated in its entirety. The Chain of Custody provides additional sample information, including compliance with the sample condition requirements upon receipt.

PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 185350

Client: **Day Environmental, Inc.**

Project Reference: Andrews Street Site, Rochester, NY

Sample Identifier: 962-IDW (Soil)
Lab Sample ID: 185350-01 **Date Sampled:** 11/14/2018
Matrix: Soil **Date Received:** 11/14/2018

Flash Point

Analyte	Result	Units	Qualifier	Date Analyzed
Flash Point, Celsius	>70.0	C		11/15/2018

Method Reference(s): EPA 1010A

PCBs

Analyte	Result	Units	Qualifier	Date Analyzed
PCB-1016	< 0.119	mg/Kg		11/16/2018 00:16
PCB-1221	< 0.119	mg/Kg		11/16/2018 00:16
PCB-1232	< 0.119	mg/Kg		11/16/2018 00:16
PCB-1242	< 0.119	mg/Kg		11/16/2018 00:16
PCB-1248	< 0.119	mg/Kg		11/16/2018 00:16
PCB-1254	< 0.119	mg/Kg		11/16/2018 00:16
PCB-1260	< 0.119	mg/Kg		11/16/2018 00:16
PCB-1262	< 0.119	mg/Kg		11/16/2018 00:16
PCB-1268	< 0.119	mg/Kg		11/16/2018 00:16

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed
Tetrachloro-m-xylene	**75.5**	10 - 70.9	*	11/16/2018 00:16

Method Reference(s): EPA 8082A
EPA 3546
Preparation Date: 11/15/2018

pH

Analyte	Result	Units	Qualifier	Date Analyzed
pH	8.35 @ 21.8 C	S.U.		11/15/2018 11:12

Method Reference(s): EPA 9045D

Reactive Cyanide

Analyte	Result	Units	Qualifier	Date Analyzed
Reactivity, Cyanide	<100	mg/Kg		11/20/2018

Method Reference(s): EPA 7.3.3.2
Subcontractor ELAP ID: 11148
ELAP does not offer this test for approval as part of their laboratory certification program.

This report is part of a multipage document and should only be evaluated in its entirety. The Chain of Custody provides additional sample information, including compliance with the sample condition requirements upon receipt.

PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 185350

Client: **Day Environmental, Inc.**

Project Reference: Andrews Street Site, Rochester, NY

Sample Identifier:	962-IDW (Soil)		
Lab Sample ID:	185350-01	**Date Sampled:**	11/14/2018
Matrix:	Soil	**Date Received:**	11/14/2018

Reactive Sulfide

Analyte	Result	Units	Qualifier	Date Analyzed
Reactivity, Sulfide	<100	mg/Kg		11/20/2018

Method Reference(s): EPA 7.3.4.2
Subcontractor ELAP ID: 11148
ELAP does not offer this test for approval as part of their laboratory certification program.

Volatile Organics

Analyte	Result	Units	Qualifier	Date Analyzed
1,1,1-Trichloroethane	< 16.4	ug/Kg		11/20/2018 15:28
1,1,2,2-Tetrachloroethane	< 16.4	ug/Kg		11/20/2018 15:28
1,1,2-Trichloroethane	< 16.4	ug/Kg		11/20/2018 15:28
1,1-Dichloroethane	< 16.4	ug/Kg		11/20/2018 15:28
1,1-Dichloroethene	< 16.4	ug/Kg		11/20/2018 15:28
1,2,3-Trichlorobenzene	< 40.9	ug/Kg		11/20/2018 15:28
1,2,4-Trichlorobenzene	< 40.9	ug/Kg		11/20/2018 15:28
1,2-Dibromo-3-Chloropropane	< 81.8	ug/Kg		11/20/2018 15:28
1,2-Dibromoethane	< 16.4	ug/Kg		11/20/2018 15:28
1,2-Dichlorobenzene	< 16.4	ug/Kg		11/20/2018 15:28
1,2-Dichloroethane	< 16.4	ug/Kg		11/20/2018 15:28
1,2-Dichloropropane	< 16.4	ug/Kg		11/20/2018 15:28
1,3-Dichlorobenzene	< 16.4	ug/Kg		11/20/2018 15:28
1,4-Dichlorobenzene	< 16.4	ug/Kg		11/20/2018 15:28
1,4-Dioxane	< 164	ug/Kg		11/20/2018 15:28
2-Butanone	< 81.8	ug/Kg		11/20/2018 15:28
2-Hexanone	< 40.9	ug/Kg		11/20/2018 15:28
4-Methyl-2-pentanone	< 40.9	ug/Kg		11/20/2018 15:28
Acetone	< 81.8	ug/Kg		11/20/2018 15:28
Benzene	< 16.4	ug/Kg		11/20/2018 15:28
Bromochloromethane	< 40.9	ug/Kg		11/20/2018 15:28
Bromodichloromethane	< 16.4	ug/Kg		11/20/2018 15:28
Bromoform	< 40.9	ug/Kg		11/20/2018 15:28

PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 185350

Client: **Day Environmental, Inc.**

Project Reference: Andrews Street Site, Rochester, NY

Sample Identifier: 962-IDW (Soil)
Lab Sample ID: 185350-01 **Date Sampled:** 11/14/2018
Matrix: Soil **Date Received:** 11/14/2018

Bromomethane	< 16.4	ug/Kg	11/20/2018	15:28
Carbon disulfide	< 16.4	ug/Kg	11/20/2018	15:28
Carbon Tetrachloride	< 16.4	ug/Kg	11/20/2018	15:28
Chlorobenzene	< 16.4	ug/Kg	11/20/2018	15:28
Chloroethane	< 16.4	ug/Kg	11/20/2018	15:28
Chloroform	< 16.4	ug/Kg	11/20/2018	15:28
Chloromethane	< 16.4	ug/Kg	11/20/2018	15:28
cis-1,2-Dichloroethene	< 16.4	ug/Kg	11/20/2018	15:28
cis-1,3-Dichloropropene	< 16.4	ug/Kg	11/20/2018	15:28
Cyclohexane	< 81.8	ug/Kg	11/20/2018	15:28
Dibromochloromethane	< 16.4	ug/Kg	11/20/2018	15:28
Dichlorodifluoromethane	< 16.4	ug/Kg	11/20/2018	15:28
Ethylbenzene	< 16.4	ug/Kg	11/20/2018	15:28
Freon 113	< 16.4	ug/Kg	11/20/2018	15:28
Isopropylbenzene	< 16.4	ug/Kg	11/20/2018	15:28
m,p-Xylene	< 16.4	ug/Kg	11/20/2018	15:28
Methyl acetate	< 16.4	ug/Kg	11/20/2018	15:28
Methyl tert-butyl Ether	< 16.4	ug/Kg	11/20/2018	15:28
Methylcyclohexane	< 16.4	ug/Kg	11/20/2018	15:28
Methylene chloride	< 40.9	ug/Kg	11/20/2018	15:28
o-Xylene	< 16.4	ug/Kg	11/20/2018	15:28
Styrene	< 40.9	ug/Kg	11/20/2018	15:28
Tetrachloroethene	**1010**	ug/Kg	11/20/2018	15:28
Toluene	< 16.4	ug/Kg	11/20/2018	15:28
trans-1,2-Dichloroethene	< 16.4	ug/Kg	11/20/2018	15:28
trans-1,3-Dichloropropene	< 16.4	ug/Kg	11/20/2018	15:28
Trichloroethene	**17.7**	ug/Kg	11/20/2018	15:28
Trichlorofluoromethane	< 16.4	ug/Kg	11/20/2018	15:28
Vinyl chloride	< 16.4	ug/Kg	11/20/2018	15:28

PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 185350

Client: **Day Environmental, Inc.**

Project Reference: Andrews Street Site, Rochester, NY

Sample Identifier: 962-IDW (Soil)

Lab Sample ID: 185350-01 **Date Sampled:** 11/14/2018

Matrix: Soil **Date Received:** 11/14/2018

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed
1,2-Dichloroethane-d4	**92.5**	85.5 - 126		11/20/2018 15:28
4-Bromofluorobenzene	**90.7**	78.8 - 116		11/20/2018 15:28
Pentafluorobenzene	**99.8**	86 - 110		11/20/2018 15:28
Toluene-D8	**98.2**	86.7 - 111		11/20/2018 15:28

Method Reference(s): EPA 8260C
EPA 5035A - L

Data File: x56817.D

This sample was not collected following SW846 5035A specifications. Accordingly, any Volatiles soil results that are less than 200 ug/Kg, including Non Detects, may be biased low, per ELAP method 5035 guidance document from 11/15/2012.

PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 185350

Client: **Day Environmental, Inc.**

Project Reference: Andrews Street Site, Rochester, NY

Sample Identifier: 962-IDW (Soil)
Lab Sample ID: 185350-01A **Date Sampled:** 11/14/2018
Matrix: TCLP Extract **Date Received:** 11/14/2018

TCLP Semi-Volatile Organics

Analyte	Result	Units	Regulatory Limit	Qualifier	Date Analyzed
1,4-Dichlorobenzene	< 40.0	ug/L	7500		11/17/2018 03:39
2,4,5-Trichlorophenol	< 80.0	ug/L	400000		11/17/2018 03:39
2,4,6-Trichlorophenol	< 40.0	ug/L	2000		11/17/2018 03:39
2,4-Dinitrotoluene	< 40.0	ug/L	130		11/17/2018 03:39
Cresols (as m,p,o-Cresol)	< 80.0	ug/L	200000		11/17/2018 03:39
Hexachlorobenzene	< 40.0	ug/L	130		11/17/2018 03:39
Hexachlorobutadiene	< 40.0	ug/L	500		11/17/2018 03:39
Hexachloroethane	< 40.0	ug/L	3000		11/17/2018 03:39
Nitrobenzene	< 40.0	ug/L	2000		11/17/2018 03:39
Pentachlorophenol	< 80.0	ug/L	100000		11/17/2018 03:39
Pyridine	**88.0**	ug/L	5000		11/17/2018 03:39

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed
2,4,6-Tribromophenol	**85.8**	36.8 - 125		11/17/2018 03:39
2-Fluorobiphenyl	**70.8**	34.3 - 96.8		11/17/2018 03:39
2-Fluorophenol	**80.1**	10 - 108		11/17/2018 03:39
Nitrobenzene-d5	**79.4**	47.8 - 101		11/17/2018 03:39
Phenol-d5	**72.3**	10 - 106		11/17/2018 03:39
Terphenyl-d14	**90.8**	51.9 - 117		11/17/2018 03:39

Method Reference(s): EPA 8270D
EPA 1311 / 3510C
Preparation Date: 11/16/2018
Data File: B33515.D

TCLP Mercury

Analyte	Result	Units	Regulatory Limit	Qualifier	Date Analyzed
Mercury	< 0.00200	mg/L	0.2		11/19/2018 10:20

Method Reference(s): EPA 7470A
EPA 1311
Preparation Date: 11/16/2018
Data File: Hg181119A

PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 185350

Client: **Day Environmental, Inc.**

Project Reference: Andrews Street Site, Rochester, NY

Sample Identifier: 962-IDW (Soil)
Lab Sample ID: 185350-01A **Date Sampled:** 11/14/2018
Matrix: TCLP Extract **Date Received:** 11/14/2018

TCLP RCRA Metals (ICP)

Analyte	Result	Units	Regulatory Limit	Qualifier	Date Analyzed
Arsenic	< 0.500	mg/L	5		11/16/2018 15:22
Barium	< 0.500	mg/L	100		11/16/2018 15:22
Cadmium	< 0.0250	mg/L	1		11/16/2018 15:22
Chromium	< 0.500	mg/L	5		11/16/2018 15:22
Lead	< 0.500	mg/L	5		11/16/2018 15:22
Selenium	< 0.200	mg/L	1		11/16/2018 15:22
Silver	< 0.500	mg/L	5		11/16/2018 15:22

Method Reference(s): EPA 6010C
EPA 1311 / 3005A
Preparation Date: 11/16/2018
Data File: 181116B

TCLP Volatile Organics

Analyte	Result	Units	Regulatory Limit	Qualifier	Date Analyzed
1,1-Dichloroethene	< 20.0	ug/L	700		11/17/2018 16:59
1,2-Dichloroethane	< 20.0	ug/L	500		11/17/2018 16:59
2-Butanone	< 100	ug/L	200000		11/17/2018 16:59
Benzene	< 20.0	ug/L	500		11/17/2018 16:59
Carbon Tetrachloride	< 20.0	ug/L	500		11/17/2018 16:59
Chlorobenzene	< 20.0	ug/L	100000		11/17/2018 16:59
Chloroform	< 20.0	ug/L	6000		11/17/2018 16:59
Tetrachloroethene	**46.2**	ug/L	700		11/17/2018 16:59
Trichloroethene	< 20.0	ug/L	500		11/17/2018 16:59
Vinyl chloride	< 20.0	ug/L	200		11/17/2018 16:59

PARADIGM ENVIRONMENTAL SERVICES, INC.

Lab Project ID: 185350

Client: **Day Environmental, Inc.**

Project Reference: Andrews Street Site, Rochester, NY

Sample Identifier: 962-IDW (Soil)

Lab Sample ID: 185350-01A **Date Sampled:** 11/14/2018

Matrix: TCLP Extract **Date Received:** 11/14/2018

Surrogate	Percent Recovery	Limits	Outliers	Date Analyzed
1,2-Dichloroethane-d4	**89.0**	86.4 - 119		11/17/2018 16:59
4-Bromofluorobenzene	**87.7**	76 - 118		11/17/2018 16:59
Pentafluorobenzene	**99.2**	87 - 112		11/17/2018 16:59
Toluene-D8	**93.2**	88.4 - 111		11/17/2018 16:59

Method Reference(s): EPA 8260C
EPA 1311 / 5030C

Data File: x56731.D

This report is part of a multipage document and should only be evaluated in its entirety. The Chain of Custody provides additional sample information, including compliance with the sample condition requirements upon receipt.

Analytical Report Appendix

The reported results relate only to the samples as they have been received by the laboratory.

Each page of this document is part of a multipage report. This document may not be reproduced except in its entirety, without the prior consent of Paradigm Environmental Services, Inc.

All soil/sludge samples have been reported on a dry weight basis, unless qualified "reported as received". Other solids are reported as received.

Low level Volatiles blank reports for soil/solid matrix are based on a nominal 5 gram weight. Sample results and reporting limits are based on actual weight, which may be more or less than 5 grams.

The Chain of Custody provides additional information, including compliance with sample condition requirements upon receipt. Sample condition requirements are defined under the 2003 NELAC Standard, sections 5.5.8.3.1 and 5.5.8.3.2.

NYSDOH ELAP does not certify for all parameters. Paradigm Environmental Services or the indicated subcontracted laboratory does hold certification for all analytes where certification is offered by ELAP unless otherwise specified. Aliquots separated for certain tests, such as TCLP, are indicated on the Chain of Custody and final reports with an "A" suffix.

Data qualifiers are used, when necessary, to provide additional information about the data. This information may be communicated as a flag or as text at the bottom of the report. Please refer to the following list of analyte-specific, frequently used data flags and their meaning:

"<" = Analyzed for but not detected at or above the quantitation limit.
"E" = Result has been estimated, calibration limit exceeded.
"Z" = See case narrative.
"D" = Sample, Laboratory Control Sample, or Matrix Spike Duplicate results above Relative Percent Difference limit.
"M" = Matrix spike recoveries outside QC limits. Matrix bias indicated.
"B" = Method blank contained trace levels of analyte. Refer to included method blank report.
"J" = Result estimated between the quantitation limit and half the quantitation limit.
"L" = Laboratory Control Sample recovery outside accepted QC limits.
"P" = Concentration differs by more than 40% between the primary and secondary analytical columns.
"NC" = Not calculable. Applicable to RPD if sample or duplicate result is non-detect or estimated (see primary report for data flags). Applicable to MS if sample is greater or equal to ten times the spike added. Applicable to sample surrogates or MS if sample dilution is 10x or higher.
"" = Indicates any recoveries outside associated acceptance windows. Surrogate outliers in samples are presumed matrix effects. LCS demonstrates method compliance unless otherwise noted.*
"(1)" = Indicates data from primary column used for QC calculation.
"A" = denotes a parameter for which ELAP does not offer approval as part of their laboratory certification program.
"F" = denotes a parameter for which Paradigm does not carry certification, the results for which should therefore only be used where ELAP certification is not required, such as personal exposure assessment.

GENERAL TERMS AND CONDITIONS
LABORATORY SERVICES

These Terms and Conditions embody the whole agreement of the parties in the absence of a signed and executed contract between the Laboratory (LAB) and Client. They shall supersede all previous communications, representations, or agreements, either verbal or written, between the parties. The LAB specifically rejects all additional, inconsistent, or conflicting terms, whether printed or otherwise set forth in any purchase order or other communication from the Client to the LAB. The invalidity or unenforceability in whole or in part of any provision, tern or condition hereof shall not affect in any way the validity or enforceability of the remainder of the Terms and Conditions. No waiver by LAB of any provision, term, or condition hereof or of any breach by or obligation of the Client hereunder shall constitute a waiver of such provision, term, or condition on any other occasion or a waiver of any other breach by or obligation of the Client. This agreement shall be administered and interpreted under the laws of the state which services are procured.

Warranty. Recognizing that the nature of many samples is unknown and that some may contain potentially hazardous components, LAB warrants only that it will perform testing services, obtain findings, and prepare reports in accordance with generally accepted analytical laboratory principles and practices at the time of performance of services. LAB makes no other warranty, express or implied.

Scope and Compensation. LAB agrees to perform the services described in the chain of custody to which these terms and conditions are attached. Unless the parties agree in writing to the contrary, the duties of LAB shall not be construed to exceed the services specifically described. LAB wi use LAB default method for all tests unless specified otherwise on the Work Order.
Payment terms are net 30 days from the date of invoice. All overdue payments are subject to an interest charge of one and one-half percent (1-1/2%) per month or a portion thereof. Client shall also be responsible for costs of collection, including payment of reasonable attorney fees if such expense is incurred. The prices, unless stated, do not include any sale, use or other taxes. Such taxes will be added to invoice prices when required.

Prices. Compensation for services performed will be based on the current Lab Analytical Fee Schedule or on quotations agreed to in writing by the parties. Turnaround time based charges are determined from the time of resolution of all work order questions. Testimony, court appearances or data compilation for legal action will be charged separately. Evaluation and reporting of initial screening runs may incur additional fees.

Limitations of Liability. In the event of any error, omission, or other professional negligence, the sole and exclusive responsibility of LAB shall be to re-perform the deficient work at its own expense and LAB shall have no other liability whatsoever. All claims shall be deemed waived unless made in writing and received by LAB within ninety (90) days following completion of services.
LAB shall have no liability, obligation, or responsibility of any kind for losses, costs, expenses, or other damages (including but not limited to any special, direct, incidental or consequential damages) with respect to LAB's services or results.
All results provided by LAB are strictly for the use of its clients and LAB is in no way responsible for the use of such results by clients or third parties. All reports should be considered in their entirety, and LAB is not responsible for the separation, detachment, or other use of any portion of these reports. Client may not assign the lab report without the written consent of the LAB.
Client covenants and agrees, at its/his/her sole expense, to indemnify, protect, defend, and save harmless the LAB from and against any and all damages, losses, liabilities, obligations, penalties, claims, litigation, demands, defenses, judgments, suits, actions, proceedings, costs, disbursements and/or expenses (including, without limitation attorneys' and experts' fees and disbursements) of any kind whatsoever which may at any time be imposed upon, incurred by or asserted or awarded against client relating to, resulting from or arising out of (a) the breach of this agreement by this client, (b) the negligence of the client in handling, delivering or disclosing any hazardous substance, (c) the violation of the Client of any applicable law, (d) non-compliance by the Client with any environmental permit or (e) a material misrepresentation in disclosing the materials to be tested.

Hazard Disclosure. Client represents and warrants that any sample delivered to LAB will be preceded or accompanied by complete written disclosure of the presence of any hazardous substances known or suspected by Client. Client further warrants that any sample containing any hazardous substance that is to be delivered to LAB will be packaged, labeled, transported, and delivered properly and in accordance with applicable laws.

Sample Handling. Prior to LAB's acceptance of any sample (or after any revocation of acceptance), the entire risk of loss or of damage to such sample remains with Client. Samples are accepted when receipt is acknowledged on chain of custody documentation. In no event will LAB have any responsibility for the action or inaction of any carrier shipping or delivering any sample to or from LAB premises.
Client authorizes LAB to proceed with the analysis of samples as received by the laboratory, recognizing that any samples not in compliance with all current DOH-ELAP-NELAP requirements for containers, preservation or holding time will be noted as such on th final report.
Disposal of hazardous waste samples is the responsibility of the Client. If the Client does not wish such samples returned, LAB may add storage and disposal fees to the final invoice. Maximum storage time for samples is 30 days after completion of analysis unless modified by applicable state or federal laws. Client will be required to give the LAB written instructions concerning disposal of these samples.
LAB reserves the absolute right, exercisable at any time, to refuse to receive delivery of, refuse to accept, or revoke acceptance of any sample, which, in the sole judgment of LAB (a) is of unsuitable volume, (b) may be or become unsuitable for or may pose a risk in handling, transport, or processing for any health, safety, environmental or other reason whether or not due to the presence in the sample of any hazardous substance, and whether or not such presence has been disclosed to LAB by Client or (c) if the condition or sample date make the sample unsuitable for analysis.

Legal Responsibility. LAB is solely responsible for performance of this contract, and no affiliated company, director, officer, employee, or agent shall have any legal responsibility hereunder, whether in contract or tort including negligence.

Assignment. LAB may assign its performance obligations under this contract to other parties, as it deems necessary. LAB shall disclose to Client any assignee (subcontractor) by ELAP ID # on the submitted final report.

Force Majeure. LAB shall have no responsibility or liability to the Client for any failure or delay in performance by LAB, which results in whole or in part from any cause or circumstance beyond the reasonable control of LAB. Such causes and circumstances shall include, but not limited to, acts of God, acts or orders of any government authority, strikes or other labor disputes, natural disasters, accidents, wars, civil disturbances, difficulties or delays in transportation, mail or delivery services, inability to obtain sufficient services or supplies from LAB's usual suppliers, or any other cause beyond LAB's reasonable control.

Law. This contract shall be continued under the laws of the State of New York without regard to its conflicts of laws provision.

179 Lake Avenue, Rochester, NY 14608 Office (585) 647-2530 Fax (585) 647-3311

PARADIGM
ENVIRONMENTAL SERVICES, INC.

CHAIN OF CUSTODY

1 of 2

REPORT TO:		INVOICE TO:		
CLIENT:	Day Environmental, Inc	CLIENT:		LAB PROJECT ID: 185350
ADDRESS:	1563 Lyell Avenue	ADDRESS:		
CITY: Rochester STATE: NY ZIP: 14606		CITY: SAME STATE: ZIP:		Quotation #:
PHONE:	585-454-0210	PHONE:		Email: jdanzinger@daymail.net
ATTN:	Jeff Danzinger	ATTN:		

PROJECT REFERENCE
Andrews Street Site
Rochester, NY

Matrix Codes:
AQ - Aqueous Liquid; NQ - Non-Aqueous Liquid; WA - Water; WG - Groundwater; DW - Drinking Water; WW - Wastewater; SO - Soil; SL - Sludge; SD - Solid; PT - Paint; WP - Wipe; CK - Caulk; OL - Oil; AR - Air

REQUESTED ANALYSIS

DATE COLLECTED	TIME COLLECTED	COMPOSITE	GRAB	SAMPLE IDENTIFIER	MATRIX CODES	NUMBER OF CONTAINERS	Flashpoint	pH	Reactive Sulfide	Reactive Cyanide	Total TCL VOCs 8260	TCLP VOCs	TCLP SVOCs	TCLP Metals	Total PCBs 8082	REMARKS	PARADIGM LAB SAMPLE NUMBER
11/14/18	09:30	X		962-IDW (Soil)	SO	4	X	X	X	X	X	X	X	X	X	Composite jars in lab prior to testing	01A
per Sampled By line GP 11/14/18																	
																A for TCLP extract. GP 11/14/18	

Turnaround Time		Report Supplements			
Availability contingent upon lab approval; additional fees may apply.					
Standard 5 day	X	None Required	X	None Required	
10 day		Batch QC		Basic EDD	
Rush 3 day		Category A		NYSDEC EDD	X
Rush 2 day		Category B			
Rush 1 day					
Other please indicate date needed:		Other please indicate package needed:		Other EDD please indicate EDD needed :	

Sampled By	11-14-2018 / 0930 Date/Time	Total Cost:
Relinquished By	11-14-2018 / 1003 Date/Time	
Received By	11-14-2018 / 1003 Date/Time	P.I.F.
Received @ Lab By	11/14/18 10:41 Date/Time	

3 °C 11/14/18 10:21

By signing this form, client agrees to Paradigm Terms and Conditions (reverse).

See additional page for sample conditions.

Chain of Custody Supplement

Client: Day Environmental **Completed by:** Glenn Pezzulo

Lab Project ID: 185350 **Date:** 11/14/18

Sample Condition Requirements

Per NELAC/ELAP 210/241/242/243/244

Condition	NELAC compliance with the sample condition requirements upon receipt Yes	No	N/A
Container Type	X	X 5035	
Comments	Portion of each sample transferred to 8oz glass jar and mixed well for composite.		
Transferred to method-compliant container	X		
Headspace (<1 mL)			X
Comments	Portion of composite sample transferred to 4oz glass jar for Reactivity sub-out.		
Preservation			X
Comments			
Chlorine Absent (<0.10 ppm per test strip)			X
Comments			
Holding Time	X		
Comments			
Temperature	X		X metals
Comments	3°C		
Sufficient Sample Quantity	X		
Comments			

179 Lake Avenue, Rochester, NY 14608 Office (585) 647-2530 Fax (585) 647-3311

CHAIN OF CUSTODY

L1846799 1 of 1

11148

REPORT TO:		INVOICE TO:			
COMPANY:	Paradigm Environmental	COMPANY:	Same	LAB PROJECT #:	CLIENT PROJECT #:
ADDRESS:	179 Lake Avenue	ADDRESS:			
CITY:	Rochester STATE: NY ZIP: 14608	CITY:	STATE: ZIP:	TURNAROUND TIME: (WORKING DAYS)	
PHONE:	FAX:	PHONE:	FAX:	STD	OTHER
PROJECT NAME/SITE NAME:		ATTN:	Reporting	ATTN: Accounts Payable	1 ☐ 2 ☐ 3 ☒ 5 ☐
		COMMENTS:	Please email results to reporting@paradigmenv.com	Date Due: 11/26/18	

REQUESTED ANALYSIS

	DATE	TIME	COMPOSITE	GRAB	SAMPLE LOCATION/FIELD ID	MATRIX	NUMBER OF CONTAINERS	Reactivity	REMARKS	PARADIGM LAB SAMPLE NUMBER
1	11/14/18	09:30			185350-01	So:l	1	X		
2										
3										
4										
5										
6										
7										
8										
9										
10										

LAB USE ONLY BELOW THIS LINE

Sample Condition: Per NELAC/ELAP 210/241/242/243/244

Receipt Parameter	NELAC Compliance	
Container Type:	Y ☐	N ☐
Comments:		
Preservation:	Y ☐	N ☐
Comments:		
Holding Time:	Y ☐	N ☐
Comments:		
Temperature:	Y ☐	N ☐
Comments: Temp 2.0° C 11/20/18 MES		

Client

Sampled By	Date/Time	
[signature]	11/14/18	16:00
Relinquished By	Date/Time	
[signature] AAL	11/14/18	17:15
Received By	Date/Time	
[signature] AAL	11/14/18	17:15
Received By	Date/Time	
[signature]	11/15/18	0120
Received @ Lab By	Date/Time	

Total Cost:

P.I.F. ☐

NON-HAZARDOUS MANIFEST

WASTE MANAGEMENT

NON-HAZARDOUS MANIFEST

1. Generator's US EPA ID No. | Manifest Doc No.

2. Page 1 of 1

3. Generator's Mailing Address:
CITY OF ROCHESTER – ENVIRONMENTAL QUALITY
30 CHURCH ST. ROOM 300B ATTN: JANE MH FORBES
ROCHESTER, NY 14614

4. Generator's Phone
585-428-7892

Generator's Site Address (If different than mailing):
CITY OF ROCHESTER
300-320 ANDREWS ST.
ROCHESTER, NY 14604

A. Manifest Number **WMNA** 7536579

B. State Generator's ID

5. Transporter 1 Company Name

6. US EPA ID Number

C. State Transporter's ID

D. Transporter's Phone

7. Transporter 2 Company Name

8. US EPA ID Number

E. State Transporter's ID

F. Transporter's Phone

9. Designated Facility Name and Site Address
WM OF NEW YORK AT HIGH ACRES LANDFILL
425 PERINTON PARKWAY
FAIRPORT, NY 14450

10. US EPA ID Number

G. State Facility ID N/A

H. State Facility Phone 585-223-6132

GENERATOR

11. Description of Waste Materials	12. Containers No.	12. Containers Type	13. Total Quantity	14. Unit Wt./Vol.	I. Misc. Comments
a. NON DOT REGULATED MATERIAL **WM Profile # 118797NY**					
b. **WM Profile #**					
c. **WM Profile #**					
d. **WM Profile #**					

J. Additional Descriptions for Materials Listed Above

K. Disposal Location

Cell | Level

Grid

15. Special Handling Instructions and Additional Information

a – 118797NY Non Hazardous Soil
Weight is estimated

Purchase Order # | EMERGENCY CONTACT / PHONE NO.:

16. GENERATOR'S CERTIFICATE:

I hereby certify that the above-described materials are not hazardous wastes as defined by CFR Part 261 or any applicable state law, have been fully and accurately described, classified and packaged and are in proper condition for transportation according to applicable regulations.

Printed Name	Signature	Month	Day	Year
JANE FORBES				

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed Name	Signature	Month	Day	Year

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed Name	Signature	Month	Day	Year

FACILITY

19. Certificate of Final Treatment/Disposal

I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above-described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the dates listed above.

20. Facility Owner or Operator: Certification of receipt of non-hazardous materials covered by this manifest.

Printed Name	Signature	Month	Day	Year

White- TREATMENT, STORAGE, DISPOSAL FACILITY COPY
Blue- GENERATOR #2 COPY
Yellow- GENERATOR #1 COPY
Pink- FACILITY USE ONLY
Gold- TRANSPORTER #1 COPY

Date	Profile #	Manifest #	Ticket #	Material	Facility	Carrier	Vehicle	Tons / Tonnes	Material Quantit
12/20/2018	118797NY	7536579	1260133	NON HAZARDOUS SOIL	High Acres Landfill	WASTE MANAGEMENT	411333	3.91	3.91

Attachment C

Well Decommissioning Logs (MW-04, MW-06, MW-07 and MW-20)

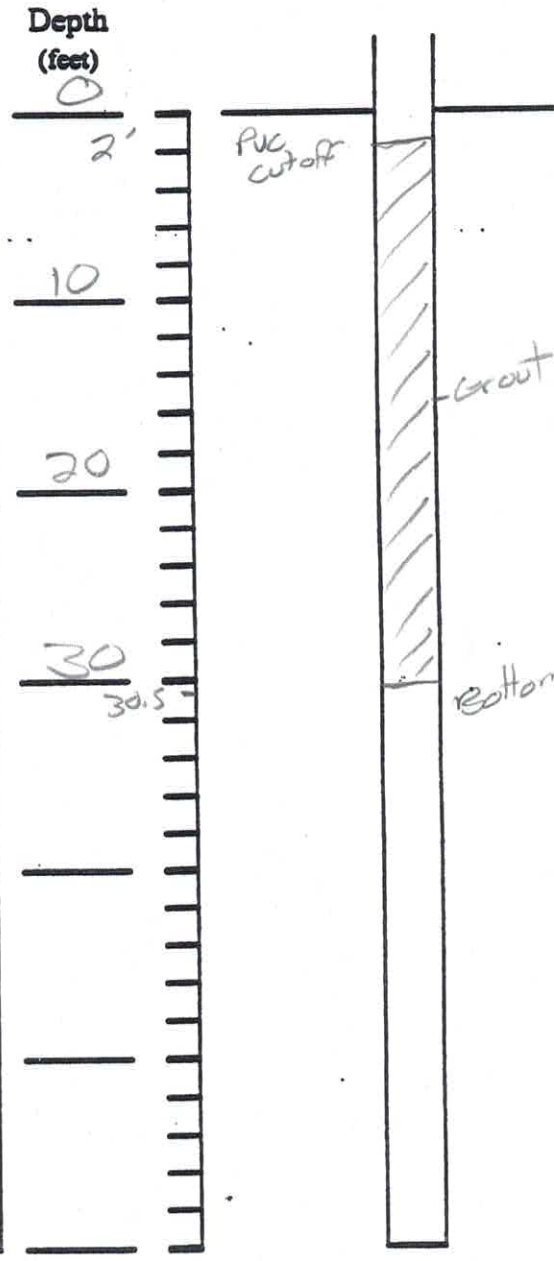
WELL DECOMMISSIONING RECORD
NYSDEC NPL Sites

Site Name: Andrews St.	Well I.D.: MW-04
Site Location: Rochester N.Y.	Driller: T. Mangefrida
Drilling Co.: Nothnagle Drilling	Inspector: J. Danzinger
	Date: 4-16-20

DECOMMISSIONING DATA
(Fill in all that apply)

OVERDRILLING	
Interval Drilled	
Drilling Method(s)	
Borehole Dia. (in.)	
Temporary Casing Installed? (y/n)	
Depth temporary casing installed	
Casing type/dia. (in.)	
Method of installing	
CASING PULLING	
Method employed	
Casing retrieved (feet)	
Casing type/dia. (in)	
CASING PERFORATING	
Equipment used	
Number of perforations/foot	
Size of perforations	
Interval perforated	
GROUTING	
Interval grouted (FBLS)	30.5'-2'
# of batches prepared	1
For each batch record:	
Quantity of water used (gal.)	7.8
Quantity of cement used (lbs.)	94
Cement type	Type I
Quantity of bentonite used (lbs.)	3.9
Quantity of calcium chloride used (lbs.)	—
Volume of grout prepared (gal.)	10
Volume of grout used (gal.)	5

WELL SCHEMATIC*



COMMENTS: Tremie grout abandoned in place. Surface Completion Removed and Backfilled with Surrounding Stone PVC Cut off 2' BGS

* Sketch in all relevant decommissioning data, including: interval overdrilled, interval grouted, casing left in hole, well stickup, etc.

Thomas A. Mangefrida

Thomas A. Mangefrida
Thomas Representative

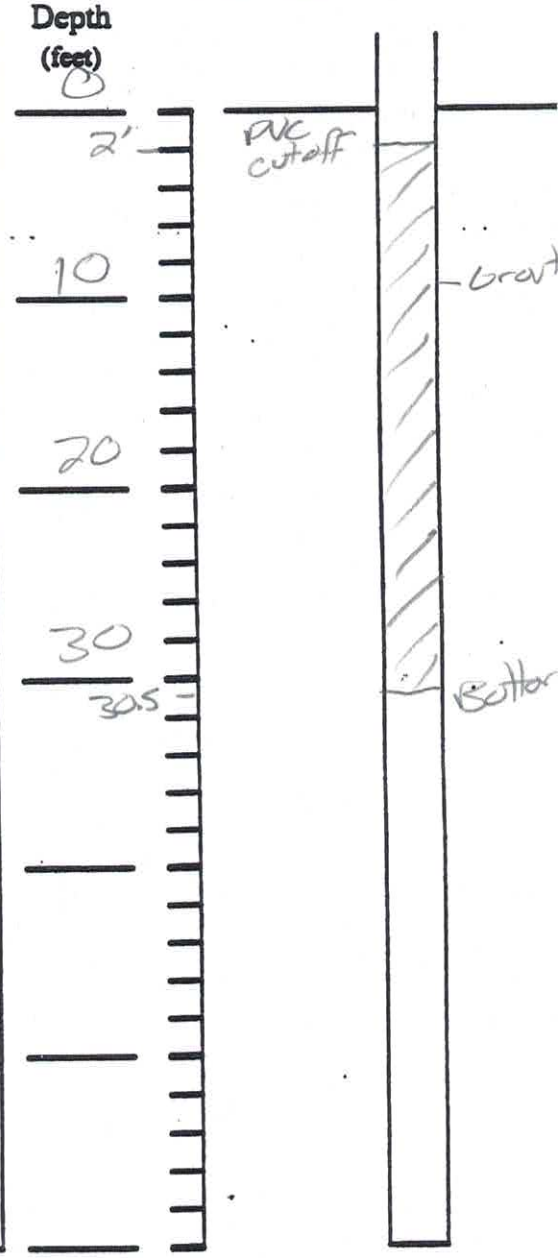
WELL DECOMMISSIONING RECORD
NYSDEC NPL Sites

Site Name: Andrews St.	Well I.D.: MW-06
Site Location: Rochester	Driller: T. Mangefrida
Drilling Co.: Nothnagle Drilling	Inspector: J. Danzinger
	Date: 4-16-20

DECOMMISSIONING DATA
(Fill in all that apply)

OVERDRILLING	
Interval Drilled	
Drilling Method(s)	
Borehole Dia. (in.)	
Temporary Casing Installed? (y/n)	
Depth temporary casing installed	
Casing type/dia. (in.)	
Method of installing	
CASING PULLING	
Method employed	
Casing retrieved (feet)	
Casing type/dia. (in)	
CASING PERFORATING	
Equipment used	
Number of perforations/foot	
Size of perforations	
Interval perforated	
GROUTING	
Interval grouted (FBLS)	30.5'-2'
# of batches prepared	1
For each batch record:	
Quantity of water used (gal.)	7.8
Quantity of cement used (lbs.)	94
Cement type	TYPE I
Quantity of bentonite used (lbs.)	3.9
Quantity of calcium chloride used (lbs.)	—
Volume of grout prepared (gal.)	10
Volume of grout used (gal.)	5

WELL SCHEMATIC*



COMMENTS: . Tremie grout abandoned in place and PVC cut off 2' BGS. Surface Completion Removed and Backfilled with surrounding Stone

Thomas A. Mangefrida

* Sketch in all relevant decommissioning data, including: interval overdrilled, interval grouted, casing left in hole, well stickup, etc.

Department Representative

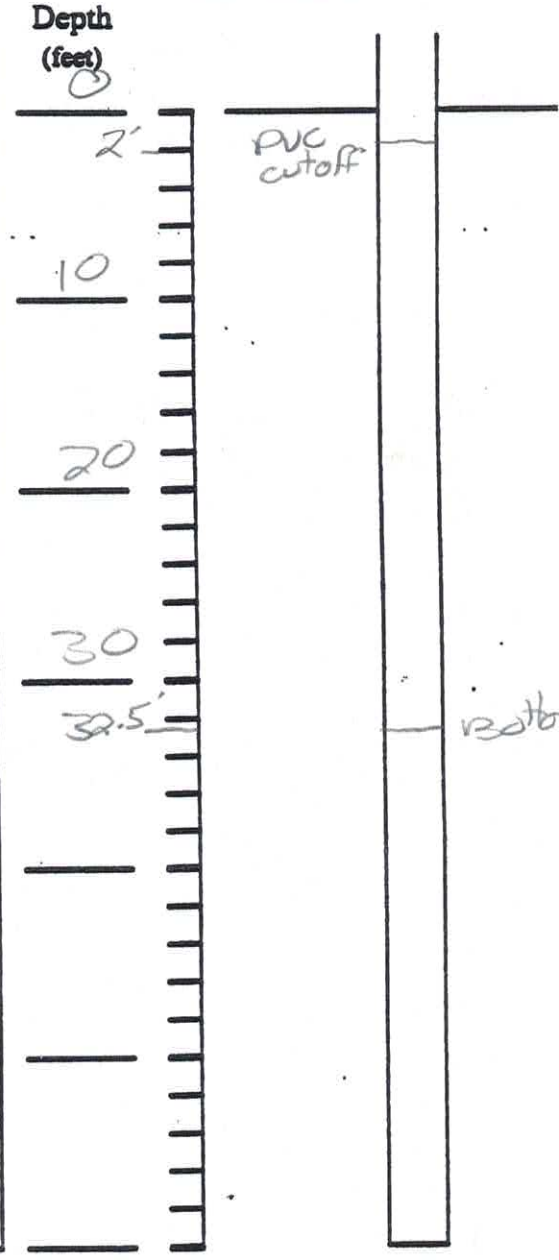
WELL DECOMMISSIONING RECORD
NYSDEC NPL Sites

Site Name: Andrews St.	Well I.D.: MW-07
Site Location: Rochester	Driller: T. Mangefrida
Drilling Co.: Nothnagle Drilling	Inspector: J. Danzinger
	Date: 4-16-20

DECOMMISSIONING DATA
(Fill in all that apply)

OVERDRILLING	
Interval Drilled	
Drilling Method(s)	
Borehole Dia. (in.)	
Temporary Casing Installed? (y/n)	
Depth temporary casing installed	
Casing type/dia. (in.)	
Method of installing	
CASING PULLING	
Method employed	
Casing retrieved (feet)	
Casing type/dia. (in)	
CASING PERFORATING	
Equipment used	
Number of perforations/foot	
Size of perforations	
Interval perforated	
GROUTING	
Interval grouted (FBLS)	32.5'-2'
# of batches prepared	1
For each batch record:	
Quantity of water used (gal.)	7.8
Quantity of cement used (lbs.)	94
Cement type	Type I
Quantity of bentonite used (lbs.)	3.9
Quantity of calcium chloride used (lbs.)	—
Volume of grout prepared (gal.)	10
Volume of grout used (gal.)	5

WELL SCHEMATIC*



COMMENTS: . Tremie grout abandoned in Place and PVC cut off 2' BGS. Surface completion removed and backfilled with surrounding Stone

* Sketch in all relevant decommissioning data, including: interval overdrilled, interval grouted, casing left in hole, well stickup, etc.

Thomas A. Mangefrida

Department Representative

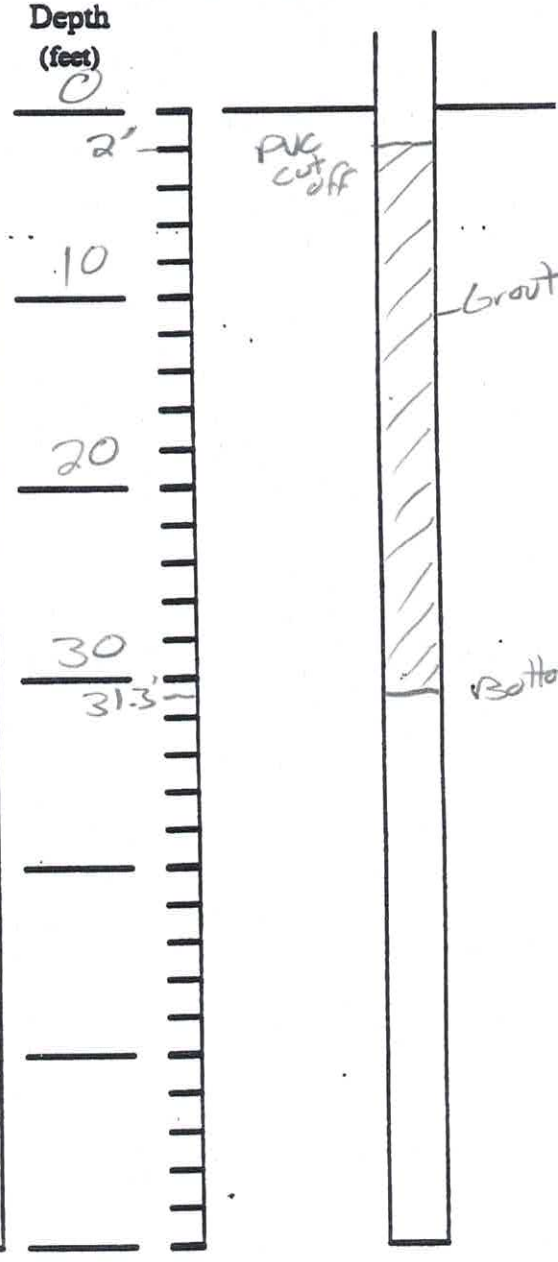
WELL DECOMMISSIONING RECORD
NYSDEC NPL Sites

Site Name: Andrews St.	Well I.D.: MW-20
Site Location: Rochester	Driller: T. Mangefrida
Drilling Co.: Nothnagle Drilling	Inspector: J. Danzinger
	Date: 4-16-20

DECOMMISSIONING DATA
(Fill in all that apply)

OVERDRILLING	
Interval Drilled	
Drilling Method(s)	
Borehole Dia. (in.)	
Temporary Casing Installed? (y/n)	
Depth temporary casing installed	
Casing type/dia. (in.)	
Method of installing	
CASING PULLING	
Method employed	
Casing retrieved (feet)	
Casing type/dia. (in)	
CASING PERFORATING	
Equipment used	
Number of perforations/foot	
Size of perforations	
Interval perforated	
GROUTING	
Interval grouted (FBLS)	31.3'-2'
# of batches prepared	1
For each batch record:	
Quantity of water used (gal.)	7.8
Quantity of cement used (lbs.)	94
Cement type	Type I
Quantity of bentonite used (lbs.)	3.9
Quantity of calcium chloride used (lbs.)	—
Volume of grout prepared (gal.)	10
Volume of grout used (gal.)	5

WELL SCHEMATIC*



COMMENTS: . Tremie grout abandoned in place. PVC cut off 2' BGS.
. Surface Completion Removed and backfilled with surrounding Stone

Thomas H Mangefrida

* Sketch in all relevant decommissioning data, including: interval overdrilled, interval grouted, casing left in hole, well stickup, etc.

Department Representative

Attachment D

Groundwater Monitoring Documentation

Legend

MW-11
517.45 ft
65.6 (15 ft)

Overburden monitoring well with groundwater elevation measured December 4, 2018.
Tetrachloroethene or PCE in ug/L (with depth of December 2018 groundwater sample in parentheses)

Groundwater contour interval 1 ft

Former Evans Street right-of-way (Officially abandoned by the City of Rochester in March 2013)

Andrews Street ERP Site

December 4, 2018 groundwater flow

ND = Not Detected

N

St Paul St/N Clinton Ave/Joseph Ave to Inner Loop Ramp

MW-11
517.45 ft
65.6 (15 ft)

MW-15
519.73 ft
0.35 (17 ft)

MW-04
520.14 ft
ND (23 ft)

519

MW-16
517.23 ft
ND (22.5 ft)

520

MW-01
519.31 ft
500 (23 ft)

MW-19
519.60 ft
23 (28 ft)

MW-18
520.65 ft
5.4 (21.5 ft)

MW-02
520.61 ft
27.7 (23.8 ft)

521

MW-05
521.11 ft
34.8 (17 ft)

MW-17
521.27 ft
1000 (15.5 ft)

MW-20
521.21 ft
0.91 (22 ft)

522

MW-03A
524.09 ft
490 (17 ft)

MW-07
520.99 ft
3 (22.5 ft)

523

MW-06
520.81 ft
4.8 (17 ft)

521

Bristol St

Former Evans St

Franklin Sq

Fourth Bi-Annual Monitoring Overburden Groundwater Map

NOTES:

Groundwater mapping generated using the Natural Neighbor method of interpolation in ArcGIS Spatial Analyst. This method depicts what the groundwater flow could be based on data collected. This model is approximate.

Base mapping data provided by City of Rochester and Monroe County.

0 25 50 100 Feet

PROJECT MANAGER	DATE
JAD	01-2019
DRAWN BY	DATE DRAWN
CPS	01-2019
SCALE	DATE ISSUED
AS NOTED	01-04-2019

DAY ENVIRONMENTAL, INC.
Environmental Consultants
Rochester, New York 14606
New York, New York 10170

Project Title
300, 304-308, 320 ANDREWS STREET
AND 25 EVANS STREET
ROCHESTER, NEW YORK

ENVIRONMENTAL RESTORATION PROJECT NYSDEC SITE NO.: E828144

Drawing Title
Site Plan with Overburden Groundwater Potentiometric Map for December 4, 2018 and PCE Concentrations Detected in December 2018 Overburden Groundwater Samples

Project No.
5334S-17

FIGURE 8

Document Path: E:\GIS Mapping\Rocky\Andrews_Street\GIS_Data\Andrews_Street\PRR3\5334S-01-PRR3--Overburden GW 20181204.mxd

Legend

N

MW-11
65.6 (15 ft)

Overburden monitoring well
(Tetrachloroethene or PCE in ug/L with depth of December 2018 groundwater sample in parentheses)

Former Evans Street right-of-way (Officially abandoned by the City of Rochester in March 2013)

PCE in Groundwater (ug/l or ppb) subsequent to IRM ISCO injections based on GIS modeling

- 0 - 25
- 25 - 50
- 50 - 100
- 100 - 500
- 500 - 1,000
- 1,000 - 5,000
- 5,000 - 10,000
- 10,000 - 25,000
- 25,000 - 34,000

ND = Not Detected

NOTES:

ArcGIS Spatial Analyst Natural Neighbor interpolation used to model Peak PCE in groundwater concentrations.

Base mapping data provided by City of Rochester and Monroe County.

0 25 50 100 Feet

PROJECT MANAGER	JAD
DATE	01-2019
DRAWN BY	CPS
DATE DRAWN	01-2019
SCALE	AS NOTED
DATE ISSUED	01-04-2019

DAY ENVIRONMENTAL, INC.
Environmental Consultants
Rochester, New York 14606
New York, New York 10170

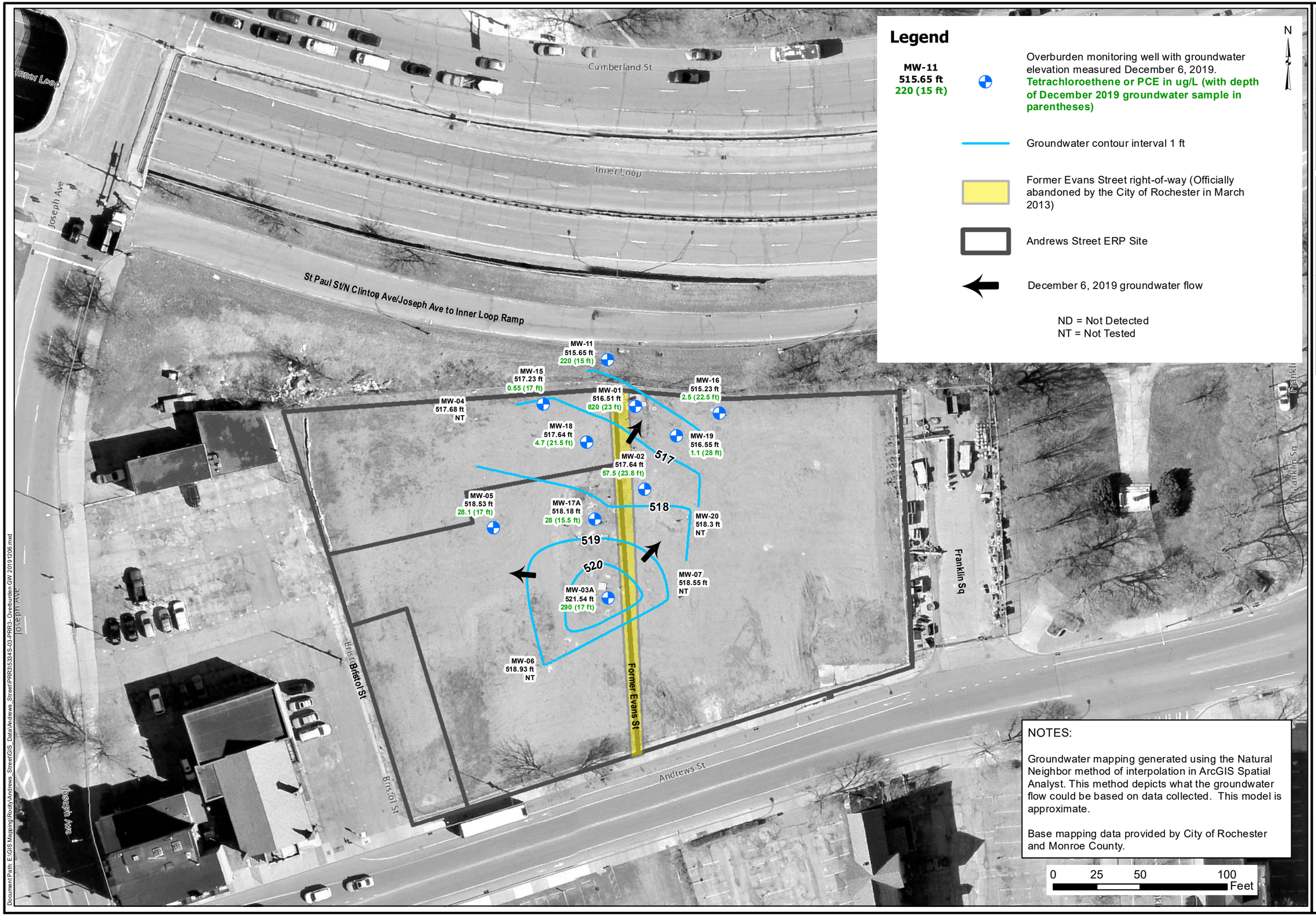
Project Title
300, 304-308, 320 ANDREWS STREET
AND 25 EVANS STREET
ROCHESTER, NEW YORK
ENVIRONMENTAL RESTORATION PROJECT NYSDEC SITE NO.: E828144

Drawing Title
Peak PCE Concentrations Detected in December 2018
(Fourth Bi-Annual Monitoring Event) Overburden Groundwater Samples

Project No.
5334S-17

FIGURE 9

Document Path: E:\GIS Mapping\Rocky\Andrews Street\GIS Data\Andrews Street\PRR3\5334S-02-PRR3 - Peak Dec2018 PCE in Groundwater.mxd



Legend

MW-11
515.65 ft
220 (15 ft)

Overburden monitoring well with groundwater elevation measured December 6, 2019.
Tetrachloroethene or PCE in ug/L (with depth of December 2019 groundwater sample in parentheses)

Groundwater contour interval 1 ft

Former Evans Street right-of-way (Officially abandoned by the City of Rochester in March 2013)

Andrews Street ERP Site

December 6, 2019 groundwater flow

ND = Not Detected
NT = Not Tested

NOTES:

Groundwater mapping generated using the Natural Neighbor method of interpolation in ArcGIS Spatial Analyst. This method depicts what the groundwater flow could be based on data collected. This model is approximate.

Base mapping data provided by City of Rochester and Monroe County.

PROJECT MANAGER	DRAWN BY	SCALE	DATE
JAD	CPS	AS NOTED	01-03-2020

DATE: 01-2020
DATE DRAWN: 01-2020
DATE ISSUED: 01-03-2020

DAY ENVIRONMENTAL, INC.
Environmental Consultants
Rochester, New York 14606
New York, New York 10170

Project Title
300, 304-308, 320 ANDREWS STREET
AND 25 EVANS STREET
ROCHESTER, NEW YORK

ENVIRONMENTAL RESTORATION PROJECT NYSDEC SITE NO.: E828144

Drawing Title
Site Plan with Overburden Groundwater Potentiometric Map for December 6, 2019 and PCE Concentrations Detected in December 2019 Overburden Groundwater Samples

Project No.
5334S-17

FIGURE 10

Document Path: E:\GIS Mapping\Rocky\Andrews_Street\GIS_Data\Andrews_Street\PRR3\5334S-03-PRR3- Overburden GW 20191206.mxd

Legend

N

MW-11
220 (15 ft)

Overburden monitoring well
(Tetrachloroethene or PCE in ug/L with depth of December 2019 groundwater sample in parentheses)

Former Evans Street right-of-way (Officially abandoned by the City of Rochester in March 2013)

PCE in Groundwater (ug/l or ppb) subsequent to IRM ISCO injections based on GIS modeling

- 0 - 25
- 25 - 50
- 50 - 100
- 100 - 500
- 500 - 1,000
- 1,000 - 5,000
- 5,000 - 10,000
- 10,000 - 25,000
- 25,000 - 34,000

ND = Not Detected

NOTES:

ArcGIS Spatial Analyst Natural Neighbor interpolation used to model Peak PCE in groundwater concentrations.

Base mapping data provided by City of Rochester and Monroe County.

0 25 50 100 Feet

PROJECT MANAGER	JAD	DATE	01-2020
DRAWN BY	CPS	DATE DRAWN	01-2020
SCALE	AS NOTED	DATE ISSUED	01-03-2020

DAY ENVIRONMENTAL, INC.
Environmental Consultants
Rochester, New York 14606
New York, New York 10170

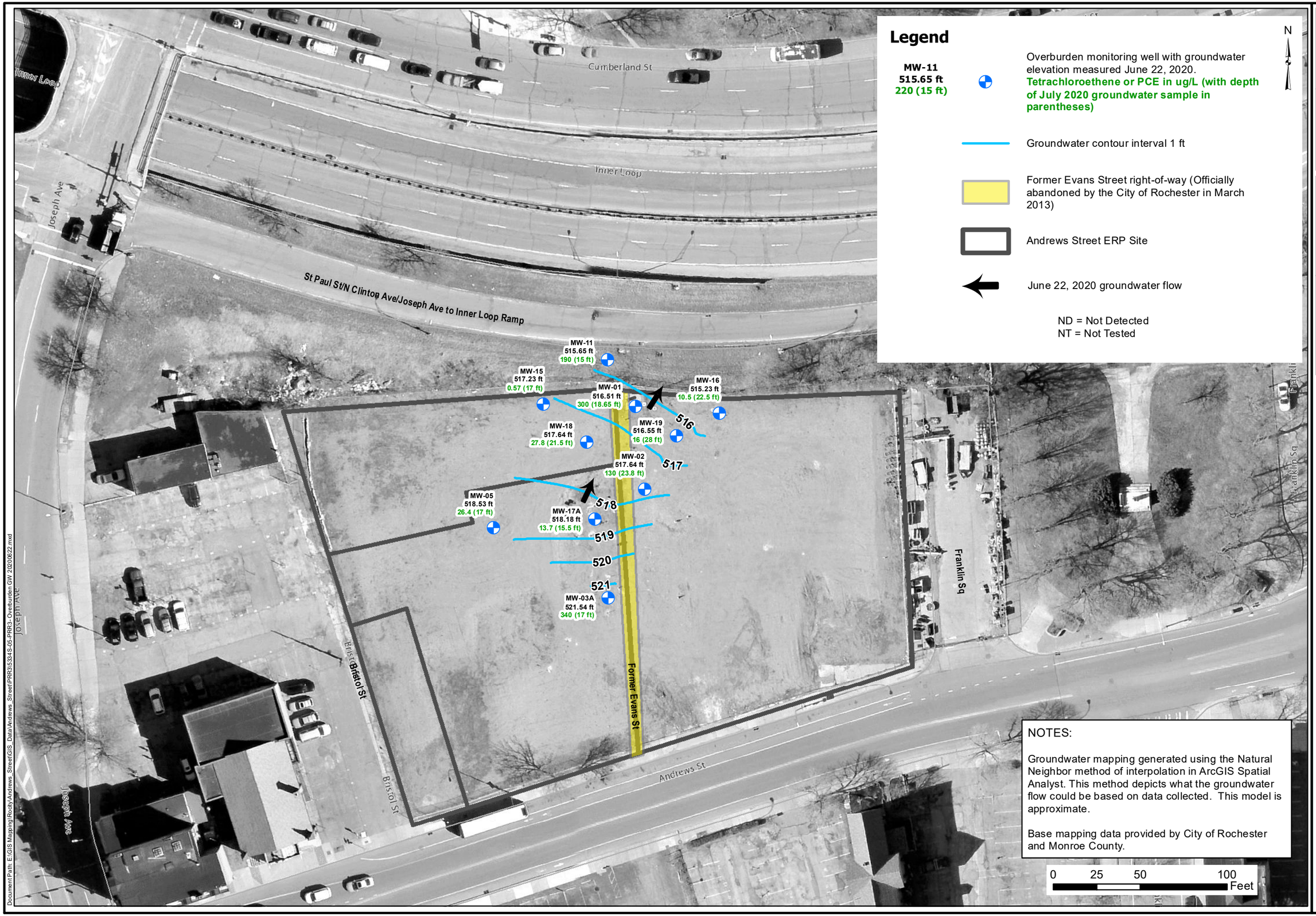
Project Title
300, 304-308, 320 ANDREWS STREET
AND 25 EVANS STREET
ROCHESTER, NEW YORK
ENVIRONMENTAL RESTORATION PROJECT NYSDEC SITE NO.: E828144

Drawing Title
Peak PCE Concentrations Detected in December 2019
Groundwater Monitoring Event (Overburden Groundwater Samples)

Project No.
5334S-17

FIGURE 11

Document Path: E:\GIS Mapping\Rocky\Andrews Street\GIS Data\Andrews Street\PRR3\5334S-04-PRR3 - Peak Dec2019 PCE in Groundwater.mxd



Document Path: E:\GIS Mapping\Rocky\Andrews_Street\GIS_Data\Andrews_Street\PRR3\5334S-05-PRR3-Overburden GW 20200622.mxd

PROJECT MANAGER	JAD
DATE	07-2020
DRAWN BY	CPS
DATE DRAWN	07-2020
SCALE	AS NOTED
DATE ISSUED	07-27-2020

DAY ENVIRONMENTAL, INC.
Environmental Consultants
Rochester, New York 14606
New York, New York 10170

Project Title
300, 304-308, 320 ANDREWS STREET
AND 25 EVANS STREET
ROCHESTER, NEW YORK
ENVIRONMENTAL RESTORATION PROJECT NYSDEC SITE NO.: E828144

Drawing Title
Site Plan with Overburden Groundwater Potentiometric Map for June 22, 2020 and PCE Concentrations Detected in July 2020 Overburden Groundwater Samples

Project No.
5334S-17

FIGURE 12

Legend

N

MW-11
220 (15 ft)

Overburden monitoring well
(Tetrachloroethene or PCE in ug/L with depth of July 2020 groundwater sample in parentheses)

Former Evans Street right-of-way (Officially abandoned by the City of Rochester in March 2013)

PCE in Groundwater (ug/l or ppb) subsequent to IRM ISCO injections based on GIS modeling

- 0 - 25
- 25 - 50
- 50 - 100
- 100 - 500
- 500 - 1,000
- 1,000 - 5,000
- 5,000 - 10,000
- 10,000 - 25,000
- 25,000 - 34,000

ND = Not Detected

NOTES:

ArcGIS Spatial Analyst Natural Neighbor interpolation used to model Peak PCE in groundwater concentrations.

Base mapping data provided by City of Rochester and Monroe County.

0 25 50 100 Feet

PROJECT MANAGER	JAD
DATE	07-2020
DRAWN BY	CPS
DATE DRAWN	07-2020
SCALE	AS NOTED
DATE ISSUED	07-27-2020

DAY ENVIRONMENTAL, INC.
Environmental Consultants
Rochester, New York 14606
New York, New York 10170

Project Title
300, 304-308, 320 ANDREWS STREET
AND 25 EVANS STREET
ROCHESTER, NEW YORK
ENVIRONMENTAL RESTORATION PROJECT NYSDEC SITE NO.: E828144

Drawing Title
Peak PCE Concentrations Detected in July 2020
Groundwater Monitoring Event (Overburden Groundwater Samples)

Project No.
5334S-17

FIGURE 13

Document Path: E:\GIS Mapping\Rocky\Andrews Street\GIS Data\Andrews Street\PRR3\5334S-06-PRR3 - Peak Jun2020 PCE in Groundwater.mxd

Table 1

300, 304-308, 320 Andrews St and 25 Evans St
Rochester, NY

NYSDEC Site #E828144

Sample Log

Lab Sample Number	Sample ID	Collection Date	Collection Time	Sampling Method	Depth (ft bgs)	Matrix	MS/MSD Collected	Collection Rationale	Analytical Test Parameters
963	MW-01	12/18/2018	13:22	Grab	23	Ground-water	No	4th Bi-Annual Monitoring Event	TCL VOCs
964	MW-02	12/18/2018	13:27	Grab	23.8	Ground-water	No	4th Bi-Annual Monitoring Event	TCL VOCs
965	MW-03A	12/18/2018	13:31	Grab	17	Ground-water	No	4th Bi-Annual Monitoring Event	TCL VOCs
966	MW-04	12/18/2018	13:37	Grab	23	Ground-water	Yes	4th Bi-Annual Monitoring Event	TCL VOCs
967	MW-05	12/18/2018	13:44	Grab	17	Ground-water	No	4th Bi-Annual Monitoring Event	TCL VOCs
968	MW-06	12/18/2018	13:46	Grab	17	Ground-water	No	4th Bi-Annual Monitoring Event	TCL VOCs
969	MW-07	12/18/2018	13:50	Grab	22.5	Ground-water	No	4th Bi-Annual Monitoring Event	TCL VOCs
970	MW-11	12/18/2018	14:25	Grab	15	Ground-water	No	4th Bi-Annual Monitoring Event	TCL VOCs
971	MW-15	12/18/2018	13:55	Grab	17	Ground-water	No	4th Bi-Annual Monitoring Event	TCL VOCs
972	MW-16	12/18/2018	14:00	Grab	22.5	Ground-water	No	4th Bi-Annual Monitoring Event	TCL VOCs
973	MW-17	12/18/2018	14:03	Grab	15.5	Ground-water	No	4th Bi-Annual Monitoring Event	TCL VOCs
974	MW-18	12/18/2018	14:06	Grab	21.5	Ground-water	No	4th Bi-Annual Monitoring Event	TCL VOCs
975	MW-19	12/18/2018	14:09	Grab	28	Ground-water	No	4th Bi-Annual Monitoring Event	TCL VOCs
976	MW-20	12/18/2018	14:12	Grab	22	Ground-water	No	4th Bi-Annual Monitoring Event	TCL VOCs
977	FB101116A	12/18/2018	13:10	Grab	NA	Water	No	QA/QC - Field Blank	TCL VOCs
978	TB101116A	12/18/2018	NA	Grab	NA	Water	No	QA/QC - Trip Blank	TCL VOCs
991	MW-01	12/20/2019	13:55	Grab	23	Ground-water	No	Post-Excavation Performance Groundwater Monitoring Event	TCL VOCs and TICs
992	MW-02	12/20/2019	13:45	Grab	23.8	Ground-water	No	Post-Excavation Performance Groundwater Monitoring Event	TCL VOCs and TICs
993	MW-03A	12/20/2019	13:48	Grab	17	Ground-water	No	Post-Excavation Performance Groundwater Monitoring Event	TCL VOCs and TICs
994	MW-05	12/20/2019	14:00	Grab	17	Ground-water	No	Post-Excavation Performance Groundwater Monitoring Event	TCL VOCs and TICs
995	MW-11	12/20/2019	13:10	Grab	15	Ground-water	No	Post-Excavation Performance Groundwater Monitoring Event	TCL VOCs and TICs
996	MW-15	12/20/2019	13:29	Grab	17	Ground-water	Yes	Post-Excavation Performance Groundwater Monitoring Event	TCL VOCs and TICs
997	MW-16	12/20/2019	14:14	Grab	22.5	Ground-water	No	Post-Excavation Performance Groundwater Monitoring Event	TCL VOCs and TICs
998	MW-17A	12/20/2019	14:21	Grab	15.5	Ground-water	No	Post-Excavation Performance Groundwater Monitoring Event	TCL VOCs and TICs
999	MW-18	12/20/2019	14:26	Grab	21.5	Ground-water	No	Post-Excavation Performance Groundwater Monitoring Event	TCL VOCs and TICs
1000	MW-19	12/20/2019	14:30	Grab	28	Ground-water	No	Post-Excavation Performance Groundwater Monitoring Event	TCL VOCs and TICs
1001	FB122019	12/20/2019	13:23	Grab	NA	Water	No	QA/QC - Field Blank	TCL VOCs and TICs
1002	TB122019	12/20/2019	NA	Grab	NA	Water	No	QA/QC - Trip Blank	TCL VOCs and TICs
1003	MW-01	7/6/2020	11:01	Grab	18.65	Ground-water	No	Post-Excavation Performance Groundwater Monitoring Event	TCL VOCs and TICs
1004	MW-02	7/6/2020	11:05	Grab	23.8	Ground-water	Yes	Post-Excavation Performance Groundwater Monitoring Event	TCL VOCs and TICs
1005	MW-03A	7/6/2020	11:10	Grab	17	Ground-water	No	Post-Excavation Performance Groundwater Monitoring Event	TCL VOCs and TICs
1006	MW-05	7/6/2020	11:14	Grab	17	Ground-water	No	Post-Excavation Performance Groundwater Monitoring Event	TCL VOCs and TICs
1007	MW-11	7/6/2020	11:20	Grab	15	Ground-water	No	Post-Excavation Performance Groundwater Monitoring Event	TCL VOCs and TICs
1008	MW-15	7/6/2020	11:28	Grab	17	Ground-water	No	Post-Excavation Performance Groundwater Monitoring Event	TCL VOCs and TICs
1009	MW-16	7/6/2020	11:30	Grab	22.5	Ground-water	No	Post-Excavation Performance Groundwater Monitoring Event	TCL VOCs and TICs
1010	MW-17A	7/6/2020	11:34	Grab	15.5	Ground-water	No	Post-Excavation Performance Groundwater Monitoring Event	TCL VOCs and TICs
1011	MW-18	7/6/2020	11:37	Grab	21.5	Ground-water	No	Post-Excavation Performance Groundwater Monitoring Event	TCL VOCs and TICs
1012	MW-19	7/6/2020	11:40	Grab	28	Ground-water	No	Post-Excavation Performance Groundwater Monitoring Event	TCL VOCs and TICs
1013	FB070620	7/6/2020	11:42	Grab	NA	Water	No	QA/QC - Field Blank	TCL VOCs and TICs
1014	TB070620	7/6/2020	NA	Grab	NA	Water	No	QA/QC - Trip Blank	TCL VOCs and TICs

Notes

(1) Approximate depth of sample as referenced to the sidewalk adjacent to Andrews Street with assumed datum of 0.00 feet prior to installation of cover system.

Depth for water samples was the depth in which the passive diffusion bag was set.

NA = Not Applicable
bgs = below ground surface
Ft = Feet
MS/MSD = Matrix Spike/Matrix Spike Duplicate

TCL VOCs - Target Compound List Volatile Organic Compounds, including Tentatively Identified Compounds (TICs) via Method 8260

Groundwater samples collected using passive diffusion samplers (PDBs).

Table 2

300, 304-308, 320 Andrews Street and 25 Evans Street
Rochester, NY

NYSDEC Site #E828144

Static Water Levels and Calculated Groundwater Elevations

Monitoring Well ID	Ground Elevation (ft) [1]	TOC Elevation (ft)	12/4/2018		12/6/2019		6/22/2020	
			SWL (ft TOC)	Groundwater Elevation	SWL (ft TOC)	Groundwater Elevation	SWL (ft TOC)	Groundwater Elevation
MW-01	527.79	527.44	8.13	519.31	10.93	516.51	10.93	516.51
MW-02	528.03	527.84	8.76	520.61	11.73	517.64	11.73	517.64
MW-03A	528.41	530.89	6.80	524.09	9.35	521.54	9.35	521.54
MW-04	527.52	530.19	10.05	520.14	12.51	517.68		
MW-05	527.83	530.75	9.64	521.11	12.22	518.53	12.22	518.53
MW-06	527.86	530.49	9.68	520.81	11.56	518.93		
MW-07	528.38	530.95	9.96	520.99	12.40	518.55		
MW-11	520.70	520.48	3.03	517.45	4.83	515.65	4.83	515.65
MW-15	527.62	530.29	10.56	519.73	13.06	517.23	13.06	517.23
MW-16	528.31	530.81	13.58	517.23	15.58	515.23	15.58	515.23
MW-17	527.72	530.16	8.89	521.27				
MW-17A	527.75	529.71			11.53	518.18	11.53	518.18
MW-18	527.24	529.81	9.16	520.65	12.17	517.64	12.17	517.64
MW-19	527.82	530.31	10.71	519.60	13.76	516.55	13.76	516.55
MW-20	528.01	530.51	9.30	521.21	12.21	518.30		
			4th Bi-Annual Monitoring Event***		Post-Excavation Performance Monitoring Event***		Post-Excavation Performance Monitoring Event***	

Notes

Monitoring Wells listed are overburden groundwater monitoring wells.

Ft TOC = Feet below top of casing

Well MW-03A was damaged during Supplemental MIP work and was repaired and re-set with a flush-mount curb box in July 2013.

MW-03A TOC re-surveyed August 8 or 9, 2013, and is 2.46 lower than original. MW-03A groundwater elevations collected after August 9, 2013 are adjusted accordingly.

[1] Represents ground elevation prior to installation of #2 Crusher Run (CR2) cover system material as a Supplemental Interim Remedial Measure.

***Monitoring event had a 1.53' riser (repaired) added to the top of casing of MW-02.

Table 3

300, 304-308 Andrews St and 25 Evans St
Rochester, NY

NYSDEC Site #E828144

Summary of Detected VOCs in mg/L or ppb

Overburden Groundwater Samples Analyzed During PRR #3 Reporting Period

Contaminant	X Groundwater Standard or Guidance Value	963 MW-01 12/18/18 PDB 23.0 ft	991 MW-01 12/20/19 PDB 23.0 ft	1003 MW-01 7/6/2020 PDB 18.65 ft	964 MW-02 12/18/18 PDB 23.8 ft	992 MW-02 12/20/19 PDB 23.8 ft	1004 MW-02 7/6/20 PDB 23.8 ft	965 MW-03A 12/18/18 PDB 28.0 ft	993 MW-03A 12/20/19 PDB 28.0 ft	1005 MW-03A 7/6/20 PDB 28.0 ft	966 MW-04 12/18/18 PDB 23.0 ft	967 MW-05 12/18/18 PDB 17.0 ft	994 MW-05 12/20/19 PDB 17.0 ft	1006 MW-05 7/6/20 PDB 17.0 ft	968 MW-06 12/18/18 PDB 17.0 ft	969 MW-07 12/18/18 PDB 22.5 ft	970 MW-11 12/18/18 PDB 15.0 ft	995 MW-11 12/20/19 PDB 15.0 ft	1007 MW-11 7/6/20 PDB 15.0 ft
1,1-Dichloroethane	5	U J	U	U	U J	U	U	U J	U	U	U	U J	U	U	U J	U J	U J	U	U
1,1-Dichloroethene	5	U J	U	U	U J	U	0.48 J	U J	U	U	U	U J	U	U	U J	U J	U J	U	U
2-Butanone	50	U J	U	U	U J	U	U	U J	U	U	U	U J	U	U	U J	U J	U J	U	2.3 J
Acetone	50	U J	U JB	U B	U	U JB	U B	U	U JB	U B	U	U	U	U B	U J	U	U	U JB	U B
Methyl Acetate	NA	1.1 J	U	U	U J	U	U	0.73 J	U	U	2.6	U J	U	U	U J	U J	U J	U	U
Benzene	1	U J	U	U	U J	U	U	U J	U	0.84 J	U	U J	U	U	U J	U J	U J	U	U
Chloroform	7	U J	U	U	U J	U	U	U J	U	U	U	U J	U	U	U J	U J	U J	U	U
Chloromethane	5	U J	U	U	U J	U	U	U J	U	U	U	U J	U	U	U J	U J	U J	U	U
Bromomethane	5	U J	U	U	U J	U	U	U J	U	U	U	U J	U	U	U J	U J	U J	U	U
Cis-1,2-Dichloroethene	5	**66** J X	**84.3** X	**96.6** X	**22.6** J X	**36** X	**54.2** X	**99.6** J X	**29.4** X	**140** X	U	U J	U	U	U J	U J	0.75 J	4.2	**8.1** X
Methyl tert-butyl Ether	10	U J	U	U	U J	U	U	U J	U	U	U	U J	U	U	U J	U J	U J	U	U
Methylene chloride	5	U J	U	U	U J	U	U	U J	U	U	U	U J	U	U	U J	U J	U J	U	U
trans-1,2-Dichloroethene	5	1.9 J	2.8	2.6	1.1 J	1.2	1.7	1.8 J	U	**8.2** X	U	U J	U	U	U J	U J	U J	U	U
Tetrachloroethene	5	**500** D X	**820** D X	**300** DJH X	**27.7** J X	**57.5** X	**130** JH X	**490** D X	**290** D X	**340** DJH X	U	**34.8** J X	**28.1** X	**26.4** JH X	4.8 J	3 J	**65.6** J X	**220** D X	**190** DJH X
Toluene	5	U J	U	U	U J	U	U	U J	U	U	U	U J	U	U	U J	U J	U J	U	U
Ethylbenzene	5	U J	U	U	U J	U	U	U J	U	U	U	U J	U	U	U J	U J	U J	U	U
Xylenes (Total)	5	U J	U	U	U J	U	U	U J	U	U	U	U J	U	U	U J	U J	U J	U	U
Trichloroethene	5	**64.4** J X	**100** X	**100** X	**24.8** J X	**34.3** X	**63.9** J X	**78.2** J X	**34** X	**120** X	U	0.8 J	0.76 J	0.77 J	0.36 J	U J	1 J	**7.3** X	**12.7** X
Trichlorofluoromethane	5	U J	U	U	U J	U	U	U J	U	U	U	U J	U	U	U J	U J	U J	U	U
Vinyl Chloride	2	0.41 J	1.2	**3.6** X	1.3 J	1.6	**3.1** X	0.33 J	U	U	U	U J	U	U	U J	U J	U J	U	U
Carbon Disulfide	NA	U J	U	U	U J	U	U	U J	U	U	U	U J	U	U	U J	U J	U J	U	U
Cyclohexane	NA	U J	U	U	U J	U	U	U J	U	U	U	U J	U	U	U J	U J	U J	U	U
Methylcyclohexane	NA	U J	U	U	U J	U	U	U J	U	U	U	U J	U	U	U J	U J	U J	U	U
Bromodichloromethane	NA	U J	U	U	U J	U	U	U J	U	U	U	U J	U	U	U J	U J	U J	U	U
Dibromochloromethane	50	U J	U	U	U J	U	U	U J	U	U	U	U J	U	U	U J	U J	U J	U	U
Total VOCs		633.81	1008.3	502.8	77.5	130.6	253.38	670.66	353.4	609.04	2.6	35.6	28.86	27.17	5.16	3	67.35	231.5	213.1
Total TICs (1)		U	U	U	0.69	5.4	5.6	U	U	U	U	U	U	U	U	U	U	U	U
Total VOCs and TICs (1)		633.81	1008.3	502.8	78.19	136	258.98	670.66	353.4	609.04	2.6	35.6	28.86	27.17	5.16	3	67.35	231.5	213.1

U = Not Detected

NA = Not Available

LF - Low Flow

J = Estimated value

µg/L = micrograms per Liter or parts per billion (ppb).

PDB - Passive Diffusion Bag

JH - Estimated Value Biased High

TIC = Tentatively Identified Compound

E = Value Exceeds Calibration Range.

VOC = Volatile Organic Compound

UJ = Not Detected at an estimated detection limit as qualified by the data validator.

X = Exceeds Groundwater Standard or Guidance Value.

Groundwater Standards or Guidance Values referenced in NYSDEC Technical and Operational Guidance Series (TOGS) 1.1.1 dated June 1998 as amended by the NYSDEC's supplemental table dated April 2000.

D = The reported value is from a secondary analysis with a dilution factor. The original analysis exceeded the calibration range.

(1) Refer to the analytical laboratory report for individual TICs detected and associated flags.

134	Sample ID
MW-01	Sample Location
1/9/2012	Sample Date
LF 20.5 ft	Sample Method with Sample Collection Depth in Feet Below the Ground Surface Prior to Installation of #2 Crusher Run (CR2) Cover System Material as a Supplemental Interim Remedial Measure.

Results of DUSR incorporated on analytical laboratory data

Table 3

300, 304-308 Andrews St and 25 Evans St
Rochester, NY

NYSDEC Site #E828144

Summary of Detected VOCs in mg/L or ppb

Overburden Groundwater Samples Analyzed During PRR #3 Reporting Period

Contaminant	X Groundwater Standard or Guidance Value	971 MW-15 12/18/18 PDB 17.0 ft	996 MW-15 12/20/19 PDB 17.0 ft	1008 MW-15 7/6/20 PDB 17.0 ft	972 MW-16 12/18/18 PDB 22.5 ft	997 MW-16 12/20/19 PDB 22.5 ft	1009 MW-16 7/6/20 PDB 22.5 ft	973 MW-17 12/18/18 PDB 15.5 ft	998 MW-17A 12/20/19 PDB 15.5 ft	1010 MW-17A 7/6/20 PDB 15.5 ft	974 MW-18 12/18/18 PDB 21.5 ft	999 MW-18 12/20/19 PDB 21.5 ft	1011 MW-18 7/6/20 PDB 21.5 ft	975 MW-19 12/18/18 PDB 28.0 ft	1000 MW-19 12/20/19 PDB 28.0 ft	1012 MW-19 7/6/2020 PDB 28.0 ft	976 MW-20 12/18/18 PDB 22.0 ft
1,1-Dichloroethane	5	U J	U	U	U J	U	U	U J	U	U	U J	U	U	U J	U	U	U J
1,1-Dichloroethene	5	U J	U	U	U J	U	U	U J	U	U	U J	U	U	U J	U	0.45 J	U J
2-Butanone	50	U J	U	U	U J	U	U	U J	U	U	U J	U	U	U J	U	U	U J
Acetone	50	U J	U JB	U B	U	U JB	U B	U J	U B	U JB	U	U B	U	U	U JB	U B	U
Methyl Acetate	NA	U J	U	U	U J	U	U	U J	U	U	U J	U	U	U J	U	U	U J
Benzene	1	U J	U	0.58 J	U J	U	U	U J	0.51 J	0.38 J	U J	U	U	U J	U	U	U J
Chloroform	7	U J	U	U	U J	U	U	U J	U	U	U J	U	U	U J	U	U	U J
Chloromethane	5	U J	U	U	U J	U	U	U J	U	U	U J	U	U	U J	U	U	U J
Bromomethane	5	U J	U	U	U J	U	U	U J	U	U	U J	U	U	U J	U	U	U J
Cis-1,2-Dichloroethene	5	U J	U	U	U J	U	3.6	**29.3** J X	**69.6** X	**120** X	1.5 J	U	1.7	**13.5** J X	0.5 J	**26.4** X	0.56 J
Methyl tert-butyl Ether	10	U J	U	U	U J	U	U	U J	U	U	U J	U	U	U J	U	U	U J
Methylene chloride	5	U J	U	U	U J	U	U	U J	U	U	U J	U	U	U J	U	U	U J
trans-1,2-Dichloroethene	5	U J	U	U	U J	U	U	U J	1.9	1.8	U J	U	U	U J	U	1.3	U J
Tetrachloroethene	5	0.35 J	0.55 J	U	U J	2.5	**10.5** JH X	**1000** J X	**28** X	**13.7** JH	**5.4** J X	4.7	**27.8** JH X	**23** J X	1.1	**16** JH X	0.91 J
Toluene	5	U J	U	U	U J	U	0.78 J	U J	U	U	U J	U	U	U J	U	U	U J
Ethylbenzene	5	U J	U	U	U J	U	U	U J	U	U	U J	U	U	U J	U	U	U J
Xylenes (Total)	5	U J	U	U	U J	U	U	U J	0.32 J	U	U J	U	U	U J	U	U	U J
Trichloroethene	5	U J	U	U	U J	0.62 J	**7.9** X	**27.9** J X	**26.6** X	**32**	1.5 J	0.97 J	2	**13.6** J X	0.69 J	**23.2** X	1.6 J
Trichlorofluoromethane	5	U J	U	U	U J	U	U	U J	U	U	U J	U	U	U J	U	U	U J
Vinyl Chloride	2	U J	U	U	U J	U	U	U J	**2.3** X	**3** X	U J	U	U	0.97 J	U	**3.5** X	U J
Carbon Disulfide	NA	U J	U	U	U J	U	U	U J	U	U	U J	U	U	U J	U	U	U J
Cyclohexane	NA	U J	U	U	U J	U	U	U J	3.9 J	U	U J	U	U	U J	U	U	U J
Methylcyclohexane	NA	U J	U	U	U J	U	U	U J	1.7	U	U J	U	U	U J	U	U	U J
Bromodichloromethane	NA	U J	U	U	U J	U	U	U J	U	U	U J	U	U	U J	U	U	U J
Dibromochloromethane	50	U J	U	U	U J	U	U	U J	U	U	U J	U	U	U J	U	U	U J
Total VOCs		0.35	0.55	0.58	0	3.12	22.78	1057.2	134.83	170.88	8.4	5.67	31.5	51.07	2.29	70.85	3.07
Total TICs (1)		U	6.9	U	U	U	U	U	22.1	29.3	U	6.7	U	U	5.2	U	U
Total VOCs and TICs (1)		0.35	7.45	0.58	0	3.12	22.78	1057.2	156.93	200.18	8.4	12.37	31.5	51.07	7.49	70.85	3.07

U = Not Detected

NA = Not Available

LF - Low Flow

J = Estimated value

µg/L = micrograms per Liter or parts per billion (ppb).

PDB - Passive Diffusion Bag

TIC = Tentatively Identified Compound

VOC = Volatile Organic Compound

UJ = Not Detected at an estimated detection limit as qualified by the data validator.

X = Exceeds Groundwater Standard or Guidance Value.

Groundwater Standards or Guidance Values referenced in NYSDEC Technical and Operational Guidance Series (TOGS) 1.1.1 dated June 1998 as amended by the NYSDEC's supplemental table dated April 2000.

D = The reported value is from a secondary analysis with a dilution factor. The original analysis exceeded the calibration range.

(1) Refer to the analytical laboratory report for individual TICs detected and associated flags.

134	Sample ID
MW-01	Sample Location
1/9/2012	Sample Date
LF 20.5 ft	Sample Method with Sample Collection Depth in Feet Below the Ground Surface Prior to Installation of #2 Crusher Run (CR2) Cover System Material as a Supplemental Interim Remedial Measure.

Results of DUSR incorporated on analytical laboratory data

Table 4

300, 304-308 Andrews St and 25 Evans St
Rochester, NY

NYSDEC Site #E828144

Summary of Detected VOCs in mg/L or ppb

QA/QC Samples Analyzed During PRR #3 Reporting Period

Contaminant	977 FB121818 12/18/18	978 TB121818 12/18/18	1001 FB122019 12/20/19	1002 TB122019 12/20/19	1013 FB070620 7/6/20	1014 TB070620 7/6/20
Acetone	10.3	U	7.3	U	19.3	U
Carbon Disulfide	U	U	U	U	U	U
Chloroform	U	U	U	U	U	U
Bromodichloromethane	U	U	U	U	U	U
Dibromochloromethane	U	U	U	U	U	U
2-Butanone	U	U	U	U	U	U
Tetrachloroethene	U	U	U	U	0.48 J	U
Methylene Chloride	U	U	U	U	U	U
4-Methyl-2-Pentanone	U	U	U	U	U	U
Cyclohexane	U	U	U	U	U	U
Total VOCs	10.3	0	7.3	0	19.78	0
Total TICs (1)	21.9	U	9.6	U	29.5	U
Total VOCs and TICs (1)	32.2	0	16.9	0	49.28	0

Notes

QA/QC = Quality Assurance/Quality Control

µg/L = micrograms per Liter or parts per billion (ppb).

U = Not Detected

J = Data indicates the presence of a compound that meets
the identification criteria. The result is less than the

NT = Trip blank inadvertently not included in shipment to laboratory; thus, was not tested.

VOC = Volatile Organic Compound

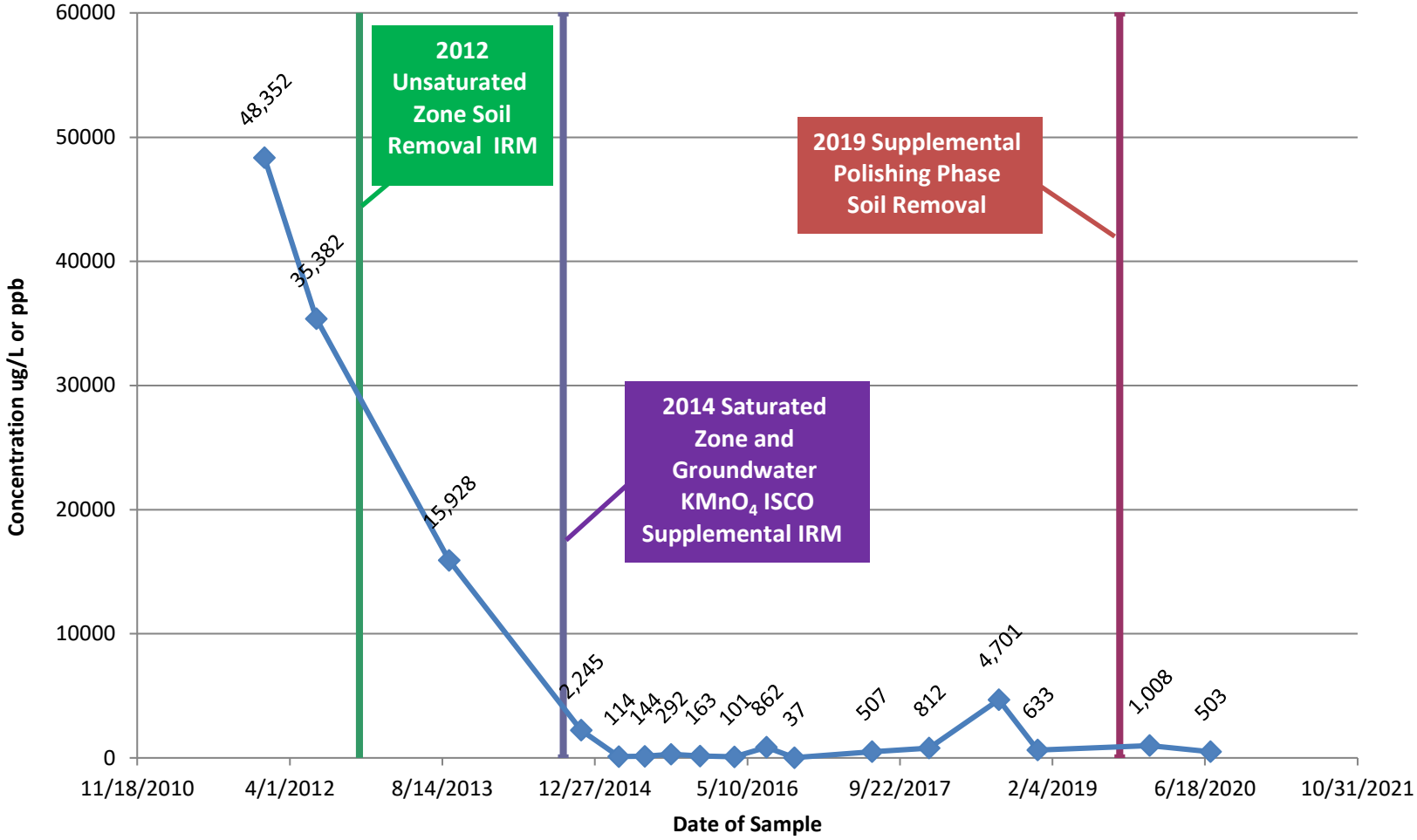
TIC = Tentatively Identified Compound

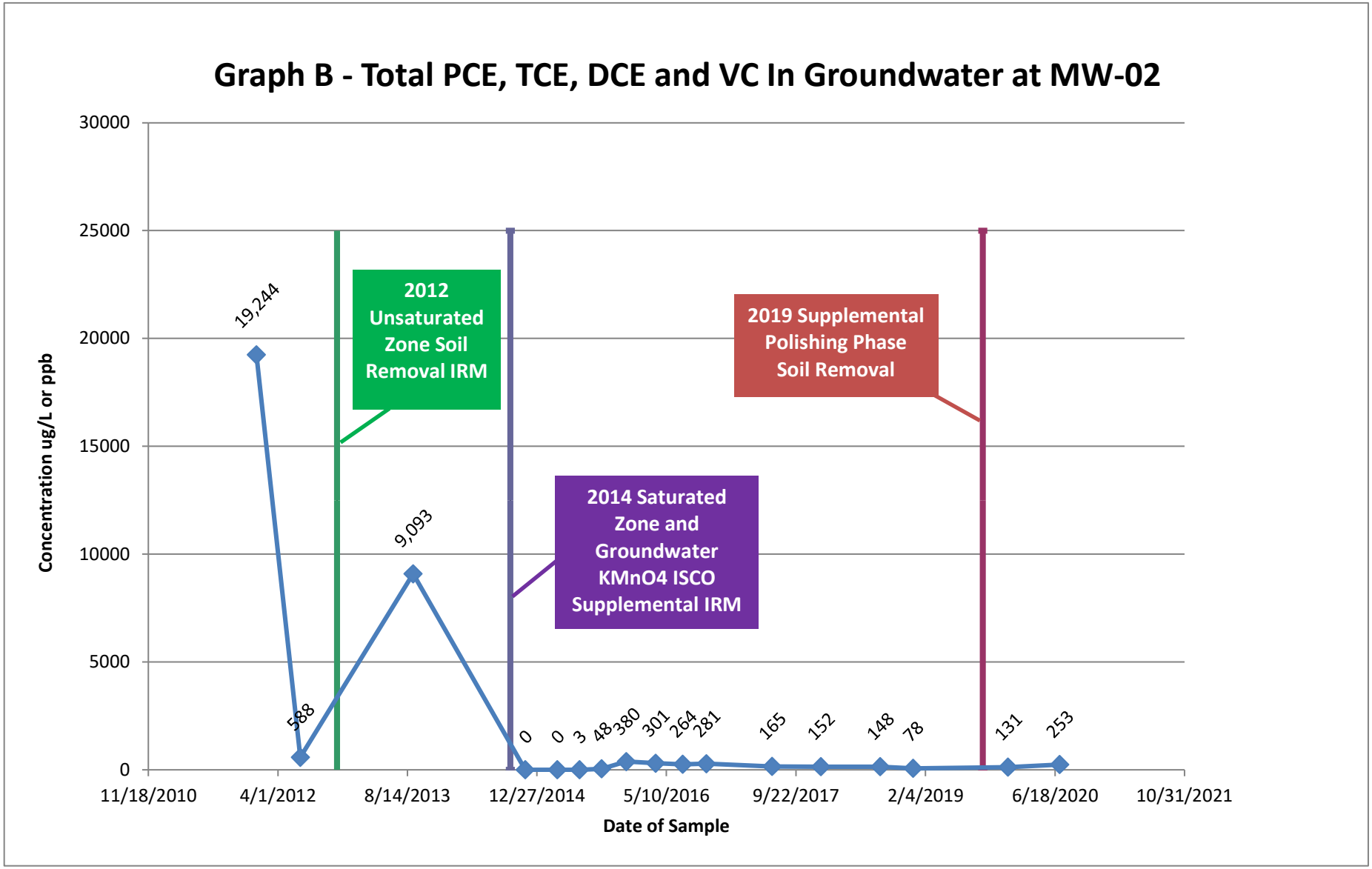
(1) Refer to the analytical laboratory report for individual TICs detected and associated flags.

Results of DUSR incorporated on analytical laboratory data

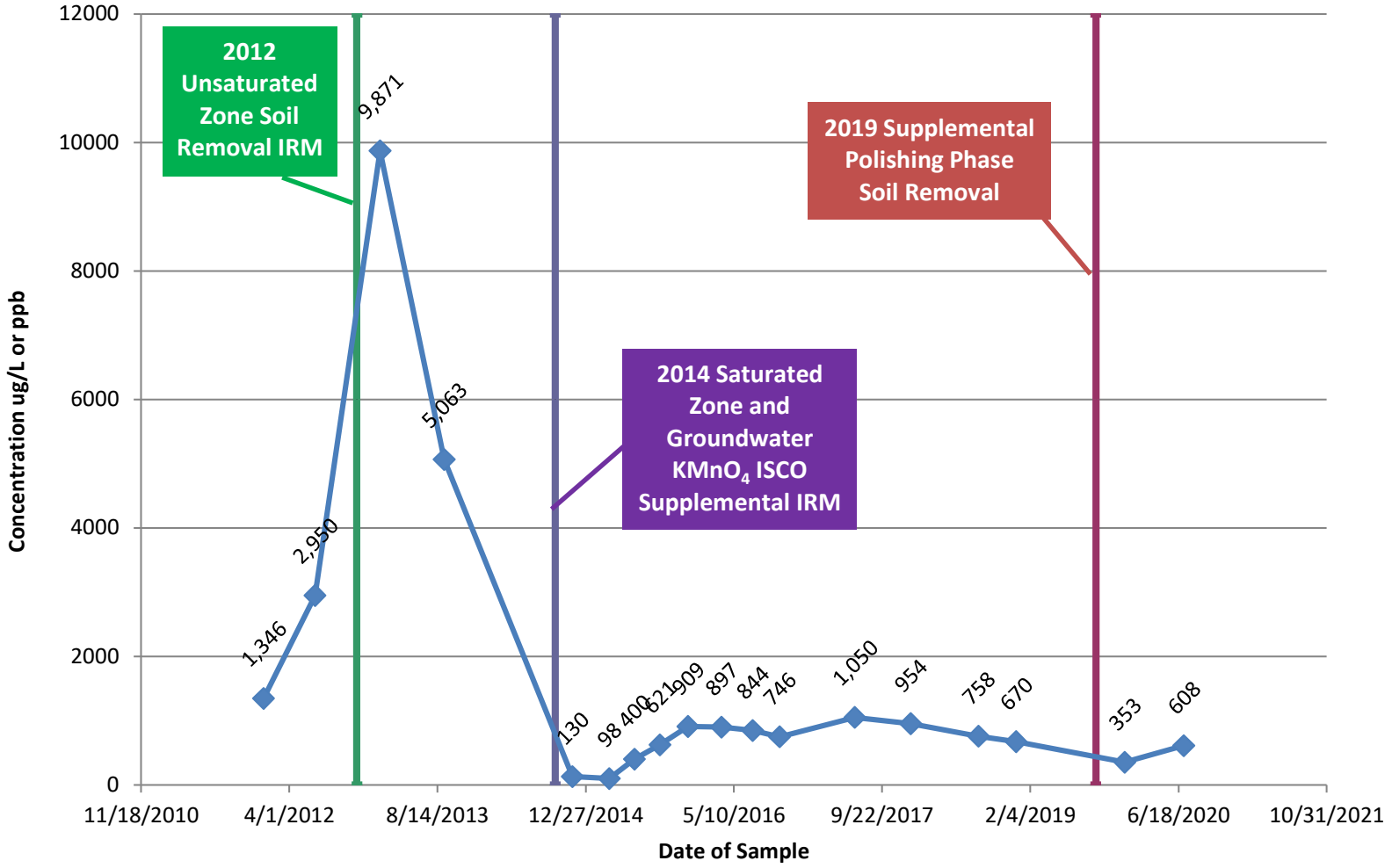
977	Sample ID	Sample ID
FB121818	Sample Location	Sample Location
12/18/18	Sample Date	Sample Date

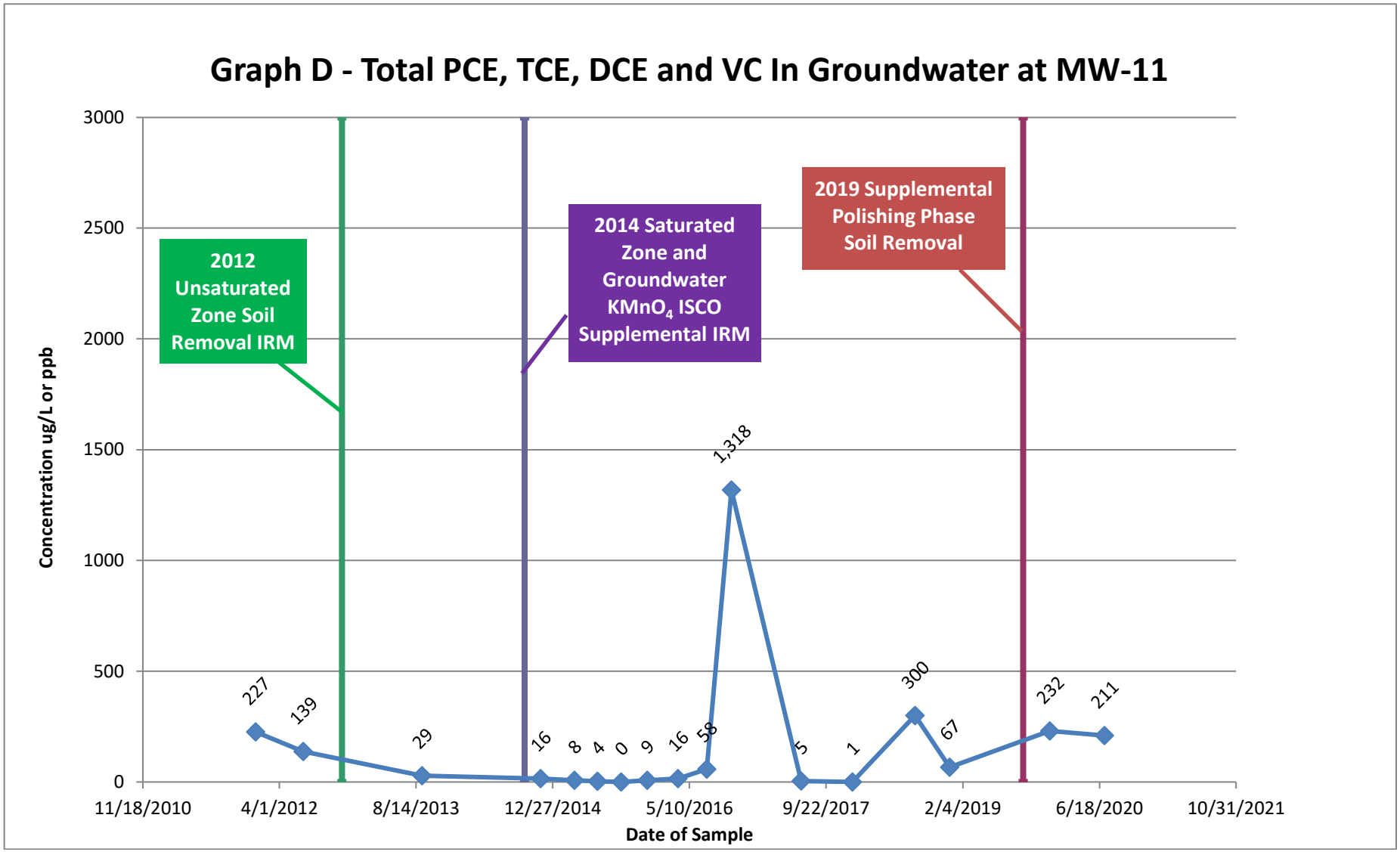
Graph A - Total PCE, TCE, DCE and VC In Groundwater at MW-01

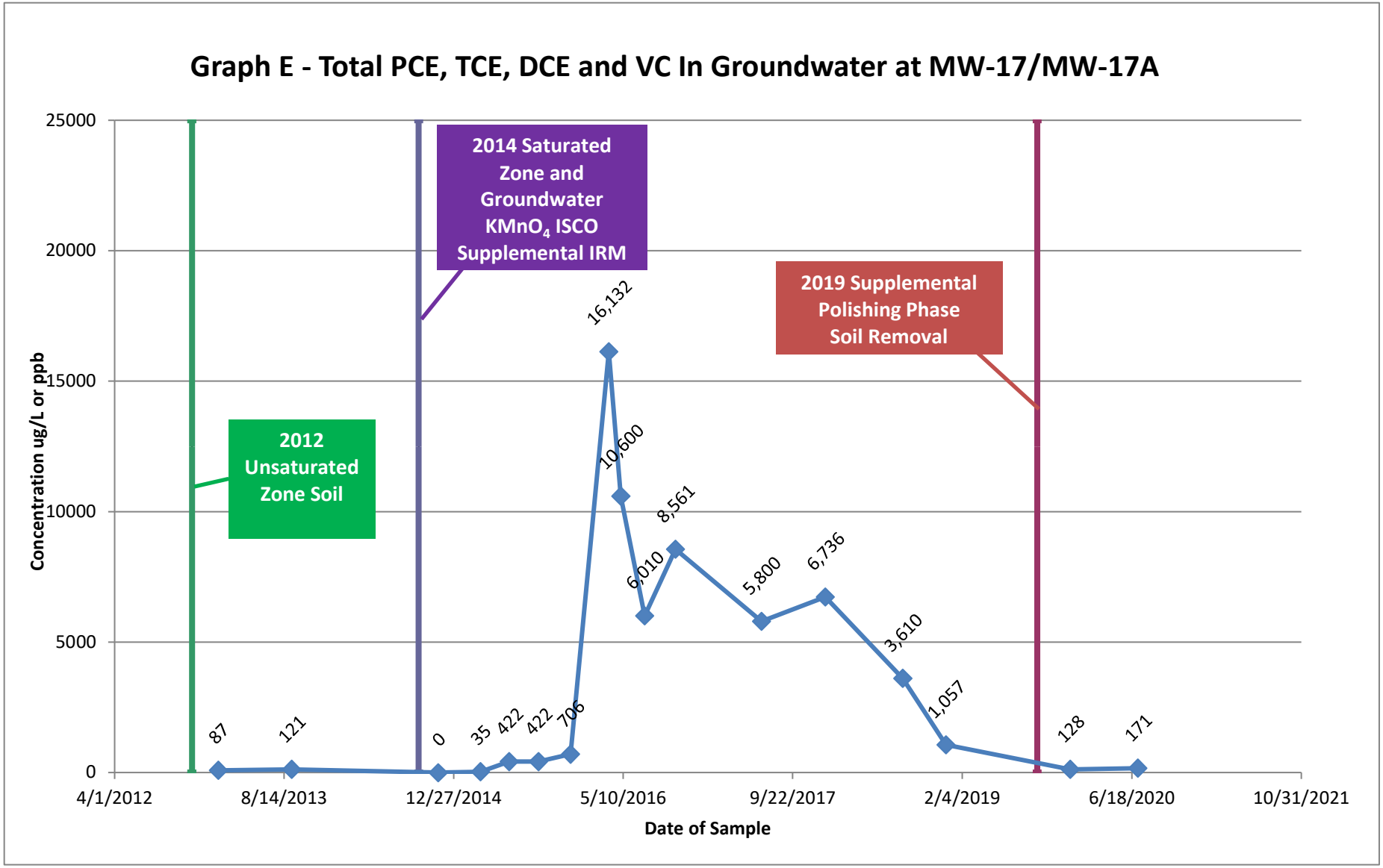


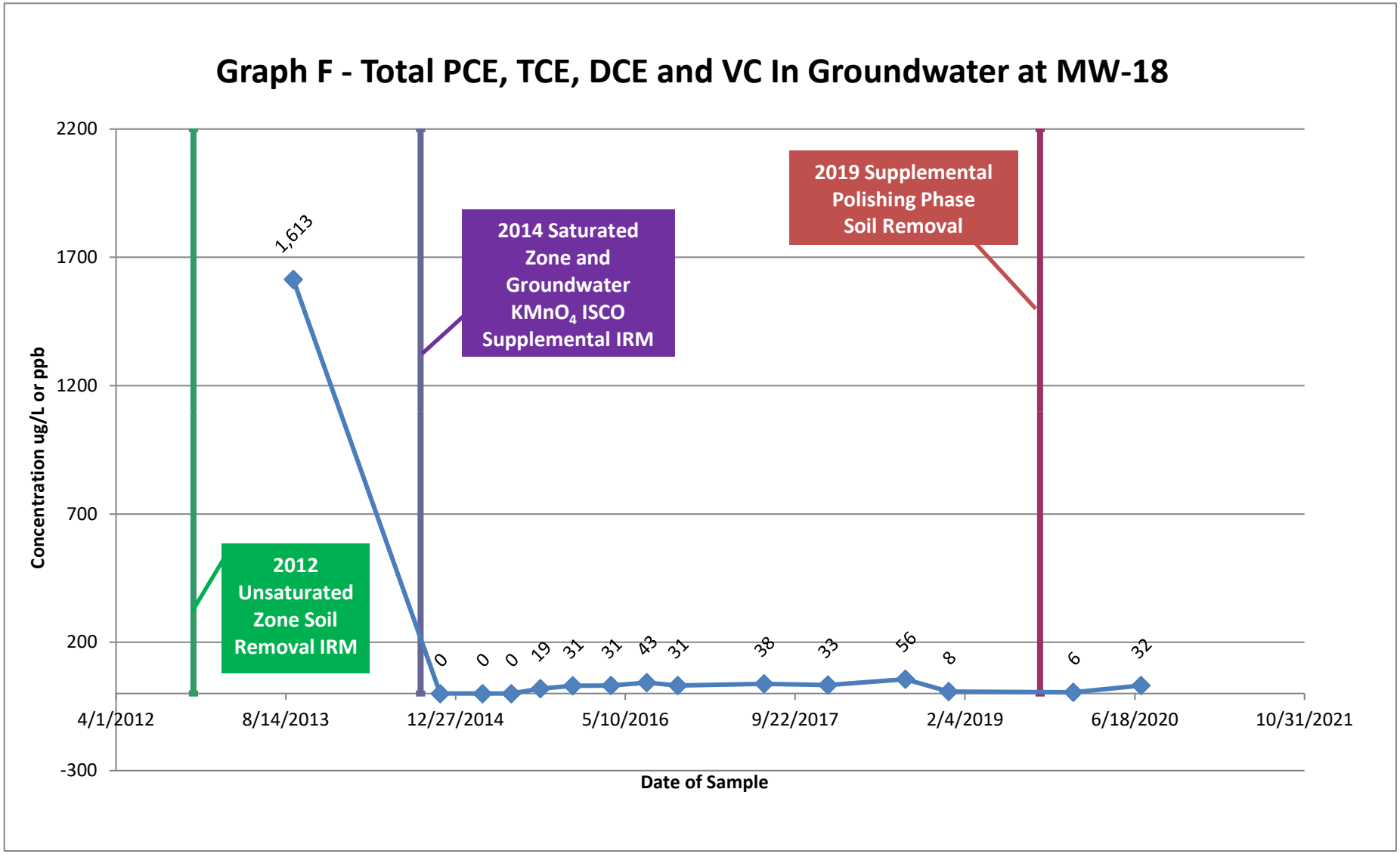

Graph B - Total PCE, TCE, DCE and VC In Groundwater at MW-02
Concentration ug/L or ppb
30000
25000
20000
15000
10000
5000
0
11/18/2010
4/1/2012
8/14/2013
12/27/2014
5/10/2016
9/22/2017
2/4/2019
6/18/2020
10/31/2021
Date of Sample
19,244
588
9,093
0
0
3
48
380
301
264
281
165
152
148
78
131
253
2012 Unsaturated Zone Soil Removal IRM
2014 Saturated Zone and Groundwater KMnO4 ISCO Supplemental IRM
2019 Supplemental Polishing Phase Soil Removal

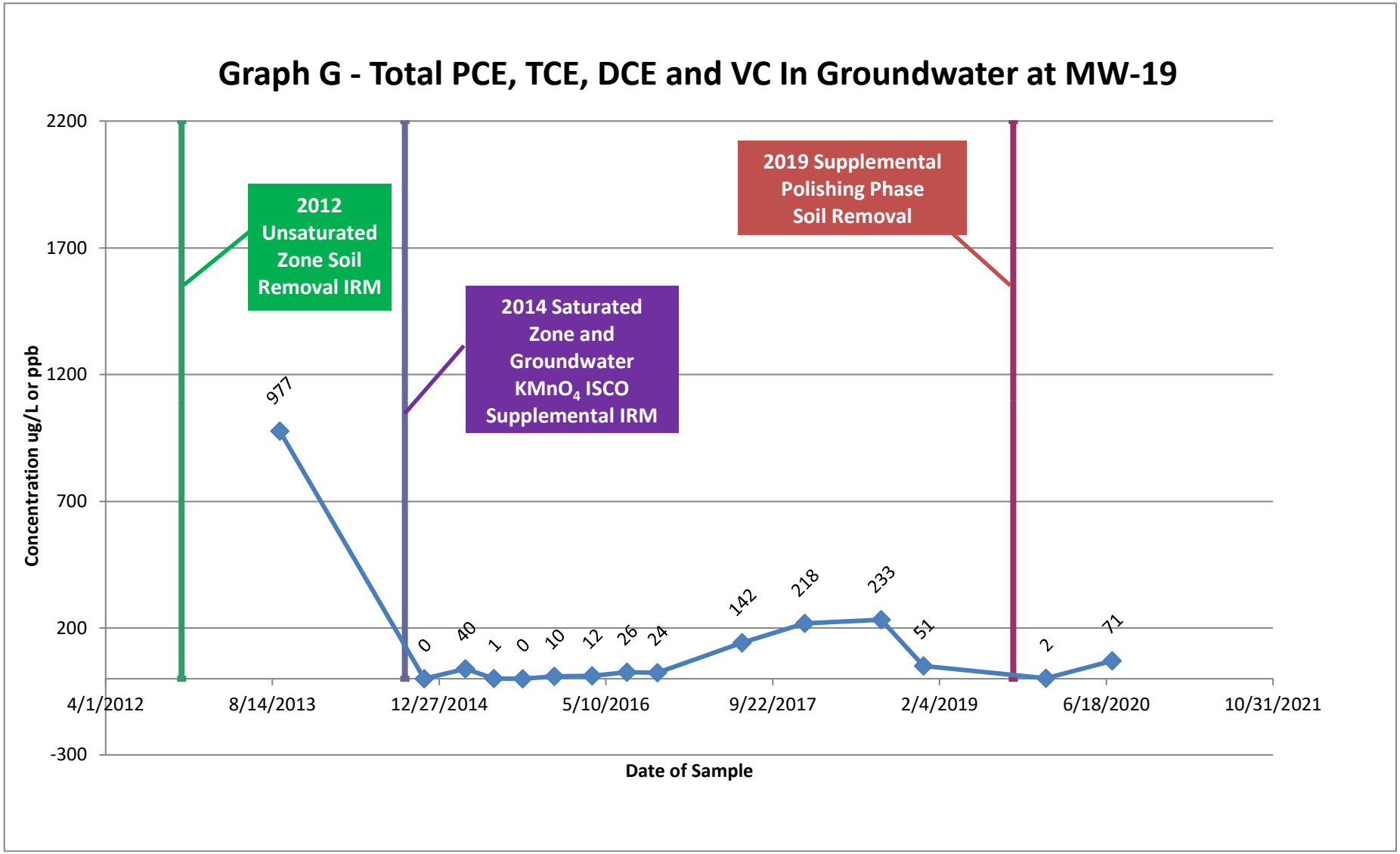
Graph C - Total PCE, TCE, DCE and VC In Groundwater at MW-03/MW-03A

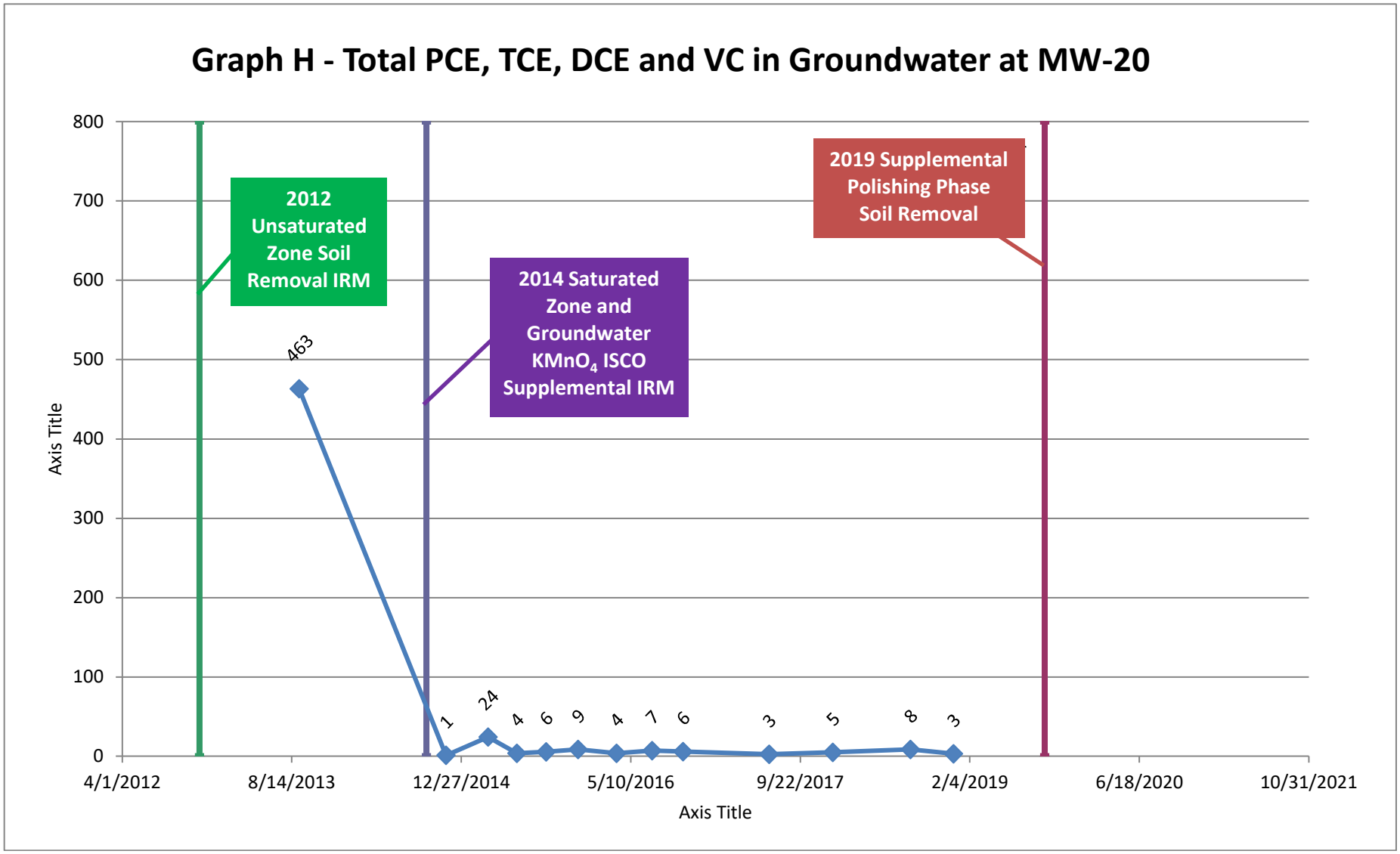



Graph D - Total PCE, TCE, DCE and VC In Groundwater at MW-11
Concentration ug/L or ppb
3000
2500
2000
1500
1000
500
0
2012 Unsaturated Zone Soil Removal IRM
2014 Saturated Zone and Groundwater KMnO4 ISCO Supplemental IRM
2019 Supplemental Polishing Phase Soil Removal
227
139
29
16
8
4
0
9
16
58
1,318
5
1
300
67
232
211
11/18/2010
4/1/2012
8/14/2013
12/27/2014
5/10/2016
9/22/2017
2/4/2019
6/18/2020
10/31/2021
Date of Sample

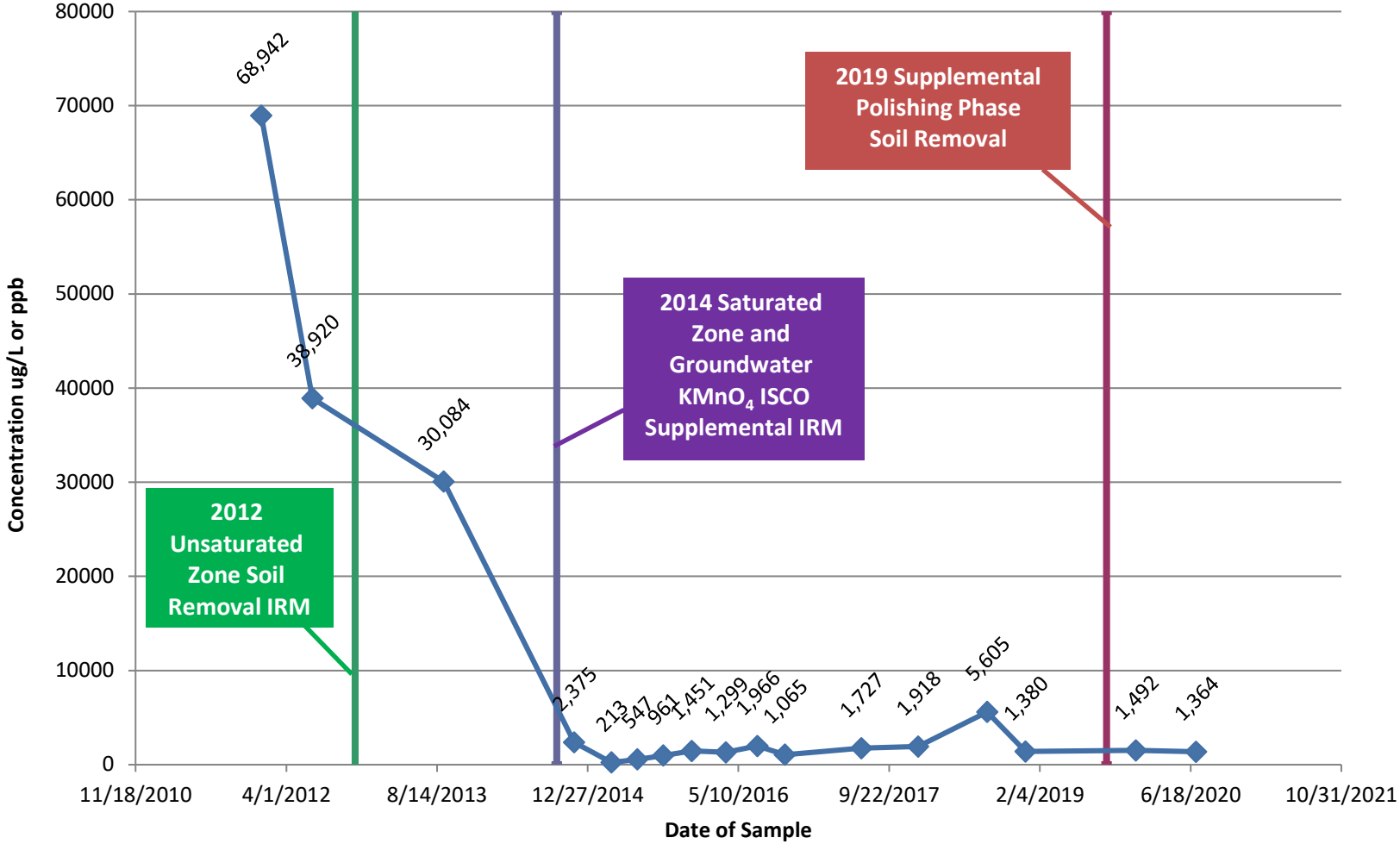

Graph E - Total PCE, TCE, DCE and VC In Groundwater at MW-17/MW-17A
2014 Saturated Zone and Groundwater KMnO4 ISCO Supplemental IRM
2019 Supplemental Polishing Phase Soil Removal
2012 Unsaturated Zone Soil
Concentration ug/L or ppb
25000
20000
15000
10000
5000
0
87
121
0
35
422
422
706
16,132
10,600
8,561
6,010
5,800
6,736
3,610
1,057
128
171
4/1/2012
8/14/2013
12/27/2014
5/10/2016
9/22/2017
2/4/2019
6/18/2020
10/31/2021
Date of Sample


Graph F - Total PCE, TCE, DCE and VC In Groundwater at MW-18
Concentration ug/L or ppb
2200
1700
1200
700
200
-300
4/1/2012
8/14/2013
12/27/2014
5/10/2016
9/22/2017
2/4/2019
6/18/2020
10/31/2021
Date of Sample
1,613
0
0
0
19
31
31
43
31
38
33
56
8
6
32
2012 Unsaturated Zone Soil Removal IRM
2014 Saturated Zone and Groundwater KMnO4 ISCO Supplemental IRM
2019 Supplemental Polishing Phase Soil Removal


Graph G - Total PCE, TCE, DCE and VC In Groundwater at MW-19
2012 Unsaturated Zone Soil Removal IRM
2014 Saturated Zone and Groundwater KMnO4 ISCO Supplemental IRM
2019 Supplemental Polishing Phase Soil Removal
Concentration ug/L or ppb
2200
1700
1200
700
200
-300
977
0
40
1
0
10
12
26
24
142
218
233
51
2
71
4/1/2012
8/14/2013
12/27/2014
5/10/2016
9/22/2017
2/4/2019
6/18/2020
10/31/2021
Date of Sample


Graph H - Total PCE, TCE, DCE and VC in Groundwater at MW-20
2012 Unsaturated Zone Soil Removal IRM
2014 Saturated Zone and Groundwater $KMnO_4$ ISCO Supplemental IRM
2019 Supplemental Polishing Phase Soil Removal
463
1
24
4
6
9
4
7
6
3
5
8
3
800
700
600
500
400
300
200
100
0
Axis Title
4/1/2012
8/14/2013
12/27/2014
5/10/2016
9/22/2017
2/4/2019
6/18/2020
10/31/2021
Axis Title

Graph I - Cumulative Total PCE, TCE, DCE and VC in Groundwater for Wells MW-01, MW-02, MW-03/MW-03A



CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

DATA PACKAGE

VOLATILE ORGANICS

PROJECT NAME : ANDREW ST. RI

DAY ENVIRONMENTAL, INC.

Canalside Business Center, 1563 Lyell Avenue

Rochester, NY - 14606

Phone No: 585-454-0210

ORDER ID : J6484

ATTENTION : Jeff Danzinger

Table Of Contents for J6484

1) VOLATILES DATA 2

2) Signature Page 4

3) Case Narrative 5

4) Qualifier Page 7

5) Conformance/Non Conformance 8

6) QA Checklist 10

7) Chronicle 11

8) Hit Summary 13

9) QC Data Summary For VOC-TCLVOA-10 16

- 9.1) Deuterated Monitoring Compound Summary 17
- 9.2) MS/MSD Summary 19
- 9.3) LCS/LCSD Summary 23
- 9.4) Method Blank Summary 29
- 9.5) GS/MS Tune Summary 32
- 9.6) Internal Standard Area and RT Summary 36

10) Sample Data 42

- 10.1) 963-MW-01(23) 43
- 10.2) 963-MW-01(23)DL 60
- 10.3) 964-MW-02(23.8) 71
- 10.4) 965-MW-03A(17) 88
- 10.5) 965-MW-03A(17)DL 105
- 10.6) 966-MW-04(23) 116
- 10.7) 967-MW-05(17) 130
- 10.8) 968-MW-06(17) 145
- 10.9) 969-MW-07(22.5) 159
- 10.10) 970-MW-11(15) 173
- 10.11) 971-MW-15(17) 188
- 10.12) 972-MW-16(22.5) 202
- 10.13) 973-MW-17(15.5) 216
- 10.14) 974-MW-18(21.5) 231
- 10.15) 975-MW-19(28) 246
- 10.16) 976-MW-20(22) 262
- 10.17) 977-FB121818 277
- 10.18) 978-TB121818 292

11) Calibration Data Summary 305

Table Of Contents for J6484

11.1) Initial Calibration Data 306

11.1.1) VX121818 306

11.2) Continued Calibration Data 686

11.2.1) VX006635.D 686

11.2.2) VX006662.D 746

11.2.3) VX006713.D 806

12) QC Sample Data 866

12.1) Tune Raw Data 867

12.2) Method Blank Data 871

12.3) LCS Data 910

12.4) MS Data 1075

12.5) MSD Data 1130

13) Manual Integration 1185

14) Analytical Runlogs 1189

15) Standard Prep Logs 1208

16) Shipping Document 1289

16.1) Chain Of Custody 1290

16.2) Lab Certificate 1292

16.3) Internal COC 1293

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Cover Page

Order ID : J6484

Project ID : Andrew St. RI

Client : Day Environmental, Inc.

Lab Sample Number	Client Sample Number
J6484-01	963-MW-01(23)
J6484-02	964-MW-02(23.8)
J6484-03	965-MW-03A(17)
J6484-04	966-MW-04(23)
J6484-05	J6484-04MS
J6484-06	J6484-04MSD
J6484-07	967-MW-05(17)
J6484-08	968-MW-06(17)
J6484-09	969-MW-07(22.5)
J6484-10	970-MW-11(15)
J6484-11	971-MW-15(17)
J6484-12	972-MW-16(22.5)
J6484-13	973-MW-17(15.5)
J6484-14	974-MW-18(21.5)
J6484-15	975-MW-19(28)
J6484-16	976-MW-20(22)
J6484-17	977-FB121818
J6484-18	978-TB121818

I certify that the data package is in compliance with the terms and conditions of the contract,both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hard copy data package has been authorized by the laboratory manager or his designee, as verified by the following signature.

Signature : Mildred V Reyes

APPROVED Date: 1/6/2019

By Mildred V Reyes,QAQC Supervisor at 10:53 am, Jan 07, 2019

NYDOH CERTIFICATION NO - 11376

NJDEP CERTIFICATION NO - 20012

CHEMTECH
284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

CASE NARRATIVE

Day Environmental, Inc.
Project Name: Andrew St. RI
Project # N/A
Chemtech Project # J6484
Test Name: VOC-TCLVOA-10

A. Number of Samples and Date of Receipt:
18 Water samples were received on 12/19/2018.

B. Parameters
According to the Chain of Custody document, the following analyses were requested: VOC-TCLVOA-10. This data package contains results for VOC-TCLVOA-10.

C. Analytical Techniques:
The analysis performed on instrument MSVOA_X were done using GC column DB-624UI 20m 0.18mm 1.0 um. Cat#121-1324UI.The analysis of VOC-TCLVOA-10 was based on method 8260-Low.

D. QA/ QC Samples:
The Holding Times were met for all analysis.
The Surrogate recoveries met the acceptable criteria.
The Internal Standards Areas met the acceptable requirements.
The Retention Times were acceptable for all samples.
The MS recoveries met the requirements for all compounds .
The MSD recoveries met the acceptable requirements .
The RPD recoveries met criteria .
The Blank Spike met requirements for all samples .

The Blank analysis did not indicate the presence of lab contamination.
The %RSD is greater than 15% in the Initial Calibration (Method 82X121818W.M) for Bromochloromethane, Bromomethane, Dibromochloromethane and Bromoform these compounds are passing on Linear regression.
The Continuous Calibration met the requirements .
The Tuning criteria met requirements.
Samples 973-MW-17(15.5) was diluted due to bad matrix.
Samples 963-MW-01(23), 965-MW-03A(17) were diluted due to high concentrations.

E. Additional Comments:
Please use %D calculated based on Avg RF and CCRF for all compounds using Average Response Factor when the %RSD value for a compound is <15% for the Initial Calibration curve and use %D calculated based on Amount added and Calculated amount for all compounds using Linear Regression when the %RSD value for a compound is > 15% for the Initial Calibration curve for SW-846 analysis.

CHEMTECH
284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

F. Manual Integration Comments:
Please refer to the Manual integration Report included with the Run Logs for information on the manual integrations performed.

I certify that the data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. The laboratory manager or his designee, as verified by the following signature has authorized release of the data contained in this hard copy data package.

Signature: Mildred V Reyes

APPROVED
By Mildred V Reyes,QAQC Supervisor at 10:53 am, Jan 07, 2019

DATA REPORTING QUALIFIERS- ORGANIC

For reporting results, the following " Results Qualifiers" are used:

Value	If the result is a value greater than or equal to the detection limit, report the value
U	Indicates the compound was analyzed for but was not detected. Report the minimum detection limit for the sample with the U, i.e. "10 U". This is not necessarily the instrument detection limit attainable for this particular sample based on any concentration or dilution that may have been required.
ND	Indicates the analyte was analyzed for, but not detected
J	Indicates an estimated value. This flag is used: (1) When estimating a concentration for a tentatively identified compound (library search hits, where a 1:1 response is assumed.) (2) When the mass spectral data indicated the identification, however the result was less than the specified detection limit greater than zero. If the detection limit was 10ug/L and a concentration of 3 ug/L was calculated report as 3 J. This is flag is used when similar situation arise on any organic parameter i.e. Pest, PCB and others.
B	Indicates the analyte was found in the blank as well as the sample report as "12 B".
E	Indicates the analyte 's concentration exceeds the calibrated range of the instrument for that specific analysis.
D	This flag identifies all compounds identified in an analysis at a secondary dilution factor.
P	This flag is used for Pesticide/PCB target analyte when there is >25% difference for detected concentrations between the two GC columns. The lower of the two values is reported on Form 1 and flagged with a "P".
N	This flag indicates presumptive evidence of a compound. This is only used for tentatively identified compounds (TICs), where the identification is based on a mass spectral library search. It applies to all TIC results. For generic characterization of a TIC, such as chlorinated hydrocarbon, the flag is not used.
A	This flag indicates that a Tentatively Identified Compound is a suspected aldol-condensation product.
Q	Indicates the LCS did not meet the control limits requirements

CHEMTECH
284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

GC/MS VOA CONFORMANCE/NON-CONFORMANCE SUMMARY

CHEMTECH PROJECT NUMBER: J6484 MATRIX: Water

METHOD: 8260-Low

		NA	NO	YES
1.	Chromatograms Labeled/Compounds Identified. (Field samples and Method Blanks)			✓
2.	GC/MS Tuning Specifications BFB Meet Criteria (NOTE THAT THERE ARE DIFFERENT CRITERIA FOR NY ASP CLP, CLP AND NJ)			✓
3.	GC/MS Tuning Frequency - Performed every 24 hours for 600 series and 12 hours for 8000 Series.			✓
4.	GC/MS Calibration - Initial Calibration performed before sample analysis and continuing calibration performed within 24 hours of sample analysis for 600 series and 12 hours for 8000 series.			✓
5.	GC/MS Calibration Requirements. The %RSD is greater than 15% in the Initial Calibration (Method 82X121818W.M) for Bromochloromethane, Bromomethane, Dibromochloromethane and Bromoform these compounds are passing on Linear regression. The Continuous Calibration met the requirements .			✓
6.	Blank Contamination - If yes, list compounds and concentrations in each blank:		✓	
7.	Surrogate Recoveries Meet Criteria If not met, list those compounds and their recoveries which fall outside the acceptable ranges.			✓
8.	Matrix Spike/Matrix Spike Duplicate Recoveries Meet Criteria If not met, list those compounds and their recoveries which fall outside the acceptable range.			✓
9.	Internal Standard Area/Retention Time Shift Meet Criteria Comments:			✓
10.	Analysis Holding Time Met If not met, list number of days exceeded for each sample:			✓

ADDITIONAL COMMENTS:

Samples 973-MW-17(15.5) was diluted due to bad matrix.

Samples 963-MW-01(23), 965-MW-03A(17) were diluted due to high concentrations.

CHEMTECH
284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

GC/MS VOA CONFORMANCE/NON-CONFORMANCE SUMMARY (CONTINUED)

NA NO YES

Please use %D calculated based on Avg RF and CCRF for all compounds using Average Response Factor when the %RSD value for a compound is <15% for the Initial Calibration curve and use %D calculated based on Amount added and Calculated amount for all compounds using Linear Regression when the %RSD value for a compound is > 15% for the Initial Calibration curve for SW-846 analysis.

QA REVIEW

REVIEWED

Date

By Kalpana Raythattha,QC Reviewer at 9:25 am, Jan 07, 2019

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

APPENDIX A

QA REVIEW GENERAL DOCUMENTATION

Project #: J6484

	Completed
For thorough review, the report must have the following:	
GENERAL:	
Are all original paperwork present (chain of custody, record of communication,airbill, sample management lab chronicle, login page)	✓
Check chain-of-custody for proper relinquish/return of samples	✓
Is the chain of custody signed and complete	✓
Check internal chain-of-custody for proper relinquish/return of samples /sample extracts	✓
Collect information for each project id from server. Were all requirements followed	✓
COVER PAGE:	
Do numbers of samples correspond to the number of samples in the Chain of Custody on login page	✓
Do lab numbers and client Ids on cover page agree with the Chain of Custody	✓
CHAIN OF CUSTODY:	
Do requested analyses on Chain of Custody agree with form I results	✓
Do requested analyses on Chain of Custody agree with the log-in page	✓
Were the correct method log-in for analysis according to the Analytical Request and Chain of Castody	✓
Were the samples received within hold time	✓
Were any problems found with the samples at arrival recorded in the Sample Management Laboratory Chronicle	✓
ANALYTICAL:	
Was method requirement followed?	✓
Was client requirement followed?	✓
Does the case narrative summarize all QC failure?	✓
All runlogs and manual integration are reviewed for requirements	✓
All manual calculations and /or hand notations verified	✓

1st Level QA Review Signature: KALPANA RAYTHATTHA **Date:** 01/06/2019

2nd Level QA Review Signature: Mildred V Reyes Date:

APPROVED
By Mildred V Reyes,QAQC Supervisor at 10:53 am, Jan 07, 2019

CHEMTECH

284 Sheffield Street, Mountainside, New Jersey - 07092

Phone: (908) 789 8900 Fax: (908) 789 8922

LAB CHRONICLE

OrderID:	J6484	**OrderDate:**	12/19/2018 12:00:00 PM
Client:	Day Environmental, Inc.	**Project:**	Andrew St. RI
Contact:	Jeff Danzinger	**Location:**	

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
J6484-01	**963-MW-01(23)**	**Water**			**12/18/18**			**12/19/18**
			VOC-TCLVOA-10	8260-Low			12/20/18	
J6484-01DL	**963-MW-01(23)DL**	**Water**			**12/18/18**			**12/19/18**
			VOC-TCLVOA-10	8260-Low			12/21/18	
J6484-02	**964-MW-02(23.8)**	**Water**			**12/18/18**			**12/19/18**
			VOC-TCLVOA-10	8260-Low			12/20/18	
J6484-03	**965-MW-03A(17)**	**Water**			**12/18/18**			**12/19/18**
			VOC-TCLVOA-10	8260-Low			12/20/18	
J6484-03DL	**965-MW-03A(17)DL**	**Water**			**12/18/18**			**12/19/18**
			VOC-TCLVOA-10	8260-Low			12/21/18	
J6484-04	**966-MW-04(23)**	**Water**			**12/18/18**			**12/19/18**
			VOC-TCLVOA-10	8260-Low			12/20/18	
J6484-07	**967-MW-05(17)**	**Water**			**12/18/18**			**12/19/18**
			VOC-TCLVOA-10	8260-Low			12/20/18	
J6484-08	**968-MW-06(17)**	**Water**			**12/18/18**			**12/19/18**
			VOC-TCLVOA-10	8260-Low			12/20/18	
J6484-09	**969-MW-07(22.5)**	**Water**			**12/18/18**			**12/19/18**
			VOC-TCLVOA-10	8260-Low			12/20/18	
J6484-10	**970-MW-11(15)**	**Water**			**12/18/18**			**12/19/18**
			VOC-TCLVOA-10	8260-Low			12/20/18	
J6484-11	**971-MW-15(17)**	**Water**			**12/18/18**			**12/19/18**
			VOC-TCLVOA-10	8260-Low			12/20/18	
J6484-12	**972-MW-16(22.5)**	**Water**			**12/18/18**			**12/19/18**
			VOC-TCLVOA-10	8260-Low			12/20/18	

CHEMTECH

284 Sheffield Street, Mountainside, New Jersey - 07092

Phone: (908) 789 8900 Fax: (908) 789 8922

LAB CHRONICLE

J6484-13	**973-MW-17(15.5)**	**Water**			**12/18/18**		**12/19/18**
			VOC-TCLVOA-10	8260-Low		12/20/18	
J6484-14	**974-MW-18(21.5)**	**Water**			**12/18/18**		**12/19/18**
			VOC-TCLVOA-10	8260-Low		12/20/18	
J6484-15	**975-MW-19(28)**	**Water**			**12/18/18**		**12/19/18**
			VOC-TCLVOA-10	8260-Low		12/20/18	
J6484-16	**976-MW-20(22)**	**Water**			**12/18/18**		**12/19/18**
			VOC-TCLVOA-10	8260-Low		12/20/18	
J6484-17	**977-FB121818**	**Water**			**12/18/18**		**12/19/18**
			VOC-TCLVOA-10	8260-Low		12/19/18	
J6484-18	**978-TB121818**	**Water**			**12/18/18**		**12/19/18**
			VOC-TCLVOA-10	8260-Low		12/19/18	

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Hit Summary Sheet
SW-846

SDG No.: J6484

Client: Day Environmental, Inc.

Sample ID	Client ID	Matrix	Parameter		Concentration	C	MDL	LOD	RDL	Units
Client ID:	**963-MW-01(23)**									
J6484-01	963-MW-01(23)	Water	Vinyl Chloride		0.41	J	0.2	0.2	1	ug/L
J6484-01	963-MW-01(23)	Water	Acetone		3.50	J	0.5	1	5	ug/L
J6484-01	963-MW-01(23)	Water	Methyl Acetate		1.10		0.2	0.5	1	ug/L
J6484-01	963-MW-01(23)	Water	trans-1,2-Dichloroethene		1.90		0.2	0.2	1	ug/L
J6484-01	963-MW-01(23)	Water	cis-1,2-Dichloroethene		66.00		0.2	0.2	1	ug/L
J6484-01	963-MW-01(23)	Water	Trichloroethene		64.40		0.2	0.2	1	ug/L
J6484-01	963-MW-01(23)	Water	Tetrachloroethene		510.00	E	0.2	0.2	1	ug/L
			Total Voc :		647.31					
			Total Concentration:		647.31					
Client ID:	**963-MW-01(23)DL**									
J6484-01DL	963-MW-01(23)DL	Water	cis-1,2-Dichloroethene		64.70	D	2	2	10	ug/L
J6484-01DL	963-MW-01(23)DL	Water	Trichloroethene		61.30	D	2	2	10	ug/L
J6484-01DL	963-MW-01(23)DL	Water	Tetrachloroethene		500.00	D	2	2	10	ug/L
			Total Voc :		626					
			Total Concentration:		626					
Client ID:	**964-MW-02(23.8)**									
J6484-02	964-MW-02(23.8)	Water	Vinyl Chloride		1.30		0.2	0.2	1	ug/L
J6484-02	964-MW-02(23.8)	Water	Acetone		3.90	J	0.5	1	5	ug/L
J6484-02	964-MW-02(23.8)	Water	trans-1,2-Dichloroethene		1.10		0.2	0.2	1	ug/L
J6484-02	964-MW-02(23.8)	Water	cis-1,2-Dichloroethene		22.60		0.2	0.2	1	ug/L
J6484-02	964-MW-02(23.8)	Water	Trichloroethene		24.80		0.2	0.2	1	ug/L
J6484-02	964-MW-02(23.8)	Water	Tetrachloroethene		27.70		0.2	0.2	1	ug/L
			Total Voc :		81.4					
J6484-02	964-MW-02(23.8)	Water	Naphthalene	*	0.69	J	0.2		1	ug/L
			Total Tics :		0.69					
			Total Concentration:		82.09					
Client ID:	**965-MW-03A(17)**									
J6484-03	965-MW-03A(17)	Water	Vinyl Chloride		0.33	J	0.2	0.2	1	ug/L
J6484-03	965-MW-03A(17)	Water	Acetone		4.40	J	0.5	1	5	ug/L
J6484-03	965-MW-03A(17)	Water	Methyl Acetate		0.73	J	0.2	0.5	1	ug/L
J6484-03	965-MW-03A(17)	Water	trans-1,2-Dichloroethene		1.80		0.2	0.2	1	ug/L
J6484-03	965-MW-03A(17)	Water	cis-1,2-Dichloroethene		99.60		0.2	0.2	1	ug/L
J6484-03	965-MW-03A(17)	Water	Trichloroethene		78.20		0.2	0.2	1	ug/L
J6484-03	965-MW-03A(17)	Water	Tetrachloroethene		520.00	E	0.2	0.2	1	ug/L
			Total Voc :		705.06					
			Total Concentration:		705.06					
Client ID:	**965-MW-03A(17)DL**									
J6484-03DL	965-MW-03A(17)DL	Water	cis-1,2-Dichloroethene		96.50	D	2	2	10	ug/L

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Hit Summary Sheet
SW-846

SDG No.: J6484

Client: Day Environmental, Inc.

Sample ID	Client ID	Matrix	Parameter	Concentration	C	MDL	LOD	RDL	Units
J6484-03DL	965-MW-03A(17)DL	Water	Trichloroethene	75.20	D	2	2	10	ug/L
J6484-03DL	965-MW-03A(17)DL	Water	Tetrachloroethene	490.00	D	2	2	10	ug/L
			Total Voc :	661.7					
			Total Concentration:	661.7					
Client ID:	**966-MW-04(23)**								
J6484-04	966-MW-04(23)	Water	Acetone	4.80	J	0.5	1	5	ug/L
J6484-04	966-MW-04(23)	Water	Methyl Acetate	2.60		0.2	0.5	1	ug/L
			Total Voc :	7.4					
			Total Concentration:	7.4					
Client ID:	**967-MW-05(17)**								
J6484-07	967-MW-05(17)	Water	Acetone	3.40	J	0.5	1	5	ug/L
J6484-07	967-MW-05(17)	Water	Trichloroethene	0.80	J	0.2	0.2	1	ug/L
J6484-07	967-MW-05(17)	Water	Tetrachloroethene	34.80		0.2	0.2	1	ug/L
			Total Voc :	39					
			Total Concentration:	39					
Client ID:	**968-MW-06(17)**								
J6484-08	968-MW-06(17)	Water	Trichloroethene	0.36	J	0.2	0.2	1	ug/L
J6484-08	968-MW-06(17)	Water	Tetrachloroethene	4.80		0.2	0.2	1	ug/L
			Total Voc :	5.16					
			Total Concentration:	5.16					
Client ID:	**969-MW-07(22.5)**								
J6484-09	969-MW-07(22.5)	Water	Acetone	3.70	J	0.5	1	5	ug/L
J6484-09	969-MW-07(22.5)	Water	Tetrachloroethene	3.00		0.2	0.2	1	ug/L
			Total Voc :	6.7					
			Total Concentration:	6.7					
Client ID:	**970-MW-11(15)**								
J6484-10	970-MW-11(15)	Water	Acetone	3.80	J	0.5	1	5	ug/L
J6484-10	970-MW-11(15)	Water	cis-1,2-Dichloroethene	0.75	J	0.2	0.2	1	ug/L
J6484-10	970-MW-11(15)	Water	Trichloroethene	1.00		0.2	0.2	1	ug/L
J6484-10	970-MW-11(15)	Water	Tetrachloroethene	65.60		0.2	0.2	1	ug/L
			Total Voc :	71.15					
			Total Concentration:	71.15					
Client ID:	**971-MW-15(17)**								
J6484-11	971-MW-15(17)	Water	Tetrachloroethene	0.35	J	0.2	0.2	1	ug/L
			Total Voc :	0.35					
			Total Concentration:	0.35					
Client ID:	**972-MW-16(22.5)**								
J6484-12	972-MW-16(22.5)	Water	Acetone	4.10	J	0.5	1	5	ug/L
			Total Voc :	4.1					
			Total Concentration:	4.1					
Client ID:	**973-MW-17(15.5)**								

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Hit Summary Sheet
SW-846

SDG No.: J6484

Client: Day Environmental, Inc.

Sample ID	Client ID	Matrix	Parameter		Concentration	C	MDL	LOD	RDL	Units
J6484-13	973-MW-17(15.5)	Water	cis-1,2-Dichloroethene		29.30		2	2	10	ug/L
J6484-13	973-MW-17(15.5)	Water	Trichloroethene		27.90		2	2	10	ug/L
J6484-13	973-MW-17(15.5)	Water	Tetrachloroethene		1,000.00		2	2	10	ug/L
			Total Voc :		1057.2					
			Total Concentration:		1057.2					
Client ID:	**974-MW-18(21.5)**									
J6484-14	974-MW-18(21.5)	Water	Acetone		3.60	J	0.5	1	5	ug/L
J6484-14	974-MW-18(21.5)	Water	cis-1,2-Dichloroethene		1.50		0.2	0.2	1	ug/L
J6484-14	974-MW-18(21.5)	Water	Trichloroethene		1.50		0.2	0.2	1	ug/L
J6484-14	974-MW-18(21.5)	Water	Tetrachloroethene		5.40		0.2	0.2	1	ug/L
			Total Voc :		12					
			Total Concentration:		12					
Client ID:	**975-MW-19(28)**									
J6484-15	975-MW-19(28)	Water	Vinyl Chloride		0.97	J	0.2	0.2	1	ug/L
J6484-15	975-MW-19(28)	Water	Acetone		5.10		0.5	1	5	ug/L
J6484-15	975-MW-19(28)	Water	cis-1,2-Dichloroethene		13.50		0.2	0.2	1	ug/L
J6484-15	975-MW-19(28)	Water	Trichloroethene		13.60		0.2	0.2	1	ug/L
J6484-15	975-MW-19(28)	Water	Tetrachloroethene		23.00		0.2	0.2	1	ug/L
			Total Voc :		56.17					
			Total Concentration:		56.17					
Client ID:	**976-MW-20(22)**									
J6484-16	976-MW-20(22)	Water	Acetone		1.90	J	0.5	1	5	ug/L
J6484-16	976-MW-20(22)	Water	cis-1,2-Dichloroethene		0.56	J	0.2	0.2	1	ug/L
J6484-16	976-MW-20(22)	Water	Trichloroethene		1.60		0.2	0.2	1	ug/L
J6484-16	976-MW-20(22)	Water	Tetrachloroethene		0.91	J	0.2	0.2	1	ug/L
			Total Voc :		4.97					
			Total Concentration:		4.97					
Client ID:	**977-FB121818**									
J6484-17	977-FB121818	Water	Acetone		10.30		0.5	1	5	ug/L
J6484-17	977-FB121818	Water	2-Butanone		2.50	J	1.3	2.5	5	ug/L
			Total Voc :		12.8					
J6484-17	977-FB121818	Water	1-Hexanol, 2-ethyl-	*	17.50	J	0		0	ug/L
J6484-17	977-FB121818	Water	Ethyl Acetate	*	4.40	J	0.2		1	ug/L
			Total Tics :		21.9					
			Total Concentration:		34.7					

QC SUMMARY

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Surrogate Summary

SDG No.: J6484

Client: Day Environmental, Inc.

Analytical Method: SW8260-Low

Lab Sample ID	Client ID	Parameter	Spike	Result	RecoveryQual	Limits Low	Limits High
J6484-01	963-MW-01(23)	1,2-Dichloroethane-d4	50	49.5	99	61	141
		Dibromofluoromethane	50	46.85	94	69	133
		Toluene-d8	50	49.52	99	65	126
		4-Bromofluorobenzene	50	48.05	96	58	135
J6484-01DL	963-MW-01(23)DL	1,2-Dichloroethane-d4	50	49.91	100	61	141
		Dibromofluoromethane	50	48.7	97	69	133
		Toluene-d8	50	48.73	97	65	126
		4-Bromofluorobenzene	50	46.75	93	58	135
J6484-02	964-MW-02(23.8)	1,2-Dichloroethane-d4	50	49.74	99	61	141
		Dibromofluoromethane	50	47.09	94	69	133
		Toluene-d8	50	49.87	100	65	126
		4-Bromofluorobenzene	50	48.97	98	58	135
J6484-03	965-MW-03A(17)	1,2-Dichloroethane-d4	50	50.09	100	61	141
		Dibromofluoromethane	50	46.91	94	69	133
		Toluene-d8	50	49.12	98	65	126
		4-Bromofluorobenzene	50	49.43	99	58	135
J6484-03DL	965-MW-03A(17)DL	1,2-Dichloroethane-d4	50	49.88	100	61	141
		Dibromofluoromethane	50	48.66	97	69	133
		Toluene-d8	50	48.78	98	65	126
		4-Bromofluorobenzene	50	46.42	93	58	135
J6484-04	966-MW-04(23)	1,2-Dichloroethane-d4	50	51.55	103	61	141
		Dibromofluoromethane	50	47.51	95	69	133
		Toluene-d8	50	49.38	99	65	126
		4-Bromofluorobenzene	50	49.36	99	58	135
J6484-05MS	966-MW-04(23)MS	1,2-Dichloroethane-d4	50	52.45	105	61	141
		Dibromofluoromethane	50	51.34	103	69	133
		Toluene-d8	50	50.52	101	65	126
		4-Bromofluorobenzene	50	52.12	104	58	135
J6484-06MSD	966-MW-04(23)MSD	1,2-Dichloroethane-d4	50	51.06	102	61	141
		Dibromofluoromethane	50	51.79	104	69	133
		Toluene-d8	50	51.26	103	65	126
		4-Bromofluorobenzene	50	52.63	105	58	135
J6484-07	967-MW-05(17)	1,2-Dichloroethane-d4	50	50.53	101	61	141
		Dibromofluoromethane	50	46.61	93	69	133
		Toluene-d8	50	50	100	65	126
		4-Bromofluorobenzene	50	49.09	98	58	135
J6484-08	968-MW-06(17)	1,2-Dichloroethane-d4	50	50.86	102	61	141
		Dibromofluoromethane	50	46.69	93	69	133
		Toluene-d8	50	49.43	99	65	126
		4-Bromofluorobenzene	50	48.76	98	58	135
J6484-09	969-MW-07(22.5)	1,2-Dichloroethane-d4	50	50.96	102	61	141
		Dibromofluoromethane	50	47.49	95	69	133
		Toluene-d8	50	50.02	100	65	126
		4-Bromofluorobenzene	50	49.67	99	58	135
J6484-10	970-MW-11(15)	1,2-Dichloroethane-d4	50	50.8	102	61	141
		Dibromofluoromethane	50	46.71	93	69	133
		Toluene-d8	50	49.69	99	65	126
		4-Bromofluorobenzene	50	49.39	99	58	135
J6484-11	971-MW-15(17)	1,2-Dichloroethane-d4	50	51.41	103	61	141
		Dibromofluoromethane	50	46.46	93	69	133
		Toluene-d8	50	49.66	99	65	126
		4-Bromofluorobenzene	50	48.44	97	58	135

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Surrogate Summary

SDG No.: J6484

Client: Day Environmental, Inc.

Analytical Method: SW8260-Low

Lab Sample ID	Client ID	Parameter	Spike	Result	RecoveryQual	Limits Low	Limits High
J6484-12	972-MW-16(22.5)	1,2-Dichloroethane-d4	50	50.68	101	61	141
		Dibromofluoromethane	50	46.99	94	69	133
		Toluene-d8	50	50.17	100	65	126
		4-Bromofluorobenzene	50	49.07	98	58	135
J6484-13	973-MW-17(15.5)	1,2-Dichloroethane-d4	50	51.11	102	61	141
		Dibromofluoromethane	50	47.82	96	69	133
		Toluene-d8	50	50.23	100	65	126
		4-Bromofluorobenzene	50	49.63	99	58	135
J6484-14	974-MW-18(21.5)	1,2-Dichloroethane-d4	50	50.59	101	61	141
		Dibromofluoromethane	50	46.91	94	69	133
		Toluene-d8	50	50.09	100	65	126
		4-Bromofluorobenzene	50	48.63	97	58	135
J6484-15	975-MW-19(28)	1,2-Dichloroethane-d4	50	51.76	104	61	141
		Dibromofluoromethane	50	46.93	94	69	133
		Toluene-d8	50	49.81	100	65	126
		4-Bromofluorobenzene	50	49.09	98	58	135
J6484-16	976-MW-20(22)	1,2-Dichloroethane-d4	50	51.33	103	61	141
		Dibromofluoromethane	50	46.65	93	69	133
		Toluene-d8	50	49.85	100	65	126
		4-Bromofluorobenzene	50	48.36	97	58	135
J6484-17	977-FB121818	1,2-Dichloroethane-d4	50	52.35	105	61	141
		Dibromofluoromethane	50	46.91	94	69	133
		Toluene-d8	50	49.65	99	65	126
		4-Bromofluorobenzene	50	48.76	98	58	135
J6484-18	978-TB121818	1,2-Dichloroethane-d4	50	51.8	104	61	141
		Dibromofluoromethane	50	47.86	96	69	133
		Toluene-d8	50	49.15	98	65	126
		4-Bromofluorobenzene	50	46.57	93	58	135
VX1219WBL01	VX1219WBL01	1,2-Dichloroethane-d4	50	50.19	100	61	141
		Dibromofluoromethane	50	47.69	95	69	133
		Toluene-d8	50	49.19	98	65	126
		4-Bromofluorobenzene	50	48	96	58	135
VX1219WBS01	VX1219WBS01	1,2-Dichloroethane-d4	50	50.52	101	61	141
		Dibromofluoromethane	50	48.93	98	69	133
		Toluene-d8	50	50.46	101	65	126
		4-Bromofluorobenzene	50	51	102	58	135
VX1220WBL01	VX1220WBL01	1,2-Dichloroethane-d4	50	48.38	97	61	141
		Dibromofluoromethane	50	47.62	95	69	133
		Toluene-d8	50	49.09	98	65	126
		4-Bromofluorobenzene	50	48.36	97	58	135
VX1220WBS01	VX1220WBS01	1,2-Dichloroethane-d4	50	50.09	100	61	141
		Dibromofluoromethane	50	48.59	97	69	133
		Toluene-d8	50	49.62	99	65	126
		4-Bromofluorobenzene	50	49.64	99	58	135
VX1221WBL01	VX1221WBL01	1,2-Dichloroethane-d4	50	47.69	95	61	141
		Dibromofluoromethane	50	46.44	93	69	133
		Toluene-d8	50	49.25	98	65	126
		4-Bromofluorobenzene	50	48.22	96	58	135
VX1221WBS01	VX1221WBS01	1,2-Dichloroethane-d4	50	47.89	96	61	141
		Dibromofluoromethane	50	48.89	98	69	133
		Toluene-d8	50	49.02	98	65	126
		4-Bromofluorobenzene	50	48.86	98	58	135

CHEMTECH

Matrix Spike/Matrix Spike Duplicate Summary
SW-846

SDG No.: J6484

Client: Day Environmental, Inc.

Analytical Method: SW8260-Low

Parameter	Spike	Sample Result	Result	Units	Rec	Rec Qual	RPD	RPD Qual	Limits Low	Limits High	Limits RPD
Lab Sample ID : J6484-05MS	**Client Sample ID :** 966-MW-04(23)MS							**Datafile :** VX006658.D			
Dichlorodifluoromethane	50	0	46.7	ug/L	93				47	161	
Chloromethane	50	0	49.3	ug/L	99				53	157	
Vinyl chloride	50	0	50.6	ug/L	101				57	149	
Bromomethane	50	0	52.6	ug/L	105				45	165	
Chloroethane	50	0	46.9	ug/L	94				47	166	
Trichlorofluoromethane	50	0	49.9	ug/L	100				51	165	
1,1,2-Trichlorotrifluoroethane	50	0	48	ug/L	96				61	145	
1,1-Dichloroethene	50	0	50.7	ug/L	101				55	148	
Acetone	250	4.8	240	ug/L	94				11	159	
Carbon disulfide	50	0	44.9	ug/L	90				13	149	
Methyl tert-butyl Ether	50	0	52.4	ug/L	105				60	145	
Methyl Acetate	50	2.6	51.8	ug/L	98				27	167	
Methylene Chloride	50	0	50.4	ug/L	101				56	146	
trans-1,2-Dichloroethene	50	0	48.6	ug/L	97				60	141	
1,1-Dichloroethane	50	0	50.3	ug/L	101				61	144	
Cyclohexane	50	0	47.7	ug/L	95				57	142	
2-Butanone	250	0	260	ug/L	104				42	145	
Carbon Tetrachloride	50	0	48.7	ug/L	97				60	140	
cis-1,2-Dichloroethene	50	0	50.6	ug/L	101				48	156	
Bromochloromethane	50	0	55.1	ug/L	110				59	146	
Chloroform	50	0	51.4	ug/L	103				63	140	
1,1,1-Trichloroethane	50	0	51.4	ug/L	103				65	140	
Methylcyclohexane	50	0	45.4	ug/L	91				62	128	
Benzene	50	0	49.1	ug/L	98				62	134	
1,2-Dichloroethane	50	0	49.3	ug/L	99				67	136	
Trichloroethene	50	0	47.5	ug/L	95				64	131	
1,2-Dichloropropane	50	0	50.1	ug/L	100				69	130	
Bromodichloromethane	50	0	50.2	ug/L	100				66	132	
4-Methyl-2-Pentanone	250	0	270	ug/L	108				57	148	
Toluene	50	0	50.2	ug/L	100				68	129	
t-1,3-Dichloropropene	50	0	50.9	ug/L	102				54	136	
cis-1,3-Dichloropropene	50	0	51.3	ug/L	103				56	133	
1,1,2-Trichloroethane	50	0	51.3	ug/L	103				68	134	
2-Hexanone	250	0	270	ug/L	108				46	158	
Dibromochloromethane	50	0	47.1	ug/L	94				59	136	
1,2-Dibromoethane	50	0	52.4	ug/L	105				65	138	
Tetrachloroethene	50	0	46.2	ug/L	92				29	137	
Chlorobenzene	50	0	48.9	ug/L	98				68	126	
Ethyl Benzene	50	0	49.1	ug/L	98				61	131	
m/p-Xylenes	100	0	100	ug/L	100				64	125	
o-Xylene	50	0	49.9	ug/L	100				65	126	
Styrene	50	0	51.3	ug/L	103				40	140	
Bromoform	50	0	44.2	ug/L	88				42	134	
Isopropylbenzene	50	0	49.3	ug/L	99				58	132	
1,1,2,2-Tetrachloroethane	50	0	52	ug/L	104				61	136	
1,3-Dichlorobenzene	50	0	49.4	ug/L	99				63	125	
1,4-Dichlorobenzene	50	0	48	ug/L	96				64	124	

CHEMTECH

Matrix Spike/Matrix Spike Duplicate Summary
SW-846

SDG No.: J6484

Client: Day Environmental, Inc.

Analytical Method: SW8260-Low

Parameter	Spike	Sample Result	Result	Units	Rec	Rec Qual	RPD	RPD Qual	Limits Low	Limits High	Limits RPD
1,2-Dichlorobenzene	50	0	49.1	ug/L	98				64	126	
1,2-Dibromo-3-Chloropropane	50	0	51.4	ug/L	103				57	139	
1,2,4-Trichlorobenzene	50	0	48.7	ug/L	97				57	130	
1,2,3-Trichlorobenzene	50	0	48.5	ug/L	97				57	131	

CHEMTECH

Matrix Spike/Matrix Spike Duplicate Summary
SW-846

SDG No.: J6484

Client: Day Environmental, Inc.

Analytical Method: SW8260-Low

Parameter	Spike	Sample Result	Result	Units	Rec	Rec Qual	RPD	RPD Qual	Limits Low	Limits High	Limits RPD
Lab Sample ID : J6484-06MSD	**Client Sample ID :** 966-MW-04(23)MSD							**Datafile :** VX006659.D			
Dichlorodifluoromethane	50	0	45.2	ug/L	90		3		47	161	20
Chloromethane	50	0	49.4	ug/L	99		0		53	157	20
Vinyl chloride	50	0	50.2	ug/L	100		1		57	149	20
Bromomethane	50	0	53.6	ug/L	107		2		45	165	20
Chloroethane	50	0	46.7	ug/L	93		0		47	166	20
Trichlorofluoromethane	50	0	49.3	ug/L	99		1		51	165	20
1,1,2-Trichlorotrifluoroethane	50	0	46.6	ug/L	93		3		61	145	20
1,1-Dichloroethene	50	0	49.3	ug/L	99		3		55	148	20
Acetone	250	4.8	230	ug/L	90		4		11	159	20
Carbon disulfide	50	0	46	ug/L	92		2		13	149	20
Methyl tert-butyl Ether	50	0	52.6	ug/L	105		0		60	145	20
Methyl Acetate	50	2.6	51.9	ug/L	99		1		27	167	20
Methylene Chloride	50	0	49	ug/L	98		3		56	146	20
trans-1,2-Dichloroethene	50	0	48.4	ug/L	97		0		60	141	20
1,1-Dichloroethane	50	0	50.5	ug/L	101		0		61	144	20
Cyclohexane	50	0	47.3	ug/L	95		1		57	142	20
2-Butanone	250	0	250	ug/L	100		4		42	145	20
Carbon Tetrachloride	50	0	50.6	ug/L	101		4		60	140	20
cis-1,2-Dichloroethene	50	0	50.3	ug/L	101		1		48	156	20
Bromochloromethane	50	0	53.4	ug/L	107		3		59	146	20
Chloroform	50	0	51.7	ug/L	103		1		63	140	20
1,1,1-Trichloroethane	50	0	51.8	ug/L	104		1		65	140	20
Methylcyclohexane	50	0	44.4	ug/L	89		2		62	128	20
Benzene	50	0	50.8	ug/L	102		3		62	134	20
1,2-Dichloroethane	50	0	49.6	ug/L	99		1		67	136	20
Trichloroethene	50	0	48.5	ug/L	97		2		64	131	20
1,2-Dichloropropane	50	0	50.9	ug/L	102		2		69	130	20
Bromodichloromethane	50	0	51.6	ug/L	103		3		66	132	20
4-Methyl-2-Pentanone	250	0	270	ug/L	108		0		57	148	20
Toluene	50	0	51.2	ug/L	102		2		68	129	20
t-1,3-Dichloropropene	50	0	52.3	ug/L	105		3		54	136	20
cis-1,3-Dichloropropene	50	0	52.4	ug/L	105		2		56	133	20
1,1,2-Trichloroethane	50	0	51.6	ug/L	103		1		68	134	20
2-Hexanone	250	0	270	ug/L	108		0		46	158	20
Dibromochloromethane	50	0	48.8	ug/L	98		4		59	136	20
1,2-Dibromoethane	50	0	52.3	ug/L	105		0		65	138	20
Tetrachloroethene	50	0	47.7	ug/L	95		3		29	137	20
Chlorobenzene	50	0	49.6	ug/L	99		1		68	126	20
Ethyl Benzene	50	0	50.2	ug/L	100		2		61	131	20
m/p-Xylenes	100	0	100	ug/L	100		0		64	125	20
o-Xylene	50	0	51.3	ug/L	103		3		65	126	20
Styrene	50	0	52.3	ug/L	105		2		40	140	20
Bromoform	50	0	45.4	ug/L	91		3		42	134	20
Isopropylbenzene	50	0	50.5	ug/L	101		2		58	132	20
1,1,2,2-Tetrachloroethane	50	0	52.4	ug/L	105		1		61	136	20
1,3-Dichlorobenzene	50	0	50.9	ug/L	102		3		63	125	20
1,4-Dichlorobenzene	50	0	49.6	ug/L	99		3		64	124	20

CHEMTECH

Matrix Spike/Matrix Spike Duplicate Summary
SW-846

SDG No.: J6484

Client: Day Environmental, Inc.

Analytical Method: SW8260-Low

Parameter	Spike	Sample Result	Result	Units	Rec	Rec Qual	RPD	RPD Qual	Limits Low	Limits High	Limits RPD
1,2-Dichlorobenzene	50	0	50	ug/L	100		2		64	126	20
1,2-Dibromo-3-Chloropropane	50	0	51.7	ug/L	103		1		57	139	20
1,2,4-Trichlorobenzene	50	0	50.7	ug/L	101		4		57	130	20
1,2,3-Trichlorobenzene	50	0	49.1	ug/L	98		1		57	131	20

CHEMTECH

Laboratory Control Sample/Laboratory Control Sample Duplicate Summary
SW-846

SDG No.: J6484
Client: Day Environmental, Inc.
Analytical Method: SW8260-Low **Datafile :** VX006637.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	Limits Low	Limits High	RPD
VX1219WBS01	Dichlorodifluoromethane	20	20.1	ug/L	101			46	139	
	Chloromethane	20	20	ug/L	100			58	139	
	Vinyl chloride	20	20.4	ug/L	102			65	137	
	Bromomethane	20	20.4	ug/L	102			50	162	
	Chloroethane	20	19	ug/L	95			54	160	
	Trichlorofluoromethane	20	20.5	ug/L	103			67	143	
	1,1,2-Trichlorotrifluoroethane	20	21.3	ug/L	106			71	136	
	1,1-Dichloroethene	20	20	ug/L	100			69	134	
	Acetone	100	100	ug/L	100			41	181	
	Carbon disulfide	20	17.8	ug/L	89			63	138	
	Methyl tert-butyl Ether	20	20.8	ug/L	104			72	136	
	Methyl Acetate	20	20.5	ug/L	103			51	158	
	Methylene Chloride	20	20.3	ug/L	102			67	138	
	trans-1,2-Dichloroethene	20	19.5	ug/L	98			72	132	
	1,1-Dichloroethane	20	20	ug/L	100			74	135	
	Cyclohexane	20	20	ug/L	100			67	132	
	2-Butanone	100	100	ug/L	100			64	146	
	Carbon Tetrachloride	20	19.3	ug/L	97			71	134	
	cis-1,2-Dichloroethene	20	19.8	ug/L	99			74	130	
	Bromochloromethane	20	20.1	ug/L	101			71	136	
	Chloroform	20	20.2	ug/L	101			74	134	
	1,1,1-Trichloroethane	20	19.5	ug/L	98			74	133	
	Methylcyclohexane	20	20.2	ug/L	101			71	125	
	Benzene	20	20.1	ug/L	101			75	125	
	1,2-Dichloroethane	20	19.7	ug/L	99			76	130	
	Trichloroethene	20	19.5	ug/L	98			73	127	
	1,2-Dichloropropane	20	20.1	ug/L	101			76	125	
	Bromodichloromethane	20	19.3	ug/L	97			78	127	
	4-Methyl-2-Pentanone	100	110	ug/L	110			71	140	
	Toluene	20	20.5	ug/L	103			74	125	
	t-1,3-Dichloropropene	20	18.6	ug/L	93			74	131	
	cis-1,3-Dichloropropene	20	19.5	ug/L	98			74	128	
	1,1,2-Trichloroethane	20	20.5	ug/L	103			75	129	
	2-Hexanone	100	110	ug/L	110			62	153	
	Dibromochloromethane	20	18.7	ug/L	94			74	131	
	1,2-Dibromoethane	20	20.2	ug/L	101			74	129	
	Tetrachloroethene	20	20.4	ug/L	102			46	157	
	Chlorobenzene	20	20.2	ug/L	101			76	123	
	Ethyl Benzene	20	20.2	ug/L	101			75	126	
	m/p-Xylenes	40	41.3	ug/L	103			74	126	
	o-Xylene	20	20.5	ug/L	103			73	127	
	Styrene	20	20.9	ug/L	104			75	126	
	Bromoform	20	18.1	ug/L	91			66	130	
	Isopropylbenzene	20	20.2	ug/L	101			70	127	
	1,1,2,2-Tetrachloroethane	20	20.6	ug/L	103			66	131	
	1,3-Dichlorobenzene	20	20.4	ug/L	102			70	125	
	1,4-Dichlorobenzene	20	20	ug/L	100			71	124	
	1,2-Dichlorobenzene	20	20.2	ug/L	101			71	126	
	1,2-Dibromo-3-Chloropropane	20	18.8	ug/L	94			62	134	

CHEMTECH

Laboratory Control Sample/Laboratory Control Sample Duplicate Summary
SW-846

SDG No.: J6484

Client: Day Environmental, Inc.

Analytical Method: SW8260-Low **Datafile :** VX006637.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	Limits Low	Limits High	Limits RPD
VX1219WBS01	1,2,4-Trichlorobenzene	20	20.3	ug/L	102			62	129	
	1,2,3-Trichlorobenzene	20	19.4	ug/L	97			58	130	

CHEMTECH

Laboratory Control Sample/Laboratory Control Sample Duplicate Summary
SW-846

SDG No.: J6484
Client: Day Environmental, Inc.
Analytical Method: SW8260-Low **Datafile :** VX006665.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	Limits Low	Limits High	RPD
VX1220WBS01	Dichlorodifluoromethane	20	19.2	ug/L	96			46	139	
	Chloromethane	20	20.2	ug/L	101			58	139	
	Vinyl chloride	20	19.9	ug/L	100			65	137	
	Bromomethane	20	20.9	ug/L	104			50	162	
	Chloroethane	20	18.4	ug/L	92			54	160	
	Trichlorofluoromethane	20	19.9	ug/L	100			67	143	
	1,1,2-Trichlorotrifluoroethane	20	19.6	ug/L	98			71	136	
	1,1-Dichloroethene	20	19.3	ug/L	97			69	134	
	Acetone	100	100	ug/L	100			41	181	
	Carbon disulfide	20	16.8	ug/L	84			63	138	
	Methyl tert-butyl Ether	20	20.7	ug/L	104			72	136	
	Methyl Acetate	20	21	ug/L	105			51	158	
	Methylene Chloride	20	19.7	ug/L	99			67	138	
	trans-1,2-Dichloroethene	20	18.9	ug/L	95			72	132	
	1,1-Dichloroethane	20	20	ug/L	100			74	135	
	Cyclohexane	20	19.5	ug/L	98			67	132	
	2-Butanone	100	100	ug/L	100			64	146	
	Carbon Tetrachloride	20	18.8	ug/L	94			71	134	
	cis-1,2-Dichloroethene	20	20	ug/L	100			74	130	
	Bromochloromethane	20	20.7	ug/L	104			71	136	
	Chloroform	20	19.8	ug/L	99			74	134	
	1,1,1-Trichloroethane	20	19.6	ug/L	98			74	133	
	Methylcyclohexane	20	19.2	ug/L	96			71	125	
	Benzene	20	19.9	ug/L	100			75	125	
	1,2-Dichloroethane	20	19.7	ug/L	99			76	130	
	Trichloroethene	20	19.4	ug/L	97			73	127	
	1,2-Dichloropropane	20	20.2	ug/L	101			76	125	
	Bromodichloromethane	20	18.7	ug/L	94			78	127	
	4-Methyl-2-Pentanone	100	110	ug/L	110			71	140	
	Toluene	20	20	ug/L	100			74	125	
	t-1,3-Dichloropropene	20	18.6	ug/L	93			74	131	
	cis-1,3-Dichloropropene	20	19.7	ug/L	99			74	128	
	1,1,2-Trichloroethane	20	20.3	ug/L	102			75	129	
	2-Hexanone	100	110	ug/L	110			62	153	
	Dibromochloromethane	20	18.4	ug/L	92			74	131	
	1,2-Dibromoethane	20	20.6	ug/L	103			74	129	
	Tetrachloroethene	20	20	ug/L	100			46	157	
	Chlorobenzene	20	19.9	ug/L	100			76	123	
	Ethyl Benzene	20	19.6	ug/L	98			75	126	
	m/p-Xylenes	40	40.1	ug/L	100			74	126	
	o-Xylene	20	20.1	ug/L	101			73	127	
	Styrene	20	20.2	ug/L	101			75	126	
	Bromoform	20	18.3	ug/L	92			66	130	
	Isopropylbenzene	20	19.7	ug/L	99			70	127	
	1,1,2,2-Tetrachloroethane	20	20.4	ug/L	102			66	131	
	1,3-Dichlorobenzene	20	19.6	ug/L	98			70	125	
	1,4-Dichlorobenzene	20	19.1	ug/L	96			71	124	
	1,2-Dichlorobenzene	20	19.8	ug/L	99			71	126	
	1,2-Dibromo-3-Chloropropane	20	18.2	ug/L	91			62	134	

CHEMTECH

Laboratory Control Sample/Laboratory Control Sample Duplicate Summary
SW-846

SDG No.: J6484

Client: Day Environmental, Inc.

Analytical Method: SW8260-Low **Datafile :** VX006665.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	Limits Low	Limits High	Limits RPD
VX1220WBS01	1,2,4-Trichlorobenzene	20	19.2	ug/L	96			62	129	
	1,2,3-Trichlorobenzene	20	18.6	ug/L	93			58	130	

CHEMTECH

Laboratory Control Sample/Laboratory Control Sample Duplicate Summary
SW-846

SDG No.: J6484
Client: Day Environmental, Inc.
Analytical Method: SW8260-Low **Datafile :** VX006715.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	Limits Low	Limits High	RPD
VX1221WBS01	Dichlorodifluoromethane	20	18.3	ug/L	92			46	139	
	Chloromethane	20	17.8	ug/L	89			58	139	
	Vinyl chloride	20	19	ug/L	95			65	137	
	Bromomethane	20	18.1	ug/L	91			50	162	
	Chloroethane	20	18.4	ug/L	92			54	160	
	Trichlorofluoromethane	20	19.6	ug/L	98			67	143	
	1,1,2-Trichlorotrifluoroethane	20	20	ug/L	100			71	136	
	1,1-Dichloroethene	20	18.9	ug/L	95			69	134	
	Acetone	100	100	ug/L	100			41	181	
	Carbon disulfide	20	15.9	ug/L	79			63	138	
	Methyl tert-butyl Ether	20	20	ug/L	100			72	136	
	Methyl Acetate	20	21.1	ug/L	106			51	158	
	Methylene Chloride	20	18.8	ug/L	94			67	138	
	trans-1,2-Dichloroethene	20	18.1	ug/L	91			72	132	
	1,1-Dichloroethane	20	18.4	ug/L	92			74	135	
	Cyclohexane	20	19	ug/L	95			67	132	
	2-Butanone	100	100	ug/L	100			64	146	
	Carbon Tetrachloride	20	18.4	ug/L	92			71	134	
	cis-1,2-Dichloroethene	20	19.3	ug/L	97			74	130	
	Bromochloromethane	20	19.7	ug/L	99			71	136	
	Chloroform	20	19.2	ug/L	96			74	134	
	1,1,1-Trichloroethane	20	18.7	ug/L	94			74	133	
	Methylcyclohexane	20	19.4	ug/L	97			71	125	
	Benzene	20	19.5	ug/L	98			75	125	
	1,2-Dichloroethane	20	19.2	ug/L	96			76	130	
	Trichloroethene	20	18.9	ug/L	95			73	127	
	1,2-Dichloropropane	20	20.3	ug/L	102			76	125	
	Bromodichloromethane	20	18.5	ug/L	93			78	127	
	4-Methyl-2-Pentanone	100	110	ug/L	110			71	140	
	Toluene	20	19.9	ug/L	100			74	125	
	t-1,3-Dichloropropene	20	17.9	ug/L	90			74	131	
	cis-1,3-Dichloropropene	20	19	ug/L	95			74	128	
	1,1,2-Trichloroethane	20	19.8	ug/L	99			75	129	
	2-Hexanone	100	110	ug/L	110			62	153	
	Dibromochloromethane	20	18.1	ug/L	91			74	131	
	1,2-Dibromoethane	20	19.9	ug/L	100			74	129	
	Tetrachloroethene	20	20.1	ug/L	101			46	157	
	Chlorobenzene	20	19.4	ug/L	97			76	123	
	Ethyl Benzene	20	20	ug/L	100			75	126	
	m/p-Xylenes	40	39.5	ug/L	99			74	126	
	o-Xylene	20	19.4	ug/L	97			73	127	
	Styrene	20	19.8	ug/L	99			75	126	
	Bromoform	20	18.1	ug/L	91			66	130	
	Isopropylbenzene	20	20.1	ug/L	101			70	127	
	1,1,2,2-Tetrachloroethane	20	20.8	ug/L	104			66	131	
	1,3-Dichlorobenzene	20	20	ug/L	100			70	125	
	1,4-Dichlorobenzene	20	19.7	ug/L	99			71	124	
	1,2-Dichlorobenzene	20	19.7	ug/L	99			71	126	
	1,2-Dibromo-3-Chloropropane	20	19	ug/L	95			62	134	

CHEMTECH

Laboratory Control Sample/Laboratory Control Sample Duplicate Summary
SW-846

SDG No.: J6484

Client: Day Environmental, Inc.

Analytical Method: SW8260-Low **Datafile :** VX006715.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	Limits Low	Limits High	Limits RPD
VX1221WBS01	1,2,4-Trichlorobenzene	20	19.9	ug/L	100			62	129	
	1,2,3-Trichlorobenzene	20	19.3	ug/L	97			58	130	

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VX1219WBL01

Lab Name: CHEMTECH Contract: DAYE01

Lab Code: CHEM Case No.: J6484 SAS No.: J6484 SDG NO.: J6484

Lab File ID: VX006636.D Lab Sample ID: VX1219WBL01

Date Analyzed: 12/19/2018 Time Analyzed: 14:54

GC Column: DB-624UI ID: 0.18 (mm) Heated Purge: (Y/N) N

Instrument ID: MSVOA_X

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
VX1219WBS01	VX1219WBS01	VX006637.D	12/19/2018
978-TB121818	J6484-18	VX006642.D	12/19/2018
977-FB121818	J6484-17	VX006643.D	12/19/2018
966-MW-04(23)	J6484-04	VX006657.D	12/20/2018
966-MW-04(23)MS	J6484-05MS	VX006658.D	12/20/2018
966-MW-04(23)MSD	J6484-06MSD	VX006659.D	12/20/2018

COMMENTS:

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VX1220WBL01

Lab Name: CHEMTECH Contract: DAYE01

Lab Code: CHEM Case No.: J6484 SAS No.: J6484 SDG NO.: J6484

Lab File ID: VX006663.D Lab Sample ID: VX1220WBL01

Date Analyzed: 12/20/2018 Time Analyzed: 09:34

GC Column: DB-624UI ID: 0.18 (mm) Heated Purge: (Y/N) N

Instrument ID: MSVOA_X

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
VX1220WBS01	VX1220WBS01	VX006665.D	12/20/2018
964-MW-02(23.8)	J6484-02	VX006671.D	12/20/2018
967-MW-05(17)	J6484-07	VX006672.D	12/20/2018
968-MW-06(17)	J6484-08	VX006673.D	12/20/2018
969-MW-07(22.5)	J6484-09	VX006675.D	12/20/2018
970-MW-11(15)	J6484-10	VX006676.D	12/20/2018
971-MW-15(17)	J6484-11	VX006677.D	12/20/2018
972-MW-16(22.5)	J6484-12	VX006678.D	12/20/2018
974-MW-18(21.5)	J6484-14	VX006679.D	12/20/2018
975-MW-19(28)	J6484-15	VX006680.D	12/20/2018
976-MW-20(22)	J6484-16	VX006681.D	12/20/2018
963-MW-01(23)	J6484-01	VX006684.D	12/20/2018
965-MW-03A(17)	J6484-03	VX006685.D	12/20/2018
973-MW-17(15.5)	J6484-13	VX006686.D	12/20/2018

COMMENTS:

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VX1221WBL01

Lab Name: CHEMTECH Contract: DAYE01

Lab Code: CHEM Case No.: J6484 SAS No.: J6484 SDG NO.: J6484

Lab File ID: VX006714.D Lab Sample ID: VX1221WBL01

Date Analyzed: 12/21/2018 Time Analyzed: 10:58

GC Column: DB-624UI ID: 0.18 (mm) Heated Purge: (Y/N) N

Instrument ID: MSVOA_X

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
VX1221WBS01	VX1221WBS01	VX006715.D	12/21/2018
965-MW-03A(17)DL	J6484-03DL	VX006732.D	12/21/2018
963-MW-01(23)DL	J6484-01DL	VX006733.D	12/21/2018

COMMENTS:

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: CHEMTECH Contract: DAYE01

Lab Code: CHEM Case No.: J6484 SAS No.: J6484 SDG NO.: J6484

Lab File ID: VX006586.D BFB Injection Date: 12/18/2018

Instrument ID: MSVOA_X BFB Injection Time: 08:18

GC Column: DB-624UI ID: 0.18 (mm) Heated Purge: Y/N N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	15.9
75	30.0 - 60.0% of mass 95	46.6
95	Base Peak, 100% relative abundance	100
96	5.0 - 9.0% of mass 95	6.9
173	Less than 2.0% of mass 174	1.1 (1.4) 1
174	50.0 - 100.0% of mass 95	81.9
175	5.0 - 9.0% of mass 174	6.1 (7.5) 1
176	95.0 - 101.0% of mass 174	79.3 (96.8) 1
177	5.0 - 9.0% of mass 176	5.3 (6.6) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
VSTDICC001	VSTDICC001	VX006588.D	12/18/2018	10:45
VSTDICC005	VSTDICC005	VX006589.D	12/18/2018	11:11
VSTDICC020	VSTDICC020	VX006590.D	12/18/2018	11:38
VSTDICCC050	VSTDICCC050	VX006591.D	12/18/2018	12:04
VSTDICC100	VSTDICC100	VX006592.D	12/18/2018	12:31
VSTDICC150	VSTDICC150	VX006593.D	12/18/2018	12:57

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: CHEMTECH Contract: DAYE01

Lab Code: CHEM Case No.: J6484 SAS No.: J6484 SDG NO.: J6484

Lab File ID: VX006634.D BFB Injection Date: 12/19/2018

Instrument ID: MSVOA_X BFB Injection Time: 13:50

GC Column: DB-624UI ID: 0.18 (mm) Heated Purge: Y/N N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	15.3
75	30.0 - 60.0% of mass 95	46.9
95	Base Peak, 100% relative abundance	100
96	5.0 - 9.0% of mass 95	6.9
173	Less than 2.0% of mass 174	1.1 (1.4) 1
174	50.0 - 100.0% of mass 95	80.2
175	5.0 - 9.0% of mass 174	5.9 (7.3) 1
176	95.0 - 101.0% of mass 174	78.3 (97.6) 1
177	5.0 - 9.0% of mass 176	5.2 (6.6) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
VSTDCCC050	VSTDCCC050	VX006635.D	12/19/2018	14:22
VX1219WBL01	VX1219WBL01	VX006636.D	12/19/2018	14:54
VX1219WBS01	VX1219WBS01	VX006637.D	12/19/2018	15:24
978-TB121818	J6484-18	VX006642.D	12/19/2018	17:38
977-FB121818	J6484-17	VX006643.D	12/19/2018	18:04
966-MW-04(23)	J6484-04	VX006657.D	12/20/2018	00:17
966-MW-04(23)MS	J6484-05MS	VX006658.D	12/20/2018	00:44
966-MW-04(23)MSD	J6484-06MSD	VX006659.D	12/20/2018	01:11

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: CHEMTECH Contract: DAYE01

Lab Code: CHEM Case No.: J6484 SAS No.: J6484 SDG NO.: J6484

Lab File ID: VX006661.D BFB Injection Date: 12/20/2018

Instrument ID: MSVOA_X BFB Injection Time: 08:31

GC Column: DB-624UI ID: 0.18 (mm) Heated Purge: Y/N N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	15.8
75	30.0 - 60.0% of mass 95	47.3
95	Base Peak, 100% relative abundance	100
96	5.0 - 9.0% of mass 95	6.6
173	Less than 2.0% of mass 174	1.1 (1.2) 1
174	50.0 - 100.0% of mass 95	85.9
175	5.0 - 9.0% of mass 174	6.6 (7.7) 1
176	95.0 - 101.0% of mass 174	81.5 (94.9) 1
177	5.0 - 9.0% of mass 176	5.4 (6.6) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
VSTDCCC050	VSTDCCC050	VX006662.D	12/20/2018	09:00
VX1220WBL01	VX1220WBL01	VX006663.D	12/20/2018	09:34
VX1220WBS01	VX1220WBS01	VX006665.D	12/20/2018	10:27
964-MW-02(23.8)	J6484-02	VX006671.D	12/20/2018	13:07
967-MW-05(17)	J6484-07	VX006672.D	12/20/2018	13:34
968-MW-06(17)	J6484-08	VX006673.D	12/20/2018	14:01
969-MW-07(22.5)	J6484-09	VX006675.D	12/20/2018	14:54
970-MW-11(15)	J6484-10	VX006676.D	12/20/2018	15:21
971-MW-15(17)	J6484-11	VX006677.D	12/20/2018	15:47
972-MW-16(22.5)	J6484-12	VX006678.D	12/20/2018	16:14
974-MW-18(21.5)	J6484-14	VX006679.D	12/20/2018	16:41
975-MW-19(28)	J6484-15	VX006680.D	12/20/2018	17:07
976-MW-20(22)	J6484-16	VX006681.D	12/20/2018	17:34
963-MW-01(23)	J6484-01	VX006684.D	12/20/2018	18:54
965-MW-03A(17)	J6484-03	VX006685.D	12/20/2018	19:21
973-MW-17(15.5)	J6484-13	VX006686.D	12/20/2018	19:47

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: CHEMTECH Contract: DAYE01

Lab Code: CHEM Case No.: J6484 SAS No.: J6484 SDG NO.: J6484

Lab File ID: VX006712.D BFB Injection Date: 12/21/2018

Instrument ID: MSVOA_X BFB Injection Time: 08:37

GC Column: DB-624UI ID: 0.18 (mm) Heated Purge: Y/N N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	16.5
75	30.0 - 60.0% of mass 95	47.2
95	Base Peak, 100% relative abundance	100
96	5.0 - 9.0% of mass 95	7.2
173	Less than 2.0% of mass 174	0.9 (1.1) 1
174	50.0 - 100.0% of mass 95	87.6
175	5.0 - 9.0% of mass 174	6.8 (7.8) 1
176	95.0 - 101.0% of mass 174	85.3 (97.4) 1
177	5.0 - 9.0% of mass 176	6 (7.1) 2

1-Value is % mass 174

2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
VSTDCCC050	VSTDCCC050	VX006713.D	12/21/2018	09:07
VX1221WBL01	VX1221WBL01	VX006714.D	12/21/2018	10:58
VX1221WBS01	VX1221WBS01	VX006715.D	12/21/2018	11:29
965-MW-03A(17)DL	J6484-03DL	VX006732.D	12/21/2018	19:04
963-MW-01(23)DL	J6484-01DL	VX006733.D	12/21/2018	19:30

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH Contract: DAYE01

Lab Code: CHEM Case No.: J6484 SAS No.: J6484 SDG NO.: J6484

Lab File ID: VX006635.D Date Analyzed: 12/19/2018

Instrument ID: MSVOA_X Time Analyzed: 14:22

GC Column: DB-624UI ID: 0.18 (mm) Heated Purge: (Y/N) N

	IS1 AREA #	RT #	IS2 AREA #	RT #	IS3 AREA #	RT #
12 HOUR STD	603495	5.66	917487	6.86	858708	10.11
UPPER LIMIT	1206990	6.16	1834970	7.36	1717420	10.61
LOWER LIMIT	301748	5.16	458744	6.36	429354	9.61
EPA SAMPLE NO.						
966-MW-04(23)	637494	5.67	1013014	6.86	927070	10.11
966-MW-04(23)MS	553996	5.67	879261	6.86	813759	10.12
966-MW-04(23)MSD	570412	5.67	887271	6.86	826660	10.12
977-FB121818	617574	5.67	998762	6.86	909724	10.12
978-TB121818	596565	5.67	950160	6.86	847782	10.12
VX1219WBL01	672339	5.67	1051248	6.86	955698	10.11
VX1219WBS01	591440	5.67	914082	6.86	836428	10.11

IS1 = Pentafluorobenzene
IS2 = 1,4-Difluorobenzene
IS3 = Chlorobenzene-d5

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH Contract: DAYE01

Lab Code: CHEM Case No.: J6484 SAS No.: J6484 SDG NO.: J6484

Lab File ID: VX006635.D Date Analyzed: 12/19/2018

Instrument ID: MSVOA_X Time Analyzed: 14:22

GC Column: DB-624UI ID: 0.18 (mm) Heated Purge: (Y/N) N

	IS4 AREA #	RT #				
12 HOUR STD	458522	12.08				
UPPER LIMIT	917044	12.58				
LOWER LIMIT	229261	11.58				
EPA SAMPLE NO.						
966-MW-04(23)	441826	12.08				
966-MW-04(23)MS	430640	12.08				
966-MW-04(23)MSD	428595	12.08				
977-FB121818	429890	12.08				
978-TB121818	378358	12.08				
VX1219WBL01	452100	12.08				
VX1219WBS01	440718	12.08				

IS4 = 1,4-Dichlorobenzene-d4

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH Contract: DAYE01

Lab Code: CHEM Case No.: J6484 SAS No.: J6484 SDG NO.: J6484

Lab File ID: VX006662.D Date Analyzed: 12/20/2018

Instrument ID: MSVOA_X Time Analyzed: 09:00

GC Column: DB-624UI ID: 0.18 (mm) Heated Purge: (Y/N) N

	IS1 AREA #	RT #	IS2 AREA #	RT #	IS3 AREA #	RT #
12 HOUR STD	737861	5.66	1095980	6.86	1030350	10.11
UPPER LIMIT	1475720	6.16	2191960	7.36	2060700	10.61
LOWER LIMIT	368931	5.16	547990	6.36	515176	9.61
EPA SAMPLE NO.						
963-MW-01(23)	641263	5.67	1018860	6.86	926625	10.12
964-MW-02(23.8)	655690	5.66	1028967	6.86	946011	10.12
965-MW-03A(17)	634779	5.67	1001528	6.86	913160	10.11
967-MW-05(17)	639937	5.67	1001908	6.86	926835	10.11
968-MW-06(17)	624286	5.67	991940	6.86	908114	10.11
969-MW-07(22.5)	624324	5.67	983077	6.86	907225	10.11
970-MW-11(15)	628490	5.67	996831	6.86	919226	10.12
971-MW-15(17)	620134	5.67	979825	6.86	894608	10.11
972-MW-16(22.5)	639564	5.67	1000109	6.86	930145	10.12
973-MW-17(15.5)	624258	5.67	989202	6.86	922019	10.12
974-MW-18(21.5)	613525	5.67	978779	6.86	900531	10.12
975-MW-19(28)	622556	5.67	993166	6.86	908521	10.12
976-MW-20(22)	617808	5.67	979870	6.86	901852	10.12
VX1220WBL01	621558	5.67	952733	6.86	861800	10.11
VX1220WBS01	588775	5.67	912822	6.86	837848	10.11

IS1 = Pentafluorobenzene
IS2 = 1,4-Difluorobenzene
IS3 = Chlorobenzene-d5

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH Contract: DAYE01

Lab Code: CHEM Case No.: J6484 SAS No.: J6484 SDG NO.: J6484

Lab File ID: VX006662.D Date Analyzed: 12/20/2018

Instrument ID: MSVOA_X Time Analyzed: 09:00

GC Column: DB-624UI ID: 0.18 (mm) Heated Purge: (Y/N) N

	IS4 AREA #	RT #				
12 HOUR STD	539742	12.08				
UPPER LIMIT	1079480	12.58				
LOWER LIMIT	269871	11.58				
EPA SAMPLE NO.						
963-MW-01(23)	444156	12.08				
964-MW-02(23.8)	451641	12.08				
965-MW-03A(17)	443619	12.08				
967-MW-05(17)	438799	12.08				
968-MW-06(17)	434080	12.08				
969-MW-07(22.5)	434679	12.08				
970-MW-11(15)	441570	12.08				
971-MW-15(17)	426454	12.08				
972-MW-16(22.5)	439539	12.08				
973-MW-17(15.5)	438438	12.08				
974-MW-18(21.5)	429394	12.08				
975-MW-19(28)	438630	12.08				
976-MW-20(22)	425228	12.08				
VX1220WBL01	416981	12.08				
VX1220WBS01	442553	12.08				

IS4 = 1,4-Dichlorobenzene-d4

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH Contract: DAYE01

Lab Code: CHEM Case No.: J6484 SAS No.: J6484 SDG NO.: J6484

Lab File ID: VX006713.D Date Analyzed: 12/21/2018

Instrument ID: MSVOA_X Time Analyzed: 09:07

GC Column: DB-624UI ID: 0.18 (mm) Heated Purge: (Y/N) N

	IS1 AREA #	RT #	IS2 AREA #	RT #	IS3 AREA #	RT #
12 HOUR STD	654895	5.67	954779	6.86	852706	10.12
UPPER LIMIT	1309790	6.17	1909560	7.36	1705410	10.62
LOWER LIMIT	327448	5.17	477390	6.36	426353	9.62
EPA SAMPLE NO.						
963-MW-01(23)DL	620056	5.67	966110	6.86	862267	10.12
965-MW-03A(17)DL	626412	5.67	969710	6.86	861961	10.12
VX1221WBL01	678329	5.66	1030205	6.86	940033	10.11
VX1221WBS01	595557	5.67	903537	6.86	816505	10.12

IS1 = Pentafluorobenzene
IS2 = 1,4-Difluorobenzene
IS3 = Chlorobenzene-d5

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH Contract: DAYE01

Lab Code: CHEM Case No.: J6484 SAS No.: J6484 SDG NO.: J6484

Lab File ID: VX006713.D Date Analyzed: 12/21/2018

Instrument ID: MSVOA_X Time Analyzed: 09:07

GC Column: DB-624UI ID: 0.18 (mm) Heated Purge: (Y/N) N

	IS4 AREA #	RT #				
12 HOUR STD	439290	12.08				
UPPER LIMIT	878580	12.58				
LOWER LIMIT	219645	11.58				
EPA SAMPLE NO.						
963-MW-01(23)DL	401006	12.08				
965-MW-03A(17)DL	410350	12.08				
VX1221WBL01	448984	12.08				
VX1221WBS01	422150	12.08				

IS4 = 1,4-Dichlorobenzene-d4

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

 # Column used to flag values outside QC limits with an asterisk.
*** Values outside of QC limits.**

SAMPLE DATA

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Day Environmental, Inc.	Date Collected:	12/18/18
Project:	Andrew St. RI	Date Received:	12/19/18
Client Sample ID:	963-MW-01(23)	SDG No.:	J6484
Lab Sample ID:	J6484-01	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	DB-624UI ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX006684.D	1		12/20/18 18:54	VX122018

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
75-71-8	Dichlorodifluoromethane	1	U	0.2	0.2	1	ug/L
74-87-3	Chloromethane	1	U	0.2	0.2	1	ug/L
75-01-4	Vinyl Chloride	0.41	J	0.2	0.2	1	ug/L
74-83-9	Bromomethane	1	U	0.2	0.2	1	ug/L
75-00-3	Chloroethane	1	U	0.2	0.5	1	ug/L
75-69-4	Trichlorofluoromethane	1	U	0.2	0.2	1	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	1	U	0.2	0.2	1	ug/L
75-35-4	1,1-Dichloroethene	1	U	0.2	0.2	1	ug/L
67-64-1	Acetone	3.5	J	0.5	1	5	ug/L
75-15-0	Carbon Disulfide	1	U	0.2	0.2	1	ug/L
1634-04-4	Methyl tert-butyl Ether	1	U	0.35	0.5	1	ug/L
79-20-9	Methyl Acetate	1.1		0.2	0.5	1	ug/L
75-09-2	Methylene Chloride	1	U	0.2	0.2	1	ug/L
156-60-5	trans-1,2-Dichloroethene	1.9		0.2	0.2	1	ug/L
75-34-3	1,1-Dichloroethane	1	U	0.2	0.2	1	ug/L
110-82-7	Cyclohexane	1	U	0.2	0.2	1	ug/L
78-93-3	2-Butanone	5	U	1.3	2.5	5	ug/L
56-23-5	Carbon Tetrachloride	1	U	0.2	0.2	1	ug/L
156-59-2	cis-1,2-Dichloroethene	66		0.2	0.2	1	ug/L
74-97-5	Bromochloromethane	1	U	0.2	0.5	1	ug/L
67-66-3	Chloroform	1	U	0.2	0.2	1	ug/L
71-55-6	1,1,1-Trichloroethane	1	U	0.2	0.2	1	ug/L
108-87-2	Methylcyclohexane	1	U	0.2	0.2	1	ug/L
71-43-2	Benzene	1	U	0.2	0.2	1	ug/L
107-06-2	1,2-Dichloroethane	1	U	0.2	0.2	1	ug/L
79-01-6	Trichloroethene	64.4		0.2	0.2	1	ug/L
78-87-5	1,2-Dichloropropane	1	U	0.2	0.2	1	ug/L
75-27-4	Bromodichloromethane	1	U	0.2	0.2	1	ug/L
108-10-1	4-Methyl-2-Pentanone	5	U	1	1	5	ug/L
108-88-3	Toluene	1	U	0.2	0.2	1	ug/L
10061-02-6	t-1,3-Dichloropropene	1	U	0.2	0.2	1	ug/L
10061-01-5	cis-1,3-Dichloropropene	1	U	0.2	0.2	1	ug/L

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Day Environmental, Inc.	Date Collected:	12/18/18
Project:	Andrew St. RI	Date Received:	12/19/18
Client Sample ID:	963-MW-01(23)	SDG No.:	J6484
Lab Sample ID:	J6484-01	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	DB-624UI ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX006684.D	1		12/20/18 18:54	VX122018

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
79-00-5	1,1,2-Trichloroethane	1	U	0.2	0.2	1	ug/L
591-78-6	2-Hexanone	5	U	1.9	2.5	5	ug/L
124-48-1	Dibromochloromethane	1	U	0.2	0.2	1	ug/L
106-93-4	1,2-Dibromoethane	1	U	0.2	0.2	1	ug/L
127-18-4	Tetrachloroethene	510	E	0.2	0.2	1	ug/L
108-90-7	Chlorobenzene	1	U	0.2	0.2	1	ug/L
100-41-4	Ethyl Benzene	1	U	0.2	0.2	1	ug/L
179601-23-1	m/p-Xylenes	2	U	0.4	0.4	2	ug/L
95-47-6	o-Xylene	1	U	0.2	0.2	1	ug/L
100-42-5	Styrene	1	U	0.2	0.2	1	ug/L
75-25-2	Bromoform	1	U	0.2	0.2	1	ug/L
98-82-8	Isopropylbenzene	1	U	0.2	0.2	1	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	1	U	0.2	0.2	1	ug/L
541-73-1	1,3-Dichlorobenzene	1	U	0.2	0.2	1	ug/L
106-46-7	1,4-Dichlorobenzene	1	U	0.2	0.2	1	ug/L
95-50-1	1,2-Dichlorobenzene	1	U	0.2	0.2	1	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	1	U	0.2	0.2	1	ug/L
120-82-1	1,2,4-Trichlorobenzene	1	U	0.2	0.2	1	ug/L
87-61-6	1,2,3-Trichlorobenzene	1	U	0.2	0.2	1	ug/L
SURROGATES							
17060-07-0	1,2-Dichloroethane-d4	49.5		61 - 141		99%	SPK: 50
1868-53-7	Dibromofluoromethane	46.9		69 - 133		94%	SPK: 50
2037-26-5	Toluene-d8	49.5		65 - 126		99%	SPK: 50
460-00-4	4-Bromofluorobenzene	48		58 - 135		96%	SPK: 50
INTERNAL STANDARDS							
363-72-4	Pentafluorobenzene	641263	5.67				
540-36-3	1,4-Difluorobenzene	1018860	6.86				
3114-55-4	Chlorobenzene-d5	926625	10.12				
3855-82-1	1,4-Dichlorobenzene-d4	444156	12.08				

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Day Environmental, Inc.	Date Collected:	12/18/18
Project:	Andrew St. RI	Date Received:	12/19/18
Client Sample ID:	963-MW-01(23)	SDG No.:	J6484
Lab Sample ID:	J6484-01	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	DB-624UI ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX006684.D	1		12/20/18 18:54	VX122018

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit
A = Aldol-Condensation Reaction Products

Quantitation Report (QT Reviewed)

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX122018\
Data File : VX006684.D
Acq On : 20 Dec 2018 18:54
Operator : JC/MD
Sample : J6484-01
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 24 Sample Multiplier: 1

Instrument : MSVOA_X
ClientSampleId : 963-MW-01(23)

Quant Time: Dec 21 04:32:05 2018
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121818W.M
Quant Title : SW846 8260
QLast Update : Wed Dec 19 15:20:58 2018
Response via : Initial Calibration

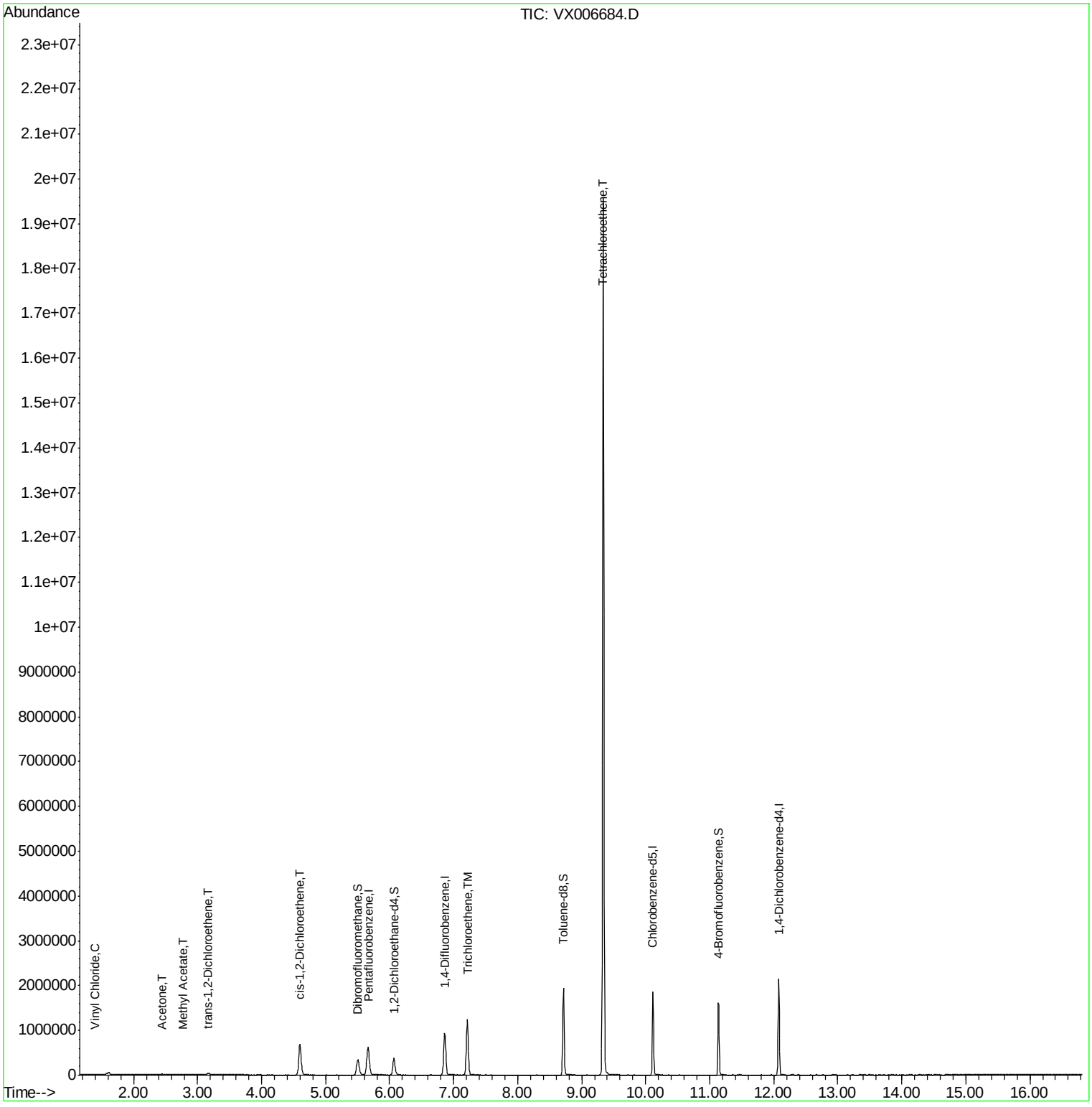
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	5.67	168	641263	50.00	ug/l	0.00
34) 1,4-Difluorobenzene	6.86	114	1018860	50.00	ug/l	0.00
63) Chlorobenzene-d5	10.12	117	926625	50.00	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	12.08	152	444156	50.00	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	6.07	65	342080	49.50	ug/l	0.00
Spiked Amount 50.000			Recovery = 99.00%			
35) Dibromofluoromethane	5.51	113	301886	46.85	ug/l	0.00
Spiked Amount 50.000			Recovery = 93.70%			
50) Toluene-d8	8.71	98	1202847	49.52	ug/l	0.00
Spiked Amount 50.000			Recovery = 99.04%			
62) 4-Bromofluorobenzene	11.13	95	427420	48.05	ug/l	0.00
Spiked Amount 50.000			Recovery = 96.10%			
Target Compounds						Qvalue
4) Vinyl Chloride	1.41	62	2671	0.405	ug/l	100
16) Acetone	2.45	43	10995	3.463	ug/l	94
18) Methyl Acetate	2.78	43	9985	1.069	ug/l	95
21) trans-1,2-Dichloroethene	3.17	96	12142	1.913	ug/l	96
27) cis-1,2-Dichloroethene	4.60	96	462233	65.994	ug/l	93
44) Trichloroethene	7.21	130	499629	64.356	ug/l	98
64) Tetrachloroethene	9.34	164	3773313	514.253	ug/l	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

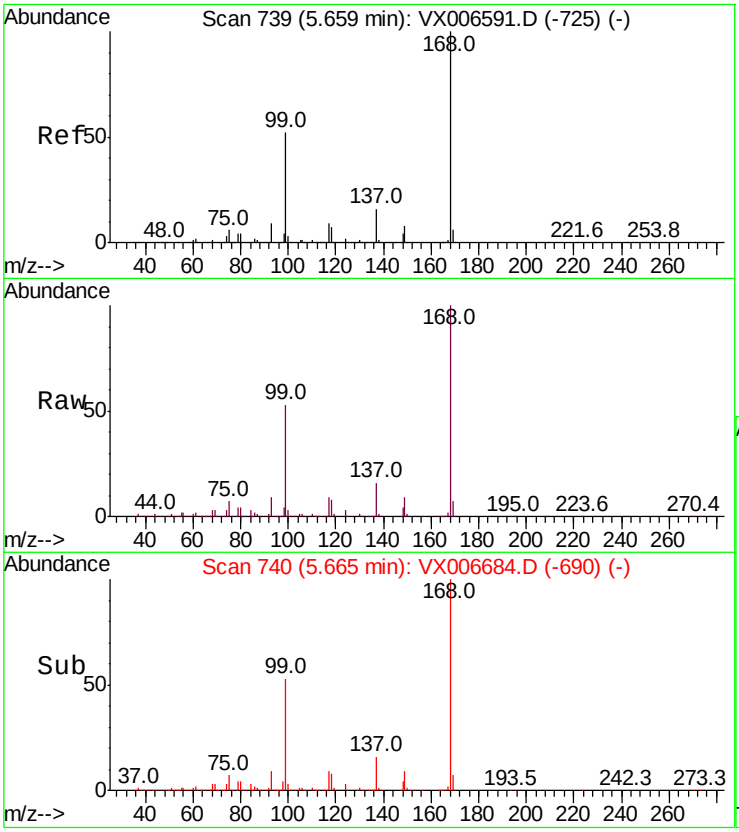
Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX122018\
Data File : VX006684.D
Acq On : 20 Dec 2018 18:54
Operator : JC/MD
Sample : J6484-01
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 24 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
963-MW-01(23)

Quant Time: Dec 21 04:32:05 2018
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121818W.M
Quant Title : SW846 8260
QLast Update : Wed Dec 19 15:20:58 2018
Response via : Initial Calibration



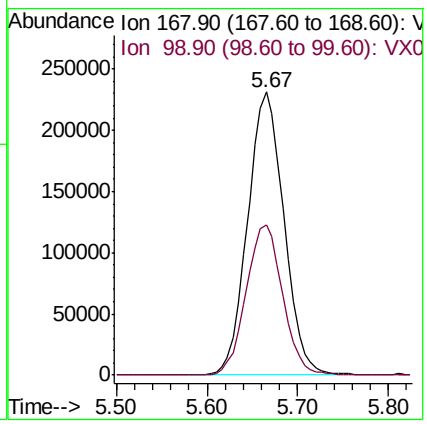
Instrument :
MSVOA_X
ClientSampleId :
963-MW-01(23)

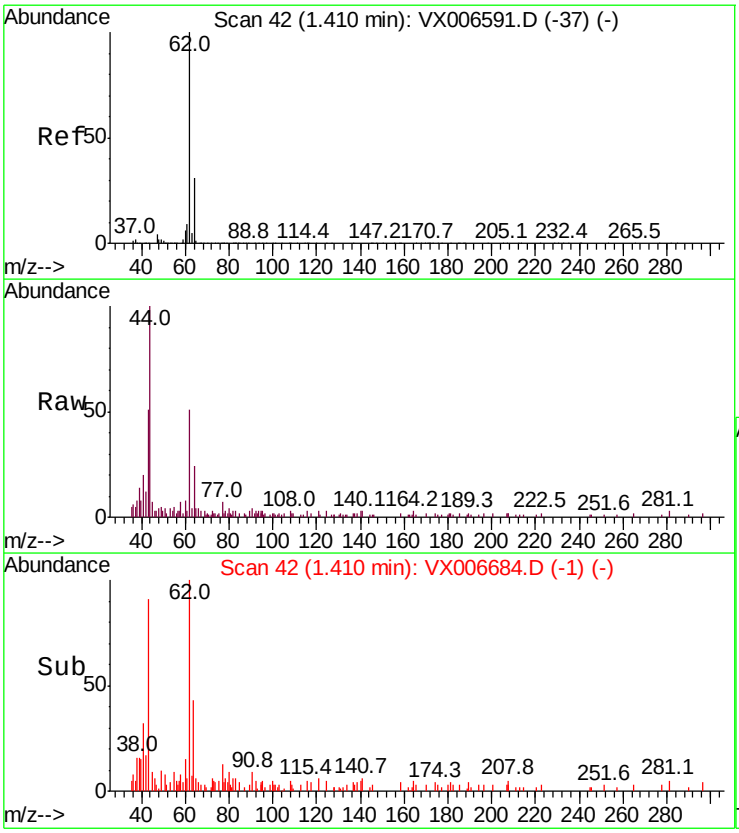


#1
Pentafluorobenzene
Concen: 50.000 ug/l
RT: 5.67 min Scan# 740
Delta R.T. 0.01 min
Lab File: VX006684.D
Acq: 20 Dec 2018 18:54

Tgt Ion:168 Resp: 641263

Ion	Ratio	Lower	Upper
168	100		
99	53.0	41.8	62.8

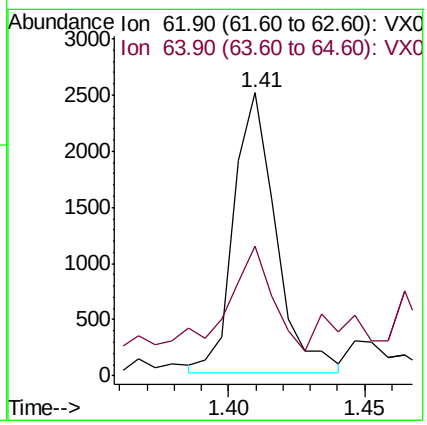




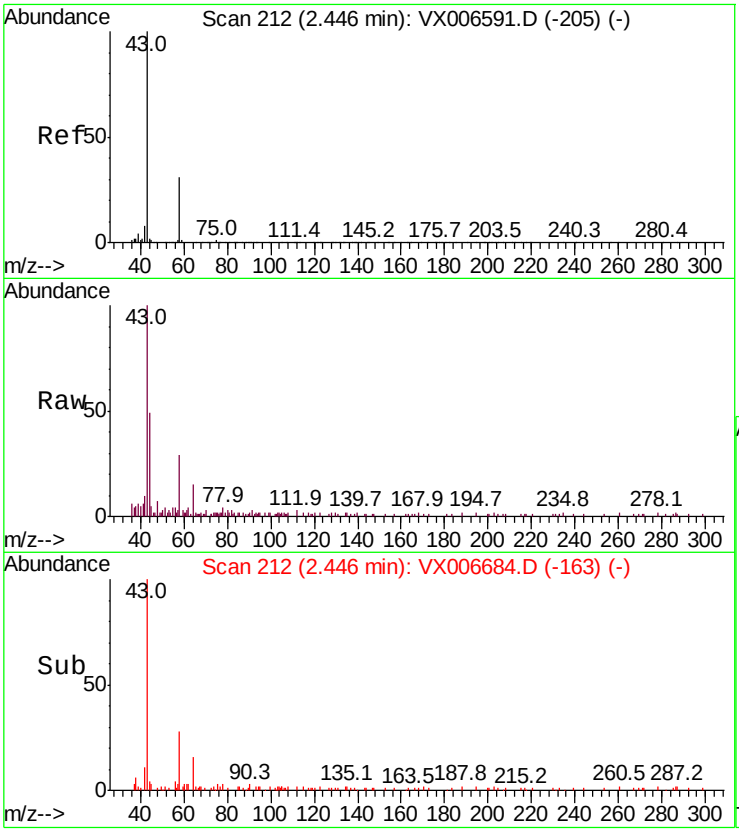
#4
Vinyl Chloride
Concen: 0.405 ug/l
RT: 1.41 min Scan# 42
Delta R.T. -0.00 min
Lab File: VX006684.D
Acq: 20 Dec 2018 18:54

Tgt Ion: 62 Resp: 2671

Ion	Ratio	Lower	Upper
62	100		
64	31.4	25.1	37.7



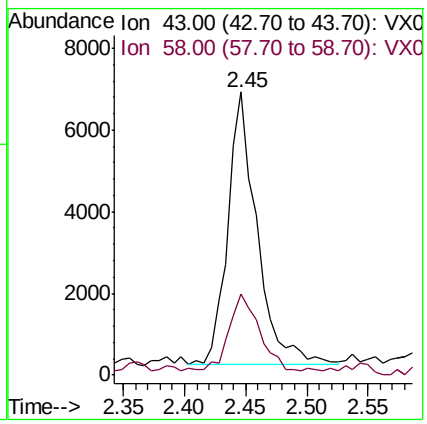
Instrument :
MSVOA_X
ClientSampleId :
963-MW-01(23)

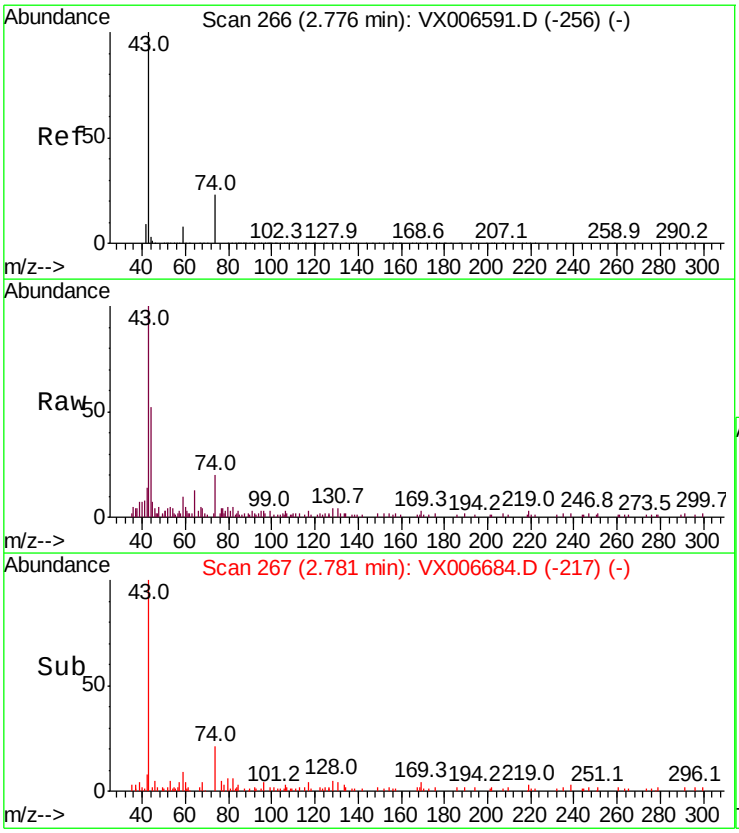


#16
Acetone
Concen: 3.463 ug/l
RT: 2.45 min Scan# 212
Delta R.T. -0.00 min
Lab File: VX006684.D
Acq: 20 Dec 2018 18:54

Tgt Ion: 43 Resp: 10995

Ion	Ratio	Lower	Upper
43	100		
58	28.1	25.0	37.6

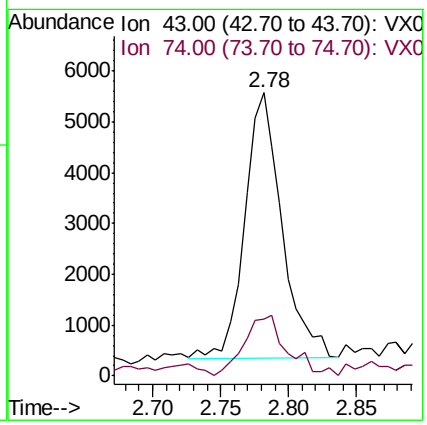




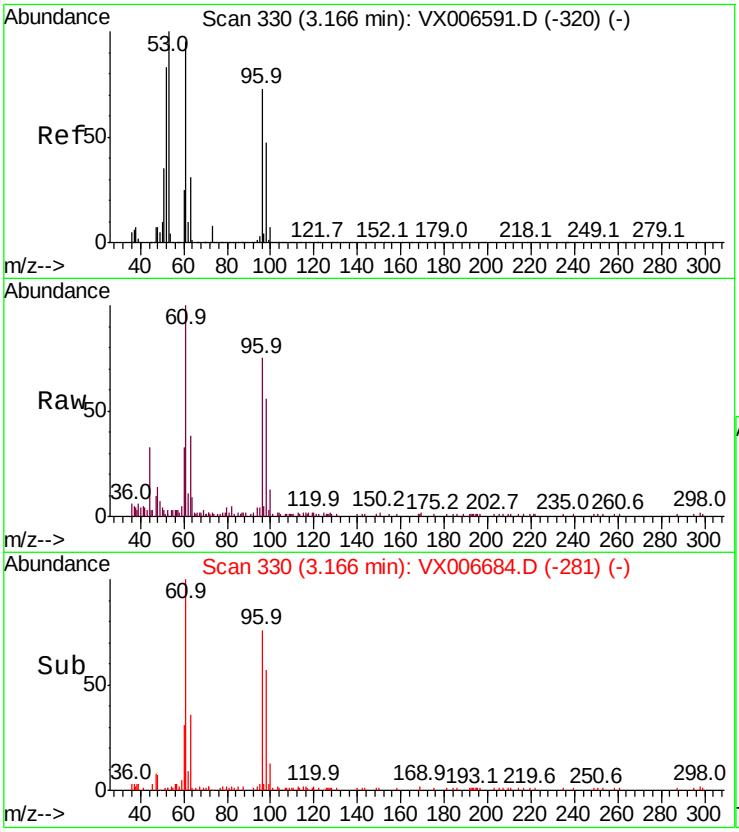
#18
Methyl Acetate
Concen: 1.069 ug/l
RT: 2.78 min Scan# 267
Delta R.T. 0.01 min
Lab File: VX006684.D
Acq: 20 Dec 2018 18:54

Tgt Ion: 43 Resp: 9985

Ion	Ratio	Lower	Upper
43	100		
74	25.9	18.6	28.0



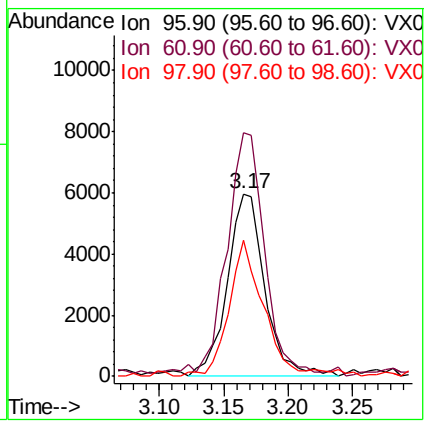
Instrument :
MSVOA_X
ClientSampleId :
963-MW-01(23)

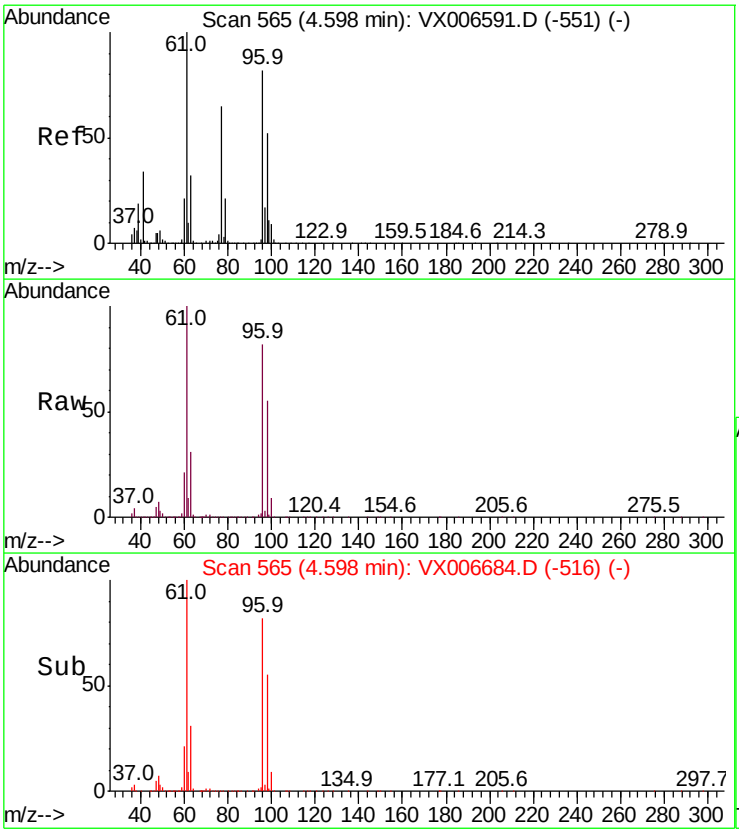


#21
trans-1,2-Dichloroethene
Concen: 1.913 ug/l
RT: 3.17 min Scan# 330
Delta R.T. -0.00 min
Lab File: VX006684.D
Acq: 20 Dec 2018 18:54

Tgt Ion: 96 Resp: 12142

Ion	Ratio	Lower	Upper
96	100		
61	128.5	103.7	155.5
98	72.2	51.0	76.6

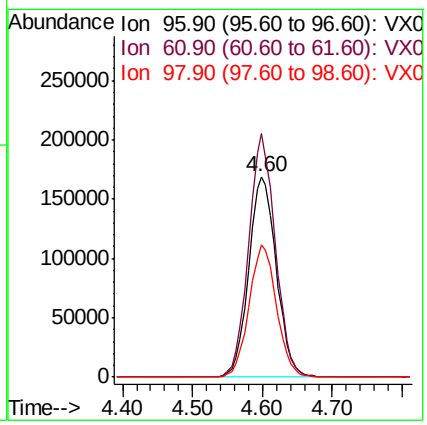




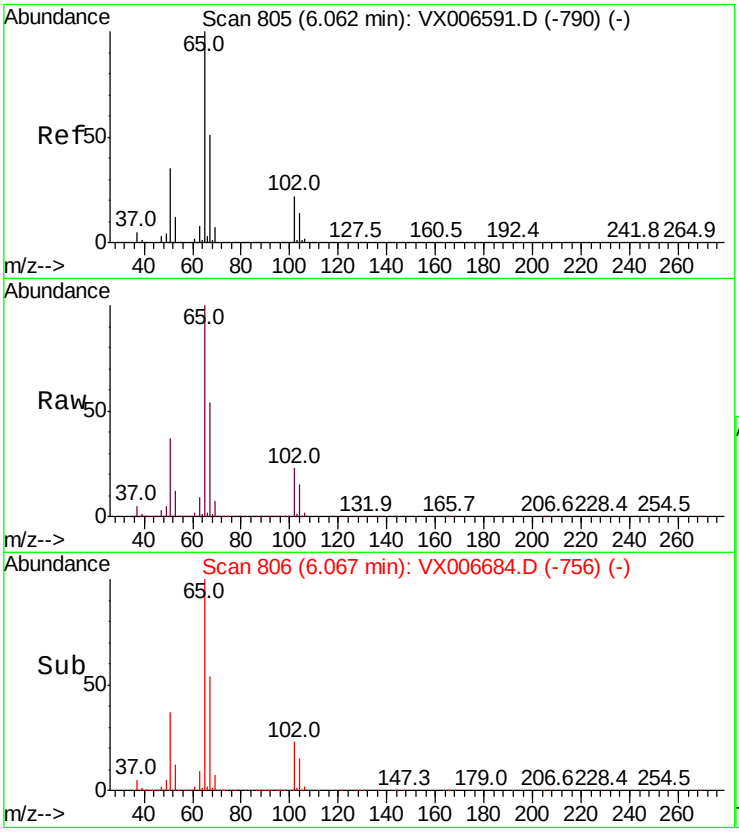
#27
cis-1,2-Dichloroethene
Concen: 65.994 ug/l
RT: 4.60 min Scan# 565
Delta R.T. -0.00 min
Lab File: VX006684.D
Acq: 20 Dec 2018 18:54

Tgt Ion: 96 Resp: 462233

Ion	Ratio	Lower	Upper
96	100		
61	117.4	0.0	258.6
98	65.7	0.0	132.0



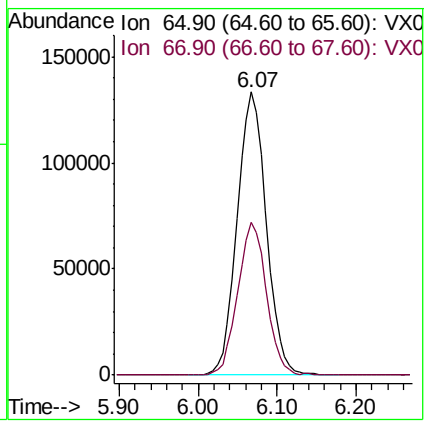
Instrument :
MSVOA_X
ClientSampleId :
963-MW-01(23)

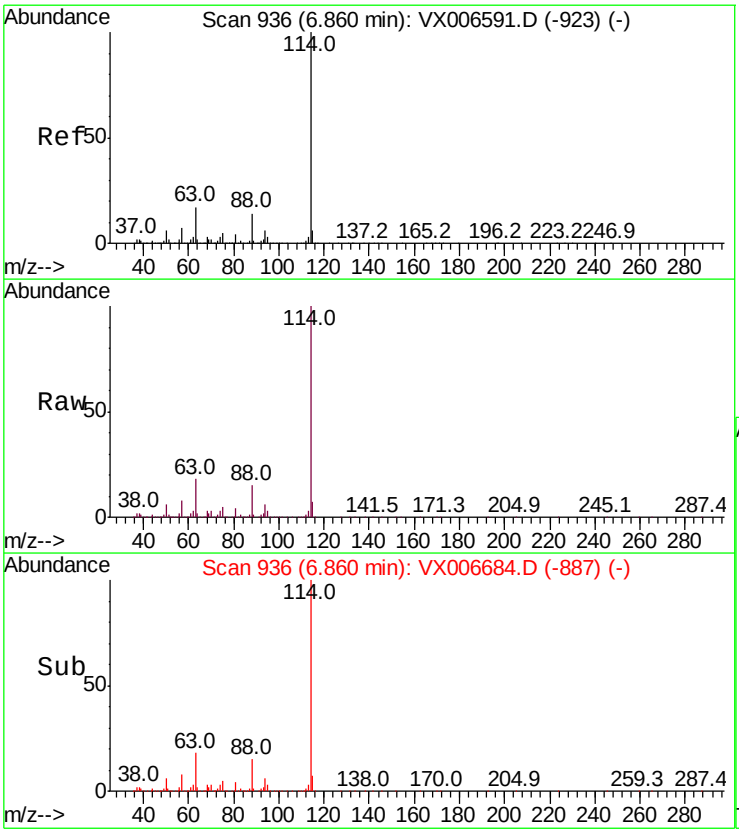


#33
1,2-Dichloroethane-d4
Concen: 49.496 ug/l
RT: 6.07 min Scan# 806
Delta R.T. 0.01 min
Lab File: VX006684.D
Acq: 20 Dec 2018 18:54

Tgt Ion: 65 Resp: 342080

Ion	Ratio	Lower	Upper
65	100		
67	53.4	0.0	105.0

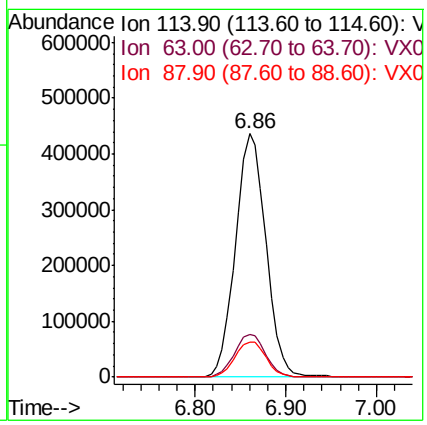




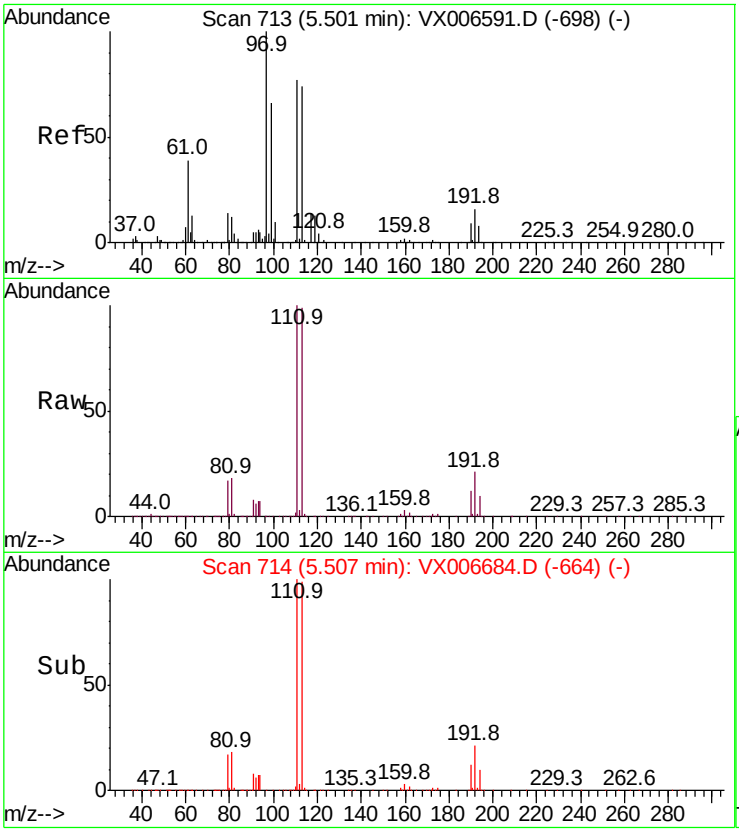
#34
1,4-Difluorobenzene
Concen: 50.000 ug/l
RT: 6.86 min Scan# 936
Delta R.T. -0.00 min
Lab File: VX006684.D
Acq: 20 Dec 2018 18:54

Tgt Ion:114 Resp: 1018860

Ion	Ratio	Lower	Upper
114	100		
63	17.6	0.0	34.8
88	14.5	0.0	28.8



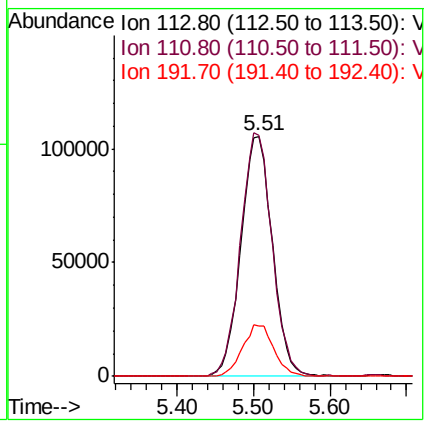
Instrument :
MSVOA_X
ClientSampleId :
963-MW-01(23)

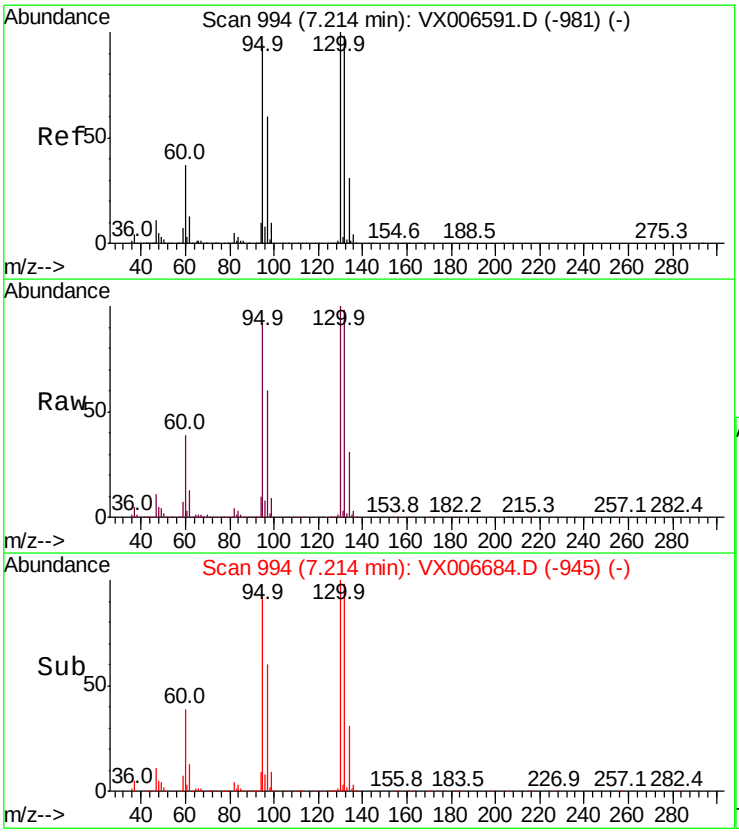


#35
Dibromofluoromethane
Concen: 46.854 ug/l
RT: 5.51 min Scan# 714
Delta R.T. 0.01 min
Lab File: VX006684.D
Acq: 20 Dec 2018 18:54

Tgt Ion:113 Resp: 301886

Ion	Ratio	Lower	Upper
113	100		
111	101.4	81.6	122.4
192	21.3	16.7	25.1

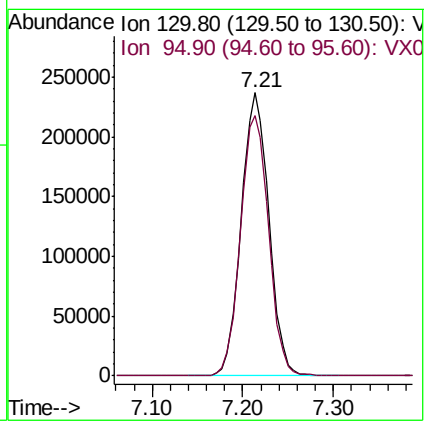




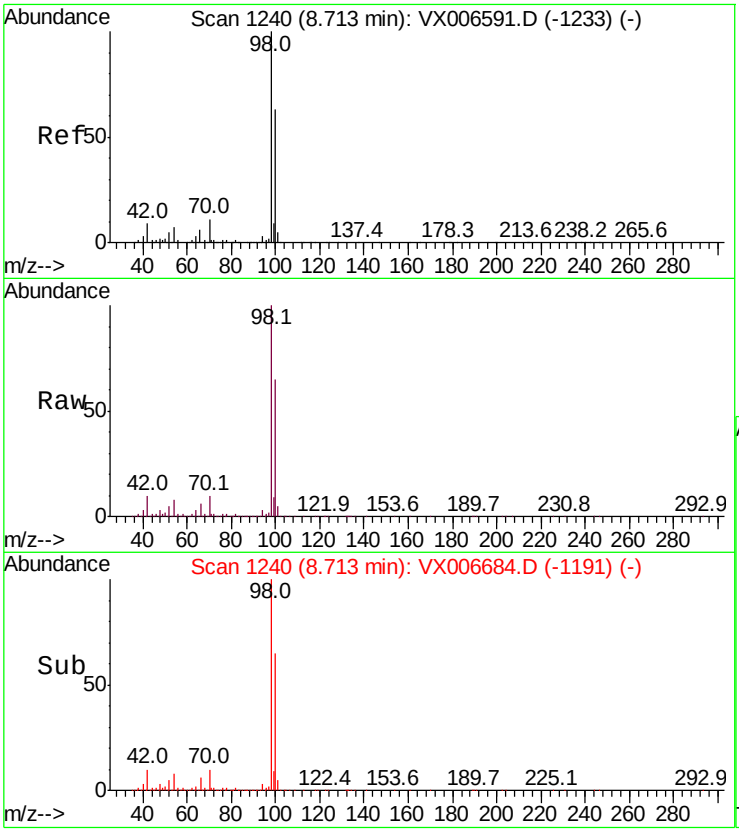
#44
Trichloroethene
Concen: 64.356 ug/l
RT: 7.21 min Scan# 994
Delta R.T. -0.00 min
Lab File: VX006684.D
Acq: 20 Dec 2018 18:54

Tgt Ion:130 Resp: 499629

Ion	Ratio	Lower	Upper
130	100		
95	91.9	0.0	187.0



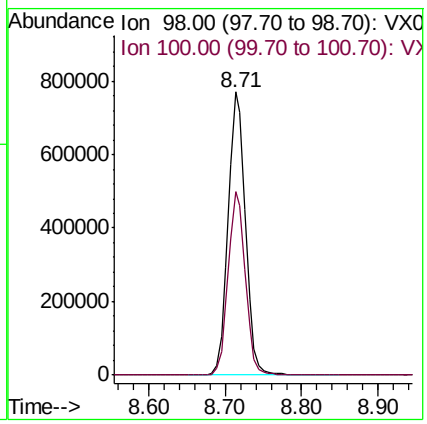
Instrument :
MSVOA_X
ClientSampleId :
963-MW-01(23)

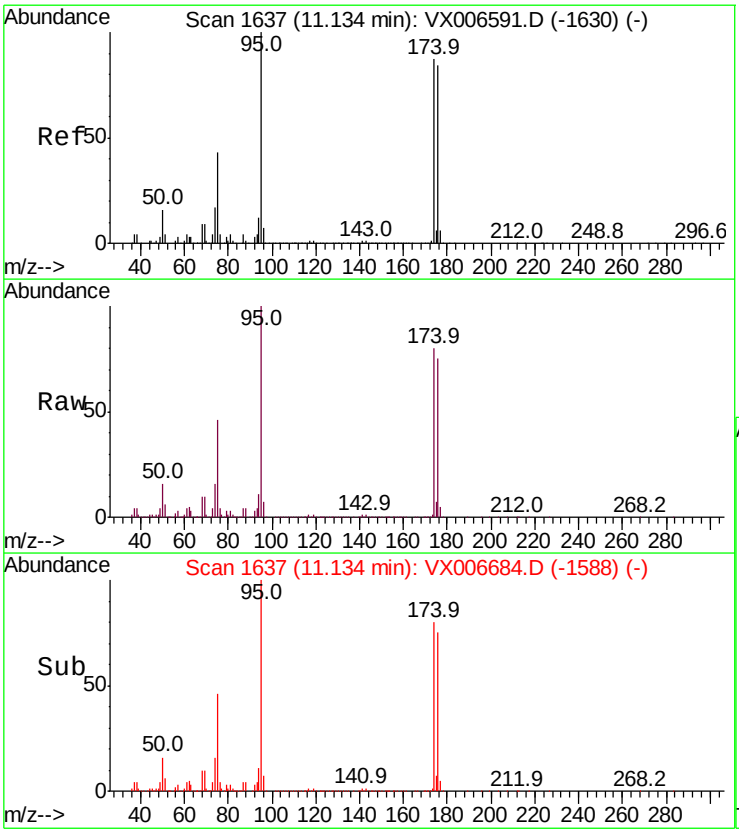


#50
Toluene-d8
Concen: 49.519 ug/l
RT: 8.71 min Scan# 1240
Delta R.T. -0.00 min
Lab File: VX006684.D
Acq: 20 Dec 2018 18:54

Tgt Ion: 98 Resp: 1202847

Ion	Ratio	Lower	Upper
98	100		
100	64.3	52.0	78.0

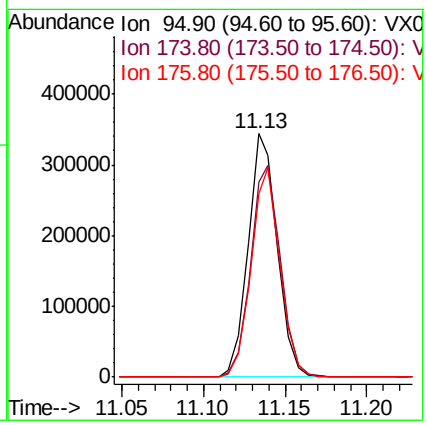




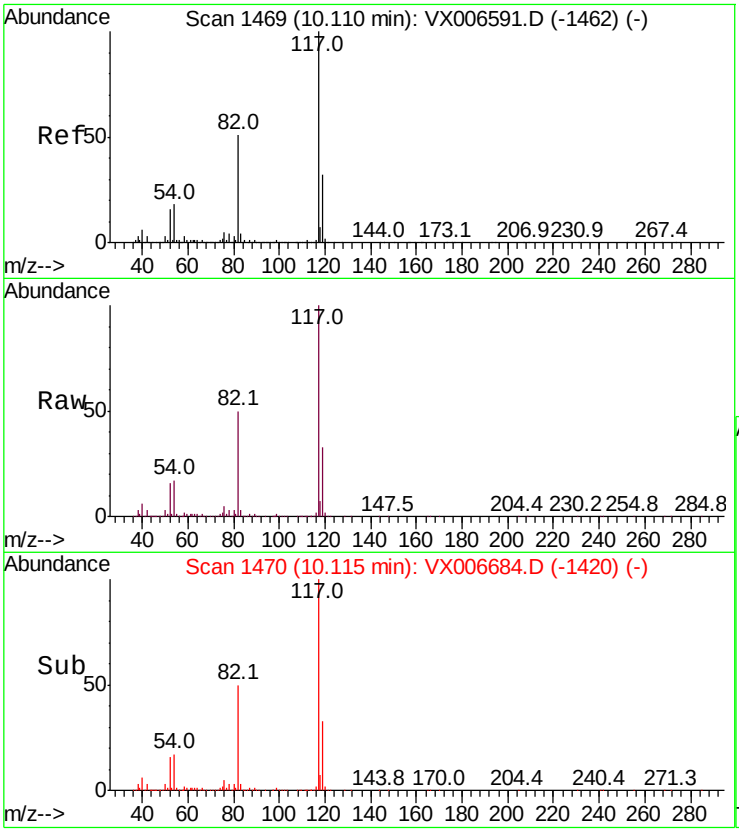
#62
4-Bromofluorobenzene
Concen: 48.045 ug/l
RT: 11.13 min Scan# 1637
Delta R.T. -0.00 min
Lab File: VX006684.D
Acq: 20 Dec 2018 18:54

Tgt Ion: 95 Resp: 427420

Ion	Ratio	Lower	Upper
95	100		
174	89.0	0.0	182.2
176	85.2	0.0	178.8



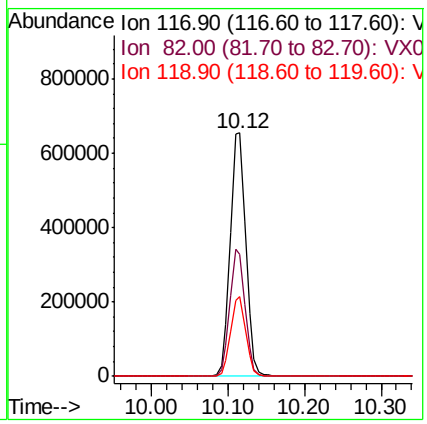
Instrument :
MSVOA_X
ClientSampleId :
963-MW-01(23)

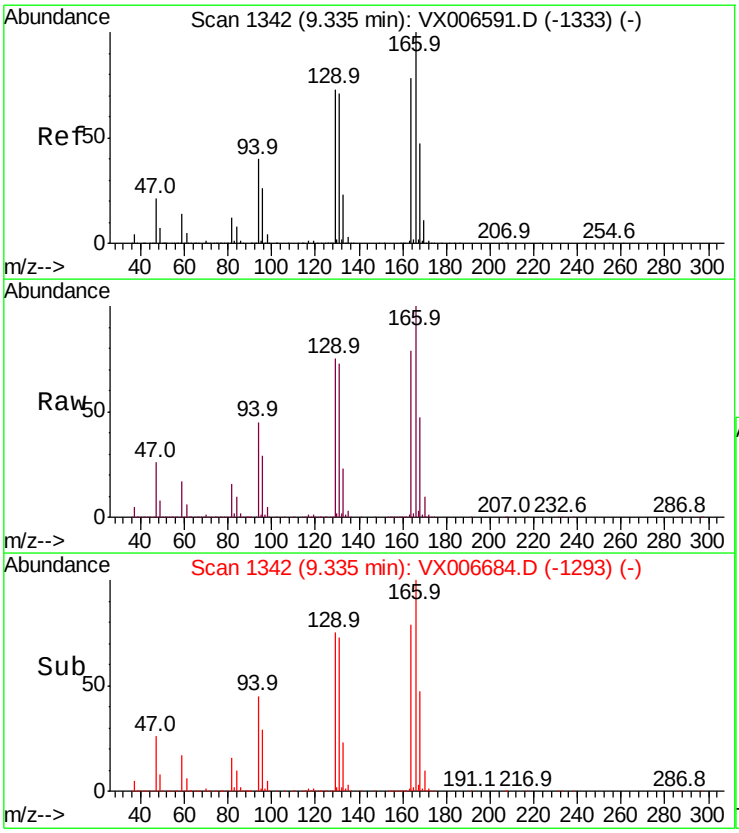


#63
Chlorobenzene-d5
Concen: 50.000 ug/l
RT: 10.12 min Scan# 1470
Delta R.T. 0.01 min
Lab File: VX006684.D
Acq: 20 Dec 2018 18:54

Tgt Ion:117 Resp: 926625

Ion	Ratio	Lower	Upper
117	100		
82	50.0	41.0	61.6
119	32.9	25.4	38.0

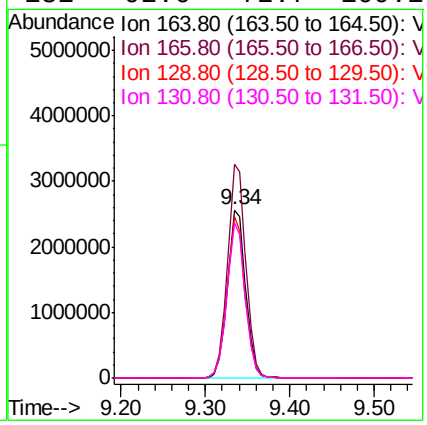


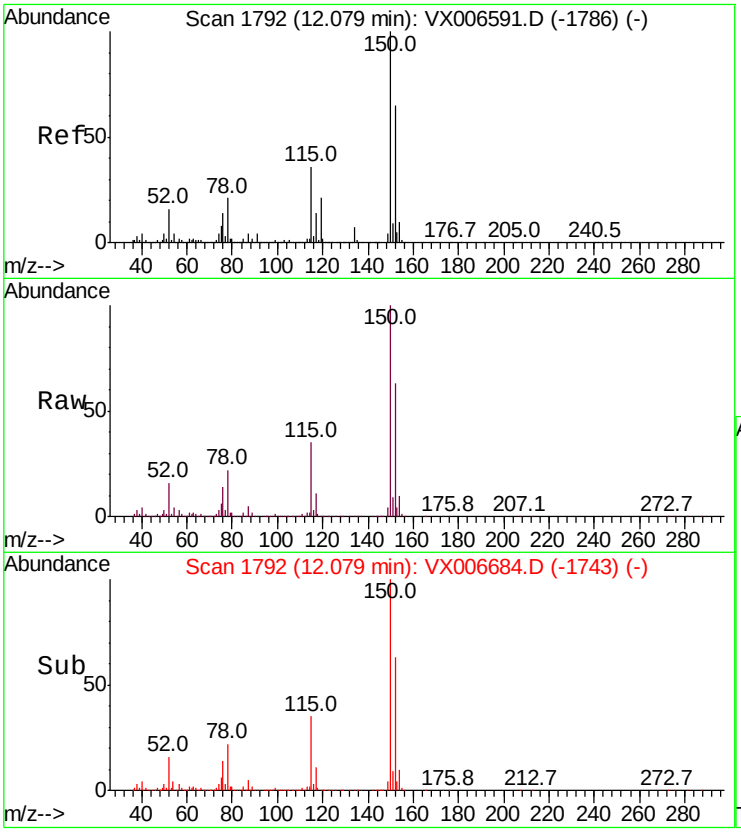


#64
Tetrachloroethene
Concen: 514.253 ug/l
RT: 9.34 min Scan# 1342
Delta R.T. -0.00 min
Lab File: VX006684.D
Acq: 20 Dec 2018 18:54

Tgt Ion:164 Resp: 3773313

Ion	Ratio	Lower	Upper
164	100		
166	127.3	102.5	153.7
129	95.9	75.1	112.7
131	92.6	72.7	109.1

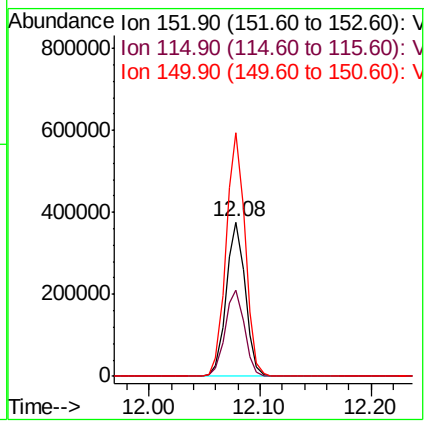




#72
1,4-Dichlorobenzene-d4
Concen: 50.000 ug/l
RT: 12.08 min Scan# 1792
Delta R.T. -0.00 min
Lab File: VX006684.D
Acq: 20 Dec 2018 18:54

Tgt Ion:152 Resp: 444156

Ion	Ratio	Lower	Upper
152	100		
115	56.7	39.1	117.2
150	158.0	0.0	344.8



Instrument :
MSVOA_X
ClientSampleId :
963-MW-01(23)

Instrument :
MSVOA_X
ClientSampleId :
963-MW-01(23)

LSC Area Percent Report

Data Path : Z:\VOASRV\HPCHEM1\MSVOA X\DATA\VX122018\
Data File : VX006684.D
Acq On : 20 Dec 2018 18:54
Operator : JC/MD
Sample : J6484-01
Misc : 5.0mL/MSVOA X/WATER
ALS Vial : 24 Sample Multiplier: 1

Integration Parameters: RTEINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 3 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121818W.M
Title : SW846 8260

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	4.598	554	565	577	rBV	696799	1884624	6.65%	3.836%
2	5.500	702	713	726	rBV	347133	994277	3.51%	2.024%
3	5.665	726	740	753	rBV	632830	1756263	6.20%	3.575%
4	6.067	793	806	821	rBV	374809	971889	3.43%	1.978%
5	6.860	926	936	948	rBV	942894	2203286	7.77%	4.485%
6	7.214	985	994	1006	rBV	1247422	2628941	9.27%	5.351%
7	8.713	1233	1240	1256	rBV	1939979	3046597	10.75%	6.201%
8	9.335	1335	1342	1366	rBV	19557564	28345313	100.00%	57.698%
9	10.109	1464	1469	1483	rBV	1859075	2614604	9.22%	5.322%
10	11.134	1632	1637	1652	rBV	1610872	2095420	7.39%	4.265%
11	12.079	1786	1792	1800	rBV	2146433	2585756	9.12%	5.263%

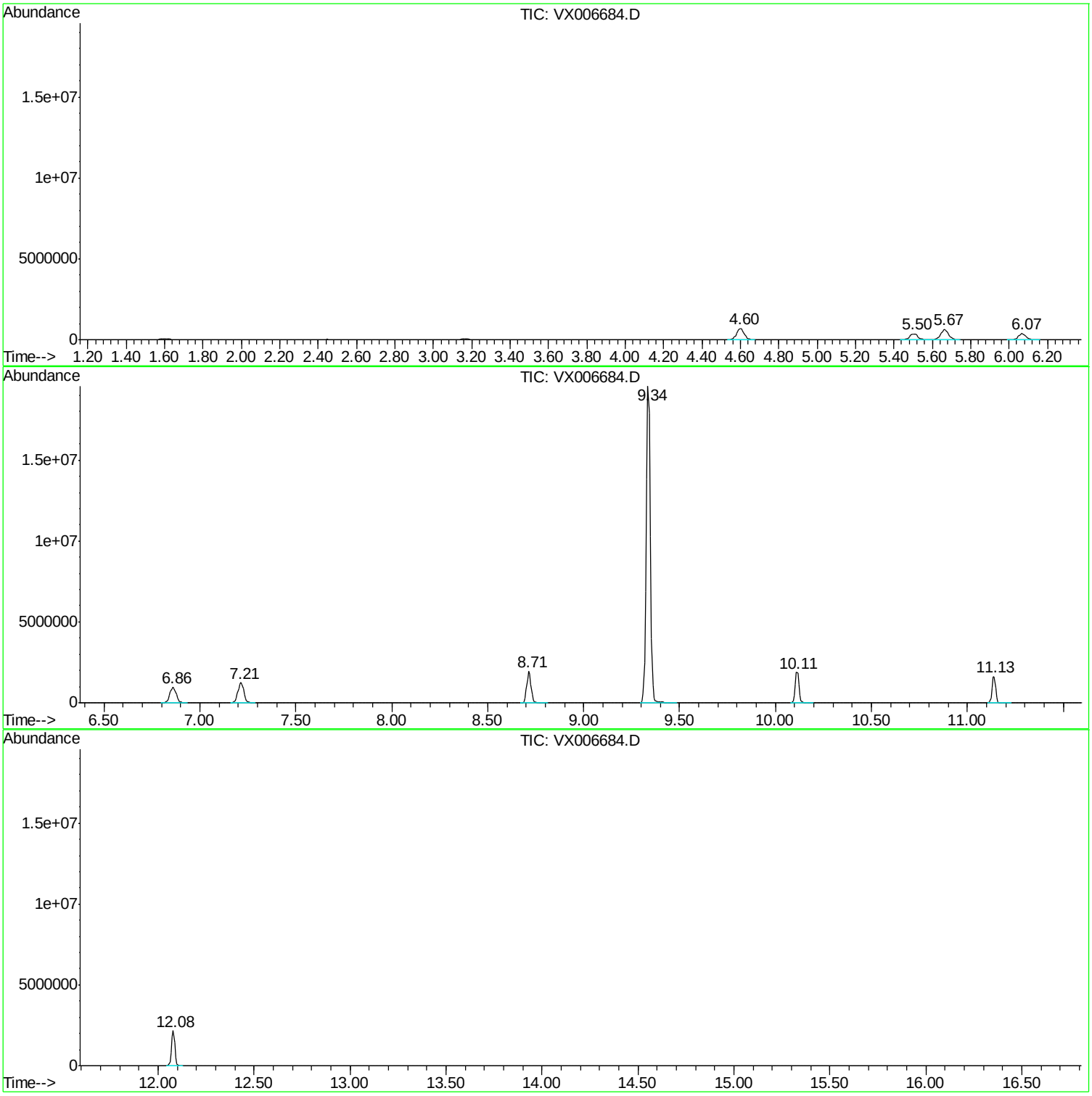
Sum of corrected areas: 49126970

Data Path : Z:\VOASRV\HPCHEM1\MSVOA X\DATA\VX122018\
Data File : VX006684.D
Acq On : 20 Dec 2018 18:54
Operator : JC/MD
Sample : J6484-01
Misc : 5.0mL/MSVOA X/WATER
ALS Vial : 24 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
963-MW-01(23)

Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121818W.M
Quant Title : SW846 8260

TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P



Library Search Compound Report

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX122018\
Data File : VX006684.D
Acq On : 20 Dec 2018 18:54
Operator : JC/MD
Sample : J6484-01
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 24 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
963-MW-01(23)

Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121818W.M
Quant Title : SW846 8260

TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

No Library Search Compounds Detected

****

Instrument :
MSVOA_X
ClientSampleId :
963-MW-01(23)

Tentatively Identified Compound (LSC) summary

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX122018\
Data File : VX006684.D
Acq On : 20 Dec 2018 18:54
Operator : JC/MD
Sample : J6484-01
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 24 Sample Multiplier: 1

Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121818W.M
Quant Title : SW846 8260

TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

					Internal Standard			
TIC Top Hit name	RT	EstConc	Units	Response	#	RT	Resp	Conc

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Day Environmental, Inc.	Date Collected:	12/18/18
Project:	Andrew St. RI	Date Received:	12/19/18
Client Sample ID:	963-MW-01(23)DL	SDG No.:	J6484
Lab Sample ID:	J6484-01DL	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	DB-624UI ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX006733.D	10		12/21/18 19:30	VX122118

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
75-71-8	Dichlorodifluoromethane	10	UD	2	2	10	ug/L
74-87-3	Chloromethane	10	UD	2	2	10	ug/L
75-01-4	Vinyl Chloride	10	UD	2	2	10	ug/L
74-83-9	Bromomethane	10	UD	2	2	10	ug/L
75-00-3	Chloroethane	10	UD	2	5	10	ug/L
75-69-4	Trichlorofluoromethane	10	UD	2	2	10	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	10	UD	2	2	10	ug/L
75-35-4	1,1-Dichloroethene	10	UD	2	2	10	ug/L
67-64-1	Acetone	50	UD	5	10	50	ug/L
75-15-0	Carbon Disulfide	10	UD	2	2	10	ug/L
1634-04-4	Methyl tert-butyl Ether	10	UD	3.5	5	10	ug/L
79-20-9	Methyl Acetate	10	UD	2	5	10	ug/L
75-09-2	Methylene Chloride	10	UD	2	2	10	ug/L
156-60-5	trans-1,2-Dichloroethene	10	UD	2	2	10	ug/L
75-34-3	1,1-Dichloroethane	10	UD	2	2	10	ug/L
110-82-7	Cyclohexane	10	UD	2	2	10	ug/L
78-93-3	2-Butanone	50	UD	13.2	25	50	ug/L
56-23-5	Carbon Tetrachloride	10	UD	2	2	10	ug/L
156-59-2	cis-1,2-Dichloroethene	64.7	D	2	2	10	ug/L
74-97-5	Bromochloromethane	10	UD	2	5	10	ug/L
67-66-3	Chloroform	10	UD	2	2	10	ug/L
71-55-6	1,1,1-Trichloroethane	10	UD	2	2	10	ug/L
108-87-2	Methylcyclohexane	10	UD	2	2	10	ug/L
71-43-2	Benzene	10	UD	2	2	10	ug/L
107-06-2	1,2-Dichloroethane	10	UD	2	2	10	ug/L
79-01-6	Trichloroethene	61.3	D	2	2	10	ug/L
78-87-5	1,2-Dichloropropane	10	UD	2	2	10	ug/L
75-27-4	Bromodichloromethane	10	UD	2	2	10	ug/L
108-10-1	4-Methyl-2-Pentanone	50	UD	10	10	50	ug/L
108-88-3	Toluene	10	UD	2	2	10	ug/L
10061-02-6	t-1,3-Dichloropropene	10	UD	2	2	10	ug/L
10061-01-5	cis-1,3-Dichloropropene	10	UD	2	2	10	ug/L

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Day Environmental, Inc.	Date Collected:	12/18/18
Project:	Andrew St. RI	Date Received:	12/19/18
Client Sample ID:	963-MW-01(23)DL	SDG No.:	J6484
Lab Sample ID:	J6484-01DL	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	DB-624UI ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX006733.D	10		12/21/18 19:30	VX122118

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
79-00-5	1,1,2-Trichloroethane	10	UD	2	2	10	ug/L
591-78-6	2-Hexanone	50	UD	19.4	25	50	ug/L
124-48-1	Dibromochloromethane	10	UD	2	2	10	ug/L
106-93-4	1,2-Dibromoethane	10	UD	2	2	10	ug/L
127-18-4	Tetrachloroethene	500	D	2	2	10	ug/L
108-90-7	Chlorobenzene	10	UD	2	2	10	ug/L
100-41-4	Ethyl Benzene	10	UD	2	2	10	ug/L
179601-23-1	m/p-Xylenes	20	UD	4	4	20	ug/L
95-47-6	o-Xylene	10	UD	2	2	10	ug/L
100-42-5	Styrene	10	UD	2	2	10	ug/L
75-25-2	Bromoform	10	UD	2	2	10	ug/L
98-82-8	Isopropylbenzene	10	UD	2	2	10	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	10	UD	2	2	10	ug/L
541-73-1	1,3-Dichlorobenzene	10	UD	2	2	10	ug/L
106-46-7	1,4-Dichlorobenzene	10	UD	2	2	10	ug/L
95-50-1	1,2-Dichlorobenzene	10	UD	2	2	10	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	10	UD	2	2	10	ug/L
120-82-1	1,2,4-Trichlorobenzene	10	UD	2	2	10	ug/L
87-61-6	1,2,3-Trichlorobenzene	10	UD	2	2	10	ug/L
SURROGATES							
17060-07-0	1,2-Dichloroethane-d4	49.9		61 - 141		100%	SPK: 50
1868-53-7	Dibromofluoromethane	48.7		69 - 133		97%	SPK: 50
2037-26-5	Toluene-d8	48.7		65 - 126		97%	SPK: 50
460-00-4	4-Bromofluorobenzene	46.7		58 - 135		93%	SPK: 50
INTERNAL STANDARDS							
363-72-4	Pentafluorobenzene	620056	5.67				
540-36-3	1,4-Difluorobenzene	966110	6.86				
3114-55-4	Chlorobenzene-d5	862267	10.12				
3855-82-1	1,4-Dichlorobenzene-d4	401006	12.08				

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Day Environmental, Inc.	Date Collected:	12/18/18
Project:	Andrew St. RI	Date Received:	12/19/18
Client Sample ID:	963-MW-01(23)DL	SDG No.:	J6484
Lab Sample ID:	J6484-01DL	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	DB-624UI ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX006733.D	10		12/21/18 19:30	VX122118

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit
A = Aldol-Condensation Reaction Products

Quantitation Report (QT Reviewed)

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX122118\
Data File : VX006733.D
Acq On : 21 Dec 2018 19:30
Operator : JC/MD
Sample : J6484-01DL 10X
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 22 Sample Multiplier: 1

Instrument : MSVOA_X
ClientSampleId : 963-MW-01(23)DL

Quant Time: Dec 22 12:19:53 2018
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121818W.M
Quant Title : SW846 8260
QLast Update : Wed Dec 19 15:20:58 2018
Response via : Initial Calibration

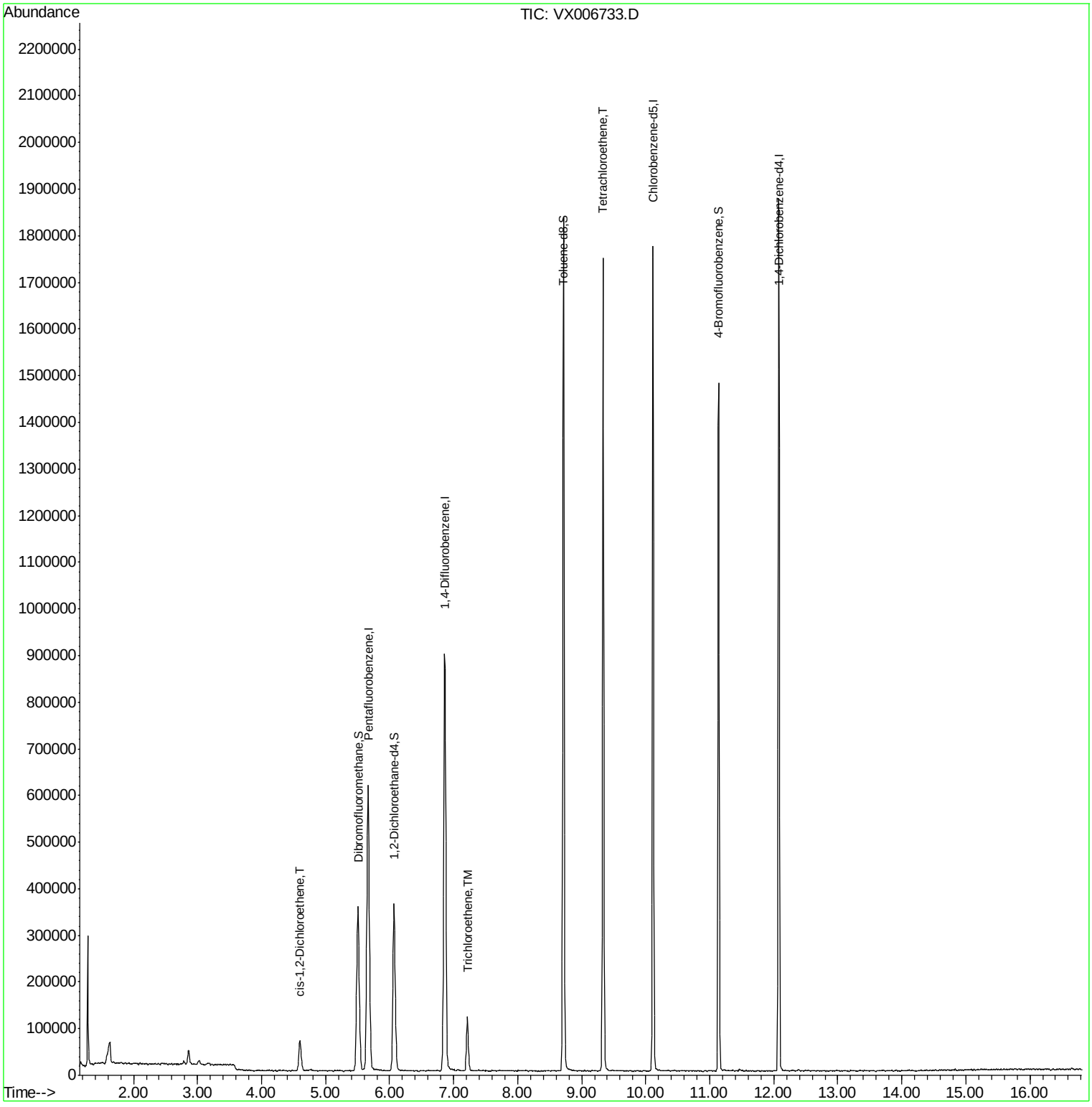
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	5.67	168	620056	50.00	ug/l	0.00
34) 1,4-Difluorobenzene	6.86	114	966110	50.00	ug/l	0.00
63) Chlorobenzene-d5	10.12	117	862267	50.00	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	12.08	152	401006	50.00	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	6.07	65	333501	49.91	ug/l	0.01
Spiked Amount 50.000			Recovery = 99.82%			
35) Dibromofluoromethane	5.51	113	297525	48.70	ug/l	0.00
Spiked Amount 50.000			Recovery = 97.40%			
50) Toluene-d8	8.71	98	1122329	48.73	ug/l	0.00
Spiked Amount 50.000			Recovery = 97.46%			
62) 4-Bromofluorobenzene	11.14	95	394351	46.75	ug/l	0.00
Spiked Amount 50.000			Recovery = 93.50%			
Target Compounds						Qvalue
27) cis-1,2-Dichloroethene	4.60	96	43790	6.466	ug/l	93
44) Trichloroethene	7.22	130	45135	6.131	ug/l	91
64) Tetrachloroethene	9.34	164	341525	50.019	ug/l	96

(#) = qualifier out of range (m) = manual integration (+) = signals summed

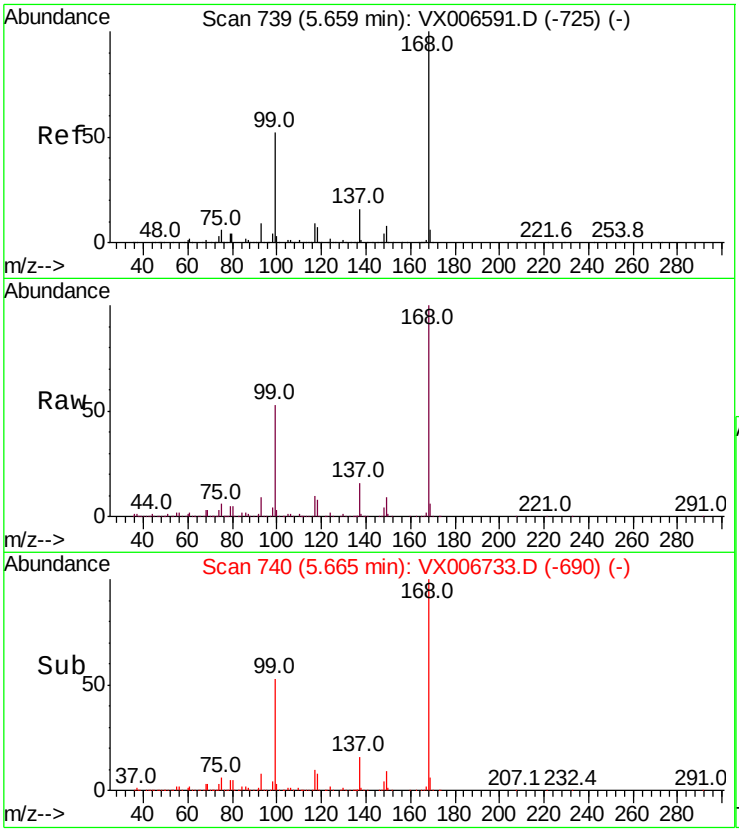
Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX122118\
Data File : VX006733.D
Acq On : 21 Dec 2018 19:30
Operator : JC/MD
Sample : J6484-01DL 10X
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 22 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
963-MW-01(23)DL

Quant Time: Dec 22 12:19:53 2018
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121818W.M
Quant Title : SW846 8260
QLast Update : Wed Dec 19 15:20:58 2018
Response via : Initial Calibration



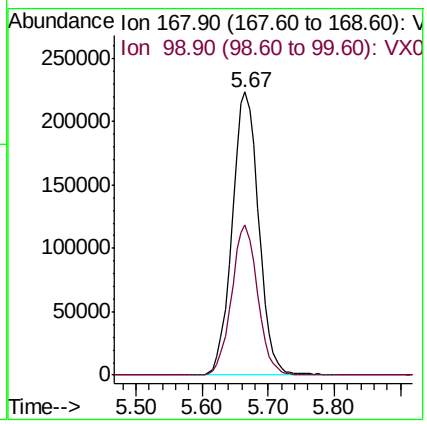
Instrument :
MSVOA_X
ClientSampleId :
963-MW-01(23)DL

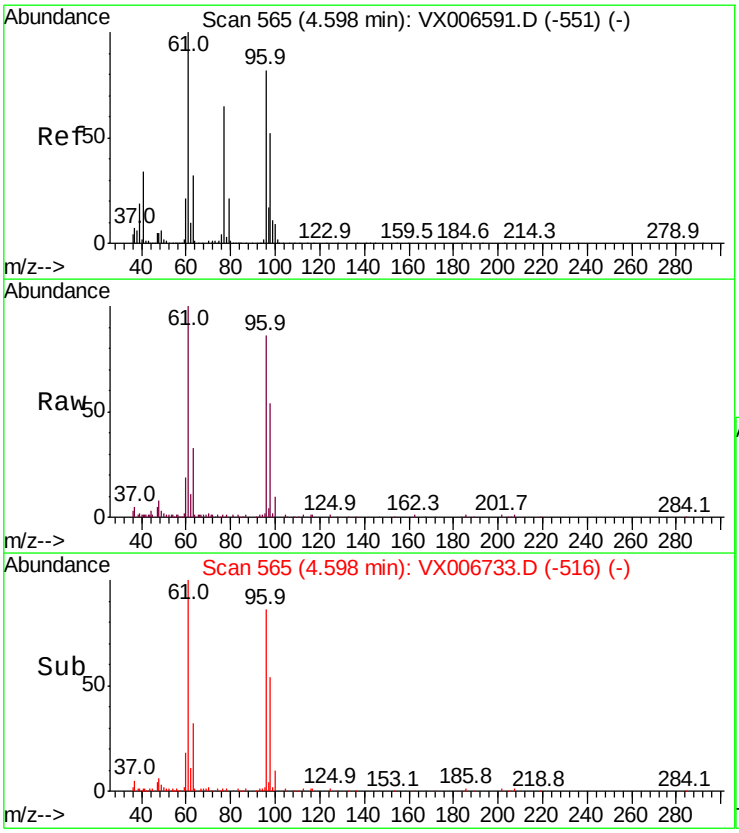


#1
Pentafluorobenzene
Concen: 50.000 ug/l
RT: 5.67 min Scan# 740
Delta R.T. 0.01 min
Lab File: VX006733.D
Acq: 21 Dec 2018 19:30

Tgt Ion:168 Resp: 620056

Ion	Ratio	Lower	Upper
168	100		
99	53.0	41.8	62.8

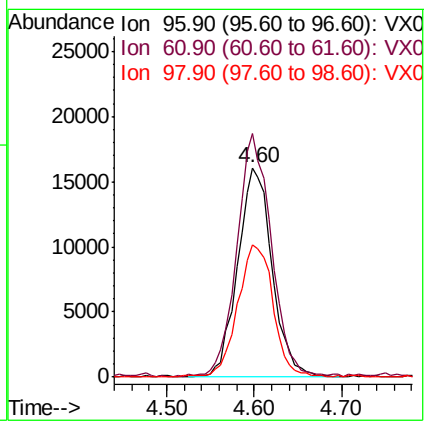




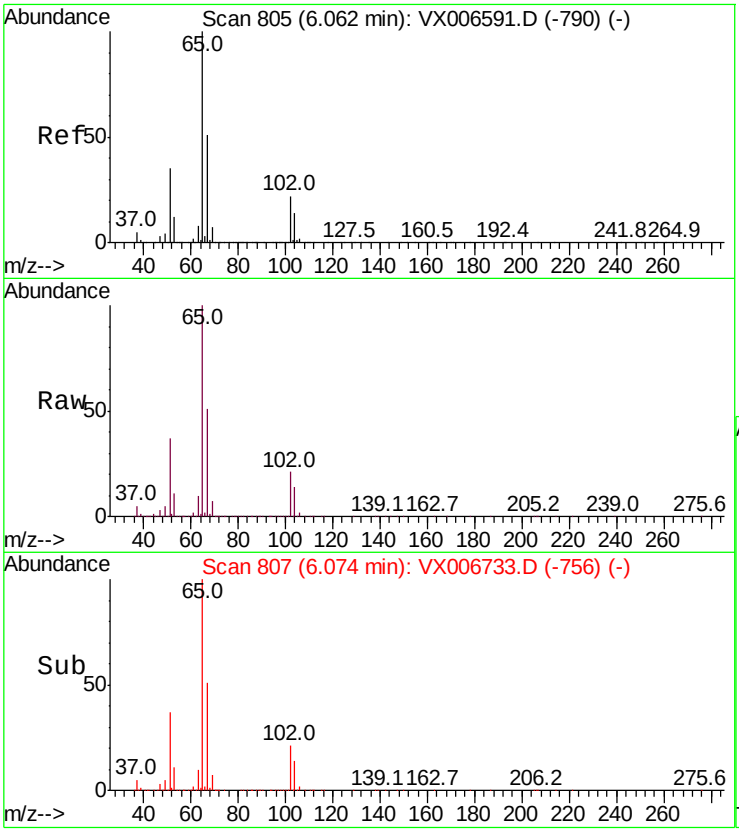
#27
cis-1,2-Dichloroethene
Concen: 6.466 ug/l
RT: 4.60 min Scan# 565
Delta R.T. -0.00 min
Lab File: VX006733.D
Acq: 21 Dec 2018 19:30

Tgt Ion: 96 Resp: 43790

Ion	Ratio	Lower	Upper
96	100		
61	118.2	0.0	258.6
98	64.7	0.0	132.0



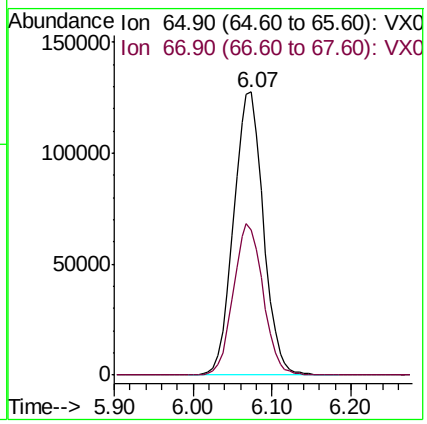
Instrument :
MSVOA_X
ClientSampleId :
963-MW-01(23)DL

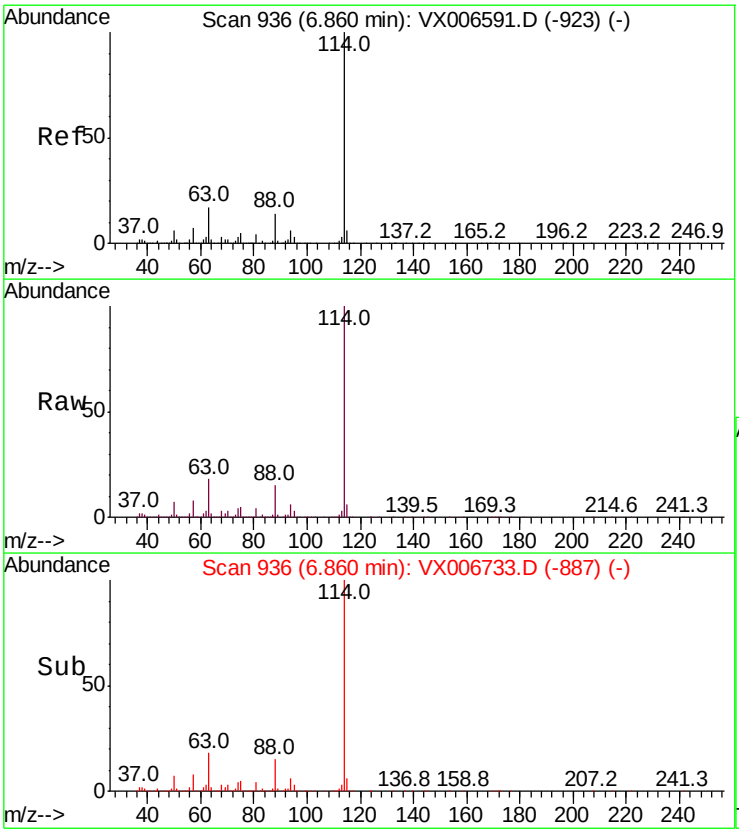


#33
1,2-Dichloroethane-d4
Concen: 49.905 ug/l
RT: 6.07 min Scan# 807
Delta R.T. 0.01 min
Lab File: VX006733.D
Acq: 21 Dec 2018 19:30

Tgt Ion: 65 Resp: 333501

Ion	Ratio	Lower	Upper
65	100		
67	53.8	0.0	105.0

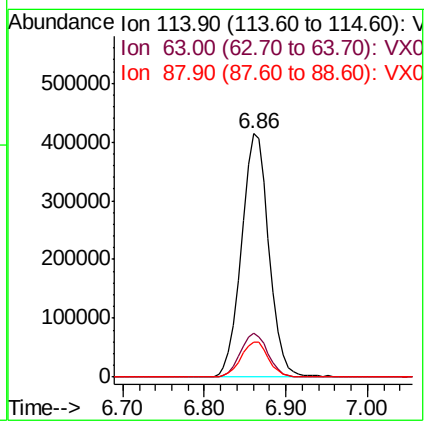


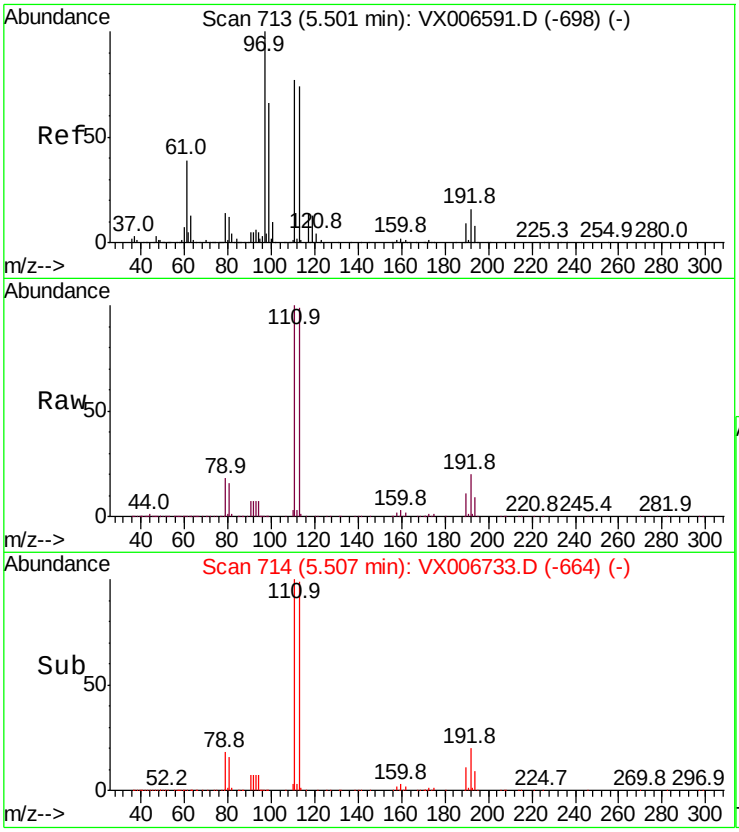


#34
1,4-Difluorobenzene
Concen: 50.000 ug/l
RT: 6.86 min Scan# 936
Delta R.T. -0.00 min
Lab File: VX006733.D
Acq: 21 Dec 2018 19:30

Tgt Ion:114 Resp: 966110

Ion	Ratio	Lower	Upper
114	100		
63	18.0	0.0	34.8
88	14.6	0.0	28.8

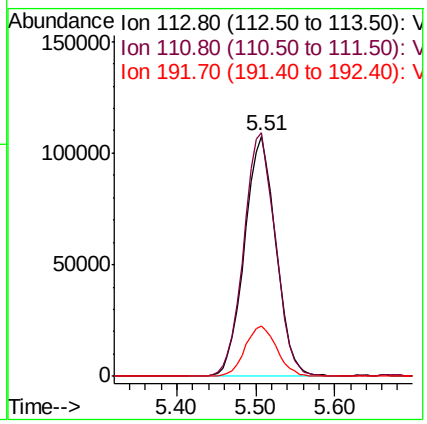


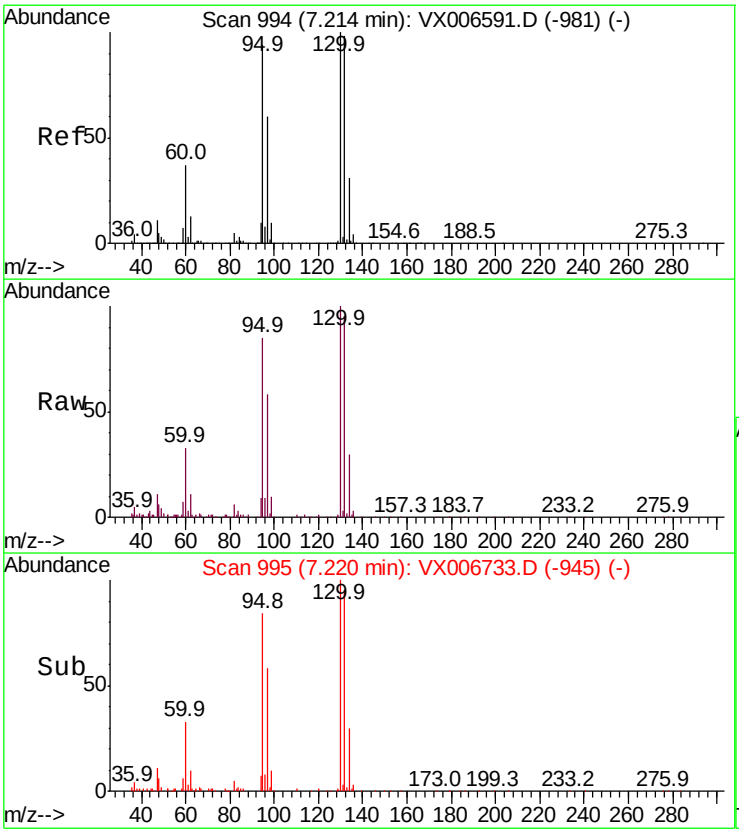


#35
Dibromofluoromethane
Concen: 48.699 ug/l
RT: 5.51 min Scan# 714
Delta R.T. 0.01 min
Lab File: VX006733.D
Acq: 21 Dec 2018 19:30

Tgt Ion:113 Resp: 297525

Ion	Ratio	Lower	Upper
113	100		
111	102.6	81.6	122.4
192	21.2	16.7	25.1

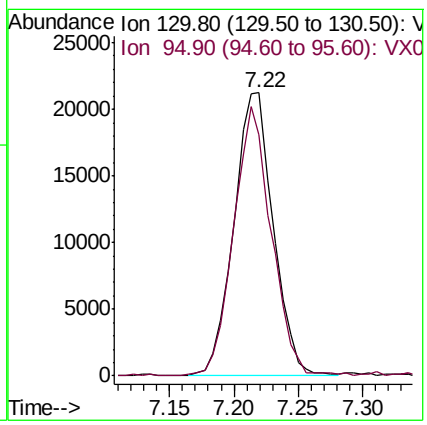




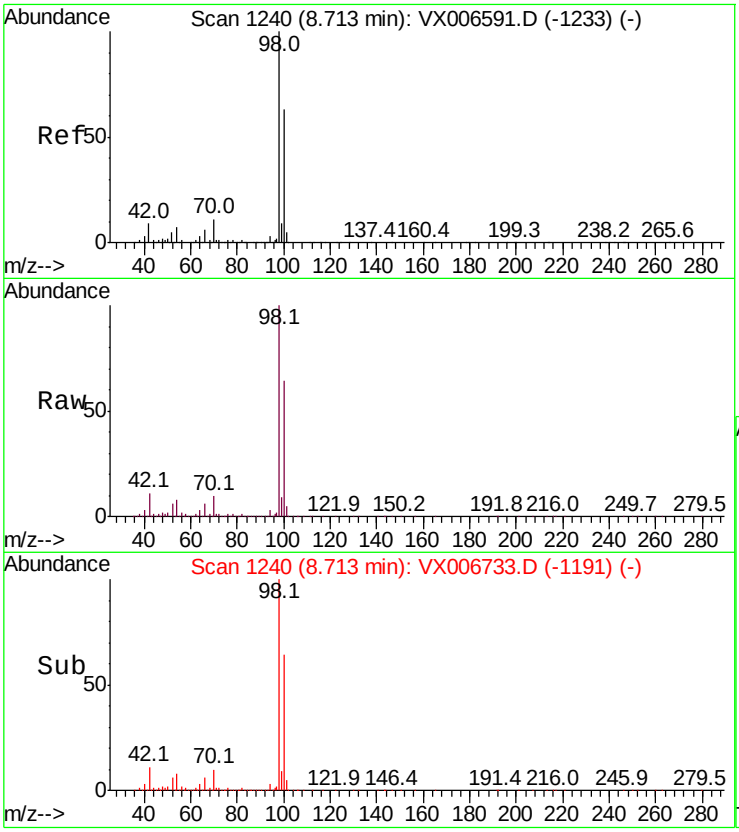
#44
Trichloroethene
Concen: 6.131 ug/l
RT: 7.22 min Scan# 995
Delta R.T. 0.01 min
Lab File: VX006733.D
Acq: 21 Dec 2018 19:30

Tgt Ion:130 Resp: 45135

Ion	Ratio	Lower	Upper
130	100		
95	84.5	0.0	187.0



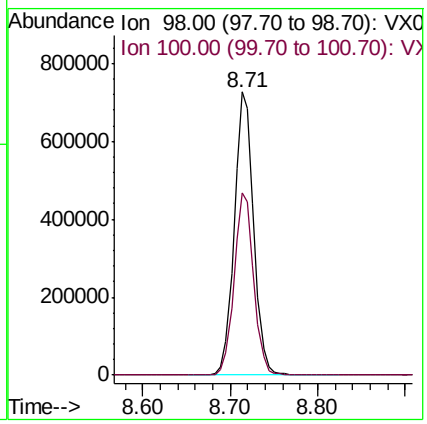
Instrument :
MSVOA_X
ClientSampleId :
963-MW-01(23)DL

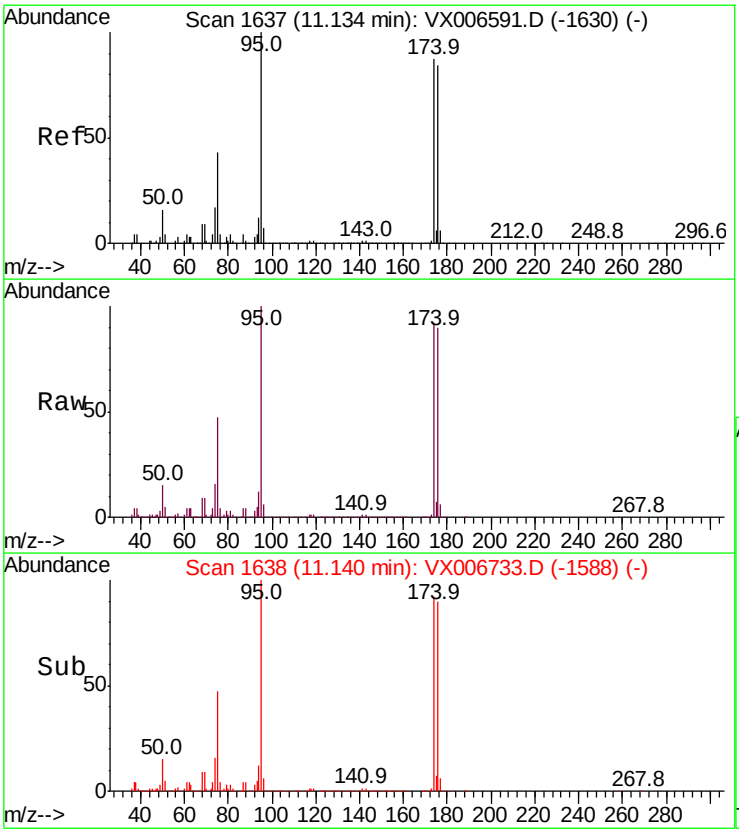


#50
Toluene-d8
Concen: 48.727 ug/l
RT: 8.71 min Scan# 1240
Delta R.T. -0.00 min
Lab File: VX006733.D
Acq: 21 Dec 2018 19:30

Tgt Ion: 98 Resp: 1122329

Ion	Ratio	Lower	Upper
98	100		
100	65.1	52.0	78.0

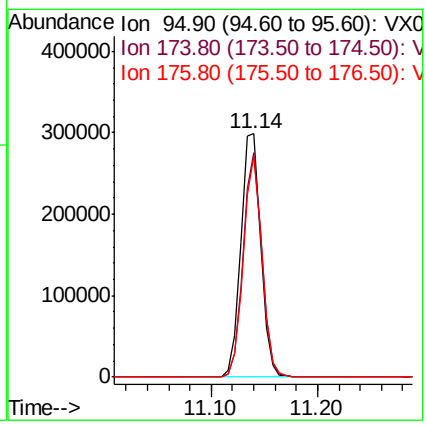




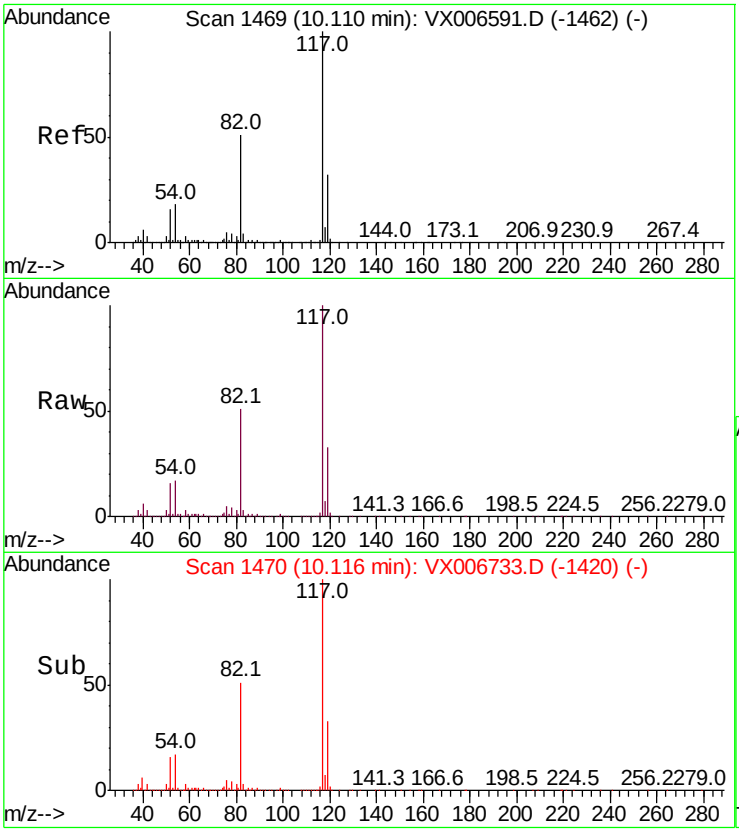
#62
4-Bromofluorobenzene
Concen: 46.748 ug/l
RT: 11.14 min Scan# 1638
Delta R.T. 0.01 min
Lab File: VX006733.D
Acq: 21 Dec 2018 19:30

Tgt Ion: 95 Resp: 394351

Ion	Ratio	Lower	Upper
95	100		
174	87.0	0.0	182.2
176	84.7	0.0	178.8



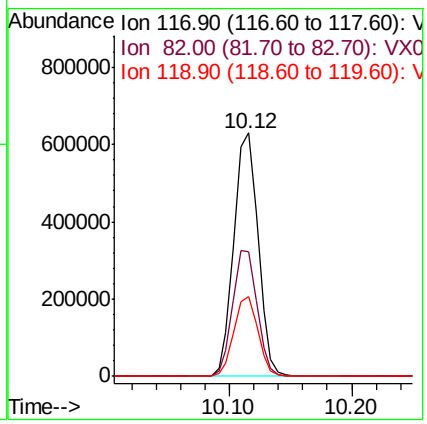
Instrument :
MSVOA_X
ClientSampleId :
963-MW-01(23)DL

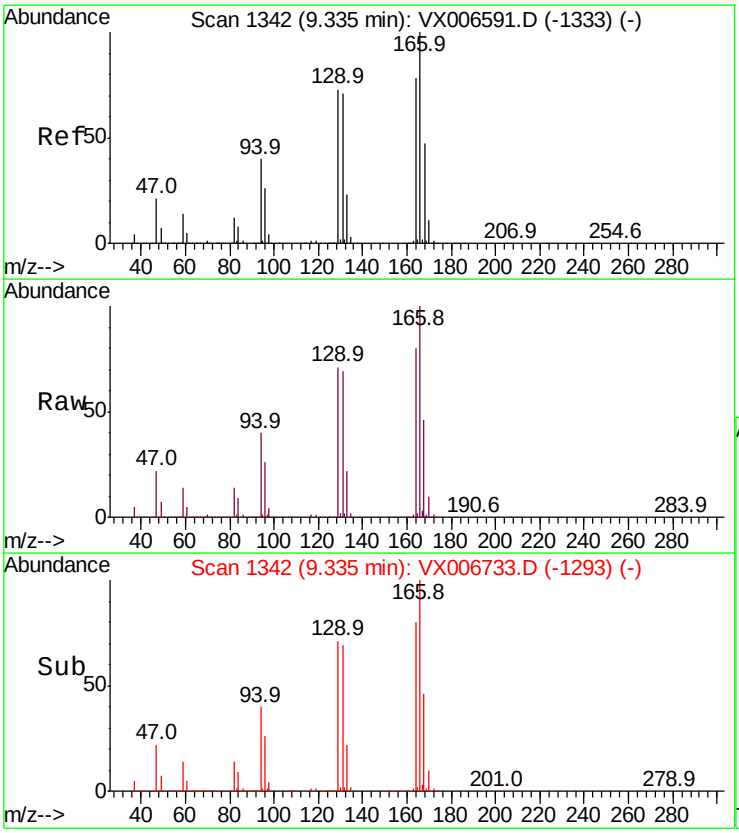


#63
Chlorobenzene-d5
Concen: 50.000 ug/l
RT: 10.12 min Scan# 1470
Delta R.T. 0.01 min
Lab File: VX006733.D
Acq: 21 Dec 2018 19:30

Tgt Ion:117 Resp: 862267

Ion	Ratio	Lower	Upper
117	100		
82	51.2	41.0	61.6
119	32.7	25.4	38.0

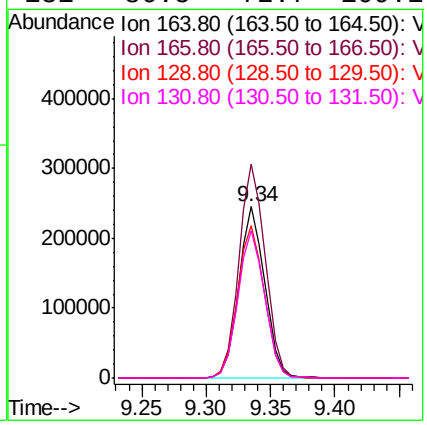


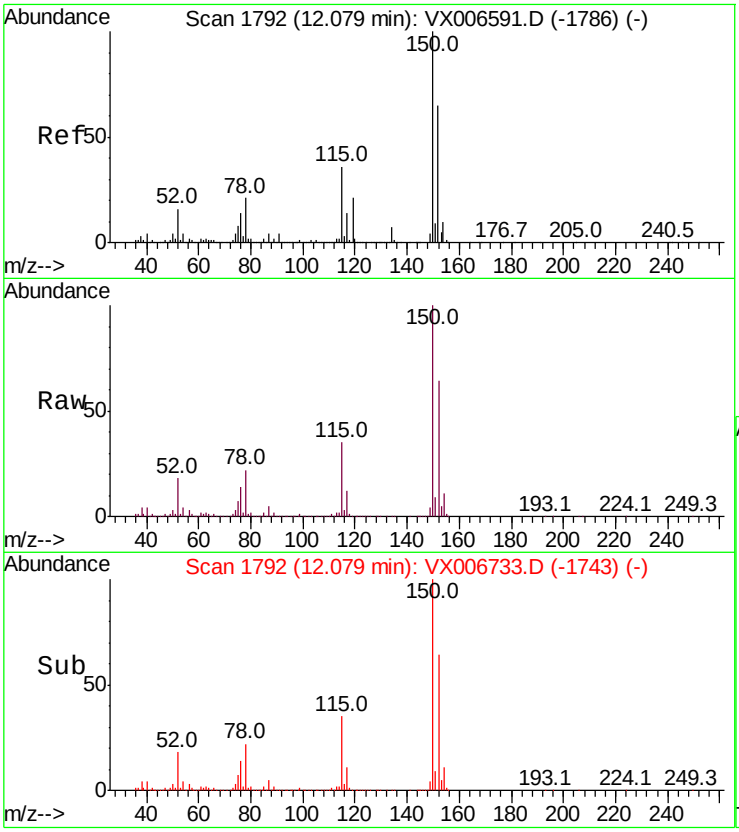


#64
Tetrachloroethene
Concen: 50.019 ug/l
RT: 9.34 min Scan# 1342
Delta R.T. -0.00 min
Lab File: VX006733.D
Acq: 21 Dec 2018 19:30

Tgt Ion:164 Resp: 341525

Ion	Ratio	Lower	Upper
164	100		
166	125.0	102.5	153.7
129	89.1	75.1	112.7
131	86.5	72.7	109.1

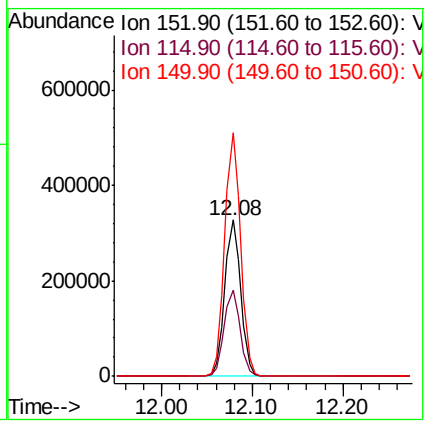




#72
1,4-Dichlorobenzene-d4
Concen: 50.000 ug/l
RT: 12.08 min Scan# 1792
Delta R.T. -0.00 min
Lab File: VX006733.D
Acq: 21 Dec 2018 19:30

Tgt Ion:152 Resp: 401006

Ion	Ratio	Lower	Upper
152	100		
115	55.4	39.1	117.2
150	156.0	0.0	344.8



Instrument :
MSVOA_X
ClientSampleId :
963-MW-01(23)DL

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Day Environmental, Inc.	Date Collected:	12/18/18
Project:	Andrew St. RI	Date Received:	12/19/18
Client Sample ID:	964-MW-02(23.8)	SDG No.:	J6484
Lab Sample ID:	J6484-02	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	DB-624UI ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX006671.D	1		12/20/18 13:07	VX122018

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
75-71-8	Dichlorodifluoromethane	1	U	0.2	0.2	1	ug/L
74-87-3	Chloromethane	1	U	0.2	0.2	1	ug/L
75-01-4	Vinyl Chloride	1.3		0.2	0.2	1	ug/L
74-83-9	Bromomethane	1	U	0.2	0.2	1	ug/L
75-00-3	Chloroethane	1	U	0.2	0.5	1	ug/L
75-69-4	Trichlorofluoromethane	1	U	0.2	0.2	1	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	1	U	0.2	0.2	1	ug/L
75-35-4	1,1-Dichloroethene	1	U	0.2	0.2	1	ug/L
67-64-1	Acetone	3.9	J	0.5	1	5	ug/L
75-15-0	Carbon Disulfide	1	U	0.2	0.2	1	ug/L
1634-04-4	Methyl tert-butyl Ether	1	U	0.35	0.5	1	ug/L
79-20-9	Methyl Acetate	1	U	0.2	0.5	1	ug/L
75-09-2	Methylene Chloride	1	U	0.2	0.2	1	ug/L
156-60-5	trans-1,2-Dichloroethene	1.1		0.2	0.2	1	ug/L
75-34-3	1,1-Dichloroethane	1	U	0.2	0.2	1	ug/L
110-82-7	Cyclohexane	1	U	0.2	0.2	1	ug/L
78-93-3	2-Butanone	5	U	1.3	2.5	5	ug/L
56-23-5	Carbon Tetrachloride	1	U	0.2	0.2	1	ug/L
156-59-2	cis-1,2-Dichloroethene	22.6		0.2	0.2	1	ug/L
74-97-5	Bromochloromethane	1	U	0.2	0.5	1	ug/L
67-66-3	Chloroform	1	U	0.2	0.2	1	ug/L
71-55-6	1,1,1-Trichloroethane	1	U	0.2	0.2	1	ug/L
108-87-2	Methylcyclohexane	1	U	0.2	0.2	1	ug/L
71-43-2	Benzene	1	U	0.2	0.2	1	ug/L
107-06-2	1,2-Dichloroethane	1	U	0.2	0.2	1	ug/L
79-01-6	Trichloroethene	24.8		0.2	0.2	1	ug/L
78-87-5	1,2-Dichloropropane	1	U	0.2	0.2	1	ug/L
75-27-4	Bromodichloromethane	1	U	0.2	0.2	1	ug/L
108-10-1	4-Methyl-2-Pentanone	5	U	1	1	5	ug/L
108-88-3	Toluene	1	U	0.2	0.2	1	ug/L
10061-02-6	t-1,3-Dichloropropene	1	U	0.2	0.2	1	ug/L
10061-01-5	cis-1,3-Dichloropropene	1	U	0.2	0.2	1	ug/L

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Day Environmental, Inc.	Date Collected:	12/18/18
Project:	Andrew St. RI	Date Received:	12/19/18
Client Sample ID:	964-MW-02(23.8)	SDG No.:	J6484
Lab Sample ID:	J6484-02	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	DB-624UI ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX006671.D	1		12/20/18 13:07	VX122018

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
79-00-5	1,1,2-Trichloroethane	1	U	0.2	0.2	1	ug/L
591-78-6	2-Hexanone	5	U	1.9	2.5	5	ug/L
124-48-1	Dibromochloromethane	1	U	0.2	0.2	1	ug/L
106-93-4	1,2-Dibromoethane	1	U	0.2	0.2	1	ug/L
127-18-4	Tetrachloroethene	27.7		0.2	0.2	1	ug/L
108-90-7	Chlorobenzene	1	U	0.2	0.2	1	ug/L
100-41-4	Ethyl Benzene	1	U	0.2	0.2	1	ug/L
179601-23-1	m/p-Xylenes	2	U	0.4	0.4	2	ug/L
95-47-6	o-Xylene	1	U	0.2	0.2	1	ug/L
100-42-5	Styrene	1	U	0.2	0.2	1	ug/L
75-25-2	Bromoform	1	U	0.2	0.2	1	ug/L
98-82-8	Isopropylbenzene	1	U	0.2	0.2	1	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	1	U	0.2	0.2	1	ug/L
541-73-1	1,3-Dichlorobenzene	1	U	0.2	0.2	1	ug/L
106-46-7	1,4-Dichlorobenzene	1	U	0.2	0.2	1	ug/L
95-50-1	1,2-Dichlorobenzene	1	U	0.2	0.2	1	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	1	U	0.2	0.2	1	ug/L
120-82-1	1,2,4-Trichlorobenzene	1	U	0.2	0.2	1	ug/L
87-61-6	1,2,3-Trichlorobenzene	1	U	0.2	0.2	1	ug/L
SURROGATES							
17060-07-0	1,2-Dichloroethane-d4	49.7		61 - 141		99%	SPK: 50
1868-53-7	Dibromofluoromethane	47.1		69 - 133		94%	SPK: 50
2037-26-5	Toluene-d8	49.9		65 - 126		100%	SPK: 50
460-00-4	4-Bromofluorobenzene	49		58 - 135		98%	SPK: 50
INTERNAL STANDARDS							
363-72-4	Pentafluorobenzene	655690	5.66				
540-36-3	1,4-Difluorobenzene	1028970	6.86				
3114-55-4	Chlorobenzene-d5	946011	10.12				
3855-82-1	1,4-Dichlorobenzene-d4	451641	12.08				
TENTATIVE IDENTIFIED COMPOUNDS							
91-20-3	Naphthalene	0.69	J			13.83	ug/L

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Day Environmental, Inc.	Date Collected:	12/18/18
Project:	Andrew St. RI	Date Received:	12/19/18
Client Sample ID:	964-MW-02(23.8)	SDG No.:	J6484
Lab Sample ID:	J6484-02	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	DB-624UI ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX006671.D	1		12/20/18 13:07	VX122018

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit
A = Aldol-Condensation Reaction Products

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX122018\
Data File : VX006671.D
Acq On : 20 Dec 2018 13:07
Operator : JC/MD
Sample : J6484-02
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 11 Sample Multiplier: 1

Instrument : MSVOA_X
ClientSampleId : 964-MW-02(23.8)

Quant Time: Dec 21 04:05:55 2018
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121818W.M
Quant Title : SW846 8260
QLast Update : Wed Dec 19 15:20:58 2018
Response via : Initial Calibration

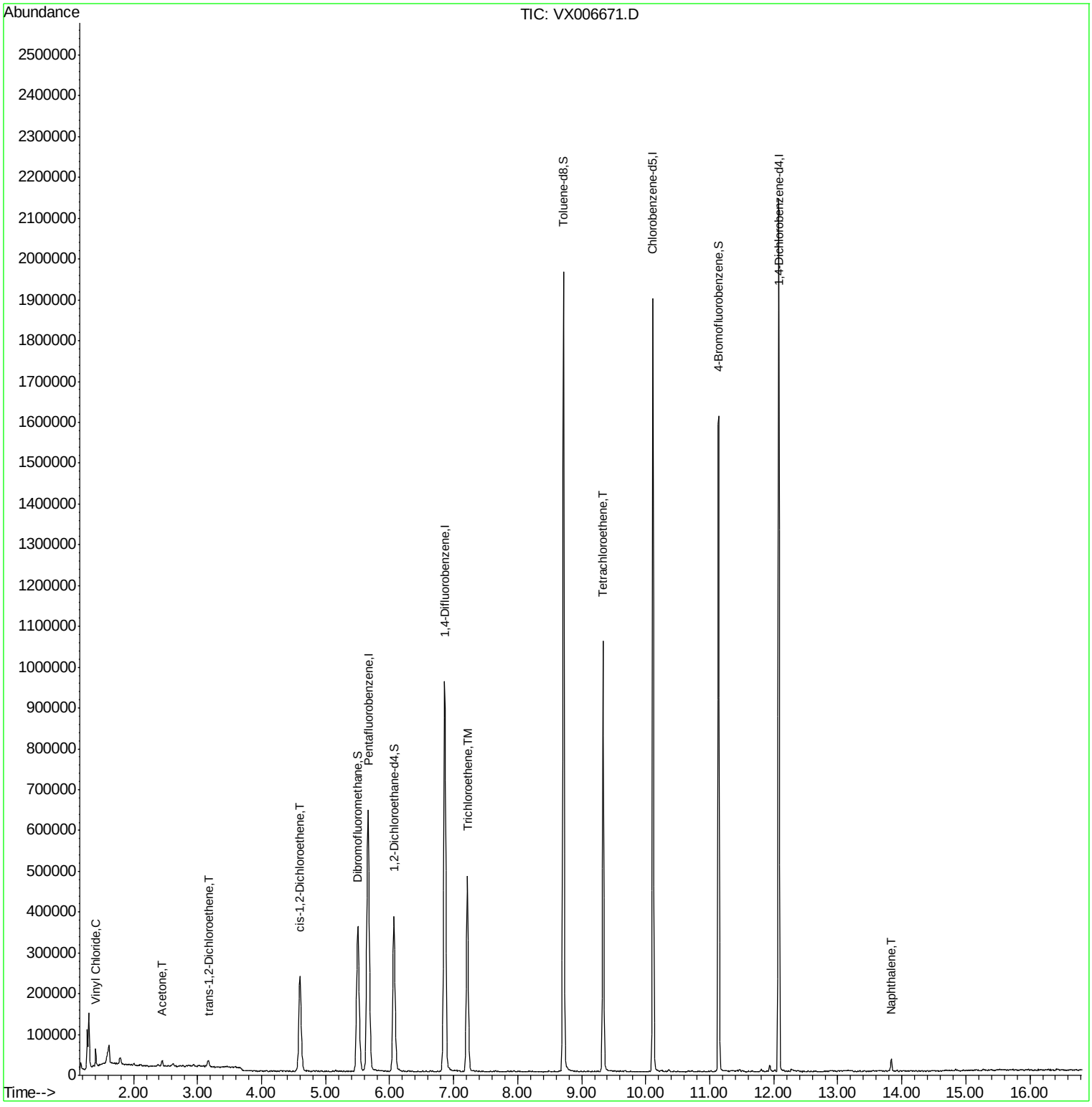
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	5.66	168	655690	50.00	ug/l	0.00
34) 1,4-Difluorobenzene	6.86	114	1028967	50.00	ug/l	0.00
63) Chlorobenzene-d5	10.12	117	946011	50.00	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	12.08	152	451641	50.00	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	6.07	65	351515	49.74	ug/l	0.00
Spiked Amount 50.000			Recovery = 99.48%			
35) Dibromofluoromethane	5.50	113	306423	47.09	ug/l	0.00
Spiked Amount 50.000			Recovery = 94.18%			
50) Toluene-d8	8.71	98	1223327	49.87	ug/l	0.00
Spiked Amount 50.000			Recovery = 99.74%			
62) 4-Bromofluorobenzene	11.13	95	439927	48.97	ug/l	0.00
Spiked Amount 50.000			Recovery = 97.94%			
Target Compounds						Qvalue
4) Vinyl Chloride	1.41	62	8952	1.326	ug/l	97
16) Acetone	2.45	43	12729	3.921	ug/l	99
21) trans-1,2-Dichloroethene	3.17	96	6972	1.074	ug/l	92
27) cis-1,2-Dichloroethene	4.60	96	161566	22.560	ug/l	92
44) Trichloroethene	7.21	130	194707	24.833	ug/l	99
64) Tetrachloroethene	9.33	164	207267	27.669	ug/l	97
95) Naphthalene	13.83	128	22873	0.690	ug/l	97

(#) = qualifier out of range (m) = manual integration (+) = signals summed

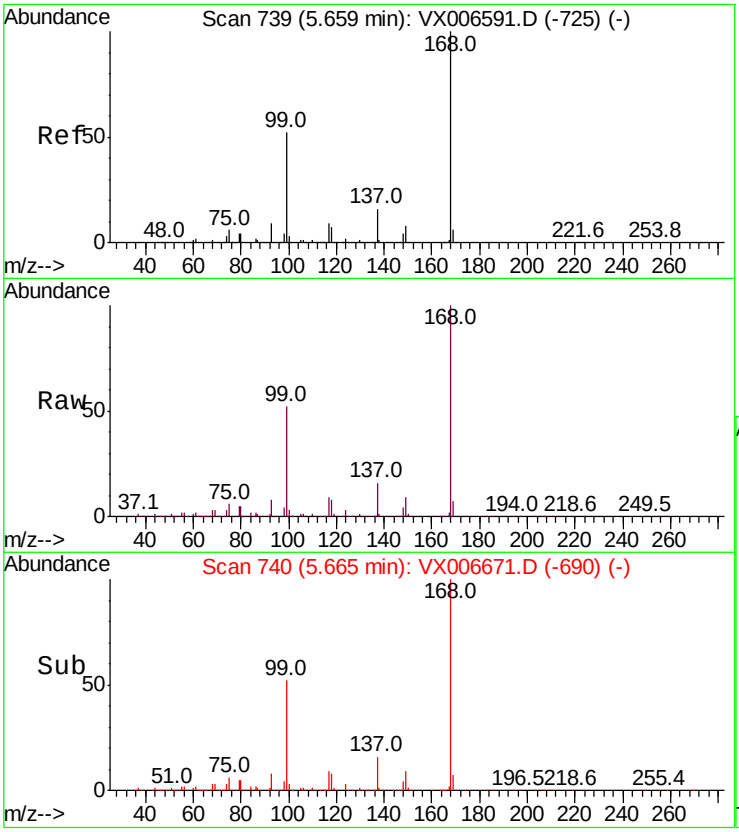
Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX122018\
Data File : VX006671.D
Acq On : 20 Dec 2018 13:07
Operator : JC/MD
Sample : J6484-02
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 11 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
964-MW-02(23.8)

Quant Time: Dec 21 04:05:55 2018
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121818W.M
Quant Title : SW846 8260
QLast Update : Wed Dec 19 15:20:58 2018
Response via : Initial Calibration



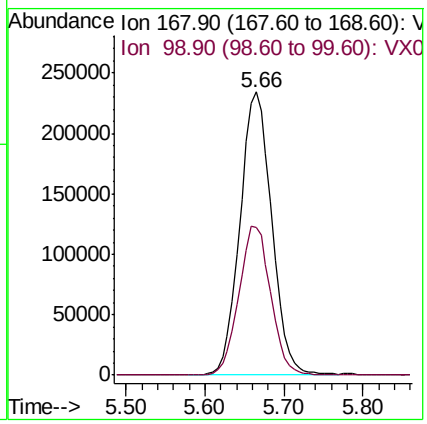
Instrument :
MSVOA_X
ClientSampleId :
964-MW-02(23.8)

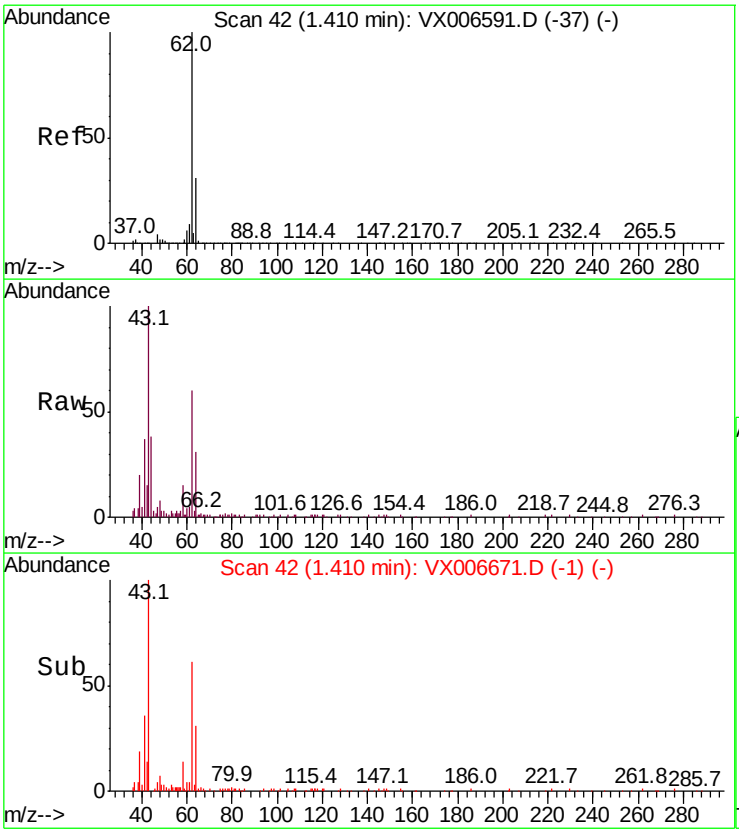


#1
Pentafluorobenzene
Concen: 50.000 ug/l
RT: 5.66 min Scan# 740
Delta R.T. 0.01 min
Lab File: VX006671.D
Acq: 20 Dec 2018 13:07

Tgt Ion:168 Resp: 655690

Ion	Ratio	Lower	Upper
168	100		
99	52.1	41.8	62.8

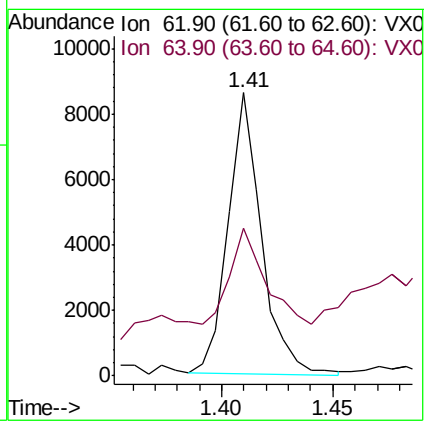




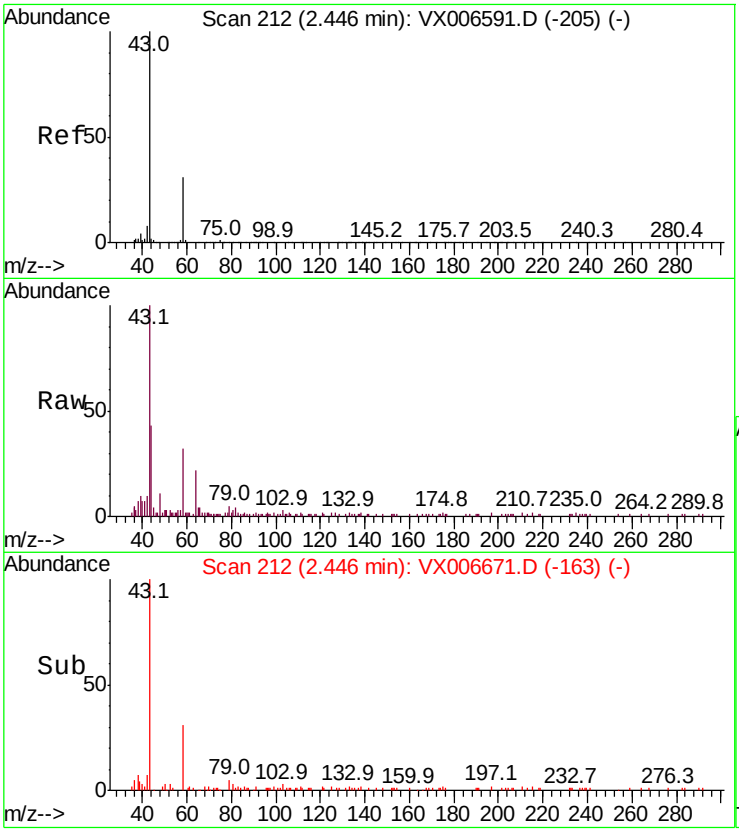
#4
Vinyl Chloride
Concen: 1.326 ug/l
RT: 1.41 min Scan# 42
Delta R.T. -0.00 min
Lab File: VX006671.D
Acq: 20 Dec 2018 13:07

Tgt Ion: 62 Resp: 8952

Ion	Ratio	Lower	Upper
62	100		
64	33.2	25.1	37.7



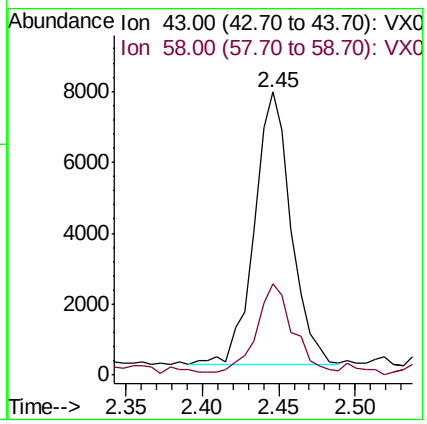
Instrument :
MSVOA_X
ClientSampleId :
964-MW-02(23.8)

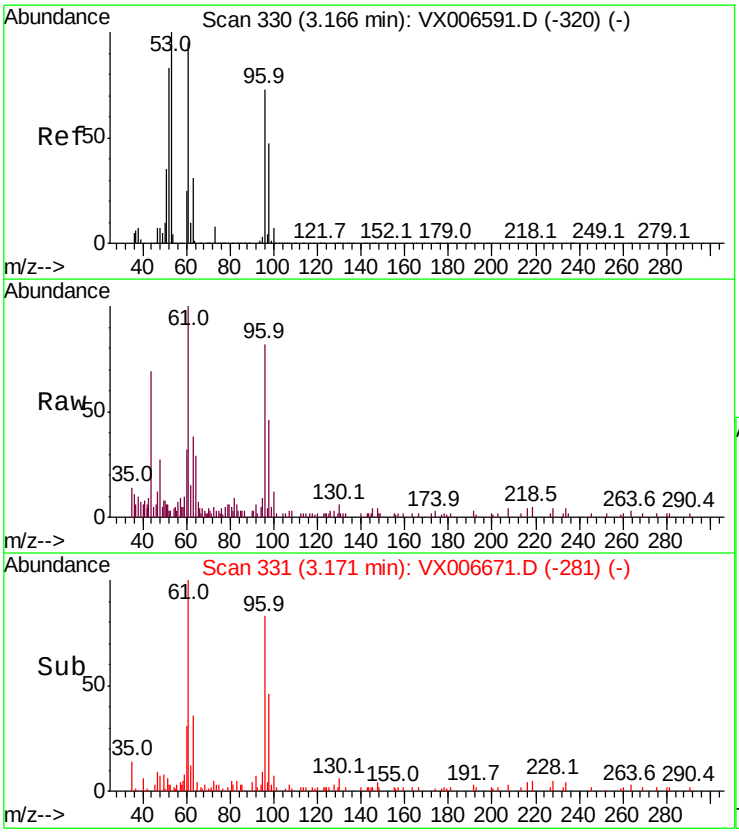


#16
Acetone
Concen: 3.921 ug/l
RT: 2.45 min Scan# 212
Delta R.T. -0.00 min
Lab File: VX006671.D
Acq: 20 Dec 2018 13:07

Tgt Ion: 43 Resp: 12729

Ion	Ratio	Lower	Upper
43	100		
58	31.8	25.0	37.6

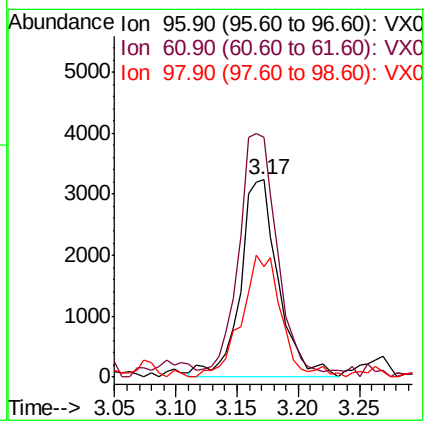




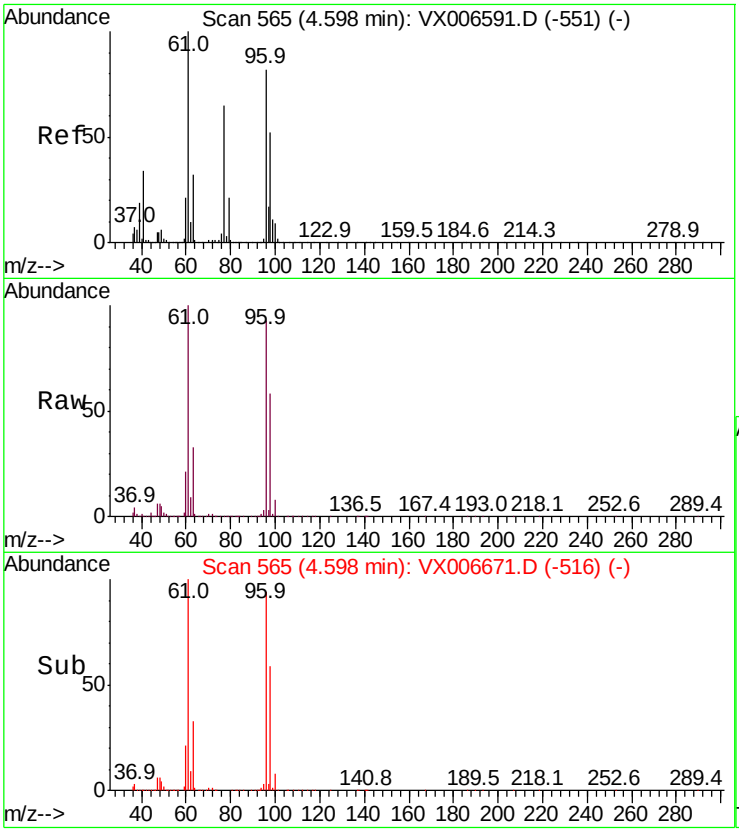
#21
trans-1,2-Dichloroethene
Concen: 1.074 ug/l
RT: 3.17 min Scan# 331
Delta R.T. 0.01 min
Lab File: VX006671.D
Acq: 20 Dec 2018 13:07

Tgt Ion: 96 Resp: 6972

Ion	Ratio	Lower	Upper
96	100		
61	120.4	103.7	155.5
98	57.2	51.0	76.6



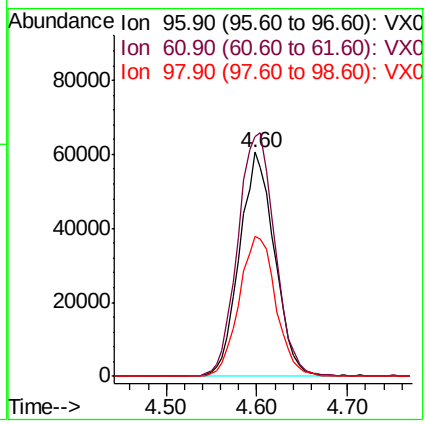
Instrument :
MSVOA_X
ClientSampleId :
964-MW-02(23.8)

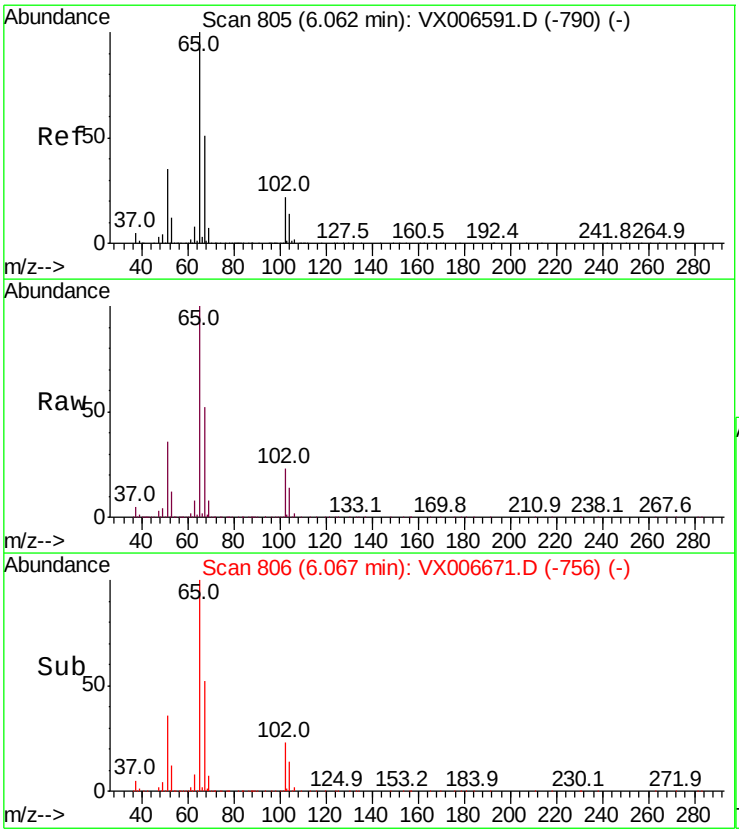


#27
cis-1,2-Dichloroethene
Concen: 22.560 ug/l
RT: 4.60 min Scan# 565
Delta R.T. -0.00 min
Lab File: VX006671.D
Acq: 20 Dec 2018 13:07

Tgt Ion: 96 Resp: 161566

Ion	Ratio	Lower	Upper
96	100		
61	115.7	0.0	258.6
98	65.4	0.0	132.0

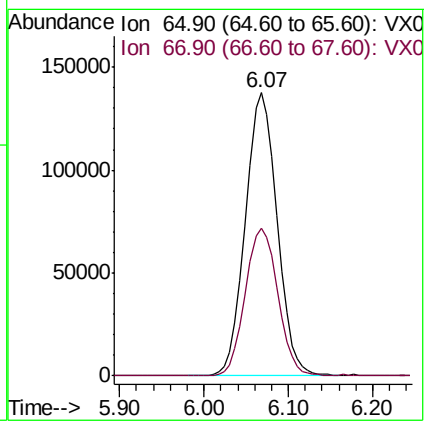




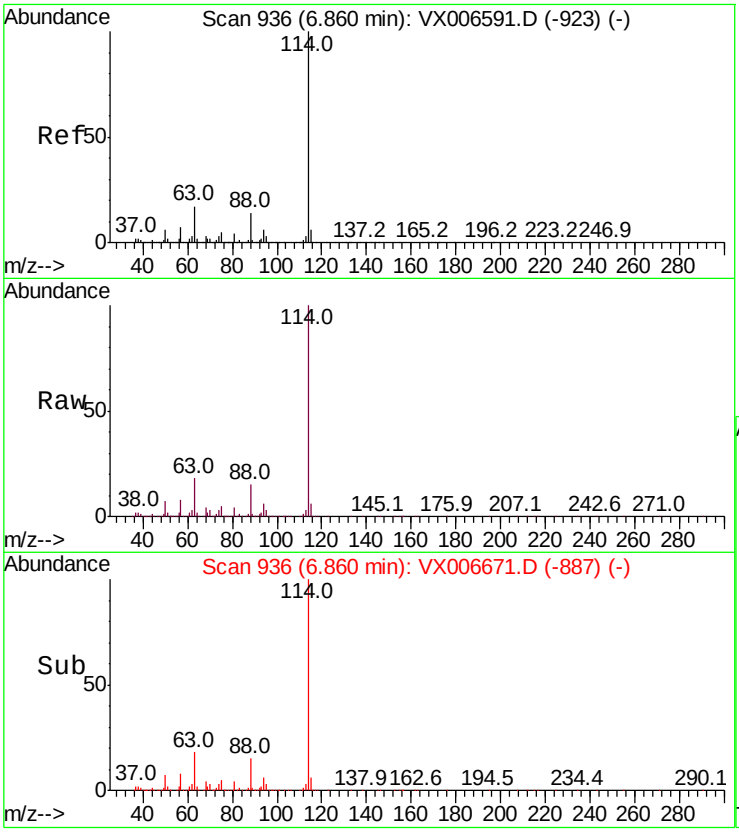
#33
1,2-Dichloroethane-d4
Concen: 49.742 ug/l
RT: 6.07 min Scan# 806
Delta R.T. 0.01 min
Lab File: VX006671.D
Acq: 20 Dec 2018 13:07

Tgt Ion: 65 Resp: 351515

Ion	Ratio	Lower	Upper
65	100		
67	53.4	0.0	105.0



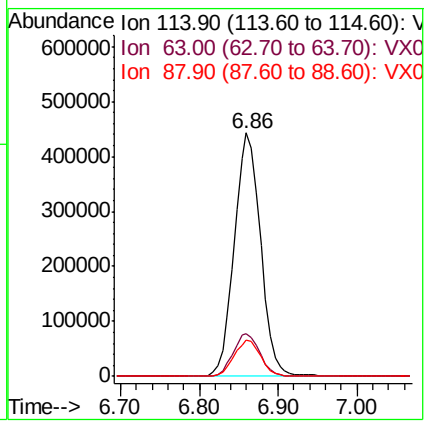
Instrument :
MSVOA_X
ClientSampleId :
964-MW-02(23.8)

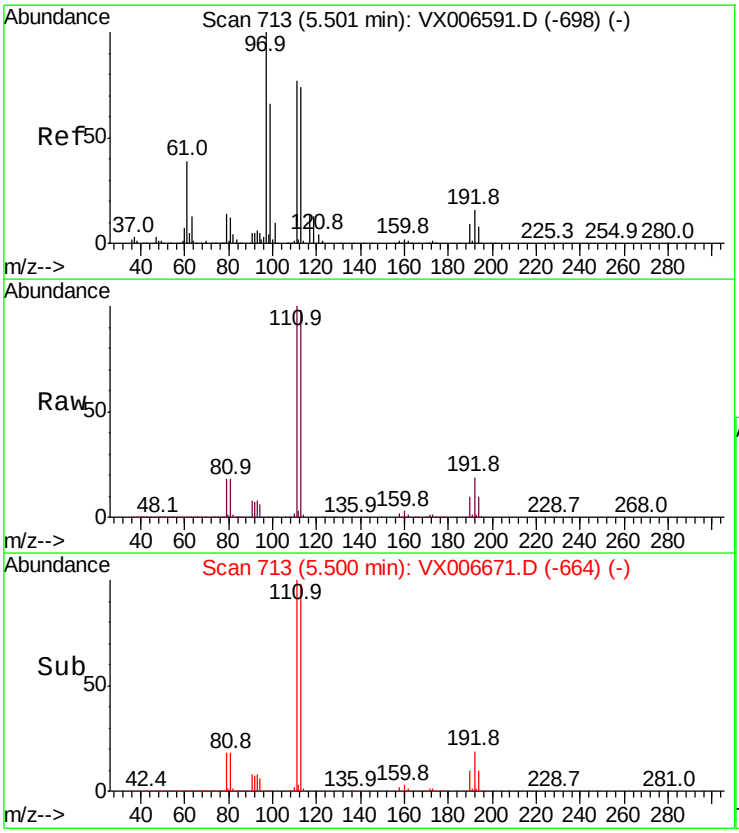


#34
1,4-Difluorobenzene
Concen: 50.000 ug/l
RT: 6.86 min Scan# 936
Delta R.T. -0.00 min
Lab File: VX006671.D
Acq: 20 Dec 2018 13:07

Tgt Ion:114 Resp: 1028967

Ion	Ratio	Lower	Upper
114	100		
63	17.6	0.0	34.8
88	14.9	0.0	28.8

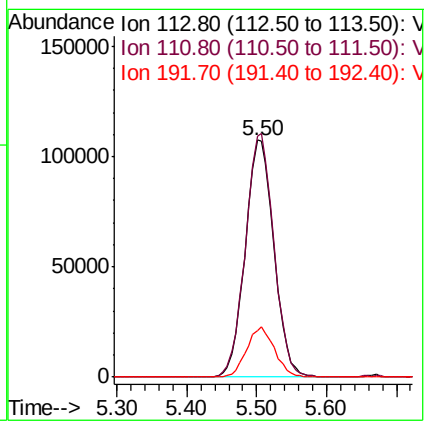




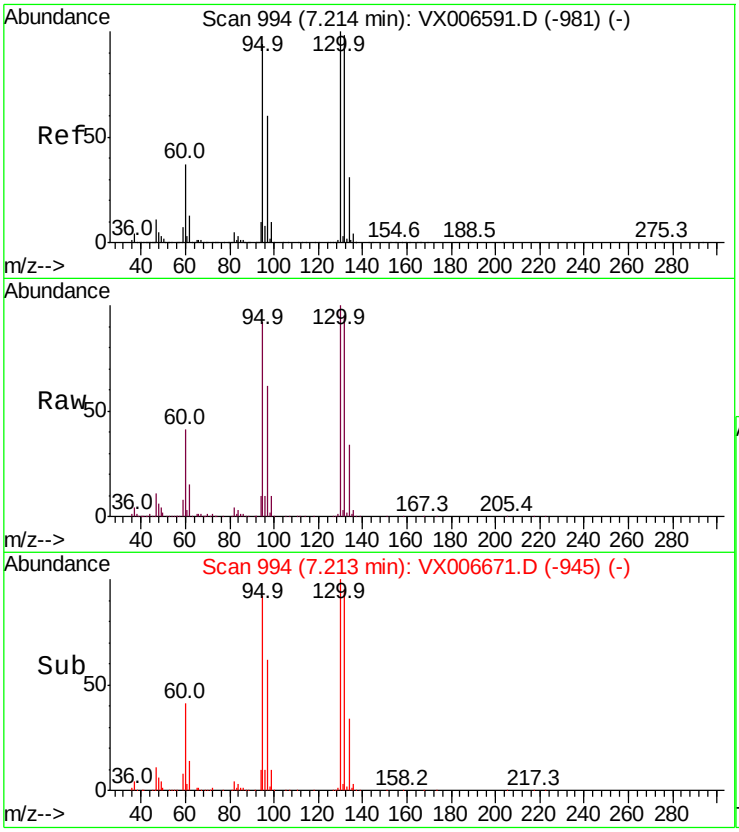
#35
Dibromofluoromethane
Concen: 47.091 ug/l
RT: 5.50 min Scan# 713
Delta R.T. -0.00 min
Lab File: VX006671.D
Acq: 20 Dec 2018 13:07

Tgt Ion:113 Resp: 306423

Ion	Ratio	Lower	Upper
113	100		
111	101.7	81.6	122.4
192	20.6	16.7	25.1



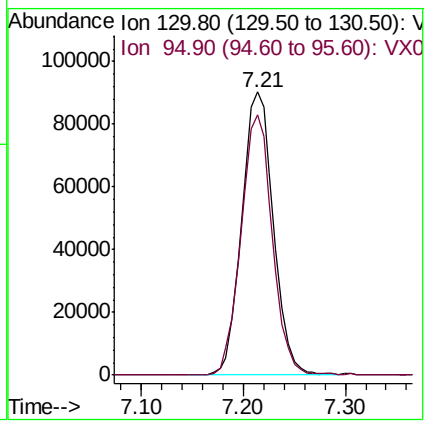
Instrument :
MSVOA_X
ClientSampleId :
964-MW-02(23.8)

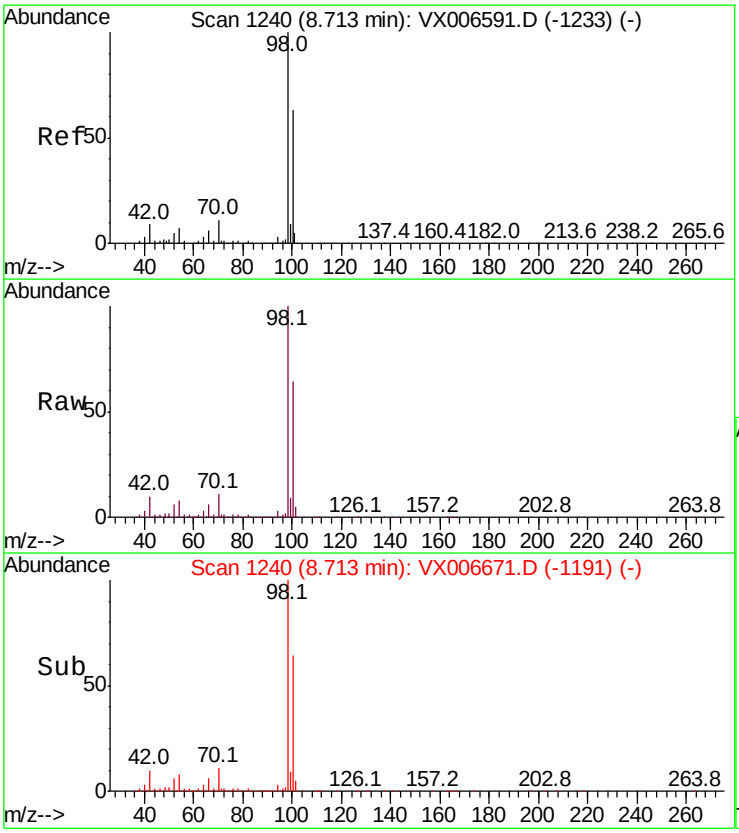


#44
Trichloroethene
Concen: 24.833 ug/l
RT: 7.21 min Scan# 994
Delta R.T. -0.00 min
Lab File: VX006671.D
Acq: 20 Dec 2018 13:07

Tgt Ion:130 Resp: 194707

Ion	Ratio	Lower	Upper
130	100		
95	92.1	0.0	187.0

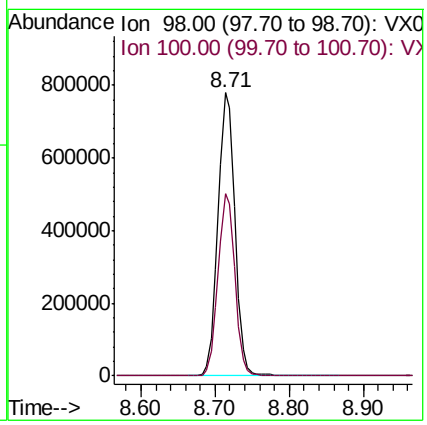




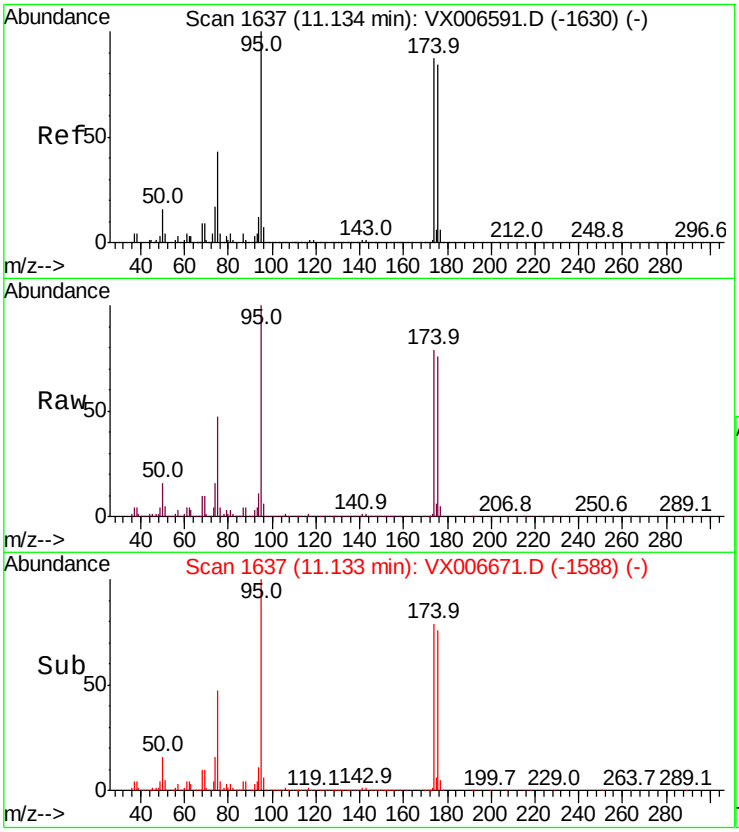
#50
Toluene-d8
Concen: 49.867 ug/l
RT: 8.71 min Scan# 1240
Delta R.T. -0.00 min
Lab File: VX006671.D
Acq: 20 Dec 2018 13:07

Tgt Ion: 98 Resp: 1223327

Ion	Ratio	Lower	Upper
98	100		
100	64.0	52.0	78.0



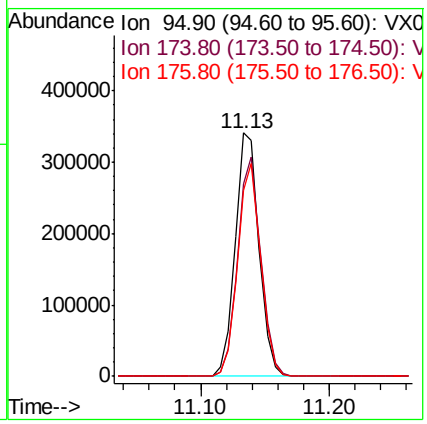
Instrument :
MSVOA_X
ClientSampleId :
964-MW-02(23.8)

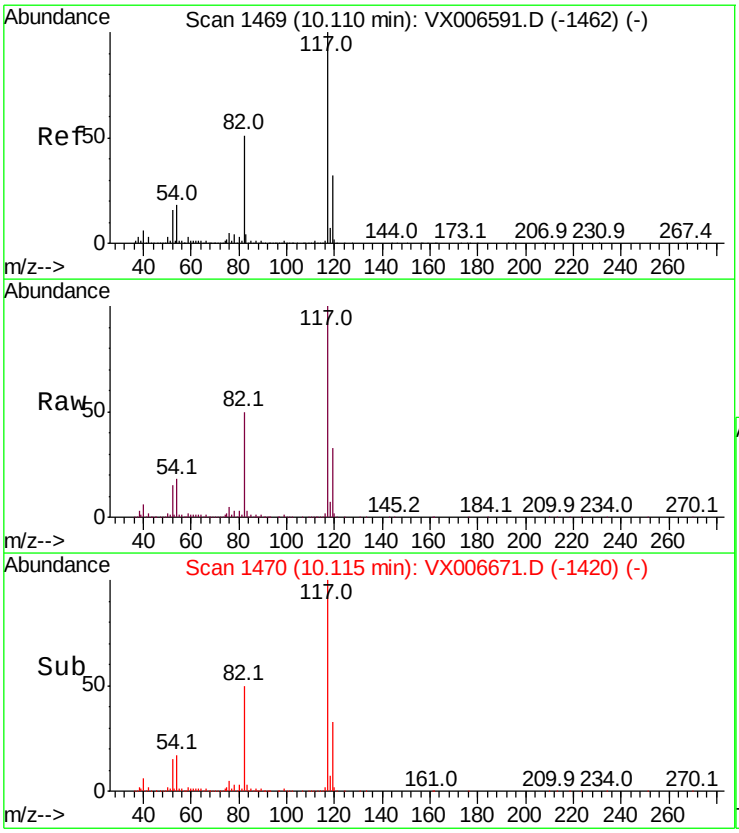


#62
4-Bromofluorobenzene
Concen: 48.965 ug/l
RT: 11.13 min Scan# 1637
Delta R.T. -0.00 min
Lab File: VX006671.D
Acq: 20 Dec 2018 13:07

Tgt Ion: 95 Resp: 439927

Ion	Ratio	Lower	Upper
95	100		
174	87.6	0.0	182.2
176	84.7	0.0	178.8

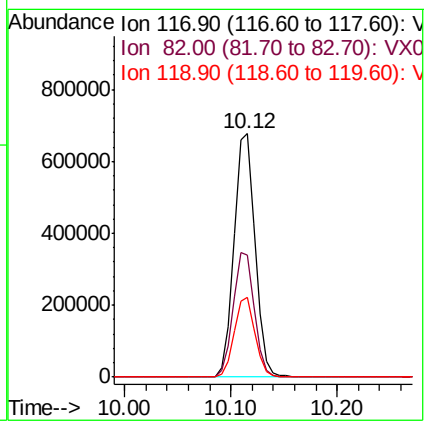




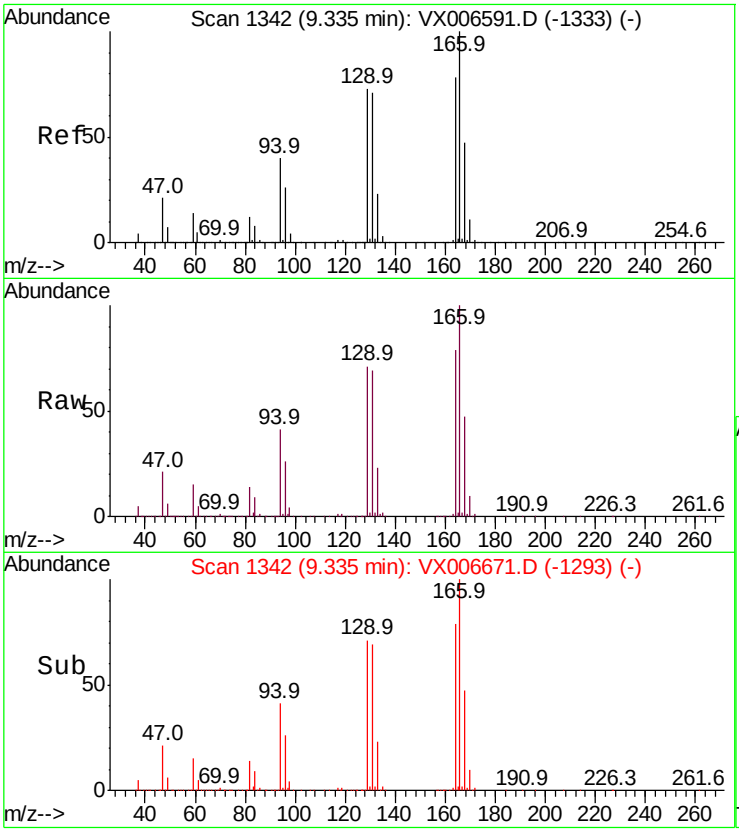
#63
Chlorobenzene-d5
Concen: 50.000 ug/l
RT: 10.12 min Scan# 1470
Delta R.T. 0.01 min
Lab File: VX006671.D
Acq: 20 Dec 2018 13:07

Tgt Ion:117 Resp: 946011

Ion	Ratio	Lower	Upper
117	100		
82	50.3	41.0	61.6
119	32.7	25.4	38.0



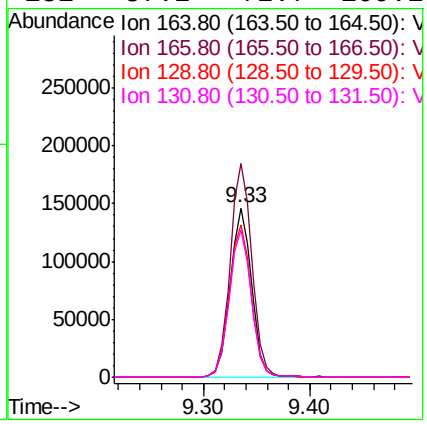
Instrument :
MSVOA_X
ClientSampleId :
964-MW-02(23.8)

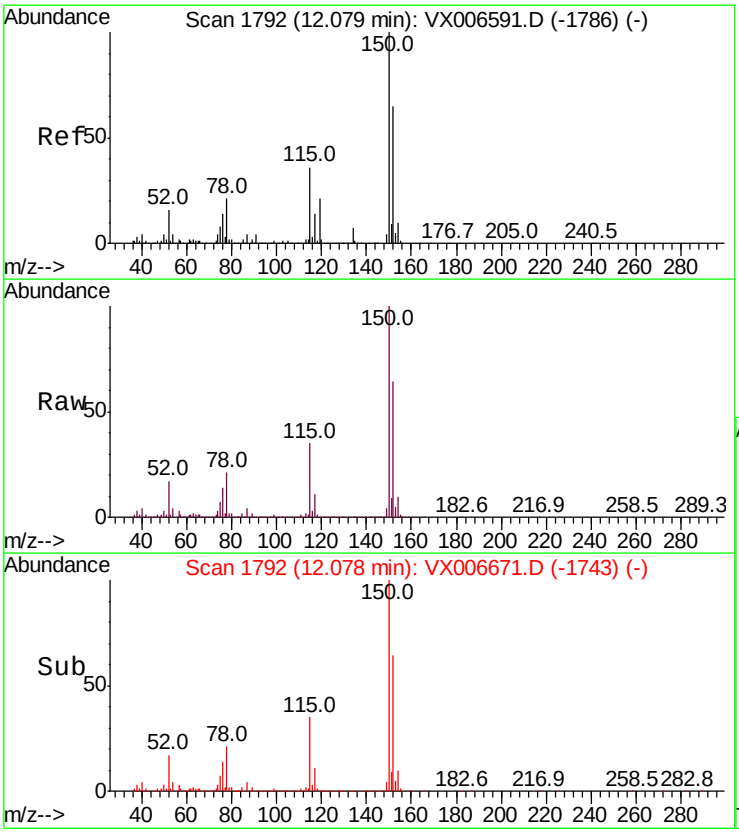


#64
Tetrachloroethene
Concen: 27.669 ug/l
RT: 9.33 min Scan# 1342
Delta R.T. -0.00 min
Lab File: VX006671.D
Acq: 20 Dec 2018 13:07

Tgt Ion:164 Resp: 207267

Ion	Ratio	Lower	Upper
164	100		
166	126.3	102.5	153.7
129	89.8	75.1	112.7
131	87.2	72.7	109.1

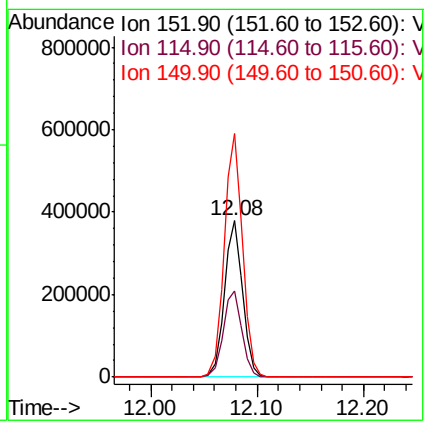


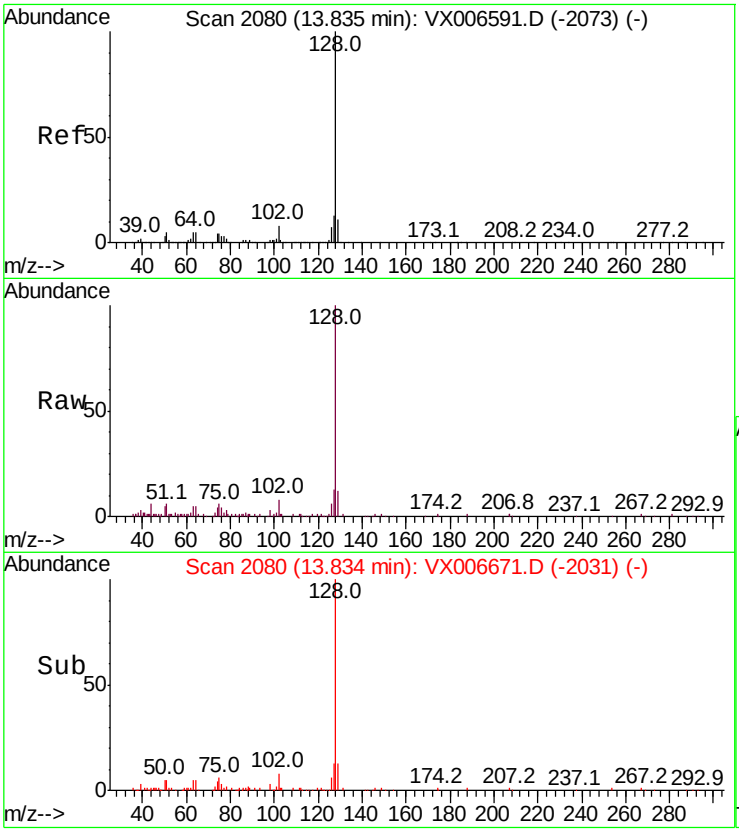


#72
1,4-Dichlorobenzene-d4
Concen: 50.000 ug/l
RT: 12.08 min Scan# 1792
Delta R.T. -0.00 min
Lab File: VX006671.D
Acq: 20 Dec 2018 13:07

Tgt Ion:152 Resp: 451641

Ion	Ratio	Lower	Upper
152	100		
115	56.4	39.1	117.2
150	155.9	0.0	344.8

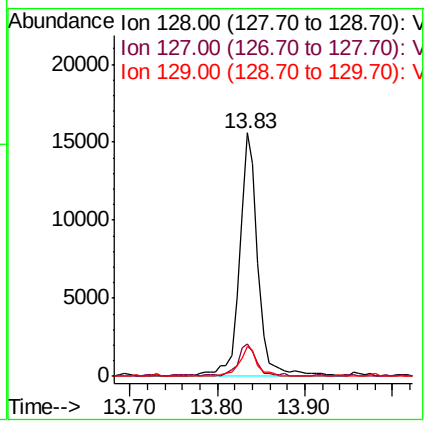




#95
Naphthalene
Concen: 0.690 ug/l
RT: 13.83 min Scan# 2080
Delta R.T. -0.00 min
Lab File: VX006671.D
Acq: 20 Dec 2018 13:07

Tgt Ion:128 Resp: 22873

Ion	Ratio	Lower	Upper
128	100		
127	13.6	10.1	15.1
129	11.9	8.6	13.0



Instrument :
MSVOA_X
ClientSampleId :
964-MW-02(23.8)

LSC Area Percent Report

Data Path : Z:\VOASRV\HPCHEM1\MSVOA X\DATA\VX122018\
Data File : VX006671.D
Acq On : 20 Dec 2018 13:07
Operator : JC/MD
Sample : J6484-02
Misc : 5.0mL/MSVOA X/WATER
ALS Vial : 11 Sample Multiplier: 1

Instrument : MSVOA_X
ClientSampleId : 964-MW-02(23.8)

Integration Parameters: RTEINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 3 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121818W.M
Title : SW846 8260

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	1.275	15	20	22	rBV	97490	112523	3.65%	0.557%
2	1.300	22	24	31	rVB	134080	146550	4.75%	0.725%
3	1.410	39	42	47	rBV	41115	44259	1.43%	0.219%
4	1.617	67	76	80	rVB3	43164	96477	3.13%	0.477%
5	3.171	324	331	338	rVB3	16006	32665	1.06%	0.162%
6	4.598	551	565	581	rBV2	233875	667351	21.62%	3.303%
7	5.500	702	713	726	rBV	354536	1016514	32.93%	5.031%
8	5.665	726	740	755	rVV	637968	1793954	58.12%	8.878%
9	6.067	794	806	818	rBV	380424	984358	31.89%	4.872%
10	6.860	925	936	950	rBV	956038	2231553	72.30%	11.044%
11	7.213	984	994	1006	rBV	479524	1012754	32.81%	5.012%
12	8.713	1231	1240	1256	rBV	1960187	3086561	100.00%	15.275%
13	9.335	1333	1342	1352	rBV	1054662	1529647	49.56%	7.570%
14	10.109	1462	1469	1480	rBV	1894590	2679338	86.81%	13.260%
15	11.140	1632	1638	1649	rBV	1605095	2117168	68.59%	10.478%
16	12.078	1786	1792	1799	rBV	2139310	2610102	84.56%	12.917%
17	13.834	2075	2080	2087	rVB	30811	44480	1.44%	0.220%

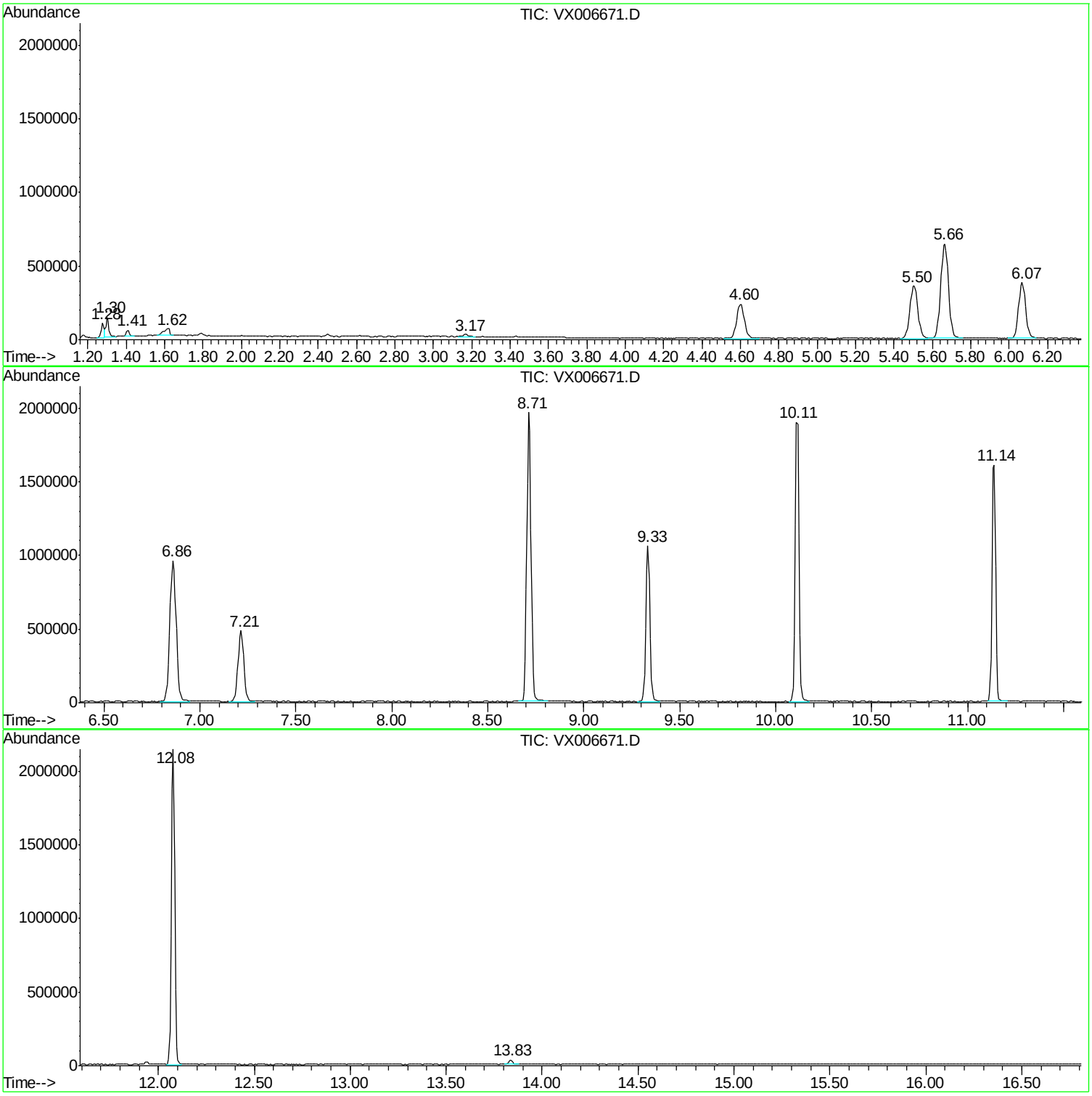
Sum of corrected areas: 20206254

Data Path : Z:\VOASRV\HPCHEM1\MSVOA X\DATA\VX122018\
Data File : VX006671.D
Acq On : 20 Dec 2018 13:07
Operator : JC/MD
Sample : J6484-02
Misc : 5.0mL/MSVOA X/WATER
ALS Vial : 11 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
964-MW-02(23.8)

Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121818W.M
Quant Title : SW846 8260

TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P



Library Search Compound Report

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX122018\
Data File : VX006671.D
Acq On : 20 Dec 2018 13:07
Operator : JC/MD
Sample : J6484-02
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 11 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
964-MW-02(23.8)

Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121818W.M
Quant Title : SW846 8260

TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

No Library Search Compounds Detected

****

Tentatively Identified Compound (LSC) summary

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX122018\
Data File : VX006671.D
Acq On : 20 Dec 2018 13:07
Operator : JC/MD
Sample : J6484-02
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 11 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
964-MW-02(23.8)

Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121818W.M
Quant Title : SW846 8260

TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

TIC Top Hit name	RT	EstConc	Units	Response	Internal Standard #	Internal Standard RT	Internal Standard Resp	Internal Standard Conc

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Day Environmental, Inc.	Date Collected:	12/18/18
Project:	Andrew St. RI	Date Received:	12/19/18
Client Sample ID:	965-MW-03A(17)	SDG No.:	J6484
Lab Sample ID:	J6484-03	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	DB-624UI ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX006685.D	1		12/20/18 19:21	VX122018

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
75-71-8	Dichlorodifluoromethane	1	U	0.2	0.2	1	ug/L
74-87-3	Chloromethane	1	U	0.2	0.2	1	ug/L
75-01-4	Vinyl Chloride	0.33	J	0.2	0.2	1	ug/L
74-83-9	Bromomethane	1	U	0.2	0.2	1	ug/L
75-00-3	Chloroethane	1	U	0.2	0.5	1	ug/L
75-69-4	Trichlorofluoromethane	1	U	0.2	0.2	1	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	1	U	0.2	0.2	1	ug/L
75-35-4	1,1-Dichloroethene	1	U	0.2	0.2	1	ug/L
67-64-1	Acetone	4.4	J	0.5	1	5	ug/L
75-15-0	Carbon Disulfide	1	U	0.2	0.2	1	ug/L
1634-04-4	Methyl tert-butyl Ether	1	U	0.35	0.5	1	ug/L
79-20-9	Methyl Acetate	0.73	J	0.2	0.5	1	ug/L
75-09-2	Methylene Chloride	1	U	0.2	0.2	1	ug/L
156-60-5	trans-1,2-Dichloroethene	1.8		0.2	0.2	1	ug/L
75-34-3	1,1-Dichloroethane	1	U	0.2	0.2	1	ug/L
110-82-7	Cyclohexane	1	U	0.2	0.2	1	ug/L
78-93-3	2-Butanone	5	U	1.3	2.5	5	ug/L
56-23-5	Carbon Tetrachloride	1	U	0.2	0.2	1	ug/L
156-59-2	cis-1,2-Dichloroethene	99.6		0.2	0.2	1	ug/L
74-97-5	Bromochloromethane	1	U	0.2	0.5	1	ug/L
67-66-3	Chloroform	1	U	0.2	0.2	1	ug/L
71-55-6	1,1,1-Trichloroethane	1	U	0.2	0.2	1	ug/L
108-87-2	Methylcyclohexane	1	U	0.2	0.2	1	ug/L
71-43-2	Benzene	1	U	0.2	0.2	1	ug/L
107-06-2	1,2-Dichloroethane	1	U	0.2	0.2	1	ug/L
79-01-6	Trichloroethene	78.2		0.2	0.2	1	ug/L
78-87-5	1,2-Dichloropropane	1	U	0.2	0.2	1	ug/L
75-27-4	Bromodichloromethane	1	U	0.2	0.2	1	ug/L
108-10-1	4-Methyl-2-Pentanone	5	U	1	1	5	ug/L
108-88-3	Toluene	1	U	0.2	0.2	1	ug/L
10061-02-6	t-1,3-Dichloropropene	1	U	0.2	0.2	1	ug/L
10061-01-5	cis-1,3-Dichloropropene	1	U	0.2	0.2	1	ug/L

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Day Environmental, Inc.	Date Collected:	12/18/18
Project:	Andrew St. RI	Date Received:	12/19/18
Client Sample ID:	965-MW-03A(17)	SDG No.:	J6484
Lab Sample ID:	J6484-03	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	DB-624UI ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX006685.D	1		12/20/18 19:21	VX122018

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
79-00-5	1,1,2-Trichloroethane	1	U	0.2	0.2	1	ug/L
591-78-6	2-Hexanone	5	U	1.9	2.5	5	ug/L
124-48-1	Dibromochloromethane	1	U	0.2	0.2	1	ug/L
106-93-4	1,2-Dibromoethane	1	U	0.2	0.2	1	ug/L
127-18-4	Tetrachloroethene	520	E	0.2	0.2	1	ug/L
108-90-7	Chlorobenzene	1	U	0.2	0.2	1	ug/L
100-41-4	Ethyl Benzene	1	U	0.2	0.2	1	ug/L
179601-23-1	m/p-Xylenes	2	U	0.4	0.4	2	ug/L
95-47-6	o-Xylene	1	U	0.2	0.2	1	ug/L
100-42-5	Styrene	1	U	0.2	0.2	1	ug/L
75-25-2	Bromoform	1	U	0.2	0.2	1	ug/L
98-82-8	Isopropylbenzene	1	U	0.2	0.2	1	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	1	U	0.2	0.2	1	ug/L
541-73-1	1,3-Dichlorobenzene	1	U	0.2	0.2	1	ug/L
106-46-7	1,4-Dichlorobenzene	1	U	0.2	0.2	1	ug/L
95-50-1	1,2-Dichlorobenzene	1	U	0.2	0.2	1	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	1	U	0.2	0.2	1	ug/L
120-82-1	1,2,4-Trichlorobenzene	1	U	0.2	0.2	1	ug/L
87-61-6	1,2,3-Trichlorobenzene	1	U	0.2	0.2	1	ug/L
SURROGATES							
17060-07-0	1,2-Dichloroethane-d4	50.1		61 - 141		100%	SPK: 50
1868-53-7	Dibromofluoromethane	46.9		69 - 133		94%	SPK: 50
2037-26-5	Toluene-d8	49.1		65 - 126		98%	SPK: 50
460-00-4	4-Bromofluorobenzene	49.4		58 - 135		99%	SPK: 50
INTERNAL STANDARDS							
363-72-4	Pentafluorobenzene	634779	5.67				
540-36-3	1,4-Difluorobenzene	1001530	6.86				
3114-55-4	Chlorobenzene-d5	913160	10.11				
3855-82-1	1,4-Dichlorobenzene-d4	443619	12.08				

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Day Environmental, Inc.	Date Collected:	12/18/18
Project:	Andrew St. RI	Date Received:	12/19/18
Client Sample ID:	965-MW-03A(17)	SDG No.:	J6484
Lab Sample ID:	J6484-03	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	DB-624UI ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX006685.D	1		12/20/18 19:21	VX122018

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit
A = Aldol-Condensation Reaction Products

Quantitation Report (QT Reviewed)

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX122018\
Data File : VX006685.D
Acq On : 20 Dec 2018 19:21
Operator : JC/MD
Sample : J6484-03
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 25 Sample Multiplier: 1

Instrument : MSVOA_X
ClientSampleId : 965-MW-03A(17)

Quant Time: Dec 21 04:33:53 2018
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121818W.M
Quant Title : SW846 8260
QLast Update : Wed Dec 19 15:20:58 2018
Response via : Initial Calibration

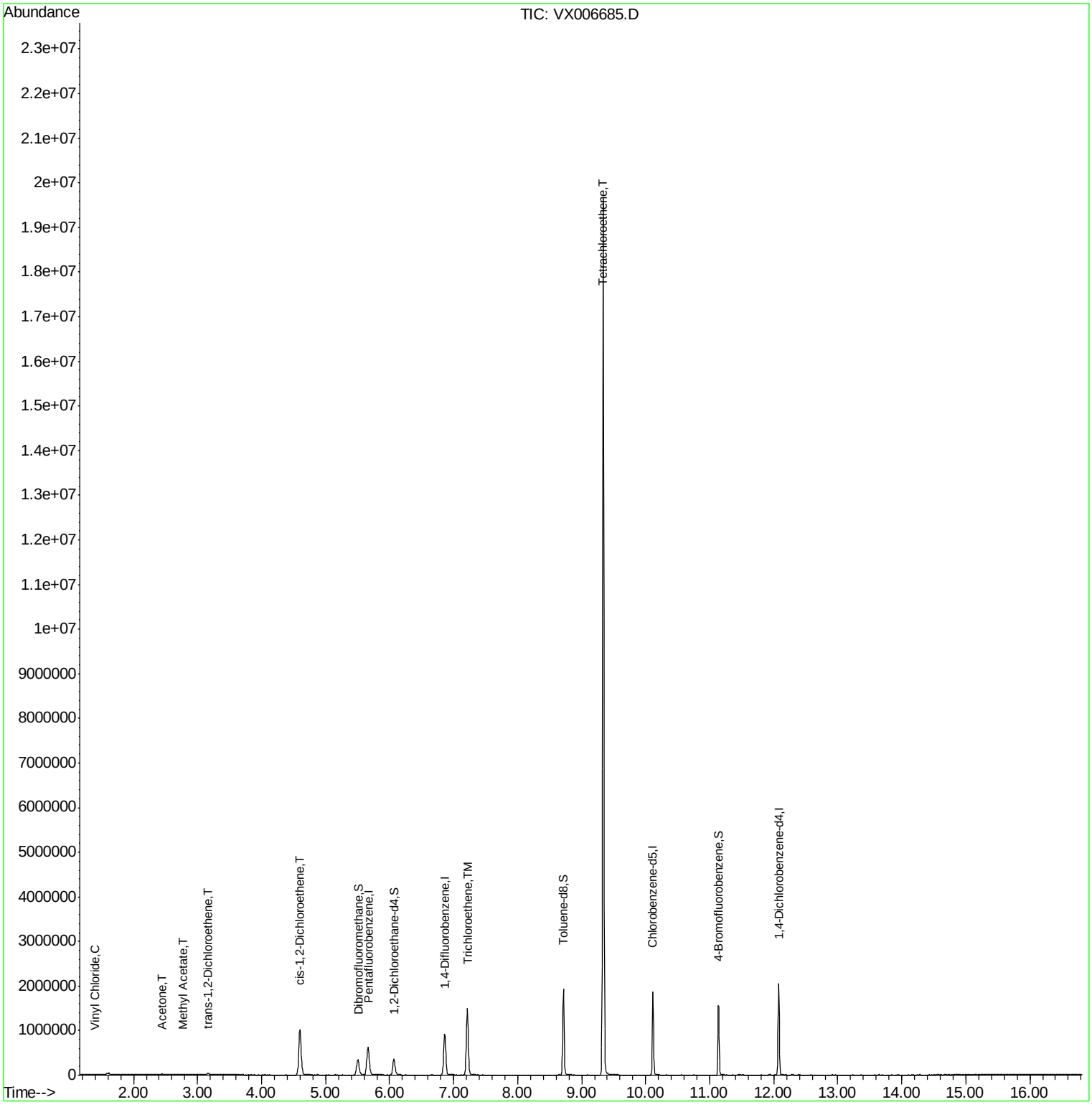
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	5.67	168	634779	50.00	ug/l	0.00
34) 1,4-Difluorobenzene	6.86	114	1001528	50.00	ug/l	0.00
63) Chlorobenzene-d5	10.11	117	913160	50.00	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	12.08	152	443619	50.00	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	6.07	65	342657	50.09	ug/l	0.00
Spiked Amount 50.000			Recovery = 100.18%			
35) Dibromofluoromethane	5.51	113	297126	46.91	ug/l	0.00
Spiked Amount 50.000			Recovery = 93.82%			
50) Toluene-d8	8.71	98	1172940	49.12	ug/l	0.00
Spiked Amount 50.000			Recovery = 98.24%			
62) 4-Bromofluorobenzene	11.13	95	432233	49.43	ug/l	0.00
Spiked Amount 50.000			Recovery = 98.86%			
Target Compounds						Qvalue
4) Vinyl Chloride	1.41	62	2124	0.325	ug/l #	74
16) Acetone	2.45	43	13770	4.381	ug/l	96
18) Methyl Acetate	2.78	43	6739	0.729	ug/l	96
21) trans-1,2-Dichloroethene	3.17	96	11187	1.780	ug/l	92
27) cis-1,2-Dichloroethene	4.60	96	690817	99.637	ug/l	92
44) Trichloroethene	7.21	130	597109	78.243	ug/l	100
64) Tetrachloroethene	9.34	164	3747353	518.246	ug/l	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

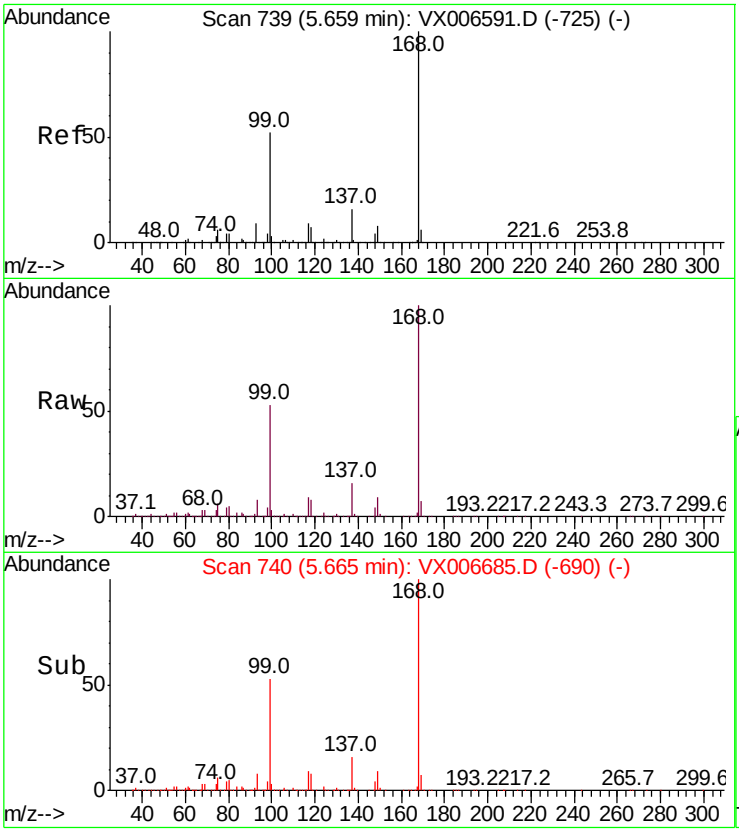
Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX122018\
Data File : VX006685.D
Acq On : 20 Dec 2018 19:21
Operator : JC/MD
Sample : J6484-03
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 25 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
965-MW-03A(17)

Quant Time: Dec 21 04:33:53 2018
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121818W.M
Quant Title : SW846 8260
QLast Update : Wed Dec 19 15:20:58 2018
Response via : Initial Calibration



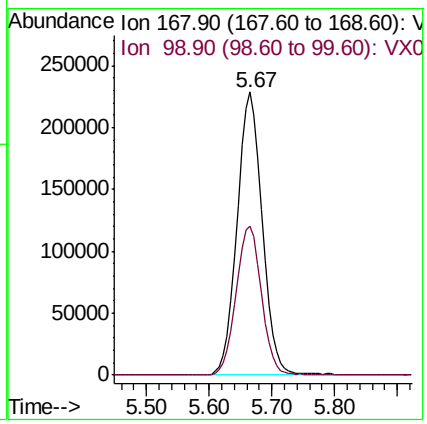
Instrument :
MSVOA_X
ClientSampleId :
965-MW-03A(17)

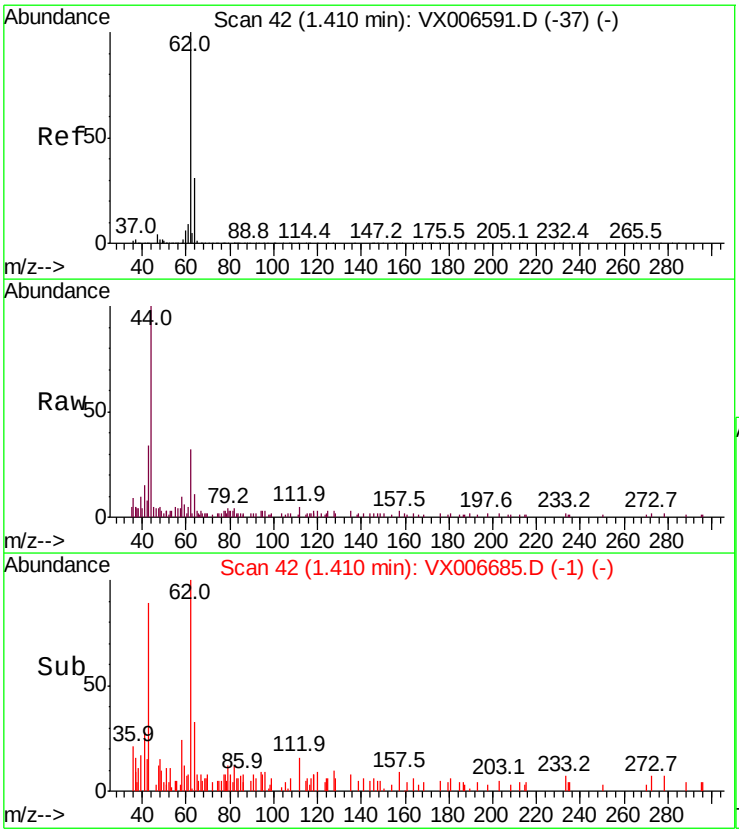


#1
Pentafluorobenzene
Concen: 50.000 ug/l
RT: 5.67 min Scan# 740
Delta R.T. 0.01 min
Lab File: VX006685.D
Acq: 20 Dec 2018 19:21

Tgt Ion:168 Resp: 634779

Ion	Ratio	Lower	Upper
168	100		
99	52.8	41.8	62.8

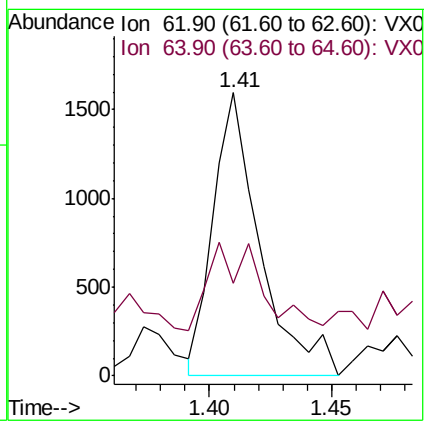




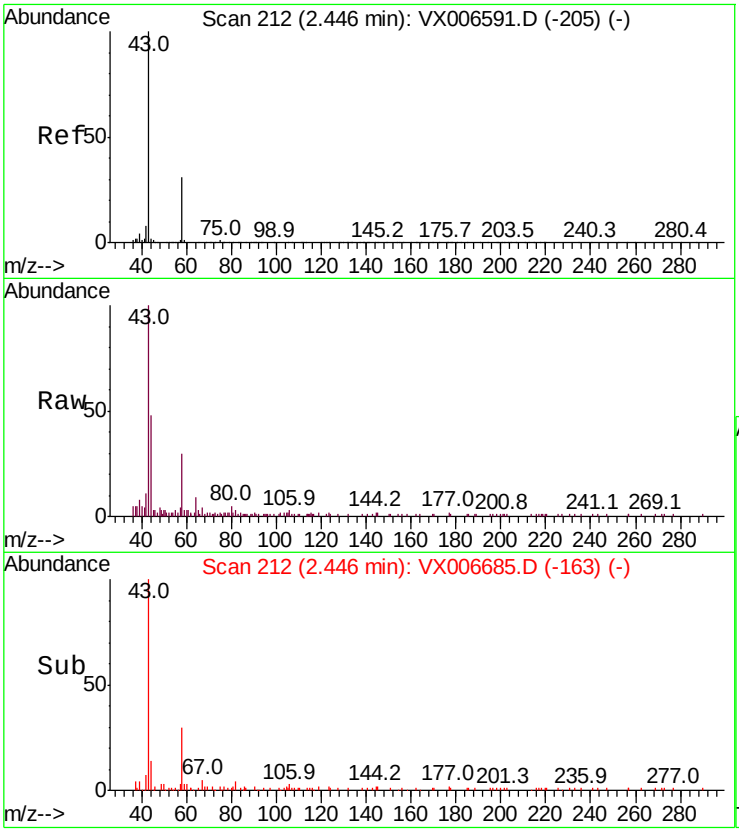
#4
Vinyl Chloride
Concen: 0.325 ug/l
RT: 1.41 min Scan# 42
Delta R.T. -0.00 min
Lab File: VX006685.D
Acq: 20 Dec 2018 19:21

Tgt Ion: 62 Resp: 2124

Ion	Ratio	Lower	Upper
62	100		
64	17.1	25.1	37.7#



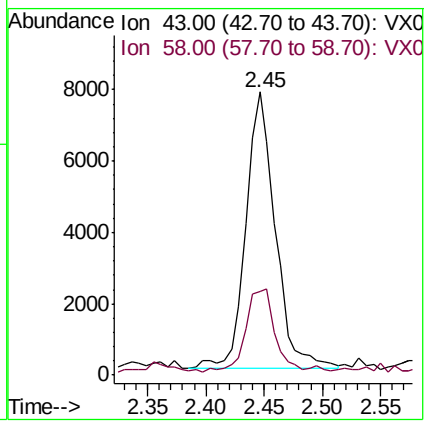
Instrument :
MSVOA_X
ClientSampleId :
965-MW-03A(17)

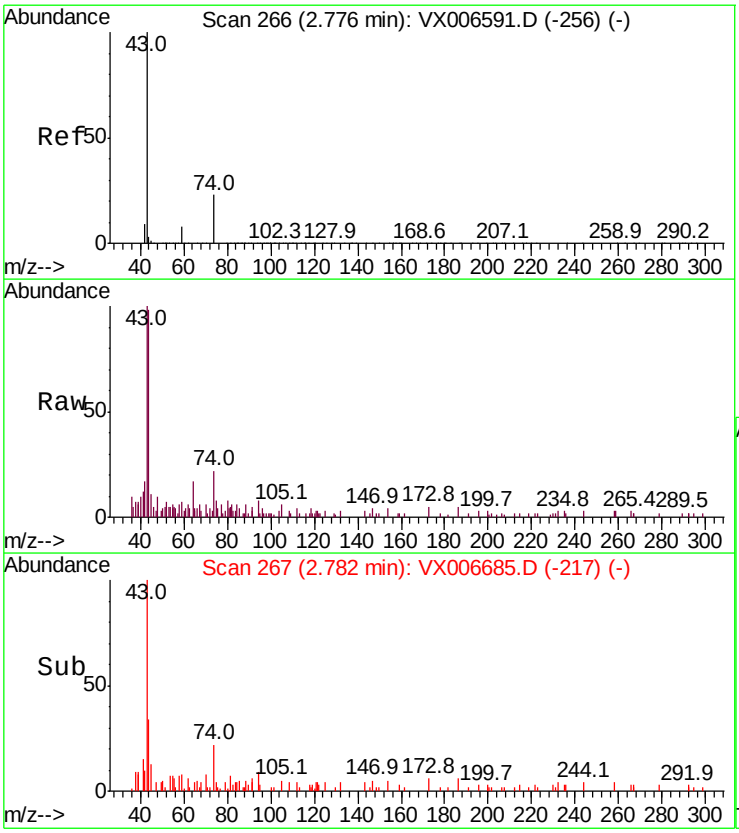


#16
Acetone
Concen: 4.381 ug/l
RT: 2.45 min Scan# 212
Delta R.T. -0.00 min
Lab File: VX006685.D
Acq: 20 Dec 2018 19:21

Tgt Ion: 43 Resp: 13770

Ion	Ratio	Lower	Upper
43	100		
58	29.0	25.0	37.6

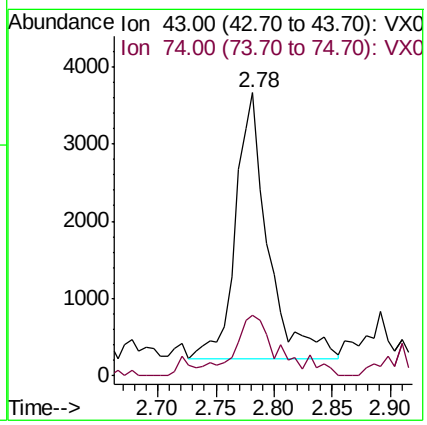




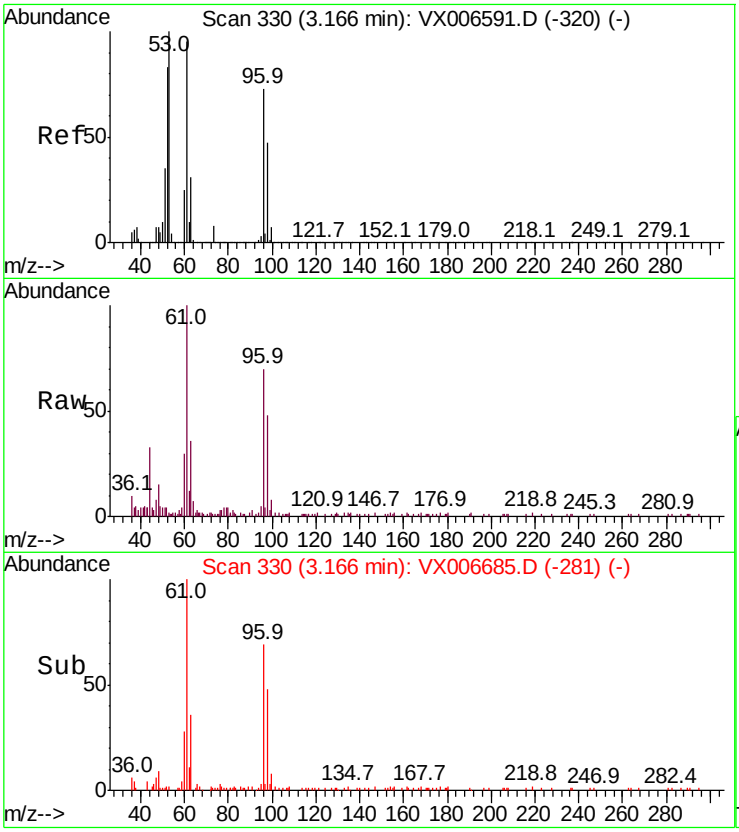
#18
Methyl Acetate
Concen: 0.729 ug/l
RT: 2.78 min Scan# 267
Delta R.T. 0.01 min
Lab File: VX006685.D
Acq: 20 Dec 2018 19:21

Tgt Ion: 43 Resp: 6739

Ion	Ratio	Lower	Upper
43	100		
74	21.3	18.6	28.0



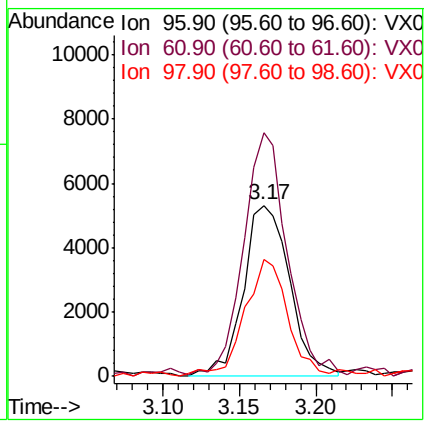
Instrument :
MSVOA_X
ClientSampleId :
965-MW-03A(17)

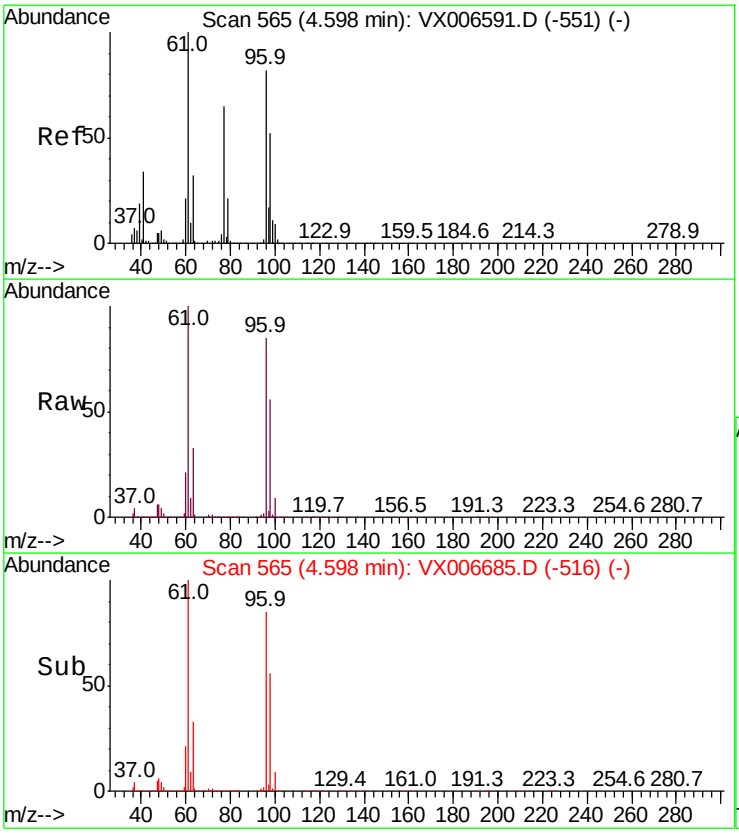


#21
trans-1,2-Dichloroethene
Concen: 1.780 ug/l
RT: 3.17 min Scan# 330
Delta R.T. -0.00 min
Lab File: VX006685.D
Acq: 20 Dec 2018 19:21

Tgt Ion: 96 Resp: 11187

Ion	Ratio	Lower	Upper
96	100		
61	141.1	103.7	155.5
98	67.0	51.0	76.6

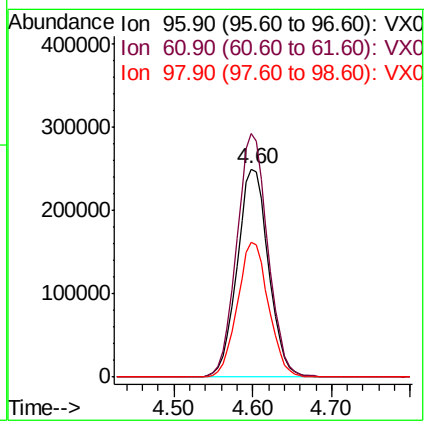




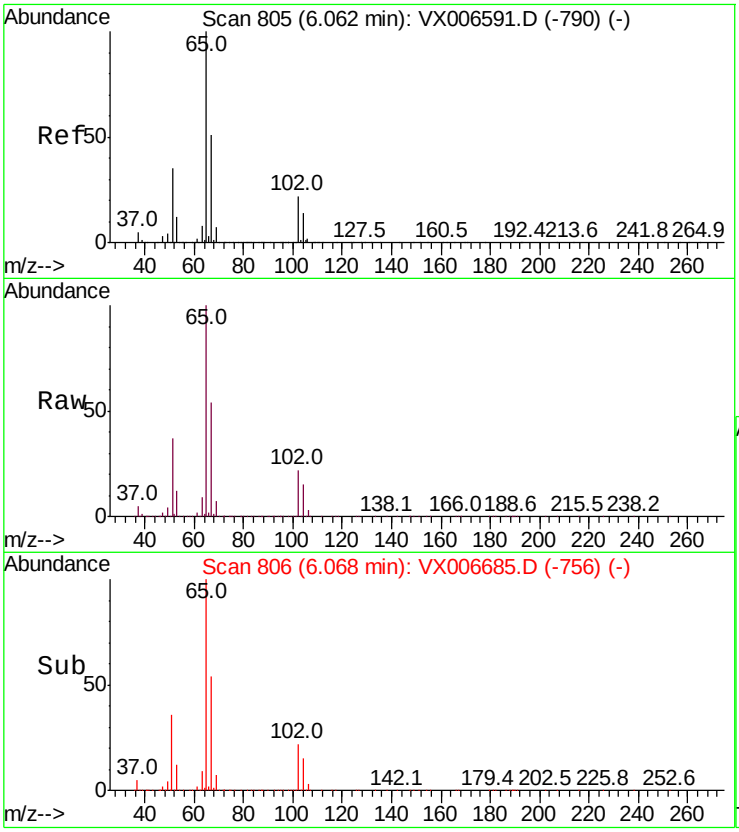
#27
cis-1,2-Dichloroethene
Concen: 99.637 ug/l
RT: 4.60 min Scan# 565
Delta R.T. -0.00 min
Lab File: VX006685.D
Acq: 20 Dec 2018 19:21

Tgt Ion: 96 Resp: 690817

Ion	Ratio	Lower	Upper
96	100		
61	116.3	0.0	258.6
98	64.4	0.0	132.0



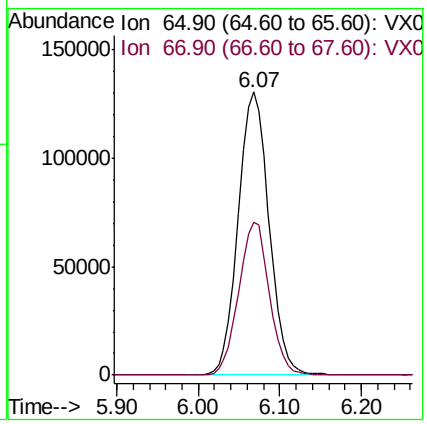
Instrument :
MSVOA_X
ClientSampleId :
965-MW-03A(17)

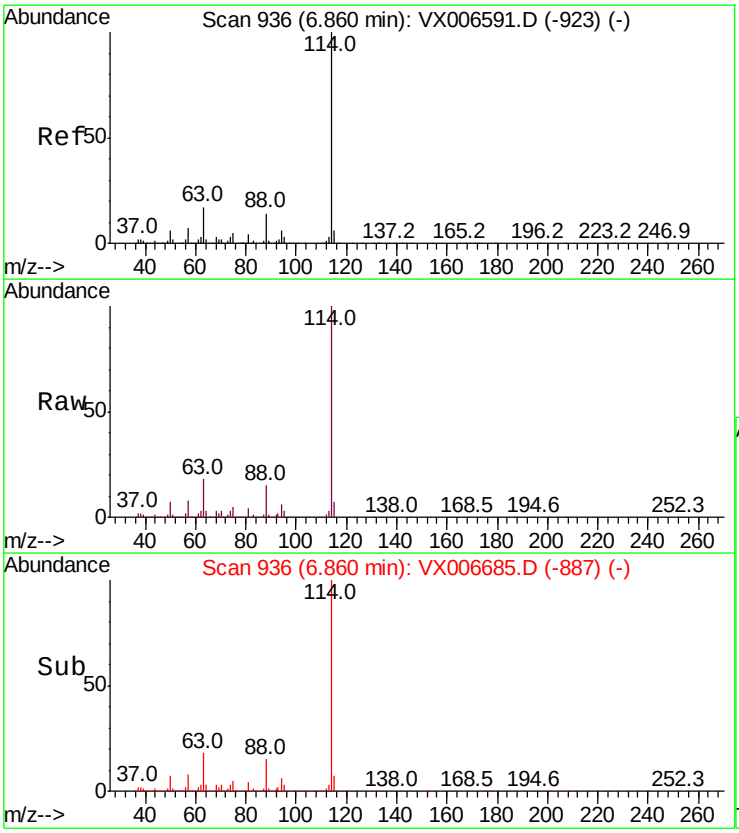


#33
1,2-Dichloroethane-d4
Concen: 50.086 ug/l
RT: 6.07 min Scan# 806
Delta R.T. 0.01 min
Lab File: VX006685.D
Acq: 20 Dec 2018 19:21

Tgt Ion: 65 Resp: 342657

Ion	Ratio	Lower	Upper
65	100		
67	53.4	0.0	105.0

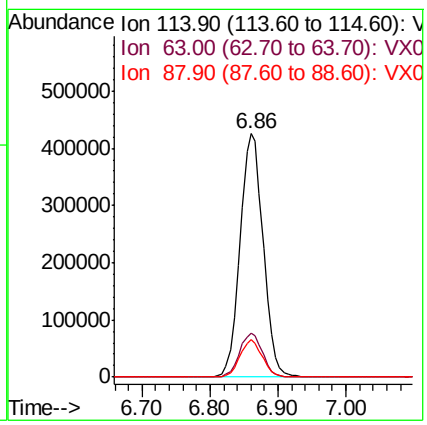




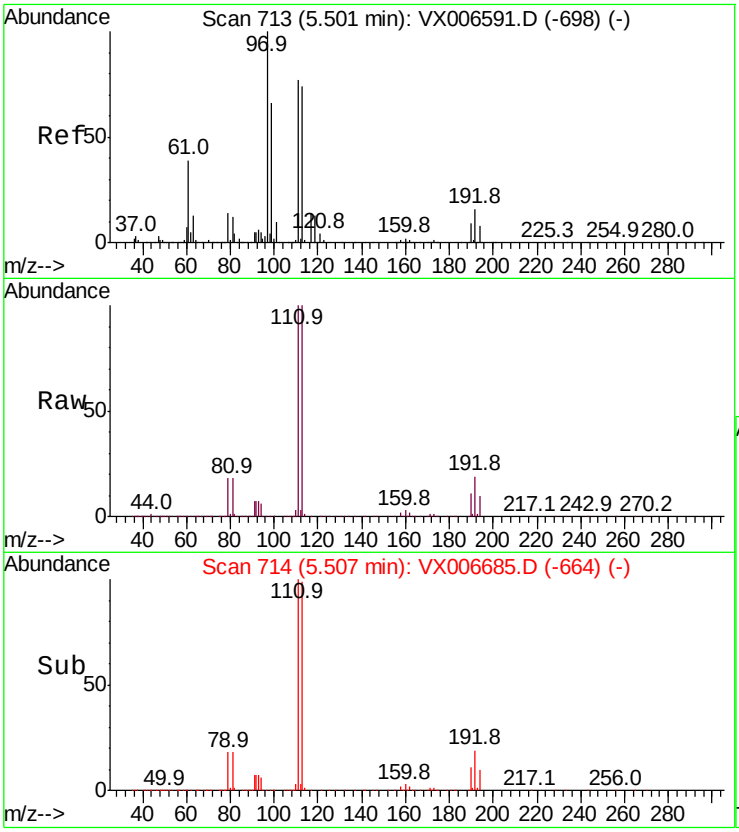
#34
1,4-Difluorobenzene
Concen: 50.000 ug/l
RT: 6.86 min Scan# 936
Delta R.T. -0.00 min
Lab File: VX006685.D
Acq: 20 Dec 2018 19:21

Tgt Ion:114 Resp: 1001528

Ion	Ratio	Lower	Upper
114	100		
63	18.0	0.0	34.8
88	15.4	0.0	28.8



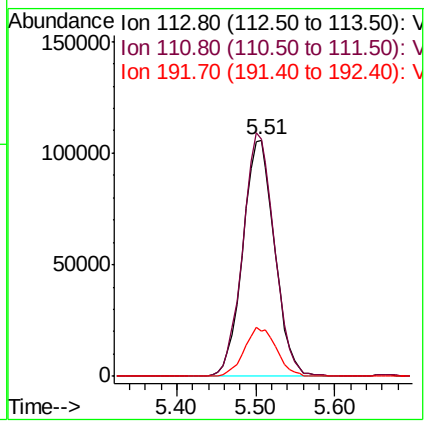
Instrument :
MSVOA_X
ClientSampleId :
965-MW-03A(17)

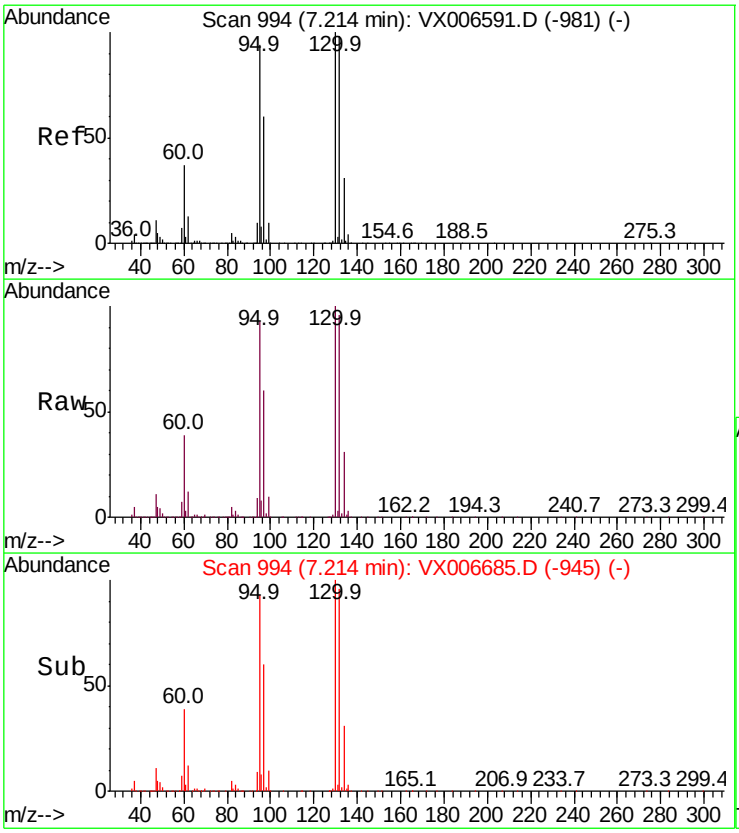


#35
Dibromofluoromethane
Concen: 46.914 ug/l
RT: 5.51 min Scan# 714
Delta R.T. 0.01 min
Lab File: VX006685.D
Acq: 20 Dec 2018 19:21

Tgt Ion:113 Resp: 297126

Ion	Ratio	Lower	Upper
113	100		
111	102.2	81.6	122.4
192	20.8	16.7	25.1

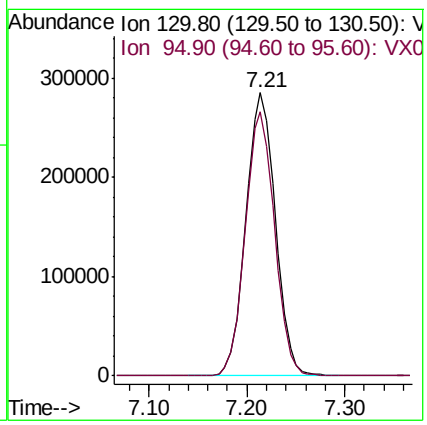




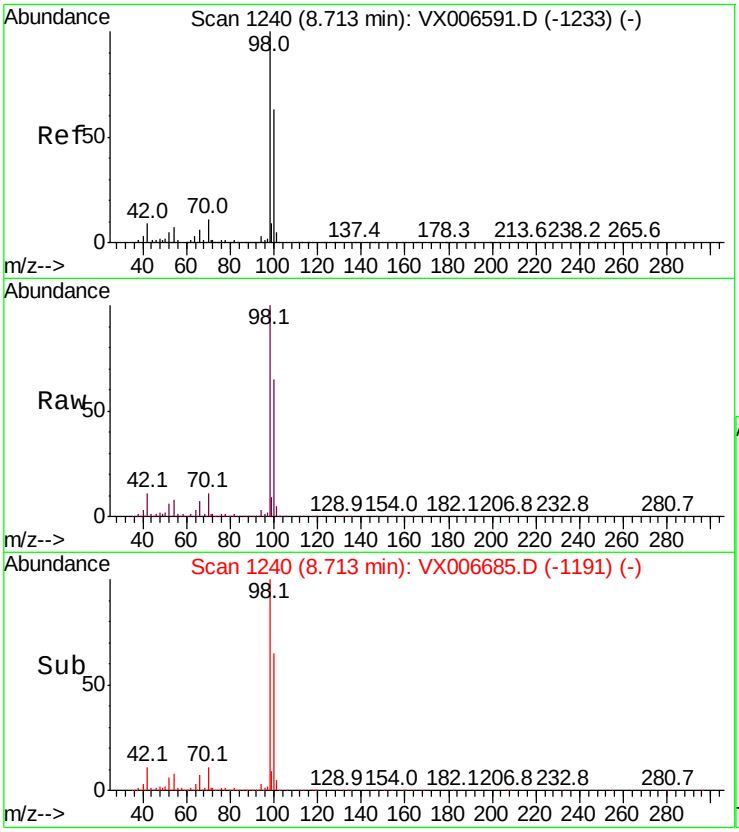
#44
Trichloroethene
Concen: 78.243 ug/l
RT: 7.21 min Scan# 994
Delta R.T. -0.00 min
Lab File: VX006685.D
Acq: 20 Dec 2018 19:21

Tgt Ion:130 Resp: 597109

Ion	Ratio	Lower	Upper
130	100		
95	93.2	0.0	187.0



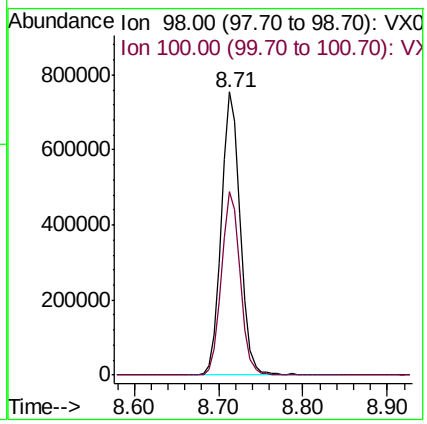
Instrument :
MSVOA_X
ClientSampleId :
965-MW-03A(17)

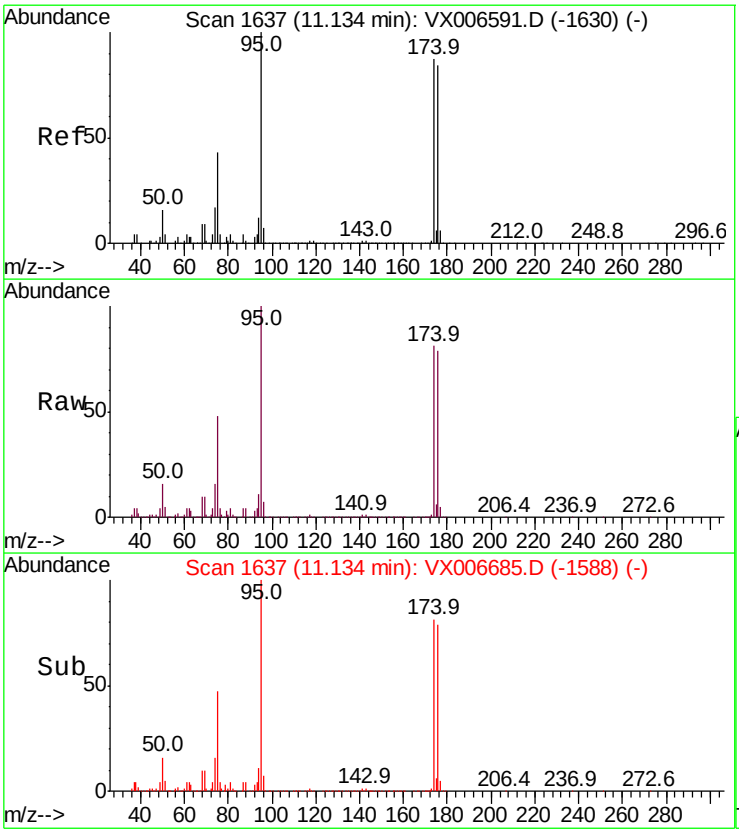


#50
Toluene-d8
Concen: 49.123 ug/l
RT: 8.71 min Scan# 1240
Delta R.T. -0.00 min
Lab File: VX006685.D
Acq: 20 Dec 2018 19:21

Tgt Ion: 98 Resp: 1172940

Ion	Ratio	Lower	Upper
98	100		
100	64.6	52.0	78.0

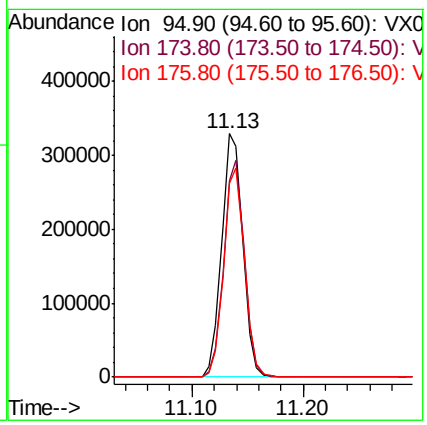




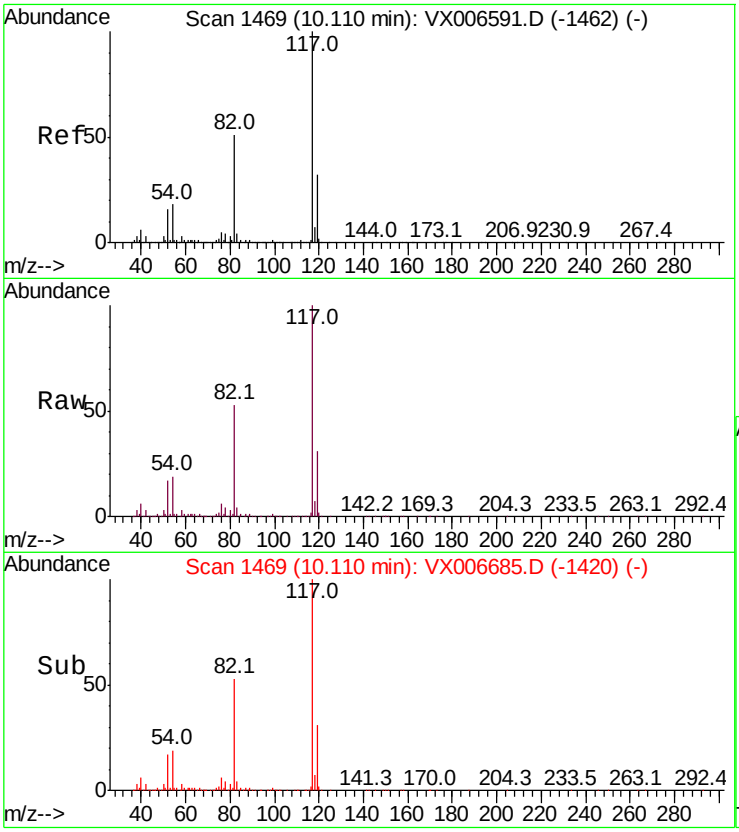
#62
4-Bromofluorobenzene
Concen: 49.427 ug/l
RT: 11.13 min Scan# 1637
Delta R.T. -0.00 min
Lab File: VX006685.D
Acq: 20 Dec 2018 19:21

Tgt Ion: 95 Resp: 432233

Ion	Ratio	Lower	Upper
95	100		
174	86.7	0.0	182.2
176	84.2	0.0	178.8



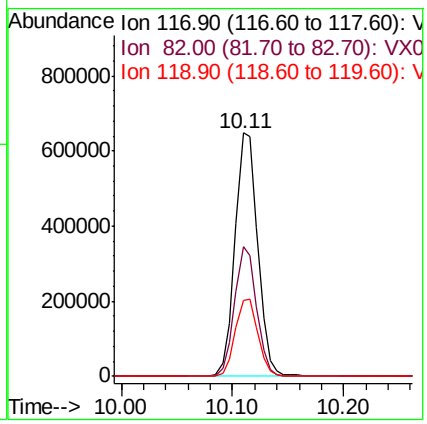
Instrument :
MSVOA_X
ClientSampleId :
965-MW-03A(17)

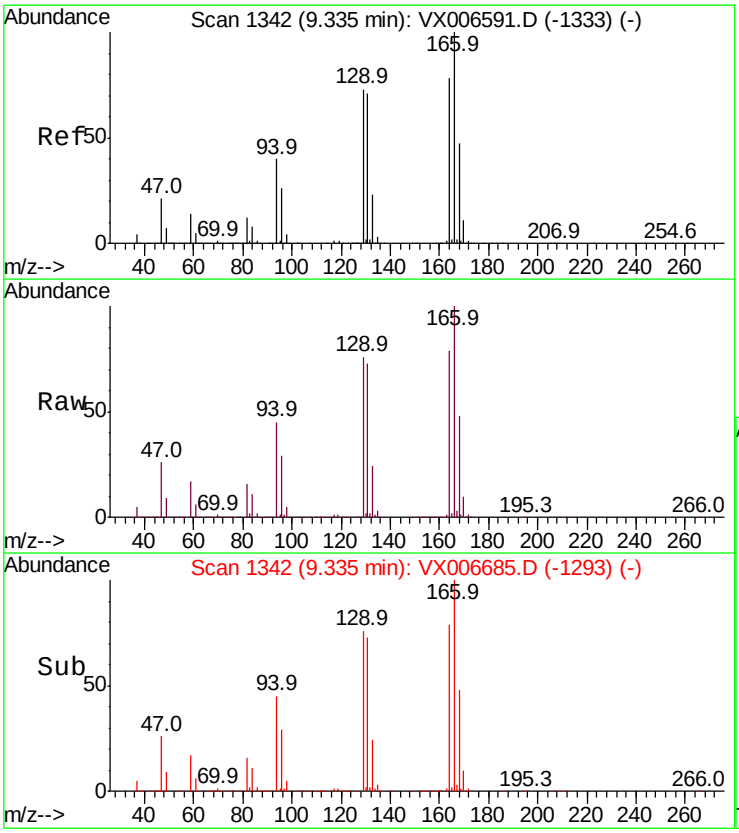


#63
Chlorobenzene-d5
Concen: 50.000 ug/l
RT: 10.11 min Scan# 1469
Delta R.T. -0.00 min
Lab File: VX006685.D
Acq: 20 Dec 2018 19:21

Tgt Ion:117 Resp: 913160

Ion	Ratio	Lower	Upper
117	100		
82	53.3	41.0	61.6
119	31.4	25.4	38.0

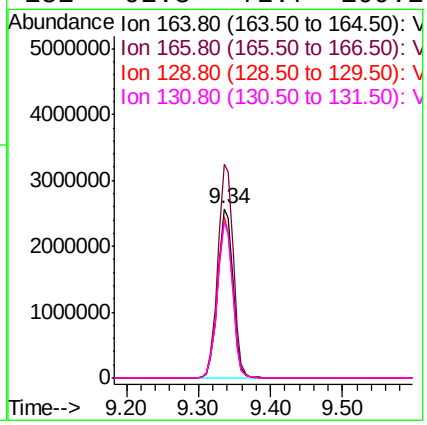




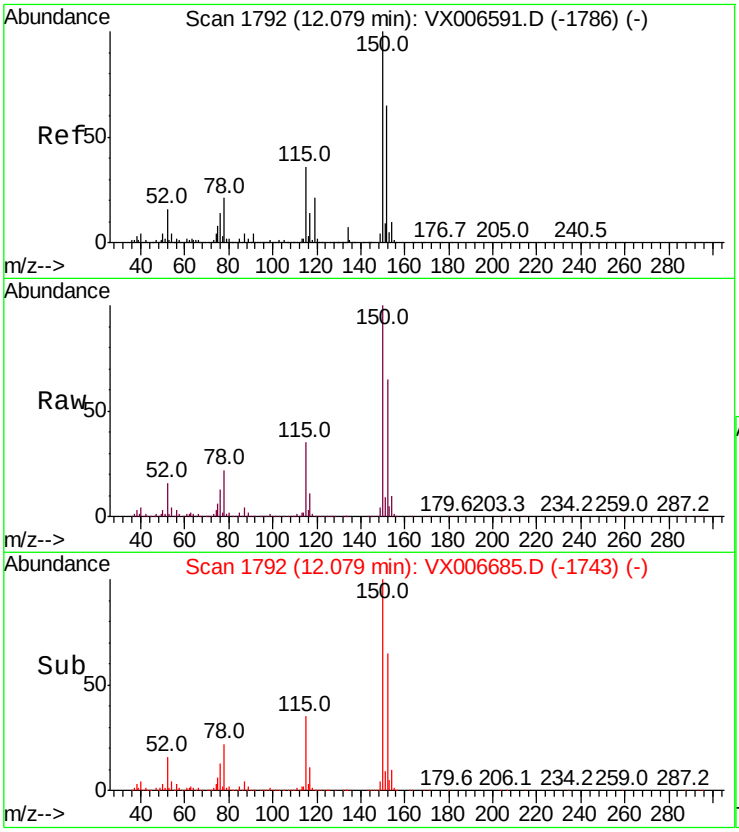
#64
Tetrachloroethene
Concen: 518.246 ug/l
RT: 9.34 min Scan# 1342
Delta R.T. -0.00 min
Lab File: VX006685.D
Acq: 20 Dec 2018 19:21

Tgt Ion:164 Resp: 3747353

Ion	Ratio	Lower	Upper
164	100		
166	126.0	102.5	153.7
129	95.4	75.1	112.7
131	92.3	72.7	109.1



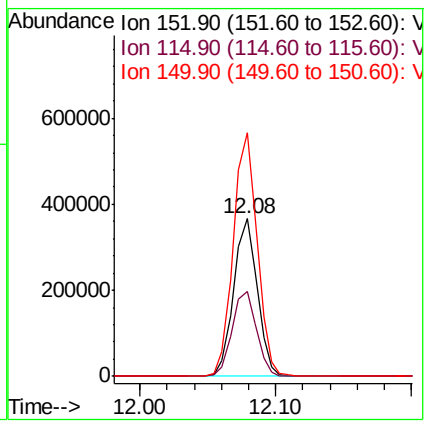
Instrument :
MSVOA_X
ClientSampleId :
965-MW-03A(17)



#72
1,4-Dichlorobenzene-d4
Concen: 50.000 ug/l
RT: 12.08 min Scan# 1792
Delta R.T. -0.00 min
Lab File: VX006685.D
Acq: 20 Dec 2018 19:21

Tgt Ion:152 Resp: 443619

Ion	Ratio	Lower	Upper
152	100		
115	55.6	39.1	117.2
150	155.9	0.0	344.8



Instrument :
MSVOA_X
ClientSampleId :
965-MW-03A(17)

LSC Area Percent Report

Data Path : Z:\VOASRV\HPCHEM1\MSVOA X\DATA\VX122018\
Data File : VX006685.D
Acq On : 20 Dec 2018 19:21
Operator : JC/MD
Sample : J6484-03
Misc : 5.0mL/MSVOA X/WATER
ALS Vial : 25 Sample Multiplier: 1

Integration Parameters: RTEINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 3 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121818W.M
Title : SW846 8260

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	4.598	552	565	581	rBV	1016995	2806496	9.94%	5.589%
2	5.507	701	714	724	rBV	346773	981064	3.48%	1.954%
3	5.665	729	740	753	rBV	622816	1737450	6.16%	3.460%
4	6.068	794	806	817	rBV	364858	958044	3.39%	1.908%
5	6.860	924	936	949	rBV	926248	2165337	7.67%	4.312%
6	7.214	985	994	1006	rBV	1487778	3133853	11.10%	6.241%
7	8.713	1233	1240	1258	rBV	1918373	2975111	10.54%	5.925%
8	9.335	1335	1342	1367	rBV	19643843	28224112	100.00%	56.208%
9	10.110	1462	1469	1481	rBV	1865447	2597136	9.20%	5.172%
10	11.134	1632	1637	1647	rBV	1557193	2073225	7.35%	4.129%
11	12.079	1786	1792	1799	rBV	2041047	2561479	9.08%	5.101%

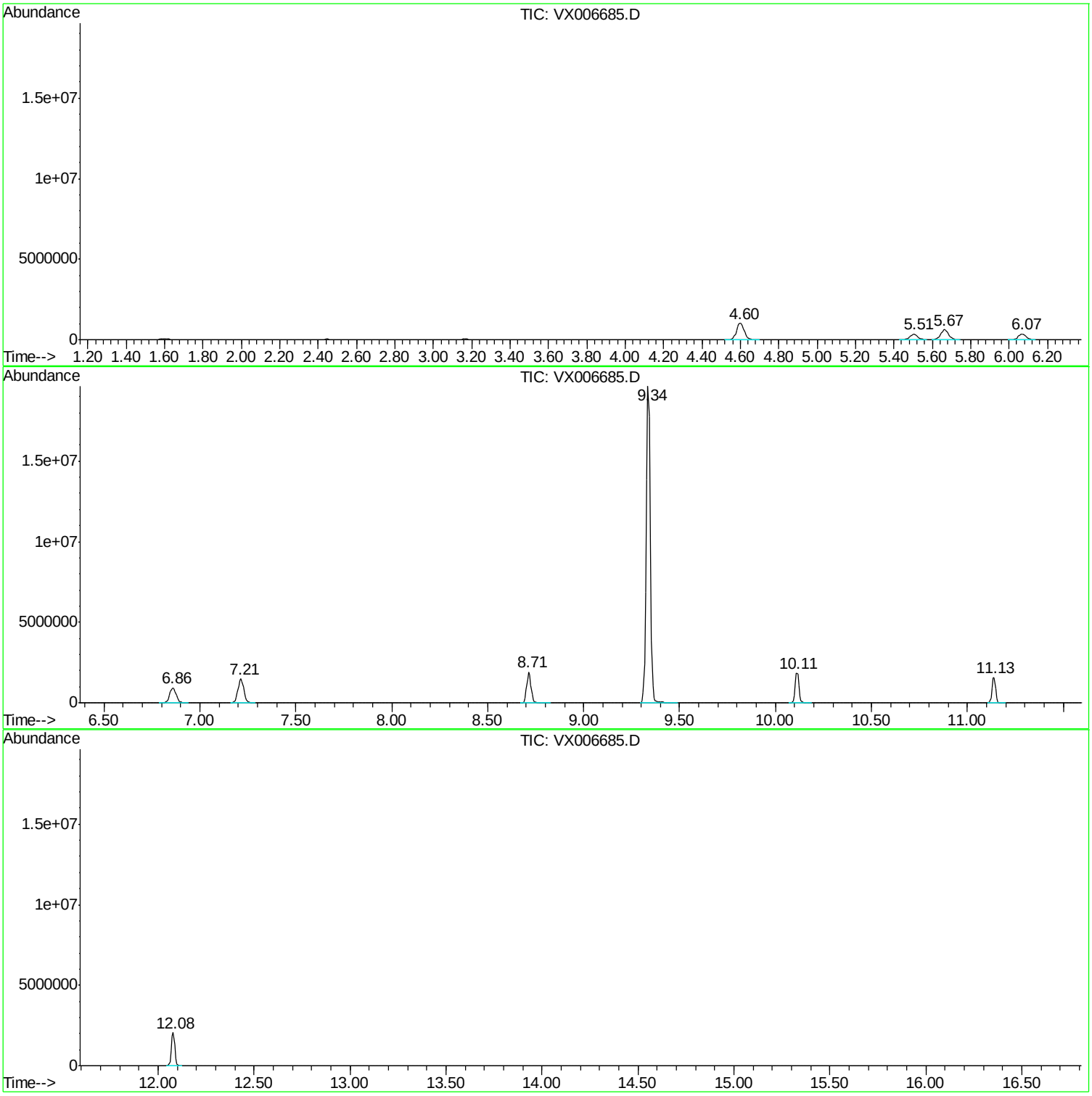
Sum of corrected areas: 50213307

Data Path : Z:\VOASRV\HPCHEM1\MSVOA X\DATA\VX122018\
Data File : VX006685.D
Acq On : 20 Dec 2018 19:21
Operator : JC/MD
Sample : J6484-03
Misc : 5.0mL/MSVOA X/WATER
ALS Vial : 25 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
965-MW-03A(17)

Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121818W.M
Quant Title : SW846 8260

TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P



Library Search Compound Report

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX122018\
Data File : VX006685.D
Acq On : 20 Dec 2018 19:21
Operator : JC/MD
Sample : J6484-03
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 25 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
965-MW-03A(17)

Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121818W.M
Quant Title : SW846 8260

TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

No Library Search Compounds Detected

****

Instrument :
MSVOA_X
ClientSampleId :
965-MW-03A(17)

Tentatively Identified Compound (LSC) summary

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX122018\
Data File : VX006685.D
Acq On : 20 Dec 2018 19:21
Operator : JC/MD
Sample : J6484-03
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 25 Sample Multiplier: 1

Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121818W.M
Quant Title : SW846 8260

TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

					Internal Standard		
TIC Top Hit name	RT	EstConc	Units	Response	#	RT	Resp	Conc

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Day Environmental, Inc.	Date Collected:	12/18/18
Project:	Andrew St. RI	Date Received:	12/19/18
Client Sample ID:	965-MW-03A(17)DL	SDG No.:	J6484
Lab Sample ID:	J6484-03DL	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	DB-624UI ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX006732.D	10		12/21/18 19:04	VX122118

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
75-71-8	Dichlorodifluoromethane	10	UD	2	2	10	ug/L
74-87-3	Chloromethane	10	UD	2	2	10	ug/L
75-01-4	Vinyl Chloride	10	UD	2	2	10	ug/L
74-83-9	Bromomethane	10	UD	2	2	10	ug/L
75-00-3	Chloroethane	10	UD	2	5	10	ug/L
75-69-4	Trichlorofluoromethane	10	UD	2	2	10	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	10	UD	2	2	10	ug/L
75-35-4	1,1-Dichloroethene	10	UD	2	2	10	ug/L
67-64-1	Acetone	50	UD	5	10	50	ug/L
75-15-0	Carbon Disulfide	10	UD	2	2	10	ug/L
1634-04-4	Methyl tert-butyl Ether	10	UD	3.5	5	10	ug/L
79-20-9	Methyl Acetate	10	UD	2	5	10	ug/L
75-09-2	Methylene Chloride	10	UD	2	2	10	ug/L
156-60-5	trans-1,2-Dichloroethene	10	UD	2	2	10	ug/L
75-34-3	1,1-Dichloroethane	10	UD	2	2	10	ug/L
110-82-7	Cyclohexane	10	UD	2	2	10	ug/L
78-93-3	2-Butanone	50	UD	13.2	25	50	ug/L
56-23-5	Carbon Tetrachloride	10	UD	2	2	10	ug/L
156-59-2	cis-1,2-Dichloroethene	96.5	D	2	2	10	ug/L
74-97-5	Bromochloromethane	10	UD	2	5	10	ug/L
67-66-3	Chloroform	10	UD	2	2	10	ug/L
71-55-6	1,1,1-Trichloroethane	10	UD	2	2	10	ug/L
108-87-2	Methylcyclohexane	10	UD	2	2	10	ug/L
71-43-2	Benzene	10	UD	2	2	10	ug/L
107-06-2	1,2-Dichloroethane	10	UD	2	2	10	ug/L
79-01-6	Trichloroethene	75.2	D	2	2	10	ug/L
78-87-5	1,2-Dichloropropane	10	UD	2	2	10	ug/L
75-27-4	Bromodichloromethane	10	UD	2	2	10	ug/L
108-10-1	4-Methyl-2-Pentanone	50	UD	10	10	50	ug/L
108-88-3	Toluene	10	UD	2	2	10	ug/L
10061-02-6	t-1,3-Dichloropropene	10	UD	2	2	10	ug/L
10061-01-5	cis-1,3-Dichloropropene	10	UD	2	2	10	ug/L

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Day Environmental, Inc.	Date Collected:	12/18/18
Project:	Andrew St. RI	Date Received:	12/19/18
Client Sample ID:	965-MW-03A(17)DL	SDG No.:	J6484
Lab Sample ID:	J6484-03DL	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	DB-624UI ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX006732.D	10		12/21/18 19:04	VX122118

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
79-00-5	1,1,2-Trichloroethane	10	UD	2	2	10	ug/L
591-78-6	2-Hexanone	50	UD	19.4	25	50	ug/L
124-48-1	Dibromochloromethane	10	UD	2	2	10	ug/L
106-93-4	1,2-Dibromoethane	10	UD	2	2	10	ug/L
127-18-4	Tetrachloroethene	490	D	2	2	10	ug/L
108-90-7	Chlorobenzene	10	UD	2	2	10	ug/L
100-41-4	Ethyl Benzene	10	UD	2	2	10	ug/L
179601-23-1	m/p-Xylenes	20	UD	4	4	20	ug/L
95-47-6	o-Xylene	10	UD	2	2	10	ug/L
100-42-5	Styrene	10	UD	2	2	10	ug/L
75-25-2	Bromoform	10	UD	2	2	10	ug/L
98-82-8	Isopropylbenzene	10	UD	2	2	10	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	10	UD	2	2	10	ug/L
541-73-1	1,3-Dichlorobenzene	10	UD	2	2	10	ug/L
106-46-7	1,4-Dichlorobenzene	10	UD	2	2	10	ug/L
95-50-1	1,2-Dichlorobenzene	10	UD	2	2	10	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	10	UD	2	2	10	ug/L
120-82-1	1,2,4-Trichlorobenzene	10	UD	2	2	10	ug/L
87-61-6	1,2,3-Trichlorobenzene	10	UD	2	2	10	ug/L
SURROGATES							
17060-07-0	1,2-Dichloroethane-d4	49.9		61 - 141		100%	SPK: 50
1868-53-7	Dibromofluoromethane	48.7		69 - 133		97%	SPK: 50
2037-26-5	Toluene-d8	48.8		65 - 126		98%	SPK: 50
460-00-4	4-Bromofluorobenzene	46.4		58 - 135		93%	SPK: 50
INTERNAL STANDARDS							
363-72-4	Pentafluorobenzene	626412	5.67				
540-36-3	1,4-Difluorobenzene	969710	6.86				
3114-55-4	Chlorobenzene-d5	861961	10.12				
3855-82-1	1,4-Dichlorobenzene-d4	410350	12.08				

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Day Environmental, Inc.	Date Collected:	12/18/18
Project:	Andrew St. RI	Date Received:	12/19/18
Client Sample ID:	965-MW-03A(17)DL	SDG No.:	J6484
Lab Sample ID:	J6484-03DL	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	DB-624UI ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX006732.D	10		12/21/18 19:04	VX122118

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit
A = Aldol-Condensation Reaction Products

Quantitation Report (QT Reviewed)

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX122118\
Data File : VX006732.D
Acq On : 21 Dec 2018 19:04
Operator : JC/MD
Sample : J6484-03DL 10X
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 21 Sample Multiplier: 1

Instrument : MSVOA_X
ClientSampleId : 965-MW-03A(17)DL

Quant Time: Dec 22 12:19:26 2018
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121818W.M
Quant Title : SW846 8260
QLast Update : Wed Dec 19 15:20:58 2018
Response via : Initial Calibration

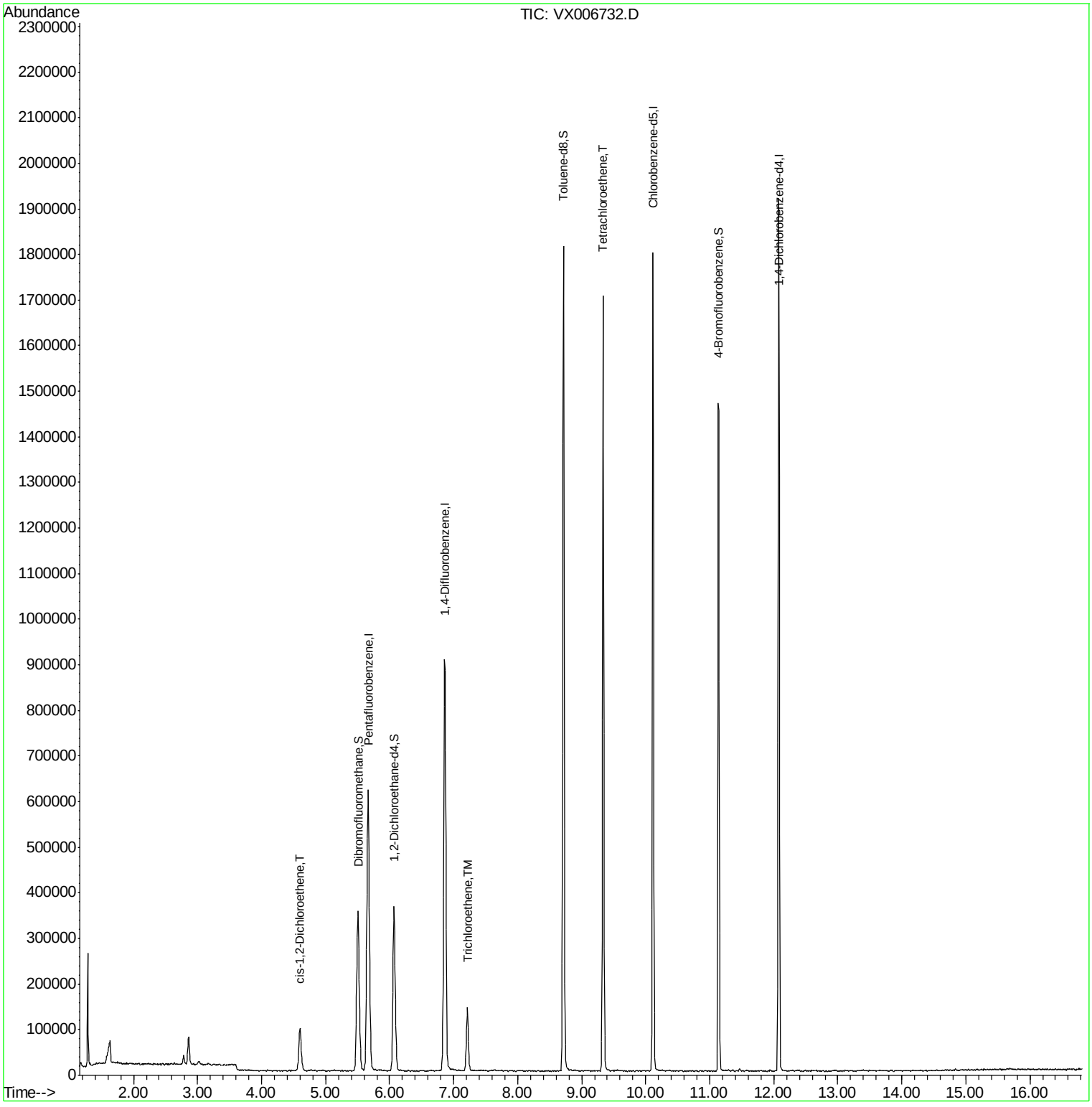
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	5.67	168	626412	50.00	ug/l	0.00
34) 1,4-Difluorobenzene	6.86	114	969710	50.00	ug/l	0.00
63) Chlorobenzene-d5	10.12	117	861961	50.00	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	12.08	152	410350	50.00	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	6.07	65	336744	49.88	ug/l	0.00
Spiked Amount 50.000			Recovery = 99.76%			
35) Dibromofluoromethane	5.51	113	298423	48.66	ug/l	0.00
Spiked Amount 50.000			Recovery = 97.32%			
50) Toluene-d8	8.71	98	1127844	48.78	ug/l	0.00
Spiked Amount 50.000			Recovery = 97.56%			
62) 4-Bromofluorobenzene	11.13	95	393051	46.42	ug/l	0.00
Spiked Amount 50.000			Recovery = 92.84%			
Target Compounds						Qvalue
27) cis-1,2-Dichloroethene	4.60	96	65988	9.645	ug/l	90
44) Trichloroethene	7.21	130	55547	7.518	ug/l	99
64) Tetrachloroethene	9.34	164	332405	48.701	ug/l	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

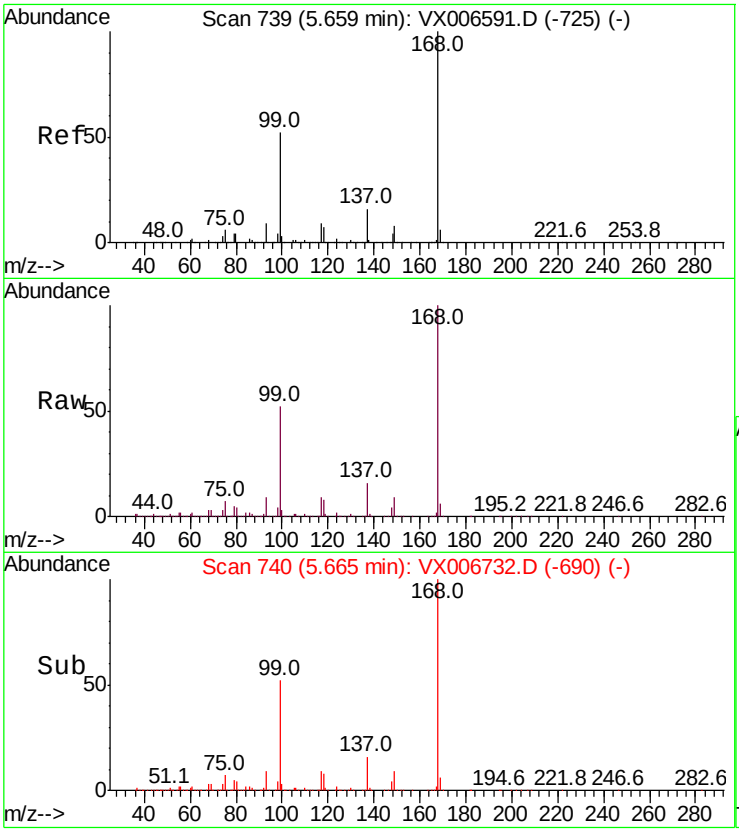
Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX122118\
Data File : VX006732.D
Acq On : 21 Dec 2018 19:04
Operator : JC/MD
Sample : J6484-03DL 10X
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 21 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
965-MW-03A(17)DL

Quant Time: Dec 22 12:19:26 2018
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121818W.M
Quant Title : SW846 8260
QLast Update : Wed Dec 19 15:20:58 2018
Response via : Initial Calibration



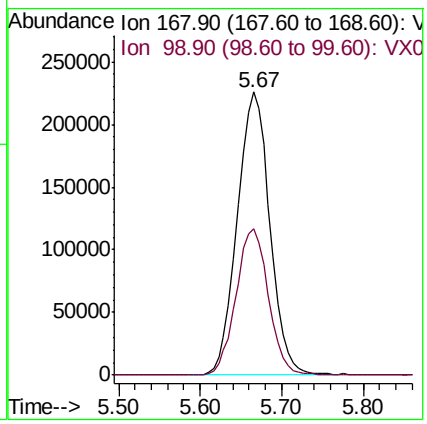
Instrument :
MSVOA_X
ClientSampleId :
965-MW-03A(17)DL

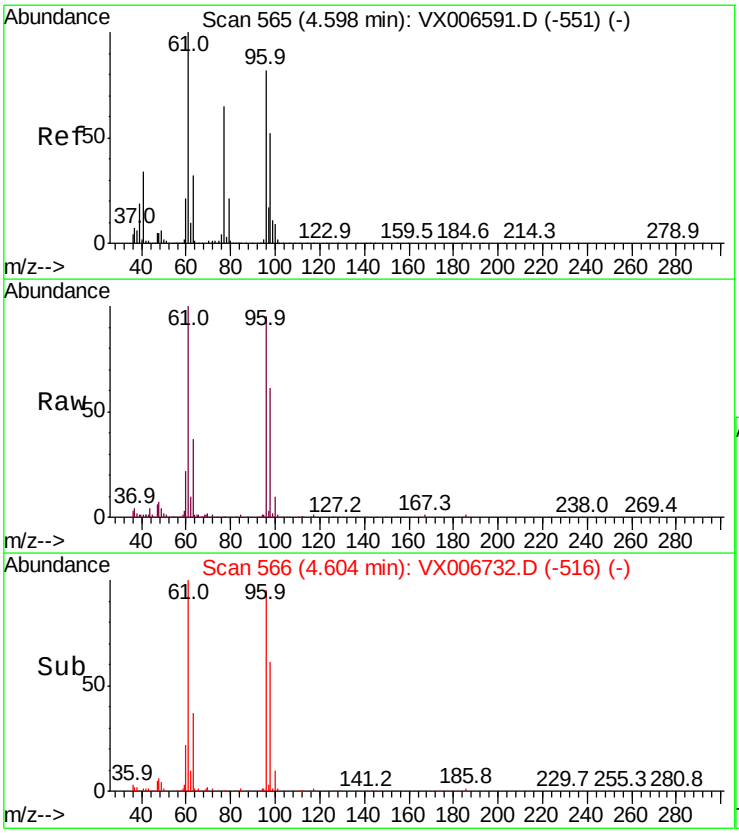


#1
Pentafluorobenzene
Concen: 50.000 ug/l
RT: 5.67 min Scan# 740
Delta R.T. 0.01 min
Lab File: VX006732.D
Acq: 21 Dec 2018 19:04

Tgt Ion:168 Resp: 626412

Ion	Ratio	Lower	Upper
168	100		
99	51.6	41.8	62.8

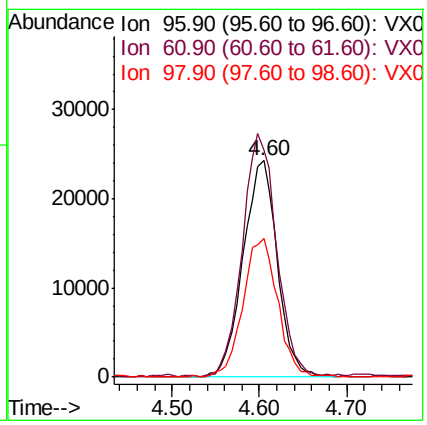




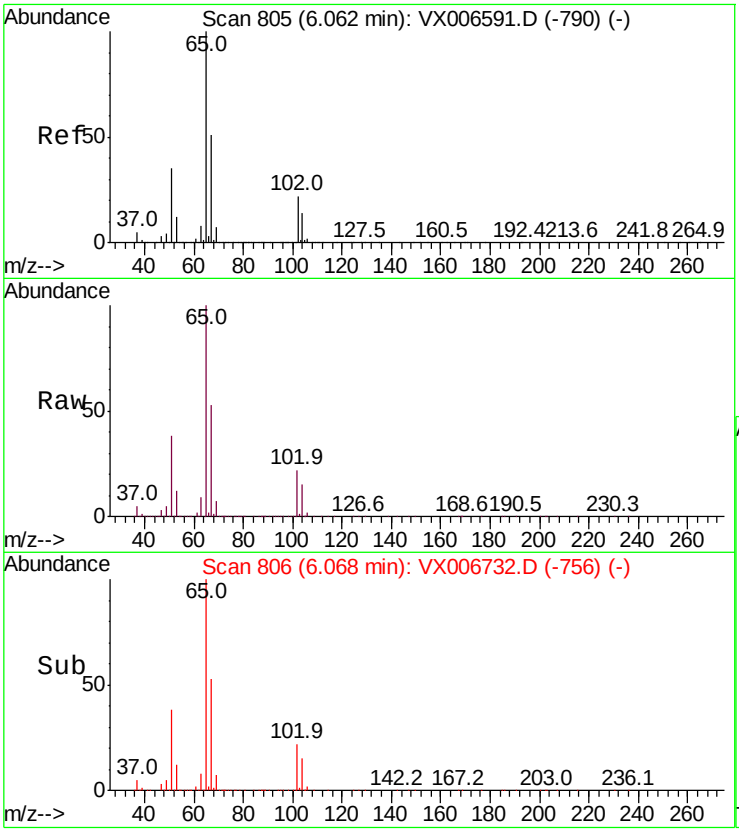
#27
cis-1,2-Dichloroethene
Concen: 9.645 ug/l
RT: 4.60 min Scan# 566
Delta R.T. 0.01 min
Lab File: VX006732.D
Acq: 21 Dec 2018 19:04

Tgt Ion: 96 Resp: 65988

Ion	Ratio	Lower	Upper
96	100		
61	111.9	0.0	258.6
98	65.1	0.0	132.0



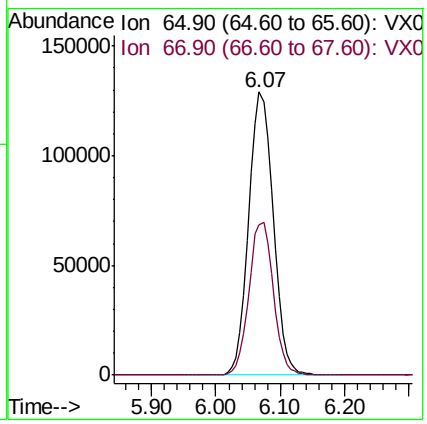
Instrument :
MSVOA_X
ClientSampleId :
965-MW-03A(17)DL

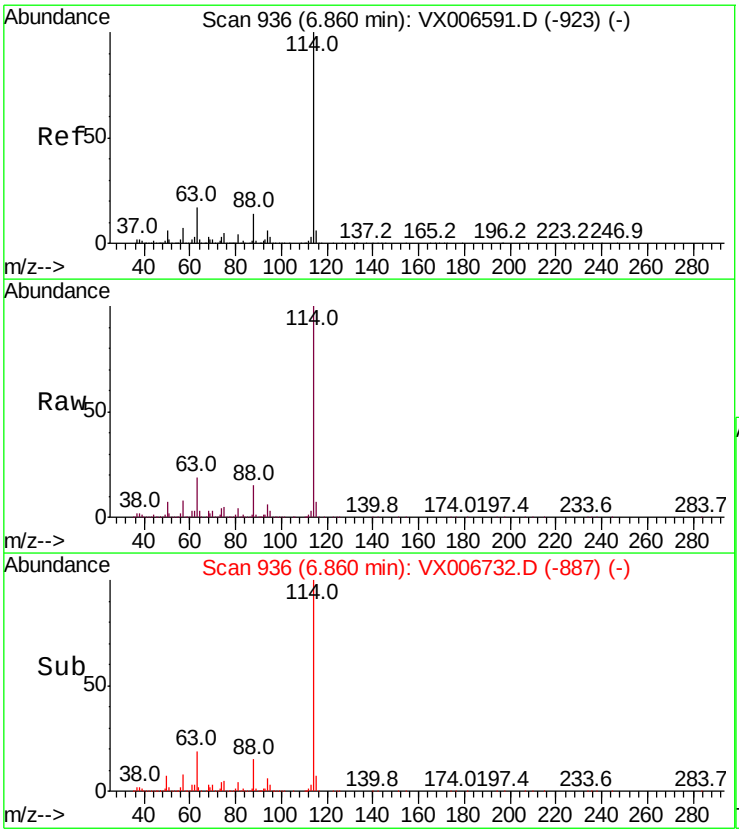


#33
1,2-Dichloroethane-d4
Concen: 49.879 ug/l
RT: 6.07 min Scan# 806
Delta R.T. 0.01 min
Lab File: VX006732.D
Acq: 21 Dec 2018 19:04

Tgt Ion: 65 Resp: 336744

Ion	Ratio	Lower	Upper
65	100		
67	53.7	0.0	105.0

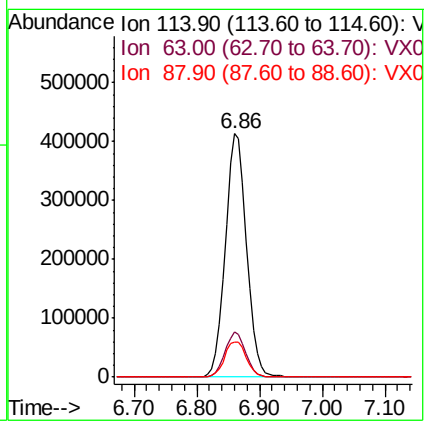




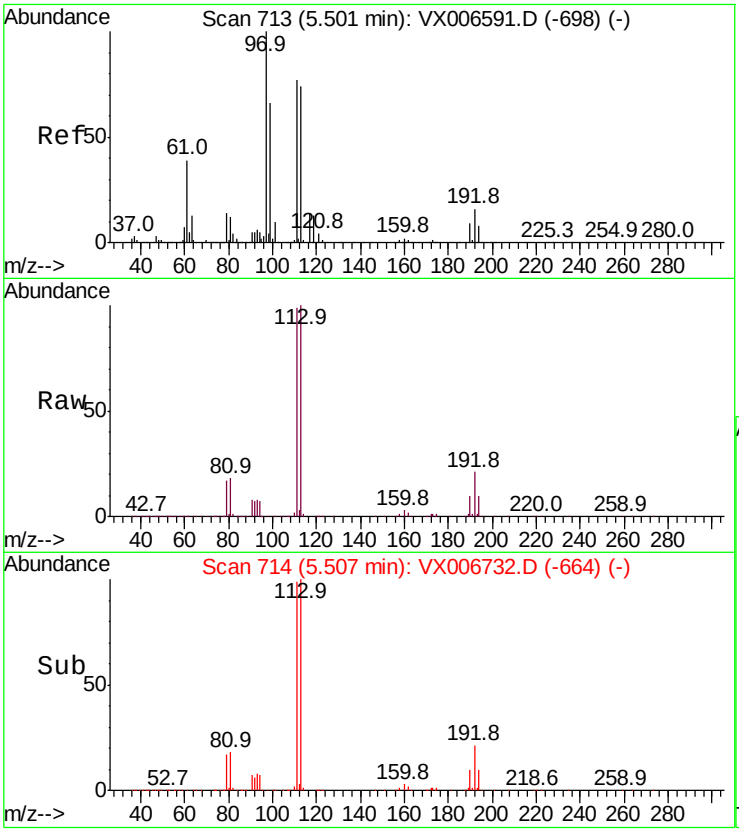
#34
1,4-Difluorobenzene
Concen: 50.000 ug/l
RT: 6.86 min Scan# 936
Delta R.T. -0.00 min
Lab File: VX006732.D
Acq: 21 Dec 2018 19:04

Tgt Ion:114 Resp: 969710

Ion	Ratio	Lower	Upper
114	100		
63	18.7	0.0	34.8
88	14.6	0.0	28.8



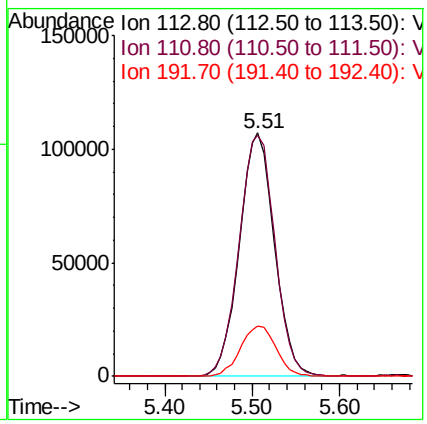
Instrument :
MSVOA_X
ClientSampleId :
965-MW-03A(17)DL

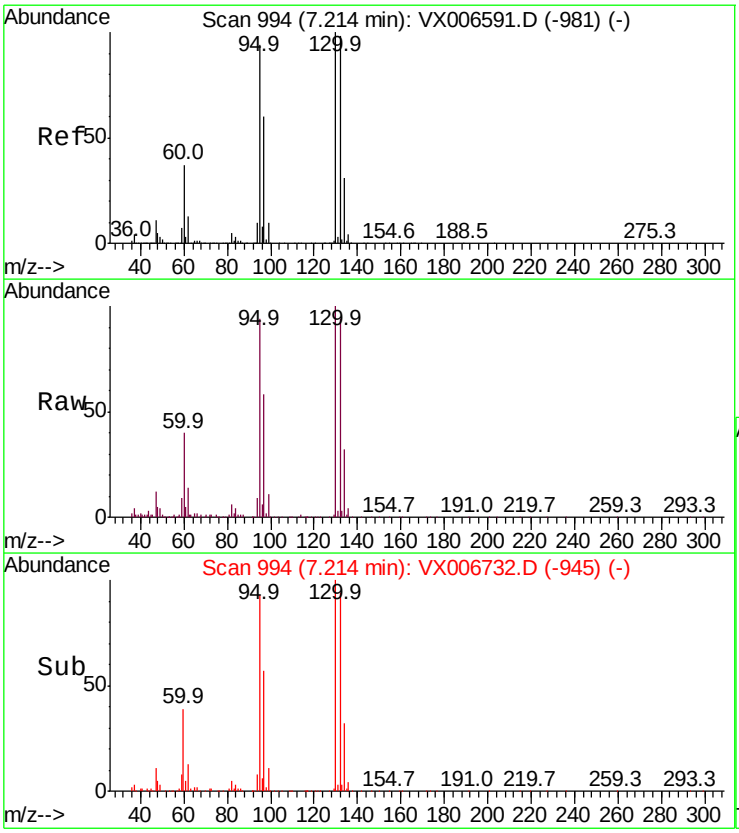


#35
Dibromofluoromethane
Concen: 48.664 ug/l
RT: 5.51 min Scan# 714
Delta R.T. 0.01 min
Lab File: VX006732.D
Acq: 21 Dec 2018 19:04

Tgt Ion:113 Resp: 298423

Ion	Ratio	Lower	Upper
113	100		
111	101.5	81.6	122.4
192	21.2	16.7	25.1

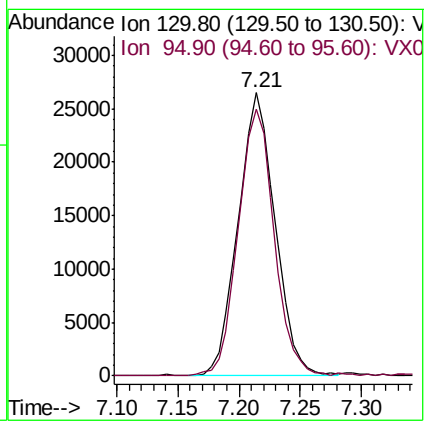




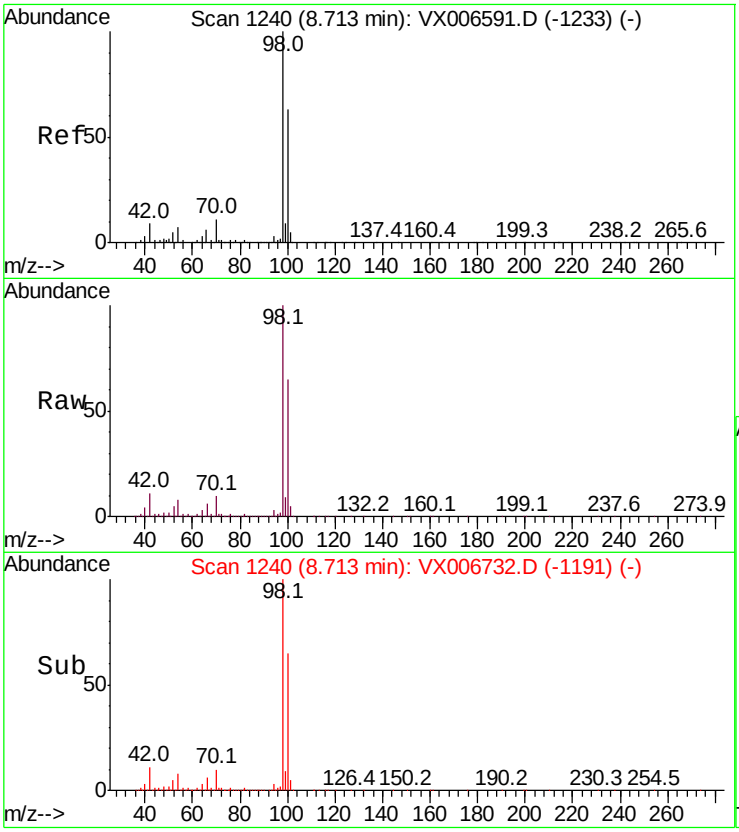
#44
Trichloroethene
Concen: 7.518 ug/l
RT: 7.21 min Scan# 994
Delta R.T. -0.00 min
Lab File: VX006732.D
Acq: 21 Dec 2018 19:04

Tgt Ion:130 Resp: 55547

Ion	Ratio	Lower	Upper
130	100		
95	94.4	0.0	187.0



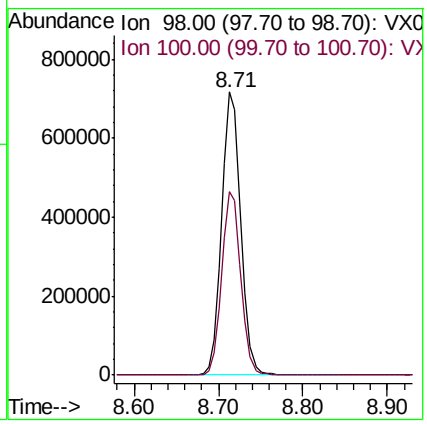
Instrument :
MSVOA_X
ClientSampleId :
965-MW-03A(17)DL

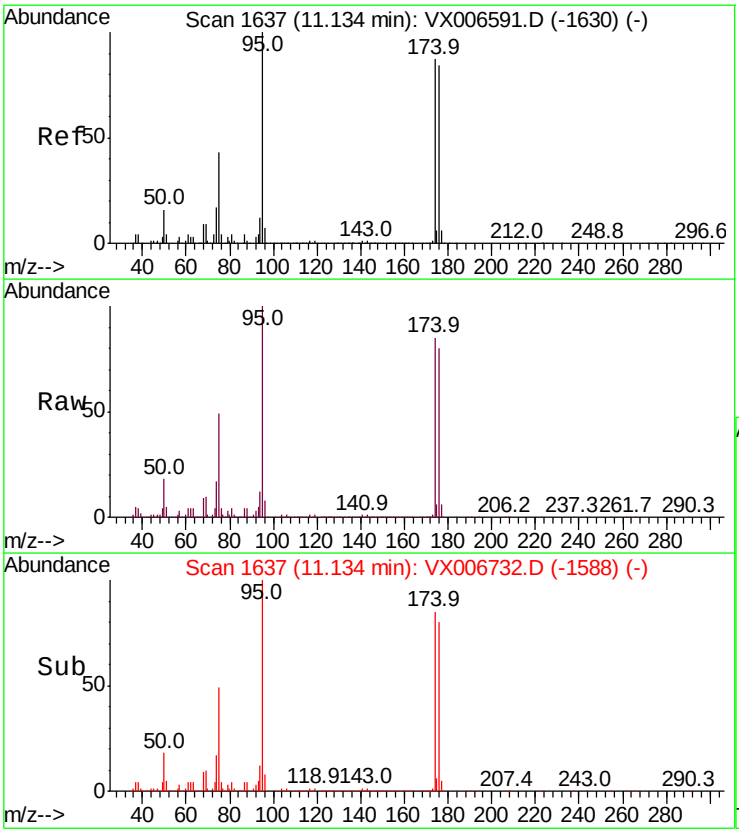


#50
Toluene-d8
Concen: 48.785 ug/l
RT: 8.71 min Scan# 1240
Delta R.T. -0.00 min
Lab File: VX006732.D
Acq: 21 Dec 2018 19:04

Tgt Ion: 98 Resp: 1127844

Ion	Ratio	Lower	Upper
98	100		
100	64.6	52.0	78.0

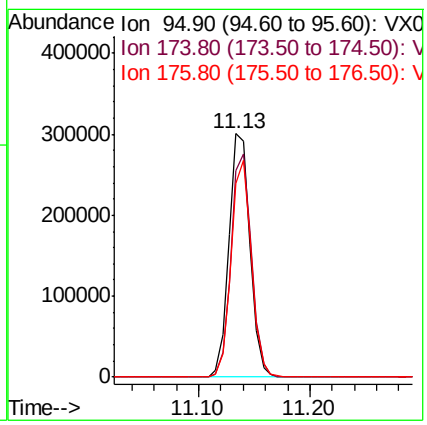




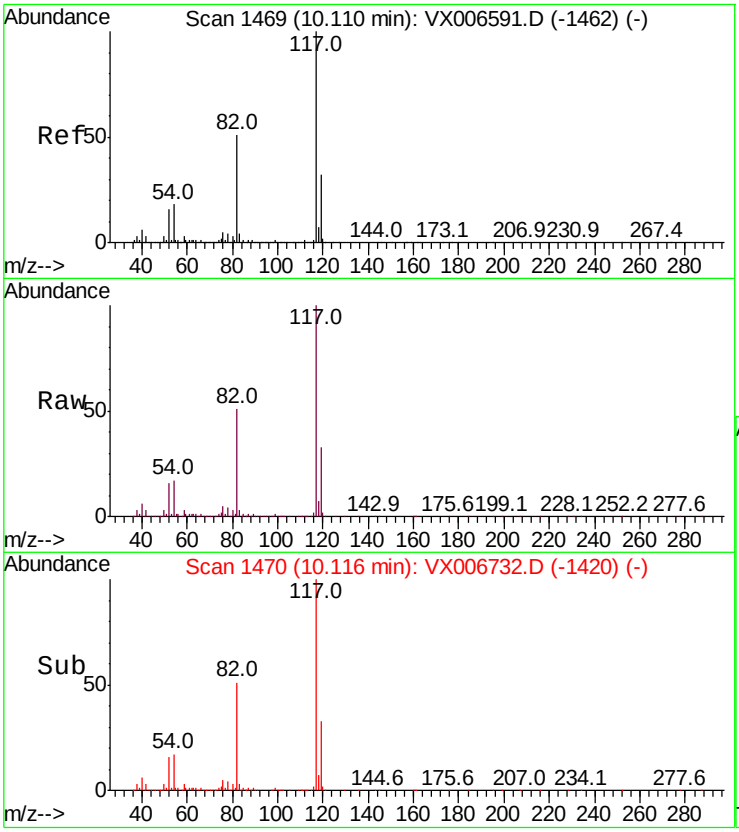
#62
4-Bromofluorobenzene
Concen: 46.421 ug/l
RT: 11.13 min Scan# 1637
Delta R.T. -0.00 min
Lab File: VX006732.D
Acq: 21 Dec 2018 19:04

Tgt Ion: 95 Resp: 393051

Ion	Ratio	Lower	Upper
95	100		
174	88.9	0.0	182.2
176	85.8	0.0	178.8



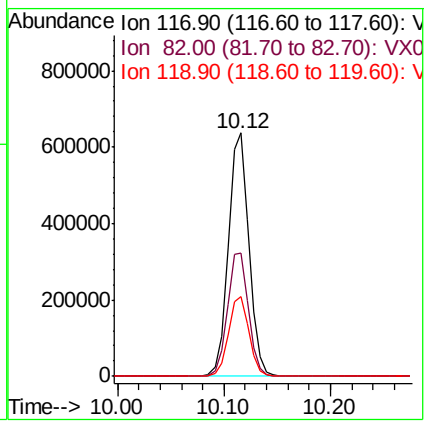
Instrument :
MSVOA_X
ClientSampleId :
965-MW-03A(17)DL

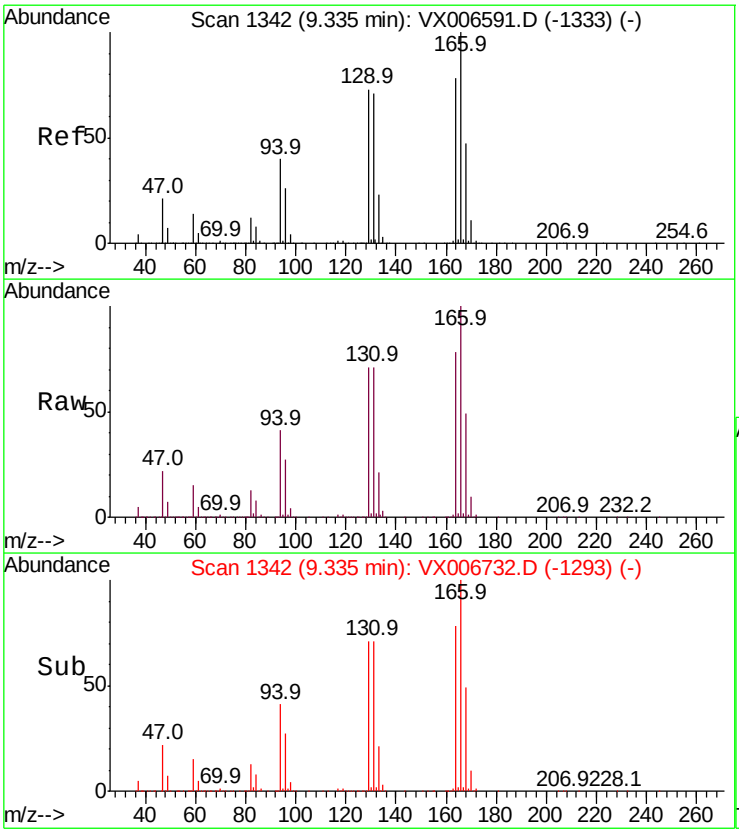


#63
Chlorobenzene-d5
Concen: 50.000 ug/l
RT: 10.12 min Scan# 1470
Delta R.T. 0.01 min
Lab File: VX006732.D
Acq: 21 Dec 2018 19:04

Tgt Ion:117 Resp: 861961

Ion	Ratio	Lower	Upper
117	100		
82	50.9	41.0	61.6
119	32.7	25.4	38.0

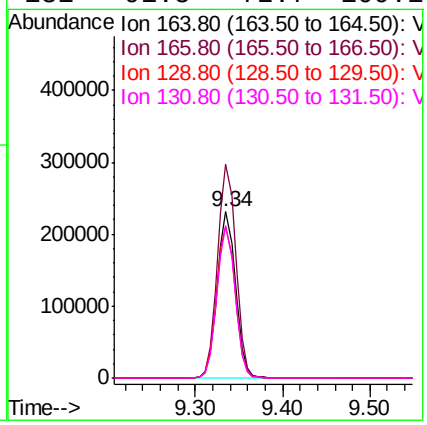


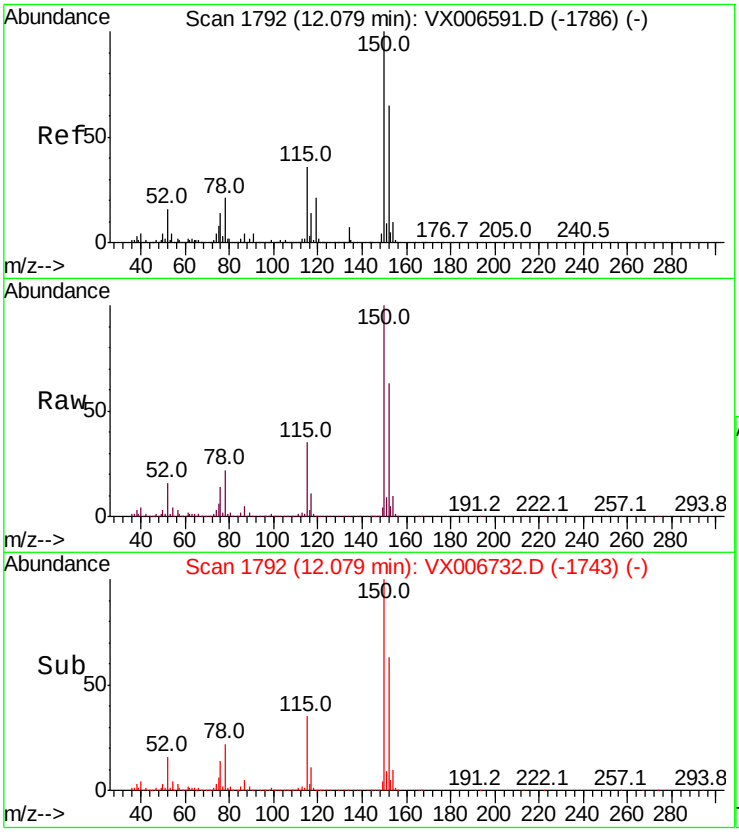


#64
Tetrachloroethene
Concen: 48.701 ug/l
RT: 9.34 min Scan# 1342
Delta R.T. 0.00 min
Lab File: VX006732.D
Acq: 21 Dec 2018 19:04

Tgt Ion:164 Resp: 332405

Ion	Ratio	Lower	Upper
164	100		
166	128.4	102.5	153.7
129	91.0	75.1	112.7
131	91.5	72.7	109.1

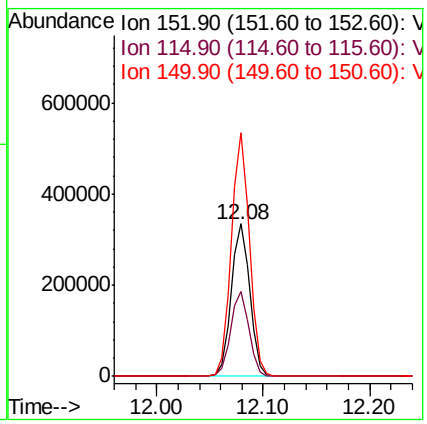




#72
1,4-Dichlorobenzene-d4
Concen: 50.000 ug/l
RT: 12.08 min Scan# 1792
Delta R.T. -0.00 min
Lab File: VX006732.D
Acq: 21 Dec 2018 19:04

Tgt Ion:152 Resp: 410350

Ion	Ratio	Lower	Upper
152	100		
115	54.9	39.1	117.2
150	156.1	0.0	344.8



Instrument :
MSVOA_X
ClientSampleId :
965-MW-03A(17)DL

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Day Environmental, Inc.	Date Collected:	12/18/18
Project:	Andrew St. RI	Date Received:	12/19/18
Client Sample ID:	966-MW-04(23)	SDG No.:	J6484
Lab Sample ID:	J6484-04	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	DB-624UI ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX006657.D	1		12/20/18 00:17	VX121918

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
75-71-8	Dichlorodifluoromethane	1	U	0.2	0.2	1	ug/L
74-87-3	Chloromethane	1	U	0.2	0.2	1	ug/L
75-01-4	Vinyl Chloride	1	U	0.2	0.2	1	ug/L
74-83-9	Bromomethane	1	U	0.2	0.2	1	ug/L
75-00-3	Chloroethane	1	U	0.2	0.5	1	ug/L
75-69-4	Trichlorofluoromethane	1	U	0.2	0.2	1	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	1	U	0.2	0.2	1	ug/L
75-35-4	1,1-Dichloroethene	1	U	0.2	0.2	1	ug/L
67-64-1	Acetone	4.8	J	0.5	1	5	ug/L
75-15-0	Carbon Disulfide	1	U	0.2	0.2	1	ug/L
1634-04-4	Methyl tert-butyl Ether	1	U	0.35	0.5	1	ug/L
79-20-9	Methyl Acetate	2.6		0.2	0.5	1	ug/L
75-09-2	Methylene Chloride	1	U	0.2	0.2	1	ug/L
156-60-5	trans-1,2-Dichloroethene	1	U	0.2	0.2	1	ug/L
75-34-3	1,1-Dichloroethane	1	U	0.2	0.2	1	ug/L
110-82-7	Cyclohexane	1	U	0.2	0.2	1	ug/L
78-93-3	2-Butanone	5	U	1.3	2.5	5	ug/L
56-23-5	Carbon Tetrachloride	1	U	0.2	0.2	1	ug/L
156-59-2	cis-1,2-Dichloroethene	1	U	0.2	0.2	1	ug/L
74-97-5	Bromochloromethane	1	U	0.2	0.5	1	ug/L
67-66-3	Chloroform	1	U	0.2	0.2	1	ug/L
71-55-6	1,1,1-Trichloroethane	1	U	0.2	0.2	1	ug/L
108-87-2	Methylcyclohexane	1	U	0.2	0.2	1	ug/L
71-43-2	Benzene	1	U	0.2	0.2	1	ug/L
107-06-2	1,2-Dichloroethane	1	U	0.2	0.2	1	ug/L
79-01-6	Trichloroethene	1	U	0.2	0.2	1	ug/L
78-87-5	1,2-Dichloropropane	1	U	0.2	0.2	1	ug/L
75-27-4	Bromodichloromethane	1	U	0.2	0.2	1	ug/L
108-10-1	4-Methyl-2-Pentanone	5	U	1	1	5	ug/L
108-88-3	Toluene	1	U	0.2	0.2	1	ug/L
10061-02-6	t-1,3-Dichloropropene	1	U	0.2	0.2	1	ug/L
10061-01-5	cis-1,3-Dichloropropene	1	U	0.2	0.2	1	ug/L

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Day Environmental, Inc.	Date Collected:	12/18/18
Project:	Andrew St. RI	Date Received:	12/19/18
Client Sample ID:	966-MW-04(23)	SDG No.:	J6484
Lab Sample ID:	J6484-04	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	DB-624UI ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX006657.D	1		12/20/18 00:17	VX121918

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
79-00-5	1,1,2-Trichloroethane	1	U	0.2	0.2	1	ug/L
591-78-6	2-Hexanone	5	U	1.9	2.5	5	ug/L
124-48-1	Dibromochloromethane	1	U	0.2	0.2	1	ug/L
106-93-4	1,2-Dibromoethane	1	U	0.2	0.2	1	ug/L
127-18-4	Tetrachloroethene	1	U	0.2	0.2	1	ug/L
108-90-7	Chlorobenzene	1	U	0.2	0.2	1	ug/L
100-41-4	Ethyl Benzene	1	U	0.2	0.2	1	ug/L
179601-23-1	m/p-Xylenes	2	U	0.4	0.4	2	ug/L
95-47-6	o-Xylene	1	U	0.2	0.2	1	ug/L
100-42-5	Styrene	1	U	0.2	0.2	1	ug/L
75-25-2	Bromoform	1	U	0.2	0.2	1	ug/L
98-82-8	Isopropylbenzene	1	U	0.2	0.2	1	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	1	U	0.2	0.2	1	ug/L
541-73-1	1,3-Dichlorobenzene	1	U	0.2	0.2	1	ug/L
106-46-7	1,4-Dichlorobenzene	1	U	0.2	0.2	1	ug/L
95-50-1	1,2-Dichlorobenzene	1	U	0.2	0.2	1	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	1	U	0.2	0.2	1	ug/L
120-82-1	1,2,4-Trichlorobenzene	1	U	0.2	0.2	1	ug/L
87-61-6	1,2,3-Trichlorobenzene	1	U	0.2	0.2	1	ug/L
SURROGATES							
17060-07-0	1,2-Dichloroethane-d4	51.5		61 - 141		103%	SPK: 50
1868-53-7	Dibromofluoromethane	47.5		69 - 133		95%	SPK: 50
2037-26-5	Toluene-d8	49.4		65 - 126		99%	SPK: 50
460-00-4	4-Bromofluorobenzene	49.4		58 - 135		99%	SPK: 50
INTERNAL STANDARDS							
363-72-4	Pentafluorobenzene	637494	5.67				
540-36-3	1,4-Difluorobenzene	1013010	6.86				
3114-55-4	Chlorobenzene-d5	927070	10.11				
3855-82-1	1,4-Dichlorobenzene-d4	441826	12.08				

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Day Environmental, Inc.	Date Collected:	12/18/18
Project:	Andrew St. RI	Date Received:	12/19/18
Client Sample ID:	966-MW-04(23)	SDG No.:	J6484
Lab Sample ID:	J6484-04	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	DB-624UI ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX006657.D	1		12/20/18 00:17	VX121918

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit
A = Aldol-Condensation Reaction Products

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX121918\
Data File : VX006657.D
Acq On : 20 Dec 2018 00:17
Operator : JC/MD
Sample : J6484-04
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 24 Sample Multiplier: 1

Instrument : MSVOA_X
ClientSampleId : 966-MW-04(23)

Quant Time: Dec 20 05:01:37 2018
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121818W.M
Quant Title : SW846 8260
QLast Update : Wed Dec 19 15:20:58 2018
Response via : Initial Calibration

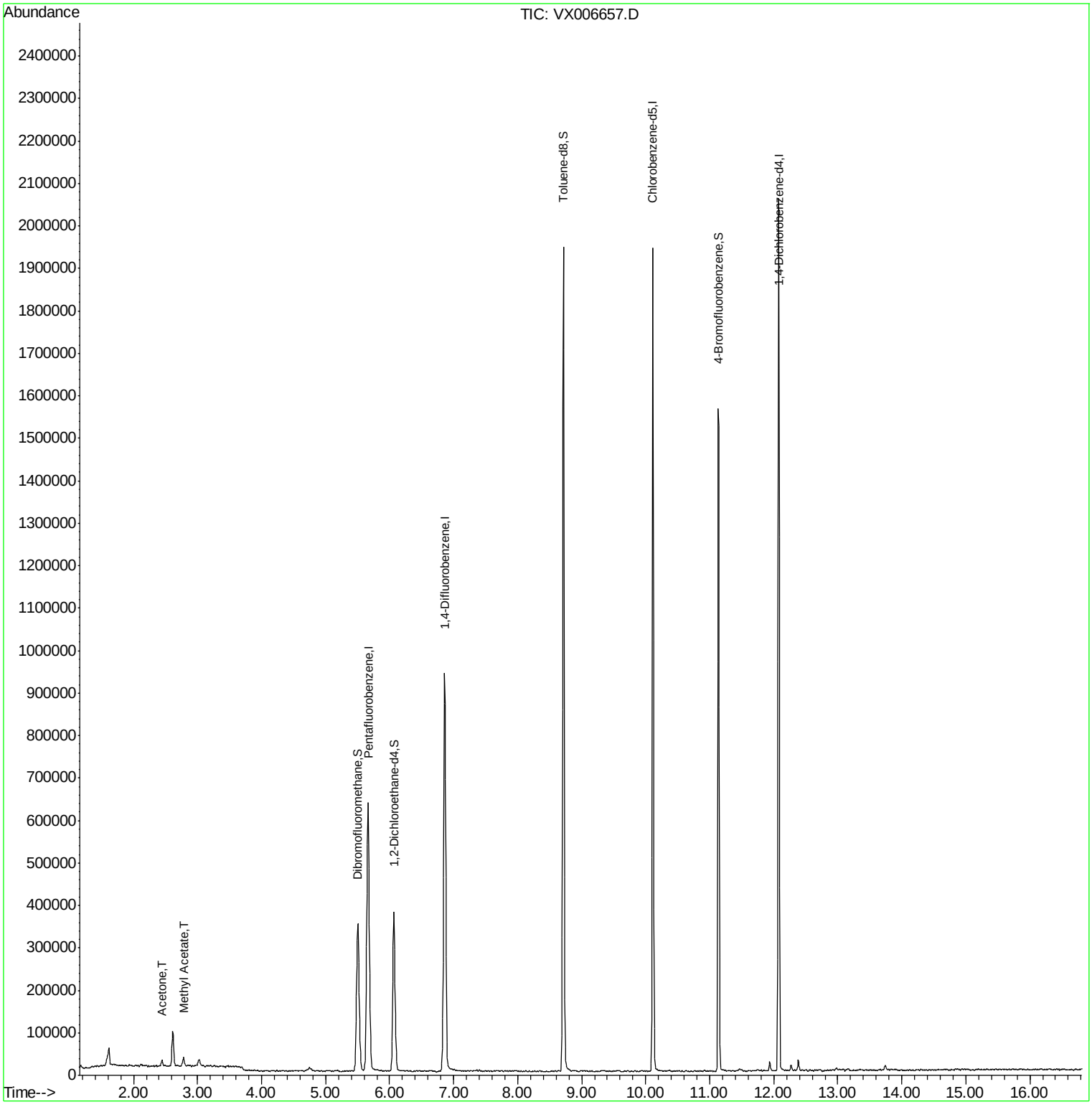
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	5.67	168	637494	50.00	ug/l	0.00
34) 1,4-Difluorobenzene	6.86	114	1013014	50.00	ug/l	0.00
63) Chlorobenzene-d5	10.11	117	927070	50.00	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	12.08	152	441826	50.00	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	6.07	65	354161	51.55	ug/l	0.00
Spiked Amount 50.000			Recovery = 103.10%			
35) Dibromofluoromethane	5.50	113	304346	47.51	ug/l	0.00
Spiked Amount 50.000			Recovery = 95.02%			
50) Toluene-d8	8.71	98	1192602	49.38	ug/l	0.00
Spiked Amount 50.000			Recovery = 98.76%			
62) 4-Bromofluorobenzene	11.13	95	436591	49.36	ug/l	0.00
Spiked Amount 50.000			Recovery = 98.72%			
Target Compounds						Qvalue
16) Acetone	2.45	43	15196	4.814	ug/l	100
18) Methyl Acetate	2.78	43	24408	2.630	ug/l	95

(#) = qualifier out of range (m) = manual integration (+) = signals summed

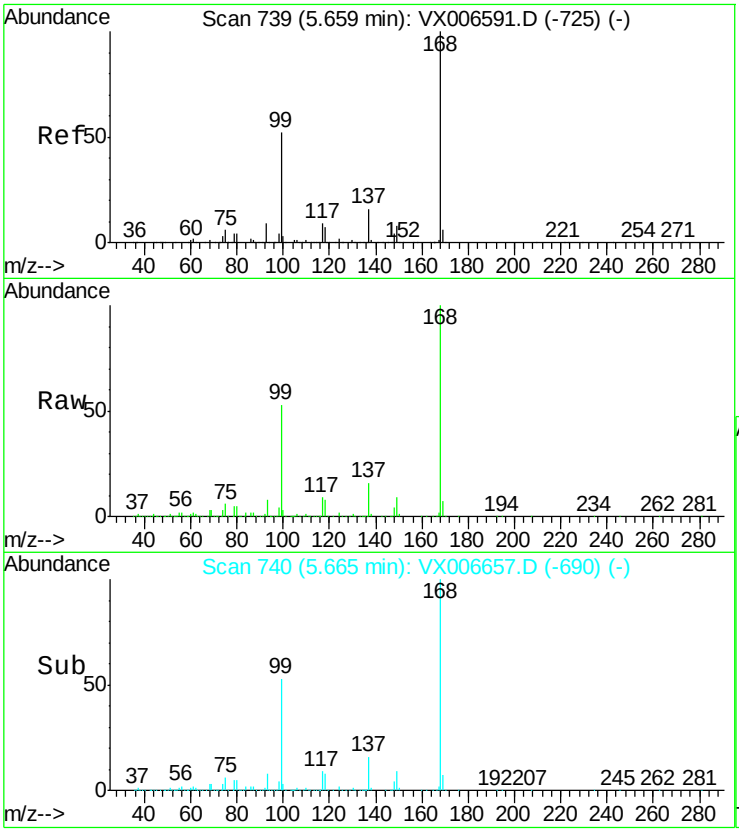
Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX121918\
Data File : VX006657.D
Acq On : 20 Dec 2018 00:17
Operator : JC/MD
Sample : J6484-04
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 24 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
966-MW-04(23)

Quant Time: Dec 20 05:01:37 2018
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121818W.M
Quant Title : SW846 8260
QLast Update : Wed Dec 19 15:20:58 2018
Response via : Initial Calibration



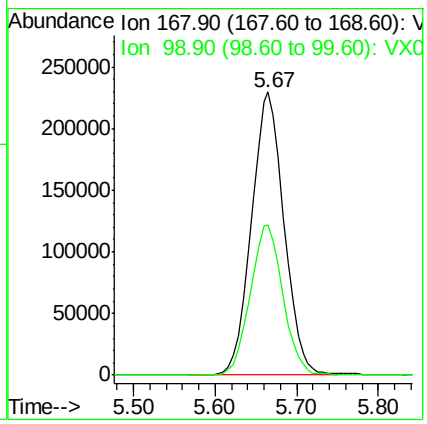
Instrument :
MSVOA_X
ClientSampleId :
966-MW-04(23)

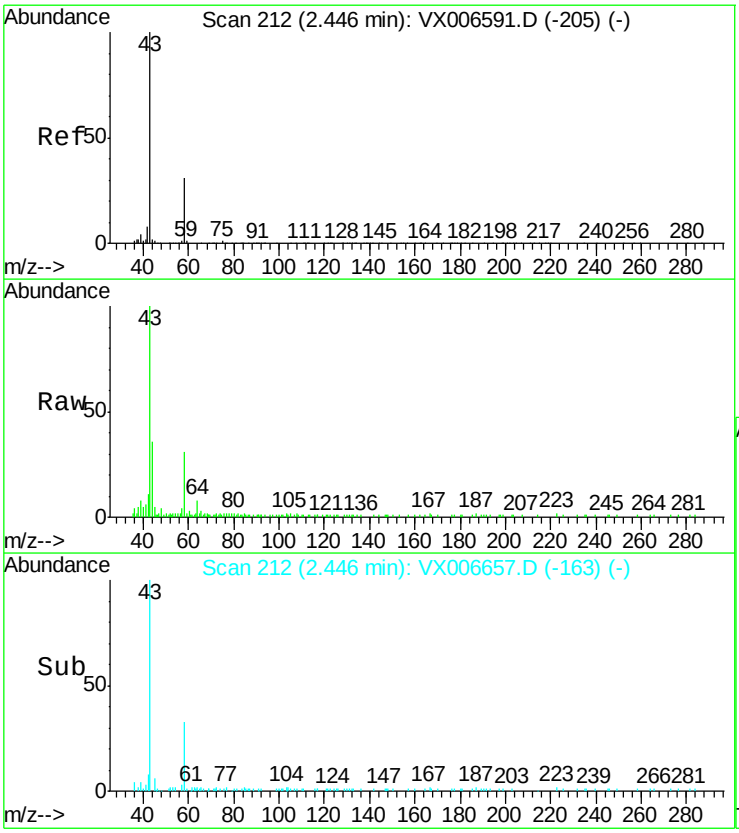


#1
Pentafluorobenzene
Concen: 50.000 ug/l
RT: 5.67 min Scan# 740
Delta R.T. 0.01 min
Lab File: VX006657.D
Acq: 20 Dec 2018 00:17

Tgt Ion:168 Resp: 637494

Ion	Ratio	Lower	Upper
168	100		
99	53.2	41.8	62.8

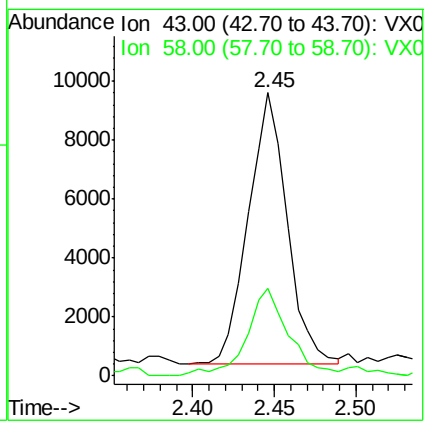




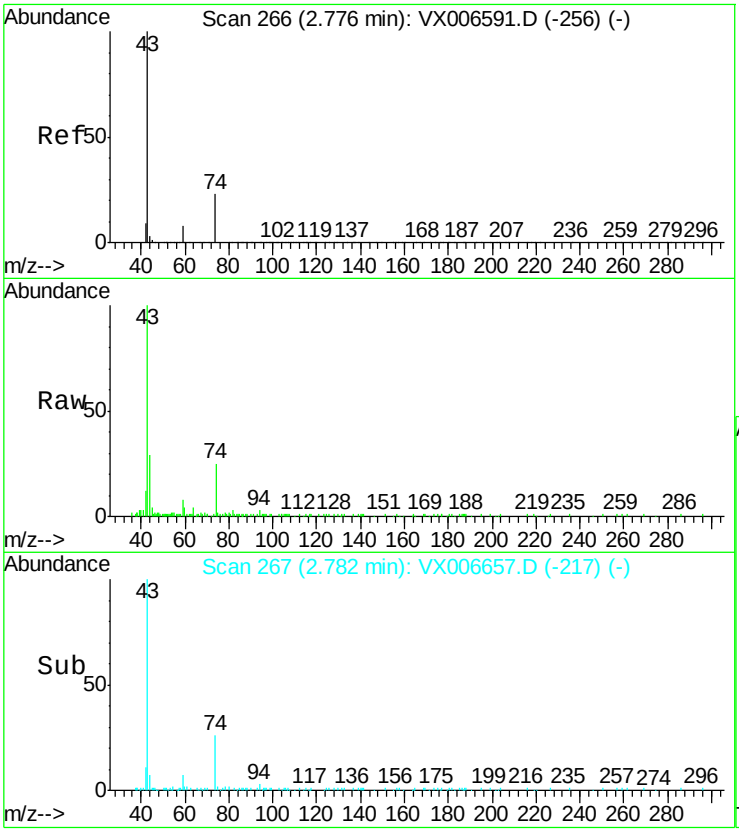
#16
Acetone
Concen: 4.814 ug/l
RT: 2.45 min Scan# 212
Delta R.T. 0.00 min
Lab File: VX006657.D
Acq: 20 Dec 2018 00:17

Tgt Ion: 43 Resp: 15196

Ion	Ratio	Lower	Upper
43	100		
58	31.4	25.0	37.6



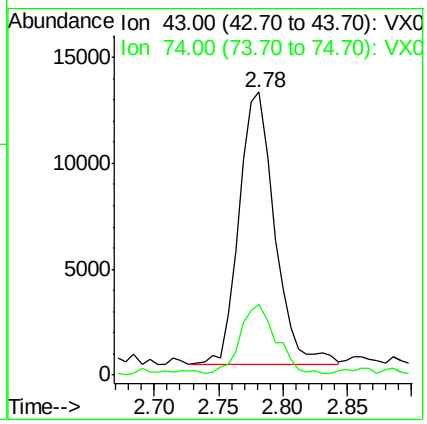
Instrument :
MSVOA_X
ClientSampleId :
966-MW-04(23)

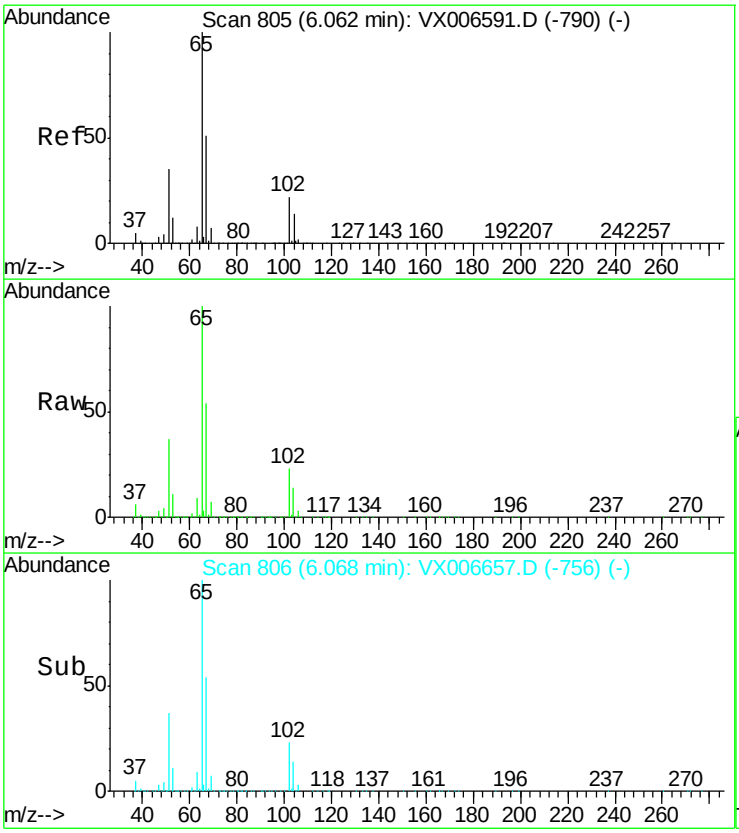


#18
Methyl Acetate
Concen: 2.630 ug/l
RT: 2.78 min Scan# 267
Delta R.T. 0.01 min
Lab File: VX006657.D
Acq: 20 Dec 2018 00:17

Tgt Ion: 43 Resp: 24408

Ion	Ratio	Lower	Upper
43	100		
74	25.8	18.6	28.0

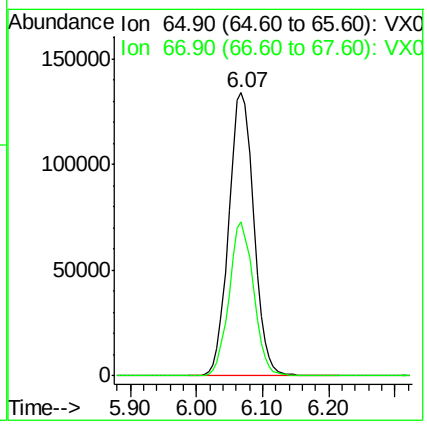




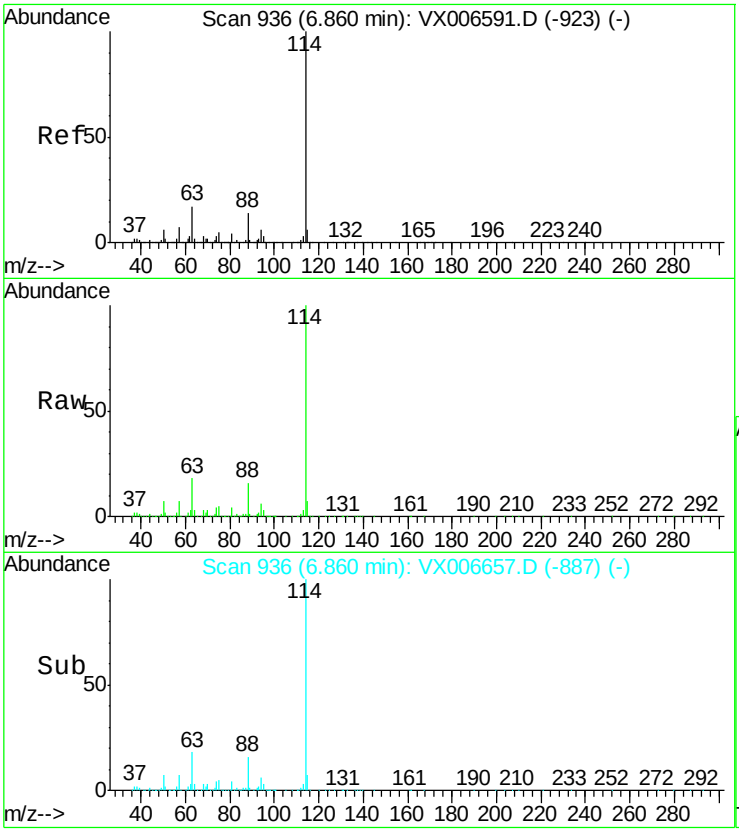
#33
1,2-Dichloroethane-d4
Concen: 51.547 ug/l
RT: 6.07 min Scan# 806
Delta R.T. 0.01 min
Lab File: VX006657.D
Acq: 20 Dec 2018 00:17

Tgt Ion: 65 Resp: 354161

Ion	Ratio	Lower	Upper
65	100		
67	52.8	0.0	105.0



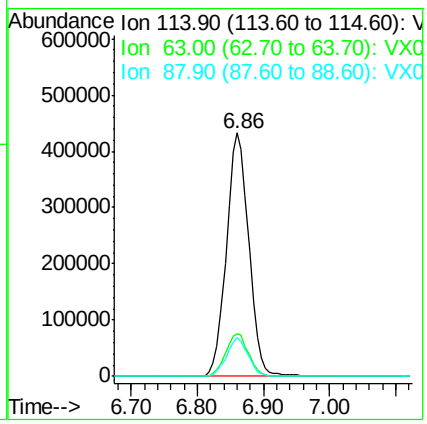
Instrument :
MSVOA_X
ClientSampleId :
966-MW-04(23)

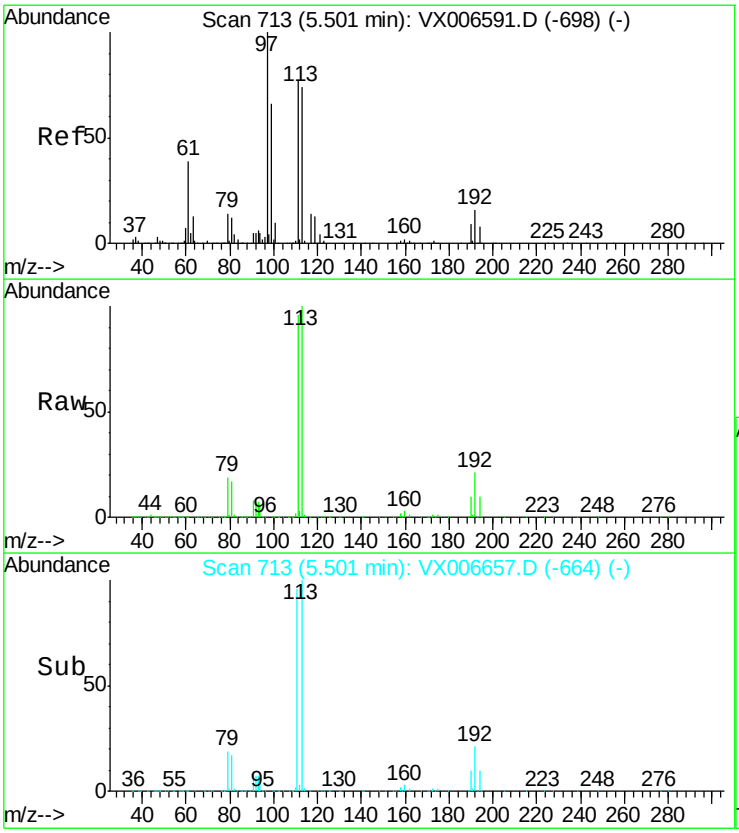


#34
1,4-Difluorobenzene
Concen: 50.000 ug/l
RT: 6.86 min Scan# 936
Delta R.T. 0.00 min
Lab File: VX006657.D
Acq: 20 Dec 2018 00:17

Tgt Ion:114 Resp: 1013014

Ion	Ratio	Lower	Upper
114	100		
63	17.7	0.0	34.8
88	15.9	0.0	28.8

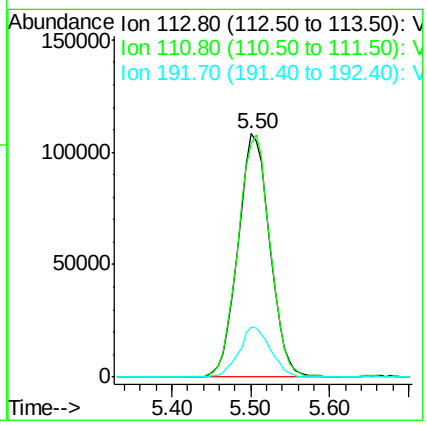




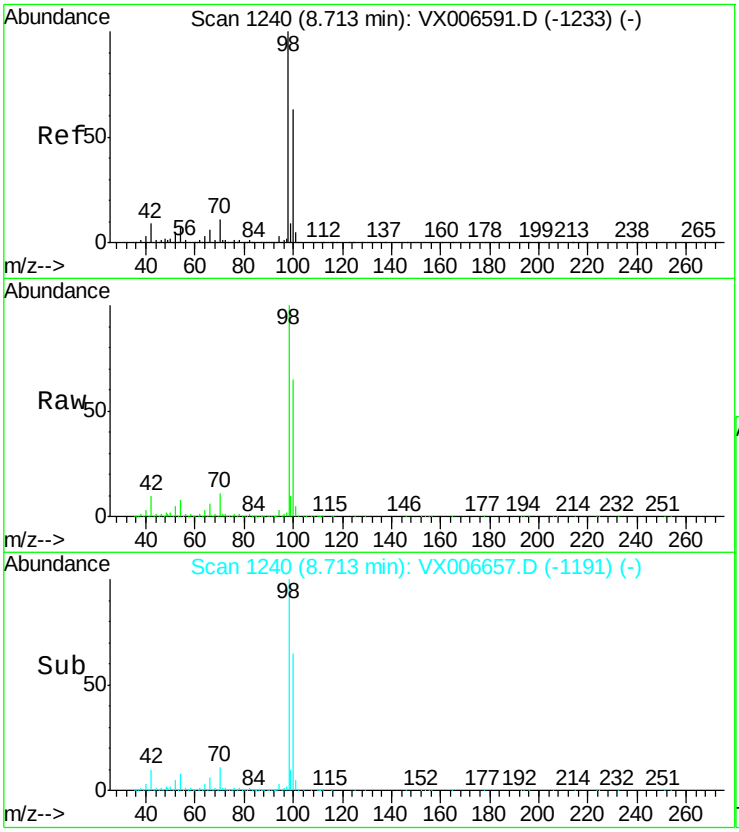
#35
Dibromofluoromethane
Concen: 47.509 ug/l
RT: 5.50 min Scan# 713
Delta R.T. 0.00 min
Lab File: VX006657.D
Acq: 20 Dec 2018 00:17

Tgt Ion:113 Resp: 304346

Ion	Ratio	Lower	Upper
113	100		
111	100.7	81.6	122.4
192	20.3	16.7	25.1



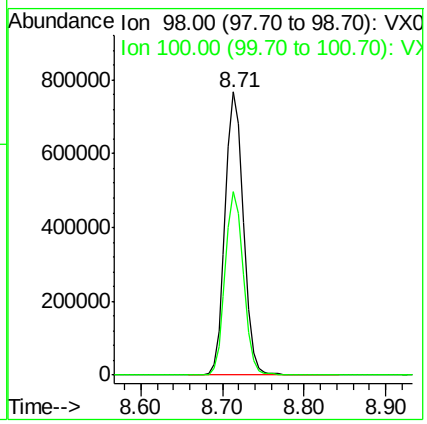
Instrument :
MSVOA_X
ClientSampleId :
966-MW-04(23)

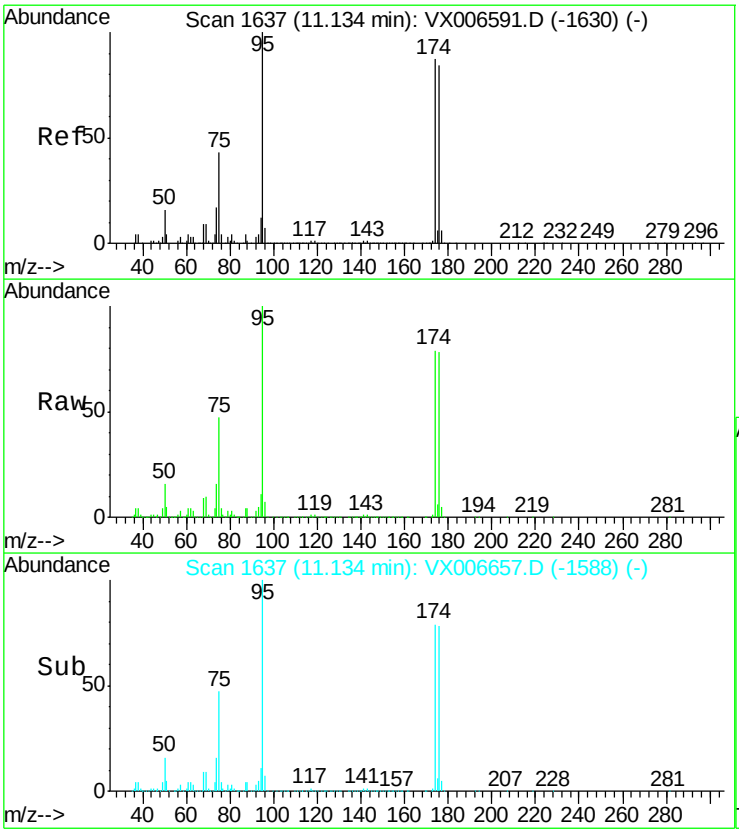


#50
Toluene-d8
Concen: 49.381 ug/l
RT: 8.71 min Scan# 1240
Delta R.T. 0.00 min
Lab File: VX006657.D
Acq: 20 Dec 2018 00:17

Tgt Ion: 98 Resp: 1192602

Ion	Ratio	Lower	Upper
98	100		
100	64.8	52.0	78.0

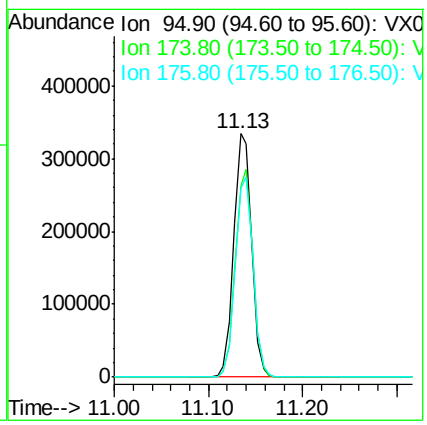




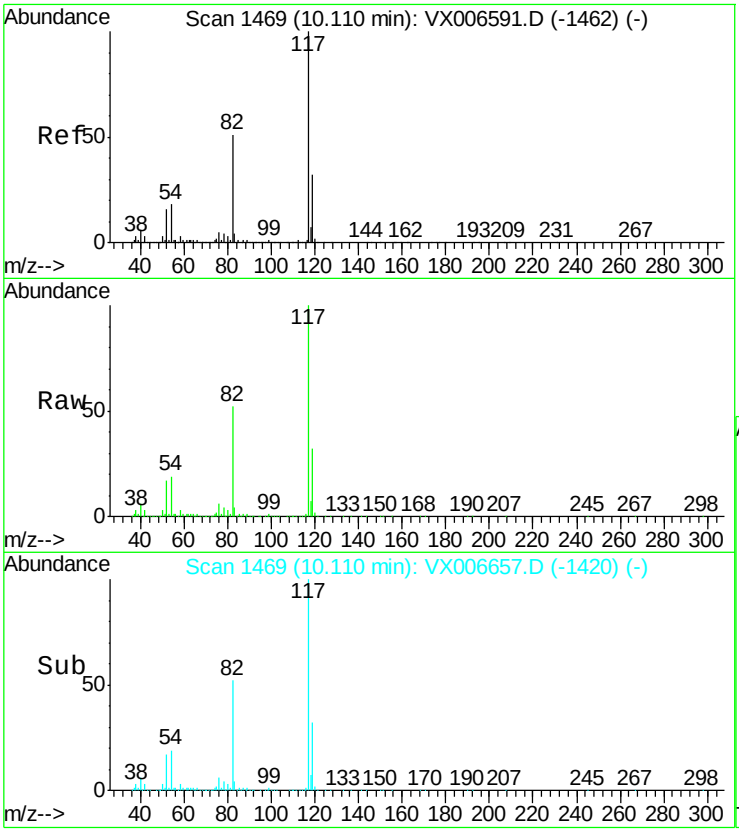
#62
4-Bromofluorobenzene
Concen: 49.359 ug/l
RT: 11.13 min Scan# 1637
Delta R.T. 0.00 min
Lab File: VX006657.D
Acq: 20 Dec 2018 00:17

Tgt Ion: 95 Resp: 436591

Ion	Ratio	Lower	Upper
95	100		
174	84.5	0.0	182.2
176	82.4	0.0	178.8



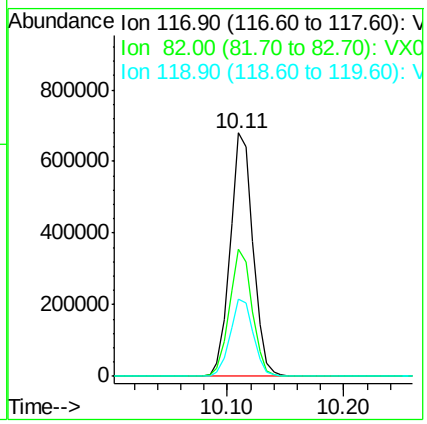
Instrument :
MSVOA_X
ClientSampleId :
966-MW-04(23)

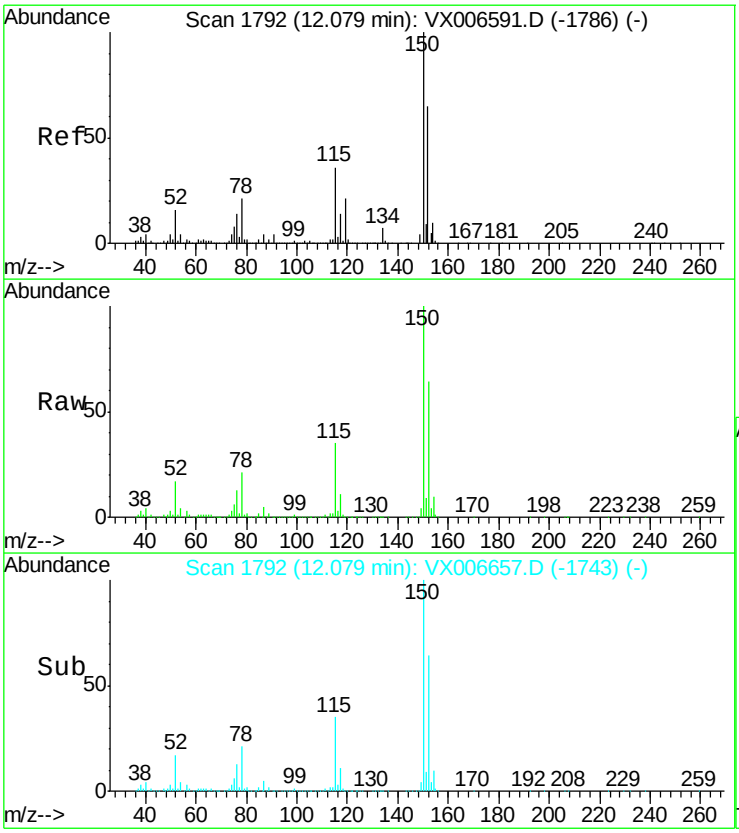


#63
Chlorobenzene-d5
Concen: 50.000 ug/l
RT: 10.11 min Scan# 1469
Delta R.T. 0.00 min
Lab File: VX006657.D
Acq: 20 Dec 2018 00:17

Tgt Ion:117 Resp: 927070

Ion	Ratio	Lower	Upper
117	100		
82	52.4	41.0	61.6
119	31.5	25.4	38.0

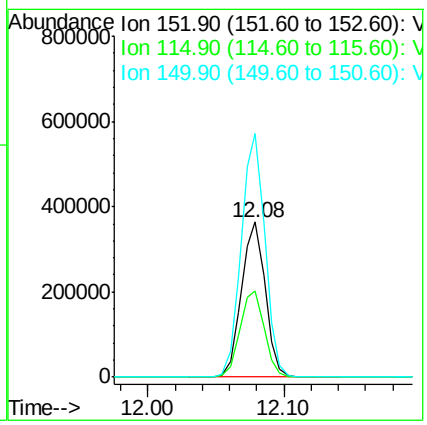




#72
1,4-Dichlorobenzene-d4
Concen: 50.000 ug/l
RT: 12.08 min Scan# 1792
Delta R.T. 0.00 min
Lab File: VX006657.D
Acq: 20 Dec 2018 00:17

Tgt Ion:152 Resp: 441826

Ion	Ratio	Lower	Upper
152	100		
115	57.2	39.1	117.2
150	156.7	0.0	344.8



LSC Area Percent Report

Data Path : Z:\VOASRV\HPCHEM1\MSVOA X\DATA\VX121918\
Data File : VX006657.D
Acq On : 20 Dec 2018 00:17
Operator : JC/MD
Sample : J6484-04
Misc : 5.0mL/MSVOA X/WATER
ALS Vial : 24 Sample Multiplier: 1

Instrument : MSVOA_X
ClientSampleId : 966-MW-04(23)

Integration Parameters: RTEINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 3 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121818W.M
Title : SW846 8260

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	1.617	67	76	81	rVB3	38901	84978	2.80%	0.512%
2	2.611	233	239	246	rBV	82428	149301	4.92%	0.900%
3	2.782	259	267	274	rBV	21752	42344	1.40%	0.255%
4	3.026	301	307	313	rBV3	14058	32613	1.07%	0.197%
5	5.501	701	713	727	rBV	347182	998654	32.92%	6.017%
6	5.665	727	740	761	rVV	630239	1772105	58.41%	10.678%
7	6.068	793	806	820	rBV	376319	974961	32.14%	5.874%
8	6.860	925	936	952	rBV	937376	2192495	72.27%	13.211%
9	8.713	1232	1240	1255	rBV	1941334	3033867	100.00%	18.280%
10	10.110	1462	1469	1484	rBV	1939965	2645536	87.20%	15.940%
11	11.134	1632	1637	1646	rBV	1560398	2073055	68.33%	12.491%
12	12.079	1786	1792	1801	rBV	2053068	2560634	84.40%	15.429%
13	12.384	1838	1842	1847	rVB	25084	36003	1.19%	0.217%

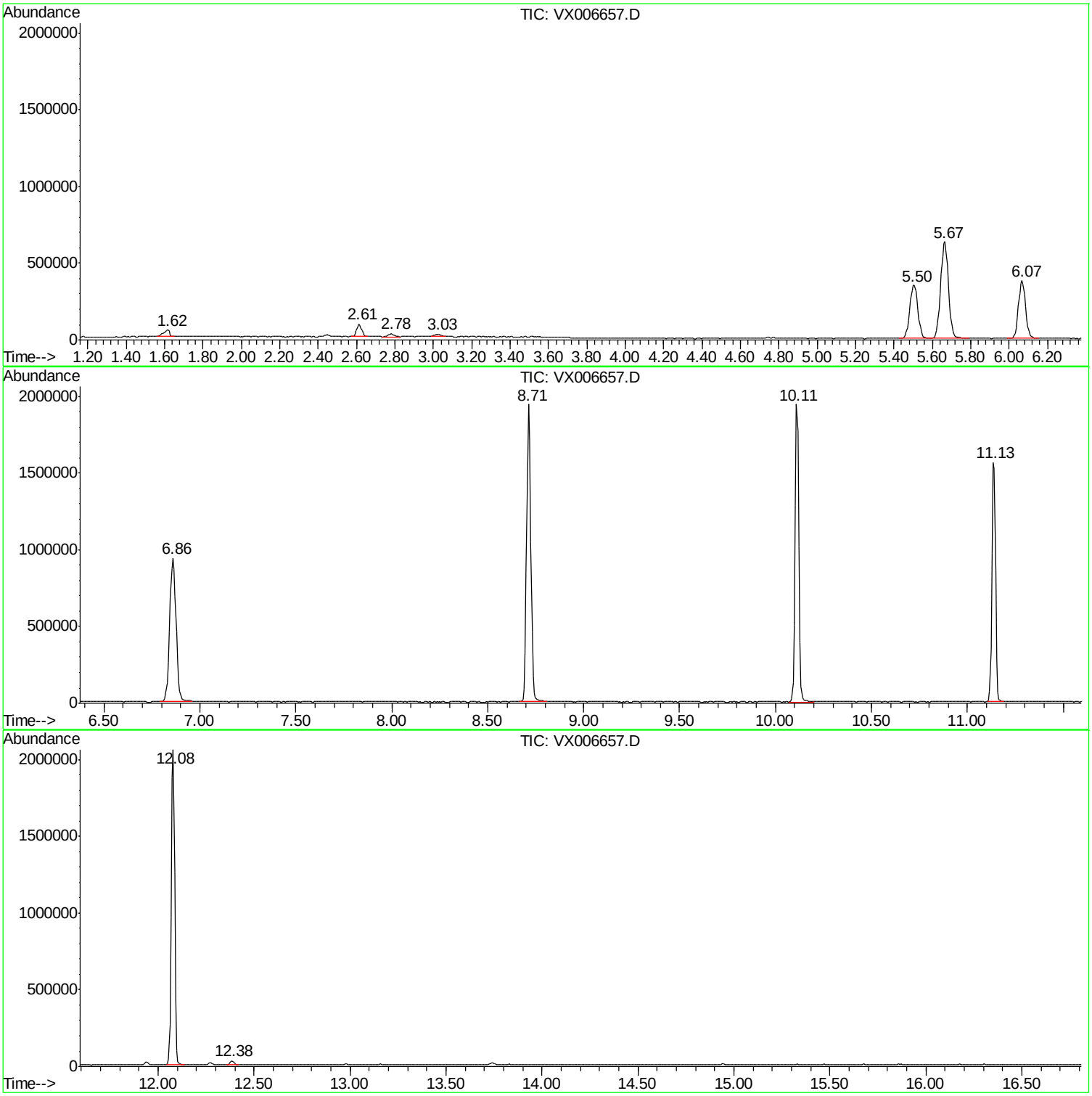
Sum of corrected areas: 16596546

Data Path : Z:\VOASRV\HPCHEM1\MSVOA X\DATA\VX121918\
Data File : VX006657.D
Acq On : 20 Dec 2018 00:17
Operator : JC/MD
Sample : J6484-04
Misc : 5.0mL/MSVOA X/WATER
ALS Vial : 24 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
966-MW-04(23)

Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121818W.M
Quant Title : SW846 8260

TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P



Library Search Compound Report

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX121918\
Data File : VX006657.D
Acq On : 20 Dec 2018 00:17
Operator : JC/MD
Sample : J6484-04
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 24 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
966-MW-04(23)

Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121818W.M
Quant Title : SW846 8260

TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

No Library Search Compounds Detected

****

Tentatively Identified Compound (LSC) summary

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX121918\
Data File : VX006657.D
Acq On : 20 Dec 2018 00:17
Operator : JC/MD
Sample : J6484-04
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 24 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
966-MW-04(23)

Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121818W.M
Quant Title : SW846 8260

TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

					Internal Standard			
TIC Top Hit name	RT	EstConc	Units	Response	#	RT	Resp	Conc

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Day Environmental, Inc.	Date Collected:	12/18/18
Project:	Andrew St. RI	Date Received:	12/19/18
Client Sample ID:	967-MW-05(17)	SDG No.:	J6484
Lab Sample ID:	J6484-07	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	DB-624UI ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX006672.D	1		12/20/18 13:34	VX122018

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
75-71-8	Dichlorodifluoromethane	1	U	0.2	0.2	1	ug/L
74-87-3	Chloromethane	1	U	0.2	0.2	1	ug/L
75-01-4	Vinyl Chloride	1	U	0.2	0.2	1	ug/L
74-83-9	Bromomethane	1	U	0.2	0.2	1	ug/L
75-00-3	Chloroethane	1	U	0.2	0.5	1	ug/L
75-69-4	Trichlorofluoromethane	1	U	0.2	0.2	1	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	1	U	0.2	0.2	1	ug/L
75-35-4	1,1-Dichloroethene	1	U	0.2	0.2	1	ug/L
67-64-1	Acetone	3.4	J	0.5	1	5	ug/L
75-15-0	Carbon Disulfide	1	U	0.2	0.2	1	ug/L
1634-04-4	Methyl tert-butyl Ether	1	U	0.35	0.5	1	ug/L
79-20-9	Methyl Acetate	1	U	0.2	0.5	1	ug/L
75-09-2	Methylene Chloride	1	U	0.2	0.2	1	ug/L
156-60-5	trans-1,2-Dichloroethene	1	U	0.2	0.2	1	ug/L
75-34-3	1,1-Dichloroethane	1	U	0.2	0.2	1	ug/L
110-82-7	Cyclohexane	1	U	0.2	0.2	1	ug/L
78-93-3	2-Butanone	5	U	1.3	2.5	5	ug/L
56-23-5	Carbon Tetrachloride	1	U	0.2	0.2	1	ug/L
156-59-2	cis-1,2-Dichloroethene	1	U	0.2	0.2	1	ug/L
74-97-5	Bromochloromethane	1	U	0.2	0.5	1	ug/L
67-66-3	Chloroform	1	U	0.2	0.2	1	ug/L
71-55-6	1,1,1-Trichloroethane	1	U	0.2	0.2	1	ug/L
108-87-2	Methylcyclohexane	1	U	0.2	0.2	1	ug/L
71-43-2	Benzene	1	U	0.2	0.2	1	ug/L
107-06-2	1,2-Dichloroethane	1	U	0.2	0.2	1	ug/L
79-01-6	Trichloroethene	0.8	J	0.2	0.2	1	ug/L
78-87-5	1,2-Dichloropropane	1	U	0.2	0.2	1	ug/L
75-27-4	Bromodichloromethane	1	U	0.2	0.2	1	ug/L
108-10-1	4-Methyl-2-Pentanone	5	U	1	1	5	ug/L
108-88-3	Toluene	1	U	0.2	0.2	1	ug/L
10061-02-6	t-1,3-Dichloropropene	1	U	0.2	0.2	1	ug/L
10061-01-5	cis-1,3-Dichloropropene	1	U	0.2	0.2	1	ug/L

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Day Environmental, Inc.	Date Collected:	12/18/18
Project:	Andrew St. RI	Date Received:	12/19/18
Client Sample ID:	967-MW-05(17)	SDG No.:	J6484
Lab Sample ID:	J6484-07	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	DB-624UI ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX006672.D	1		12/20/18 13:34	VX122018

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
79-00-5	1,1,2-Trichloroethane	1	U	0.2	0.2	1	ug/L
591-78-6	2-Hexanone	5	U	1.9	2.5	5	ug/L
124-48-1	Dibromochloromethane	1	U	0.2	0.2	1	ug/L
106-93-4	1,2-Dibromoethane	1	U	0.2	0.2	1	ug/L
127-18-4	Tetrachloroethene	34.8		0.2	0.2	1	ug/L
108-90-7	Chlorobenzene	1	U	0.2	0.2	1	ug/L
100-41-4	Ethyl Benzene	1	U	0.2	0.2	1	ug/L
179601-23-1	m/p-Xylenes	2	U	0.4	0.4	2	ug/L
95-47-6	o-Xylene	1	U	0.2	0.2	1	ug/L
100-42-5	Styrene	1	U	0.2	0.2	1	ug/L
75-25-2	Bromoform	1	U	0.2	0.2	1	ug/L
98-82-8	Isopropylbenzene	1	U	0.2	0.2	1	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	1	U	0.2	0.2	1	ug/L
541-73-1	1,3-Dichlorobenzene	1	U	0.2	0.2	1	ug/L
106-46-7	1,4-Dichlorobenzene	1	U	0.2	0.2	1	ug/L
95-50-1	1,2-Dichlorobenzene	1	U	0.2	0.2	1	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	1	U	0.2	0.2	1	ug/L
120-82-1	1,2,4-Trichlorobenzene	1	U	0.2	0.2	1	ug/L
87-61-6	1,2,3-Trichlorobenzene	1	U	0.2	0.2	1	ug/L
SURROGATES							
17060-07-0	1,2-Dichloroethane-d4	50.5		61 - 141		101%	SPK: 50
1868-53-7	Dibromofluoromethane	46.6		69 - 133		93%	SPK: 50
2037-26-5	Toluene-d8	50		65 - 126		100%	SPK: 50
460-00-4	4-Bromofluorobenzene	49.1		58 - 135		98%	SPK: 50
INTERNAL STANDARDS							
363-72-4	Pentafluorobenzene	639937	5.67				
540-36-3	1,4-Difluorobenzene	1001910	6.86				
3114-55-4	Chlorobenzene-d5	926835	10.11				
3855-82-1	1,4-Dichlorobenzene-d4	438799	12.08				

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Day Environmental, Inc.	Date Collected:	12/18/18
Project:	Andrew St. RI	Date Received:	12/19/18
Client Sample ID:	967-MW-05(17)	SDG No.:	J6484
Lab Sample ID:	J6484-07	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	DB-624UI ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX006672.D	1		12/20/18 13:34	VX122018

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit
A = Aldol-Condensation Reaction Products

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX122018\
Data File : VX006672.D
Acq On : 20 Dec 2018 13:34
Operator : JC/MD
Sample : J6484-07
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 12 Sample Multiplier: 1

Instrument : MSVOA_X
ClientSampleId : 967-MW-05(17)

Quant Time: Dec 21 04:07:34 2018
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121818W.M
Quant Title : SW846 8260
QLast Update : Wed Dec 19 15:20:58 2018
Response via : Initial Calibration

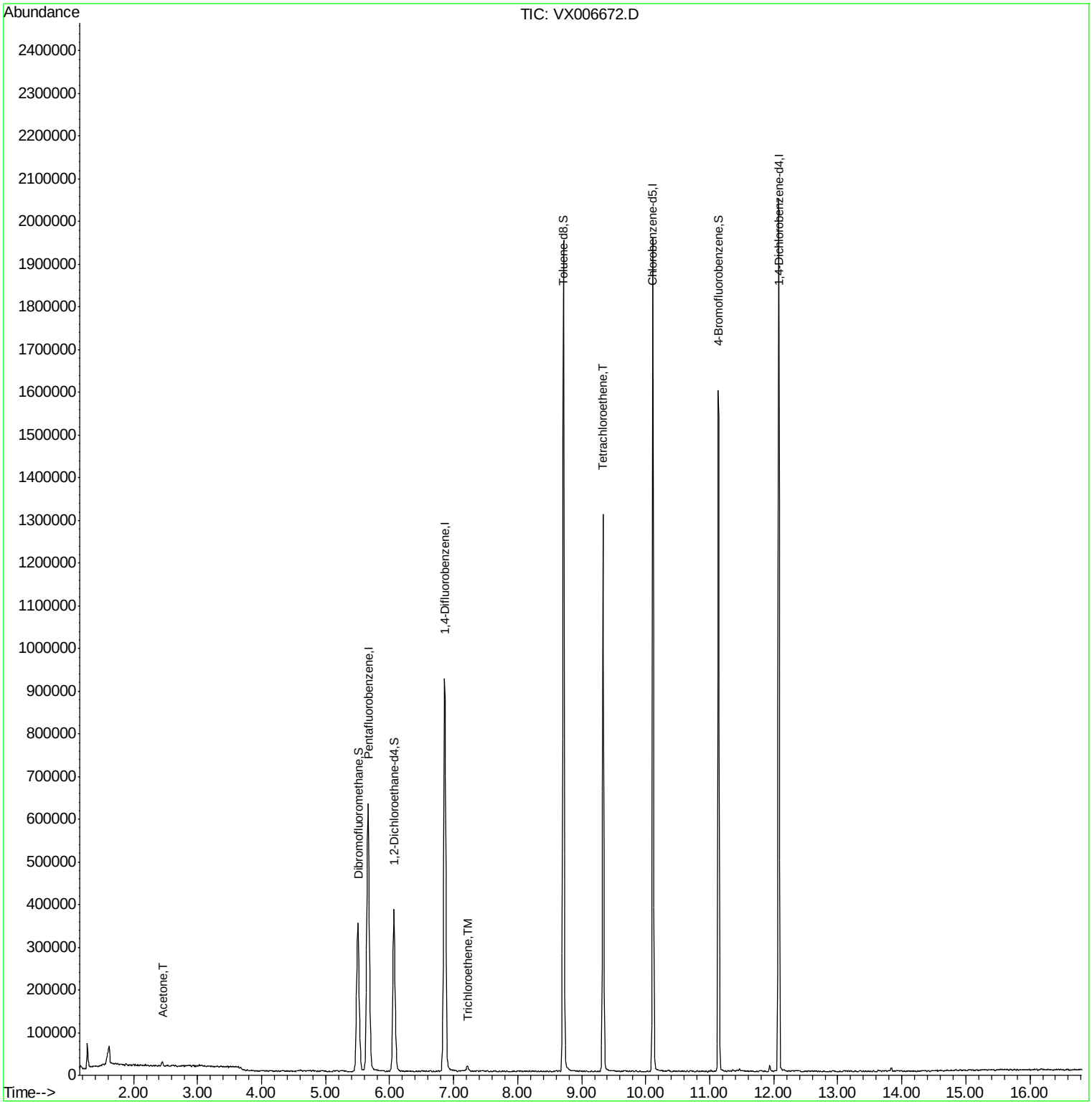
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	5.67	168	639937	50.00	ug/l	0.00
34) 1,4-Difluorobenzene	6.86	114	1001908	50.00	ug/l	0.00
63) Chlorobenzene-d5	10.11	117	926835	50.00	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	12.08	152	438799	50.00	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	6.07	65	348499	50.53	ug/l	0.00
Spiked Amount 50.000			Recovery =	101.06%		
35) Dibromofluoromethane	5.50	113	295316	46.61	ug/l	0.00
Spiked Amount 50.000			Recovery =	93.22%		
50) Toluene-d8	8.71	98	1194305	50.00	ug/l	0.00
Spiked Amount 50.000			Recovery =	100.00%		
62) 4-Bromofluorobenzene	11.13	95	429464	49.09	ug/l	0.00
Spiked Amount 50.000			Recovery =	98.18%		
Target Compounds						Qvalue
16) Acetone	2.45	43	10898	3.439	ug/l	96
44) Trichloroethene	7.22	130	6114	0.801	ug/l	88
64) Tetrachloroethene	9.34	164	255070	34.755	ug/l	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

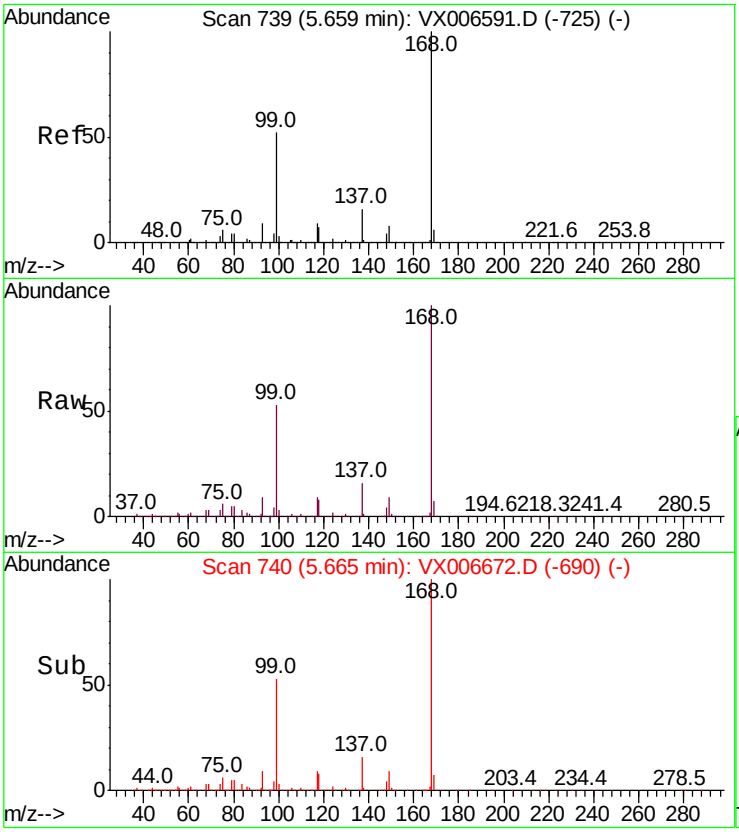
Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX122018\
Data File : VX006672.D
Acq On : 20 Dec 2018 13:34
Operator : JC/MD
Sample : J6484-07
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 12 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
967-MW-05(17)

Quant Time: Dec 21 04:07:34 2018
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121818W.M
Quant Title : SW846 8260
QLast Update : Wed Dec 19 15:20:58 2018
Response via : Initial Calibration



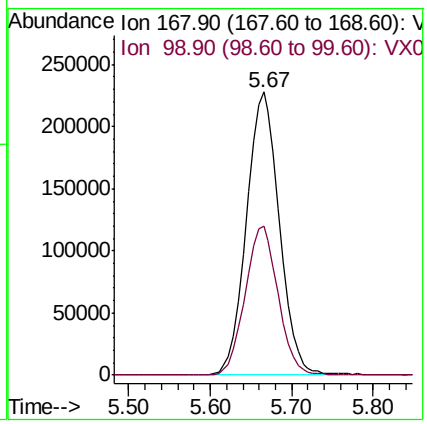
Instrument :
MSVOA_X
ClientSampleId :
967-MW-05(17)

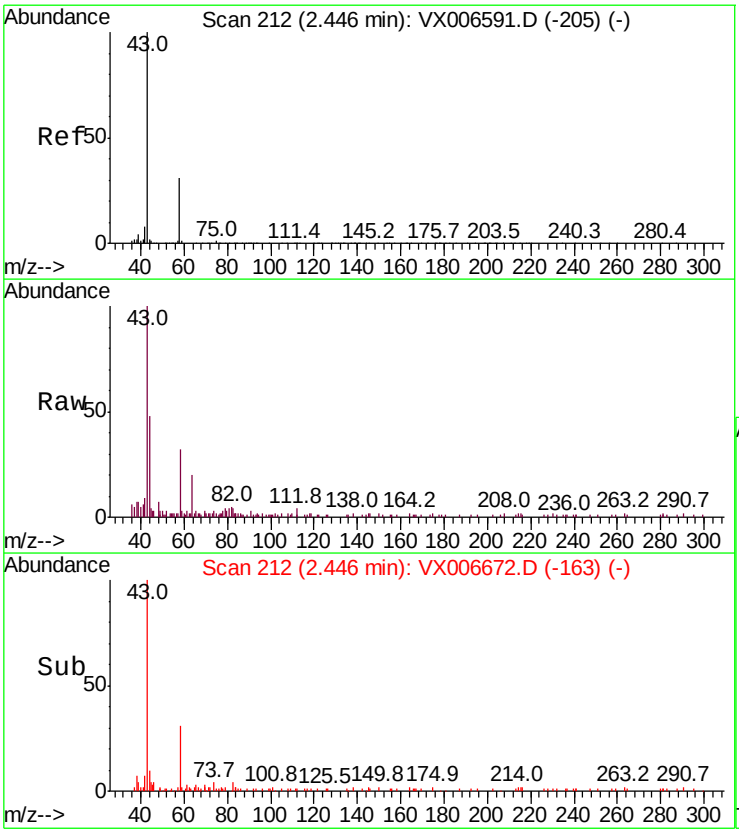


#1
Pentafluorobenzene
Concen: 50.000 ug/l
RT: 5.67 min Scan# 740
Delta R.T. 0.01 min
Lab File: VX006672.D
Acq: 20 Dec 2018 13:34

Tgt Ion:168 Resp: 639937

Ion	Ratio	Lower	Upper
168	100		
99	52.7	41.8	62.8

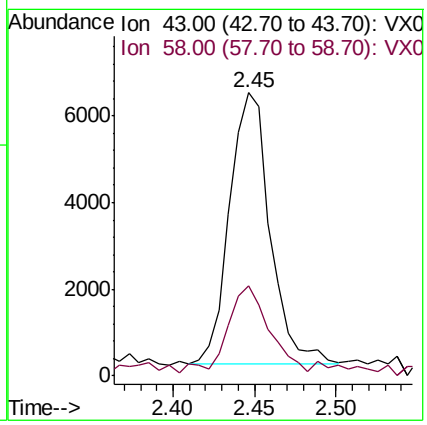




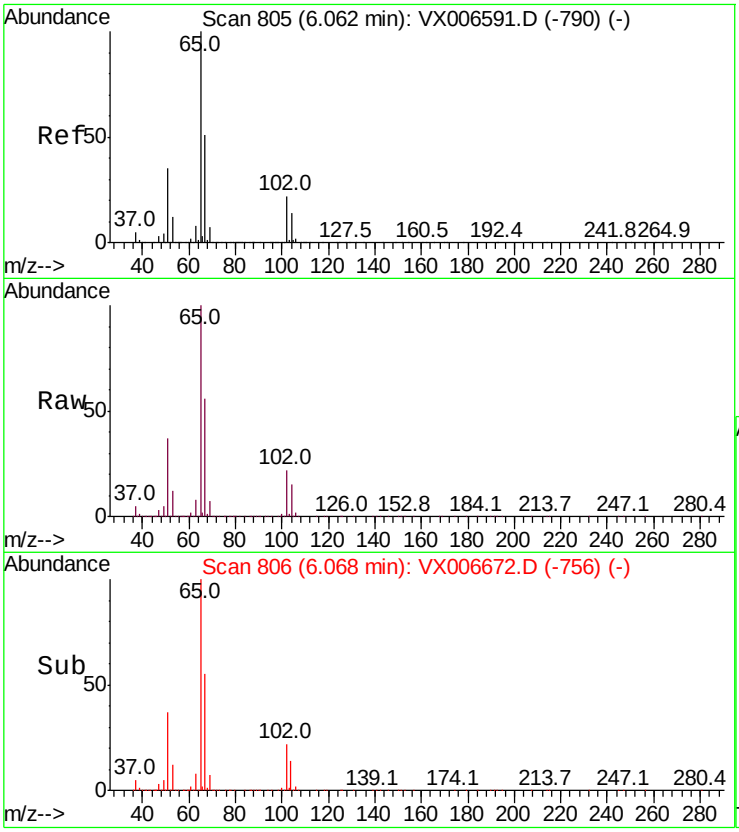
#16
Acetone
Concen: 3.439 ug/l
RT: 2.45 min Scan# 212
Delta R.T. -0.00 min
Lab File: VX006672.D
Acq: 20 Dec 2018 13:34

Tgt Ion: 43 Resp: 10898

Ion	Ratio	Lower	Upper
43	100		
58	29.2	25.0	37.6



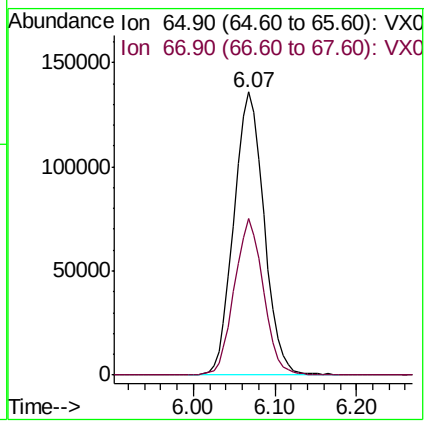
Instrument :
MSVOA_X
ClientSampleId :
967-MW-05(17)

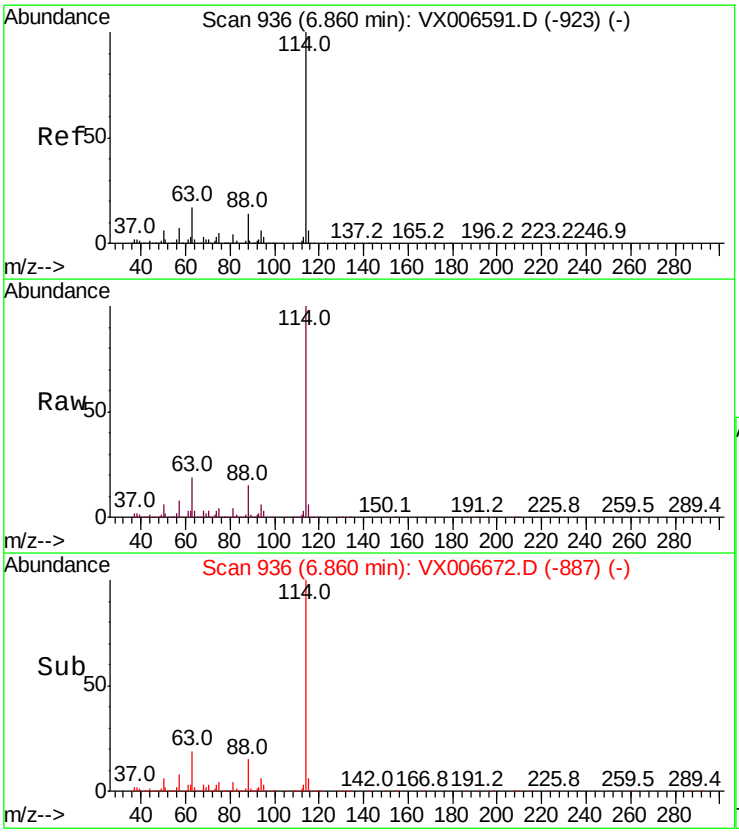


#33
1,2-Dichloroethane-d4
Concen: 50.529 ug/l
RT: 6.07 min Scan# 806
Delta R.T. 0.01 min
Lab File: VX006672.D
Acq: 20 Dec 2018 13:34

Tgt Ion: 65 Resp: 348499

Ion	Ratio	Lower	Upper
65	100		
67	53.1	0.0	105.0

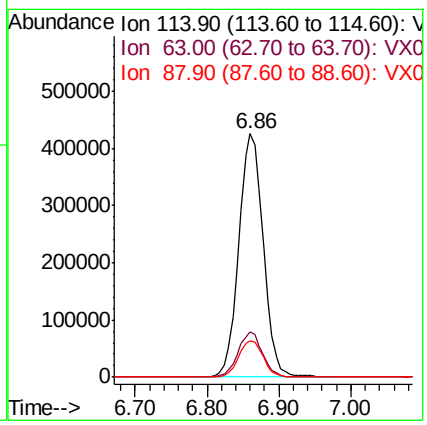




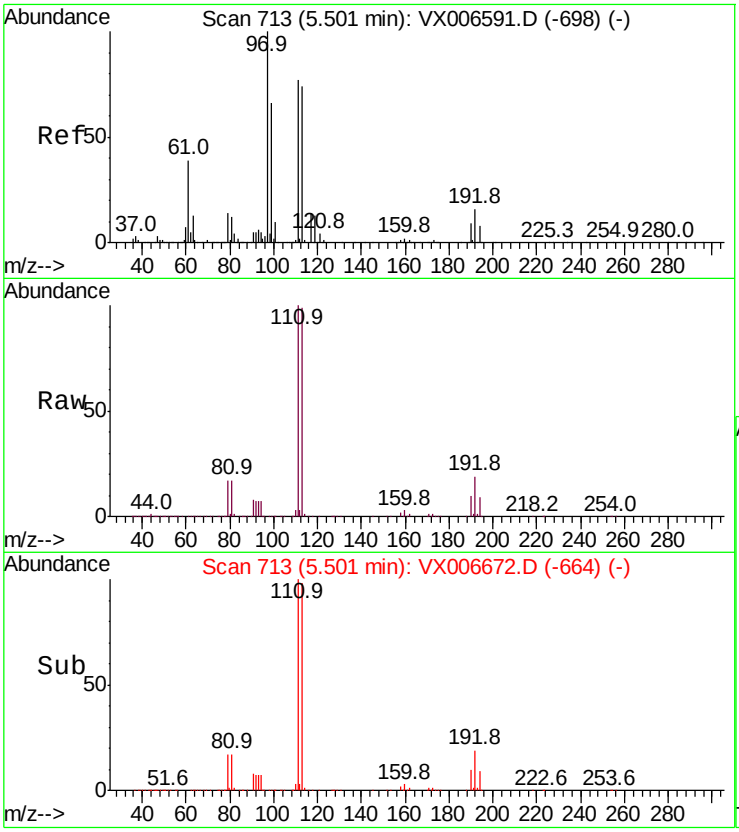
#34
1,4-Difluorobenzene
Concen: 50.000 ug/l
RT: 6.86 min Scan# 936
Delta R.T. -0.00 min
Lab File: VX006672.D
Acq: 20 Dec 2018 13:34

Tgt Ion:114 Resp: 1001908

Ion	Ratio	Lower	Upper
114	100		
63	18.6	0.0	34.8
88	14.6	0.0	28.8



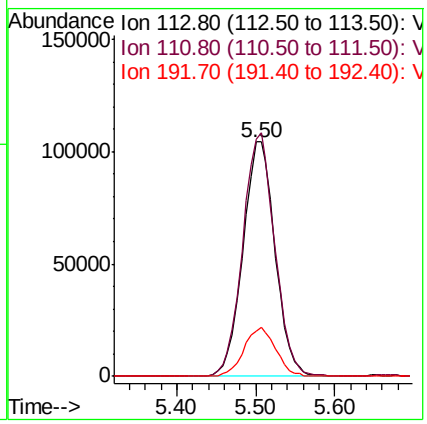
Instrument :
MSVOA_X
ClientSampleId :
967-MW-05(17)

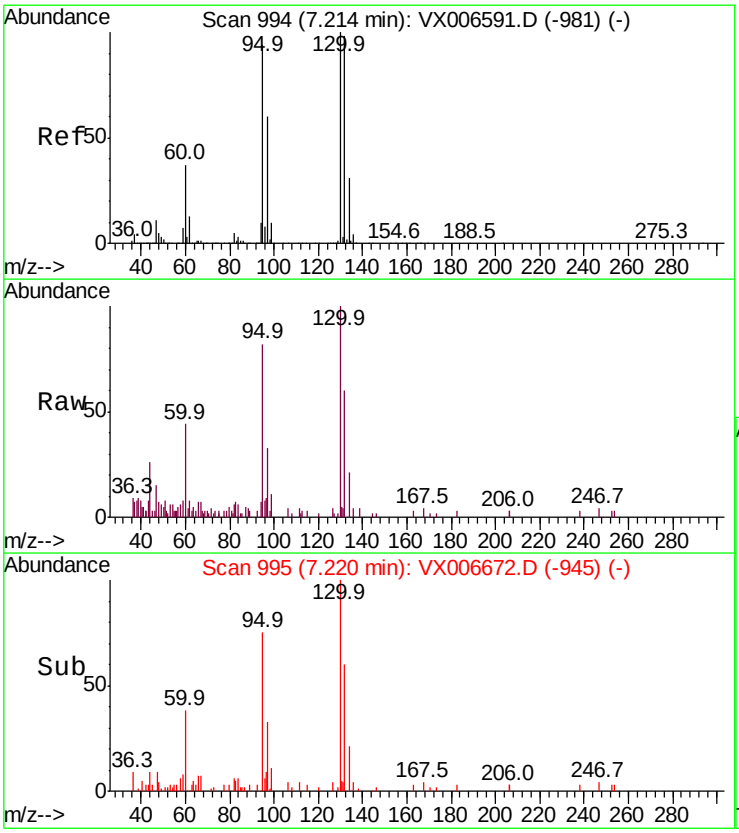


#35
Dibromofluoromethane
Concen: 46.610 ug/l
RT: 5.50 min Scan# 713
Delta R.T. -0.00 min
Lab File: VX006672.D
Acq: 20 Dec 2018 13:34

Tgt Ion:113 Resp: 295316

Ion	Ratio	Lower	Upper
113	100		
111	103.4	81.6	122.4
192	20.7	16.7	25.1

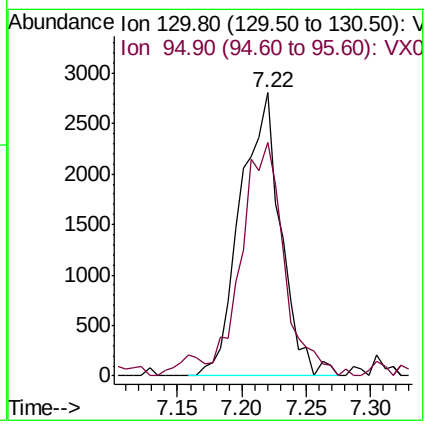




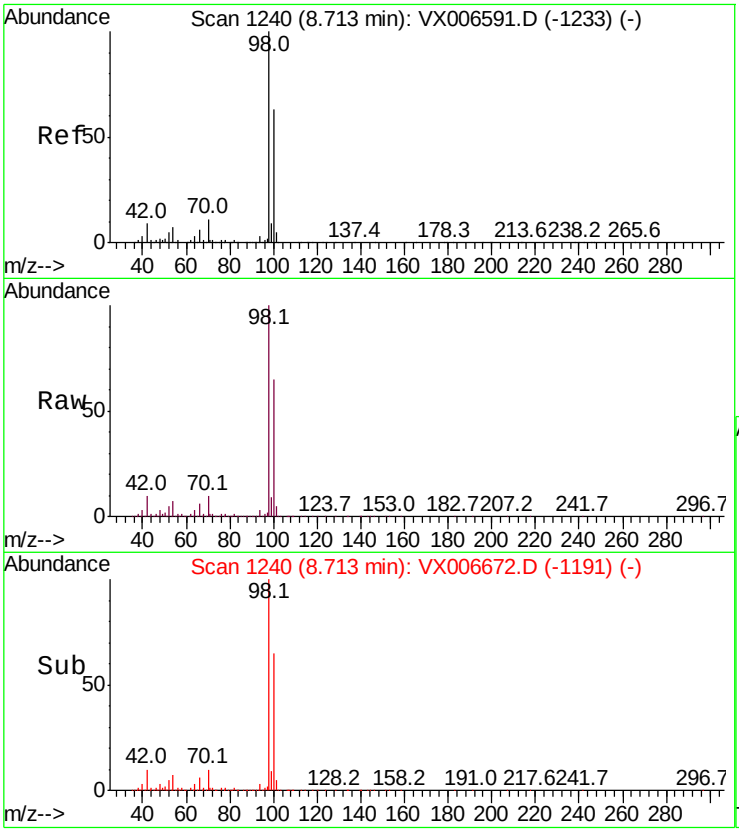
#44
Trichloroethene
Concen: 0.801 ug/l
RT: 7.22 min Scan# 995
Delta R.T. 0.01 min
Lab File: VX006672.D
Acq: 20 Dec 2018 13:34

Tgt Ion:130 Resp: 6114

Ion	Ratio	Lower	Upper
130	100		
95	82.4	0.0	187.0



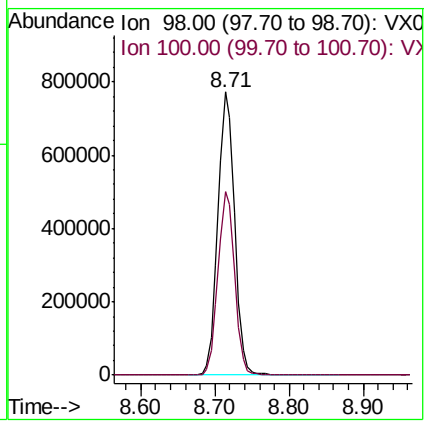
Instrument :
MSVOA_X
ClientSampleId :
967-MW-05(17)

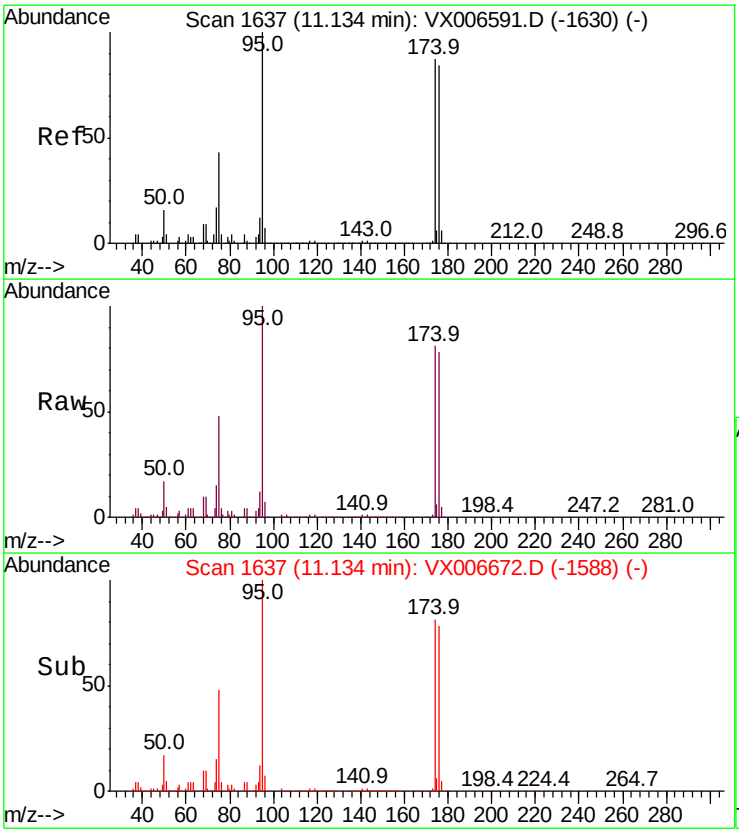


#50
Toluene-d8
Concen: 49.999 ug/l
RT: 8.71 min Scan# 1240
Delta R.T. -0.00 min
Lab File: VX006672.D
Acq: 20 Dec 2018 13:34

Tgt Ion: 98 Resp: 1194305

Ion	Ratio	Lower	Upper
98	100		
100	64.7	52.0	78.0

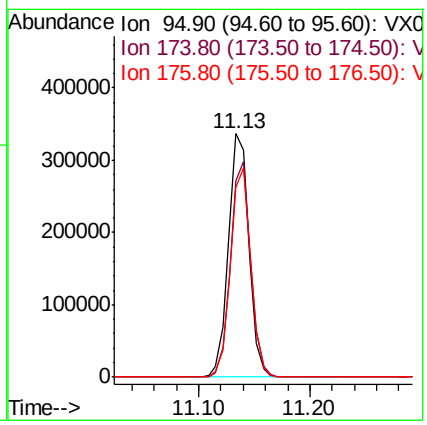




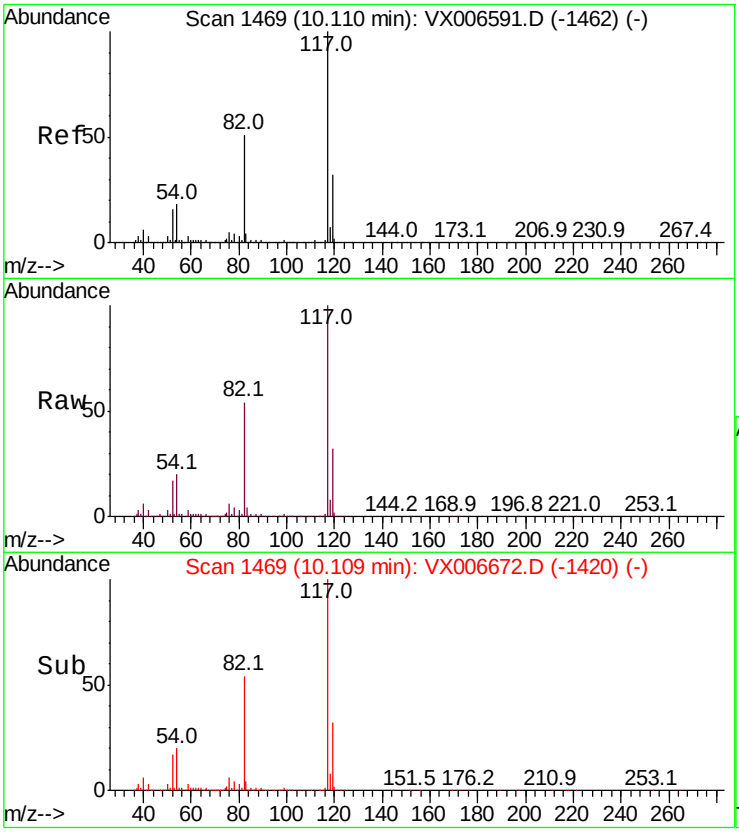
#62
4-Bromofluorobenzene
Concen: 49.092 ug/l
RT: 11.13 min Scan# 1637
Delta R.T. -0.00 min
Lab File: VX006672.D
Acq: 20 Dec 2018 13:34

Tgt Ion: 95 Resp: 429464

Ion	Ratio	Lower	Upper
95	100		
174	86.6	0.0	182.2
176	84.4	0.0	178.8



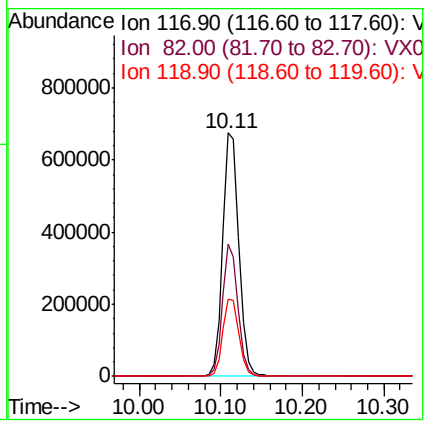
Instrument :
MSVOA_X
ClientSampleId :
967-MW-05(17)

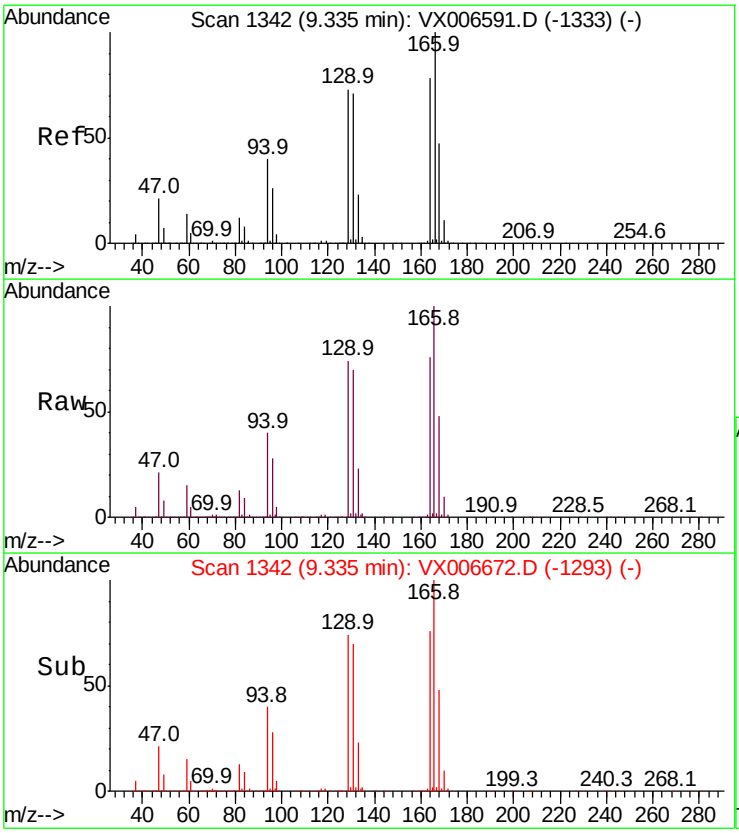


#63
Chlorobenzene-d5
Concen: 50.000 ug/l
RT: 10.11 min Scan# 1469
Delta R.T. -0.00 min
Lab File: VX006672.D
Acq: 20 Dec 2018 13:34

Tgt Ion:117 Resp: 926835

Ion	Ratio	Lower	Upper
117	100		
82	54.3	41.0	61.6
119	31.5	25.4	38.0

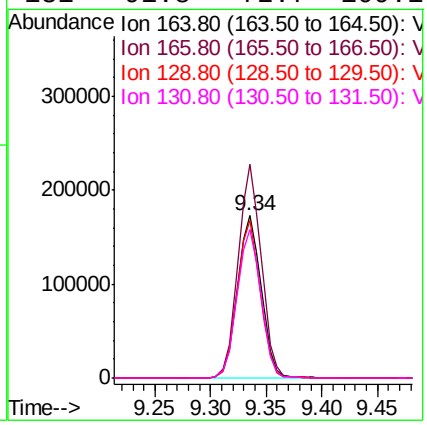


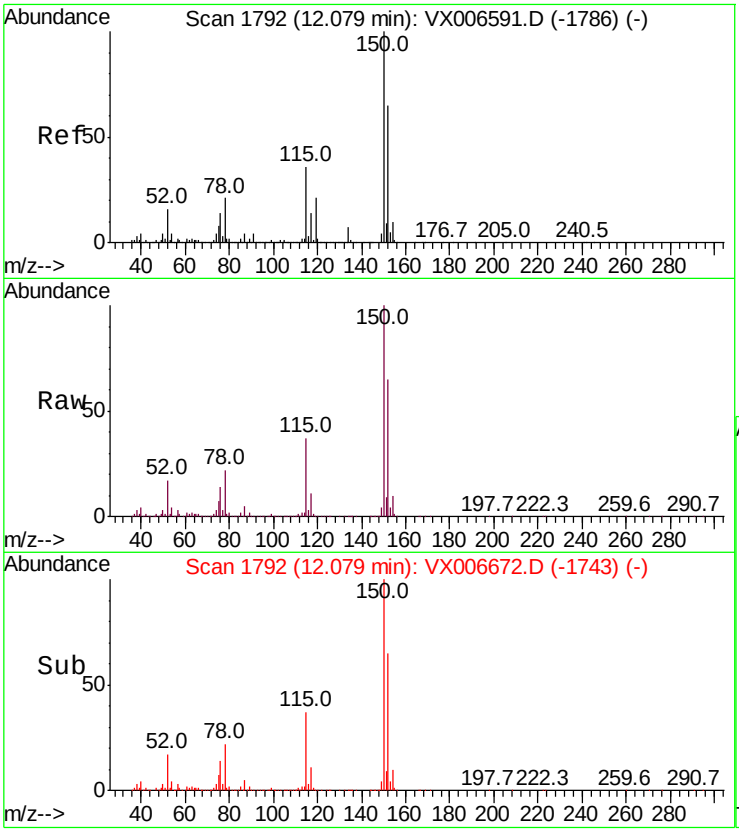


#64
Tetrachloroethene
Concen: 34.755 ug/l
RT: 9.34 min Scan# 1342
Delta R.T. -0.00 min
Lab File: VX006672.D
Acq: 20 Dec 2018 13:34

Tgt Ion:164 Resp: 255070

Ion	Ratio	Lower	Upper
164	100		
166	131.5	102.5	153.7
129	97.0	75.1	112.7
131	91.8	72.7	109.1

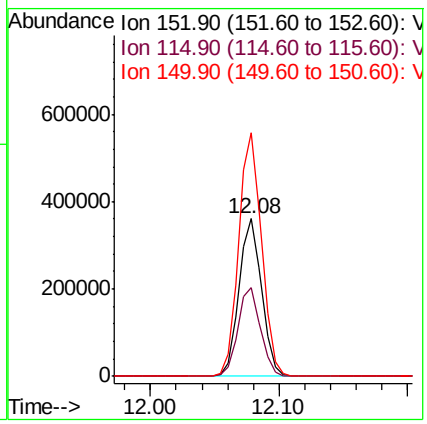




#72
1,4-Dichlorobenzene-d4
Concen: 50.000 ug/l
RT: 12.08 min Scan# 1792
Delta R.T. -0.00 min
Lab File: VX006672.D
Acq: 20 Dec 2018 13:34

Tgt Ion:152 Resp: 438799

Ion	Ratio	Lower	Upper
152	100		
115	56.5	39.1	117.2
150	156.1	0.0	344.8



Instrument :
MSVOA_X
ClientSampleId :
967-MW-05(17)

Instrument :
MSVOA_X
ClientSampleId :
967-MW-05(17)

LSC Area Percent Report

Data Path : Z:\VOASRV\HPCHEM1\MSVOA X\DATA\VX122018\
Data File : VX006672.D
Acq On : 20 Dec 2018 13:34
Operator : JC/MD
Sample : J6484-07
Misc : 5.0mL/MSVOA X/WATER
ALS Vial : 12 Sample Multiplier: 1

Integration Parameters: RTEINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 3 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121818W.M
Title : SW846 8260

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	1.276	17	20	28	rBV	59818	90561	3.00%	0.496%
2	1.623	67	77	80	rBV4	42925	102400	3.39%	0.561%
3	5.507	700	714	725	rBV	347994	993883	32.92%	5.441%
4	5.665	728	740	755	rVV	624822	1754940	58.12%	9.608%
5	6.068	793	806	819	rBV	380697	972099	32.20%	5.322%
6	6.860	927	936	947	rBV	917999	2155134	71.38%	11.799%
7	7.214	986	994	1003	rVB3	13146	31842	1.05%	0.174%
8	8.713	1233	1240	1251	rBV	1946402	3019312	100.00%	16.530%
9	9.335	1335	1342	1349	rBV	1305981	1898888	62.89%	10.396%
10	10.109	1463	1469	1481	rBV	1953930	2631014	87.14%	14.404%
11	11.134	1631	1637	1646	rBV	1594071	2064986	68.39%	11.305%
12	12.079	1786	1792	1802	rBV	2044651	2550963	84.49%	13.966%

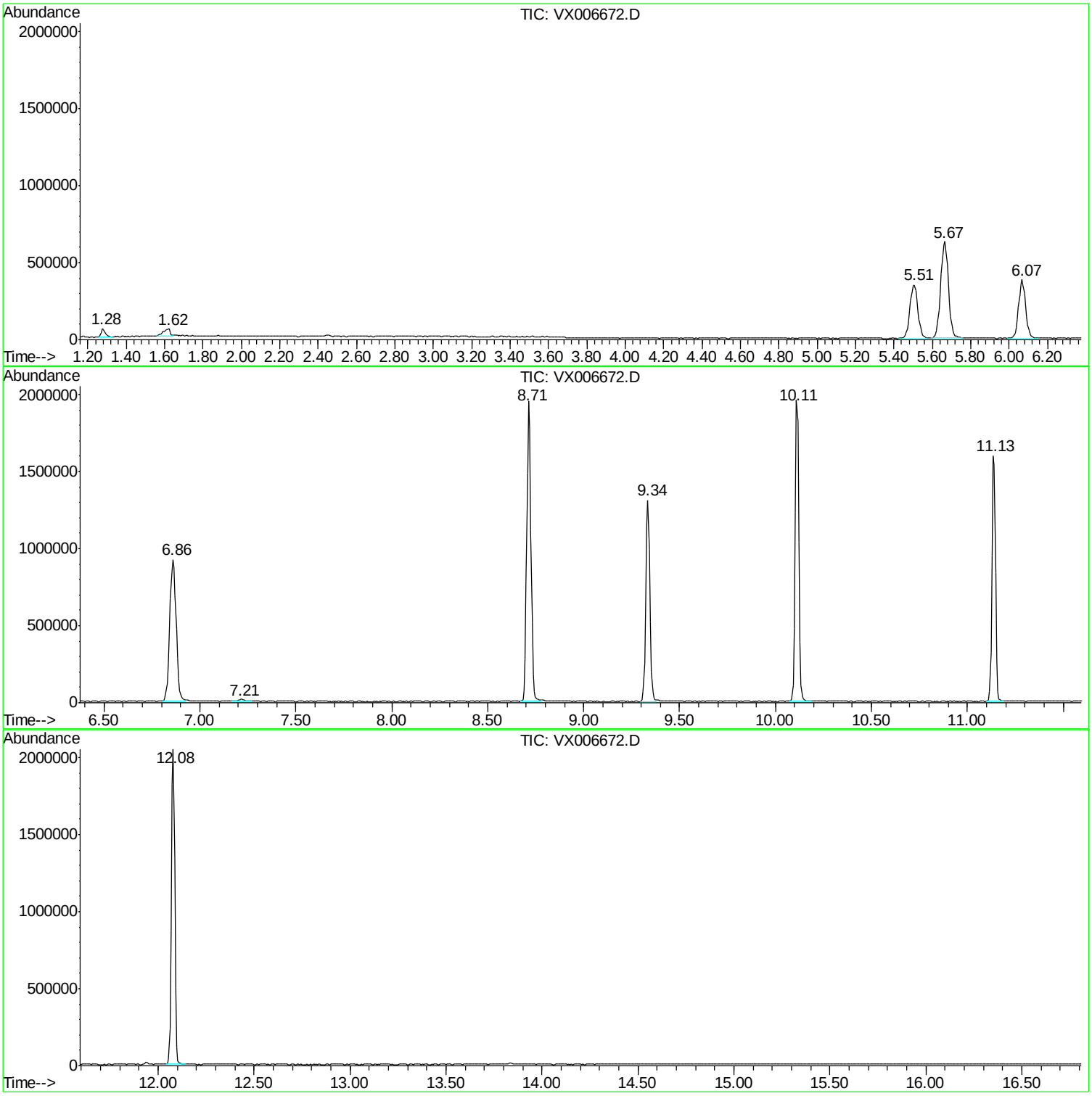
Sum of corrected areas: 18266022

Data Path : Z:\VOASRV\HPCHEM1\MSVOA X\DATA\VX122018\
Data File : VX006672.D
Acq On : 20 Dec 2018 13:34
Operator : JC/MD
Sample : J6484-07
Misc : 5.0mL/MSVOA X/WATER
ALS Vial : 12 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
967-MW-05(17)

Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121818W.M
Quant Title : SW846 8260

TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P



Library Search Compound Report

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX122018\
Data File : VX006672.D
Acq On : 20 Dec 2018 13:34
Operator : JC/MD
Sample : J6484-07
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 12 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
967-MW-05(17)

Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121818W.M
Quant Title : SW846 8260

TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

No Library Search Compounds Detected

****

Instrument :
MSVOA_X
ClientSampleId :
967-MW-05(17)

Tentatively Identified Compound (LSC) summary

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX122018\
Data File : VX006672.D
Acq On : 20 Dec 2018 13:34
Operator : JC/MD
Sample : J6484-07
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 12 Sample Multiplier: 1

Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121818W.M
Quant Title : SW846 8260

TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

					Internal Standard			
TIC Top Hit name	RT	EstConc	Units	Response	#	RT	Resp	Conc

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Day Environmental, Inc.	Date Collected:	12/18/18
Project:	Andrew St. RI	Date Received:	12/19/18
Client Sample ID:	968-MW-06(17)	SDG No.:	J6484
Lab Sample ID:	J6484-08	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	DB-624UI ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX006673.D	1		12/20/18 14:01	VX122018

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
75-71-8	Dichlorodifluoromethane	1	U	0.2	0.2	1	ug/L
74-87-3	Chloromethane	1	U	0.2	0.2	1	ug/L
75-01-4	Vinyl Chloride	1	U	0.2	0.2	1	ug/L
74-83-9	Bromomethane	1	U	0.2	0.2	1	ug/L
75-00-3	Chloroethane	1	U	0.2	0.5	1	ug/L
75-69-4	Trichlorofluoromethane	1	U	0.2	0.2	1	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	1	U	0.2	0.2	1	ug/L
75-35-4	1,1-Dichloroethene	1	U	0.2	0.2	1	ug/L
67-64-1	Acetone	5	U	0.5	1	5	ug/L
75-15-0	Carbon Disulfide	1	U	0.2	0.2	1	ug/L
1634-04-4	Methyl tert-butyl Ether	1	U	0.35	0.5	1	ug/L
79-20-9	Methyl Acetate	1	U	0.2	0.5	1	ug/L
75-09-2	Methylene Chloride	1	U	0.2	0.2	1	ug/L
156-60-5	trans-1,2-Dichloroethene	1	U	0.2	0.2	1	ug/L
75-34-3	1,1-Dichloroethane	1	U	0.2	0.2	1	ug/L
110-82-7	Cyclohexane	1	U	0.2	0.2	1	ug/L
78-93-3	2-Butanone	5	U	1.3	2.5	5	ug/L
56-23-5	Carbon Tetrachloride	1	U	0.2	0.2	1	ug/L
156-59-2	cis-1,2-Dichloroethene	1	U	0.2	0.2	1	ug/L
74-97-5	Bromochloromethane	1	U	0.2	0.5	1	ug/L
67-66-3	Chloroform	1	U	0.2	0.2	1	ug/L
71-55-6	1,1,1-Trichloroethane	1	U	0.2	0.2	1	ug/L
108-87-2	Methylcyclohexane	1	U	0.2	0.2	1	ug/L
71-43-2	Benzene	1	U	0.2	0.2	1	ug/L
107-06-2	1,2-Dichloroethane	1	U	0.2	0.2	1	ug/L
79-01-6	Trichloroethene	0.36	J	0.2	0.2	1	ug/L
78-87-5	1,2-Dichloropropane	1	U	0.2	0.2	1	ug/L
75-27-4	Bromodichloromethane	1	U	0.2	0.2	1	ug/L
108-10-1	4-Methyl-2-Pentanone	5	U	1	1	5	ug/L
108-88-3	Toluene	1	U	0.2	0.2	1	ug/L
10061-02-6	t-1,3-Dichloropropene	1	U	0.2	0.2	1	ug/L
10061-01-5	cis-1,3-Dichloropropene	1	U	0.2	0.2	1	ug/L

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Day Environmental, Inc.	Date Collected:	12/18/18
Project:	Andrew St. RI	Date Received:	12/19/18
Client Sample ID:	968-MW-06(17)	SDG No.:	J6484
Lab Sample ID:	J6484-08	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	DB-624UI ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX006673.D	1		12/20/18 14:01	VX122018

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
79-00-5	1,1,2-Trichloroethane	1	U	0.2	0.2	1	ug/L
591-78-6	2-Hexanone	5	U	1.9	2.5	5	ug/L
124-48-1	Dibromochloromethane	1	U	0.2	0.2	1	ug/L
106-93-4	1,2-Dibromoethane	1	U	0.2	0.2	1	ug/L
127-18-4	Tetrachloroethene	4.8		0.2	0.2	1	ug/L
108-90-7	Chlorobenzene	1	U	0.2	0.2	1	ug/L
100-41-4	Ethyl Benzene	1	U	0.2	0.2	1	ug/L
179601-23-1	m/p-Xylenes	2	U	0.4	0.4	2	ug/L
95-47-6	o-Xylene	1	U	0.2	0.2	1	ug/L
100-42-5	Styrene	1	U	0.2	0.2	1	ug/L
75-25-2	Bromoform	1	U	0.2	0.2	1	ug/L
98-82-8	Isopropylbenzene	1	U	0.2	0.2	1	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	1	U	0.2	0.2	1	ug/L
541-73-1	1,3-Dichlorobenzene	1	U	0.2	0.2	1	ug/L
106-46-7	1,4-Dichlorobenzene	1	U	0.2	0.2	1	ug/L
95-50-1	1,2-Dichlorobenzene	1	U	0.2	0.2	1	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	1	U	0.2	0.2	1	ug/L
120-82-1	1,2,4-Trichlorobenzene	1	U	0.2	0.2	1	ug/L
87-61-6	1,2,3-Trichlorobenzene	1	U	0.2	0.2	1	ug/L
SURROGATES							
17060-07-0	1,2-Dichloroethane-d4	50.9		61 - 141		102%	SPK: 50
1868-53-7	Dibromofluoromethane	46.7		69 - 133		93%	SPK: 50
2037-26-5	Toluene-d8	49.4		65 - 126		99%	SPK: 50
460-00-4	4-Bromofluorobenzene	48.8		58 - 135		98%	SPK: 50
INTERNAL STANDARDS							
363-72-4	Pentafluorobenzene	624286	5.67				
540-36-3	1,4-Difluorobenzene	991940	6.86				
3114-55-4	Chlorobenzene-d5	908114	10.11				
3855-82-1	1,4-Dichlorobenzene-d4	434080	12.08				

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Day Environmental, Inc.	Date Collected:	12/18/18
Project:	Andrew St. RI	Date Received:	12/19/18
Client Sample ID:	968-MW-06(17)	SDG No.:	J6484
Lab Sample ID:	J6484-08	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	DB-624UI ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX006673.D	1		12/20/18 14:01	VX122018

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit
A = Aldol-Condensation Reaction Products

Quantitation Report (QT Reviewed)

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX122018\
Data File : VX006673.D
Acq On : 20 Dec 2018 14:01
Operator : JC/MD
Sample : J6484-08
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 13 Sample Multiplier: 1

Instrument : MSVOA_X
ClientSampleId : 968-MW-06(17)

Quant Time: Dec 21 04:09:21 2018
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121818W.M
Quant Title : SW846 8260
QLast Update : Wed Dec 19 15:20:58 2018
Response via : Initial Calibration

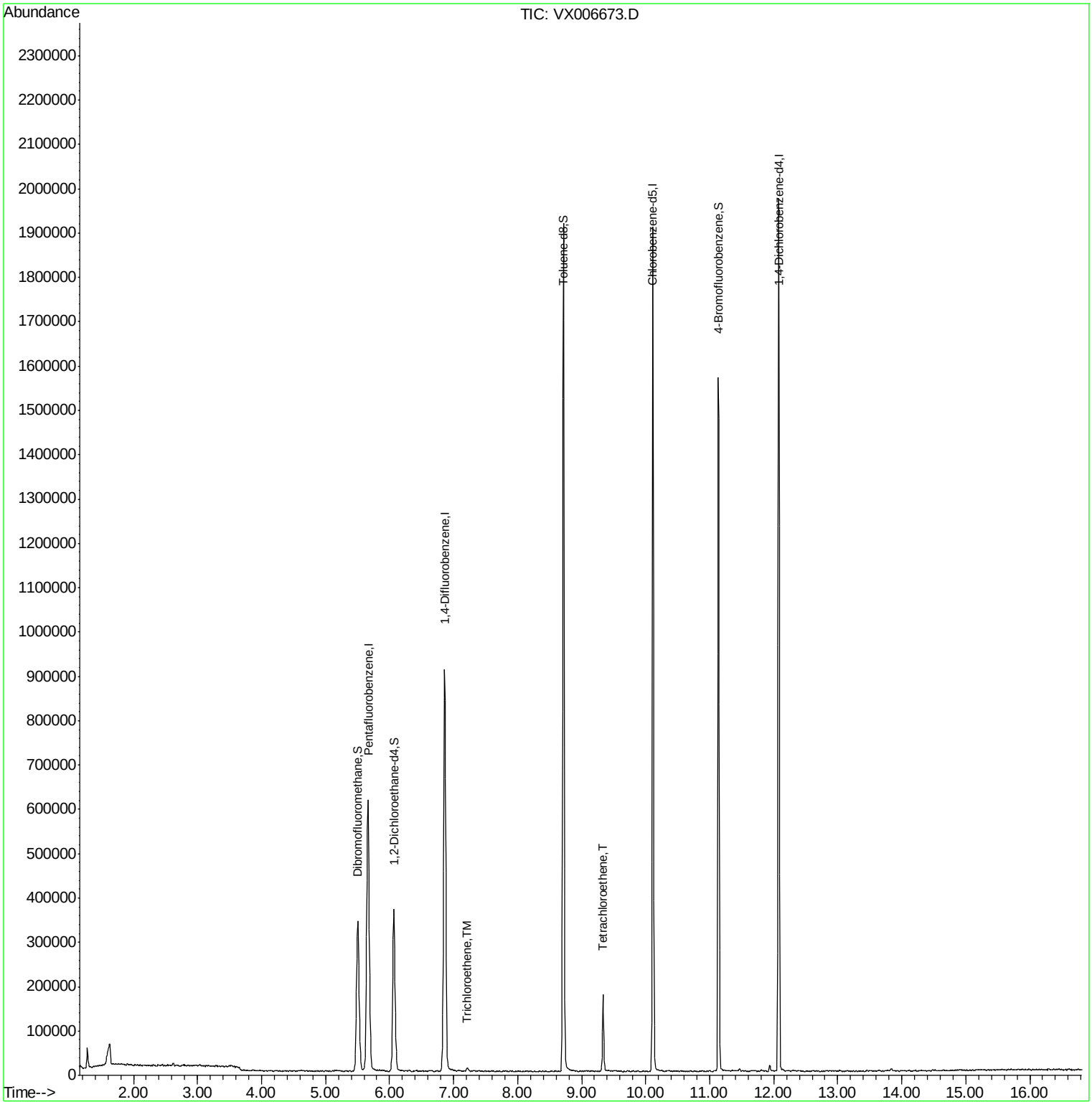
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	5.67	168	624286	50.00	ug/l	0.00
34) 1,4-Difluorobenzene	6.86	114	991940	50.00	ug/l	0.00
63) Chlorobenzene-d5	10.11	117	908114	50.00	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	12.08	152	434080	50.00	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	6.07	65	342191	50.86	ug/l	0.00
Spiked Amount 50.000			Recovery = 101.72%			
35) Dibromofluoromethane	5.50	113	292876	46.69	ug/l	0.00
Spiked Amount 50.000			Recovery = 93.38%			
50) Toluene-d8	8.71	98	1168930	49.43	ug/l	0.00
Spiked Amount 50.000			Recovery = 98.86%			
62) 4-Bromofluorobenzene	11.13	95	422314	48.76	ug/l	0.00
Spiked Amount 50.000			Recovery = 97.52%			
Target Compounds						Qvalue
44) Trichloroethene	7.21	130	2745	0.363	ug/l	79
64) Tetrachloroethene	9.34	164	34634	4.816	ug/l	90

(#) = qualifier out of range (m) = manual integration (+) = signals summed

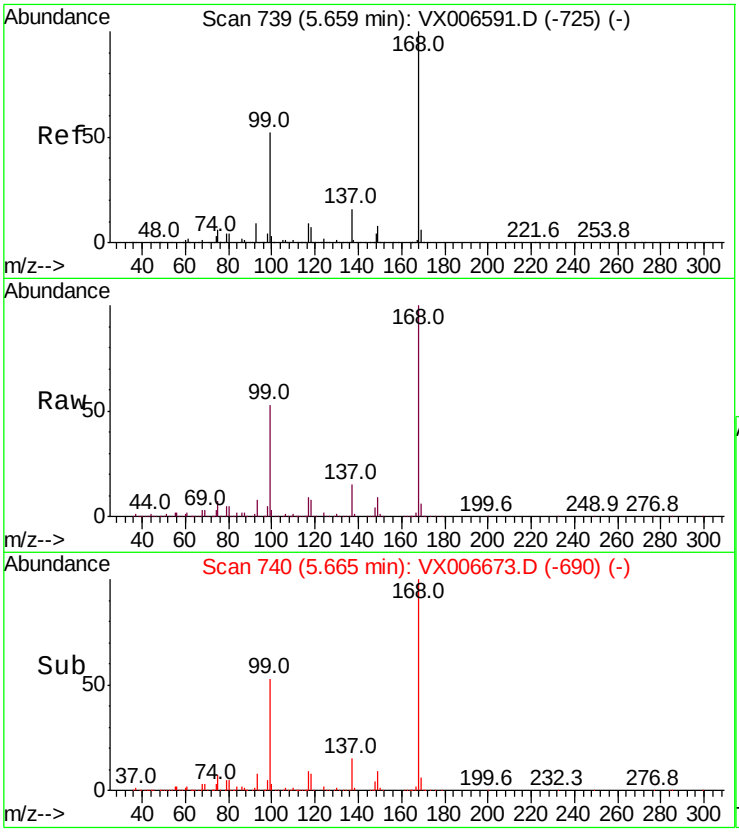
Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX122018\
Data File : VX006673.D
Acq On : 20 Dec 2018 14:01
Operator : JC/MD
Sample : J6484-08
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 13 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
968-MW-06(17)

Quant Time: Dec 21 04:09:21 2018
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121818W.M
Quant Title : SW846 8260
QLast Update : Wed Dec 19 15:20:58 2018
Response via : Initial Calibration



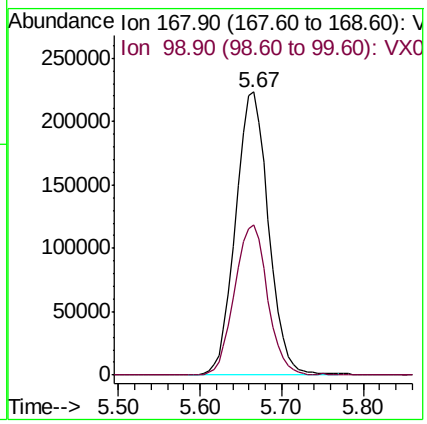
Instrument :
MSVOA_X
ClientSampleId :
968-MW-06(17)

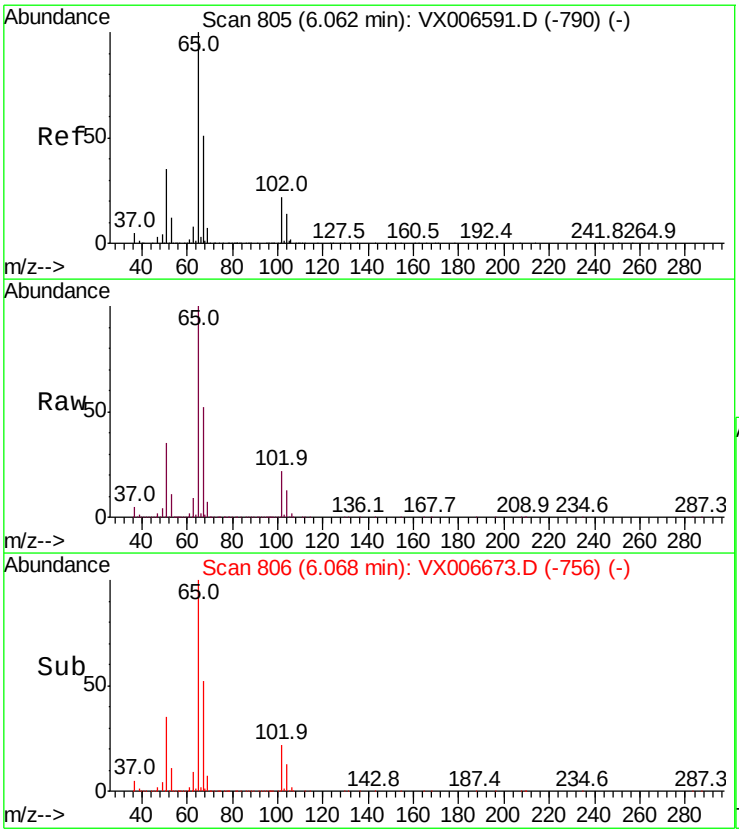


#1
Pentafluorobenzene
Concen: 50.000 ug/l
RT: 5.67 min Scan# 740
Delta R.T. 0.01 min
Lab File: VX006673.D
Acq: 20 Dec 2018 14:01

Tgt Ion:168 Resp: 624286

Ion	Ratio	Lower	Upper
168	100		
99	52.9	41.8	62.8

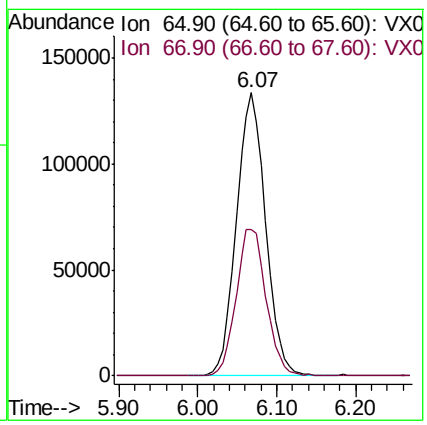




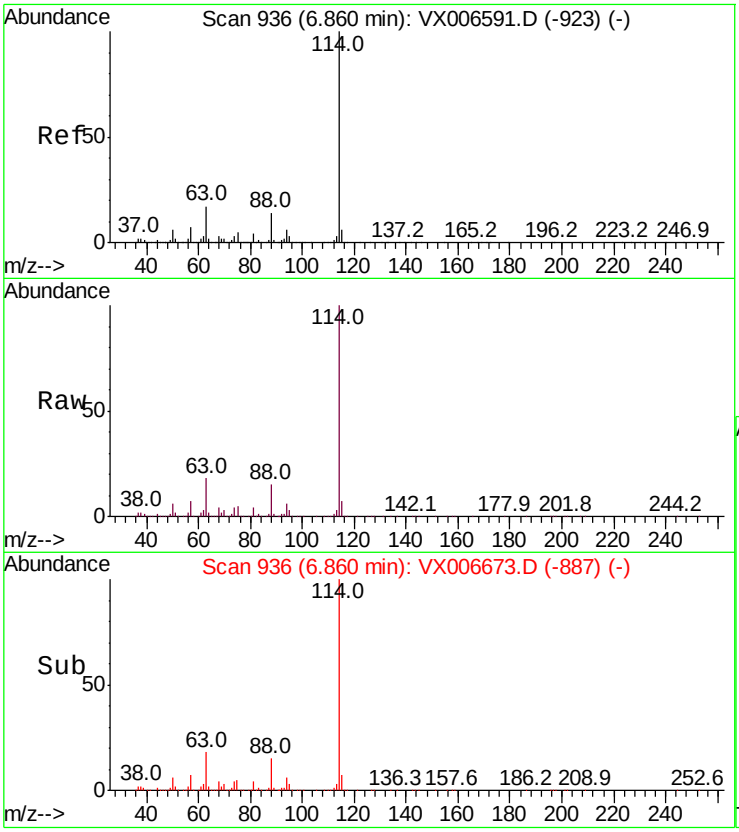
#33
1,2-Dichloroethane-d4
Concen: 50.859 ug/l
RT: 6.07 min Scan# 806
Delta R.T. 0.01 min
Lab File: VX006673.D
Acq: 20 Dec 2018 14:01

Tgt Ion: 65 Resp: 342191

Ion	Ratio	Lower	Upper
65	100		
67	53.8	0.0	105.0



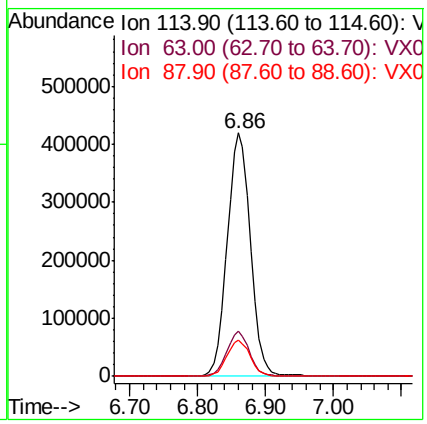
Instrument :
MSVOA_X
ClientSampleId :
968-MW-06(17)

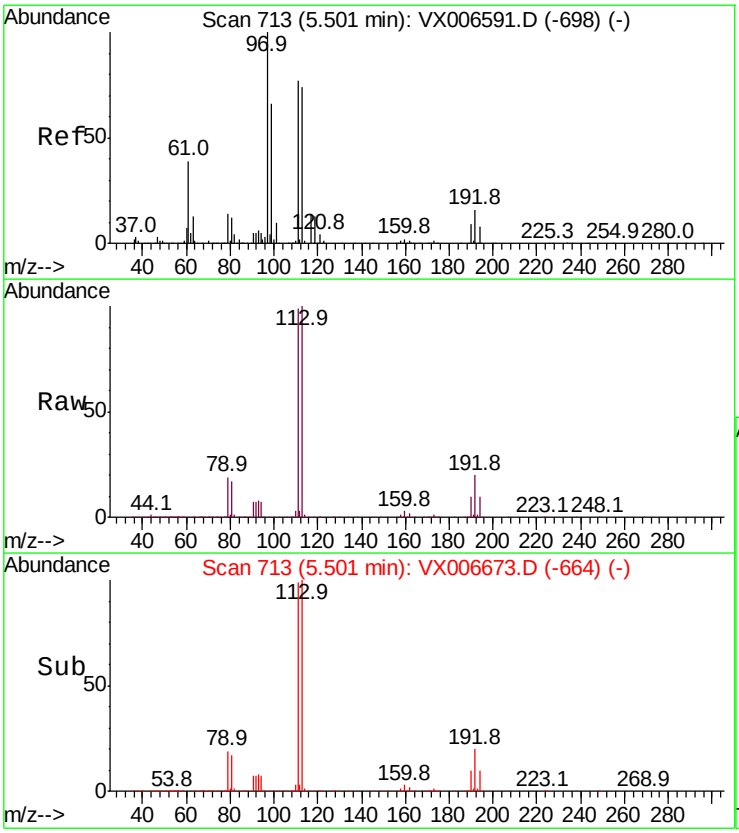


#34
1,4-Difluorobenzene
Concen: 50.000 ug/l
RT: 6.86 min Scan# 936
Delta R.T. 0.00 min
Lab File: VX006673.D
Acq: 20 Dec 2018 14:01

Tgt Ion:114 Resp: 991940

Ion	Ratio	Lower	Upper
114	100		
63	18.3	0.0	34.8
88	14.7	0.0	28.8

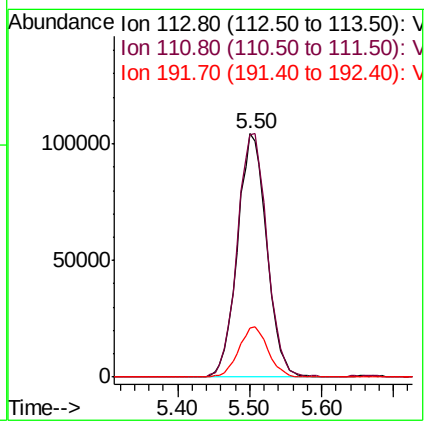




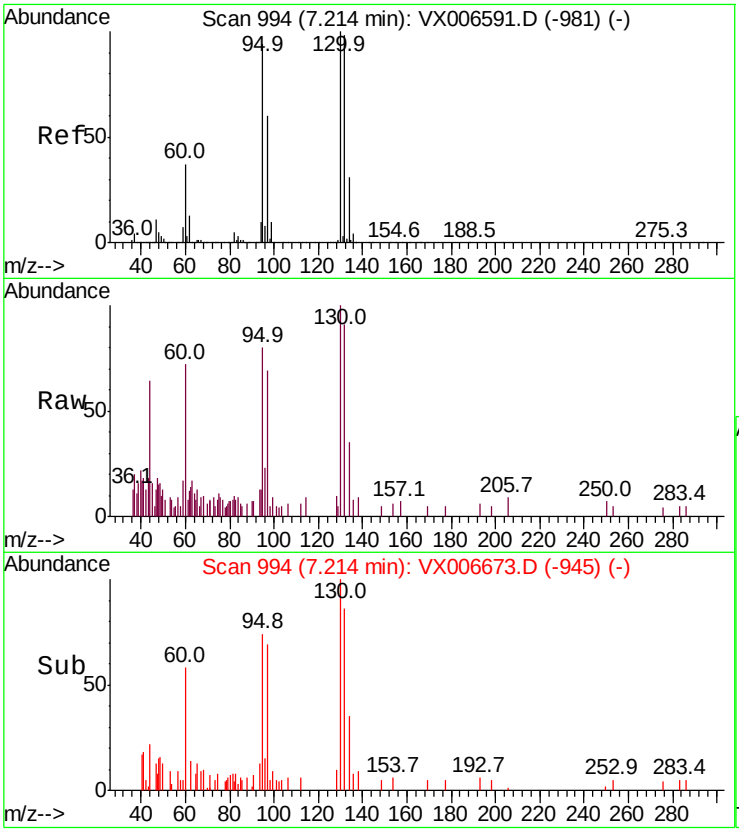
#35
Dibromofluoromethane
Concen: 46.690 ug/l
RT: 5.50 min Scan# 713
Delta R.T. 0.00 min
Lab File: VX006673.D
Acq: 20 Dec 2018 14:01

Tgt Ion:113 Resp: 292876

Ion	Ratio	Lower	Upper
113	100		
111	102.6	81.6	122.4
192	20.6	16.7	25.1



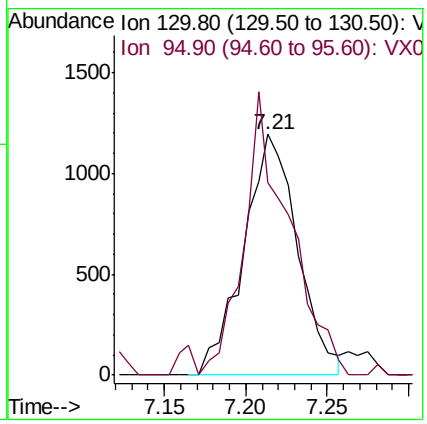
Instrument :
MSVOA_X
ClientSampleId :
968-MW-06(17)

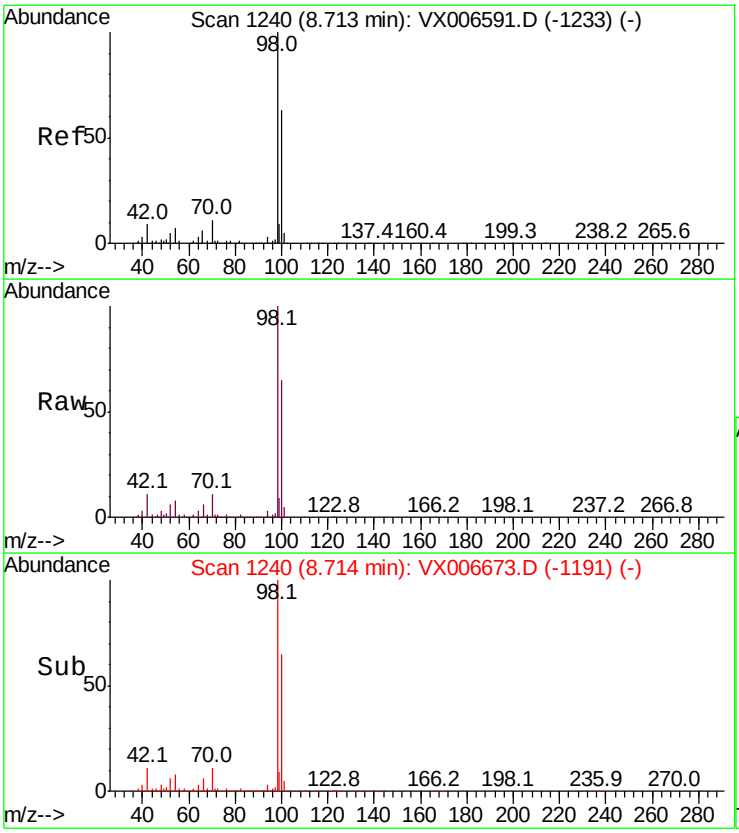


#44
Trichloroethene
Concen: 0.363 ug/l
RT: 7.21 min Scan# 994
Delta R.T. 0.00 min
Lab File: VX006673.D
Acq: 20 Dec 2018 14:01

Tgt Ion:130 Resp: 2745

Ion	Ratio	Lower	Upper
130	100		
95	73.0	0.0	187.0

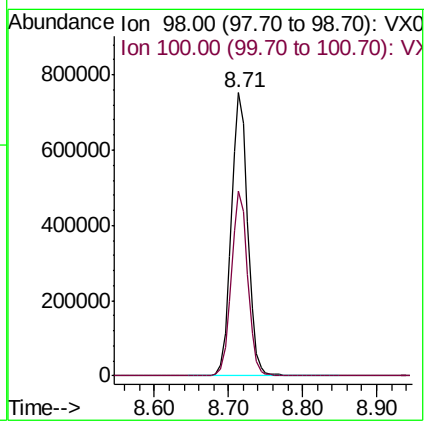




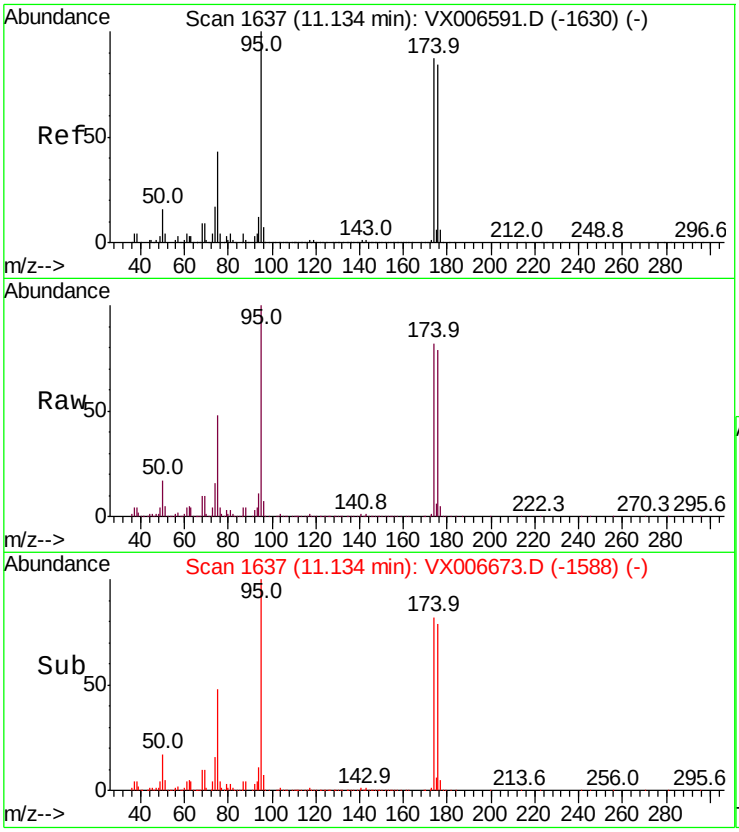
#50
Toluene-d8
Concen: 49.429 ug/l
RT: 8.71 min Scan# 1240
Delta R.T. 0.00 min
Lab File: VX006673.D
Acq: 20 Dec 2018 14:01

Tgt Ion: 98 Resp: 1168930

Ion	Ratio	Lower	Upper
98	100		
100	64.8	52.0	78.0



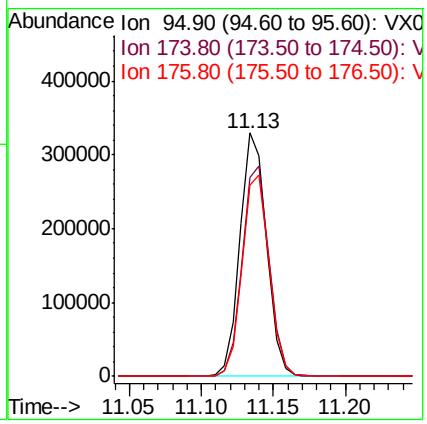
Instrument :
MSVOA_X
ClientSampleId :
968-MW-06(17)

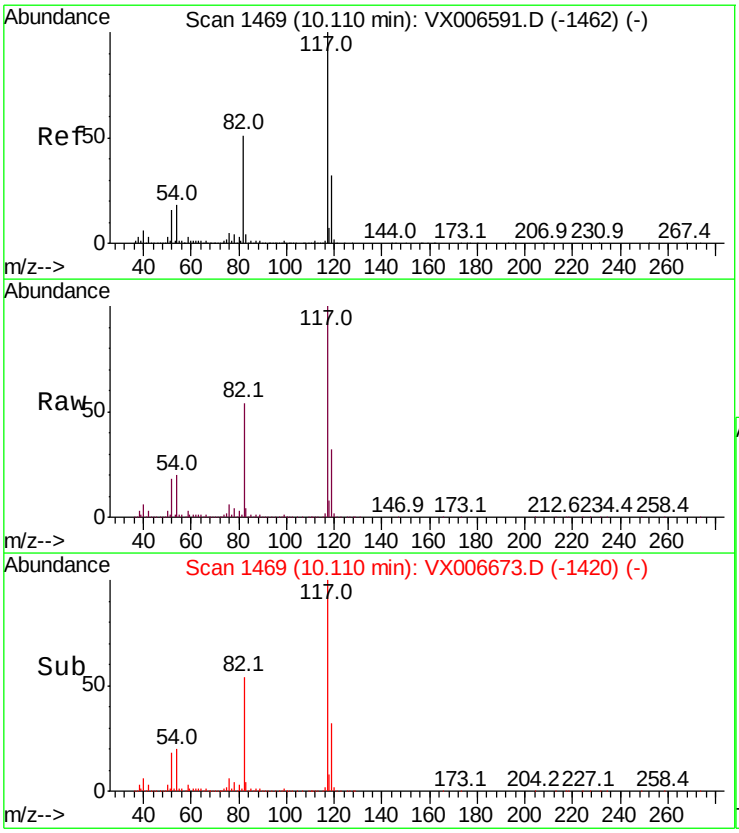


#62
4-Bromofluorobenzene
Concen: 48.759 ug/l
RT: 11.13 min Scan# 1637
Delta R.T. 0.00 min
Lab File: VX006673.D
Acq: 20 Dec 2018 14:01

Tgt Ion: 95 Resp: 422314

Ion	Ratio	Lower	Upper
95	100		
174	87.4	0.0	182.2
176	83.7	0.0	178.8

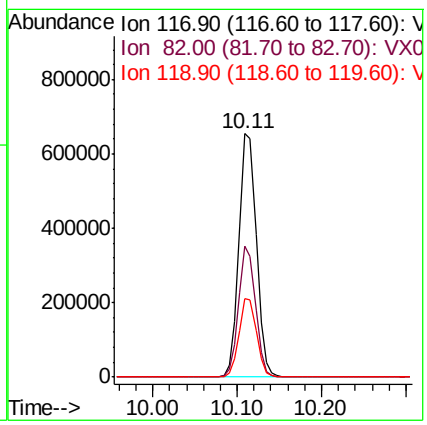




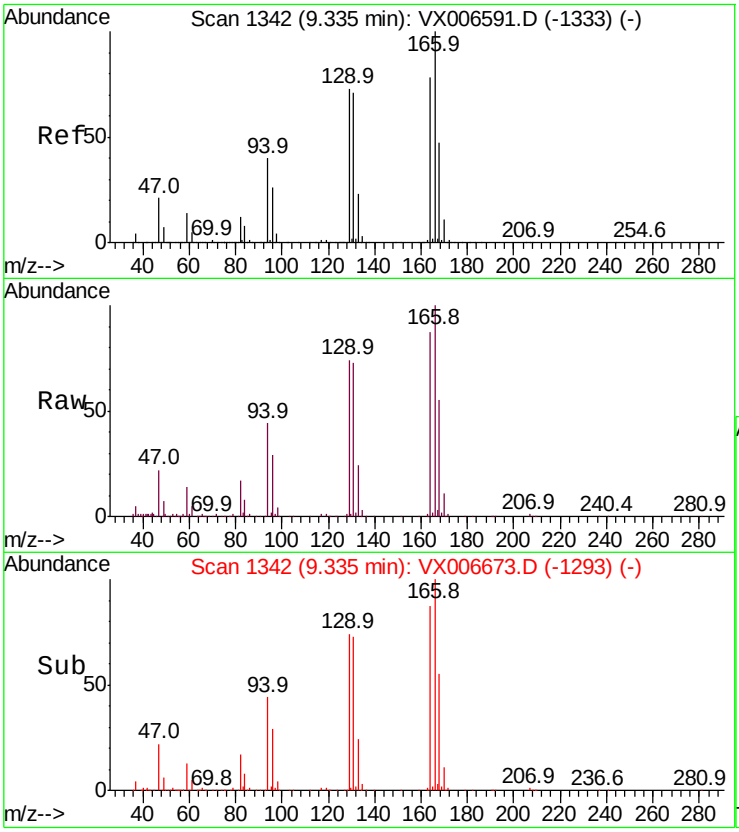
#63
Chlorobenzene-d5
Concen: 50.000 ug/l
RT: 10.11 min Scan# 1469
Delta R.T. 0.00 min
Lab File: VX006673.D
Acq: 20 Dec 2018 14:01

Tgt Ion:117 Resp: 908114

Ion	Ratio	Lower	Upper
117	100		
82	54.0	41.0	61.6
119	32.2	25.4	38.0



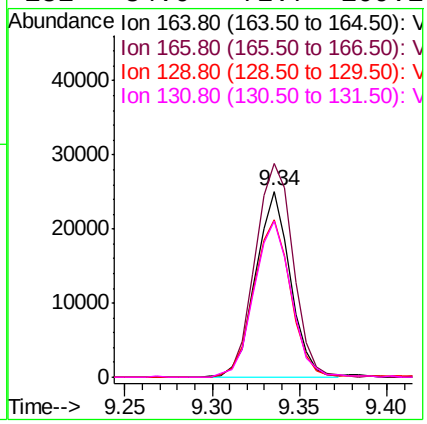
Instrument :
MSVOA_X
ClientSampleId :
968-MW-06(17)

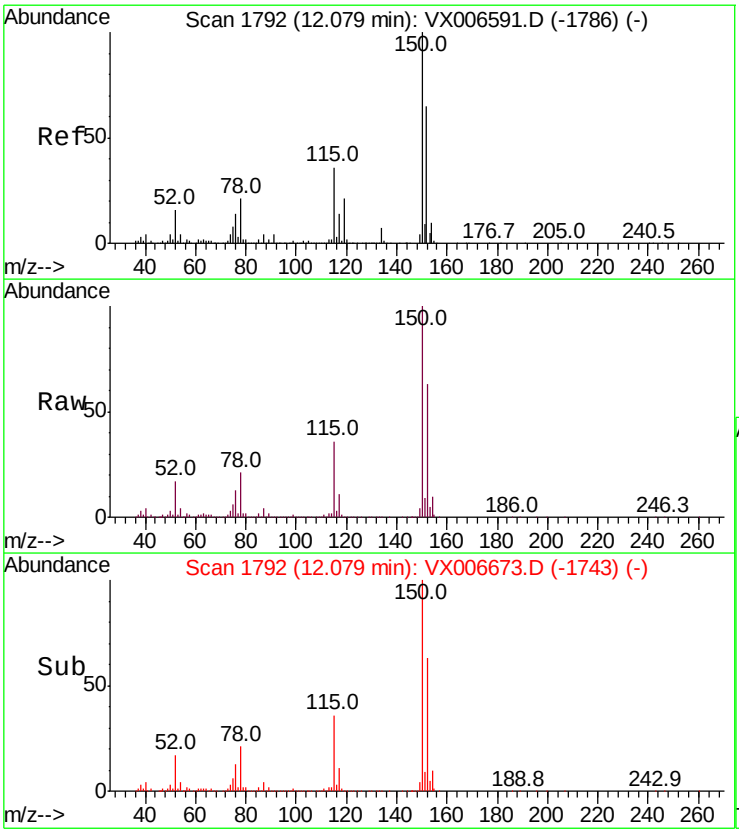


#64
Tetrachloroethene
Concen: 4.816 ug/l
RT: 9.34 min Scan# 1342
Delta R.T. 0.00 min
Lab File: VX006673.D
Acq: 20 Dec 2018 14:01

Tgt Ion:164 Resp: 34634

Ion	Ratio	Lower	Upper
164	100		
166	114.8	102.5	153.7
129	84.9	75.1	112.7
131	84.0	72.7	109.1

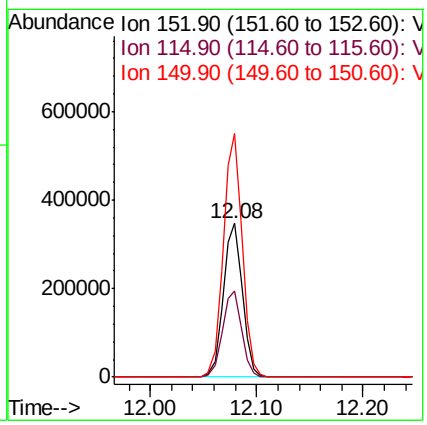




#72
1,4-Dichlorobenzene-d4
Concen: 50.000 ug/l
RT: 12.08 min Scan# 1792
Delta R.T. 0.00 min
Lab File: VX006673.D
Acq: 20 Dec 2018 14:01

Tgt Ion:152 Resp: 434080

Ion	Ratio	Lower	Upper
152	100		
115	56.5	39.1	117.2
150	156.8	0.0	344.8



LSC Area Percent Report

Data Path : Z:\VOASRV\HPCHEM1\MSVOA X\DATA\VX122018\
Data File : VX006673.D
Acq On : 20 Dec 2018 14:01
Operator : JC/MD
Sample : J6484-08
Misc : 5.0mL/MSVOA X/WATER
ALS Vial : 13 Sample Multiplier: 1

Instrument : MSVOA_X
ClientSampleId : 968-MW-06(17)

Integration Parameters: RTEINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 3 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121818W.M
Title : SW846 8260

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	1.276	16	20	27	rBV	45632	68702	2.31%	0.419%
2	1.623	63	77	86	rBV4	47660	158544	5.32%	0.967%
3	5.501	701	713	726	rBV	338979	972297	32.62%	5.931%
4	5.665	726	740	753	rVV	609941	1718744	57.67%	10.485%
5	6.068	794	806	821	rBV	365626	968826	32.51%	5.910%
6	6.860	923	936	953	rBV	907639	2142511	71.89%	13.070%
7	8.714	1231	1240	1256	rBV	1914002	2980308	100.00%	18.181%
8	9.335	1335	1342	1348	rBV	173595	254164	8.53%	1.550%
9	10.110	1462	1469	1482	rBV	1904927	2595533	87.09%	15.833%
10	11.134	1632	1637	1646	rBV	1562514	2028050	68.05%	12.372%
11	12.079	1786	1792	1799	rBV	1967547	2505189	84.06%	15.282%

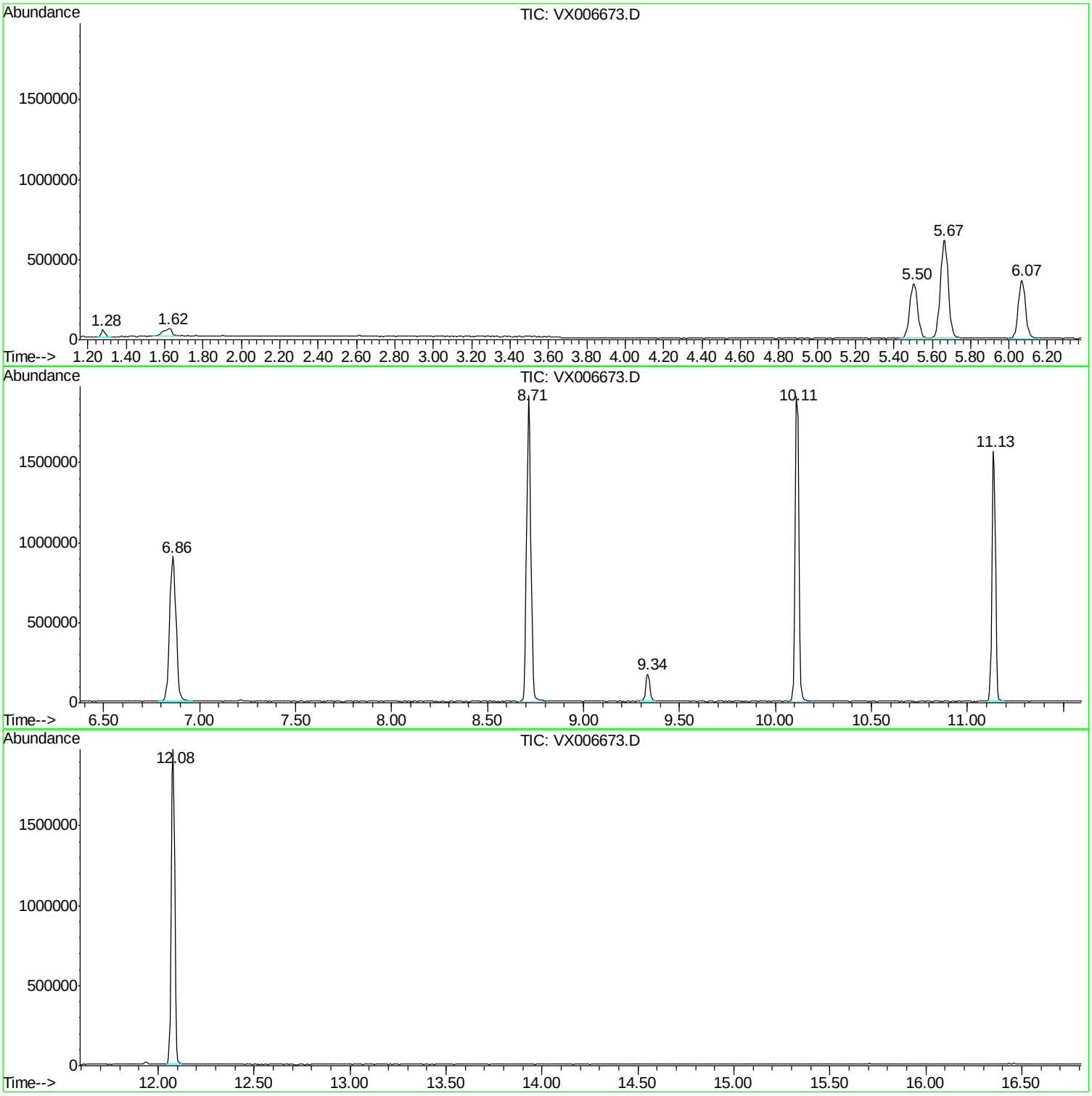
Sum of corrected areas: 16392868

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX122018\
Data File : VX006673.D
Acq On : 20 Dec 2018 14:01
Operator : JC/MD
Sample : J6484-08
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 13 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
968-MW-06(17)

Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121818W.M
Quant Title : SW846 8260

TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P



Library Search Compound Report

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX122018\
Data File : VX006673.D
Acq On : 20 Dec 2018 14:01
Operator : JC/MD
Sample : J6484-08
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 13 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
968-MW-06(17)

Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121818W.M
Quant Title : SW846 8260

TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

No Library Search Compounds Detected

****

Tentatively Identified Compound (LSC) summary

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX122018\
Data File : VX006673.D
Acq On : 20 Dec 2018 14:01
Operator : JC/MD
Sample : J6484-08
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 13 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
968-MW-06(17)

Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121818W.M
Quant Title : SW846 8260

TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

TIC Top Hit name	RT	EstConc	Units	Response	Internal Standard #	Internal Standard RT	Internal Standard Resp	Internal Standard Conc

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Day Environmental, Inc.	Date Collected:	12/18/18
Project:	Andrew St. RI	Date Received:	12/19/18
Client Sample ID:	969-MW-07(22.5)	SDG No.:	J6484
Lab Sample ID:	J6484-09	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	DB-624UI ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX006675.D	1		12/20/18 14:54	VX122018

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
75-71-8	Dichlorodifluoromethane	1	U	0.2	0.2	1	ug/L
74-87-3	Chloromethane	1	U	0.2	0.2	1	ug/L
75-01-4	Vinyl Chloride	1	U	0.2	0.2	1	ug/L
74-83-9	Bromomethane	1	U	0.2	0.2	1	ug/L
75-00-3	Chloroethane	1	U	0.2	0.5	1	ug/L
75-69-4	Trichlorofluoromethane	1	U	0.2	0.2	1	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	1	U	0.2	0.2	1	ug/L
75-35-4	1,1-Dichloroethene	1	U	0.2	0.2	1	ug/L
67-64-1	Acetone	3.7	J	0.5	1	5	ug/L
75-15-0	Carbon Disulfide	1	U	0.2	0.2	1	ug/L
1634-04-4	Methyl tert-butyl Ether	1	U	0.35	0.5	1	ug/L
79-20-9	Methyl Acetate	1	U	0.2	0.5	1	ug/L
75-09-2	Methylene Chloride	1	U	0.2	0.2	1	ug/L
156-60-5	trans-1,2-Dichloroethene	1	U	0.2	0.2	1	ug/L
75-34-3	1,1-Dichloroethane	1	U	0.2	0.2	1	ug/L
110-82-7	Cyclohexane	1	U	0.2	0.2	1	ug/L
78-93-3	2-Butanone	5	U	1.3	2.5	5	ug/L
56-23-5	Carbon Tetrachloride	1	U	0.2	0.2	1	ug/L
156-59-2	cis-1,2-Dichloroethene	1	U	0.2	0.2	1	ug/L
74-97-5	Bromochloromethane	1	U	0.2	0.5	1	ug/L
67-66-3	Chloroform	1	U	0.2	0.2	1	ug/L
71-55-6	1,1,1-Trichloroethane	1	U	0.2	0.2	1	ug/L
108-87-2	Methylcyclohexane	1	U	0.2	0.2	1	ug/L
71-43-2	Benzene	1	U	0.2	0.2	1	ug/L
107-06-2	1,2-Dichloroethane	1	U	0.2	0.2	1	ug/L
79-01-6	Trichloroethene	1	U	0.2	0.2	1	ug/L
78-87-5	1,2-Dichloropropane	1	U	0.2	0.2	1	ug/L
75-27-4	Bromodichloromethane	1	U	0.2	0.2	1	ug/L
108-10-1	4-Methyl-2-Pentanone	5	U	1	1	5	ug/L
108-88-3	Toluene	1	U	0.2	0.2	1	ug/L
10061-02-6	t-1,3-Dichloropropene	1	U	0.2	0.2	1	ug/L
10061-01-5	cis-1,3-Dichloropropene	1	U	0.2	0.2	1	ug/L

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Day Environmental, Inc.	Date Collected:	12/18/18
Project:	Andrew St. RI	Date Received:	12/19/18
Client Sample ID:	969-MW-07(22.5)	SDG No.:	J6484
Lab Sample ID:	J6484-09	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	DB-624UI ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX006675.D	1		12/20/18 14:54	VX122018

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
79-00-5	1,1,2-Trichloroethane	1	U	0.2	0.2	1	ug/L
591-78-6	2-Hexanone	5	U	1.9	2.5	5	ug/L
124-48-1	Dibromochloromethane	1	U	0.2	0.2	1	ug/L
106-93-4	1,2-Dibromoethane	1	U	0.2	0.2	1	ug/L
127-18-4	Tetrachloroethene	3		0.2	0.2	1	ug/L
108-90-7	Chlorobenzene	1	U	0.2	0.2	1	ug/L
100-41-4	Ethyl Benzene	1	U	0.2	0.2	1	ug/L
179601-23-1	m/p-Xylenes	2	U	0.4	0.4	2	ug/L
95-47-6	o-Xylene	1	U	0.2	0.2	1	ug/L
100-42-5	Styrene	1	U	0.2	0.2	1	ug/L
75-25-2	Bromoform	1	U	0.2	0.2	1	ug/L
98-82-8	Isopropylbenzene	1	U	0.2	0.2	1	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	1	U	0.2	0.2	1	ug/L
541-73-1	1,3-Dichlorobenzene	1	U	0.2	0.2	1	ug/L
106-46-7	1,4-Dichlorobenzene	1	U	0.2	0.2	1	ug/L
95-50-1	1,2-Dichlorobenzene	1	U	0.2	0.2	1	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	1	U	0.2	0.2	1	ug/L
120-82-1	1,2,4-Trichlorobenzene	1	U	0.2	0.2	1	ug/L
87-61-6	1,2,3-Trichlorobenzene	1	U	0.2	0.2	1	ug/L
SURROGATES							
17060-07-0	1,2-Dichloroethane-d4	51		61 - 141		102%	SPK: 50
1868-53-7	Dibromofluoromethane	47.5		69 - 133		95%	SPK: 50
2037-26-5	Toluene-d8	50		65 - 126		100%	SPK: 50
460-00-4	4-Bromofluorobenzene	49.7		58 - 135		99%	SPK: 50
INTERNAL STANDARDS							
363-72-4	Pentafluorobenzene	624324	5.67				
540-36-3	1,4-Difluorobenzene	983077	6.86				
3114-55-4	Chlorobenzene-d5	907225	10.11				
3855-82-1	1,4-Dichlorobenzene-d4	434679	12.08				

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Day Environmental, Inc.	Date Collected:	12/18/18
Project:	Andrew St. RI	Date Received:	12/19/18
Client Sample ID:	969-MW-07(22.5)	SDG No.:	J6484
Lab Sample ID:	J6484-09	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	DB-624UI ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX006675.D	1		12/20/18 14:54	VX122018

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit
A = Aldol-Condensation Reaction Products

Quantitation Report (QT Reviewed)

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX122018\
Data File : VX006675.D
Acq On : 20 Dec 2018 14:54
Operator : JC/MD
Sample : J6484-09
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 15 Sample Multiplier: 1

Instrument : MSVOA_X
ClientSampleId : 969-MW-07(22.5)

Quant Time: Dec 21 04:12:19 2018
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121818W.M
Quant Title : SW846 8260
QLast Update : Wed Dec 19 15:20:58 2018
Response via : Initial Calibration

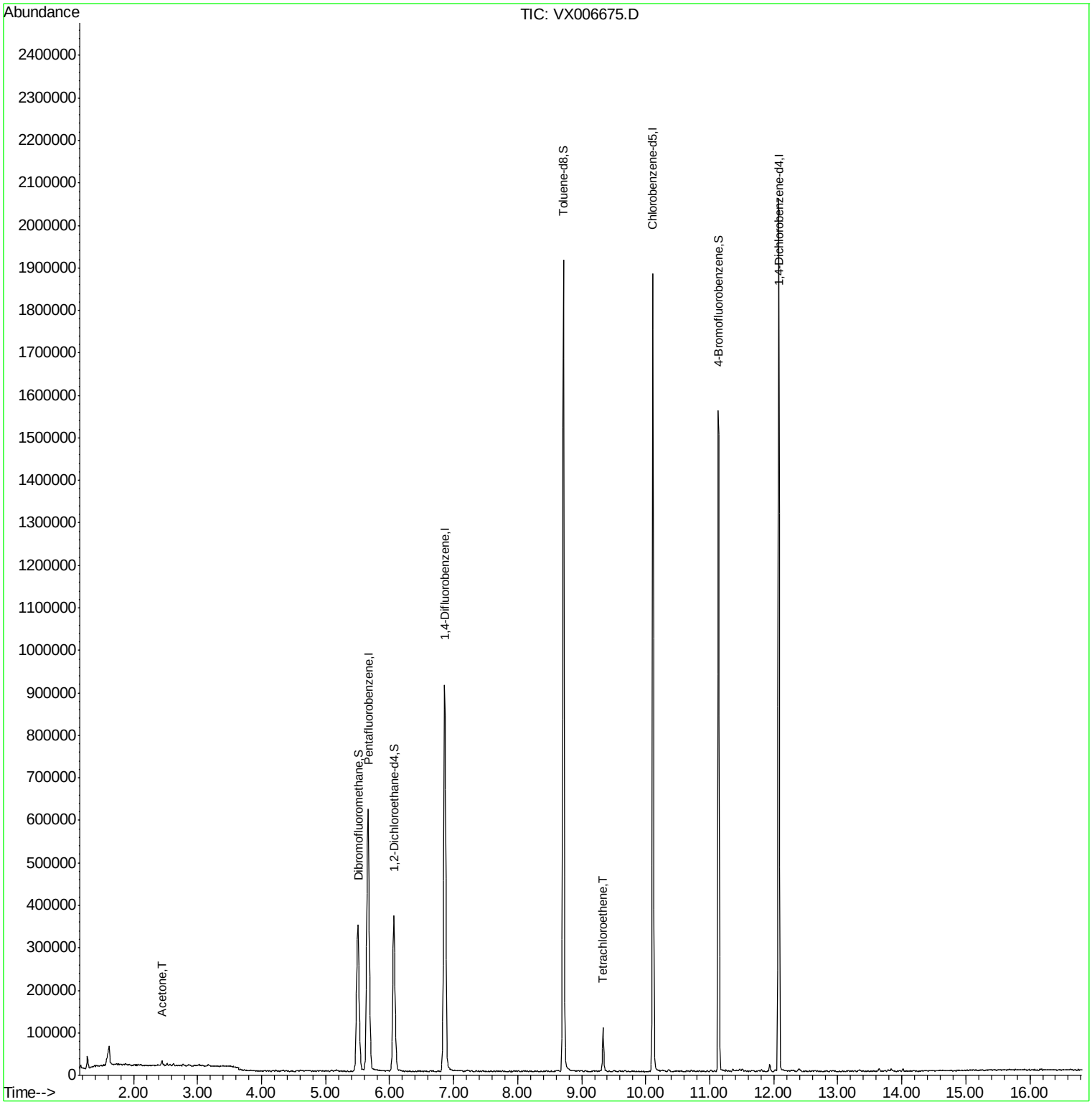
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	5.67	168	624324	50.00	ug/l	0.00
34) 1,4-Difluorobenzene	6.86	114	983077	50.00	ug/l	0.00
63) Chlorobenzene-d5	10.11	117	907225	50.00	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	12.08	152	434679	50.00	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	6.06	65	342864	50.96	ug/l	0.00
Spiked Amount 50.000			Recovery = 101.92%			
35) Dibromofluoromethane	5.51	113	295230	47.49	ug/l	0.00
Spiked Amount 50.000			Recovery = 94.98%			
50) Toluene-d8	8.71	98	1172428	50.02	ug/l	0.00
Spiked Amount 50.000			Recovery = 100.04%			
62) 4-Bromofluorobenzene	11.13	95	426391	49.67	ug/l	0.00
Spiked Amount 50.000			Recovery = 99.34%			
Target Compounds						Qvalue
16) Acetone	2.44	43	11296	3.654	ug/l	90
64) Tetrachloroethene	9.34	164	21595	3.006	ug/l	97

(#) = qualifier out of range (m) = manual integration (+) = signals summed

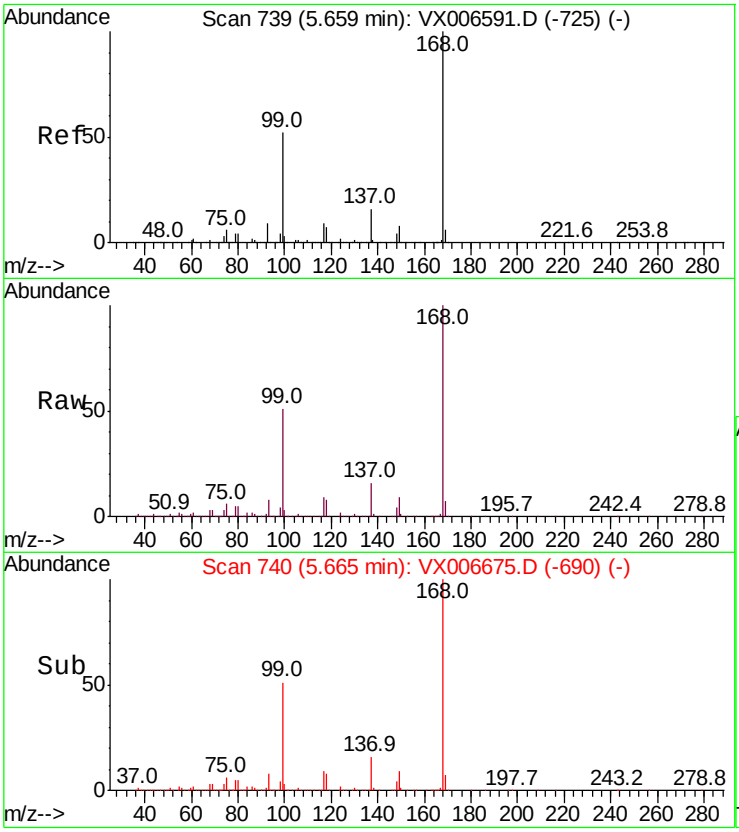
Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX122018\
Data File : VX006675.D
Acq On : 20 Dec 2018 14:54
Operator : JC/MD
Sample : J6484-09
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 15 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
969-MW-07(22.5)

Quant Time: Dec 21 04:12:19 2018
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121818W.M
Quant Title : SW846 8260
QLast Update : Wed Dec 19 15:20:58 2018
Response via : Initial Calibration



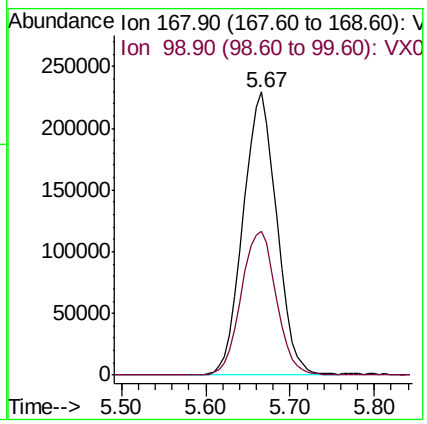
Instrument :
MSVOA_X
ClientSampleId :
969-MW-07(22.5)

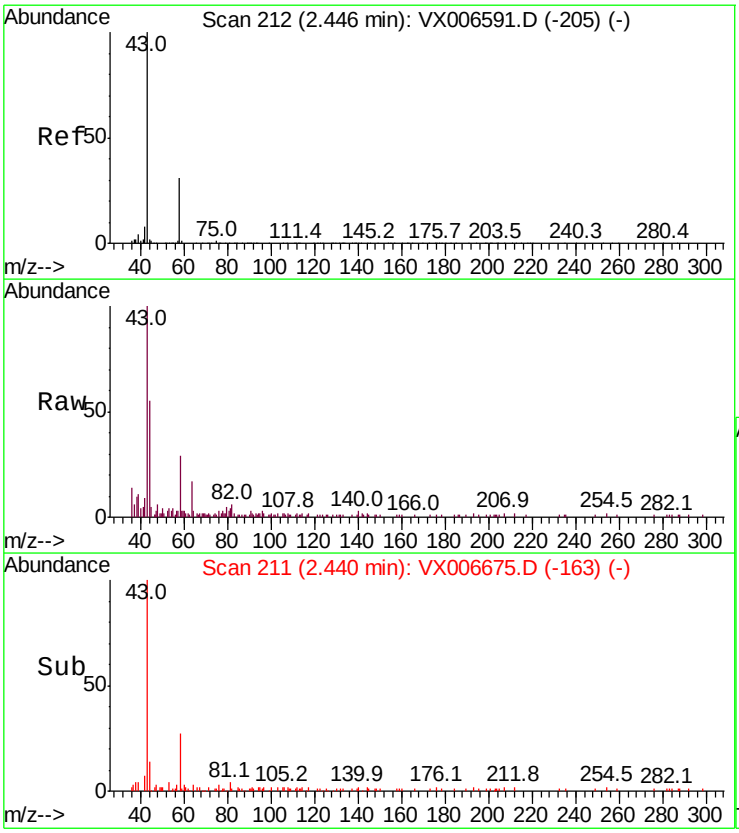


#1
Pentafluorobenzene
Concen: 50.000 ug/l
RT: 5.67 min Scan# 740
Delta R.T. 0.01 min
Lab File: VX006675.D
Acq: 20 Dec 2018 14:54

Tgt Ion:168 Resp: 624324

Ion	Ratio	Lower	Upper
168	100		
99	50.8	41.8	62.8

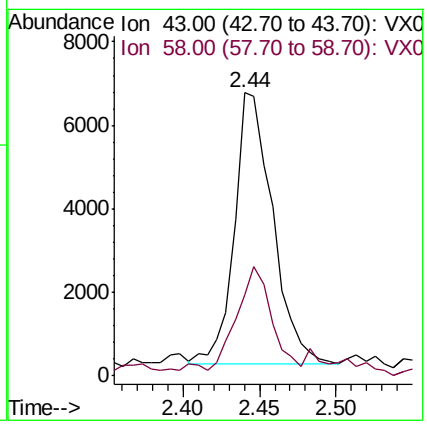




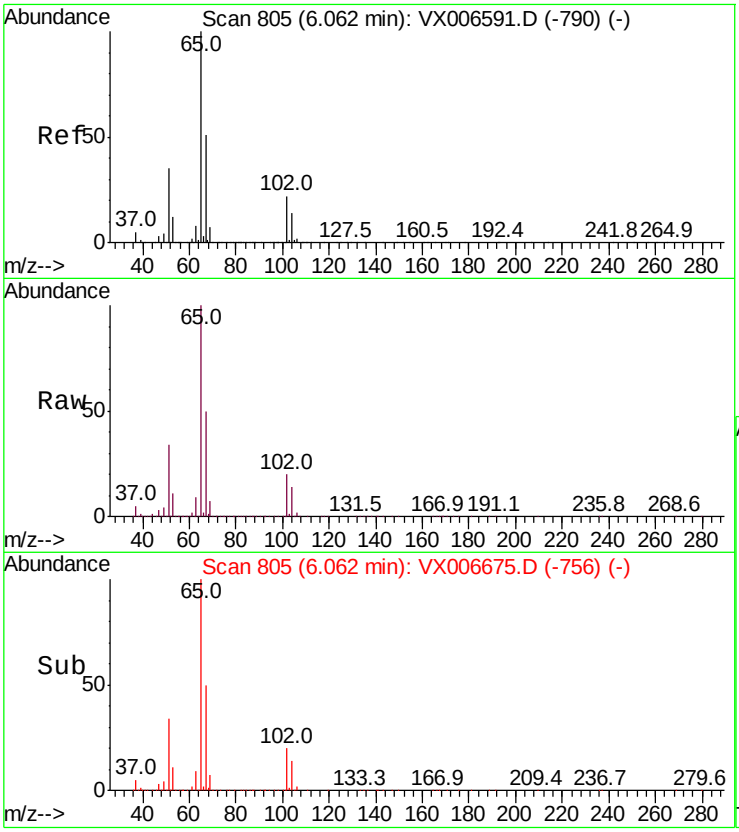
#16
Acetone
Concen: 3.654 ug/l
RT: 2.44 min Scan# 211
Delta R.T. -0.01 min
Lab File: VX006675.D
Acq: 20 Dec 2018 14:54

Tgt Ion: 43 Resp: 11296

Ion	Ratio	Lower	Upper
43	100		
58	25.9	25.0	37.6



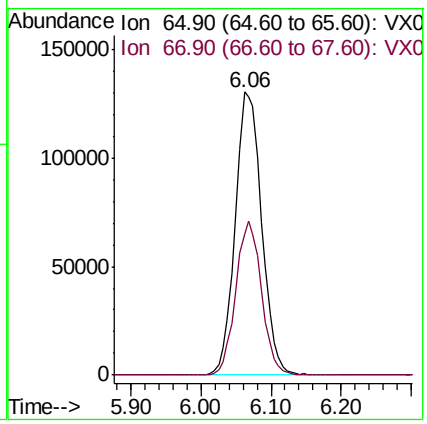
Instrument :
MSVOA_X
ClientSampleId :
969-MW-07(22.5)

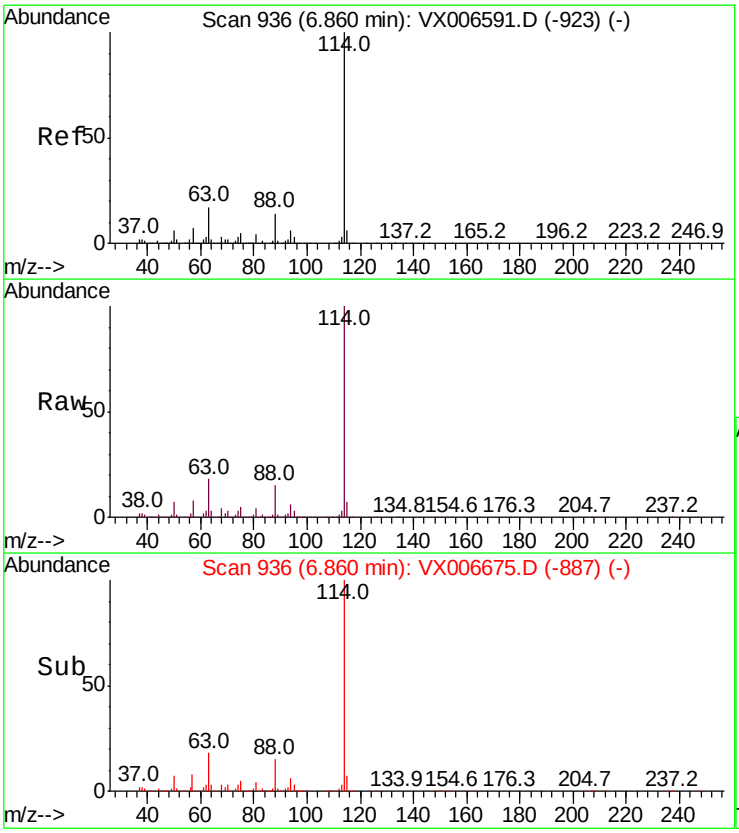


#33
1,2-Dichloroethane-d4
Concen: 50.956 ug/l
RT: 6.06 min Scan# 805
Delta R.T. 0.00 min
Lab File: VX006675.D
Acq: 20 Dec 2018 14:54

Tgt Ion: 65 Resp: 342864

Ion	Ratio	Lower	Upper
65	100		
67	53.0	0.0	105.0

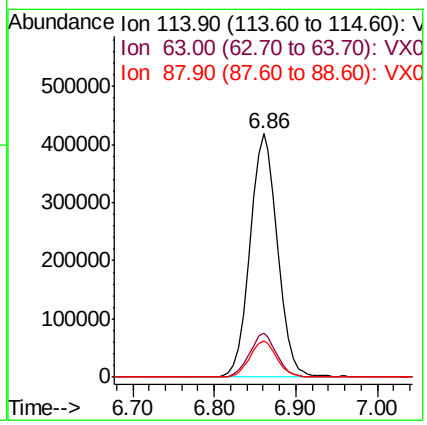




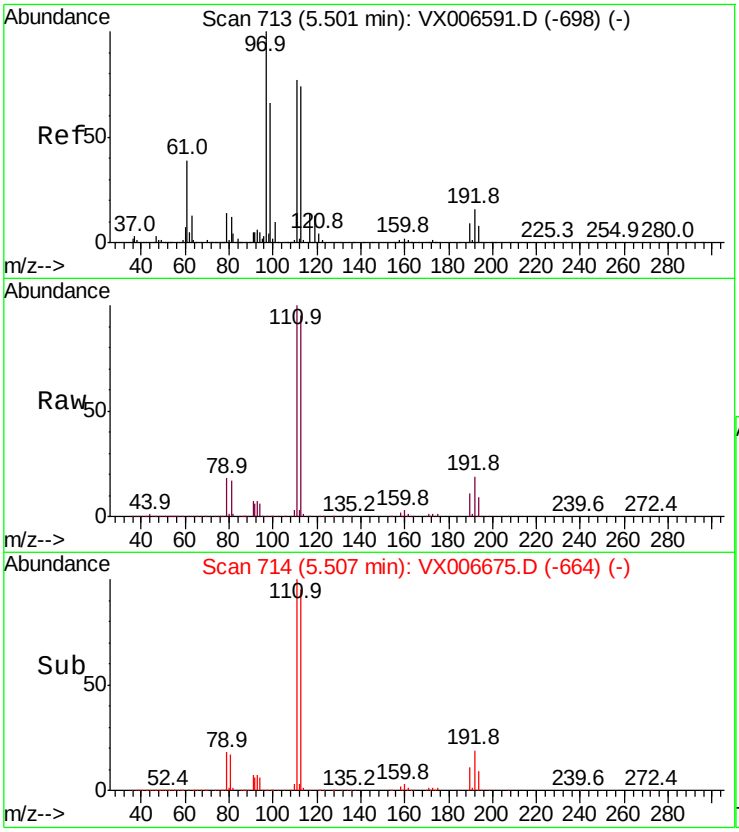
#34
1,4-Difluorobenzene
Concen: 50.000 ug/l
RT: 6.86 min Scan# 936
Delta R.T. 0.00 min
Lab File: VX006675.D
Acq: 20 Dec 2018 14:54

Tgt Ion:114 Resp: 983077

Ion	Ratio	Lower	Upper
114	100		
63	17.8	0.0	34.8
88	14.7	0.0	28.8



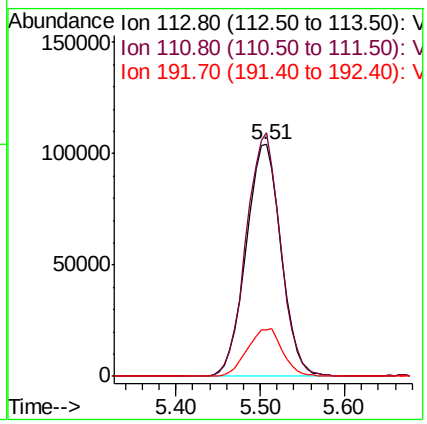
Instrument :
MSVOA_X
ClientSampleId :
969-MW-07(22.5)

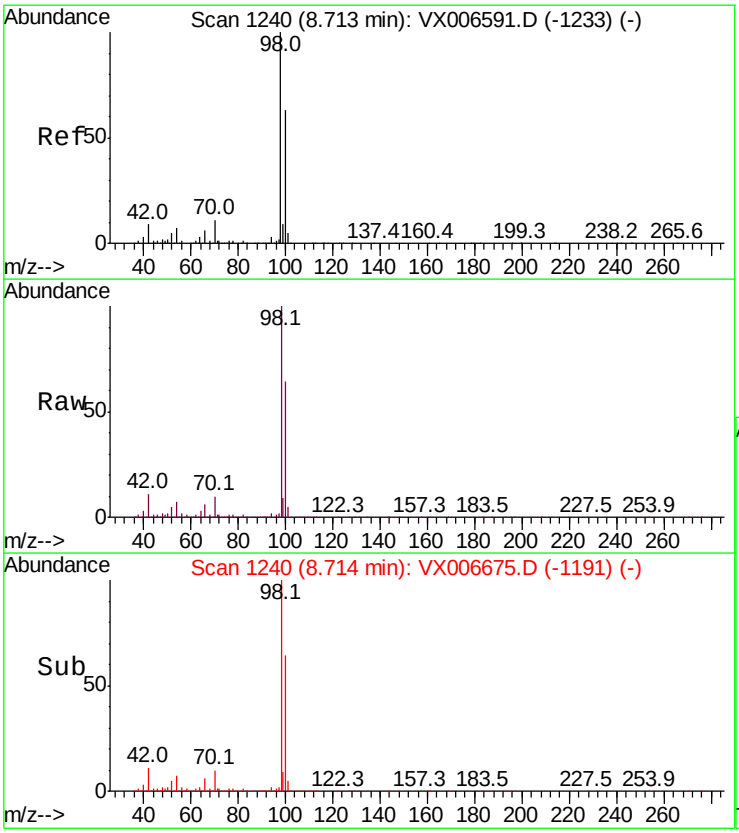


#35
Dibromofluoromethane
Concen: 47.489 ug/l
RT: 5.51 min Scan# 714
Delta R.T. 0.01 min
Lab File: VX006675.D
Acq: 20 Dec 2018 14:54

Tgt Ion:113 Resp: 295230

Ion	Ratio	Lower	Upper
113	100		
111	102.5	81.6	122.4
192	20.7	16.7	25.1

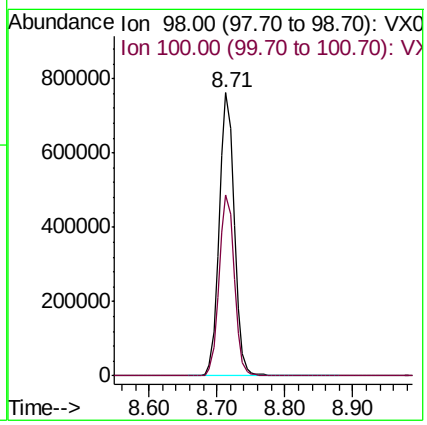




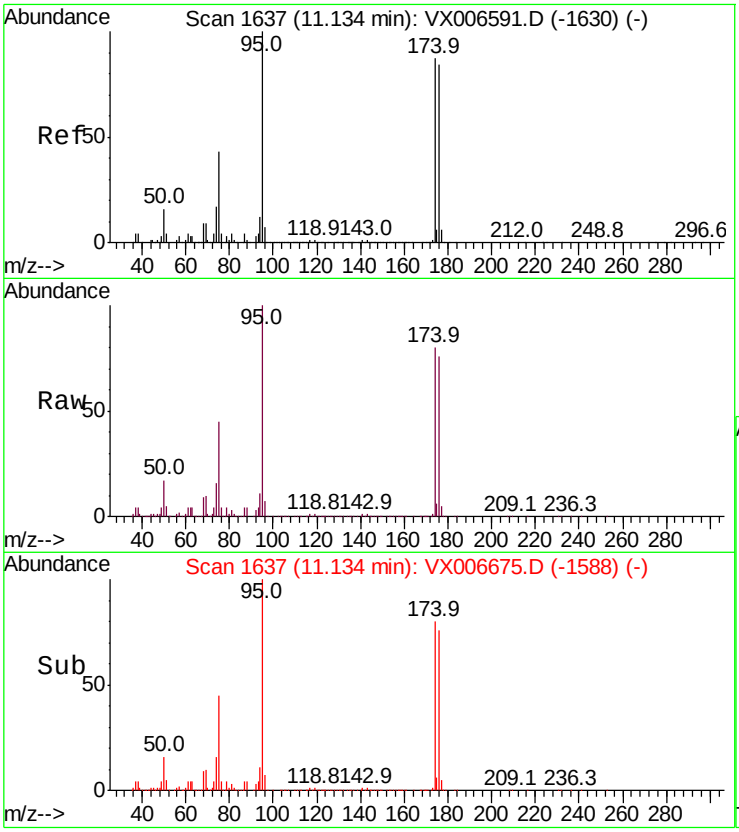
#50
Toluene-d8
Concen: 50.024 ug/l
RT: 8.71 min Scan# 1240
Delta R.T. 0.00 min
Lab File: VX006675.D
Acq: 20 Dec 2018 14:54

Tgt Ion: 98 Resp: 1172428

Ion	Ratio	Lower	Upper
98	100		
100	64.4	52.0	78.0



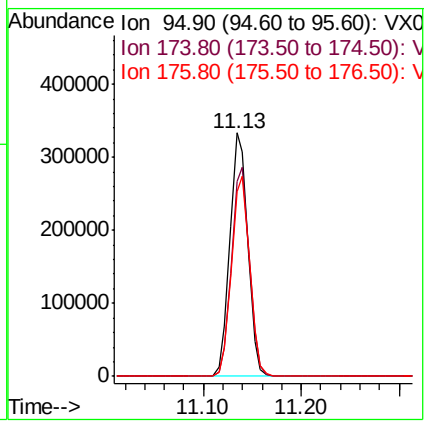
Instrument :
MSVOA_X
ClientSampleId :
969-MW-07(22.5)

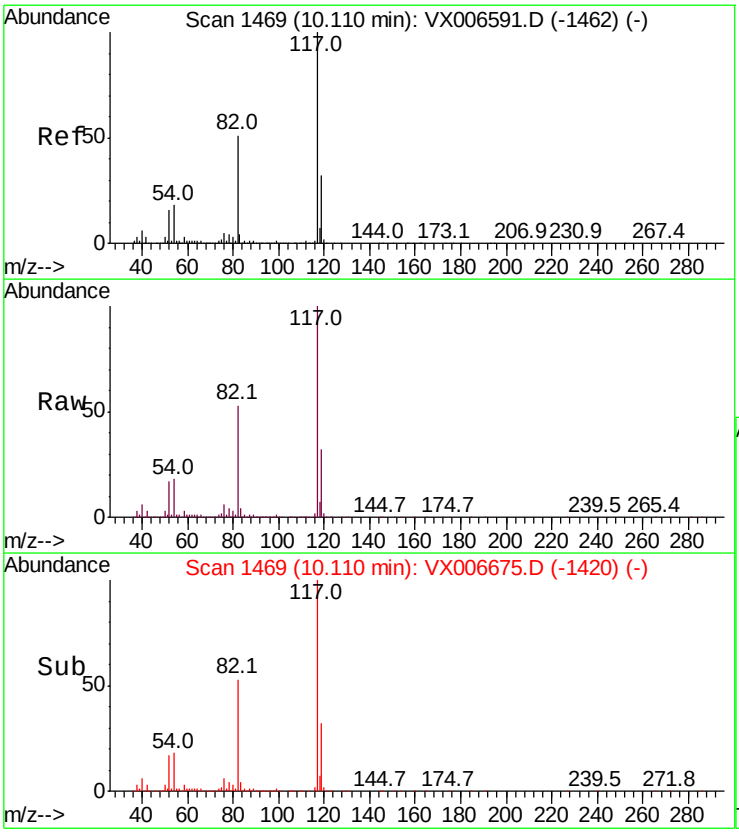


#62
4-Bromofluorobenzene
Concen: 49.674 ug/l
RT: 11.13 min Scan# 1637
Delta R.T. 0.00 min
Lab File: VX006675.D
Acq: 20 Dec 2018 14:54

Tgt Ion: 95 Resp: 426391

Ion	Ratio	Lower	Upper
95	100		
174	85.8	0.0	182.2
176	83.2	0.0	178.8

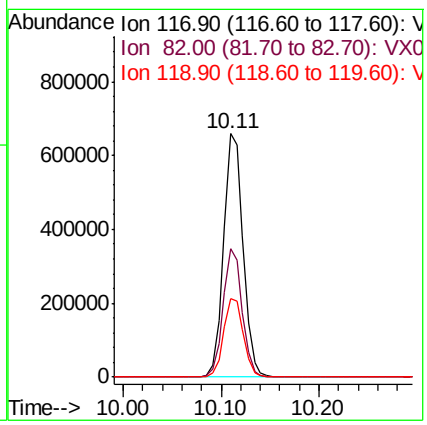




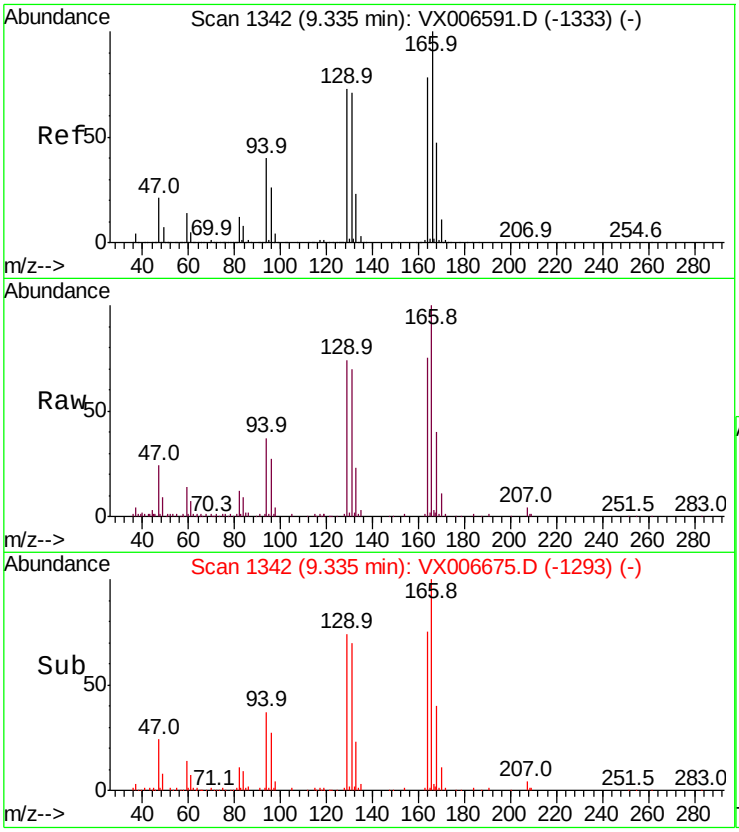
#63
Chlorobenzene-d5
Concen: 50.000 ug/l
RT: 10.11 min Scan# 1469
Delta R.T. 0.00 min
Lab File: VX006675.D
Acq: 20 Dec 2018 14:54

Tgt Ion:117 Resp: 907225

Ion	Ratio	Lower	Upper
117	100		
82	52.7	41.0	61.6
119	32.1	25.4	38.0



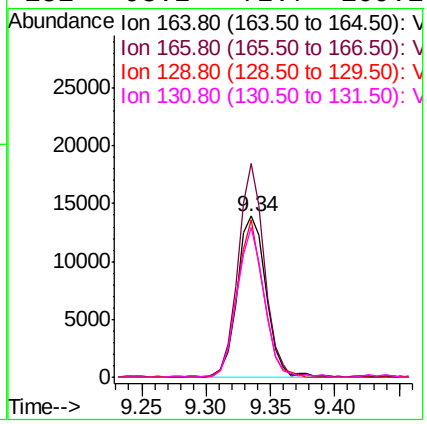
Instrument :
MSVOA_X
ClientSampleId :
969-MW-07(22.5)

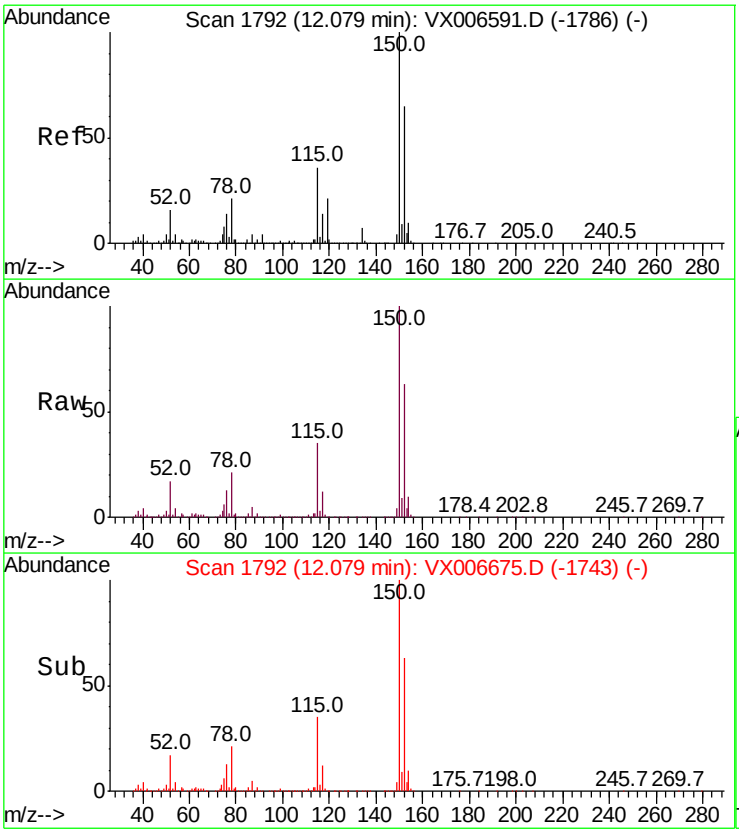


#64
Tetrachloroethene
Concen: 3.006 ug/l
RT: 9.34 min Scan# 1342
Delta R.T. 0.00 min
Lab File: VX006675.D
Acq: 20 Dec 2018 14:54

Tgt Ion:164 Resp: 21595

Ion	Ratio	Lower	Upper
164	100		
166	132.4	102.5	153.7
129	97.7	75.1	112.7
131	93.2	72.7	109.1

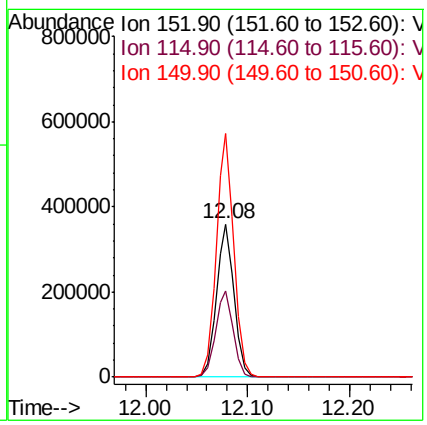




#72
1,4-Dichlorobenzene-d4
Concen: 50.000 ug/l
RT: 12.08 min Scan# 1792
Delta R.T. 0.00 min
Lab File: VX006675.D
Acq: 20 Dec 2018 14:54

Tgt Ion:152 Resp: 434679

Ion	Ratio	Lower	Upper
152	100		
115	56.6	39.1	117.2
150	158.5	0.0	344.8



LSC Area Percent Report

Instrument :
MSVOA_X
ClientSampleId :
969-MW-07(22.5)

Data Path : Z:\VOASRV\HPCHEM1\MSVOA X\DATA\VX122018\
Data File : VX006675.D
Acq On : 20 Dec 2018 14:54
Operator : JC/MD
Sample : J6484-09
Misc : 5.0mL/MSVOA X/WATER
ALS Vial : 15 Sample Multiplier: 1

Integration Parameters: RTEINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 3 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121818W.M
Title : SW846 8260

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	1.276	17	20	26	rVB	29532	40711	1.37%	0.251%
2	1.623	65	77	81	rBV3	47342	120280	4.05%	0.741%
3	5.507	699	714	728	rBV2	345044	989871	33.32%	6.100%
4	5.665	728	740	754	rVV	615168	1712683	57.64%	10.554%
5	6.068	794	806	818	rBV2	365881	952335	32.05%	5.869%
6	6.860	926	936	950	rBV	910609	2146065	72.23%	13.225%
7	8.714	1232	1240	1253	rBV	1909930	2971163	100.00%	18.310%
8	9.335	1336	1342	1348	rBV	103347	153065	5.15%	0.943%
9	10.110	1462	1469	1483	rBV	1878013	2584575	86.99%	15.927%
10	11.134	1632	1637	1647	rBV	1554567	2031591	68.38%	12.520%
11	12.079	1786	1792	1800	rBV	2052456	2524945	84.98%	15.560%

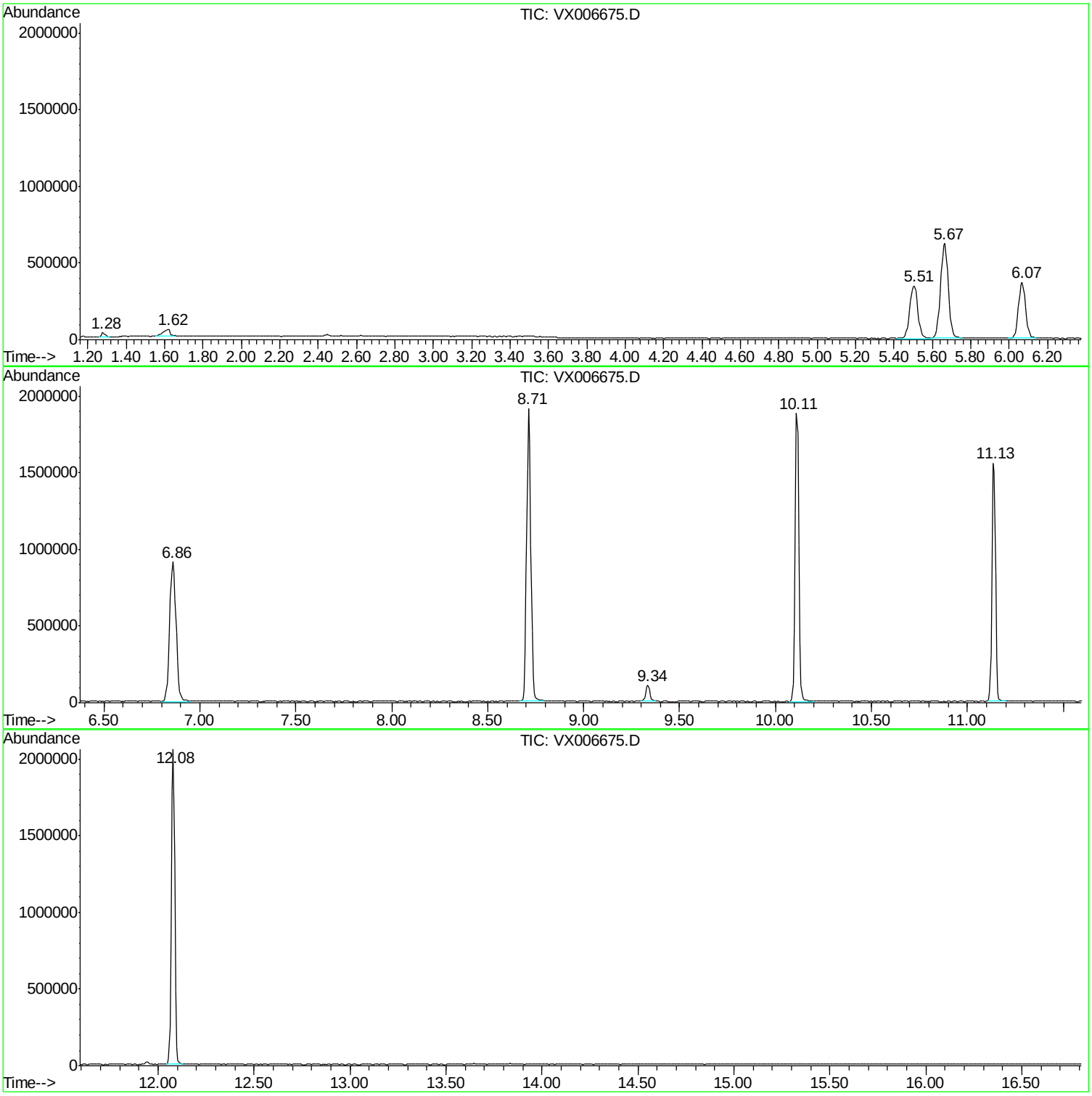
Sum of corrected areas: 16227284

Data Path : Z:\VOASRV\HPCHEM1\MSVOA X\DATA\VX122018\
Data File : VX006675.D
Acq On : 20 Dec 2018 14:54
Operator : JC/MD
Sample : J6484-09
Misc : 5.0mL/MSVOA X/WATER
ALS Vial : 15 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
969-MW-07(22.5)

Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121818W.M
Quant Title : SW846 8260

TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P



Library Search Compound Report

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX122018\
Data File : VX006675.D
Acq On : 20 Dec 2018 14:54
Operator : JC/MD
Sample : J6484-09
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 15 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
969-MW-07(22.5)

Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121818W.M
Quant Title : SW846 8260

TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

No Library Search Compounds Detected

****

Instrument :
MSVOA_X
ClientSampleId :
969-MW-07(22.5)

Tentatively Identified Compound (LSC) summary

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX122018\
Data File : VX006675.D
Acq On : 20 Dec 2018 14:54
Operator : JC/MD
Sample : J6484-09
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 15 Sample Multiplier: 1

Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121818W.M
Quant Title : SW846 8260

TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

					Internal Standard			
TIC Top Hit name	RT	EstConc	Units	Response	#	RT	Resp	Conc

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Day Environmental, Inc.	Date Collected:	12/18/18
Project:	Andrew St. RI	Date Received:	12/19/18
Client Sample ID:	970-MW-11(15)	SDG No.:	J6484
Lab Sample ID:	J6484-10	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	DB-624UI ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX006676.D	1		12/20/18 15:21	VX122018

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
75-71-8	Dichlorodifluoromethane	1	U	0.2	0.2	1	ug/L
74-87-3	Chloromethane	1	U	0.2	0.2	1	ug/L
75-01-4	Vinyl Chloride	1	U	0.2	0.2	1	ug/L
74-83-9	Bromomethane	1	U	0.2	0.2	1	ug/L
75-00-3	Chloroethane	1	U	0.2	0.5	1	ug/L
75-69-4	Trichlorofluoromethane	1	U	0.2	0.2	1	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	1	U	0.2	0.2	1	ug/L
75-35-4	1,1-Dichloroethene	1	U	0.2	0.2	1	ug/L
67-64-1	Acetone	3.8	J	0.5	1	5	ug/L
75-15-0	Carbon Disulfide	1	U	0.2	0.2	1	ug/L
1634-04-4	Methyl tert-butyl Ether	1	U	0.35	0.5	1	ug/L
79-20-9	Methyl Acetate	1	U	0.2	0.5	1	ug/L
75-09-2	Methylene Chloride	1	U	0.2	0.2	1	ug/L
156-60-5	trans-1,2-Dichloroethene	1	U	0.2	0.2	1	ug/L
75-34-3	1,1-Dichloroethane	1	U	0.2	0.2	1	ug/L
110-82-7	Cyclohexane	1	U	0.2	0.2	1	ug/L
78-93-3	2-Butanone	5	U	1.3	2.5	5	ug/L
56-23-5	Carbon Tetrachloride	1	U	0.2	0.2	1	ug/L
156-59-2	cis-1,2-Dichloroethene	0.75	J	0.2	0.2	1	ug/L
74-97-5	Bromochloromethane	1	U	0.2	0.5	1	ug/L
67-66-3	Chloroform	1	U	0.2	0.2	1	ug/L
71-55-6	1,1,1-Trichloroethane	1	U	0.2	0.2	1	ug/L
108-87-2	Methylcyclohexane	1	U	0.2	0.2	1	ug/L
71-43-2	Benzene	1	U	0.2	0.2	1	ug/L
107-06-2	1,2-Dichloroethane	1	U	0.2	0.2	1	ug/L
79-01-6	Trichloroethene	1		0.2	0.2	1	ug/L
78-87-5	1,2-Dichloropropane	1	U	0.2	0.2	1	ug/L
75-27-4	Bromodichloromethane	1	U	0.2	0.2	1	ug/L
108-10-1	4-Methyl-2-Pentanone	5	U	1	1	5	ug/L
108-88-3	Toluene	1	U	0.2	0.2	1	ug/L
10061-02-6	t-1,3-Dichloropropene	1	U	0.2	0.2	1	ug/L
10061-01-5	cis-1,3-Dichloropropene	1	U	0.2	0.2	1	ug/L

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Day Environmental, Inc.	Date Collected:	12/18/18
Project:	Andrew St. RI	Date Received:	12/19/18
Client Sample ID:	970-MW-11(15)	SDG No.:	J6484
Lab Sample ID:	J6484-10	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	DB-624UI ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX006676.D	1		12/20/18 15:21	VX122018

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
79-00-5	1,1,2-Trichloroethane	1	U	0.2	0.2	1	ug/L
591-78-6	2-Hexanone	5	U	1.9	2.5	5	ug/L
124-48-1	Dibromochloromethane	1	U	0.2	0.2	1	ug/L
106-93-4	1,2-Dibromoethane	1	U	0.2	0.2	1	ug/L
127-18-4	Tetrachloroethene	65.6		0.2	0.2	1	ug/L
108-90-7	Chlorobenzene	1	U	0.2	0.2	1	ug/L
100-41-4	Ethyl Benzene	1	U	0.2	0.2	1	ug/L
179601-23-1	m/p-Xylenes	2	U	0.4	0.4	2	ug/L
95-47-6	o-Xylene	1	U	0.2	0.2	1	ug/L
100-42-5	Styrene	1	U	0.2	0.2	1	ug/L
75-25-2	Bromoform	1	U	0.2	0.2	1	ug/L
98-82-8	Isopropylbenzene	1	U	0.2	0.2	1	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	1	U	0.2	0.2	1	ug/L
541-73-1	1,3-Dichlorobenzene	1	U	0.2	0.2	1	ug/L
106-46-7	1,4-Dichlorobenzene	1	U	0.2	0.2	1	ug/L
95-50-1	1,2-Dichlorobenzene	1	U	0.2	0.2	1	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	1	U	0.2	0.2	1	ug/L
120-82-1	1,2,4-Trichlorobenzene	1	U	0.2	0.2	1	ug/L
87-61-6	1,2,3-Trichlorobenzene	1	U	0.2	0.2	1	ug/L
SURROGATES							
17060-07-0	1,2-Dichloroethane-d4	50.8		61 - 141		102%	SPK: 50
1868-53-7	Dibromofluoromethane	46.7		69 - 133		93%	SPK: 50
2037-26-5	Toluene-d8	49.7		65 - 126		99%	SPK: 50
460-00-4	4-Bromofluorobenzene	49.4		58 - 135		99%	SPK: 50
INTERNAL STANDARDS							
363-72-4	Pentafluorobenzene	628490	5.67				
540-36-3	1,4-Difluorobenzene	996831	6.86				
3114-55-4	Chlorobenzene-d5	919226	10.12				
3855-82-1	1,4-Dichlorobenzene-d4	441570	12.08				

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Day Environmental, Inc.	Date Collected:	12/18/18
Project:	Andrew St. RI	Date Received:	12/19/18
Client Sample ID:	970-MW-11(15)	SDG No.:	J6484
Lab Sample ID:	J6484-10	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	DB-624UI ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX006676.D	1		12/20/18 15:21	VX122018

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit
A = Aldol-Condensation Reaction Products

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX122018\
Data File : VX006676.D
Acq On : 20 Dec 2018 15:21
Operator : JC/MD
Sample : J6484-10
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 16 Sample Multiplier: 1

Instrument : MSVOA_X
ClientSampleId : 970-MW-11(15)

Quant Time: Dec 21 04:14:05 2018
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121818W.M
Quant Title : SW846 8260
QLast Update : Wed Dec 19 15:20:58 2018
Response via : Initial Calibration

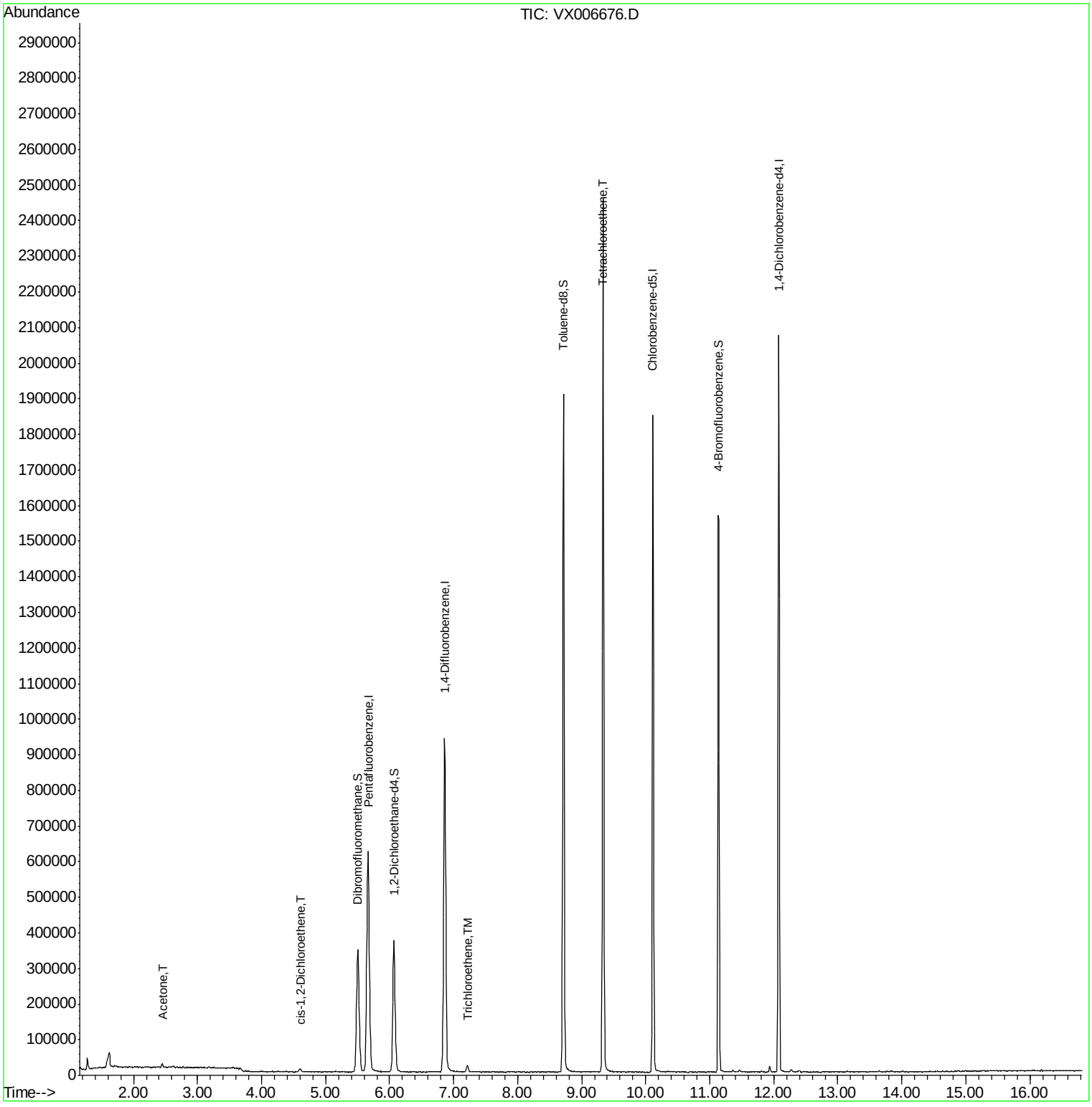
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	5.67	168	628490	50.00	ug/l	0.00
34) 1,4-Difluorobenzene	6.86	114	996831	50.00	ug/l	0.00
63) Chlorobenzene-d5	10.12	117	919226	50.00	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	12.08	152	441570	50.00	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	6.07	65	344074	50.80	ug/l	0.00
Spiked Amount 50.000			Recovery = 101.60%			
35) Dibromofluoromethane	5.50	113	294452	46.71	ug/l	0.00
Spiked Amount 50.000			Recovery = 93.42%			
50) Toluene-d8	8.71	98	1180823	49.69	ug/l	0.00
Spiked Amount 50.000			Recovery = 99.38%			
62) 4-Bromofluorobenzene	11.13	95	429868	49.39	ug/l	0.00
Spiked Amount 50.000			Recovery = 98.78%			
Target Compounds						Qvalue
16) Acetone	2.45	43	11850	3.808	ug/l	94
27) cis-1,2-Dichloroethene	4.60	96	5142	0.749	ug/l	88
44) Trichloroethene	7.21	130	7619	1.003	ug/l	90
64) Tetrachloroethene	9.34	164	477593	65.614	ug/l	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

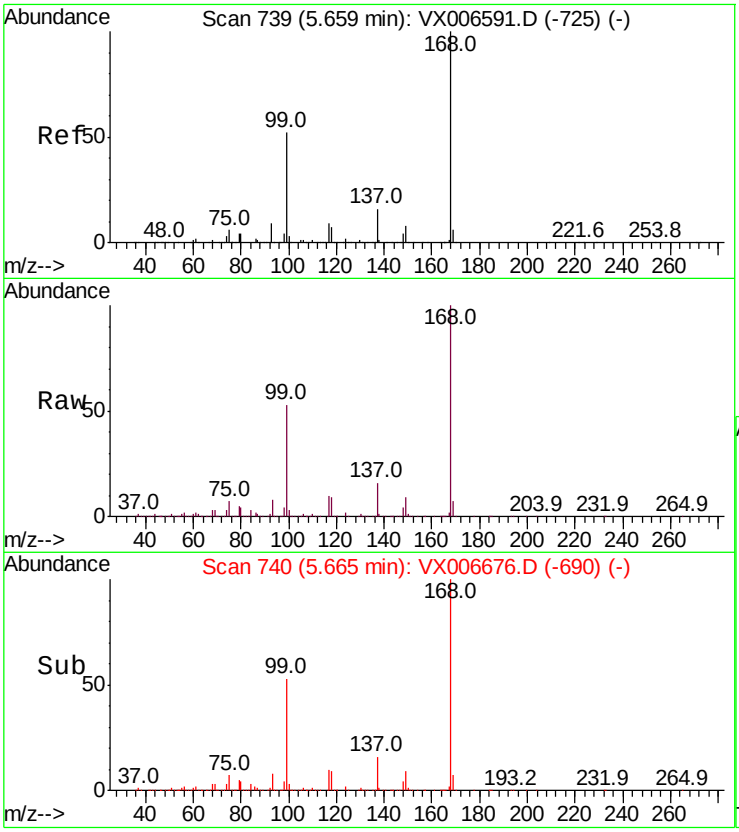
Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX122018\
Data File : VX006676.D
Acq On : 20 Dec 2018 15:21
Operator : JC/MD
Sample : J6484-10
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 16 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
970-MW-11(15)

Quant Time: Dec 21 04:14:05 2018
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121818W.M
Quant Title : SW846 8260
QLast Update : Wed Dec 19 15:20:58 2018
Response via : Initial Calibration



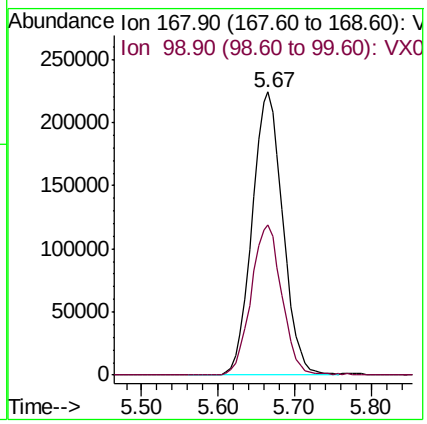
Instrument :
MSVOA_X
ClientSampleId :
970-MW-11(15)

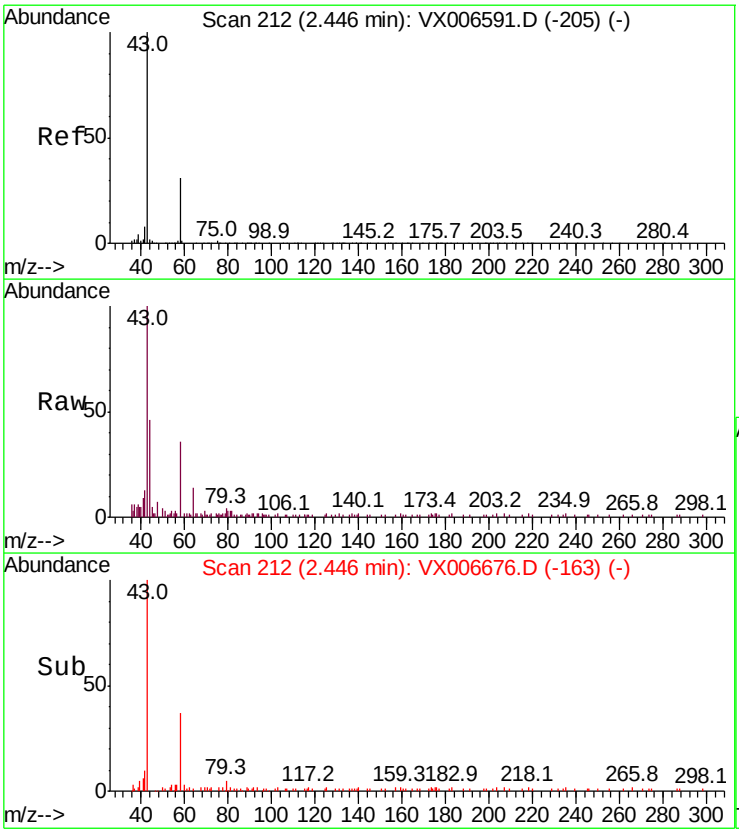


#1
Pentafluorobenzene
Concen: 50.000 ug/l
RT: 5.67 min Scan# 740
Delta R.T. 0.01 min
Lab File: VX006676.D
Acq: 20 Dec 2018 15:21

Tgt Ion:168 Resp: 628490

Ion	Ratio	Lower	Upper
168	100		
99	53.0	41.8	62.8

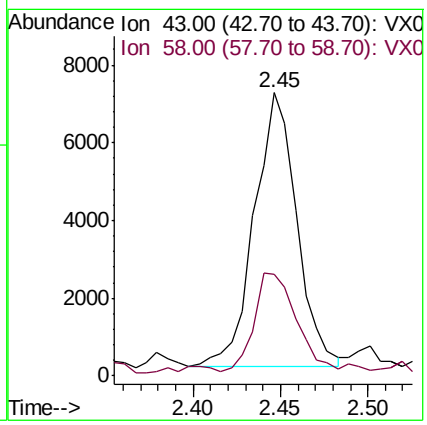




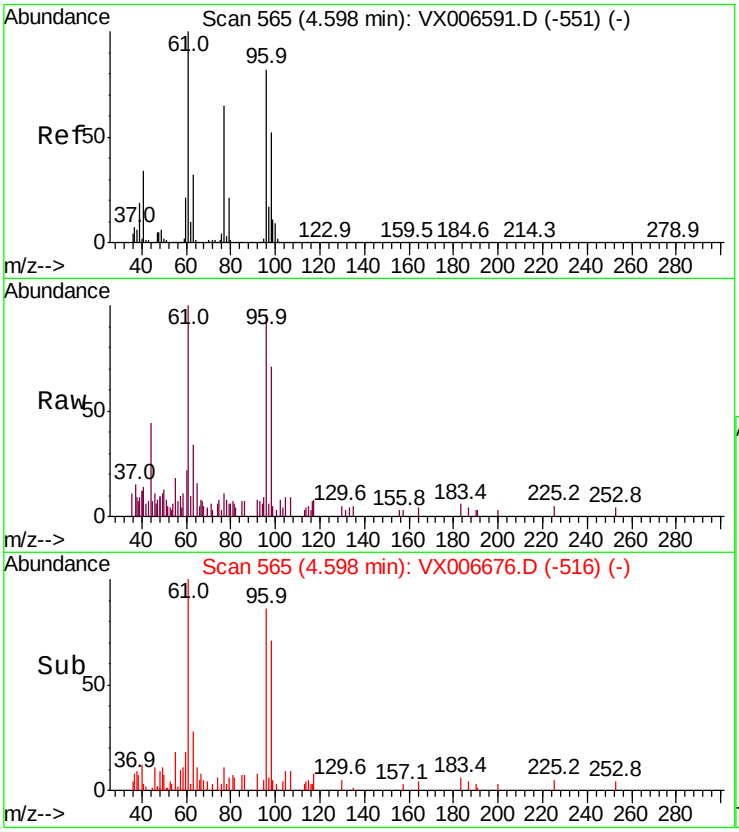
#16
Acetone
Concen: 3.808 ug/l
RT: 2.45 min Scan# 212
Delta R.T. 0.00 min
Lab File: VX006676.D
Acq: 20 Dec 2018 15:21

Tgt Ion: 43 Resp: 11850

Ion	Ratio	Lower	Upper
43	100		
58	34.6	25.0	37.6



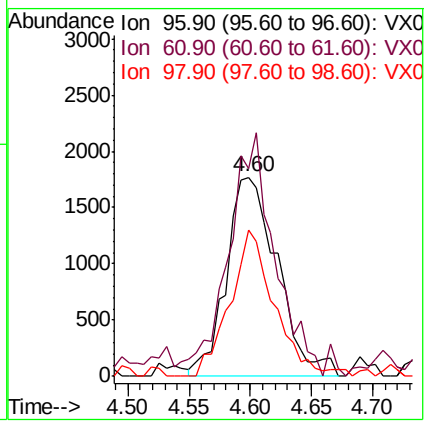
Instrument :
MSVOA_X
ClientSampleId :
970-MW-11(15)

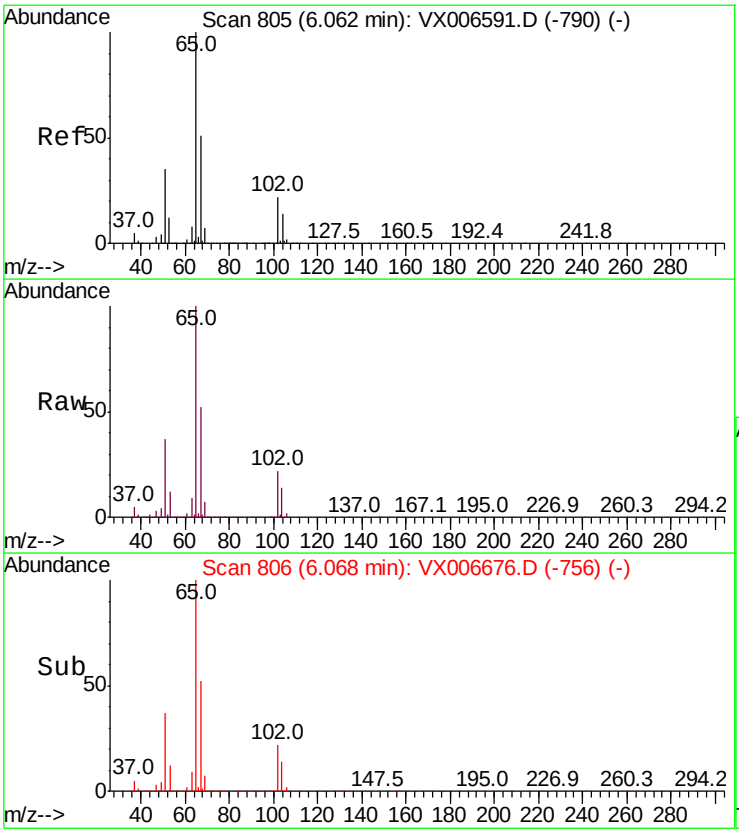


#27
cis-1,2-Dichloroethene
Concen: 0.749 ug/l
RT: 4.60 min Scan# 565
Delta R.T. 0.00 min
Lab File: VX006676.D
Acq: 20 Dec 2018 15:21

Tgt Ion: 96 Resp: 5142

Ion	Ratio	Lower	Upper
96	100		
61	110.6	0.0	258.6
98	63.9	0.0	132.0

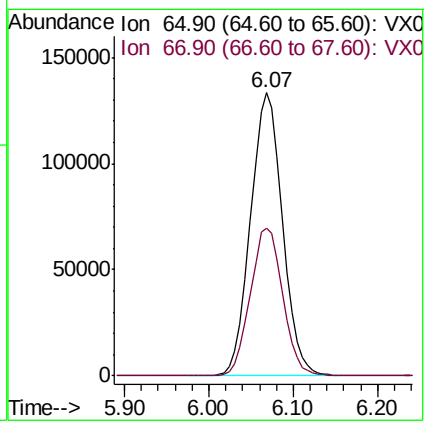




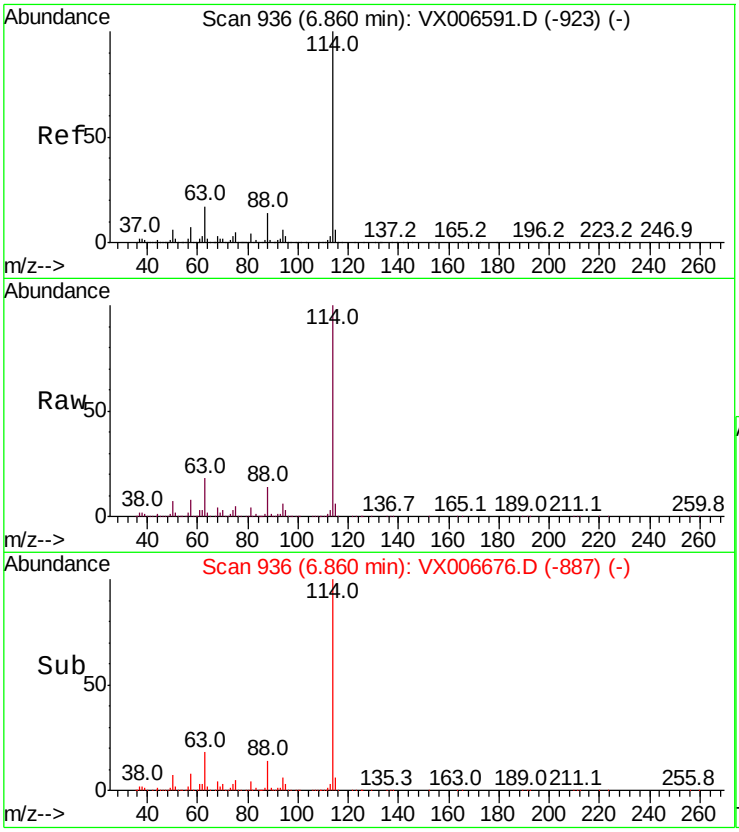
#33
1,2-Dichloroethane-d4
Concen: 50.796 ug/l
RT: 6.07 min Scan# 806
Delta R.T. 0.01 min
Lab File: VX006676.D
Acq: 20 Dec 2018 15:21

Tgt Ion: 65 Resp: 344074

Ion	Ratio	Lower	Upper
65	100		
67	53.1	0.0	105.0



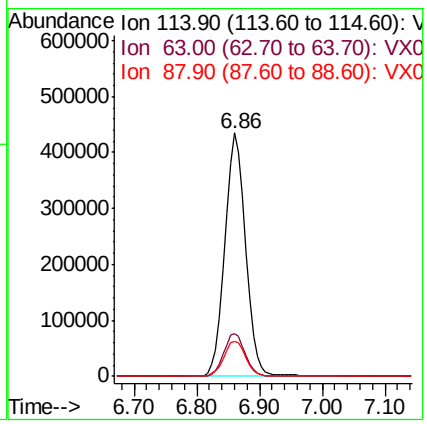
Instrument :
MSVOA_X
ClientSampleId :
970-MW-11(15)

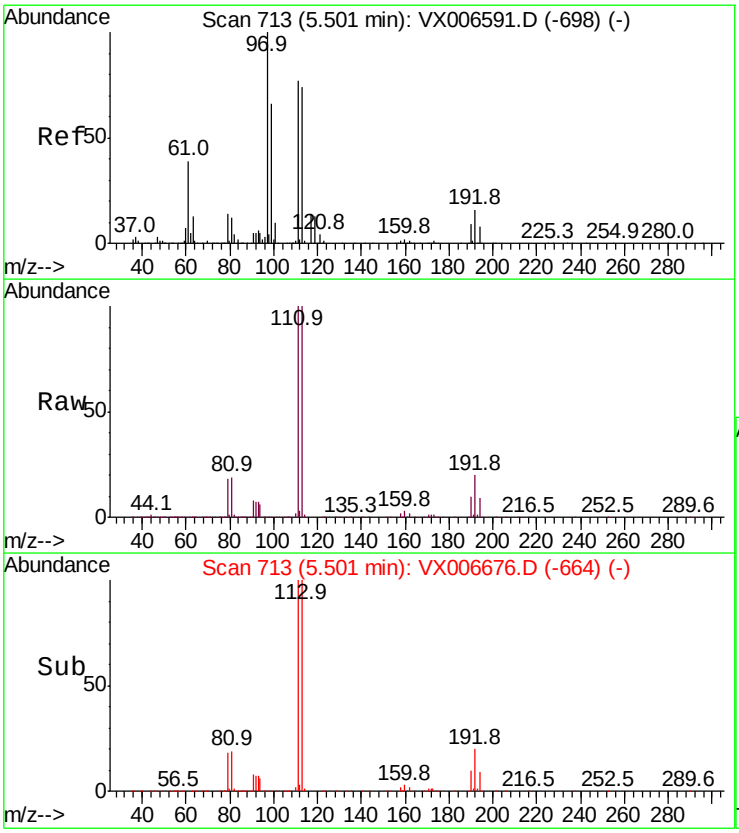


#34
1,4-Difluorobenzene
Concen: 50.000 ug/l
RT: 6.86 min Scan# 936
Delta R.T. -0.00 min
Lab File: VX006676.D
Acq: 20 Dec 2018 15:21

Tgt Ion:114 Resp: 996831

Ion	Ratio	Lower	Upper
114	100		
63	17.7	0.0	34.8
88	14.4	0.0	28.8

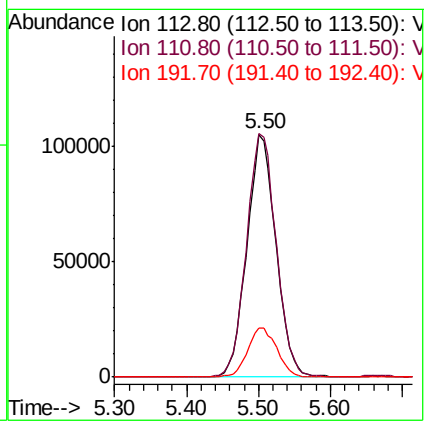




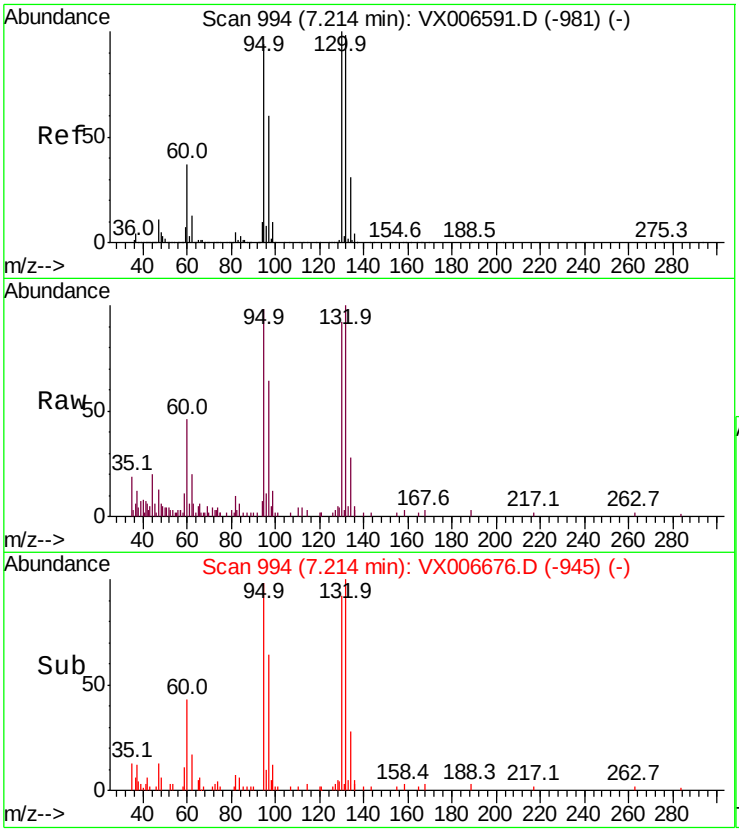
#35
Dibromofluoromethane
Concen: 46.710 ug/l
RT: 5.50 min Scan# 713
Delta R.T. -0.00 min
Lab File: VX006676.D
Acq: 20 Dec 2018 15:21

Tgt Ion:113 Resp: 294452

Ion	Ratio	Lower	Upper
113	100		
111	102.8	81.6	122.4
192	20.4	16.7	25.1



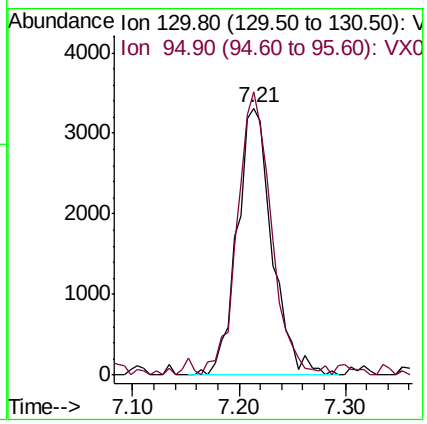
Instrument :
MSVOA_X
ClientSampleId :
970-MW-11(15)

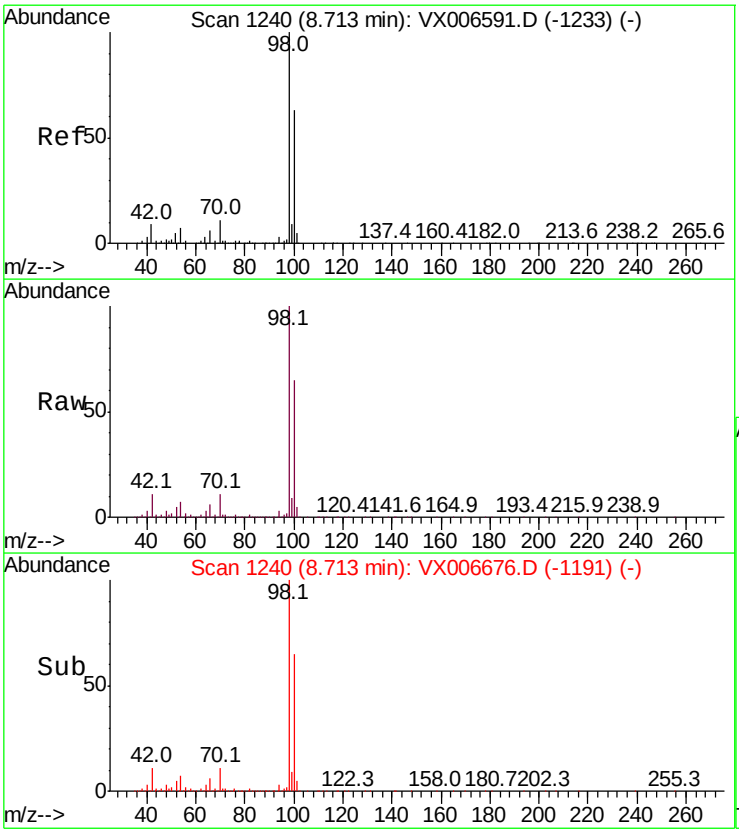


#44
Trichloroethene
Concen: 1.003 ug/l
RT: 7.21 min Scan# 994
Delta R.T. 0.00 min
Lab File: VX006676.D
Acq: 20 Dec 2018 15:21

Tgt Ion:130 Resp: 7619

Ion	Ratio	Lower	Upper
130	100		
95	102.8	0.0	187.0

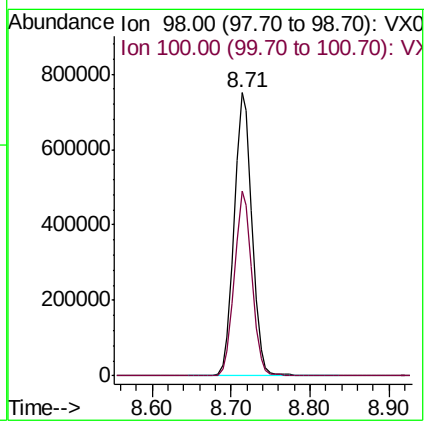




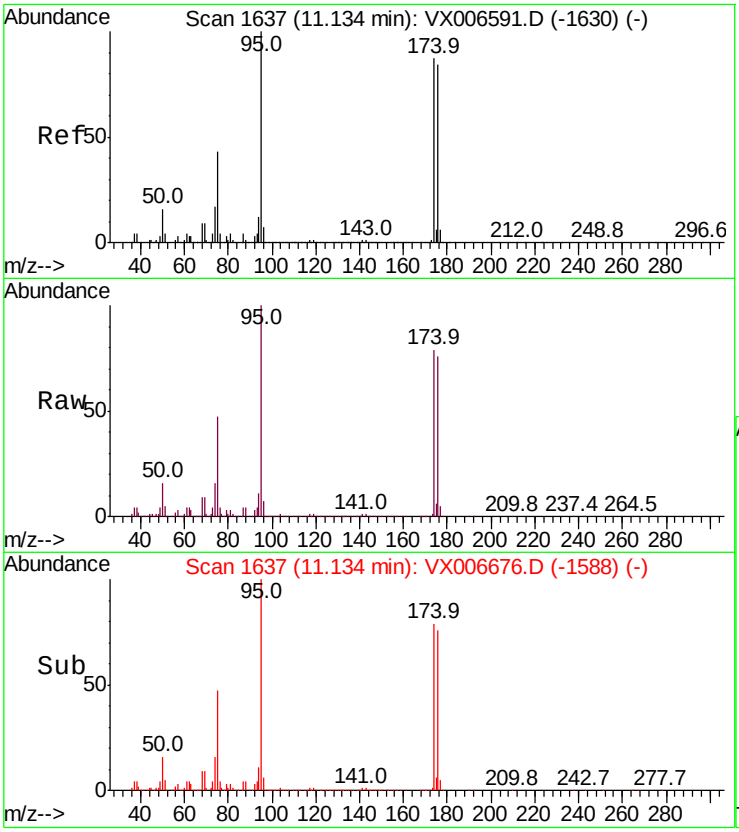
#50
Toluene-d8
Concen: 49.687 ug/l
RT: 8.71 min Scan# 1240
Delta R.T. 0.00 min
Lab File: VX006676.D
Acq: 20 Dec 2018 15:21

Tgt Ion: 98 Resp: 1180823

Ion	Ratio	Lower	Upper
98	100		
100	64.3	52.0	78.0



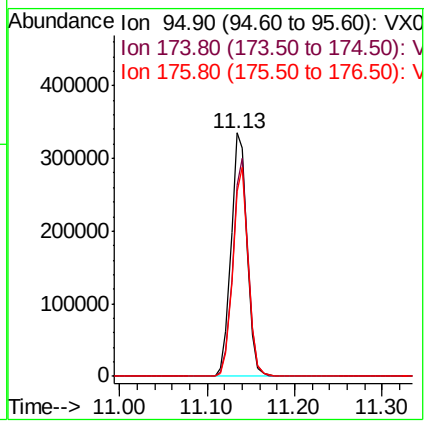
Instrument :
MSVOA_X
ClientSampleId :
970-MW-11(15)

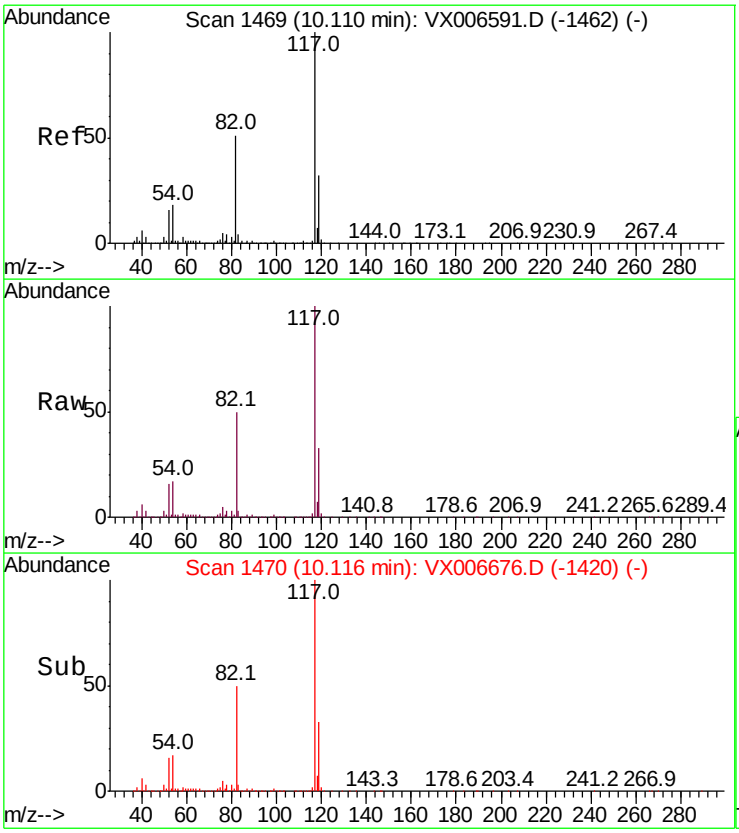


#62
4-Bromofluorobenzene
Concen: 49.388 ug/l
RT: 11.13 min Scan# 1637
Delta R.T. 0.00 min
Lab File: VX006676.D
Acq: 20 Dec 2018 15:21

Tgt Ion: 95 Resp: 429868

Ion	Ratio	Lower	Upper
95	100		
174	86.4	0.0	182.2
176	83.0	0.0	178.8

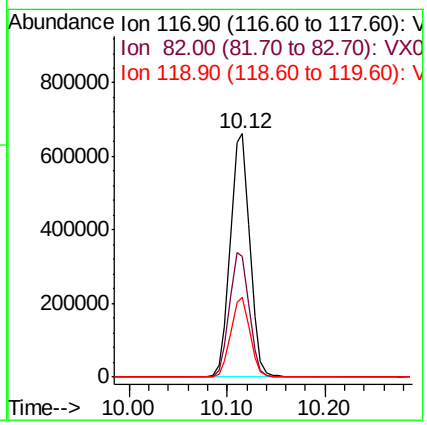




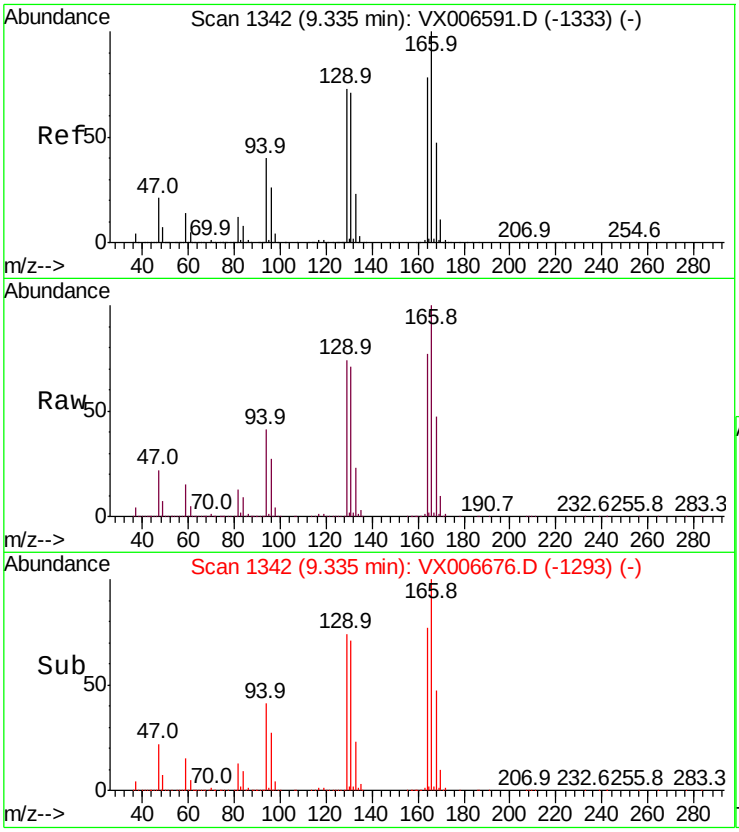
#63
Chlorobenzene-d5
Concen: 50.000 ug/l
RT: 10.12 min Scan# 1470
Delta R.T. 0.01 min
Lab File: VX006676.D
Acq: 20 Dec 2018 15:21

Tgt Ion:117 Resp: 919226

Ion	Ratio	Lower	Upper
117	100		
82	49.8	41.0	61.6
119	32.6	25.4	38.0



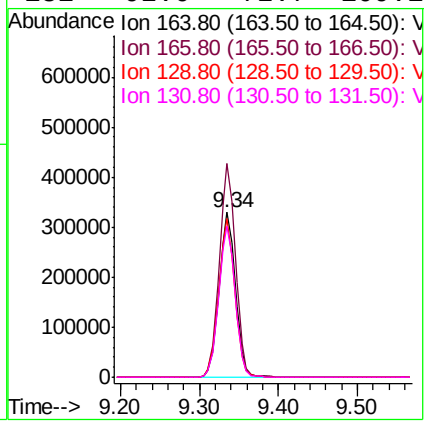
Instrument :
MSVOA_X
ClientSampleId :
970-MW-11(15)

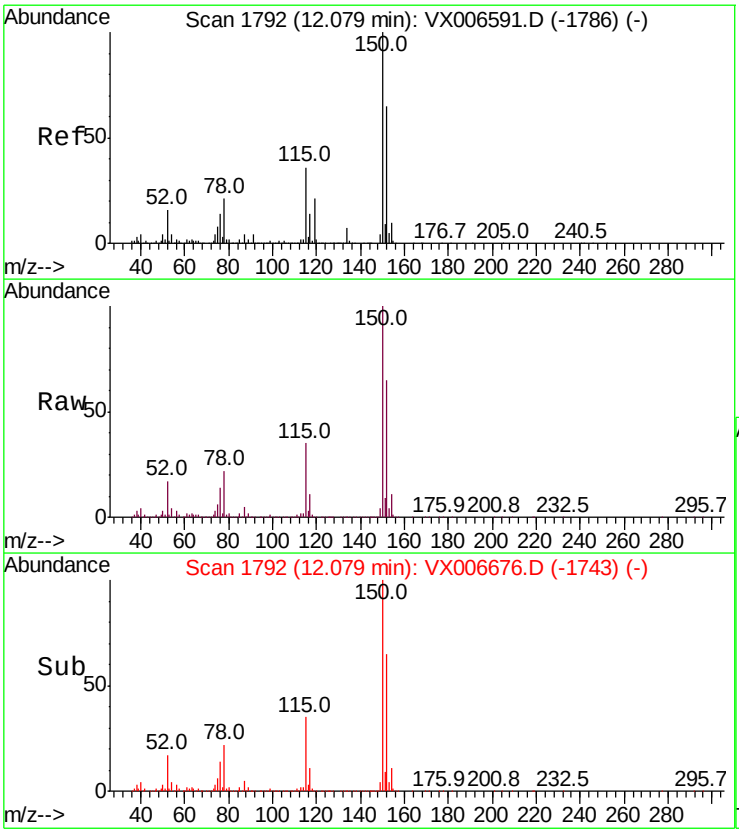


#64
Tetrachloroethene
Concen: 65.614 ug/l
RT: 9.34 min Scan# 1342
Delta R.T. 0.00 min
Lab File: VX006676.D
Acq: 20 Dec 2018 15:21

Tgt Ion:164 Resp: 477593

Ion	Ratio	Lower	Upper
164	100		
166	129.7	102.5	153.7
129	96.0	75.1	112.7
131	92.0	72.7	109.1

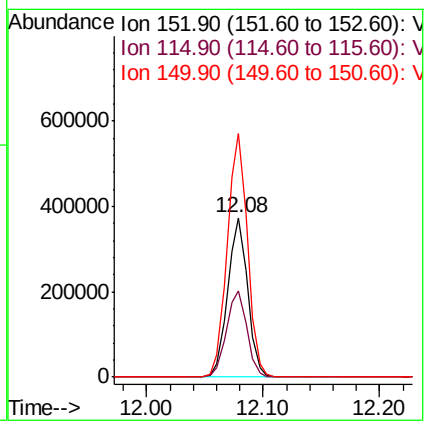




#72
1,4-Dichlorobenzene-d4
Concen: 50.000 ug/l
RT: 12.08 min Scan# 1792
Delta R.T. 0.00 min
Lab File: VX006676.D
Acq: 20 Dec 2018 15:21

Tgt Ion:152 Resp: 441570

Ion	Ratio	Lower	Upper
152	100		
115	55.6	39.1	117.2
150	155.2	0.0	344.8



LSC Area Percent Report

Data Path : Z:\VOASRV\HPCHEM1\MSVOA X\DATA\VX122018\
Data File : VX006676.D
Acq On : 20 Dec 2018 15:21
Operator : JC/MD
Sample : J6484-10
Misc : 5.0mL/MSVOA X/WATER
ALS Vial : 16 Sample Multiplier: 1

Instrument : MSVOA_X
ClientSampleId : 970-MW-11(15)

Integration Parameters: RTEINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 3 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121818W.M
Title : SW846 8260

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	1.276	17	20	26	rBV	32032	44081	1.24%	0.223%
2	1.623	67	77	80	rBV5	41584	106407	3.00%	0.538%
3	5.501	700	713	727	rBV	345303	985787	27.75%	4.982%
4	5.665	727	740	757	rVB	616466	1733695	48.80%	8.762%
5	6.068	796	806	825	rVB2	370753	962449	27.09%	4.864%
6	6.860	925	936	947	rBV	938431	2154990	60.66%	10.891%
7	7.214	987	994	1001	rVB4	19558	39971	1.13%	0.202%
8	8.713	1232	1240	1256	rBV	1902161	2987323	84.09%	15.098%
9	9.335	1335	1342	1359	rBV	2452793	3552728	100.00%	17.956%
10	10.110	1463	1469	1482	rBV	1844381	2610672	73.48%	13.194%
11	11.134	1630	1637	1647	rBV	1565234	2067916	58.21%	10.451%
12	12.079	1786	1792	1800	rBV	2068740	2540241	71.50%	12.838%

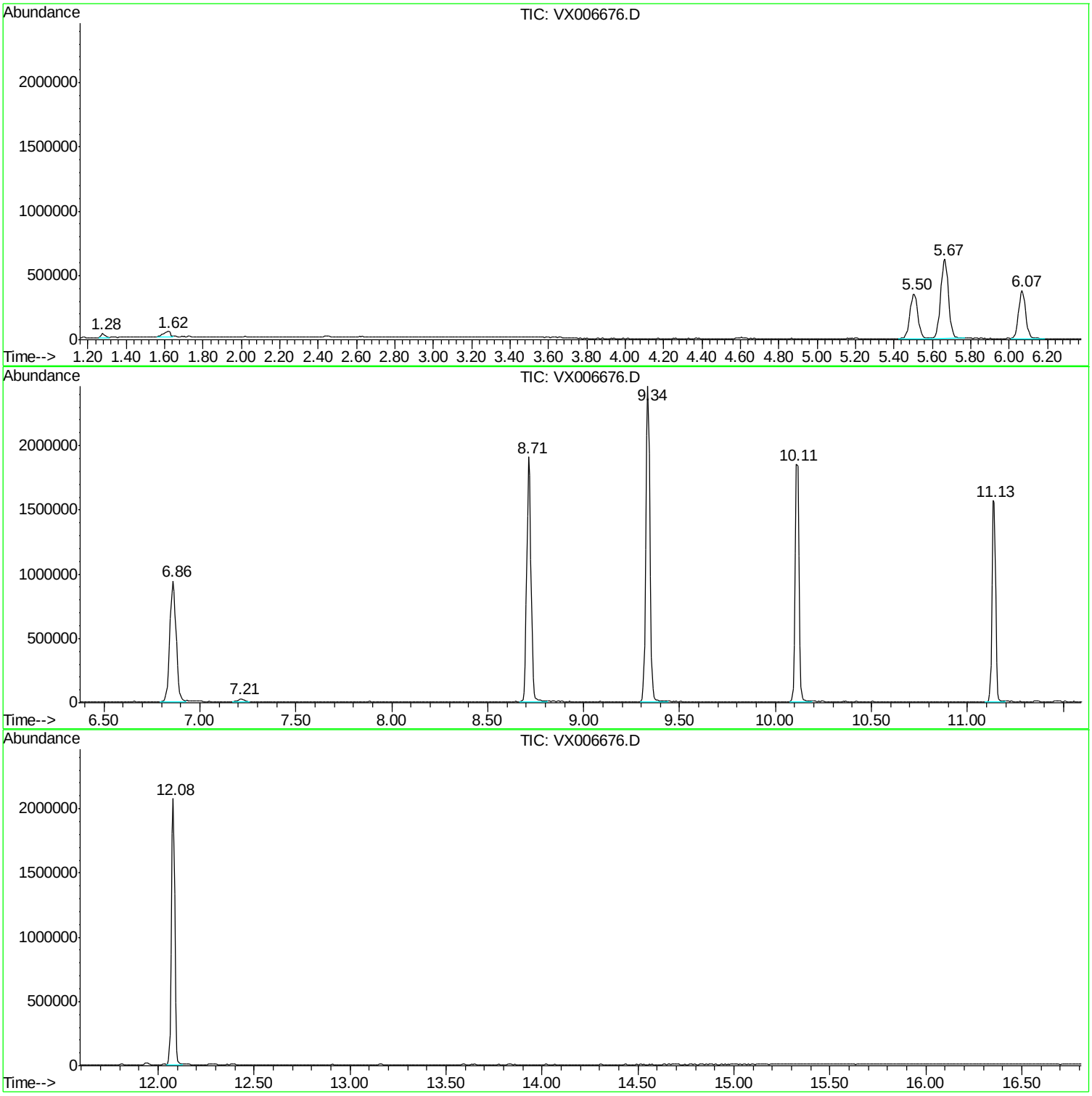
Sum of corrected areas: 19786260

Data Path : Z:\VOASRV\HPCHEM1\MSVOA X\DATA\VX122018\
Data File : VX006676.D
Acq On : 20 Dec 2018 15:21
Operator : JC/MD
Sample : J6484-10
Misc : 5.0mL/MSVOA X/WATER
ALS Vial : 16 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
970-MW-11(15)

Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121818W.M
Quant Title : SW846 8260

TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P



Library Search Compound Report

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX122018\
Data File : VX006676.D
Acq On : 20 Dec 2018 15:21
Operator : JC/MD
Sample : J6484-10
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 16 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
970-MW-11(15)

Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121818W.M
Quant Title : SW846 8260

TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

No Library Search Compounds Detected

****

Tentatively Identified Compound (LSC) summary

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX122018\
Data File : VX006676.D
Acq On : 20 Dec 2018 15:21
Operator : JC/MD
Sample : J6484-10
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 16 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
970-MW-11(15)

Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121818W.M
Quant Title : SW846 8260

TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

TIC Top Hit name	RT	EstConc	Units	Response	Internal Standard #	Internal Standard RT	Internal Standard Resp	Internal Standard Conc

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Day Environmental, Inc.	Date Collected:	12/18/18
Project:	Andrew St. RI	Date Received:	12/19/18
Client Sample ID:	971-MW-15(17)	SDG No.:	J6484
Lab Sample ID:	J6484-11	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	DB-624UI ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX006677.D	1		12/20/18 15:47	VX122018

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
75-71-8	Dichlorodifluoromethane	1	U	0.2	0.2	1	ug/L
74-87-3	Chloromethane	1	U	0.2	0.2	1	ug/L
75-01-4	Vinyl Chloride	1	U	0.2	0.2	1	ug/L
74-83-9	Bromomethane	1	U	0.2	0.2	1	ug/L
75-00-3	Chloroethane	1	U	0.2	0.5	1	ug/L
75-69-4	Trichlorofluoromethane	1	U	0.2	0.2	1	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	1	U	0.2	0.2	1	ug/L
75-35-4	1,1-Dichloroethene	1	U	0.2	0.2	1	ug/L
67-64-1	Acetone	5	U	0.5	1	5	ug/L
75-15-0	Carbon Disulfide	1	U	0.2	0.2	1	ug/L
1634-04-4	Methyl tert-butyl Ether	1	U	0.35	0.5	1	ug/L
79-20-9	Methyl Acetate	1	U	0.2	0.5	1	ug/L
75-09-2	Methylene Chloride	1	U	0.2	0.2	1	ug/L
156-60-5	trans-1,2-Dichloroethene	1	U	0.2	0.2	1	ug/L
75-34-3	1,1-Dichloroethane	1	U	0.2	0.2	1	ug/L
110-82-7	Cyclohexane	1	U	0.2	0.2	1	ug/L
78-93-3	2-Butanone	5	U	1.3	2.5	5	ug/L
56-23-5	Carbon Tetrachloride	1	U	0.2	0.2	1	ug/L
156-59-2	cis-1,2-Dichloroethene	1	U	0.2	0.2	1	ug/L
74-97-5	Bromochloromethane	1	U	0.2	0.5	1	ug/L
67-66-3	Chloroform	1	U	0.2	0.2	1	ug/L
71-55-6	1,1,1-Trichloroethane	1	U	0.2	0.2	1	ug/L
108-87-2	Methylcyclohexane	1	U	0.2	0.2	1	ug/L
71-43-2	Benzene	1	U	0.2	0.2	1	ug/L
107-06-2	1,2-Dichloroethane	1	U	0.2	0.2	1	ug/L
79-01-6	Trichloroethene	1	U	0.2	0.2	1	ug/L
78-87-5	1,2-Dichloropropane	1	U	0.2	0.2	1	ug/L
75-27-4	Bromodichloromethane	1	U	0.2	0.2	1	ug/L
108-10-1	4-Methyl-2-Pentanone	5	U	1	1	5	ug/L
108-88-3	Toluene	1	U	0.2	0.2	1	ug/L
10061-02-6	t-1,3-Dichloropropene	1	U	0.2	0.2	1	ug/L
10061-01-5	cis-1,3-Dichloropropene	1	U	0.2	0.2	1	ug/L

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Day Environmental, Inc.	Date Collected:	12/18/18
Project:	Andrew St. RI	Date Received:	12/19/18
Client Sample ID:	971-MW-15(17)	SDG No.:	J6484
Lab Sample ID:	J6484-11	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	DB-624UI ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX006677.D	1		12/20/18 15:47	VX122018

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
79-00-5	1,1,2-Trichloroethane	1	U	0.2	0.2	1	ug/L
591-78-6	2-Hexanone	5	U	1.9	2.5	5	ug/L
124-48-1	Dibromochloromethane	1	U	0.2	0.2	1	ug/L
106-93-4	1,2-Dibromoethane	1	U	0.2	0.2	1	ug/L
127-18-4	Tetrachloroethene	0.35	J	0.2	0.2	1	ug/L
108-90-7	Chlorobenzene	1	U	0.2	0.2	1	ug/L
100-41-4	Ethyl Benzene	1	U	0.2	0.2	1	ug/L
179601-23-1	m/p-Xylenes	2	U	0.4	0.4	2	ug/L
95-47-6	o-Xylene	1	U	0.2	0.2	1	ug/L
100-42-5	Styrene	1	U	0.2	0.2	1	ug/L
75-25-2	Bromoform	1	U	0.2	0.2	1	ug/L
98-82-8	Isopropylbenzene	1	U	0.2	0.2	1	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	1	U	0.2	0.2	1	ug/L
541-73-1	1,3-Dichlorobenzene	1	U	0.2	0.2	1	ug/L
106-46-7	1,4-Dichlorobenzene	1	U	0.2	0.2	1	ug/L
95-50-1	1,2-Dichlorobenzene	1	U	0.2	0.2	1	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	1	U	0.2	0.2	1	ug/L
120-82-1	1,2,4-Trichlorobenzene	1	U	0.2	0.2	1	ug/L
87-61-6	1,2,3-Trichlorobenzene	1	U	0.2	0.2	1	ug/L
SURROGATES							
17060-07-0	1,2-Dichloroethane-d4	51.4		61 - 141		103%	SPK: 50
1868-53-7	Dibromofluoromethane	46.5		69 - 133		93%	SPK: 50
2037-26-5	Toluene-d8	49.7		65 - 126		99%	SPK: 50
460-00-4	4-Bromofluorobenzene	48.4		58 - 135		97%	SPK: 50
INTERNAL STANDARDS							
363-72-4	Pentafluorobenzene	620134	5.67				
540-36-3	1,4-Difluorobenzene	979825	6.86				
3114-55-4	Chlorobenzene-d5	894608	10.11				
3855-82-1	1,4-Dichlorobenzene-d4	426454	12.08				

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Day Environmental, Inc.	Date Collected:	12/18/18
Project:	Andrew St. RI	Date Received:	12/19/18
Client Sample ID:	971-MW-15(17)	SDG No.:	J6484
Lab Sample ID:	J6484-11	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	DB-624UI ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX006677.D	1		12/20/18 15:47	VX122018

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit
A = Aldol-Condensation Reaction Products

Quantitation Report (QT Reviewed)

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX122018\
Data File : VX006677.D
Acq On : 20 Dec 2018 15:47
Operator : JC/MD
Sample : J6484-11
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 17 Sample Multiplier: 1

Instrument : MSVOA_X
ClientSampleId : 971-MW-15(17)

Quant Time: Dec 21 04:15:38 2018
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121818W.M
Quant Title : SW846 8260
QLast Update : Wed Dec 19 15:20:58 2018
Response via : Initial Calibration

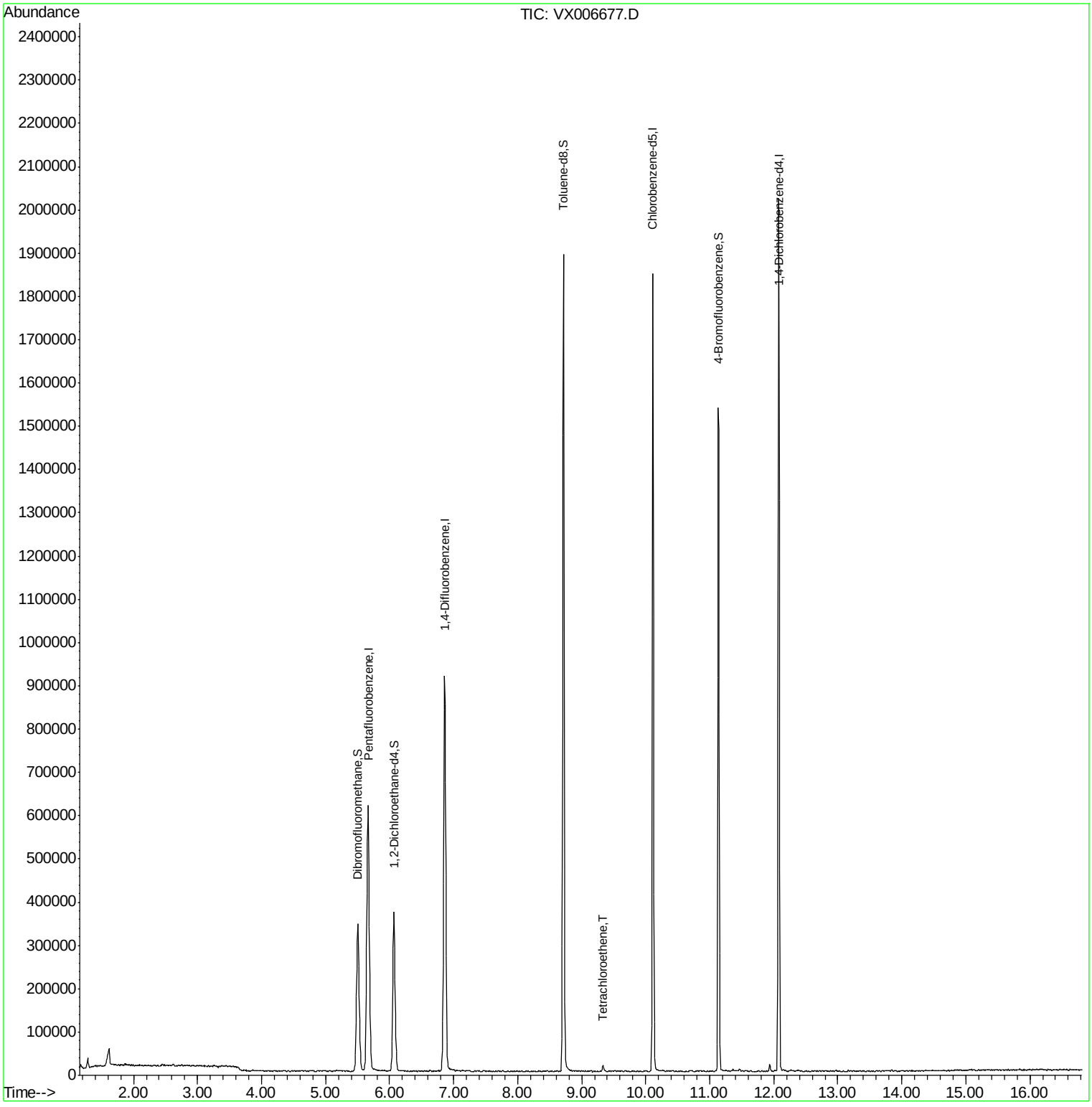
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	5.67	168	620134	50.00	ug/l	0.00
34) 1,4-Difluorobenzene	6.86	114	979825	50.00	ug/l	0.00
63) Chlorobenzene-d5	10.11	117	894608	50.00	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	12.08	152	426454	50.00	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	6.07	65	343620	51.41	ug/l	0.00
Spiked Amount 50.000			Recovery = 102.82%			
35) Dibromofluoromethane	5.50	113	287867	46.46	ug/l	0.00
Spiked Amount 50.000			Recovery = 92.92%			
50) Toluene-d8	8.71	98	1160129	49.66	ug/l	0.00
Spiked Amount 50.000			Recovery = 99.32%			
62) 4-Bromofluorobenzene	11.13	95	414460	48.44	ug/l	0.00
Spiked Amount 50.000			Recovery = 96.88%			
Target Compounds						Qvalue
64) Tetrachloroethene	9.34	164	2476	0.350	ug/l	# 83

(#) = qualifier out of range (m) = manual integration (+) = signals summed

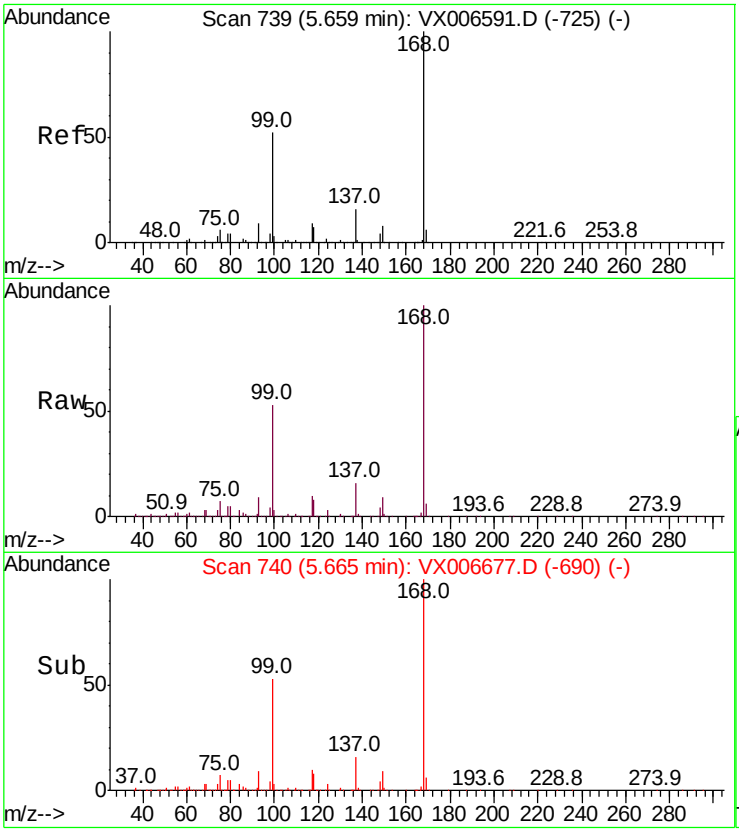
Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX122018\
Data File : VX006677.D
Acq On : 20 Dec 2018 15:47
Operator : JC/MD
Sample : J6484-11
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 17 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
971-MW-15(17)

Quant Time: Dec 21 04:15:38 2018
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121818W.M
Quant Title : SW846 8260
QLast Update : Wed Dec 19 15:20:58 2018
Response via : Initial Calibration



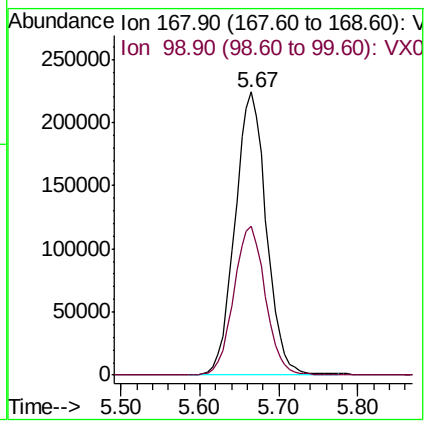
Instrument :
MSVOA_X
ClientSampleId :
971-MW-15(17)

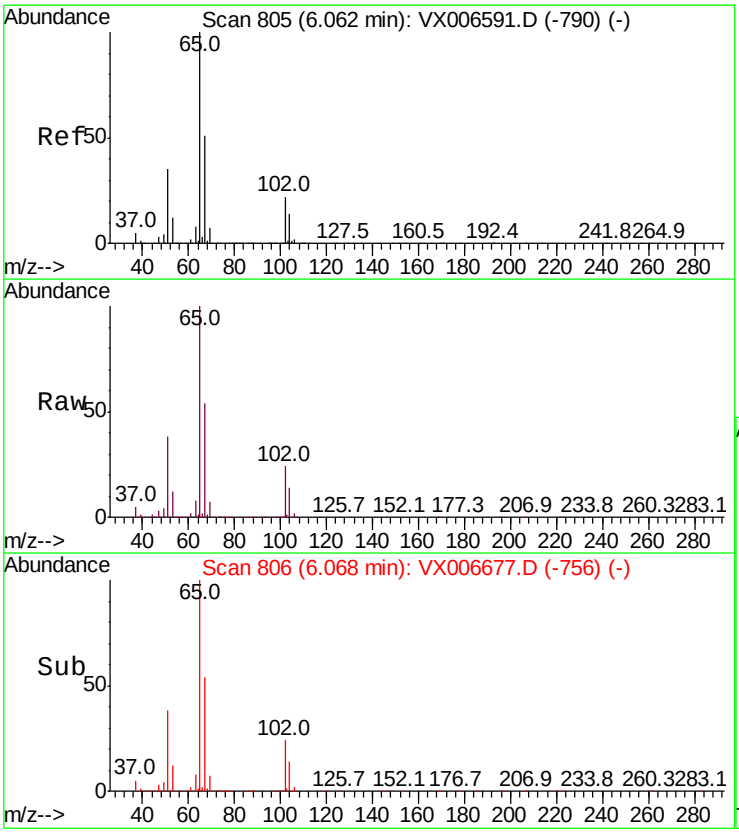


#1
Pentafluorobenzene
Concen: 50.000 ug/l
RT: 5.67 min Scan# 740
Delta R.T. 0.01 min
Lab File: VX006677.D
Acq: 20 Dec 2018 15:47

Tgt Ion:168 Resp: 620134

Ion	Ratio	Lower	Upper
168	100		
99	52.8	41.8	62.8

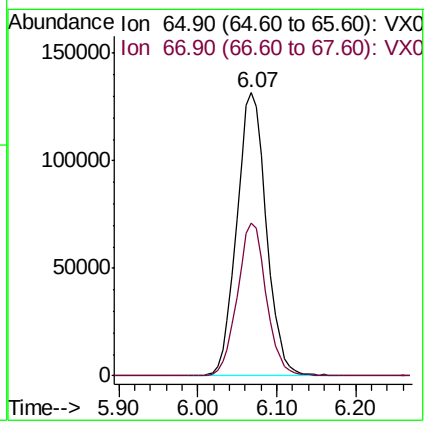




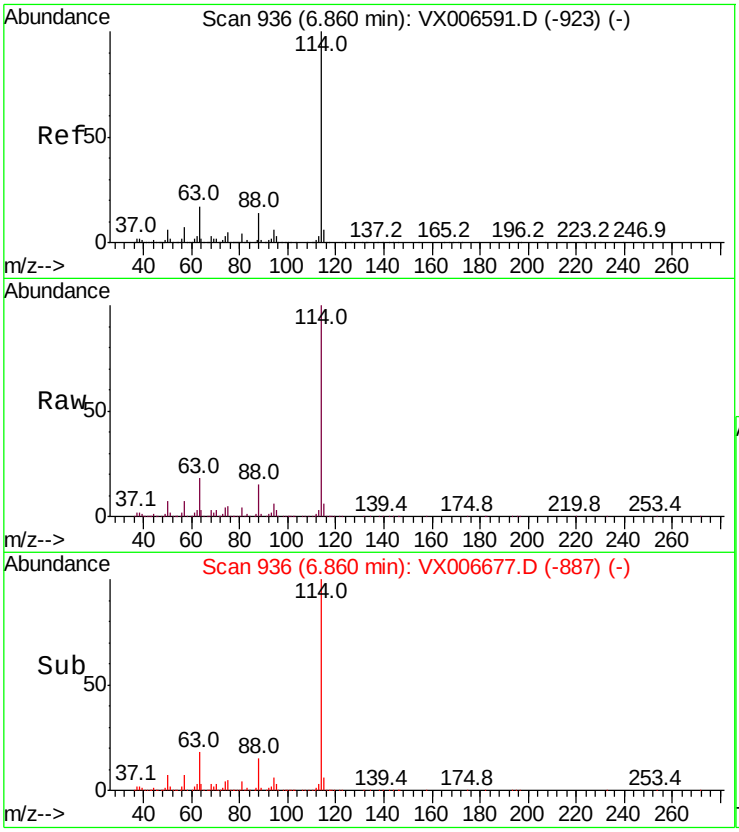
#33
1,2-Dichloroethane-d4
Concen: 51.413 ug/l
RT: 6.07 min Scan# 806
Delta R.T. 0.01 min
Lab File: VX006677.D
Acq: 20 Dec 2018 15:47

Tgt Ion: 65 Resp: 343620

Ion	Ratio	Lower	Upper
65	100		
67	52.7	0.0	105.0



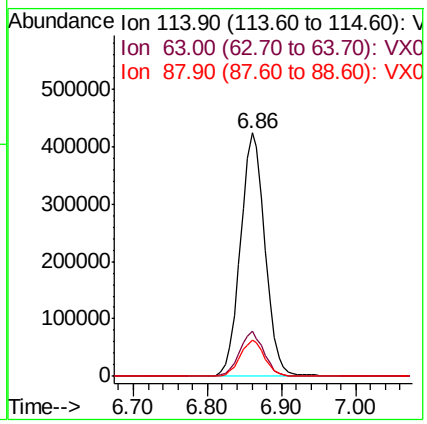
Instrument :
MSVOA_X
ClientSampleId :
971-MW-15(17)

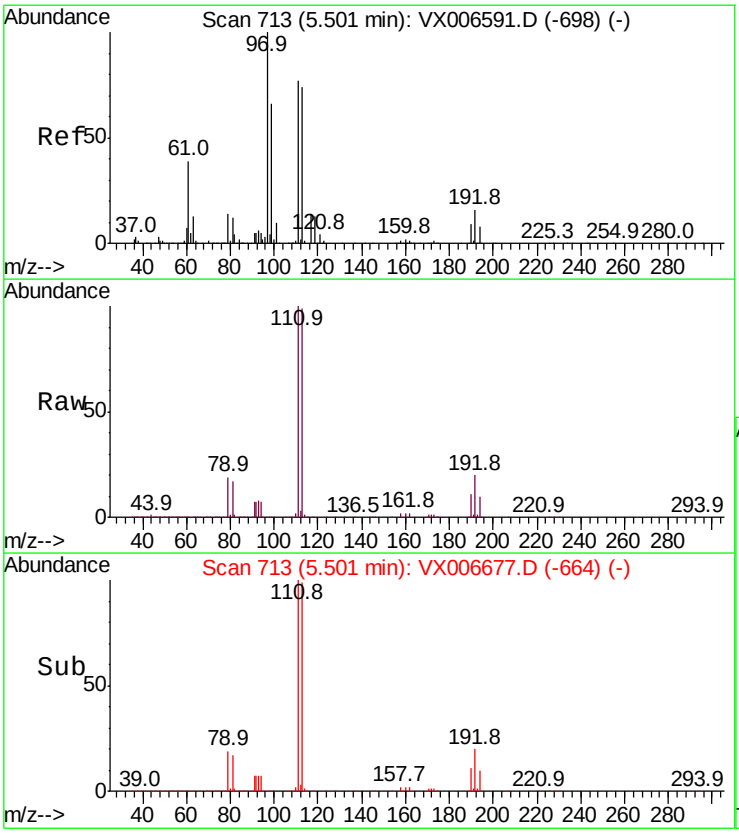


#34
1,4-Difluorobenzene
Concen: 50.000 ug/l
RT: 6.86 min Scan# 936
Delta R.T. 0.00 min
Lab File: VX006677.D
Acq: 20 Dec 2018 15:47

Tgt Ion:114 Resp: 979825

Ion	Ratio	Lower	Upper
114	100		
63	18.4	0.0	34.8
88	14.7	0.0	28.8

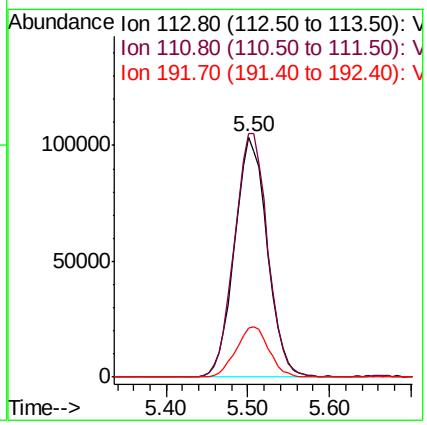




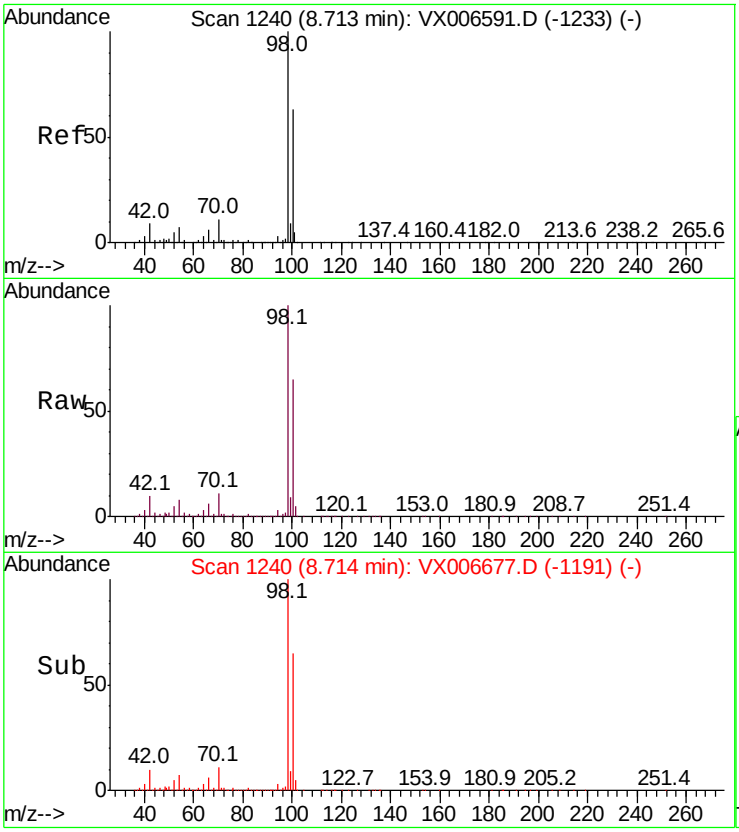
#35
Dibromofluoromethane
Concen: 46.458 ug/l
RT: 5.50 min Scan# 713
Delta R.T. 0.00 min
Lab File: VX006677.D
Acq: 20 Dec 2018 15:47

Tgt Ion:113 Resp: 287867

Ion	Ratio	Lower	Upper
113	100		
111	103.5	81.6	122.4
192	21.0	16.7	25.1



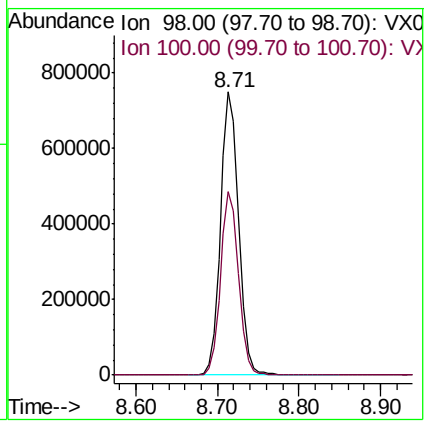
Instrument :
MSVOA_X
ClientSampleId :
971-MW-15(17)

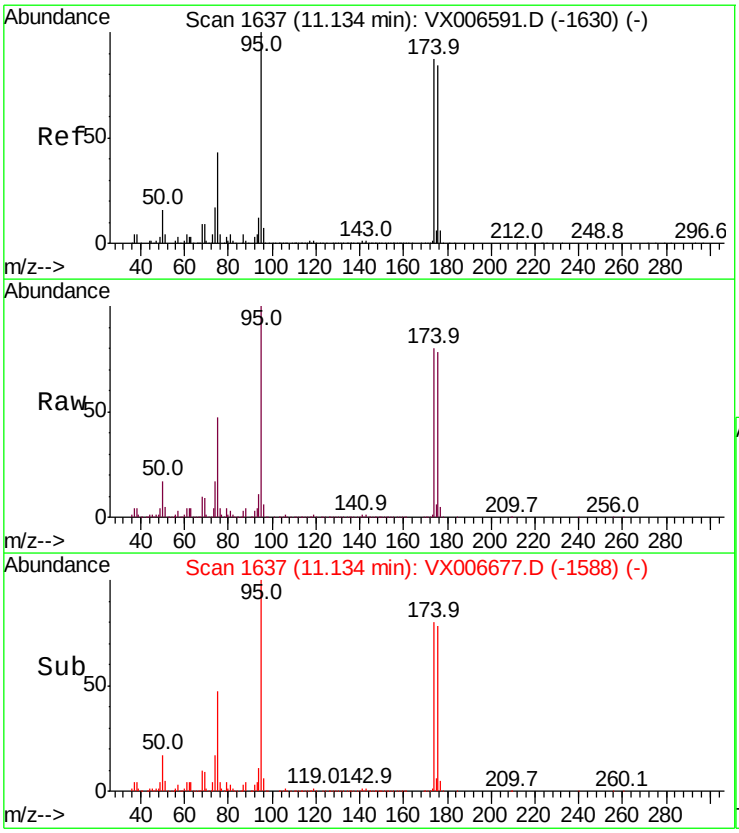


#50
Toluene-d8
Concen: 49.663 ug/l
RT: 8.71 min Scan# 1240
Delta R.T. 0.00 min
Lab File: VX006677.D
Acq: 20 Dec 2018 15:47

Tgt Ion: 98 Resp: 1160129

Ion	Ratio	Lower	Upper
98	100		
100	64.4	52.0	78.0

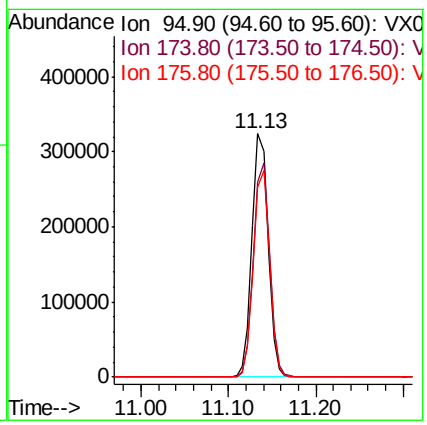




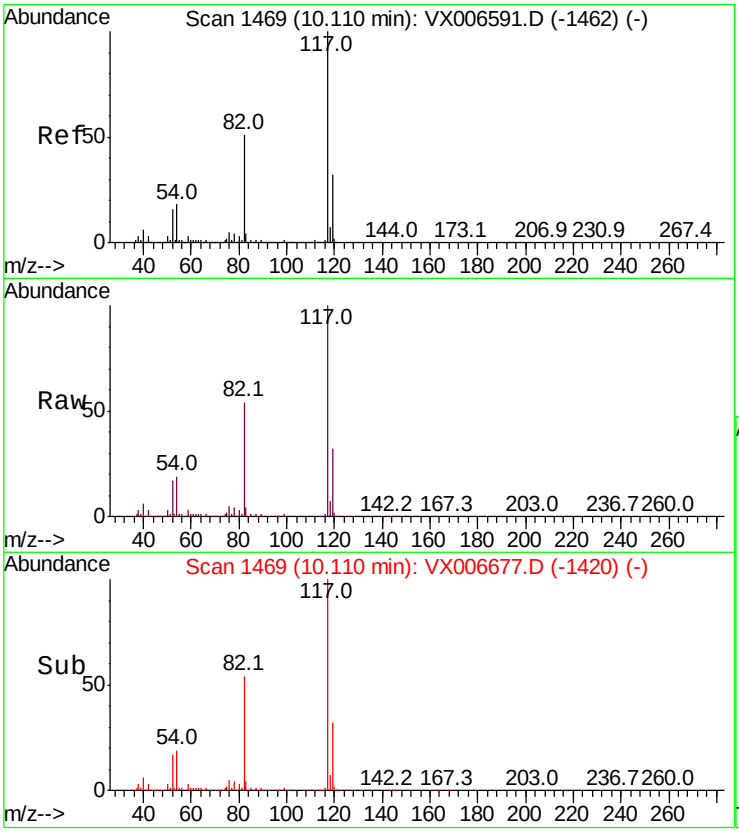
#62
4-Bromofluorobenzene
Concen: 48.444 ug/l
RT: 11.13 min Scan# 1637
Delta R.T. 0.00 min
Lab File: VX006677.D
Acq: 20 Dec 2018 15:47

Tgt Ion: 95 Resp: 414460

Ion	Ratio	Lower	Upper
95	100		
174	87.8	0.0	182.2
176	84.8	0.0	178.8



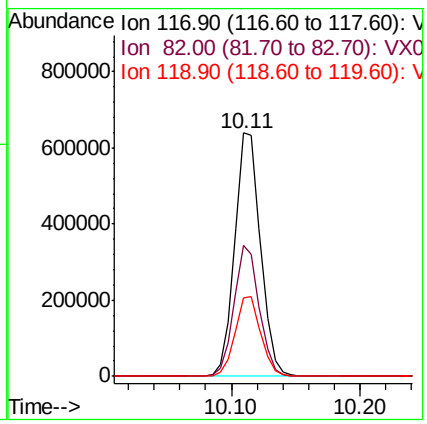
Instrument :
MSVOA_X
ClientSampleId :
971-MW-15(17)

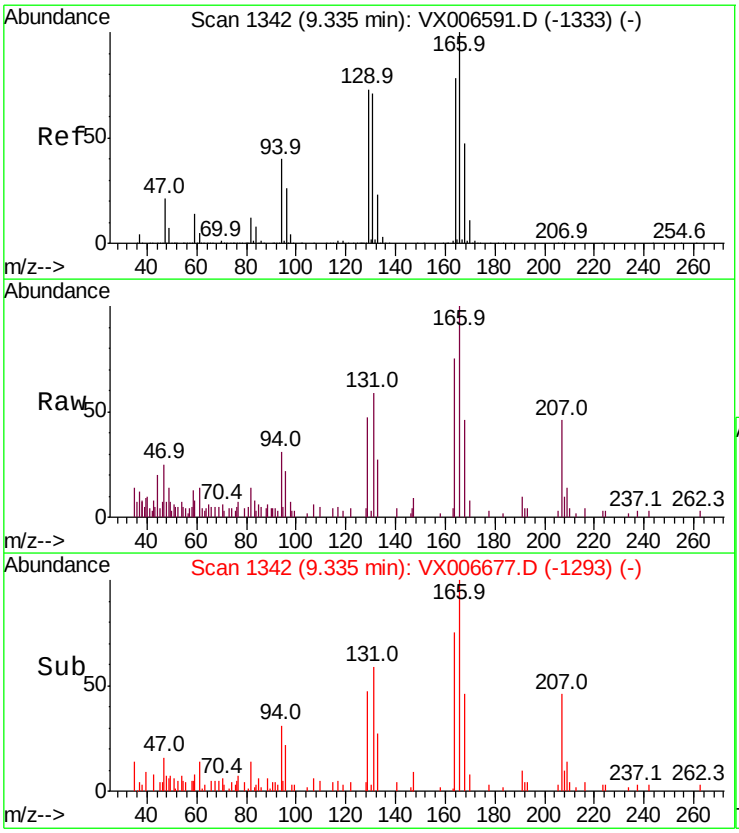


#63
Chlorobenzene-d5
Concen: 50.000 ug/l
RT: 10.11 min Scan# 1469
Delta R.T. 0.00 min
Lab File: VX006677.D
Acq: 20 Dec 2018 15:47

Tgt Ion:117 Resp: 894608

Ion	Ratio	Lower	Upper
117	100		
82	53.6	41.0	61.6
119	32.5	25.4	38.0

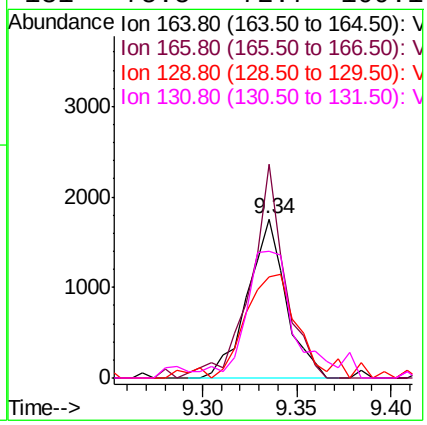


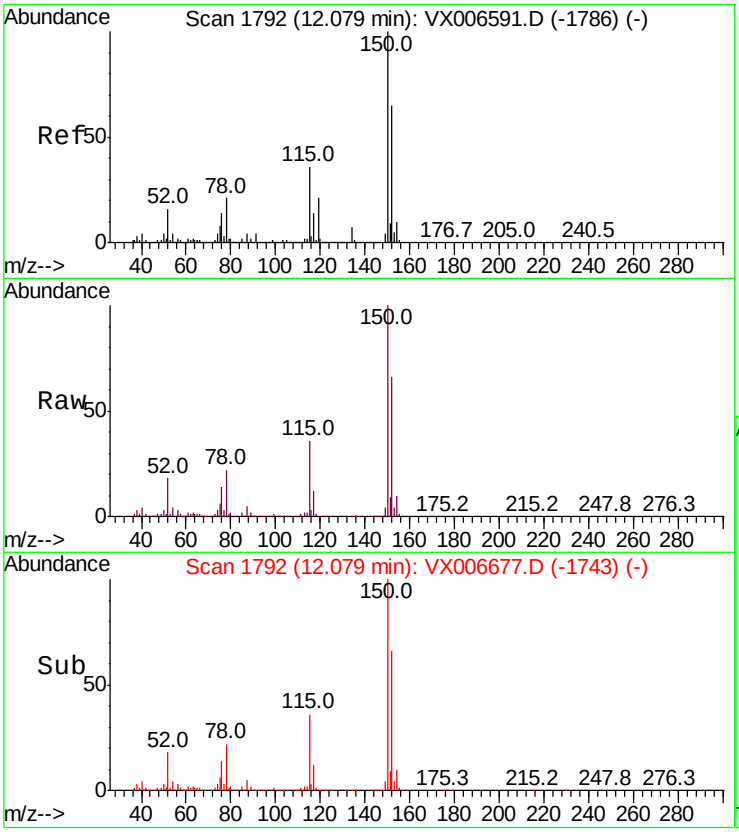


#64
Tetrachloroethene
Concen: 0.350 ug/l
RT: 9.34 min Scan# 1342
Delta R.T. 0.00 min
Lab File: VX006677.D
Acq: 20 Dec 2018 15:47

Tgt Ion:164 Resp: 2476

Ion	Ratio	Lower	Upper
164	100		
166	134.1	102.5	153.7
129	60.1	75.1	112.7#
131	75.5	72.7	109.1

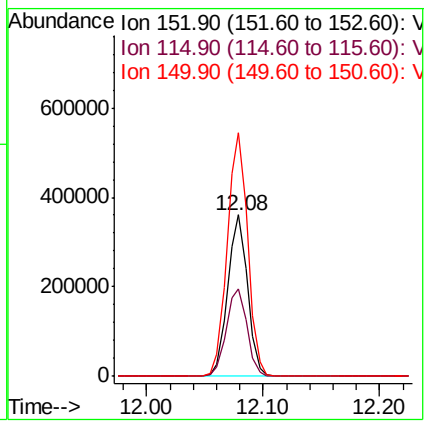




#72
1,4-Dichlorobenzene-d4
Concen: 50.000 ug/l
RT: 12.08 min Scan# 1792
Delta R.T. 0.00 min
Lab File: VX006677.D
Acq: 20 Dec 2018 15:47

Tgt Ion:152 Resp: 426454

Ion	Ratio	Lower	Upper
152	100		
115	56.3	39.1	117.2
150	154.8	0.0	344.8



Instrument :
MSVOA_X
ClientSampleId :
971-MW-15(17)

LSC Area Percent Report

Data Path : Z:\VOASRV\HPCHEM1\MSVOA X\DATA\VX122018\
Data File : VX006677.D
Acq On : 20 Dec 2018 15:47
Operator : JC/MD
Sample : J6484-11
Misc : 5.0mL/MSVOA X/WATER
ALS Vial : 17 Sample Multiplier: 1

Instrument : MSVOA_X
ClientSampleId : 971-MW-15(17)

Integration Parameters: RTEINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 3 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121818W.M
Title : SW846 8260

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	1.282	16	21	26	rBV2	24445	39196	1.33%	0.247%
2	1.623	65	77	80	rBV3	41264	102534	3.47%	0.647%
3	5.501	702	713	728	rBV	340480	962717	32.59%	6.079%
4	5.665	728	740	754	rVV	612776	1697498	57.47%	10.718%
5	6.068	794	806	818	rBV	367687	946824	32.06%	5.978%
6	6.860	924	936	947	rBV	914207	2119441	71.76%	13.383%
7	8.714	1232	1240	1257	rBV	1888887	2953714	100.00%	18.650%
8	10.110	1464	1469	1478	rBV	1841670	2549818	86.33%	16.100%
9	11.134	1632	1637	1648	rVB	1531238	2003452	67.83%	12.650%
10	12.079	1786	1792	1800	rBV	2015569	2462174	83.36%	15.547%

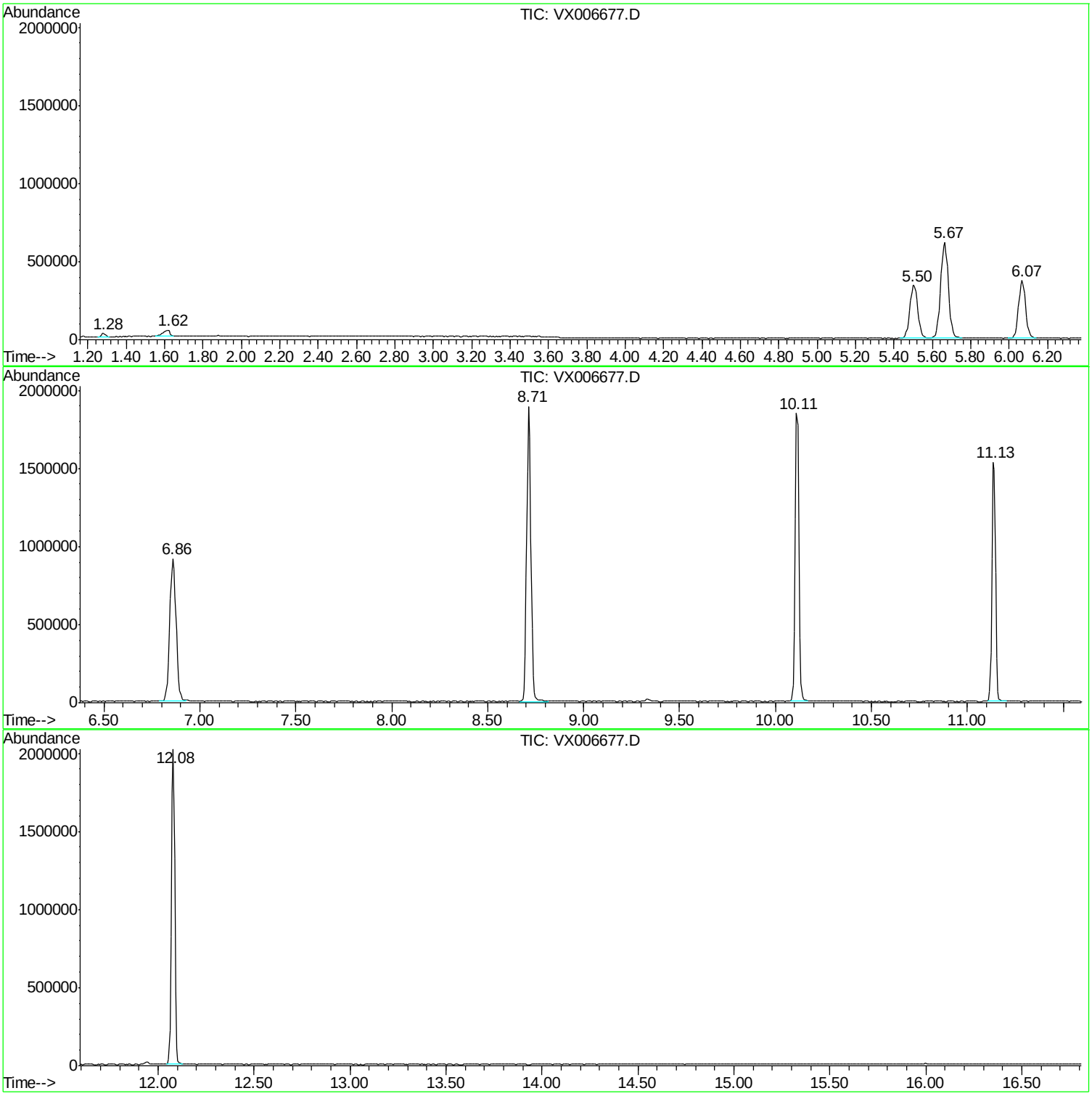
Sum of corrected areas: 15837368

Data Path : Z:\VOASRV\HPCHEM1\MSVOA X\DATA\VX122018\
Data File : VX006677.D
Acq On : 20 Dec 2018 15:47
Operator : JC/MD
Sample : J6484-11
Misc : 5.0mL/MSVOA X/WATER
ALS Vial : 17 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
971-MW-15(17)

Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121818W.M
Quant Title : SW846 8260

TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P



Library Search Compound Report

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX122018\
Data File : VX006677.D
Acq On : 20 Dec 2018 15:47
Operator : JC/MD
Sample : J6484-11
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 17 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
971-MW-15(17)

Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121818W.M
Quant Title : SW846 8260

TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

No Library Search Compounds Detected

****

Instrument :
MSVOA_X
ClientSampleId :
971-MW-15(17)

Tentatively Identified Compound (LSC) summary

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX122018\
Data File : VX006677.D
Acq On : 20 Dec 2018 15:47
Operator : JC/MD
Sample : J6484-11
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 17 Sample Multiplier: 1

Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121818W.M
Quant Title : SW846 8260

TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

					Internal Standard			
TIC Top Hit name	RT	EstConc	Units	Response	#	RT	Resp	Conc

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Day Environmental, Inc.	Date Collected:	12/18/18
Project:	Andrew St. RI	Date Received:	12/19/18
Client Sample ID:	972-MW-16(22.5)	SDG No.:	J6484
Lab Sample ID:	J6484-12	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	DB-624UI ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX006678.D	1		12/20/18 16:14	VX122018

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
75-71-8	Dichlorodifluoromethane	1	U	0.2	0.2	1	ug/L
74-87-3	Chloromethane	1	U	0.2	0.2	1	ug/L
75-01-4	Vinyl Chloride	1	U	0.2	0.2	1	ug/L
74-83-9	Bromomethane	1	U	0.2	0.2	1	ug/L
75-00-3	Chloroethane	1	U	0.2	0.5	1	ug/L
75-69-4	Trichlorofluoromethane	1	U	0.2	0.2	1	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	1	U	0.2	0.2	1	ug/L
75-35-4	1,1-Dichloroethene	1	U	0.2	0.2	1	ug/L
67-64-1	Acetone	4.1	J	0.5	1	5	ug/L
75-15-0	Carbon Disulfide	1	U	0.2	0.2	1	ug/L
1634-04-4	Methyl tert-butyl Ether	1	U	0.35	0.5	1	ug/L
79-20-9	Methyl Acetate	1	U	0.2	0.5	1	ug/L
75-09-2	Methylene Chloride	1	U	0.2	0.2	1	ug/L
156-60-5	trans-1,2-Dichloroethene	1	U	0.2	0.2	1	ug/L
75-34-3	1,1-Dichloroethane	1	U	0.2	0.2	1	ug/L
110-82-7	Cyclohexane	1	U	0.2	0.2	1	ug/L
78-93-3	2-Butanone	5	U	1.3	2.5	5	ug/L
56-23-5	Carbon Tetrachloride	1	U	0.2	0.2	1	ug/L
156-59-2	cis-1,2-Dichloroethene	1	U	0.2	0.2	1	ug/L
74-97-5	Bromochloromethane	1	U	0.2	0.5	1	ug/L
67-66-3	Chloroform	1	U	0.2	0.2	1	ug/L
71-55-6	1,1,1-Trichloroethane	1	U	0.2	0.2	1	ug/L
108-87-2	Methylcyclohexane	1	U	0.2	0.2	1	ug/L
71-43-2	Benzene	1	U	0.2	0.2	1	ug/L
107-06-2	1,2-Dichloroethane	1	U	0.2	0.2	1	ug/L
79-01-6	Trichloroethene	1	U	0.2	0.2	1	ug/L
78-87-5	1,2-Dichloropropane	1	U	0.2	0.2	1	ug/L
75-27-4	Bromodichloromethane	1	U	0.2	0.2	1	ug/L
108-10-1	4-Methyl-2-Pentanone	5	U	1	1	5	ug/L
108-88-3	Toluene	1	U	0.2	0.2	1	ug/L
10061-02-6	t-1,3-Dichloropropene	1	U	0.2	0.2	1	ug/L
10061-01-5	cis-1,3-Dichloropropene	1	U	0.2	0.2	1	ug/L

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Day Environmental, Inc.	Date Collected:	12/18/18
Project:	Andrew St. RI	Date Received:	12/19/18
Client Sample ID:	972-MW-16(22.5)	SDG No.:	J6484
Lab Sample ID:	J6484-12	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	DB-624UI ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX006678.D	1		12/20/18 16:14	VX122018

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
79-00-5	1,1,2-Trichloroethane	1	U	0.2	0.2	1	ug/L
591-78-6	2-Hexanone	5	U	1.9	2.5	5	ug/L
124-48-1	Dibromochloromethane	1	U	0.2	0.2	1	ug/L
106-93-4	1,2-Dibromoethane	1	U	0.2	0.2	1	ug/L
127-18-4	Tetrachloroethene	1	U	0.2	0.2	1	ug/L
108-90-7	Chlorobenzene	1	U	0.2	0.2	1	ug/L
100-41-4	Ethyl Benzene	1	U	0.2	0.2	1	ug/L
179601-23-1	m/p-Xylenes	2	U	0.4	0.4	2	ug/L
95-47-6	o-Xylene	1	U	0.2	0.2	1	ug/L
100-42-5	Styrene	1	U	0.2	0.2	1	ug/L
75-25-2	Bromoform	1	U	0.2	0.2	1	ug/L
98-82-8	Isopropylbenzene	1	U	0.2	0.2	1	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	1	U	0.2	0.2	1	ug/L
541-73-1	1,3-Dichlorobenzene	1	U	0.2	0.2	1	ug/L
106-46-7	1,4-Dichlorobenzene	1	U	0.2	0.2	1	ug/L
95-50-1	1,2-Dichlorobenzene	1	U	0.2	0.2	1	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	1	U	0.2	0.2	1	ug/L
120-82-1	1,2,4-Trichlorobenzene	1	U	0.2	0.2	1	ug/L
87-61-6	1,2,3-Trichlorobenzene	1	U	0.2	0.2	1	ug/L
SURROGATES							
17060-07-0	1,2-Dichloroethane-d4	50.7		61 - 141		101%	SPK: 50
1868-53-7	Dibromofluoromethane	47		69 - 133		94%	SPK: 50
2037-26-5	Toluene-d8	50.2		65 - 126		100%	SPK: 50
460-00-4	4-Bromofluorobenzene	49.1		58 - 135		98%	SPK: 50
INTERNAL STANDARDS							
363-72-4	Pentafluorobenzene	639564	5.67				
540-36-3	1,4-Difluorobenzene	1000110	6.86				
3114-55-4	Chlorobenzene-d5	930145	10.12				
3855-82-1	1,4-Dichlorobenzene-d4	439539	12.08				

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Day Environmental, Inc.	Date Collected:	12/18/18
Project:	Andrew St. RI	Date Received:	12/19/18
Client Sample ID:	972-MW-16(22.5)	SDG No.:	J6484
Lab Sample ID:	J6484-12	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	DB-624UI ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX006678.D	1		12/20/18 16:14	VX122018

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit
A = Aldol-Condensation Reaction Products

Quantitation Report (QT Reviewed)

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX122018\
Data File : VX006678.D
Acq On : 20 Dec 2018 16:14
Operator : JC/MD
Sample : J6484-12
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 18 Sample Multiplier: 1

Instrument : MSVOA_X
ClientSampleId : 972-MW-16(22.5)

Quant Time: Dec 21 04:17:14 2018
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121818W.M
Quant Title : SW846 8260
QLast Update : Wed Dec 19 15:20:58 2018
Response via : Initial Calibration

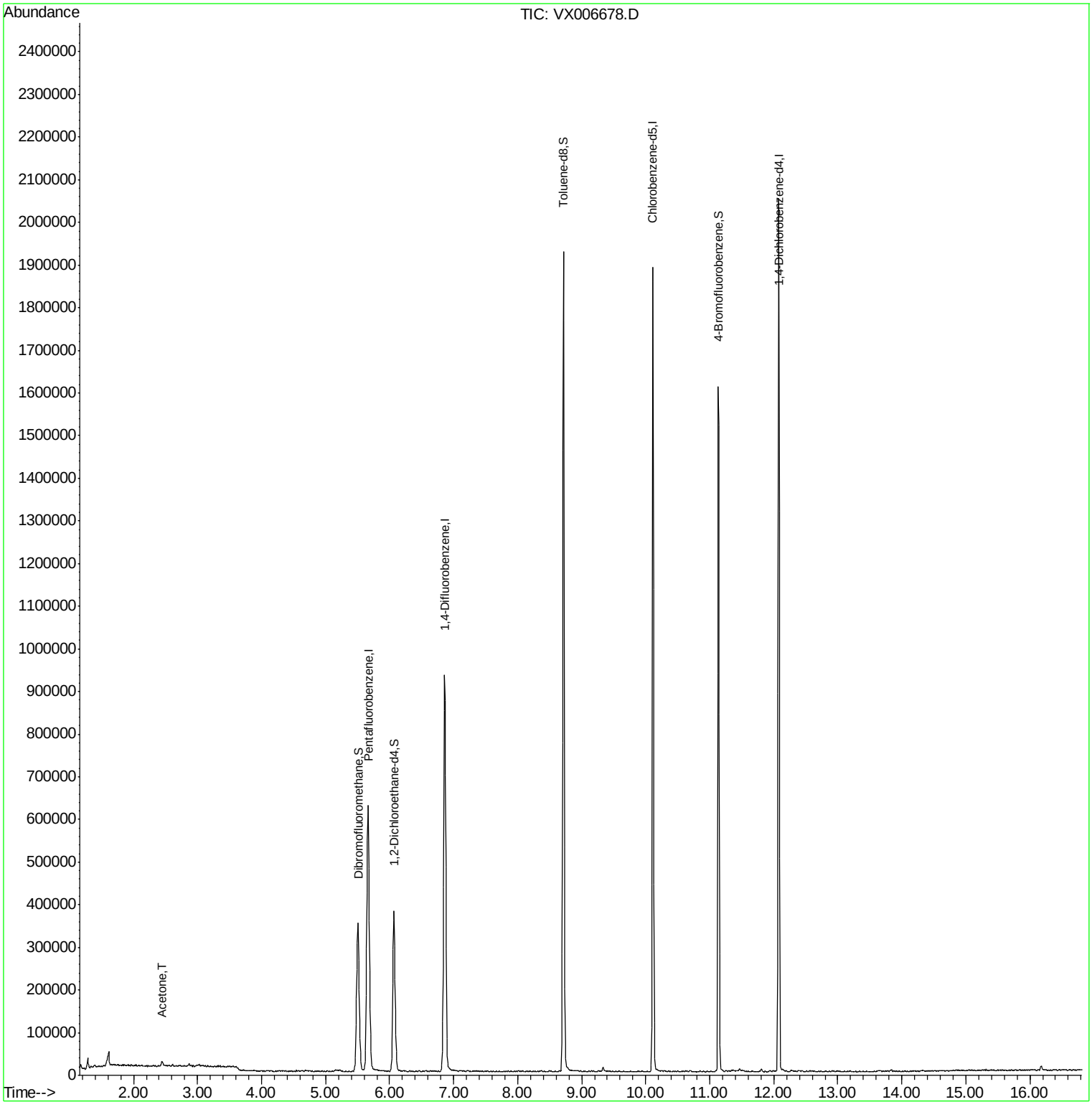
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	5.67	168	639564	50.00	ug/l	0.00
34) 1,4-Difluorobenzene	6.86	114	1000109	50.00	ug/l	0.00
63) Chlorobenzene-d5	10.12	117	930145	50.00	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	12.08	152	439539	50.00	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	6.07	65	349316	50.68	ug/l	0.00
Spiked Amount 50.000			Recovery = 101.36%			
35) Dibromofluoromethane	5.51	113	297186	46.99	ug/l	0.00
Spiked Amount 50.000			Recovery = 93.98%			
50) Toluene-d8	8.71	98	1196293	50.17	ug/l	0.00
Spiked Amount 50.000			Recovery = 100.34%			
62) 4-Bromofluorobenzene	11.13	95	428505	49.07	ug/l	0.00
Spiked Amount 50.000			Recovery = 98.14%			
Target Compounds						Qvalue
16) Acetone	2.45	43	12906	4.075	ug/l	94

(#) = qualifier out of range (m) = manual integration (+) = signals summed

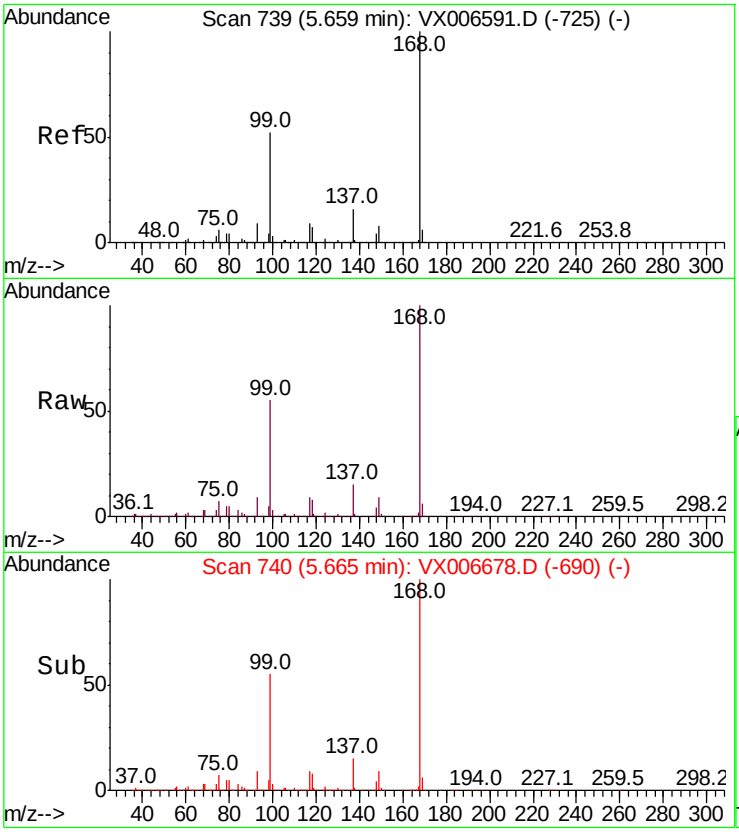
Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX122018\
Data File : VX006678.D
Acq On : 20 Dec 2018 16:14
Operator : JC/MD
Sample : J6484-12
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 18 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
972-MW-16(22.5)

Quant Time: Dec 21 04:17:14 2018
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121818W.M
Quant Title : SW846 8260
QLast Update : Wed Dec 19 15:20:58 2018
Response via : Initial Calibration



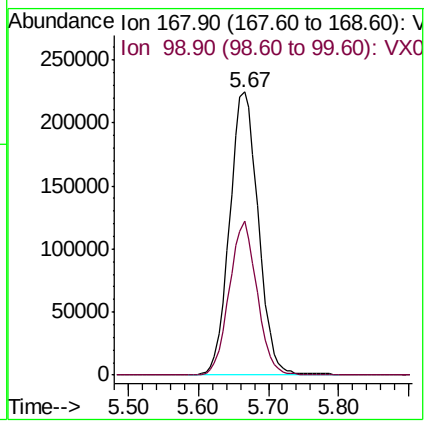
Instrument :
MSVOA_X
ClientSampleId :
972-MW-16(22.5)

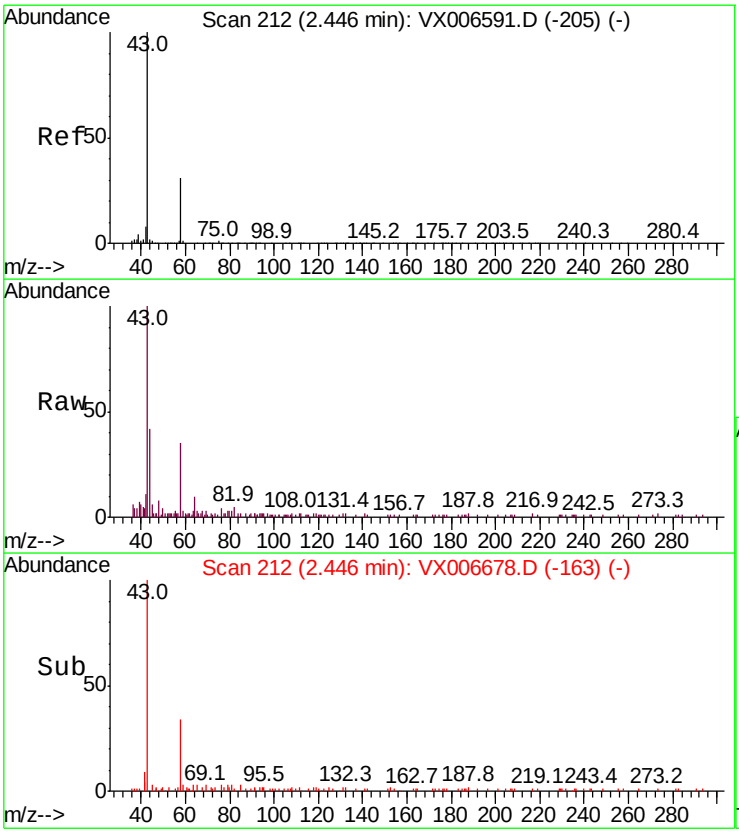


#1
Pentafluorobenzene
Concen: 50.000 ug/l
RT: 5.67 min Scan# 740
Delta R.T. 0.01 min
Lab File: VX006678.D
Acq: 20 Dec 2018 16:14

Tgt Ion:168 Resp: 639564

Ion	Ratio	Lower	Upper
168	100		
99	54.5	41.8	62.8

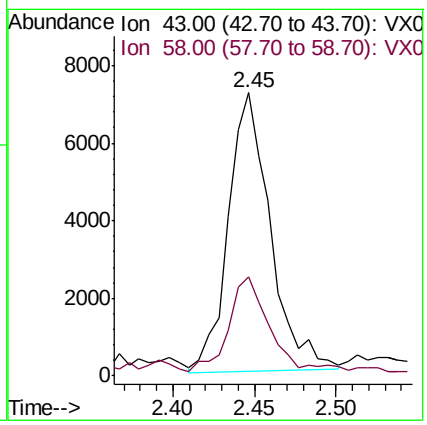




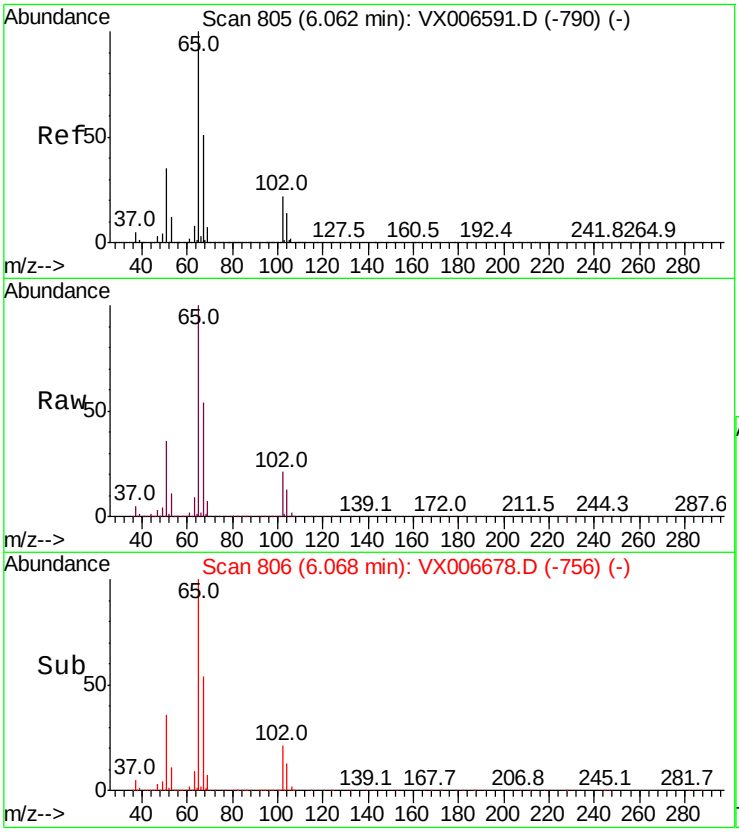
#16
Acetone
Concen: 4.075 ug/l
RT: 2.45 min Scan# 212
Delta R.T. -0.00 min
Lab File: VX006678.D
Acq: 20 Dec 2018 16:14

Tgt Ion: 43 Resp: 12906

Ion	Ratio	Lower	Upper
43	100		
58	34.7	25.0	37.6



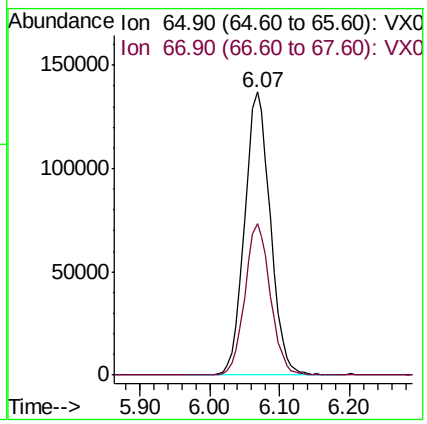
Instrument :
MSVOA_X
ClientSampleId :
972-MW-16(22.5)

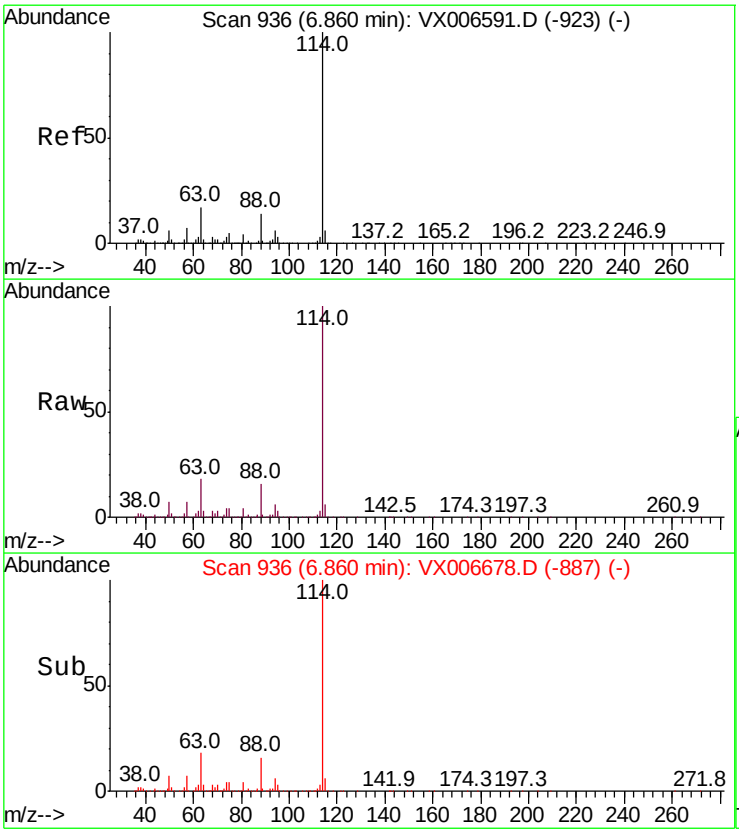


#33
1,2-Dichloroethane-d4
Concen: 50.677 ug/l
RT: 6.07 min Scan# 806
Delta R.T. 0.01 min
Lab File: VX006678.D
Acq: 20 Dec 2018 16:14

Tgt Ion: 65 Resp: 349316

Ion	Ratio	Lower	Upper
65	100		
67	53.1	0.0	105.0

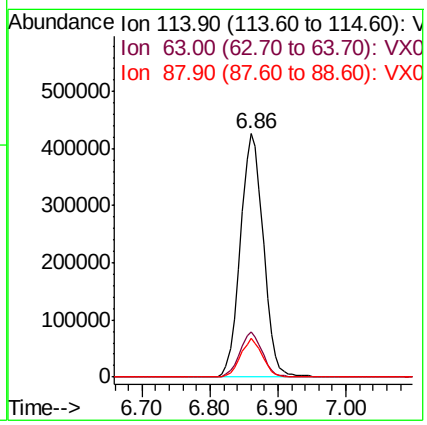




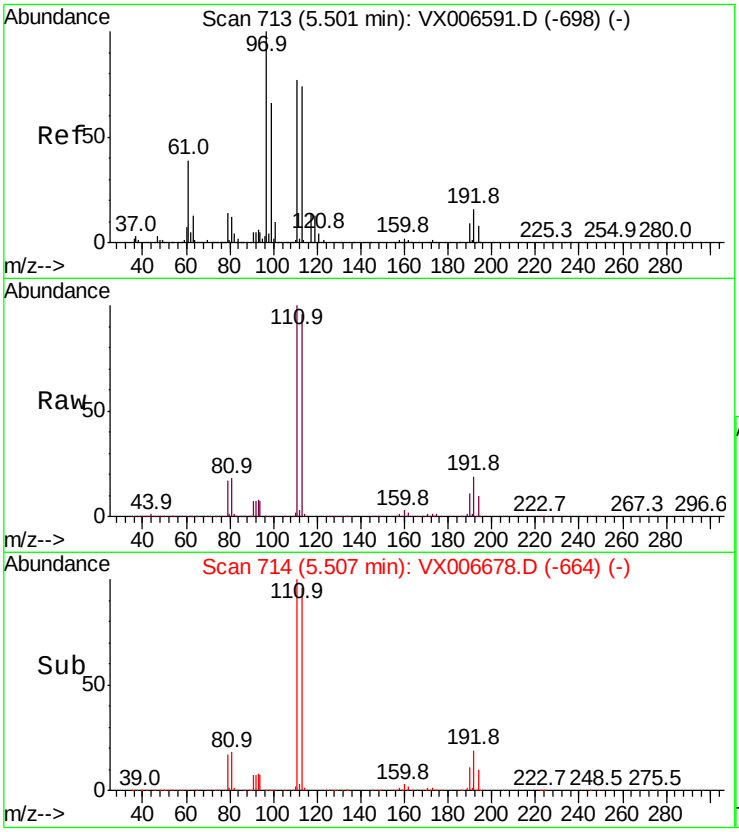
#34
1,4-Difluorobenzene
Concen: 50.000 ug/l
RT: 6.86 min Scan# 936
Delta R.T. -0.00 min
Lab File: VX006678.D
Acq: 20 Dec 2018 16:14

Tgt Ion:114 Resp: 1000109

Ion	Ratio	Lower	Upper
114	100		
63	18.4	0.0	34.8
88	15.8	0.0	28.8



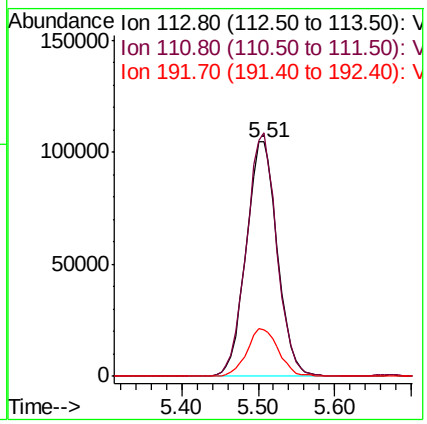
Instrument :
MSVOA_X
ClientSampleId :
972-MW-16(22.5)

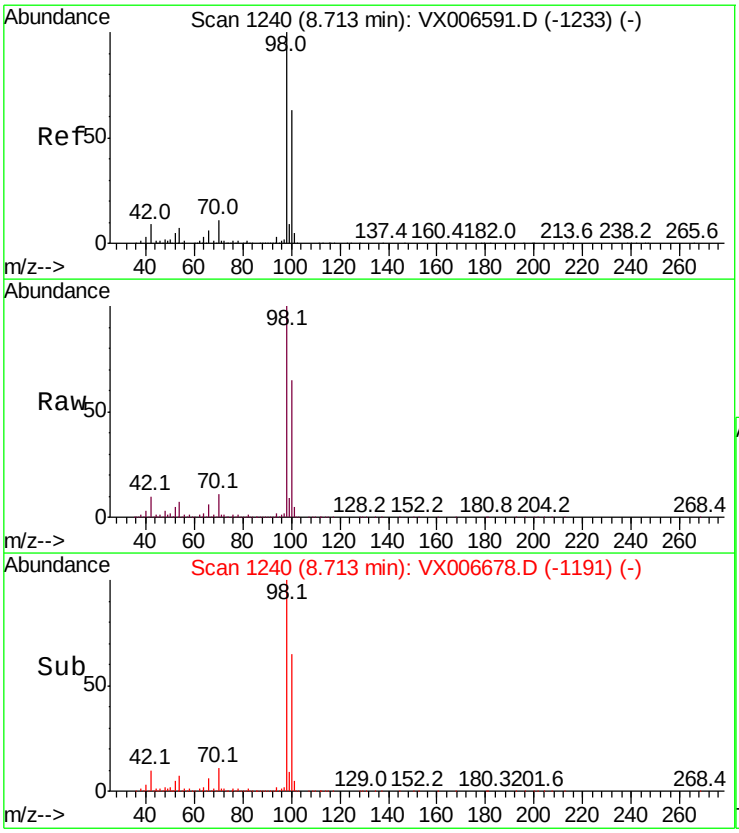


#35
Dibromofluoromethane
Concen: 46.990 ug/l
RT: 5.51 min Scan# 714
Delta R.T. 0.01 min
Lab File: VX006678.D
Acq: 20 Dec 2018 16:14

Tgt Ion:113 Resp: 297186

Ion	Ratio	Lower	Upper
113	100		
111	101.4	81.6	122.4
192	20.6	16.7	25.1

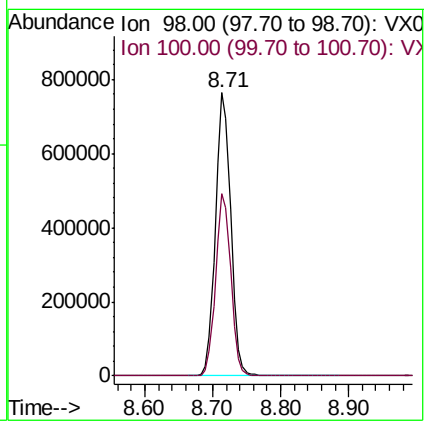




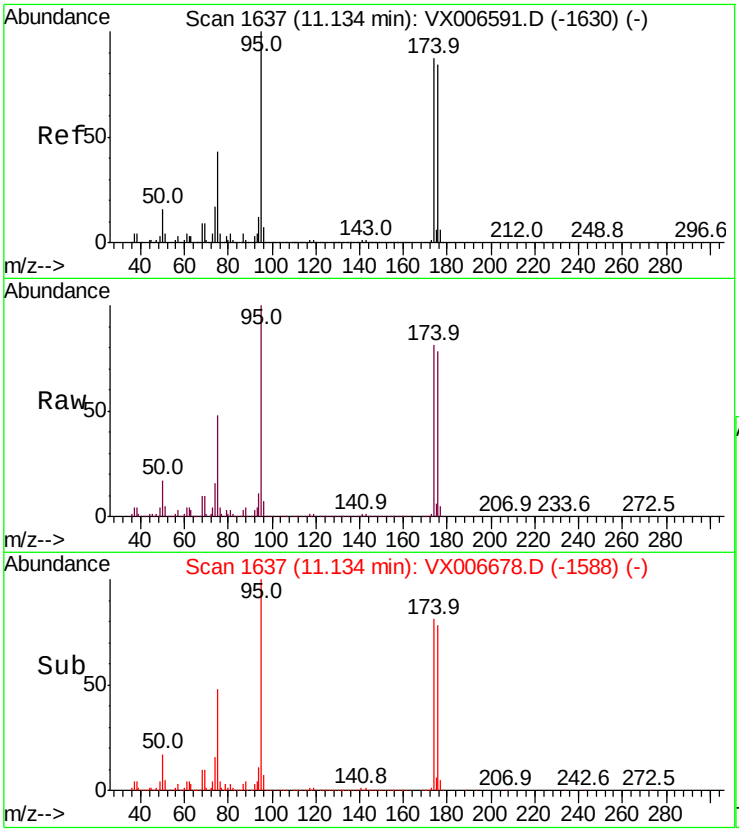
#50
Toluene-d8
Concen: 50.173 ug/l
RT: 8.71 min Scan# 1240
Delta R.T. -0.00 min
Lab File: VX006678.D
Acq: 20 Dec 2018 16:14

Tgt Ion: 98 Resp: 1196293

Ion	Ratio	Lower	Upper
98	100		
100	64.2	52.0	78.0



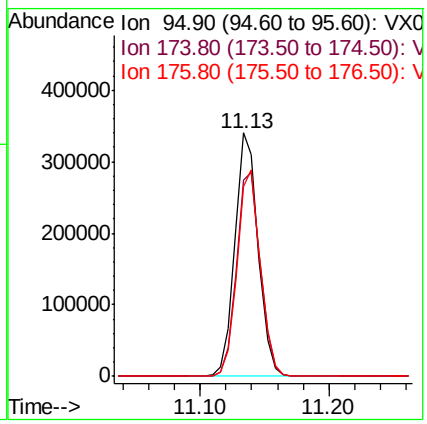
Instrument :
MSVOA_X
ClientSampleId :
972-MW-16(22.5)

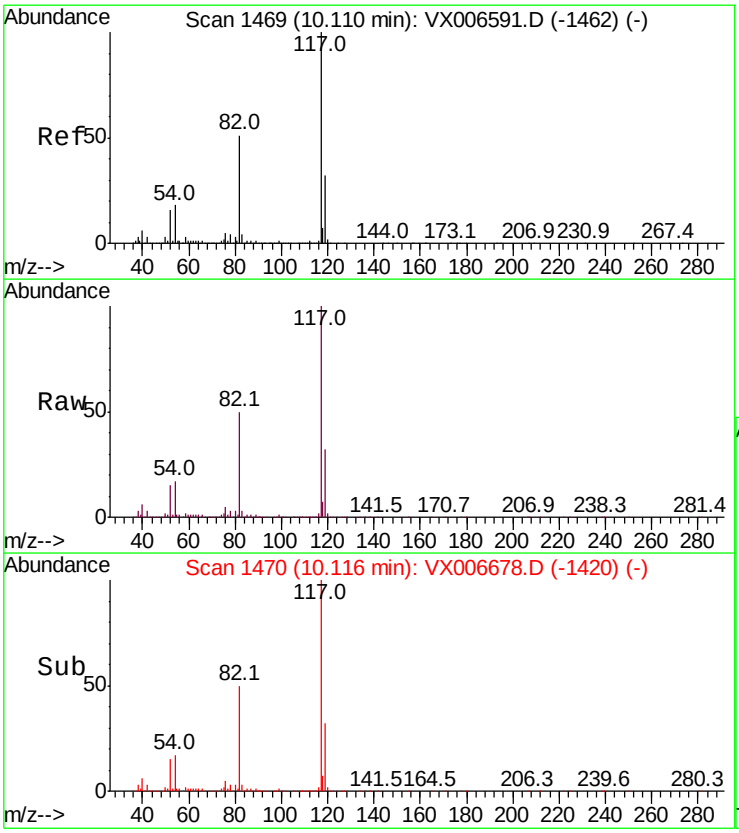


#62
4-Bromofluorobenzene
Concen: 49.070 ug/l
RT: 11.13 min Scan# 1637
Delta R.T. -0.00 min
Lab File: VX006678.D
Acq: 20 Dec 2018 16:14

Tgt Ion: 95 Resp: 428505

Ion	Ratio	Lower	Upper
95	100		
174	85.9	0.0	182.2
176	84.4	0.0	178.8

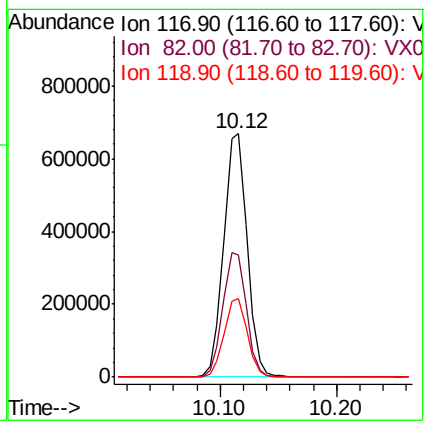


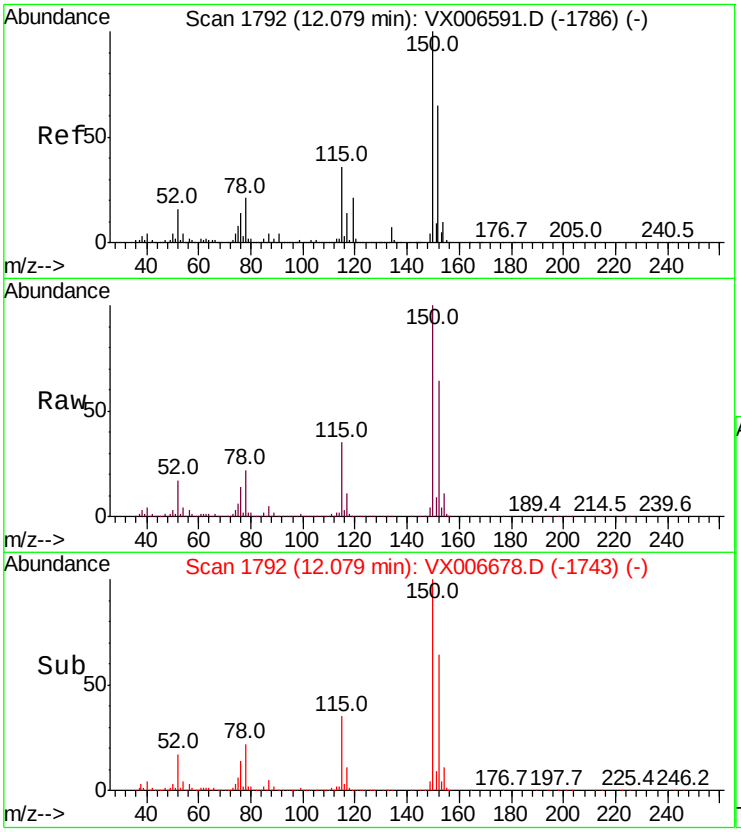


#63
Chlorobenzene-d5
Concen: 50.000 ug/l
RT: 10.12 min Scan# 1470
Delta R.T. 0.01 min
Lab File: VX006678.D
Acq: 20 Dec 2018 16:14

Tgt Ion:117 Resp: 930145

Ion	Ratio	Lower	Upper
117	100		
82	50.2	41.0	61.6
119	32.3	25.4	38.0

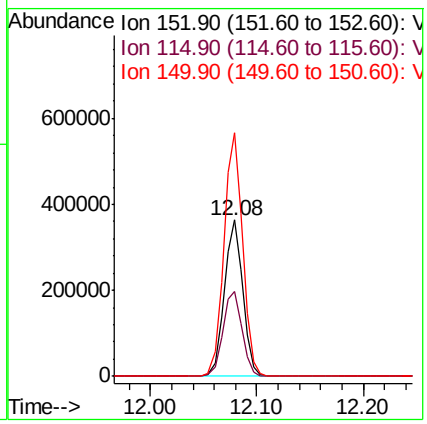




#72
1,4-Dichlorobenzene-d4
Concen: 50.000 ug/l
RT: 12.08 min Scan# 1792
Delta R.T. -0.00 min
Lab File: VX006678.D
Acq: 20 Dec 2018 16:14

Tgt Ion:152 Resp: 439539

Ion	Ratio	Lower	Upper
152	100		
115	56.6	39.1	117.2
150	157.6	0.0	344.8



Instrument :
MSVOA_X
ClientSampleId :
972-MW-16(22.5)

LSC Area Percent Report

Data Path : Z:\VOASRV\HPCHEM1\MSVOA X\DATA\VX122018\
Data File : VX006678.D
Acq On : 20 Dec 2018 16:14
Operator : JC/MD
Sample : J6484-12
Misc : 5.0mL/MSVOA X/WATER
ALS Vial : 18 Sample Multiplier: 1

Instrument : MSVOA_X
ClientSampleId : 972-MW-16(22.5)

Integration Parameters: RTEINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 3 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121818W.M
Title : SW846 8260

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	1.282	15	21	27	rBV2	26217	44028	1.45%	0.271%
2	1.617	67	76	79	rBV2	32338	64636	2.13%	0.397%
3	5.507	701	714	725	rBV	348276	985426	32.54%	6.059%
4	5.665	729	740	754	rVV2	619676	1744575	57.61%	10.727%
5	6.068	796	806	818	rBV	377675	979587	32.35%	6.023%
6	6.860	924	936	951	rBV	930264	2181855	72.05%	13.416%
7	8.713	1233	1240	1259	rBV	1920539	3028090	100.00%	18.619%
8	10.110	1463	1469	1478	rBV	1886370	2636829	87.08%	16.213%
9	11.134	1632	1637	1645	rBV	1605168	2051580	67.75%	12.615%
10	12.079	1786	1792	1800	rBV	2046211	2546749	84.10%	15.659%

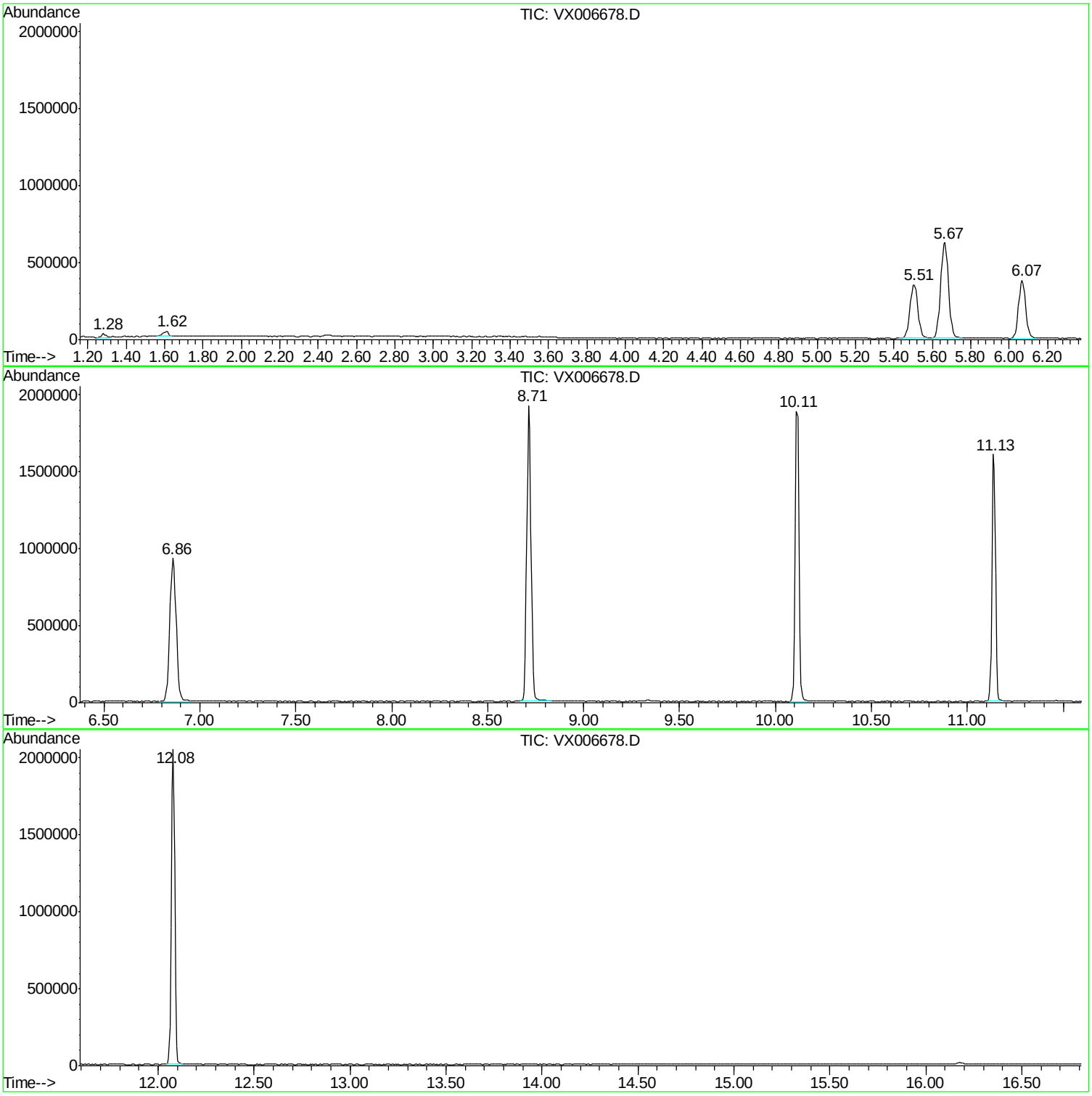
Sum of corrected areas: 16263355

Data Path : Z:\VOASRV\HPCHEM1\MSVOA X\DATA\VX122018\
Data File : VX006678.D
Acq On : 20 Dec 2018 16:14
Operator : JC/MD
Sample : J6484-12
Misc : 5.0mL/MSVOA X/WATER
ALS Vial : 18 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
972-MW-16(22.5)

Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121818W.M
Quant Title : SW846 8260

TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P



Library Search Compound Report

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX122018\
Data File : VX006678.D
Acq On : 20 Dec 2018 16:14
Operator : JC/MD
Sample : J6484-12
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 18 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
972-MW-16(22.5)

Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121818W.M
Quant Title : SW846 8260

TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

No Library Search Compounds Detected

****

Tentatively Identified Compound (LSC) summary

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX122018\
Data File : VX006678.D
Acq On : 20 Dec 2018 16:14
Operator : JC/MD
Sample : J6484-12
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 18 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
972-MW-16(22.5)

Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121818W.M
Quant Title : SW846 8260

TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

TIC Top Hit name	RT	EstConc	Units	Response	Internal Standard #	Internal Standard RT	Internal Standard Resp	Internal Standard Conc

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Day Environmental, Inc.	Date Collected:	12/18/18
Project:	Andrew St. RI	Date Received:	12/19/18
Client Sample ID:	973-MW-17(15.5)	SDG No.:	J6484
Lab Sample ID:	J6484-13	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	DB-624UI ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX006686.D	10		12/20/18 19:47	VX122018

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
75-71-8	Dichlorodifluoromethane	10	U	2	2	10	ug/L
74-87-3	Chloromethane	10	U	2	2	10	ug/L
75-01-4	Vinyl Chloride	10	U	2	2	10	ug/L
74-83-9	Bromomethane	10	U	2	2	10	ug/L
75-00-3	Chloroethane	10	U	2	5	10	ug/L
75-69-4	Trichlorofluoromethane	10	U	2	2	10	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	10	U	2	2	10	ug/L
75-35-4	1,1-Dichloroethene	10	U	2	2	10	ug/L
67-64-1	Acetone	50	U	5	10	50	ug/L
75-15-0	Carbon Disulfide	10	U	2	2	10	ug/L
1634-04-4	Methyl tert-butyl Ether	10	U	3.5	5	10	ug/L
79-20-9	Methyl Acetate	10	U	2	5	10	ug/L
75-09-2	Methylene Chloride	10	U	2	2	10	ug/L
156-60-5	trans-1,2-Dichloroethene	10	U	2	2	10	ug/L
75-34-3	1,1-Dichloroethane	10	U	2	2	10	ug/L
110-82-7	Cyclohexane	10	U	2	2	10	ug/L
78-93-3	2-Butanone	50	U	13.2	25	50	ug/L
56-23-5	Carbon Tetrachloride	10	U	2	2	10	ug/L
156-59-2	cis-1,2-Dichloroethene	29.3		2	2	10	ug/L
74-97-5	Bromochloromethane	10	U	2	5	10	ug/L
67-66-3	Chloroform	10	U	2	2	10	ug/L
71-55-6	1,1,1-Trichloroethane	10	U	2	2	10	ug/L
108-87-2	Methylcyclohexane	10	U	2	2	10	ug/L
71-43-2	Benzene	10	U	2	2	10	ug/L
107-06-2	1,2-Dichloroethane	10	U	2	2	10	ug/L
79-01-6	Trichloroethene	27.9		2	2	10	ug/L
78-87-5	1,2-Dichloropropane	10	U	2	2	10	ug/L
75-27-4	Bromodichloromethane	10	U	2	2	10	ug/L
108-10-1	4-Methyl-2-Pentanone	50	U	10	10	50	ug/L
108-88-3	Toluene	10	U	2	2	10	ug/L
10061-02-6	t-1,3-Dichloropropene	10	U	2	2	10	ug/L
10061-01-5	cis-1,3-Dichloropropene	10	U	2	2	10	ug/L

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Day Environmental, Inc.	Date Collected:	12/18/18
Project:	Andrew St. RI	Date Received:	12/19/18
Client Sample ID:	973-MW-17(15.5)	SDG No.:	J6484
Lab Sample ID:	J6484-13	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	DB-624UI ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX006686.D	10		12/20/18 19:47	VX122018

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
79-00-5	1,1,2-Trichloroethane	10	U	2	2	10	ug/L
591-78-6	2-Hexanone	50	U	19.4	25	50	ug/L
124-48-1	Dibromochloromethane	10	U	2	2	10	ug/L
106-93-4	1,2-Dibromoethane	10	U	2	2	10	ug/L
127-18-4	Tetrachloroethene	1000		2	2	10	ug/L
108-90-7	Chlorobenzene	10	U	2	2	10	ug/L
100-41-4	Ethyl Benzene	10	U	2	2	10	ug/L
179601-23-1	m/p-Xylenes	20	U	4	4	20	ug/L
95-47-6	o-Xylene	10	U	2	2	10	ug/L
100-42-5	Styrene	10	U	2	2	10	ug/L
75-25-2	Bromoform	10	U	2	2	10	ug/L
98-82-8	Isopropylbenzene	10	U	2	2	10	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	10	U	2	2	10	ug/L
541-73-1	1,3-Dichlorobenzene	10	U	2	2	10	ug/L
106-46-7	1,4-Dichlorobenzene	10	U	2	2	10	ug/L
95-50-1	1,2-Dichlorobenzene	10	U	2	2	10	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	10	U	2	2	10	ug/L
120-82-1	1,2,4-Trichlorobenzene	10	U	2	2	10	ug/L
87-61-6	1,2,3-Trichlorobenzene	10	U	2	2	10	ug/L
SURROGATES							
17060-07-0	1,2-Dichloroethane-d4	51.1		61 - 141		102%	SPK: 50
1868-53-7	Dibromofluoromethane	47.8		69 - 133		96%	SPK: 50
2037-26-5	Toluene-d8	50.2		65 - 126		100%	SPK: 50
460-00-4	4-Bromofluorobenzene	49.6		58 - 135		99%	SPK: 50
INTERNAL STANDARDS							
363-72-4	Pentafluorobenzene	624258	5.67				
540-36-3	1,4-Difluorobenzene	989202	6.86				
3114-55-4	Chlorobenzene-d5	922019	10.12				
3855-82-1	1,4-Dichlorobenzene-d4	438438	12.08				

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Day Environmental, Inc.	Date Collected:	12/18/18
Project:	Andrew St. RI	Date Received:	12/19/18
Client Sample ID:	973-MW-17(15.5)	SDG No.:	J6484
Lab Sample ID:	J6484-13	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	DB-624UI ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX006686.D	10		12/20/18 19:47	VX122018

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit
A = Aldol-Condensation Reaction Products

Quantitation Report (QT/LSC Reviewed)

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX122018\
Data File : VX006686.D
Acq On : 20 Dec 2018 19:47
Operator : JC/MD
Sample : J6484-13 10X
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 26 Sample Multiplier: 1

Instrument : MSVOA_X
ClientSampleId : 973-MW-17(15.5)

Quant Time: Dec 21 04:35:37 2018
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121818W.M
Quant Title : SW846 8260
QLast Update : Wed Dec 19 15:20:58 2018
Response via : Initial Calibration

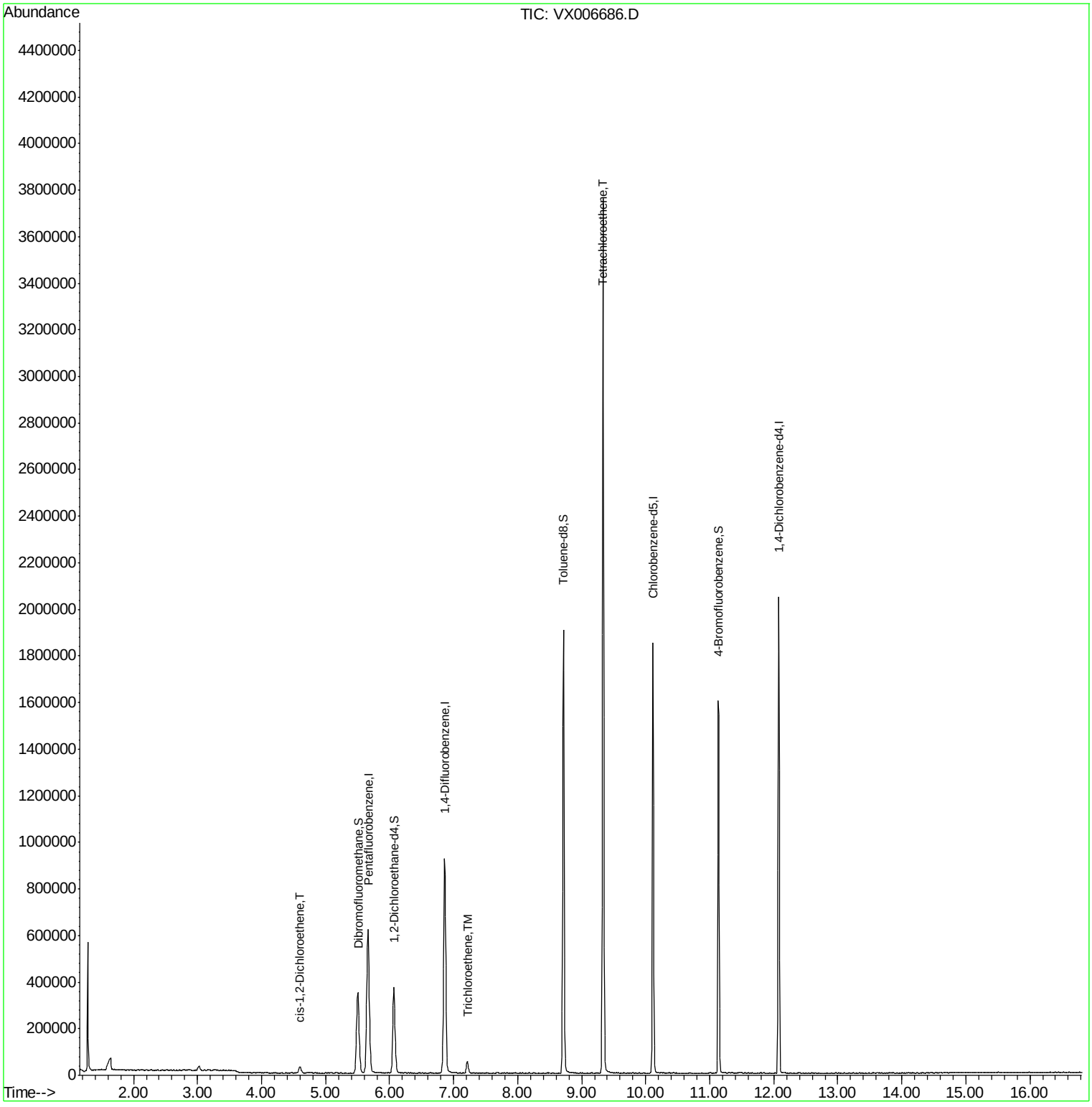
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	5.67	168	624258	50.00	ug/l	0.00
34) 1,4-Difluorobenzene	6.86	114	989202	50.00	ug/l	0.00
63) Chlorobenzene-d5	10.12	117	922019	50.00	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	12.08	152	438438	50.00	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	6.07	65	343885	51.11	ug/l	0.00
Spiked Amount 50.000			Recovery =	102.22%		
35) Dibromofluoromethane	5.50	113	299148	47.82	ug/l	0.00
Spiked Amount 50.000			Recovery =	95.64%		
50) Toluene-d8	8.71	98	1184586	50.23	ug/l	0.00
Spiked Amount 50.000			Recovery =	100.46%		
62) 4-Bromofluorobenzene	11.13	95	428713	49.64	ug/l	0.00
Spiked Amount 50.000			Recovery =	99.28%		
Target Compounds						Qvalue
27) cis-1,2-Dichloroethene	4.60	96	19954	2.926	ug/l	83
44) Trichloroethene	7.21	130	20989	2.785	ug/l	98
64) Tetrachloroethene	9.34	164	748833	102.566	ug/l	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

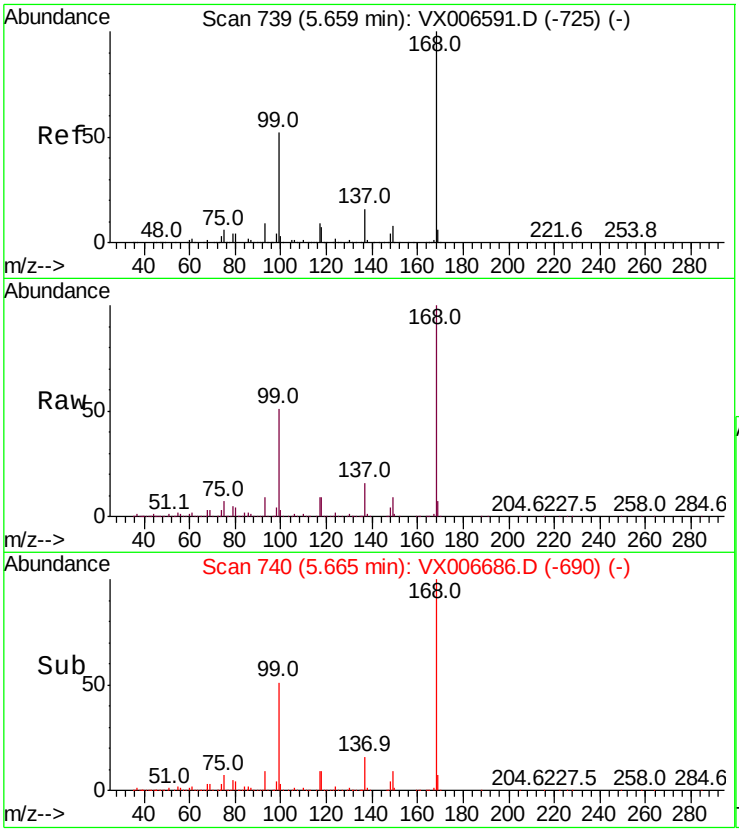
Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX122018\
Data File : VX006686.D
Acq On : 20 Dec 2018 19:47
Operator : JC/MD
Sample : J6484-13 10X
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 26 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
973-MW-17(15.5)

Quant Time: Dec 21 04:35:37 2018
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121818W.M
Quant Title : SW846 8260
QLast Update : Wed Dec 19 15:20:58 2018
Response via : Initial Calibration



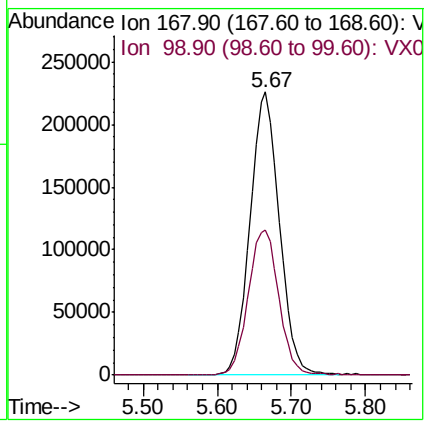
Instrument :
MSVOA_X
ClientSampleId :
973-MW-17(15.5)

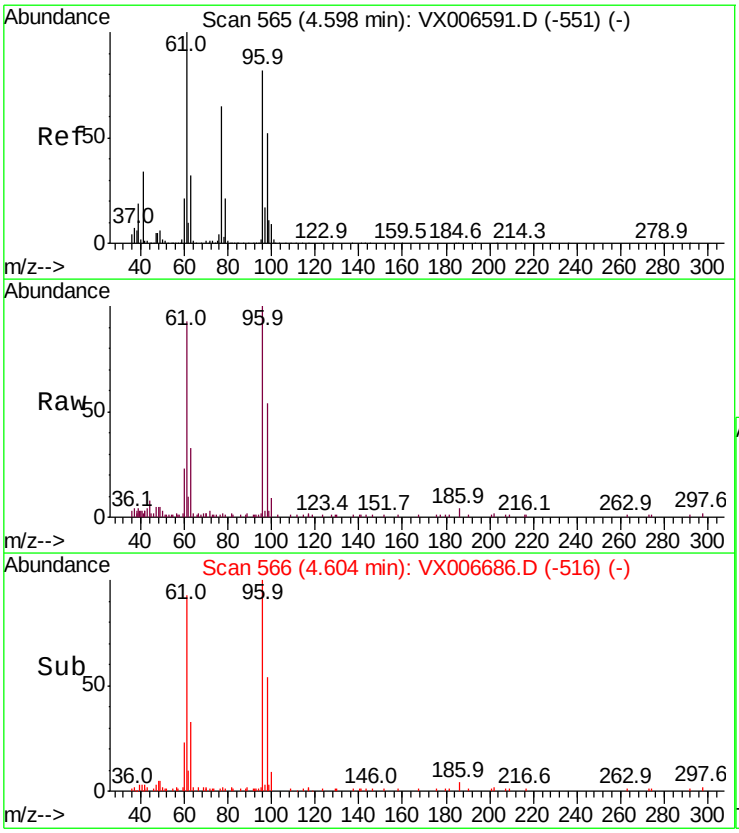


#1
Pentafluorobenzene
Concen: 50.000 ug/l
RT: 5.67 min Scan# 740
Delta R.T. 0.01 min
Lab File: VX006686.D
Acq: 20 Dec 2018 19:47

Tgt Ion:168 Resp: 624258

Ion	Ratio	Lower	Upper
168	100		
99	51.1	41.8	62.8

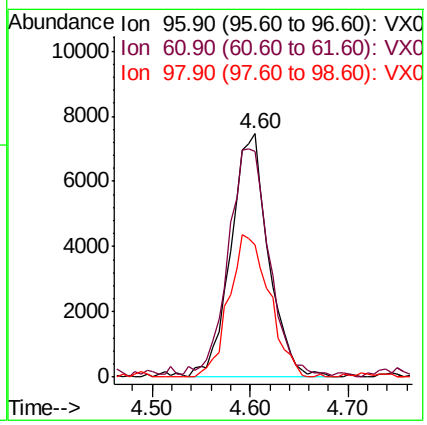




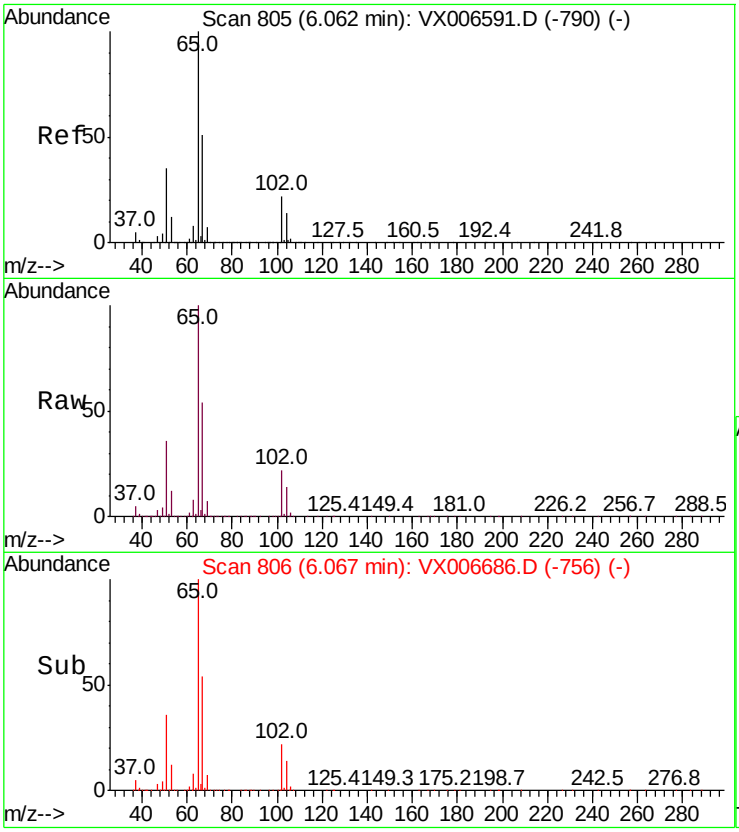
#27
cis-1,2-Dichloroethene
Concen: 2.926 ug/l
RT: 4.60 min Scan# 566
Delta R.T. 0.01 min
Lab File: VX006686.D
Acq: 20 Dec 2018 19:47

Tgt Ion: 96 Resp: 19954

Ion	Ratio	Lower	Upper
96	100		
61	101.3	0.0	258.6
98	62.7	0.0	132.0



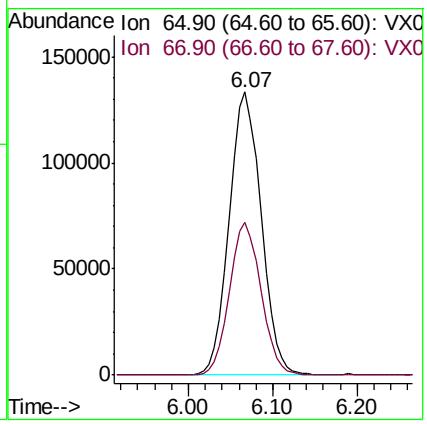
Instrument :
MSVOA_X
ClientSampleId :
973-MW-17(15.5)

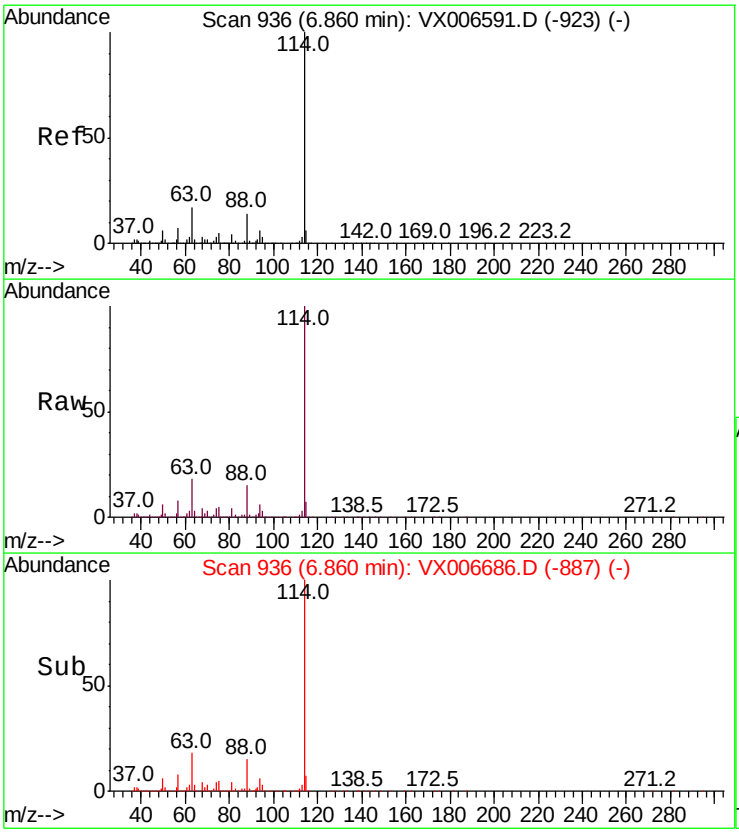


#33
1,2-Dichloroethane-d4
Concen: 51.113 ug/l
RT: 6.07 min Scan# 806
Delta R.T. 0.01 min
Lab File: VX006686.D
Acq: 20 Dec 2018 19:47

Tgt Ion: 65 Resp: 343885

Ion	Ratio	Lower	Upper
65	100		
67	53.1	0.0	105.0

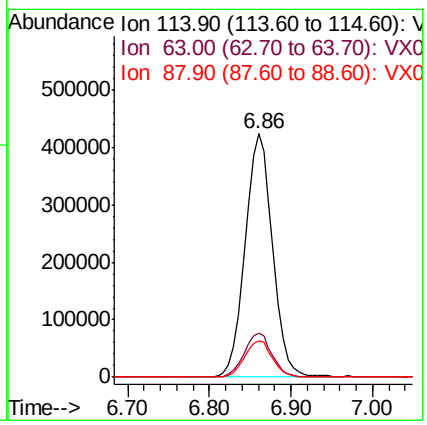




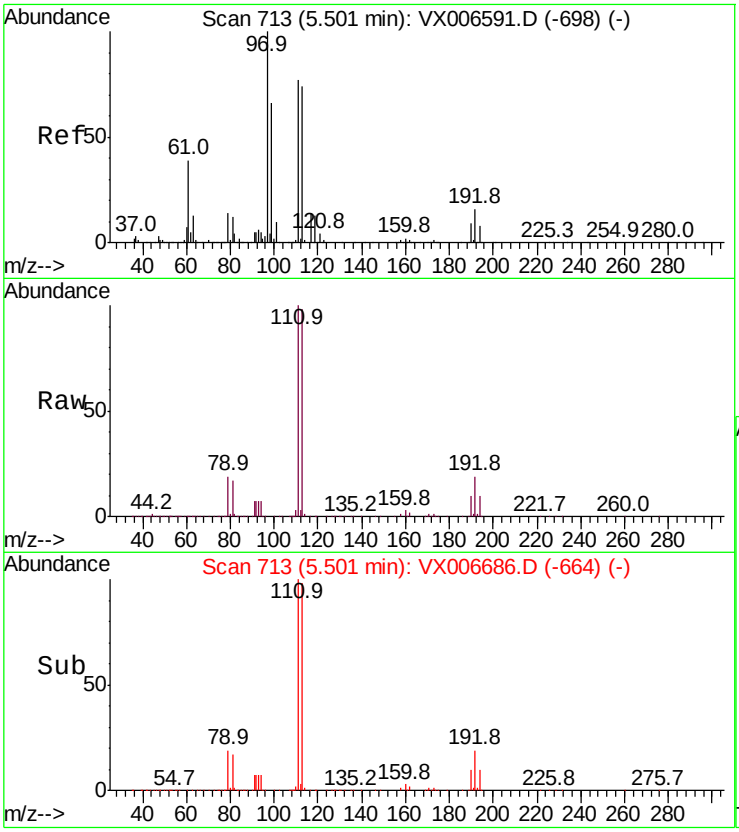
#34
1,4-Difluorobenzene
Concen: 50.000 ug/l
RT: 6.86 min Scan# 936
Delta R.T. -0.00 min
Lab File: VX006686.D
Acq: 20 Dec 2018 19:47

Tgt Ion:114 Resp: 989202

Ion	Ratio	Lower	Upper
114	100		
63	17.9	0.0	34.8
88	14.9	0.0	28.8



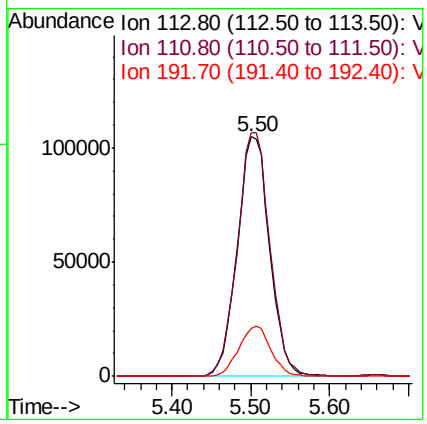
Instrument :
MSVOA_X
ClientSampleId :
973-MW-17(15.5)

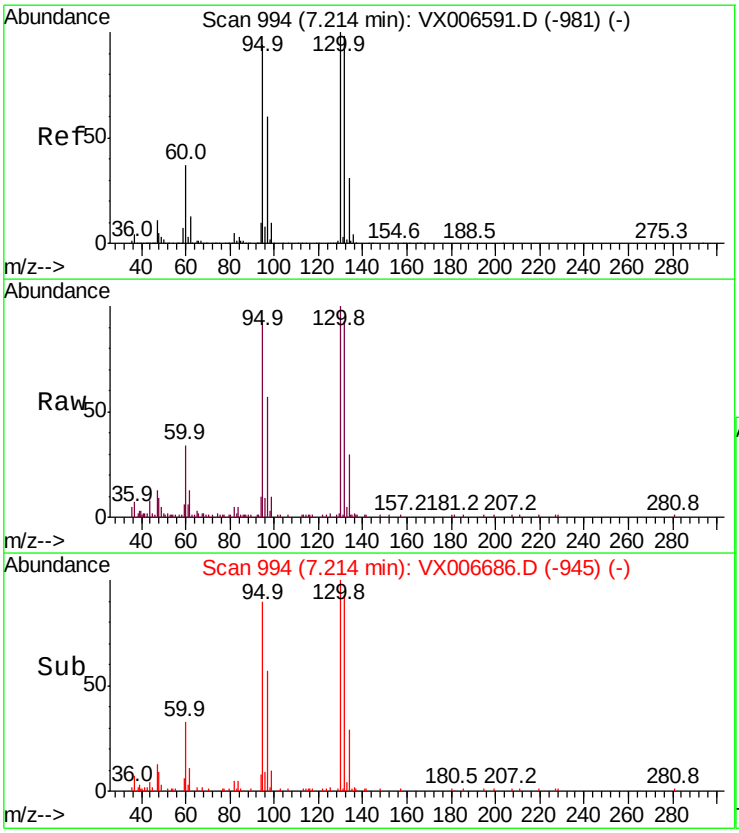


#35
Dibromofluoromethane
Concen: 47.821 ug/l
RT: 5.50 min Scan# 713
Delta R.T. -0.00 min
Lab File: VX006686.D
Acq: 20 Dec 2018 19:47

Tgt Ion:113 Resp: 299148

Ion	Ratio	Lower	Upper
113	100		
111	102.1	81.6	122.4
192	20.8	16.7	25.1

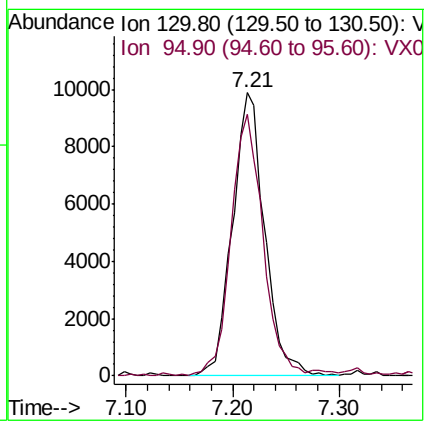




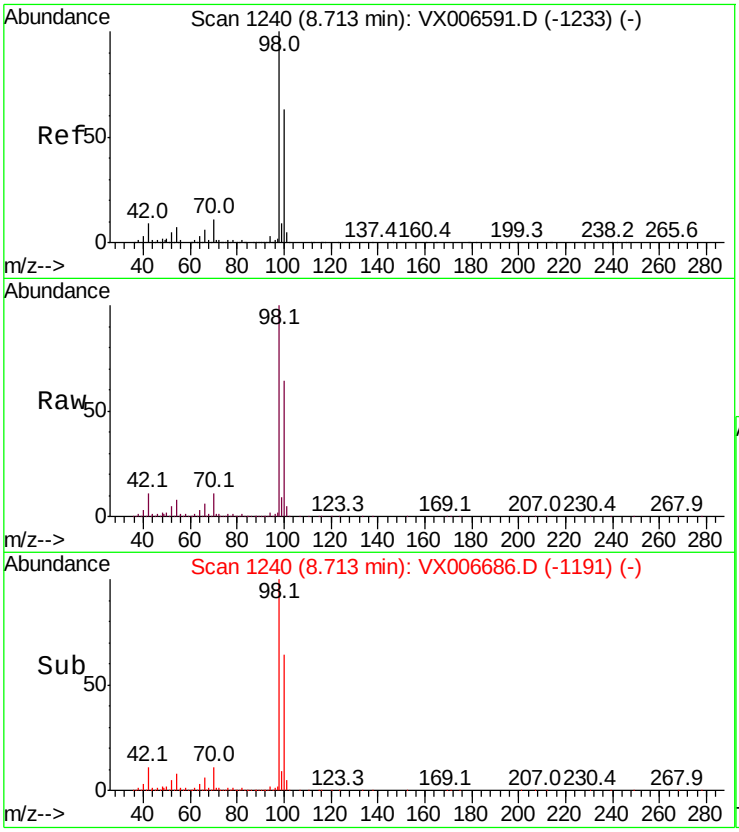
#44
Trichloroethene
Concen: 2.785 ug/l
RT: 7.21 min Scan# 994
Delta R.T. -0.00 min
Lab File: VX006686.D
Acq: 20 Dec 2018 19:47

Tgt Ion:130 Resp: 20989

Ion	Ratio	Lower	Upper
130	100		
95	91.5	0.0	187.0



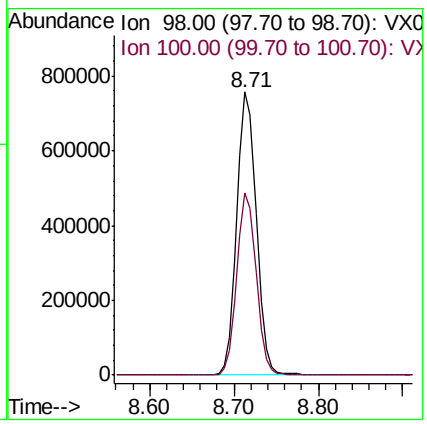
Instrument :
MSVOA_X
ClientSampleId :
973-MW-17(15.5)

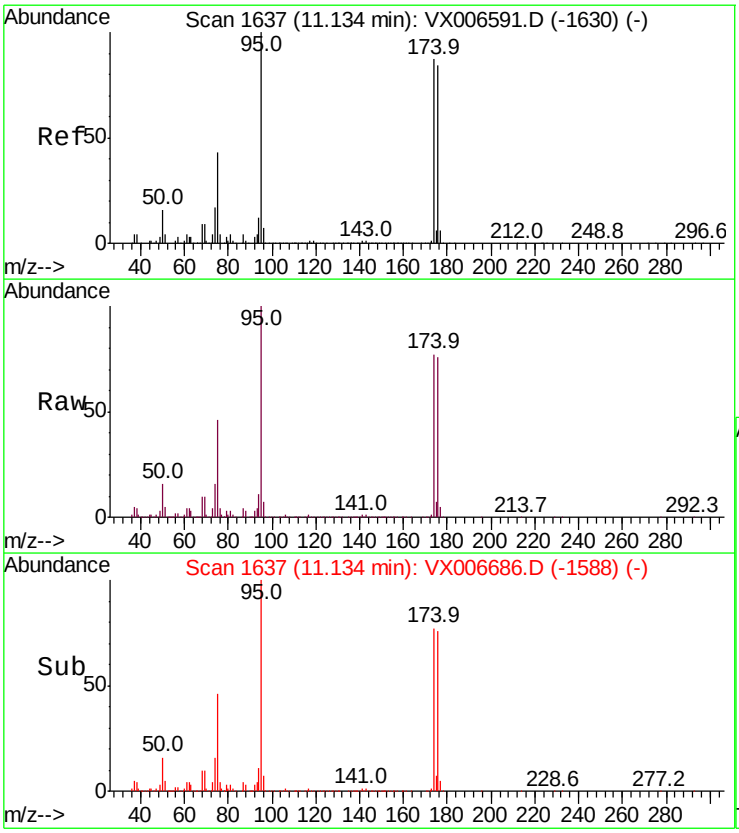


#50
Toluene-d8
Concen: 50.229 ug/l
RT: 8.71 min Scan# 1240
Delta R.T. -0.00 min
Lab File: VX006686.D
Acq: 20 Dec 2018 19:47

Tgt Ion: 98 Resp: 1184586

Ion	Ratio	Lower	Upper
98	100		
100	63.8	52.0	78.0

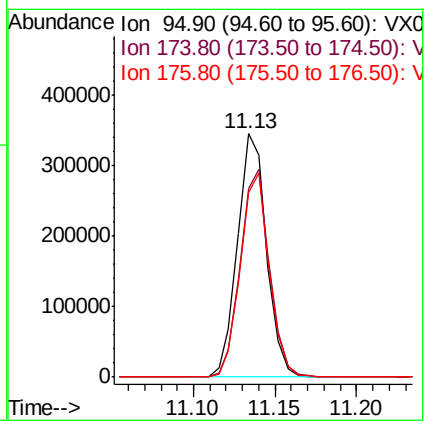




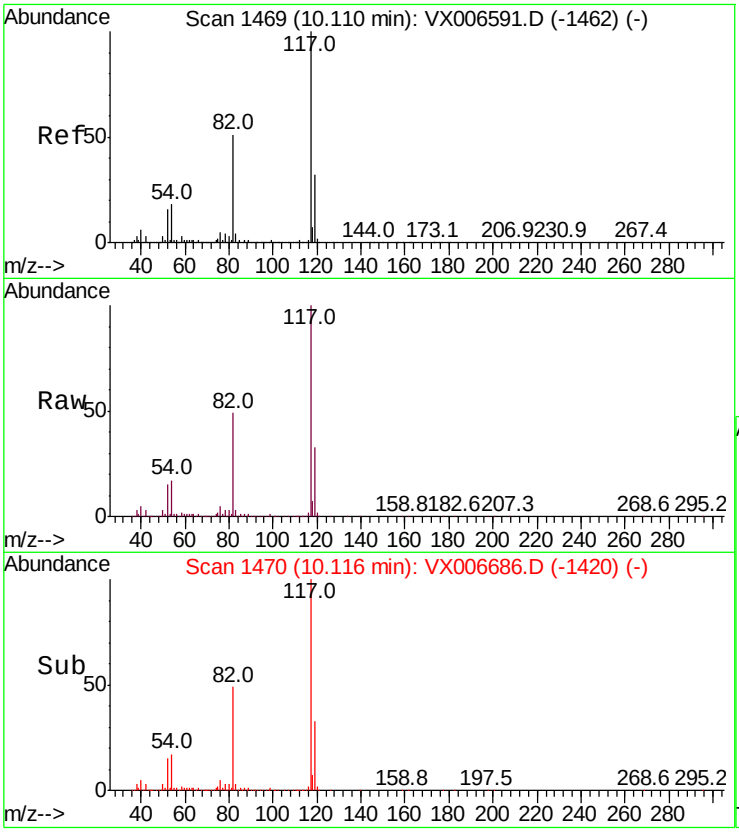
#62
4-Bromofluorobenzene
Concen: 49.635 ug/l
RT: 11.13 min Scan# 1637
Delta R.T. -0.00 min
Lab File: VX006686.D
Acq: 20 Dec 2018 19:47

Tgt Ion: 95 Resp: 428713

Ion	Ratio	Lower	Upper
95	100		
174	86.0	0.0	182.2
176	83.6	0.0	178.8



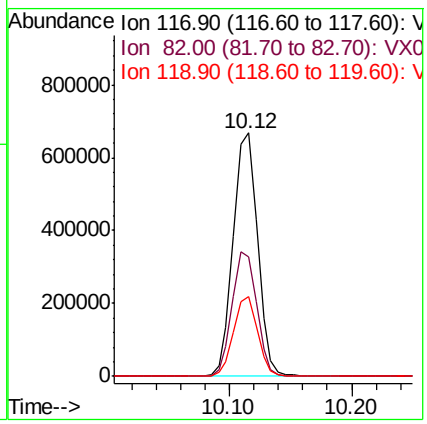
Instrument :
MSVOA_X
ClientSampleId :
973-MW-17(15.5)

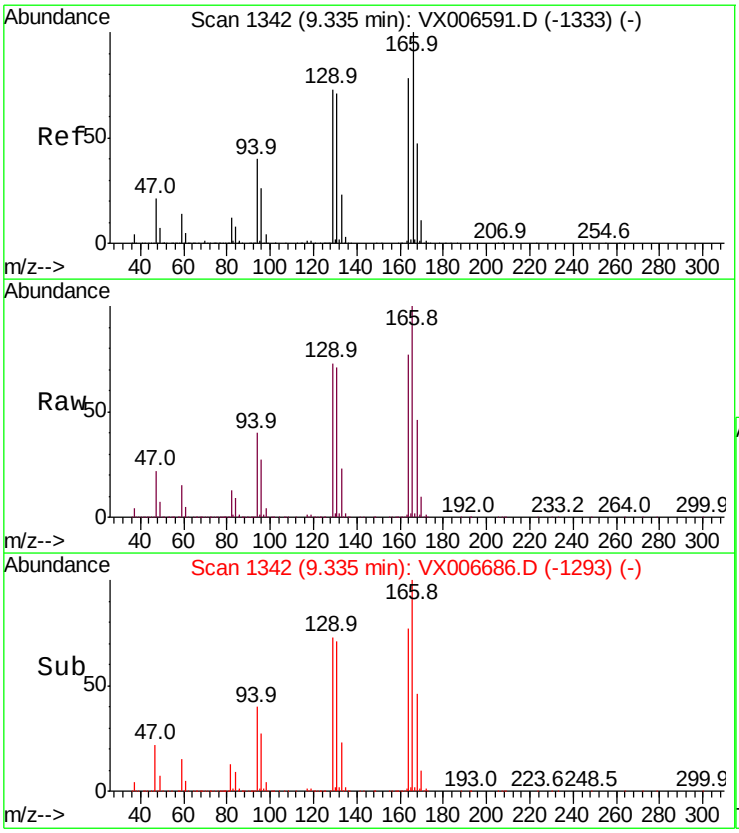


#63
Chlorobenzene-d5
Concen: 50.000 ug/l
RT: 10.12 min Scan# 1470
Delta R.T. 0.01 min
Lab File: VX006686.D
Acq: 20 Dec 2018 19:47

Tgt Ion:117 Resp: 922019

Ion	Ratio	Lower	Upper
117	100		
82	49.1	41.0	61.6
119	32.7	25.4	38.0

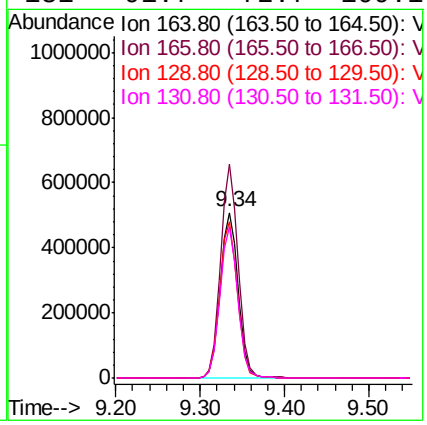


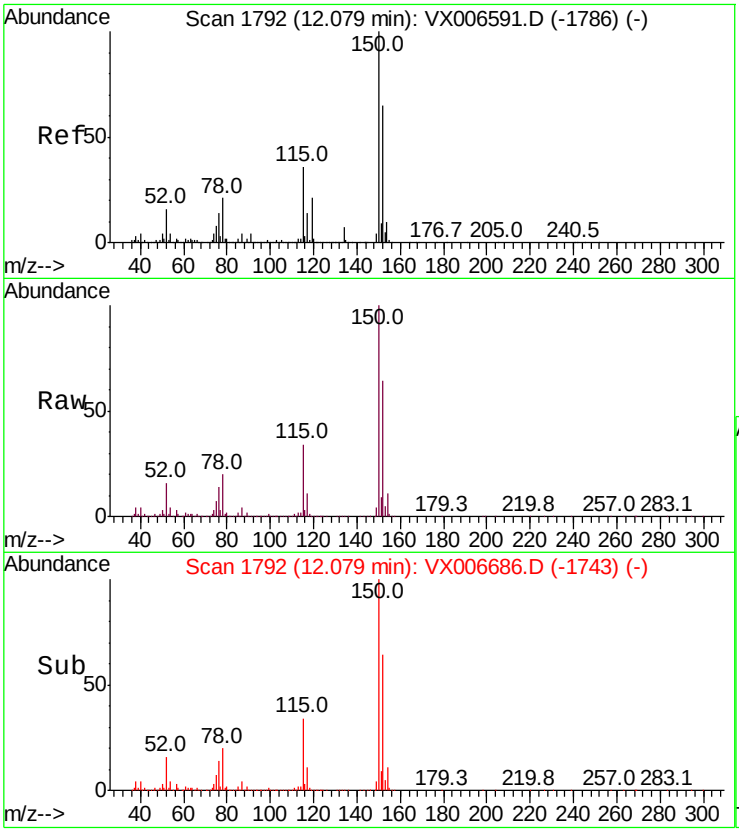


#64
Tetrachloroethene
Concen: 102.566 ug/l
RT: 9.34 min Scan# 1342
Delta R.T. -0.00 min
Lab File: VX006686.D
Acq: 20 Dec 2018 19:47

Tgt Ion:164 Resp: 748833

Ion	Ratio	Lower	Upper
164	100		
166	129.3	102.5	153.7
129	94.7	75.1	112.7
131	91.7	72.7	109.1

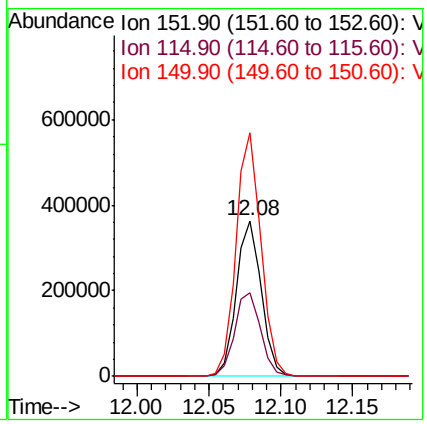




#72
1,4-Dichlorobenzene-d4
Concen: 50.000 ug/l
RT: 12.08 min Scan# 1792
Delta R.T. -0.00 min
Lab File: VX006686.D
Acq: 20 Dec 2018 19:47

Tgt Ion:152 Resp: 438438

Ion	Ratio	Lower	Upper
152	100		
115	56.2	39.1	117.2
150	156.9	0.0	344.8



Instrument :
MSVOA_X
ClientSampleId :
973-MW-17(15.5)

LSC Area Percent Report

Instrument :
MSVOA_X
ClientSampleId :
973-MW-17(15.5)

Data Path : Z:\VOASRV\HPCHEM1\MSVOA X\DATA\VX122018\
Data File : VX006686.D
Acq On : 20 Dec 2018 19:47
Operator : JC/MD
Sample : J6484-13 10X
Misc : 5.0mL/MSVOA X/WATER
ALS Vial : 26 Sample Multiplier: 1

Integration Parameters: RTEINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 3 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121818W.M
Title : SW846 8260

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	1.282	18	21	32	rBV	550588	495710	8.97%	2.213%
2	1.641	67	80	83	rBV5	51951	156137	2.83%	0.697%
3	4.598	557	565	576	rVB2	27751	79018	1.43%	0.353%
4	5.507	702	714	726	rBV	346020	996710	18.04%	4.450%
5	5.665	726	740	754	rVV	614971	1725857	31.24%	7.705%
6	6.067	795	806	819	rBV2	367869	956914	17.32%	4.272%
7	6.860	922	936	947	rBV	923705	2157822	39.06%	9.633%
8	7.214	986	994	1004	rVB2	51627	117197	2.12%	0.523%
9	8.713	1233	1240	1255	rBV	1905779	2998134	54.27%	13.385%
10	9.335	1335	1342	1356	rBV	3754509	5524299	100.00%	24.662%
11	10.116	1463	1470	1478	rBV	1845769	2605479	47.16%	11.632%
12	11.134	1632	1637	1645	rBV	1597209	2054112	37.18%	9.170%
13	12.079	1786	1792	1802	rBV	2043203	2532595	45.84%	11.306%

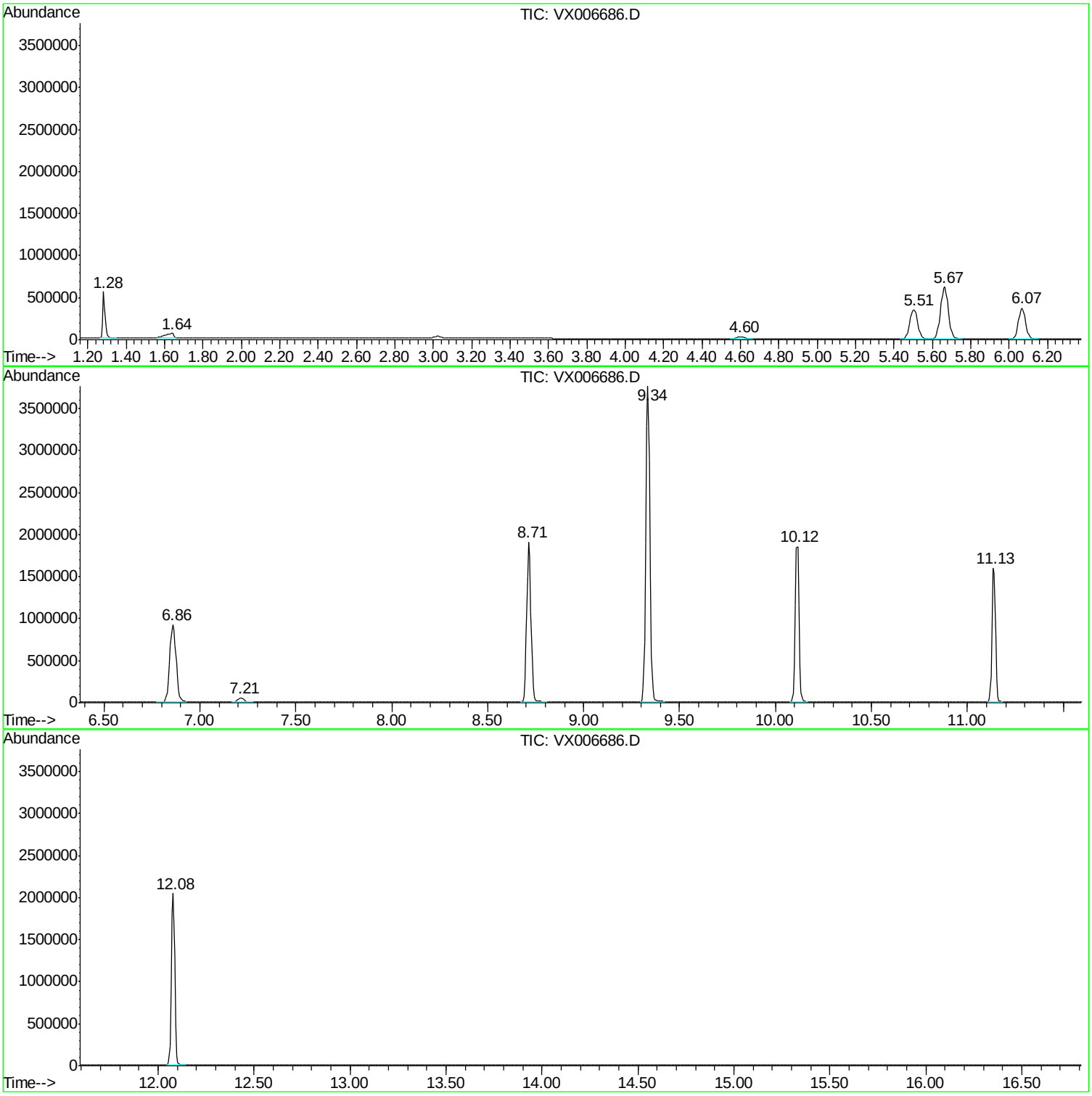
Sum of corrected areas: 22399984

Data Path : Z:\VOASRV\HPCHEM1\MSVOA X\DATA\VX122018\
Data File : VX006686.D
Acq On : 20 Dec 2018 19:47
Operator : JC/MD
Sample : J6484-13 10X
Misc : 5.0mL/MSVOA X/WATER
ALS Vial : 26 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
973-MW-17(15.5)

Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121818W.M
Quant Title : SW846 8260

TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P



Library Search Compound Report

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX122018\
Data File : VX006686.D
Acq On : 20 Dec 2018 19:47
Operator : JC/MD
Sample : J6484-13 10X
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 26 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
973-MW-17(15.5)

Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121818W.M
Quant Title : SW846 8260

TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

No Library Search Compounds Detected

****

Tentatively Identified Compound (LSC) summary

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX122018\
Data File : VX006686.D
Acq On : 20 Dec 2018 19:47
Operator : JC/MD
Sample : J6484-13 10X
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 26 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
973-MW-17(15.5)

Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121818W.M
Quant Title : SW846 8260

TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

TIC Top Hit name	RT	EstConc	Units	Response	Internal Standard #	Internal Standard RT	Internal Standard Resp	Internal Standard Conc

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Day Environmental, Inc.	Date Collected:	12/18/18
Project:	Andrew St. RI	Date Received:	12/19/18
Client Sample ID:	974-MW-18(21.5)	SDG No.:	J6484
Lab Sample ID:	J6484-14	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	DB-624UI ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX006679.D	1		12/20/18 16:41	VX122018

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
75-71-8	Dichlorodifluoromethane	1	U	0.2	0.2	1	ug/L
74-87-3	Chloromethane	1	U	0.2	0.2	1	ug/L
75-01-4	Vinyl Chloride	1	U	0.2	0.2	1	ug/L
74-83-9	Bromomethane	1	U	0.2	0.2	1	ug/L
75-00-3	Chloroethane	1	U	0.2	0.5	1	ug/L
75-69-4	Trichlorofluoromethane	1	U	0.2	0.2	1	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	1	U	0.2	0.2	1	ug/L
75-35-4	1,1-Dichloroethene	1	U	0.2	0.2	1	ug/L
67-64-1	Acetone	3.6	J	0.5	1	5	ug/L
75-15-0	Carbon Disulfide	1	U	0.2	0.2	1	ug/L
1634-04-4	Methyl tert-butyl Ether	1	U	0.35	0.5	1	ug/L
79-20-9	Methyl Acetate	1	U	0.2	0.5	1	ug/L
75-09-2	Methylene Chloride	1	U	0.2	0.2	1	ug/L
156-60-5	trans-1,2-Dichloroethene	1	U	0.2	0.2	1	ug/L
75-34-3	1,1-Dichloroethane	1	U	0.2	0.2	1	ug/L
110-82-7	Cyclohexane	1	U	0.2	0.2	1	ug/L
78-93-3	2-Butanone	5	U	1.3	2.5	5	ug/L
56-23-5	Carbon Tetrachloride	1	U	0.2	0.2	1	ug/L
156-59-2	cis-1,2-Dichloroethene	1.5		0.2	0.2	1	ug/L
74-97-5	Bromochloromethane	1	U	0.2	0.5	1	ug/L
67-66-3	Chloroform	1	U	0.2	0.2	1	ug/L
71-55-6	1,1,1-Trichloroethane	1	U	0.2	0.2	1	ug/L
108-87-2	Methylcyclohexane	1	U	0.2	0.2	1	ug/L
71-43-2	Benzene	1	U	0.2	0.2	1	ug/L
107-06-2	1,2-Dichloroethane	1	U	0.2	0.2	1	ug/L
79-01-6	Trichloroethene	1.5		0.2	0.2	1	ug/L
78-87-5	1,2-Dichloropropane	1	U	0.2	0.2	1	ug/L
75-27-4	Bromodichloromethane	1	U	0.2	0.2	1	ug/L
108-10-1	4-Methyl-2-Pentanone	5	U	1	1	5	ug/L
108-88-3	Toluene	1	U	0.2	0.2	1	ug/L
10061-02-6	t-1,3-Dichloropropene	1	U	0.2	0.2	1	ug/L
10061-01-5	cis-1,3-Dichloropropene	1	U	0.2	0.2	1	ug/L

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Day Environmental, Inc.	Date Collected:	12/18/18
Project:	Andrew St. RI	Date Received:	12/19/18
Client Sample ID:	974-MW-18(21.5)	SDG No.:	J6484
Lab Sample ID:	J6484-14	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	DB-624UI ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX006679.D	1		12/20/18 16:41	VX122018

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
79-00-5	1,1,2-Trichloroethane	1	U	0.2	0.2	1	ug/L
591-78-6	2-Hexanone	5	U	1.9	2.5	5	ug/L
124-48-1	Dibromochloromethane	1	U	0.2	0.2	1	ug/L
106-93-4	1,2-Dibromoethane	1	U	0.2	0.2	1	ug/L
127-18-4	Tetrachloroethene	5.4		0.2	0.2	1	ug/L
108-90-7	Chlorobenzene	1	U	0.2	0.2	1	ug/L
100-41-4	Ethyl Benzene	1	U	0.2	0.2	1	ug/L
179601-23-1	m/p-Xylenes	2	U	0.4	0.4	2	ug/L
95-47-6	o-Xylene	1	U	0.2	0.2	1	ug/L
100-42-5	Styrene	1	U	0.2	0.2	1	ug/L
75-25-2	Bromoform	1	U	0.2	0.2	1	ug/L
98-82-8	Isopropylbenzene	1	U	0.2	0.2	1	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	1	U	0.2	0.2	1	ug/L
541-73-1	1,3-Dichlorobenzene	1	U	0.2	0.2	1	ug/L
106-46-7	1,4-Dichlorobenzene	1	U	0.2	0.2	1	ug/L
95-50-1	1,2-Dichlorobenzene	1	U	0.2	0.2	1	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	1	U	0.2	0.2	1	ug/L
120-82-1	1,2,4-Trichlorobenzene	1	U	0.2	0.2	1	ug/L
87-61-6	1,2,3-Trichlorobenzene	1	U	0.2	0.2	1	ug/L
SURROGATES							
17060-07-0	1,2-Dichloroethane-d4	50.6		61 - 141		101%	SPK: 50
1868-53-7	Dibromofluoromethane	46.9		69 - 133		94%	SPK: 50
2037-26-5	Toluene-d8	50.1		65 - 126		100%	SPK: 50
460-00-4	4-Bromofluorobenzene	48.6		58 - 135		97%	SPK: 50
INTERNAL STANDARDS							
363-72-4	Pentafluorobenzene	613525	5.67				
540-36-3	1,4-Difluorobenzene	978779	6.86				
3114-55-4	Chlorobenzene-d5	900531	10.12				
3855-82-1	1,4-Dichlorobenzene-d4	429394	12.08				

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Day Environmental, Inc.	Date Collected:	12/18/18
Project:	Andrew St. RI	Date Received:	12/19/18
Client Sample ID:	974-MW-18(21.5)	SDG No.:	J6484
Lab Sample ID:	J6484-14	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	DB-624UI ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX006679.D	1		12/20/18 16:41	VX122018

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit
A = Aldol-Condensation Reaction Products

Quantitation Report (QT Reviewed)

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX122018\
Data File : VX006679.D
Acq On : 20 Dec 2018 16:41
Operator : JC/MD
Sample : J6484-14
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 19 Sample Multiplier: 1

Instrument : MSVOA_X
ClientSampleId : 974-MW-18(21.5)

Quant Time: Dec 21 04:18:49 2018
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121818W.M
Quant Title : SW846 8260
QLast Update : Wed Dec 19 15:20:58 2018
Response via : Initial Calibration

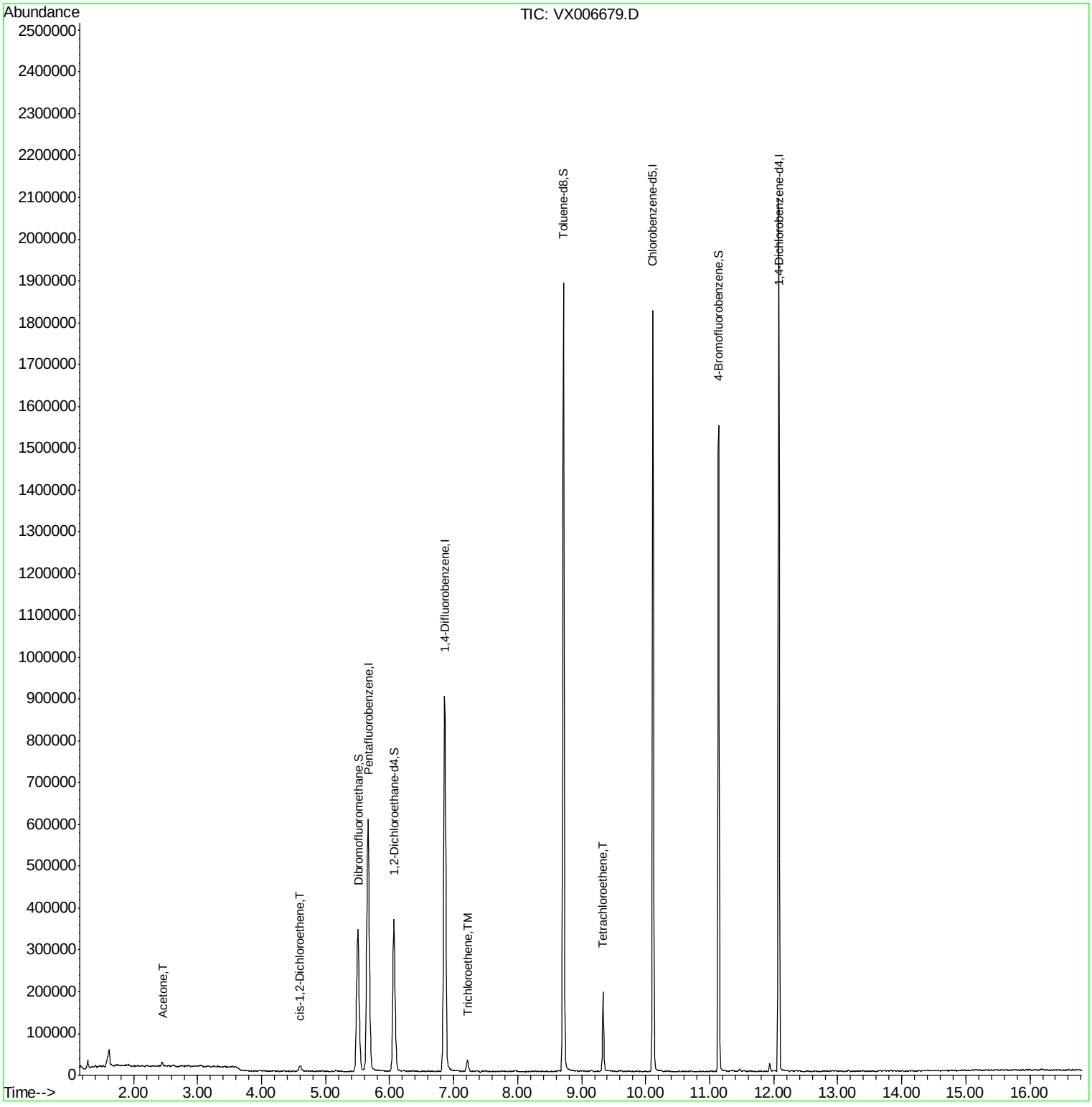
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	5.67	168	613525	50.00	ug/l	0.00
34) 1,4-Difluorobenzene	6.86	114	978779	50.00	ug/l	0.00
63) Chlorobenzene-d5	10.12	117	900531	50.00	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	12.08	152	429394	50.00	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	6.07	65	334525	50.59	ug/l	0.00
Spiked Amount 50.000			Recovery =	101.18%		
35) Dibromofluoromethane	5.50	113	290369	46.91	ug/l	0.00
Spiked Amount 50.000			Recovery =	93.82%		
50) Toluene-d8	8.71	98	1168826	50.09	ug/l	0.00
Spiked Amount 50.000			Recovery =	100.18%		
62) 4-Bromofluorobenzene	11.14	95	415622	48.63	ug/l	0.00
Spiked Amount 50.000			Recovery =	97.26%		
Target Compounds						Qvalue
16) Acetone	2.45	43	10980	3.614	ug/l #	86
27) cis-1,2-Dichloroethene	4.60	96	9906	1.478	ug/l	88
44) Trichloroethene	7.21	130	11181	1.499	ug/l	98
64) Tetrachloroethene	9.34	164	38361	5.380	ug/l	95

(#) = qualifier out of range (m) = manual integration (+) = signals summed

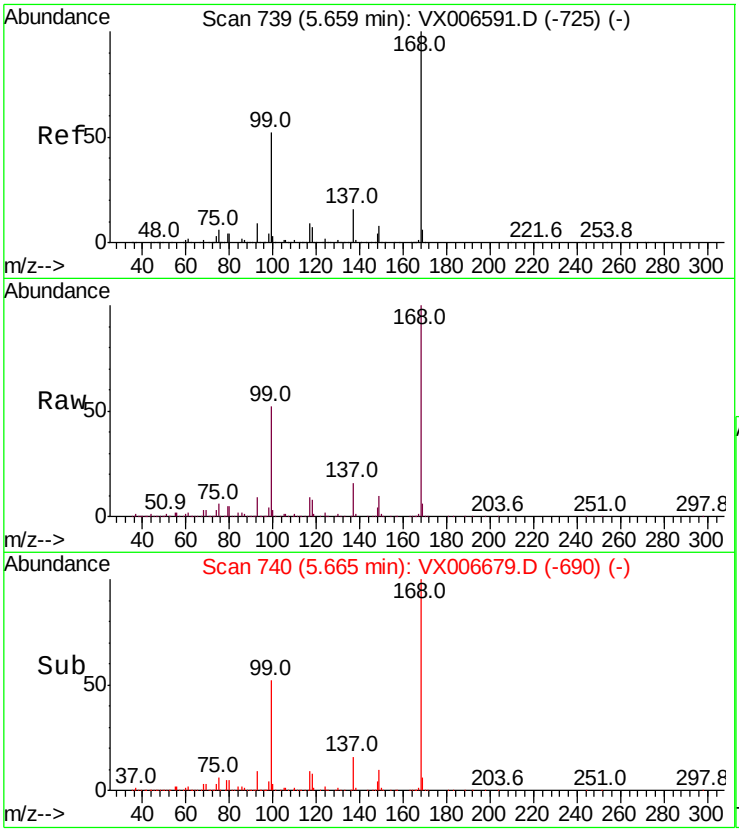
Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX122018\
Data File : VX006679.D
Acq On : 20 Dec 2018 16:41
Operator : JC/MD
Sample : J6484-14
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 19 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
974-MW-18(21.5)

Quant Time: Dec 21 04:18:49 2018
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121818W.M
Quant Title : SW846 8260
QLast Update : Wed Dec 19 15:20:58 2018
Response via : Initial Calibration



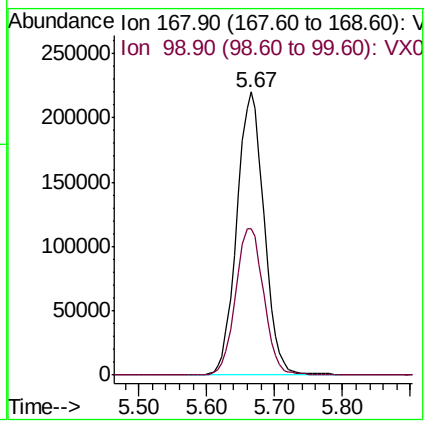
Instrument :
MSVOA_X
ClientSampleId :
974-MW-18(21.5)

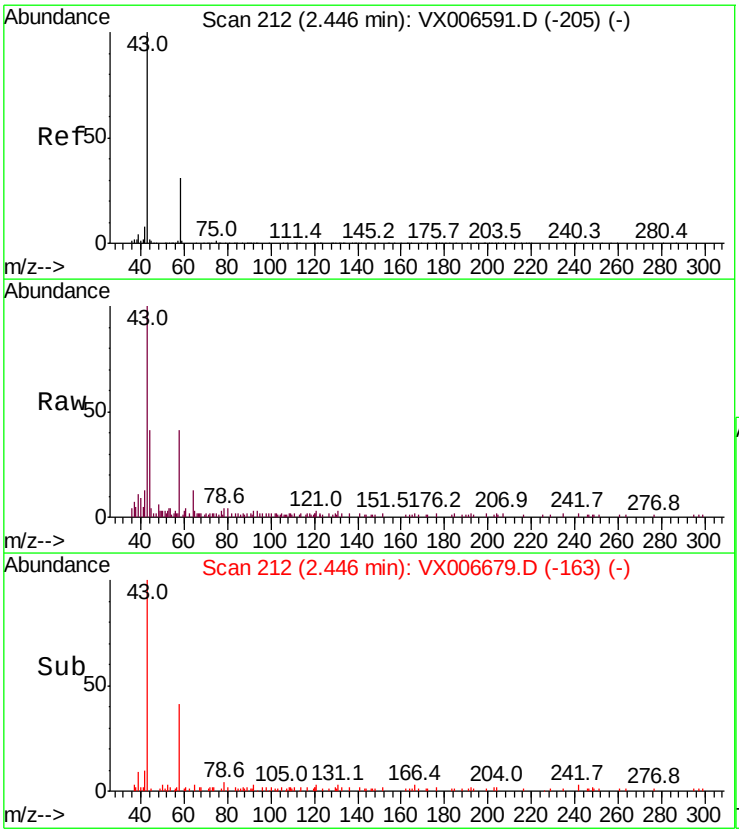


#1
Pentafluorobenzene
Concen: 50.000 ug/l
RT: 5.67 min Scan# 740
Delta R.T. 0.01 min
Lab File: VX006679.D
Acq: 20 Dec 2018 16:41

Tgt Ion:168 Resp: 613525

Ion	Ratio	Lower	Upper
168	100		
99	51.7	41.8	62.8

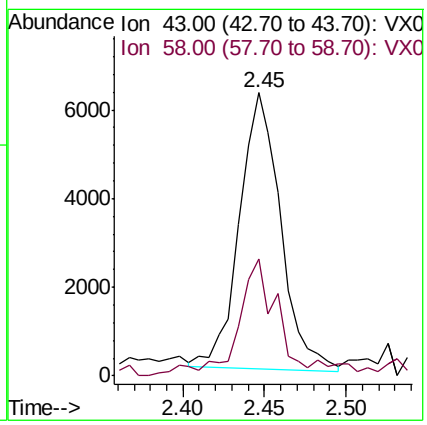




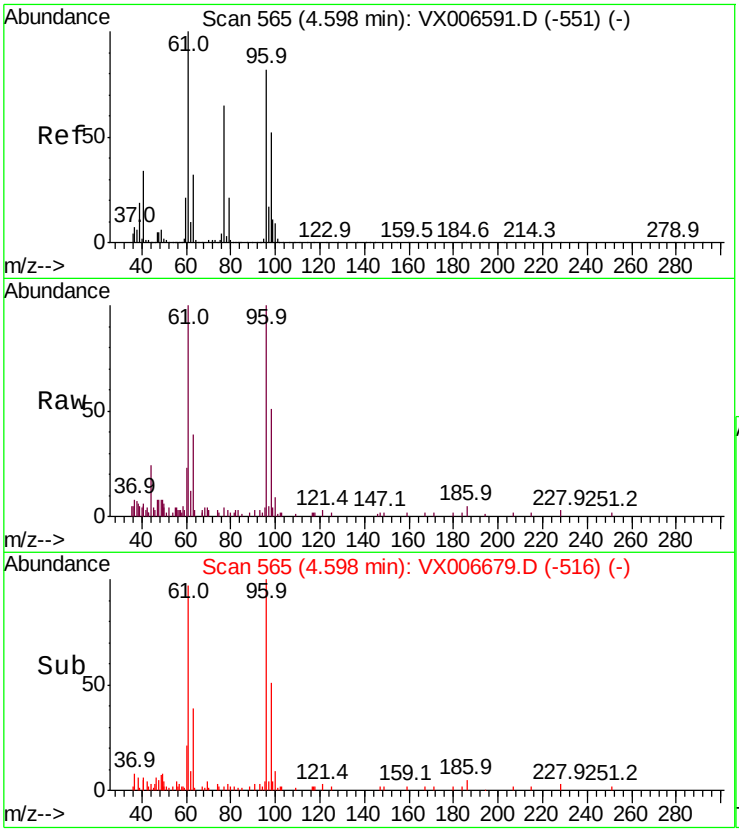
#16
Acetone
Concen: 3.614 ug/l
RT: 2.45 min Scan# 212
Delta R.T. -0.00 min
Lab File: VX006679.D
Acq: 20 Dec 2018 16:41

Tgt Ion: 43 Resp: 10980

Ion	Ratio	Lower	Upper
43	100		
58	38.9	25.0	37.6#



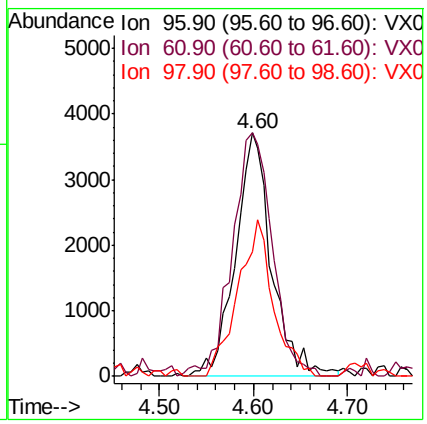
Instrument :
MSVOA_X
ClientSampleId :
974-MW-18(21.5)

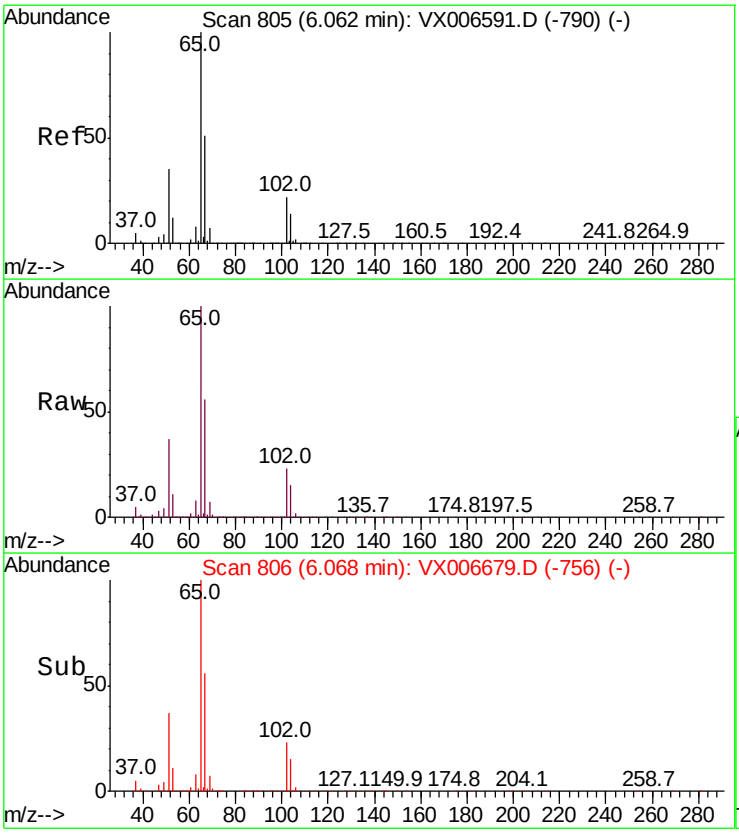


#27
cis-1,2-Dichloroethene
Concen: 1.478 ug/l
RT: 4.60 min Scan# 565
Delta R.T. -0.00 min
Lab File: VX006679.D
Acq: 20 Dec 2018 16:41

Tgt Ion: 96 Resp: 9906

Ion	Ratio	Lower	Upper
96	100		
61	111.4	0.0	258.6
98	62.9	0.0	132.0

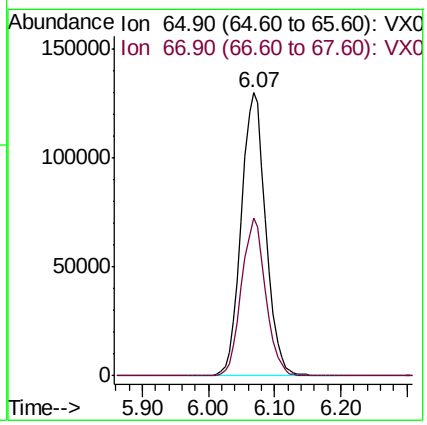




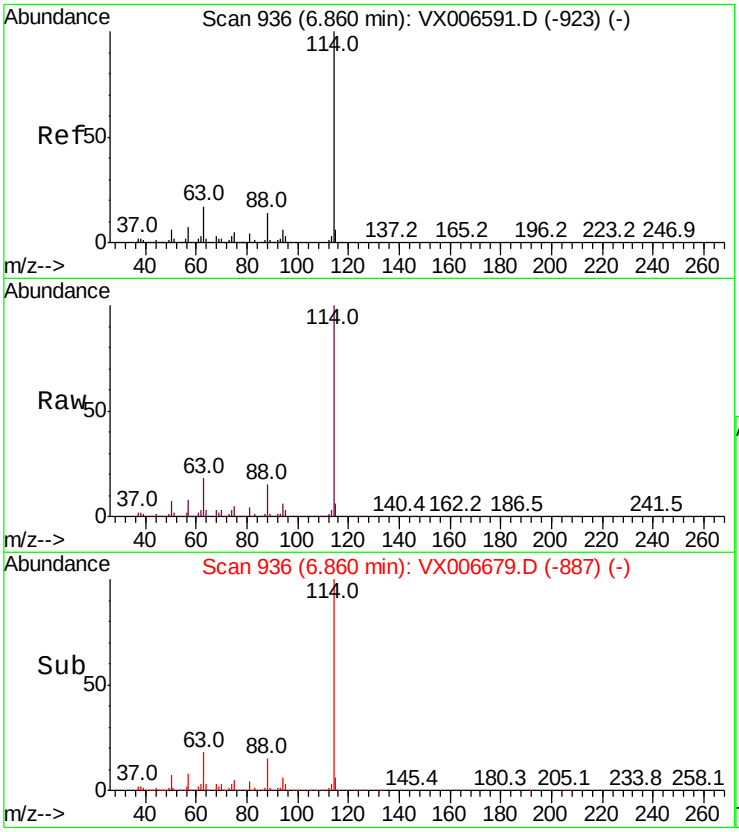
#33
1,2-Dichloroethane-d4
Concen: 50.591 ug/l
RT: 6.07 min Scan# 806
Delta R.T. 0.01 min
Lab File: VX006679.D
Acq: 20 Dec 2018 16:41

Tgt Ion: 65 Resp: 334525

Ion	Ratio	Lower	Upper
65	100		
67	55.0	0.0	105.0



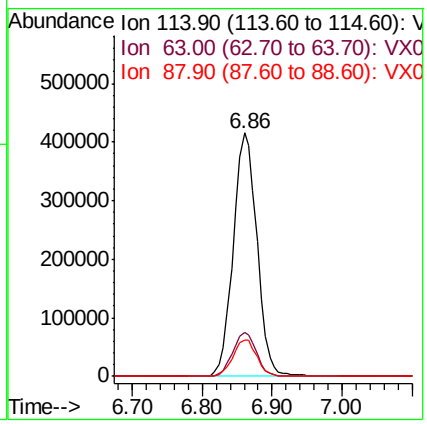
Instrument :
MSVOA_X
ClientSampleId :
974-MW-18(21.5)

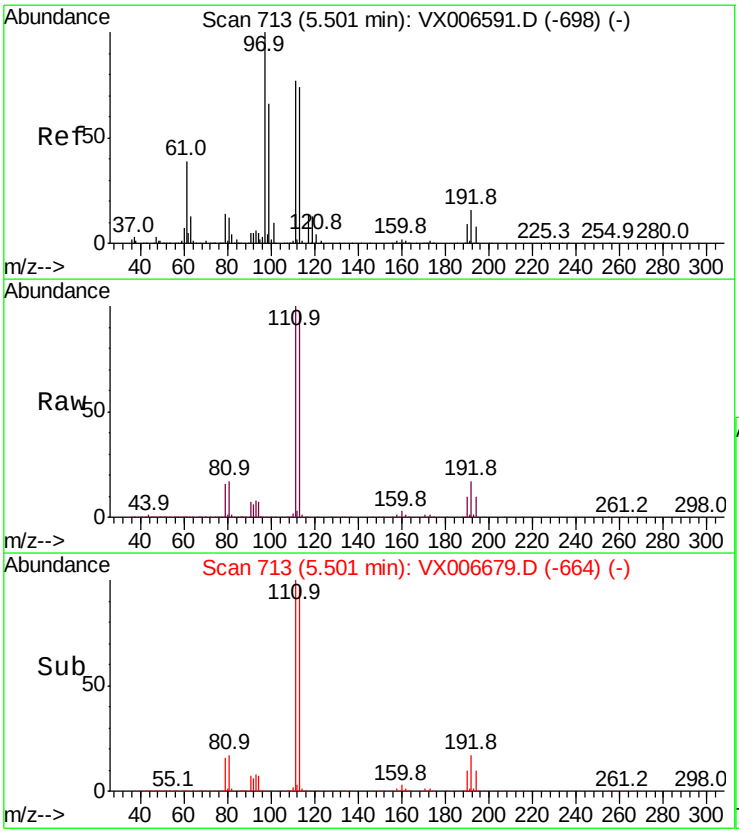


#34
1,4-Difluorobenzene
Concen: 50.000 ug/l
RT: 6.86 min Scan# 936
Delta R.T. -0.00 min
Lab File: VX006679.D
Acq: 20 Dec 2018 16:41

Tgt Ion:114 Resp: 978779

Ion	Ratio	Lower	Upper
114	100		
63	18.2	0.0	34.8
88	14.9	0.0	28.8

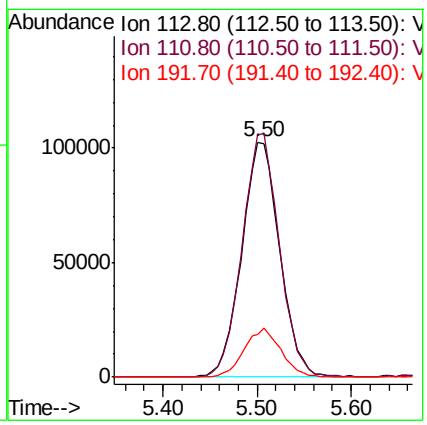




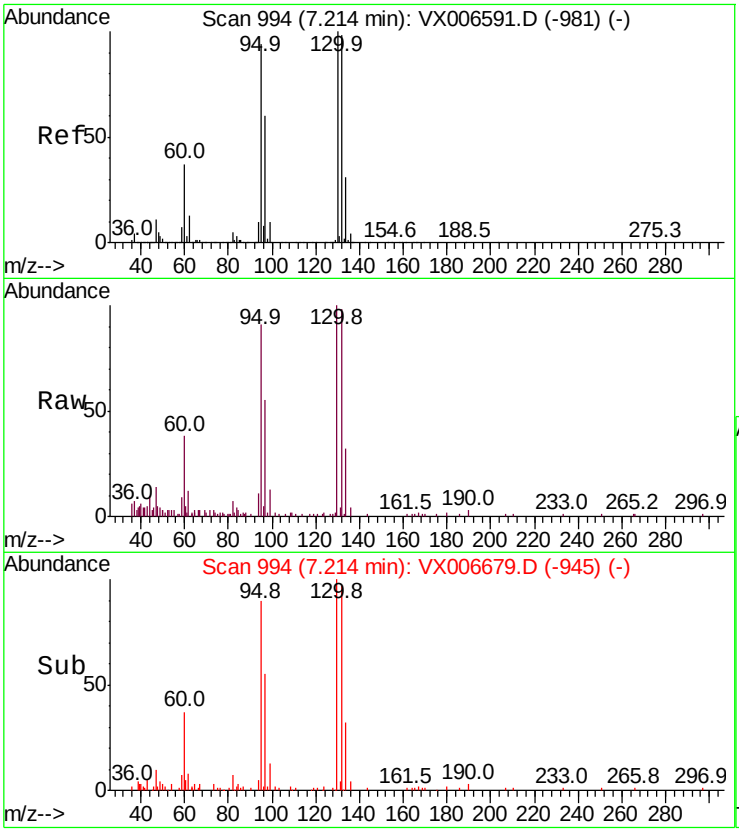
#35
Dibromofluoromethane
Concen: 46.912 ug/l
RT: 5.50 min Scan# 713
Delta R.T. -0.00 min
Lab File: VX006679.D
Acq: 20 Dec 2018 16:41

Tgt Ion:113 Resp: 290369

Ion	Ratio	Lower	Upper
113	100		
111	101.6	81.6	122.4
192	20.2	16.7	25.1



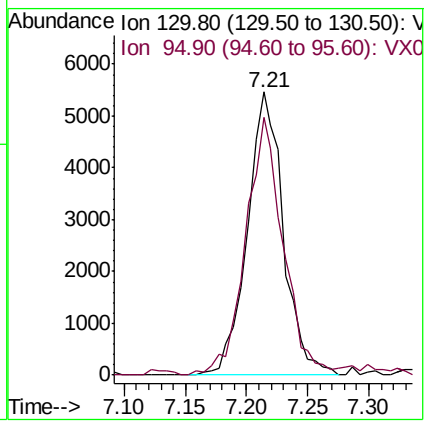
Instrument :
MSVOA_X
ClientSampleId :
974-MW-18(21.5)

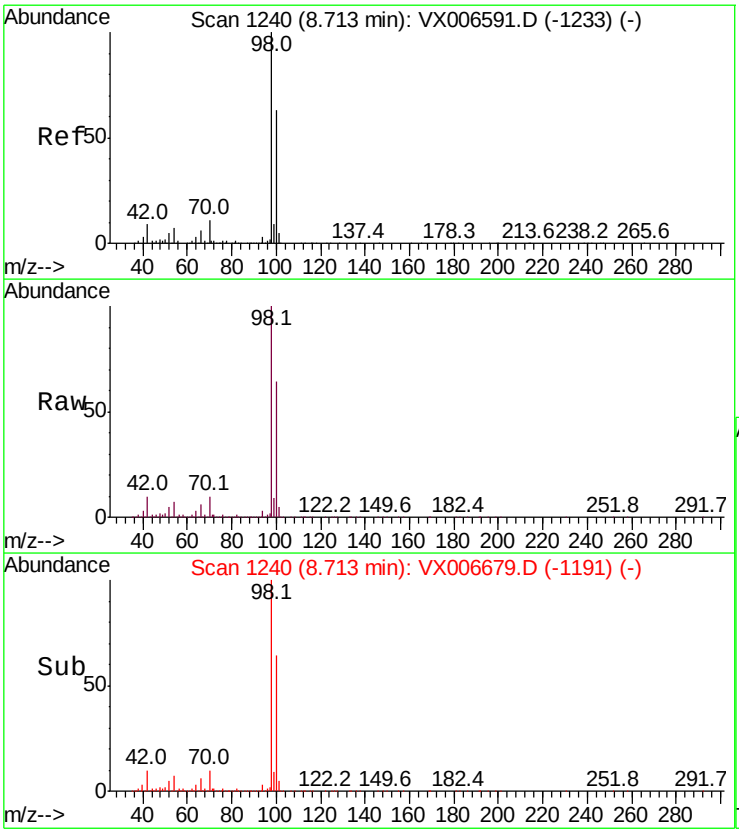


#44
Trichloroethene
Concen: 1.499 ug/l
RT: 7.21 min Scan# 994
Delta R.T. -0.00 min
Lab File: VX006679.D
Acq: 20 Dec 2018 16:41

Tgt Ion:130 Resp: 11181

Ion	Ratio	Lower	Upper
130	100		
95	91.3	0.0	187.0

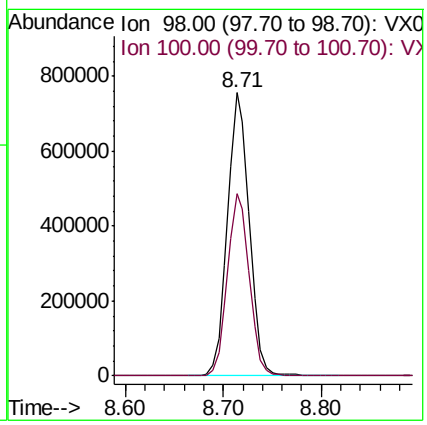




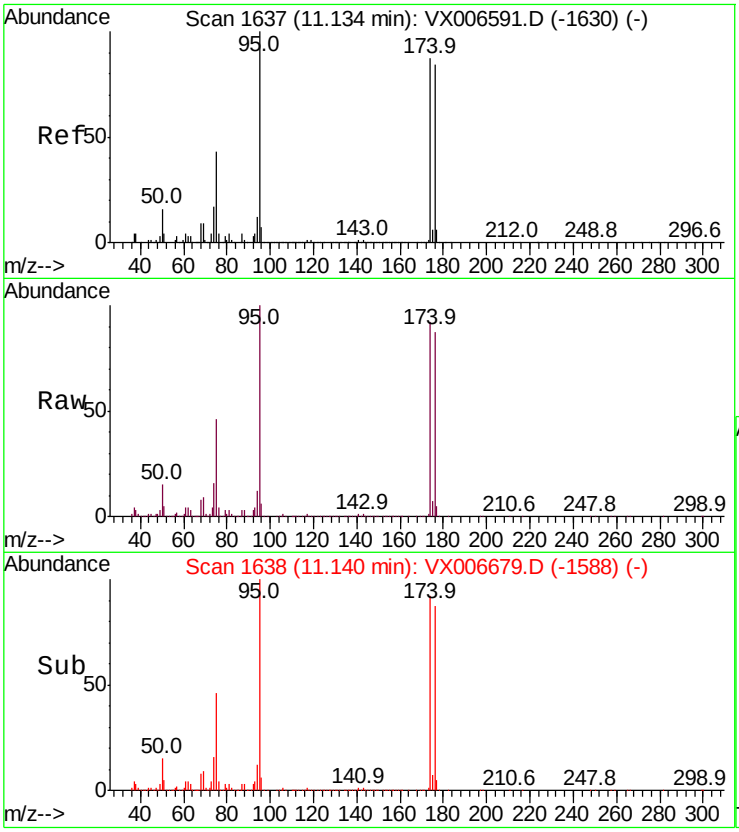
#50
Toluene-d8
Concen: 50.089 ug/l
RT: 8.71 min Scan# 1240
Delta R.T. -0.00 min
Lab File: VX006679.D
Acq: 20 Dec 2018 16:41

Tgt Ion: 98 Resp: 1168826

Ion	Ratio	Lower	Upper
98	100		
100	64.8	52.0	78.0



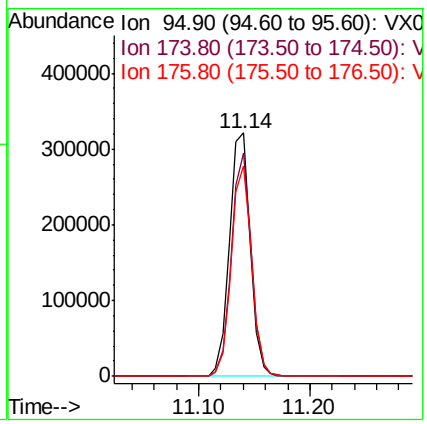
Instrument :
MSVOA_X
ClientSampleId :
974-MW-18(21.5)

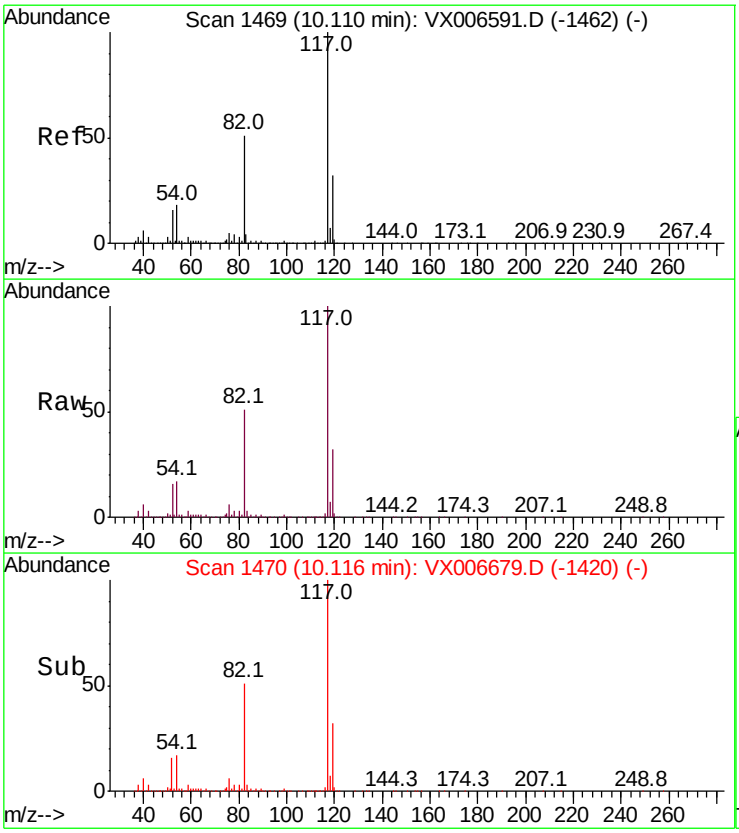


#62
4-Bromofluorobenzene
Concen: 48.632 ug/l
RT: 11.14 min Scan# 1638
Delta R.T. 0.01 min
Lab File: VX006679.D
Acq: 20 Dec 2018 16:41

Tgt Ion: 95 Resp: 415622

Ion	Ratio	Lower	Upper
95	100		
174	88.1	0.0	182.2
176	84.6	0.0	178.8

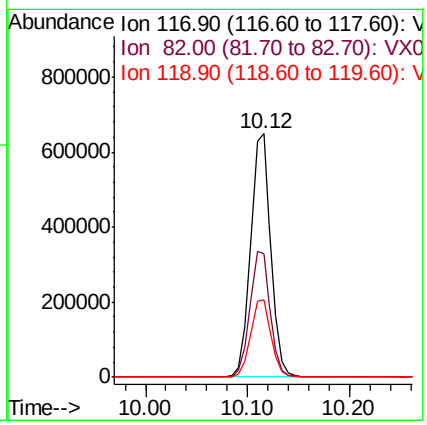




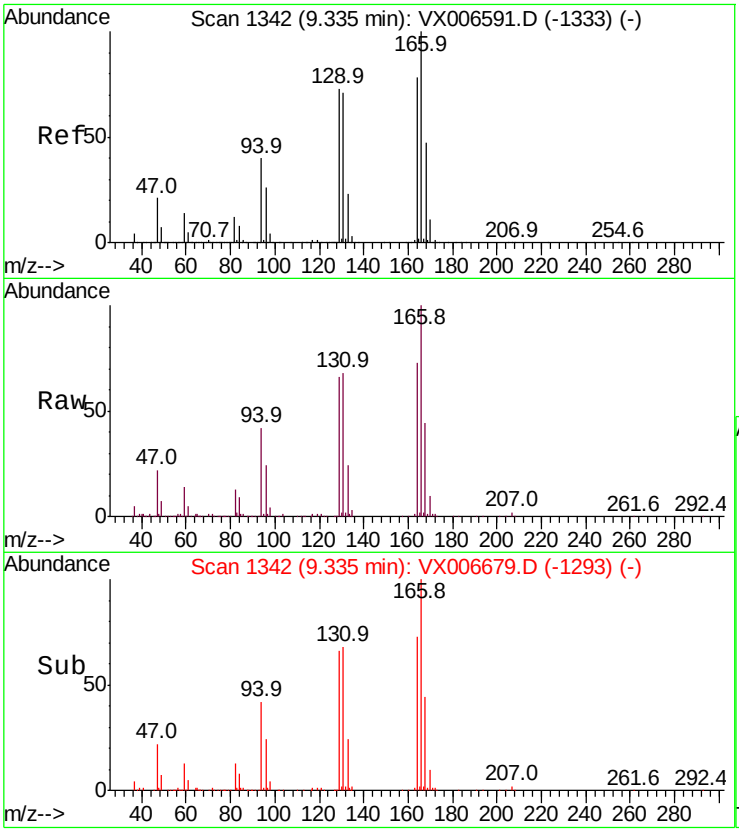
#63
Chlorobenzene-d5
Concen: 50.000 ug/l
RT: 10.12 min Scan# 1470
Delta R.T. 0.01 min
Lab File: VX006679.D
Acq: 20 Dec 2018 16:41

Tgt Ion:117 Resp: 900531

Ion	Ratio	Lower	Upper
117	100		
82	50.9	41.0	61.6
119	32.0	25.4	38.0



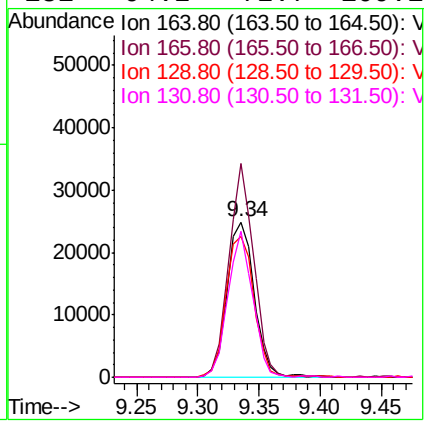
Instrument :
MSVOA_X
ClientSampleId :
974-MW-18(21.5)

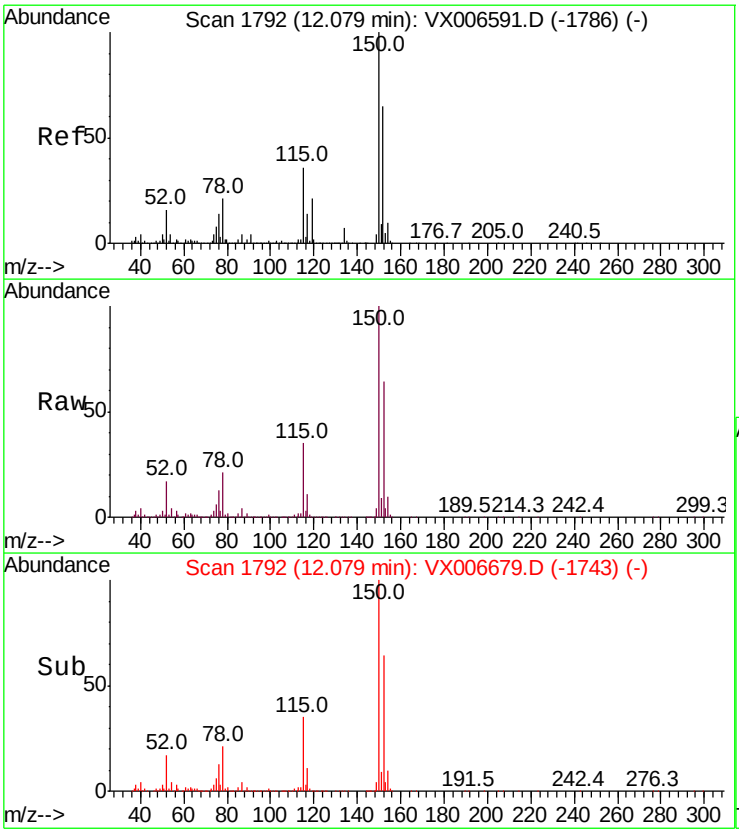


#64
Tetrachloroethene
Concen: 5.380 ug/l
RT: 9.34 min Scan# 1342
Delta R.T. -0.00 min
Lab File: VX006679.D
Acq: 20 Dec 2018 16:41

Tgt Ion:164 Resp: 38361

Ion	Ratio	Lower	Upper
164	100		
166	137.5	102.5	153.7
129	91.1	75.1	112.7
131	94.2	72.7	109.1

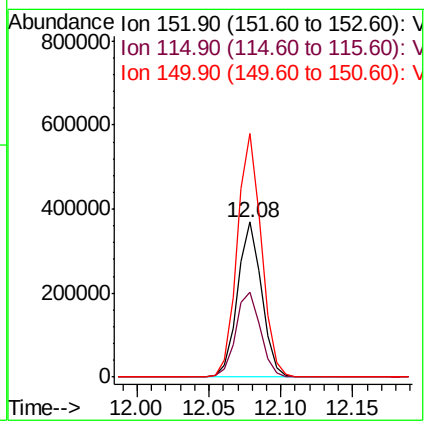




#72
1,4-Dichlorobenzene-d4
Concen: 50.000 ug/l
RT: 12.08 min Scan# 1792
Delta R.T. -0.00 min
Lab File: VX006679.D
Acq: 20 Dec 2018 16:41

Tgt Ion:152 Resp: 429394

Ion	Ratio	Lower	Upper
152	100		
115	56.8	39.1	117.2
150	157.3	0.0	344.8



LSC Area Percent Report

Data Path : Z:\VOASRV\HPCHEM1\MSVOA X\DATA\VX122018\
Data File : VX006679.D
Acq On : 20 Dec 2018 16:41
Operator : JC/MD
Sample : J6484-14
Misc : 5.0mL/MSVOA X/WATER
ALS Vial : 19 Sample Multiplier: 1

Instrument : MSVOA_X
ClientSampleId : 974-MW-18(21.5)

Integration Parameters: RTEINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 3 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121818W.M
Title : SW846 8260

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	1.282	17	21	26	rBV2	21615	32017	1.09%	0.197%
2	1.617	66	76	79	rBV2	40563	99694	3.38%	0.613%
3	5.507	701	714	727	rBV	339683	968229	32.83%	5.955%
4	5.665	727	740	759	rVB	601715	1701972	57.70%	10.468%
5	6.068	796	806	820	rBV	363483	948817	32.17%	5.836%
6	6.860	926	936	948	rBV	897390	2118019	71.81%	13.027%
7	7.214	988	994	1001	rVB3	28108	60172	2.04%	0.370%
8	8.713	1233	1240	1251	rBV	1884673	2949537	100.00%	18.141%
9	9.335	1336	1342	1352	rVB	188769	275575	9.34%	1.695%
10	10.110	1463	1469	1482	rBV	1820000	2570012	87.13%	15.807%
11	11.140	1631	1638	1650	rBV	1546512	2023675	68.61%	12.447%
12	12.079	1786	1792	1802	rBV	2088379	2510902	85.13%	15.444%

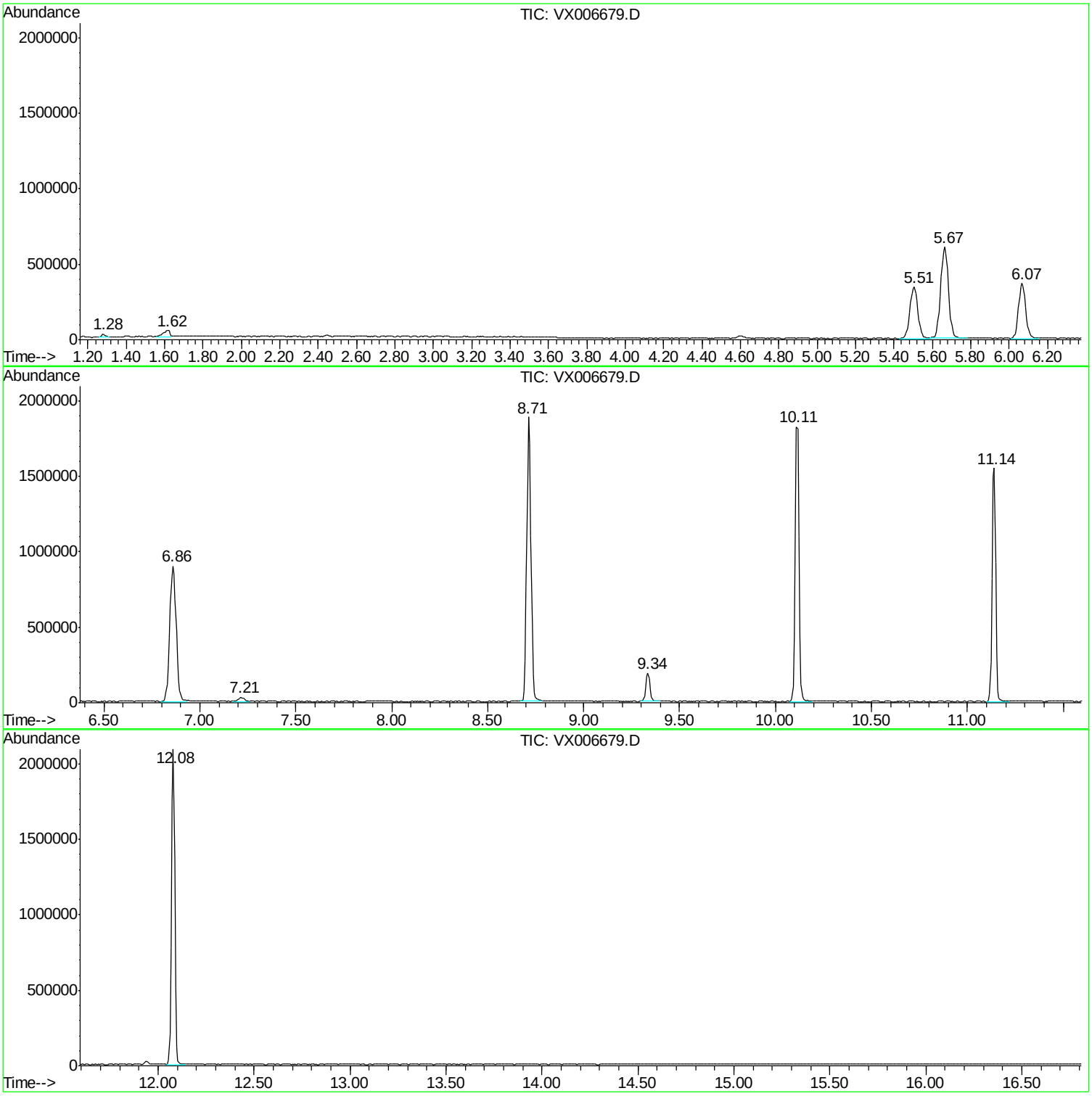
Sum of corrected areas: 16258621

Data Path : Z:\VOASRV\HPCHEM1\MSVOA X\DATA\VX122018\
Data File : VX006679.D
Acq On : 20 Dec 2018 16:41
Operator : JC/MD
Sample : J6484-14
Misc : 5.0mL/MSVOA X/WATER
ALS Vial : 19 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
974-MW-18(21.5)

Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121818W.M
Quant Title : SW846 8260

TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P



Library Search Compound Report

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX122018\
Data File : VX006679.D
Acq On : 20 Dec 2018 16:41
Operator : JC/MD
Sample : J6484-14
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 19 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
974-MW-18(21.5)

Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121818W.M
Quant Title : SW846 8260

TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

No Library Search Compounds Detected

****

Tentatively Identified Compound (LSC) summary

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX122018\
Data File : VX006679.D
Acq On : 20 Dec 2018 16:41
Operator : JC/MD
Sample : J6484-14
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 19 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
974-MW-18(21.5)

Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121818W.M
Quant Title : SW846 8260

TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

TIC Top Hit name	RT	EstConc	Units	Response	Internal Standard #	Internal Standard RT	Internal Standard Resp	Internal Standard Conc

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Day Environmental, Inc.	Date Collected:	12/18/18
Project:	Andrew St. RI	Date Received:	12/19/18
Client Sample ID:	975-MW-19(28)	SDG No.:	J6484
Lab Sample ID:	J6484-15	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	DB-624UI ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX006680.D	1		12/20/18 17:07	VX122018

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
75-71-8	Dichlorodifluoromethane	1	U	0.2	0.2	1	ug/L
74-87-3	Chloromethane	1	U	0.2	0.2	1	ug/L
75-01-4	Vinyl Chloride	0.97	J	0.2	0.2	1	ug/L
74-83-9	Bromomethane	1	U	0.2	0.2	1	ug/L
75-00-3	Chloroethane	1	U	0.2	0.5	1	ug/L
75-69-4	Trichlorofluoromethane	1	U	0.2	0.2	1	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	1	U	0.2	0.2	1	ug/L
75-35-4	1,1-Dichloroethene	1	U	0.2	0.2	1	ug/L
67-64-1	Acetone	5.1		0.5	1	5	ug/L
75-15-0	Carbon Disulfide	1	U	0.2	0.2	1	ug/L
1634-04-4	Methyl tert-butyl Ether	1	U	0.35	0.5	1	ug/L
79-20-9	Methyl Acetate	1	U	0.2	0.5	1	ug/L
75-09-2	Methylene Chloride	1	U	0.2	0.2	1	ug/L
156-60-5	trans-1,2-Dichloroethene	1	U	0.2	0.2	1	ug/L
75-34-3	1,1-Dichloroethane	1	U	0.2	0.2	1	ug/L
110-82-7	Cyclohexane	1	U	0.2	0.2	1	ug/L
78-93-3	2-Butanone	5	U	1.3	2.5	5	ug/L
56-23-5	Carbon Tetrachloride	1	U	0.2	0.2	1	ug/L
156-59-2	cis-1,2-Dichloroethene	13.5		0.2	0.2	1	ug/L
74-97-5	Bromochloromethane	1	U	0.2	0.5	1	ug/L
67-66-3	Chloroform	1	U	0.2	0.2	1	ug/L
71-55-6	1,1,1-Trichloroethane	1	U	0.2	0.2	1	ug/L
108-87-2	Methylcyclohexane	1	U	0.2	0.2	1	ug/L
71-43-2	Benzene	1	U	0.2	0.2	1	ug/L
107-06-2	1,2-Dichloroethane	1	U	0.2	0.2	1	ug/L
79-01-6	Trichloroethene	13.6		0.2	0.2	1	ug/L
78-87-5	1,2-Dichloropropane	1	U	0.2	0.2	1	ug/L
75-27-4	Bromodichloromethane	1	U	0.2	0.2	1	ug/L
108-10-1	4-Methyl-2-Pentanone	5	U	1	1	5	ug/L
108-88-3	Toluene	1	U	0.2	0.2	1	ug/L
10061-02-6	t-1,3-Dichloropropene	1	U	0.2	0.2	1	ug/L
10061-01-5	cis-1,3-Dichloropropene	1	U	0.2	0.2	1	ug/L

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Day Environmental, Inc.	Date Collected:	12/18/18
Project:	Andrew St. RI	Date Received:	12/19/18
Client Sample ID:	975-MW-19(28)	SDG No.:	J6484
Lab Sample ID:	J6484-15	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	DB-624UI ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX006680.D	1		12/20/18 17:07	VX122018

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
79-00-5	1,1,2-Trichloroethane	1	U	0.2	0.2	1	ug/L
591-78-6	2-Hexanone	5	U	1.9	2.5	5	ug/L
124-48-1	Dibromochloromethane	1	U	0.2	0.2	1	ug/L
106-93-4	1,2-Dibromoethane	1	U	0.2	0.2	1	ug/L
127-18-4	Tetrachloroethene	23		0.2	0.2	1	ug/L
108-90-7	Chlorobenzene	1	U	0.2	0.2	1	ug/L
100-41-4	Ethyl Benzene	1	U	0.2	0.2	1	ug/L
179601-23-1	m/p-Xylenes	2	U	0.4	0.4	2	ug/L
95-47-6	o-Xylene	1	U	0.2	0.2	1	ug/L
100-42-5	Styrene	1	U	0.2	0.2	1	ug/L
75-25-2	Bromoform	1	U	0.2	0.2	1	ug/L
98-82-8	Isopropylbenzene	1	U	0.2	0.2	1	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	1	U	0.2	0.2	1	ug/L
541-73-1	1,3-Dichlorobenzene	1	U	0.2	0.2	1	ug/L
106-46-7	1,4-Dichlorobenzene	1	U	0.2	0.2	1	ug/L
95-50-1	1,2-Dichlorobenzene	1	U	0.2	0.2	1	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	1	U	0.2	0.2	1	ug/L
120-82-1	1,2,4-Trichlorobenzene	1	U	0.2	0.2	1	ug/L
87-61-6	1,2,3-Trichlorobenzene	1	U	0.2	0.2	1	ug/L
SURROGATES							
17060-07-0	1,2-Dichloroethane-d4	51.8		61 - 141		104%	SPK: 50
1868-53-7	Dibromofluoromethane	46.9		69 - 133		94%	SPK: 50
2037-26-5	Toluene-d8	49.8		65 - 126		100%	SPK: 50
460-00-4	4-Bromofluorobenzene	49.1		58 - 135		98%	SPK: 50
INTERNAL STANDARDS							
363-72-4	Pentafluorobenzene	622556	5.67				
540-36-3	1,4-Difluorobenzene	993166	6.86				
3114-55-4	Chlorobenzene-d5	908521	10.12				
3855-82-1	1,4-Dichlorobenzene-d4	438630	12.08				

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Day Environmental, Inc.	Date Collected:	12/18/18
Project:	Andrew St. RI	Date Received:	12/19/18
Client Sample ID:	975-MW-19(28)	SDG No.:	J6484
Lab Sample ID:	J6484-15	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	DB-624UI ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX006680.D	1		12/20/18 17:07	VX122018

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit
A = Aldol-Condensation Reaction Products

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX122018\
Data File : VX006680.D
Acq On : 20 Dec 2018 17:07
Operator : JC/MD
Sample : J6484-15
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 20 Sample Multiplier: 1

Instrument : MSVOA_X
ClientSampleId : 975-MW-19(28)

Quant Time: Dec 21 04:20:25 2018
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121818W.M
Quant Title : SW846 8260
QLast Update : Wed Dec 19 15:20:58 2018
Response via : Initial Calibration

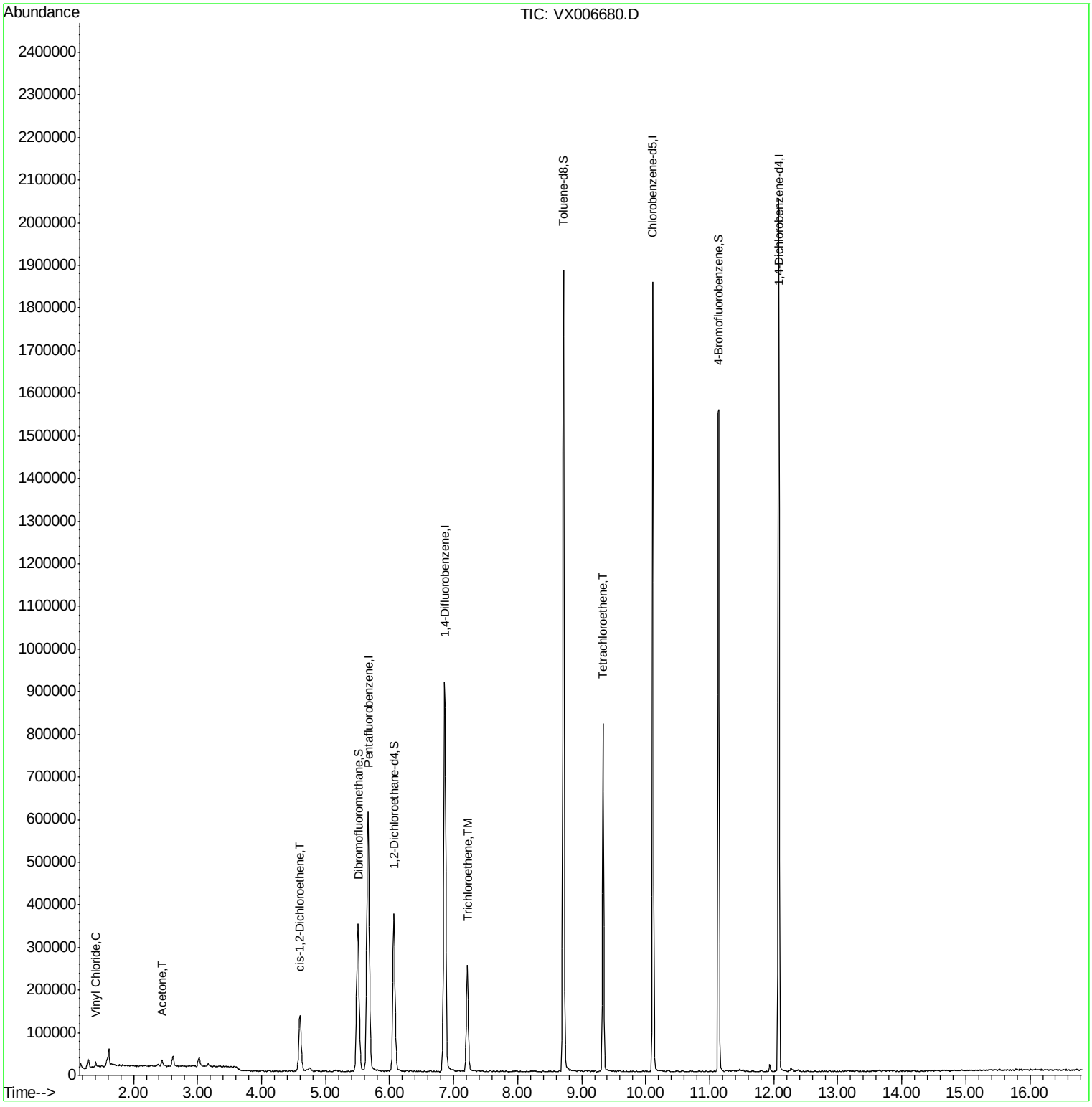
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	5.67	168	622556	50.00	ug/l	0.00
34) 1,4-Difluorobenzene	6.86	114	993166	50.00	ug/l	0.00
63) Chlorobenzene-d5	10.12	117	908521	50.00	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	12.08	152	438630	50.00	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	6.07	65	347266	51.76	ug/l	0.00
Spiked Amount 50.000			Recovery = 103.52%			
35) Dibromofluoromethane	5.51	113	294726	46.93	ug/l	0.00
Spiked Amount 50.000			Recovery = 93.86%			
50) Toluene-d8	8.71	98	1179338	49.81	ug/l	0.00
Spiked Amount 50.000			Recovery = 99.62%			
62) 4-Bromofluorobenzene	11.13	95	425698	49.09	ug/l	0.00
Spiked Amount 50.000			Recovery = 98.18%			
Target Compounds						Qvalue
4) Vinyl Chloride	1.41	62	6188	0.966	ug/l	94
16) Acetone	2.45	43	15714	5.098	ug/l	90
27) cis-1,2-Dichloroethene	4.60	96	91589	13.469	ug/l	91
44) Trichloroethene	7.21	130	103262	13.645	ug/l	100
64) Tetrachloroethene	9.34	164	165169	22.959	ug/l	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

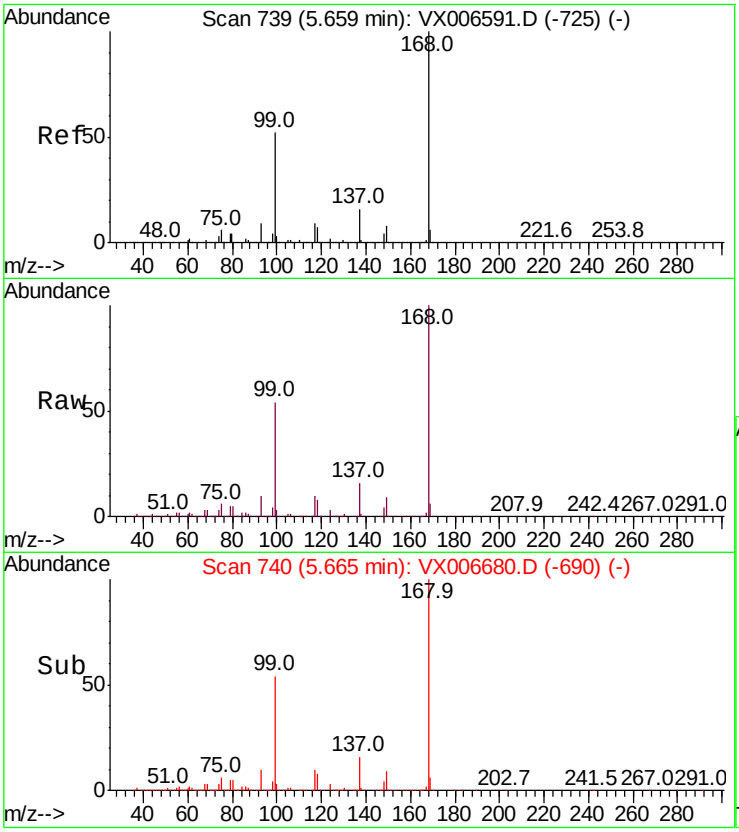
Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX122018\
Data File : VX006680.D
Acq On : 20 Dec 2018 17:07
Operator : JC/MD
Sample : J6484-15
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 20 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
975-MW-19(28)

Quant Time: Dec 21 04:20:25 2018
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121818W.M
Quant Title : SW846 8260
QLast Update : Wed Dec 19 15:20:58 2018
Response via : Initial Calibration



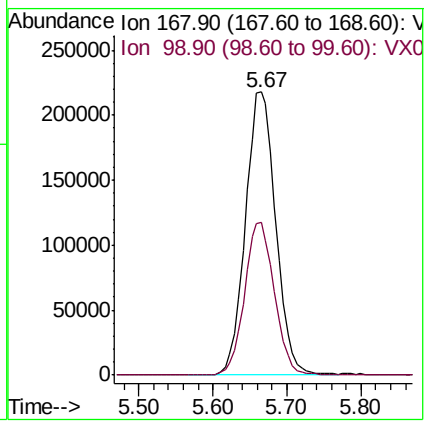
Instrument :
MSVOA_X
ClientSampleId :
975-MW-19(28)

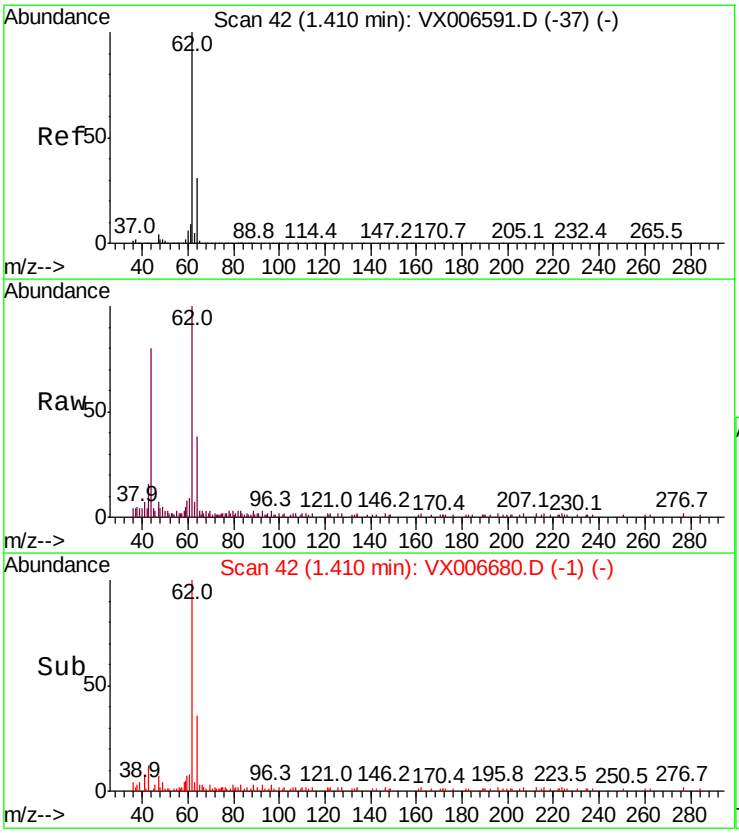


#1
Pentafluorobenzene
Concen: 50.000 ug/l
RT: 5.67 min Scan# 740
Delta R.T. 0.01 min
Lab File: VX006680.D
Acq: 20 Dec 2018 17:07

Tgt Ion:168 Resp: 622556

Ion	Ratio	Lower	Upper
168	100		
99	54.2	41.8	62.8

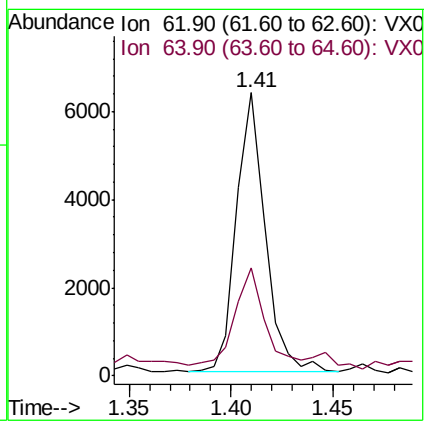




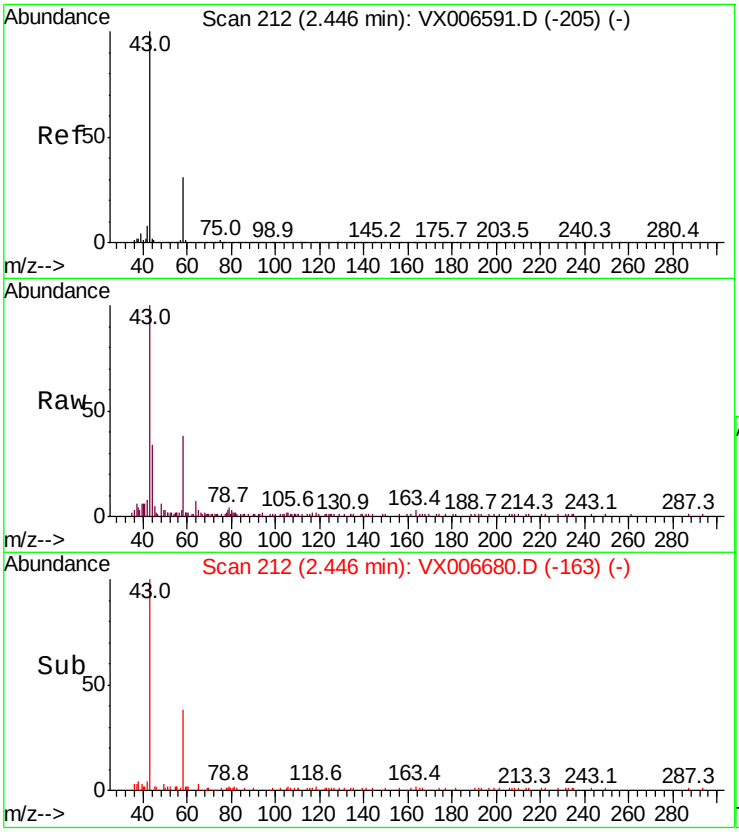
#4
Vinyl Chloride
Concen: 0.966 ug/l
RT: 1.41 min Scan# 42
Delta R.T. -0.00 min
Lab File: VX006680.D
Acq: 20 Dec 2018 17:07

Tgt Ion: 62 Resp: 6188

Ion	Ratio	Lower	Upper
62	100		
64	35.0	25.1	37.7



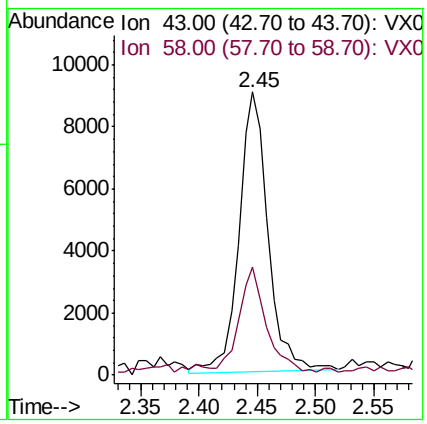
Instrument :
MSVOA_X
ClientSampleId :
975-MW-19(28)

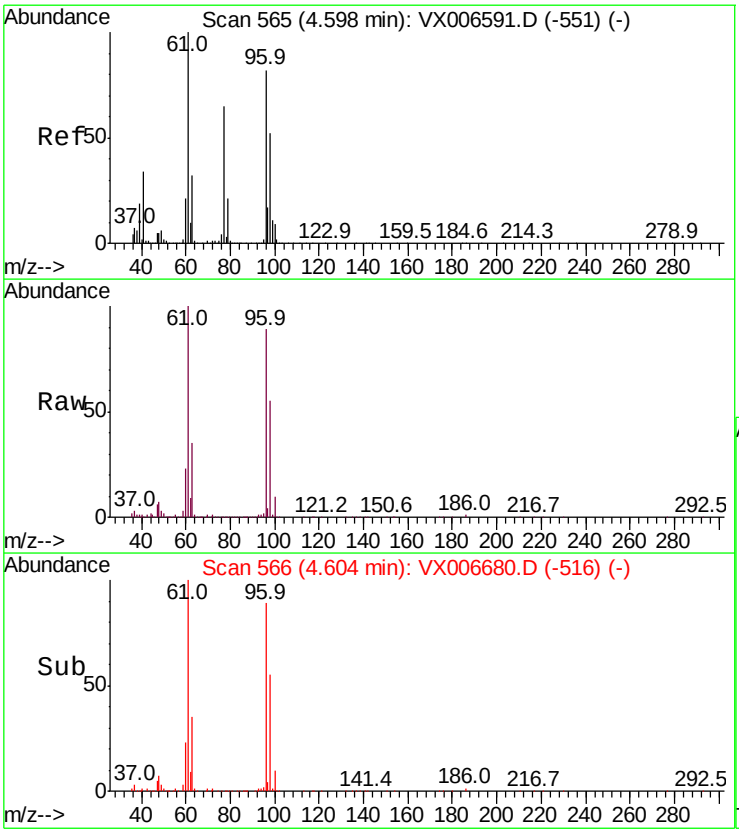


#16
Acetone
Concen: 5.098 ug/l
RT: 2.45 min Scan# 212
Delta R.T. -0.00 min
Lab File: VX006680.D
Acq: 20 Dec 2018 17:07

Tgt Ion: 43 Resp: 15714

Ion	Ratio	Lower	Upper
43	100		
58	36.8	25.0	37.6

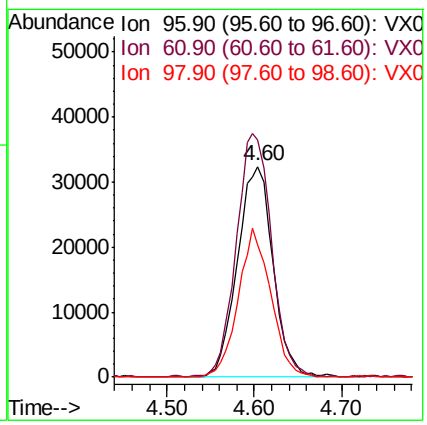




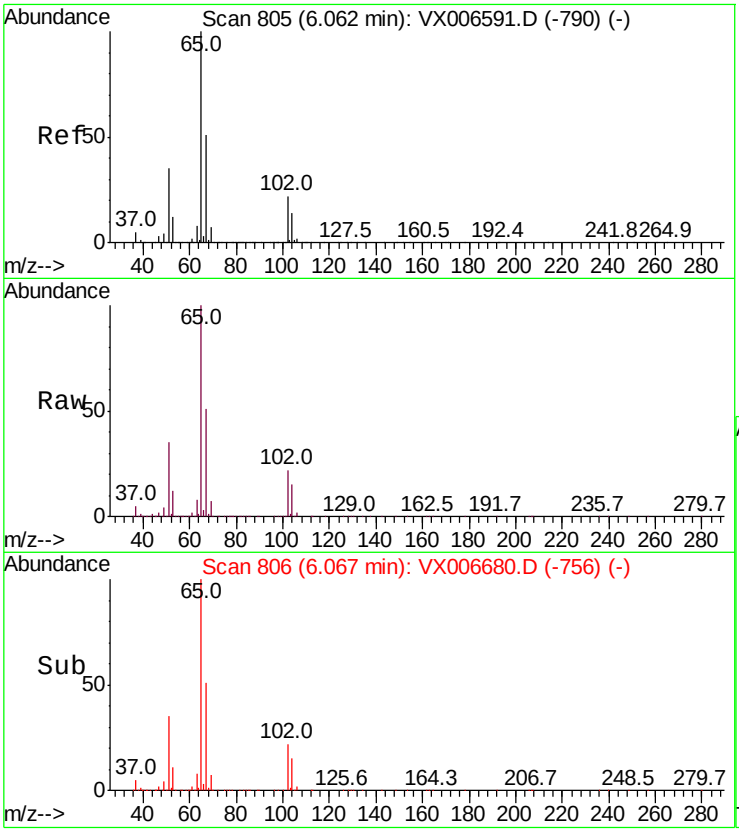
#27
cis-1,2-Dichloroethene
Concen: 13.469 ug/l
RT: 4.60 min Scan# 566
Delta R.T. 0.01 min
Lab File: VX006680.D
Acq: 20 Dec 2018 17:07

Tgt Ion: 96 Resp: 91589

Ion	Ratio	Lower	Upper
96	100		
61	114.2	0.0	258.6
98	64.6	0.0	132.0



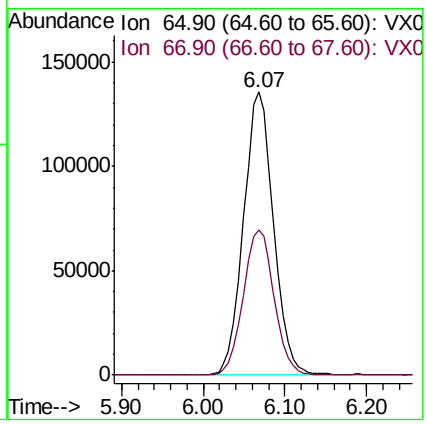
Instrument :
MSVOA_X
ClientSampleId :
975-MW-19(28)

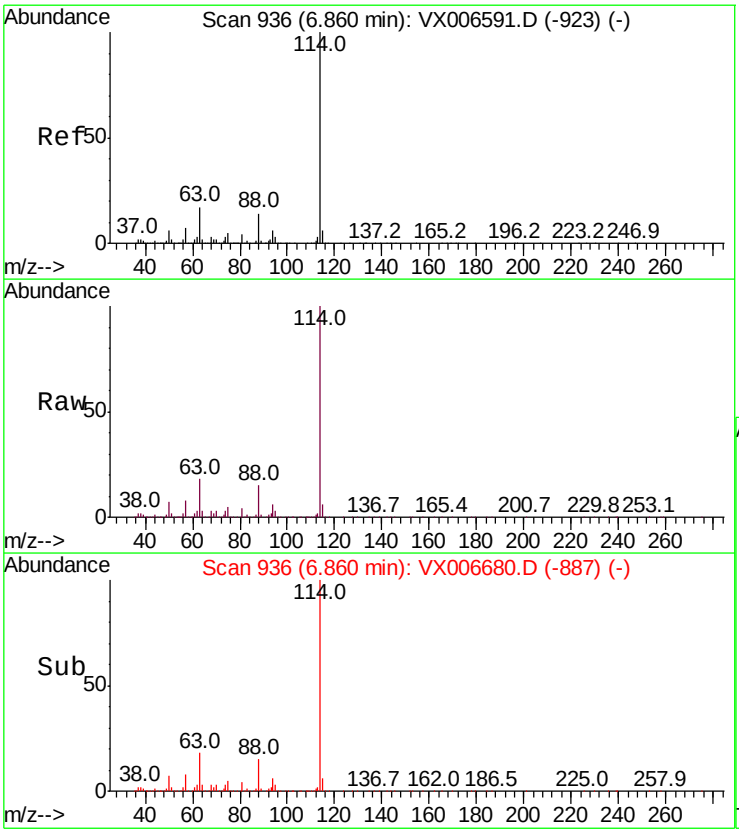


#33
1,2-Dichloroethane-d4
Concen: 51.756 ug/l
RT: 6.07 min Scan# 806
Delta R.T. 0.01 min
Lab File: VX006680.D
Acq: 20 Dec 2018 17:07

Tgt Ion: 65 Resp: 347266

Ion	Ratio	Lower	Upper
65	100		
67	52.4	0.0	105.0

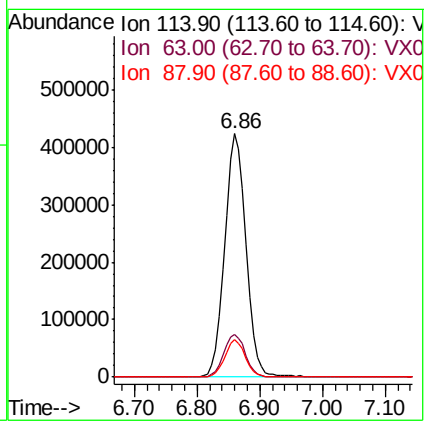




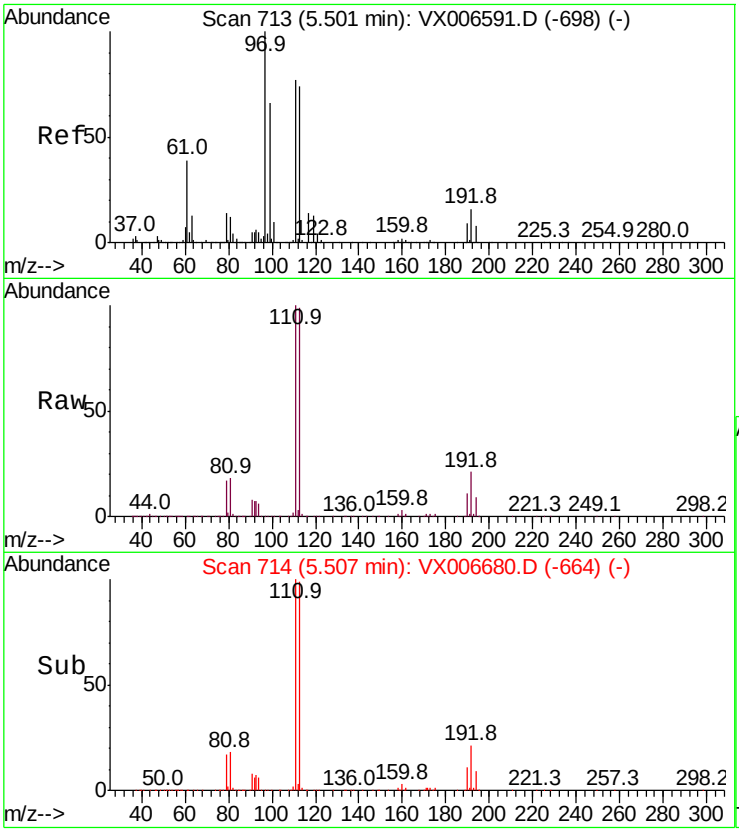
#34
1,4-Difluorobenzene
Concen: 50.000 ug/l
RT: 6.86 min Scan# 936
Delta R.T. -0.00 min
Lab File: VX006680.D
Acq: 20 Dec 2018 17:07

Tgt Ion:114 Resp: 993166

Ion	Ratio	Lower	Upper
114	100		
63	17.7	0.0	34.8
88	15.3	0.0	28.8



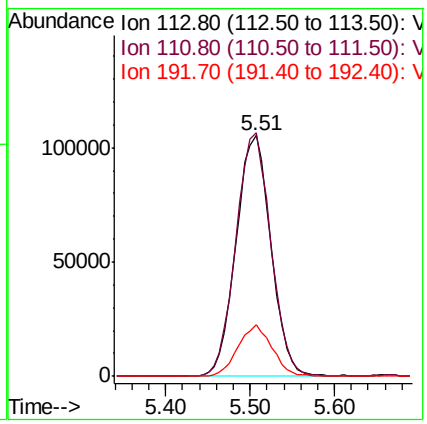
Instrument :
MSVOA_X
ClientSampleId :
975-MW-19(28)

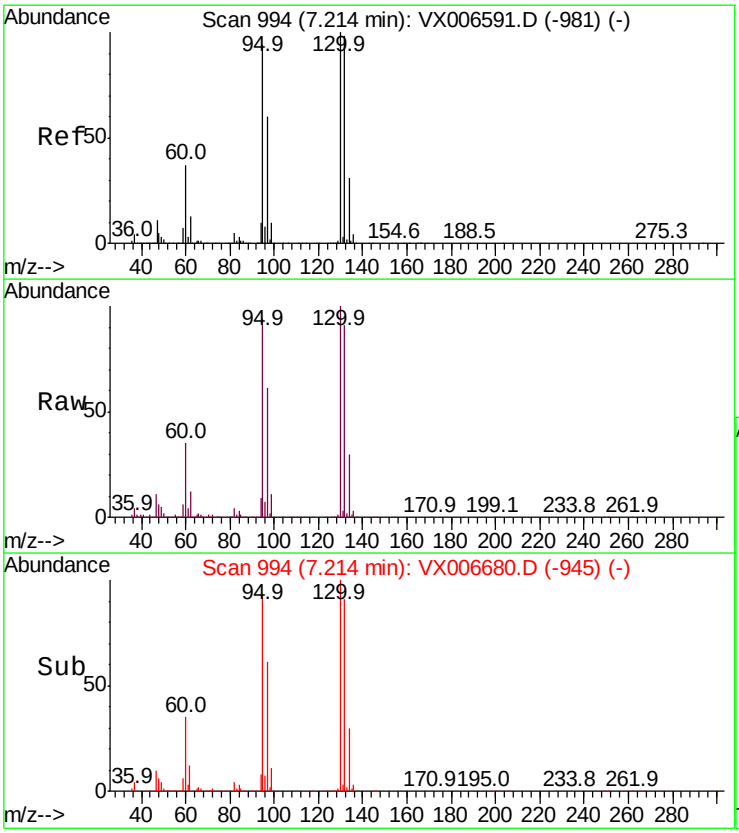


#35
Dibromofluoromethane
Concen: 46.926 ug/l
RT: 5.51 min Scan# 714
Delta R.T. 0.01 min
Lab File: VX006680.D
Acq: 20 Dec 2018 17:07

Tgt Ion:113 Resp: 294726

Ion	Ratio	Lower	Upper
113	100		
111	101.3	81.6	122.4
192	20.9	16.7	25.1

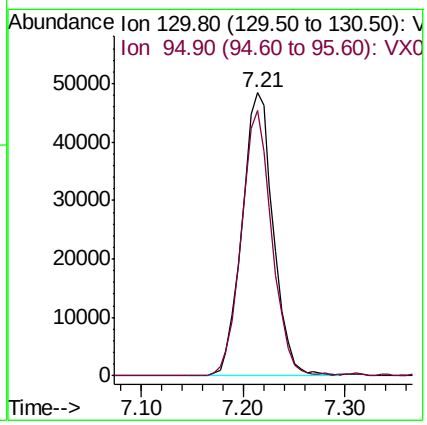




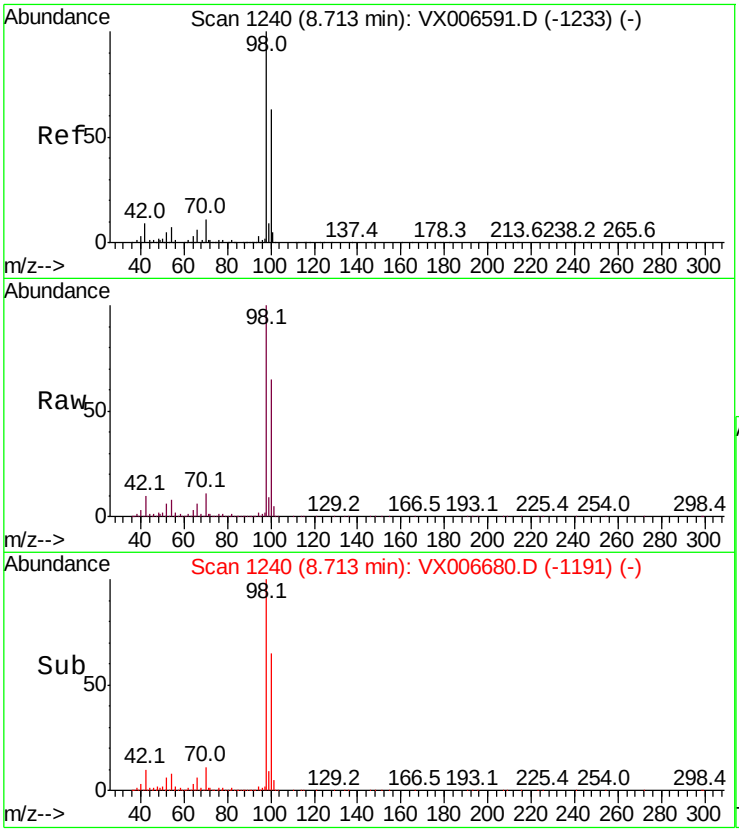
#44
Trichloroethene
Concen: 13.645 ug/l
RT: 7.21 min Scan# 994
Delta R.T. -0.00 min
Lab File: VX006680.D
Acq: 20 Dec 2018 17:07

Tgt Ion:130 Resp: 103262

Ion	Ratio	Lower	Upper
130	100		
95	93.8	0.0	187.0



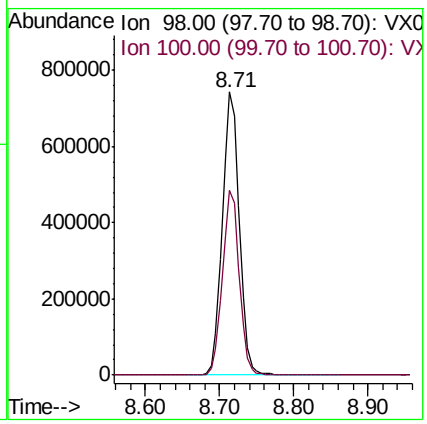
Instrument :
MSVOA_X
ClientSampleId :
975-MW-19(28)

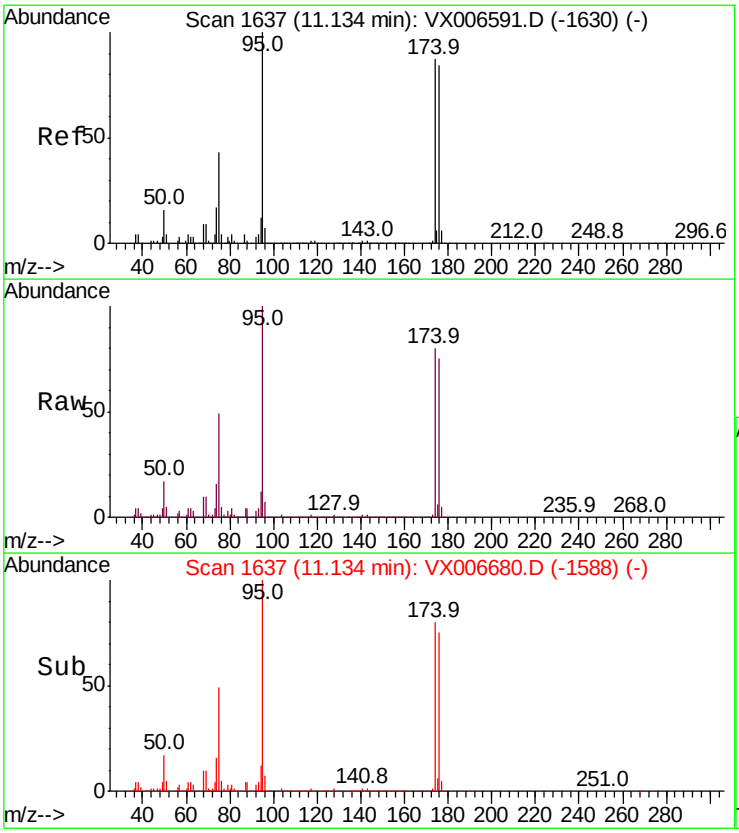


#50
Toluene-d8
Concen: 49.807 ug/l
RT: 8.71 min Scan# 1240
Delta R.T. -0.00 min
Lab File: VX006680.D
Acq: 20 Dec 2018 17:07

Tgt Ion: 98 Resp: 1179338

Ion	Ratio	Lower	Upper
98	100		
100	64.6	52.0	78.0

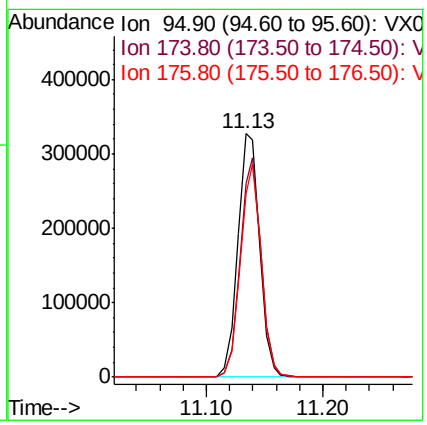




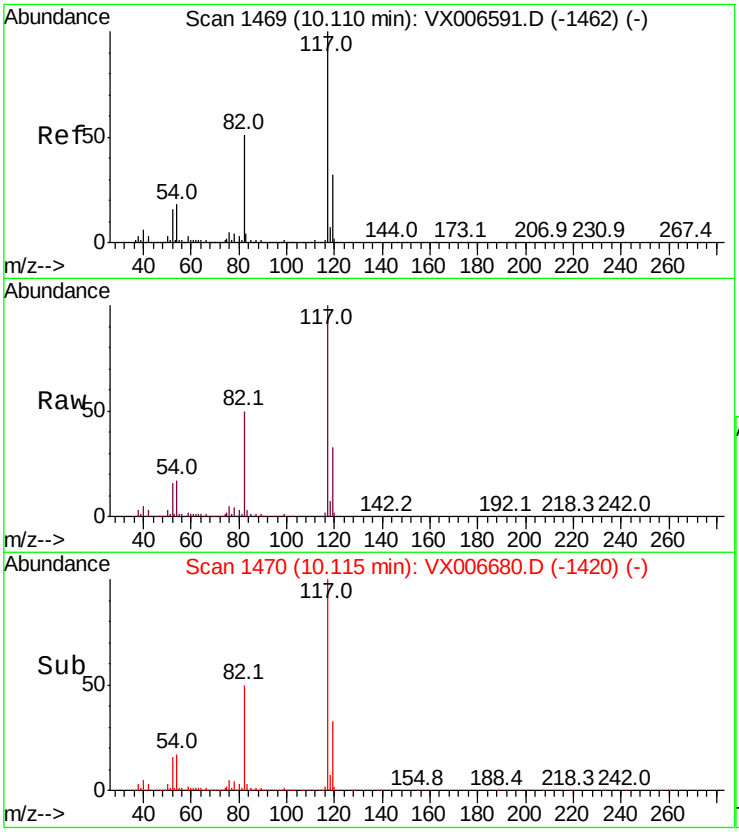
#62
4-Bromofluorobenzene
Concen: 49.089 ug/l
RT: 11.13 min Scan# 1637
Delta R.T. -0.00 min
Lab File: VX006680.D
Acq: 20 Dec 2018 17:07

Tgt Ion: 95 Resp: 425698

Ion	Ratio	Lower	Upper
95	100		
174	86.3	0.0	182.2
176	83.7	0.0	178.8



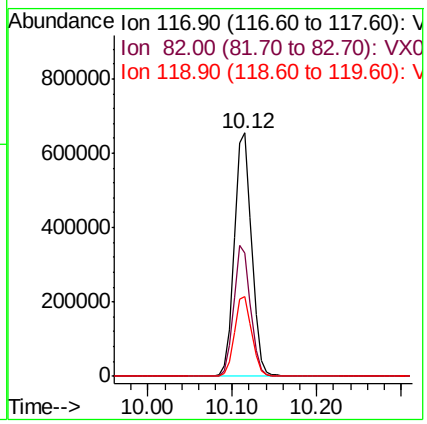
Instrument :
MSVOA_X
ClientSampleId :
975-MW-19(28)

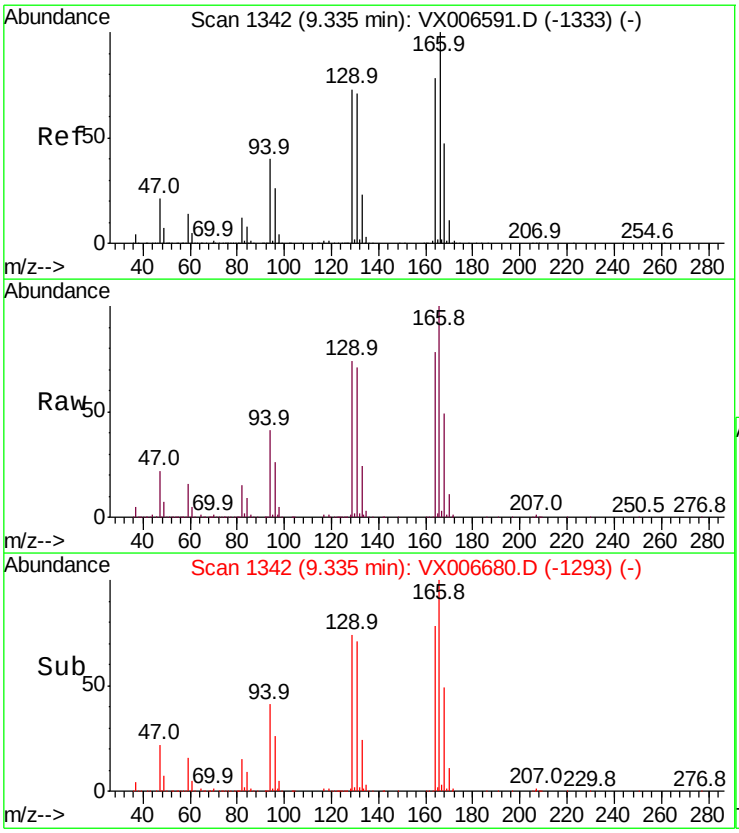


#63
Chlorobenzene-d5
Concen: 50.000 ug/l
RT: 10.12 min Scan# 1470
Delta R.T. 0.01 min
Lab File: VX006680.D
Acq: 20 Dec 2018 17:07

Tgt Ion:117 Resp: 908521

Ion	Ratio	Lower	Upper
117	100		
82	50.4	41.0	61.6
119	32.6	25.4	38.0

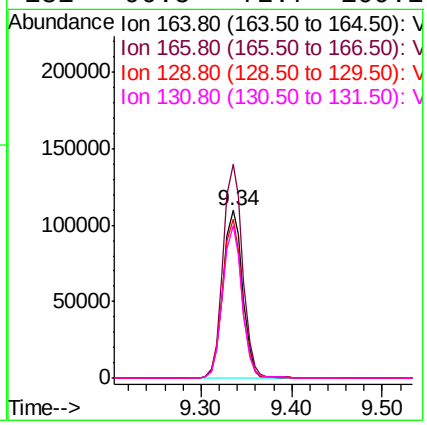


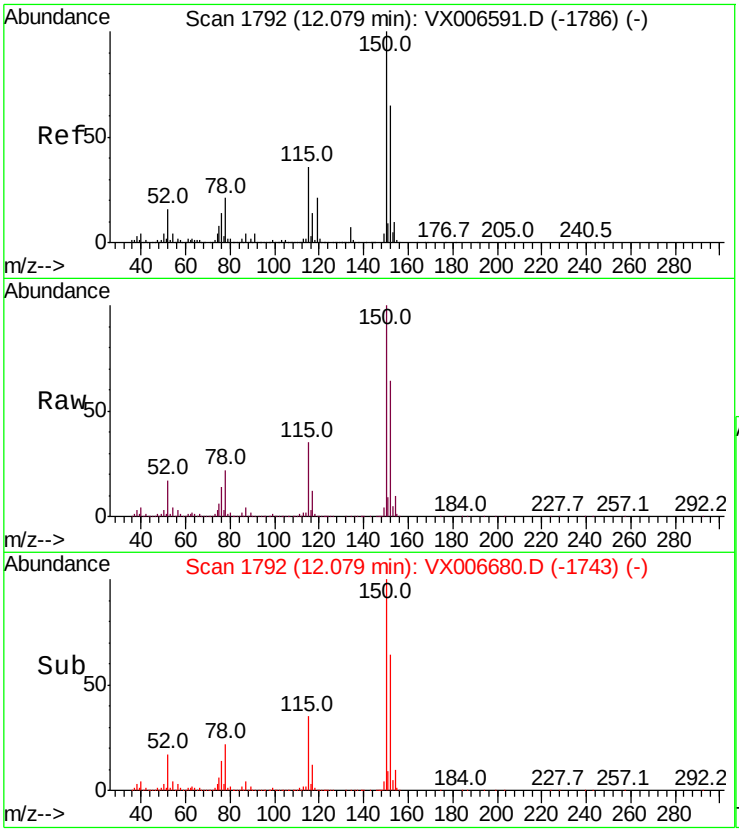


#64
Tetrachloroethene
Concen: 22.959 ug/l
RT: 9.34 min Scan# 1342
Delta R.T. -0.00 min
Lab File: VX006680.D
Acq: 20 Dec 2018 17:07

Tgt Ion:164 Resp: 165169

Ion	Ratio	Lower	Upper
164	100		
166	127.4	102.5	153.7
129	94.6	75.1	112.7
131	90.5	72.7	109.1

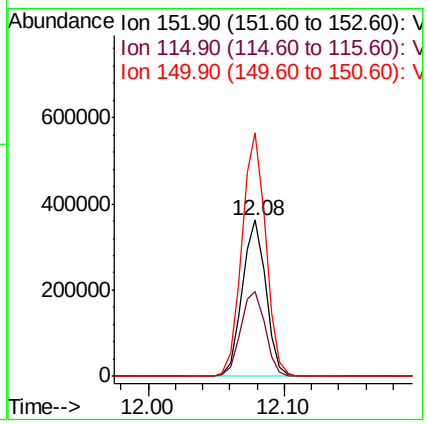




#72
1,4-Dichlorobenzene-d4
Concen: 50.000 ug/l
RT: 12.08 min Scan# 1792
Delta R.T. -0.00 min
Lab File: VX006680.D
Acq: 20 Dec 2018 17:07

Tgt Ion:152 Resp: 438630

Ion	Ratio	Lower	Upper
152	100		
115	56.3	39.1	117.2
150	156.9	0.0	344.8



Instrument :
MSVOA_X
ClientSampleId :
975-MW-19(28)

LSC Area Percent Report

Data Path : Z:\VOASRV\HPCHEM1\MSVOA X\DATA\VX122018\
Data File : VX006680.D
Acq On : 20 Dec 2018 17:07
Operator : JC/MD
Sample : J6484-15
Misc : 5.0mL/MSVOA X/WATER
ALS Vial : 20 Sample Multiplier: 1

Instrument : MSVOA_X
ClientSampleId : 975-MW-19(28)

Integration Parameters: RTEINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 3 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121818W.M
Title : SW846 8260

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	1.617	66	76	79	rBV	39672	81289	2.72%	0.446%
2	2.617	235	240	245	rBV	21868	39738	1.33%	0.218%
3	3.025	301	307	314	rVB	20467	45840	1.53%	0.251%
4	4.598	554	565	576	rBV2	130958	377802	12.64%	2.071%
5	5.507	701	714	727	rBV	345834	974609	32.60%	5.342%
6	5.665	729	740	753	rVV	605903	1703038	56.96%	9.334%
7	6.067	796	806	824	rBV	370277	962167	32.18%	5.273%
8	6.860	927	936	952	rBV	912497	2130682	71.26%	11.678%
9	7.214	986	994	1007	rBV2	248928	536470	17.94%	2.940%
10	8.713	1233	1240	1252	rBV	1879310	2990041	100.00%	16.388%
11	9.335	1336	1342	1350	rBV	816553	1216114	40.67%	6.665%
12	10.109	1463	1469	1482	rBV	1849933	2587900	86.55%	14.184%
13	11.140	1632	1638	1653	rVB	1552685	2057961	68.83%	11.279%
14	12.079	1786	1792	1801	rBV	2047213	2542116	85.02%	13.933%

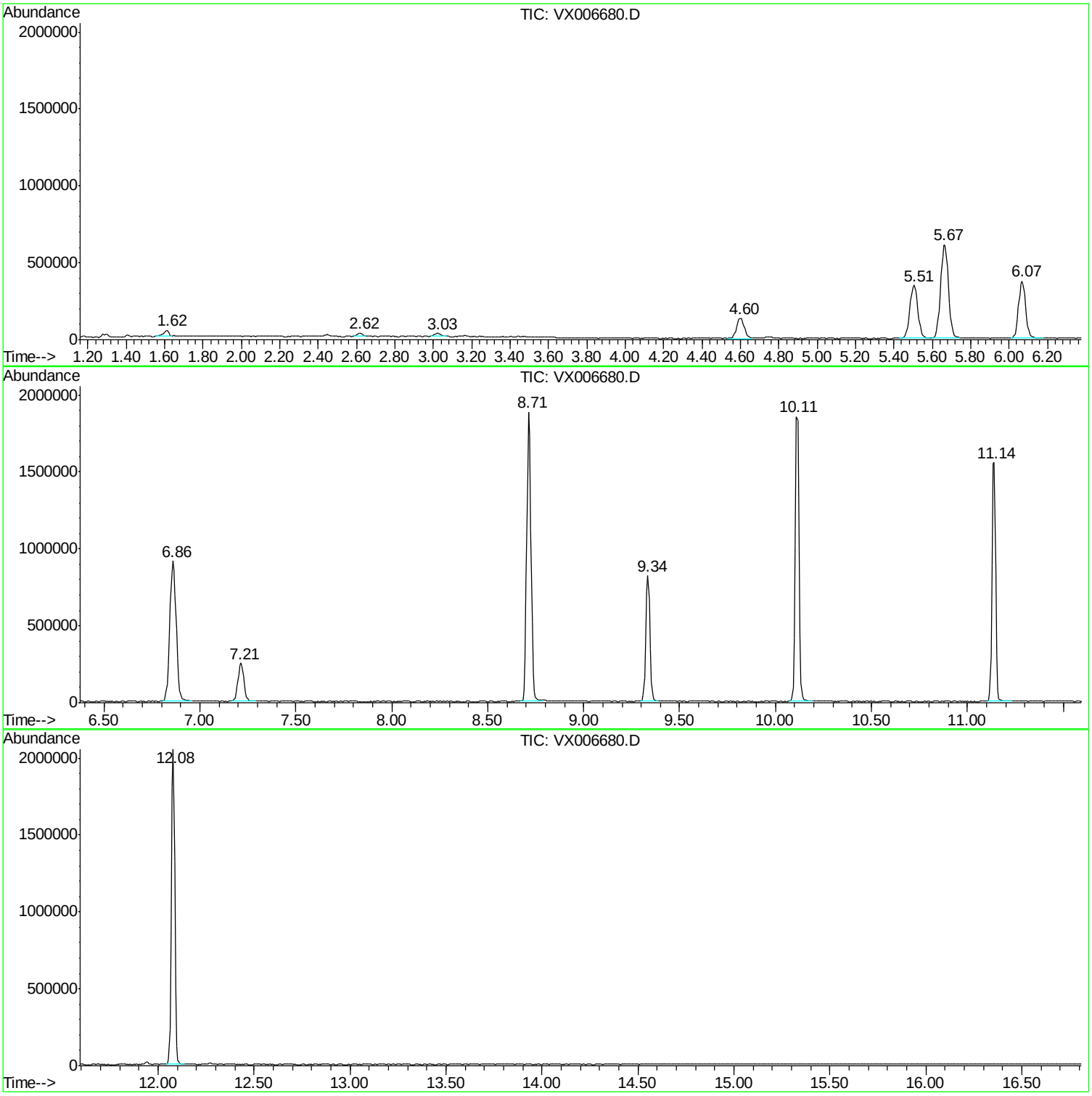
Sum of corrected areas: 18245767

Data Path : Z:\VOASRV\HPCHEM1\MSVOA X\DATA\VX122018\
Data File : VX006680.D
Acq On : 20 Dec 2018 17:07
Operator : JC/MD
Sample : J6484-15
Misc : 5.0mL/MSVOA X/WATER
ALS Vial : 20 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
975-MW-19(28)

Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121818W.M
Quant Title : SW846 8260

TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P



Library Search Compound Report

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX122018\
Data File : VX006680.D
Acq On : 20 Dec 2018 17:07
Operator : JC/MD
Sample : J6484-15
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 20 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
975-MW-19(28)

Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121818W.M
Quant Title : SW846 8260

TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

No Library Search Compounds Detected

****

Instrument :
MSVOA_X
ClientSampleId :
975-MW-19(28)

Tentatively Identified Compound (LSC) summary

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX122018\
Data File : VX006680.D
Acq On : 20 Dec 2018 17:07
Operator : JC/MD
Sample : J6484-15
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 20 Sample Multiplier: 1

Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121818W.M
Quant Title : SW846 8260

TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

					Internal Standard			
TIC Top Hit name	RT	EstConc	Units	Response	#	RT	Resp	Conc

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Day Environmental, Inc.	Date Collected:	12/18/18
Project:	Andrew St. RI	Date Received:	12/19/18
Client Sample ID:	976-MW-20(22)	SDG No.:	J6484
Lab Sample ID:	J6484-16	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	DB-624UI ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX006681.D	1		12/20/18 17:34	VX122018

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
75-71-8	Dichlorodifluoromethane	1	U	0.2	0.2	1	ug/L
74-87-3	Chloromethane	1	U	0.2	0.2	1	ug/L
75-01-4	Vinyl Chloride	1	U	0.2	0.2	1	ug/L
74-83-9	Bromomethane	1	U	0.2	0.2	1	ug/L
75-00-3	Chloroethane	1	U	0.2	0.5	1	ug/L
75-69-4	Trichlorofluoromethane	1	U	0.2	0.2	1	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	1	U	0.2	0.2	1	ug/L
75-35-4	1,1-Dichloroethene	1	U	0.2	0.2	1	ug/L
67-64-1	Acetone	1.9	J	0.5	1	5	ug/L
75-15-0	Carbon Disulfide	1	U	0.2	0.2	1	ug/L
1634-04-4	Methyl tert-butyl Ether	1	U	0.35	0.5	1	ug/L
79-20-9	Methyl Acetate	1	U	0.2	0.5	1	ug/L
75-09-2	Methylene Chloride	1	U	0.2	0.2	1	ug/L
156-60-5	trans-1,2-Dichloroethene	1	U	0.2	0.2	1	ug/L
75-34-3	1,1-Dichloroethane	1	U	0.2	0.2	1	ug/L
110-82-7	Cyclohexane	1	U	0.2	0.2	1	ug/L
78-93-3	2-Butanone	5	U	1.3	2.5	5	ug/L
56-23-5	Carbon Tetrachloride	1	U	0.2	0.2	1	ug/L
156-59-2	cis-1,2-Dichloroethene	0.56	J	0.2	0.2	1	ug/L
74-97-5	Bromochloromethane	1	U	0.2	0.5	1	ug/L
67-66-3	Chloroform	1	U	0.2	0.2	1	ug/L
71-55-6	1,1,1-Trichloroethane	1	U	0.2	0.2	1	ug/L
108-87-2	Methylcyclohexane	1	U	0.2	0.2	1	ug/L
71-43-2	Benzene	1	U	0.2	0.2	1	ug/L
107-06-2	1,2-Dichloroethane	1	U	0.2	0.2	1	ug/L
79-01-6	Trichloroethene	1.6		0.2	0.2	1	ug/L
78-87-5	1,2-Dichloropropane	1	U	0.2	0.2	1	ug/L
75-27-4	Bromodichloromethane	1	U	0.2	0.2	1	ug/L
108-10-1	4-Methyl-2-Pentanone	5	U	1	1	5	ug/L
108-88-3	Toluene	1	U	0.2	0.2	1	ug/L
10061-02-6	t-1,3-Dichloropropene	1	U	0.2	0.2	1	ug/L
10061-01-5	cis-1,3-Dichloropropene	1	U	0.2	0.2	1	ug/L

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Day Environmental, Inc.	Date Collected:	12/18/18
Project:	Andrew St. RI	Date Received:	12/19/18
Client Sample ID:	976-MW-20(22)	SDG No.:	J6484
Lab Sample ID:	J6484-16	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	DB-624UI ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX006681.D	1		12/20/18 17:34	VX122018

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
79-00-5	1,1,2-Trichloroethane	1	U	0.2	0.2	1	ug/L
591-78-6	2-Hexanone	5	U	1.9	2.5	5	ug/L
124-48-1	Dibromochloromethane	1	U	0.2	0.2	1	ug/L
106-93-4	1,2-Dibromoethane	1	U	0.2	0.2	1	ug/L
127-18-4	Tetrachloroethene	0.91	J	0.2	0.2	1	ug/L
108-90-7	Chlorobenzene	1	U	0.2	0.2	1	ug/L
100-41-4	Ethyl Benzene	1	U	0.2	0.2	1	ug/L
179601-23-1	m/p-Xylenes	2	U	0.4	0.4	2	ug/L
95-47-6	o-Xylene	1	U	0.2	0.2	1	ug/L
100-42-5	Styrene	1	U	0.2	0.2	1	ug/L
75-25-2	Bromoform	1	U	0.2	0.2	1	ug/L
98-82-8	Isopropylbenzene	1	U	0.2	0.2	1	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	1	U	0.2	0.2	1	ug/L
541-73-1	1,3-Dichlorobenzene	1	U	0.2	0.2	1	ug/L
106-46-7	1,4-Dichlorobenzene	1	U	0.2	0.2	1	ug/L
95-50-1	1,2-Dichlorobenzene	1	U	0.2	0.2	1	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	1	U	0.2	0.2	1	ug/L
120-82-1	1,2,4-Trichlorobenzene	1	U	0.2	0.2	1	ug/L
87-61-6	1,2,3-Trichlorobenzene	1	U	0.2	0.2	1	ug/L
SURROGATES							
17060-07-0	1,2-Dichloroethane-d4	51.3		61 - 141		103%	SPK: 50
1868-53-7	Dibromofluoromethane	46.7		69 - 133		93%	SPK: 50
2037-26-5	Toluene-d8	49.8		65 - 126		100%	SPK: 50
460-00-4	4-Bromofluorobenzene	48.4		58 - 135		97%	SPK: 50
INTERNAL STANDARDS							
363-72-4	Pentafluorobenzene	617808	5.67				
540-36-3	1,4-Difluorobenzene	979870	6.86				
3114-55-4	Chlorobenzene-d5	901852	10.12				
3855-82-1	1,4-Dichlorobenzene-d4	425228	12.08				

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Day Environmental, Inc.	Date Collected:	12/18/18
Project:	Andrew St. RI	Date Received:	12/19/18
Client Sample ID:	976-MW-20(22)	SDG No.:	J6484
Lab Sample ID:	J6484-16	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	DB-624UI ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX006681.D	1		12/20/18 17:34	VX122018

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit
A = Aldol-Condensation Reaction Products

Quantitation Report (QT Reviewed)

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX122018\
Data File : VX006681.D
Acq On : 20 Dec 2018 17:34
Operator : JC/MD
Sample : J6484-16
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 21 Sample Multiplier: 1

Instrument : MSVOA_X
ClientSampleId : 976-MW-20(22)

Quant Time: Dec 21 04:22:09 2018
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121818W.M
Quant Title : SW846 8260
QLast Update : Wed Dec 19 15:20:58 2018
Response via : Initial Calibration

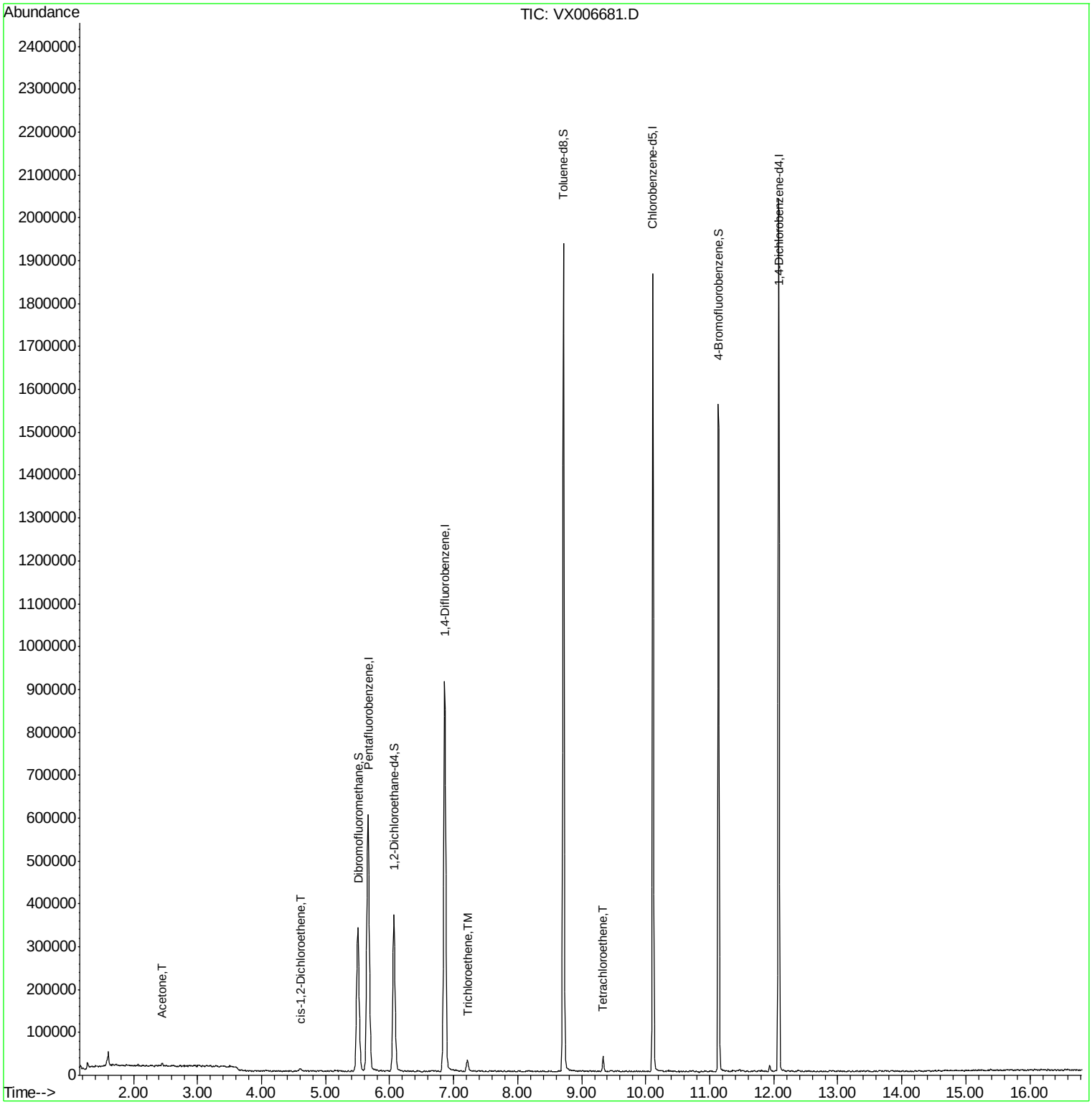
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	5.67	168	617808	50.00	ug/l	0.00
34) 1,4-Difluorobenzene	6.86	114	979870	50.00	ug/l	0.00
63) Chlorobenzene-d5	10.12	117	901852	50.00	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	12.08	152	425228	50.00	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	6.07	65	341748	51.33	ug/l	0.00
Spiked Amount 50.000			Recovery = 102.66%			
35) Dibromofluoromethane	5.50	113	289074	46.65	ug/l	0.00
Spiked Amount 50.000			Recovery = 93.30%			
50) Toluene-d8	8.71	98	1164449	49.85	ug/l	0.00
Spiked Amount 50.000			Recovery = 99.70%			
62) 4-Bromofluorobenzene	11.13	95	413734	48.36	ug/l	0.00
Spiked Amount 50.000			Recovery = 96.72%			
Target Compounds						Qvalue
16) Acetone	2.45	43	5787	1.892	ug/l	98
27) cis-1,2-Dichloroethene	4.60	96	3758	0.557	ug/l	94
44) Trichloroethene	7.21	130	11593	1.553	ug/l	89
64) Tetrachloroethene	9.34	164	6524	0.914	ug/l	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

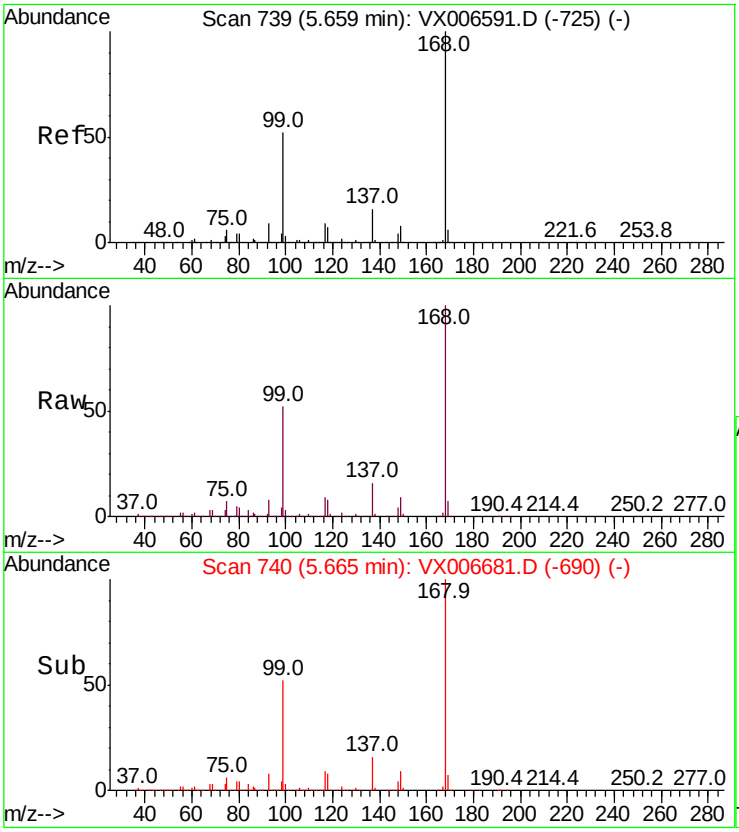
Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX122018\
Data File : VX006681.D
Acq On : 20 Dec 2018 17:34
Operator : JC/MD
Sample : J6484-16
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 21 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
976-MW-20(22)

Quant Time: Dec 21 04:22:09 2018
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121818W.M
Quant Title : SW846 8260
QLast Update : Wed Dec 19 15:20:58 2018
Response via : Initial Calibration



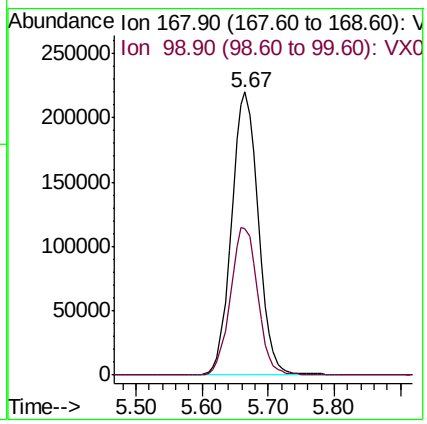
Instrument :
MSVOA_X
ClientSampleId :
976-MW-20(22)

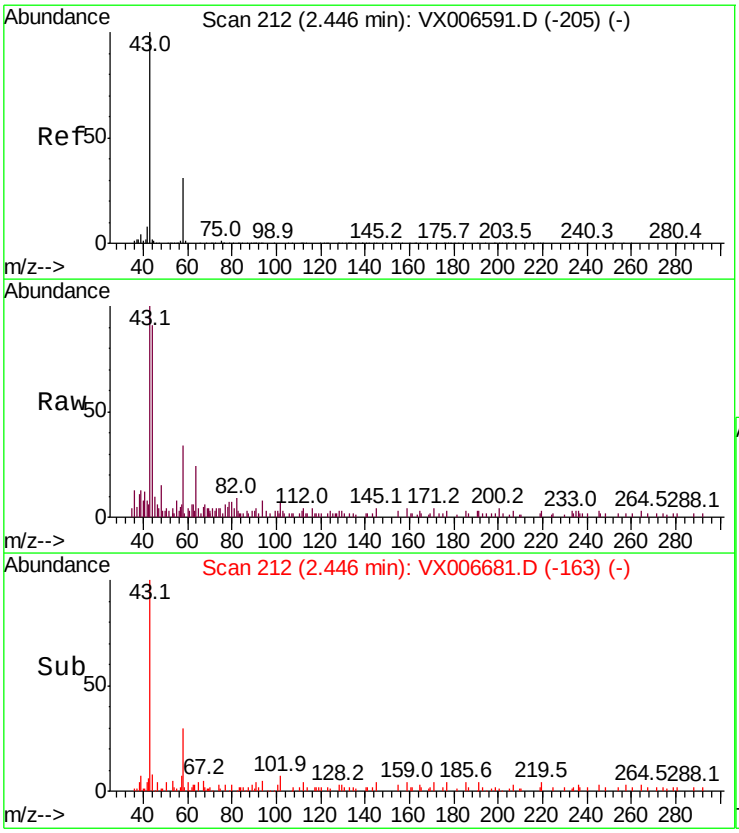


#1
Pentafluorobenzene
Concen: 50.000 ug/l
RT: 5.67 min Scan# 740
Delta R.T. 0.01 min
Lab File: VX006681.D
Acq: 20 Dec 2018 17:34

Tgt Ion:168 Resp: 617808

Ion	Ratio	Lower	Upper
168	100		
99	51.9	41.8	62.8

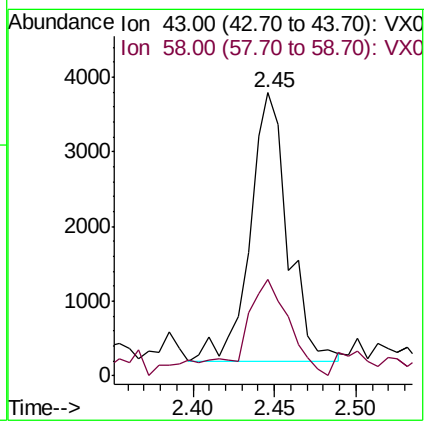




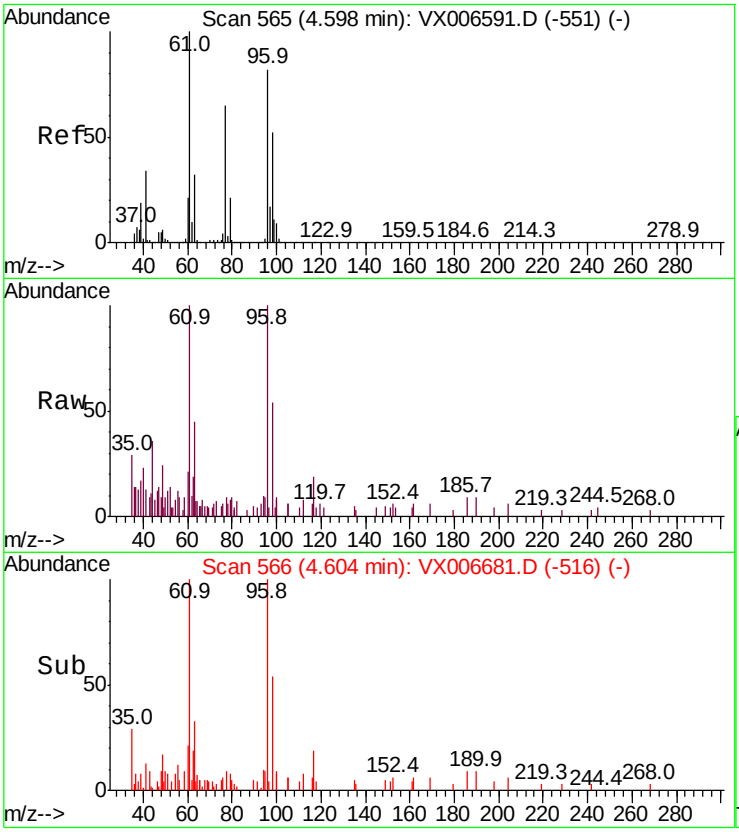
#16
Acetone
Concen: 1.892 ug/l
RT: 2.45 min Scan# 212
Delta R.T. -0.00 min
Lab File: VX006681.D
Acq: 20 Dec 2018 17:34

Tgt Ion: 43 Resp: 5787

Ion	Ratio	Lower	Upper
43	100		
58	32.7	25.0	37.6



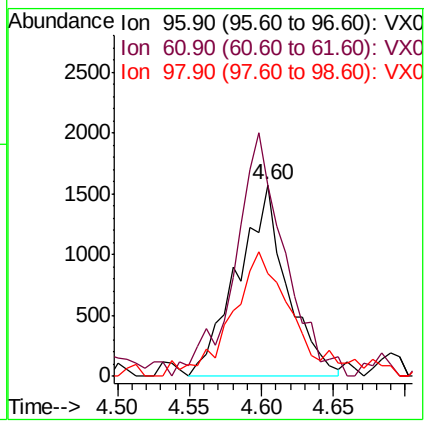
Instrument :
MSVOA_X
ClientSampleId :
976-MW-20(22)

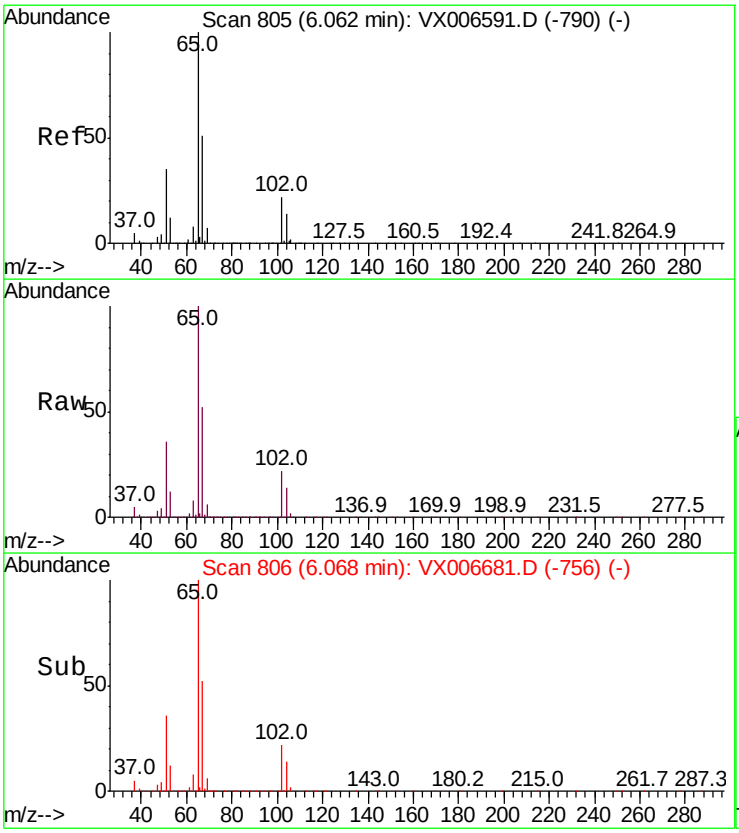


#27
cis-1,2-Dichloroethene
Concen: 0.557 ug/l
RT: 4.60 min Scan# 566
Delta R.T. 0.01 min
Lab File: VX006681.D
Acq: 20 Dec 2018 17:34

Tgt Ion: 96 Resp: 3758

Ion	Ratio	Lower	Upper
96	100		
61	127.7	0.0	258.6
98	78.2	0.0	132.0

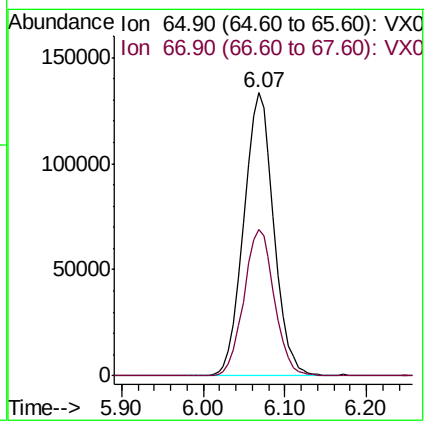




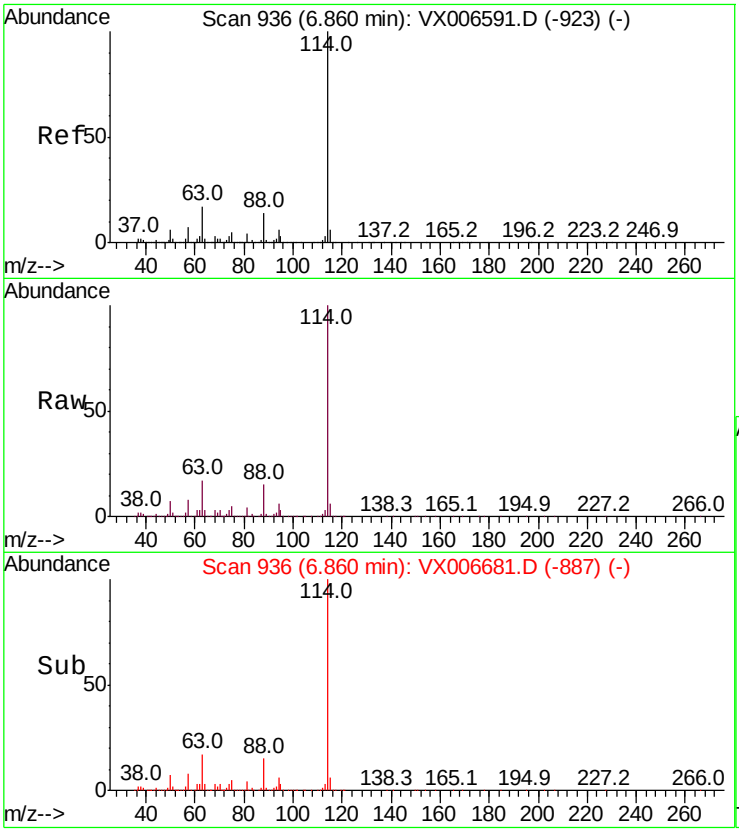
#33
1,2-Dichloroethane-d4
Concen: 51.325 ug/l
RT: 6.07 min Scan# 806
Delta R.T. 0.01 min
Lab File: VX006681.D
Acq: 20 Dec 2018 17:34

Tgt Ion: 65 Resp: 341748

Ion	Ratio	Lower	Upper
65	100		
67	52.6	0.0	105.0



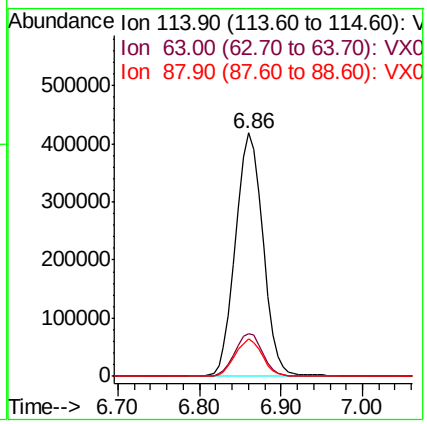
Instrument :
MSVOA_X
ClientSampleId :
976-MW-20(22)

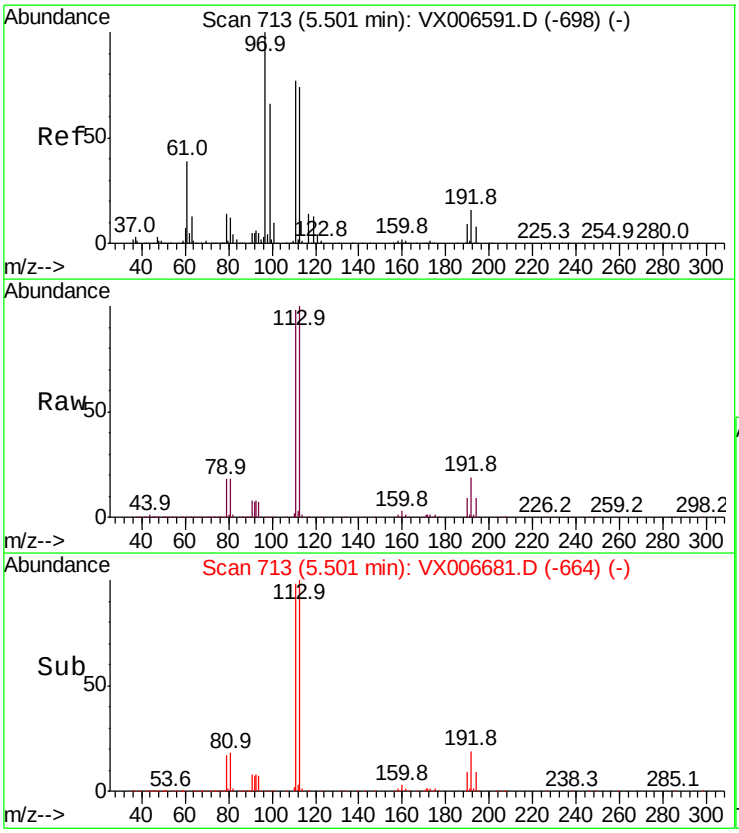


#34
1,4-Difluorobenzene
Concen: 50.000 ug/l
RT: 6.86 min Scan# 936
Delta R.T. -0.00 min
Lab File: VX006681.D
Acq: 20 Dec 2018 17:34

Tgt Ion:114 Resp: 979870

Ion	Ratio	Lower	Upper
114	100		
63	17.4	0.0	34.8
88	15.4	0.0	28.8

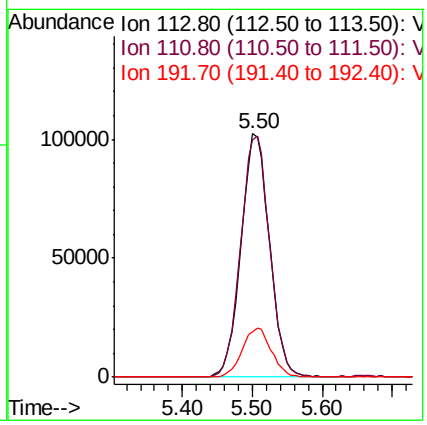




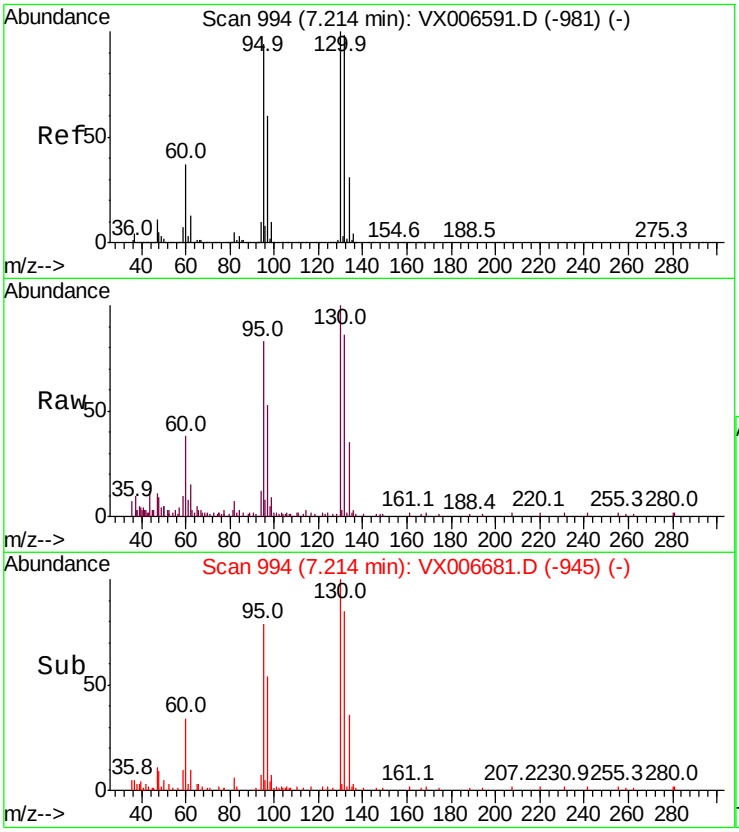
#35
Dibromofluoromethane
Concen: 46.651 ug/l
RT: 5.50 min Scan# 713
Delta R.T. -0.00 min
Lab File: VX006681.D
Acq: 20 Dec 2018 17:34

Tgt Ion:113 Resp: 289074

Ion	Ratio	Lower	Upper
113	100		
111	101.2	81.6	122.4
192	20.4	16.7	25.1



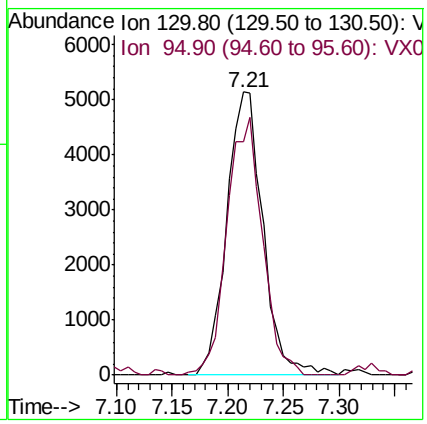
Instrument :
MSVOA_X
ClientSampleId :
976-MW-20(22)

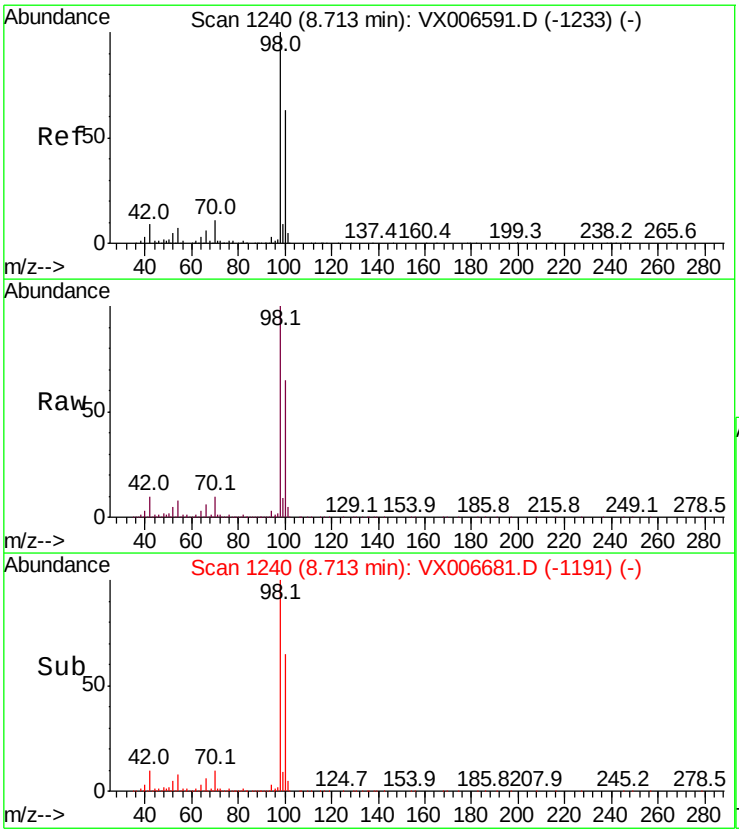


#44
Trichloroethene
Concen: 1.553 ug/l
RT: 7.21 min Scan# 994
Delta R.T. -0.00 min
Lab File: VX006681.D
Acq: 20 Dec 2018 17:34

Tgt Ion:130 Resp: 11593

Ion	Ratio	Lower	Upper
130	100		
95	82.6	0.0	187.0

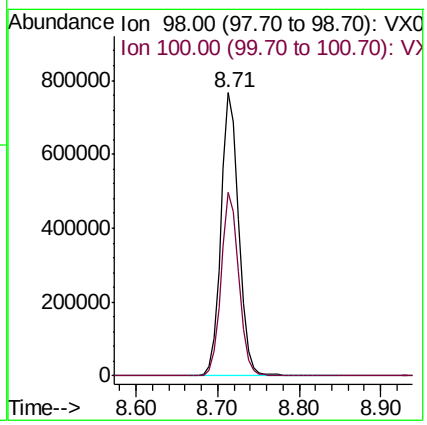




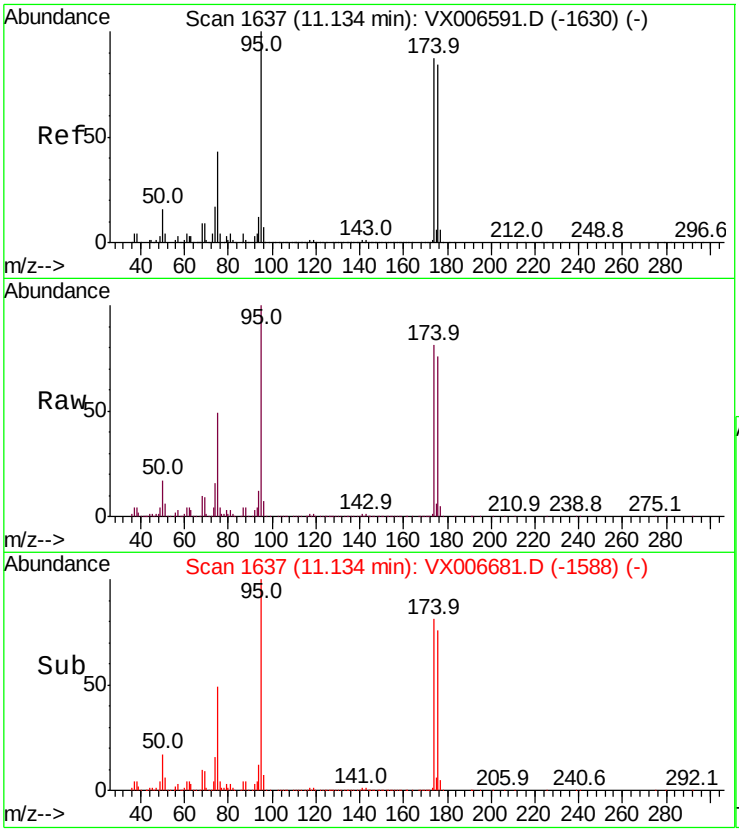
#50
Toluene-d8
Concen: 49.846 ug/l
RT: 8.71 min Scan# 1240
Delta R.T. -0.00 min
Lab File: VX006681.D
Acq: 20 Dec 2018 17:34

Tgt Ion: 98 Resp: 1164449

Ion	Ratio	Lower	Upper
98	100		
100	64.6	52.0	78.0



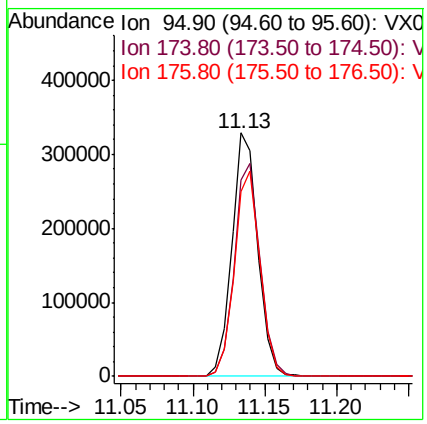
Instrument :
MSVOA_X
ClientSampleId :
976-MW-20(22)

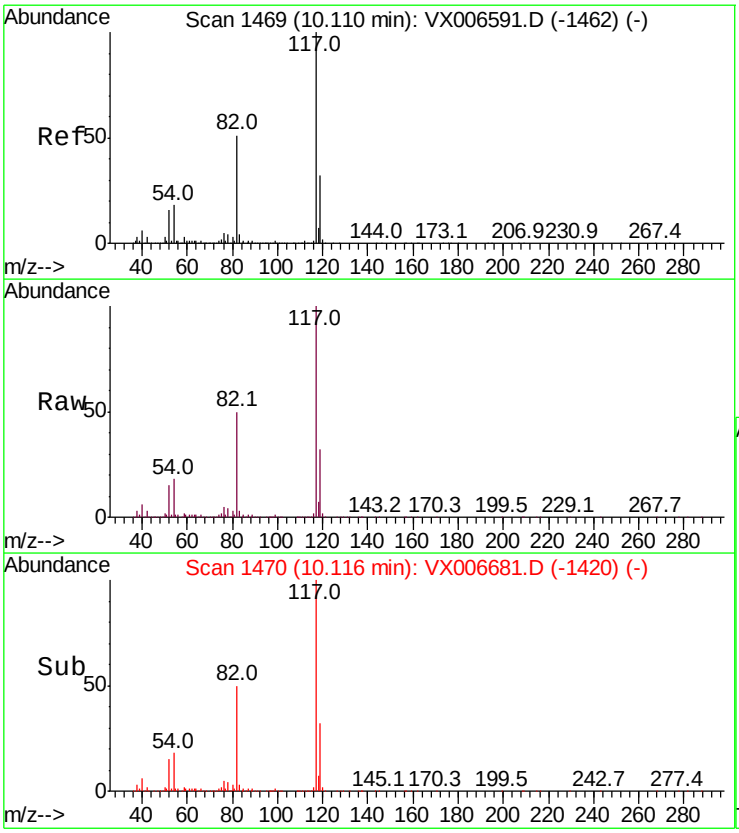


#62
4-Bromofluorobenzene
Concen: 48.357 ug/l
RT: 11.13 min Scan# 1637
Delta R.T. -0.00 min
Lab File: VX006681.D
Acq: 20 Dec 2018 17:34

Tgt Ion: 95 Resp: 413734

Ion	Ratio	Lower	Upper
95	100		
174	86.9	0.0	182.2
176	83.9	0.0	178.8

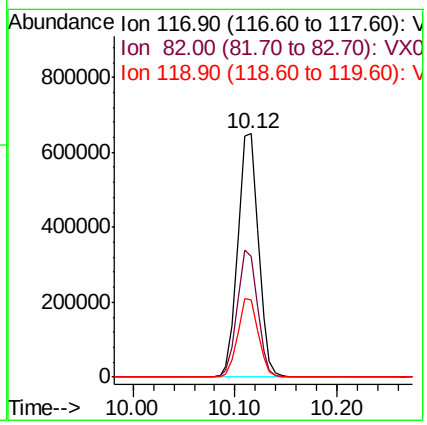




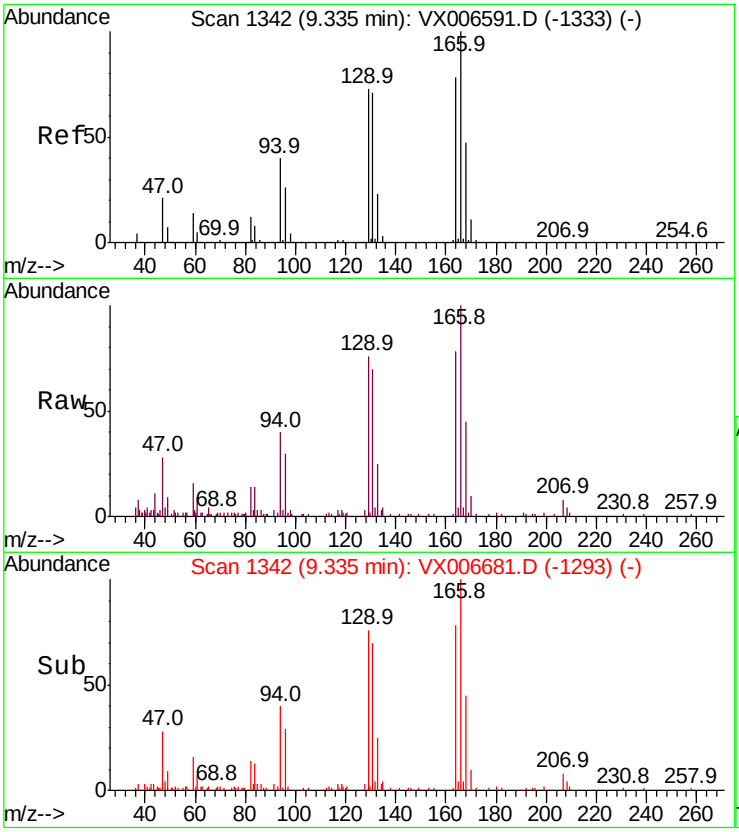
#63
Chlorobenzene-d5
Concen: 50.000 ug/l
RT: 10.12 min Scan# 1470
Delta R.T. 0.01 min
Lab File: VX006681.D
Acq: 20 Dec 2018 17:34

Tgt Ion:117 Resp: 901852

Ion	Ratio	Lower	Upper
117	100		
82	49.6	41.0	61.6
119	31.8	25.4	38.0



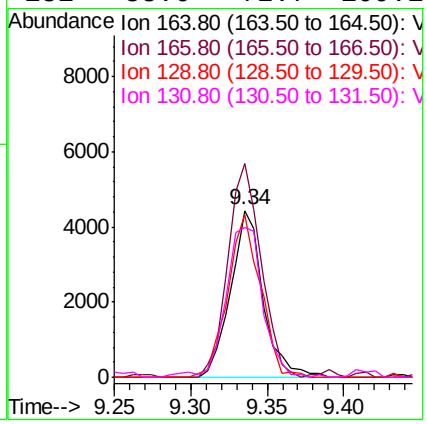
Instrument :
MSVOA_X
ClientSampleId :
976-MW-20(22)

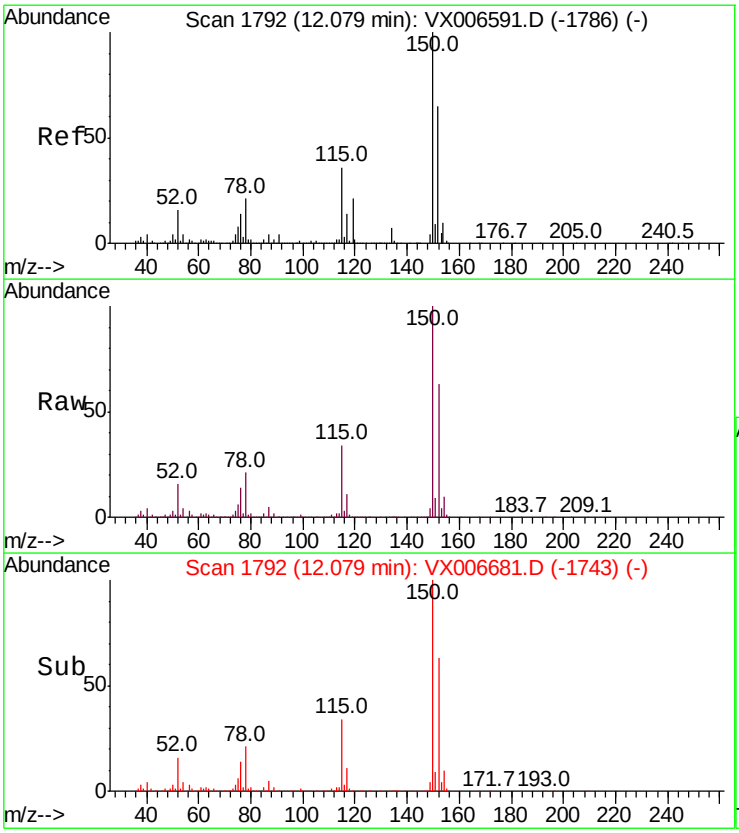


#64
Tetrachloroethene
Concen: 0.914 ug/l
RT: 9.34 min Scan# 1342
Delta R.T. -0.00 min
Lab File: VX006681.D
Acq: 20 Dec 2018 17:34

Tgt Ion:164 Resp: 6524

Ion	Ratio	Lower	Upper
164	100		
166	128.0	102.5	153.7
129	97.7	75.1	112.7
131	88.6	72.7	109.1

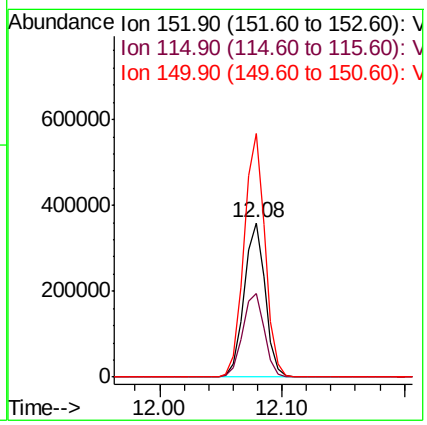




#72
1,4-Dichlorobenzene-d4
Concen: 50.000 ug/l
RT: 12.08 min Scan# 1792
Delta R.T. -0.00 min
Lab File: VX006681.D
Acq: 20 Dec 2018 17:34

Tgt Ion:152 Resp: 425228

Ion	Ratio	Lower	Upper
152	100		
115	55.8	39.1	117.2
150	157.2	0.0	344.8



Instrument :
MSVOA_X
ClientSampleId :
976-MW-20(22)

LSC Area Percent Report

Data Path : Z:\VOASRV\HPCHEM1\MSVOA X\DATA\VX122018\
Data File : VX006681.D
Acq On : 20 Dec 2018 17:34
Operator : JC/MD
Sample : J6484-16
Misc : 5.0mL/MSVOA X/WATER
ALS Vial : 21 Sample Multiplier: 1

Integration Parameters: RTEINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 3 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121818W.M
Title : SW846 8260

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	1.276	17	20	27	rBV2	16264	30183	1.02%	0.190%
2	1.611	66	75	78	rBV2	33419	65538	2.22%	0.412%
3	5.507	702	714	727	rBV	334339	954111	32.36%	6.002%
4	5.665	729	740	752	rBV	597172	1680008	56.99%	10.568%
5	6.068	796	806	817	rBV	364893	944974	32.05%	5.944%
6	6.860	924	936	950	rBV	910953	2123614	72.03%	13.359%
7	7.214	986	994	1002	rBV2	28392	67926	2.30%	0.427%
8	8.713	1233	1240	1256	rBV	1929644	2948052	100.00%	18.545%
9	9.335	1336	1342	1347	rBV3	36435	56062	1.90%	0.353%
10	10.110	1462	1469	1480	rBV	1861674	2554079	86.64%	16.067%
11	11.134	1632	1637	1645	rBV	1555996	2000522	67.86%	12.584%
12	12.079	1786	1792	1802	rBV	2035584	2471777	83.84%	15.549%

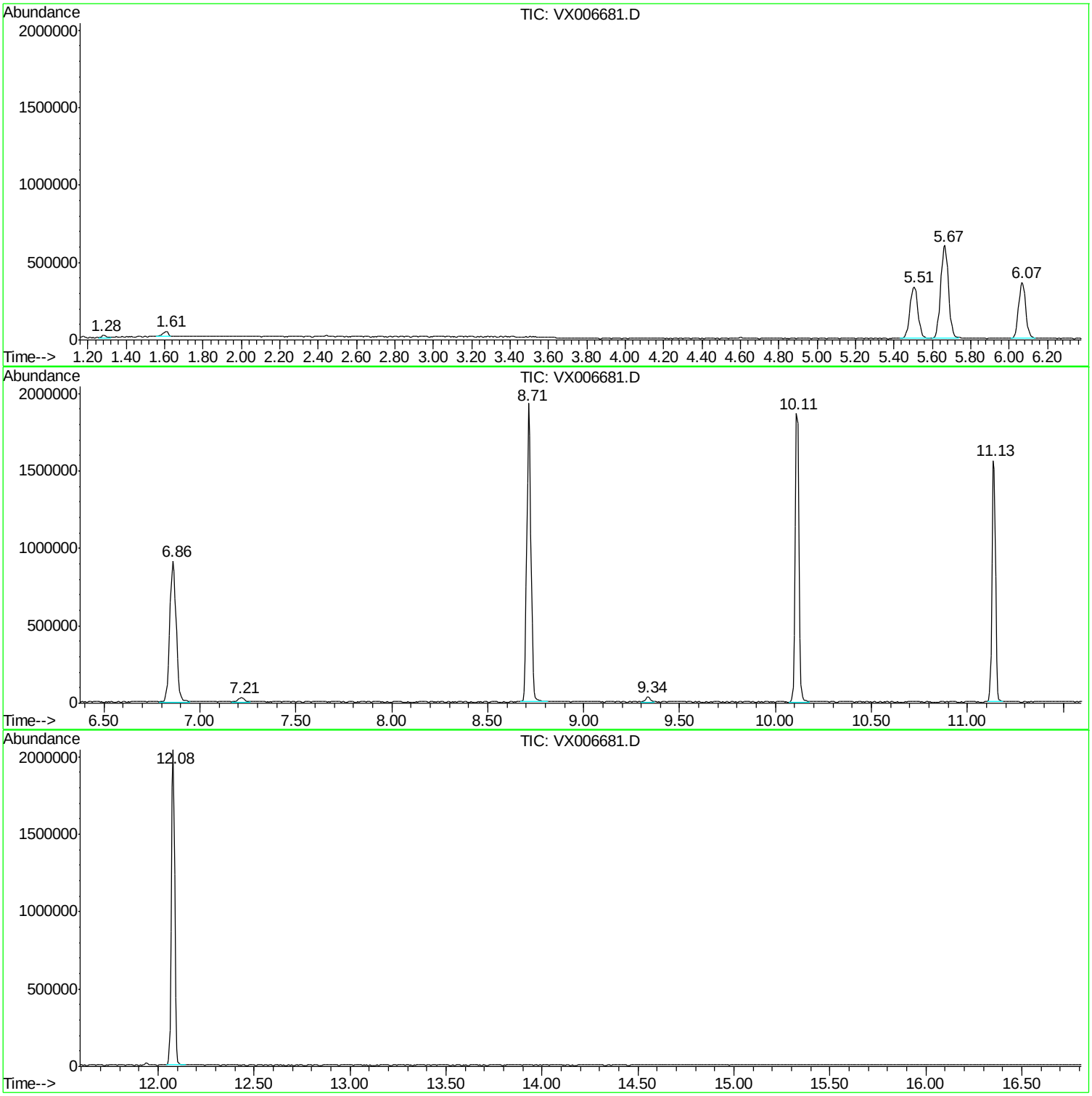
Sum of corrected areas: 15896846

Data Path : Z:\VOASRV\HPCHEM1\MSVOA X\DATA\VX122018\
Data File : VX006681.D
Acq On : 20 Dec 2018 17:34
Operator : JC/MD
Sample : J6484-16
Misc : 5.0mL/MSVOA X/WATER
ALS Vial : 21 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
976-MW-20(22)

Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121818W.M
Quant Title : SW846 8260

TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P



Library Search Compound Report

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX122018\
Data File : VX006681.D
Acq On : 20 Dec 2018 17:34
Operator : JC/MD
Sample : J6484-16
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 21 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
976-MW-20(22)

Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121818W.M
Quant Title : SW846 8260

TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

No Library Search Compounds Detected

****

Instrument :
MSVOA_X
ClientSampleId :
976-MW-20(22)

Tentatively Identified Compound (LSC) summary

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX122018\
Data File : VX006681.D
Acq On : 20 Dec 2018 17:34
Operator : JC/MD
Sample : J6484-16
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 21 Sample Multiplier: 1

Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121818W.M
Quant Title : SW846 8260

TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

					Internal Standard			
TIC Top Hit name	RT	EstConc	Units	Response	#	RT	Resp	Conc

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Day Environmental, Inc.	Date Collected:	12/18/18
Project:	Andrew St. RI	Date Received:	12/19/18
Client Sample ID:	977-FB121818	SDG No.:	J6484
Lab Sample ID:	J6484-17	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	DB-624UI ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX006643.D	1		12/19/18 18:04	VX121918

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
75-71-8	Dichlorodifluoromethane	1	U	0.2	0.2	1	ug/L
74-87-3	Chloromethane	1	U	0.2	0.2	1	ug/L
75-01-4	Vinyl Chloride	1	U	0.2	0.2	1	ug/L
74-83-9	Bromomethane	1	U	0.2	0.2	1	ug/L
75-00-3	Chloroethane	1	U	0.2	0.5	1	ug/L
75-69-4	Trichlorofluoromethane	1	U	0.2	0.2	1	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	1	U	0.2	0.2	1	ug/L
75-35-4	1,1-Dichloroethene	1	U	0.2	0.2	1	ug/L
67-64-1	Acetone	10.3		0.5	1	5	ug/L
75-15-0	Carbon Disulfide	1	U	0.2	0.2	1	ug/L
1634-04-4	Methyl tert-butyl Ether	1	U	0.35	0.5	1	ug/L
79-20-9	Methyl Acetate	1	U	0.2	0.5	1	ug/L
75-09-2	Methylene Chloride	1	U	0.2	0.2	1	ug/L
156-60-5	trans-1,2-Dichloroethene	1	U	0.2	0.2	1	ug/L
75-34-3	1,1-Dichloroethane	1	U	0.2	0.2	1	ug/L
110-82-7	Cyclohexane	1	U	0.2	0.2	1	ug/L
78-93-3	2-Butanone	2.5	J	1.3	2.5	5	ug/L
56-23-5	Carbon Tetrachloride	1	U	0.2	0.2	1	ug/L
156-59-2	cis-1,2-Dichloroethene	1	U	0.2	0.2	1	ug/L
74-97-5	Bromochloromethane	1	U	0.2	0.5	1	ug/L
67-66-3	Chloroform	1	U	0.2	0.2	1	ug/L
71-55-6	1,1,1-Trichloroethane	1	U	0.2	0.2	1	ug/L
108-87-2	Methylcyclohexane	1	U	0.2	0.2	1	ug/L
71-43-2	Benzene	1	U	0.2	0.2	1	ug/L
107-06-2	1,2-Dichloroethane	1	U	0.2	0.2	1	ug/L
79-01-6	Trichloroethene	1	U	0.2	0.2	1	ug/L
78-87-5	1,2-Dichloropropane	1	U	0.2	0.2	1	ug/L
75-27-4	Bromodichloromethane	1	U	0.2	0.2	1	ug/L
108-10-1	4-Methyl-2-Pentanone	5	U	1	1	5	ug/L
108-88-3	Toluene	1	U	0.2	0.2	1	ug/L
10061-02-6	t-1,3-Dichloropropene	1	U	0.2	0.2	1	ug/L
10061-01-5	cis-1,3-Dichloropropene	1	U	0.2	0.2	1	ug/L

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Day Environmental, Inc.	Date Collected:	12/18/18
Project:	Andrew St. RI	Date Received:	12/19/18
Client Sample ID:	977-FB121818	SDG No.:	J6484
Lab Sample ID:	J6484-17	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	DB-624UI ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX006643.D	1		12/19/18 18:04	VX121918

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
79-00-5	1,1,2-Trichloroethane	1	U	0.2	0.2	1	ug/L
591-78-6	2-Hexanone	5	U	1.9	2.5	5	ug/L
124-48-1	Dibromochloromethane	1	U	0.2	0.2	1	ug/L
106-93-4	1,2-Dibromoethane	1	U	0.2	0.2	1	ug/L
127-18-4	Tetrachloroethene	1	U	0.2	0.2	1	ug/L
108-90-7	Chlorobenzene	1	U	0.2	0.2	1	ug/L
100-41-4	Ethyl Benzene	1	U	0.2	0.2	1	ug/L
179601-23-1	m/p-Xylenes	2	U	0.4	0.4	2	ug/L
95-47-6	o-Xylene	1	U	0.2	0.2	1	ug/L
100-42-5	Styrene	1	U	0.2	0.2	1	ug/L
75-25-2	Bromoform	1	U	0.2	0.2	1	ug/L
98-82-8	Isopropylbenzene	1	U	0.2	0.2	1	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	1	U	0.2	0.2	1	ug/L
541-73-1	1,3-Dichlorobenzene	1	U	0.2	0.2	1	ug/L
106-46-7	1,4-Dichlorobenzene	1	U	0.2	0.2	1	ug/L
95-50-1	1,2-Dichlorobenzene	1	U	0.2	0.2	1	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	1	U	0.2	0.2	1	ug/L
120-82-1	1,2,4-Trichlorobenzene	1	U	0.2	0.2	1	ug/L
87-61-6	1,2,3-Trichlorobenzene	1	U	0.2	0.2	1	ug/L
SURROGATES							
17060-07-0	1,2-Dichloroethane-d4	52.3		61 - 141		105%	SPK: 50
1868-53-7	Dibromofluoromethane	46.9		69 - 133		94%	SPK: 50
2037-26-5	Toluene-d8	49.6		65 - 126		99%	SPK: 50
460-00-4	4-Bromofluorobenzene	48.8		58 - 135		98%	SPK: 50
INTERNAL STANDARDS							
363-72-4	Pentafluorobenzene	617574	5.67				
540-36-3	1,4-Difluorobenzene	998762	6.86				
3114-55-4	Chlorobenzene-d5	909724	10.12				
3855-82-1	1,4-Dichlorobenzene-d4	429890	12.08				
TENTATIVE IDENTIFIED COMPOUNDS							
141-78-6	Ethyl Acetate	4.4	J			4.85	ug/L
000104-76-7	1-Hexanol, 2-ethyl-	17.5	J			12.27	ug/L

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Day Environmental, Inc.	Date Collected:	12/18/18
Project:	Andrew St. RI	Date Received:	12/19/18
Client Sample ID:	977-FB121818	SDG No.:	J6484
Lab Sample ID:	J6484-17	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	DB-624UI ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX006643.D	1		12/19/18 18:04	VX121918

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit
A = Aldol-Condensation Reaction Products

Quantitation Report (LSC Reviewed)

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX121918\
Data File : VX006643.D
Acq On : 19 Dec 2018 18:04
Operator : JC/MD
Sample : J6484-17
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 10 Sample Multiplier: 1

Instrument : MSVOA_X
ClientSampleId : 977-FB121818

Quant Time: Dec 20 04:28:52 2018
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121818W.M
Quant Title : SW846 8260
QLast Update : Wed Dec 19 15:20:58 2018
Response via : Initial Calibration

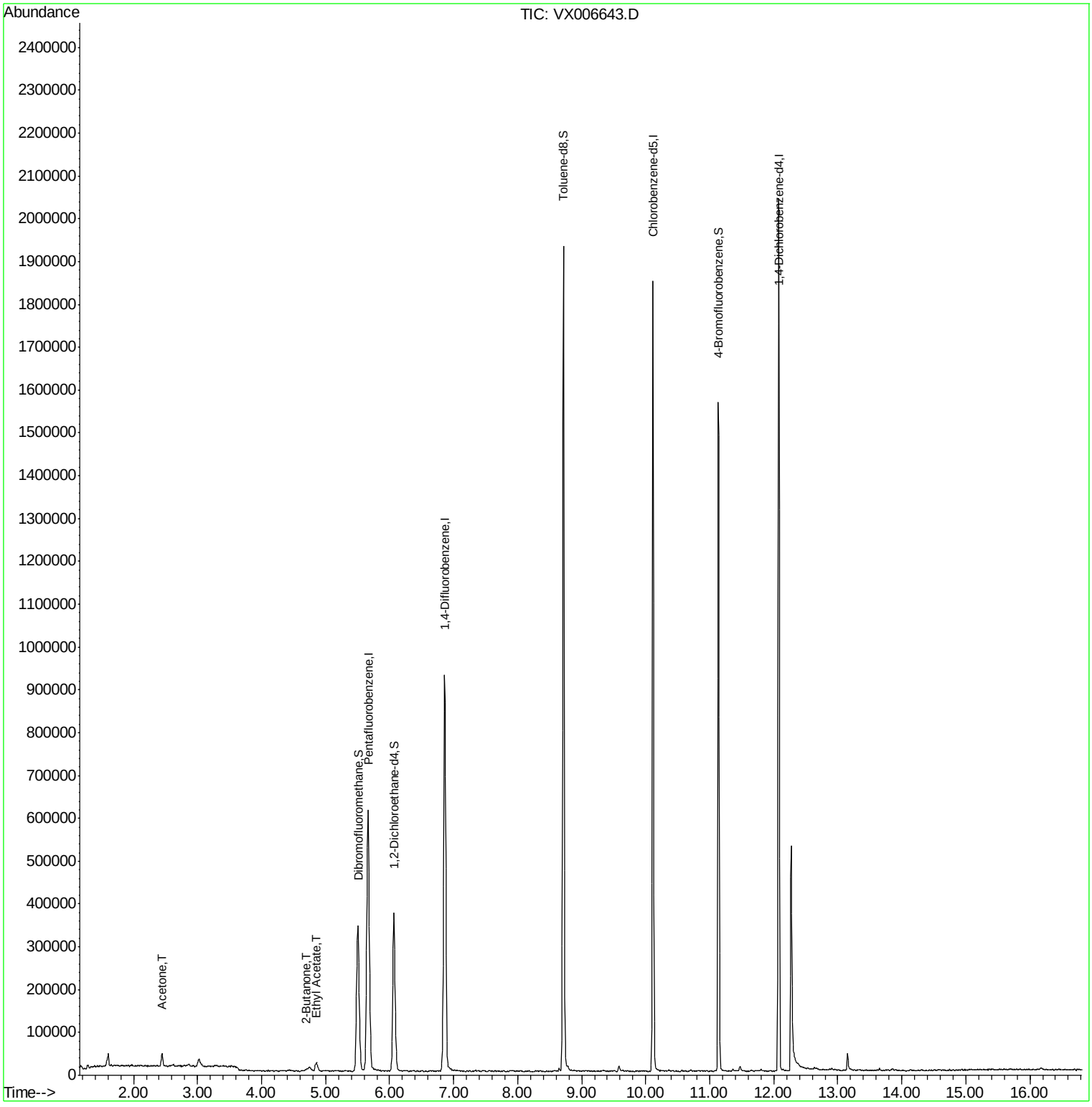
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	5.67	168	617574	50.00	ug/l	0.00
34) 1,4-Difluorobenzene	6.86	114	998762	50.00	ug/l	0.00
63) Chlorobenzene-d5	10.12	117	909724	50.00	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	12.08	152	429890	50.00	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	6.06	65	348431	52.35	ug/l	0.00
Spiked Amount 50.000			Recovery = 104.70%			
35) Dibromofluoromethane	5.50	113	296264	46.91	ug/l	0.00
Spiked Amount 50.000			Recovery = 93.82%			
50) Toluene-d8	8.71	98	1182213	49.65	ug/l	0.00
Spiked Amount 50.000			Recovery = 99.30%			
62) 4-Bromofluorobenzene	11.13	95	425212	48.76	ug/l	0.00
Spiked Amount 50.000			Recovery = 97.52%			
Target Compounds						Qvalue
16) Acetone	2.45	43	31613	10.338	ug/l	100
25) 2-Butanone	4.70	43	10785	2.507	ug/l	96
37) Ethyl Acetate	4.85	43	37472	4.352	ug/l	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

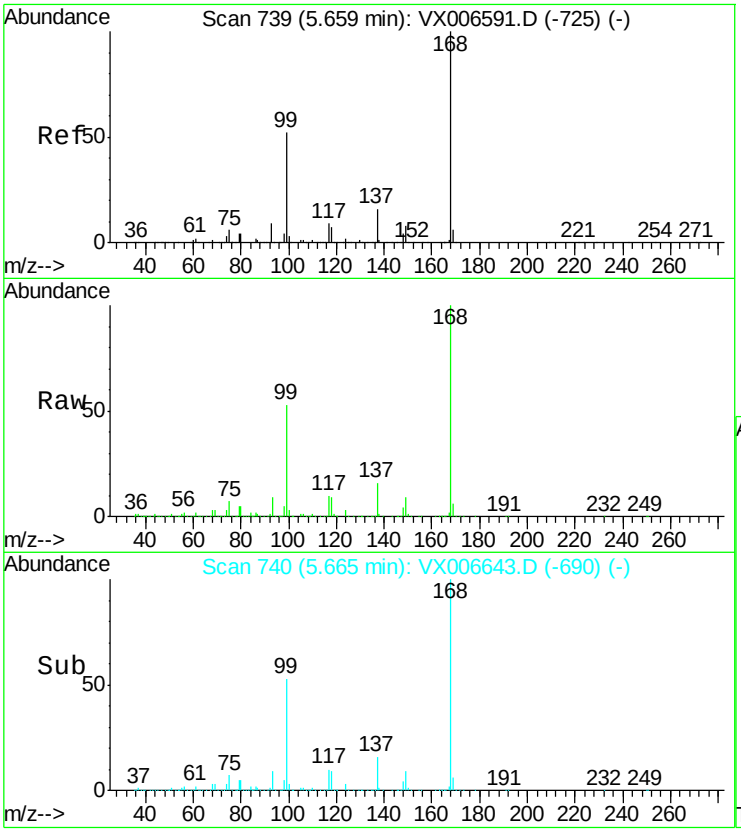
Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX121918\
Data File : VX006643.D
Acq On : 19 Dec 2018 18:04
Operator : JC/MD
Sample : J6484-17
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 10 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
977-FB121818

Quant Time: Dec 20 04:28:52 2018
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121818W.M
Quant Title : SW846 8260
QLast Update : Wed Dec 19 15:20:58 2018
Response via : Initial Calibration



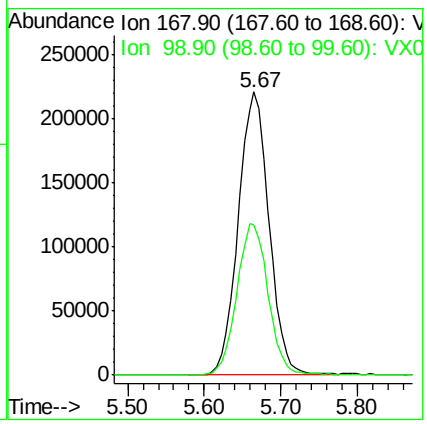
Instrument :
MSVOA_X
ClientSampleId :
977-FB121818

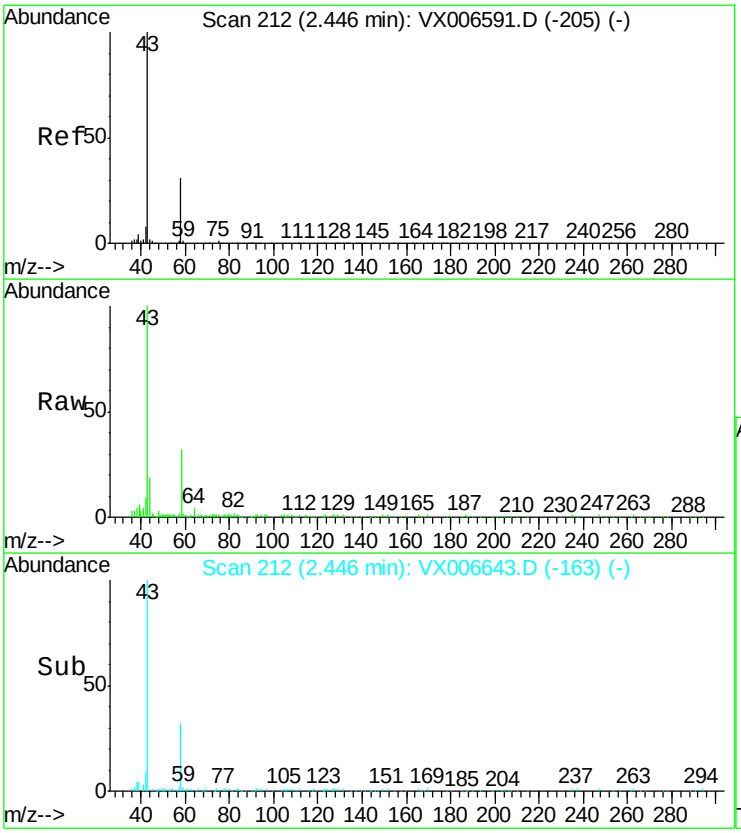


#1
Pentafluorobenzene
Concen: 50.000 ug/l
RT: 5.67 min Scan# 740
Delta R.T. 0.01 min
Lab File: VX006643.D
Acq: 19 Dec 2018 18:04

Tgt Ion:168 Resp: 617574

Ion	Ratio	Lower	Upper
168	100		
99	53.1	41.8	62.8

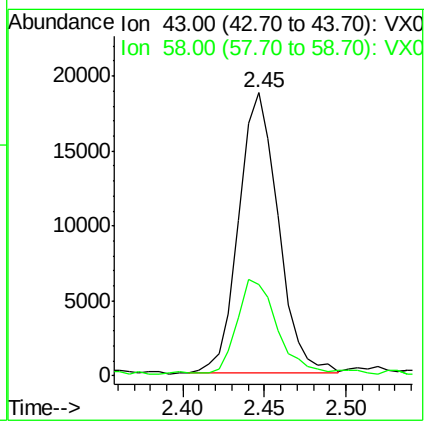




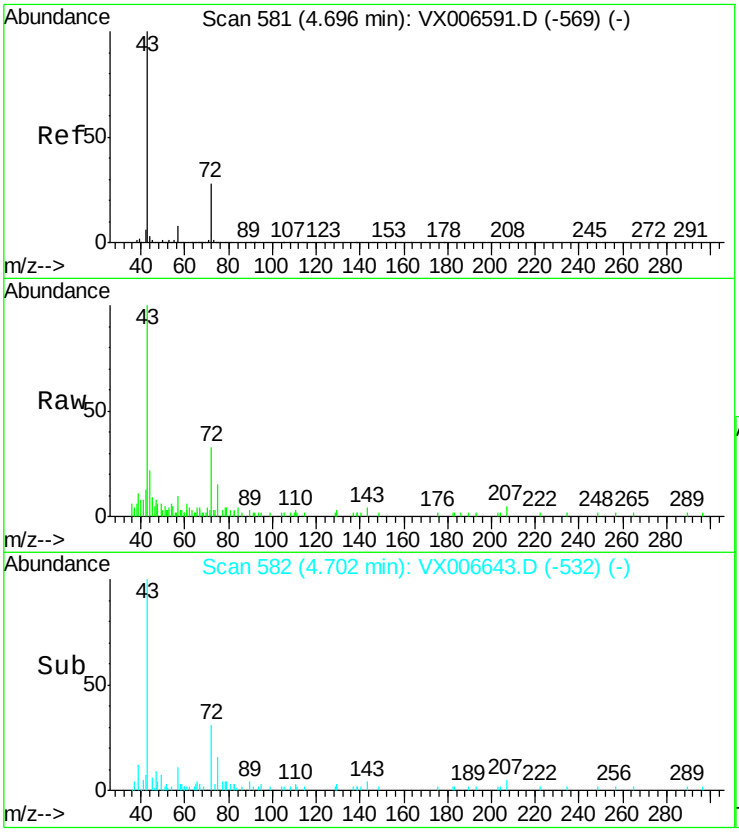
#16
Acetone
Concen: 10.338 ug/l
RT: 2.45 min Scan# 212
Delta R.T. -0.00 min
Lab File: VX006643.D
Acq: 19 Dec 2018 18:04

Tgt Ion: 43 Resp: 31613

Ion	Ratio	Lower	Upper
43	100		
58	31.4	25.0	37.6



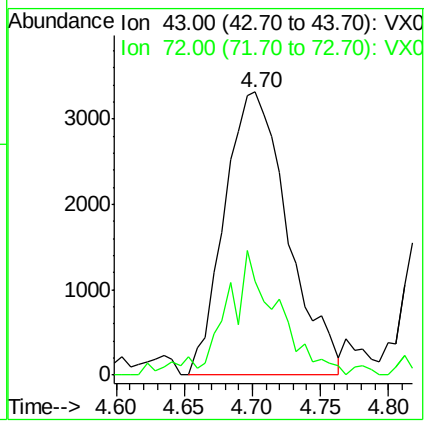
Instrument :
MSVOA_X
ClientSampleId :
977-FB121818

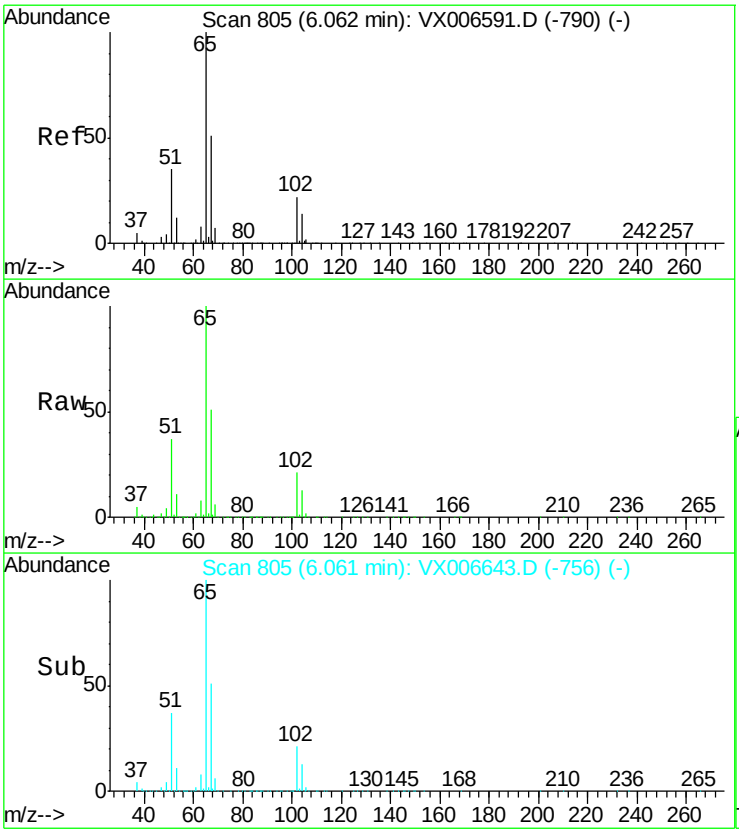


#25
2-Butanone
Concen: 2.507 ug/l
RT: 4.70 min Scan# 582
Delta R.T. 0.01 min
Lab File: VX006643.D
Acq: 19 Dec 2018 18:04

Tgt Ion: 43 Resp: 10785

Ion	Ratio	Lower	Upper
43	100		
72	29.8	22.4	33.6

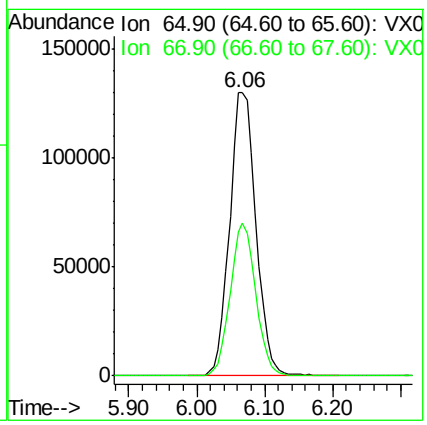




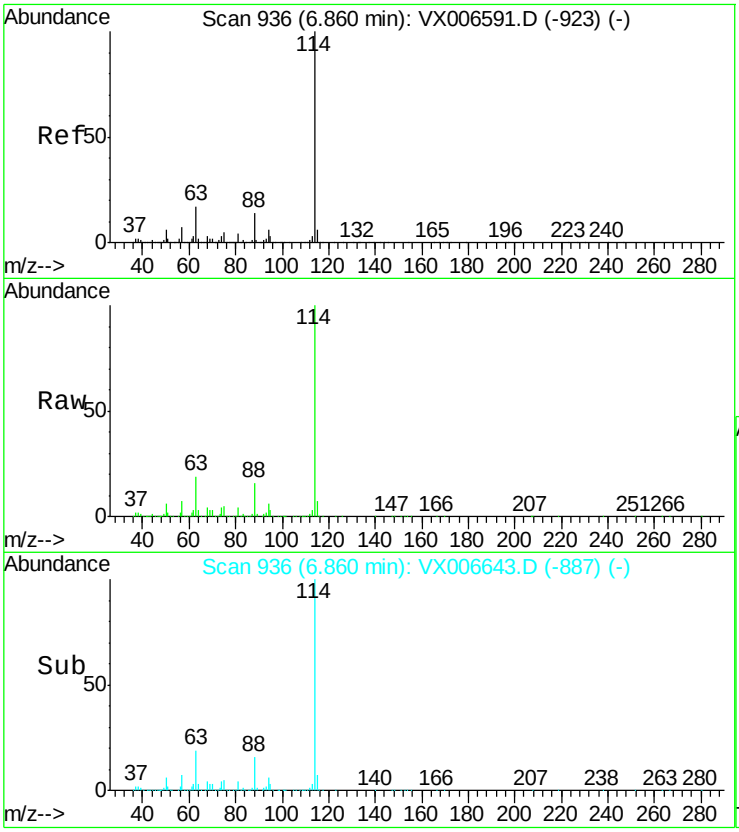
#33
1,2-Dichloroethane-d4
Concen: 52.349 ug/l
RT: 6.06 min Scan# 805
Delta R.T. -0.00 min
Lab File: VX006643.D
Acq: 19 Dec 2018 18:04

Tgt Ion: 65 Resp: 348431

Ion	Ratio	Lower	Upper
65	100		
67	52.5	0.0	105.0



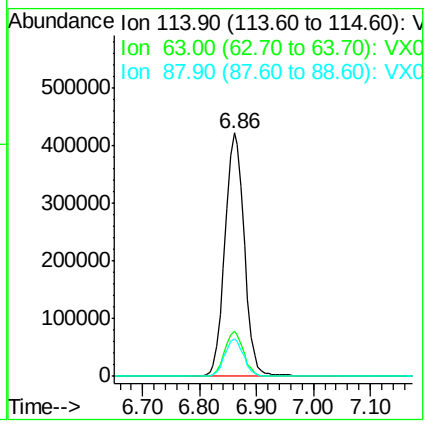
Instrument :
MSVOA_X
ClientSampleId :
977-FB121818

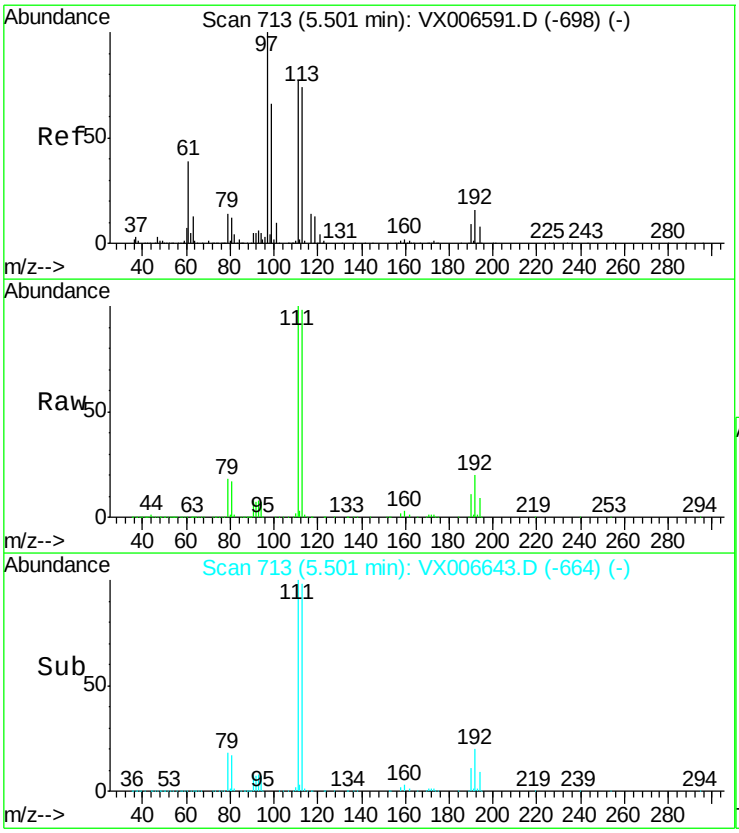


#34
1,4-Difluorobenzene
Concen: 50.000 ug/l
RT: 6.86 min Scan# 936
Delta R.T. -0.00 min
Lab File: VX006643.D
Acq: 19 Dec 2018 18:04

Tgt Ion:114 Resp: 998762

Ion	Ratio	Lower	Upper
114	100		
63	18.5	0.0	34.8
88	15.5	0.0	28.8

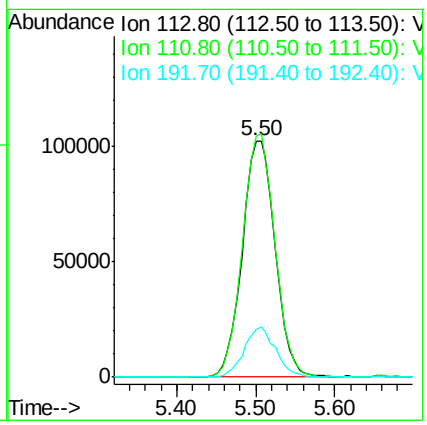




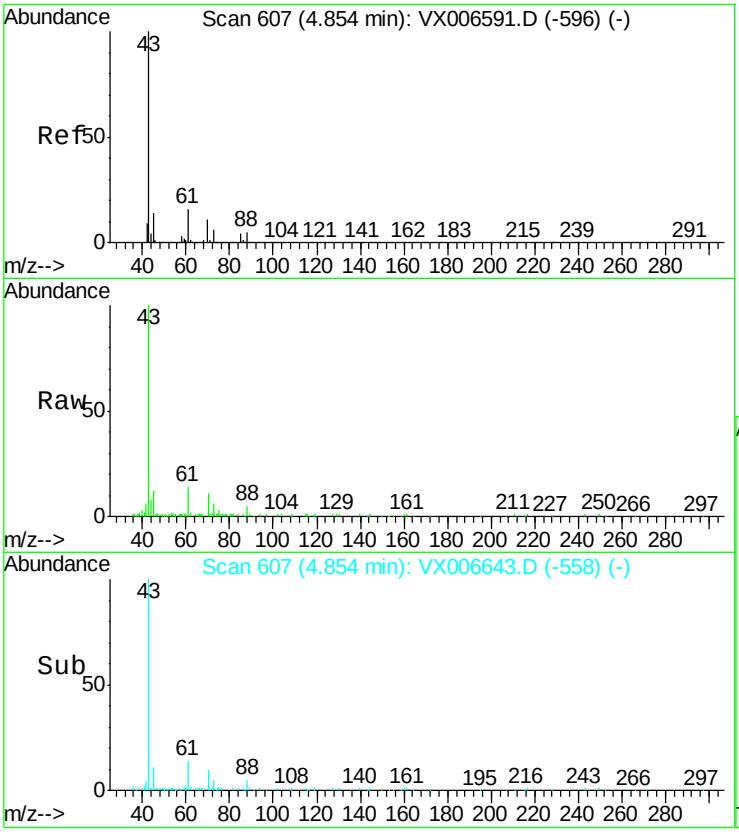
#35
Dibromofluoromethane
Concen: 46.907 ug/l
RT: 5.50 min Scan# 713
Delta R.T. -0.00 min
Lab File: VX006643.D
Acq: 19 Dec 2018 18:04

Tgt Ion:113 Resp: 296264

Ion	Ratio	Lower	Upper
113	100		
111	101.4	81.6	122.4
192	20.3	16.7	25.1



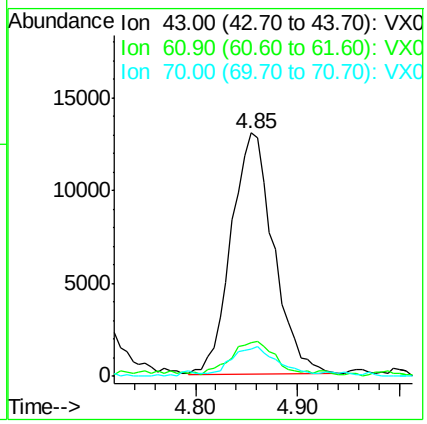
Instrument :
MSVOA_X
ClientSampleId :
977-FB121818

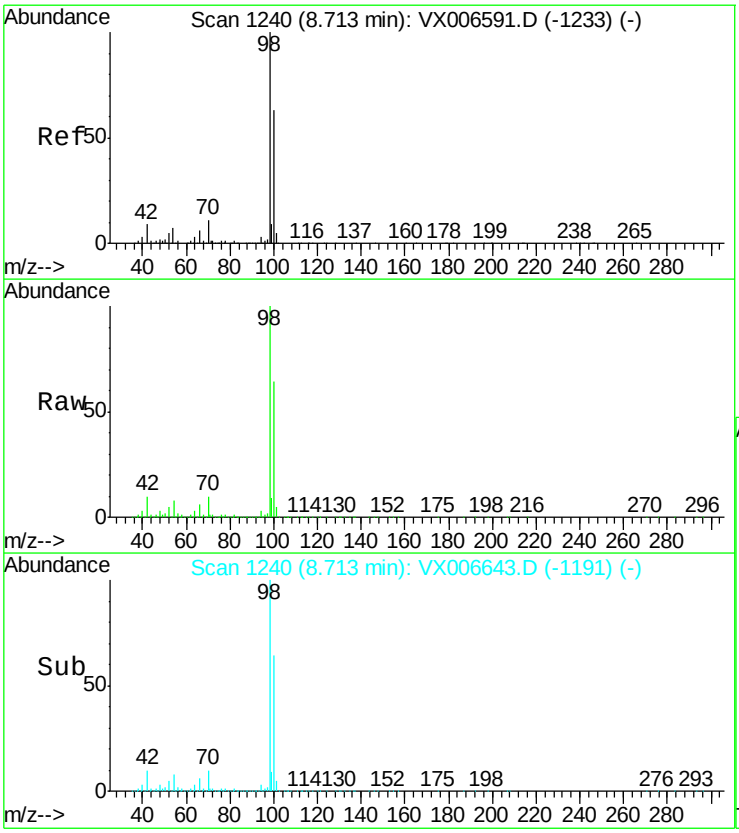


#37
Ethyl Acetate
Concen: 4.352 ug/l
RT: 4.85 min Scan# 607
Delta R.T. -0.00 min
Lab File: VX006643.D
Acq: 19 Dec 2018 18:04

Tgt Ion: 43 Resp: 37472

Ion	Ratio	Lower	Upper
43	100		
61	13.9	11.9	17.9
70	11.1	9.7	14.5

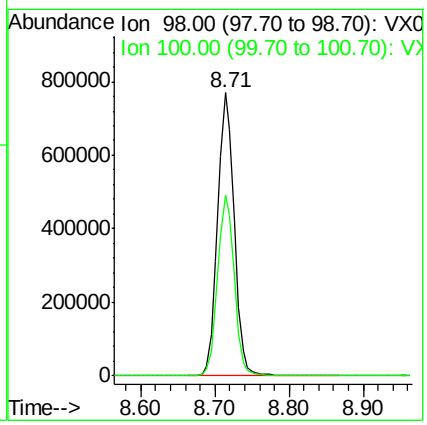




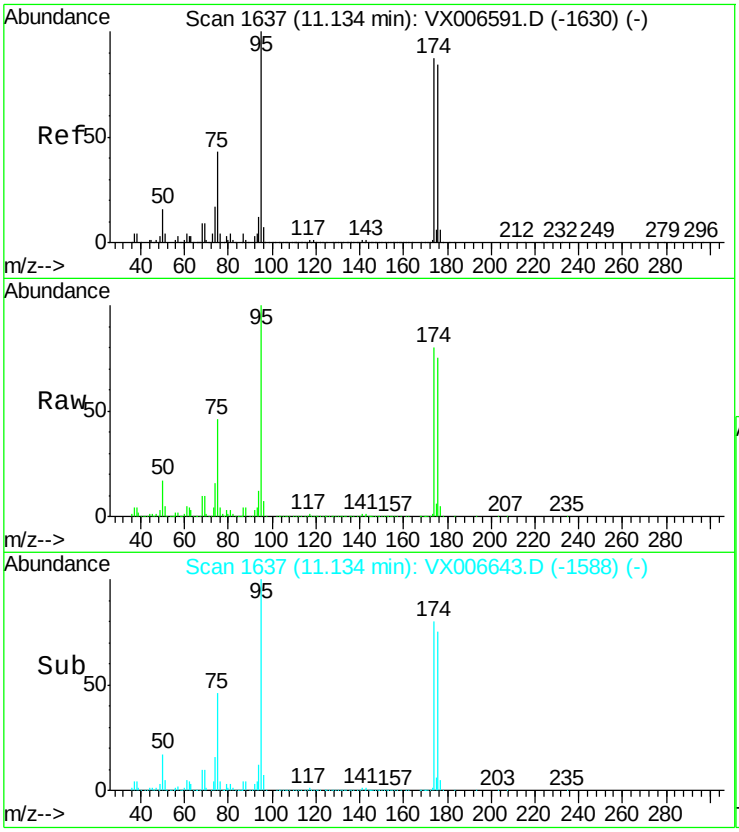
#50
Toluene-d8
Concen: 49.649 ug/l
RT: 8.71 min Scan# 1240
Delta R.T. -0.00 min
Lab File: VX006643.D
Acq: 19 Dec 2018 18:04

Tgt Ion: 98 Resp: 1182213

Ion	Ratio	Lower	Upper
98	100		
100	63.7	52.0	78.0



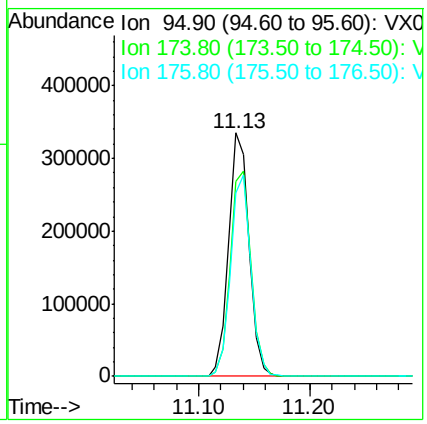
Instrument :
MSVOA_X
ClientSampleId :
977-FB121818

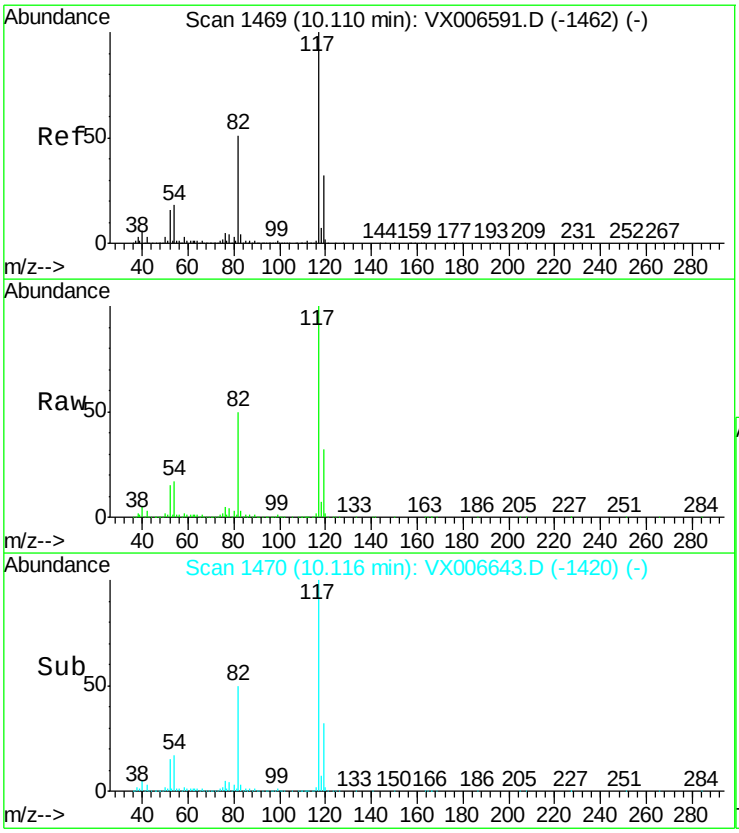


#62
4-Bromofluorobenzene
Concen: 48.759 ug/l
RT: 11.13 min Scan# 1637
Delta R.T. -0.00 min
Lab File: VX006643.D
Acq: 19 Dec 2018 18:04

Tgt Ion: 95 Resp: 425212

Ion	Ratio	Lower	Upper
95	100		
174	85.7	0.0	182.2
176	82.1	0.0	178.8

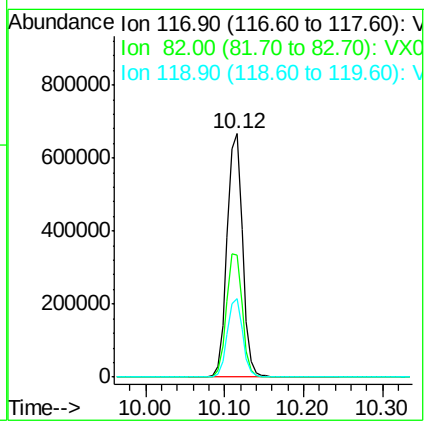


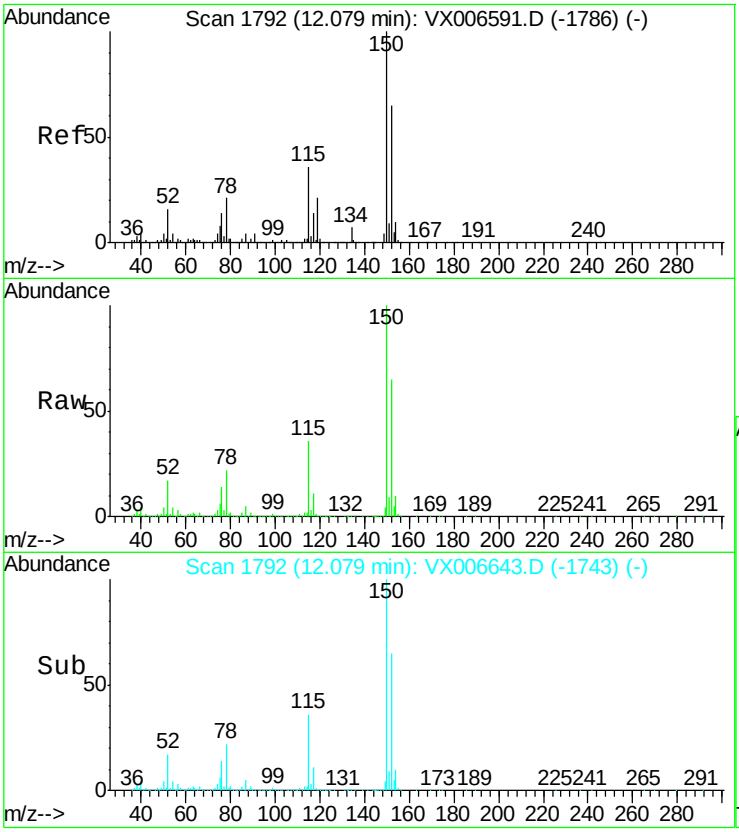


#63
Chlorobenzene-d5
Concen: 50.000 ug/l
RT: 10.12 min Scan# 1470
Delta R.T. 0.01 min
Lab File: VX006643.D
Acq: 19 Dec 2018 18:04

Tgt Ion:117 Resp: 909724

Ion	Ratio	Lower	Upper
117	100		
82	50.0	41.0	61.6
119	32.2	25.4	38.0

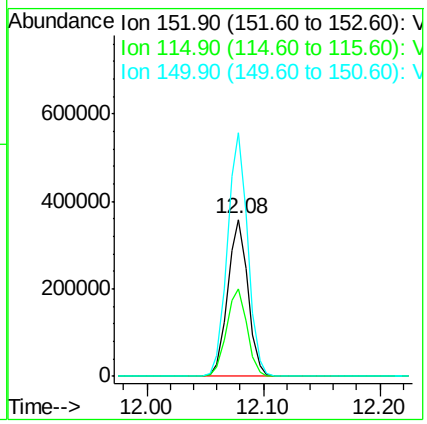




#72
1,4-Dichlorobenzene-d4
Concen: 50.000 ug/l
RT: 12.08 min Scan# 1792
Delta R.T. -0.00 min
Lab File: VX006643.D
Acq: 19 Dec 2018 18:04

Tgt Ion:152 Resp: 429890

Ion	Ratio	Lower	Upper
152	100		
115	56.9	39.1	117.2
150	156.2	0.0	344.8



Instrument :
MSVOA_X
ClientSampleId :
977-FB121818

LSC Area Percent Report

Data Path : Z:\VOASRV\HPCHEM1\MSVOA X\DATA\VX121918\
Data File : VX006643.D
Acq On : 19 Dec 2018 18:04
Operator : JC/MD
Sample : J6484-17
Misc : 5.0mL/MSVOA X/WATER
ALS Vial : 10 Sample Multiplier: 1

Instrument : MSVOA_X
ClientSampleId : 977-FB121818

Integration Parameters: RTEINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 3 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121818W.M
Title : SW846 8260

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	1.611	67	75	79	rVB2	28857	53174	1.78%	0.312%
2	2.446	207	212	217	rVB	29337	48042	1.60%	0.282%
3	3.025	300	307	312	rBV	15847	38563	1.29%	0.227%
4	4.854	600	607	616	rVB	19573	52883	1.77%	0.311%
5	5.507	699	714	726	rBV	341314	986804	32.95%	5.798%
6	5.665	729	740	752	rVV2	607006	1694350	56.58%	9.954%
7	6.068	796	806	820	rBV	368910	956755	31.95%	5.621%
8	6.860	925	936	950	rBV	926369	2158748	72.08%	12.683%
9	8.713	1232	1240	1258	rBV	1926736	2994763	100.00%	17.594%
10	10.116	1463	1470	1480	rBV	1845873	2583265	86.26%	15.177%
11	11.134	1632	1637	1647	rBV	1561395	2025474	67.63%	11.900%
12	12.079	1786	1792	1799	rBV	2037435	2500686	83.50%	14.692%
13	12.274	1818	1824	1840	rBV	526140	873414	29.16%	5.131%
14	13.152	1963	1968	1973	rBV2	39875	54273	1.81%	0.319%

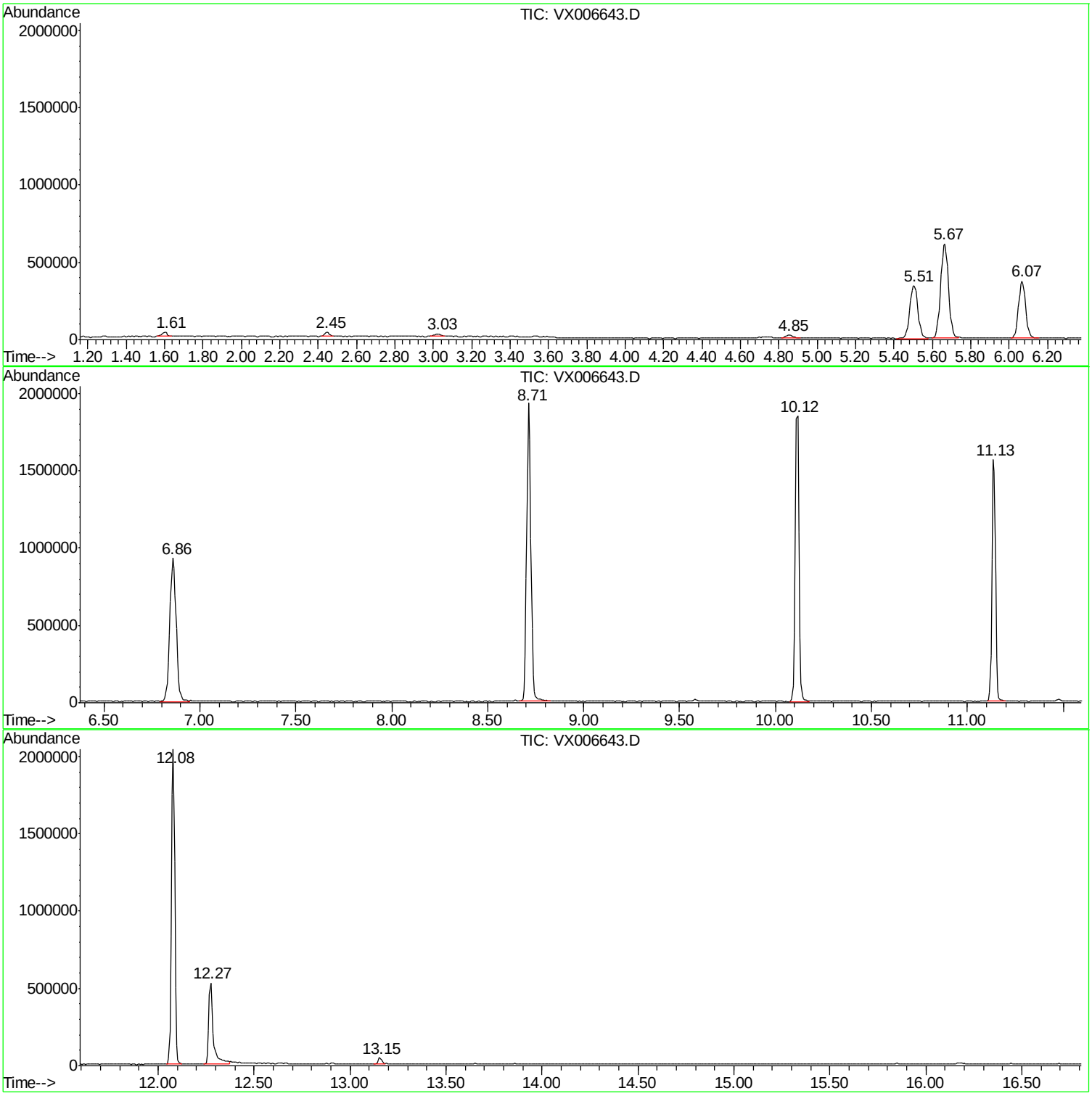
Sum of corrected areas: 17021194

Data Path : Z:\VOASRV\HPCHEM1\MSVOA X\DATA\VX121918\
Data File : VX006643.D
Acq On : 19 Dec 2018 18:04
Operator : JC/MD
Sample : J6484-17
Misc : 5.0mL/MSVOA X/WATER
ALS Vial : 10 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
977-FB121818

Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121818W.M
Quant Title : SW846 8260

TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P



Library Search Compound Report

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX121918\
Data File : VX006643.D
Acq On : 19 Dec 2018 18:04
Operator : JC/MD
Sample : J6484-17
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 10 Sample Multiplier: 1

Instrument : MSVOA_X
ClientSampleId : 977-FB121818

Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121818W.M
Quant Title : SW846 8260

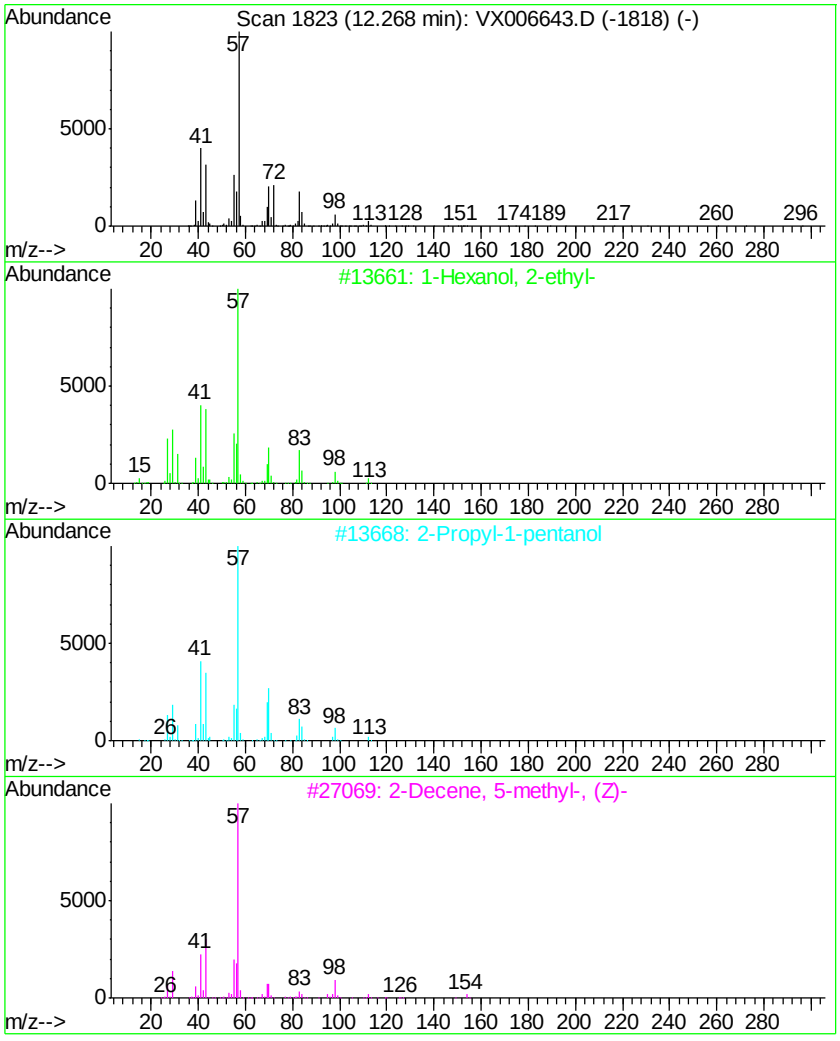
TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

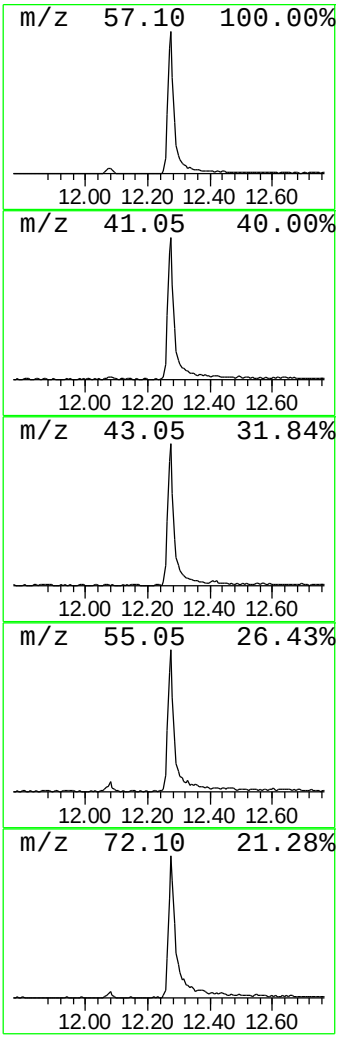
****

Peak Number 1 1-Hexanol, 2-ethyl- Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
12.27	17.46 ug/l	873414	1,4-Dichlorobenzene-d4	12.08

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	1-Hexanol, 2-ethyl-	130	C8H18O	000104-76-7	64
2	2-Propyl-1-pentanol	130	C8H18O	058175-57-8	53
3	2-Decene, 5-methyl-, (Z)-	154	C11H22	074645-86-6	38
4	1-Pentanol, 2-ethyl-4-methyl-	130	C8H18O	000106-67-2	38
5	1-Decene, 2,4-dimethyl-	168	C12H24	055170-80-4	38





Instrument :
MSVOA_X
ClientSampleId :
977-FB121818

Tentatively Identified Compound (LSC) summary

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX121918\
Data File : VX006643.D
Acq On : 19 Dec 2018 18:04
Operator : JC/MD
Sample : J6484-17
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 10 Sample Multiplier: 1

Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121818W.M
Quant Title : SW846 8260

TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

					Internal Standard			
TIC Top Hit name	RT	EstConc	Units	Response	#	RT	Resp	Conc
1-Hexanol, 2-ethyl-	12.27	17.5	ug/l	873414	4	12.08	2500690	50.0

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Day Environmental, Inc.	Date Collected:	12/18/18
Project:	Andrew St. RI	Date Received:	12/19/18
Client Sample ID:	978-TB121818	SDG No.:	J6484
Lab Sample ID:	J6484-18	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	DB-624UI ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX006642.D	1		12/19/18 17:38	VX121918

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
75-71-8	Dichlorodifluoromethane	1	U	0.2	0.2	1	ug/L
74-87-3	Chloromethane	1	U	0.2	0.2	1	ug/L
75-01-4	Vinyl Chloride	1	U	0.2	0.2	1	ug/L
74-83-9	Bromomethane	1	U	0.2	0.2	1	ug/L
75-00-3	Chloroethane	1	U	0.2	0.5	1	ug/L
75-69-4	Trichlorofluoromethane	1	U	0.2	0.2	1	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	1	U	0.2	0.2	1	ug/L
75-35-4	1,1-Dichloroethene	1	U	0.2	0.2	1	ug/L
67-64-1	Acetone	5	U	0.5	1	5	ug/L
75-15-0	Carbon Disulfide	1	U	0.2	0.2	1	ug/L
1634-04-4	Methyl tert-butyl Ether	1	U	0.35	0.5	1	ug/L
79-20-9	Methyl Acetate	1	U	0.2	0.5	1	ug/L
75-09-2	Methylene Chloride	1	U	0.2	0.2	1	ug/L
156-60-5	trans-1,2-Dichloroethene	1	U	0.2	0.2	1	ug/L
75-34-3	1,1-Dichloroethane	1	U	0.2	0.2	1	ug/L
110-82-7	Cyclohexane	1	U	0.2	0.2	1	ug/L
78-93-3	2-Butanone	5	U	1.3	2.5	5	ug/L
56-23-5	Carbon Tetrachloride	1	U	0.2	0.2	1	ug/L
156-59-2	cis-1,2-Dichloroethene	1	U	0.2	0.2	1	ug/L
74-97-5	Bromochloromethane	1	U	0.2	0.5	1	ug/L
67-66-3	Chloroform	1	U	0.2	0.2	1	ug/L
71-55-6	1,1,1-Trichloroethane	1	U	0.2	0.2	1	ug/L
108-87-2	Methylcyclohexane	1	U	0.2	0.2	1	ug/L
71-43-2	Benzene	1	U	0.2	0.2	1	ug/L
107-06-2	1,2-Dichloroethane	1	U	0.2	0.2	1	ug/L
79-01-6	Trichloroethene	1	U	0.2	0.2	1	ug/L
78-87-5	1,2-Dichloropropane	1	U	0.2	0.2	1	ug/L
75-27-4	Bromodichloromethane	1	U	0.2	0.2	1	ug/L
108-10-1	4-Methyl-2-Pentanone	5	U	1	1	5	ug/L
108-88-3	Toluene	1	U	0.2	0.2	1	ug/L
10061-02-6	t-1,3-Dichloropropene	1	U	0.2	0.2	1	ug/L
10061-01-5	cis-1,3-Dichloropropene	1	U	0.2	0.2	1	ug/L

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Day Environmental, Inc.	Date Collected:	12/18/18
Project:	Andrew St. RI	Date Received:	12/19/18
Client Sample ID:	978-TB121818	SDG No.:	J6484
Lab Sample ID:	J6484-18	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	DB-624UI ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX006642.D	1		12/19/18 17:38	VX121918

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
79-00-5	1,1,2-Trichloroethane	1	U	0.2	0.2	1	ug/L
591-78-6	2-Hexanone	5	U	1.9	2.5	5	ug/L
124-48-1	Dibromochloromethane	1	U	0.2	0.2	1	ug/L
106-93-4	1,2-Dibromoethane	1	U	0.2	0.2	1	ug/L
127-18-4	Tetrachloroethene	1	U	0.2	0.2	1	ug/L
108-90-7	Chlorobenzene	1	U	0.2	0.2	1	ug/L
100-41-4	Ethyl Benzene	1	U	0.2	0.2	1	ug/L
179601-23-1	m/p-Xylenes	2	U	0.4	0.4	2	ug/L
95-47-6	o-Xylene	1	U	0.2	0.2	1	ug/L
100-42-5	Styrene	1	U	0.2	0.2	1	ug/L
75-25-2	Bromoform	1	U	0.2	0.2	1	ug/L
98-82-8	Isopropylbenzene	1	U	0.2	0.2	1	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	1	U	0.2	0.2	1	ug/L
541-73-1	1,3-Dichlorobenzene	1	U	0.2	0.2	1	ug/L
106-46-7	1,4-Dichlorobenzene	1	U	0.2	0.2	1	ug/L
95-50-1	1,2-Dichlorobenzene	1	U	0.2	0.2	1	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	1	U	0.2	0.2	1	ug/L
120-82-1	1,2,4-Trichlorobenzene	1	U	0.2	0.2	1	ug/L
87-61-6	1,2,3-Trichlorobenzene	1	U	0.2	0.2	1	ug/L
SURROGATES							
17060-07-0	1,2-Dichloroethane-d4	51.8		61 - 141		104%	SPK: 50
1868-53-7	Dibromofluoromethane	47.9		69 - 133		96%	SPK: 50
2037-26-5	Toluene-d8	49.1		65 - 126		98%	SPK: 50
460-00-4	4-Bromofluorobenzene	46.6		58 - 135		93%	SPK: 50
INTERNAL STANDARDS							
363-72-4	Pentafluorobenzene	596565	5.67				
540-36-3	1,4-Difluorobenzene	950160	6.86				
3114-55-4	Chlorobenzene-d5	847782	10.12				
3855-82-1	1,4-Dichlorobenzene-d4	378358	12.08				

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Day Environmental, Inc.	Date Collected:	12/18/18
Project:	Andrew St. RI	Date Received:	12/19/18
Client Sample ID:	978-TB121818	SDG No.:	J6484
Lab Sample ID:	J6484-18	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	DB-624UI ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX006642.D	1		12/19/18 17:38	VX121918

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit
A = Aldol-Condensation Reaction Products

Quantitation Report (QT Reviewed)

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX121918\
Data File : VX006642.D
Acq On : 19 Dec 2018 17:38
Operator : JC/MD
Sample : J6484-18
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 9 Sample Multiplier: 1

Instrument : MSVOA_X
ClientSampleId : 978-TB121818

Quant Time: Dec 20 04:26:48 2018
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121818W.M
Quant Title : SW846 8260
QLast Update : Wed Dec 19 15:20:58 2018
Response via : Initial Calibration

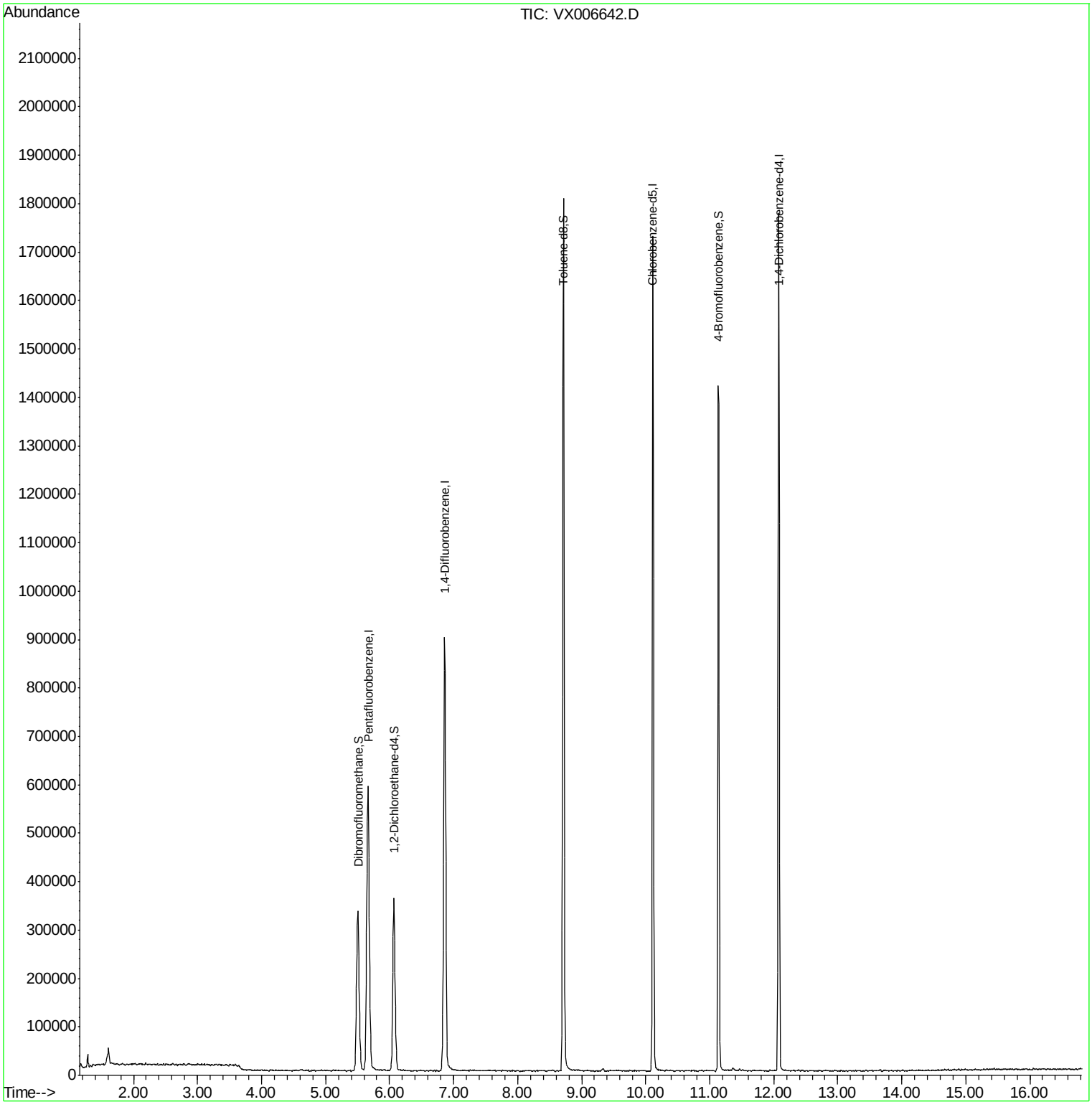
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	5.67	168	596565	50.00	ug/l	0.00
34) 1,4-Difluorobenzene	6.86	114	950160	50.00	ug/l	0.00
63) Chlorobenzene-d5	10.12	117	847782	50.00	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	12.08	152	378358	50.00	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	6.07	65	333036	51.80	ug/l	0.00
Spiked Amount 50.000			Recovery = 103.60%			
35) Dibromofluoromethane	5.50	113	287564	47.86	ug/l	0.00
Spiked Amount 50.000			Recovery = 95.72%			
50) Toluene-d8	8.71	98	1113306	49.15	ug/l	0.00
Spiked Amount 50.000			Recovery = 98.30%			
62) 4-Bromofluorobenzene	11.13	95	386362	46.57	ug/l	0.00
Spiked Amount 50.000			Recovery = 93.14%			
Target Compounds						Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

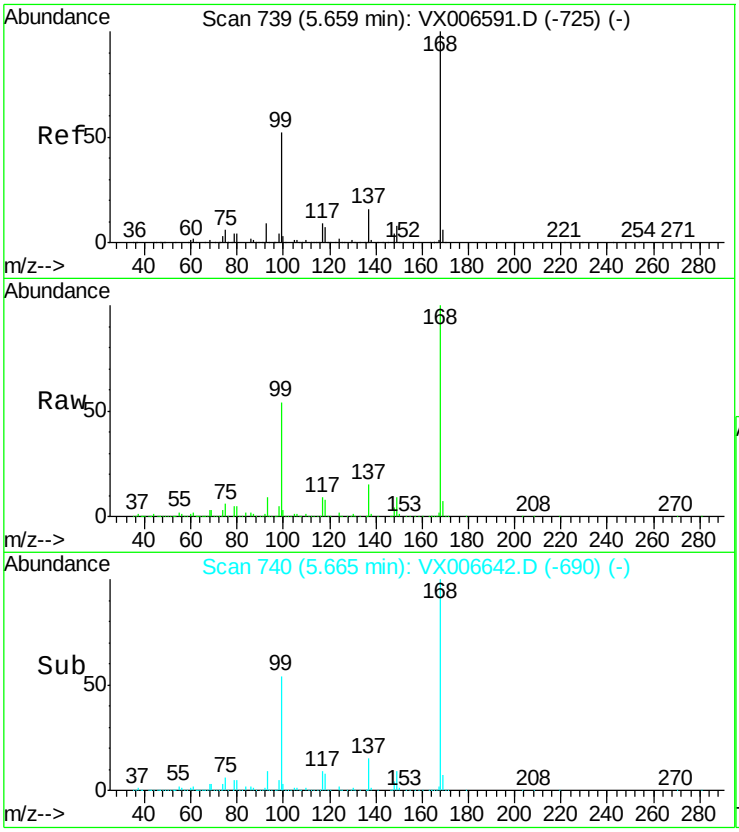
Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX121918\
Data File : VX006642.D
Acq On : 19 Dec 2018 17:38
Operator : JC/MD
Sample : J6484-18
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 9 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
978-TB121818

Quant Time: Dec 20 04:26:48 2018
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121818W.M
Quant Title : SW846 8260
QLast Update : Wed Dec 19 15:20:58 2018
Response via : Initial Calibration



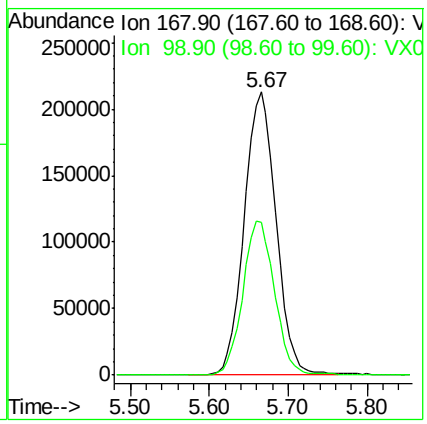
Instrument :
MSVOA_X
ClientSampleId :
978-TB121818

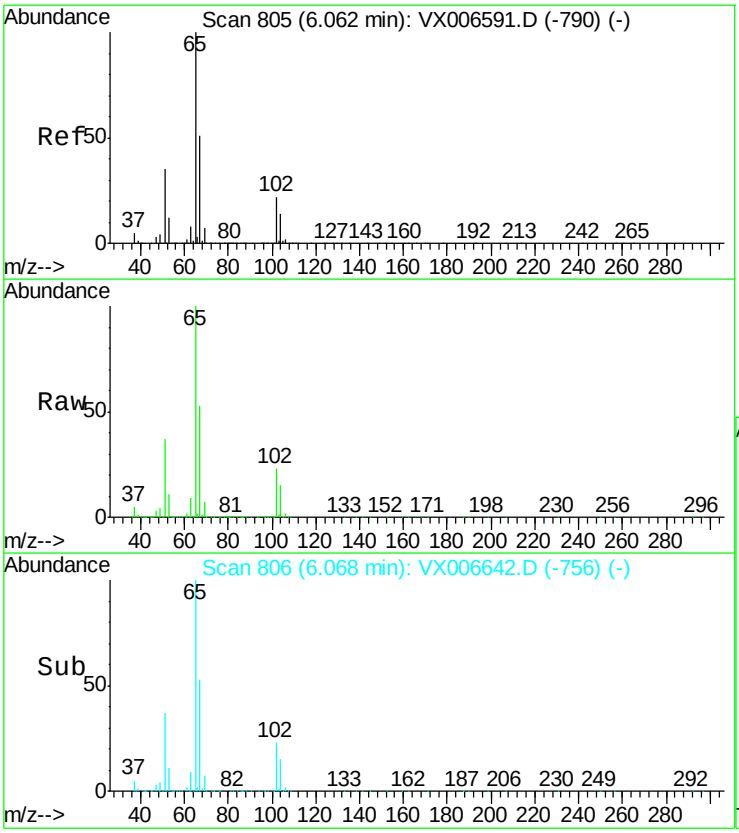


#1
Pentafluorobenzene
Concen: 50.000 ug/l
RT: 5.67 min Scan# 740
Delta R.T. 0.01 min
Lab File: VX006642.D
Acq: 19 Dec 2018 17:38

Tgt Ion:168 Resp: 596565

Ion	Ratio	Lower	Upper
168	100		
99	54.1	41.8	62.8

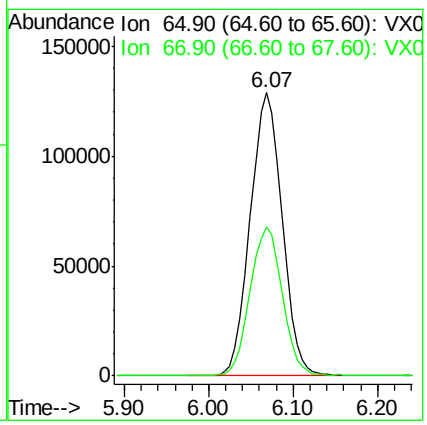




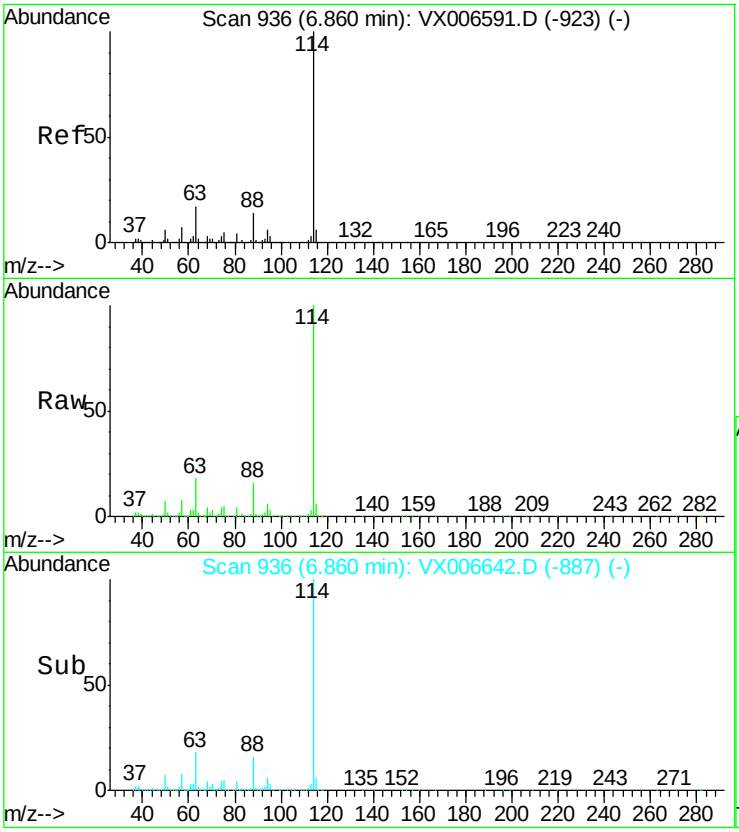
#33
1,2-Dichloroethane-d4
Concen: 51.798 ug/l
RT: 6.07 min Scan# 806
Delta R.T. 0.01 min
Lab File: VX006642.D
Acq: 19 Dec 2018 17:38

Tgt Ion: 65 Resp: 333036

Ion	Ratio	Lower	Upper
65	100		
67	53.2	0.0	105.0



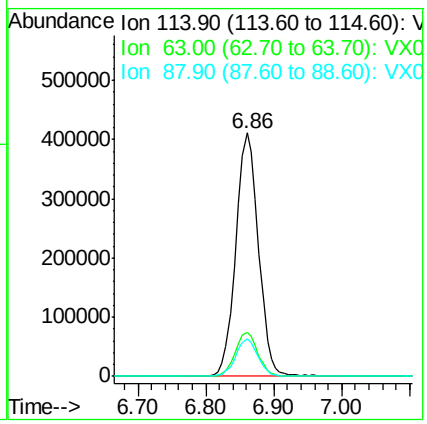
Instrument :
MSVOA_X
ClientSampleId :
978-TB121818

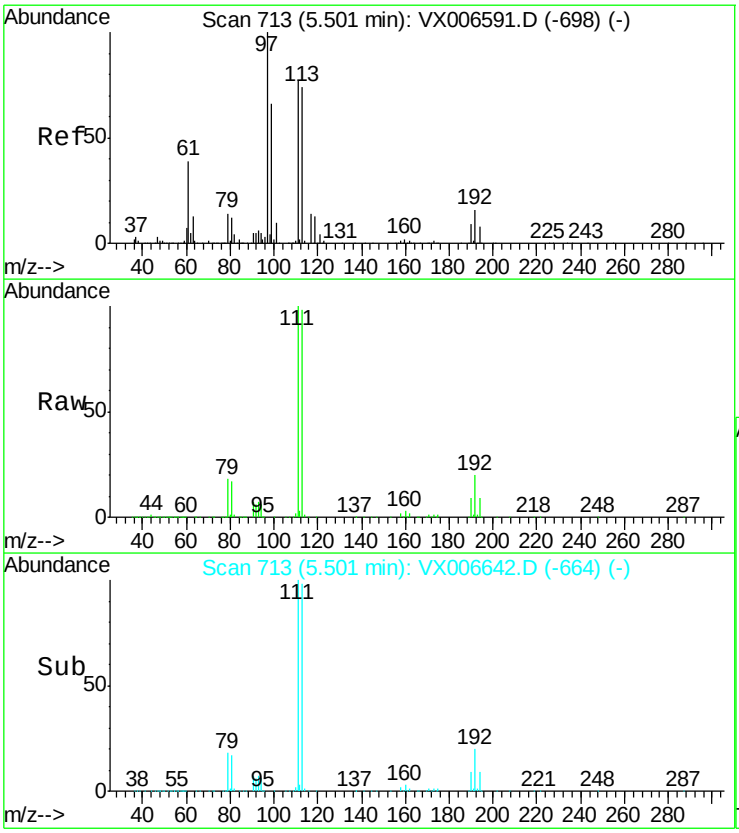


#34
1,4-Difluorobenzene
Concen: 50.000 ug/l
RT: 6.86 min Scan# 936
Delta R.T. 0.00 min
Lab File: VX006642.D
Acq: 19 Dec 2018 17:38

Tgt Ion:114 Resp: 950160

Ion	Ratio	Lower	Upper
114	100		
63	17.8	0.0	34.8
88	15.5	0.0	28.8

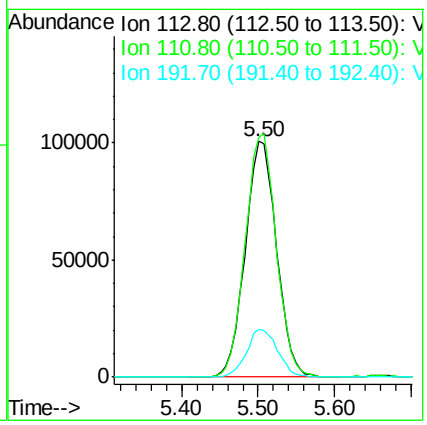




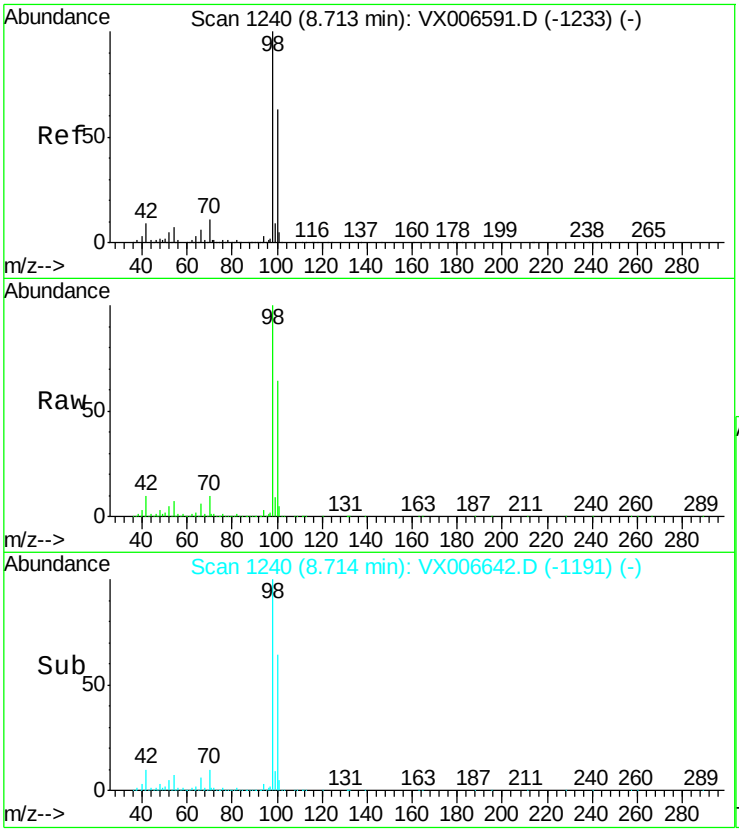
#35
Dibromofluoromethane
Concen: 47.858 ug/l
RT: 5.50 min Scan# 713
Delta R.T. 0.00 min
Lab File: VX006642.D
Acq: 19 Dec 2018 17:38

Tgt Ion:113 Resp: 287564

Ion	Ratio	Lower	Upper
113	100		
111	102.3	81.6	122.4
192	20.3	16.7	25.1



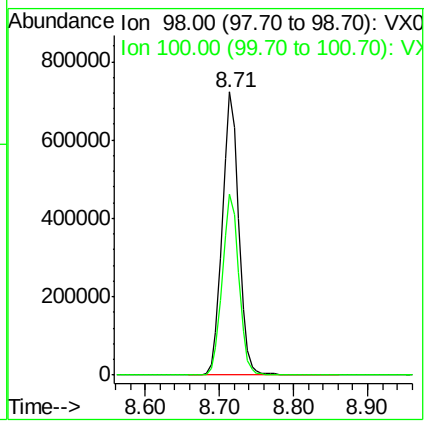
Instrument :
MSVOA_X
ClientSampleId :
978-TB121818

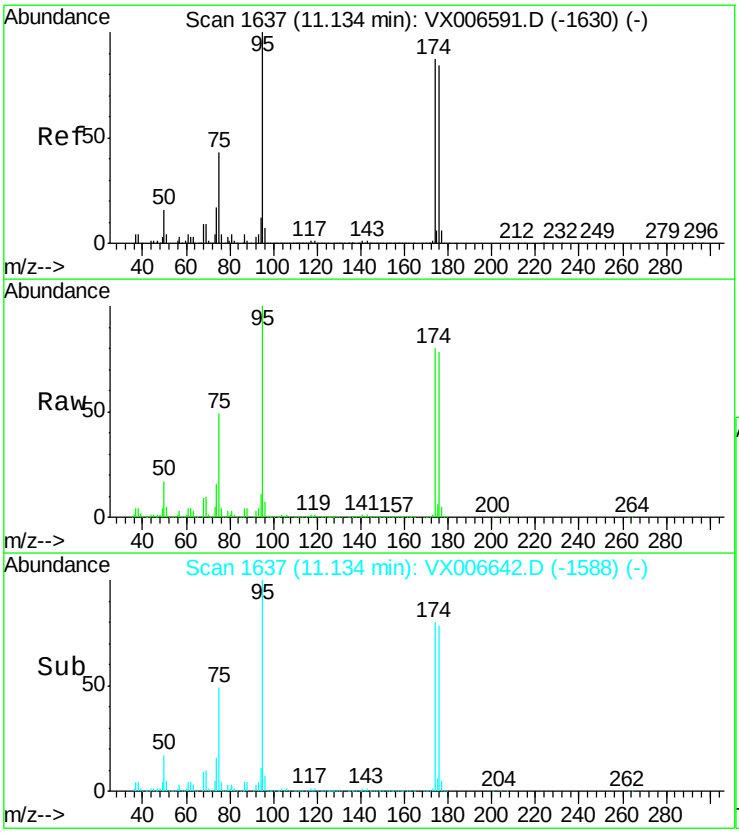


#50
Toluene-d8
Concen: 49.147 ug/l
RT: 8.71 min Scan# 1240
Delta R.T. 0.00 min
Lab File: VX006642.D
Acq: 19 Dec 2018 17:38

Tgt Ion: 98 Resp: 1113306

Ion	Ratio	Lower	Upper
98	100		
100	64.7	52.0	78.0

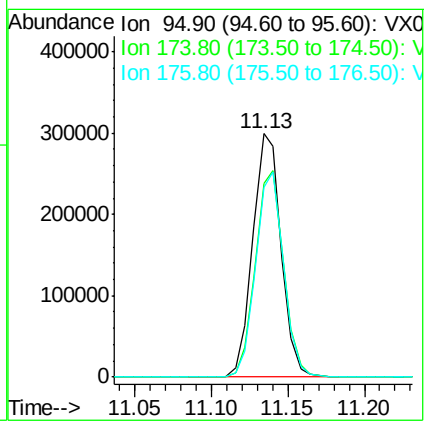




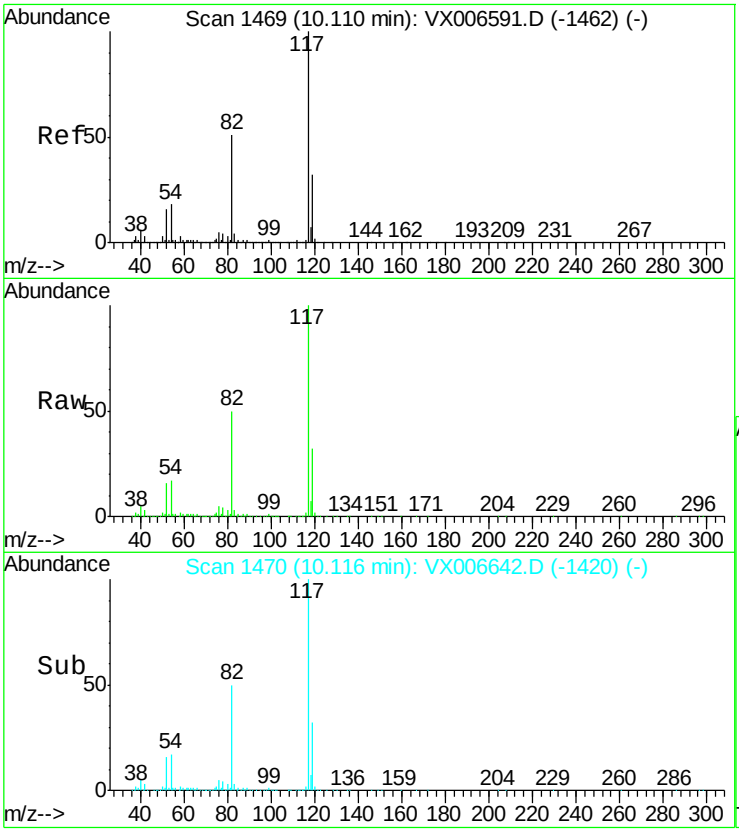
#62
4-Bromofluorobenzene
Concen: 46.570 ug/l
RT: 11.13 min Scan# 1637
Delta R.T. 0.00 min
Lab File: VX006642.D
Acq: 19 Dec 2018 17:38

Tgt Ion: 95 Resp: 386362

Ion	Ratio	Lower	Upper
95	100		
174	85.0	0.0	182.2
176	83.1	0.0	178.8



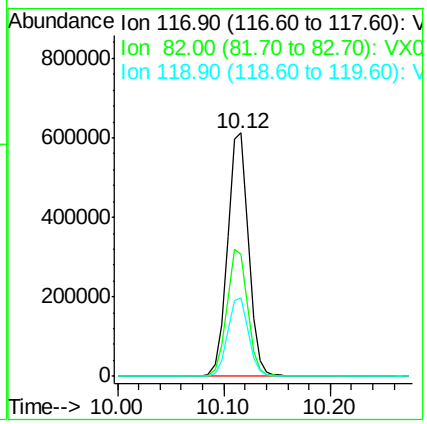
Instrument :
MSVOA_X
ClientSampleId :
978-TB121818

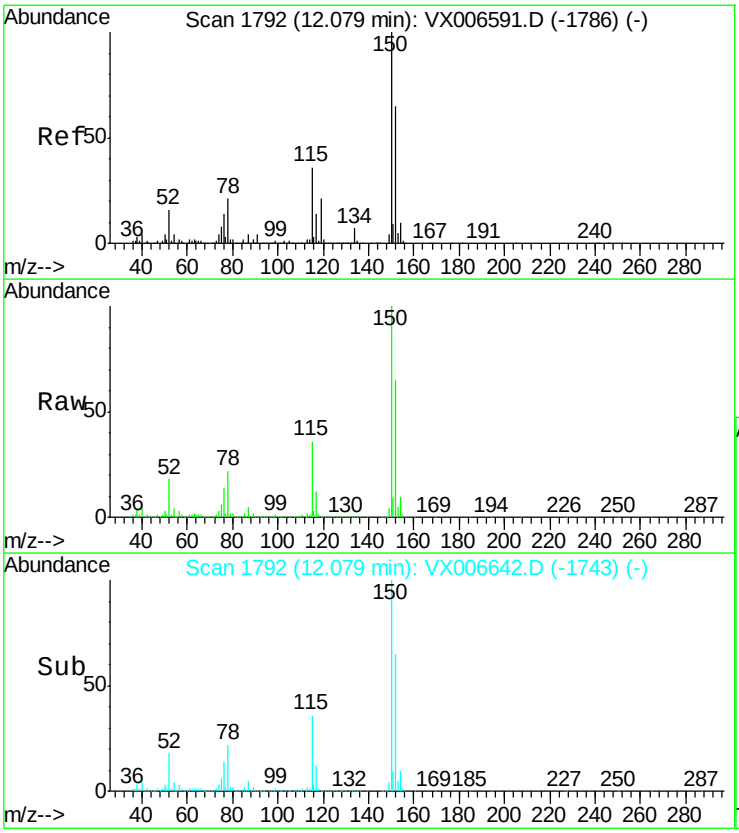


#63
Chlorobenzene-d5
Concen: 50.000 ug/l
RT: 10.12 min Scan# 1470
Delta R.T. 0.01 min
Lab File: VX006642.D
Acq: 19 Dec 2018 17:38

Tgt Ion:117 Resp: 847782

Ion	Ratio	Lower	Upper
117	100		
82	49.9	41.0	61.6
119	32.0	25.4	38.0

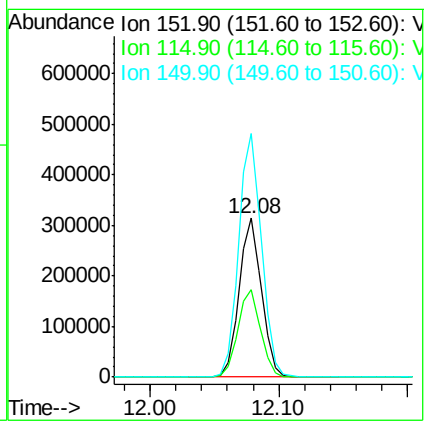




#72
1,4-Dichlorobenzene-d4
Concen: 50.000 ug/l
RT: 12.08 min Scan# 1792
Delta R.T. 0.00 min
Lab File: VX006642.D
Acq: 19 Dec 2018 17:38

Tgt Ion:152 Resp: 378358

Ion	Ratio	Lower	Upper
152	100		
115	56.3	39.1	117.2
150	156.0	0.0	344.8



LSC Area Percent Report

Data Path : Z:\VOASRV\HPCHEM1\MSVOA X\DATA\VX121918\
Data File : VX006642.D
Acq On : 19 Dec 2018 17:38
Operator : JC/MD
Sample : J6484-18
Misc : 5.0mL/MSVOA X/WATER
ALS Vial : 9 Sample Multiplier: 1

Instrument : MSVOA_X
ClientSampleId : 978-TB121818

Integration Parameters: RTEINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 3 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121818W.M
Title : SW846 8260

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	1.282	17	21	25	rBV3	26640	30990	1.10%	0.206%
2	1.611	66	75	81	rBV	34031	77707	2.75%	0.517%
3	5.507	701	714	728	rBV	330729	952892	33.69%	6.346%
4	5.665	728	740	752	rBV2	586780	1656244	58.56%	11.029%
5	6.068	796	806	819	rBV	356927	917798	32.45%	6.112%
6	6.860	924	936	949	rBV	895463	2071712	73.25%	13.796%
7	8.714	1233	1240	1255	rBV	1801995	2828448	100.00%	18.835%
8	10.110	1463	1469	1481	rBV	1725076	2413660	85.34%	16.073%
9	11.134	1629	1637	1649	rBV	1415652	1866455	65.99%	12.429%
10	12.079	1785	1792	1801	rBV	1771470	2200698	77.81%	14.655%

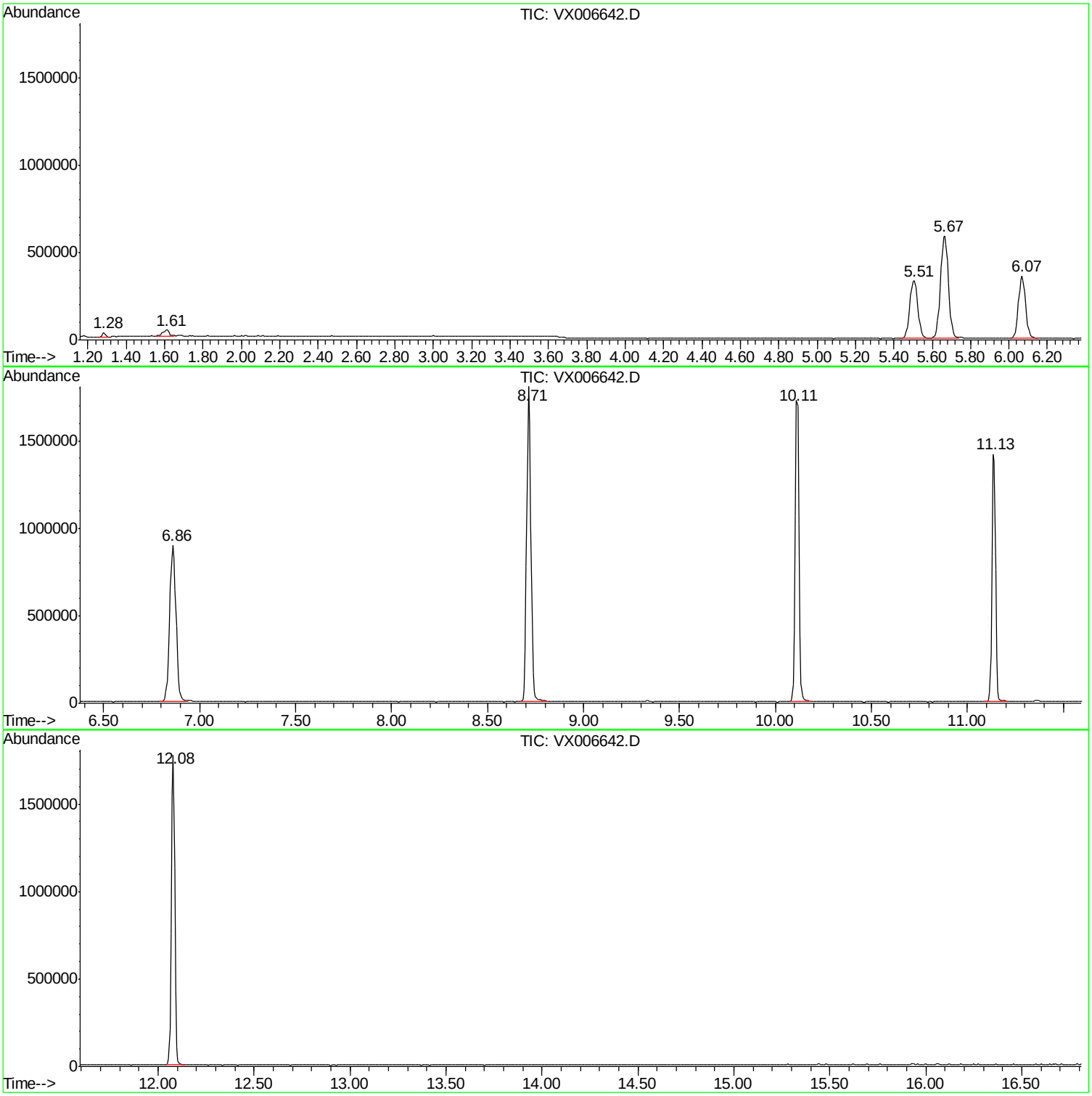
Sum of corrected areas: 15016604

Data Path : Z:\VOASRV\HPCHEM1\MSVOA X\DATA\VX121918\
Data File : VX006642.D
Acq On : 19 Dec 2018 17:38
Operator : JC/MD
Sample : J6484-18
Misc : 5.0mL/MSVOA X/WATER
ALS Vial : 9 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
978-TB121818

Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121818W.M
Quant Title : SW846 8260

TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P



Library Search Compound Report

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX121918\
Data File : VX006642.D
Acq On : 19 Dec 2018 17:38
Operator : JC/MD
Sample : J6484-18
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 9 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
978-TB121818

Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121818W.M
Quant Title : SW846 8260

TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

No Library Search Compounds Detected

****

Instrument :
MSVOA_X
ClientSampleId :
978-TB121818

Tentatively Identified Compound (LSC) summary

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX121918\
Data File : VX006642.D
Acq On : 19 Dec 2018 17:38
Operator : JC/MD
Sample : J6484-18
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 9 Sample Multiplier: 1

Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121818W.M
Quant Title : SW846 8260

TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

					Internal Standard			
TIC Top Hit name	RT	EstConc	Units	Response	#	RT	Resp	Conc

CALIBRATION SUMMARY

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: CHEMTECH Contract: DAYE01

Lab Code: CHEM Case No.: J6484 SAS No.: J6484 SDG No.: J6484

Instrument ID: MSVOA_X Calibration Date(s): 12/18/2018 12/18/2018

Heated Purge: (Y/N) N Calibration Time(s): 10:45 12:57

GC Column: DB-624UI ID: 0.18 (mm)

LAB FILE ID: RRF001 = VX006588.D RRF005 = VX006589.D RRF020 = VX006590.D
RRF050 = VX006591.D RRF100 = VX006592.D RRF150 = VX006593.D

COMPOUND	RRF001	RRF005	RRF020	RRF050	RRF100	RRF150	$\overline{RRF}$	% RSD
Dichlorodifluoromethane	0.525	0.482	0.447	0.440	0.427	0.424	0.457	8.6
Chloromethane	0.614	0.488	0.485	0.470	0.460	0.440	0.493	12.6
Vinyl Chloride	0.576	0.533	0.520	0.494	0.491	0.474	0.515	7.1
Bromomethane	0.793	0.612	0.523	0.488	0.478	0.464	0.560	22.5
Chloroethane	0.365	0.332	0.336	0.318	0.399	0.388	0.356	9.2
Trichlorofluoromethane	0.848	0.823	0.822	0.783	0.768	0.770	0.802	4.1
1,1,2-Trichlorotrifluoroethane	0.538	0.475	0.472	0.456	0.441	0.445	0.471	7.6
1,1-Dichloroethene	0.504	0.460	0.440	0.426	0.424	0.426	0.447	7
Acetone	0.304	0.245	0.255	0.237	0.227	0.218	0.248	12.3
Carbon Disulfide	1.468	1.063	1.086	1.117	1.164	1.195	1.182	12.5
Methyl tert-butyl Ether	1.483	1.517	1.522	1.460	1.459	1.455	1.483	2
Methyl Acetate	0.795	0.723	0.726	0.710	0.702	0.712	0.728	4.7
Methylene Chloride	0.634	0.515	0.507	0.476	0.475	0.465	0.512	12.3
trans-1,2-Dichloroethene	0.639	0.490	0.466	0.457	0.459	0.459	0.495	14.5
1,1-Dichloroethane	0.954	0.864	0.819	0.769	0.764	0.757	0.821	9.4
Cyclohexane	0.858	0.761	0.736	0.725	0.697	0.699	0.746	8
2-Butanone	0.406	0.346	0.351	0.341	0.329	0.317	0.348	8.9
Carbon Tetrachloride	0.430	0.355	0.377	0.397	0.425	0.430	0.402	7.8
cis-1,2-Dichloroethene	0.585	0.566	0.543	0.535	0.527	0.521	0.546	4.5
Bromochloromethane	0.498	0.354	0.373	0.355	0.357	0.329	0.378	16.1
Chloroform	0.967	0.826	0.845	0.827	0.826	0.811	0.850	6.8
1,1,1-Trichloroethane	0.716	0.684	0.719	0.729	0.729	0.731	0.718	2.5
Methylcyclohexane	0.637	0.540	0.522	0.520	0.526	0.526	0.545	8.4
Benzene	1.361	1.270	1.243	1.221	1.237	1.220	1.259	4.2
1,2-Dichloroethane	0.495	0.447	0.416	0.402	0.409	0.405	0.429	8.5
Trichloroethene	0.449	0.380	0.361	0.358	0.369	0.367	0.381	9
1,2-Dichloropropane	0.337	0.299	0.301	0.289	0.307	0.306	0.306	5.3
Bromodichloromethane	0.387	0.320	0.354	0.375	0.401	0.407	0.374	8.7
4-Methyl-2-Pentanone	0.405	0.408	0.428	0.424	0.428	0.411	0.417	2.5
Toluene	0.857	0.804	0.809	0.797	0.814	0.798	0.813	2.8
t-1,3-Dichloropropene	0.354	0.326	0.373	0.423	0.469	0.463	0.401	14.7
cis-1,3-Dichloropropene	0.374	0.378	0.425	0.465	0.499	0.501	0.440	13
1,1,2-Trichloroethane	0.355	0.334	0.330	0.324	0.334	0.320	0.333	3.7

* Compounds with required minimum RRF and maximum %RSD values.
All other compounds must meet a minimum RRF of 0.010.
RRF of 1,4-Dioxane = Value should be divide by 1000.

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: CHEMTECH Contract: DAYE01

Lab Code: CHEM Case No.: J6484 SAS No.: J6484 SDG No.: J6484

Instrument ID: MSVOA_X Calibration Date(s): 12/18/2018 12/18/2018

Heated Purge: (Y/N) N Calibration Time(s): 10:45 12:57

GC Column: DB-624UI ID: 0.18 (mm)

LAB FILE ID: RRF001 = VX006588.D RRF005 = VX006589.D RRF020 = VX006590.D
RRF050 = VX006591.D RRF100 = VX006592.D RRF150 = VX006593.D

COMPOUND	RRF001	RRF005	RRF020	RRF050	RRF100	RRF150	$\overline{RRF}$	% RSD
2-Hexanone	0.301	0.308	0.331	0.326	0.329	0.321	0.319	3.8
Dibromochloromethane	0.243	0.257	0.289	0.327	0.365	0.359	0.307	16.8
1,2-Dibromoethane	0.352	0.340	0.354	0.356	0.370	0.351	0.354	2.7
Tetrachloroethene	0.447	0.416	0.384	0.373	0.368	0.388	0.396	7.7
Chlorobenzene	1.194	1.043	1.029	1.018	1.028	1.035	1.058	6.4
Ethyl Benzene	1.899	1.708	1.688	1.677	1.691	1.709	1.729	4.9
m/p-Xylenes	0.693	0.684	0.681	0.674	0.677	0.685	0.682	1
o-Xylene	0.709	0.664	0.668	0.670	0.664	0.667	0.674	2.6
Styrene	1.058	1.018	1.066	1.087	1.077	1.087	1.066	2.5
Bromoform	0.205	0.188	0.222	0.267	0.298	0.327	0.251	21.9
Isopropylbenzene	3.550	3.654	3.409	3.341	3.365	3.205	3.421	4.7
1,1,2,2-Tetrachloroethane	0.978	1.044	1.015	1.009	1.032	1.026	1.017	2.3
1,3-Dichlorobenzene	1.752	1.673	1.637	1.635	1.669	1.634	1.667	2.7
1,4-Dichlorobenzene	1.915	1.731	1.643	1.645	1.665	1.652	1.709	6.2
1,2-Dichlorobenzene	1.803	1.735	1.618	1.607	1.627	1.614	1.667	4.9
1,2-Dibromo-3-Chloropropane	0.222	0.175	0.190	0.214	0.229	0.233	0.210	11
1,2,4-Trichlorobenzene	1.202	1.072	1.082	1.136	1.197	1.211	1.150	5.4
1,2,3-Trichlorobenzene	1.429	1.075	1.106	1.125	1.193	1.196	1.187	10.7
1,2-Dichloroethane-d4		0.572	0.562	0.541	0.516	0.503	0.539	5.5
Dibromofluoromethane		0.317	0.316	0.315	0.318	0.316	0.316	0.4
Toluene-d8		1.224	1.204	1.182	1.195	1.155	1.192	2.1
4-Bromofluorobenzene		0.427	0.452	0.446	0.440	0.419	0.437	3.1

* Compounds with required minimum RRF and maximum %RSD values.
All other compounds must meet a minimum RRF of 0.010.
RRF of 1,4-Dioxane = Value should be divide by 1000.

Response Factor Report MSVOA_X

Method Path : Z:\VOASRV\HPCHEM1\MSVOA X\METHOD\
Method File : 82X121818W.M
Title : SW846 8260
Last Update : Wed Dec 19 00:58:54 2018
Response Via : Initial Calibration

Calibration Files
1 =VX006588.D 5 =VX006589.D 20 =VX006590.D
50 =VX006591.D 100 =VX006592.D 150 =VX006593.D

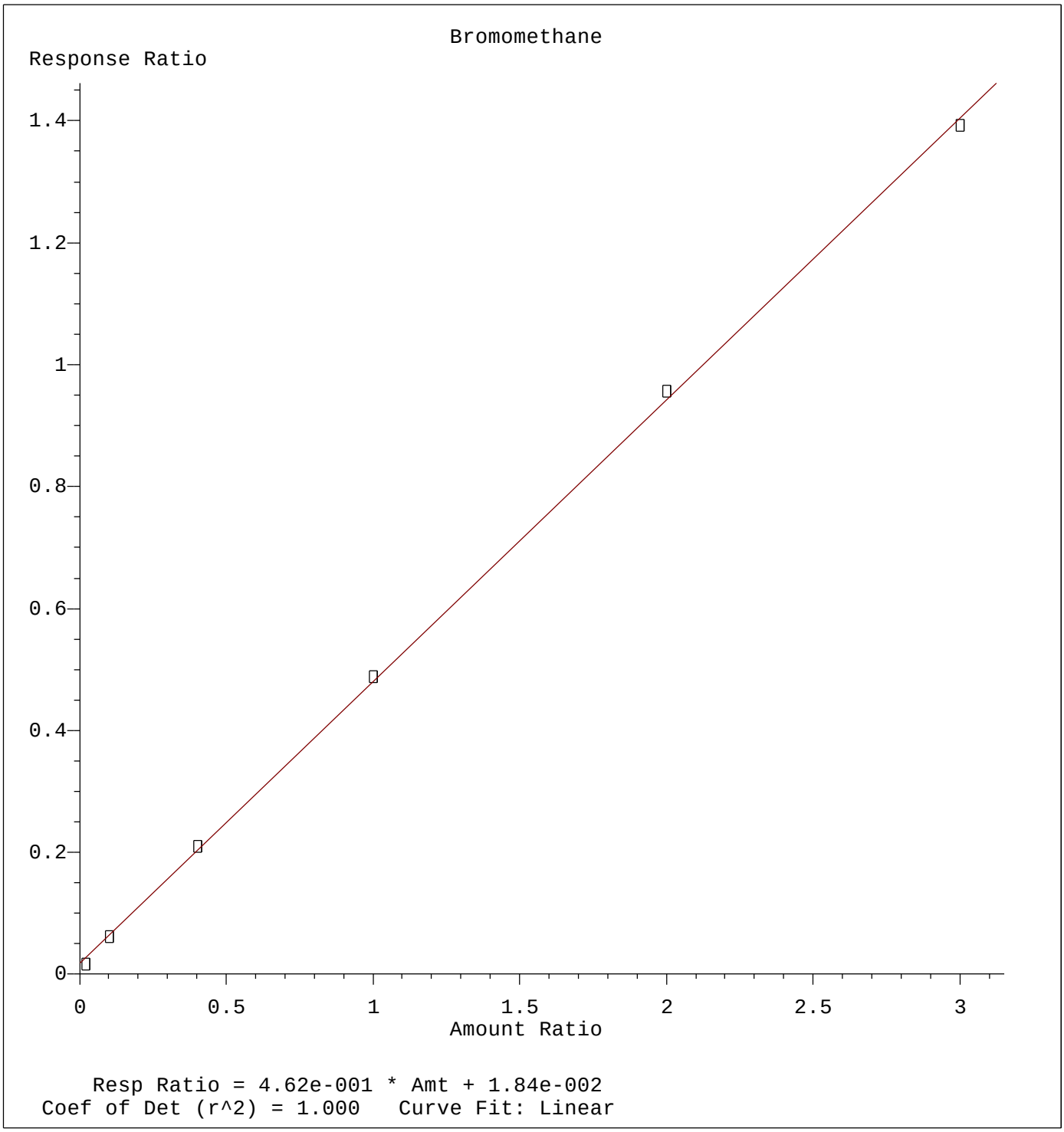
		Compound	1	5	20	50	100	150	Avg	%RSD
1)	I	Pentafluorobenzene	----------	ISTD	----------					
2)	T	Dichlorodifluorom	0.525	0.482	0.447	0.440	0.427	0.424	0.457	8.59
3)	P	Chloromethane	0.614	0.488	0.485	0.470	0.460	0.440	0.493	12.57
4)	C	Vinyl Chloride	0.576	0.533	0.520	0.494	0.491	0.474	0.515	7.14#
5)	T	Bromomethane	0.793	0.612	0.523	0.488	0.478	0.464	0.560	22.53
6)	T	Chloroethane	0.365	0.332	0.336	0.318	0.399	0.388	0.356	9.20
7)	T	Trichlorofluorome	0.848	0.823	0.822	0.783	0.768	0.770	0.802	4.11
8)	T	Diethyl Ether	0.403	0.311	0.315	0.300	0.292	0.291	0.319	13.36
9)	T	1,1,2-Trichlorotr	0.538	0.475	0.472	0.456	0.441	0.445	0.471	7.60
10)	T	Methyl Iodide		0.569	0.674	0.716	0.720	0.693	0.674	9.16
11)	T	Tert butyl alcoho		0.125	0.126	0.118	0.115	0.118	0.120	3.83
12)	CM	1,1-Dichloroethen	0.504	0.460	0.440	0.426	0.424	0.426	0.447	7.01#
13)	T	Acrolein		0.088	0.078	0.078	0.082	0.080	0.081	5.06
14)	T	Allyl chloride	0.785	0.758	0.740	0.735	0.749	0.744	0.752	2.41
15)	T	Acrylonitrile	0.272	0.268	0.272	0.264	0.266	0.260	0.267	1.81
16)	T	Acetone	0.304	0.245	0.255	0.237	0.227	0.218	0.248	12.33
17)	T	Carbon Disulfide	1.468	1.063	1.086	1.117	1.164	1.195	1.182	12.55
18)	T	Methyl Acetate	0.795	0.723	0.726	0.710	0.702	0.712	0.728	4.67
19)	T	Methyl tert-butyl	1.483	1.517	1.522	1.460	1.459	1.455	1.483	2.05
20)	T	Methylene Chlorid	0.634	0.515	0.507	0.476	0.475	0.465	0.512	12.32
21)	T	trans-1,2-Dichlor	0.639	0.490	0.466	0.457	0.459	0.459	0.495	14.50
22)	T	Diisopropyl ether	1.386	1.438	1.383	1.360	1.353	1.335	1.376	2.60
23)	T	Vinyl Acetate	1.134	1.170	1.102	1.118	1.119	1.108	1.125	2.18
24)	P	1,1-Dichloroethan	0.954	0.864	0.819	0.769	0.764	0.757	0.821	9.39
25)	T	2-Butanone	0.406	0.346	0.351	0.341	0.329	0.317	0.348	8.91
26)	T	2,2-Dichloropropa	0.729	0.585	0.609	0.621	0.629	0.633	0.634	7.81
27)	T	cis-1,2-Dichloroe	0.585	0.566	0.543	0.535	0.527	0.521	0.546	4.52
28)	T	Bromochloromethan	0.498	0.354	0.373	0.355	0.357	0.329	0.378	16.08
29)	T	Tetrahydrofuran	0.263	0.226	0.225	0.225	0.221	0.215	0.229	7.44
30)	C	Chloroform	0.967	0.826	0.845	0.827	0.826	0.811	0.850	6.85#
31)	T	Cyclohexane	0.858	0.761	0.736	0.725	0.697	0.699	0.746	8.05
32)	T	1,1,1-Trichloroet	0.716	0.684	0.719	0.729	0.729	0.731	0.718	2.45
33)	S	1,2-Dichloroethan		0.572	0.562	0.541	0.516	0.503	0.539	5.48
34)	I	1,4-Difluorobenzene	----------	ISTD	----------					
35)	S	Dibromofluorometh		0.317	0.316	0.315	0.318	0.316	0.316	0.36
36)	T	1,1-Dichloroprope	0.448	0.418	0.405	0.401	0.407	0.405	0.414	4.25
37)	T	Ethyl Acetate	0.502	0.414	0.417	0.410	0.427	0.416	0.431	8.20
38)	T	Carbon Tetrachlor	0.430	0.355	0.377	0.397	0.425	0.430	0.402	7.81
39)	T	Methylcyclohexane	0.637	0.540	0.522	0.520	0.526	0.526	0.545	8.38
40)	TM	Benzene	1.361	1.270	1.243	1.221	1.237	1.220	1.259	4.25
41)	T	Methacrylonitrile	0.217	0.233	0.222	0.233	0.236	0.231	0.229	3.27
42)	TM	1,2-Dichloroethan	0.495	0.447	0.416	0.402	0.409	0.405	0.429	8.48
43)	T	Isopropyl Acetate	0.640	0.618	0.640	0.658	0.696	0.683	0.656	4.45
44)	TM	Trichloroethene	0.449	0.380	0.361	0.358	0.369	0.367	0.381	9.03
45)	C	1,2-Dichloropropa	0.337	0.299	0.301	0.289	0.307	0.306	0.306	5.28#
46)	T	Dibromomethane	0.252	0.221	0.218	0.218	0.220	0.222	0.225	5.80
47)	T	Bromodichlorometh	0.387	0.320	0.354	0.375	0.401	0.407	0.374	8.75
48)	T	Methyl methacryla	0.310	0.322	0.336	0.340	0.352	0.341	0.334	4.48
49)	T	1,4-Dioxane	0.012	0.009	0.009	0.009	0.009	0.009	0.009	15.55
50)	S	Toluene-d8		1.224	1.204	1.182	1.195	1.155	1.192	2.14
51)	T	4-Methyl-2-Pentan	0.405	0.408	0.428	0.424	0.428	0.411	0.417	2.54
52)	CM	Toluene	0.857	0.804	0.809	0.797	0.814	0.798	0.813	2.76#

Method Path : Z:\VOASRV\HPCHEM1\MSVOA X\METHOD\
Method File : 82X121818W.M
Title : SW846 8260
Last Update : Wed Dec 19 00:58:54 2018
Response Via : Initial Calibration

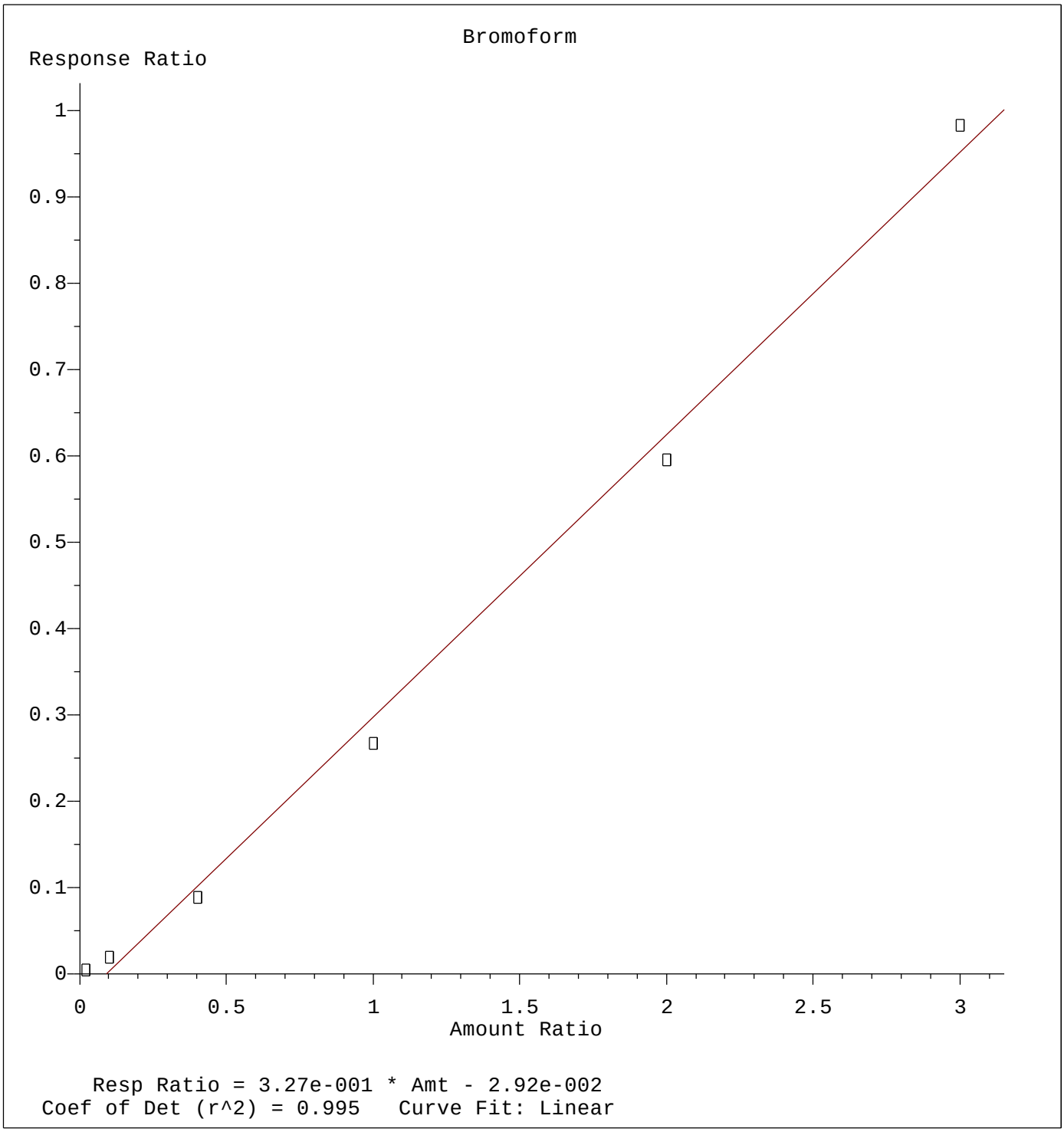
Calibration Files
1 =VX006588.D 5 =VX006589.D 20 =VX006590.D
50 =VX006591.D 100 =VX006592.D 150 =VX006593.D

		Compound	1	5	20	50	100	150	Avg	%RSD
53)	T	t-1,3-Dichloropro	0.354	0.326	0.373	0.423	0.469	0.463	0.401	14.75
54)	T	cis-1,3-Dichlorop	0.374	0.378	0.425	0.465	0.499	0.501	0.440	12.97
55)	T	1,1,2-Trichloroet	0.355	0.334	0.330	0.324	0.334	0.320	0.333	3.66
56)	T	Ethyl methacrylat	0.449	0.444	0.466	0.489	0.499	0.476	0.470	4.66
57)	T	1,3-Dichloropropa	0.591	0.526	0.535	0.517	0.533	0.511	0.536	5.40
58)	T	2-Chloroethyl Vin	0.262	0.233	0.254	0.246	0.258	0.247	0.250	4.04
59)	T	2-Hexanone	0.301	0.308	0.331	0.326	0.329	0.321	0.319	3.83
60)	T	Dibromochlorometh	0.243	0.257	0.289	0.327	0.365	0.359	0.307	16.82
61)	T	1,2-Dibromoethane	0.352	0.340	0.354	0.356	0.370	0.351	0.354	2.71
62)	S	4-Bromofluorobenz		0.427	0.452	0.446	0.440	0.419	0.437	3.10
63)	I	Chlorobenzene-d5	----------ISTD----------							
64)	T	Tetrachloroethene	0.447	0.416	0.384	0.373	0.368	0.388	0.396	7.65
65)	PM	Chlorobenzene	1.194	1.043	1.029	1.018	1.028	1.035	1.058	6.37
66)	T	1,1,1,2-Tetrachlo	0.283	0.288	0.328	0.343	0.363	0.376	0.330	11.68
67)	C	Ethyl Benzene	1.899	1.708	1.688	1.677	1.691	1.709	1.729	4.87#
68)	T	m/p-Xylenes	0.693	0.684	0.681	0.674	0.677	0.685	0.682	0.99
69)	T	o-Xylene	0.709	0.664	0.668	0.670	0.664	0.667	0.674	2.60
70)	T	Styrene	1.058	1.018	1.066	1.087	1.077	1.087	1.066	2.46
71)	P	Bromoform	0.205	0.188	0.222	0.267	0.298	0.327	0.251	21.88
72)	I	1,4-Dichlorobenzene-d	----------ISTD----------							
73)	T	Isopropylbenzene	3.550	3.654	3.409	3.341	3.365	3.205	3.421	4.67
74)	T	N-amyl acetate	1.072	1.171	1.217	1.245	1.305	1.336	1.224	7.80
75)	P	1,1,2,2-Tetrachlo	0.978	1.044	1.015	1.009	1.032	1.026	1.017	2.26
76)	T	1,2,3-Trichloropr	0.814	0.970	0.965	0.959	0.947	0.921	0.929	6.36
77)	T	Bromobenzene	0.974	0.967	0.909	0.914	0.905	0.879	0.925	4.04
78)	T	n-propylbenzene	3.777	3.982	3.717	3.727	3.787	3.610	3.767	3.26
79)	T	2-Chlorotoluene	2.512	2.432	2.247	2.205	2.180	2.120	2.283	6.76
80)	T	1,3,5-Trimethylbe	2.843	2.950	2.826	2.789	2.781	2.715	2.817	2.79
81)	T	trans-1,4-Dichlor	0.233	0.181	0.225	0.273	0.314	0.331	0.259	21.97
82)	T	4-Chlorotoluene	2.750	2.746	2.580	2.555	2.563	2.517	2.618	3.90
83)	T	tert-Butylbenzene	2.716	2.889	2.787	2.851	2.863	2.813	2.820	2.21
84)	T	1,2,4-Trimethylbe	3.356	3.039	2.896	2.866	2.860	2.764	2.963	7.15
85)	T	sec-Butylbenzene	3.596	3.555	3.427	3.424	3.431	3.312	3.457	2.97
86)	T	p-Isopropyltoluen	2.929	3.110	3.045	3.046	3.084	3.021	3.039	2.05
87)	T	1,3-Dichlorobenze	1.752	1.673	1.637	1.635	1.669	1.634	1.667	2.73
88)	T	1,4-Dichlorobenze	1.915	1.731	1.643	1.645	1.665	1.652	1.709	6.24
89)	T	n-Butylbenzene	2.499	2.501	2.524	2.589	2.705	2.700	2.586	3.70
90)	T	Hexachloroethane	0.339	0.336	0.382	0.434	0.488	0.505	0.414	17.74
91)	T	1,2-Dichlorobenze	1.803	1.735	1.618	1.607	1.627	1.614	1.667	4.91
92)	T	1,2-Dibromo-3-Chl	0.222	0.175	0.190	0.214	0.229	0.233	0.210	11.02
93)	T	1,2,4-Trichlorobe	1.202	1.072	1.082	1.136	1.197	1.211	1.150	5.44
94)	T	Hexachlorobutadie	0.658	0.488	0.493	0.514	0.550	0.548	0.542	11.56
95)	T	Naphthalene	4.161	3.423	3.470	3.615	3.699	3.655	3.671	7.17
96)	T	1,2,3-Trichlorobe	1.429	1.075	1.106	1.125	1.193	1.196	1.187	10.75

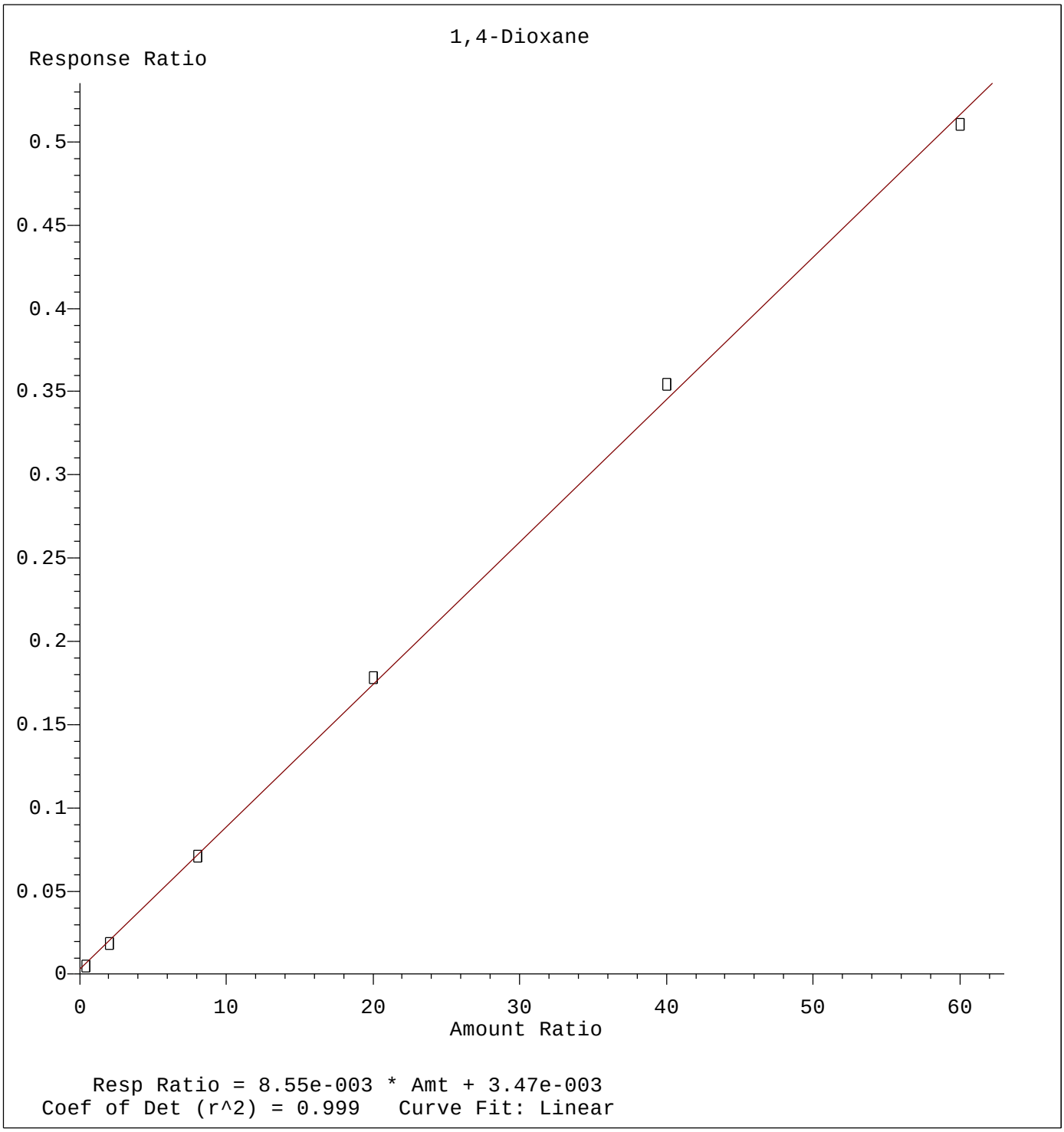
(#) = Out of Range



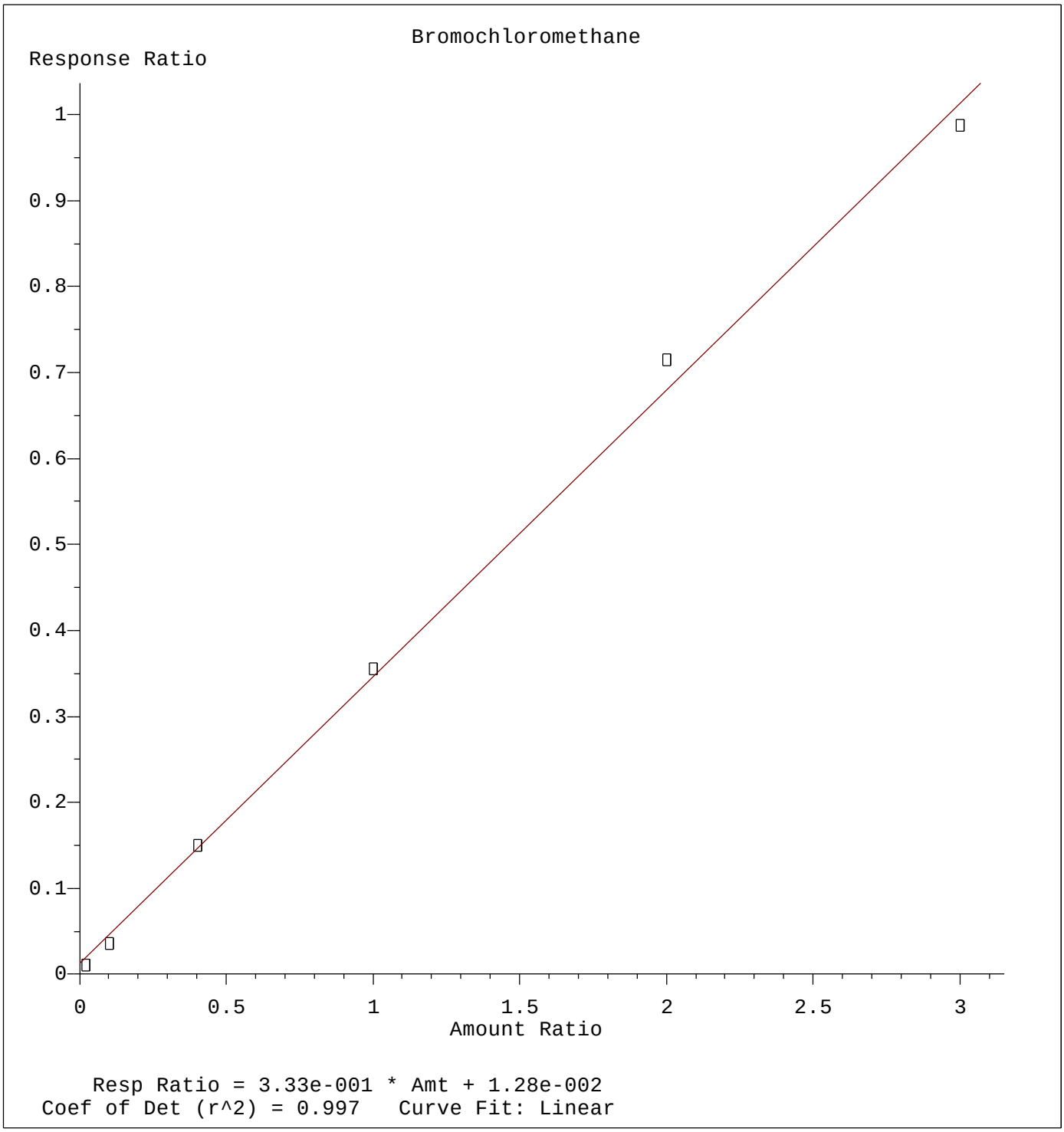
Method Name: Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121818W.M
Calibration Table Last Updated: Wed Dec 19 00:58:54 2018



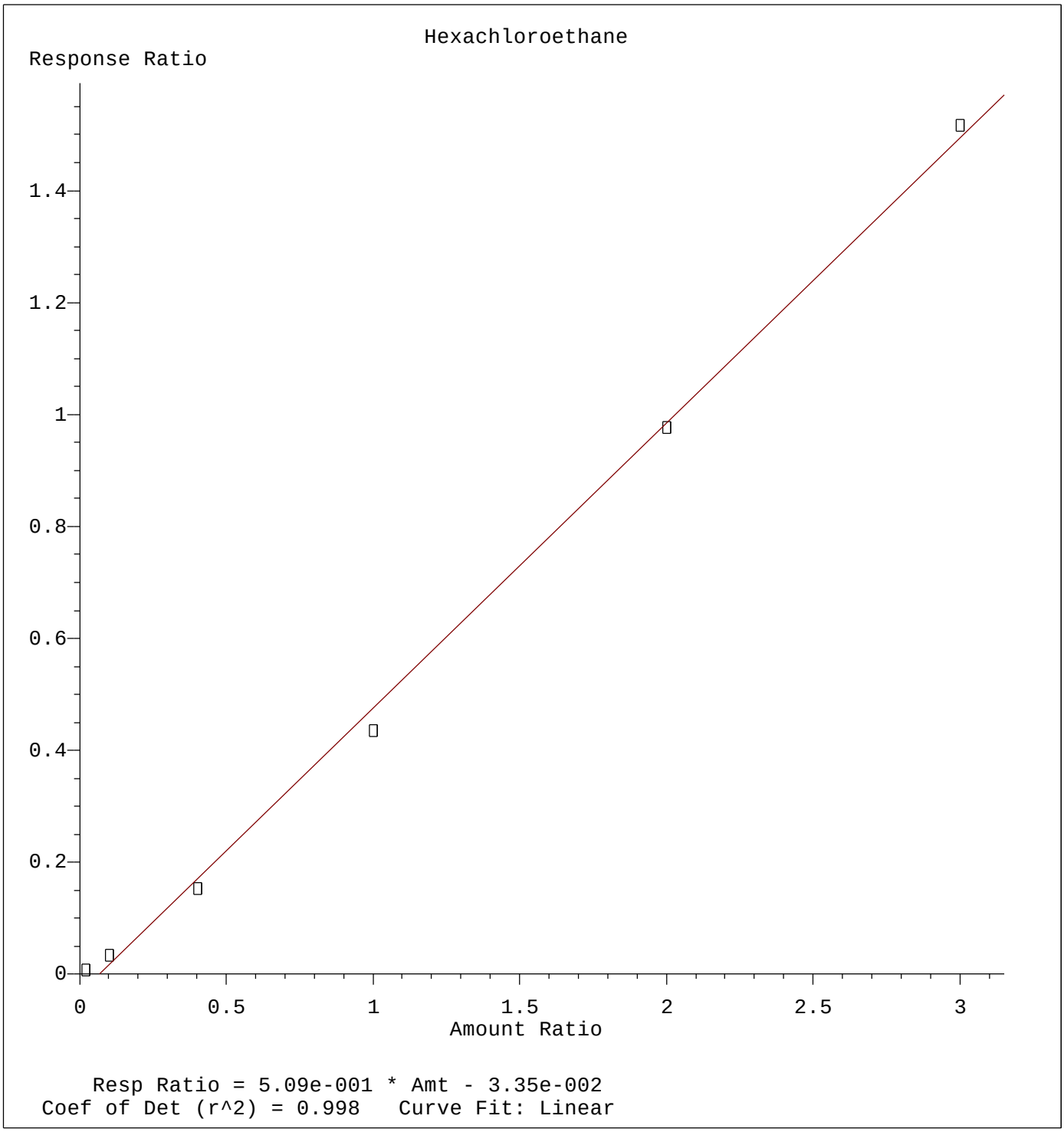
Method Name: Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121818W.M
Calibration Table Last Updated: Wed Dec 19 00:58:54 2018



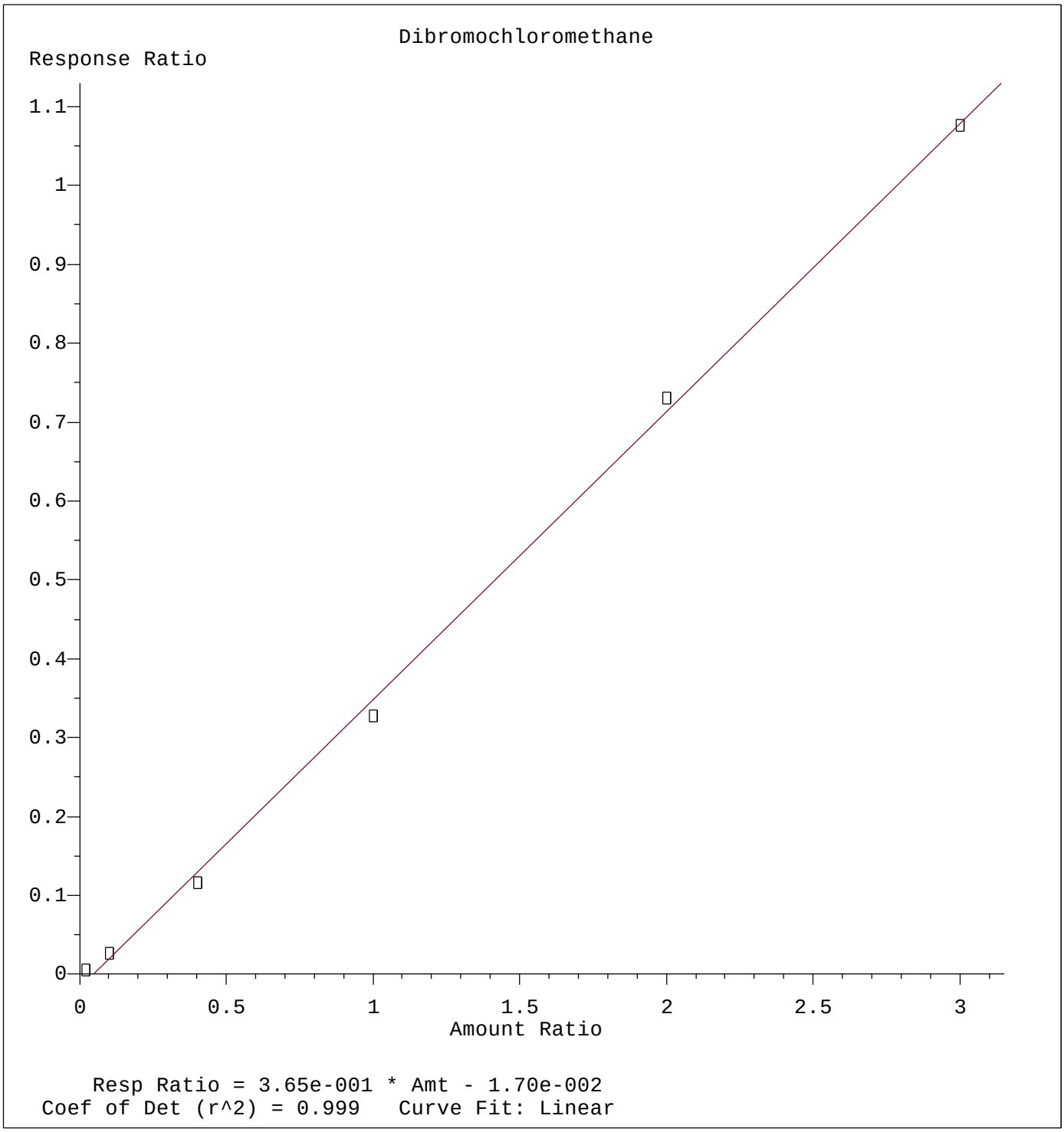
Method Name: Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121818W.M
Calibration Table Last Updated: Wed Dec 19 00:58:54 2018



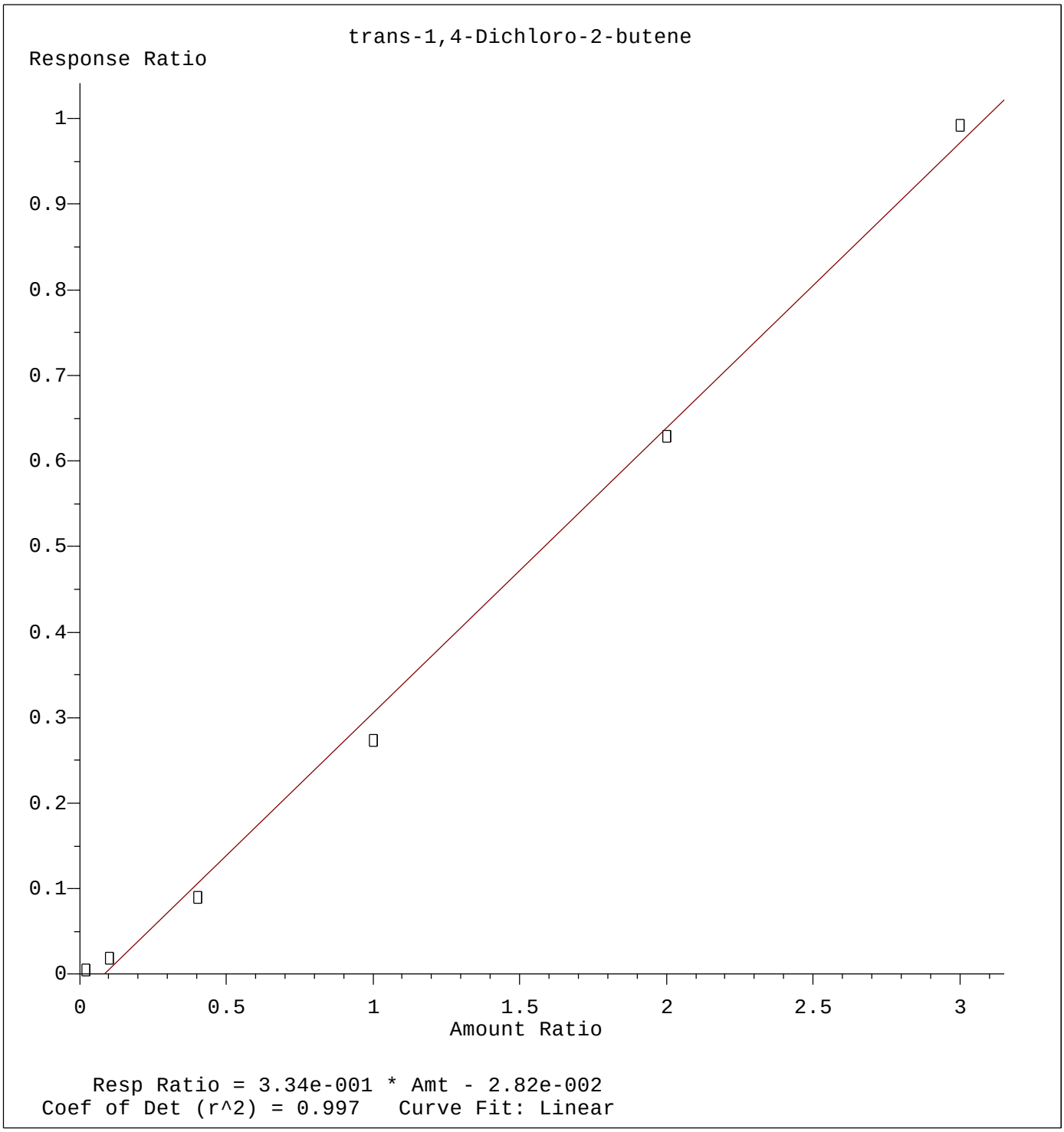
Method Name: Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121818W.M
Calibration Table Last Updated: Wed Dec 19 00:58:54 2018



Method Name: Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121818W.M
Calibration Table Last Updated: Wed Dec 19 00:58:54 2018



Method Name: Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121818W.M
Calibration Table Last Updated: Wed Dec 19 15:20:58 2018



Method Name: Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121818W.M
Calibration Table Last Updated: Wed Dec 19 00:58:54 2018

Quantitation Report (QT Reviewed)

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX121818\
Data File : VX006588.D
Acq On : 18 Dec 2018 10:45
Operator : JC/MD
Sample : VSTDICC001
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 3 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
VSTDICC001

Manual Integrations APPROVED
MMDadoda
12/19/2018 11:21:48 AM

Quant Time: Dec 19 00:47:59 2018
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121818W.M
Quant Title : SW846 8260
QLast Update : Wed Dec 19 00:31:42 2018
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Pentafluorobenzene	5.65	168	670672	50.00	ug/l		0.00
34) 1,4-Difluorobenzene	6.85	114	1047998	50.00	ug/l		0.00
63) Chlorobenzene-d5	10.11	117	960134	50.00	ug/l		0.00
72) 1,4-Dichlorobenzene-d4	12.08	152	480975	50.00	ug/l		0.00
System Monitoring Compounds							
33) 1,2-Dichloroethane-d4	0.00	65	0d	0.00	ug/l		
Spiked Amount 50.000			Recovery =	0.00%			
35) Dibromofluoromethane	0.00	113	0d	0.00	ug/l		
Spiked Amount 50.000			Recovery =	0.00%			
50) Toluene-d8	0.00	98	0d	0.00	ug/l		
Spiked Amount 50.000			Recovery =	0.00%			
62) 4-Bromofluorobenzene	0.00	95	0d	0.00	ug/l		
Spiked Amount 50.000			Recovery =	0.00%			
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.20	85	7047	1.149	ug/l		97
3) Chloromethane	1.33	50	8236	1.246	ug/l		94
4) Vinyl Chloride	1.41	62	7727	1.119	ug/l		98
5) Bromomethane	1.64	94	10637	1.417	ug/l		91
6) Chloroethane	1.72	64	4895	1.024	ug/l		96
7) Trichlorofluoromethane	1.93	101	11372	1.057	ug/l		93
8) Diethyl Ether	2.19	74	5412	1.266	ug/l		74
9) 1,1,2-Trichlorotrifluoroet	2.39	101	7223	1.143	ug/l		87
12) 1,1-Dichloroethene	2.37	96	6761	1.128	ug/l		93
14) Allyl chloride	2.73	41	10534	1.044	ug/l		97
15) Acrylonitrile	3.14	53	18256	5.097	ug/l		96
16) Acetone	2.44	43	20387	6.139	ug/l		91
17) Carbon Disulfide	2.57	76	19694	1.242	ug/l		96
18) Methyl Acetate	2.77	43	10662	1.092	ug/l		97
19) Methyl tert-butyl Ether	3.19	73	19887	1.000	ug/l		97
20) Methylene Chloride	2.86	84	8509	1.239	ug/l		90
21) trans-1,2-Dichloroethene	3.16	96	8575	1.292	ug/l	#	89
22) Diisopropyl ether	3.85	45	18588	1.007	ug/l		93
23) Vinyl Acetate	3.81	43	76043	5.038	ug/l		99
24) 1,1-Dichloroethane	3.70	63	12799	1.162	ug/l		100
25) 2-Butanone	4.68	43	27249	5.833	ug/l		97
26) 2,2-Dichloropropane	4.57	77	9781	1.150	ug/l		90
27) cis-1,2-Dichloroethene	4.59	96	7852	1.072	ug/l		89
28) Bromochloromethane	5.01	49	6681	1.319	ug/l		98
29) Tetrahydrofuran	5.14	42	17655	5.738	ug/l		99
30) Chloroform	5.20	83	12973	1.137	ug/l		93
31) Cyclohexane	5.56	56	11515	1.151	ug/l	#	76
32) 1,1,1-Trichloroethane	5.48	97	9608	0.998	ug/l	#	39
36) 1,1-Dichloropropene	5.79	75	9391	1.082	ug/l	#	87
37) Ethyl Acetate	4.84	43	10528	1.165	ug/l	#	87
38) Carbon Tetrachloride	5.77	117	9022	1.070	ug/l		89
39) Methylcyclohexane	7.46	83	13359	1.169	ug/l		93
40) Benzene	6.13	78	28533	1.081	ug/l		99
41) Methacrylonitrile	5.05	41	4553	0.897	ug/l	#	72

ICAL Form

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX121818\
Data File : VX006588.D
Acq On : 18 Dec 2018 10:45
Operator : JC/MD
Sample : VSTDICC001
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 3 Sample Multiplier: 1

Instrument : MSVOA_X
ClientSampleId : VSTDICC001

Manual Integrations APPROVED
MMDadoda
12/19/2018 11:21:48 AM

Quant Time: Dec 19 00:47:59 2018
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121818W.M
Quant Title : SW846 8260
QLast Update : Wed Dec 19 00:31:42 2018
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
42) 1,2-Dichloroethane	6.19	62	10383	1.155	ug/l		96
43) Isopropyl Acetate	6.46	43	13410	0.976	ug/l	#	87
44) Trichloroethene	7.21	130	9421	1.180	ug/l		98
45) 1,2-Dichloropropane	7.51	63	7058	1.099	ug/l		99
46) Dibromomethane	7.66	93	5278	1.118	ug/l		93
47) Bromodichloromethane	7.89	83	8120	1.036	ug/l		85
48) Methyl methacrylate	7.77	41	6499	0.930	ug/l	#	87
49) 1,4-Dioxane	7.75	88	5200	26.292	ug/l	#	91
51) 4-Methyl-2-Pentanone	8.64	43	42433	4.852	ug/l		100
52) Toluene	8.78	92	17966	1.054	ug/l		95
53) t-1,3-Dichloropropene	9.04	75	7418	0.882	ug/l		97
54) cis-1,3-Dichloropropene	8.43	75	7839	0.850	ug/l	#	85
55) 1,1,2-Trichloroethane	9.21	97	7441	1.067	ug/l		89
56) Ethyl methacrylate	9.18	69	9405	0.954	ug/l		94
57) 1,3-Dichloropropane	9.37	76	12397	1.104	ug/l		95
58) 2-Chloroethyl Vinyl ether	8.31	63	27411	5.229	ug/l		96
59) 2-Hexanone	9.49	43	31508	4.708	ug/l		94
60) Dibromochloromethane	9.58	129	5091	0.792	ug/l		96
61) 1,2-Dibromoethane	9.67	107	7383	0.995	ug/l		95
64) Tetrachloroethene	9.33	164	8592	1.130	ug/l		92
65) Chlorobenzene	10.13	112	22935	1.129	ug/l		96
66) 1,1,1,2-Tetrachloroethane	10.22	131	5426	0.856	ug/l	#	63
67) Ethyl Benzene	10.25	91	36457	1.098	ug/l		96
68) m/p-Xylenes	10.35	106	26604	2.031	ug/l		98
69) o-Xylene	10.69	106	13614	1.053	ug/l		94
70) Styrene	10.71	104	20317	0.993	ug/l		94
71) Bromoform	10.86	173	3937	0.816	ug/l	#	90
73) Isopropylbenzene	11.01	105	34149	1.038	ug/l		100
74) N-amyl acetate	10.90	43	10312	0.876	ug/l	#	93
75) 1,1,2,2-Tetrachloroethane	11.26	83	9405	0.961	ug/l		93
76) 1,2,3-Trichloropropane	11.29	75	7828m	0.919	ug/l		
77) Bromobenzene	11.25	156	9368	1.053	ug/l		94
78) n-propylbenzene	11.36	91	36337	1.003	ug/l		97
79) 2-Chlorotoluene	11.41	91	24160	1.100	ug/l		96
80) 1,3,5-Trimethylbenzene	11.51	105	27351	1.009	ug/l		99
81) trans-1,4-Dichloro-2-buten	11.07	75	2243	0.899	ug/l	#	81
82) 4-Chlorotoluene	11.51	91	26450	1.050	ug/l		98
83) tert-Butylbenzene	11.77	119	26131	0.963	ug/l		86
84) 1,2,4-Trimethylbenzene	11.80	105	32283	1.132	ug/l		87
85) sec-Butylbenzene	11.94	105	34592	1.040	ug/l		96
86) p-Isopropyltoluene	12.06	119	28180	0.964	ug/l		90
87) 1,3-Dichlorobenzene	12.02	146	16857	1.051	ug/l		97
88) 1,4-Dichlorobenzene	12.10	146	18425m	1.120	ug/l		
89) n-Butylbenzene	12.38	91	24040	0.966	ug/l		99
90) Hexachloroethane	12.60	117	3257	0.818	ug/l		93
91) 1,2-Dichlorobenzene	12.39	146	17344	1.081	ug/l		97
92) 1,2-Dibromo-3-Chloropropan	13.00	75	2139	1.056	ug/l		74
93) 1,2,4-Trichlorobenzene	13.65	180	11566	1.045	ug/l		91
94) Hexachlorobutadiene	13.78	225	6330	1.214	ug/l		90
95) Naphthalene	13.83	128	40029	1.134	ug/l		99

ICAL Form

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX121818\
Data File : VX006588.D
Acq On : 18 Dec 2018 10:45
Operator : JC/MD
Sample : VSTDICC001
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 3 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
VSTDICC001

Manual Integrations APPROVED
MMDadoda
12/19/2018 11:21:48 AM

Quant Time: Dec 19 00:47:59 2018
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121818W.M
Quant Title : SW846 8260
QLast Update : Wed Dec 19 00:31:42 2018
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
96) 1,2,3-Trichlorobenzene	14.02	180	13743	1.203	ug/l	95

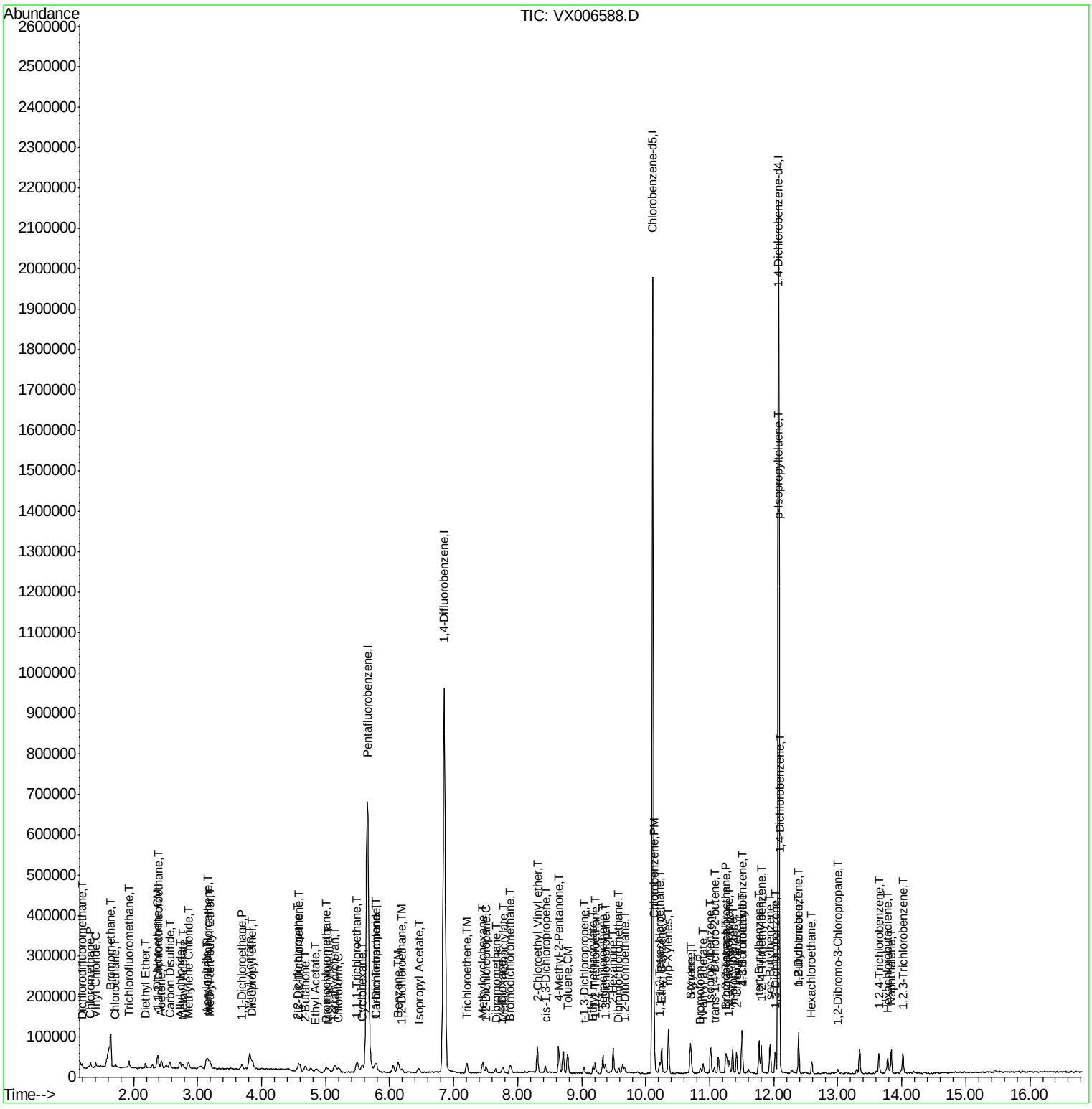
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX121818\
Data File : VX006588.D
Acq On : 18 Dec 2018 10:45
Operator : JC/MD
Sample : VSTDICC001
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Dec 19 00:47:59 2018
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121818W.M
Quant Title : SW846 8260
QLast Update : Wed Dec 19 00:31:42 2018
Response via : Initial Calibration

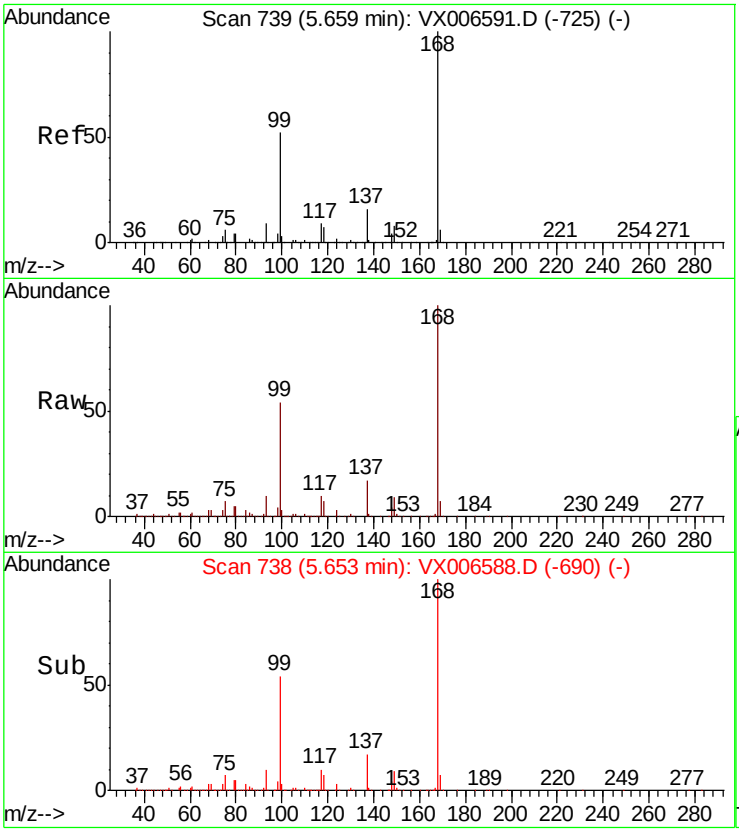
Instrument :
MSVOA_X
ClientSampleId :
VSTDICC001

Manual Integrations APPROVED
MMDadoda
12/19/2018 11:21:48 AM



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC001

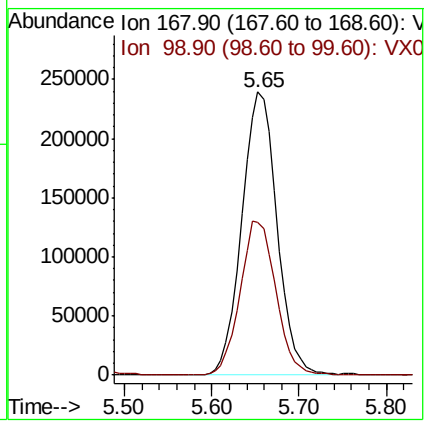
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:21:48 AM

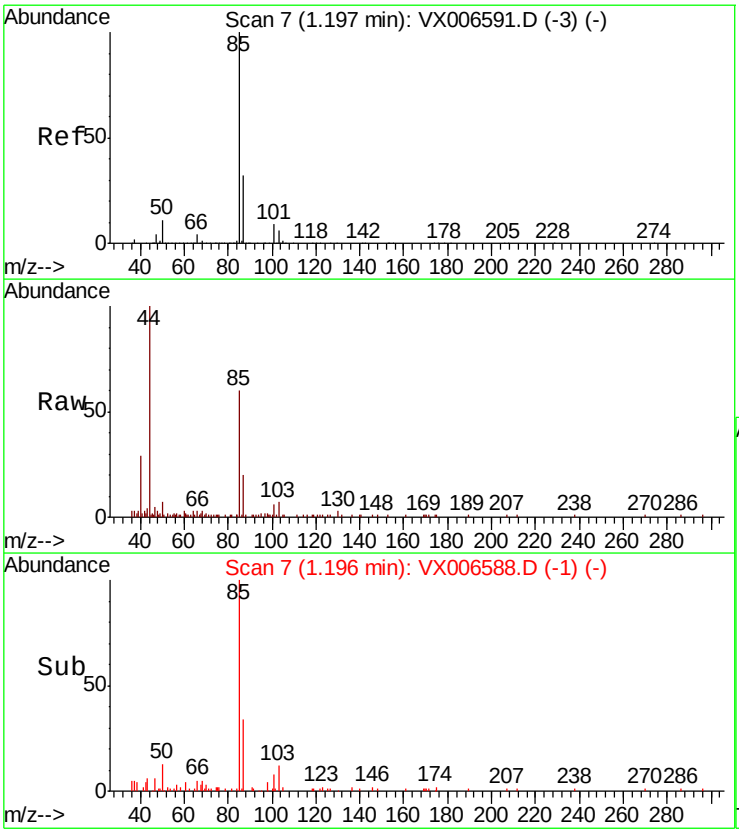


#1
Pentafluorobenzene
Concen: 50.000 ug/l
RT: 5.65 min Scan# 738
Delta R.T. -0.01 min
Lab File: VX006588.D
Acq: 18 Dec 2018 10:45

Tgt Ion:168 Resp: 670672

Ion	Ratio	Lower	Upper
168	100		
99	54.1	41.8	62.8

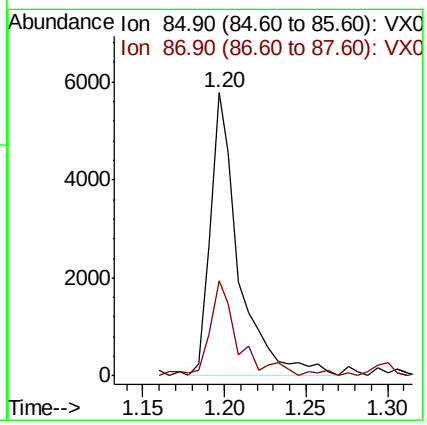




#2
Dichlorodifluoromethane
Concen: 1.149 ug/l
RT: 1.20 min Scan# 7
Delta R.T. -0.00 min
Lab File: VX006588.D
Acq: 18 Dec 2018 10:45

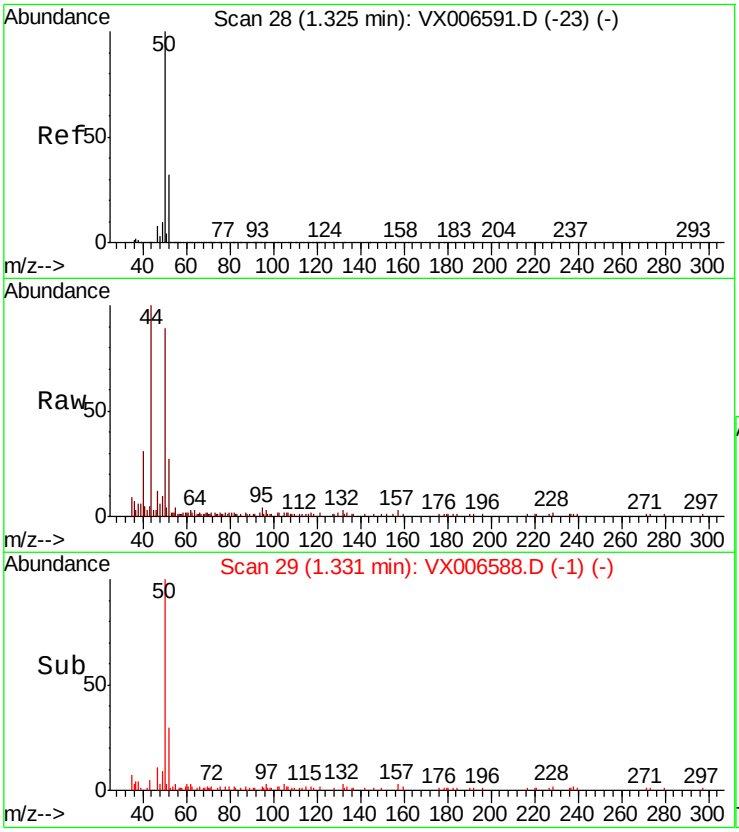
Tgt Ion: 85 Resp: 7047

Ion	Ratio	Lower	Upper
85	100		
87	33.4	15.9	47.6



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC001

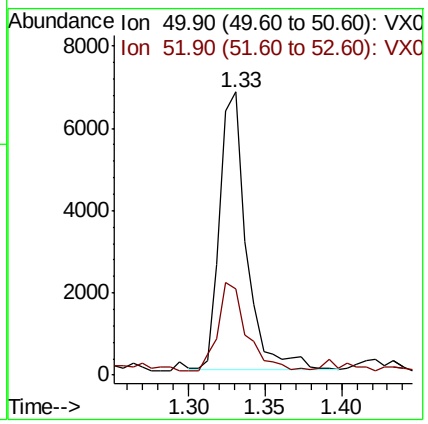
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:21:48 AM

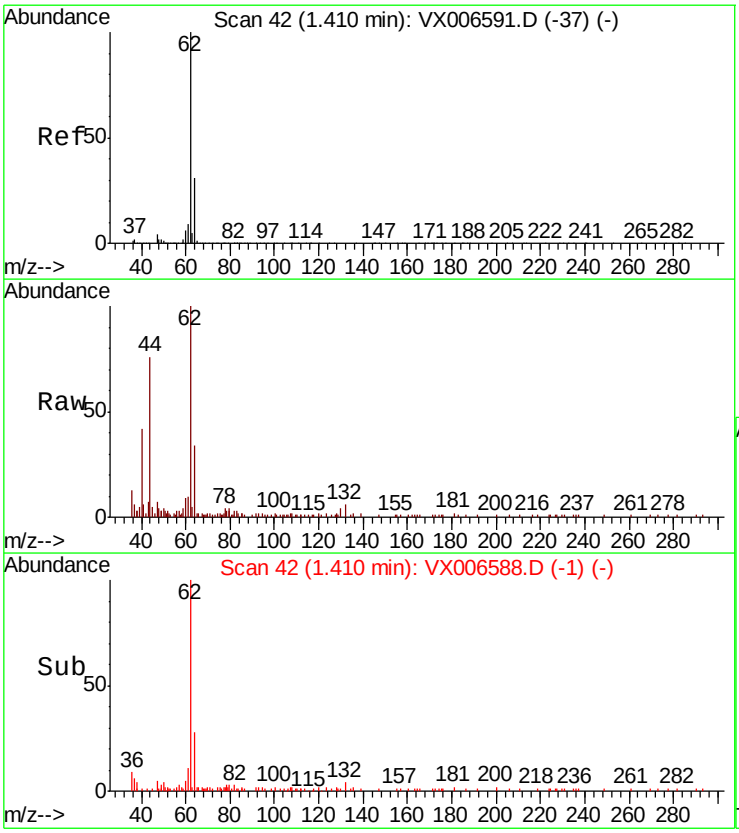


#3
Chloromethane
Concen: 1.246 ug/l
RT: 1.33 min Scan# 29
Delta R.T. 0.01 min
Lab File: VX006588.D
Acq: 18 Dec 2018 10:45

Tgt Ion: 50 Resp: 8236

Ion	Ratio	Lower	Upper
50	100		
52	28.4	25.4	38.2

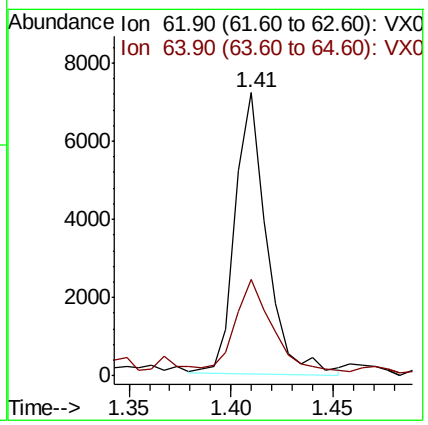


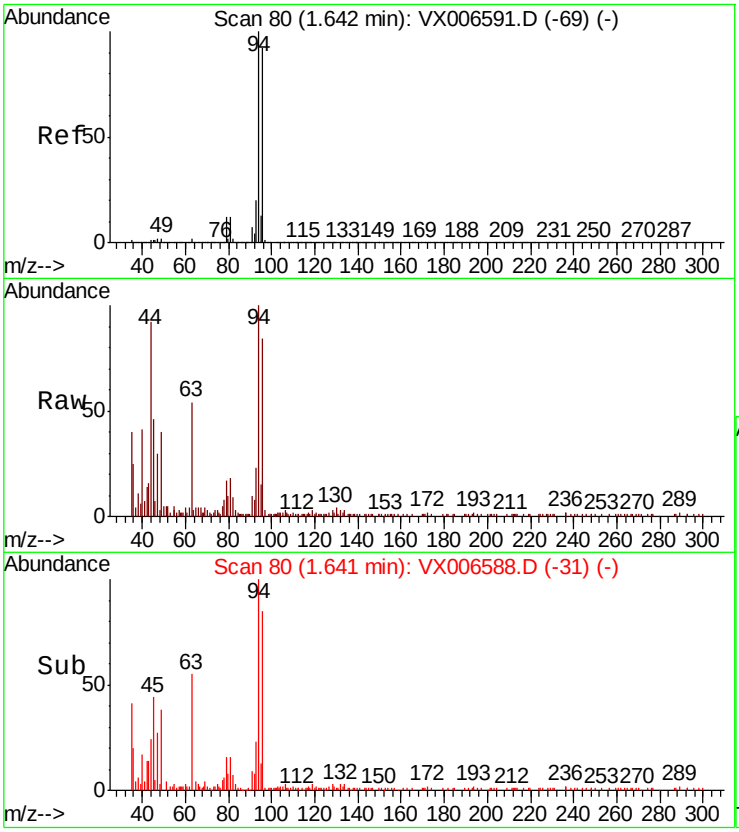


#4
Vinyl Chloride
Concen: 1.119 ug/l
RT: 1.41 min Scan# 42
Delta R.T. -0.00 min
Lab File: VX006588.D
Acq: 18 Dec 2018 10:45

Tgt Ion: 62 Resp: 7727

Ion	Ratio	Lower	Upper
62	100		
64	32.5	25.1	37.7

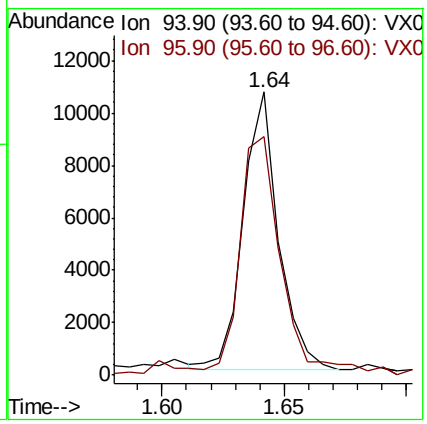




#5
Bromomethane
Concen: 1.417 ug/l
RT: 1.64 min Scan# 80
Delta R.T. -0.00 min
Lab File: VX006588.D
Acq: 18 Dec 2018 10:45

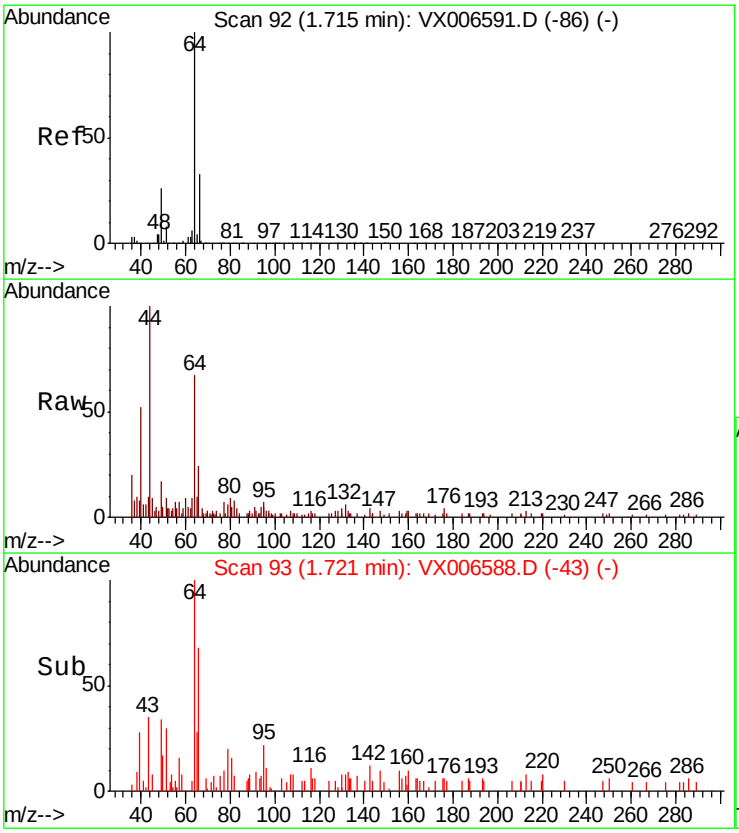
Tgt Ion: 94 Resp: 10637

Ion	Ratio	Lower	Upper
94	100		
96	83.6	73.4	110.2



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC001

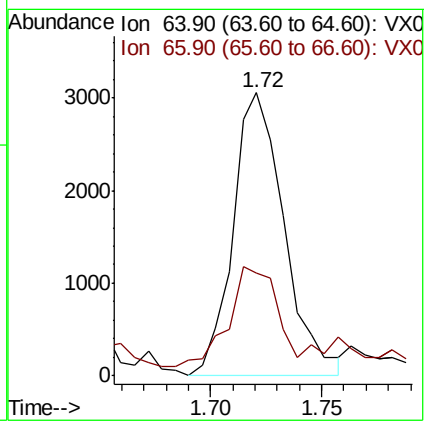
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:21:48 AM

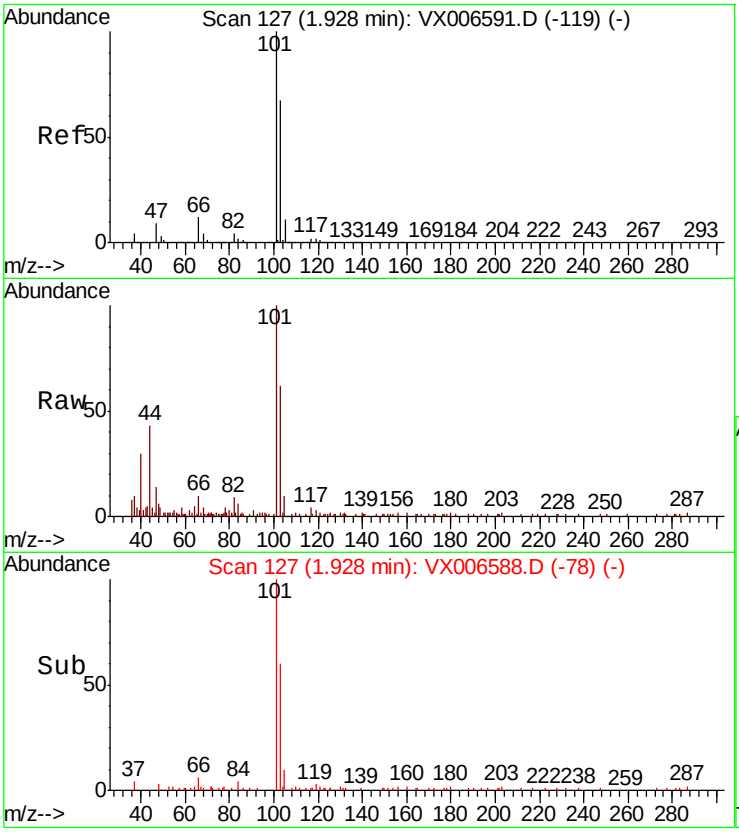


#6
Chloroethane
Concen: 1.024 ug/l
RT: 1.72 min Scan# 93
Delta R.T. 0.01 min
Lab File: VX006588.D
Acq: 18 Dec 2018 10:45

Tgt Ion: 64 Resp: 4895

Ion	Ratio	Lower	Upper
64	100		
66	30.8	26.4	39.6

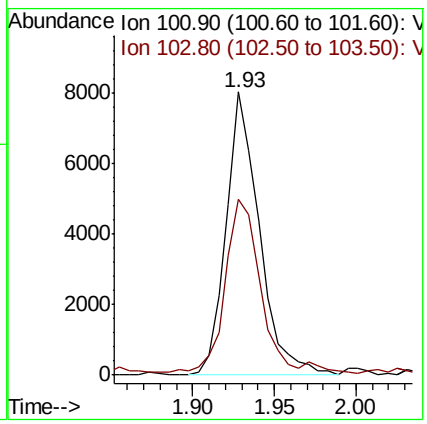




#7
Trichlorofluoromethane
Concen: 1.057 ug/l
RT: 1.93 min Scan# 127
Delta R.T. -0.00 min
Lab File: VX006588.D
Acq: 18 Dec 2018 10:45

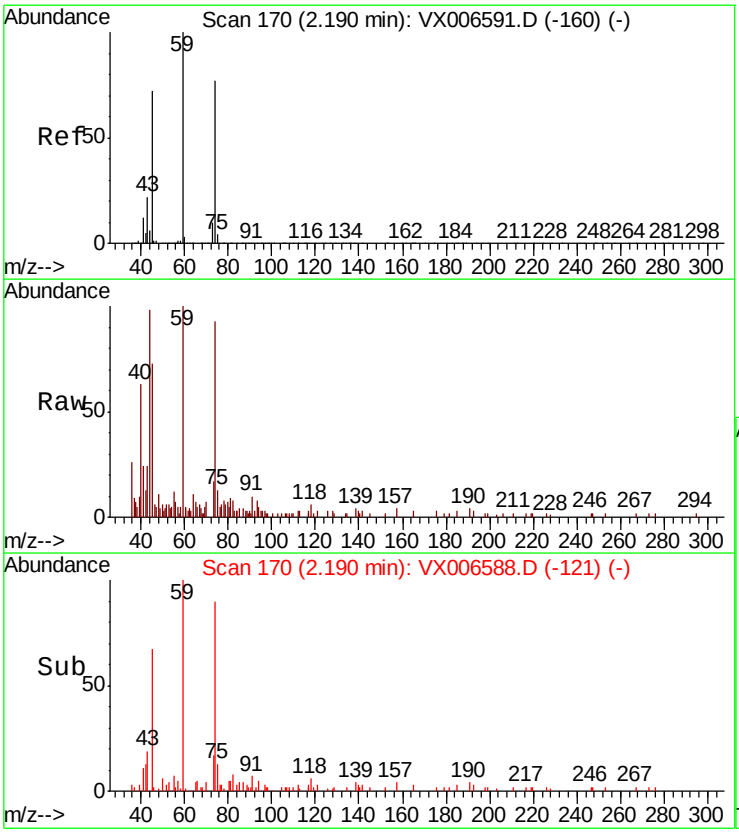
Tgt Ion:101 Resp: 11372

Ion	Ratio	Lower	Upper
101	100		
103	60.7	53.2	79.8



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC001

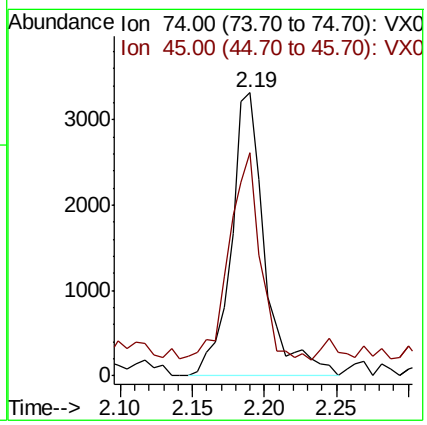
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:21:48 AM

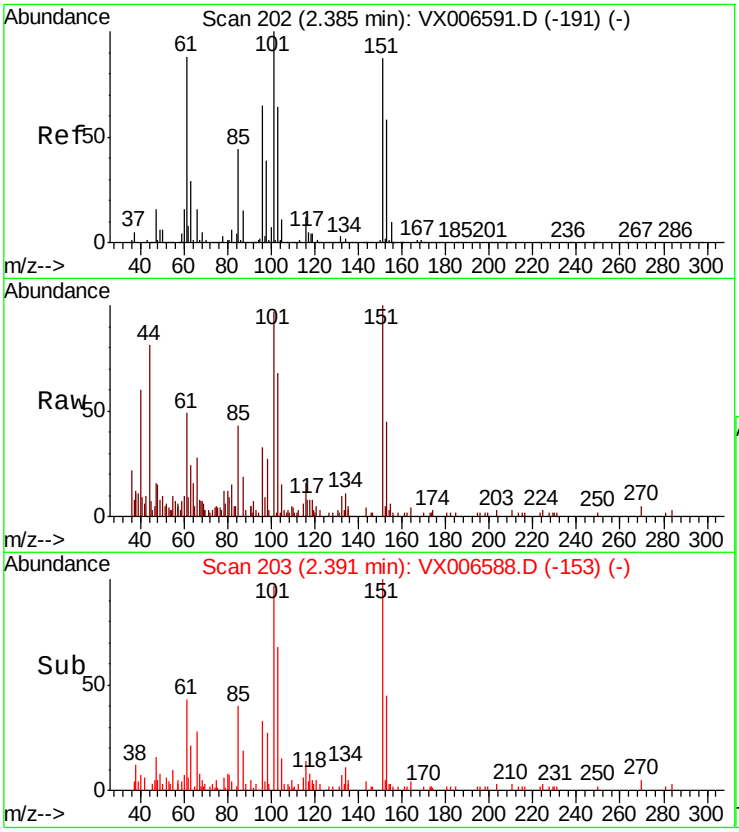


#8
Diethyl Ether
Concen: 1.266 ug/l
RT: 2.19 min Scan# 170
Delta R.T. -0.00 min
Lab File: VX006588.D
Acq: 18 Dec 2018 10:45

Tgt Ion: 74 Resp: 5412

Ion	Ratio	Lower	Upper
74	100		
45	67.3	46.3	138.9

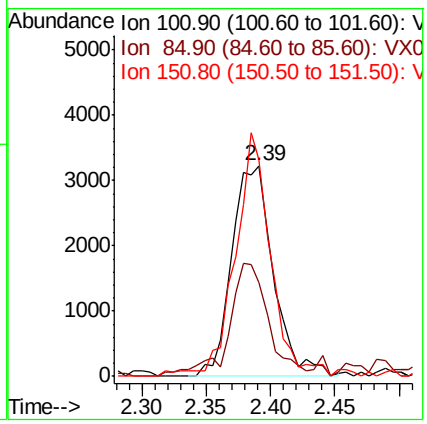




#9
1,1,2-Trichlorotrifluoroethane
Concen: 1.143 ug/l
RT: 2.39 min Scan# 203
Delta R.T. 0.01 min
Lab File: VX006588.D
Acq: 18 Dec 2018 10:45

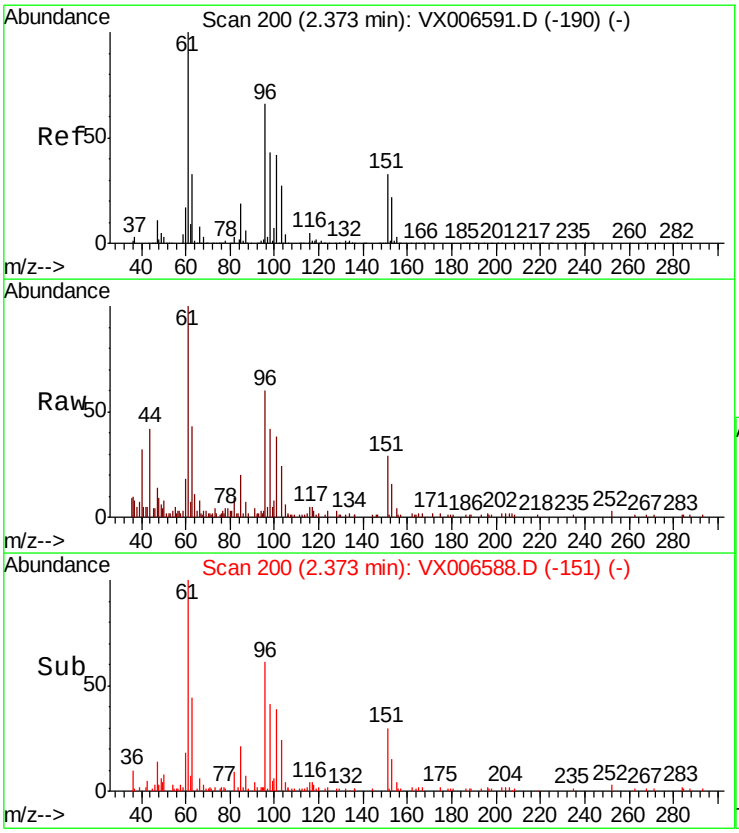
Tgt Ion:101 Resp: 7223

Ion	Ratio	Lower	Upper
101	100		
85	51.0	35.1	52.7
151	98.3	68.9	103.3



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC001

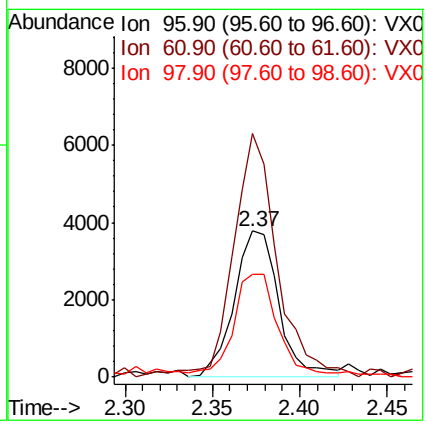
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:21:48 AM

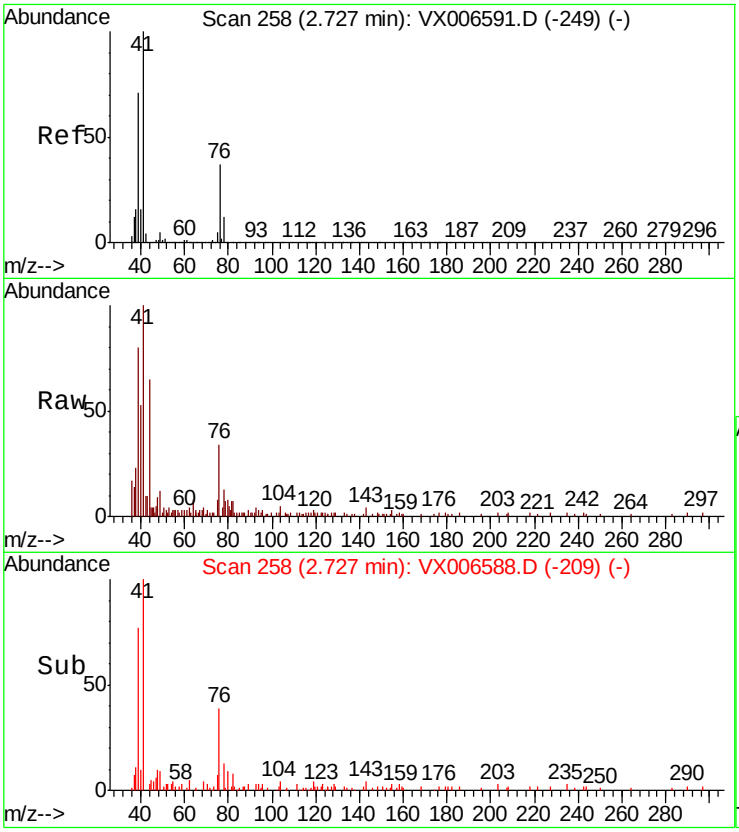


#12
1,1-Dichloroethene
Concen: 1.128 ug/l
RT: 2.37 min Scan# 200
Delta R.T. -0.00 min
Lab File: VX006588.D
Acq: 18 Dec 2018 10:45

Tgt Ion: 96 Resp: 6761

Ion	Ratio	Lower	Upper
96	100		
61	162.7	121.4	182.2
98	68.0	51.9	77.9

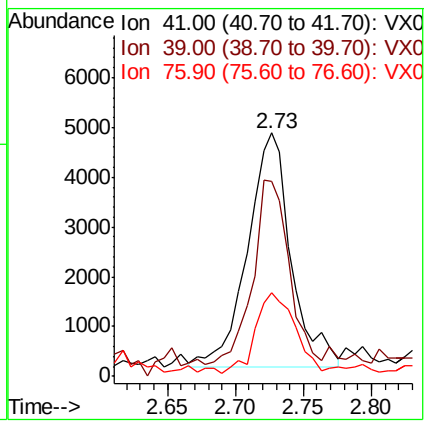




#14
Allvl chloride
Concen: 1.044 ug/l
RT: 2.73 min Scan# 258
Delta R.T. -0.00 min
Lab File: VX006588.D
Acq: 18 Dec 2018 10:45

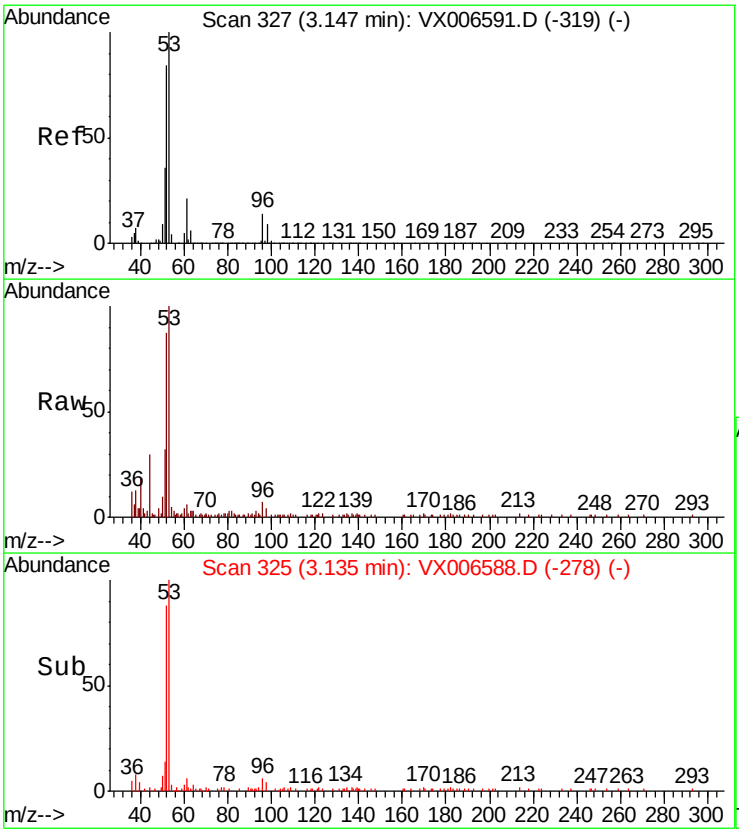
Tgt Ion: 41 Resp: 10534

Ion	Ratio	Lower	Upper
41	100		
39	65.5	53.6	80.4
76	31.6	27.4	41.2



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC001

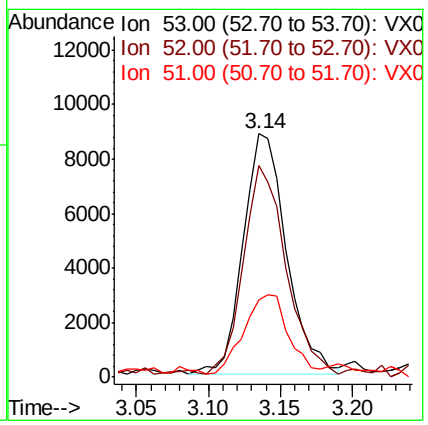
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:21:48 AM



#15
Acrylonitrile
Concen: 5.097 ug/l
RT: 3.14 min Scan# 325
Delta R.T. -0.01 min
Lab File: VX006588.D
Acq: 18 Dec 2018 10:45

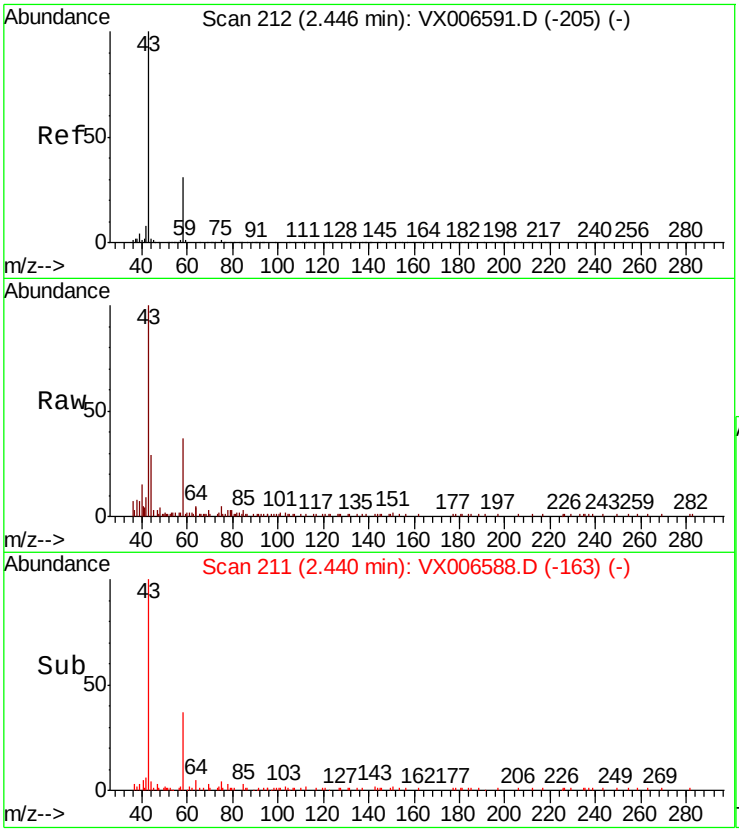
Tgt Ion: 53 Resp: 18256

Ion	Ratio	Lower	Upper
53	100		
52	85.7	66.0	99.0
51	33.5	28.6	42.8



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC001

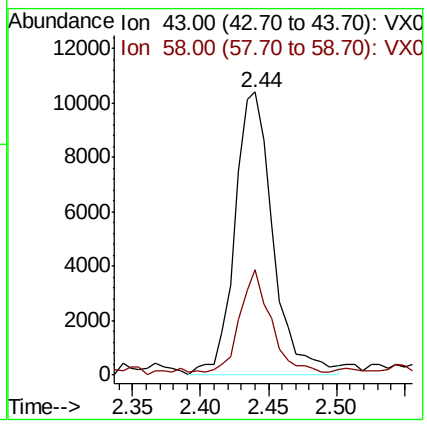
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:21:48 AM

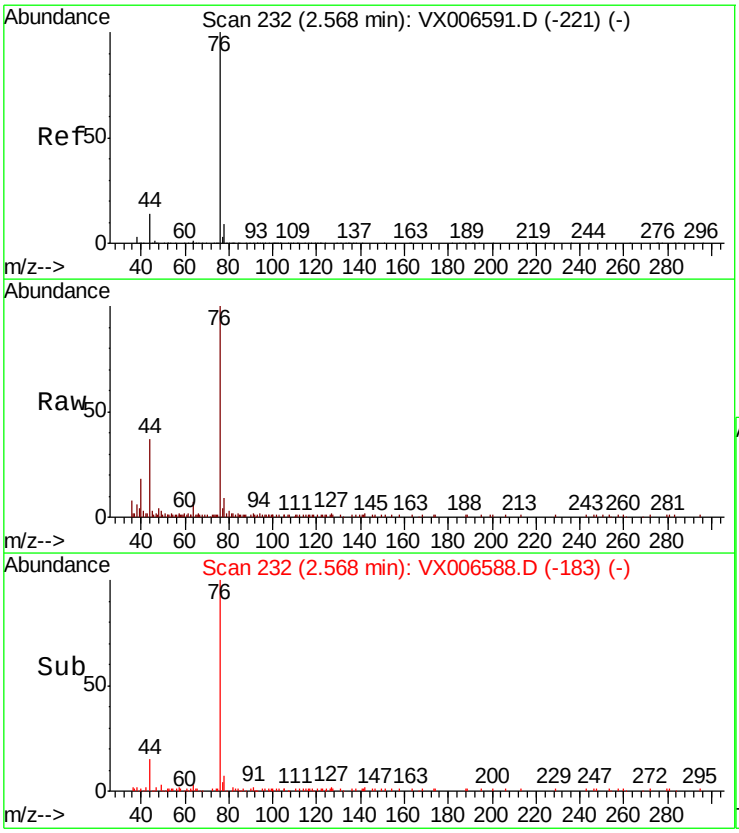


#16
Acetone
Concen: 6.139 ug/l
RT: 2.44 min Scan# 211
Delta R.T. -0.01 min
Lab File: VX006588.D
Acq: 18 Dec 2018 10:45

Tgt Ion: 43 Resp: 20387

Ion	Ratio	Lower	Upper
43	100		
58	36.5	25.0	37.6

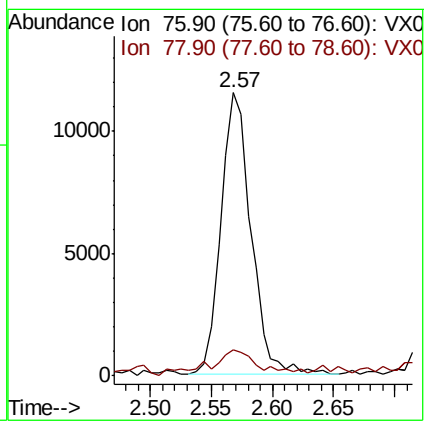


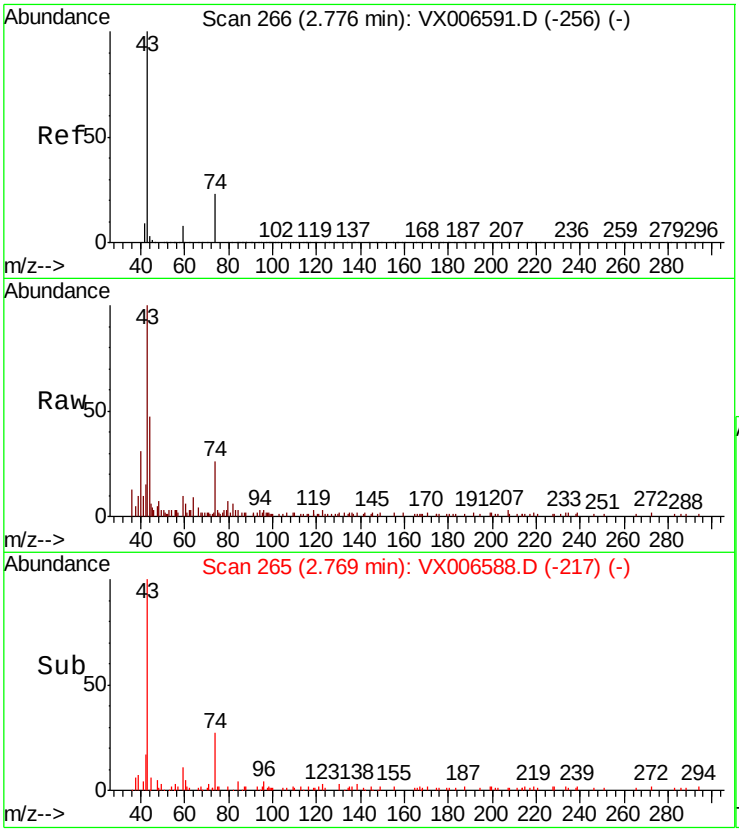


#17
Carbon Disulfide
Concen: 1.242 ug/l
RT: 2.57 min Scan# 232
Delta R.T. -0.00 min
Lab File: VX006588.D
Acq: 18 Dec 2018 10:45

Tgt Ion: 76 Resp: 19694

Ion	Ratio	Lower	Upper
76	100		
78	7.4	7.0	10.6

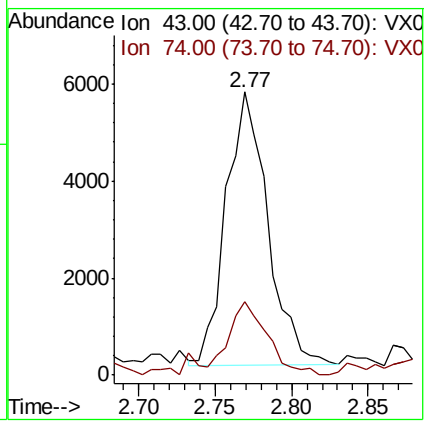




#18
Methyl Acetate
Concen: 1.092 ug/l
RT: 2.77 min Scan# 265
Delta R.T. -0.01 min
Lab File: VX006588.D
Acq: 18 Dec 2018 10:45

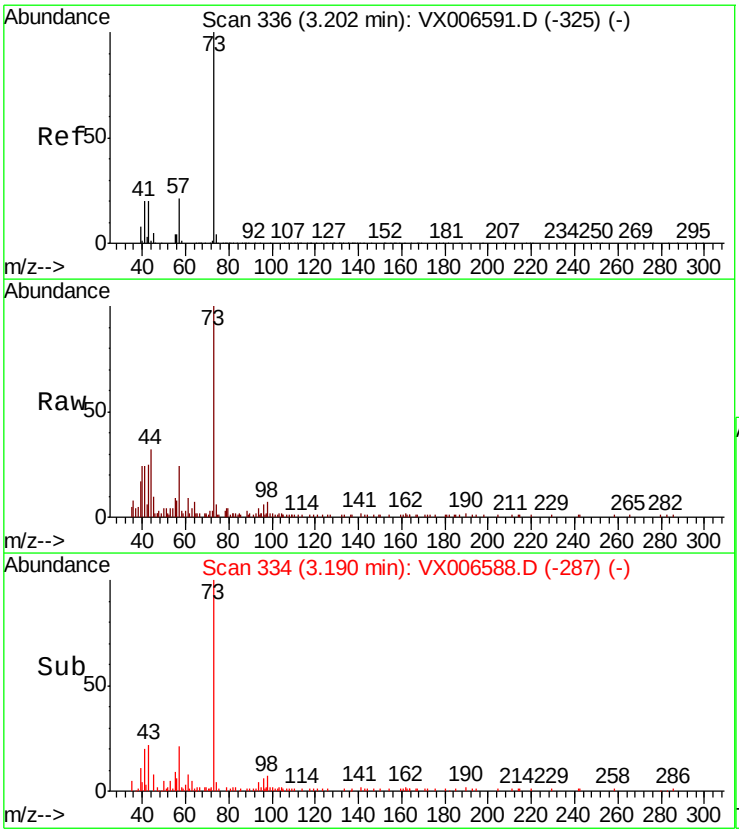
Tgt Ion: 43 Resp: 10662

Ion	Ratio	Lower	Upper
43	100		
74	24.8	18.6	28.0



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC001

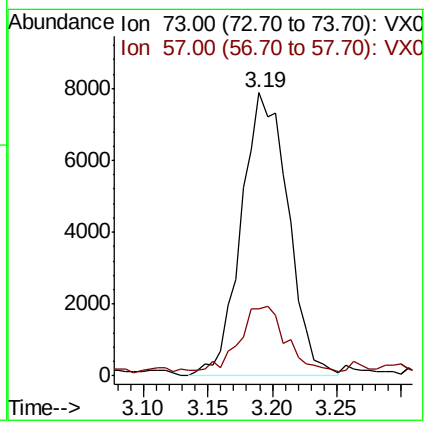
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:21:48 AM



#19
Methyl tert-butyl Ether
Concen: 1.000 ug/l
RT: 3.19 min Scan# 334
Delta R.T. -0.01 min
Lab File: VX006588.D
Acq: 18 Dec 2018 10:45

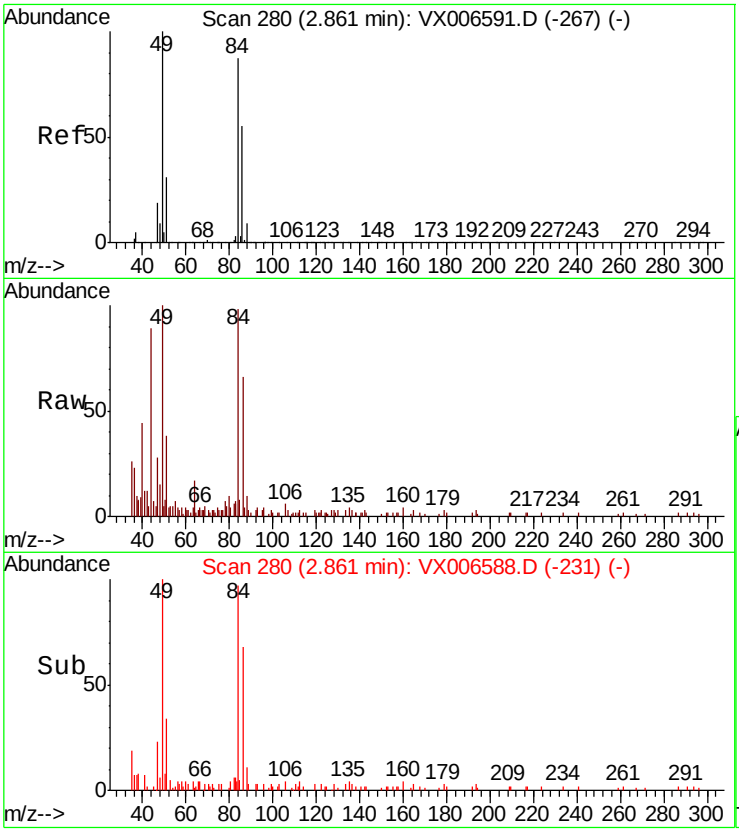
Tgt Ion: 73 Resp: 19887

Ion	Ratio	Lower	Upper
73	100		
57	22.2	16.8	25.2



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC001

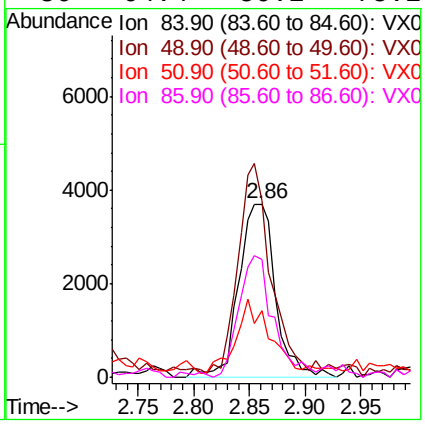
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:21:48 AM

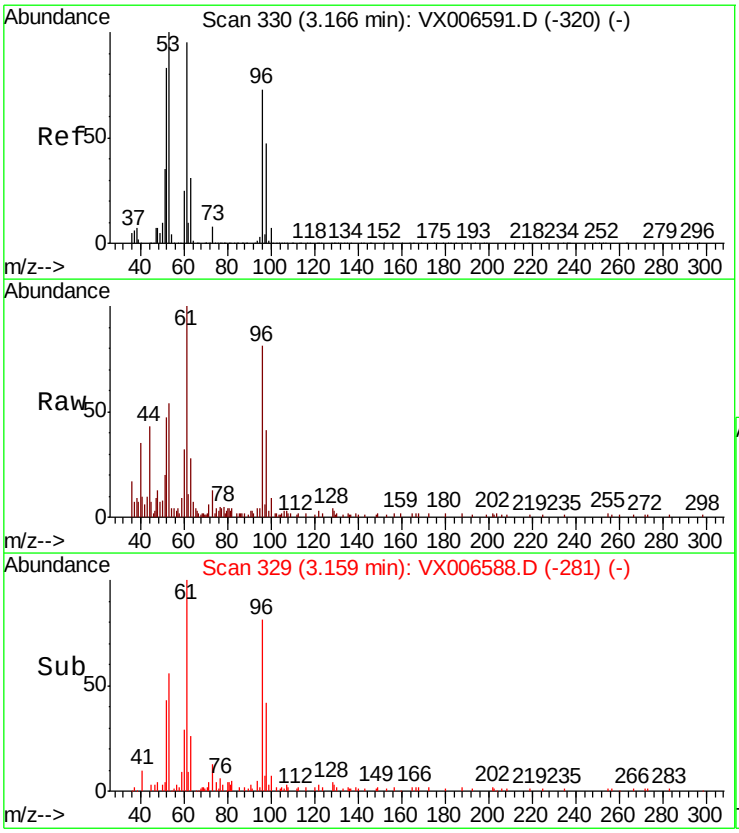


#20
Methylene Chloride
Concen: 1.239 ug/l
RT: 2.86 min Scan# 280
Delta R.T. -0.00 min
Lab File: VX006588.D
Acq: 18 Dec 2018 10:45

Tgt Ion: 84 Resp: 8509

Ion	Ratio	Lower	Upper
84	100		
49	97.7	91.8	137.6
51	33.6	28.5	42.7
86	64.4	50.2	75.2

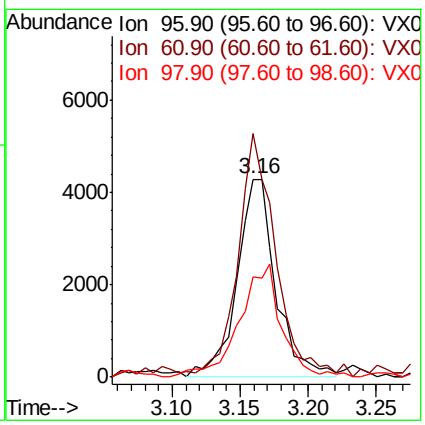




#21
trans-1,2-Dichloroethene
Concen: 1.292 ug/l
RT: 3.16 min Scan# 329
Delta R.T. -0.01 min
Lab File: VX006588.D
Acq: 18 Dec 2018 10:45

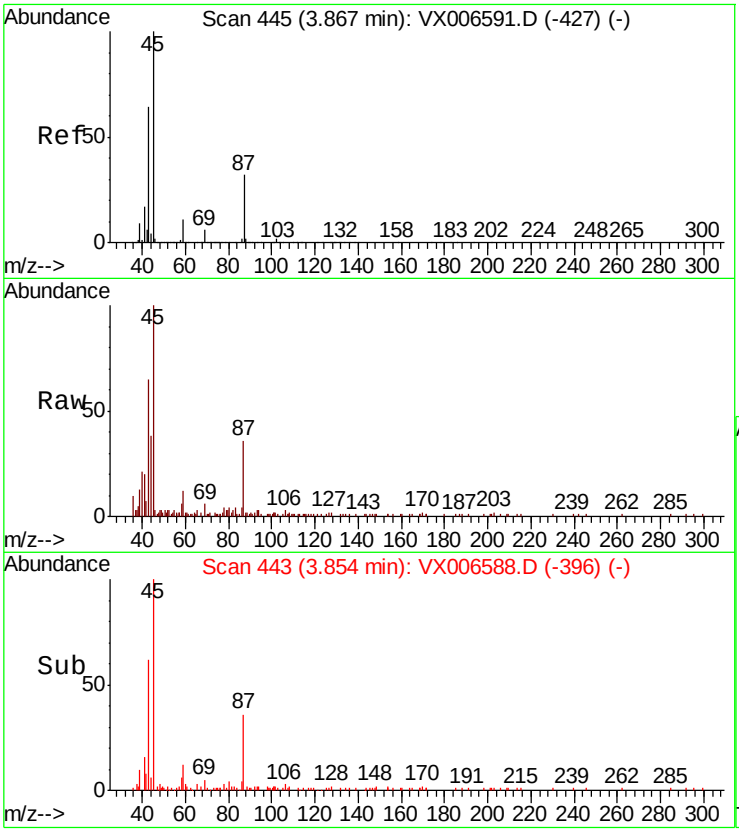
Tgt Ion: 96 Resp: 8575

Ion	Ratio	Lower	Upper
96	100		
61	121.0	103.7	155.5
98	49.3	51.0	76.6#



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC001

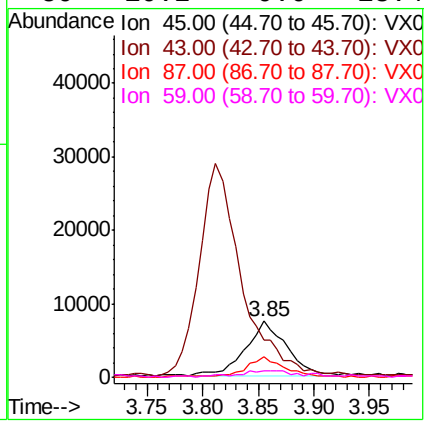
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:21:48 AM

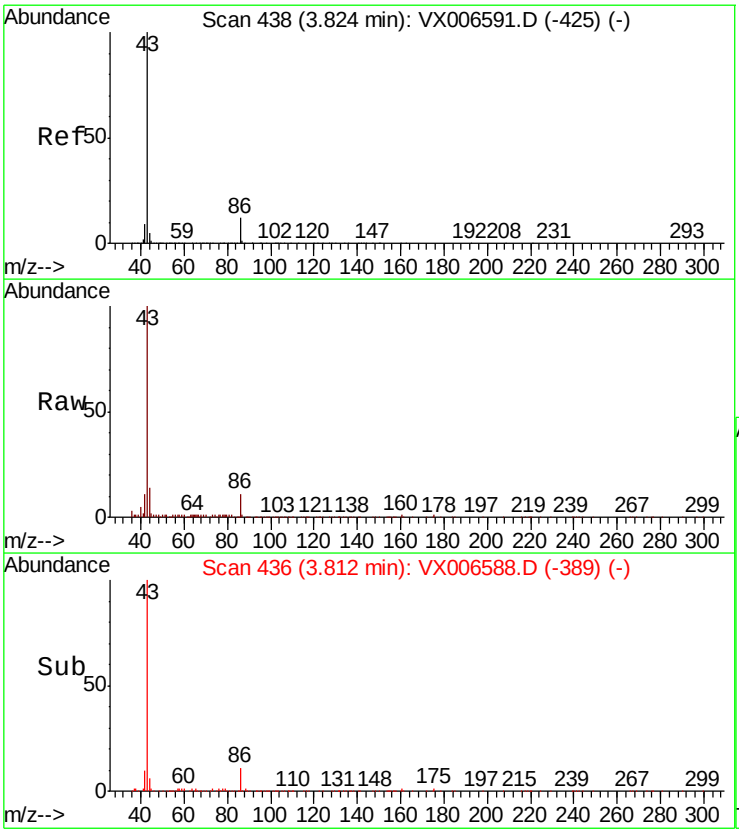


#22
Diisopropyl ether
Concen: 1.007 ug/l
RT: 3.85 min Scan# 443
Delta R.T. -0.01 min
Lab File: VX006588.D
Acq: 18 Dec 2018 10:45

Tgt Ion: 45 Resp: 18588

Ion	Ratio	Lower	Upper
45	100		
43	57.7	51.2	76.8
87	35.4	25.8	38.6
59	10.2	9.0	13.4

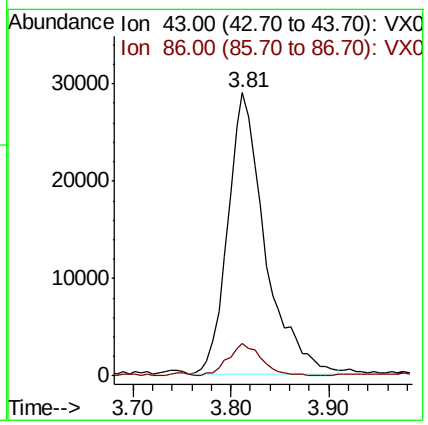


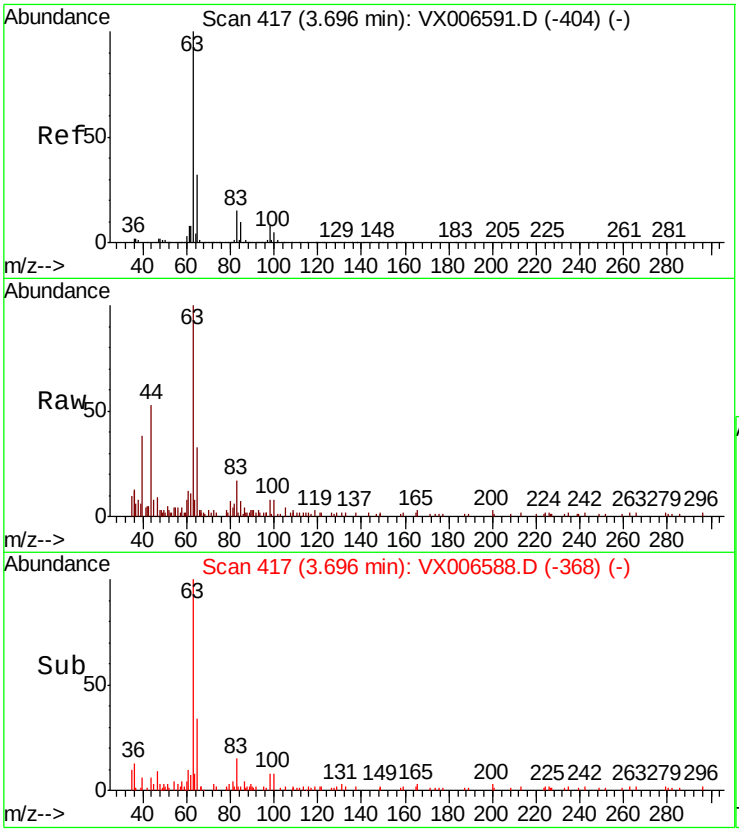


#23
Vinyl Acetate
Concen: 5.038 ug/l
RT: 3.81 min Scan# 436
Delta R.T. -0.01 min
Lab File: VX006588.D
Acq: 18 Dec 2018 10:45

Tgt Ion: 43 Resp: 76043

Ion	Ratio	Lower	Upper
43	100		
86	11.0	9.2	13.8

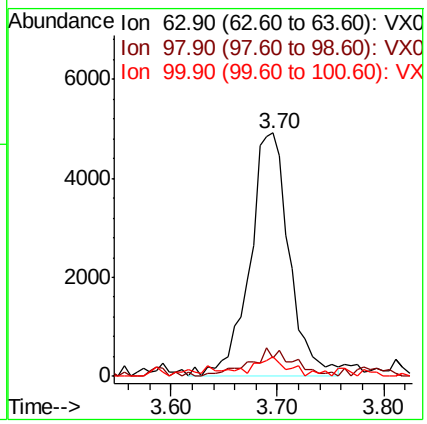




#24
1,1-Dichloroethane
Concen: 1.162 ug/l
RT: 3.70 min Scan# 417
Delta R.T. -0.00 min
Lab File: VX006588.D
Acq: 18 Dec 2018 10:45

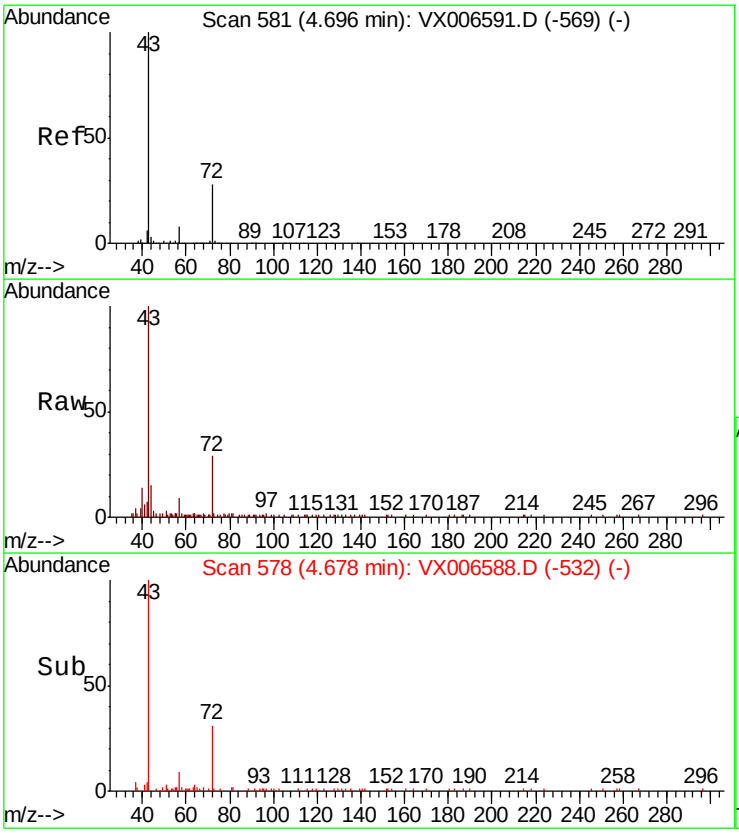
Tgt Ion: 63 Resp: 12799

Ion	Ratio	Lower	Upper
63	100		
98	7.7	3.9	11.5
100	4.9	2.4	7.2



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC001

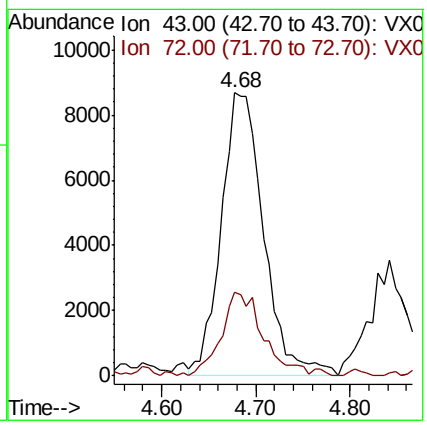
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:21:48 AM



#25
2-Butanone
Concen: 5.833 ug/l
RT: 4.68 min Scan# 578
Delta R.T. -0.02 min
Lab File: VX006588.D
Acq: 18 Dec 2018 10:45

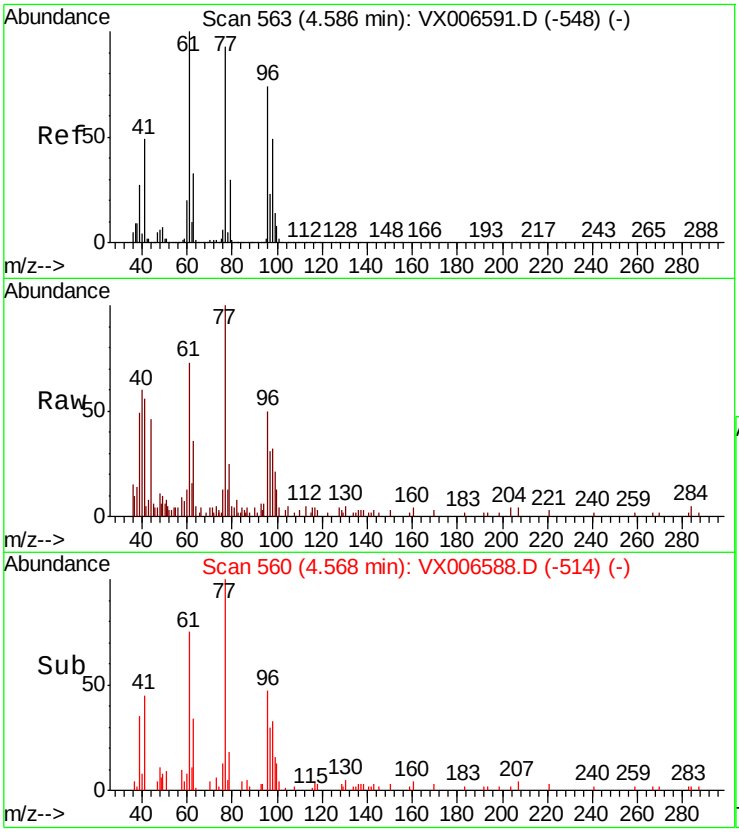
Tgt Ion: 43 Resp: 27249

Ion	Ratio	Lower	Upper
43	100		
72	29.5	22.4	33.6



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC001

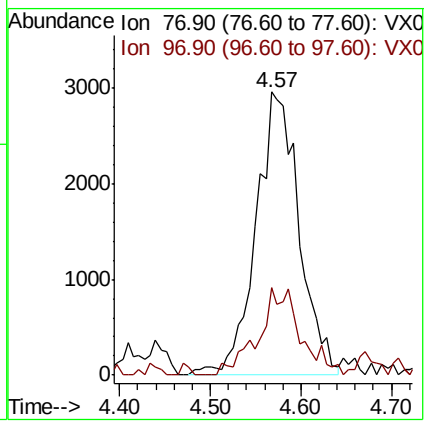
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:21:48 AM

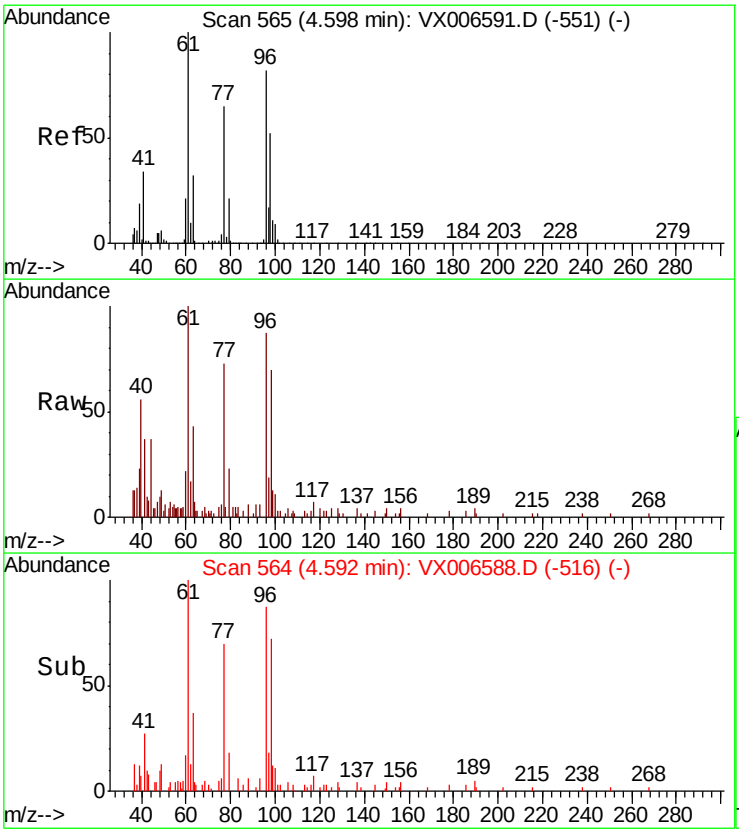


#26
2,2-Dichloropropane
Concen: 1.150 ug/l
RT: 4.57 min Scan# 560
Delta R.T. -0.02 min
Lab File: VX006588.D
Acq: 18 Dec 2018 10:45

Tgt Ion: 77 Resp: 9781

Ion	Ratio	Lower	Upper
77	100		
97	30.1	12.4	37.4

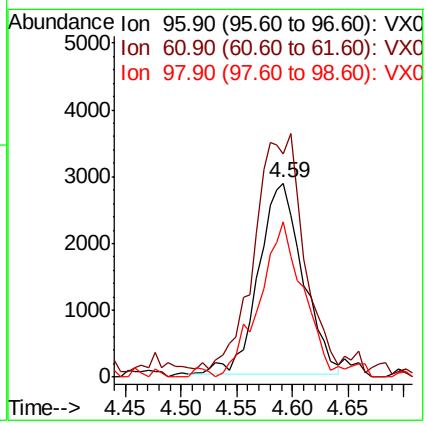




#27
cis-1,2-Dichloroethene
Concen: 1.072 ug/l
RT: 4.59 min Scan# 564
Delta R.T. -0.01 min
Lab File: VX006588.D
Acq: 18 Dec 2018 10:45

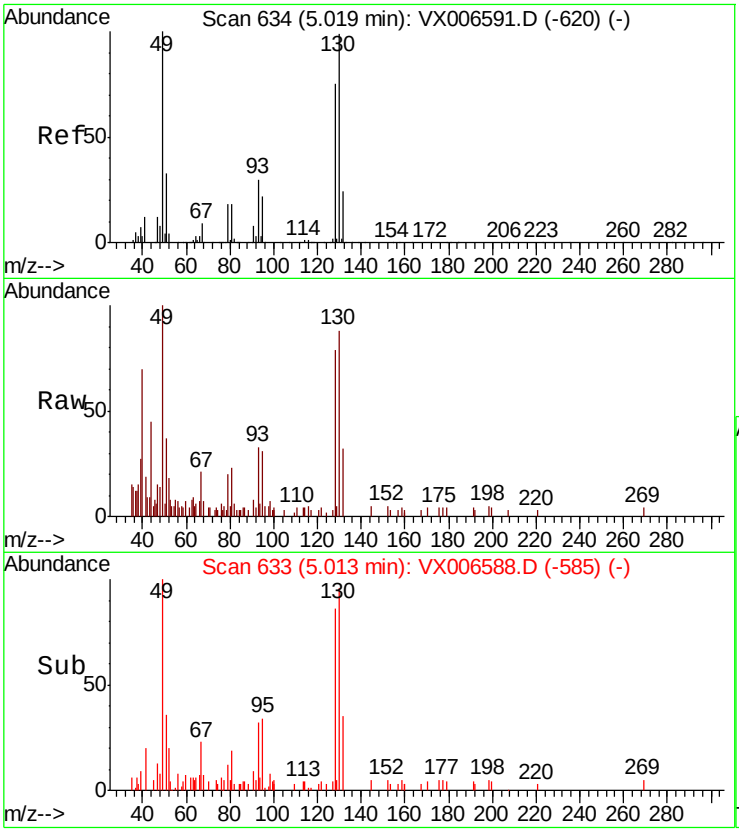
Tgt Ion: 96 Resp: 7852

Ion	Ratio	Lower	Upper
96	100		
61	136.9	0.0	258.6
98	81.5	0.0	132.0



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC001

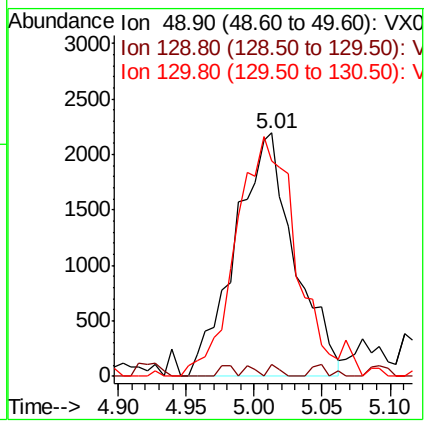
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:21:48 AM

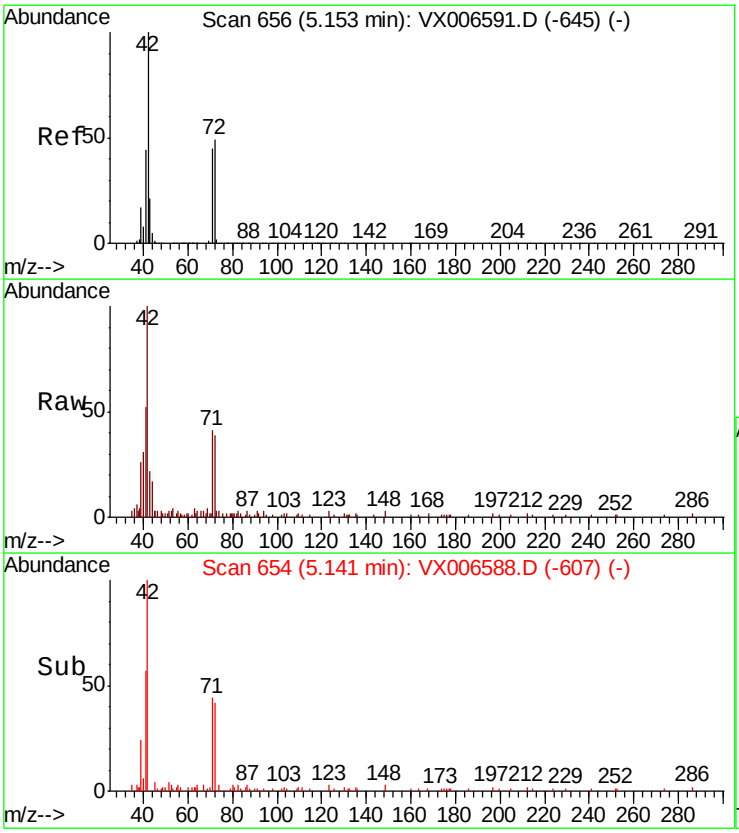


#28
Bromochloromethane
Concen: 1.319 ug/l
RT: 5.01 min Scan# 633
Delta R.T. -0.01 min
Lab File: VX006588.D
Acq: 18 Dec 2018 10:45

Tgt Ion: 49 Resp: 6681

Ion	Ratio	Lower	Upper
49	100		
129	0.9	0.0	5.4
130	98.6	77.7	116.5

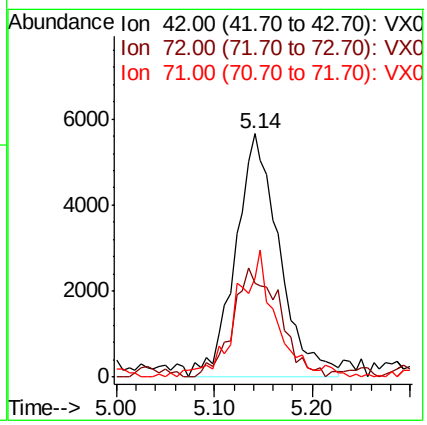


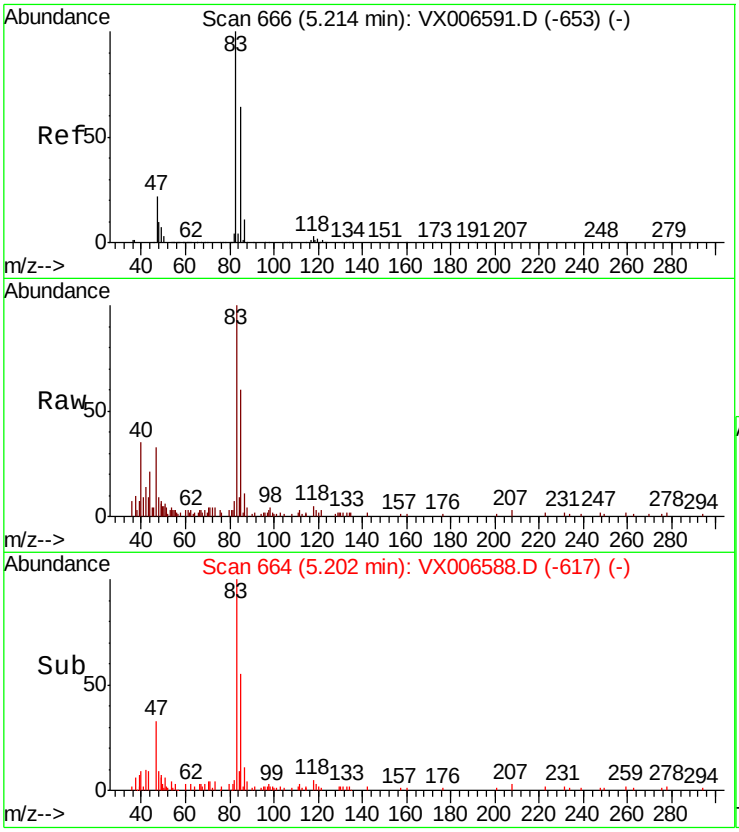


#29
Tetrahydrofuran
Concen: 5.738 ug/l
RT: 5.14 min Scan# 654
Delta R.T. -0.01 min
Lab File: VX006588.D
Acq: 18 Dec 2018 10:45

Tgt Ion: 42 Resp: 17655

Ion	Ratio	Lower	Upper
42	100		
72	47.5	38.9	58.3
71	46.0	36.2	54.4

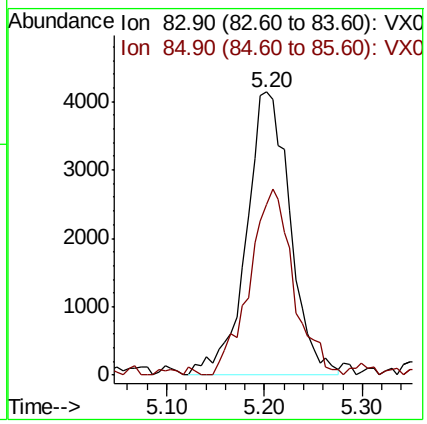




#30
Chloroform
Concen: 1.137 ug/l
RT: 5.20 min Scan# 664
Delta R.T. -0.01 min
Lab File: VX006588.D
Acq: 18 Dec 2018 10:45

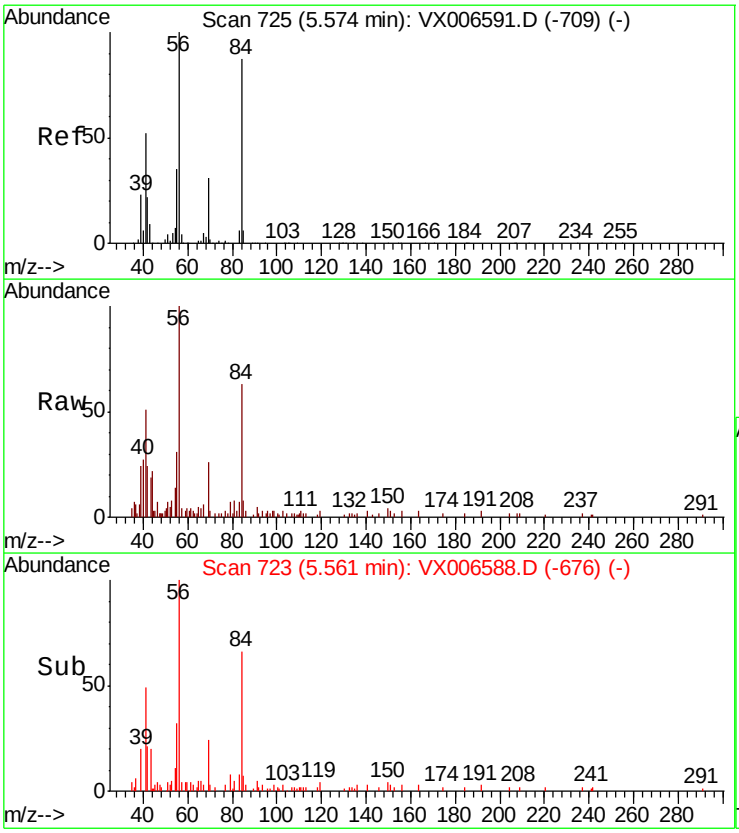
Tgt Ion: 83 Resp: 12973

Ion	Ratio	Lower	Upper
83	100		
85	58.3	51.2	76.8



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC001

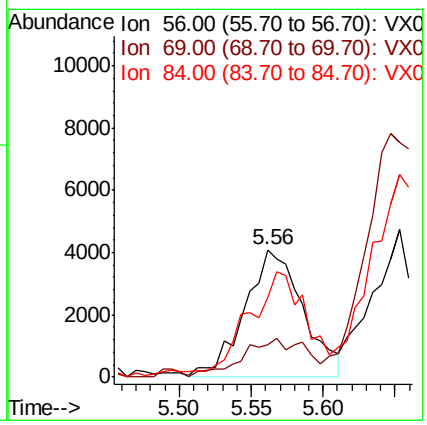
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:21:48 AM



#31
Cyclohexane
Concen: 1.151 ug/l
RT: 5.56 min Scan# 723
Delta R.T. -0.01 min
Lab File: VX006588.D
Acq: 18 Dec 2018 10:45

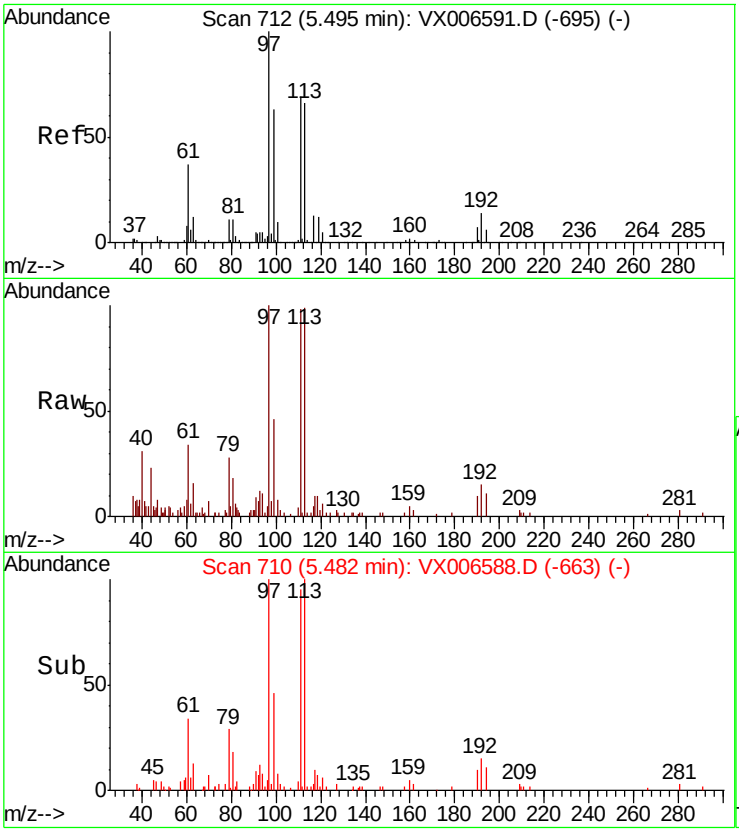
Tgt Ion: 56 Resp: 11515

Ion	Ratio	Lower	Upper
56	100		
69	26.5	24.4	36.6
84	60.2	70.0	105.0#



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC001

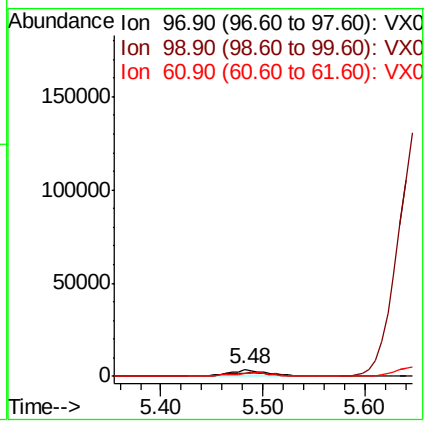
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:21:48 AM

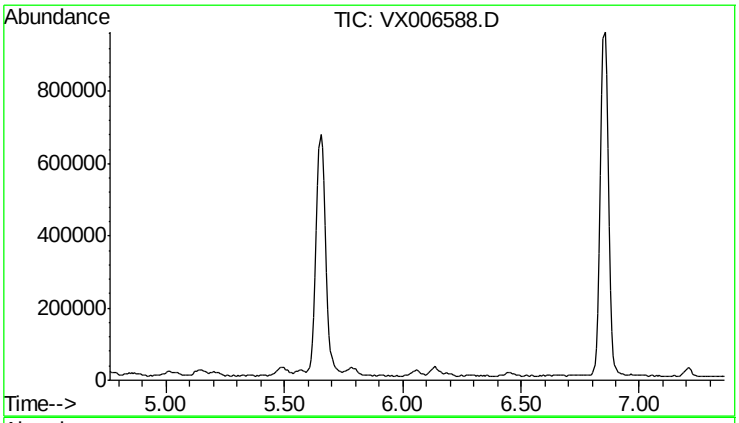


#32
1,1,1-Trichloroethane
Concen: 0.998 ug/l
RT: 5.48 min Scan# 710
Delta R.T. -0.01 min
Lab File: VX006588.D
Acq: 18 Dec 2018 10:45

Tgt Ion: 97 Resp: 9608

Ion	Ratio	Lower	Upper
97	100		
99	0.0	51.7	77.5#
61	54.6	31.3	46.9#



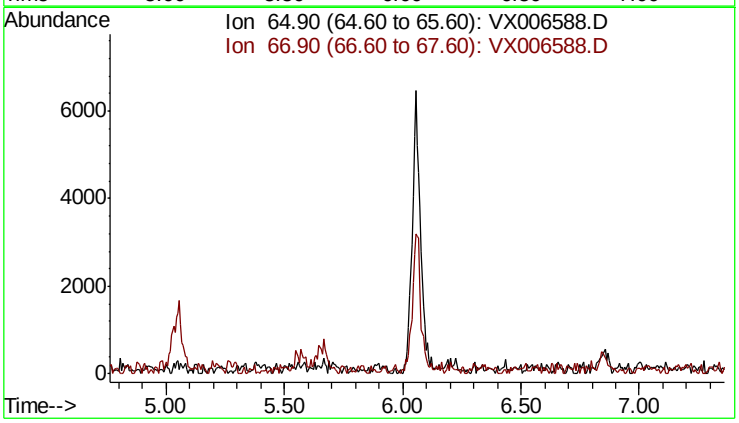


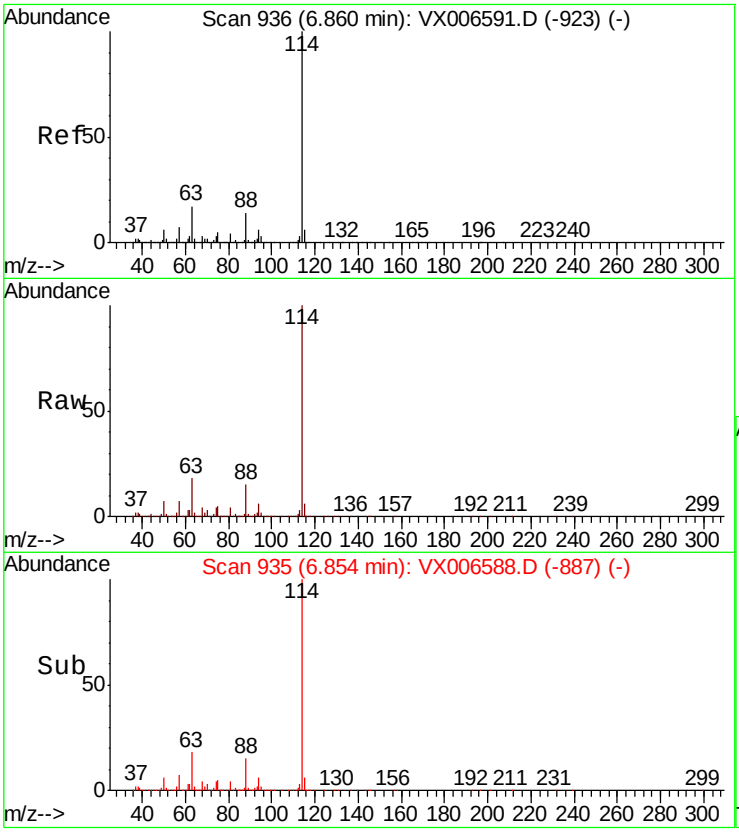
#33
1,2-Dichloroethane-d4
Concen: 0.000 ug/l
Expected RT: 6.06 min

Lab File: VX006588.D
Acq: 18 Dec 2018 10:45

Tgt Ion: 65

Sig	Exp Ratio
65	100
67	52.5

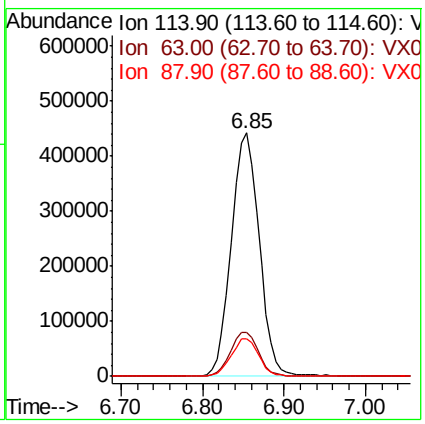




#34
1,4-Difluorobenzene
Concen: 50.000 ug/l
RT: 6.85 min Scan# 935
Delta R.T. -0.01 min
Lab File: VX006588.D
Acq: 18 Dec 2018 10:45

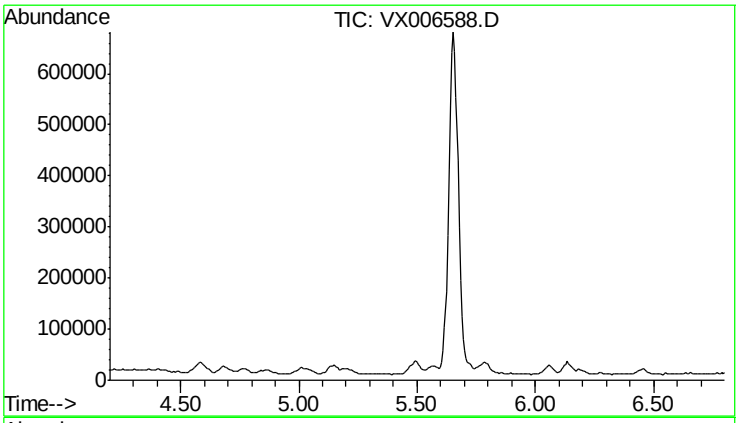
Tgt Ion:114 Resp: 1047998

Ion	Ratio	Lower	Upper
114	100		
63	18.2	0.0	34.8
88	15.5	0.0	28.8



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC001

Manual Integrations APPROVED
MMDadoda
12/19/2018 11:21:48 AM

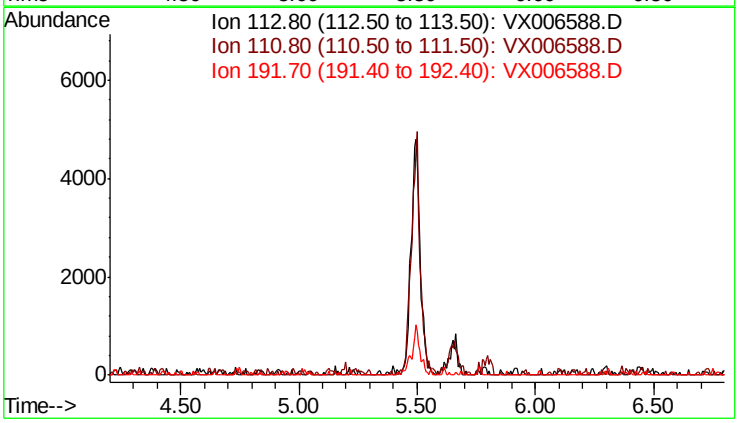


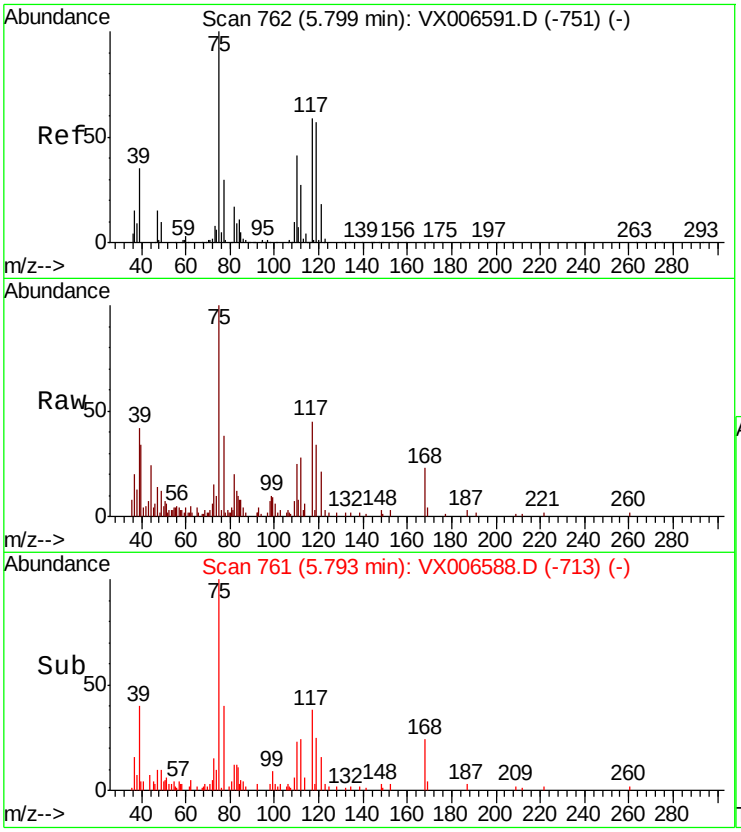
#35
Dibromofluoromethane
Concen: 0.000 ug/l
Expected RT: 5.50 min

Lab File: VX006588.D
Acq: 18 Dec 2018 10:45

Tgt Ion: 113

Sig	Exp Ratio
113	100
111	102.0
192	20.9

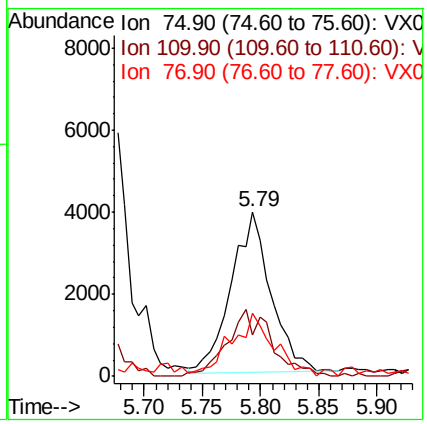




#36
1,1-Dichloropropene
Concen: 1.082 ug/l
RT: 5.79 min Scan# 761
Delta R.T. -0.01 min
Lab File: VX006588.D
Acq: 18 Dec 2018 10:45

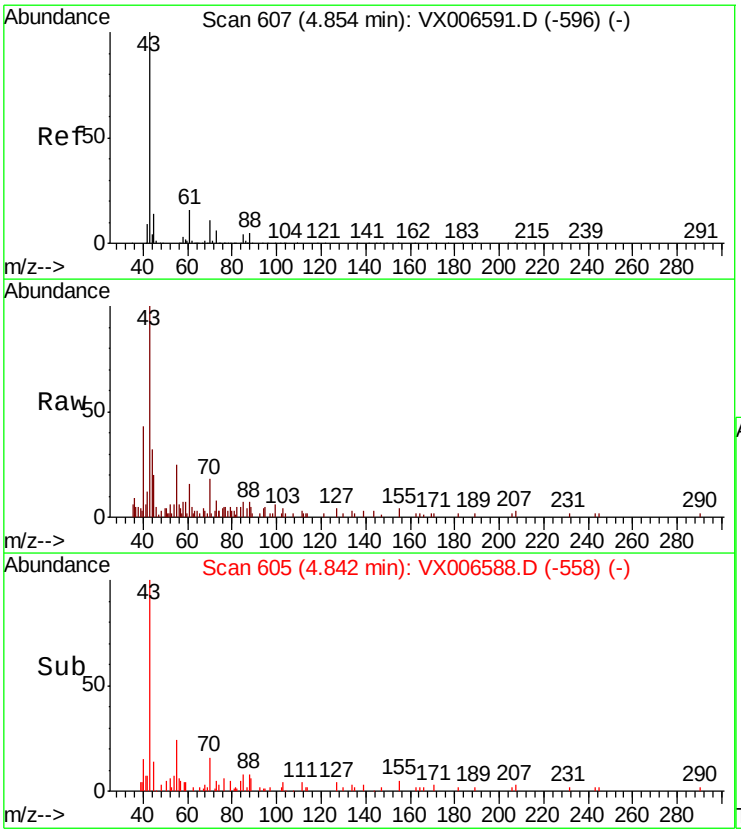
Tgt Ion: 75 Resp: 9391

Ion	Ratio	Lower	Upper
75	100		
110	45.6	20.2	60.5
77	41.8	24.8	37.2#



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC001

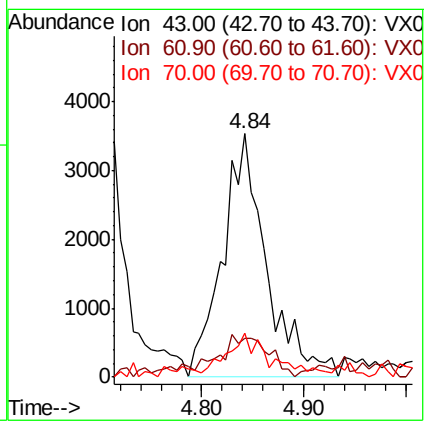
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:21:48 AM



#37
Ethyl Acetate
Concen: 1.165 ug/l
RT: 4.84 min Scan# 605
Delta R.T. -0.01 min
Lab File: VX006588.D
Acq: 18 Dec 2018 10:45

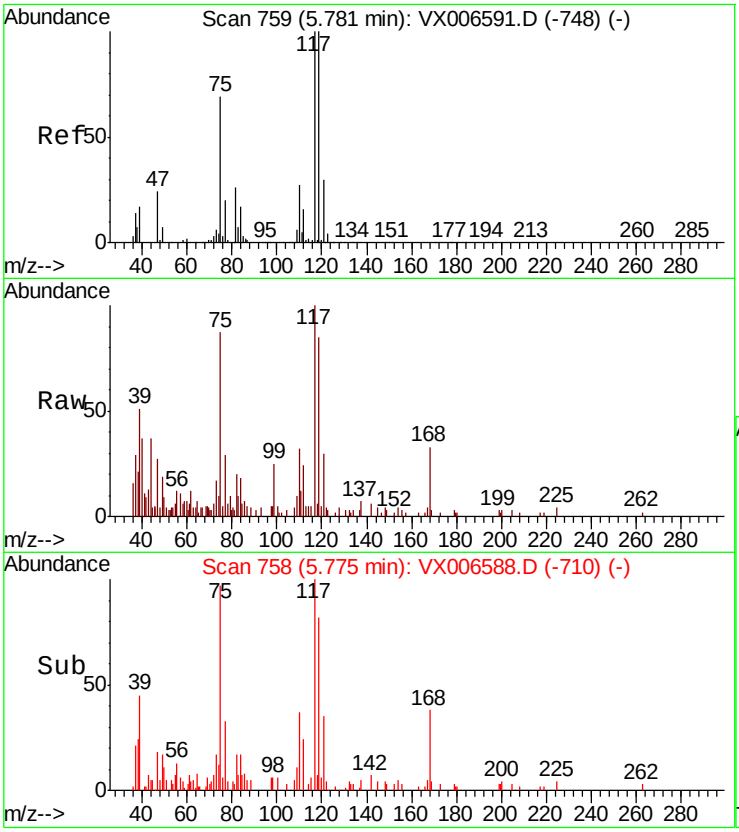
Tgt Ion: 43 Resp: 10528

Ion	Ratio	Lower	Upper
43	100		
61	22.2	11.9	17.9#
70	14.8	9.7	14.5#



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC001

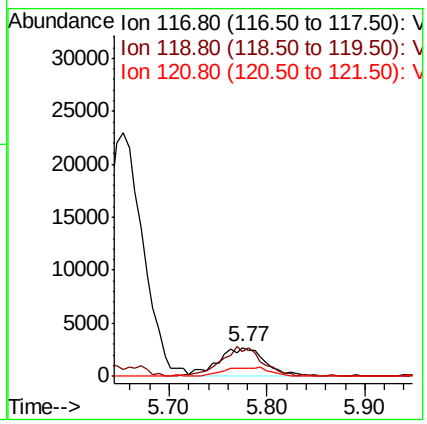
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:21:48 AM

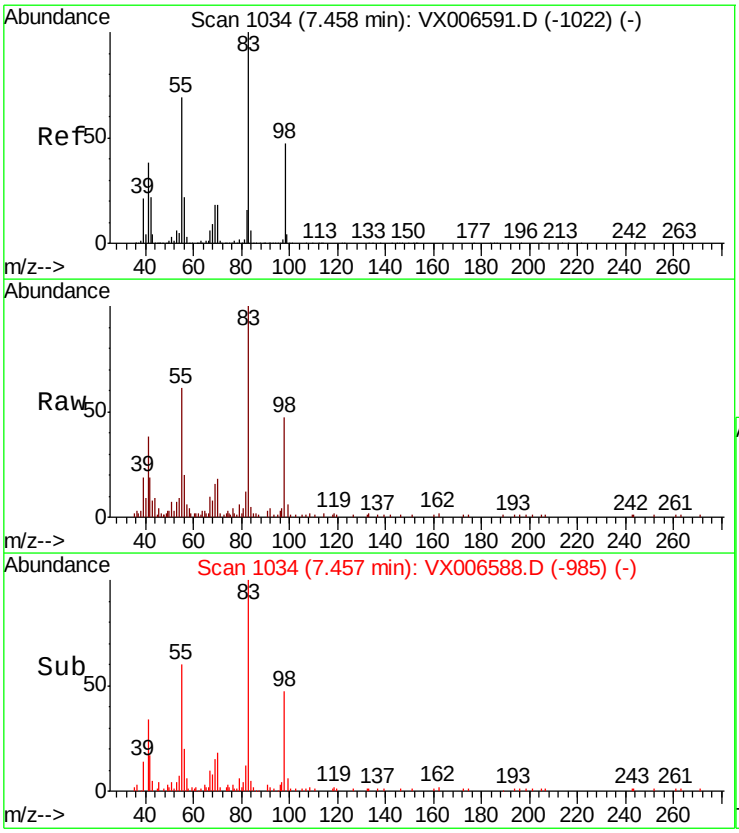


#38
Carbon Tetrachloride
Concen: 1.070 ug/l
RT: 5.77 min Scan# 758
Delta R.T. -0.01 min
Lab File: VX006588.D
Acq: 18 Dec 2018 10:45

Tgt Ion:117 Resp: 9022

Ion	Ratio	Lower	Upper
117	100		
119	85.3	79.4	119.2
121	30.1	24.0	36.0

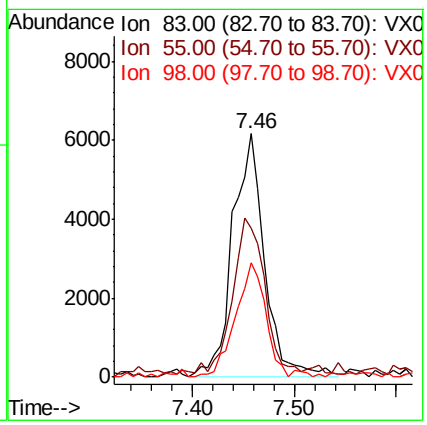


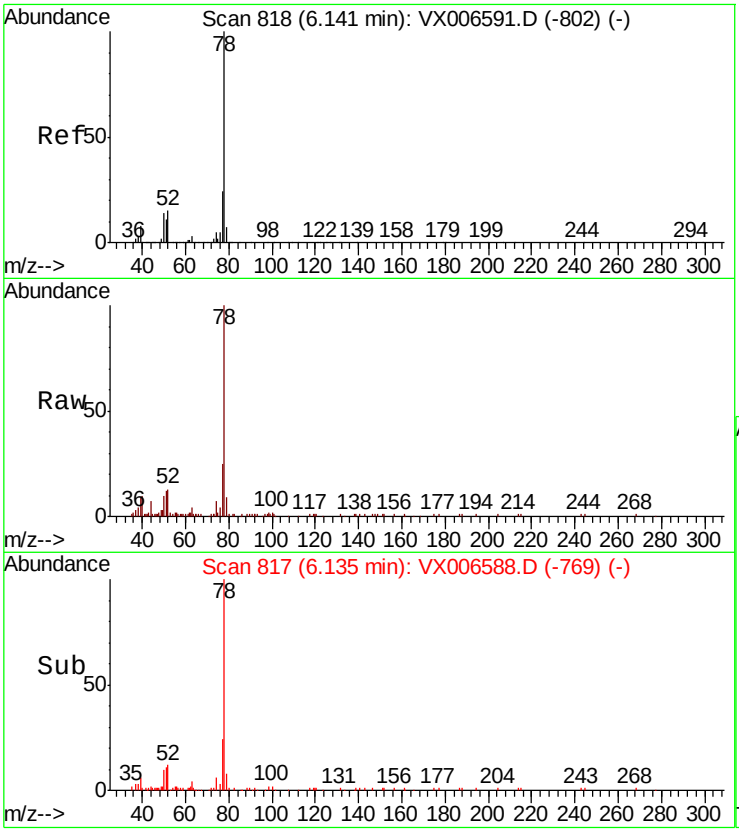


#39
Methylcyclohexane
Concen: 1.169 ug/l
RT: 7.46 min Scan# 1034
Delta R.T. -0.00 min
Lab File: VX006588.D
Acq: 18 Dec 2018 10:45

Tgt Ion: 83 Resp: 13359

Ion	Ratio	Lower	Upper
83	100		
55	59.0	54.9	82.3
98	46.9	37.9	56.9

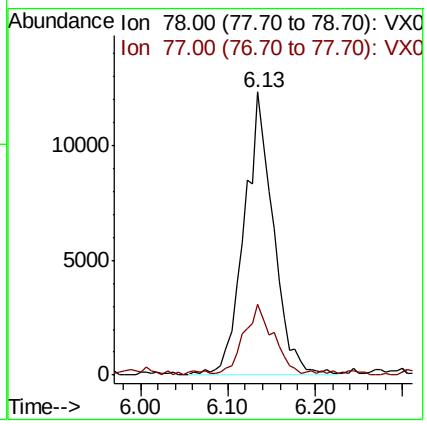




#40
Benzene
Concen: 1.081 ug/l
RT: 6.13 min Scan# 817
Delta R.T. -0.01 min
Lab File: VX006588.D
Acq: 18 Dec 2018 10:45

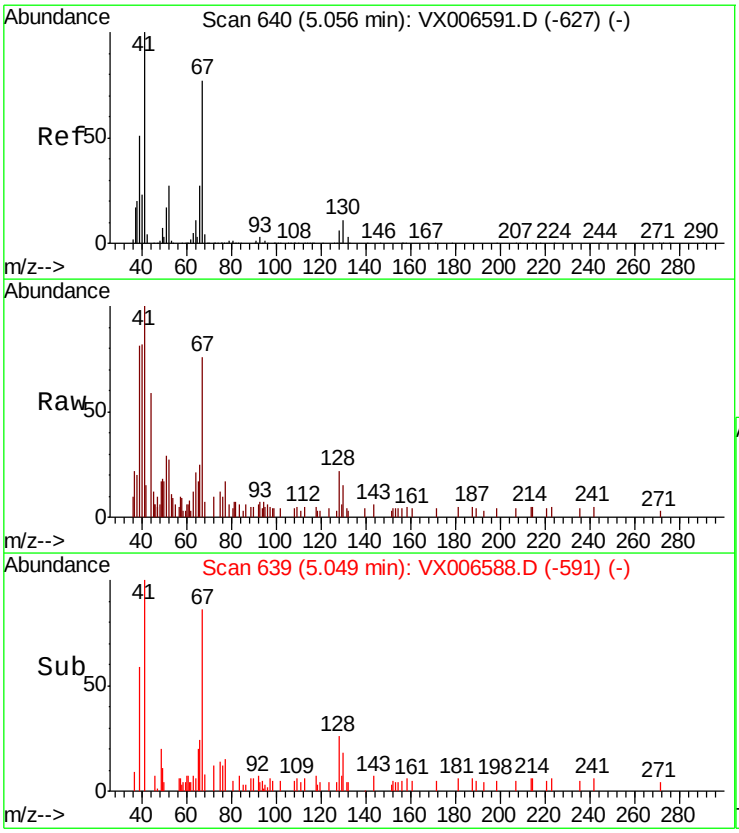
Tgt Ion: 78 Resp: 28533

Ion	Ratio	Lower	Upper
78	100		
77	24.7	19.2	28.8



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC001

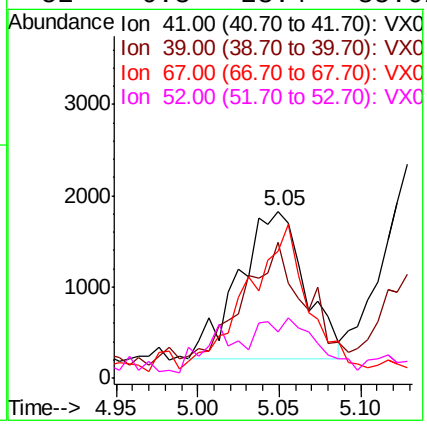
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:21:48 AM



#41
Methacrylonitrile
Concen: 0.897 ug/l
RT: 5.05 min Scan# 639
Delta R.T. -0.01 min
Lab File: VX006588.D
Acq: 18 Dec 2018 10:45

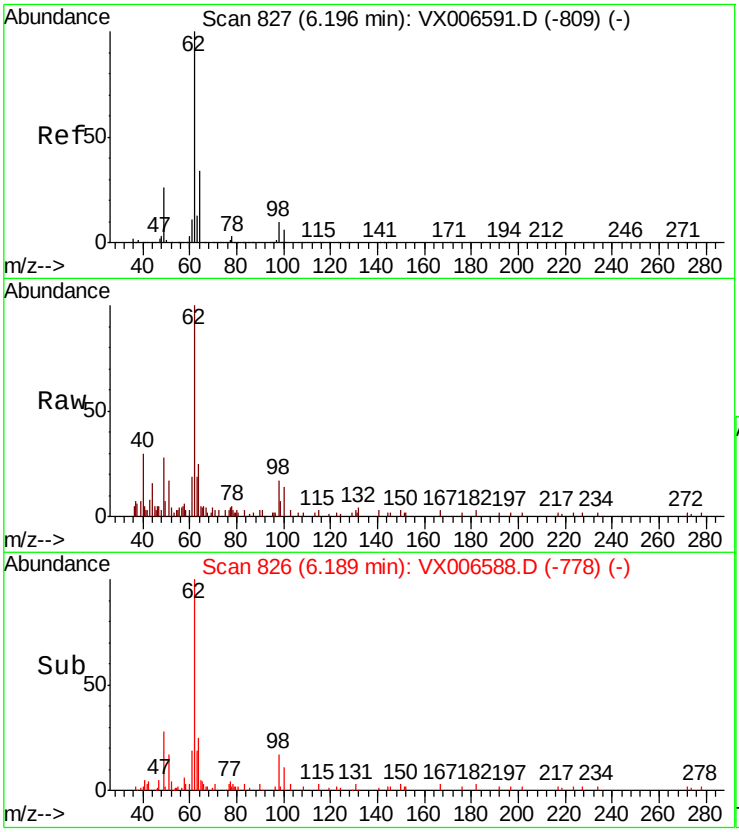
Tgt Ion: 41 Resp: 4553

Ion	Ratio	Lower	Upper
41	100		
39	83.2	42.8	64.2#
67	89.5	62.1	93.1
52	6.3	23.4	35.0#



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC001

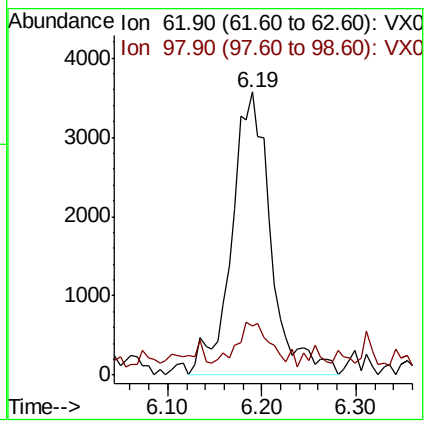
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:21:48 AM

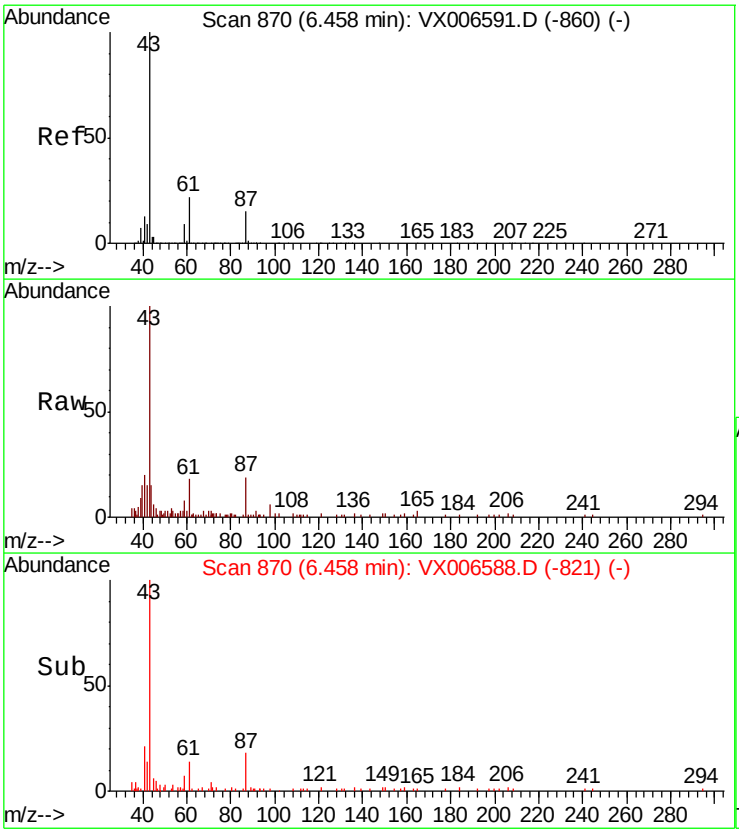


#42
1,2-Dichloroethane
Concen: 1.155 ug/l
RT: 6.19 min Scan# 826
Delta R.T. -0.01 min
Lab File: VX006588.D
Acq: 18 Dec 2018 10:45

Tgt Ion: 62 Resp: 10383

Ion	Ratio	Lower	Upper
62	100		
98	11.5	0.0	20.2

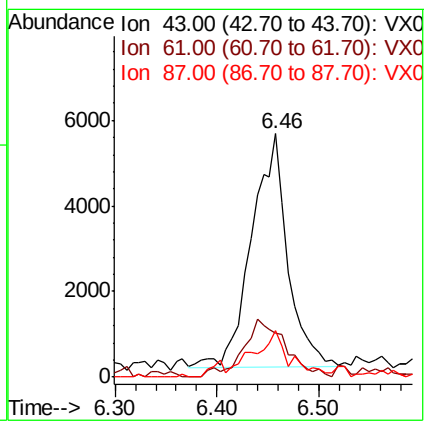


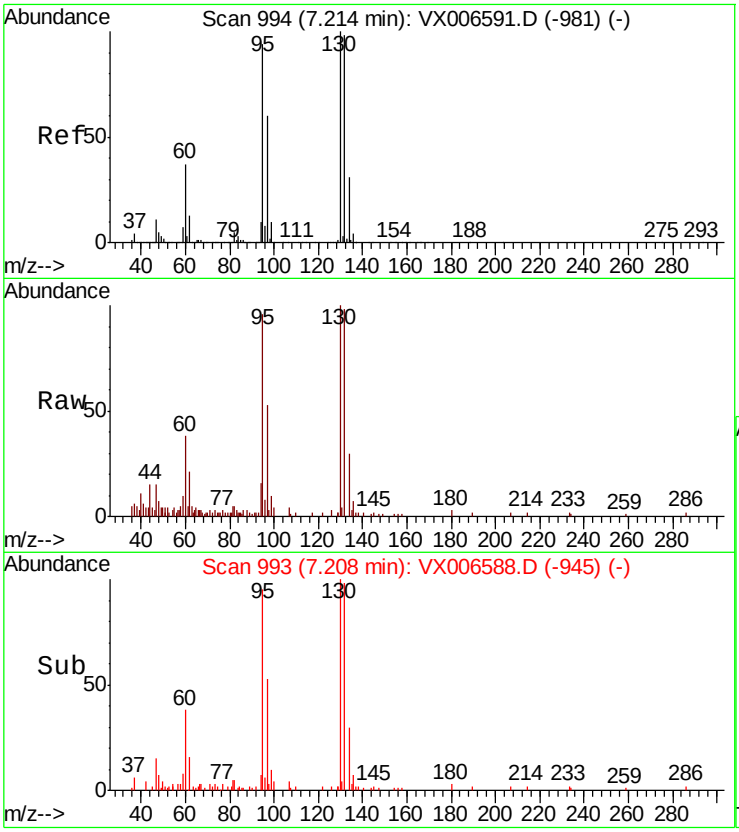


#43
Isopropyl Acetate
Concen: 0.976 ug/l
RT: 6.46 min Scan# 870
Delta R.T. -0.00 min
Lab File: VX006588.D
Acq: 18 Dec 2018 10:45

Tgt Ion: 43 Resp: 13410

Ion	Ratio	Lower	Upper
43	100		
61	27.7	16.8	25.2#
87	19.9	12.4	18.6#

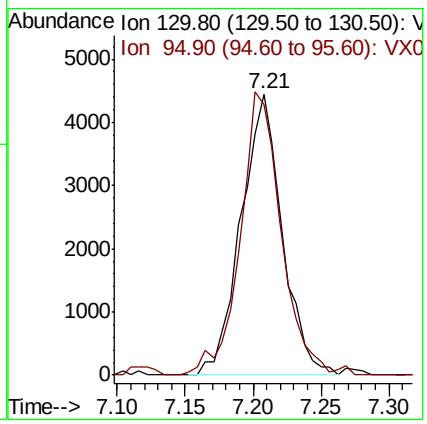




#44
Trichloroethene
Concen: 1.180 ug/l
RT: 7.21 min Scan# 993
Delta R.T. -0.01 min
Lab File: VX006588.D
Acq: 18 Dec 2018 10:45

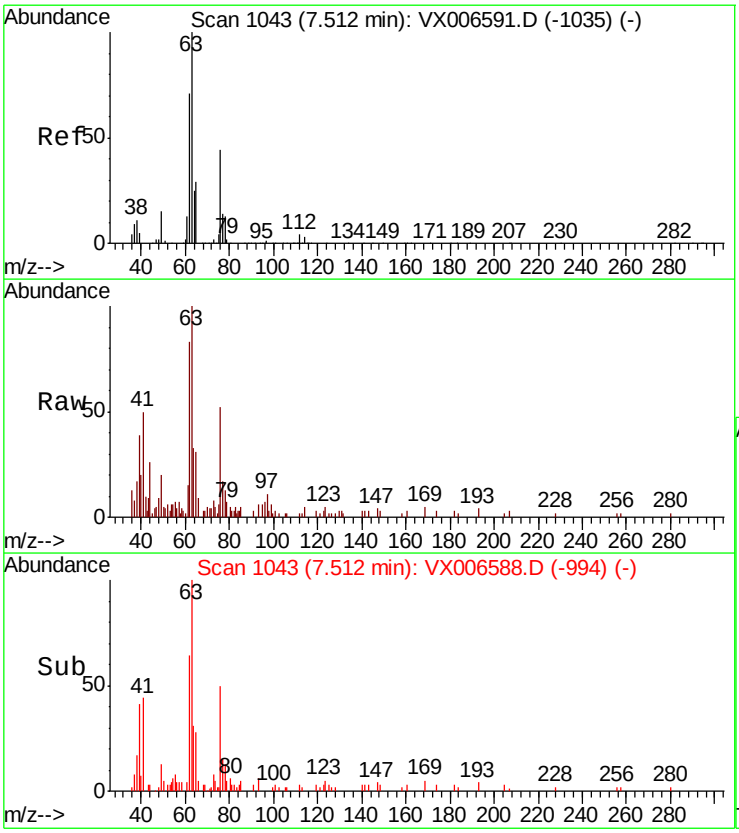
Tgt Ion:130 Resp: 9421

Ion	Ratio	Lower	Upper
130	100		
95	95.3	0.0	187.0



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC001

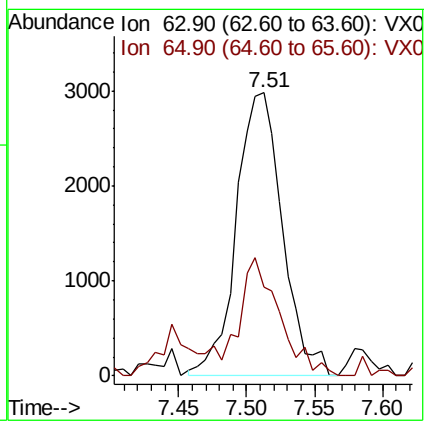
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:21:48 AM

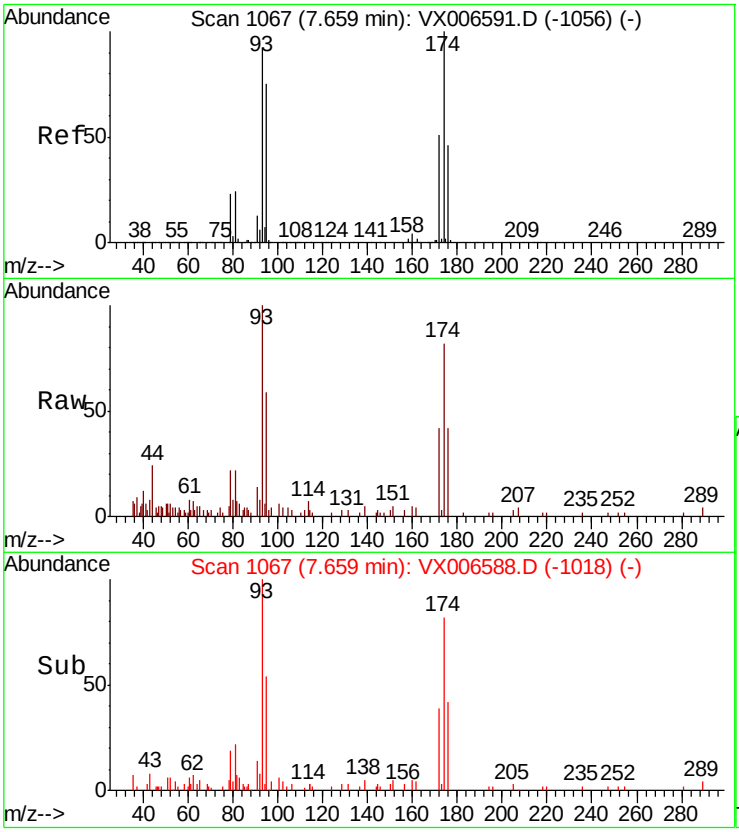


#45
1,2-Dichloropropane
Concen: 1.099 ug/l
RT: 7.51 min Scan# 1043
Delta R.T. -0.00 min
Lab File: VX006588.D
Acq: 18 Dec 2018 10:45

Tgt Ion: 63 Resp: 7058

Ion	Ratio	Lower	Upper
63	100		
65	31.3	25.4	38.0

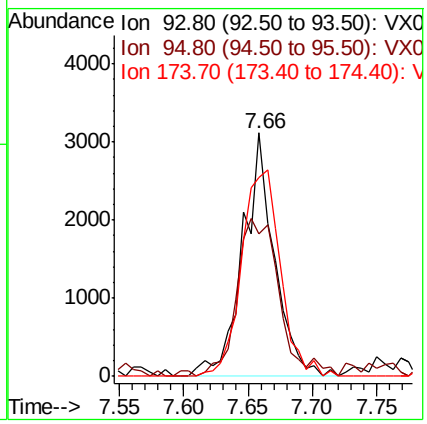




#46
Dibromomethane
Concen: 1.118 ug/l
RT: 7.66 min Scan# 1067
Delta R.T. -0.00 min
Lab File: VX006588.D
Acq: 18 Dec 2018 10:45

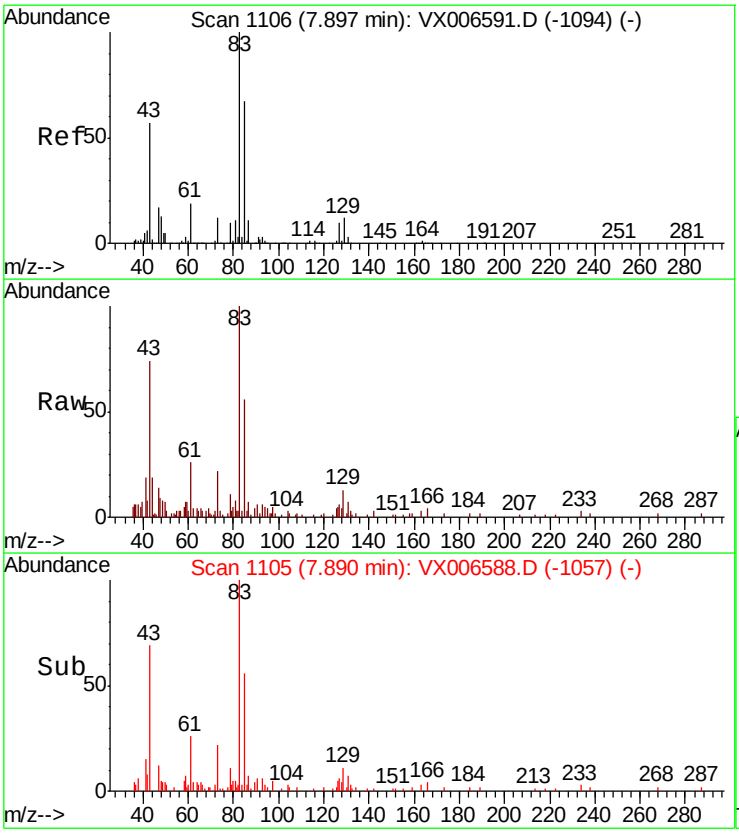
Tgt Ion: 93 Resp: 5278

Ion	Ratio	Lower	Upper
93	100		
95	86.7	66.2	99.4
174	104.3	91.0	136.4



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC001

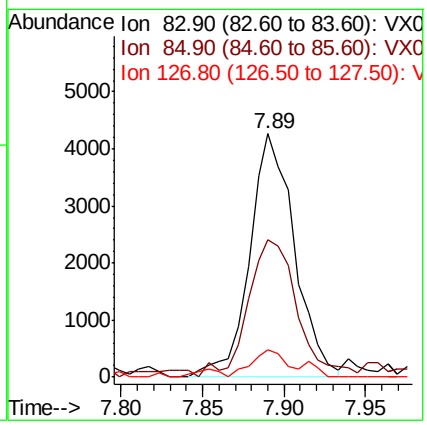
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:21:48 AM

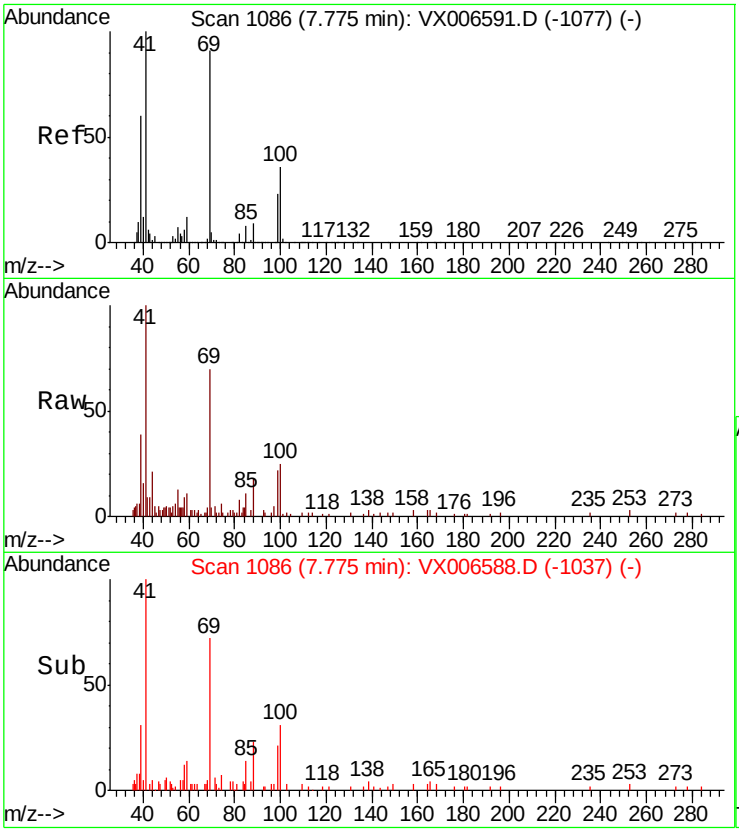


#47
Bromodichloromethane
Concen: 1.036 ug/l
RT: 7.89 min Scan# 1105
Delta R.T. -0.01 min
Lab File: VX006588.D
Acq: 18 Dec 2018 10:45

Tgt Ion: 83 Resp: 8120

Ion	Ratio	Lower	Upper
83	100		
85	53.4	53.2	79.8
127	11.3	7.8	11.6

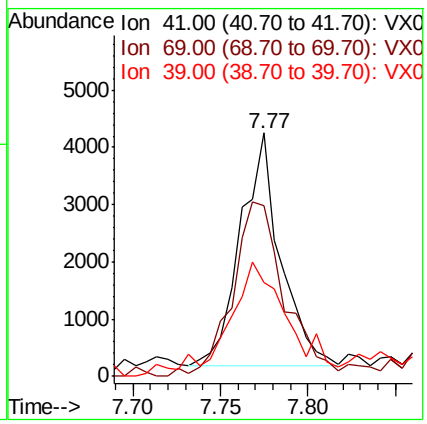




#48
Methyl methacrylate
Concen: 0.930 ug/l
RT: 7.77 min Scan# 1086
Delta R.T. -0.00 min
Lab File: VX006588.D
Acq: 18 Dec 2018 10:45

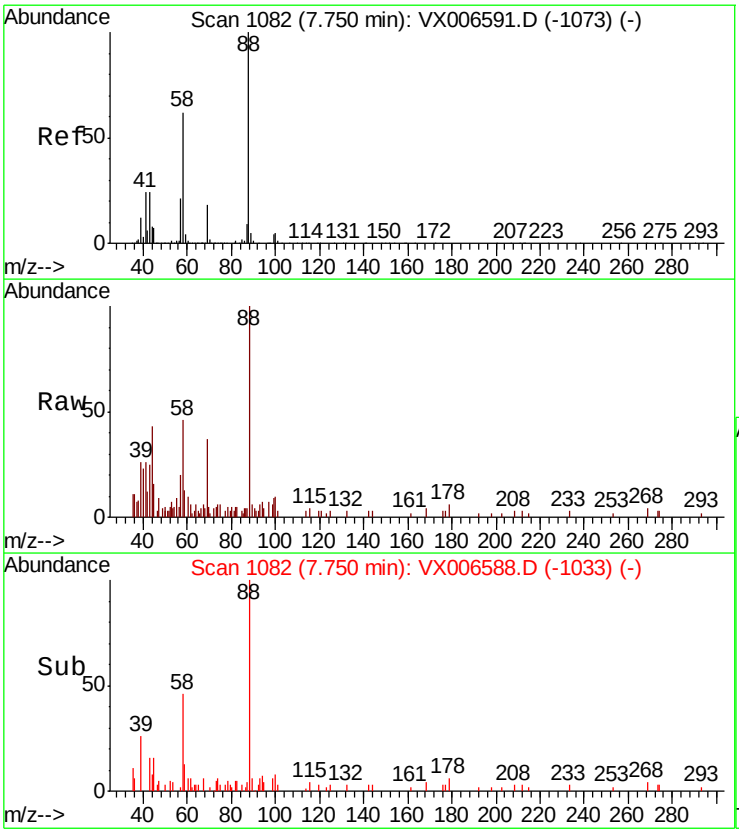
Tgt Ion: 41 Resp: 6499

Ion	Ratio	Lower	Upper
41	100		
69	97.0	72.4	108.6
39	73.2	45.8	68.8#



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC001

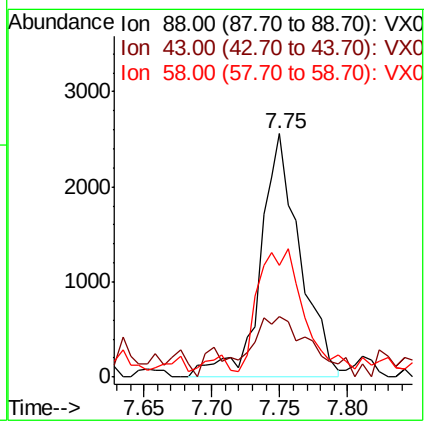
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:21:48 AM



#49
1,4-Dioxane
Concen: 26.292 ug/l
RT: 7.75 min Scan# 1082
Delta R.T. -0.00 min
Lab File: VX006588.D
Acq: 18 Dec 2018 10:45

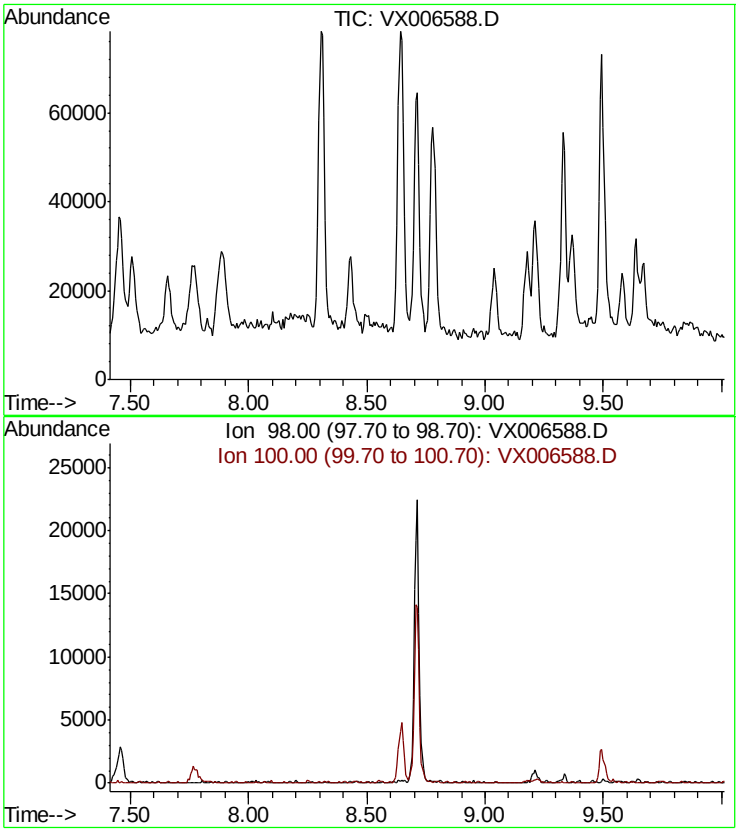
Tgt Ion: 88 Resp: 5200

Ion	Ratio	Lower	Upper
88	100		
43	34.6	22.2	33.4#
58	58.5	51.0	76.4



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC001

Manual Integrations APPROVED
MMDadoda
12/19/2018 11:21:48 AM

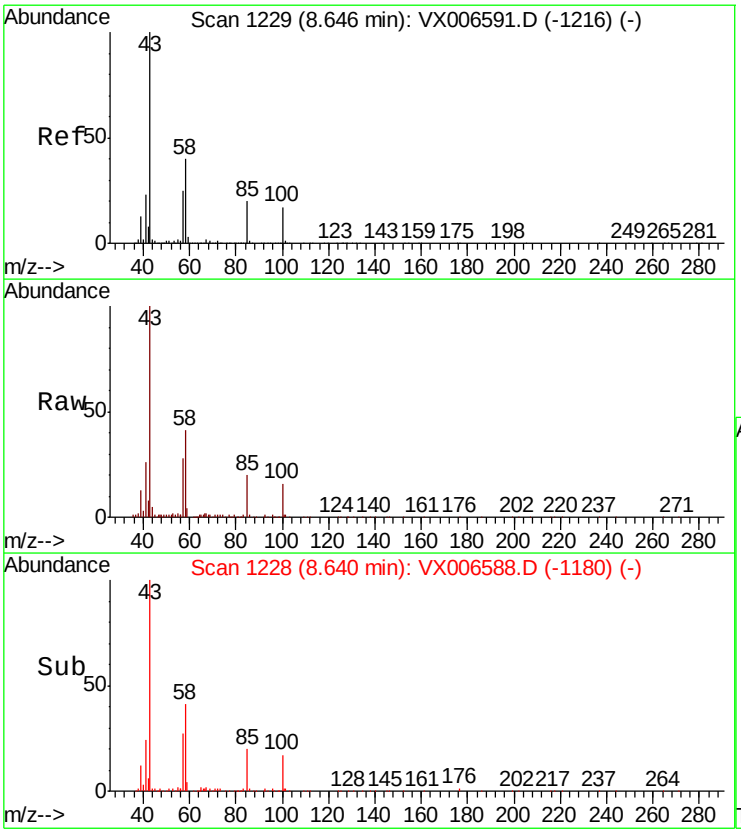


#50
Toluene-d8
Concen: 0.000 ug/l
Expected RT: 8.71 min

Lab File: VX006588.D
Acq: 18 Dec 2018 10:45

Tgt Ion: 98

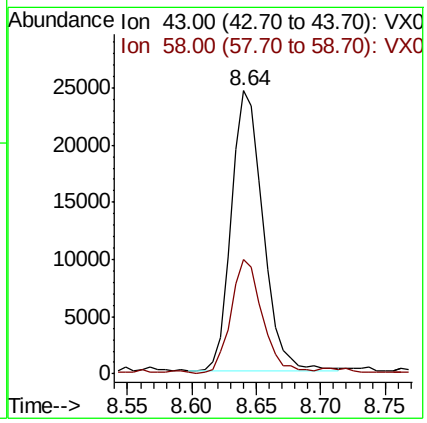
Sig	Exp Ratio
98	100
100	65.0



#51
4-Methyl-2-Pentanone
Concen: 4.852 ug/l
RT: 8.64 min Scan# 1228
Delta R.T. -0.01 min
Lab File: VX006588.D
Acq: 18 Dec 2018 10:45

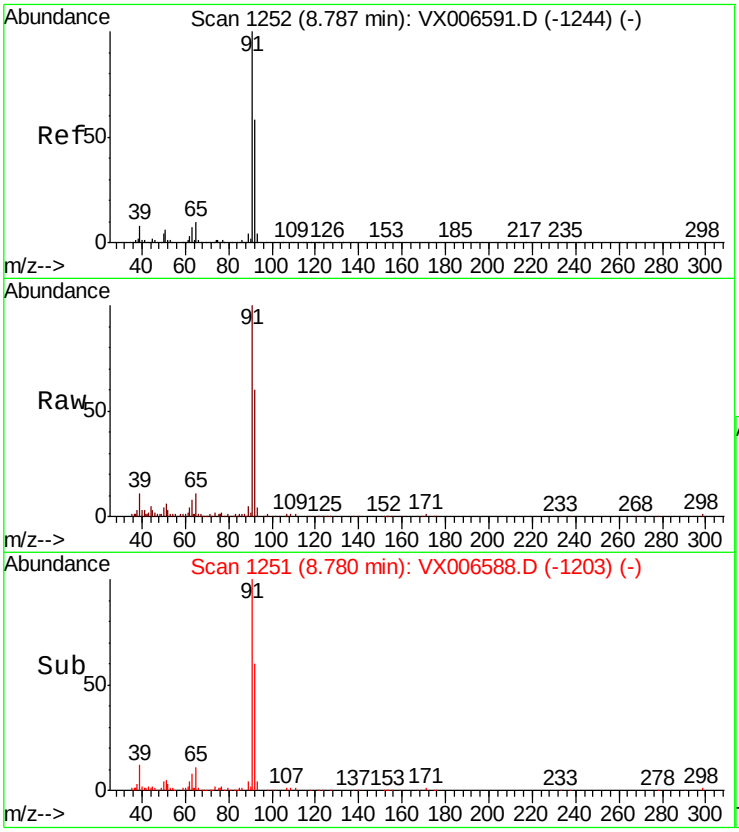
Tgt Ion: 43 Resp: 42433

Ion	Ratio	Lower	Upper
43	100		
58	39.8	31.8	47.6



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC001

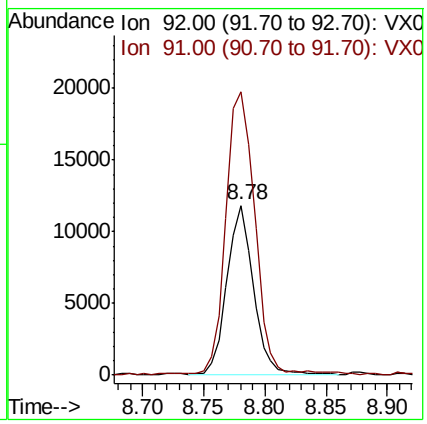
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:21:48 AM

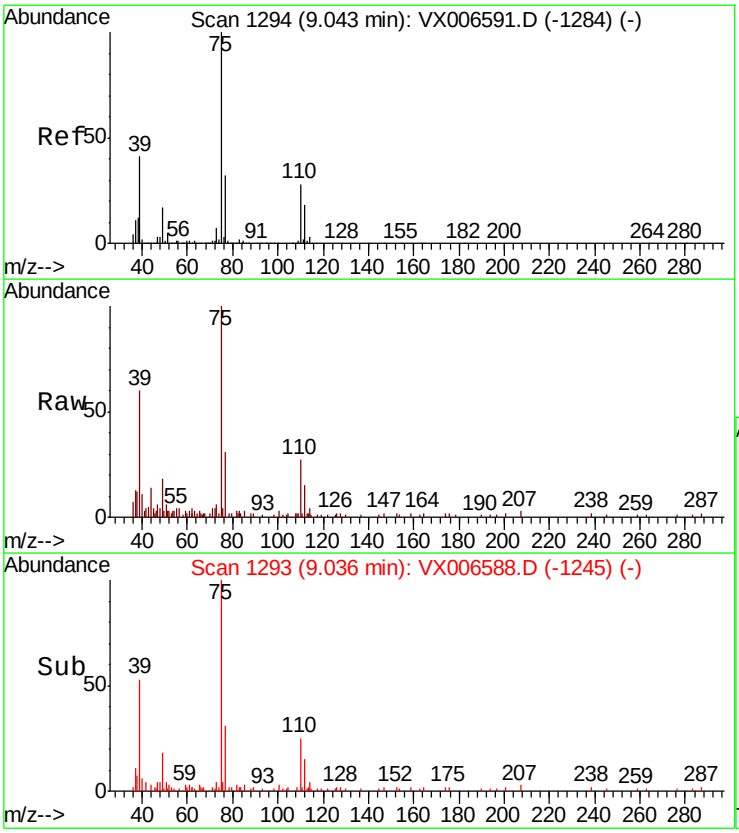


#52
Toluene
Concen: 1.054 ug/l
RT: 8.78 min Scan# 1251
Delta R.T. -0.01 min
Lab File: VX006588.D
Acq: 18 Dec 2018 10:45

Tgt Ion: 92 Resp: 17966

Ion	Ratio	Lower	Upper
92	100		
91	179.2	137.6	206.4

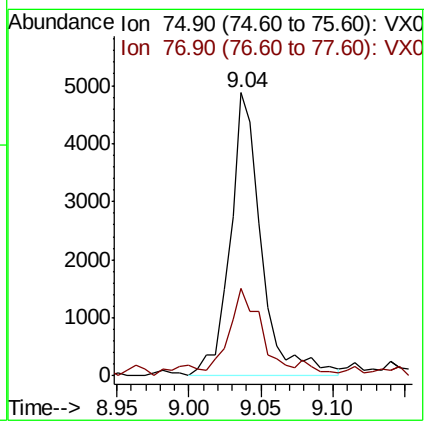


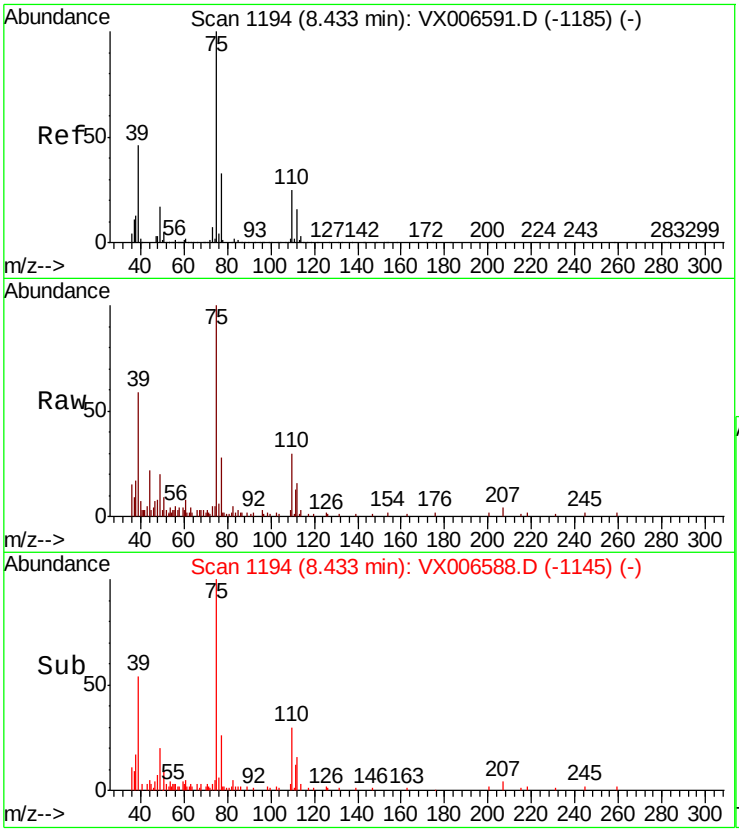


#53
t-1,3-Dichloropropene
Concen: 0.882 ug/l
RT: 9.04 min Scan# 1293
Delta R.T. -0.01 min
Lab File: VX006588.D
Acq: 18 Dec 2018 10:45

Tgt Ion: 75 Resp: 7418

Ion	Ratio	Lower	Upper
75	100		
77	29.8	25.4	38.0

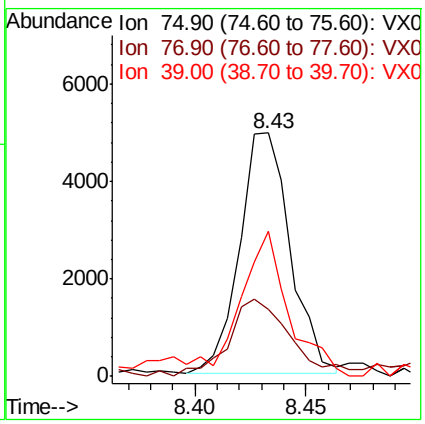


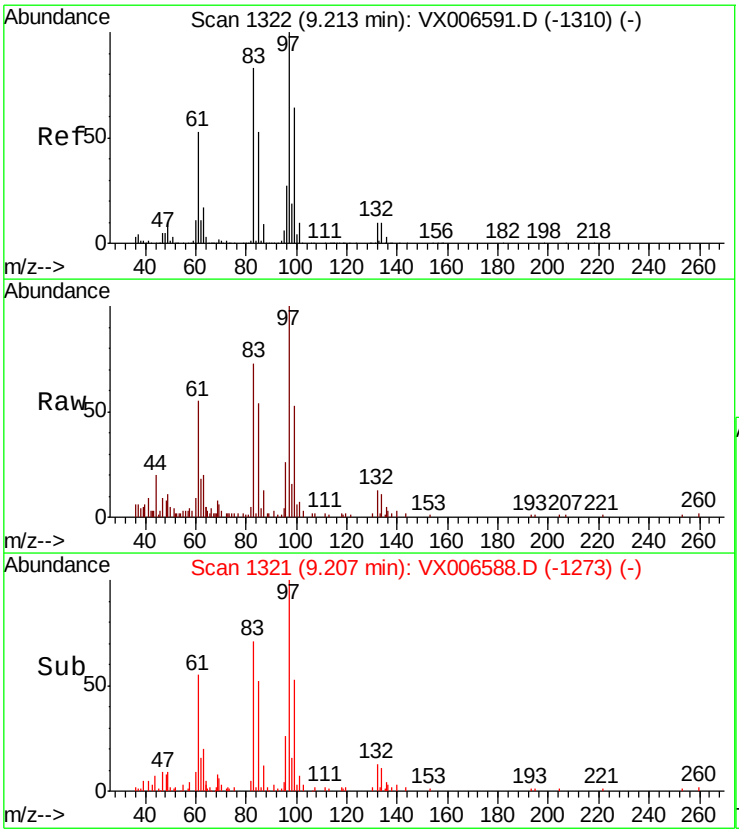


#54
cis-1,3-Dichloropropene
Concen: 0.850 ug/l
RT: 8.43 min Scan# 1194
Delta R.T. -0.00 min
Lab File: VX006588.D
Acq: 18 Dec 2018 10:45

Tgt Ion: 75 Resp: 7839

Ion	Ratio	Lower	Upper
75	100		
77	24.8	26.2	39.2#
39	56.6	36.7	55.1#

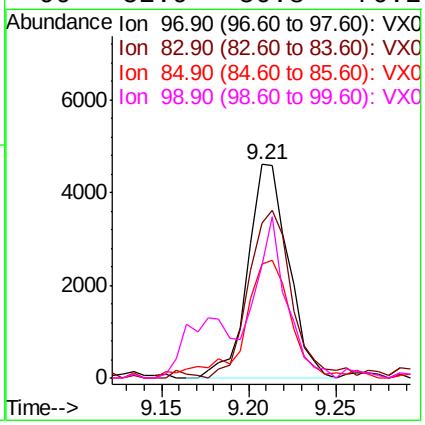




#55
1,1,2-Trichloroethane
Concen: 1.067 ug/l
RT: 9.21 min Scan# 1321
Delta R.T. -0.01 min
Lab File: VX006588.D
Acq: 18 Dec 2018 10:45

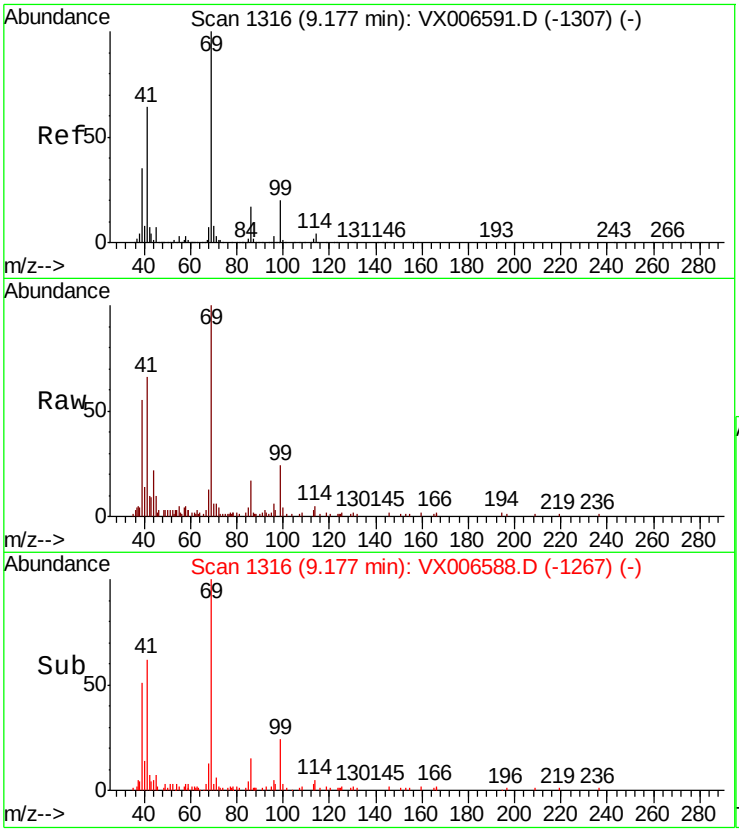
Tgt Ion: 97 Resp: 7441

Ion	Ratio	Lower	Upper
97	100		
83	71.0	66.6	99.8
85	51.4	42.7	64.1
99	52.9	50.8	76.2



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC001

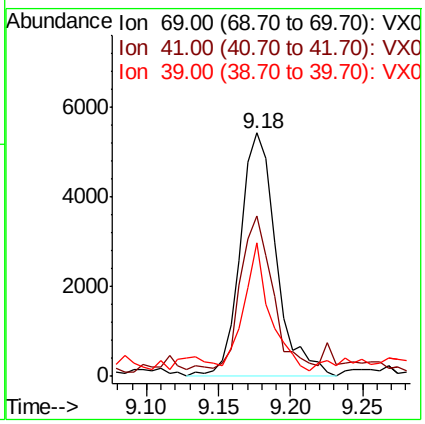
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:21:48 AM



#56
Ethyl methacrylate
Concen: 0.954 ug/l
RT: 9.18 min Scan# 1316
Delta R.T. -0.00 min
Lab File: VX006588.D
Acq: 18 Dec 2018 10:45

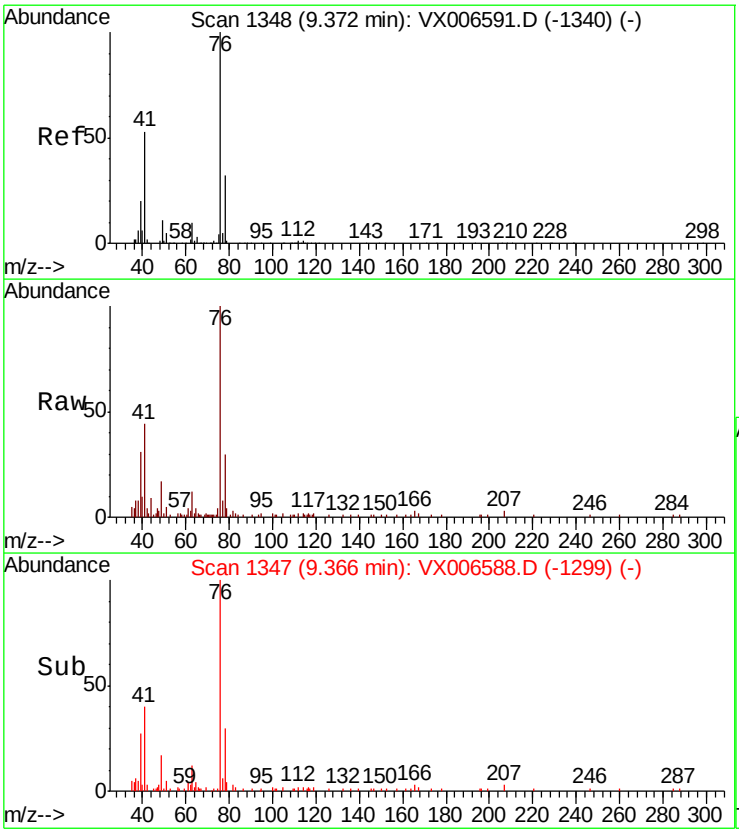
Tgt Ion: 69 Resp: 9405

Ion	Ratio	Lower	Upper
69	100		
41	56.0	48.7	73.1
39	37.4	27.0	40.6



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC001

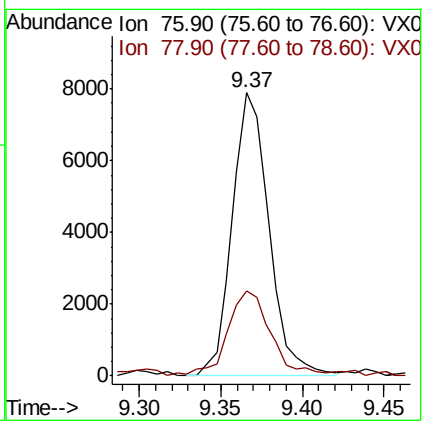
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:21:48 AM

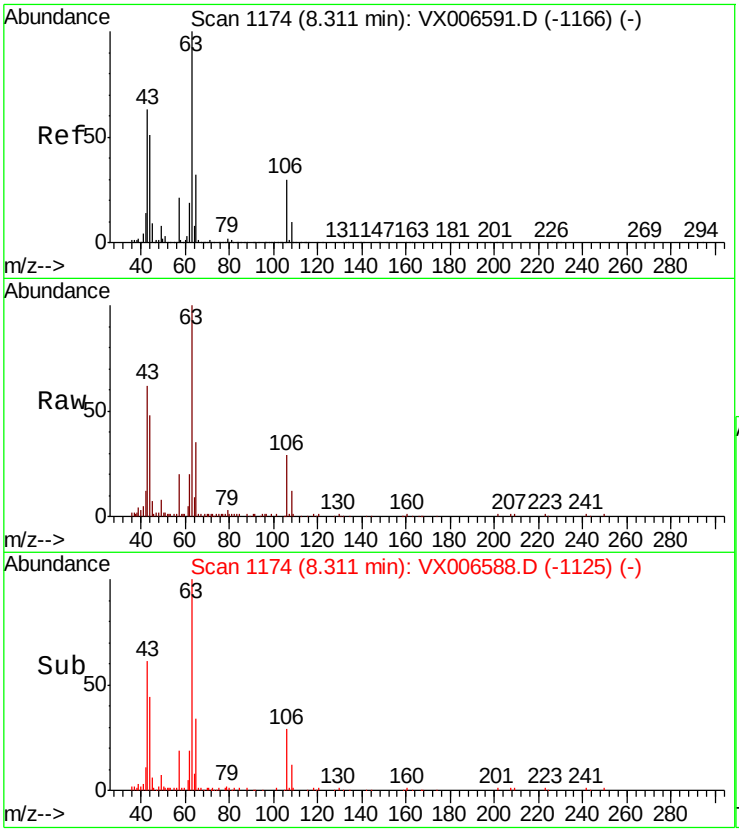


#57
1,3-Dichloropropane
Concen: 1.104 ug/l
RT: 9.37 min Scan# 1347
Delta R.T. -0.01 min
Lab File: VX006588.D
Acq: 18 Dec 2018 10:45

Tgt Ion: 76 Resp: 12397

Ion	Ratio	Lower	Upper
76	100		
78	35.1	26.0	39.0

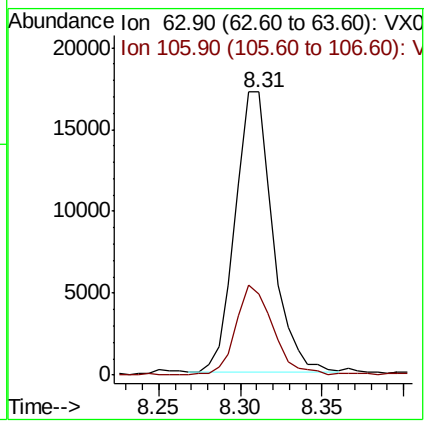




#58
2-Chloroethyl Vinyl ether
Concen: 5.229 ug/l
RT: 8.31 min Scan# 1174
Delta R.T. -0.00 min
Lab File: VX006588.D
Acq: 18 Dec 2018 10:45

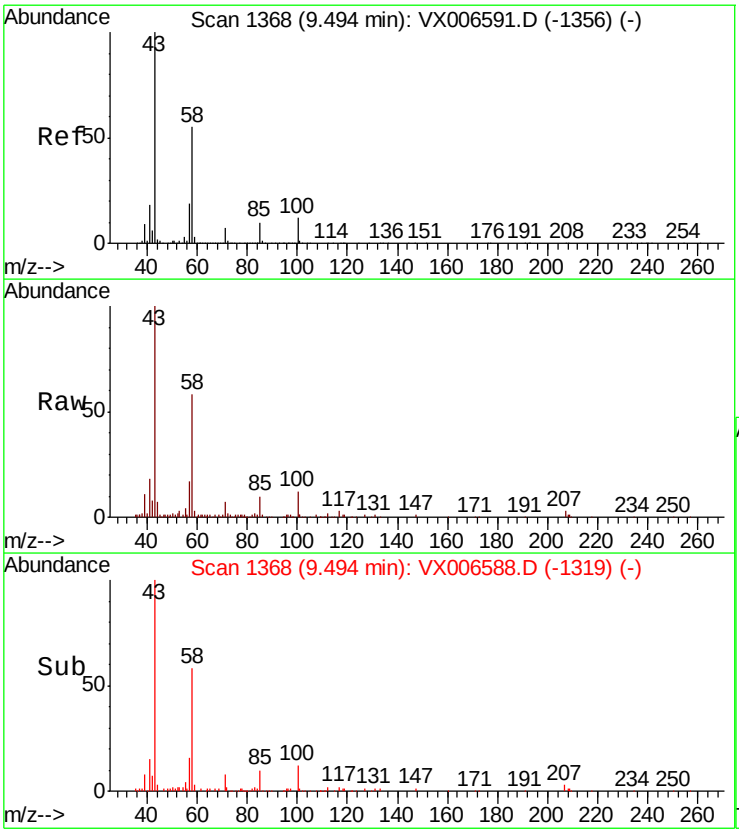
Tgt Ion: 63 Resp: 27411

Ion	Ratio	Lower	Upper
63	100		
106	32.7	24.6	36.8



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC001

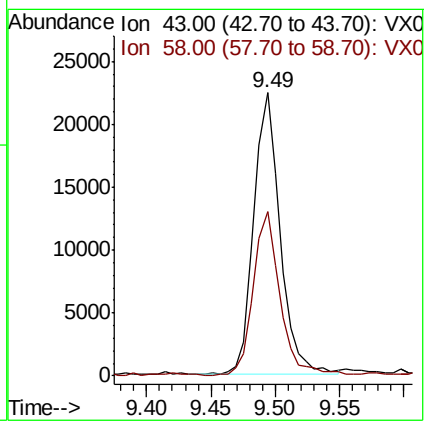
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:21:48 AM



#59
2-Hexanone
Concen: 4.708 ug/l
RT: 9.49 min Scan# 1368
Delta R.T. -0.00 min
Lab File: VX006588.D
Acq: 18 Dec 2018 10:45

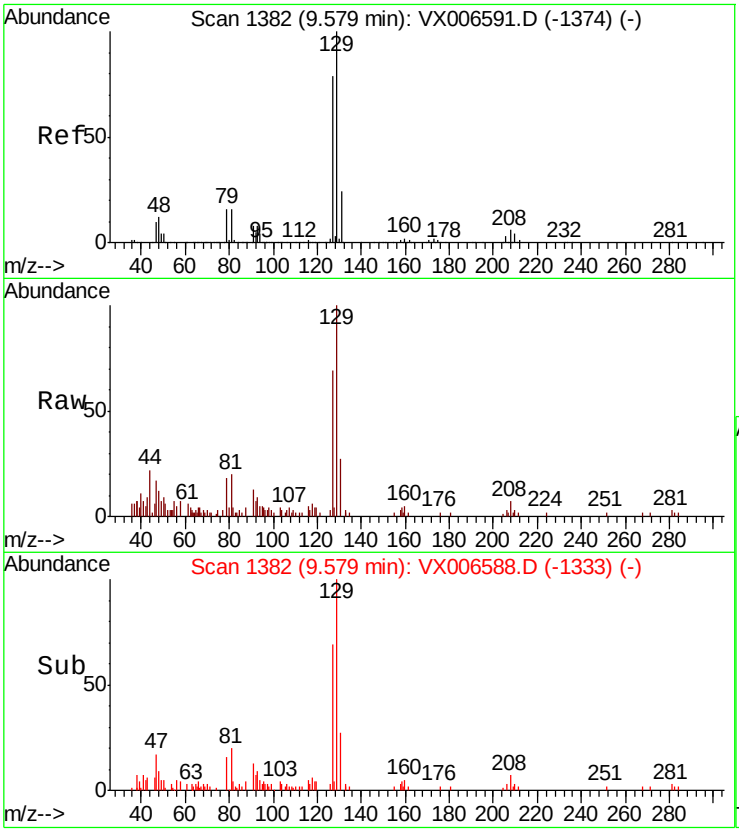
Tgt Ion: 43 Resp: 31508

Ion	Ratio	Lower	Upper
43	100		
58	59.7	27.7	83.1



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC001

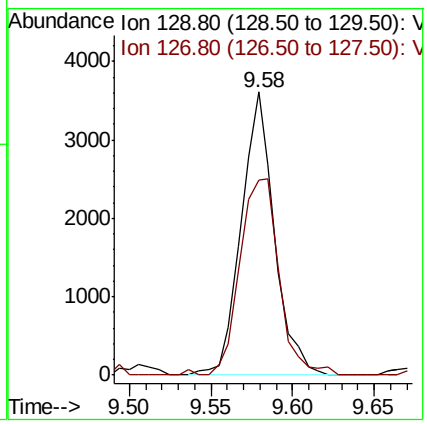
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:21:48 AM

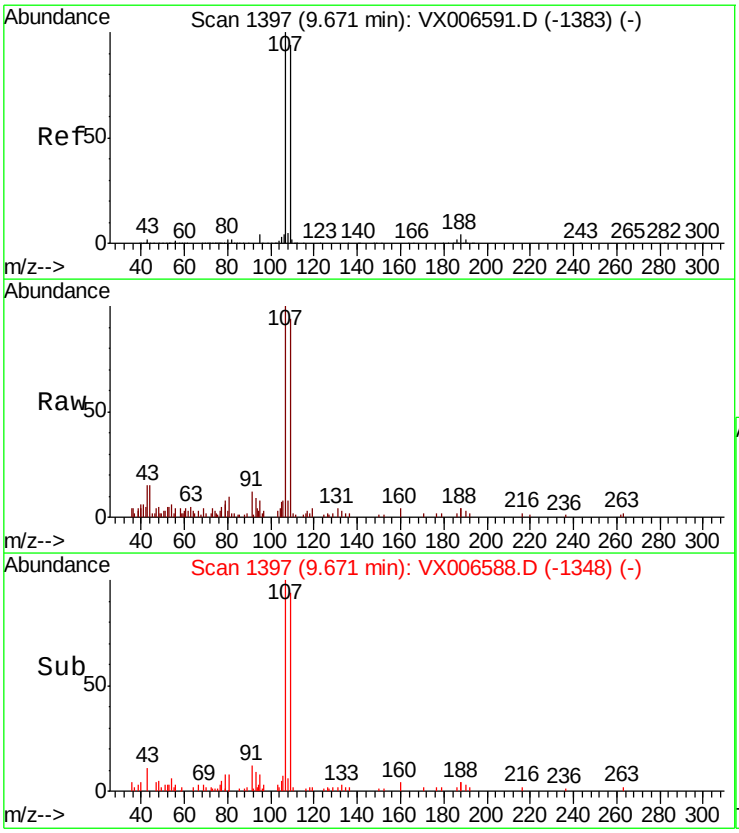


#60
Dibromochloromethane
Concen: 0.792 ug/l
RT: 9.58 min Scan# 1382
Delta R.T. -0.00 min
Lab File: VX006588.D
Acq: 18 Dec 2018 10:45

Tgt Ion:129 Resp: 5091

Ion	Ratio	Lower	Upper
129	100		
127	82.1	39.3	117.8

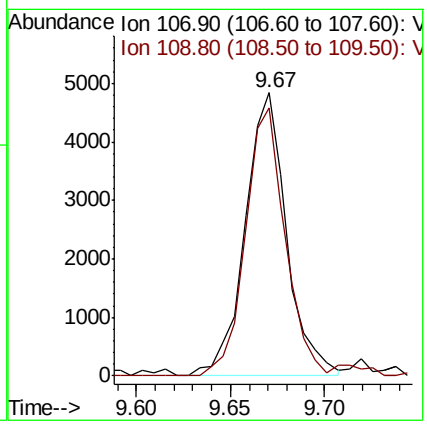


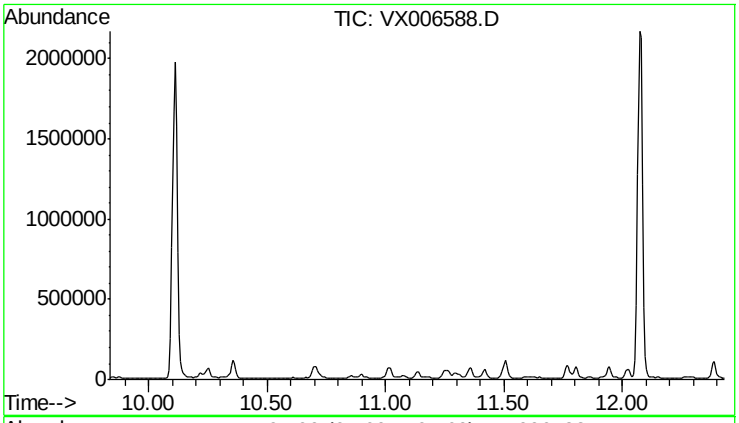


#61
1,2-Dibromoethane
Concen: 0.995 ug/l
RT: 9.67 min Scan# 1397
Delta R.T. -0.00 min
Lab File: VX006588.D
Acq: 18 Dec 2018 10:45

Tgt Ion:107 Resp: 7383

Ion	Ratio	Lower	Upper
107	100		
109	89.9	75.8	113.6





#62
4-Bromofluorobenzene
Concen: 0.000 ug/l
Expected RT: 11.13 min

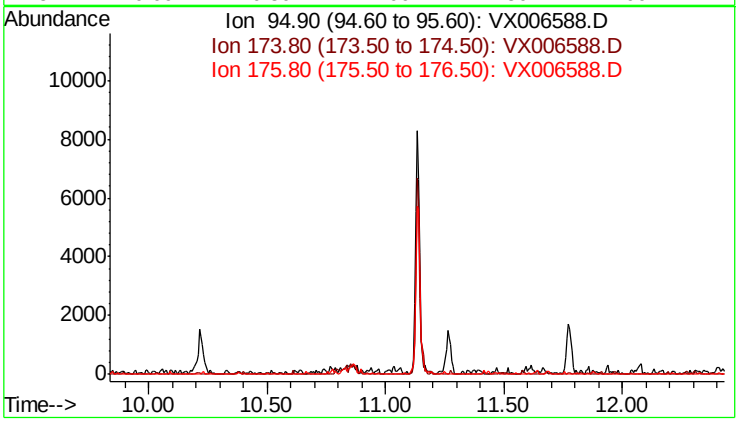
Lab File: VX006588.D
Acq: 18 Dec 2018 10:45

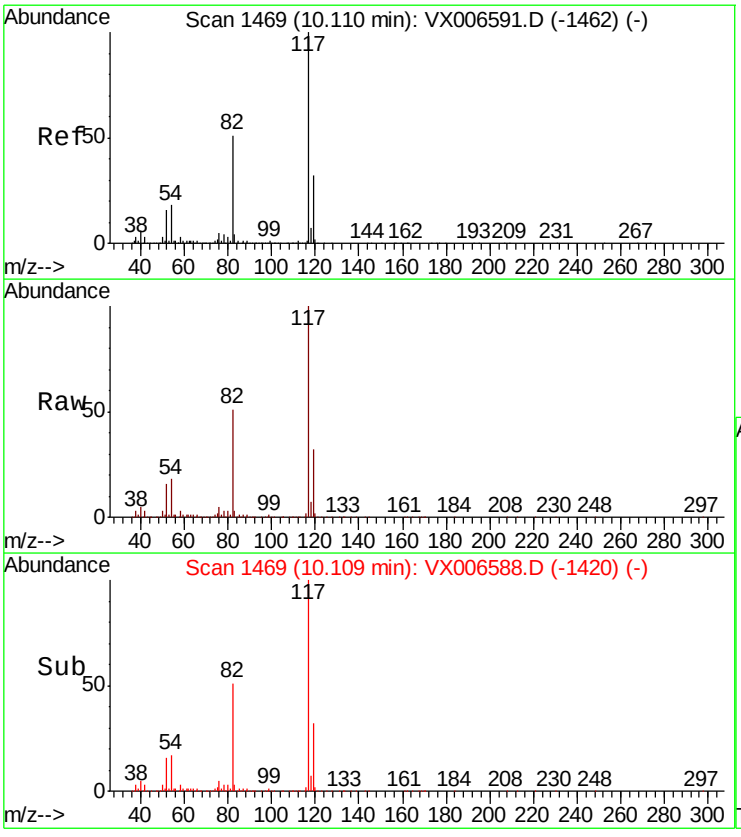
Tgt Ion: 95

Sig	Exp Ratio
95	100
174	91.1
176	89.4

Instrument :
MSVOA_X
ClientSampleId :
VSTDICC001

Manual Integrations APPROVED
MMDadoda
12/19/2018 11:21:48 AM

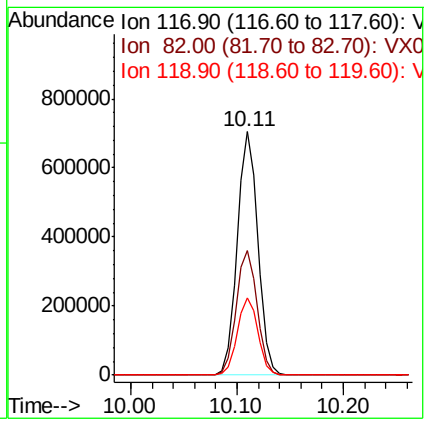




#63
Chlorobenzene-d5
Concen: 50.000 ug/l
RT: 10.11 min Scan# 1469
Delta R.T. -0.00 min
Lab File: VX006588.D
Acq: 18 Dec 2018 10:45

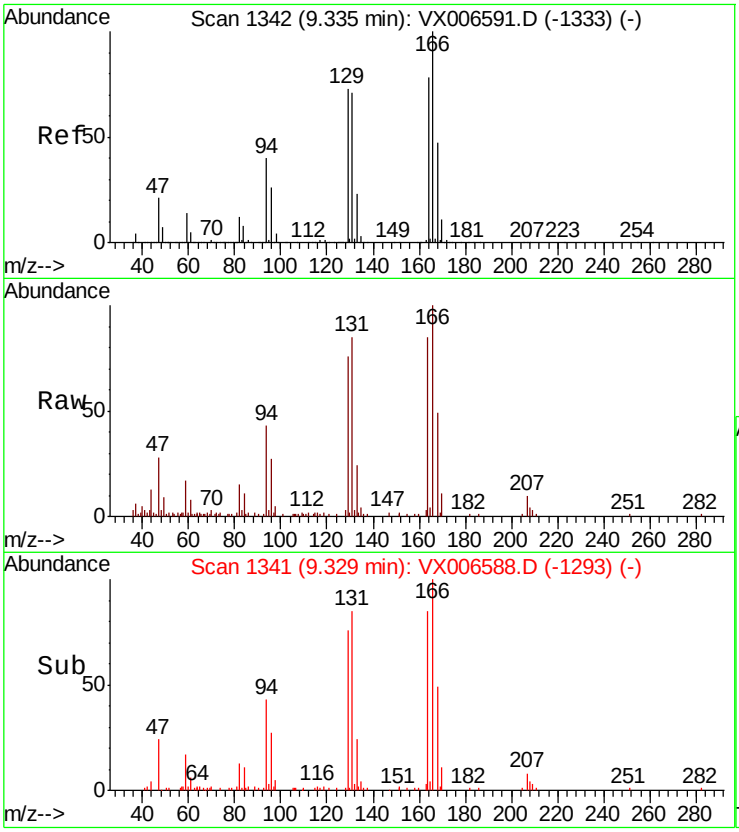
Tgt Ion:117 Resp: 960134

Ion	Ratio	Lower	Upper
117	100		
82	51.1	41.0	61.6
119	31.8	25.4	38.0



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC001

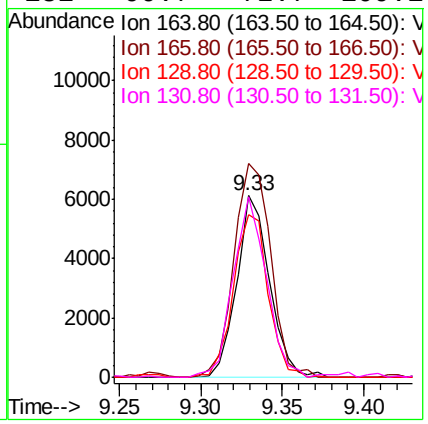
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:21:48 AM

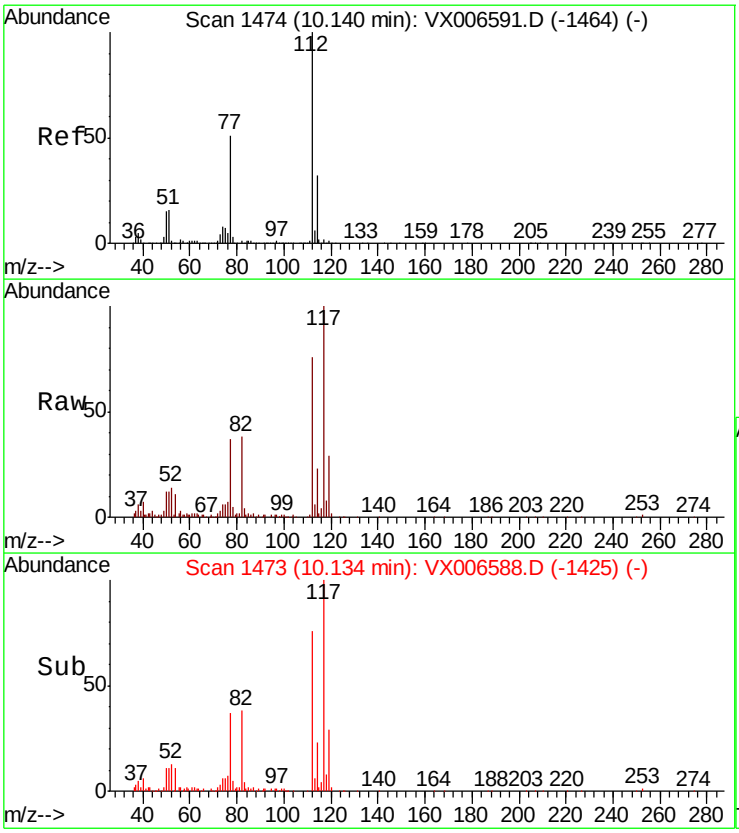


#64
Tetrachloroethene
Concen: 1.130 ug/l
RT: 9.33 min Scan# 1341
Delta R.T. -0.01 min
Lab File: VX006588.D
Acq: 18 Dec 2018 10:45

Tgt Ion:164 Resp: 8592

Ion	Ratio	Lower	Upper
164	100		
166	117.5	102.5	153.7
129	89.4	75.1	112.7
131	99.7	72.7	109.1

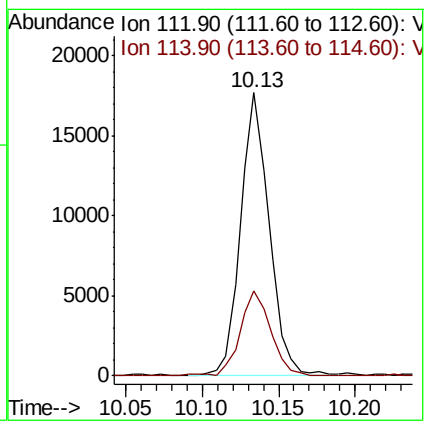


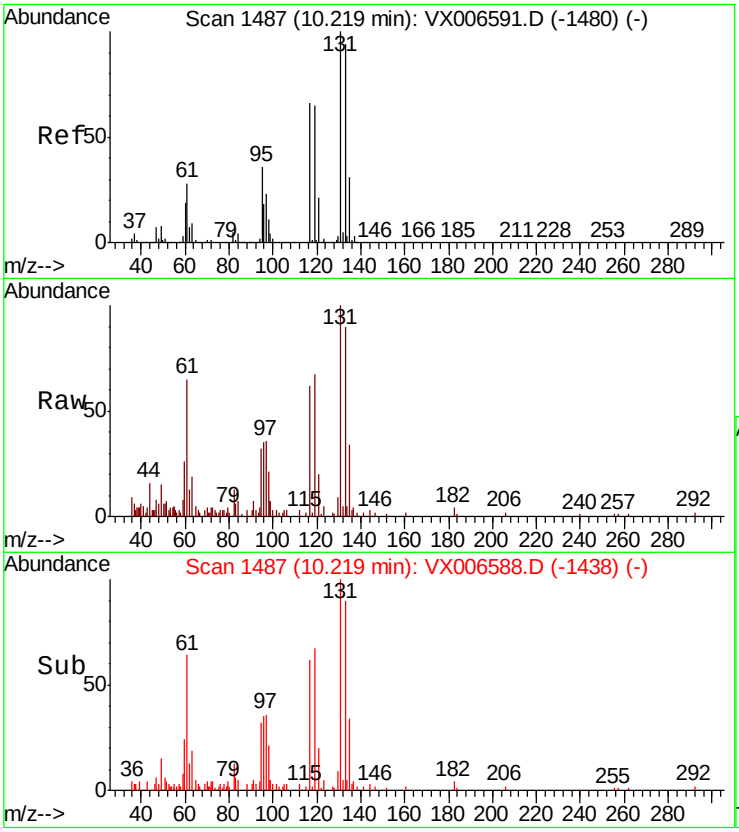


#65
Chlorobenzene
Concen: 1.129 ug/l
RT: 10.13 min Scan# 1473
Delta R.T. -0.01 min
Lab File: VX006588.D
Acq: 18 Dec 2018 10:45

Tgt Ion:112 Resp: 22935

Ion	Ratio	Lower	Upper
112	100		
114	29.6	25.7	38.5

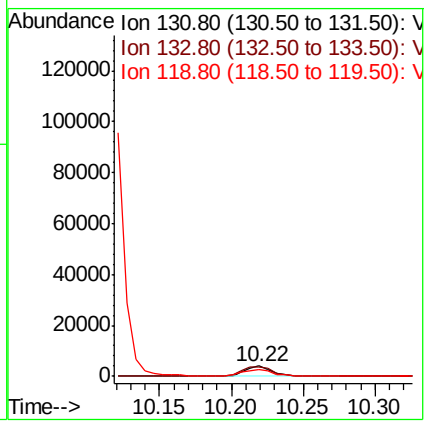




#66
1,1,1,2-Tetrachloroethane
Concen: 0.856 ug/l
RT: 10.22 min Scan# 1487
Delta R.T. -0.00 min
Lab File: VX006588.D
Acq: 18 Dec 2018 10:45

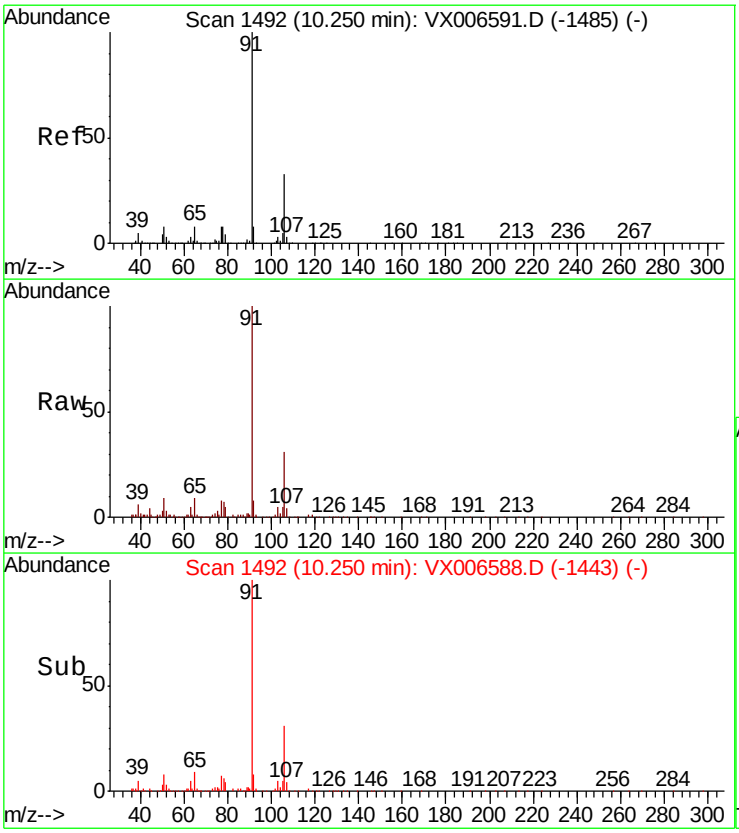
Tgt Ion:131 Resp: 5426

Ion	Ratio	Lower	Upper
131	100		
133	102.3	48.0	144.2
119	0.0	32.6	97.8#



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC001

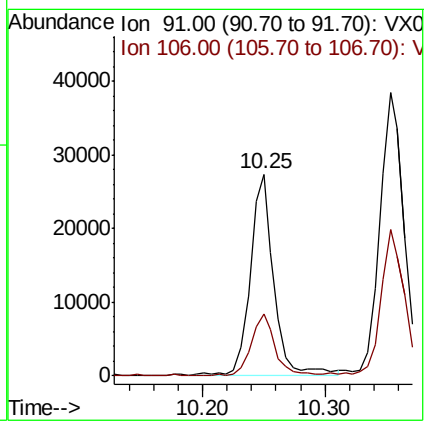
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:21:48 AM

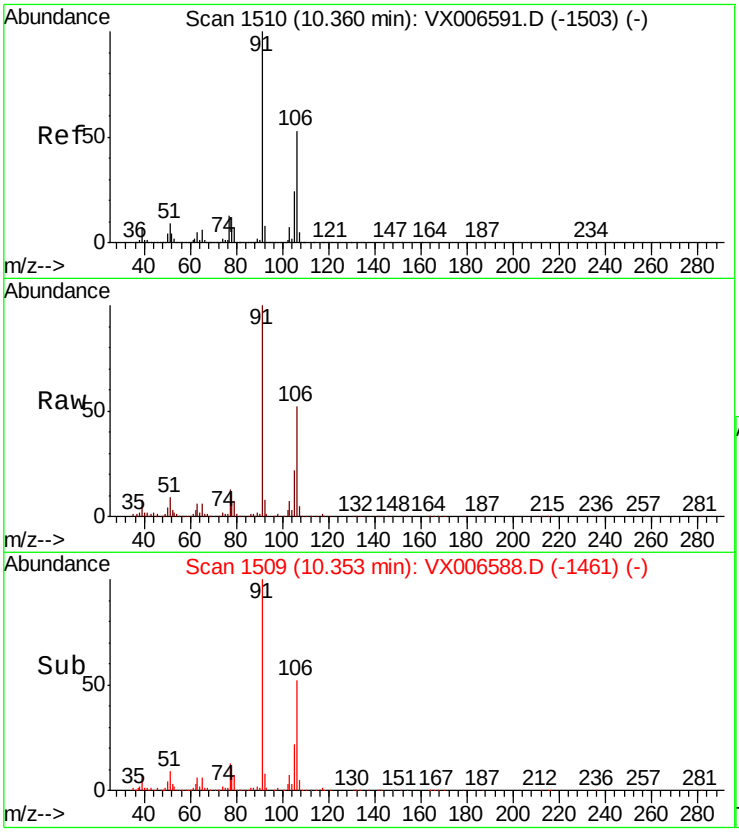


#67
Ethyl Benzene
Concen: 1.098 ug/l
RT: 10.25 min Scan# 1492
Delta R.T. -0.00 min
Lab File: VX006588.D
Acq: 18 Dec 2018 10:45

Tgt Ion: 91 Resp: 36457

Ion	Ratio	Lower	Upper
91	100		
106	30.8	26.4	39.6

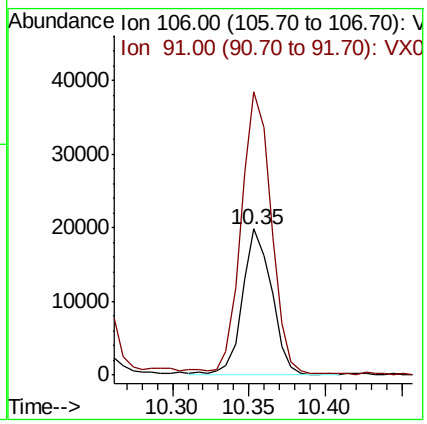




#68
m/p-Xylenes
Concen: 2.031 ug/l
RT: 10.35 min Scan# 1509
Delta R.T. -0.01 min
Lab File: VX006588.D
Acq: 18 Dec 2018 10:45

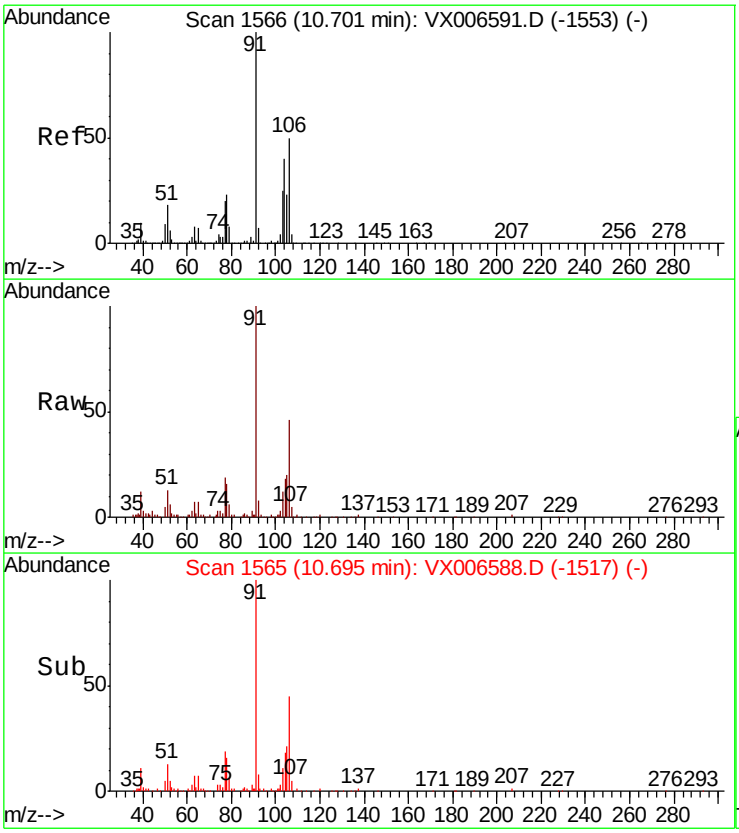
Tgt Ion:106 Resp: 26604

Ion	Ratio	Lower	Upper
106	100		
91	197.2	155.8	233.6



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC001

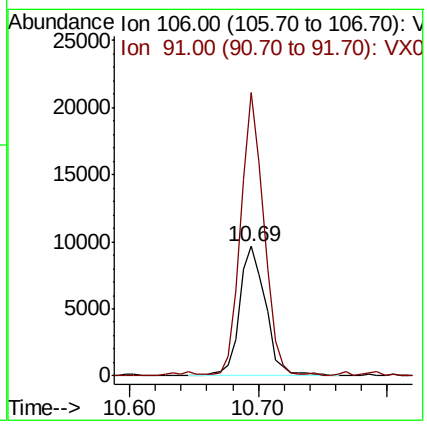
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:21:48 AM

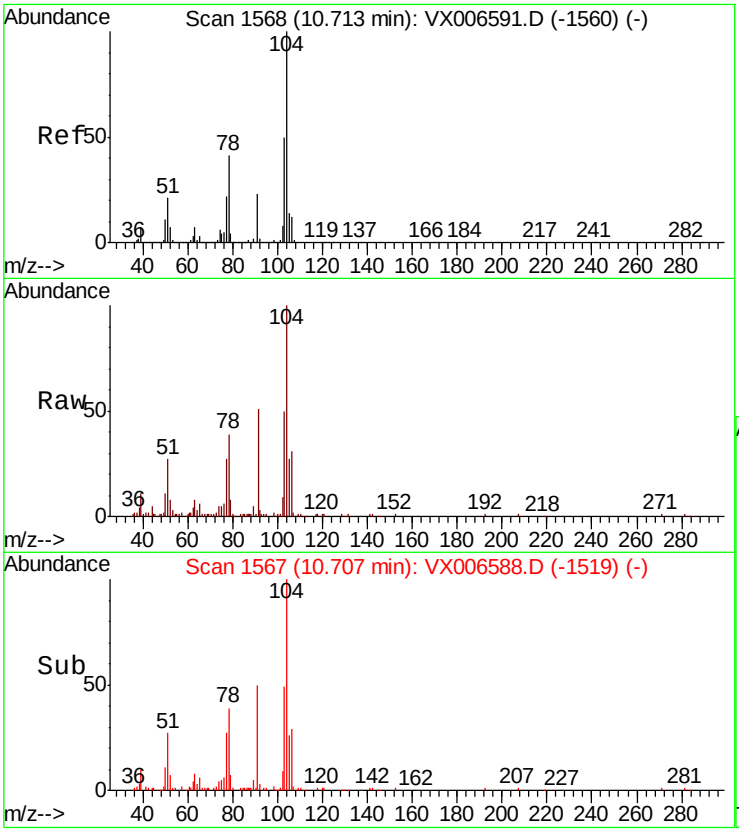


#69
o-Xylene
Concen: 1.053 ug/l
RT: 10.69 min Scan# 1565
Delta R.T. -0.01 min
Lab File: VX006588.D
Acq: 18 Dec 2018 10:45

Tgt Ion:106 Resp: 13614

Ion	Ratio	Lower	Upper
106	100		
91	193.4	101.3	303.7

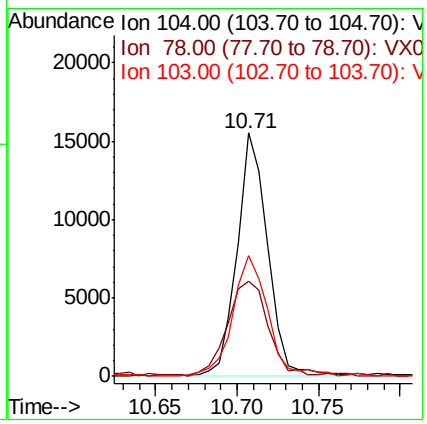




#70
Stvrene
Concen: 0.993 ug/l
RT: 10.71 min Scan# 1567
Delta R.T. -0.01 min
Lab File: VX006588.D
Acq: 18 Dec 2018 10:45

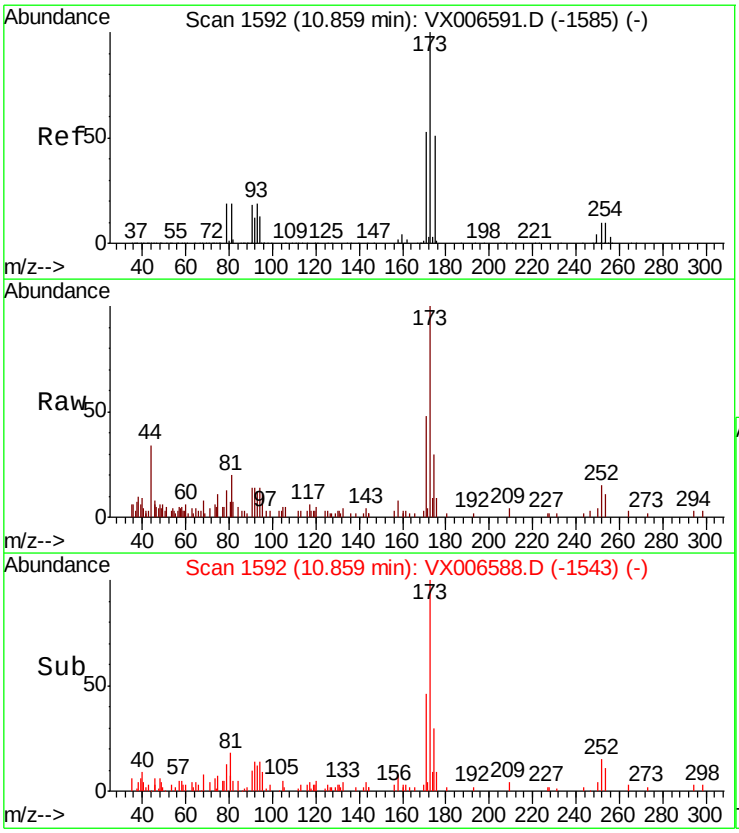
Tgt Ion:104 Resp: 20317

Ion	Ratio	Lower	Upper
104	100		
78	52.0	37.7	56.5
103	57.7	43.8	65.8



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC001

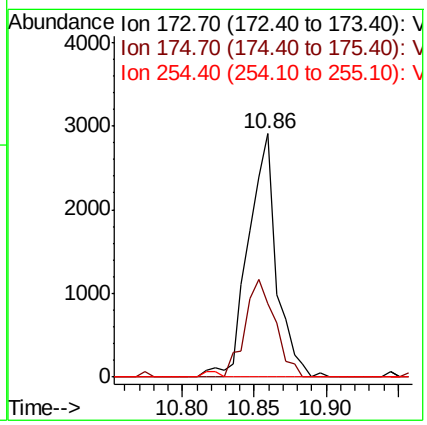
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:21:48 AM

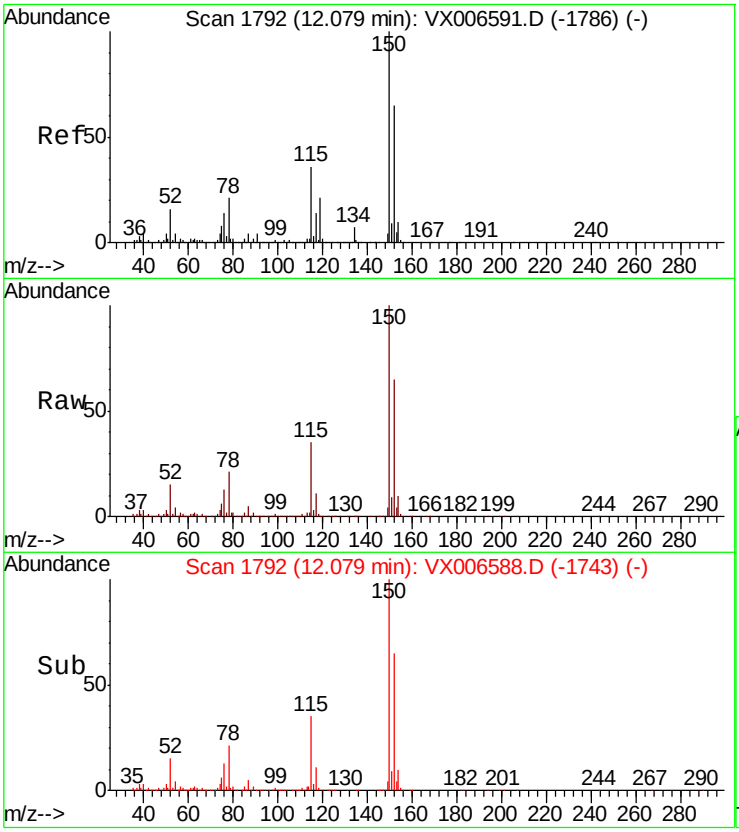


#71
Bromoform
Concen: 0.816 ug/l
RT: 10.86 min Scan# 1592
Delta R.T. -0.00 min
Lab File: VX006588.D
Acq: 18 Dec 2018 10:45

Tgt Ion:173 Resp: 3937

Ion	Ratio	Lower	Upper
173	100		
175	42.7	24.7	74.1
254	0.0	0.2	0.2#

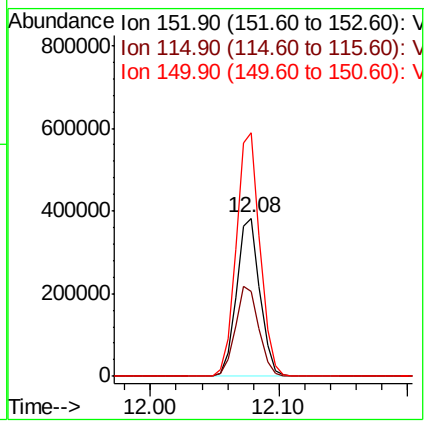




#72
1,4-Dichlorobenzene-d4
Concen: 50.000 ug/l
RT: 12.08 min Scan# 1792
Delta R.T. -0.00 min
Lab File: VX006588.D
Acq: 18 Dec 2018 10:45

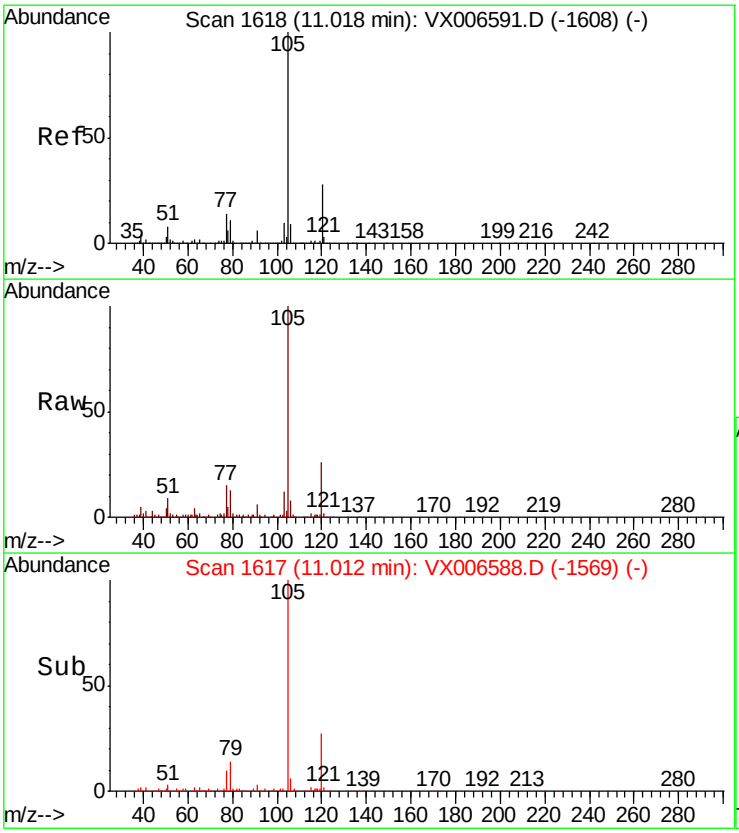
Tgt Ion:152 Resp: 480975

Ion	Ratio	Lower	Upper
152	100		
115	57.6	39.1	117.2
150	156.4	0.0	344.8



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC001

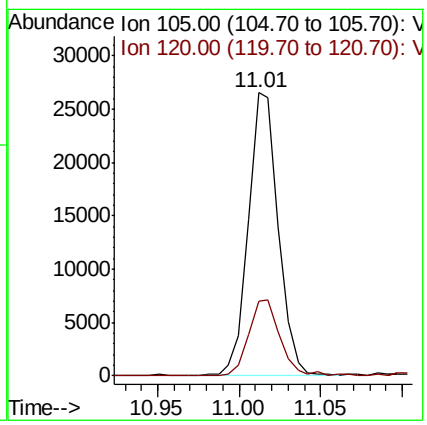
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:21:48 AM

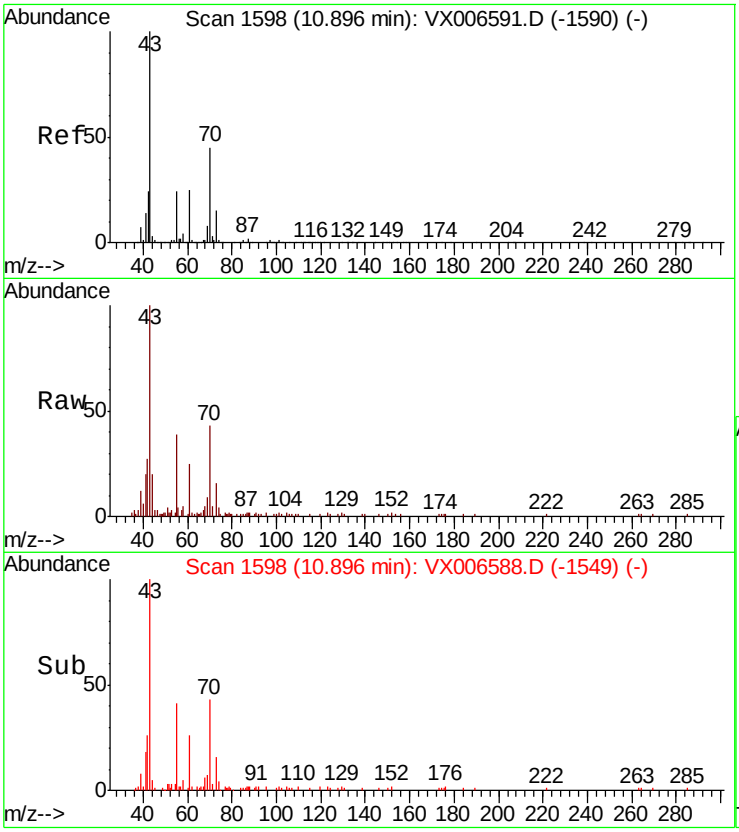


#73
Isopropylbenzene
Concen: 1.038 ug/l
RT: 11.01 min Scan# 1617
Delta R.T. -0.01 min
Lab File: VX006588.D
Acq: 18 Dec 2018 10:45

Tgt Ion:105 Resp: 34149

Ion	Ratio	Lower	Upper
105	100		
120	28.5	14.1	42.4

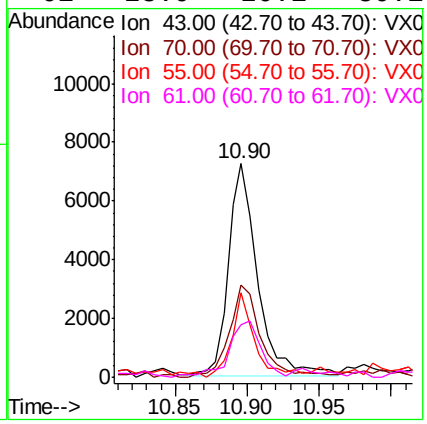




#74
N-amyl acetate
Concen: 0.876 ug/l
RT: 10.90 min Scan# 1598
Delta R.T. -0.00 min
Lab File: VX006588.D
Acq: 18 Dec 2018 10:45

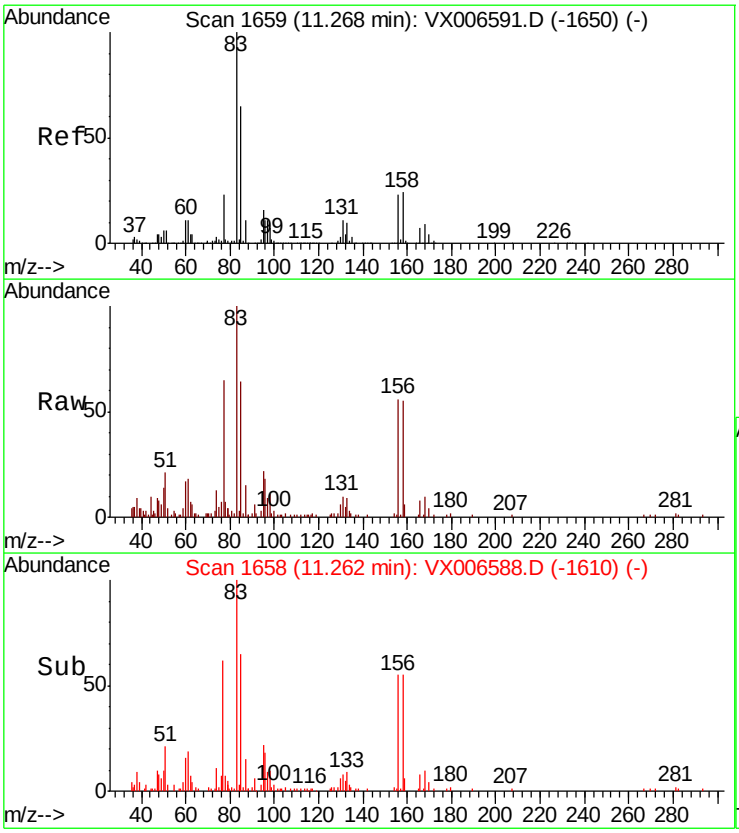
Tgt Ion: 43 Resp: 10312

Ion	Ratio	Lower	Upper
43	100		
70	46.9	35.8	53.8
55	31.5	19.4	29.0#
61	28.9	20.1	30.1



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC001

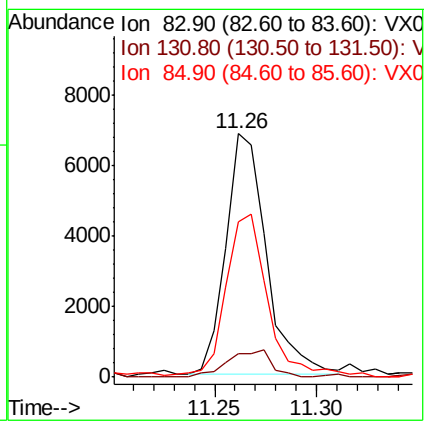
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:21:48 AM

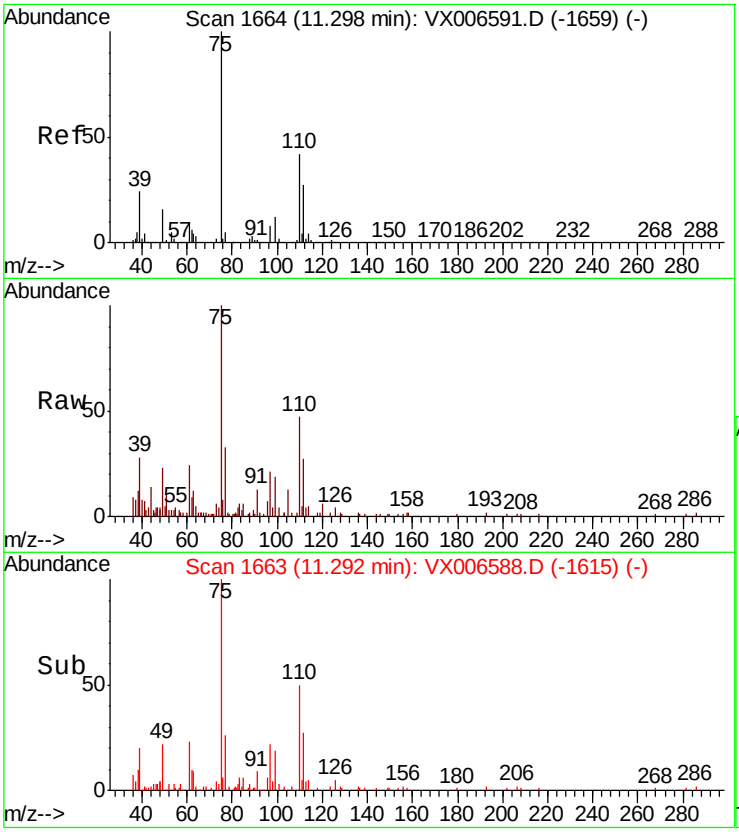


#75
1,1,2,2-Tetrachloroethane
Concen: 0.961 ug/l
RT: 11.26 min Scan# 1658
Delta R.T. -0.01 min
Lab File: VX006588.D
Acq: 18 Dec 2018 10:45

Tgt Ion: 83 Resp: 9405

Ion	Ratio	Lower	Upper
83	100		
131	12.0	5.7	17.1
85	70.2	32.2	96.6

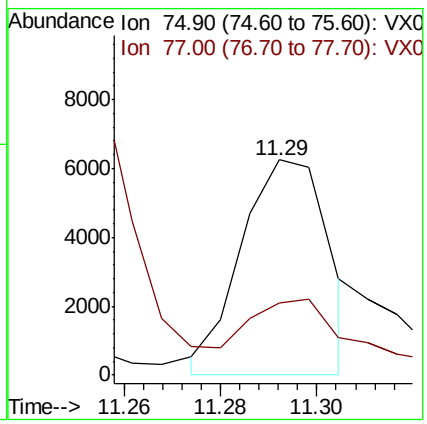




#76
1,2,3-Trichloropropane
Concen: 0.919 ug/l m
RT: 11.29 min Scan# 1663
Delta R.T. -0.01 min
Lab File: VX006588.D
Acq: 18 Dec 2018 10:45

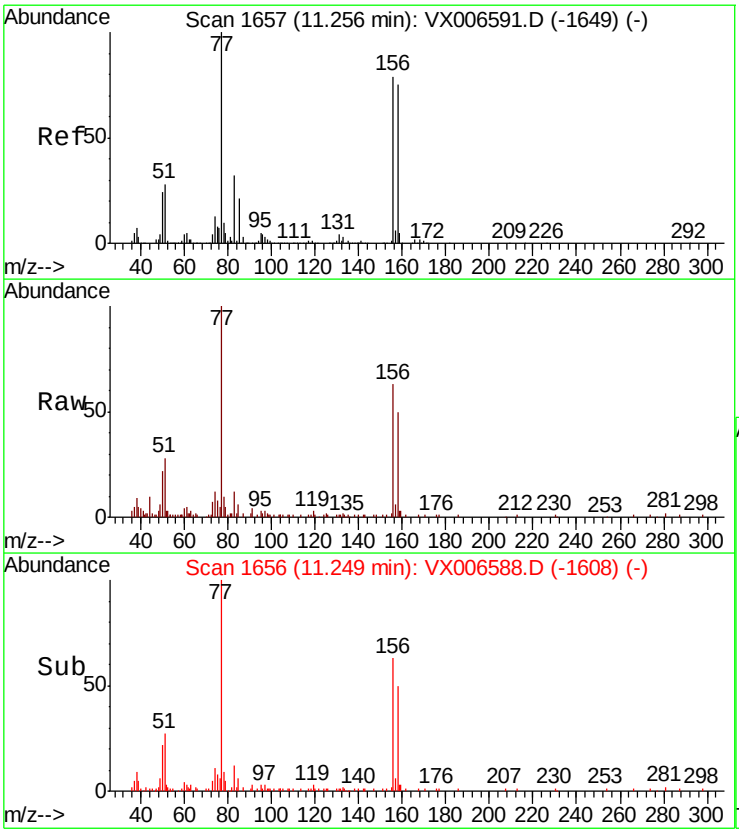
Tgt Ion: 75 Resp: 7828

Ion	Ratio	Lower	Upper
75	100		
77	44.6	18.5	55.5



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC001

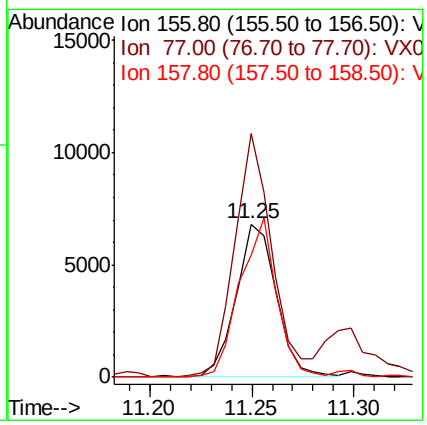
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:21:48 AM

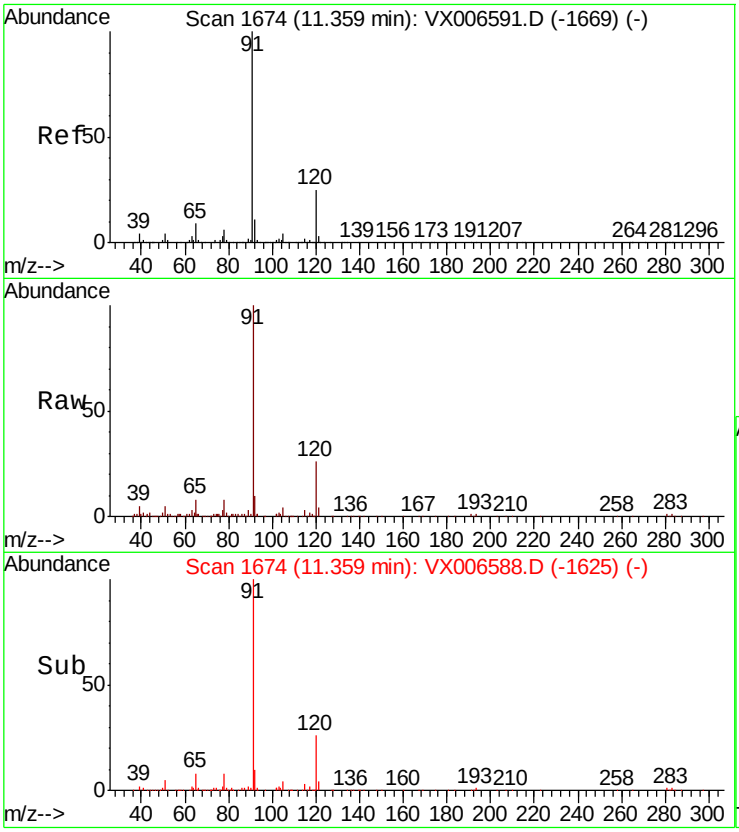


#77
Bromobenzene
Concen: 1.053 ug/l
RT: 11.25 min Scan# 1656
Delta R.T. -0.01 min
Lab File: VX006588.D
Acq: 18 Dec 2018 10:45

Tgt Ion:156 Resp: 9368

Ion	Ratio	Lower	Upper
156	100		
77	147.6	68.0	204.0
158	95.1	48.3	144.8

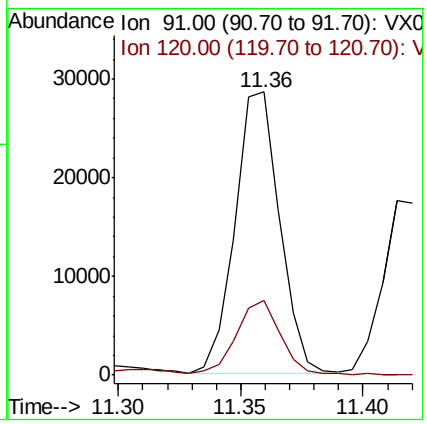




#78
n-propylbenzene
Concen: 1.003 ug/l
RT: 11.36 min Scan# 1674
Delta R.T. -0.00 min
Lab File: VX006588.D
Acq: 18 Dec 2018 10:45

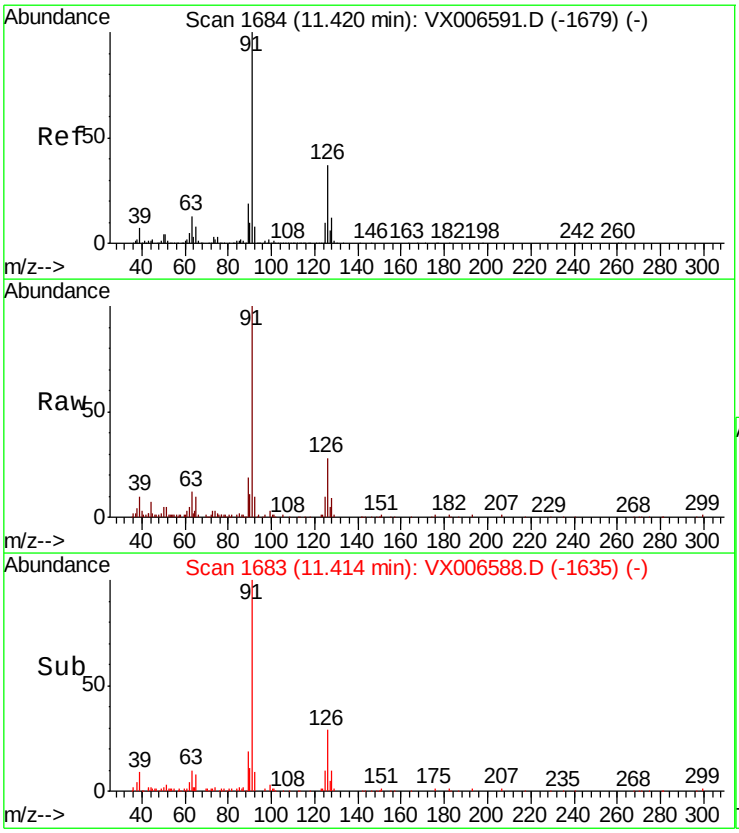
Tgt Ion: 91 Resp: 36337

Ion	Ratio	Lower	Upper
91	100		
120	26.9	12.7	38.0



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC001

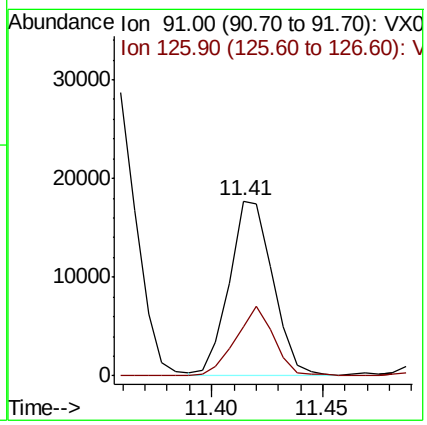
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:21:48 AM

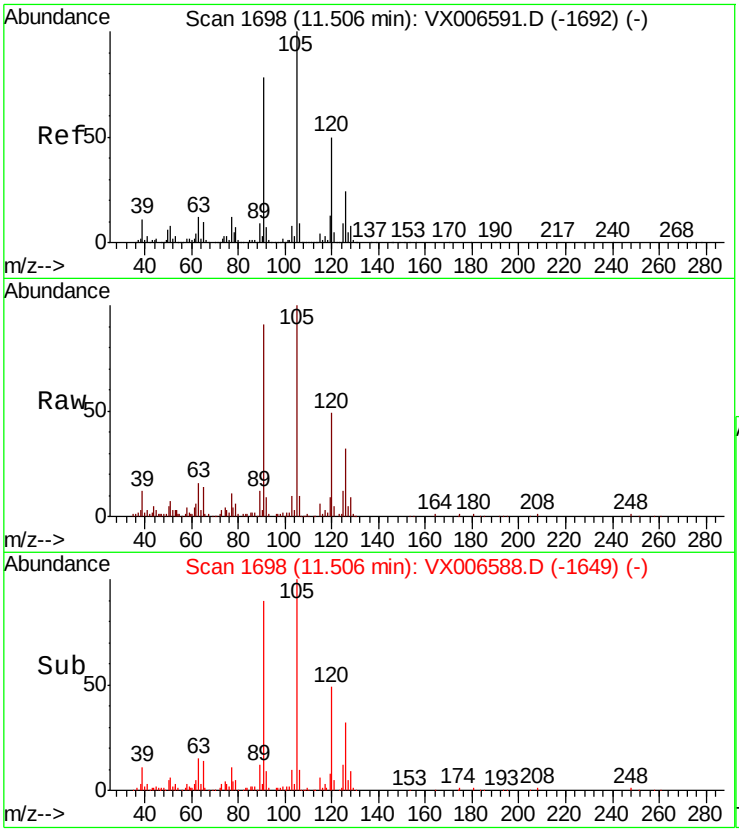


#79
2-Chlorotoluene
Concen: 1.100 ug/l
RT: 11.41 min Scan# 1683
Delta R.T. -0.01 min
Lab File: VX006588.D
Acq: 18 Dec 2018 10:45

Tgt Ion: 91 Resp: 24160

Ion	Ratio	Lower	Upper
91	100		
126	35.2	18.6	56.0





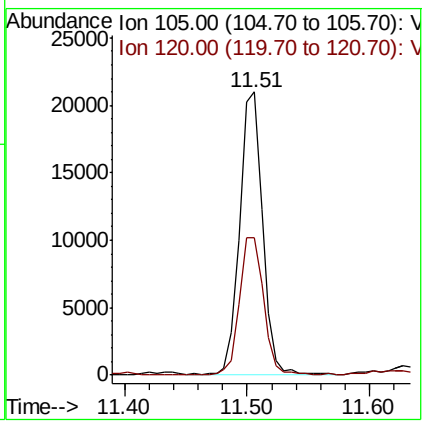
#80
1,3,5-Trimethylbenzene
Concen: 1.009 ug/l
RT: 11.51 min Scan# 1698
Delta R.T. -0.00 min
Lab File: VX006588.D
Acq: 18 Dec 2018 10:45

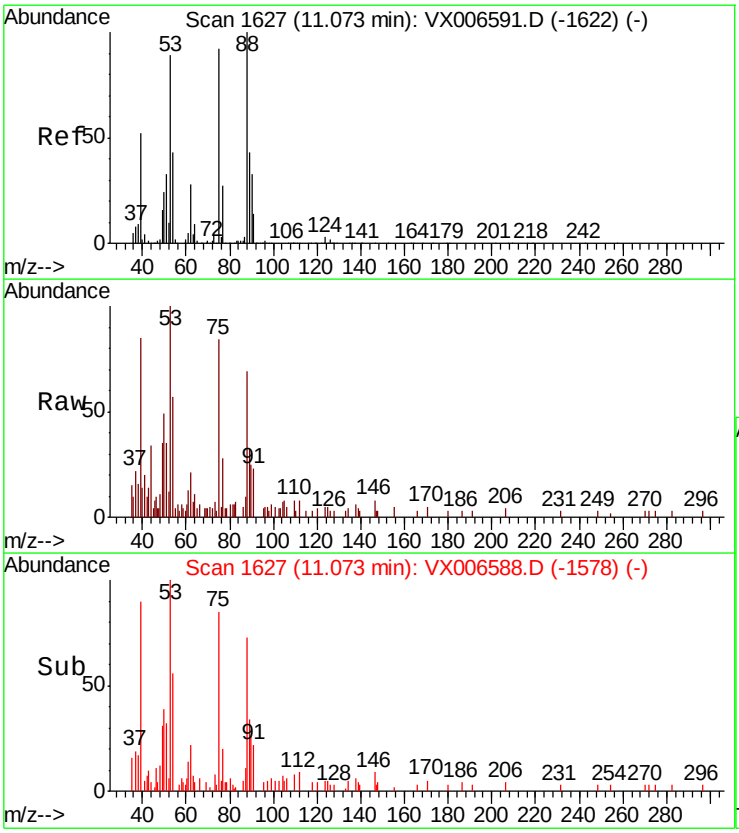
Tgt Ion:105 Resp: 27351

Ion	Ratio	Lower	Upper
105	100		
120	51.1	25.1	75.3

Instrument :
MSVOA_X
ClientSampleId :
VSTDICC001

Manual Integrations APPROVED
MMDadoda
12/19/2018 11:21:48 AM

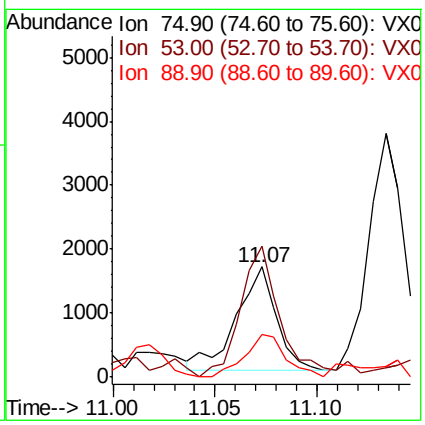


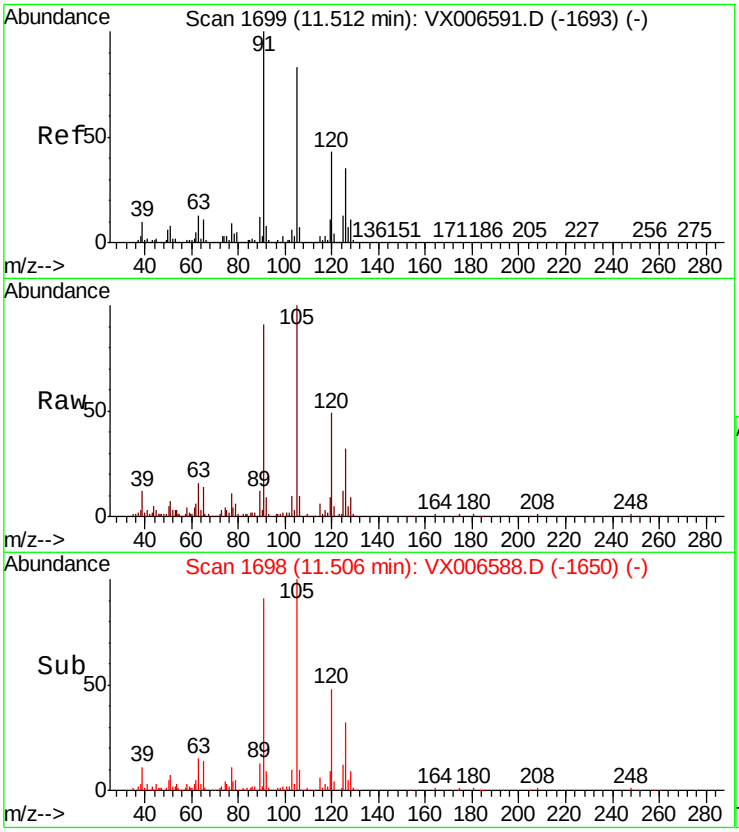


#81
trans-1,4-Dichloro-2-butene
Concen: 0.899 ug/l
RT: 11.07 min Scan# 1627
Delta R.T. -0.00 min
Lab File: VX006588.D
Acq: 18 Dec 2018 10:45

Tgt Ion: 75 Resp: 2243

Ion	Ratio	Lower	Upper
75	100		
53	123.7	79.7	119.5#
89	41.3	38.0	57.0

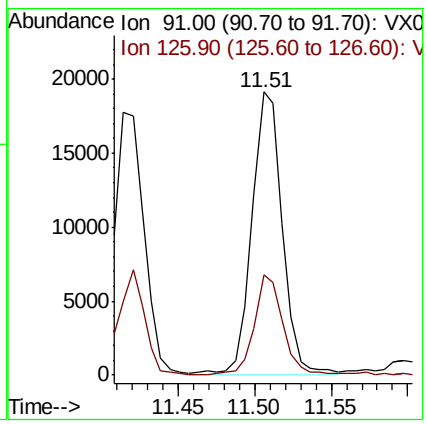




#82
4-Chlorotoluene
Concen: 1.050 ug/l
RT: 11.51 min Scan# 1698
Delta R.T. -0.01 min
Lab File: VX006588.D
Acq: 18 Dec 2018 10:45

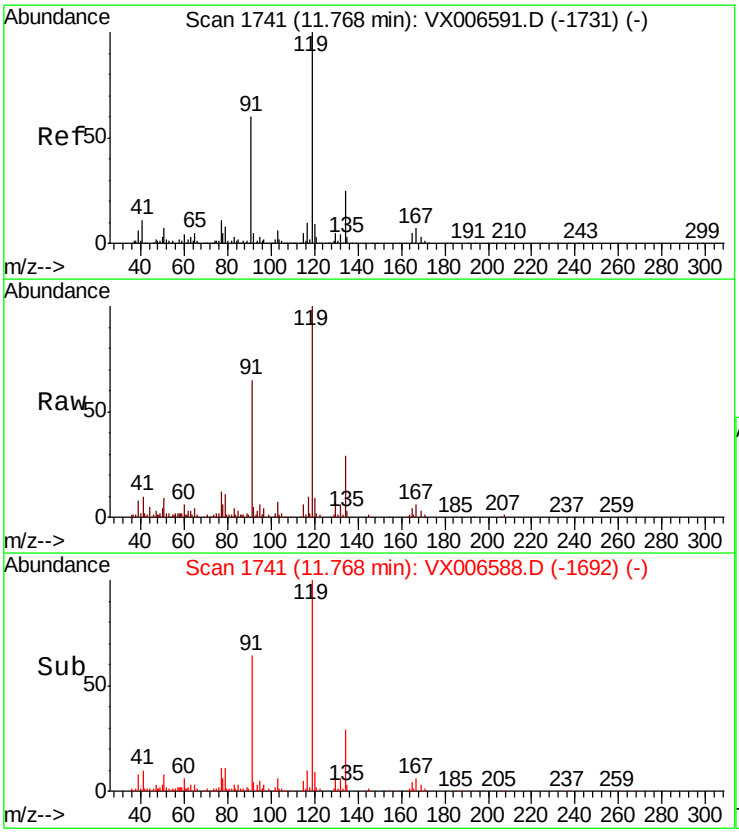
Tgt Ion: 91 Resp: 26450

Ion	Ratio	Lower	Upper
91	100		
126	33.6	16.3	48.9



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC001

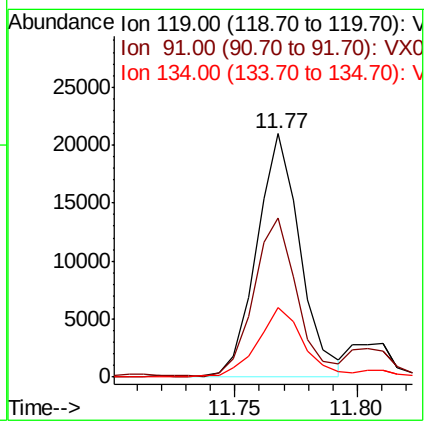
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:21:48 AM

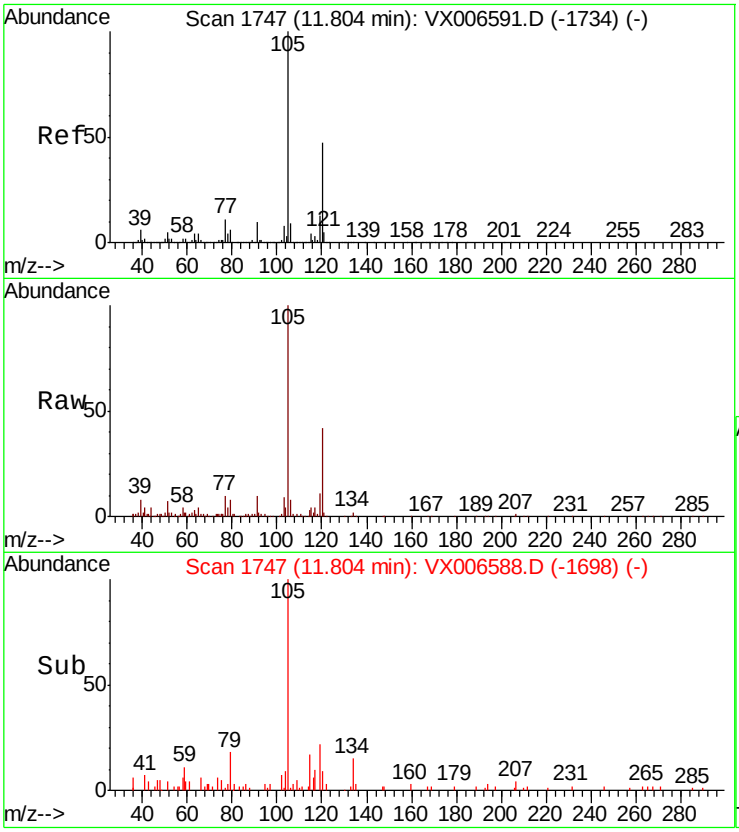


#83
tert-Butylbenzene
Concen: 0.963 ug/l
RT: 11.77 min Scan# 1741
Delta R.T. -0.00 min
Lab File: VX006588.D
Acq: 18 Dec 2018 10:45

Tgt Ion:119 Resp: 26131

Ion	Ratio	Lower	Upper
119	100		
91	65.7	27.7	83.1
134	30.5	11.9	35.5

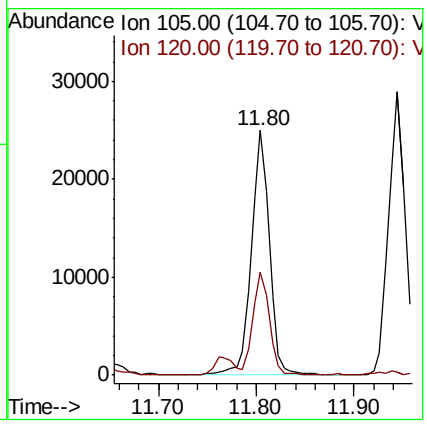




#84
1,2,4-Trimethylbenzene
Concen: 1.132 ug/l
RT: 11.80 min Scan# 1747
Delta R.T. -0.00 min
Lab File: VX006588.D
Acq: 18 Dec 2018 10:45

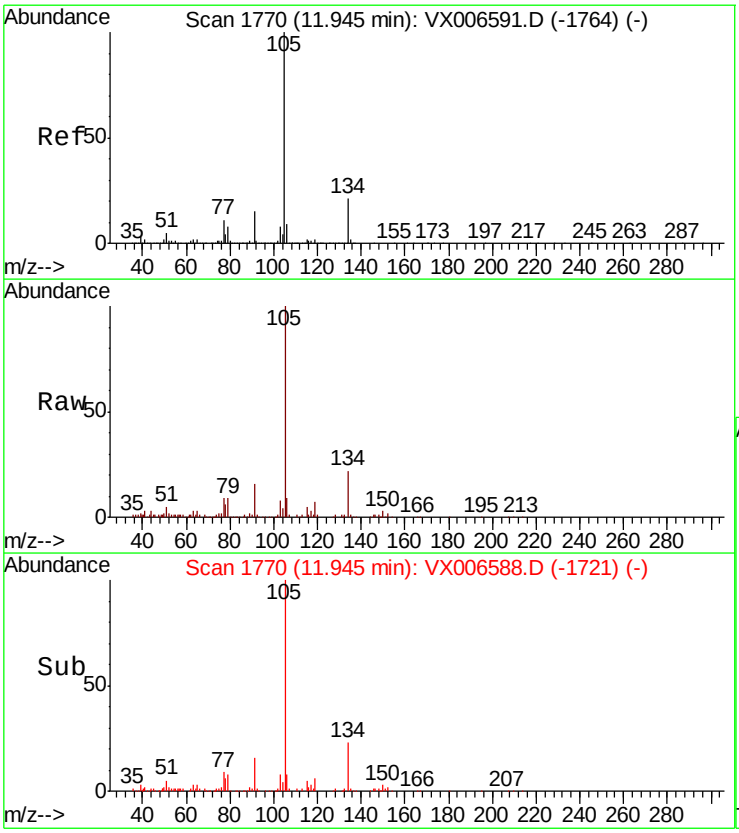
Tgt Ion:105 Resp: 32283

Ion	Ratio	Lower	Upper
105	100		
120	38.0	23.2	69.6



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC001

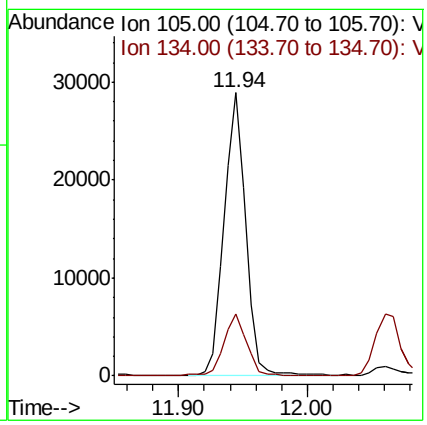
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:21:48 AM

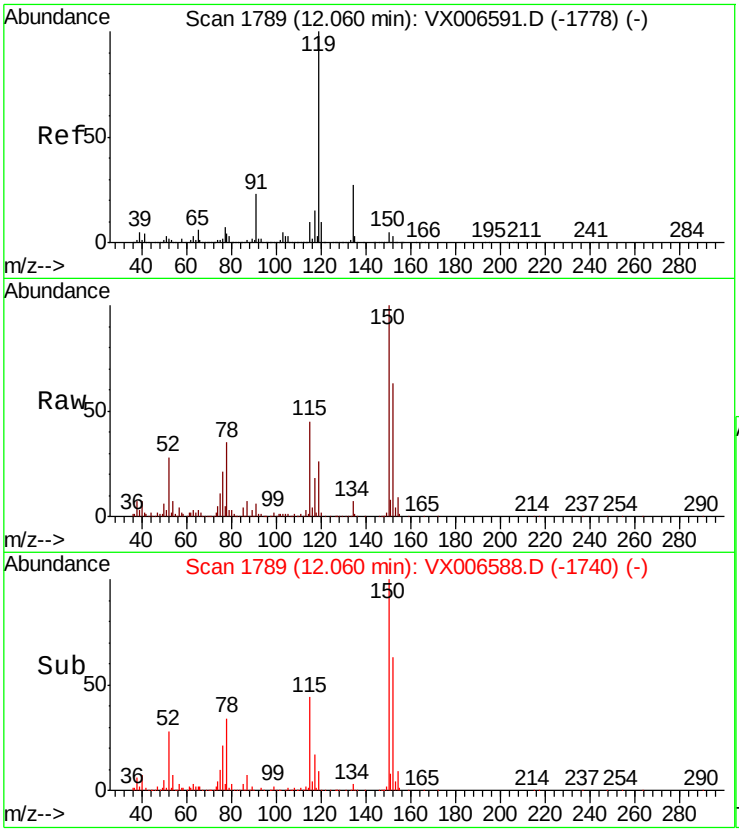


#85
sec-Butylbenzene
Concen: 1.040 ug/l
RT: 11.94 min Scan# 1770
Delta R.T. -0.00 min
Lab File: VX006588.D
Acq: 18 Dec 2018 10:45

Tgt Ion:105 Resp: 34592

Ion	Ratio	Lower	Upper
105	100		
134	23.2	10.7	31.9

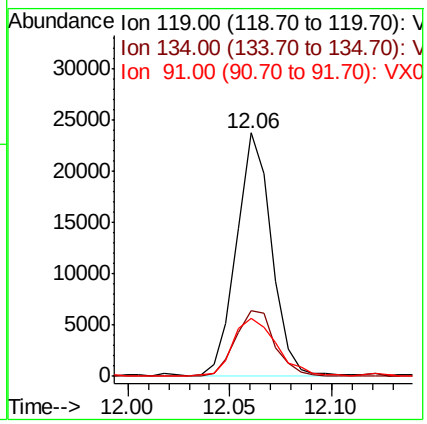




#86
p-Isopropyltoluene
Concen: 0.964 ug/l
RT: 12.06 min Scan# 1789
Delta R.T. -0.00 min
Lab File: VX006588.D
Acq: 18 Dec 2018 10:45

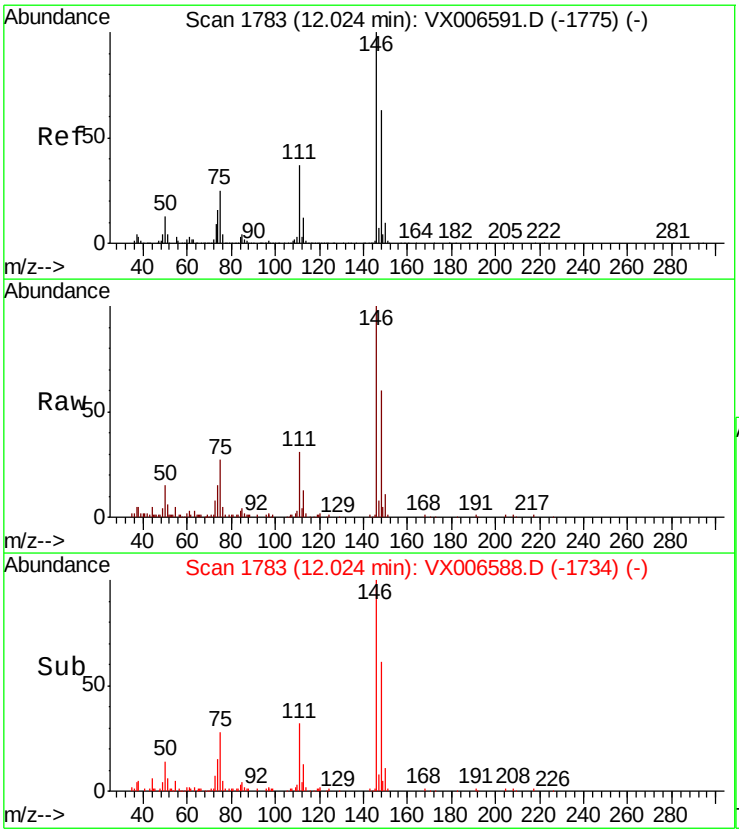
Tgt Ion:119 Resp: 28180

Ion	Ratio	Lower	Upper
119	100		
134	30.6	14.0	41.9
91	30.2	11.3	33.9



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC001

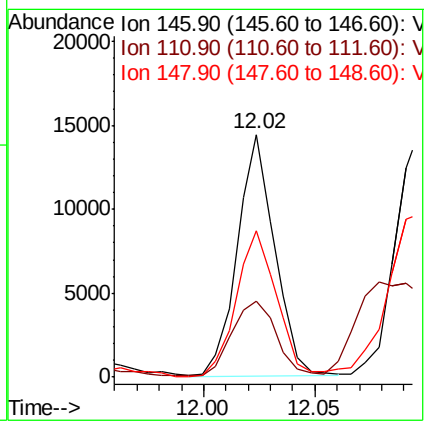
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:21:48 AM

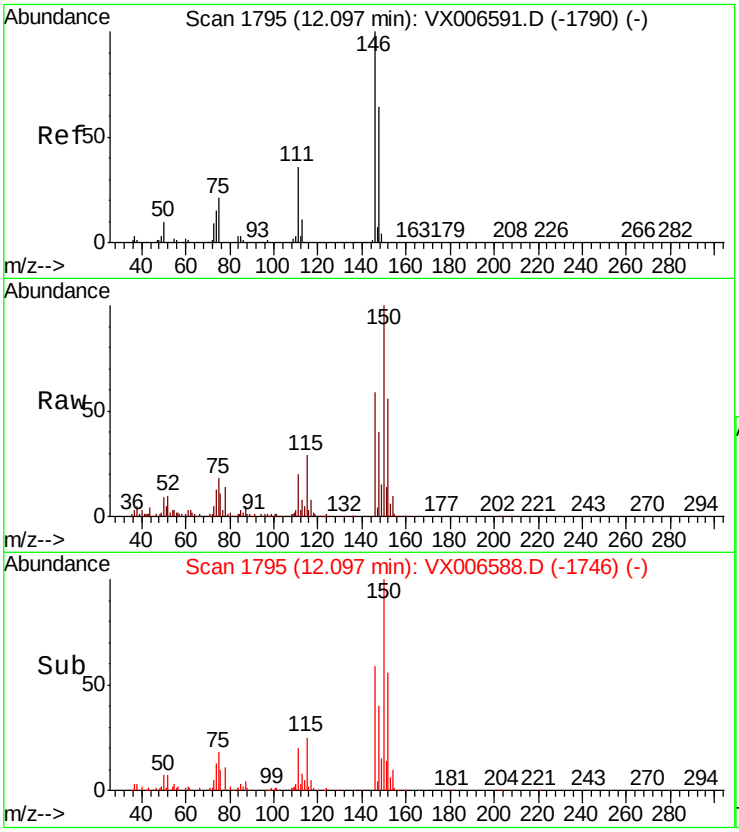


#87
1,3-Dichlorobenzene
Concen: 1.051 ug/l
RT: 12.02 min Scan# 1783
Delta R.T. -0.00 min
Lab File: VX006588.D
Acq: 18 Dec 2018 10:45

Tgt Ion:146 Resp: 16857

Ion	Ratio	Lower	Upper
146	100		
111	38.5	18.6	55.8
148	66.2	31.8	95.3

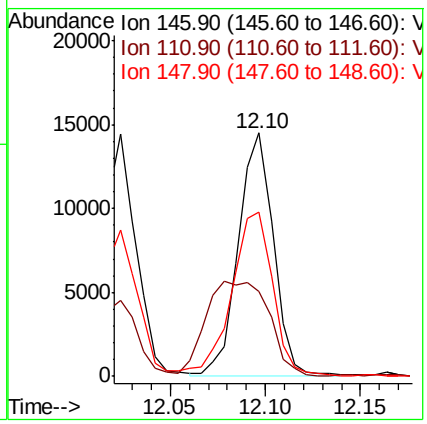




#88
1,4-Dichlorobenzene
Concen: 1.120 ug/l m
RT: 12.10 min Scan# 1795
Delta R.T. -0.00 min
Lab File: VX006588.D
Acq: 18 Dec 2018 10:45

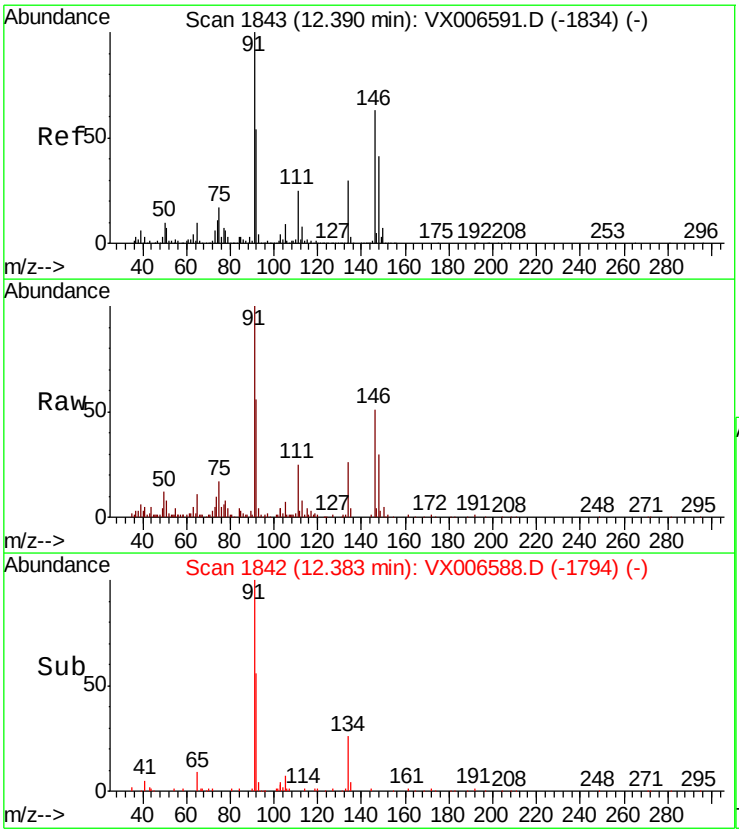
Tgt Ion:146 Resp: 18425

Ion	Ratio	Lower	Upper
146	100		
111	35.3	18.1	54.1
148	60.5	31.9	95.9



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC001

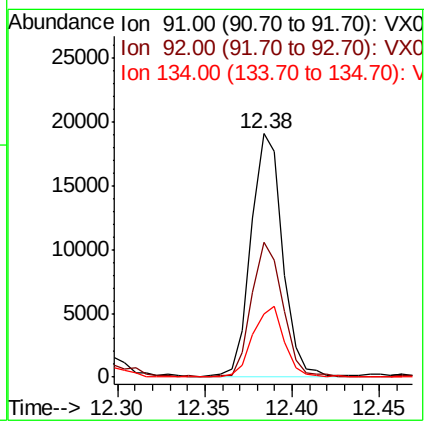
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:21:48 AM



#89
n-Butylbenzene
Concen: 0.966 ug/l
RT: 12.38 min Scan# 1842
Delta R.T. -0.01 min
Lab File: VX006588.D
Acq: 18 Dec 2018 10:45

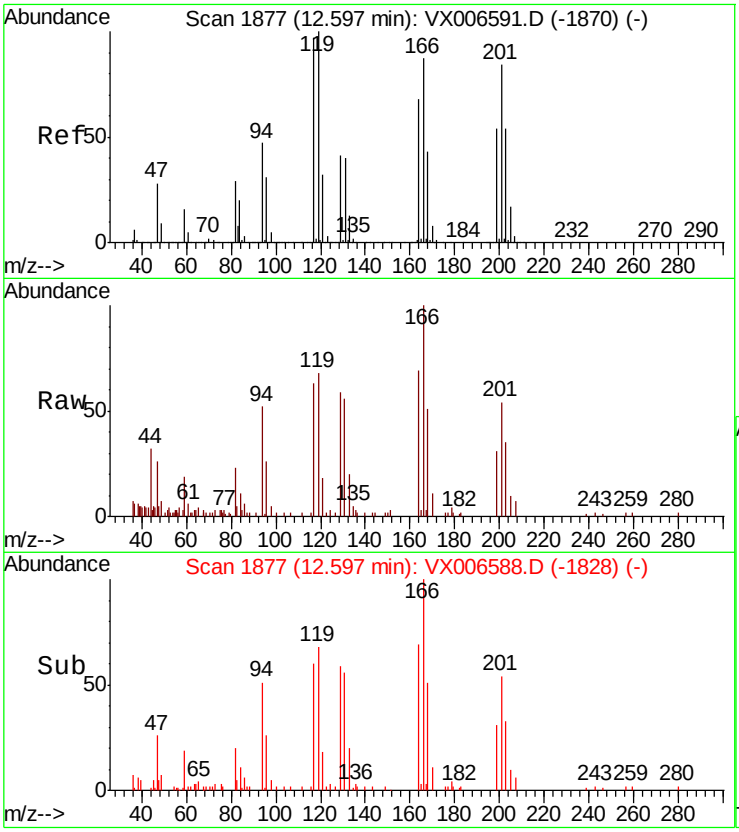
Tgt Ion: 91 Resp: 24040

Ion	Ratio	Lower	Upper
91	100		
92	55.1	26.8	80.4
134	28.9	14.4	43.2



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC001

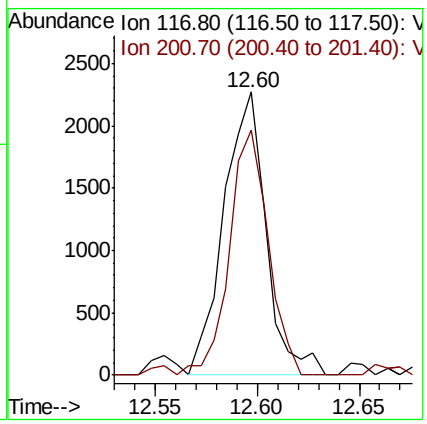
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:21:48 AM

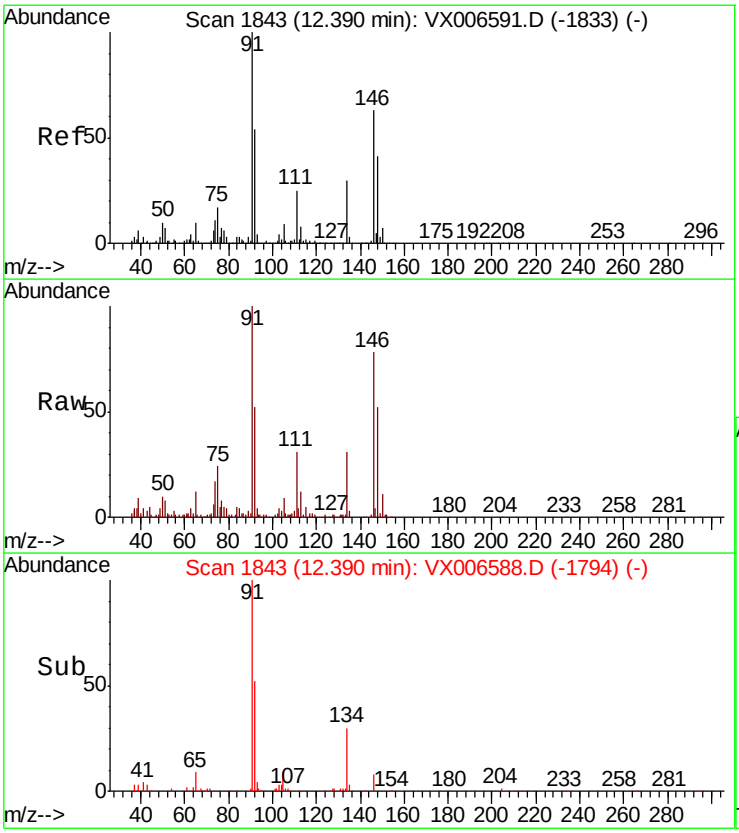


#90
Hexachloroethane
Concen: 0.818 ug/l
RT: 12.60 min Scan# 1877
Delta R.T. -0.00 min
Lab File: VX006588.D
Acq: 18 Dec 2018 10:45

Tgt Ion:117 Resp: 3257

Ion	Ratio	Lower	Upper
117	100		
201	79.2	42.9	128.7

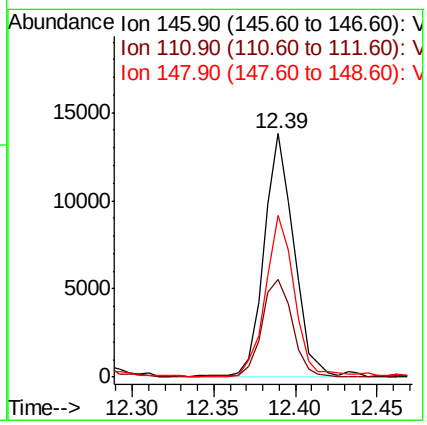


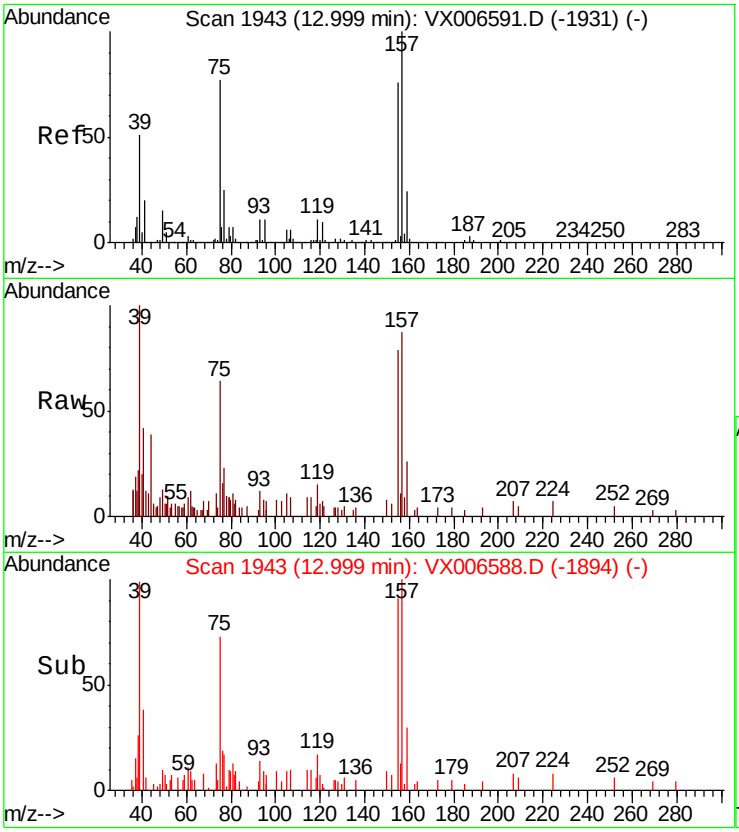


#91
1,2-Dichlorobenzene
Concen: 1.081 ug/l
RT: 12.39 min Scan# 1843
Delta R.T. -0.00 min
Lab File: VX006588.D
Acq: 18 Dec 2018 10:45

Tgt Ion:146 Resp: 17344

Ion	Ratio	Lower	Upper
146	100		
111	41.7	19.4	58.2
148	66.2	32.3	96.9

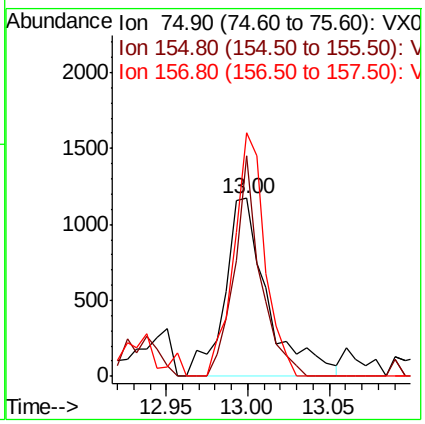




#92
1,2-Dibromo-3-Chloropropane
Concen: 1.056 ug/l
RT: 13.00 min Scan# 1943
Delta R.T. -0.00 min
Lab File: VX006588.D
Acq: 18 Dec 2018 10:45

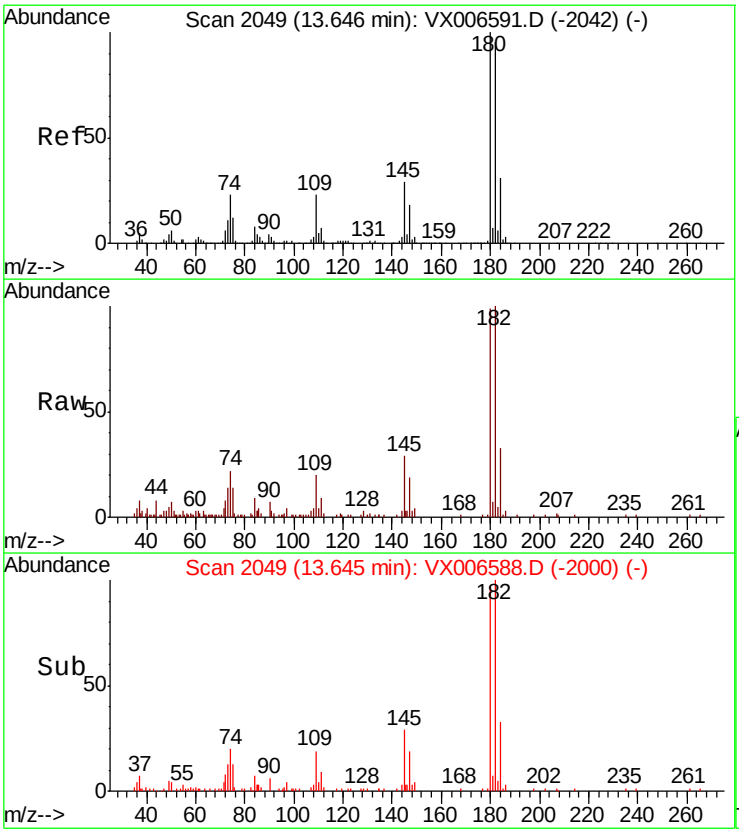
Tgt Ion: 75 Resp: 2139

Ion	Ratio	Lower	Upper
75	100		
155	75.2	50.6	151.8
157	98.7	64.6	193.8



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC001

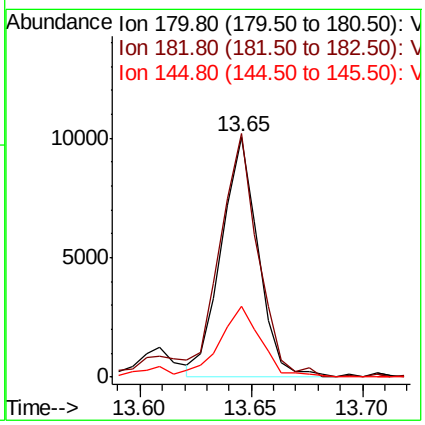
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:21:48 AM

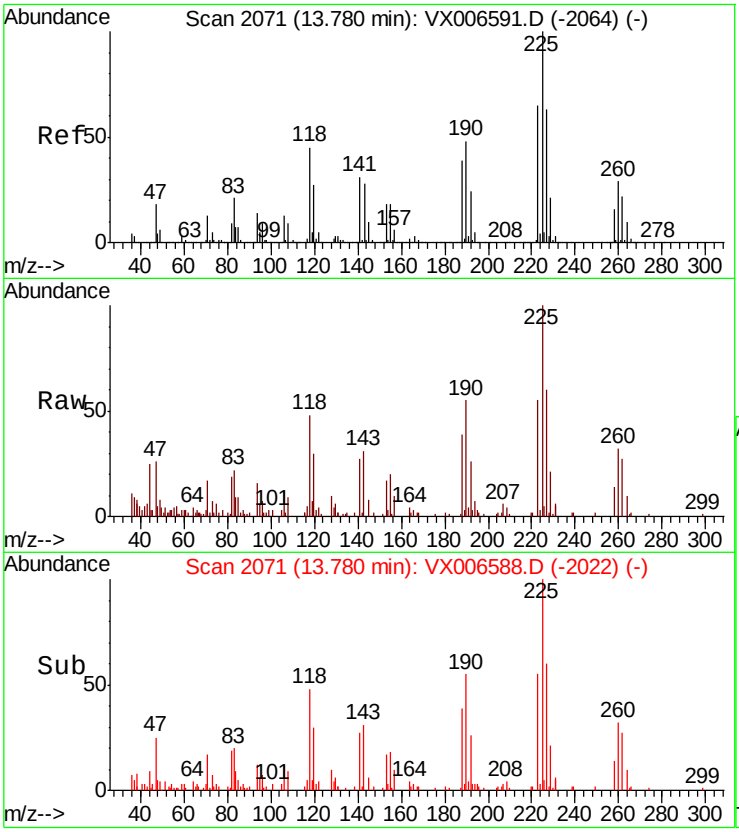


#93
1,2,4-Trichlorobenzene
Concen: 1.045 ug/l
RT: 13.65 min Scan# 2049
Delta R.T. -0.00 min
Lab File: VX006588.D
Acq: 18 Dec 2018 10:45

Tgt Ion:180 Resp: 11566

Ion	Ratio	Lower	Upper
180	100		
182	104.1	47.3	142.0
145	33.2	14.8	44.3

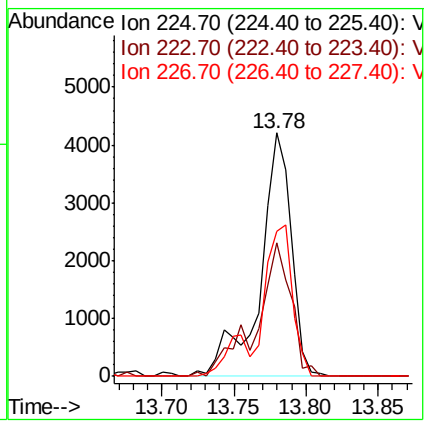




#94
Hexachlorobutadiene
Concen: 1.214 ug/l
RT: 13.78 min Scan# 2071
Delta R.T. -0.00 min
Lab File: VX006588.D
Acq: 18 Dec 2018 10:45

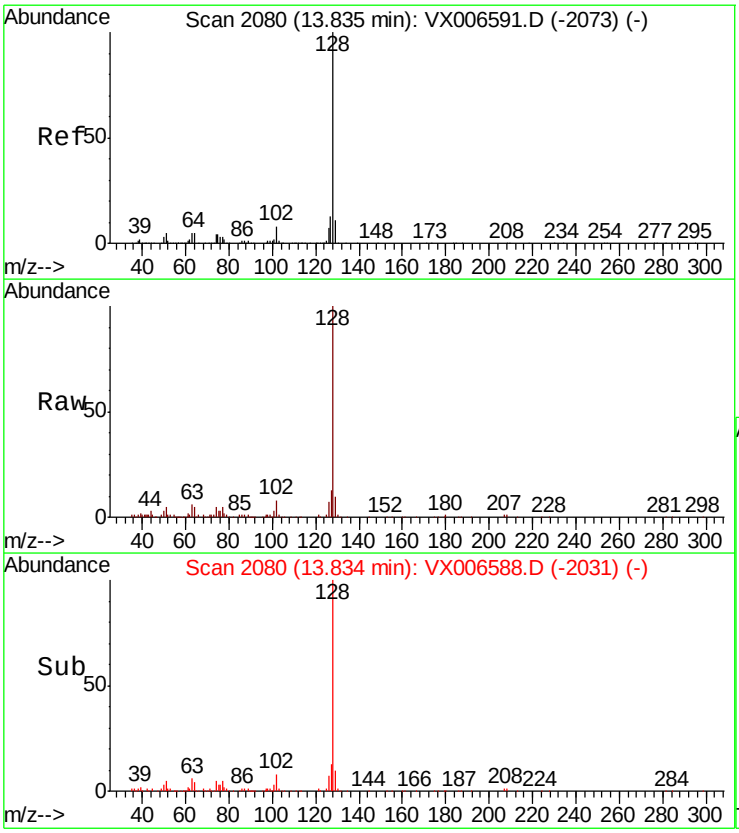
Tgt Ion:225 Resp: 6330

Ion	Ratio	Lower	Upper
225	100		
223	61.2	32.1	96.3
227	52.2	32.3	96.8



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC001

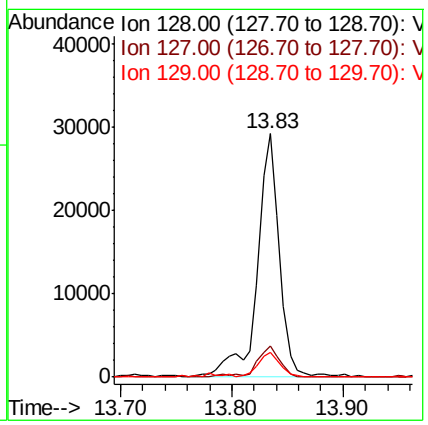
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:21:48 AM

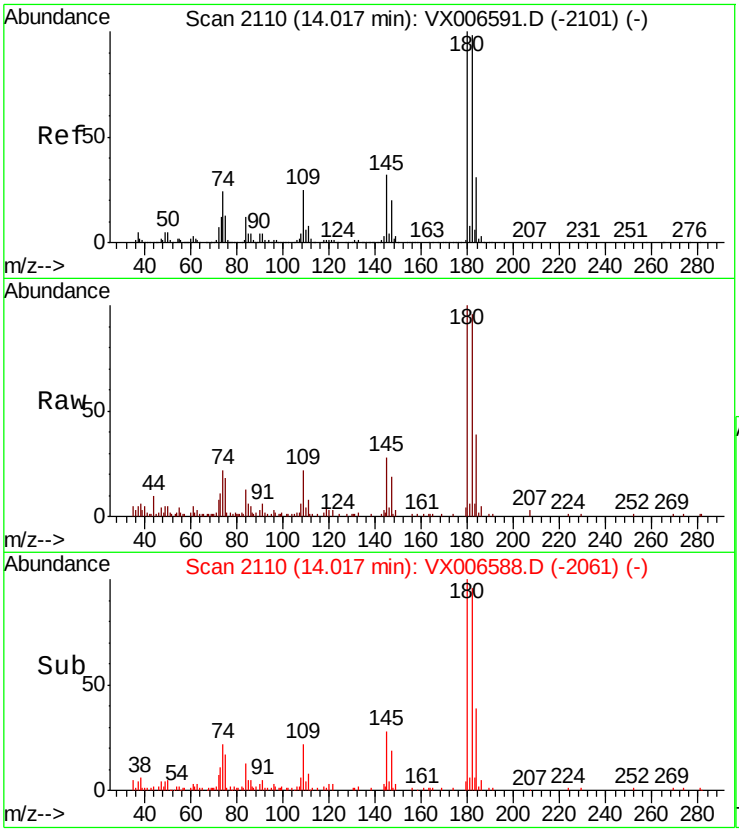


#95
Naphthalene
Concen: 1.134 ug/l
RT: 13.83 min Scan# 2080
Delta R.T. -0.00 min
Lab File: VX006588.D
Acq: 18 Dec 2018 10:45

Tgt Ion:128 Resp: 40029

Ion	Ratio	Lower	Upper
128	100		
127	12.1	10.1	15.1
129	10.3	8.6	13.0

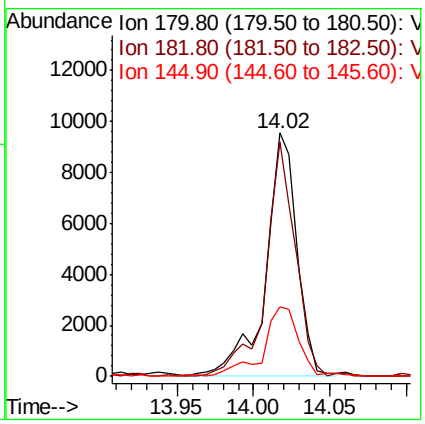




#96
1,2,3-Trichlorobenzene
Concen: 1.203 ug/l
RT: 14.02 min Scan# 2110
Delta R.T. -0.00 min
Lab File: VX006588.D
Acq: 18 Dec 2018 10:45

Tgt Ion:180 Resp: 13743

Ion	Ratio	Lower	Upper
180	100		
182	91.1	48.5	145.5
145	32.2	16.0	47.9



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC001

Manual Integrations APPROVED
MMDadoda
12/19/2018 11:21:48 AM

Quantitation Report (QT Reviewed)

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX121818\
Data File : VX006589.D
Acq On : 18 Dec 2018 11:11
Operator : JC/MD
Sample : VSTDICC005
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 4 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
VSTDICC005

Manual Integrations APPROVED
MMDadoda
12/19/2018 11:21:52 AM

Quant Time: Dec 19 00:50:21 2018
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121818W.M
Quant Title : SW846 8260
QLast Update : Wed Dec 19 00:31:42 2018
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	5.66	168	612760	50.00	ug/l	0.00
34) 1,4-Difluorobenzene	6.86	114	954440	50.00	ug/l	0.00
63) Chlorobenzene-d5	10.11	117	861494	50.00	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	12.08	152	415079	50.00	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	6.07	65	35066	5.31	ug/l	0.00
Spiked Amount 50.000			Recovery = 10.62%			
35) Dibromofluoromethane	5.50	113	30212	5.01	ug/l	0.00
Spiked Amount 50.000			Recovery = 10.02%			
50) Toluene-d8	8.71	98	116825	5.13	ug/l	0.00
Spiked Amount 50.000			Recovery = 10.26%			
62) 4-Bromofluorobenzene	11.13	95	40779	4.89	ug/l	0.00
Spiked Amount 50.000			Recovery = 9.78%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.20	85	29547	5.271	ug/l	97
3) Chloromethane	1.33	50	29916	4.954	ug/l	99
4) Vinyl Chloride	1.41	62	32651	5.177	ug/l	100
5) Bromomethane	1.64	94	37479	5.465	ug/l	95
6) Chloroethane	1.71	64	20344	4.658	ug/l	98
7) Trichlorofluoromethane	1.93	101	50430	5.128	ug/l	89
8) Diethyl Ether	2.19	74	19033	4.873	ug/l	98
9) 1,1,2-Trichlorotrifluoroet	2.39	101	29090	5.038	ug/l	96
10) Methyl Iodide	2.51	142	34867	4.219	ug/l	99
11) Tert butyl alcohol	3.07	59	38212	25.927	ug/l	100
12) 1,1-Dichloroethene	2.37	96	28215	5.154	ug/l	93
13) Acrolein	2.29	56	26946	27.101	ug/l	96
14) Allyl chloride	2.73	41	46443	5.040	ug/l	96
15) Acrylonitrile	3.15	53	82051	25.074	ug/l	100
16) Acetone	2.45	43	75109	24.755	ug/l	93
17) Carbon Disulfide	2.57	76	65141	4.496	ug/l	96
18) Methyl Acetate	2.78	43	44317	4.967	ug/l	98
19) Methyl tert-butyl Ether	3.20	73	92964	5.116	ug/l	99
20) Methylene Chloride	2.85	84	31532	5.026	ug/l	96
21) trans-1,2-Dichloroethene	3.17	96	30051	4.954	ug/l	96
22) Diisopropyl ether	3.87	45	88100	5.226	ug/l	96
23) Vinyl Acetate	3.82	43	358501	25.997	ug/l	98
24) 1,1-Dichloroethane	3.70	63	52962	5.262	ug/l	95
25) 2-Butanone	4.70	43	106082	24.856	ug/l	96
26) 2,2-Dichloropropane	4.58	77	35871	4.614	ug/l	98
27) cis-1,2-Dichloroethene	4.60	96	34657	5.178	ug/l	100
28) Bromochloromethane	5.02	49	21667	4.683	ug/l	95
29) Tetrahydrofuran	5.15	42	69096	24.581	ug/l	99
30) Chloroform	5.21	83	50600	4.855	ug/l	99
31) Cyclohexane	5.57	56	46621	5.099	ug/l	93
32) 1,1,1-Trichloroethane	5.49	97	41930	4.765	ug/l	96
36) 1,1-Dichloropropene	5.79	75	39916	5.049	ug/l	98
37) Ethyl Acetate	4.85	43	39506	4.802	ug/l	99
38) Carbon Tetrachloride	5.78	117	33893	4.412	ug/l	93

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX121818\
Data File : VX006589.D
Acq On : 18 Dec 2018 11:11
Operator : JC/MD
Sample : VSTDICC005
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 4 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
VSTDICC005

Manual Integrations APPROVED
MMDadoda
12/19/2018 11:21:52 AM

Quant Time: Dec 19 00:50:21 2018
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121818W.M
Quant Title : SW846 8260
QLast Update : Wed Dec 19 00:31:42 2018
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
39) Methylcyclohexane	7.46	83	51527	4.951	ug/l		94
40) Benzene	6.14	78	121251	5.046	ug/l		100
41) Methacrylonitrile	5.06	41	22277	4.818	ug/l	#	92
42) 1,2-Dichloroethane	6.19	62	42643	5.208	ug/l		99
43) Isopropyl Acetate	6.46	43	59016	4.714	ug/l		99
44) Trichloroethene	7.21	130	36306	4.992	ug/l		99
45) 1,2-Dichloropropane	7.51	63	28499	4.874	ug/l		97
46) Dibromomethane	7.66	93	21075	4.900	ug/l		97
47) Bromodichloromethane	7.90	83	30538	4.277	ug/l		95
48) Methyl methacrylate	7.77	41	30771	4.834	ug/l		98
49) 1,4-Dioxane	7.75	88	17375	96.462	ug/l		91
51) 4-Methyl-2-Pentanone	8.65	43	194697	24.443	ug/l		99
52) Toluene	8.78	92	76721	4.942	ug/l		97
53) t-1,3-Dichloropropene	9.04	75	31118	4.063	ug/l		95
54) cis-1,3-Dichloropropene	8.43	75	36051	4.290	ug/l		97
55) 1,1,2-Trichloroethane	9.21	97	31918	5.023	ug/l		94
56) Ethyl methacrylate	9.18	69	42364	4.717	ug/l		99
57) 1,3-Dichloropropane	9.37	76	50167	4.907	ug/l		97
58) 2-Chloroethyl Vinyl ether	8.31	63	111381	23.332	ug/l		100
59) 2-Hexanone	9.49	43	147083	24.134	ug/l		99
60) Dibromochloromethane	9.58	129	24541	4.193	ug/l		98
61) 1,2-Dibromoethane	9.67	107	32453	4.805	ug/l		100
64) Tetrachloroethene	9.34	164	35825	5.252	ug/l		95
65) Chlorobenzene	10.13	112	89867	4.931	ug/l		99
66) 1,1,1,2-Tetrachloroethane	10.22	131	24791	4.360	ug/l		99
67) Ethyl Benzene	10.25	91	147132	4.940	ug/l		100
68) m/p-Xylenes	10.36	106	117887	10.031	ug/l		99
69) o-Xylene	10.69	106	57169	4.926	ug/l		96
70) Styrene	10.71	104	87661	4.775	ug/l		97
71) Bromoform	10.85	173	16227	3.748	ug/l	#	97
73) Isopropylbenzene	11.02	105	151672	5.341	ug/l		99
74) N-amyl acetate	10.90	43	48588	4.780	ug/l		95
75) 1,1,2,2-Tetrachloroethane	11.27	83	43335	5.131	ug/l		100
76) 1,2,3-Trichloropropane	11.29	75	40247m	5.474	ug/l		
77) Bromobenzene	11.26	156	40136	5.228	ug/l		98
78) n-propylbenzene	11.36	91	165270	5.285	ug/l		99
79) 2-Chlorotoluene	11.42	91	100964	5.328	ug/l		100
80) 1,3,5-Trimethylbenzene	11.51	105	122447	5.235	ug/l		99
81) trans-1,4-Dichloro-2-buten	11.07	75	7520	3.492	ug/l	#	75
82) 4-Chlorotoluene	11.51	91	113968	5.243	ug/l		99
83) tert-Butylbenzene	11.77	119	119901	5.122	ug/l		95
84) 1,2,4-Trimethylbenzene	11.80	105	126131	5.127	ug/l		100
85) sec-Butylbenzene	11.94	105	147553	5.141	ug/l		100
86) p-Isopropyltoluene	12.06	119	129079	5.116	ug/l		98
87) 1,3-Dichlorobenzene	12.02	146	69438	5.019	ug/l		98
88) 1,4-Dichlorobenzene	12.10	146	71856	5.060	ug/l		92
89) n-Butylbenzene	12.39	91	103815	4.835	ug/l		100
90) Hexachloroethane	12.60	117	13945	4.058	ug/l		98
91) 1,2-Dichlorobenzene	12.39	146	72014	5.203	ug/l		97
92) 1,2-Dibromo-3-Chloropropan	13.00	75	7258	4.154	ug/l		93

ICAL Form

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX121818\
Data File : VX006589.D
Acq On : 18 Dec 2018 11:11
Operator : JC/MD
Sample : VSTDICC005
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 4 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
VSTDICC005

Manual Integrations APPROVED
MMDadoda
12/19/2018 11:21:52 AM

Quant Time: Dec 19 00:50:21 2018
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121818W.M
Quant Title : SW846 8260
QLast Update : Wed Dec 19 00:31:42 2018
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
93) 1,2,4-Trichlorobenzene	13.65	180	44491	4.660	ug/l	98
94) Hexachlorobutadiene	13.78	225	20267	4.504	ug/l	98
95) Naphthalene	13.83	128	142061	4.662	ug/l	99
96) 1,2,3-Trichlorobenzene	14.02	180	44608	4.525	ug/l	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

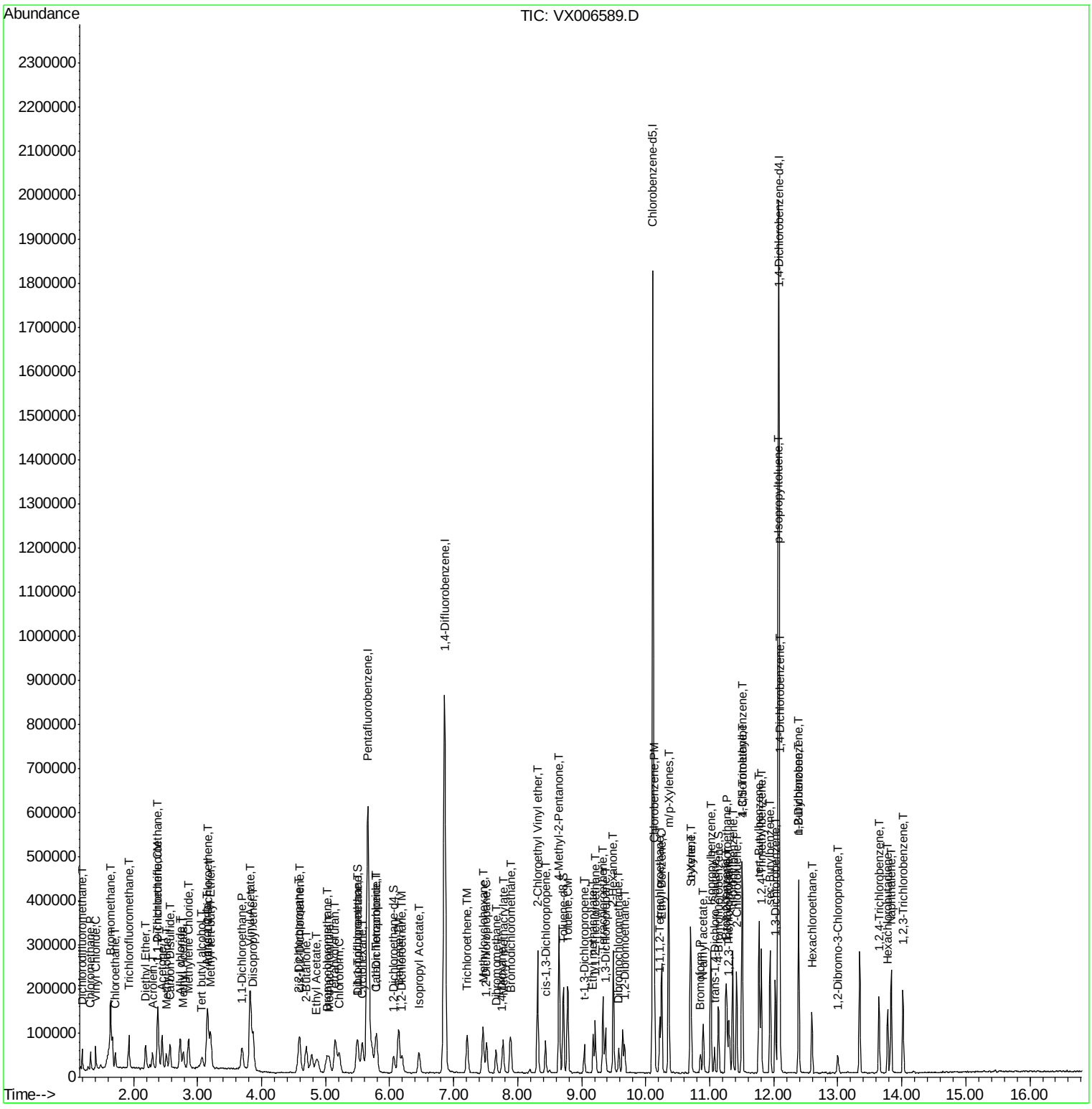
ICAL Form

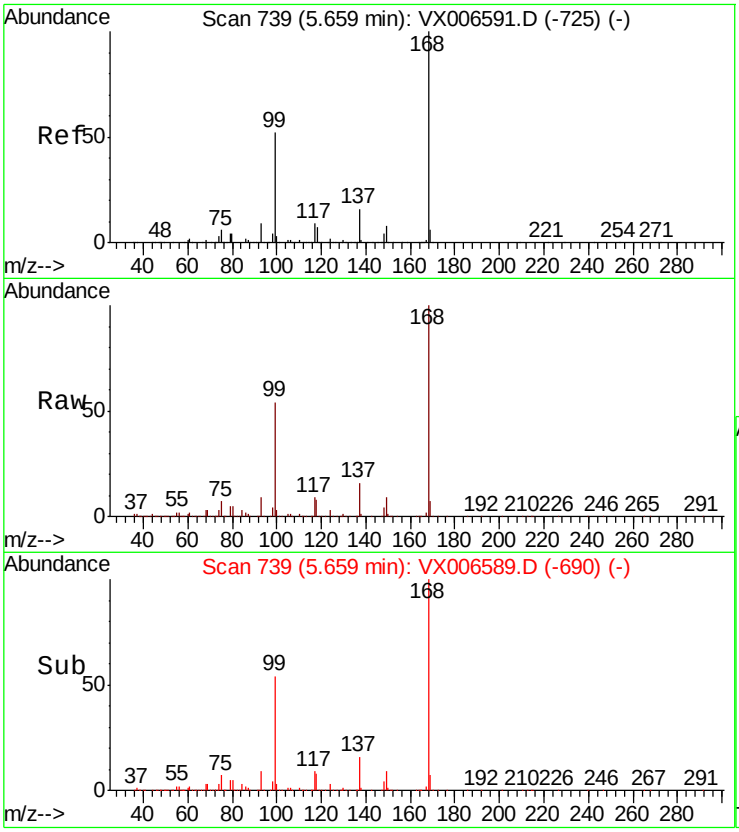
Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX121818\
Data File : VX006589.D
Acq On : 18 Dec 2018 11:11
Operator : JC/MD
Sample : VSTDICC005
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Dec 19 00:50:21 2018
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121818W.M
Quant Title : SW846 8260
QLast Update : Wed Dec 19 00:31:42 2018
Response via : Initial Calibration

Instrument :
MSVOA_X
ClientSampleId :
VSTDICC005

Manual Integrations APPROVED
MMDadoda
12/19/2018 11:21:52 AM

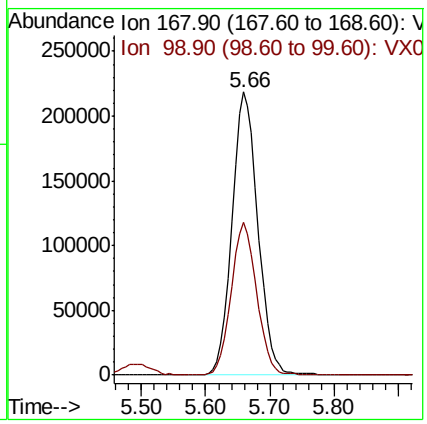




#1
Pentafluorobenzene
Concen: 50.000 ug/l
RT: 5.66 min Scan# 739
Delta R.T. 0.00 min
Lab File: VX006589.D
Acq: 18 Dec 2018 11:11

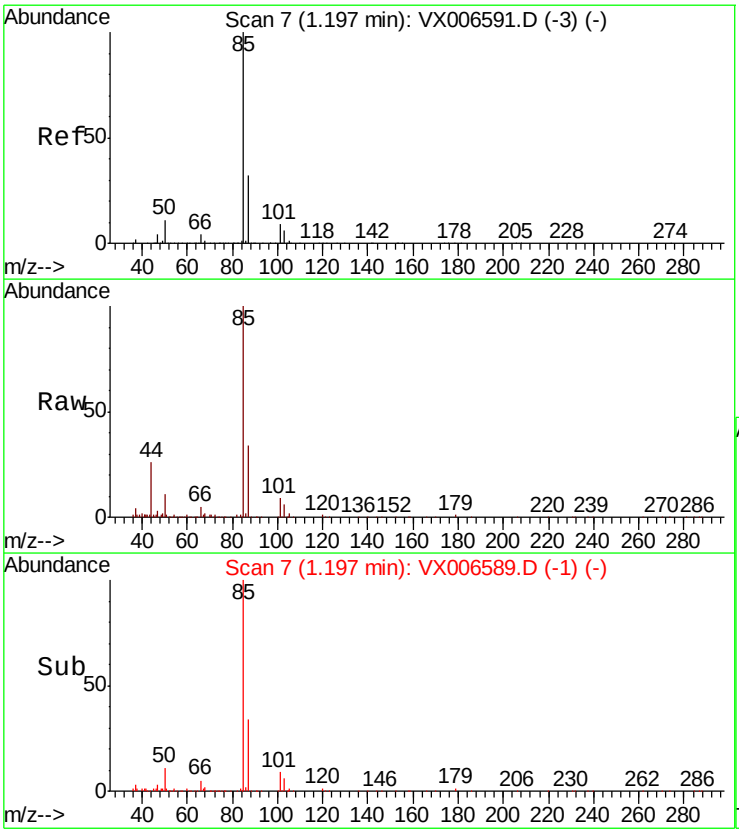
Tgt Ion:168 Resp: 612760

Ion	Ratio	Lower	Upper
168	100		
99	53.9	41.8	62.8



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC005

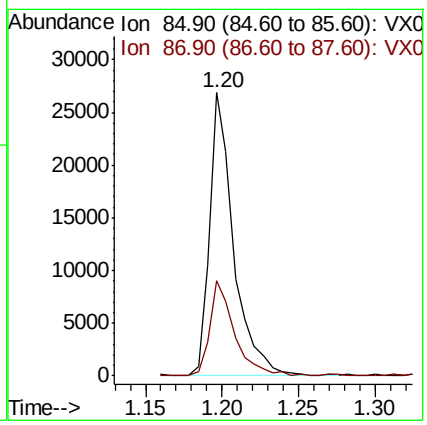
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:21:52 AM



#2
Dichlorodifluoromethane
Concen: 5.271 ug/l
RT: 1.20 min Scan# 7
Delta R.T. 0.00 min
Lab File: VX006589.D
Acq: 18 Dec 2018 11:11

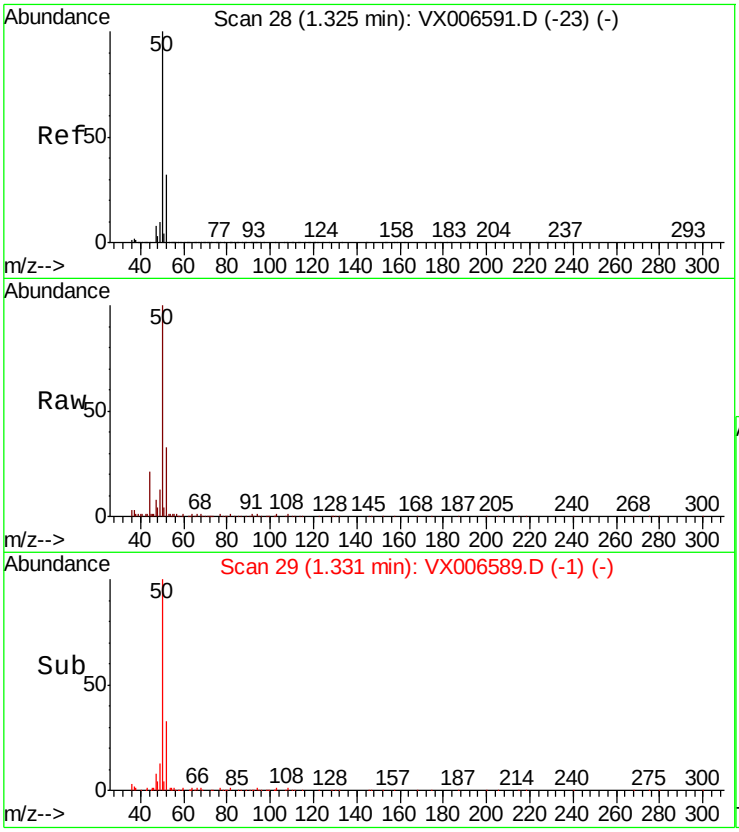
Tgt Ion: 85 Resp: 29547

Ion	Ratio	Lower	Upper
85	100		
87	33.2	15.9	47.6



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC005

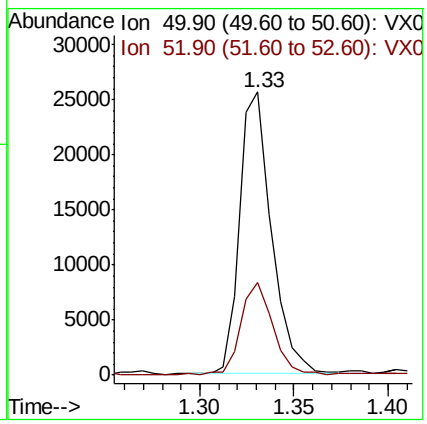
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:21:52 AM

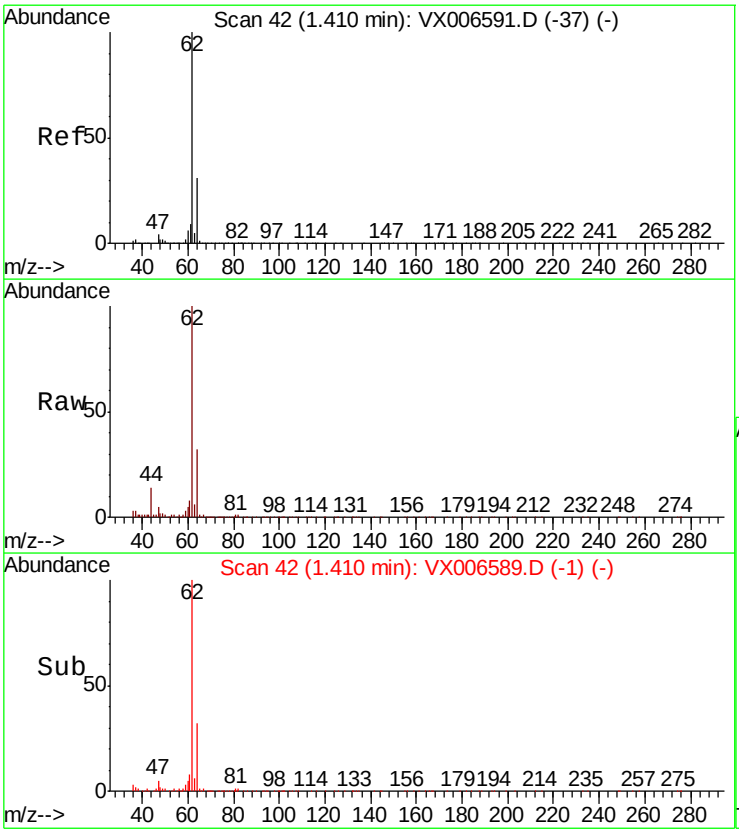


#3
Chloromethane
Concen: 4.954 ug/l
RT: 1.33 min Scan# 29
Delta R.T. 0.01 min
Lab File: VX006589.D
Acq: 18 Dec 2018 11:11

Tgt Ion: 50 Resp: 29916

Ion	Ratio	Lower	Upper
50	100		
52	32.6	25.4	38.2

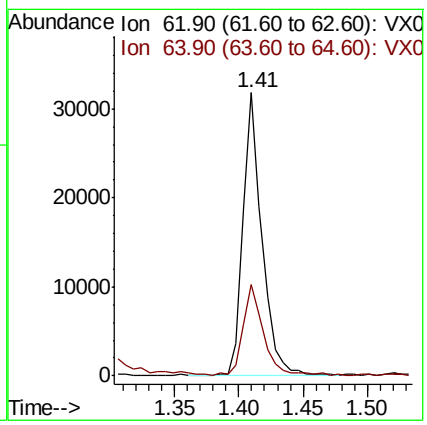




#4
Vinyl Chloride
Concen: 5.177 ug/l
RT: 1.41 min Scan# 42
Delta R.T. 0.00 min
Lab File: VX006589.D
Acq: 18 Dec 2018 11:11

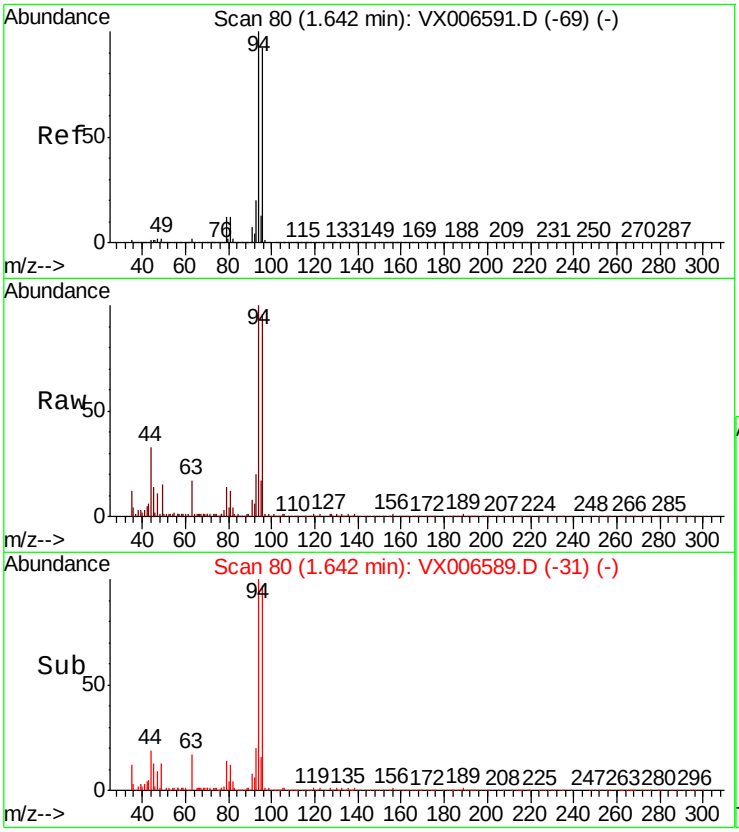
Tgt Ion: 62 Resp: 32651

Ion	Ratio	Lower	Upper
62	100		
64	31.6	25.1	37.7



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC005

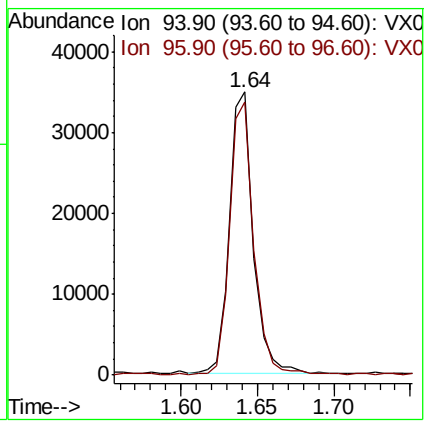
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:21:52 AM

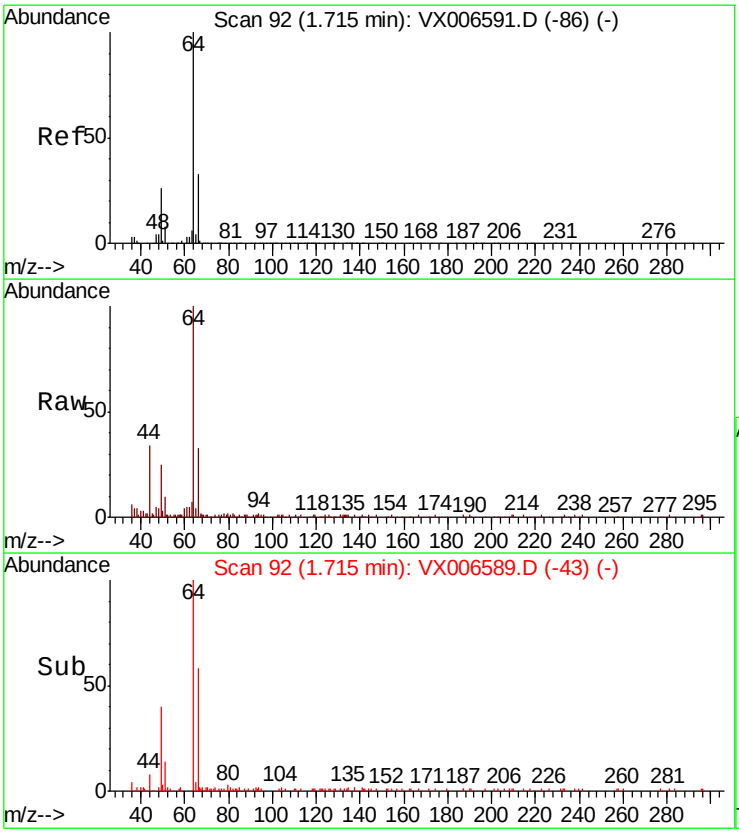


#5
Bromomethane
Concen: 5.465 ug/l
RT: 1.64 min Scan# 80
Delta R.T. 0.00 min
Lab File: VX006589.D
Acq: 18 Dec 2018 11:11

Tgt Ion: 94 Resp: 37479

Ion	Ratio	Lower	Upper
94	100		
96	97.0	73.4	110.2

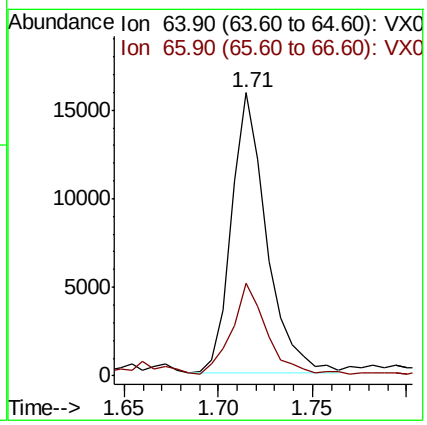


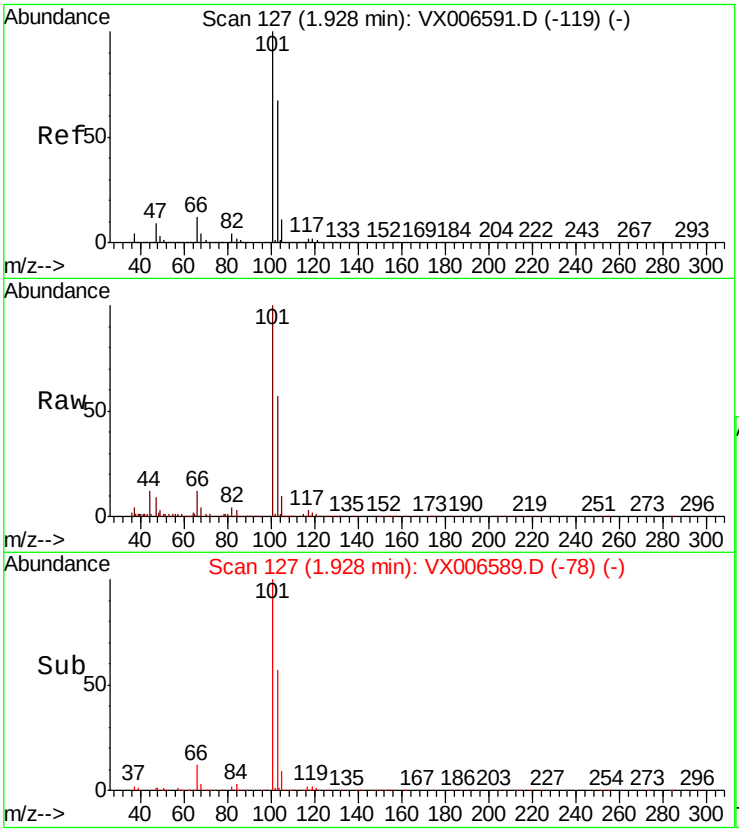


#6
Chloroethane
Concen: 4.658 ug/l
RT: 1.71 min Scan# 92
Delta R.T. 0.00 min
Lab File: VX006589.D
Acq: 18 Dec 2018 11:11

Tgt Ion: 64 Resp: 20344

Ion	Ratio	Lower	Upper
64	100		
66	32.1	26.4	39.6

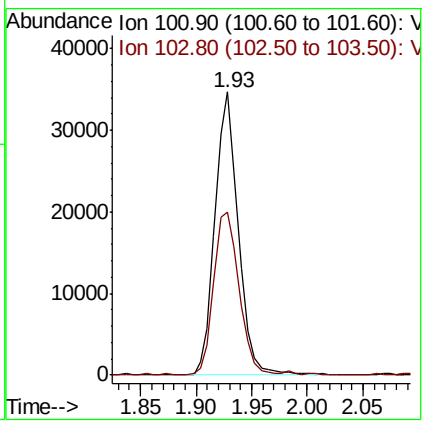




#7
Trichlorofluoromethane
Concen: 5.128 ug/l
RT: 1.93 min Scan# 127
Delta R.T. 0.00 min
Lab File: VX006589.D
Acq: 18 Dec 2018 11:11

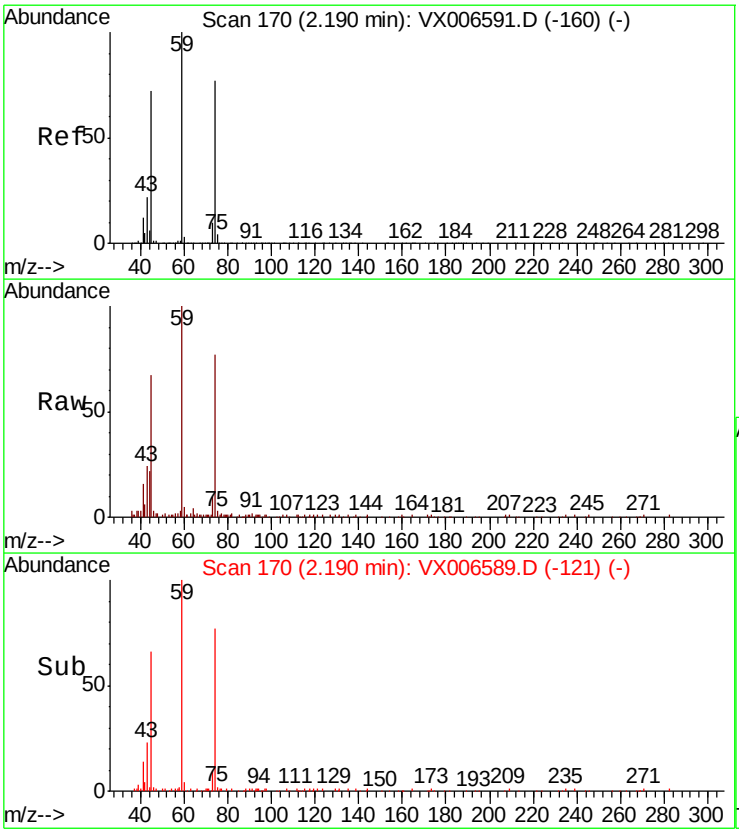
Tgt Ion:101 Resp: 50430

Ion	Ratio	Lower	Upper
101	100		
103	57.5	53.2	79.8



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC005

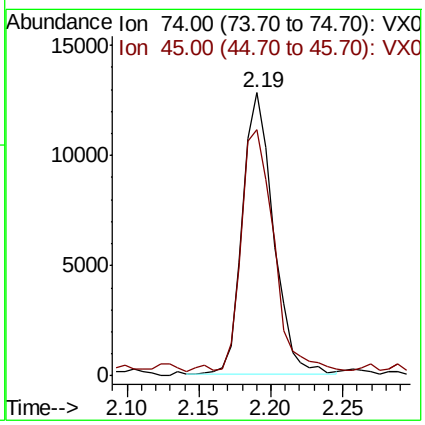
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:21:52 AM

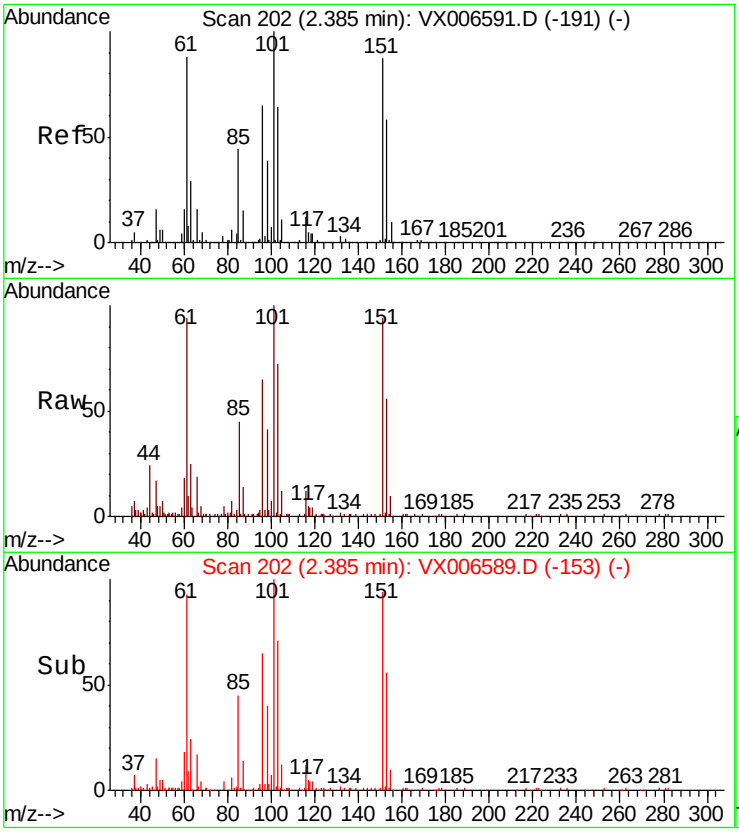


#8
Diethyl Ether
Concen: 4.873 ug/l
RT: 2.19 min Scan# 170
Delta R.T. 0.00 min
Lab File: VX006589.D
Acq: 18 Dec 2018 11:11

Tgt Ion: 74 Resp: 19033

Ion	Ratio	Lower	Upper
74	100		
45	90.5	46.3	138.9

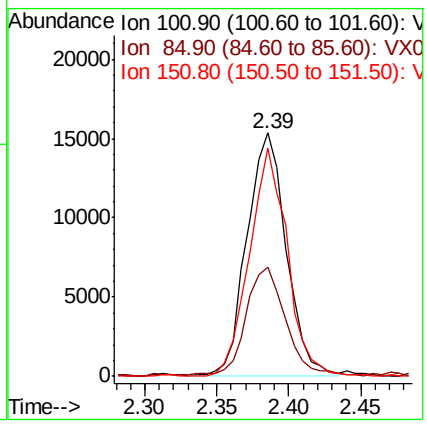




#9
1,1,2-Trichlorotrifluoroethane
Concen: 5.038 ug/l
RT: 2.39 min Scan# 202
Delta R.T. 0.00 min
Lab File: VX006589.D
Acq: 18 Dec 2018 11:11

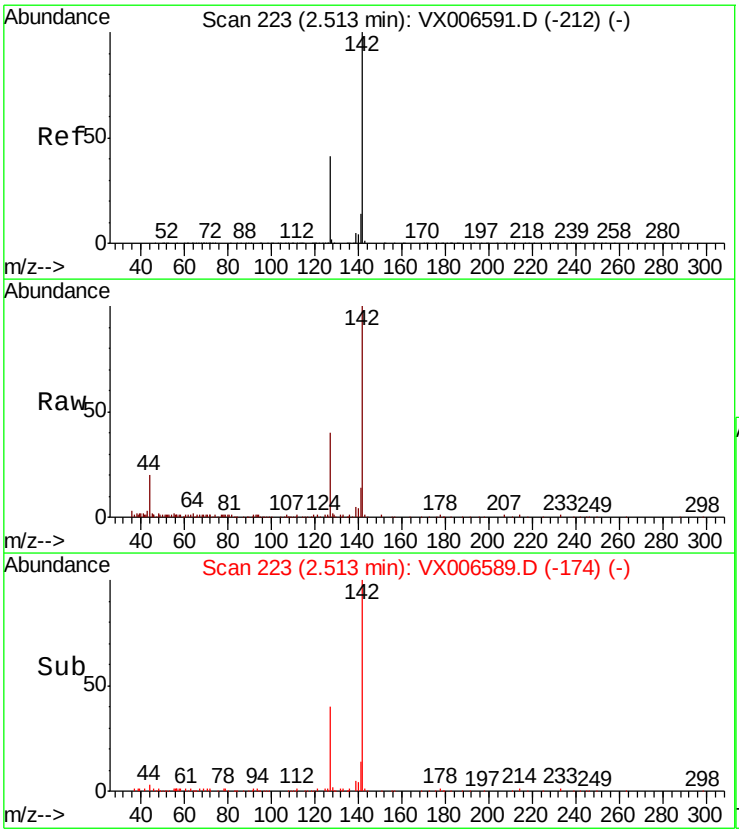
Tgt Ion:101 Resp: 29090

Ion	Ratio	Lower	Upper
101	100		
85	45.5	35.1	52.7
151	90.2	68.9	103.3



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC005

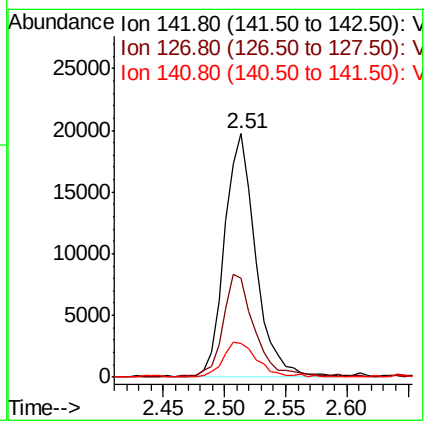
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:21:52 AM

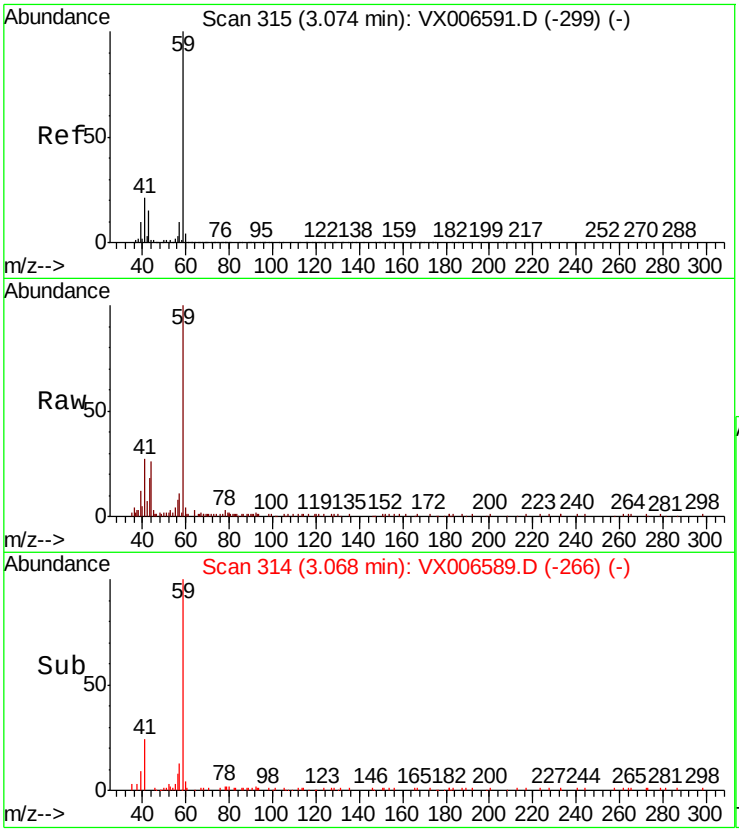


#10
Methyl Iodide
Concen: 4.219 ug/l
RT: 2.51 min Scan# 223
Delta R.T. 0.00 min
Lab File: VX006589.D
Acq: 18 Dec 2018 11:11

Tgt Ion:142 Resp: 34867

Ion	Ratio	Lower	Upper
142	100		
127	42.6	33.9	50.9
141	16.0	11.4	17.0

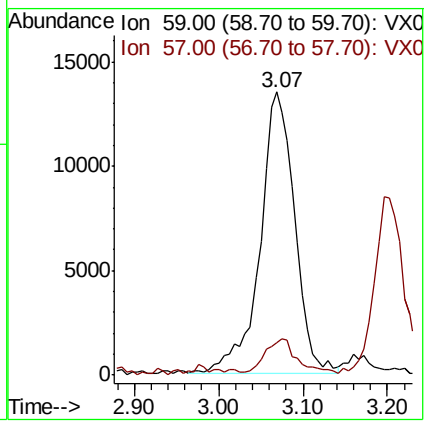




#11
Tert butyl alcohol
Concen: 25.927 ug/l
RT: 3.07 min Scan# 314
Delta R.T. -0.01 min
Lab File: VX006589.D
Acq: 18 Dec 2018 11:11

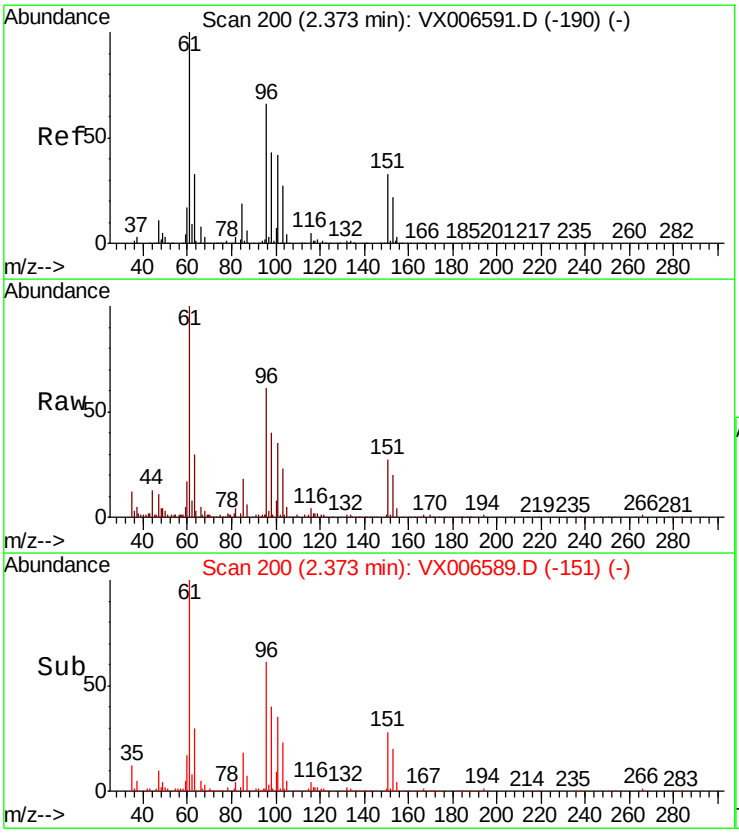
Tgt Ion: 59 Resp: 38212

Ion	Ratio	Lower	Upper
59	100		
57	10.6	8.5	12.7



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC005

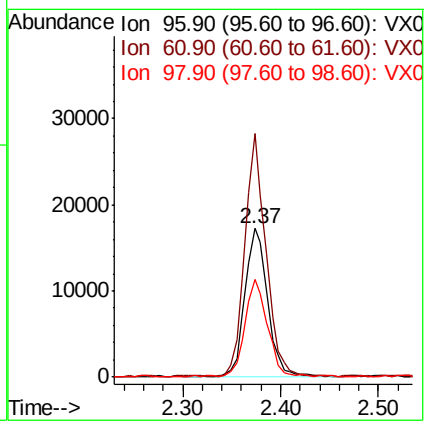
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:21:52 AM



#12
1,1-Dichloroethene
Concen: 5.154 ug/l
RT: 2.37 min Scan# 200
Delta R.T. 0.00 min
Lab File: VX006589.D
Acq: 18 Dec 2018 11:11

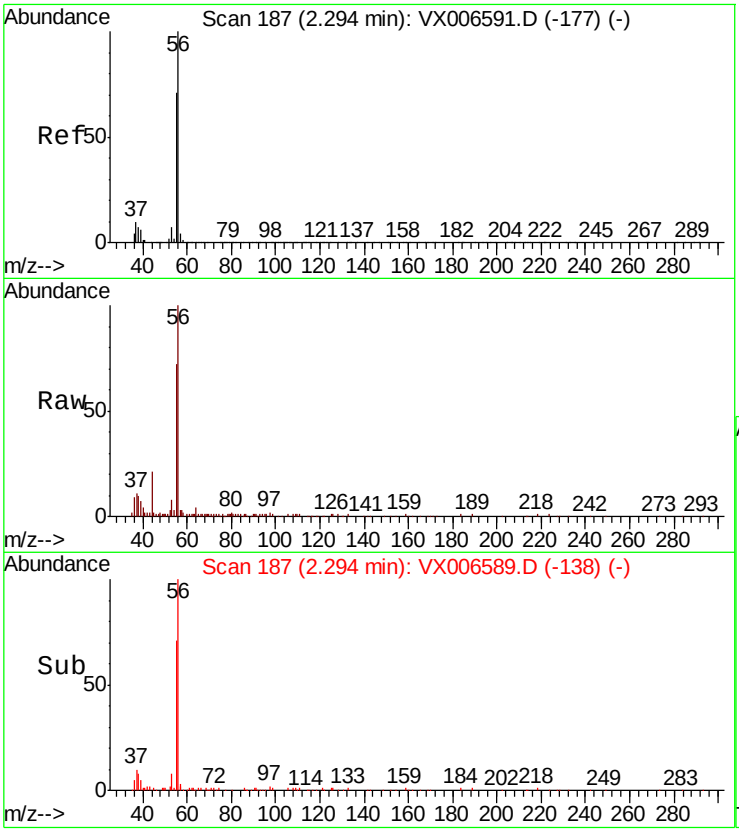
Tgt Ion: 96 Resp: 28215

Ion	Ratio	Lower	Upper
96	100		
61	163.7	121.4	182.2
98	65.8	51.9	77.9



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC005

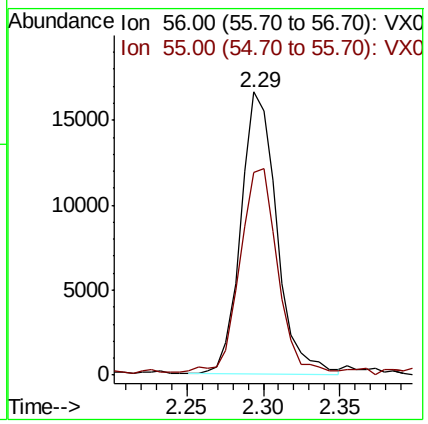
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:21:52 AM

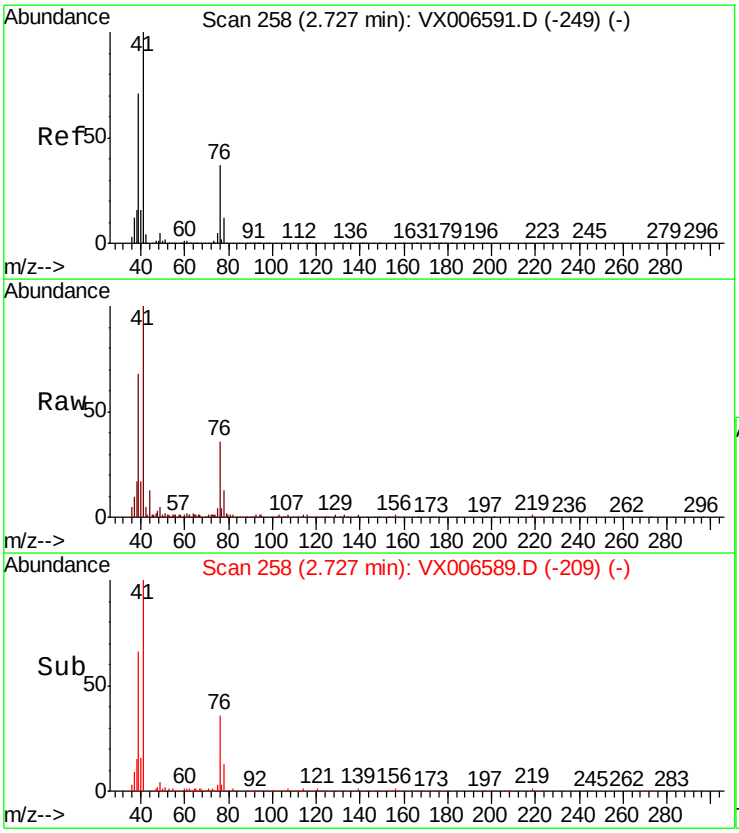


#13
Acrolein
Concen: 27.101 ug/l
RT: 2.29 min Scan# 187
Delta R.T. 0.00 min
Lab File: VX006589.D
Acq: 18 Dec 2018 11:11

Tgt Ion: 56 Resp: 26946

Ion	Ratio	Lower	Upper
56	100		
55	75.8	58.2	87.4

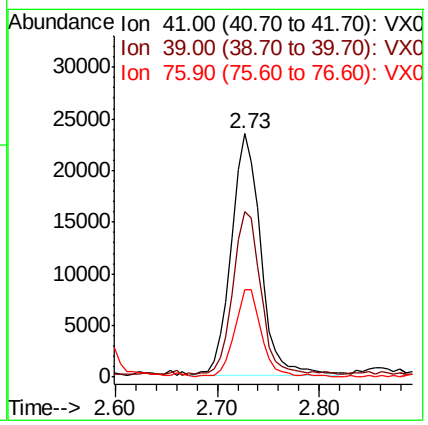




#14
Allyl chloride
Concen: 5.040 ug/l
RT: 2.73 min Scan# 258
Delta R.T. 0.00 min
Lab File: VX006589.D
Acq: 18 Dec 2018 11:11

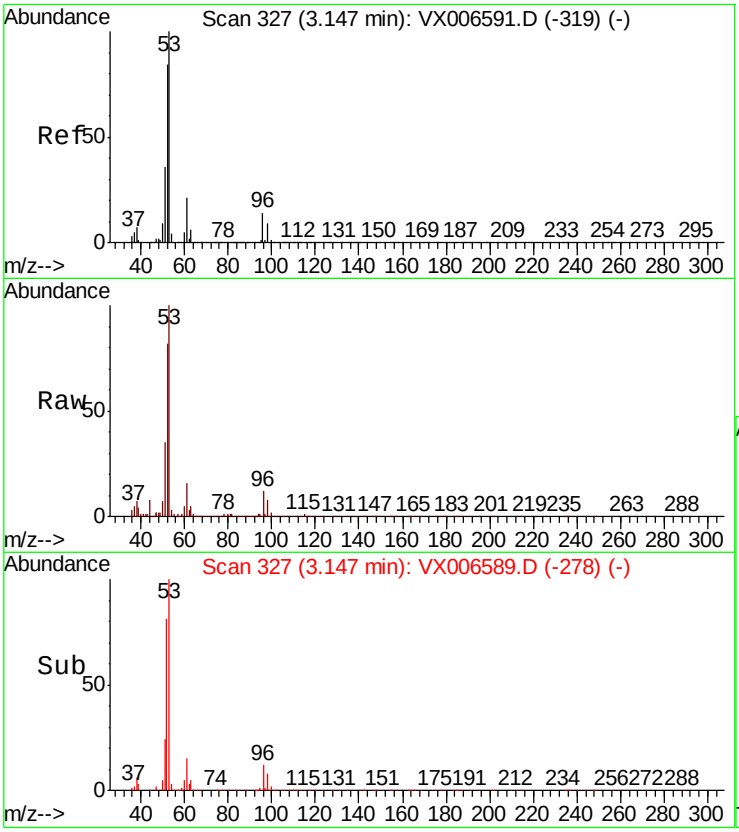
Tgt Ion: 41 Resp: 46443

Ion	Ratio	Lower	Upper
41	100		
39	62.8	53.6	80.4
76	33.1	27.4	41.2



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC005

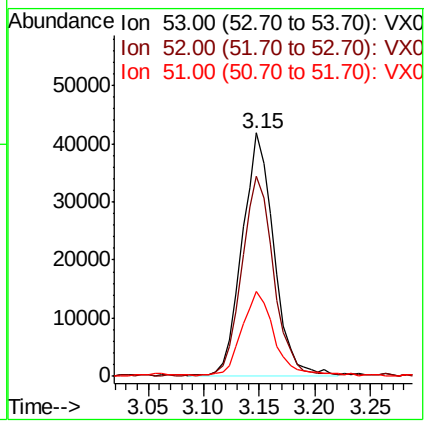
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:21:52 AM

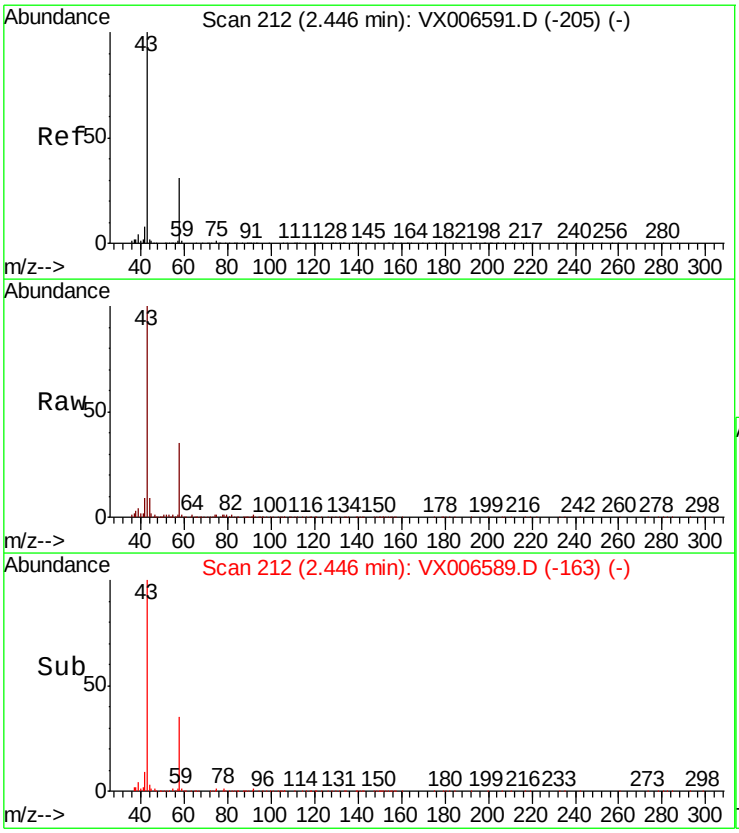


#15
Acrylonitrile
Concen: 25.074 ug/l
RT: 3.15 min Scan# 327
Delta R.T. 0.00 min
Lab File: VX006589.D
Acq: 18 Dec 2018 11:11

Tgt Ion: 53 Resp: 82051

Ion	Ratio	Lower	Upper
53	100		
52	82.5	66.0	99.0
51	35.6	28.6	42.8

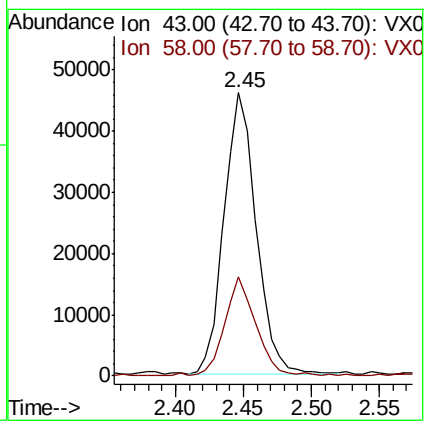


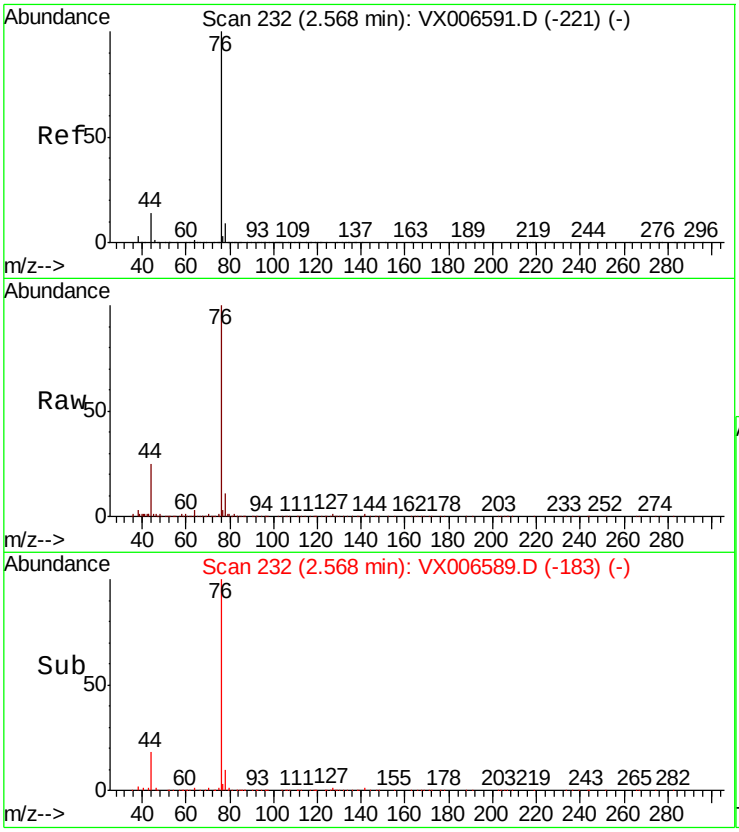


#16
Acetone
Concen: 24.755 ug/l
RT: 2.45 min Scan# 212
Delta R.T. 0.00 min
Lab File: VX006589.D
Acq: 18 Dec 2018 11:11

Tgt Ion: 43 Resp: 75109

Ion	Ratio	Lower	Upper
43	100		
58	35.0	25.0	37.6

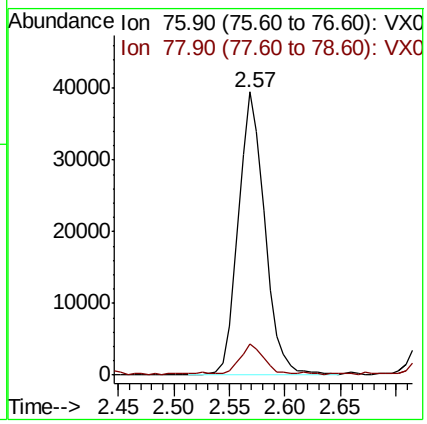




#17
Carbon Disulfide
Concen: 4.496 ug/l
RT: 2.57 min Scan# 232
Delta R.T. 0.00 min
Lab File: VX006589.D
Acq: 18 Dec 2018 11:11

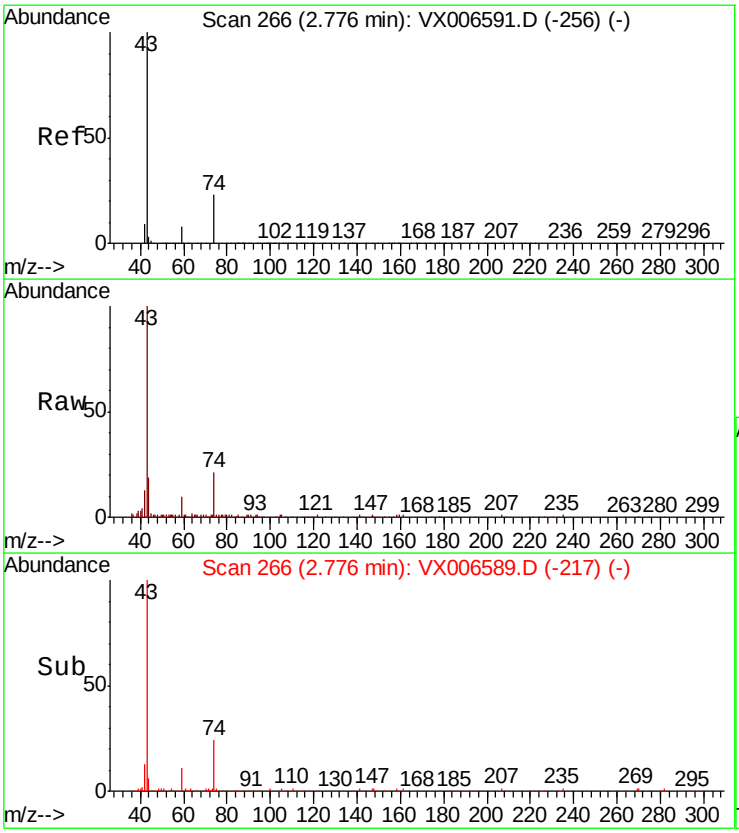
Tgt Ion: 76 Resp: 65141

Ion	Ratio	Lower	Upper
76	100		
78	10.4	7.0	10.6



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC005

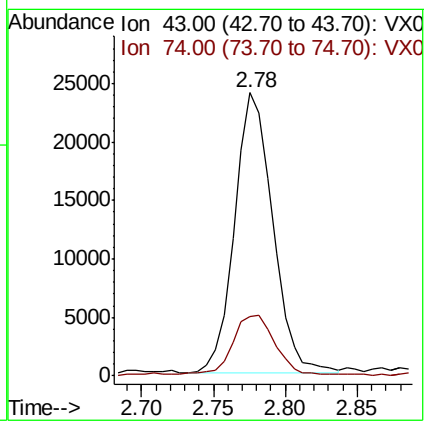
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:21:52 AM



#18
Methyl Acetate
Concen: 4.967 ug/l
RT: 2.78 min Scan# 266
Delta R.T. 0.00 min
Lab File: VX006589.D
Acq: 18 Dec 2018 11:11

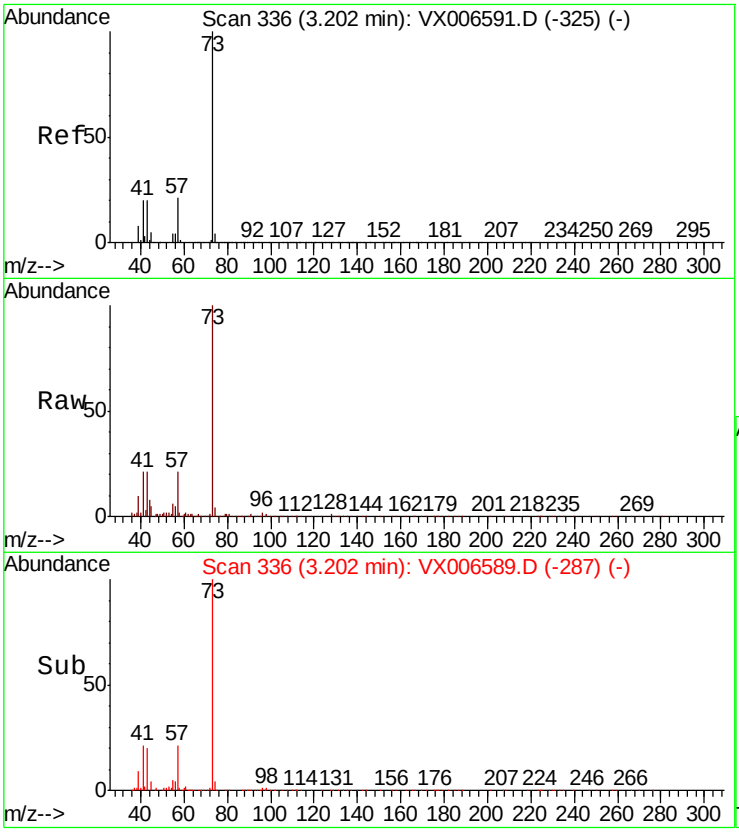
Tgt Ion: 43 Resp: 44317

Ion	Ratio	Lower	Upper
43	100		
74	24.4	18.6	28.0



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC005

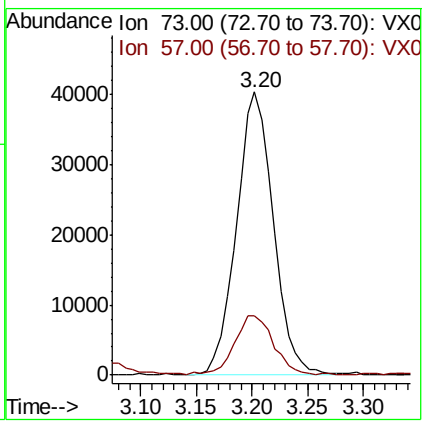
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:21:52 AM

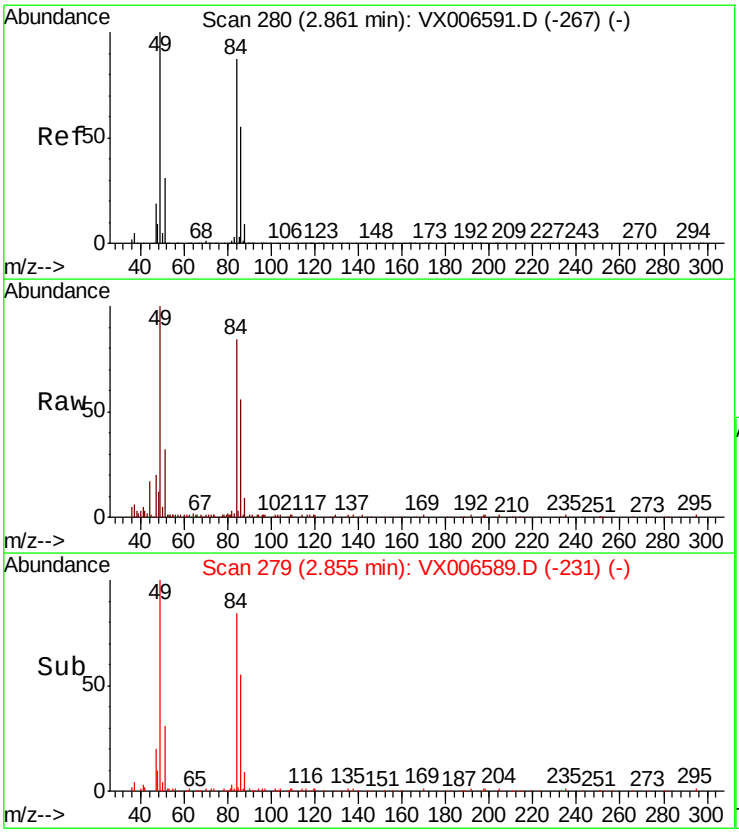


#19
Methyl tert-butyl Ether
Concen: 5.116 ug/l
RT: 3.20 min Scan# 336
Delta R.T. 0.00 min
Lab File: VX006589.D
Acq: 18 Dec 2018 11:11

Tgt Ion: 73 Resp: 92964

Ion	Ratio	Lower	Upper
73	100		
57	20.7	16.8	25.2

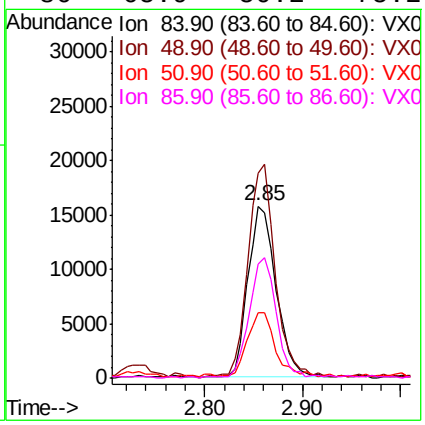




#20
Methylene Chloride
Concen: 5.026 ug/l
RT: 2.85 min Scan# 279
Delta R.T. -0.01 min
Lab File: VX006589.D
Acq: 18 Dec 2018 11:11

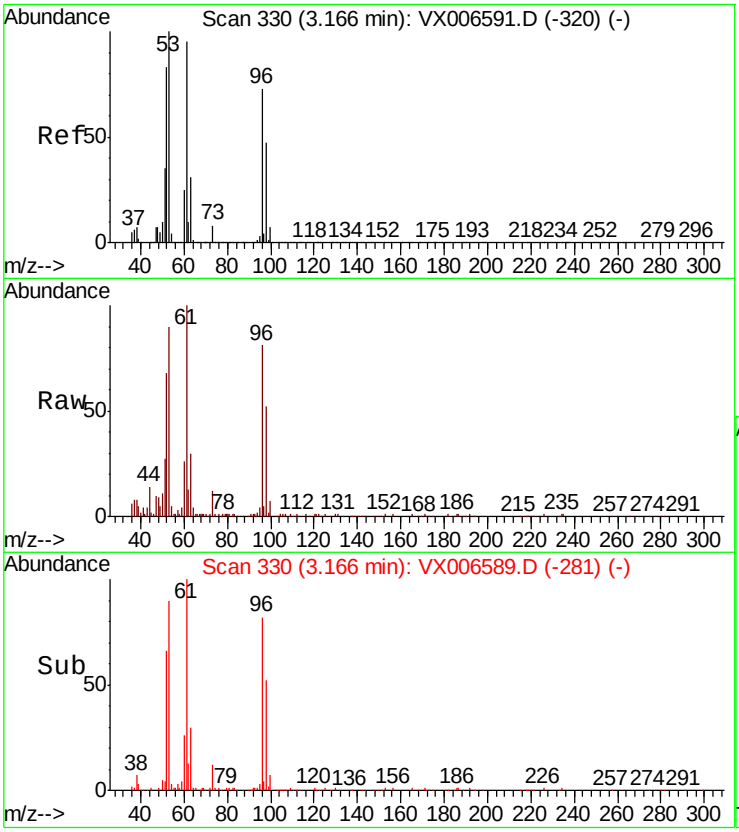
Tgt Ion: 84 Resp: 31532

Ion	Ratio	Lower	Upper
84	100		
49	119.0	91.8	137.6
51	37.6	28.5	42.7
86	65.9	50.2	75.2



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC005

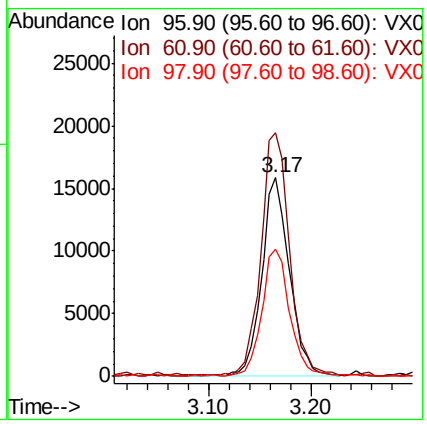
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:21:52 AM

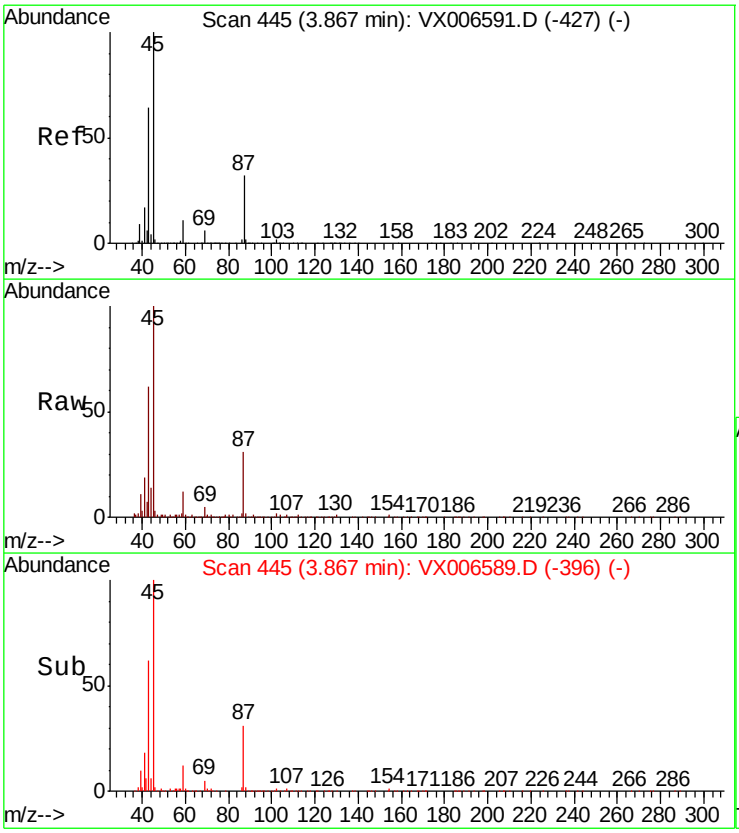


#21
trans-1,2-Dichloroethene
Concen: 4.954 ug/l
RT: 3.17 min Scan# 330
Delta R.T. 0.00 min
Lab File: VX006589.D
Acq: 18 Dec 2018 11:11

Tgt Ion: 96 Resp: 30051

Ion	Ratio	Lower	Upper
96	100		
61	122.3	103.7	155.5
98	63.6	51.0	76.6

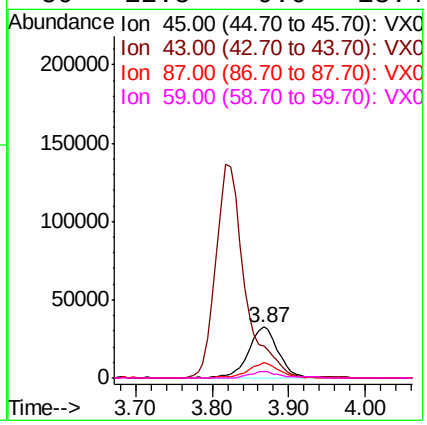




#22
Diisopropyl ether
Concen: 5.226 ug/l
RT: 3.87 min Scan# 445
Delta R.T. 0.00 min
Lab File: VX006589.D
Acq: 18 Dec 2018 11:11

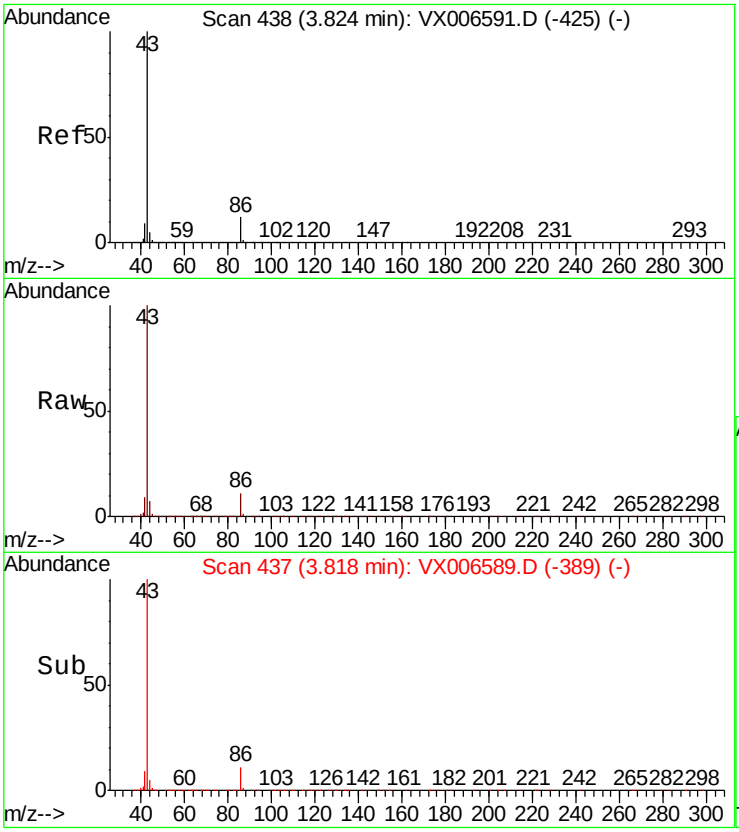
Tgt Ion: 45 Resp: 88100

Ion	Ratio	Lower	Upper
45	100		
43	60.3	51.2	76.8
87	30.8	25.8	38.6
59	12.5	9.0	13.4



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC005

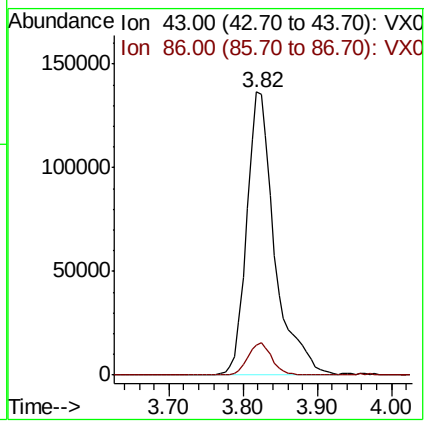
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:21:52 AM

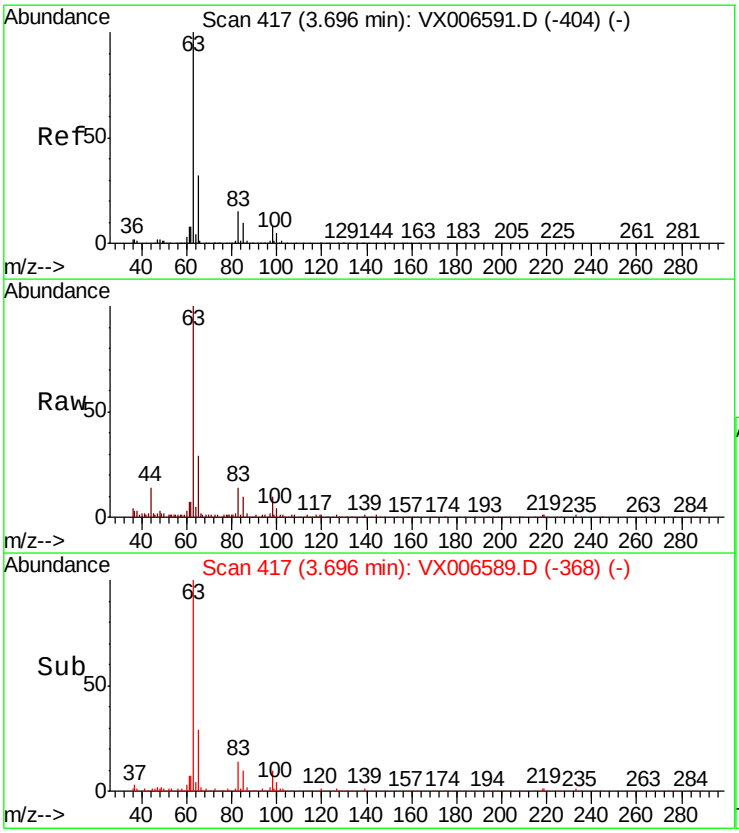


#23
Vinyl Acetate
Concen: 25.997 ug/l
RT: 3.82 min Scan# 437
Delta R.T. -0.01 min
Lab File: VX006589.D
Acq: 18 Dec 2018 11:11

Tgt Ion: 43 Resp: 358501

Ion	Ratio	Lower	Upper
43	100		
86	10.6	9.2	13.8

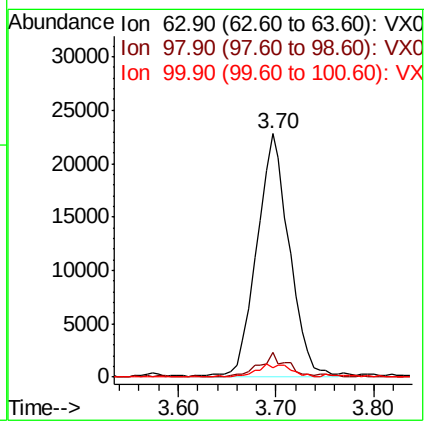




#24
1,1-Dichloroethane
Concen: 5.262 ug/l
RT: 3.70 min Scan# 417
Delta R.T. 0.00 min
Lab File: VX006589.D
Acq: 18 Dec 2018 11:11

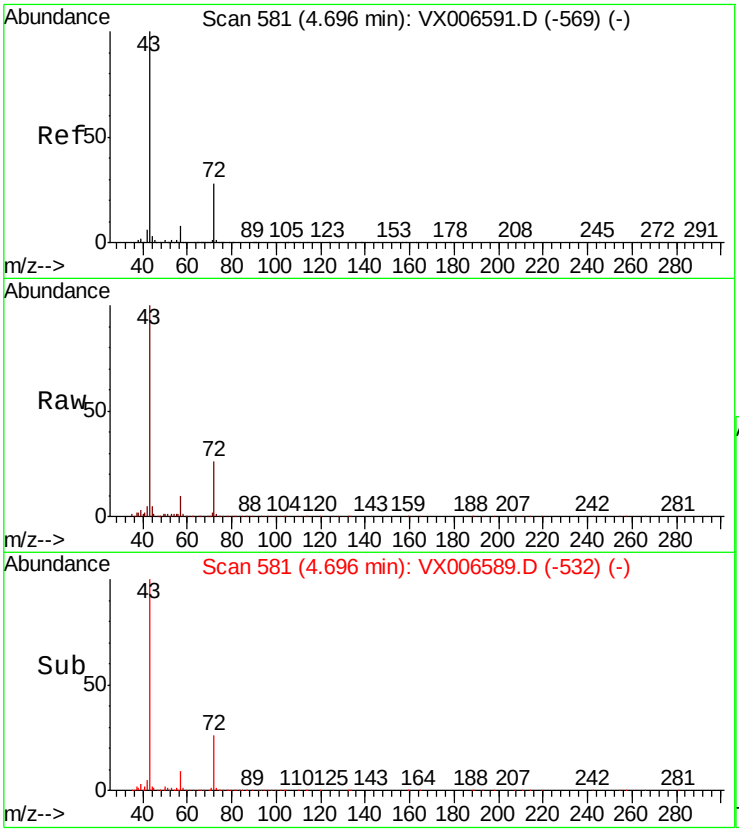
Tgt Ion: 63 Resp: 52962

Ion	Ratio	Lower	Upper
63	100		
98	10.0	3.9	11.5
100	4.0	2.4	7.2



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC005

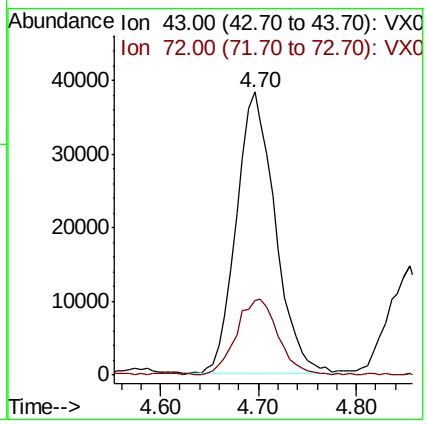
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:21:52 AM

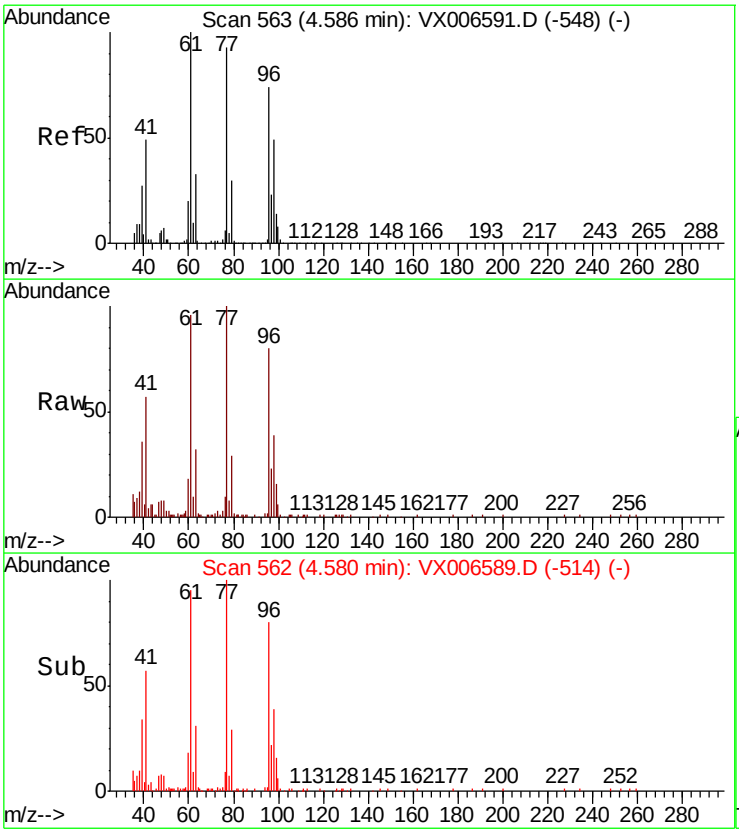


#25
2-Butanone
Concen: 24.856 ug/l
RT: 4.70 min Scan# 581
Delta R.T. 0.00 min
Lab File: VX006589.D
Acq: 18 Dec 2018 11:11

Tgt Ion: 43 Resp: 106082

Ion	Ratio	Lower	Upper
43	100		
72	26.0	22.4	33.6

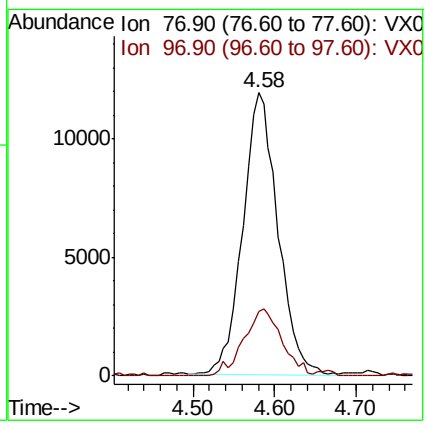


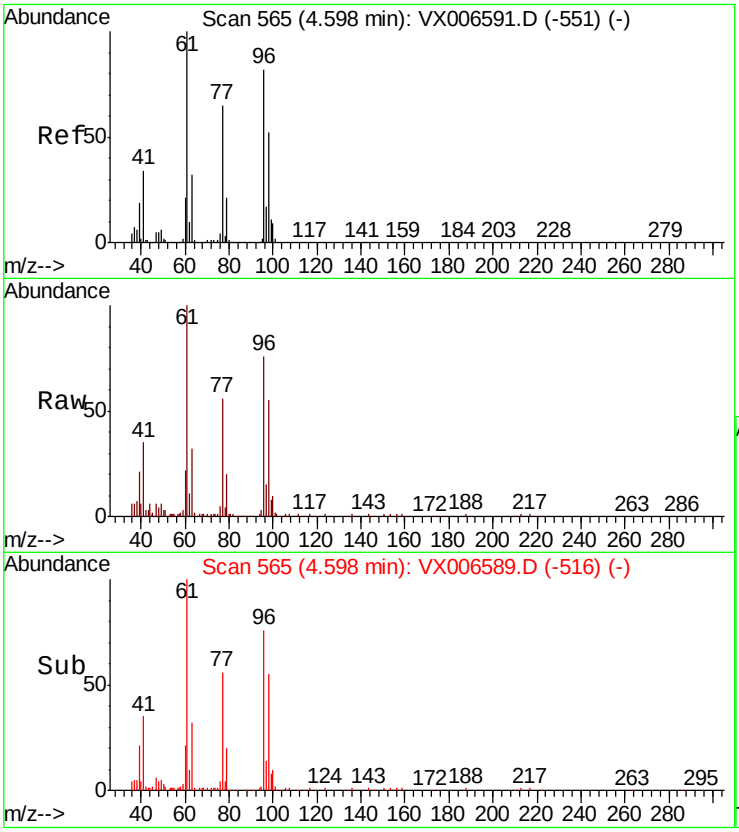


#26
2,2-Dichloropropane
Concen: 4.614 ug/l
RT: 4.58 min Scan# 562
Delta R.T. -0.01 min
Lab File: VX006589.D
Acq: 18 Dec 2018 11:11

Tgt Ion: 77 Resp: 35871

Ion	Ratio	Lower	Upper
77	100		
97	25.9	12.4	37.4

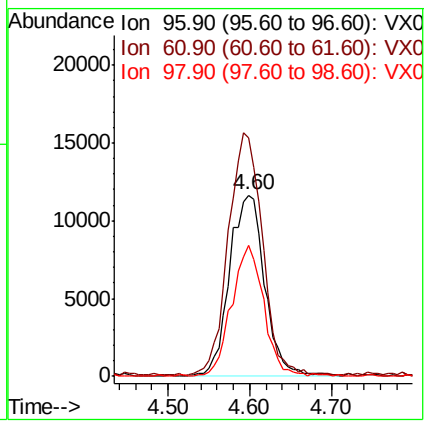




#27
cis-1,2-Dichloroethene
Concen: 5.178 ug/l
RT: 4.60 min Scan# 565
Delta R.T. 0.00 min
Lab File: VX006589.D
Acq: 18 Dec 2018 11:11

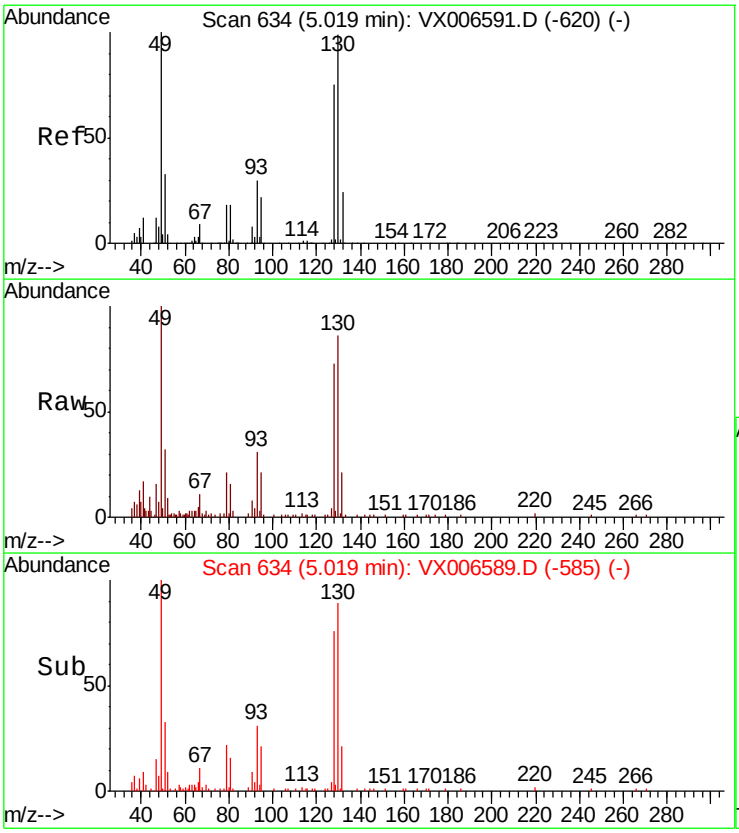
Tgt Ion: 96 Resp: 34657

Ion	Ratio	Lower	Upper
96	100		
61	129.8	0.0	258.6
98	65.8	0.0	132.0



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC005

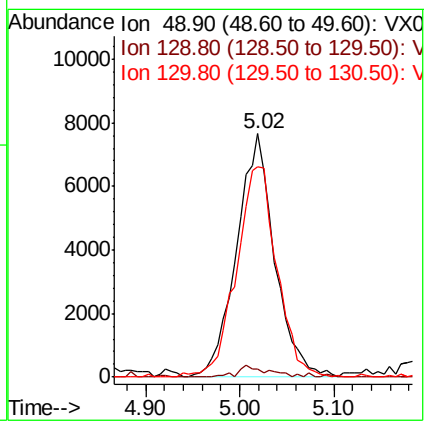
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:21:52 AM

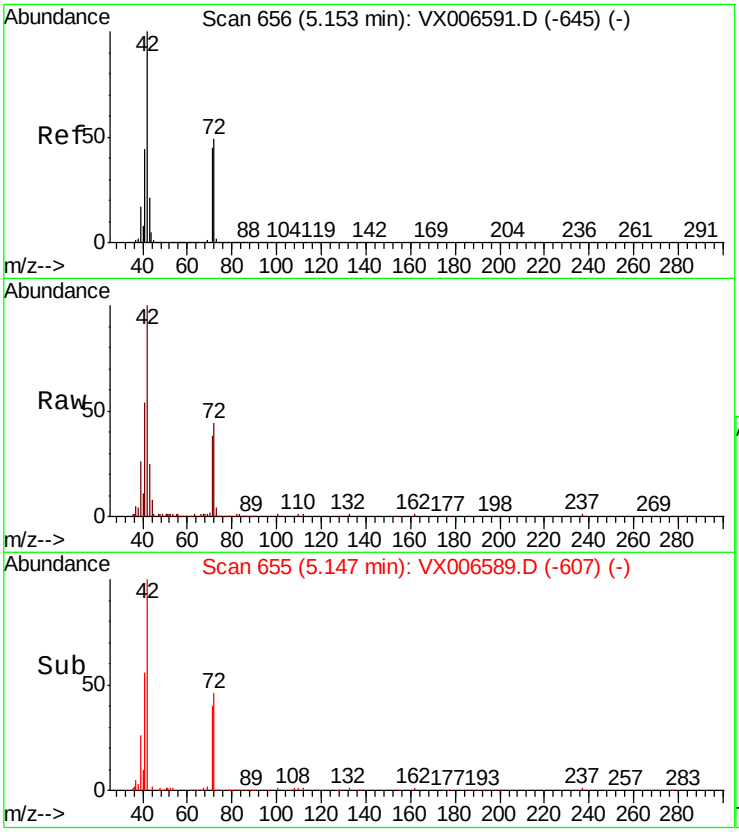


#28
Bromochloromethane
Concen: 4.683 ug/l
RT: 5.02 min Scan# 634
Delta R.T. 0.00 min
Lab File: VX006589.D
Acq: 18 Dec 2018 11:11

Tgt Ion: 49 Resp: 21667

Ion	Ratio	Lower	Upper
49	100		
129	2.5	0.0	5.4
130	92.2	77.7	116.5

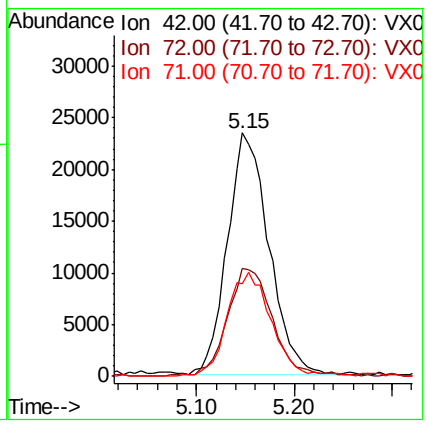


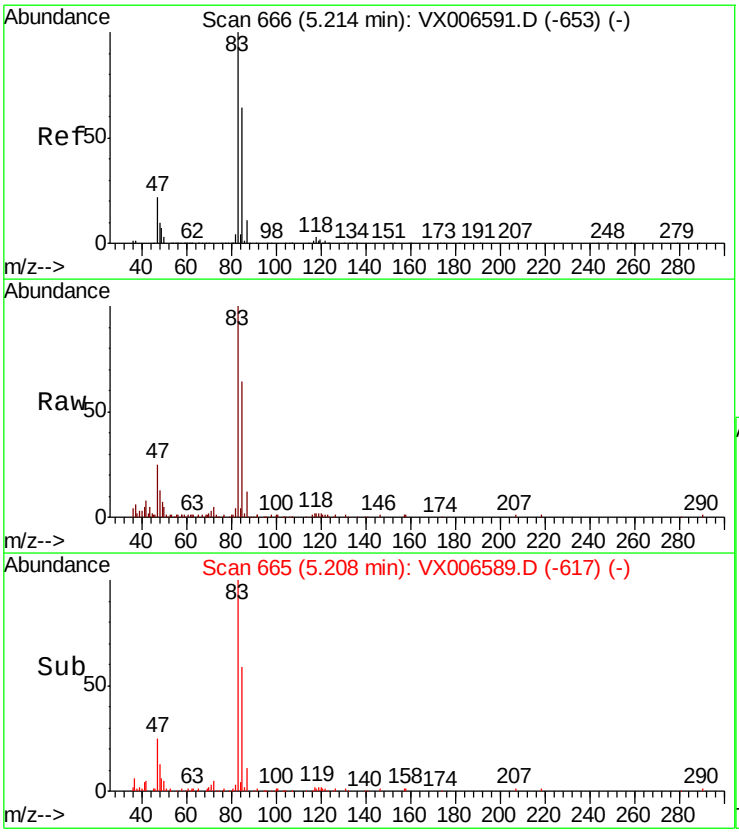


#29
Tetrahydrofuran
Concen: 24.581 ug/l
RT: 5.15 min Scan# 655
Delta R.T. -0.01 min
Lab File: VX006589.D
Acq: 18 Dec 2018 11:11

Tgt Ion: 42 Resp: 69096

Ion	Ratio	Lower	Upper
42	100		
72	49.1	38.9	58.3
71	45.9	36.2	54.4

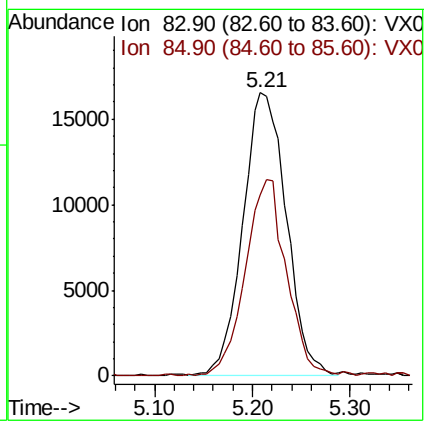




#30
Chloroform
Concen: 4.855 ug/l
RT: 5.21 min Scan# 665
Delta R.T. -0.01 min
Lab File: VX006589.D
Acq: 18 Dec 2018 11:11

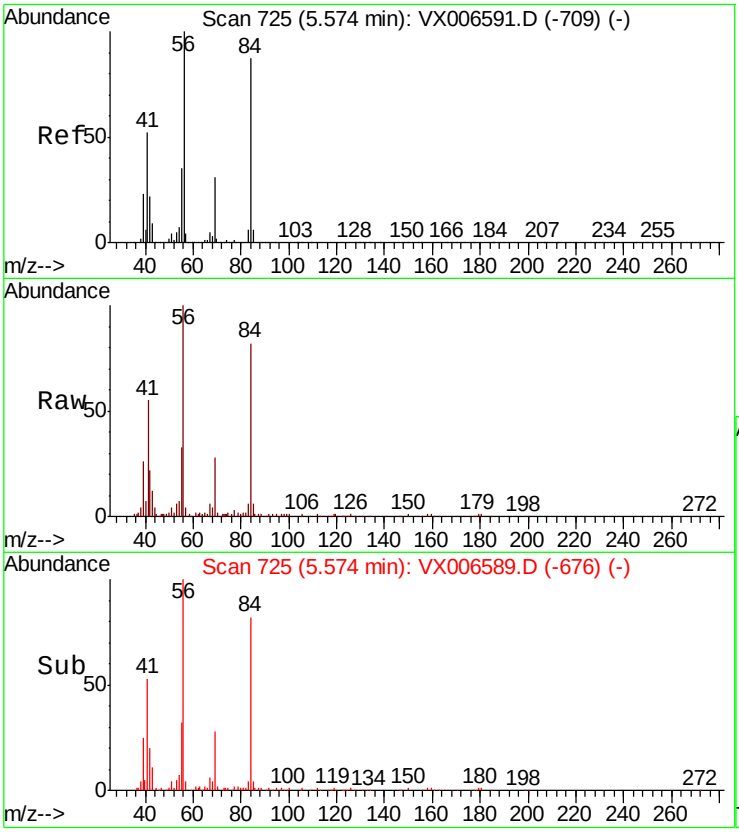
Tgt Ion: 83 Resp: 50600

Ion	Ratio	Lower	Upper
83	100		
85	63.5	51.2	76.8



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC005

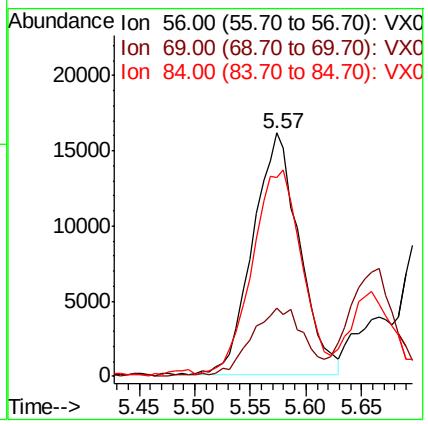
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:21:52 AM



#31
Cyclohexane
Concen: 5.099 ug/l
RT: 5.57 min Scan# 725
Delta R.T. 0.00 min
Lab File: VX006589.D
Acq: 18 Dec 2018 11:11

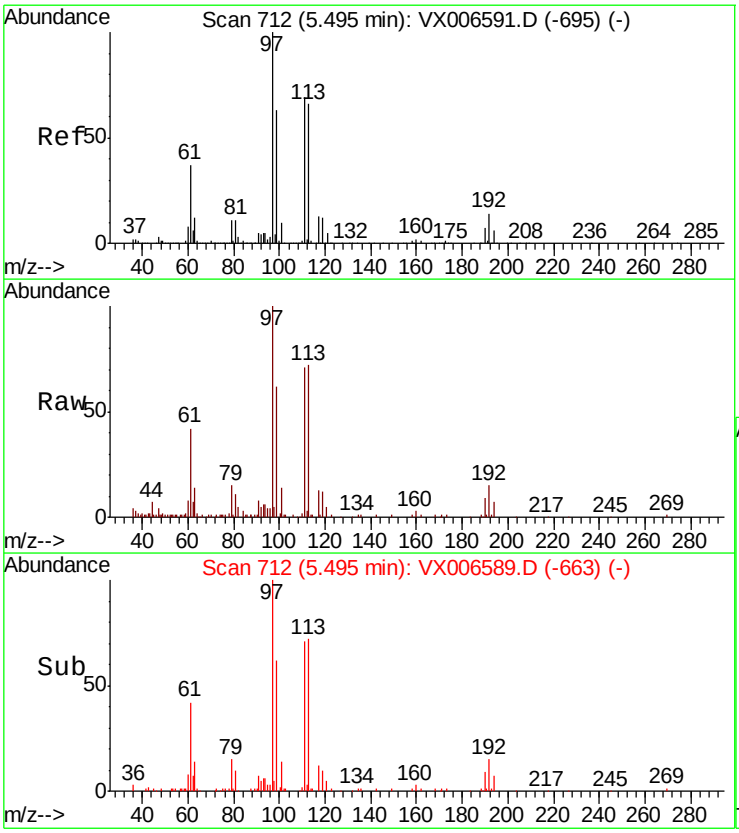
Tgt Ion: 56 Resp: 46621

Ion	Ratio	Lower	Upper
56	100		
69	27.9	24.4	36.6
84	79.7	70.0	105.0



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC005

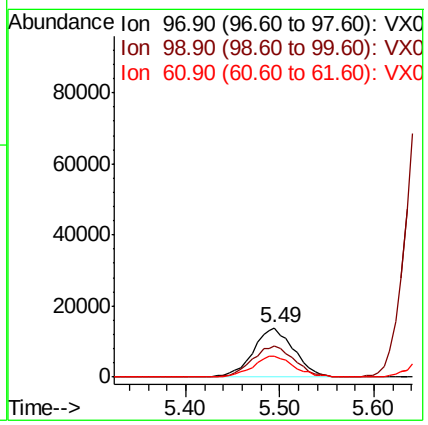
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:21:52 AM



#32
1,1,1-Trichloroethane
Concen: 4.765 ug/l
RT: 5.49 min Scan# 712
Delta R.T. 0.00 min
Lab File: VX006589.D
Acq: 18 Dec 2018 11:11

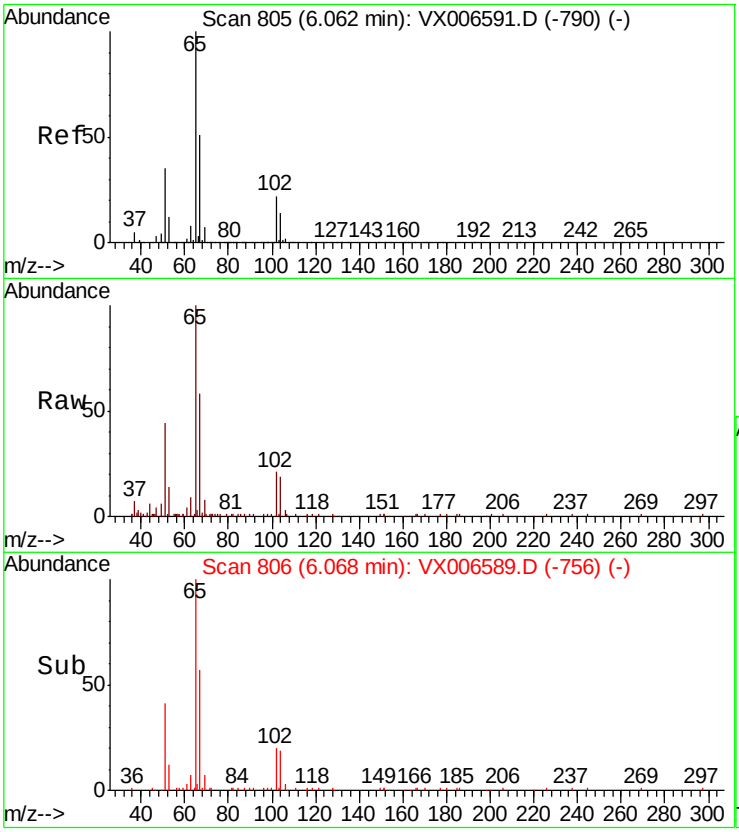
Tgt Ion: 97 Resp: 41930

Ion	Ratio	Lower	Upper
97	100		
99	65.8	51.7	77.5
61	43.6	31.3	46.9



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC005

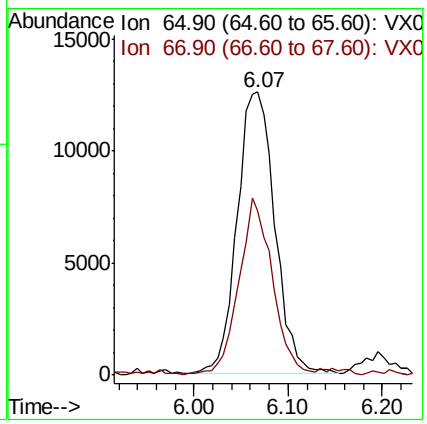
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:21:52 AM

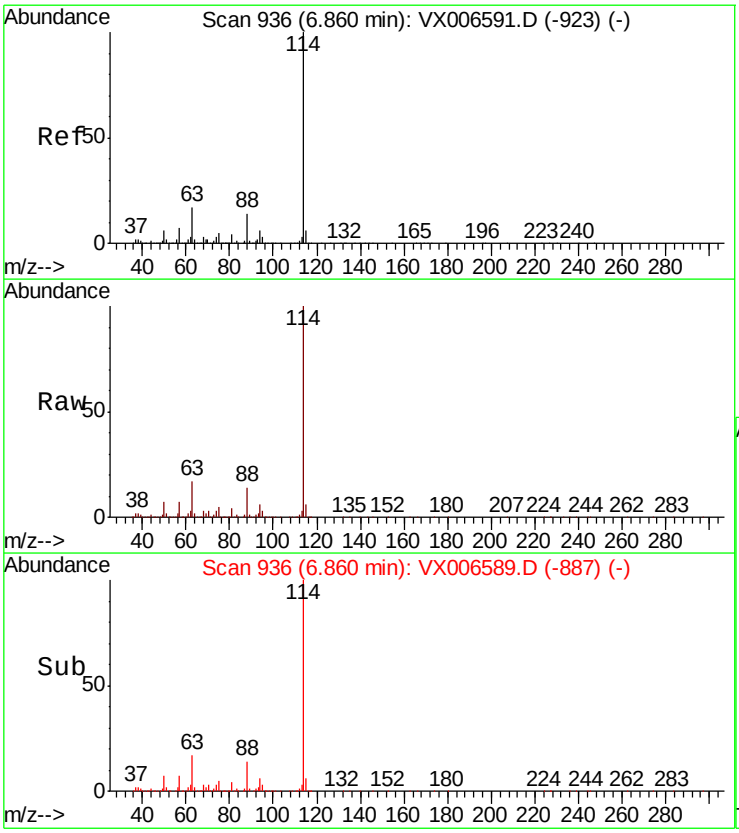


#33
1,2-Dichloroethane-d4
Concen: 5.310 ug/l
RT: 6.07 min Scan# 806
Delta R.T. 0.01 min
Lab File: VX006589.D
Acq: 18 Dec 2018 11:11

Tgt Ion: 65 Resp: 35066

Ion	Ratio	Lower	Upper
65	100		
67	56.4	0.0	105.0

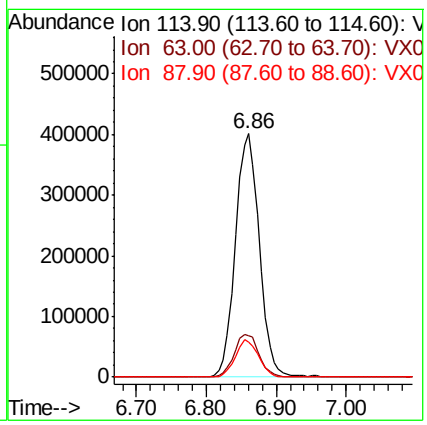


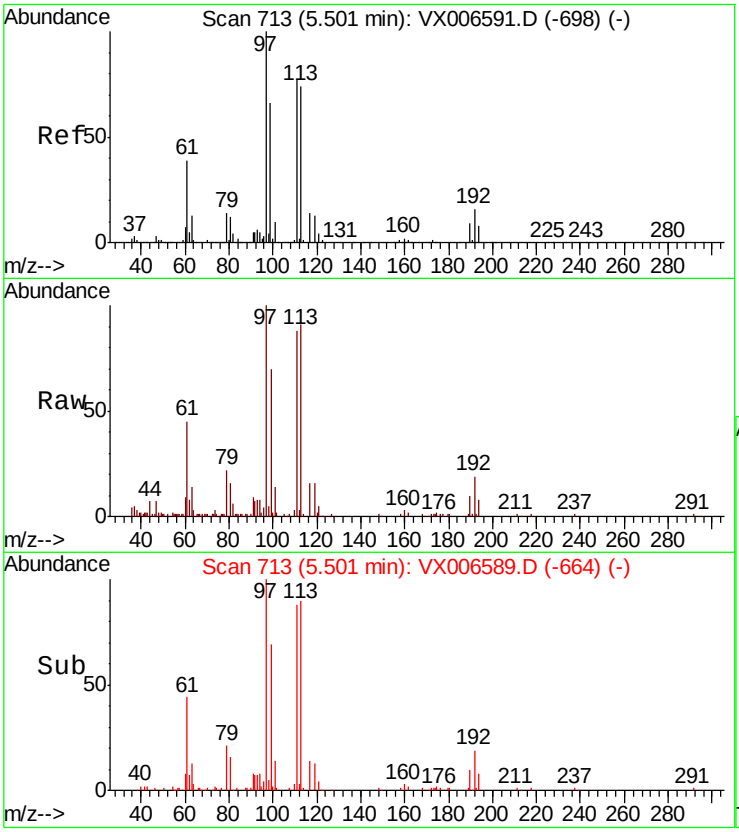


#34
1,4-Difluorobenzene
Concen: 50.000 ug/l
RT: 6.86 min Scan# 936
Delta R.T. 0.00 min
Lab File: VX006589.D
Acq: 18 Dec 2018 11:11

Tgt Ion:114 Resp: 954440

Ion	Ratio	Lower	Upper
114	100		
63	17.0	0.0	34.8
88	14.5	0.0	28.8

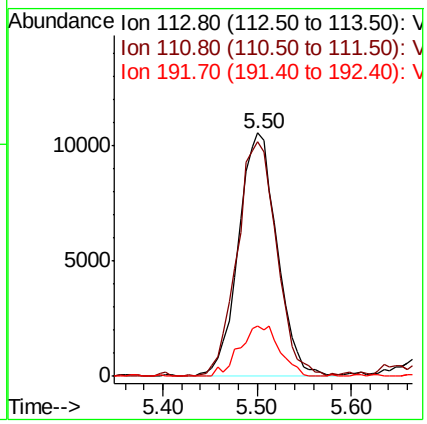




#35
Dibromofluoromethane
Concen: 5.006 ug/l
RT: 5.50 min Scan# 713
Delta R.T. 0.00 min
Lab File: VX006589.D
Acq: 18 Dec 2018 11:11

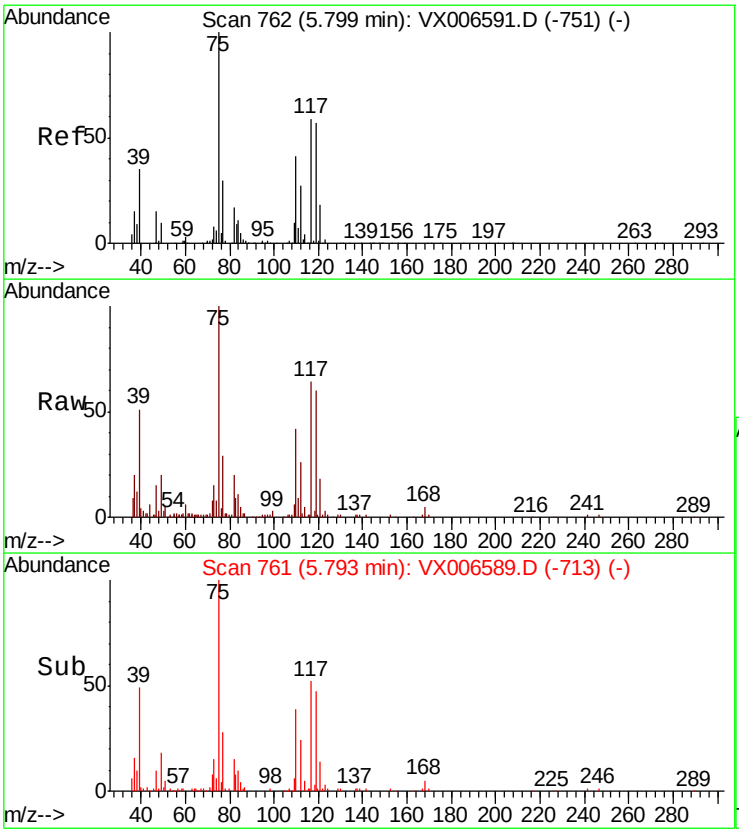
Tgt Ion:113 Resp: 30212

Ion	Ratio	Lower	Upper
113	100		
111	98.9	81.6	122.4
192	21.5	16.7	25.1



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC005

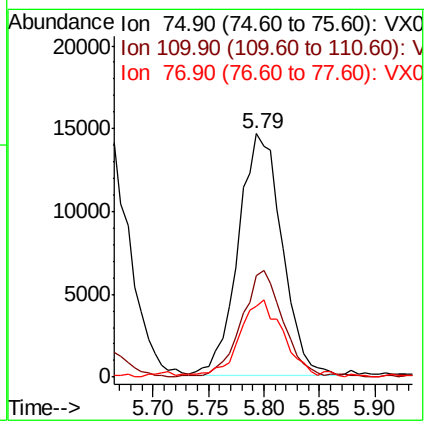
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:21:52 AM

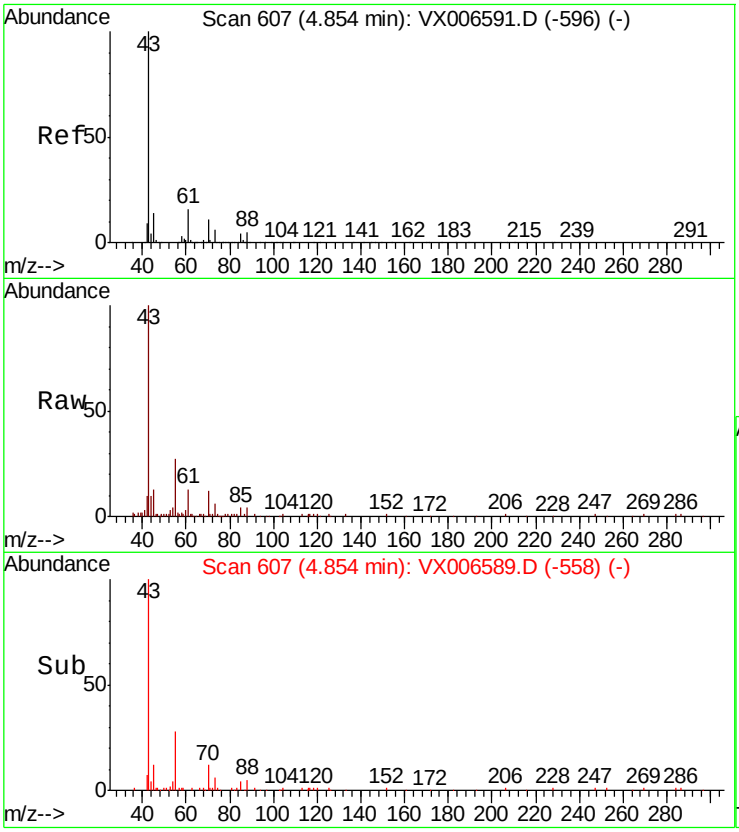


#36
1,1-Dichloropropene
Concen: 5.049 ug/l
RT: 5.79 min Scan# 761
Delta R.T. -0.01 min
Lab File: VX006589.D
Acq: 18 Dec 2018 11:11

Tgt Ion: 75 Resp: 39916

Ion	Ratio	Lower	Upper
75	100		
110	42.1	20.2	60.5
77	30.3	24.8	37.2

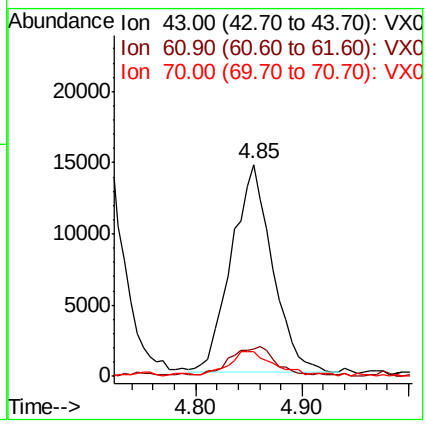




#37
Ethyl Acetate
Concen: 4.802 ug/l
RT: 4.85 min Scan# 607
Delta R.T. 0.00 min
Lab File: VX006589.D
Acq: 18 Dec 2018 11:11

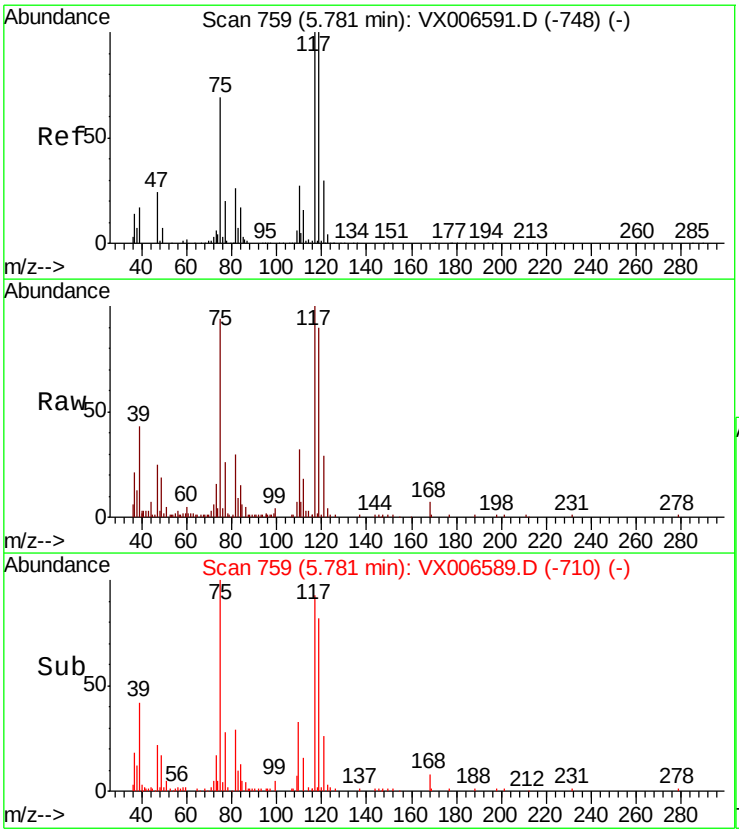
Tgt Ion: 43 Resp: 39506

Ion	Ratio	Lower	Upper
43	100		
61	14.4	11.9	17.9
70	12.6	9.7	14.5



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC005

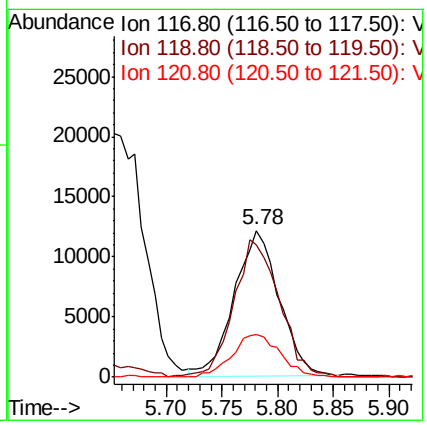
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:21:52 AM



#38
Carbon Tetrachloride
Concen: 4.412 ug/l
RT: 5.78 min Scan# 759
Delta R.T. 0.00 min
Lab File: VX006589.D
Acq: 18 Dec 2018 11:11

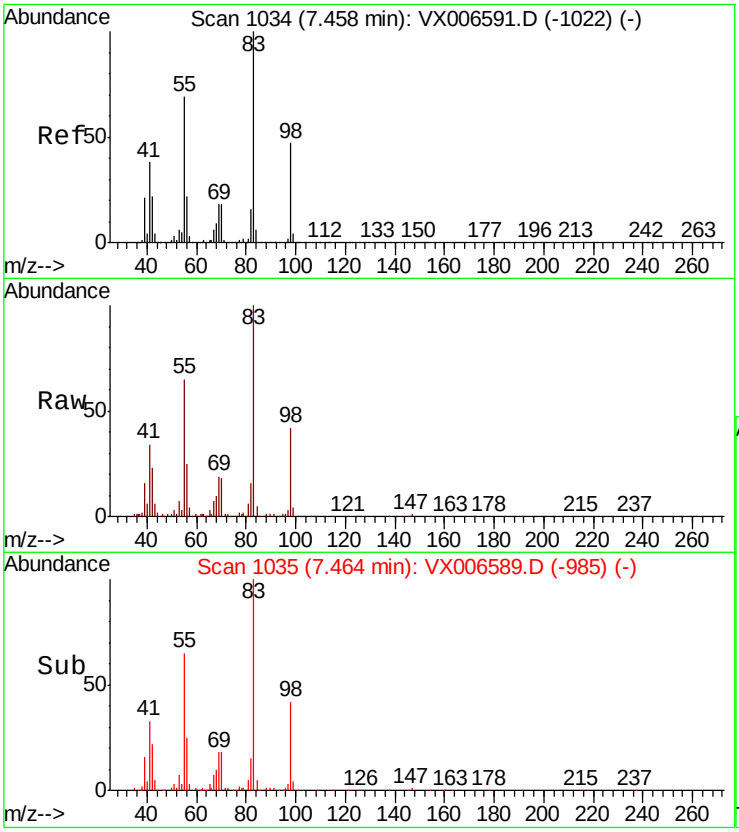
Tgt Ion:117 Resp: 33893

Ion	Ratio	Lower	Upper
117	100		
119	90.6	79.4	119.2
121	29.1	24.0	36.0



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC005

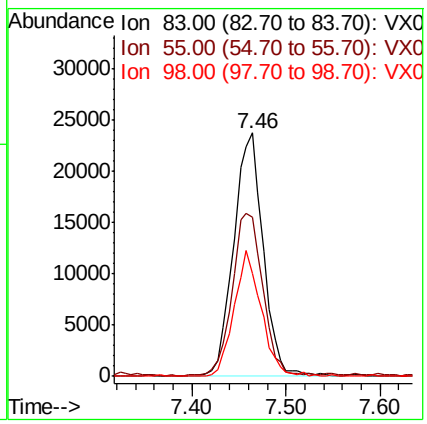
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:21:52 AM

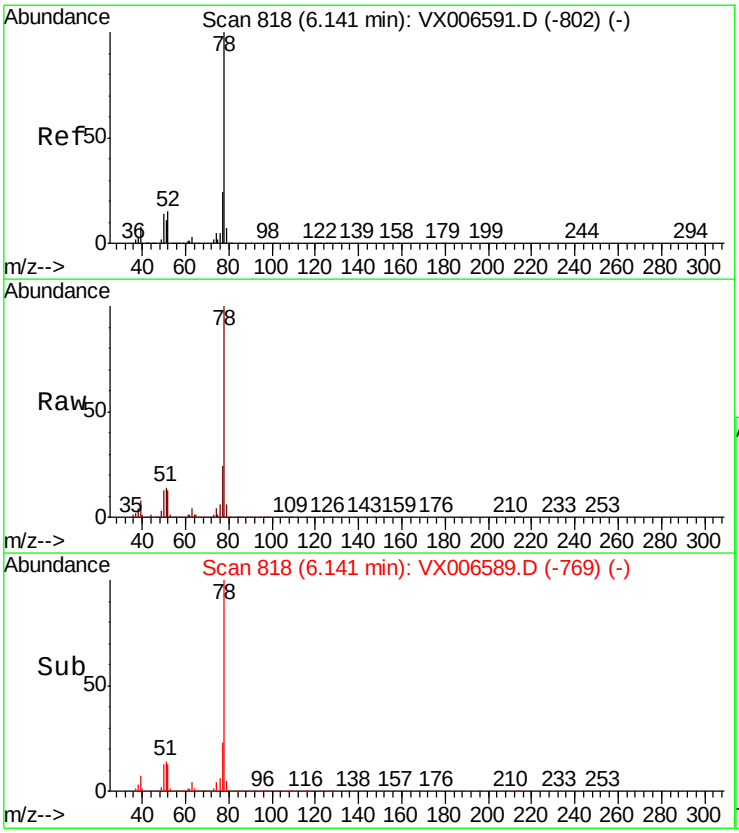


#39
Methylcyclohexane
Concen: 4.951 ug/l
RT: 7.46 min Scan# 1035
Delta R.T. 0.01 min
Lab File: VX006589.D
Acq: 18 Dec 2018 11:11

Tgt Ion: 83 Resp: 51527

Ion	Ratio	Lower	Upper
83	100		
55	64.8	54.9	82.3
98	42.3	37.9	56.9

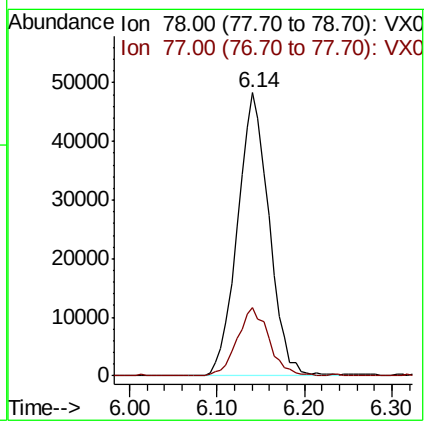




#40
Benzene
Concen: 5.046 ug/l
RT: 6.14 min Scan# 818
Delta R.T. 0.00 min
Lab File: VX006589.D
Acq: 18 Dec 2018 11:11

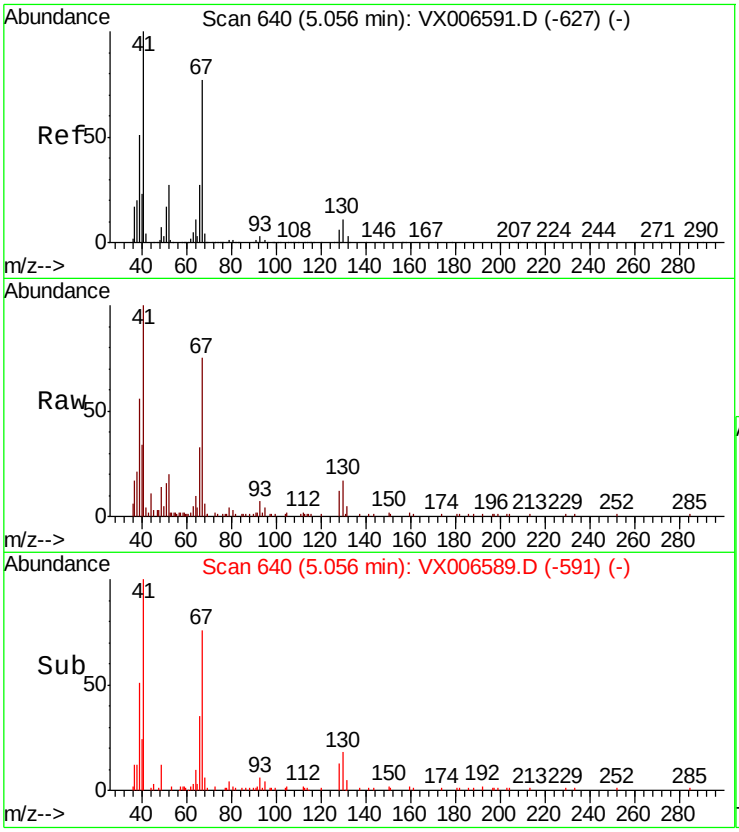
Tgt Ion: 78 Resp: 121251

Ion	Ratio	Lower	Upper
78	100		
77	24.1	19.2	28.8



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC005

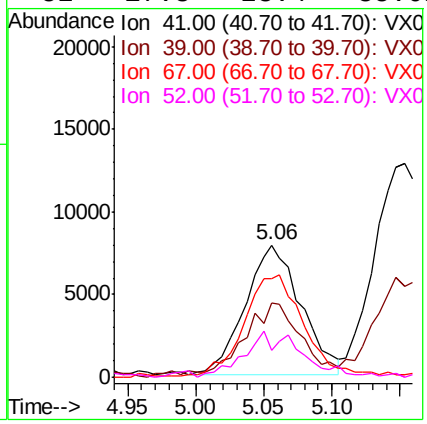
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:21:52 AM

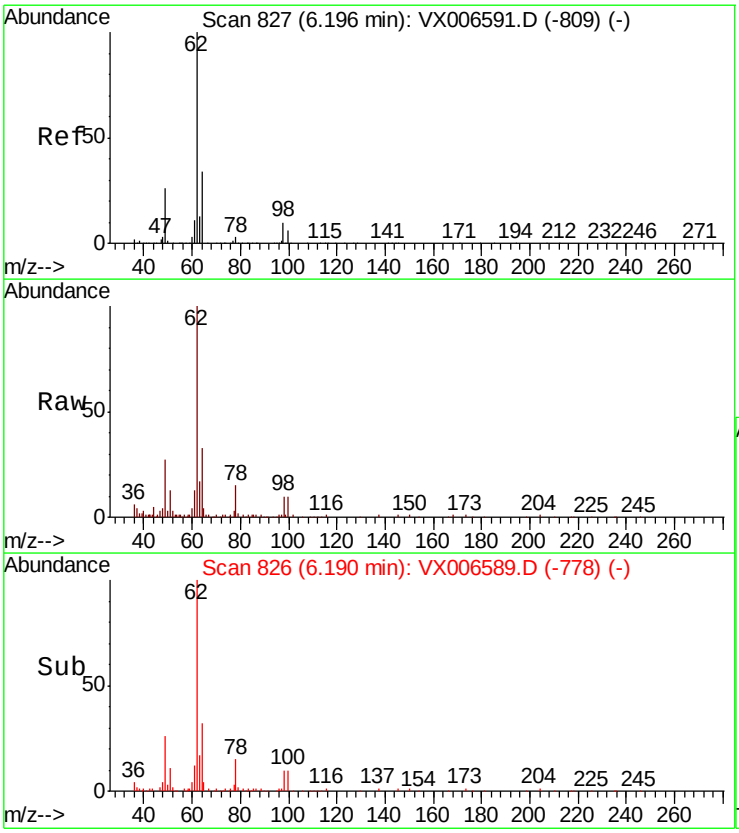


#41
Methacrylonitrile
Concen: 4.818 ug/l
RT: 5.06 min Scan# 640
Delta R.T. 0.00 min
Lab File: VX006589.D
Acq: 18 Dec 2018 11:11

Tgt Ion: 41 Resp: 22277

Ion	Ratio	Lower	Upper
41	100		
39	55.3	42.8	64.2
67	83.5	62.1	93.1
52	17.8	23.4	35.0#

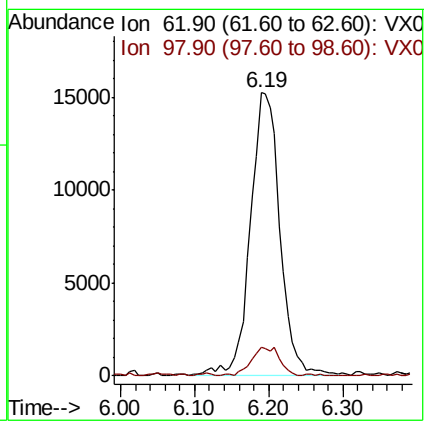


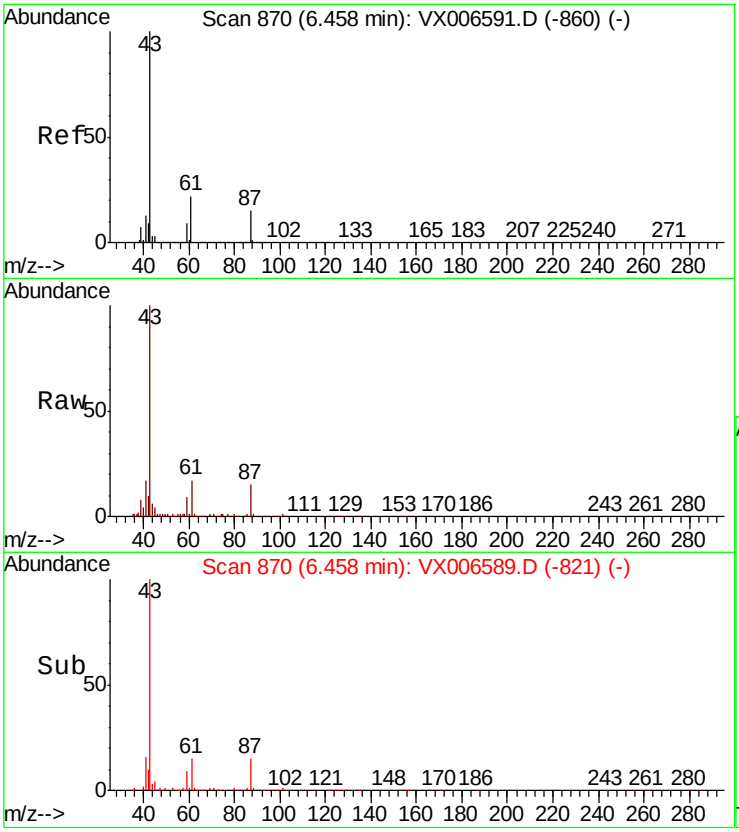


#42
1,2-Dichloroethane
Concen: 5.208 ug/l
RT: 6.19 min Scan# 826
Delta R.T. -0.01 min
Lab File: VX006589.D
Acq: 18 Dec 2018 11:11

Tgt Ion: 62 Resp: 42643

Ion	Ratio	Lower	Upper
62	100		
98	9.7	0.0	20.2

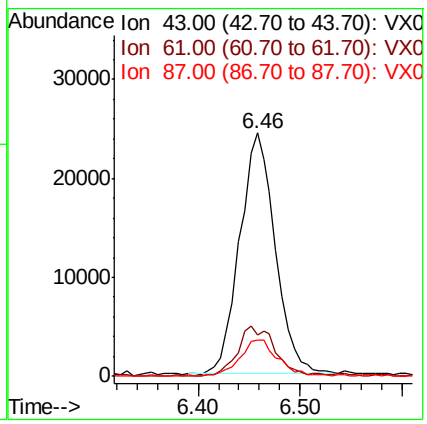




#43
Isopropyl Acetate
Concen: 4.714 ug/l
RT: 6.46 min Scan# 870
Delta R.T. 0.00 min
Lab File: VX006589.D
Acq: 18 Dec 2018 11:11

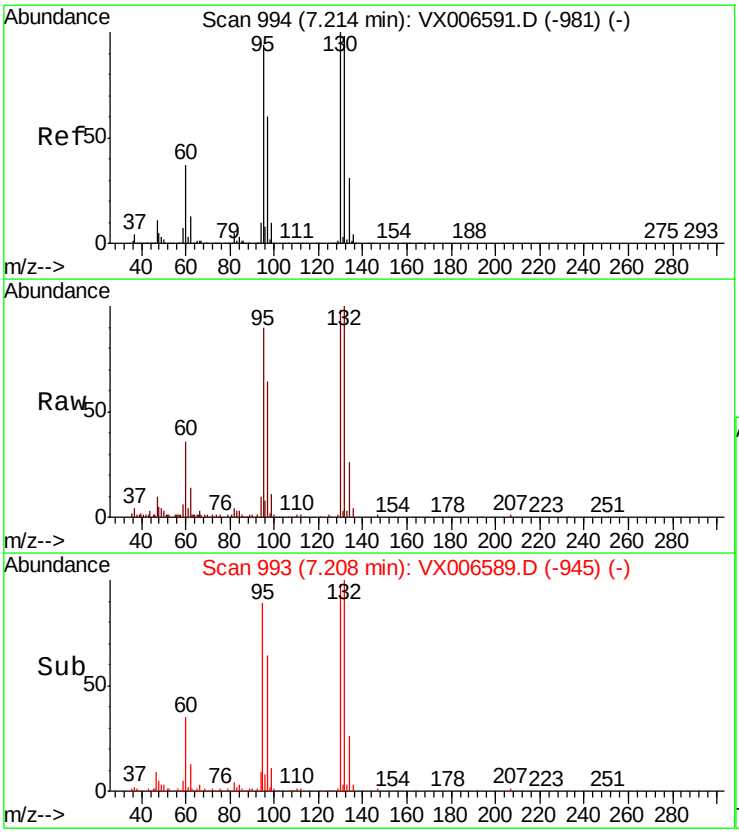
Tgt Ion: 43 Resp: 59016

Ion	Ratio	Lower	Upper
43	100		
61	21.6	16.8	25.2
87	15.9	12.4	18.6



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC005

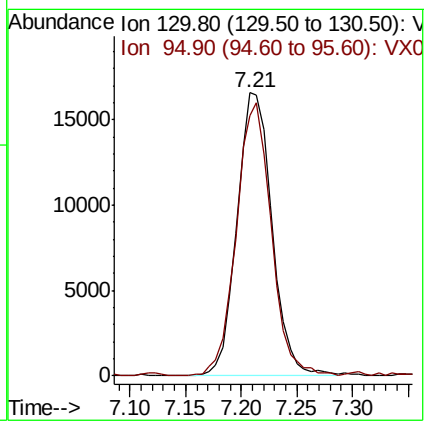
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:21:52 AM

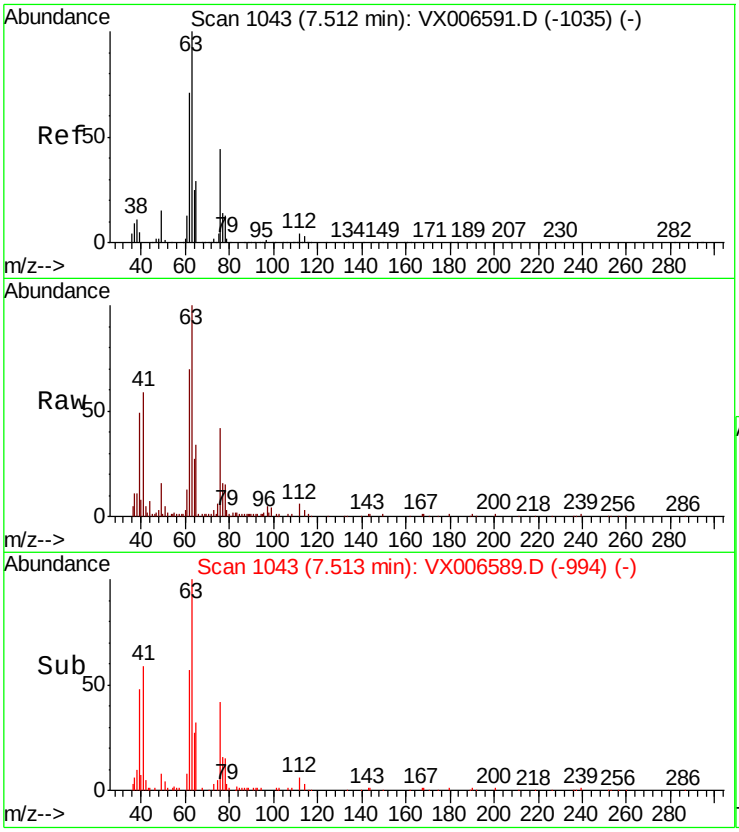


#44
Trichloroethene
Concen: 4.992 ug/l
RT: 7.21 min Scan# 993
Delta R.T. -0.01 min
Lab File: VX006589.D
Acq: 18 Dec 2018 11:11

Tgt Ion:130 Resp: 36306

Ion	Ratio	Lower	Upper
130	100		
95	92.2	0.0	187.0

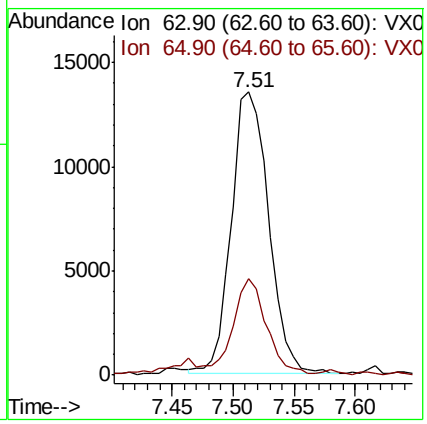




#45
1,2-Dichloropropane
Concen: 4.874 ug/l
RT: 7.51 min Scan# 1043
Delta R.T. 0.00 min
Lab File: VX006589.D
Acq: 18 Dec 2018 11:11

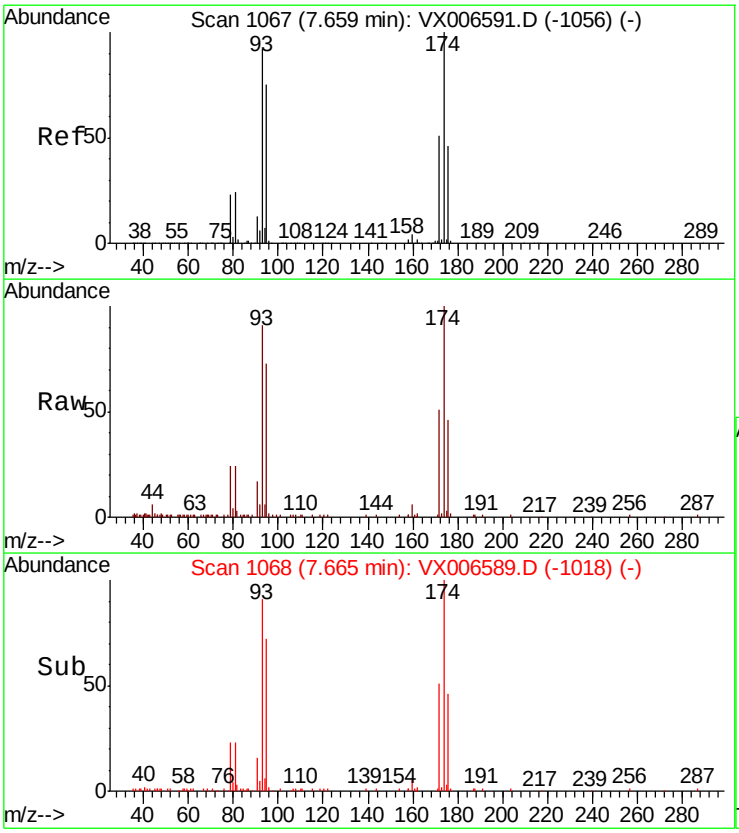
Tgt Ion: 63 Resp: 28499

Ion	Ratio	Lower	Upper
63	100		
65	33.5	25.4	38.0



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC005

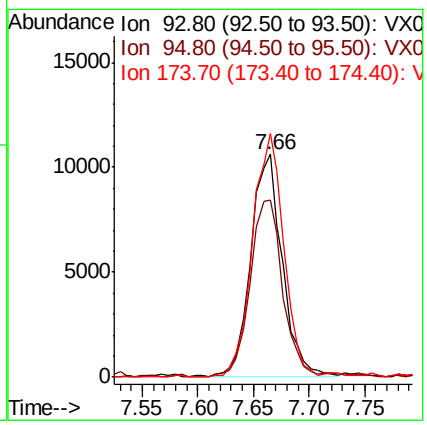
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:21:52 AM

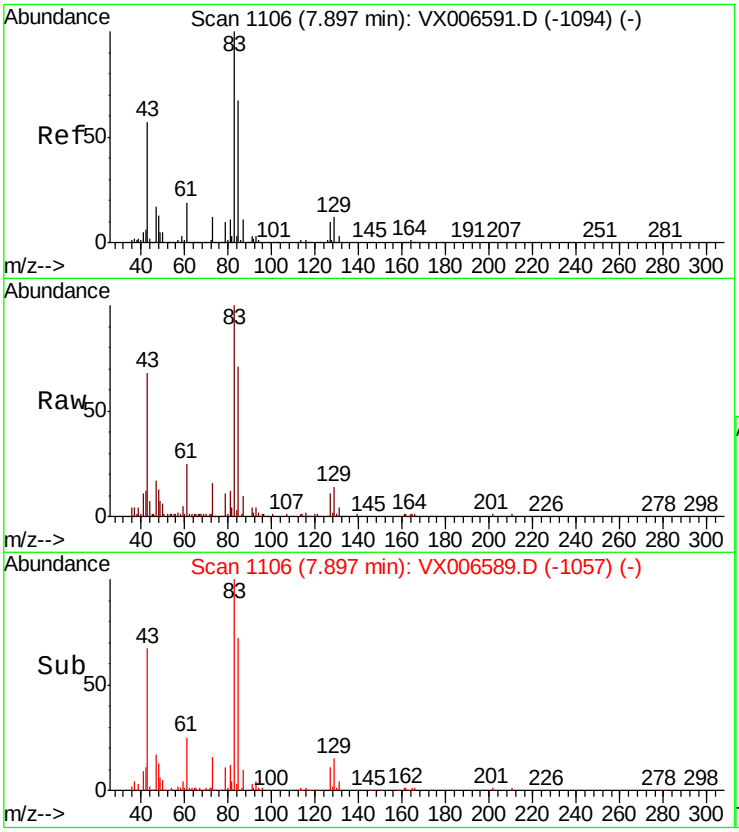


#46
Dibromomethane
Concen: 4.900 ug/l
RT: 7.66 min Scan# 1068
Delta R.T. 0.01 min
Lab File: VX006589.D
Acq: 18 Dec 2018 11:11

Tgt Ion: 93 Resp: 21075

Ion	Ratio	Lower	Upper
93	100		
95	83.5	66.2	99.4
174	107.9	91.0	136.4

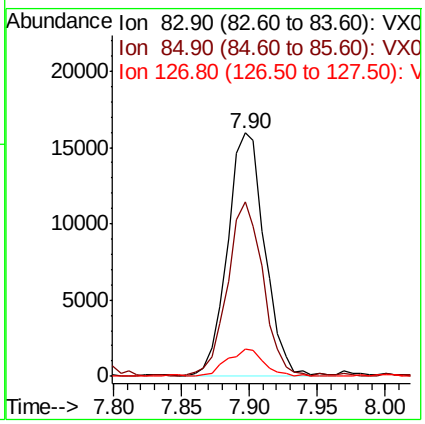




#47
Bromodichloromethane
Concen: 4.277 ug/l
RT: 7.90 min Scan# 1106
Delta R.T. 0.00 min
Lab File: VX006589.D
Acq: 18 Dec 2018 11:11

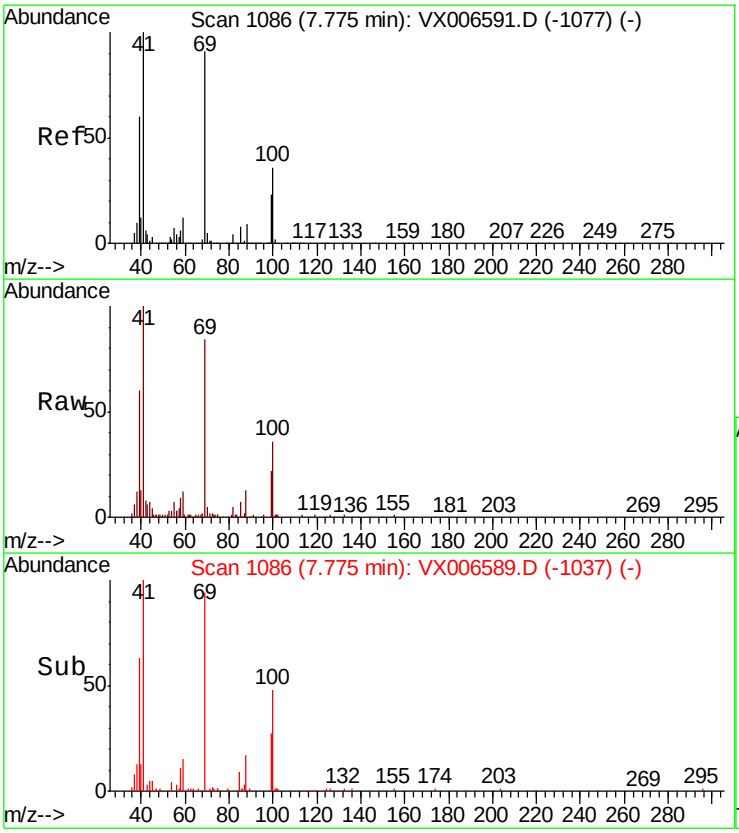
Tgt Ion: 83 Resp: 30538

Ion	Ratio	Lower	Upper
83	100		
85	70.7	53.2	79.8
127	11.4	7.8	11.6



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC005

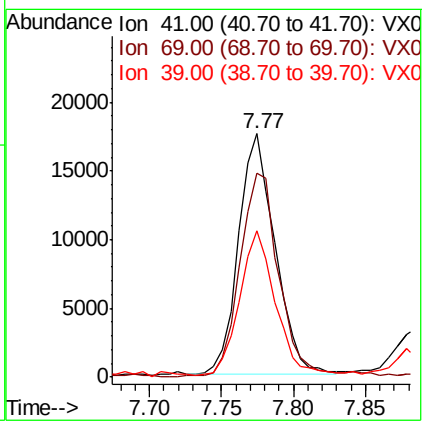
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:21:52 AM



#48
Methyl methacrylate
Concen: 4.834 ug/l
RT: 7.77 min Scan# 1086
Delta R.T. 0.00 min
Lab File: VX006589.D
Acq: 18 Dec 2018 11:11

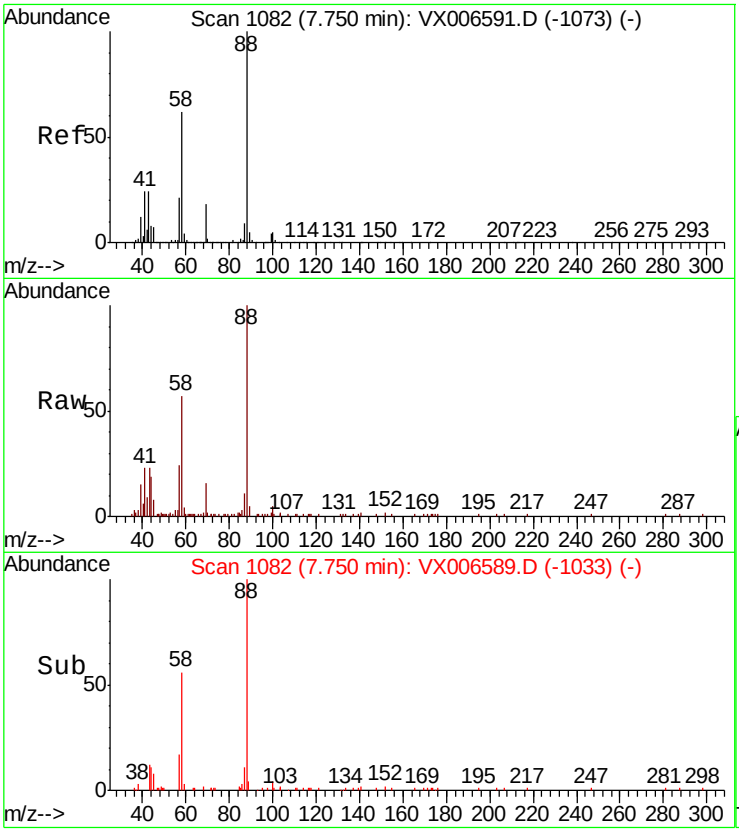
Tgt Ion: 41 Resp: 30771

Ion	Ratio	Lower	Upper
41	100		
69	90.0	72.4	108.6
39	59.9	45.8	68.8



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC005

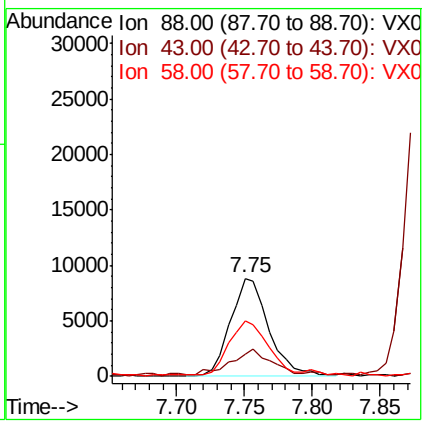
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:21:52 AM

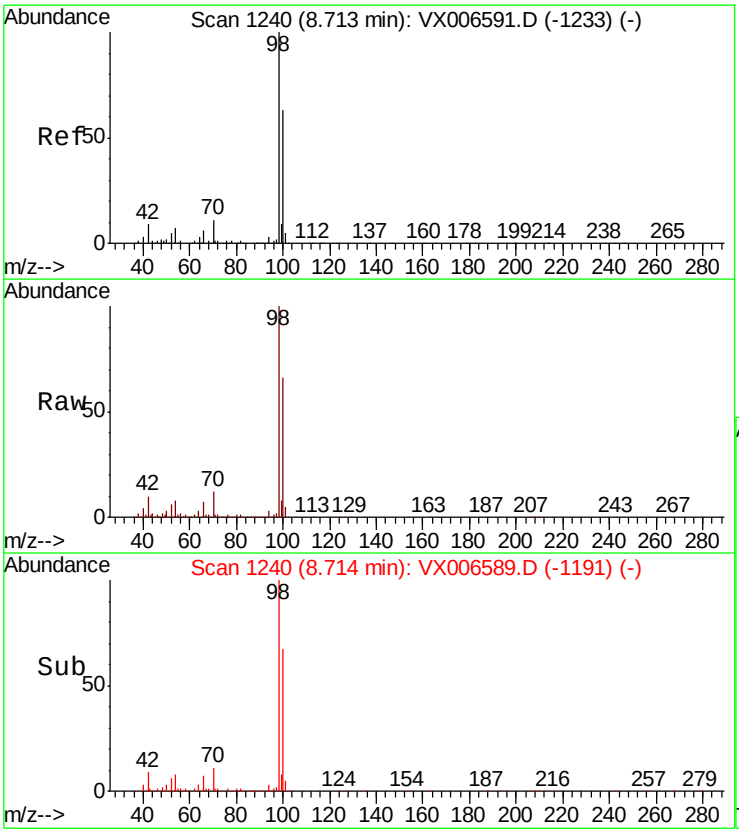


#49
1,4-Dioxane
Concen: 96.462 ug/l
RT: 7.75 min Scan# 1082
Delta R.T. 0.00 min
Lab File: VX006589.D
Acq: 18 Dec 2018 11:11

Tgt Ion: 88 Resp: 17375

Ion	Ratio	Lower	Upper
88	100		
43	32.3	22.2	33.4
58	56.1	51.0	76.4

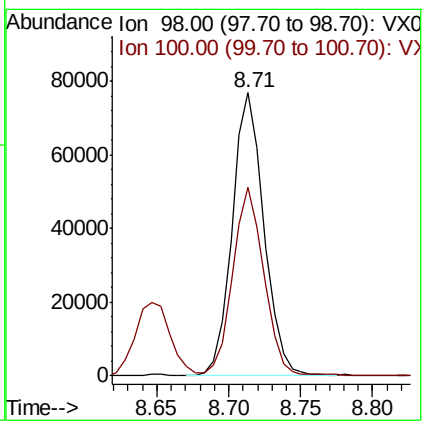




#50
Toluene-d8
Concen: 5.134 ug/l
RT: 8.71 min Scan# 1240
Delta R.T. 0.00 min
Lab File: VX006589.D
Acq: 18 Dec 2018 11:11

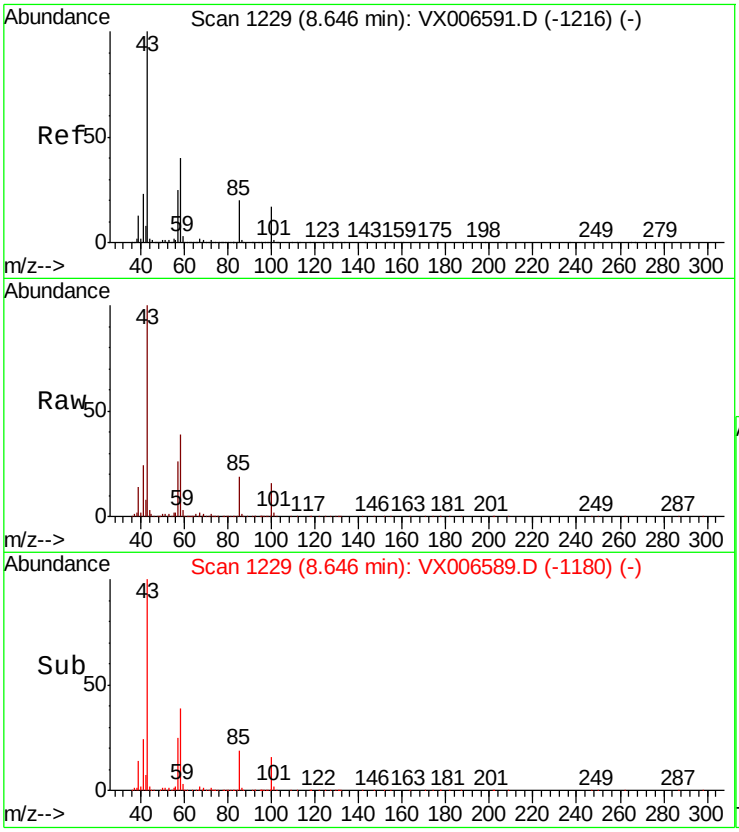
Tgt Ion: 98 Resp: 116825

Ion	Ratio	Lower	Upper
98	100		
100	66.1	52.0	78.0



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC005

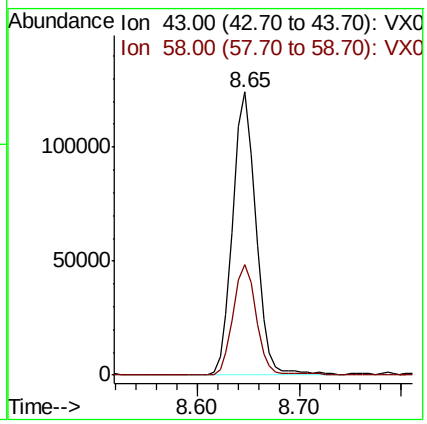
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:21:52 AM

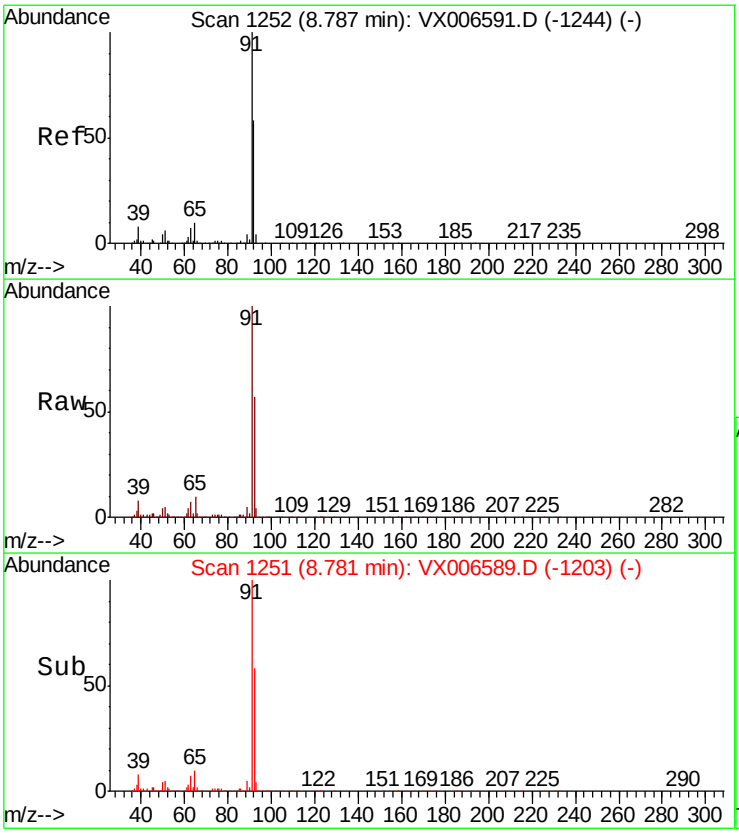


#51
4-Methyl-2-Pentanone
Concen: 24.443 ug/l
RT: 8.65 min Scan# 1229
Delta R.T. 0.00 min
Lab File: VX006589.D
Acq: 18 Dec 2018 11:11

Tgt Ion: 43 Resp: 194697

Ion	Ratio	Lower	Upper
43	100		
58	39.2	31.8	47.6

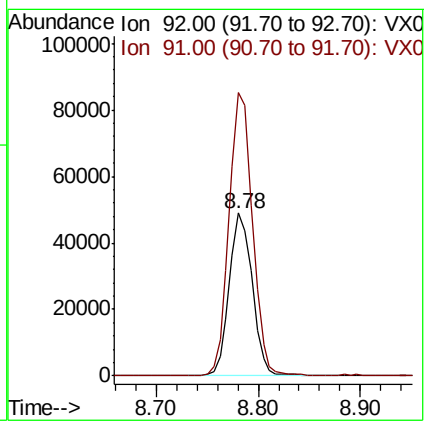


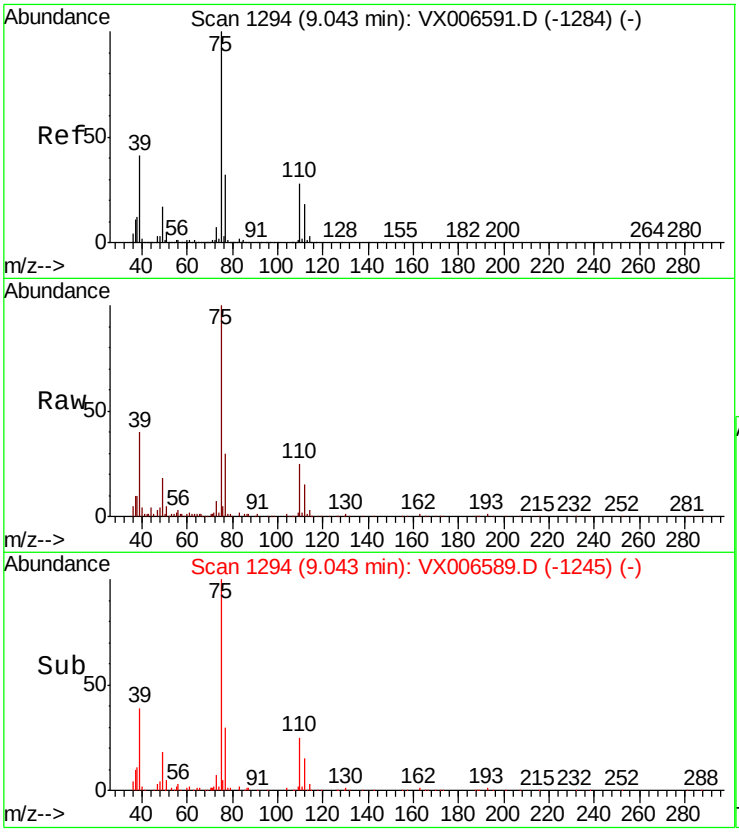


#52
Toluene
Concen: 4.942 ug/l
RT: 8.78 min Scan# 1251
Delta R.T. -0.01 min
Lab File: VX006589.D
Acq: 18 Dec 2018 11:11

Tgt Ion: 92 Resp: 76721

Ion	Ratio	Lower	Upper
92	100		
91	176.3	137.6	206.4

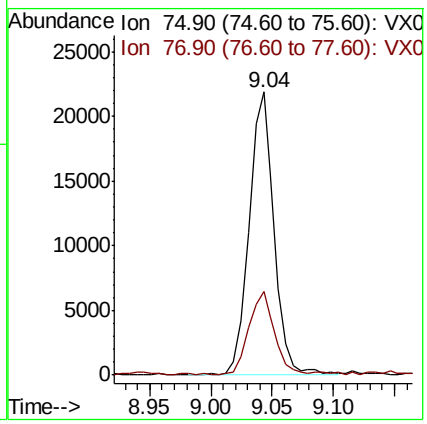


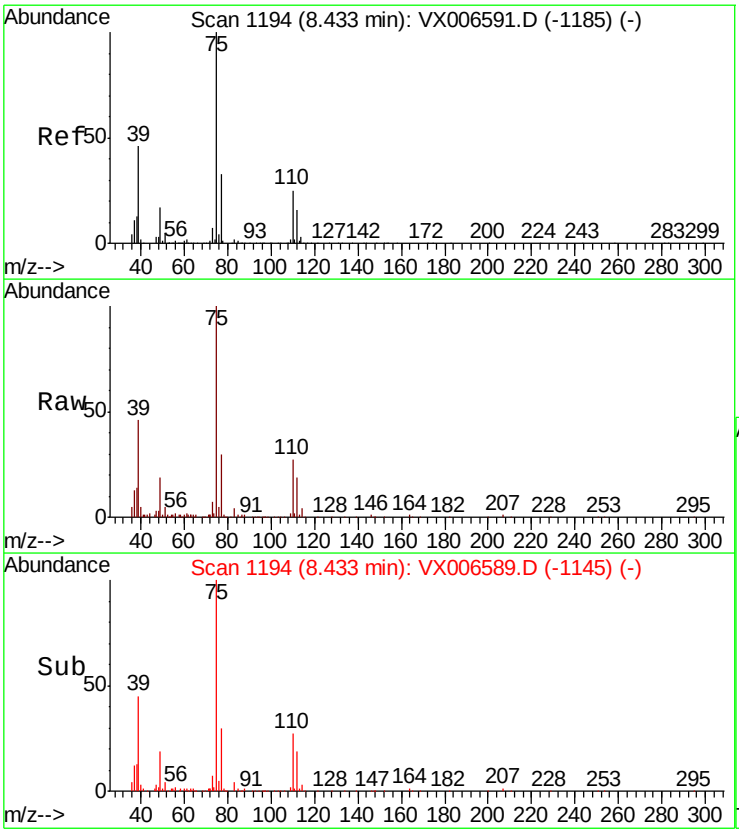


#53
t-1,3-Dichloropropene
Concen: 4.063 ug/l
RT: 9.04 min Scan# 1294
Delta R.T. 0.00 min
Lab File: VX006589.D
Acq: 18 Dec 2018 11:11

Tgt Ion: 75 Resp: 31118

Ion	Ratio	Lower	Upper
75	100		
77	28.9	25.4	38.0

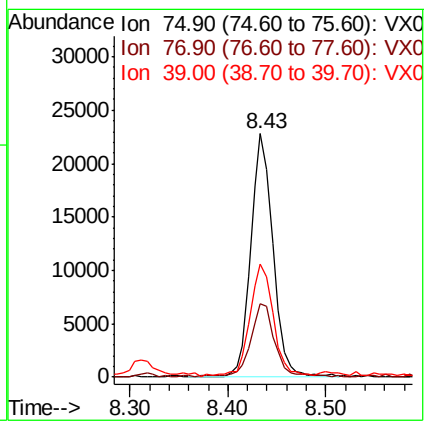




#54
cis-1,3-Dichloropropene
Concen: 4.290 ug/l
RT: 8.43 min Scan# 1194
Delta R.T. 0.00 min
Lab File: VX006589.D
Acq: 18 Dec 2018 11:11

Tgt Ion: 75 Resp: 36051

Ion	Ratio	Lower	Upper
75	100		
77	29.7	26.2	39.2
39	45.4	36.7	55.1

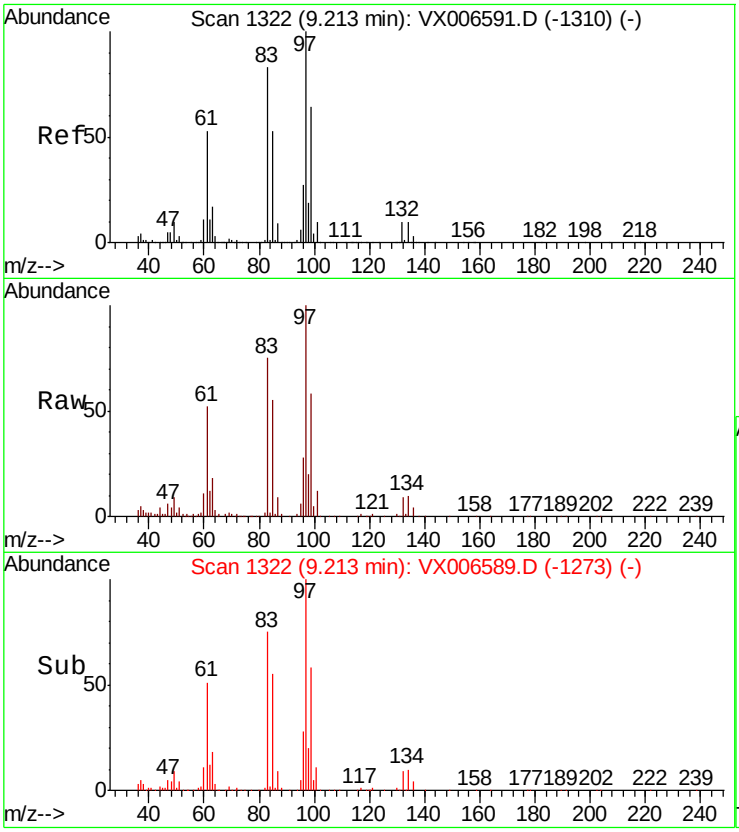


Instrument :
MSVOA_X
ClientSampleId :
VSTDICC005

Manual Integrations APPROVED
MMDadoda
12/19/2018 11:21:52 AM

Instrument :
MSVOA_X
ClientSampleId :
VSTDICC005

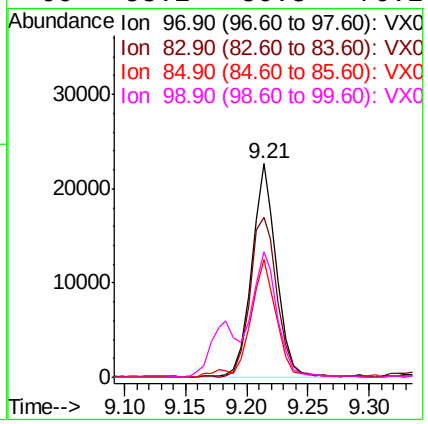
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:21:52 AM

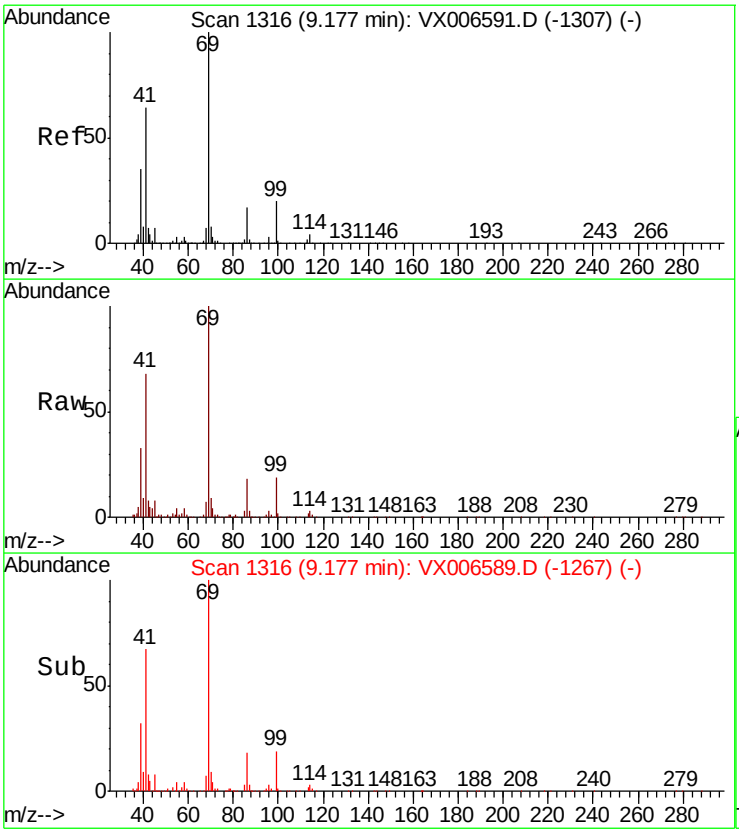


#55
1,1,2-Trichloroethane
Concen: 5.023 ug/l
RT: 9.21 min Scan# 1322
Delta R.T. 0.00 min
Lab File: VX006589.D
Acq: 18 Dec 2018 11:11

Tgt Ion: 97 Resp: 31918

Ion	Ratio	Lower	Upper
97	100		
83	75.1	66.6	99.8
85	55.0	42.7	64.1
99	58.2	50.8	76.2

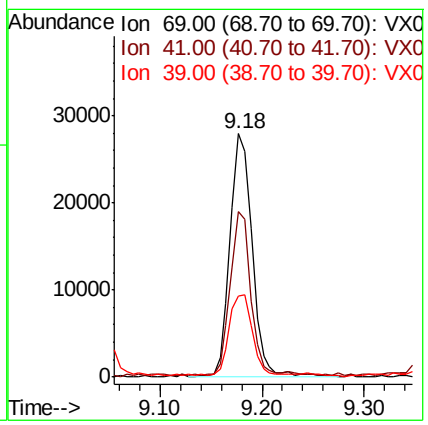


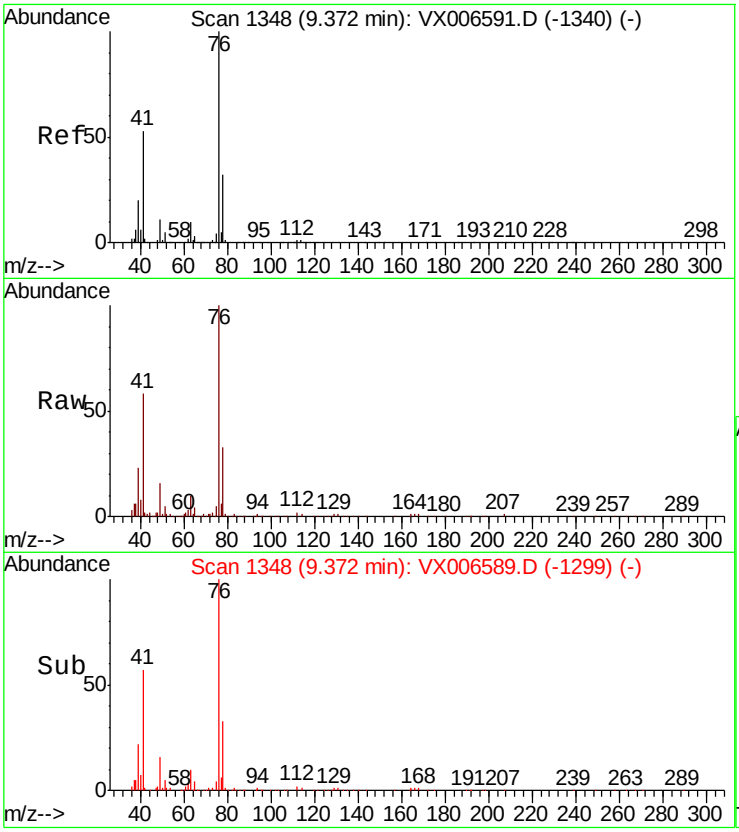


#56
Ethyl methacrylate
Concen: 4.717 ug/l
RT: 9.18 min Scan# 1316
Delta R.T. 0.00 min
Lab File: VX006589.D
Acq: 18 Dec 2018 11:11

Tgt Ion: 69 Resp: 42364

Ion	Ratio	Lower	Upper
69	100		
41	62.0	48.7	73.1
39	34.0	27.0	40.6

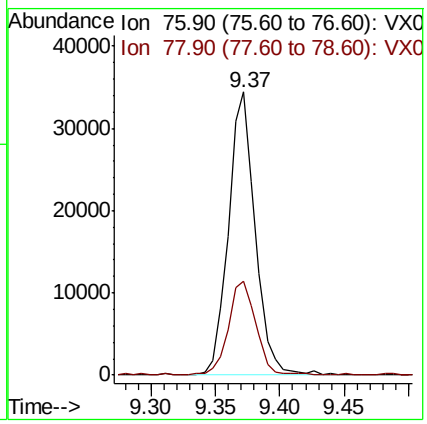




#57
1,3-Dichloropropane
Concen: 4.907 ug/l
RT: 9.37 min Scan# 1348
Delta R.T. 0.00 min
Lab File: VX006589.D
Acq: 18 Dec 2018 11:11

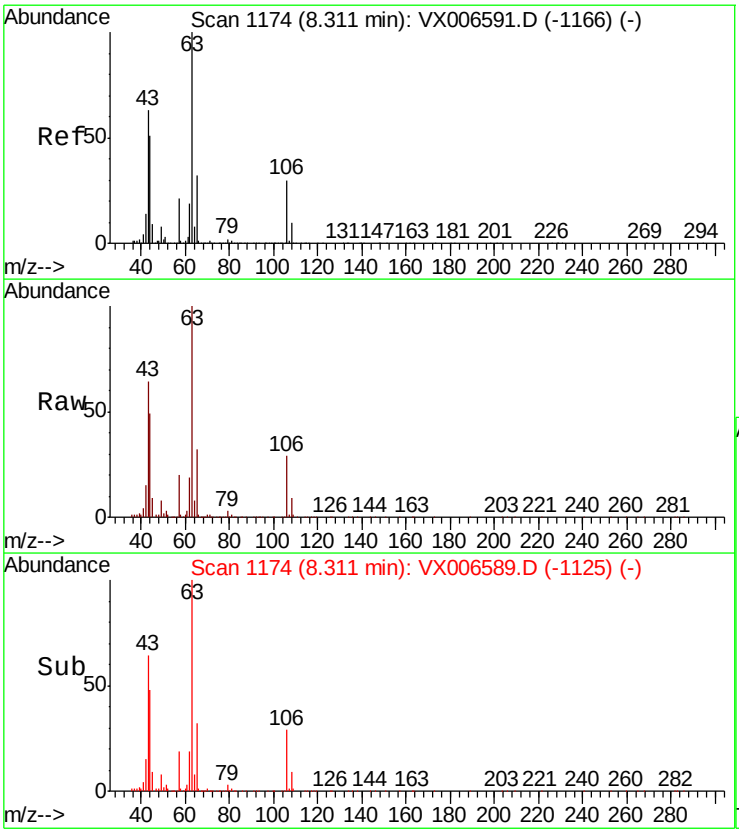
Tgt Ion: 76 Resp: 50167

Ion	Ratio	Lower	Upper
76	100		
78	34.3	26.0	39.0



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC005

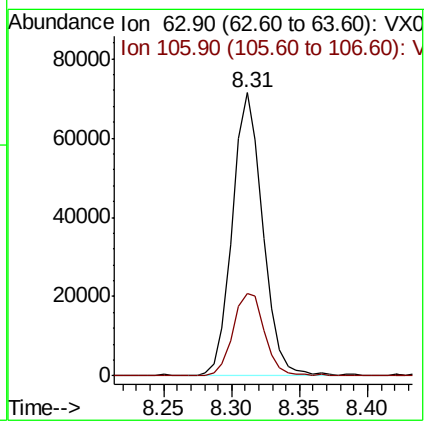
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:21:52 AM



#58
2-Chloroethyl Vinyl ether
Concen: 23.332 ug/l
RT: 8.31 min Scan# 1174
Delta R.T. 0.00 min
Lab File: VX006589.D
Acq: 18 Dec 2018 11:11

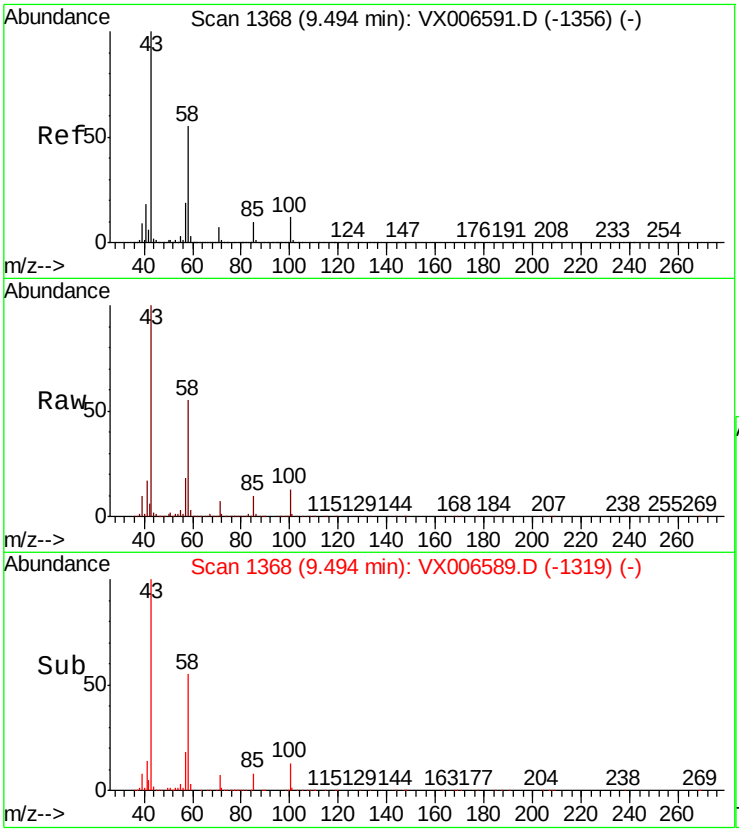
Tgt Ion: 63 Resp: 111381

Ion	Ratio	Lower	Upper
63	100		
106	30.6	24.6	36.8



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC005

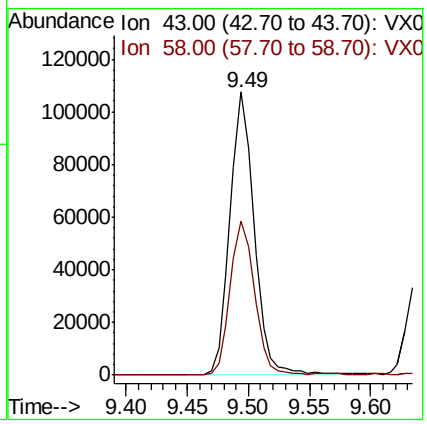
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:21:52 AM

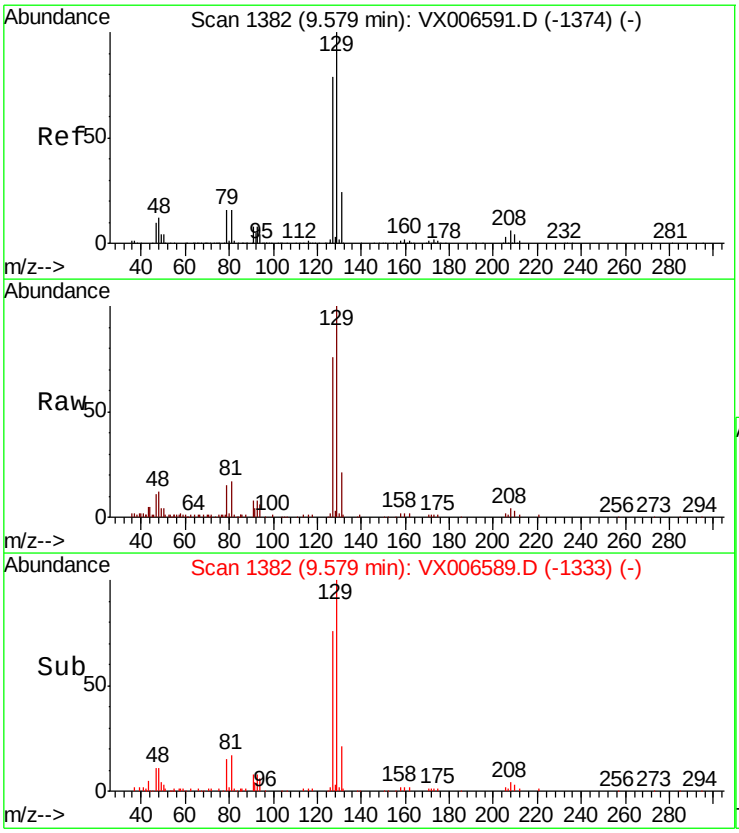


#59
2-Hexanone
Concen: 24.134 ug/l
RT: 9.49 min Scan# 1368
Delta R.T. 0.00 min
Lab File: VX006589.D
Acq: 18 Dec 2018 11:11

Tgt Ion: 43 Resp: 147083

Ion	Ratio	Lower	Upper
43	100		
58	56.1	27.7	83.1

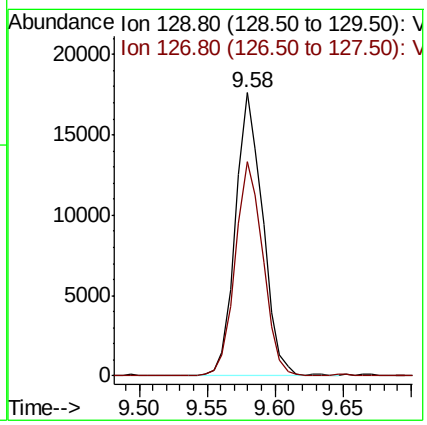




#60
Dibromochloromethane
Concen: 4.193 ug/l
RT: 9.58 min Scan# 1382
Delta R.T. 0.00 min
Lab File: VX006589.D
Acq: 18 Dec 2018 11:11

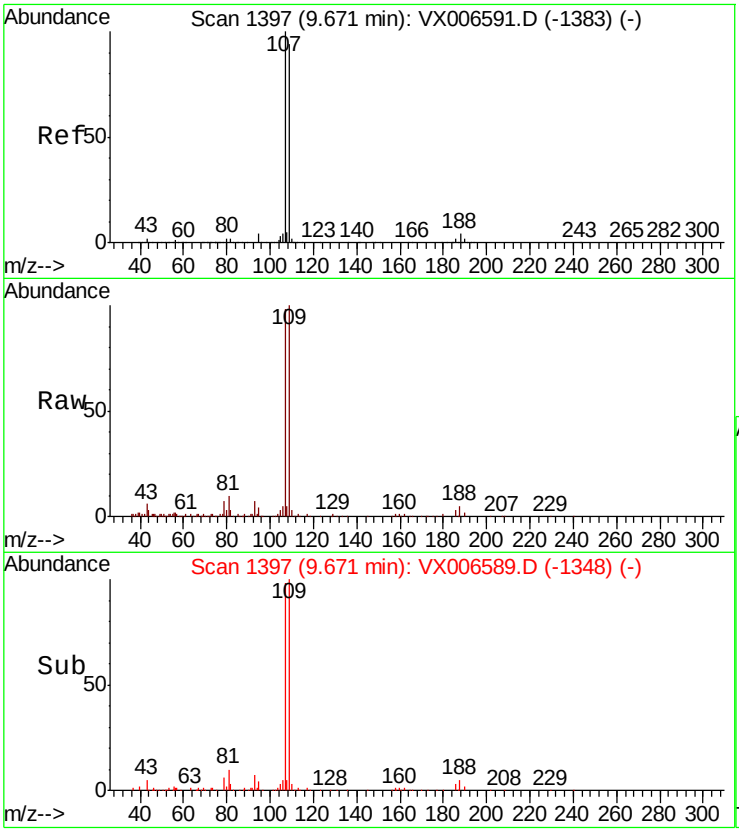
Tgt Ion:129 Resp: 24541

Ion	Ratio	Lower	Upper
129	100		
127	77.0	39.3	117.8



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC005

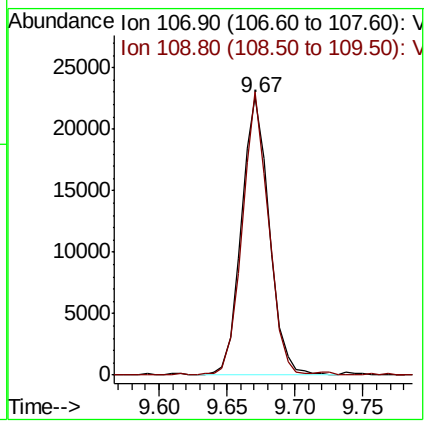
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:21:52 AM

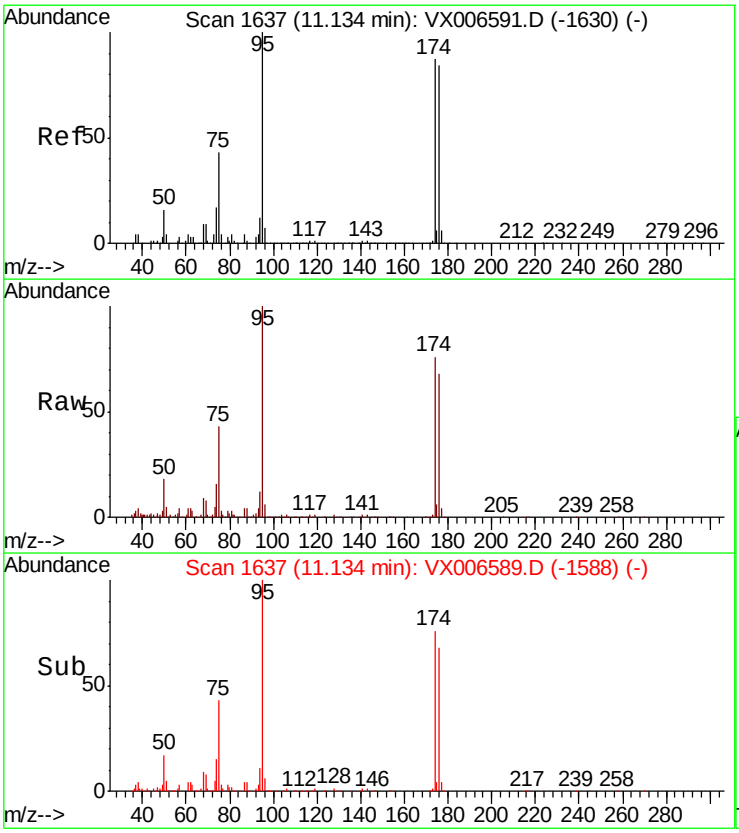


#61
1,2-Dibromoethane
Concen: 4.805 ug/l
RT: 9.67 min Scan# 1397
Delta R.T. 0.00 min
Lab File: VX006589.D
Acq: 18 Dec 2018 11:11

Tgt Ion:107 Resp: 32453

Ion	Ratio	Lower	Upper
107	100		
109	95.0	75.8	113.6

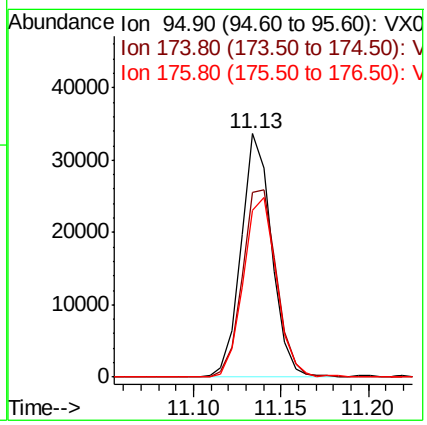


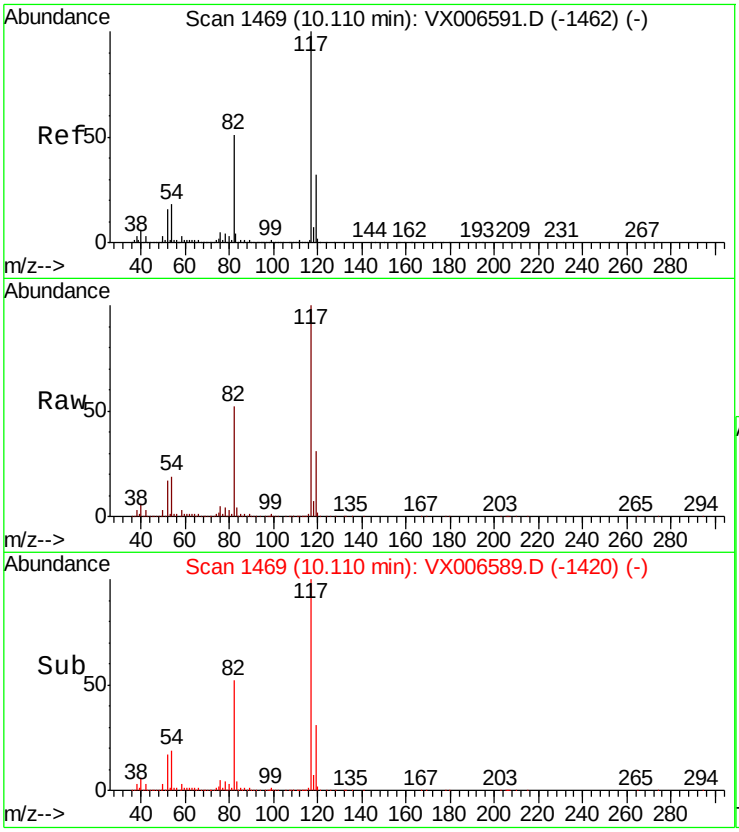


#62
4-Bromofluorobenzene
Concen: 4.893 ug/l
RT: 11.13 min Scan# 1637
Delta R.T. 0.00 min
Lab File: VX006589.D
Acq: 18 Dec 2018 11:11

Tgt Ion: 95 Resp: 40779

Ion	Ratio	Lower	Upper
95	100		
174	85.8	0.0	182.2
176	80.4	0.0	178.8

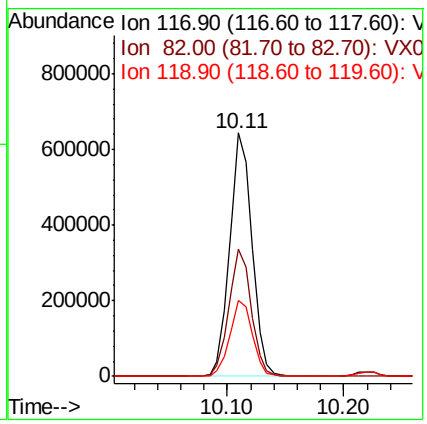




#63
Chlorobenzene-d5
Concen: 50.000 ug/l
RT: 10.11 min Scan# 1469
Delta R.T. 0.00 min
Lab File: VX006589.D
Acq: 18 Dec 2018 11:11

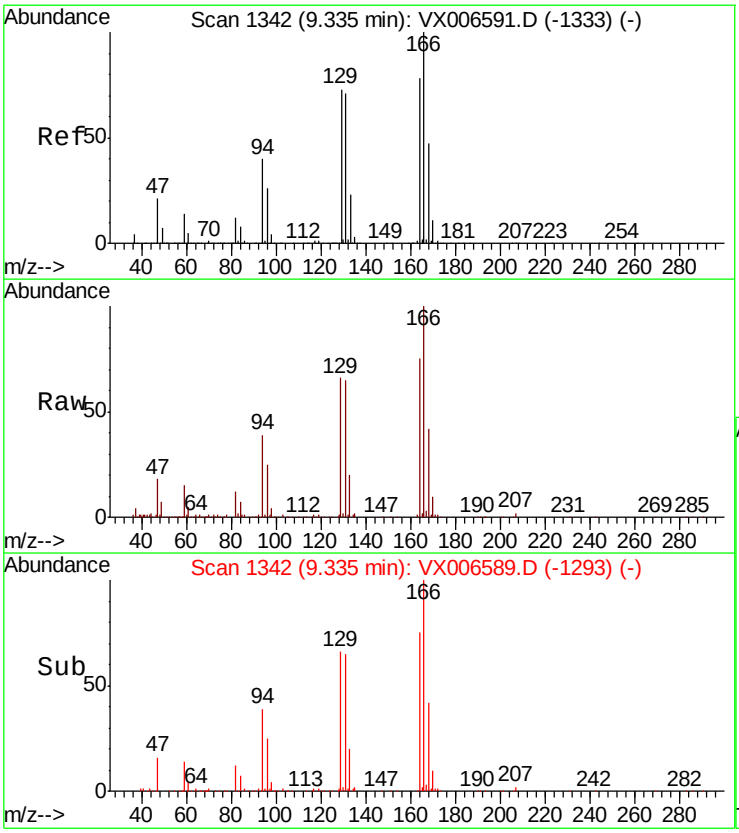
Tgt Ion:117 Resp: 861494

Ion	Ratio	Lower	Upper
117	100		
82	52.1	41.0	61.6
119	31.4	25.4	38.0



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC005

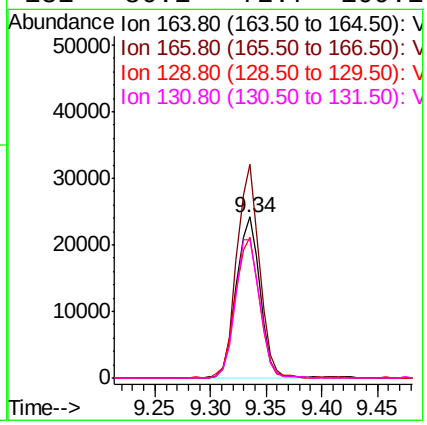
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:21:52 AM

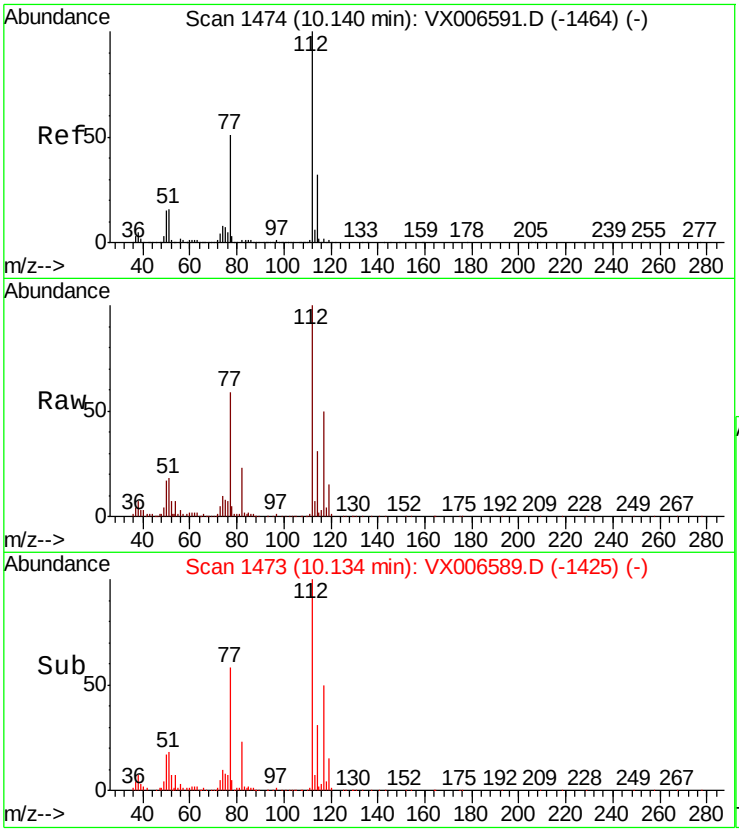


#64
Tetrachloroethene
Concen: 5.252 ug/l
RT: 9.34 min Scan# 1342
Delta R.T. 0.00 min
Lab File: VX006589.D
Acq: 18 Dec 2018 11:11

Tgt Ion:164 Resp: 35825

Ion	Ratio	Lower	Upper
164	100		
166	132.5	102.5	153.7
129	87.4	75.1	112.7
131	86.1	72.7	109.1

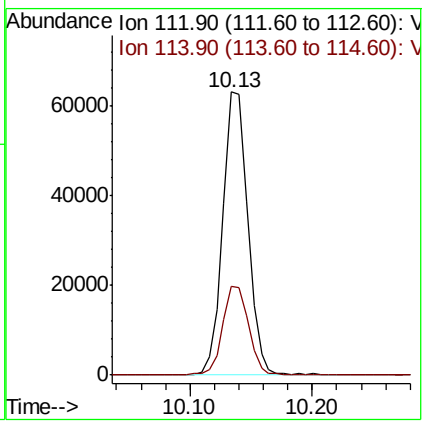




#65
Chlorobenzene
Concen: 4.931 ug/l
RT: 10.13 min Scan# 1473
Delta R.T. -0.01 min
Lab File: VX006589.D
Acq: 18 Dec 2018 11:11

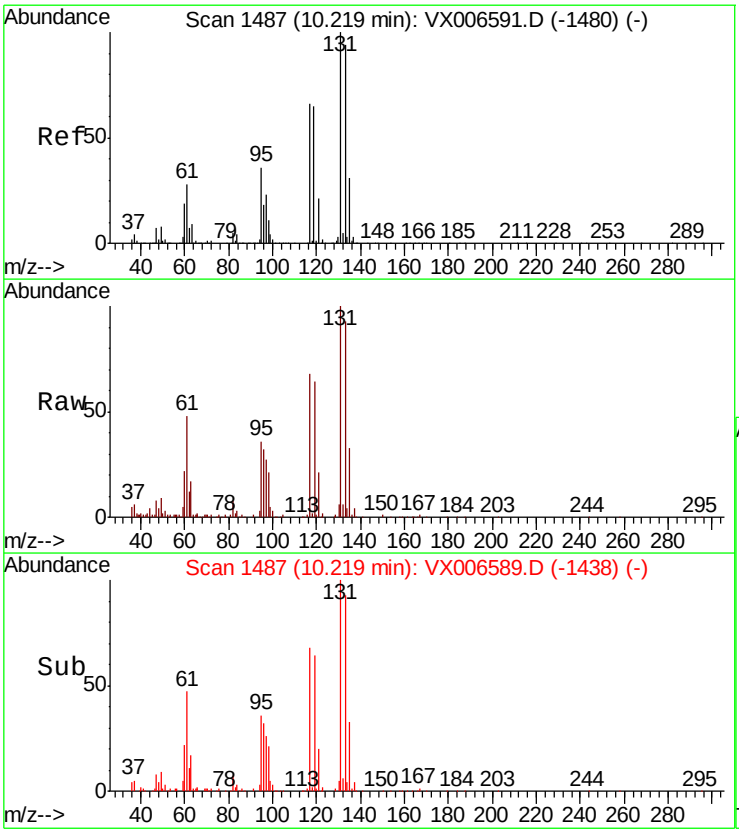
Tgt Ion:112 Resp: 89867

Ion	Ratio	Lower	Upper
112	100		
114	31.3	25.7	38.5



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC005

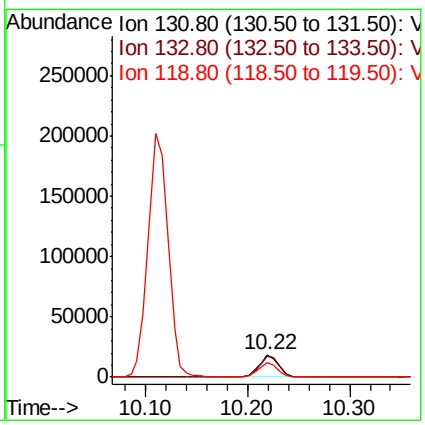
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:21:52 AM



#66
1,1,1,2-Tetrachloroethane
Concen: 4.360 ug/l
RT: 10.22 min Scan# 1487
Delta R.T. 0.00 min
Lab File: VX006589.D
Acq: 18 Dec 2018 11:11

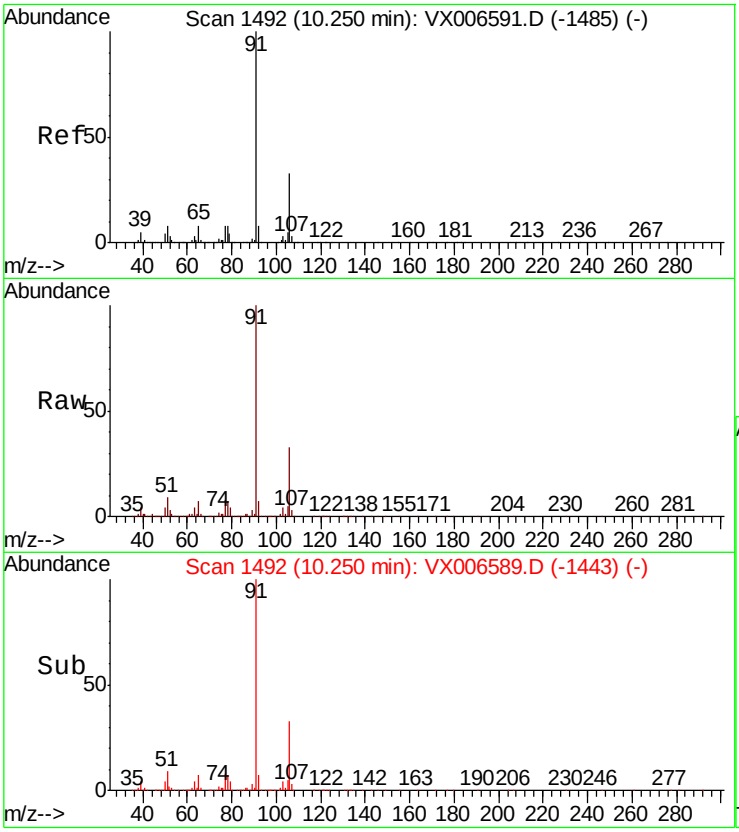
Tgt Ion:131 Resp: 24791

Ion	Ratio	Lower	Upper
131	100		
133	97.0	48.0	144.2
119	66.5	32.6	97.8



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC005

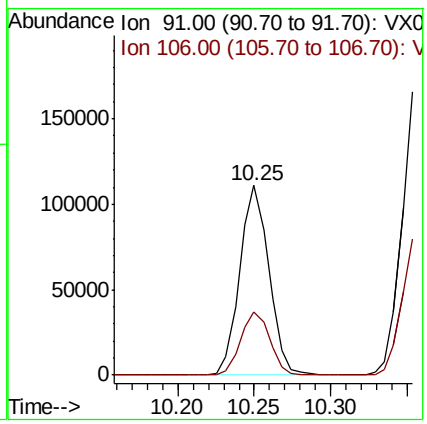
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:21:52 AM

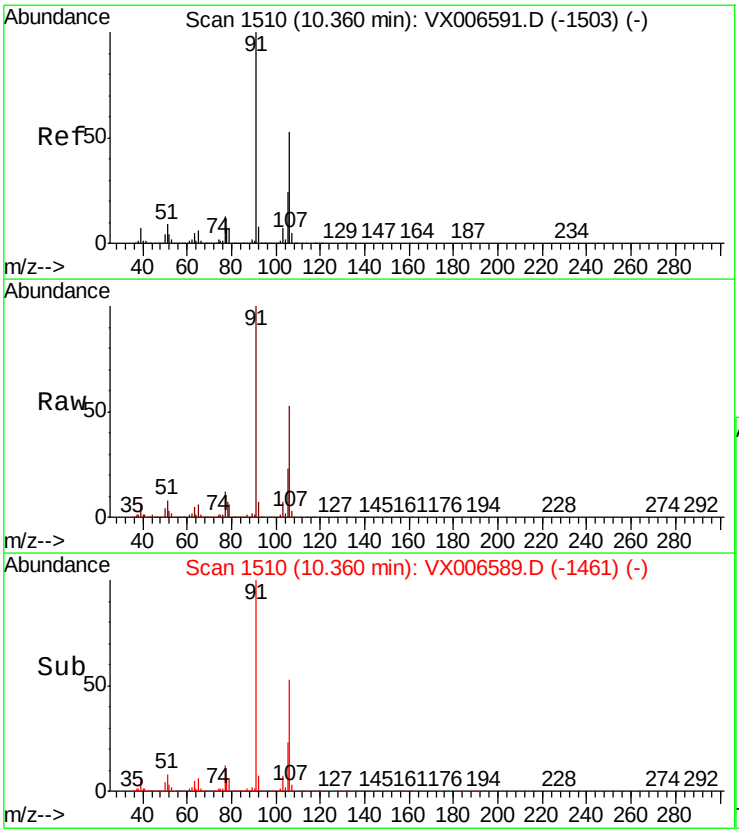


#67
Ethyl Benzene
Concen: 4.940 ug/l
RT: 10.25 min Scan# 1492
Delta R.T. 0.00 min
Lab File: VX006589.D
Acq: 18 Dec 2018 11:11

Tgt Ion: 91 Resp: 147132

Ion	Ratio	Lower	Upper
91	100		
106	33.1	26.4	39.6

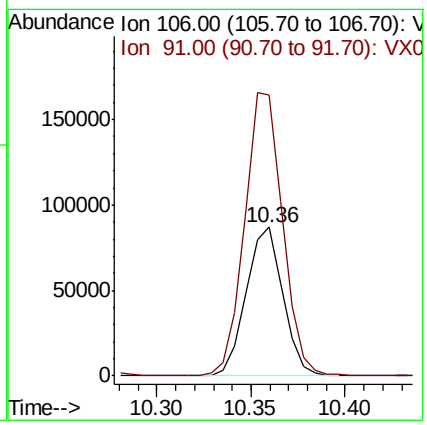


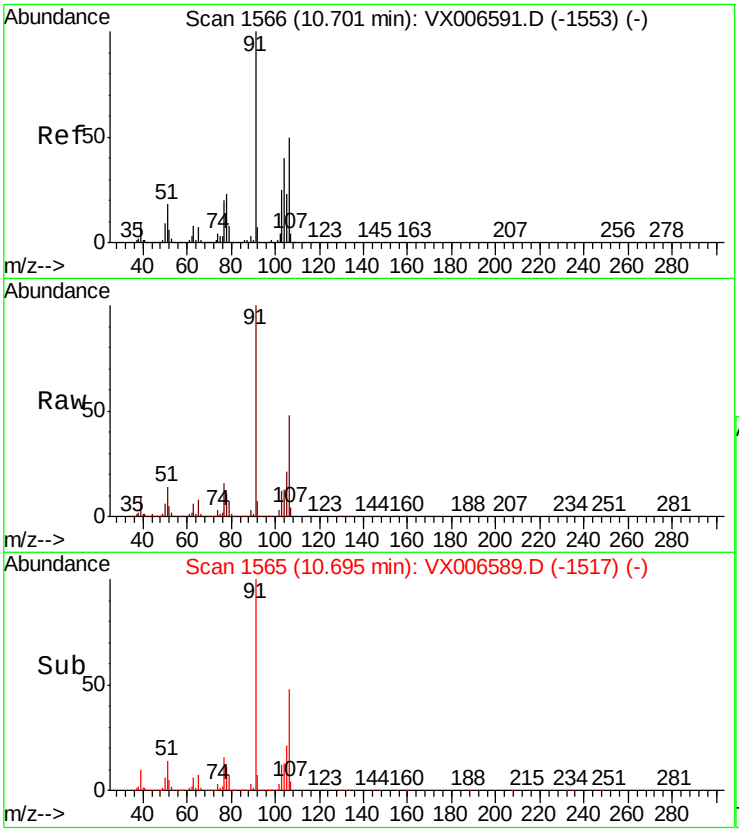


#68
m/p-Xylenes
Concen: 10.031 ug/l
RT: 10.36 min Scan# 1510
Delta R.T. 0.00 min
Lab File: VX006589.D
Acq: 18 Dec 2018 11:11

Tgt Ion:106 Resp: 117887

Ion	Ratio	Lower	Upper
106	100		
91	196.1	155.8	233.6

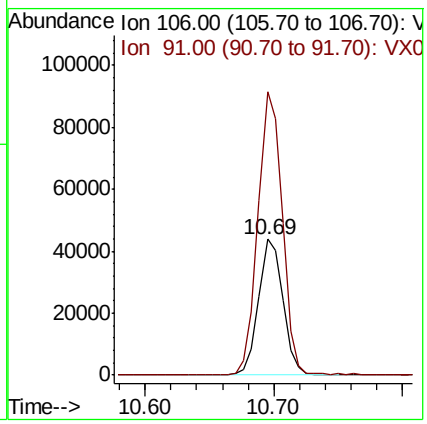




#69
o-Xylene
Concen: 4.926 ug/l
RT: 10.69 min Scan# 1565
Delta R.T. -0.01 min
Lab File: VX006589.D
Acq: 18 Dec 2018 11:11

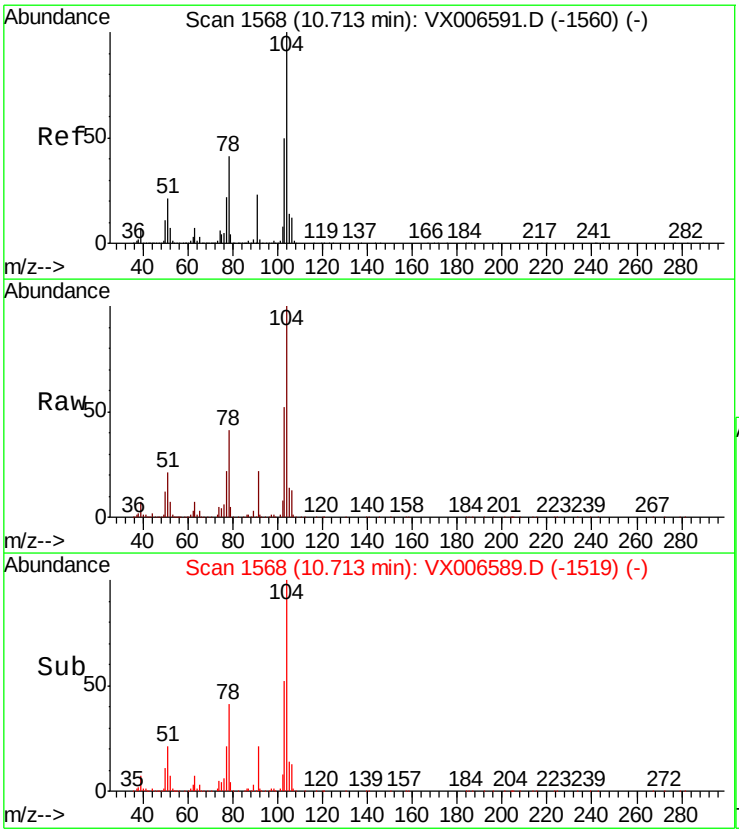
Tgt Ion:106 Resp: 57169

Ion	Ratio	Lower	Upper
106	100		
91	208.5	101.3	303.7



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC005

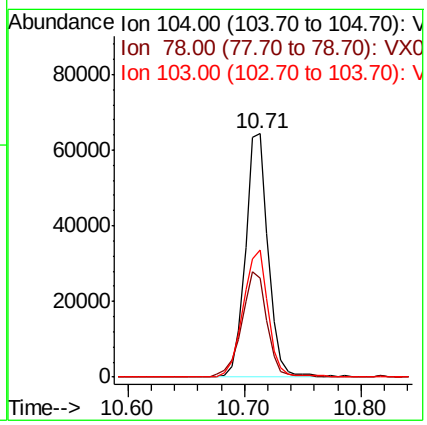
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:21:52 AM

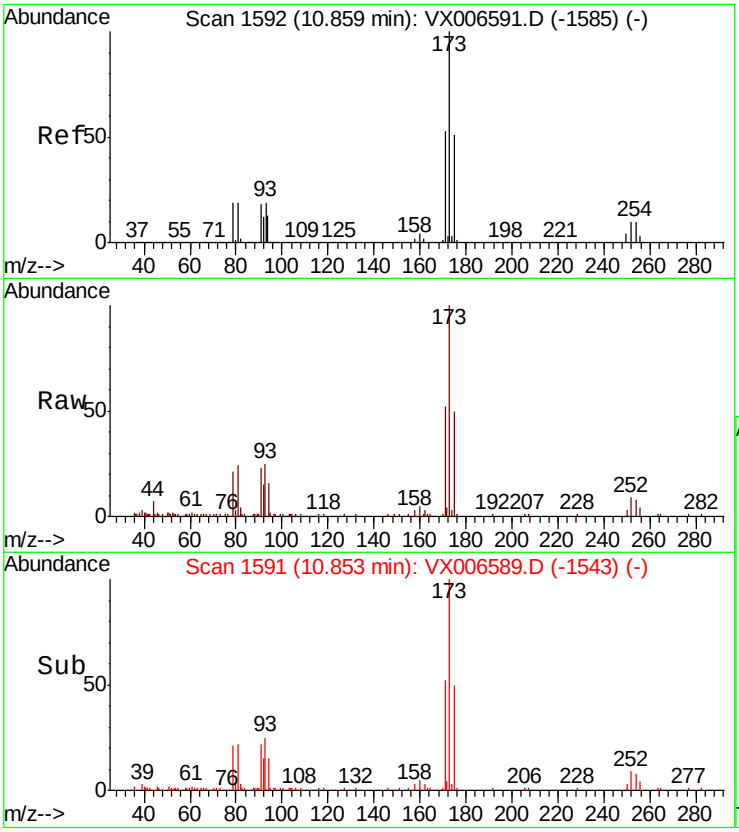


#70
Styrene
Concen: 4.775 ug/l
RT: 10.71 min Scan# 1568
Delta R.T. 0.00 min
Lab File: VX006589.D
Acq: 18 Dec 2018 11:11

Tgt Ion:104 Resp: 87661

Ion	Ratio	Lower	Upper
104	100		
78	47.8	37.7	56.5
103	57.6	43.8	65.8

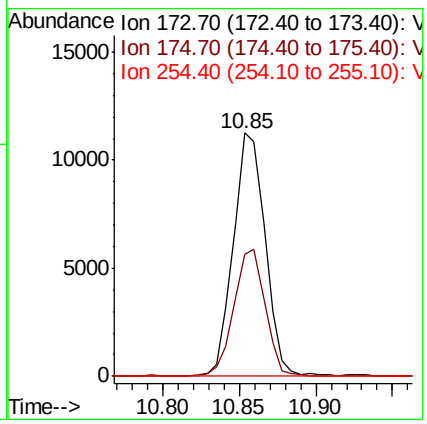




#71
Bromoform
Concen: 3.748 ug/l
RT: 10.85 min Scan# 1591
Delta R.T. -0.01 min
Lab File: VX006589.D
Acq: 18 Dec 2018 11:11

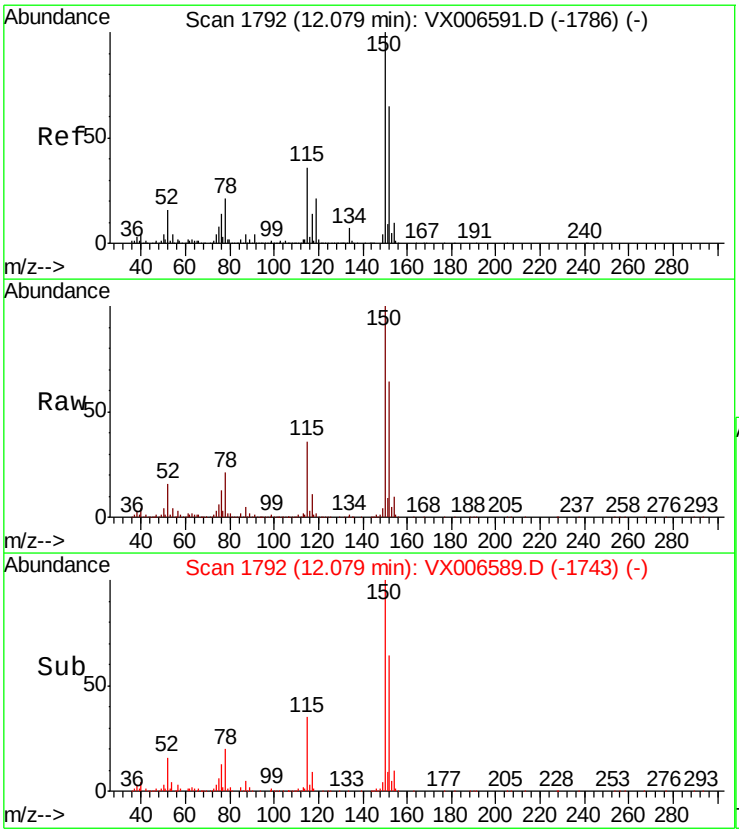
Tgt Ion:173 Resp: 16227

Ion	Ratio	Lower	Upper
173	100		
175	51.6	24.7	74.1
254	0.0	0.2	0.2#



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC005

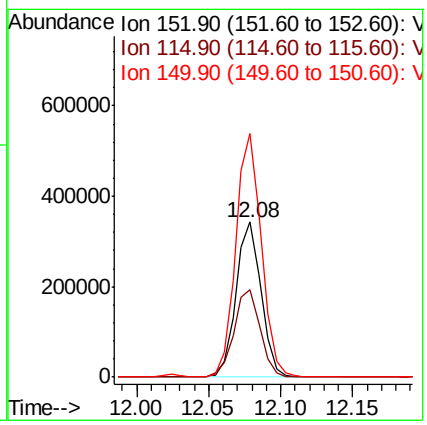
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:21:52 AM

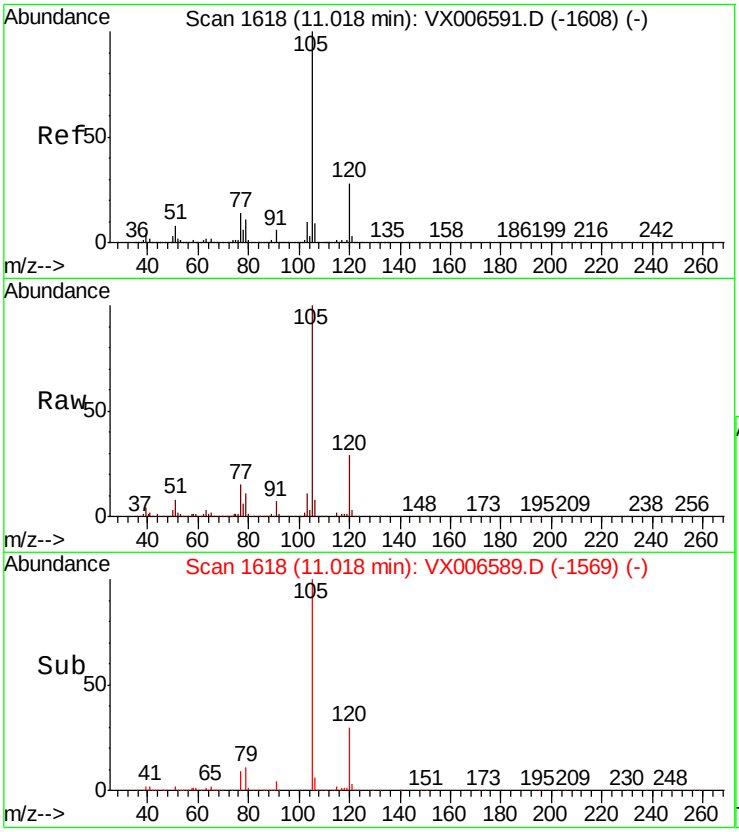


#72
1,4-Dichlorobenzene-d4
Concen: 50.000 ug/l
RT: 12.08 min Scan# 1792
Delta R.T. 0.00 min
Lab File: VX006589.D
Acq: 18 Dec 2018 11:11

Tgt Ion:152 Resp: 415079

Ion	Ratio	Lower	Upper
152	100		
115	59.7	39.1	117.2
150	160.9	0.0	344.8

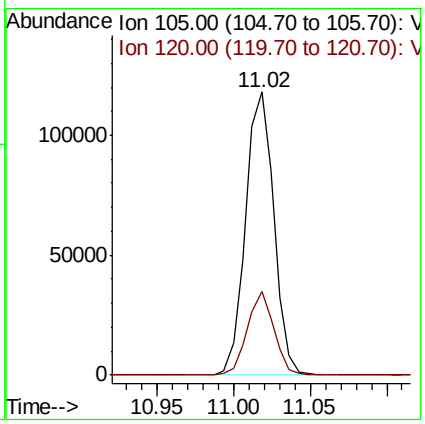




#73
Isopropylbenzene
Concen: 5.341 ug/l
RT: 11.02 min Scan# 1618
Delta R.T. 0.00 min
Lab File: VX006589.D
Acq: 18 Dec 2018 11:11

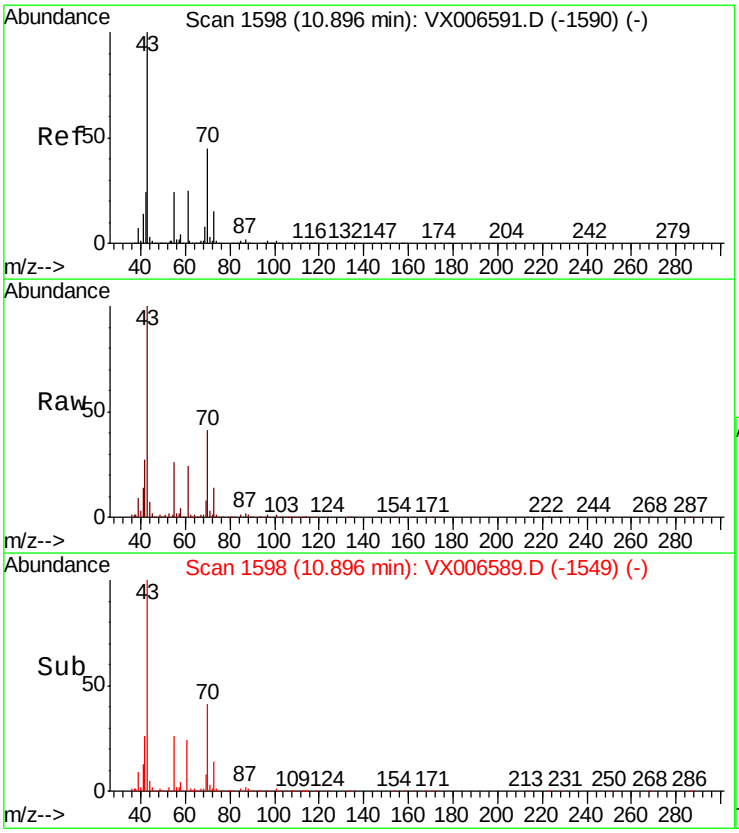
Tgt Ion:105 Resp: 151672

Ion	Ratio	Lower	Upper
105	100		
120	27.8	14.1	42.4



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC005

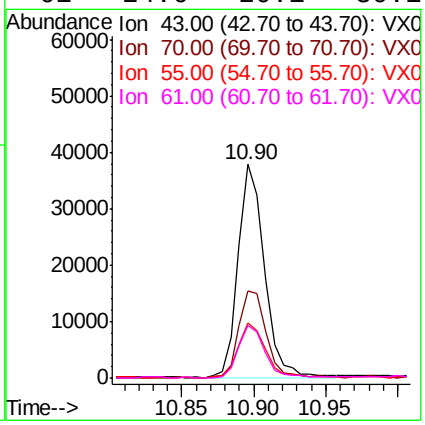
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:21:52 AM

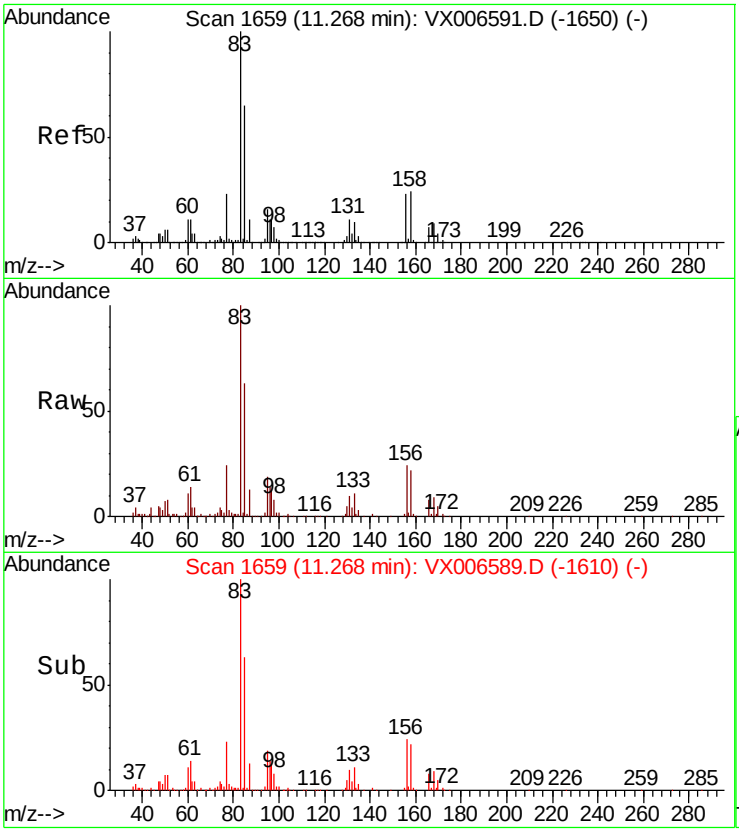


#74
N-amyl acetate
Concen: 4.780 ug/l
RT: 10.90 min Scan# 1598
Delta R.T. 0.00 min
Lab File: VX006589.D
Acq: 18 Dec 2018 11:11

Tgt Ion: 43 Resp: 48588

Ion	Ratio	Lower	Upper
43	100		
70	41.7	35.8	53.8
55	28.1	19.4	29.0
61	24.6	20.1	30.1

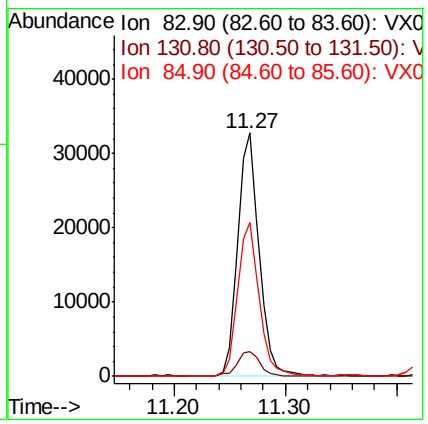




#75
1,1,2,2-Tetrachloroethane
Concen: 5.131 ug/l
RT: 11.27 min Scan# 1659
Delta R.T. 0.00 min
Lab File: VX006589.D
Acq: 18 Dec 2018 11:11

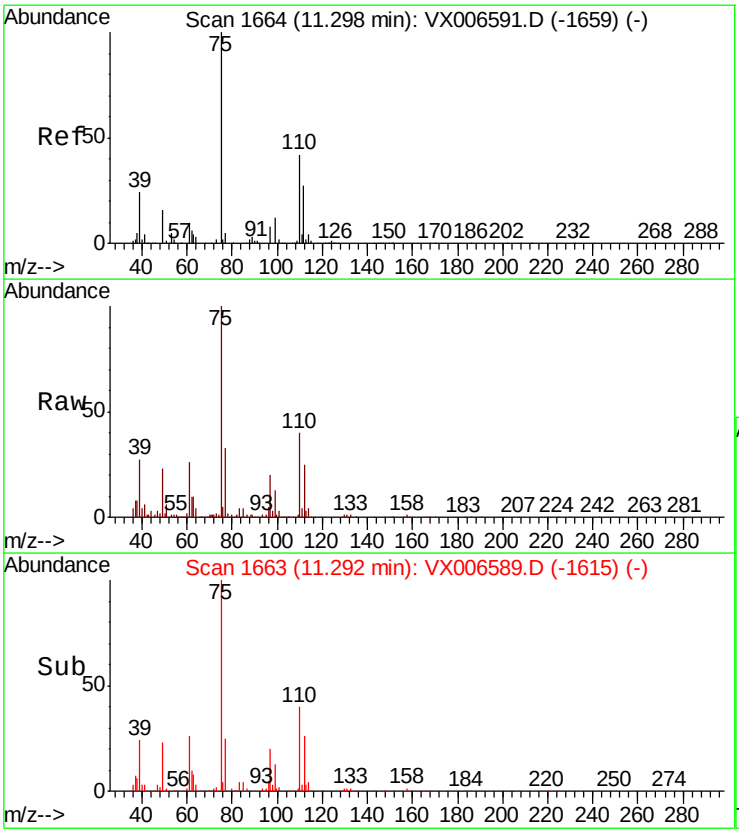
Tgt Ion: 83 Resp: 43335

Ion	Ratio	Lower	Upper
83	100		
131	10.7	5.7	17.1
85	64.3	32.2	96.6



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC005

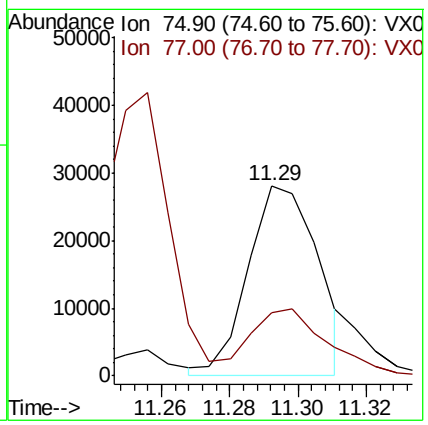
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:21:52 AM

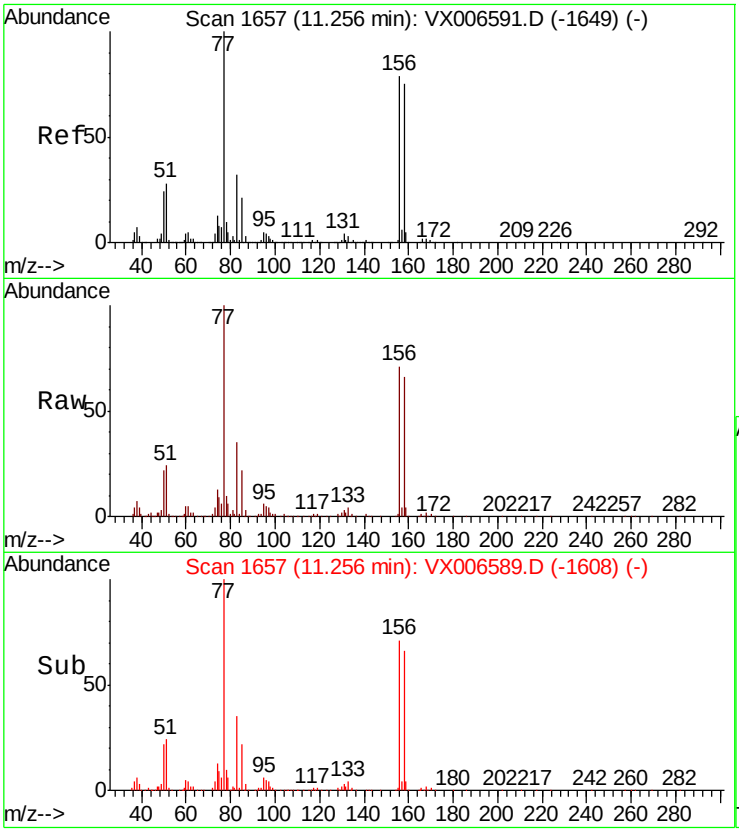


#76
1,2,3-Trichloropropane
Concen: 5.474 ug/l m
RT: 11.29 min Scan# 1663
Delta R.T. -0.01 min
Lab File: VX006589.D
Acq: 18 Dec 2018 11:11

Tgt Ion: 75 Resp: 40247

Ion	Ratio	Lower	Upper
75	100		
77	38.8	18.5	55.5

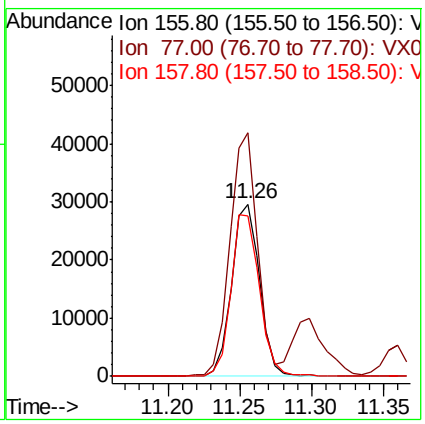




#77
Bromobenzene
Concen: 5.228 ug/l
RT: 11.26 min Scan# 1657
Delta R.T. 0.00 min
Lab File: VX006589.D
Acq: 18 Dec 2018 11:11

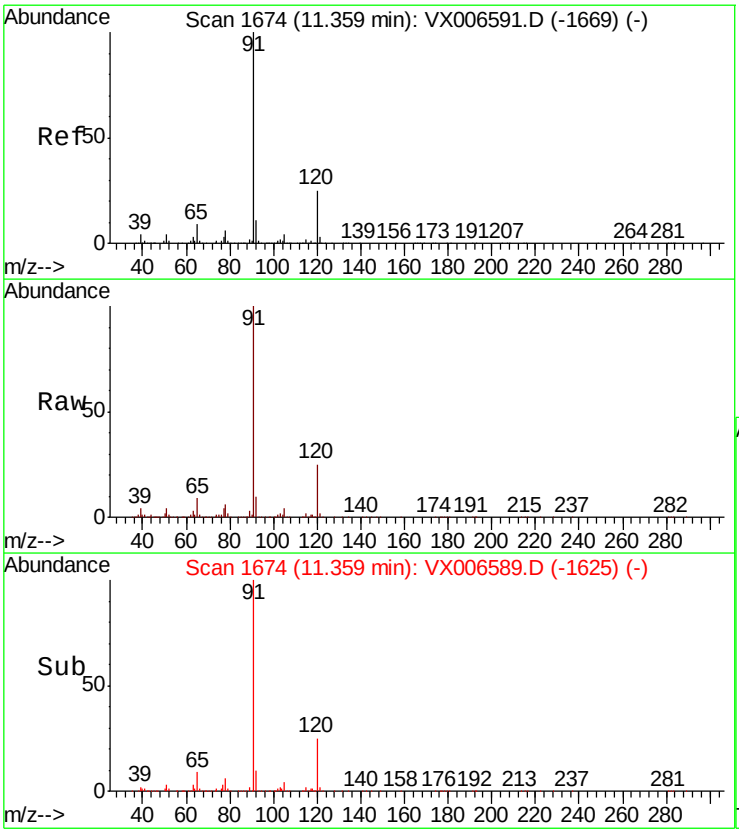
Tgt Ion:156 Resp: 40136

Ion	Ratio	Lower	Upper
156	100		
77	138.9	68.0	204.0
158	96.0	48.3	144.8



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC005

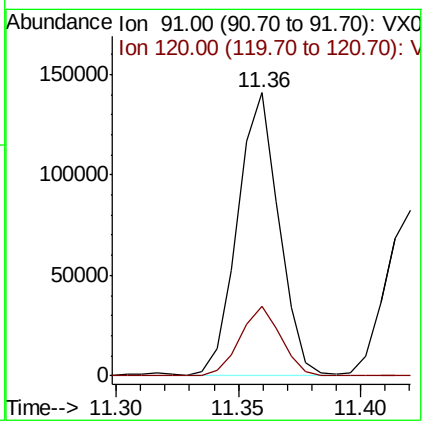
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:21:52 AM

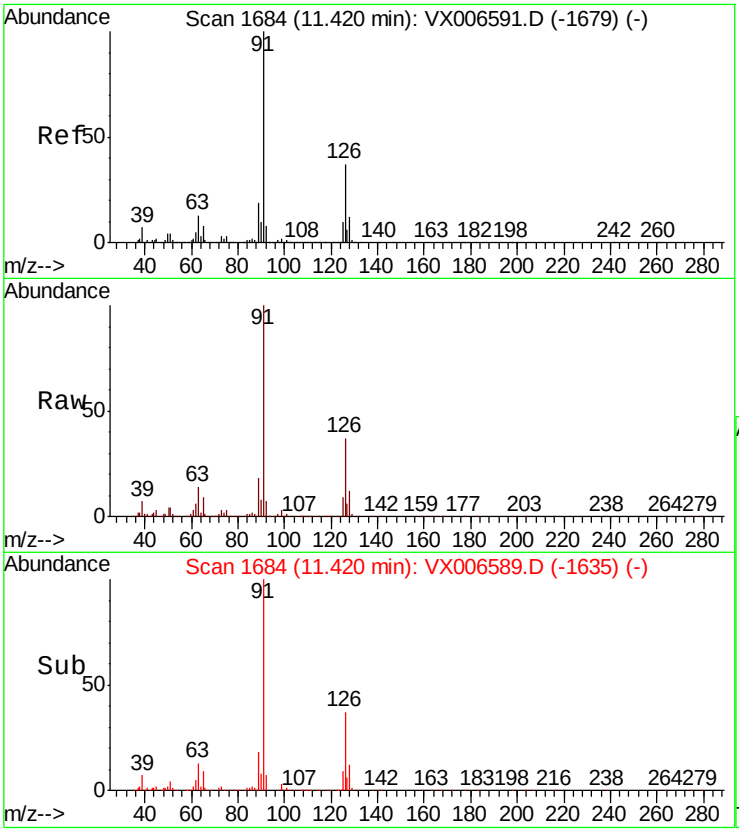


#78
n-propylbenzene
Concen: 5.285 ug/l
RT: 11.36 min Scan# 1674
Delta R.T. 0.00 min
Lab File: VX006589.D
Acq: 18 Dec 2018 11:11

Tgt Ion: 91 Resp: 165270

Ion	Ratio	Lower	Upper
91	100		
120	24.5	12.7	38.0

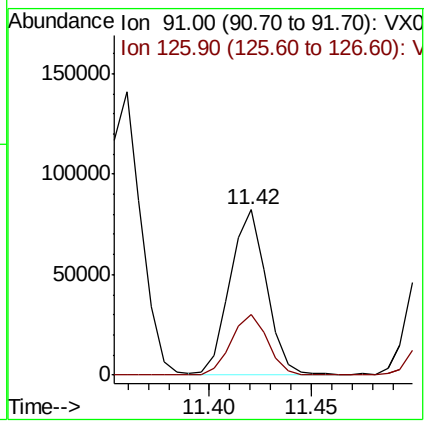


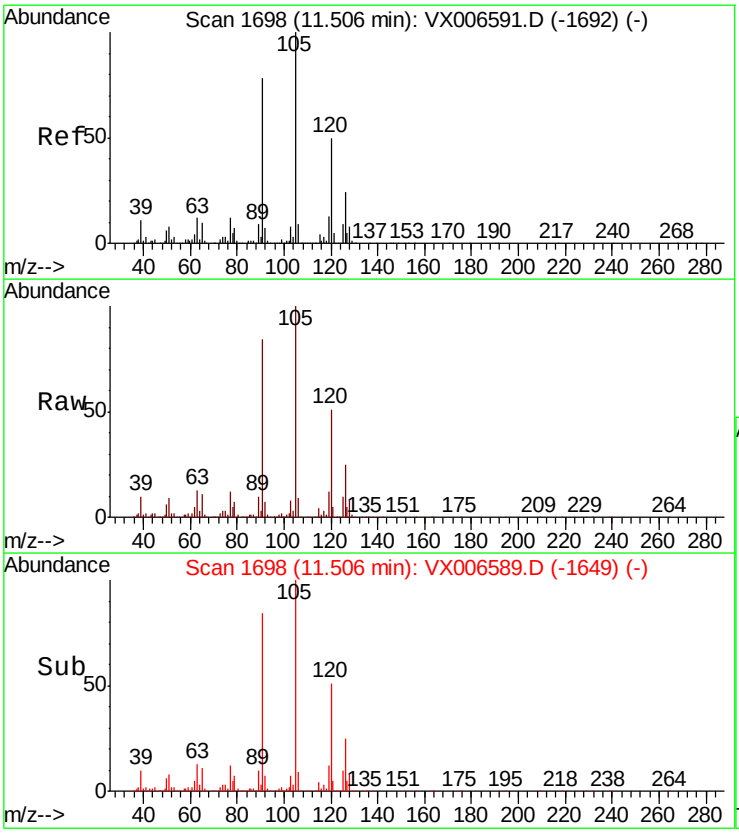


#79
2-Chlorotoluene
Concen: 5.328 ug/l
RT: 11.42 min Scan# 1684
Delta R.T. 0.00 min
Lab File: VX006589.D
Acq: 18 Dec 2018 11:11

Tgt Ion: 91 Resp: 100964

Ion	Ratio	Lower	Upper
91	100		
126	37.5	18.6	56.0

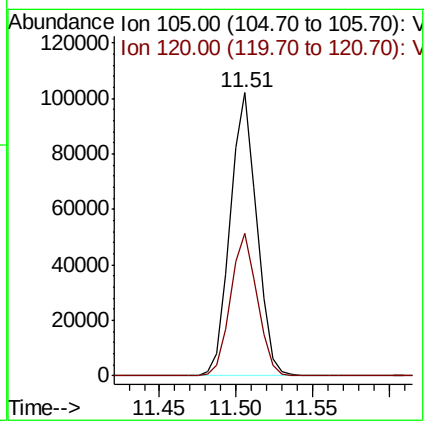




#80
1,3,5-Trimethylbenzene
Concen: 5.235 ug/l
RT: 11.51 min Scan# 1698
Delta R.T. 0.00 min
Lab File: VX006589.D
Acq: 18 Dec 2018 11:11

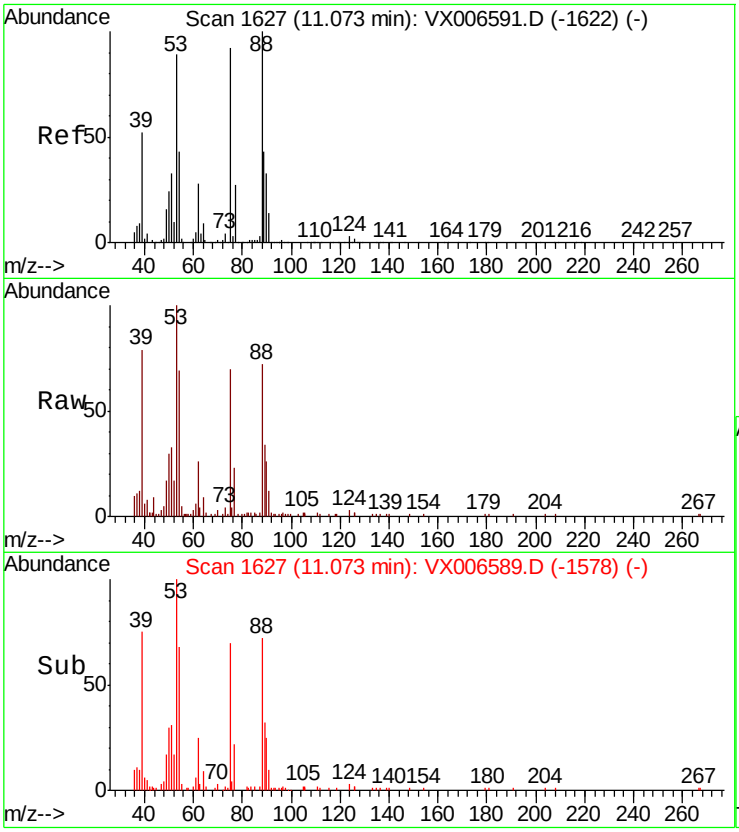
Tgt Ion:105 Resp: 122447

Ion	Ratio	Lower	Upper
105	100		
120	50.7	25.1	75.3



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC005

Manual Integrations APPROVED
MMDadoda
12/19/2018 11:21:52 AM



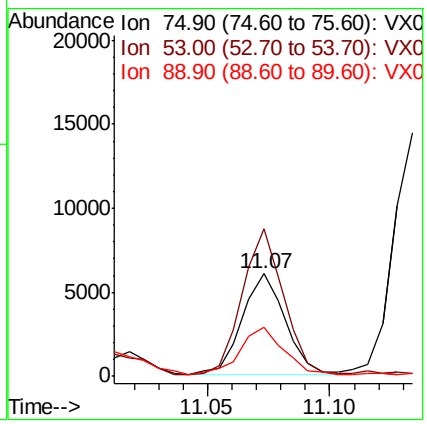
#81
trans-1,4-Dichloro-2-butene
Concen: 3.492 ug/l
RT: 11.07 min Scan# 1627
Delta R.T. 0.00 min
Lab File: VX006589.D
Acq: 18 Dec 2018 11:11

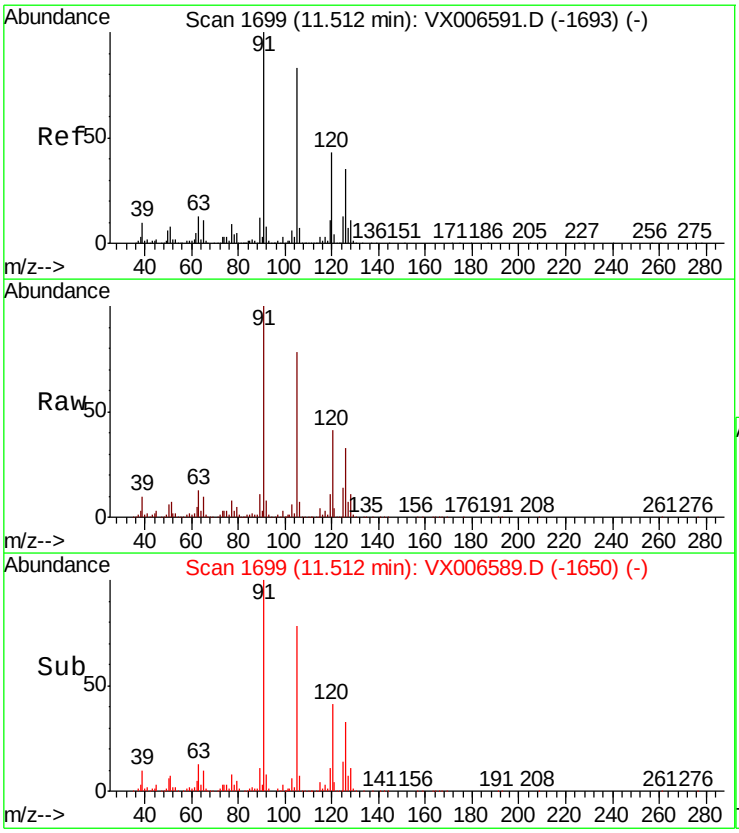
Tgt Ion: 75 Resp: 7520

Ion	Ratio	Lower	Upper
75	100		
53	133.5	79.7	119.5#
89	51.6	38.0	57.0

Instrument :
MSVOA_X
ClientSampleId :
VSTDICC005

Manual Integrations APPROVED
MMDadoda
12/19/2018 11:21:52 AM

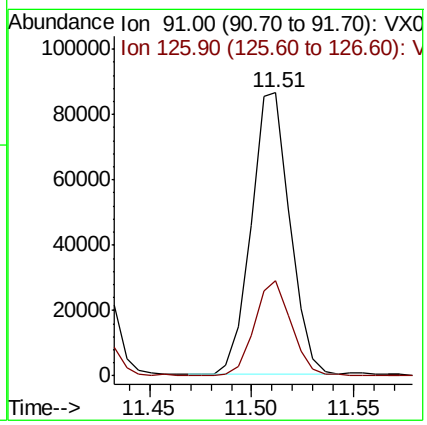


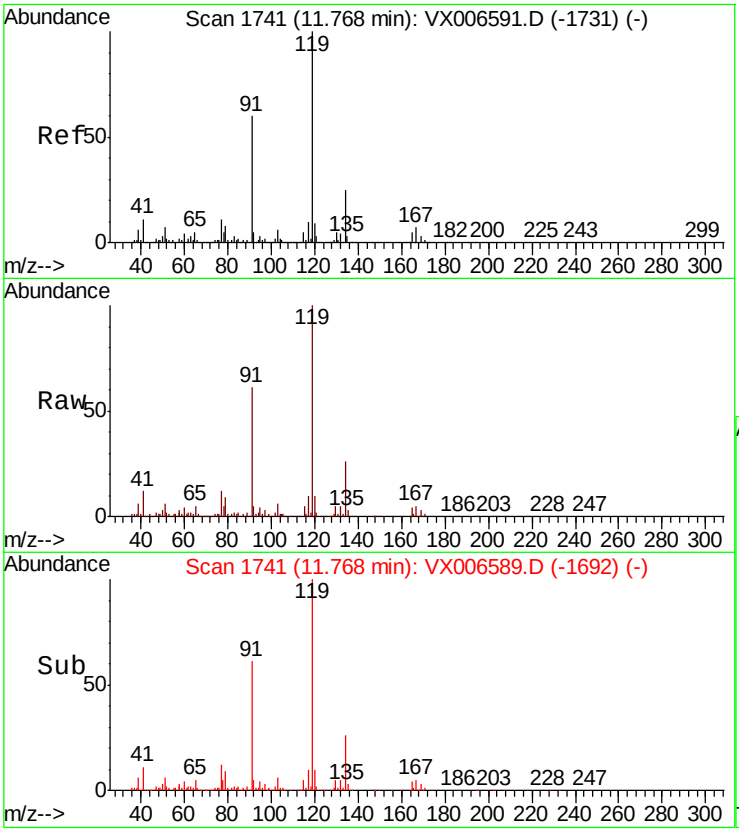


#82
4-Chlorotoluene
Concen: 5.243 ug/l
RT: 11.51 min Scan# 1699
Delta R.T. 0.00 min
Lab File: VX006589.D
Acq: 18 Dec 2018 11:11

Tgt Ion: 91 Resp: 113968

Ion	Ratio	Lower	Upper
91	100		
126	31.9	16.3	48.9

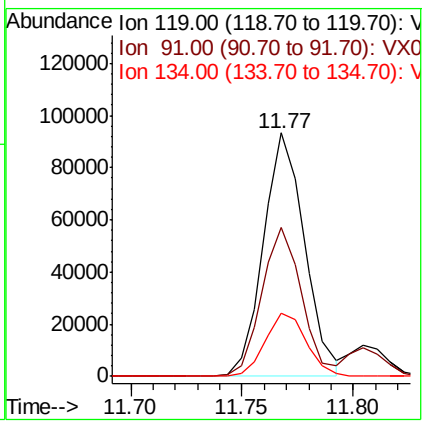




#83
tert-Butylbenzene
Concen: 5.122 ug/l
RT: 11.77 min Scan# 1741
Delta R.T. 0.00 min
Lab File: VX006589.D
Acq: 18 Dec 2018 11:11

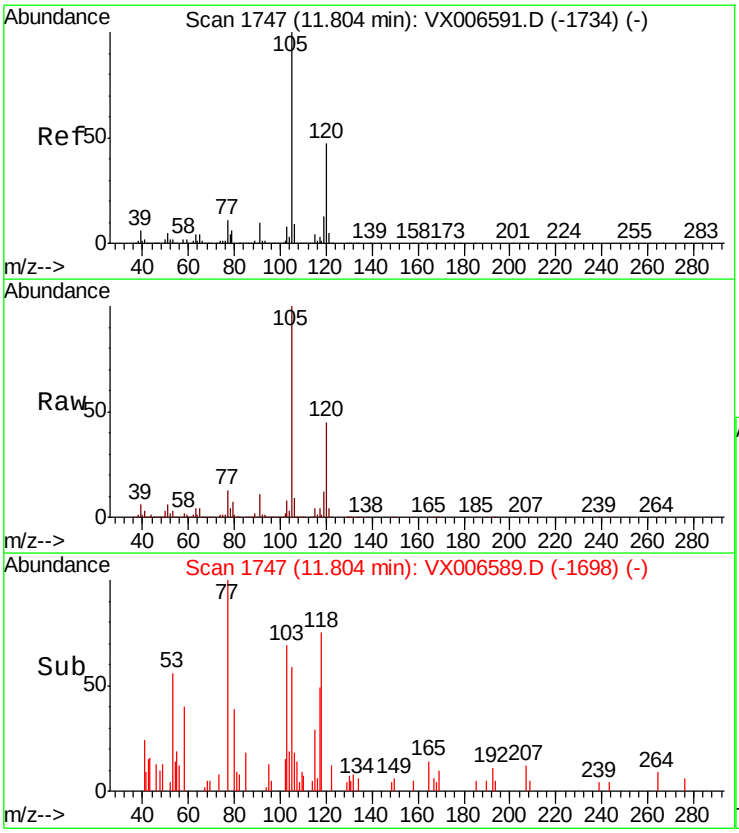
Tgt Ion:119 Resp: 119901

Ion	Ratio	Lower	Upper
119	100		
91	59.3	27.7	83.1
134	26.0	11.9	35.5



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC005

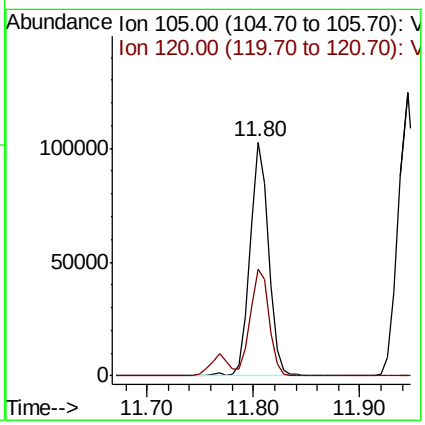
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:21:52 AM

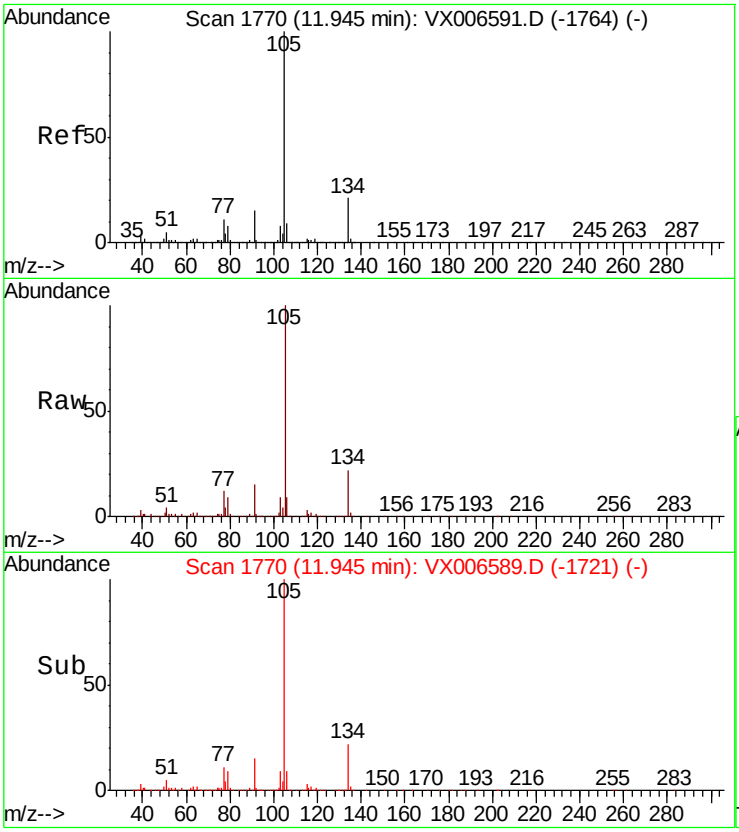


#84
1,2,4-Trimethylbenzene
Concen: 5.127 ug/l
RT: 11.80 min Scan# 1747
Delta R.T. 0.00 min
Lab File: VX006589.D
Acq: 18 Dec 2018 11:11

Tgt Ion:105 Resp: 126131

Ion	Ratio	Lower	Upper
105	100		
120	46.7	23.2	69.6

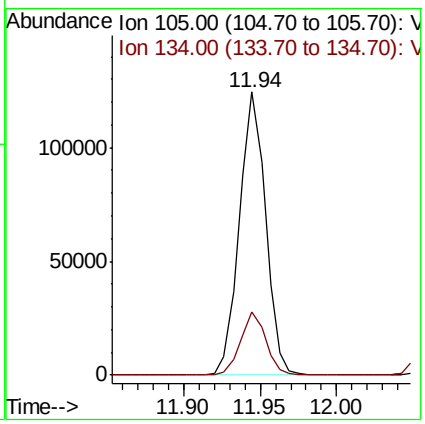




#85
sec-Butylbenzene
Concen: 5.141 ug/l
RT: 11.94 min Scan# 1770
Delta R.T. 0.00 min
Lab File: VX006589.D
Acq: 18 Dec 2018 11:11

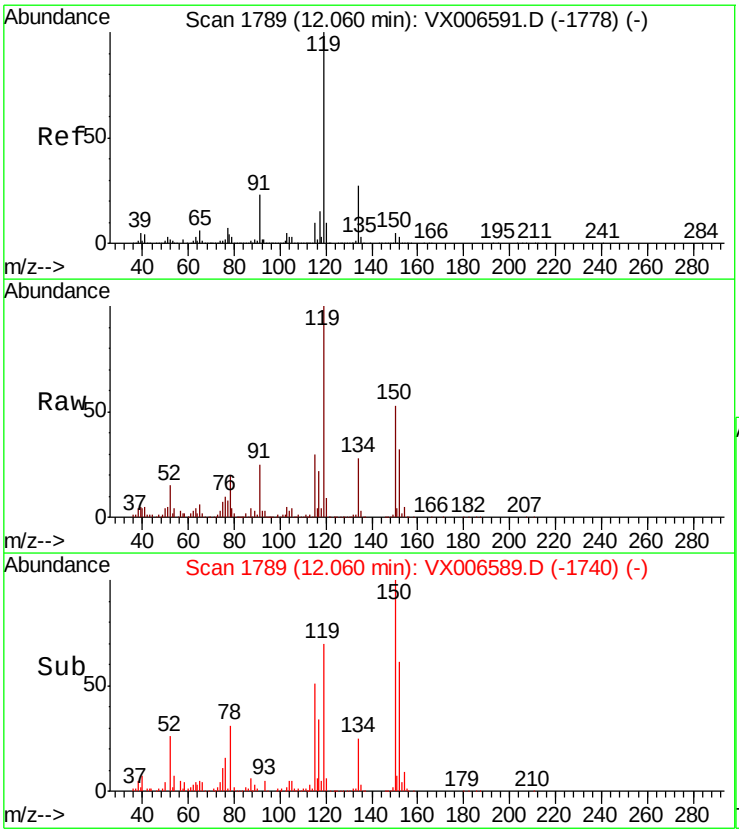
Tgt Ion:105 Resp: 147553

Ion	Ratio	Lower	Upper
105	100		
134	21.4	10.7	31.9



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC005

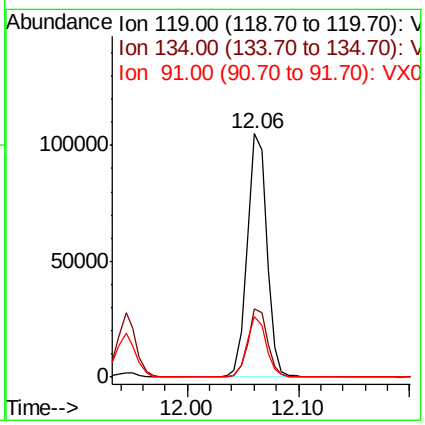
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:21:52 AM

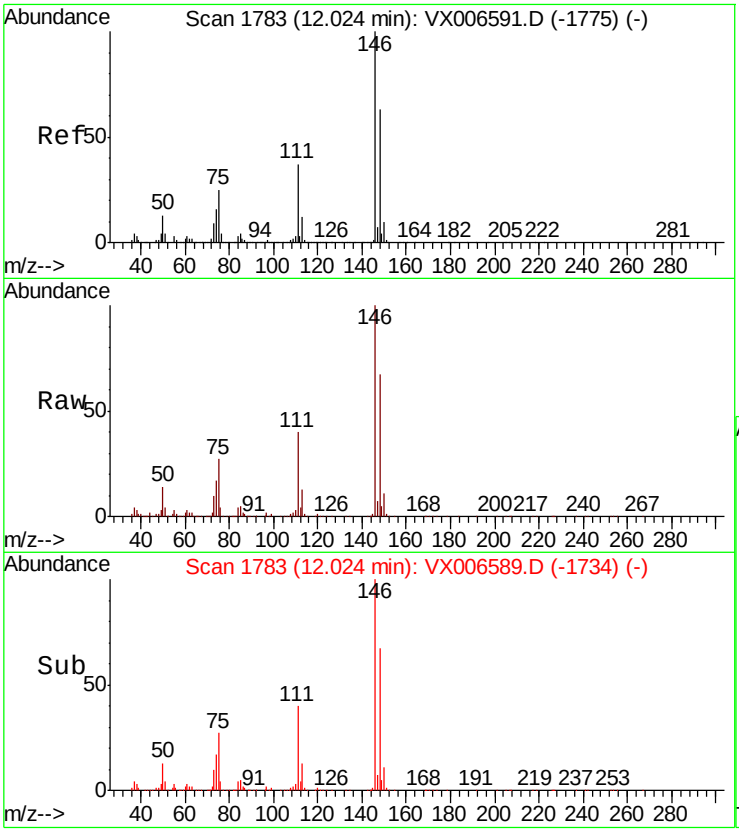


#86
p-Isopropyltoluene
Concen: 5.116 ug/l
RT: 12.06 min Scan# 1789
Delta R.T. 0.00 min
Lab File: VX006589.D
Acq: 18 Dec 2018 11:11

Tgt Ion:119 Resp: 129079

Ion	Ratio	Lower	Upper
119	100		
134	27.9	14.0	41.9
91	24.8	11.3	33.9

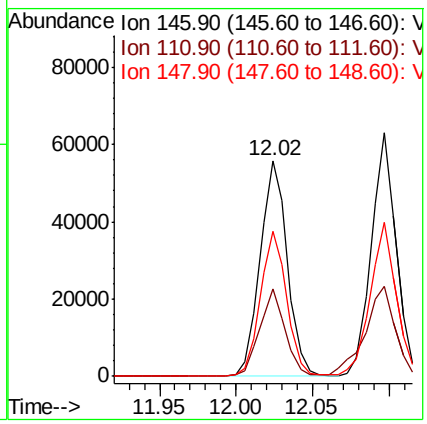




#87
1,3-Dichlorobenzene
Concen: 5.019 ug/l
RT: 12.02 min Scan# 1783
Delta R.T. 0.00 min
Lab File: VX006589.D
Acq: 18 Dec 2018 11:11

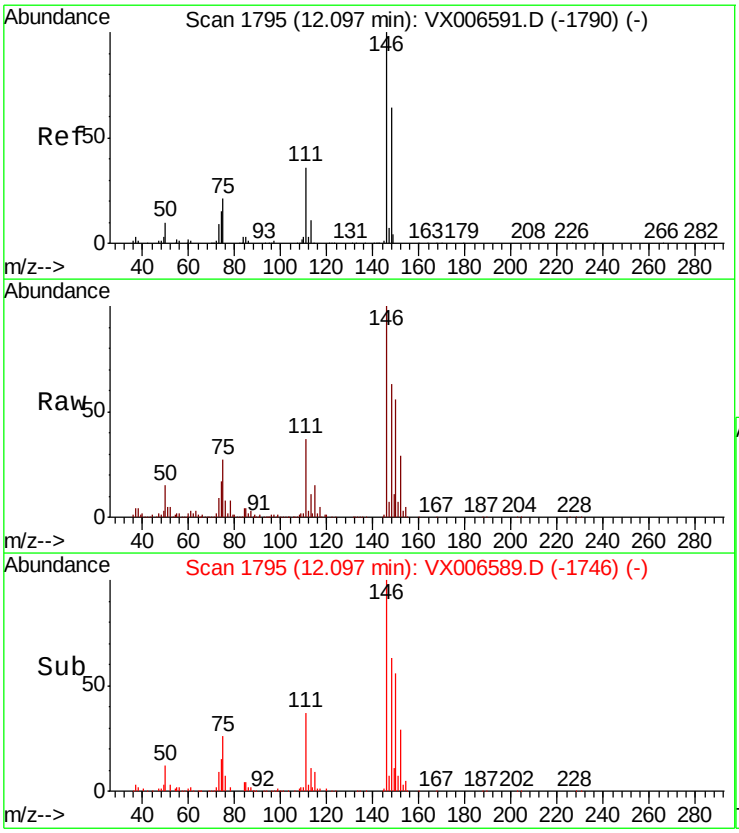
Tgt Ion:146 Resp: 69438

Ion	Ratio	Lower	Upper
146	100		
111	37.8	18.6	55.8
148	65.2	31.8	95.3



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC005

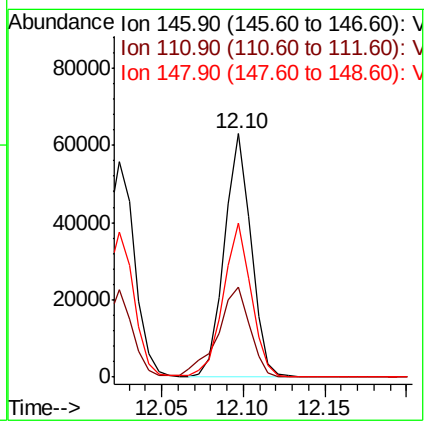
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:21:52 AM

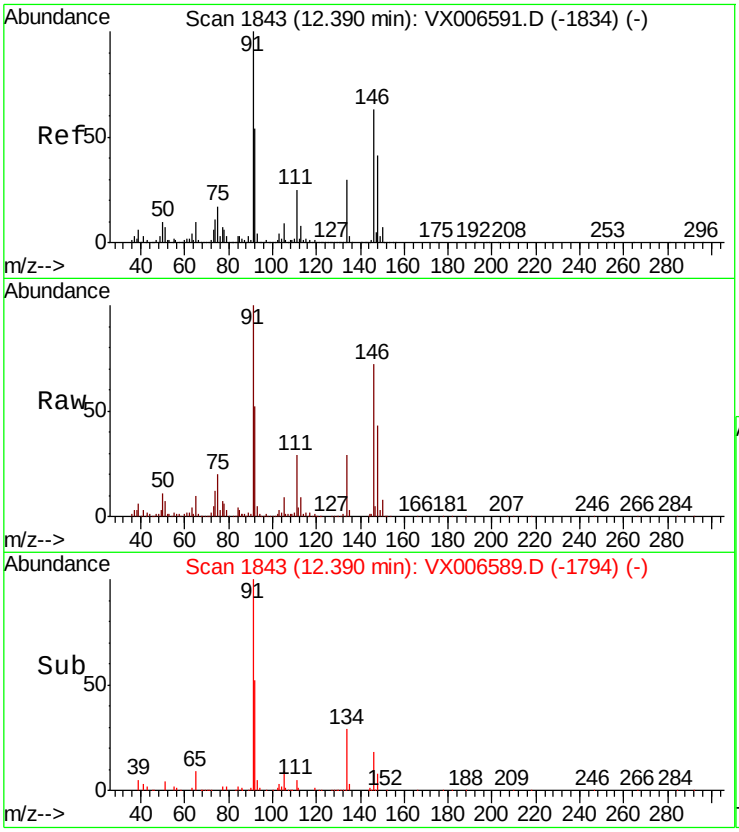


#88
1,4-Dichlorobenzene
Concen: 5.060 ug/l
RT: 12.10 min Scan# 1795
Delta R.T. 0.00 min
Lab File: VX006589.D
Acq: 18 Dec 2018 11:11

Tgt Ion:146 Resp: 71856

Ion	Ratio	Lower	Upper
146	100		
111	45.2	18.1	54.1
148	66.4	31.9	95.9

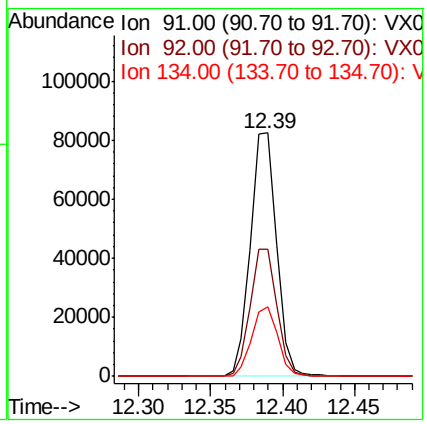




#89
n-Butylbenzene
Concen: 4.835 ug/l
RT: 12.39 min Scan# 1843
Delta R.T. 0.00 min
Lab File: VX006589.D
Acq: 18 Dec 2018 11:11

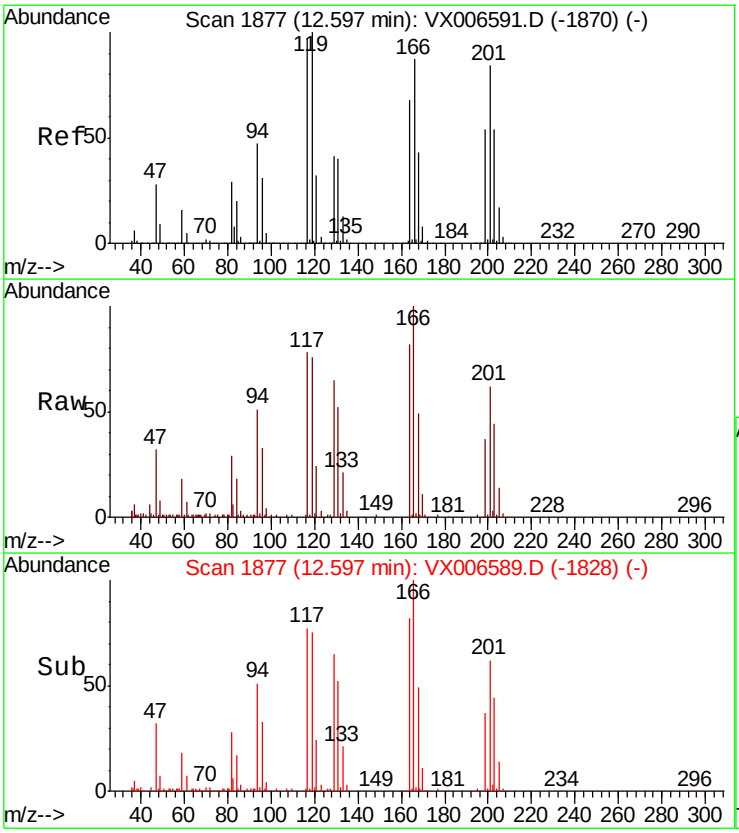
Tgt Ion: 91 Resp: 103815

Ion	Ratio	Lower	Upper
91	100		
92	53.4	26.8	80.4
134	28.4	14.4	43.2



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC005

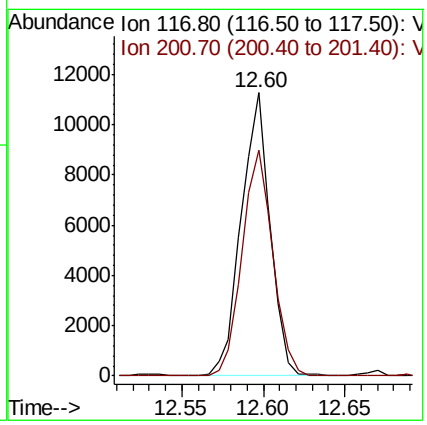
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:21:52 AM

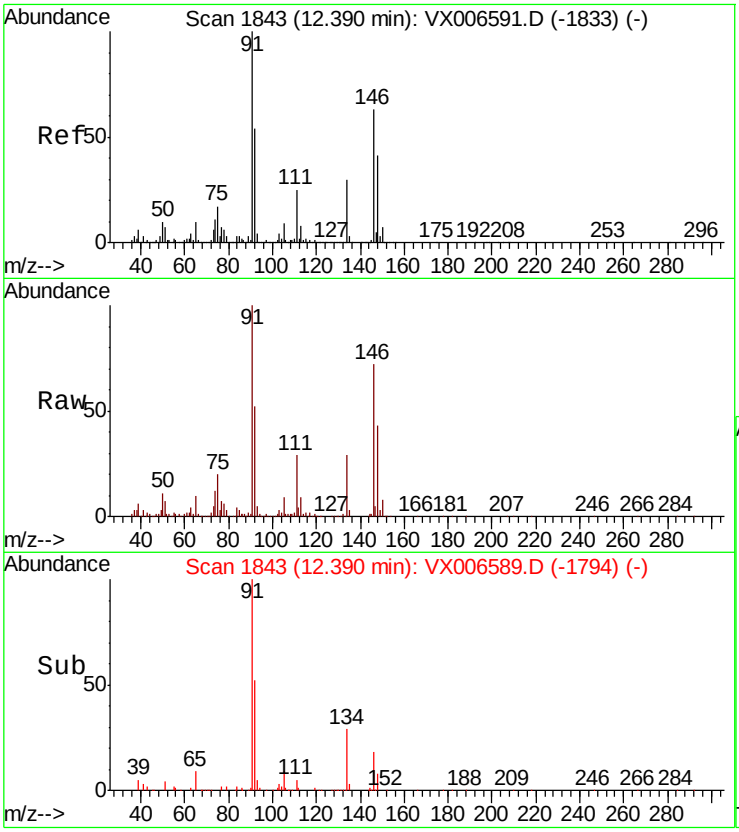


#90
Hexachloroethane
Concen: 4.058 ug/l
RT: 12.60 min Scan# 1877
Delta R.T. 0.00 min
Lab File: VX006589.D
Acq: 18 Dec 2018 11:11

Tgt Ion:117 Resp: 13945

Ion	Ratio	Lower	Upper
117	100		
201	84.4	42.9	128.7

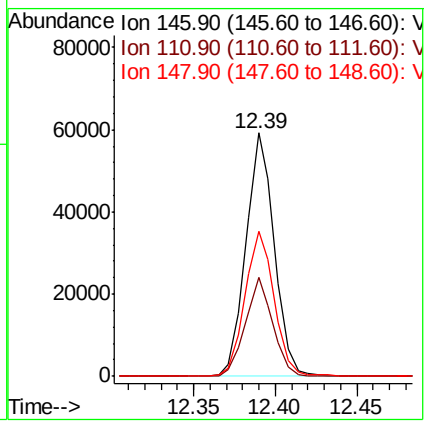




#91
1,2-Dichlorobenzene
Concen: 5.203 ug/l
RT: 12.39 min Scan# 1843
Delta R.T. 0.00 min
Lab File: VX006589.D
Acq: 18 Dec 2018 11:11

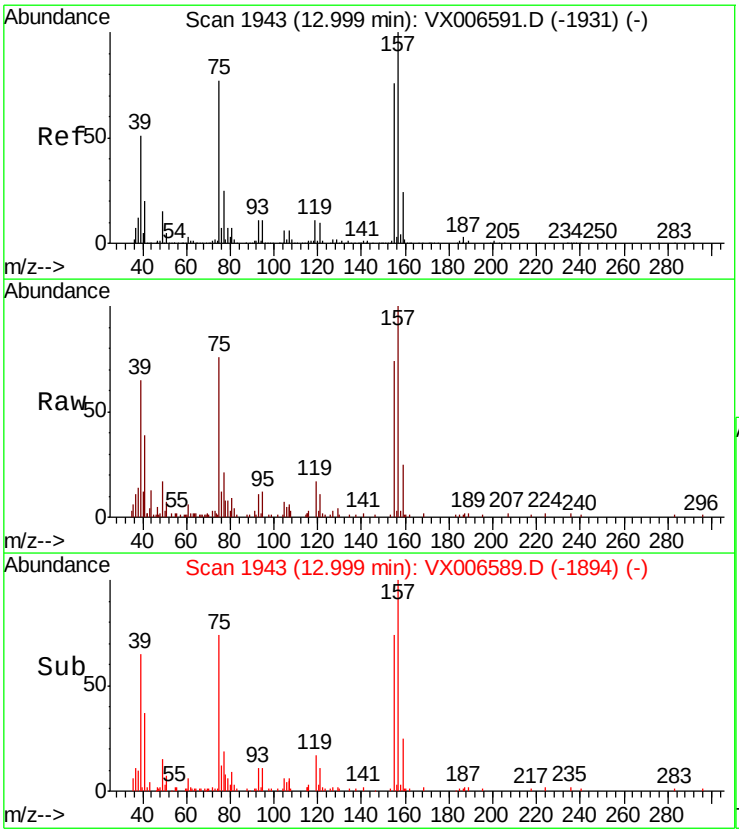
Tgt Ion:146 Resp: 72014

Ion	Ratio	Lower	Upper
146	100		
111	39.0	19.4	58.2
148	61.3	32.3	96.9



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC005

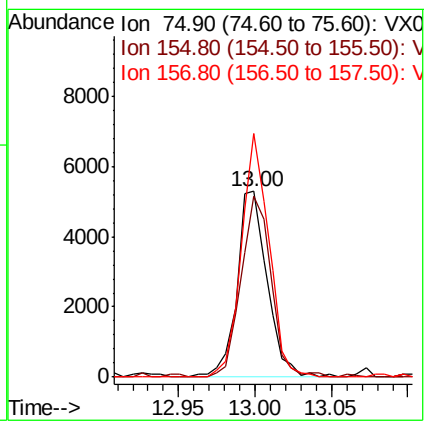
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:21:52 AM

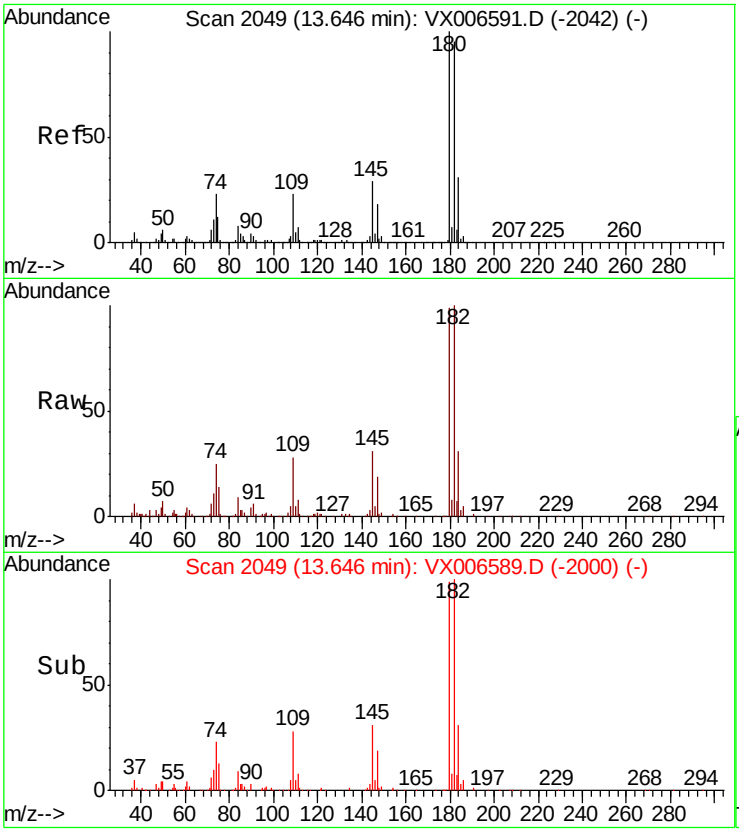


#92
1,2-Dibromo-3-Chloropropane
Concen: 4.154 ug/l
RT: 13.00 min Scan# 1943
Delta R.T. 0.00 min
Lab File: VX006589.D
Acq: 18 Dec 2018 11:11

Tgt Ion: 75 Resp: 7258

Ion	Ratio	Lower	Upper
75	100		
155	96.3	50.6	151.8
157	119.0	64.6	193.8

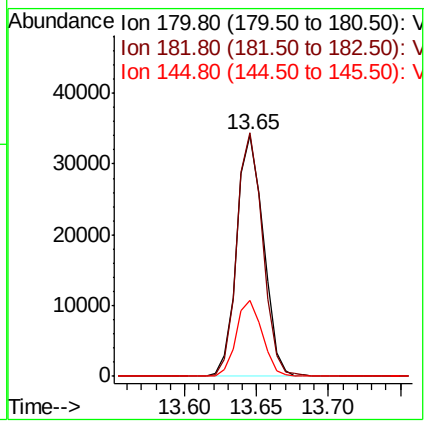




#93
1,2,4-Trichlorobenzene
Concen: 4.660 ug/l
RT: 13.65 min Scan# 2049
Delta R.T. 0.00 min
Lab File: VX006589.D
Acq: 18 Dec 2018 11:11

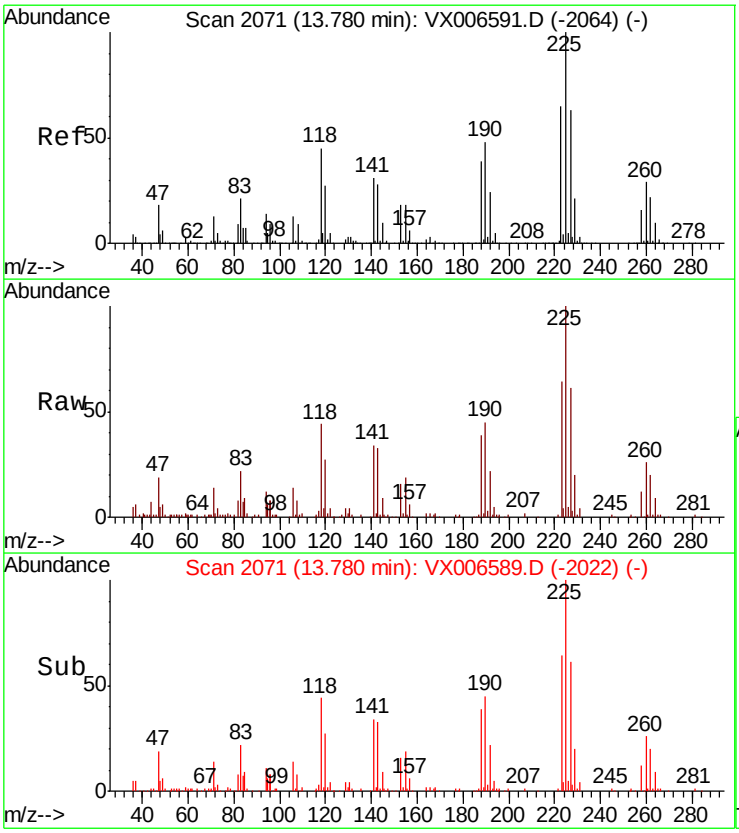
Tgt Ion:180 Resp: 44491

Ion	Ratio	Lower	Upper
180	100		
182	97.0	47.3	142.0
145	30.9	14.8	44.3



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC005

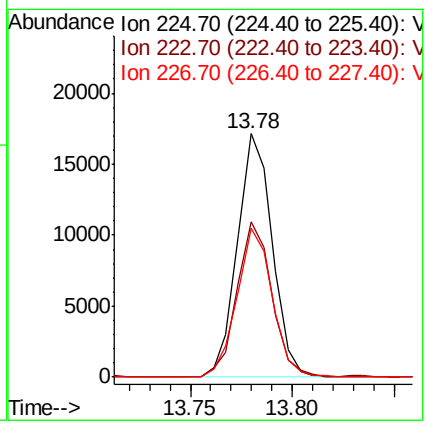
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:21:52 AM

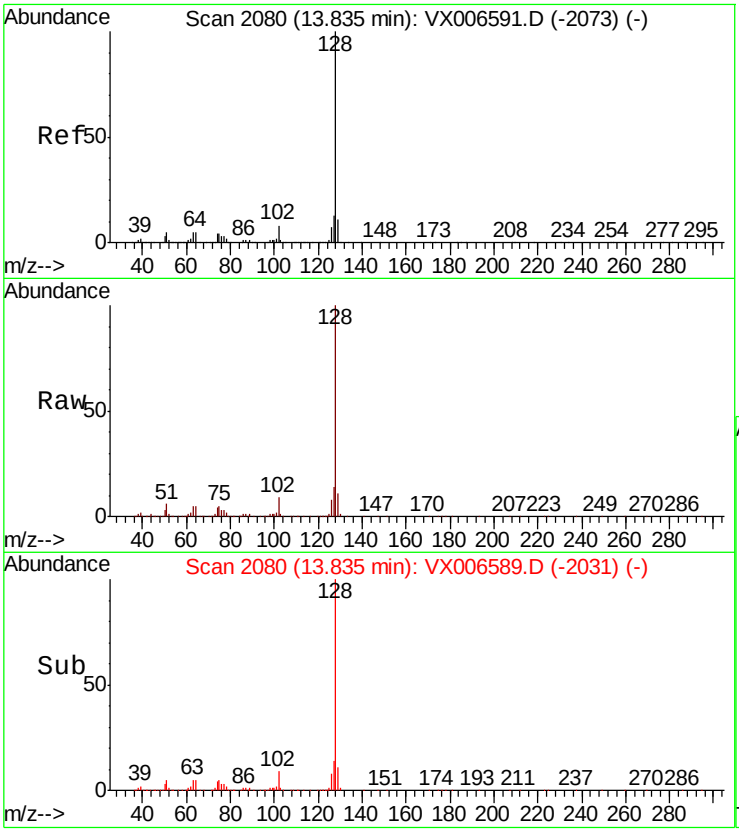


#94
Hexachlorobutadiene
Concen: 4.504 ug/l
RT: 13.78 min Scan# 2071
Delta R.T. 0.00 min
Lab File: VX006589.D
Acq: 18 Dec 2018 11:11

Tgt Ion:225 Resp: 20267

Ion	Ratio	Lower	Upper
225	100		
223	63.9	32.1	96.3
227	62.1	32.3	96.8

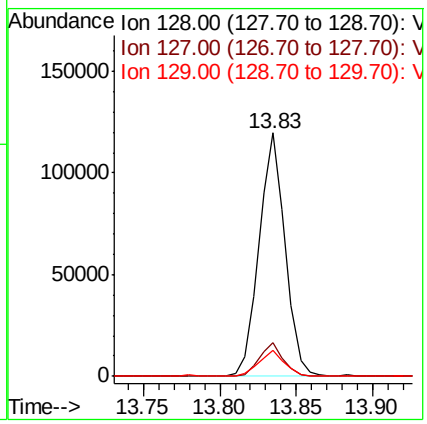




#95
Naphthalene
Concen: 4.662 ug/l
RT: 13.83 min Scan# 2080
Delta R.T. 0.00 min
Lab File: VX006589.D
Acq: 18 Dec 2018 11:11

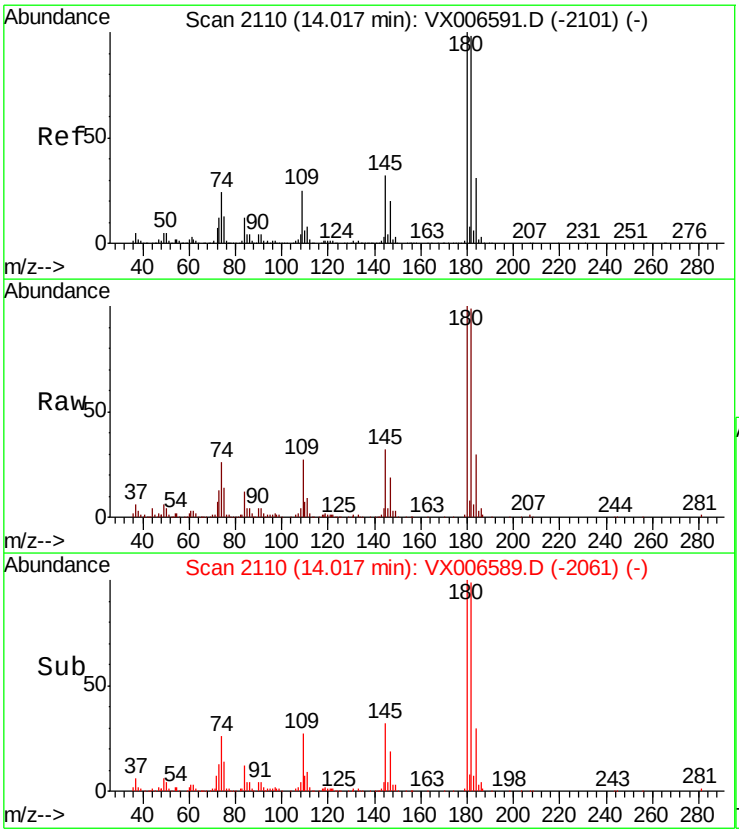
Tgt Ion:128 Resp: 142061

Ion	Ratio	Lower	Upper
128	100		
127	13.1	10.1	15.1
129	10.7	8.6	13.0



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC005

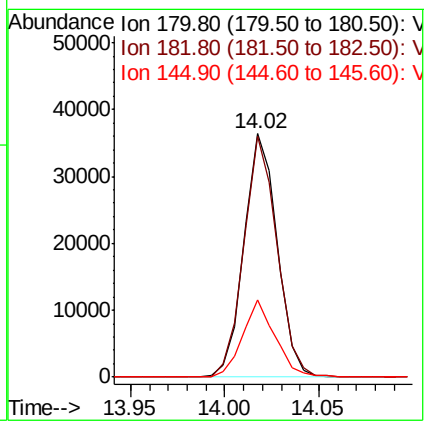
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:21:52 AM



#96
1,2,3-Trichlorobenzene
Concen: 4.525 ug/l
RT: 14.02 min Scan# 2110
Delta R.T. 0.00 min
Lab File: VX006589.D
Acq: 18 Dec 2018 11:11

Tgt Ion:180 Resp: 44608

Ion	Ratio	Lower	Upper
180	100		
182	98.9	48.5	145.5
145	31.2	16.0	47.9



Quantitation Report (QT Reviewed)

ICAL Form

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX121818\
Data File : VX006590.D
Acq On : 18 Dec 2018 11:38
Operator : JC/MD
Sample : VSTDICC020
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 5 Sample Multiplier: 1

Instrument : MSVOA_X
ClientSampleId : VSTDICC020

Manual Integrations APPROVED
MMDadoda
12/19/2018 11:21:58 AM

Quant Time: Dec 19 00:52:12 2018
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121818W.M
Quant Title : SW846 8260
QLast Update : Wed Dec 19 00:31:42 2018
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	5.66	168	602272	50.00	ug/l	0.00
34) 1,4-Difluorobenzene	6.86	114	942789	50.00	ug/l	0.00
63) Chlorobenzene-d5	10.11	117	867380	50.00	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	12.08	152	448448	50.00	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	6.06	65	135494	20.87	ug/l	0.00
Spiked Amount 50.000			Recovery = 41.74%			
35) Dibromofluoromethane	5.50	113	119102	19.98	ug/l	0.00
Spiked Amount 50.000			Recovery = 39.96%			
50) Toluene-d8	8.71	98	453942	20.20	ug/l	0.00
Spiked Amount 50.000			Recovery = 40.40%			
62) 4-Bromofluorobenzene	11.13	95	170408	20.70	ug/l	0.00
Spiked Amount 50.000			Recovery = 41.40%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.20	85	107575	19.525	ug/l	99
3) Chloromethane	1.33	50	116827	19.681	ug/l	95
4) Vinyl Chloride	1.41	62	125307	20.212	ug/l	96
5) Bromomethane	1.64	94	125978	18.689	ug/l	99
6) Chloroethane	1.72	64	80845	18.833	ug/l	95
7) Trichlorofluoromethane	1.93	101	198040	20.489	ug/l	95
8) Diethyl Ether	2.19	74	75774	19.738	ug/l	98
9) 1,1,2-Trichlorotrifluoroet	2.39	101	113717	20.038	ug/l	100
10) Methyl Iodide	2.51	142	162379	19.988	ug/l	99
11) Tert butyl alcohol	3.07	59	151348	104.477	ug/l	99
12) 1,1-Dichloroethene	2.37	96	106006	19.700	ug/l	98
13) Acrolein	2.29	56	94304	96.499	ug/l	98
14) Allyl chloride	2.73	41	178226	19.677	ug/l	98
15) Acrylonitrile	3.15	53	327812	101.919	ug/l	99
16) Acetone	2.45	43	306615	102.816	ug/l	98
17) Carbon Disulfide	2.57	76	261545	18.366	ug/l	100
18) Methyl Acetate	2.78	43	174997	19.956	ug/l	98
19) Methyl tert-butyl Ether	3.20	73	366773	20.536	ug/l	99
20) Methylene Chloride	2.85	84	122120	19.803	ug/l	98
21) trans-1,2-Dichloroethene	3.17	96	112261	18.828	ug/l	97
22) Diisopropyl ether	3.87	45	333091	20.101	ug/l	99
23) Vinyl Acetate	3.82	43	1327644	97.951	ug/l	99
24) 1,1-Dichloroethane	3.70	63	197336	19.949	ug/l	98
25) 2-Butanone	4.70	43	422478	100.714	ug/l	100
26) 2,2-Dichloropropane	4.59	77	146601	19.186	ug/l	100
27) cis-1,2-Dichloroethene	4.60	96	130735	19.874	ug/l	99
28) Bromochloromethane	5.02	49	89827	19.751	ug/l	98
29) Tetrahydrofuran	5.15	42	271403	98.233	ug/l	99
30) Chloroform	5.21	83	203615	19.877	ug/l	98
31) Cyclohexane	5.57	56	177248	19.724	ug/l	94
32) 1,1,1-Trichloroethane	5.49	97	173176	20.022	ug/l	99
36) 1,1-Dichloropropene	5.80	75	152751	19.562	ug/l	98
37) Ethyl Acetate	4.85	43	157102	19.330	ug/l	99
38) Carbon Tetrachloride	5.78	117	142197	18.738	ug/l	97

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX121818\
Data File : VX006590.D
Acq On : 18 Dec 2018 11:38
Operator : JC/MD
Sample : VSTDICC020
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 5 Sample Multiplier: 1

Instrument : MSVOA_X
ClientSampleId : VSTDICC020

Manual Integrations APPROVED
MMDadoda
12/19/2018 11:21:58 AM

Quant Time: Dec 19 00:52:12 2018
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121818W.M
Quant Title : SW846 8260
QLast Update : Wed Dec 19 00:31:42 2018
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
39) Methylcyclohexane	7.46	83	196896	19.153	ug/l	97
40) Benzene	6.14	78	468898	19.755	ug/l	100
41) Methacrylonitrile	5.06	41	83734	18.334	ug/l	95
42) 1,2-Dichloroethane	6.20	62	156847	19.393	ug/l	100
43) Isopropyl Acetate	6.46	43	241231	19.508	ug/l	100
44) Trichloroethene	7.21	130	136305	18.974	ug/l	96
45) 1,2-Dichloropropane	7.52	63	113427	19.638	ug/l	98
46) Dibromomethane	7.66	93	82339	19.381	ug/l	98
47) Bromodichloromethane	7.90	83	133355	18.906	ug/l	96
48) Methyl methacrylate	7.77	41	126567	20.127	ug/l	100
49) 1,4-Dioxane	7.75	88	66854	375.744	ug/l	98
51) 4-Methyl-2-Pentanone	8.65	43	806479	102.501	ug/l	99
52) Toluene	8.78	92	305125	19.899	ug/l	99
53) t-1,3-Dichloropropene	9.04	75	140663	18.594	ug/l	99
54) cis-1,3-Dichloropropene	8.43	75	160173	19.297	ug/l	98
55) 1,1,2-Trichloroethane	9.21	97	124478	19.833	ug/l	99
56) Ethyl methacrylate	9.18	69	175788	19.816	ug/l	99
57) 1,3-Dichloropropane	9.37	76	201863	19.990	ug/l	98
58) 2-Chloroethyl Vinyl ether	8.31	63	478408	101.454	ug/l	99
59) 2-Hexanone	9.49	43	623841	103.628	ug/l	99
60) Dibromochloromethane	9.58	129	109147	18.880	ug/l	100
61) 1,2-Dibromoethane	9.67	107	133637	20.029	ug/l	100
64) Tetrachloroethene	9.34	164	133309	19.409	ug/l	98
65) Chlorobenzene	10.14	112	356946	19.452	ug/l	98
66) 1,1,1,2-Tetrachloroethane	10.22	131	113733	19.865	ug/l	98
67) Ethyl Benzene	10.25	91	585490	19.526	ug/l	100
68) m/p-Xylenes	10.36	106	472267	39.914	ug/l	99
69) o-Xylene	10.70	106	231641	19.825	ug/l	99
70) Styrene	10.71	104	369981	20.015	ug/l	99
71) Bromoform	10.86	173	77161	17.703	ug/l	99
73) Isopropylbenzene	11.02	105	611436	19.930	ug/l	99
74) N-amyl acetate	10.90	43	218321	19.881	ug/l	99
75) 1,1,2,2-Tetrachloroethane	11.27	83	182064	19.954	ug/l	99
76) 1,2,3-Trichloropropane	11.29	75	173069m	21.786	ug/l	
77) Bromobenzene	11.26	156	163078	19.662	ug/l	99
78) n-propylbenzene	11.36	91	666770	19.736	ug/l	99
79) 2-Chlorotoluene	11.42	91	403115	19.690	ug/l	99
80) 1,3,5-Trimethylbenzene	11.51	105	506993	20.064	ug/l	100
81) trans-1,4-Dichloro-2-buten	11.07	75	40318	17.328	ug/l	91
82) 4-Chlorotoluene	11.51	91	462795	19.706	ug/l	99
83) tert-Butylbenzene	11.77	119	499889	19.766	ug/l	97
84) 1,2,4-Trimethylbenzene	11.80	105	519451	19.544	ug/l	99
85) sec-Butylbenzene	11.94	105	614659	19.823	ug/l	100
86) p-Isopropyltoluene	12.06	119	546155	20.037	ug/l	100
87) 1,3-Dichlorobenzene	12.02	146	293704	19.648	ug/l	99
88) 1,4-Dichlorobenzene	12.10	146	294660	19.206	ug/l	98
89) n-Butylbenzene	12.39	91	452760	19.518	ug/l	100
90) Hexachloroethane	12.60	117	68532	18.457	ug/l	100
91) 1,2-Dichlorobenzene	12.39	146	290235	19.409	ug/l	98
92) 1,2-Dibromo-3-Chloropropan	13.00	75	34096	18.060	ug/l	98

ICAL Form

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX121818\
Data File : VX006590.D
Acq On : 18 Dec 2018 11:38
Operator : JC/MD
Sample : VSTDICC020
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 5 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
VSTDICC020

Manual Integrations APPROVED
MMDadoda
12/19/2018 11:21:58 AM

Quant Time: Dec 19 00:52:12 2018
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121818W.M
Quant Title : SW846 8260
QLast Update : Wed Dec 19 00:31:42 2018
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
93) 1,2,4-Trichlorobenzene	13.65	180	194090	18.817	ug/l	98
94) Hexachlorobutadiene	13.78	225	88434	18.189	ug/l	100
95) Naphthalene	13.83	128	622489	18.908	ug/l	99
96) 1,2,3-Trichlorobenzene	14.02	180	198448	18.634	ug/l	99

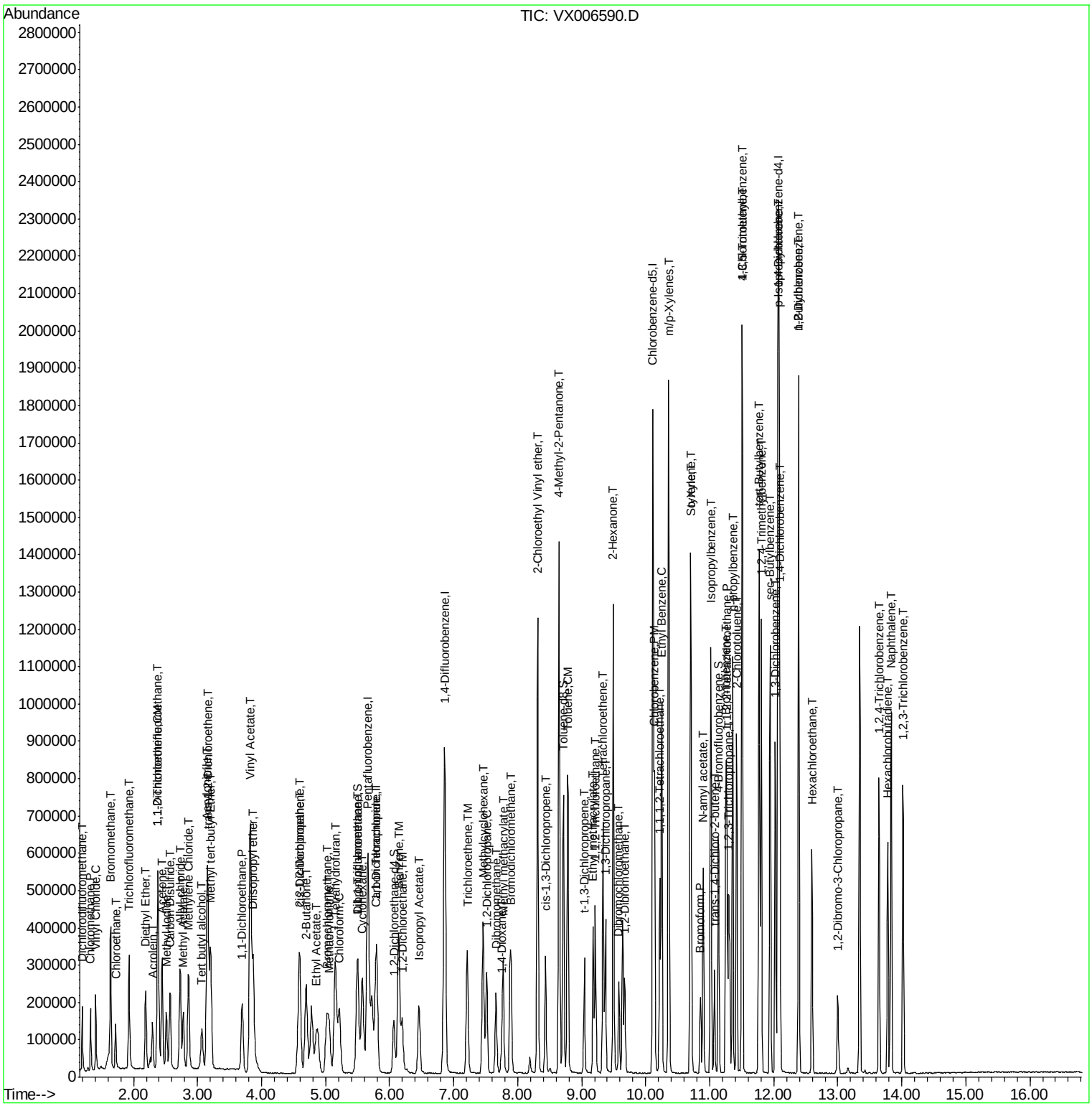
(#) = qualifier out of range (m) = manual integration (+) = signals summed

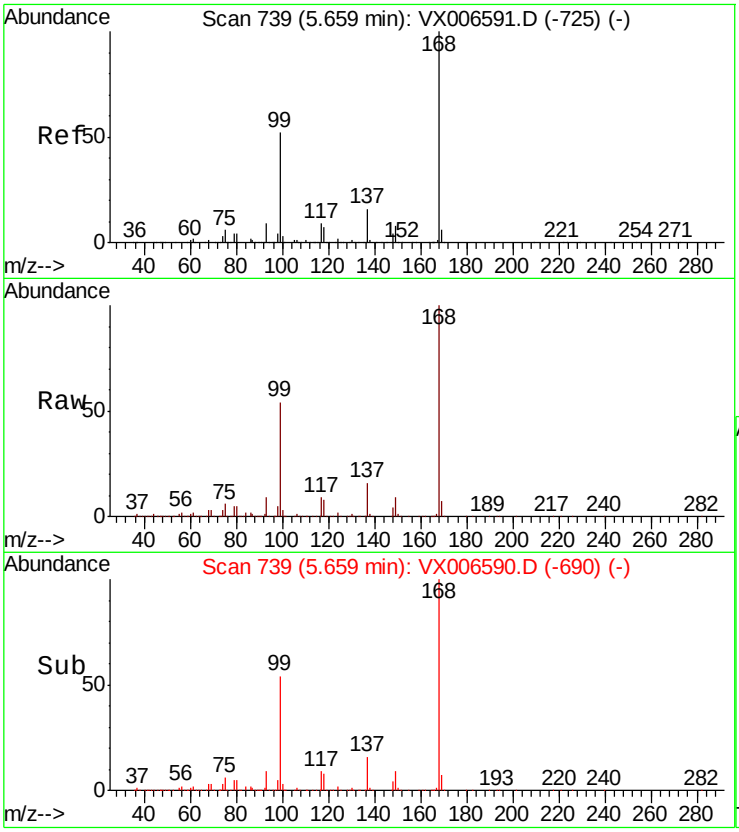
Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX121818\
Data File : VX006590.D
Acq On : 18 Dec 2018 11:38
Operator : JC/MD
Sample : VSTDICC020
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Dec 19 00:52:12 2018
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121818W.M
Quant Title : SW846 8260
QLast Update : Wed Dec 19 00:31:42 2018
Response via : Initial Calibration

Instrument :
MSVOA_X
ClientSampleId :
VSTDICC020

Manual Integrations APPROVED
MMDadoda
12/19/2018 11:21:58 AM

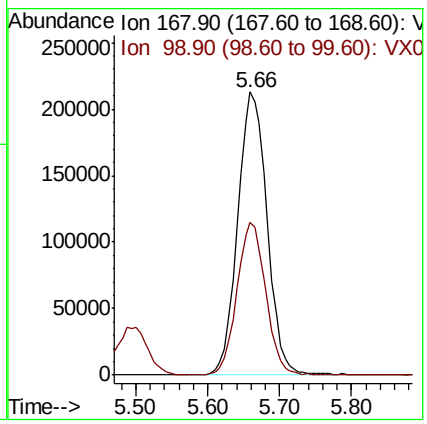




#1
Pentafluorobenzene
Concen: 50.000 ug/l
RT: 5.66 min Scan# 739
Delta R.T. -0.00 min
Lab File: VX006590.D
Acq: 18 Dec 2018 11:38

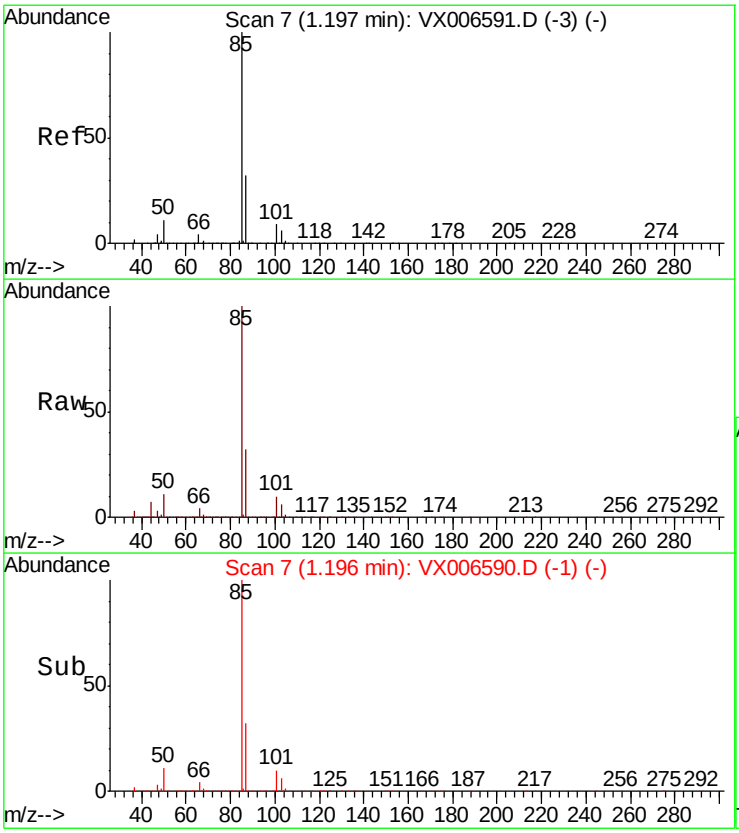
Tgt Ion:168 Resp: 602272

Ion	Ratio	Lower	Upper
168	100		
99	53.9	41.8	62.8



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC020

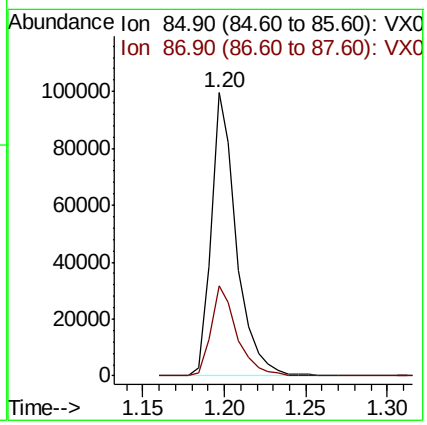
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:21:58 AM



#2
Dichlorodifluoromethane
Concen: 19.525 ug/l
RT: 1.20 min Scan# 7
Delta R.T. -0.00 min
Lab File: VX006590.D
Acq: 18 Dec 2018 11:38

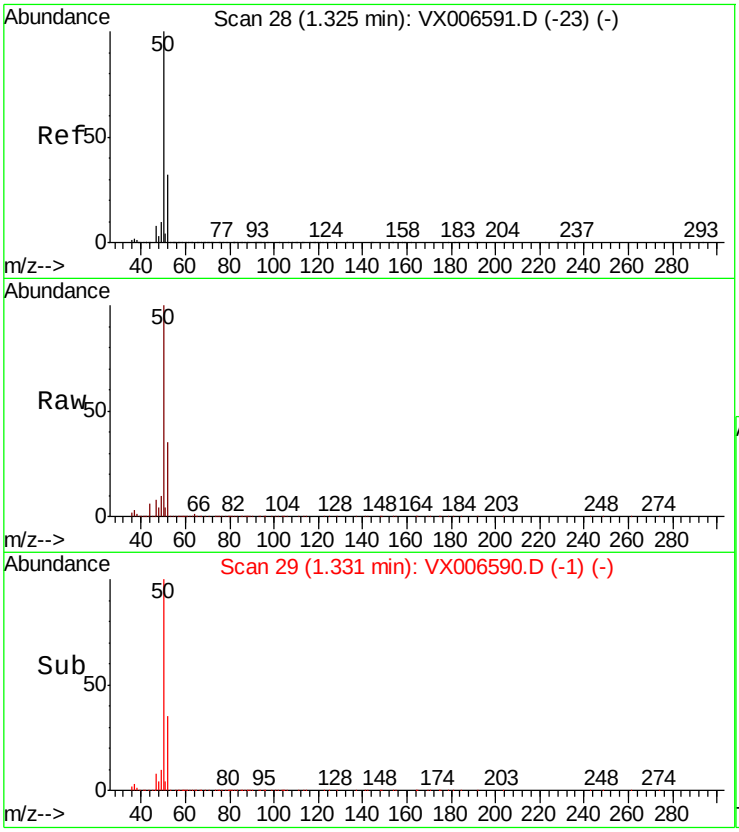
Tgt Ion: 85 Resp: 107575

Ion	Ratio	Lower	Upper
85	100		
87	32.1	15.9	47.6



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC020

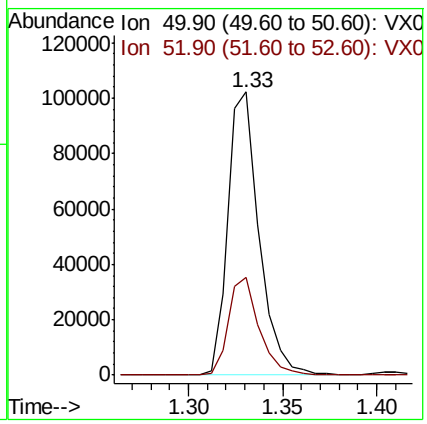
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:21:58 AM

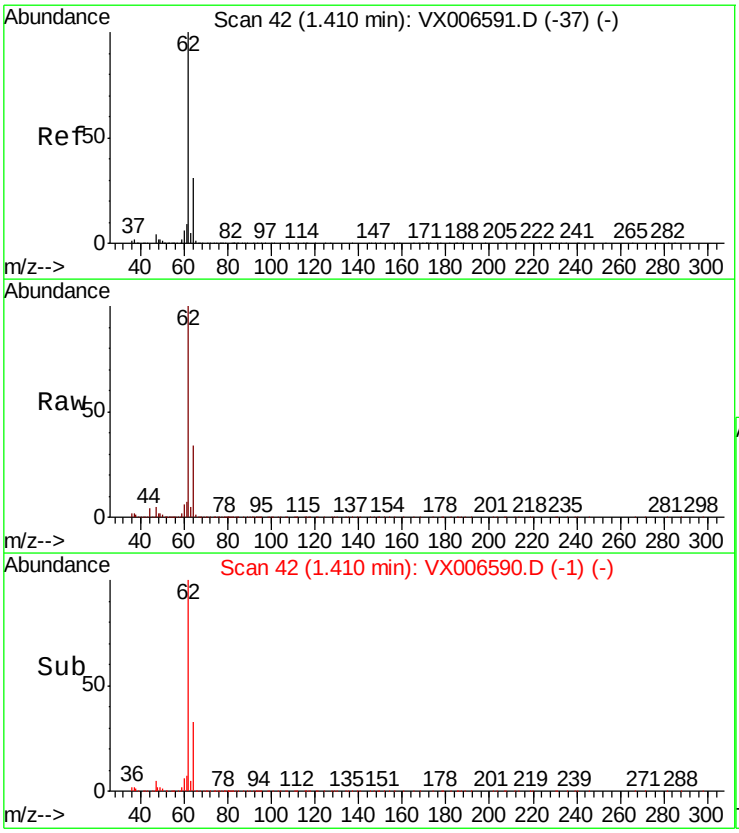


#3
Chloromethane
Concen: 19.681 ug/l
RT: 1.33 min Scan# 29
Delta R.T. 0.01 min
Lab File: VX006590.D
Acq: 18 Dec 2018 11:38

Tgt Ion: 50 Resp: 116827

Ion	Ratio	Lower	Upper
50	100		
52	34.6	25.4	38.2

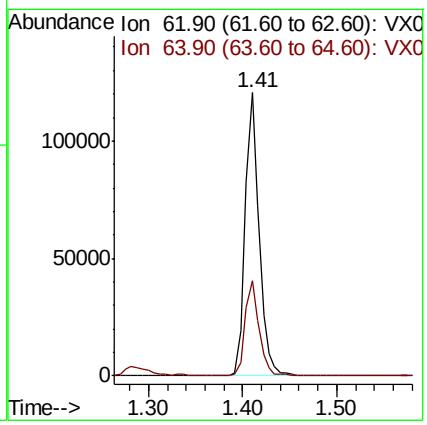




#4
Vinyl Chloride
Concen: 20.212 ug/l
RT: 1.41 min Scan# 42
Delta R.T. -0.00 min
Lab File: VX006590.D
Acq: 18 Dec 2018 11:38

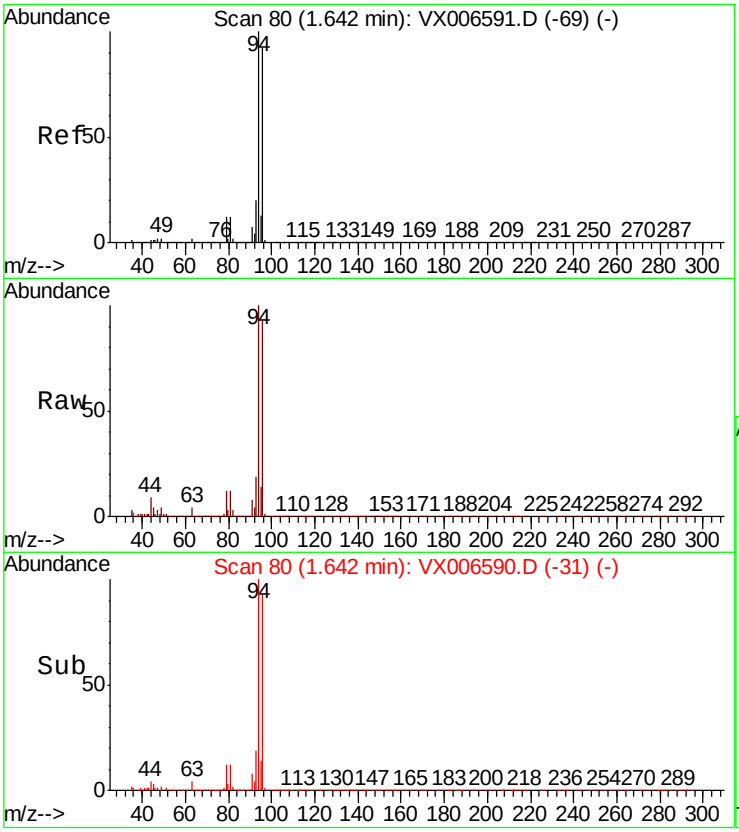
Tgt Ion: 62 Resp: 125307

Ion	Ratio	Lower	Upper
62	100		
64	33.5	25.1	37.7



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC020

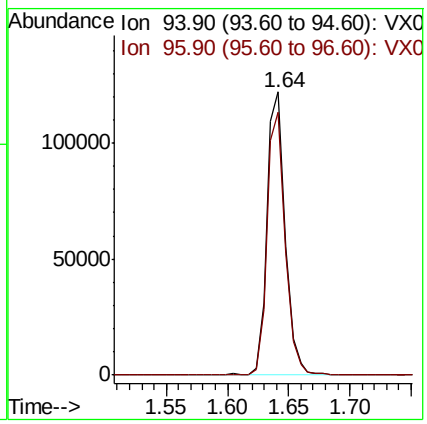
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:21:58 AM

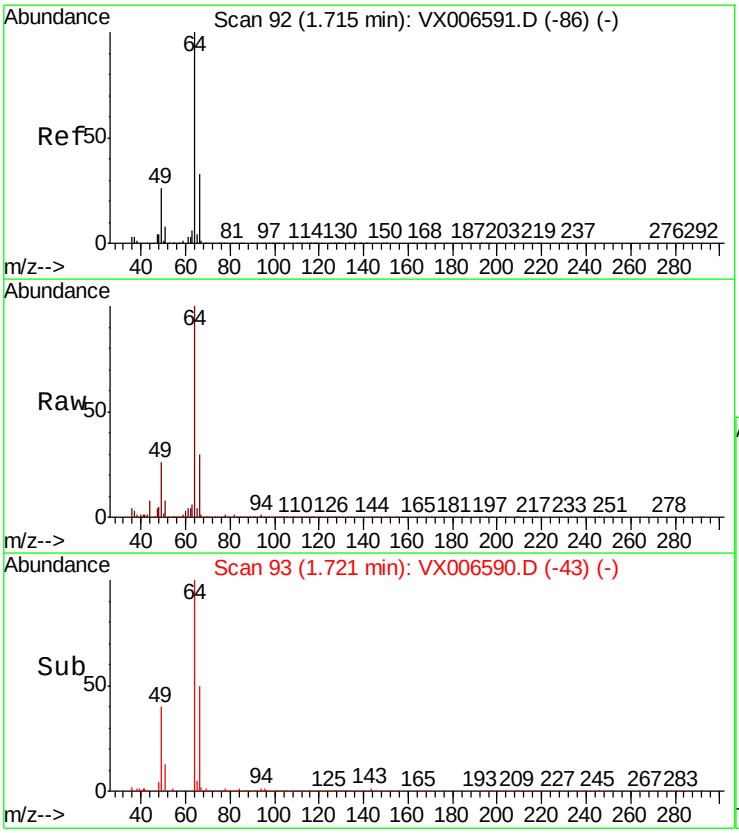


#5
Bromomethane
Concen: 18.689 ug/l
RT: 1.64 min Scan# 80
Delta R.T. -0.00 min
Lab File: VX006590.D
Acq: 18 Dec 2018 11:38

Tgt Ion: 94 Resp: 125978

Ion	Ratio	Lower	Upper
94	100		
96	92.8	73.4	110.2

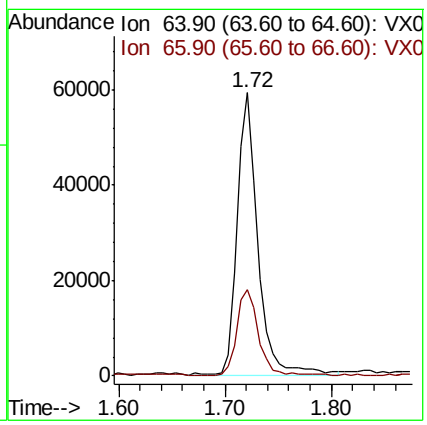


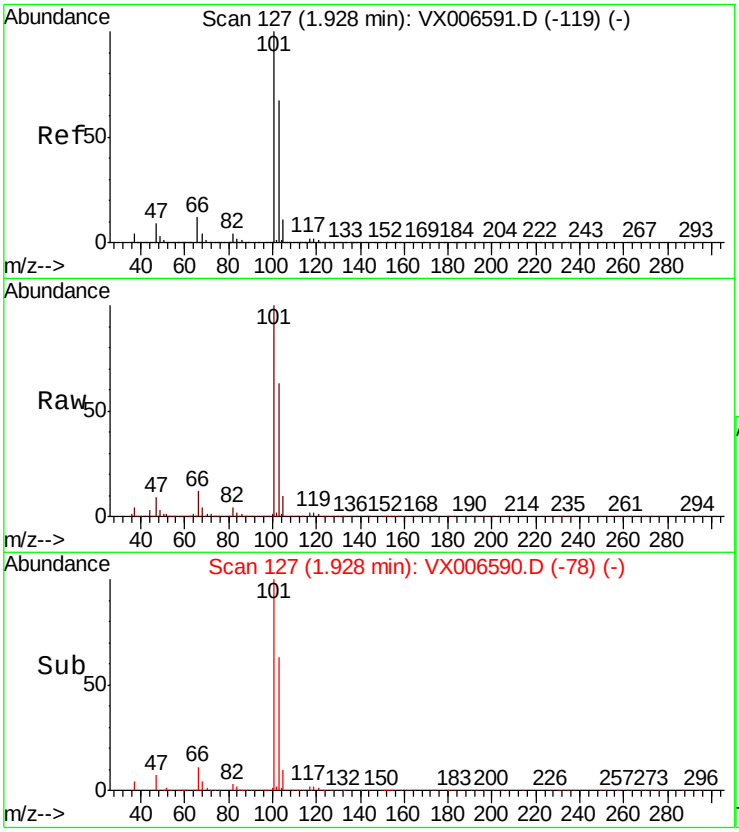


#6
Chloroethane
Concen: 18.833 ug/l
RT: 1.72 min Scan# 93
Delta R.T. 0.01 min
Lab File: VX006590.D
Acq: 18 Dec 2018 11:38

Tgt Ion: 64 Resp: 80845

Ion	Ratio	Lower	Upper
64	100		
66	30.3	26.4	39.6

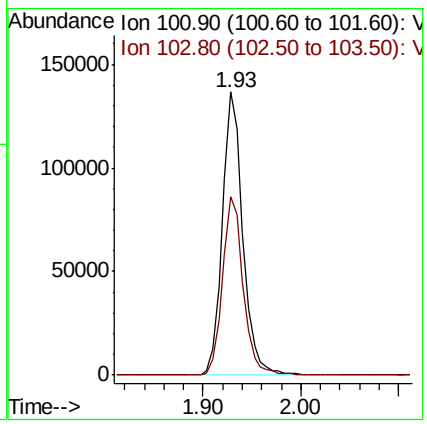




#7
Trichlorofluoromethane
Concen: 20.489 ug/l
RT: 1.93 min Scan# 127
Delta R.T. -0.00 min
Lab File: VX006590.D
Acq: 18 Dec 2018 11:38

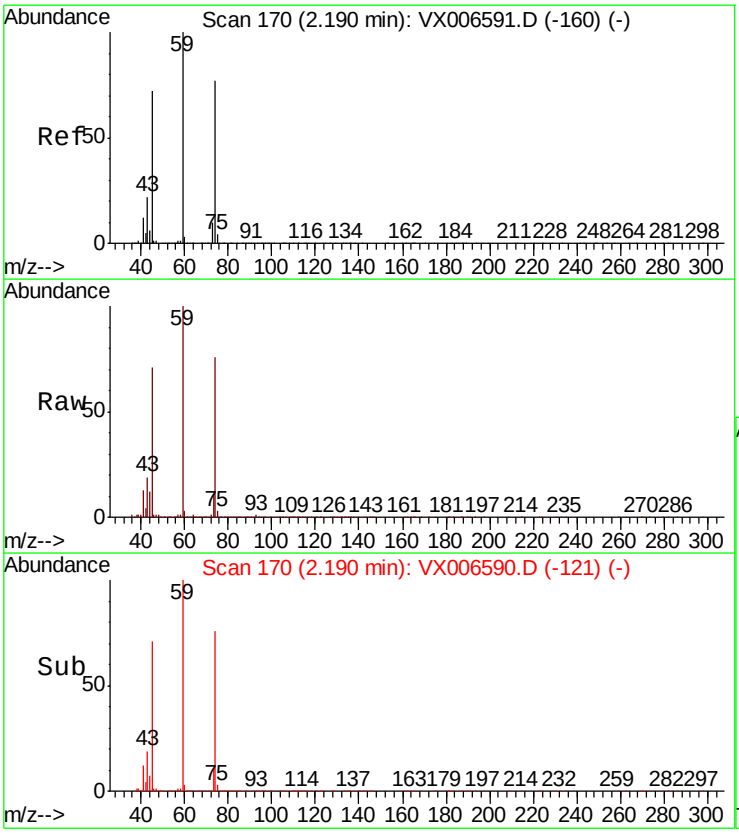
Tgt Ion:101 Resp: 198040

Ion	Ratio	Lower	Upper
101	100		
103	62.9	53.2	79.8



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC020

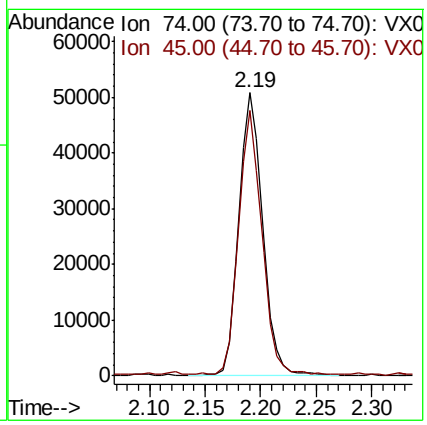
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:21:58 AM

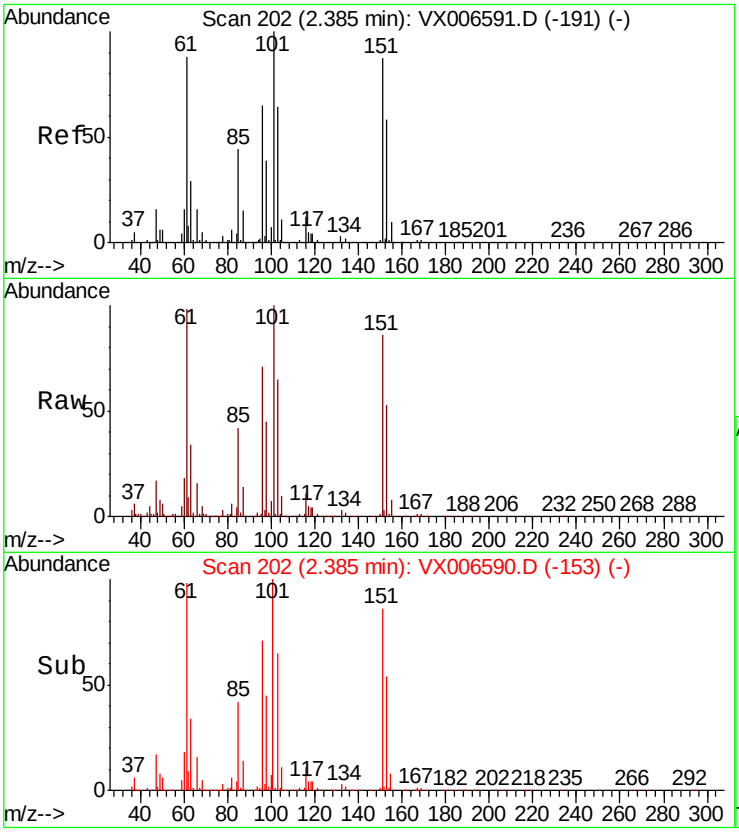


#8
Diethyl Ether
Concen: 19.738 ug/l
RT: 2.19 min Scan# 170
Delta R.T. -0.00 min
Lab File: VX006590.D
Acq: 18 Dec 2018 11:38

Tgt Ion: 74 Resp: 75774

Ion	Ratio	Lower	Upper
74	100		
45	90.4	46.3	138.9

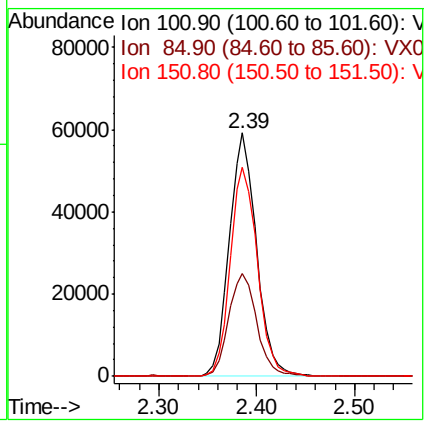




#9
1,1,2-Trichlorotrifluoroethane
Concen: 20.038 ug/l
RT: 2.39 min Scan# 202
Delta R.T. -0.00 min
Lab File: VX006590.D
Acq: 18 Dec 2018 11:38

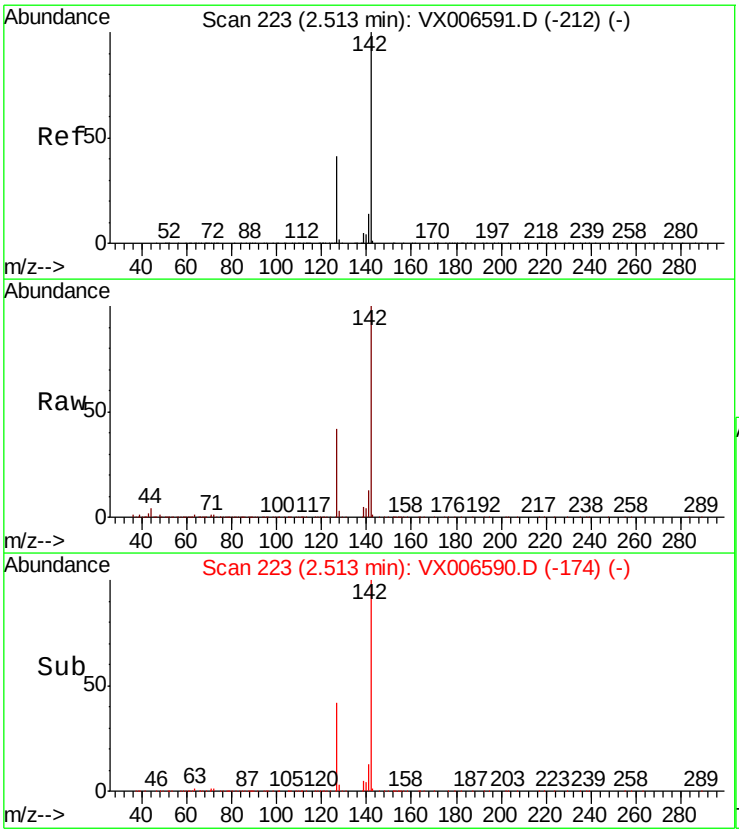
Tgt Ion:101 Resp: 113717

Ion	Ratio	Lower	Upper
101	100		
85	43.8	35.1	52.7
151	86.0	68.9	103.3



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC020

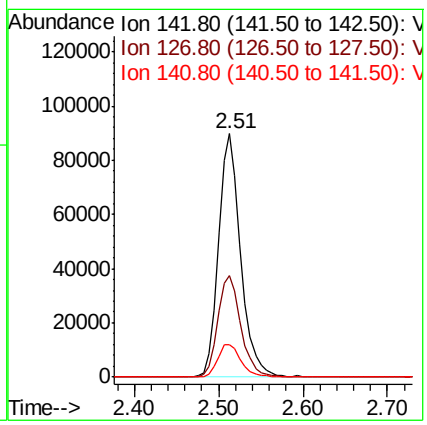
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:21:58 AM



#10
Methyl Iodide
Concen: 19.988 ug/l
RT: 2.51 min Scan# 223
Delta R.T. -0.00 min
Lab File: VX006590.D
Acq: 18 Dec 2018 11:38

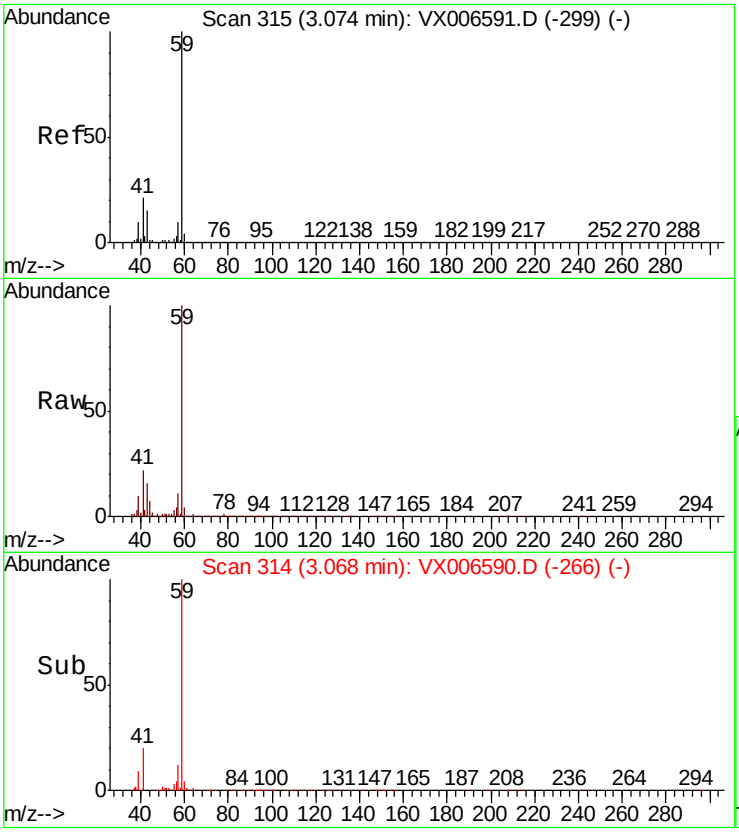
Tgt Ion:142 Resp: 162379

Ion	Ratio	Lower	Upper
142	100		
127	43.6	33.9	50.9
141	14.3	11.4	17.0



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC020

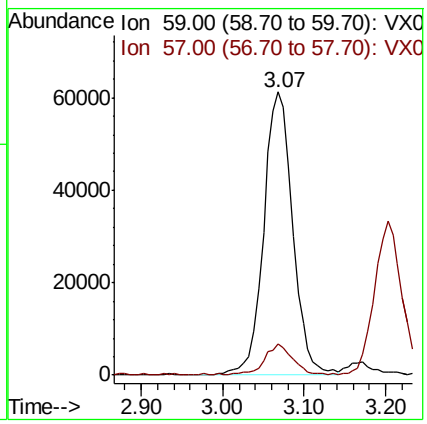
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:21:58 AM

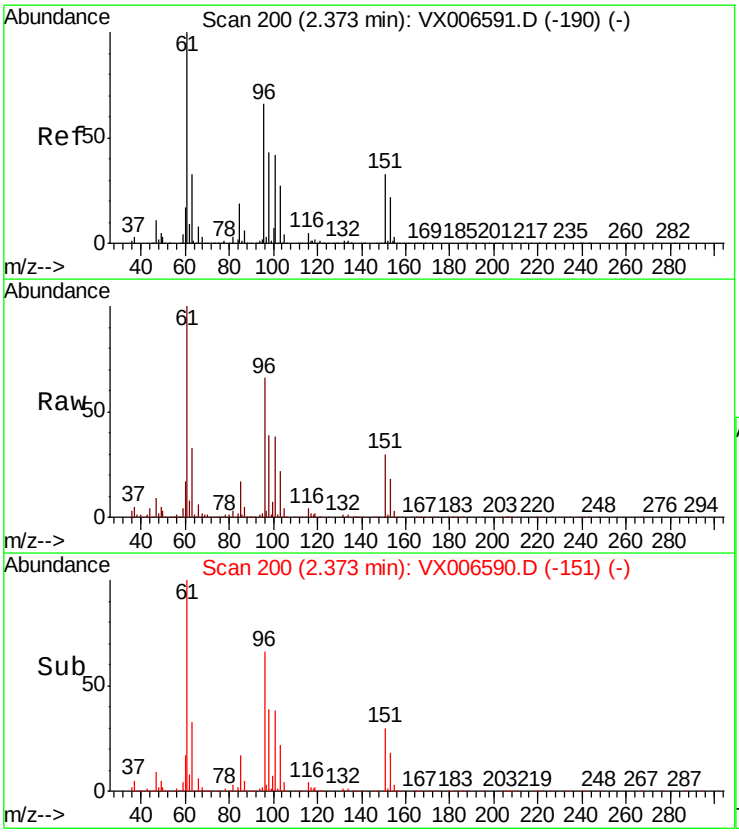


#11
Tert butyl alcohol
Concen: 104.477 ug/l
RT: 3.07 min Scan# 314
Delta R.T. -0.01 min
Lab File: VX006590.D
Acq: 18 Dec 2018 11:38

Tgt Ion: 59 Resp: 151348

Ion	Ratio	Lower	Upper
59	100		
57	10.3	8.5	12.7

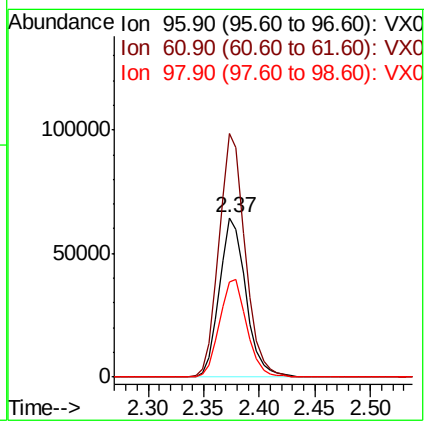


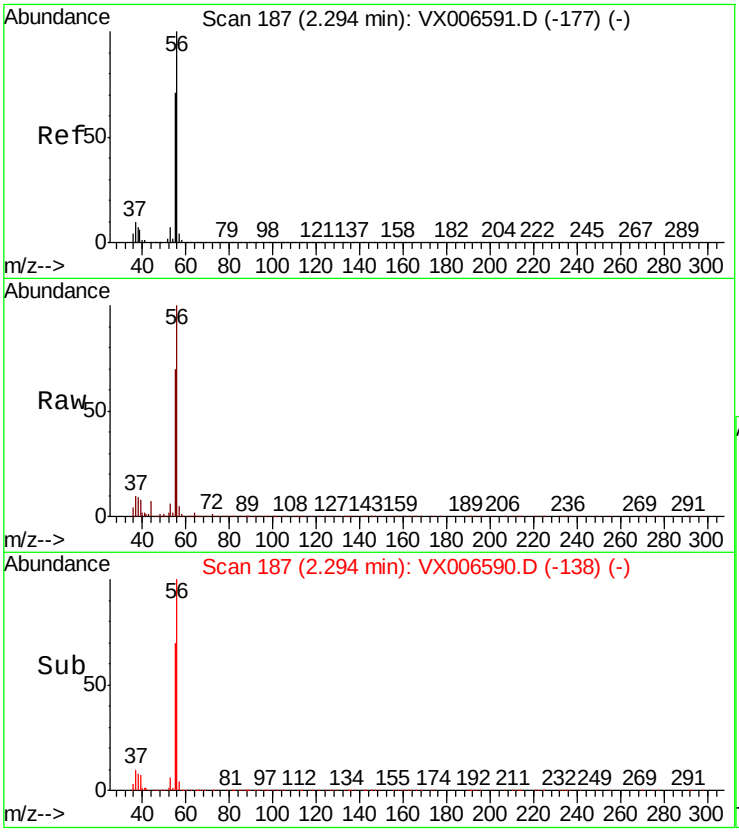


#12
1,1-Dichloroethene
Concen: 19.700 ug/l
RT: 2.37 min Scan# 200
Delta R.T. -0.00 min
Lab File: VX006590.D
Acq: 18 Dec 2018 11:38

Tgt Ion: 96 Resp: 106006

Ion	Ratio	Lower	Upper
96	100		
61	152.4	121.4	182.2
98	59.9	51.9	77.9

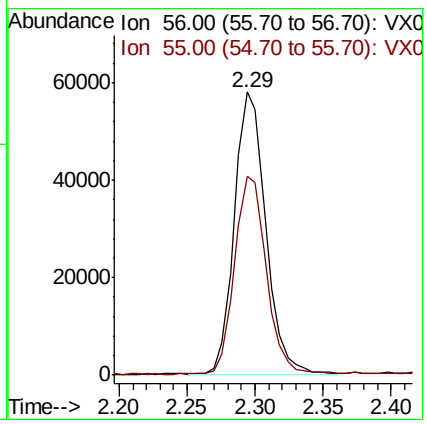




#13
Acrolein
Concen: 96.499 ug/l
RT: 2.29 min Scan# 187
Delta R.T. -0.00 min
Lab File: VX006590.D
Acq: 18 Dec 2018 11:38

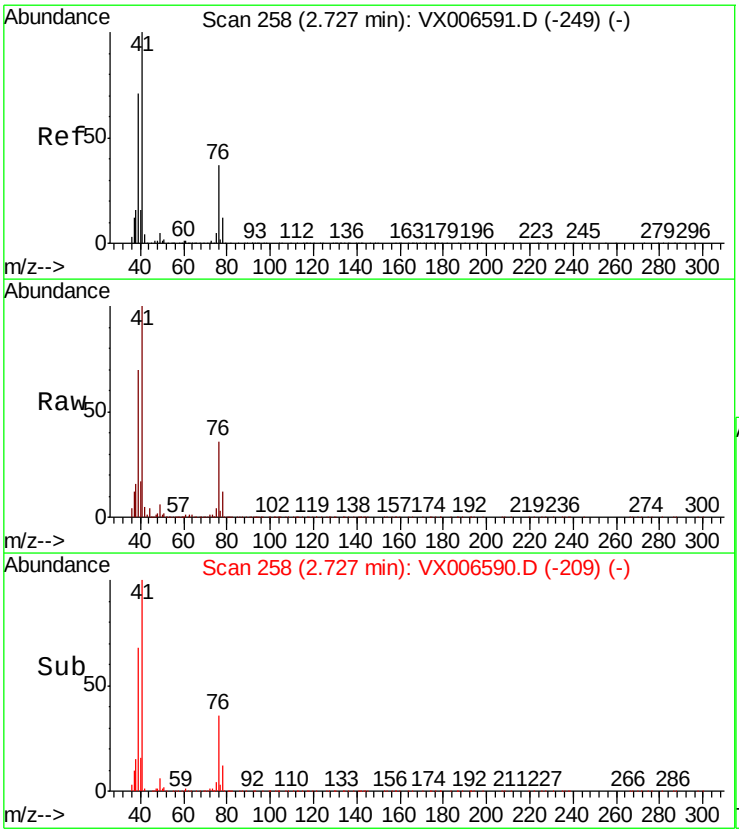
Tgt Ion: 56 Resp: 94304

Ion	Ratio	Lower	Upper
56	100		
55	70.9	58.2	87.4



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC020

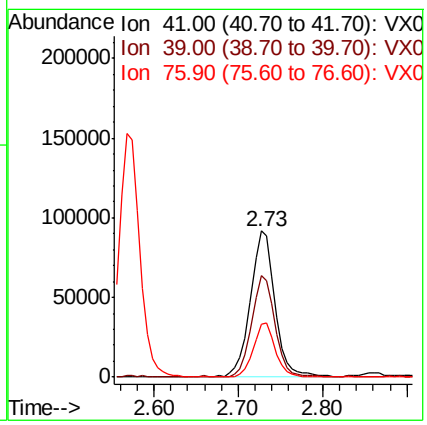
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:21:58 AM



#14
Allyl chloride
Concen: 19.677 ug/l
RT: 2.73 min Scan# 258
Delta R.T. -0.00 min
Lab File: VX006590.D
Acq: 18 Dec 2018 11:38

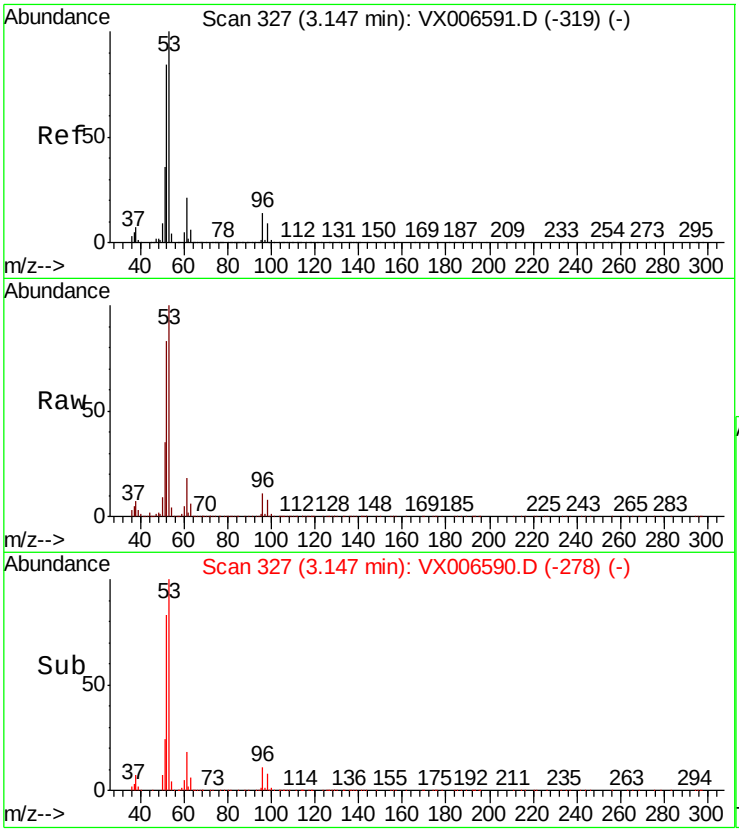
Tgt Ion: 41 Resp: 178226

Ion	Ratio	Lower	Upper
41	100		
39	65.8	53.6	80.4
76	33.4	27.4	41.2



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC020

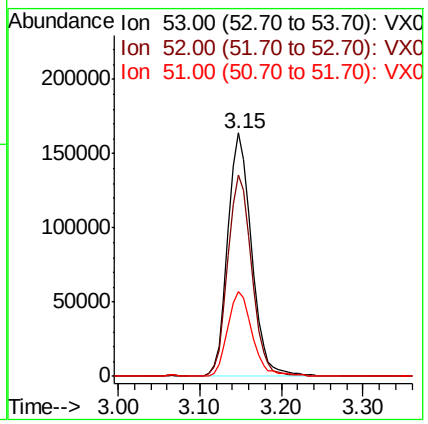
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:21:58 AM

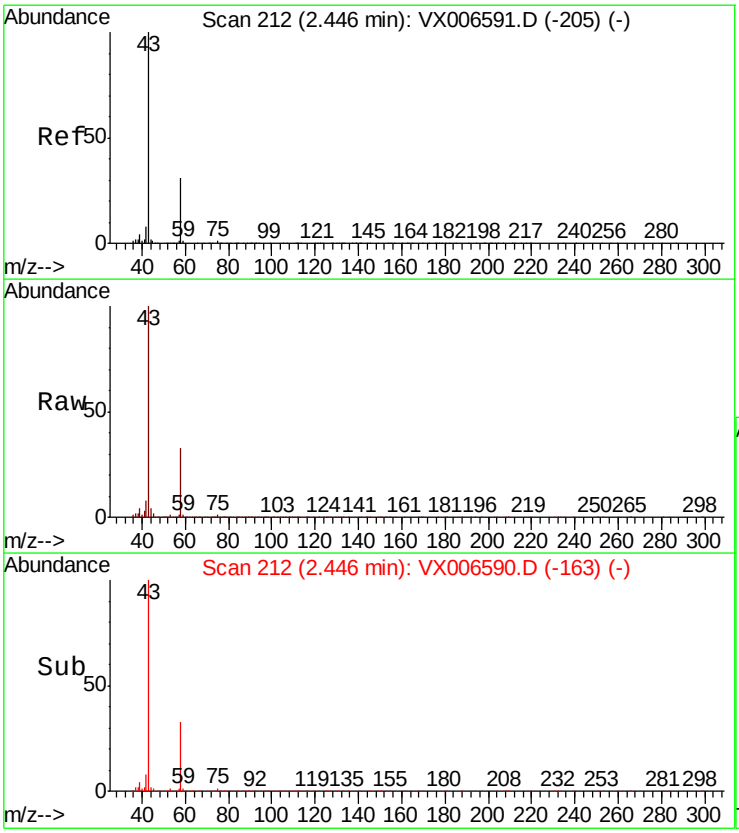


#15
Acrylonitrile
Concen: 101.919 ug/l
RT: 3.15 min Scan# 327
Delta R.T. -0.00 min
Lab File: VX006590.D
Acq: 18 Dec 2018 11:38

Tgt Ion: 53 Resp: 327812

Ion	Ratio	Lower	Upper
53	100		
52	83.5	66.0	99.0
51	35.9	28.6	42.8

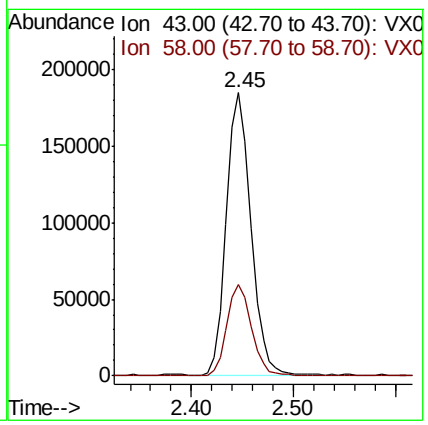




#16
Acetone
Concen: 102.816 ug/l
RT: 2.45 min Scan# 212
Delta R.T. -0.00 min
Lab File: VX006590.D
Acq: 18 Dec 2018 11:38

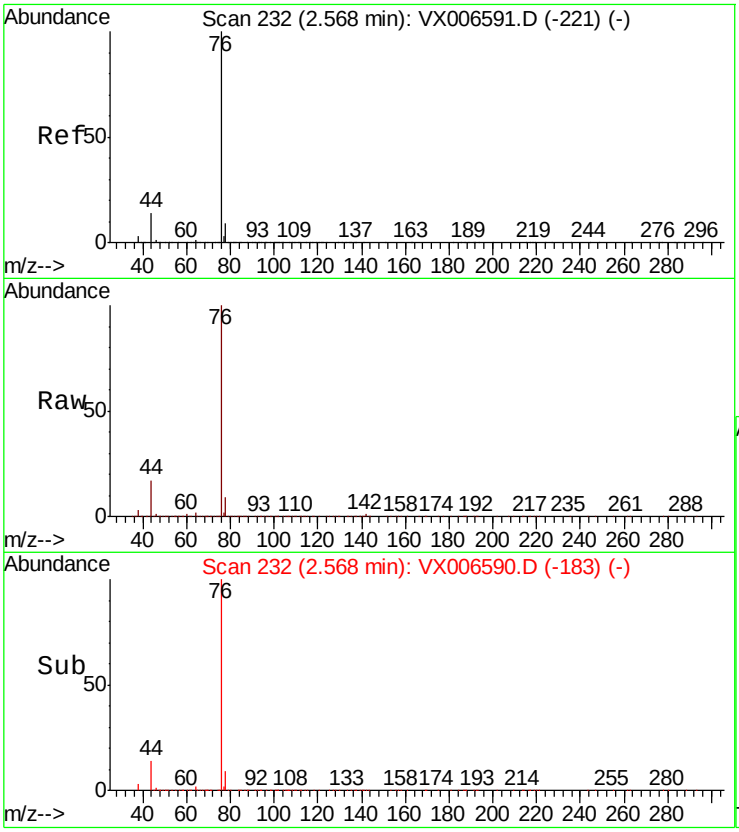
Tgt Ion: 43 Resp: 306615

Ion	Ratio	Lower	Upper
43	100		
58	32.6	25.0	37.6



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC020

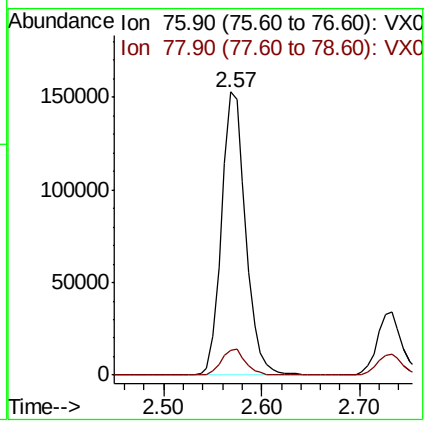
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:21:58 AM

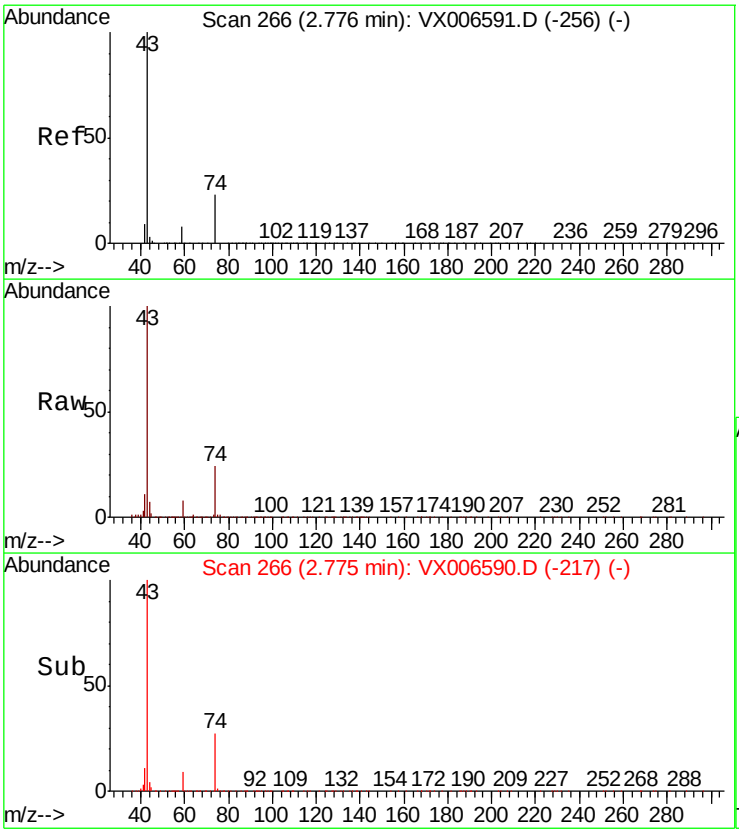


#17
Carbon Disulfide
Concen: 18.366 ug/l
RT: 2.57 min Scan# 232
Delta R.T. -0.00 min
Lab File: VX006590.D
Acq: 18 Dec 2018 11:38

Tgt Ion: 76 Resp: 261545

Ion	Ratio	Lower	Upper
76	100		
78	8.6	7.0	10.6

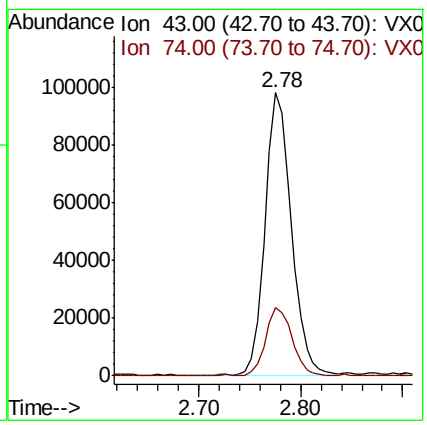




#18
Methyl Acetate
Concen: 19.956 ug/l
RT: 2.78 min Scan# 266
Delta R.T. -0.00 min
Lab File: VX006590.D
Acq: 18 Dec 2018 11:38

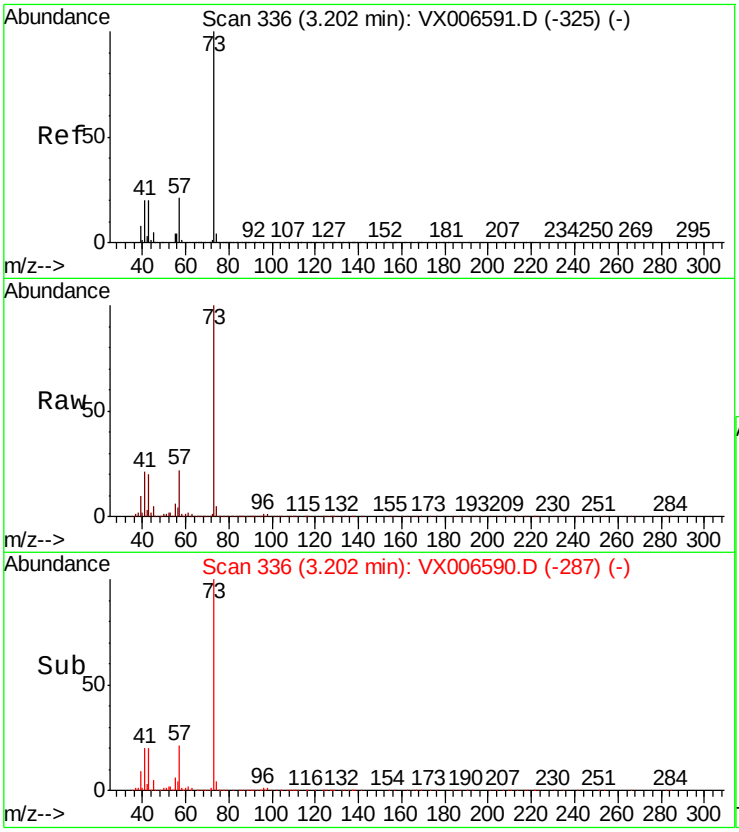
Tgt Ion: 43 Resp: 174997

Ion	Ratio	Lower	Upper
43	100		
74	24.0	18.6	28.0



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC020

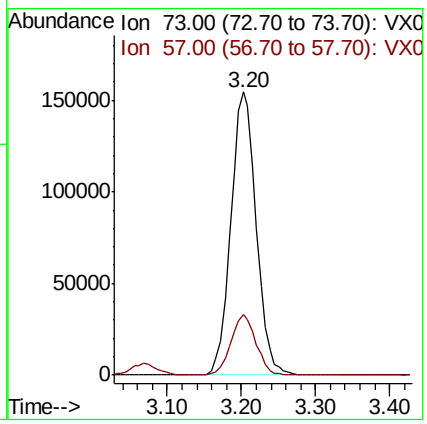
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:21:58 AM

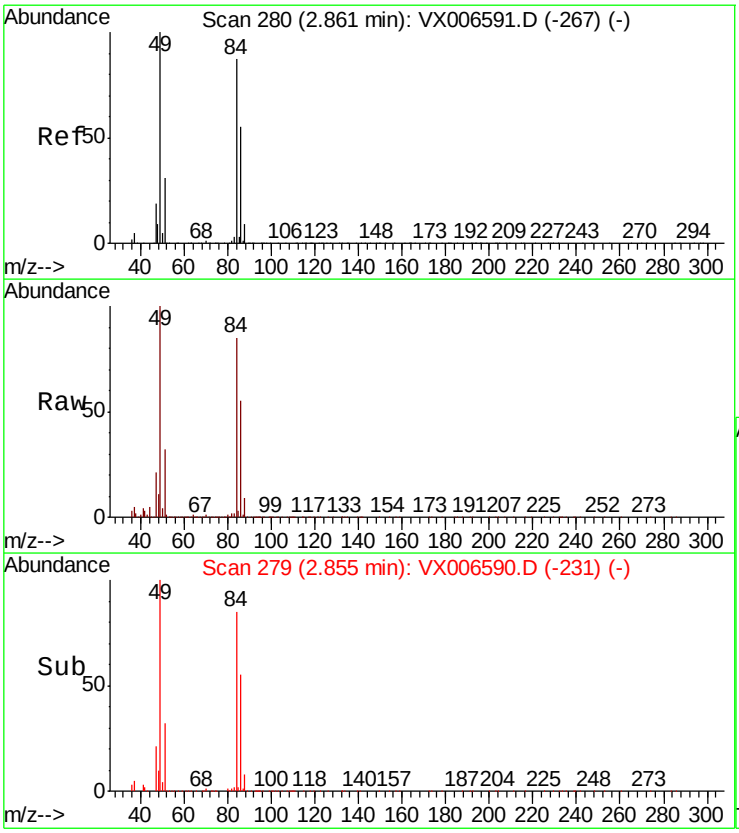


#19
Methyl tert-butyl Ether
Concen: 20.536 ug/l
RT: 3.20 min Scan# 336
Delta R.T. -0.00 min
Lab File: VX006590.D
Acq: 18 Dec 2018 11:38

Tgt Ion: 73 Resp: 366773

Ion	Ratio	Lower	Upper
73	100		
57	21.5	16.8	25.2

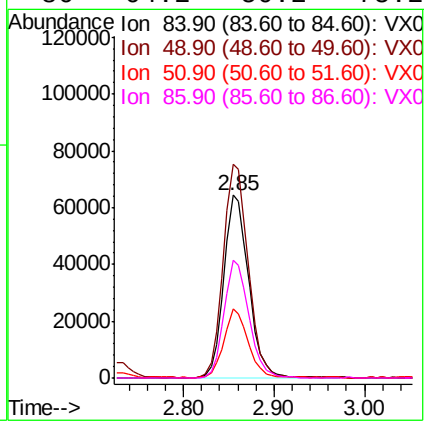




#20
Methylene Chloride
Concen: 19.803 ug/l
RT: 2.85 min Scan# 279
Delta R.T. -0.01 min
Lab File: VX006590.D
Acq: 18 Dec 2018 11:38

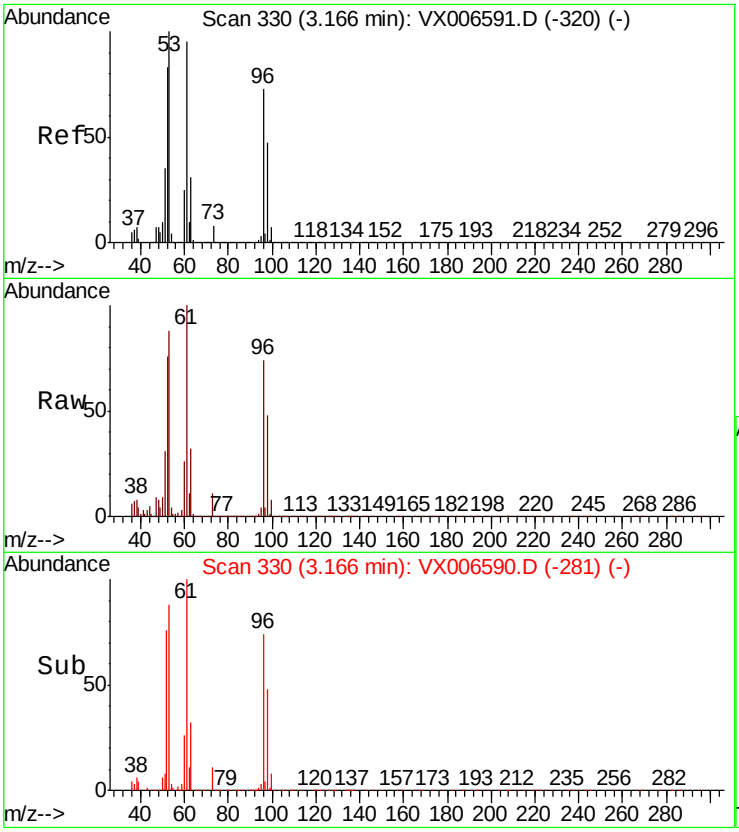
Tgt Ion: 84 Resp: 122120

Ion	Ratio	Lower	Upper
84	100		
49	116.9	91.8	137.6
51	37.4	28.5	42.7
86	64.2	50.2	75.2



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC020

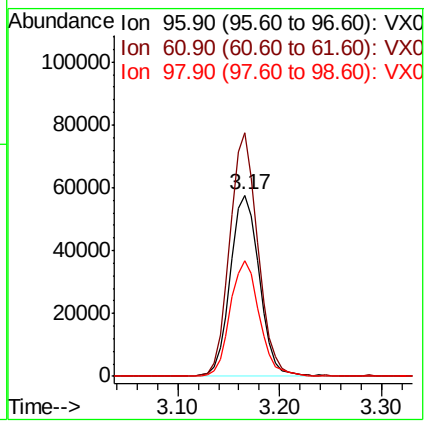
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:21:58 AM

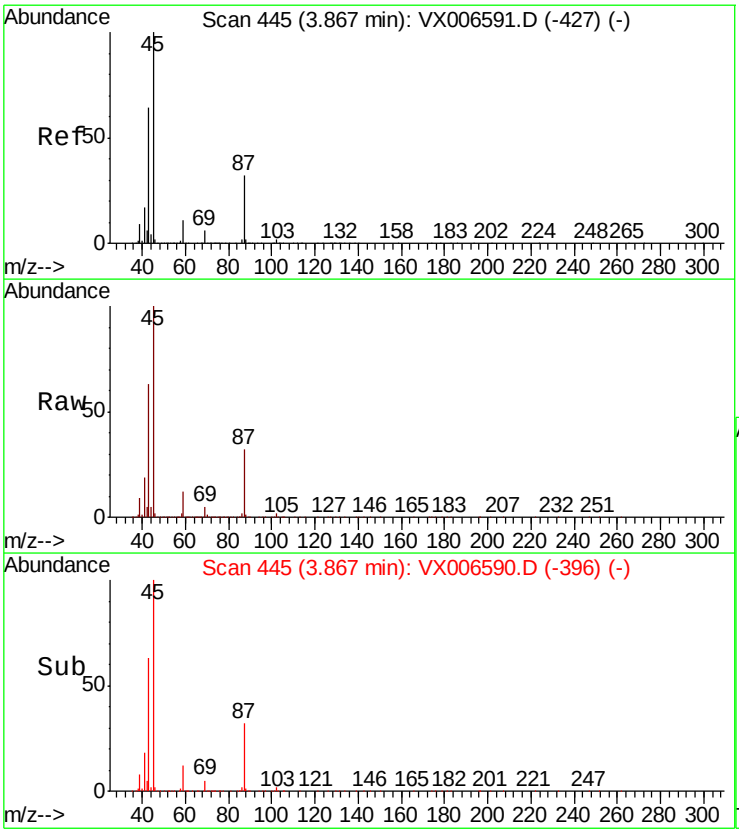


#21
trans-1,2-Dichloroethene
Concen: 18.828 ug/l
RT: 3.17 min Scan# 330
Delta R.T. -0.00 min
Lab File: VX006590.D
Acq: 18 Dec 2018 11:38

Tgt Ion: 96 Resp: 112261

Ion	Ratio	Lower	Upper
96	100		
61	134.4	103.7	155.5
98	63.9	51.0	76.6

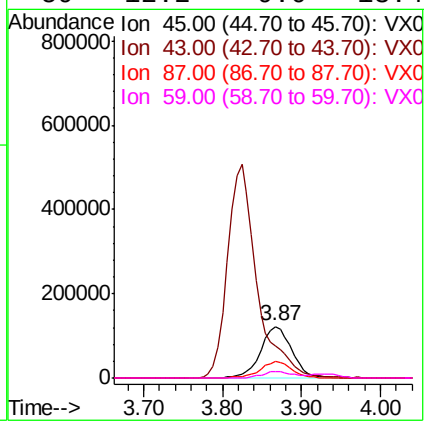


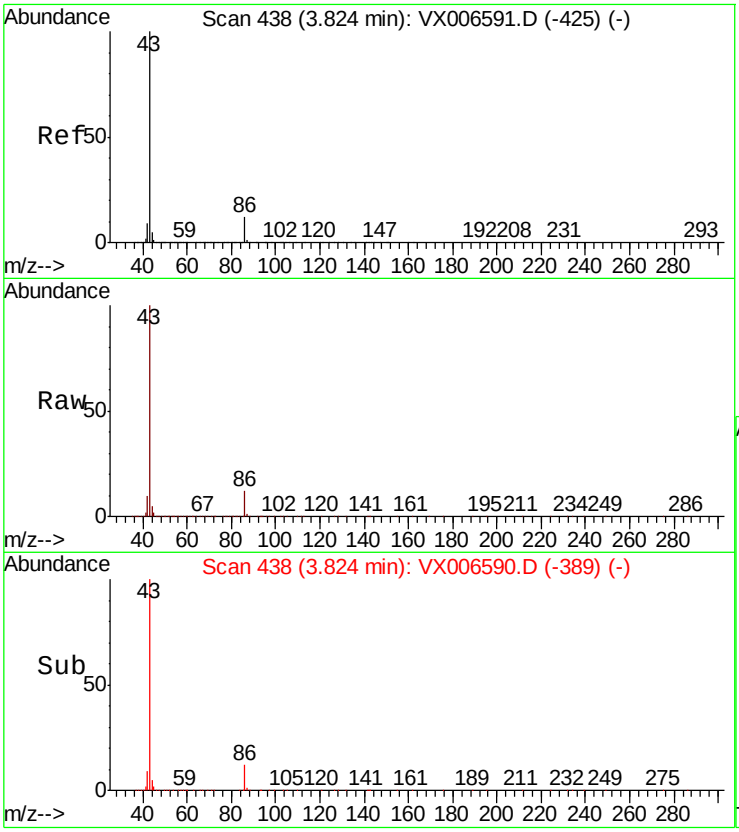


#22
Diisopropyl ether
Concen: 20.101 ug/l
RT: 3.87 min Scan# 445
Delta R.T. -0.00 min
Lab File: VX006590.D
Acq: 18 Dec 2018 11:38

Tgt Ion: 45 Resp: 333091

Ion	Ratio	Lower	Upper
45	100		
43	62.7	51.2	76.8
87	32.2	25.8	38.6
59	12.2	9.0	13.4

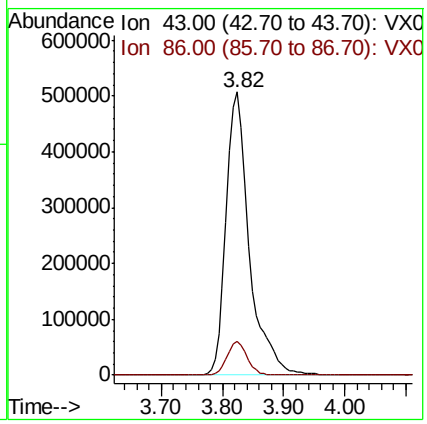




#23
Vinyl Acetate
Concen: 97.951 ug/l
RT: 3.82 min Scan# 438
Delta R.T. -0.00 min
Lab File: VX006590.D
Acq: 18 Dec 2018 11:38

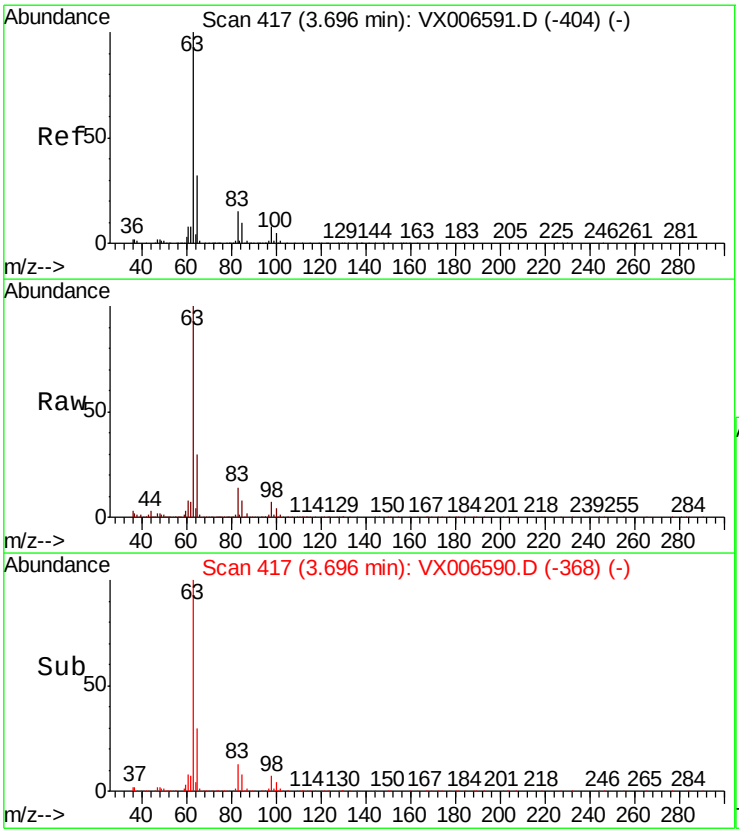
Tgt Ion: 43 Resp: 1327644

Ion	Ratio	Lower	Upper
43	100		
86	12.0	9.2	13.8



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC020

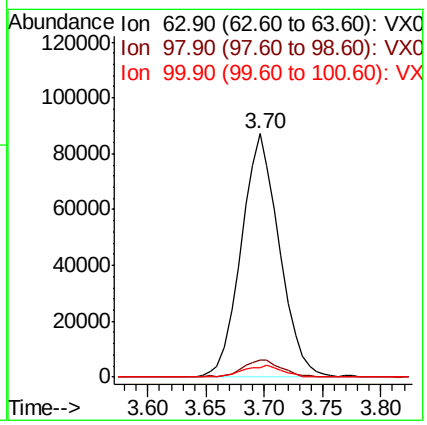
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:21:58 AM

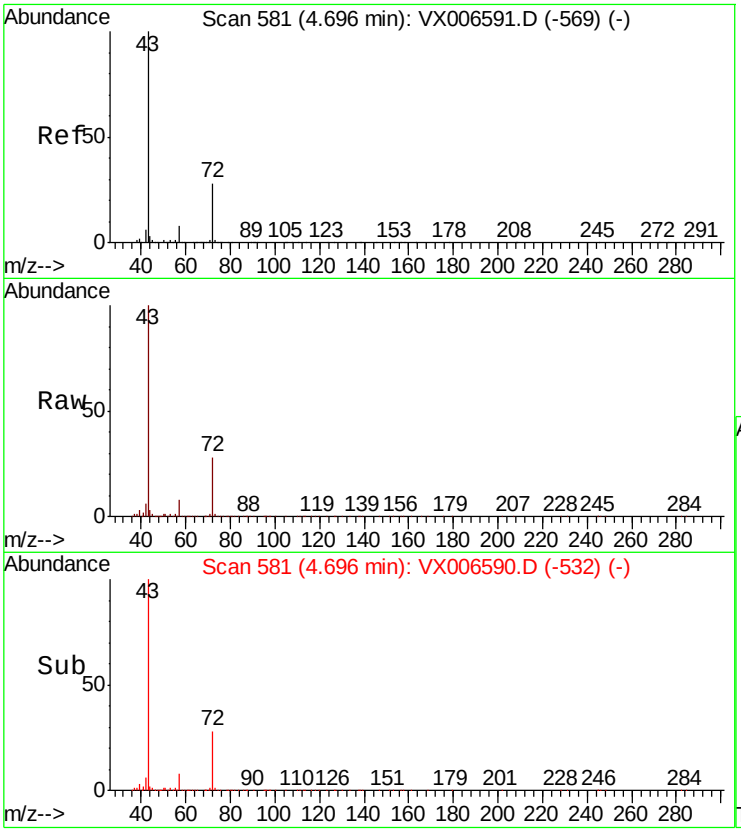


#24
1,1-Dichloroethane
Concen: 19.949 ug/l
RT: 3.70 min Scan# 417
Delta R.T. -0.00 min
Lab File: VX006590.D
Acq: 18 Dec 2018 11:38

Tgt Ion: 63 Resp: 197336

Ion	Ratio	Lower	Upper
63	100		
98	7.0	3.9	11.5
100	4.0	2.4	7.2

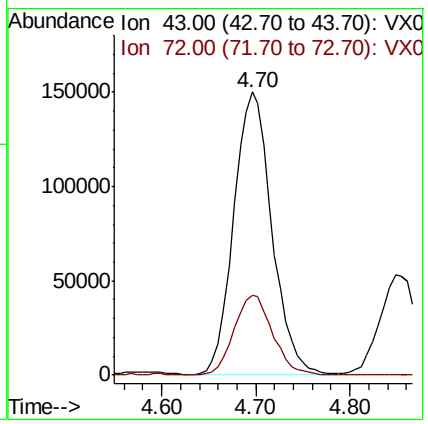




#25
2-Butanone
Concen: 100.714 ug/l
RT: 4.70 min Scan# 581
Delta R.T. -0.00 min
Lab File: VX006590.D
Acq: 18 Dec 2018 11:38

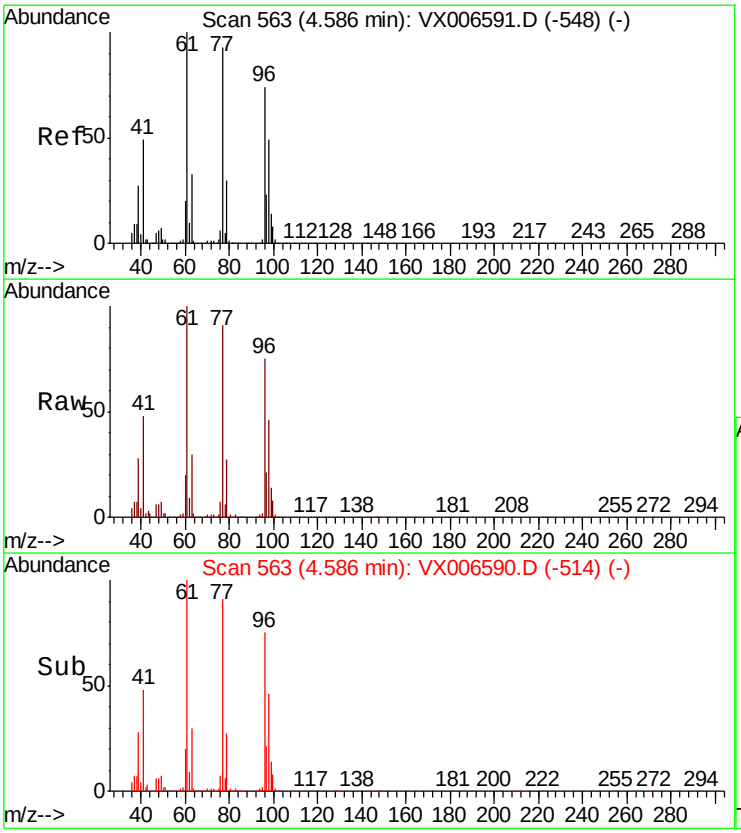
Tgt Ion: 43 Resp: 422478

Ion	Ratio	Lower	Upper
43	100		
72	28.1	22.4	33.6



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC020

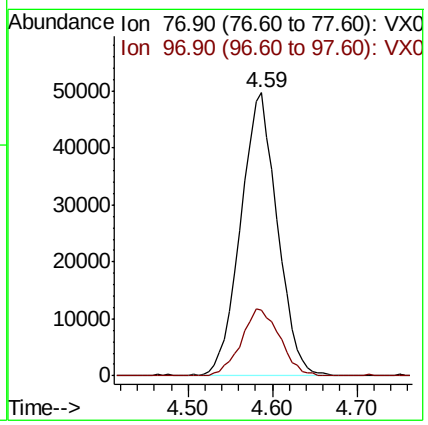
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:21:58 AM



#26
2,2-Dichloropropane
Concen: 19.186 ug/l
RT: 4.59 min Scan# 563
Delta R.T. -0.00 min
Lab File: VX006590.D
Acq: 18 Dec 2018 11:38

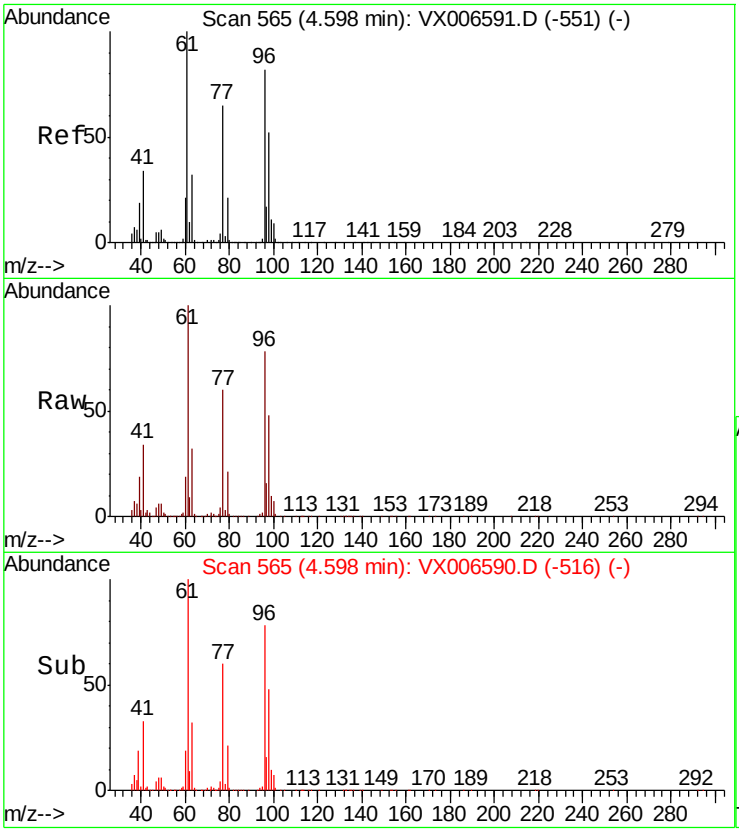
Tgt Ion: 77 Resp: 146601

Ion	Ratio	Lower	Upper
77	100		
97	24.9	12.4	37.4



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC020

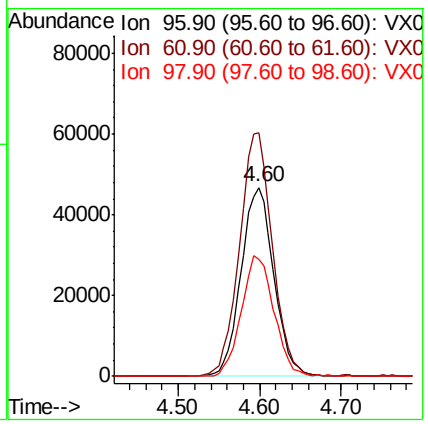
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:21:58 AM

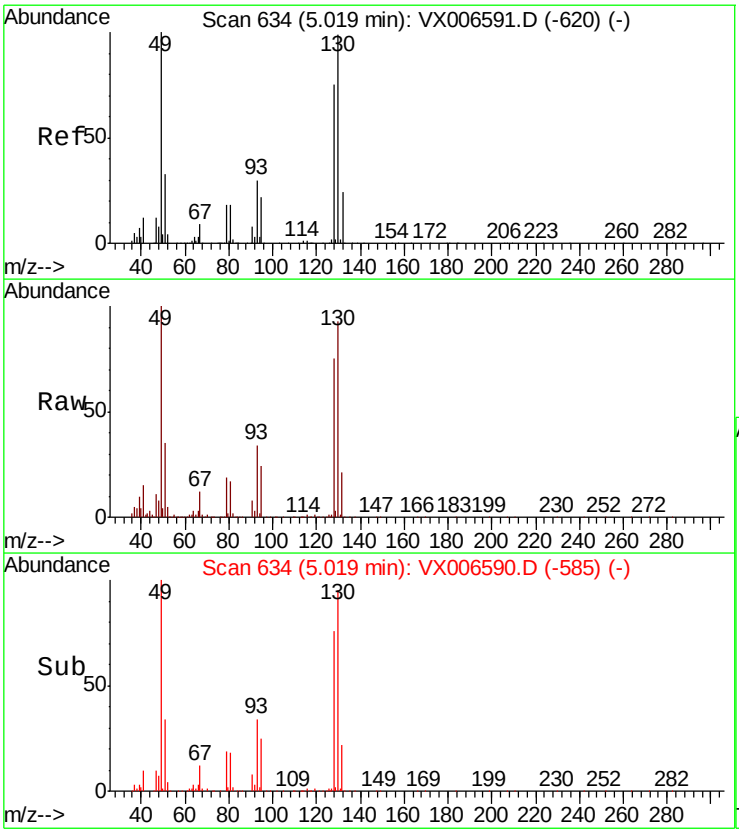


#27
cis-1,2-Dichloroethene
Concen: 19.874 ug/l
RT: 4.60 min Scan# 565
Delta R.T. -0.00 min
Lab File: VX006590.D
Acq: 18 Dec 2018 11:38

Tgt Ion: 96 Resp: 130735

Ion	Ratio	Lower	Upper
96	100		
61	128.6	0.0	258.6
98	63.9	0.0	132.0

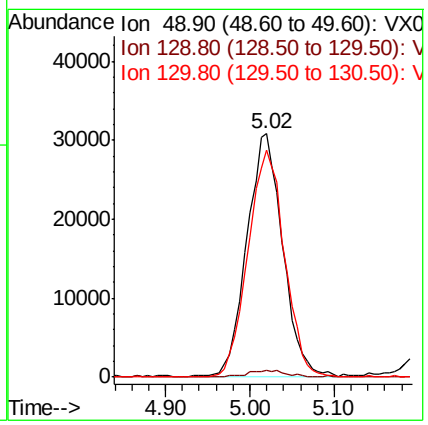


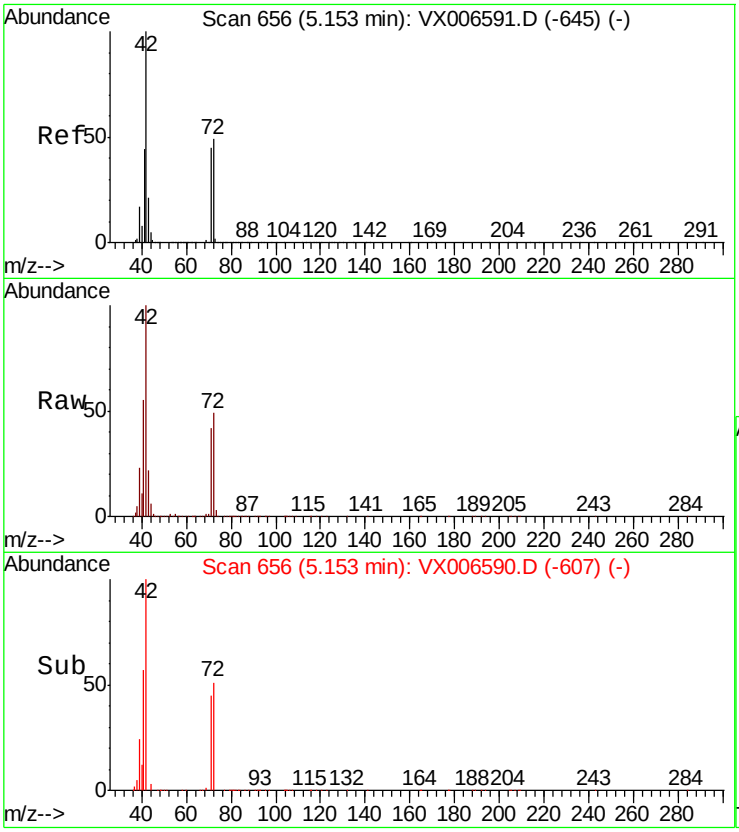


#28
Bromochloromethane
Concen: 19.751 ug/l
RT: 5.02 min Scan# 634
Delta R.T. -0.00 min
Lab File: VX006590.D
Acq: 18 Dec 2018 11:38

Tgt Ion: 49 Resp: 89827

Ion	Ratio	Lower	Upper
49	100		
129	3.0	0.0	5.4
130	94.7	77.7	116.5

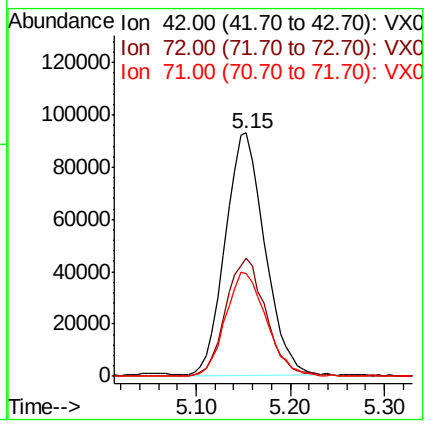




#29
Tetrahydrofuran
Concen: 98.233 ug/l
RT: 5.15 min Scan# 656
Delta R.T. -0.00 min
Lab File: VX006590.D
Acq: 18 Dec 2018 11:38

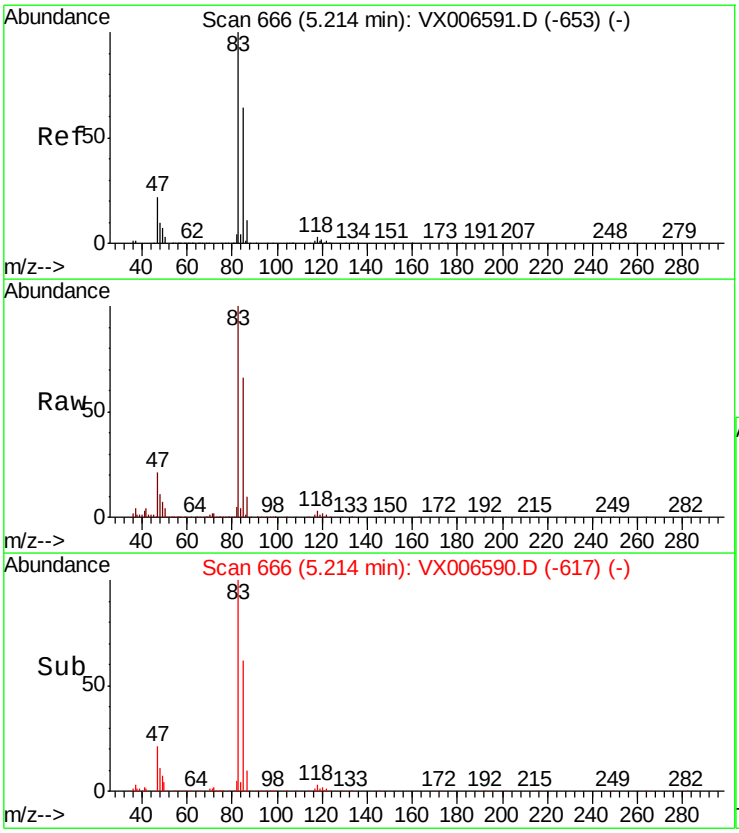
Tgt Ion: 42 Resp: 271403

Ion	Ratio	Lower	Upper
42	100		
72	49.1	38.9	58.3
71	44.3	36.2	54.4



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC020

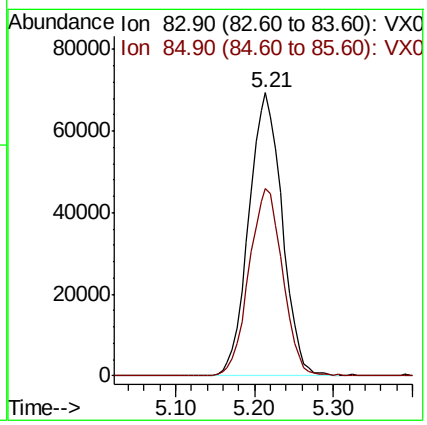
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:21:58 AM



#30
Chloroform
Concen: 19.877 ug/l
RT: 5.21 min Scan# 666
Delta R.T. -0.00 min
Lab File: VX006590.D
Acq: 18 Dec 2018 11:38

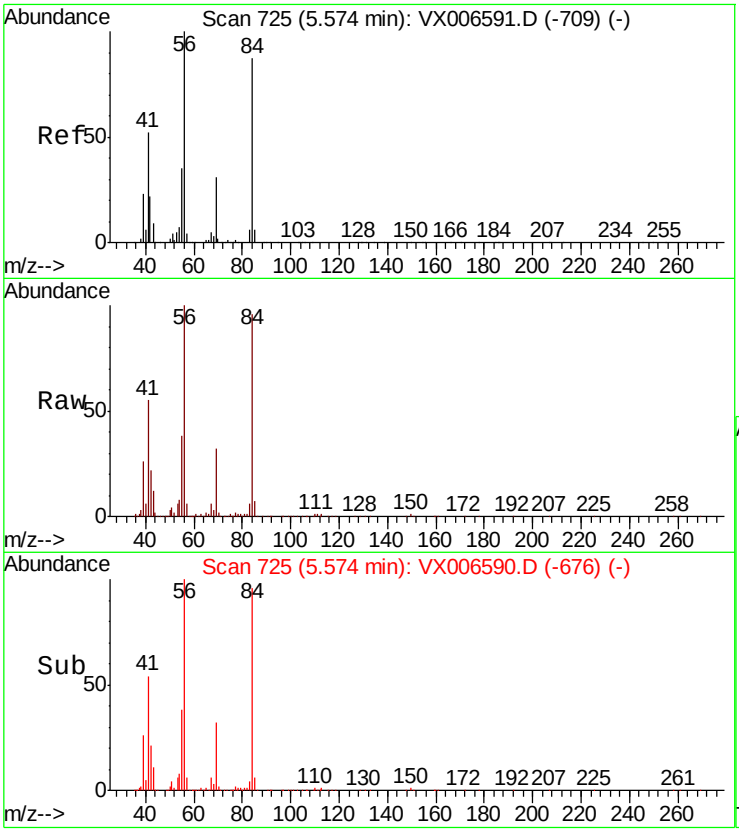
Tgt Ion: 83 Resp: 203615

Ion	Ratio	Lower	Upper
83	100		
85	65.9	51.2	76.8



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC020

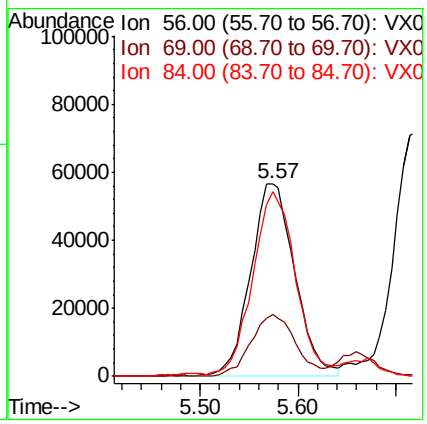
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:21:58 AM

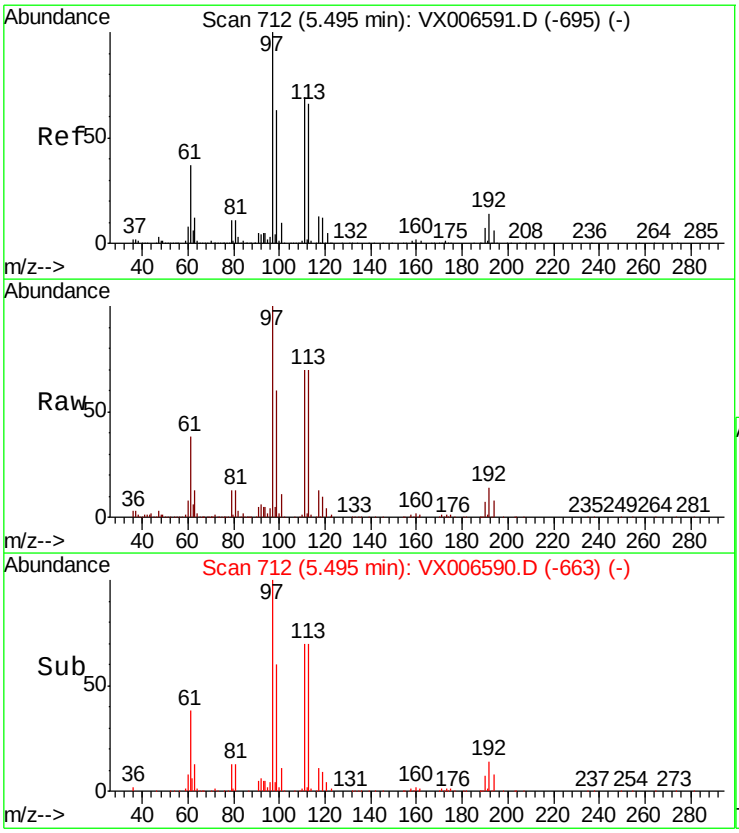


#31
Cyclohexane
Concen: 19.724 ug/l
RT: 5.57 min Scan# 725
Delta R.T. -0.00 min
Lab File: VX006590.D
Acq: 18 Dec 2018 11:38

Tgt Ion: 56 Resp: 177248

Ion	Ratio	Lower	Upper
56	100		
69	32.1	24.4	36.6
84	94.3	70.0	105.0

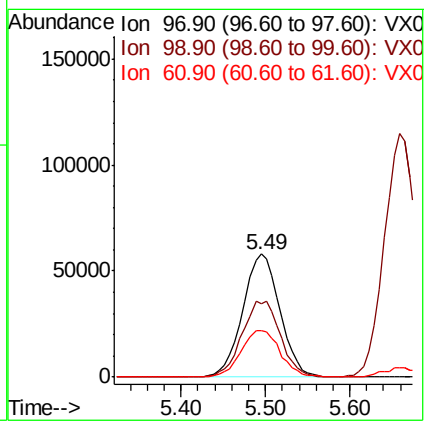


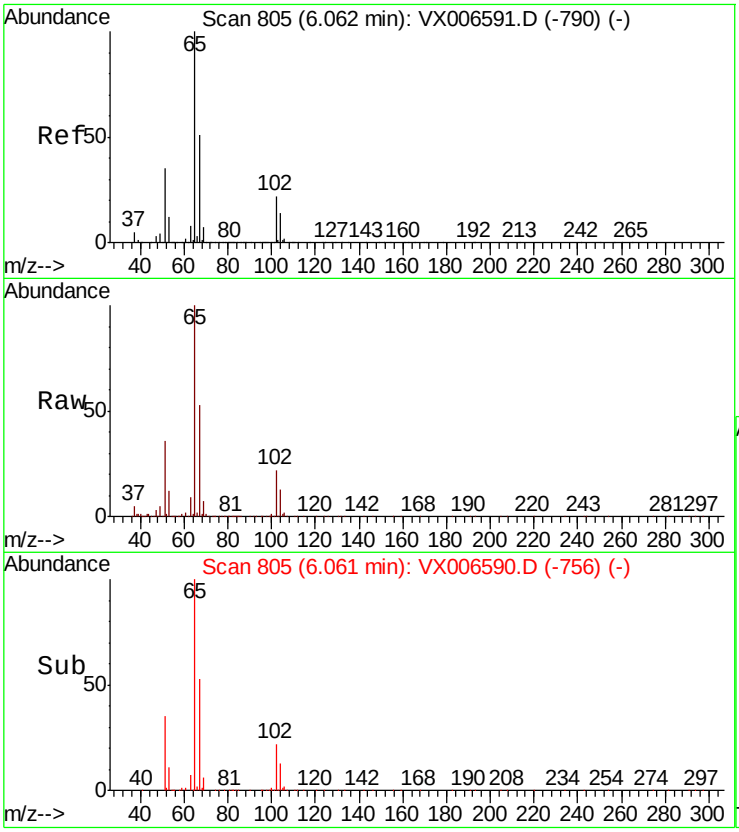


#32
1,1,1-Trichloroethane
Concen: 20.022 ug/l
RT: 5.49 min Scan# 712
Delta R.T. -0.00 min
Lab File: VX006590.D
Acq: 18 Dec 2018 11:38

Tgt Ion: 97 Resp: 173176

Ion	Ratio	Lower	Upper
97	100		
99	63.7	51.7	77.5
61	40.4	31.3	46.9

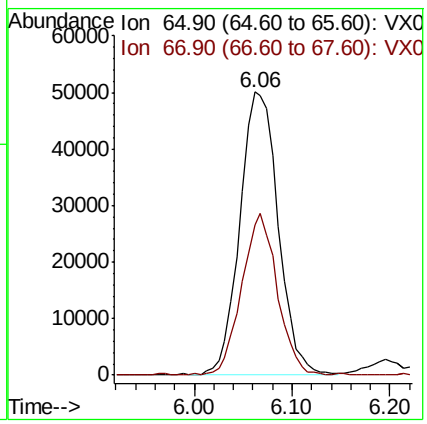




#33
1,2-Dichloroethane-d4
Concen: 20.874 ug/l
RT: 6.06 min Scan# 805
Delta R.T. -0.00 min
Lab File: VX006590.D
Acq: 18 Dec 2018 11:38

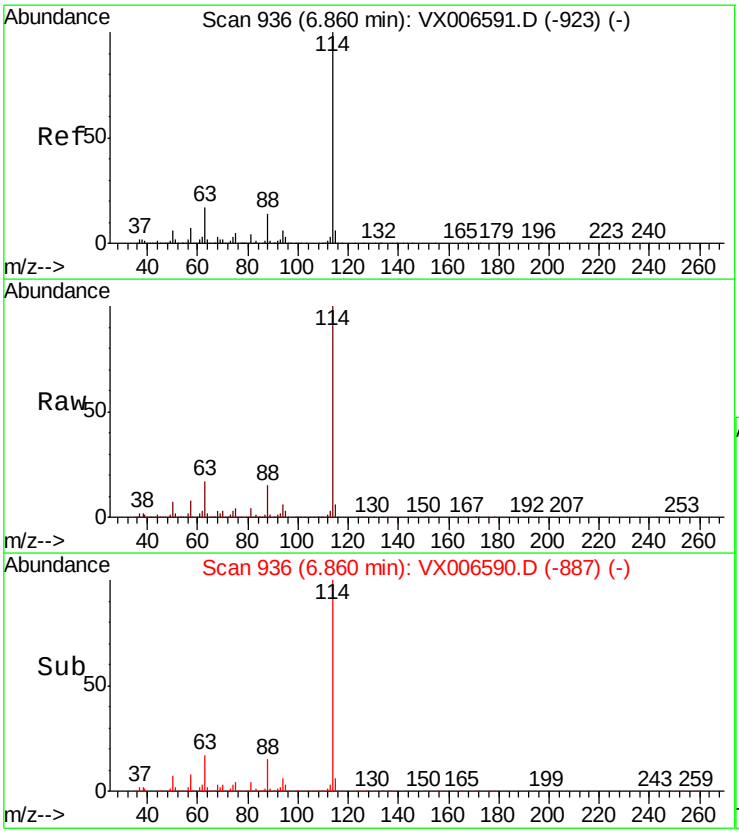
Tgt Ion: 65 Resp: 135494

Ion	Ratio	Lower	Upper
65	100		
67	53.3	0.0	105.0



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC020

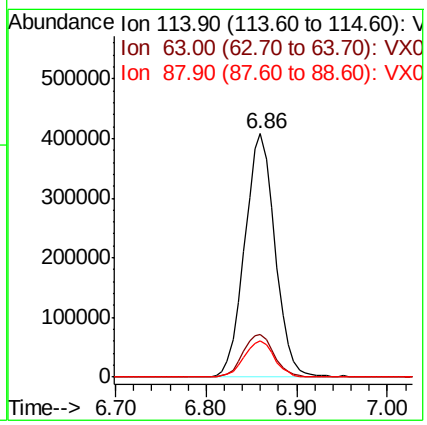
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:21:58 AM



#34
1,4-Difluorobenzene
Concen: 50.000 ug/l
RT: 6.86 min Scan# 936
Delta R.T. -0.00 min
Lab File: VX006590.D
Acq: 18 Dec 2018 11:38

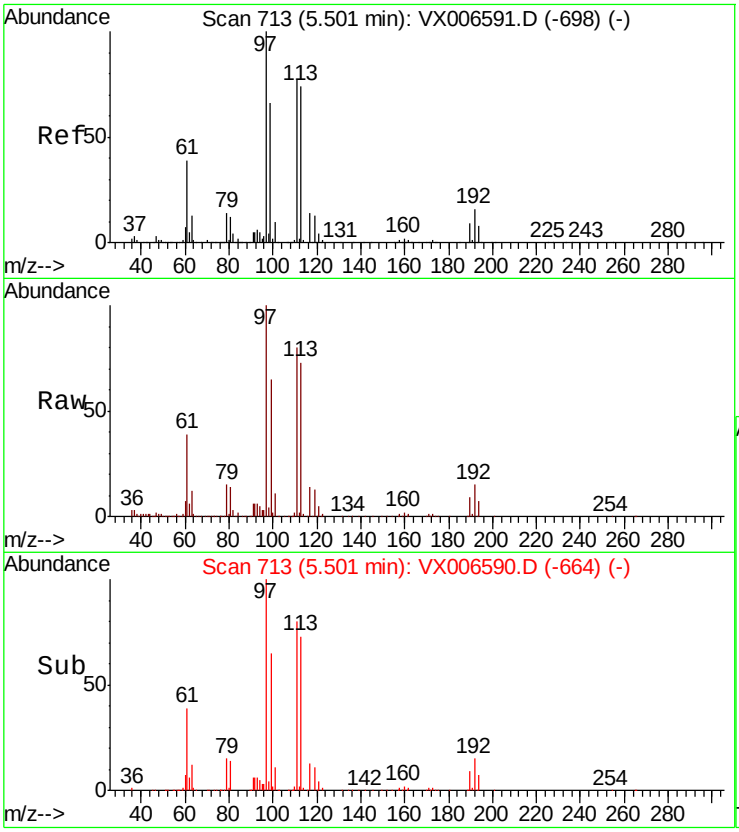
Tgt Ion:114 Resp: 942789

Ion	Ratio	Lower	Upper
114	100		
63	17.5	0.0	34.8
88	14.7	0.0	28.8



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC020

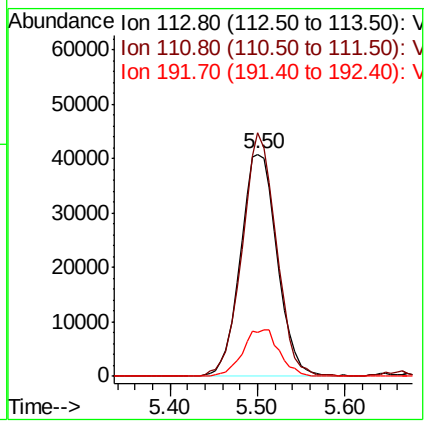
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:21:58 AM

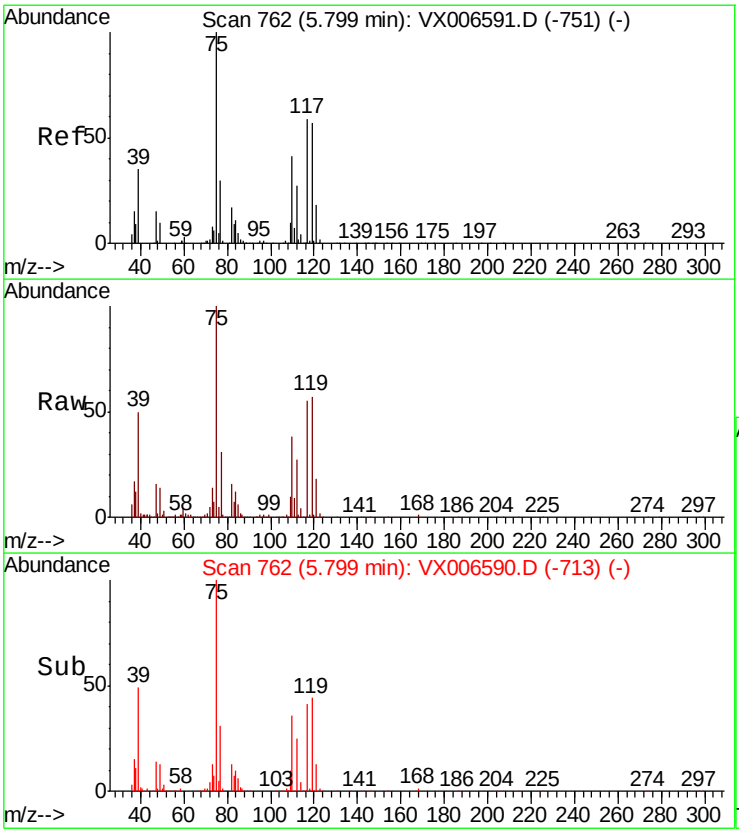


#35
Dibromofluoromethane
Concen: 19.977 ug/l
RT: 5.50 min Scan# 713
Delta R.T. -0.00 min
Lab File: VX006590.D
Acq: 18 Dec 2018 11:38

Tgt Ion:113 Resp: 119102

Ion	Ratio	Lower	Upper
113	100		
111	101.8	81.6	122.4
192	21.0	16.7	25.1

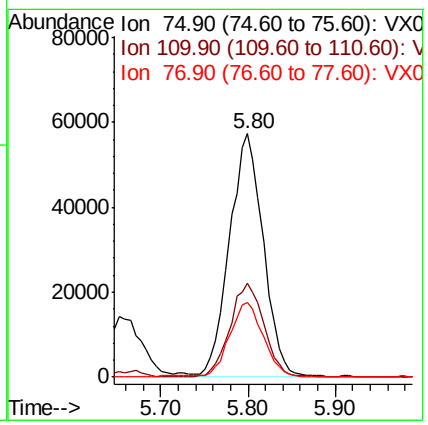


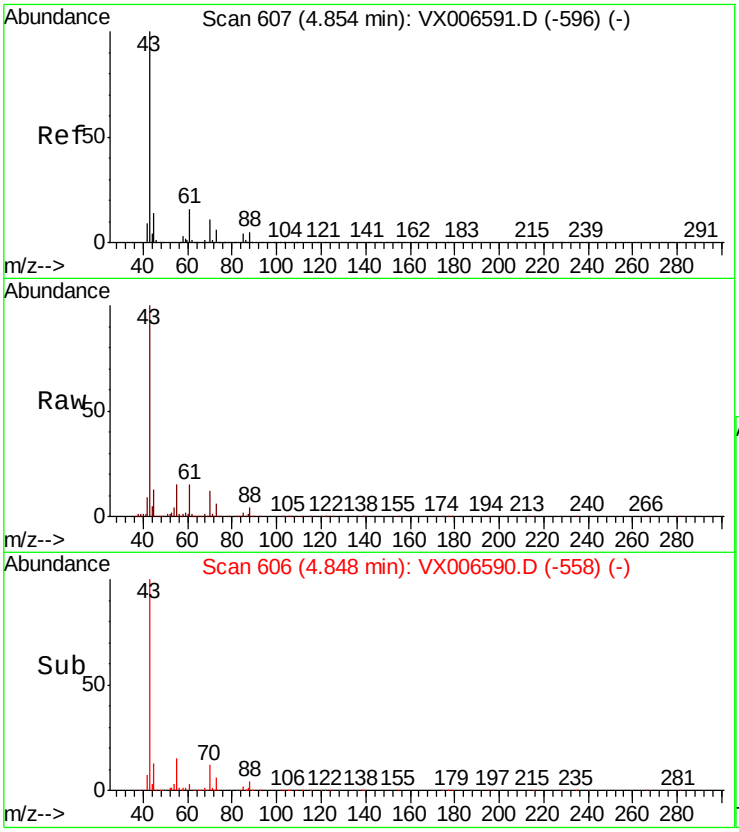


#36
1,1-Dichloropropene
Concen: 19.562 ug/l
RT: 5.80 min Scan# 762
Delta R.T. -0.00 min
Lab File: VX006590.D
Acq: 18 Dec 2018 11:38

Tgt Ion: 75 Resp: 152751

Ion	Ratio	Lower	Upper
75	100		
110	38.6	20.2	60.5
77	30.5	24.8	37.2

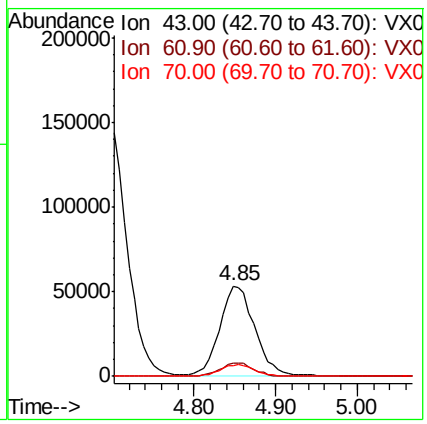




#37
Ethyl Acetate
Concen: 19.330 ug/l
RT: 4.85 min Scan# 606
Delta R.T. -0.01 min
Lab File: VX006590.D
Acq: 18 Dec 2018 11:38

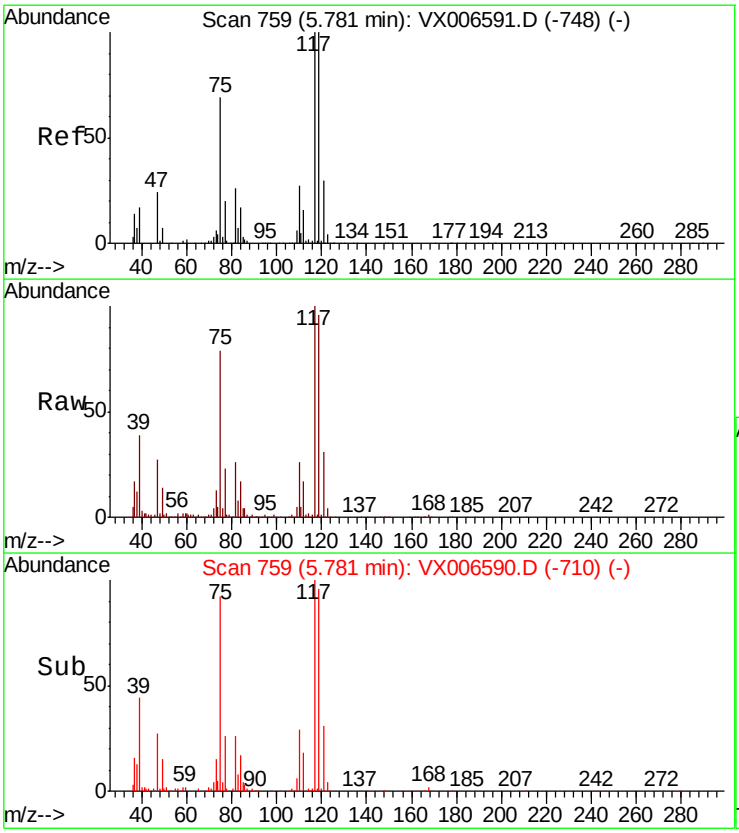
Tgt Ion: 43 Resp: 157102

Ion	Ratio	Lower	Upper
43	100		
61	14.3	11.9	17.9
70	12.7	9.7	14.5



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC020

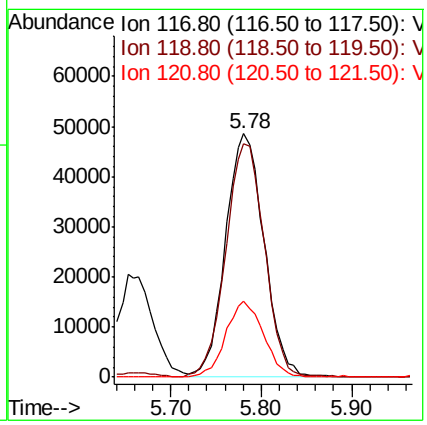
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:21:58 AM



#38
Carbon Tetrachloride
Concen: 18.738 ug/l
RT: 5.78 min Scan# 759
Delta R.T. -0.00 min
Lab File: VX006590.D
Acq: 18 Dec 2018 11:38

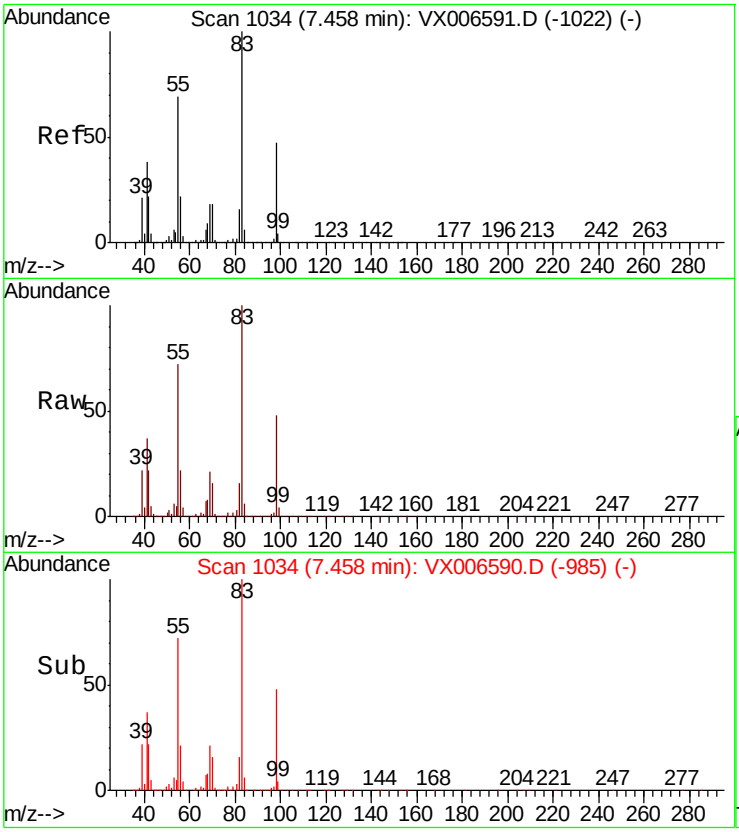
Tgt Ion:117 Resp: 142197

Ion	Ratio	Lower	Upper
117	100		
119	95.8	79.4	119.2
121	31.1	24.0	36.0



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC020

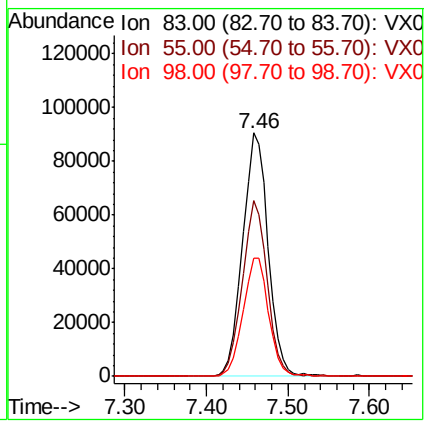
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:21:58 AM

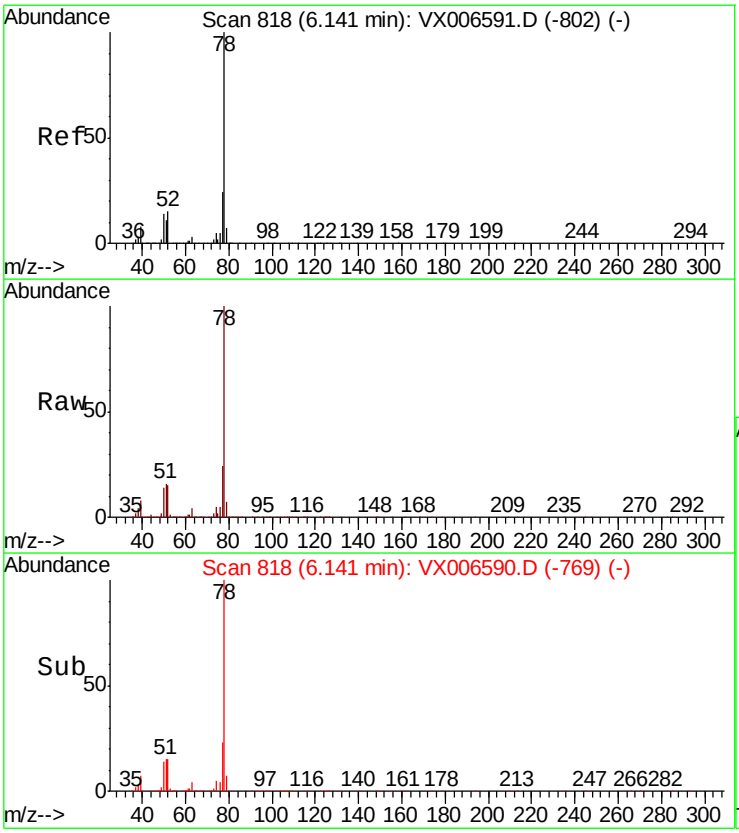


#39
Methylcyclohexane
Concen: 19.153 ug/l
RT: 7.46 min Scan# 1034
Delta R.T. -0.00 min
Lab File: VX006590.D
Acq: 18 Dec 2018 11:38

Tgt Ion: 83 Resp: 196896

Ion	Ratio	Lower	Upper
83	100		
55	71.8	54.9	82.3
98	48.4	37.9	56.9

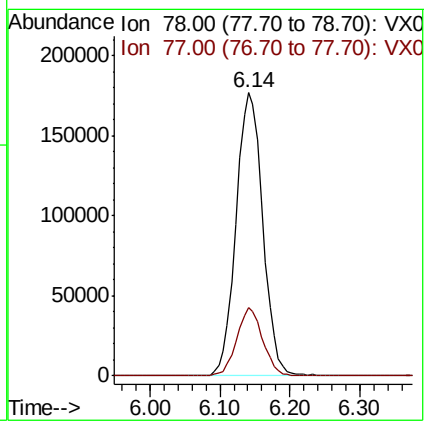




#40
Benzene
Concen: 19.755 ug/l
RT: 6.14 min Scan# 818
Delta R.T. -0.00 min
Lab File: VX006590.D
Acq: 18 Dec 2018 11:38

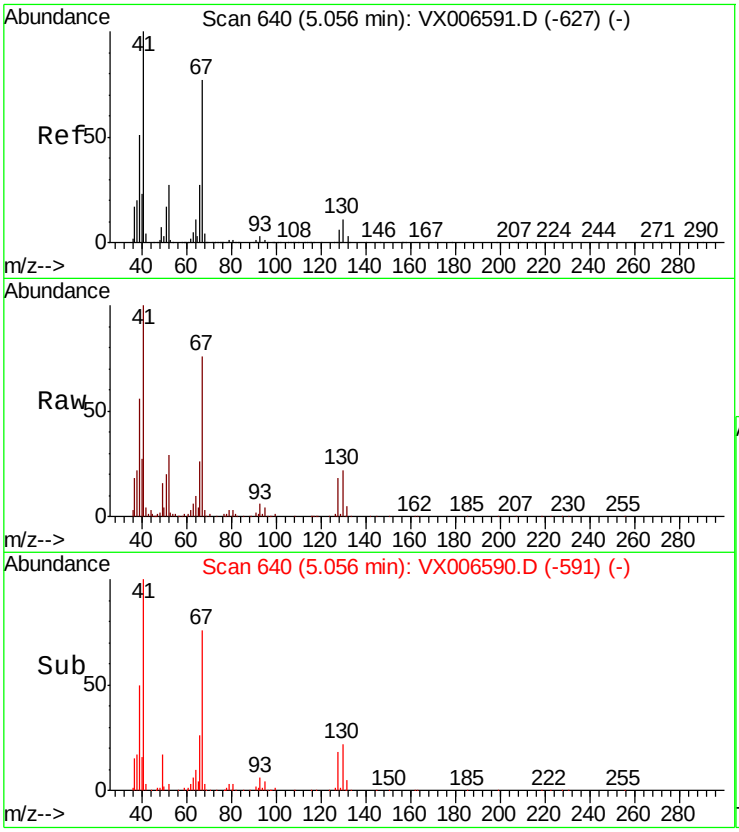
Tgt Ion: 78 Resp: 468898

Ion	Ratio	Lower	Upper
78	100		
77	24.1	19.2	28.8



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC020

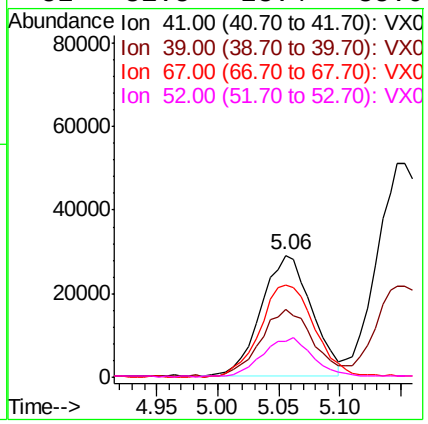
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:21:58 AM

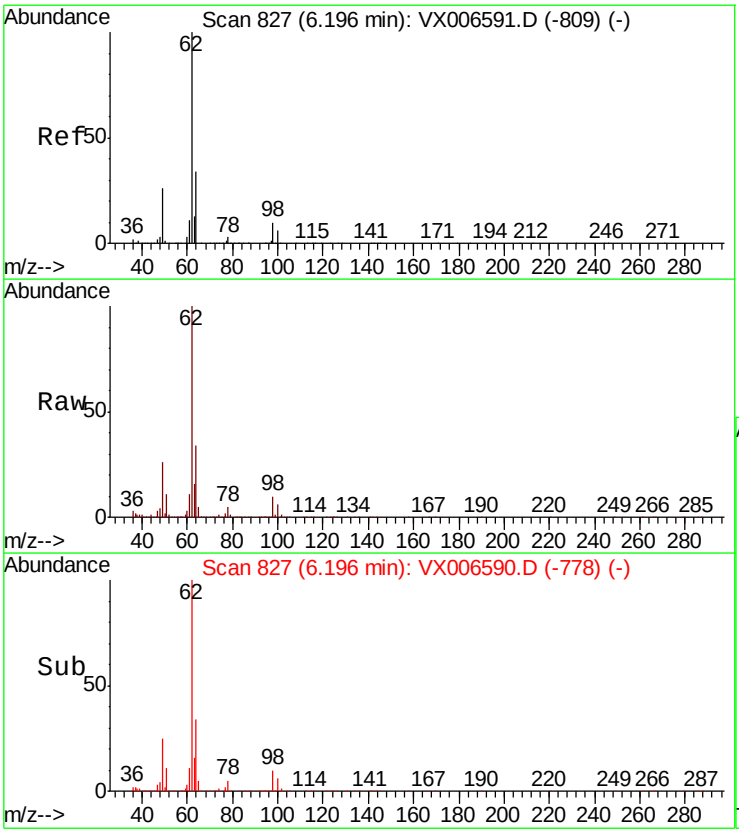


#41
Methacrylonitrile
Concen: 18.334 ug/l
RT: 5.06 min Scan# 640
Delta R.T. -0.00 min
Lab File: VX006590.D
Acq: 18 Dec 2018 11:38

Tgt Ion: 41 Resp: 83734

Ion	Ratio	Lower	Upper
41	100		
39	56.5	42.8	64.2
67	82.2	62.1	93.1
52	31.5	23.4	35.0

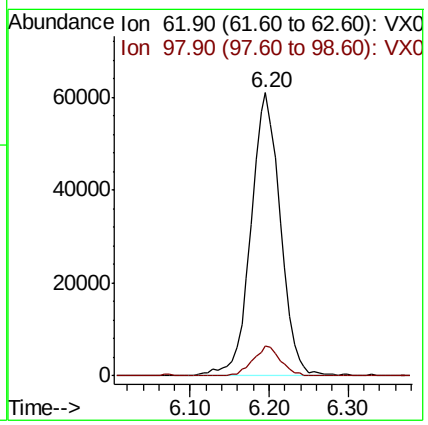




#42
1,2-Dichloroethane
Concen: 19.393 ug/l
RT: 6.20 min Scan# 827
Delta R.T. -0.00 min
Lab File: VX006590.D
Acq: 18 Dec 2018 11:38

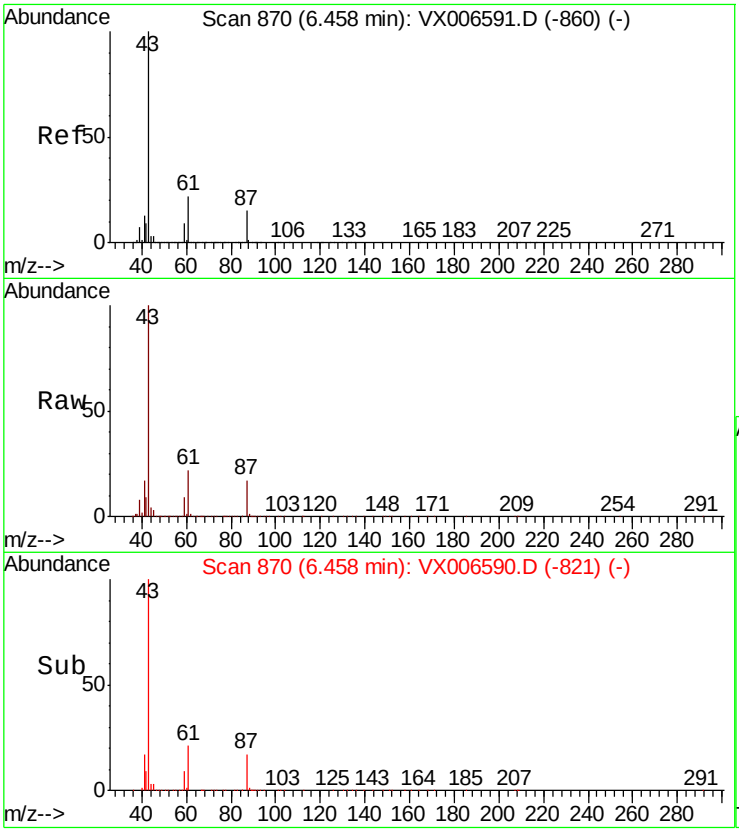
Tgt Ion: 62 Resp: 156847

Ion	Ratio	Lower	Upper
62	100		
98	10.1	0.0	20.2



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC020

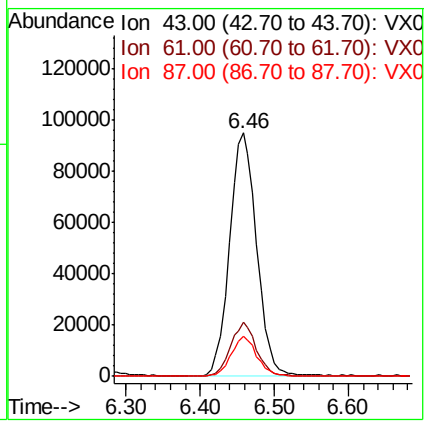
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:21:58 AM

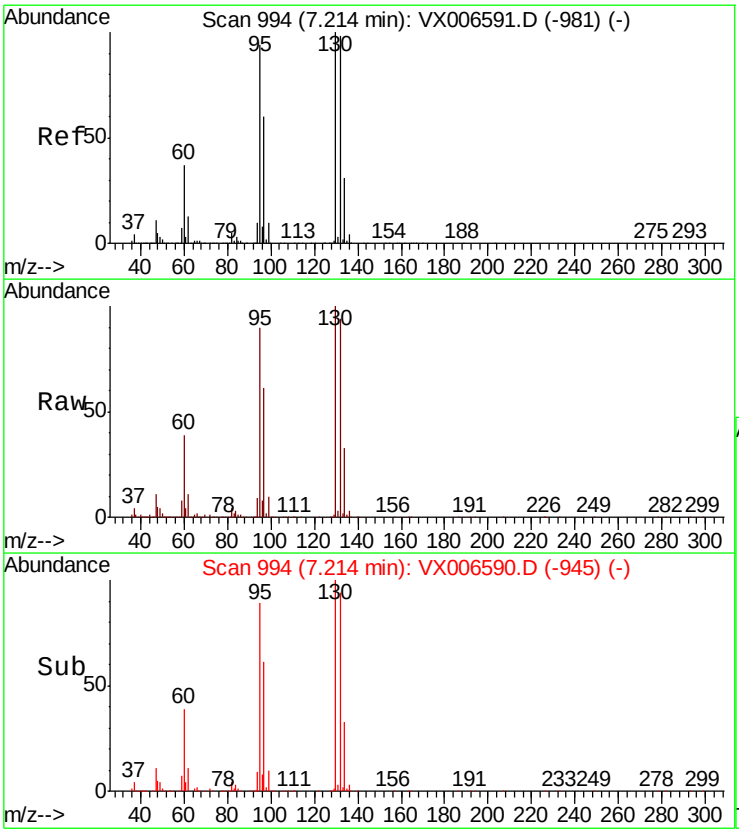


#43
Isopropyl Acetate
Concen: 19.508 ug/l
RT: 6.46 min Scan# 870
Delta R.T. -0.00 min
Lab File: VX006590.D
Acq: 18 Dec 2018 11:38

Tgt Ion: 43 Resp: 241231

Ion	Ratio	Lower	Upper
43	100		
61	20.8	16.8	25.2
87	15.6	12.4	18.6

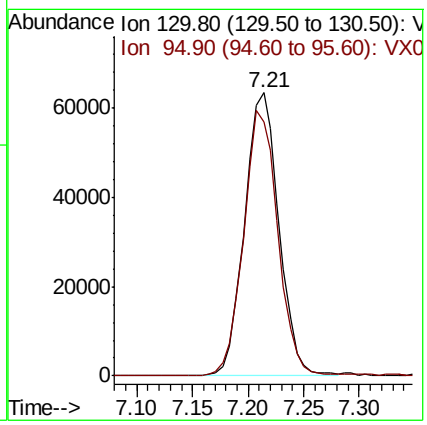




#44
Trichloroethene
Concen: 18.974 ug/l
RT: 7.21 min Scan# 994
Delta R.T. -0.00 min
Lab File: VX006590.D
Acq: 18 Dec 2018 11:38

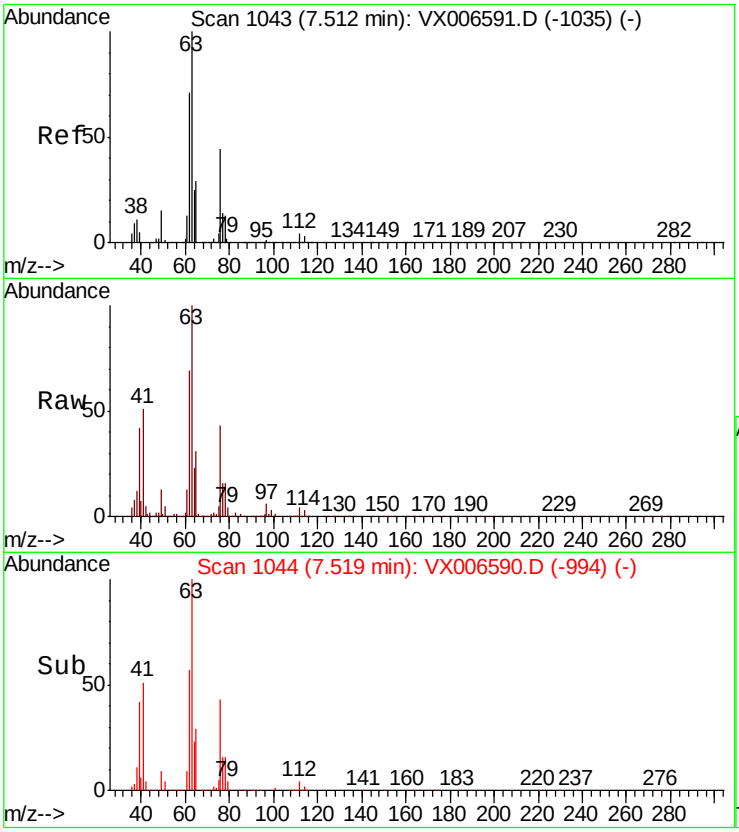
Tgt Ion:130 Resp: 136305

Ion	Ratio	Lower	Upper
130	100		
95	89.8	0.0	187.0



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC020

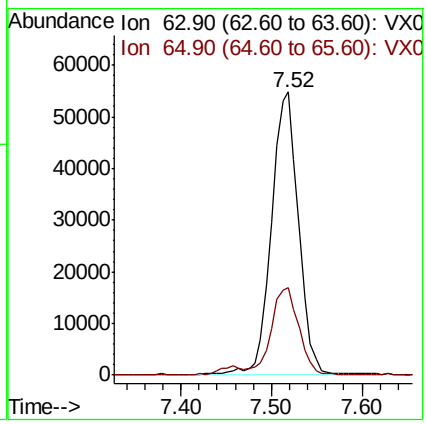
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:21:58 AM

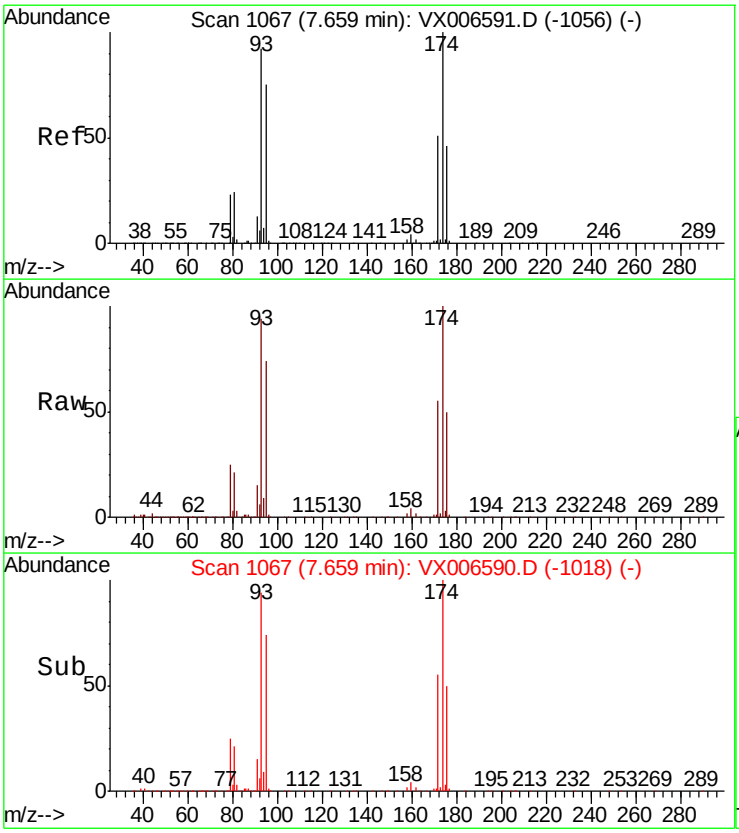


#45
1,2-Dichloropropane
Concen: 19.638 ug/l
RT: 7.52 min Scan# 1044
Delta R.T. 0.01 min
Lab File: VX006590.D
Acq: 18 Dec 2018 11:38

Tgt Ion: 63 Resp: 113427

Ion	Ratio	Lower	Upper
63	100		
65	30.6	25.4	38.0

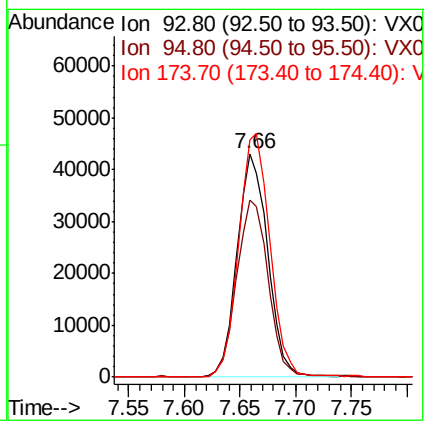


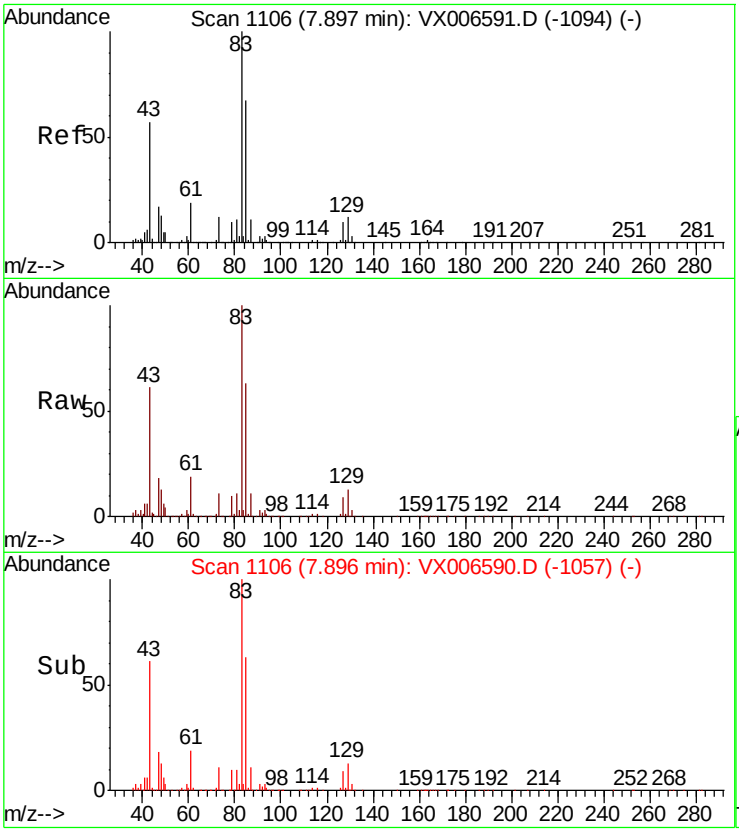


#46
Dibromomethane
Concen: 19.381 ug/l
RT: 7.66 min Scan# 1067
Delta R.T. -0.00 min
Lab File: VX006590.D
Acq: 18 Dec 2018 11:38

Tgt Ion: 93 Resp: 82339

Ion	Ratio	Lower	Upper
93	100		
95	81.8	66.2	99.4
174	110.8	91.0	136.4

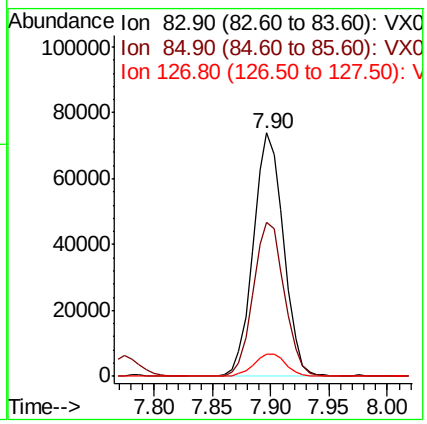




#47
Bromodichloromethane
Concen: 18.906 ug/l
RT: 7.90 min Scan# 1106
Delta R.T. -0.00 min
Lab File: VX006590.D
Acq: 18 Dec 2018 11:38

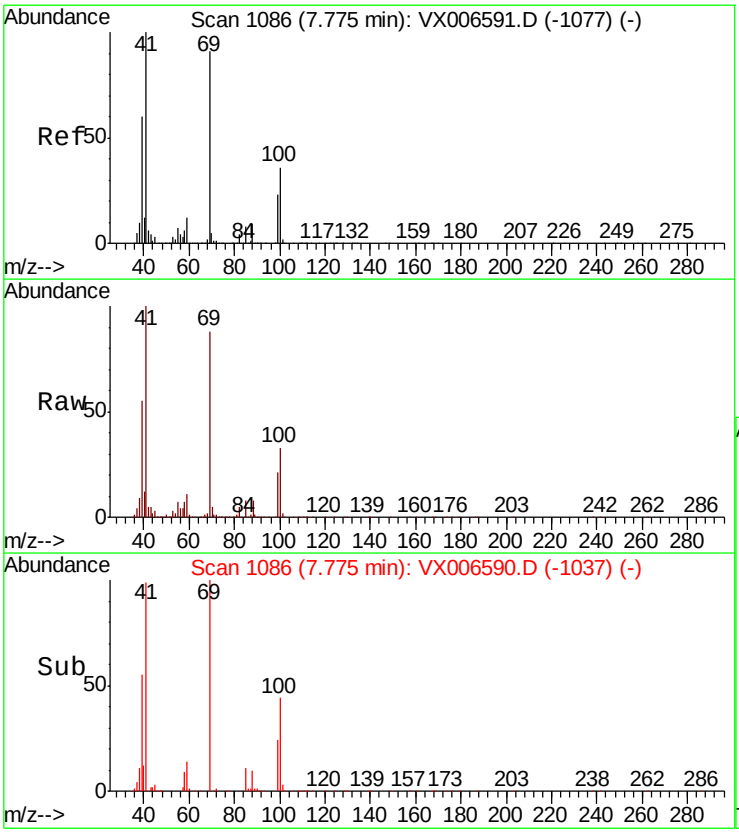
Tgt Ion: 83 Resp: 133355

Ion	Ratio	Lower	Upper
83	100		
85	63.0	53.2	79.8
127	9.3	7.8	11.6



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC020

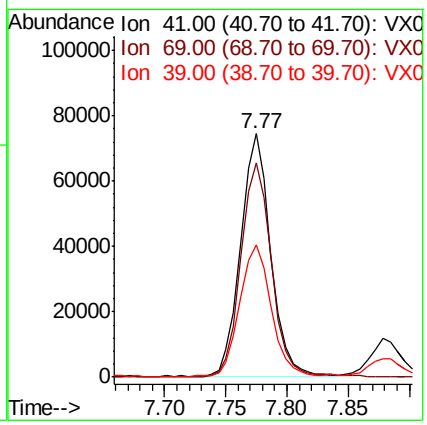
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:21:58 AM

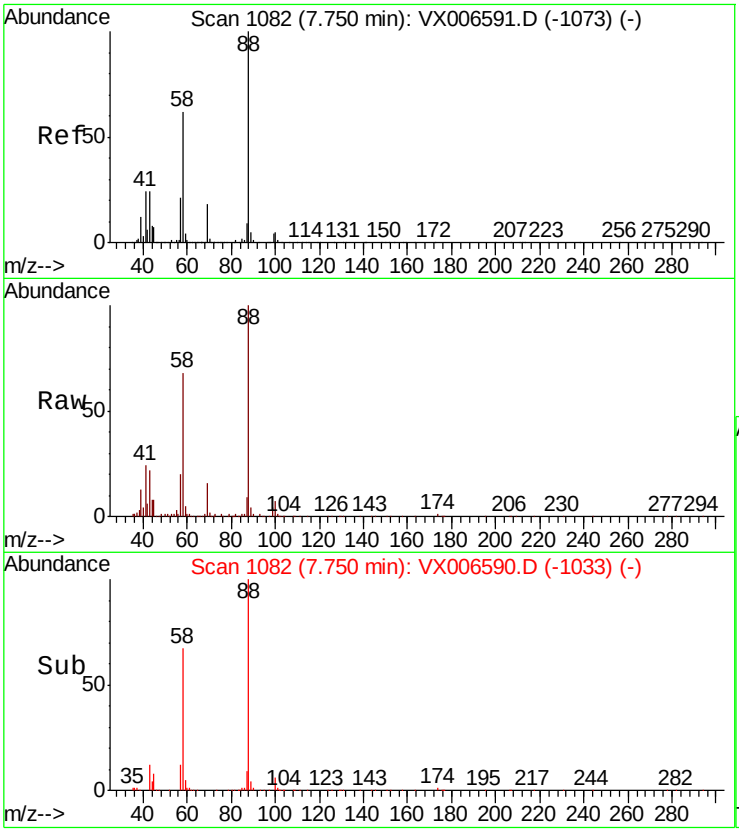


#48
Methyl methacrylate
Concen: 20.127 ug/l
RT: 7.77 min Scan# 1086
Delta R.T. -0.00 min
Lab File: VX006590.D
Acq: 18 Dec 2018 11:38

Tgt Ion: 41 Resp: 126567

Ion	Ratio	Lower	Upper
41	100		
69	90.8	72.4	108.6
39	57.1	45.8	68.8

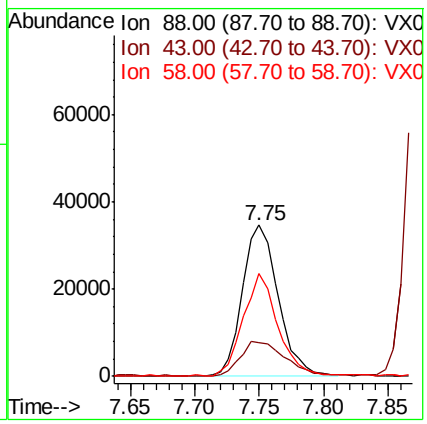




#49
1,4-Dioxane
Concen: 375.744 ug/l
RT: 7.75 min Scan# 1082
Delta R.T. -0.00 min
Lab File: VX006590.D
Acq: 18 Dec 2018 11:38

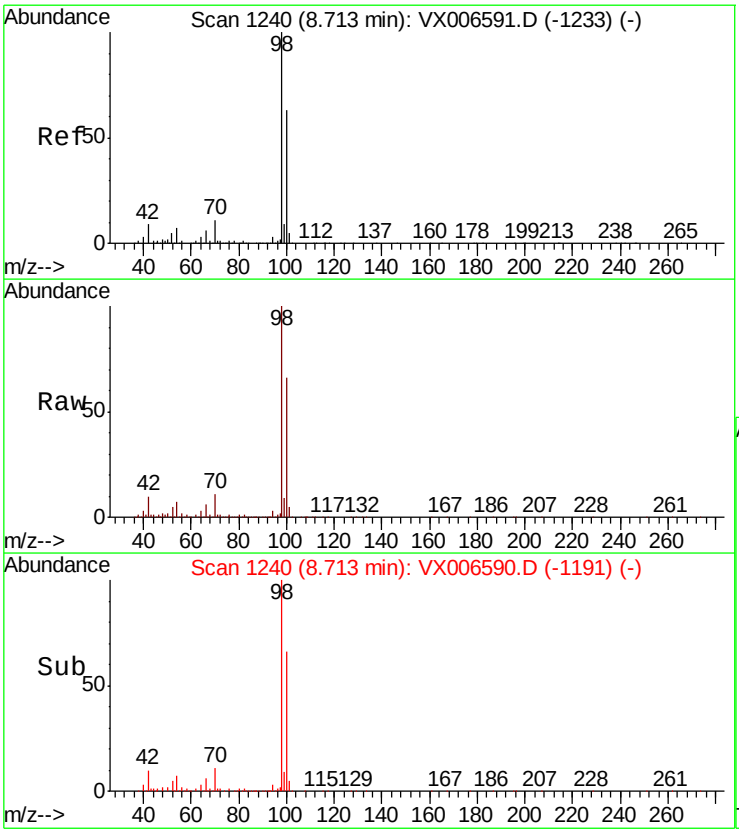
Tgt Ion: 88 Resp: 66854

Ion	Ratio	Lower	Upper
88	100		
43	28.5	22.2	33.4
58	65.4	51.0	76.4



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC020

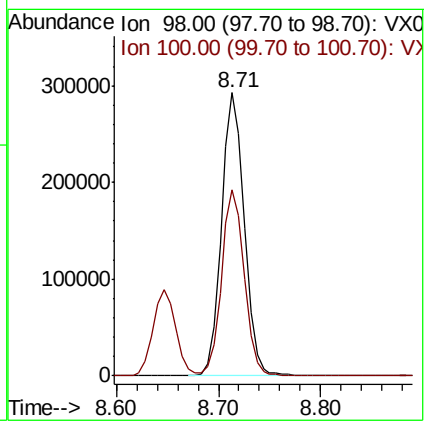
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:21:58 AM



#50
Toluene-d8
Concen: 20.196 ug/l
RT: 8.71 min Scan# 1240
Delta R.T. -0.00 min
Lab File: VX006590.D
Acq: 18 Dec 2018 11:38

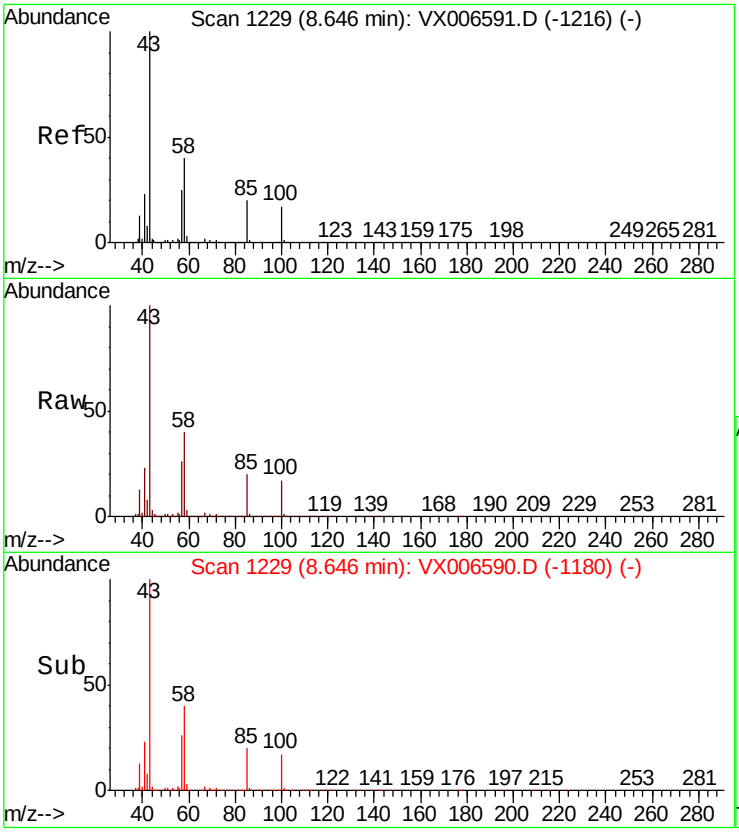
Tgt Ion: 98 Resp: 453942

Ion	Ratio	Lower	Upper
98	100		
100	64.7	52.0	78.0



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC020

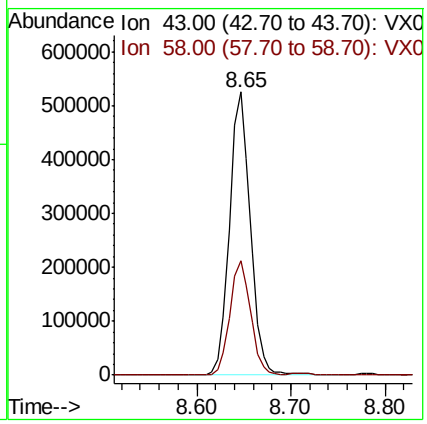
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:21:58 AM

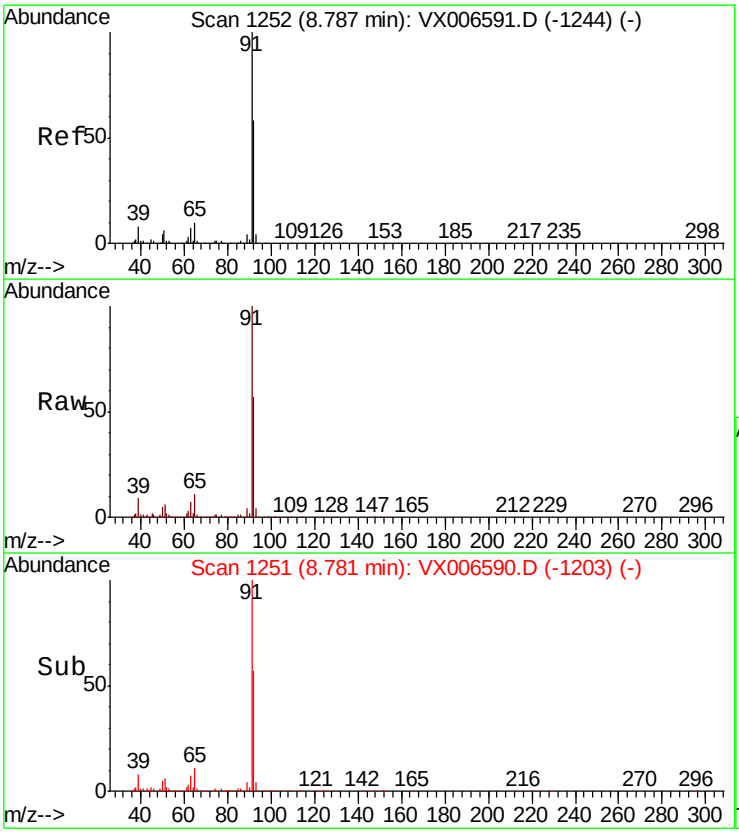


#51
4-Methyl-2-Pentanone
Concen: 102.501 ug/l
RT: 8.65 min Scan# 1229
Delta R.T. -0.00 min
Lab File: VX006590.D
Acq: 18 Dec 2018 11:38

Tgt Ion: 43 Resp: 806479

Ion	Ratio	Lower	Upper
43	100		
58	40.3	31.8	47.6

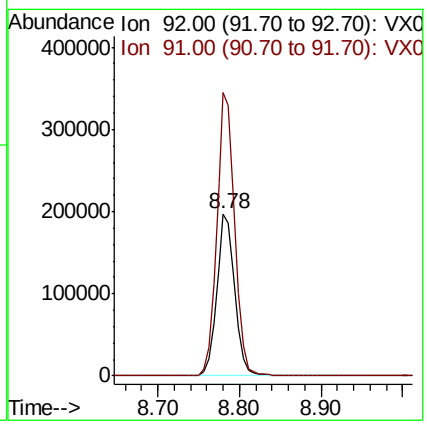


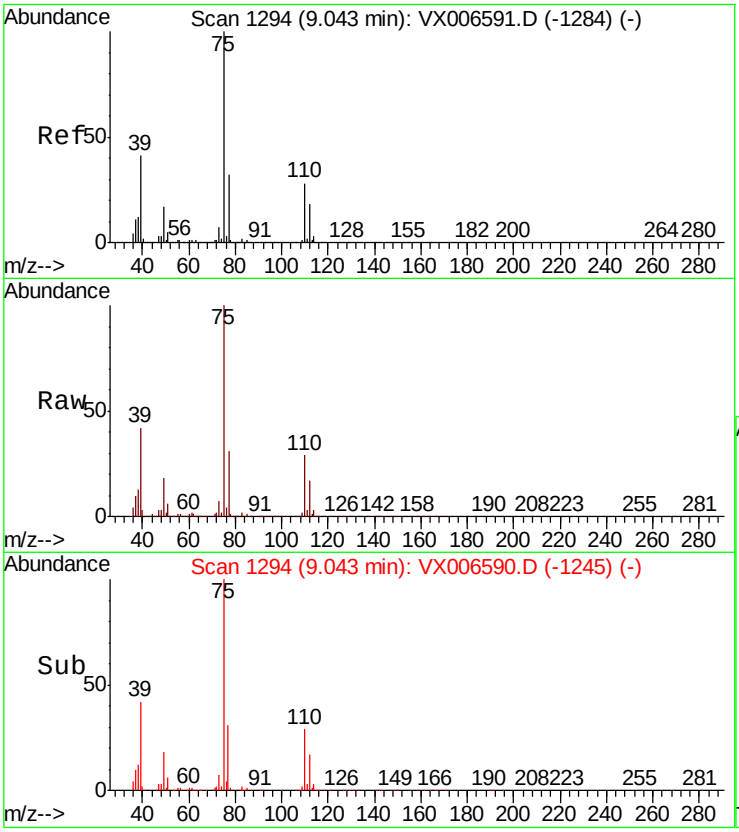


#52
Toluene
Concen: 19.899 ug/l
RT: 8.78 min Scan# 1251
Delta R.T. -0.01 min
Lab File: VX006590.D
Acq: 18 Dec 2018 11:38

Tgt Ion: 92 Resp: 305125

Ion	Ratio	Lower	Upper
92	100		
91	173.0	137.6	206.4

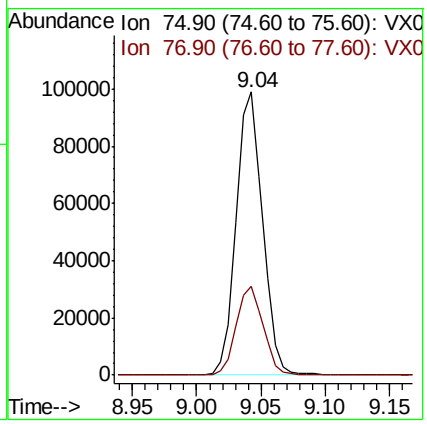


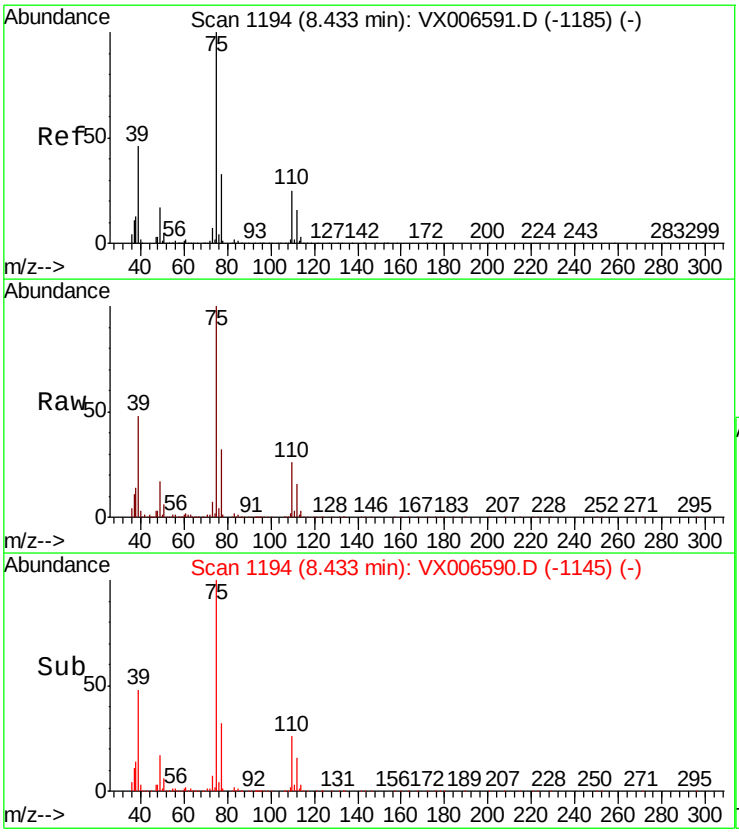


#53
t-1,3-Dichloropropene
Concen: 18.594 ug/l
RT: 9.04 min Scan# 1294
Delta R.T. -0.00 min
Lab File: VX006590.D
Acq: 18 Dec 2018 11:38

Tgt Ion: 75 Resp: 140663

Ion	Ratio	Lower	Upper
75	100		
77	31.2	25.4	38.0

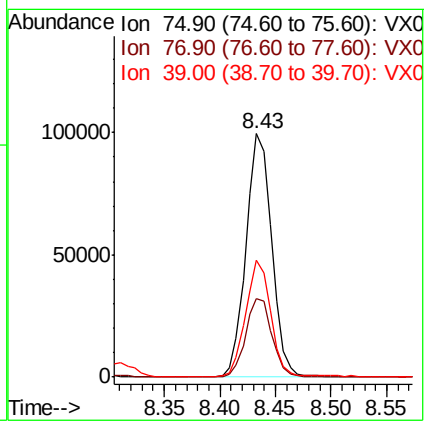




#54
cis-1,3-Dichloropropene
Concen: 19.297 ug/l
RT: 8.43 min Scan# 1194
Delta R.T. -0.00 min
Lab File: VX006590.D
Acq: 18 Dec 2018 11:38

Tgt Ion: 75 Resp: 160173

Ion	Ratio	Lower	Upper
75	100		
77	32.1	26.2	39.2
39	47.8	36.7	55.1

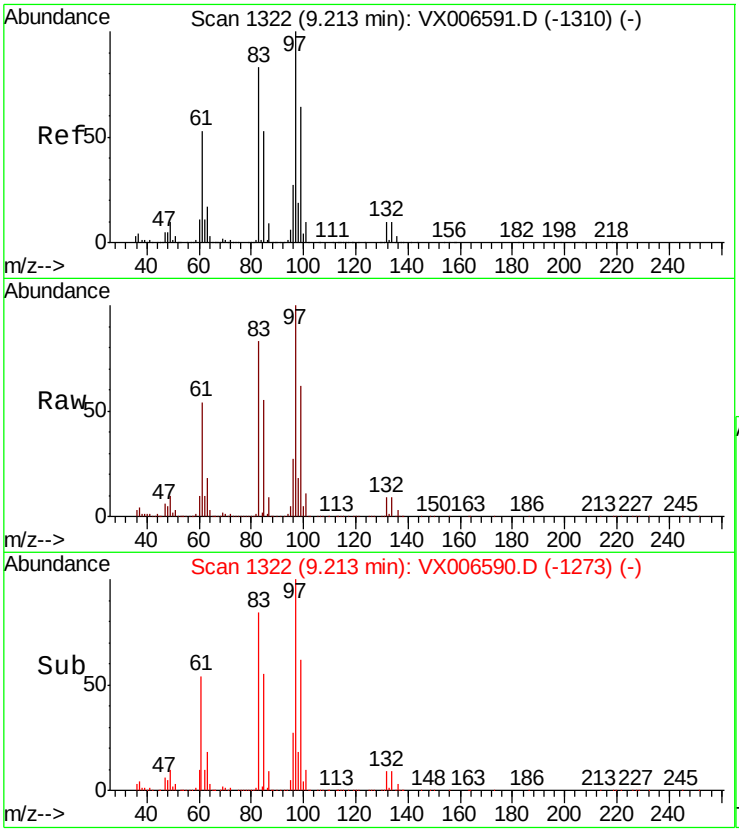


Instrument :
MSVOA_X
ClientSampleId :
VSTDICC020

Manual Integrations APPROVED
MMDadoda
12/19/2018 11:21:58 AM

Instrument :
MSVOA_X
ClientSampleId :
VSTDICC020

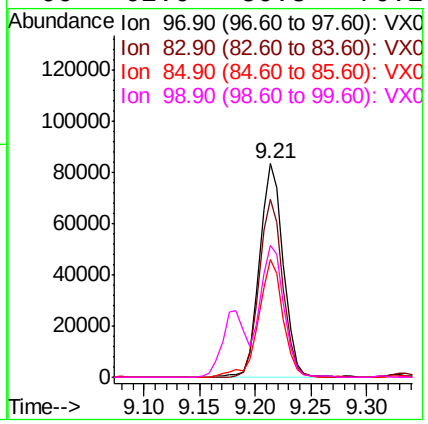
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:21:58 AM

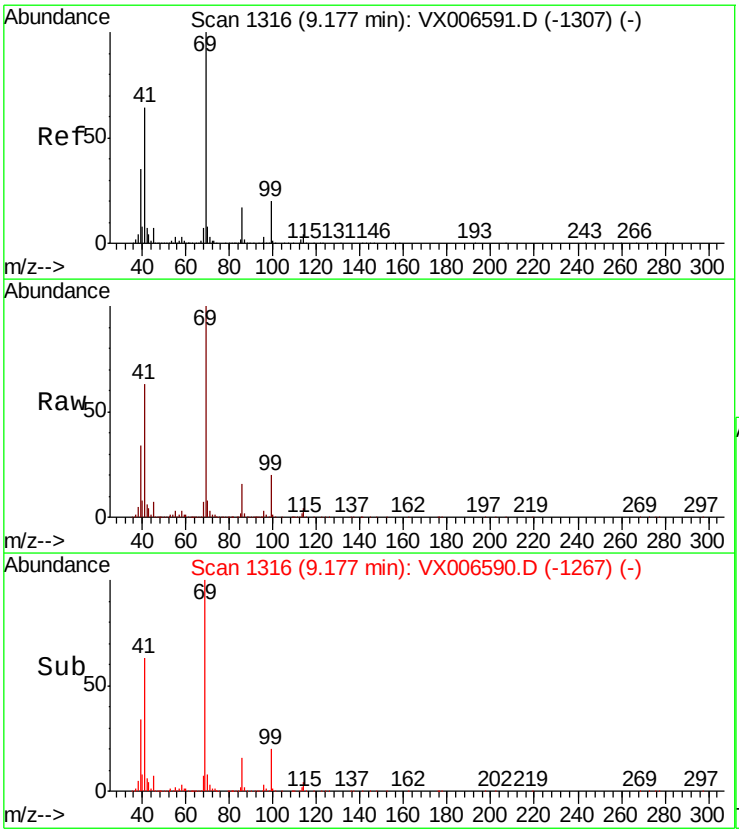


#55
1,1,2-Trichloroethane
Concen: 19.833 ug/l
RT: 9.21 min Scan# 1322
Delta R.T. -0.00 min
Lab File: VX006590.D
Acq: 18 Dec 2018 11:38

Tgt Ion: 97 Resp: 124478

Ion	Ratio	Lower	Upper
97	100		
83	83.6	66.6	99.8
85	55.2	42.7	64.1
99	62.0	50.8	76.2

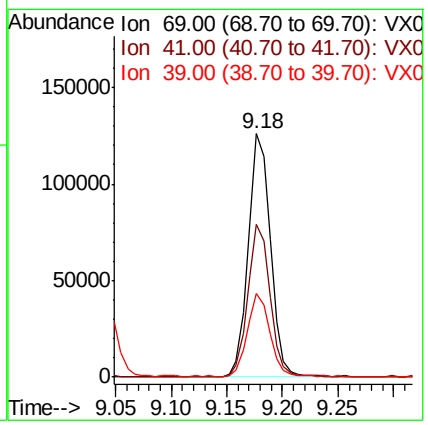


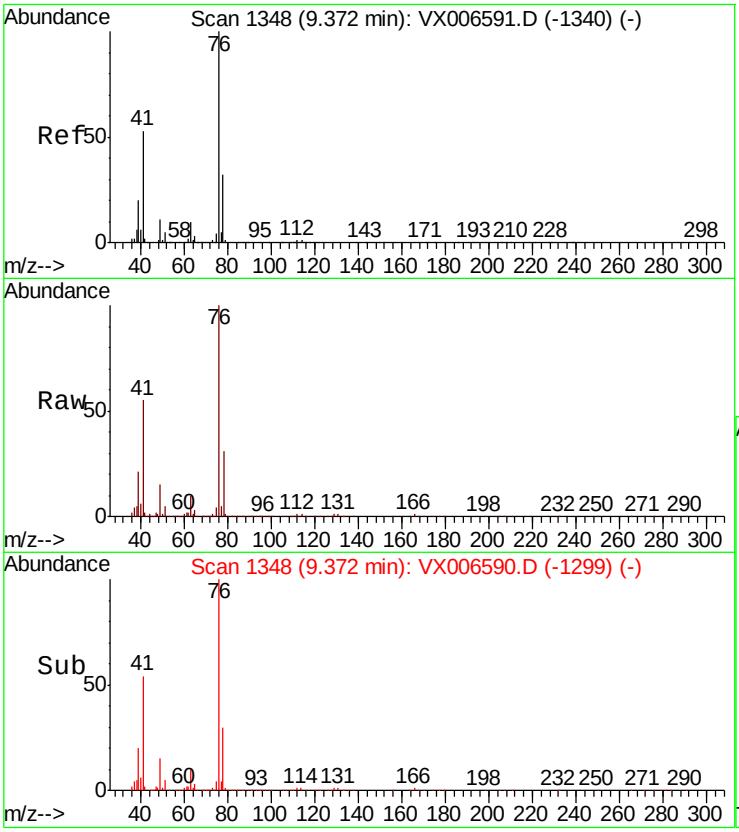


#56
Ethyl methacrylate
Concen: 19.816 ug/l
RT: 9.18 min Scan# 1316
Delta R.T. -0.00 min
Lab File: VX006590.D
Acq: 18 Dec 2018 11:38

Tgt Ion: 69 Resp: 175788

Ion	Ratio	Lower	Upper
69	100		
41	61.8	48.7	73.1
39	34.7	27.0	40.6

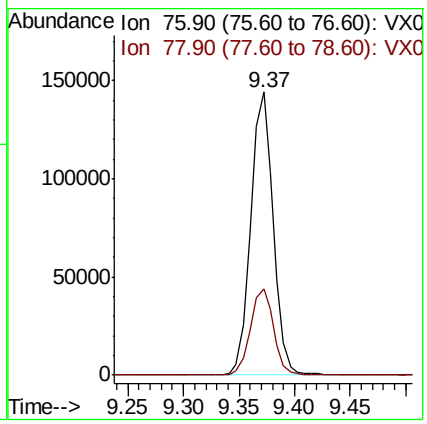




#57
1,3-Dichloropropane
Concen: 19.990 ug/l
RT: 9.37 min Scan# 1348
Delta R.T. -0.00 min
Lab File: VX006590.D
Acq: 18 Dec 2018 11:38

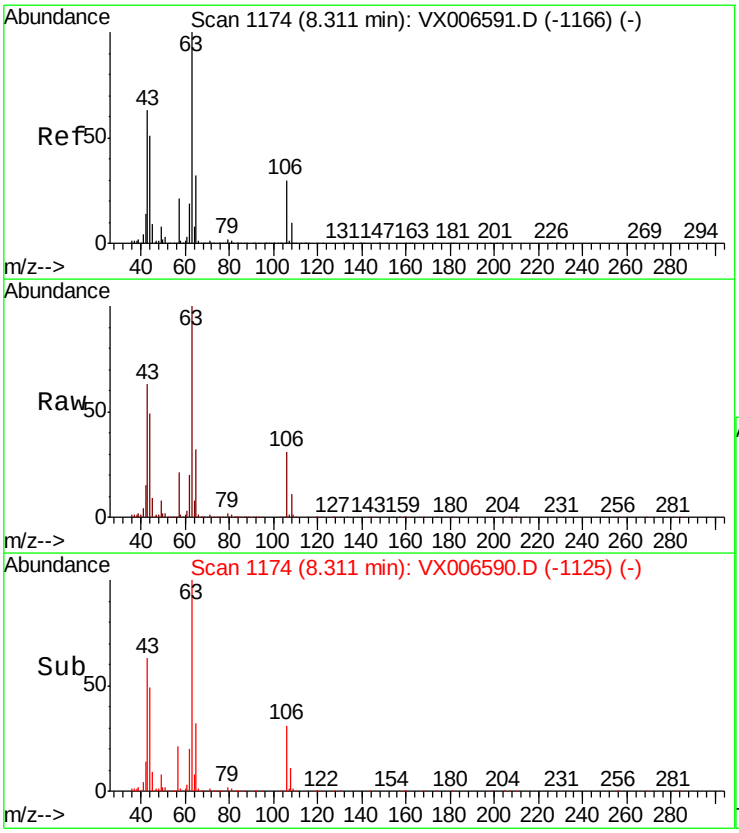
Tgt Ion: 76 Resp: 201863

Ion	Ratio	Lower	Upper
76	100		
78	31.6	26.0	39.0



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC020

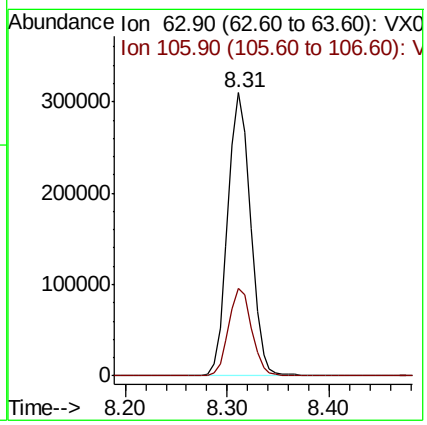
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:21:58 AM

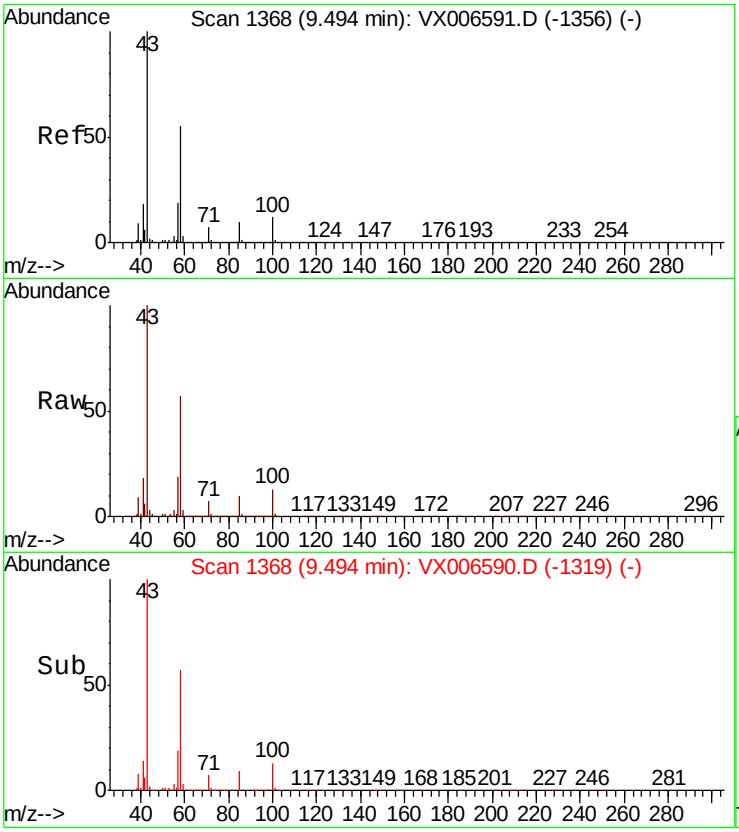


#58
2-Chloroethyl Vinyl ether
Concen: 101.454 ug/l
RT: 8.31 min Scan# 1174
Delta R.T. -0.00 min
Lab File: VX006590.D
Acq: 18 Dec 2018 11:38

Tgt Ion: 63 Resp: 478408

Ion	Ratio	Lower	Upper
63	100		
106	31.3	24.6	36.8

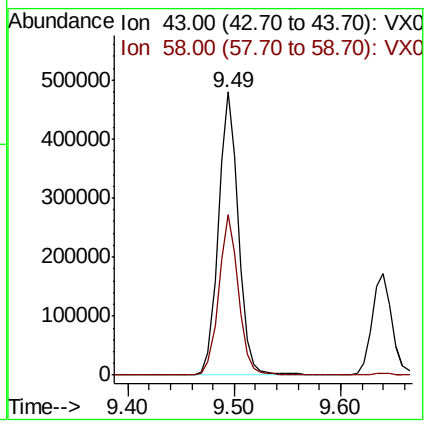




#59
2-Hexanone
Concen: 103.628 ug/l
RT: 9.49 min Scan# 1368
Delta R.T. -0.00 min
Lab File: VX006590.D
Acq: 18 Dec 2018 11:38

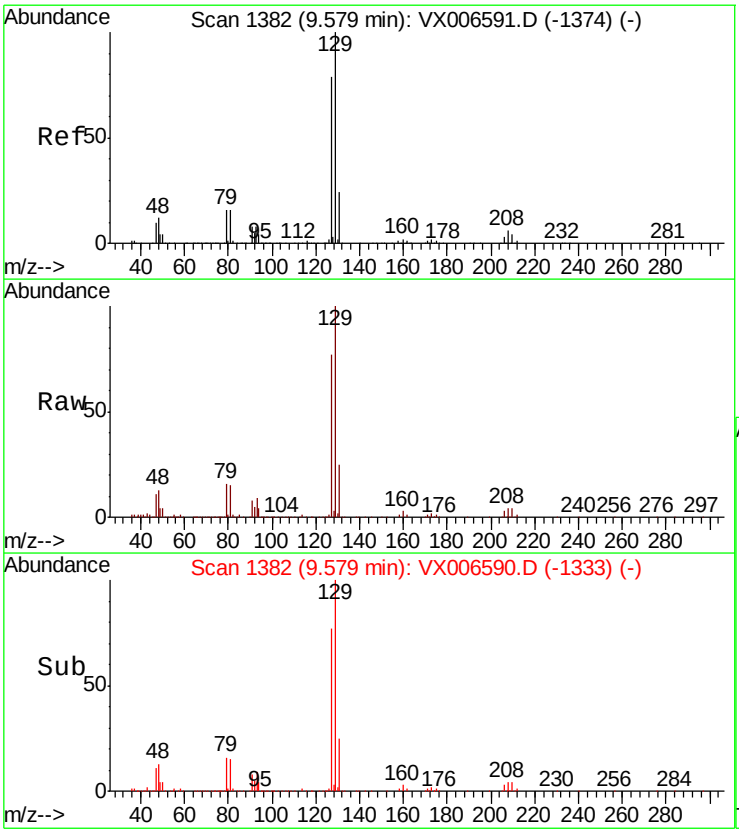
Tgt Ion: 43 Resp: 623841

Ion	Ratio	Lower	Upper
43	100		
58	55.9	27.7	83.1



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC020

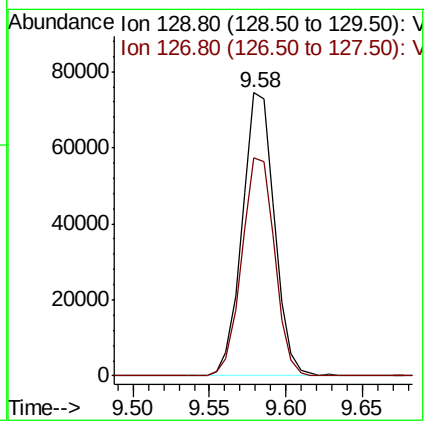
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:21:58 AM

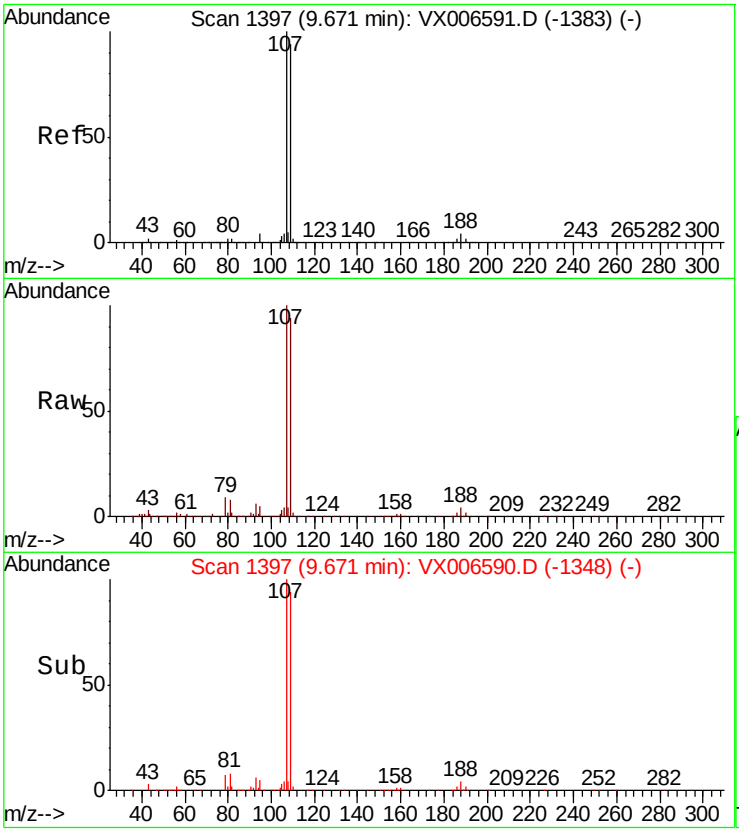


#60
Dibromochloromethane
Concen: 18.880 ug/l
RT: 9.58 min Scan# 1382
Delta R.T. -0.00 min
Lab File: VX006590.D
Acq: 18 Dec 2018 11:38

Tgt Ion:129 Resp: 109147

Ion	Ratio	Lower	Upper
129	100		
127	78.1	39.3	117.8

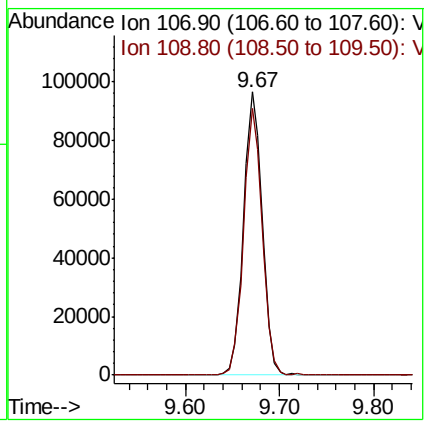




#61
1,2-Dibromoethane
Concen: 20.029 ug/l
RT: 9.67 min Scan# 1397
Delta R.T. -0.00 min
Lab File: VX006590.D
Acq: 18 Dec 2018 11:38

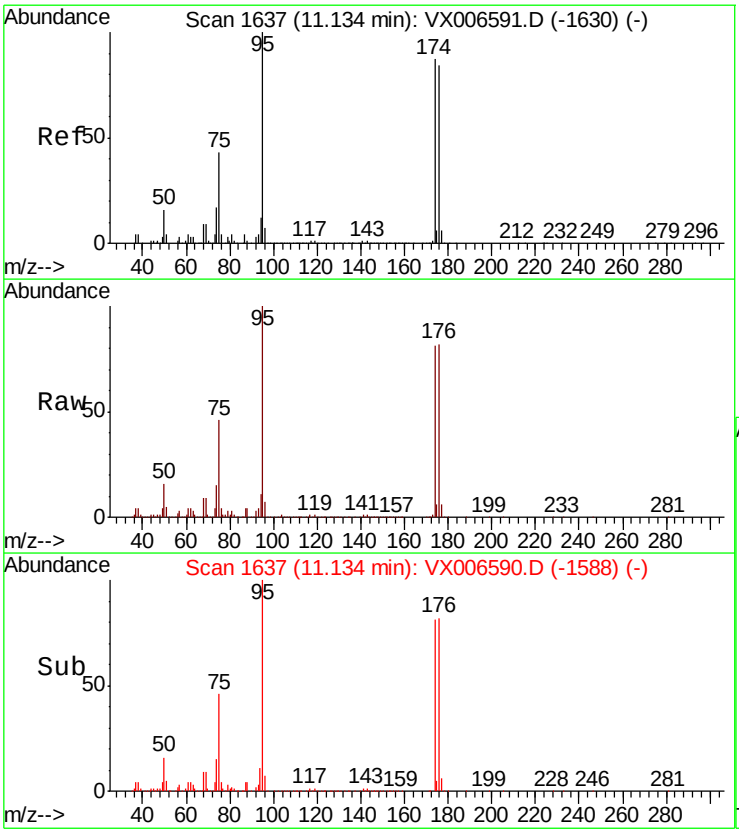
Tgt Ion:107 Resp: 133637

Ion	Ratio	Lower	Upper
107	100		
109	94.2	75.8	113.6



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC020

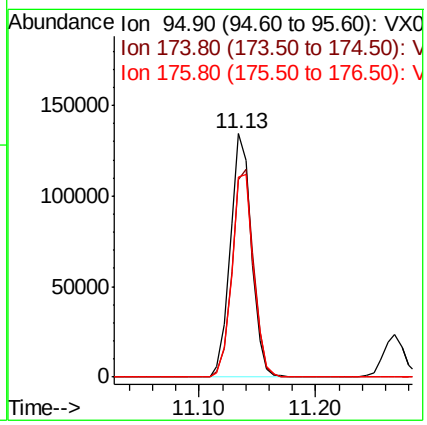
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:21:58 AM

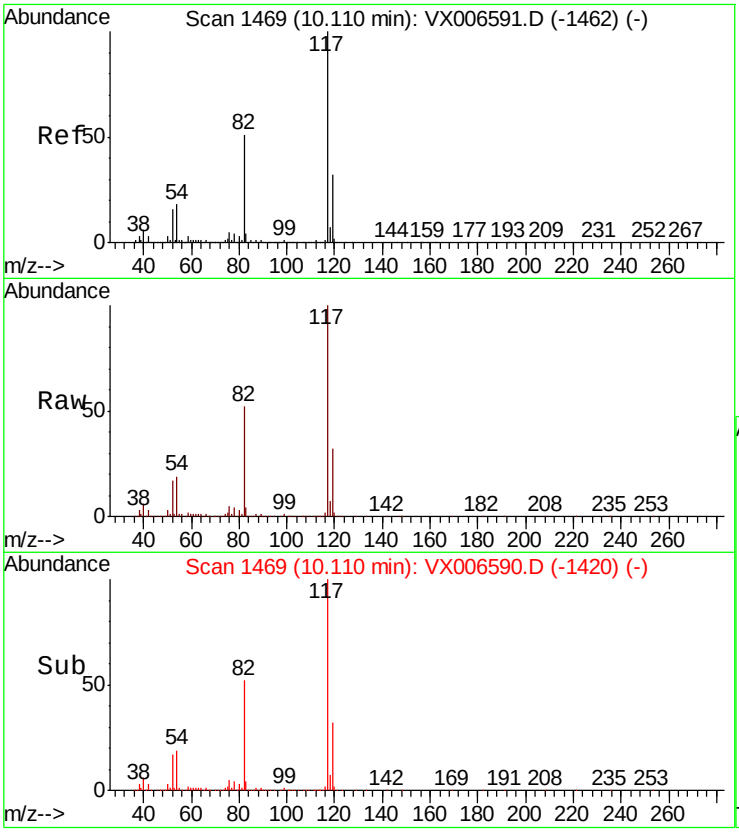


#62
4-Bromofluorobenzene
Concen: 20.701 ug/l
RT: 11.13 min Scan# 1637
Delta R.T. -0.00 min
Lab File: VX006590.D
Acq: 18 Dec 2018 11:38

Tgt Ion: 95 Resp: 170408

Ion	Ratio	Lower	Upper
95	100		
174	86.7	0.0	182.2
176	85.4	0.0	178.8

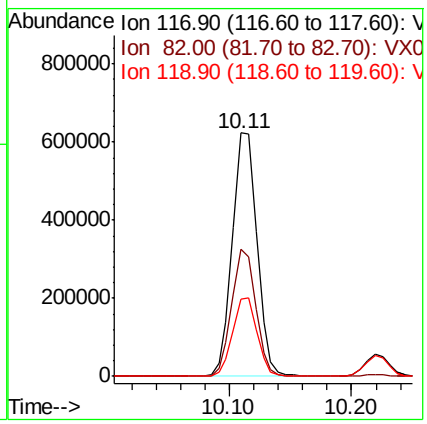




#63
Chlorobenzene-d5
Concen: 50.000 ug/l
RT: 10.11 min Scan# 1469
Delta R.T. -0.00 min
Lab File: VX006590.D
Acq: 18 Dec 2018 11:38

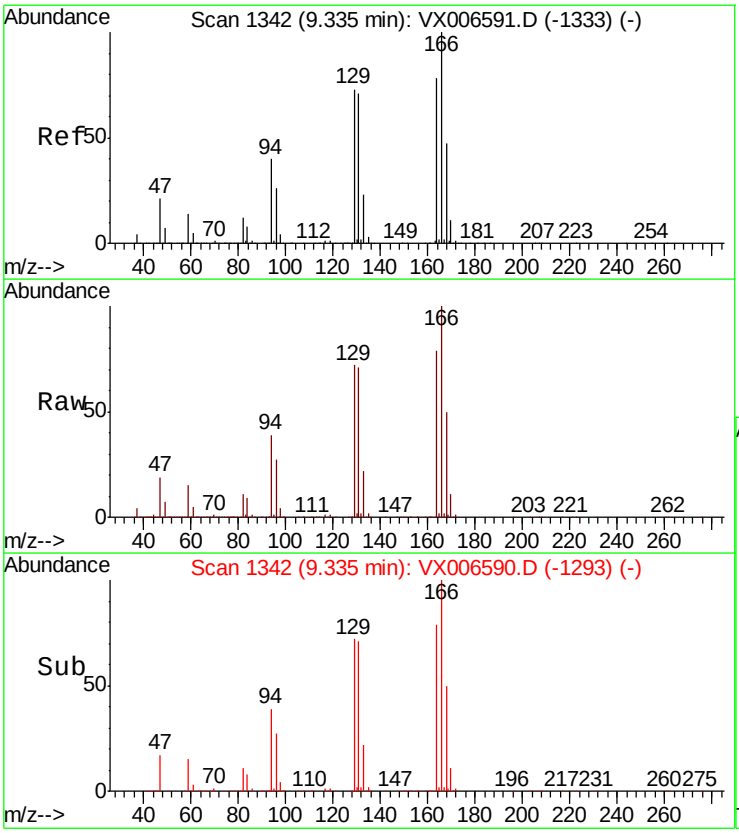
Tgt Ion:117 Resp: 867380

Ion	Ratio	Lower	Upper
117	100		
82	52.0	41.0	61.6
119	31.6	25.4	38.0



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC020

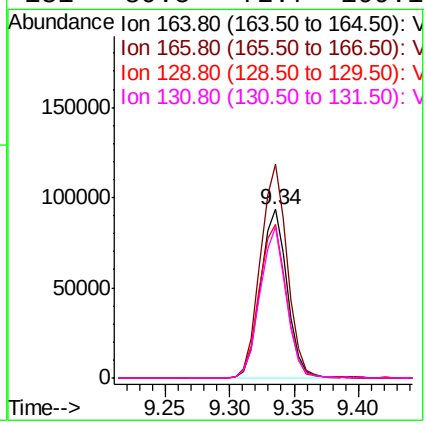
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:21:58 AM

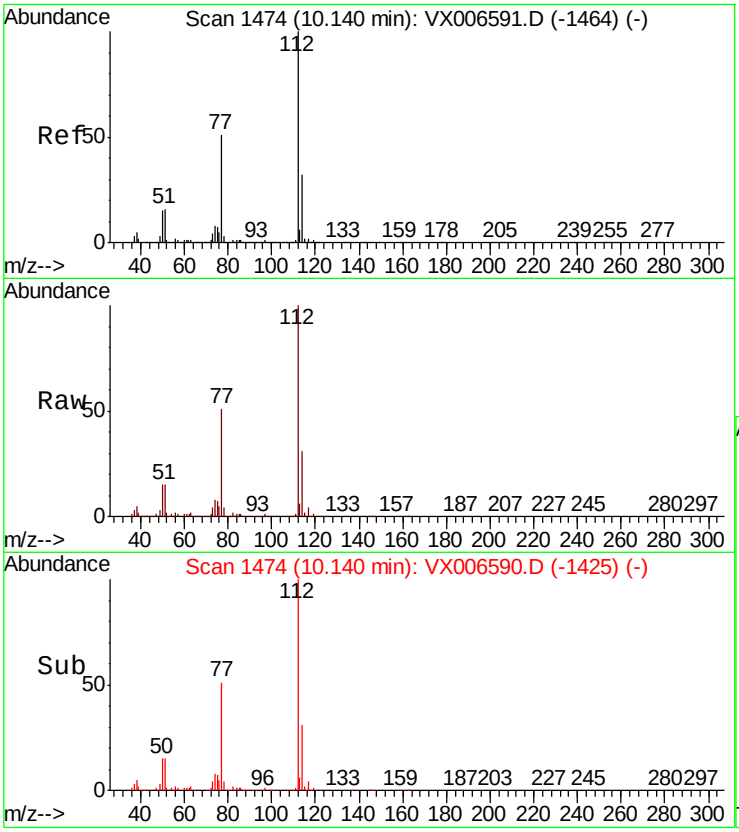


#64
Tetrachloroethene
Concen: 19.409 ug/l
RT: 9.34 min Scan# 1342
Delta R.T. -0.00 min
Lab File: VX006590.D
Acq: 18 Dec 2018 11:38

Tgt Ion:164 Resp: 133309

Ion	Ratio	Lower	Upper
164	100		
166	126.8	102.5	153.7
129	91.2	75.1	112.7
131	89.5	72.7	109.1

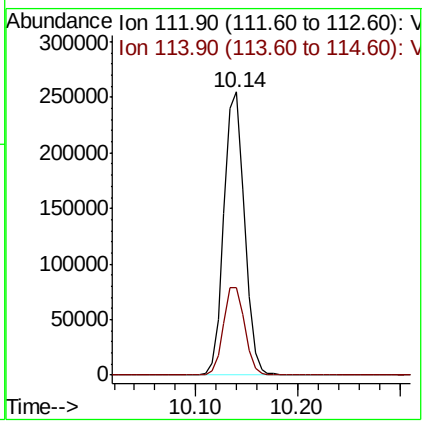




#65
Chlorobenzene
Concen: 19.452 ug/l
RT: 10.14 min Scan# 1474
Delta R.T. -0.00 min
Lab File: VX006590.D
Acq: 18 Dec 2018 11:38

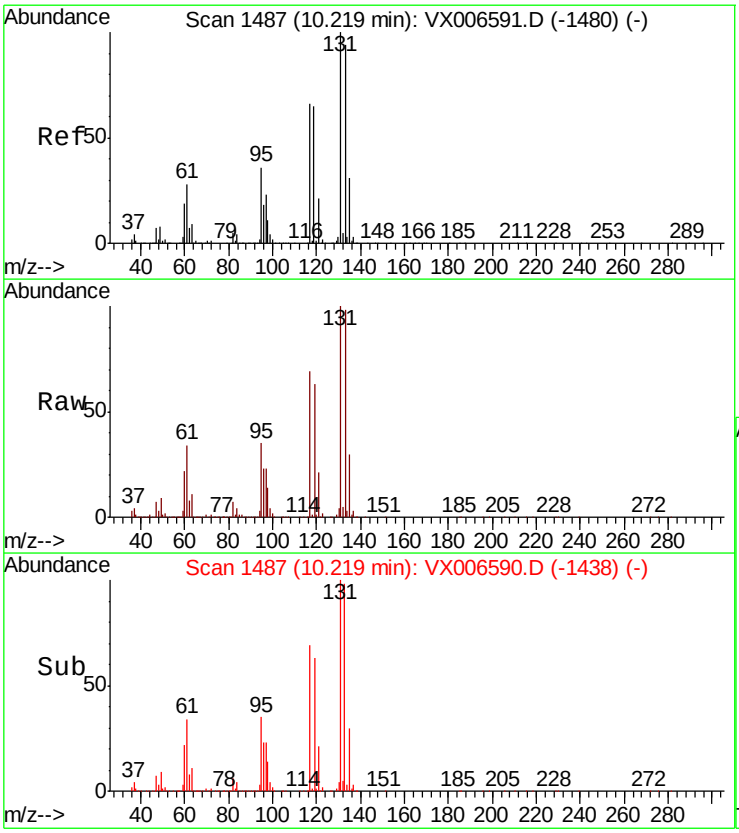
Tgt Ion:112 Resp: 356946

Ion	Ratio	Lower	Upper
112	100		
114	31.0	25.7	38.5



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC020

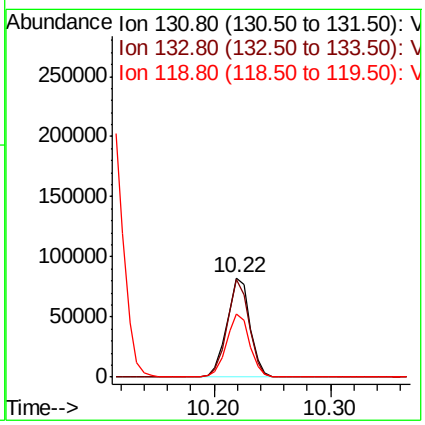
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:21:58 AM

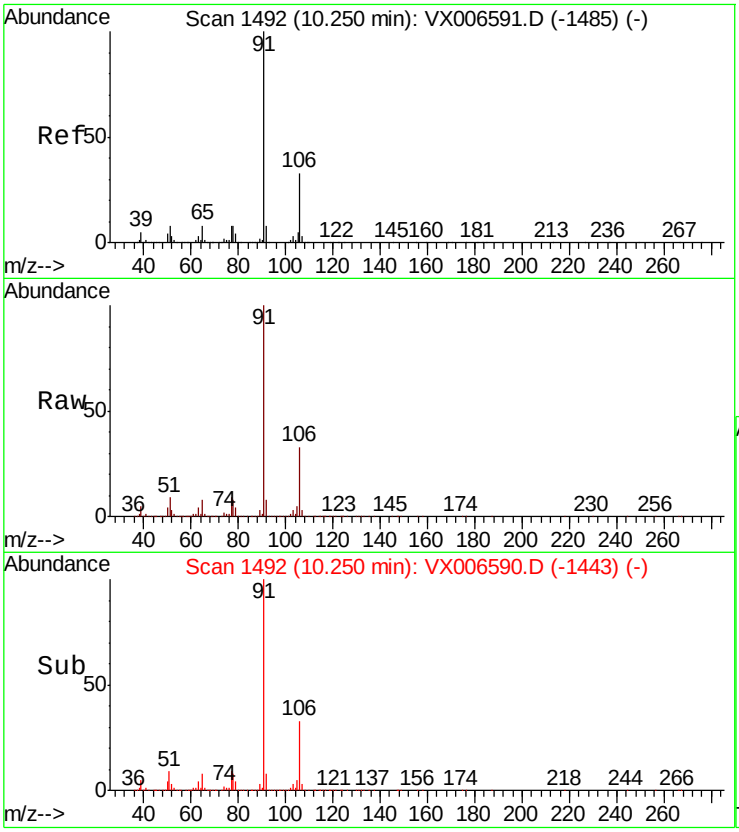


#66
1,1,1,2-Tetrachloroethane
Concen: 19.865 ug/l
RT: 10.22 min Scan# 1487
Delta R.T. -0.00 min
Lab File: VX006590.D
Acq: 18 Dec 2018 11:38

Tgt Ion:131 Resp: 113733

Ion	Ratio	Lower	Upper
131	100		
133	94.2	48.0	144.2
119	63.6	32.6	97.8

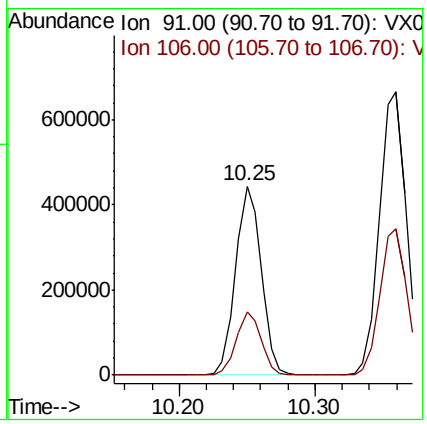




#67
Ethyl Benzene
Concen: 19.526 ug/l
RT: 10.25 min Scan# 1492
Delta R.T. -0.00 min
Lab File: VX006590.D
Acq: 18 Dec 2018 11:38

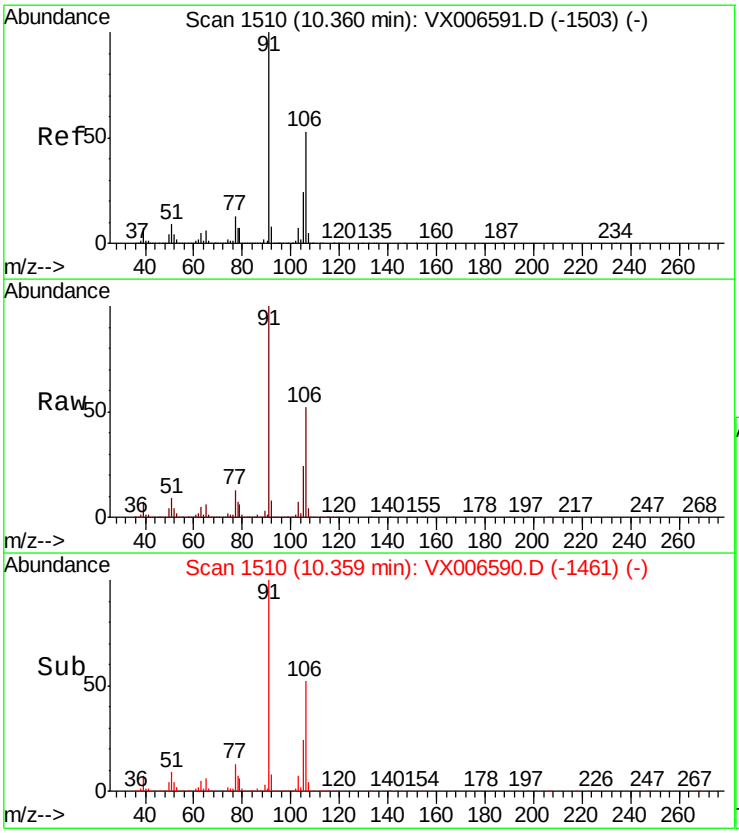
Tgt Ion: 91 Resp: 585490

Ion	Ratio	Lower	Upper
91	100		
106	33.3	26.4	39.6



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC020

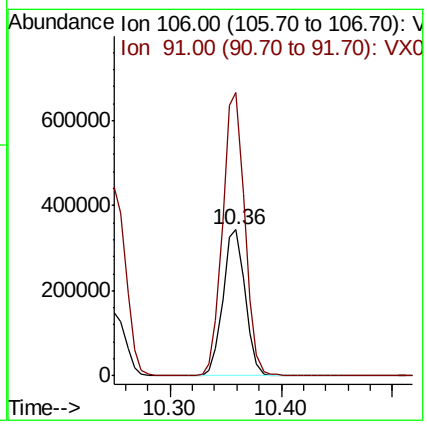
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:21:58 AM

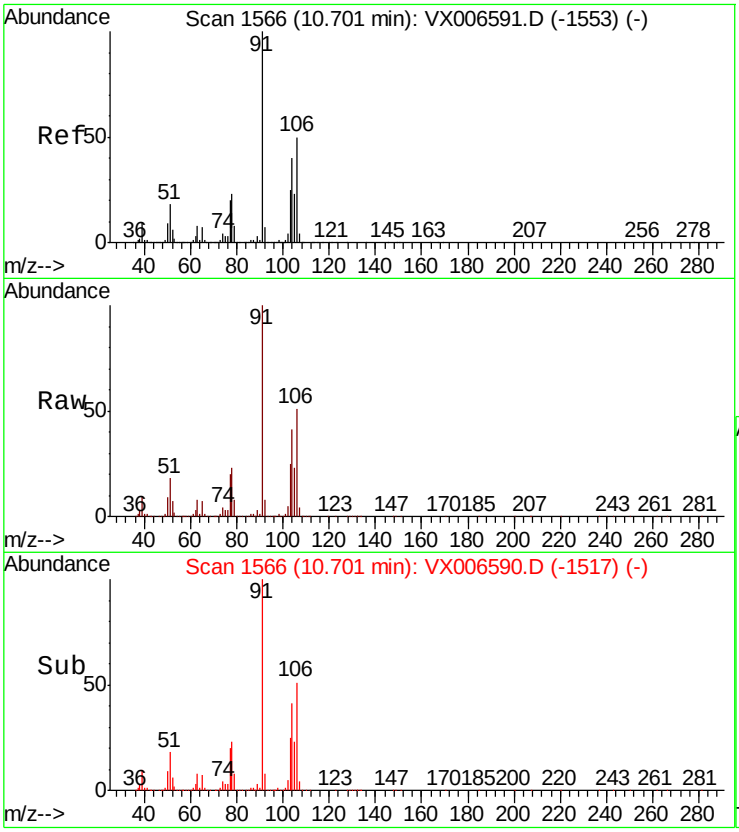


#68
m/p-Xylenes
Concen: 39.914 ug/l
RT: 10.36 min Scan# 1510
Delta R.T. -0.00 min
Lab File: VX006590.D
Acq: 18 Dec 2018 11:38

Tgt Ion:106 Resp: 472267

Ion	Ratio	Lower	Upper
106	100		
91	193.6	155.8	233.6

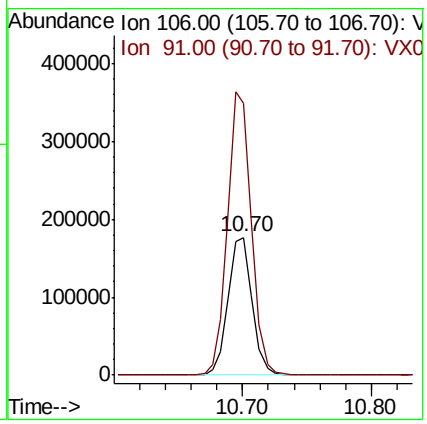




#69
o-Xylene
Concen: 19.825 ug/l
RT: 10.70 min Scan# 1566
Delta R.T. -0.00 min
Lab File: VX006590.D
Acq: 18 Dec 2018 11:38

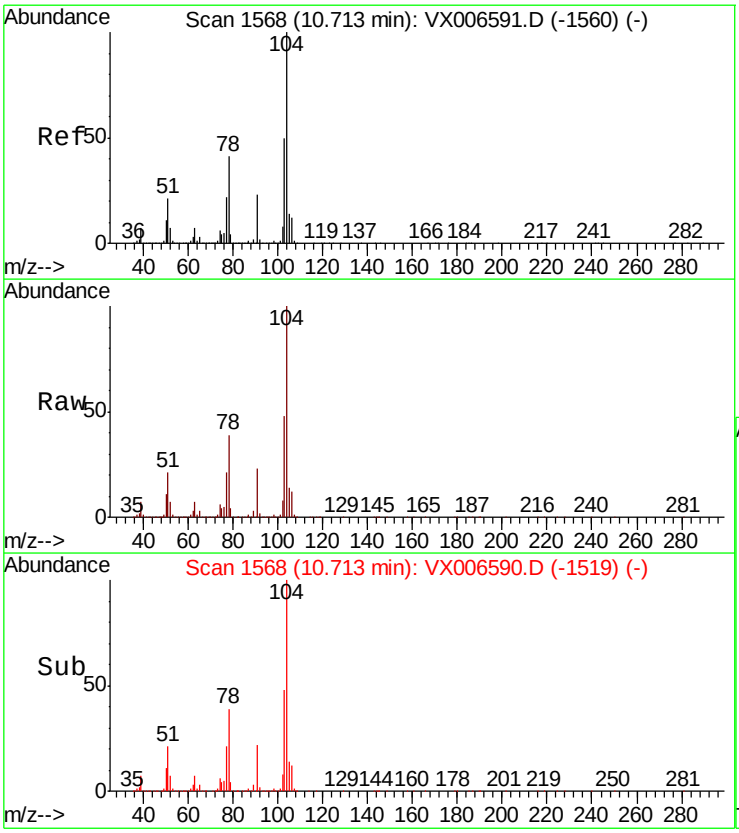
Tgt Ion:106 Resp: 231641

Ion	Ratio	Lower	Upper
106	100		
91	204.7	101.3	303.7



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC020

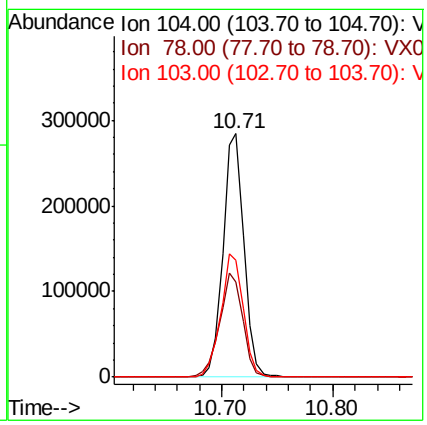
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:21:58 AM

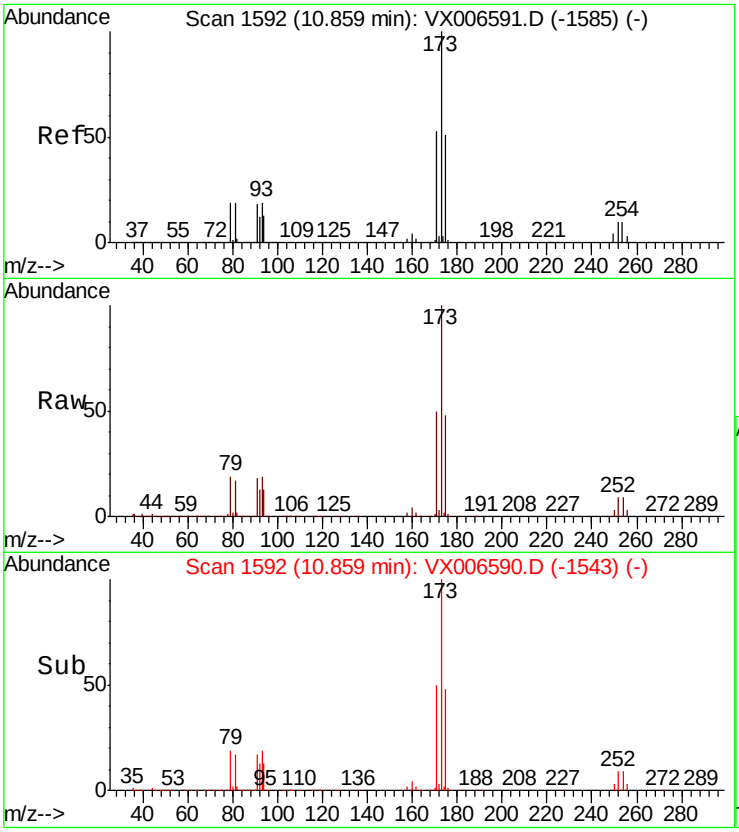


#70
Styrene
Concen: 20.015 ug/l
RT: 10.71 min Scan# 1568
Delta R.T. -0.00 min
Lab File: VX006590.D
Acq: 18 Dec 2018 11:38

Tgt Ion:104 Resp: 369981

Ion	Ratio	Lower	Upper
104	100		
78	46.9	37.7	56.5
103	54.3	43.8	65.8

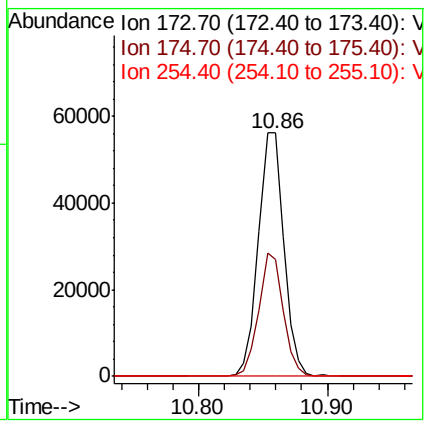




#71
Bromoform
Concen: 17.703 ug/l
RT: 10.86 min Scan# 1592
Delta R.T. -0.00 min
Lab File: VX006590.D
Acq: 18 Dec 2018 11:38

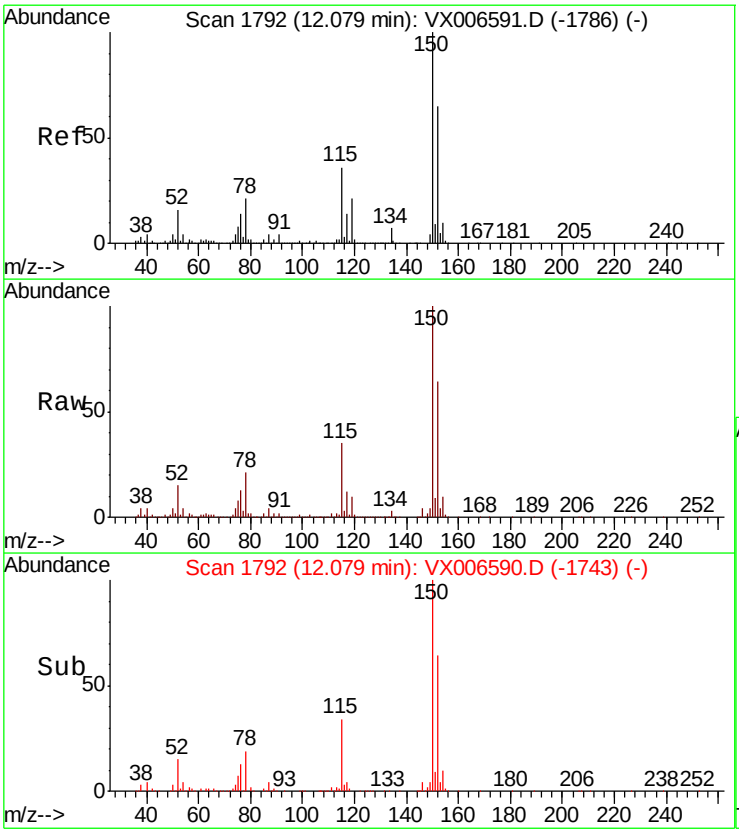
Tgt Ion:173 Resp: 77161

Ion	Ratio	Lower	Upper
173	100		
175	48.6	24.7	74.1
254	0.2	0.2	0.2



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC020

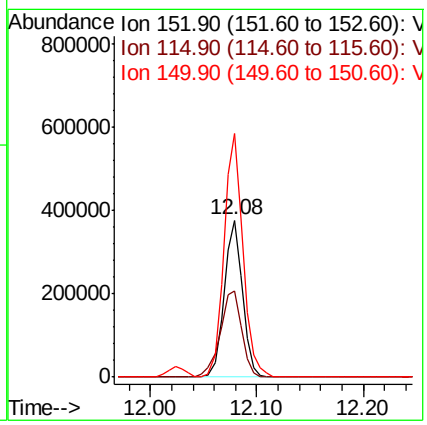
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:21:58 AM

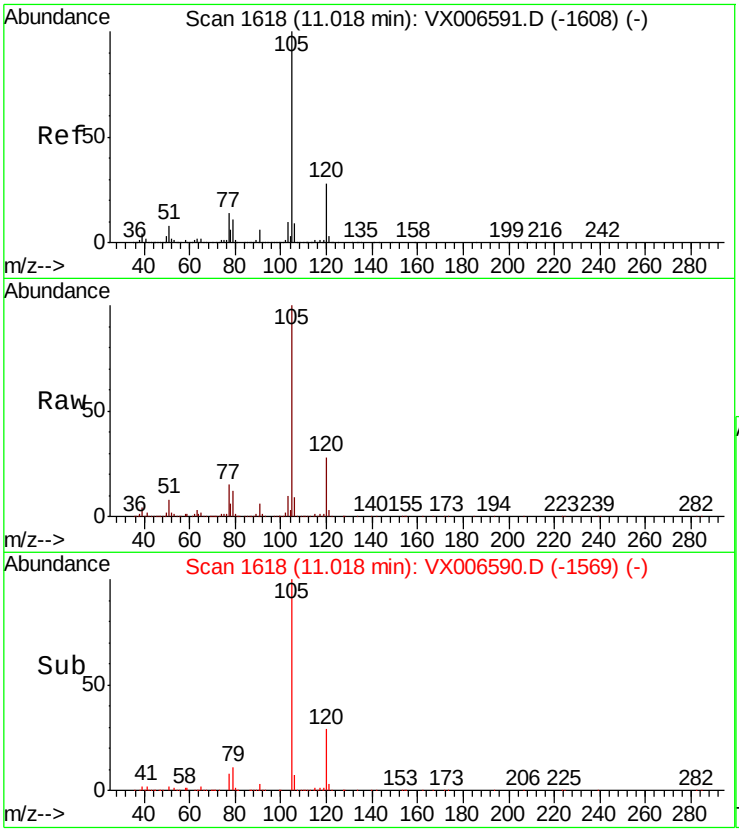


#72
1,4-Dichlorobenzene-d4
Concen: 50.000 ug/l
RT: 12.08 min Scan# 1792
Delta R.T. -0.00 min
Lab File: VX006590.D
Acq: 18 Dec 2018 11:38

Tgt Ion:152 Resp: 448448

Ion	Ratio	Lower	Upper
152	100		
115	64.5	39.1	117.2
150	161.7	0.0	344.8

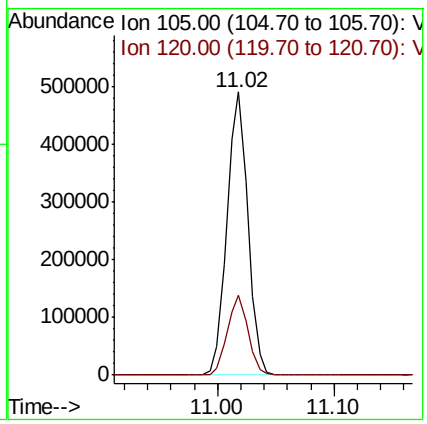




#73
Isopropylbenzene
Concen: 19.930 ug/l
RT: 11.02 min Scan# 1618
Delta R.T. -0.00 min
Lab File: VX006590.D
Acq: 18 Dec 2018 11:38

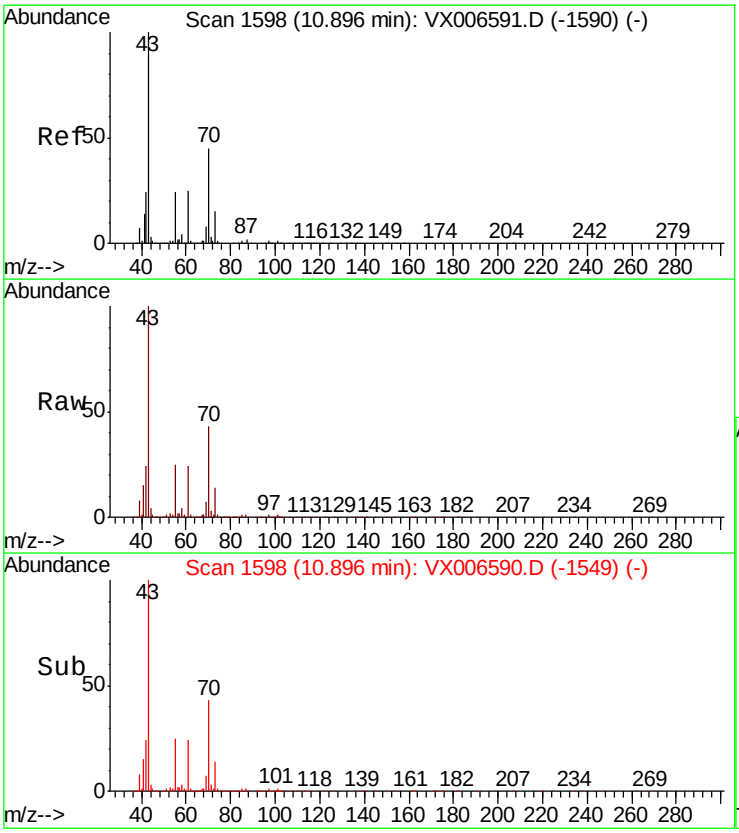
Tgt Ion:105 Resp: 611436

Ion	Ratio	Lower	Upper
105	100		
120	27.9	14.1	42.4



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC020

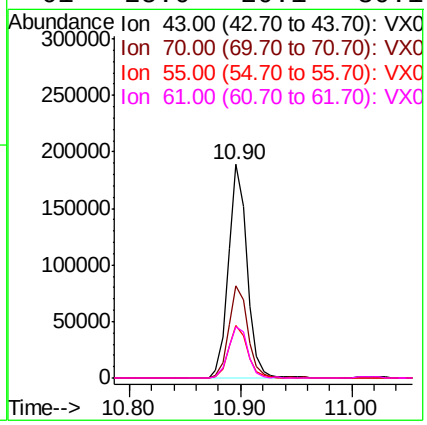
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:21:58 AM

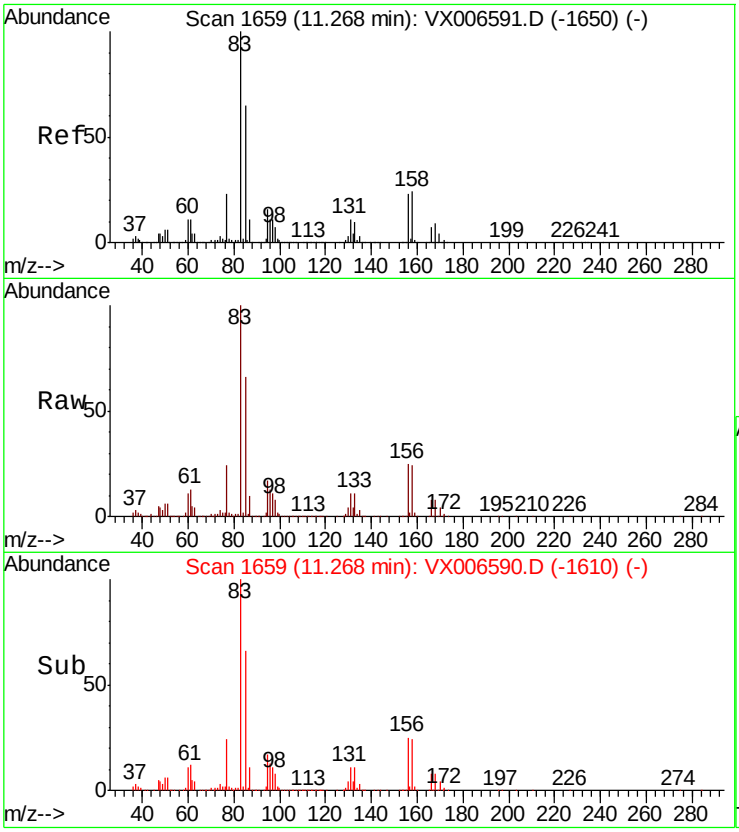


#74
N-amyl acetate
Concen: 19.881 ug/l
RT: 10.90 min Scan# 1598
Delta R.T. -0.00 min
Lab File: VX006590.D
Acq: 18 Dec 2018 11:38

Tgt Ion: 43 Resp: 218321

Ion	Ratio	Lower	Upper
43	100		
70	44.2	35.8	53.8
55	25.0	19.4	29.0
61	25.0	20.1	30.1

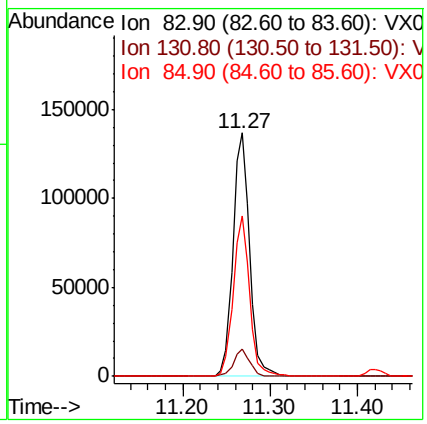




#75
1,1,2,2-Tetrachloroethane
Concen: 19.954 ug/l
RT: 11.27 min Scan# 1659
Delta R.T. -0.00 min
Lab File: VX006590.D
Acq: 18 Dec 2018 11:38

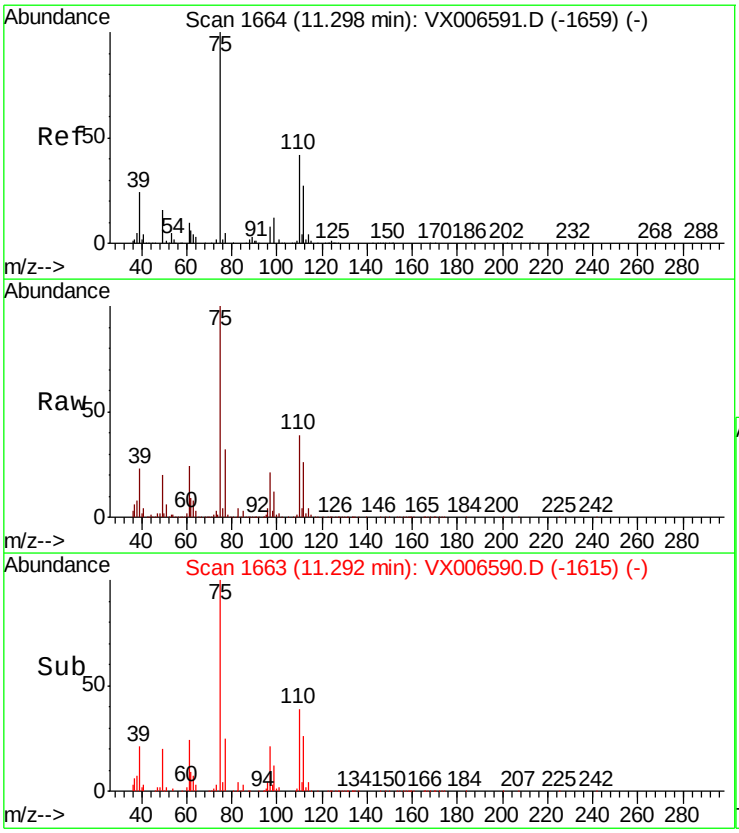
Tgt Ion: 83 Resp: 182064

Ion	Ratio	Lower	Upper
83	100		
131	11.0	5.7	17.1
85	65.1	32.2	96.6



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC020

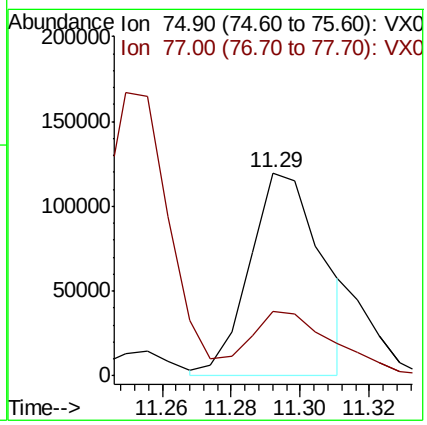
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:21:58 AM

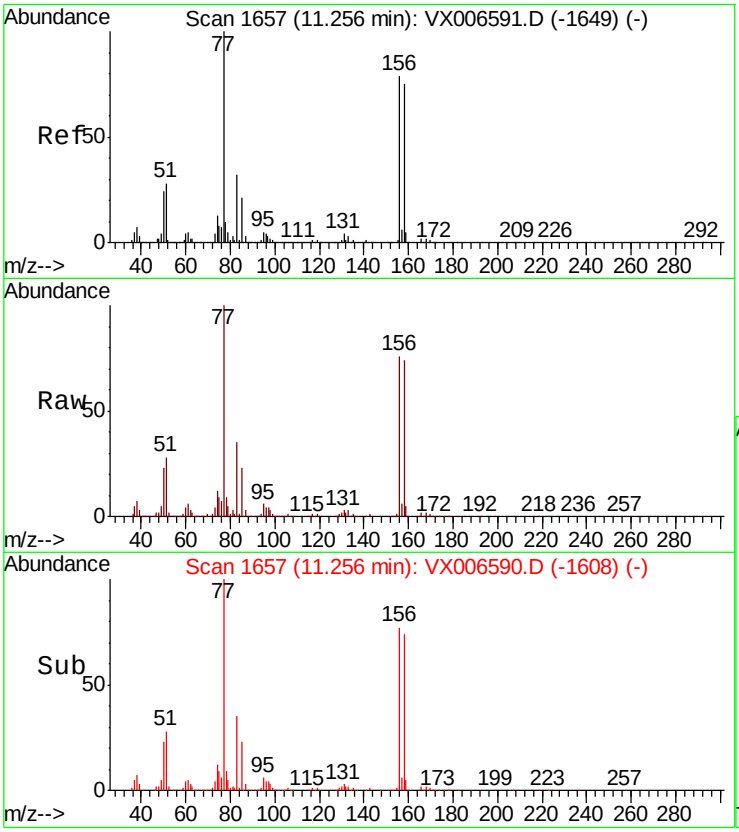


#76
1,2,3-Trichloropropane
Concen: 21.786 ug/l m
RT: 11.29 min Scan# 1663
Delta R.T. -0.01 min
Lab File: VX006590.D
Acq: 18 Dec 2018 11:38

Tgt Ion: 75 Resp: 173069

Ion	Ratio	Lower	Upper
75	100		
77	37.6	18.5	55.5

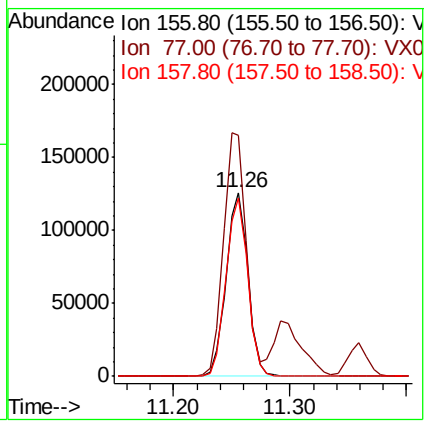




#77
Bromobenzene
Concen: 19.662 ug/l
RT: 11.26 min Scan# 1657
Delta R.T. -0.00 min
Lab File: VX006590.D
Acq: 18 Dec 2018 11:38

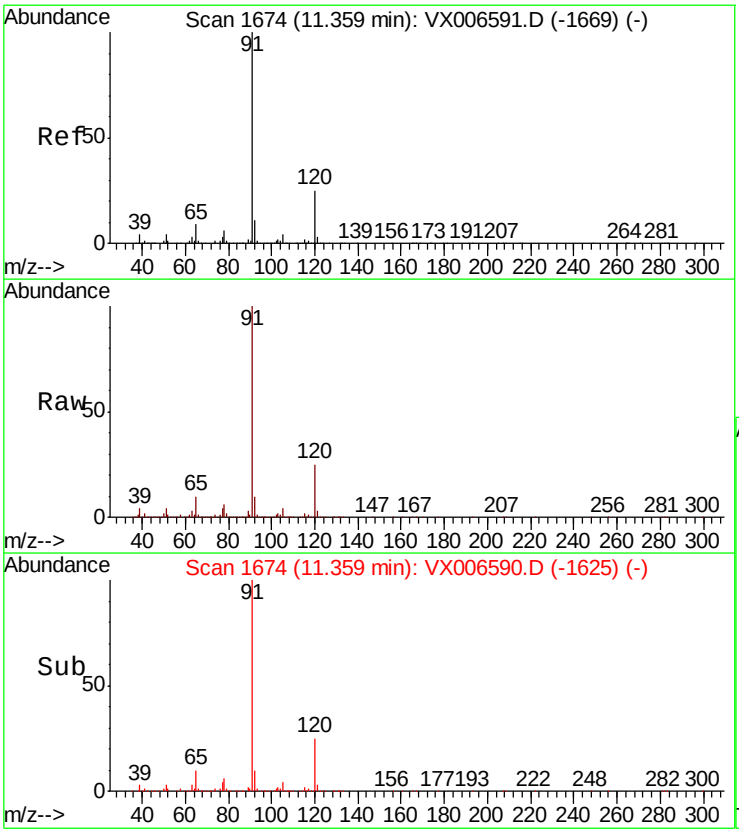
Tgt Ion:156 Resp: 163078

Ion	Ratio	Lower	Upper
156	100		
77	136.4	68.0	204.0
158	97.3	48.3	144.8



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC020

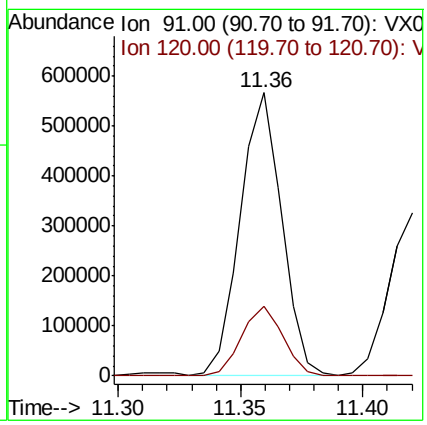
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:21:58 AM

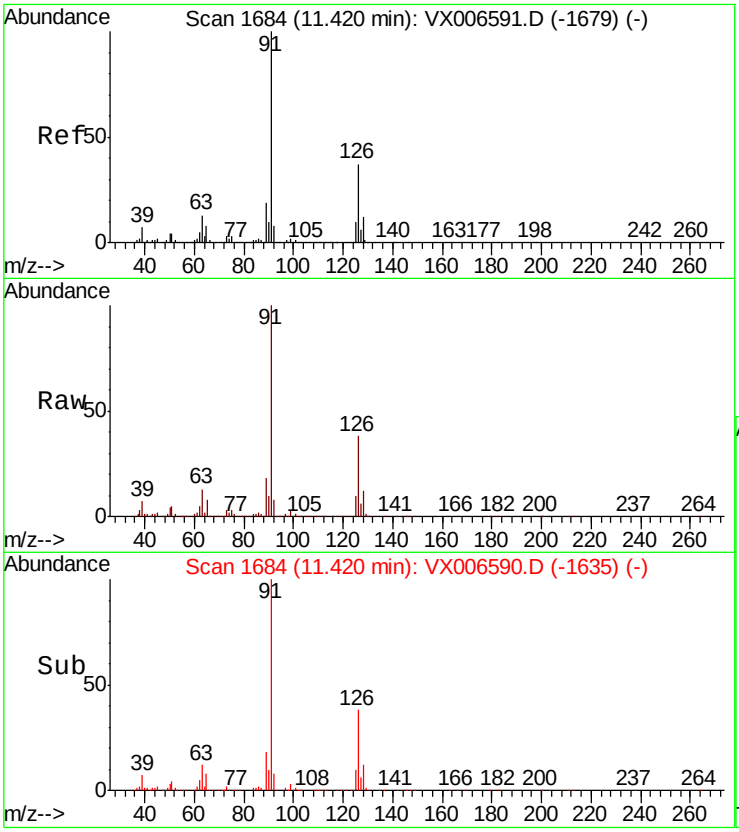


#78
n-propylbenzene
Concen: 19.736 ug/l
RT: 11.36 min Scan# 1674
Delta R.T. -0.00 min
Lab File: VX006590.D
Acq: 18 Dec 2018 11:38

Tgt Ion: 91 Resp: 666770

Ion	Ratio	Lower	Upper
91	100		
120	24.8	12.7	38.0

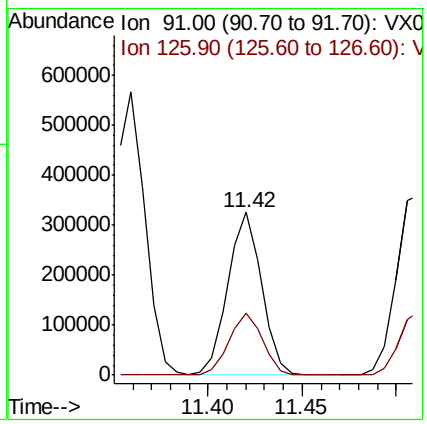




#79
2-Chlorotoluene
Concen: 19.690 ug/l
RT: 11.42 min Scan# 1684
Delta R.T. -0.00 min
Lab File: VX006590.D
Acq: 18 Dec 2018 11:38

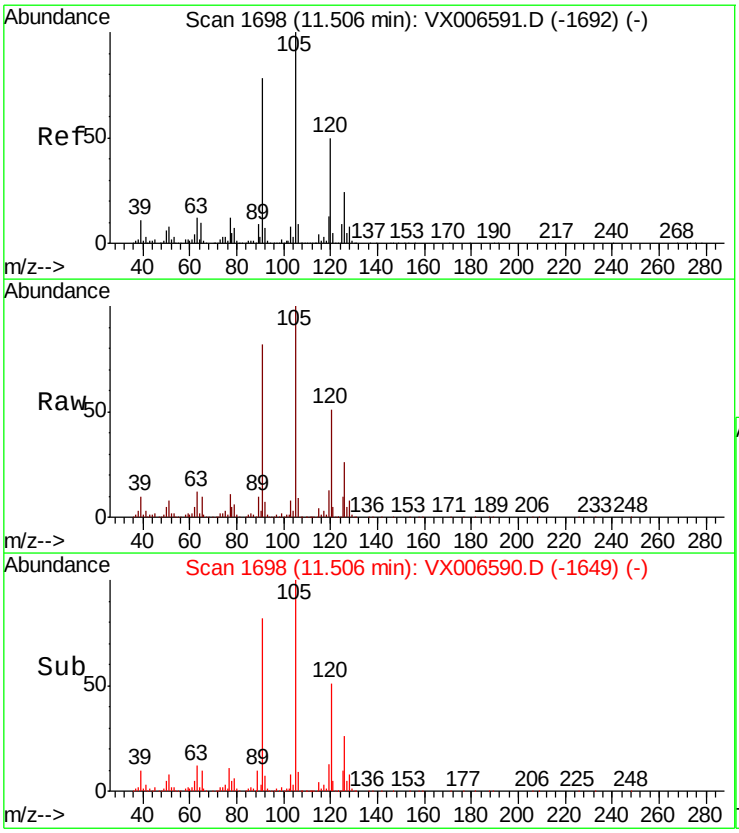
Tgt Ion: 91 Resp: 403115

Ion	Ratio	Lower	Upper
91	100		
126	38.1	18.6	56.0



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC020

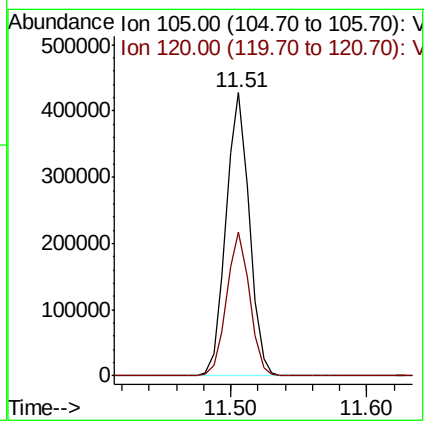
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:21:58 AM

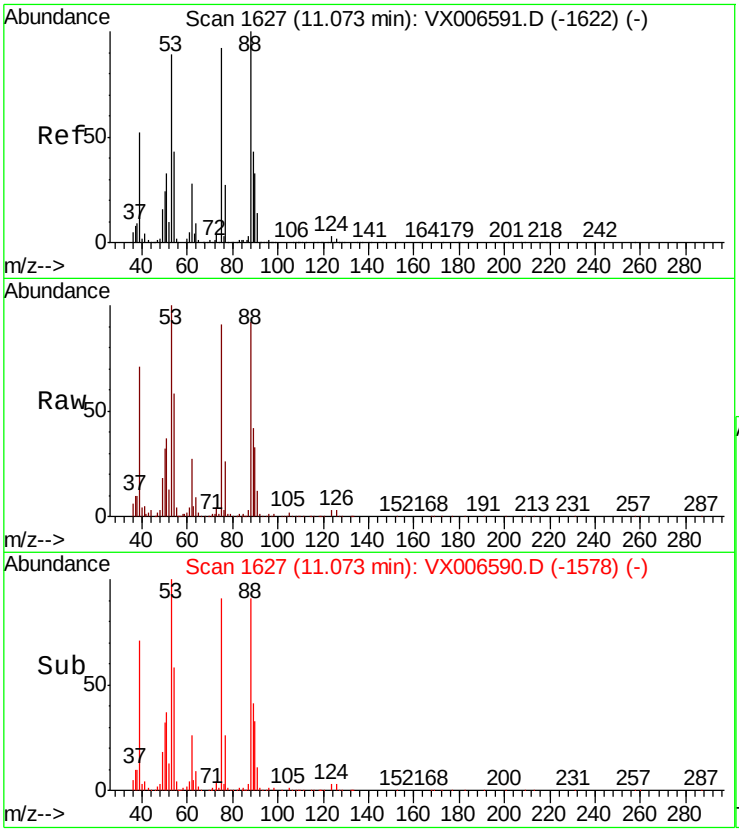


#80
1,3,5-Trimethylbenzene
Concen: 20.064 ug/l
RT: 11.51 min Scan# 1698
Delta R.T. -0.00 min
Lab File: VX006590.D
Acq: 18 Dec 2018 11:38

Tgt Ion:105 Resp: 506993

Ion	Ratio	Lower	Upper
105	100		
120	50.2	25.1	75.3

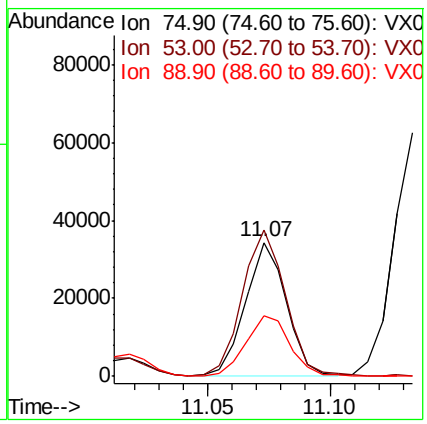




#81
trans-1,4-Dichloro-2-butene
Concen: 17.328 ug/l
RT: 11.07 min Scan# 1627
Delta R.T. -0.00 min
Lab File: VX006590.D
Acq: 18 Dec 2018 11:38

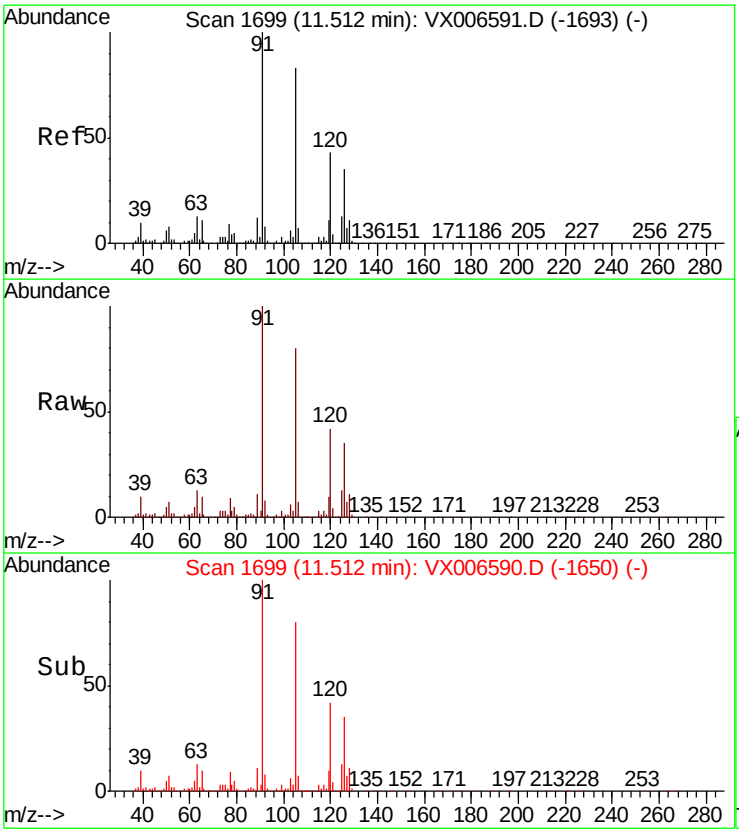
Tgt Ion: 75 Resp: 40318

Ion	Ratio	Lower	Upper
75	100		
53	113.6	79.7	119.5
89	47.5	38.0	57.0



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC020

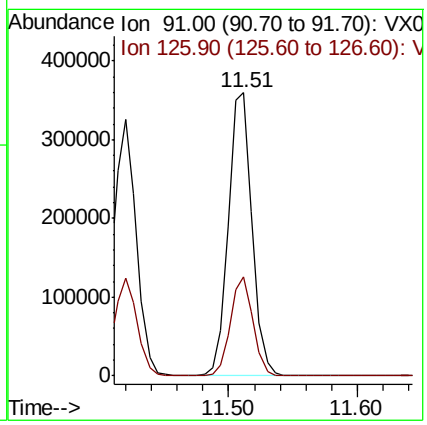
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:21:58 AM

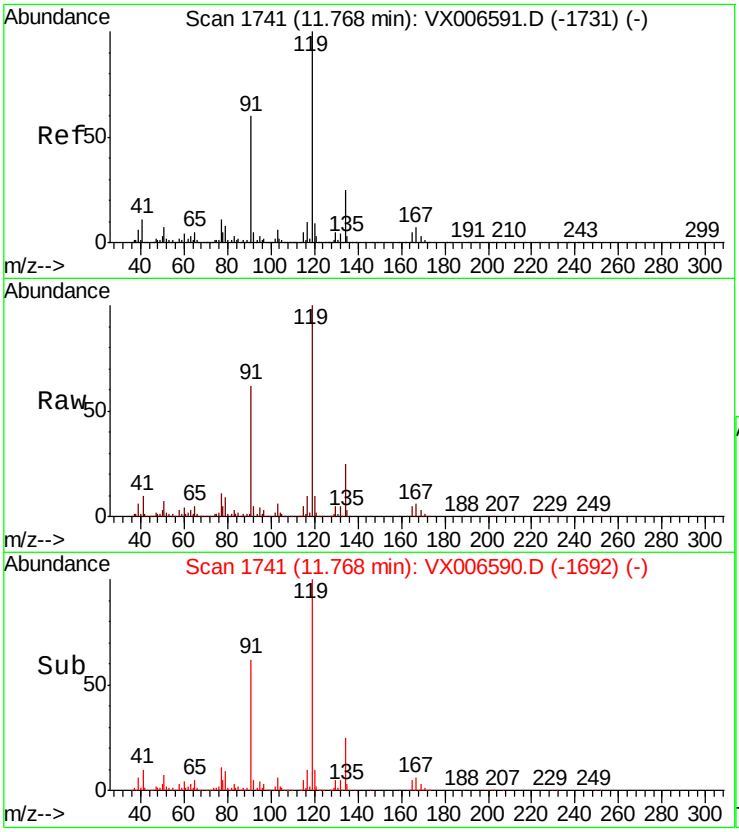


#82
4-Chlorotoluene
Concen: 19.706 ug/l
RT: 11.51 min Scan# 1699
Delta R.T. -0.00 min
Lab File: VX006590.D
Acq: 18 Dec 2018 11:38

Tgt Ion: 91 Resp: 462795

Ion	Ratio	Lower	Upper
91	100		
126	33.3	16.3	48.9

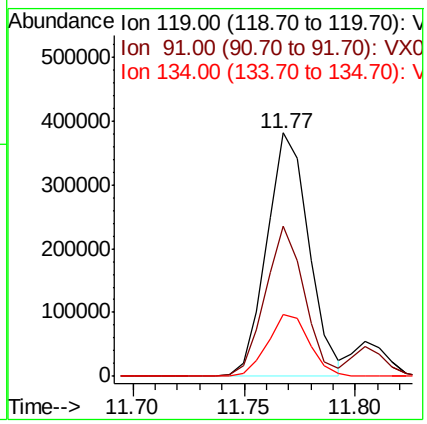




#83
tert-Butylbenzene
Concen: 19.766 ug/l
RT: 11.77 min Scan# 1741
Delta R.T. -0.00 min
Lab File: VX006590.D
Acq: 18 Dec 2018 11:38

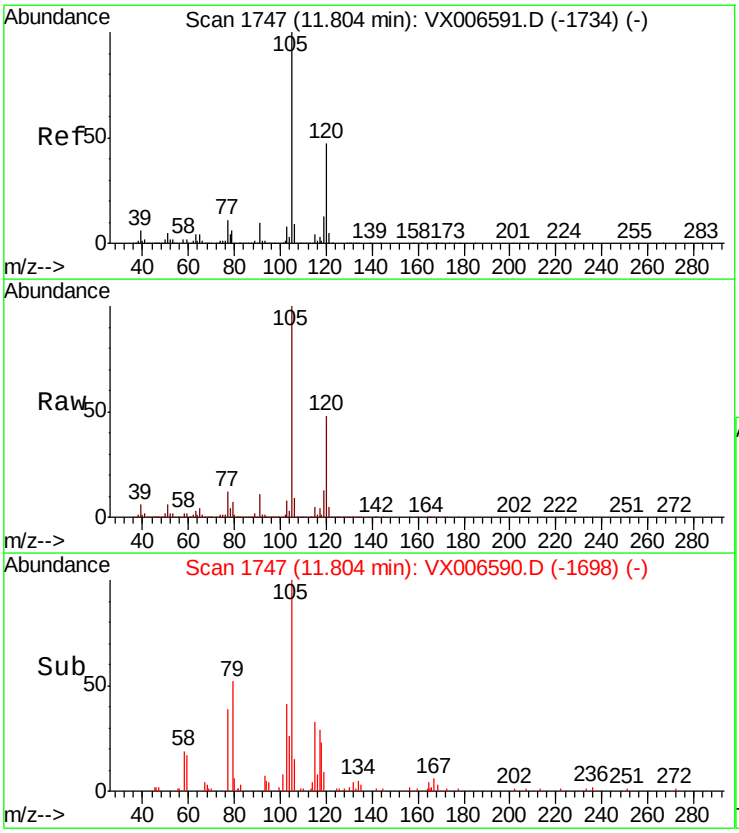
Tgt Ion:119 Resp: 499889

Ion	Ratio	Lower	Upper
119	100		
91	57.7	27.7	83.1
134	25.3	11.9	35.5



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC020

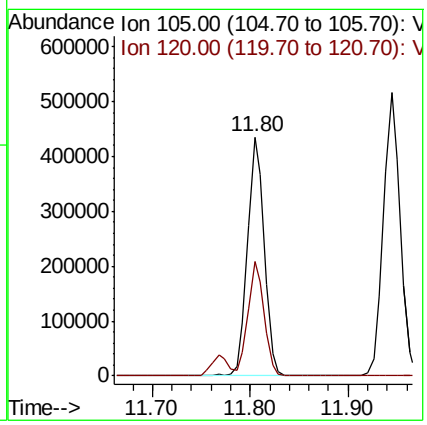
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:21:58 AM

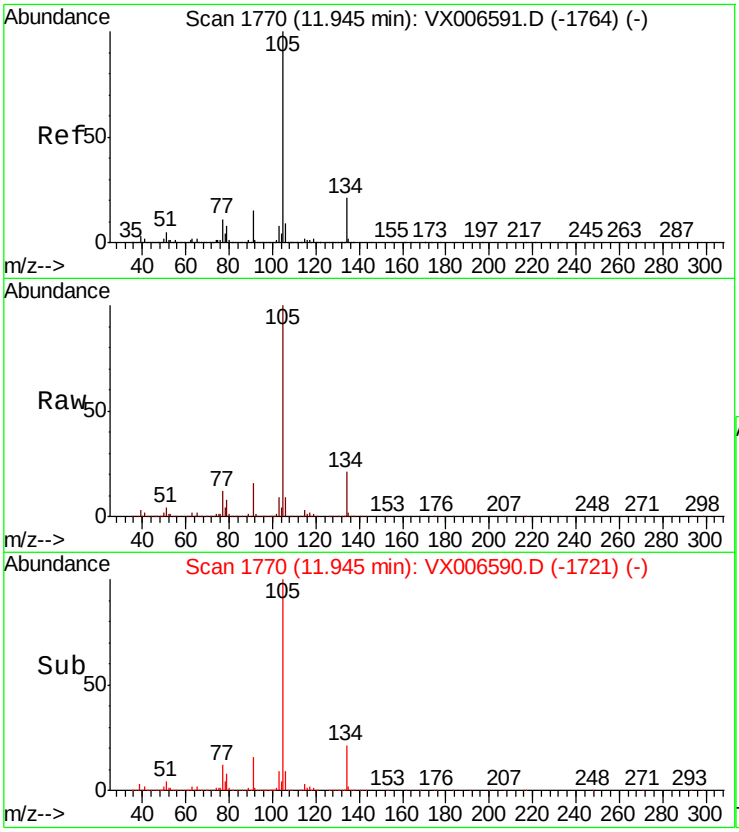


#84
1,2,4-Trimethylbenzene
Concen: 19.544 ug/l
RT: 11.80 min Scan# 1747
Delta R.T. -0.00 min
Lab File: VX006590.D
Acq: 18 Dec 2018 11:38

Tgt Ion:105 Resp: 519451

Ion	Ratio	Lower	Upper
105	100		
120	45.8	23.2	69.6

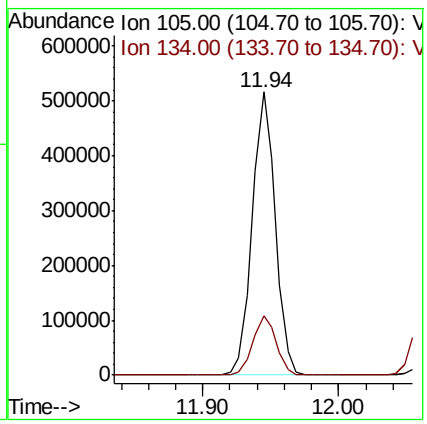




#85
sec-Butylbenzene
Concen: 19.823 ug/l
RT: 11.94 min Scan# 1770
Delta R.T. -0.00 min
Lab File: VX006590.D
Acq: 18 Dec 2018 11:38

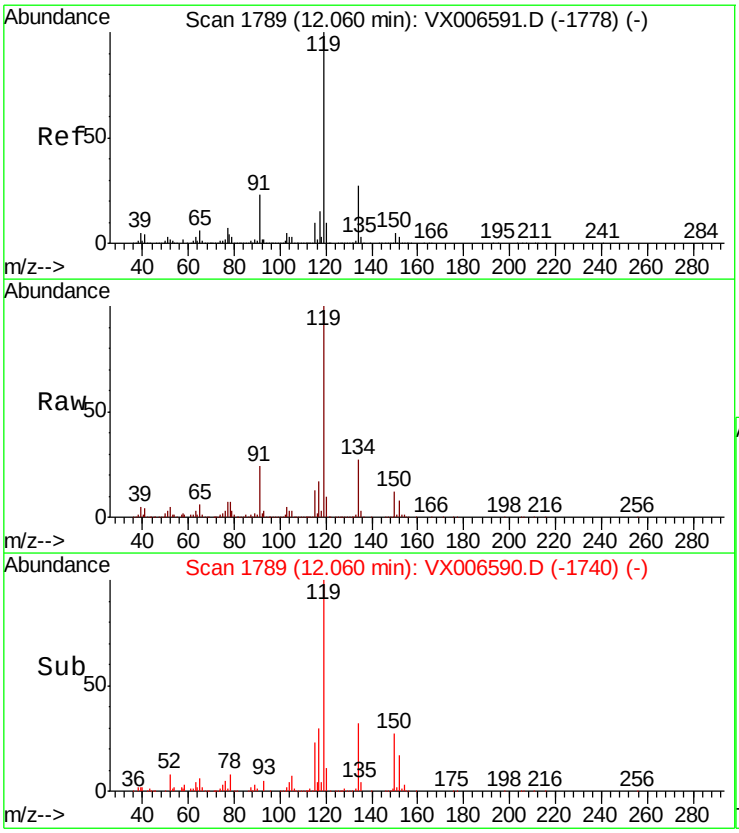
Tgt Ion:105 Resp: 614659

Ion	Ratio	Lower	Upper
105	100		
134	21.4	10.7	31.9



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC020

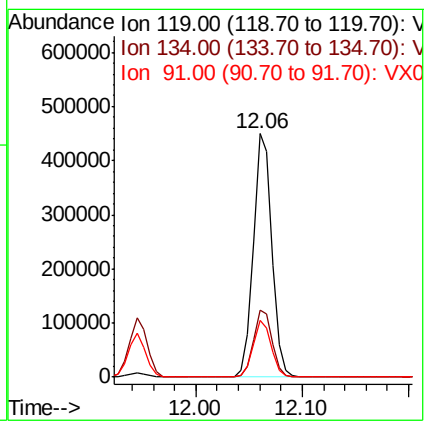
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:21:58 AM

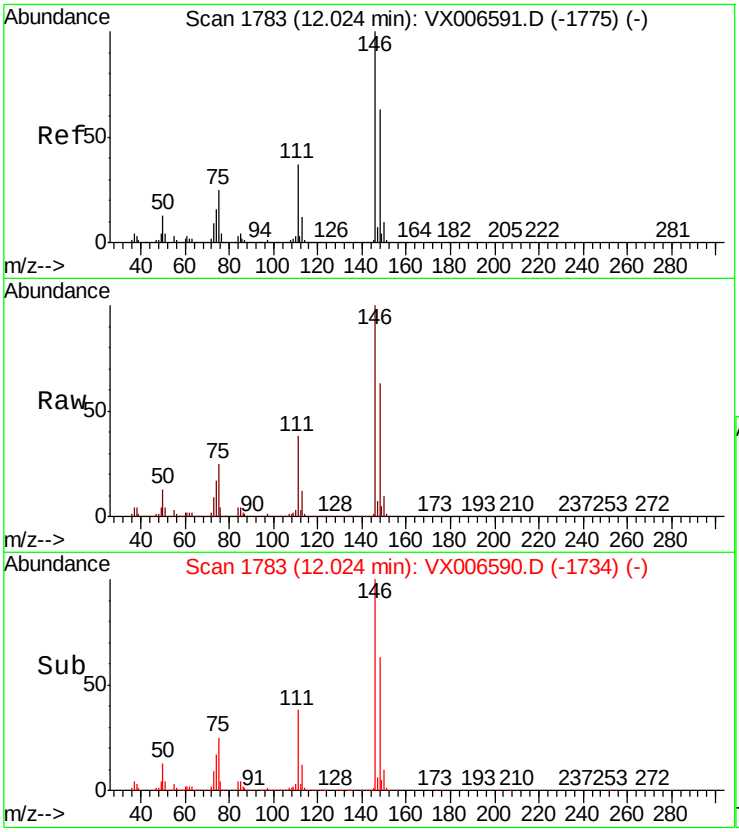


#86
p-Isopropyltoluene
Concen: 20.037 ug/l
RT: 12.06 min Scan# 1789
Delta R.T. -0.00 min
Lab File: VX006590.D
Acq: 18 Dec 2018 11:38

Tgt Ion:119 Resp: 546155

Ion	Ratio	Lower	Upper
119	100		
134	27.8	14.0	41.9
91	22.9	11.3	33.9

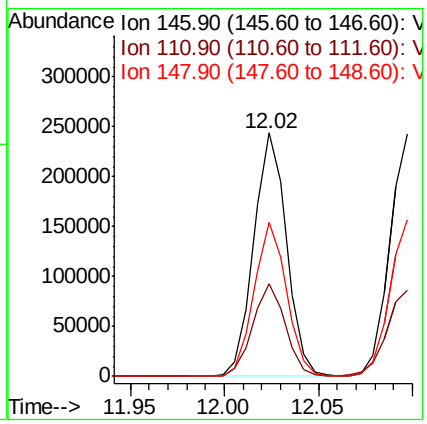




#87
1,3-Dichlorobenzene
Concen: 19.648 ug/l
RT: 12.02 min Scan# 1783
Delta R.T. -0.00 min
Lab File: VX006590.D
Acq: 18 Dec 2018 11:38

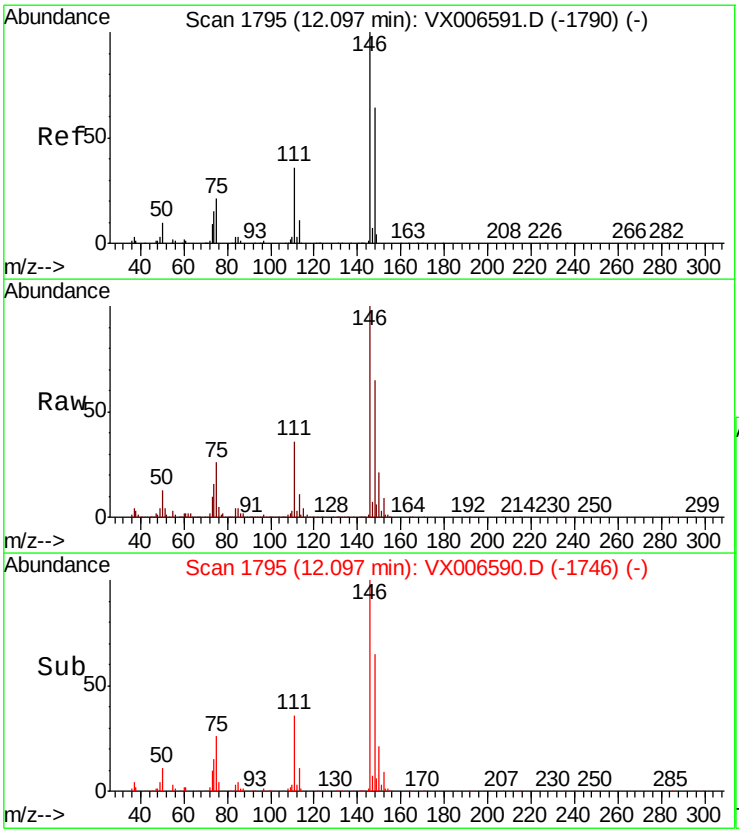
Tgt Ion:146 Resp: 293704

Ion	Ratio	Lower	Upper
146	100		
111	37.8	18.6	55.8
148	62.8	31.8	95.3



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC020

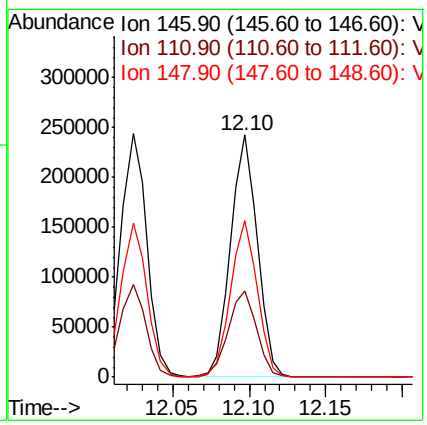
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:21:58 AM

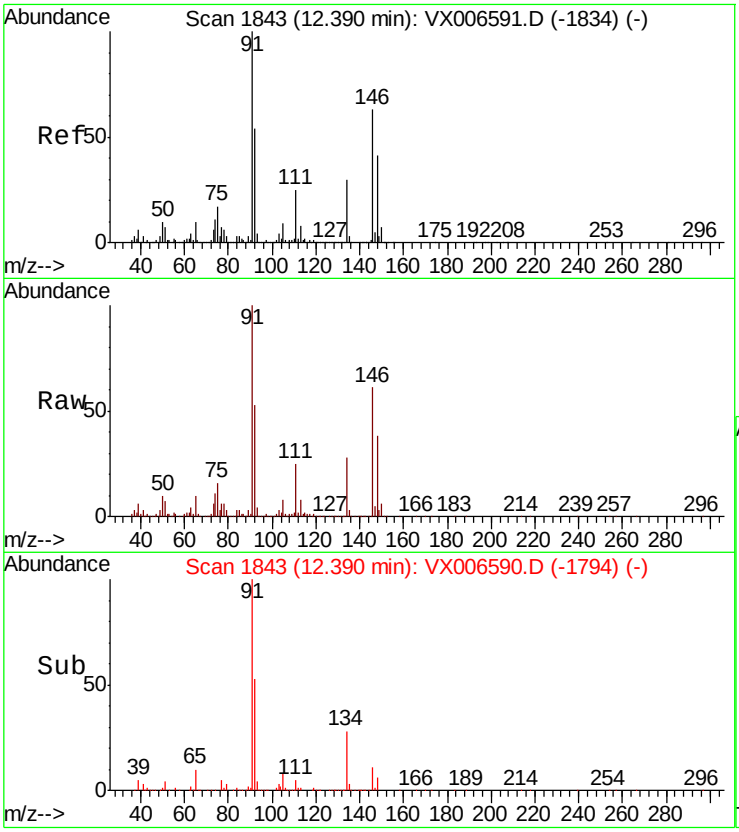


#88
1,4-Dichlorobenzene
Concen: 19.206 ug/l
RT: 12.10 min Scan# 1795
Delta R.T. -0.00 min
Lab File: VX006590.D
Acq: 18 Dec 2018 11:38

Tgt Ion:146 Resp: 294660

Ion	Ratio	Lower	Upper
146	100		
111	38.2	18.1	54.1
148	64.5	31.9	95.9

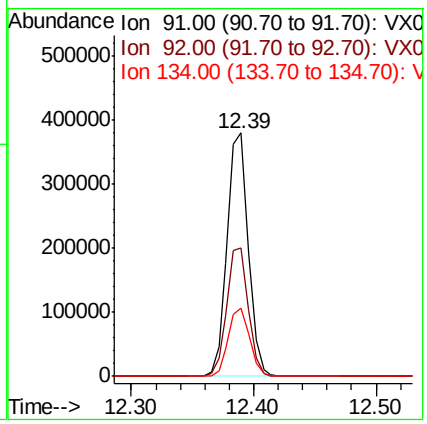




#89
n-Butylbenzene
Concen: 19.518 ug/l
RT: 12.39 min Scan# 1843
Delta R.T. -0.00 min
Lab File: VX006590.D
Acq: 18 Dec 2018 11:38

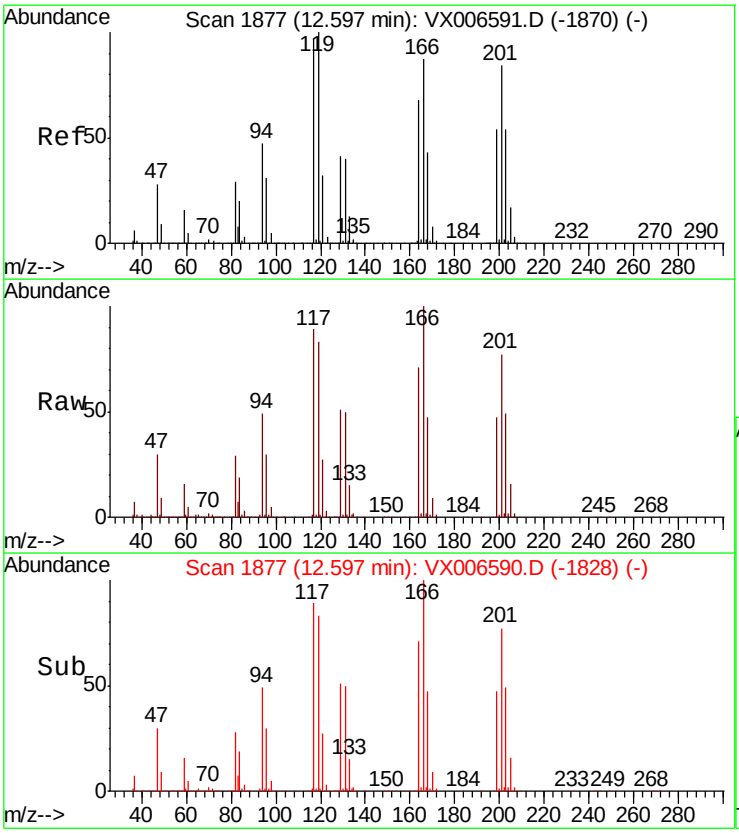
Tgt Ion: 91 Resp: 452760

Ion	Ratio	Lower	Upper
91	100		
92	53.6	26.8	80.4
134	28.2	14.4	43.2



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC020

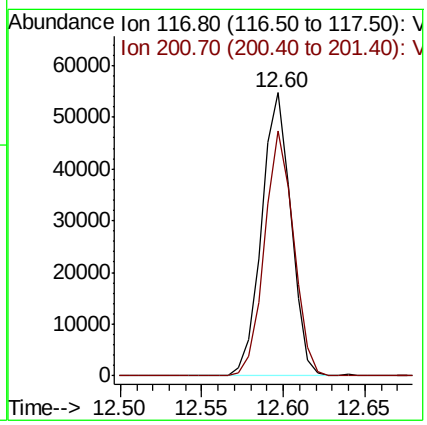
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:21:58 AM

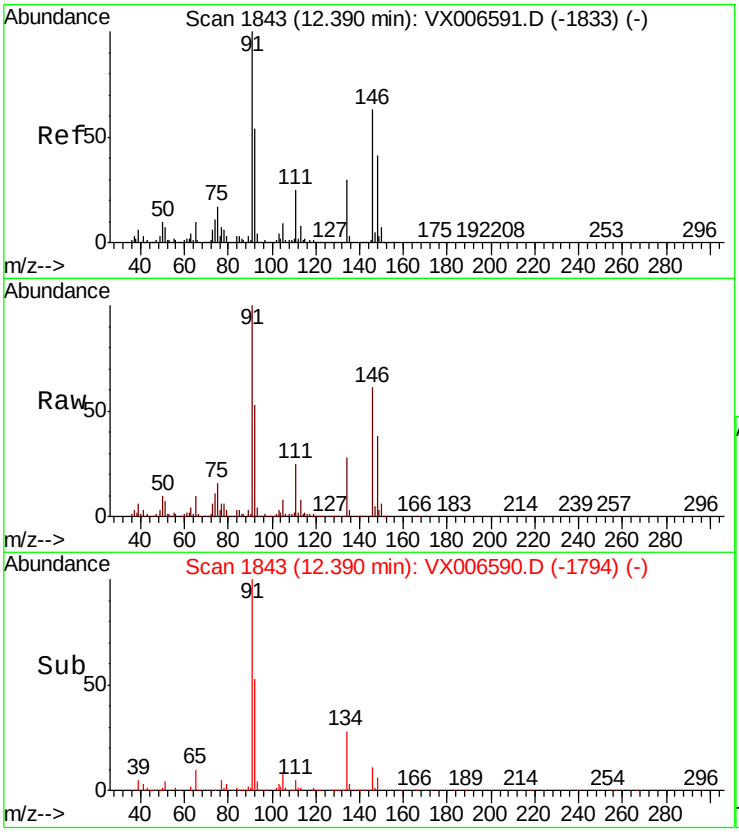


#90
Hexachloroethane
Concen: 18.457 ug/l
RT: 12.60 min Scan# 1877
Delta R.T. -0.00 min
Lab File: VX006590.D
Acq: 18 Dec 2018 11:38

Tgt Ion:117 Resp: 68532

Ion	Ratio	Lower	Upper
117	100		
201	85.4	42.9	128.7

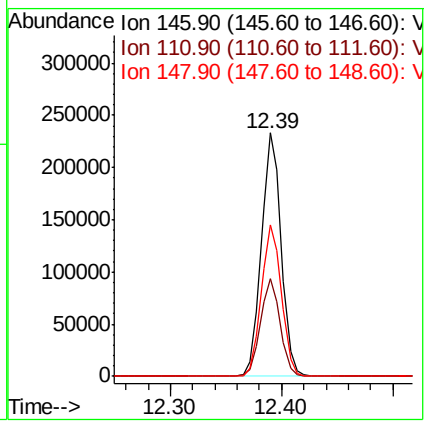




#91
1,2-Dichlorobenzene
Concen: 19.409 ug/l
RT: 12.39 min Scan# 1843
Delta R.T. -0.00 min
Lab File: VX006590.D
Acq: 18 Dec 2018 11:38

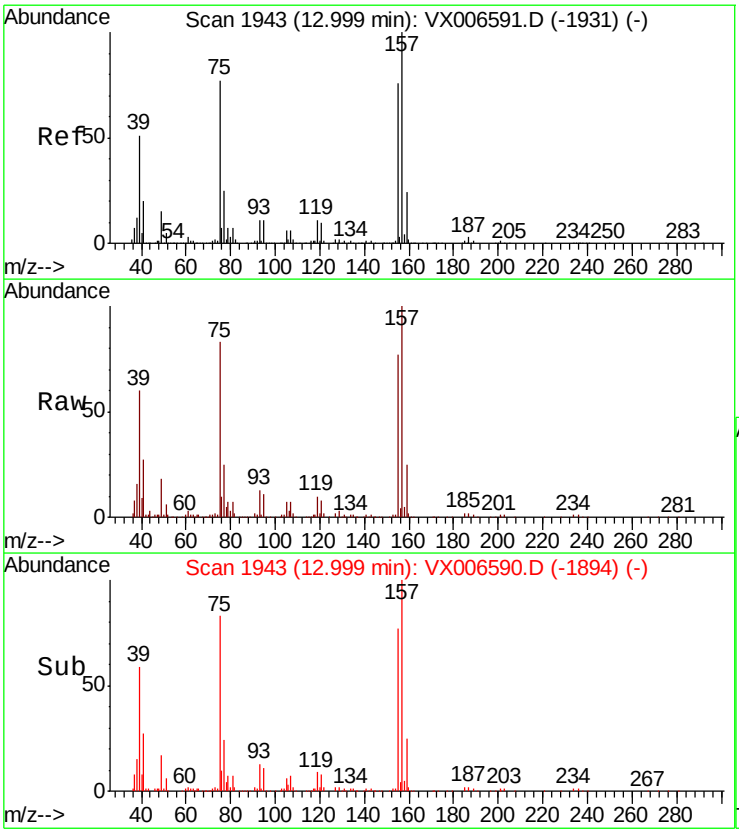
Tgt Ion:146 Resp: 290235

Ion	Ratio	Lower	Upper
146	100		
111	39.8	19.4	58.2
148	63.4	32.3	96.9



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC020

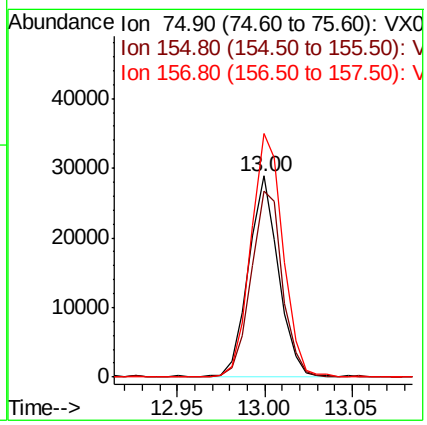
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:21:58 AM

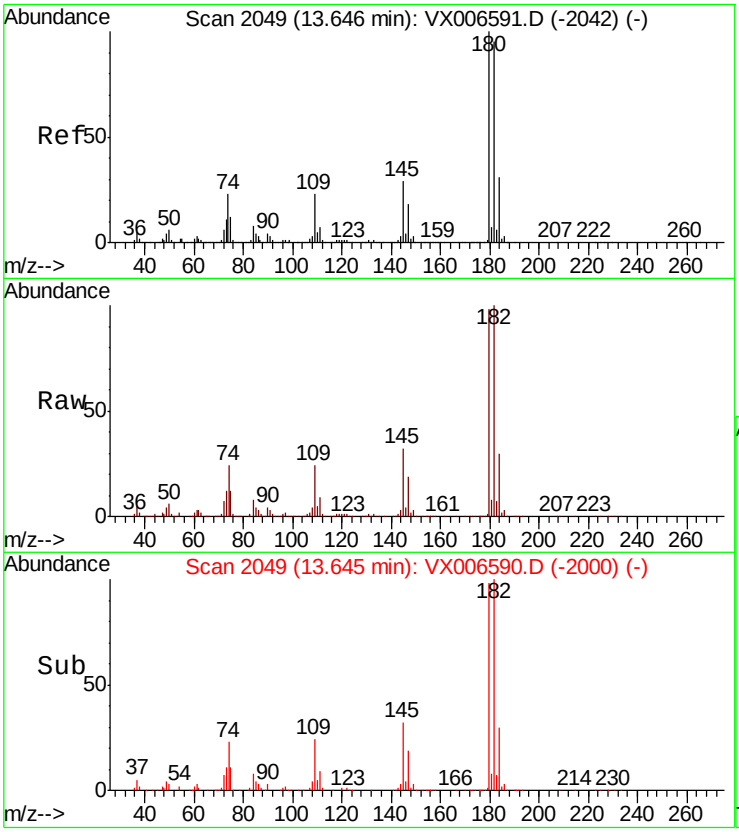


#92
1,2-Dibromo-3-Chloropropane
Concen: 18.060 ug/l
RT: 13.00 min Scan# 1943
Delta R.T. -0.00 min
Lab File: VX006590.D
Acq: 18 Dec 2018 11:38

Tgt Ion: 75 Resp: 34096

Ion	Ratio	Lower	Upper
75	100		
155	97.5	50.6	151.8
157	130.3	64.6	193.8

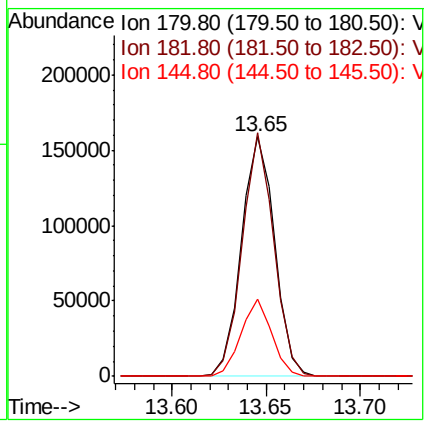




#93
1,2,4-Trichlorobenzene
Concen: 18.817 ug/l
RT: 13.65 min Scan# 2049
Delta R.T. -0.00 min
Lab File: VX006590.D
Acq: 18 Dec 2018 11:38

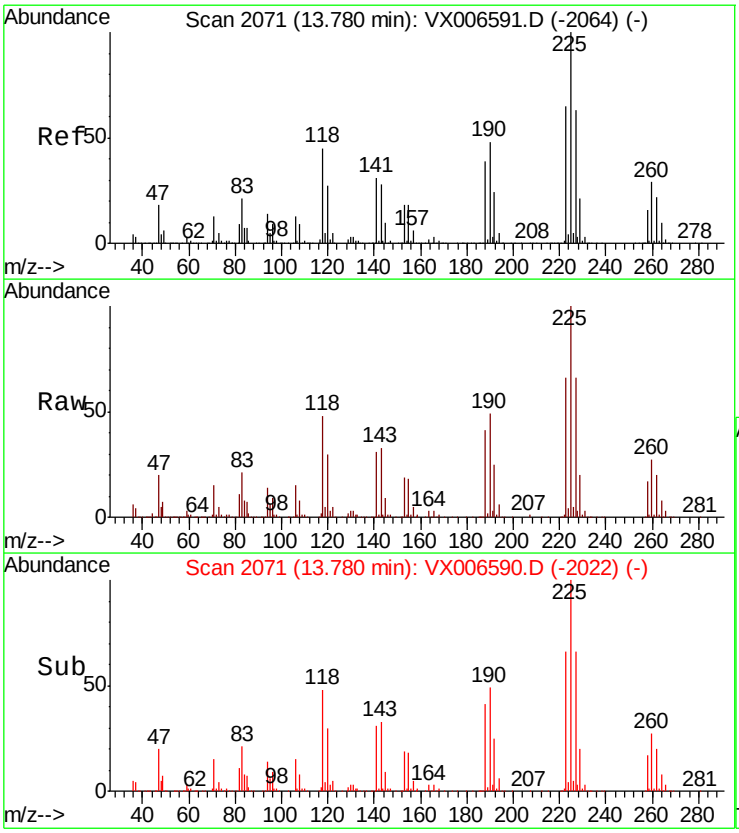
Tgt Ion:180 Resp: 194090

Ion	Ratio	Lower	Upper
180	100		
182	96.4	47.3	142.0
145	30.1	14.8	44.3



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC020

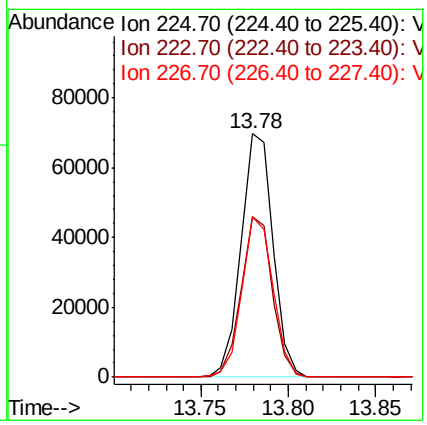
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:21:58 AM

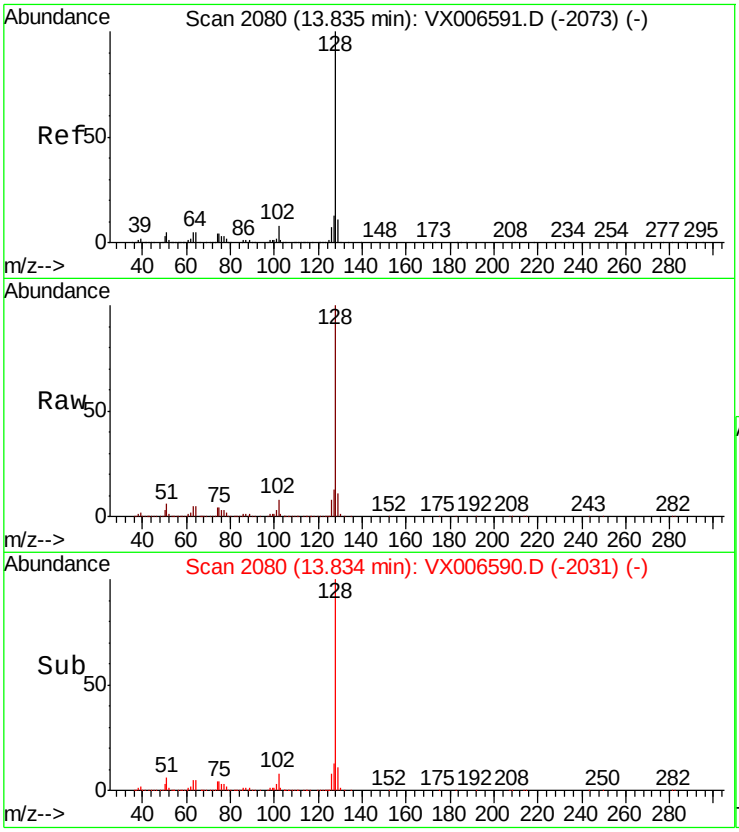


#94
Hexachlorobutadiene
Concen: 18.189 ug/l
RT: 13.78 min Scan# 2071
Delta R.T. -0.00 min
Lab File: VX006590.D
Acq: 18 Dec 2018 11:38

Tgt Ion:225 Resp: 88434

Ion	Ratio	Lower	Upper
225	100		
223	64.1	32.1	96.3
227	64.3	32.3	96.8

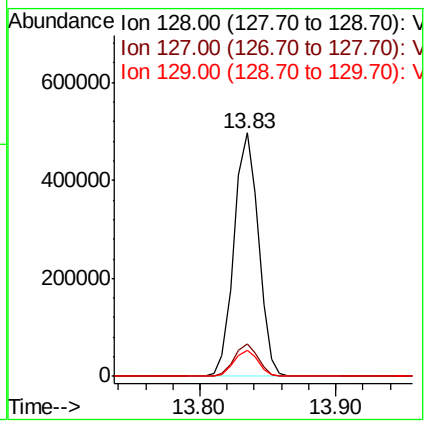




#95
Naphthalene
Concen: 18.908 ug/l
RT: 13.83 min Scan# 2080
Delta R.T. -0.00 min
Lab File: VX006590.D
Acq: 18 Dec 2018 11:38

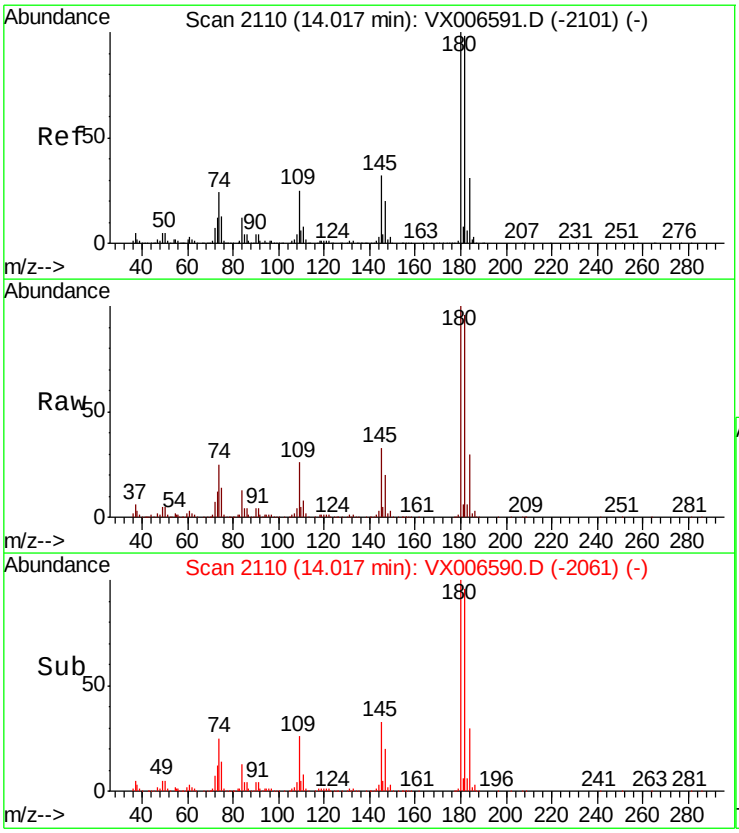
Tgt Ion:128 Resp: 622489

Ion	Ratio	Lower	Upper
128	100		
127	13.1	10.1	15.1
129	10.7	8.6	13.0



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC020

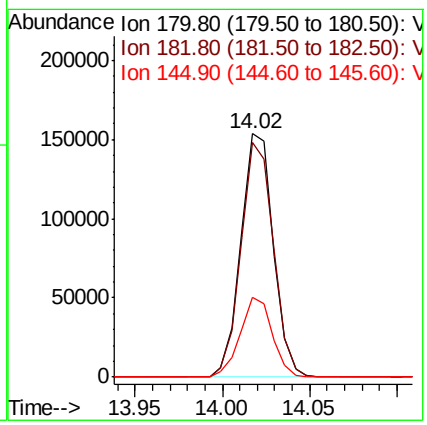
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:21:58 AM



#96
1,2,3-Trichlorobenzene
Concen: 18.634 ug/l
RT: 14.02 min Scan# 2110
Delta R.T. -0.00 min
Lab File: VX006590.D
Acq: 18 Dec 2018 11:38

Tgt Ion:180 Resp: 198448

Ion	Ratio	Lower	Upper
180	100		
182	96.6	48.5	145.5
145	32.4	16.0	47.9



Quantitation Report (QT Reviewed)

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX121818\
Data File : VX006591.D
Acq On : 18 Dec 2018 12:04
Operator : JC/MD
Sample : VSTDICCC050
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 6 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
VSTDICCC050

Manual Integrations APPROVED
MMDadoda
12/19/2018 11:22:02 AM

Quant Time: Dec 19 00:53:57 2018
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121818W.M
Quant Title : SW846 8260
QLast Update : Wed Dec 19 00:31:42 2018
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	5.66	168	623524	50.00	ug/l	0.00
34) 1,4-Difluorobenzene	6.86	114	971059	50.00	ug/l	0.00
63) Chlorobenzene-d5	10.11	117	890040	50.00	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	12.08	152	465942	50.00	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	6.06	65	337052	50.16	ug/l	0.00
Spiked Amount 50.000			Recovery = 100.32%			
35) Dibromofluoromethane	5.50	113	305513	49.75	ug/l	0.00
Spiked Amount 50.000			Recovery = 99.50%			
50) Toluene-d8	8.71	98	1148015	49.59	ug/l	0.00
Spiked Amount 50.000			Recovery = 99.18%			
62) 4-Bromofluorobenzene	11.13	95	432633	51.02	ug/l	0.00
Spiked Amount 50.000			Recovery = 102.04%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.20	85	274047	48.043	ug/l	100
3) Chloromethane	1.32	50	292984	47.676	ug/l	100
4) Vinyl Chloride	1.41	62	307797	47.956	ug/l	100
5) Bromomethane	1.64	94	304478	43.630	ug/l	100
6) Chloroethane	1.71	64	198534	44.674	ug/l	100
7) Trichlorofluoromethane	1.93	101	488354	48.803	ug/l	100
8) Diethyl Ether	2.19	74	187136	47.084	ug/l	100
9) 1,1,2-Trichlorotrifluoroet	2.39	101	284559	48.432	ug/l	100
10) Methyl Iodide	2.51	142	446471	53.086	ug/l	100
11) Tert butyl alcohol	3.07	59	367807	245.248	ug/l	100
12) 1,1-Dichloroethene	2.37	96	265493	47.656	ug/l	100
13) Acrolein	2.29	56	242392	239.581	ug/l	100
14) Allyl chloride	2.73	41	458412	48.885	ug/l	100
15) Acrylonitrile	3.15	53	823341	247.258	ug/l	100
16) Acetone	2.45	43	738184	239.095	ug/l	100
17) Carbon Disulfide	2.57	76	696496	47.243	ug/l	100
18) Methyl Acetate	2.78	43	442428	48.734	ug/l	100
19) Methyl tert-butyl Ether	3.20	73	910062	49.218	ug/l	100
20) Methylene Chloride	2.86	84	296644	46.465	ug/l	100
21) trans-1,2-Dichloroethene	3.17	96	284838	46.145	ug/l	100
22) Diisopropyl ether	3.87	45	847926	49.427	ug/l	100
23) Vinyl Acetate	3.82	43	3486879	248.487	ug/l	100
24) 1,1-Dichloroethane	3.70	63	479381	46.810	ug/l	100
25) 2-Butanone	4.70	43	1061761	244.486	ug/l	100
26) 2,2-Dichloropropane	4.59	77	387387	48.970	ug/l	100
27) cis-1,2-Dichloroethene	4.60	96	333506	48.970	ug/l	100
28) Bromochloromethane	5.02	49	221192	46.977	ug/l	100
29) Tetrahydrofuran	5.15	42	703007	245.778	ug/l	100
30) Chloroform	5.21	83	515649	48.623	ug/l	100
31) Cyclohexane	5.57	56	452222	48.607	ug/l	100
32) 1,1,1-Trichloroethane	5.49	97	454806	50.790	ug/l	100
36) 1,1-Dichloropropene	5.80	75	389483	48.427	ug/l	100
37) Ethyl Acetate	4.85	43	398326	47.585	ug/l	100
38) Carbon Tetrachloride	5.78	117	385984	49.383	ug/l	100

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX121818\
Data File : VX006591.D
Acq On : 18 Dec 2018 12:04
Operator : JC/MD
Sample : VSTDICCC050
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 6 Sample Multiplier: 1

Instrument : MSVOA_X
ClientSampleId : VSTDICCC050

Manual Integrations APPROVED
MMDadoda
12/19/2018 11:22:02 AM

Quant Time: Dec 19 00:53:57 2018
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121818W.M
Quant Title : SW846 8260
QLast Update : Wed Dec 19 00:31:42 2018
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
39) Methylcyclohexane	7.46	83	505077	47.701	ug/l	100
40) Benzene	6.14	78	1185706	48.501	ug/l	100
41) Methacrylonitrile	5.06	41	226683	48.189	ug/l	100
42) 1,2-Dichloroethane	6.20	62	390108	46.829	ug/l	100
43) Isopropyl Acetate	6.46	43	639381	50.200	ug/l	100
44) Trichloroethene	7.21	130	348115	47.047	ug/l	100
45) 1,2-Dichloropropane	7.51	63	280897	47.216	ug/l	100
46) Dibromomethane	7.66	93	212166	48.485	ug/l	100
47) Bromodichloromethane	7.90	83	364287	50.143	ug/l	100
48) Methyl methacrylate	7.77	41	330250	50.988	ug/l	100
49) 1,4-Dioxane	7.75	88	172740	942.599	ug/l	100
51) 4-Methyl-2-Pentanone	8.65	43	2058927	254.064	ug/l	100
52) Toluene	8.79	92	773746	48.991	ug/l	100
53) t-1,3-Dichloropropene	9.04	75	410424	52.675	ug/l	100
54) cis-1,3-Dichloropropene	8.43	75	451168	52.772	ug/l	100
55) 1,1,2-Trichloroethane	9.21	97	314495	48.648	ug/l	100
56) Ethyl methacrylate	9.18	69	474751	51.960	ug/l	100
57) 1,3-Dichloropropane	9.37	76	501701	48.236	ug/l	100
58) 2-Chloroethyl Vinyl ether	8.31	63	1195734	246.193	ug/l	100
59) 2-Hexanone	9.49	43	1581471	255.056	ug/l	100
60) Dibromochloromethane	9.58	129	317217	53.273	ug/l	100
61) 1,2-Dibromoethane	9.67	107	345232	50.237	ug/l	100
64) Tetrachloroethene	9.34	164	331862	47.088	ug/l	100
65) Chlorobenzene	10.14	112	906274	48.130	ug/l	100
66) 1,1,1,2-Tetrachloroethane	10.22	131	305021	51.921	ug/l	100
67) Ethyl Benzene	10.25	91	1492656	48.512	ug/l	100
68) m/p-Xylenes	10.36	106	1199242	98.774	ug/l	100
69) o-Xylene	10.70	106	596197	49.728	ug/l	100
70) Styrene	10.71	104	967246	50.994	ug/l	100
71) Bromoform	10.86	173	237364	53.071	ug/l	100
73) Isopropylbenzene	11.02	105	1556702	48.836	ug/l	100
74) N-amyl acetate	10.90	43	580295	50.860	ug/l	100
75) 1,1,2,2-Tetrachloroethane	11.27	83	470175	49.597	ug/l	100
76) 1,2,3-Trichloropropane	11.30	75	446654m	54.114	ug/l	
77) Bromobenzene	11.26	156	426028	49.436	ug/l	100
78) n-propylbenzene	11.36	91	1736722	49.477	ug/l	100
79) 2-Chlorotoluene	11.42	91	1027229	48.290	ug/l	100
80) 1,3,5-Trimethylbenzene	11.51	105	1299718	49.503	ug/l	100
81) trans-1,4-Dichloro-2-buten	11.07	75	127054	52.557	ug/l	100
82) 4-Chlorotoluene	11.51	91	1190255	48.780	ug/l	100
83) tert-Butylbenzene	11.77	119	1328198	50.545	ug/l	100
84) 1,2,4-Trimethylbenzene	11.80	105	1335566	48.362	ug/l	100
85) sec-Butylbenzene	11.94	105	1595179	49.513	ug/l	100
86) p-Isopropyltoluene	12.06	119	1419209	50.113	ug/l	100
87) 1,3-Dichlorobenzene	12.02	146	761651	49.039	ug/l	100
88) 1,4-Dichlorobenzene	12.10	146	766317	48.073	ug/l	100
89) n-Butylbenzene	12.39	91	1206178	50.045	ug/l	100
90) Hexachloroethane	12.60	117	202446	52.476	ug/l	100
91) 1,2-Dichlorobenzene	12.39	146	748632	48.184	ug/l	100
92) 1,2-Dibromo-3-Chloropropan	13.00	75	99543	50.747	ug/l	100

ICAL Form

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX121818\
Data File : VX006591.D
Acq On : 18 Dec 2018 12:04
Operator : JC/MD
Sample : VSTDICCC050
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 6 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
VSTDICCC050

Manual Integrations APPROVED
MMDadoda
12/19/2018 11:22:02 AM

Quant Time: Dec 19 00:53:57 2018
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121818W.M
Quant Title : SW846 8260
QLast Update : Wed Dec 19 00:31:42 2018
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
93) 1,2,4-Trichlorobenzene	13.65	180	529482	49.405	ug/l	100
94) Hexachlorobutadiene	13.78	225	239717	47.455	ug/l	100
95) Naphthalene	13.83	128	1684540	49.247	ug/l	100
96) 1,2,3-Trichlorobenzene	14.02	180	524375	47.389	ug/l	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

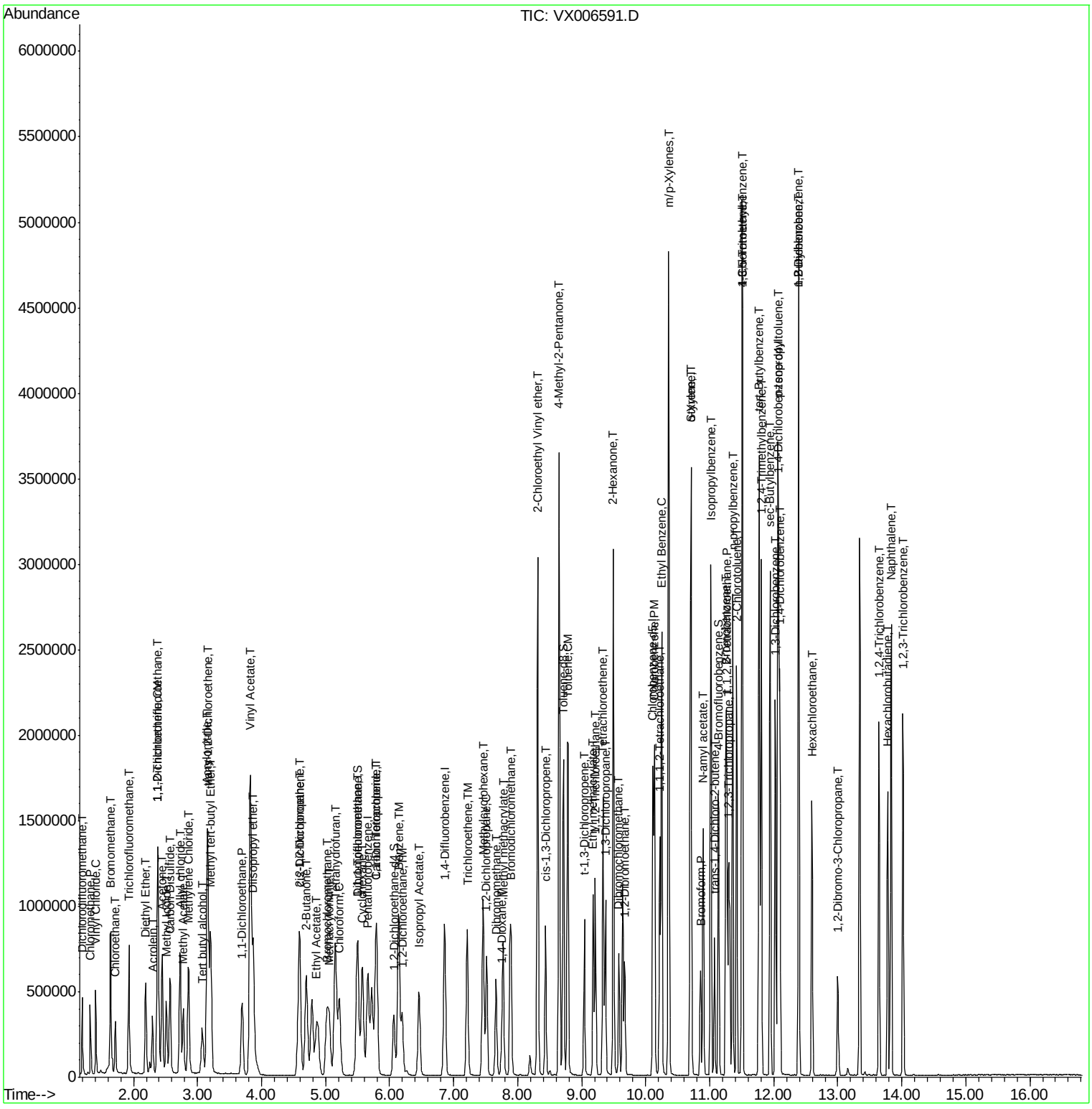
ICAL Form

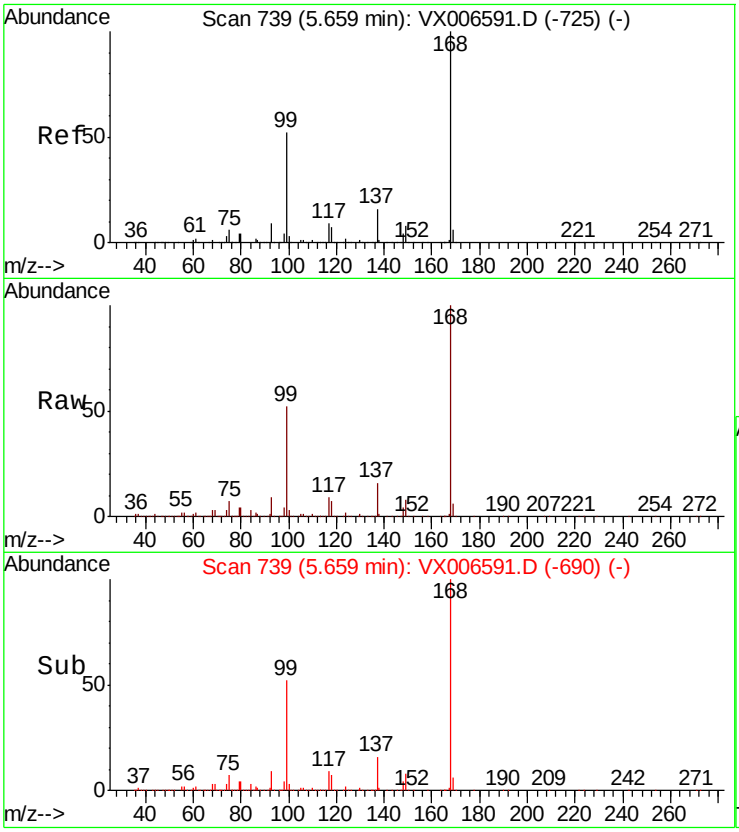
Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX121818\
Data File : VX006591.D
Acq On : 18 Dec 2018 12:04
Operator : JC/MD
Sample : VSTDICCC050
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Dec 19 00:53:57 2018
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121818W.M
Quant Title : SW846 8260
QLast Update : Wed Dec 19 00:31:42 2018
Response via : Initial Calibration

Instrument :
MSVOA_X
ClientSampleId :
VSTDICCC050

Manual Integrations APPROVED
MMDadoda
12/19/2018 11:22:02 AM

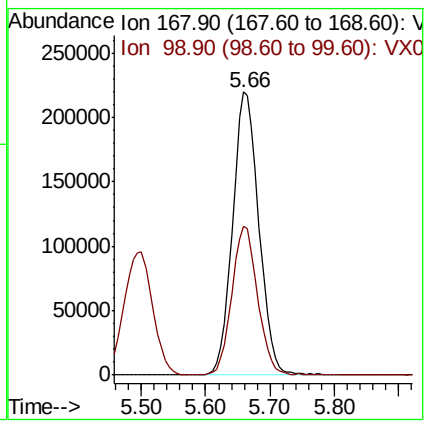


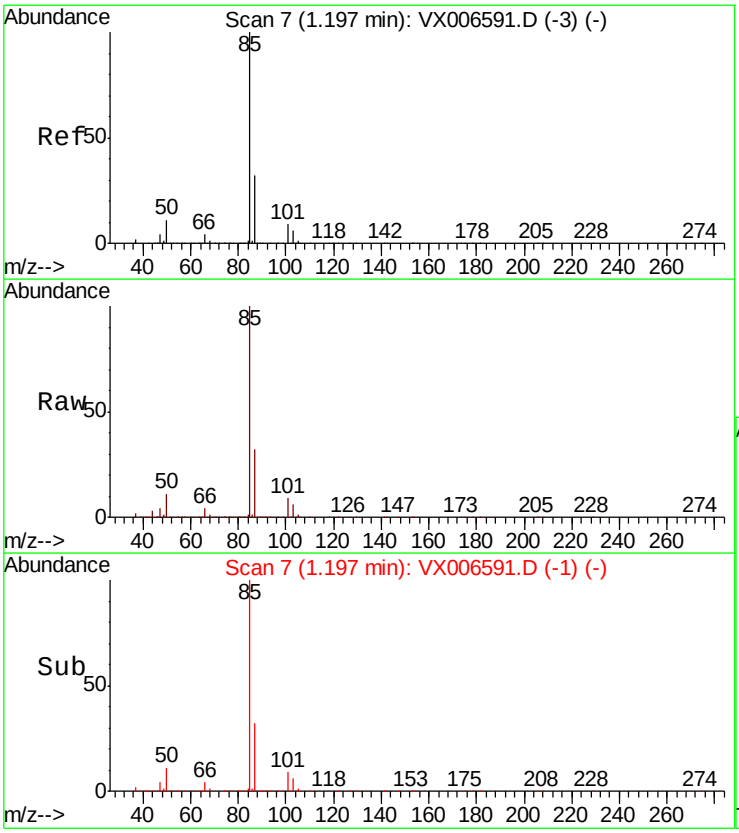


#1
Pentafluorobenzene
Concen: 50.000 ug/l
RT: 5.66 min Scan# 739
Delta R.T. 0.00 min
Lab File: VX006591.D
Acq: 18 Dec 2018 12:04

Tgt Ion:168 Resp: 623524

Ion	Ratio	Lower	Upper
168	100		
99	52.3	41.8	62.8

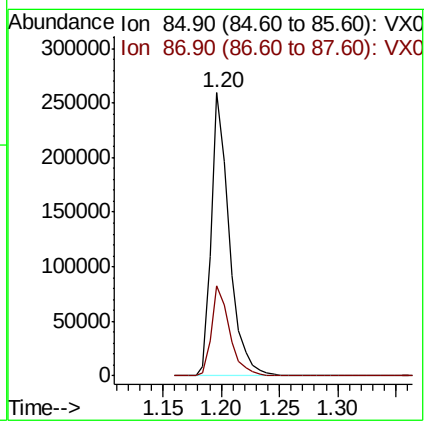




#2
Dichlorodifluoromethane
Concen: 48.043 ug/l
RT: 1.20 min Scan# 7
Delta R.T. 0.00 min
Lab File: VX006591.D
Acq: 18 Dec 2018 12:04

Tgt Ion: 85 Resp: 274047

Ion	Ratio	Lower	Upper
85	100		
87	31.7	15.9	47.6

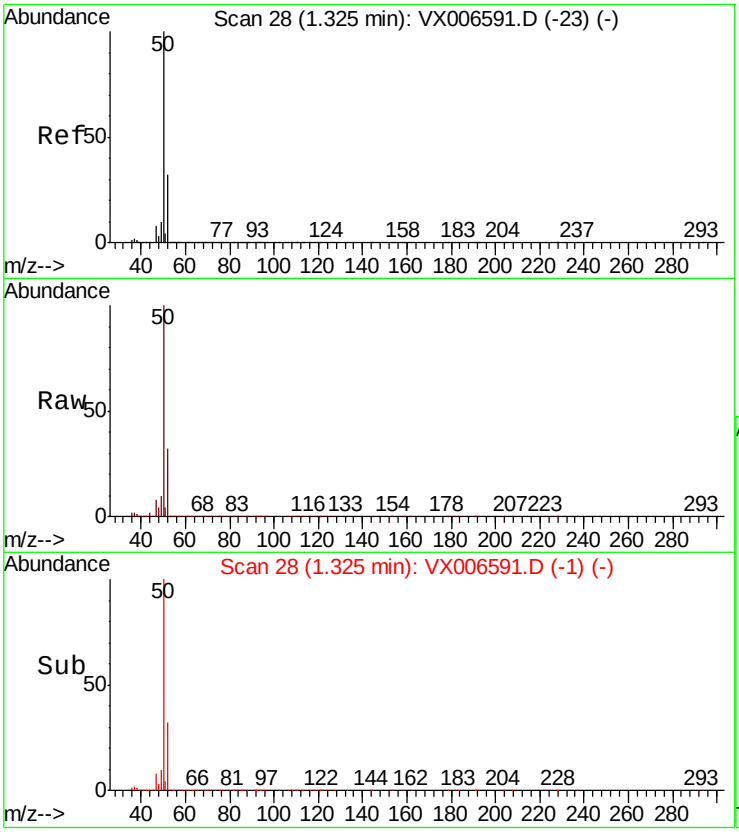


Instrument :
MSVOA_X
ClientSampleId :
VSTDICCC050

Manual Integrations APPROVED
MMDadoda
12/19/2018 11:22:02 AM

Instrument :
MSVOA_X
ClientSampleId :
VSTDICCC050

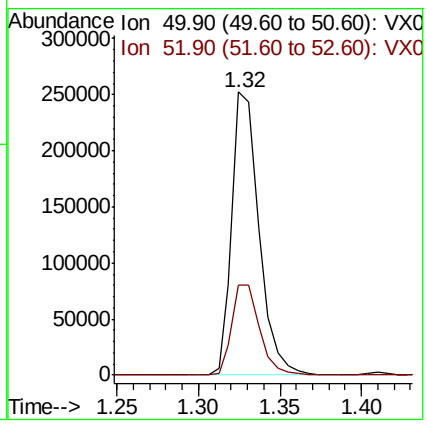
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:22:02 AM

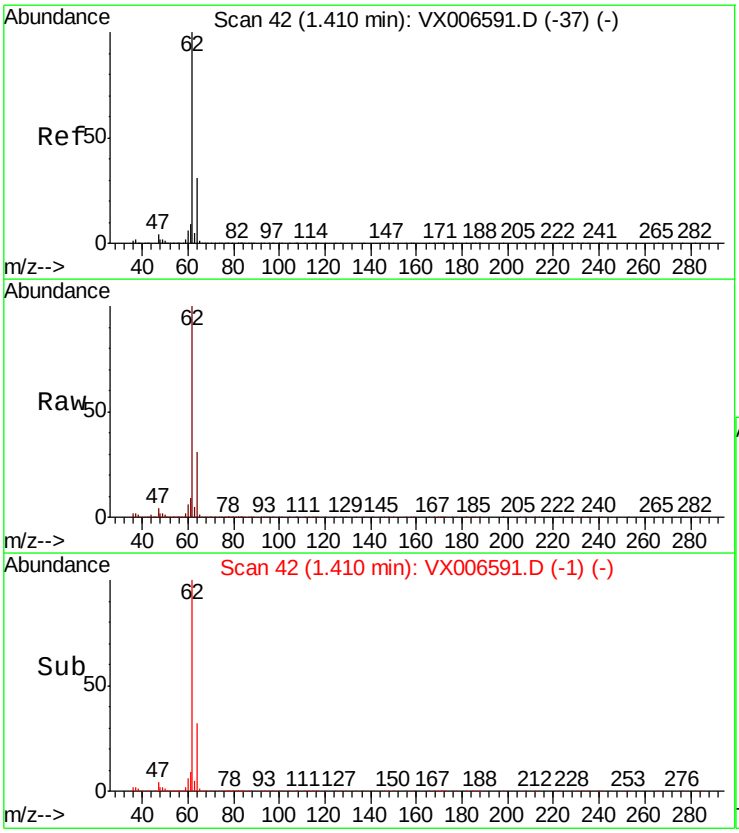


#3
Chloromethane
Concen: 47.676 ug/l
RT: 1.32 min Scan# 28
Delta R.T. 0.00 min
Lab File: VX006591.D
Acq: 18 Dec 2018 12:04

Tgt Ion: 50 Resp: 292984

Ion	Ratio	Lower	Upper
50	100		
52	31.8	25.4	38.2

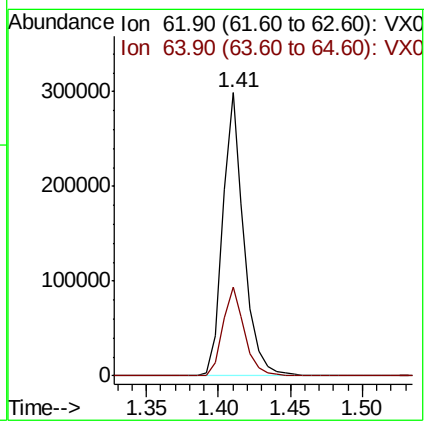


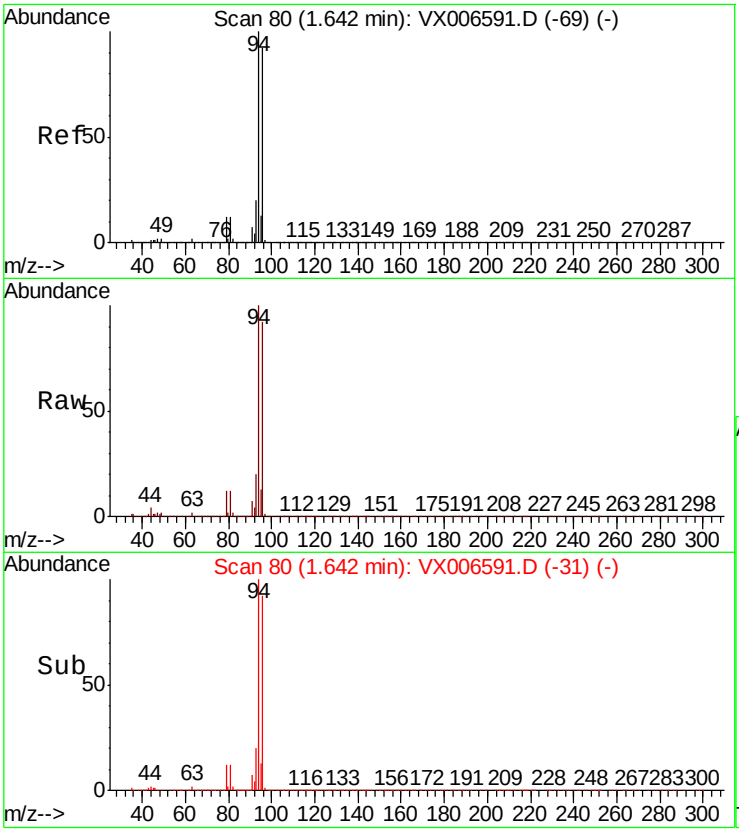


#4
Vinyl Chloride
Concen: 47.956 ug/l
RT: 1.41 min Scan# 42
Delta R.T. 0.00 min
Lab File: VX006591.D
Acq: 18 Dec 2018 12:04

Tgt Ion: 62 Resp: 307797

Ion	Ratio	Lower	Upper
62	100		
64	31.4	25.1	37.7

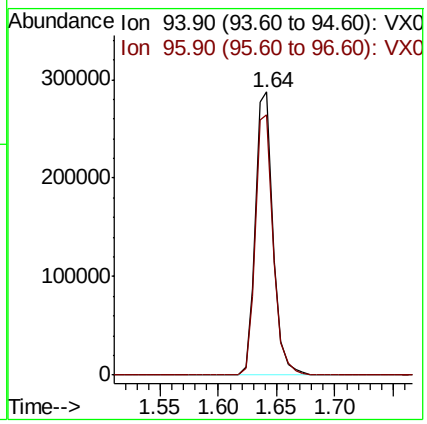




#5
Bromomethane
Concen: 43.630 ug/l
RT: 1.64 min Scan# 80
Delta R.T. 0.00 min
Lab File: VX006591.D
Acq: 18 Dec 2018 12:04

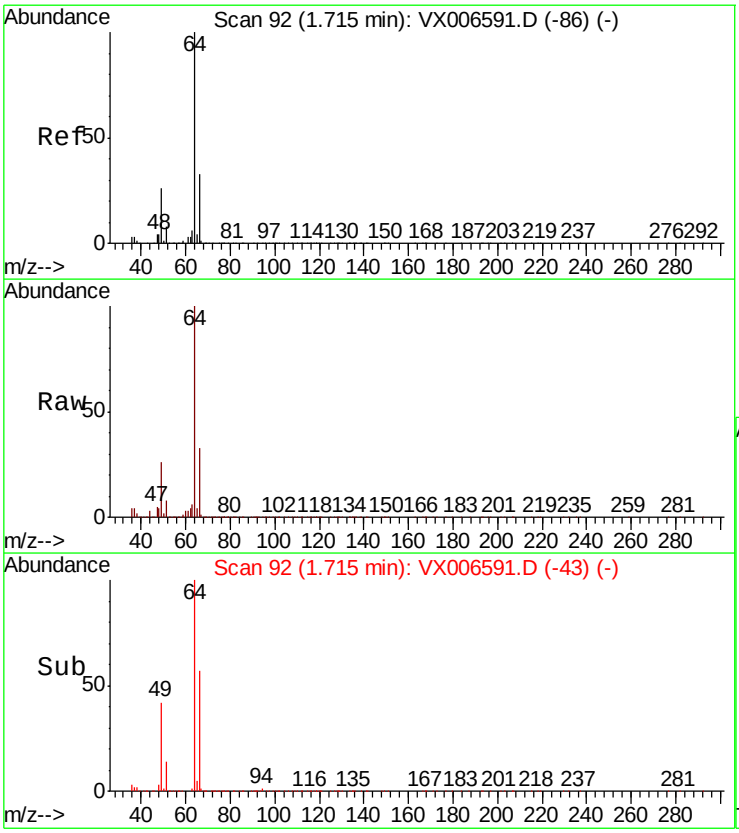
Tgt Ion: 94 Resp: 304478

Ion	Ratio	Lower	Upper
94	100		
96	91.8	73.4	110.2



Instrument :
MSVOA_X
ClientSampleId :
VSTDICCC050

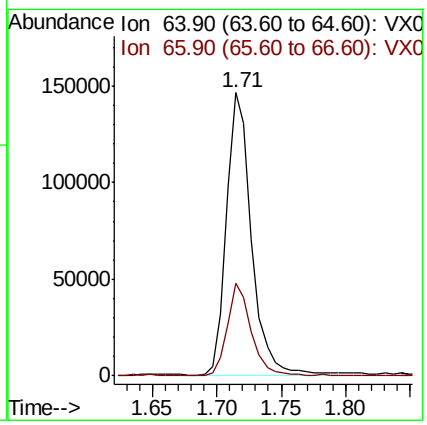
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:22:02 AM

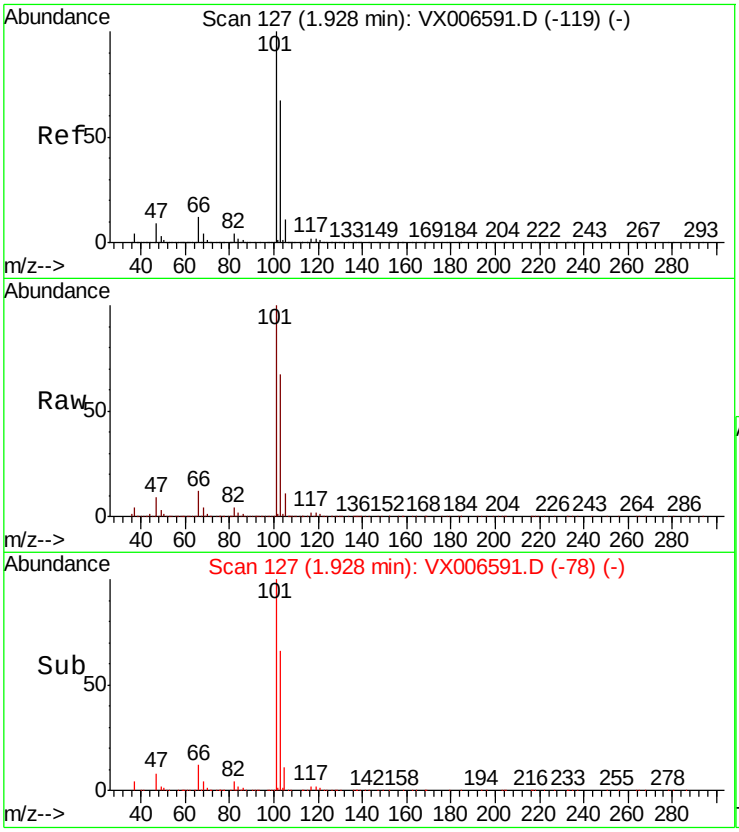


#6
Chloroethane
Concen: 44.674 ug/l
RT: 1.71 min Scan# 92
Delta R.T. 0.00 min
Lab File: VX006591.D
Acq: 18 Dec 2018 12:04

Tgt Ion: 64 Resp: 198534

Ion	Ratio	Lower	Upper
64	100		
66	33.0	26.4	39.6

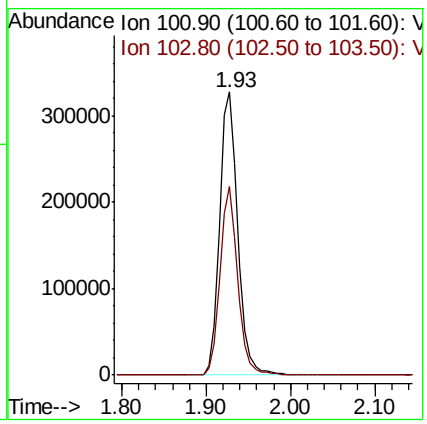




#7
Trichlorofluoromethane
Concen: 48.803 ug/l
RT: 1.93 min Scan# 127
Delta R.T. 0.00 min
Lab File: VX006591.D
Acq: 18 Dec 2018 12:04

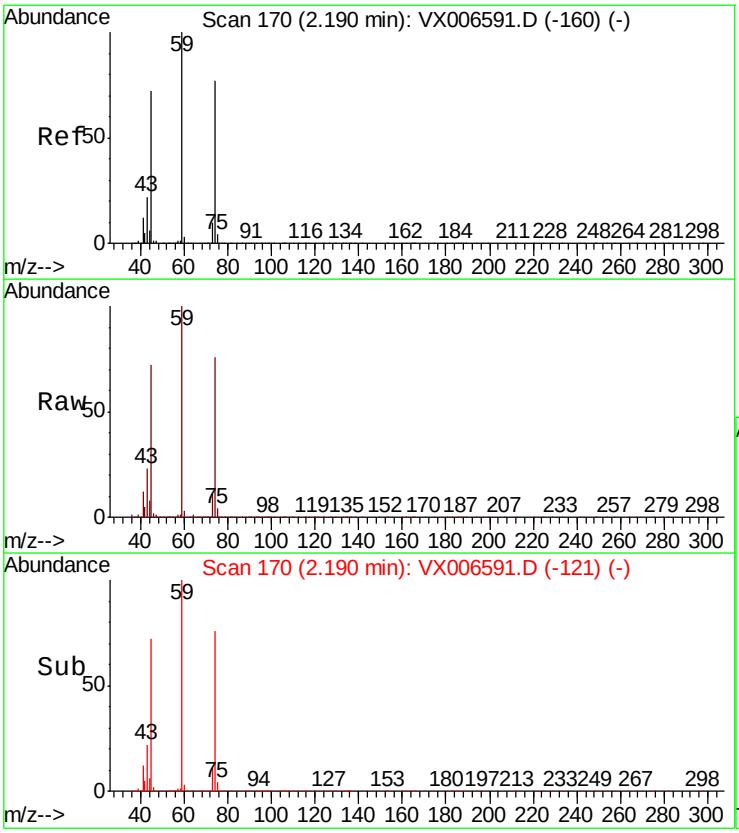
Tgt Ion:101 Resp: 488354

Ion	Ratio	Lower	Upper
101	100		
103	66.5	53.2	79.8



Instrument :
MSVOA_X
ClientSampleId :
VSTDICCC050

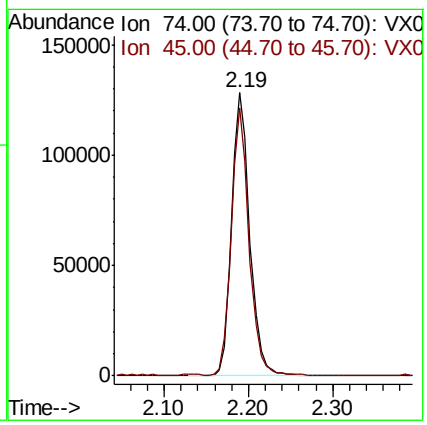
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:22:02 AM

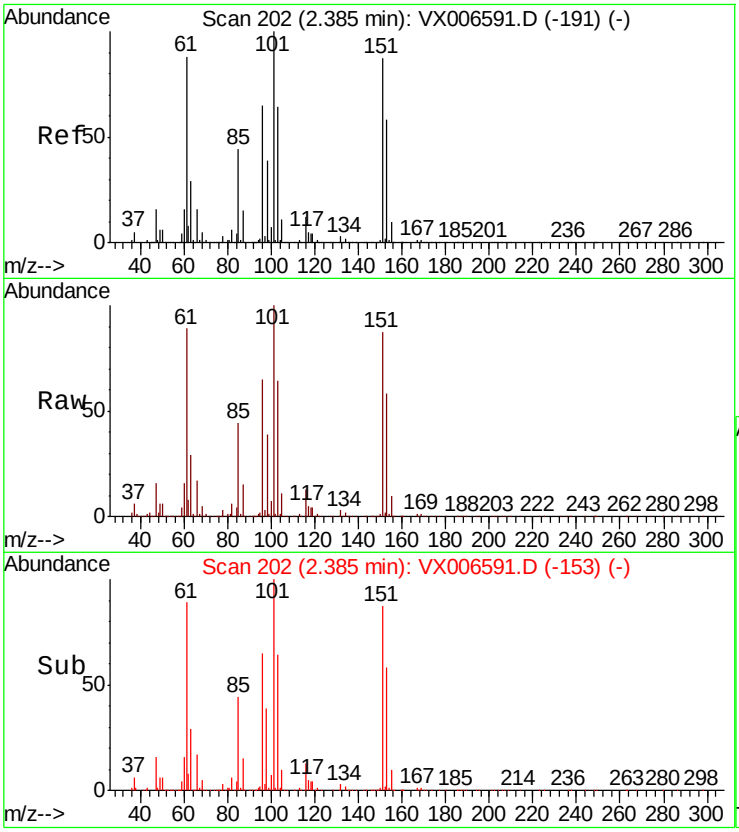


#8
Diethyl Ether
Concen: 47.084 ug/l
RT: 2.19 min Scan# 170
Delta R.T. 0.00 min
Lab File: VX006591.D
Acq: 18 Dec 2018 12:04

Tgt Ion: 74 Resp: 187136

Ion	Ratio	Lower	Upper
74	100		
45	92.6	46.3	138.9

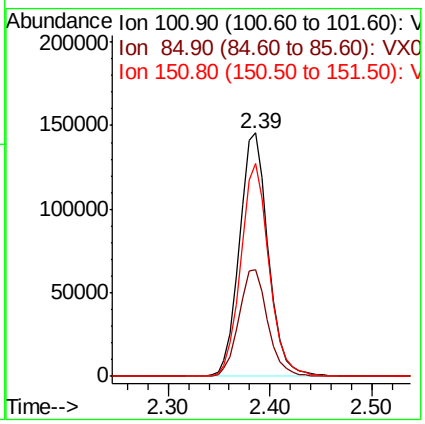




#9
1,1,2-Trichlorotrifluoroethane
Concen: 48.432 ug/l
RT: 2.39 min Scan# 202
Delta R.T. 0.00 min
Lab File: VX006591.D
Acq: 18 Dec 2018 12:04

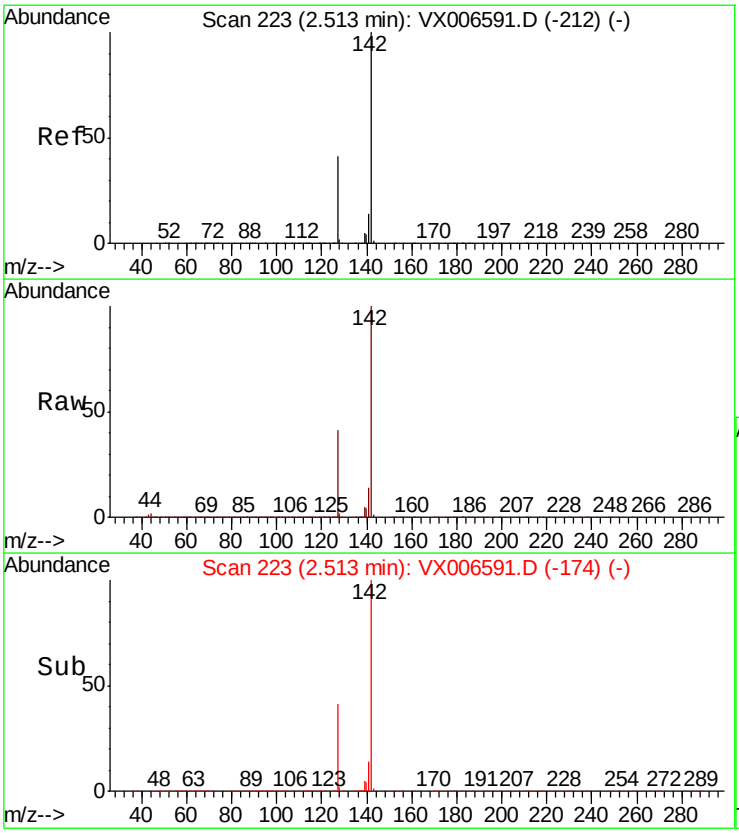
Tgt Ion:101 Resp: 284559

Ion	Ratio	Lower	Upper
101	100		
85	43.9	35.1	52.7
151	86.1	68.9	103.3



Instrument :
MSVOA_X
ClientSampleId :
VSTDICCC050

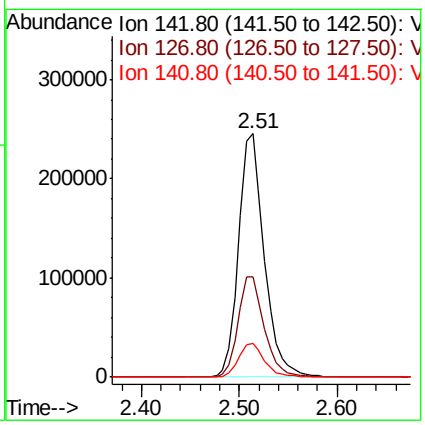
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:22:02 AM

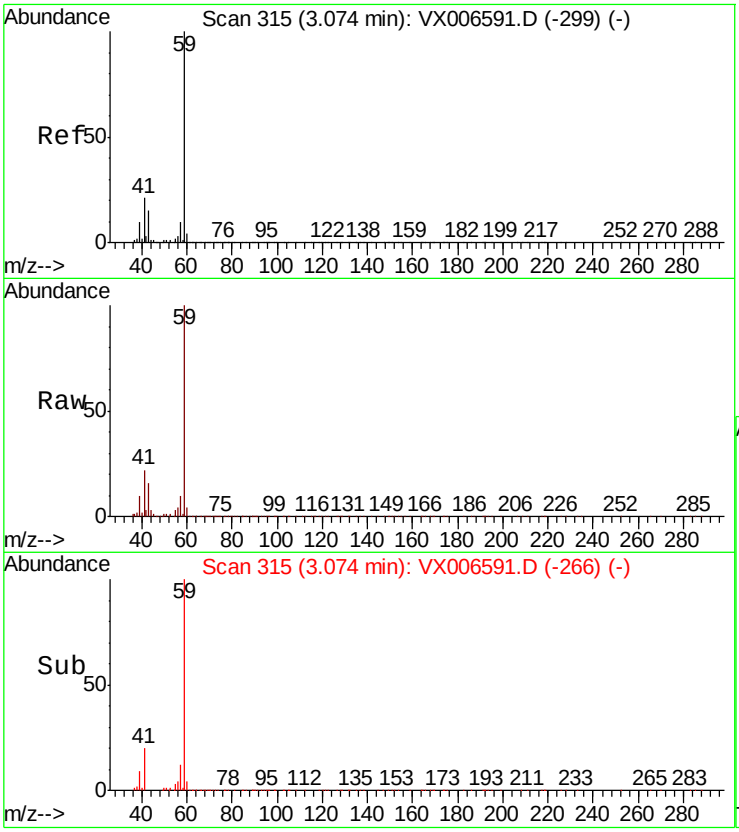


#10
Methyl Iodide
Concen: 53.086 ug/l
RT: 2.51 min Scan# 223
Delta R.T. 0.00 min
Lab File: VX006591.D
Acq: 18 Dec 2018 12:04

Tgt Ion:142 Resp: 446471

Ion	Ratio	Lower	Upper
142	100		
127	42.4	33.9	50.9
141	14.2	11.4	17.0

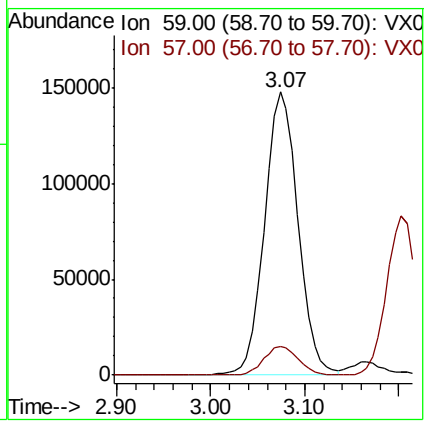




#11
Tert butyl alcohol
Concen: 245.248 ug/l
RT: 3.07 min Scan# 315
Delta R.T. 0.00 min
Lab File: VX006591.D
Acq: 18 Dec 2018 12:04

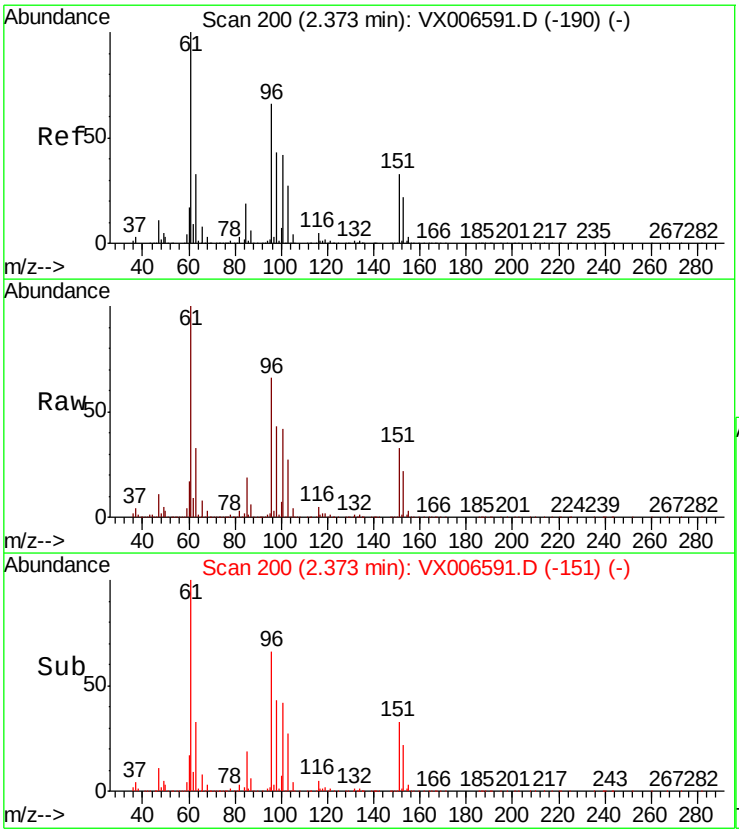
Tgt Ion: 59 Resp: 367807

Ion	Ratio	Lower	Upper
59	100		
57	10.6	8.5	12.7



Instrument :
MSVOA_X
ClientSampleId :
VSTDICCC050

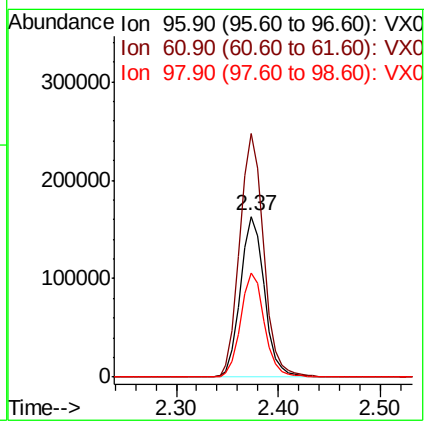
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:22:02 AM

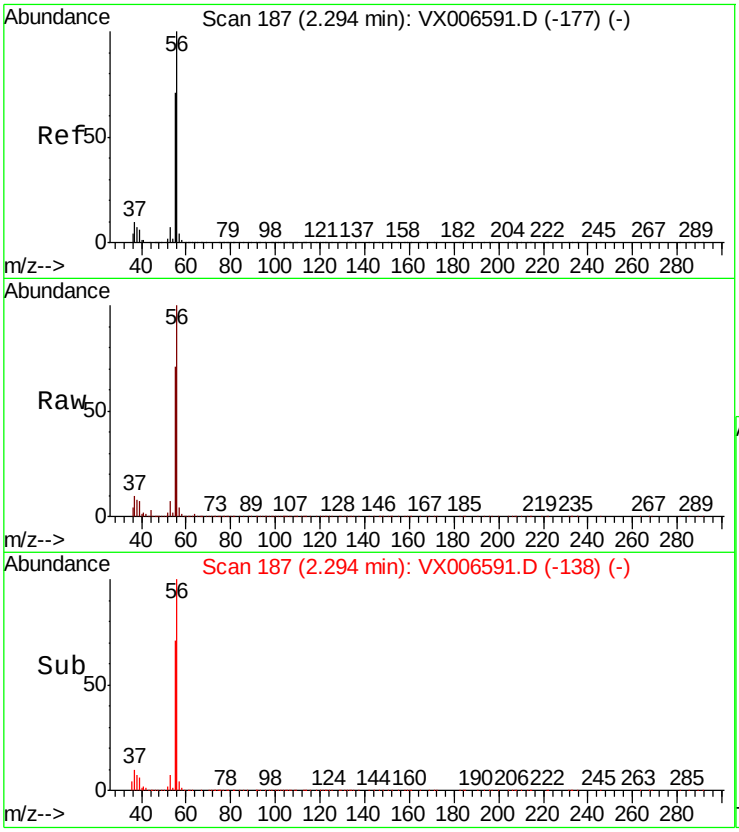


#12
1,1-Dichloroethene
Concen: 47.656 ug/l
RT: 2.37 min Scan# 200
Delta R.T. 0.00 min
Lab File: VX006591.D
Acq: 18 Dec 2018 12:04

Tgt Ion: 96 Resp: 265493

Ion	Ratio	Lower	Upper
96	100		
61	151.8	121.4	182.2
98	64.9	51.9	77.9

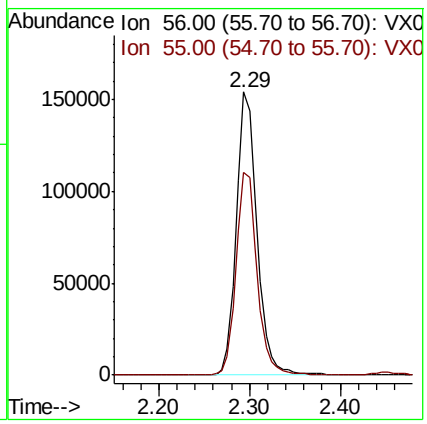




#13
Acrolein
Concen: 239.581 ug/l
RT: 2.29 min Scan# 187
Delta R.T. 0.00 min
Lab File: VX006591.D
Acq: 18 Dec 2018 12:04

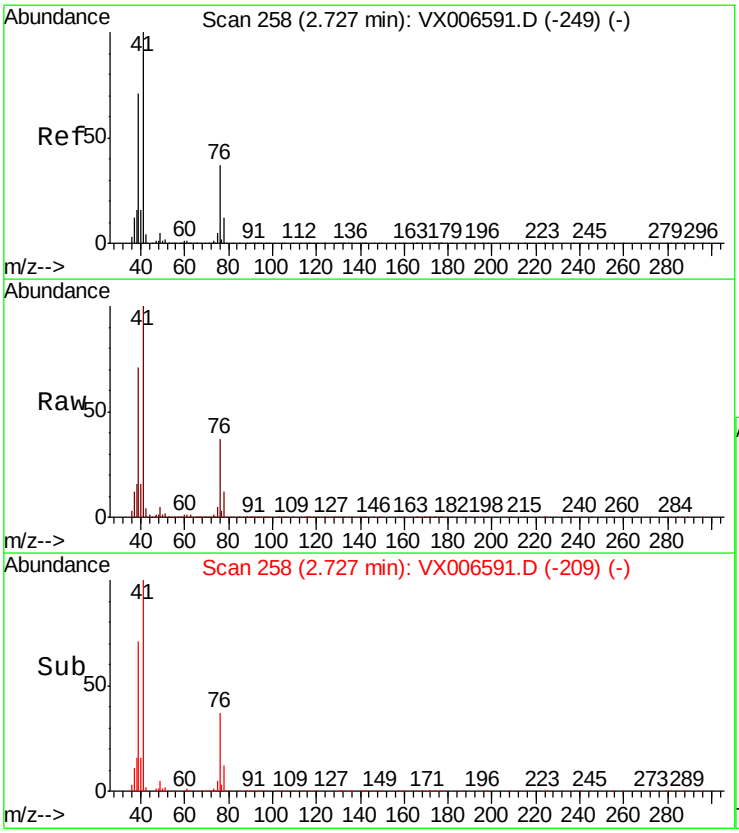
Tgt Ion: 56 Resp: 242392

Ion	Ratio	Lower	Upper
56	100		
55	72.8	58.2	87.4



Instrument :
MSVOA_X
ClientSampleId :
VSTDICCC050

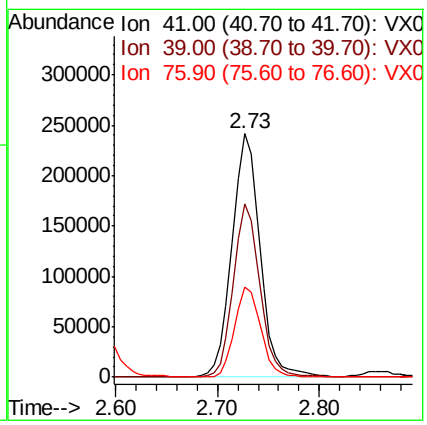
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:22:02 AM



#14
Allyl chloride
Concen: 48.885 ug/l
RT: 2.73 min Scan# 258
Delta R.T. 0.00 min
Lab File: VX006591.D
Acq: 18 Dec 2018 12:04

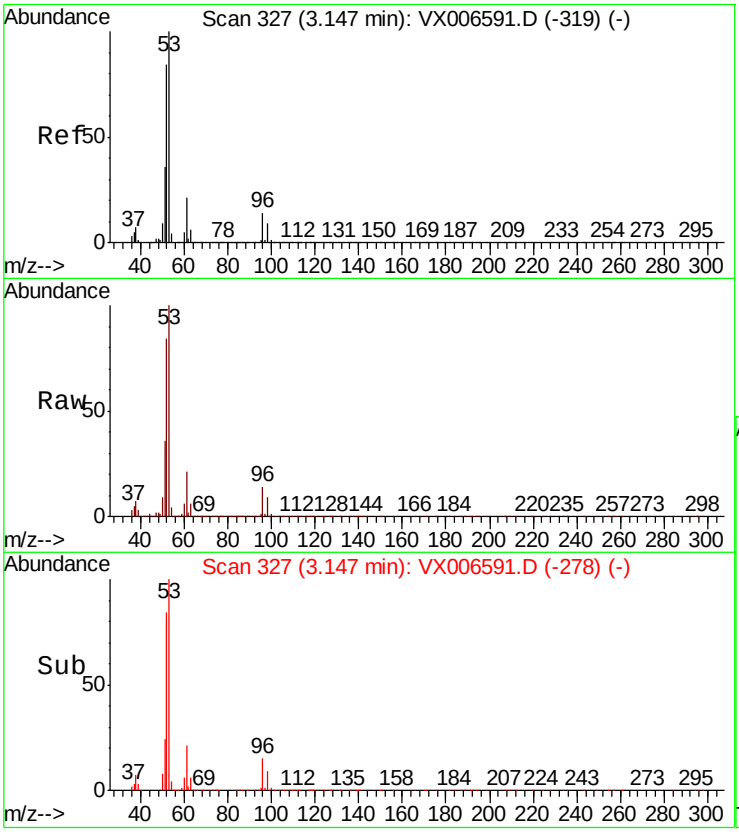
Tgt Ion: 41 Resp: 458412

Ion	Ratio	Lower	Upper
41	100		
39	67.0	53.6	80.4
76	34.3	27.4	41.2



Instrument :
MSVOA_X
ClientSampleId :
VSTDICCC050

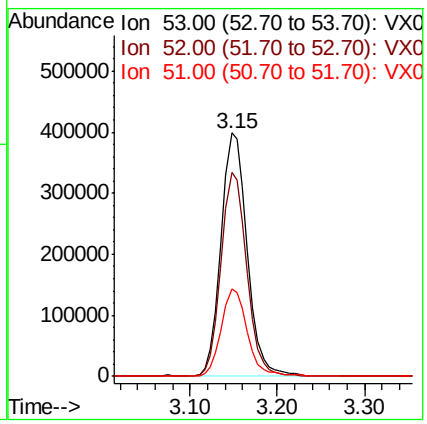
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:22:02 AM

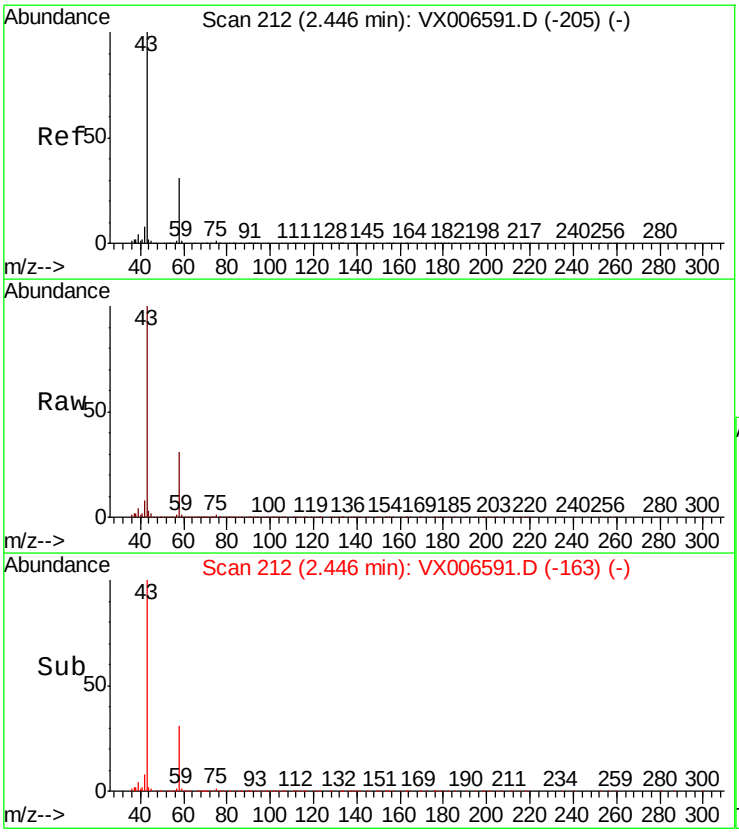


#15
Acrylonitrile
Concen: 247.258 ug/l
RT: 3.15 min Scan# 327
Delta R.T. 0.00 min
Lab File: VX006591.D
Acq: 18 Dec 2018 12:04

Tgt Ion: 53 Resp: 823341

Ion	Ratio	Lower	Upper
53	100		
52	82.5	66.0	99.0
51	35.7	28.6	42.8

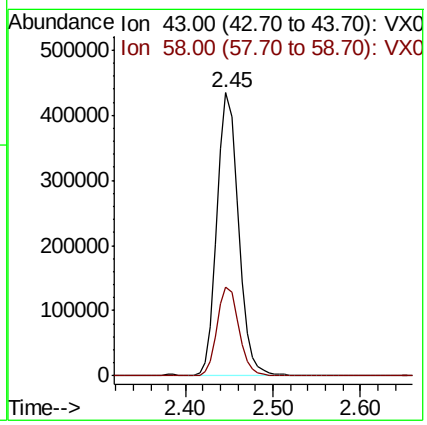




#16
Acetone
Concen: 239.095 ug/l
RT: 2.45 min Scan# 212
Delta R.T. 0.00 min
Lab File: VX006591.D
Acq: 18 Dec 2018 12:04

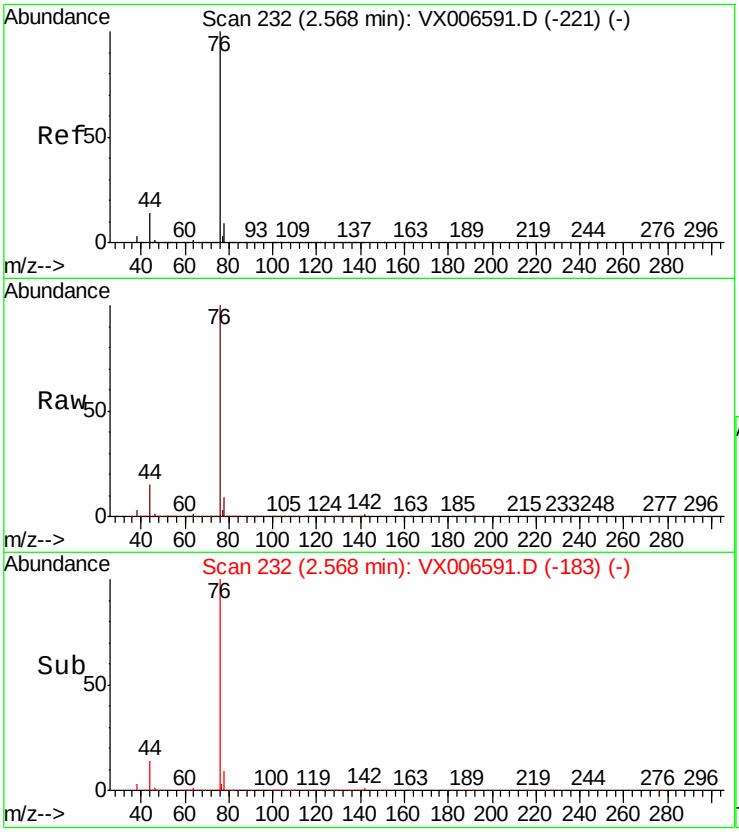
Tgt Ion: 43 Resp: 738184

Ion	Ratio	Lower	Upper
43	100		
58	31.3	25.0	37.6



Instrument :
MSVOA_X
ClientSampleId :
VSTDICCC050

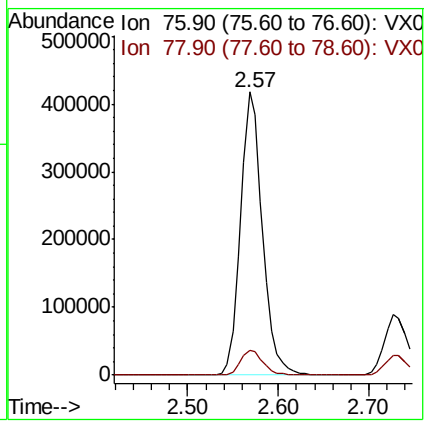
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:22:02 AM

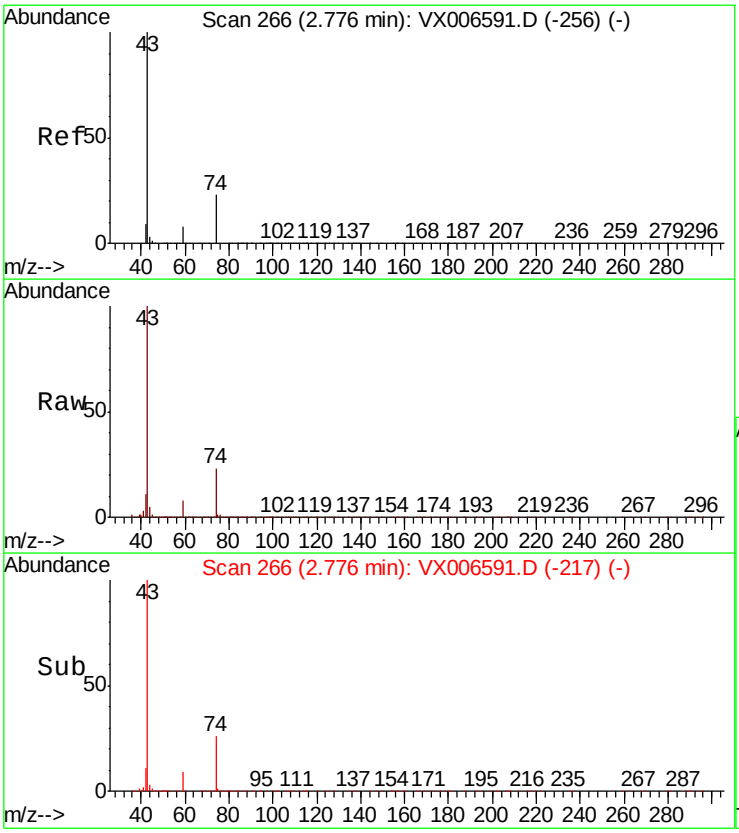


#17
Carbon Disulfide
Concen: 47.243 ug/l
RT: 2.57 min Scan# 232
Delta R.T. 0.00 min
Lab File: VX006591.D
Acq: 18 Dec 2018 12:04

Tgt Ion: 76 Resp: 696496

Ion	Ratio	Lower	Upper
76	100		
78	8.8	7.0	10.6

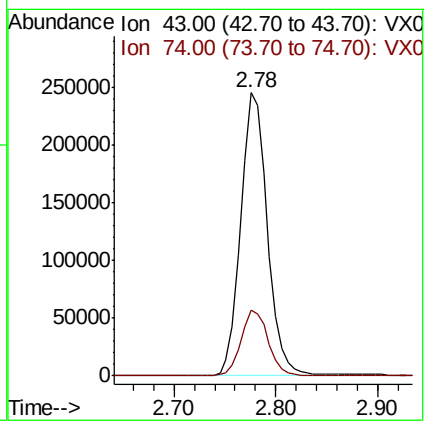




#18
Methyl Acetate
Concen: 48.734 ug/l
RT: 2.78 min Scan# 266
Delta R.T. 0.00 min
Lab File: VX006591.D
Acq: 18 Dec 2018 12:04

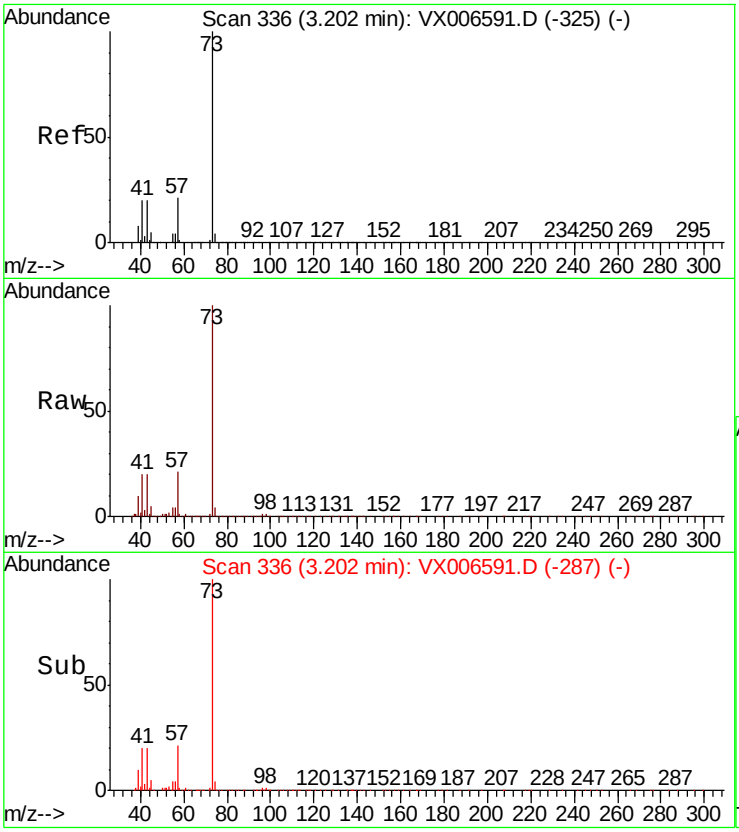
Tgt Ion: 43 Resp: 442428

Ion	Ratio	Lower	Upper
43	100		
74	23.3	18.6	28.0



Instrument :
MSVOA_X
ClientSampleId :
VSTDICCC050

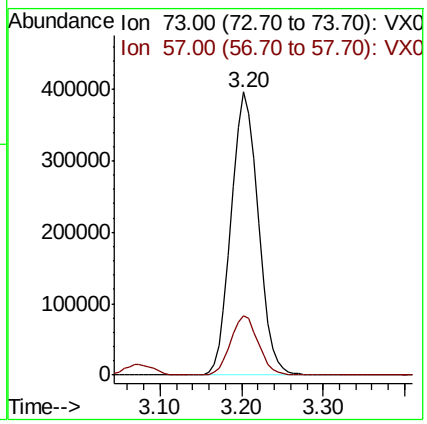
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:22:02 AM

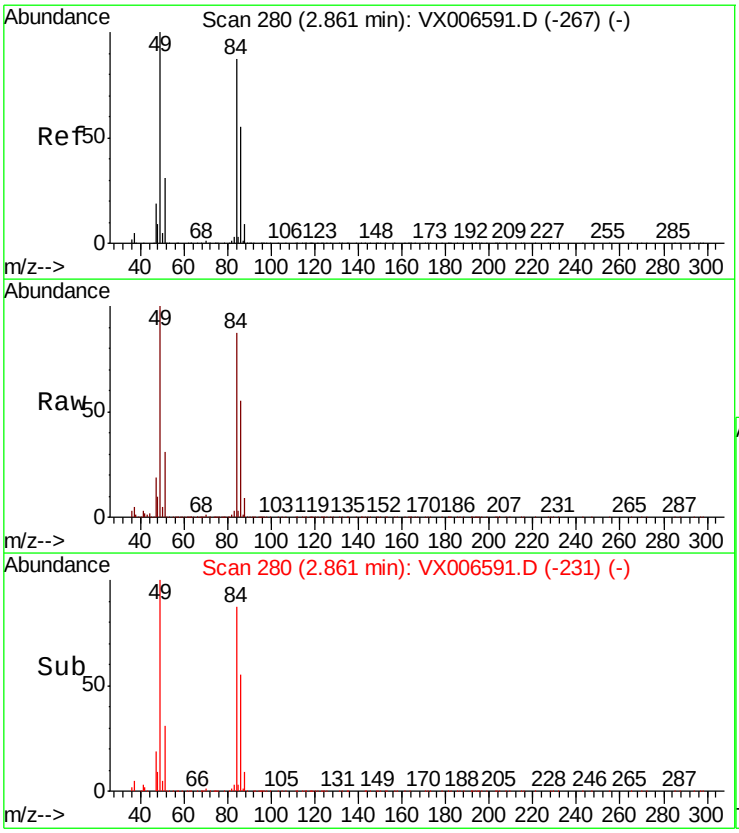


#19
Methyl tert-butyl Ether
Concen: 49.218 ug/l
RT: 3.20 min Scan# 336
Delta R.T. 0.00 min
Lab File: VX006591.D
Acq: 18 Dec 2018 12:04

Tgt Ion: 73 Resp: 910062

Ion	Ratio	Lower	Upper
73	100		
57	21.0	16.8	25.2

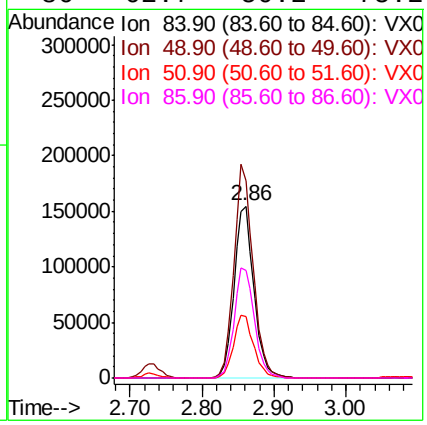




#20
Methylene Chloride
Concen: 46.465 ug/l
RT: 2.86 min Scan# 280
Delta R.T. 0.00 min
Lab File: VX006591.D
Acq: 18 Dec 2018 12:04

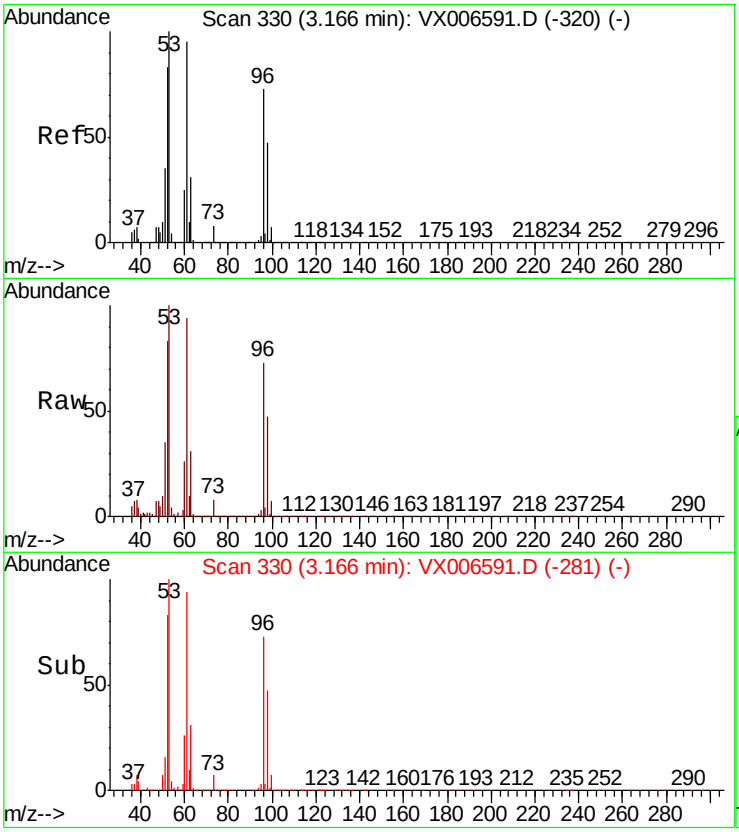
Tgt Ion: 84 Resp: 296644

Ion	Ratio	Lower	Upper
84	100		
49	114.7	91.8	137.6
51	35.6	28.5	42.7
86	62.7	50.2	75.2



Instrument :
MSVOA_X
ClientSampleId :
VSTDICCC050

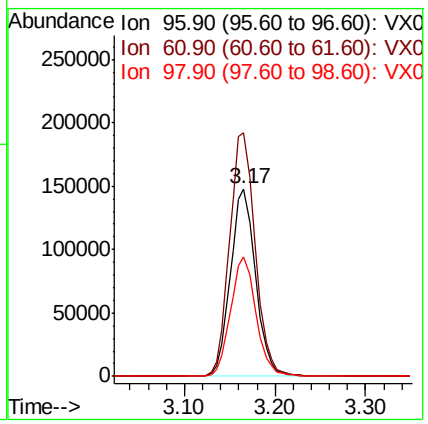
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:22:02 AM

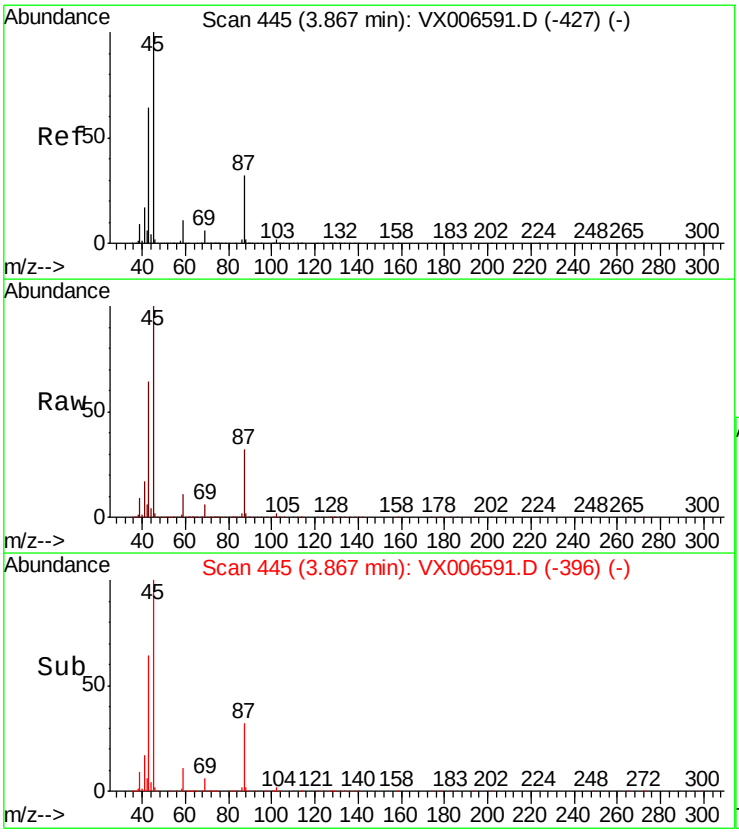


#21
trans-1,2-Dichloroethene
Concen: 46.145 ug/l
RT: 3.17 min Scan# 330
Delta R.T. 0.00 min
Lab File: VX006591.D
Acq: 18 Dec 2018 12:04

Tgt Ion: 96 Resp: 284838

Ion	Ratio	Lower	Upper
96	100		
61	129.6	103.7	155.5
98	63.8	51.0	76.6

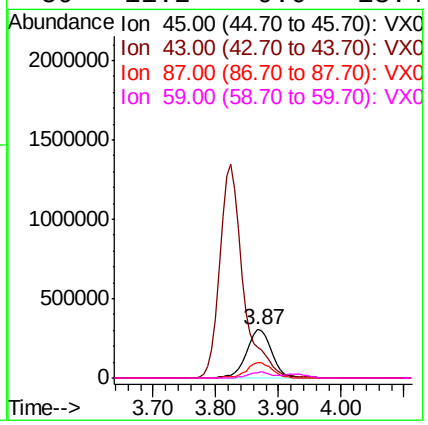


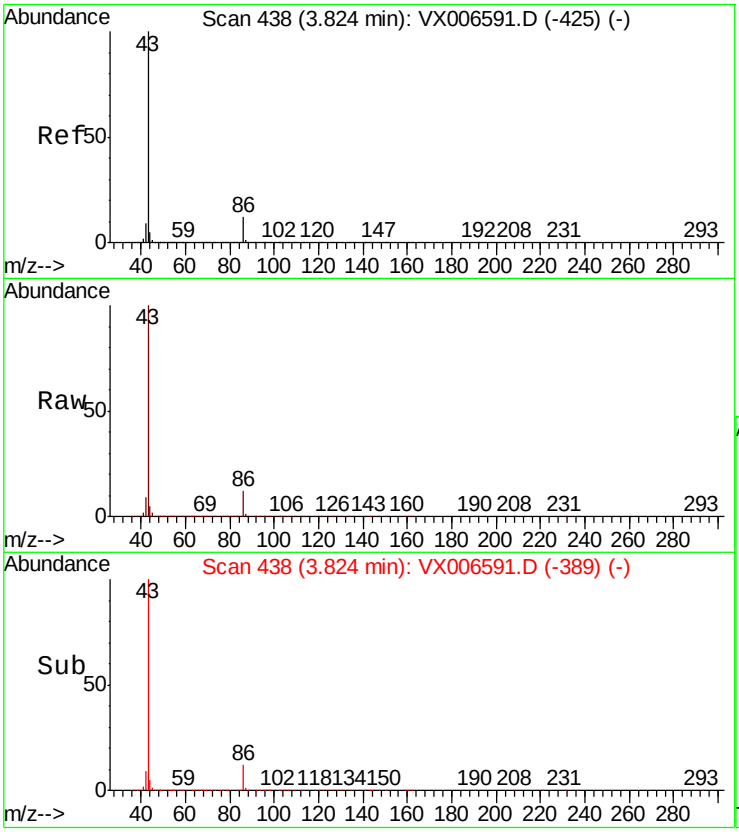


#22
Diisopropyl ether
Concen: 49.427 ug/l
RT: 3.87 min Scan# 445
Delta R.T. 0.00 min
Lab File: VX006591.D
Acq: 18 Dec 2018 12:04

Tgt Ion: 45 Resp: 847926

Ion	Ratio	Lower	Upper
45	100		
43	64.0	51.2	76.8
87	32.2	25.8	38.6
59	11.2	9.0	13.4

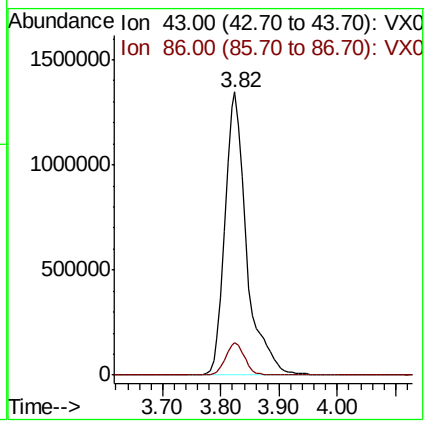




#23
Vinyl Acetate
Concen: 248.487 ug/l
RT: 3.82 min Scan# 438
Delta R.T. 0.00 min
Lab File: VX006591.D
Acq: 18 Dec 2018 12:04

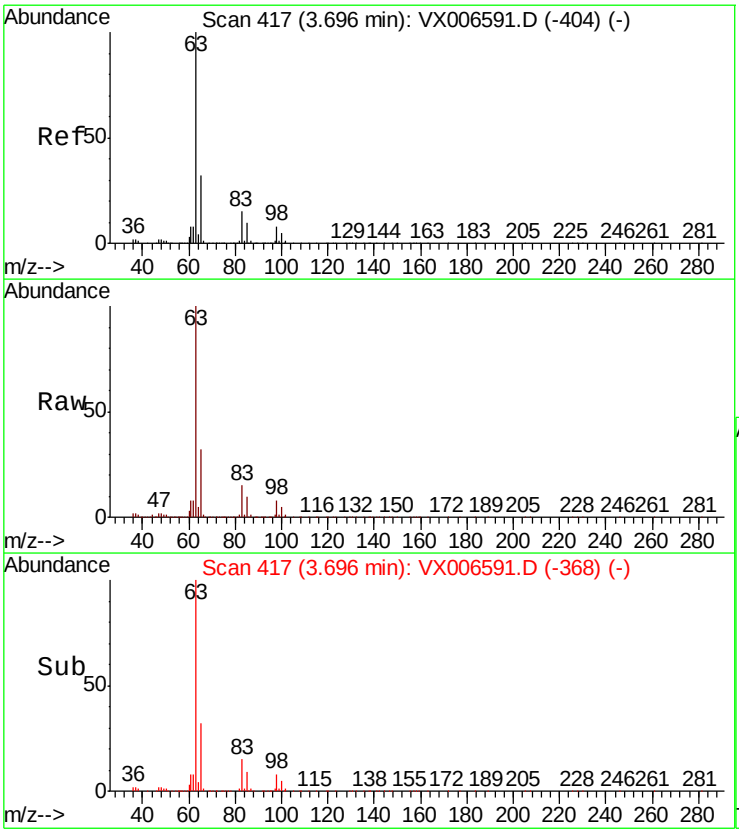
Tgt Ion: 43 Resp: 3486879

Ion	Ratio	Lower	Upper
43	100		
86	11.5	9.2	13.8



Instrument :
MSVOA_X
ClientSampleId :
VSTDICCC050

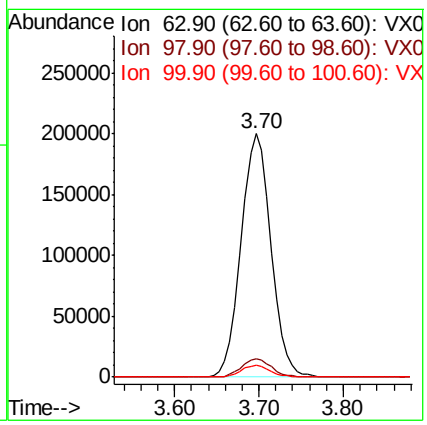
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:22:02 AM

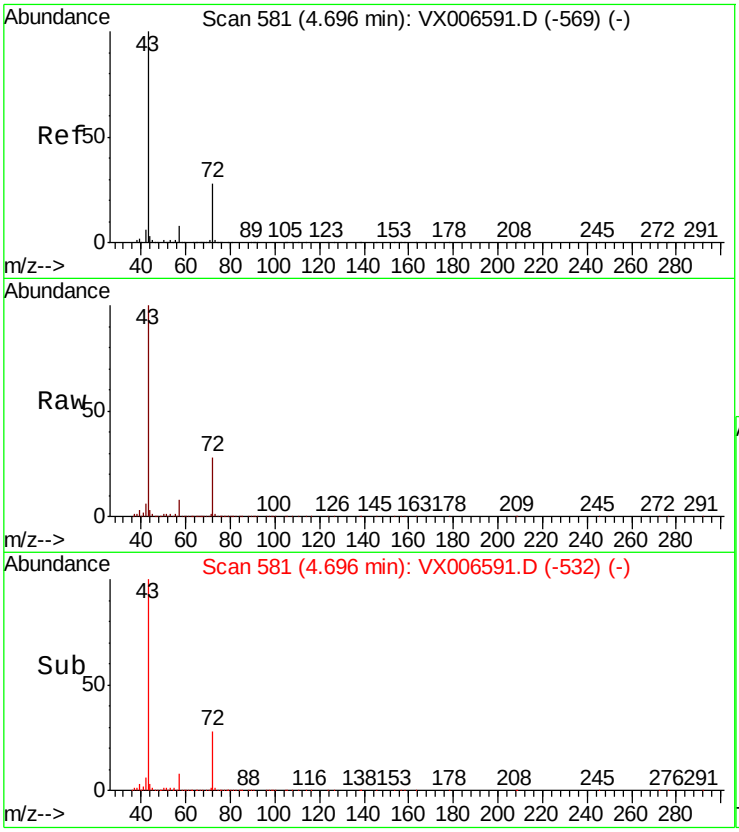


#24
1,1-Dichloroethane
Concen: 46.810 ug/l
RT: 3.70 min Scan# 417
Delta R.T. 0.00 min
Lab File: VX006591.D
Acq: 18 Dec 2018 12:04

Tgt Ion: 63 Resp: 479381

Ion	Ratio	Lower	Upper
63	100		
98	7.7	3.9	11.5
100	4.8	2.4	7.2

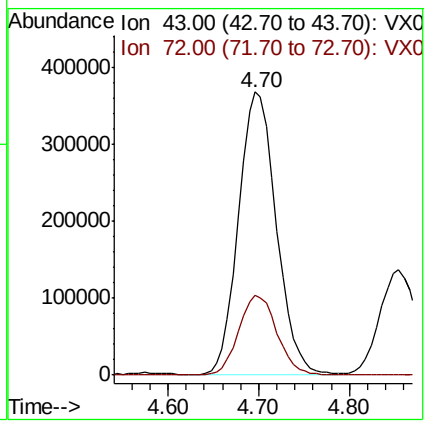




#25
2-Butanone
Concen: 244.486 ug/l
RT: 4.70 min Scan# 581
Delta R.T. 0.00 min
Lab File: VX006591.D
Acq: 18 Dec 2018 12:04

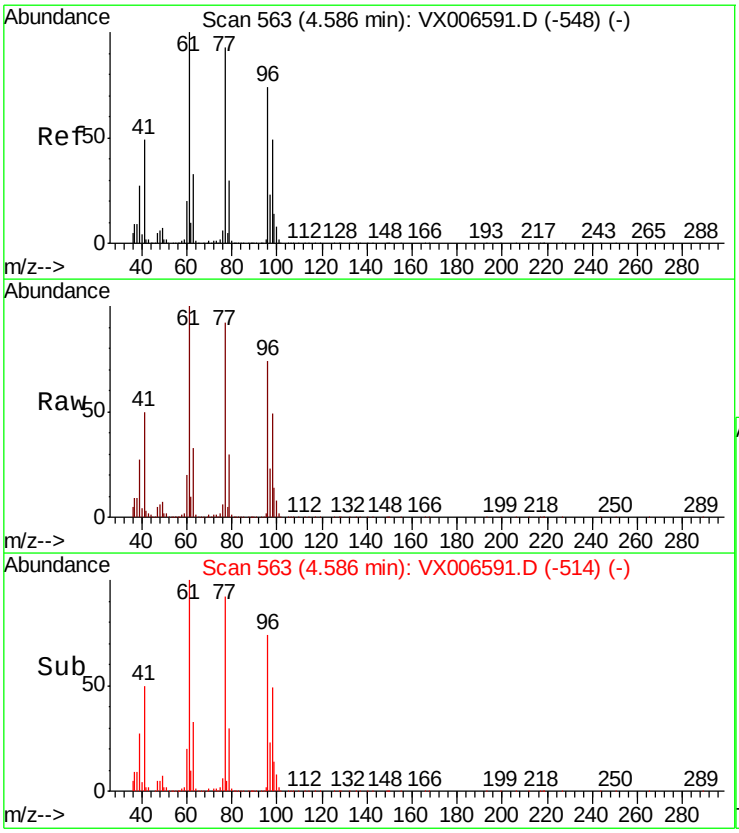
Tgt Ion: 43 Resp: 1061761

Ion	Ratio	Lower	Upper
43	100		
72	28.0	22.4	33.6



Instrument :
MSVOA_X
ClientSampleId :
VSTDICCC050

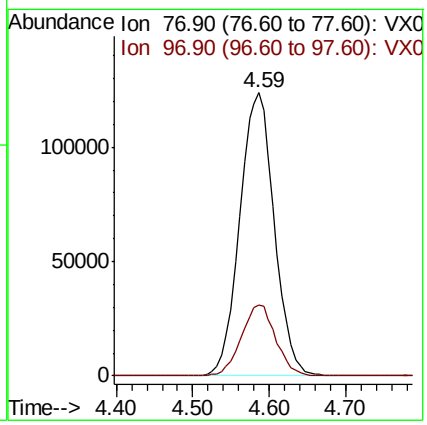
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:22:02 AM

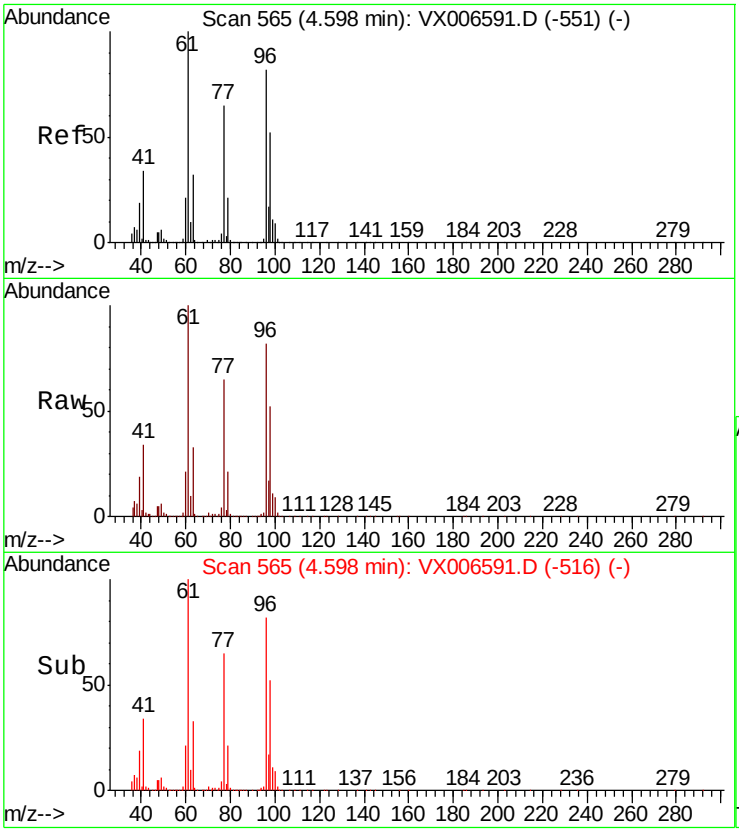


#26
2,2-Dichloropropane
Concen: 48.970 ug/l
RT: 4.59 min Scan# 563
Delta R.T. 0.00 min
Lab File: VX006591.D
Acq: 18 Dec 2018 12:04

Tgt Ion: 77 Resp: 387387

Ion	Ratio	Lower	Upper
77	100		
97	24.9	12.4	37.4

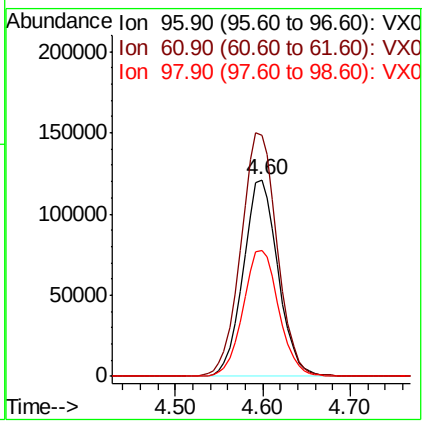




#27
cis-1,2-Dichloroethene
Concen: 48.970 ug/l
RT: 4.60 min Scan# 565
Delta R.T. 0.00 min
Lab File: VX006591.D
Acq: 18 Dec 2018 12:04

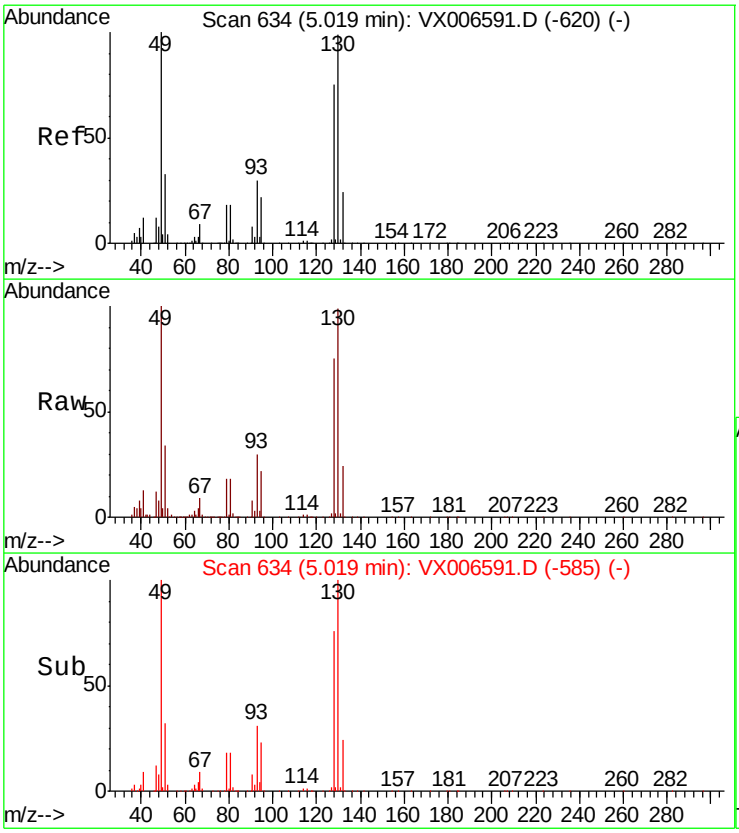
Tgt Ion: 96 Resp: 333506

Ion	Ratio	Lower	Upper
96	100		
61	129.3	0.0	258.6
98	66.0	0.0	132.0



Instrument :
MSVOA_X
ClientSampleId :
VSTDICCC050

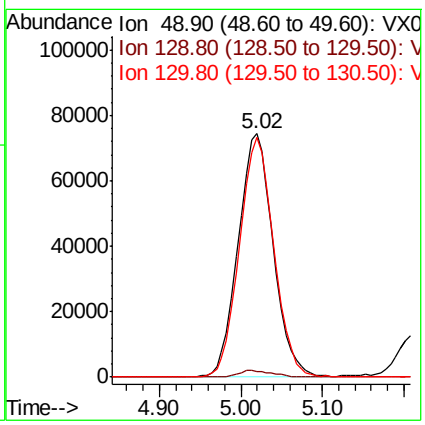
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:22:02 AM

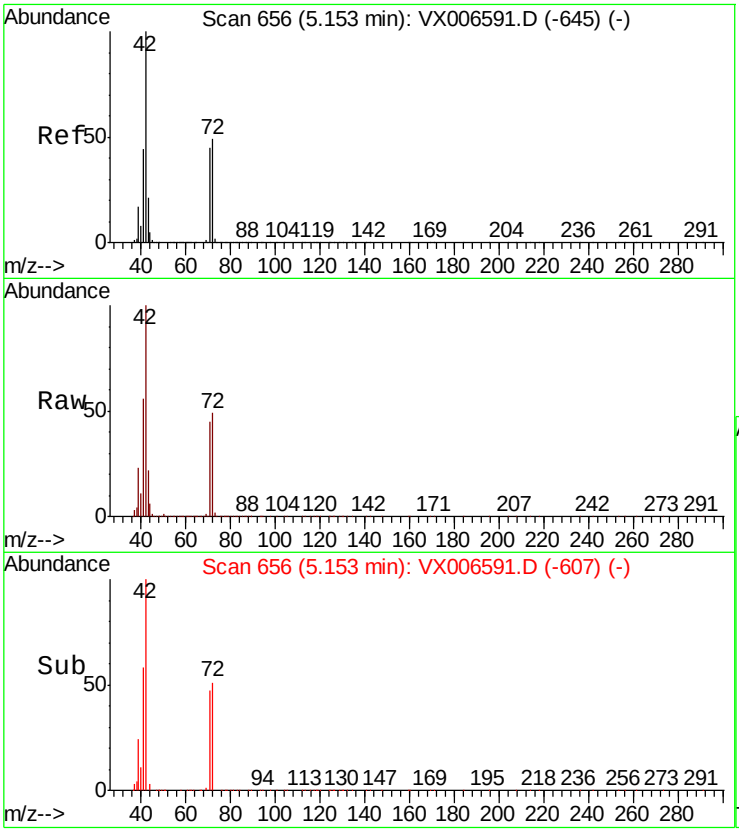


#28
Bromochloromethane
Concen: 46.977 ug/l
RT: 5.02 min Scan# 634
Delta R.T. 0.00 min
Lab File: VX006591.D
Acq: 18 Dec 2018 12:04

Tgt Ion: 49 Resp: 221192

Ion	Ratio	Lower	Upper
49	100		
129	2.7	0.0	5.4
130	97.1	77.7	116.5

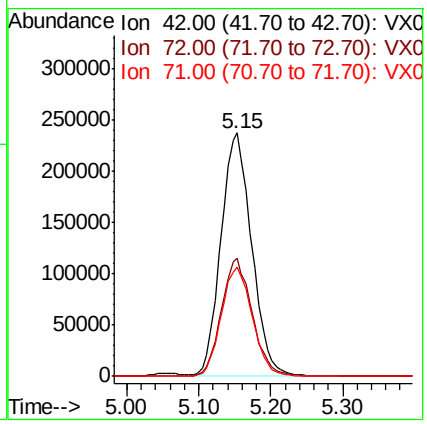


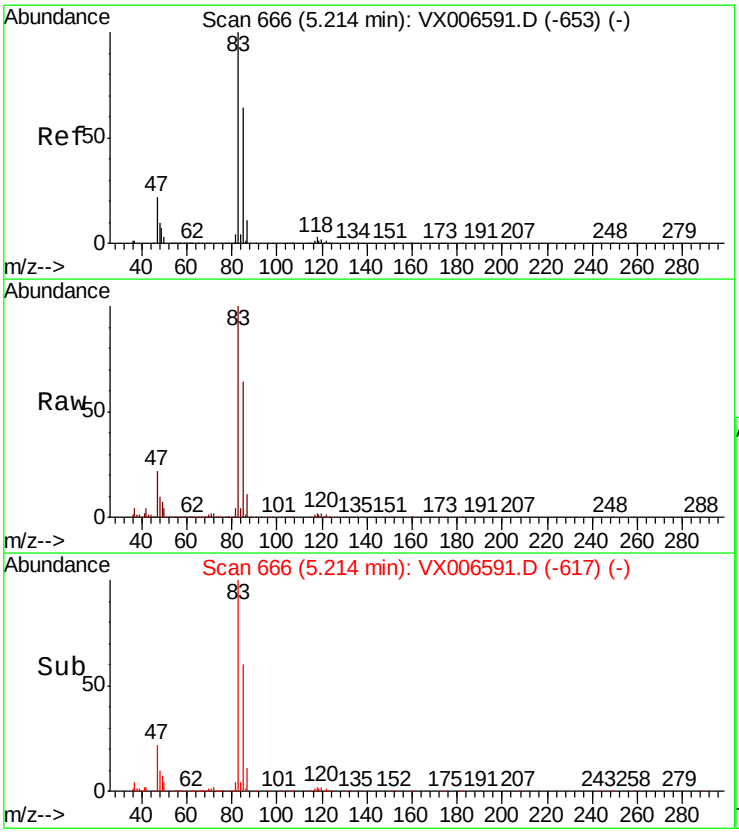


#29
Tetrahydrofuran
Concen: 245.778 ug/l
RT: 5.15 min Scan# 656
Delta R.T. 0.00 min
Lab File: VX006591.D
Acq: 18 Dec 2018 12:04

Tgt Ion: 42 Resp: 703007

Ion	Ratio	Lower	Upper
42	100		
72	48.6	38.9	58.3
71	45.3	36.2	54.4

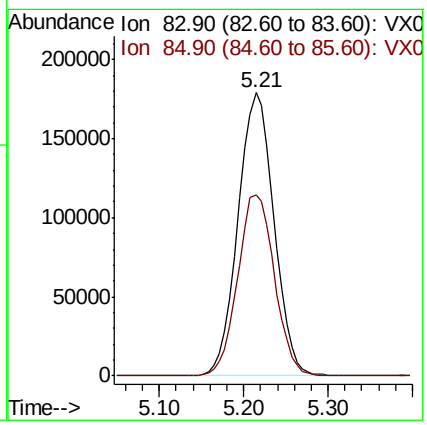




#30
Chloroform
Concen: 48.623 ug/l
RT: 5.21 min Scan# 666
Delta R.T. 0.00 min
Lab File: VX006591.D
Acq: 18 Dec 2018 12:04

Tgt Ion: 83 Resp: 515649

Ion	Ratio	Lower	Upper
83	100		
85	64.0	51.2	76.8

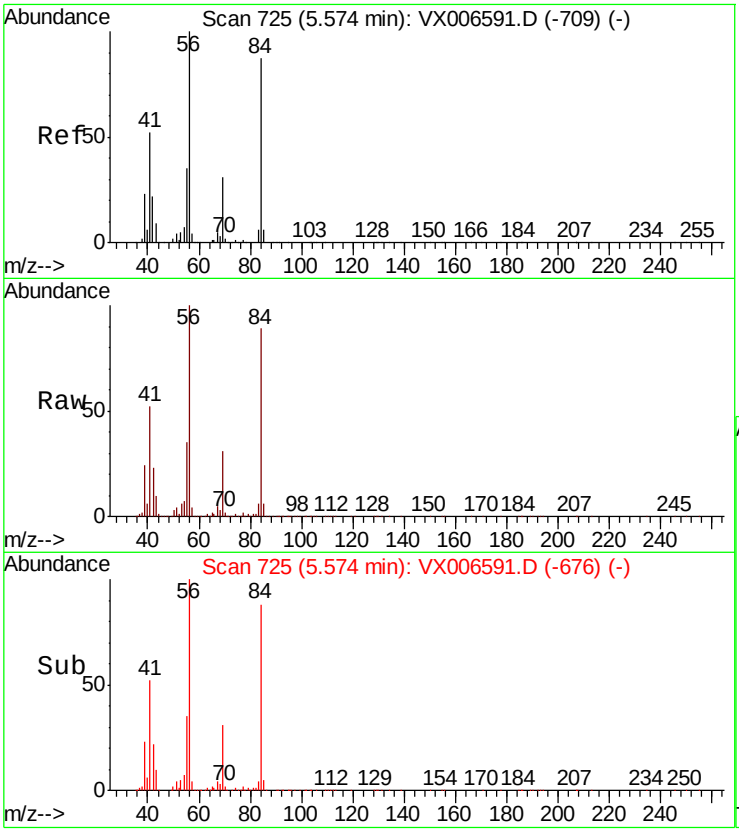


Instrument :
MSVOA_X
ClientSampleId :
VSTDICCC050

Manual Integrations APPROVED
MMDadoda
12/19/2018 11:22:02 AM

Instrument :
MSVOA_X
ClientSampleId :
VSTDICCC050

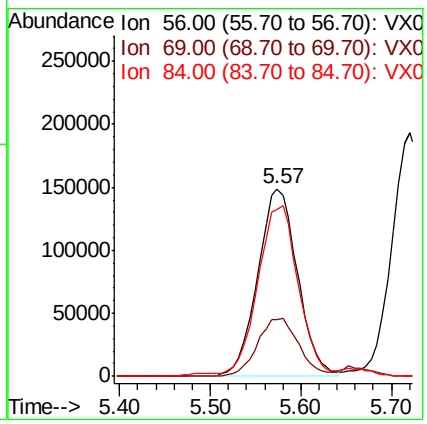
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:22:02 AM

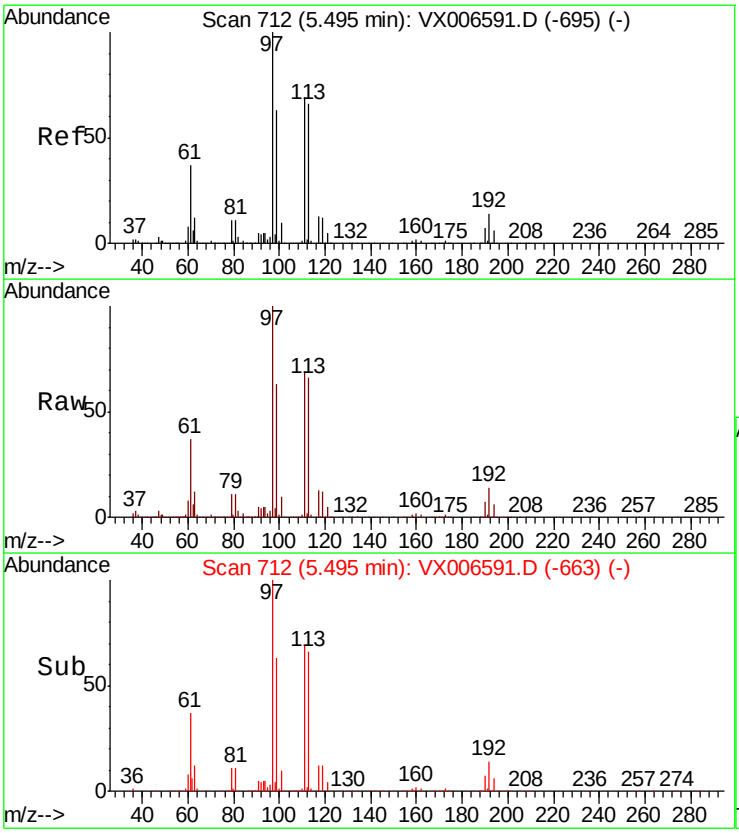


#31
Cyclohexane
Concen: 48.607 ug/l
RT: 5.57 min Scan# 725
Delta R.T. 0.00 min
Lab File: VX006591.D
Acq: 18 Dec 2018 12:04

Tgt Ion: 56 Resp: 452222

Ion	Ratio	Lower	Upper
56	100		
69	30.5	24.4	36.6
84	87.5	70.0	105.0

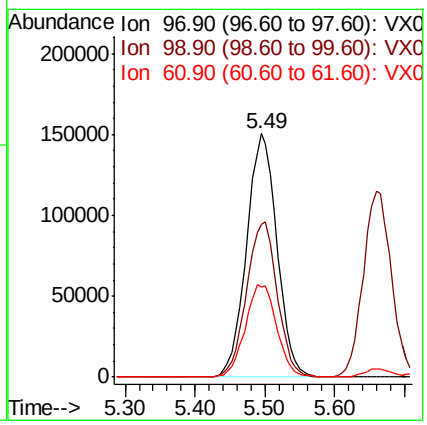




#32
1,1,1-Trichloroethane
Concen: 50.790 ug/l
RT: 5.49 min Scan# 712
Delta R.T. 0.00 min
Lab File: VX006591.D
Acq: 18 Dec 2018 12:04

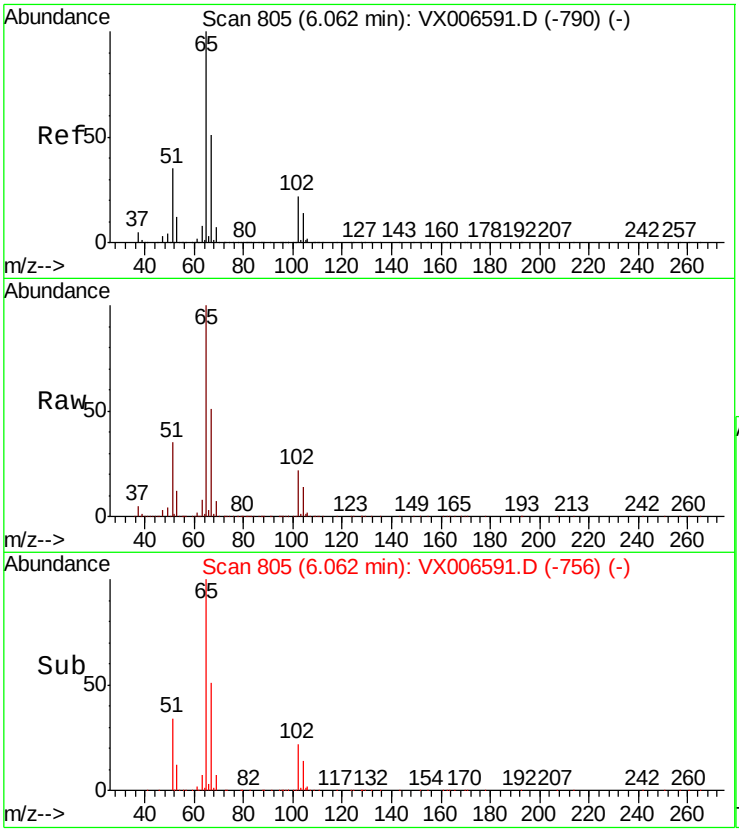
Tgt Ion: 97 Resp: 454806

Ion	Ratio	Lower	Upper
97	100		
99	64.6	51.7	77.5
61	39.1	31.3	46.9



Instrument :
MSVOA_X
ClientSampleId :
VSTDICCC050

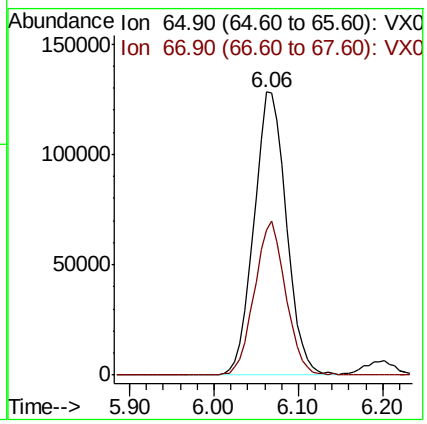
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:22:02 AM

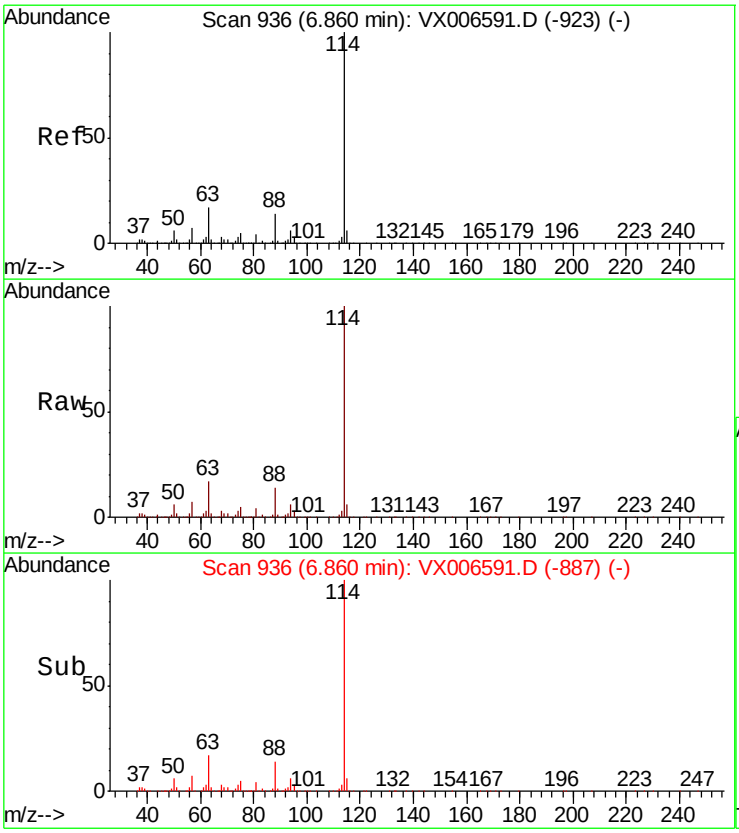


#33
1,2-Dichloroethane-d4
Concen: 50.156 ug/l
RT: 6.06 min Scan# 805
Delta R.T. 0.00 min
Lab File: VX006591.D
Acq: 18 Dec 2018 12:04

Tgt Ion: 65 Resp: 337052

Ion	Ratio	Lower	Upper
65	100		
67	52.5	0.0	105.0

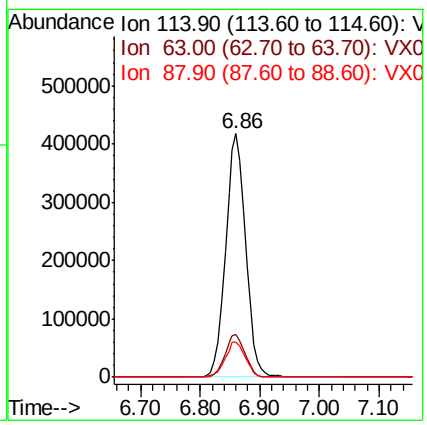




#34
1,4-Difluorobenzene
Concen: 50.000 ug/l
RT: 6.86 min Scan# 936
Delta R.T. 0.00 min
Lab File: VX006591.D
Acq: 18 Dec 2018 12:04

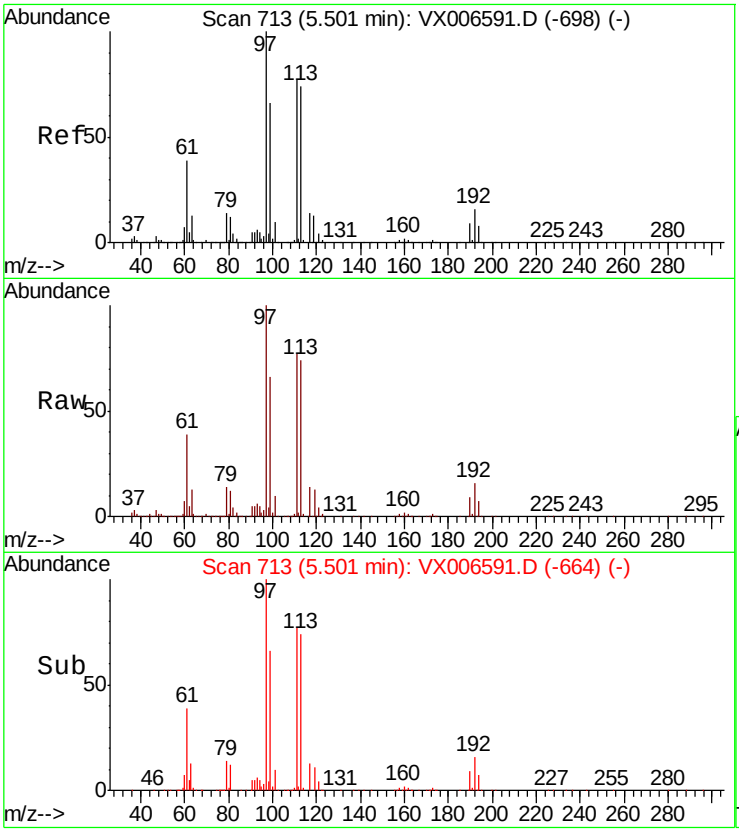
Tgt Ion:114 Resp: 971059

Ion	Ratio	Lower	Upper
114	100		
63	17.4	0.0	34.8
88	14.4	0.0	28.8



Instrument :
MSVOA_X
ClientSampleId :
VSTDICCC050

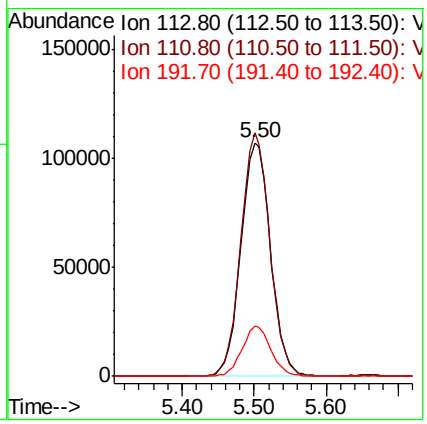
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:22:02 AM

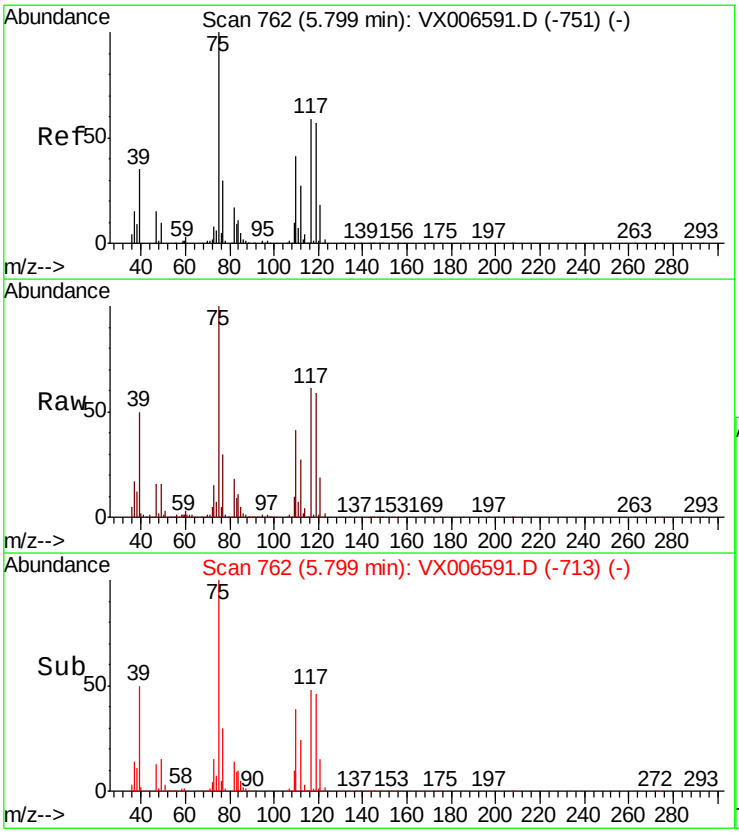


#35
Dibromofluoromethane
Concen: 49.751 ug/l
RT: 5.50 min Scan# 713
Delta R.T. 0.00 min
Lab File: VX006591.D
Acq: 18 Dec 2018 12:04

Tgt Ion:113 Resp: 305513

Ion	Ratio	Lower	Upper
113	100		
111	102.0	81.6	122.4
192	20.9	16.7	25.1

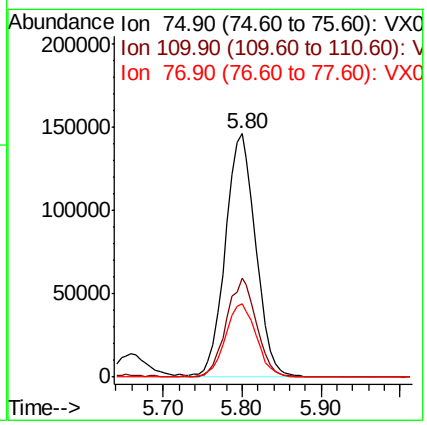




#36
1,1-Dichloropropene
Concen: 48.427 ug/l
RT: 5.80 min Scan# 762
Delta R.T. 0.00 min
Lab File: VX006591.D
Acq: 18 Dec 2018 12:04

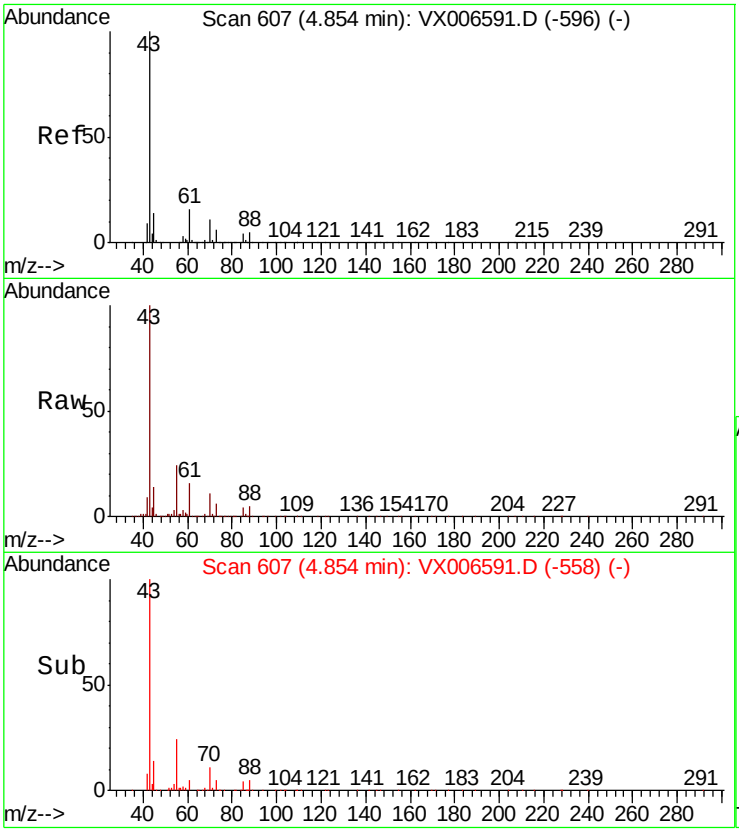
Tgt Ion: 75 Resp: 389483

Ion	Ratio	Lower	Upper
75	100		
110	40.3	20.2	60.5
77	31.0	24.8	37.2



Instrument :
MSVOA_X
ClientSampleId :
VSTDICCC050

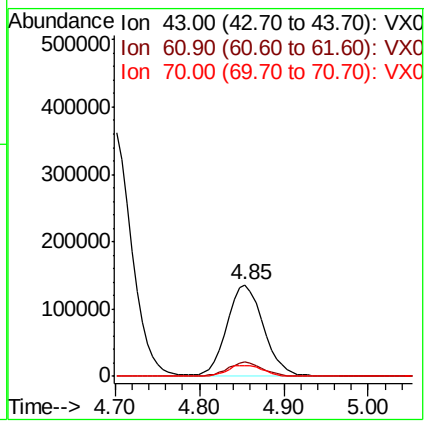
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:22:02 AM

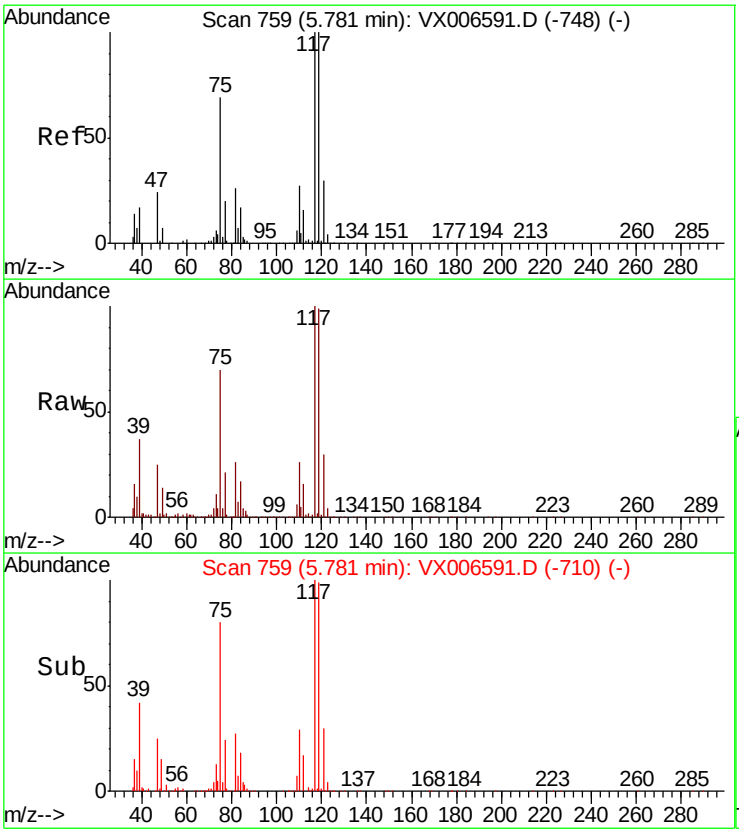


#37
Ethyl Acetate
Concen: 47.585 ug/l
RT: 4.85 min Scan# 607
Delta R.T. 0.00 min
Lab File: VX006591.D
Acq: 18 Dec 2018 12:04

Tgt Ion: 43 Resp: 398326

Ion	Ratio	Lower	Upper
43	100		
61	14.9	11.9	17.9
70	12.1	9.7	14.5

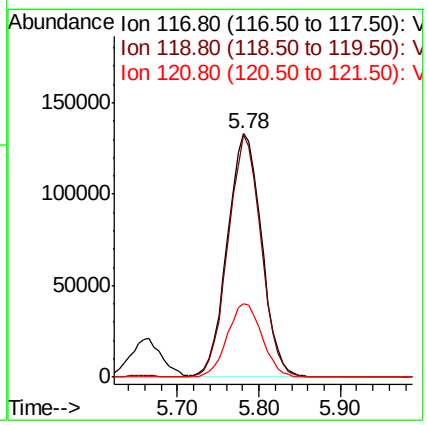




#38
Carbon Tetrachloride
Concen: 49.383 ug/l
RT: 5.78 min Scan# 759
Delta R.T. 0.00 min
Lab File: VX006591.D
Acq: 18 Dec 2018 12:04

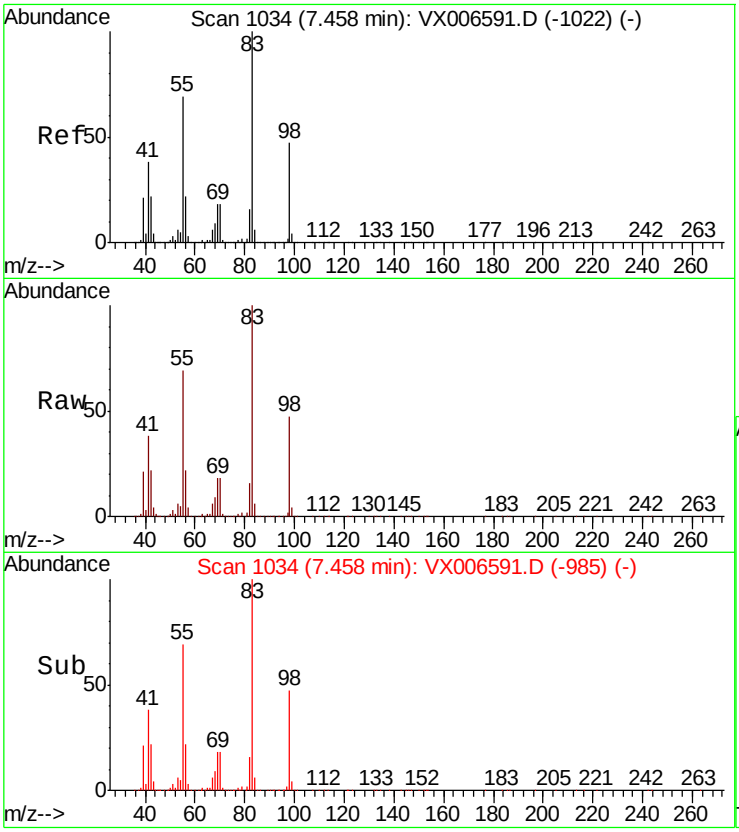
Tgt Ion:117 Resp: 385984

Ion	Ratio	Lower	Upper
117	100		
119	99.3	79.4	119.2
121	30.0	24.0	36.0



Instrument :
MSVOA_X
ClientSampleId :
VSTDICCC050

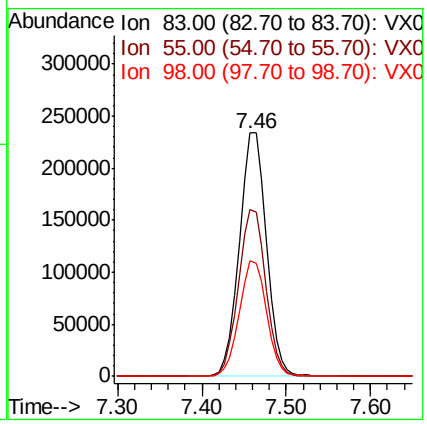
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:22:02 AM

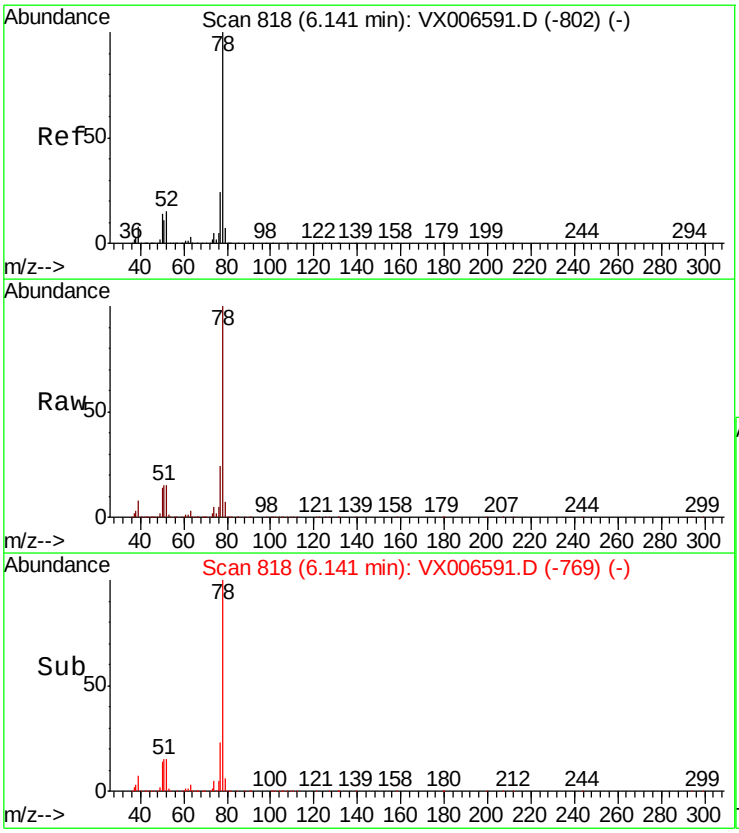


#39
Methylcyclohexane
Concen: 47.701 ug/l
RT: 7.46 min Scan# 1034
Delta R.T. 0.00 min
Lab File: VX006591.D
Acq: 18 Dec 2018 12:04

Tgt Ion: 83 Resp: 505077

Ion	Ratio	Lower	Upper
83	100		
55	68.6	54.9	82.3
98	47.4	37.9	56.9

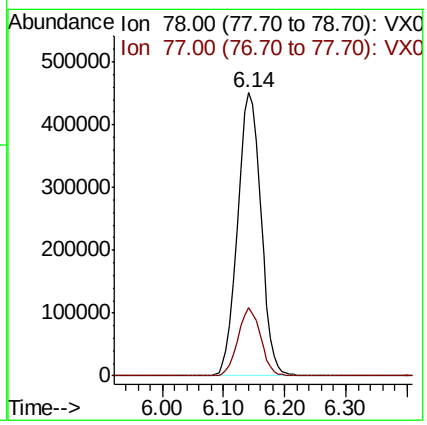




#40
Benzene
Concen: 48.501 ug/l
RT: 6.14 min Scan# 818
Delta R.T. 0.00 min
Lab File: VX006591.D
Acq: 18 Dec 2018 12:04

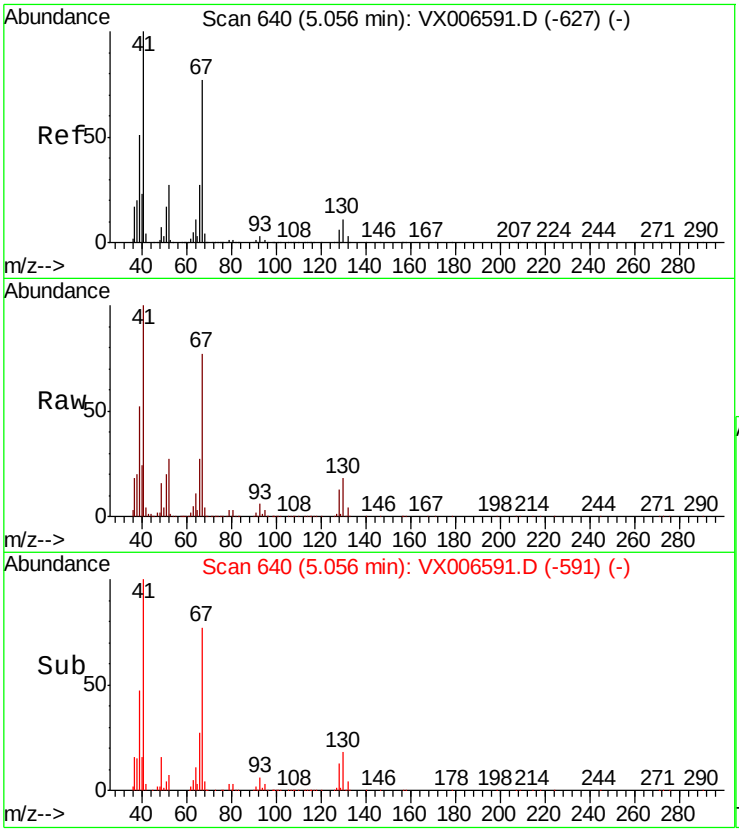
Tgt Ion: 78 Resp: 1185706

Ion	Ratio	Lower	Upper
78	100		
77	24.0	19.2	28.8



Instrument :
MSVOA_X
ClientSampleId :
VSTDICCC050

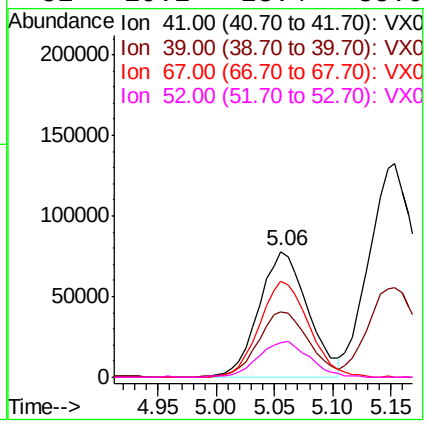
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:22:02 AM

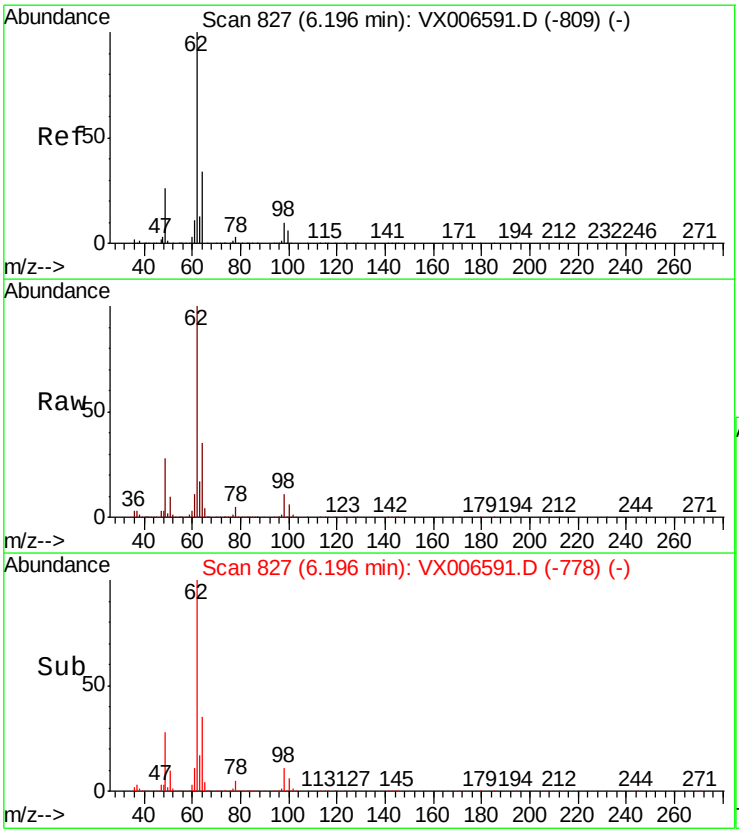


#41
Methacrylonitrile
Concen: 48.189 ug/l
RT: 5.06 min Scan# 640
Delta R.T. 0.00 min
Lab File: VX006591.D
Acq: 18 Dec 2018 12:04

Tgt Ion: 41 Resp: 226683

Ion	Ratio	Lower	Upper
41	100		
39	53.5	42.8	64.2
67	77.6	62.1	93.1
52	29.2	23.4	35.0

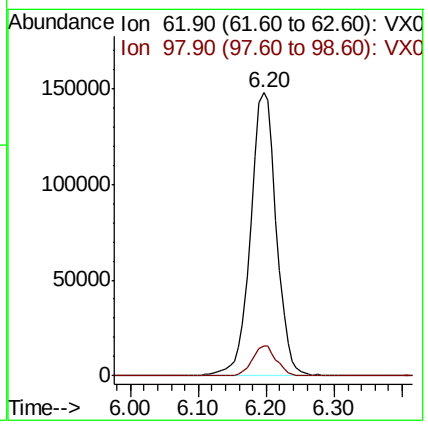




#42
1,2-Dichloroethane
Concen: 46.829 ug/l
RT: 6.20 min Scan# 827
Delta R.T. 0.00 min
Lab File: VX006591.D
Acq: 18 Dec 2018 12:04

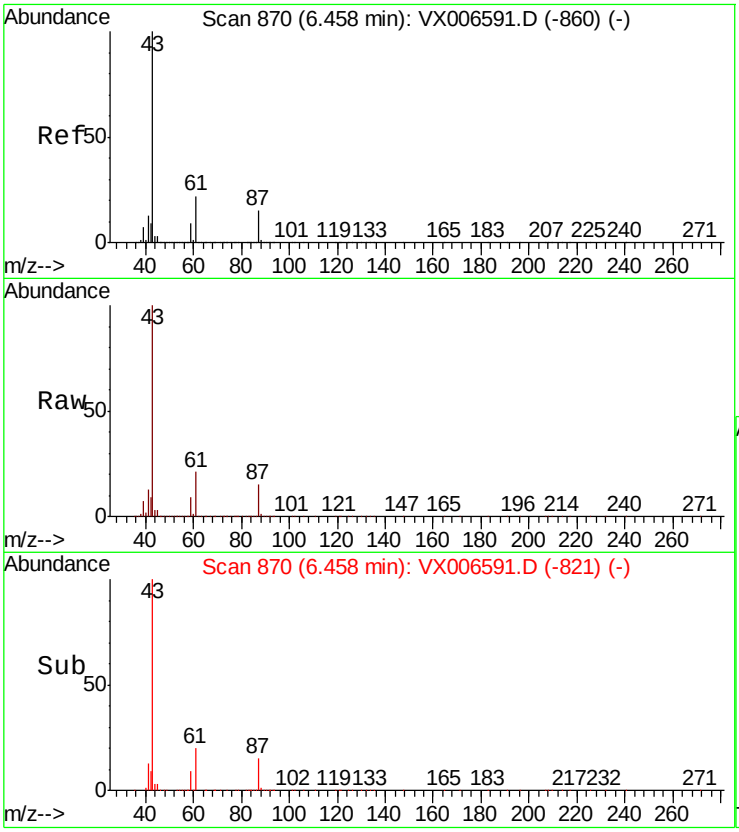
Tgt Ion: 62 Resp: 390108

Ion	Ratio	Lower	Upper
62	100		
98	10.1	0.0	20.2



Instrument :
MSVOA_X
ClientSampleId :
VSTDICCC050

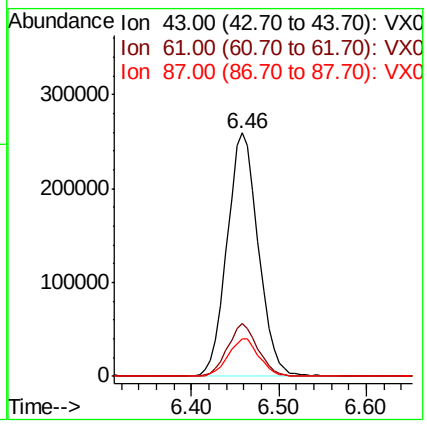
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:22:02 AM

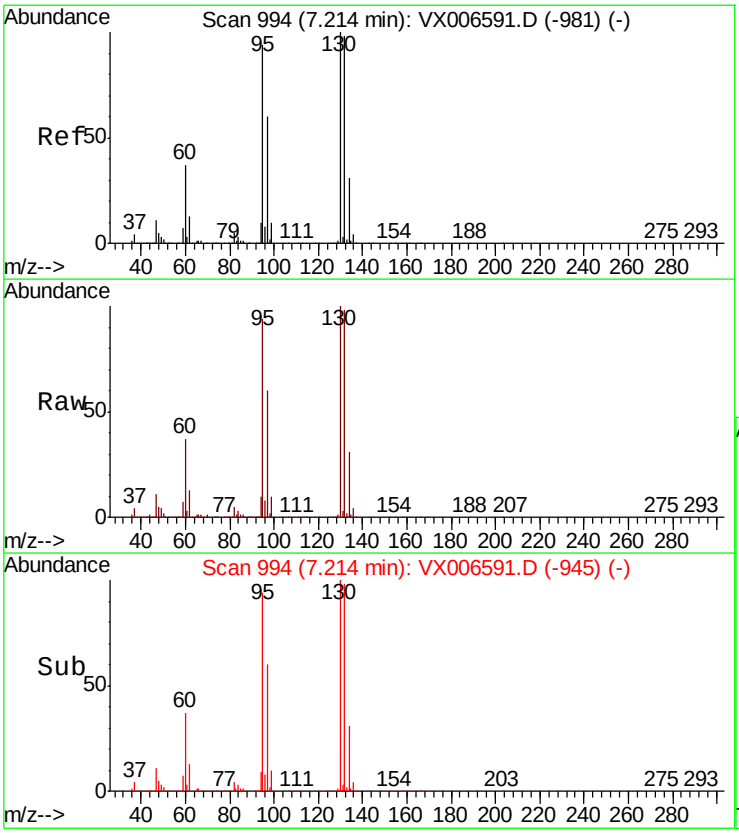


#43
Isopropyl Acetate
Concen: 50.200 ug/l
RT: 6.46 min Scan# 870
Delta R.T. 0.00 min
Lab File: VX006591.D
Acq: 18 Dec 2018 12:04

Tgt Ion: 43 Resp: 639381

Ion	Ratio	Lower	Upper
43	100		
61	21.0	16.8	25.2
87	15.5	12.4	18.6

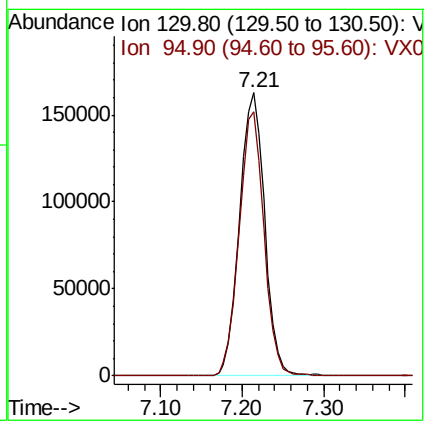




#44
Trichloroethene
Concen: 47.047 ug/l
RT: 7.21 min Scan# 994
Delta R.T. 0.00 min
Lab File: VX006591.D
Acq: 18 Dec 2018 12:04

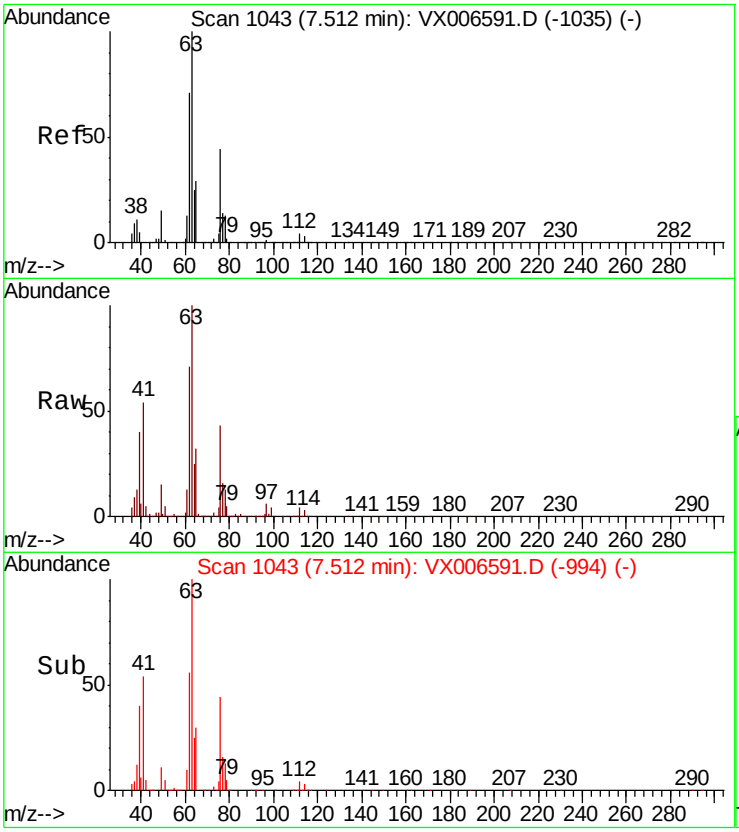
Tgt Ion:130 Resp: 348115

Ion	Ratio	Lower	Upper
130	100		
95	93.5	0.0	187.0



Instrument :
MSVOA_X
ClientSampleId :
VSTDICCC050

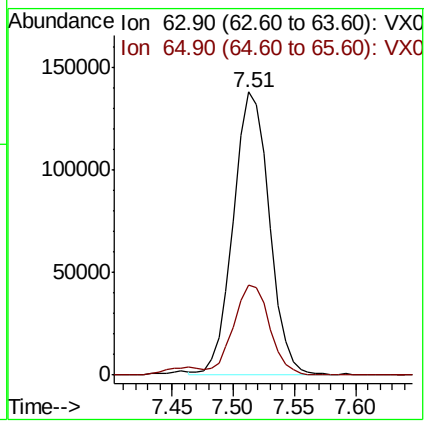
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:22:02 AM

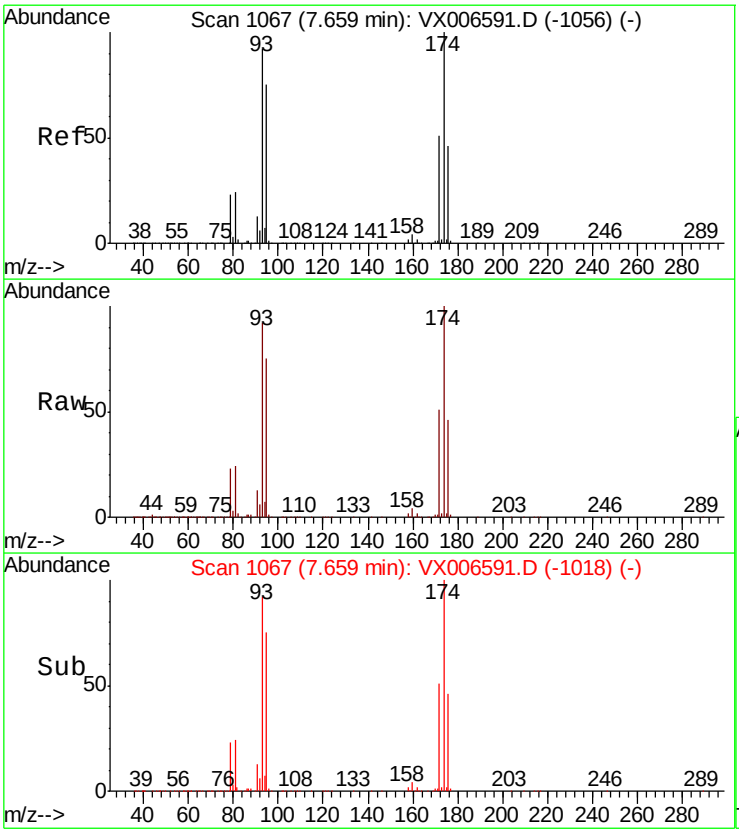


#45
1,2-Dichloropropane
Concen: 47.216 ug/l
RT: 7.51 min Scan# 1043
Delta R.T. 0.00 min
Lab File: VX006591.D
Acq: 18 Dec 2018 12:04

Tgt Ion: 63 Resp: 280897

Ion	Ratio	Lower	Upper
63	100		
65	31.7	25.4	38.0

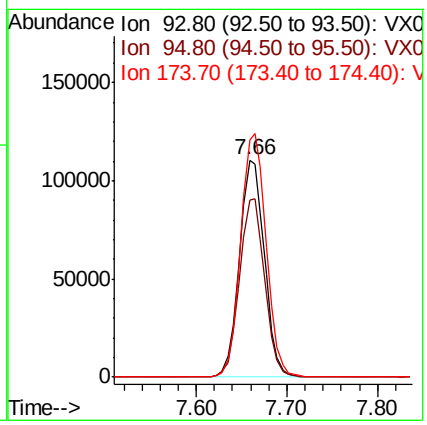


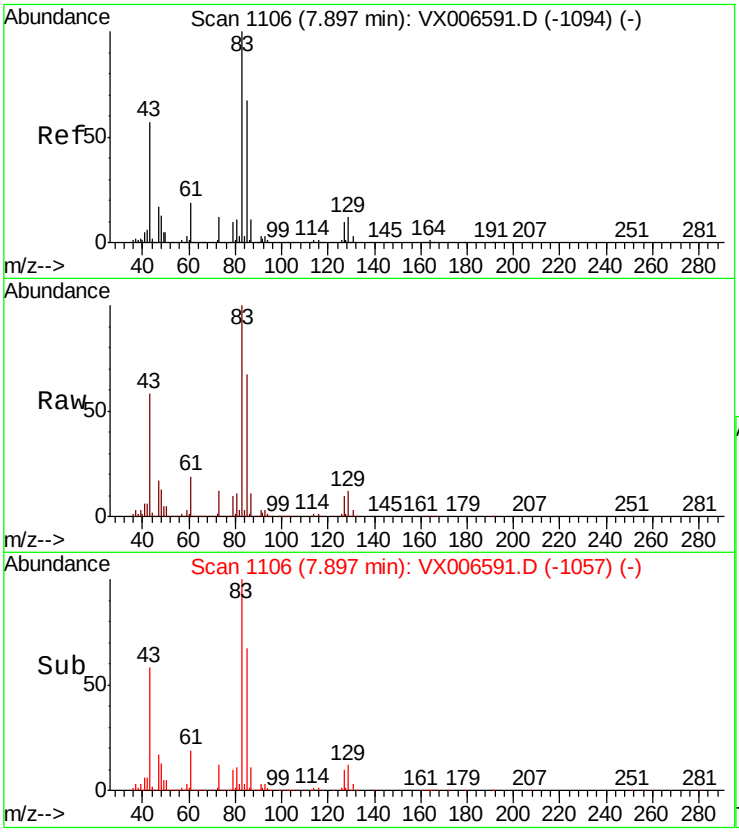


#46
Dibromomethane
Concen: 48.485 ug/l
RT: 7.66 min Scan# 1067
Delta R.T. 0.00 min
Lab File: VX006591.D
Acq: 18 Dec 2018 12:04

Tgt Ion: 93 Resp: 212166

Ion	Ratio	Lower	Upper
93	100		
95	82.8	66.2	99.4
174	113.7	91.0	136.4

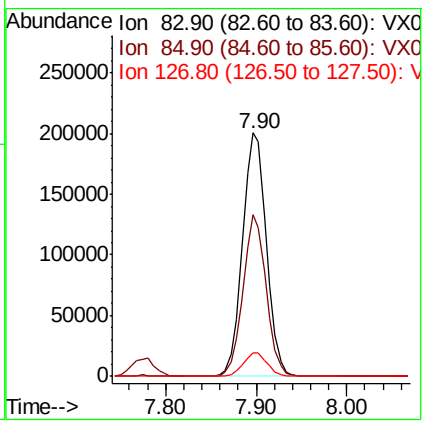




#47
Bromodichloromethane
Concen: 50.143 ug/l
RT: 7.90 min Scan# 1106
Delta R.T. 0.00 min
Lab File: VX006591.D
Acq: 18 Dec 2018 12:04

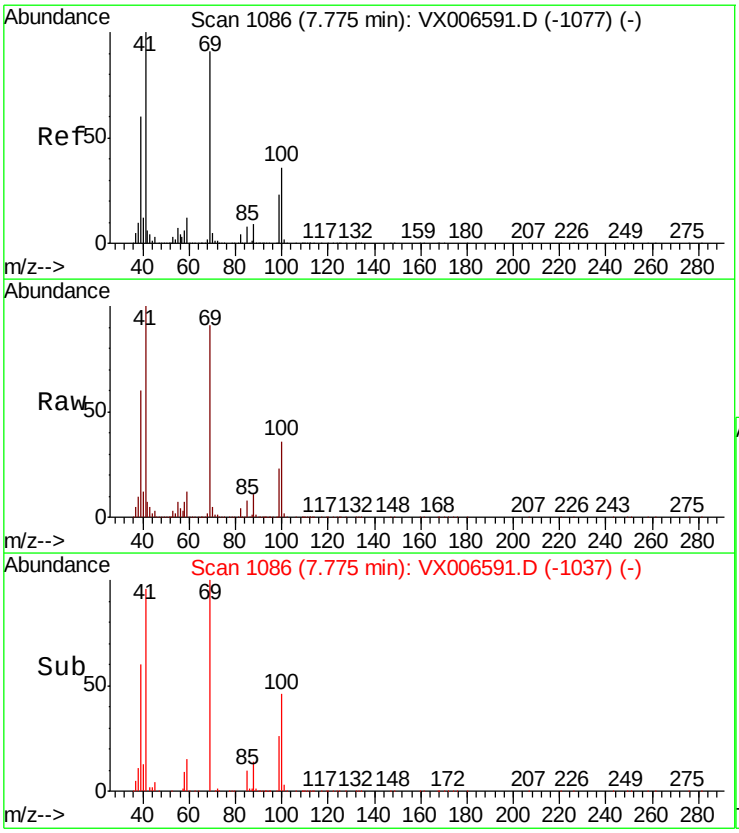
Tgt Ion: 83 Resp: 364287

Ion	Ratio	Lower	Upper
83	100		
85	66.5	53.2	79.8
127	9.7	7.8	11.6



Instrument :
MSVOA_X
ClientSampleId :
VSTDICCC050

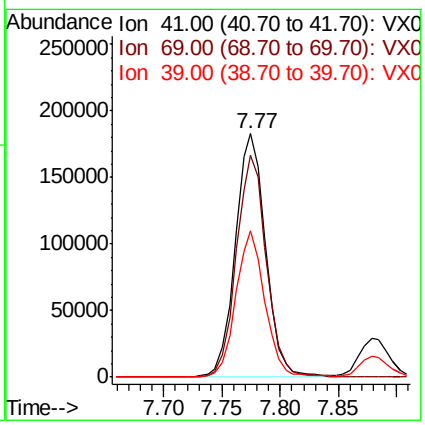
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:22:02 AM

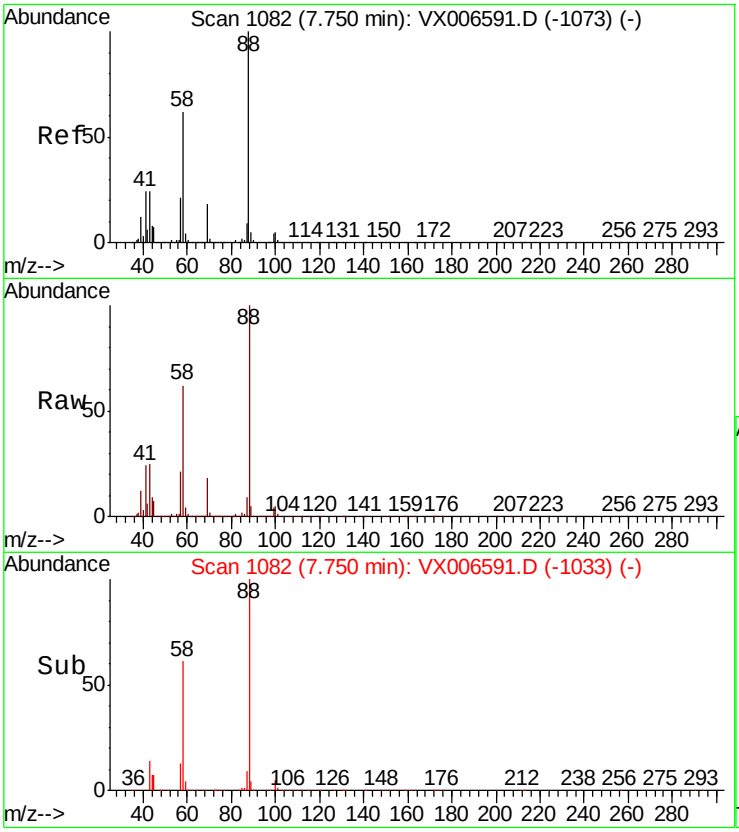


#48
Methyl methacrylate
Concen: 50.988 ug/l
RT: 7.77 min Scan# 1086
Delta R.T. 0.00 min
Lab File: VX006591.D
Acq: 18 Dec 2018 12:04

Tgt Ion: 41 Resp: 330250

Ion	Ratio	Lower	Upper
41	100		
69	90.5	72.4	108.6
39	57.3	45.8	68.8

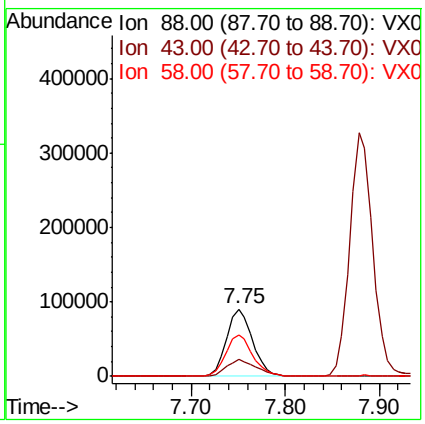




#49
1,4-Dioxane
Concen: 942.599 ug/l
RT: 7.75 min Scan# 1082
Delta R.T. 0.00 min
Lab File: VX006591.D
Acq: 18 Dec 2018 12:04

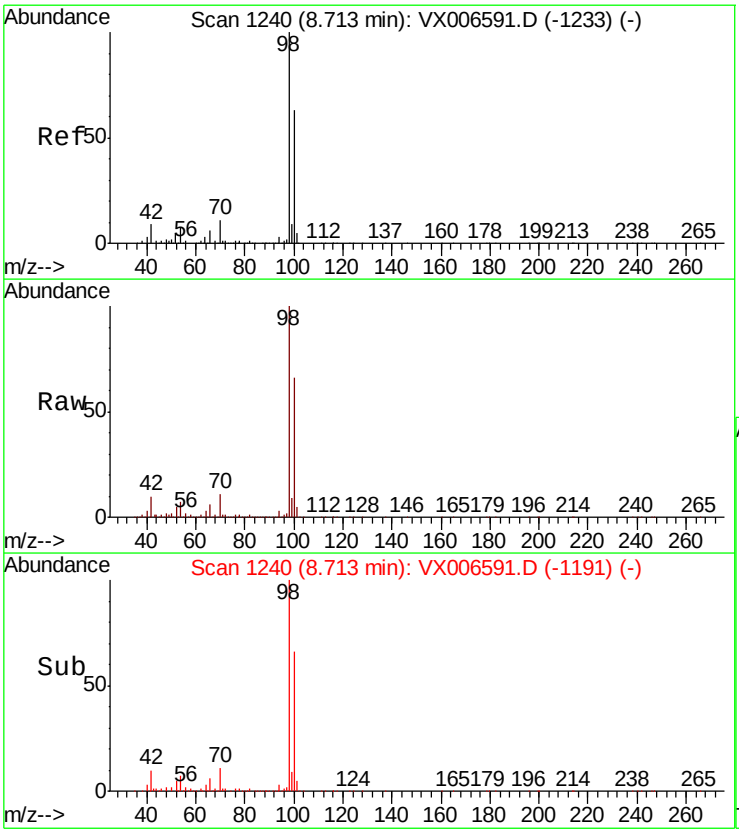
Tgt Ion: 88 Resp: 172740

Ion	Ratio	Lower	Upper
88	100		
43	27.8	22.2	33.4
58	63.7	51.0	76.4



Instrument :
MSVOA_X
ClientSampleId :
VSTDICCC050

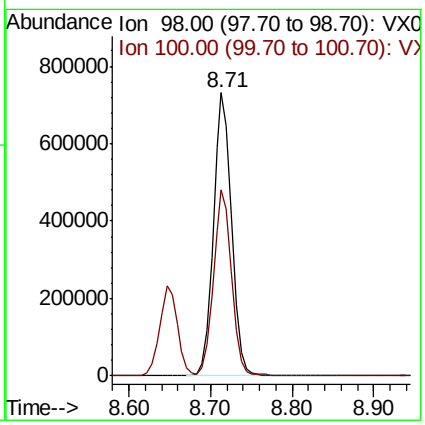
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:22:02 AM

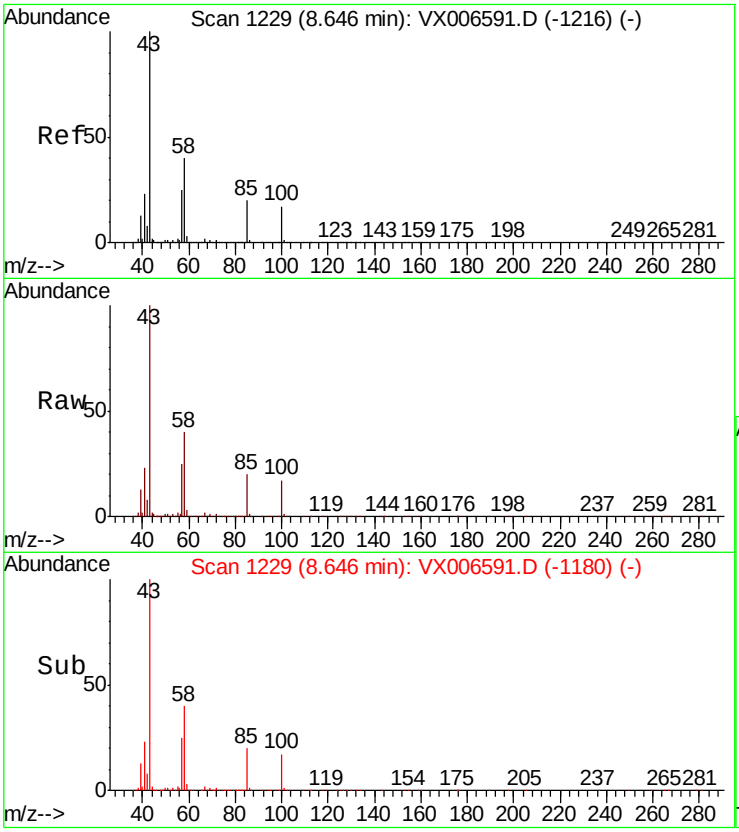


#50
Toluene-d8
Concen: 49.588 ug/l
RT: 8.71 min Scan# 1240
Delta R.T. 0.00 min
Lab File: VX006591.D
Acq: 18 Dec 2018 12:04

Tgt Ion: 98 Resp: 1148015

Ion	Ratio	Lower	Upper
98	100		
100	65.0	52.0	78.0

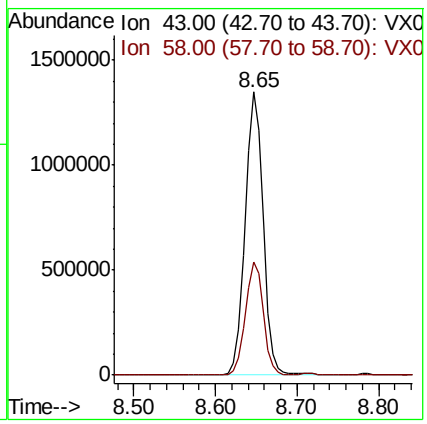




#51
4-Methyl-2-Pentanone
Concen: 254.064 ug/l
RT: 8.65 min Scan# 1229
Delta R.T. 0.00 min
Lab File: VX006591.D
Acq: 18 Dec 2018 12:04

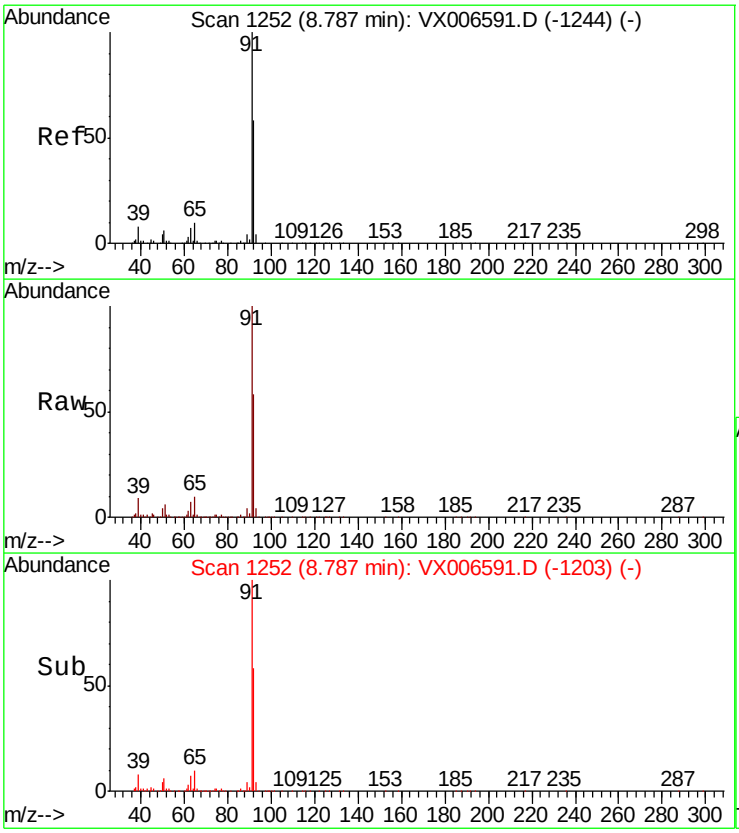
Tgt Ion: 43 Resp: 2058927

Ion	Ratio	Lower	Upper
43	100		
58	39.7	31.8	47.6



Instrument :
MSVOA_X
ClientSampleId :
VSTDICCC050

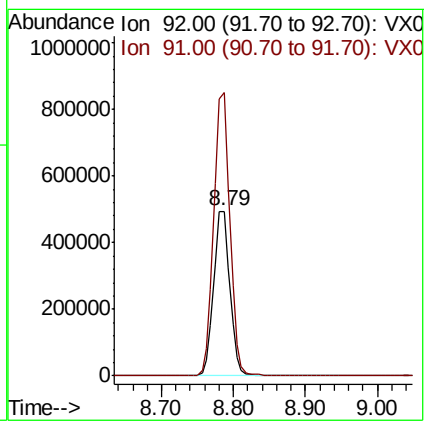
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:22:02 AM

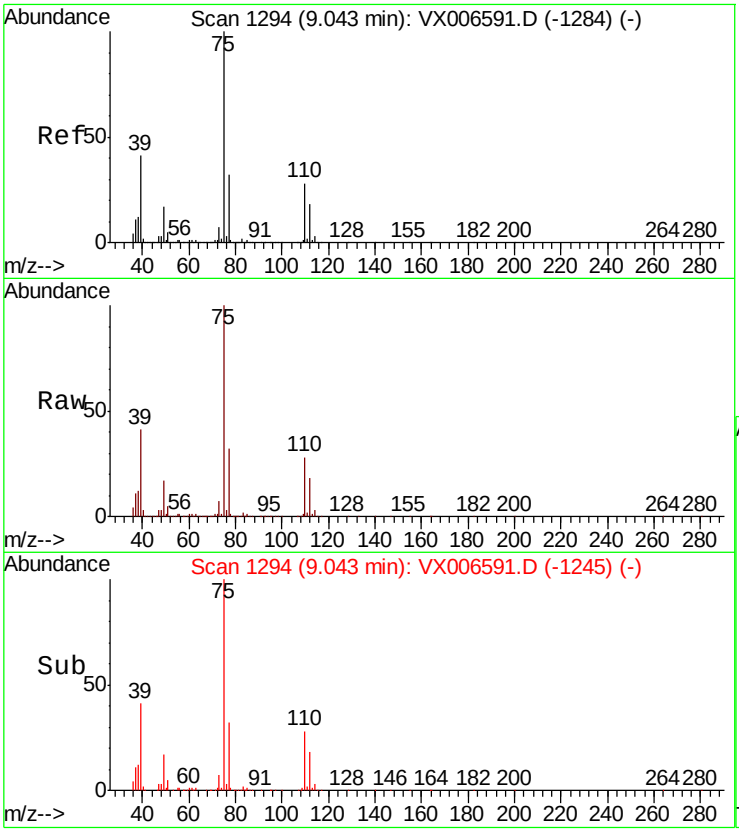


#52
Toluene
Concen: 48.991 ug/l
RT: 8.79 min Scan# 1252
Delta R.T. 0.00 min
Lab File: VX006591.D
Acq: 18 Dec 2018 12:04

Tgt Ion: 92 Resp: 773746

Ion	Ratio	Lower	Upper
92	100		
91	172.0	137.6	206.4

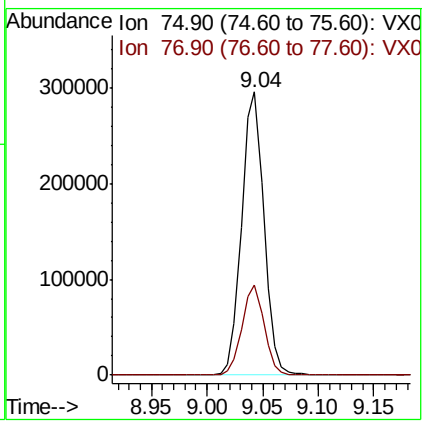


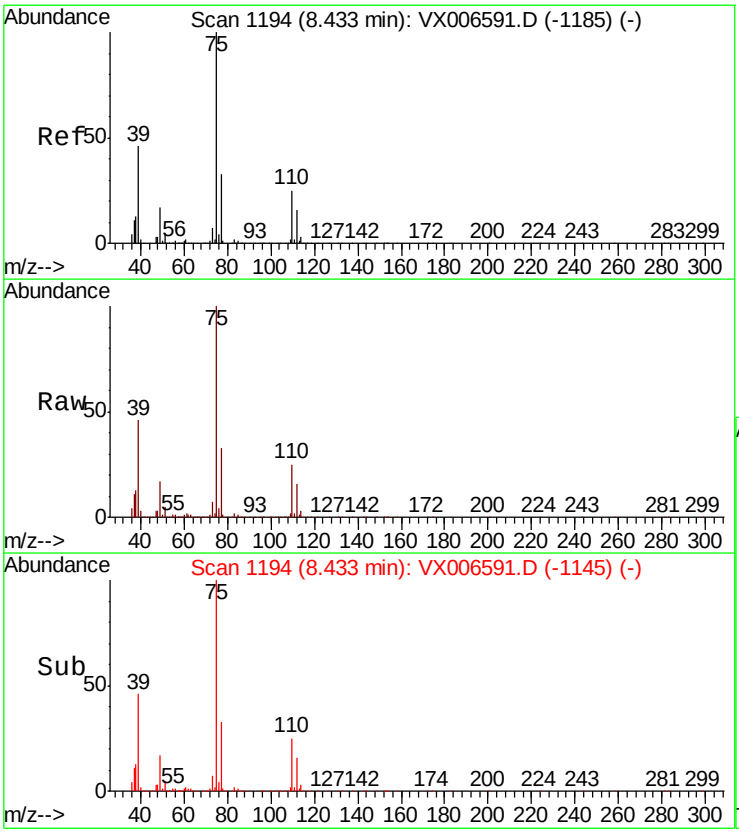


#53
t-1,3-Dichloropropene
Concen: 52.675 ug/l
RT: 9.04 min Scan# 1294
Delta R.T. 0.00 min
Lab File: VX006591.D
Acq: 18 Dec 2018 12:04

Tgt Ion: 75 Resp: 410424

Ion	Ratio	Lower	Upper
75	100		
77	31.7	25.4	38.0

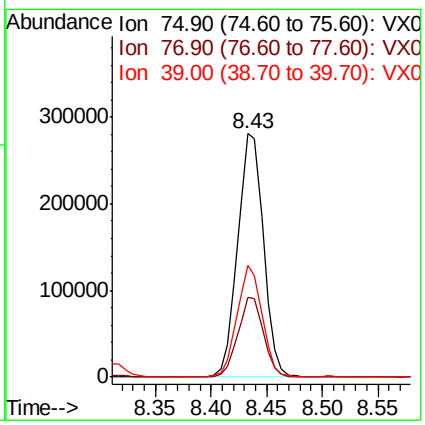




#54
cis-1,3-Dichloropropene
Concen: 52.772 ug/l
RT: 8.43 min Scan# 1194
Delta R.T. 0.00 min
Lab File: VX006591.D
Acq: 18 Dec 2018 12:04

Tgt Ion: 75 Resp: 451168

Ion	Ratio	Lower	Upper
75	100		
77	32.7	26.2	39.2
39	45.9	36.7	55.1

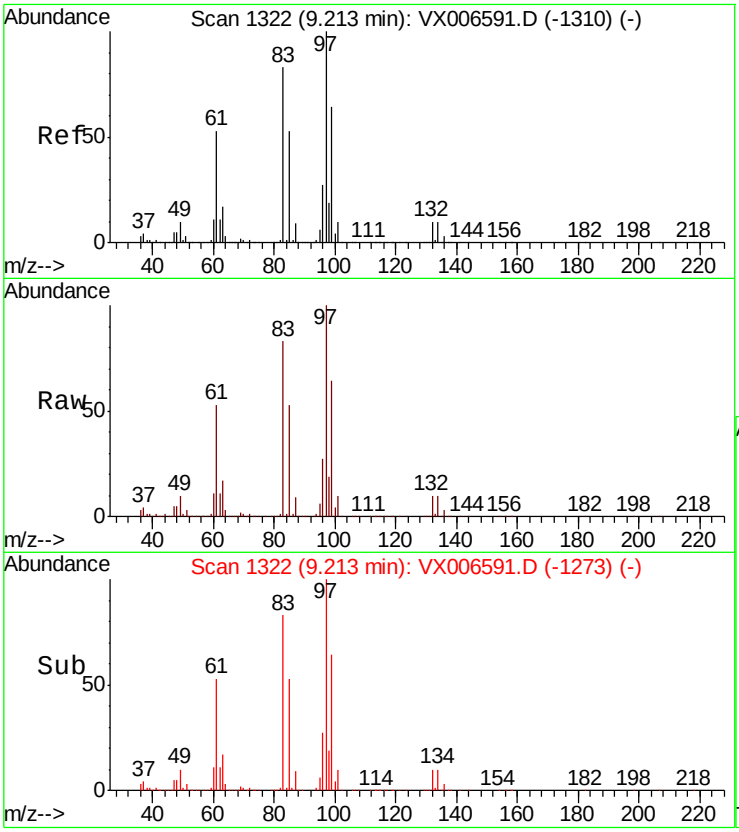


Instrument :
MSVOA_X
ClientSampleId :
VSTDICCC050

Manual Integrations APPROVED
MMDadoda
12/19/2018 11:22:02 AM

Instrument :
MSVOA_X
ClientSampleId :
VSTDICCC050

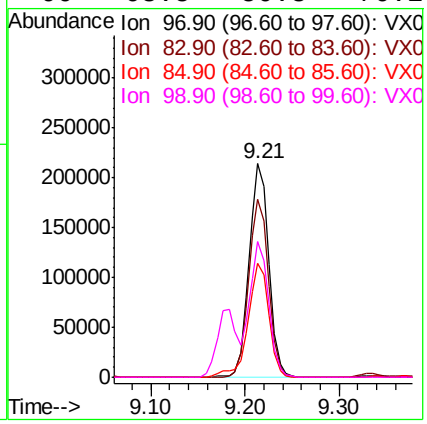
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:22:02 AM

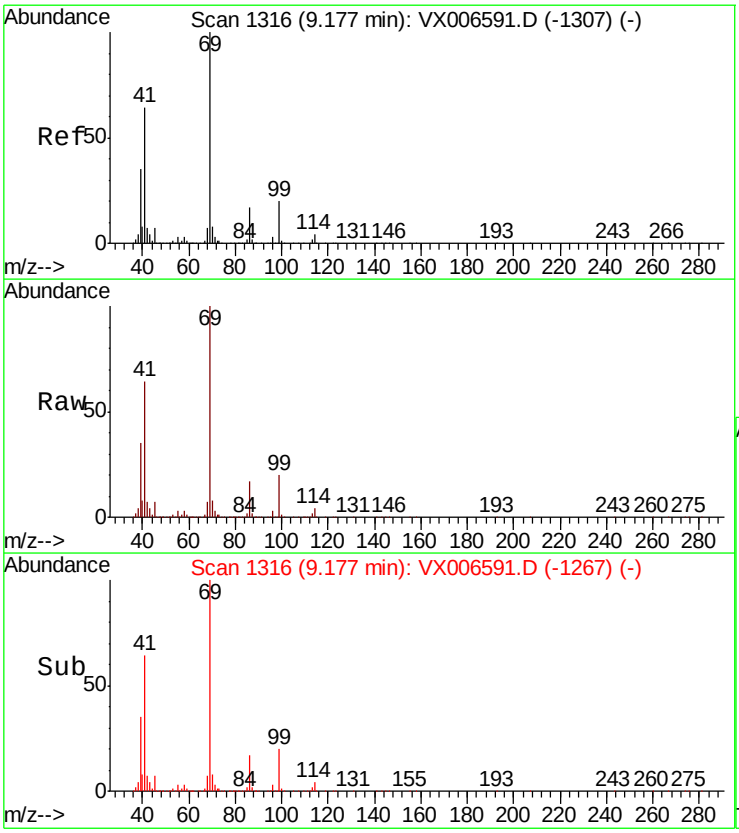


#55
1,1,2-Trichloroethane
Concen: 48.648 ug/l
RT: 9.21 min Scan# 1322
Delta R.T. 0.00 min
Lab File: VX006591.D
Acq: 18 Dec 2018 12:04

Tgt Ion: 97 Resp: 314495

Ion	Ratio	Lower	Upper
97	100		
83	83.2	66.6	99.8
85	53.4	42.7	64.1
99	63.5	50.8	76.2

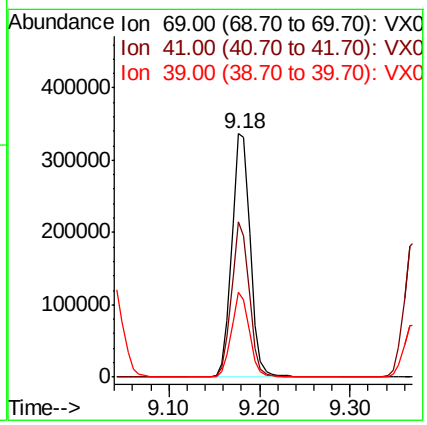


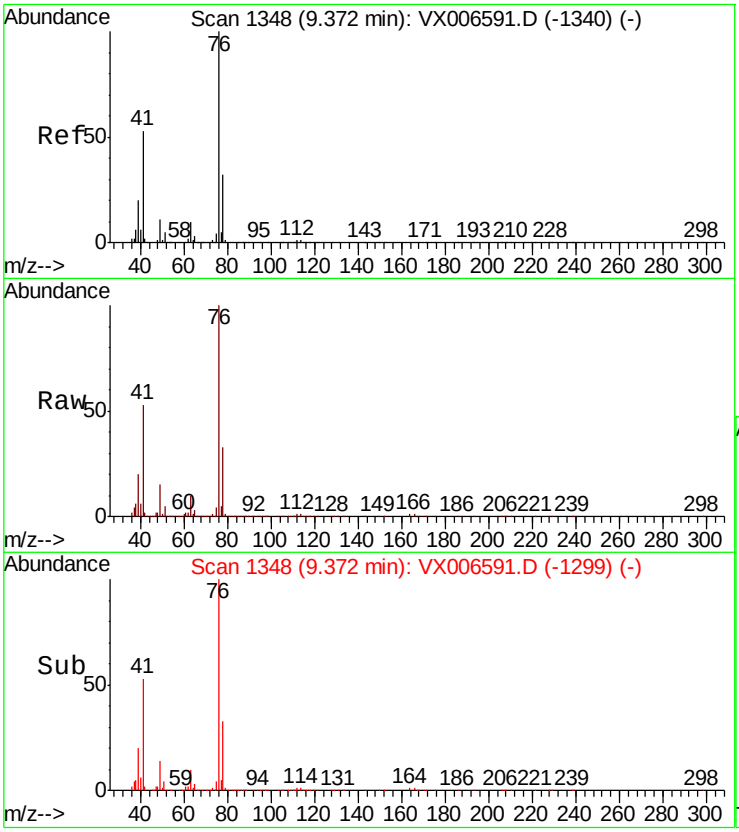


#56
Ethyl methacrylate
Concen: 51.960 ug/l
RT: 9.18 min Scan# 1316
Delta R.T. 0.00 min
Lab File: VX006591.D
Acq: 18 Dec 2018 12:04

Tgt Ion: 69 Resp: 474751

Ion	Ratio	Lower	Upper
69	100		
41	60.9	48.7	73.1
39	33.8	27.0	40.6

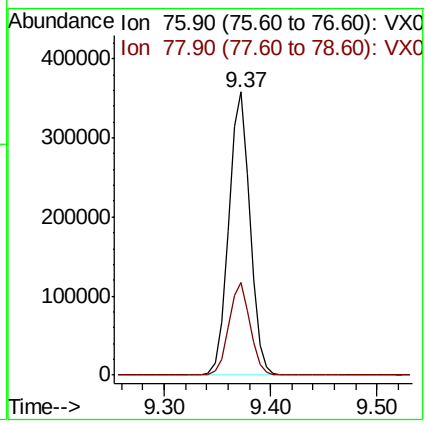




#57
1,3-Dichloropropane
Concen: 48.236 ug/l
RT: 9.37 min Scan# 1348
Delta R.T. 0.00 min
Lab File: VX006591.D
Acq: 18 Dec 2018 12:04

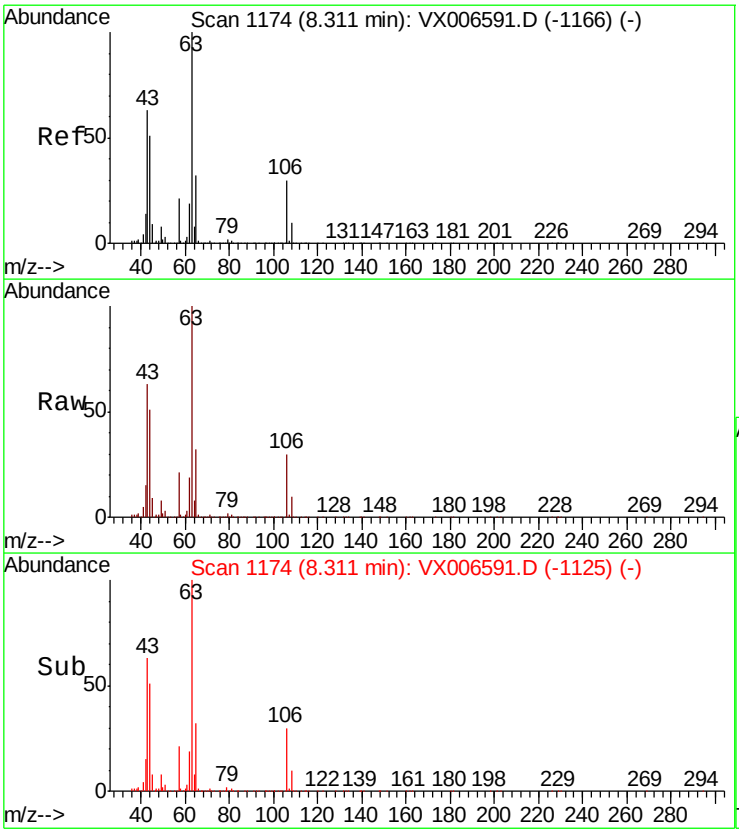
Tgt Ion: 76 Resp: 501701

Ion	Ratio	Lower	Upper
76	100		
78	32.5	26.0	39.0



Instrument :
MSVOA_X
ClientSampleId :
VSTDICCC050

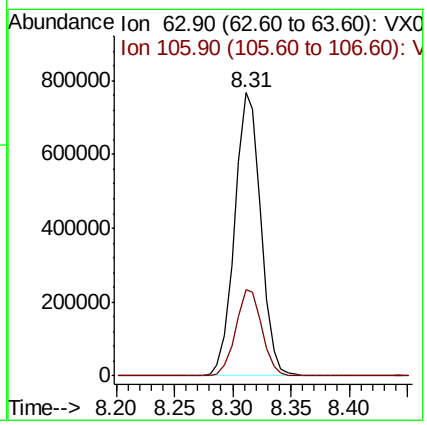
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:22:02 AM

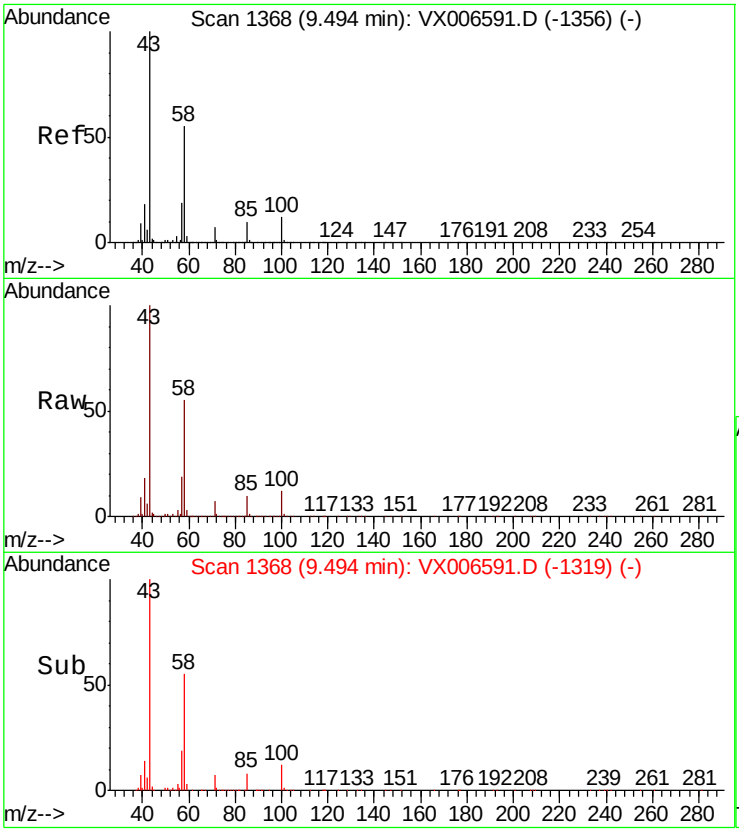


#58
2-Chloroethyl Vinyl ether
Concen: 246.193 ug/l
RT: 8.31 min Scan# 1174
Delta R.T. 0.00 min
Lab File: VX006591.D
Acq: 18 Dec 2018 12:04

Tgt Ion: 63 Resp: 1195734

Ion	Ratio	Lower	Upper
63	100		
106	30.7	24.6	36.8

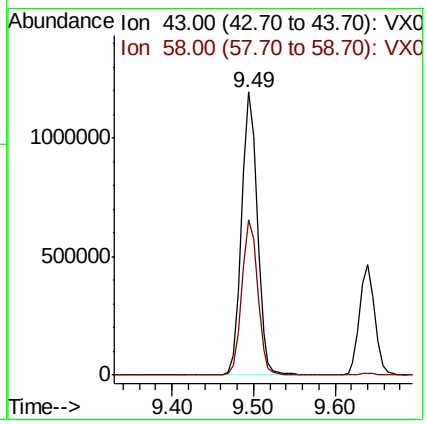


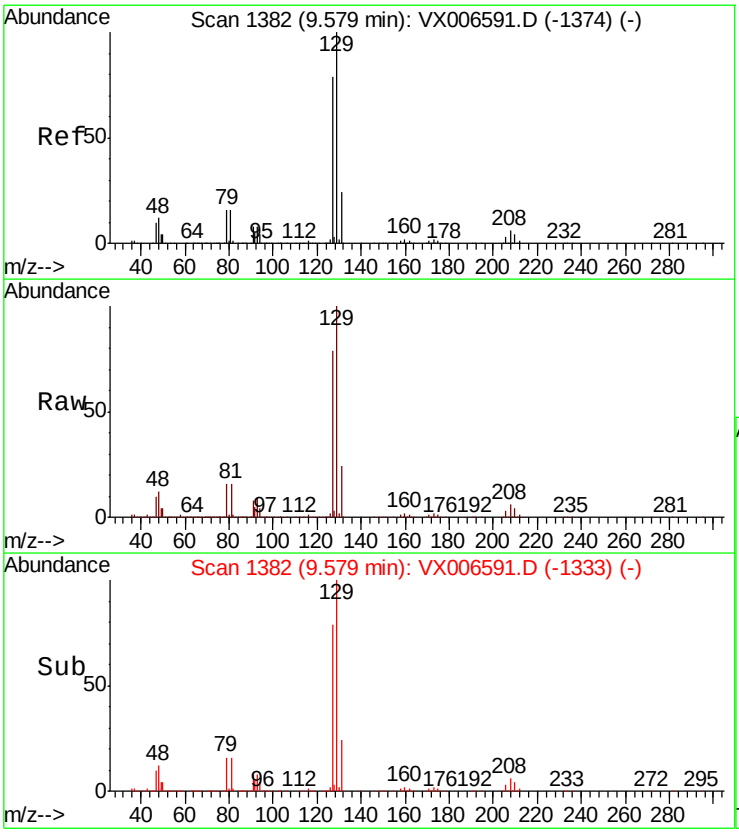


#59
2-Hexanone
Concen: 255.056 ug/l
RT: 9.49 min Scan# 1368
Delta R.T. 0.00 min
Lab File: VX006591.D
Acq: 18 Dec 2018 12:04

Tgt Ion: 43 Resp: 1581471

Ion	Ratio	Lower	Upper
43	100		
58	55.4	27.7	83.1

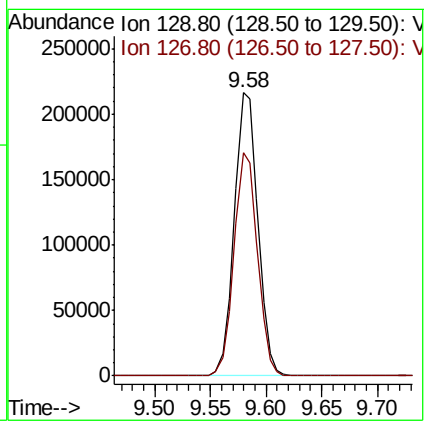




#60
Dibromochloromethane
Concen: 53.273 ug/l
RT: 9.58 min Scan# 1382
Delta R.T. 0.00 min
Lab File: VX006591.D
Acq: 18 Dec 2018 12:04

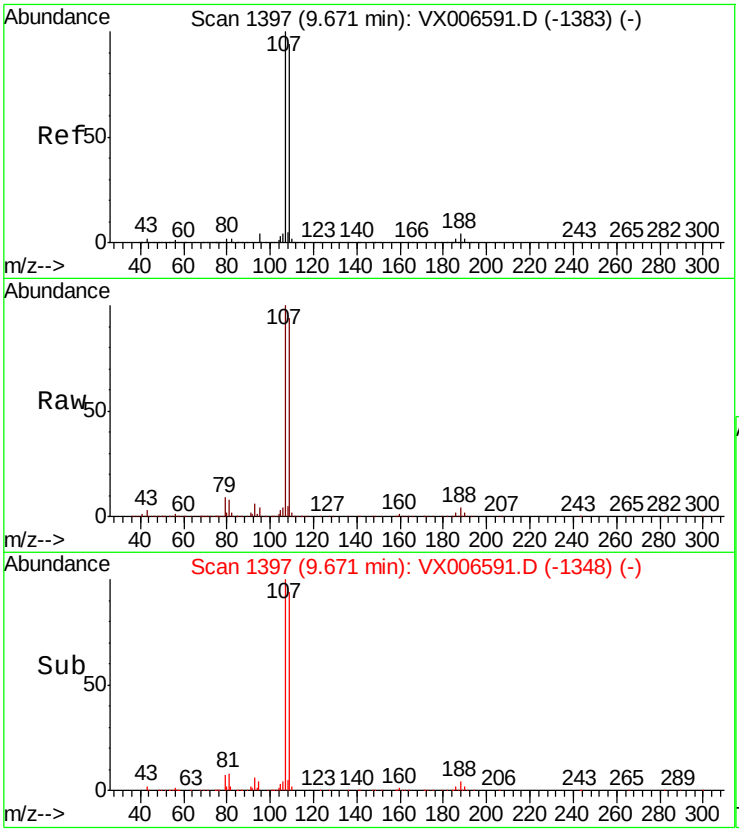
Tgt Ion:129 Resp: 317217

Ion	Ratio	Lower	Upper
129	100		
127	78.5	39.3	117.8



Instrument :
MSVOA_X
ClientSampleId :
VSTDICCC050

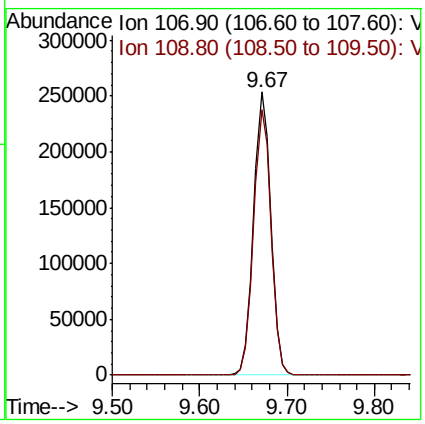
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:22:02 AM



#61
1,2-Dibromoethane
Concen: 50.237 ug/l
RT: 9.67 min Scan# 1397
Delta R.T. 0.00 min
Lab File: VX006591.D
Acq: 18 Dec 2018 12:04

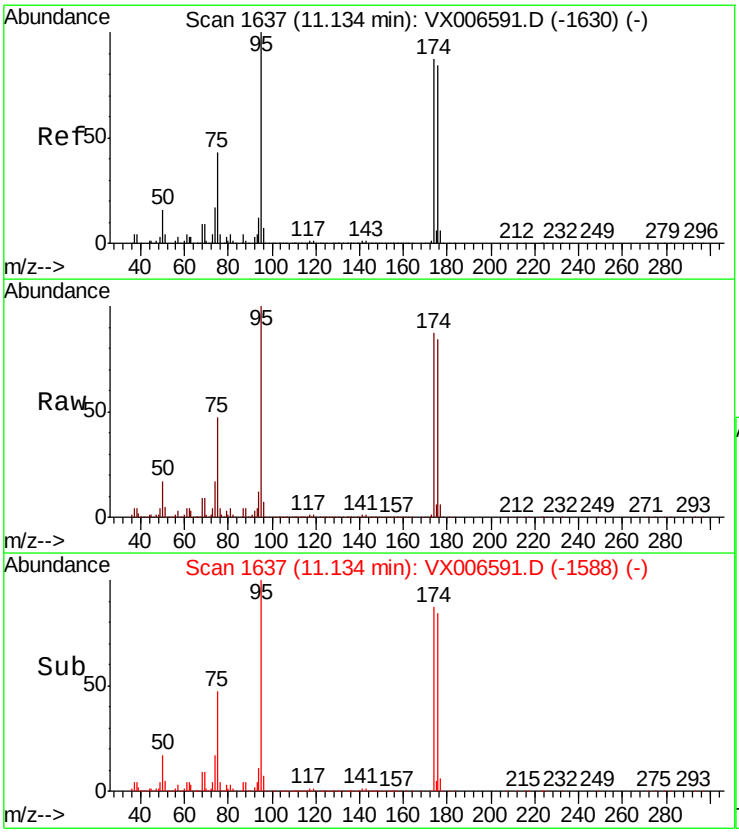
Tgt Ion:107 Resp: 345232

Ion	Ratio	Lower	Upper
107	100		
109	94.7	75.8	113.6



Instrument :
MSVOA_X
ClientSampleId :
VSTDICCC050

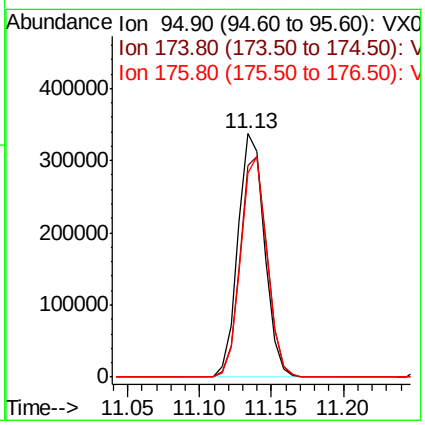
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:22:02 AM

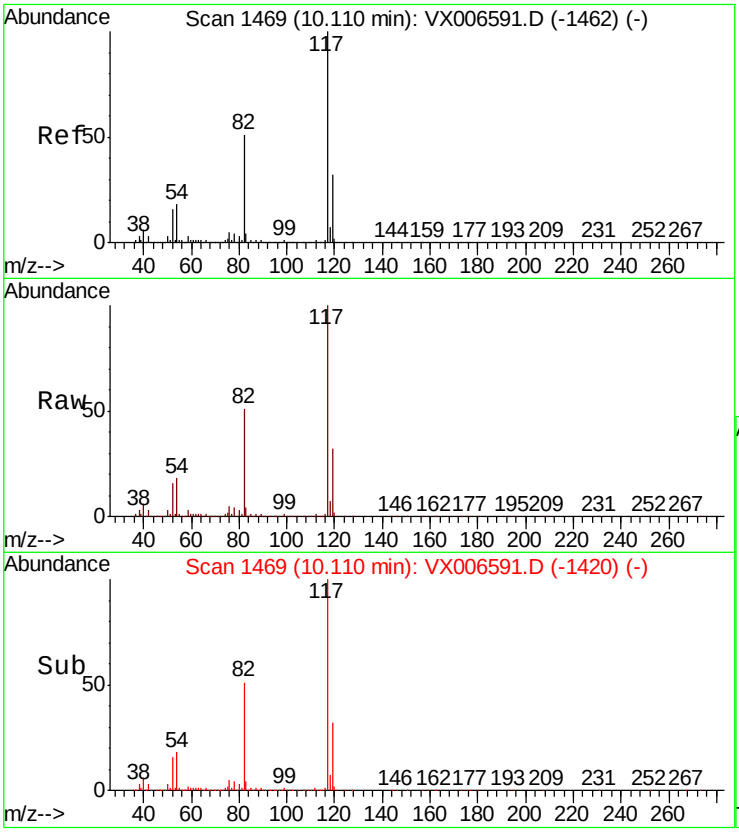


#62
4-Bromofluorobenzene
Concen: 51.025 ug/l
RT: 11.13 min Scan# 1637
Delta R.T. 0.00 min
Lab File: VX006591.D
Acq: 18 Dec 2018 12:04

Tgt Ion: 95 Resp: 432633

Ion	Ratio	Lower	Upper
95	100		
174	91.1	0.0	182.2
176	89.4	0.0	178.8

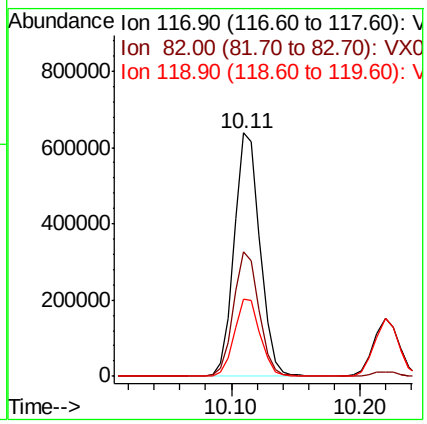




#63
Chlorobenzene-d5
Concen: 50.000 ug/l
RT: 10.11 min Scan# 1469
Delta R.T. 0.00 min
Lab File: VX006591.D
Acq: 18 Dec 2018 12:04

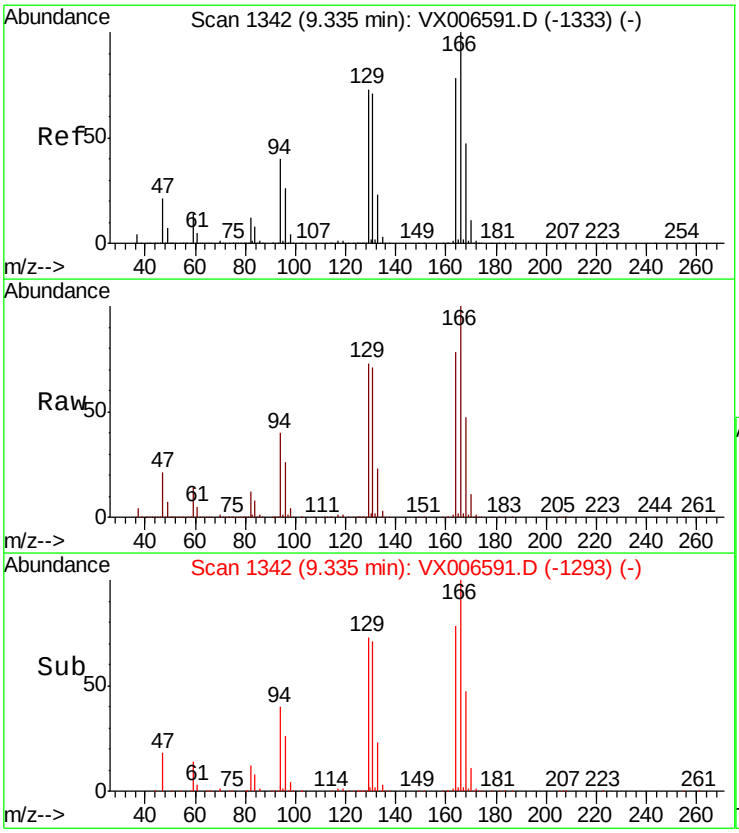
Tgt Ion:117 Resp: 890040

Ion	Ratio	Lower	Upper
117	100		
82	51.3	41.0	61.6
119	31.7	25.4	38.0



Instrument :
MSVOA_X
ClientSampleId :
VSTDICCC050

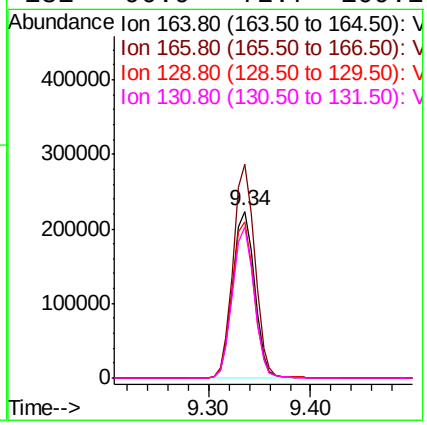
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:22:02 AM

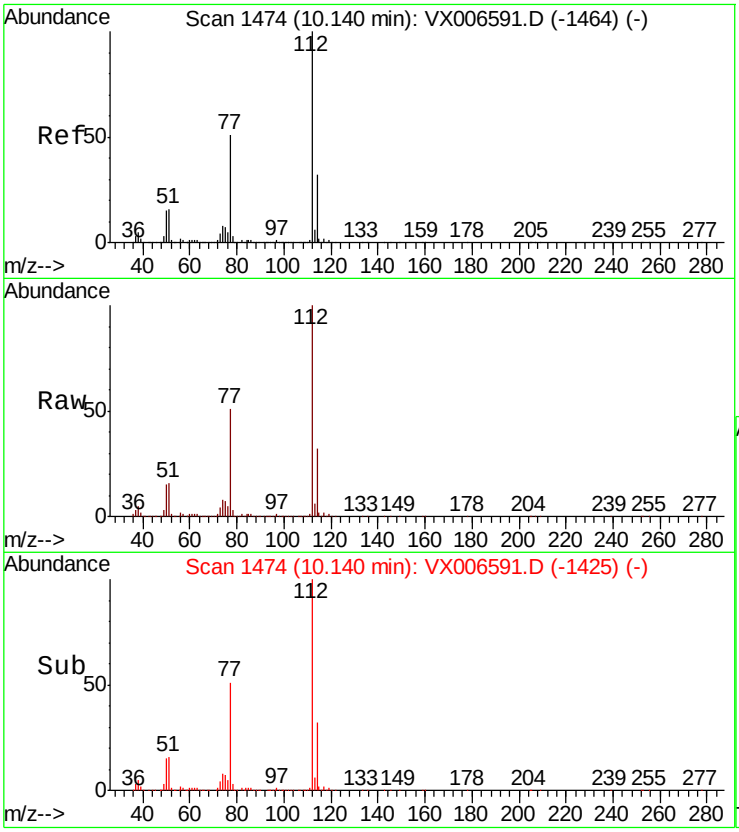


#64
Tetrachloroethene
Concen: 47.088 ug/l
RT: 9.34 min Scan# 1342
Delta R.T. 0.00 min
Lab File: VX006591.D
Acq: 18 Dec 2018 12:04

Tgt Ion:164 Resp: 331862

Ion	Ratio	Lower	Upper
164	100		
166	128.1	102.5	153.7
129	93.9	75.1	112.7
131	90.9	72.7	109.1

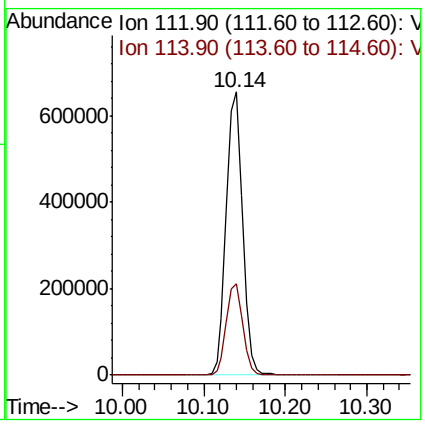




#65
Chlorobenzene
Concen: 48.130 ug/l
RT: 10.14 min Scan# 1474
Delta R.T. 0.00 min
Lab File: VX006591.D
Acq: 18 Dec 2018 12:04

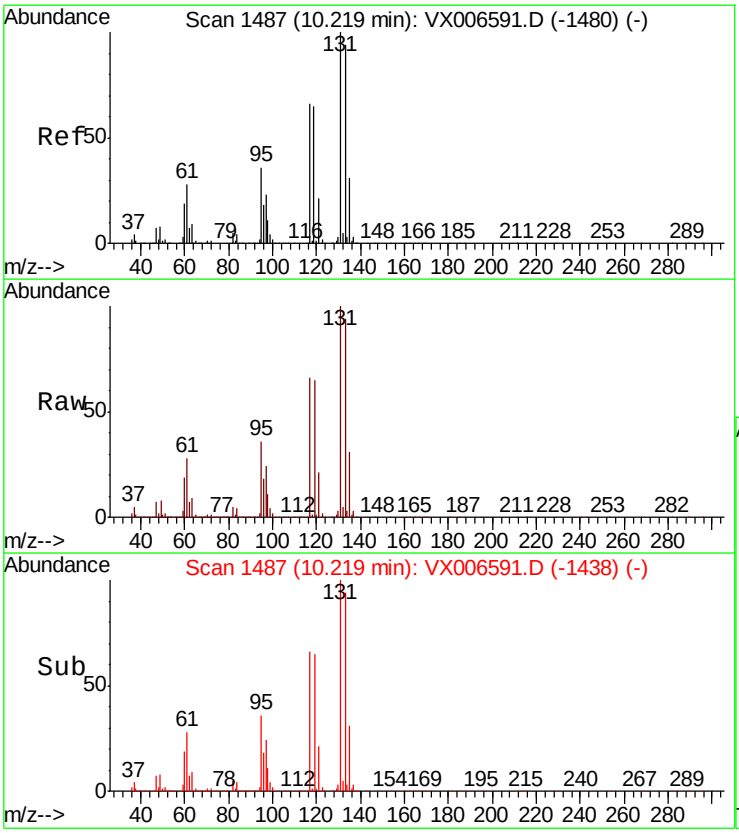
Tgt Ion:112 Resp: 906274

Ion	Ratio	Lower	Upper
112	100		
114	32.1	25.7	38.5



Instrument :
MSVOA_X
ClientSampleId :
VSTDICCC050

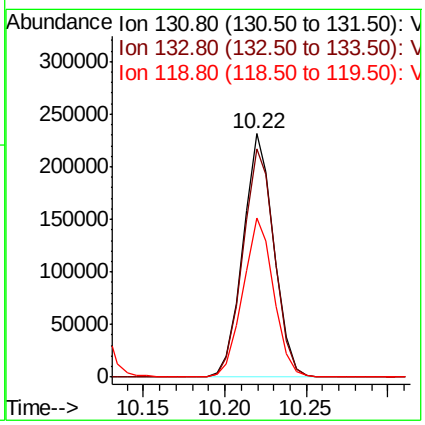
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:22:02 AM

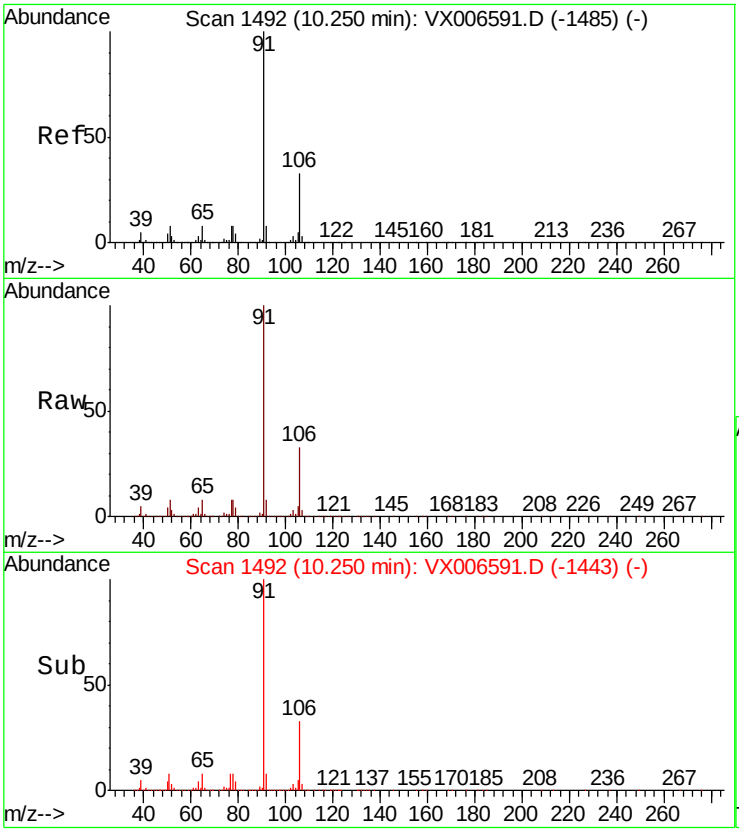


#66
1,1,1,2-Tetrachloroethane
Concen: 51.921 ug/l
RT: 10.22 min Scan# 1487
Delta R.T. 0.00 min
Lab File: VX006591.D
Acq: 18 Dec 2018 12:04

Tgt Ion:131 Resp: 305021

Ion	Ratio	Lower	Upper
131	100		
133	96.1	48.0	144.2
119	65.2	32.6	97.8

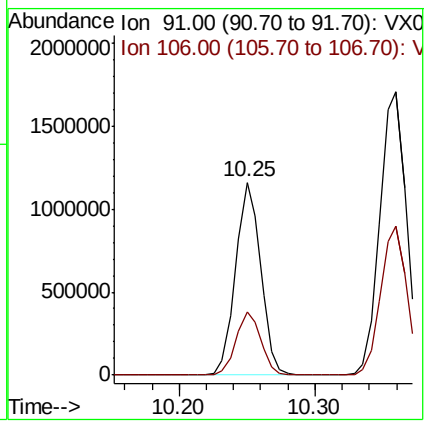


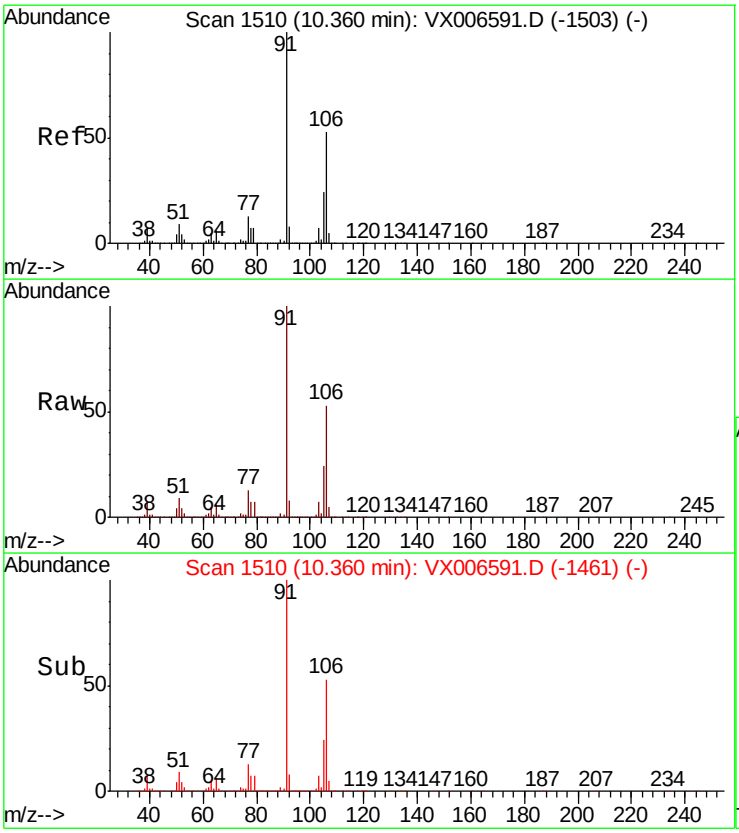


#67
Ethyl Benzene
Concen: 48.512 ug/l
RT: 10.25 min Scan# 1492
Delta R.T. 0.00 min
Lab File: VX006591.D
Acq: 18 Dec 2018 12:04

Tgt Ion: 91 Resp: 1492656

Ion	Ratio	Lower	Upper
91	100		
106	33.0	26.4	39.6

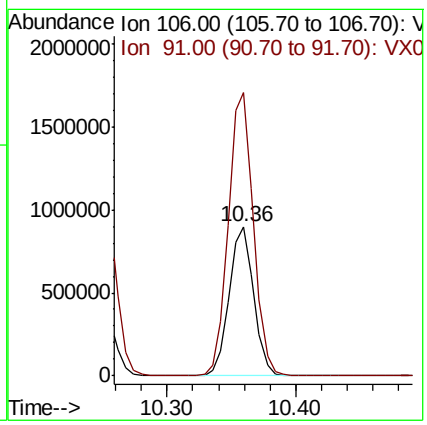




#68
m/p-Xylenes
Concen: 98.774 ug/l
RT: 10.36 min Scan# 1510
Delta R.T. 0.00 min
Lab File: VX006591.D
Acq: 18 Dec 2018 12:04

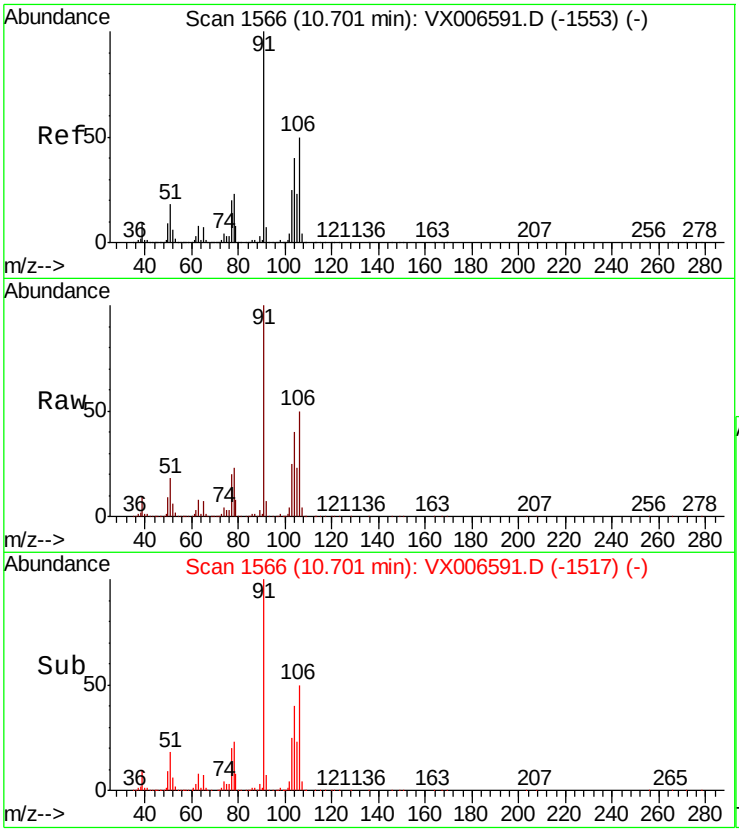
Tgt Ion:106 Resp: 1199242

Ion	Ratio	Lower	Upper
106	100		
91	194.7	155.8	233.6



Instrument :
MSVOA_X
ClientSampleId :
VSTDICCC050

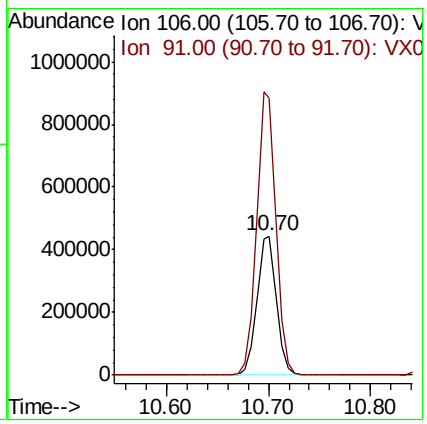
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:22:02 AM



#69
o-Xylene
Concen: 49.728 ug/l
RT: 10.70 min Scan# 1566
Delta R.T. 0.00 min
Lab File: VX006591.D
Acq: 18 Dec 2018 12:04

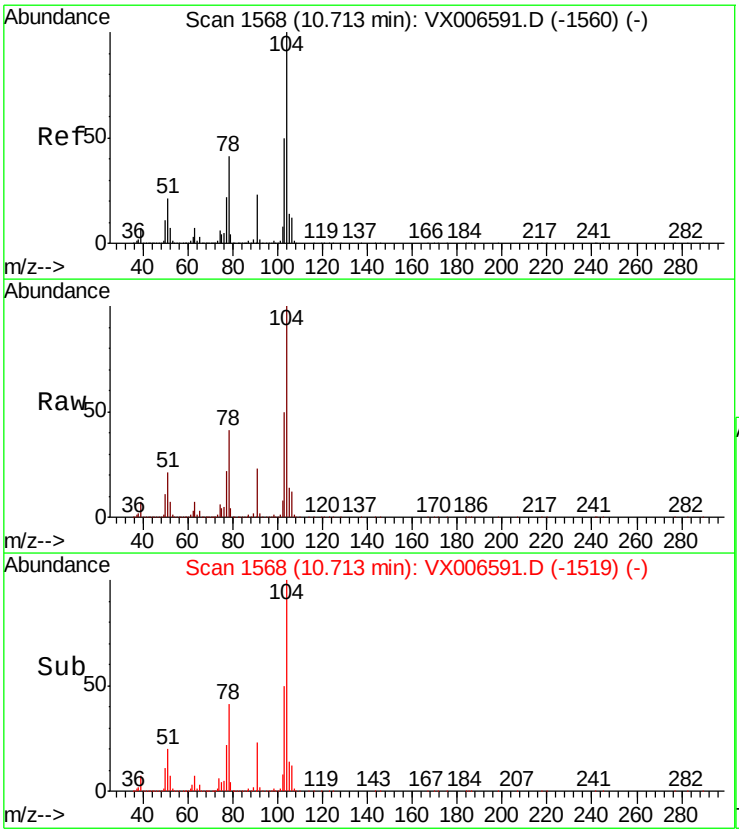
Tgt Ion:106 Resp: 596197

Ion	Ratio	Lower	Upper
106	100		
91	202.5	101.3	303.7



Instrument :
MSVOA_X
ClientSampleId :
VSTDICCC050

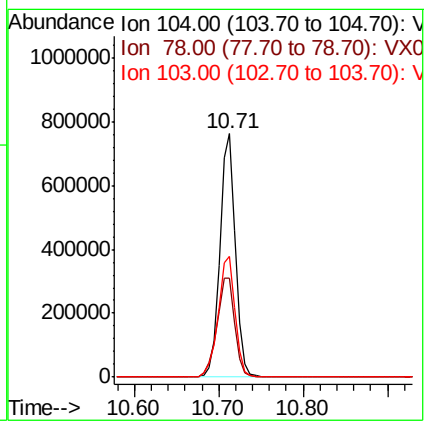
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:22:02 AM

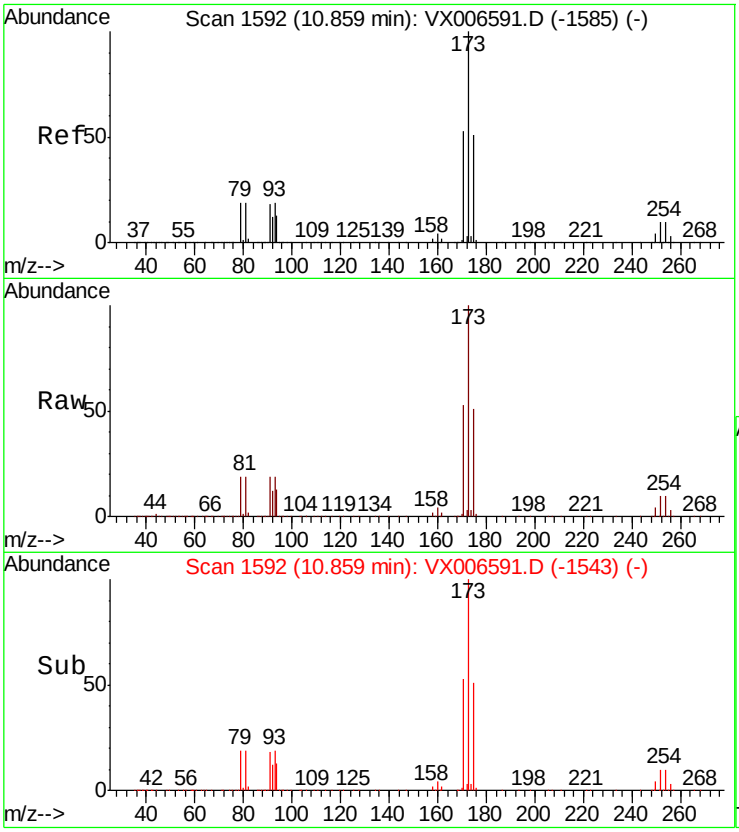


#70
Styrene
Concen: 50.994 ug/l
RT: 10.71 min Scan# 1568
Delta R.T. 0.00 min
Lab File: VX006591.D
Acq: 18 Dec 2018 12:04

Tgt Ion:104 Resp: 967246

Ion	Ratio	Lower	Upper
104	100		
78	47.1	37.7	56.5
103	54.8	43.8	65.8

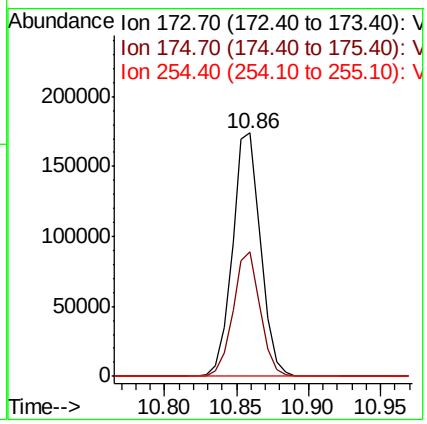




#71
Bromoform
Concen: 53.071 ug/l
RT: 10.86 min Scan# 1592
Delta R.T. 0.00 min
Lab File: VX006591.D
Acq: 18 Dec 2018 12:04

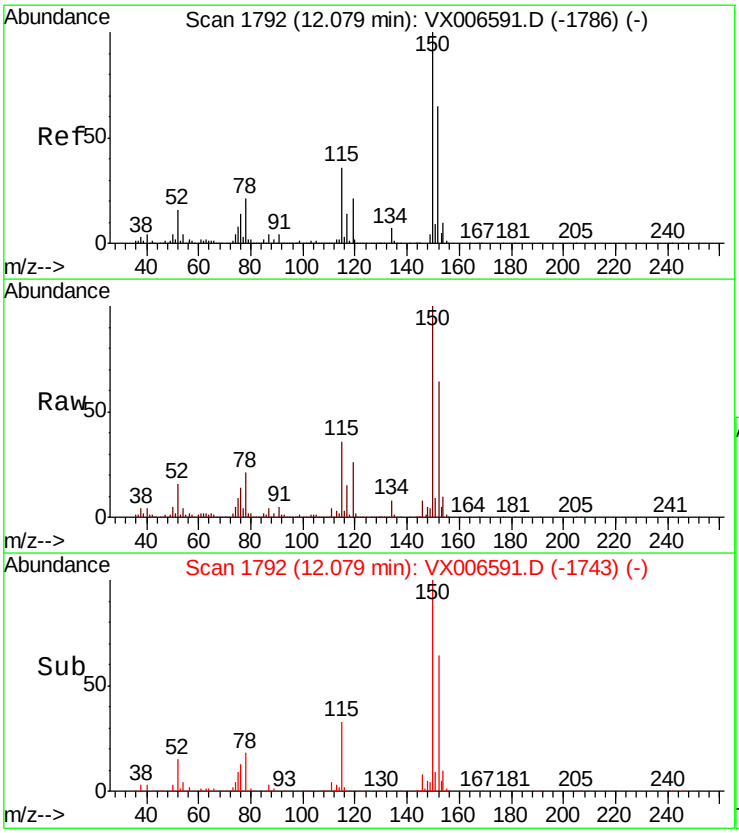
Tgt Ion:173 Resp: 237364

Ion	Ratio	Lower	Upper
173	100		
175	49.4	24.7	74.1
254	0.2	0.2	0.2



Instrument :
MSVOA_X
ClientSampleId :
VSTDICCC050

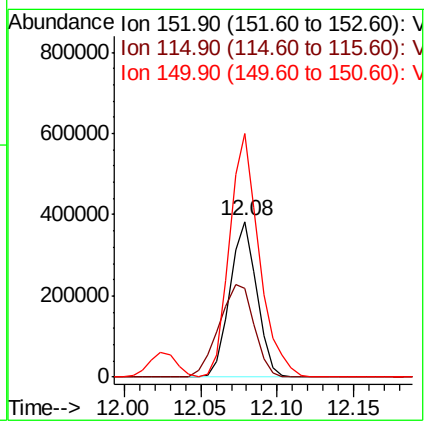
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:22:02 AM

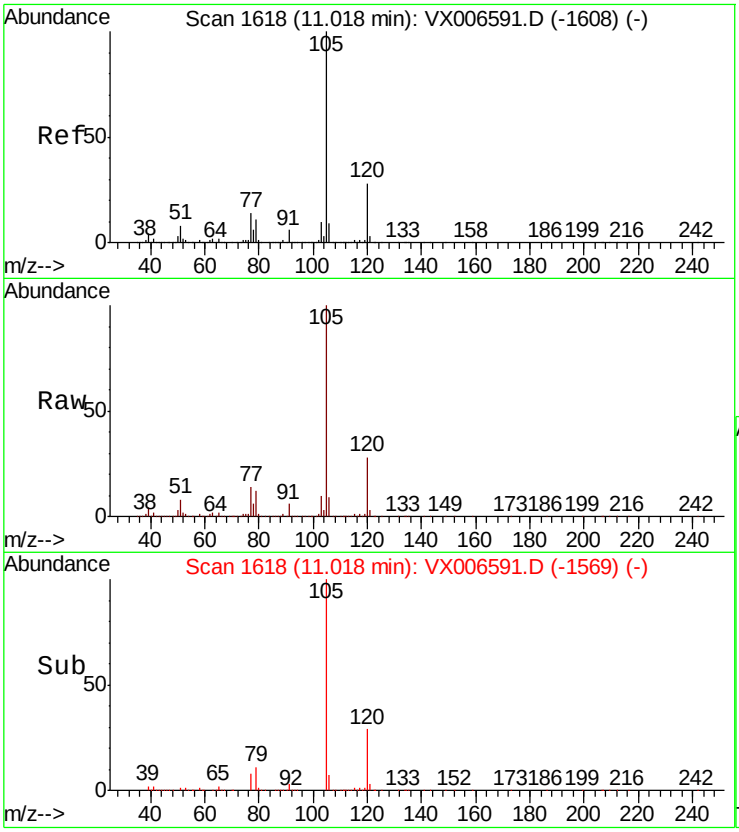


#72
1,4-Dichlorobenzene-d4
Concen: 50.000 ug/l
RT: 12.08 min Scan# 1792
Delta R.T. 0.00 min
Lab File: VX006591.D
Acq: 18 Dec 2018 12:04

Tgt Ion:152 Resp: 465942

Ion	Ratio	Lower	Upper
152	100		
115	78.1	39.1	117.2
150	172.4	0.0	344.8

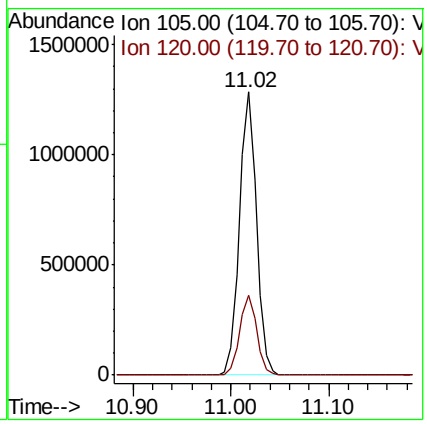




#73
Isopropylbenzene
Concen: 48.836 ug/l
RT: 11.02 min Scan# 1618
Delta R.T. 0.00 min
Lab File: VX006591.D
Acq: 18 Dec 2018 12:04

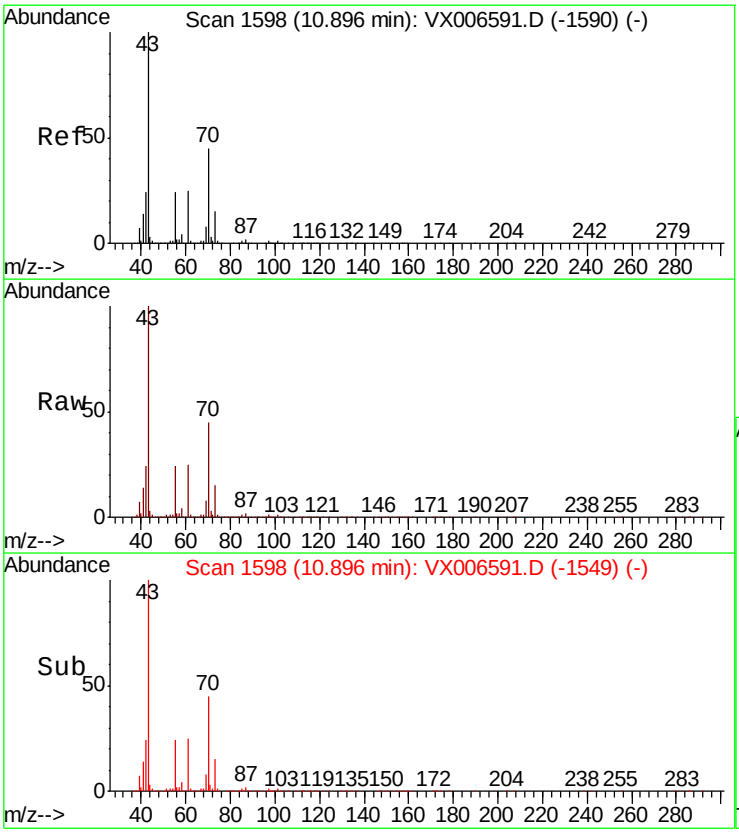
Tgt Ion:105 Resp: 1556702

Ion	Ratio	Lower	Upper
105	100		
120	28.3	14.1	42.4



Instrument :
MSVOA_X
ClientSampleId :
VSTDICCC050

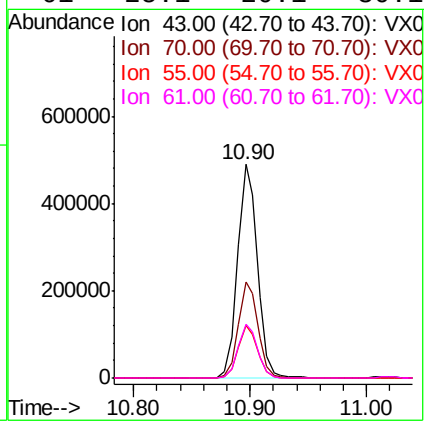
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:22:02 AM

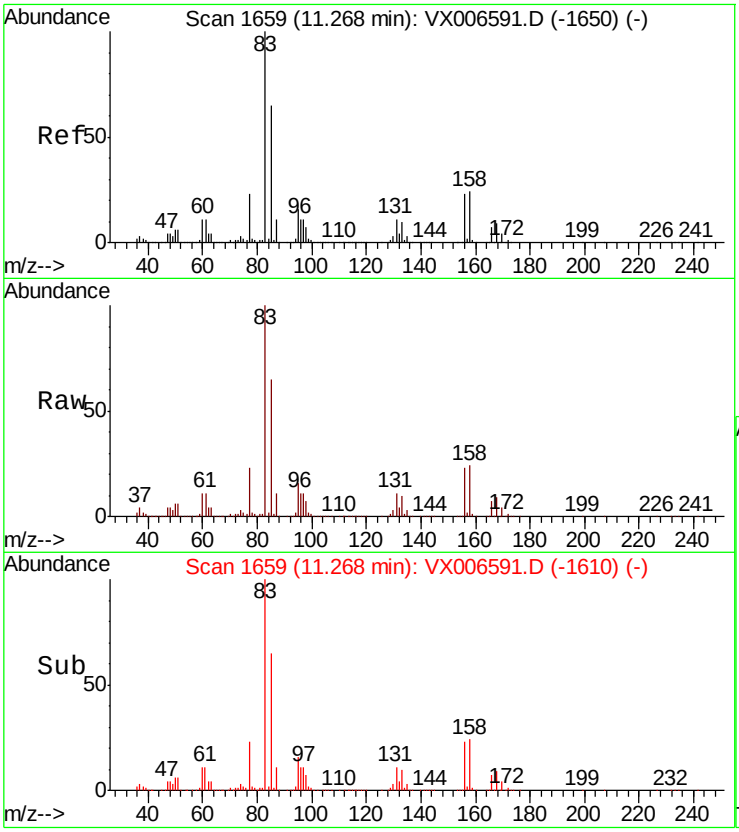


#74
N-amyl acetate
Concen: 50.860 ug/l
RT: 10.90 min Scan# 1598
Delta R.T. 0.00 min
Lab File: VX006591.D
Acq: 18 Dec 2018 12:04

Tgt Ion: 43 Resp: 580295

Ion	Ratio	Lower	Upper
43	100		
70	44.8	35.8	53.8
55	24.2	19.4	29.0
61	25.1	20.1	30.1

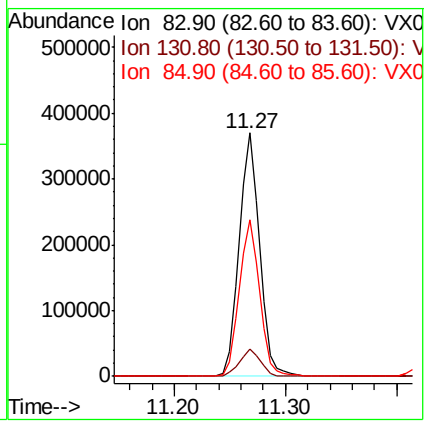




#75
1,1,2,2-Tetrachloroethane
Concen: 49.597 ug/l
RT: 11.27 min Scan# 1659
Delta R.T. 0.00 min
Lab File: VX006591.D
Acq: 18 Dec 2018 12:04

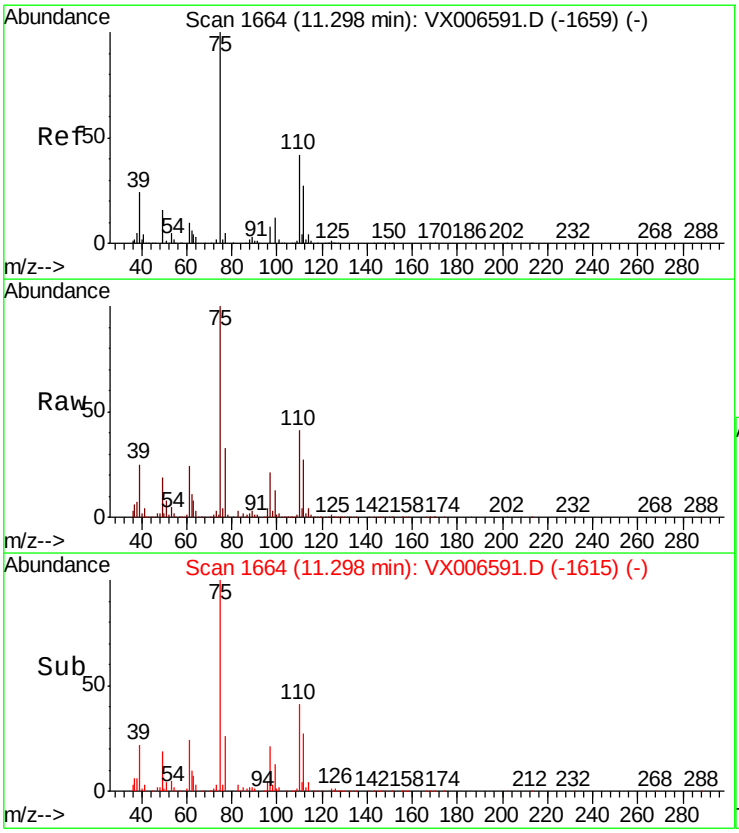
Tgt Ion: 83 Resp: 470175

Ion	Ratio	Lower	Upper
83	100		
131	11.4	5.7	17.1
85	64.4	32.2	96.6



Instrument :
MSVOA_X
ClientSampleId :
VSTDICCC050

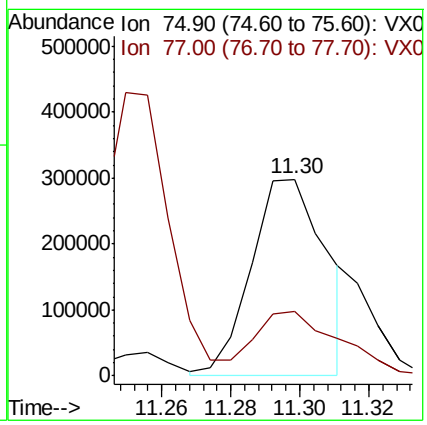
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:22:02 AM

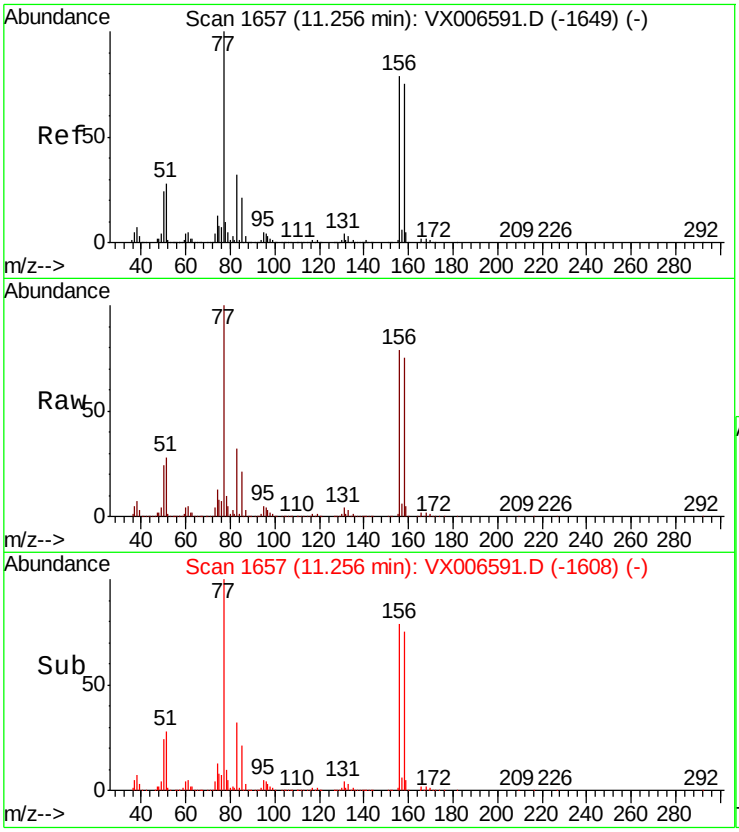


#76
1,2,3-Trichloropropane
Concen: 54.114 ug/l m
RT: 11.30 min Scan# 1664
Delta R.T. 0.00 min
Lab File: VX006591.D
Acq: 18 Dec 2018 12:04

Tgt Ion: 75 Resp: 446654

Ion	Ratio	Lower	Upper
75	100		
77	37.0	18.5	55.5

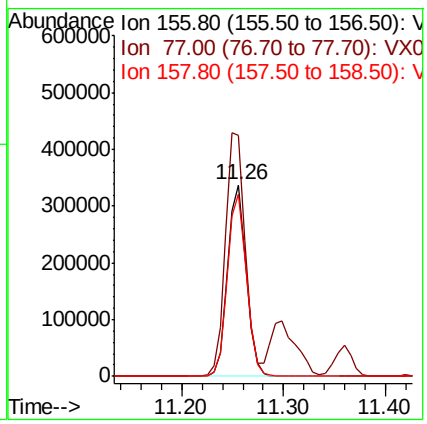


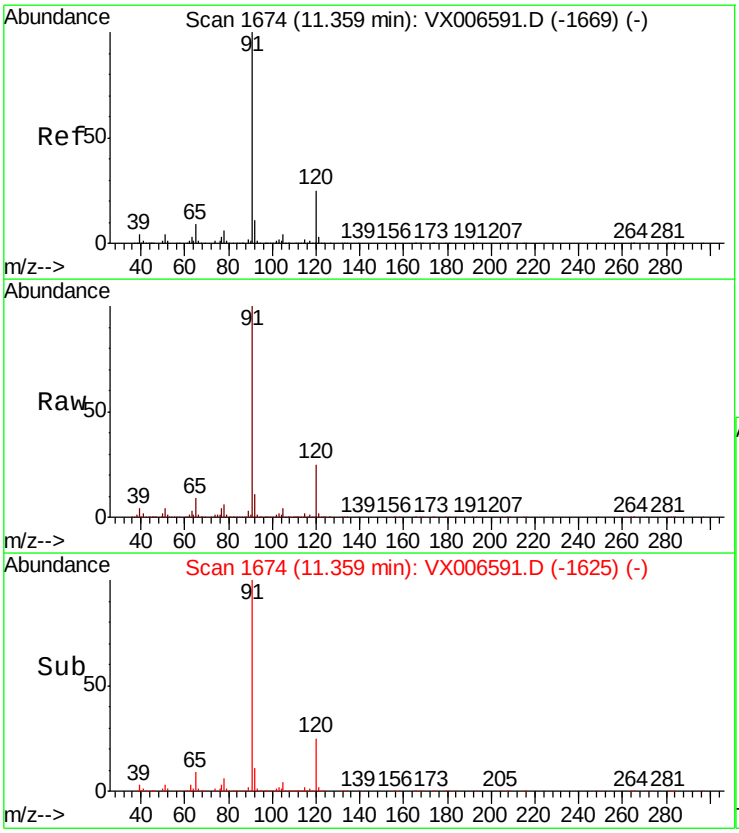


#77
Bromobenzene
Concen: 49.436 ug/l
RT: 11.26 min Scan# 1657
Delta R.T. 0.00 min
Lab File: VX006591.D
Acq: 18 Dec 2018 12:04

Tgt Ion:156 Resp: 426028

Ion	Ratio	Lower	Upper
156	100		
77	136.0	68.0	204.0
158	96.5	48.3	144.8

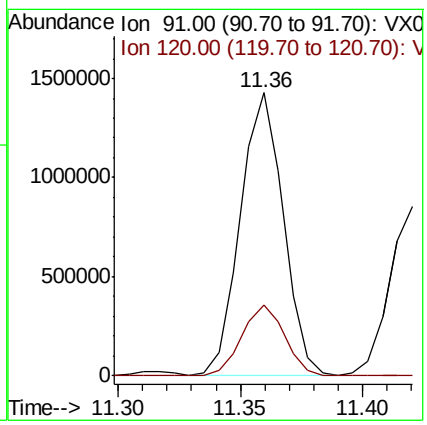




#78
n-propylbenzene
Concen: 49.477 ug/l
RT: 11.36 min Scan# 1674
Delta R.T. 0.00 min
Lab File: VX006591.D
Acq: 18 Dec 2018 12:04

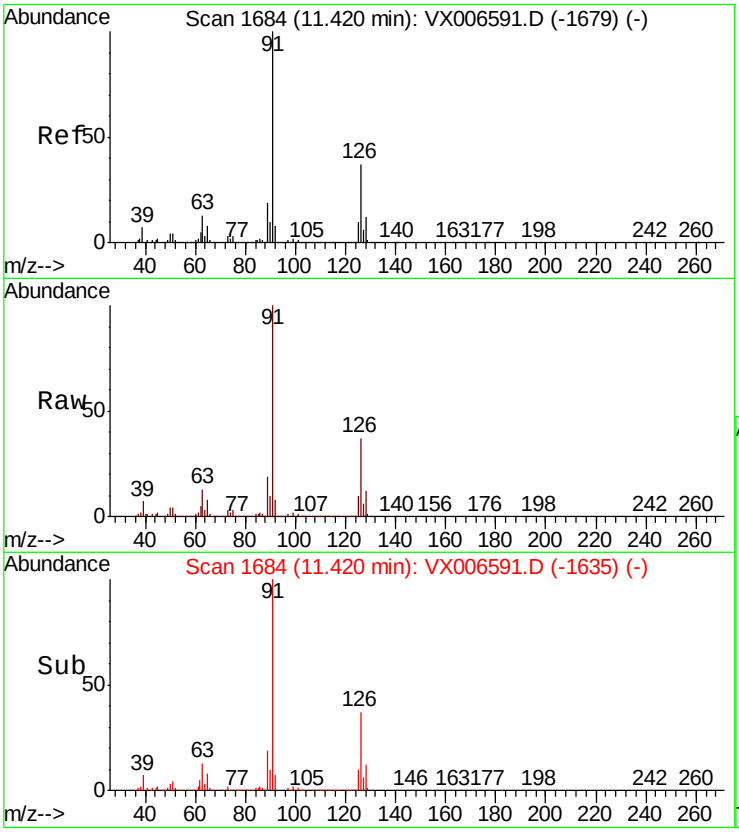
Tgt Ion: 91 Resp: 1736722

Ion	Ratio	Lower	Upper
91	100		
120	25.3	12.7	38.0



Instrument :
MSVOA_X
ClientSampleId :
VSTDICCC050

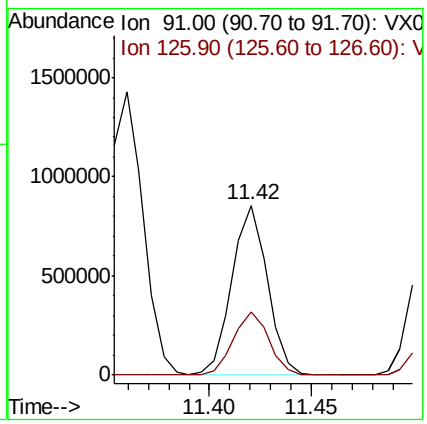
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:22:02 AM



#79
2-Chlorotoluene
Concen: 48.290 ug/l
RT: 11.42 min Scan# 1684
Delta R.T. 0.00 min
Lab File: VX006591.D
Acq: 18 Dec 2018 12:04

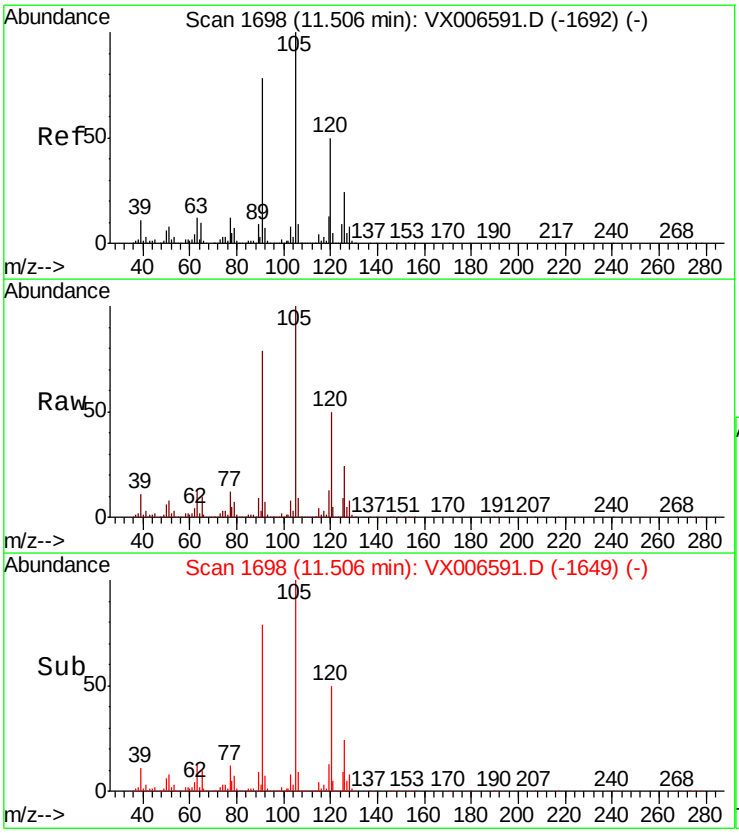
Tgt Ion: 91 Resp: 1027229

Ion	Ratio	Lower	Upper
91	100		
126	37.3	18.6	56.0



Instrument :
MSVOA_X
ClientSampleId :
VSTDICCC050

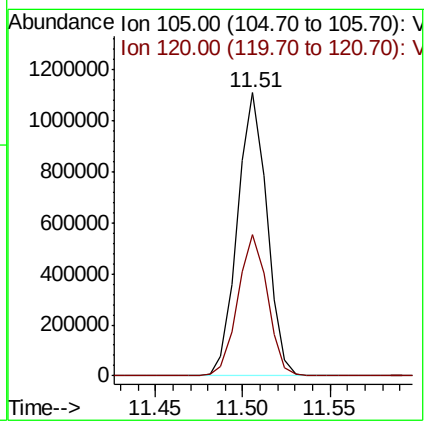
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:22:02 AM

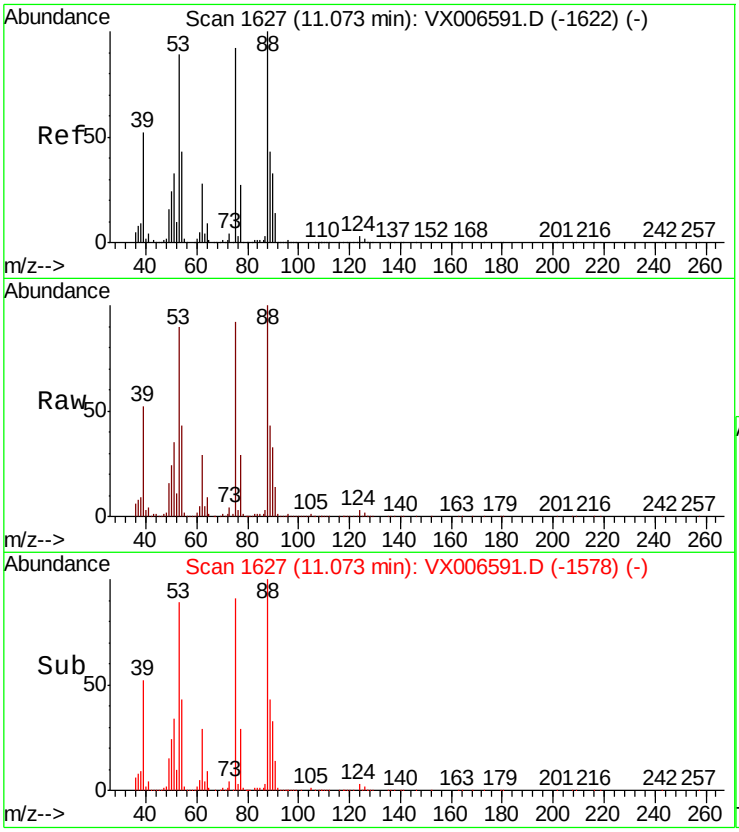


#80
1,3,5-Trimethylbenzene
Concen: 49.503 ug/l
RT: 11.51 min Scan# 1698
Delta R.T. 0.00 min
Lab File: VX006591.D
Acq: 18 Dec 2018 12:04

Tgt Ion:105 Resp: 1299718

Ion	Ratio	Lower	Upper
105	100		
120	50.2	25.1	75.3





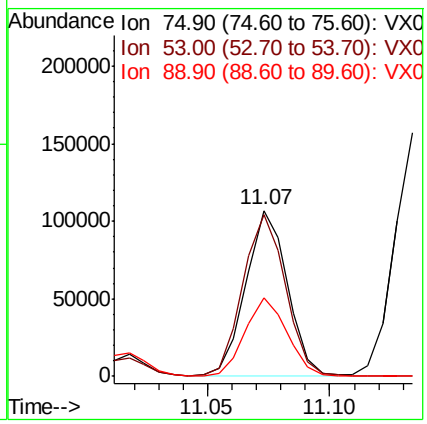
#81
trans-1,4-Dichloro-2-butene
Concen: 52.557 ug/l
RT: 11.07 min Scan# 1627
Delta R.T. 0.00 min
Lab File: VX006591.D
Acq: 18 Dec 2018 12:04

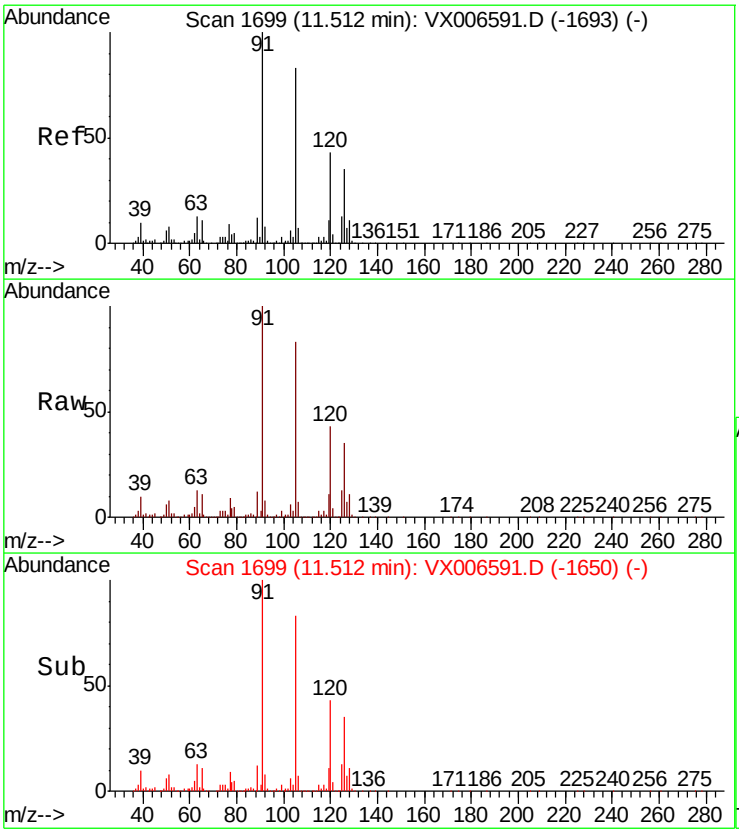
Tgt Ion: 75 Resp: 127054

Ion	Ratio	Lower	Upper
75	100		
53	99.6	79.7	119.5
89	47.5	38.0	57.0

Instrument :
MSVOA_X
ClientSampleId :
VSTDICCC050

Manual Integrations APPROVED
MMDadoda
12/19/2018 11:22:02 AM

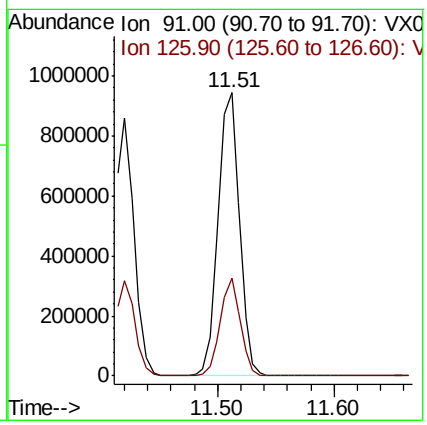


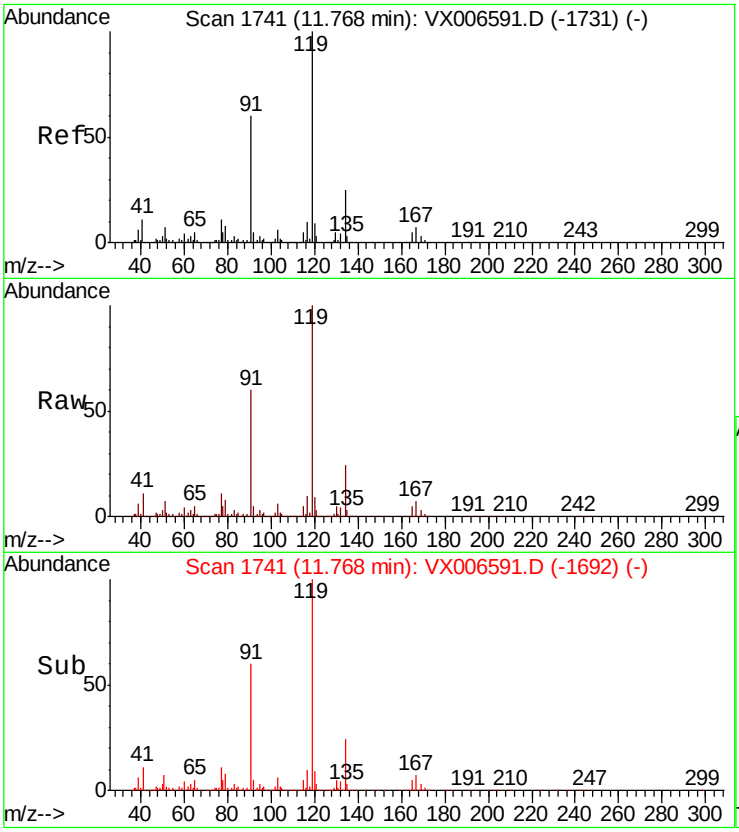


#82
4-Chlorotoluene
Concen: 48.780 ug/l
RT: 11.51 min Scan# 1699
Delta R.T. 0.00 min
Lab File: VX006591.D
Acq: 18 Dec 2018 12:04

Tgt Ion: 91 Resp: 1190255

Ion	Ratio	Lower	Upper
91	100		
126	32.6	16.3	48.9

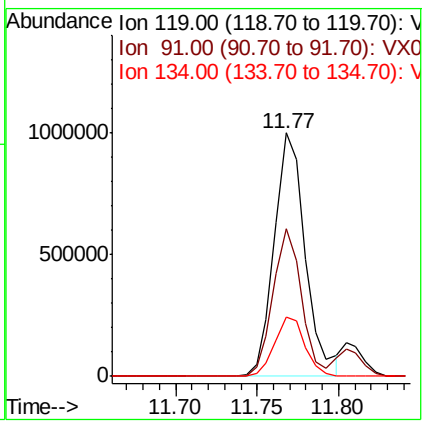




#83
tert-Butylbenzene
Concen: 50.545 ug/l
RT: 11.77 min Scan# 1741
Delta R.T. 0.00 min
Lab File: VX006591.D
Acq: 18 Dec 2018 12:04

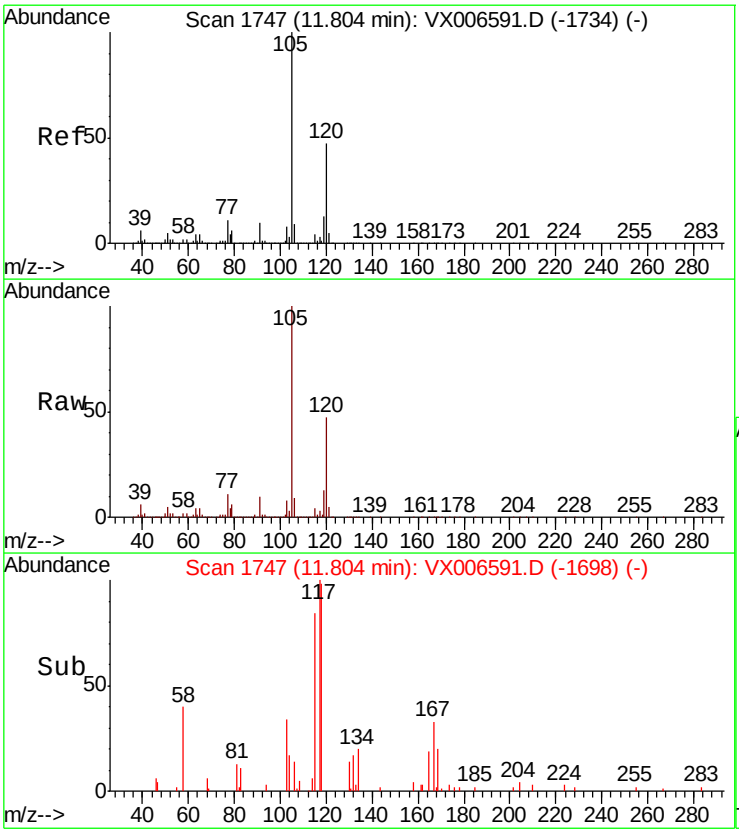
Tgt Ion:119 Resp: 1328198

Ion	Ratio	Lower	Upper
119	100		
91	55.4	27.7	83.1
134	23.7	11.9	35.5



Instrument :
MSVOA_X
ClientSampleId :
VSTDICCC050

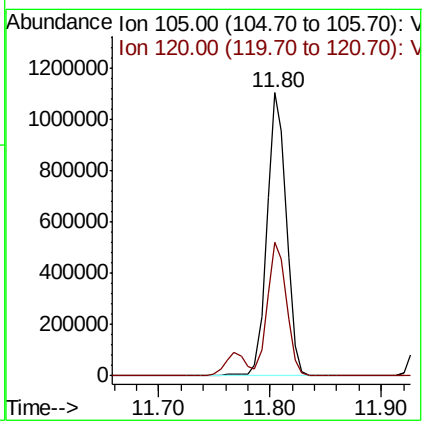
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:22:02 AM

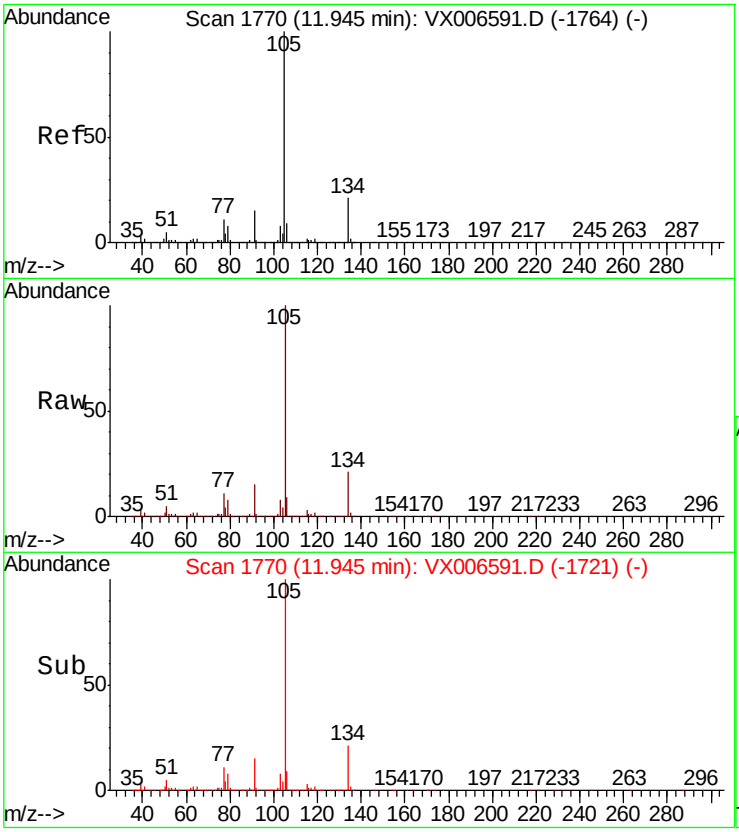


#84
1,2,4-Trimethylbenzene
Concen: 48.362 ug/l
RT: 11.80 min Scan# 1747
Delta R.T. 0.00 min
Lab File: VX006591.D
Acq: 18 Dec 2018 12:04

Tgt Ion:105 Resp: 1335566

Ion	Ratio	Lower	Upper
105	100		
120	46.4	23.2	69.6

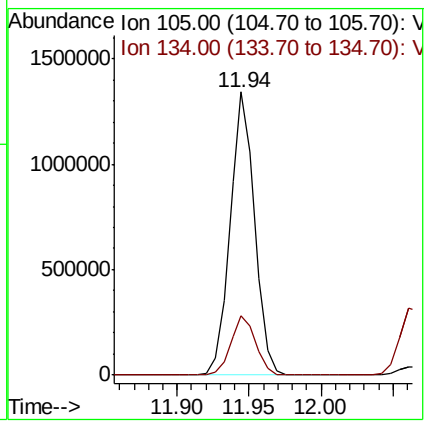




#85
sec-Butylbenzene
Concen: 49.513 ug/l
RT: 11.94 min Scan# 1770
Delta R.T. 0.00 min
Lab File: VX006591.D
Acq: 18 Dec 2018 12:04

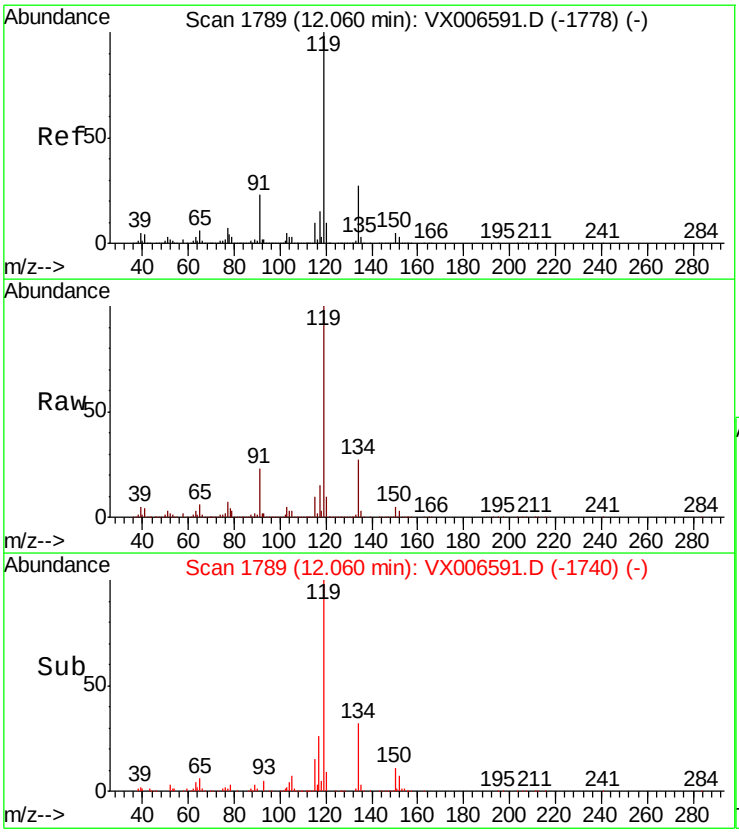
Tgt Ion:105 Resp: 1595179

Ion	Ratio	Lower	Upper
105	100		
134	21.3	10.7	31.9



Instrument :
MSVOA_X
ClientSampleId :
VSTDICCC050

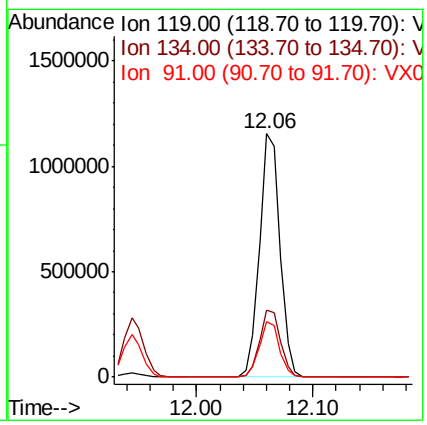
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:22:02 AM

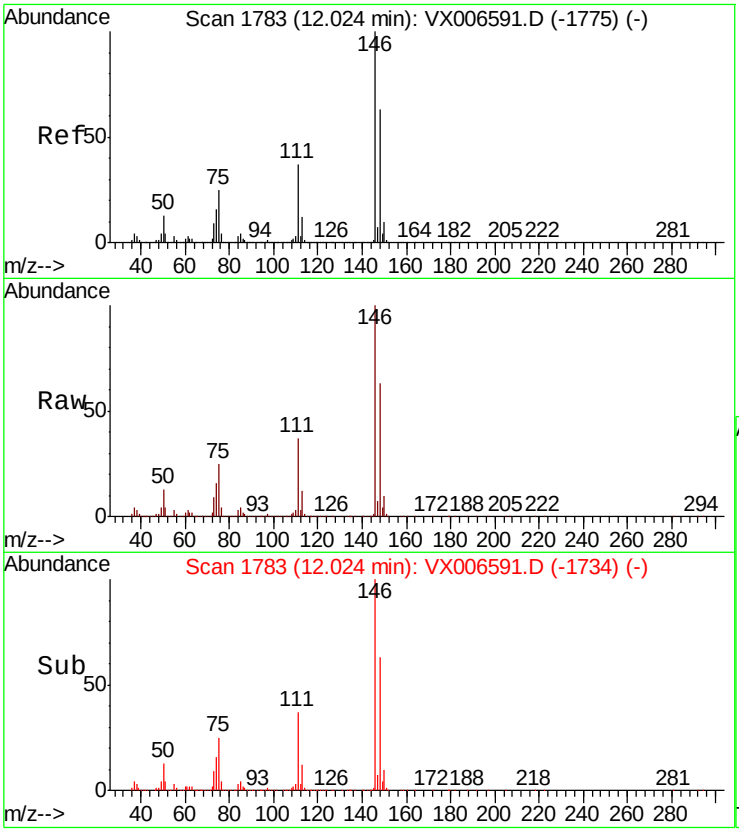


#86
p-Isopropyltoluene
Concen: 50.113 ug/l
RT: 12.06 min Scan# 1789
Delta R.T. 0.00 min
Lab File: VX006591.D
Acq: 18 Dec 2018 12:04

Tgt Ion:119 Resp: 1419209

Ion	Ratio	Lower	Upper
119	100		
134	27.9	14.0	41.9
91	22.6	11.3	33.9

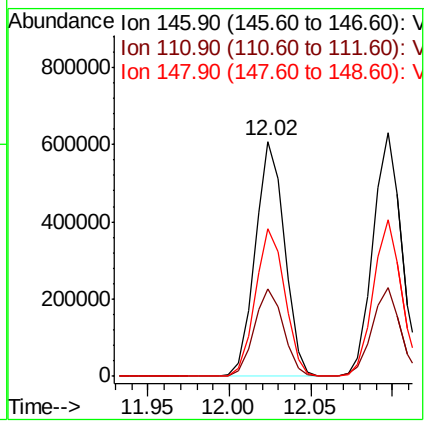




#87
1,3-Dichlorobenzene
Concen: 49.039 ug/l
RT: 12.02 min Scan# 1783
Delta R.T. 0.00 min
Lab File: VX006591.D
Acq: 18 Dec 2018 12:04

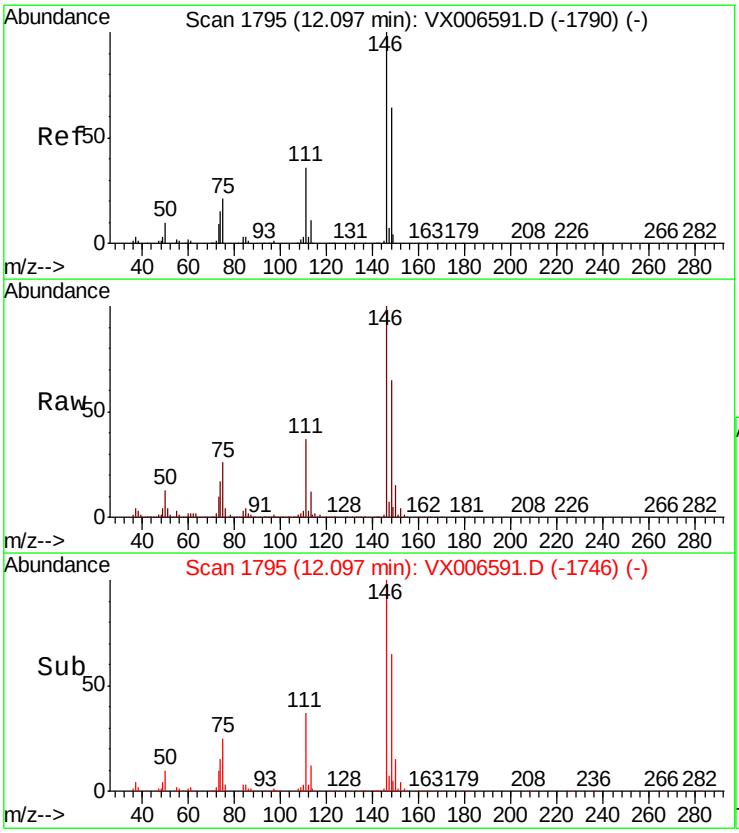
Tgt Ion:146 Resp: 761651

Ion	Ratio	Lower	Upper
146	100		
111	37.2	18.6	55.8
148	63.5	31.8	95.3



Instrument :
MSVOA_X
ClientSampleId :
VSTDICCC050

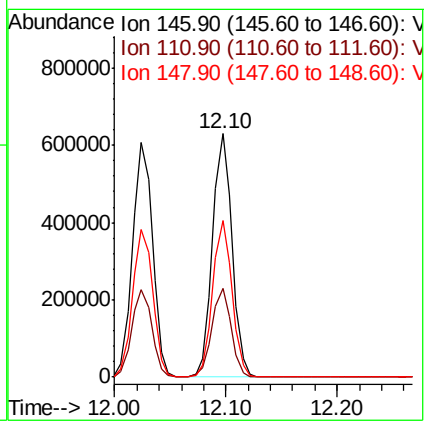
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:22:02 AM

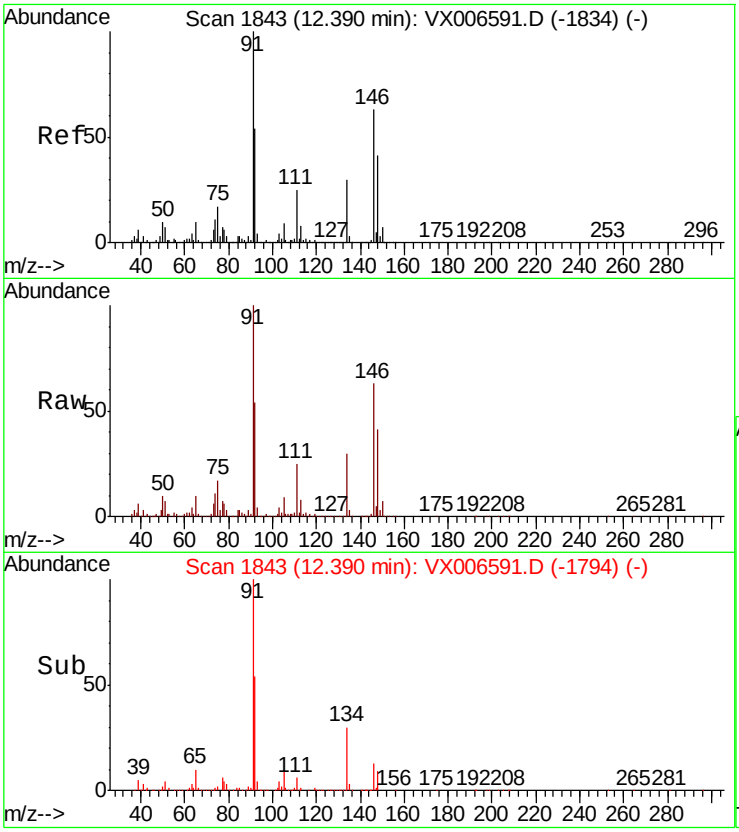


#88
1,4-Dichlorobenzene
Concen: 48.073 ug/l
RT: 12.10 min Scan# 1795
Delta R.T. 0.00 min
Lab File: VX006591.D
Acq: 18 Dec 2018 12:04

Tgt Ion:146 Resp: 766317

Ion	Ratio	Lower	Upper
146	100		
111	36.1	18.1	54.1
148	63.9	31.9	95.9

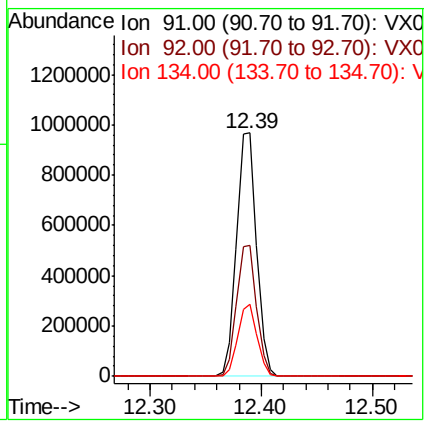




#89
n-Butylbenzene
Concen: 50.045 ug/l
RT: 12.39 min Scan# 1843
Delta R.T. 0.00 min
Lab File: VX006591.D
Acq: 18 Dec 2018 12:04

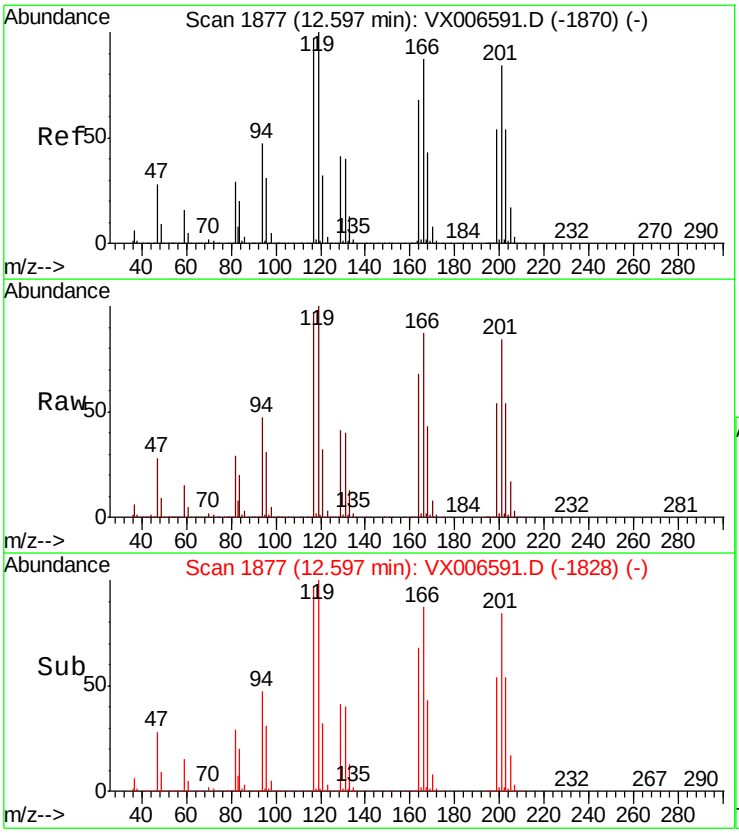
Tgt Ion: 91 Resp: 1206178

Ion	Ratio	Lower	Upper
91	100		
92	53.6	26.8	80.4
134	28.8	14.4	43.2



Instrument :
MSVOA_X
ClientSampleId :
VSTDICCC050

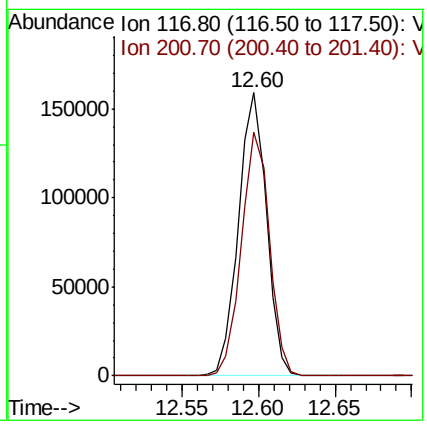
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:22:02 AM

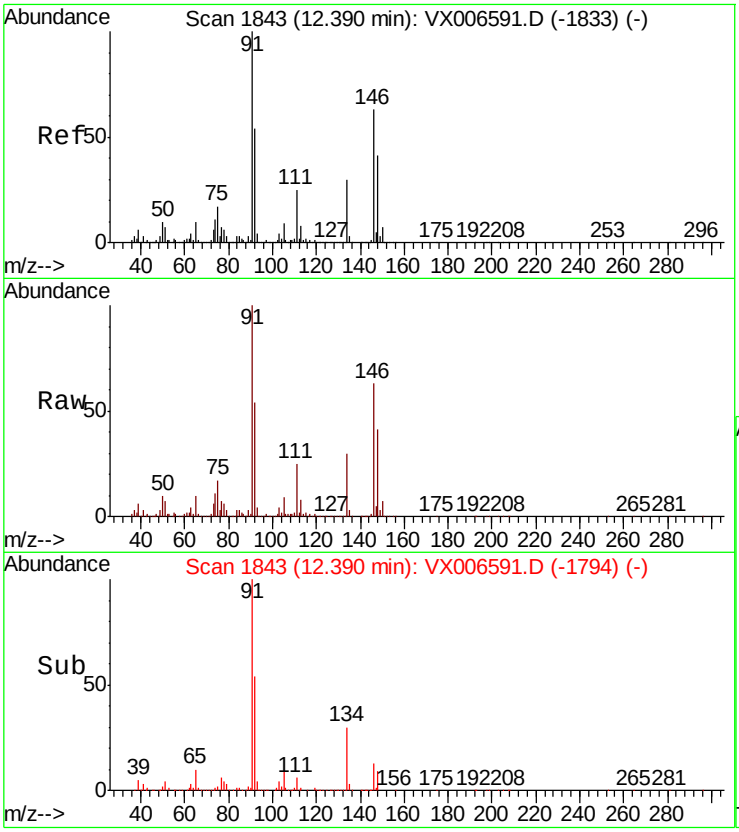


#90
Hexachloroethane
Concen: 52.476 ug/l
RT: 12.60 min Scan# 1877
Delta R.T. 0.00 min
Lab File: VX006591.D
Acq: 18 Dec 2018 12:04

Tgt Ion:117 Resp: 202446

Ion	Ratio	Lower	Upper
117	100		
201	85.8	42.9	128.7

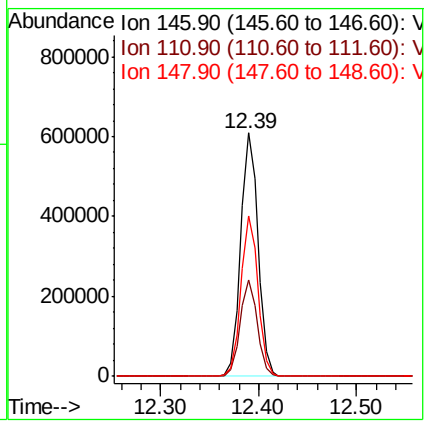




#91
1,2-Dichlorobenzene
Concen: 48.184 ug/l
RT: 12.39 min Scan# 1843
Delta R.T. 0.00 min
Lab File: VX006591.D
Acq: 18 Dec 2018 12:04

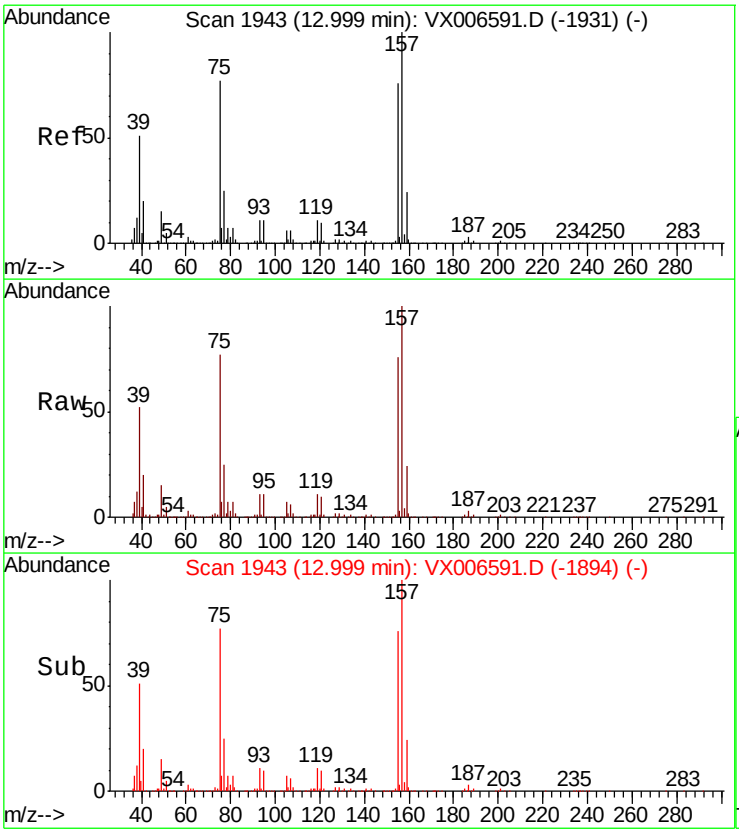
Tgt Ion:146 Resp: 748632

Ion	Ratio	Lower	Upper
146	100		
111	38.8	19.4	58.2
148	64.6	32.3	96.9



Instrument :
MSVOA_X
ClientSampleId :
VSTDICCC050

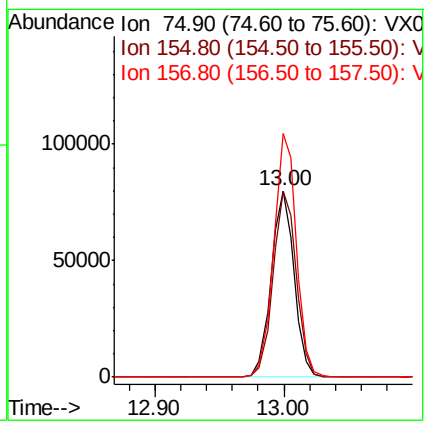
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:22:02 AM

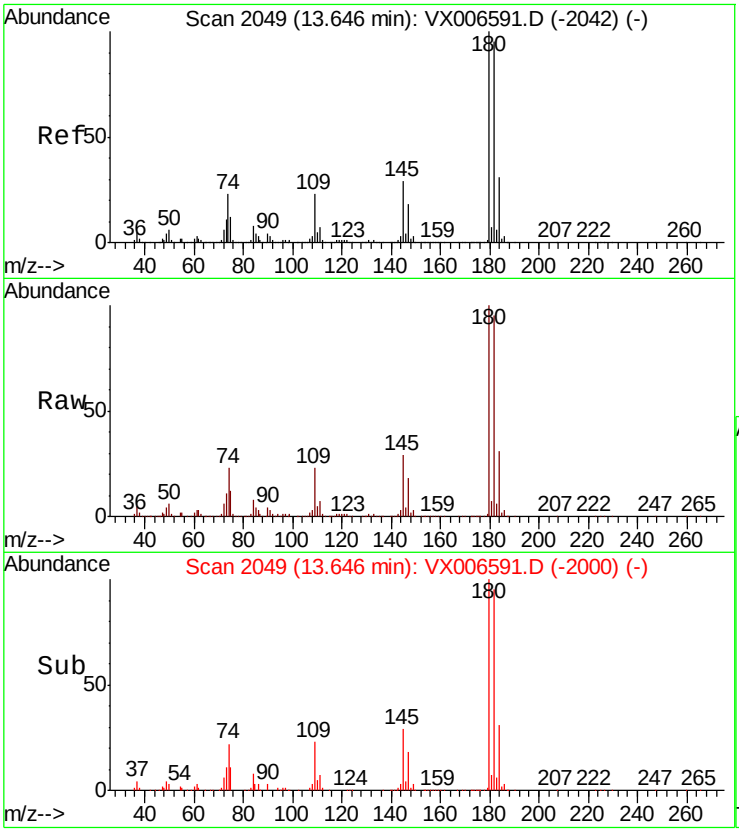


#92
1,2-Dibromo-3-Chloropropane
Concen: 50.747 ug/l
RT: 13.00 min Scan# 1943
Delta R.T. 0.00 min
Lab File: VX006591.D
Acq: 18 Dec 2018 12:04

Tgt Ion: 75 Resp: 99543

Ion	Ratio	Lower	Upper
75	100		
155	101.2	50.6	151.8
157	129.2	64.6	193.8

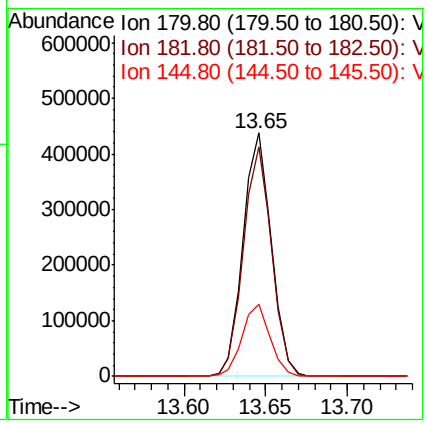




#93
1,2,4-Trichlorobenzene
Concen: 49.405 ug/l
RT: 13.65 min Scan# 2049
Delta R.T. 0.00 min
Lab File: VX006591.D
Acq: 18 Dec 2018 12:04

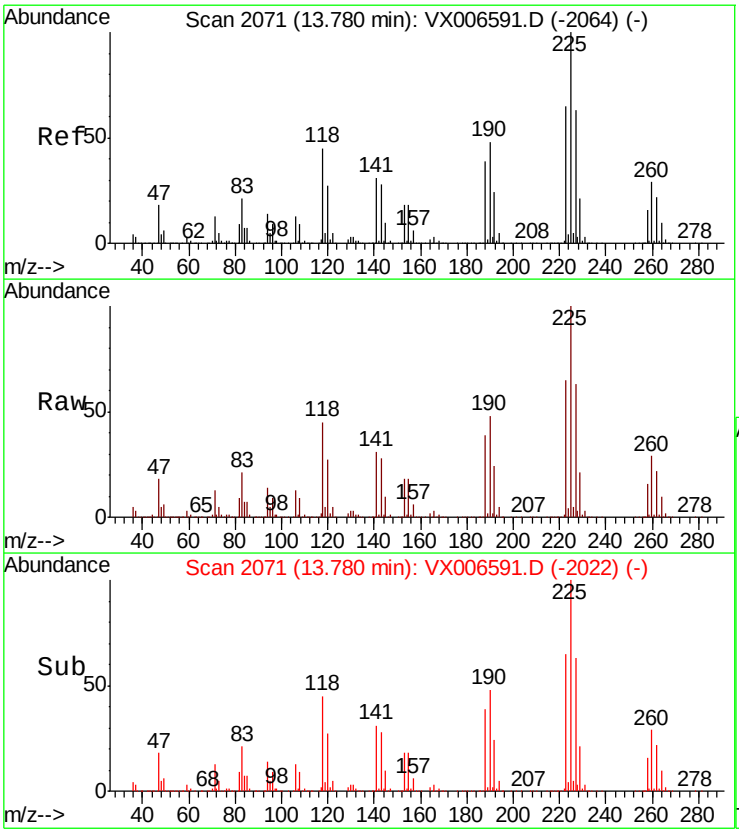
Tgt Ion:180 Resp: 529482

Ion	Ratio	Lower	Upper
180	100		
182	94.7	47.3	142.0
145	29.5	14.8	44.3



Instrument :
MSVOA_X
ClientSampleId :
VSTDICCC050

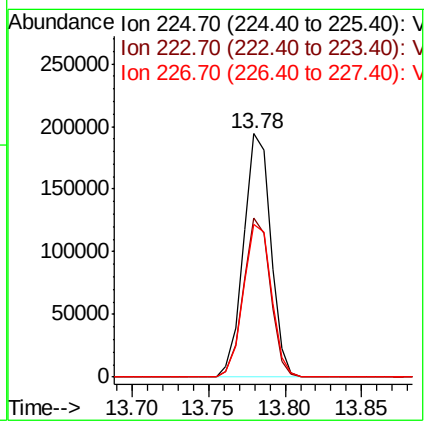
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:22:02 AM

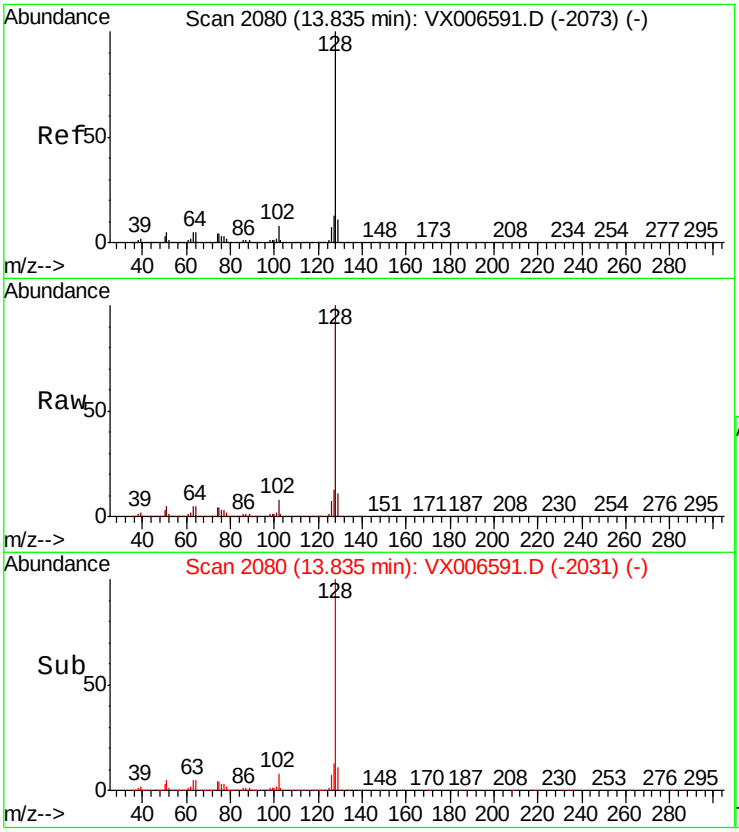


#94
Hexachlorobutadiene
Concen: 47.455 ug/l
RT: 13.78 min Scan# 2071
Delta R.T. 0.00 min
Lab File: VX006591.D
Acq: 18 Dec 2018 12:04

Tgt Ion:225 Resp: 239717

Ion	Ratio	Lower	Upper
225	100		
223	64.2	32.1	96.3
227	64.5	32.3	96.8

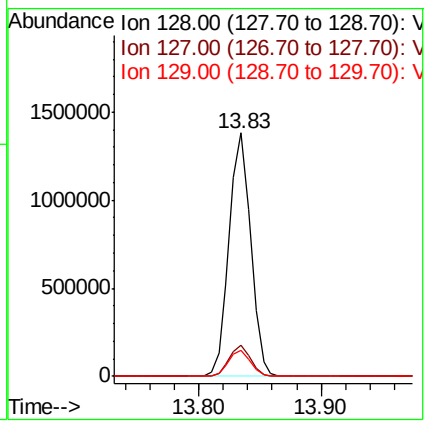




#95
Naphthalene
Concen: 49.247 ug/l
RT: 13.83 min Scan# 2080
Delta R.T. 0.00 min
Lab File: VX006591.D
Acq: 18 Dec 2018 12:04

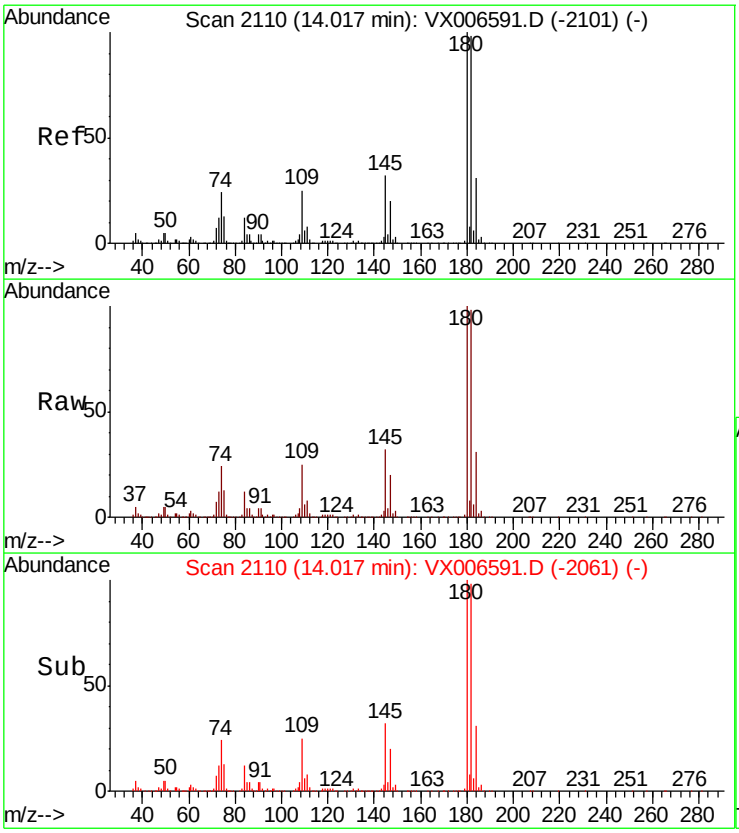
Tgt Ion:128 Resp: 1684540

Ion	Ratio	Lower	Upper
128	100		
127	12.6	10.1	15.1
129	10.8	8.6	13.0



Instrument :
MSVOA_X
ClientSampleId :
VSTDICCC050

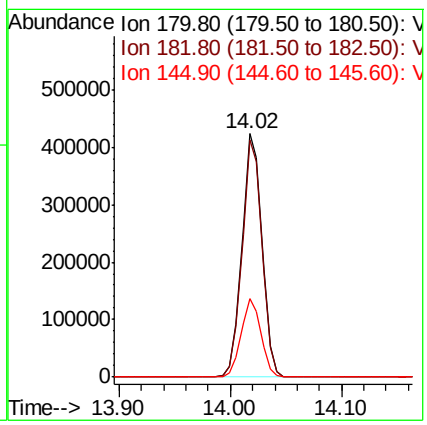
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:22:02 AM



#96
1,2,3-Trichlorobenzene
Concen: 47.389 ug/l
RT: 14.02 min Scan# 2110
Delta R.T. 0.00 min
Lab File: VX006591.D
Acq: 18 Dec 2018 12:04

Tgt Ion:180 Resp: 524375

Ion	Ratio	Lower	Upper
180	100		
182	97.0	48.5	145.5
145	31.9	16.0	47.9



Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX121818\
Data File : VX006592.D
Acq On : 18 Dec 2018 12:31
Operator : JC/MD
Sample : VSTDICC100
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 7 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
VSTDICC100

Manual Integrations APPROVED
MMDadoda
12/19/2018 11:22:05 AM

Quant Time: Dec 19 00:55:17 2018
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121818W.M
Quant Title : SW846 8260
QLast Update : Wed Dec 19 00:31:42 2018
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	5.67	168	616939	50.00	ug/l	0.00
34) 1,4-Difluorobenzene	6.86	114	930505	50.00	ug/l	0.00
63) Chlorobenzene-d5	10.12	117	874541	50.00	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	12.08	152	453290	50.00	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	6.07	65	637167	95.83	ug/l	0.00
Spiked Amount 50.000			Recovery = 191.66%			
35) Dibromofluoromethane	5.50	113	591379	100.50	ug/l	0.00
Spiked Amount 50.000			Recovery = 201.00%			
50) Toluene-d8	8.71	98	2223710	100.24	ug/l	0.00
Spiked Amount 50.000			Recovery = 200.48%			
62) 4-Bromofluorobenzene	11.13	95	818206	100.71	ug/l	0.00
Spiked Amount 50.000			Recovery = 201.42%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.20	85	526866	93.351	ug/l	97
3) Chloromethane	1.32	50	567662	93.358	ug/l	99
4) Vinyl Chloride	1.41	62	605765	95.389	ug/l	100
5) Bromomethane	1.64	94	589553	85.382	ug/l	98
6) Chloroethane	1.71	64	492517	112.008	ug/l	97
7) Trichlorofluoromethane	1.92	101	947927	95.741	ug/l	99
8) Diethyl Ether	2.19	74	360512	91.674	ug/l	99
9) 1,1,2-Trichlorotrifluoroet	2.38	101	543619	93.512	ug/l	98
10) Methyl Iodide	2.51	142	888277	106.744	ug/l	99
11) Tert butyl alcohol	3.09	59	712175	479.935	ug/l	99
12) 1,1-Dichloroethene	2.37	96	523084	94.896	ug/l	98
13) Acrolein	2.30	56	503343	502.816	ug/l	98
14) Allyl chloride	2.73	41	924203	99.609	ug/l	100
15) Acrylonitrile	3.15	53	1642001	498.374	ug/l	100
16) Acetone	2.45	43	1403261	459.362	ug/l	100
17) Carbon Disulfide	2.57	76	1436655	98.487	ug/l	99
18) Methyl Acetate	2.78	43	865592	96.363	ug/l	99
19) Methyl tert-butyl Ether	3.20	73	1800403	98.410	ug/l	99
20) Methylene Chloride	2.85	84	586025	92.772	ug/l	96
21) trans-1,2-Dichloroethene	3.16	96	565874	92.652	ug/l	97
22) Diisopropyl ether	3.87	45	1668875	98.319	ug/l	94
23) Vinyl Acetate	3.82	43	6901338	497.062	ug/l	99
24) 1,1-Dichloroethane	3.70	63	942305	92.996	ug/l	99
25) 2-Butanone	4.70	43	2030473	472.537	ug/l	99
26) 2,2-Dichloropropane	4.58	77	775525	99.081	ug/l	99
27) cis-1,2-Dichloroethene	4.60	96	650162	96.485	ug/l	100
28) Bromochloromethane	5.02	49	440744	94.606	ug/l	100
29) Tetrahydrofuran	5.15	42	1364431	482.111	ug/l	100
30) Chloroform	5.21	83	1019448	97.155	ug/l	99
31) Cyclohexane	5.57	56	860244	93.450	ug/l	95
32) 1,1,1-Trichloroethane	5.49	97	899595	101.533	ug/l	100
36) 1,1-Dichloropropene	5.80	75	758335	98.399	ug/l	100
37) Ethyl Acetate	4.86	43	794363	99.032	ug/l	99
38) Carbon Tetrachloride	5.78	117	790938	105.603	ug/l	97

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX121818\
Data File : VX006592.D
Acq On : 18 Dec 2018 12:31
Operator : JC/MD
Sample : VSTDICC100
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 7 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
VSTDICC100

Manual Integrations APPROVED
MMDadoda
12/19/2018 11:22:05 AM

Quant Time: Dec 19 00:55:17 2018
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121818W.M
Quant Title : SW846 8260
QLast Update : Wed Dec 19 00:31:42 2018
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
39) Methylcyclohexane	7.46	83	979002	96.490	ug/l		99
40) Benzene	6.14	78	2301258	98.236	ug/l		99
41) Methacrylonitrile	5.06	41	439553	97.514	ug/l		99
42) 1,2-Dichloroethane	6.20	62	761203	95.359	ug/l		99
43) Isopropyl Acetate	6.46	43	1294648	106.077	ug/l		99
44) Trichloroethene	7.21	130	686858	96.873	ug/l		97
45) 1,2-Dichloropropane	7.51	63	570967	100.158	ug/l		99
46) Dibromomethane	7.66	93	409777	97.725	ug/l		97
47) Bromodichloromethane	7.90	83	746461	107.226	ug/l		98
48) Methyl methacrylate	7.77	41	655020	105.538	ug/l		100
49) 1,4-Dioxane	7.76	88	329384	1875.700	ug/l		99
51) 4-Methyl-2-Pentanone	8.65	43	3985686	513.254	ug/l		99
52) Toluene	8.79	92	1514994	100.104	ug/l		100
53) t-1,3-Dichloropropene	9.04	75	872089	116.805	ug/l		100
54) cis-1,3-Dichloropropene	8.43	75	928699	113.362	ug/l		98
55) 1,1,2-Trichloroethane	9.21	97	620784	100.213	ug/l		99
56) Ethyl methacrylate	9.18	69	929398	106.152	ug/l		99
57) 1,3-Dichloropropane	9.37	76	991948	99.528	ug/l		99
58) 2-Chloroethyl Vinyl ether	8.32	63	2402754	516.271	ug/l		100
59) 2-Hexanone	9.50	43	3064266	515.736	ug/l		100
60) Dibromochloromethane	9.59	129	678881	118.979	ug/l		98
61) 1,2-Dibromoethane	9.67	107	688319	104.526	ug/l		100
64) Tetrachloroethene	9.34	164	642921	92.840	ug/l		97
65) Chlorobenzene	10.14	112	1797353	97.145	ug/l		100
66) 1,1,1,2-Tetrachloroethane	10.22	131	634931	109.993	ug/l		99
67) Ethyl Benzene	10.25	91	2958315	97.851	ug/l		99
68) m/p-Xylenes	10.36	106	2366835	198.396	ug/l		99
69) o-Xylene	10.70	106	1160986	98.552	ug/l		99
70) Styrene	10.71	104	1884039	101.089	ug/l		100
71) Bromoform	10.86	173	520664	118.476	ug/l	#	99
73) Isopropylbenzene	11.02	105	3050808	98.380	ug/l		100
74) N-amyl acetate	10.90	43	1182905	106.569	ug/l		99
75) 1,1,2,2-Tetrachloroethane	11.27	83	935786	101.467	ug/l		100
76) 1,2,3-Trichloropropane	11.30	75	858776m	106.948	ug/l		
77) Bromobenzene	11.26	156	820490	97.866	ug/l		98
78) n-propylbenzene	11.36	91	3433536	100.546	ug/l		100
79) 2-Chlorotoluene	11.42	91	1976527	95.510	ug/l		99
80) 1,3,5-Trimethylbenzene	11.51	105	2520899	98.695	ug/l		99
81) trans-1,4-Dichloro-2-buten	11.07	75	284714	121.061	ug/l		95
82) 4-Chlorotoluene	11.51	91	2323933	97.899	ug/l		100
83) tert-Butylbenzene	11.77	119	2595611	101.535	ug/l		99
84) 1,2,4-Trimethylbenzene	11.80	105	2592529	96.498	ug/l		99
85) sec-Butylbenzene	11.94	105	3110162	99.231	ug/l		100
86) p-Isopropyltoluene	12.07	119	2795553	101.467	ug/l		99
87) 1,3-Dichlorobenzene	12.02	146	1513159	100.145	ug/l		99
88) 1,4-Dichlorobenzene	12.10	146	1509885	97.362	ug/l		99
89) n-Butylbenzene	12.39	91	2452564	104.598	ug/l		99
90) Hexachloroethane	12.60	117	442082	117.791	ug/l		98
91) 1,2-Dichlorobenzene	12.39	146	1474812	97.573	ug/l		99
92) 1,2-Dibromo-3-Chloropropan	13.00	75	207204	108.582	ug/l		97

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX121818\
Data File : VX006592.D
Acq On : 18 Dec 2018 12:31
Operator : JC/MD
Sample : VSTDICC100
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 7 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
VSTDICC100

Manual Integrations APPROVED
MMDadoda
12/19/2018 11:22:05 AM

Quant Time: Dec 19 00:55:17 2018
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121818W.M
Quant Title : SW846 8260
QLast Update : Wed Dec 19 00:31:42 2018
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
93) 1,2,4-Trichlorobenzene	13.65	180	1085409	104.104	ug/l	99
94) Hexachlorobutadiene	13.78	225	498913	101.522	ug/l	99
95) Naphthalene	13.83	128	3353687	100.781	ug/l	99
96) 1,2,3-Trichlorobenzene	14.02	180	1081997	100.511	ug/l	99

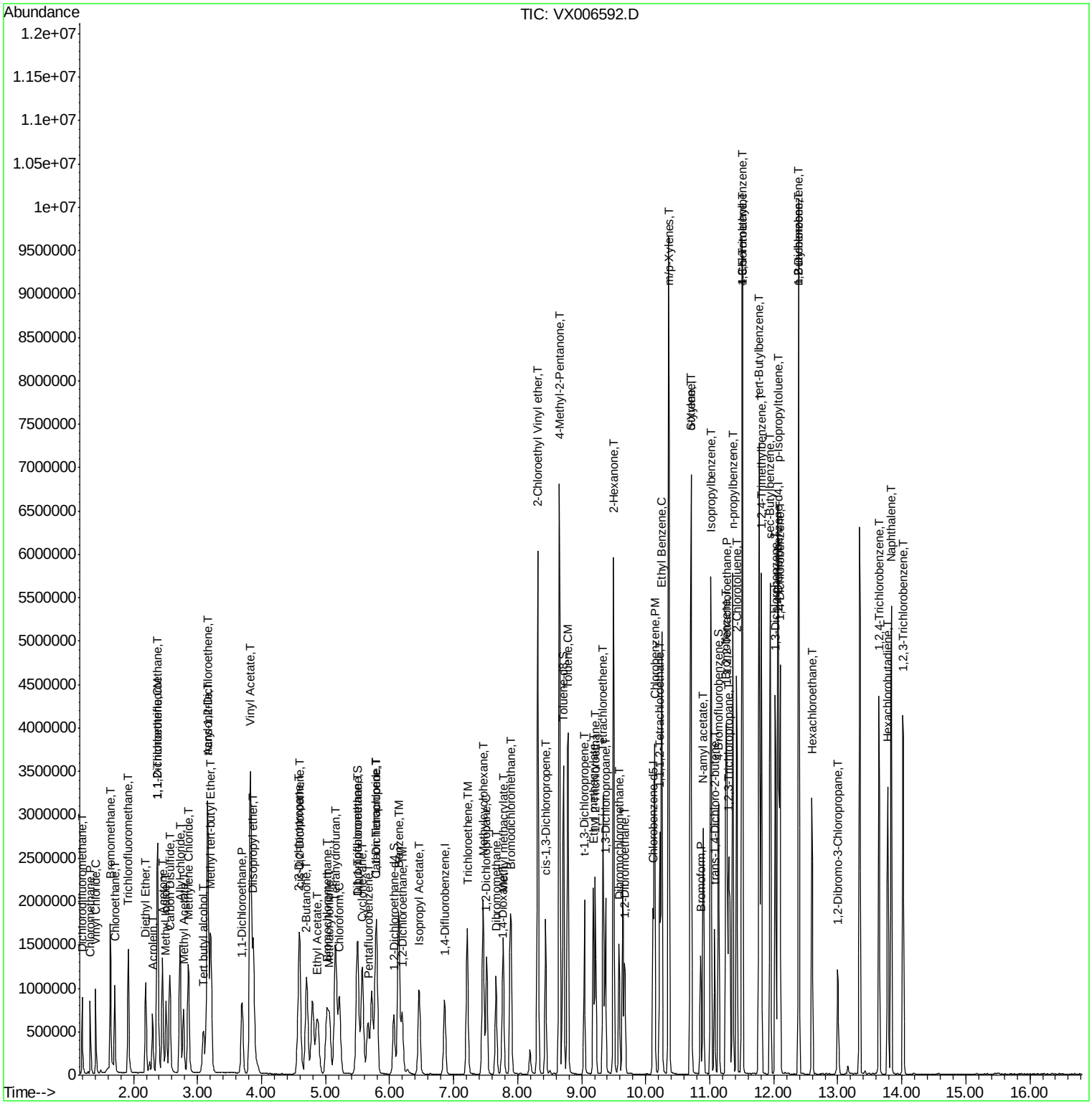
(#) = qualifier out of range (m) = manual integration (+) = signals summed

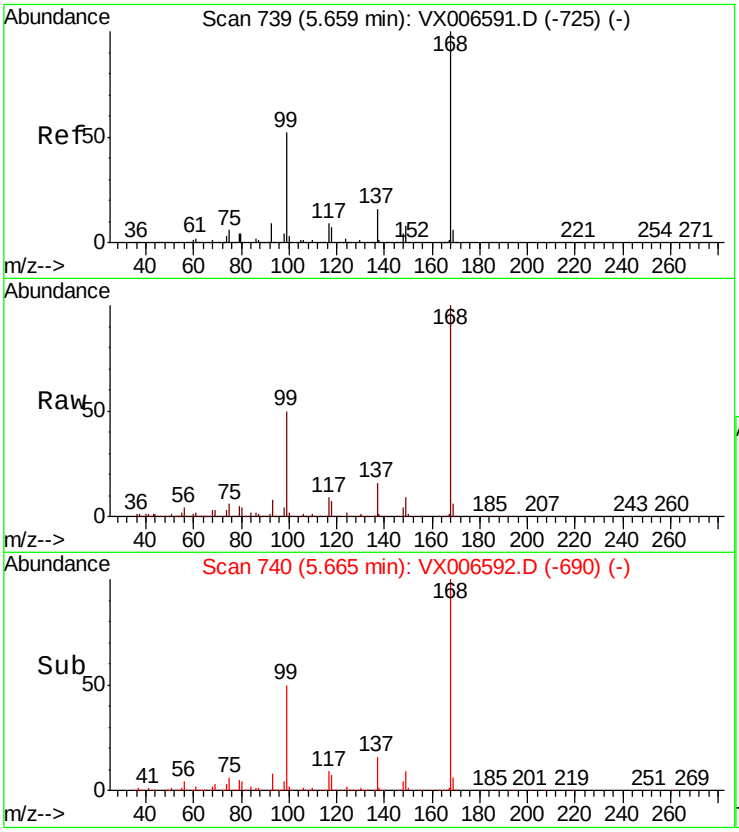
Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX121818\
Data File : VX006592.D
Acq On : 18 Dec 2018 12:31
Operator : JC/MD
Sample : VSTDICC100
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Dec 19 00:55:17 2018
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121818W.M
Quant Title : SW846 8260
QLast Update : Wed Dec 19 00:31:42 2018
Response via : Initial Calibration

Instrument :
MSVOA_X
ClientSampleId :
VSTDICC100

Manual Integrations APPROVED
MMDadoda
12/19/2018 11:22:05 AM

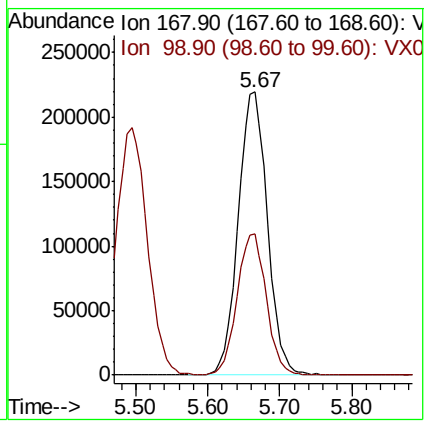




#1
Pentafluorobenzene
Concen: 50.000 ug/l
RT: 5.67 min Scan# 740
Delta R.T. 0.01 min
Lab File: VX006592.D
Acq: 18 Dec 2018 12:31

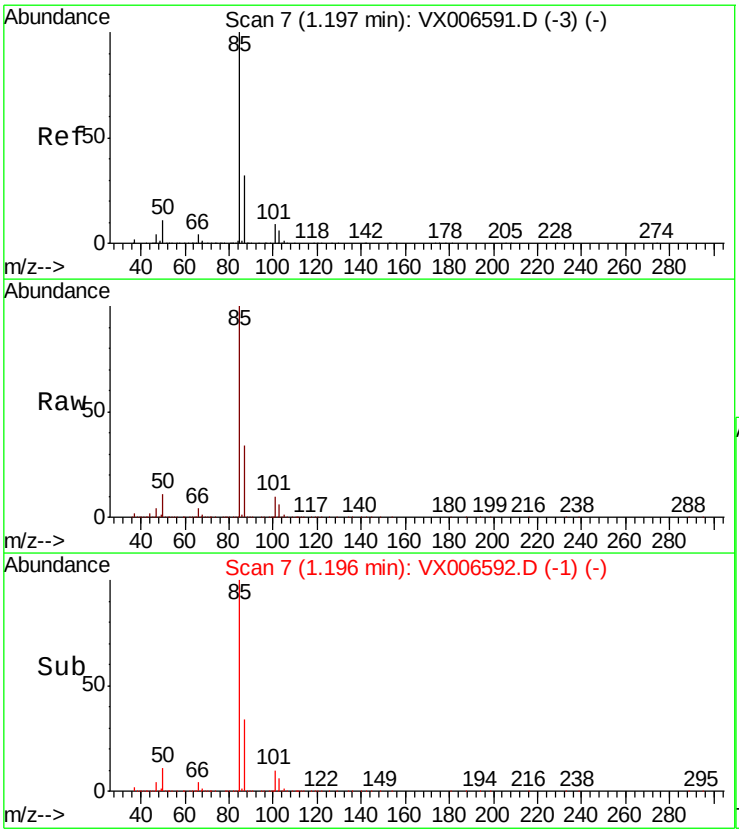
Tgt Ion:168 Resp: 616939

Ion	Ratio	Lower	Upper
168	100		
99	49.6	41.8	62.8



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC100

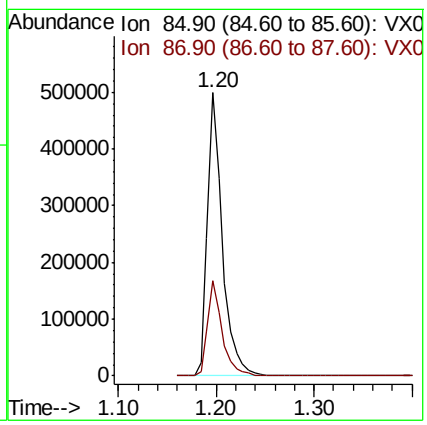
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:22:05 AM



#2
Dichlorodifluoromethane
Concen: 93.351 ug/l
RT: 1.20 min Scan# 7
Delta R.T. -0.00 min
Lab File: VX006592.D
Acq: 18 Dec 2018 12:31

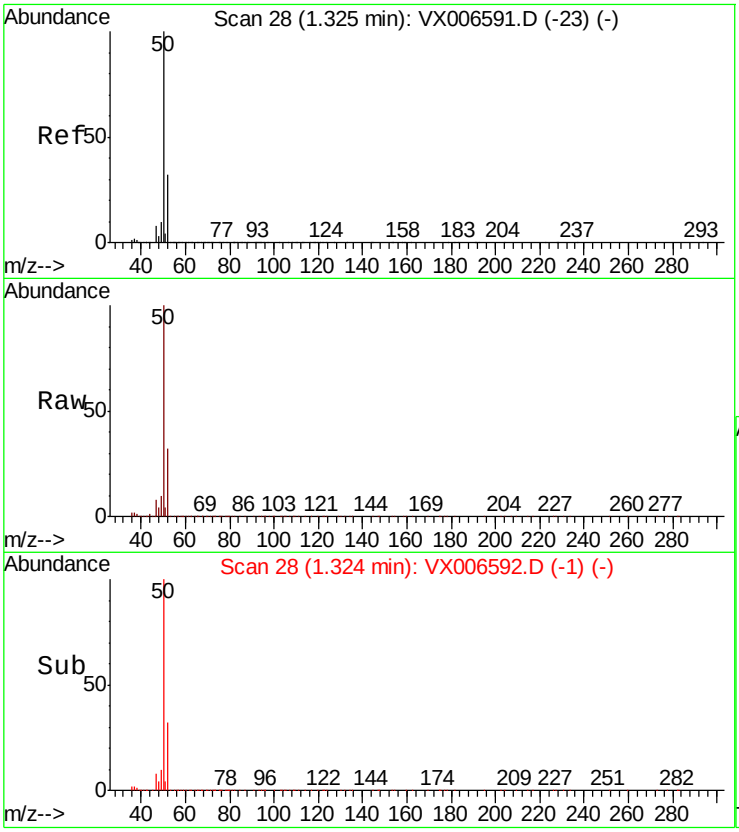
Tgt Ion: 85 Resp: 526866

Ion	Ratio	Lower	Upper
85	100		
87	33.6	15.9	47.6



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC100

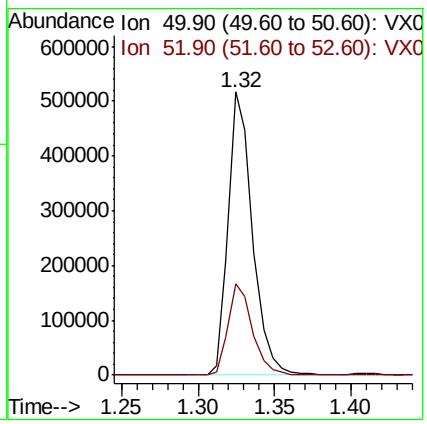
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:22:05 AM

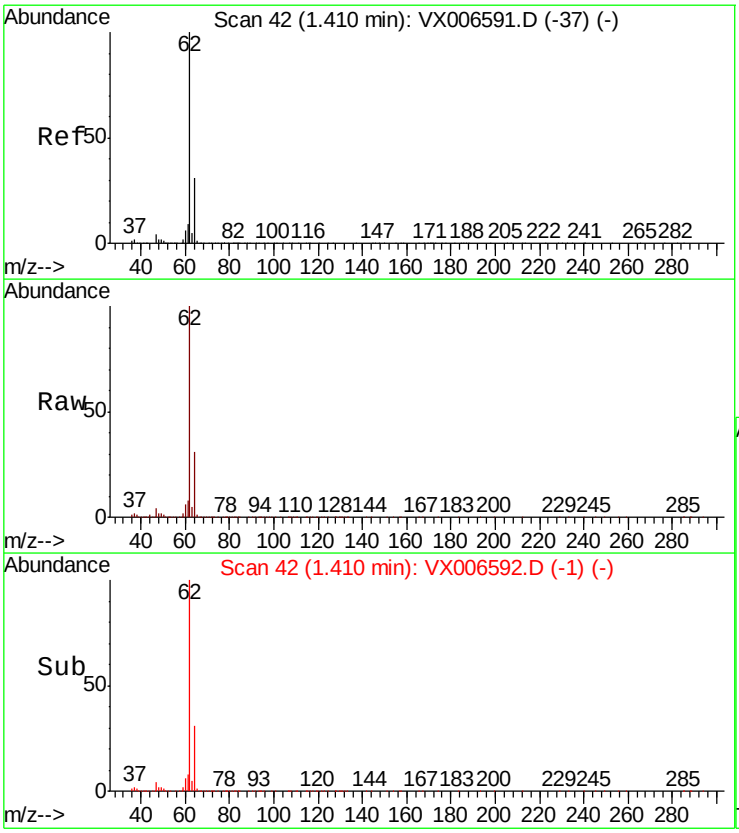


#3
Chloromethane
Concen: 93.358 ug/l
RT: 1.32 min Scan# 28
Delta R.T. -0.00 min
Lab File: VX006592.D
Acq: 18 Dec 2018 12:31

Tgt Ion: 50 Resp: 567662

Ion	Ratio	Lower	Upper
50	100		
52	32.3	25.4	38.2

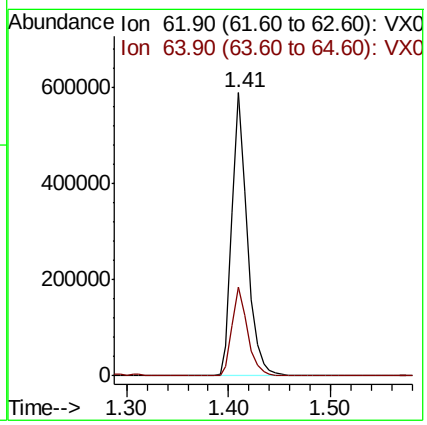


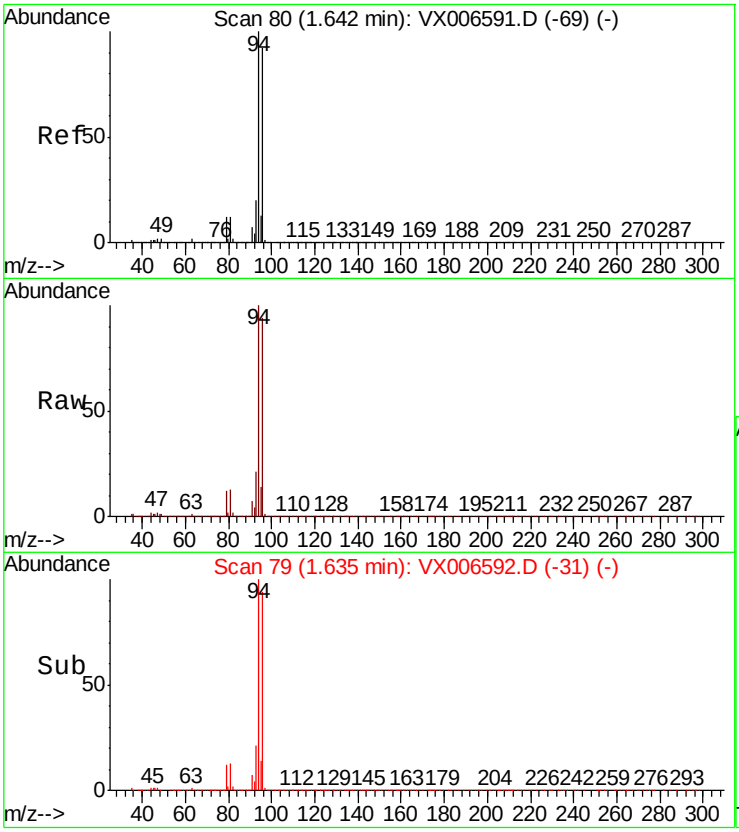


#4
Vinyl Chloride
Concen: 95.389 ug/l
RT: 1.41 min Scan# 42
Delta R.T. -0.00 min
Lab File: VX006592.D
Acq: 18 Dec 2018 12:31

Tgt Ion: 62 Resp: 605765

Ion	Ratio	Lower	Upper
62	100		
64	31.4	25.1	37.7

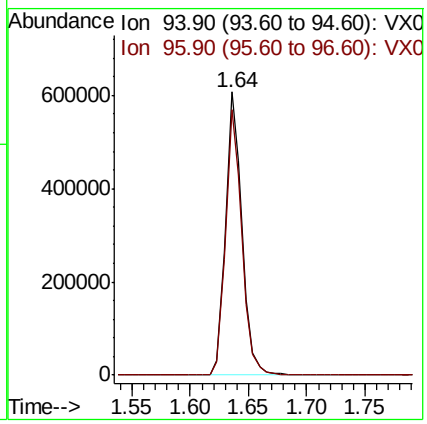




#5
Bromomethane
Concen: 85.382 ug/l
RT: 1.64 min Scan# 79
Delta R.T. -0.01 min
Lab File: VX006592.D
Acq: 18 Dec 2018 12:31

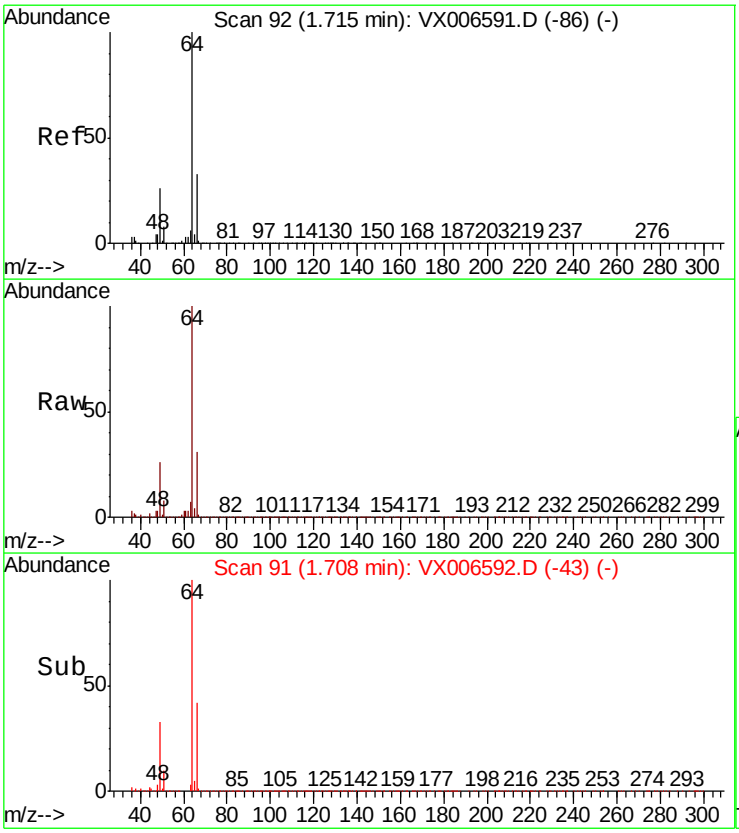
Tgt Ion: 94 Resp: 589553

Ion	Ratio	Lower	Upper
94	100		
96	94.0	73.4	110.2



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC100

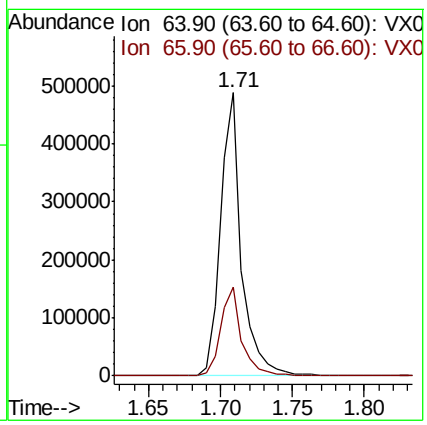
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:22:05 AM



#6
Chloroethane
Concen: 112.008 ug/l
RT: 1.71 min Scan# 91
Delta R.T. -0.01 min
Lab File: VX006592.D
Acq: 18 Dec 2018 12:31

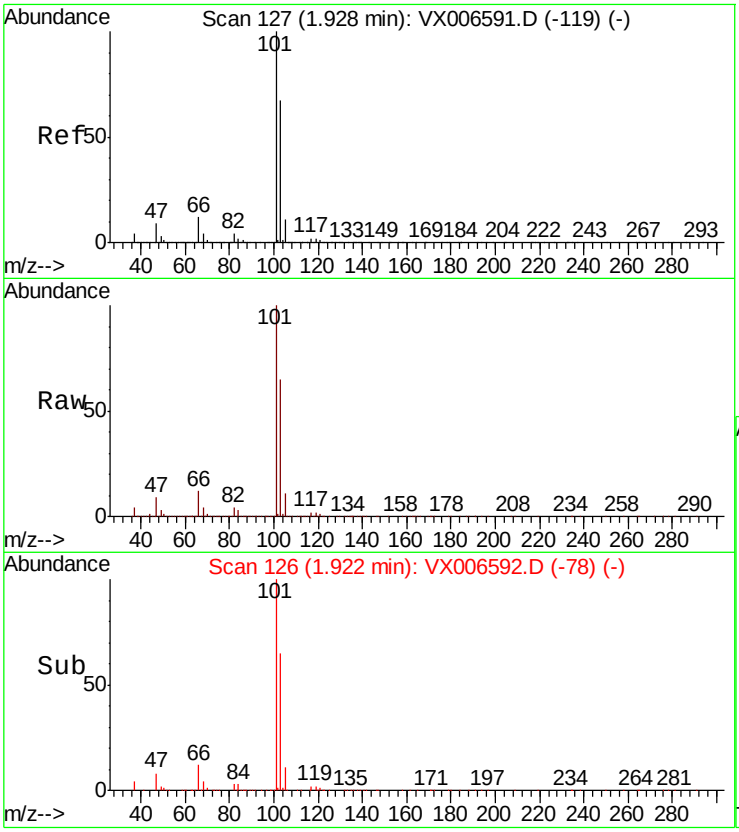
Tgt Ion: 64 Resp: 492517

Ion	Ratio	Lower	Upper
64	100		
66	31.5	26.4	39.6



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC100

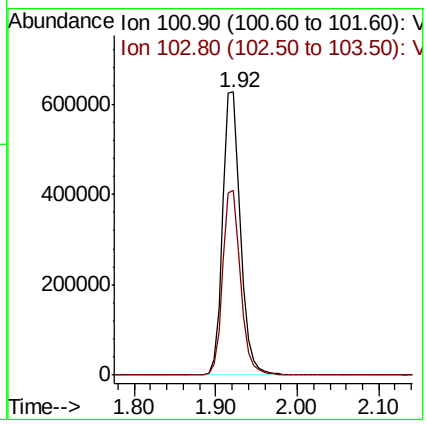
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:22:05 AM

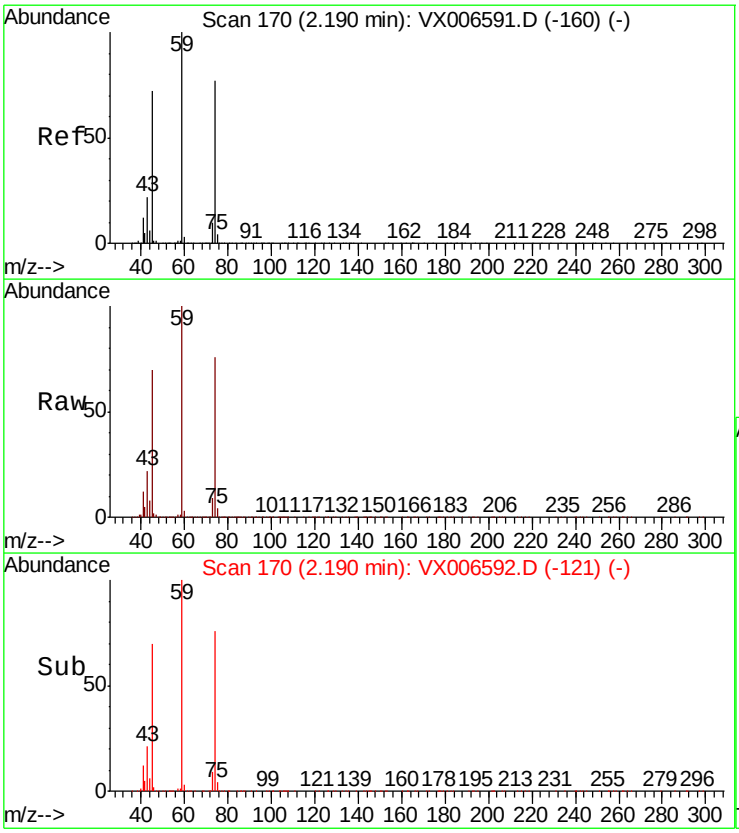


#7
Trichlorofluoromethane
Concen: 95.741 ug/l
RT: 1.92 min Scan# 126
Delta R.T. -0.01 min
Lab File: VX006592.D
Acq: 18 Dec 2018 12:31

Tgt Ion:101 Resp: 947927

Ion	Ratio	Lower	Upper
101	100		
103	65.4	53.2	79.8

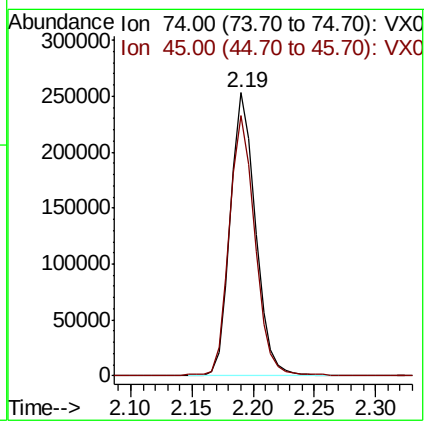


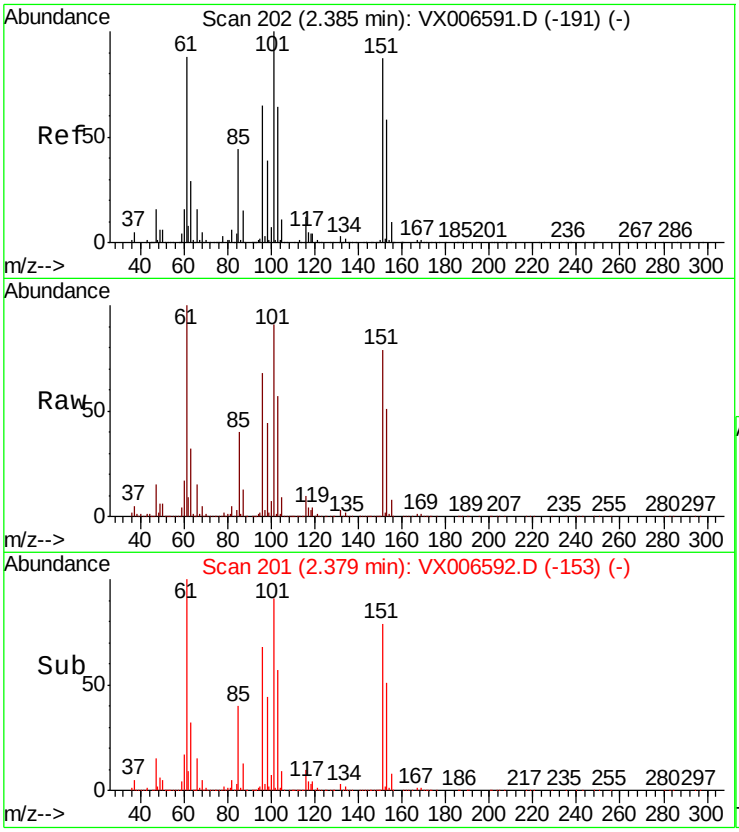


#8
Diethyl Ether
Concen: 91.674 ug/l
RT: 2.19 min Scan# 170
Delta R.T. -0.00 min
Lab File: VX006592.D
Acq: 18 Dec 2018 12:31

Tgt Ion: 74 Resp: 360512

Ion	Ratio	Lower	Upper
74	100		
45	93.2	46.3	138.9

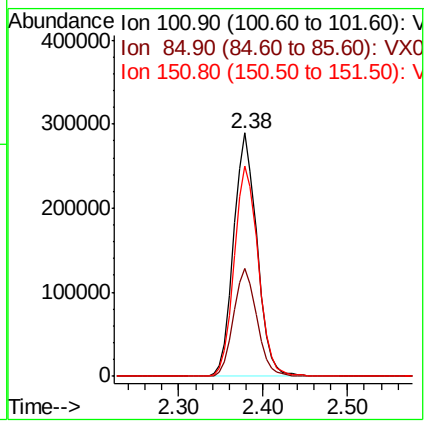




#9
1,1,2-Trichlorotrifluoroethane
Concen: 93.512 ug/l
RT: 2.38 min Scan# 201
Delta R.T. -0.01 min
Lab File: VX006592.D
Acq: 18 Dec 2018 12:31

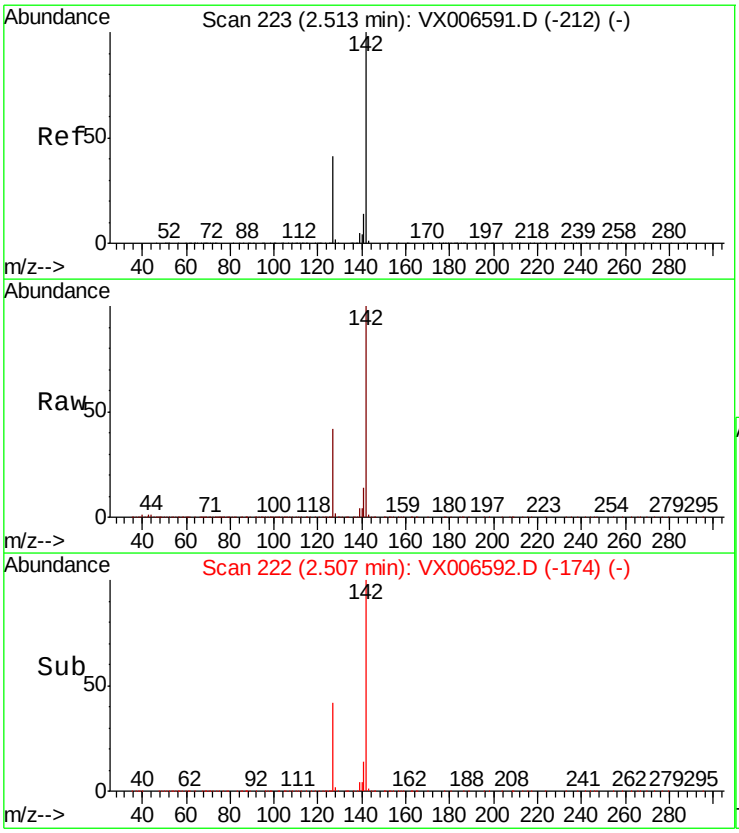
Tgt Ion:101 Resp: 543619

Ion	Ratio	Lower	Upper
101	100		
85	44.1	35.1	52.7
151	88.2	68.9	103.3



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC100

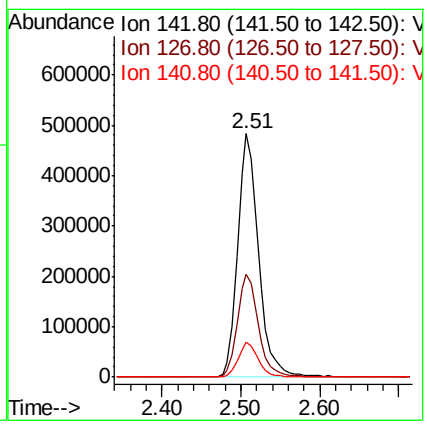
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:22:05 AM

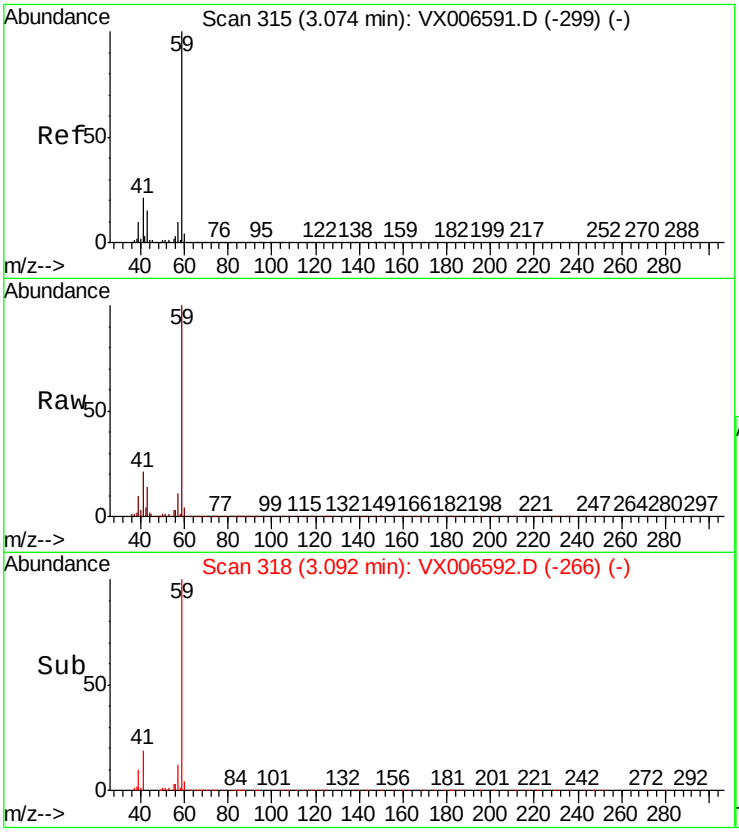


#10
Methyl Iodide
Concen: 106.744 ug/l
RT: 2.51 min Scan# 222
Delta R.T. -0.01 min
Lab File: VX006592.D
Acq: 18 Dec 2018 12:31

Tgt Ion:142 Resp: 888277

Ion	Ratio	Lower	Upper
142	100		
127	42.9	33.9	50.9
141	14.0	11.4	17.0

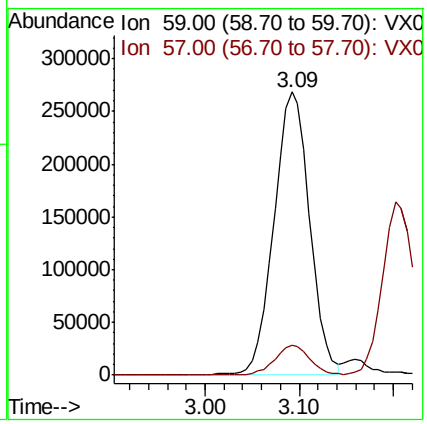




#11
Tert butyl alcohol
Concen: 479.935 ug/l
RT: 3.09 min Scan# 318
Delta R.T. 0.02 min
Lab File: VX006592.D
Acq: 18 Dec 2018 12:31

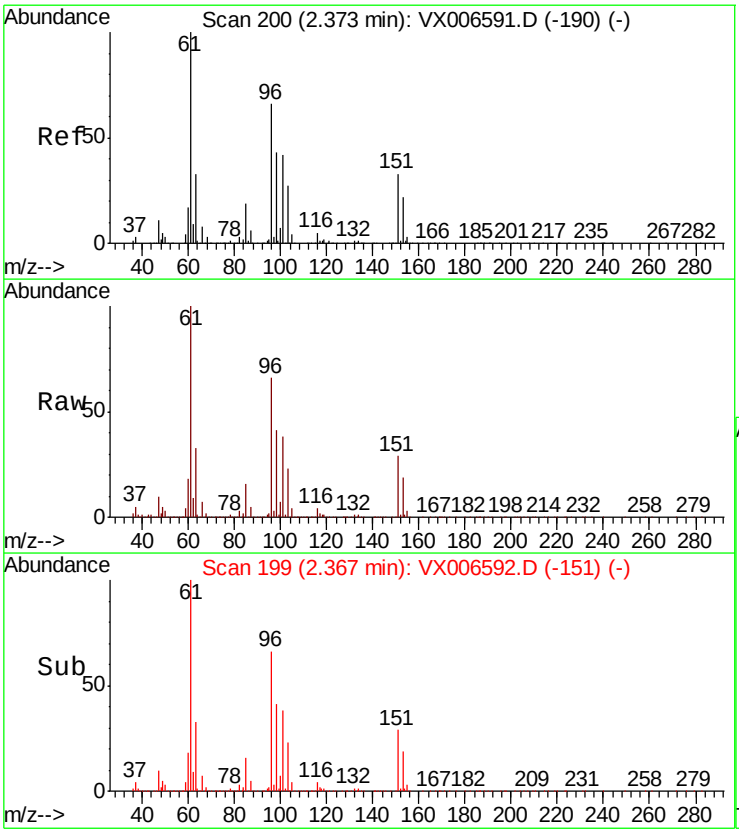
Tgt Ion: 59 Resp: 712175

Ion	Ratio	Lower	Upper
59	100		
57	10.3	8.5	12.7



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC100

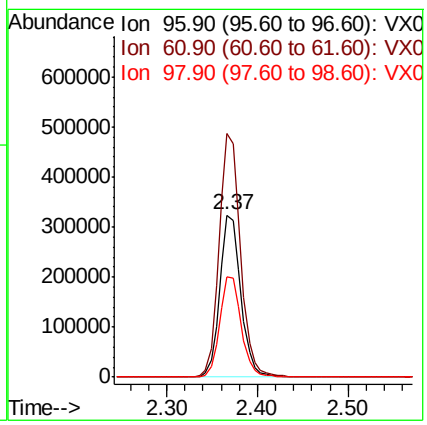
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:22:05 AM



#12
1,1-Dichloroethene
Concen: 94.896 ug/l
RT: 2.37 min Scan# 199
Delta R.T. -0.01 min
Lab File: VX006592.D
Acq: 18 Dec 2018 12:31

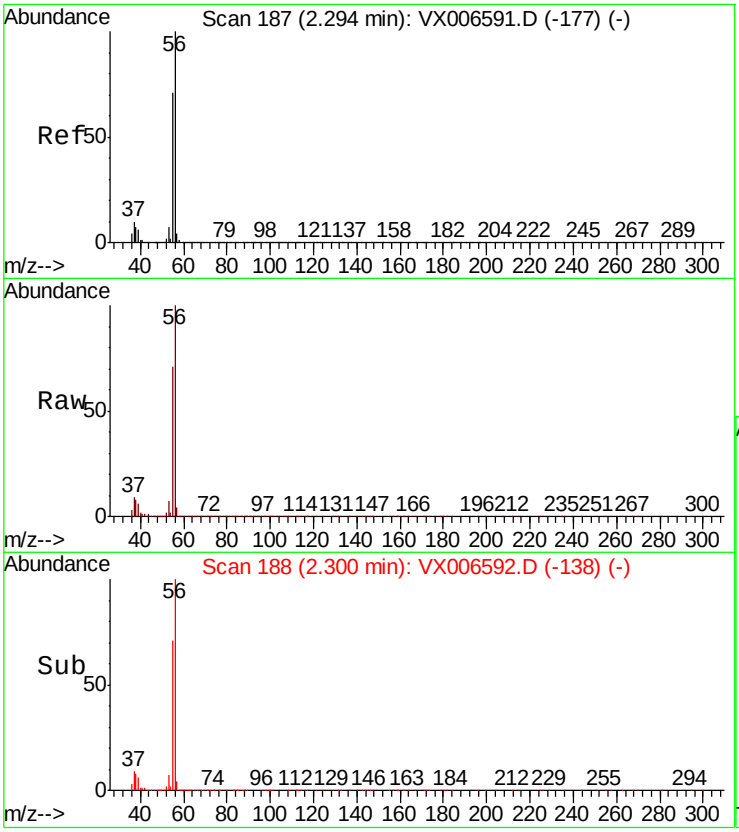
Tgt Ion: 96 Resp: 523084

Ion	Ratio	Lower	Upper
96	100		
61	150.5	121.4	182.2
98	61.9	51.9	77.9



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC100

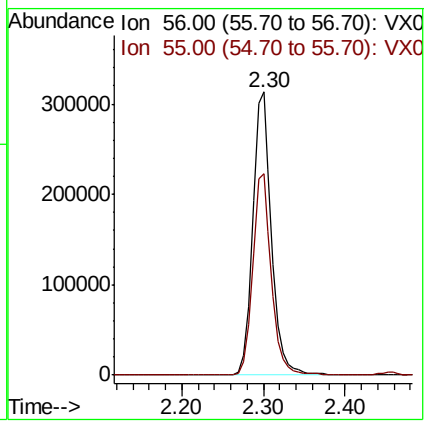
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:22:05 AM

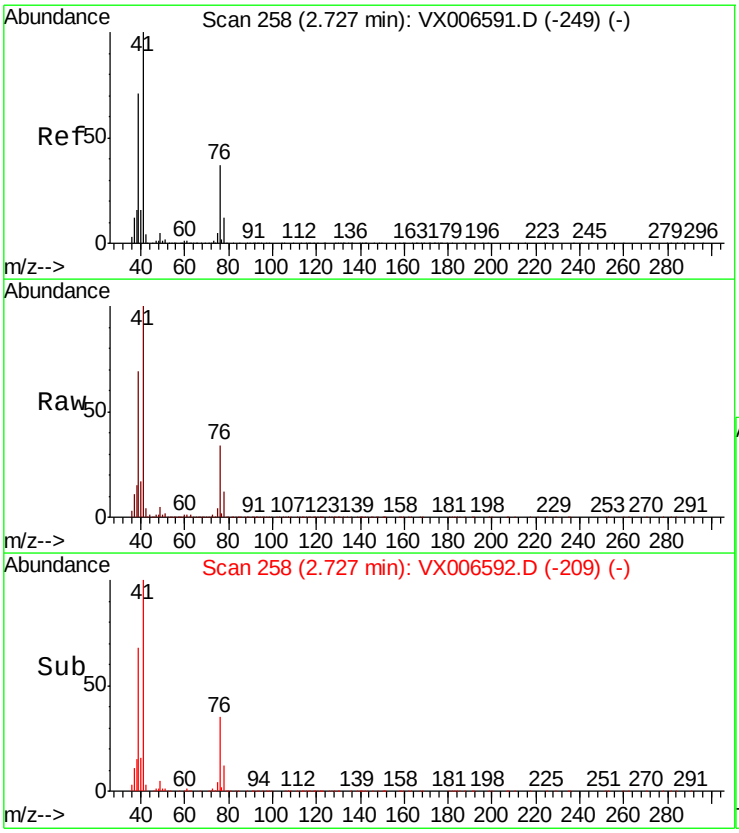


#13
Acrolein
Concen: 502.816 ug/l
RT: 2.30 min Scan# 188
Delta R.T. 0.01 min
Lab File: VX006592.D
Acq: 18 Dec 2018 12:31

Tgt Ion: 56 Resp: 503343

Ion	Ratio	Lower	Upper
56	100		
55	71.0	58.2	87.4

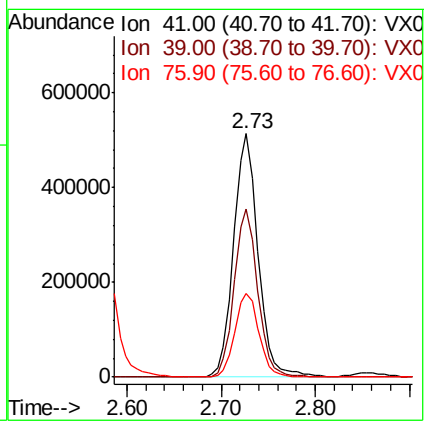




#14
Allyl chloride
Concen: 99.609 ug/l
RT: 2.73 min Scan# 258
Delta R.T. -0.00 min
Lab File: VX006592.D
Acq: 18 Dec 2018 12:31

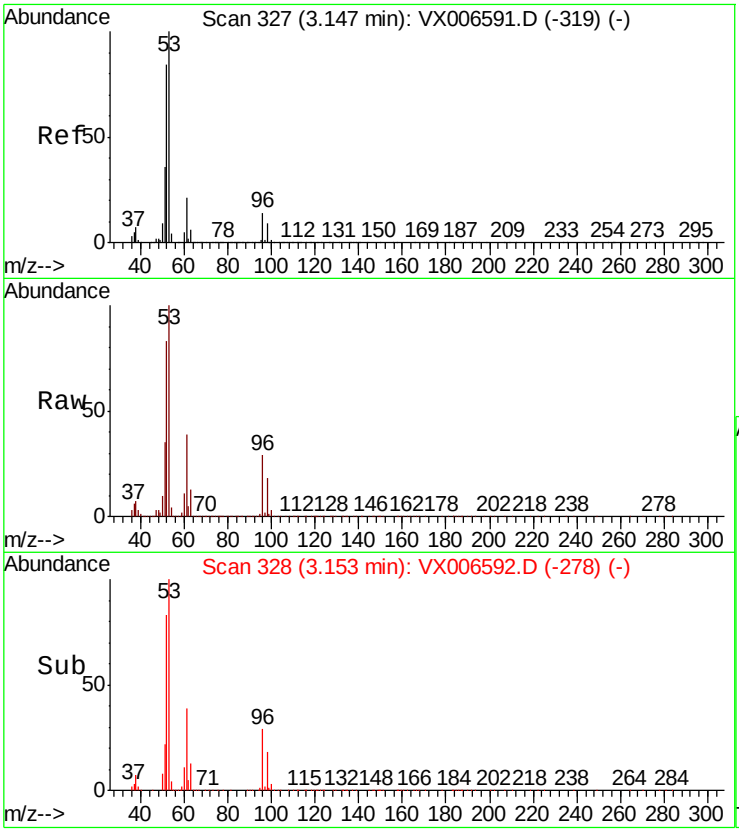
Tgt Ion: 41 Resp: 924203

Ion	Ratio	Lower	Upper
41	100		
39	66.6	53.6	80.4
76	34.1	27.4	41.2



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC100

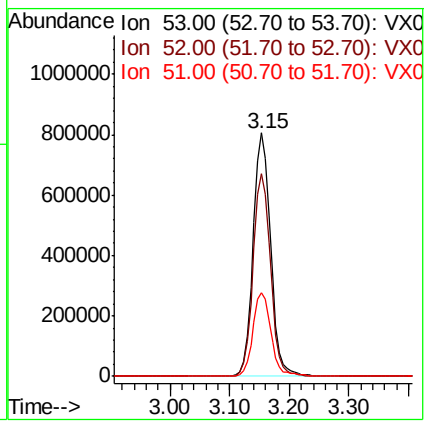
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:22:05 AM

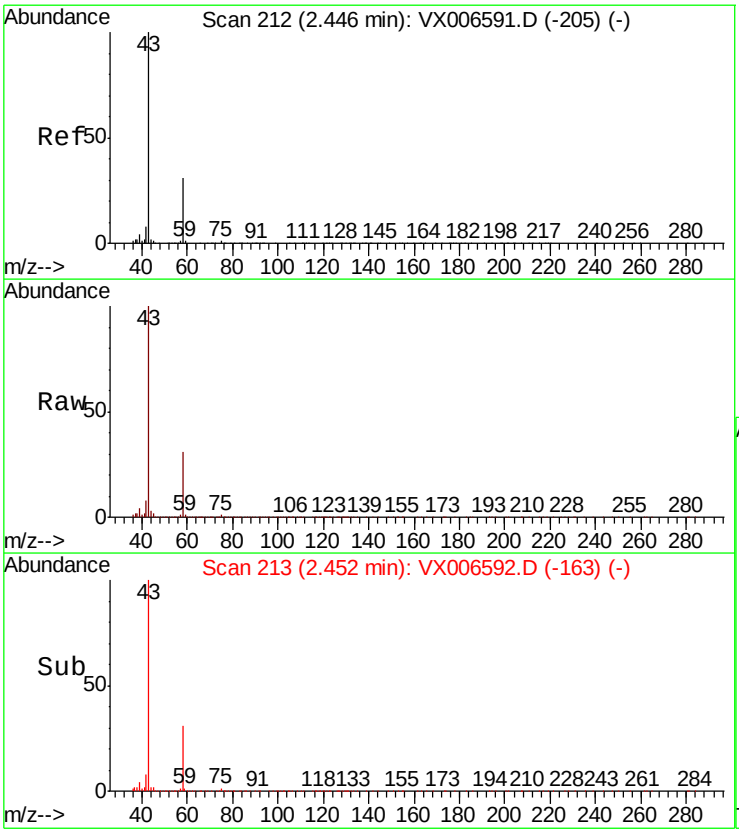


#15
Acrylonitrile
Concen: 498.374 ug/l
RT: 3.15 min Scan# 328
Delta R.T. 0.01 min
Lab File: VX006592.D
Acq: 18 Dec 2018 12:31

Tgt Ion: 53 Resp: 1642001

Ion	Ratio	Lower	Upper
53	100		
52	82.1	66.0	99.0
51	35.7	28.6	42.8

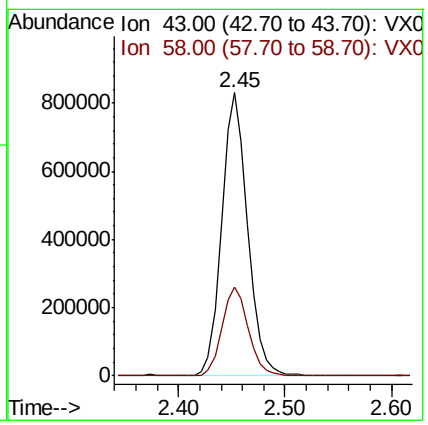




#16
Acetone
Concen: 459.362 ug/l
RT: 2.45 min Scan# 213
Delta R.T. 0.01 min
Lab File: VX006592.D
Acq: 18 Dec 2018 12:31

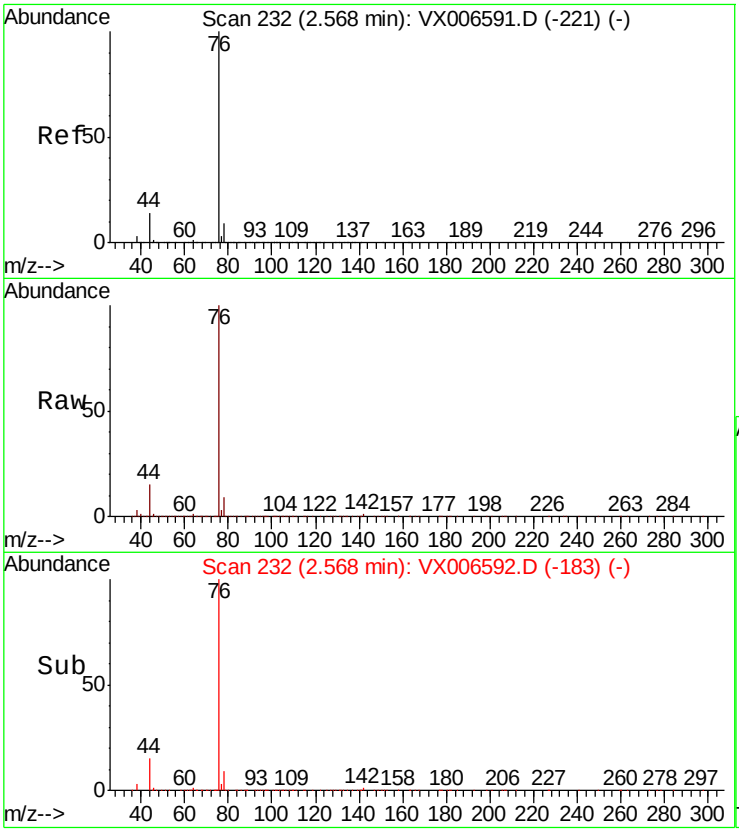
Tgt Ion: 43 Resp: 1403261

Ion	Ratio	Lower	Upper
43	100		
58	31.2	25.0	37.6



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC100

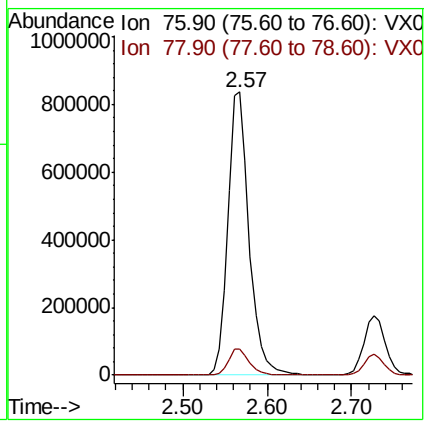
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:22:05 AM

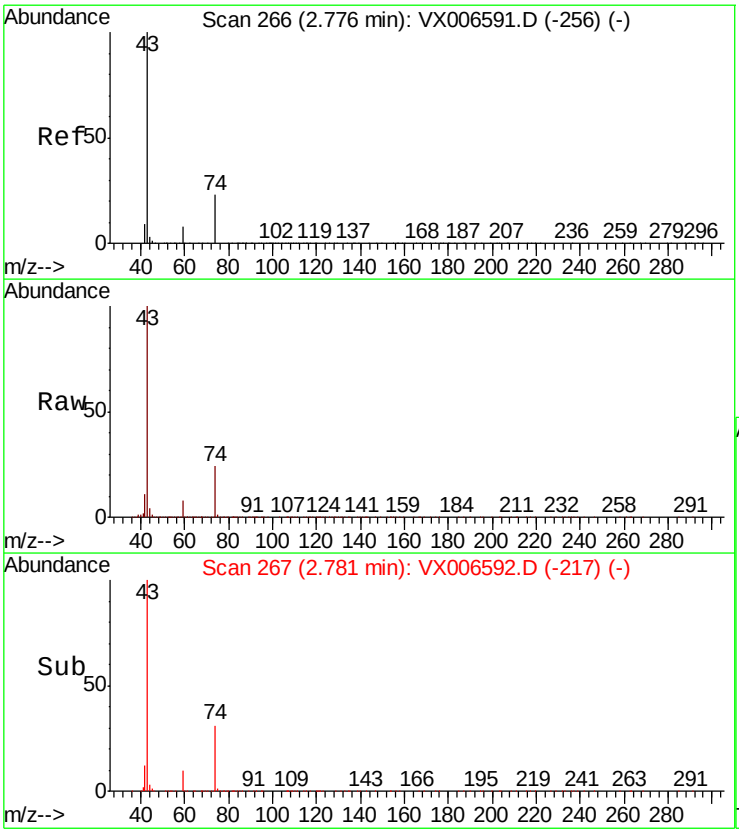


#17
Carbon Disulfide
Concen: 98.487 ug/l
RT: 2.57 min Scan# 232
Delta R.T. -0.00 min
Lab File: VX006592.D
Acq: 18 Dec 2018 12:31

Tgt Ion: 76 Resp: 1436655

Ion	Ratio	Lower	Upper
76	100		
78	9.3	7.0	10.6

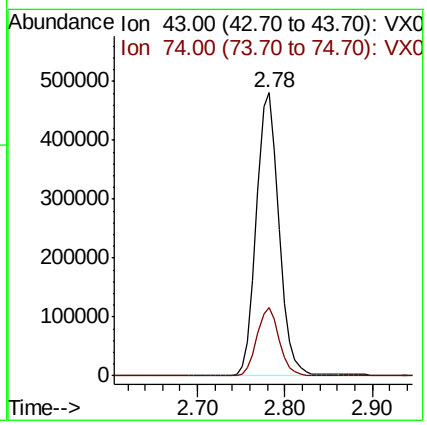




#18
Methyl Acetate
Concen: 96.363 ug/l
RT: 2.78 min Scan# 267
Delta R.T. 0.01 min
Lab File: VX006592.D
Acq: 18 Dec 2018 12:31

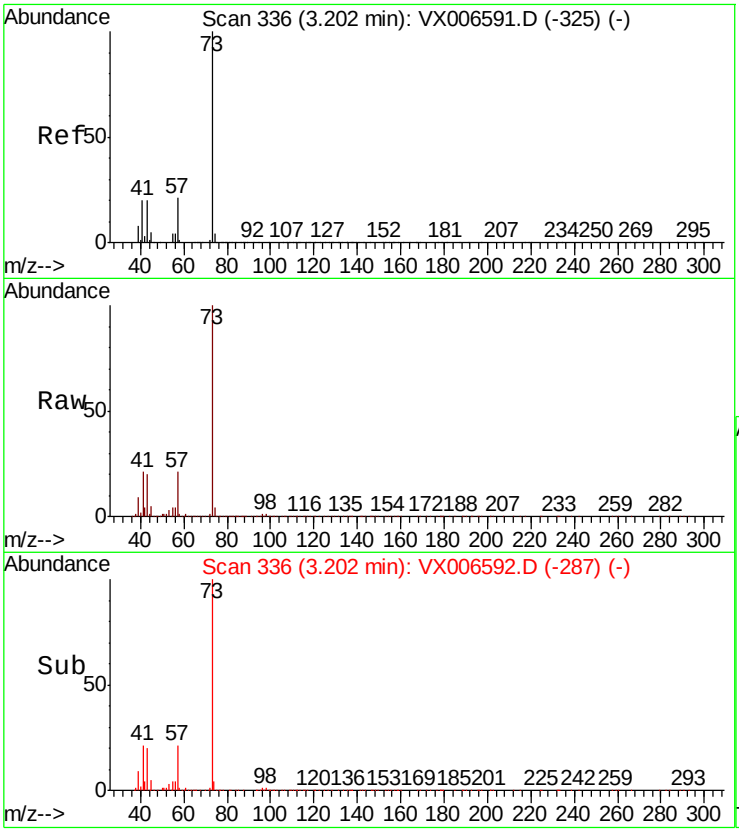
Tgt Ion: 43 Resp: 865592

Ion	Ratio	Lower	Upper
43	100		
74	23.8	18.6	28.0



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC100

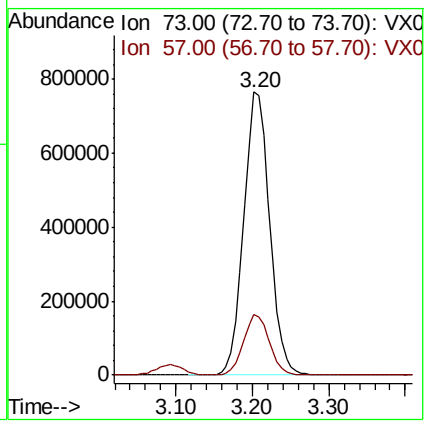
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:22:05 AM

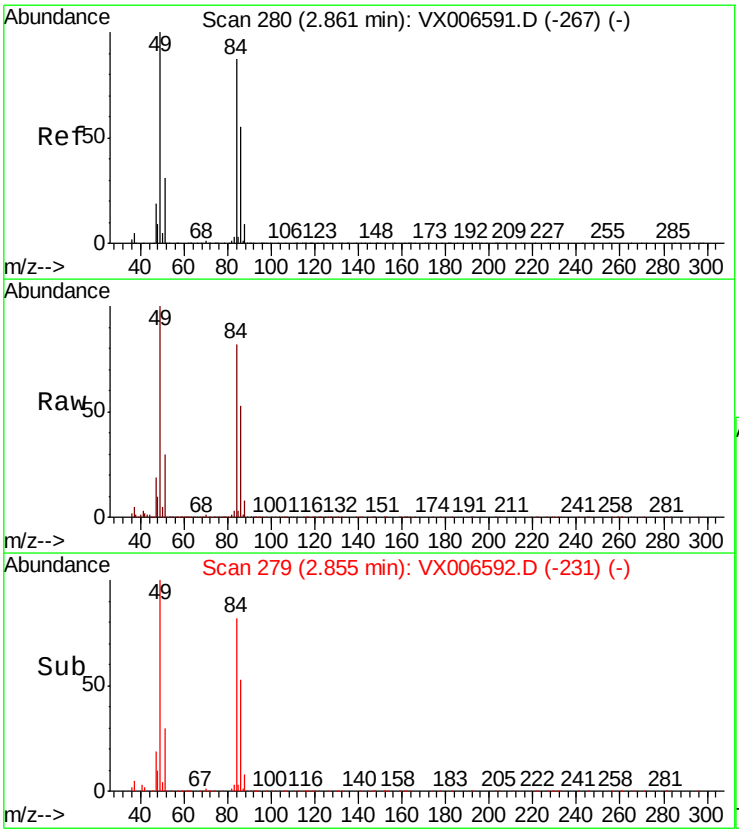


#19
Methyl tert-butyl Ether
Concen: 98.410 ug/l
RT: 3.20 min Scan# 336
Delta R.T. -0.00 min
Lab File: VX006592.D
Acq: 18 Dec 2018 12:31

Tgt Ion: 73 Resp: 1800403

Ion	Ratio	Lower	Upper
73	100		
57	21.4	16.8	25.2

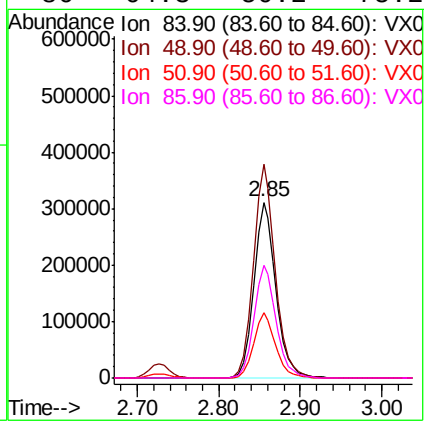




#20
Methylene Chloride
Concen: 92.772 ug/l
RT: 2.85 min Scan# 279
Delta R.T. -0.01 min
Lab File: VX006592.D
Acq: 18 Dec 2018 12:31

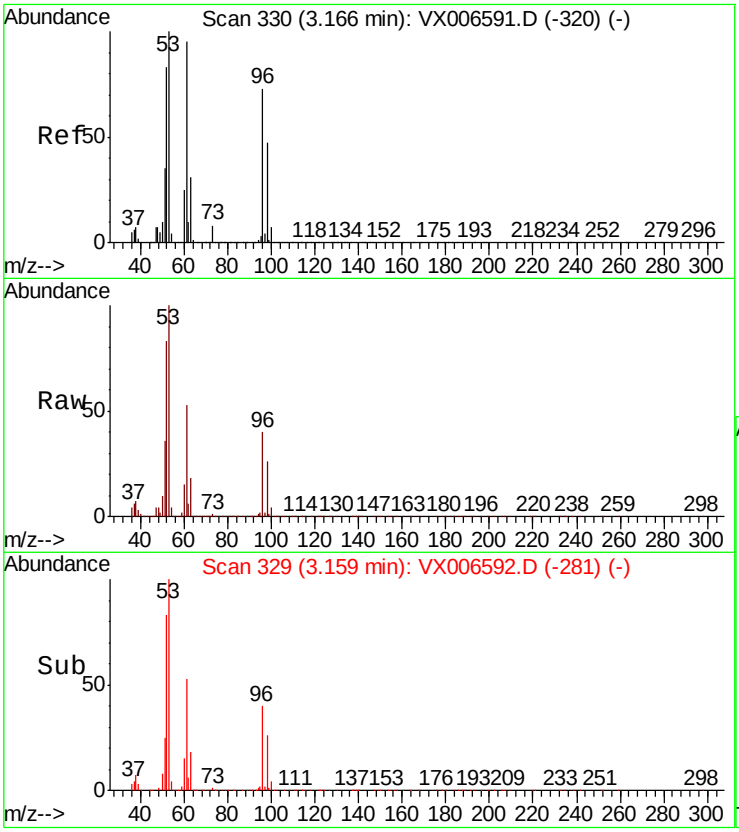
Tgt Ion: 84 Resp: 586025

Ion	Ratio	Lower	Upper
84	100		
49	121.5	91.8	137.6
51	37.0	28.5	42.7
86	64.3	50.2	75.2



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC100

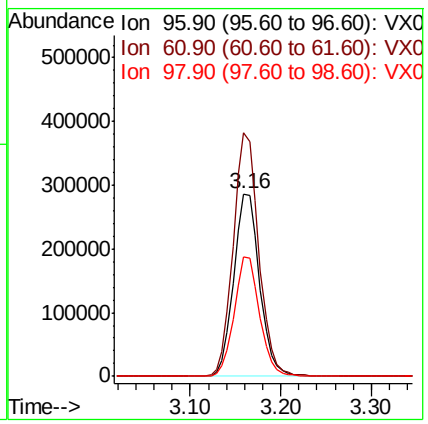
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:22:05 AM

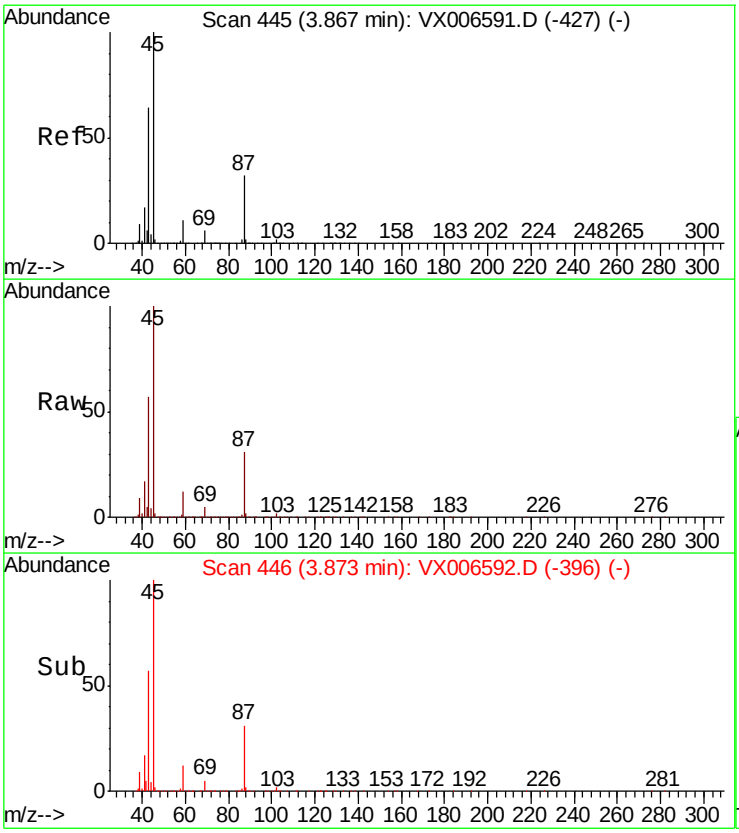


#21
trans-1,2-Dichloroethene
Concen: 92.652 ug/l
RT: 3.16 min Scan# 329
Delta R.T. -0.01 min
Lab File: VX006592.D
Acq: 18 Dec 2018 12:31

Tgt Ion: 96 Resp: 565874

Ion	Ratio	Lower	Upper
96	100		
61	133.2	103.7	155.5
98	65.0	51.0	76.6

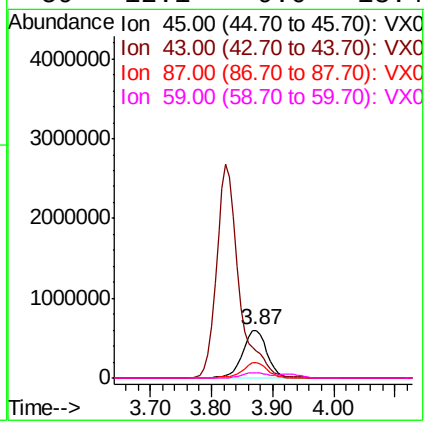


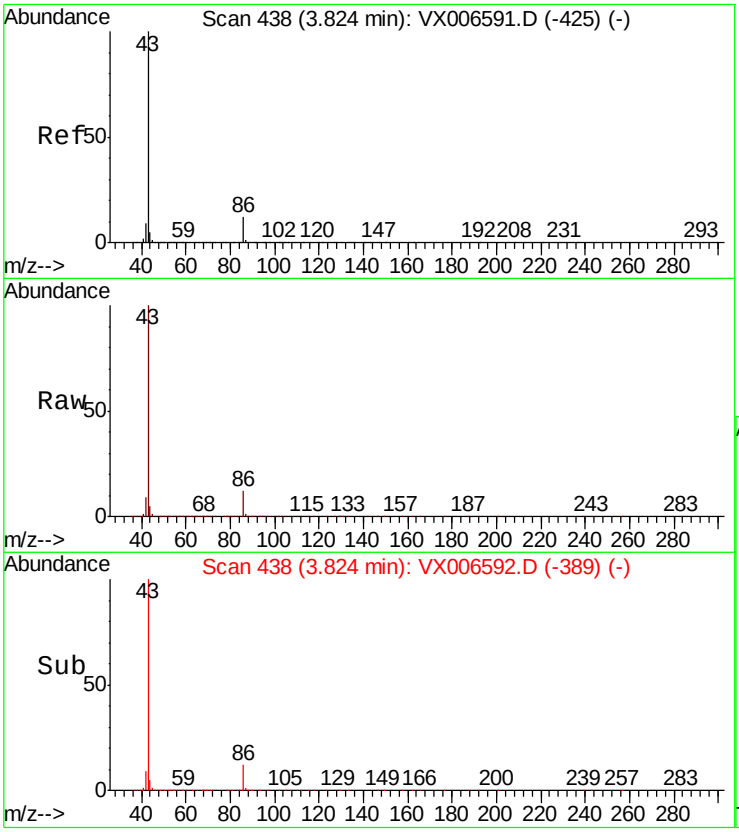


#22
Diisopropyl ether
Concen: 98.319 ug/l
RT: 3.87 min Scan# 446
Delta R.T. 0.01 min
Lab File: VX006592.D
Acq: 18 Dec 2018 12:31

Tgt Ion: 45 Resp: 1668875

Ion	Ratio	Lower	Upper
45	100		
43	56.6	51.2	76.8
87	31.1	25.8	38.6
59	12.1	9.0	13.4

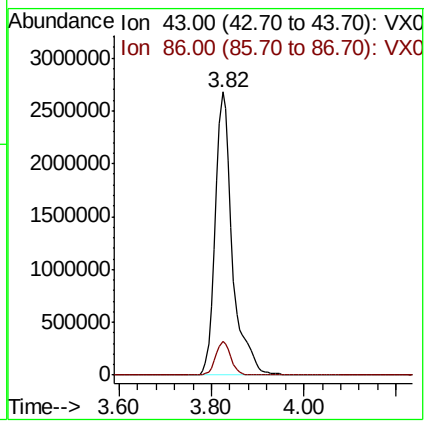




#23
Vinyl Acetate
Concen: 497.062 ug/l
RT: 3.82 min Scan# 438
Delta R.T. -0.00 min
Lab File: VX006592.D
Acq: 18 Dec 2018 12:31

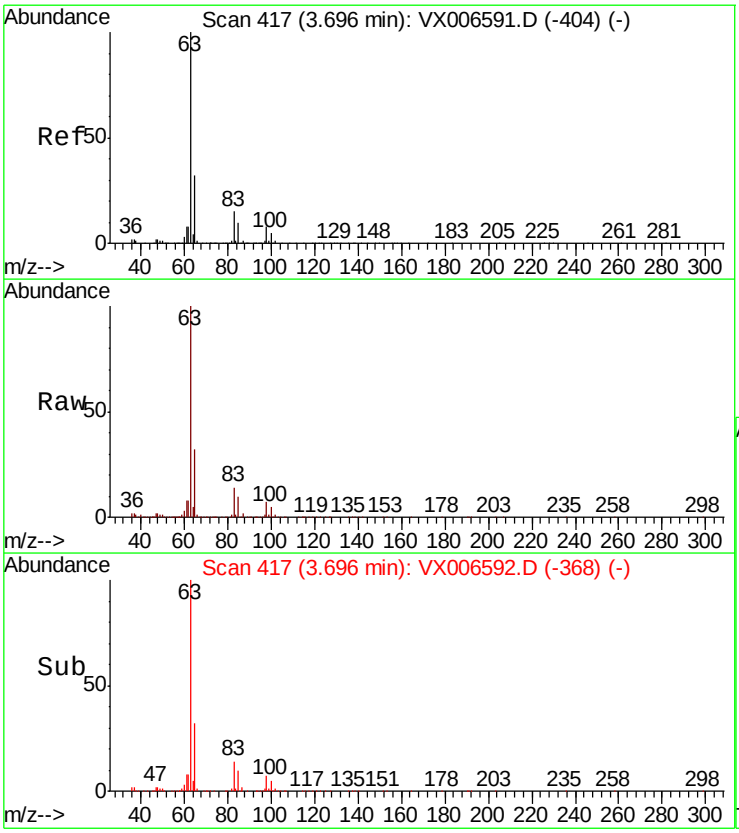
Tgt Ion: 43 Resp: 6901338

Ion	Ratio	Lower	Upper
43	100		
86	11.9	9.2	13.8



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC100

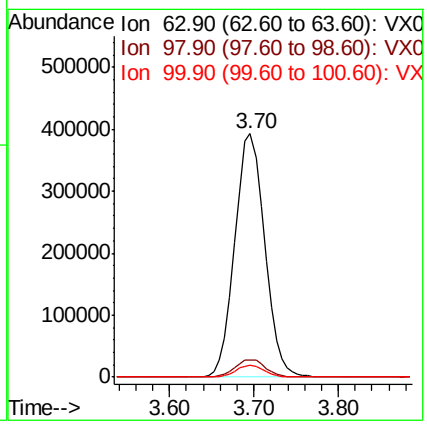
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:22:05 AM



#24
1,1-Dichloroethane
Concen: 92.996 ug/l
RT: 3.70 min Scan# 417
Delta R.T. -0.00 min
Lab File: VX006592.D
Acq: 18 Dec 2018 12:31

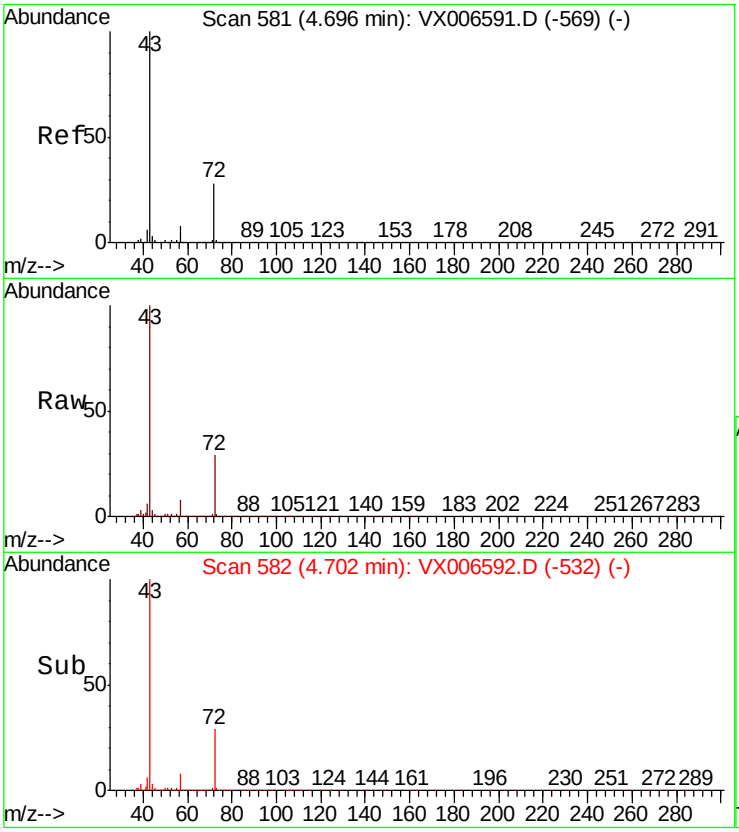
Tgt Ion: 63 Resp: 942305

Ion	Ratio	Lower	Upper
63	100		
98	7.1	3.9	11.5
100	4.8	2.4	7.2



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC100

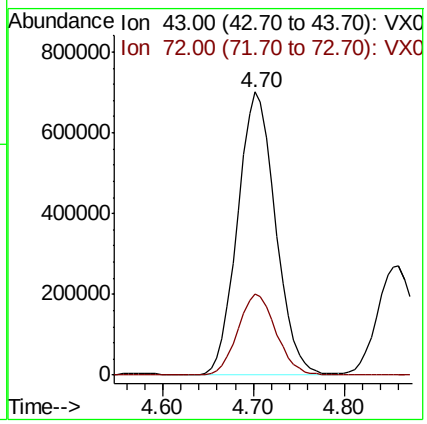
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:22:05 AM

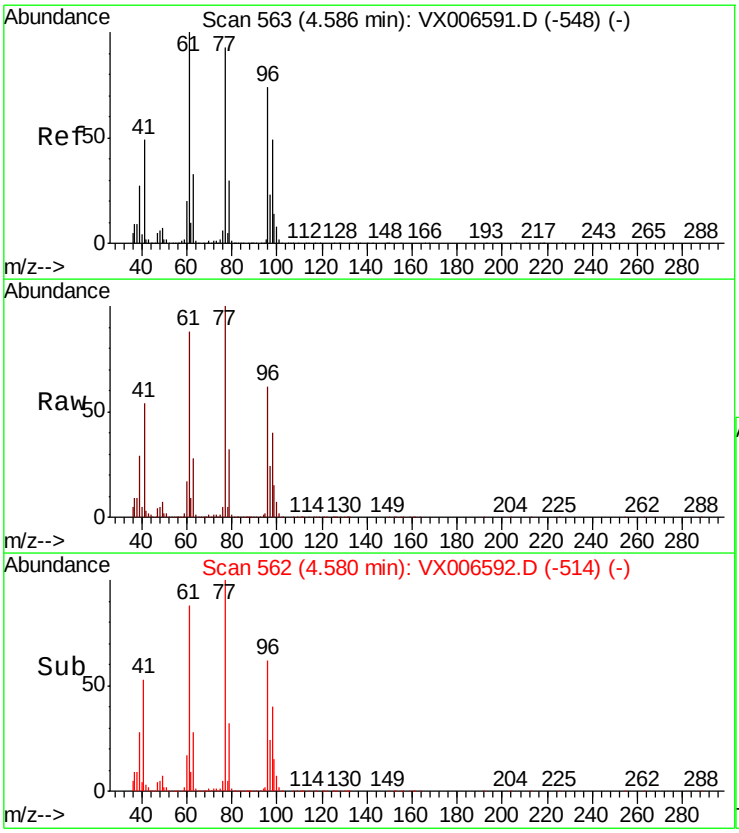


#25
2-Butanone
Concen: 472.537 ug/l
RT: 4.70 min Scan# 582
Delta R.T. 0.01 min
Lab File: VX006592.D
Acq: 18 Dec 2018 12:31

Tgt Ion: 43 Resp: 2030473

Ion	Ratio	Lower	Upper
43	100		
72	28.5	22.4	33.6

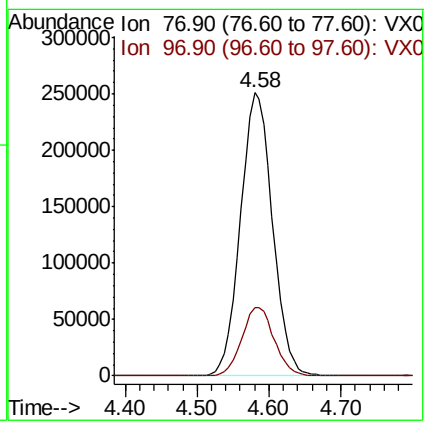




#26
2,2-Dichloropropane
Concen: 99.081 ug/l
RT: 4.58 min Scan# 562
Delta R.T. -0.01 min
Lab File: VX006592.D
Acq: 18 Dec 2018 12:31

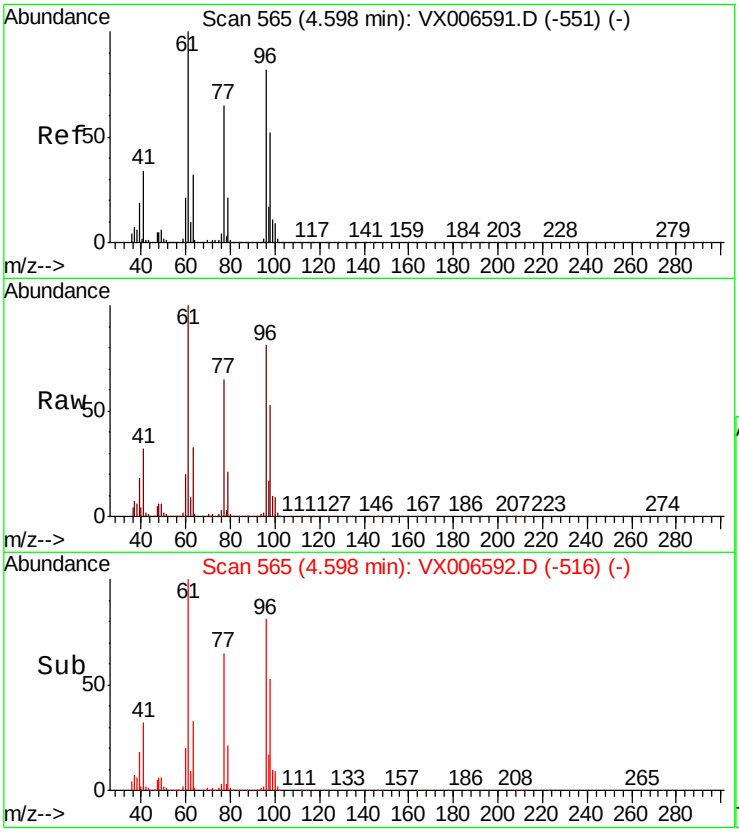
Tgt Ion: 77 Resp: 775525

Ion	Ratio	Lower	Upper
77	100		
97	24.5	12.4	37.4



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC100

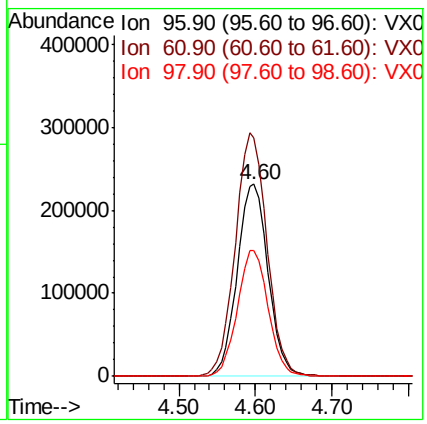
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:22:05 AM

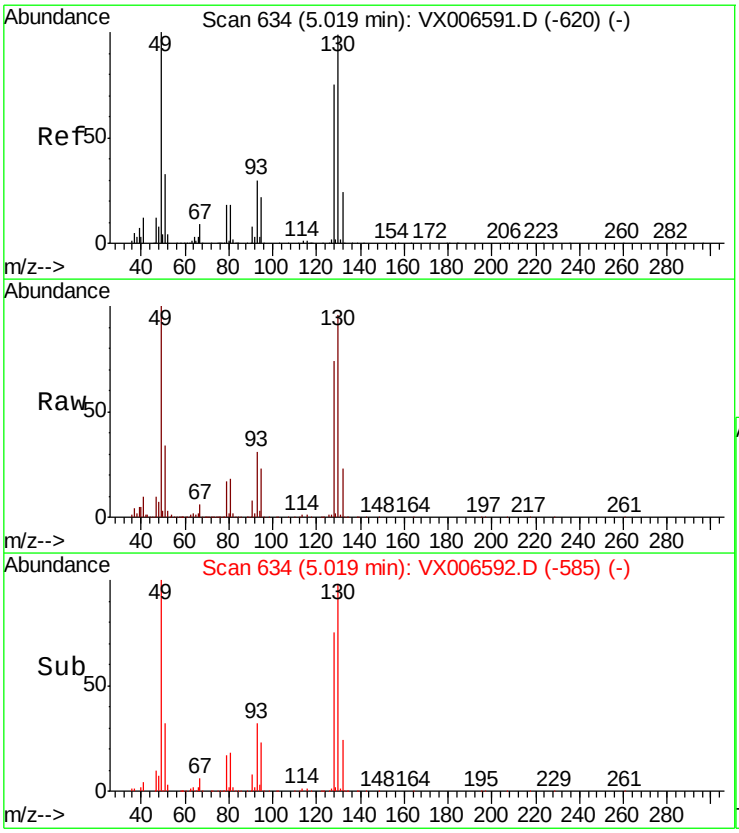


#27
cis-1,2-Dichloroethene
Concen: 96.485 ug/l
RT: 4.60 min Scan# 565
Delta R.T. -0.00 min
Lab File: VX006592.D
Acq: 18 Dec 2018 12:31

Tgt Ion: 96 Resp: 650162

Ion	Ratio	Lower	Upper
96	100		
61	129.8	0.0	258.6
98	65.5	0.0	132.0

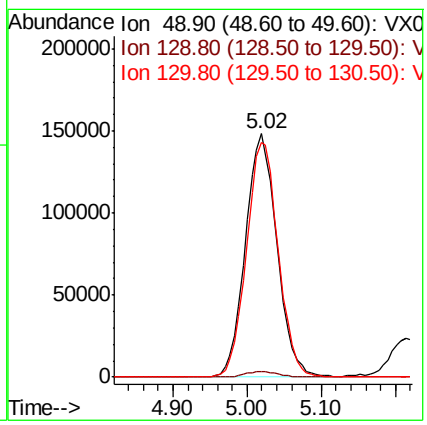




#28
Bromochloromethane
Concen: 94.606 ug/l
RT: 5.02 min Scan# 634
Delta R.T. -0.00 min
Lab File: VX006592.D
Acq: 18 Dec 2018 12:31

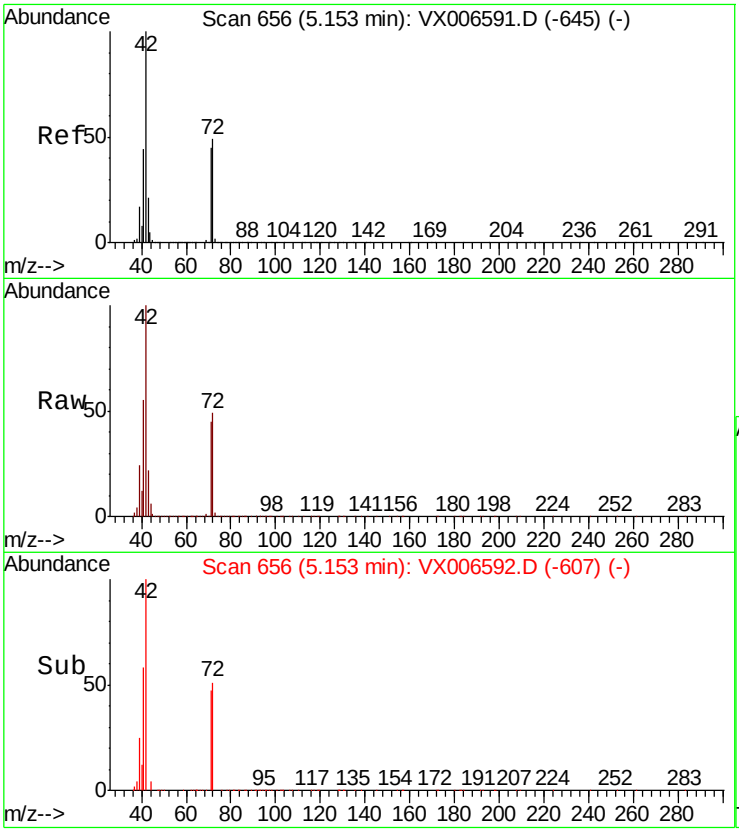
Tgt Ion: 49 Resp: 440744

Ion	Ratio	Lower	Upper
49	100		
129	2.6	0.0	5.4
130	97.3	77.7	116.5



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC100

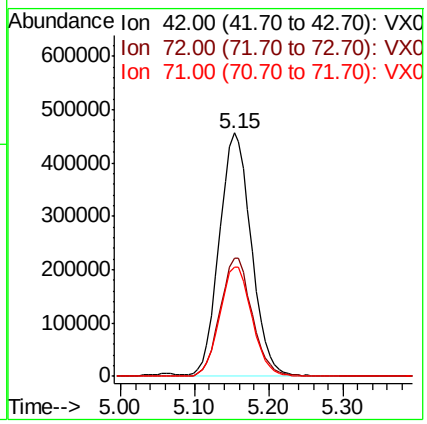
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:22:05 AM

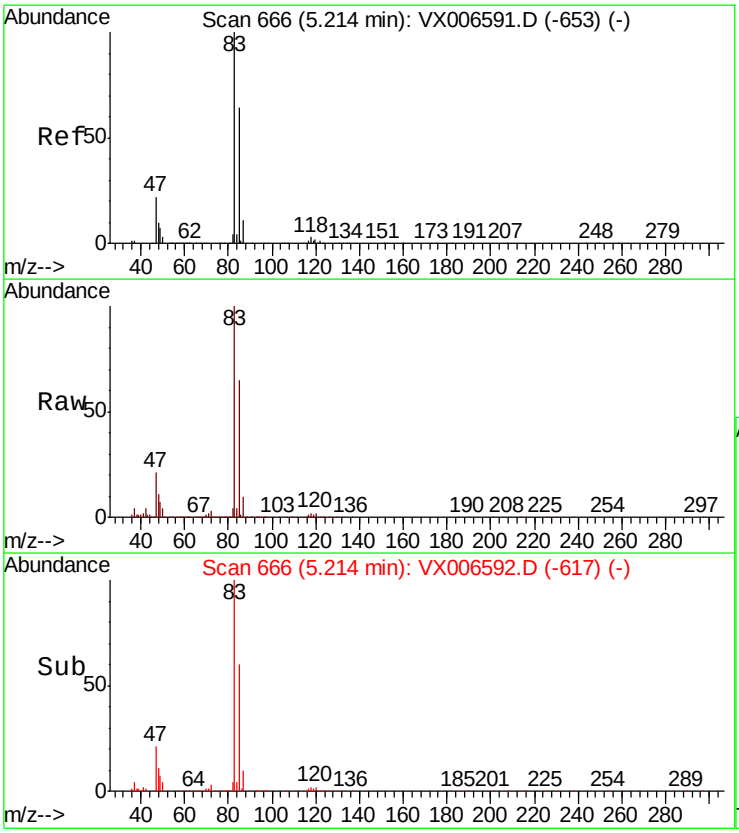


#29
Tetrahydrofuran
Concen: 482.111 ug/l
RT: 5.15 min Scan# 656
Delta R.T. -0.00 min
Lab File: VX006592.D
Acq: 18 Dec 2018 12:31

Tgt Ion: 42 Resp: 1364431

Ion	Ratio	Lower	Upper
42	100		
72	48.8	38.9	58.3
71	45.3	36.2	54.4

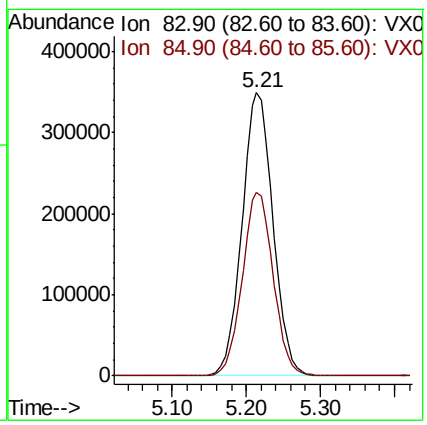


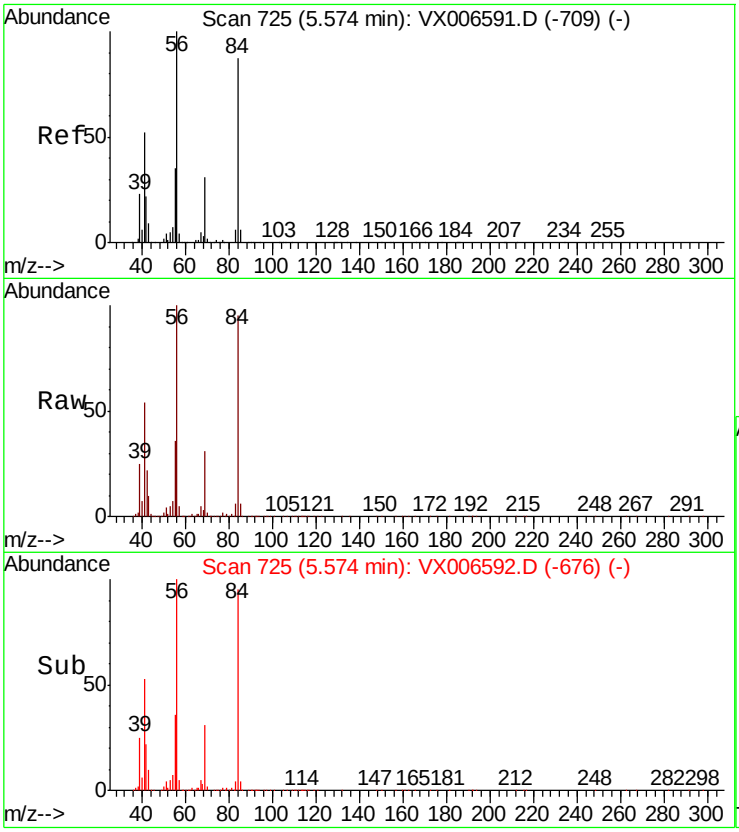


#30
Chloroform
Concen: 97.155 ug/l
RT: 5.21 min Scan# 666
Delta R.T. -0.00 min
Lab File: VX006592.D
Acq: 18 Dec 2018 12:31

Tgt Ion: 83 Resp: 1019448

Ion	Ratio	Lower	Upper
83	100		
85	65.1	51.2	76.8

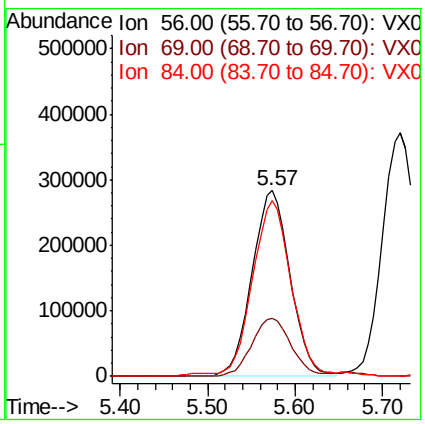


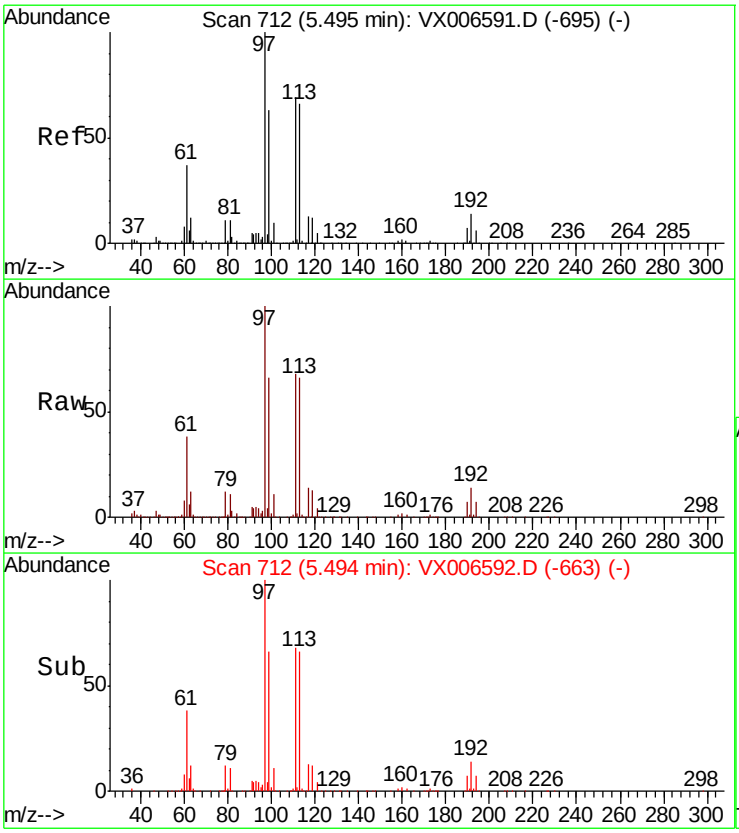


#31
Cyclohexane
Concen: 93.450 ug/l
RT: 5.57 min Scan# 725
Delta R.T. -0.00 min
Lab File: VX006592.D
Acq: 18 Dec 2018 12:31

Tgt Ion: 56 Resp: 860244

Ion	Ratio	Lower	Upper
56	100		
69	31.4	24.4	36.6
84	93.4	70.0	105.0

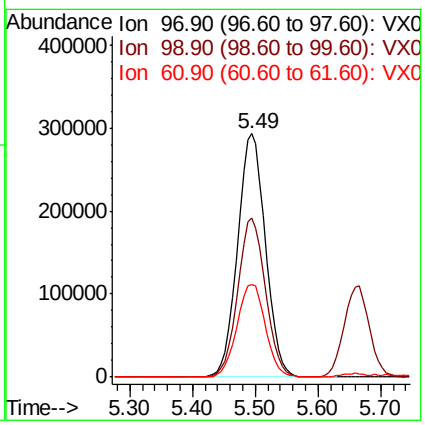




#32
1,1,1-Trichloroethane
Concen: 101.533 ug/l
RT: 5.49 min Scan# 712
Delta R.T. -0.00 min
Lab File: VX006592.D
Acq: 18 Dec 2018 12:31

Tgt Ion: 97 Resp: 899595

Ion	Ratio	Lower	Upper
97	100		
99	65.0	51.7	77.5
61	39.2	31.3	46.9

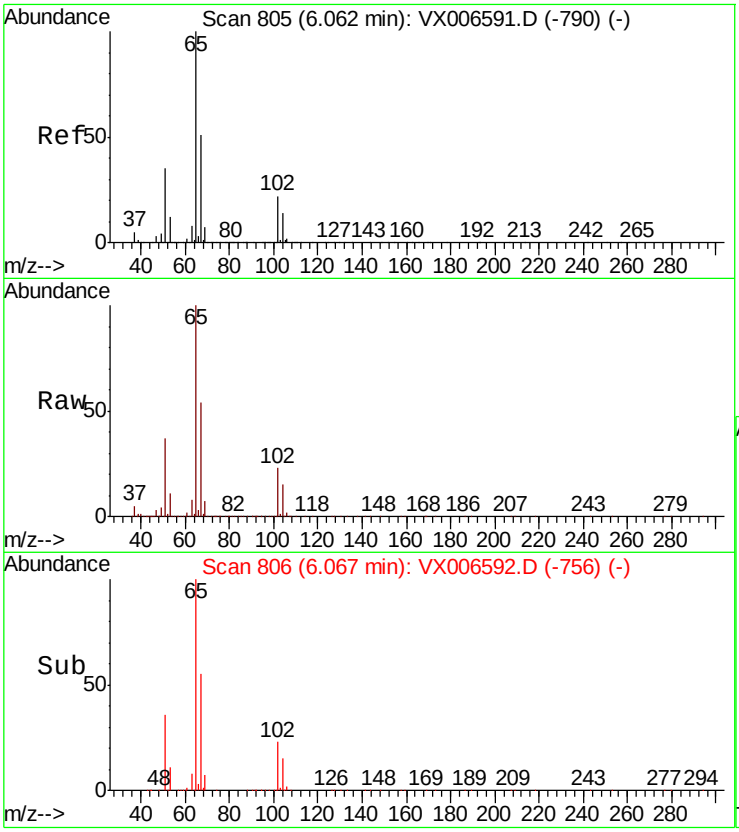


Instrument :
MSVOA_X
ClientSampleId :
VSTDICC100

Manual Integrations APPROVED
MMDadoda
12/19/2018 11:22:05 AM

Instrument :
MSVOA_X
ClientSampleId :
VSTDICC100

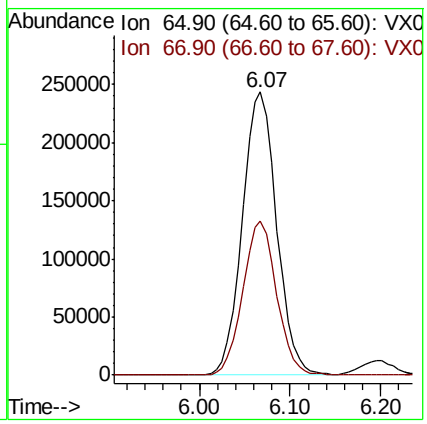
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:22:05 AM

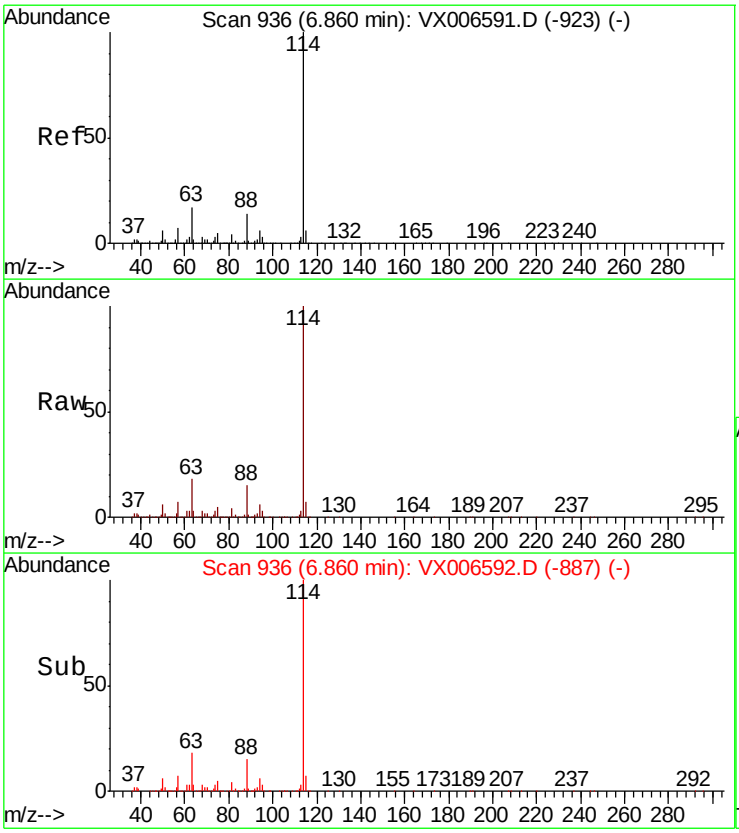


#33
1,2-Dichloroethane-d4
Concen: 95.828 ug/l
RT: 6.07 min Scan# 806
Delta R.T. 0.01 min
Lab File: VX006592.D
Acq: 18 Dec 2018 12:31

Tgt Ion: 65 Resp: 637167

Ion	Ratio	Lower	Upper
65	100		
67	53.5	0.0	105.0

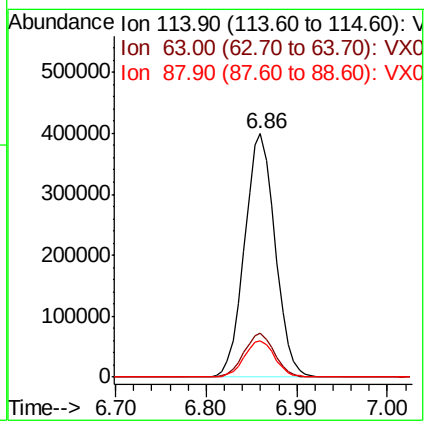




#34
1,4-Difluorobenzene
Concen: 50.000 ug/l
RT: 6.86 min Scan# 936
Delta R.T. -0.00 min
Lab File: VX006592.D
Acq: 18 Dec 2018 12:31

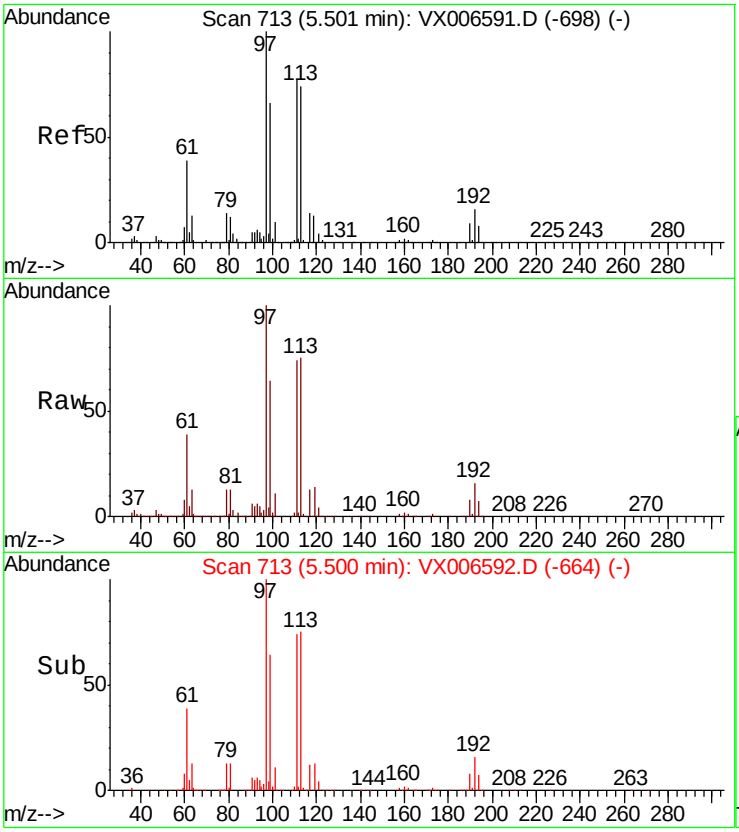
Tgt Ion:114 Resp: 930505

Ion	Ratio	Lower	Upper
114	100		
63	18.2	0.0	34.8
88	14.8	0.0	28.8



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC100

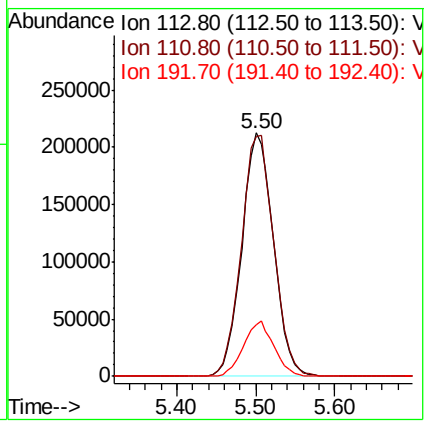
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:22:05 AM

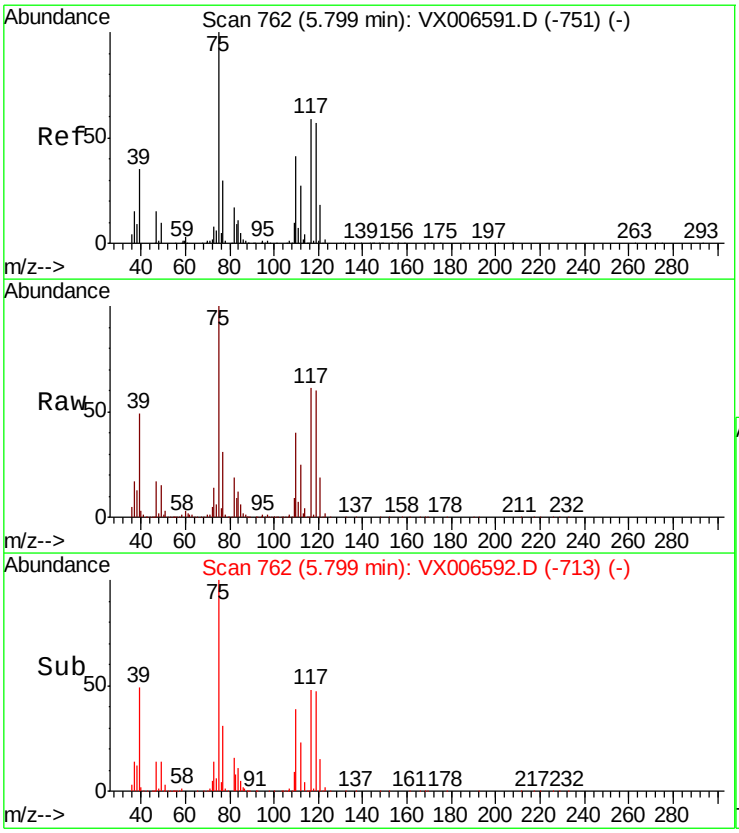


#35
Dibromofluoromethane
Concen: 100.501 ug/l
RT: 5.50 min Scan# 713
Delta R.T. -0.00 min
Lab File: VX006592.D
Acq: 18 Dec 2018 12:31

Tgt Ion:113 Resp: 591379

Ion	Ratio	Lower	Upper
113	100		
111	101.9	81.6	122.4
192	21.9	16.7	25.1

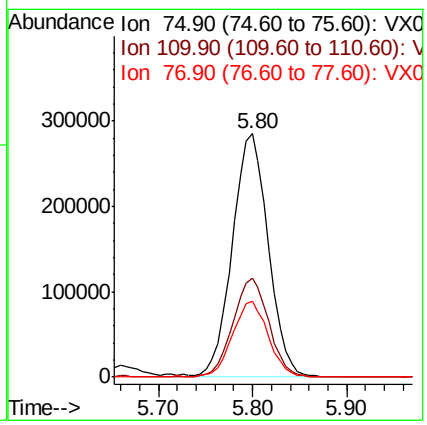




#36
1,1-Dichloropropene
Concen: 98.399 ug/l
RT: 5.80 min Scan# 762
Delta R.T. -0.00 min
Lab File: VX006592.D
Acq: 18 Dec 2018 12:31

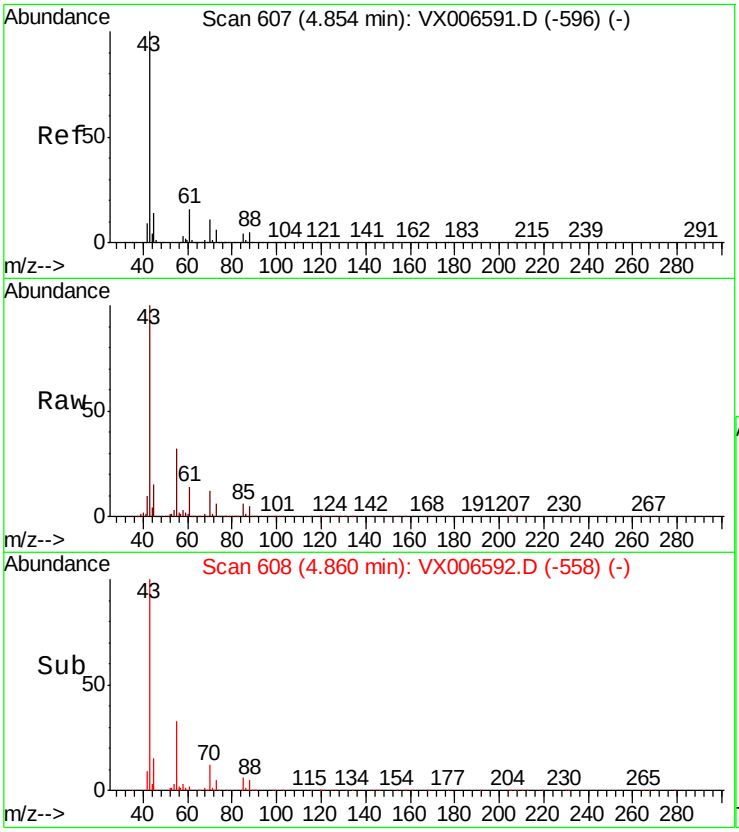
Tgt Ion: 75 Resp: 758335

Ion	Ratio	Lower	Upper
75	100		
110	40.4	20.2	60.5
77	30.9	24.8	37.2



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC100

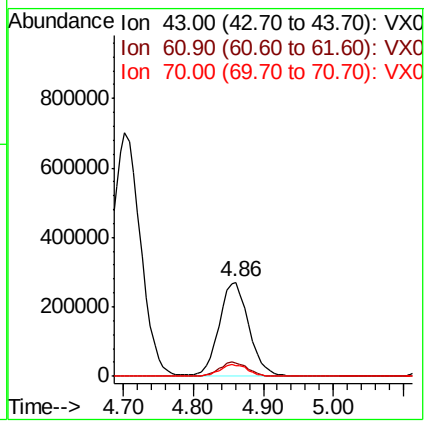
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:22:05 AM

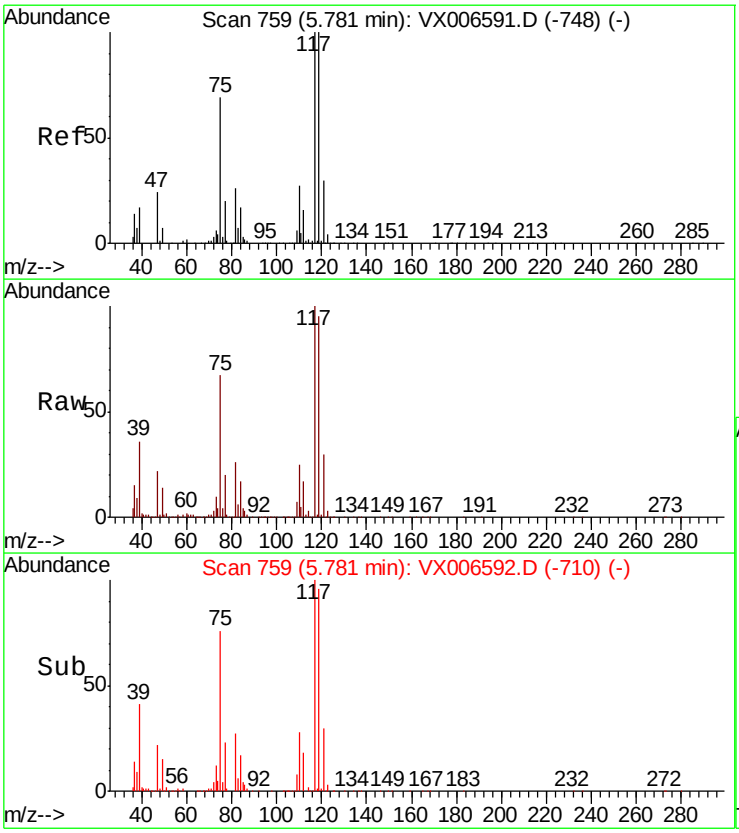


#37
Ethyl Acetate
Concen: 99.032 ug/l
RT: 4.86 min Scan# 608
Delta R.T. 0.01 min
Lab File: VX006592.D
Acq: 18 Dec 2018 12:31

Tgt Ion: 43 Resp: 794363

Ion	Ratio	Lower	Upper
43	100		
61	14.6	11.9	17.9
70	11.8	9.7	14.5

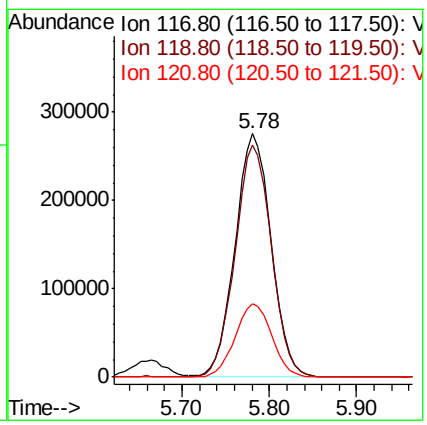




#38
Carbon Tetrachloride
Concen: 105.603 ug/l
RT: 5.78 min Scan# 759
Delta R.T. -0.00 min
Lab File: VX006592.D
Acq: 18 Dec 2018 12:31

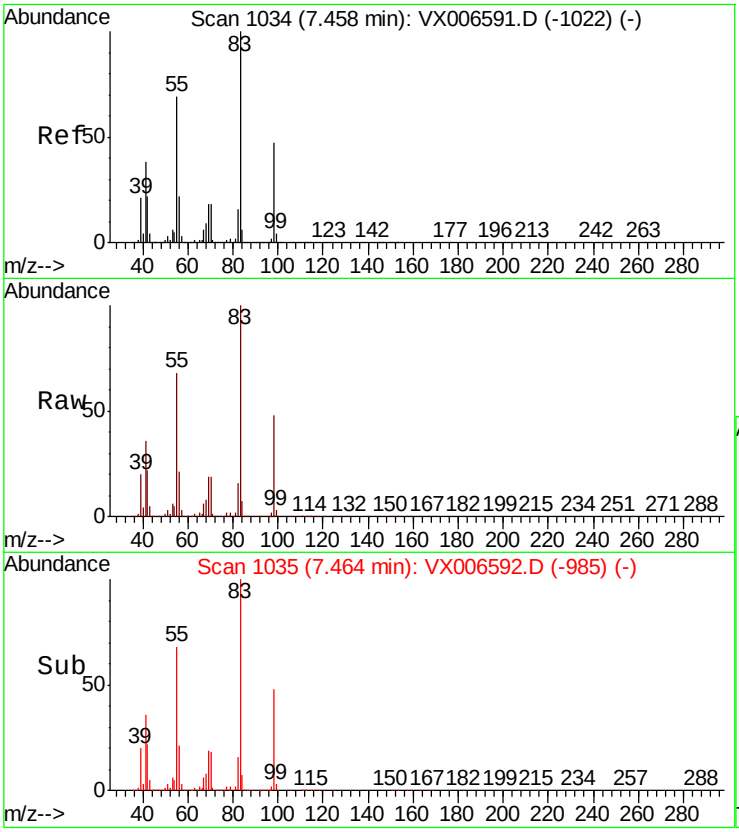
Tgt Ion:117 Resp: 790938

Ion	Ratio	Lower	Upper
117	100		
119	95.2	79.4	119.2
121	30.1	24.0	36.0



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC100

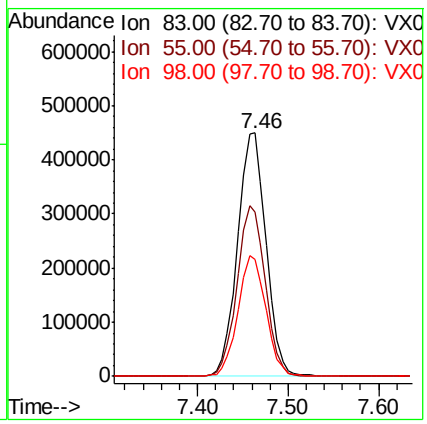
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:22:05 AM

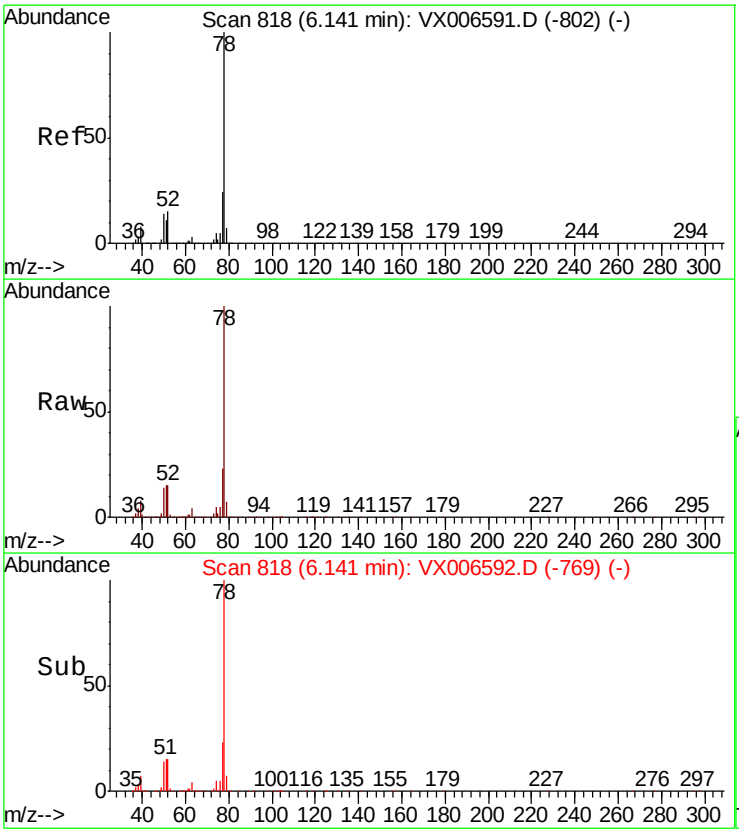


#39
Methylcyclohexane
Concen: 96.490 ug/l
RT: 7.46 min Scan# 1035
Delta R.T. 0.01 min
Lab File: VX006592.D
Acq: 18 Dec 2018 12:31

Tgt Ion: 83 Resp: 979002

Ion	Ratio	Lower	Upper
83	100		
55	67.6	54.9	82.3
98	48.1	37.9	56.9

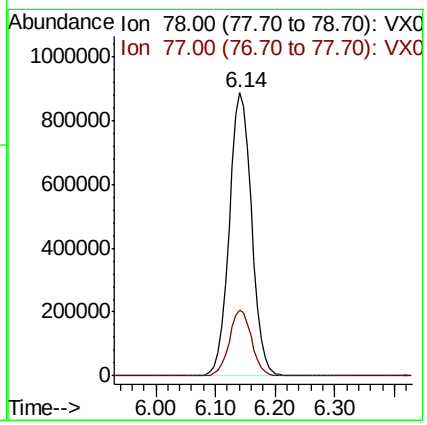




#40
Benzene
Concen: 98.236 ug/l
RT: 6.14 min Scan# 818
Delta R.T. -0.00 min
Lab File: VX006592.D
Acq: 18 Dec 2018 12:31

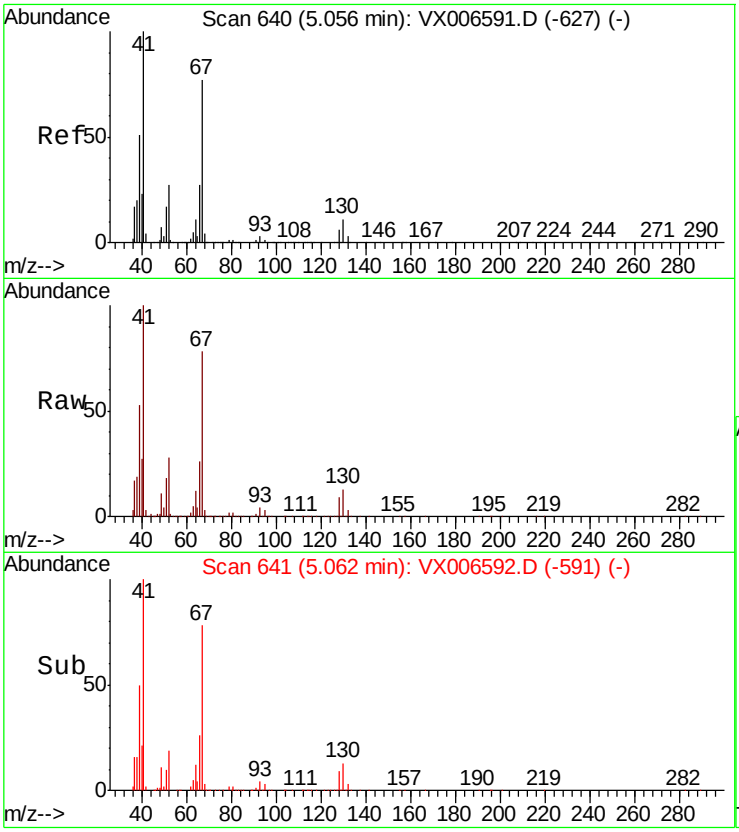
Tgt Ion: 78 Resp: 2301258

Ion	Ratio	Lower	Upper
78	100		
77	23.4	19.2	28.8



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC100

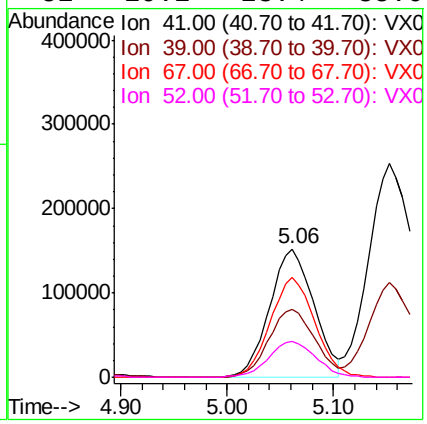
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:22:05 AM

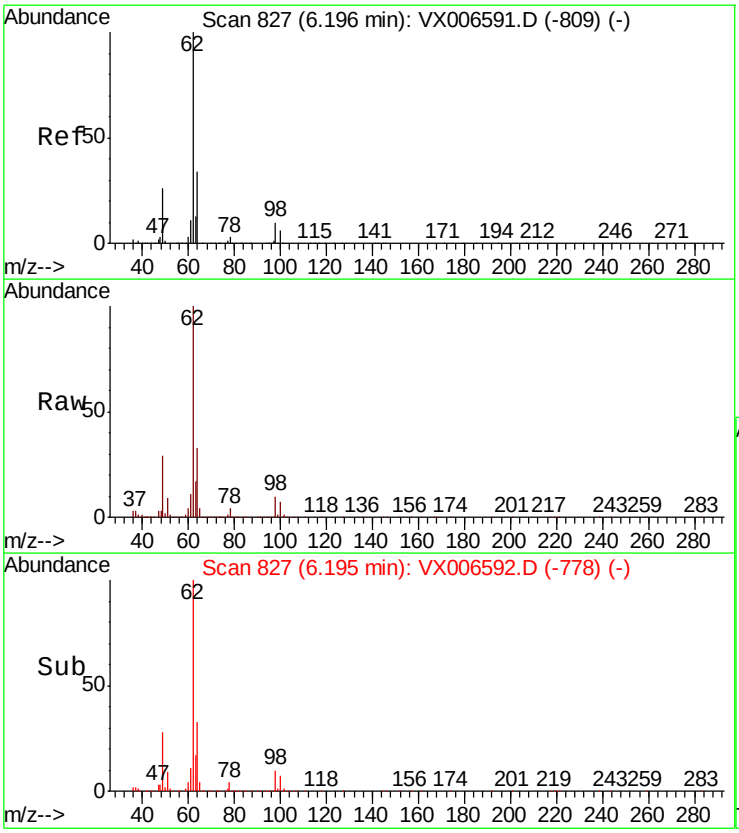


#41
Methacrylonitrile
Concen: 97.514 ug/l
RT: 5.06 min Scan# 641
Delta R.T. 0.01 min
Lab File: VX006592.D
Acq: 18 Dec 2018 12:31

Tgt Ion: 41 Resp: 439553

Ion	Ratio	Lower	Upper
41	100		
39	54.6	42.8	64.2
67	78.2	62.1	93.1
52	29.2	23.4	35.0

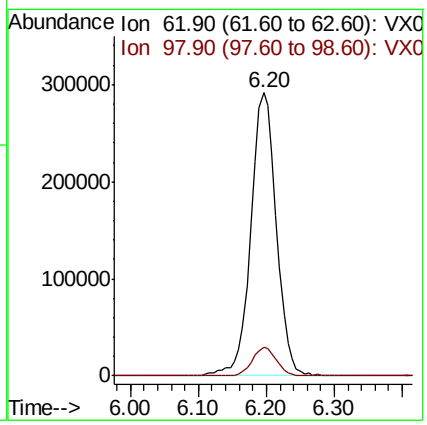




#42
1,2-Dichloroethane
Concen: 95.359 ug/l
RT: 6.20 min Scan# 827
Delta R.T. -0.00 min
Lab File: VX006592.D
Acq: 18 Dec 2018 12:31

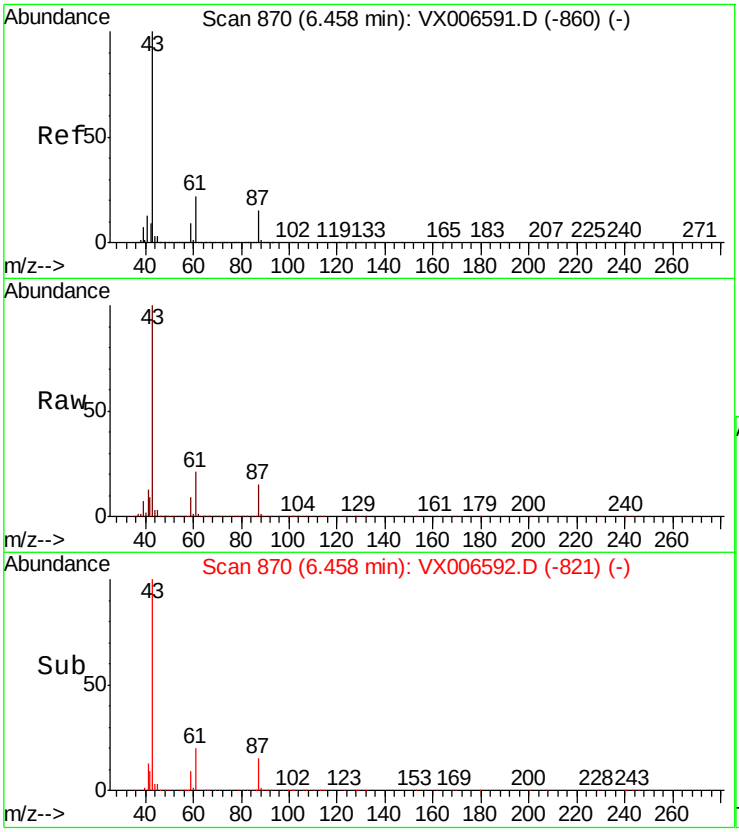
Tgt Ion: 62 Resp: 761203

Ion	Ratio	Lower	Upper
62	100		
98	9.7	0.0	20.2



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC100

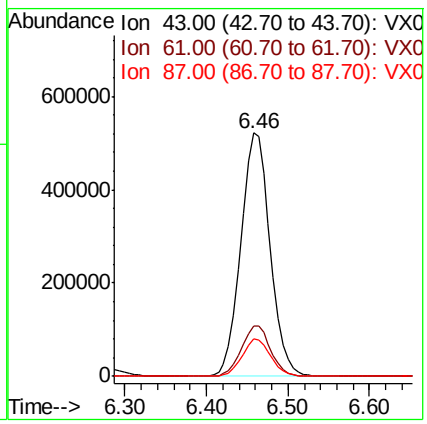
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:22:05 AM

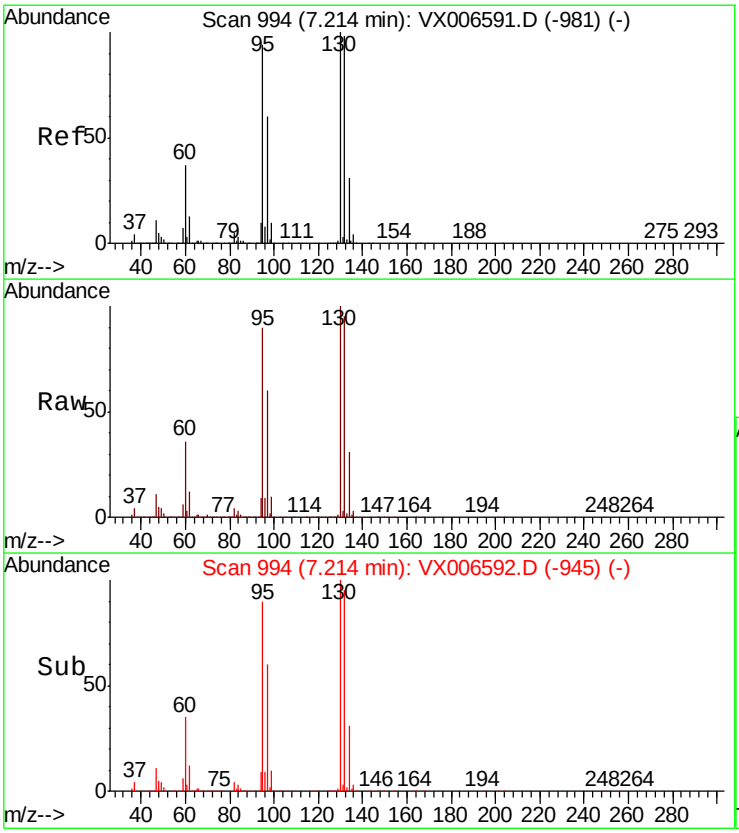


#43
Isopropyl Acetate
Concen: 106.077 ug/l
RT: 6.46 min Scan# 870
Delta R.T. -0.00 min
Lab File: VX006592.D
Acq: 18 Dec 2018 12:31

Tgt Ion: 43 Resp: 1294648

Ion	Ratio	Lower	Upper
43	100		
61	20.9	16.8	25.2
87	15.1	12.4	18.6

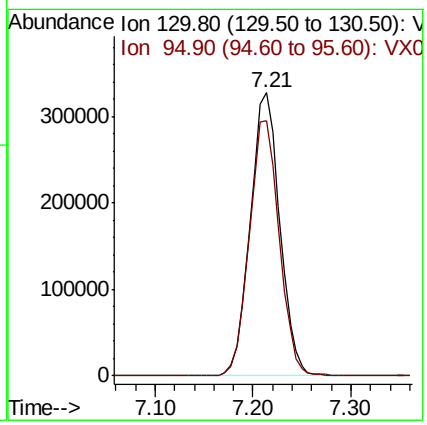




#44
Trichloroethene
Concen: 96.873 ug/l
RT: 7.21 min Scan# 994
Delta R.T. -0.00 min
Lab File: VX006592.D
Acq: 18 Dec 2018 12:31

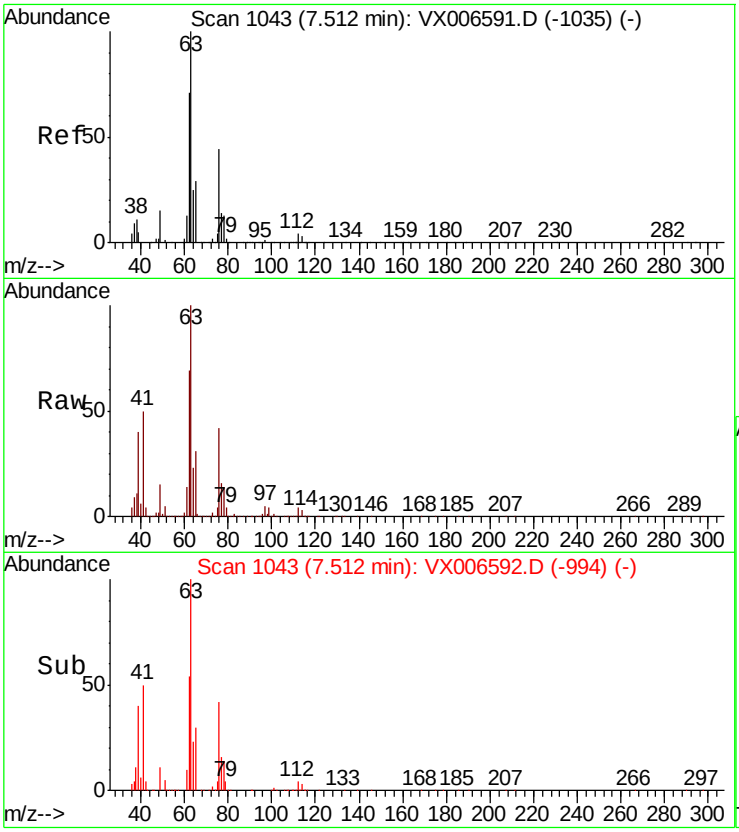
Tgt Ion:130 Resp: 686858

Ion	Ratio	Lower	Upper
130	100		
95	90.3	0.0	187.0



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC100

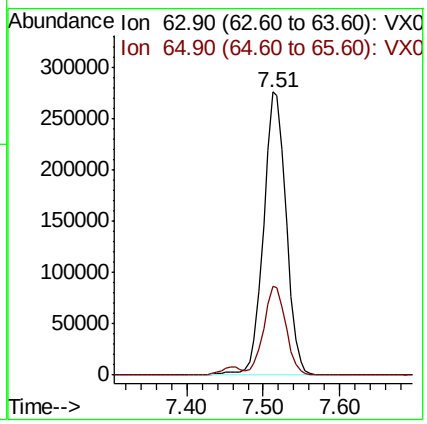
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:22:05 AM

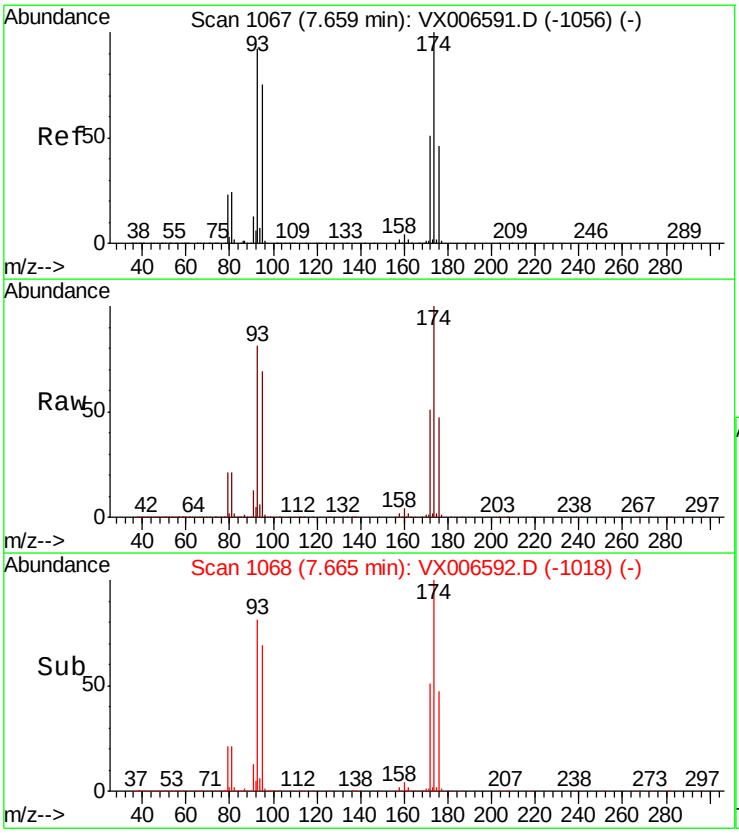


#45
1,2-Dichloropropane
Concen: 100.158 ug/l
RT: 7.51 min Scan# 1043
Delta R.T. -0.00 min
Lab File: VX006592.D
Acq: 18 Dec 2018 12:31

Tgt Ion: 63 Resp: 570967

Ion	Ratio	Lower	Upper
63	100		
65	31.2	25.4	38.0

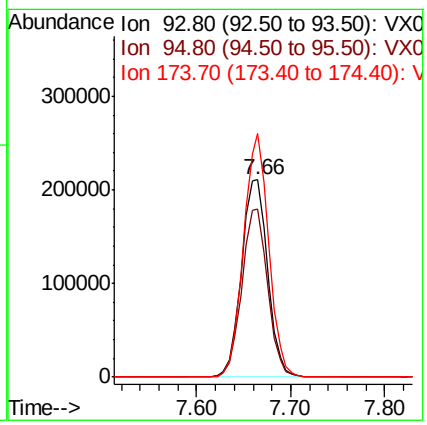


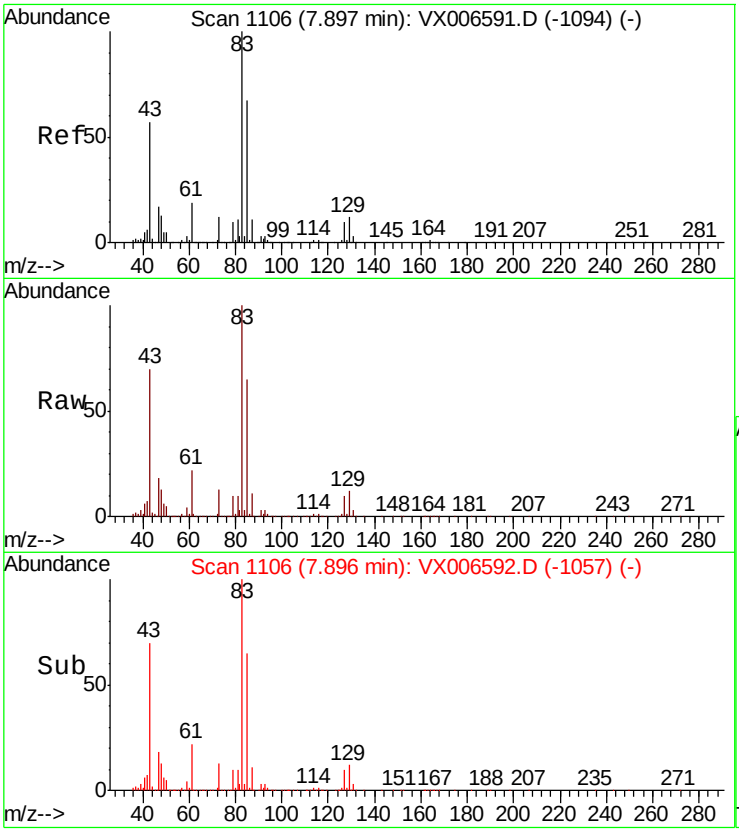


#46
Dibromomethane
Concen: 97.725 ug/l
RT: 7.66 min Scan# 1068
Delta R.T. 0.01 min
Lab File: VX006592.D
Acq: 18 Dec 2018 12:31

Tgt Ion: 93 Resp: 409777

Ion	Ratio	Lower	Upper
93	100		
95	83.6	66.2	99.4
174	118.6	91.0	136.4

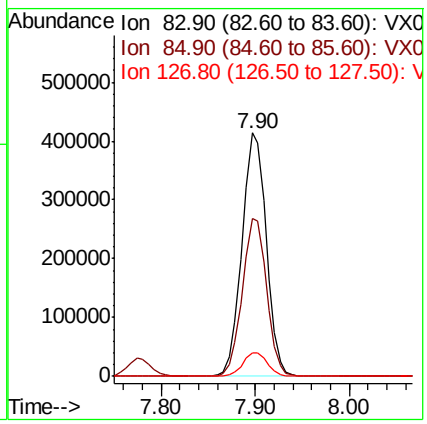




#47
Bromodichloromethane
Concen: 107.226 ug/l
RT: 7.90 min Scan# 1106
Delta R.T. -0.00 min
Lab File: VX006592.D
Acq: 18 Dec 2018 12:31

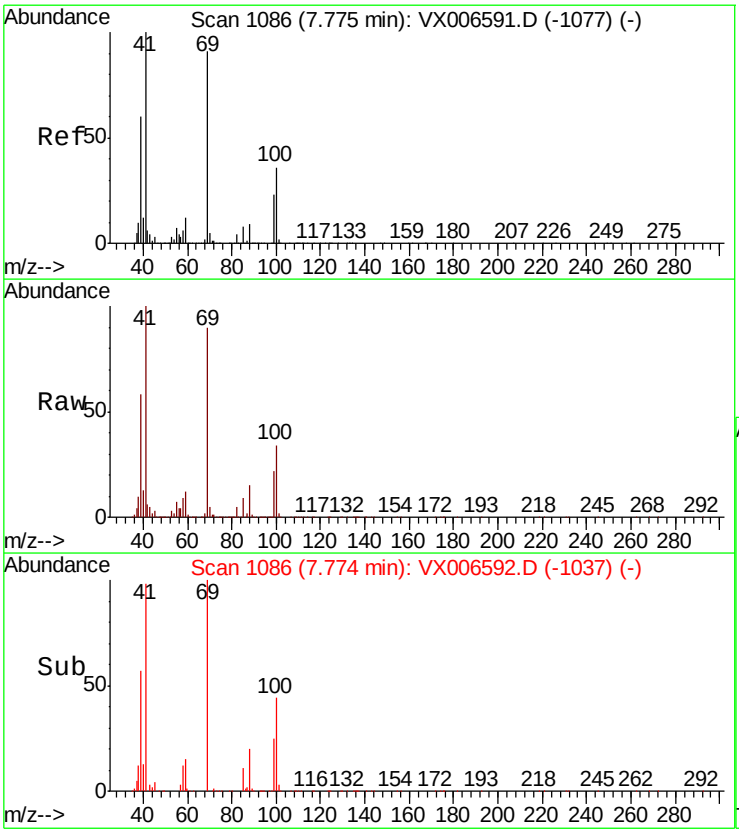
Tgt Ion: 83 Resp: 746461

Ion	Ratio	Lower	Upper
83	100		
85	64.9	53.2	79.8
127	9.6	7.8	11.6



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC100

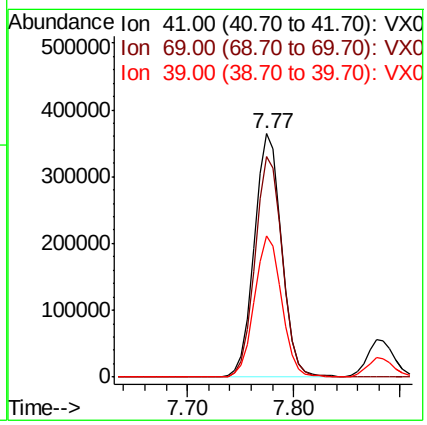
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:22:05 AM

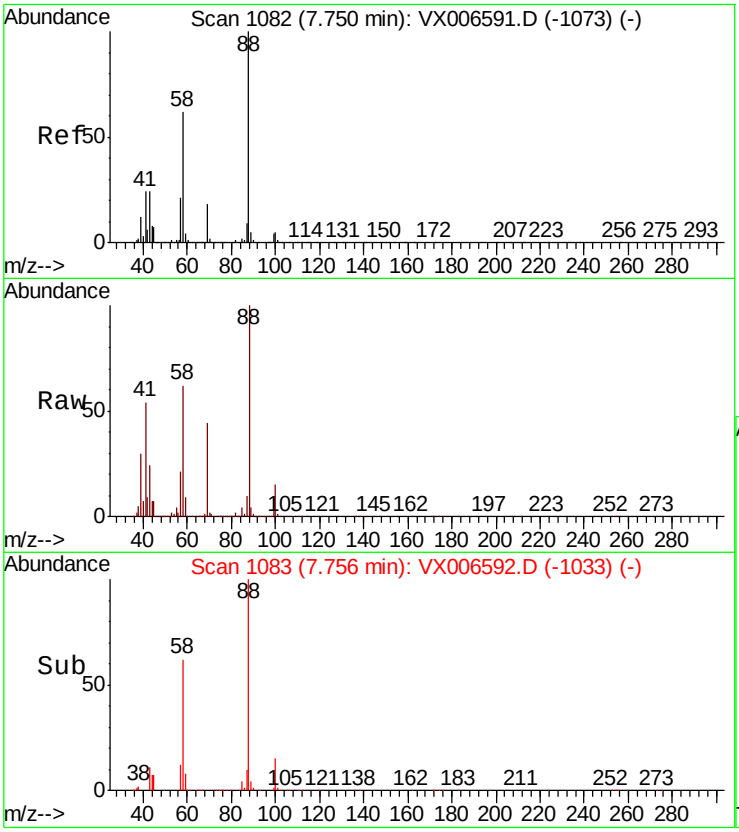


#48
Methyl methacrylate
Concen: 105.538 ug/l
RT: 7.77 min Scan# 1086
Delta R.T. -0.00 min
Lab File: VX006592.D
Acq: 18 Dec 2018 12:31

Tgt Ion: 41 Resp: 655020

Ion	Ratio	Lower	Upper
41	100		
69	90.6	72.4	108.6
39	57.4	45.8	68.8

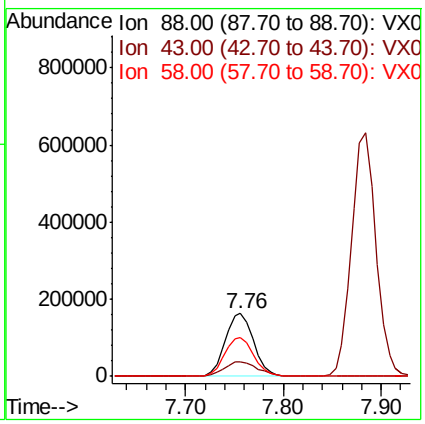




#49
1,4-Dioxane
Concen: 1875.700 ug/l
RT: 7.76 min Scan# 1083
Delta R.T. 0.01 min
Lab File: VX006592.D
Acq: 18 Dec 2018 12:31

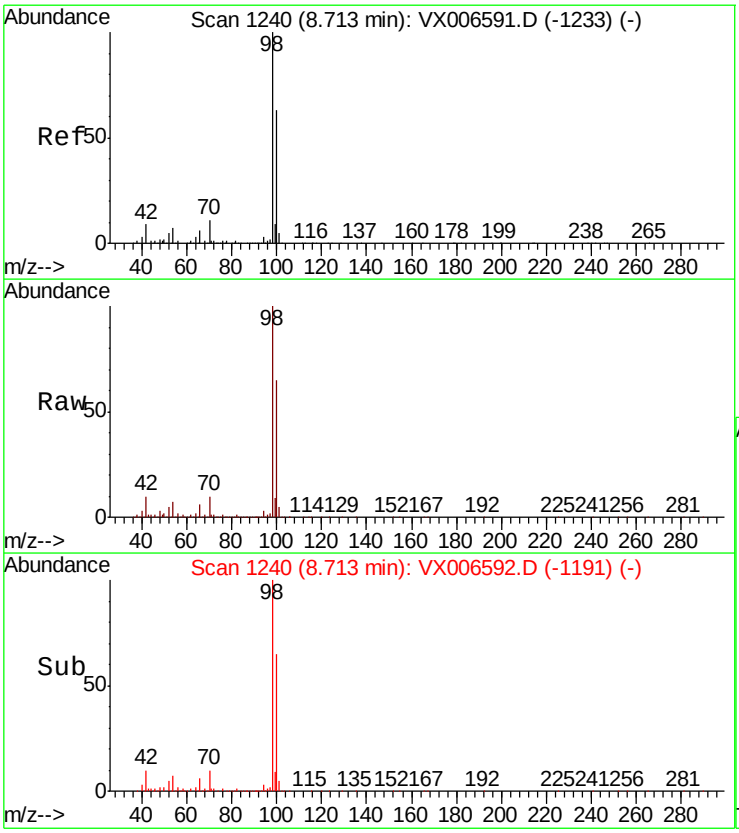
Tgt Ion: 88 Resp: 329384

Ion	Ratio	Lower	Upper
88	100		
43	27.1	22.2	33.4
58	63.2	51.0	76.4



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC100

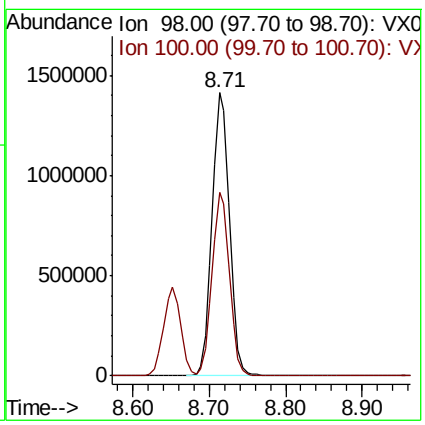
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:22:05 AM



#50
Toluene-d8
Concen: 100.239 ug/l
RT: 8.71 min Scan# 1240
Delta R.T. -0.00 min
Lab File: VX006592.D
Acq: 18 Dec 2018 12:31

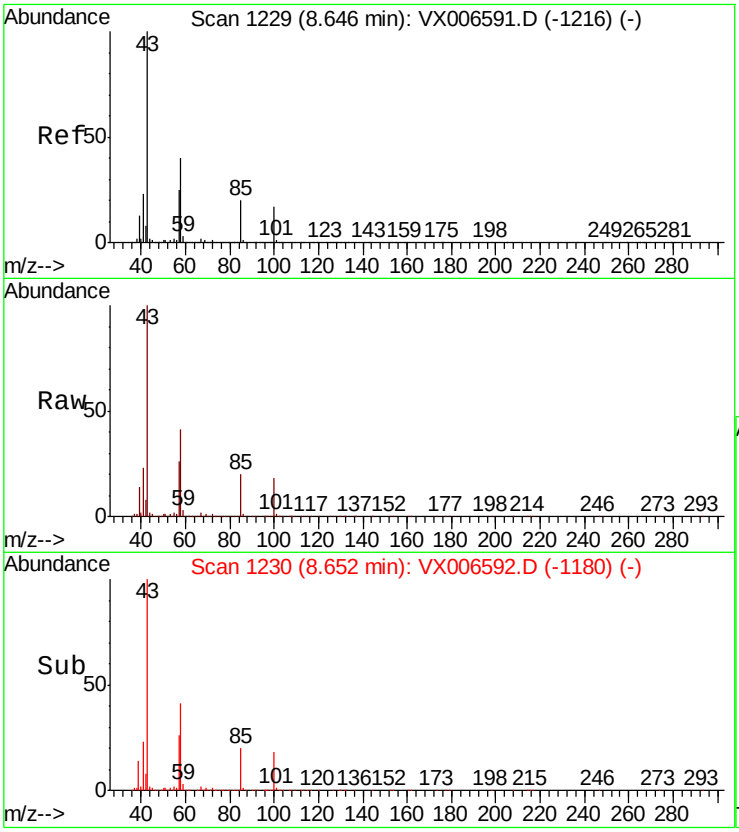
Tgt Ion: 98 Resp: 2223710

Ion	Ratio	Lower	Upper
98	100		
100	65.0	52.0	78.0



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC100

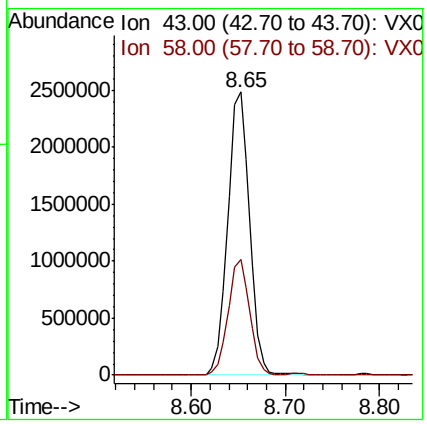
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:22:05 AM

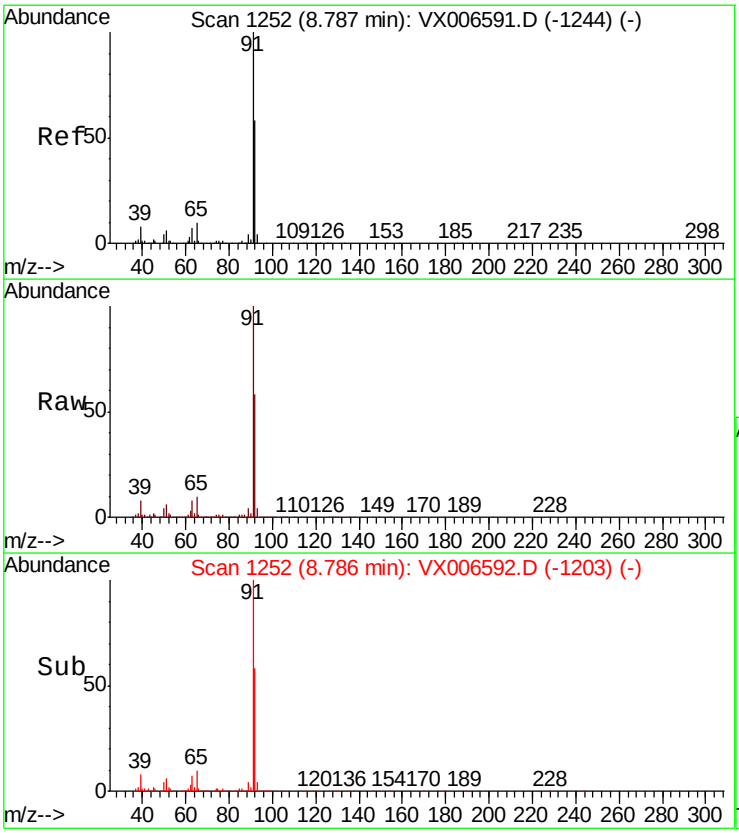


#51
4-Methyl-2-Pentanone
Concen: 513.254 ug/l
RT: 8.65 min Scan# 1230
Delta R.T. 0.01 min
Lab File: VX006592.D
Acq: 18 Dec 2018 12:31

Tgt Ion: 43 Resp: 3985686

Ion	Ratio	Lower	Upper
43	100		
58	40.0	31.8	47.6

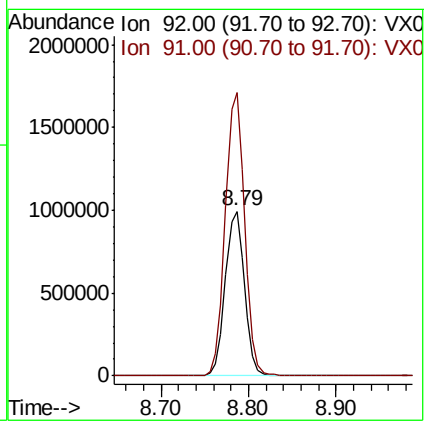


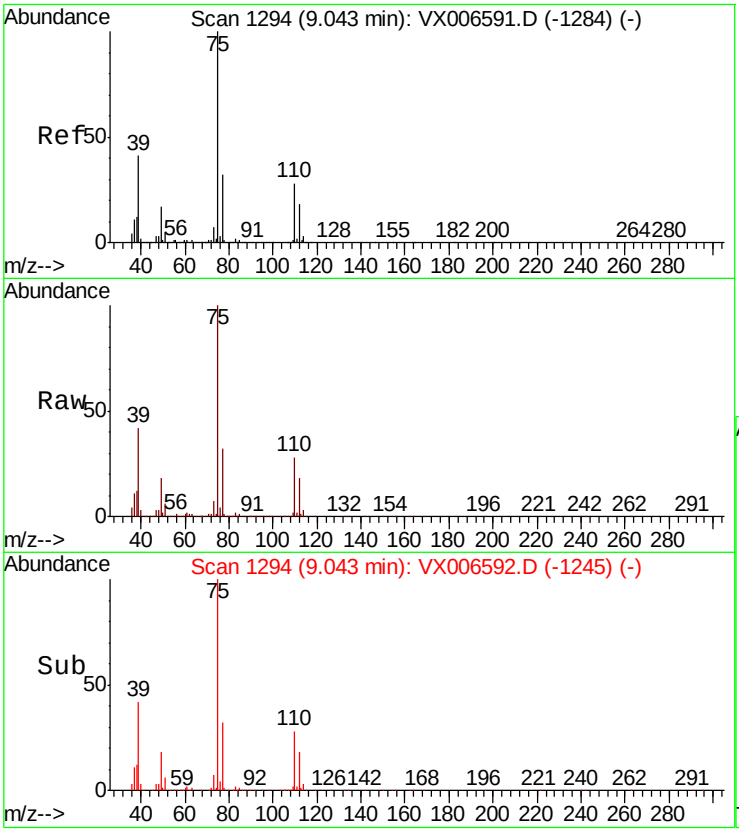


#52
Toluene
Concen: 100.104 ug/l
RT: 8.79 min Scan# 1252
Delta R.T. -0.00 min
Lab File: VX006592.D
Acq: 18 Dec 2018 12:31

Tgt Ion: 92 Resp: 1514994

Ion	Ratio	Lower	Upper
92	100		
91	172.5	137.6	206.4

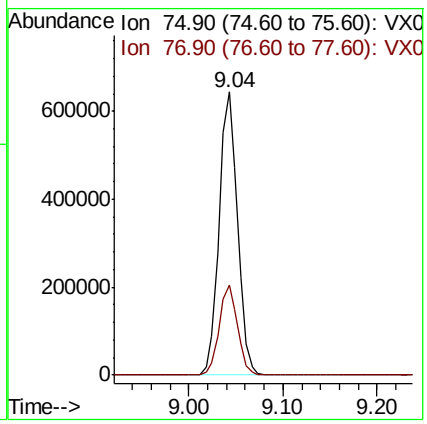




#53
t-1,3-Dichloropropene
Concen: 116.805 ug/l
RT: 9.04 min Scan# 1294
Delta R.T. -0.00 min
Lab File: VX006592.D
Acq: 18 Dec 2018 12:31

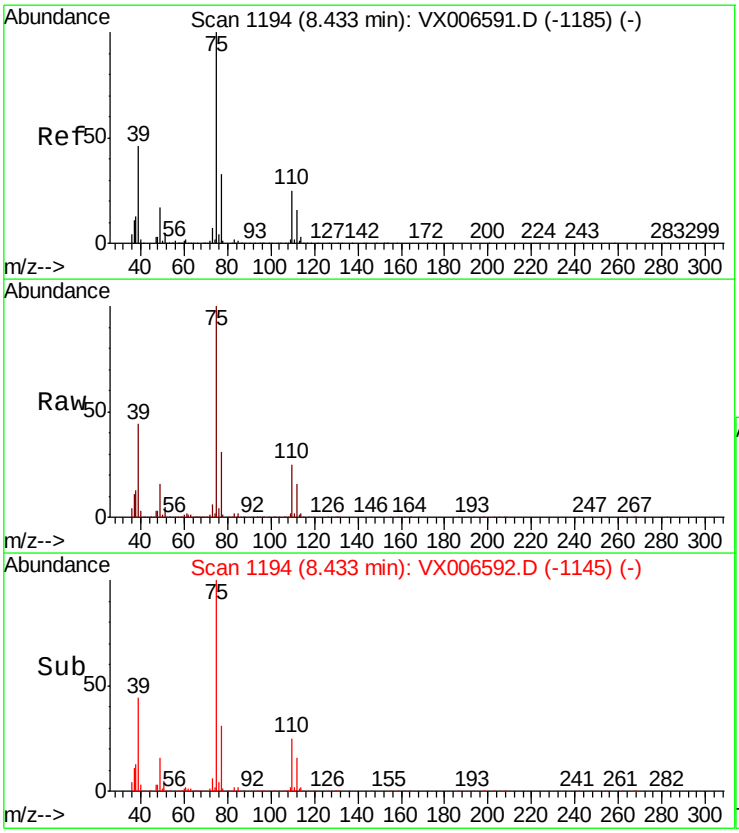
Tgt Ion: 75 Resp: 872089

Ion	Ratio	Lower	Upper
75	100		
77	31.7	25.4	38.0



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC100

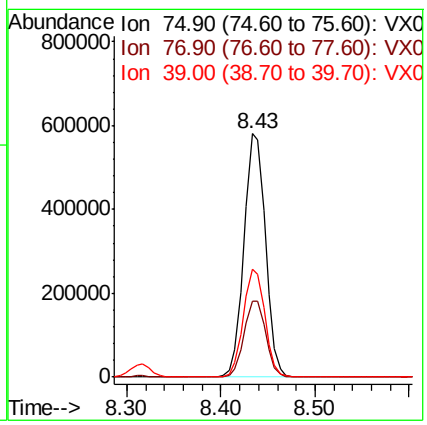
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:22:05 AM

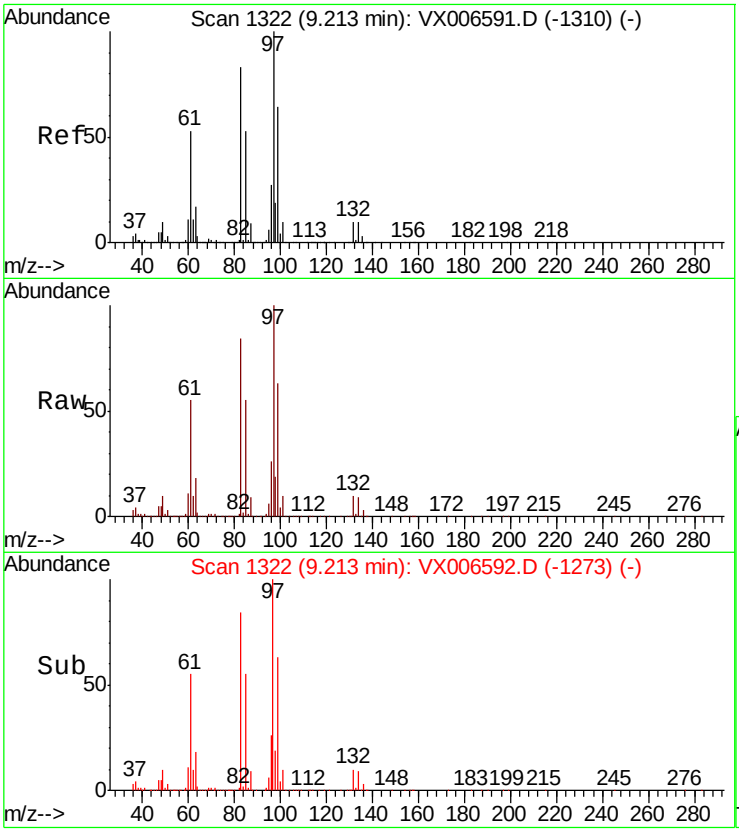


#54
cis-1,3-Dichloropropene
Concen: 113.362 ug/l
RT: 8.43 min Scan# 1194
Delta R.T. -0.00 min
Lab File: VX006592.D
Acq: 18 Dec 2018 12:31

Tgt Ion: 75 Resp: 928699

Ion	Ratio	Lower	Upper
75	100		
77	31.2	26.2	39.2
39	44.3	36.7	55.1

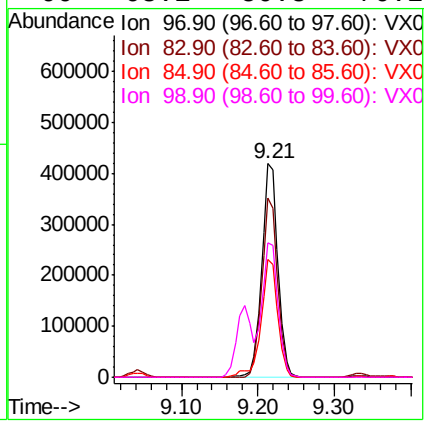


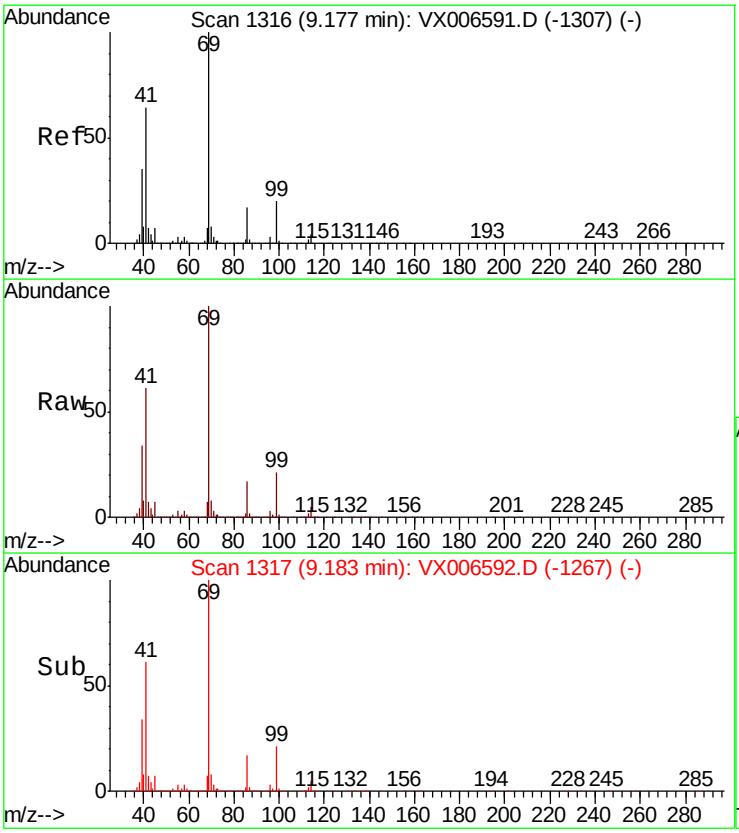


#55
1,1,2-Trichloroethane
Concen: 100.213 ug/l
RT: 9.21 min Scan# 1322
Delta R.T. -0.00 min
Lab File: VX006592.D
Acq: 18 Dec 2018 12:31

Tgt Ion: 97 Resp: 620784

Ion	Ratio	Lower	Upper
97	100		
83	83.9	66.6	99.8
85	55.3	42.7	64.1
99	63.1	50.8	76.2

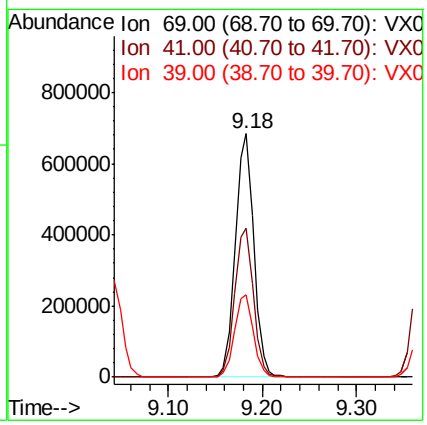




#56
Ethyl methacrylate
Concen: 106.152 ug/l
RT: 9.18 min Scan# 1317
Delta R.T. 0.01 min
Lab File: VX006592.D
Acq: 18 Dec 2018 12:31

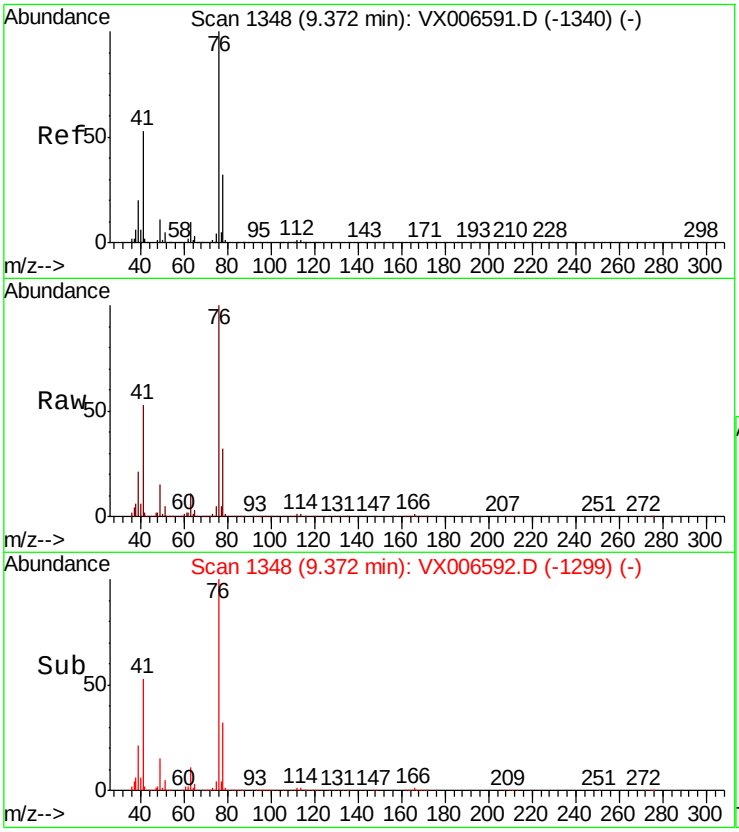
Tgt Ion: 69 Resp: 929398

Ion	Ratio	Lower	Upper
69	100		
41	62.1	48.7	73.1
39	34.5	27.0	40.6



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC100

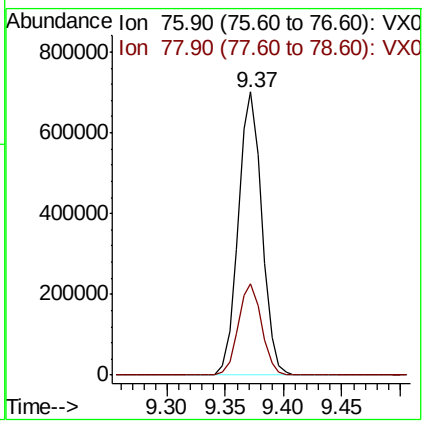
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:22:05 AM



#57
1,3-Dichloropropane
Concen: 99.528 ug/l
RT: 9.37 min Scan# 1348
Delta R.T. -0.00 min
Lab File: VX006592.D
Acq: 18 Dec 2018 12:31

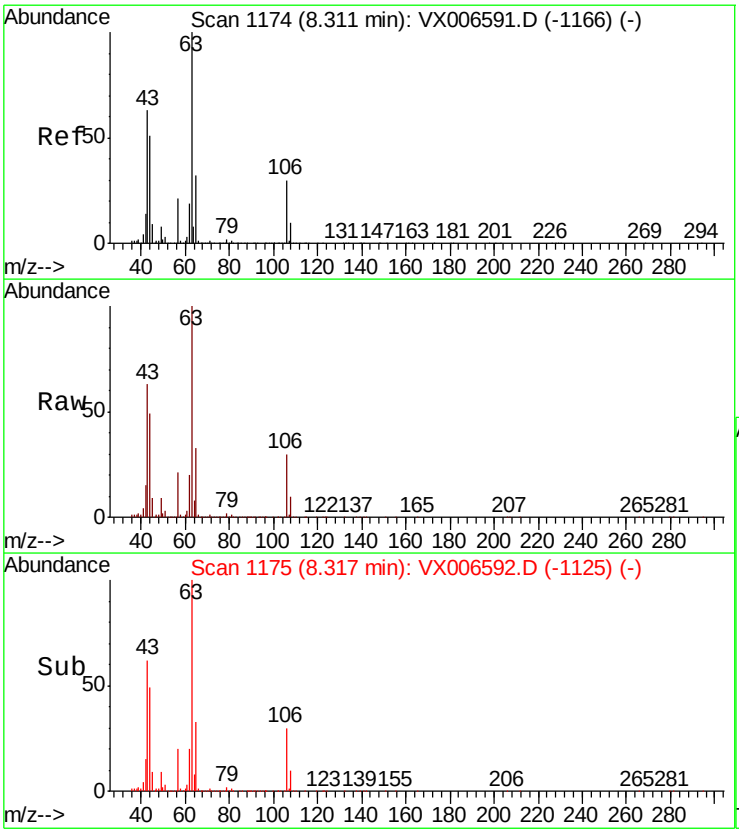
Tgt Ion: 76 Resp: 991948

Ion	Ratio	Lower	Upper
76	100		
78	32.0	26.0	39.0



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC100

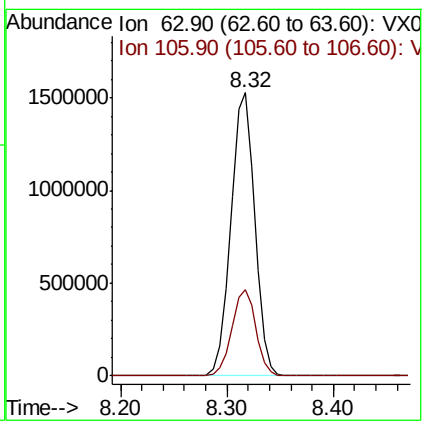
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:22:05 AM



#58
2-Chloroethyl Vinyl ether
Concen: 516.271 ug/l
RT: 8.32 min Scan# 1175
Delta R.T. 0.01 min
Lab File: VX006592.D
Acq: 18 Dec 2018 12:31

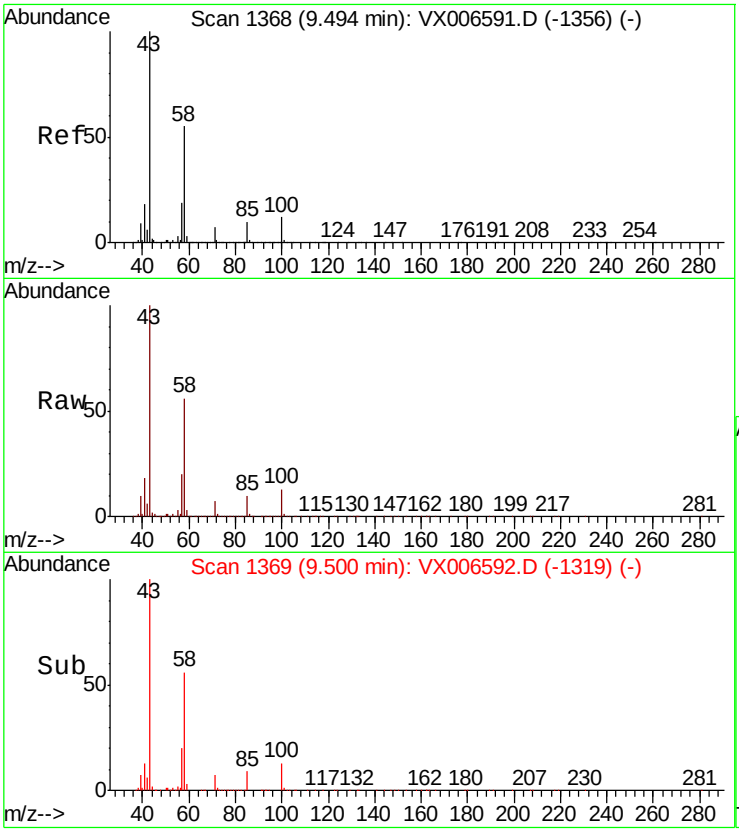
Tgt Ion: 63 Resp: 2402754

Ion	Ratio	Lower	Upper
63	100		
106	30.7	24.6	36.8



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC100

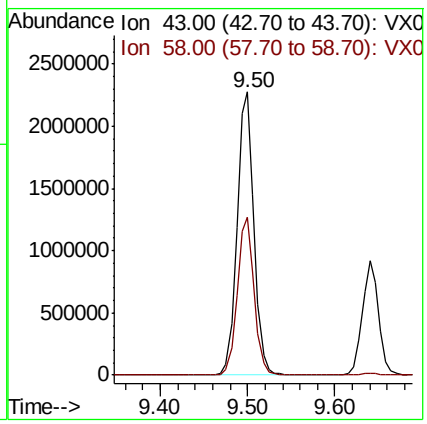
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:22:05 AM

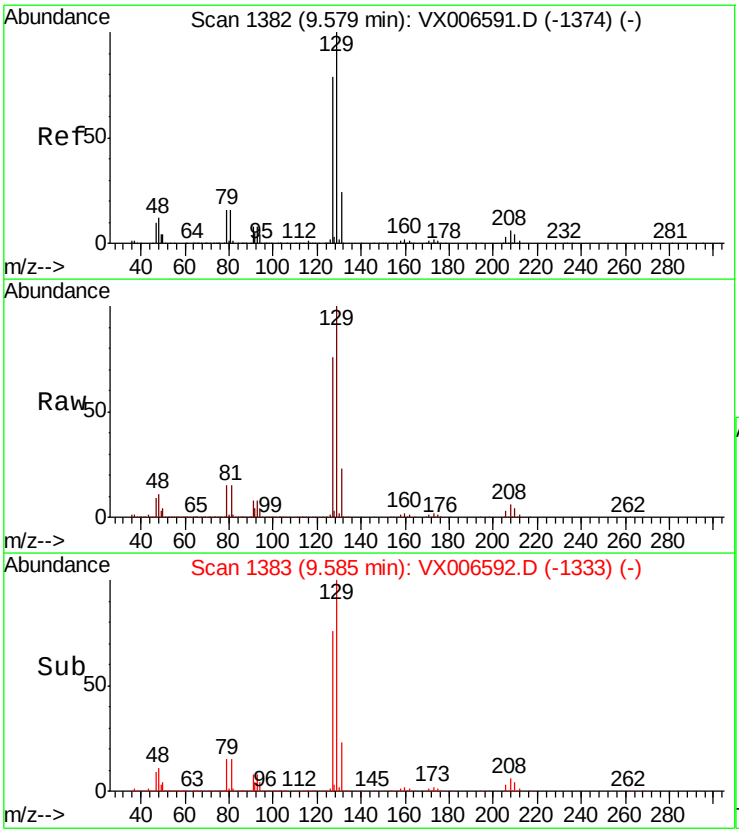


#59
2-Hexanone
Concen: 515.736 ug/l
RT: 9.50 min Scan# 1369
Delta R.T. 0.01 min
Lab File: VX006592.D
Acq: 18 Dec 2018 12:31

Tgt Ion: 43 Resp: 3064266

Ion	Ratio	Lower	Upper
43	100		
58	55.7	27.7	83.1

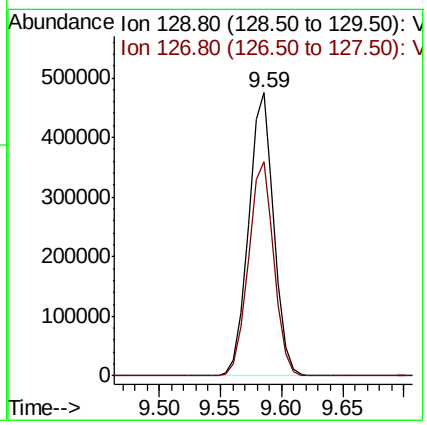


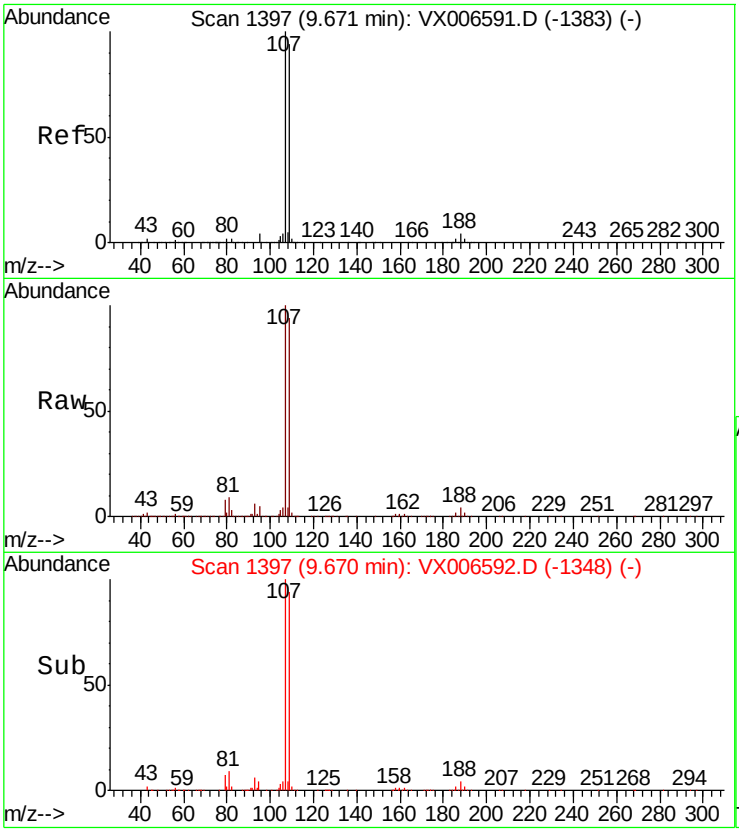


#60
Dibromochloromethane
Concen: 118.979 ug/l
RT: 9.59 min Scan# 1383
Delta R.T. 0.01 min
Lab File: VX006592.D
Acq: 18 Dec 2018 12:31

Tgt Ion:129 Resp: 678881

Ion	Ratio	Lower	Upper
129	100		
127	76.6	39.3	117.8

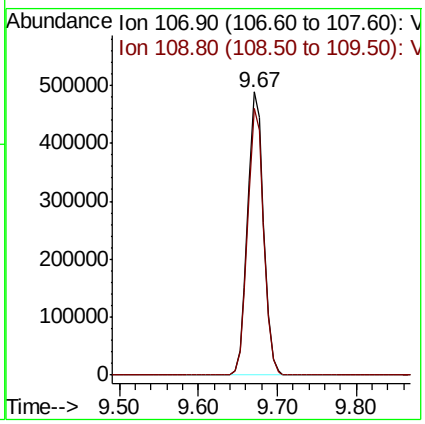




#61
1,2-Dibromoethane
Concen: 104.526 ug/l
RT: 9.67 min Scan# 1397
Delta R.T. -0.00 min
Lab File: VX006592.D
Acq: 18 Dec 2018 12:31

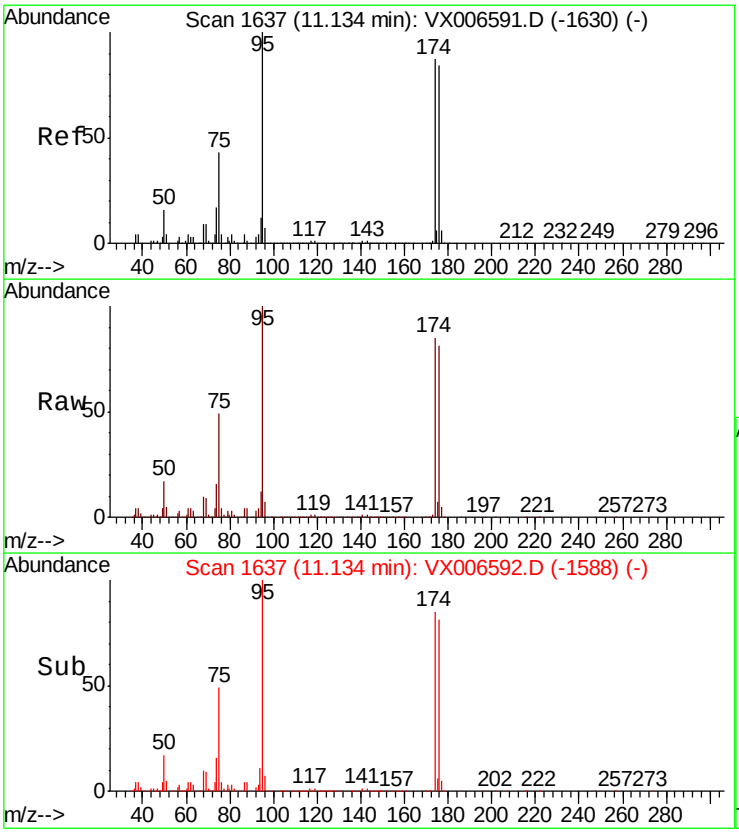
Tgt Ion:107 Resp: 688319

Ion	Ratio	Lower	Upper
107	100		
109	94.9	75.8	113.6



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC100

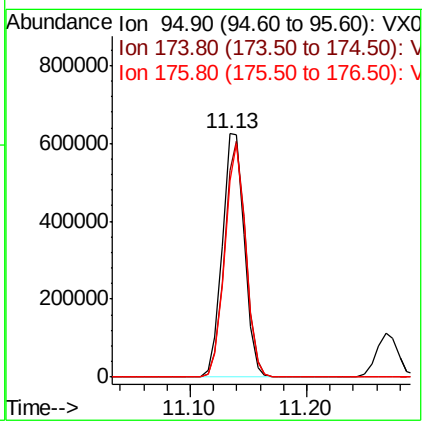
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:22:05 AM

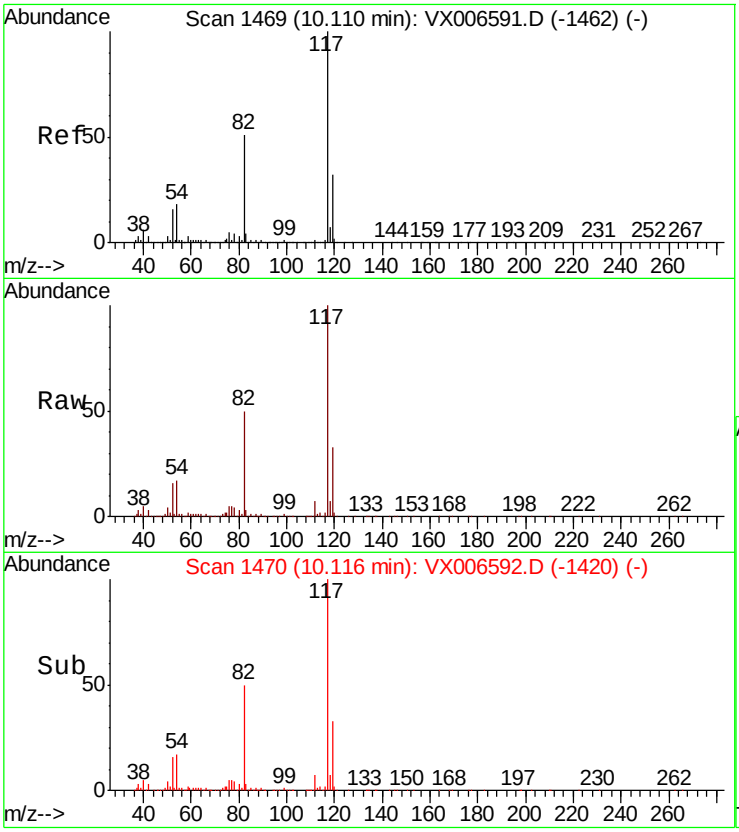


#62
4-Bromofluorobenzene
Concen: 100.705 ug/l
RT: 11.13 min Scan# 1637
Delta R.T. -0.00 min
Lab File: VX006592.D
Acq: 18 Dec 2018 12:31

Tgt Ion: 95 Resp: 818206

Ion	Ratio	Lower	Upper
95	100		
174	93.0	0.0	182.2
176	90.8	0.0	178.8

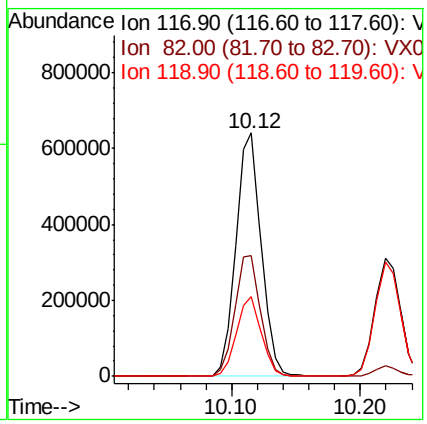




#63
Chlorobenzene-d5
Concen: 50.000 ug/l
RT: 10.12 min Scan# 1470
Delta R.T. 0.01 min
Lab File: VX006592.D
Acq: 18 Dec 2018 12:31

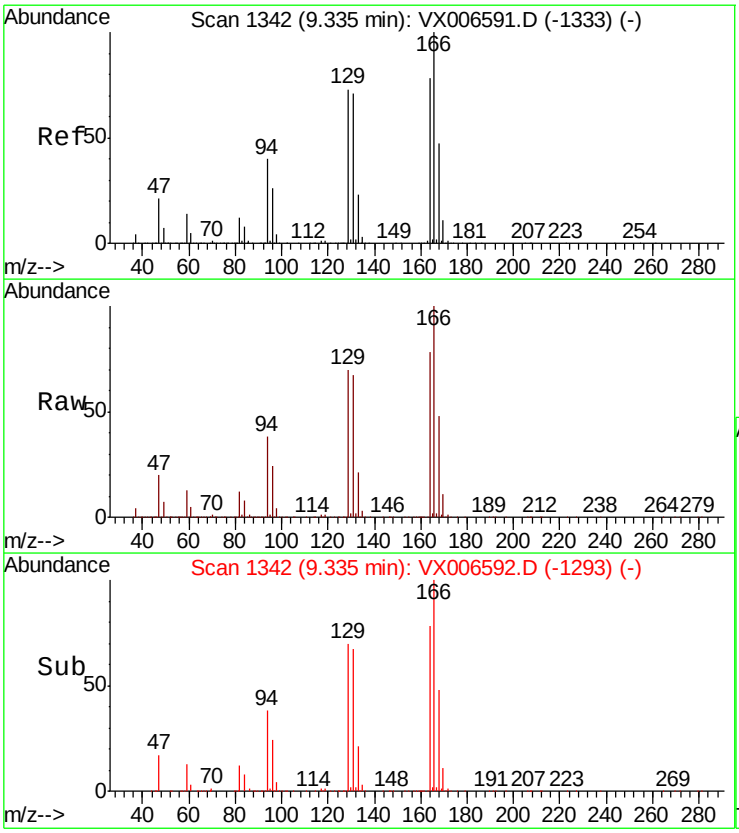
Tgt Ion:117 Resp: 874541

Ion	Ratio	Lower	Upper
117	100		
82	49.5	41.0	61.6
119	32.5	25.4	38.0



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC100

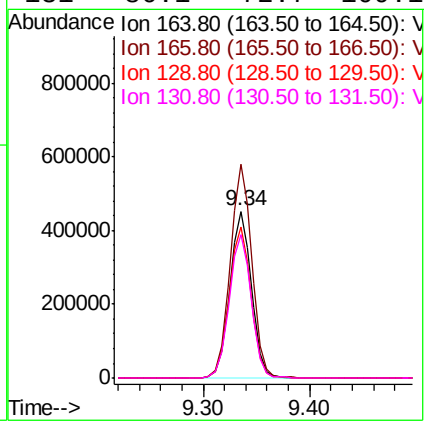
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:22:05 AM

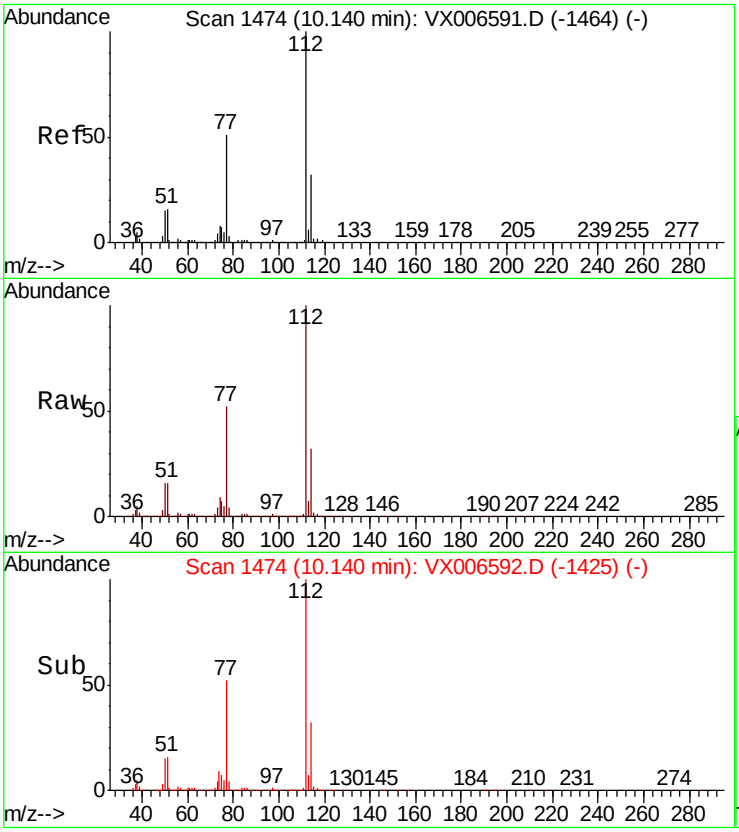


#64
Tetrachloroethene
Concen: 92.840 ug/l
RT: 9.34 min Scan# 1342
Delta R.T. -0.00 min
Lab File: VX006592.D
Acq: 18 Dec 2018 12:31

Tgt Ion:164 Resp: 642921

Ion	Ratio	Lower	Upper
164	100		
166	128.2	102.5	153.7
129	90.4	75.1	112.7
131	86.1	72.7	109.1

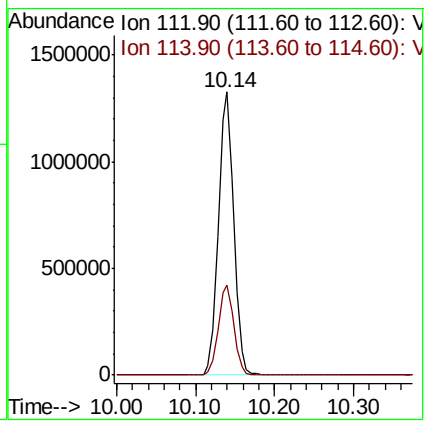




#65
Chlorobenzene
Concen: 97.145 ug/l
RT: 10.14 min Scan# 1474
Delta R.T. -0.00 min
Lab File: VX006592.D
Acq: 18 Dec 2018 12:31

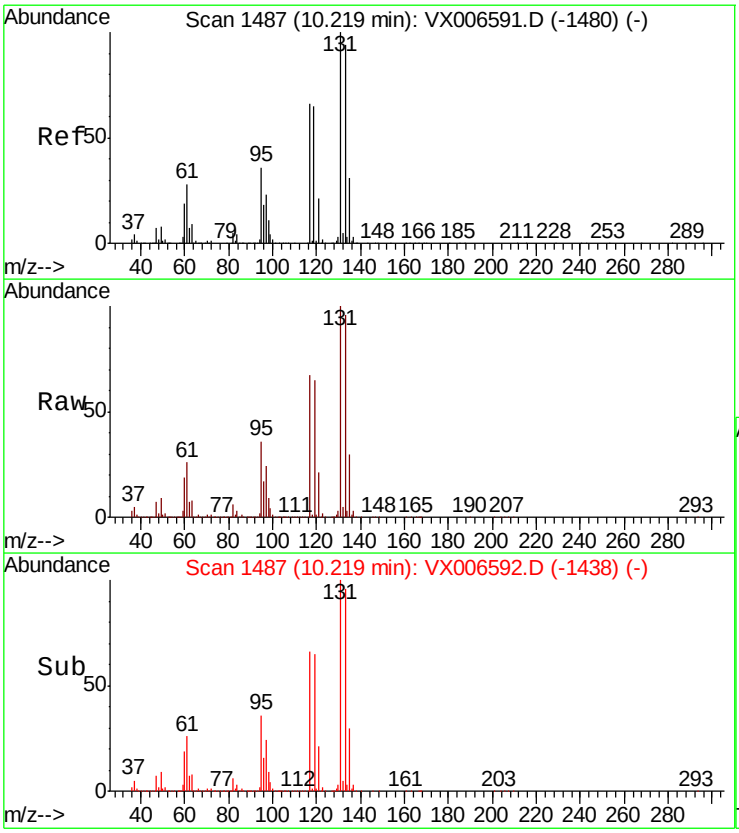
Tgt Ion:112 Resp: 1797353

Ion	Ratio	Lower	Upper
112	100		
114	32.0	25.7	38.5



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC100

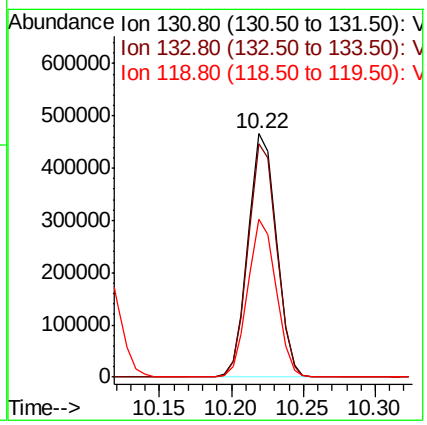
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:22:05 AM

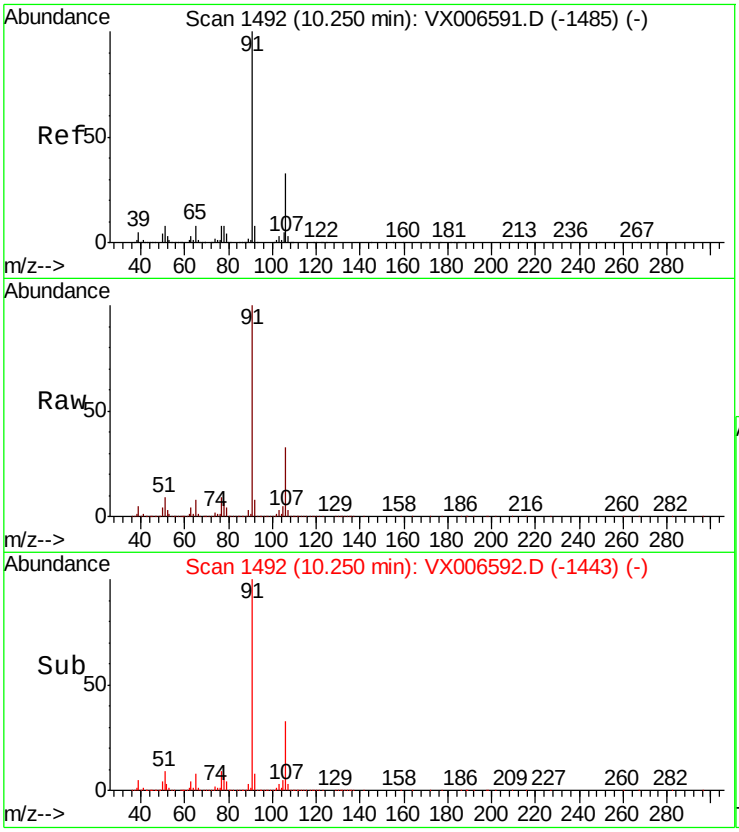


#66
1,1,1,2-Tetrachloroethane
Concen: 109.993 ug/l
RT: 10.22 min Scan# 1487
Delta R.T. -0.00 min
Lab File: VX006592.D
Acq: 18 Dec 2018 12:31

Tgt Ion:131 Resp: 634931

Ion	Ratio	Lower	Upper
131	100		
133	96.8	48.0	144.2
119	64.3	32.6	97.8

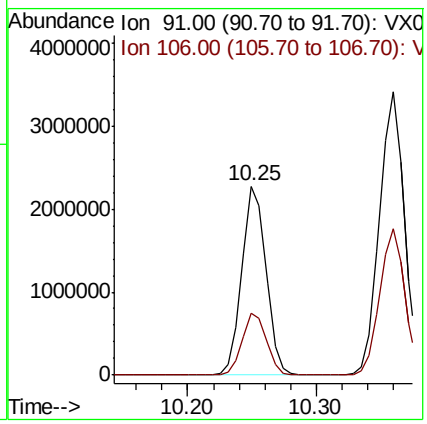




#67
Ethyl Benzene
Concen: 97.851 ug/l
RT: 10.25 min Scan# 1492
Delta R.T. -0.00 min
Lab File: VX006592.D
Acq: 18 Dec 2018 12:31

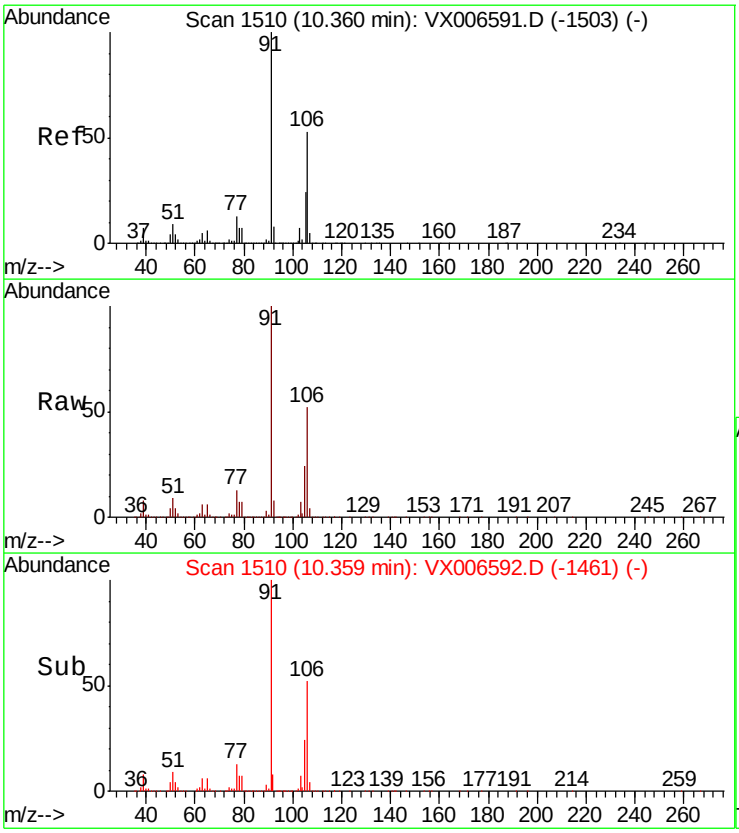
Tgt Ion: 91 Resp: 2958315

Ion	Ratio	Lower	Upper
91	100		
106	32.6	26.4	39.6



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC100

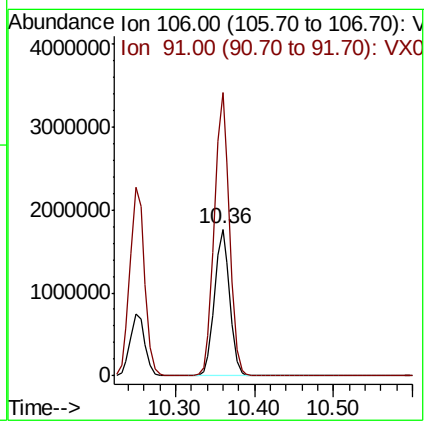
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:22:05 AM

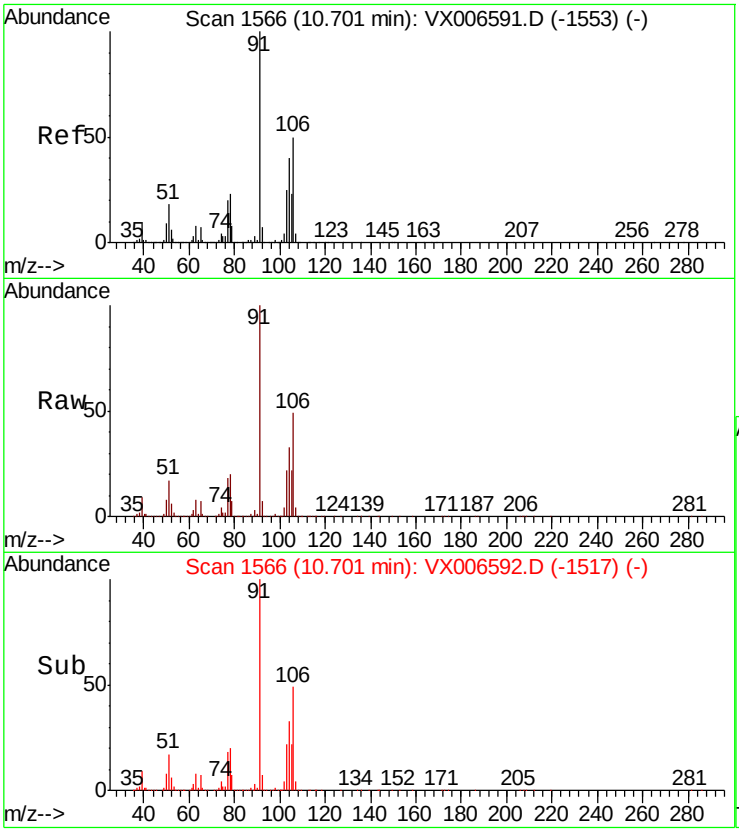


#68
m/p-Xylenes
Concen: 198.396 ug/l
RT: 10.36 min Scan# 1510
Delta R.T. -0.00 min
Lab File: VX006592.D
Acq: 18 Dec 2018 12:31

Tgt Ion:106 Resp: 2366835

Ion	Ratio	Lower	Upper
106	100		
91	192.9	155.8	233.6

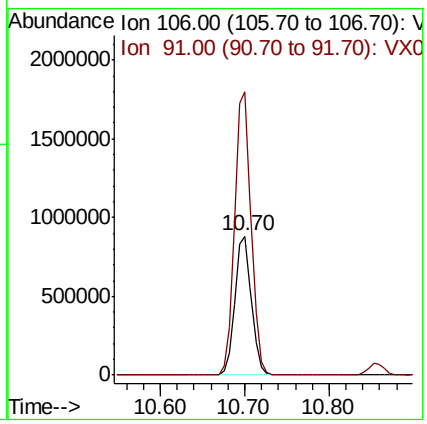




#69
o-Xylene
Concen: 98.552 ug/l
RT: 10.70 min Scan# 1566
Delta R.T. -0.00 min
Lab File: VX006592.D
Acq: 18 Dec 2018 12:31

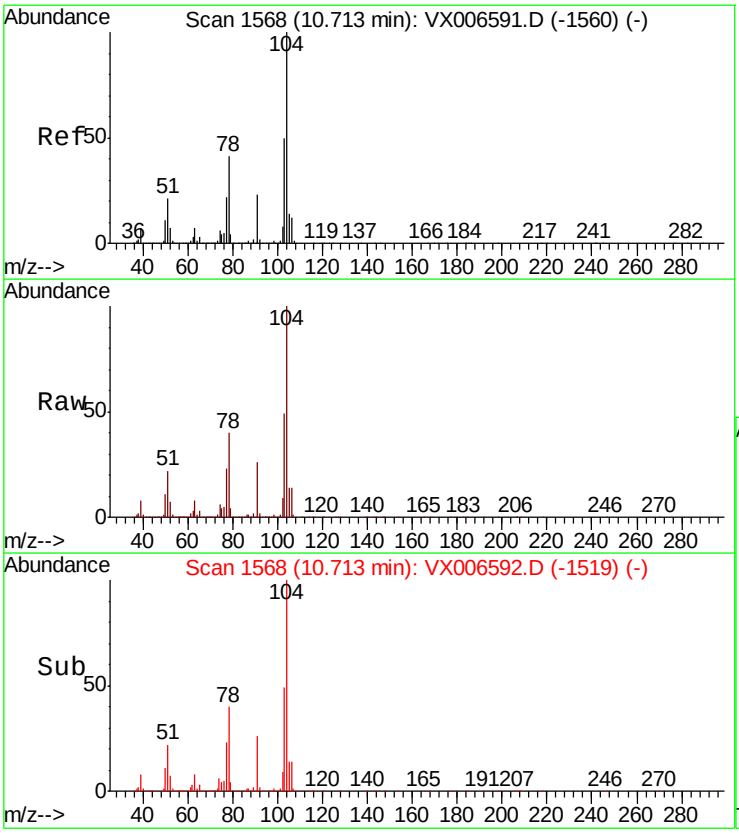
Tgt Ion:106 Resp: 1160986

Ion	Ratio	Lower	Upper
106	100		
91	204.3	101.3	303.7



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC100

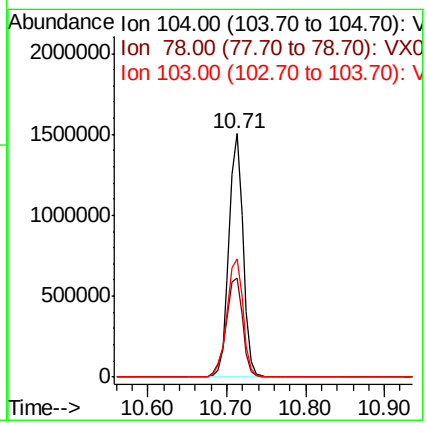
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:22:05 AM

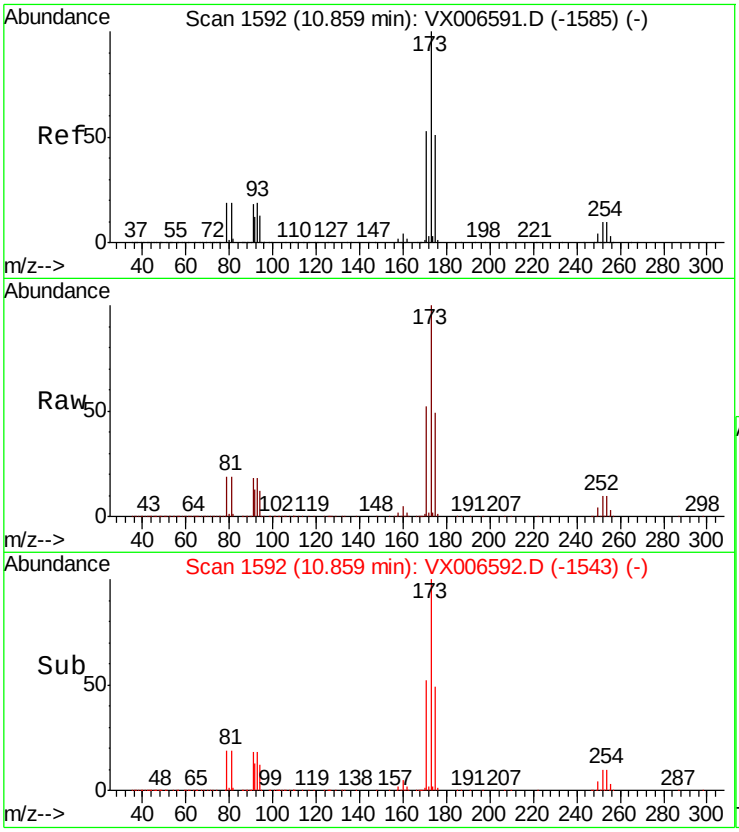


#70
Styrene
Concen: 101.089 ug/l
RT: 10.71 min Scan# 1568
Delta R.T. -0.00 min
Lab File: VX006592.D
Acq: 18 Dec 2018 12:31

Tgt Ion:104 Resp: 1884039

Ion	Ratio	Lower	Upper
104	100		
78	47.2	37.7	56.5
103	55.2	43.8	65.8

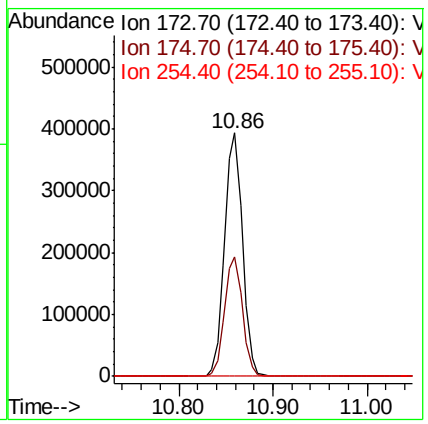




#71
Bromoform
Concen: 118.476 ug/l
RT: 10.86 min Scan# 1592
Delta R.T. -0.00 min
Lab File: VX006592.D
Acq: 18 Dec 2018 12:31

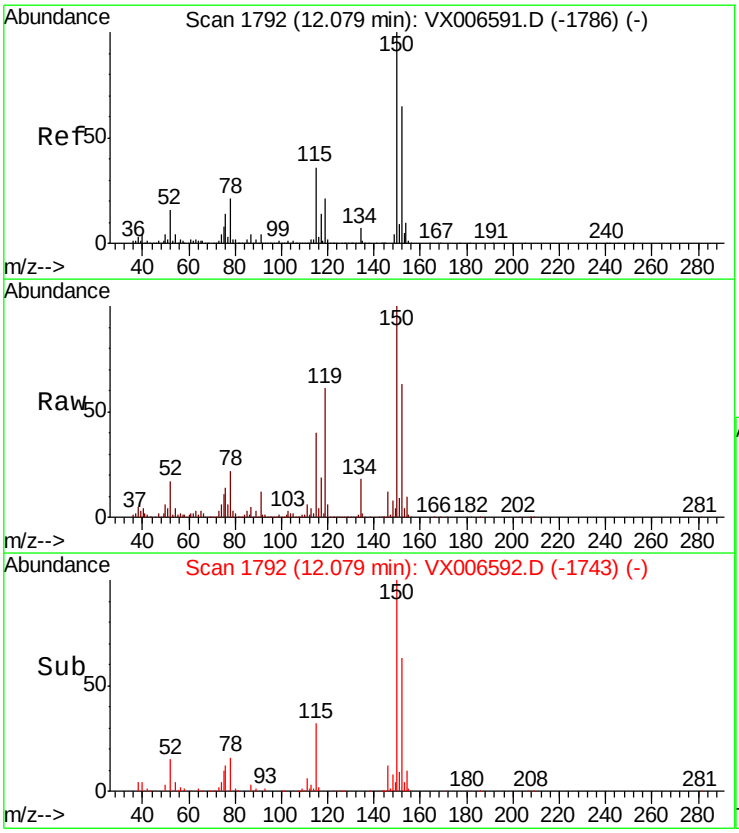
Tgt Ion:173 Resp: 520664

Ion	Ratio	Lower	Upper
173	100		
175	48.8	24.7	74.1
254	0.2	0.2	0.2#



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC100

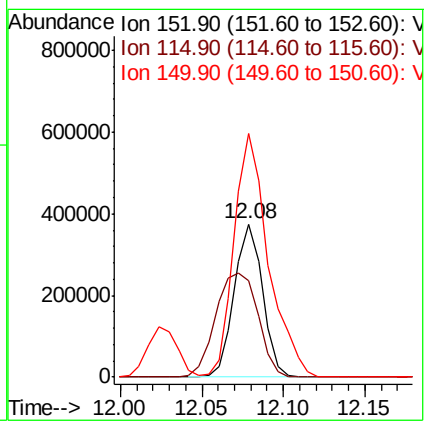
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:22:05 AM

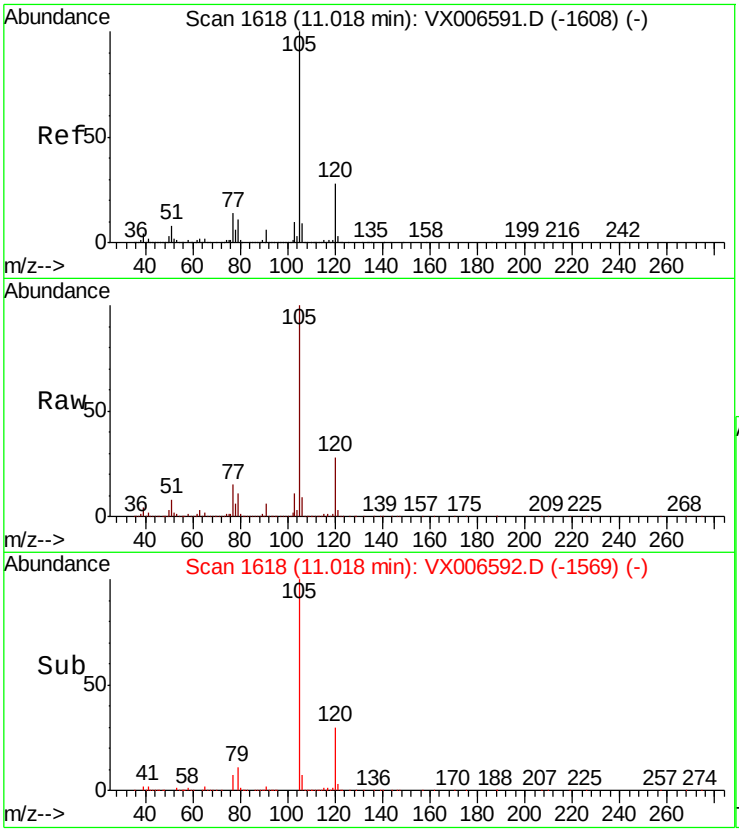


#72
1,4-Dichlorobenzene-d4
Concen: 50.000 ug/l
RT: 12.08 min Scan# 1792
Delta R.T. -0.00 min
Lab File: VX006592.D
Acq: 18 Dec 2018 12:31

Tgt Ion:152 Resp: 453290

Ion	Ratio	Lower	Upper
152	100		
115	101.2	39.1	117.2
150	192.6	0.0	344.8

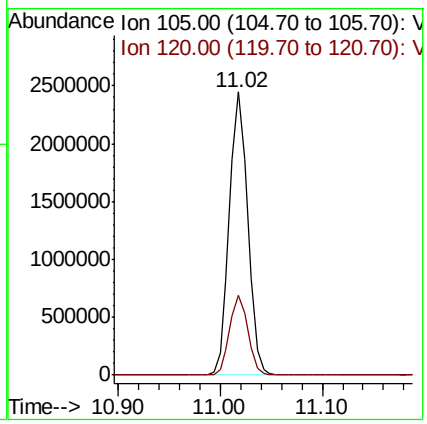




#73
Isopropylbenzene
Concen: 98.380 ug/l
RT: 11.02 min Scan# 1618
Delta R.T. -0.00 min
Lab File: VX006592.D
Acq: 18 Dec 2018 12:31

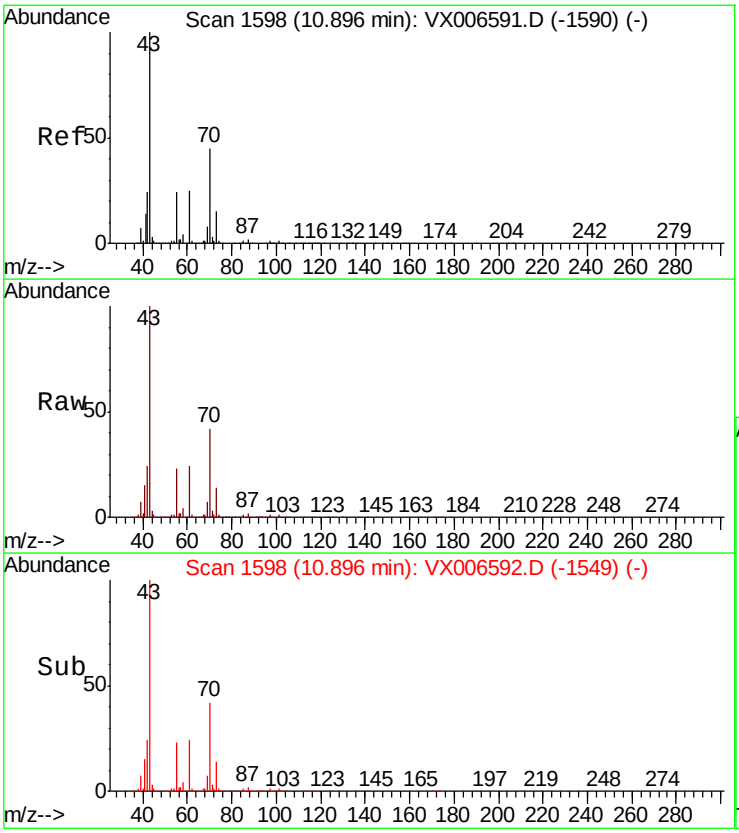
Tgt Ion:105 Resp: 3050808

Ion	Ratio	Lower	Upper
105	100		
120	28.1	14.1	42.4



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC100

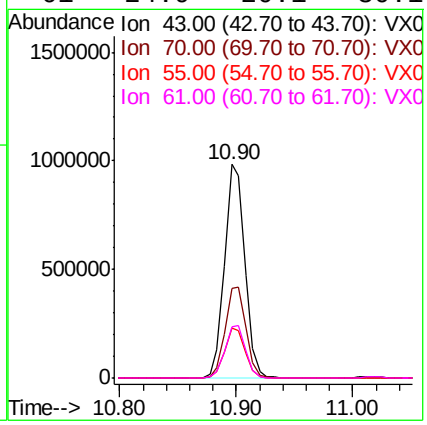
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:22:05 AM

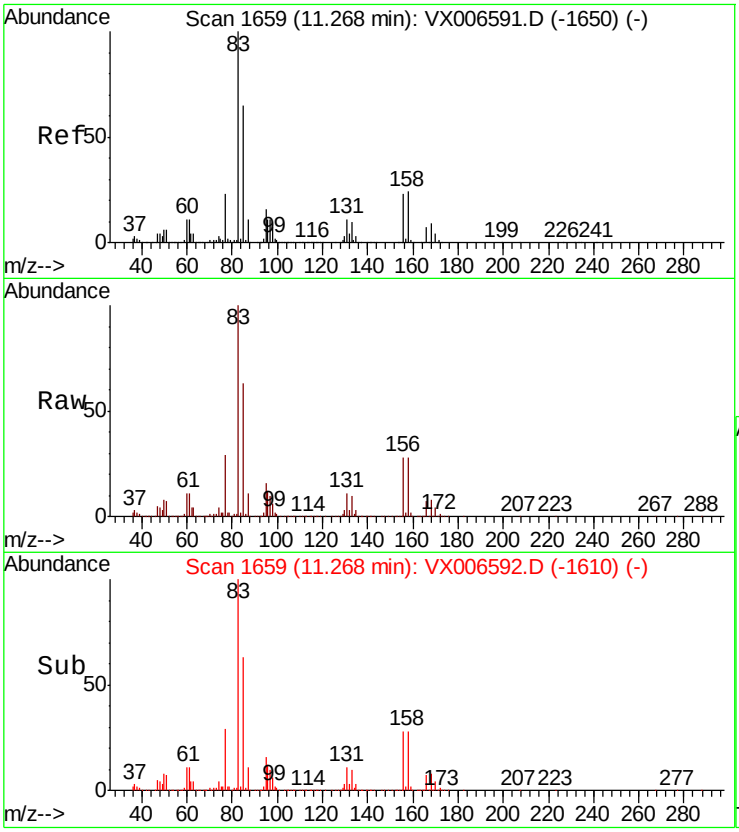


#74
N-amyl acetate
Concen: 106.569 ug/l
RT: 10.90 min Scan# 1598
Delta R.T. -0.00 min
Lab File: VX006592.D
Acq: 18 Dec 2018 12:31

Tgt Ion: 43 Resp: 1182905

Ion	Ratio	Lower	Upper
43	100		
70	43.7	35.8	53.8
55	23.8	19.4	29.0
61	24.9	20.1	30.1

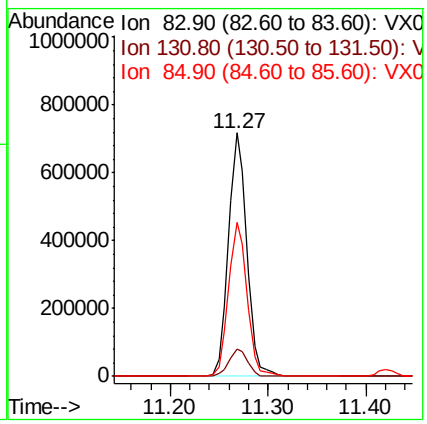




#75
1,1,2,2-Tetrachloroethane
Concen: 101.467 ug/l
RT: 11.27 min Scan# 1659
Delta R.T. -0.00 min
Lab File: VX006592.D
Acq: 18 Dec 2018 12:31

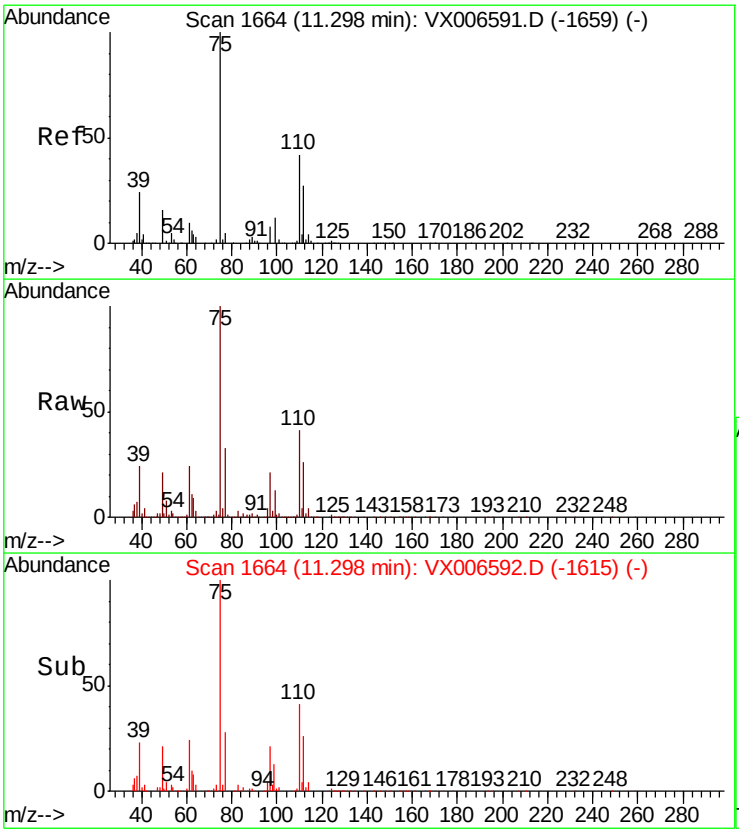
Tgt Ion: 83 Resp: 935786

Ion	Ratio	Lower	Upper
83	100		
131	11.5	5.7	17.1
85	64.1	32.2	96.6



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC100

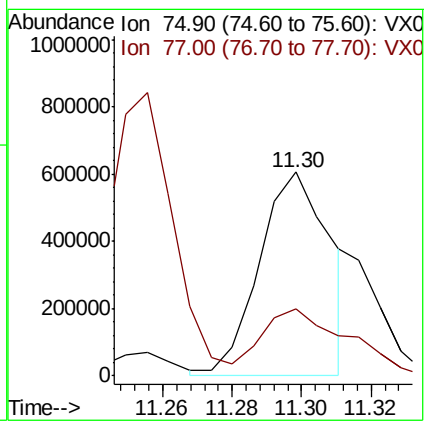
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:22:05 AM



#76
1,2,3-Trichloropropane
Concen: 106.948 ug/l m
RT: 11.30 min Scan# 1664
Delta R.T. -0.00 min
Lab File: VX006592.D
Acq: 18 Dec 2018 12:31

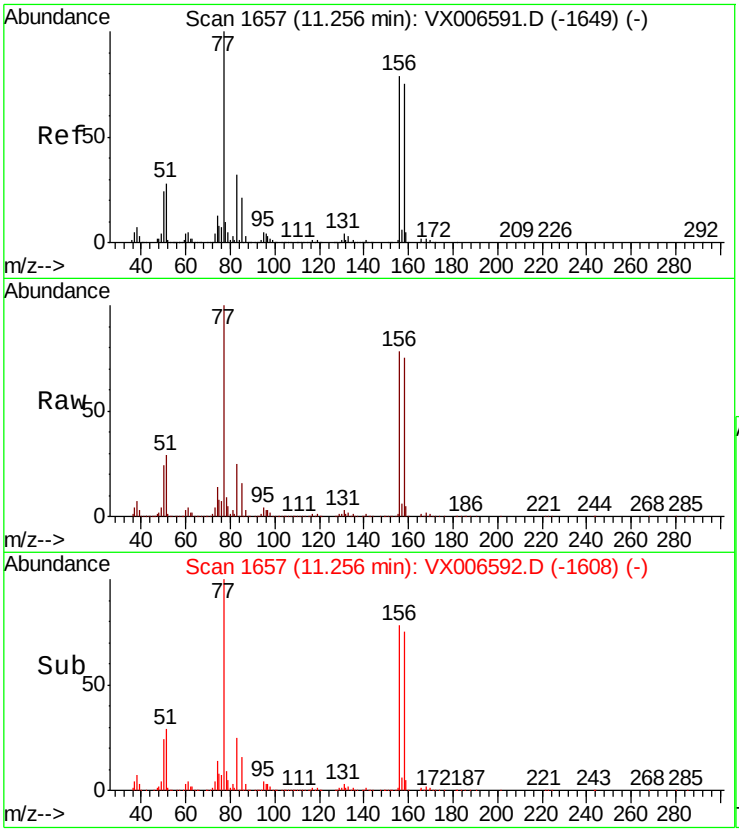
Tgt Ion: 75 Resp: 858776

Ion	Ratio	Lower	Upper
75	100		
77	39.8	18.5	55.5



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC100

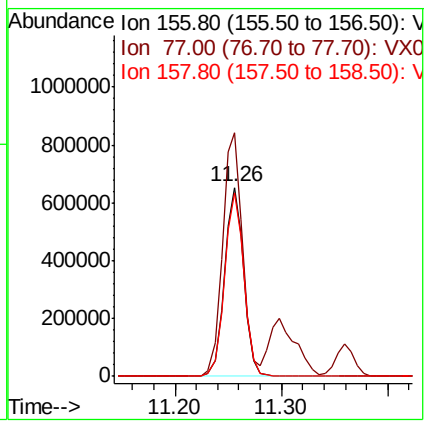
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:22:05 AM

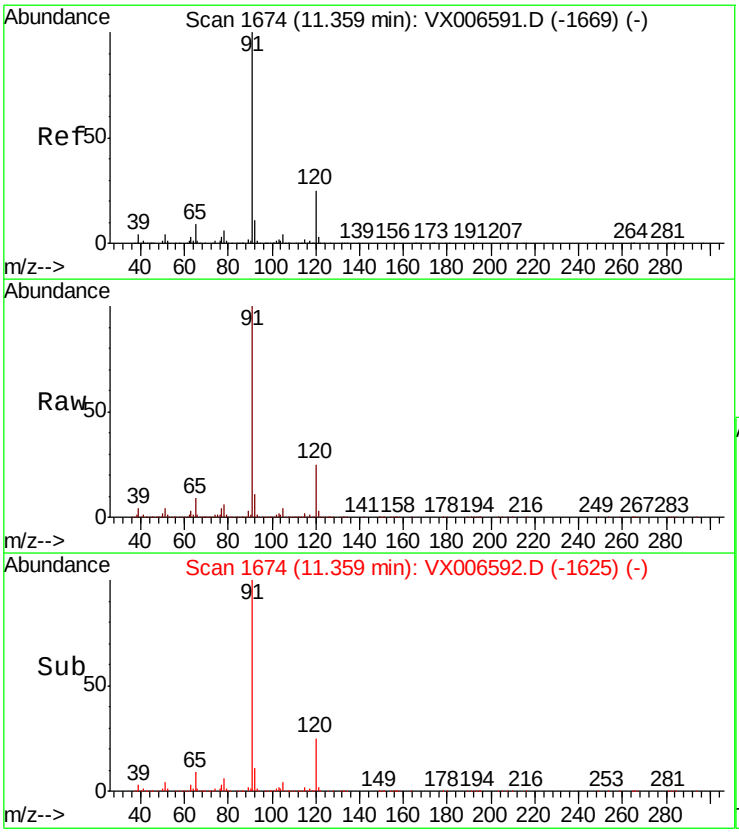


#77
Bromobenzene
Concen: 97.866 ug/l
RT: 11.26 min Scan# 1657
Delta R.T. -0.00 min
Lab File: VX006592.D
Acq: 18 Dec 2018 12:31

Tgt Ion:156 Resp: 820490

Ion	Ratio	Lower	Upper
156	100		
77	133.7	68.0	204.0
158	97.8	48.3	144.8

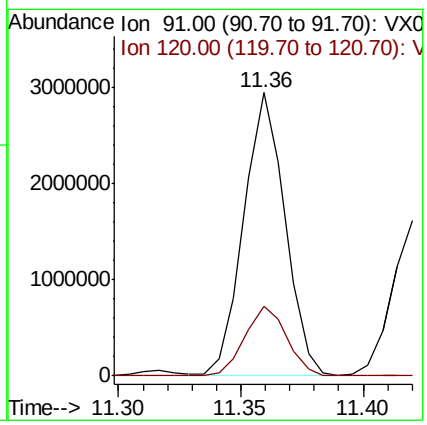


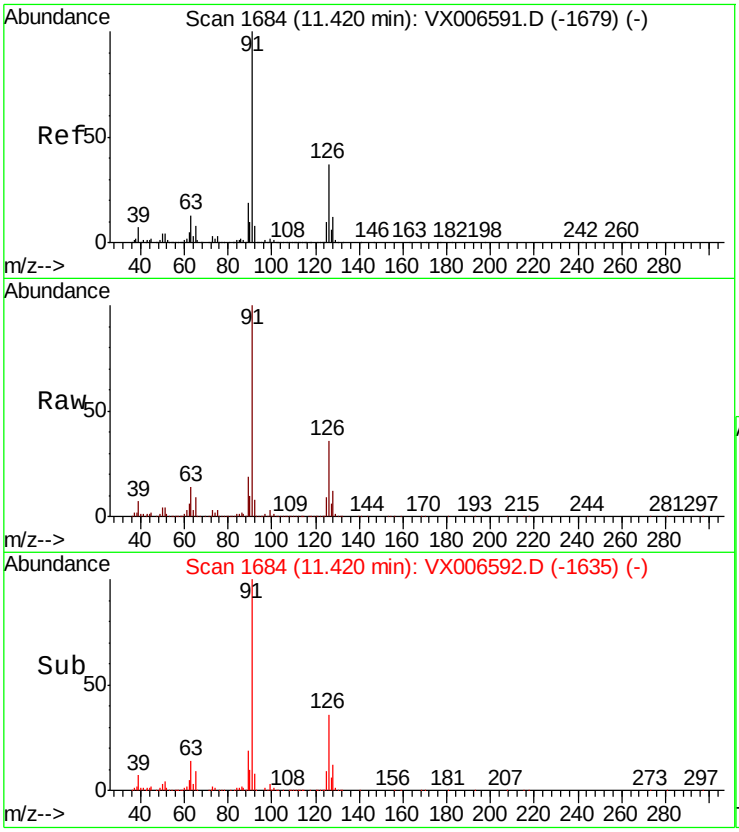


#78
n-propylbenzene
Concen: 100.546 ug/l
RT: 11.36 min Scan# 1674
Delta R.T. -0.00 min
Lab File: VX006592.D
Acq: 18 Dec 2018 12:31

Tgt Ion: 91 Resp: 3433536

Ion	Ratio	Lower	Upper
91	100		
120	25.1	12.7	38.0

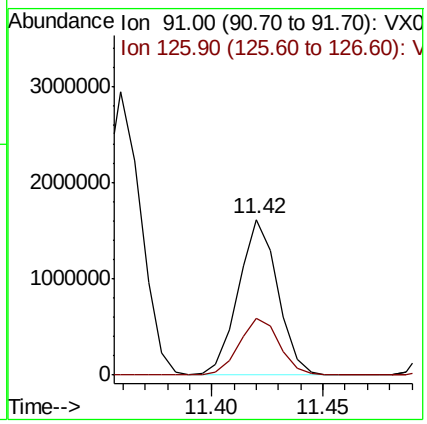




#79
2-Chlorotoluene
Concen: 95.510 ug/l
RT: 11.42 min Scan# 1684
Delta R.T. -0.00 min
Lab File: VX006592.D
Acq: 18 Dec 2018 12:31

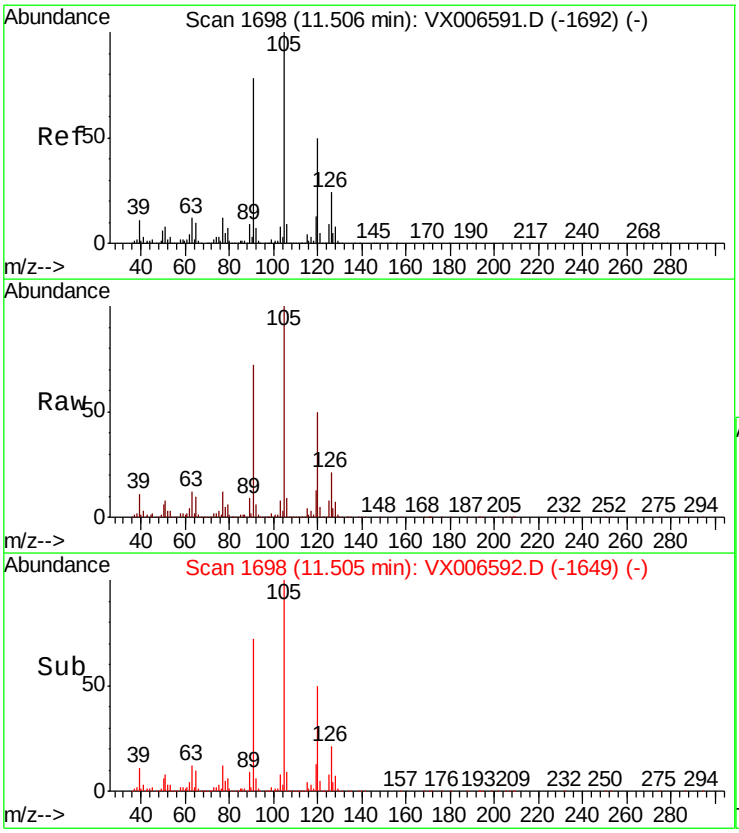
Tgt Ion: 91 Resp: 1976527

Ion	Ratio	Lower	Upper
91	100		
126	37.6	18.6	56.0



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC100

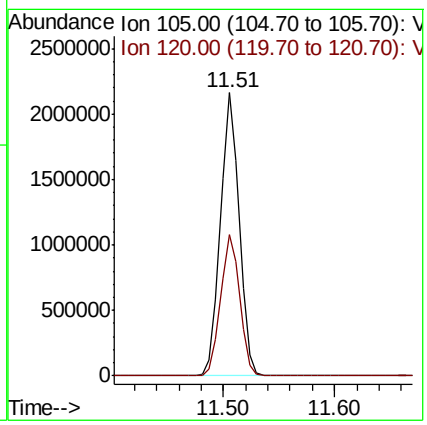
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:22:05 AM

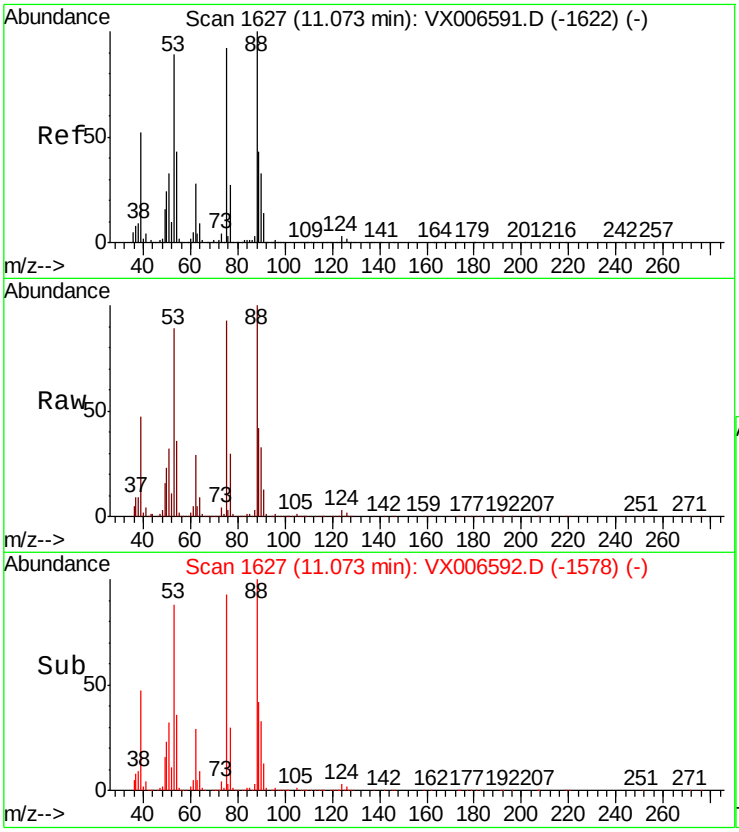


#80
1,3,5-Trimethylbenzene
Concen: 98.695 ug/l
RT: 11.51 min Scan# 1698
Delta R.T. -0.00 min
Lab File: VX006592.D
Acq: 18 Dec 2018 12:31

Tgt Ion:105 Resp: 2520899

Ion	Ratio	Lower	Upper
105	100		
120	50.6	25.1	75.3

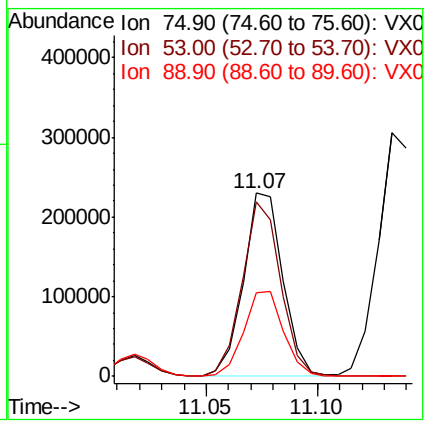




#81
trans-1,4-Dichloro-2-butene
Concen: 121.061 ug/l
RT: 11.07 min Scan# 1627
Delta R.T. -0.00 min
Lab File: VX006592.D
Acq: 18 Dec 2018 12:31

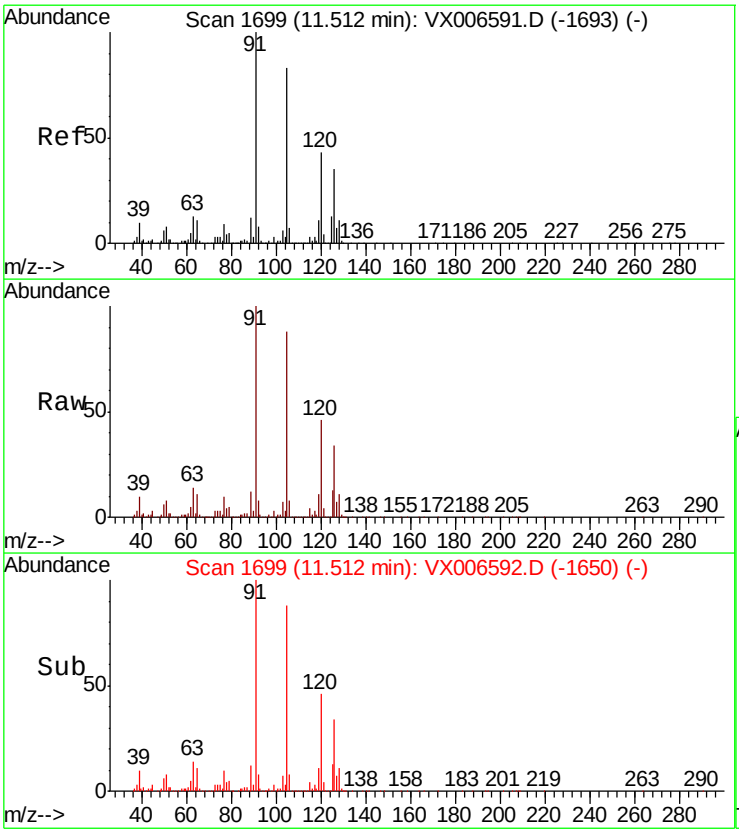
Tgt Ion: 75 Resp: 284714

Ion	Ratio	Lower	Upper
75	100		
53	92.6	79.7	119.5
89	46.9	38.0	57.0



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC100

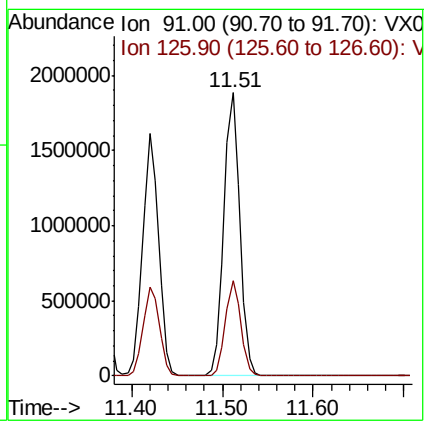
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:22:05 AM

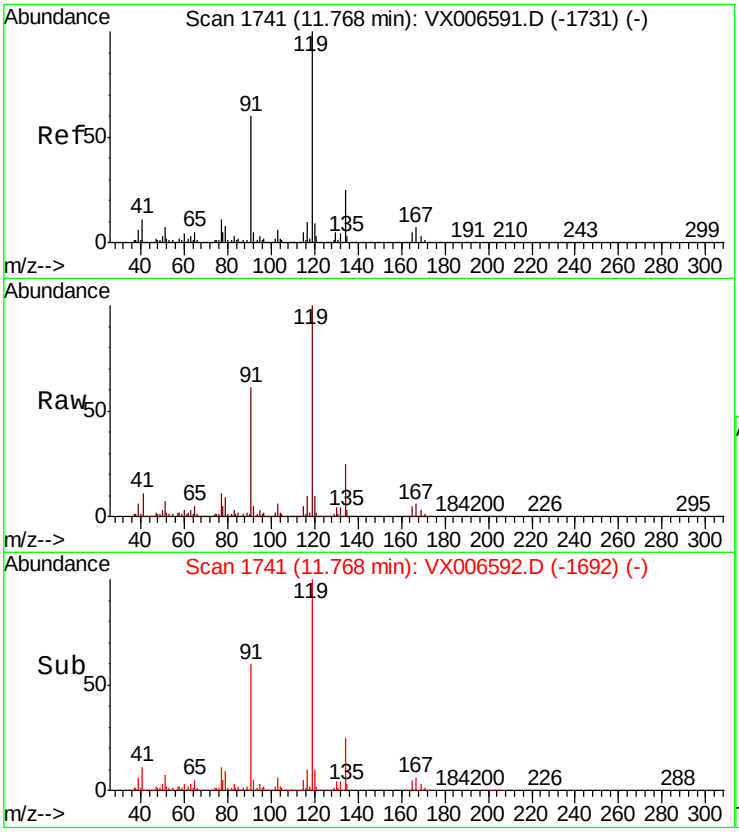


#82
4-Chlorotoluene
Concen: 97.899 ug/l
RT: 11.51 min Scan# 1699
Delta R.T. -0.00 min
Lab File: VX006592.D
Acq: 18 Dec 2018 12:31

Tgt Ion: 91 Resp: 2323933

Ion	Ratio	Lower	Upper
91	100		
126	32.5	16.3	48.9

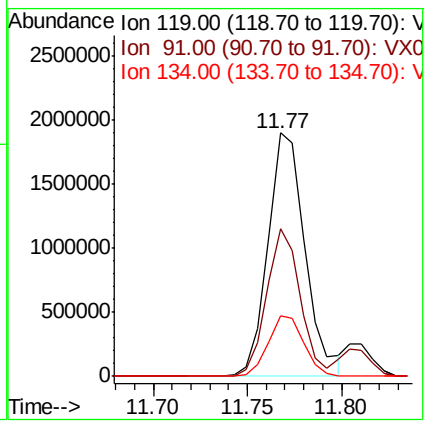




#83
tert-Butylbenzene
Concen: 101.535 ug/l
RT: 11.77 min Scan# 1741
Delta R.T. -0.00 min
Lab File: VX006592.D
Acq: 18 Dec 2018 12:31

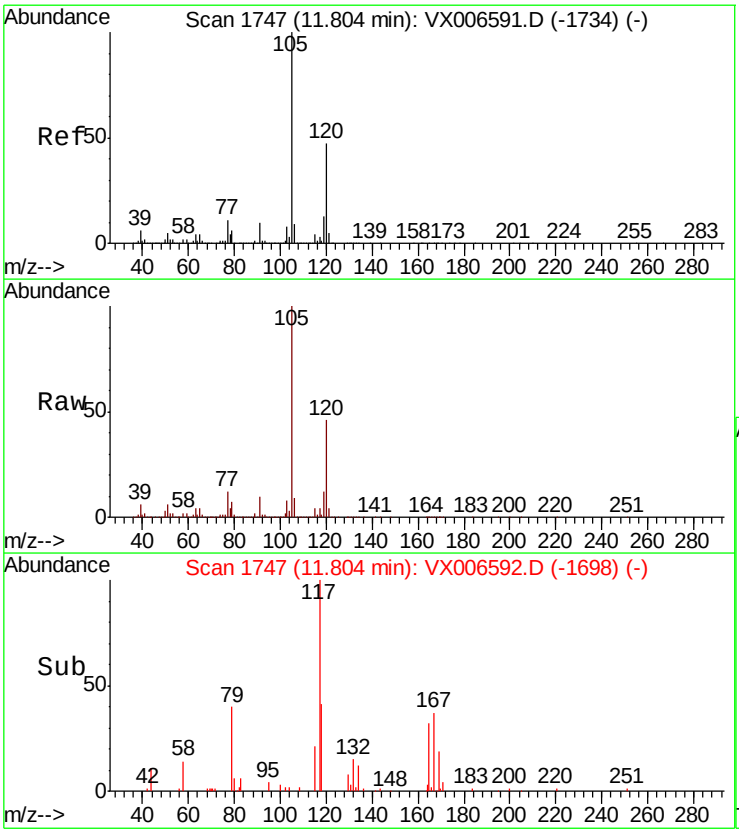
Tgt Ion:119 Resp: 2595611

Ion	Ratio	Lower	Upper
119	100		
91	54.7	27.7	83.1
134	24.0	11.9	35.5



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC100

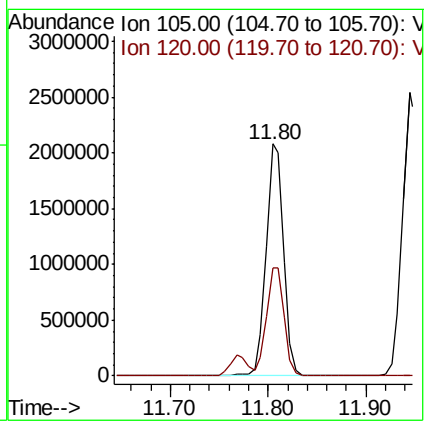
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:22:05 AM

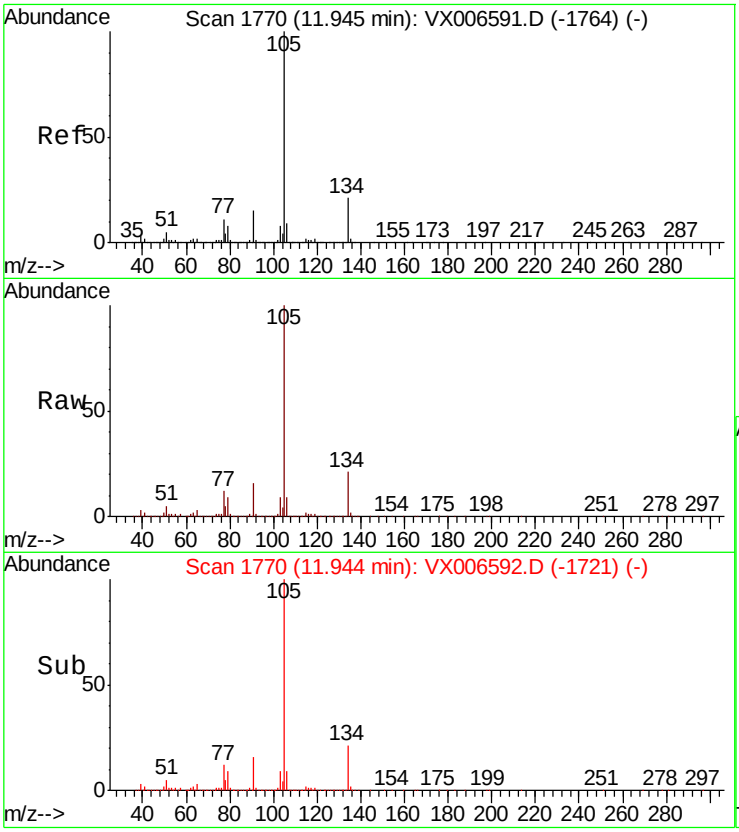


#84
1,2,4-Trimethylbenzene
Concen: 96.498 ug/l
RT: 11.80 min Scan# 1747
Delta R.T. -0.00 min
Lab File: VX006592.D
Acq: 18 Dec 2018 12:31

Tgt Ion:105 Resp: 2592529

Ion	Ratio	Lower	Upper
105	100		
120	46.8	23.2	69.6

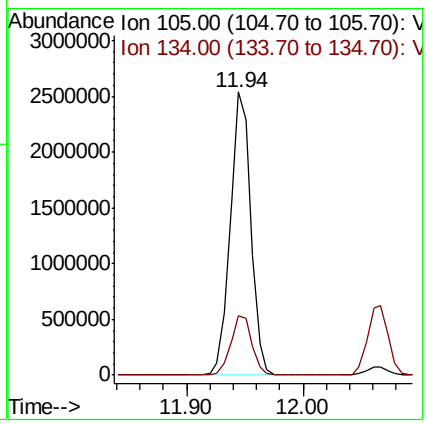




#85
sec-Butylbenzene
Concen: 99.231 ug/l
RT: 11.94 min Scan# 1770
Delta R.T. -0.00 min
Lab File: VX006592.D
Acq: 18 Dec 2018 12:31

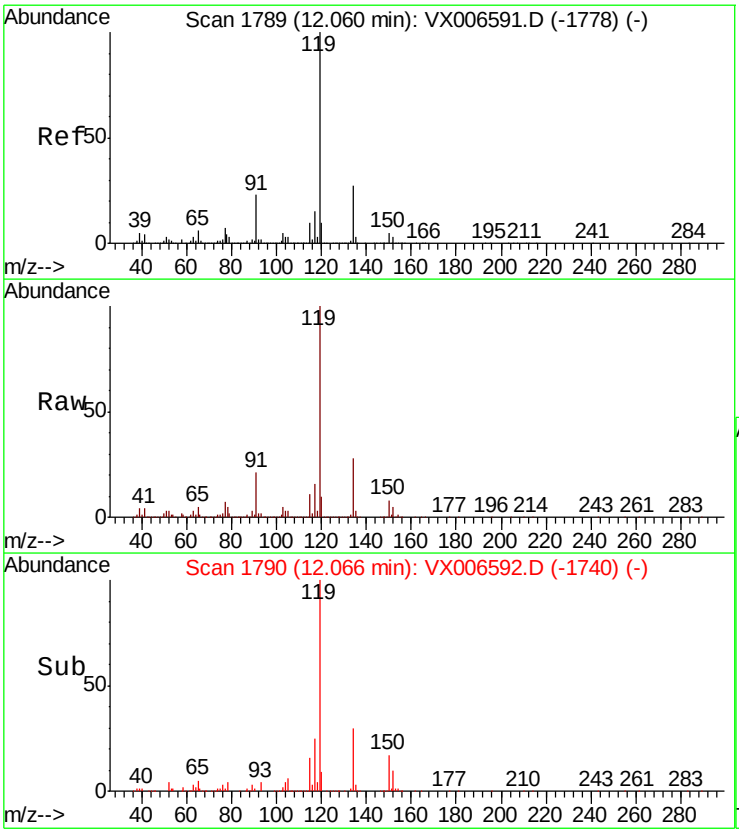
Tgt Ion:105 Resp: 3110162

Ion	Ratio	Lower	Upper
105	100		
134	21.4	10.7	31.9



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC100

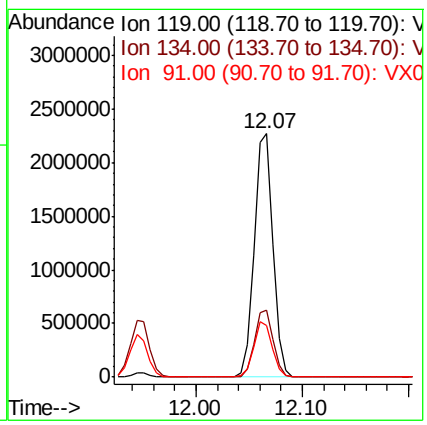
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:22:05 AM

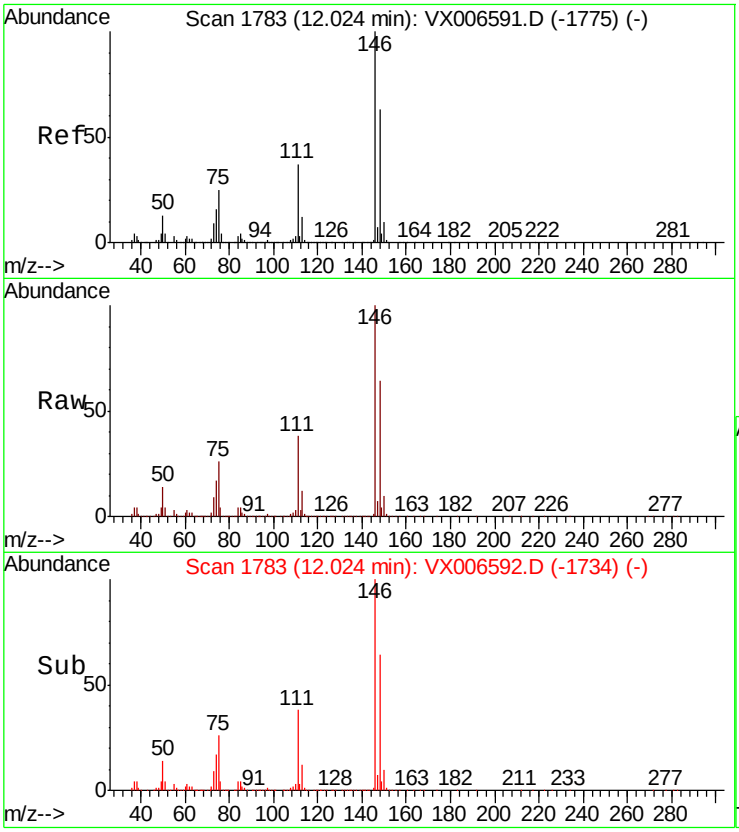


#86
p-Isopropyltoluene
Concen: 101.467 ug/l
RT: 12.07 min Scan# 1790
Delta R.T. 0.01 min
Lab File: VX006592.D
Acq: 18 Dec 2018 12:31

Tgt Ion:119 Resp: 2795553

Ion	Ratio	Lower	Upper
119	100		
134	27.5	14.0	41.9
91	22.4	11.3	33.9

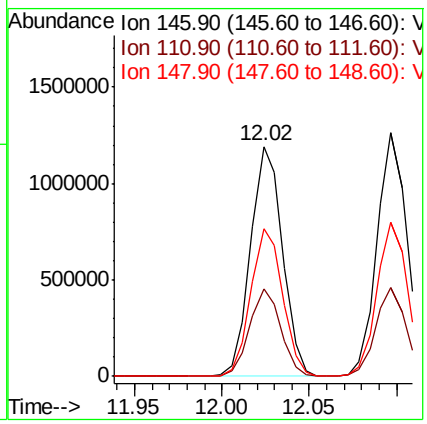




#87
1,3-Dichlorobenzene
Concen: 100.145 ug/l
RT: 12.02 min Scan# 1783
Delta R.T. -0.00 min
Lab File: VX006592.D
Acq: 18 Dec 2018 12:31

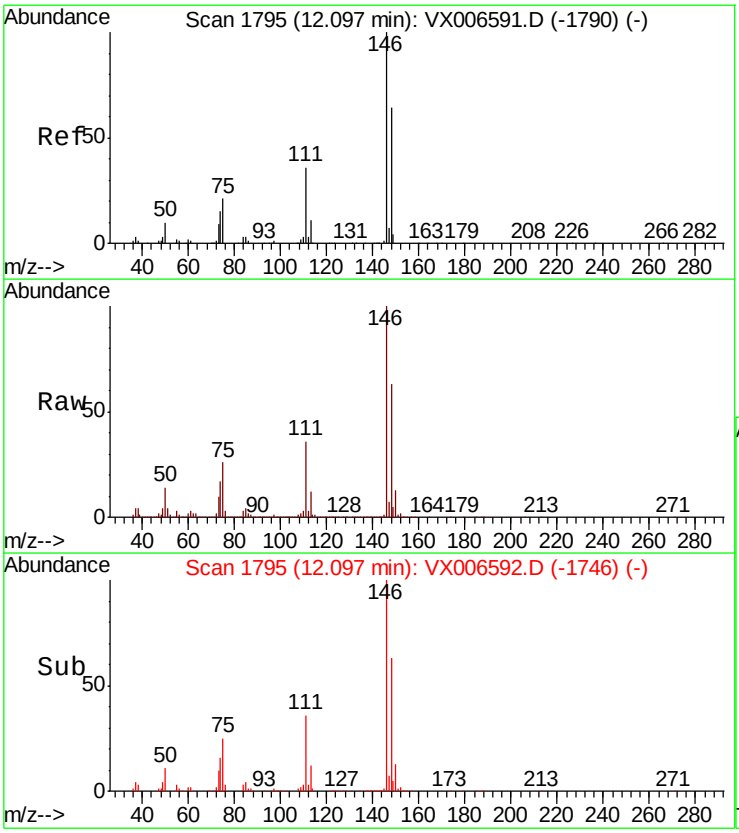
Tgt Ion:146 Resp: 1513159

Ion	Ratio	Lower	Upper
146	100		
111	37.1	18.6	55.8
148	64.2	31.8	95.3



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC100

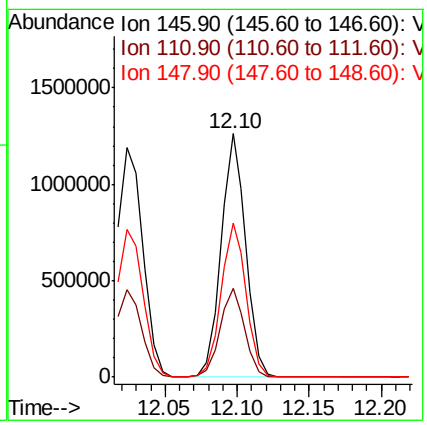
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:22:05 AM

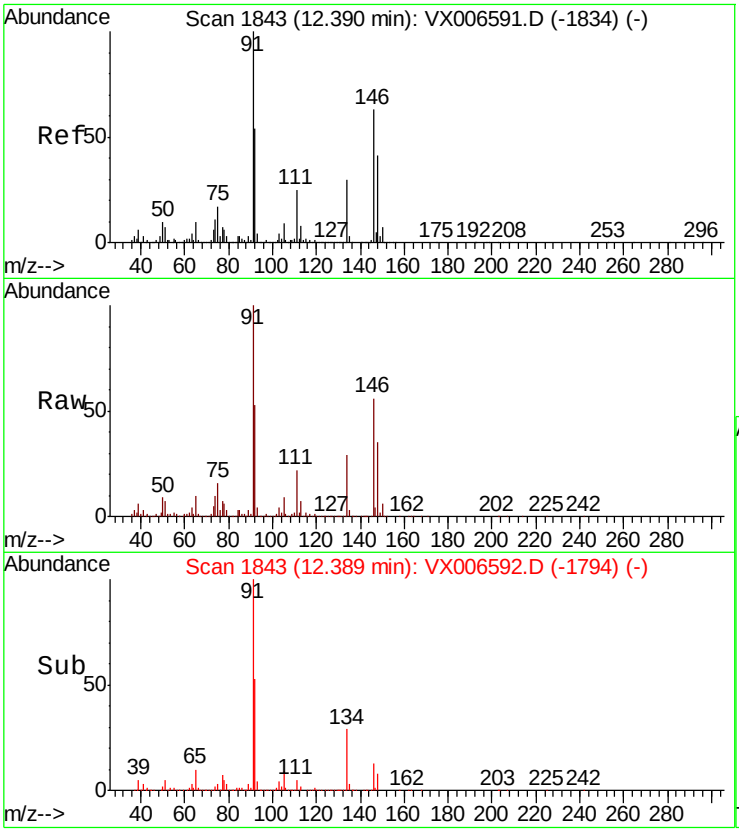


#88
1,4-Dichlorobenzene
Concen: 97.362 ug/l
RT: 12.10 min Scan# 1795
Delta R.T. -0.00 min
Lab File: VX006592.D
Acq: 18 Dec 2018 12:31

Tgt Ion:146 Resp: 1509885

Ion	Ratio	Lower	Upper
146	100		
111	36.4	18.1	54.1
148	64.5	31.9	95.9

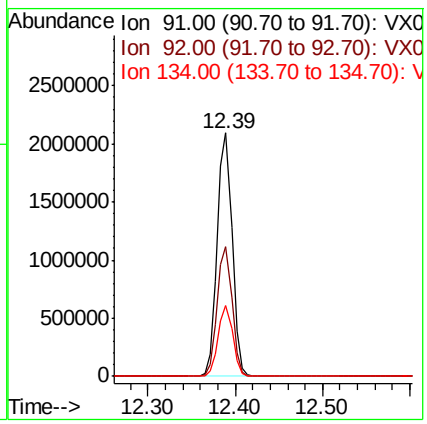




#89
n-Butylbenzene
Concen: 104.598 ug/l
RT: 12.39 min Scan# 1843
Delta R.T. -0.00 min
Lab File: VX006592.D
Acq: 18 Dec 2018 12:31

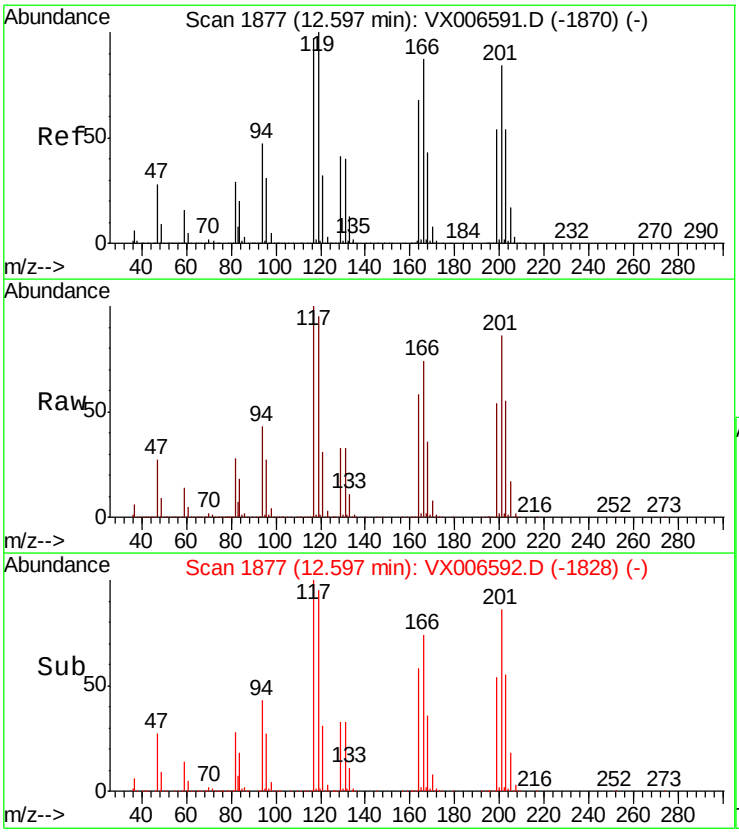
Tgt Ion: 91 Resp: 2452564

Ion	Ratio	Lower	Upper
91	100		
92	53.0	26.8	80.4
134	28.8	14.4	43.2



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC100

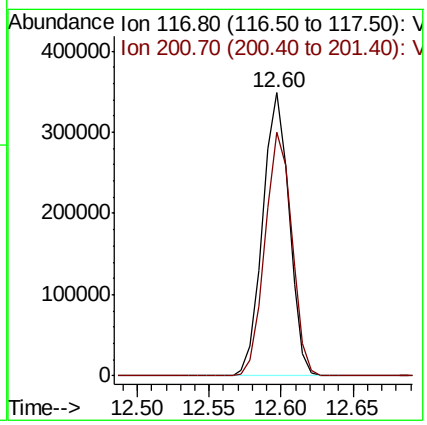
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:22:05 AM

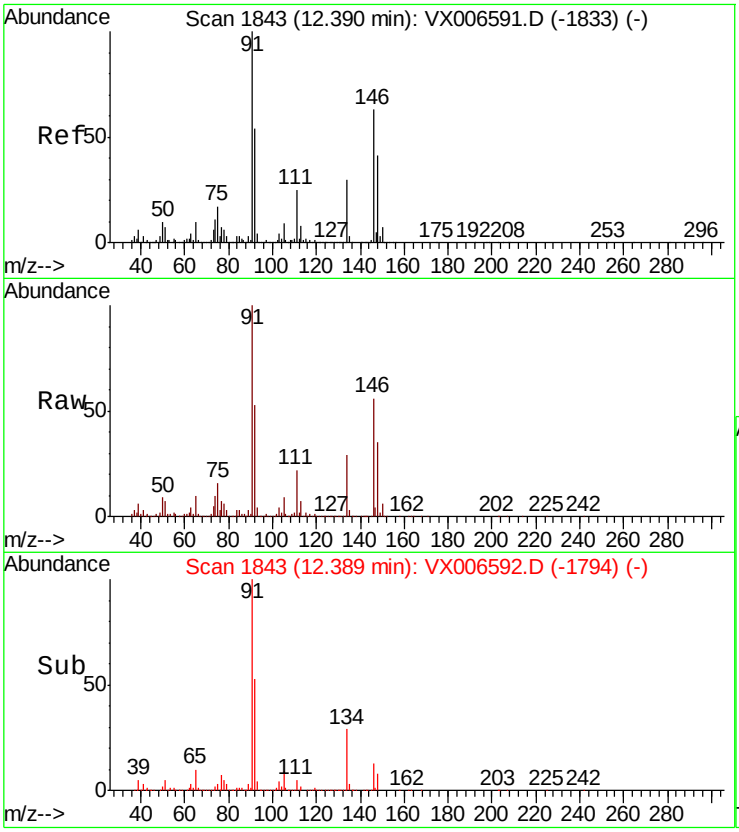


#90
Hexachloroethane
Concen: 117.791 ug/l
RT: 12.60 min Scan# 1877
Delta R.T. -0.00 min
Lab File: VX006592.D
Acq: 18 Dec 2018 12:31

Tgt Ion:117 Resp: 442082

Ion	Ratio	Lower	Upper
117	100		
201	87.4	42.9	128.7

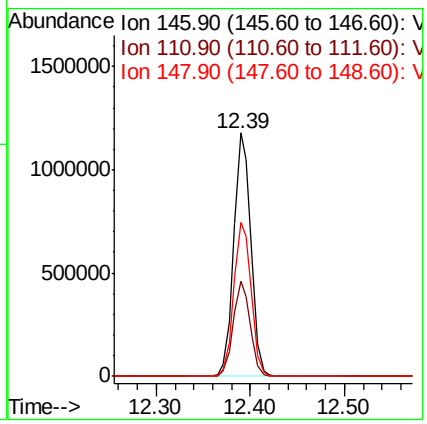




#91
1,2-Dichlorobenzene
Concen: 97.573 ug/l
RT: 12.39 min Scan# 1843
Delta R.T. -0.00 min
Lab File: VX006592.D
Acq: 18 Dec 2018 12:31

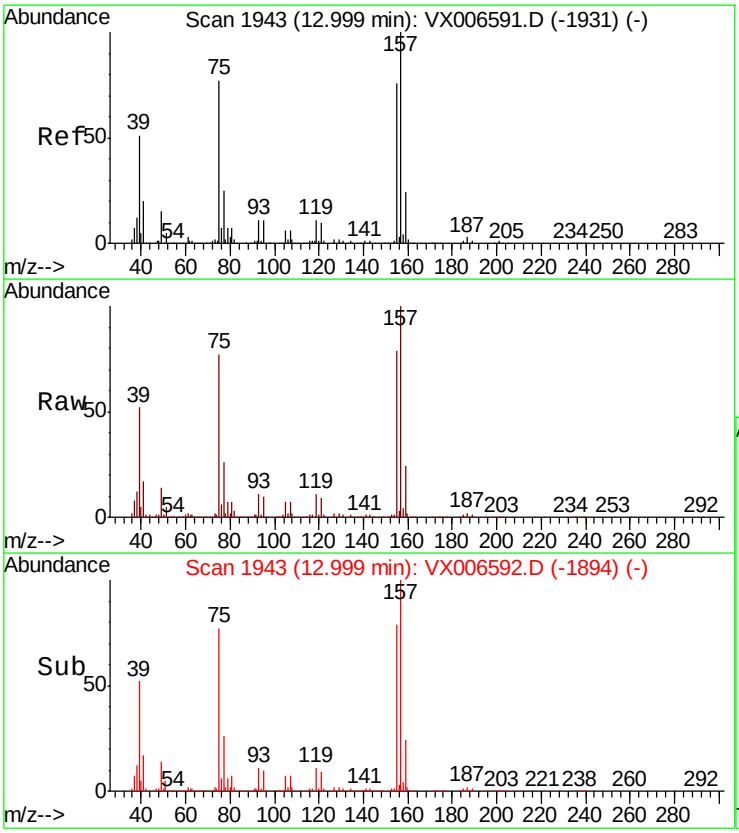
Tgt Ion:146 Resp: 1474812

Ion	Ratio	Lower	Upper
146	100		
111	38.5	19.4	58.2
148	64.1	32.3	96.9



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC100

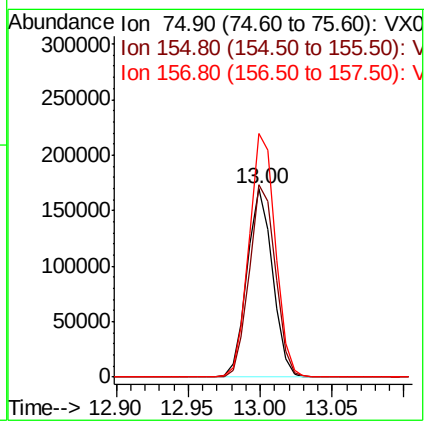
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:22:05 AM

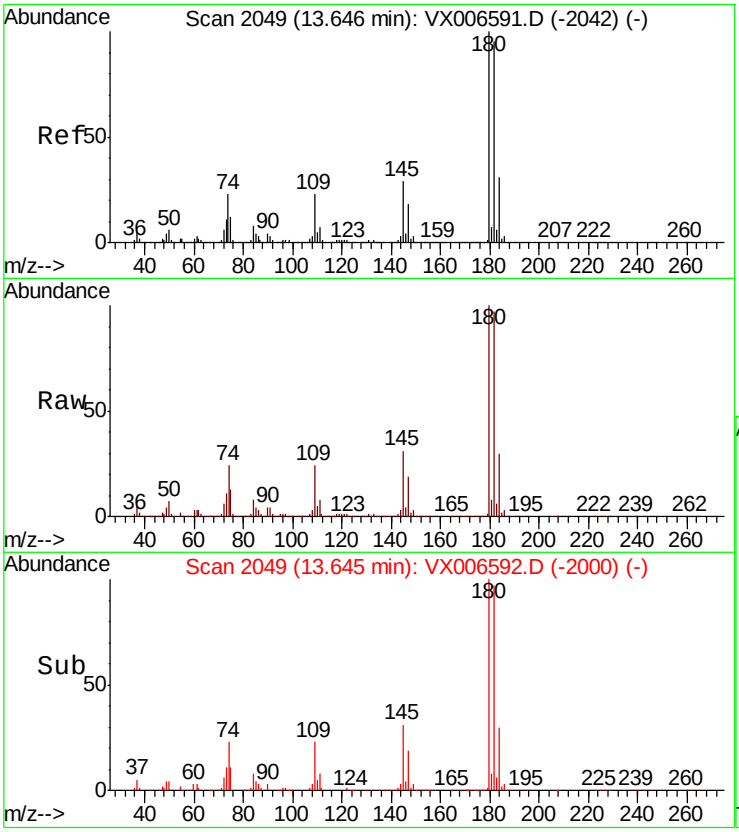


#92
1,2-Dibromo-3-Chloropropane
Concen: 108.582 ug/l
RT: 13.00 min Scan# 1943
Delta R.T. -0.00 min
Lab File: VX006592.D
Acq: 18 Dec 2018 12:31

Tgt Ion: 75 Resp: 207204

Ion	Ratio	Lower	Upper
75	100		
155	104.0	50.6	151.8
157	132.7	64.6	193.8

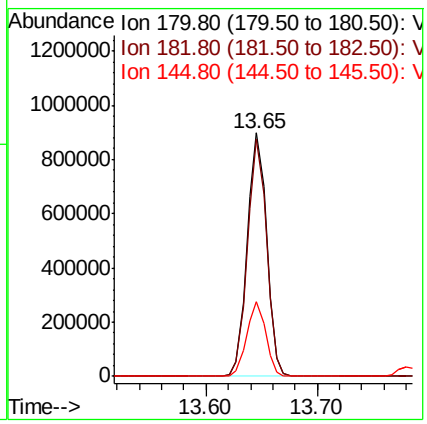




#93
1,2,4-Trichlorobenzene
Concen: 104.104 ug/l
RT: 13.65 min Scan# 2049
Delta R.T. -0.00 min
Lab File: VX006592.D
Acq: 18 Dec 2018 12:31

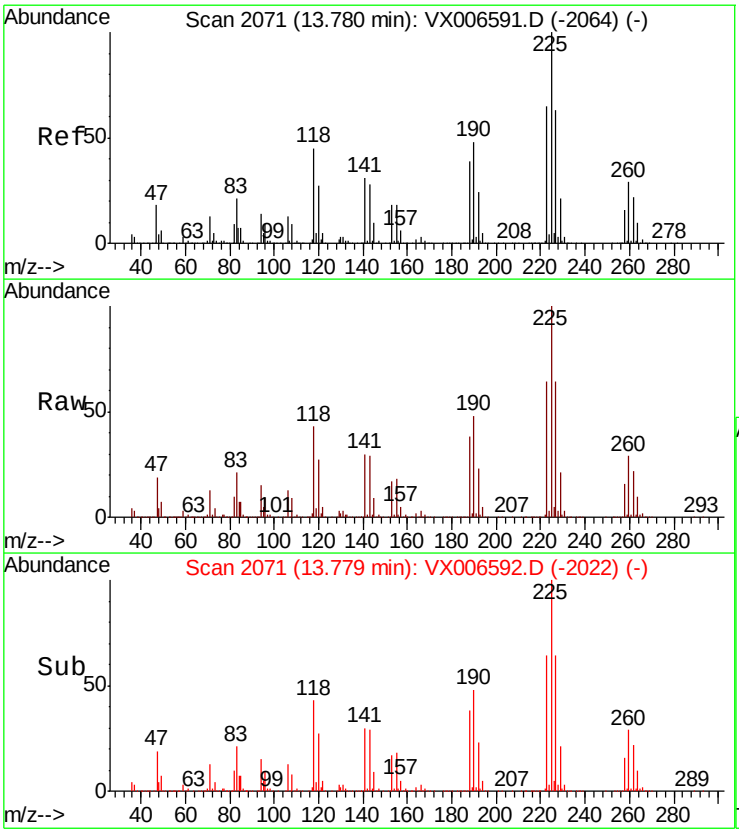
Tgt Ion:180 Resp: 1085409

Ion	Ratio	Lower	Upper
180	100		
182	96.0	47.3	142.0
145	30.0	14.8	44.3



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC100

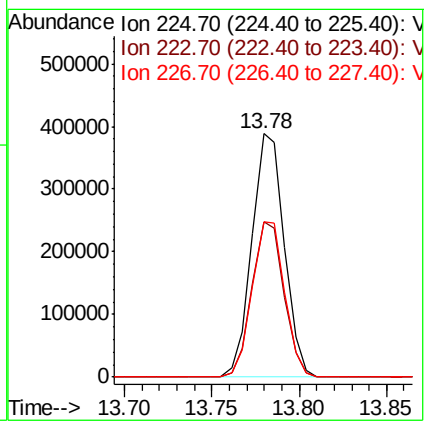
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:22:05 AM

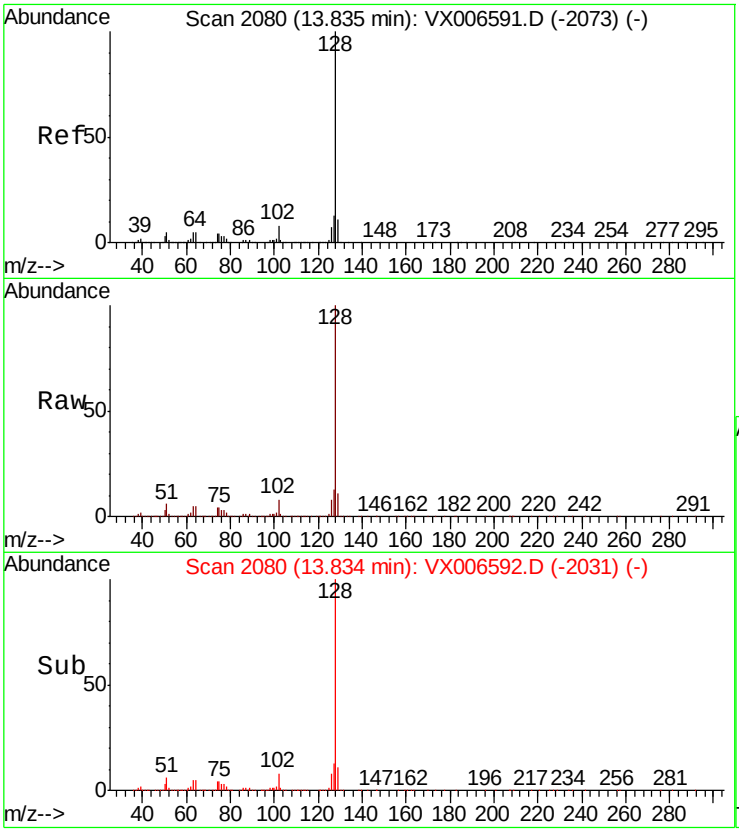


#94
Hexachlorobutadiene
Concen: 101.522 ug/l
RT: 13.78 min Scan# 2071
Delta R.T. -0.00 min
Lab File: VX006592.D
Acq: 18 Dec 2018 12:31

Tgt Ion:225 Resp: 498913

Ion	Ratio	Lower	Upper
225	100		
223	63.1	32.1	96.3
227	64.1	32.3	96.8

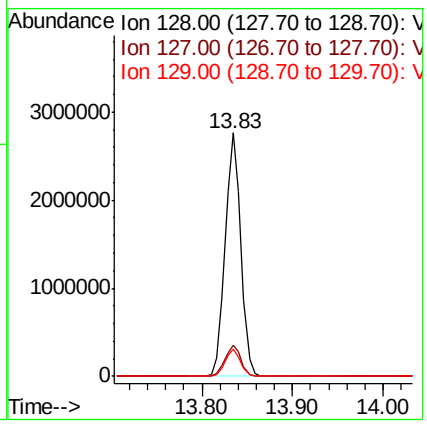




#95
Naphthalene
Concen: 100.781 ug/l
RT: 13.83 min Scan# 2080
Delta R.T. -0.00 min
Lab File: VX006592.D
Acq: 18 Dec 2018 12:31

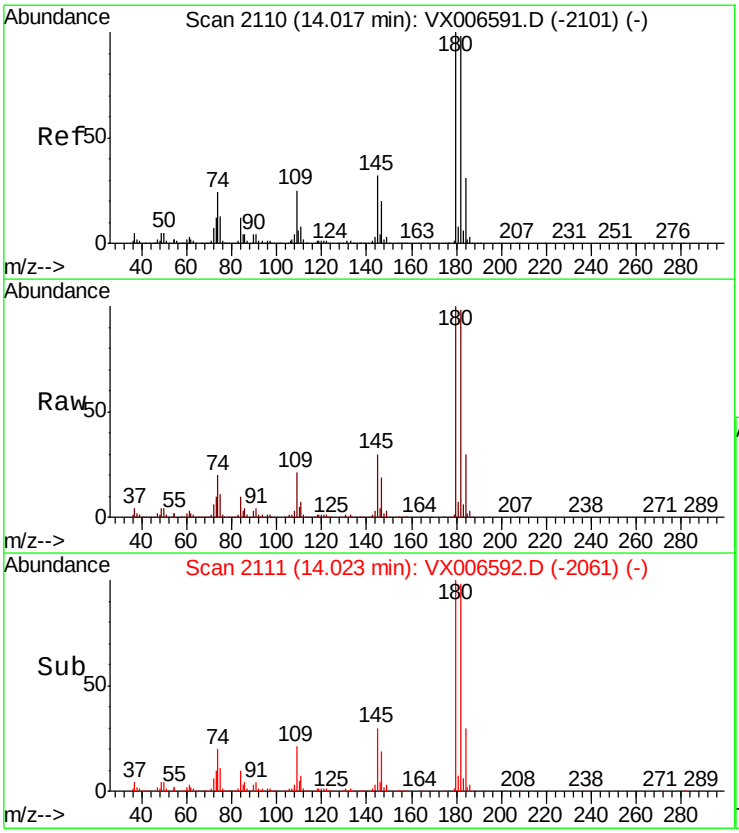
Tgt Ion:128 Resp: 3353687

Ion	Ratio	Lower	Upper
128	100		
127	13.1	10.1	15.1
129	10.9	8.6	13.0



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC100

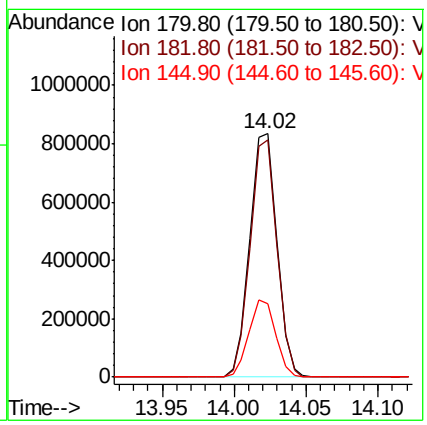
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:22:05 AM



#96
1,2,3-Trichlorobenzene
Concen: 100.511 ug/l
RT: 14.02 min Scan# 2111
Delta R.T. 0.01 min
Lab File: VX006592.D
Acq: 18 Dec 2018 12:31

Tgt Ion:180 Resp: 1081997

Ion	Ratio	Lower	Upper
180	100		
182	96.4	48.5	145.5
145	31.3	16.0	47.9



ICAL Form

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX121818\
Data File : VX006593.D
Acq On : 18 Dec 2018 12:57
Operator : JC/MD
Sample : VSTDICC150
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 8 Sample Multiplier: 1

Instrument : MSVOA_X
ClientSampleId : VSTDICC150

Manual Integrations APPROVED
MMDadoda
12/19/2018 11:22:09 AM

Quant Time: Dec 19 00:56:36 2018
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121818W.M
Quant Title : SW846 8260
QLast Update : Wed Dec 19 00:31:42 2018
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	5.67	168	652279	50.00	ug/l	0.00
34) 1,4-Difluorobenzene	6.86	114	981048	50.00	ug/l	0.00
63) Chlorobenzene-d5	10.12	117	861082	50.00	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	12.08	152	469951	50.00	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	6.07	65	983789	139.94	ug/l	0.00
Spiked Amount 50.000			Recovery =	279.88%		
35) Dibromofluoromethane	5.51	113	930611	150.00	ug/l	0.00
Spiked Amount 50.000			Recovery =	300.00%		
50) Toluene-d8	8.71	98	3400472	145.39	ug/l	0.00
Spiked Amount 50.000			Recovery =	290.78%		
62) 4-Bromofluorobenzene	11.14	95	1231938	143.82	ug/l	0.00
Spiked Amount 50.000			Recovery =	287.64%		
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.20	85	829415	138.996	ug/l	99
3) Chloromethane	1.32	50	860313	133.822	ug/l	99
4) Vinyl Chloride	1.41	62	928362	138.267	ug/l	99
5) Bromomethane	1.64	94	907863	124.358	ug/l	99
6) Chloroethane	1.71	64	759504	163.368	ug/l	98
7) Trichlorofluoromethane	1.92	101	1507199	143.980	ug/l	99
8) Diethyl Ether	2.19	74	570127	137.123	ug/l	99
9) 1,1,2-Trichlorotrifluoroet	2.37	101	870111	141.566	ug/l	99
10) Methyl Iodide	2.51	142	1356308	154.157	ug/l	99
11) Tert butyl alcohol	3.10	59	1149958	732.971	ug/l	98
12) 1,1-Dichloroethene	2.37	96	833907	143.088	ug/l	98
13) Acrolein	2.30	56	783467	740.244	ug/l	97
14) Allyl chloride	2.73	41	1456840	148.509	ug/l	100
15) Acrylonitrile	3.16	53	2541179	729.501	ug/l	100
16) Acetone	2.46	43	2128604	659.052	ug/l	98
17) Carbon Disulfide	2.56	76	2338498	151.625	ug/l	100
18) Methyl Acetate	2.78	43	1394013	146.783	ug/l	100
19) Methyl tert-butyl Ether	3.21	73	2848050	147.240	ug/l	99
20) Methylene Chloride	2.85	84	910158	136.279	ug/l	95
21) trans-1,2-Dichloroethene	3.16	96	897750	139.028	ug/l	97
22) Diisopropyl ether	3.87	45	2613119	145.607	ug/l	94
23) Vinyl Acetate	3.82	43	10843708	738.693	ug/l	100
24) 1,1-Dichloroethane	3.70	63	1481529	138.290	ug/l	100
25) 2-Butanone	4.71	43	3096987	681.689	ug/l	100
26) 2,2-Dichloropropane	4.58	77	1239027	149.722	ug/l	99
27) cis-1,2-Dichloroethene	4.60	96	1020085	143.180	ug/l	99
28) Bromochloromethane	5.02	49	643654	130.675	ug/l	99
29) Tetrahydrofuran	5.16	42	2108177	704.549	ug/l	99
30) Chloroform	5.22	83	1587203	143.068	ug/l	100
31) Cyclohexane	5.57	56	1367439	140.500	ug/l	94
32) 1,1,1-Trichloroethane	5.49	97	1429493	152.599	ug/l	100
36) 1,1-Dichloropropene	5.80	75	1191395	146.627	ug/l	100
37) Ethyl Acetate	4.86	43	1225146	144.868	ug/l	99
38) Carbon Tetrachloride	5.78	117	1264445	160.126	ug/l	97

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX121818\
Data File : VX006593.D
Acq On : 18 Dec 2018 12:57
Operator : JC/MD
Sample : VSTDICC150
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 8 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
VSTDICC150

Manual Integrations APPROVED
MMDadoda
12/19/2018 11:22:09 AM

Quant Time: Dec 19 00:56:36 2018
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121818W.M
Quant Title : SW846 8260
QLast Update : Wed Dec 19 00:31:42 2018
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
39) Methylcyclohexane	7.46	83	1547025	144.619	ug/l	98
40) Benzene	6.14	78	3590522	145.375	ug/l	100
41) Methacrylonitrile	5.07	41	679045	142.884	ug/l	99
42) 1,2-Dichloroethane	6.20	62	1191302	141.550	ug/l	100
43) Isopropyl Acetate	6.46	43	2010116	156.214	ug/l	100
44) Trichloroethene	7.21	130	1080346	144.520	ug/l	95
45) 1,2-Dichloropropane	7.51	63	899870	149.721	ug/l	98
46) Dibromomethane	7.66	93	654123	147.961	ug/l	98
47) Bromodichloromethane	7.90	83	1198511	163.291	ug/l	97
48) Methyl methacrylate	7.77	41	1003194	153.309	ug/l	99
49) 1,4-Dioxane	7.76	88	500432	2702.927	ug/l	100
51) 4-Methyl-2-Pentanone	8.65	43	6043284	738.126	ug/l	99
52) Toluene	8.79	92	2349690	147.259	ug/l	100
53) t-1,3-Dichloropropene	9.04	75	1362494	173.086	ug/l	100
54) cis-1,3-Dichloropropene	8.43	75	1474973	170.768	ug/l	98
55) 1,1,2-Trichloroethane	9.22	97	942538	144.314	ug/l	99
56) Ethyl methacrylate	9.18	69	1400219	151.688	ug/l	98
57) 1,3-Dichloropropane	9.37	76	1504638	143.191	ug/l	100
58) 2-Chloroethyl Vinyl ether	8.32	63	3639628	741.743	ug/l	100
59) 2-Hexanone	9.50	43	4721509	753.720	ug/l	99
60) Dibromochloromethane	9.59	129	1055709	175.489	ug/l	99
61) 1,2-Dibromoethane	9.67	107	1033229	148.820	ug/l	99
64) Tetrachloroethene	9.34	164	1001242	146.843	ug/l	98
65) Chlorobenzene	10.14	112	2672634	146.711	ug/l	100
66) 1,1,1,2-Tetrachloroethane	10.22	131	972122	171.039	ug/l	100
67) Ethyl Benzene	10.25	91	4413963	148.280	ug/l	100
68) m/p-Xylenes	10.36	106	3536869	301.106	ug/l	98
69) o-Xylene	10.70	106	1723807	148.615	ug/l	100
70) Styrene	10.71	104	2809229	153.086	ug/l	100
71) Bromoform	10.86	173	845718	195.450	ug/l	99
73) Isopropylbenzene	11.02	105	4518293	140.537	ug/l	100
74) N-amyl acetate	10.90	43	1884095	163.721	ug/l	98
75) 1,1,2,2-Tetrachloroethane	11.27	83	1446167	151.248	ug/l	100
76) 1,2,3-Trichloropropane	11.30	75	1298714m	156.001	ug/l	
77) Bromobenzene	11.26	156	1239722	142.629	ug/l	99
78) n-propylbenzene	11.36	91	5089233	143.748	ug/l	100
79) 2-Chlorotoluene	11.42	91	2989022	139.315	ug/l	100
80) 1,3,5-Trimethylbenzene	11.51	105	3827473	144.536	ug/l	100
81) trans-1,4-Dichloro-2-buten	11.08	75	466178	191.193	ug/l	94
82) 4-Chlorotoluene	11.51	91	3548977	144.206	ug/l	100
83) tert-Butylbenzene	11.77	119	3966353	149.655	ug/l	99
84) 1,2,4-Trimethylbenzene	11.81	105	3897041	139.912	ug/l	99
85) sec-Butylbenzene	11.94	105	4669143	143.690	ug/l	99
86) p-Isopropyltoluene	12.07	119	4259018	149.104	ug/l	100
87) 1,3-Dichlorobenzene	12.02	146	2303302	147.034	ug/l	99
88) 1,4-Dichlorobenzene	12.10	146	2329224	144.871	ug/l	100
89) n-Butylbenzene	12.39	91	3806730	156.595	ug/l	100
90) Hexachloroethane	12.60	117	712245	183.047	ug/l	98
91) 1,2-Dichlorobenzene	12.39	146	2275564	145.213	ug/l	100
92) 1,2-Dibromo-3-Chloropropan	13.00	75	329143	166.367	ug/l	97

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX121818\
Data File : VX006593.D
Acq On : 18 Dec 2018 12:57
Operator : JC/MD
Sample : VSTDICC150
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 8 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
VSTDICC150

Manual Integrations APPROVED
MMDadoda
12/19/2018 11:22:09 AM

Quant Time: Dec 19 00:56:36 2018
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121818W.M
Quant Title : SW846 8260
QLast Update : Wed Dec 19 00:31:42 2018
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
93) 1,2,4-Trichlorobenzene	13.65	180	1706642	157.884	ug/l	100
94) Hexachlorobutadiene	13.78	225	773076	151.733	ug/l	99
95) Naphthalene	13.83	128	5152971	149.362	ug/l	99
96) 1,2,3-Trichlorobenzene	14.02	180	1686169	151.082	ug/l	99

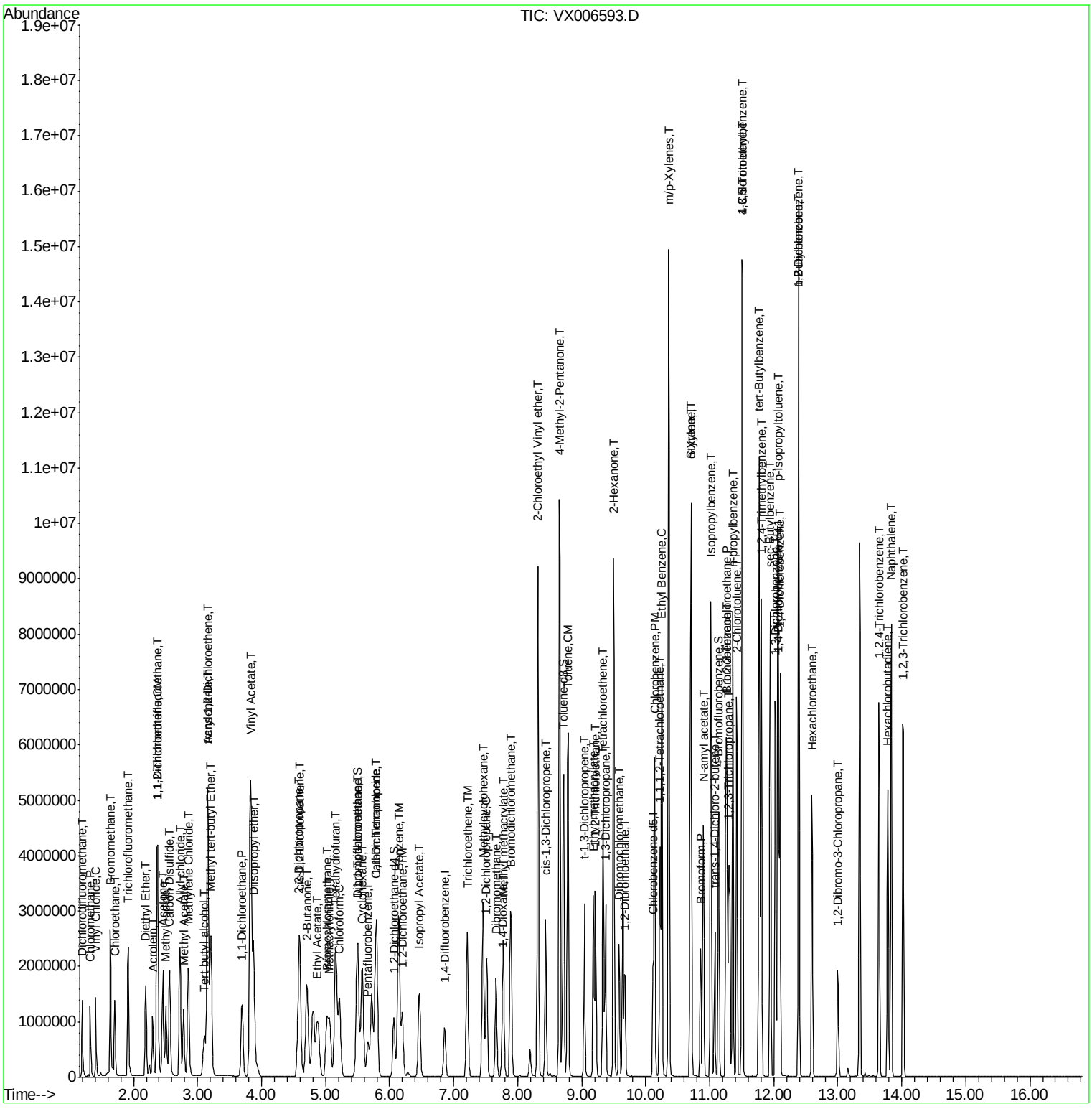
(#) = qualifier out of range (m) = manual integration (+) = signals summed

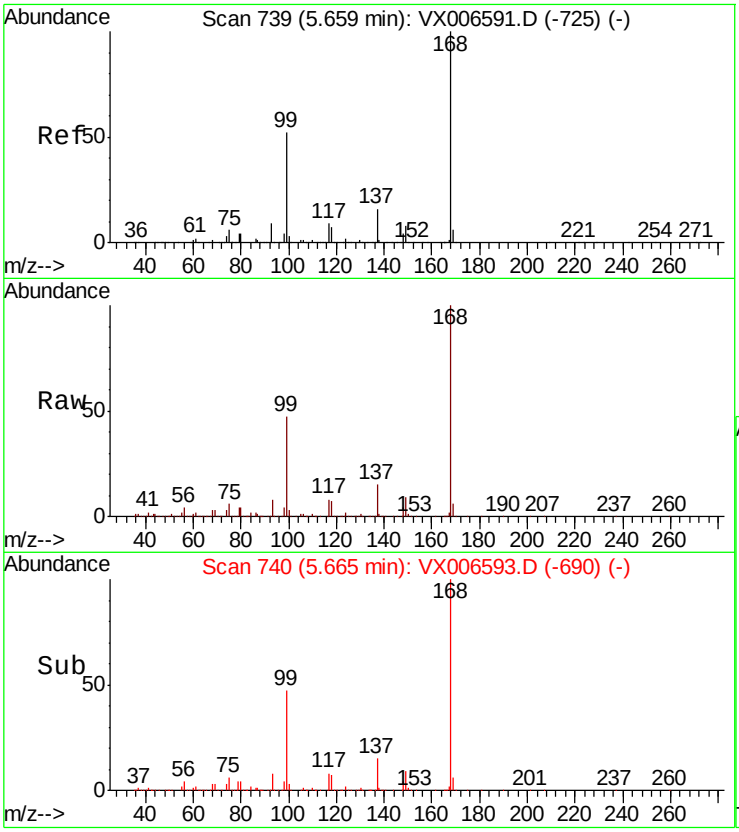
Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX121818\
Data File : VX006593.D
Acq On : 18 Dec 2018 12:57
Operator : JC/MD
Sample : VSTDICC150
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Dec 19 00:56:36 2018
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121818W.M
Quant Title : SW846 8260
QLast Update : Wed Dec 19 00:31:42 2018
Response via : Initial Calibration

Instrument :
MSVOA_X
ClientSampleId :
VSTDICC150

Manual Integrations APPROVED
MMDadoda
12/19/2018 11:22:09 AM

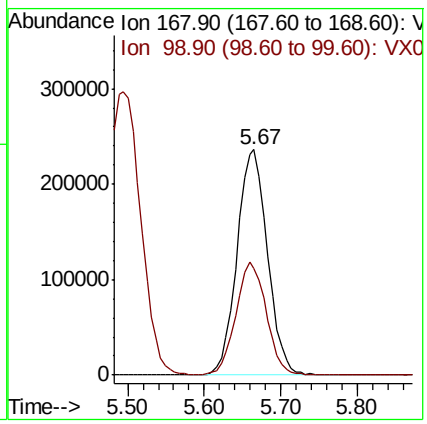




#1
Pentafluorobenzene
Concen: 50.000 ug/l
RT: 5.67 min Scan# 740
Delta R.T. 0.01 min
Lab File: VX006593.D
Acq: 18 Dec 2018 12:57

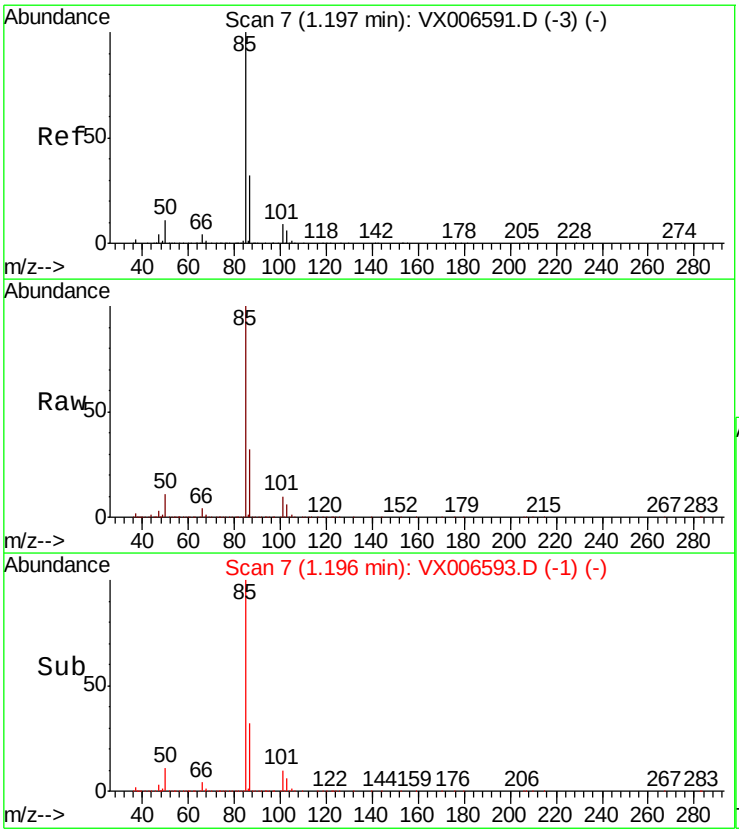
Tgt Ion:168 Resp: 652279

Ion	Ratio	Lower	Upper
168	100		
99	47.1	41.8	62.8



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC150

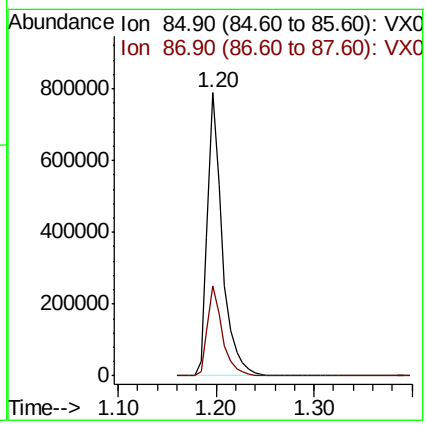
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:22:09 AM

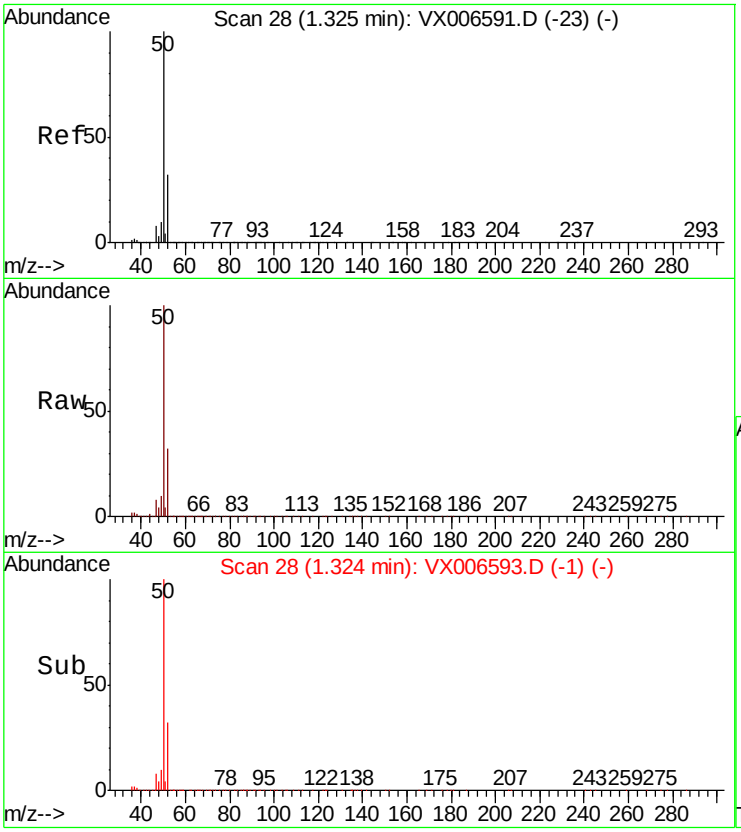


#2
Dichlorodifluoromethane
Concen: 138.996 ug/l
RT: 1.20 min Scan# 7
Delta R.T. -0.00 min
Lab File: VX006593.D
Acq: 18 Dec 2018 12:57

Tgt Ion: 85 Resp: 829415

Ion	Ratio	Lower	Upper
85	100		
87	32.0	15.9	47.6

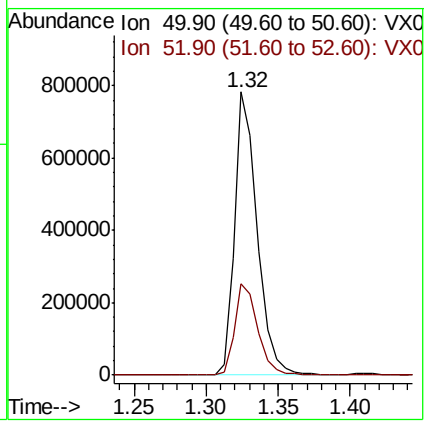




#3
Chloromethane
Concen: 133.822 ug/l
RT: 1.32 min Scan# 28
Delta R.T. -0.00 min
Lab File: VX006593.D
Acq: 18 Dec 2018 12:57

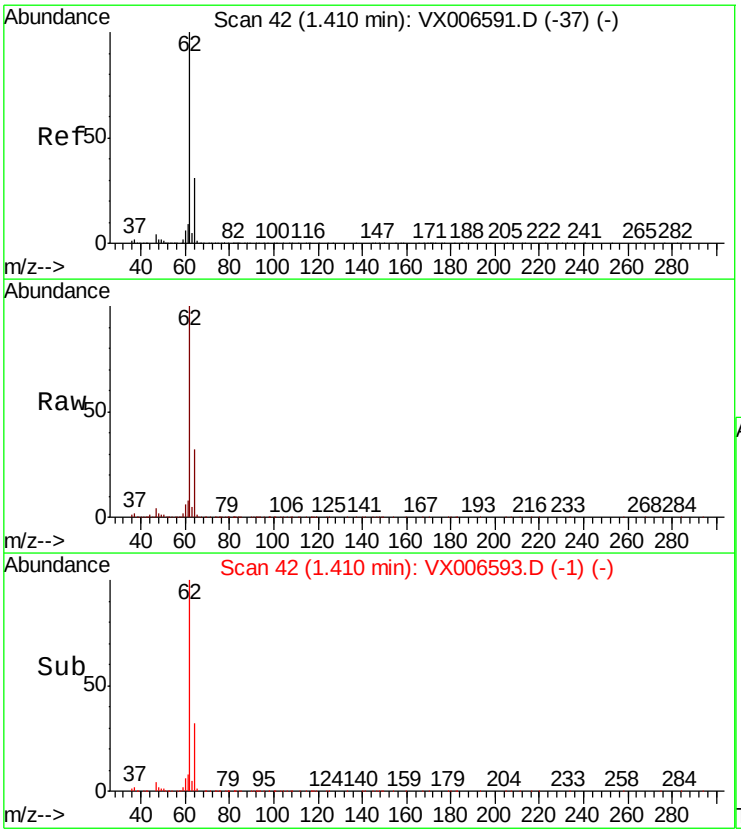
Tgt Ion: 50 Resp: 860313

Ion	Ratio	Lower	Upper
50	100		
52	32.2	25.4	38.2



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC150

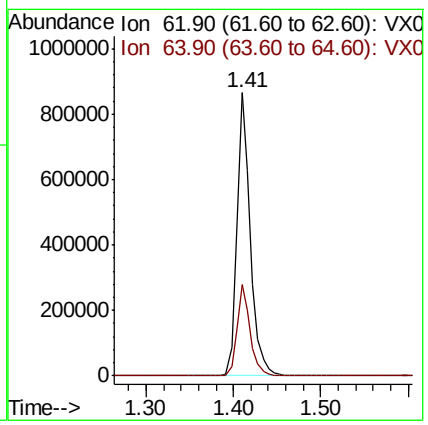
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:22:09 AM

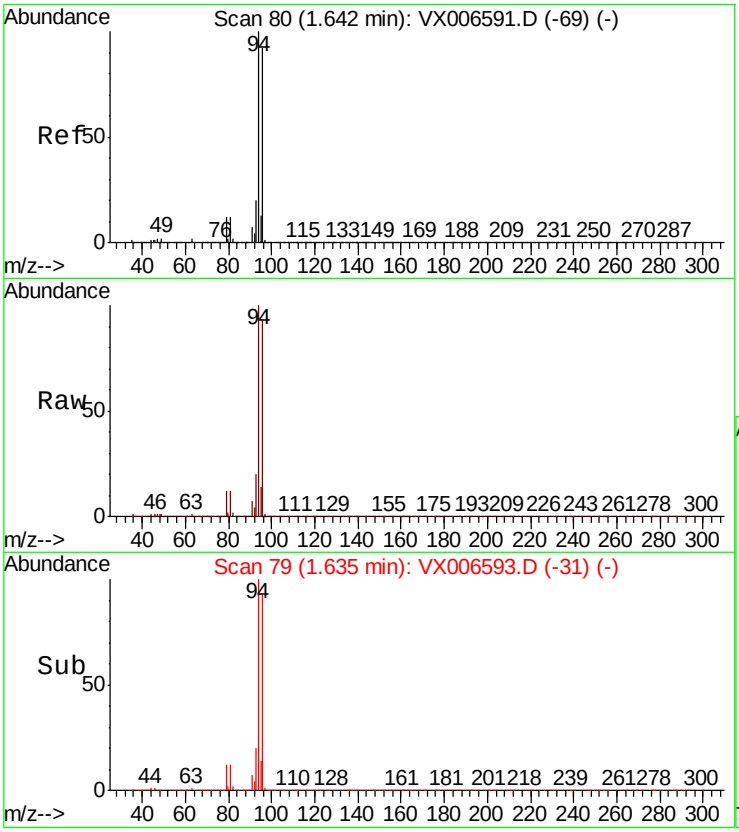


#4
Vinyl Chloride
Concen: 138.267 ug/l
RT: 1.41 min Scan# 42
Delta R.T. -0.00 min
Lab File: VX006593.D
Acq: 18 Dec 2018 12:57

Tgt Ion: 62 Resp: 928362

Ion	Ratio	Lower	Upper
62	100		
64	32.2	25.1	37.7

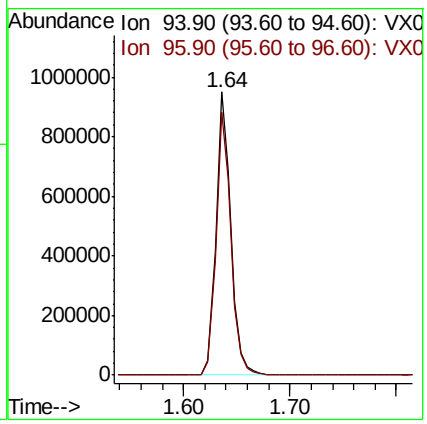




#5
Bromomethane
Concen: 124.358 ug/l
RT: 1.64 min Scan# 79
Delta R.T. -0.01 min
Lab File: VX006593.D
Acq: 18 Dec 2018 12:57

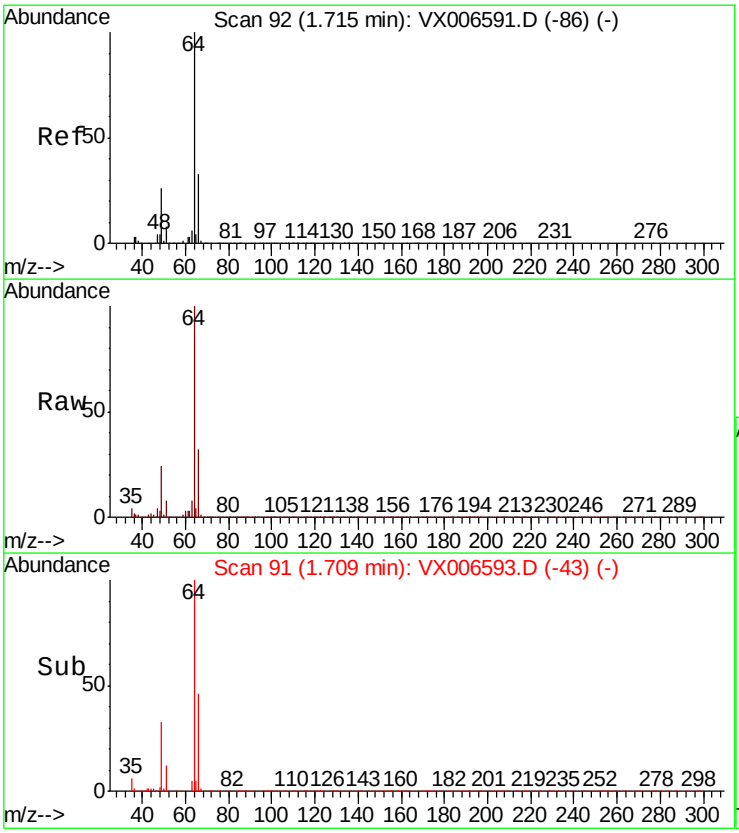
Tgt Ion: 94 Resp: 907863

Ion	Ratio	Lower	Upper
94	100		
96	93.0	73.4	110.2



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC150

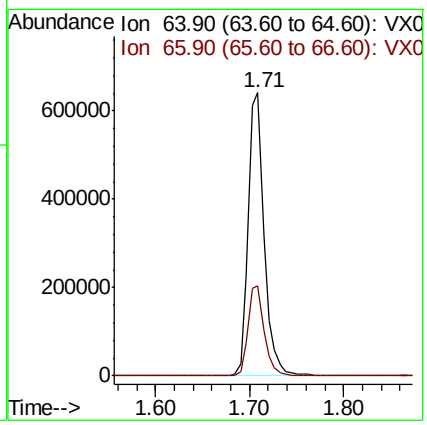
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:22:09 AM

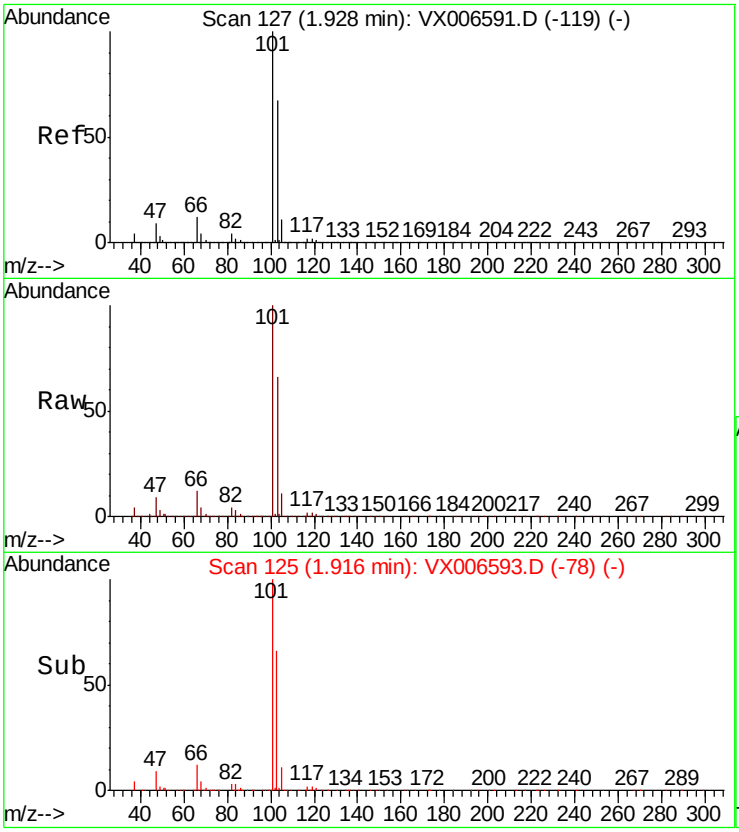


#6
Chloroethane
Concen: 163.368 ug/l
RT: 1.71 min Scan# 91
Delta R.T. -0.01 min
Lab File: VX006593.D
Acq: 18 Dec 2018 12:57

Tgt Ion: 64 Resp: 759504

Ion	Ratio	Lower	Upper
64	100		
66	31.8	26.4	39.6

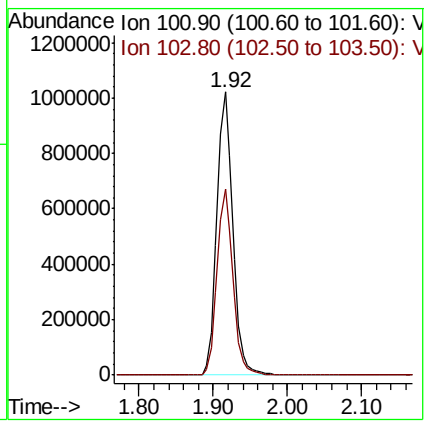




#7
Trichlorofluoromethane
Concen: 143.980 ug/l
RT: 1.92 min Scan# 125
Delta R.T. -0.01 min
Lab File: VX006593.D
Acq: 18 Dec 2018 12:57

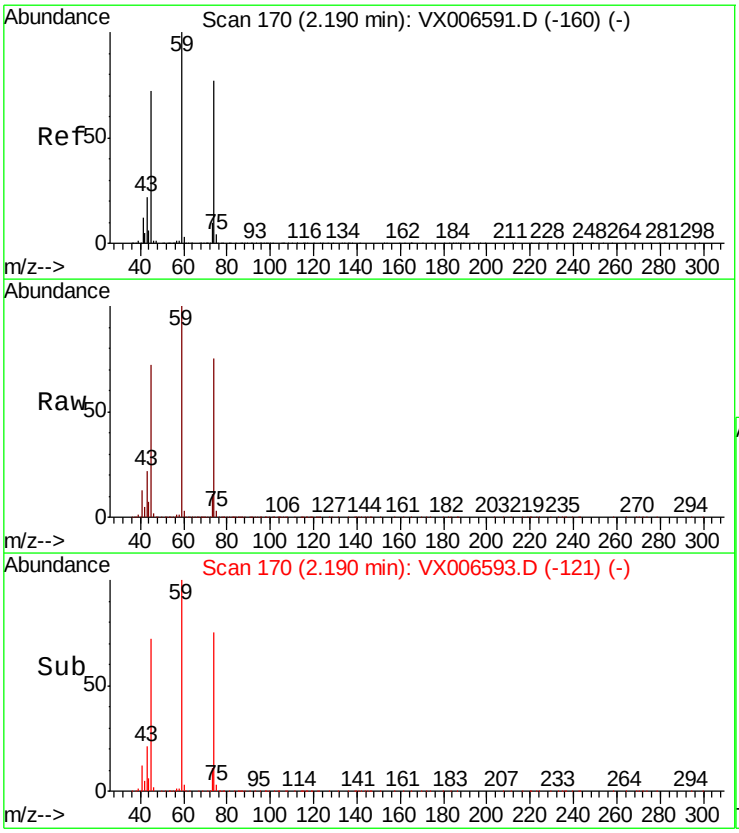
Tgt Ion:101 Resp: 1507199

Ion	Ratio	Lower	Upper
101	100		
103	65.8	53.2	79.8



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC150

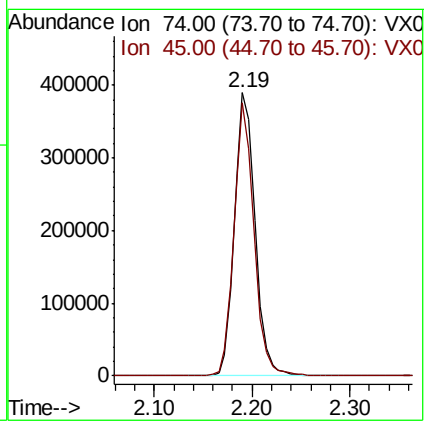
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:22:09 AM

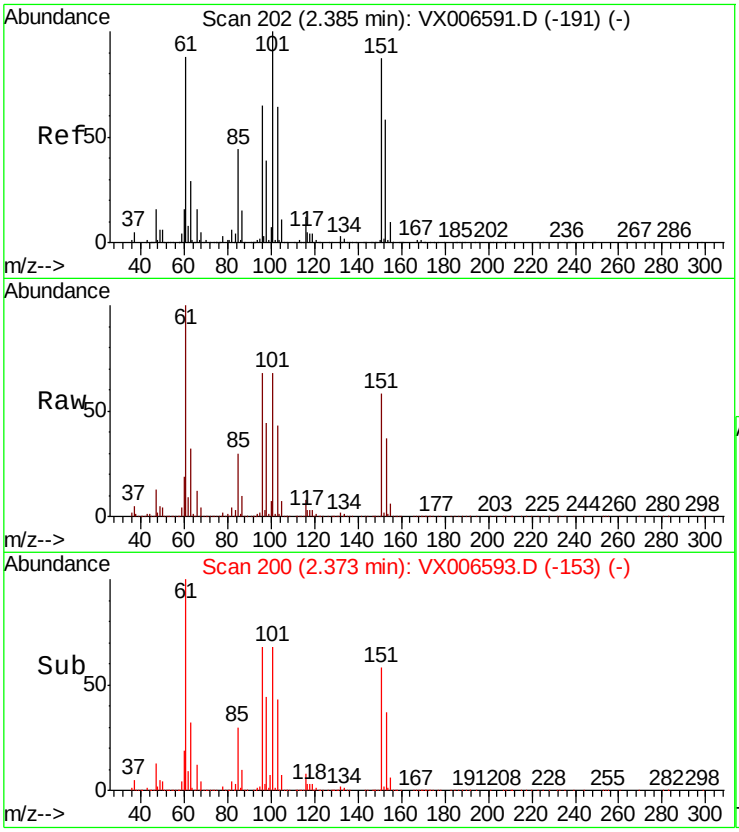


#8
Diethyl Ether
Concen: 137.123 ug/l
RT: 2.19 min Scan# 170
Delta R.T. -0.00 min
Lab File: VX006593.D
Acq: 18 Dec 2018 12:57

Tgt Ion: 74 Resp: 570127

Ion	Ratio	Lower	Upper
74	100		
45	93.5	46.3	138.9

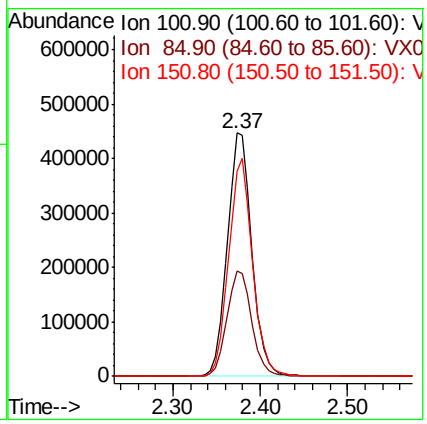




#9
1,1,2-Trichlorotrifluoroethane
Concen: 141.566 ug/l
RT: 2.37 min Scan# 200
Delta R.T. -0.01 min
Lab File: VX006593.D
Acq: 18 Dec 2018 12:57

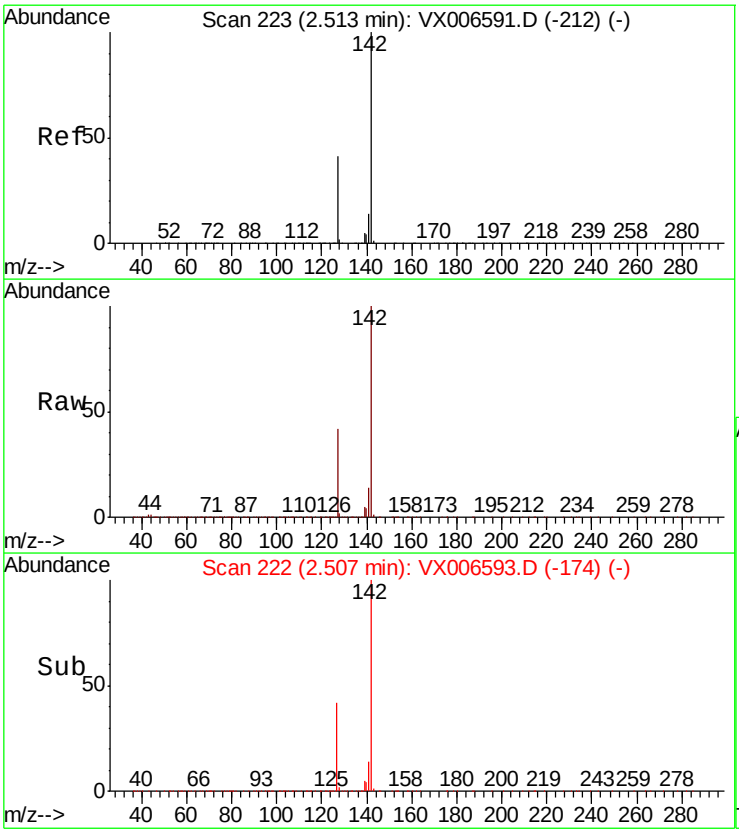
Tgt Ion:101 Resp: 870111

Ion	Ratio	Lower	Upper
101	100		
85	43.7	35.1	52.7
151	87.4	68.9	103.3



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC150

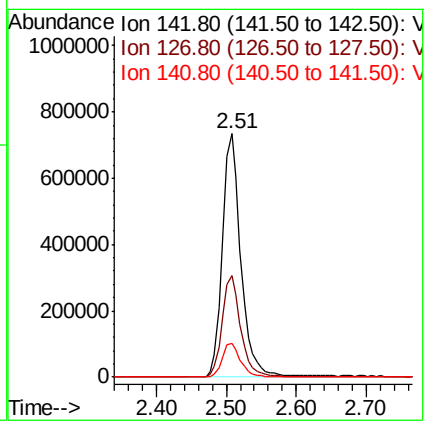
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:22:09 AM



#10
Methyl Iodide
Concen: 154.157 ug/l
RT: 2.51 min Scan# 222
Delta R.T. -0.01 min
Lab File: VX006593.D
Acq: 18 Dec 2018 12:57

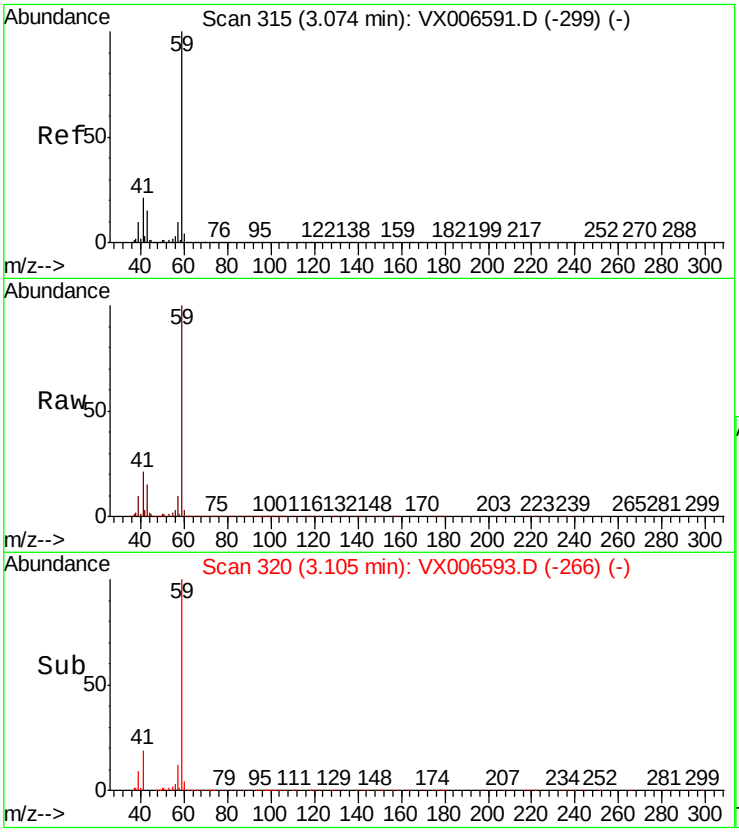
Tgt Ion:142 Resp: 1356308

Ion	Ratio	Lower	Upper
142	100		
127	41.7	33.9	50.9
141	13.9	11.4	17.0



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC150

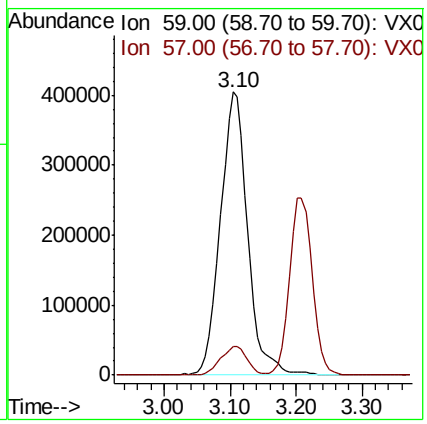
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:22:09 AM

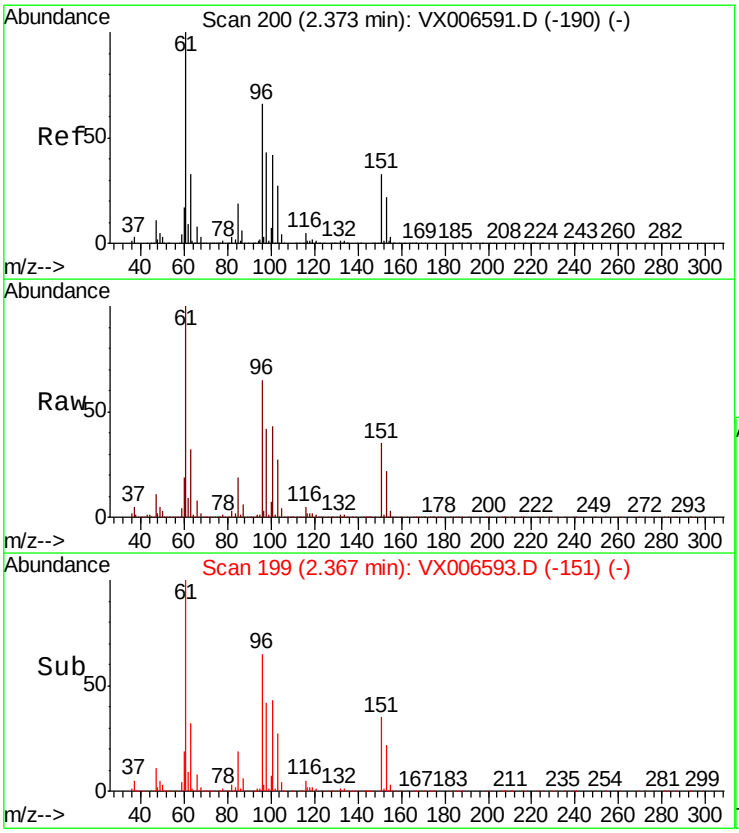


#11
Tert butyl alcohol
Concen: 732.971 ug/l
RT: 3.10 min Scan# 320
Delta R.T. 0.03 min
Lab File: VX006593.D
Acq: 18 Dec 2018 12:57

Tgt Ion: 59 Resp: 1149958

Ion	Ratio	Lower	Upper
59	100		
57	9.9	8.5	12.7

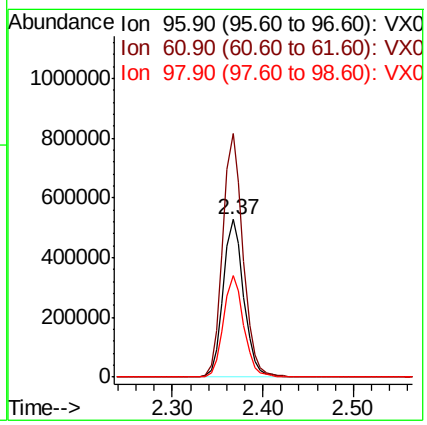




#12
1,1-Dichloroethene
Concen: 143.088 ug/l
RT: 2.37 min Scan# 199
Delta R.T. -0.01 min
Lab File: VX006593.D
Acq: 18 Dec 2018 12:57

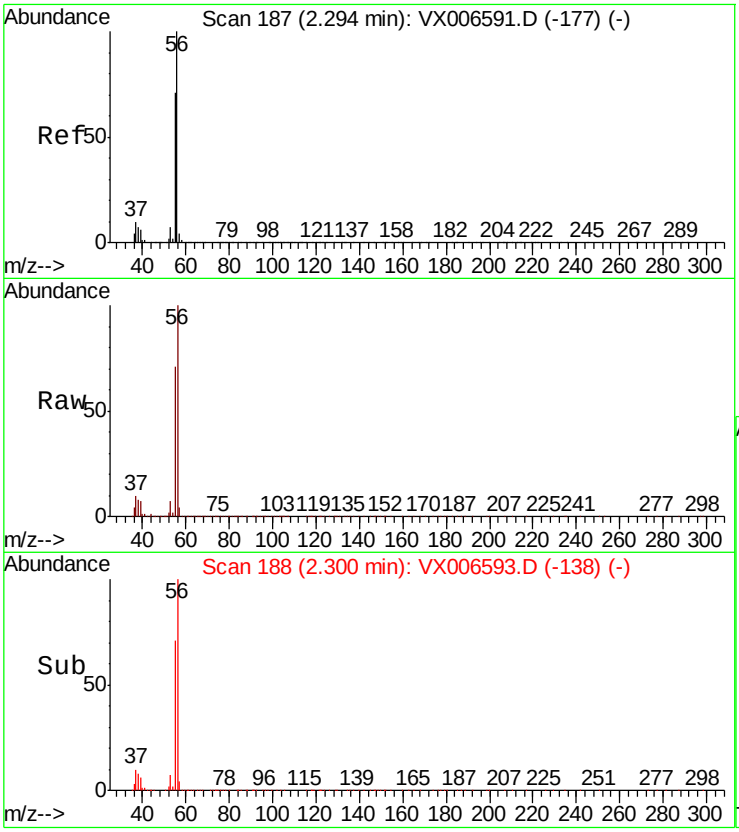
Tgt Ion: 96 Resp: 833907

Ion	Ratio	Lower	Upper
96	100		
61	154.6	121.4	182.2
98	64.7	51.9	77.9



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC150

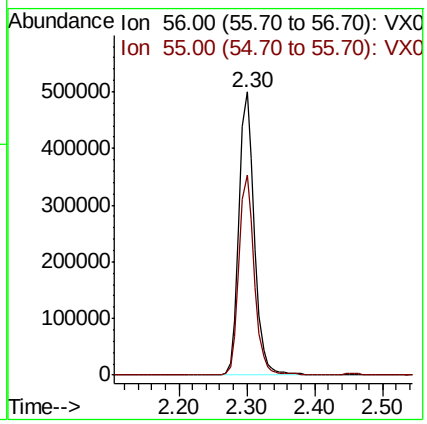
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:22:09 AM

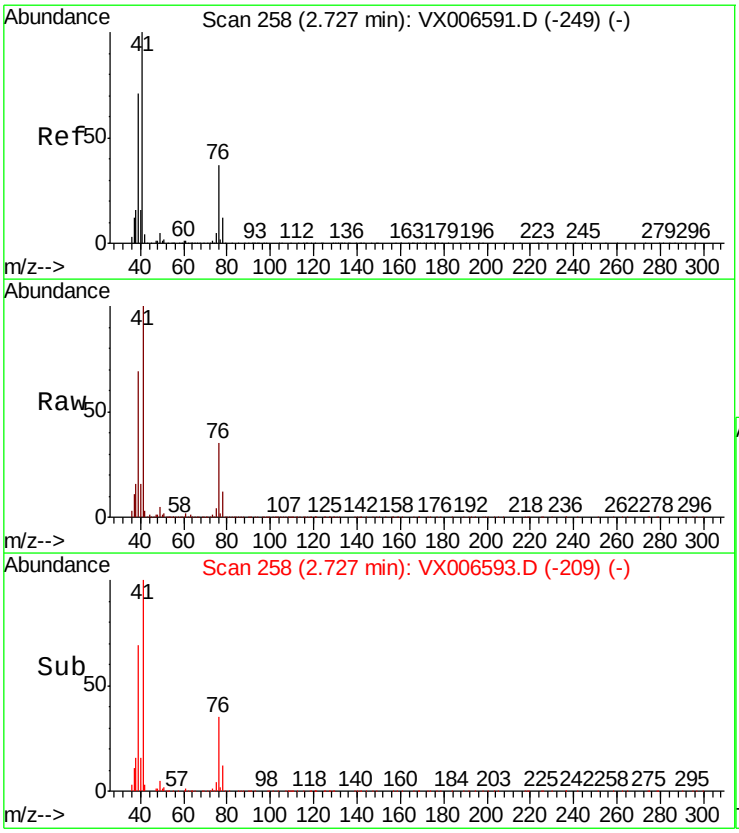


#13
Acrolein
Concen: 740.244 ug/l
RT: 2.30 min Scan# 188
Delta R.T. 0.01 min
Lab File: VX006593.D
Acq: 18 Dec 2018 12:57

Tgt Ion: 56 Resp: 783467

Ion	Ratio	Lower	Upper
56	100		
55	70.1	58.2	87.4

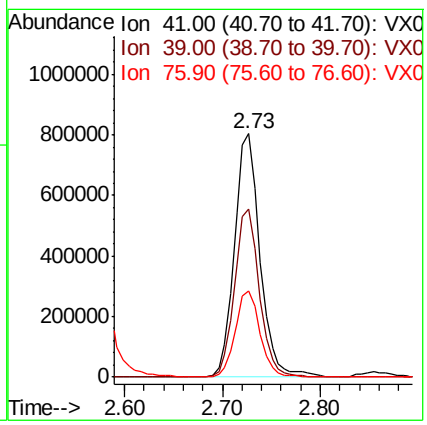




#14
Allyl chloride
Concen: 148.509 ug/l
RT: 2.73 min Scan# 258
Delta R.T. -0.00 min
Lab File: VX006593.D
Acq: 18 Dec 2018 12:57

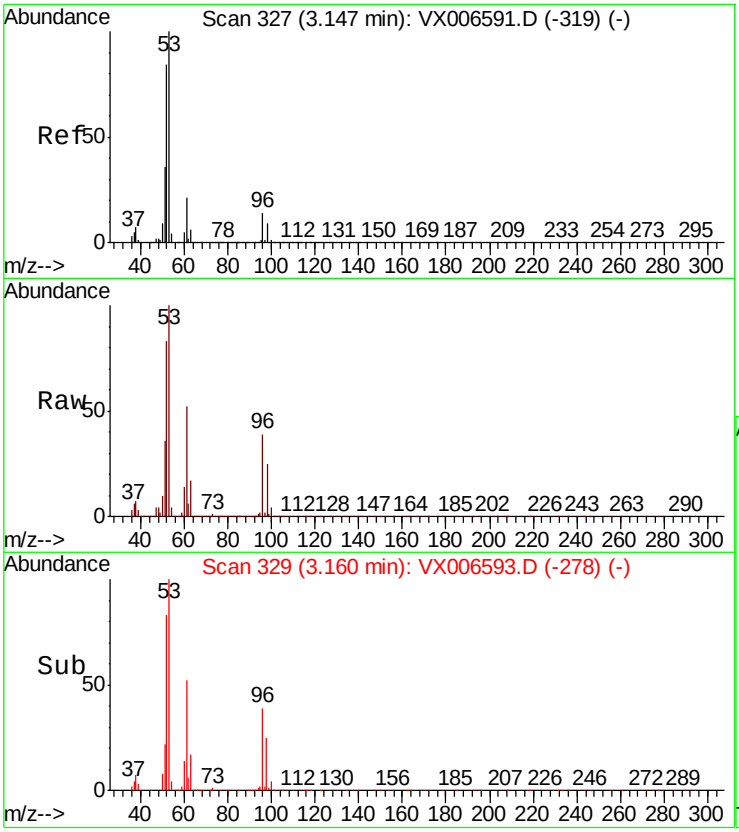
Tgt Ion: 41 Resp: 1456840

Ion	Ratio	Lower	Upper
41	100		
39	67.2	53.6	80.4
76	34.5	27.4	41.2



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC150

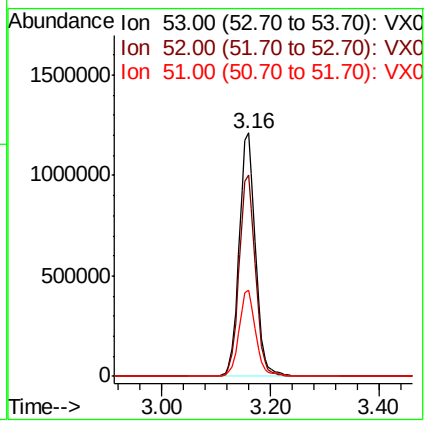
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:22:09 AM

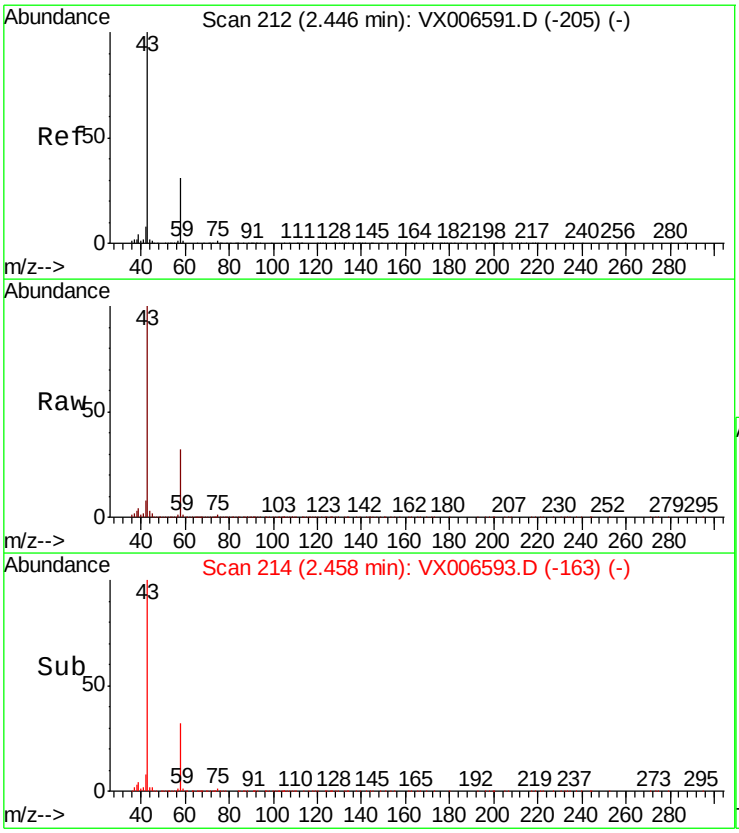


#15
Acrylonitrile
Concen: 729.501 ug/l
RT: 3.16 min Scan# 329
Delta R.T. 0.01 min
Lab File: VX006593.D
Acq: 18 Dec 2018 12:57

Tgt Ion: 53 Resp: 2541179

Ion	Ratio	Lower	Upper
53	100		
52	82.4	66.0	99.0
51	36.3	28.6	42.8

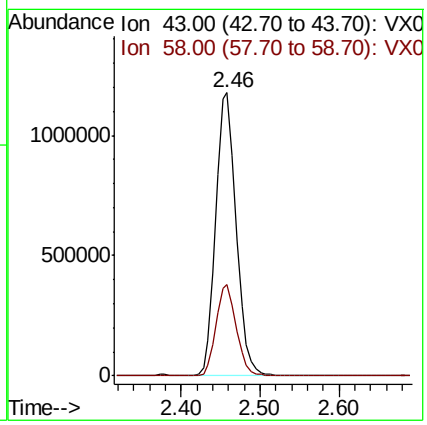




#16
Acetone
Concen: 659.052 ug/l
RT: 2.46 min Scan# 214
Delta R.T. 0.01 min
Lab File: VX006593.D
Acq: 18 Dec 2018 12:57

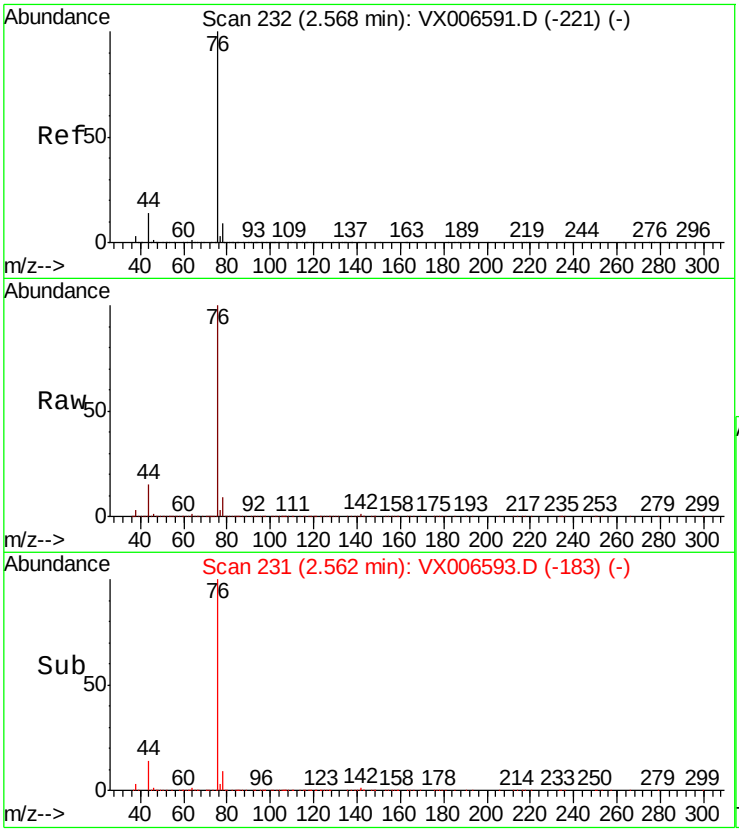
Tgt Ion: 43 Resp: 2128604

Ion	Ratio	Lower	Upper
43	100		
58	32.5	25.0	37.6



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC150

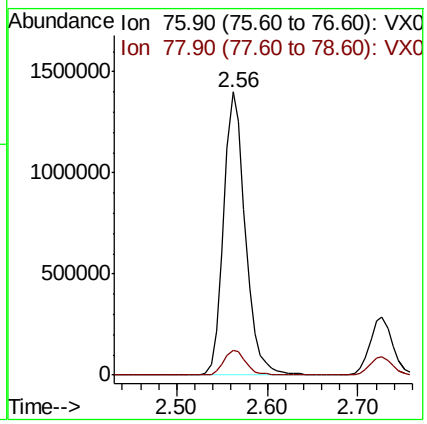
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:22:09 AM

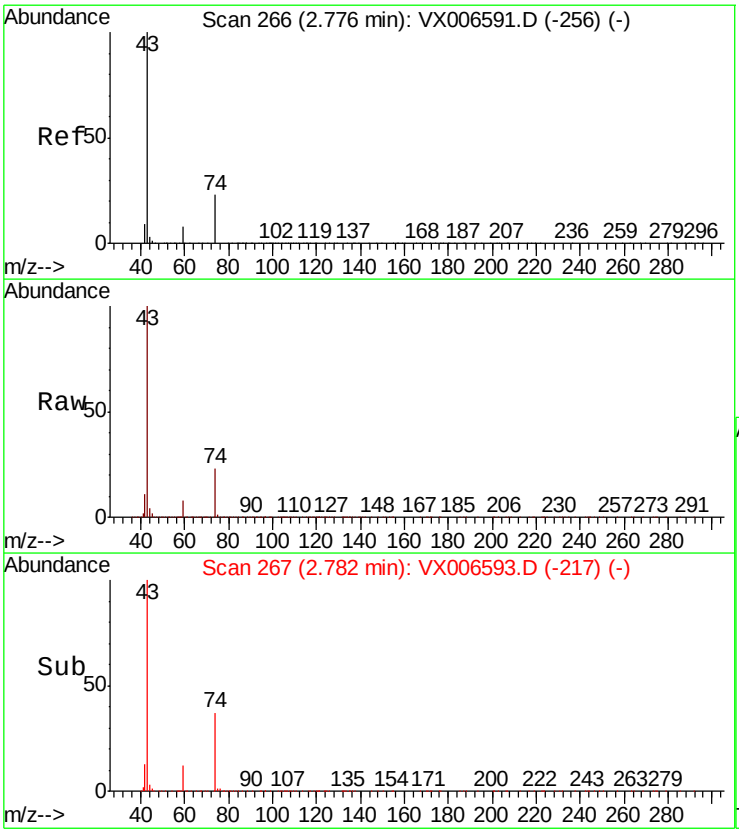


#17
Carbon Disulfide
Concen: 151.625 ug/l
RT: 2.56 min Scan# 231
Delta R.T. -0.01 min
Lab File: VX006593.D
Acq: 18 Dec 2018 12:57

Tgt Ion: 76 Resp: 2338498

Ion	Ratio	Lower	Upper
76	100		
78	9.0	7.0	10.6

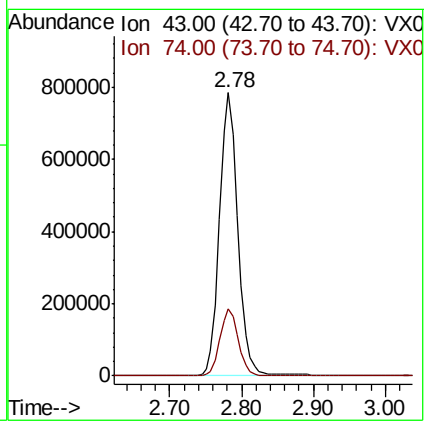




#18
Methyl Acetate
Concen: 146.783 ug/l
RT: 2.78 min Scan# 267
Delta R.T. 0.01 min
Lab File: VX006593.D
Acq: 18 Dec 2018 12:57

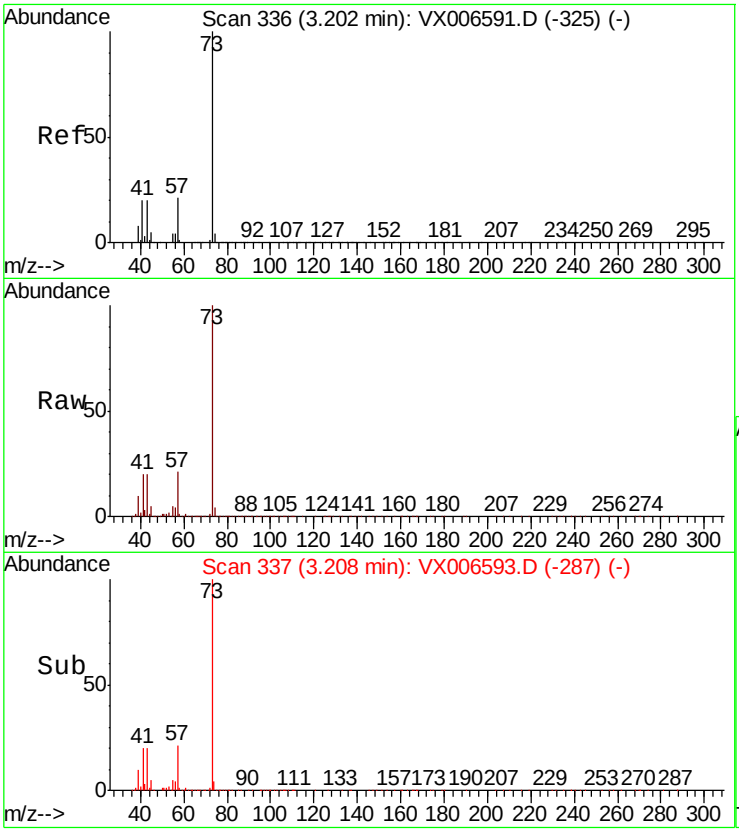
Tgt Ion: 43 Resp: 1394013

Ion	Ratio	Lower	Upper
43	100		
74	23.5	18.6	28.0



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC150

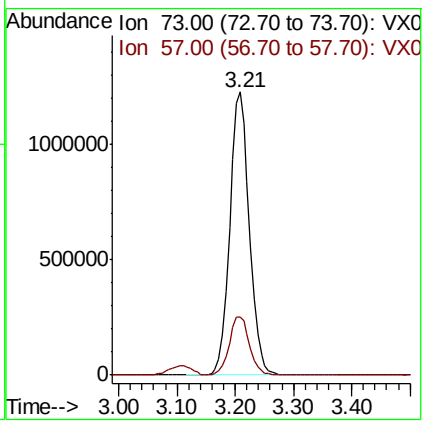
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:22:09 AM

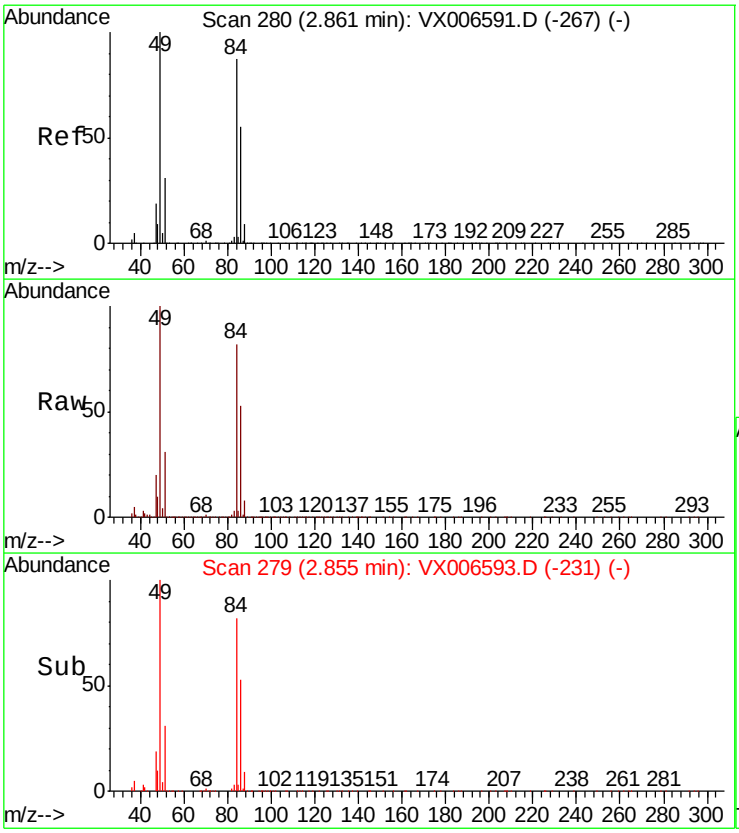


#19
Methyl tert-butyl Ether
Concen: 147.240 ug/l
RT: 3.21 min Scan# 337
Delta R.T. 0.01 min
Lab File: VX006593.D
Acq: 18 Dec 2018 12:57

Tgt Ion: 73 Resp: 2848050

Ion	Ratio	Lower	Upper
73	100		
57	20.7	16.8	25.2

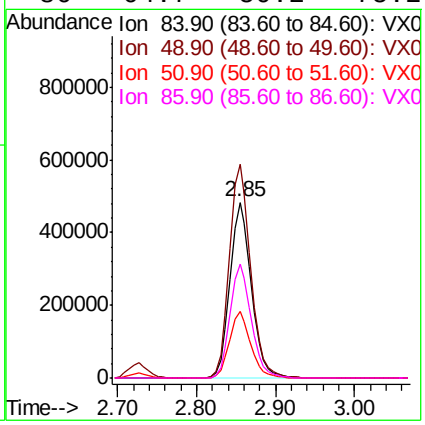




#20
Methylene Chloride
Concen: 136.279 ug/l
RT: 2.85 min Scan# 279
Delta R.T. -0.01 min
Lab File: VX006593.D
Acq: 18 Dec 2018 12:57

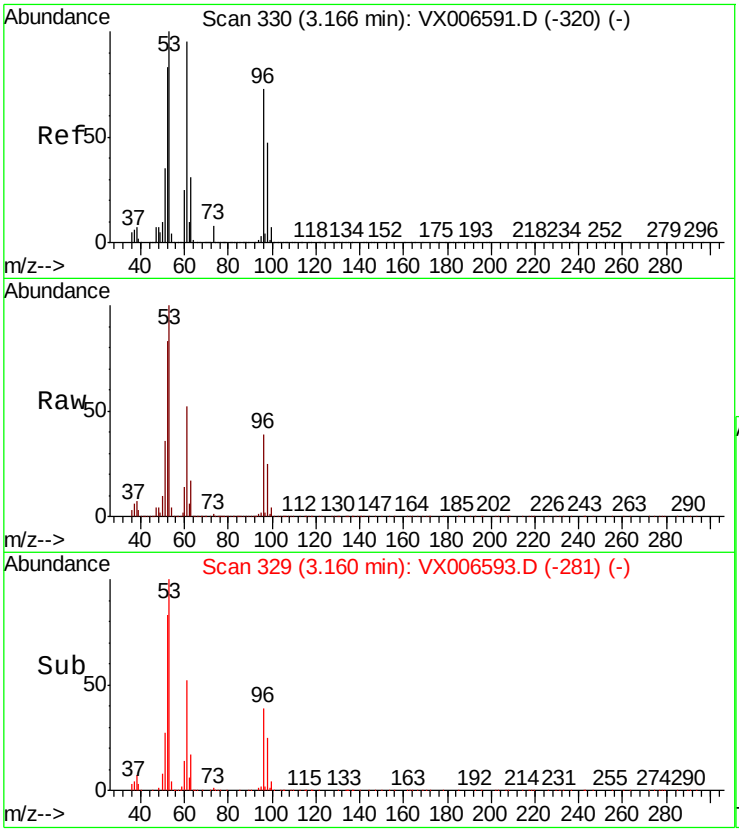
Tgt Ion: 84 Resp: 910158

Ion	Ratio	Lower	Upper
84	100		
49	121.6	91.8	137.6
51	37.5	28.5	42.7
86	64.7	50.2	75.2



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC150

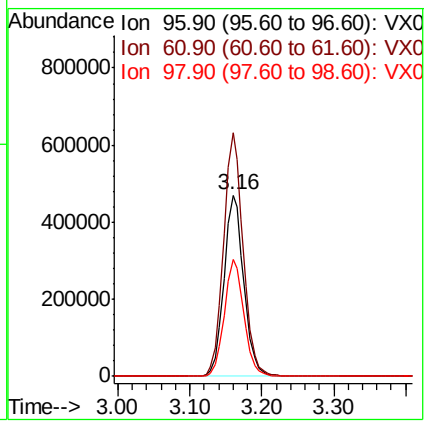
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:22:09 AM

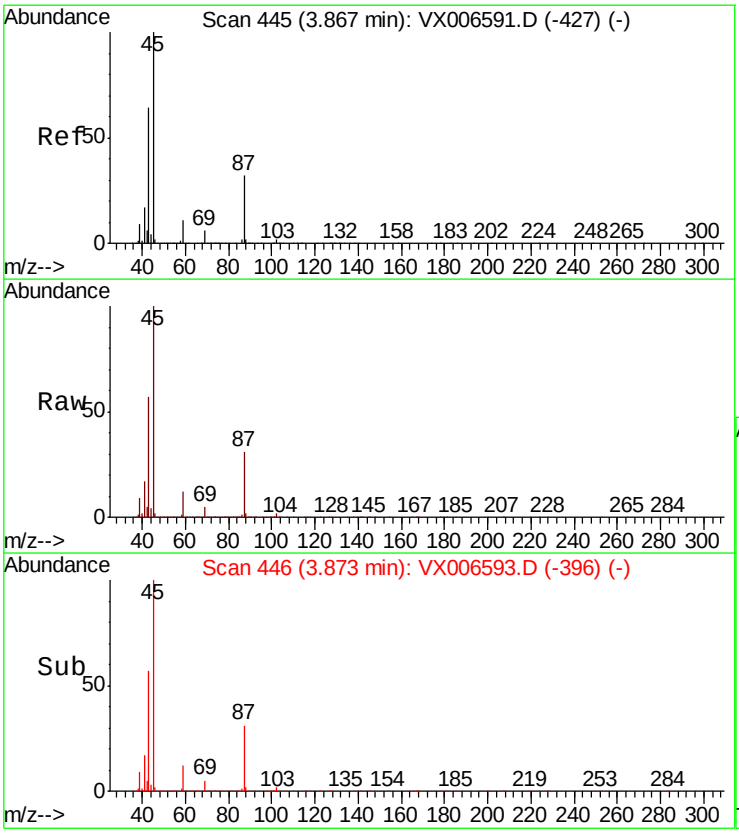


#21
trans-1,2-Dichloroethene
Concen: 139.028 ug/l
RT: 3.16 min Scan# 329
Delta R.T. -0.01 min
Lab File: VX006593.D
Acq: 18 Dec 2018 12:57

Tgt Ion: 96 Resp: 897750

Ion	Ratio	Lower	Upper
96	100		
61	134.3	103.7	155.5
98	64.6	51.0	76.6

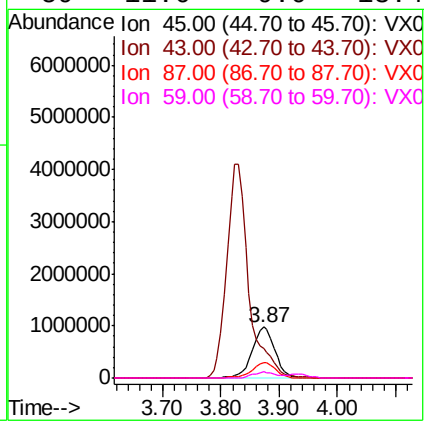


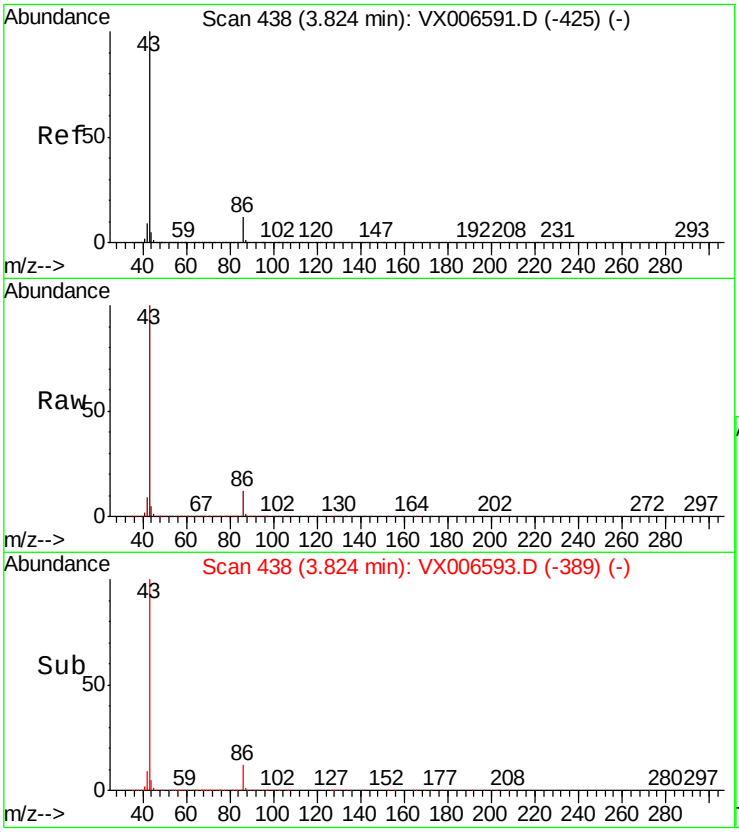


#22
Diisopropyl ether
Concen: 145.607 ug/l
RT: 3.87 min Scan# 446
Delta R.T. 0.01 min
Lab File: VX006593.D
Acq: 18 Dec 2018 12:57

Tgt Ion: 45 Resp: 2613119

Ion	Ratio	Lower	Upper
45	100		
43	57.0	51.2	76.8
87	31.2	25.8	38.6
59	11.6	9.0	13.4

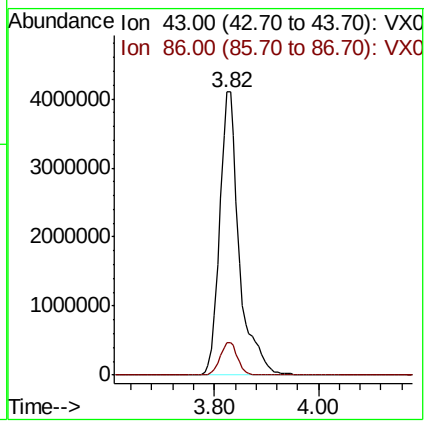




#23
Vinyl Acetate
Concen: 738.693 ug/l
RT: 3.82 min Scan# 438
Delta R.T. -0.00 min
Lab File: VX006593.D
Acq: 18 Dec 2018 12:57

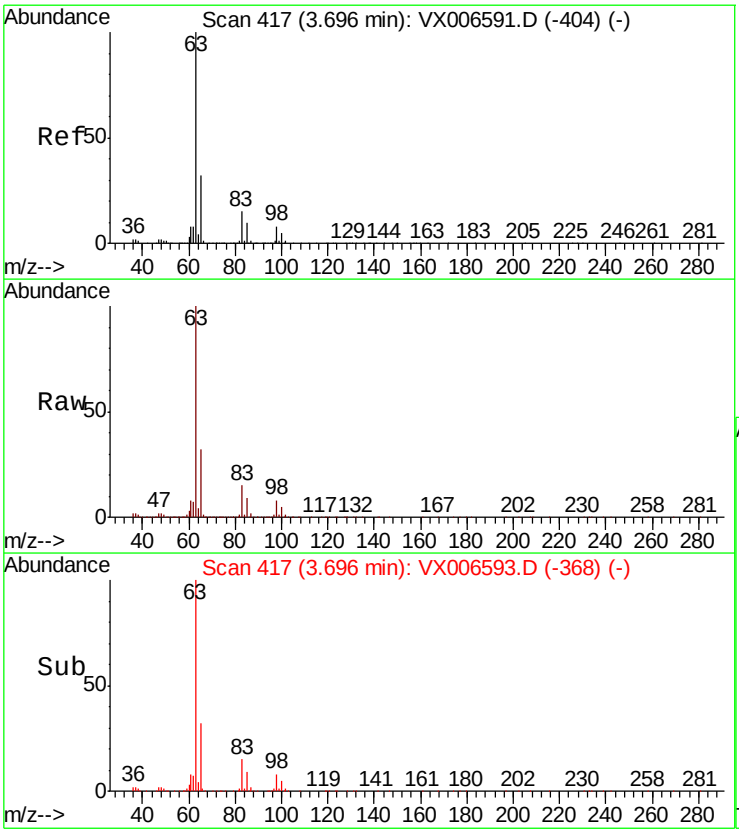
Tgt Ion: 43 Resp:10843708

Ion	Ratio	Lower	Upper
43	100		
86	11.7	9.2	13.8



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC150

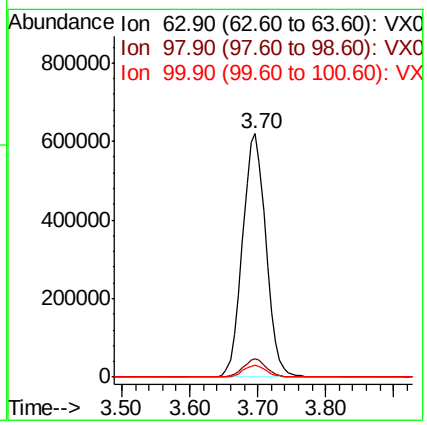
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:22:09 AM

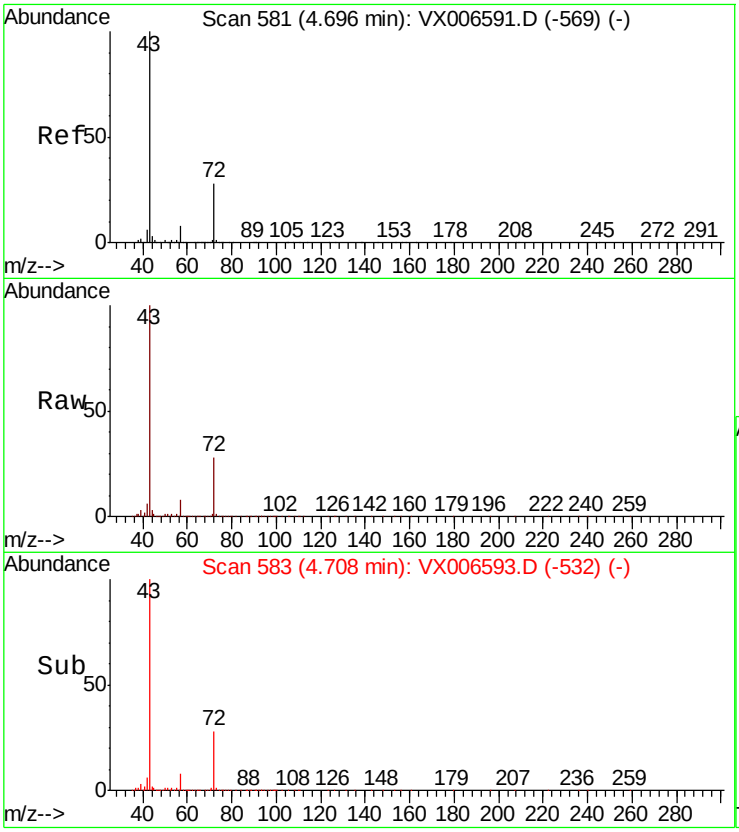


#24
1,1-Dichloroethane
Concen: 138.290 ug/l
RT: 3.70 min Scan# 417
Delta R.T. -0.00 min
Lab File: VX006593.D
Acq: 18 Dec 2018 12:57

Tgt Ion: 63 Resp: 1481529

Ion	Ratio	Lower	Upper
63	100		
98	7.7	3.9	11.5
100	4.8	2.4	7.2

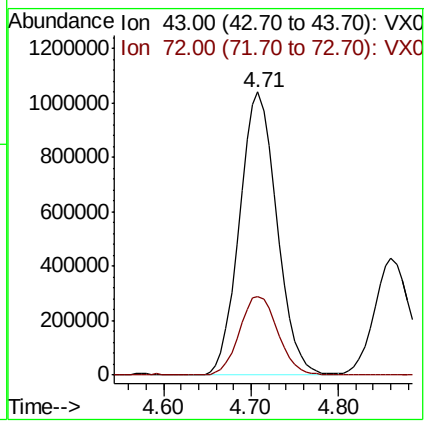




#25
2-Butanone
Concen: 681.689 ug/l
RT: 4.71 min Scan# 583
Delta R.T. 0.01 min
Lab File: VX006593.D
Acq: 18 Dec 2018 12:57

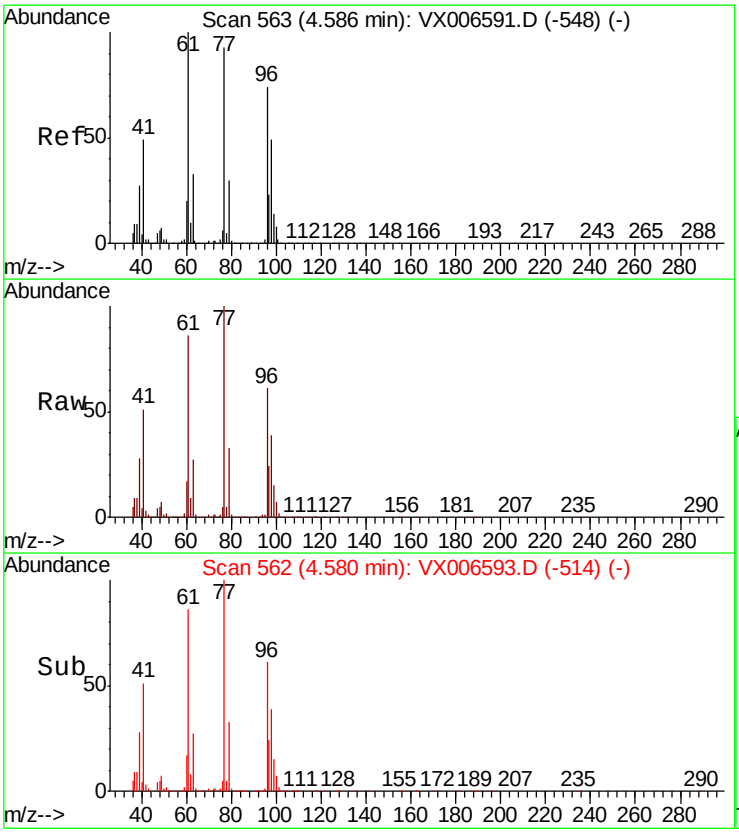
Tgt Ion: 43 Resp: 3096987

Ion	Ratio	Lower	Upper
43	100		
72	27.8	22.4	33.6



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC150

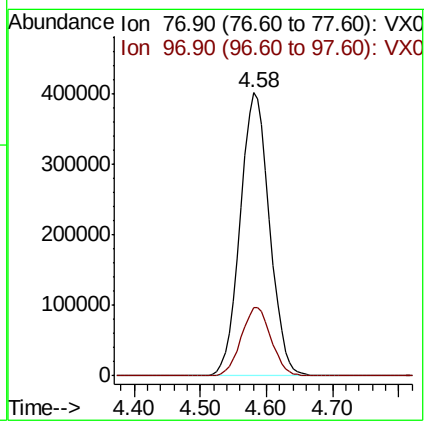
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:22:09 AM

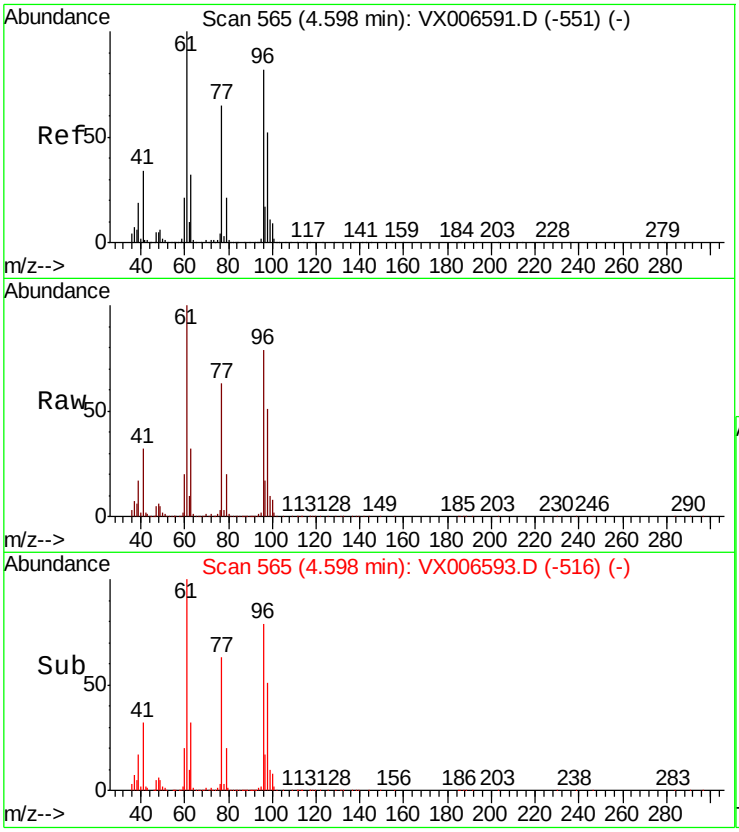


#26
2,2-Dichloropropane
Concen: 149.722 ug/l
RT: 4.58 min Scan# 562
Delta R.T. -0.01 min
Lab File: VX006593.D
Acq: 18 Dec 2018 12:57

Tgt Ion: 77 Resp: 1239027

Ion	Ratio	Lower	Upper
77	100		
97	24.6	12.4	37.4

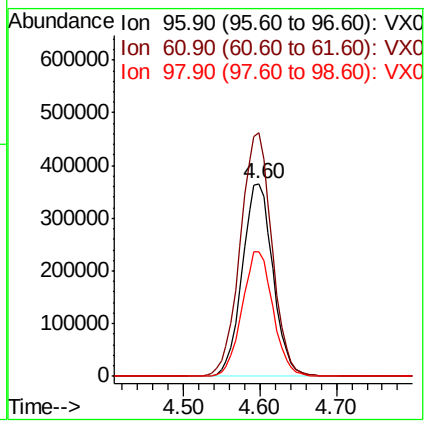




#27
cis-1,2-Dichloroethene
Concen: 143.180 ug/l
RT: 4.60 min Scan# 565
Delta R.T. -0.00 min
Lab File: VX006593.D
Acq: 18 Dec 2018 12:57

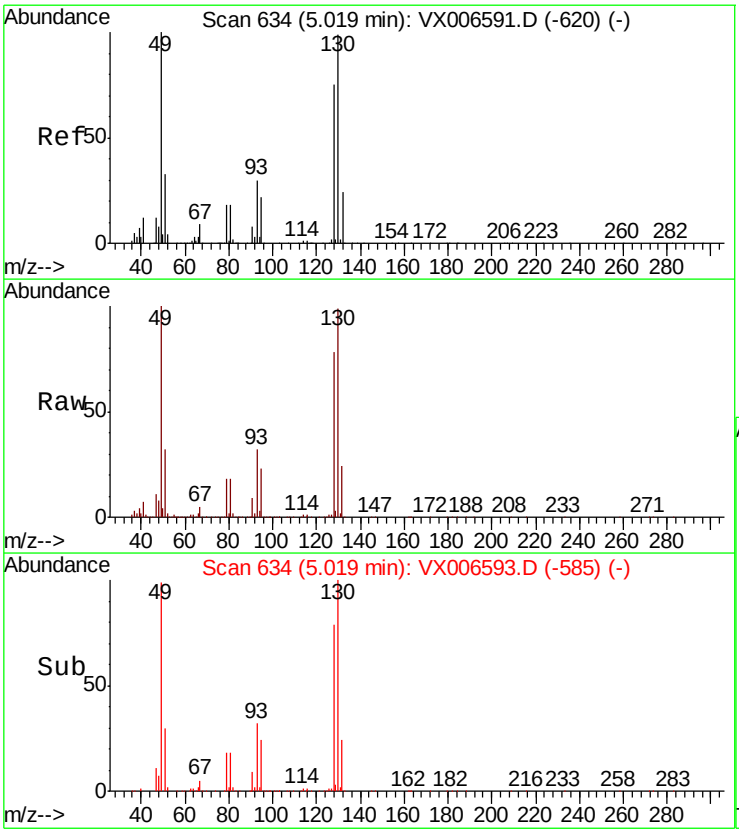
Tgt Ion: 96 Resp: 1020085

Ion	Ratio	Lower	Upper
96	100		
61	130.2	0.0	258.6
98	65.0	0.0	132.0



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC150

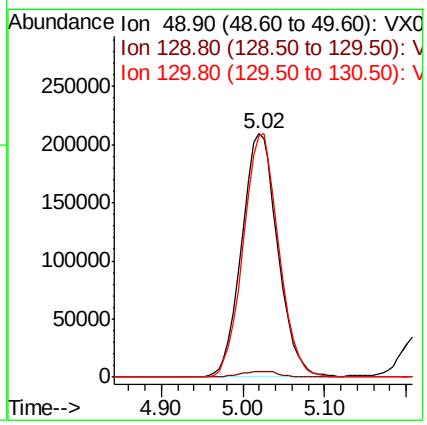
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:22:09 AM

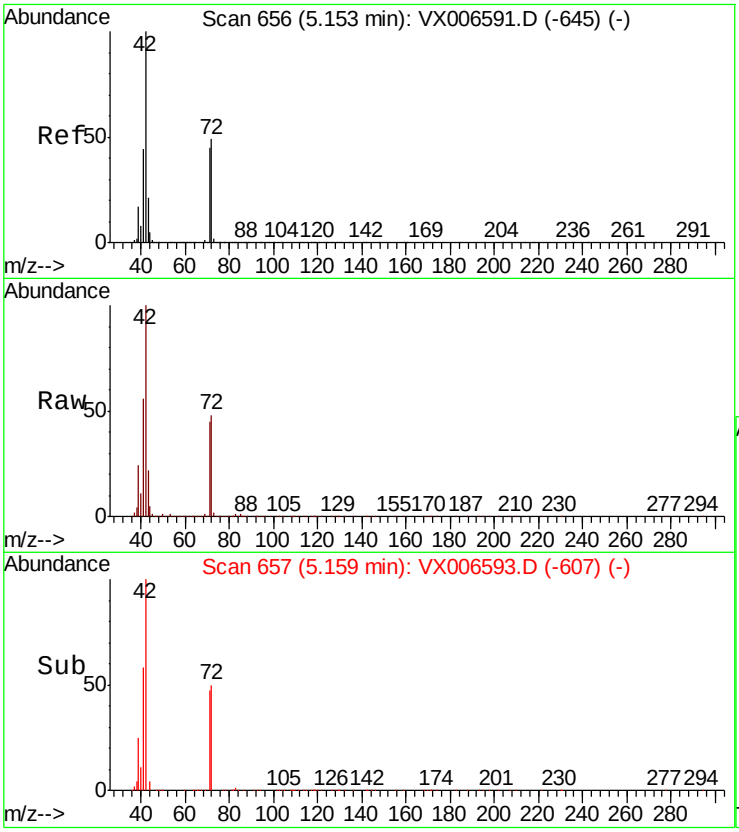


#28
Bromochloromethane
Concen: 130.675 ug/l
RT: 5.02 min Scan# 634
Delta R.T. -0.00 min
Lab File: VX006593.D
Acq: 18 Dec 2018 12:57

Tgt Ion: 49 Resp: 643654

Ion	Ratio	Lower	Upper
49	100		
129	2.6	0.0	5.4
130	98.1	77.7	116.5

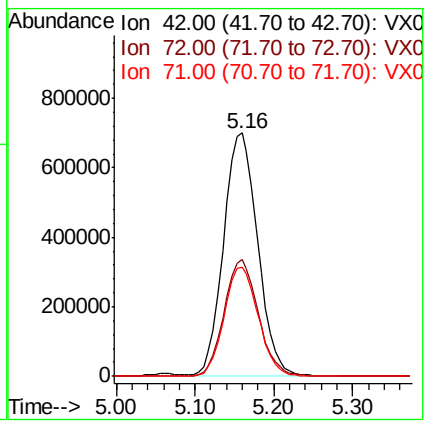


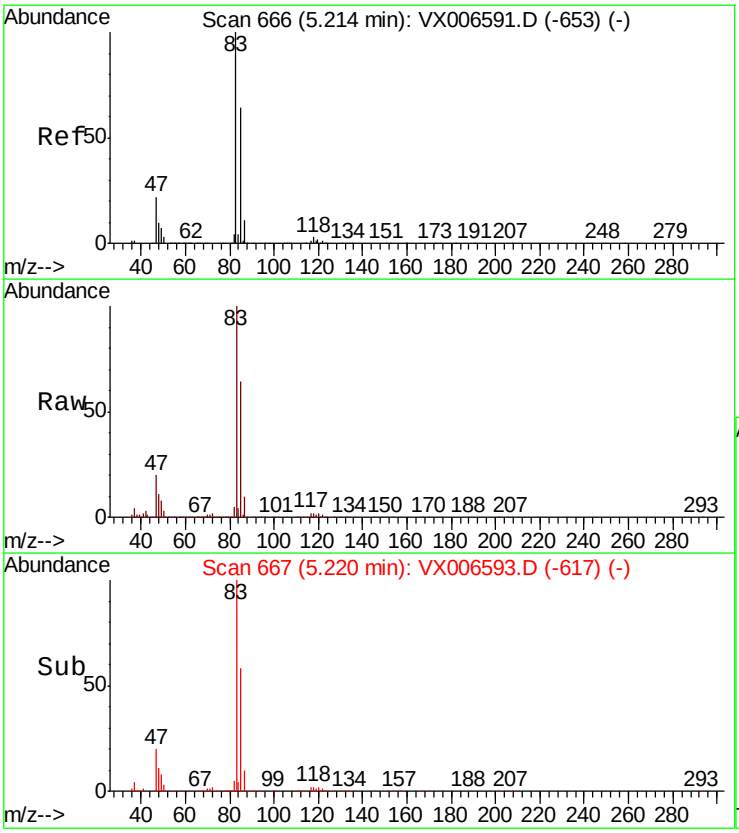


#29
Tetrahydrofuran
Concen: 704.549 ug/l
RT: 5.16 min Scan# 657
Delta R.T. 0.01 min
Lab File: VX006593.D
Acq: 18 Dec 2018 12:57

Tgt Ion: 42 Resp: 2108177

Ion	Ratio	Lower	Upper
42	100		
72	48.0	38.9	58.3
71	45.1	36.2	54.4

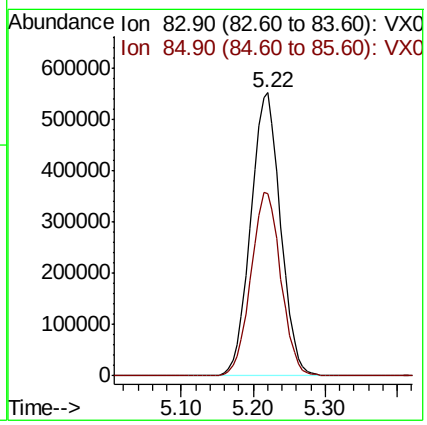




#30
Chloroform
Concen: 143.068 ug/l
RT: 5.22 min Scan# 667
Delta R.T. 0.01 min
Lab File: VX006593.D
Acq: 18 Dec 2018 12:57

Tgt Ion: 83 Resp: 1587203

Ion	Ratio	Lower	Upper
83	100		
85	64.2	51.2	76.8

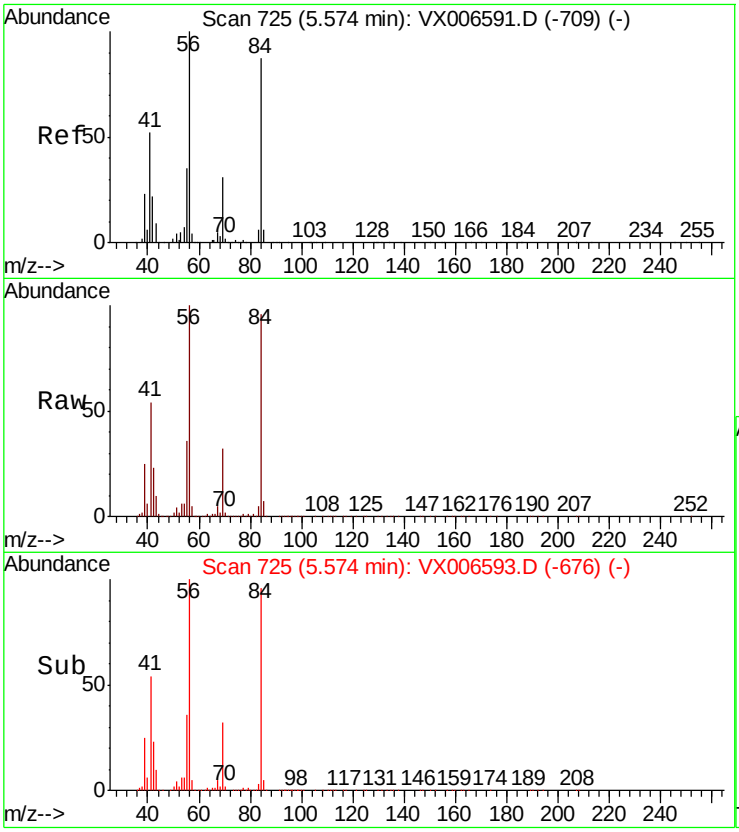


Instrument :
MSVOA_X
ClientSampleId :
VSTDICC150

Manual Integrations APPROVED
MMDadoda
12/19/2018 11:22:09 AM

Instrument :
MSVOA_X
ClientSampleId :
VSTDICC150

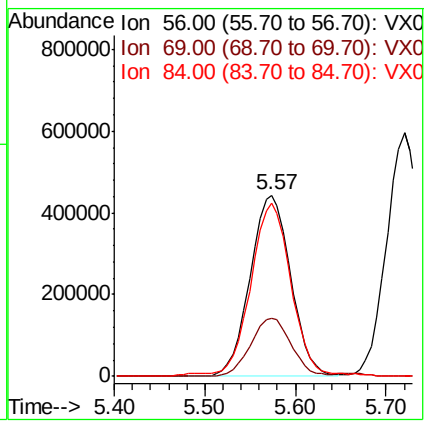
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:22:09 AM

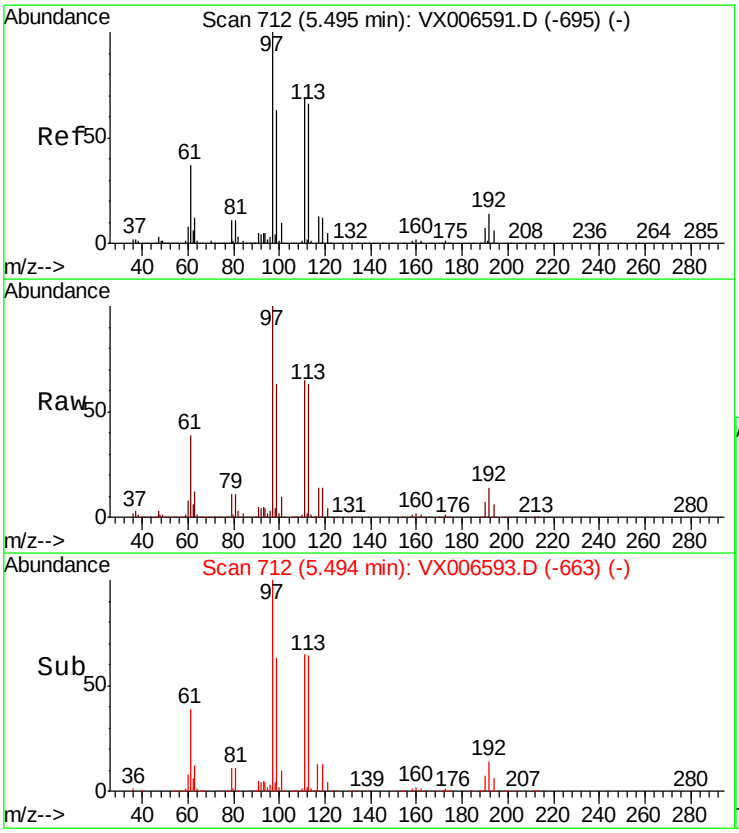


#31
Cyclohexane
Concen: 140.500 ug/l
RT: 5.57 min Scan# 725
Delta R.T. -0.00 min
Lab File: VX006593.D
Acq: 18 Dec 2018 12:57

Tgt Ion: 56 Resp: 1367439

Ion	Ratio	Lower	Upper
56	100		
69	32.1	24.4	36.6
84	94.4	70.0	105.0

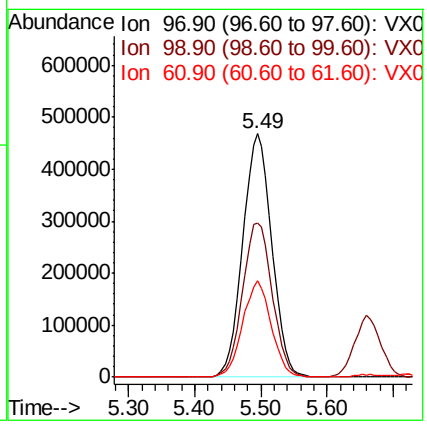


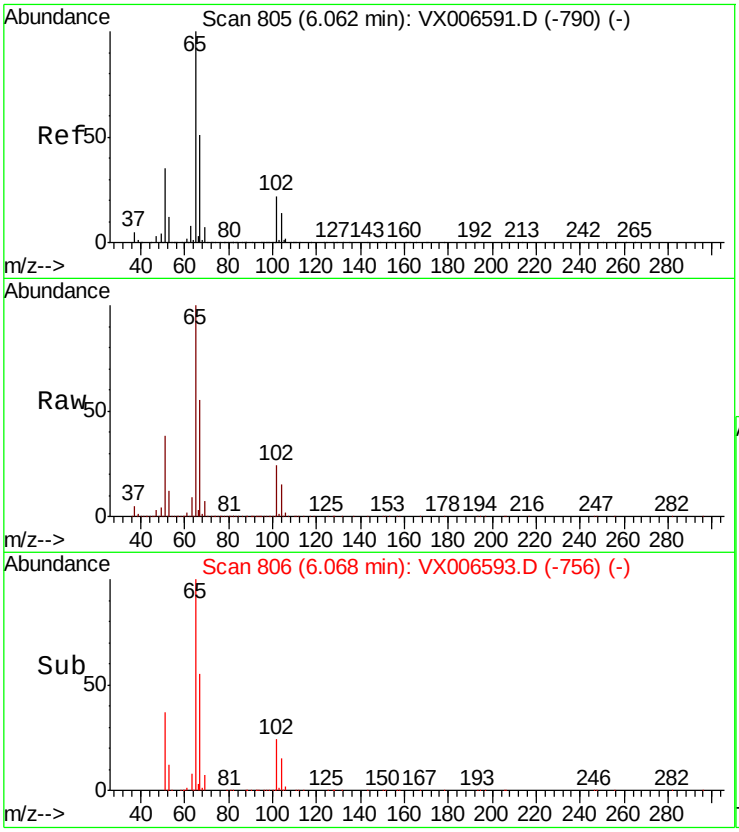


#32
1,1,1-Trichloroethane
Concen: 152.599 ug/l
RT: 5.49 min Scan# 712
Delta R.T. -0.00 min
Lab File: VX006593.D
Acq: 18 Dec 2018 12:57

Tgt Ion: 97 Resp: 1429493

Ion	Ratio	Lower	Upper
97	100		
99	64.8	51.7	77.5
61	38.8	31.3	46.9

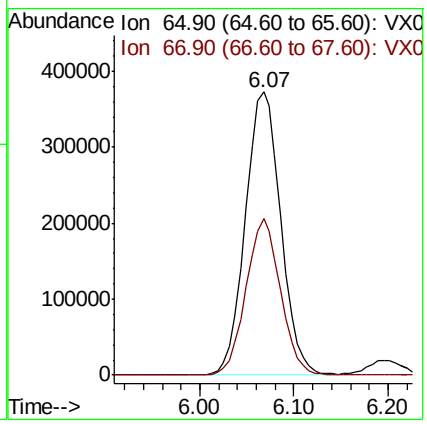




#33
1,2-Dichloroethane-d4
Concen: 139.942 ug/l
RT: 6.07 min Scan# 806
Delta R.T. 0.01 min
Lab File: VX006593.D
Acq: 18 Dec 2018 12:57

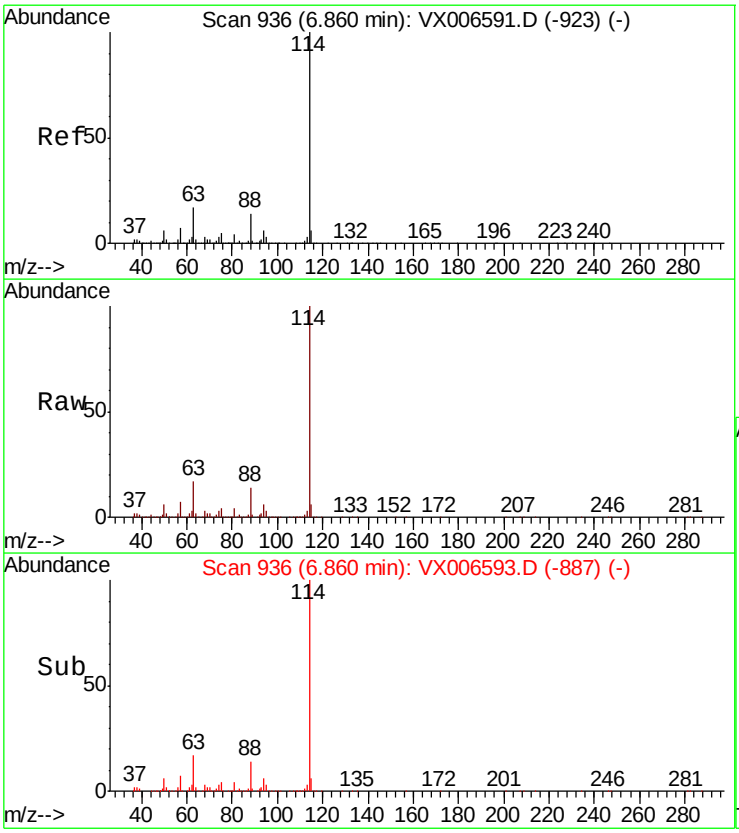
Tgt Ion: 65 Resp: 983789

Ion	Ratio	Lower	Upper
65	100		
67	53.6	0.0	105.0



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC150

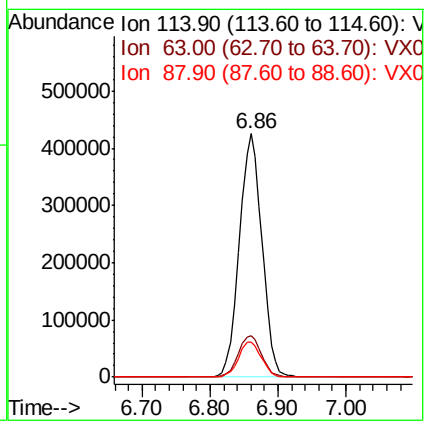
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:22:09 AM



#34
1,4-Difluorobenzene
Concen: 50.000 ug/l
RT: 6.86 min Scan# 936
Delta R.T. -0.00 min
Lab File: VX006593.D
Acq: 18 Dec 2018 12:57

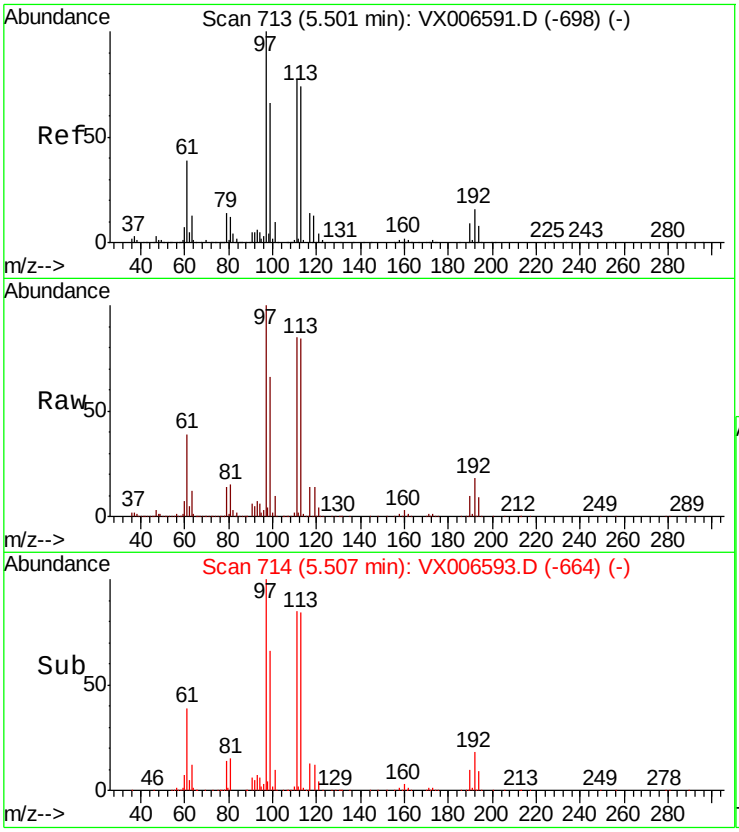
Tgt Ion:114 Resp: 981048

Ion	Ratio	Lower	Upper
114	100		
63	16.8	0.0	34.8
88	14.4	0.0	28.8



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC150

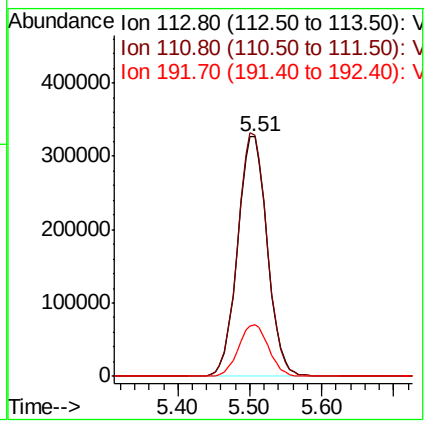
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:22:09 AM

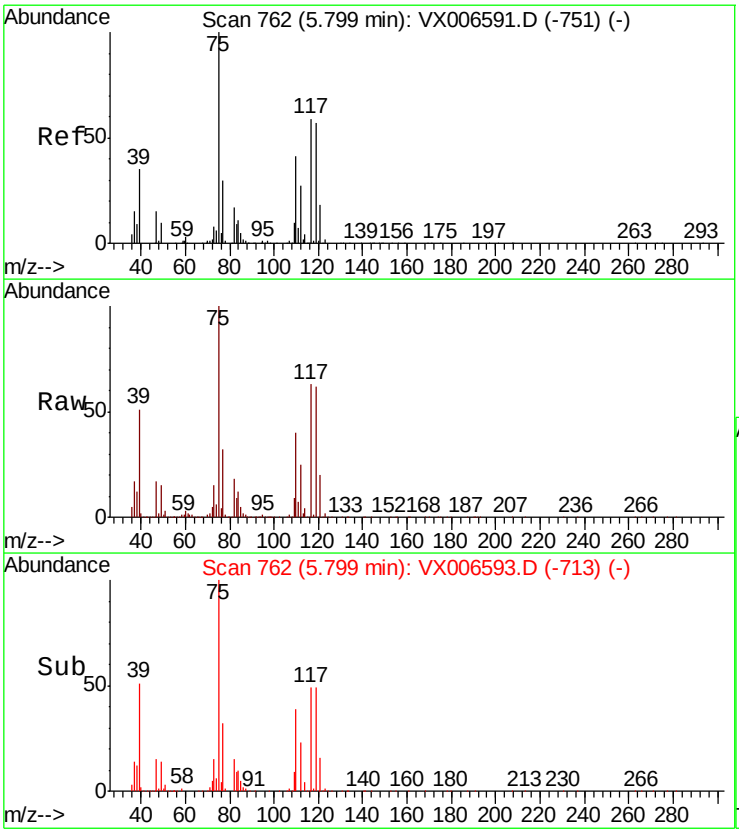


#35
Dibromofluoromethane
Concen: 150.003 ug/l
RT: 5.51 min Scan# 714
Delta R.T. 0.01 min
Lab File: VX006593.D
Acq: 18 Dec 2018 12:57

Tgt Ion:113 Resp: 930611

Ion	Ratio	Lower	Upper
113	100		
111	101.2	81.6	122.4
192	21.9	16.7	25.1

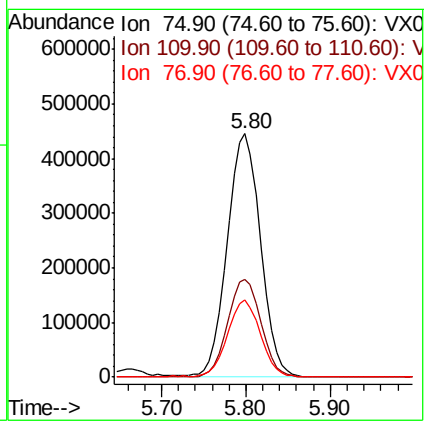




#36
1,1-Dichloropropene
Concen: 146.627 ug/l
RT: 5.80 min Scan# 762
Delta R.T. -0.00 min
Lab File: VX006593.D
Acq: 18 Dec 2018 12:57

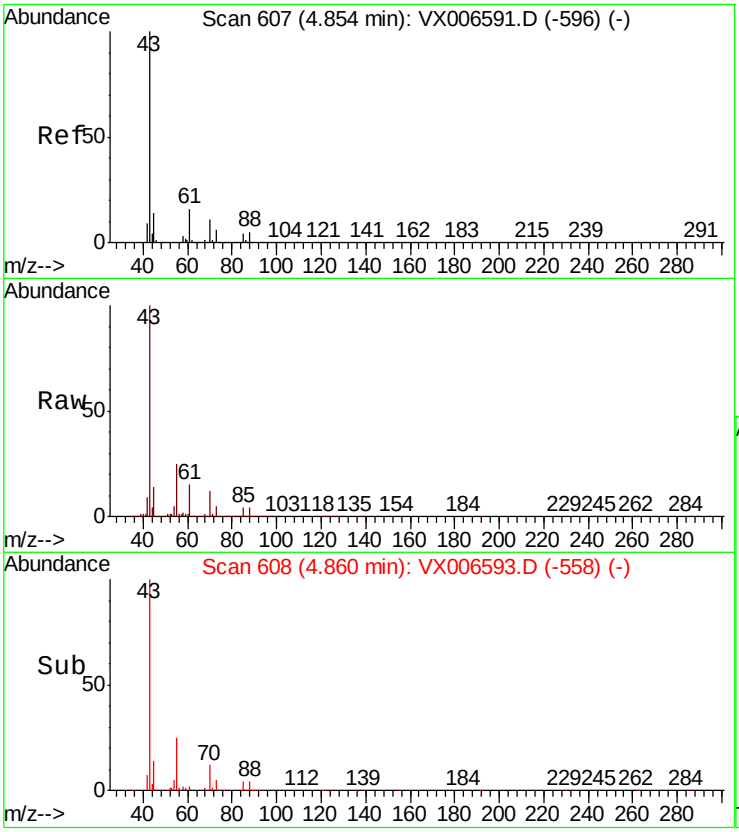
Tgt Ion: 75 Resp: 1191395

Ion	Ratio	Lower	Upper
75	100		
110	40.3	20.2	60.5
77	31.2	24.8	37.2



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC150

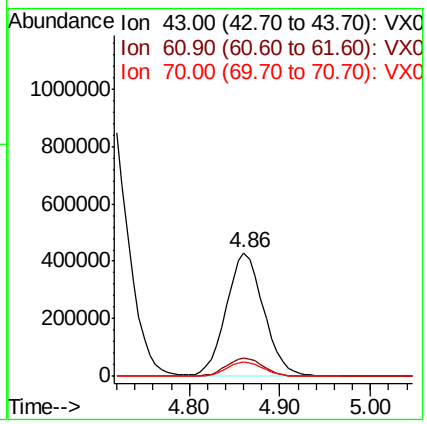
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:22:09 AM

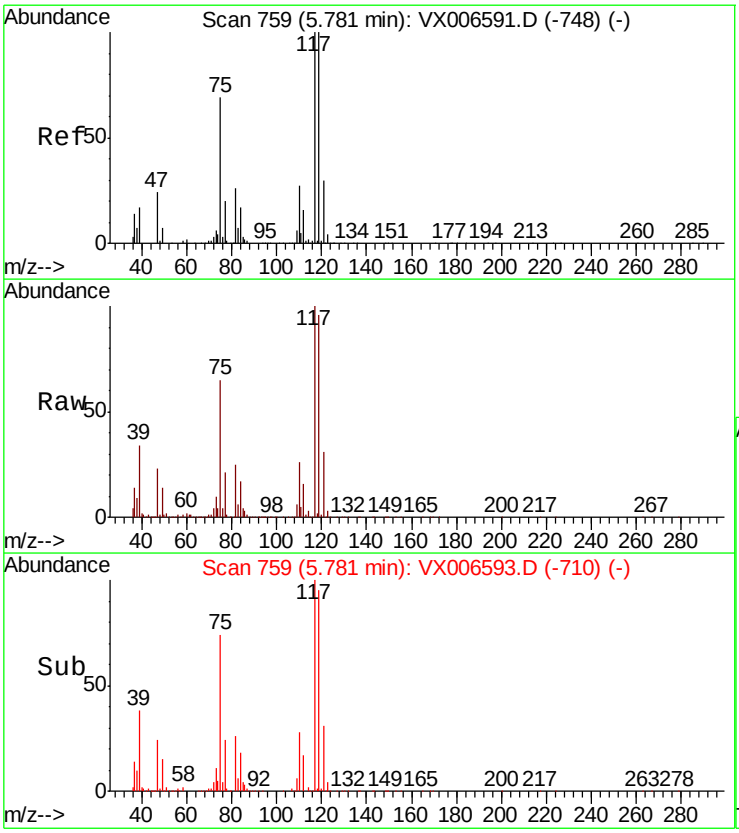


#37
Ethyl Acetate
Concen: 144.868 ug/l
RT: 4.86 min Scan# 608
Delta R.T. 0.01 min
Lab File: VX006593.D
Acq: 18 Dec 2018 12:57

Tgt Ion: 43 Resp: 1225146

Ion	Ratio	Lower	Upper
43	100		
61	14.7	11.9	17.9
70	11.9	9.7	14.5

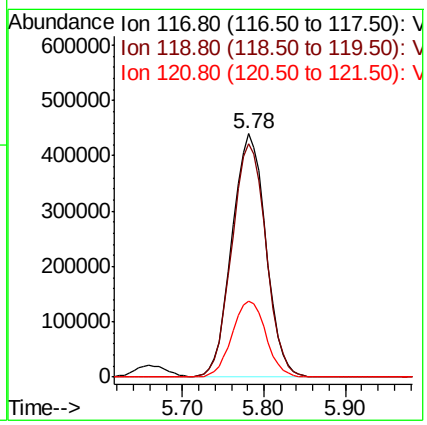




#38
Carbon Tetrachloride
Concen: 160.126 ug/l
RT: 5.78 min Scan# 759
Delta R.T. -0.00 min
Lab File: VX006593.D
Acq: 18 Dec 2018 12:57

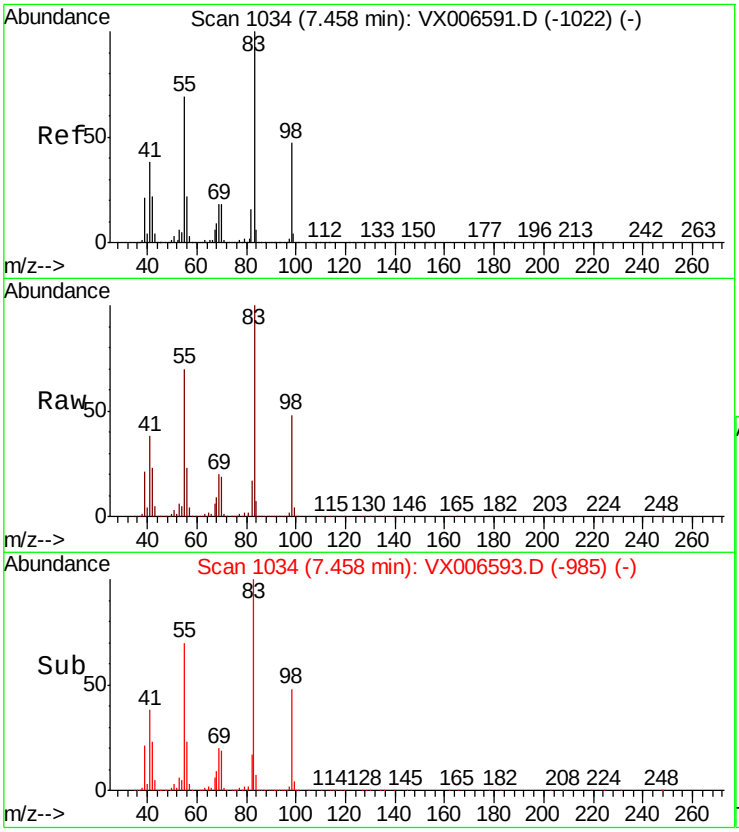
Tgt Ion:117 Resp: 1264445

Ion	Ratio	Lower	Upper
117	100		
119	95.8	79.4	119.2
121	31.0	24.0	36.0



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC150

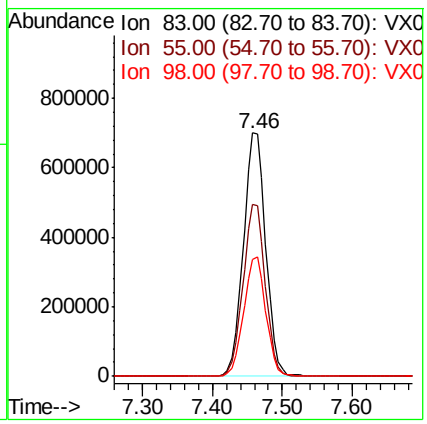
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:22:09 AM

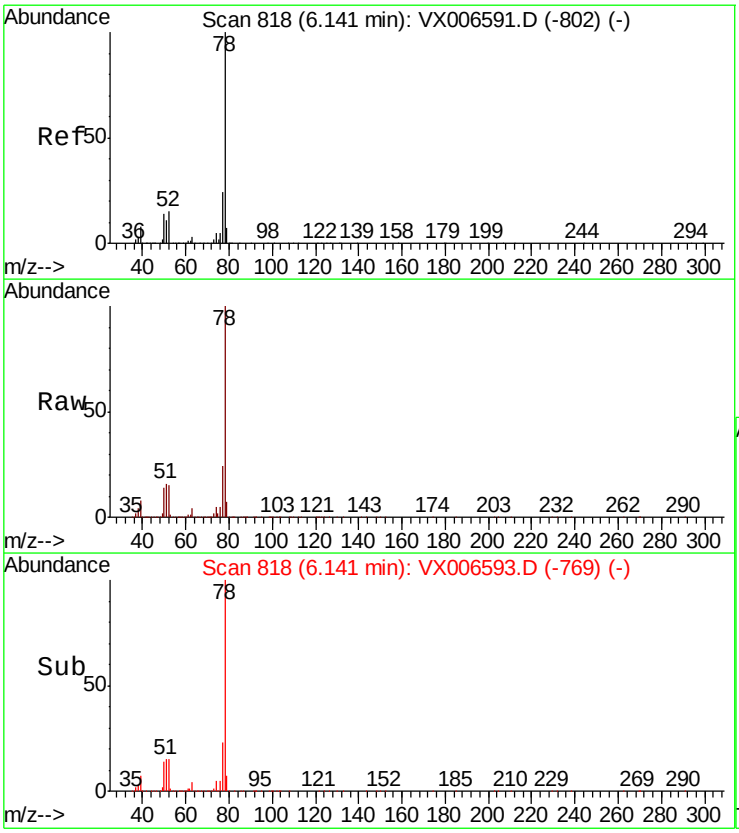


#39
Methylcyclohexane
Concen: 144.619 ug/l
RT: 7.46 min Scan# 1034
Delta R.T. -0.00 min
Lab File: VX006593.D
Acq: 18 Dec 2018 12:57

Tgt Ion: 83 Resp: 1547025

Ion	Ratio	Lower	Upper
83	100		
55	70.5	54.9	82.3
98	48.0	37.9	56.9

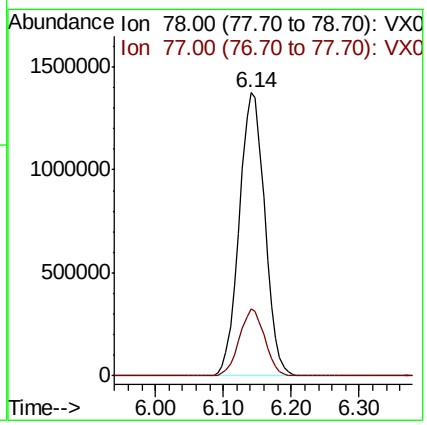




#40
Benzene
Concen: 145.375 ug/l
RT: 6.14 min Scan# 818
Delta R.T. -0.00 min
Lab File: VX006593.D
Acq: 18 Dec 2018 12:57

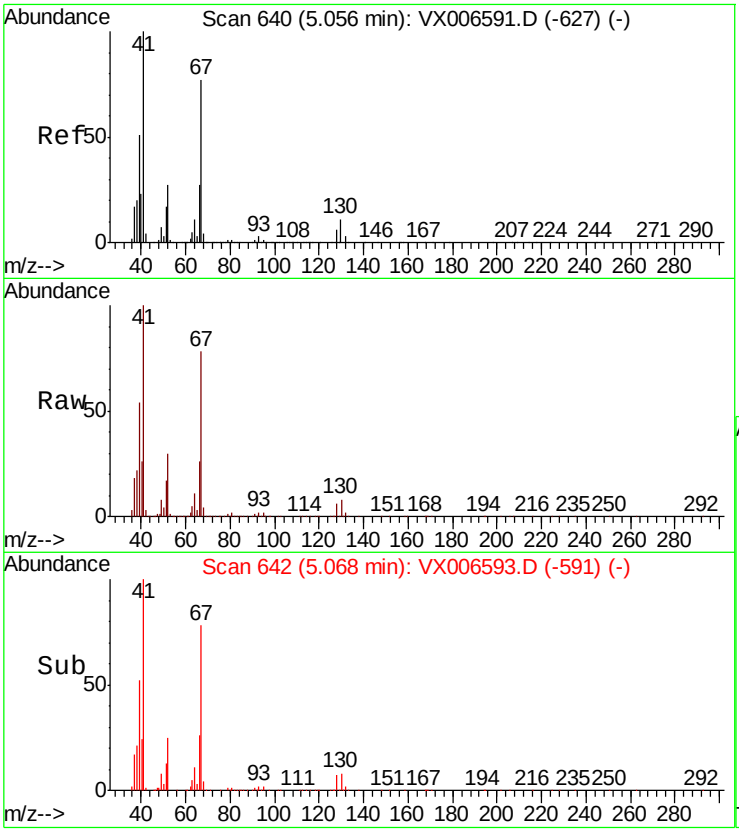
Tgt Ion: 78 Resp: 3590522

Ion	Ratio	Lower	Upper
78	100		
77	23.8	19.2	28.8



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC150

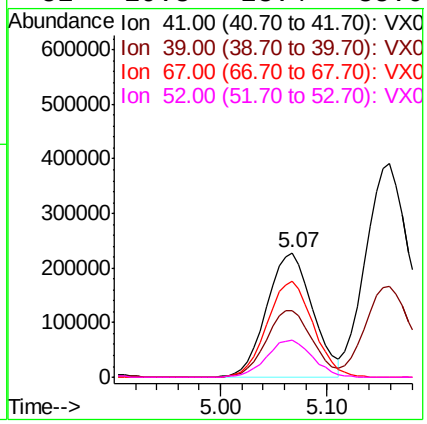
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:22:09 AM

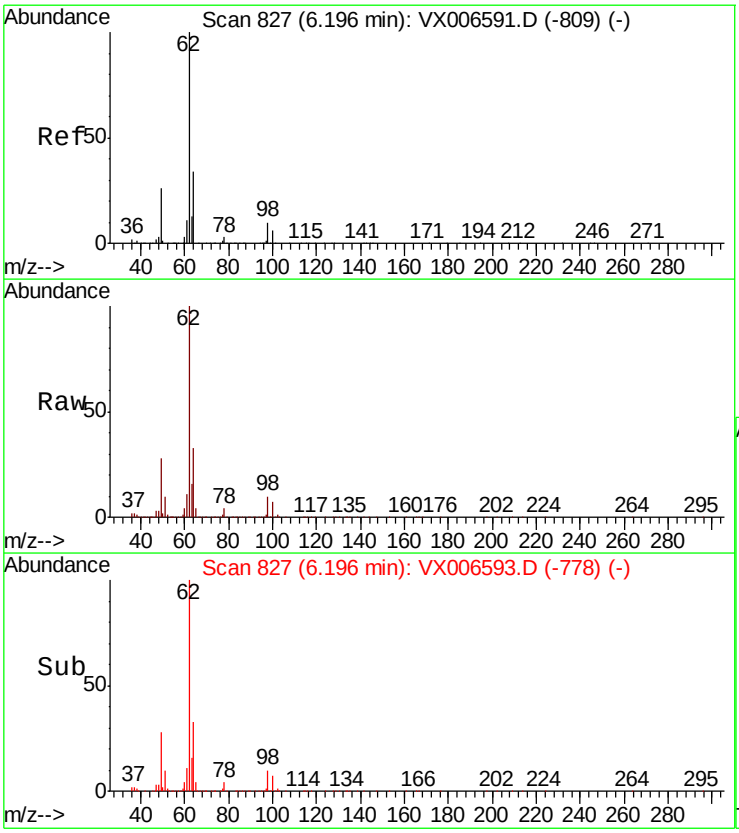


#41
Methacrylonitrile
Concen: 142.884 ug/l
RT: 5.07 min Scan# 642
Delta R.T. 0.01 min
Lab File: VX006593.D
Acq: 18 Dec 2018 12:57

Tgt Ion: 41 Resp: 679045

Ion	Ratio	Lower	Upper
41	100		
39	54.3	42.8	64.2
67	77.7	62.1	93.1
52	29.8	23.4	35.0

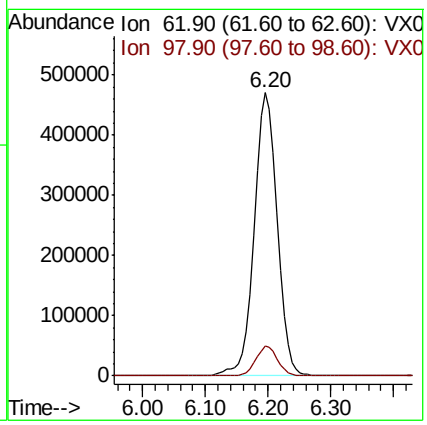




#42
1,2-Dichloroethane
Concen: 141.550 ug/l
RT: 6.20 min Scan# 827
Delta R.T. -0.00 min
Lab File: VX006593.D
Acq: 18 Dec 2018 12:57

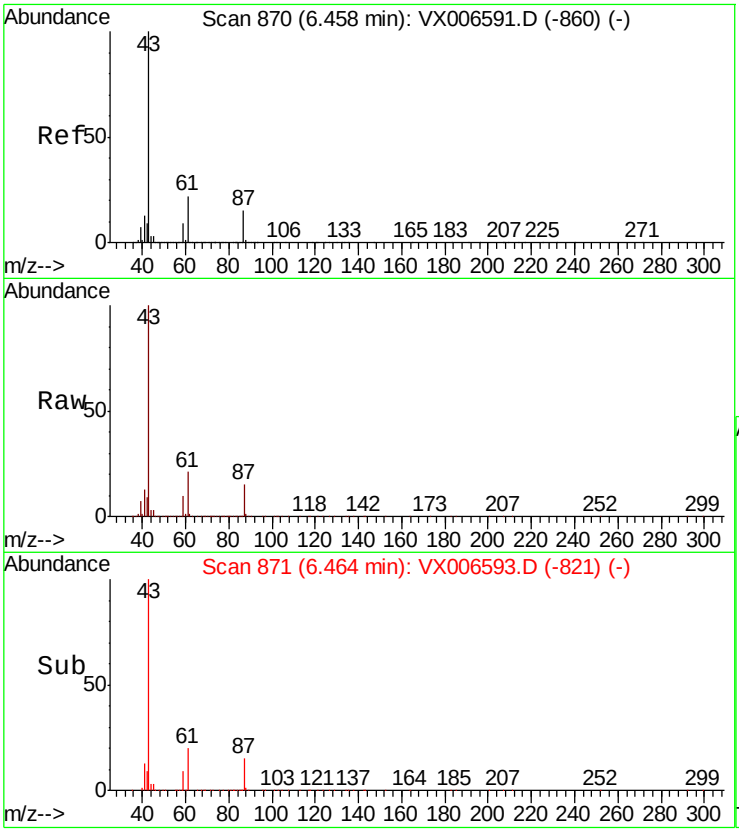
Tgt Ion: 62 Resp: 1191302

Ion	Ratio	Lower	Upper
62	100		
98	10.0	0.0	20.2



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC150

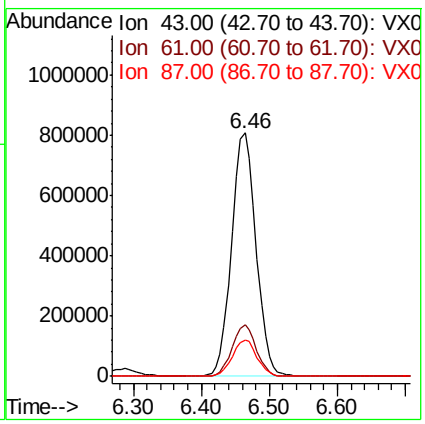
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:22:09 AM

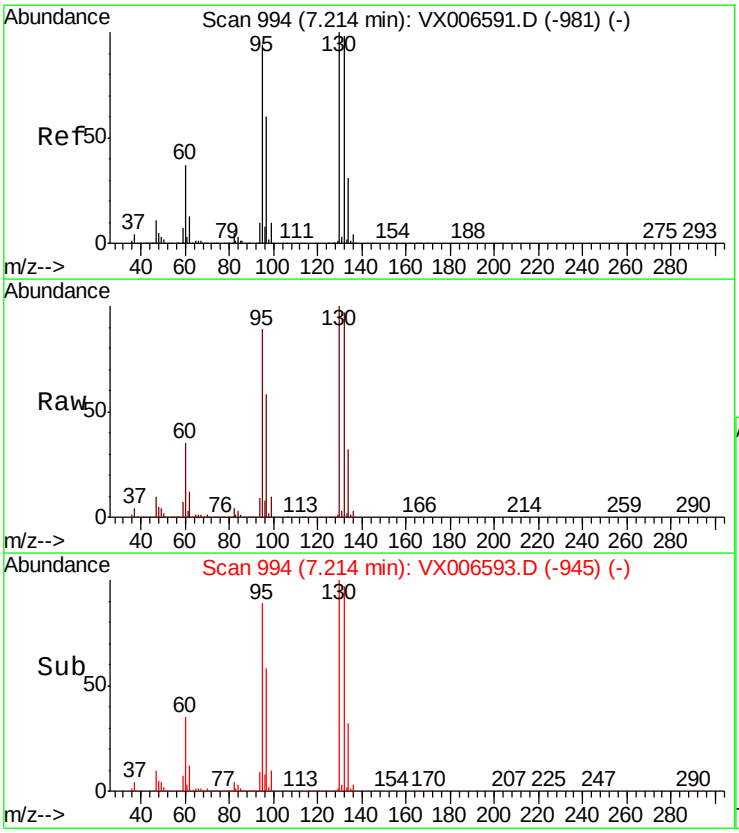


#43
Isopropyl Acetate
Concen: 156.214 ug/l
RT: 6.46 min Scan# 871
Delta R.T. 0.01 min
Lab File: VX006593.D
Acq: 18 Dec 2018 12:57

Tgt Ion: 43 Resp: 2010116

Ion	Ratio	Lower	Upper
43	100		
61	21.0	16.8	25.2
87	15.1	12.4	18.6

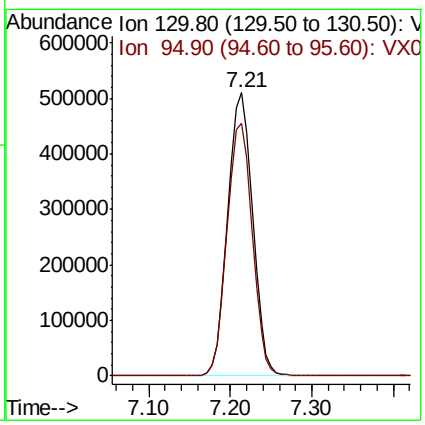




#44
Trichloroethene
Concen: 144.520 ug/l
RT: 7.21 min Scan# 994
Delta R.T. -0.00 min
Lab File: VX006593.D
Acq: 18 Dec 2018 12:57

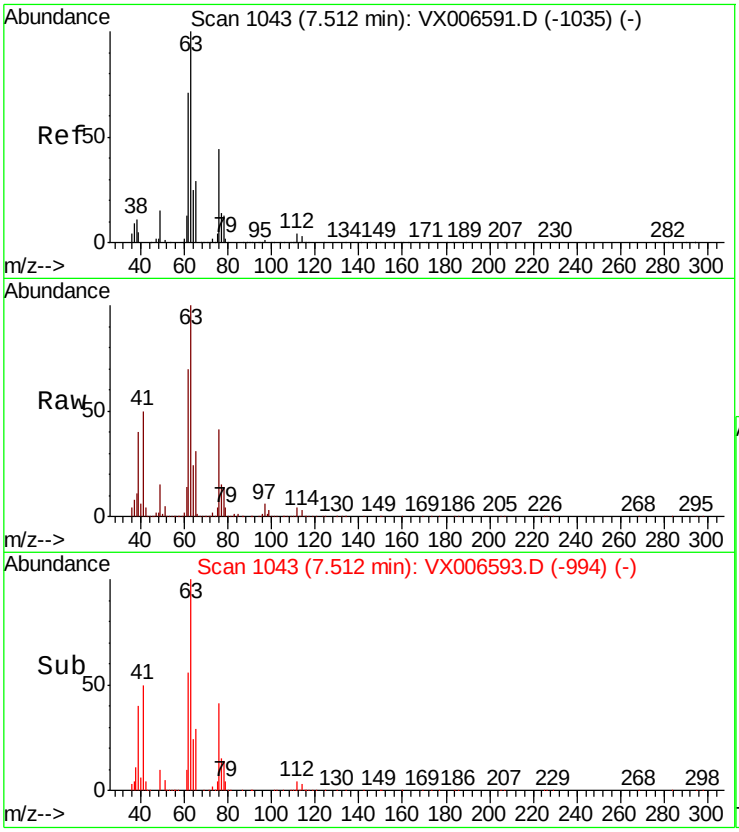
Tgt Ion:130 Resp: 1080346

Ion	Ratio	Lower	Upper
130	100		
95	89.1	0.0	187.0



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC150

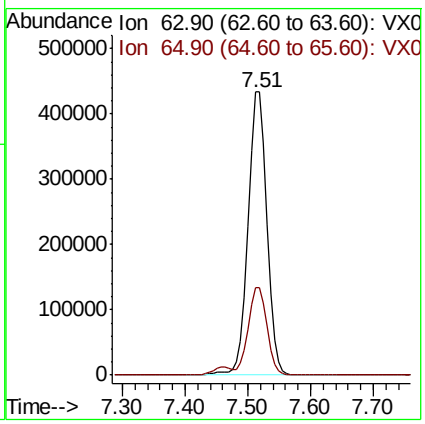
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:22:09 AM

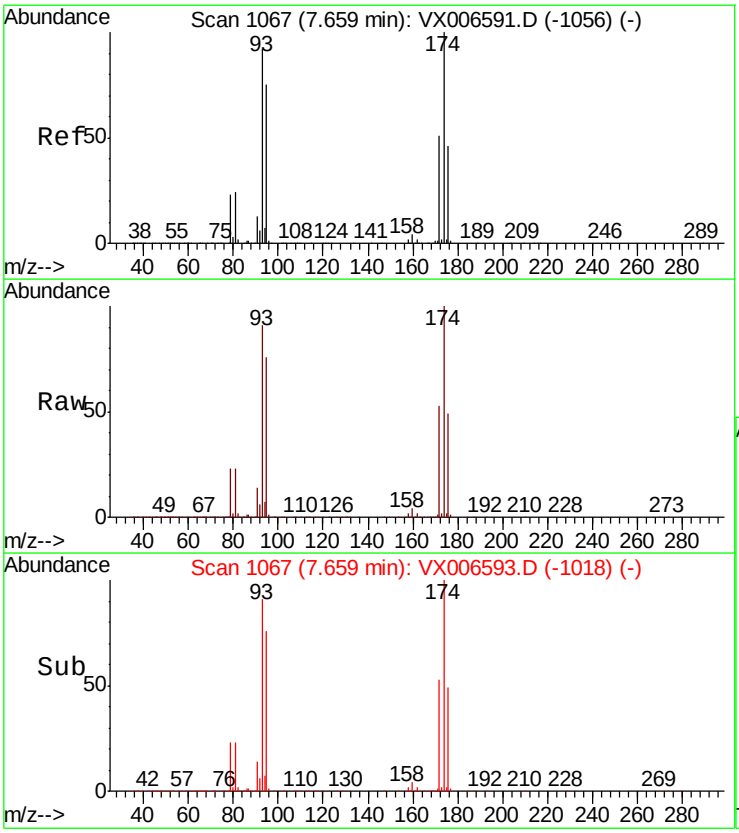


#45
1,2-Dichloropropane
Concen: 149.721 ug/l
RT: 7.51 min Scan# 1043
Delta R.T. -0.00 min
Lab File: VX006593.D
Acq: 18 Dec 2018 12:57

Tgt Ion: 63 Resp: 899870

Ion	Ratio	Lower	Upper
63	100		
65	30.8	25.4	38.0

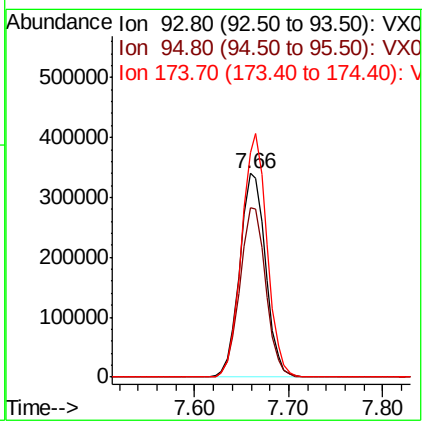


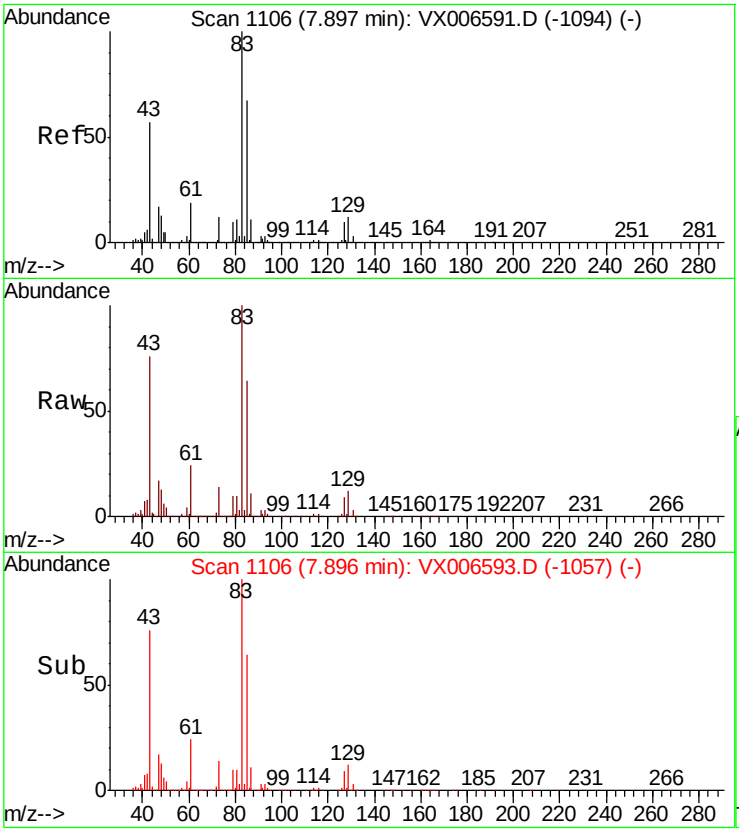


#46
Dibromomethane
Concen: 147.961 ug/l
RT: 7.66 min Scan# 1067
Delta R.T. -0.00 min
Lab File: VX006593.D
Acq: 18 Dec 2018 12:57

Tgt Ion: 93 Resp: 654123

Ion	Ratio	Lower	Upper
93	100		
95	83.2	66.2	99.4
174	117.5	91.0	136.4

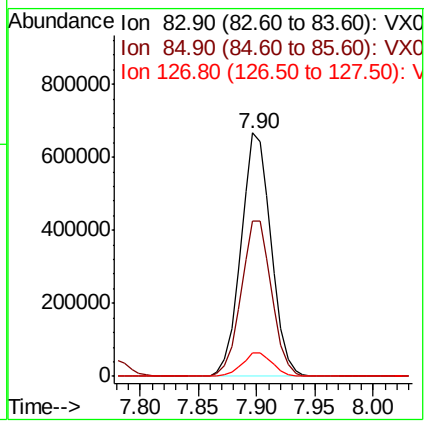




#47
Bromodichloromethane
Concen: 163.291 ug/l
RT: 7.90 min Scan# 1106
Delta R.T. -0.00 min
Lab File: VX006593.D
Acq: 18 Dec 2018 12:57

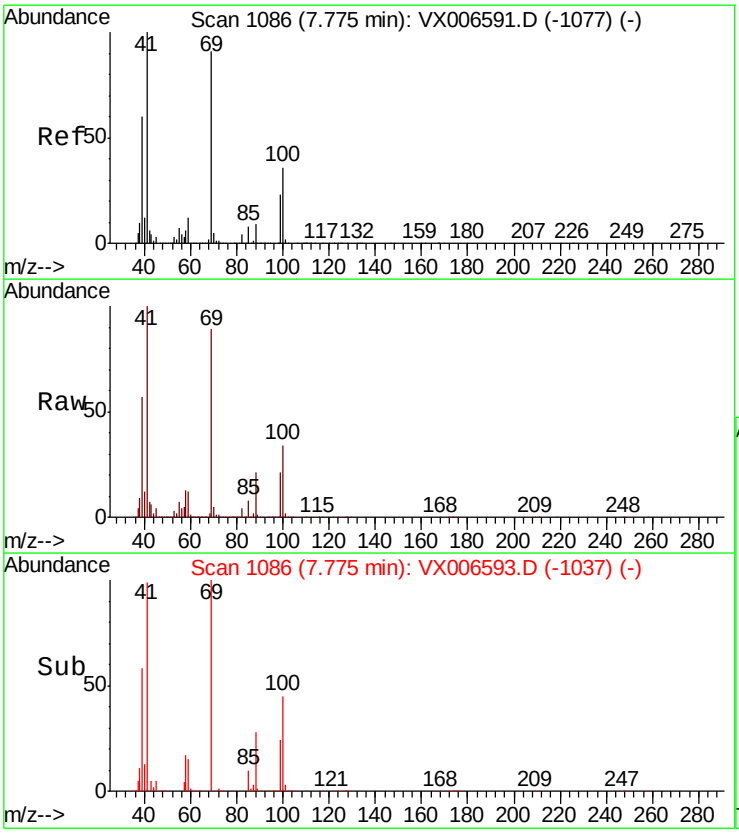
Tgt Ion: 83 Resp: 1198511

Ion	Ratio	Lower	Upper
83	100		
85	63.7	53.2	79.8
127	9.4	7.8	11.6



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC150

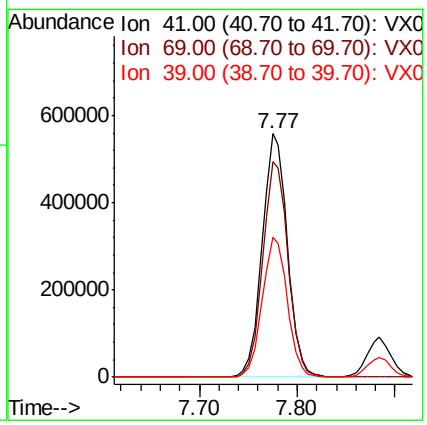
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:22:09 AM



#48
Methyl methacrylate
Concen: 153.309 ug/l
RT: 7.77 min Scan# 1086
Delta R.T. -0.00 min
Lab File: VX006593.D
Acq: 18 Dec 2018 12:57

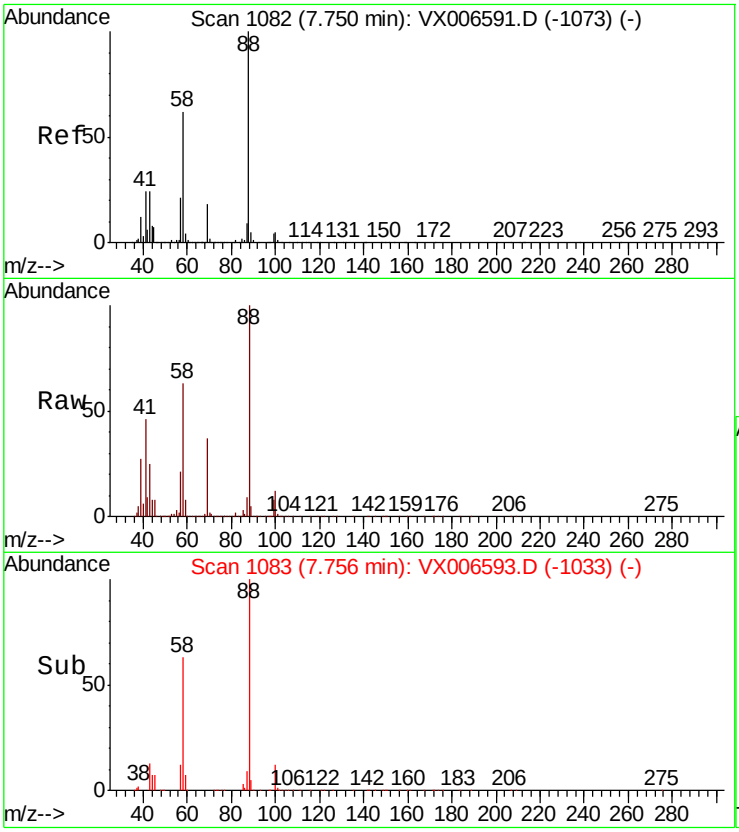
Tgt Ion: 41 Resp: 1003194

Ion	Ratio	Lower	Upper
41	100		
69	89.4	72.4	108.6
39	57.3	45.8	68.8



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC150

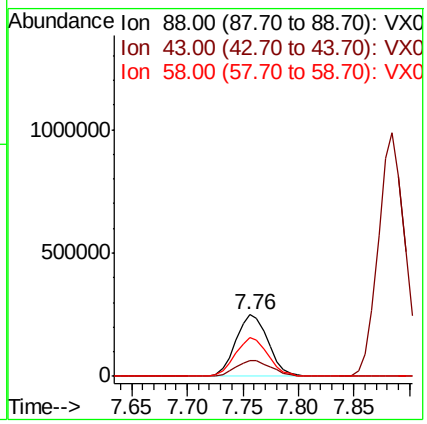
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:22:09 AM

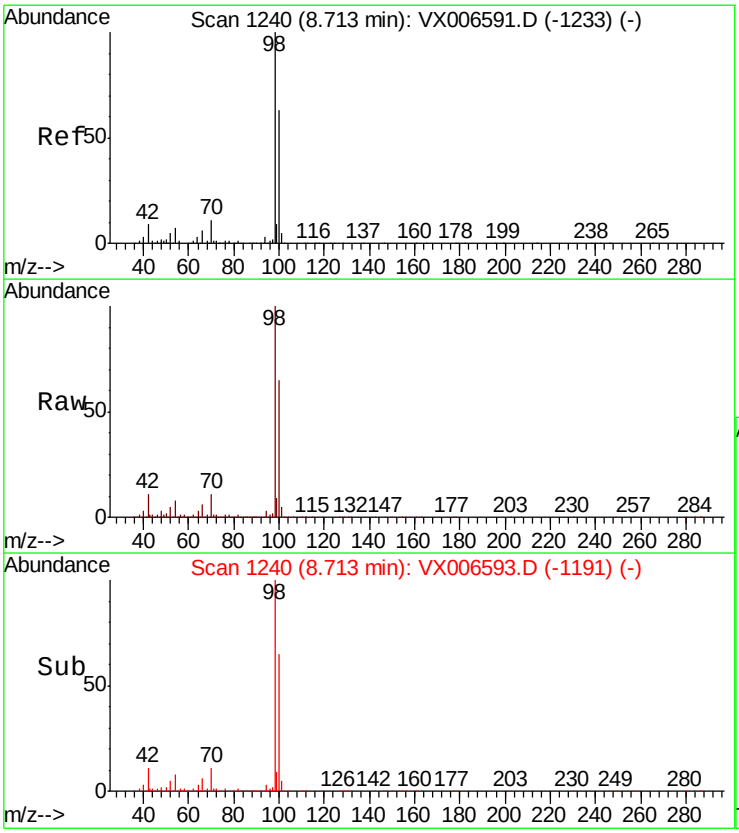


#49
1,4-Dioxane
Concen: 2702.927 ug/l
RT: 7.76 min Scan# 1083
Delta R.T. 0.01 min
Lab File: VX006593.D
Acq: 18 Dec 2018 12:57

Tgt Ion: 88 Resp: 500432

Ion	Ratio	Lower	Upper
88	100		
43	28.1	22.2	33.4
58	63.8	51.0	76.4

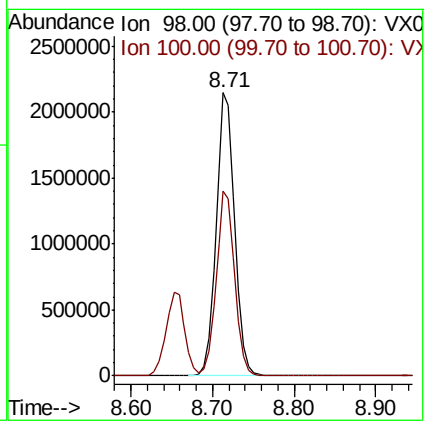


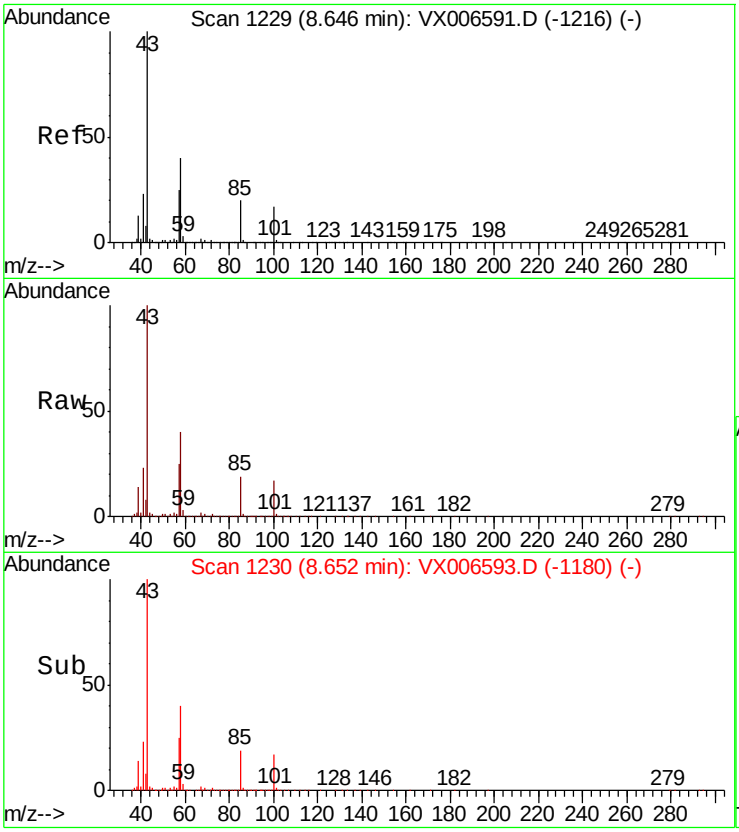


#50
Toluene-d8
Concen: 145.387 ug/l
RT: 8.71 min Scan# 1240
Delta R.T. -0.00 min
Lab File: VX006593.D
Acq: 18 Dec 2018 12:57

Tgt Ion: 98 Resp: 3400472

Ion	Ratio	Lower	Upper
98	100		
100	65.1	52.0	78.0

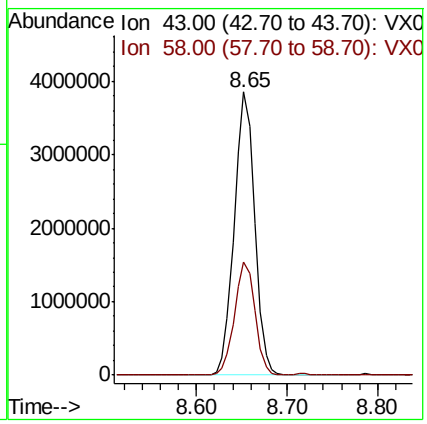




#51
4-Methyl-2-Pentanone
Concen: 738.126 ug/l
RT: 8.65 min Scan# 1230
Delta R.T. 0.01 min
Lab File: VX006593.D
Acq: 18 Dec 2018 12:57

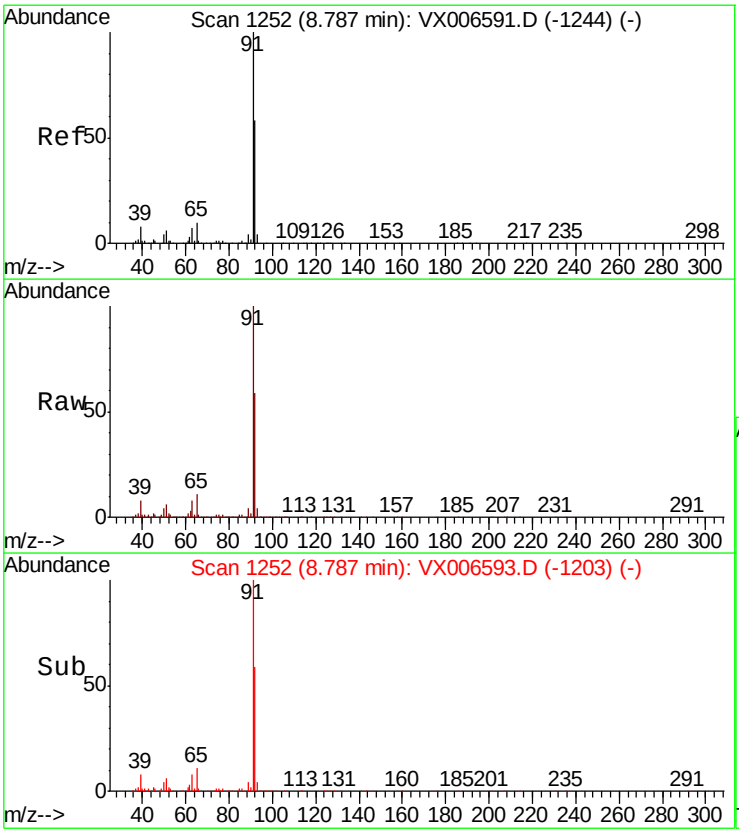
Tgt Ion: 43 Resp: 6043284

Ion	Ratio	Lower	Upper
43	100		
58	40.1	31.8	47.6



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC150

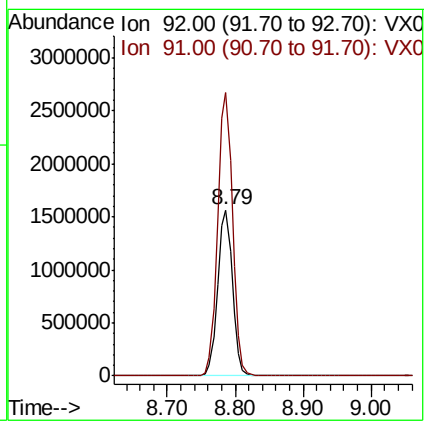
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:22:09 AM

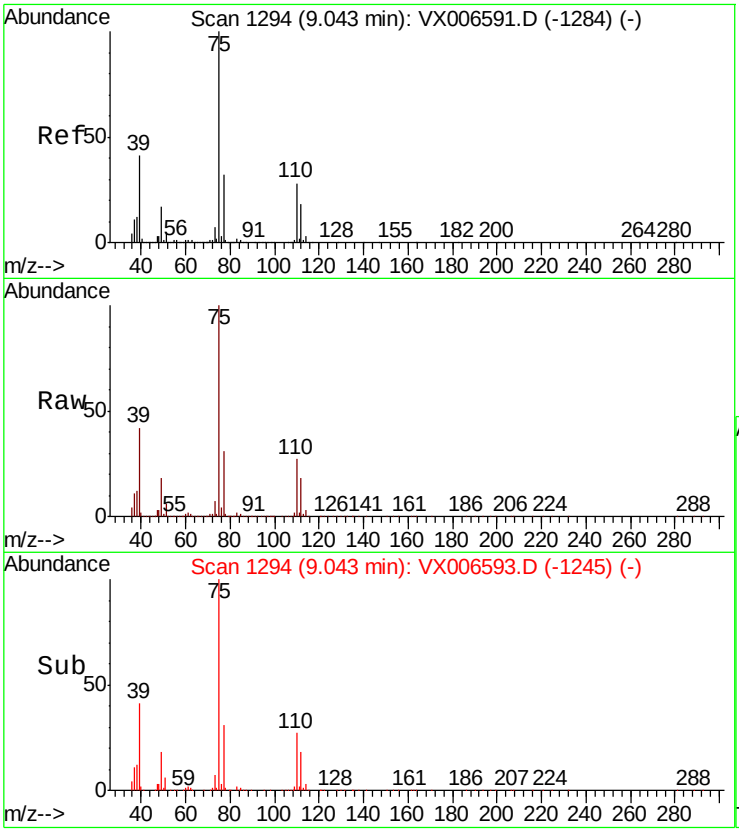


#52
Toluene
Concen: 147.259 ug/l
RT: 8.79 min Scan# 1252
Delta R.T. -0.00 min
Lab File: VX006593.D
Acq: 18 Dec 2018 12:57

Tgt Ion: 92 Resp: 2349690

Ion	Ratio	Lower	Upper
92	100		
91	172.4	137.6	206.4

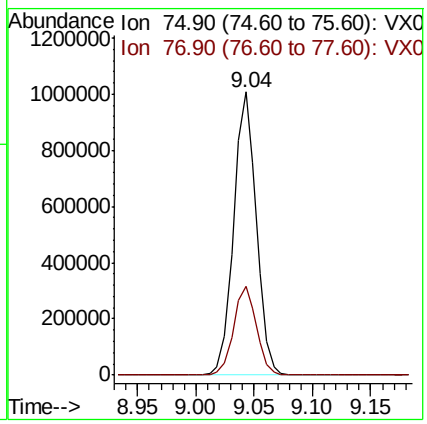




#53
t-1,3-Dichloropropene
Concen: 173.086 ug/l
RT: 9.04 min Scan# 1294
Delta R.T. -0.00 min
Lab File: VX006593.D
Acq: 18 Dec 2018 12:57

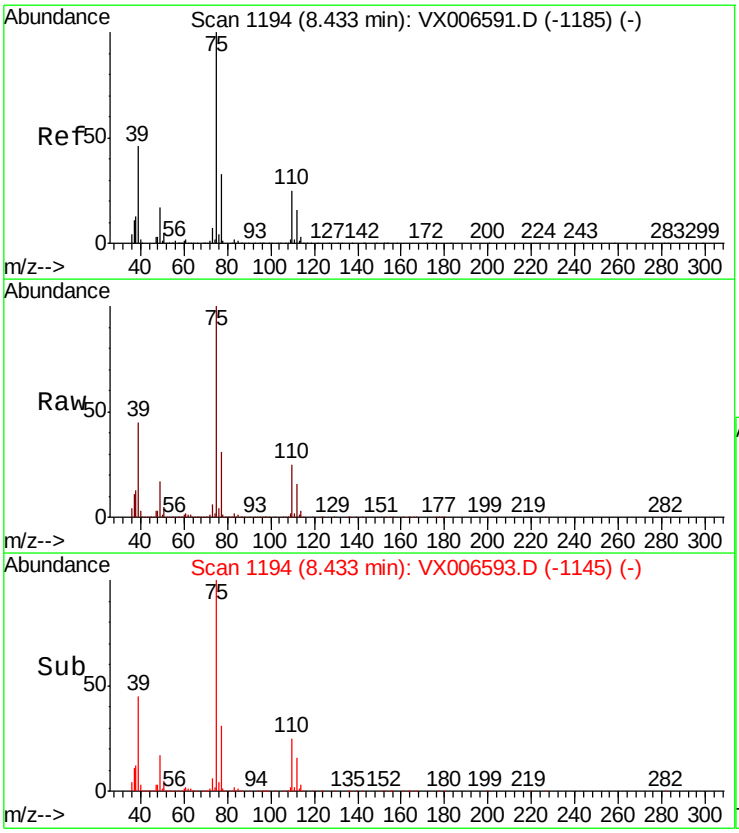
Tgt Ion: 75 Resp: 1362494

Ion	Ratio	Lower	Upper
75	100		
77	31.5	25.4	38.0



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC150

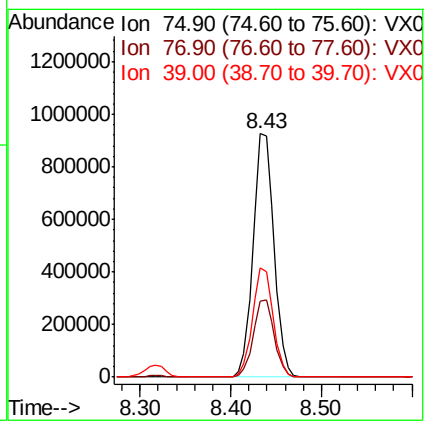
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:22:09 AM



#54
cis-1,3-Dichloropropene
Concen: 170.768 ug/l
RT: 8.43 min Scan# 1194
Delta R.T. -0.00 min
Lab File: VX006593.D
Acq: 18 Dec 2018 12:57

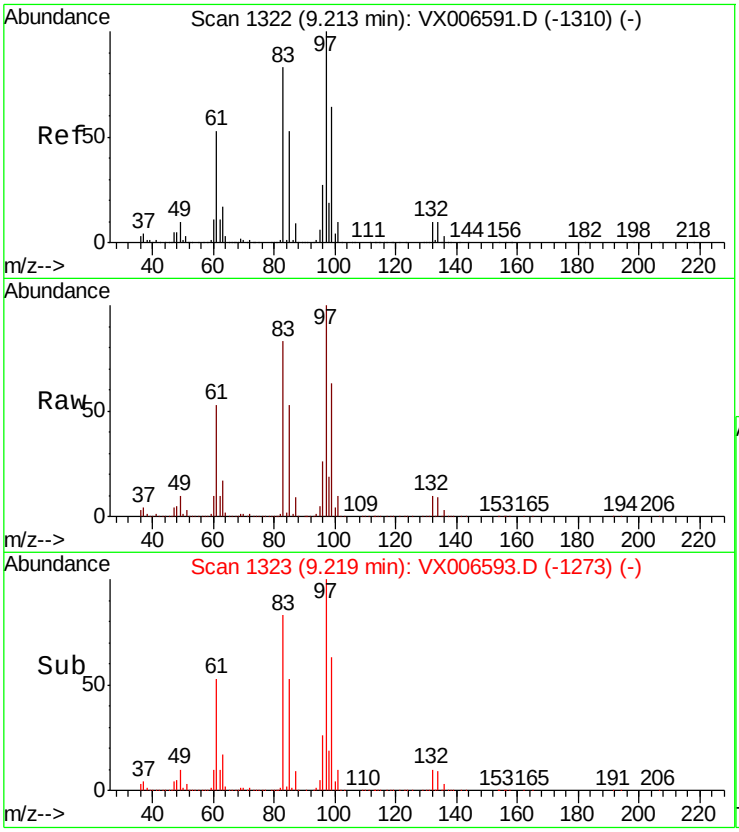
Tgt Ion: 75 Resp: 1474973

Ion	Ratio	Lower	Upper
75	100		
77	31.1	26.2	39.2
39	44.5	36.7	55.1



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC150

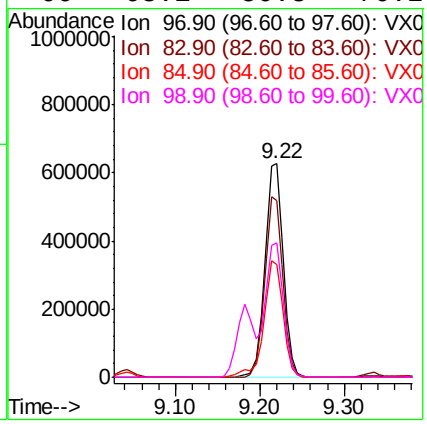
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:22:09 AM

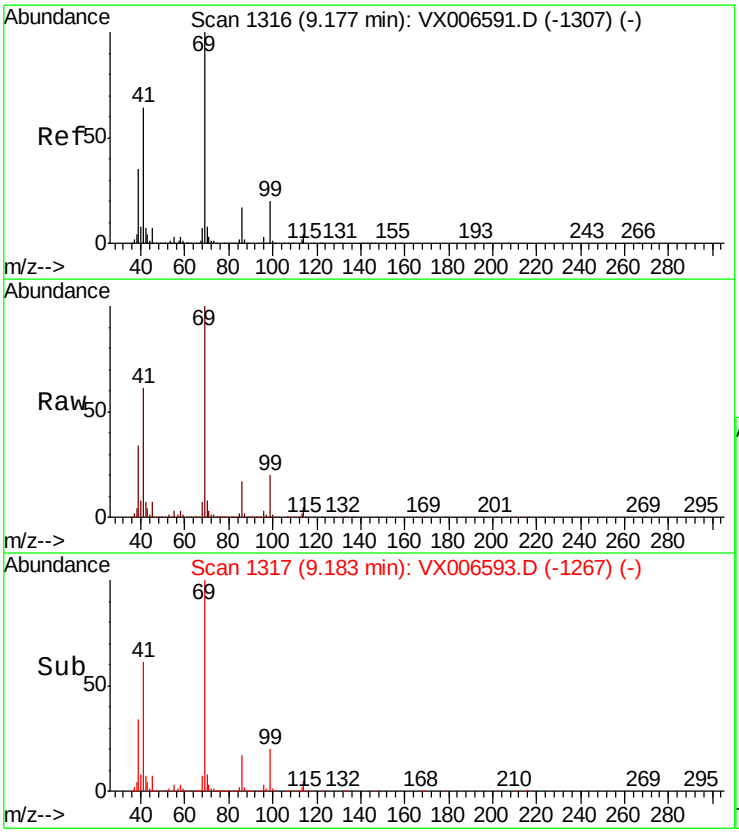


#55
1,1,2-Trichloroethane
Concen: 144.314 ug/l
RT: 9.22 min Scan# 1323
Delta R.T. 0.01 min
Lab File: VX006593.D
Acq: 18 Dec 2018 12:57

Tgt Ion: 97 Resp: 942538

Ion	Ratio	Lower	Upper
97	100		
83	82.5	66.6	99.8
85	53.0	42.7	64.1
99	63.1	50.8	76.2

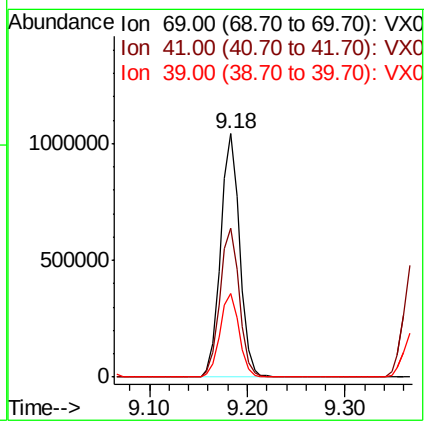


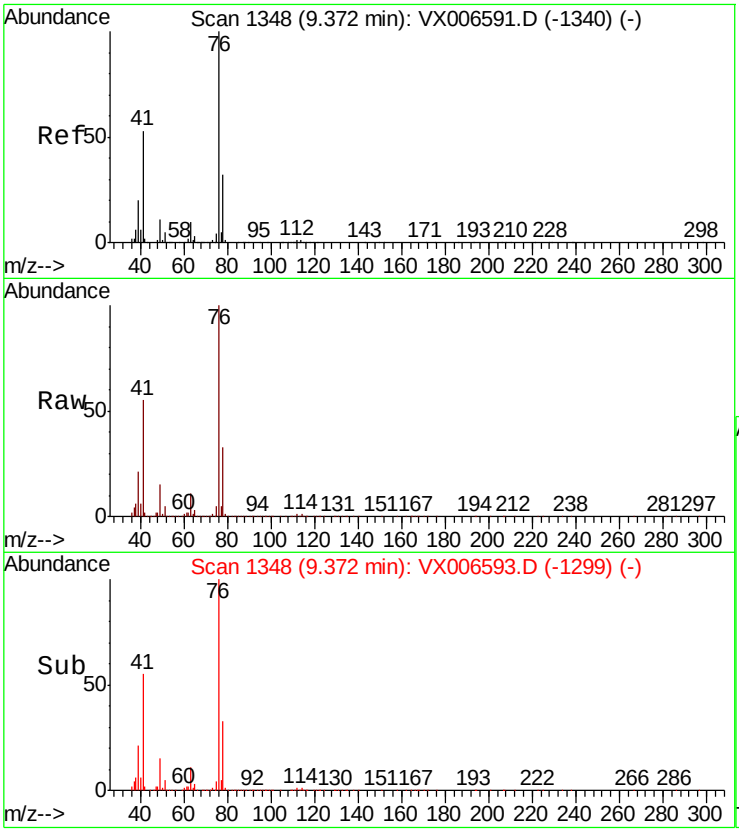


#56
Ethyl methacrylate
Concen: 151.688 ug/l
RT: 9.18 min Scan# 1317
Delta R.T. 0.01 min
Lab File: VX006593.D
Acq: 18 Dec 2018 12:57

Tgt Ion: 69 Resp: 1400219

Ion	Ratio	Lower	Upper
69	100		
41	62.5	48.7	73.1
39	35.0	27.0	40.6

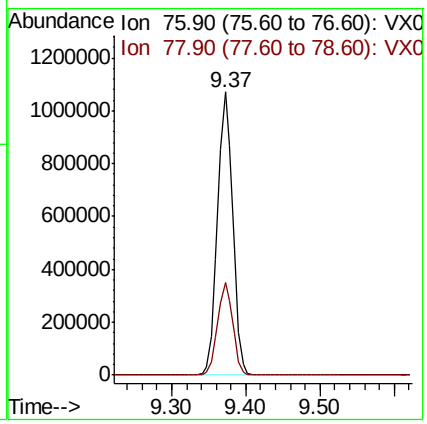




#57
1,3-Dichloropropane
Concen: 143.191 ug/l
RT: 9.37 min Scan# 1348
Delta R.T. -0.00 min
Lab File: VX006593.D
Acq: 18 Dec 2018 12:57

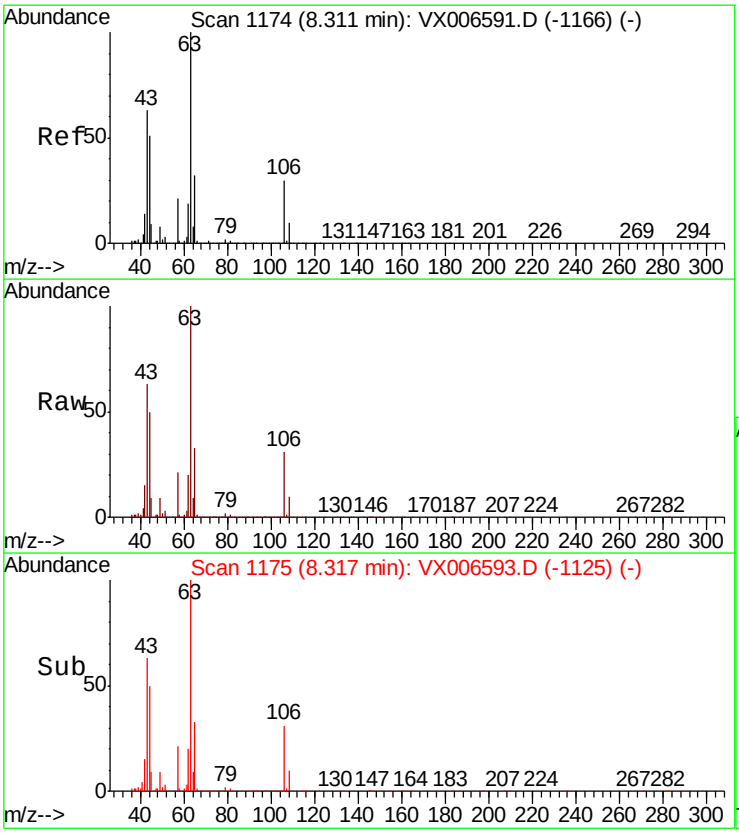
Tgt Ion: 76 Resp: 1504638

Ion	Ratio	Lower	Upper
76	100		
78	32.4	26.0	39.0



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC150

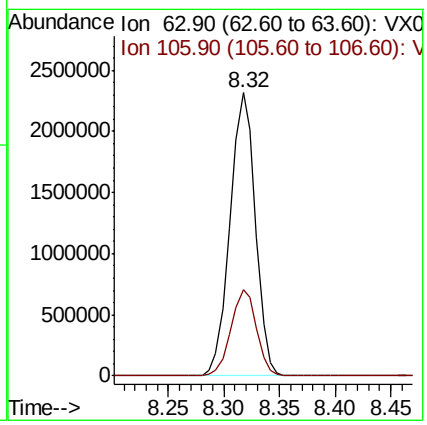
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:22:09 AM

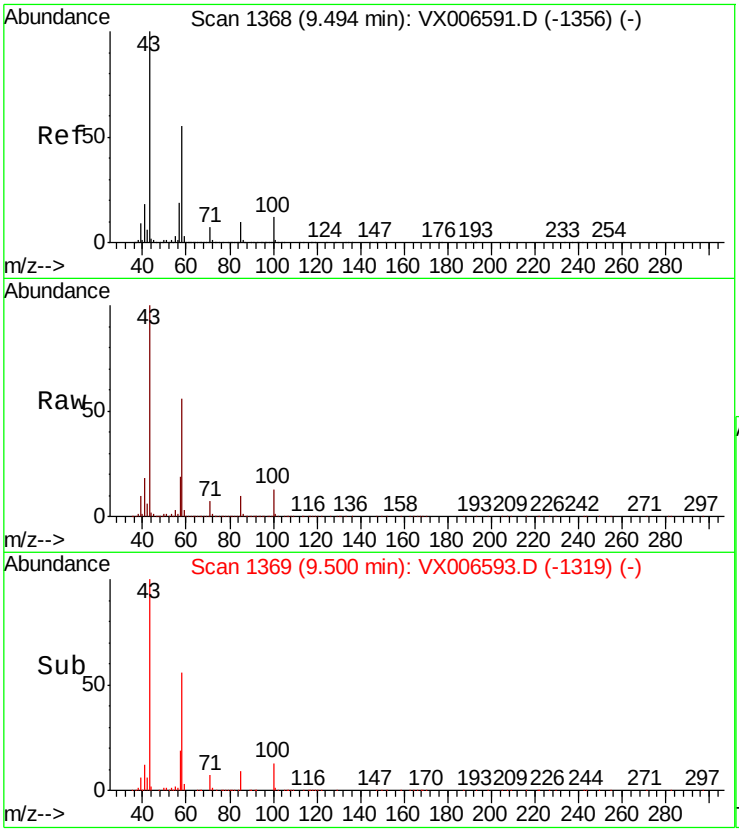


#58
2-Chloroethyl Vinyl ether
Concen: 741.743 ug/l
RT: 8.32 min Scan# 1175
Delta R.T. 0.01 min
Lab File: VX006593.D
Acq: 18 Dec 2018 12:57

Tgt Ion: 63 Resp: 3639628

Ion	Ratio	Lower	Upper
63	100		
106	30.8	24.6	36.8

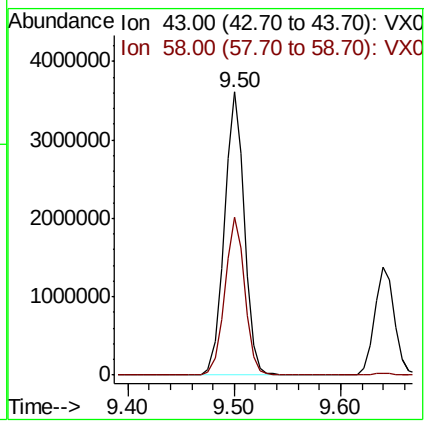




#59
2-Hexanone
Concen: 753.720 ug/l
RT: 9.50 min Scan# 1369
Delta R.T. 0.01 min
Lab File: VX006593.D
Acq: 18 Dec 2018 12:57

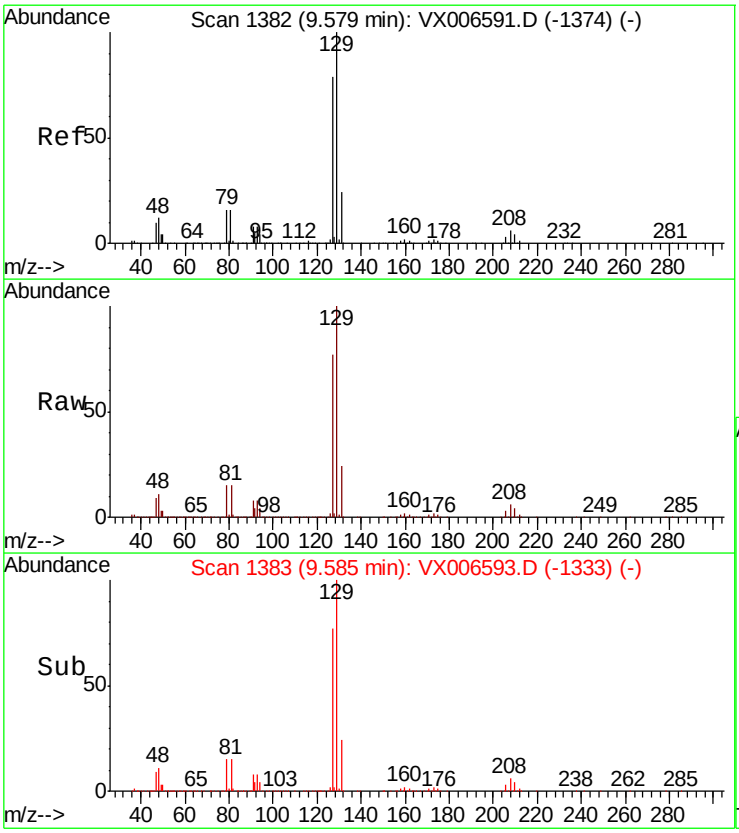
Tgt Ion: 43 Resp: 4721509

Ion	Ratio	Lower	Upper
43	100		
58	55.8	27.7	83.1



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC150

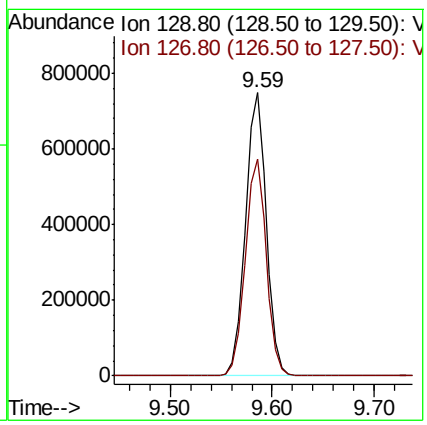
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:22:09 AM

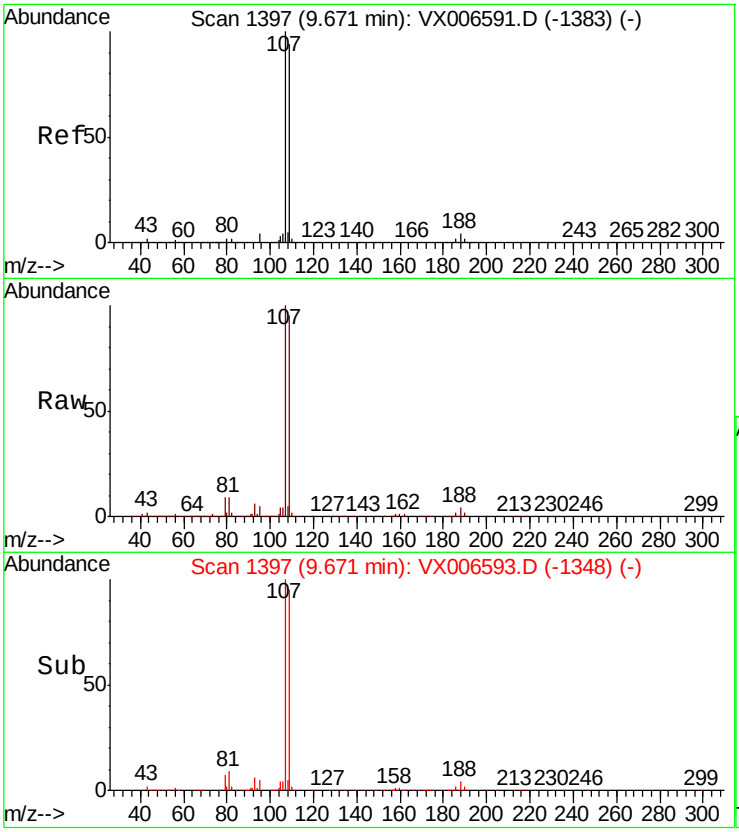


#60
Dibromochloromethane
Concen: 175.489 ug/l
RT: 9.59 min Scan# 1383
Delta R.T. 0.01 min
Lab File: VX006593.D
Acq: 18 Dec 2018 12:57

Tgt Ion:129 Resp: 1055709

Ion	Ratio	Lower	Upper
129	100		
127	77.3	39.3	117.8

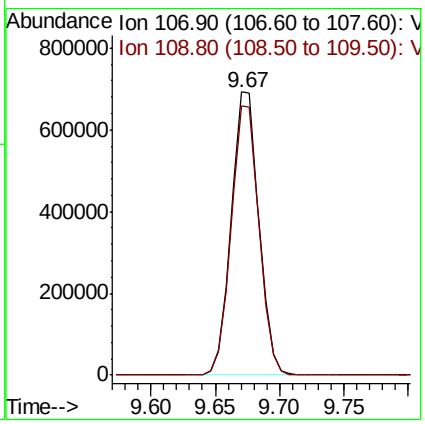




#61
1,2-Dibromoethane
Concen: 148.820 ug/l
RT: 9.67 min Scan# 1397
Delta R.T. -0.00 min
Lab File: VX006593.D
Acq: 18 Dec 2018 12:57

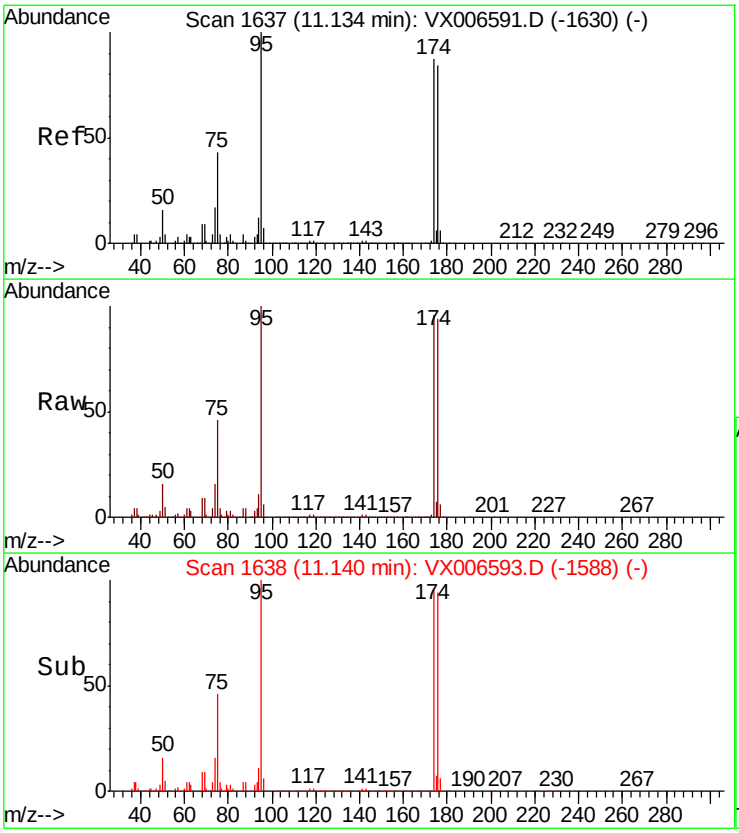
Tgt Ion:107 Resp: 1033229

Ion	Ratio	Lower	Upper
107	100		
109	95.7	75.8	113.6



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC150

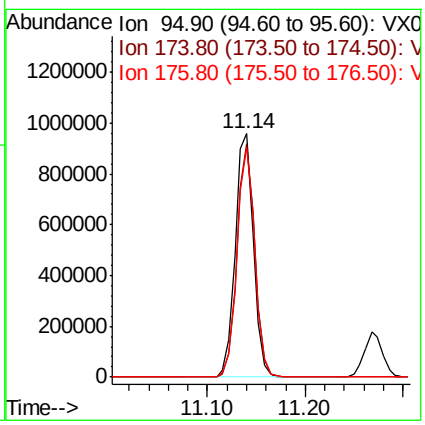
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:22:09 AM

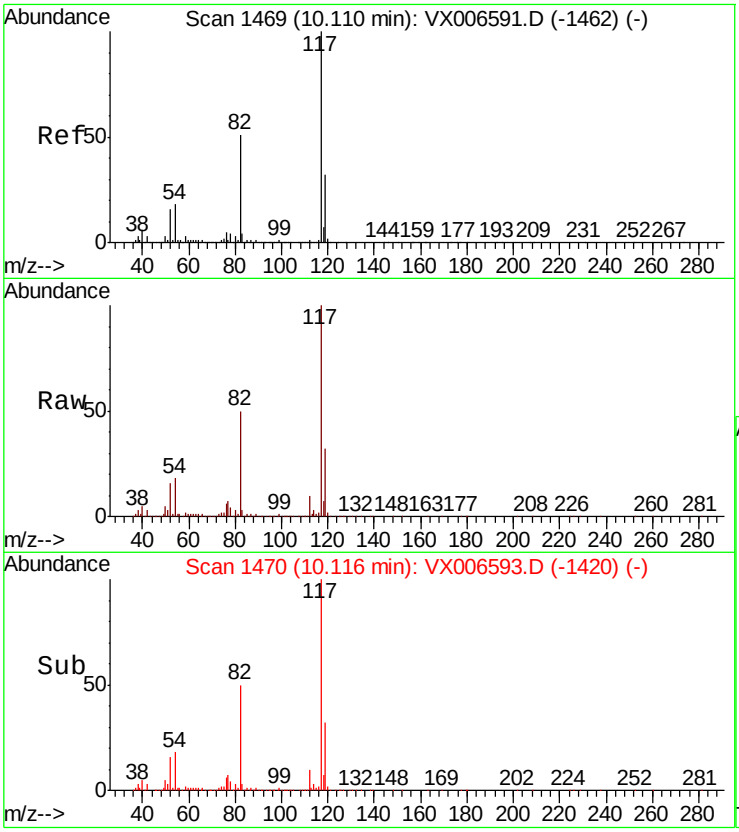


#62
4-Bromofluorobenzene
Concen: 143.816 ug/l
RT: 11.14 min Scan# 1638
Delta R.T. 0.01 min
Lab File: VX006593.D
Acq: 18 Dec 2018 12:57

Tgt Ion: 95 Resp: 1231938

Ion	Ratio	Lower	Upper
95	100		
174	93.3	0.0	182.2
176	91.9	0.0	178.8

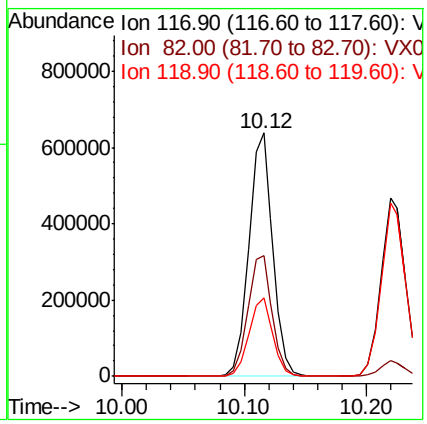




#63
Chlorobenzene-d5
Concen: 50.000 ug/l
RT: 10.12 min Scan# 1470
Delta R.T. 0.01 min
Lab File: VX006593.D
Acq: 18 Dec 2018 12:57

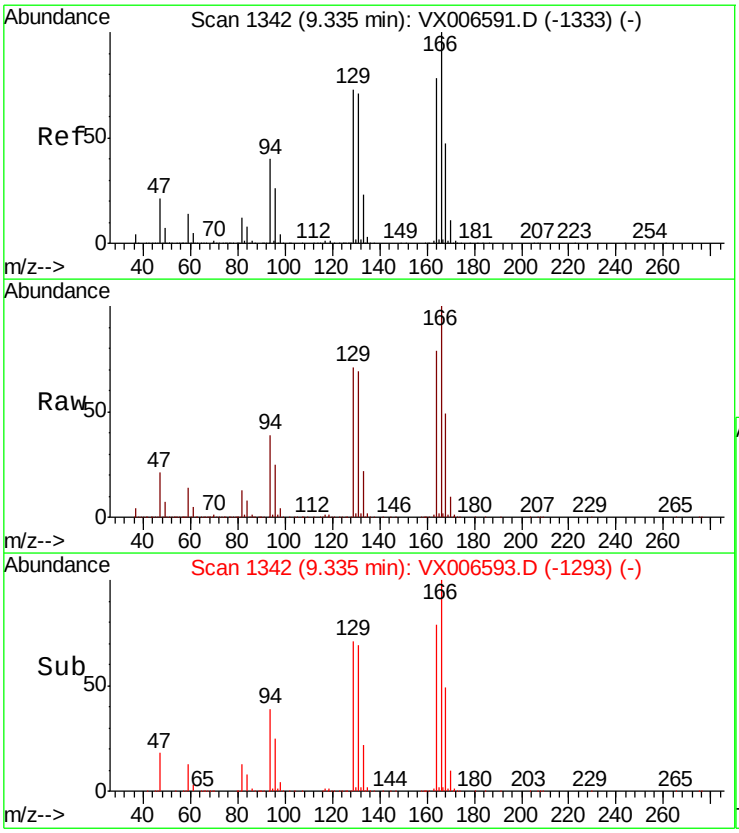
Tgt Ion:117 Resp: 861082

Ion	Ratio	Lower	Upper
117	100		
82	49.6	41.0	61.6
119	32.2	25.4	38.0



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC150

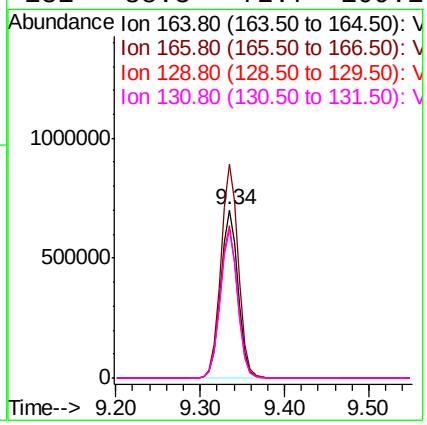
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:22:09 AM

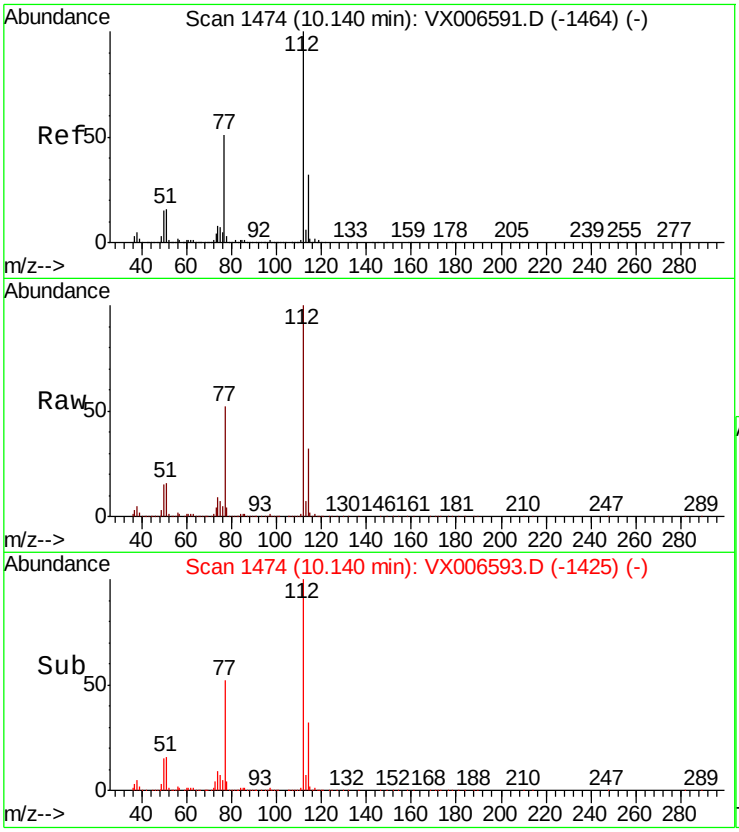


#64
Tetrachloroethene
Concen: 146.843 ug/l
RT: 9.34 min Scan# 1342
Delta R.T. -0.00 min
Lab File: VX006593.D
Acq: 18 Dec 2018 12:57

Tgt Ion:164 Resp: 1001242

Ion	Ratio	Lower	Upper
164	100		
166	127.1	102.5	153.7
129	90.8	75.1	112.7
131	88.3	72.7	109.1

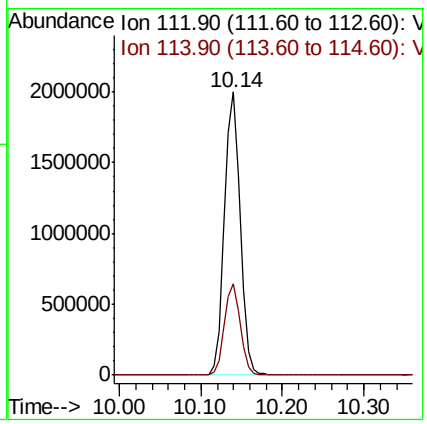


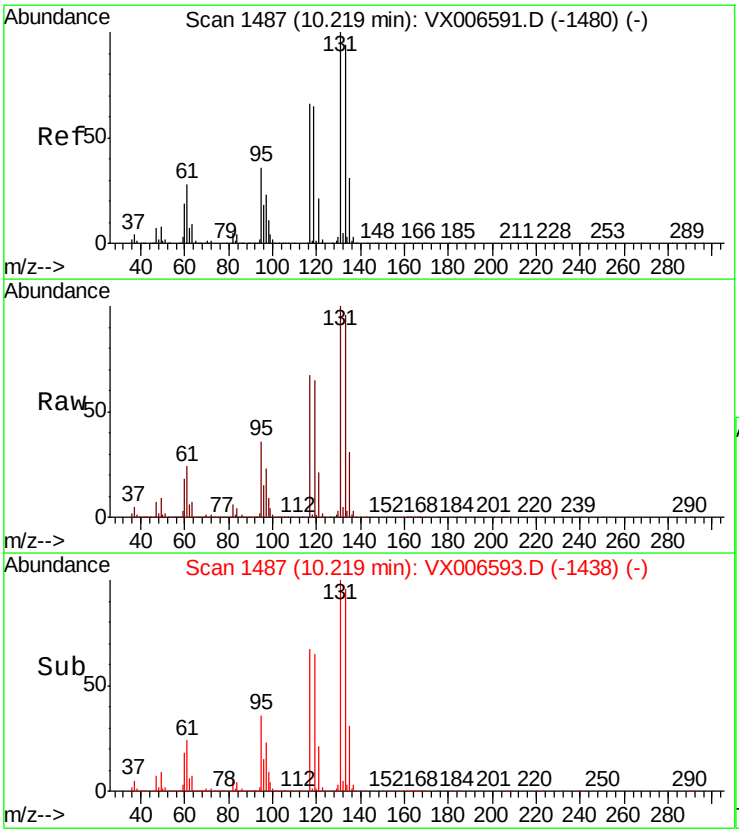


#65
Chlorobenzene
Concen: 146.711 ug/l
RT: 10.14 min Scan# 1474
Delta R.T. -0.00 min
Lab File: VX006593.D
Acq: 18 Dec 2018 12:57

Tgt Ion:112 Resp: 2672634

Ion	Ratio	Lower	Upper
112	100		
114	32.3	25.7	38.5

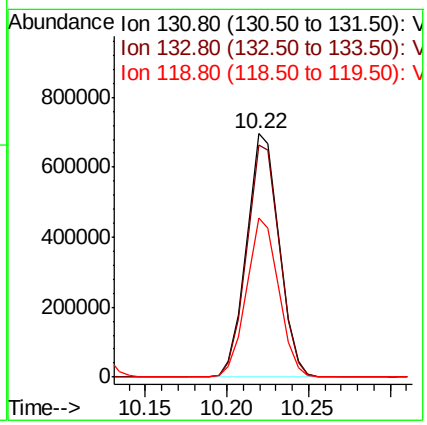




#66
1,1,1,2-Tetrachloroethane
Concen: 171.039 ug/l
RT: 10.22 min Scan# 1487
Delta R.T. -0.00 min
Lab File: VX006593.D
Acq: 18 Dec 2018 12:57

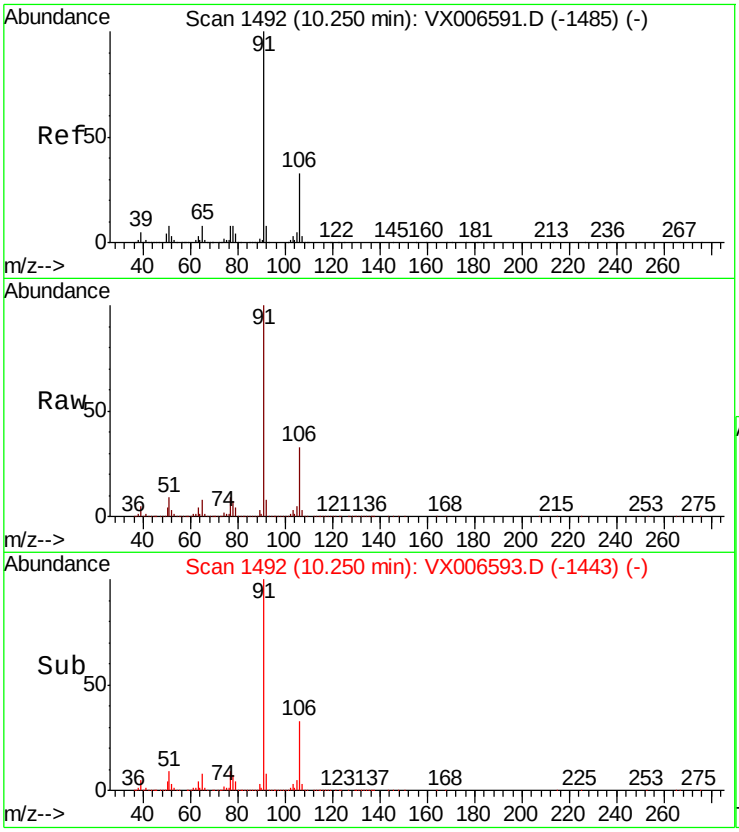
Tgt Ion:131 Resp: 972122

Ion	Ratio	Lower	Upper
131	100		
133	96.4	48.0	144.2
119	64.6	32.6	97.8



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC150

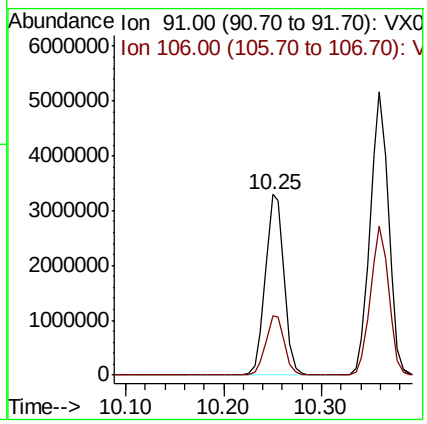
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:22:09 AM



#67
Ethyl Benzene
Concen: 148.280 ug/l
RT: 10.25 min Scan# 1492
Delta R.T. -0.00 min
Lab File: VX006593.D
Acq: 18 Dec 2018 12:57

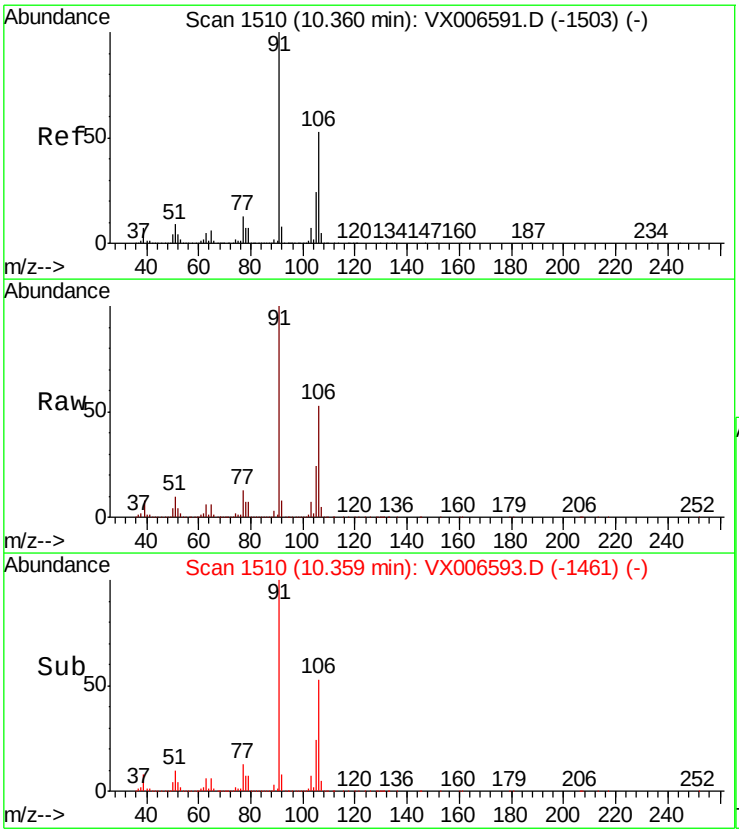
Tgt Ion: 91 Resp: 4413963

Ion	Ratio	Lower	Upper
91	100		
106	33.0	26.4	39.6



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC150

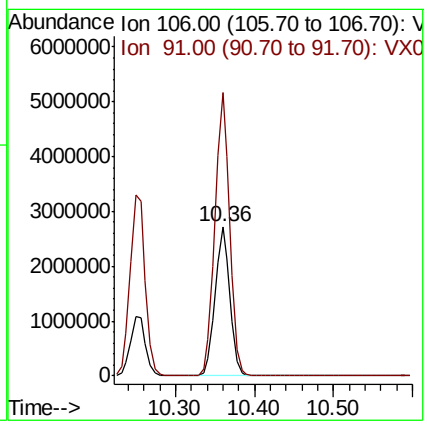
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:22:09 AM

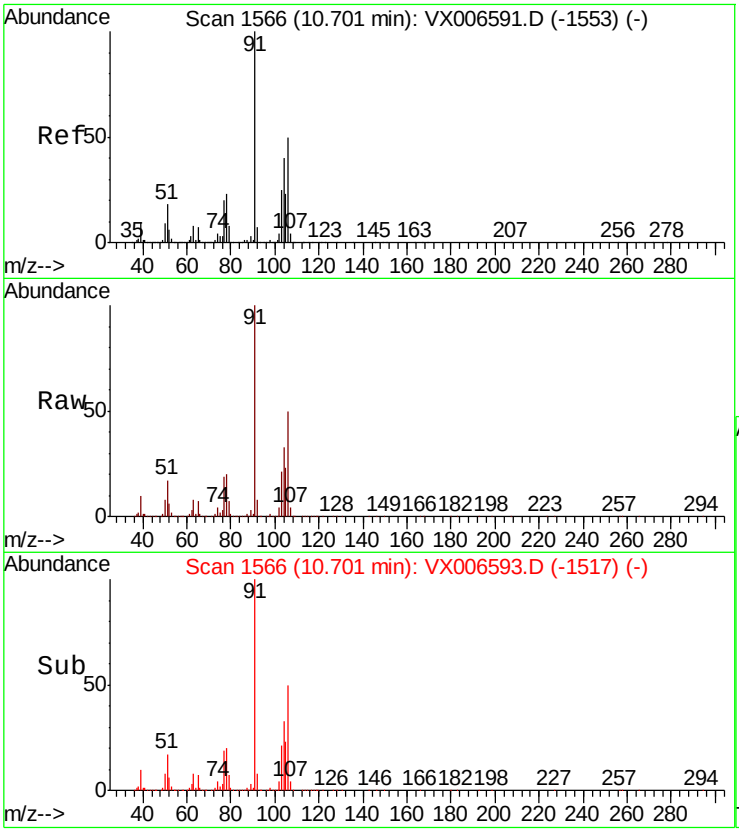


#68
m/p-Xylenes
Concen: 301.106 ug/l
RT: 10.36 min Scan# 1510
Delta R.T. -0.00 min
Lab File: VX006593.D
Acq: 18 Dec 2018 12:57

Tgt Ion:106 Resp: 3536869

Ion	Ratio	Lower	Upper
106	100		
91	191.4	155.8	233.6

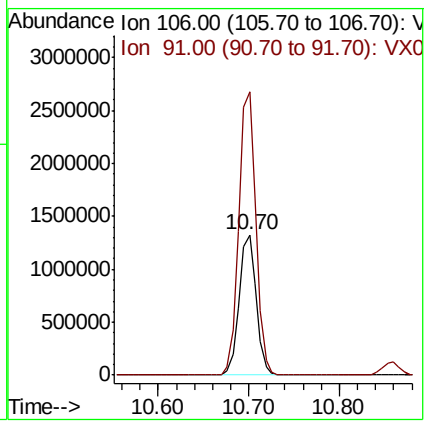




#69
o-Xylene
Concen: 148.615 ug/l
RT: 10.70 min Scan# 1566
Delta R.T. -0.00 min
Lab File: VX006593.D
Acq: 18 Dec 2018 12:57

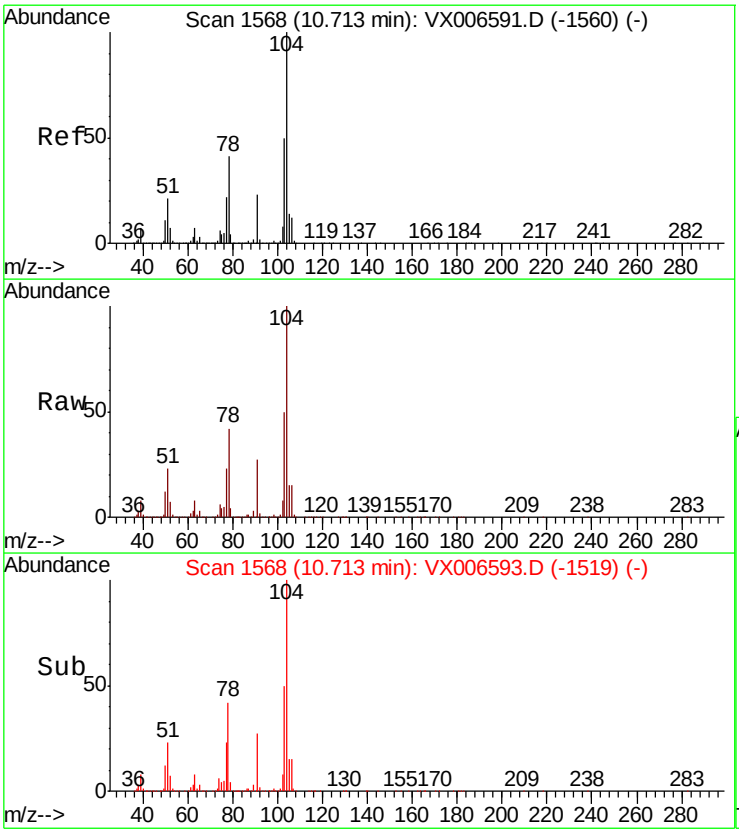
Tgt Ion:106 Resp: 1723807

Ion	Ratio	Lower	Upper
106	100		
91	202.9	101.3	303.7



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC150

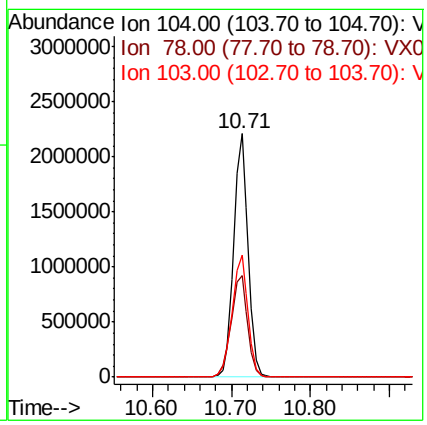
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:22:09 AM

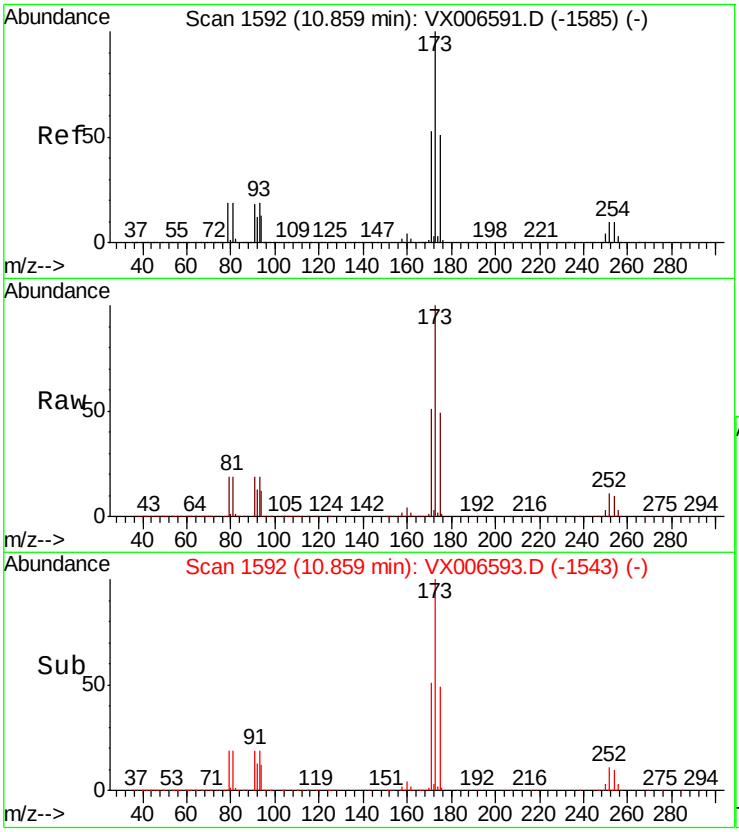


#70
Styrene
Concen: 153.086 ug/l
RT: 10.71 min Scan# 1568
Delta R.T. -0.00 min
Lab File: VX006593.D
Acq: 18 Dec 2018 12:57

Tgt Ion:104 Resp: 2809229

Ion	Ratio	Lower	Upper
104	100		
78	47.6	37.7	56.5
103	54.8	43.8	65.8

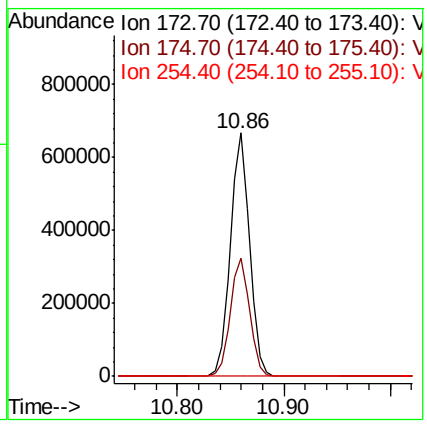




#71
Bromoform
Concen: 195.450 ug/l
RT: 10.86 min Scan# 1592
Delta R.T. -0.00 min
Lab File: VX006593.D
Acq: 18 Dec 2018 12:57

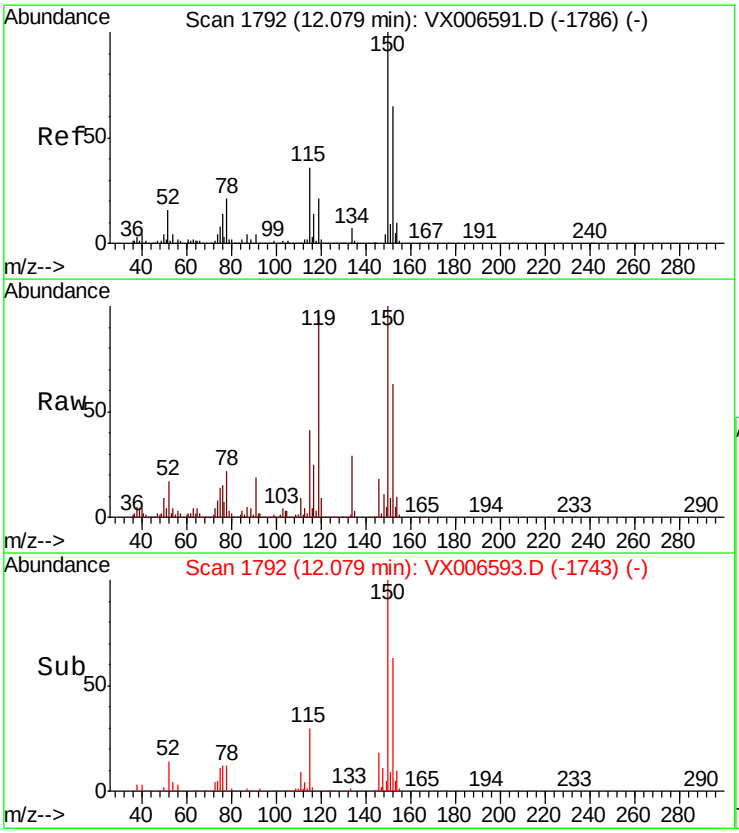
Tgt Ion:173 Resp: 845718

Ion	Ratio	Lower	Upper
173	100		
175	48.7	24.7	74.1
254	0.2	0.2	0.2



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC150

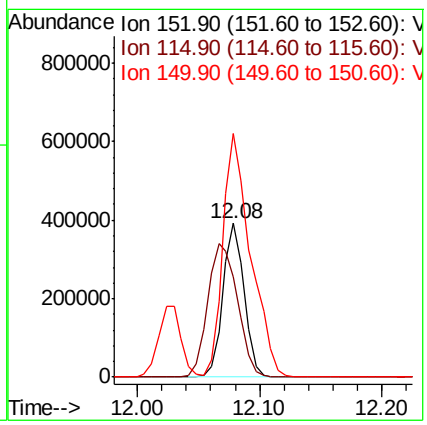
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:22:09 AM

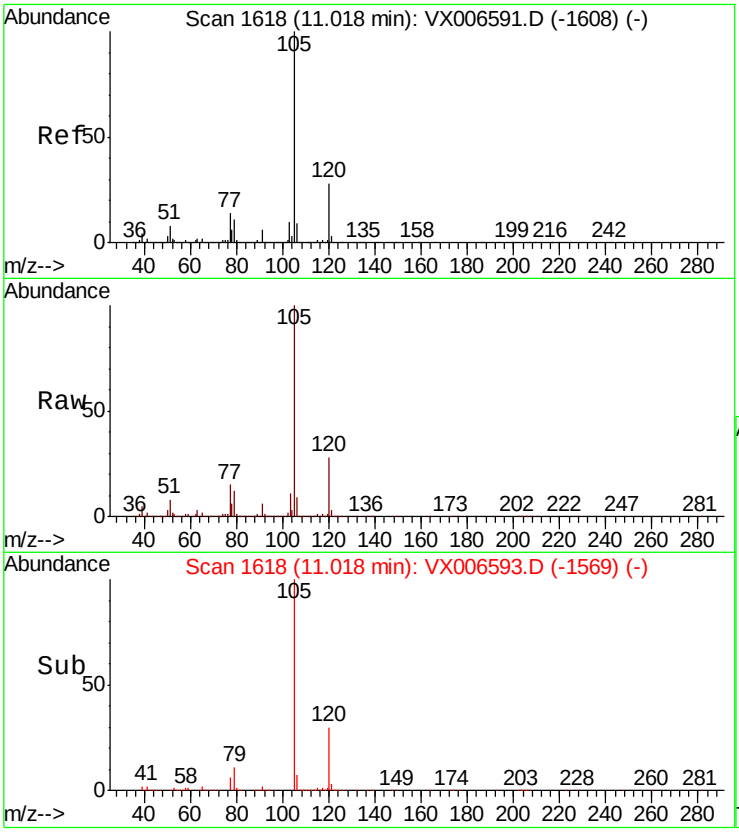


#72
1,4-Dichlorobenzene-d4
Concen: 50.000 ug/l
RT: 12.08 min Scan# 1792
Delta R.T. -0.00 min
Lab File: VX006593.D
Acq: 18 Dec 2018 12:57

Tgt Ion:152 Resp: 469951

Ion	Ratio	Lower	Upper
152	100		
115	122.5	39.1	117.2#
150	206.5	0.0	344.8

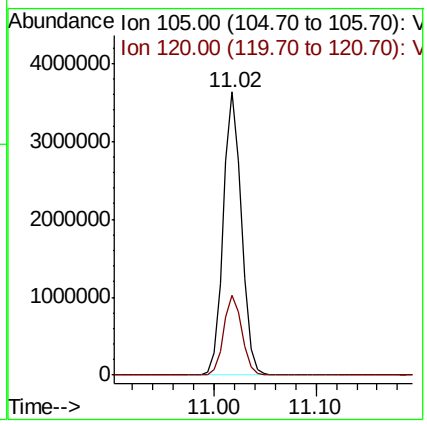




#73
Isopropylbenzene
Concen: 140.537 ug/l
RT: 11.02 min Scan# 1618
Delta R.T. -0.00 min
Lab File: VX006593.D
Acq: 18 Dec 2018 12:57

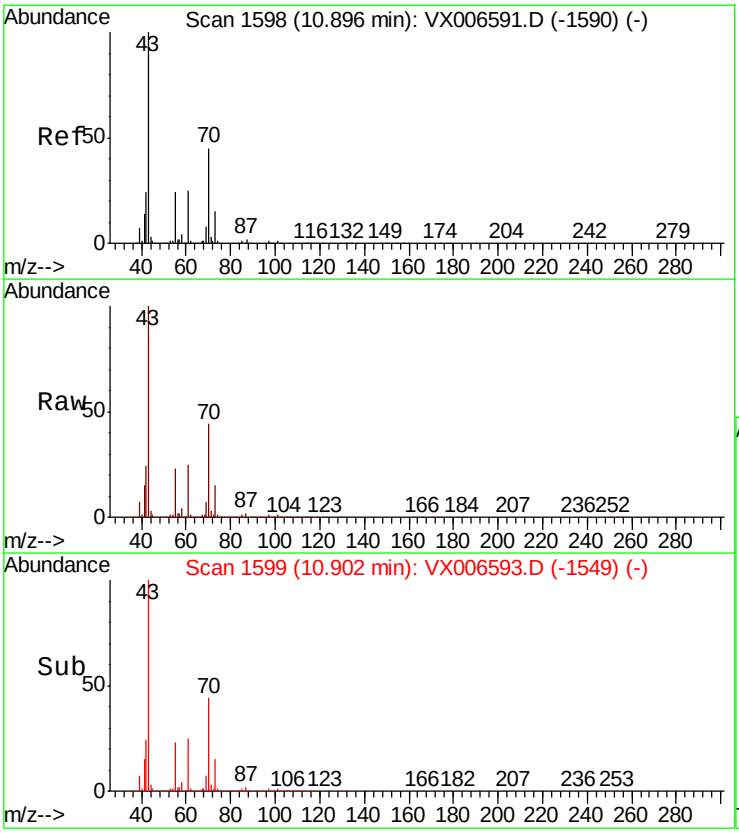
Tgt Ion:105 Resp: 4518293

Ion	Ratio	Lower	Upper
105	100		
120	28.2	14.1	42.4



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC150

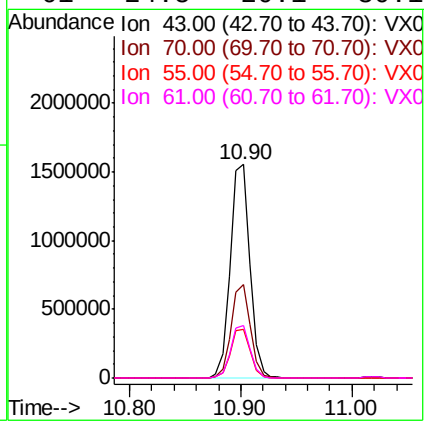
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:22:09 AM

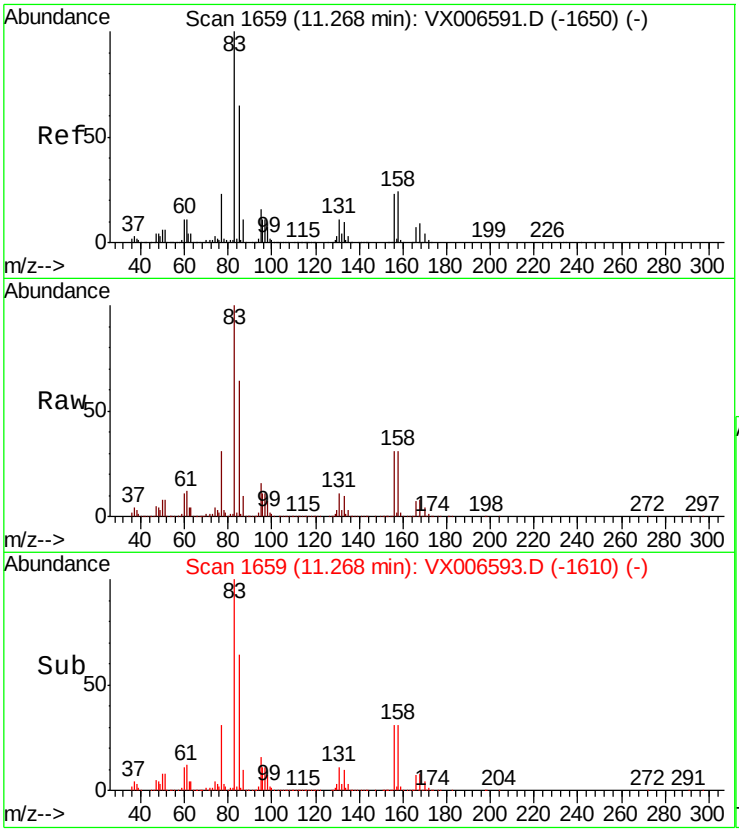


#74
N-amyl acetate
Concen: 163.721 ug/l
RT: 10.90 min Scan# 1599
Delta R.T. 0.01 min
Lab File: VX006593.D
Acq: 18 Dec 2018 12:57

Tgt Ion: 43 Resp: 1884095

Ion	Ratio	Lower	Upper
43	100		
70	43.1	35.8	53.8
55	23.1	19.4	29.0
61	24.5	20.1	30.1

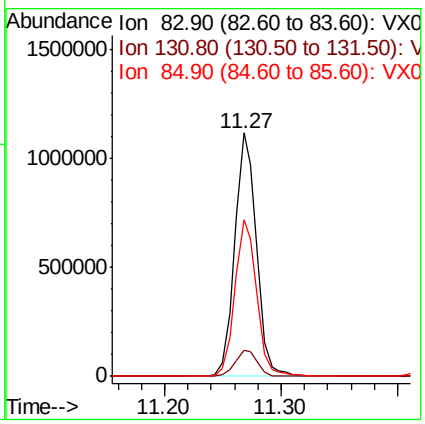




#75
1,1,2,2-Tetrachloroethane
Concen: 151.248 ug/l
RT: 11.27 min Scan# 1659
Delta R.T. -0.00 min
Lab File: VX006593.D
Acq: 18 Dec 2018 12:57

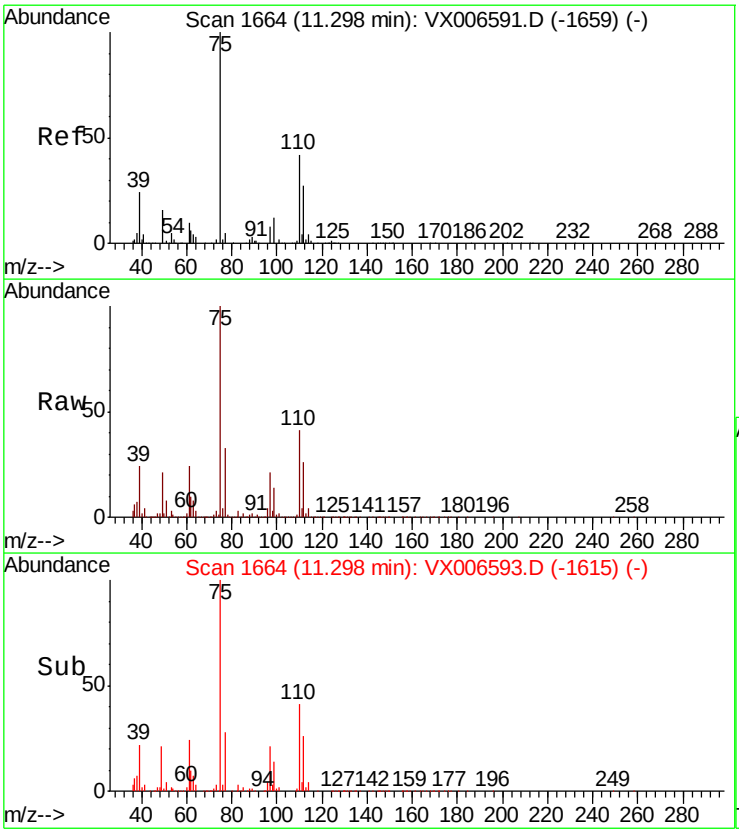
Tgt Ion: 83 Resp: 1446167

Ion	Ratio	Lower	Upper
83	100		
131	11.2	5.7	17.1
85	64.7	32.2	96.6



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC150

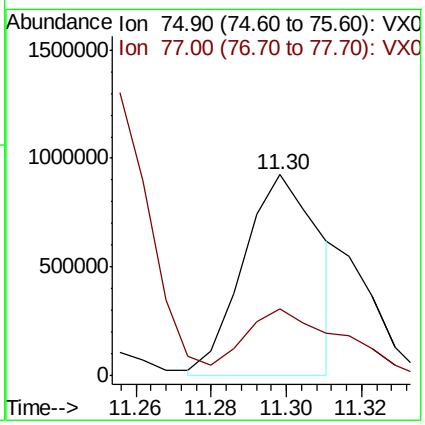
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:22:09 AM

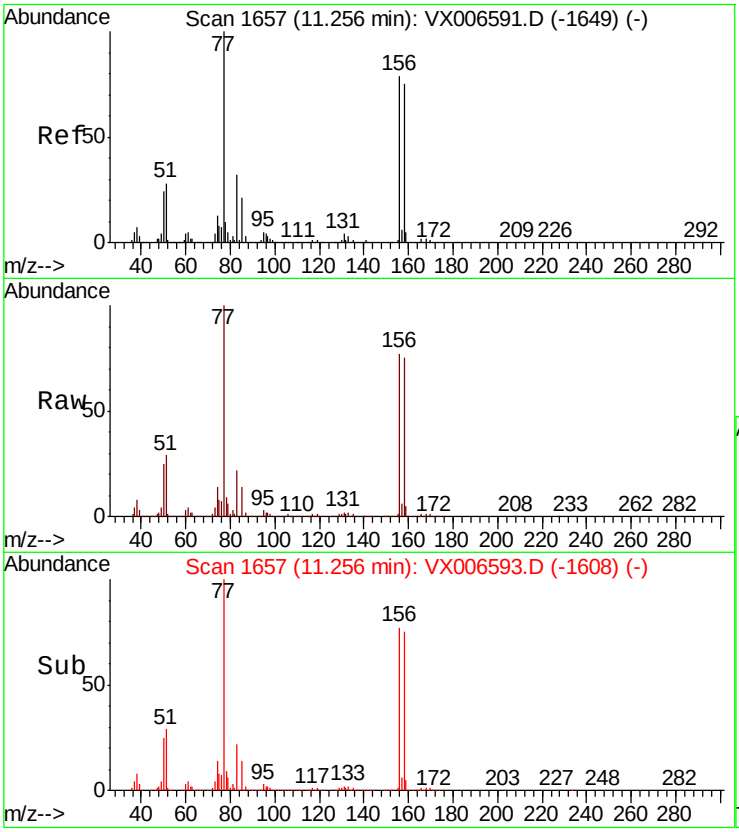


#76
1,2,3-Trichloropropane
Concen: 156.001 ug/l m
RT: 11.30 min Scan# 1664
Delta R.T. -0.00 min
Lab File: VX006593.D
Acq: 18 Dec 2018 12:57

Tgt Ion: 75 Resp: 1298714

Ion	Ratio	Lower	Upper
75	100		
77	42.0	18.5	55.5

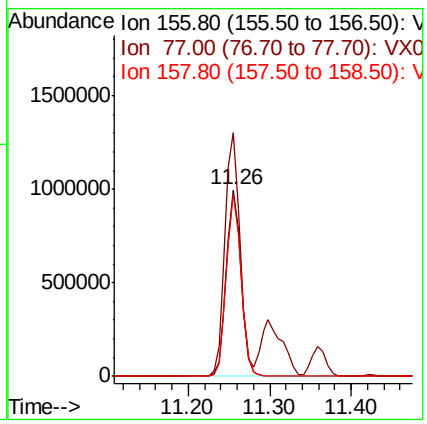


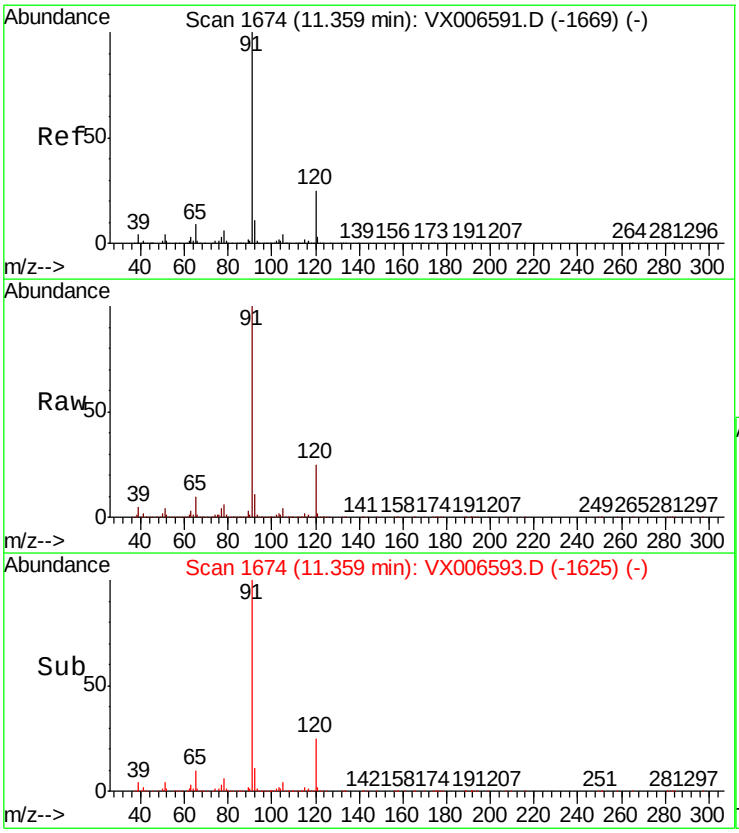


#77
Bromobenzene
Concen: 142.629 ug/l
RT: 11.26 min Scan# 1657
Delta R.T. -0.00 min
Lab File: VX006593.D
Acq: 18 Dec 2018 12:57

Tgt Ion:156 Resp: 1239722

Ion	Ratio	Lower	Upper
156	100		
77	134.1	68.0	204.0
158	97.7	48.3	144.8

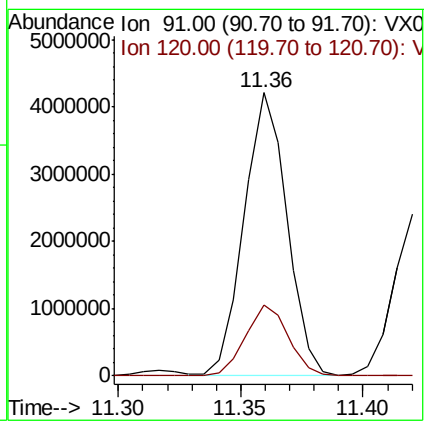




#78
n-propylbenzene
Concen: 143.748 ug/l
RT: 11.36 min Scan# 1674
Delta R.T. -0.00 min
Lab File: VX006593.D
Acq: 18 Dec 2018 12:57

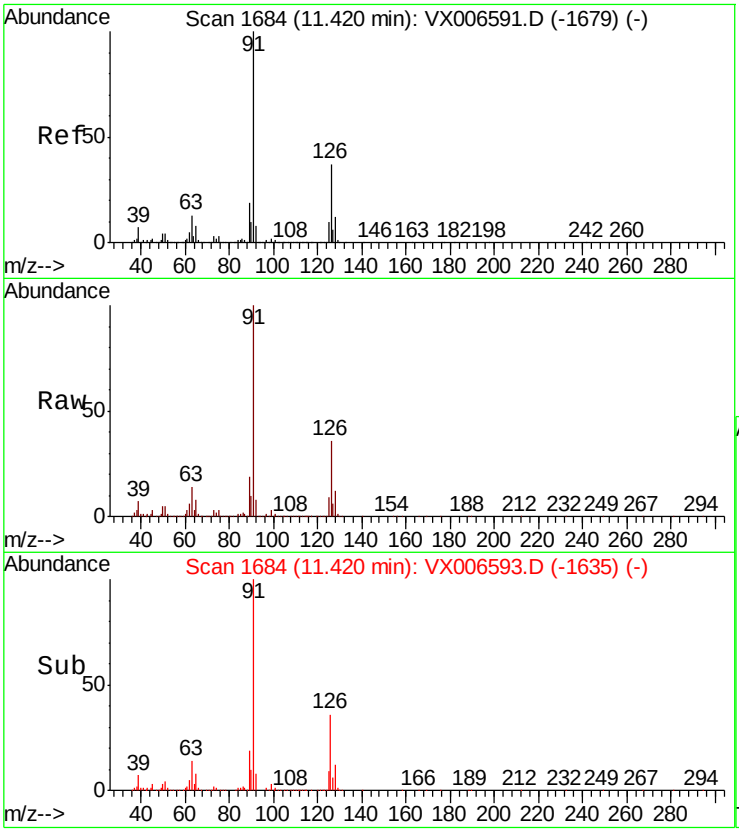
Tgt Ion: 91 Resp: 5089233

Ion	Ratio	Lower	Upper
91	100		
120	25.3	12.7	38.0



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC150

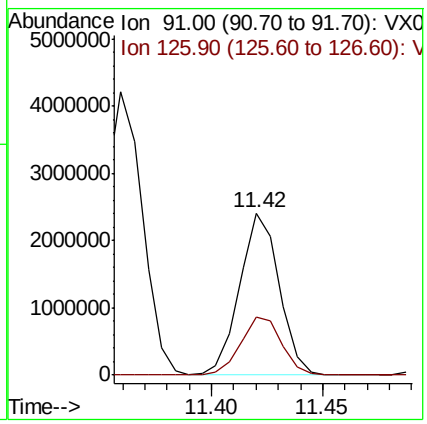
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:22:09 AM



#79
2-Chlorotoluene
Concen: 139.315 ug/l
RT: 11.42 min Scan# 1684
Delta R.T. -0.00 min
Lab File: VX006593.D
Acq: 18 Dec 2018 12:57

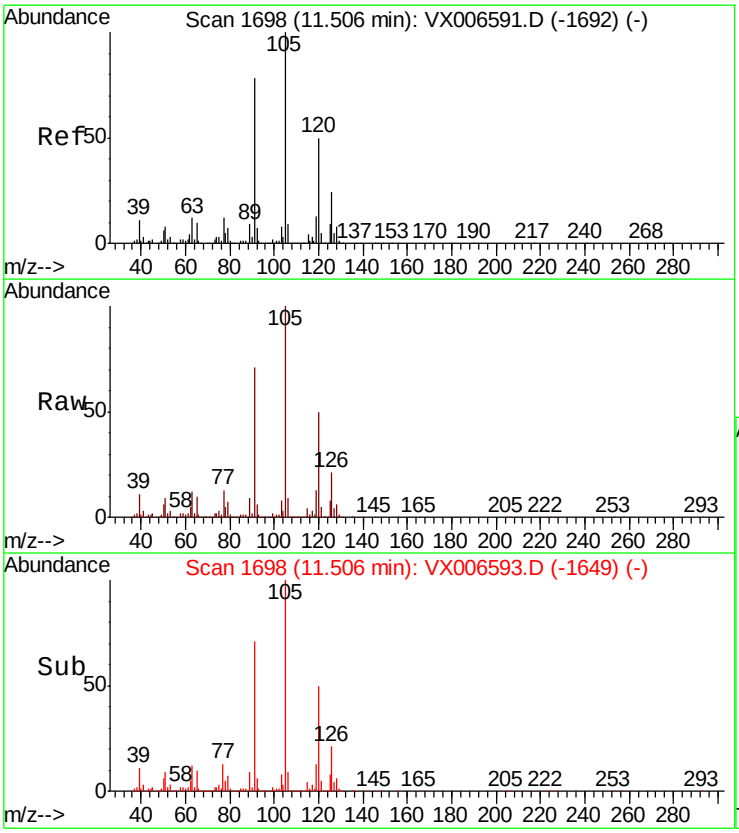
Tgt Ion: 91 Resp: 2989022

Ion	Ratio	Lower	Upper
91	100		
126	37.4	18.6	56.0



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC150

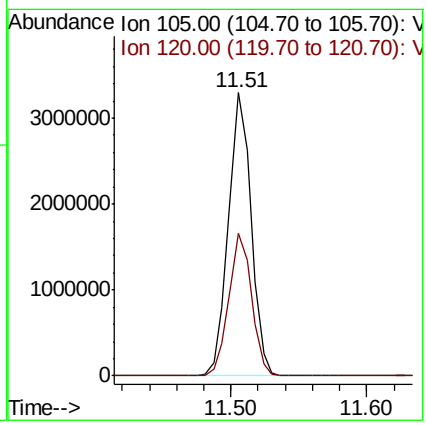
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:22:09 AM

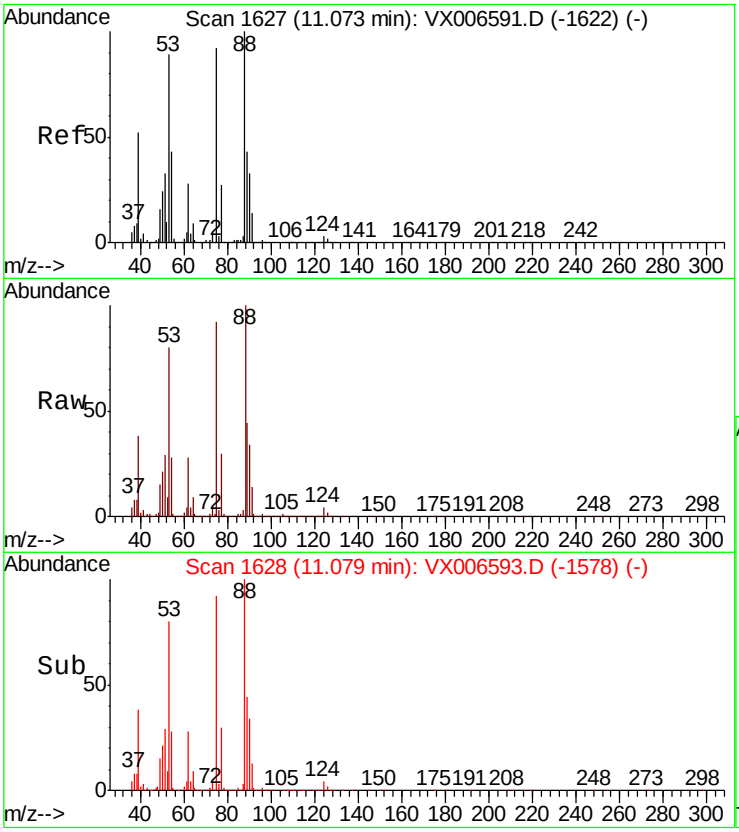


#80
1,3,5-Trimethylbenzene
Concen: 144.536 ug/l
RT: 11.51 min Scan# 1698
Delta R.T. -0.00 min
Lab File: VX006593.D
Acq: 18 Dec 2018 12:57

Tgt Ion:105 Resp: 3827473

Ion	Ratio	Lower	Upper
105	100		
120	50.3	25.1	75.3

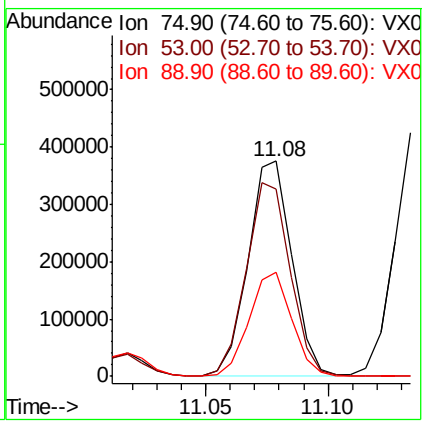




#81
trans-1,4-Dichloro-2-butene
Concen: 191.193 ug/l
RT: 11.08 min Scan# 1628
Delta R.T. 0.01 min
Lab File: VX006593.D
Acq: 18 Dec 2018 12:57

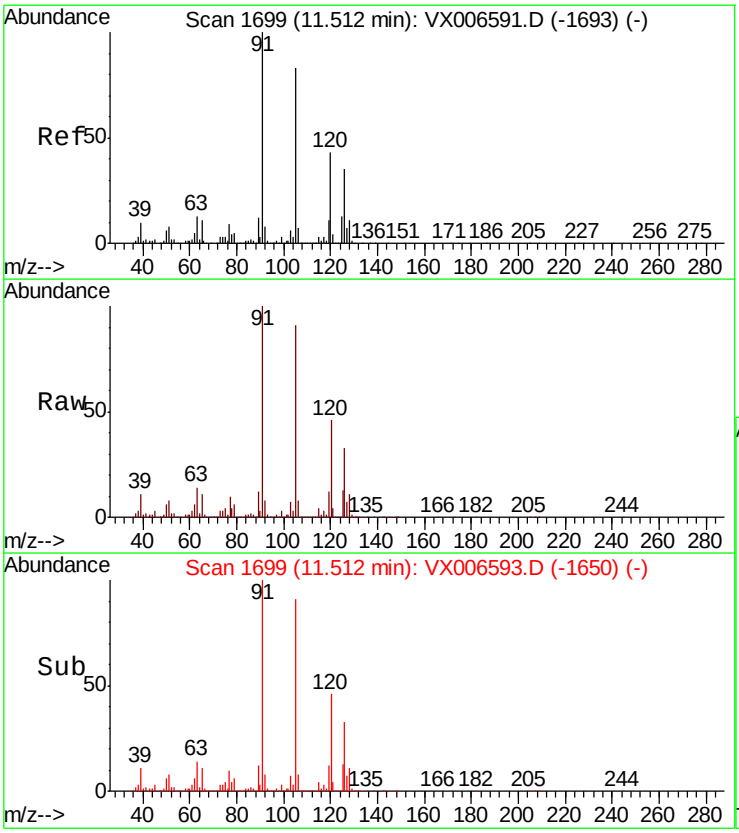
Tgt Ion: 75 Resp: 466178

Ion	Ratio	Lower	Upper
75	100		
53	90.4	79.7	119.5
89	47.2	38.0	57.0



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC150

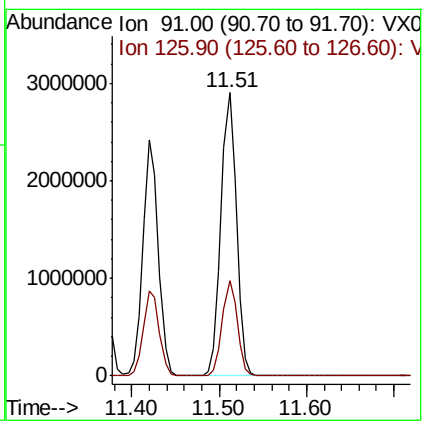
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:22:09 AM

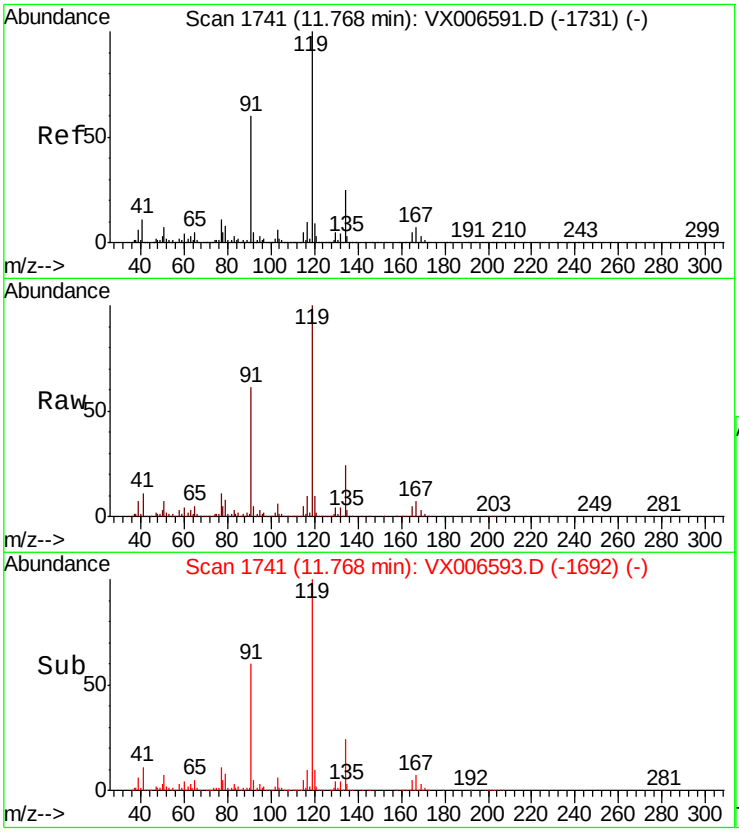


#82
4-Chlorotoluene
Concen: 144.206 ug/l
RT: 11.51 min Scan# 1699
Delta R.T. -0.00 min
Lab File: VX006593.D
Acq: 18 Dec 2018 12:57

Tgt Ion: 91 Resp: 3548977

Ion	Ratio	Lower	Upper
91	100		
126	32.7	16.3	48.9

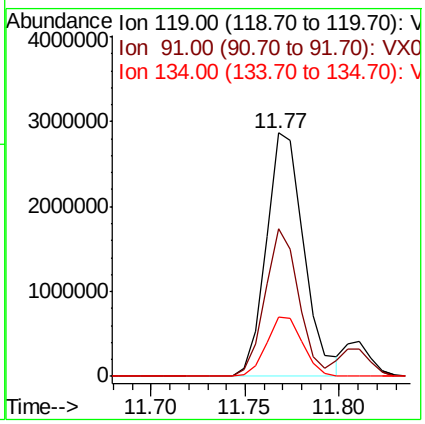


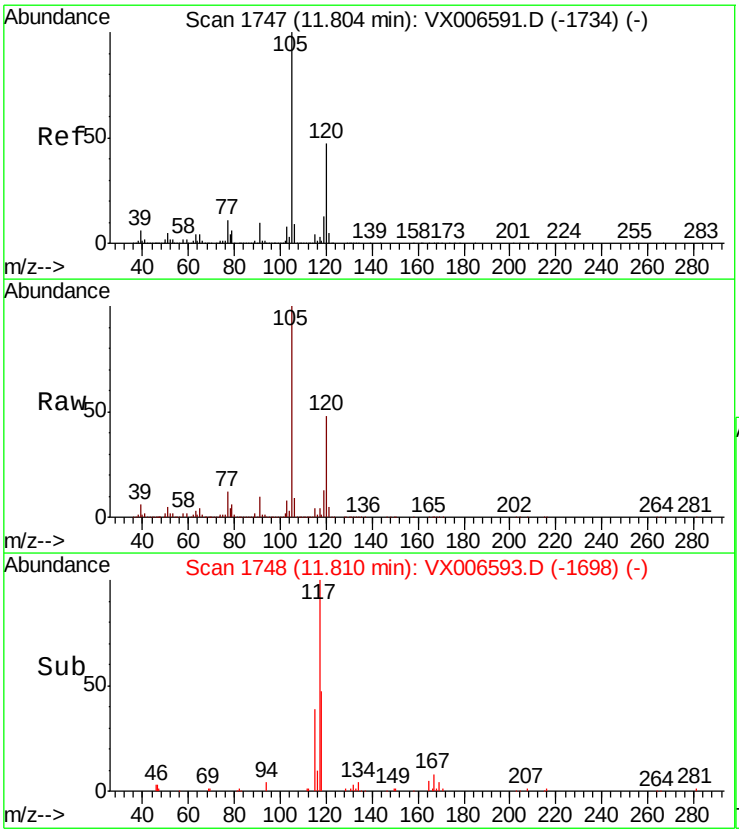


#83
tert-Butylbenzene
Concen: 149.655 ug/l
RT: 11.77 min Scan# 1741
Delta R.T. -0.00 min
Lab File: VX006593.D
Acq: 18 Dec 2018 12:57

Tgt Ion:119 Resp: 3966353

Ion	Ratio	Lower	Upper
119	100		
91	54.2	27.7	83.1
134	23.3	11.9	35.5

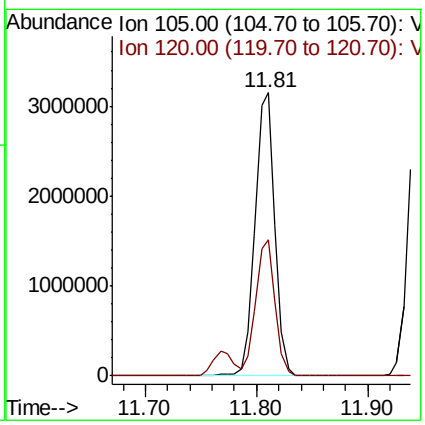




#84
1,2,4-Trimethylbenzene
Concen: 139.912 ug/l
RT: 11.81 min Scan# 1748
Delta R.T. 0.01 min
Lab File: VX006593.D
Acq: 18 Dec 2018 12:57

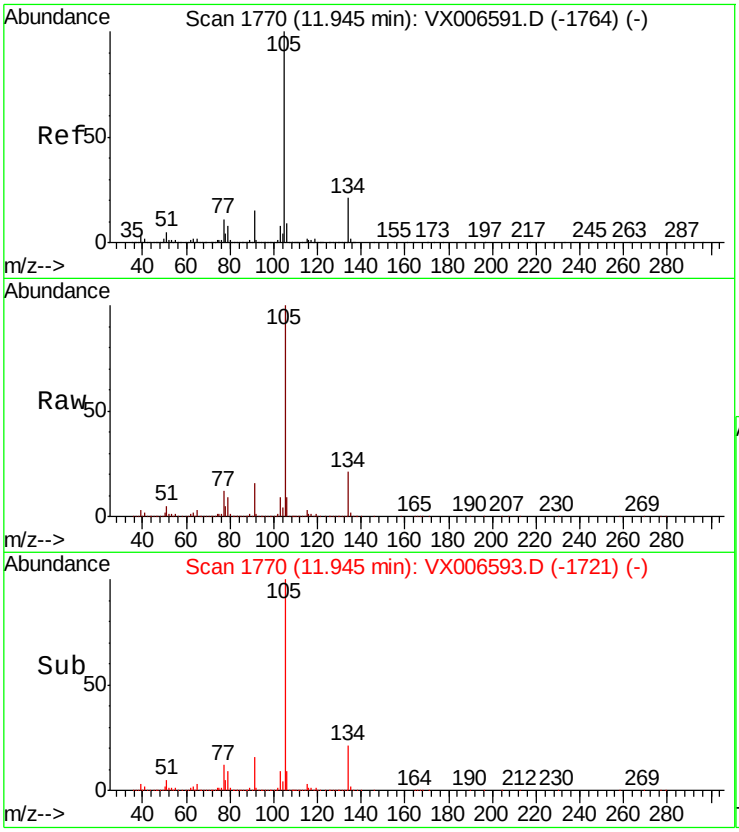
Tgt Ion:105 Resp: 3897041

Ion	Ratio	Lower	Upper
105	100		
120	47.0	23.2	69.6



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC150

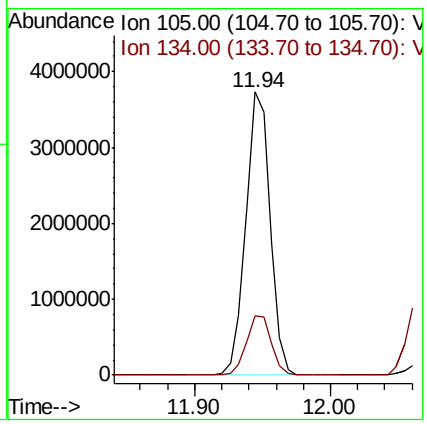
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:22:09 AM



#85
sec-Butylbenzene
Concen: 143.690 ug/l
RT: 11.94 min Scan# 1770
Delta R.T. -0.00 min
Lab File: VX006593.D
Acq: 18 Dec 2018 12:57

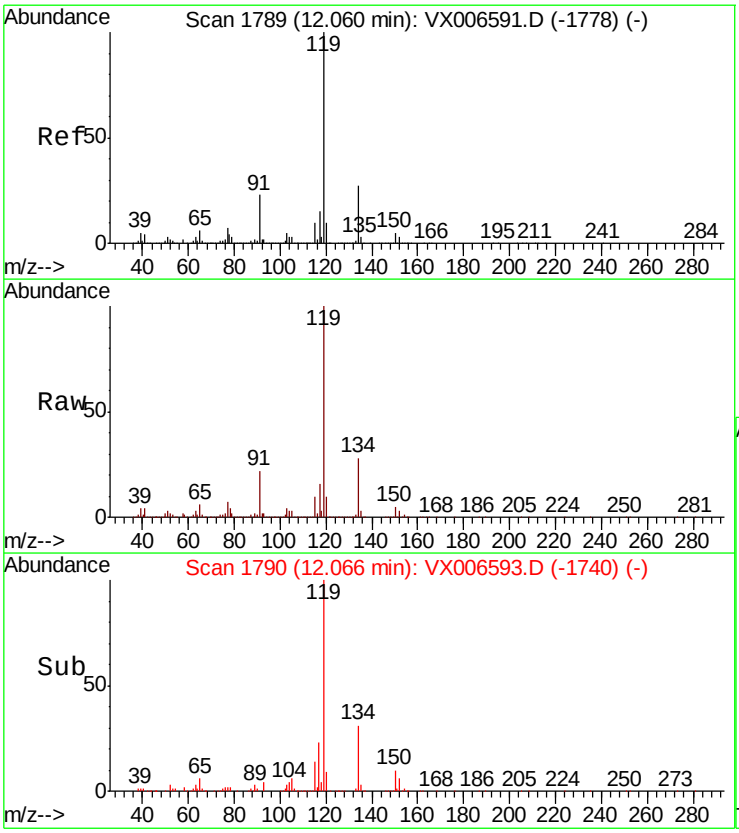
Tgt Ion:105 Resp: 4669143

Ion	Ratio	Lower	Upper
105	100		
134	21.6	10.7	31.9



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC150

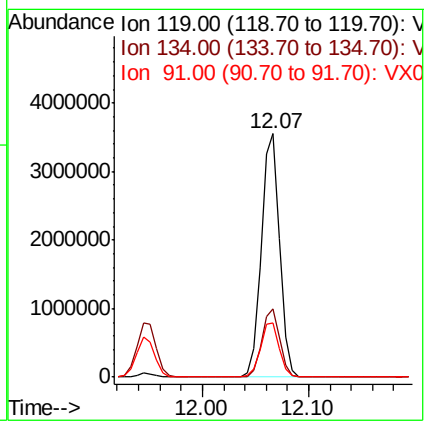
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:22:09 AM

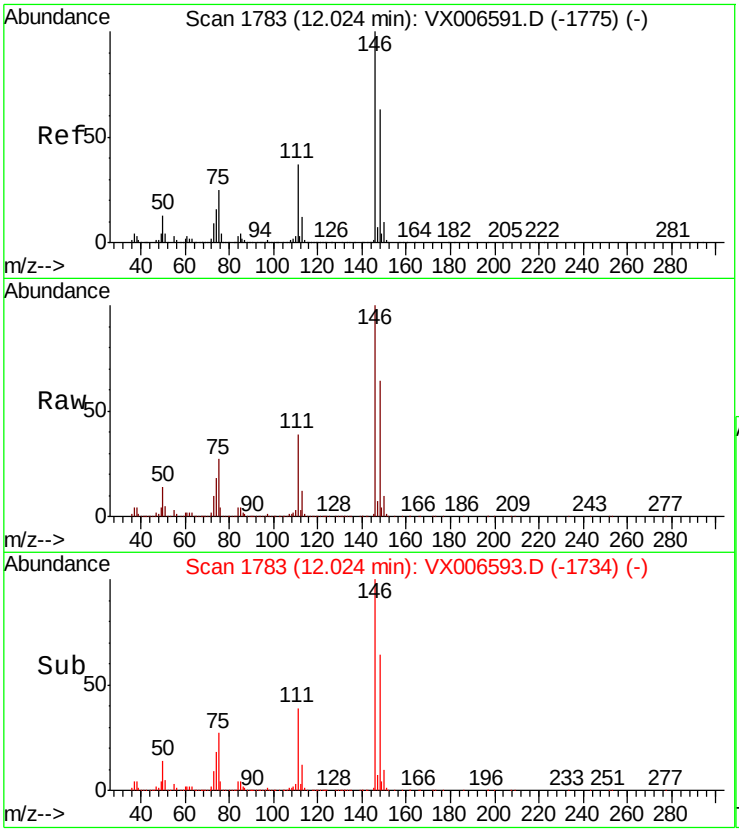


#86
p-Isopropyltoluene
Concen: 149.104 ug/l
RT: 12.07 min Scan# 1790
Delta R.T. 0.01 min
Lab File: VX006593.D
Acq: 18 Dec 2018 12:57

Tgt Ion:119 Resp: 4259018

Ion	Ratio	Lower	Upper
119	100		
134	27.5	14.0	41.9
91	22.7	11.3	33.9

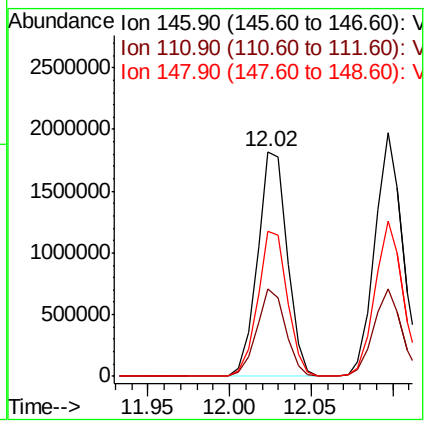




#87
1,3-Dichlorobenzene
Concen: 147.034 ug/l
RT: 12.02 min Scan# 1783
Delta R.T. -0.00 min
Lab File: VX006593.D
Acq: 18 Dec 2018 12:57

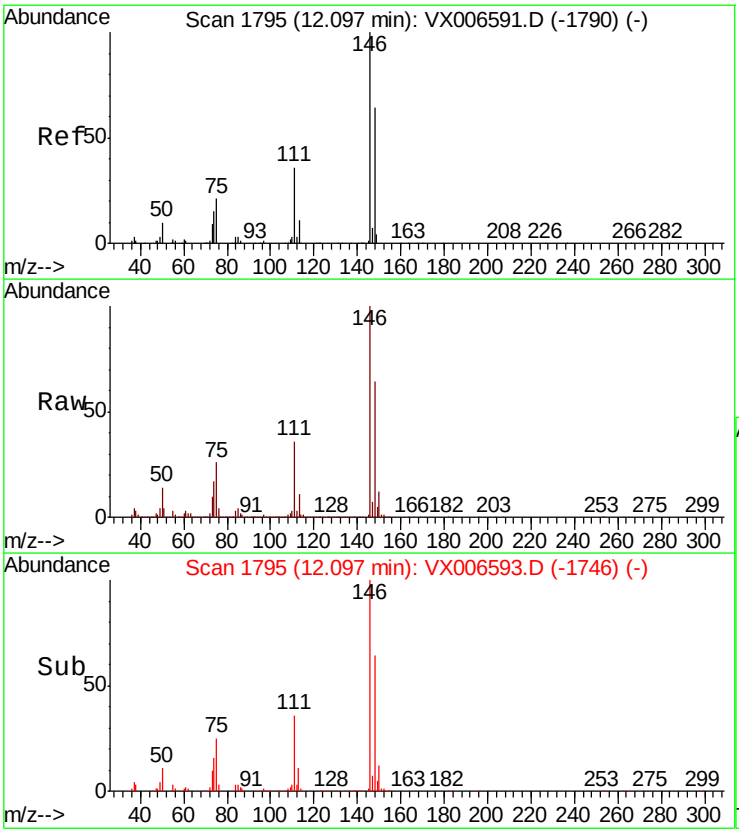
Tgt Ion:146 Resp: 2303302

Ion	Ratio	Lower	Upper
146	100		
111	37.6	18.6	55.8
148	64.3	31.8	95.3



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC150

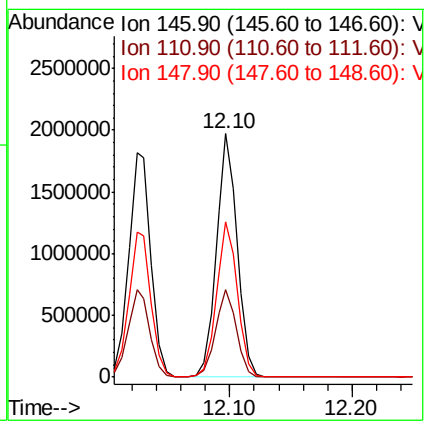
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:22:09 AM

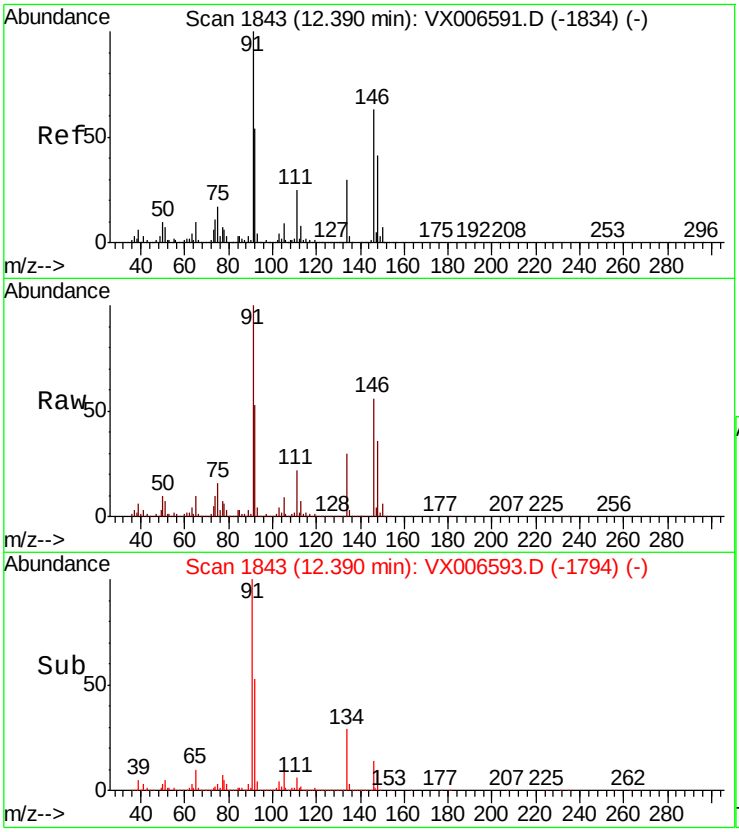


#88
1,4-Dichlorobenzene
Concen: 144.871 ug/l
RT: 12.10 min Scan# 1795
Delta R.T. -0.00 min
Lab File: VX006593.D
Acq: 18 Dec 2018 12:57

Tgt Ion:146 Resp: 2329224

Ion	Ratio	Lower	Upper
146	100		
111	36.2	18.1	54.1
148	64.2	31.9	95.9

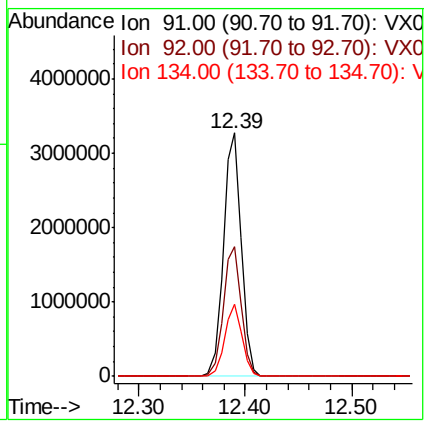




#89
n-Butylbenzene
Concen: 156.595 ug/l
RT: 12.39 min Scan# 1843
Delta R.T. -0.00 min
Lab File: VX006593.D
Acq: 18 Dec 2018 12:57

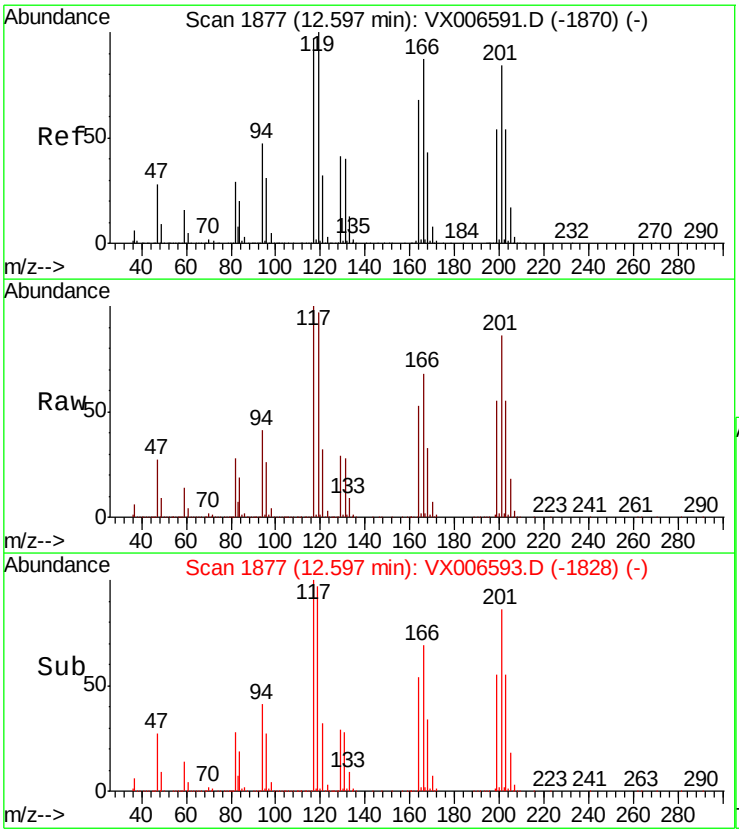
Tgt Ion: 91 Resp: 3806730

Ion	Ratio	Lower	Upper
91	100		
92	53.6	26.8	80.4
134	28.8	14.4	43.2



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC150

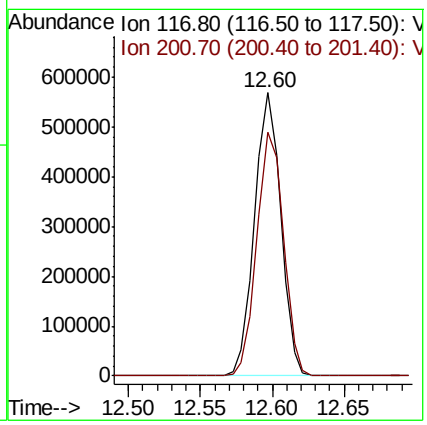
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:22:09 AM

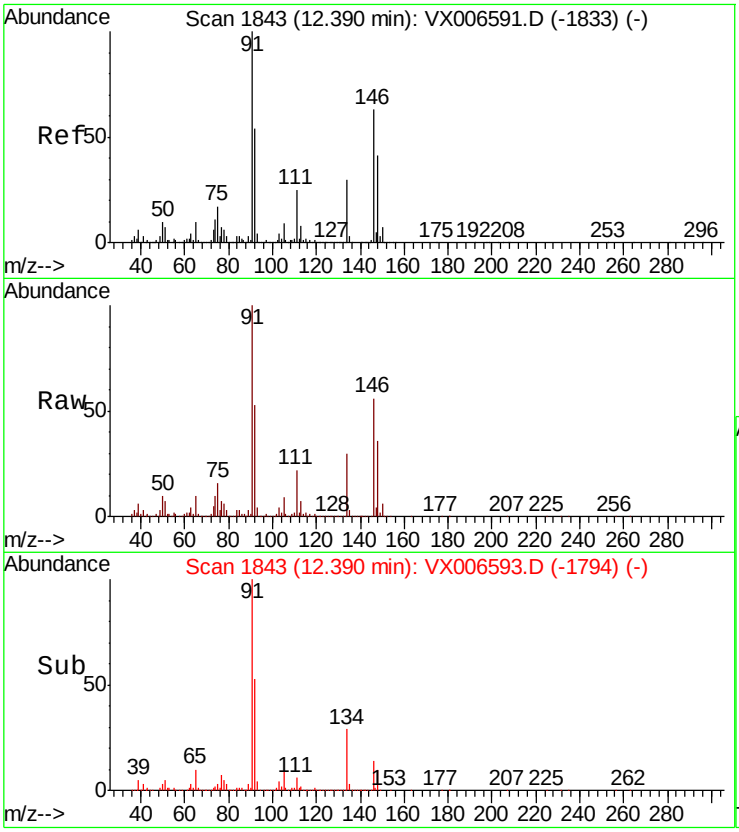


#90
Hexachloroethane
Concen: 183.047 ug/l
RT: 12.60 min Scan# 1877
Delta R.T. -0.00 min
Lab File: VX006593.D
Acq: 18 Dec 2018 12:57

Tgt Ion:117 Resp: 712245

Ion	Ratio	Lower	Upper
117	100		
201	87.6	42.9	128.7

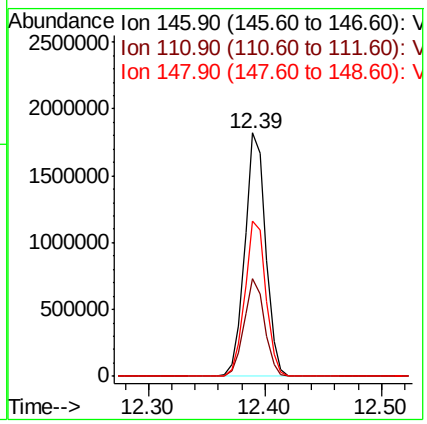




#91
1,2-Dichlorobenzene
Concen: 145.213 ug/l
RT: 12.39 min Scan# 1843
Delta R.T. -0.00 min
Lab File: VX006593.D
Acq: 18 Dec 2018 12:57

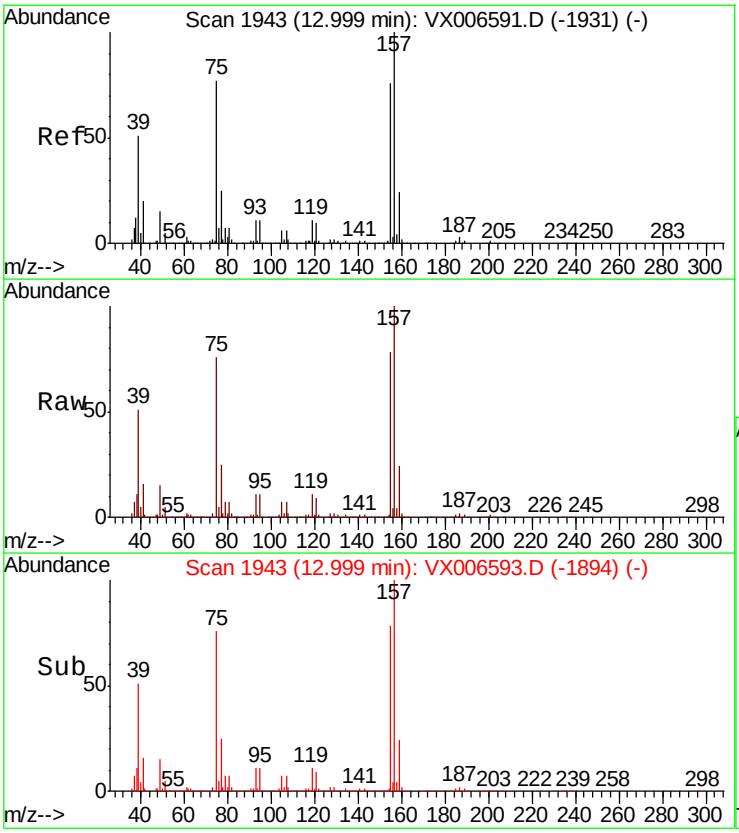
Tgt Ion:146 Resp: 2275564

Ion	Ratio	Lower	Upper
146	100		
111	39.1	19.4	58.2
148	64.5	32.3	96.9



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC150

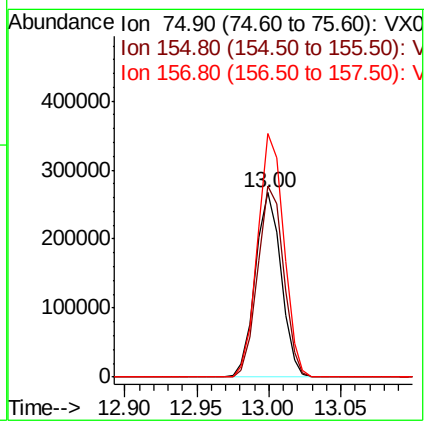
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:22:09 AM

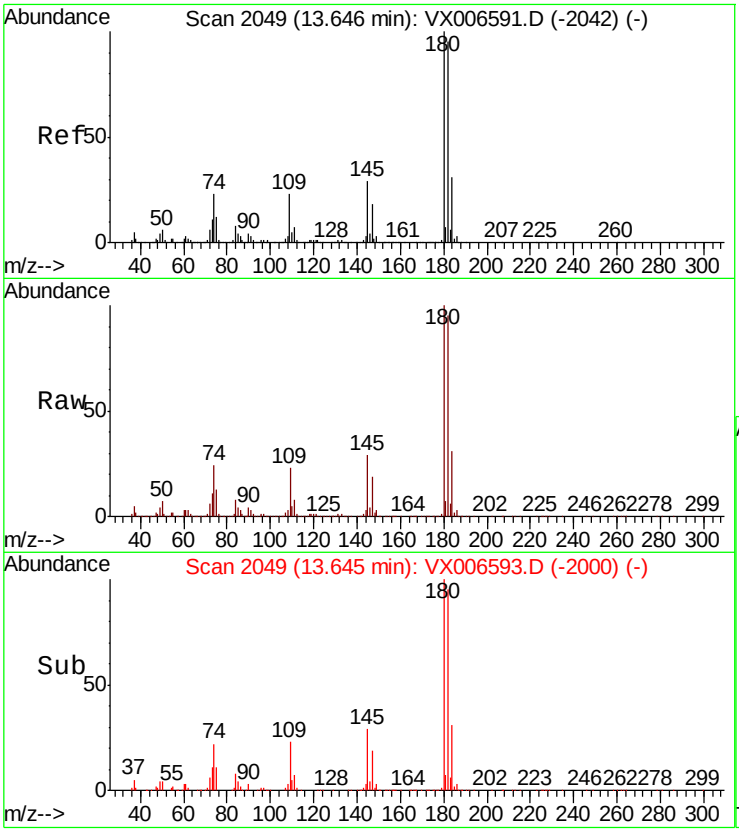


#92
1,2-Dibromo-3-Chloropropane
Concen: 166.367 ug/l
RT: 13.00 min Scan# 1943
Delta R.T. -0.00 min
Lab File: VX006593.D
Acq: 18 Dec 2018 12:57

Tgt Ion: 75 Resp: 329143

Ion	Ratio	Lower	Upper
75	100		
155	103.9	50.6	151.8
157	133.8	64.6	193.8

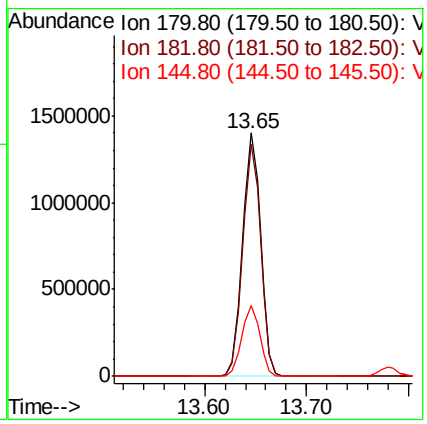


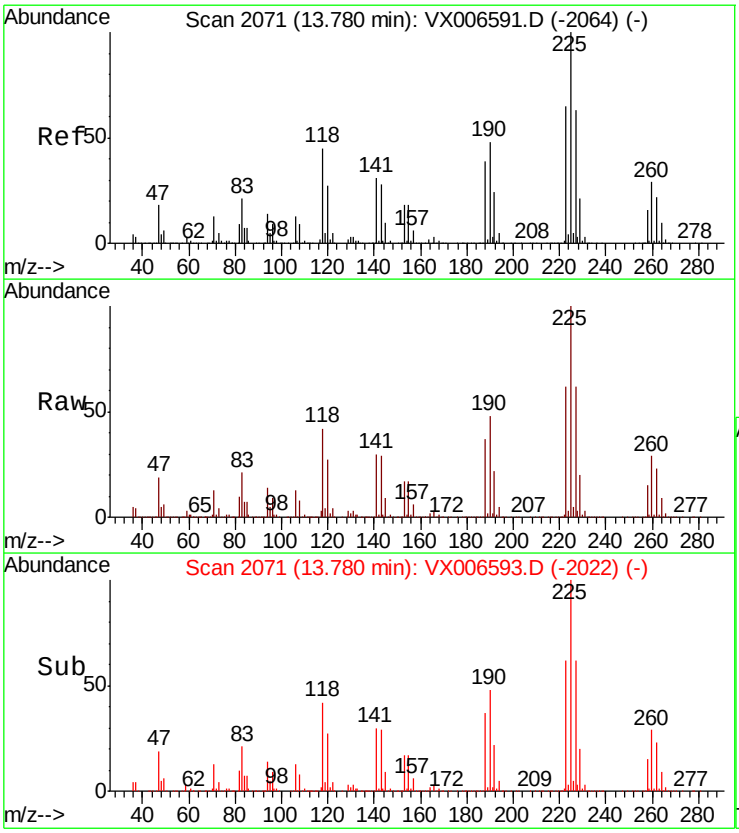


#93
1,2,4-Trichlorobenzene
Concen: 157.884 ug/l
RT: 13.65 min Scan# 2049
Delta R.T. -0.00 min
Lab File: VX006593.D
Acq: 18 Dec 2018 12:57

Tgt Ion:180 Resp: 1706642

Ion	Ratio	Lower	Upper
180	100		
182	95.1	47.3	142.0
145	29.3	14.8	44.3

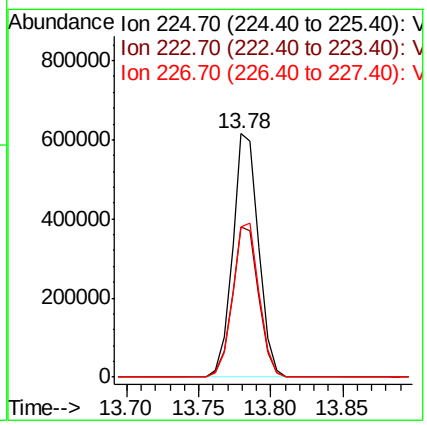




#94
Hexachlorobutadiene
Concen: 151.733 ug/l
RT: 13.78 min Scan# 2071
Delta R.T. -0.00 min
Lab File: VX006593.D
Acq: 18 Dec 2018 12:57

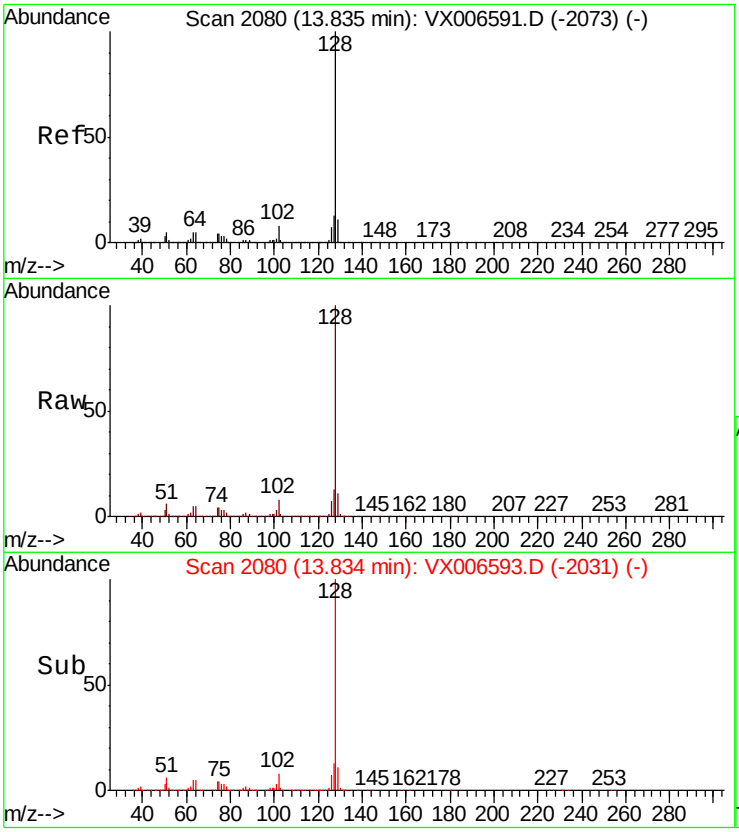
Tgt Ion:225 Resp: 773076

Ion	Ratio	Lower	Upper
225	100		
223	62.6	32.1	96.3
227	64.0	32.3	96.8



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC150

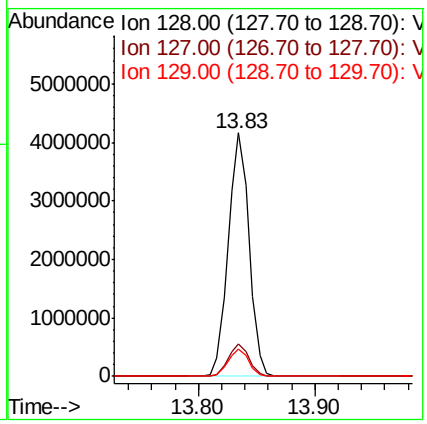
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:22:09 AM



#95
Naphthalene
Concen: 149.362 ug/l
RT: 13.83 min Scan# 2080
Delta R.T. -0.00 min
Lab File: VX006593.D
Acq: 18 Dec 2018 12:57

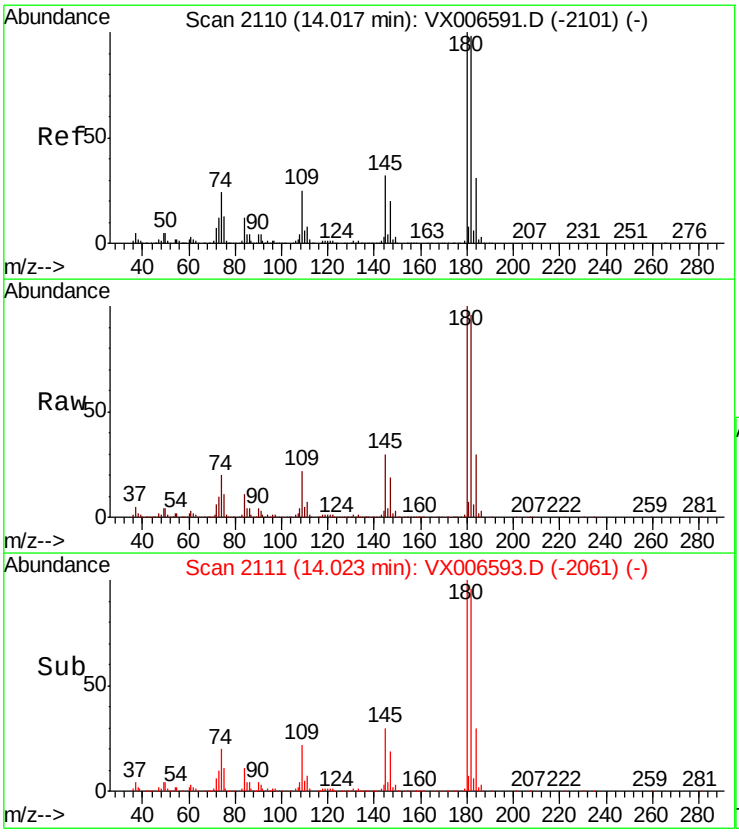
Tgt Ion:128 Resp: 5152971

Ion	Ratio	Lower	Upper
128	100		
127	13.2	10.1	15.1
129	11.2	8.6	13.0



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC150

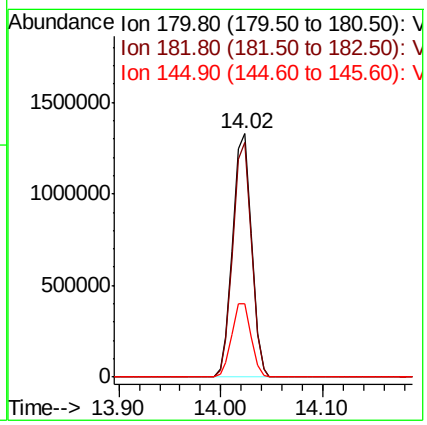
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:22:09 AM



#96
1,2,3-Trichlorobenzene
Concen: 151.082 ug/l
RT: 14.02 min Scan# 2111
Delta R.T. 0.01 min
Lab File: VX006593.D
Acq: 18 Dec 2018 12:57

Tgt Ion:180 Resp: 1686169

Ion	Ratio	Lower	Upper
180	100		
182	95.7	48.5	145.5
145	31.0	16.0	47.9



Quantitation Report (QT Reviewed)

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX121818\
Data File : VX006594.D
Acq On : 18 Dec 2018 13:24
Operator : JC/MD
Sample : VSTDICV050
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 9 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
ICVVX121818

Manual Integrations APPROVED
MMDadoda
12/19/2018 11:22:13 AM

Quant Time: Dec 19 01:03:21 2018
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121818W.M
Quant Title : SW846 8260
QLast Update : Wed Dec 19 00:58:54 2018
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	5.66	168	682670	50.00	ug/l	0.00
34) 1,4-Difluorobenzene	6.86	114	1020985	50.00	ug/l	0.00
63) Chlorobenzene-d5	10.11	117	936133	50.00	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	12.08	152	484091	50.00	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	6.07	65	337527	45.88	ug/l	0.00
Spiked Amount 50.000			Recovery = 91.76%			
35) Dibromofluoromethane	5.50	113	314755	48.75	ug/l	0.00
Spiked Amount 50.000			Recovery = 97.50%			
50) Toluene-d8	8.71	98	1165595	47.89	ug/l	0.00
Spiked Amount 50.000			Recovery = 95.78%			
62) 4-Bromofluorobenzene	11.13	95	433669	48.65	ug/l	0.00
Spiked Amount 50.000			Recovery = 97.30%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.20	85	294616	47.175	ug/l	100
3) Chloromethane	1.32	50	320720	47.667	ug/l	98
4) Vinyl Chloride	1.41	62	333392	47.444	ug/l	99
5) Bromomethane	1.64	94	340901	52.064	ug/l	98
6) Chloroethane	1.71	64	214449	44.074	ug/l	99
7) Trichlorofluoromethane	1.93	101	525917	48.003	ug/l	97
8) Diethyl Ether	2.19	74	204746	47.052	ug/l	100
9) 1,1,2-Trichlorotrifluoroet	2.39	101	307133	47.745	ug/l	99
10) Methyl Iodide	2.51	142	437258	47.486	ug/l	100
11) Tert butyl alcohol	3.07	59	403239	245.578	ug/l	98
12) 1,1-Dichloroethene	2.37	96	290898	47.692	ug/l	100
13) Acrolein	2.29	56	262460	236.941	ug/l	100
14) Allyl chloride	2.73	41	507704	49.451	ug/l	100
15) Acrylonitrile	3.15	53	900462	246.990	ug/l	100
16) Acetone	2.45	43	841531	248.953	ug/l	99
17) Carbon Disulfide	2.57	76	779405	48.286	ug/l	99
18) Methyl Acetate	2.78	43	486319	48.927	ug/l	99
19) Methyl tert-butyl Ether	3.20	73	1006703	49.728	ug/l	99
20) Methylene Chloride	2.85	84	323428	46.271	ug/l	97
21) trans-1,2-Dichloroethene	3.17	96	310789	45.987	ug/l	100
22) Diisopropyl ether	3.87	45	909786	48.438	ug/l	93
23) Vinyl Acetate	3.82	43	3791735	246.801	ug/l	100
24) 1,1-Dichloroethane	3.70	63	516962	46.107	ug/l	99
25) 2-Butanone	4.70	43	1148641	241.576	ug/l	100
26) 2,2-Dichloropropane	4.58	77	433282	50.026	ug/l	99
27) cis-1,2-Dichloroethene	4.60	96	357067	47.887	ug/l	99
28) Bromochloromethane	5.02	49	240504	50.918	ug/l	100
29) Tetrahydrofuran	5.15	42	754418	240.901	ug/l	99
30) Chloroform	5.21	83	551630	47.509	ug/l	95
31) Cyclohexane	5.57	56	481284	47.249	ug/l	94
32) 1,1,1-Trichloroethane	5.49	97	490817	50.062	ug/l	99
36) 1,1-Dichloropropene	5.80	75	413708	48.924	ug/l	100
37) Ethyl Acetate	4.85	43	432402	49.130	ug/l	100
38) Carbon Tetrachloride	5.78	117	420470	51.164	ug/l	97

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX121818\
Data File : VX006594.D
Acq On : 18 Dec 2018 13:24
Operator : JC/MD
Sample : VSTDICV050
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 9 Sample Multiplier: 1

Instrument : MSVOA_X
ClientSampleId : ICVVX121818

Manual Integrations APPROVED
MMDadoda
12/19/2018 11:22:13 AM

Quant Time: Dec 19 01:03:21 2018
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121818W.M
Quant Title : SW846 8260
QLast Update : Wed Dec 19 00:58:54 2018
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
39) Methylcyclohexane	7.46	83	546633	49.102	ug/l	98
40) Benzene	6.14	78	1262299	49.109	ug/l	99
41) Methacrylonitrile	5.06	41	240967	51.568	ug/l	99
42) 1,2-Dichloroethane	6.20	62	422210	48.205	ug/l	99
43) Isopropyl Acetate	6.46	43	700623	52.318	ug/l	100
44) Trichloroethene	7.21	130	381877	49.086	ug/l	98
45) 1,2-Dichloropropane	7.52	63	314311	50.250	ug/l	97
46) Dibromomethane	7.66	93	225814	49.081	ug/l	98
47) Bromodichloromethane	7.90	83	396753	51.941	ug/l	98
48) Methyl methacrylate	7.77	41	354308	52.028	ug/l	99
49) 1,4-Dioxane	7.75	88	182661	1025.661	ug/l	99
51) 4-Methyl-2-Pentanone	8.65	43	2189073	256.915	ug/l	100
52) Toluene	8.78	92	828369	49.884	ug/l	99
53) t-1,3-Dichloropropene	9.04	75	449957	54.925	ug/l	100
54) cis-1,3-Dichloropropene	8.43	75	493035	54.849	ug/l	99
55) 1,1,2-Trichloroethane	9.21	97	338331	49.776	ug/l	98
56) Ethyl methacrylate	9.18	69	501186	52.170	ug/l	100
57) 1,3-Dichloropropane	9.37	76	539769	49.359	ug/l	100
58) 2-Chloroethyl Vinyl ether	8.31	63	1286061	251.842	ug/l	100
59) 2-Hexanone	9.49	43	1665421	255.461	ug/l	99
60) Dibromochloromethane	9.59	129	349804	55.873	ug/l	99
61) 1,2-Dibromoethane	9.67	107	369252	51.104	ug/l	100
64) Tetrachloroethene	9.34	164	355555	47.965	ug/l	96
65) Chlorobenzene	10.14	112	966720	48.813	ug/l	100
66) 1,1,1,2-Tetrachloroethane	10.22	131	340279	55.070	ug/l	99
67) Ethyl Benzene	10.25	91	1594022	49.256	ug/l	99
68) m/p-Xylenes	10.36	106	1286200	100.720	ug/l	98
69) o-Xylene	10.70	106	625707	49.619	ug/l	99
70) Styrene	10.71	104	1013737	50.814	ug/l	100
71) Bromoform	10.86	173	262483	47.354	ug/l	99
73) Isopropylbenzene	11.02	105	1654076	49.945	ug/l	99
74) N-amyl acetate	10.90	43	622017	52.472	ug/l	99
75) 1,1,2,2-Tetrachloroethane	11.27	83	492447	49.999	ug/l	99
76) 1,2,3-Trichloropropane	11.30	75	466041m	51.803	ug/l	
77) Bromobenzene	11.26	156	447746	50.008	ug/l	99
78) n-propylbenzene	11.36	91	1840271	50.461	ug/l	100
79) 2-Chlorotoluene	11.42	91	1072662	48.535	ug/l	99
80) 1,3,5-Trimethylbenzene	11.51	105	1366049	50.079	ug/l	99
81) trans-1,4-Dichloro-2-buten	11.07	75	139219	47.340	ug/l	98
82) 4-Chlorotoluene	11.51	91	1253647	49.452	ug/l	100
83) tert-Butylbenzene	11.77	119	1403196	51.398	ug/l	99
84) 1,2,4-Trimethylbenzene	11.80	105	1397118	48.694	ug/l	100
85) sec-Butylbenzene	11.94	105	1675121	50.045	ug/l	100
86) p-Isopropyltoluene	12.06	119	1506956	51.216	ug/l	99
87) 1,3-Dichlorobenzene	12.02	146	798982	49.514	ug/l	99
88) 1,4-Dichlorobenzene	12.10	146	807476	48.813	ug/l	100
89) n-Butylbenzene	12.39	91	1281938	51.194	ug/l	99
90) Hexachloroethane	12.60	117	222836	48.497	ug/l	96
91) 1,2-Dichlorobenzene	12.39	146	786155	48.702	ug/l	99
92) 1,2-Dibromo-3-Chloropropan	13.00	75	103352	50.714	ug/l	95

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX121818\
Data File : VX006594.D
Acq On : 18 Dec 2018 13:24
Operator : JC/MD
Sample : VSTDICV050
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 9 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
ICVVX121818

Manual Integrations APPROVED
MMDadoda
12/19/2018 11:22:13 AM

Quant Time: Dec 19 01:03:21 2018
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121818W.M
Quant Title : SW846 8260
QLast Update : Wed Dec 19 00:58:54 2018
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
93) 1,2,4-Trichlorobenzene	13.65	180	565779	50.812	ug/l	100
94) Hexachlorobutadiene	13.78	225	264341	50.367	ug/l	98
95) Naphthalene	13.83	128	1760815	49.547	ug/l	99
96) 1,2,3-Trichlorobenzene	14.02	180	566968	49.317	ug/l	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

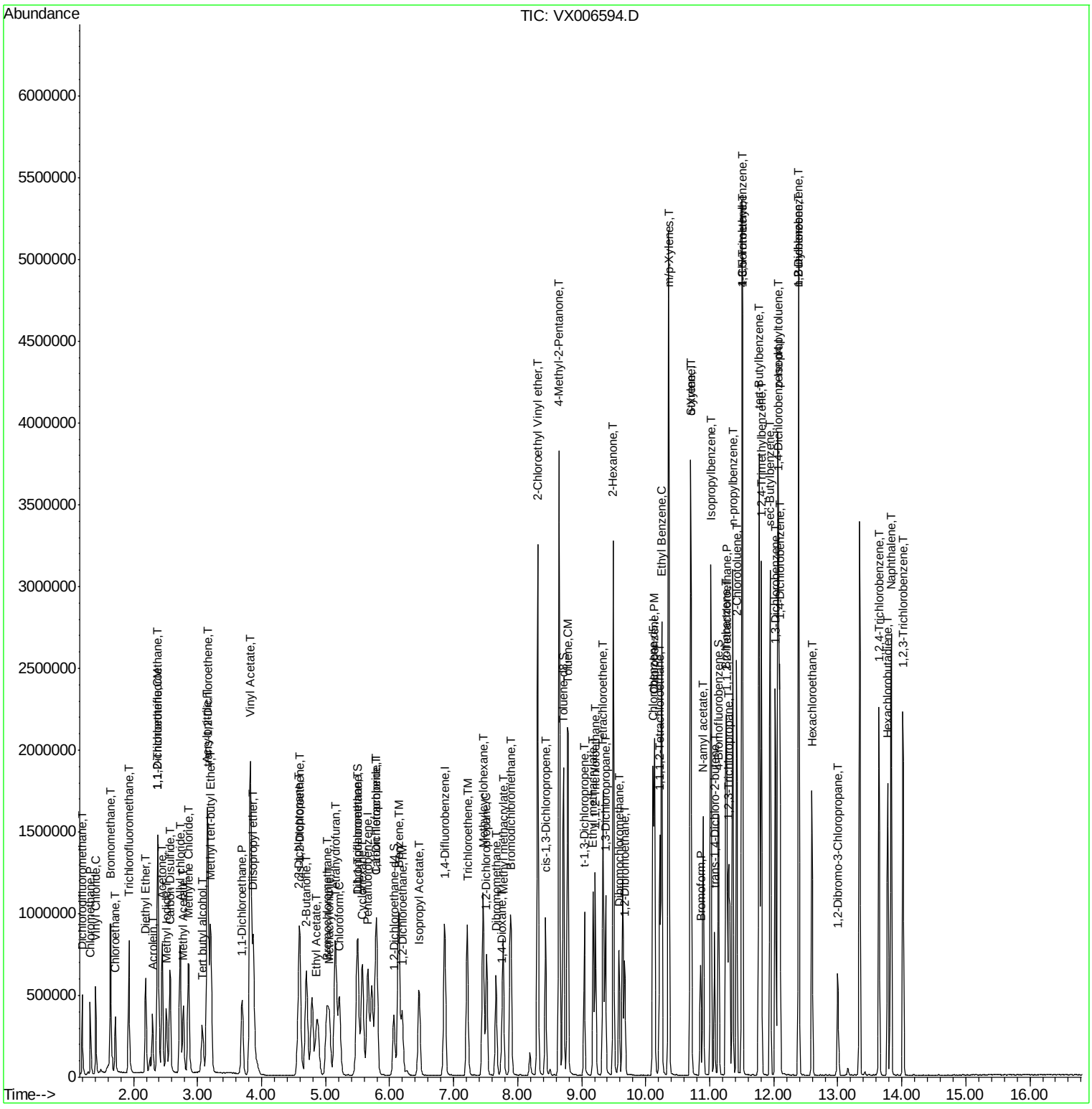
ICAL Form

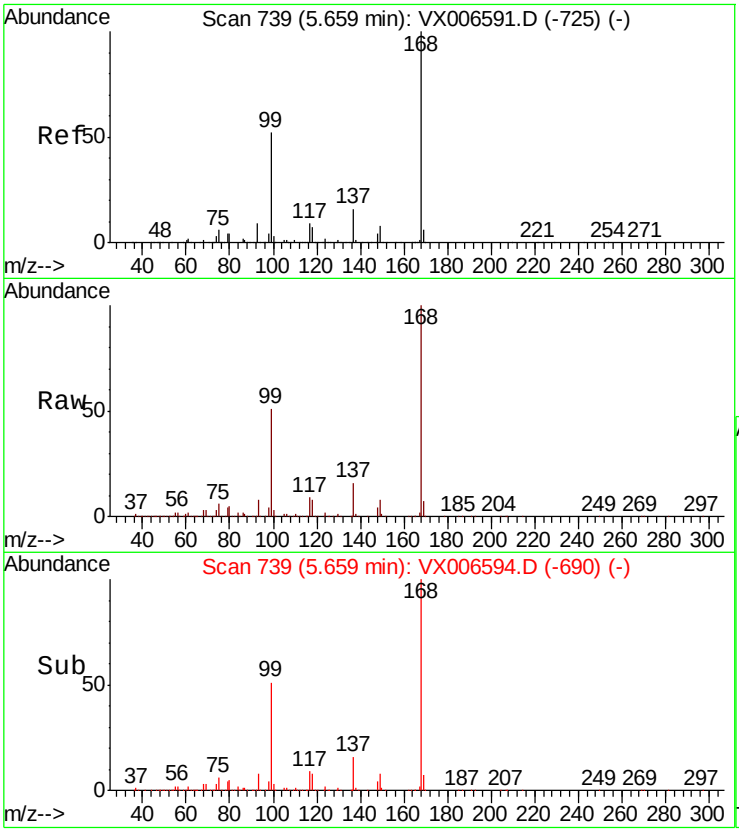
Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX121818\
Data File : VX006594.D
Acq On : 18 Dec 2018 13:24
Operator : JC/MD
Sample : VSTDICV050
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Dec 19 01:03:21 2018
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121818W.M
Quant Title : SW846 8260
QLast Update : Wed Dec 19 00:58:54 2018
Response via : Initial Calibration

Instrument :
MSVOA_X
ClientSampleId :
ICVVX121818

Manual Integrations APPROVED
MMDadoda
12/19/2018 11:22:13 AM

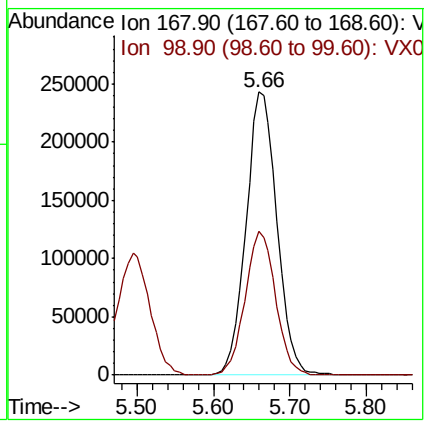




#1
Pentafluorobenzene
Concen: 50.000 ug/l
RT: 5.66 min Scan# 739
Delta R.T. -0.00 min
Lab File: VX006594.D
Acq: 18 Dec 2018 13:24

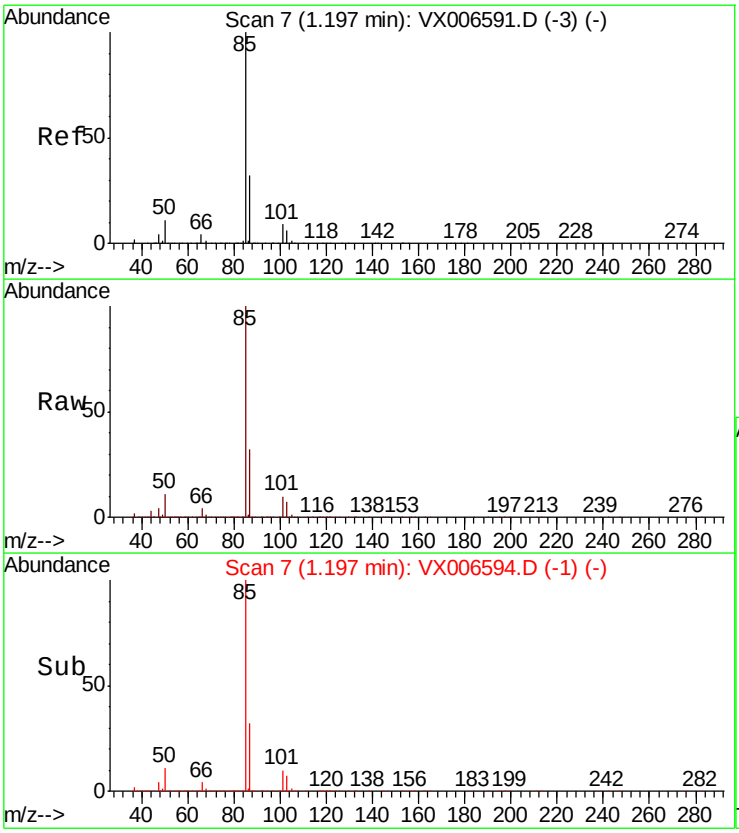
Tgt Ion:168 Resp: 682670

Ion	Ratio	Lower	Upper
168	100		
99	50.6	41.8	62.8



Instrument :
MSVOA_X
ClientSampleId :
ICVVX121818

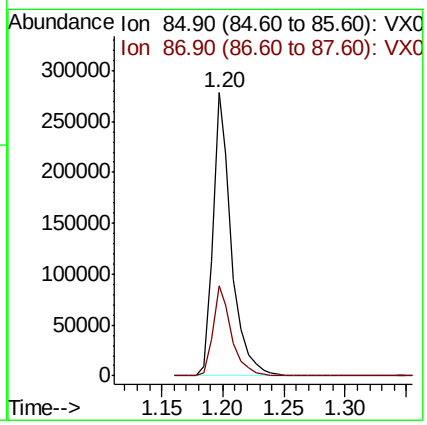
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:22:13 AM



#2
Dichlorodifluoromethane
Concen: 47.175 ug/l
RT: 1.20 min Scan# 7
Delta R.T. -0.00 min
Lab File: VX006594.D
Acq: 18 Dec 2018 13:24

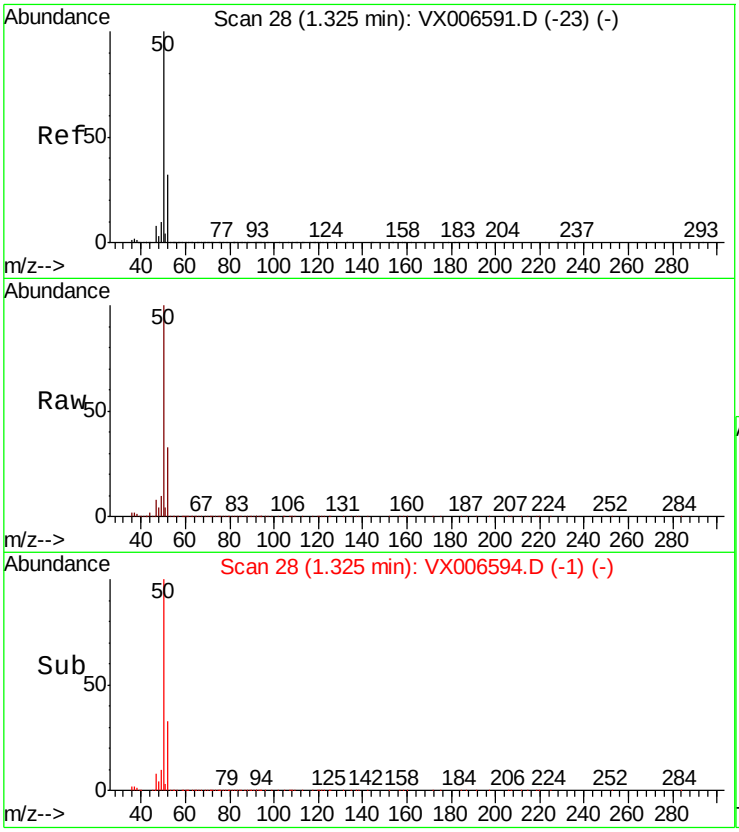
Tgt Ion: 85 Resp: 294616

Ion	Ratio	Lower	Upper
85	100		
87	31.6	15.9	47.6



Instrument :
MSVOA_X
ClientSampleId :
ICVVX121818

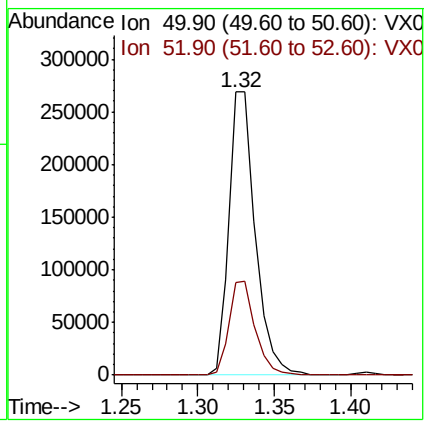
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:22:13 AM

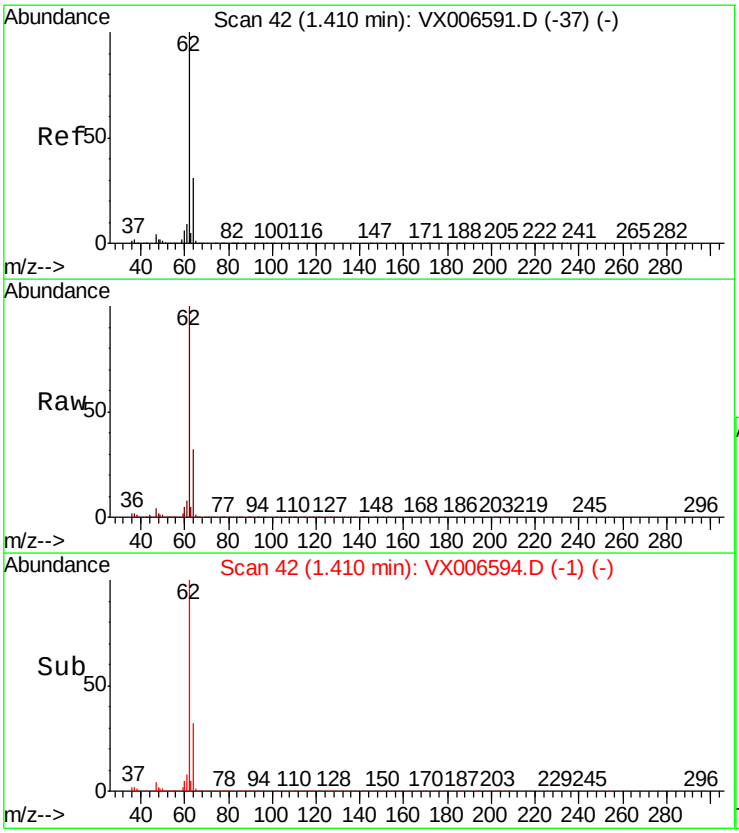


#3
Chloromethane
Concen: 47.667 ug/l
RT: 1.32 min Scan# 28
Delta R.T. -0.00 min
Lab File: VX006594.D
Acq: 18 Dec 2018 13:24

Tgt Ion: 50 Resp: 320720

Ion	Ratio	Lower	Upper
50	100		
52	32.7	25.4	38.2

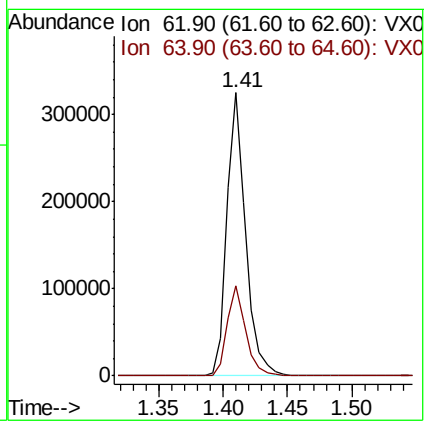




#4
Vinyl Chloride
Concen: 47.444 ug/l
RT: 1.41 min Scan# 42
Delta R.T. -0.00 min
Lab File: VX006594.D
Acq: 18 Dec 2018 13:24

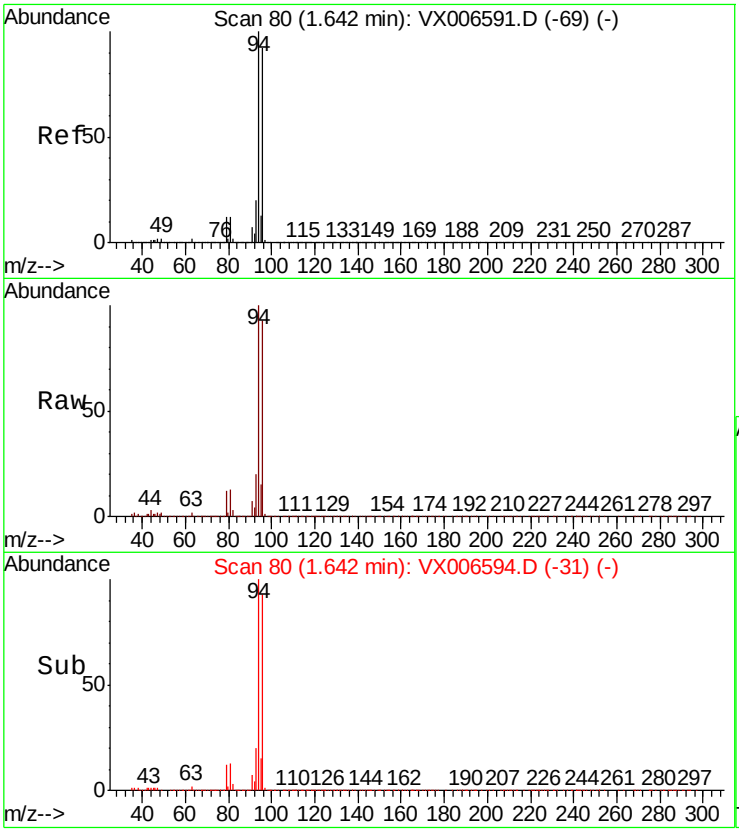
Tgt Ion: 62 Resp: 333392

Ion	Ratio	Lower	Upper
62	100		
64	31.7	25.1	37.7



Instrument :
MSVOA_X
ClientSampleId :
ICVVX121818

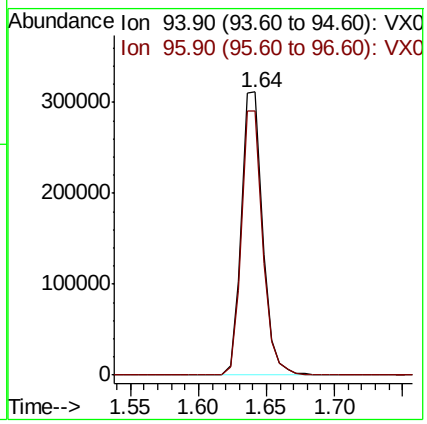
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:22:13 AM

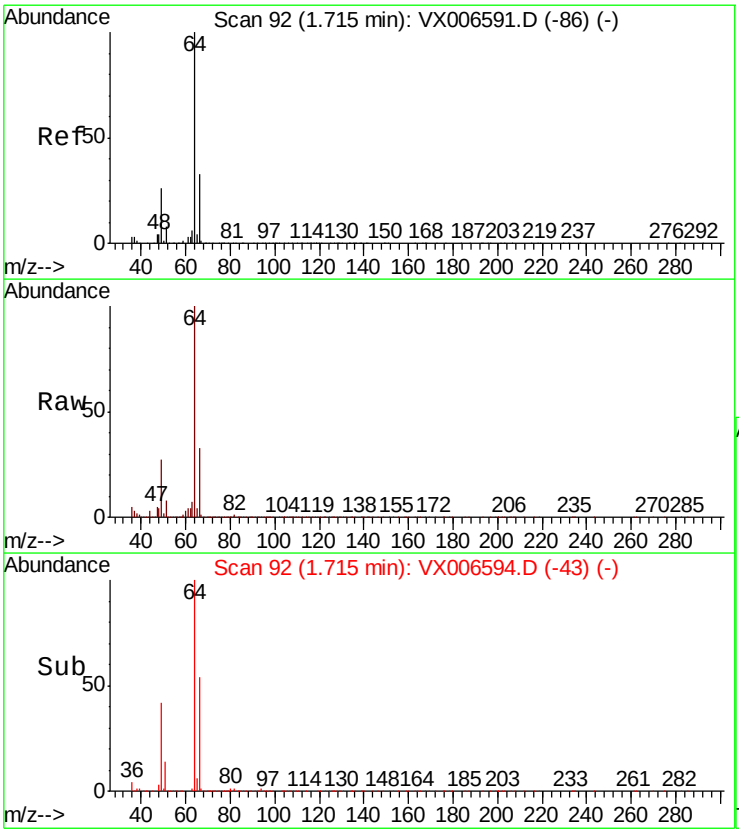


#5
Bromomethane
Concen: 52.064 ug/l
RT: 1.64 min Scan# 80
Delta R.T. 0.00 min
Lab File: VX006594.D
Acq: 18 Dec 2018 13:24

Tgt Ion: 94 Resp: 340901

Ion	Ratio	Lower	Upper
94	100		
96	93.4	73.4	110.2

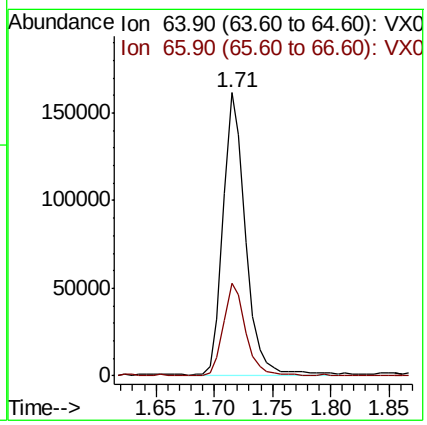




#6
Chloroethane
Concen: 44.074 ug/l
RT: 1.71 min Scan# 92
Delta R.T. -0.00 min
Lab File: VX006594.D
Acq: 18 Dec 2018 13:24

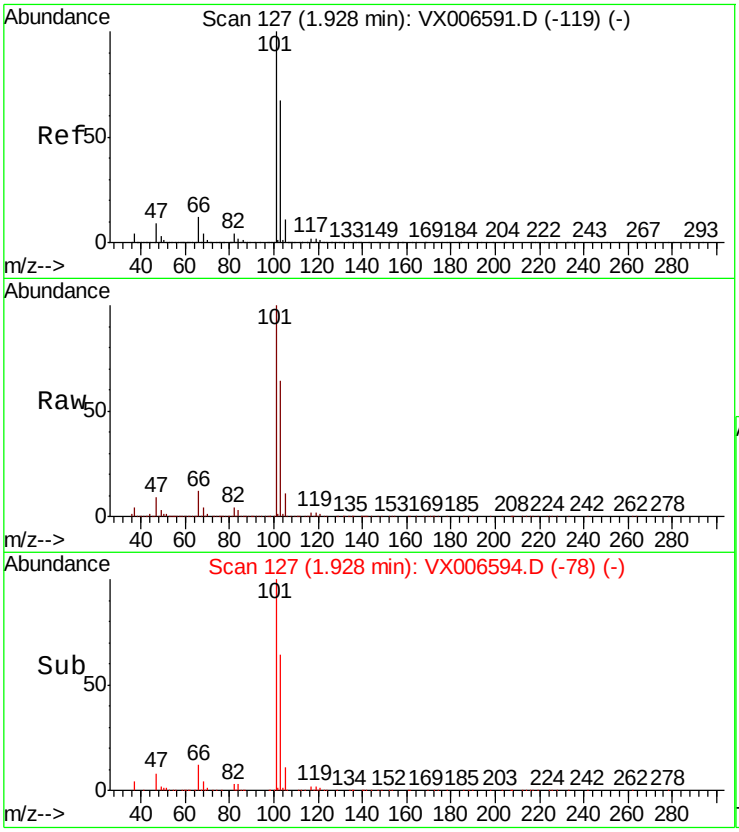
Tgt Ion: 64 Resp: 214449

Ion	Ratio	Lower	Upper
64	100		
66	32.6	26.4	39.6



Instrument :
MSVOA_X
ClientSampleId :
ICVVX121818

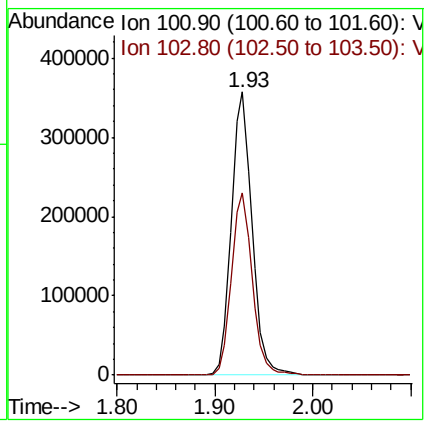
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:22:13 AM

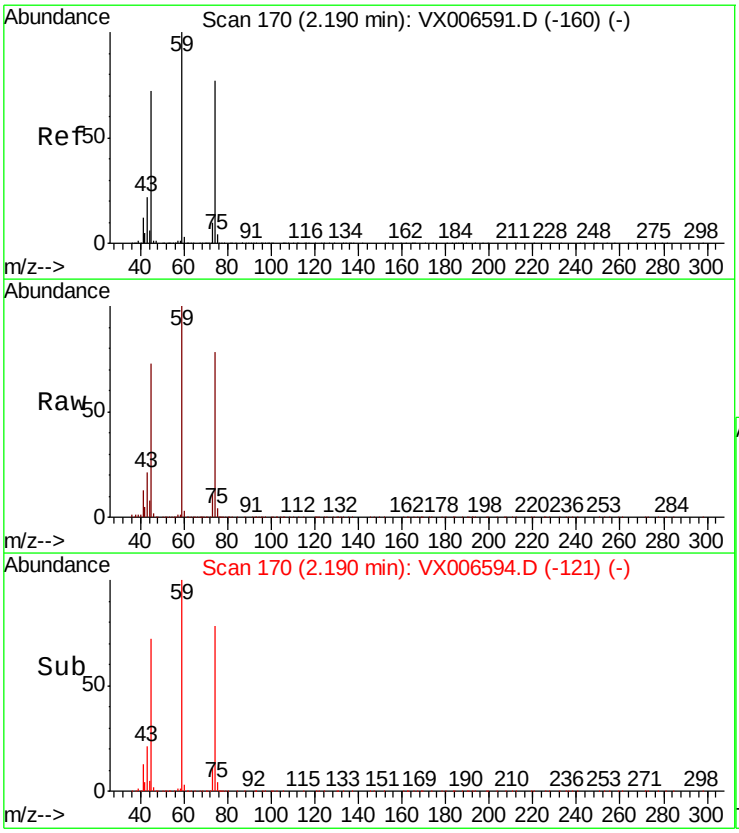


#7
Trichlorofluoromethane
Concen: 48.003 ug/l
RT: 1.93 min Scan# 127
Delta R.T. -0.00 min
Lab File: VX006594.D
Acq: 18 Dec 2018 13:24

Tgt Ion:101 Resp: 525917

Ion	Ratio	Lower	Upper
101	100		
103	64.4	53.2	79.8

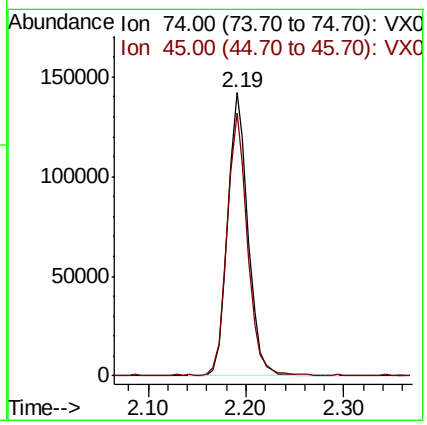


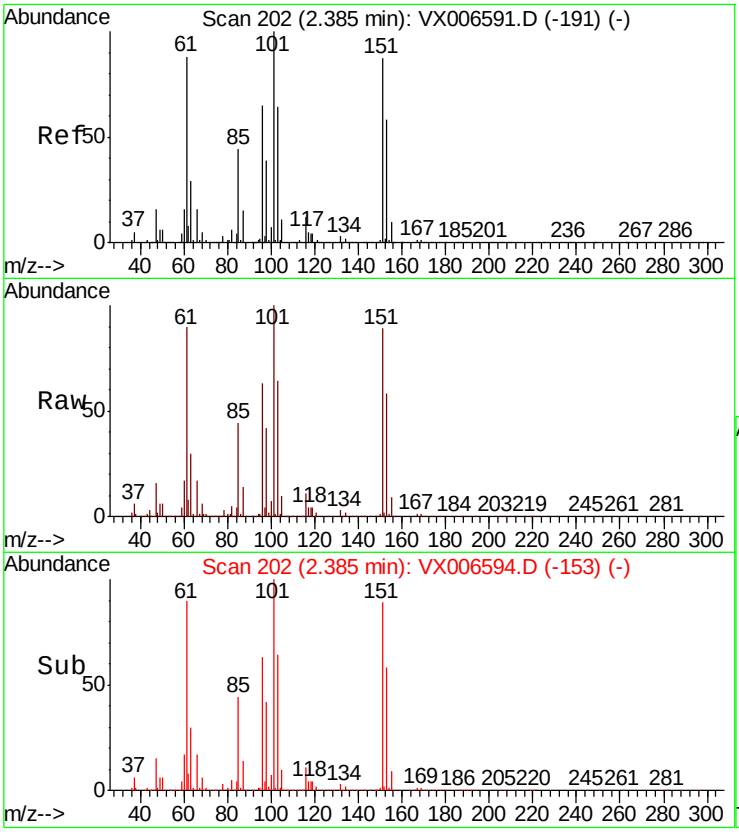


#8
Diethyl Ether
Concen: 47.052 ug/l
RT: 2.19 min Scan# 170
Delta R.T. -0.00 min
Lab File: VX006594.D
Acq: 18 Dec 2018 13:24

Tgt Ion: 74 Resp: 204746

Ion	Ratio	Lower	Upper
74	100		
45	92.4	46.3	138.9

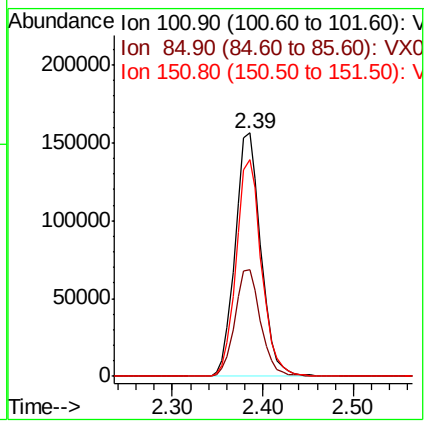




#9
1,1,2-Trichlorotrifluoroethane
Concen: 47.745 ug/l
RT: 2.39 min Scan# 202
Delta R.T. -0.00 min
Lab File: VX006594.D
Acq: 18 Dec 2018 13:24

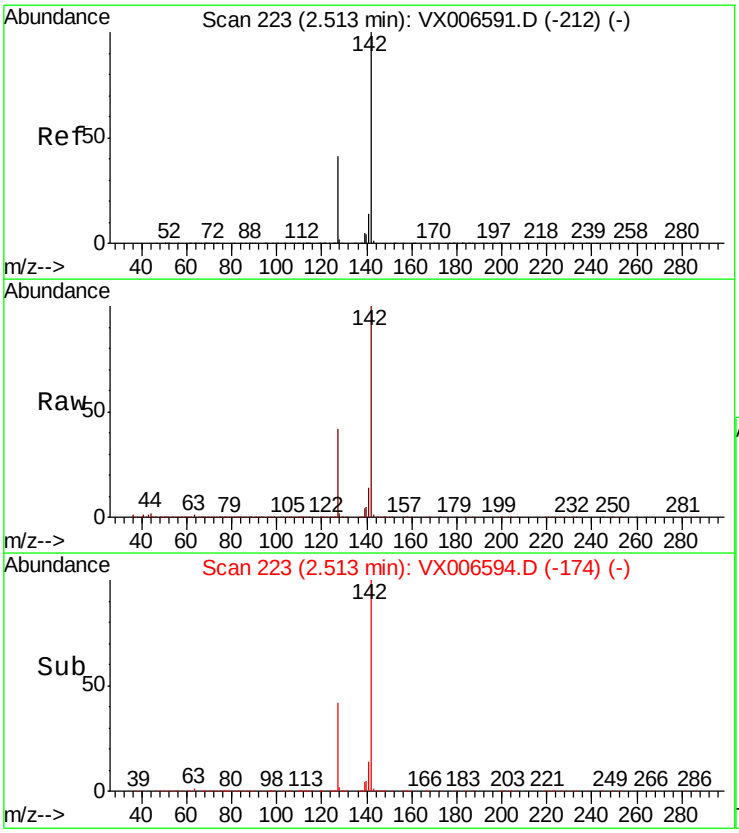
Tgt Ion:101 Resp: 307133

Ion	Ratio	Lower	Upper
101	100		
85	43.7	35.1	52.7
151	87.9	68.9	103.3



Instrument :
MSVOA_X
ClientSampleId :
ICVVX121818

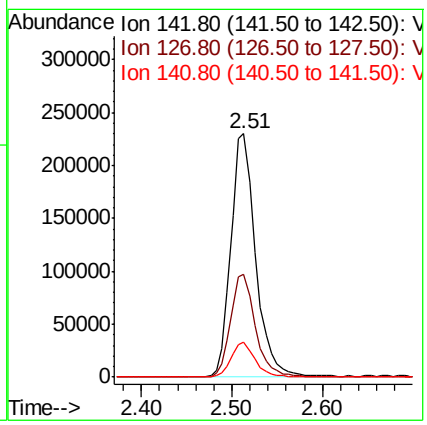
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:22:13 AM



#10
Methyl Iodide
Concen: 47.486 ug/l
RT: 2.51 min Scan# 223
Delta R.T. -0.00 min
Lab File: VX006594.D
Acq: 18 Dec 2018 13:24

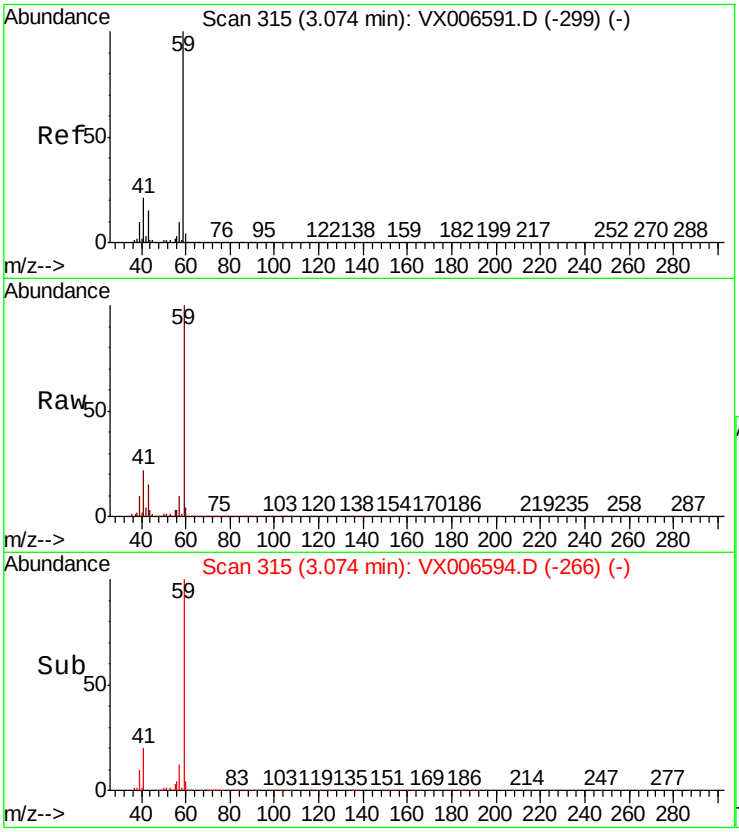
Tgt Ion:142 Resp: 437258

Ion	Ratio	Lower	Upper
142	100		
127	42.4	33.9	50.9
141	14.0	11.4	17.0



Instrument :
MSVOA_X
ClientSampleId :
ICVVX121818

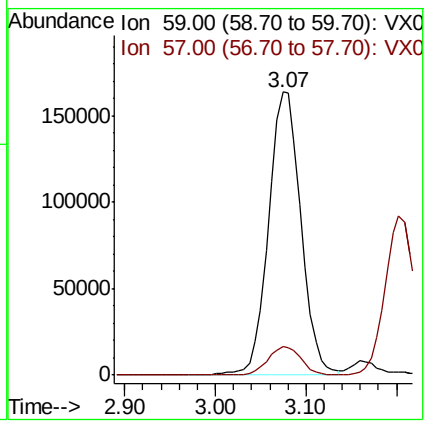
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:22:13 AM

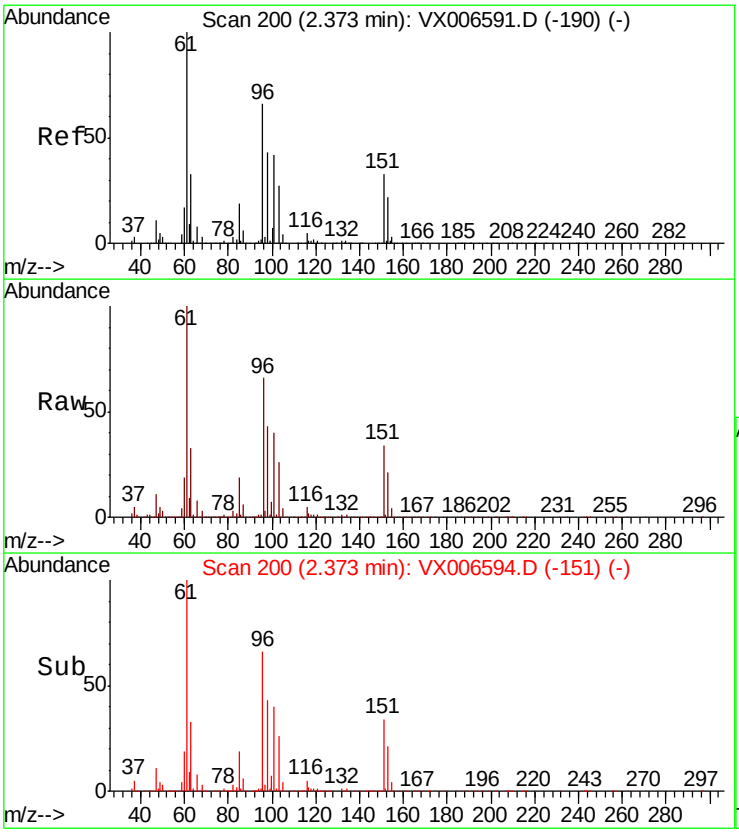


#11
Tert butyl alcohol
Concen: 245.578 ug/l
RT: 3.07 min Scan# 315
Delta R.T. -0.00 min
Lab File: VX006594.D
Acq: 18 Dec 2018 13:24

Tgt Ion: 59 Resp: 403239

Ion	Ratio	Lower	Upper
59	100		
57	9.9	8.5	12.7

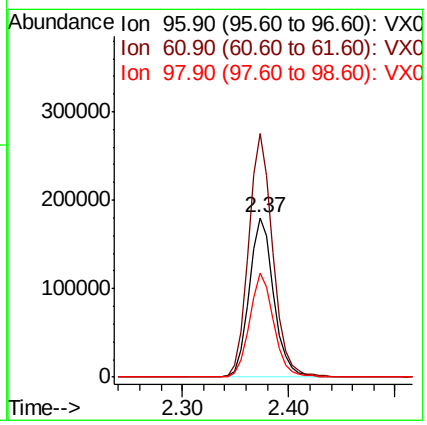




#12
1,1-Dichloroethene
Concen: 47.692 ug/l
RT: 2.37 min Scan# 200
Delta R.T. -0.00 min
Lab File: VX006594.D
Acq: 18 Dec 2018 13:24

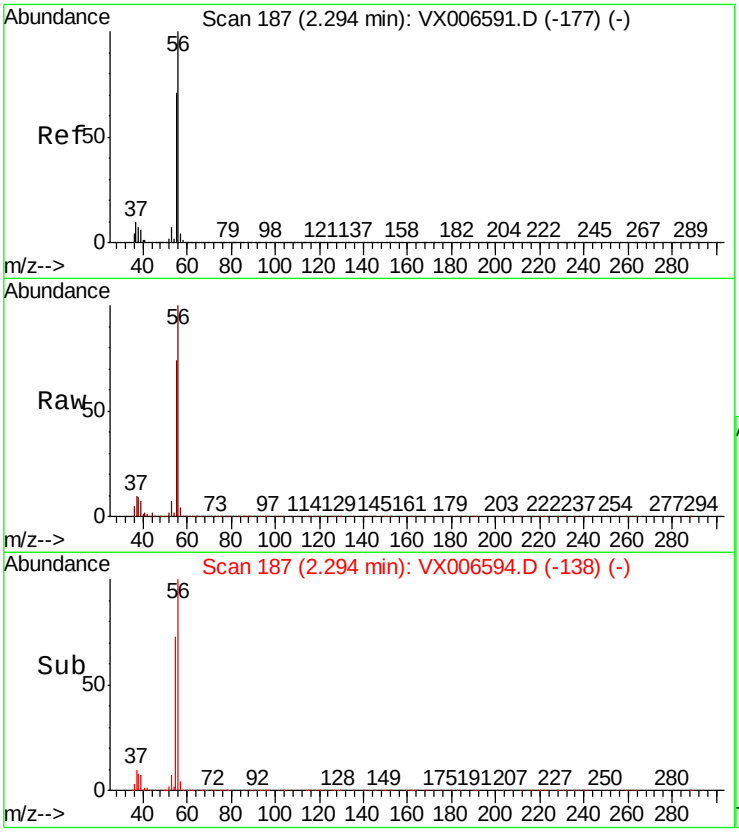
Tgt Ion: 96 Resp: 290898

Ion	Ratio	Lower	Upper
96	100		
61	152.4	121.4	182.2
98	65.3	51.9	77.9



Instrument :
MSVOA_X
ClientSampleId :
ICVVX121818

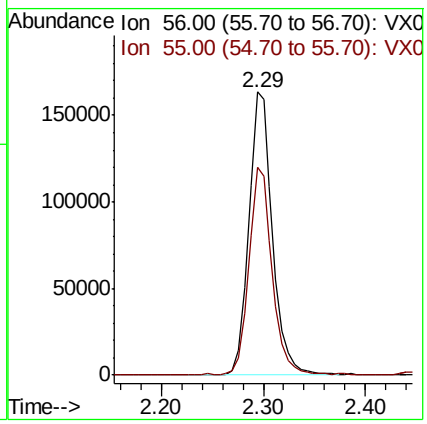
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:22:13 AM

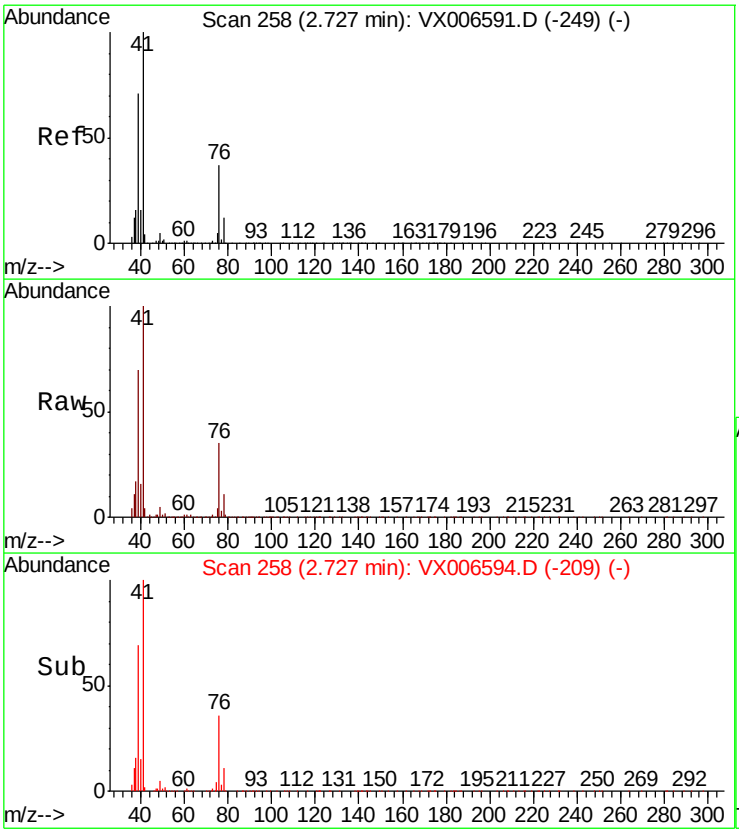


#13
Acrolein
Concen: 236.941 ug/l
RT: 2.29 min Scan# 187
Delta R.T. -0.00 min
Lab File: VX006594.D
Acq: 18 Dec 2018 13:24

Tgt Ion: 56 Resp: 262460

Ion	Ratio	Lower	Upper
56	100		
55	72.5	58.2	87.4

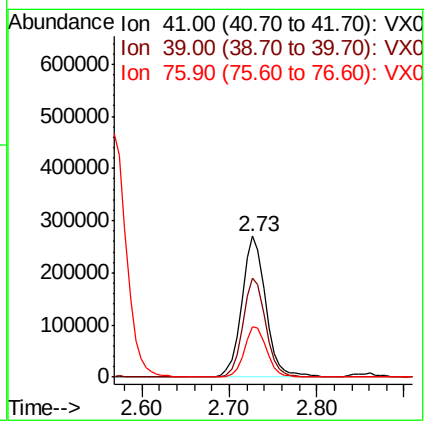




#14
Allyl chloride
Concen: 49.451 ug/l
RT: 2.73 min Scan# 258
Delta R.T. -0.00 min
Lab File: VX006594.D
Acq: 18 Dec 2018 13:24

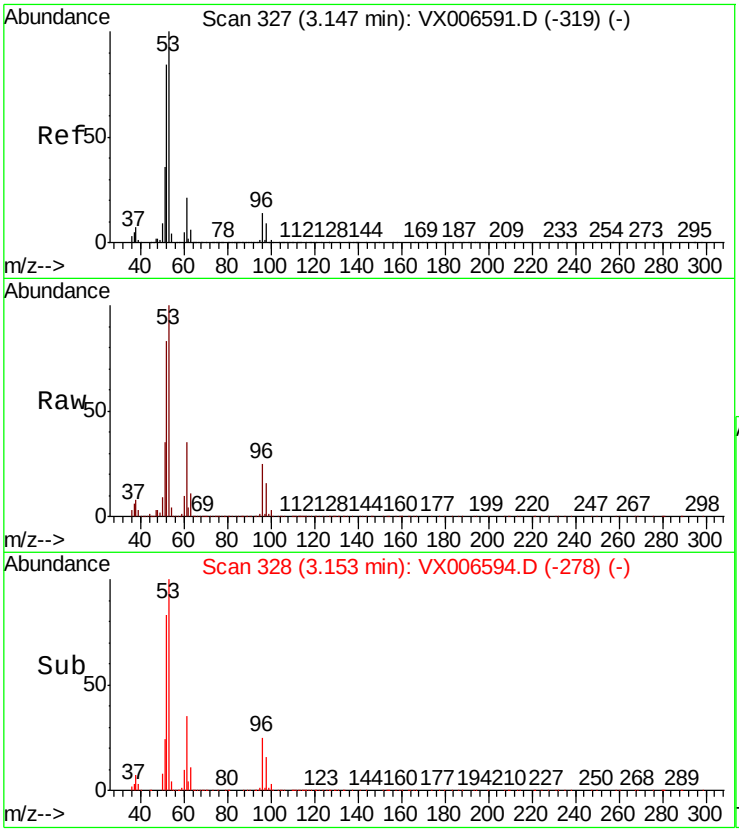
Tgt Ion: 41 Resp: 507704

Ion	Ratio	Lower	Upper
41	100		
39	66.9	53.6	80.4
76	33.7	27.4	41.2



Instrument :
MSVOA_X
ClientSampleId :
ICVVX121818

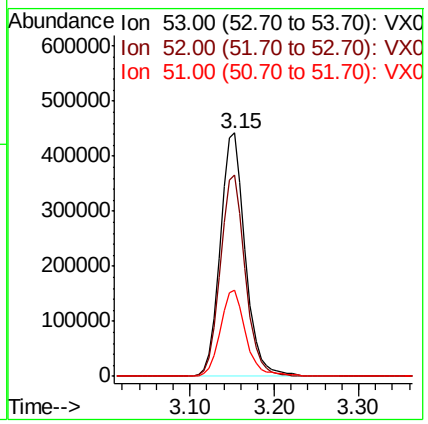
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:22:13 AM

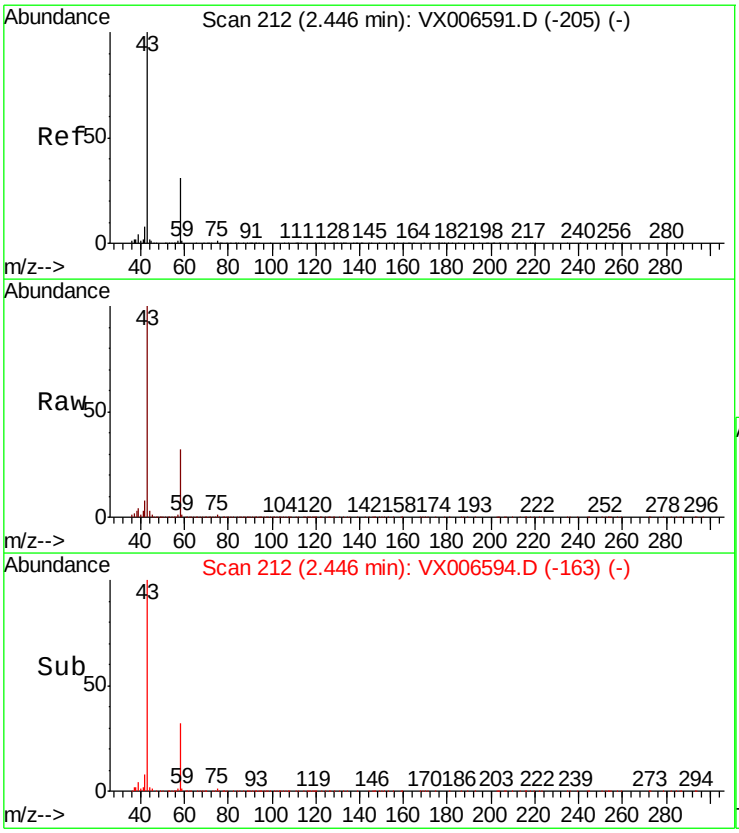


#15
Acrylonitrile
Concen: 246.990 ug/l
RT: 3.15 min Scan# 328
Delta R.T. 0.01 min
Lab File: VX006594.D
Acq: 18 Dec 2018 13:24

Tgt Ion: 53 Resp: 900462

Ion	Ratio	Lower	Upper
53	100		
52	82.5	66.0	99.0
51	35.7	28.6	42.8

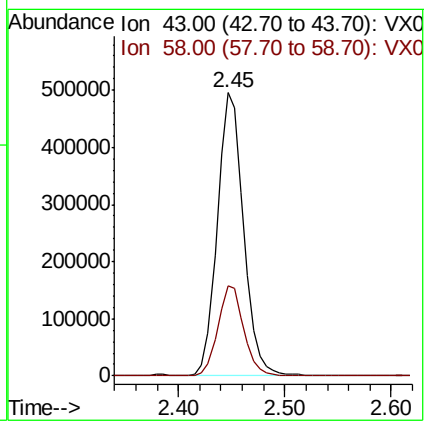




#16
Acetone
Concen: 248.953 ug/l
RT: 2.45 min Scan# 212
Delta R.T. -0.00 min
Lab File: VX006594.D
Acq: 18 Dec 2018 13:24

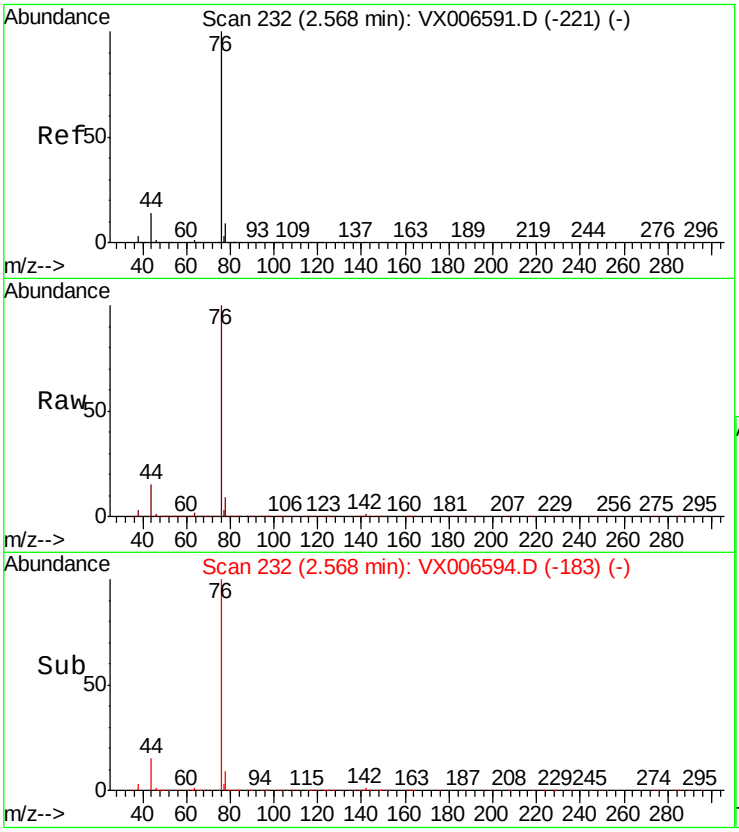
Tgt Ion: 43 Resp: 841531

Ion	Ratio	Lower	Upper
43	100		
58	31.9	25.0	37.6



Instrument :
MSVOA_X
ClientSampleId :
ICVVX121818

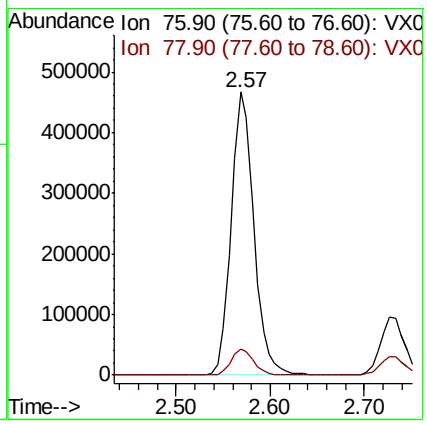
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:22:13 AM

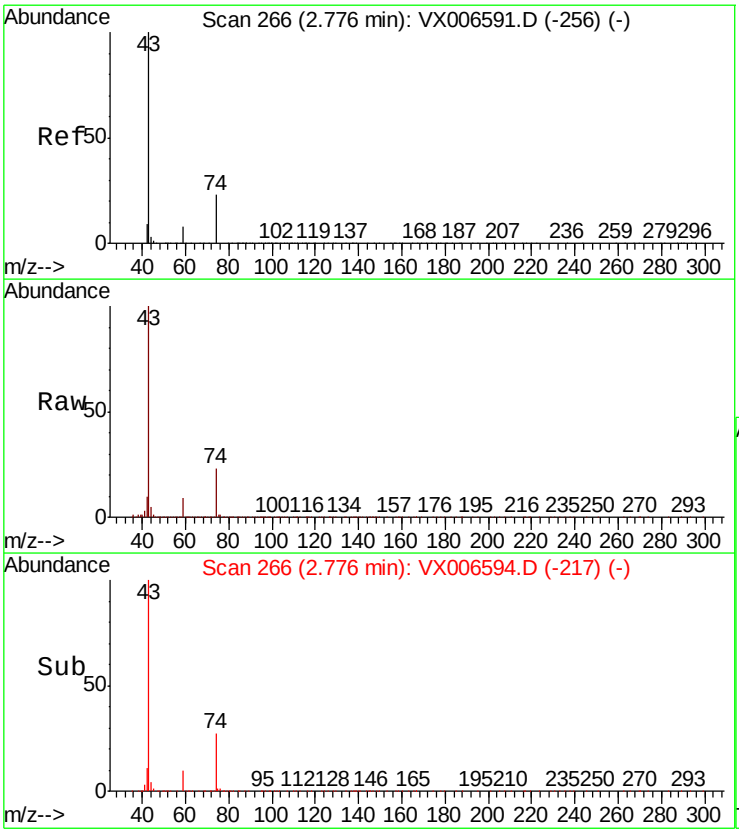


#17
Carbon Disulfide
Concen: 48.286 ug/l
RT: 2.57 min Scan# 232
Delta R.T. -0.00 min
Lab File: VX006594.D
Acq: 18 Dec 2018 13:24

Tgt Ion: 76 Resp: 779405

Ion	Ratio	Lower	Upper
76	100		
78	9.1	7.0	10.6

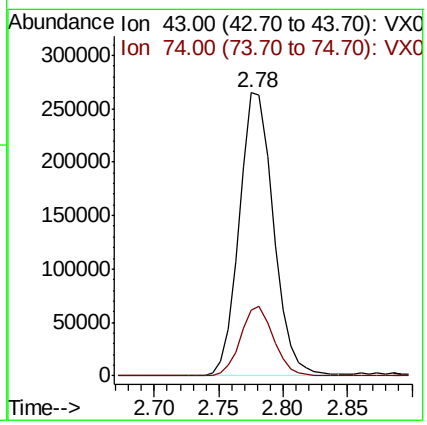




#18
Methyl Acetate
Concen: 48.927 ug/l
RT: 2.78 min Scan# 266
Delta R.T. -0.00 min
Lab File: VX006594.D
Acq: 18 Dec 2018 13:24

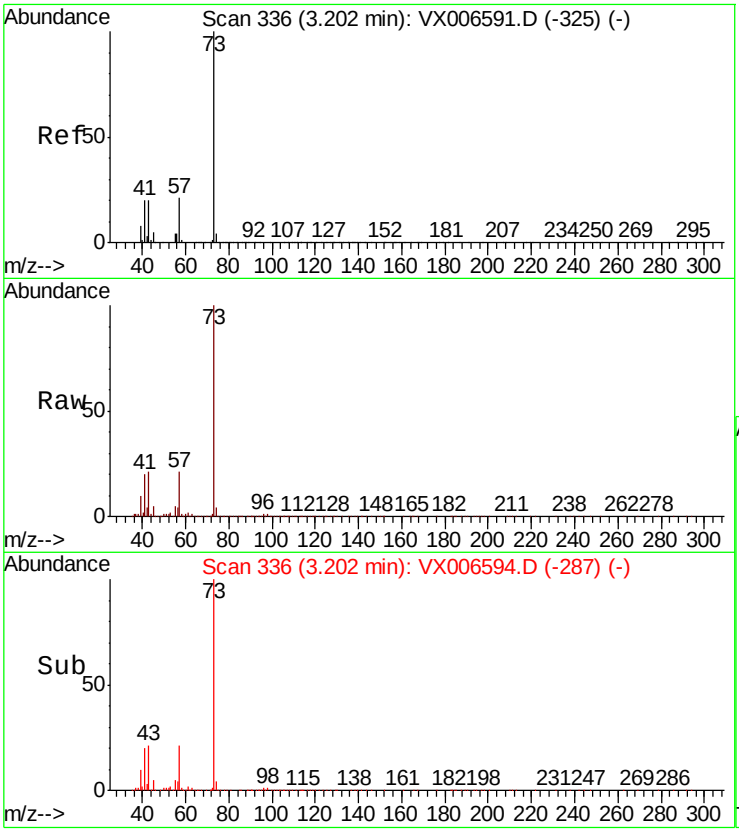
Tgt Ion: 43 Resp: 486319

Ion	Ratio	Lower	Upper
43	100		
74	24.0	18.6	28.0



Instrument :
MSVOA_X
ClientSampleId :
ICVVX121818

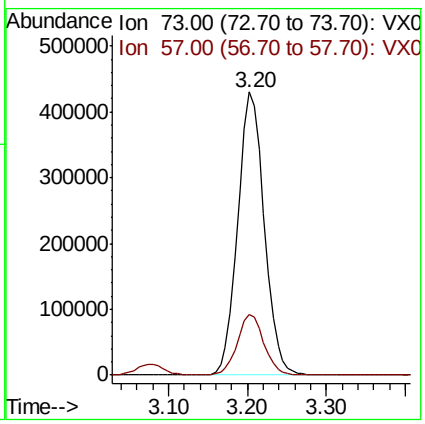
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:22:13 AM

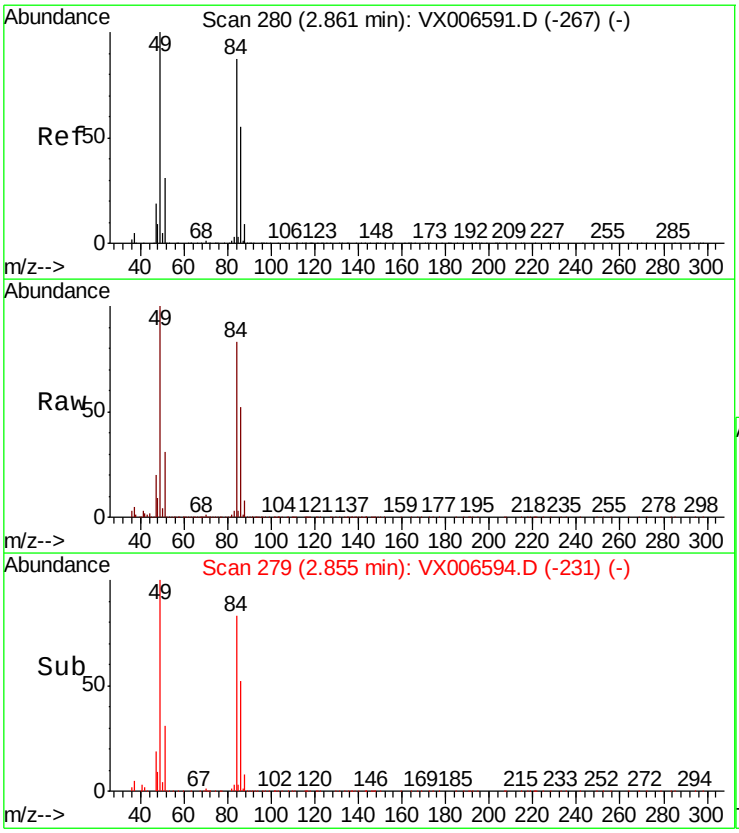


#19
Methyl tert-butyl Ether
Concen: 49.728 ug/l
RT: 3.20 min Scan# 336
Delta R.T. -0.00 min
Lab File: VX006594.D
Acq: 18 Dec 2018 13:24

Tgt Ion: 73 Resp: 1006703

Ion	Ratio	Lower	Upper
73	100		
57	21.3	16.8	25.2

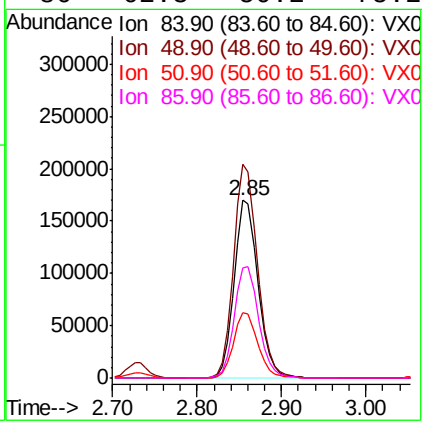


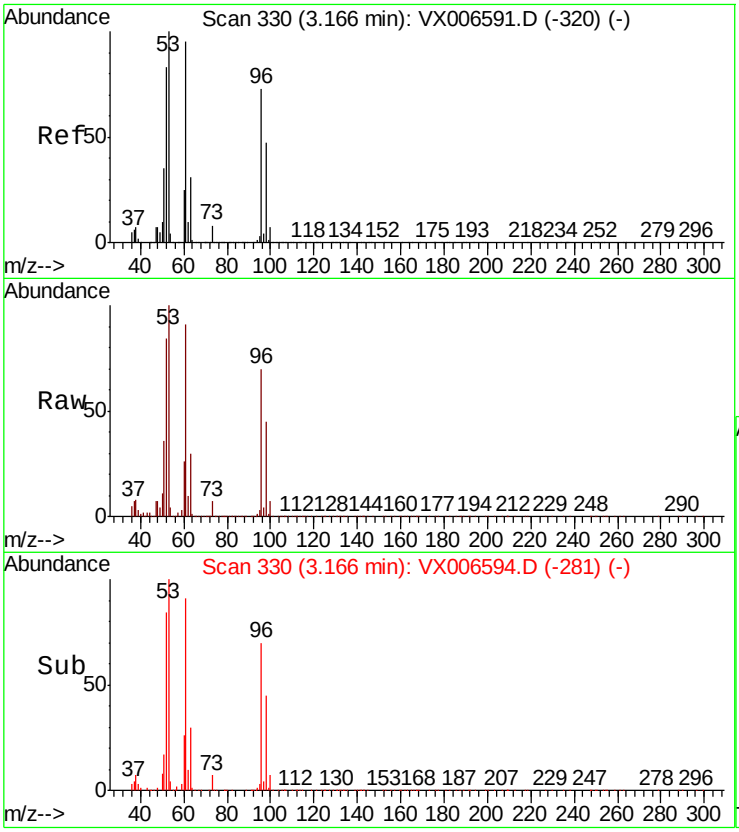


#20
Methylene Chloride
Concen: 46.271 ug/l
RT: 2.85 min Scan# 279
Delta R.T. -0.01 min
Lab File: VX006594.D
Acq: 18 Dec 2018 13:24

Tgt Ion: 84 Resp: 323428

Ion	Ratio	Lower	Upper
84	100		
49	120.2	91.8	137.6
51	36.7	28.5	42.7
86	62.3	50.2	75.2

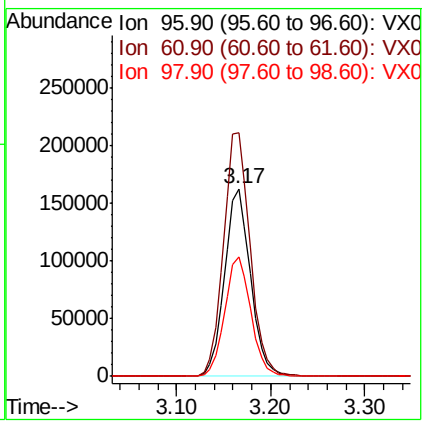




#21
trans-1,2-Dichloroethene
Concen: 45.987 ug/l
RT: 3.17 min Scan# 330
Delta R.T. -0.00 min
Lab File: VX006594.D
Acq: 18 Dec 2018 13:24

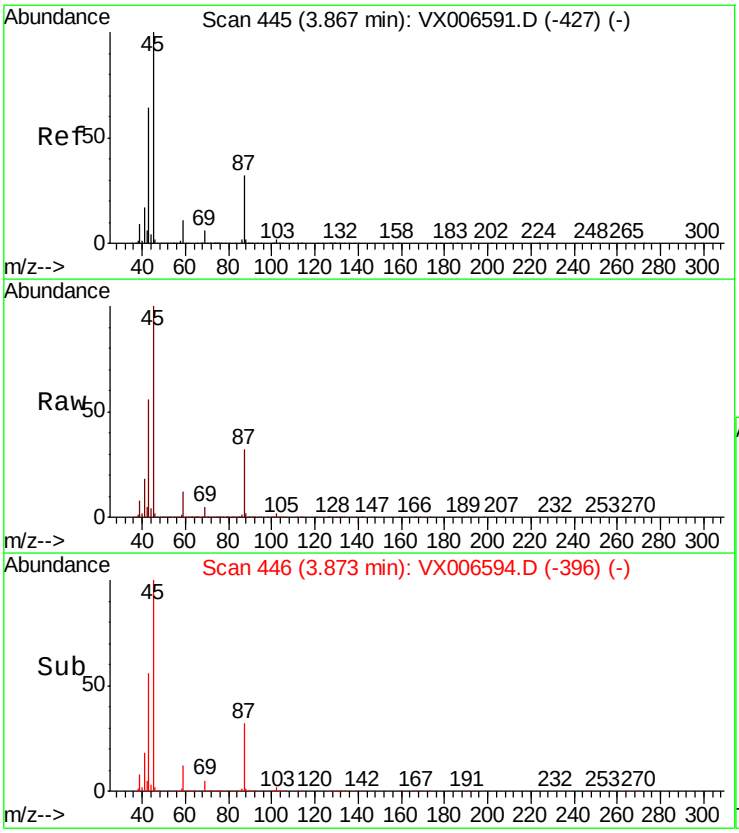
Tgt Ion: 96 Resp: 310789

Ion	Ratio	Lower	Upper
96	100		
61	129.8	103.7	155.5
98	63.9	51.0	76.6



Instrument :
MSVOA_X
ClientSampleId :
ICVVX121818

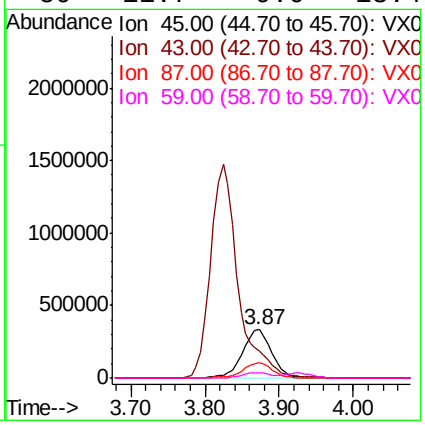
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:22:13 AM

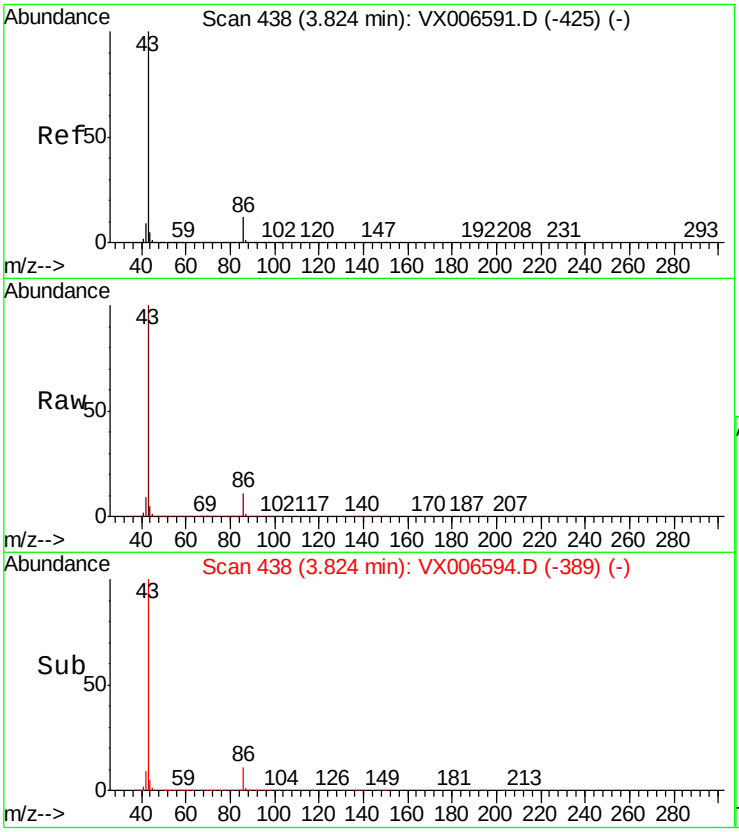


#22
Diisopropyl ether
Concen: 48.438 ug/l
RT: 3.87 min Scan# 446
Delta R.T. 0.01 min
Lab File: VX006594.D
Acq: 18 Dec 2018 13:24

Tgt Ion: 45 Resp: 909786

Ion	Ratio	Lower	Upper
45	100		
43	55.8	51.2	76.8
87	31.7	25.8	38.6
59	11.7	9.0	13.4

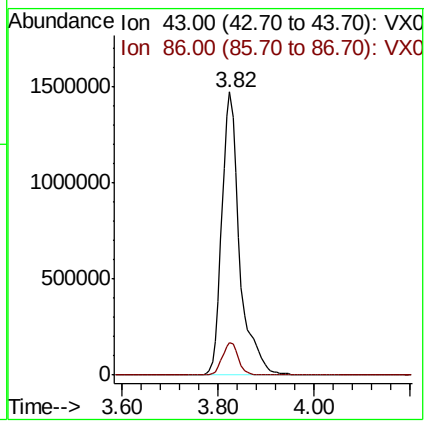




#23
Vinyl Acetate
Concen: 246.801 ug/l
RT: 3.82 min Scan# 438
Delta R.T. -0.00 min
Lab File: VX006594.D
Acq: 18 Dec 2018 13:24

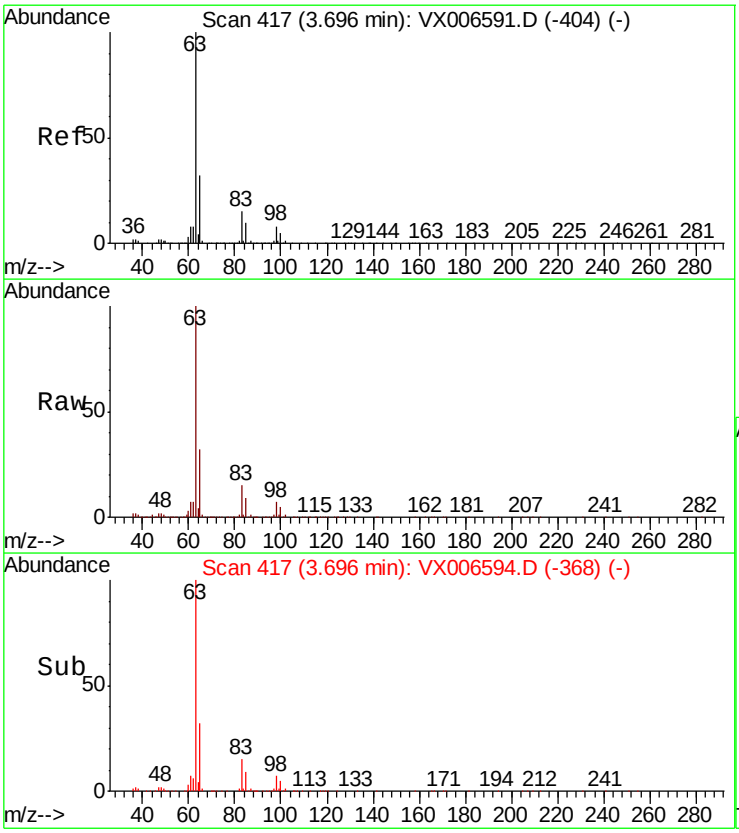
Tgt Ion: 43 Resp: 3791735

Ion	Ratio	Lower	Upper
43	100		
86	11.5	9.2	13.8



Instrument :
MSVOA_X
ClientSampleId :
ICVVX121818

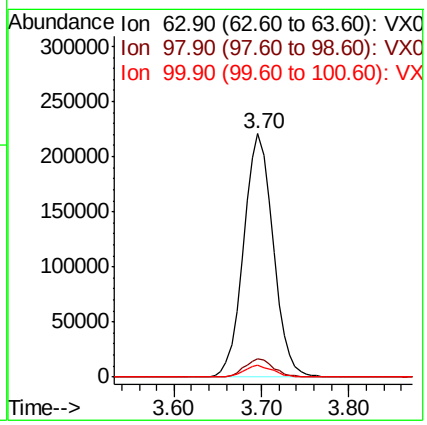
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:22:13 AM



#24
1,1-Dichloroethane
Concen: 46.107 ug/l
RT: 3.70 min Scan# 417
Delta R.T. -0.00 min
Lab File: VX006594.D
Acq: 18 Dec 2018 13:24

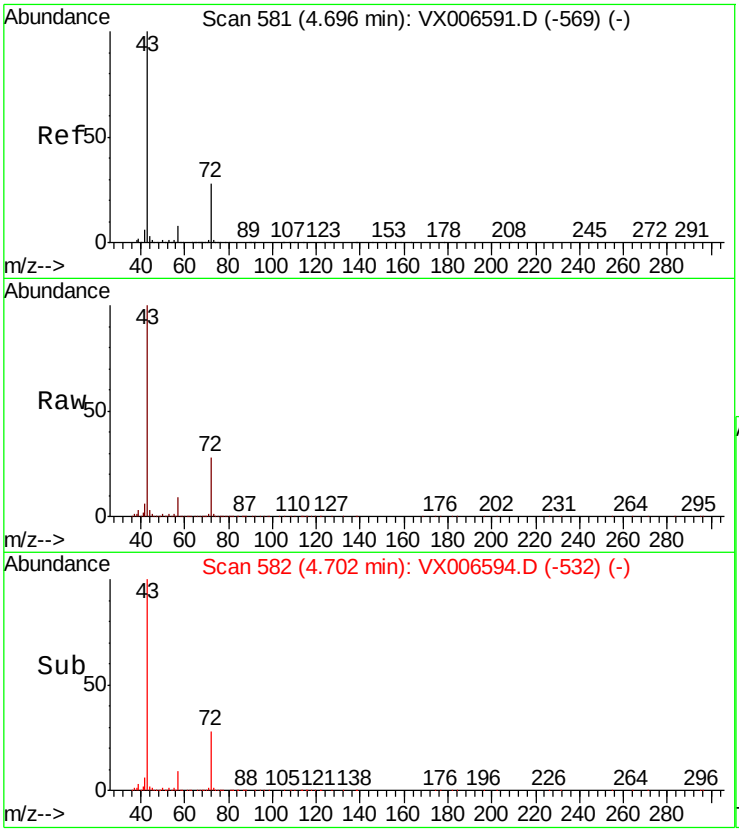
Tgt Ion: 63 Resp: 516962

Ion	Ratio	Lower	Upper
63	100		
98	7.4	3.9	11.5
100	4.8	2.4	7.2



Instrument :
MSVOA_X
ClientSampleId :
ICVVX121818

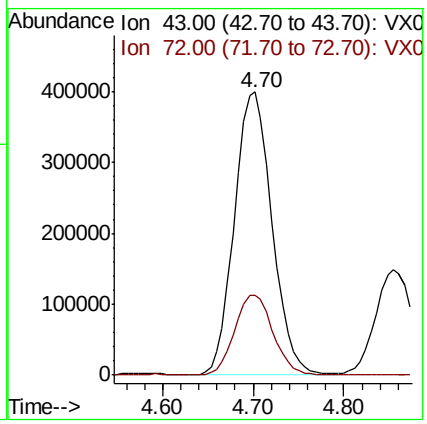
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:22:13 AM

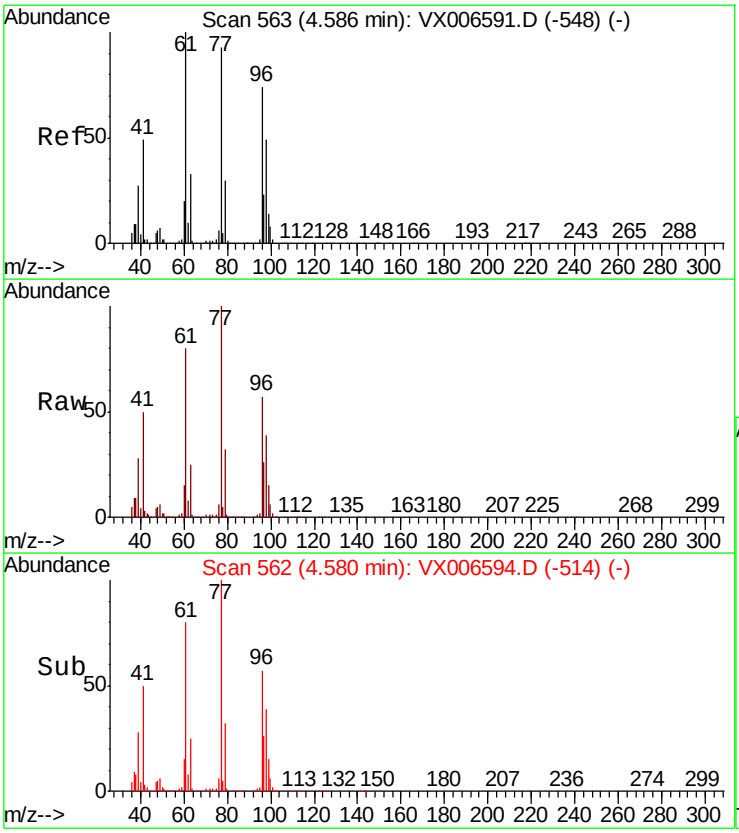


#25
2-Butanone
Concen: 241.576 ug/l
RT: 4.70 min Scan# 582
Delta R.T. 0.01 min
Lab File: VX006594.D
Acq: 18 Dec 2018 13:24

Tgt Ion: 43 Resp: 1148641

Ion	Ratio	Lower	Upper
43	100		
72	28.1	22.4	33.6

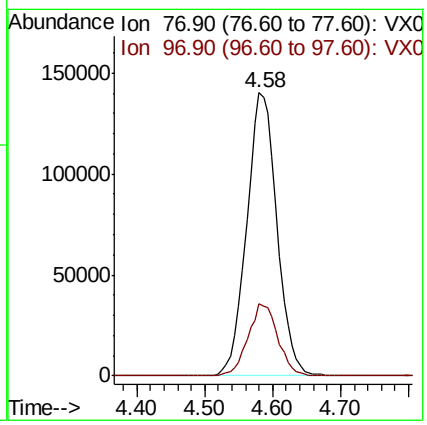




#26
2,2-Dichloropropane
Concen: 50.026 ug/l
RT: 4.58 min Scan# 562
Delta R.T. -0.01 min
Lab File: VX006594.D
Acq: 18 Dec 2018 13:24

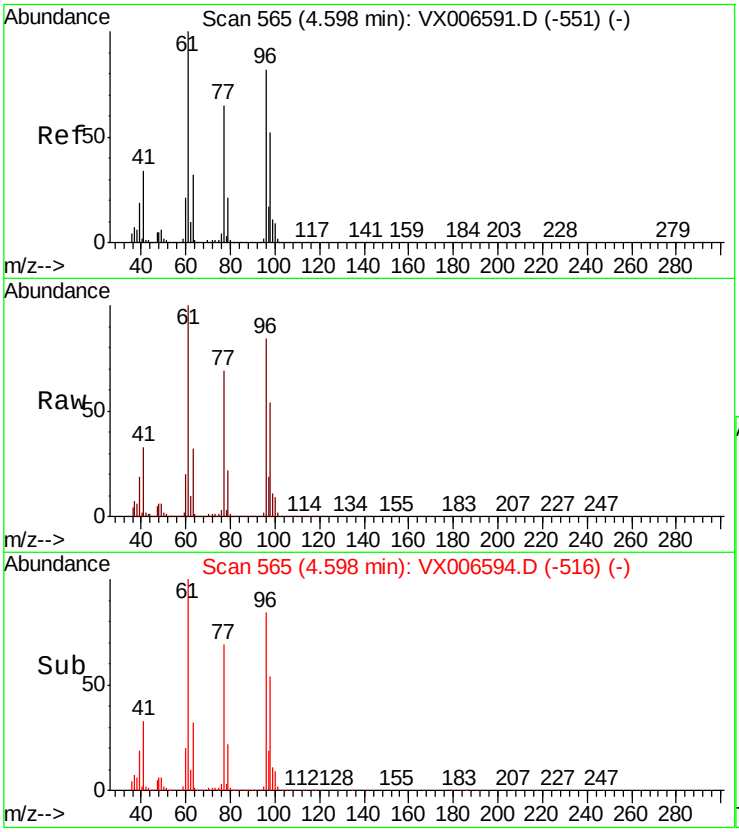
Tgt Ion: 77 Resp: 433282

Ion	Ratio	Lower	Upper
77	100		
97	25.2	12.4	37.4



Instrument :
MSVOA_X
ClientSampleId :
ICVVX121818

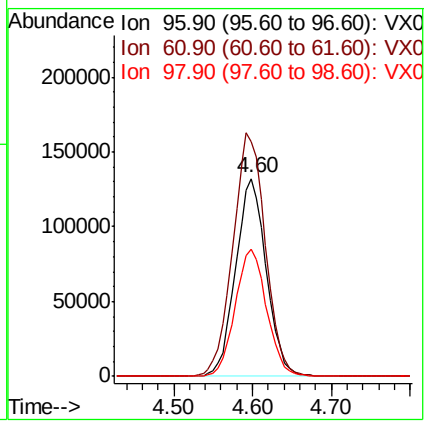
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:22:13 AM

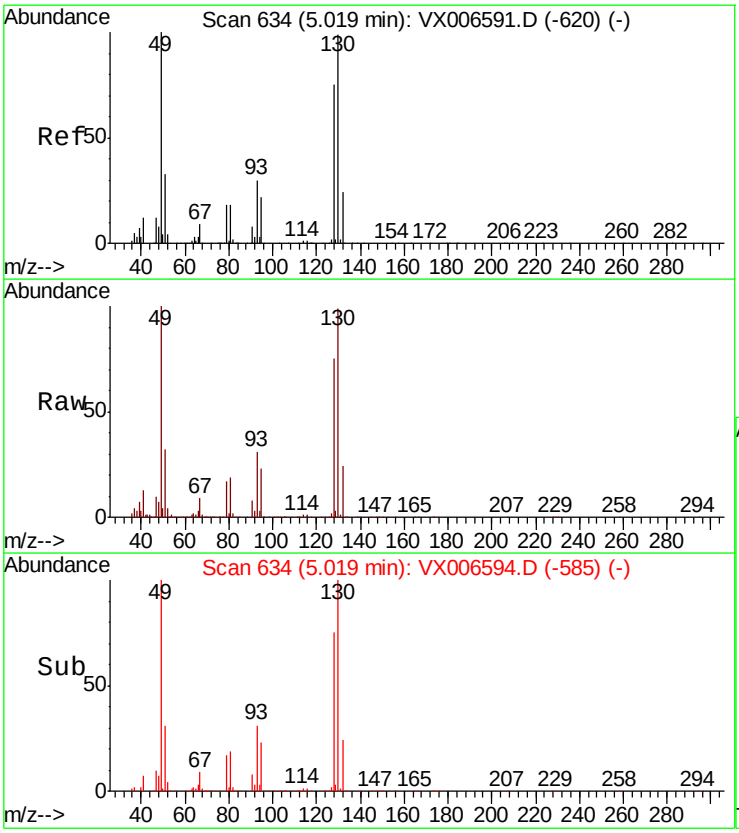


#27
cis-1,2-Dichloroethene
Concen: 47.887 ug/l
RT: 4.60 min Scan# 565
Delta R.T. -0.00 min
Lab File: VX006594.D
Acq: 18 Dec 2018 13:24

Tgt Ion: 96 Resp: 357067

Ion	Ratio	Lower	Upper
96	100		
61	130.5	0.0	258.6
98	65.9	0.0	132.0

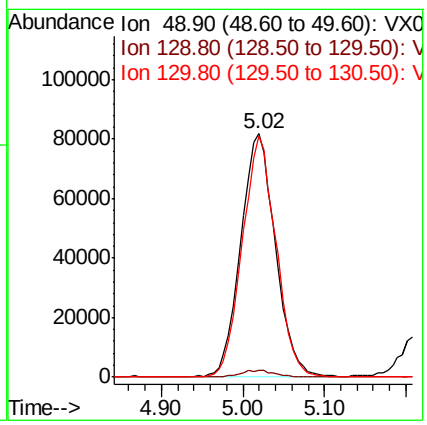


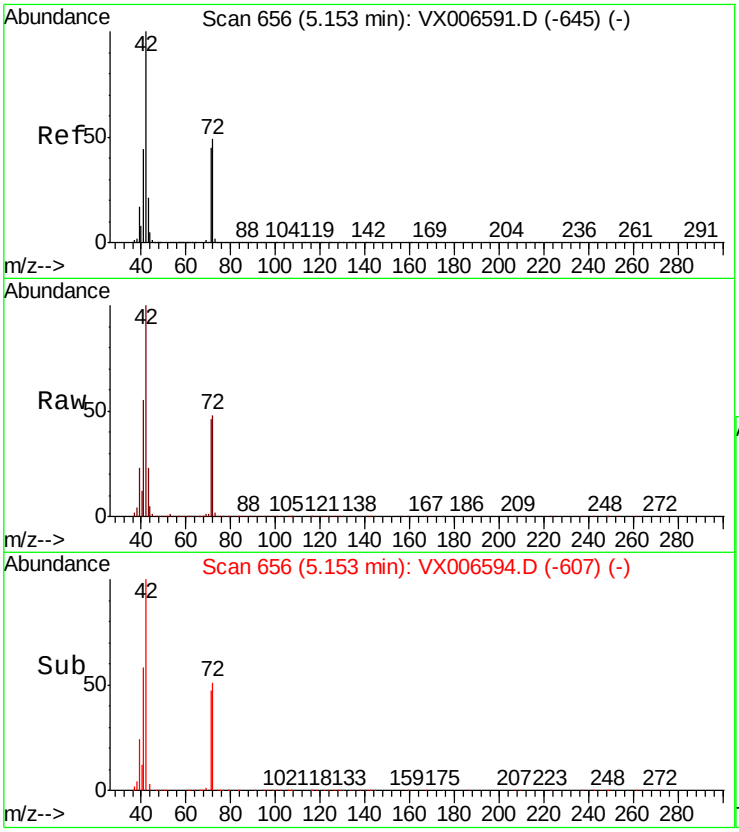


#28
Bromochloromethane
Concen: 50.918 ug/l
RT: 5.02 min Scan# 634
Delta R.T. 0.00 min
Lab File: VX006594.D
Acq: 18 Dec 2018 13:24

Tgt Ion: 49 Resp: 240504

Ion	Ratio	Lower	Upper
49	100		
129	2.8	0.0	5.4
130	96.8	77.7	116.5

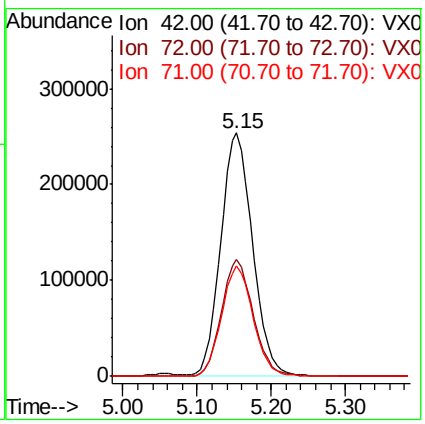


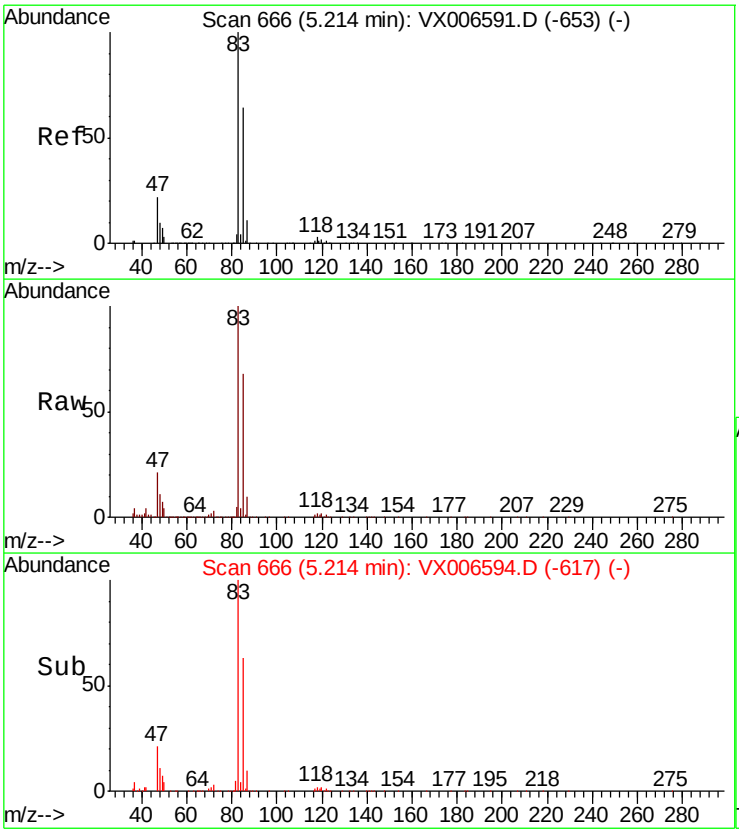


#29
Tetrahydrofuran
Concen: 240.901 ug/l
RT: 5.15 min Scan# 656
Delta R.T. -0.00 min
Lab File: VX006594.D
Acq: 18 Dec 2018 13:24

Tgt Ion: 42 Resp: 754418

Ion	Ratio	Lower	Upper
42	100		
72	48.0	38.9	58.3
71	45.1	36.2	54.4

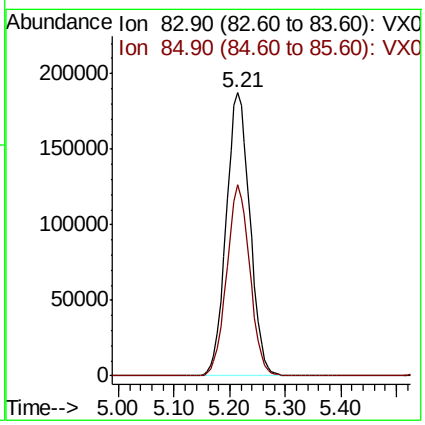




#30
Chloroform
Concen: 47.509 ug/l
RT: 5.21 min Scan# 666
Delta R.T. -0.00 min
Lab File: VX006594.D
Acq: 18 Dec 2018 13:24

Tgt Ion: 83 Resp: 551630

Ion	Ratio	Lower	Upper
83	100		
85	67.6	51.2	76.8

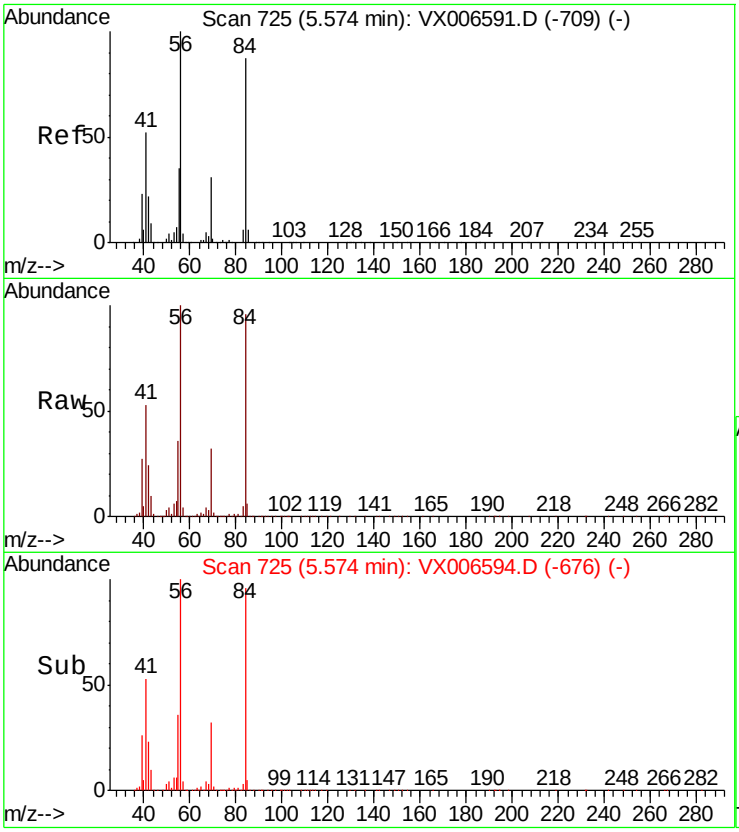


Instrument :
MSVOA_X
ClientSampleId :
ICVVX121818

Manual Integrations APPROVED
MMDadoda
12/19/2018 11:22:13 AM

Instrument :
MSVOA_X
ClientSampleId :
ICVVX121818

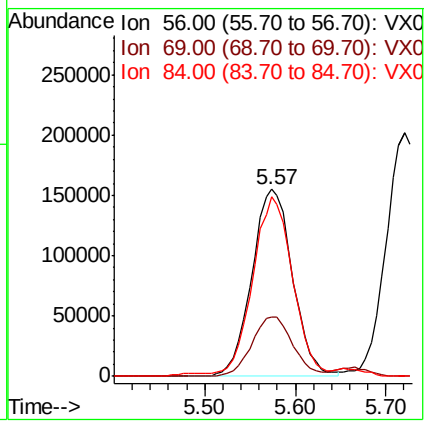
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:22:13 AM

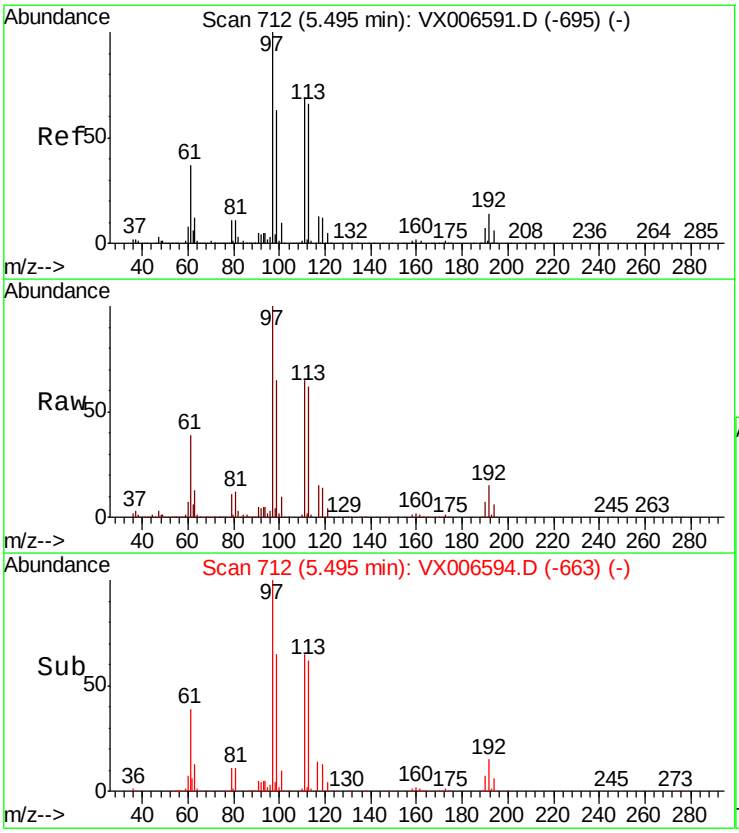


#31
Cyclohexane
Concen: 47.249 ug/l
RT: 5.57 min Scan# 725
Delta R.T. -0.00 min
Lab File: VX006594.D
Acq: 18 Dec 2018 13:24

Tgt Ion: 56 Resp: 481284

Ion	Ratio	Lower	Upper
56	100		
69	31.9	24.4	36.6
84	94.7	70.0	105.0

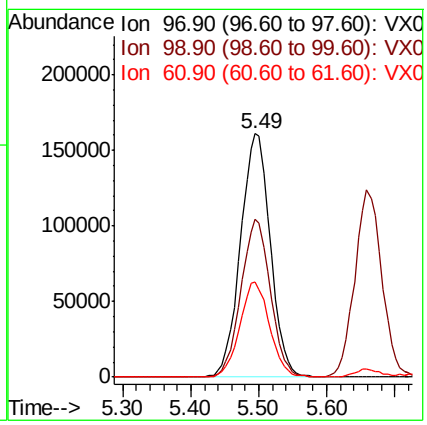




#32
1,1,1-Trichloroethane
Concen: 50.062 ug/l
RT: 5.49 min Scan# 712
Delta R.T. -0.00 min
Lab File: VX006594.D
Acq: 18 Dec 2018 13:24

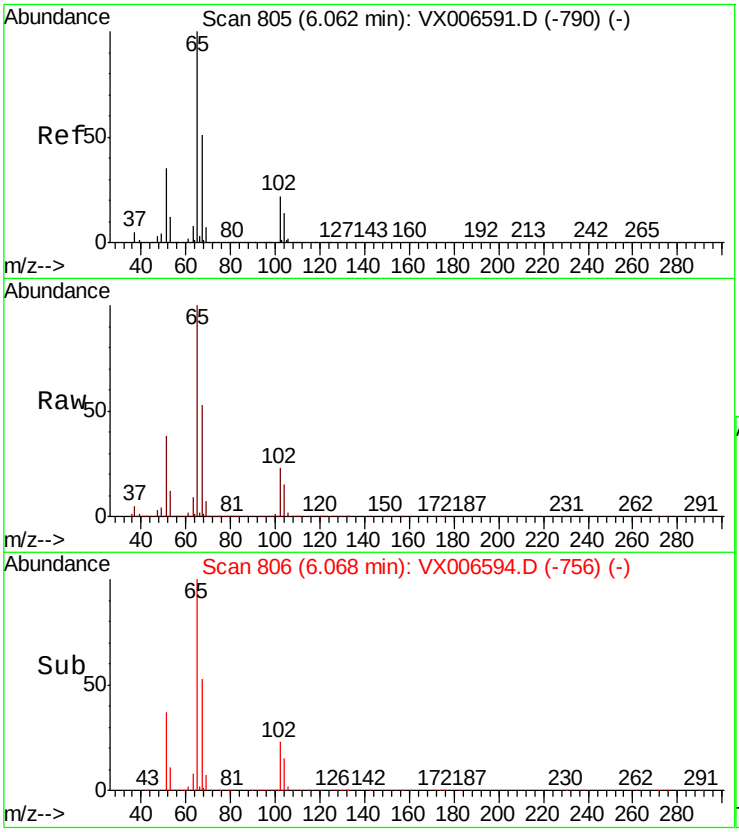
Tgt Ion: 97 Resp: 490817

Ion	Ratio	Lower	Upper
97	100		
99	64.1	51.7	77.5
61	38.8	31.3	46.9



Instrument :
MSVOA_X
ClientSampleId :
ICVVX121818

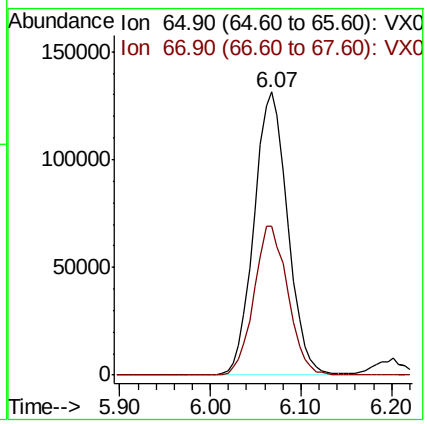
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:22:13 AM

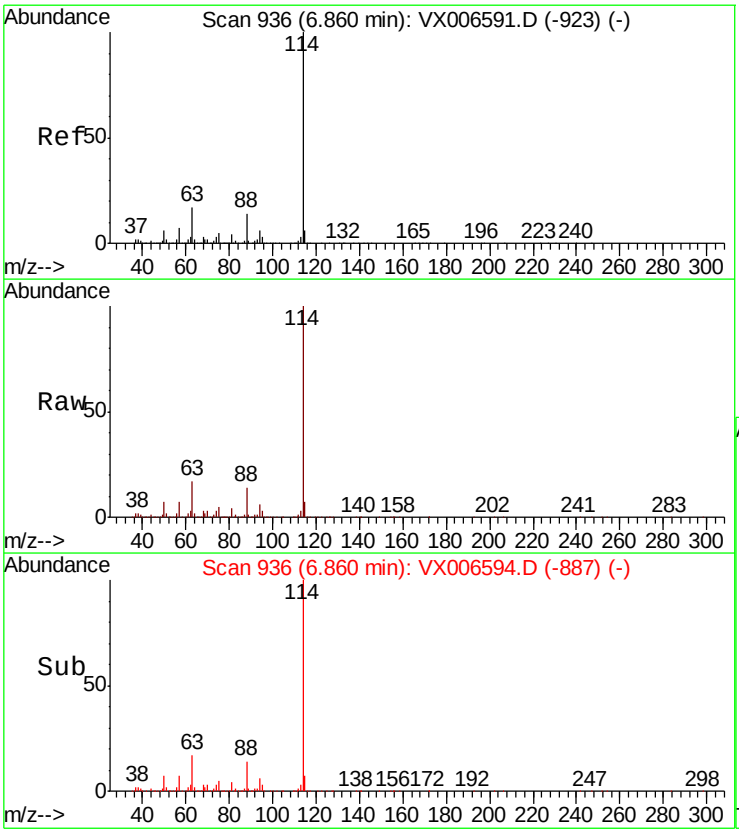


#33
1,2-Dichloroethane-d4
Concen: 45.875 ug/l
RT: 6.07 min Scan# 806
Delta R.T. 0.01 min
Lab File: VX006594.D
Acq: 18 Dec 2018 13:24

Tgt Ion: 65 Resp: 337527

Ion	Ratio	Lower	Upper
65	100		
67	53.2	0.0	105.0

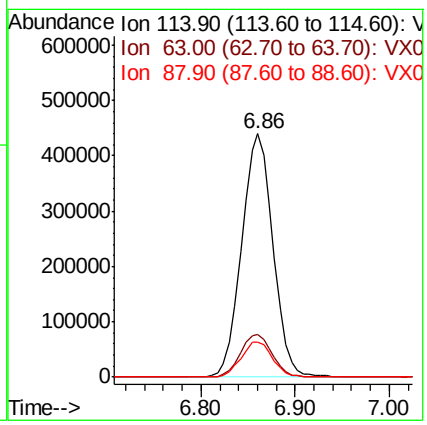




#34
1,4-Difluorobenzene
Concen: 50.000 ug/l
RT: 6.86 min Scan# 936
Delta R.T. -0.00 min
Lab File: VX006594.D
Acq: 18 Dec 2018 13:24

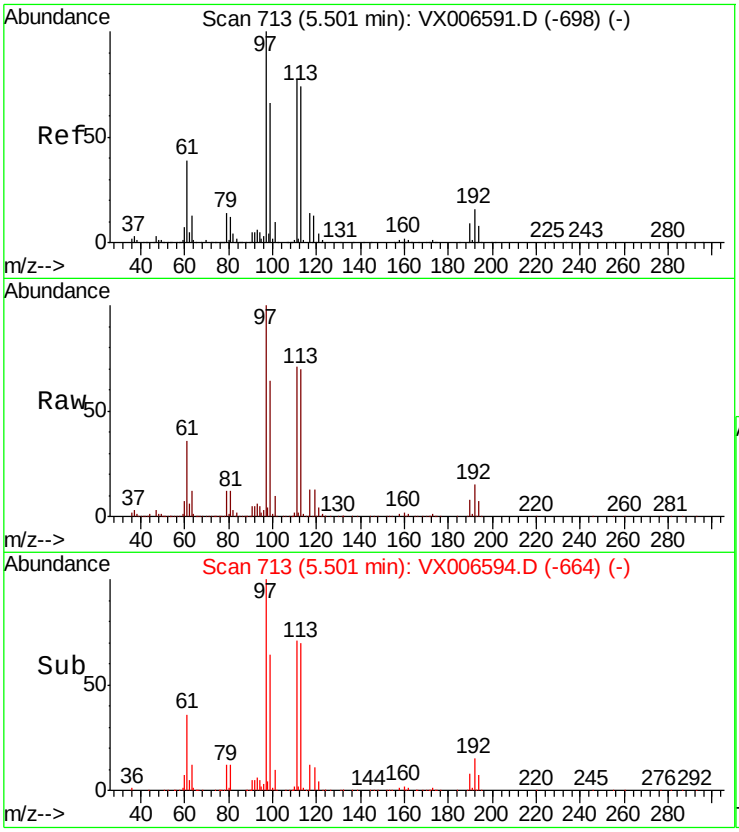
Tgt Ion:114 Resp: 1020985

Ion	Ratio	Lower	Upper
114	100		
63	17.4	0.0	34.8
88	14.4	0.0	28.8



Instrument :
MSVOA_X
ClientSampleId :
ICVVX121818

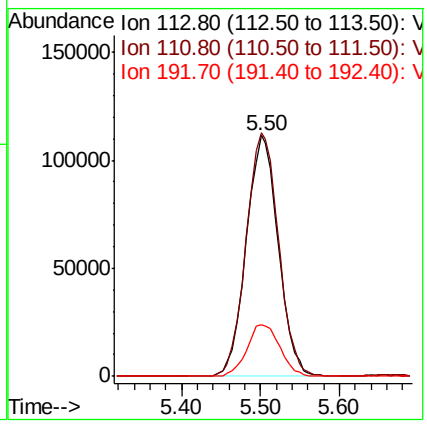
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:22:13 AM

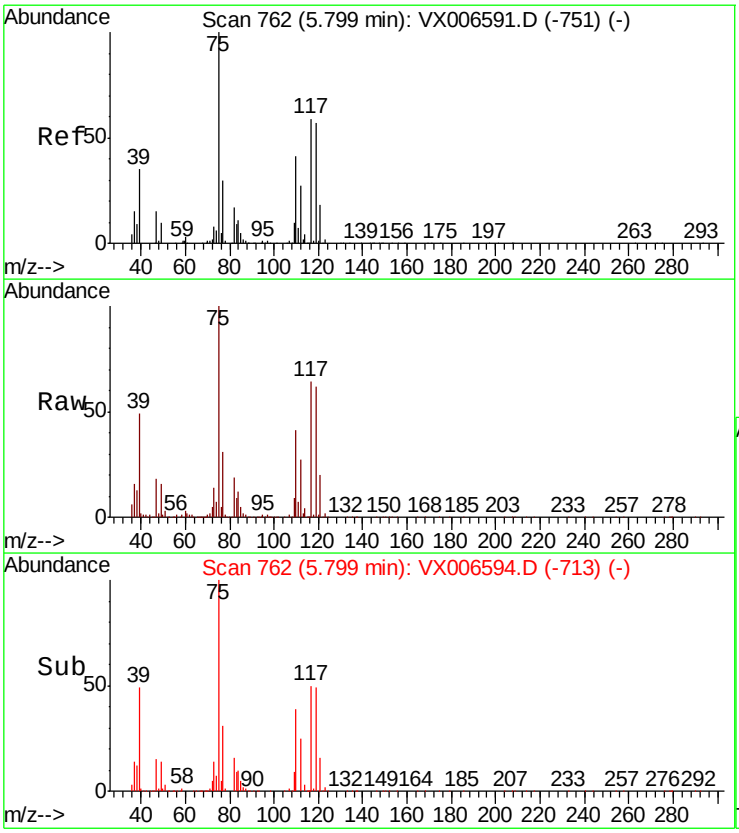


#35
Dibromofluoromethane
Concen: 48.750 ug/l
RT: 5.50 min Scan# 713
Delta R.T. -0.00 min
Lab File: VX006594.D
Acq: 18 Dec 2018 13:24

Tgt Ion:113 Resp: 314755

Ion	Ratio	Lower	Upper
113	100		
111	102.4	81.6	122.4
192	22.2	16.7	25.1

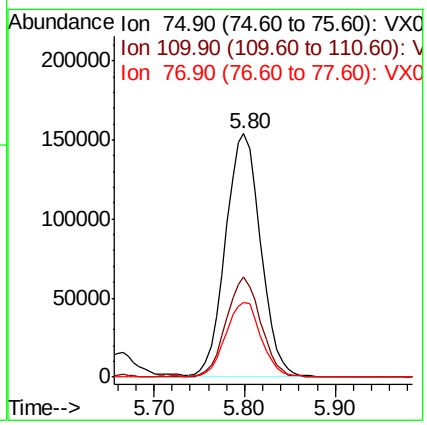




#36
1,1-Dichloropropene
Concen: 48.924 ug/l
RT: 5.80 min Scan# 762
Delta R.T. -0.00 min
Lab File: VX006594.D
Acq: 18 Dec 2018 13:24

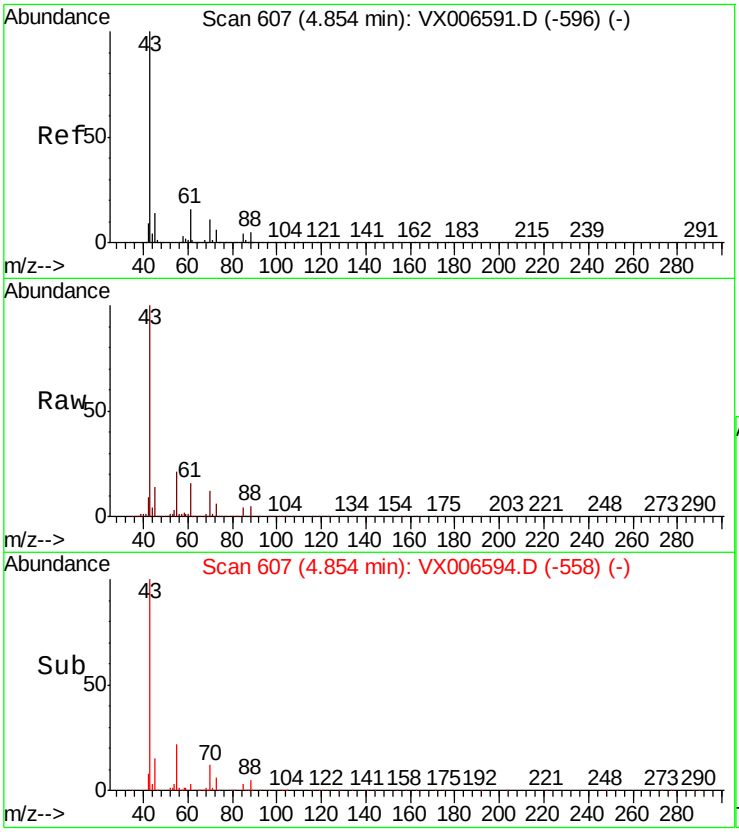
Tgt Ion: 75 Resp: 413708

Ion	Ratio	Lower	Upper
75	100		
110	40.3	20.2	60.5
77	30.9	24.8	37.2



Instrument :
MSVOA_X
ClientSampleId :
ICVVX121818

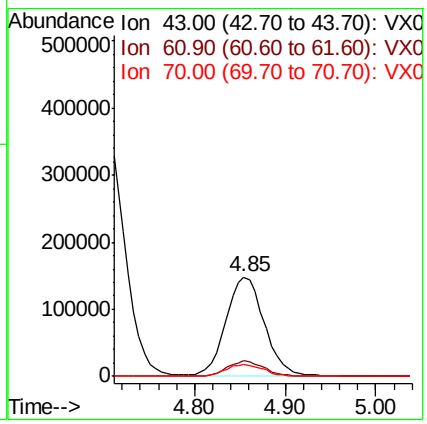
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:22:13 AM

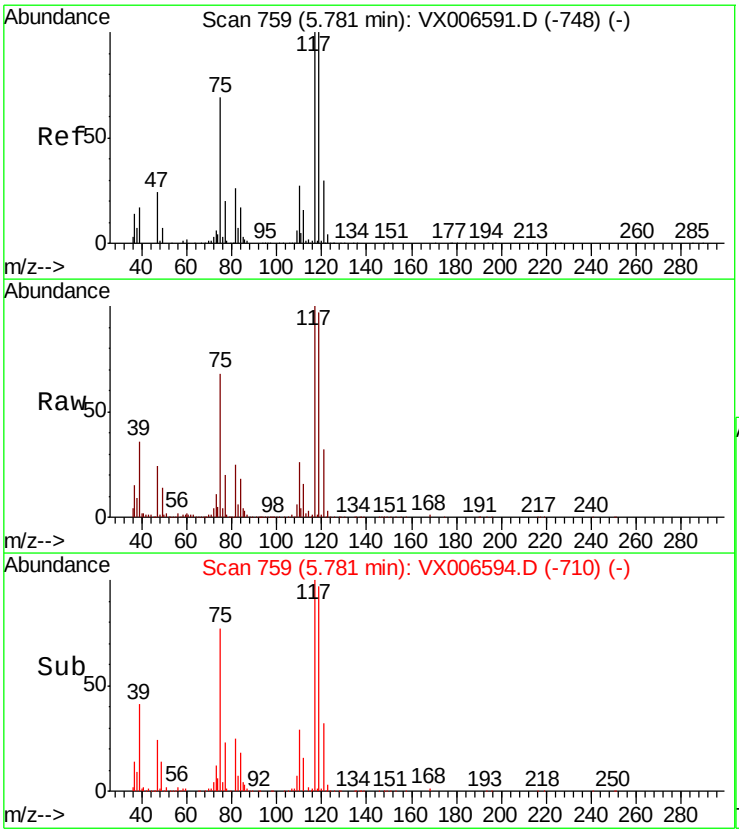


#37
Ethyl Acetate
Concen: 49.130 ug/l
RT: 4.85 min Scan# 607
Delta R.T. -0.00 min
Lab File: VX006594.D
Acq: 18 Dec 2018 13:24

Tgt Ion: 43 Resp: 432402

Ion	Ratio	Lower	Upper
43	100		
61	14.8	11.9	17.9
70	12.0	9.7	14.5

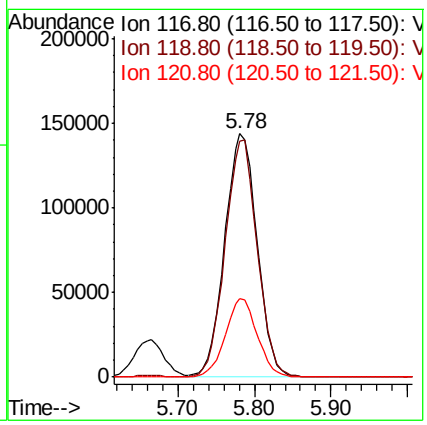




#38
Carbon Tetrachloride
Concen: 51.164 ug/l
RT: 5.78 min Scan# 759
Delta R.T. -0.00 min
Lab File: VX006594.D
Acq: 18 Dec 2018 13:24

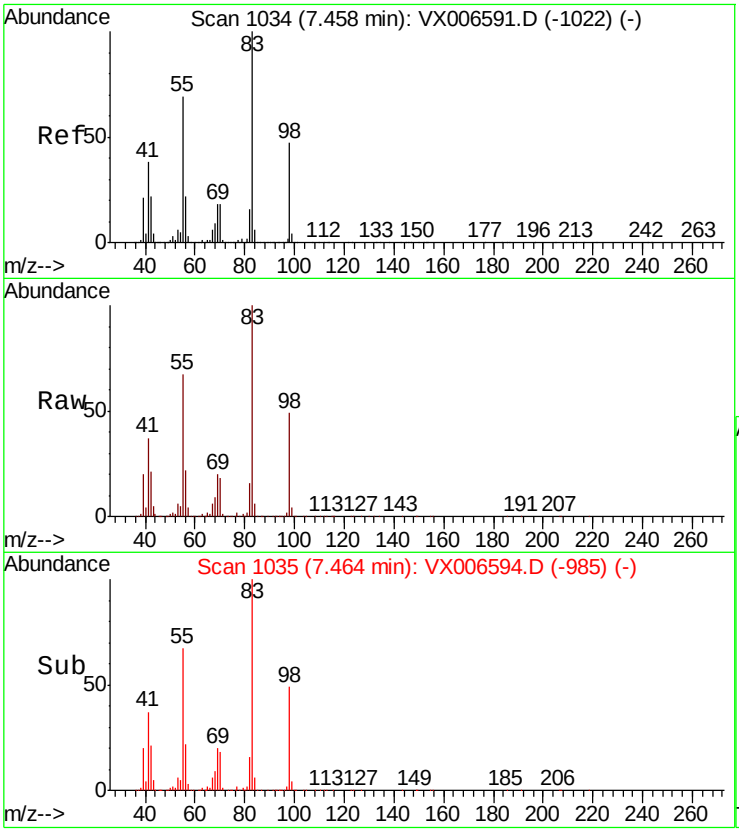
Tgt Ion:117 Resp: 420470

Ion	Ratio	Lower	Upper
117	100		
119	96.9	79.4	119.2
121	32.0	24.0	36.0



Instrument :
MSVOA_X
ClientSampleId :
ICVVX121818

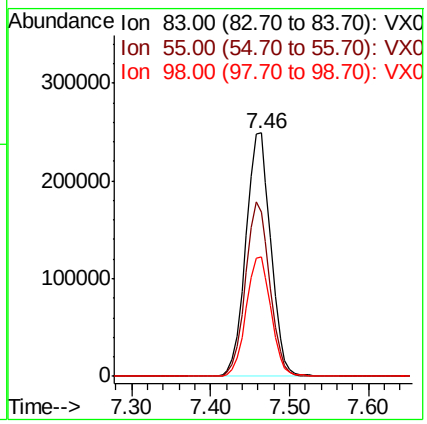
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:22:13 AM

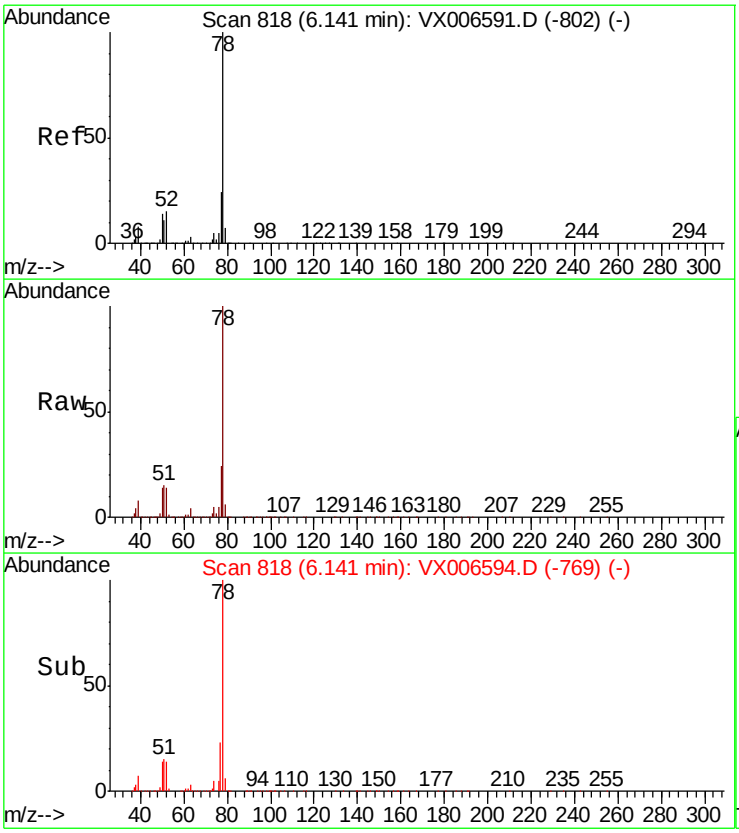


#39
Methylcyclohexane
Concen: 49.102 ug/l
RT: 7.46 min Scan# 1035
Delta R.T. 0.01 min
Lab File: VX006594.D
Acq: 18 Dec 2018 13:24

Tgt Ion: 83 Resp: 546633

Ion	Ratio	Lower	Upper
83	100		
55	67.3	54.9	82.3
98	49.2	37.9	56.9

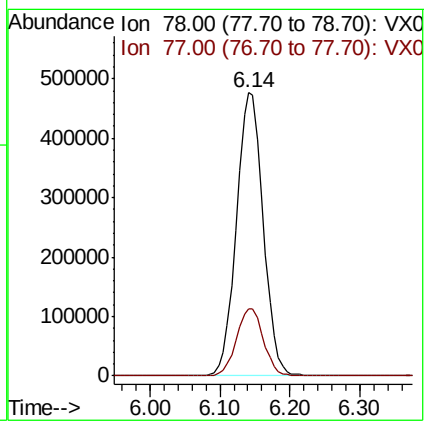




#40
Benzene
Concen: 49.109 ug/l
RT: 6.14 min Scan# 818
Delta R.T. -0.00 min
Lab File: VX006594.D
Acq: 18 Dec 2018 13:24

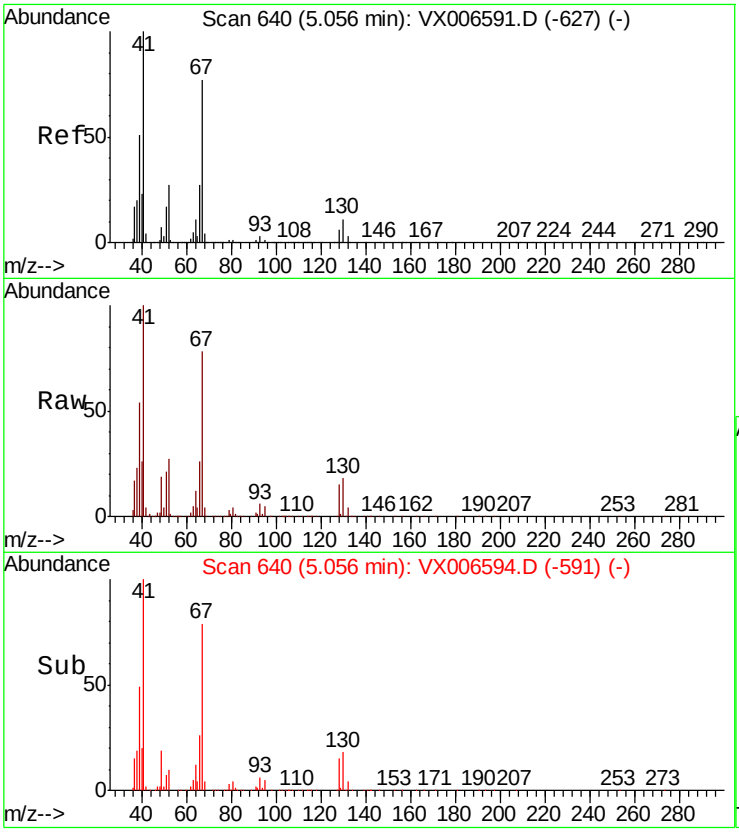
Tgt Ion: 78 Resp: 1262299

Ion	Ratio	Lower	Upper
78	100		
77	23.6	19.2	28.8



Instrument :
MSVOA_X
ClientSampleId :
ICVVX121818

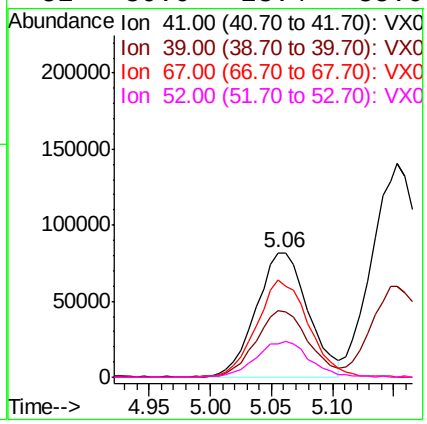
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:22:13 AM

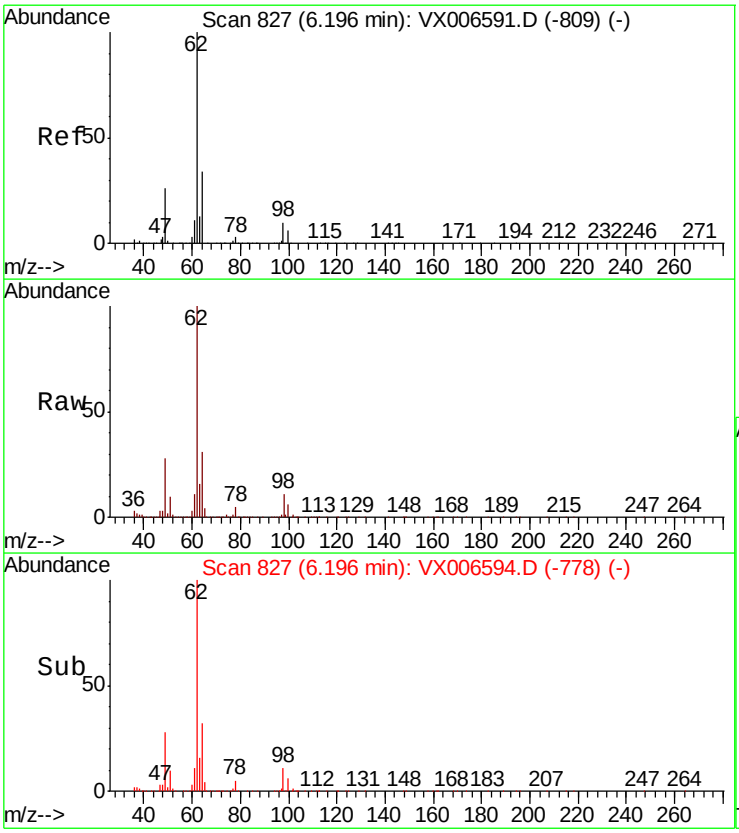


#41
Methacrylonitrile
Concen: 51.568 ug/l
RT: 5.06 min Scan# 640
Delta R.T. -0.00 min
Lab File: VX006594.D
Acq: 18 Dec 2018 13:24

Tgt Ion: 41 Resp: 240967

Ion	Ratio	Lower	Upper
41	100		
39	54.1	42.8	64.2
67	78.2	62.1	93.1
52	30.0	23.4	35.0

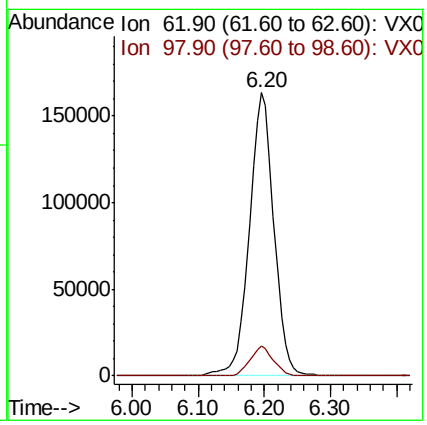




#42
1,2-Dichloroethane
Concen: 48.205 ug/l
RT: 6.20 min Scan# 827
Delta R.T. -0.00 min
Lab File: VX006594.D
Acq: 18 Dec 2018 13:24

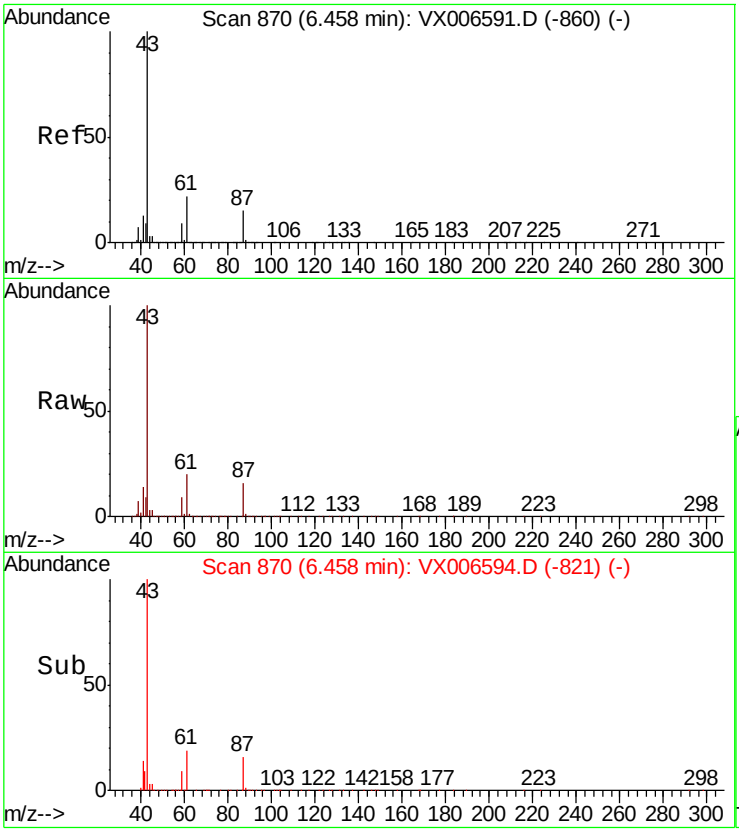
Tgt Ion: 62 Resp: 422210

Ion	Ratio	Lower	Upper
62	100		
98	9.9	0.0	20.2



Instrument :
MSVOA_X
ClientSampleId :
ICVVX121818

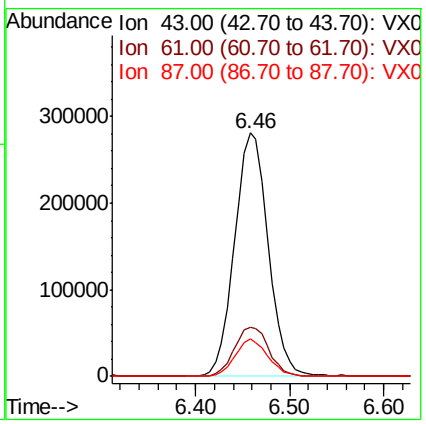
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:22:13 AM

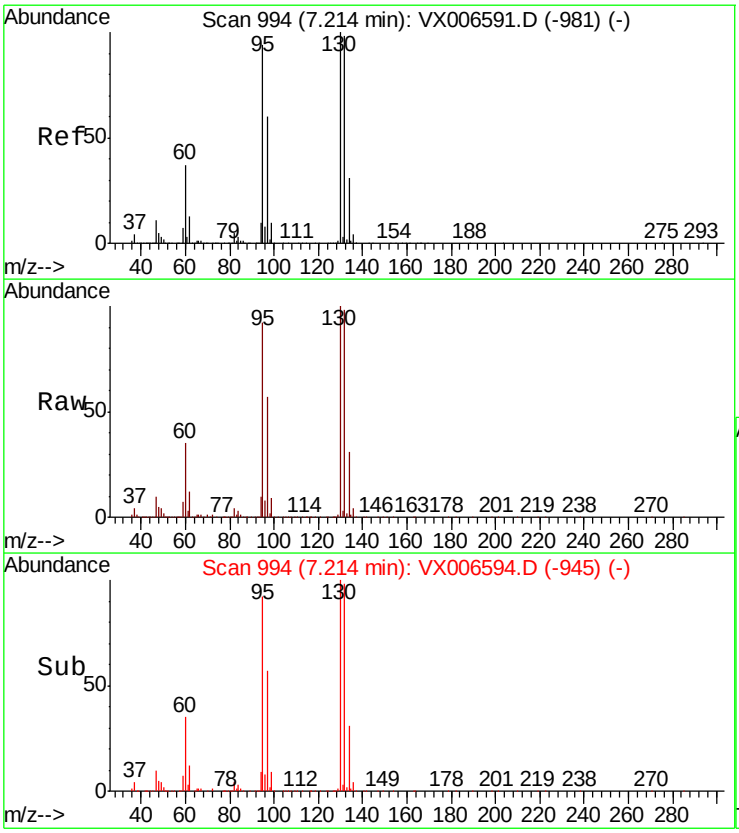


#43
Isopropyl Acetate
Concen: 52.318 ug/l
RT: 6.46 min Scan# 870
Delta R.T. -0.00 min
Lab File: VX006594.D
Acq: 18 Dec 2018 13:24

Tgt Ion: 43 Resp: 700623

Ion	Ratio	Lower	Upper
43	100		
61	21.0	16.8	25.2
87	15.1	12.4	18.6

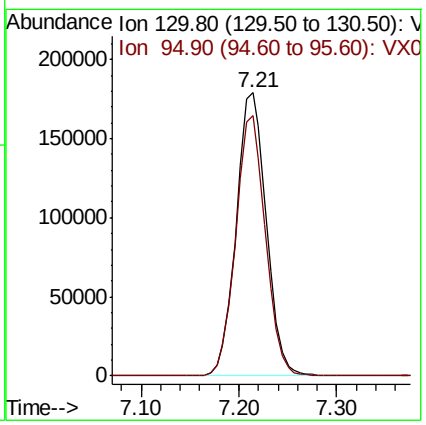


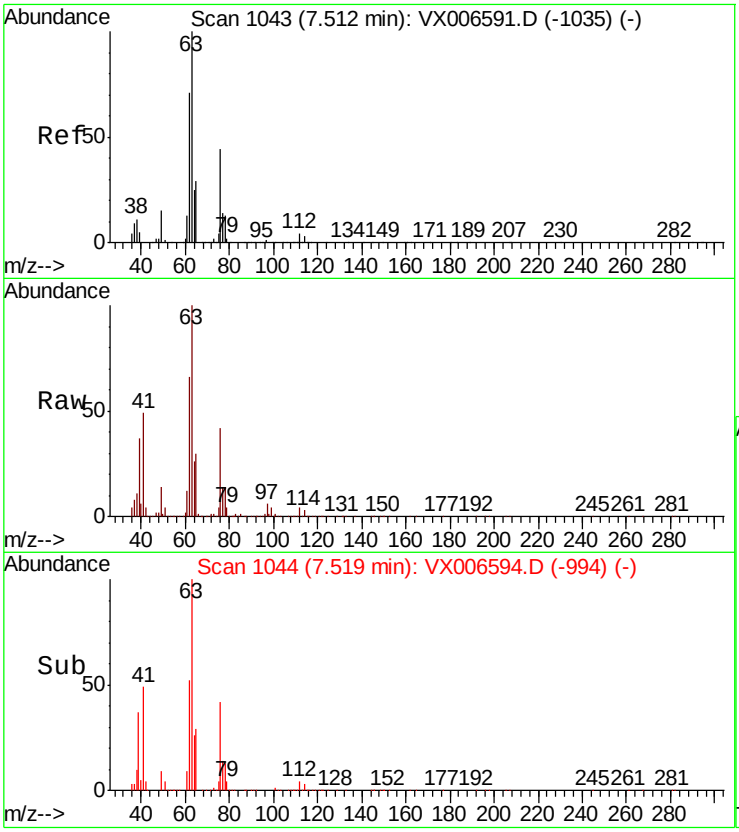


#44
Trichloroethene
Concen: 49.086 ug/l
RT: 7.21 min Scan# 994
Delta R.T. -0.00 min
Lab File: VX006594.D
Acq: 18 Dec 2018 13:24

Tgt Ion:130 Resp: 381877

Ion	Ratio	Lower	Upper
130	100		
95	91.8	0.0	187.0

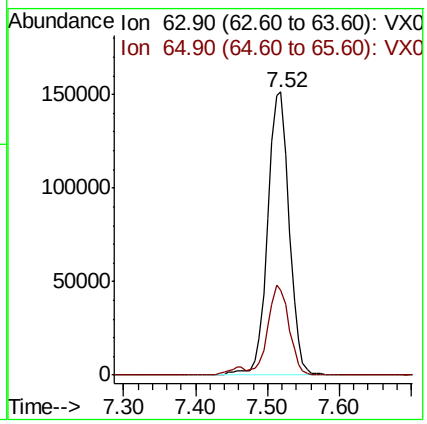




#45
1,2-Dichloropropane
Concen: 50.250 ug/l
RT: 7.52 min Scan# 1044
Delta R.T. 0.01 min
Lab File: VX006594.D
Acq: 18 Dec 2018 13:24

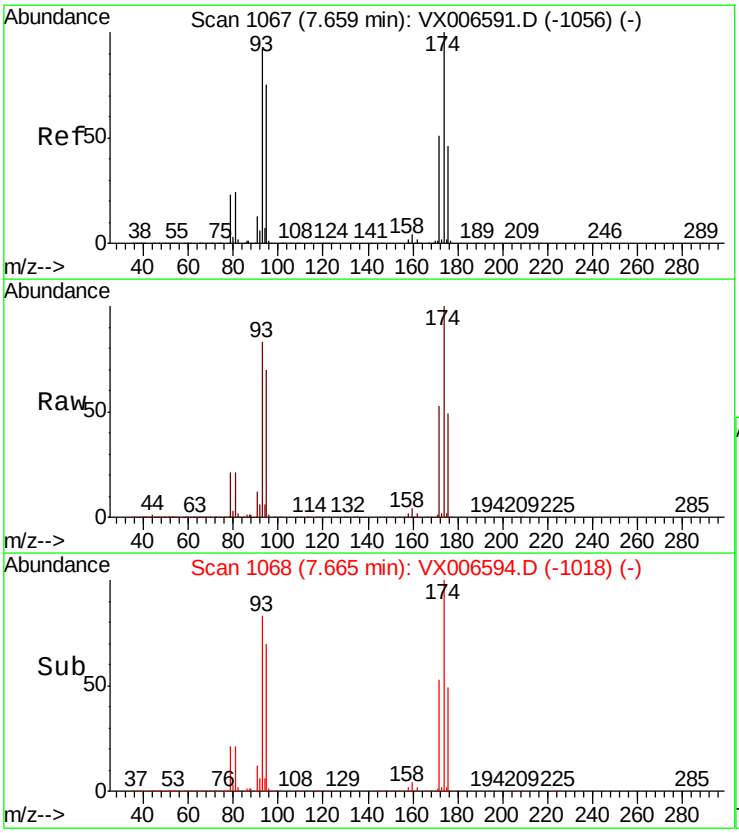
Tgt Ion: 63 Resp: 314311

Ion	Ratio	Lower	Upper
63	100		
65	30.0	25.4	38.0



Instrument :
MSVOA_X
ClientSampleId :
ICVVX121818

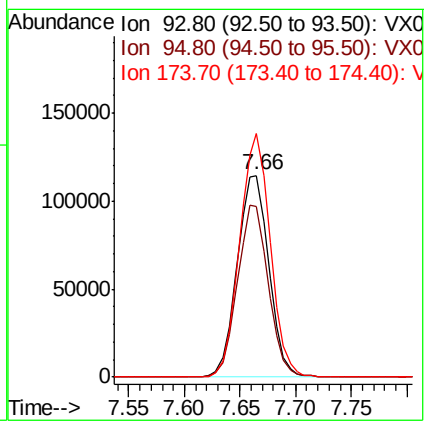
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:22:13 AM



#46
Dibromomethane
Concen: 49.081 ug/l
RT: 7.66 min Scan# 1068
Delta R.T. 0.01 min
Lab File: VX006594.D
Acq: 18 Dec 2018 13:24

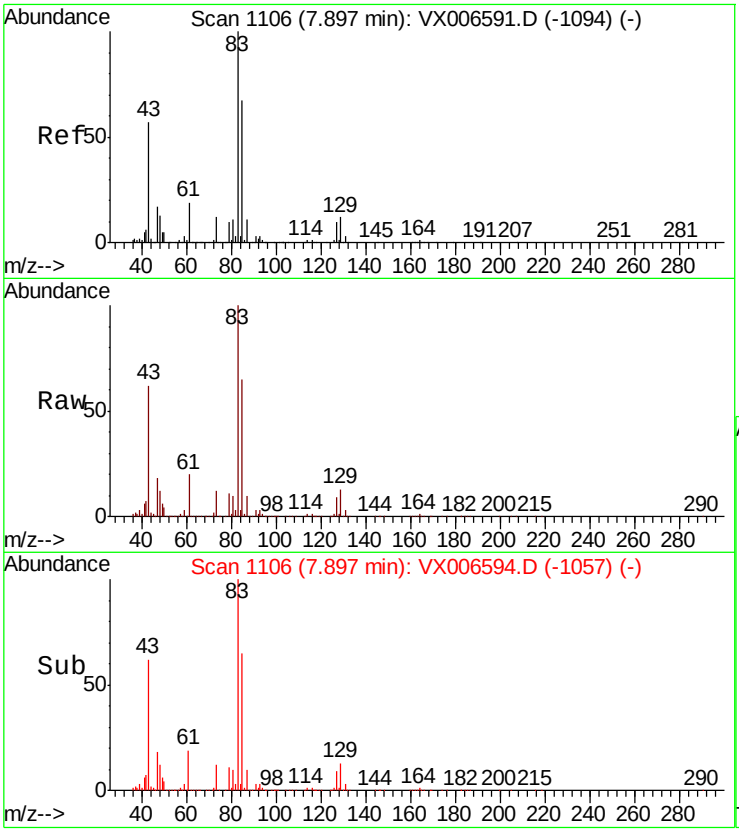
Tgt Ion: 93 Resp: 225814

Ion	Ratio	Lower	Upper
93	100		
95	83.1	66.2	99.4
174	116.8	91.0	136.4



Instrument :
MSVOA_X
ClientSampleId :
ICVVX121818

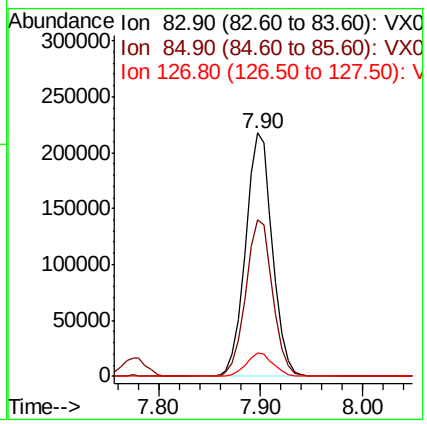
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:22:13 AM

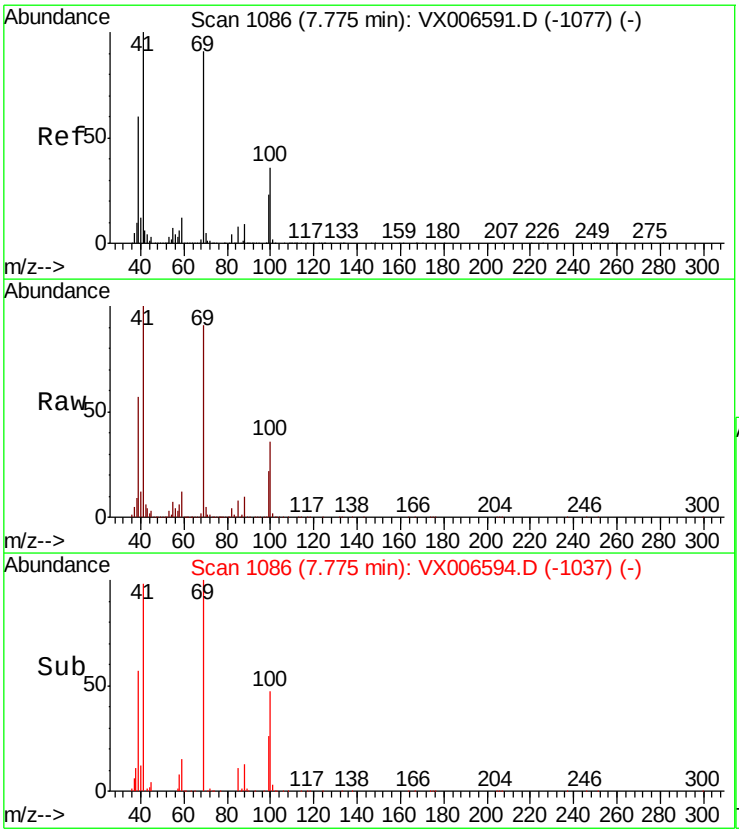


#47
Bromodichloromethane
Concen: 51.941 ug/l
RT: 7.90 min Scan# 1106
Delta R.T. -0.00 min
Lab File: VX006594.D
Acq: 18 Dec 2018 13:24

Tgt Ion: 83 Resp: 396753

Ion	Ratio	Lower	Upper
83	100		
85	64.5	53.2	79.8
127	9.5	7.8	11.6

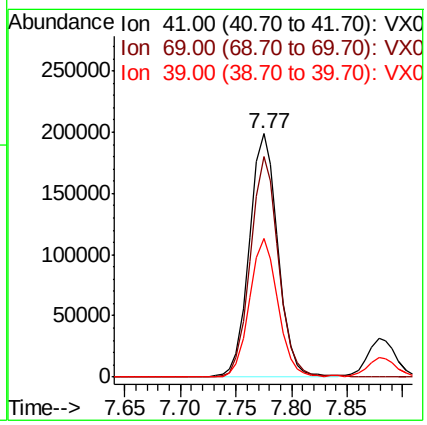




#48
Methyl methacrylate
Concen: 52.028 ug/l
RT: 7.77 min Scan# 1086
Delta R.T. -0.00 min
Lab File: VX006594.D
Acq: 18 Dec 2018 13:24

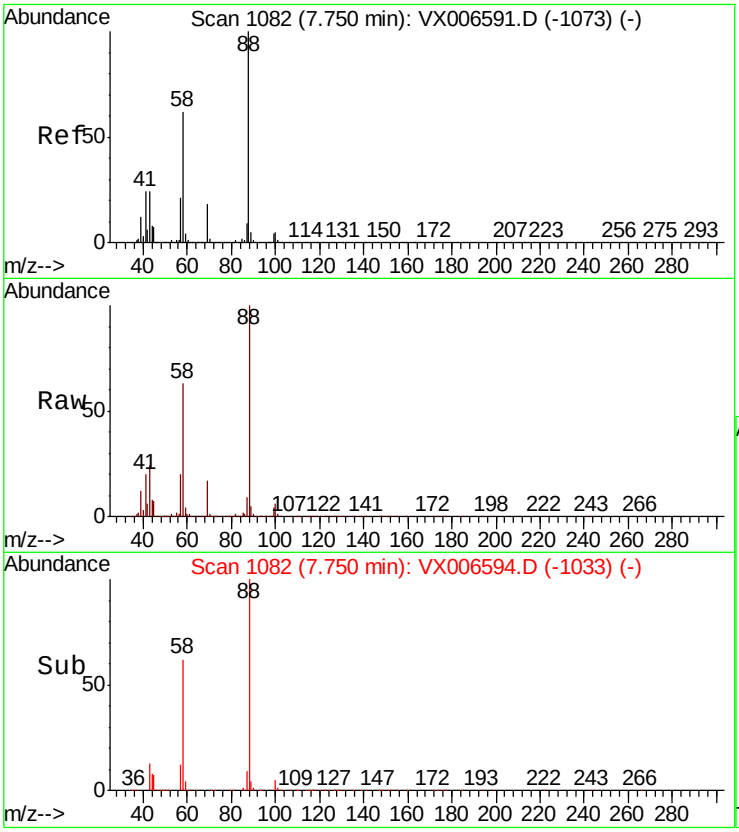
Tgt Ion: 41 Resp: 354308

Ion	Ratio	Lower	Upper
41	100		
69	89.6	72.4	108.6
39	56.6	45.8	68.8



Instrument :
MSVOA_X
ClientSampleId :
ICVVX121818

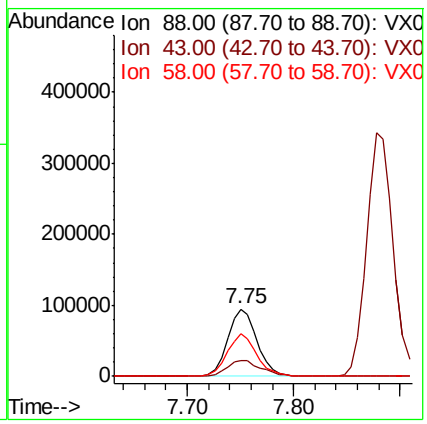
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:22:13 AM

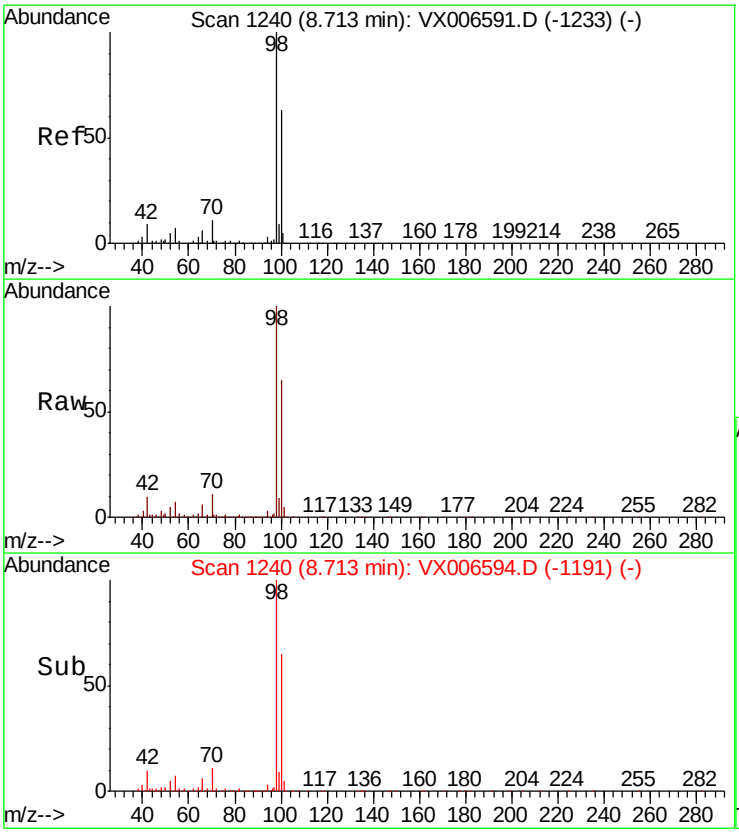


#49
1,4-Dioxane
Concen: 1025.661 ug/l
RT: 7.75 min Scan# 1082
Delta R.T. 0.00 min
Lab File: VX006594.D
Acq: 18 Dec 2018 13:24

Tgt Ion: 88 Resp: 182661

Ion	Ratio	Lower	Upper
88	100		
43	27.3	22.2	33.4
58	62.9	51.0	76.4

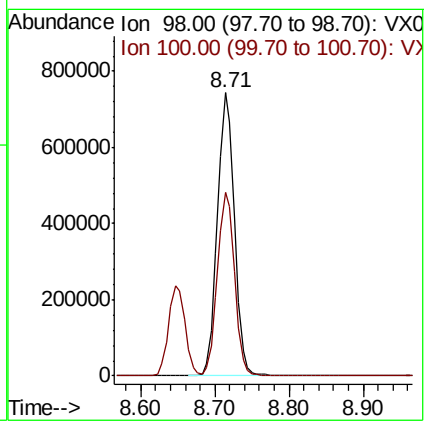




#50
Toluene-d8
Concen: 47.885 ug/l
RT: 8.71 min Scan# 1240
Delta R.T. -0.00 min
Lab File: VX006594.D
Acq: 18 Dec 2018 13:24

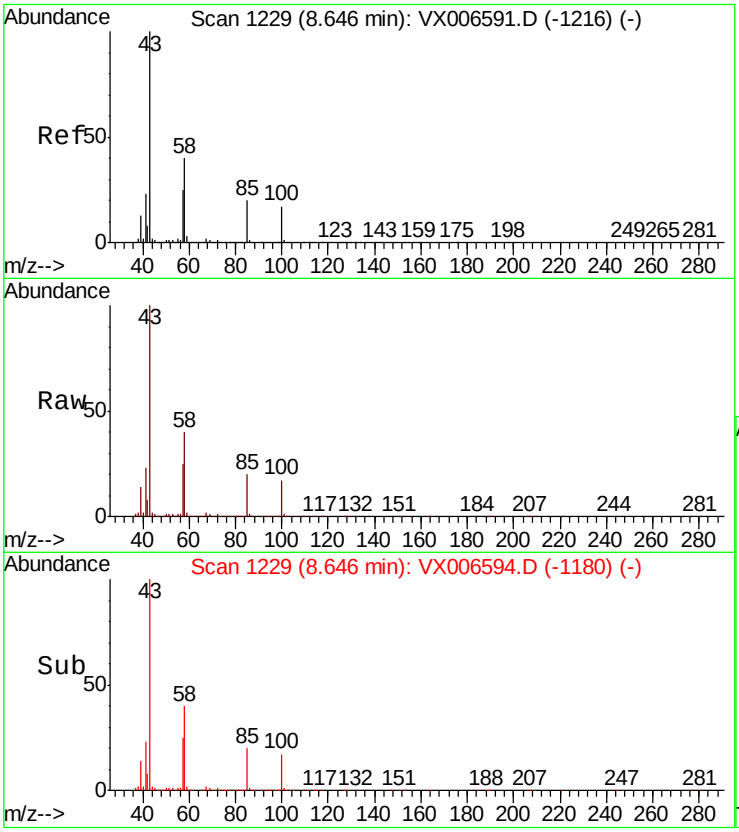
Tgt Ion: 98 Resp: 1165595

Ion	Ratio	Lower	Upper
98	100		
100	65.0	52.0	78.0



Instrument :
MSVOA_X
ClientSampleId :
ICVVX121818

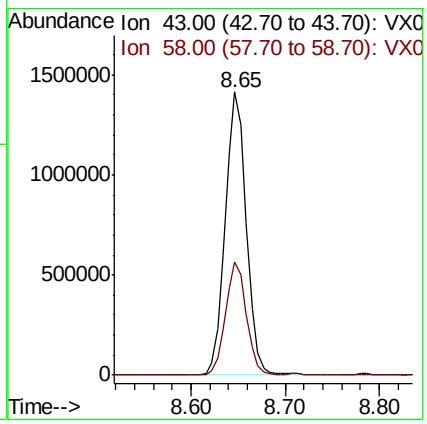
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:22:13 AM

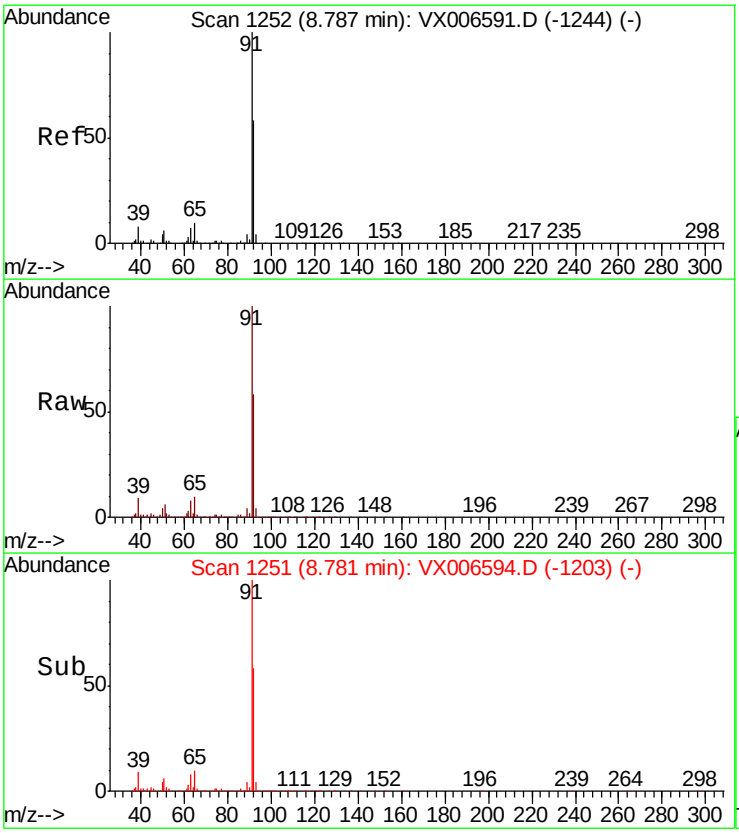


#51
4-Methyl-2-Pentanone
Concen: 256.915 ug/l
RT: 8.65 min Scan# 1229
Delta R.T. -0.00 min
Lab File: VX006594.D
Acq: 18 Dec 2018 13:24

Tgt Ion: 43 Resp: 2189073

Ion	Ratio	Lower	Upper
43	100		
58	39.5	31.8	47.6

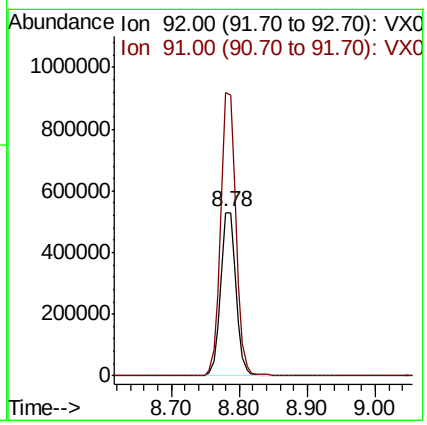




#52
Toluene
Concen: 49.884 ug/l
RT: 8.78 min Scan# 1251
Delta R.T. -0.01 min
Lab File: VX006594.D
Acq: 18 Dec 2018 13:24

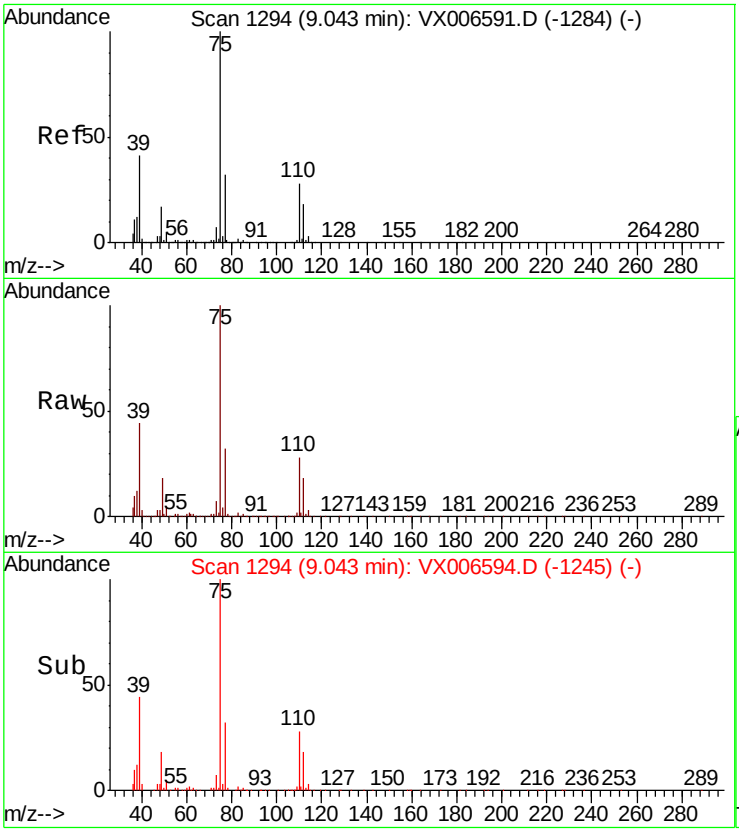
Tgt Ion: 92 Resp: 828369

Ion	Ratio	Lower	Upper
92	100		
91	172.9	137.6	206.4



Instrument :
MSVOA_X
ClientSampleId :
ICVVX121818

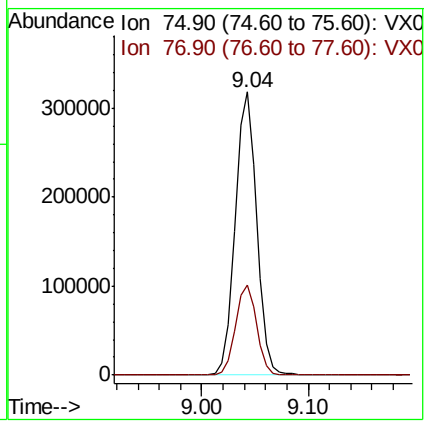
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:22:13 AM

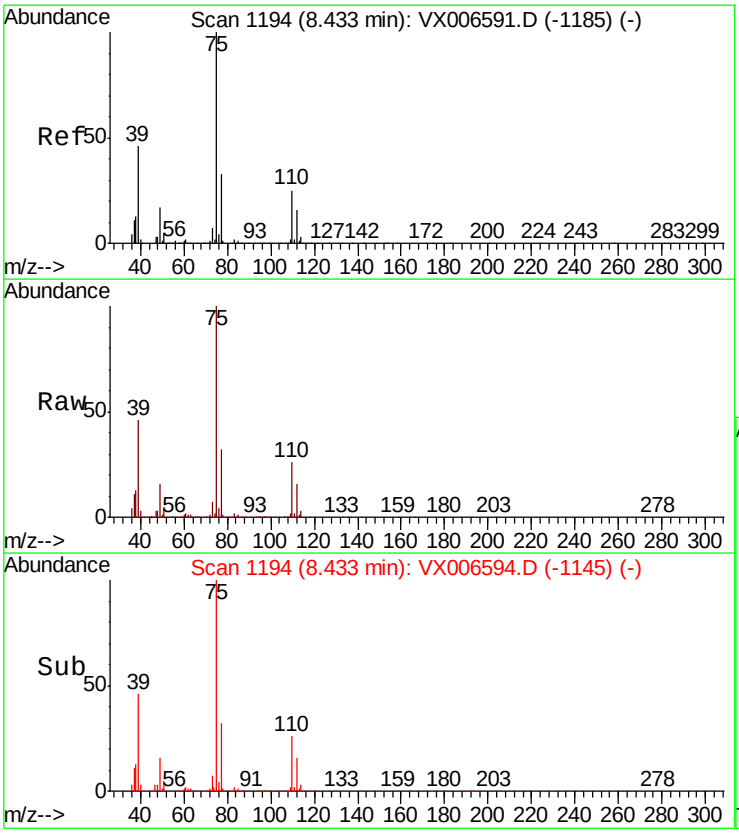


#53
t-1,3-Dichloropropene
Concen: 54.925 ug/l
RT: 9.04 min Scan# 1294
Delta R.T. -0.00 min
Lab File: VX006594.D
Acq: 18 Dec 2018 13:24

Tgt Ion: 75 Resp: 449957

Ion	Ratio	Lower	Upper
75	100		
77	31.7	25.4	38.0

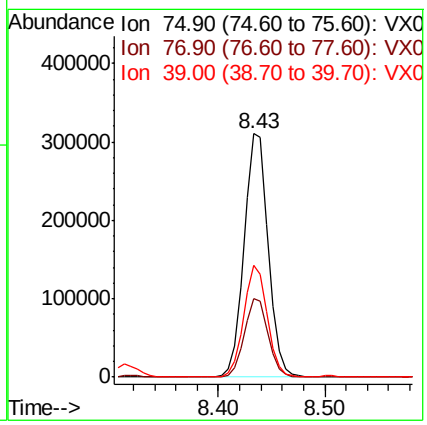




#54
cis-1,3-Dichloropropene
Concen: 54.849 ug/l
RT: 8.43 min Scan# 1194
Delta R.T. -0.00 min
Lab File: VX006594.D
Acq: 18 Dec 2018 13:24

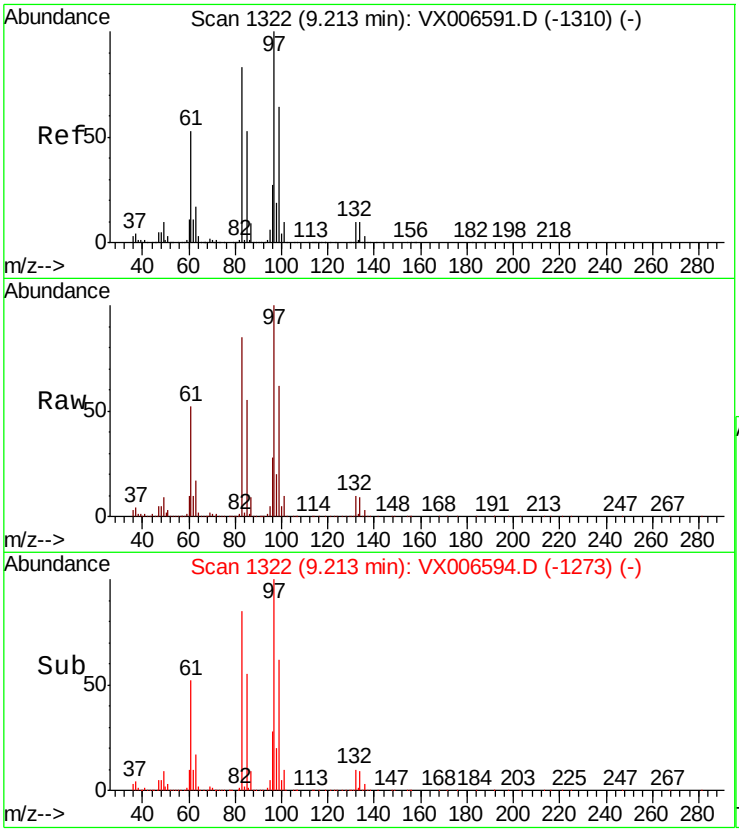
Tgt Ion: 75 Resp: 493035

Ion	Ratio	Lower	Upper
75	100		
77	32.1	26.2	39.2
39	45.8	36.7	55.1



Instrument :
MSVOA_X
ClientSampleId :
ICVVX121818

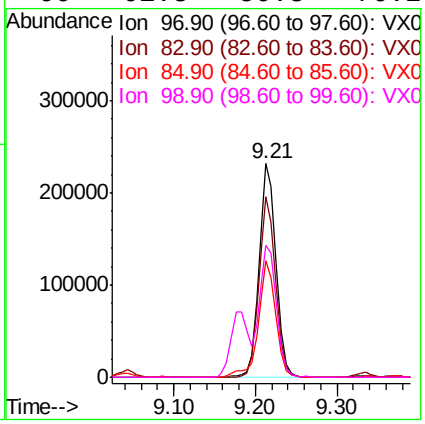
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:22:13 AM

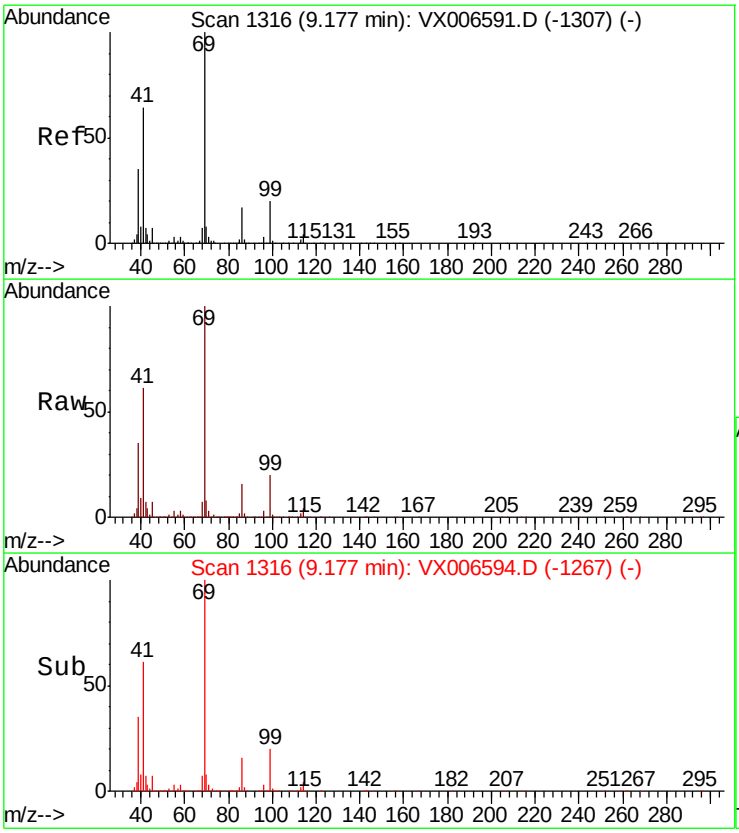


#55
1,1,2-Trichloroethane
Concen: 49.776 ug/l
RT: 9.21 min Scan# 1322
Delta R.T. -0.00 min
Lab File: VX006594.D
Acq: 18 Dec 2018 13:24

Tgt Ion: 97 Resp: 338331

Ion	Ratio	Lower	Upper
97	100		
83	84.8	66.6	99.8
85	54.7	42.7	64.1
99	61.8	50.8	76.2

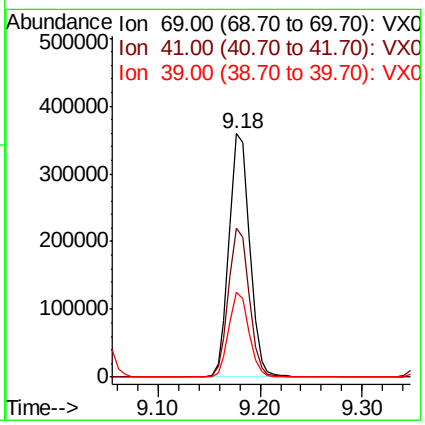


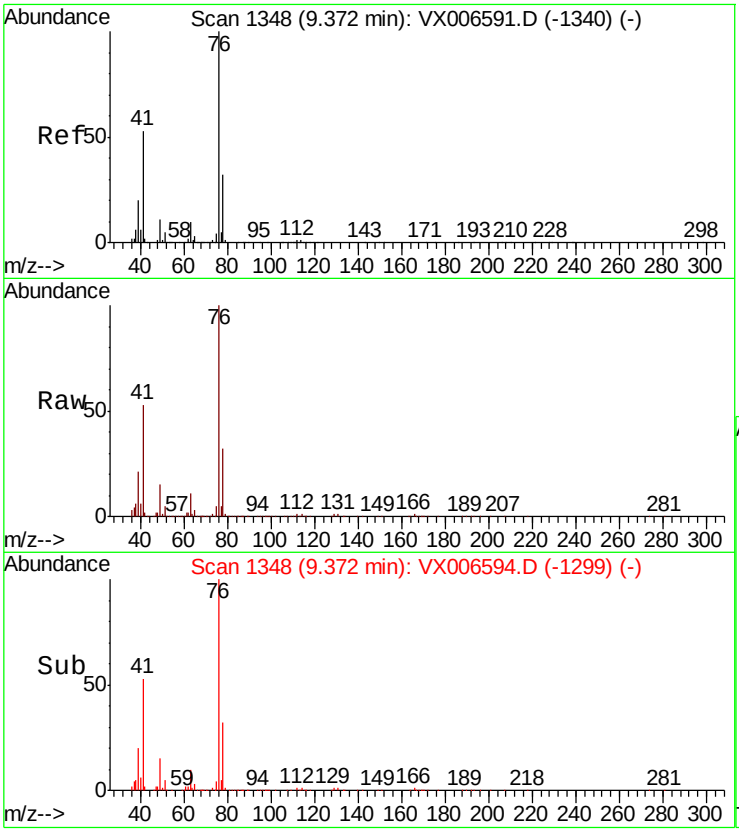


#56
Ethyl methacrylate
Concen: 52.170 ug/l
RT: 9.18 min Scan# 1316
Delta R.T. -0.00 min
Lab File: VX006594.D
Acq: 18 Dec 2018 13:24

Tgt Ion: 69 Resp: 501186

Ion	Ratio	Lower	Upper
69	100		
41	61.1	48.7	73.1
39	34.2	27.0	40.6

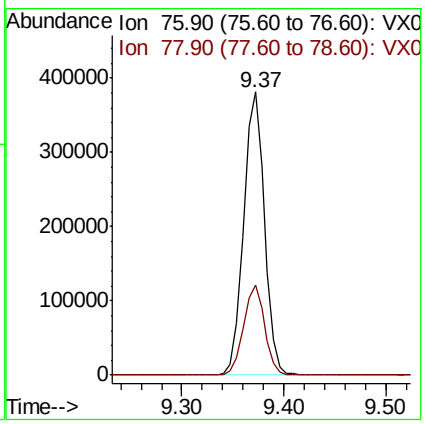




#57
1,3-Dichloropropane
Concen: 49.359 ug/l
RT: 9.37 min Scan# 1348
Delta R.T. -0.00 min
Lab File: VX006594.D
Acq: 18 Dec 2018 13:24

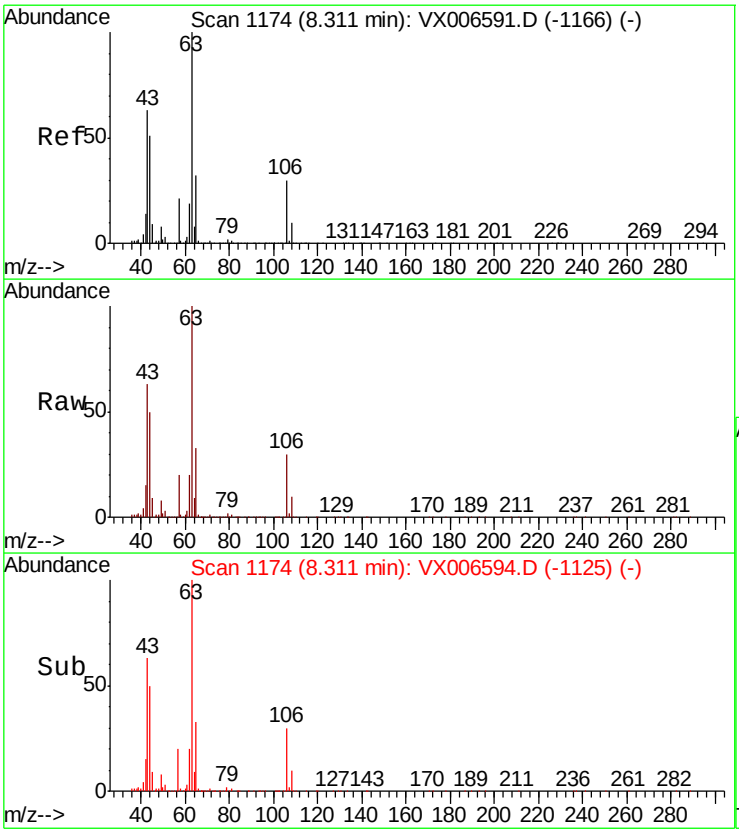
Tgt Ion: 76 Resp: 539769

Ion	Ratio	Lower	Upper
76	100		
78	32.2	26.0	39.0



Instrument :
MSVOA_X
ClientSampleId :
ICVVX121818

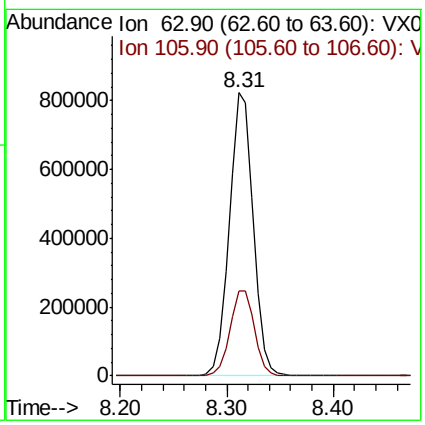
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:22:13 AM



#58
2-Chloroethyl Vinyl ether
Concen: 251.842 ug/l
RT: 8.31 min Scan# 1174
Delta R.T. -0.00 min
Lab File: VX006594.D
Acq: 18 Dec 2018 13:24

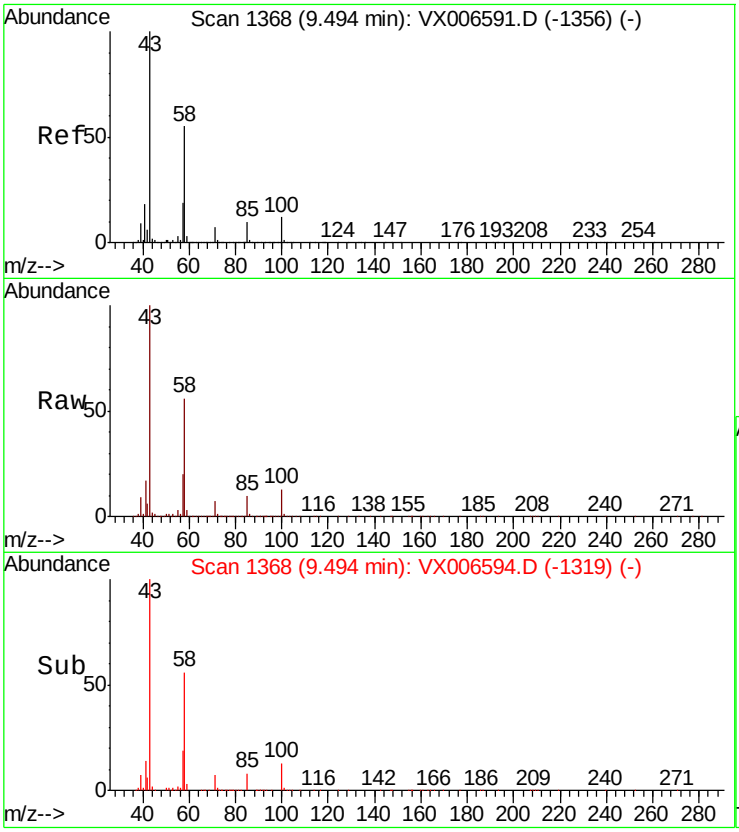
Tgt Ion: 63 Resp: 1286061

Ion	Ratio	Lower	Upper
63	100		
106	31.0	24.6	36.8



Instrument :
MSVOA_X
ClientSampleId :
ICVVX121818

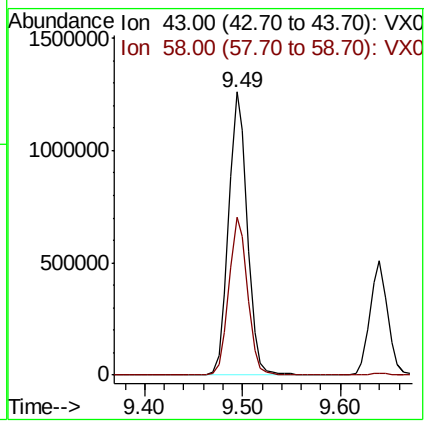
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:22:13 AM

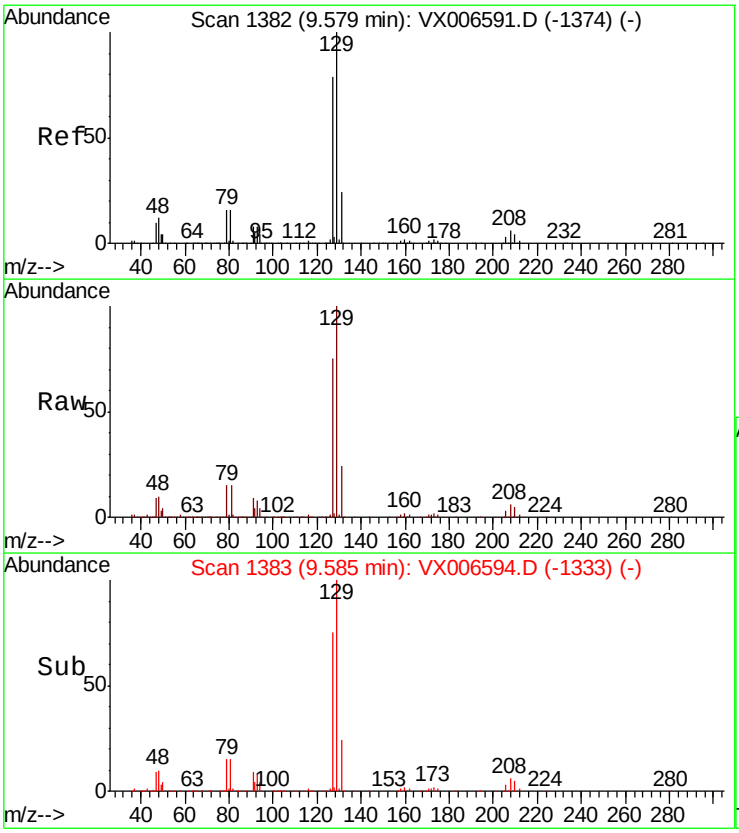


#59
2-Hexanone
Concen: 255.461 ug/l
RT: 9.49 min Scan# 1368
Delta R.T. -0.00 min
Lab File: VX006594.D
Acq: 18 Dec 2018 13:24

Tgt Ion: 43 Resp: 1665421

Ion	Ratio	Lower	Upper
43	100		
58	56.1	27.7	83.1

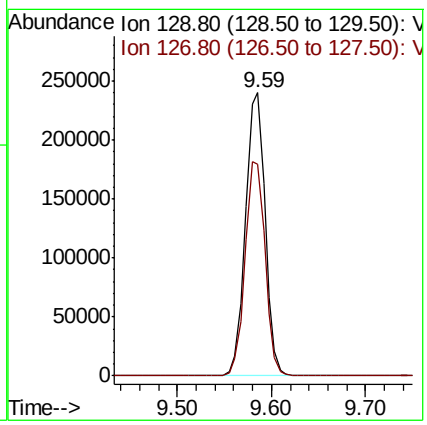




#60
Dibromochloromethane
Concen: 55.873 ug/l
RT: 9.59 min Scan# 1383
Delta R.T. 0.01 min
Lab File: VX006594.D
Acq: 18 Dec 2018 13:24

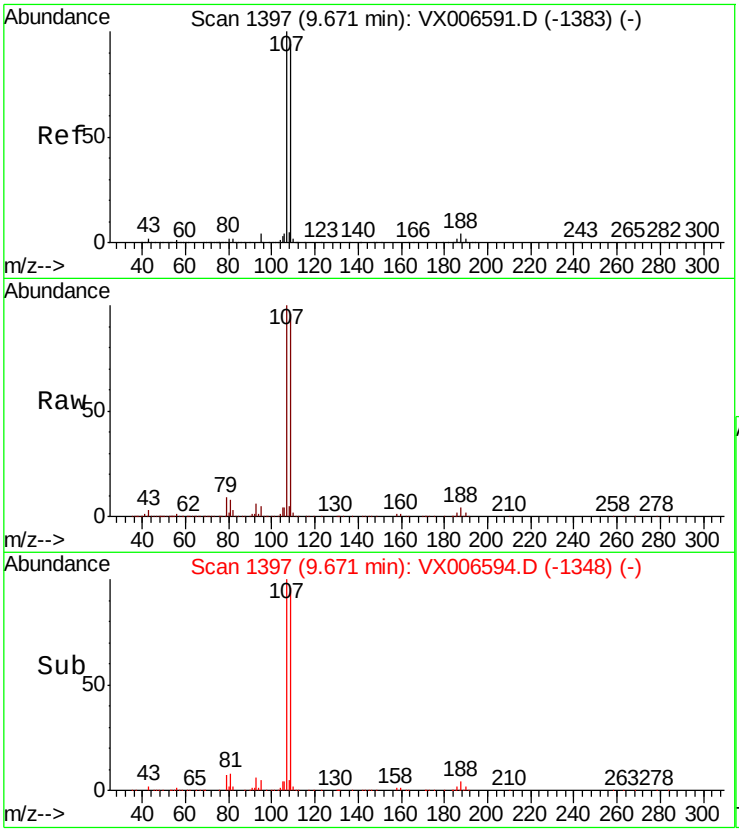
Tgt Ion:129 Resp: 349804

Ion	Ratio	Lower	Upper
129	100		
127	77.2	39.3	117.8



Instrument :
MSVOA_X
ClientSampleId :
ICVVX121818

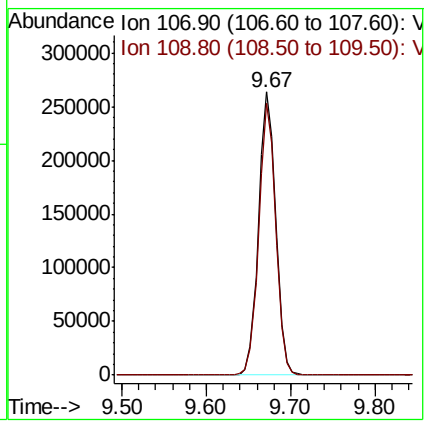
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:22:13 AM

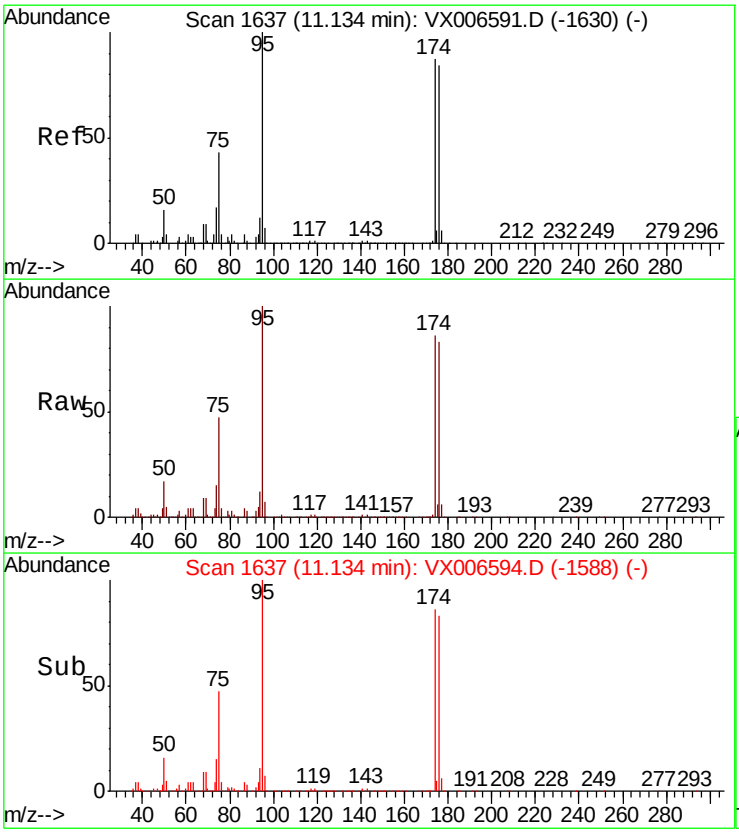


#61
1,2-Dibromoethane
Concen: 51.104 ug/l
RT: 9.67 min Scan# 1397
Delta R.T. -0.00 min
Lab File: VX006594.D
Acq: 18 Dec 2018 13:24

Tgt Ion:107 Resp: 369252

Ion	Ratio	Lower	Upper
107	100		
109	95.0	75.8	113.6

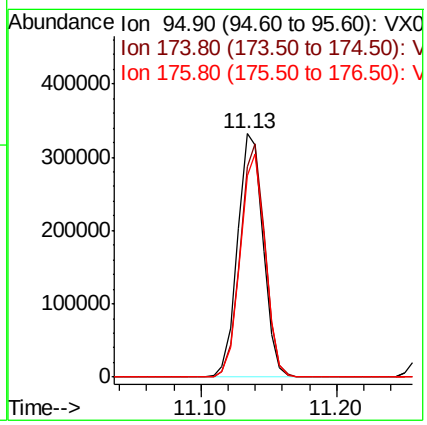




#62
4-Bromofluorobenzene
Concen: 48.646 ug/l
RT: 11.13 min Scan# 1637
Delta R.T. -0.00 min
Lab File: VX006594.D
Acq: 18 Dec 2018 13:24

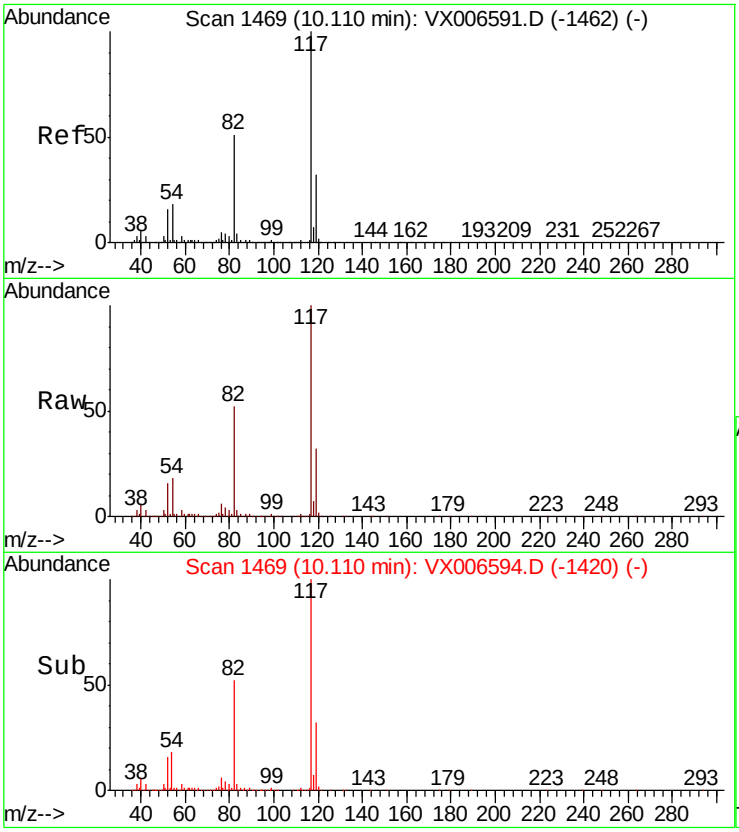
Tgt Ion: 95 Resp: 433669

Ion	Ratio	Lower	Upper
95	100		
174	93.1	0.0	182.2
176	90.0	0.0	178.8



Instrument :
MSVOA_X
ClientSampleId :
ICVVX121818

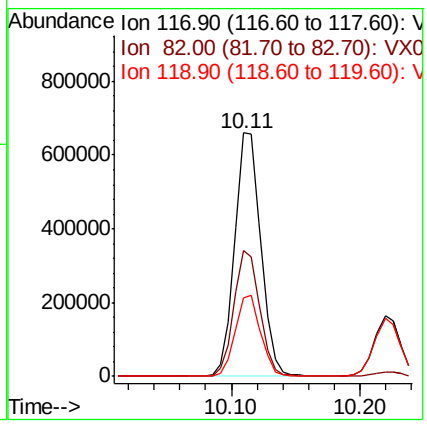
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:22:13 AM

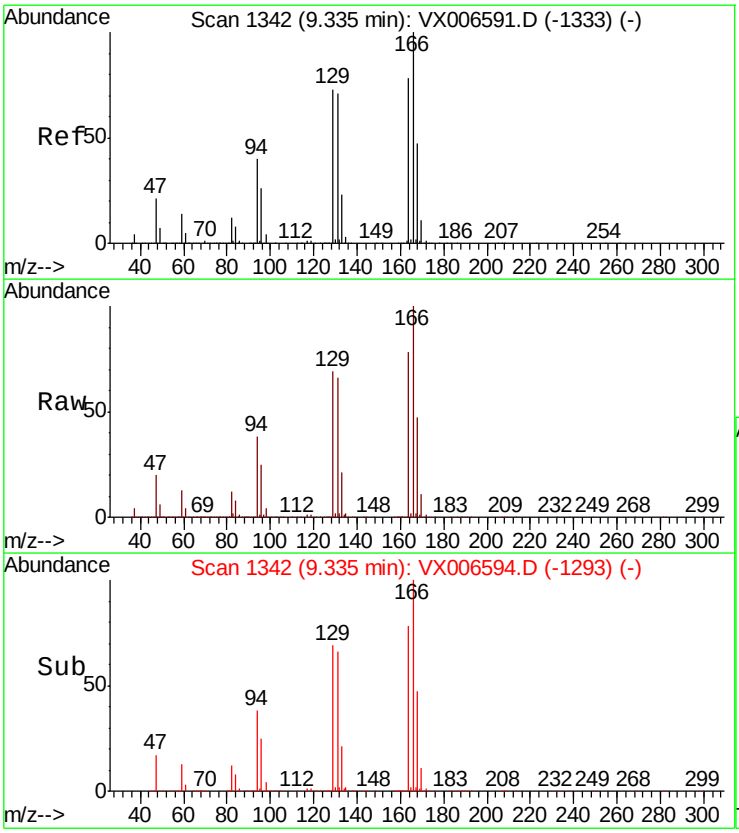


#63
Chlorobenzene-d5
Concen: 50.000 ug/l
RT: 10.11 min Scan# 1469
Delta R.T. -0.00 min
Lab File: VX006594.D
Acq: 18 Dec 2018 13:24

Tgt Ion:117 Resp: 936133

Ion	Ratio	Lower	Upper
117	100		
82	51.6	41.0	61.6
119	32.1	25.4	38.0

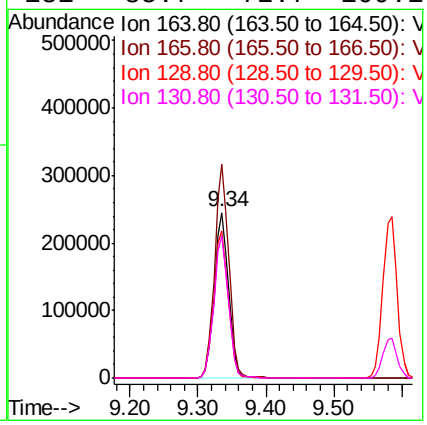


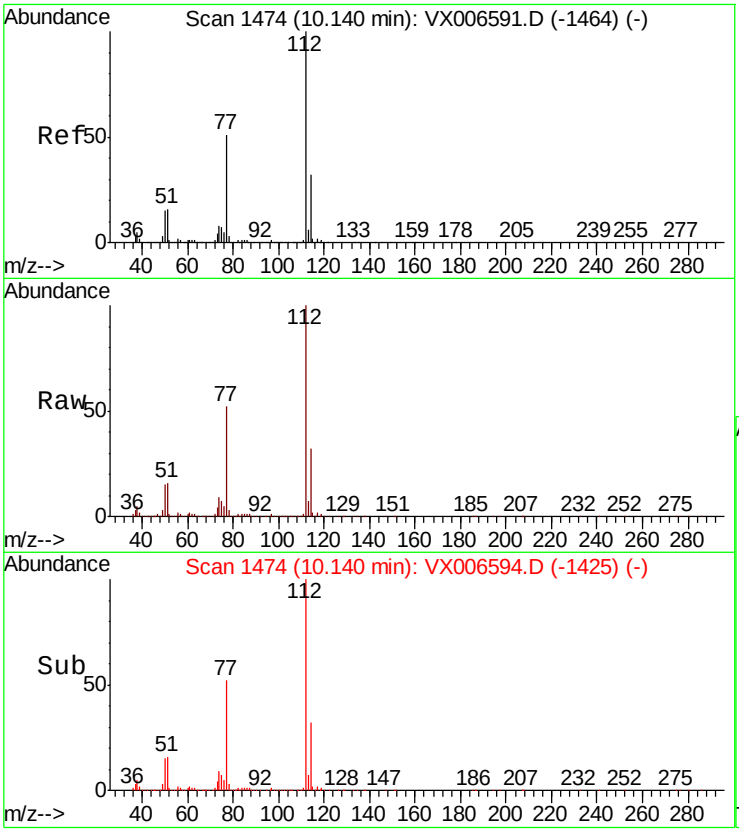


#64
Tetrachloroethene
Concen: 47.965 ug/l
RT: 9.34 min Scan# 1342
Delta R.T. -0.00 min
Lab File: VX006594.D
Acq: 18 Dec 2018 13:24

Tgt Ion:164 Resp: 355555

Ion	Ratio	Lower	Upper
164	100		
166	129.0	102.5	153.7
129	88.8	75.1	112.7
131	85.7	72.7	109.1

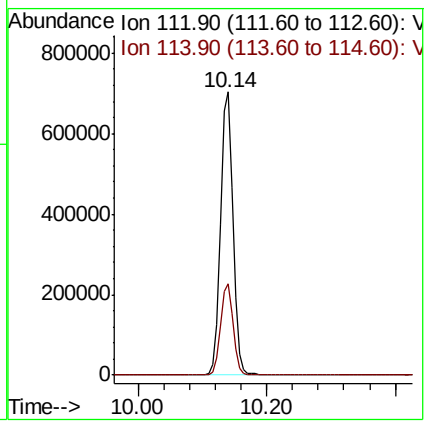




#65
Chlorobenzene
Concen: 48.813 ug/l
RT: 10.14 min Scan# 1474
Delta R.T. -0.00 min
Lab File: VX006594.D
Acq: 18 Dec 2018 13:24

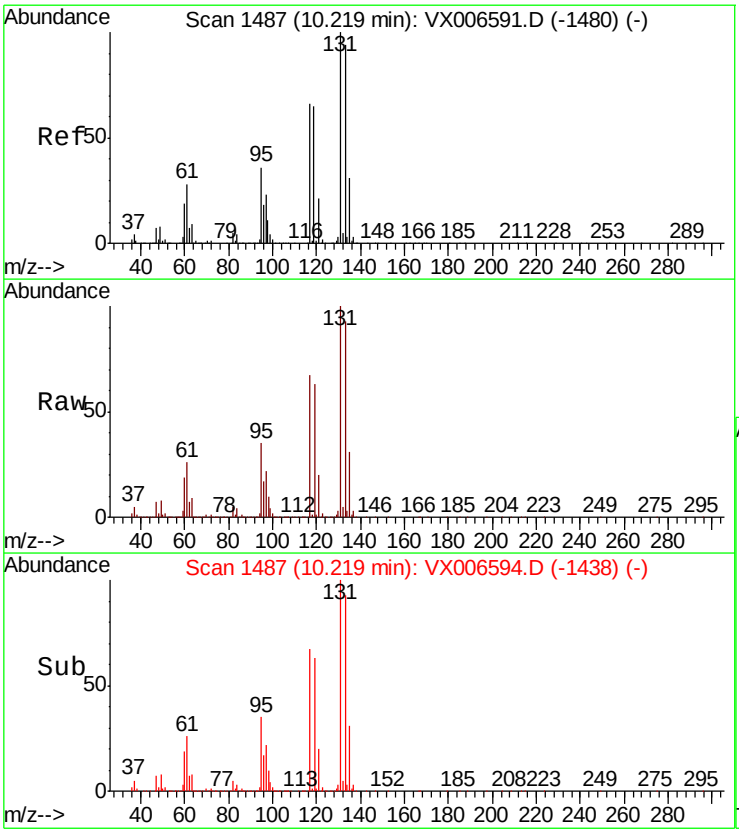
Tgt Ion:112 Resp: 966720

Ion	Ratio	Lower	Upper
112	100		
114	32.4	25.7	38.5



Instrument :
MSVOA_X
ClientSampleId :
ICVVX121818

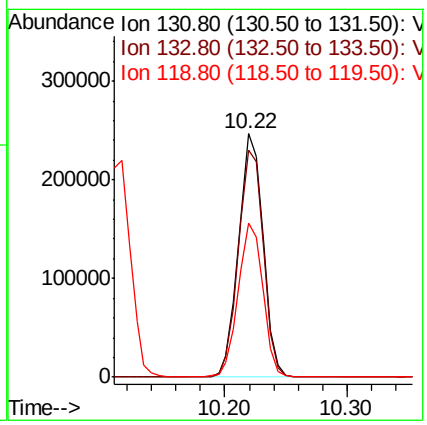
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:22:13 AM

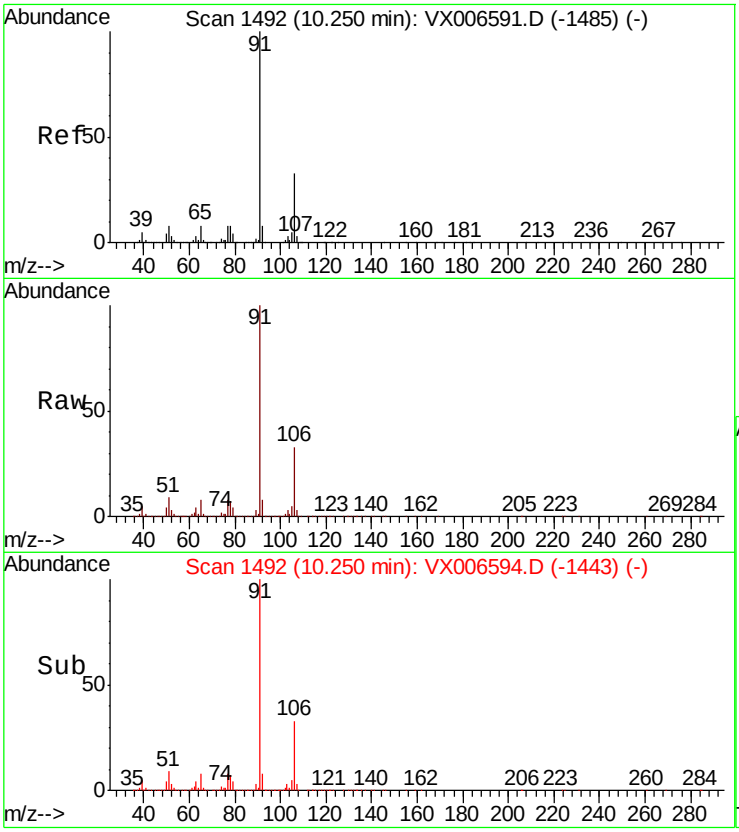


#66
1,1,1,2-Tetrachloroethane
Concen: 55.070 ug/l
RT: 10.22 min Scan# 1487
Delta R.T. -0.00 min
Lab File: VX006594.D
Acq: 18 Dec 2018 13:24

Tgt Ion:131 Resp: 340279

Ion	Ratio	Lower	Upper
131	100		
133	95.4	48.0	144.2
119	63.8	32.6	97.8

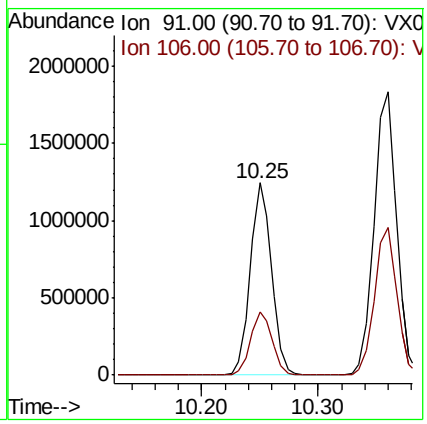


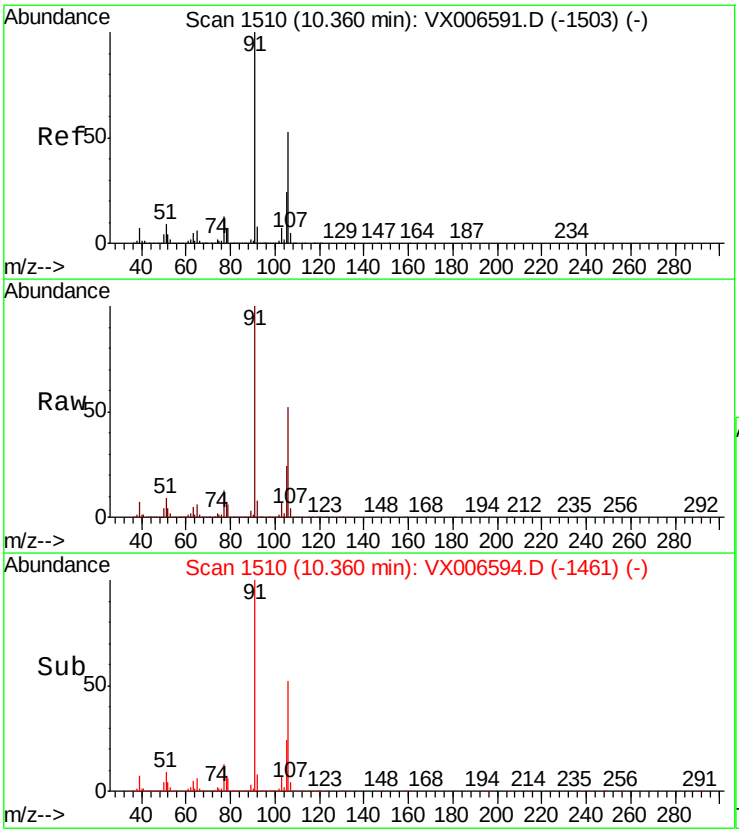


#67
Ethyl Benzene
Concen: 49.256 ug/l
RT: 10.25 min Scan# 1492
Delta R.T. -0.00 min
Lab File: VX006594.D
Acq: 18 Dec 2018 13:24

Tgt Ion: 91 Resp: 1594022

Ion	Ratio	Lower	Upper
91	100		
106	32.6	26.4	39.6

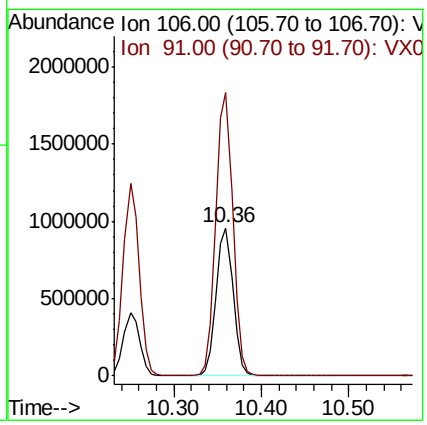




#68
m/p-Xylenes
Concen: 100.720 ug/l
RT: 10.36 min Scan# 1510
Delta R.T. -0.00 min
Lab File: VX006594.D
Acq: 18 Dec 2018 13:24

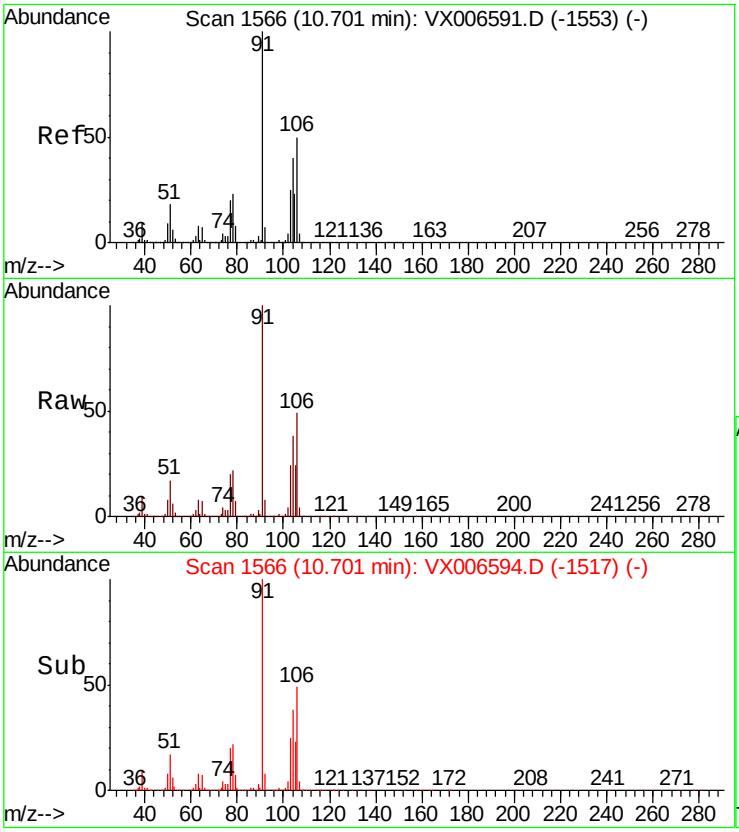
Tgt Ion:106 Resp: 1286200

Ion	Ratio	Lower	Upper
106	100		
91	192.1	155.8	233.6



Instrument :
MSVOA_X
ClientSampleId :
ICVVX121818

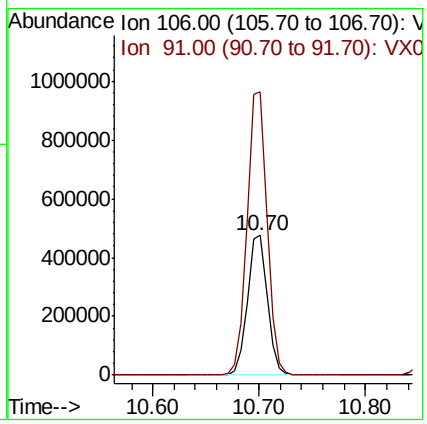
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:22:13 AM



#69
o-Xylene
Concen: 49.619 ug/l
RT: 10.70 min Scan# 1566
Delta R.T. -0.00 min
Lab File: VX006594.D
Acq: 18 Dec 2018 13:24

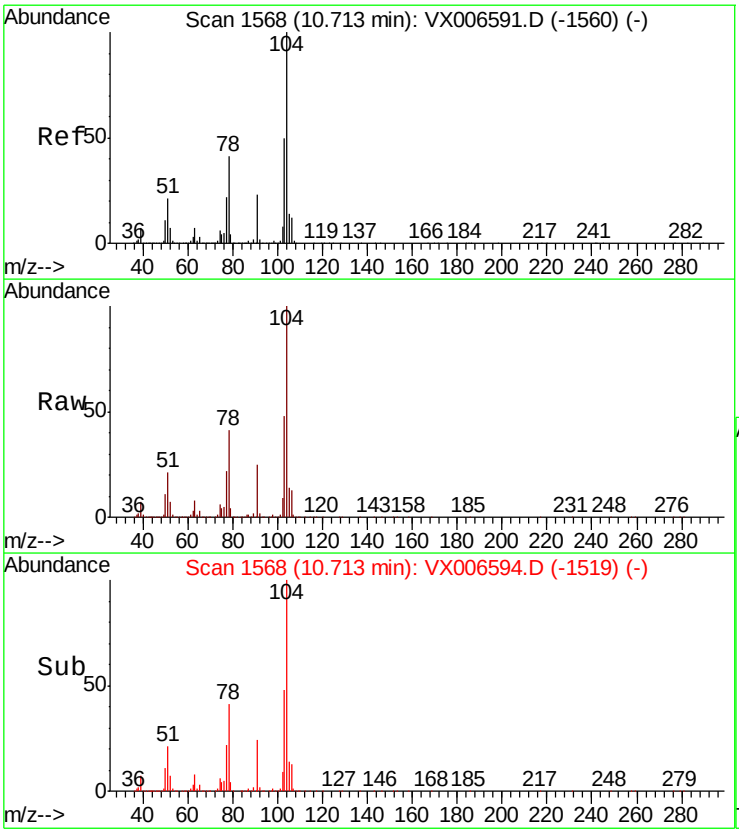
Tgt Ion:106 Resp: 625707

Ion	Ratio	Lower	Upper
106	100		
91	204.2	101.3	303.7



Instrument :
MSVOA_X
ClientSampleId :
ICVVX121818

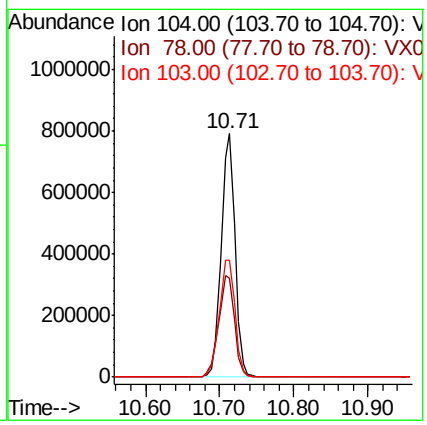
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:22:13 AM

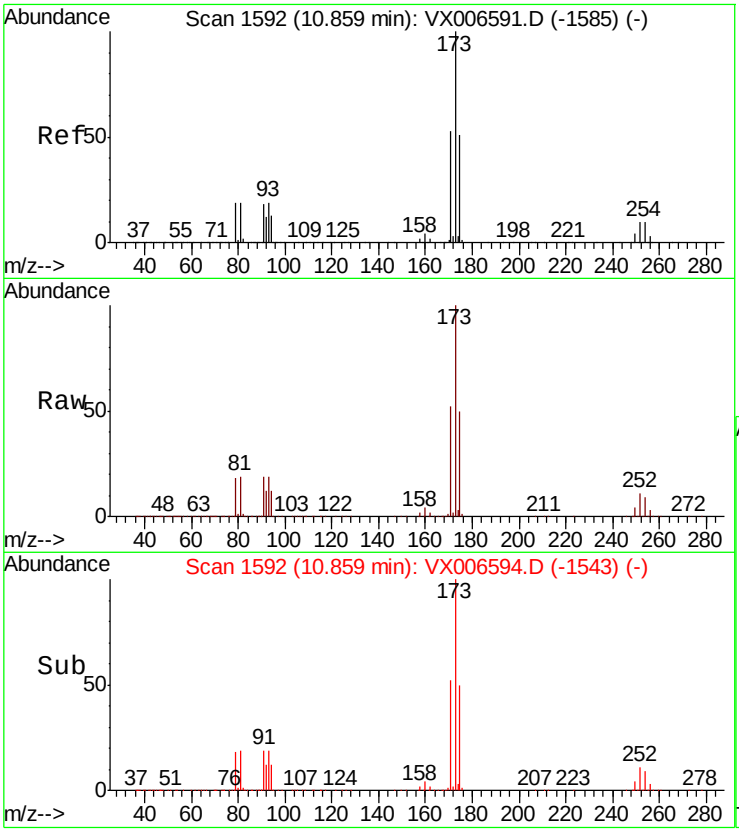


#70
Styrene
Concen: 50.814 ug/l
RT: 10.71 min Scan# 1568
Delta R.T. -0.00 min
Lab File: VX006594.D
Acq: 18 Dec 2018 13:24

Tgt Ion:104 Resp: 1013737

Ion	Ratio	Lower	Upper
104	100		
78	47.4	37.7	56.5
103	55.1	43.8	65.8

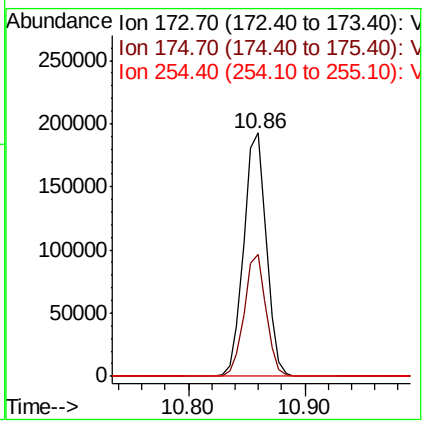




#71
Bromoform
Concen: 47.354 ug/l
RT: 10.86 min Scan# 1592
Delta R.T. 0.00 min
Lab File: VX006594.D
Acq: 18 Dec 2018 13:24

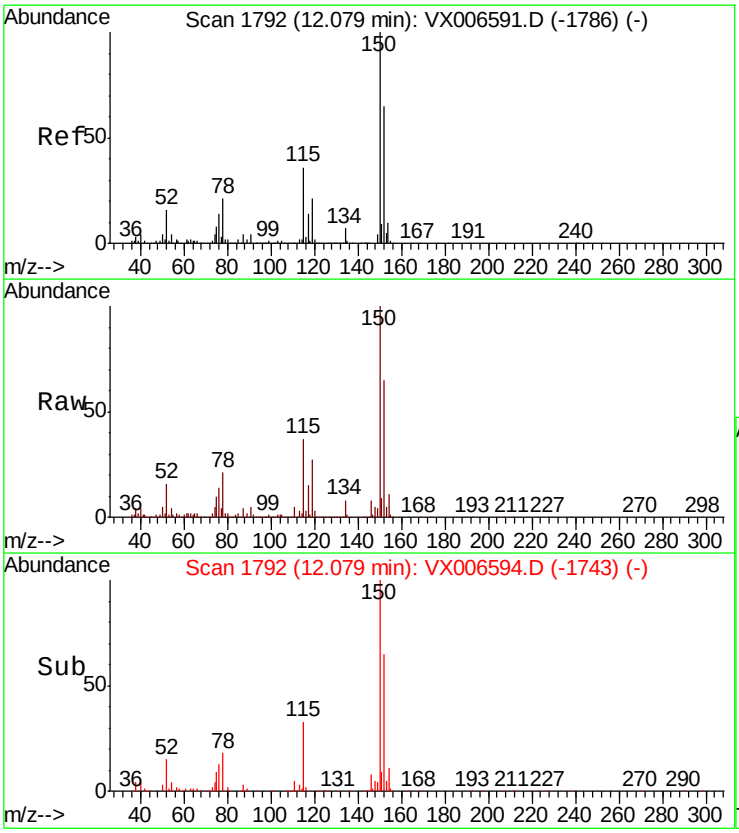
Tgt Ion:173 Resp: 262483

Ion	Ratio	Lower	Upper
173	100		
175	48.6	24.7	74.1
254	0.2	0.2	0.2



Instrument :
MSVOA_X
ClientSampleId :
ICVVX121818

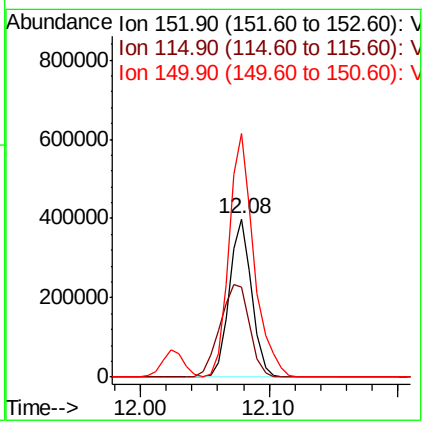
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:22:13 AM

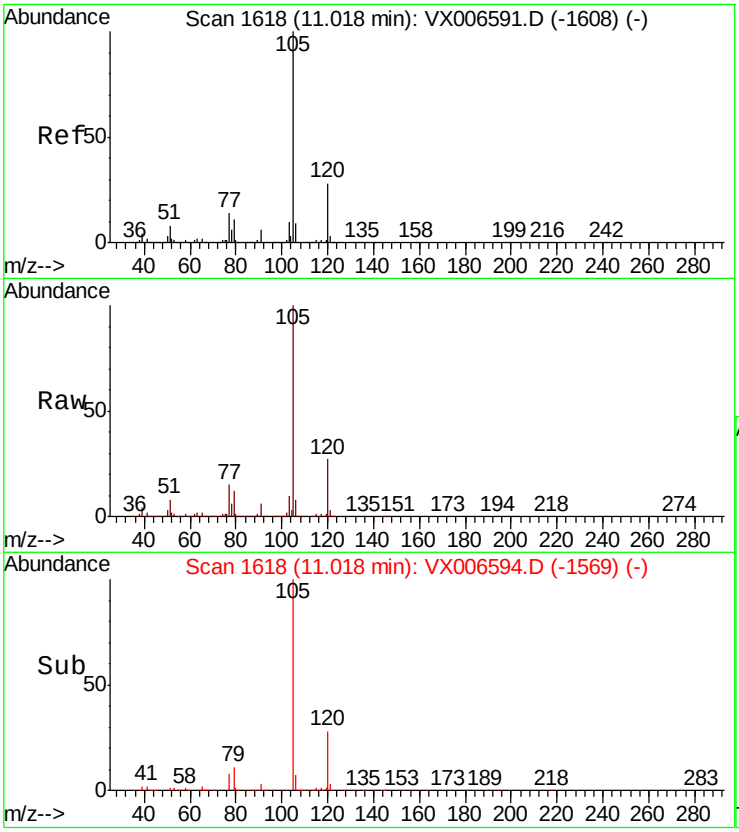


#72
1,4-Dichlorobenzene-d4
Concen: 50.000 ug/l
RT: 12.08 min Scan# 1792
Delta R.T. -0.00 min
Lab File: VX006594.D
Acq: 18 Dec 2018 13:24

Tgt Ion:152 Resp: 484091

Ion	Ratio	Lower	Upper
152	100		
115	77.7	39.1	117.2
150	170.6	0.0	344.8

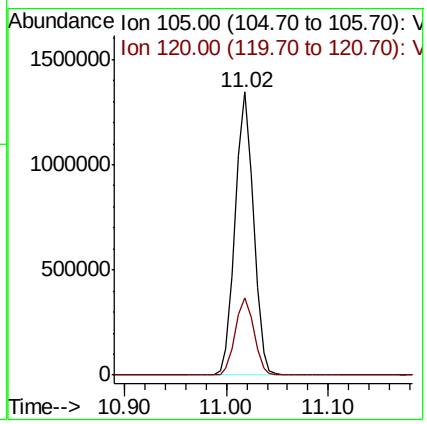




#73
Isopropylbenzene
Concen: 49.945 ug/l
RT: 11.02 min Scan# 1618
Delta R.T. -0.00 min
Lab File: VX006594.D
Acq: 18 Dec 2018 13:24

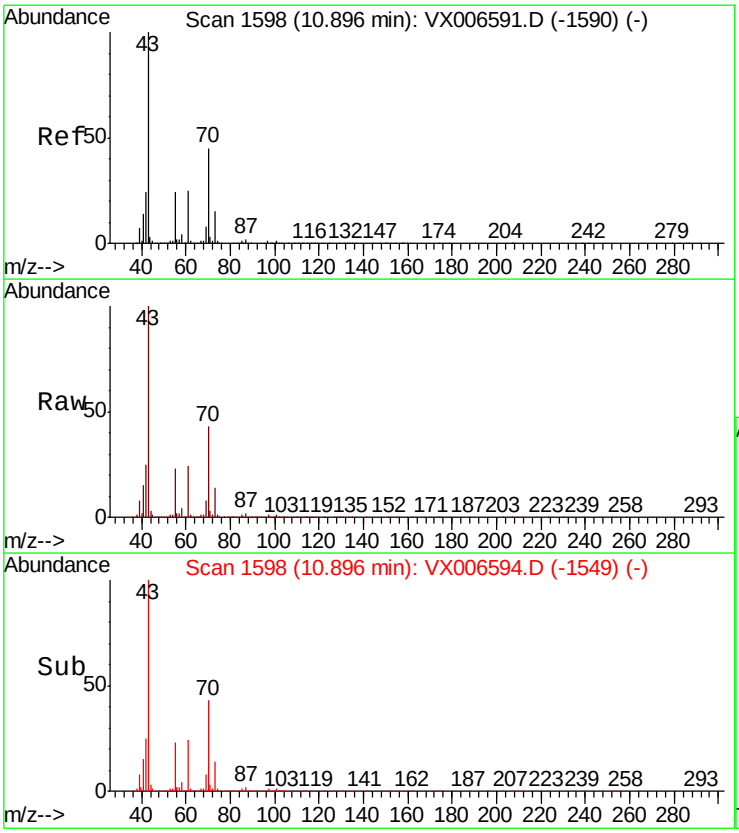
Tgt Ion:105 Resp: 1654076

Ion	Ratio	Lower	Upper
105	100		
120	27.8	14.1	42.4



Instrument :
MSVOA_X
ClientSampleId :
ICVVX121818

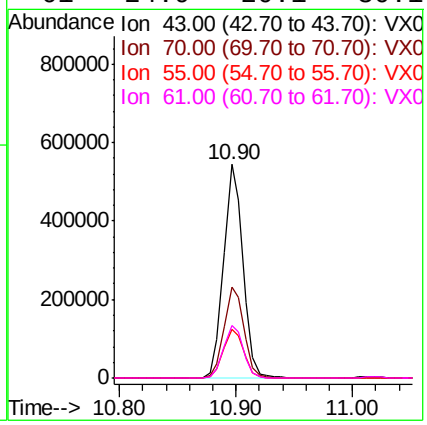
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:22:13 AM

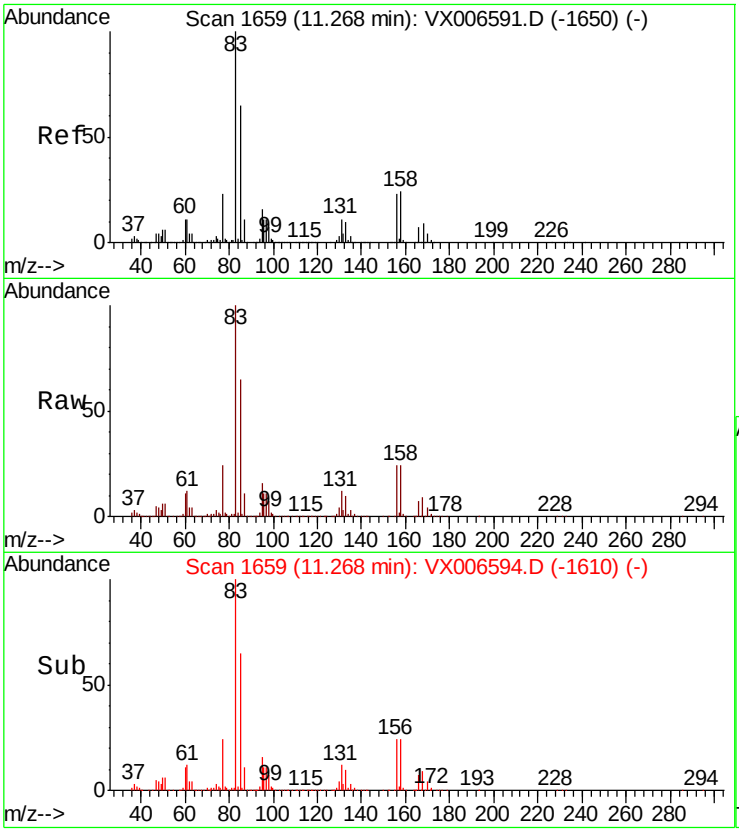


#74
N-amyl acetate
Concen: 52.472 ug/l
RT: 10.90 min Scan# 1598
Delta R.T. -0.00 min
Lab File: VX006594.D
Acq: 18 Dec 2018 13:24

Tgt Ion: 43 Resp: 622017

Ion	Ratio	Lower	Upper
43	100		
70	44.1	35.8	53.8
55	23.9	19.4	29.0
61	24.9	20.1	30.1

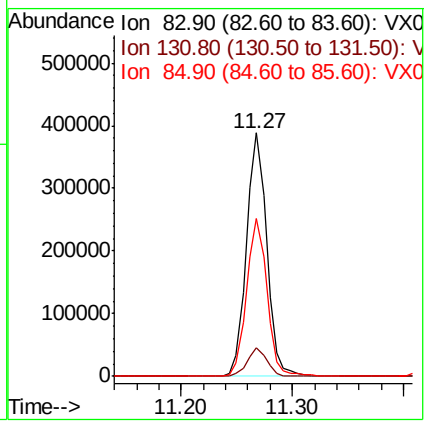




#75
1,1,2,2-Tetrachloroethane
Concen: 49.999 ug/l
RT: 11.27 min Scan# 1659
Delta R.T. -0.00 min
Lab File: VX006594.D
Acq: 18 Dec 2018 13:24

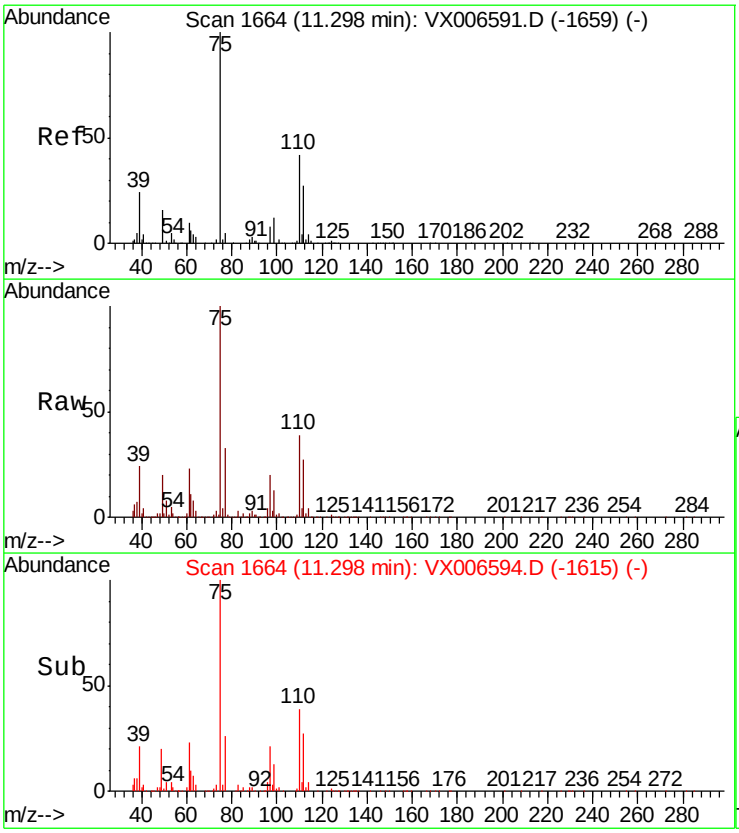
Tgt Ion: 83 Resp: 492447

Ion	Ratio	Lower	Upper
83	100		
131	11.3	5.7	17.1
85	65.2	32.2	96.6



Instrument :
MSVOA_X
ClientSampleId :
ICVVX121818

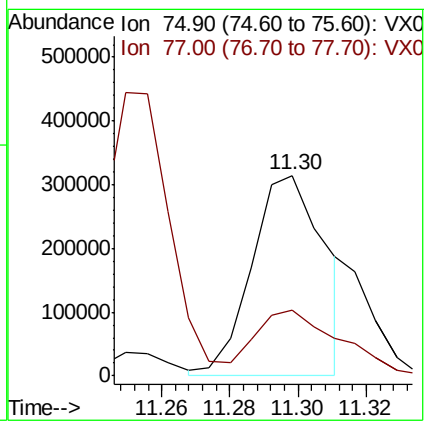
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:22:13 AM



#76
1,2,3-Trichloropropane
Concen: 51.803 ug/l m
RT: 11.30 min Scan# 1664
Delta R.T. -0.00 min
Lab File: VX006594.D
Acq: 18 Dec 2018 13:24

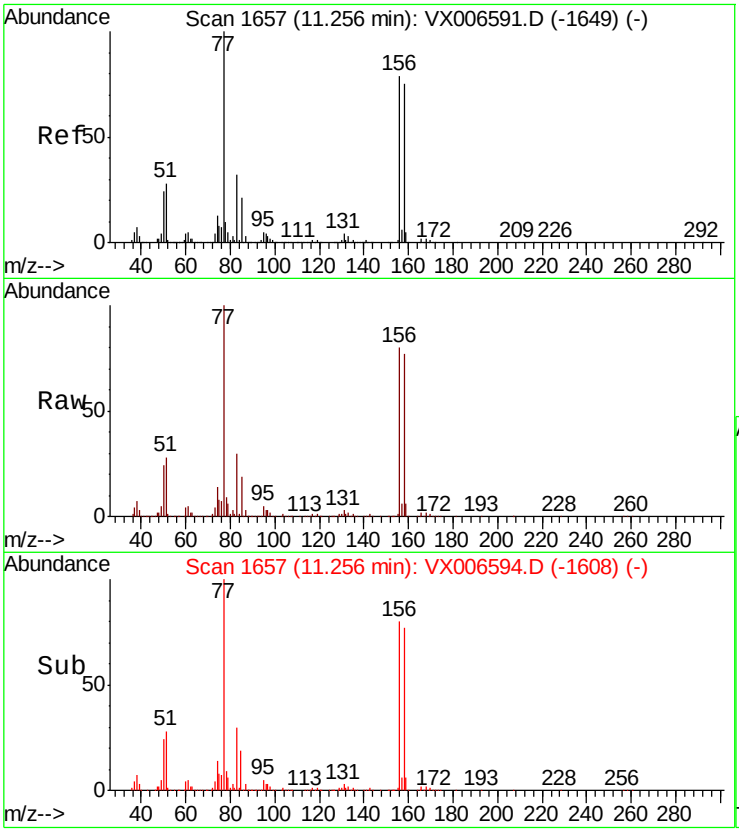
Tgt Ion: 75 Resp: 466041

Ion	Ratio	Lower	Upper
75	100		
77	37.8	18.5	55.5



Instrument :
MSVOA_X
ClientSampleId :
ICVVX121818

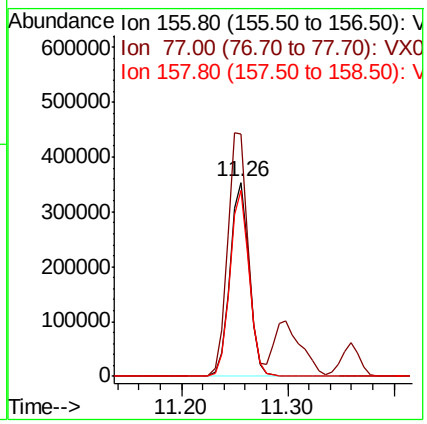
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:22:13 AM

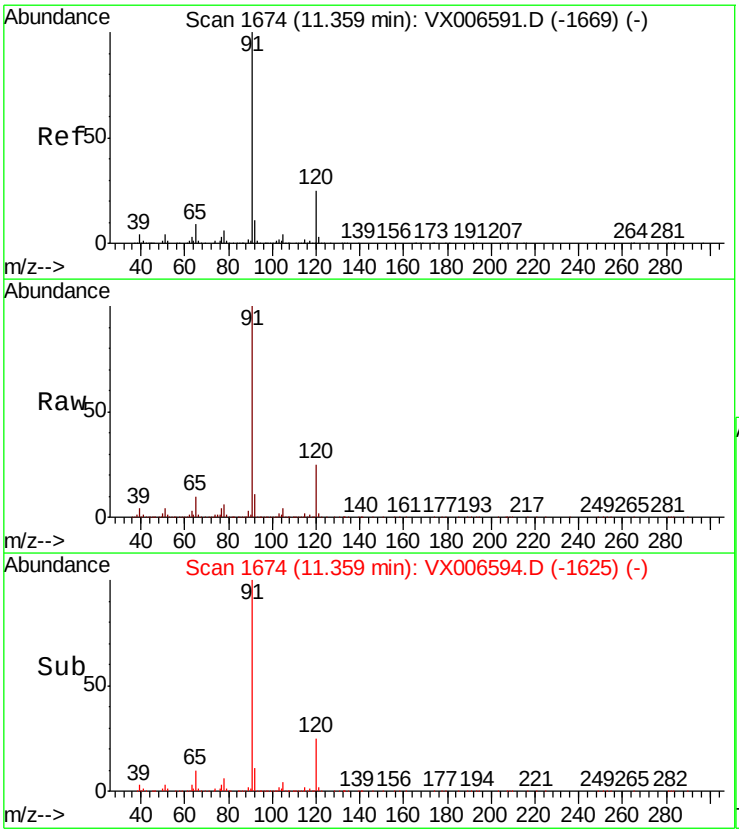


#77
Bromobenzene
Concen: 50.008 ug/l
RT: 11.26 min Scan# 1657
Delta R.T. -0.00 min
Lab File: VX006594.D
Acq: 18 Dec 2018 13:24

Tgt Ion:156 Resp: 447746

Ion	Ratio	Lower	Upper
156	100		
77	134.0	68.0	204.0
158	97.0	48.3	144.8

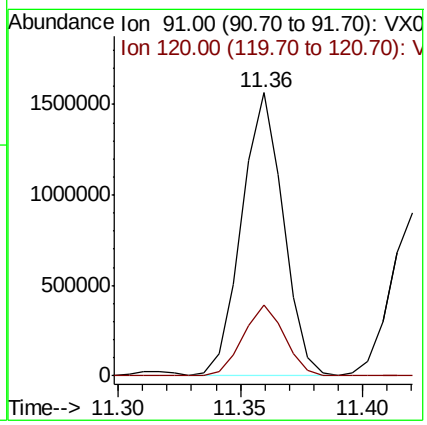


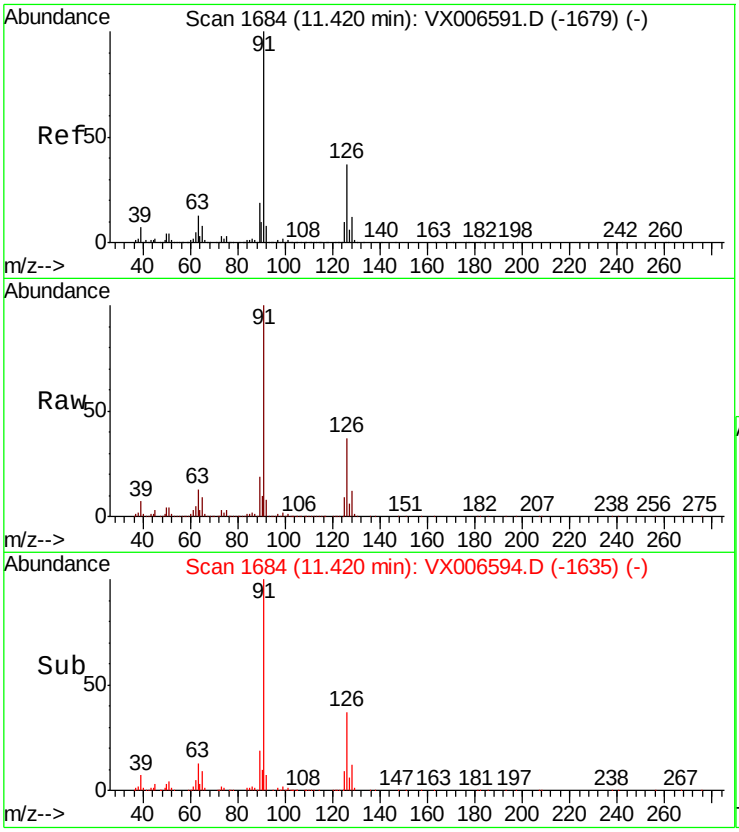


#78
n-propylbenzene
Concen: 50.461 ug/l
RT: 11.36 min Scan# 1674
Delta R.T. -0.00 min
Lab File: VX006594.D
Acq: 18 Dec 2018 13:24

Tgt Ion: 91 Resp: 1840271

Ion	Ratio	Lower	Upper
91	100		
120	25.2	12.7	38.0

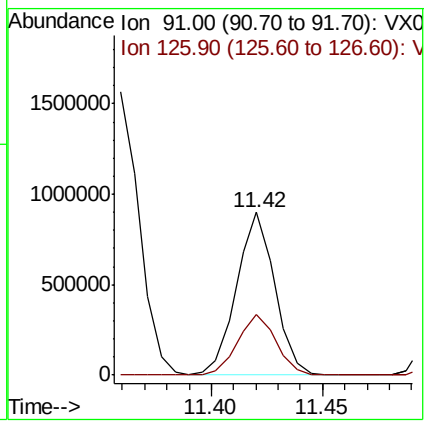




#79
2-Chlorotoluene
Concen: 48.535 ug/l
RT: 11.42 min Scan# 1684
Delta R.T. -0.00 min
Lab File: VX006594.D
Acq: 18 Dec 2018 13:24

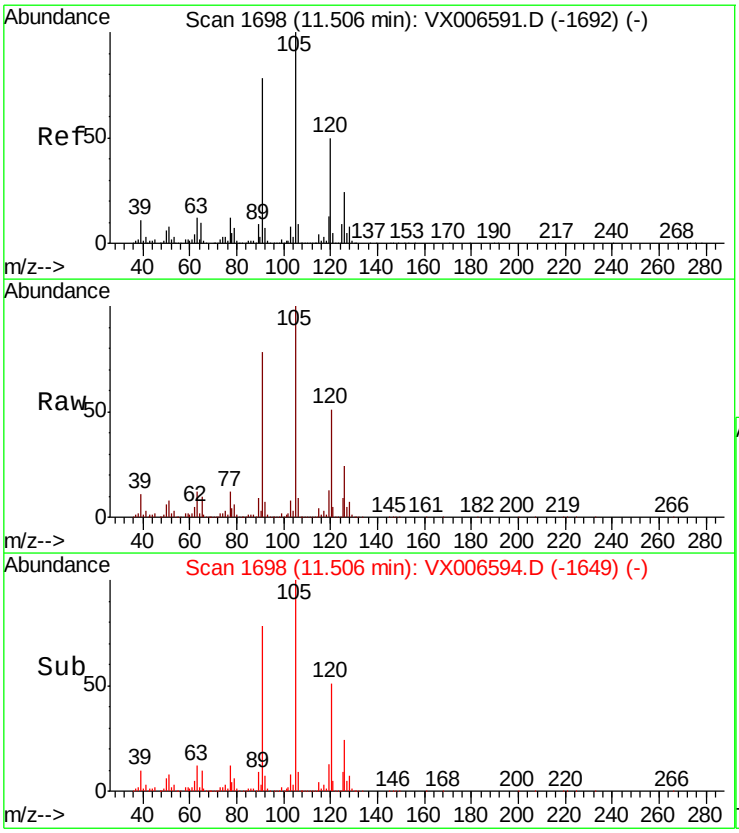
Tgt Ion: 91 Resp: 1072662

Ion	Ratio	Lower	Upper
91	100		
126	37.8	18.6	56.0



Instrument :
MSVOA_X
ClientSampleId :
ICVVX121818

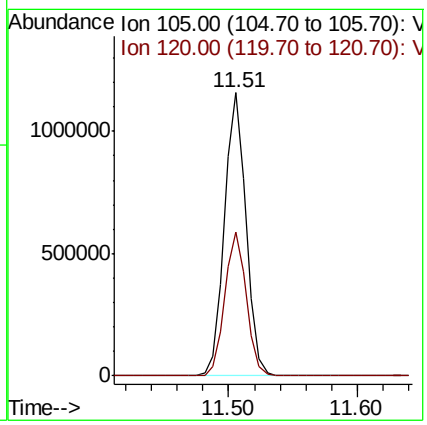
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:22:13 AM

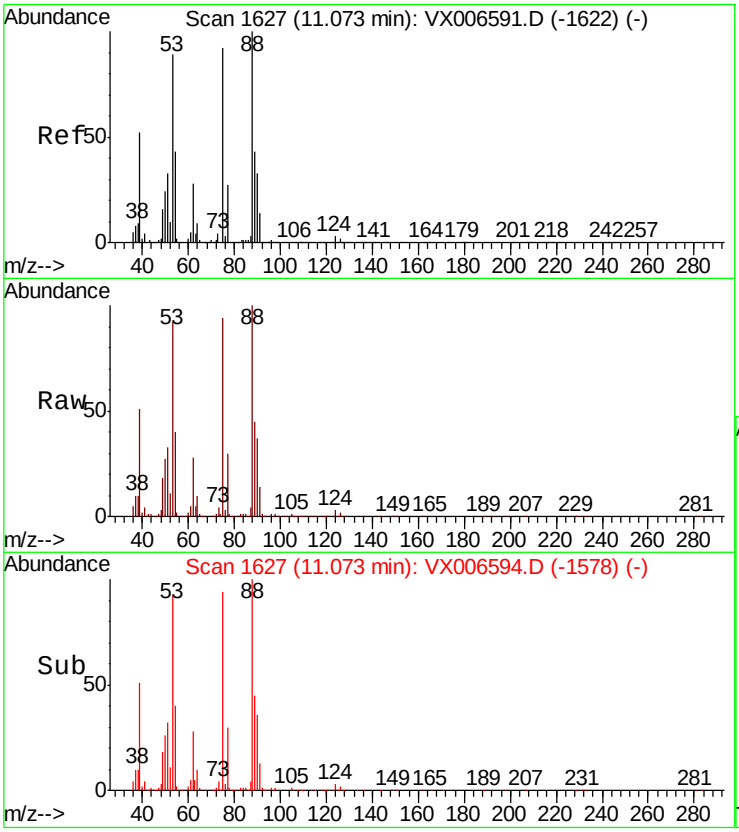


#80
1,3,5-Trimethylbenzene
Concen: 50.079 ug/l
RT: 11.51 min Scan# 1698
Delta R.T. -0.00 min
Lab File: VX006594.D
Acq: 18 Dec 2018 13:24

Tgt Ion:105 Resp: 1366049

Ion	Ratio	Lower	Upper
105	100		
120	50.7	25.1	75.3





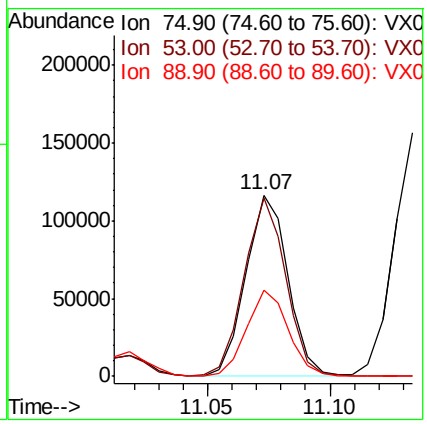
#81
trans-1,4-Dichloro-2-butene
Concen: 47.340 ug/l
RT: 11.07 min Scan# 1627
Delta R.T. 0.00 min
Lab File: VX006594.D
Acq: 18 Dec 2018 13:24

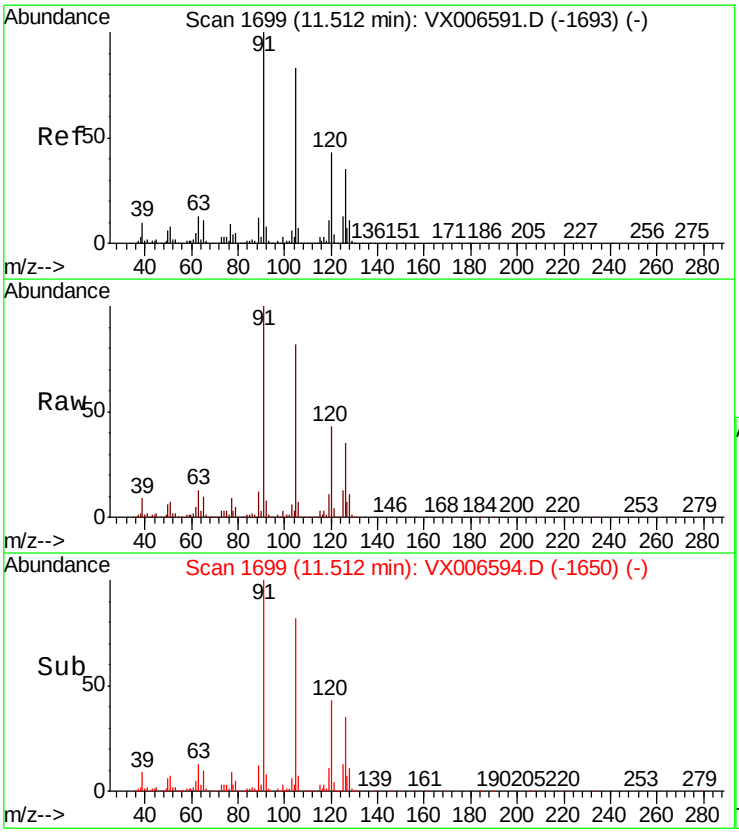
Tgt Ion: 75 Resp: 139219

Ion	Ratio	Lower	Upper
75	100		
53	97.4	79.7	119.5
89	47.7	38.0	57.0

Instrument :
MSVOA_X
ClientSampleId :
ICVVX121818

Manual Integrations APPROVED
MMDadoda
12/19/2018 11:22:13 AM

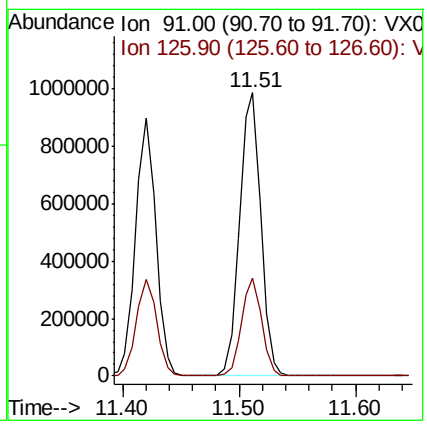


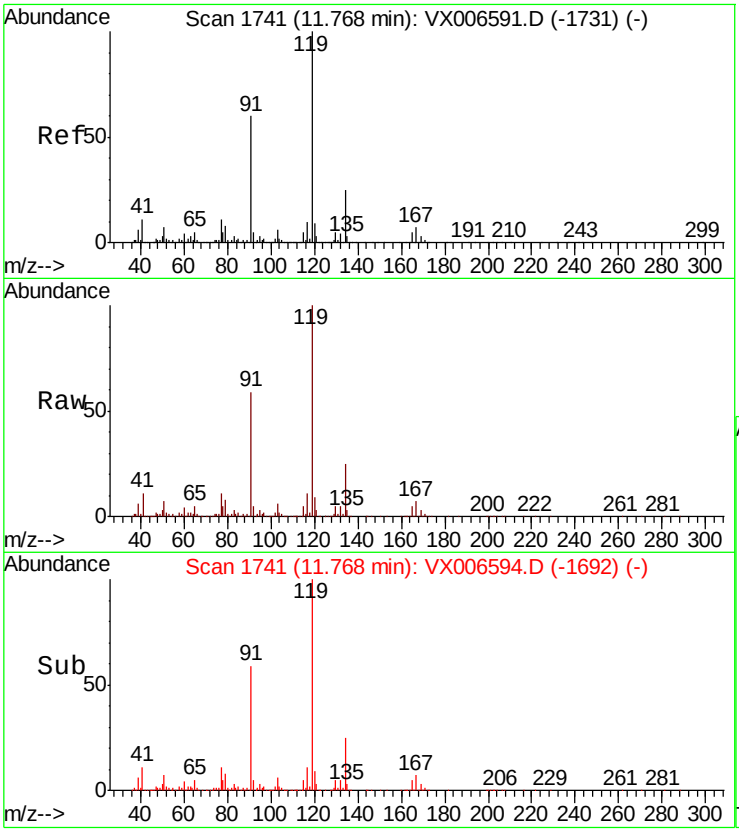


#82
4-Chlorotoluene
Concen: 49.452 ug/l
RT: 11.51 min Scan# 1699
Delta R.T. -0.00 min
Lab File: VX006594.D
Acq: 18 Dec 2018 13:24

Tgt Ion: 91 Resp: 1253647

Ion	Ratio	Lower	Upper
91	100		
126	32.8	16.3	48.9

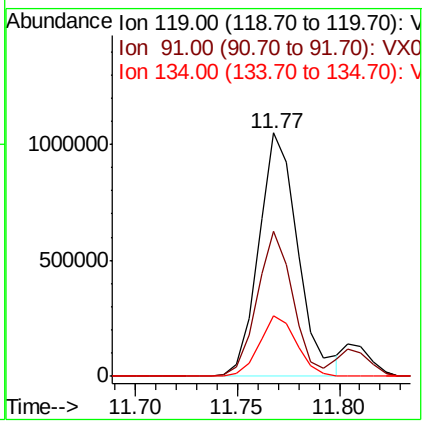




#83
tert-Butylbenzene
Concen: 51.398 ug/l
RT: 11.77 min Scan# 1741
Delta R.T. -0.00 min
Lab File: VX006594.D
Acq: 18 Dec 2018 13:24

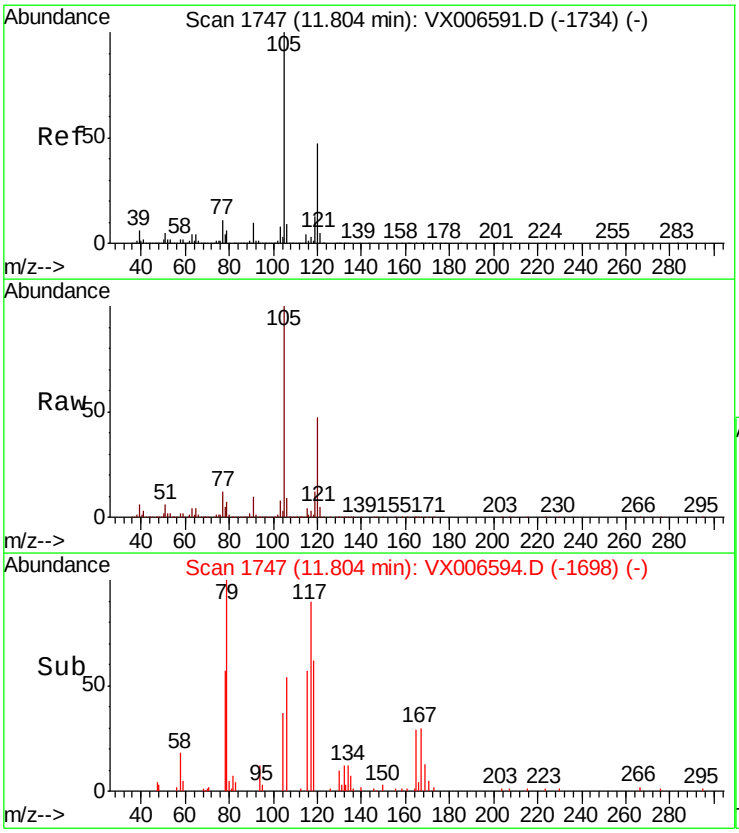
Tgt Ion:119 Resp: 1403196

Ion	Ratio	Lower	Upper
119	100		
91	54.3	27.7	83.1
134	23.7	11.9	35.5



Instrument :
MSVOA_X
ClientSampleId :
ICVVX121818

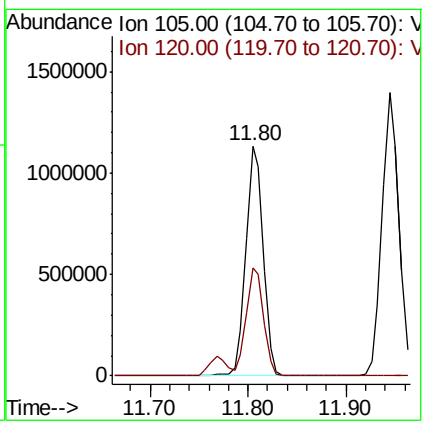
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:22:13 AM

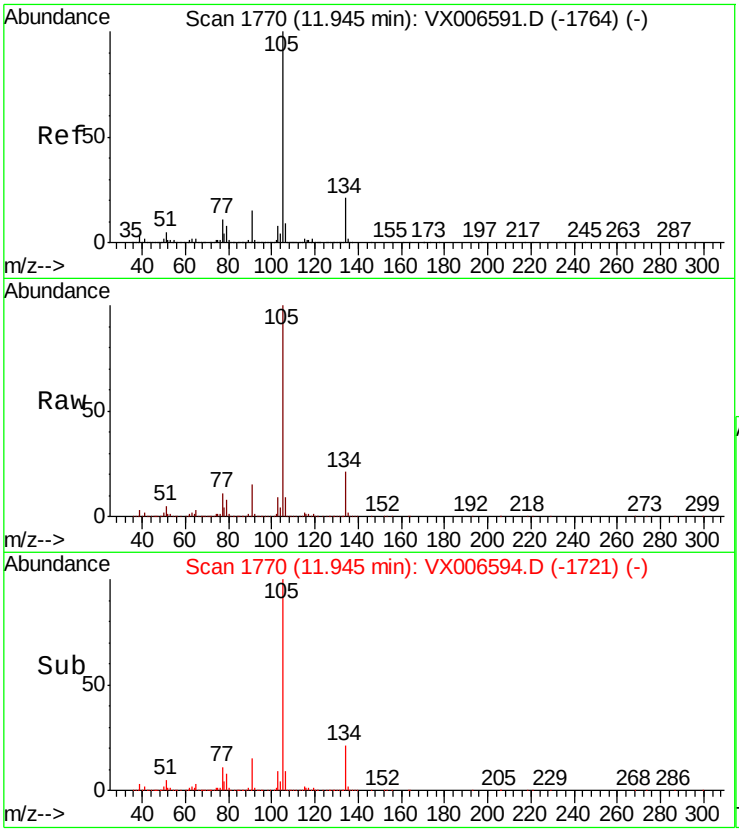


#84
1,2,4-Trimethylbenzene
Concen: 48.694 ug/l
RT: 11.80 min Scan# 1747
Delta R.T. -0.00 min
Lab File: VX006594.D
Acq: 18 Dec 2018 13:24

Tgt Ion:105 Resp: 1397118

Ion	Ratio	Lower	Upper
105	100		
120	46.5	23.2	69.6

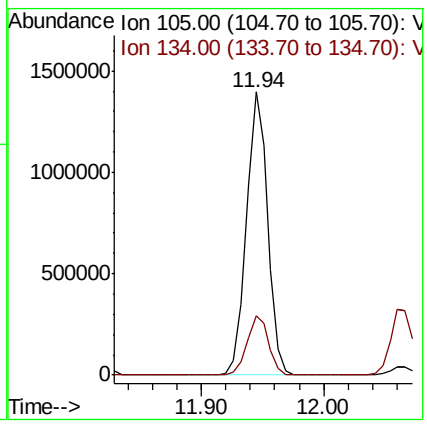




#85
sec-Butylbenzene
Concen: 50.045 ug/l
RT: 11.94 min Scan# 1770
Delta R.T. -0.00 min
Lab File: VX006594.D
Acq: 18 Dec 2018 13:24

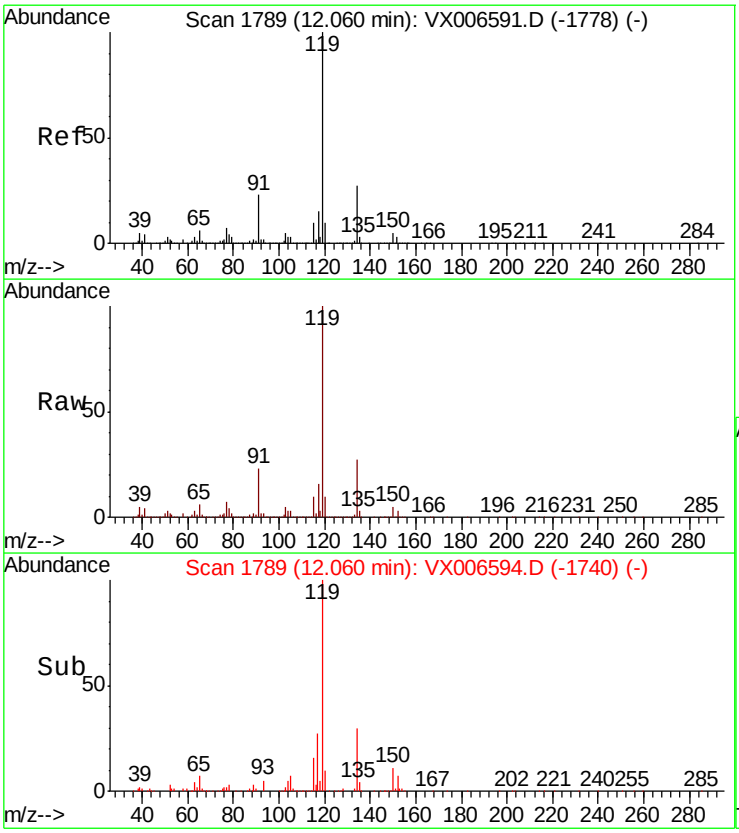
Tgt Ion:105 Resp: 1675121

Ion	Ratio	Lower	Upper
105	100		
134	21.4	10.7	31.9



Instrument :
MSVOA_X
ClientSampleId :
ICVVX121818

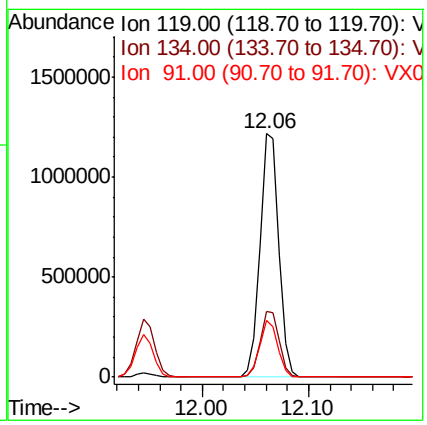
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:22:13 AM

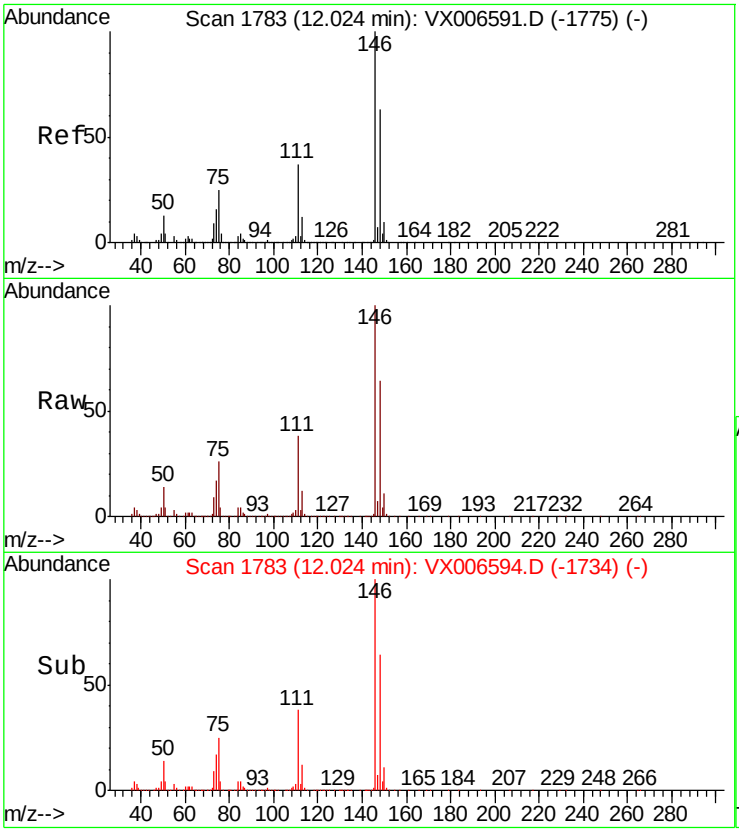


#86
p-Isopropyltoluene
Concen: 51.216 ug/l
RT: 12.06 min Scan# 1789
Delta R.T. -0.00 min
Lab File: VX006594.D
Acq: 18 Dec 2018 13:24

Tgt Ion:119 Resp: 1506956

Ion	Ratio	Lower	Upper
119	100		
134	27.2	14.0	41.9
91	22.5	11.3	33.9

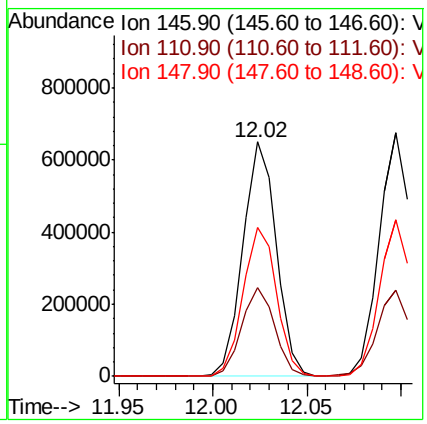




#87
1,3-Dichlorobenzene
Concen: 49.514 ug/l
RT: 12.02 min Scan# 1783
Delta R.T. -0.00 min
Lab File: VX006594.D
Acq: 18 Dec 2018 13:24

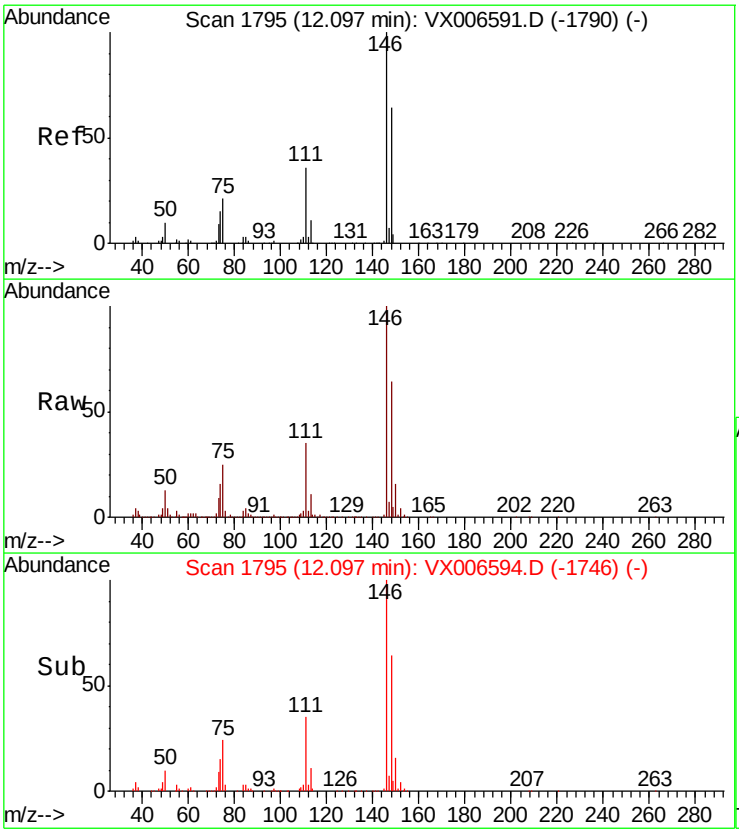
Tgt Ion:146 Resp: 798982

Ion	Ratio	Lower	Upper
146	100		
111	37.5	18.6	55.8
148	64.0	31.8	95.3



Instrument :
MSVOA_X
ClientSampleId :
ICVVX121818

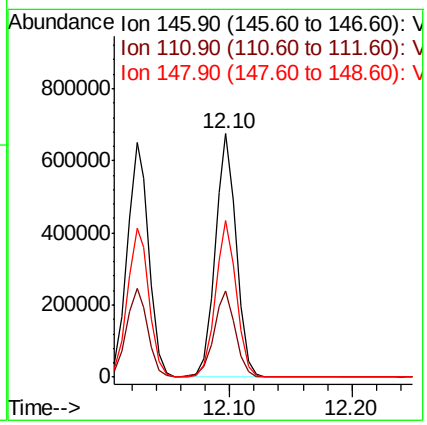
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:22:13 AM

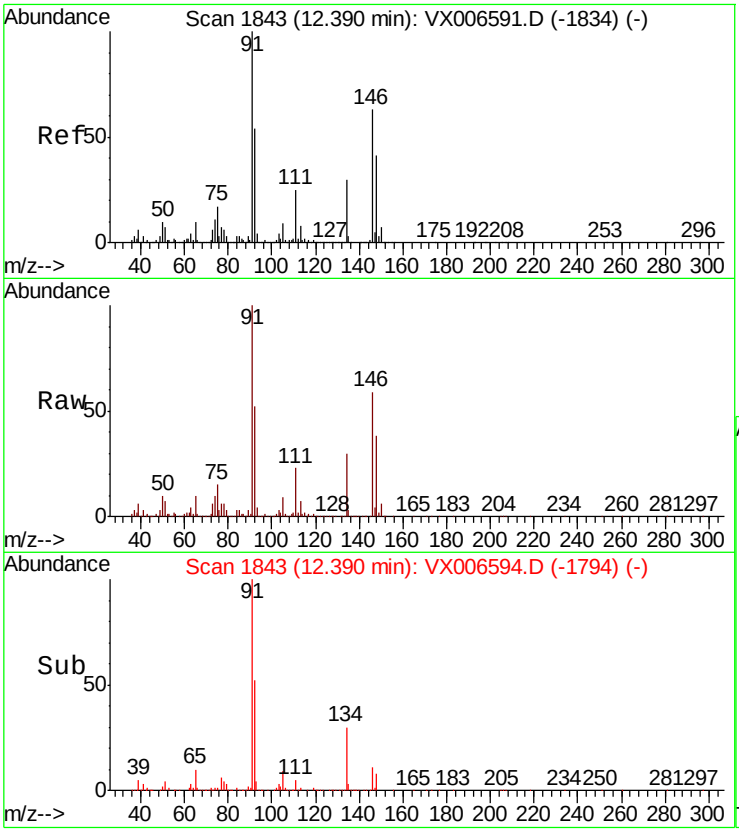


#88
1,4-Dichlorobenzene
Concen: 48.813 ug/l
RT: 12.10 min Scan# 1795
Delta R.T. -0.00 min
Lab File: VX006594.D
Acq: 18 Dec 2018 13:24

Tgt Ion:146 Resp: 807476

Ion	Ratio	Lower	Upper
146	100		
111	36.1	18.1	54.1
148	63.6	31.9	95.9

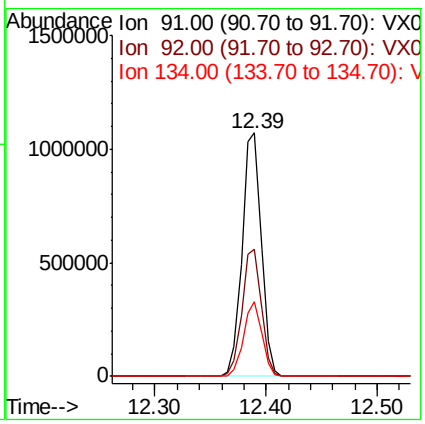




#89
n-Butylbenzene
Concen: 51.194 ug/l
RT: 12.39 min Scan# 1843
Delta R.T. -0.00 min
Lab File: VX006594.D
Acq: 18 Dec 2018 13:24

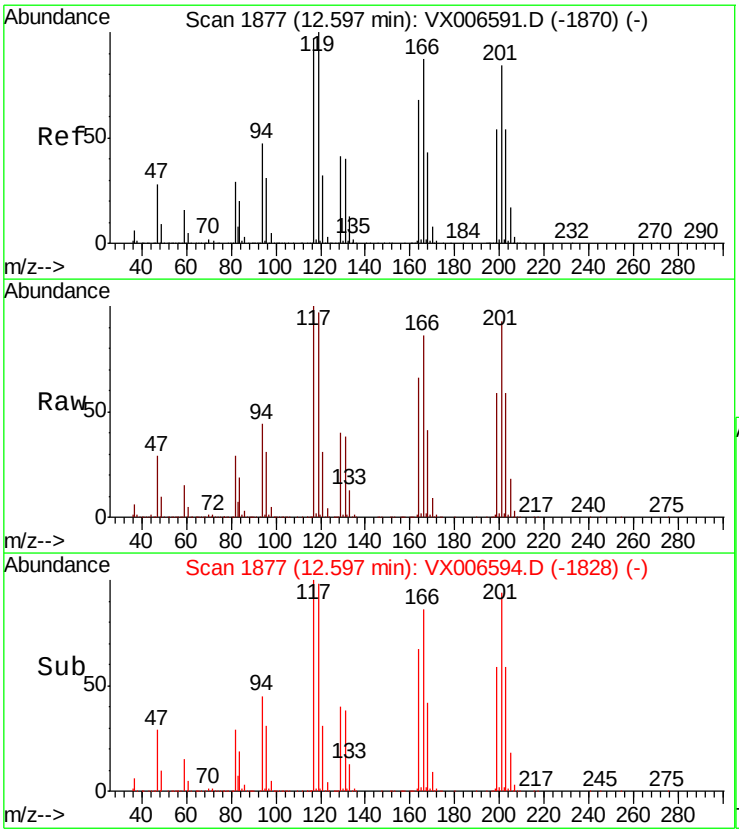
Tgt Ion: 91 Resp: 1281938

Ion	Ratio	Lower	Upper
91	100		
92	52.7	26.8	80.4
134	29.2	14.4	43.2



Instrument :
MSVOA_X
ClientSampleId :
ICVVX121818

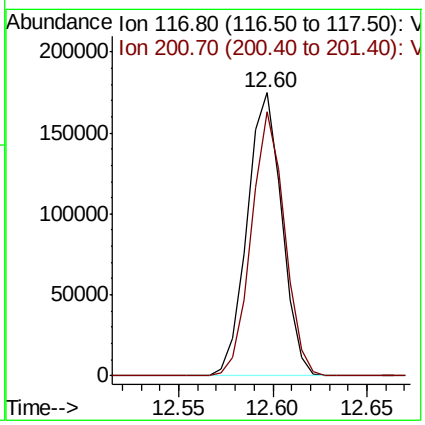
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:22:13 AM

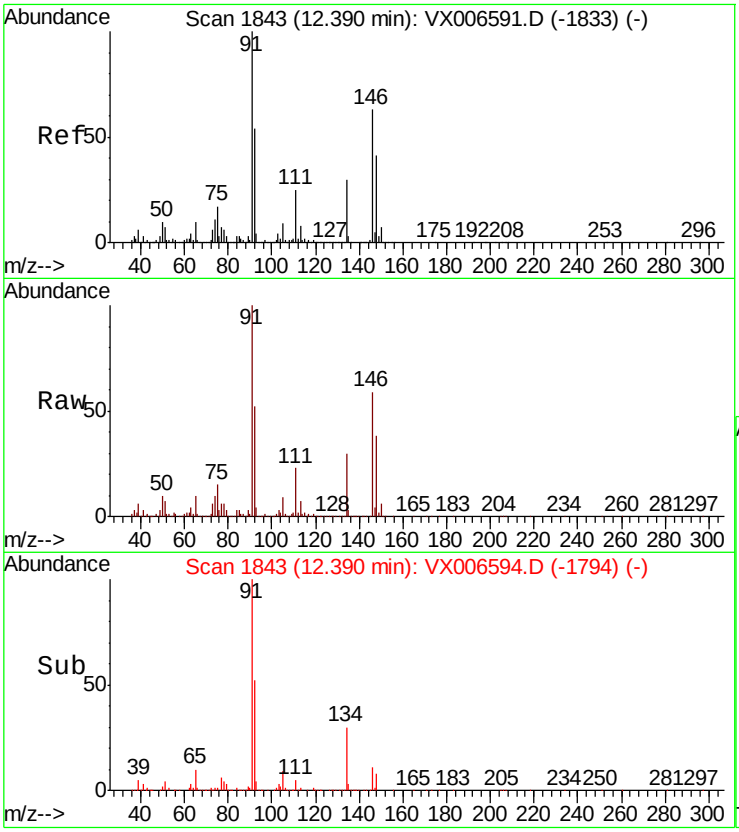


#90
Hexachloroethane
Concen: 48.497 ug/l
RT: 12.60 min Scan# 1877
Delta R.T. 0.00 min
Lab File: VX006594.D
Acq: 18 Dec 2018 13:24

Tgt Ion:117 Resp: 222836

Ion	Ratio	Lower	Upper
117	100		
201	89.3	42.9	128.7

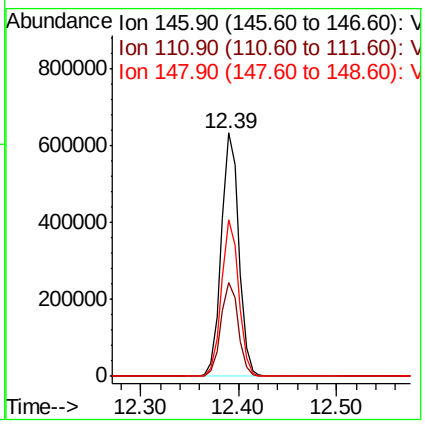




#91
1,2-Dichlorobenzene
Concen: 48.702 ug/l
RT: 12.39 min Scan# 1843
Delta R.T. -0.00 min
Lab File: VX006594.D
Acq: 18 Dec 2018 13:24

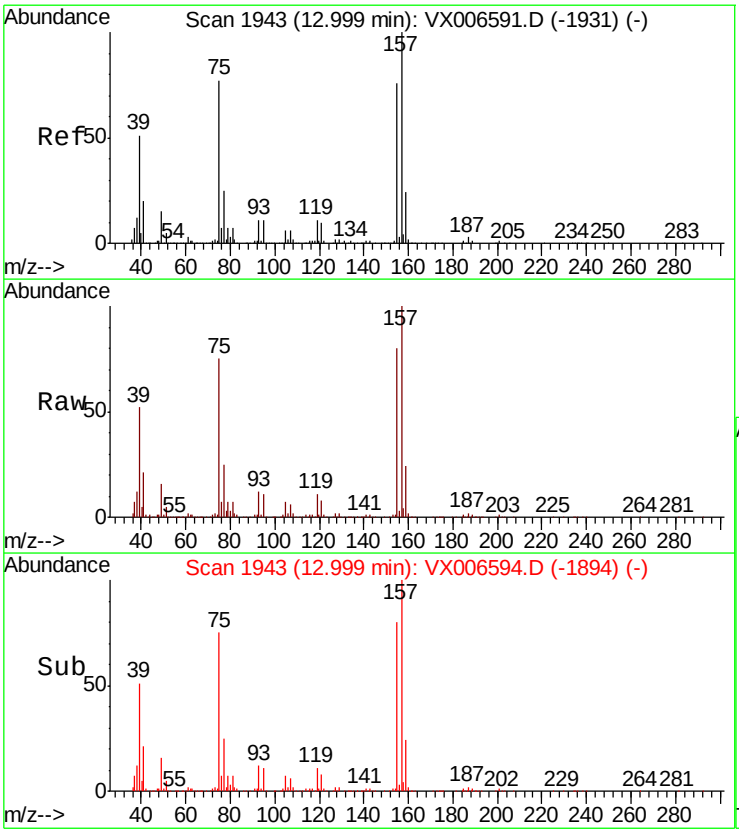
Tgt Ion:146 Resp: 786155

Ion	Ratio	Lower	Upper
146	100		
111	38.3	19.4	58.2
148	63.5	32.3	96.9



Instrument :
MSVOA_X
ClientSampleId :
ICVVX121818

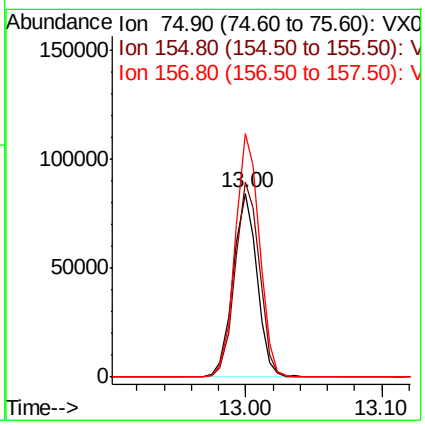
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:22:13 AM



#92
1,2-Dibromo-3-Chloropropane
Concen: 50.714 ug/l
RT: 13.00 min Scan# 1943
Delta R.T. -0.00 min
Lab File: VX006594.D
Acq: 18 Dec 2018 13:24

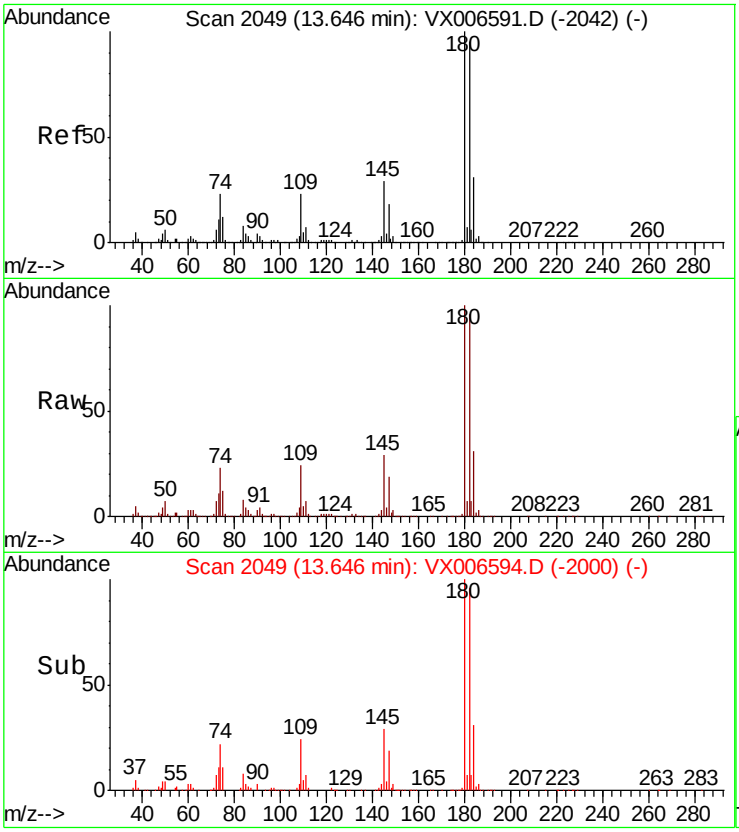
Tgt Ion: 75 Resp: 103352

Ion	Ratio	Lower	Upper
75	100		
155	106.9	50.6	151.8
157	134.1	64.6	193.8



Instrument :
MSVOA_X
ClientSampleId :
ICVVX121818

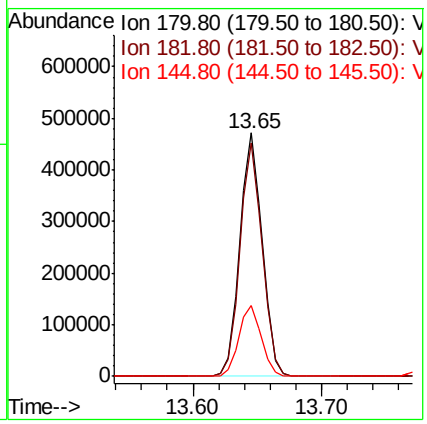
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:22:13 AM

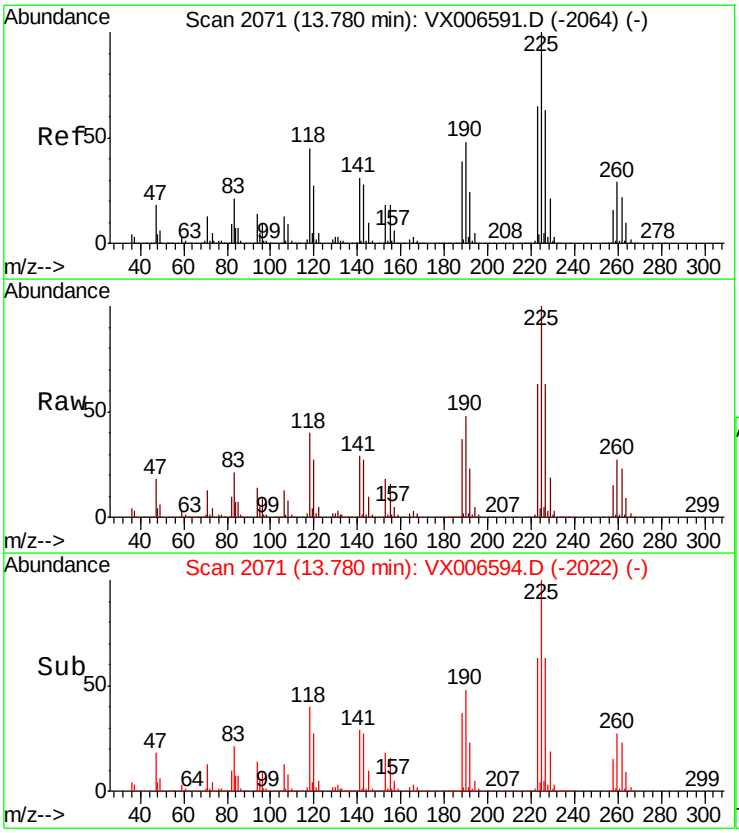


#93
1,2,4-Trichlorobenzene
Concen: 50.812 ug/l
RT: 13.65 min Scan# 2049
Delta R.T. -0.00 min
Lab File: VX006594.D
Acq: 18 Dec 2018 13:24

Tgt Ion:180 Resp: 565779

Ion	Ratio	Lower	Upper
180	100		
182	95.1	47.3	142.0
145	29.4	14.8	44.3

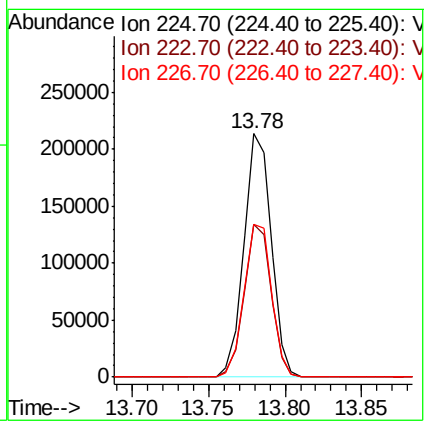


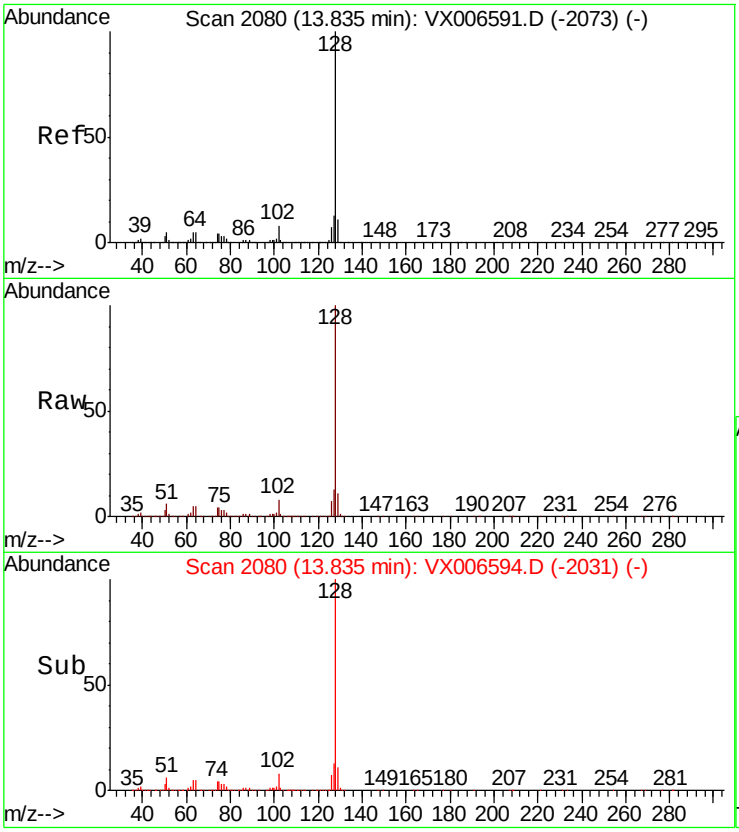


#94
Hexachlorobutadiene
Concen: 50.367 ug/l
RT: 13.78 min Scan# 2071
Delta R.T. -0.00 min
Lab File: VX006594.D
Acq: 18 Dec 2018 13:24

Tgt Ion:225 Resp: 264341

Ion	Ratio	Lower	Upper
225	100		
223	62.4	32.1	96.3
227	63.8	32.3	96.8

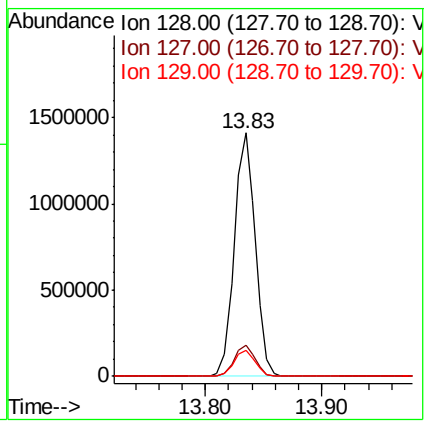




#95
Naphthalene
Concen: 49.547 ug/l
RT: 13.83 min Scan# 2080
Delta R.T. -0.00 min
Lab File: VX006594.D
Acq: 18 Dec 2018 13:24

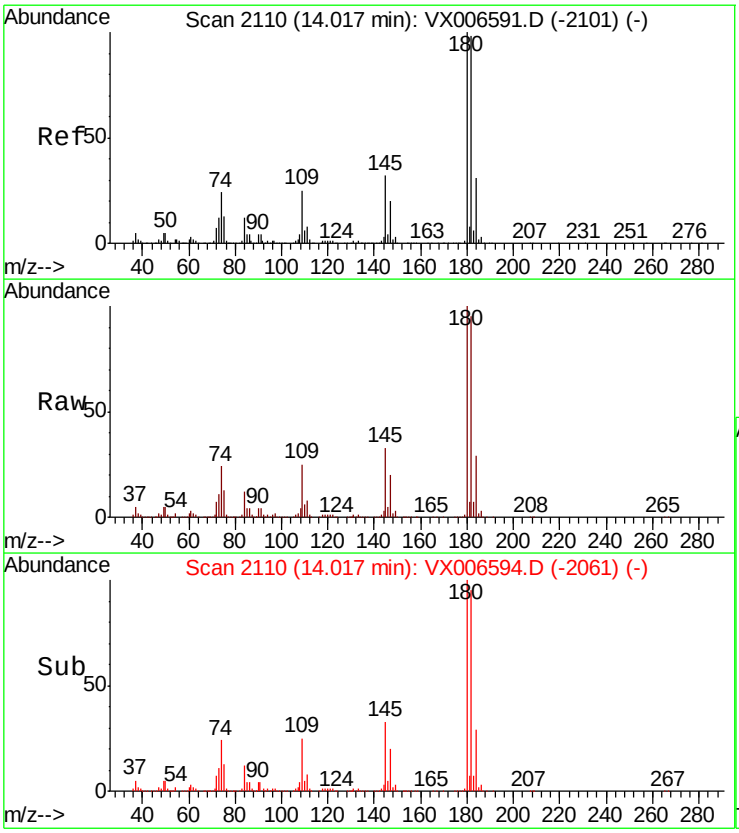
Tgt Ion:128 Resp: 1760815

Ion	Ratio	Lower	Upper
128	100		
127	12.9	10.1	15.1
129	10.8	8.6	13.0



Instrument :
MSVOA_X
ClientSampleId :
ICVVX121818

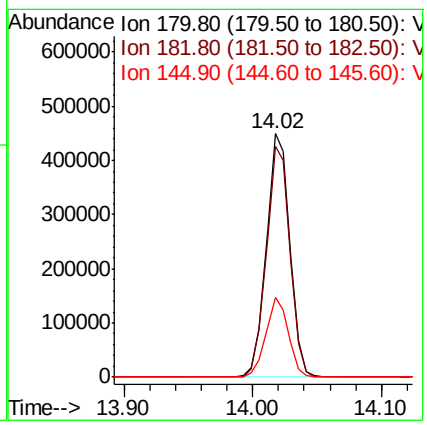
Manual Integrations APPROVED
MMDadoda
12/19/2018 11:22:13 AM



#96
1,2,3-Trichlorobenzene
Concen: 49.317 ug/l
RT: 14.02 min Scan# 2110
Delta R.T. -0.00 min
Lab File: VX006594.D
Acq: 18 Dec 2018 13:24

Tgt Ion:180 Resp: 566968

Ion	Ratio	Lower	Upper
180	100		
182	95.3	48.5	145.5
145	31.2	16.0	47.9



Evaluate Continuing Calibration Report

ICAL Form

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX121818\
Data File : VX006594.D
Acq On : 18 Dec 2018 13:24
Operator : JC/MD
Sample : VSTDICV050
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 9 Sample Multiplier: 1

Instrument : MSVOA_X
ClientSampleId : ICVVX121818

Quant Time: Dec 19 01:03:21 2018
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121818W.M
Quant Title : SW846 8260
QLast Update : Wed Dec 19 00:58:54 2018
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	Pentafluorobenzene	1.000	1.000	0.0	109	0.00
2	T	Dichlorodifluoromethane	0.457	0.432	5.5	108	0.00
3	P	Chloromethane	0.493	0.470	4.7	109	0.00
4	C	Vinyl Chloride	0.515	0.488	5.2#	108	0.00
5	T	Bromomethane	0.560	0.499	10.9	112	0.00
6	T	Chloroethane	0.356	0.314	11.8	108	0.00
7	T	Trichlorofluoromethane	0.802	0.770	4.0	108	0.00
8	T	Diethyl Ether	0.319	0.300	6.0	109	0.00
9	T	1,1,2-Trichlorotrifluoroeth	0.471	0.450	4.5	108	0.00
10	T	Methyl Iodide	0.674	0.641	4.9	98	0.00
11	T	Tert butyl alcohol	0.120	0.118	1.7	110	0.00
12	CM	1,1-Dichloroethene	0.447	0.426	4.7#	110	0.00
13	T	Acrolein	0.081	0.077	4.9	108	0.00
14	T	Allyl chloride	0.752	0.744	1.1	111	0.00
15	T	Acrylonitrile	0.267	0.264	1.1	109	0.00
16	T	Acetone	0.248	0.247	0.4	114	0.00
17	T	Carbon Disulfide	1.182	1.142	3.4	112	0.00
18	T	Methyl Acetate	0.728	0.712	2.2	110	0.00
19	T	Methyl tert-butyl Ether	1.483	1.475	0.5	111	0.00
20	T	Methylene Chloride	0.512	0.474	7.4	109	0.00
21	T	trans-1,2-Dichloroethene	0.495	0.455	8.1	109	0.00
22	T	Diisopropyl ether	1.376	1.333	3.1	107	0.00
23	T	Vinyl Acetate	1.125	1.111	1.2	109	0.00
24	P	1,1-Dichloroethane	0.821	0.757	7.8	108	0.00
25	T	2-Butanone	0.348	0.337	3.2	108	0.00
26	T	2,2-Dichloropropane	0.634	0.635	-0.2	112	0.00
27	T	cis-1,2-Dichloroethene	0.546	0.523	4.2	107	0.00
28	T	Bromochloromethane	0.378	0.352	6.9	109	0.00
29	T	Tetrahydrofuran	0.229	0.221	3.5	107	0.00
30	C	Chloroform	0.850	0.808	4.9#	107	0.00
31	T	Cyclohexane	0.746	0.705	5.5	106	0.00
32	T	1,1,1-Trichloroethane	0.718	0.719	-0.1	108	0.00
33	S	1,2-Dichloroethane-d4	0.539	0.494	8.3	100	0.00
34	I	1,4-Difluorobenzene	1.000	1.000	0.0	105	0.00
35	S	Dibromofluoromethane	0.316	0.308	2.5	103	0.00
36	T	1,1-Dichloropropene	0.414	0.405	2.2	106	0.00
37	T	Ethyl Acetate	0.431	0.424	1.6	109	0.00
38	T	Carbon Tetrachloride	0.402	0.412	-2.5	109	0.00
39	T	Methylcyclohexane	0.545	0.535	1.8	108	0.00
40	TM	Benzene	1.259	1.236	1.8	106	0.00
41	T	Methacrylonitrile	0.229	0.236	-3.1	106	0.00
42	TM	1,2-Dichloroethane	0.429	0.414	3.5	108	0.00
43	T	Isopropyl Acetate	0.656	0.686	-4.6	110	0.00
44	TM	Trichloroethene	0.381	0.374	1.8	110	0.00
45	C	1,2-Dichloropropane	0.306	0.308	-0.7#	112	0.00

Evaluate Continuing Calibration Report

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX121818\
Data File : VX006594.D
Acq On : 18 Dec 2018 13:24
Operator : JC/MD
Sample : VSTDICV050
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 9 Sample Multiplier: 1

Instrument : MSVOA_X
ClientSampleId : ICVVX121818

Quant Time: Dec 19 01:03:21 2018
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121818W.M
Quant Title : SW846 8260
QLast Update : Wed Dec 19 00:58:54 2018
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
46	T	Dibromomethane	0.225	0.221	1.8	106	0.00
47	T	Bromodichloromethane	0.374	0.389	-4.0	109	0.00
48	T	Methyl methacrylate	0.334	0.347	-3.9	107	0.00
49	T	1,4-Dioxane	0.009	0.009	0.0	106	0.00
50	S	Toluene-d8	1.192	1.142	4.2	102	0.00
51	T	4-Methyl-2-Pentanone	0.417	0.429	-2.9	106	0.00
52	CM	Toluene	0.813	0.811	0.2#	107	0.00
53	T	t-1,3-Dichloropropene	0.401	0.441	-10.0	110	0.00
54	T	cis-1,3-Dichloropropene	0.440	0.483	-9.8	109	0.00
55	T	1,1,2-Trichloroethane	0.333	0.331	0.6	108	0.00
56	T	Ethyl methacrylate	0.470	0.491	-4.5	106	0.00
57	T	1,3-Dichloropropane	0.536	0.529	1.3	108	0.00
58	T	2-Chloroethyl Vinyl ether	0.250	0.252	-0.8	108	0.00
59	T	2-Hexanone	0.319	0.326	-2.2	105	0.00
60	T	Dibromochloromethane	0.307	0.343	-11.7	110	0.00
61	T	1,2-Dibromoethane	0.354	0.362	-2.3	107	0.00
62	S	4-Bromofluorobenzene	0.437	0.425	2.7	100	0.00
63	I	Chlorobenzene-d5	1.000	1.000	0.0	105	0.00
64	T	Tetrachloroethene	0.396	0.380	4.0	107	0.00
65	PM	Chlorobenzene	1.058	1.033	2.4	107	0.00
66	T	1,1,1,2-Tetrachloroethane	0.330	0.363	-10.0	112	0.00
67	C	Ethyl Benzene	1.729	1.703	1.5#	107	0.00
68	T	m/p-Xylenes	0.682	0.687	-0.7	107	0.00
69	T	o-Xylene	0.674	0.668	0.9	105	0.00
70	T	Styrene	1.066	1.083	-1.6	105	0.00
71	P	Bromoform	0.251	0.280	-11.6	111	0.00
72	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	104	0.00
73	T	Isopropylbenzene	3.421	3.417	0.1	106	0.00
74	T	N-amyl acetate	1.224	1.285	-5.0	107	0.00
75	P	1,1,2,2-Tetrachloroethane	1.017	1.017	0.0	105	0.00
76	T	1,2,3-Trichloropropane	0.929	0.963	-3.7	104	0.00
77	T	Bromobenzene	0.925	0.925	0.0	105	0.00
78	T	n-propylbenzene	3.767	3.801	-0.9	106	0.00
79	T	2-Chlorotoluene	2.283	2.216	2.9	104	0.00
80	T	1,3,5-Trimethylbenzene	2.817	2.822	-0.2	105	0.00
81	T	trans-1,4-Dichloro-2-butene	0.259	0.288	-11.2	110	0.00
82	T	4-Chlorotoluene	2.618	2.590	1.1	105	0.00
83	T	tert-Butylbenzene	2.820	2.899	-2.8	106	0.00
84	T	1,2,4-Trimethylbenzene	2.963	2.886	2.6	105	0.00
85	T	sec-Butylbenzene	3.457	3.460	-0.1	105	0.00
86	T	p-Isopropyltoluene	3.039	3.113	-2.4	106	0.00
87	T	1,3-Dichlorobenzene	1.667	1.650	1.0	105	0.00
88	T	1,4-Dichlorobenzene	1.709	1.668	2.4	105	0.00
89	T	n-Butylbenzene	2.586	2.648	-2.4	106	0.00

Evaluate Continuing Calibration Report

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX121818\
Data File : VX006594.D
Acq On : 18 Dec 2018 13:24
Operator : JC/MD
Sample : VSTDICV050
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 9 Sample Multiplier: 1

Instrument : MSVOA_X
ClientSampleId : ICVVX121818

Quant Time: Dec 19 01:03:21 2018
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121818W.M
Quant Title : SW846 8260
QLast Update : Wed Dec 19 00:58:54 2018
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
90 T	Hexachloroethane	0.414	0.460	-11.1	110	0.00
91 T	1,2-Dichlorobenzene	1.667	1.624	2.6	105	0.00
92 T	1,2-Dibromo-3-Chloropropane	0.210	0.213	-1.4	104	0.00
93 T	1,2,4-Trichlorobenzene	1.150	1.169	-1.7	107	0.00
94 T	Hexachlorobutadiene	0.542	0.546	-0.7	110	0.00
95 T	Naphthalene	3.671	3.637	0.9	105	0.00
96 T	1,2,3-Trichlorobenzene	1.187	1.171	1.3	108	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 6

Evaluate Continuing Calibration Report

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX121818\
Data File : VX006594.D
Acq On : 18 Dec 2018 13:24
Operator : JC/MD
Sample : VSTDICV050
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 9 Sample Multiplier: 1

Instrument : MSVOA_X
ClientSampleId : ICVVX121818

Quant Time: Dec 19 01:03:21 2018
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121818W.M
Quant Title : SW846 8260
QLast Update : Wed Dec 19 00:58:54 2018
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	Pentafluorobenzene	50.000	50.000	0.0	109	0.00
2	T	Dichlorodifluoromethane	50.000	47.175	5.7	108	0.00
3	P	Chloromethane	50.000	47.667	4.7	109	0.00
4	C	Vinyl Chloride	50.000	47.444	5.1#	108	0.00
5	T	Bromomethane	50.000	52.064	-4.1	112	0.00
6	T	Chloroethane	50.000	44.074	11.9	108	0.00
7	T	Trichlorofluoromethane	50.000	48.003	4.0	108	0.00
8	T	Diethyl Ether	50.000	47.052	5.9	109	0.00
9	T	1,1,2-Trichlorotrifluoroeth	50.000	47.745	4.5	108	0.00
10	T	Methyl Iodide	50.000	47.486	5.0	98	0.00
11	T	Tert butyl alcohol	250.000	245.578	1.8	110	0.00
12	CM	1,1-Dichloroethene	50.000	47.692	4.6#	110	0.00
13	T	Acrolein	250.000	236.941	5.2	108	0.00
14	T	Allyl chloride	50.000	49.451	1.1	111	0.00
15	T	Acrylonitrile	250.000	246.990	1.2	109	0.00
16	T	Acetone	250.000	248.953	0.4	114	0.00
17	T	Carbon Disulfide	50.000	48.286	3.4	112	0.00
18	T	Methyl Acetate	50.000	48.927	2.1	110	0.00
19	T	Methyl tert-butyl Ether	50.000	49.728	0.5	111	0.00
20	T	Methylene Chloride	50.000	46.271	7.5	109	0.00
21	T	trans-1,2-Dichloroethene	50.000	45.987	8.0	109	0.00
22	T	Diisopropyl ether	50.000	48.438	3.1	107	0.00
23	T	Vinyl Acetate	250.000	246.801	1.3	109	0.00
24	P	1,1-Dichloroethane	50.000	46.107	7.8	108	0.00
25	T	2-Butanone	250.000	241.576	3.4	108	0.00
26	T	2,2-Dichloropropane	50.000	50.026	-0.1	112	0.00
27	T	cis-1,2-Dichloroethene	50.000	47.887	4.2	107	0.00
28	T	Bromochloromethane	50.000	50.918	-1.8	109	0.00
29	T	Tetrahydrofuran	250.000	240.901	3.6	107	0.00
30	C	Chloroform	50.000	47.509	5.0#	107	0.00
31	T	Cyclohexane	50.000	47.249	5.5	106	0.00
32	T	1,1,1-Trichloroethane	50.000	50.062	-0.1	108	0.00
33	S	1,2-Dichloroethane-d4	50.000	45.875	8.3	100	0.00
34	I	1,4-Difluorobenzene	50.000	50.000	0.0	105	0.00
35	S	Dibromofluoromethane	50.000	48.750	2.5	103	0.00
36	T	1,1-Dichloropropene	50.000	48.924	2.2	106	0.00
37	T	Ethyl Acetate	50.000	49.130	1.7	109	0.00
38	T	Carbon Tetrachloride	50.000	51.164	-2.3	109	0.00
39	T	Methylcyclohexane	50.000	49.102	1.8	108	0.00
40	TM	Benzene	50.000	49.109	1.8	106	0.00
41	T	Methacrylonitrile	50.000	51.568	-3.1	106	0.00
42	TM	1,2-Dichloroethane	50.000	48.205	3.6	108	0.00
43	T	Isopropyl Acetate	50.000	52.318	-4.6	110	0.00
44	TM	Trichloroethene	50.000	49.086	1.8	110	0.00
45	C	1,2-Dichloropropane	50.000	50.250	-0.5#	112	0.00

Evaluate Continuing Calibration Report

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX121818\
Data File : VX006594.D
Acq On : 18 Dec 2018 13:24
Operator : JC/MD
Sample : VSTDICV050
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 9 Sample Multiplier: 1

Instrument : MSVOA_X
ClientSampleId : ICVVX121818

Quant Time: Dec 19 01:03:21 2018
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121818W.M
Quant Title : SW846 8260
QLast Update : Wed Dec 19 00:58:54 2018
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
46	T	Dibromomethane	50.000	49.081	1.8	106	0.00
47	T	Bromodichloromethane	50.000	51.941	-3.9	109	0.00
48	T	Methyl methacrylate	50.000	52.028	-4.1	107	0.00
49	T	1,4-Dioxane	1000.000	1025.661	-2.6	106	0.00
50	S	Toluene-d8	50.000	47.885	4.2	102	0.00
51	T	4-Methyl-2-Pentanone	250.000	256.915	-2.8	106	0.00
52	CM	Toluene	50.000	49.884	0.2#	107	0.00
53	T	t-1,3-Dichloropropene	50.000	54.925	-9.8	110	0.00
54	T	cis-1,3-Dichloropropene	50.000	54.849	-9.7	109	0.00
55	T	1,1,2-Trichloroethane	50.000	49.776	0.4	108	0.00
56	T	Ethyl methacrylate	50.000	52.170	-4.3	106	0.00
57	T	1,3-Dichloropropane	50.000	49.359	1.3	108	0.00
58	T	2-Chloroethyl Vinyl ether	250.000	251.842	-0.7	108	0.00
59	T	2-Hexanone	250.000	255.461	-2.2	105	0.00
60	T	Dibromochloromethane	50.000	55.873	-11.7	110	0.00
61	T	1,2-Dibromoethane	50.000	51.104	-2.2	107	0.00
62	S	4-Bromofluorobenzene	50.000	48.646	2.7	100	0.00
63	I	Chlorobenzene-d5	50.000	50.000	0.0	105	0.00
64	T	Tetrachloroethene	50.000	47.965	4.1	107	0.00
65	PM	Chlorobenzene	50.000	48.813	2.4	107	0.00
66	T	1,1,1,2-Tetrachloroethane	50.000	55.070	-10.1	112	0.00
67	C	Ethyl Benzene	50.000	49.256	1.5#	107	0.00
68	T	m/p-Xylenes	100.000	100.720	-0.7	107	0.00
69	T	o-Xylene	50.000	49.619	0.8	105	0.00
70	T	Styrene	50.000	50.814	-1.6	105	0.00
71	P	Bromoform	50.000	47.354	5.3	111	0.00
72	I	1,4-Dichlorobenzene-d4	50.000	50.000	0.0	104	0.00
73	T	Isopropylbenzene	50.000	49.945	0.1	106	0.00
74	T	N-amyl acetate	50.000	52.472	-4.9	107	0.00
75	P	1,1,2,2-Tetrachloroethane	50.000	49.999	0.0	105	0.00
76	T	1,2,3-Trichloropropane	50.000	51.803	-3.6	104	0.00
77	T	Bromobenzene	50.000	50.008	-0.0	105	0.00
78	T	n-propylbenzene	50.000	50.461	-0.9	106	0.00
79	T	2-Chlorotoluene	50.000	48.535	2.9	104	0.00
80	T	1,3,5-Trimethylbenzene	50.000	50.079	-0.2	105	0.00
81	T	trans-1,4-Dichloro-2-butene	50.000	47.340	5.3	110	0.00
82	T	4-Chlorotoluene	50.000	49.452	1.1	105	0.00
83	T	tert-Butylbenzene	50.000	51.398	-2.8	106	0.00
84	T	1,2,4-Trimethylbenzene	50.000	48.694	2.6	105	0.00
85	T	sec-Butylbenzene	50.000	50.045	-0.1	105	0.00
86	T	p-Isopropyltoluene	50.000	51.216	-2.4	106	0.00
87	T	1,3-Dichlorobenzene	50.000	49.514	1.0	105	0.00
88	T	1,4-Dichlorobenzene	50.000	48.813	2.4	105	0.00
89	T	n-Butylbenzene	50.000	51.194	-2.4	106	0.00

Evaluate Continuing Calibration Report

Data Path : Z:\VOASRV\HPCHEM1\MSVOA X\DATA\VX121818\
Data File : VX006594.D
Acq On : 18 Dec 2018 13:24
Operator : JC/MD
Sample : VSTDICV050
Misc : 5.0mL/MSVOA X/WATER
ALS Vial : 9 Sample Multiplier: 1

Instrument : MSVOA_X
ClientSampleId : ICVVX121818

Quant Time: Dec 19 01:03:21 2018
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121818W.M
Quant Title : SW846 8260
QLast Update : Wed Dec 19 00:58:54 2018
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
90 T	Hexachloroethane	50.000	48.497	3.0	110	0.00
91 T	1,2-Dichlorobenzene	50.000	48.702	2.6	105	0.00
92 T	1,2-Dibromo-3-Chloropropane	50.000	50.714	-1.4	104	0.00
93 T	1,2,4-Trichlorobenzene	50.000	50.812	-1.6	107	0.00
94 T	Hexachlorobutadiene	50.000	50.367	-0.7	110	0.00
95 T	Naphthalene	50.000	49.547	0.9	105	0.00
96 T	1,2,3-Trichlorobenzene	50.000	49.317	1.4	108	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 6

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: DAYE01

Lab Code: CHEM Case No.: J6484 SAS No.: J6484 SDG No.: J6484

Instrument ID: MSVOA_X Calibration Date/Time: 12/19/2018 14:22

Lab File ID: VX006635.D Init. Calib. Date(s): 12/18/2018 12/18/2018

Heated Purge: (Y/N) N Init. Calib. Time(s): 10:45 12:57

GC Column: DB-624UI ID: 0.18 (mm)

COMPOUND	RRF	RRF050	MIN RRF	%D	MAX%D
Dichlorodifluoromethane	0.457	0.447		-2.19	20
Chloromethane	0.493	0.463	0.1	-6.09	20
Vinyl Chloride	0.515	0.501		-2.72	20
Bromomethane	0.560	0.502		-10.36	20
Chloroethane	0.356	0.322		-9.55	20
Trichlorofluoromethane	0.802	0.787		-1.87	20
1,1,2-Trichlorotrifluoroethane	0.471	0.485		2.97	20
1,1-Dichloroethene	0.447	0.433		-3.13	20
Acetone	0.248	0.247		-0.4	20
Carbon Disulfide	1.182	1.076		-8.97	20
Methyl tert-butyl Ether	1.483	1.466		-1.15	20
Methyl Acetate	0.728	0.713		-2.06	20
Methylene Chloride	0.512	0.484		-5.47	20
trans-1,2-Dichloroethene	0.495	0.463		-6.47	20
1,1-Dichloroethane	0.821	0.810	0.1	-1.34	20
Cyclohexane	0.746	0.744		-0.27	20
2-Butanone	0.348	0.347		-0.29	20
Carbon Tetrachloride	0.402	0.407		1.24	20
cis-1,2-Dichloroethene	0.546	0.535		-2.02	20
Bromochloromethane	0.378	0.372		-1.59	20
Chloroform	0.850	0.851		0.12	20
1,1,1-Trichloroethane	0.718	0.726		1.11	20
Methylcyclohexane	0.545	0.562		3.12	20
Benzene	1.259	1.262		0.24	20
1,2-Dichloroethane	0.429	0.421		-1.87	20
Trichloroethene	0.381	0.375		-1.58	20
1,2-Dichloropropane	0.306	0.309		0.98	20
Bromodichloromethane	0.374	0.389		4.01	20
4-Methyl-2-Pentanone	0.417	0.441		5.76	20
Toluene	0.813	0.838		3.08	20
t-1,3-Dichloropropene	0.401	0.434		8.23	20
cis-1,3-Dichloropropene	0.440	0.479		8.86	20
1,1,2-Trichloroethane	0.333	0.342		2.7	20
2-Hexanone	0.319	0.343		7.52	20
Dibromochloromethane	0.307	0.337		9.77	20
1,2-Dibromoethane	0.354	0.367		3.67	20
Tetrachloroethene	0.396	0.385		-2.78	20
Chlorobenzene	1.058	1.041	0.3	-1.61	20
Ethyl Benzene	1.729	1.742		0.75	20

All other compounds must meet a minimum RRF of 0.010.
RRF of 1,4-Dioxane = Value should be divide by 1000.

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: DAYE01

Lab Code: CHEM Case No.: J6484 SAS No.: J6484 SDG No.: J6484

Instrument ID: MSVOA_X Calibration Date/Time: 12/19/2018 14:22

Lab File ID: VX006635.D Init. Calib. Date(s): 12/18/2018 12/18/2018

Heated Purge: (Y/N) N Init. Calib. Time(s): 10:45 12:57

GC Column: DB-624UI ID: 0.18 (mm)

COMPOUND	RRF	RRF050	MIN RRF	%D	MAX%D
m/p-Xylenes	0.682	0.697		2.2	20
o-Xylene	0.674	0.688		2.08	20
Styrene	1.066	1.115		4.6	20
Bromoform	0.251	0.263	0.1	4.78	20
Isopropylbenzene	3.421	3.405		-0.47	20
1,1,2,2-Tetrachloroethane	1.017	1.008	0.3	-0.88	20
1,3-Dichlorobenzene	1.667	1.669		0.12	20
1,4-Dichlorobenzene	1.709	1.683		-1.52	20
1,2-Dichlorobenzene	1.667	1.609		-3.48	20
1,2-Dibromo-3-Chloropropane	0.210	0.207		-1.43	20
1,2,4-Trichlorobenzene	1.150	1.154		0.35	20
1,2,3-Trichlorobenzene	1.187	1.160		-2.28	20
1,2-Dichloroethane-d4	0.539	0.527		-2.23	20
Dibromofluoromethane	0.316	0.311		-1.58	20
Toluene-d8	1.192	1.184		-0.67	20
4-Bromofluorobenzene	0.437	0.453		3.66	20

All other compounds must meet a minimum RRF of 0.010.
RRF of 1,4-Dioxane = Value should be divide by 1000.

Quantitation Report (QT Reviewed)

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX121918\
Data File : VX006635.D
Acq On : 19 Dec 2018 14:22
Operator : JC/MD
Sample : VSTDCCC050
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 20 04:12:37 2018
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121818W.M
Quant Title : SW846 8260
QLast Update : Wed Dec 19 15:20:58 2018
Response via : Initial Calibration

Instrument : MSVOA_X
ClientSampleId : VSTDCCC050

Manual Integrations APPROVED
MMDadoda
12/20/2018 10:00:18 AM

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	5.66	168	603495	50.00	ug/l	0.00
34) 1,4-Difluorobenzene	6.86	114	917487	50.00	ug/l	0.00
63) Chlorobenzene-d5	10.11	117	858708	50.00	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	12.08	152	458522	50.00	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	6.06	65	317929	48.88	ug/l	0.00
Spiked Amount 50.000			Recovery = 97.76%			
35) Dibromofluoromethane	5.50	113	285114	49.14	ug/l	0.00
Spiked Amount 50.000			Recovery = 98.28%			
50) Toluene-d8	8.71	98	1086314	49.66	ug/l	0.00
Spiked Amount 50.000			Recovery = 99.32%			
62) 4-Bromofluorobenzene	11.13	95	415644	51.88	ug/l	0.00
Spiked Amount 50.000			Recovery = 103.76%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.20	85	269564	48.826	ug/l	99
3) Chloromethane	1.32	50	279523	46.995	ug/l	99
4) Vinyl Chloride	1.41	62	302447	48.687	ug/l	99
5) Bromomethane	1.64	94	303100	52.376	ug/l	97
6) Chloroethane	1.71	64	194112	45.128	ug/l	98
7) Trichlorofluoromethane	1.93	101	474716	49.015	ug/l	100
8) Diethyl Ether	2.19	74	182368	47.407	ug/l	100
9) 1,1,2-Trichlorotrifluoroet	2.39	101	292428	51.424	ug/l	100
10) Methyl Iodide	2.51	142	426611	52.408	ug/l	99
11) Tert butyl alcohol	3.07	59	340632	234.666	ug/l	100
12) 1,1-Dichloroethene	2.37	96	261608	48.517	ug/l	96
13) Acrolein	2.29	56	220986	225.673	ug/l	98
14) Allyl chloride	2.73	41	442973	48.806	ug/l	99
15) Acrylonitrile	3.15	53	789426	244.941	ug/l	99
16) Acetone	2.45	43	745131	249.355	ug/l	97
17) Carbon Disulfide	2.57	76	649544	45.520	ug/l	98
18) Methyl Acetate	2.78	43	430471	48.990	ug/l	97
19) Methyl tert-butyl Ether	3.20	73	884554	49.427	ug/l	99
20) Methylene Chloride	2.85	84	292352	47.313	ug/l	98
21) trans-1,2-Dichloroethene	3.17	96	279183	46.730	ug/l	98
22) Diisopropyl ether	3.87	45	841944	50.707	ug/l	97
23) Vinyl Acetate	3.82	43	3531694	260.033	ug/l	98
24) 1,1-Dichloroethane	3.70	63	488582	49.292	ug/l	99
25) 2-Butanone	4.70	43	1045765	248.795	ug/l	99
26) 2,2-Dichloropropane	4.59	77	376815	49.215	ug/l	99
27) cis-1,2-Dichloroethene	4.60	96	323077	49.013	ug/l	99
28) Bromochloromethane	5.01	49	224796	53.947	ug/l	97
29) Tetrahydrofuran	5.15	42	675855	244.128	ug/l	99
30) Chloroform	5.21	83	513481	50.026	ug/l	99
31) Cyclohexane	5.57	56	449144	49.878	ug/l	95
32) 1,1,1-Trichloroethane	5.49	97	437981	50.534	ug/l	99
36) 1,1-Dichloropropene	5.80	75	384607	50.614	ug/l	99
37) Ethyl Acetate	4.85	43	380288	48.082	ug/l	99
38) Carbon Tetrachloride	5.78	117	373226	50.539	ug/l	97

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX121918\
Data File : VX006635.D
Acq On : 19 Dec 2018 14:22
Operator : JC/MD
Sample : VSTDCCC050
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 20 04:12:37 2018
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121818W.M
Quant Title : SW846 8260
QLast Update : Wed Dec 19 15:20:58 2018
Response via : Initial Calibration

Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

Manual Integrations APPROVED
MMDadoda
12/20/2018 10:00:18 AM

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
39) Methylcyclohexane	7.46	83	515624	51.541 ug/l	98
40) Benzene	6.14	78	1158088	50.138 ug/l	100
41) Methacrylonitrile	5.06	41	218341	51.997 ug/l	99
42) 1,2-Dichloroethane	6.20	62	386712	49.132 ug/l	100
43) Isopropyl Acetate	6.46	43	625935	52.014 ug/l	99
44) Trichloroethene	7.21	130	344350	49.256 ug/l	100
45) 1,2-Dichloropropane	7.51	63	283569	50.449 ug/l	99
46) Dibromomethane	7.66	93	205853	49.789 ug/l	98
47) Bromodichloromethane	7.90	83	356644	51.957 ug/l	100
48) Methyl methacrylate	7.77	41	319493	52.208 ug/l	99
49) 1,4-Dioxane	7.75	88	161151	1006.586 ug/l	98
51) 4-Methyl-2-Pentanone	8.65	43	2023602	264.285 ug/l	100
52) Toluene	8.78	92	769173	51.545 ug/l	99
53) t-1,3-Dichloropropene	9.04	75	398255	54.098 ug/l	99
54) cis-1,3-Dichloropropene	8.43	75	439520	54.411 ug/l	98
55) 1,1,2-Trichloroethane	9.21	97	313837	51.381 ug/l	99
56) Ethyl methacrylate	9.18	69	460413	53.333 ug/l	99
57) 1,3-Dichloropropane	9.37	76	494837	50.354 ug/l	99
58) 2-Chloroethyl Vinyl ether	8.31	63	1184160	258.046 ug/l	100
59) 2-Hexanone	9.49	43	1574678	268.789 ug/l	100
60) Dibromochloromethane	9.58	129	309221	48.479 ug/l	98
61) 1,2-Dibromoethane	9.67	107	337138	51.923 ug/l	99
64) Tetrachloroethene	9.34	164	330384	48.588 ug/l	99
65) Chlorobenzene	10.13	112	893618	49.190 ug/l	100
66) 1,1,1,2-Tetrachloroethane	10.22	131	300908	53.089 ug/l	100
67) Ethyl Benzene	10.25	91	1496060	50.397 ug/l	99
68) m/p-Xylenes	10.36	106	1197485	102.228 ug/l	99
69) o-Xylene	10.69	106	591058	51.098 ug/l	100
70) Styrene	10.71	104	957248	52.309 ug/l	100
71) Bromoform	10.86	173	225454	44.624 ug/l	99
73) Isopropylbenzene	11.02	105	1561398	49.776 ug/l	99
74) N-amyl acetate	10.90	43	570015	50.767 ug/l	99
75) 1,1,2,2-Tetrachloroethane	11.27	83	461974	49.520 ug/l	100
76) 1,2,3-Trichloropropane	11.30	75	433683m	50.894 ug/l	
77) Bromobenzene	11.26	156	417421	49.221 ug/l	99
78) n-propylbenzene	11.36	91	1772827	51.322 ug/l	99
79) 2-Chlorotoluene	11.42	91	1034607	49.424 ug/l	100
80) 1,3,5-Trimethylbenzene	11.51	105	1308157	50.631 ug/l	99
81) trans-1,4-Dichloro-2-buten	11.07	75	123938	44.749 ug/l	98
82) 4-Chlorotoluene	11.51	91	1208434	50.326 ug/l	99
83) tert-Butylbenzene	11.77	119	1316003	50.892 ug/l	100
84) 1,2,4-Trimethylbenzene	11.80	105	1348854	49.634 ug/l	100
85) sec-Butylbenzene	11.94	105	1622892	51.188 ug/l	100
86) p-Isopropyltoluene	12.06	119	1442659	51.765 ug/l	99
87) 1,3-Dichlorobenzene	12.02	146	765420	50.079 ug/l	99
88) 1,4-Dichlorobenzene	12.10	146	771765	49.256 ug/l	99
89) n-Butylbenzene	12.39	91	1275175	53.763 ug/l	99
90) Hexachloroethane	12.60	117	203566	46.890 ug/l	99
91) 1,2-Dichlorobenzene	12.39	146	737777	48.254 ug/l	99
92) 1,2-Dibromo-3-Chloropropan	13.00	75	94968	49.199 ug/l	97

Data Path : Z:\VOASRV\HPCHEM1\MSVOA X\DATA\VX121918\
Data File : VX006635.D
Acq On : 19 Dec 2018 14:22
Operator : JC/MD
Sample : VSTDCCC050
Misc : 5.0mL/MSVOA X/WATER
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 20 04:12:37 2018
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121818W.M
Quant Title : SW846 8260
QLast Update : Wed Dec 19 15:20:58 2018
Response via : Initial Calibration

Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

Manual Integrations APPROVED
MMDadoda
12/20/2018 10:00:18 AM

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
93) 1,2,4-Trichlorobenzene	13.65	180	528998	50.158	ug/l	98
94) Hexachlorobutadiene	13.78	225	250731	50.438	ug/l	98
95) Naphthalene	13.83	128	1642312	48.790	ug/l	100
96) 1,2,3-Trichlorobenzene	14.02	180	532033	48.859	ug/l	97

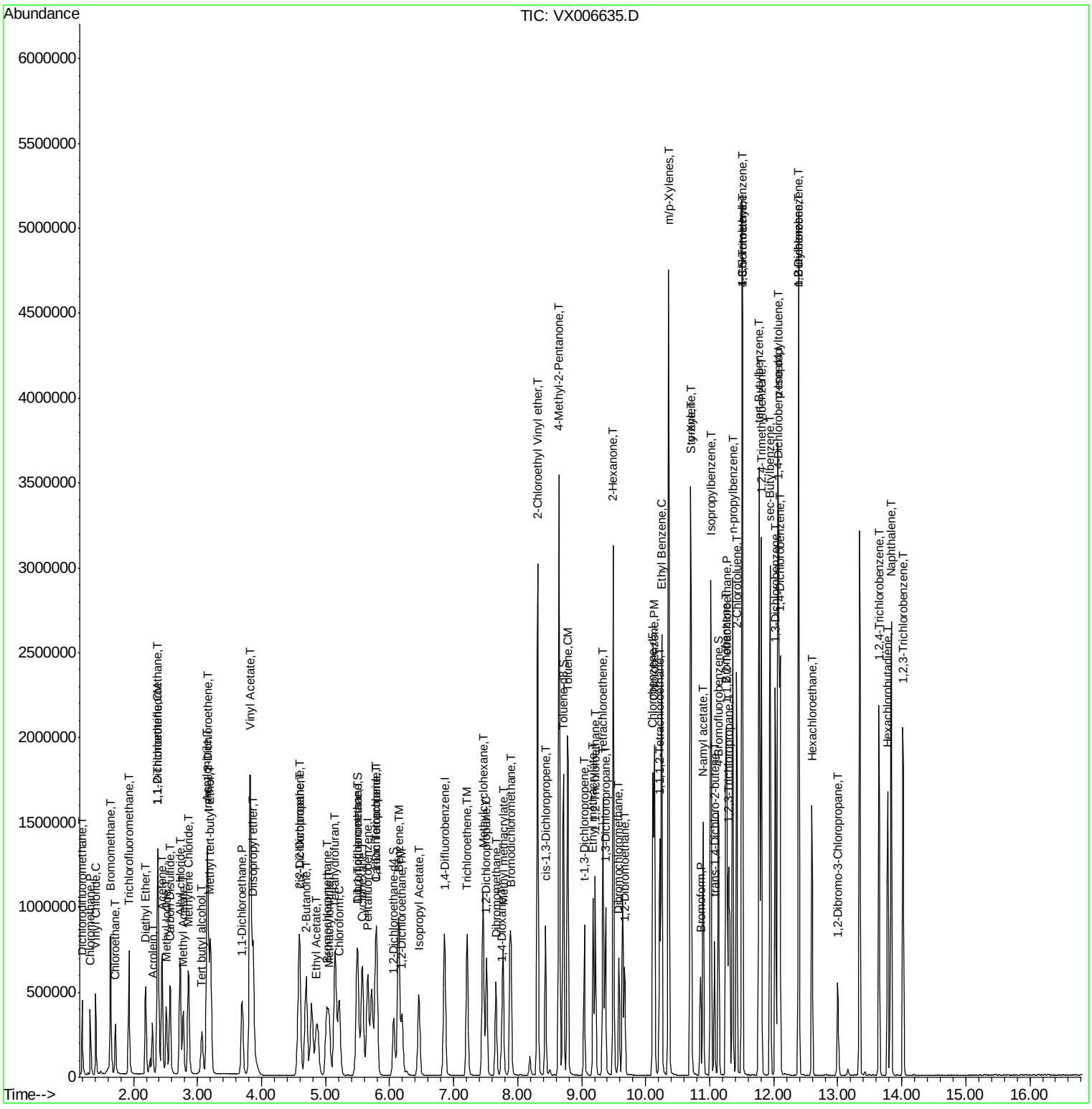
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX121918\
Data File : VX006635.D
Acq On : 19 Dec 2018 14:22
Operator : JC/MD
Sample : VSTDCCC050
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 20 04:12:37 2018
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121818W.M
Quant Title : SW846 8260
QLast Update : Wed Dec 19 15:20:58 2018
Response via : Initial Calibration

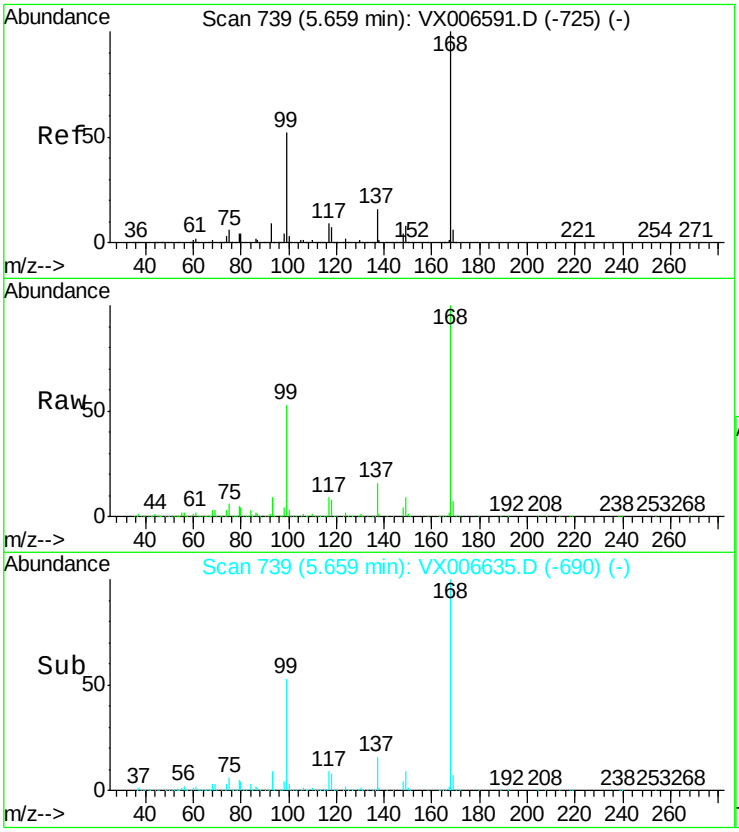
Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

Manual Integrations APPROVED
MMDadoda
12/20/2018 10:00:18 AM



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

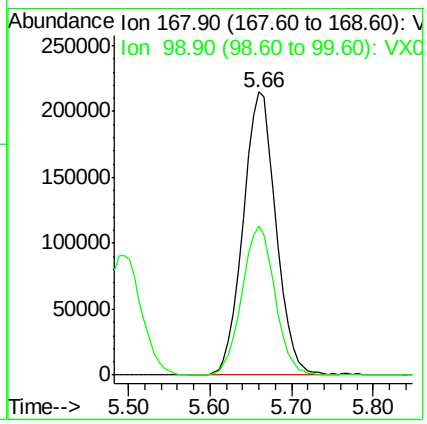
Manual Integrations APPROVED
MMDadoda
12/20/2018 10:00:18 AM

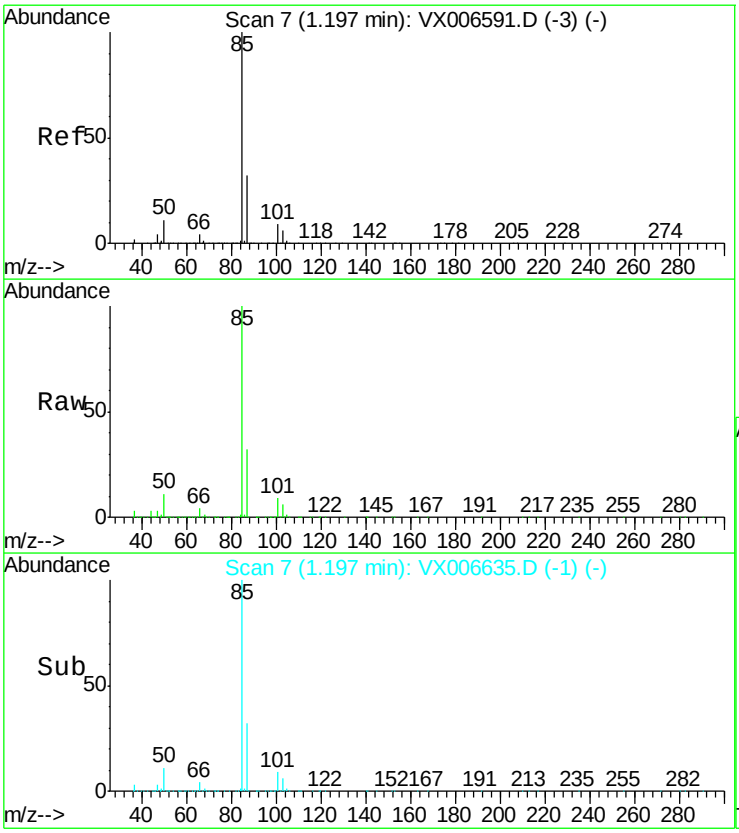


#1
Pentafluorobenzene
Concen: 50.000 ug/l
RT: 5.66 min Scan# 739
Delta R.T. 0.00 min
Lab File: VX006635.D
Acq: 19 Dec 2018 14:22

Tgt Ion:168 Resp: 603495

Ion	Ratio	Lower	Upper
168	100		
99	52.5	41.8	62.8

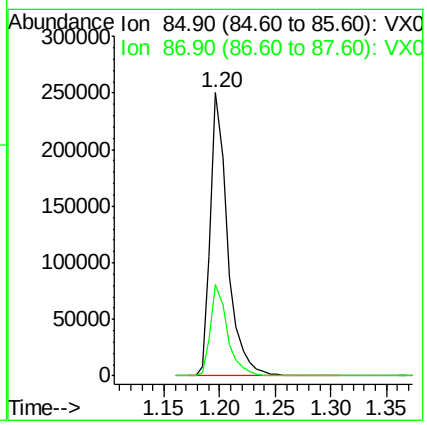




#2
Dichlorodifluoromethane
Concen: 48.826 ug/l
RT: 1.20 min Scan# 7
Delta R.T. 0.00 min
Lab File: VX006635.D
Acq: 19 Dec 2018 14:22

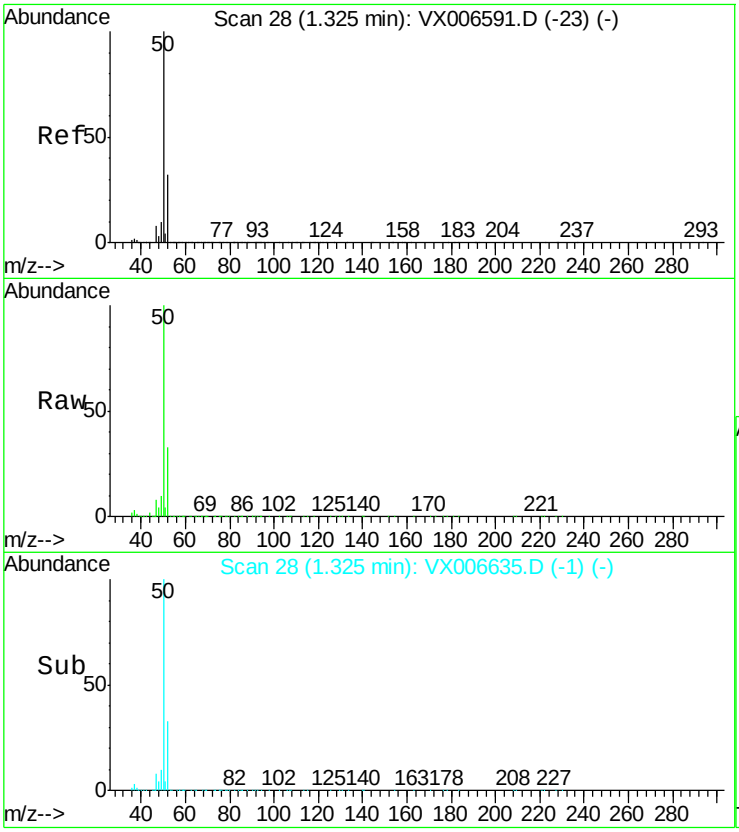
Tgt Ion: 85 Resp: 269564

Ion	Ratio	Lower	Upper
85	100		
87	32.3	15.9	47.6



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

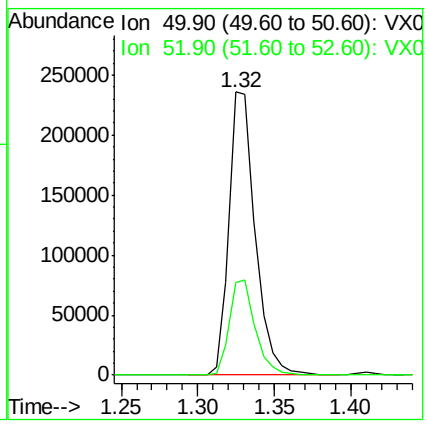
Manual Integrations APPROVED
MMDadoda
12/20/2018 10:00:18 AM

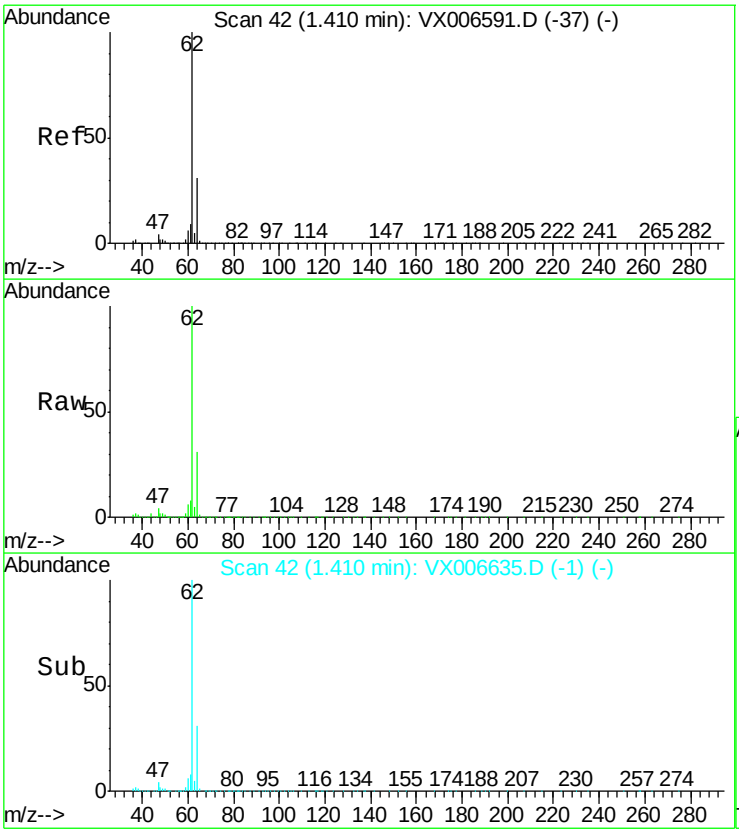


#3
Chloromethane
Concen: 46.995 ug/l
RT: 1.32 min Scan# 28
Delta R.T. 0.00 min
Lab File: VX006635.D
Acq: 19 Dec 2018 14:22

Tgt Ion: 50 Resp: 279523

Ion	Ratio	Lower	Upper
50	100		
52	32.6	25.4	38.2

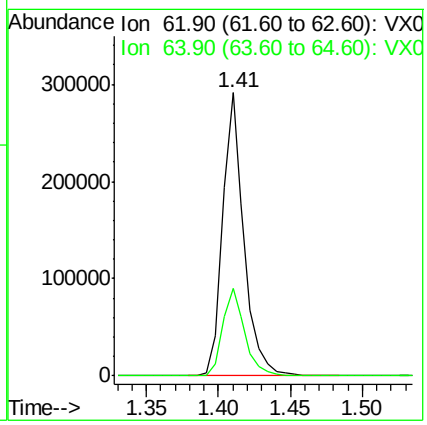




#4
Vinyl Chloride
Concen: 48.687 ug/l
RT: 1.41 min Scan# 42
Delta R.T. 0.00 min
Lab File: VX006635.D
Acq: 19 Dec 2018 14:22

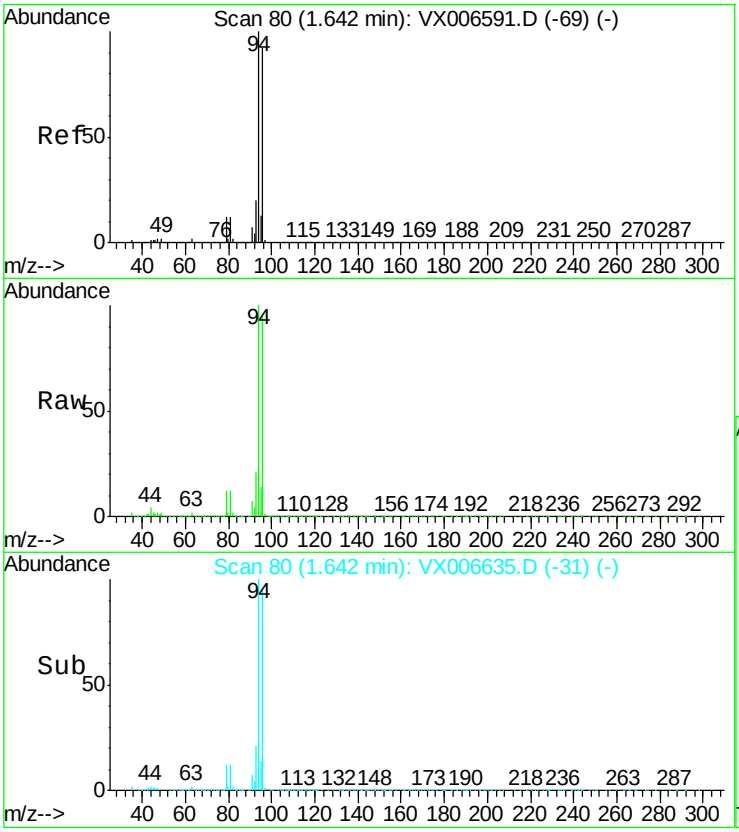
Tgt Ion: 62 Resp: 302447

Ion	Ratio	Lower	Upper
62	100		
64	30.9	25.1	37.7



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

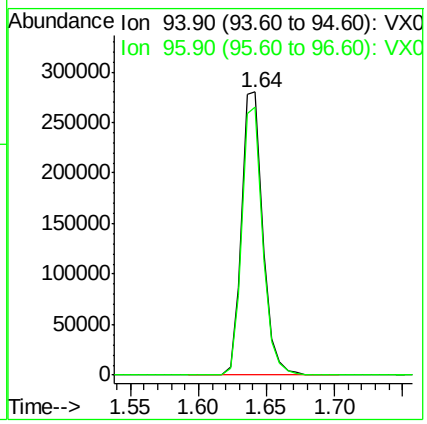
Manual Integrations APPROVED
MMDadoda
12/20/2018 10:00:18 AM

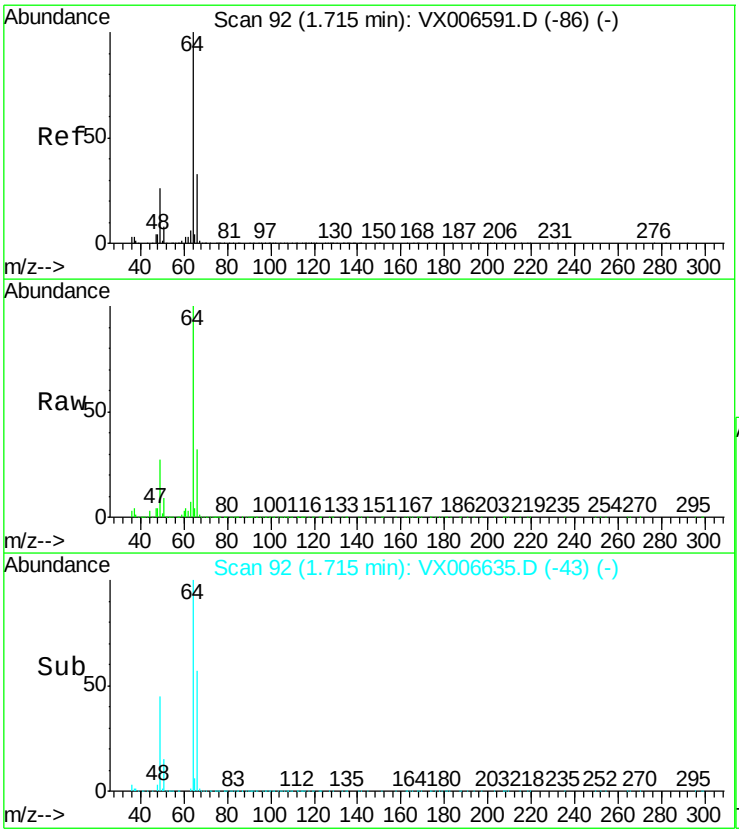


#5
Bromomethane
Concen: 52.376 ug/l
RT: 1.64 min Scan# 80
Delta R.T. 0.00 min
Lab File: VX006635.D
Acq: 19 Dec 2018 14:22

Tgt Ion: 94 Resp: 303100

Ion	Ratio	Lower	Upper
94	100		
96	94.8	73.4	110.2

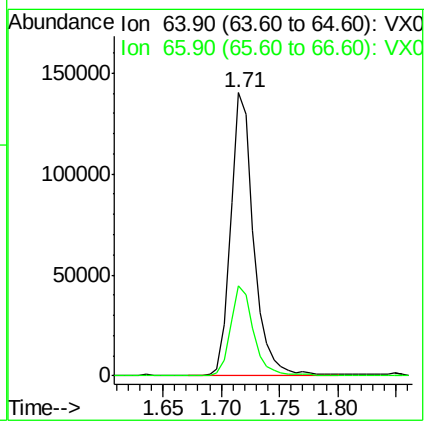




#6
Chloroethane
Concen: 45.128 ug/l
RT: 1.71 min Scan# 92
Delta R.T. 0.00 min
Lab File: VX006635.D
Acq: 19 Dec 2018 14:22

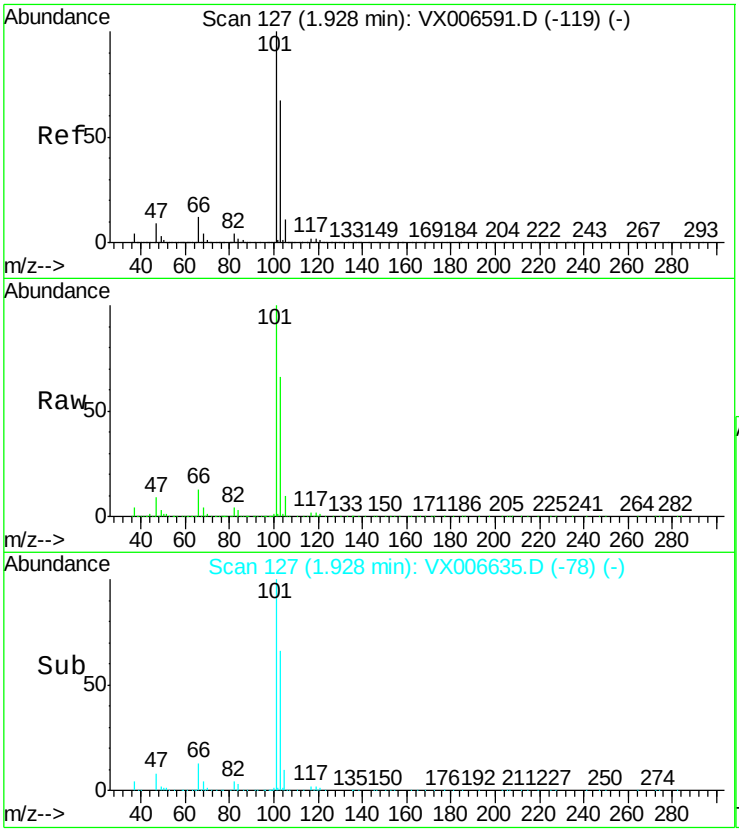
Tgt Ion: 64 Resp: 194112

Ion	Ratio	Lower	Upper
64	100		
66	31.8	26.4	39.6



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

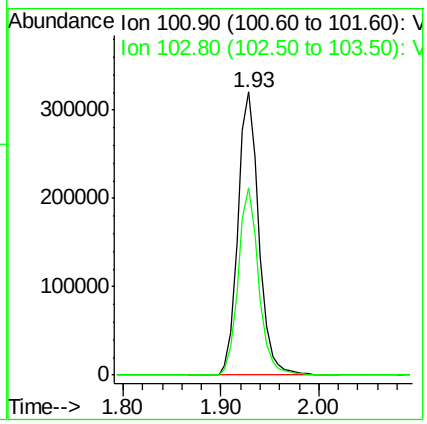
Manual Integrations APPROVED
MMDadoda
12/20/2018 10:00:18 AM

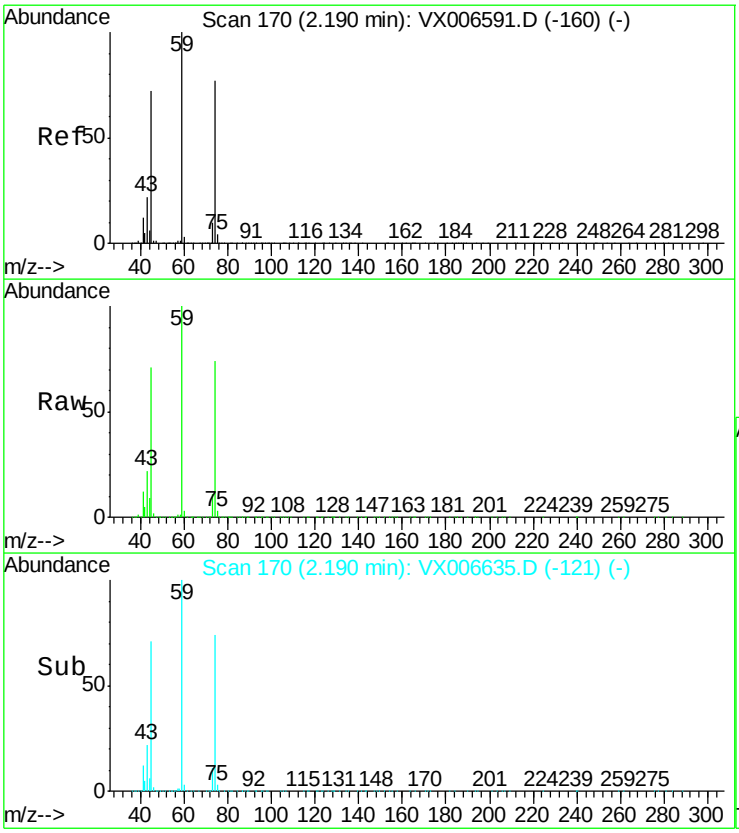


#7
Trichlorofluoromethane
Concen: 49.015 ug/l
RT: 1.93 min Scan# 127
Delta R.T. 0.00 min
Lab File: VX006635.D
Acq: 19 Dec 2018 14:22

Tgt Ion:101 Resp: 474716

Ion	Ratio	Lower	Upper
101	100		
103	66.4	53.2	79.8

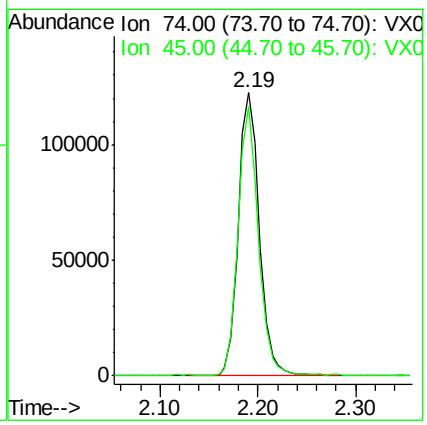




#8
Diethyl Ether
Concen: 47.407 ug/l
RT: 2.19 min Scan# 170
Delta R.T. 0.00 min
Lab File: VX006635.D
Acq: 19 Dec 2018 14:22

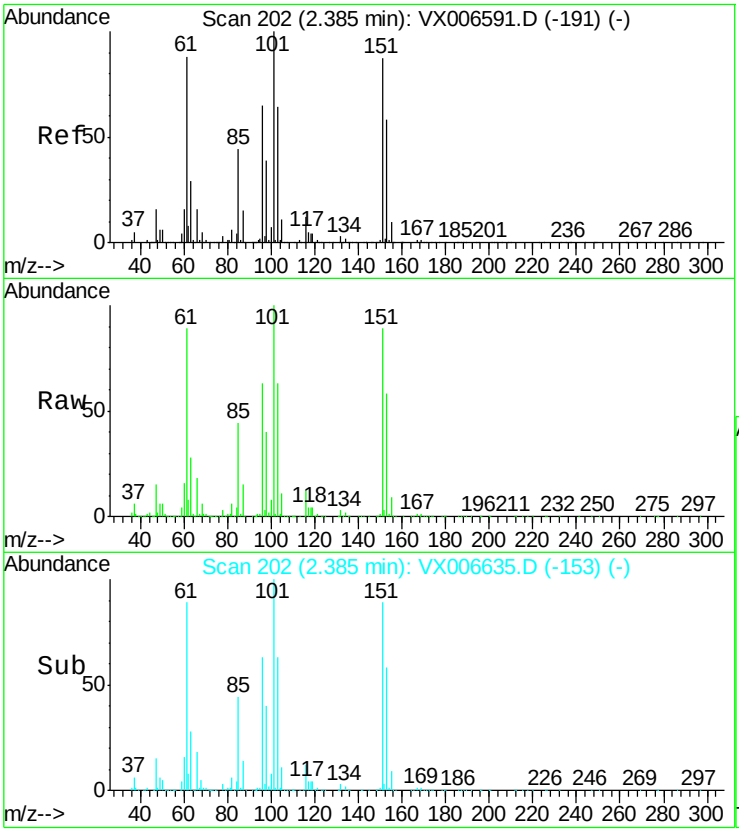
Tgt Ion: 74 Resp: 182368

Ion	Ratio	Lower	Upper
74	100		
45	92.5	46.3	138.9



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

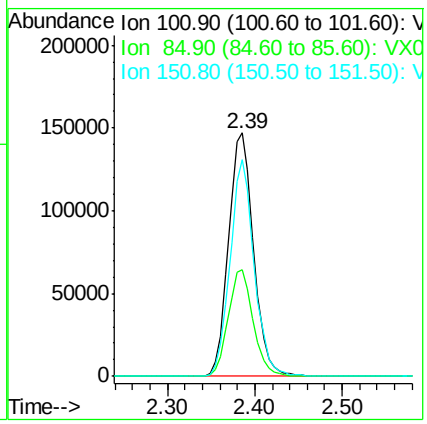
Manual Integrations APPROVED
MMDadoda
12/20/2018 10:00:18 AM

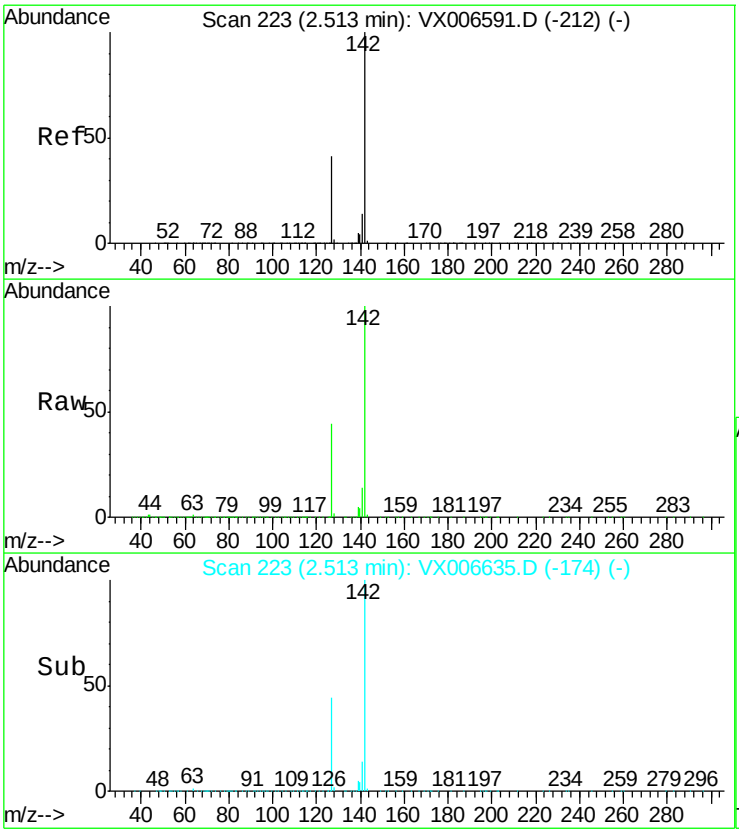


#9
1,1,2-Trichlorotrifluoroethane
Concen: 51.424 ug/l
RT: 2.39 min Scan# 202
Delta R.T. 0.00 min
Lab File: VX006635.D
Acq: 19 Dec 2018 14:22

Tgt Ion:101 Resp: 292428

Ion	Ratio	Lower	Upper
101	100		
85	43.6	35.1	52.7
151	86.0	68.9	103.3

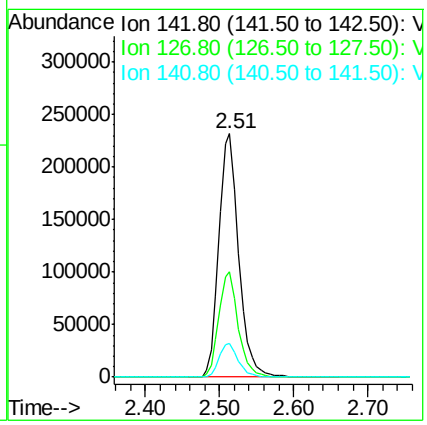




#10
Methyl Iodide
Concen: 52.408 ug/l
RT: 2.51 min Scan# 223
Delta R.T. 0.00 min
Lab File: VX006635.D
Acq: 19 Dec 2018 14:22

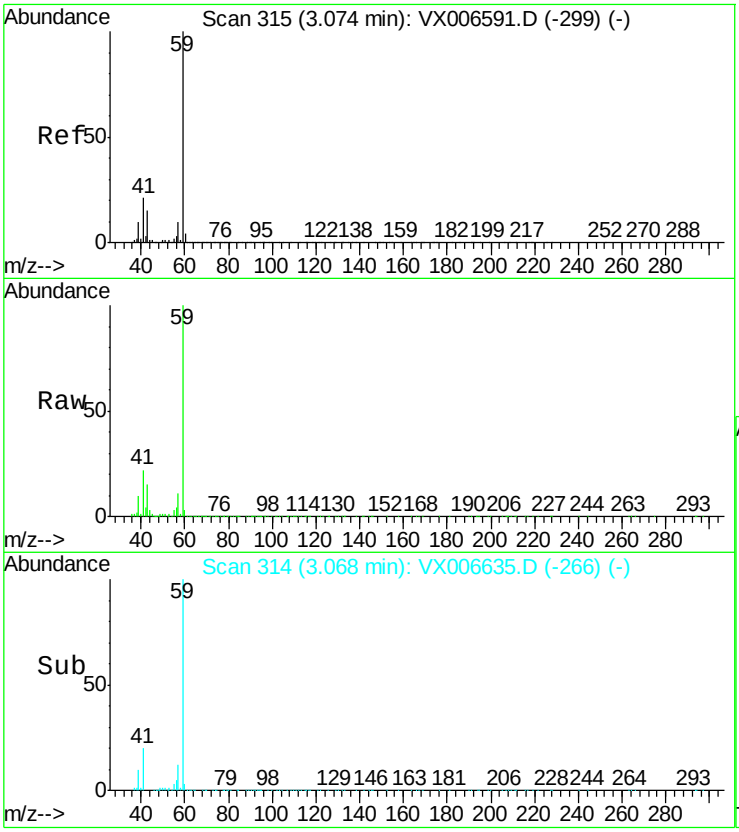
Tgt Ion:142 Resp: 426611

Ion	Ratio	Lower	Upper
142	100		
127	42.6	33.9	50.9
141	13.6	11.4	17.0



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

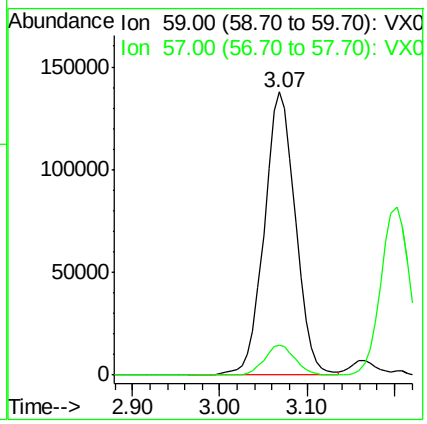
Manual Integrations APPROVED
MMDadoda
12/20/2018 10:00:18 AM

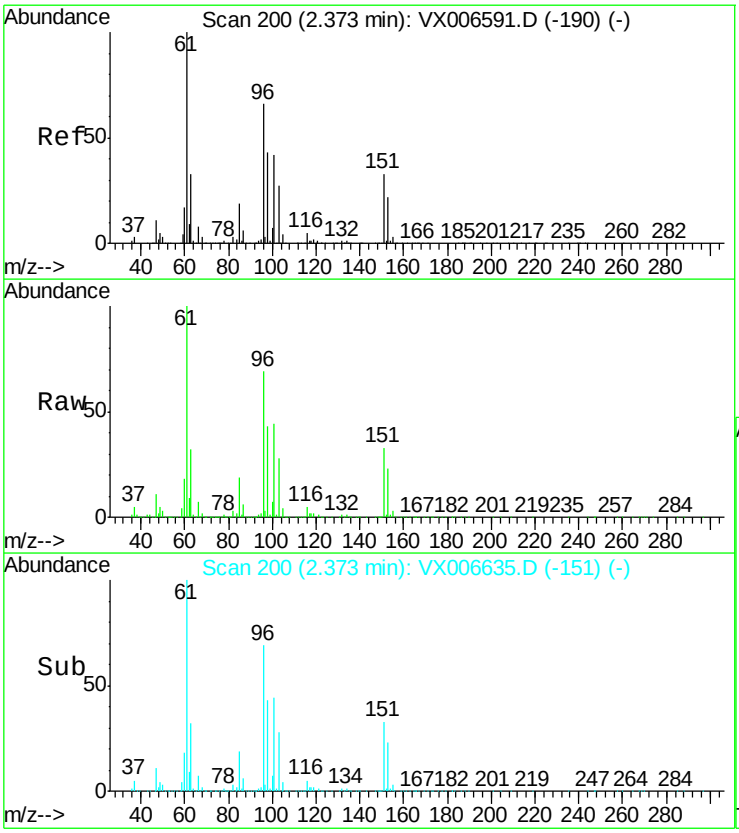


#11
Tert butyl alcohol
Concen: 234.666 ug/l
RT: 3.07 min Scan# 314
Delta R.T. -0.01 min
Lab File: VX006635.D
Acq: 19 Dec 2018 14:22

Tgt Ion: 59 Resp: 340632

Ion	Ratio	Lower	Upper
59	100		
57	10.6	8.5	12.7

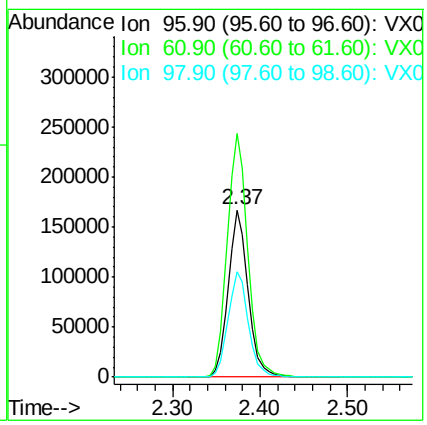




#12
1,1-Dichloroethene
Concen: 48.517 ug/l
RT: 2.37 min Scan# 200
Delta R.T. 0.00 min
Lab File: VX006635.D
Acq: 19 Dec 2018 14:22

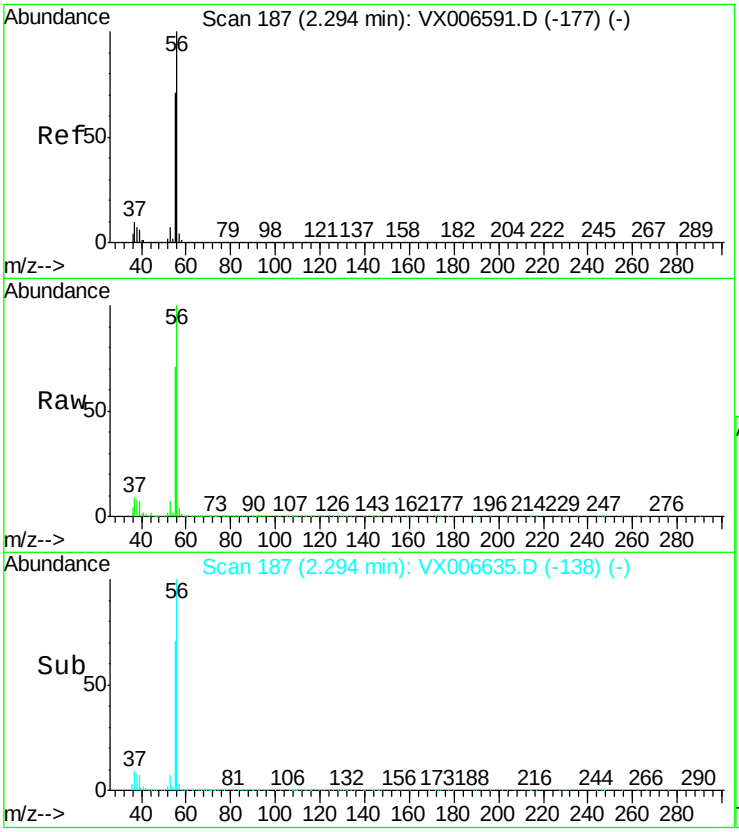
Tgt Ion: 96 Resp: 261608

Ion	Ratio	Lower	Upper
96	100		
61	145.5	121.4	182.2
98	62.6	51.9	77.9



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

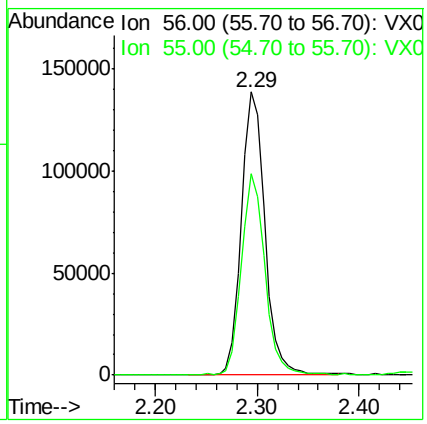
Manual Integrations APPROVED
MMDadoda
12/20/2018 10:00:18 AM

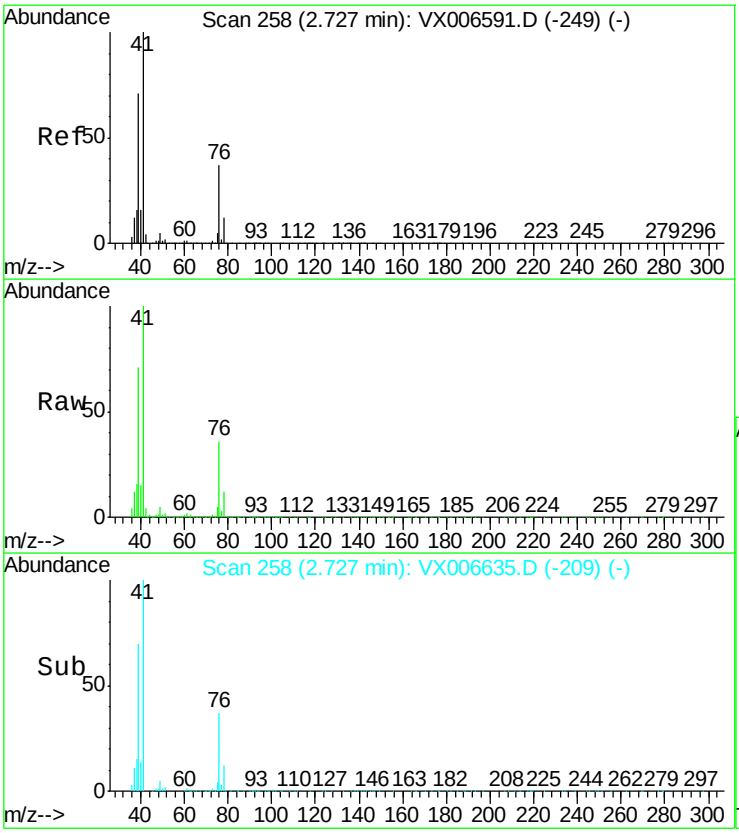


#13
Acrolein
Concen: 225.673 ug/l
RT: 2.29 min Scan# 187
Delta R.T. 0.00 min
Lab File: VX006635.D
Acq: 19 Dec 2018 14:22

Tgt Ion: 56 Resp: 220986

Ion	Ratio	Lower	Upper
56	100		
55	71.1	58.2	87.4

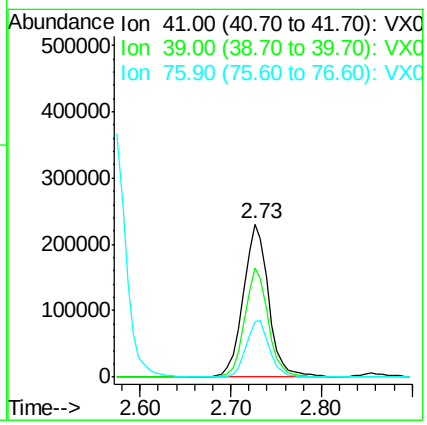




#14
Allyl chloride
Concen: 48.806 ug/l
RT: 2.73 min Scan# 258
Delta R.T. 0.00 min
Lab File: VX006635.D
Acq: 19 Dec 2018 14:22

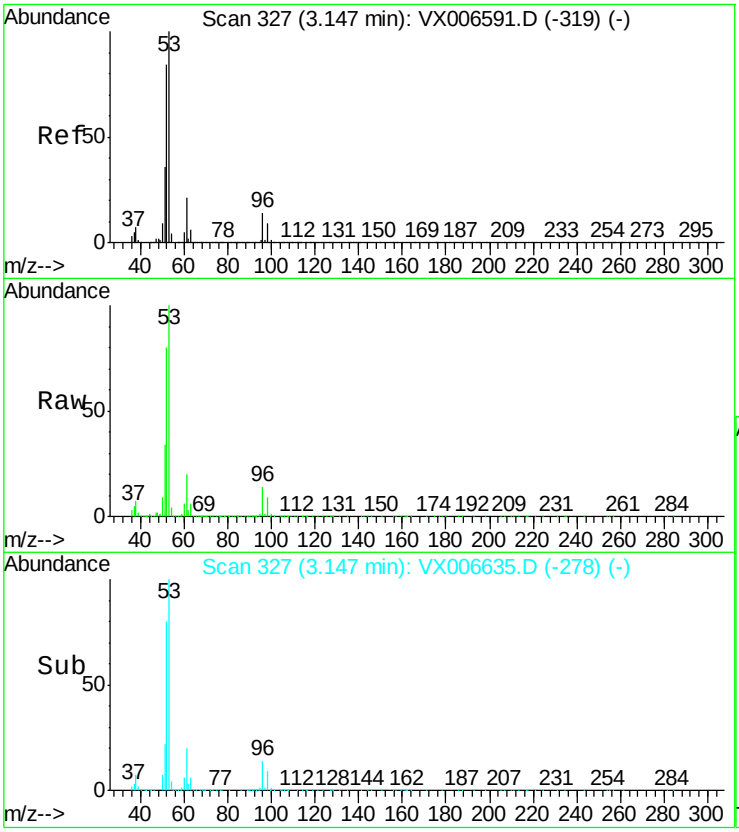
Tgt Ion: 41 Resp: 442973

Ion	Ratio	Lower	Upper
41	100		
39	66.0	53.6	80.4
76	33.7	27.4	41.2



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

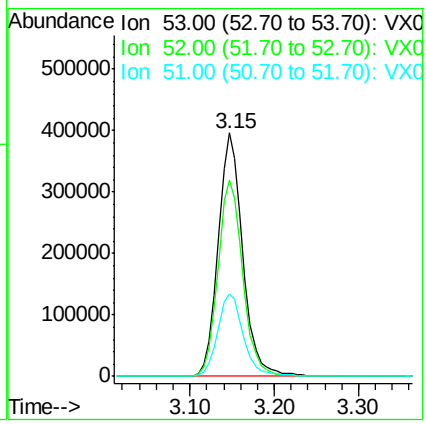
Manual Integrations APPROVED
MMDadoda
12/20/2018 10:00:18 AM

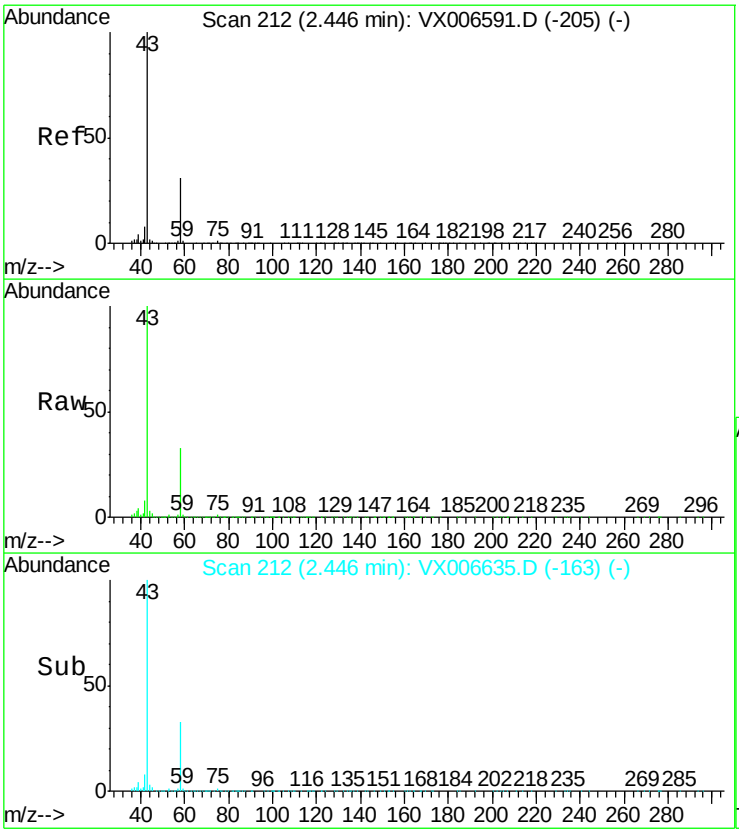


#15
Acrylonitrile
Concen: 244.941 ug/l
RT: 3.15 min Scan# 327
Delta R.T. 0.00 min
Lab File: VX006635.D
Acq: 19 Dec 2018 14:22

Tgt Ion: 53 Resp: 789426

Ion	Ratio	Lower	Upper
53	100		
52	81.8	66.0	99.0
51	35.5	28.6	42.8

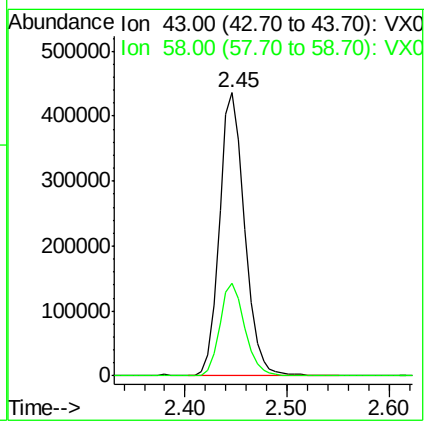




#16
Acetone
Concen: 249.355 ug/l
RT: 2.45 min Scan# 212
Delta R.T. 0.00 min
Lab File: VX006635.D
Acq: 19 Dec 2018 14:22

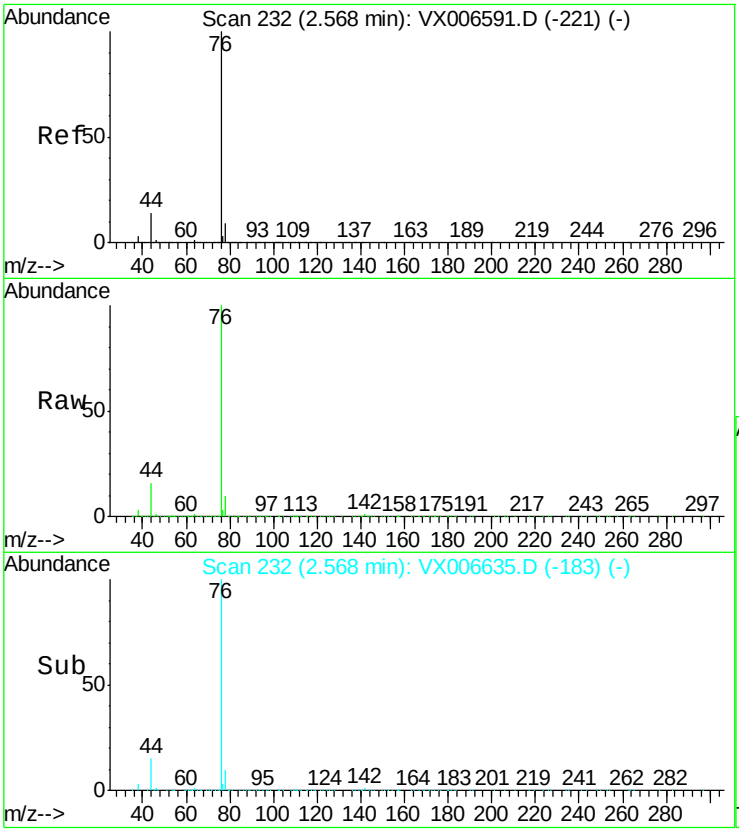
Tgt Ion: 43 Resp: 745131

Ion	Ratio	Lower	Upper
43	100		
58	32.8	25.0	37.6



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

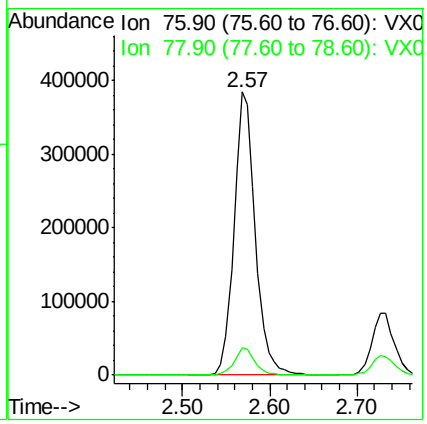
Manual Integrations APPROVED
MMDadoda
12/20/2018 10:00:18 AM

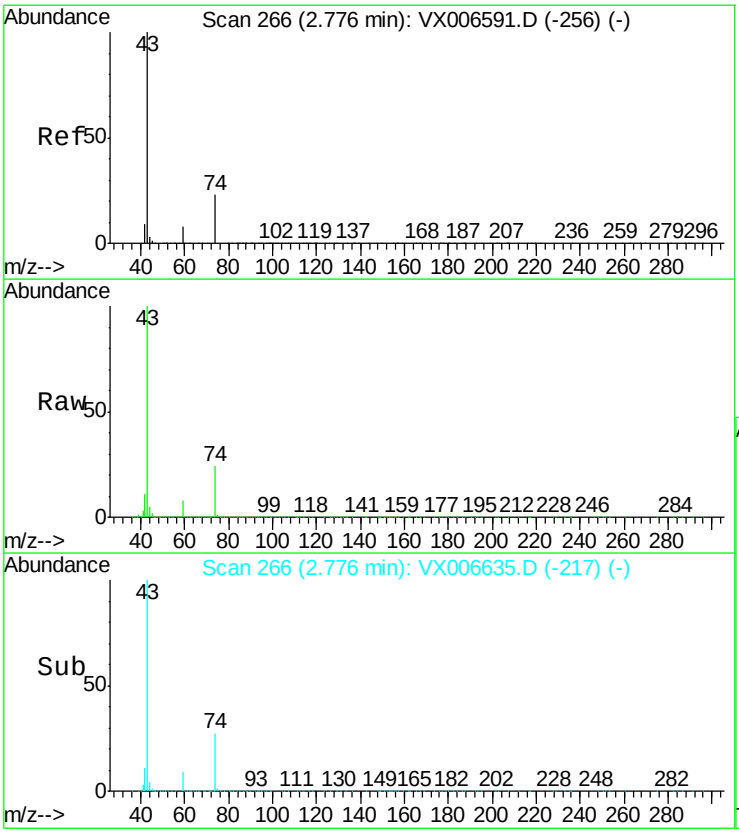


#17
Carbon Disulfide
Concen: 45.520 ug/l
RT: 2.57 min Scan# 232
Delta R.T. 0.00 min
Lab File: VX006635.D
Acq: 19 Dec 2018 14:22

Tgt Ion: 76 Resp: 649544

Ion	Ratio	Lower	Upper
76	100		
78	9.6	7.0	10.6

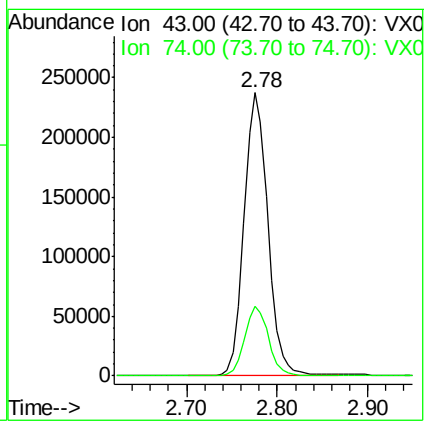




#18
Methyl Acetate
Concen: 48.990 ug/l
RT: 2.78 min Scan# 266
Delta R.T. 0.00 min
Lab File: VX006635.D
Acq: 19 Dec 2018 14:22

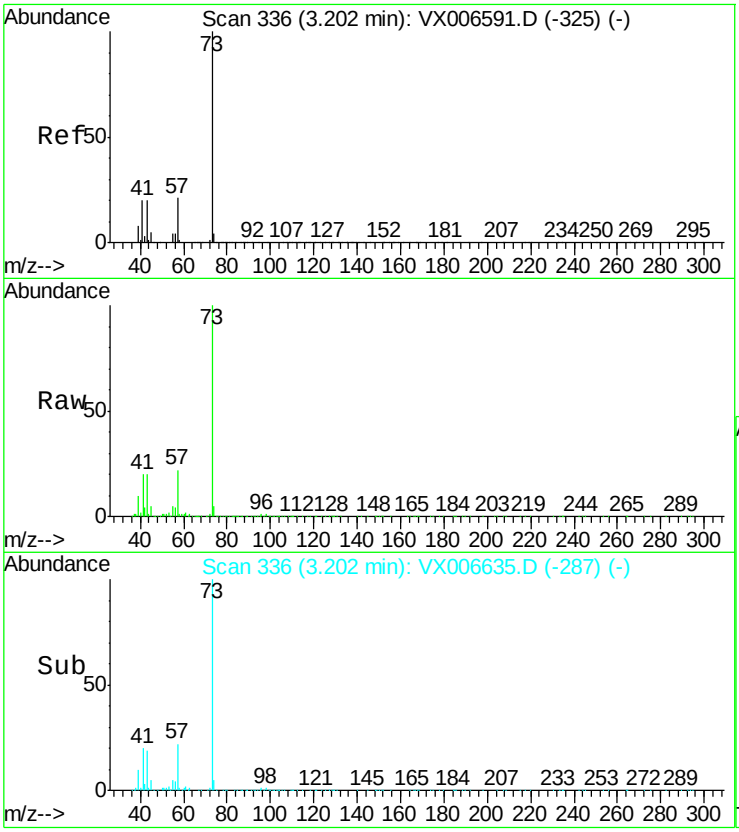
Tgt Ion: 43 Resp: 430471

Ion	Ratio	Lower	Upper
43	100		
74	25.0	18.6	28.0



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

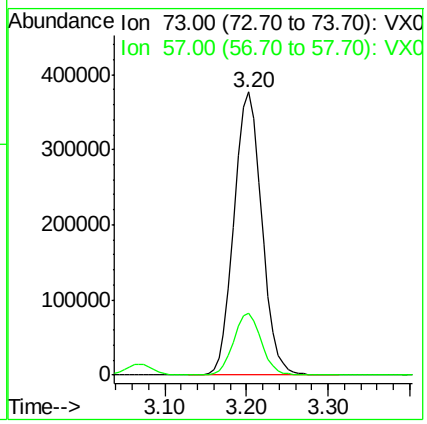
Manual Integrations APPROVED
MMDadoda
12/20/2018 10:00:18 AM

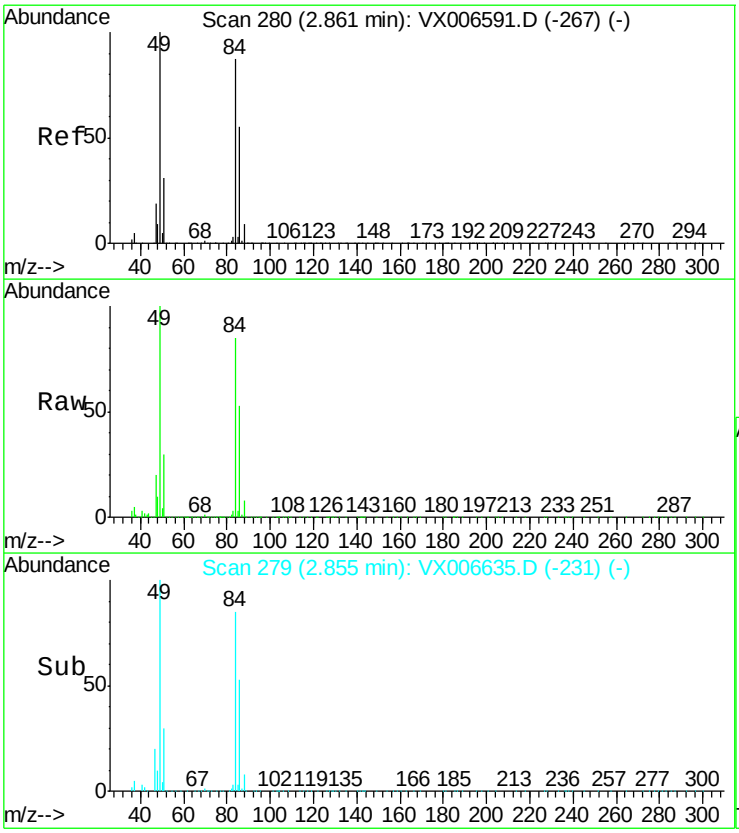


#19
Methyl tert-butyl Ether
Concen: 49.427 ug/l
RT: 3.20 min Scan# 336
Delta R.T. 0.00 min
Lab File: VX006635.D
Acq: 19 Dec 2018 14:22

Tgt Ion: 73 Resp: 884554

Ion	Ratio	Lower	Upper
73	100		
57	21.7	16.8	25.2

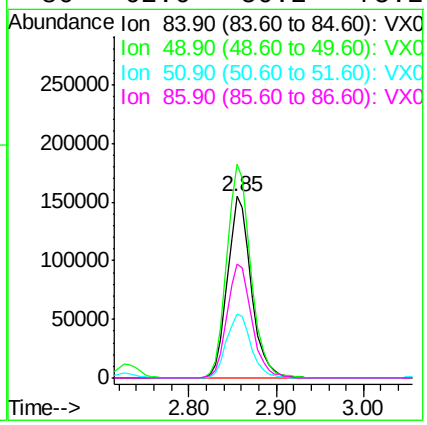




#20
Methylene Chloride
Concen: 47.313 ug/l
RT: 2.85 min Scan# 279
Delta R.T. -0.01 min
Lab File: VX006635.D
Acq: 19 Dec 2018 14:22

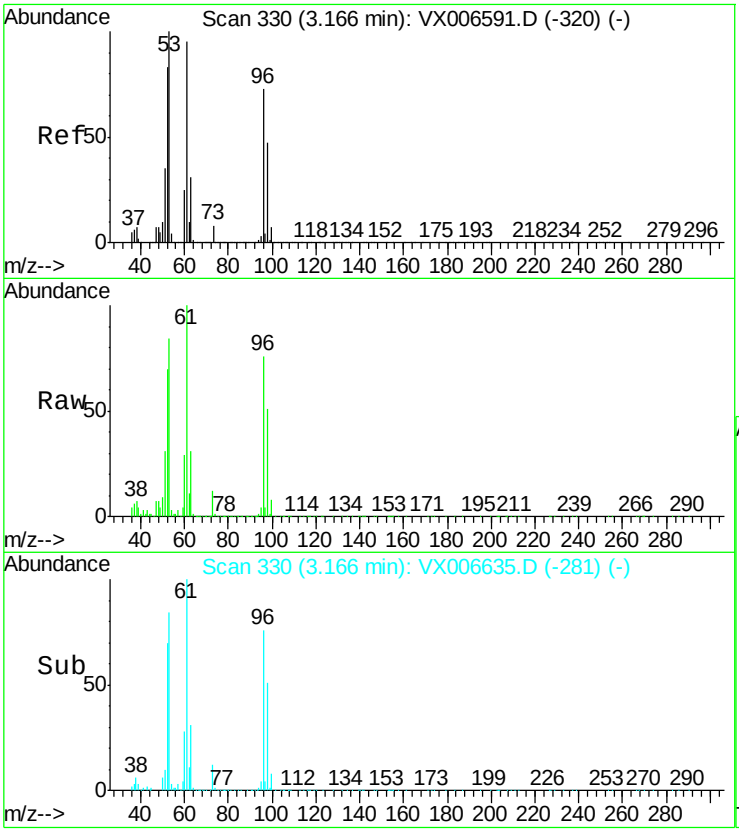
Tgt Ion: 84 Resp: 292352

Ion	Ratio	Lower	Upper
84	100		
49	117.9	91.8	137.6
51	35.2	28.5	42.7
86	62.6	50.2	75.2



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

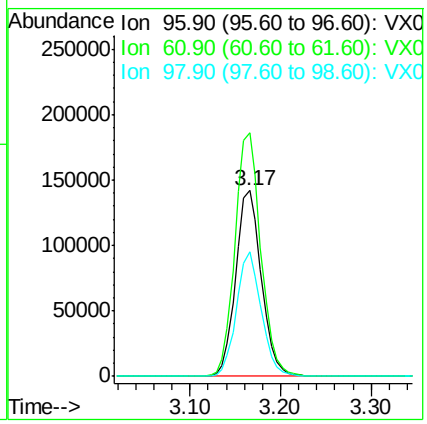
Manual Integrations APPROVED
MMDadoda
12/20/2018 10:00:18 AM

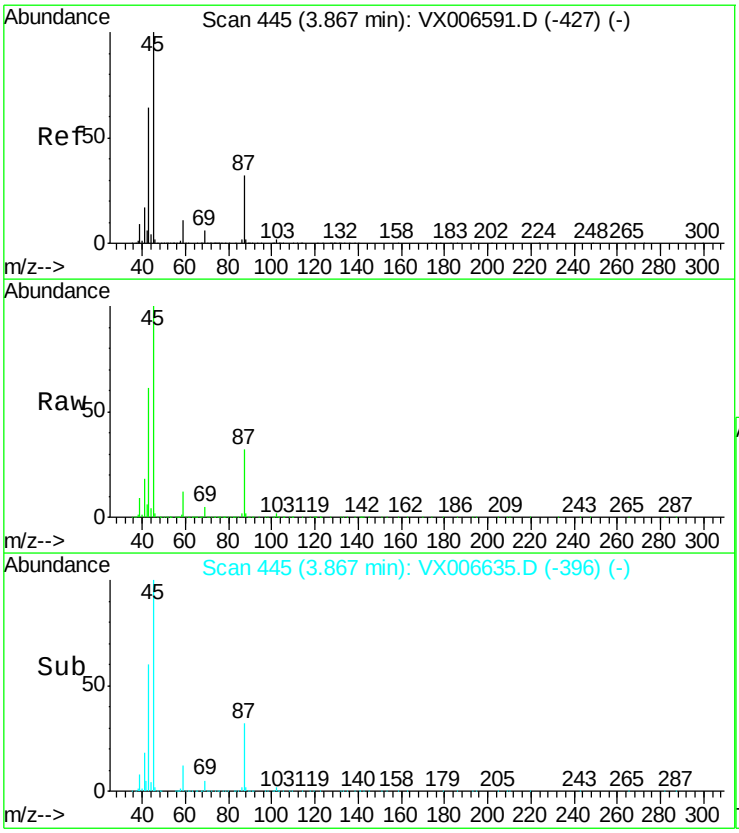


#21
trans-1,2-Dichloroethene
Concen: 46.730 ug/l
RT: 3.17 min Scan# 330
Delta R.T. 0.00 min
Lab File: VX006635.D
Acq: 19 Dec 2018 14:22

Tgt Ion: 96 Resp: 279183

Ion	Ratio	Lower	Upper
96	100		
61	131.1	103.7	155.5
98	66.9	51.0	76.6

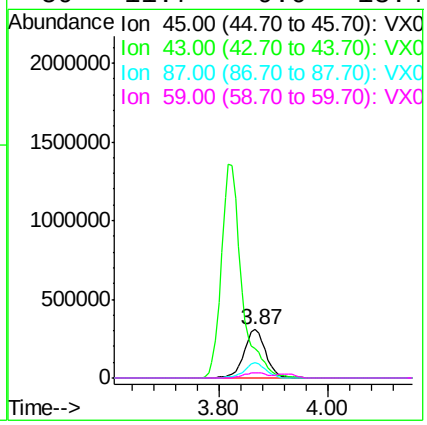




#22
Diisopropyl ether
Concen: 50.707 ug/l
RT: 3.87 min Scan# 445
Delta R.T. 0.00 min
Lab File: VX006635.D
Acq: 19 Dec 2018 14:22

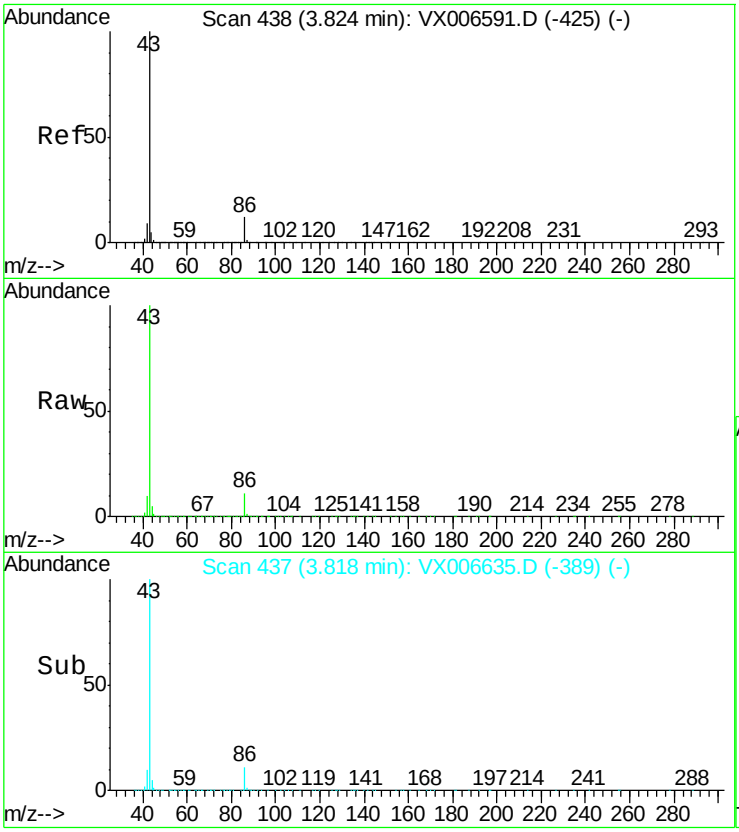
Tgt Ion: 45 Resp: 841944

Ion	Ratio	Lower	Upper
45	100		
43	60.4	51.2	76.8
87	32.1	25.8	38.6
59	11.7	9.0	13.4



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

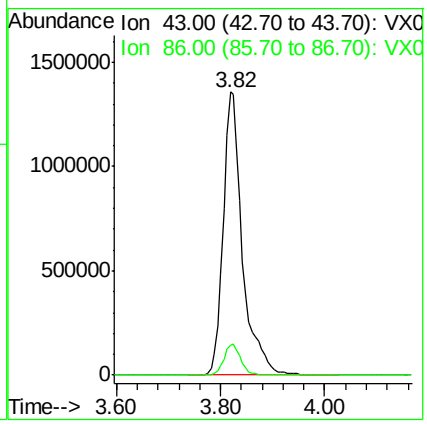
Manual Integrations APPROVED
MMDadoda
12/20/2018 10:00:18 AM

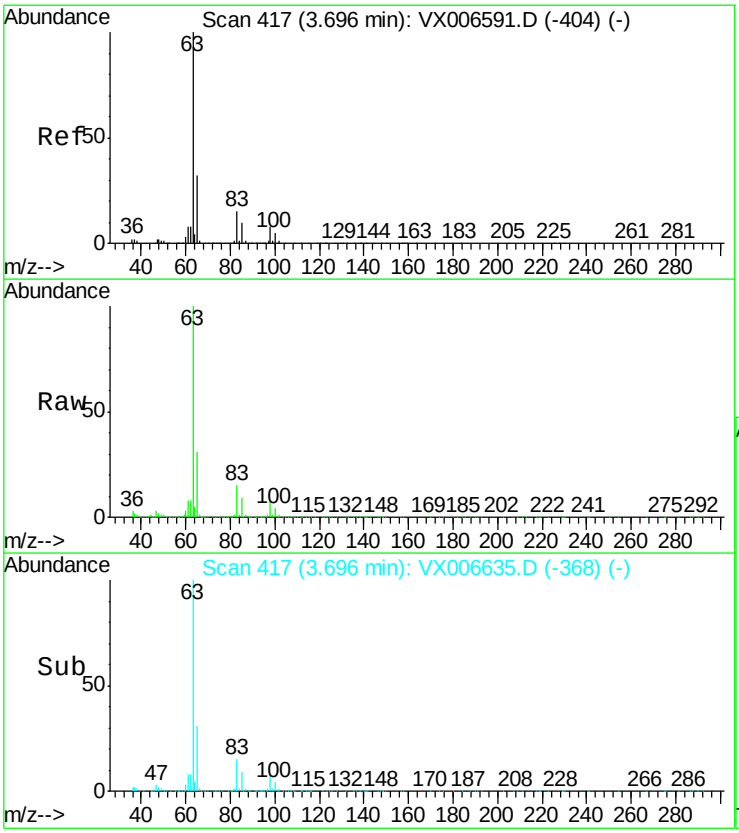


#23
Vinyl Acetate
Concen: 260.033 ug/l
RT: 3.82 min Scan# 437
Delta R.T. -0.01 min
Lab File: VX006635.D
Acq: 19 Dec 2018 14:22

Tgt Ion: 43 Resp: 3531694

Ion	Ratio	Lower	Upper
43	100		
86	10.6	9.2	13.8

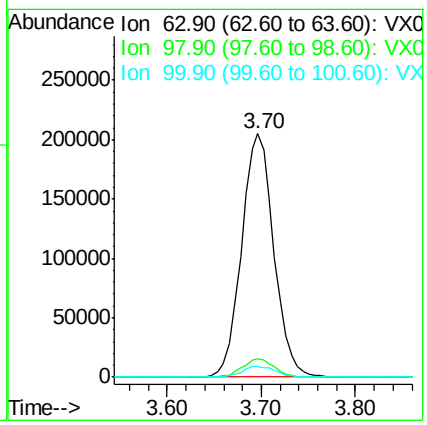




#24
1,1-Dichloroethane
Concen: 49.292 ug/l
RT: 3.70 min Scan# 417
Delta R.T. 0.00 min
Lab File: VX006635.D
Acq: 19 Dec 2018 14:22

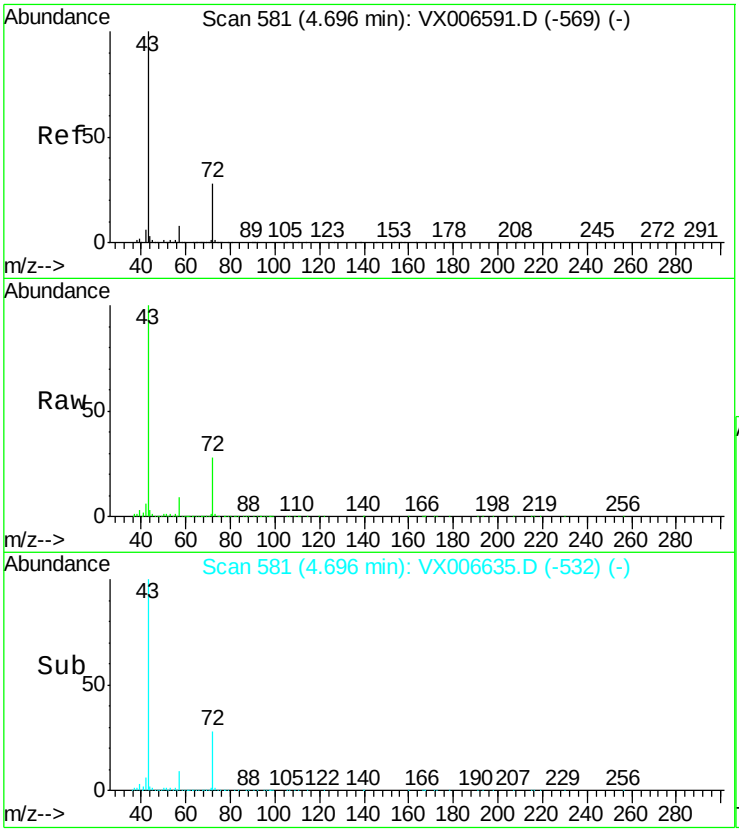
Tgt Ion: 63 Resp: 488582

Ion	Ratio	Lower	Upper
63	100		
98	7.5	3.9	11.5
100	4.1	2.4	7.2



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

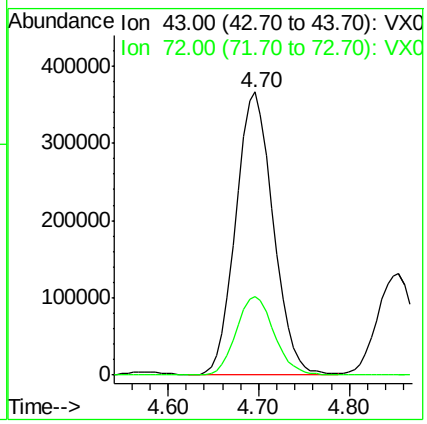
Manual Integrations APPROVED
MMDadoda
12/20/2018 10:00:18 AM

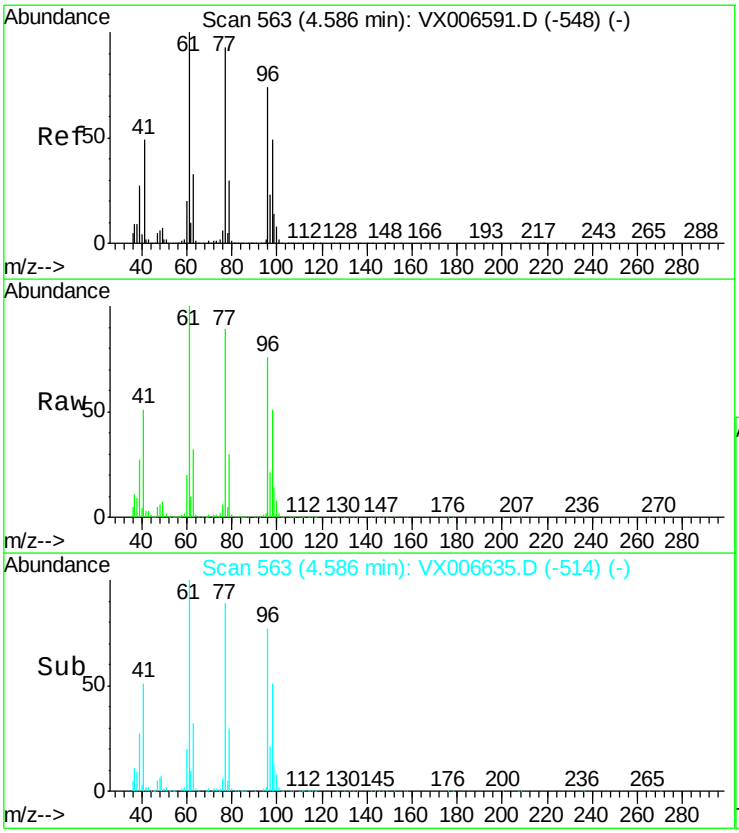


#25
2-Butanone
Concen: 248.795 ug/l
RT: 4.70 min Scan# 581
Delta R.T. 0.00 min
Lab File: VX006635.D
Acq: 19 Dec 2018 14:22

Tgt Ion: 43 Resp: 1045765

Ion	Ratio	Lower	Upper
43	100		
72	27.7	22.4	33.6

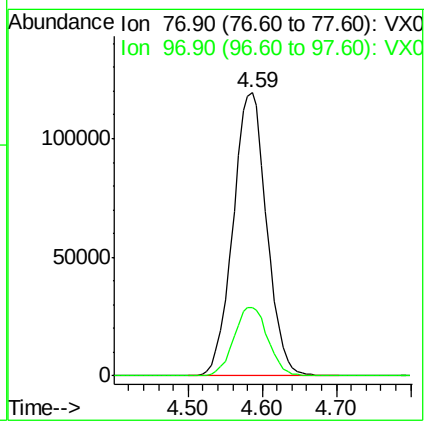




#26
2,2-Dichloropropane
Concen: 49.215 ug/l
RT: 4.59 min Scan# 563
Delta R.T. 0.00 min
Lab File: VX006635.D
Acq: 19 Dec 2018 14:22

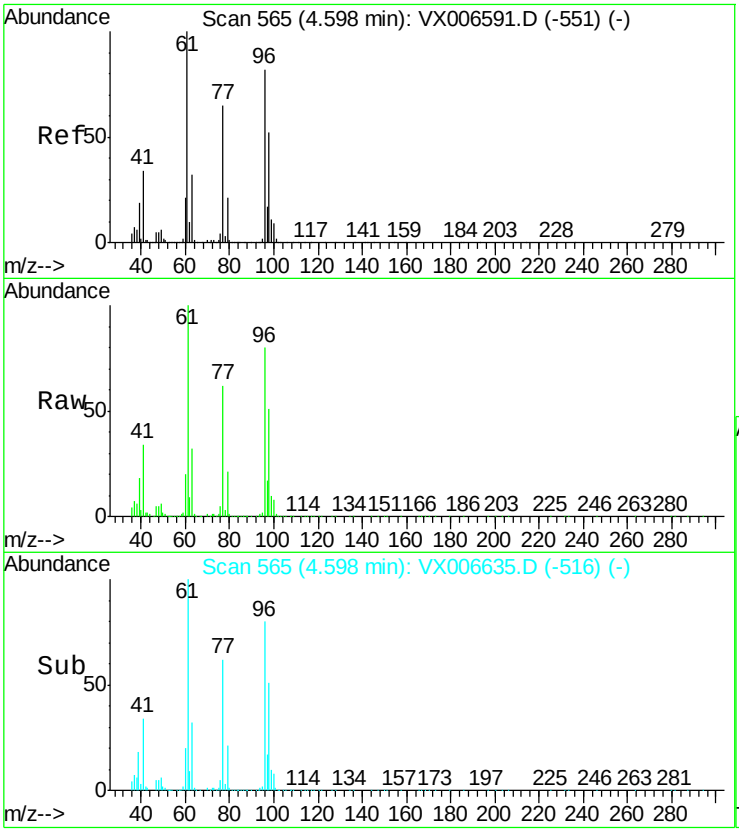
Tgt Ion: 77 Resp: 376815

Ion	Ratio	Lower	Upper
77	100		
97	24.6	12.4	37.4



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

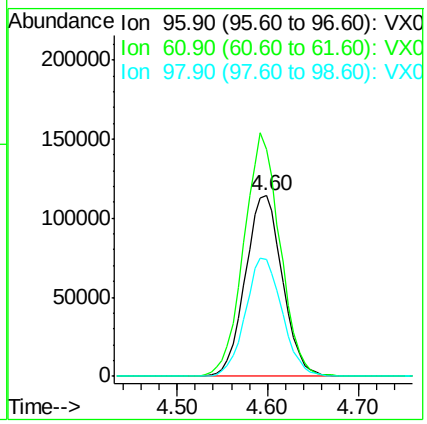
Manual Integrations APPROVED
MMDadoda
12/20/2018 10:00:18 AM

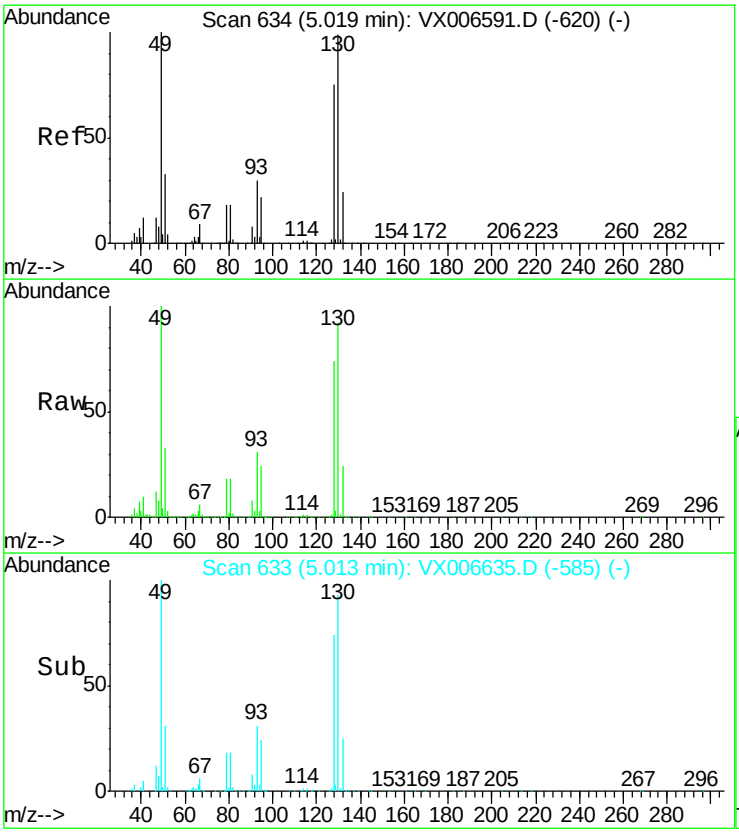


#27
cis-1,2-Dichloroethene
Concen: 49.013 ug/l
RT: 4.60 min Scan# 565
Delta R.T. 0.00 min
Lab File: VX006635.D
Acq: 19 Dec 2018 14:22

Tgt Ion: 96 Resp: 323077

Ion	Ratio	Lower	Upper
96	100		
61	131.1	0.0	258.6
98	65.0	0.0	132.0

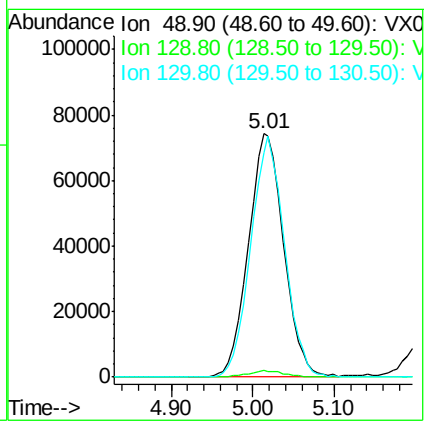




#28
Bromochloromethane
Concen: 53.947 ug/l
RT: 5.01 min Scan# 633
Delta R.T. -0.01 min
Lab File: VX006635.D
Acq: 19 Dec 2018 14:22

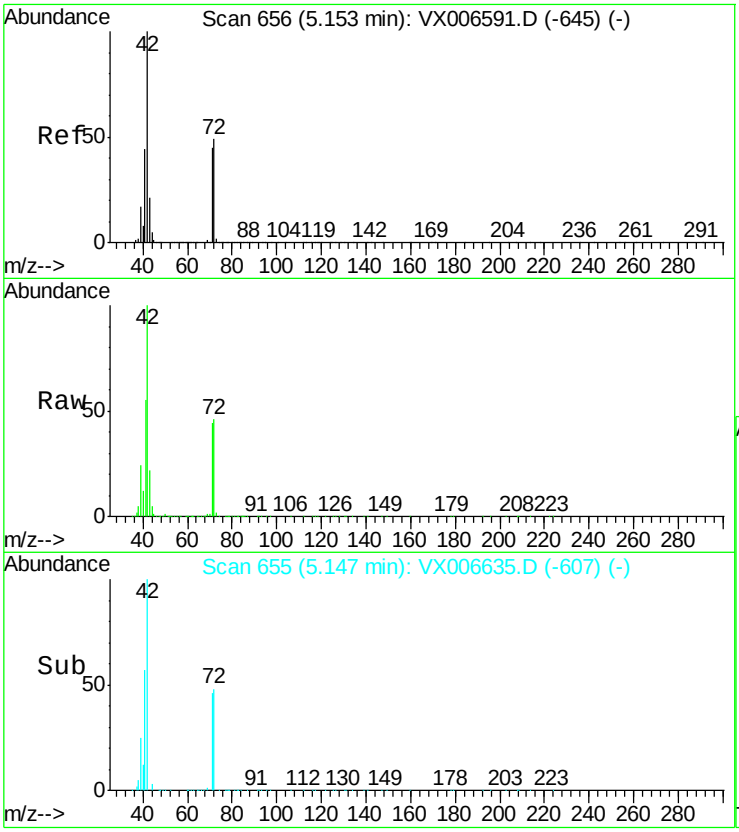
Tgt Ion: 49 Resp: 224796

Ion	Ratio	Lower	Upper
49	100		
129	2.7	0.0	5.4
130	94.5	77.7	116.5



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

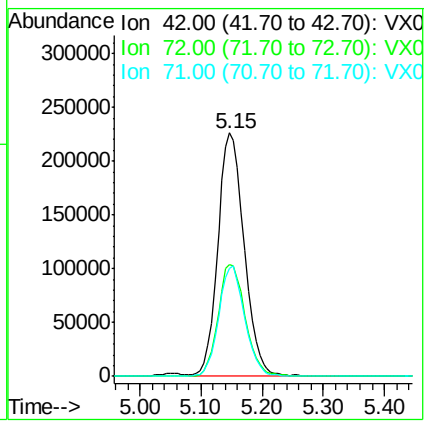
Manual Integrations APPROVED
MMDadoda
12/20/2018 10:00:18 AM

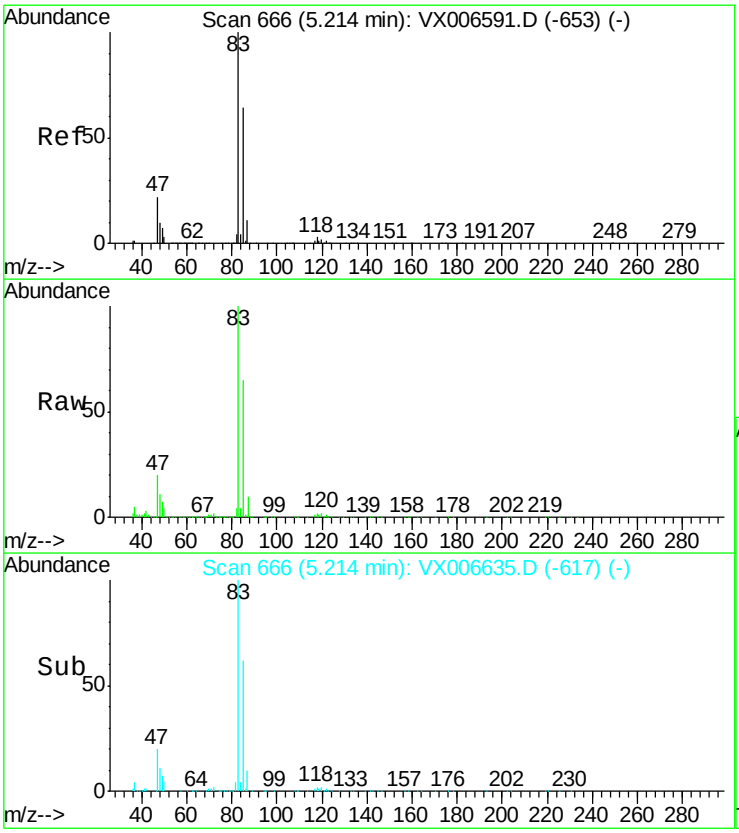


#29
Tetrahydrofuran
Concen: 244.128 ug/l
RT: 5.15 min Scan# 655
Delta R.T. -0.01 min
Lab File: VX006635.D
Acq: 19 Dec 2018 14:22

Tgt Ion: 42 Resp: 675855

Ion	Ratio	Lower	Upper
42	100		
72	47.5	38.9	58.3
71	44.8	36.2	54.4

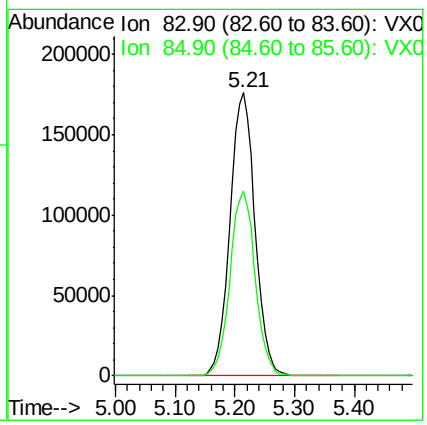




#30
Chloroform
Concen: 50.026 ug/l
RT: 5.21 min Scan# 666
Delta R.T. 0.00 min
Lab File: VX006635.D
Acq: 19 Dec 2018 14:22

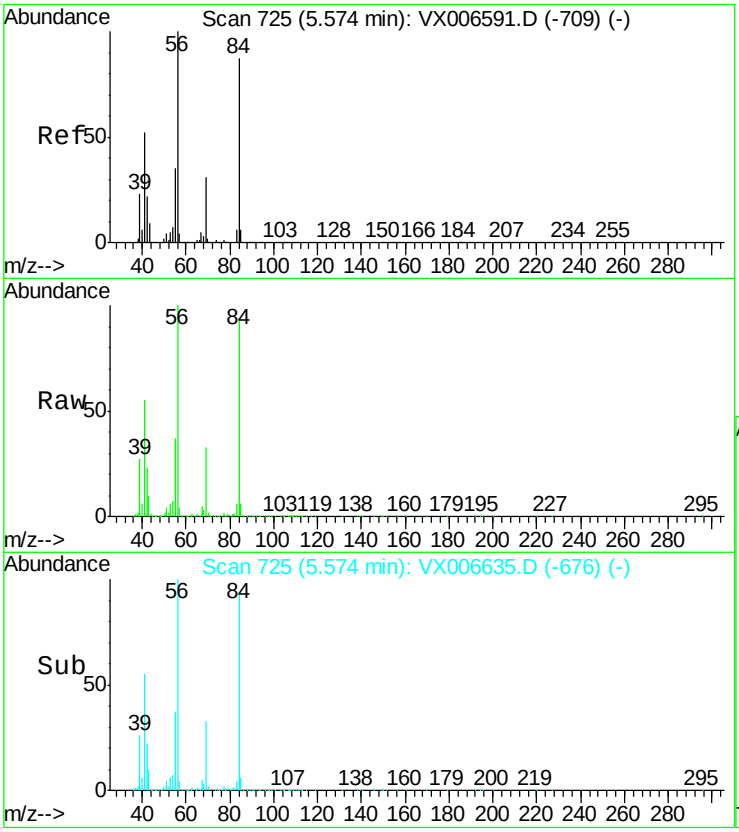
Tgt Ion: 83 Resp: 513481

Ion	Ratio	Lower	Upper
83	100		
85	65.1	51.2	76.8



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

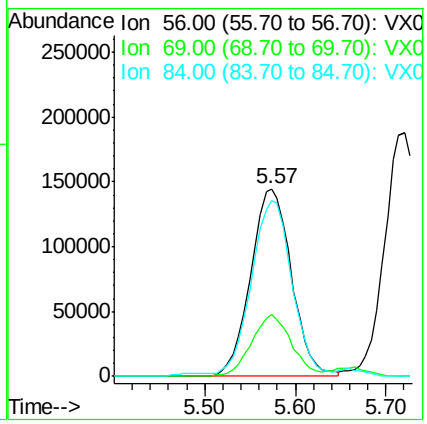
Manual Integrations APPROVED
MMDadoda
12/20/2018 10:00:18 AM

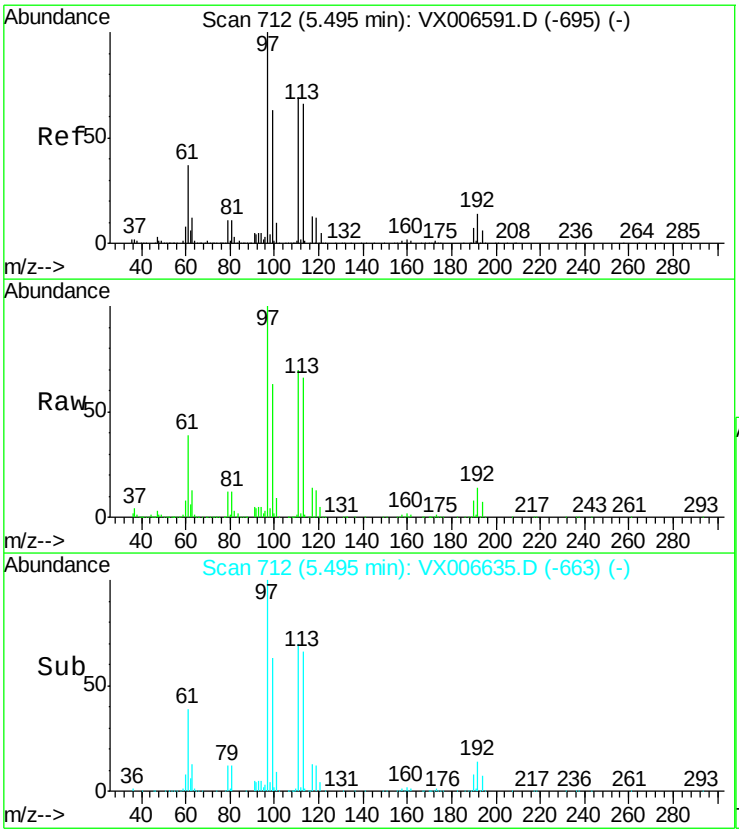


#31
Cyclohexane
Concen: 49.878 ug/l
RT: 5.57 min Scan# 725
Delta R.T. 0.00 min
Lab File: VX006635.D
Acq: 19 Dec 2018 14:22

Tgt Ion: 56 Resp: 449144

Ion	Ratio	Lower	Upper
56	100		
69	32.7	24.4	36.6
84	92.5	70.0	105.0

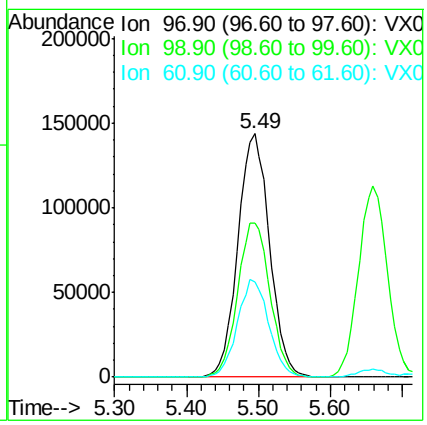




#32
1,1,1-Trichloroethane
Concen: 50.534 ug/l
RT: 5.49 min Scan# 712
Delta R.T. 0.00 min
Lab File: VX006635.D
Acq: 19 Dec 2018 14:22

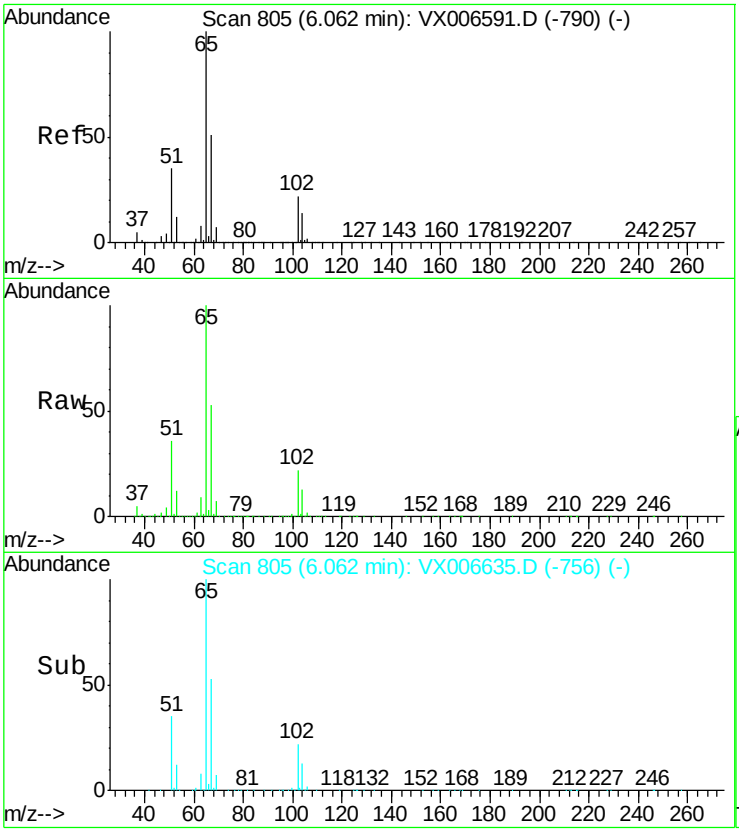
Tgt Ion: 97 Resp: 437981

Ion	Ratio	Lower	Upper
97	100		
99	65.0	51.7	77.5
61	39.9	31.3	46.9



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

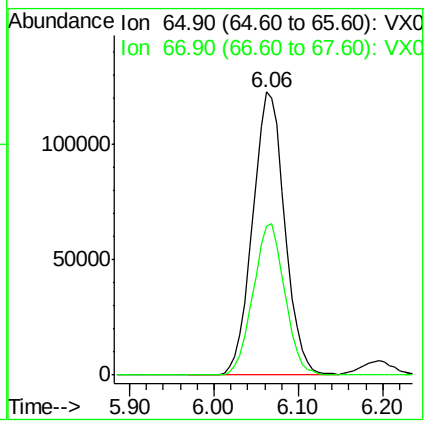
Manual Integrations APPROVED
MMDadoda
12/20/2018 10:00:18 AM

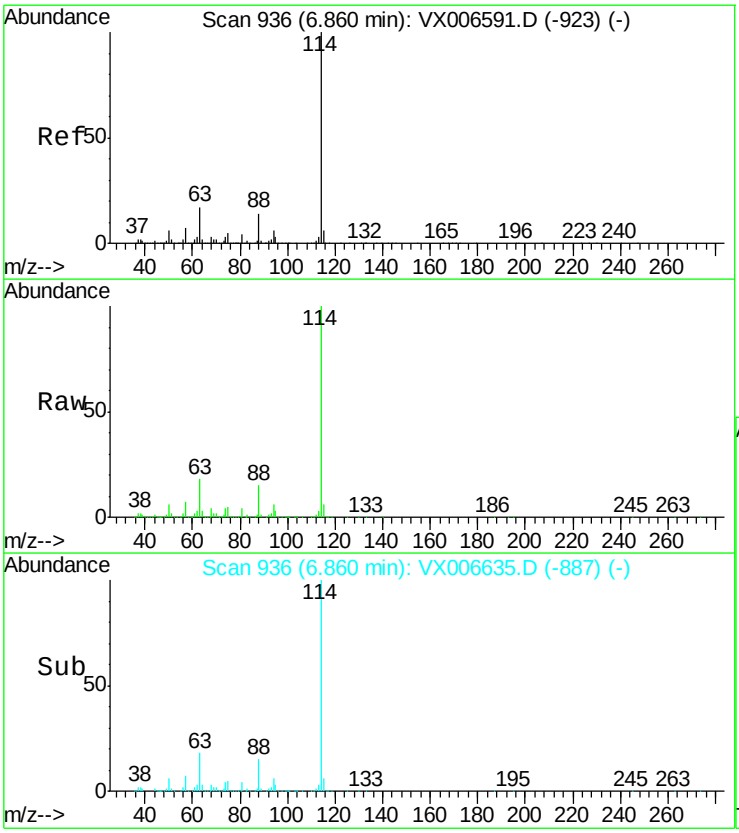


#33
1,2-Dichloroethane-d4
Concen: 48.881 ug/l
RT: 6.06 min Scan# 805
Delta R.T. 0.00 min
Lab File: VX006635.D
Acq: 19 Dec 2018 14:22

Tgt Ion: 65 Resp: 317929

Ion	Ratio	Lower	Upper
65	100		
67	52.6	0.0	105.0

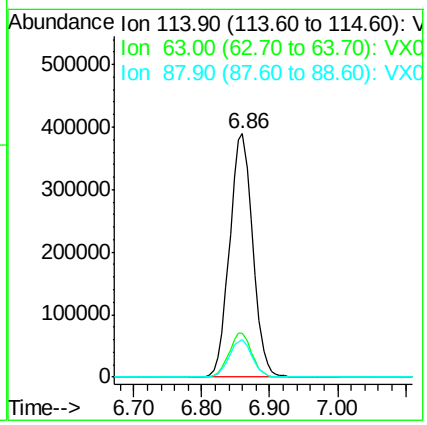




#34
1,4-Difluorobenzene
Concen: 50.000 ug/l
RT: 6.86 min Scan# 936
Delta R.T. 0.00 min
Lab File: VX006635.D
Acq: 19 Dec 2018 14:22

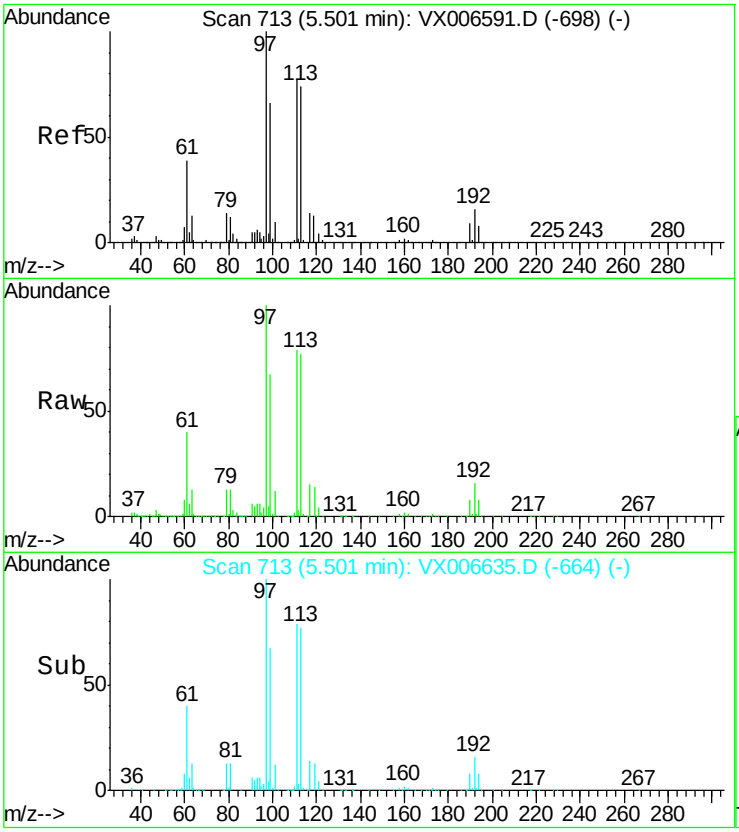
Tgt Ion:114 Resp: 917487

Ion	Ratio	Lower	Upper
114	100		
63	17.8	0.0	34.8
88	15.5	0.0	28.8



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

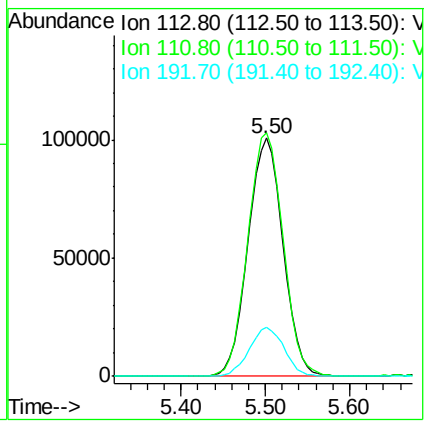
Manual Integrations APPROVED
MMDadoda
12/20/2018 10:00:18 AM

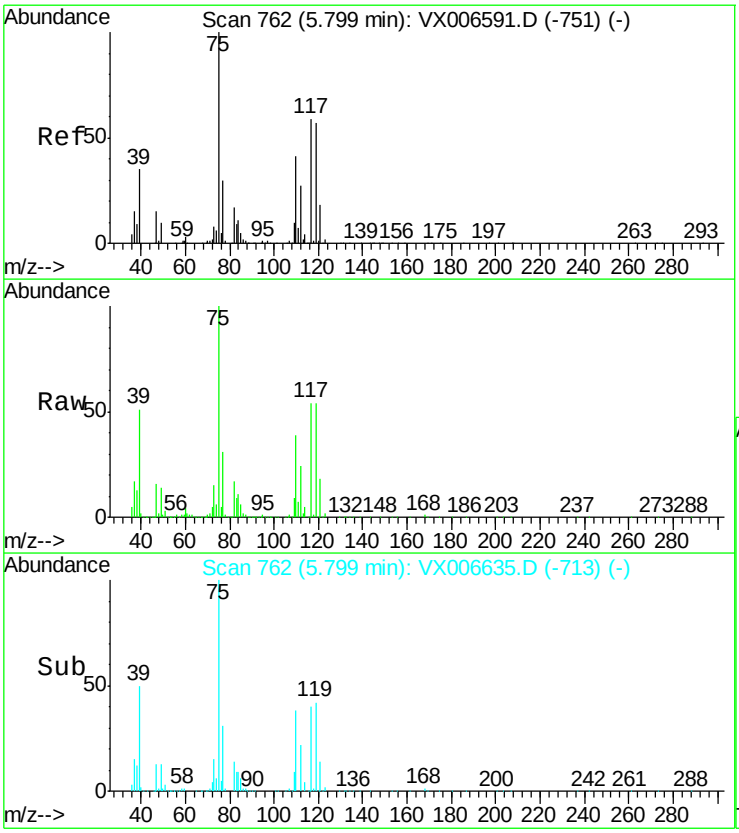


#35
Dibromofluoromethane
Concen: 49.141 ug/l
RT: 5.50 min Scan# 713
Delta R.T. 0.00 min
Lab File: VX006635.D
Acq: 19 Dec 2018 14:22

Tgt Ion:113 Resp: 285114

Ion	Ratio	Lower	Upper
113	100		
111	103.2	81.6	122.4
192	20.4	16.7	25.1

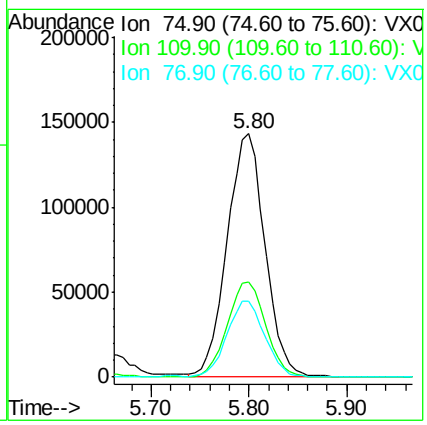




#36
1,1-Dichloropropene
Concen: 50.614 ug/l
RT: 5.80 min Scan# 762
Delta R.T. 0.00 min
Lab File: VX006635.D
Acq: 19 Dec 2018 14:22

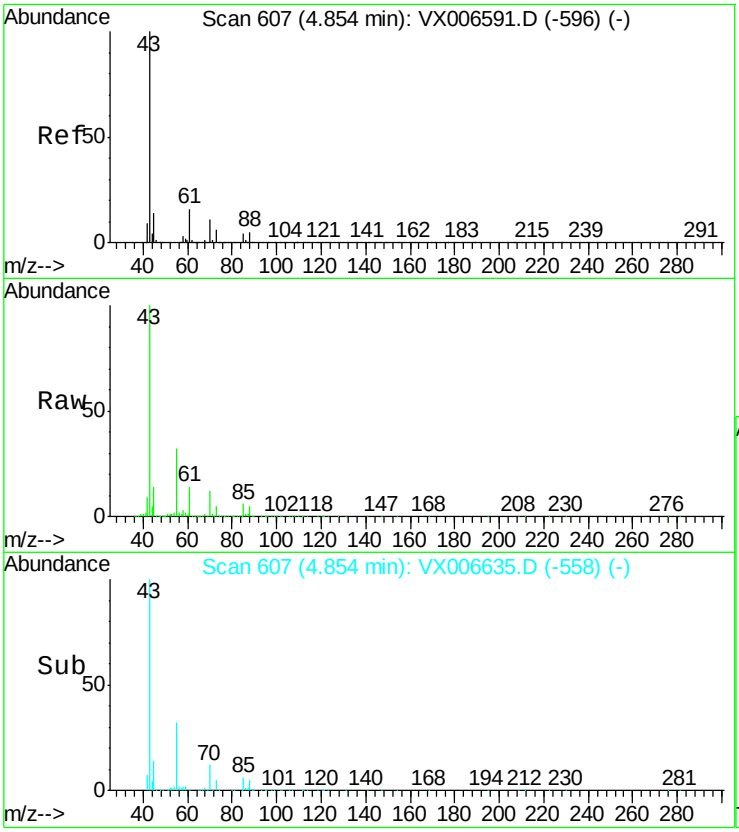
Tgt Ion: 75 Resp: 384607

Ion	Ratio	Lower	Upper
75	100		
110	39.7	20.2	60.5
77	31.2	24.8	37.2



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

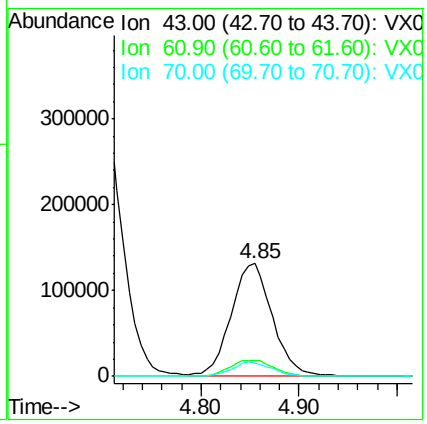
Manual Integrations APPROVED
MMDadoda
12/20/2018 10:00:18 AM

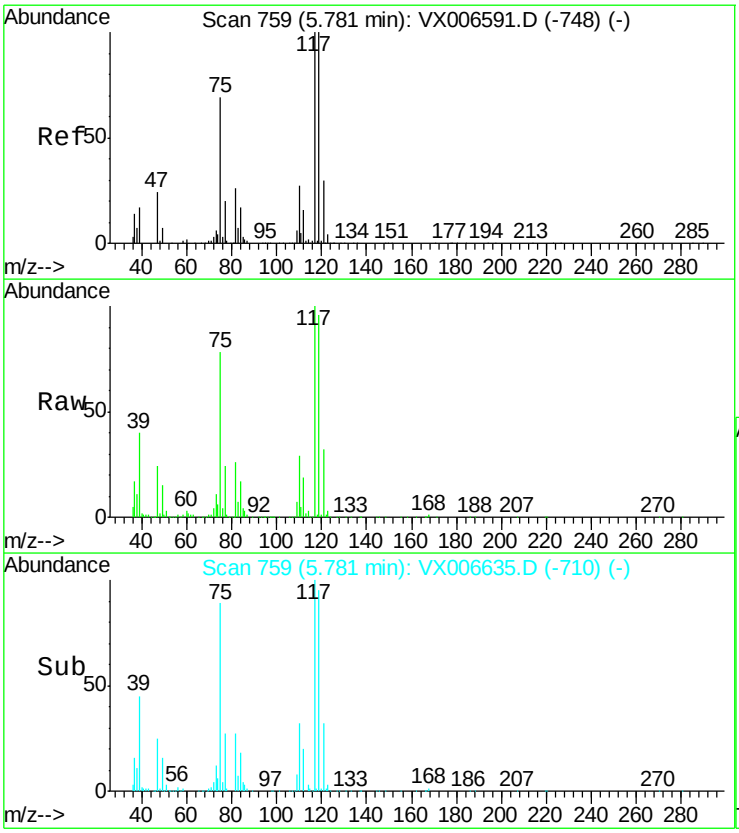


#37
Ethyl Acetate
Concen: 48.082 ug/l
RT: 4.85 min Scan# 607
Delta R.T. 0.00 min
Lab File: VX006635.D
Acq: 19 Dec 2018 14:22

Tgt Ion: 43 Resp: 380288

Ion	Ratio	Lower	Upper
43	100		
61	15.3	11.9	17.9
70	12.5	9.7	14.5

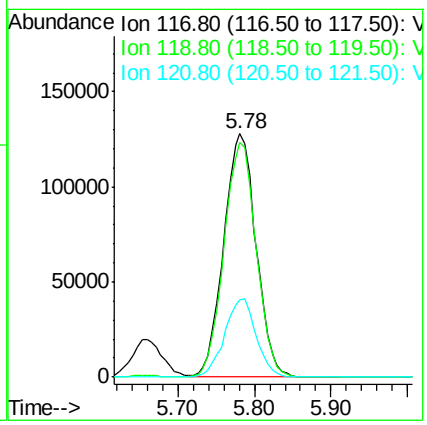




#38
Carbon Tetrachloride
Concen: 50.539 ug/l
RT: 5.78 min Scan# 759
Delta R.T. 0.00 min
Lab File: VX006635.D
Acq: 19 Dec 2018 14:22

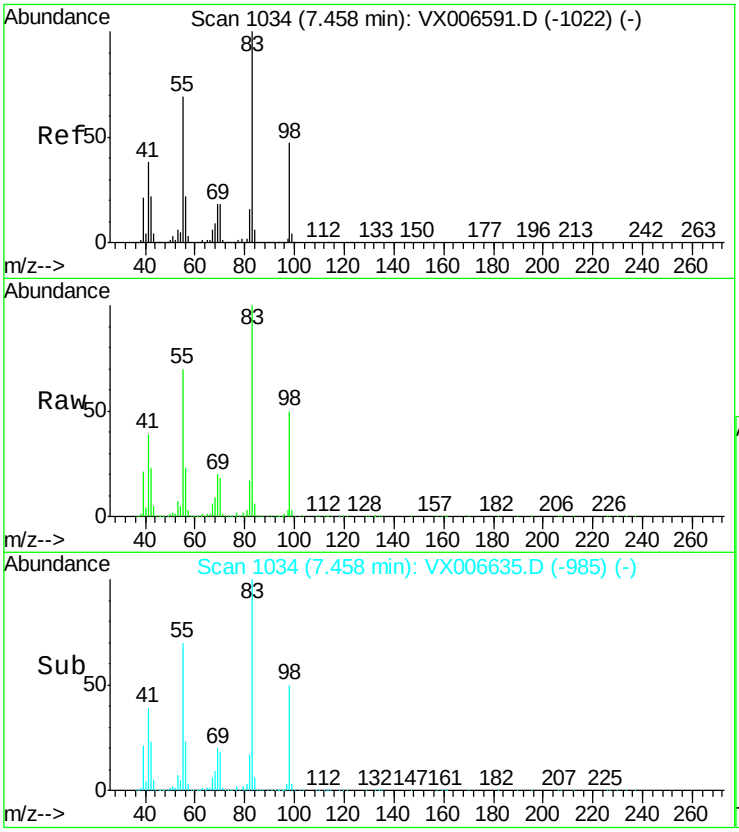
Tgt Ion:117 Resp: 373226

Ion	Ratio	Lower	Upper
117	100		
119	96.4	79.4	119.2
121	31.6	24.0	36.0



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

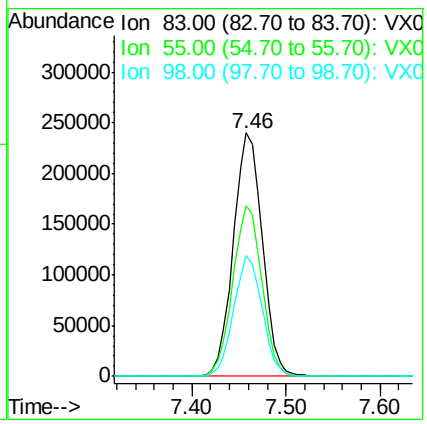
Manual Integrations APPROVED
MMDadoda
12/20/2018 10:00:18 AM

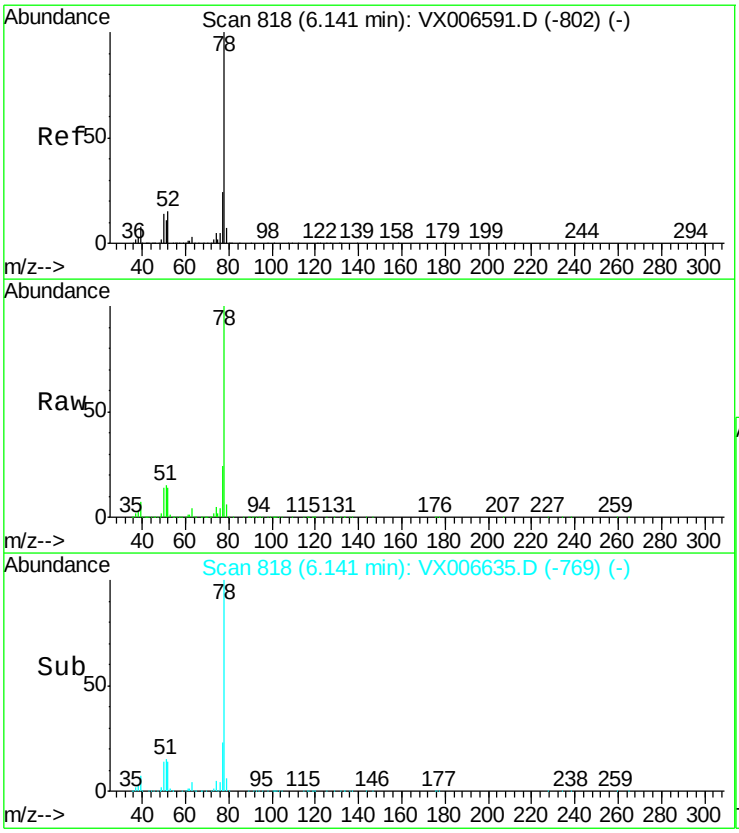


#39
Methylcyclohexane
Concen: 51.541 ug/l
RT: 7.46 min Scan# 1034
Delta R.T. 0.00 min
Lab File: VX006635.D
Acq: 19 Dec 2018 14:22

Tgt Ion: 83 Resp: 515624

Ion	Ratio	Lower	Upper
83	100		
55	70.1	54.9	82.3
98	49.6	37.9	56.9

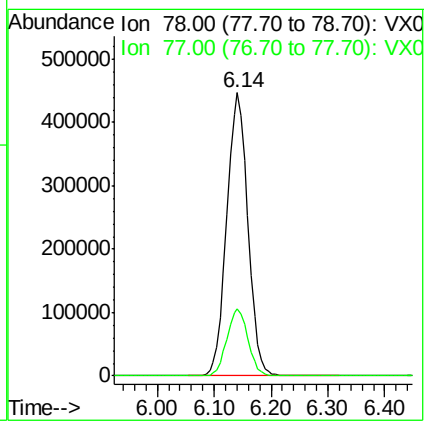




#40
Benzene
Concen: 50.138 ug/l
RT: 6.14 min Scan# 818
Delta R.T. 0.00 min
Lab File: VX006635.D
Acq: 19 Dec 2018 14:22

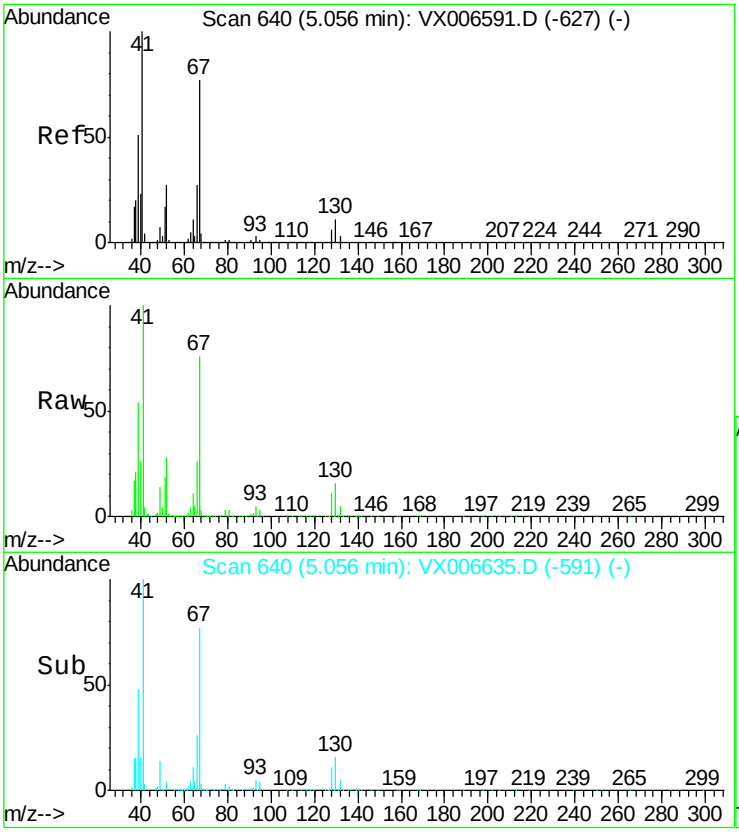
Tgt Ion: 78 Resp: 1158088

Ion	Ratio	Lower	Upper
78	100		
77	23.8	19.2	28.8



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

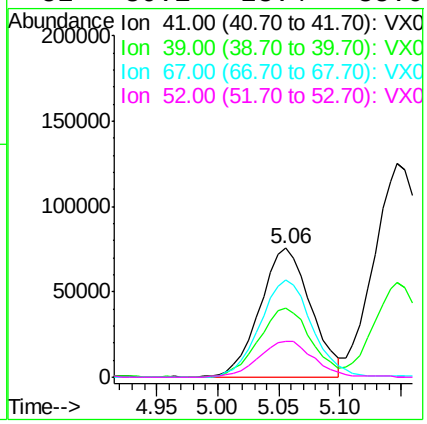
Manual Integrations APPROVED
MMDadoda
12/20/2018 10:00:18 AM

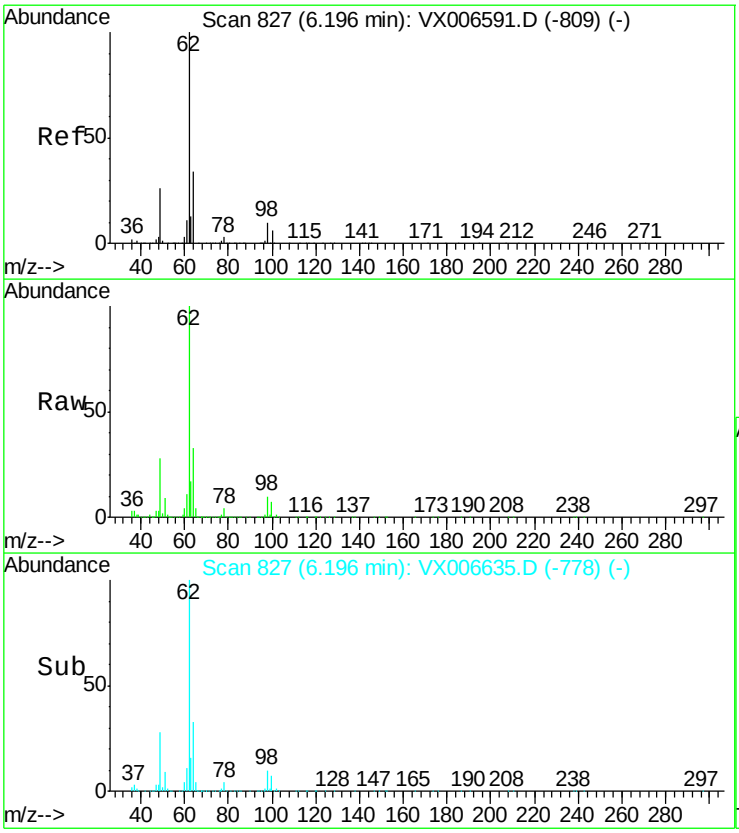


#41
Methacrylonitrile
Concen: 51.997 ug/l
RT: 5.06 min Scan# 640
Delta R.T. 0.00 min
Lab File: VX006635.D
Acq: 19 Dec 2018 14:22

Tgt Ion: 41 Resp: 218341

Ion	Ratio	Lower	Upper
41	100		
39	54.4	42.8	64.2
67	77.5	62.1	93.1
52	30.1	23.4	35.0

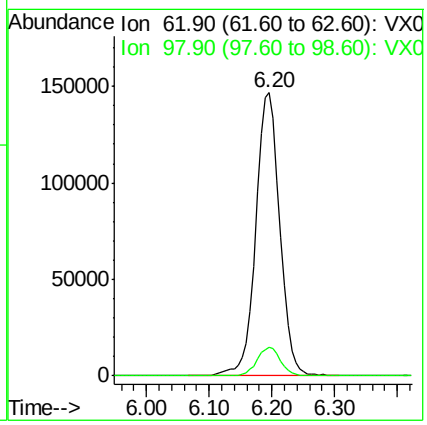




#42
1,2-Dichloroethane
Concen: 49.132 ug/l
RT: 6.20 min Scan# 827
Delta R.T. 0.00 min
Lab File: VX006635.D
Acq: 19 Dec 2018 14:22

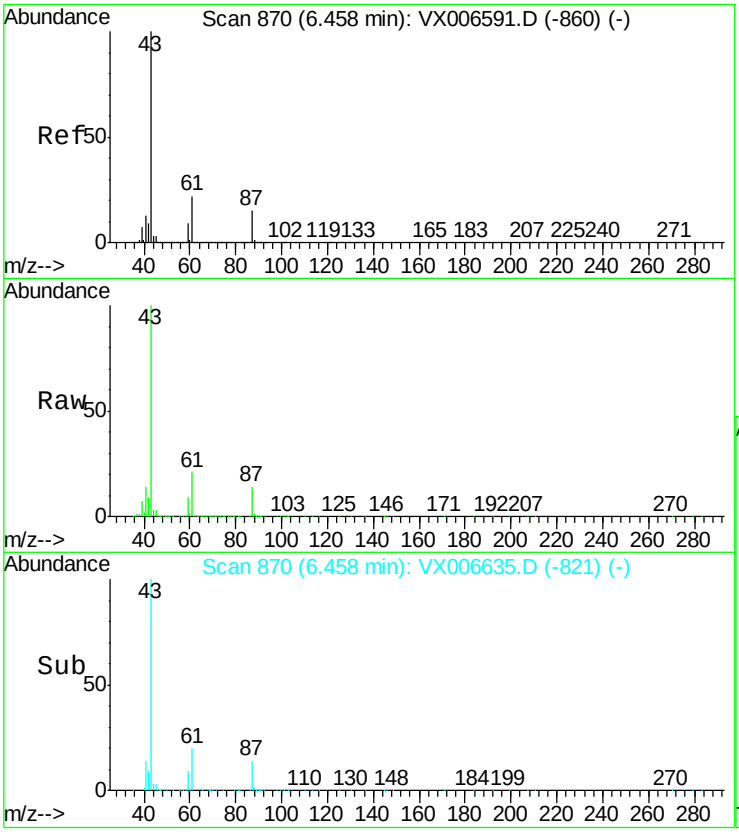
Tgt Ion: 62 Resp: 386712

Ion	Ratio	Lower	Upper
62	100		
98	9.9	0.0	20.2



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

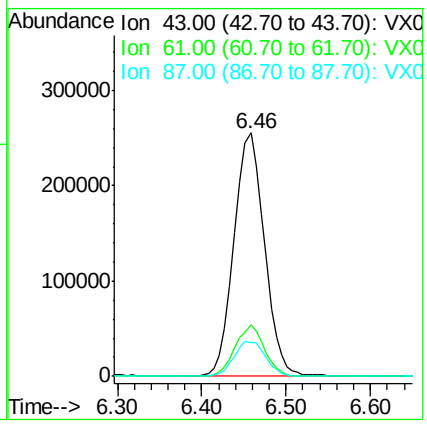
Manual Integrations APPROVED
MMDadoda
12/20/2018 10:00:18 AM

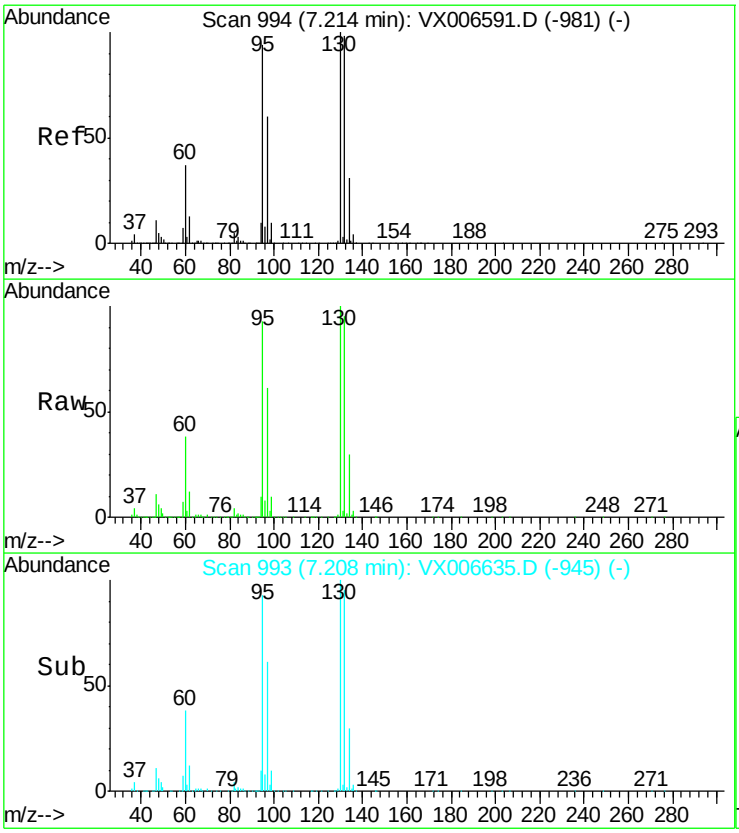


#43
Isopropyl Acetate
Concen: 52.014 ug/l
RT: 6.46 min Scan# 870
Delta R.T. 0.00 min
Lab File: VX006635.D
Acq: 19 Dec 2018 14:22

Tgt Ion: 43 Resp: 625935

Ion	Ratio	Lower	Upper
43	100		
61	20.3	16.8	25.2
87	15.1	12.4	18.6

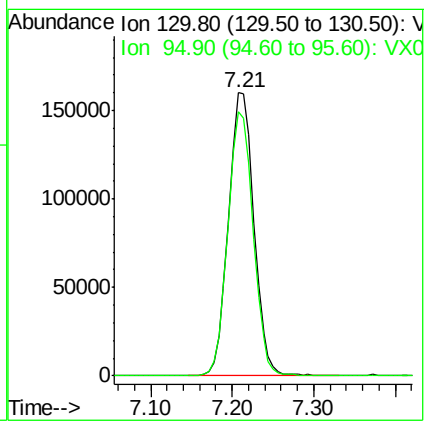




#44
Trichloroethene
Concen: 49.256 ug/l
RT: 7.21 min Scan# 993
Delta R.T. -0.01 min
Lab File: VX006635.D
Acq: 19 Dec 2018 14:22

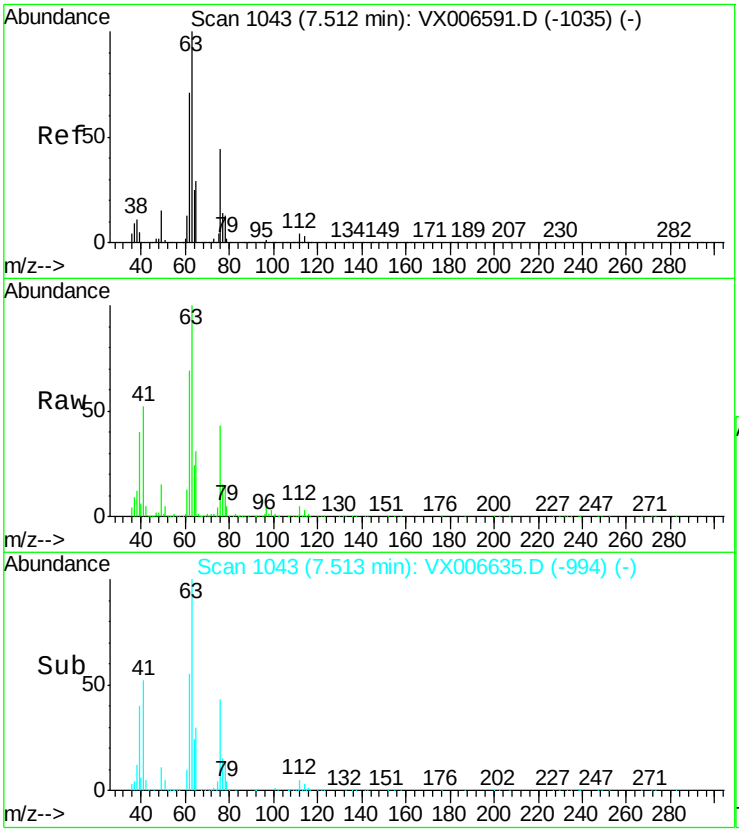
Tgt Ion:130 Resp: 344350

Ion	Ratio	Lower	Upper
130	100		
95	93.4	0.0	187.0



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

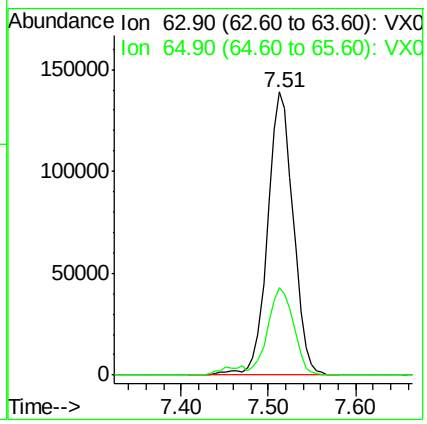
Manual Integrations APPROVED
MMDadoda
12/20/2018 10:00:18 AM

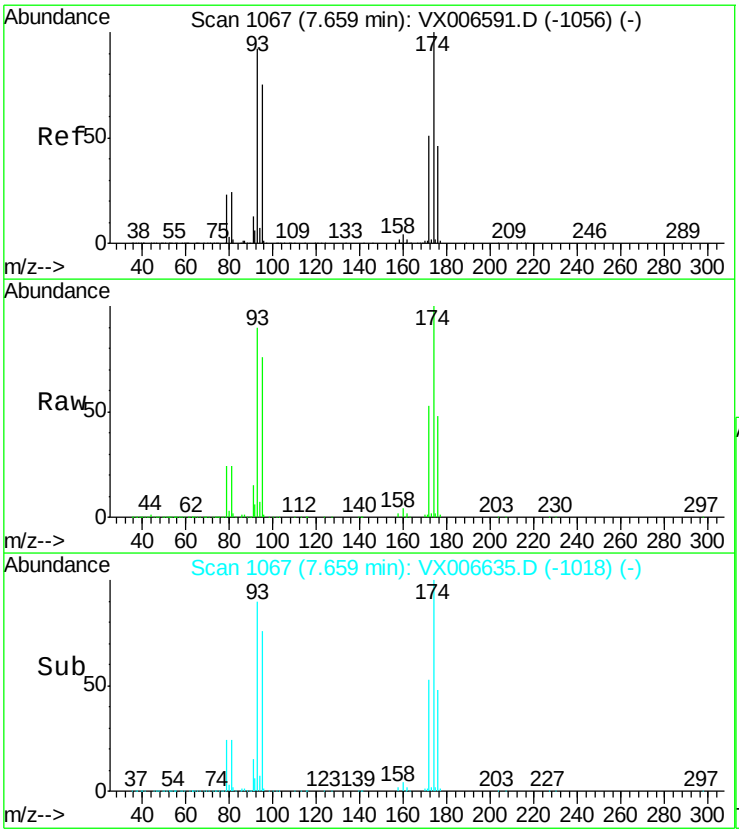


#45
1,2-Dichloropropane
Concen: 50.449 ug/l
RT: 7.51 min Scan# 1043
Delta R.T. 0.00 min
Lab File: VX006635.D
Acq: 19 Dec 2018 14:22

Tgt Ion: 63 Resp: 283569

Ion	Ratio	Lower	Upper
63	100		
65	30.9	25.4	38.0

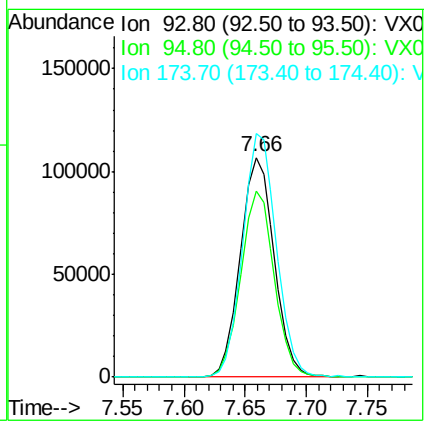




#46
Dibromomethane
Concen: 49.789 ug/l
RT: 7.66 min Scan# 1067
Delta R.T. 0.00 min
Lab File: VX006635.D
Acq: 19 Dec 2018 14:22

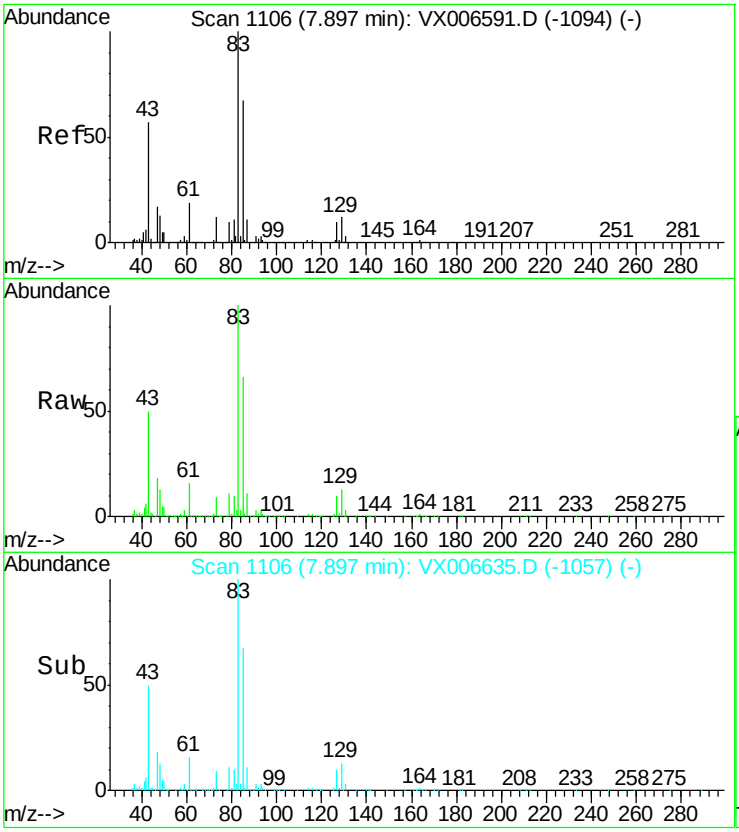
Tgt Ion: 93 Resp: 205853

Ion	Ratio	Lower	Upper
93	100		
95	83.7	66.2	99.4
174	110.6	91.0	136.4



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

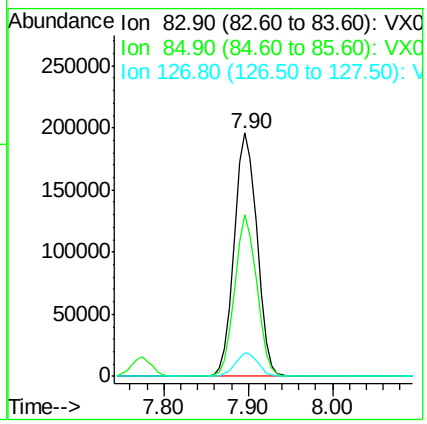
Manual Integrations APPROVED
MMDadoda
12/20/2018 10:00:18 AM

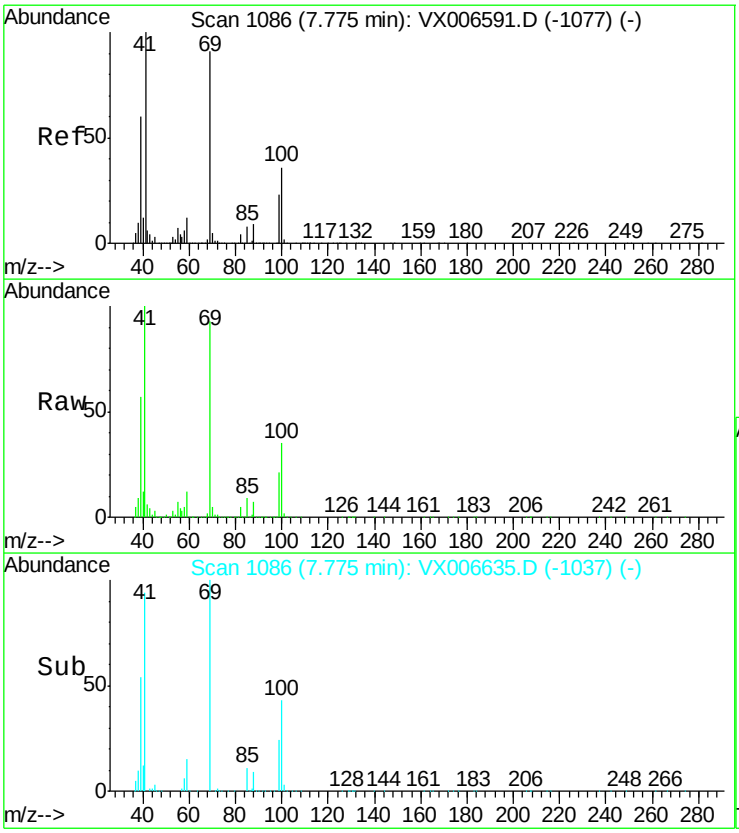


#47
Bromodichloromethane
Concen: 51.957 ug/l
RT: 7.90 min Scan# 1106
Delta R.T. 0.00 min
Lab File: VX006635.D
Acq: 19 Dec 2018 14:22

Tgt Ion: 83 Resp: 356644

Ion	Ratio	Lower	Upper
83	100		
85	66.4	53.2	79.8
127	9.7	7.8	11.6

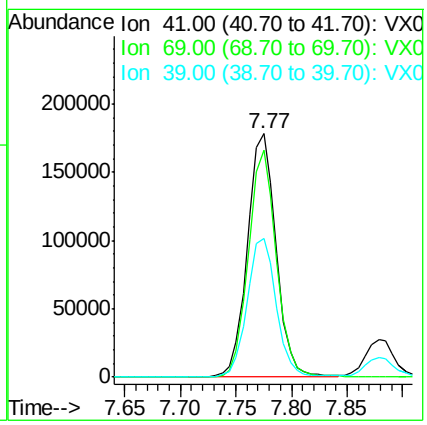




#48
Methyl methacrylate
Concen: 52.208 ug/l
RT: 7.77 min Scan# 1086
Delta R.T. 0.00 min
Lab File: VX006635.D
Acq: 19 Dec 2018 14:22

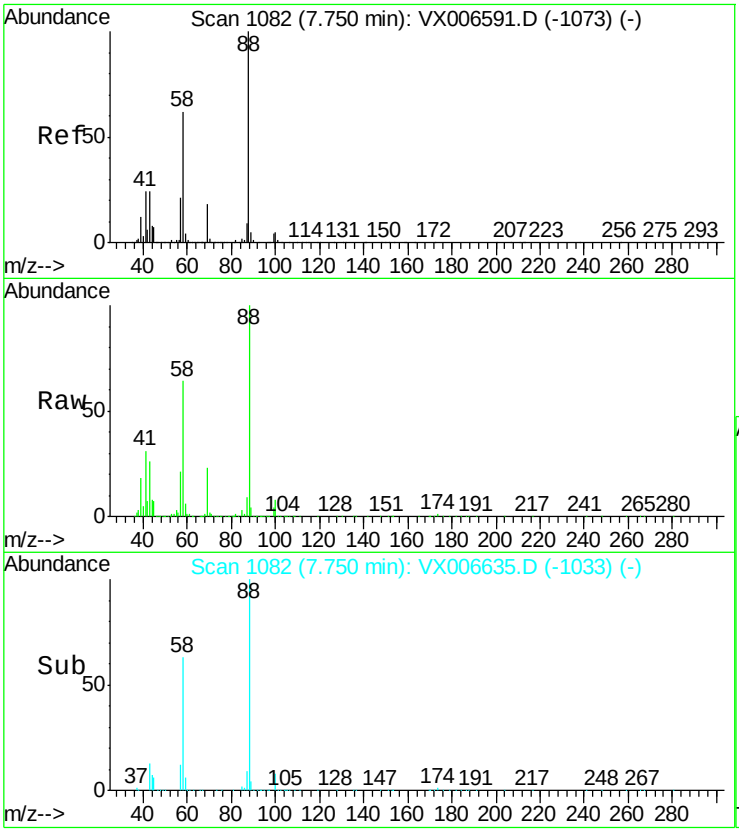
Tgt Ion: 41 Resp: 319493

Ion	Ratio	Lower	Upper
41	100		
69	91.1	72.4	108.6
39	57.7	45.8	68.8



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

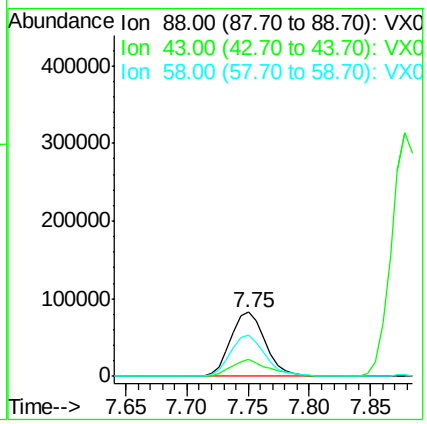
Manual Integrations APPROVED
MMDadoda
12/20/2018 10:00:18 AM

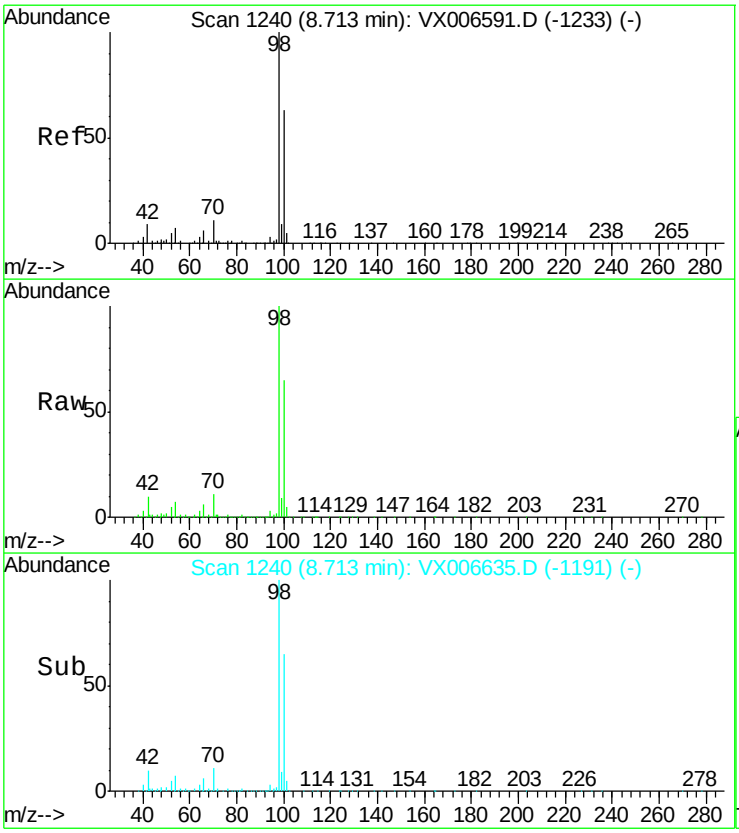


#49
1,4-Dioxane
Concen: 1006.586 ug/l
RT: 7.75 min Scan# 1082
Delta R.T. 0.00 min
Lab File: VX006635.D
Acq: 19 Dec 2018 14:22

Tgt Ion: 88 Resp: 161151

Ion	Ratio	Lower	Upper
88	100		
43	28.6	22.2	33.4
58	65.2	51.0	76.4

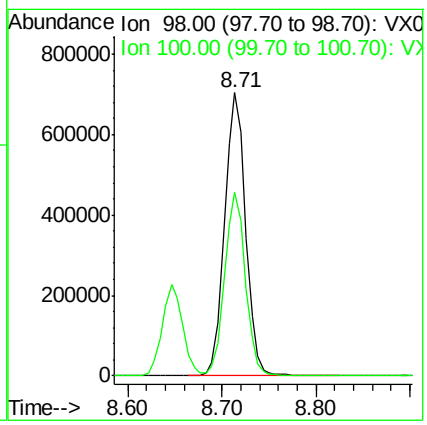




#50
Toluene-d8
Concen: 49.663 ug/l
RT: 8.71 min Scan# 1240
Delta R.T. 0.00 min
Lab File: VX006635.D
Acq: 19 Dec 2018 14:22

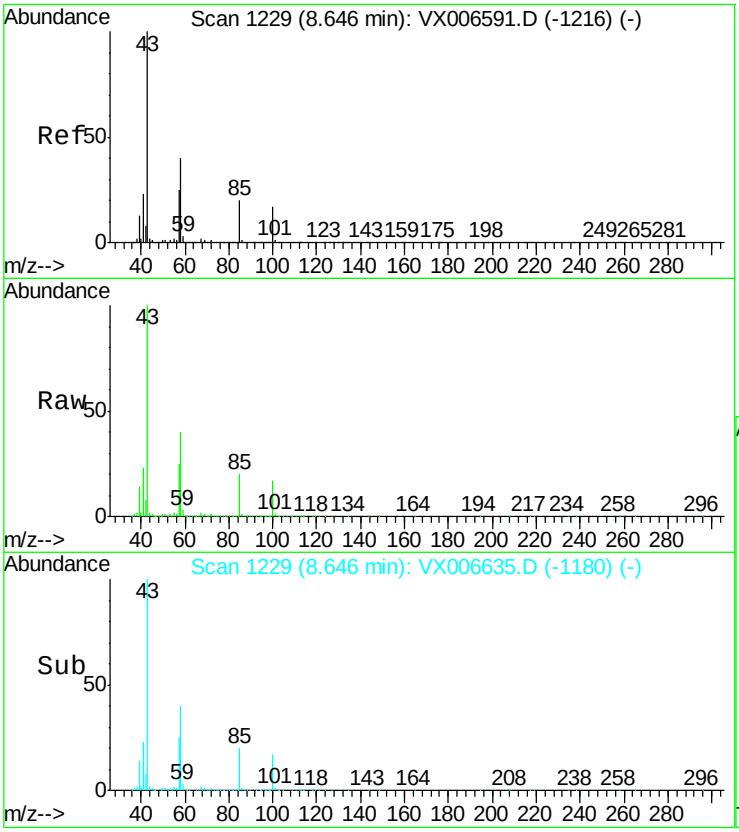
Tgt Ion: 98 Resp: 1086314

Ion	Ratio	Lower	Upper
98	100		
100	64.3	52.0	78.0



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

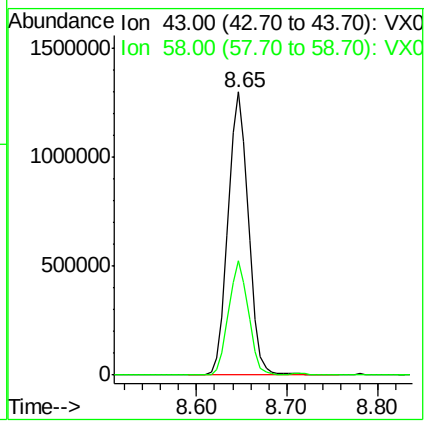
Manual Integrations APPROVED
MMDadoda
12/20/2018 10:00:18 AM

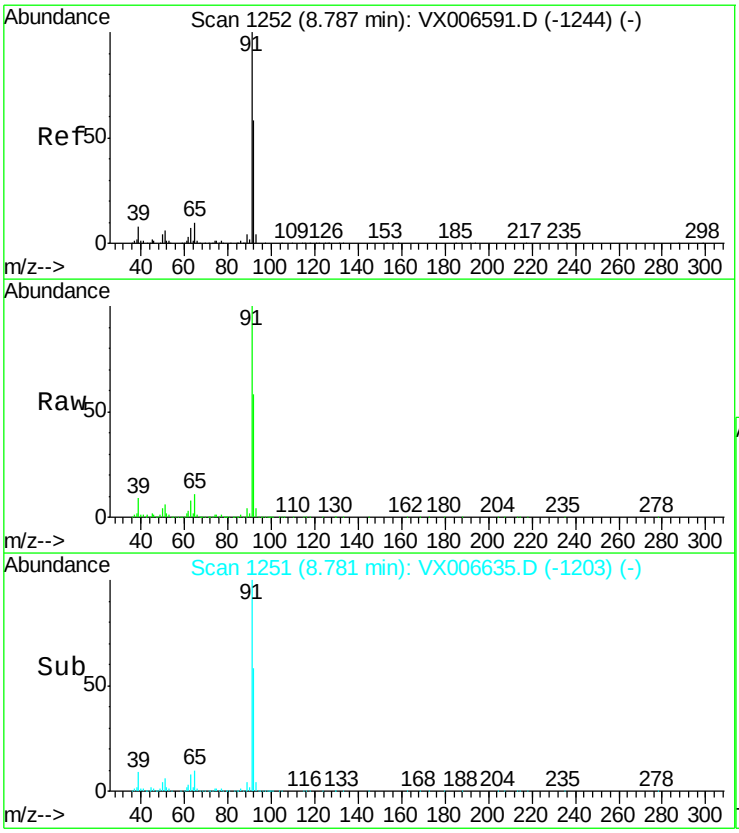


#51
4-Methyl-2-Pentanone
Concen: 264.285 ug/l
RT: 8.65 min Scan# 1229
Delta R.T. 0.00 min
Lab File: VX006635.D
Acq: 19 Dec 2018 14:22

Tgt Ion: 43 Resp: 2023602

Ion	Ratio	Lower	Upper
43	100		
58	39.4	31.8	47.6

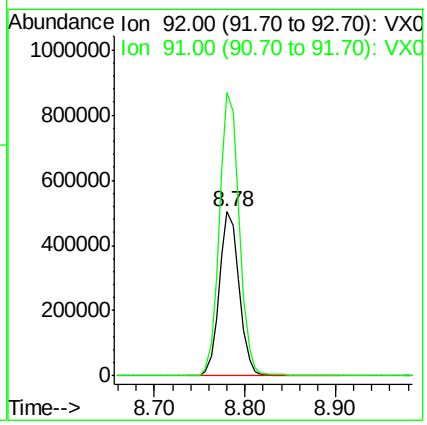




#52
Toluene
Concen: 51.545 ug/l
RT: 8.78 min Scan# 1251
Delta R.T. -0.01 min
Lab File: VX006635.D
Acq: 19 Dec 2018 14:22

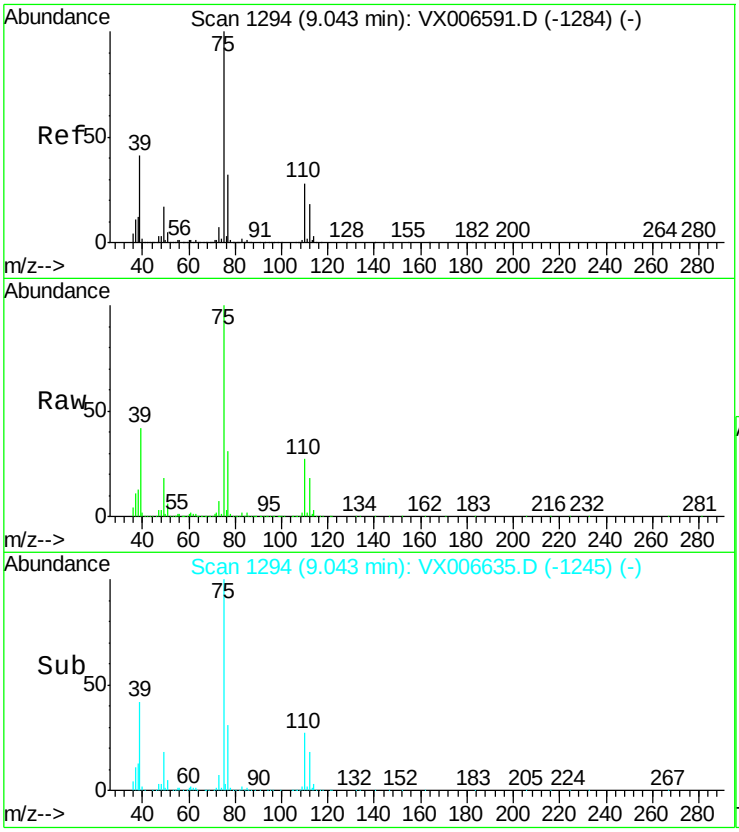
Tgt Ion: 92 Resp: 769173

Ion	Ratio	Lower	Upper
92	100		
91	173.3	137.6	206.4



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

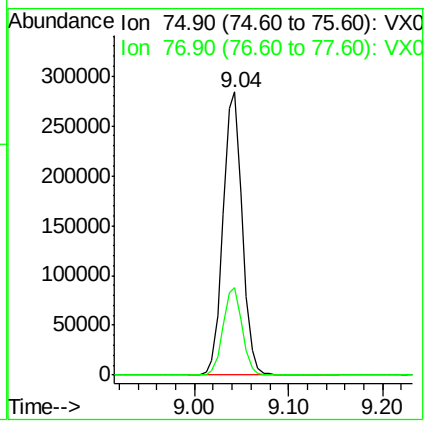
Manual Integrations APPROVED
MMDadoda
12/20/2018 10:00:18 AM

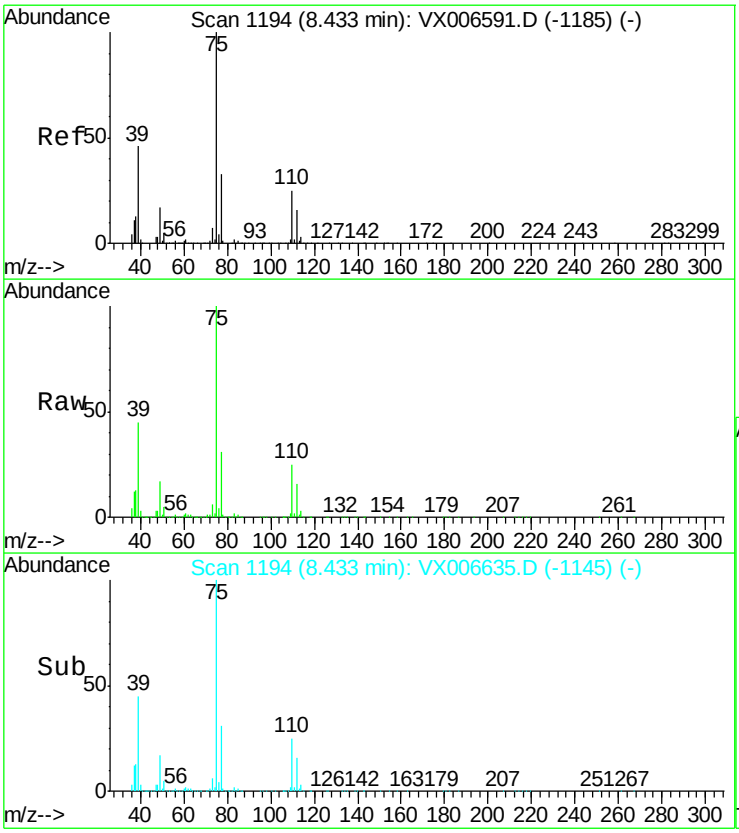


#53
t-1,3-Dichloropropene
Concen: 54.098 ug/l
RT: 9.04 min Scan# 1294
Delta R.T. 0.00 min
Lab File: VX006635.D
Acq: 19 Dec 2018 14:22

Tgt Ion: 75 Resp: 398255

Ion	Ratio	Lower	Upper
75	100		
77	31.1	25.4	38.0

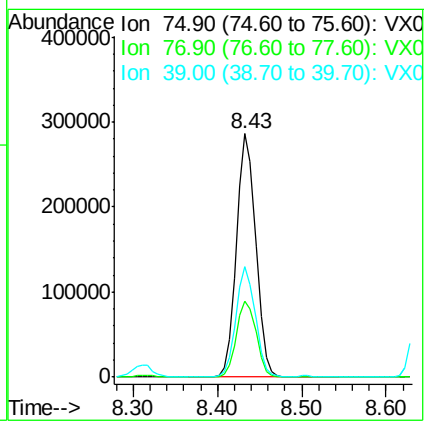




#54
cis-1,3-Dichloropropene
Concen: 54.411 ug/l
RT: 8.43 min Scan# 1194
Delta R.T. 0.00 min
Lab File: VX006635.D
Acq: 19 Dec 2018 14:22

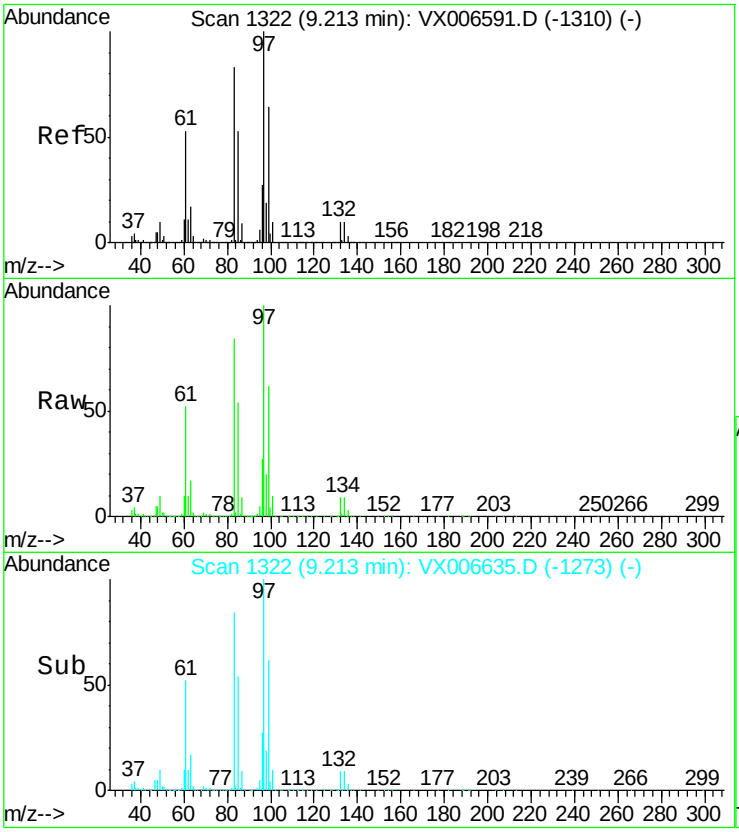
Tgt Ion: 75 Resp: 439520

Ion	Ratio	Lower	Upper
75	100		
77	31.3	26.2	39.2
39	45.2	36.7	55.1



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

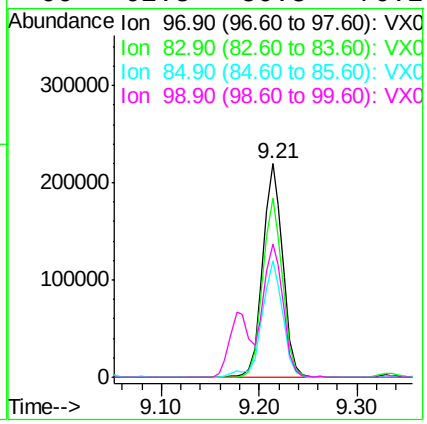
Manual Integrations APPROVED
MMDadoda
12/20/2018 10:00:18 AM

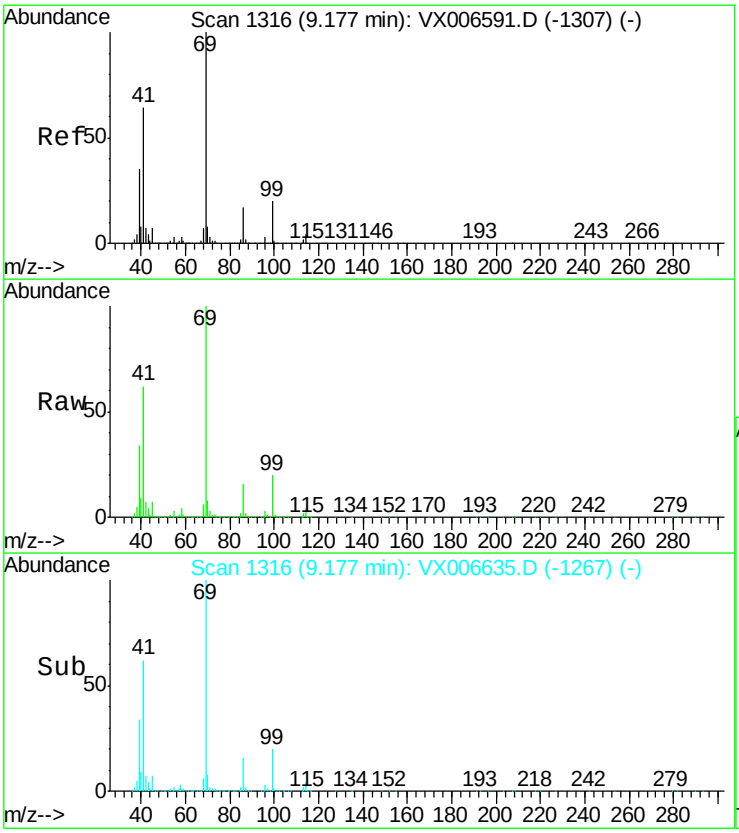


#55
1,1,2-Trichloroethane
Concen: 51.381 ug/l
RT: 9.21 min Scan# 1322
Delta R.T. 0.00 min
Lab File: VX006635.D
Acq: 19 Dec 2018 14:22

Tgt Ion: 97 Resp: 313837

Ion	Ratio	Lower	Upper
97	100		
83	84.1	66.6	99.8
85	54.3	42.7	64.1
99	62.3	50.8	76.2

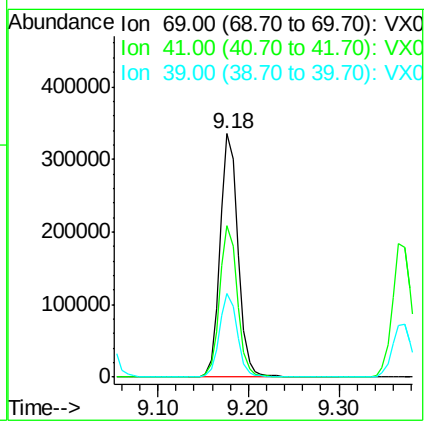




#56
Ethyl methacrylate
Concen: 53.333 ug/l
RT: 9.18 min Scan# 1316
Delta R.T. 0.00 min
Lab File: VX006635.D
Acq: 19 Dec 2018 14:22

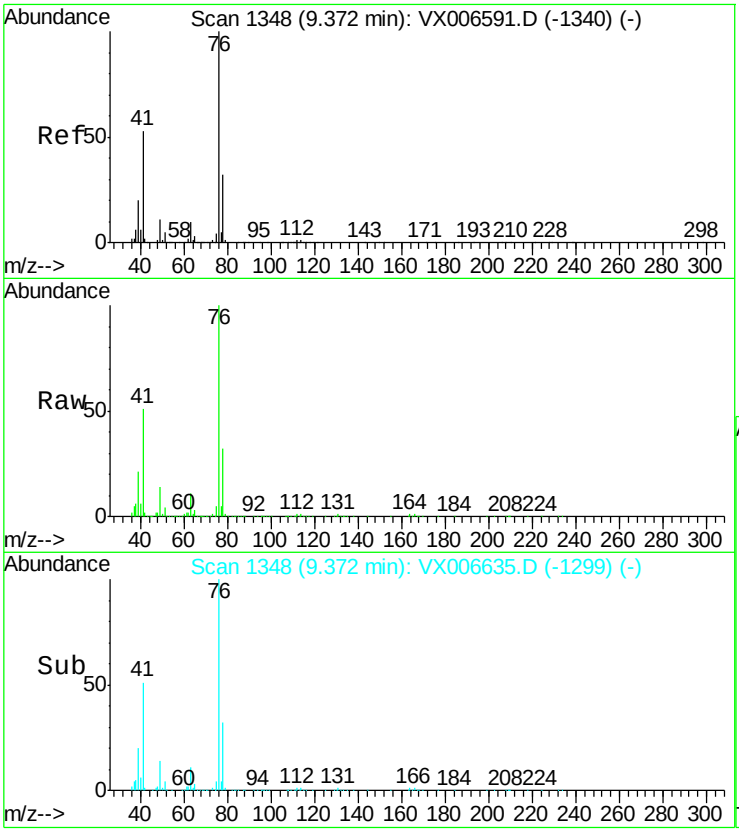
Tgt Ion: 69 Resp: 460413

Ion	Ratio	Lower	Upper
69	100		
41	61.7	48.7	73.1
39	34.2	27.0	40.6



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

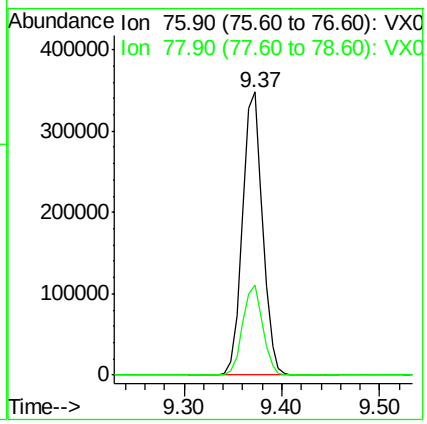
Manual Integrations APPROVED
MMDadoda
12/20/2018 10:00:18 AM

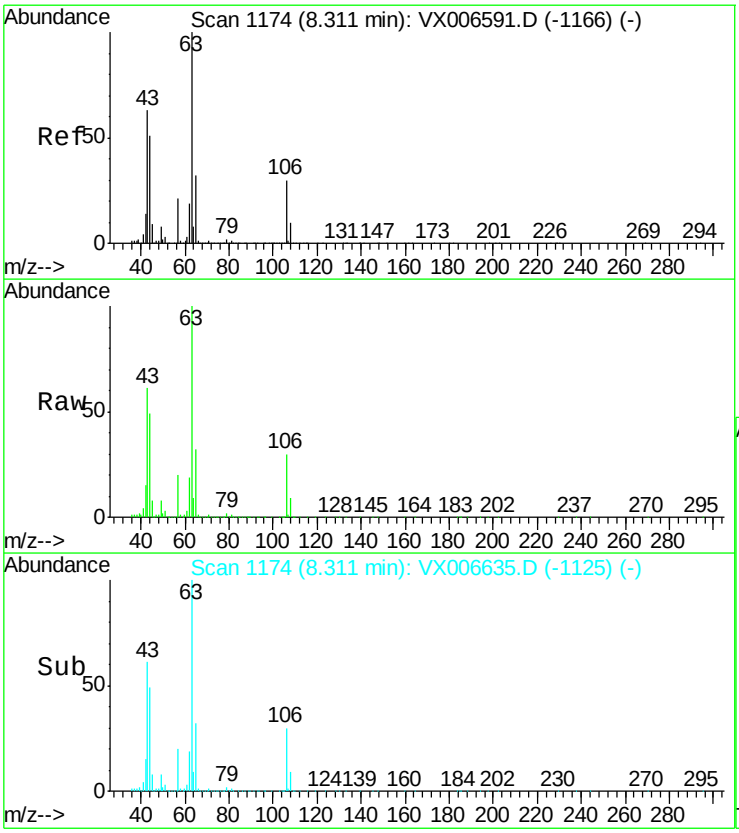


#57
1,3-Dichloropropane
Concen: 50.354 ug/l
RT: 9.37 min Scan# 1348
Delta R.T. 0.00 min
Lab File: VX006635.D
Acq: 19 Dec 2018 14:22

Tgt Ion: 76 Resp: 494837

Ion	Ratio	Lower	Upper
76	100		
78	32.1	26.0	39.0

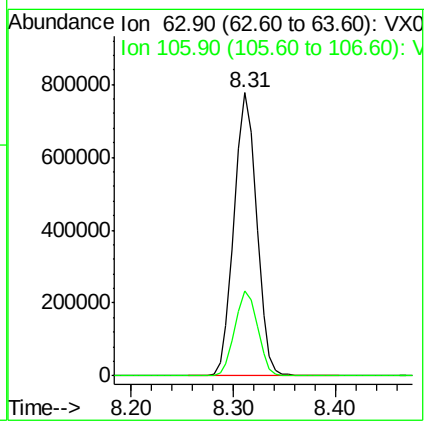




#58
2-Chloroethyl Vinyl ether
Concen: 258.046 ug/l
RT: 8.31 min Scan# 1174
Delta R.T. 0.00 min
Lab File: VX006635.D
Acq: 19 Dec 2018 14:22

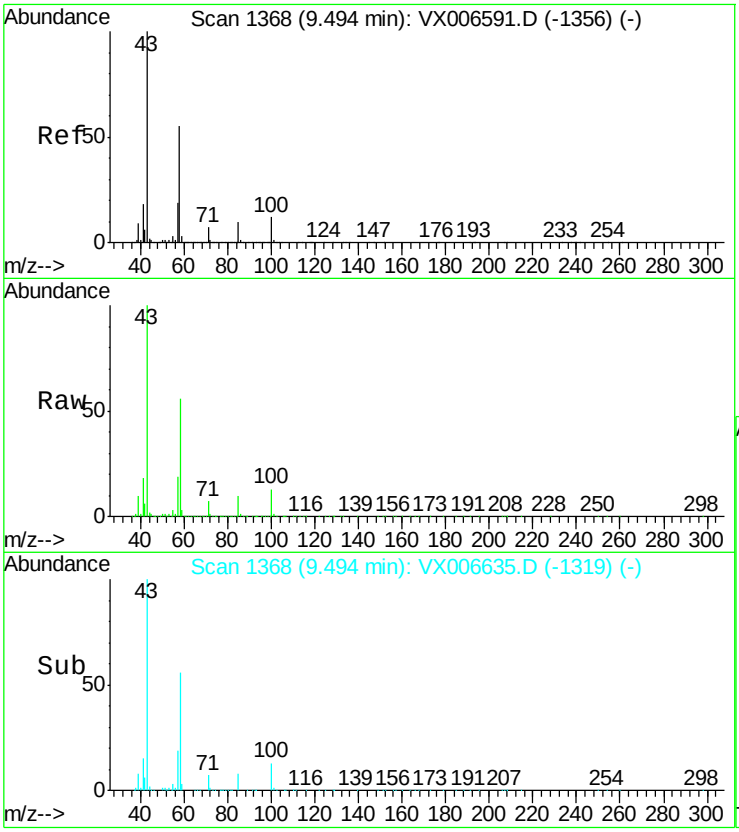
Tgt Ion: 63 Resp: 1184160

Ion	Ratio	Lower	Upper
63	100		
106	30.5	24.6	36.8



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

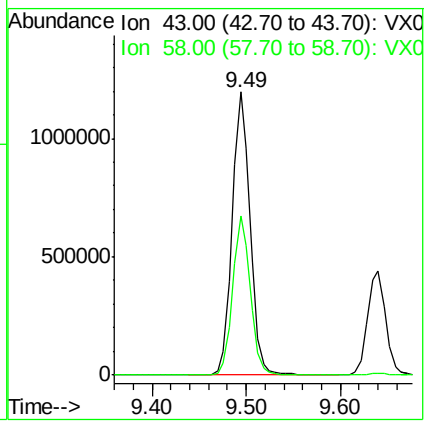
Manual Integrations APPROVED
MMDadoda
12/20/2018 10:00:18 AM

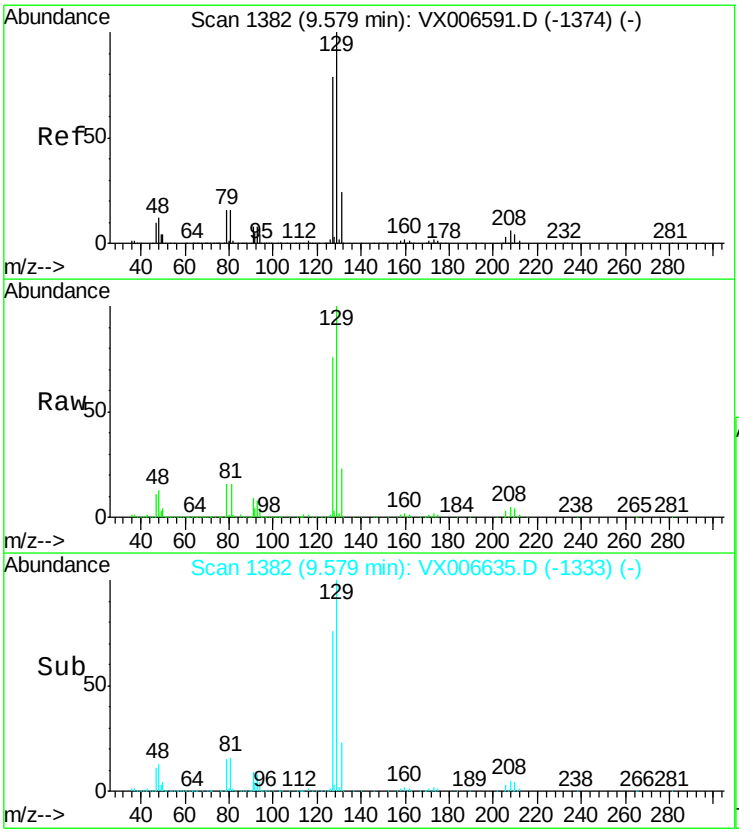


#59
2-Hexanone
Concen: 268.789 ug/l
RT: 9.49 min Scan# 1368
Delta R.T. 0.00 min
Lab File: VX006635.D
Acq: 19 Dec 2018 14:22

Tgt Ion: 43 Resp: 1574678

Ion	Ratio	Lower	Upper
43	100		
58	55.5	27.7	83.1

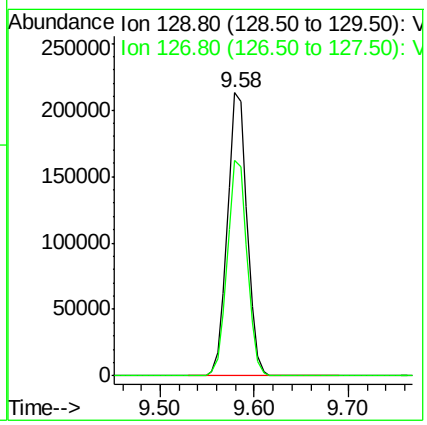




#60
Dibromochloromethane
Concen: 48.479 ug/l
RT: 9.58 min Scan# 1382
Delta R.T. 0.00 min
Lab File: VX006635.D
Acq: 19 Dec 2018 14:22

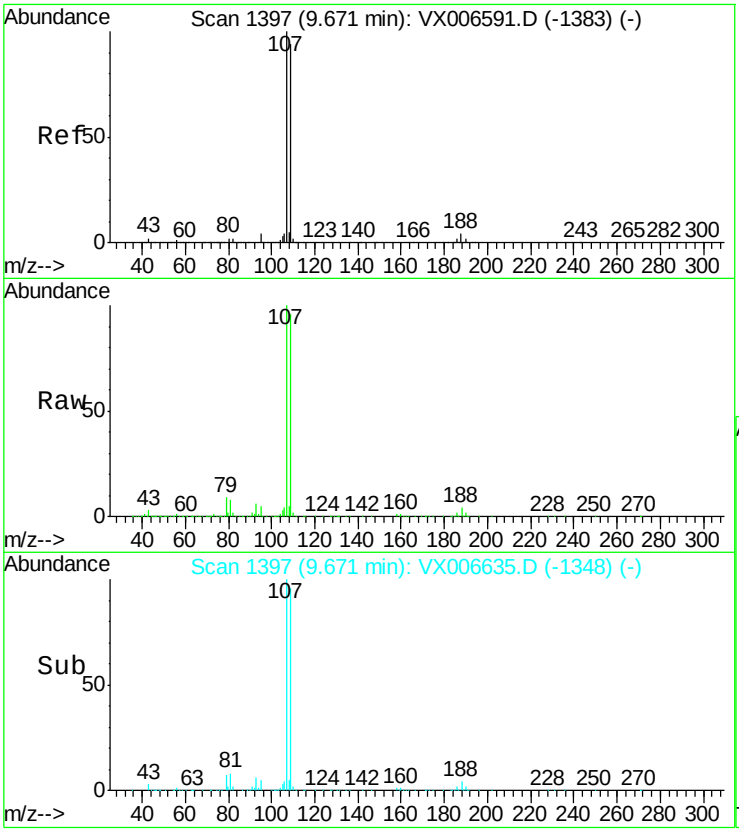
Tgt Ion:129 Resp: 309221

Ion	Ratio	Lower	Upper
129	100		
127	76.6	39.3	117.8



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

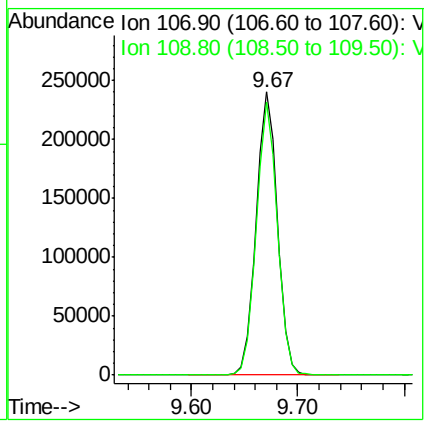
Manual Integrations APPROVED
MMDadoda
12/20/2018 10:00:18 AM

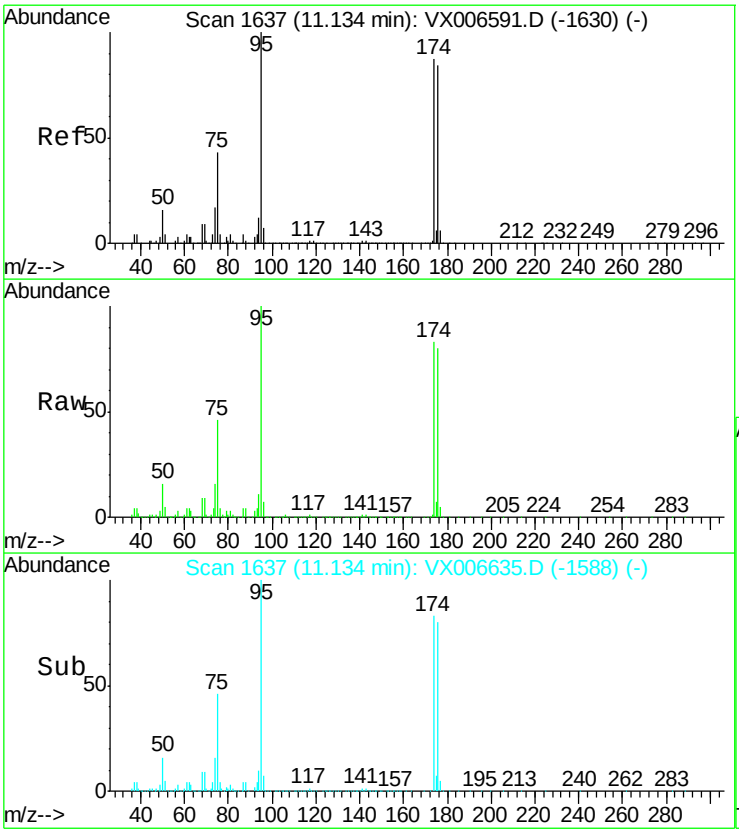


#61
1,2-Dibromoethane
Concen: 51.923 ug/l
RT: 9.67 min Scan# 1397
Delta R.T. 0.00 min
Lab File: VX006635.D
Acq: 19 Dec 2018 14:22

Tgt Ion:107 Resp: 337138

Ion	Ratio	Lower	Upper
107	100		
109	95.4	75.8	113.6

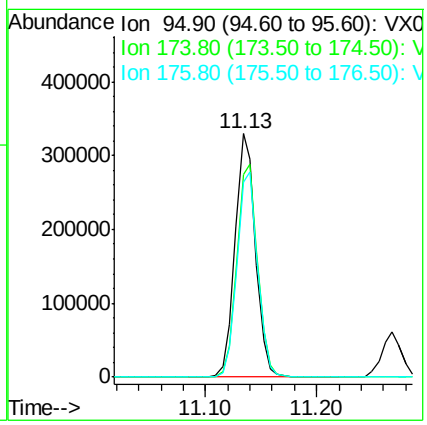




#62
4-Bromofluorobenzene
Concen: 51.884 ug/l
RT: 11.13 min Scan# 1637
Delta R.T. 0.00 min
Lab File: VX006635.D
Acq: 19 Dec 2018 14:22

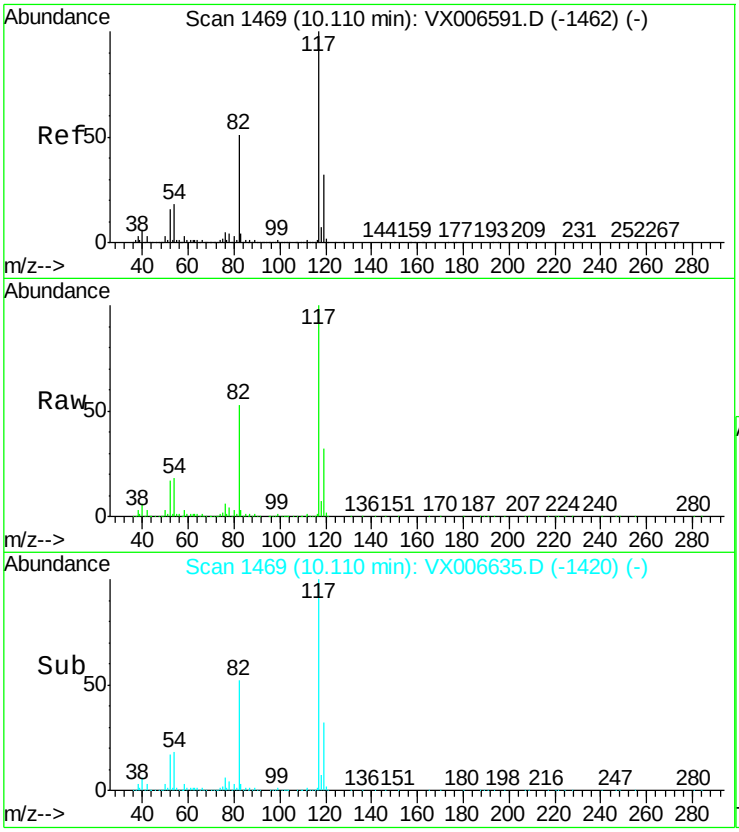
Tgt Ion: 95 Resp: 415644

Ion	Ratio	Lower	Upper
95	100		
174	89.3	0.0	182.2
176	86.1	0.0	178.8



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

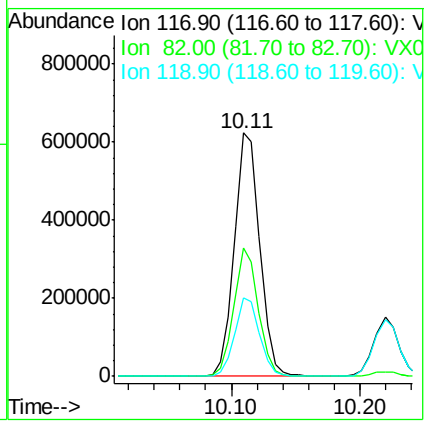
Manual Integrations APPROVED
MMDadoda
12/20/2018 10:00:18 AM

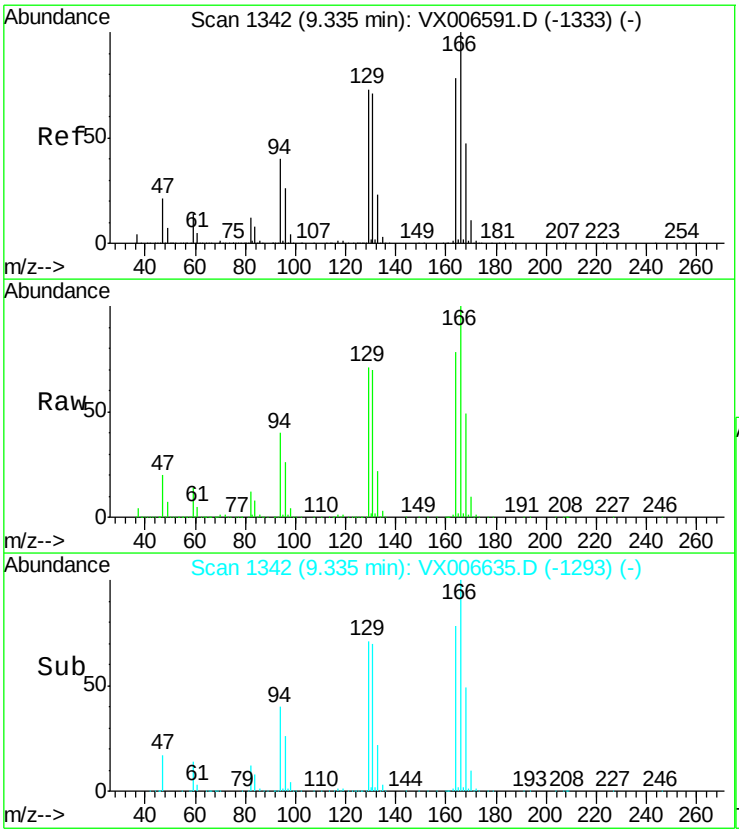


#63
Chlorobenzene-d5
Concen: 50.000 ug/l
RT: 10.11 min Scan# 1469
Delta R.T. 0.00 min
Lab File: VX006635.D
Acq: 19 Dec 2018 14:22

Tgt Ion:117 Resp: 858708

Ion	Ratio	Lower	Upper
117	100		
82	52.5	41.0	61.6
119	32.1	25.4	38.0

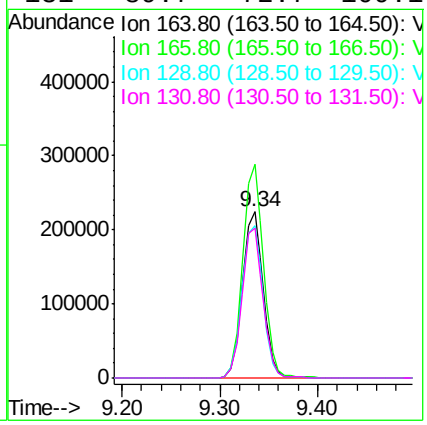




#64
Tetrachloroethene
Concen: 48.588 ug/l
RT: 9.34 min Scan# 1342
Delta R.T. 0.00 min
Lab File: VX006635.D
Acq: 19 Dec 2018 14:22

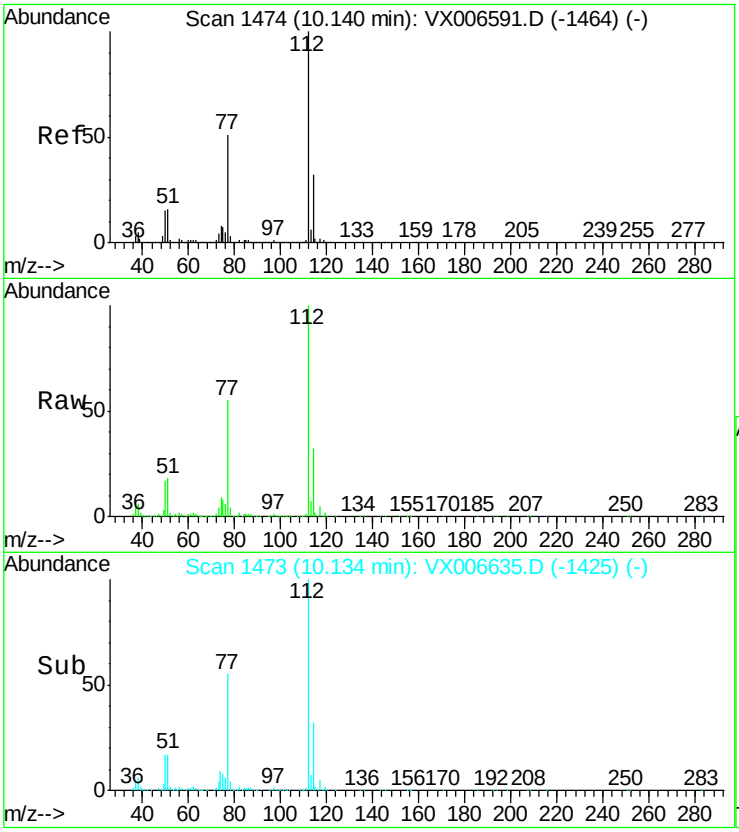
Tgt Ion:164 Resp: 330384

Ion	Ratio	Lower	Upper
164	100		
166	128.4	102.5	153.7
129	91.5	75.1	112.7
131	89.7	72.7	109.1



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

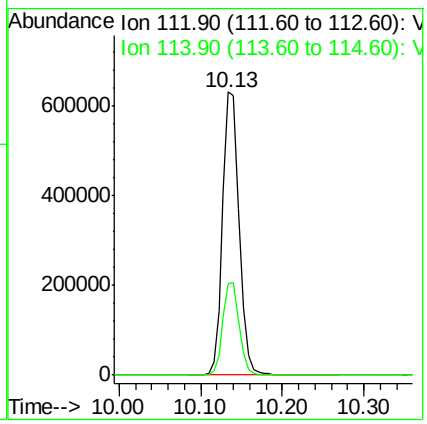
Manual Integrations APPROVED
MMDadoda
12/20/2018 10:00:18 AM

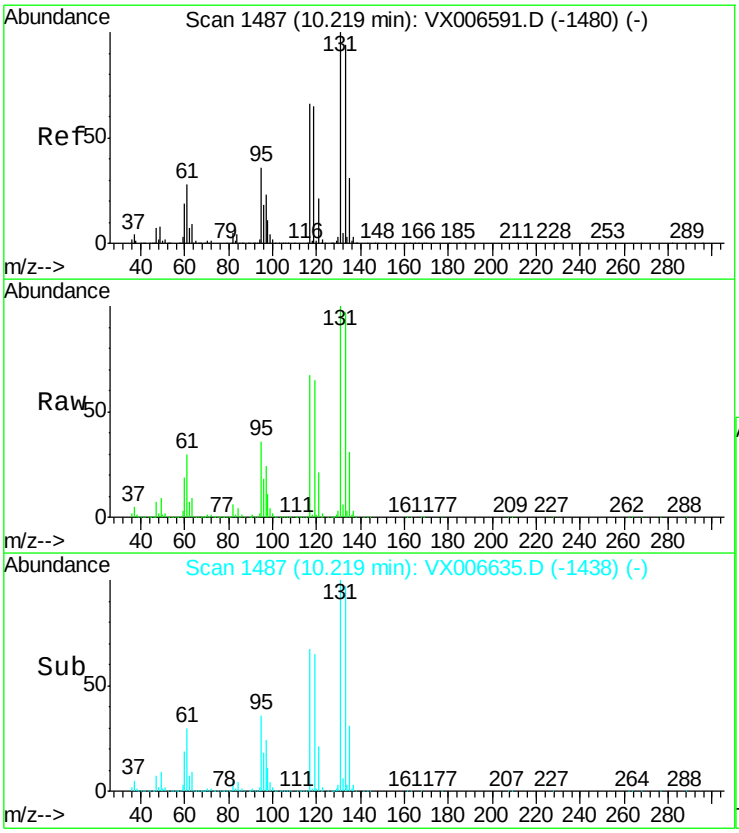


#65
Chlorobenzene
Concen: 49.190 ug/l
RT: 10.13 min Scan# 1473
Delta R.T. -0.01 min
Lab File: VX006635.D
Acq: 19 Dec 2018 14:22

Tgt Ion:112 Resp: 893618

Ion	Ratio	Lower	Upper
112	100		
114	32.3	25.7	38.5

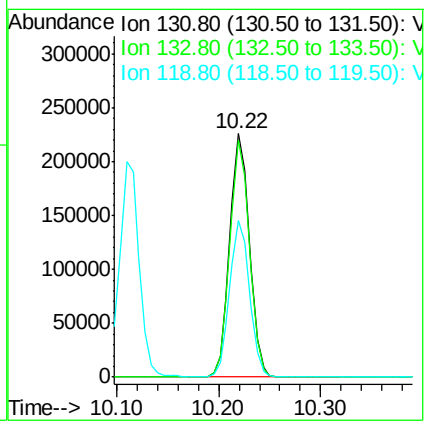




#66
1,1,1,2-Tetrachloroethane
Concen: 53.089 ug/l
RT: 10.22 min Scan# 1487
Delta R.T. 0.00 min
Lab File: VX006635.D
Acq: 19 Dec 2018 14:22

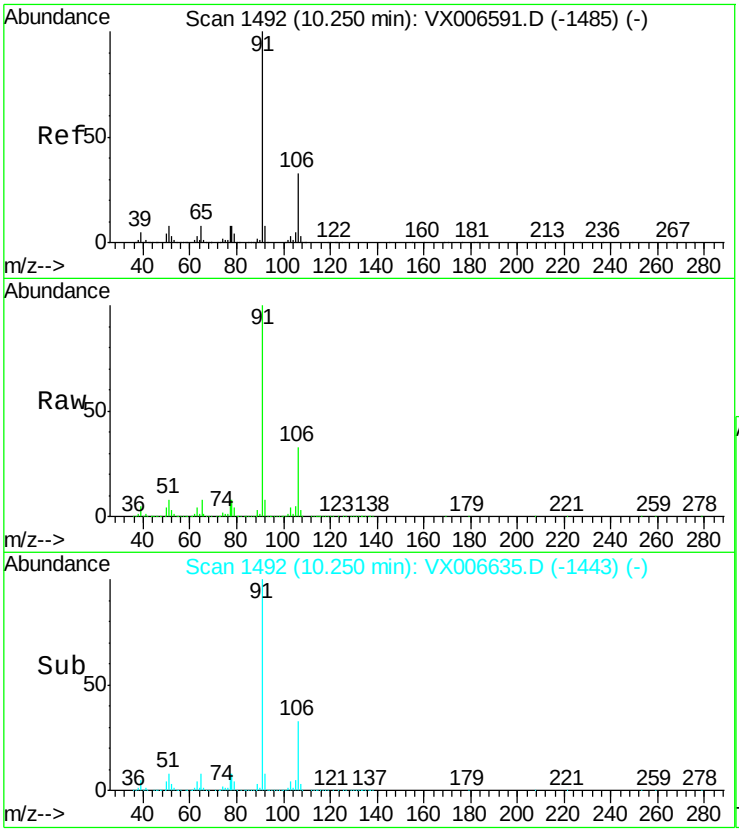
Tgt Ion:131 Resp: 300908

Ion	Ratio	Lower	Upper
131	100		
133	96.5	48.0	144.2
119	64.9	32.6	97.8



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

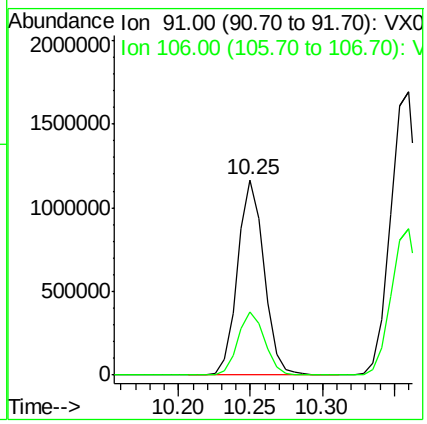
Manual Integrations APPROVED
MMDadoda
12/20/2018 10:00:18 AM

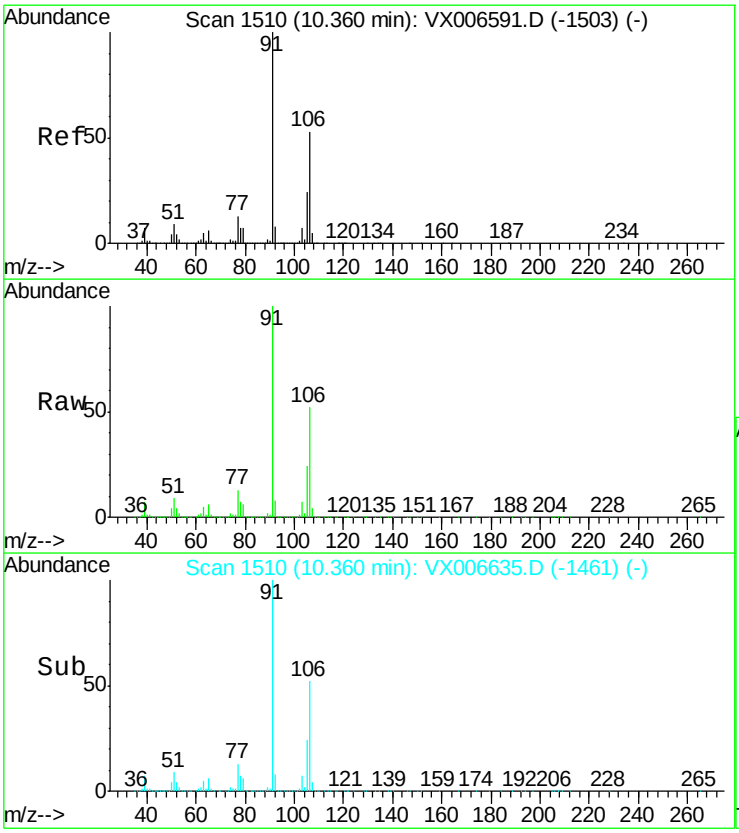


#67
Ethyl Benzene
Concen: 50.397 ug/l
RT: 10.25 min Scan# 1492
Delta R.T. 0.00 min
Lab File: VX006635.D
Acq: 19 Dec 2018 14:22

Tgt Ion: 91 Resp: 1496060

Ion	Ratio	Lower	Upper
91	100		
106	32.6	26.4	39.6

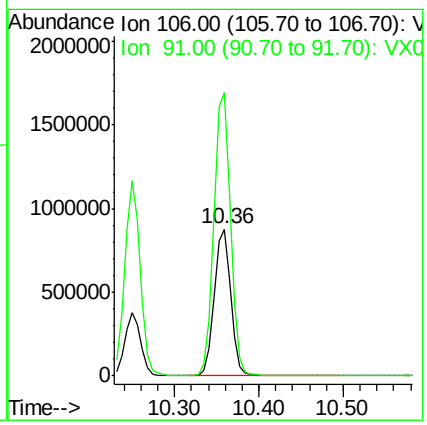




#68
m/p-Xylenes
Concen: 102.228 ug/l
RT: 10.36 min Scan# 1510
Delta R.T. 0.00 min
Lab File: VX006635.D
Acq: 19 Dec 2018 14:22

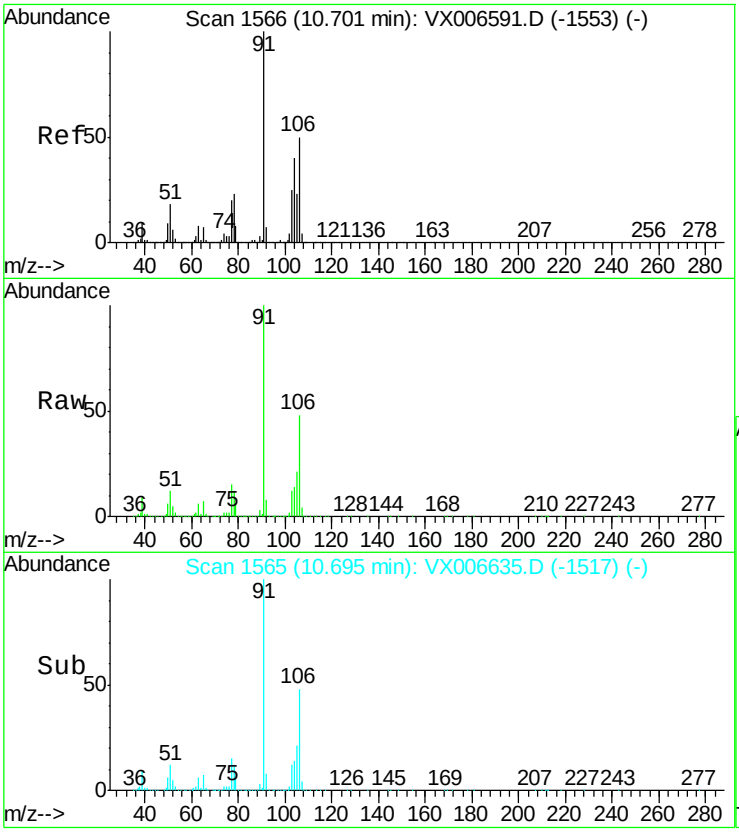
Tgt Ion:106 Resp: 1197485

Ion	Ratio	Lower	Upper
106	100		
91	195.5	155.8	233.6



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

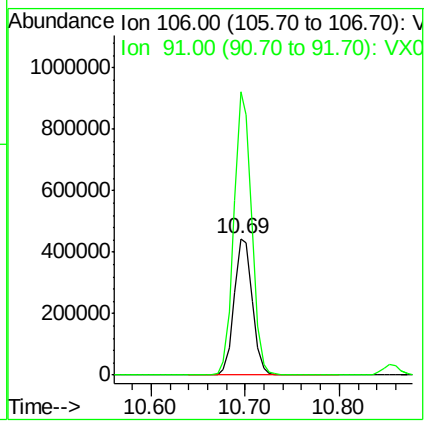
Manual Integrations APPROVED
MMDadoda
12/20/2018 10:00:18 AM

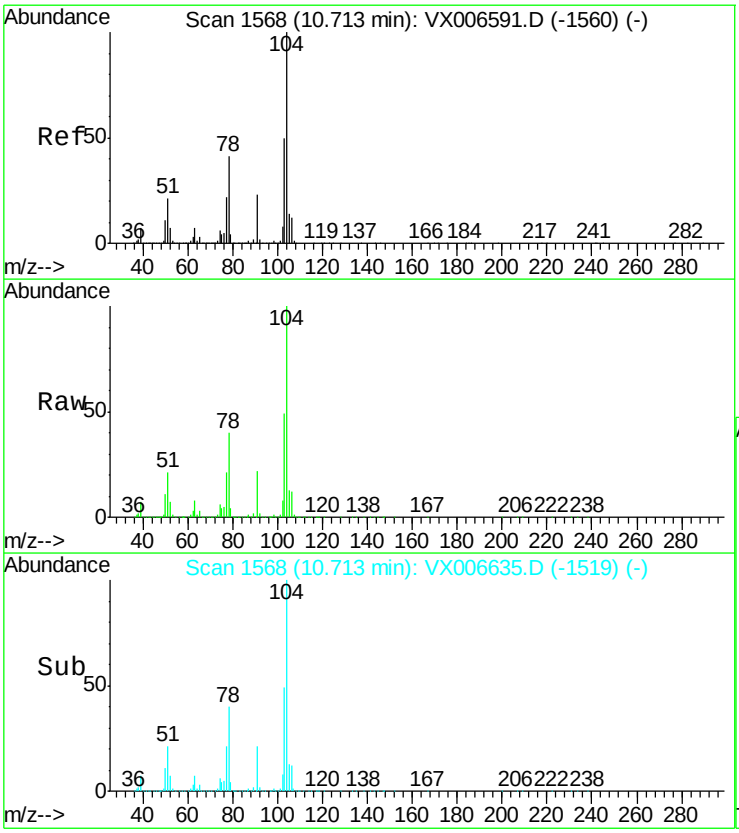


#69
o-Xylene
Concen: 51.098 ug/l
RT: 10.69 min Scan# 1565
Delta R.T. -0.01 min
Lab File: VX006635.D
Acq: 19 Dec 2018 14:22

Tgt Ion:106 Resp: 591058

Ion	Ratio	Lower	Upper
106	100		
91	203.1	101.3	303.7

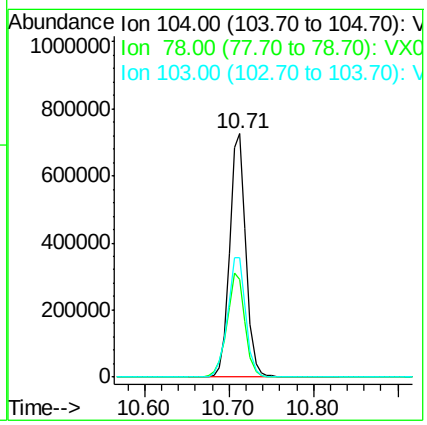




#70
Styrene
Concen: 52.309 ug/l
RT: 10.71 min Scan# 1568
Delta R.T. 0.00 min
Lab File: VX006635.D
Acq: 19 Dec 2018 14:22

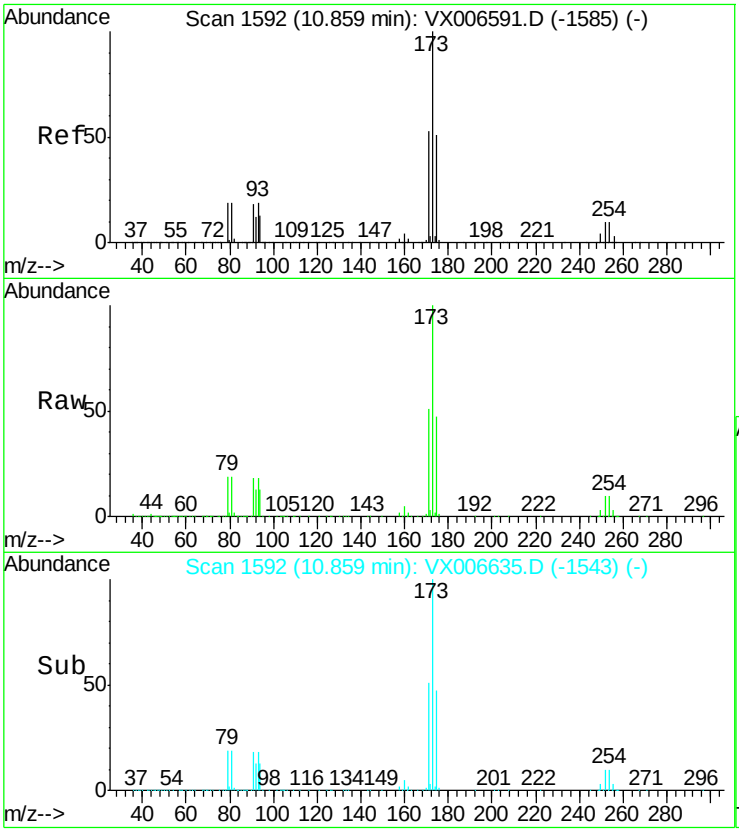
Tgt Ion:104 Resp: 957248

Ion	Ratio	Lower	Upper
104	100		
78	47.3	37.7	56.5
103	55.2	43.8	65.8



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

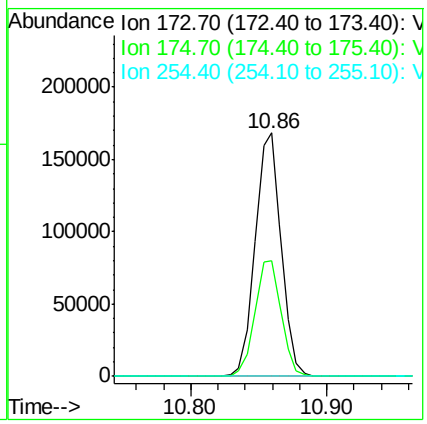
Manual Integrations APPROVED
MMDadoda
12/20/2018 10:00:18 AM

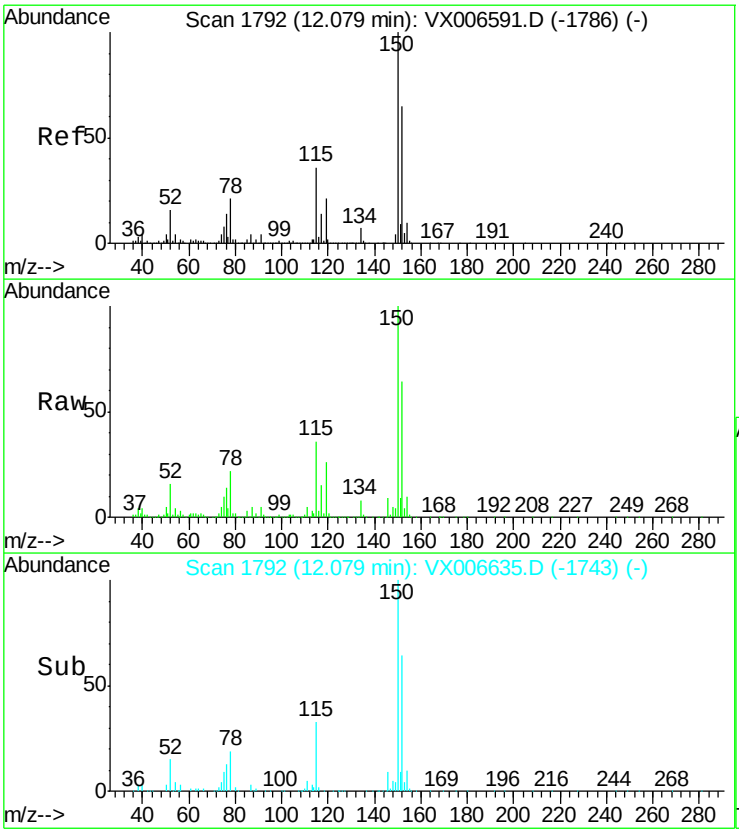


#71
Bromoform
Concen: 44.624 ug/l
RT: 10.86 min Scan# 1592
Delta R.T. 0.00 min
Lab File: VX006635.D
Acq: 19 Dec 2018 14:22

Tgt Ion:173 Resp: 225454

Ion	Ratio	Lower	Upper
173	100		
175	48.4	24.7	74.1
254	0.2	0.2	0.2

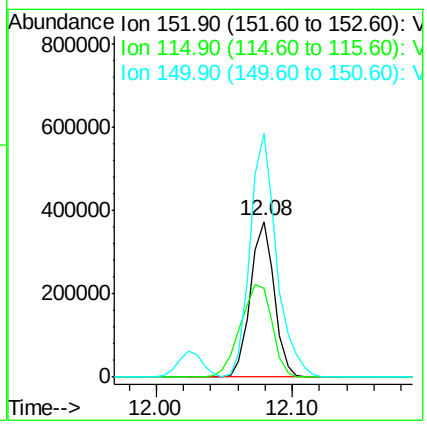




#72
1,4-Dichlorobenzene-d4
Concen: 50.000 ug/l
RT: 12.08 min Scan# 1792
Delta R.T. 0.00 min
Lab File: VX006635.D
Acq: 19 Dec 2018 14:22

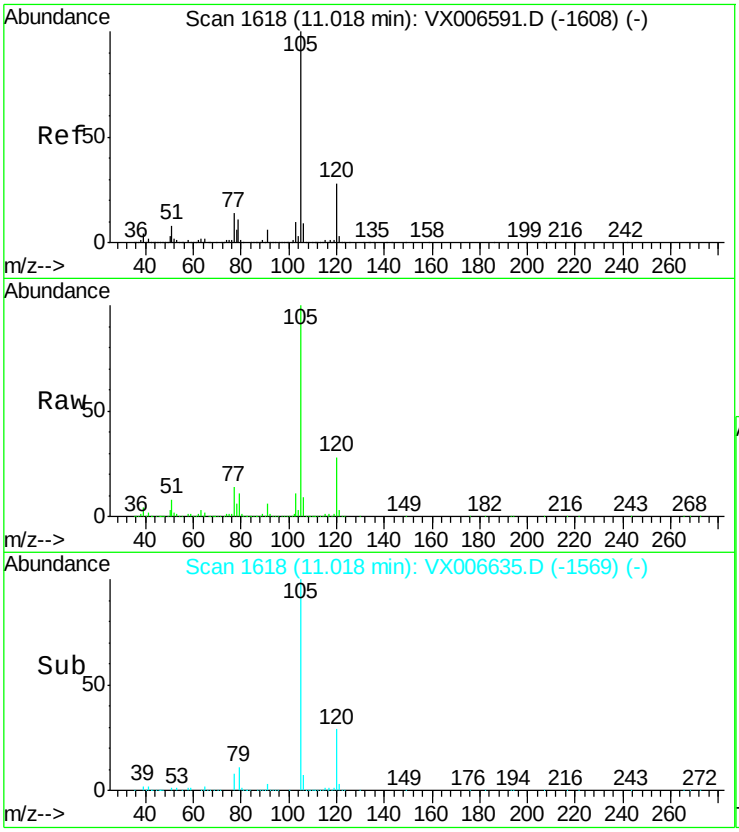
Tgt Ion:152 Resp: 458522

Ion	Ratio	Lower	Upper
152	100		
115	79.0	39.1	117.2
150	174.0	0.0	344.8



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

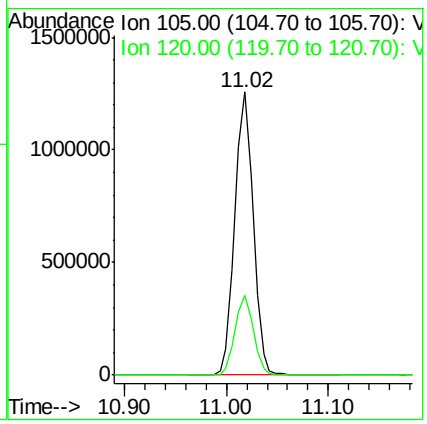
Manual Integrations APPROVED
MMDadoda
12/20/2018 10:00:18 AM

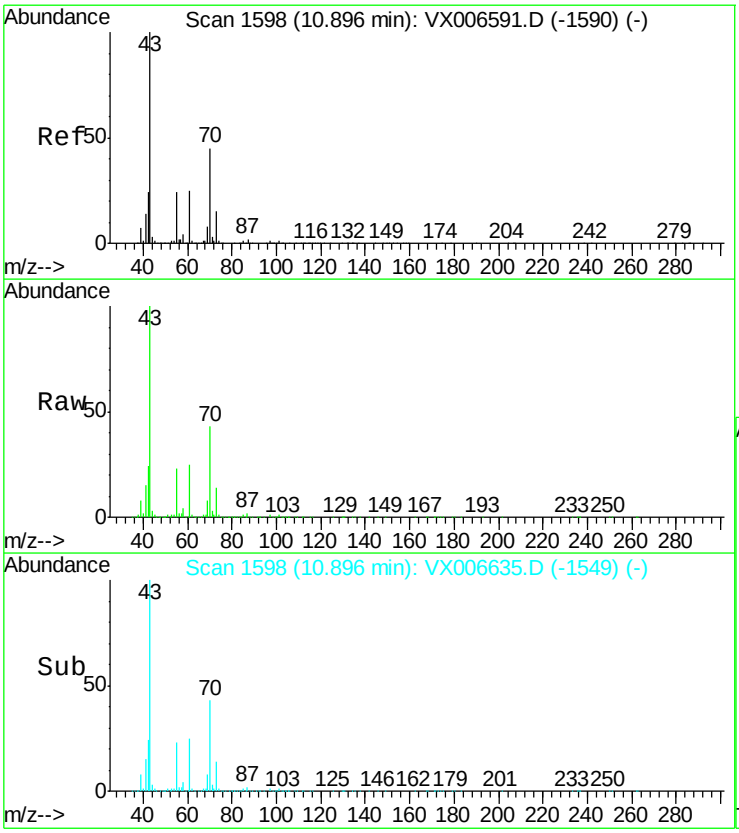


#73
Isopropylbenzene
Concen: 49.776 ug/l
RT: 11.02 min Scan# 1618
Delta R.T. 0.00 min
Lab File: VX006635.D
Acq: 19 Dec 2018 14:22

Tgt Ion:105 Resp: 1561398

Ion	Ratio	Lower	Upper
105	100		
120	27.9	14.1	42.4

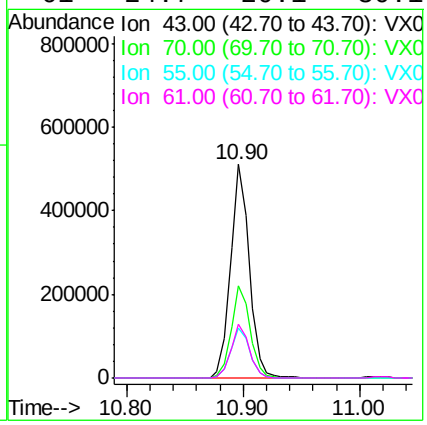




#74
N-amyl acetate
Concen: 50.767 ug/l
RT: 10.90 min Scan# 1598
Delta R.T. 0.00 min
Lab File: VX006635.D
Acq: 19 Dec 2018 14:22

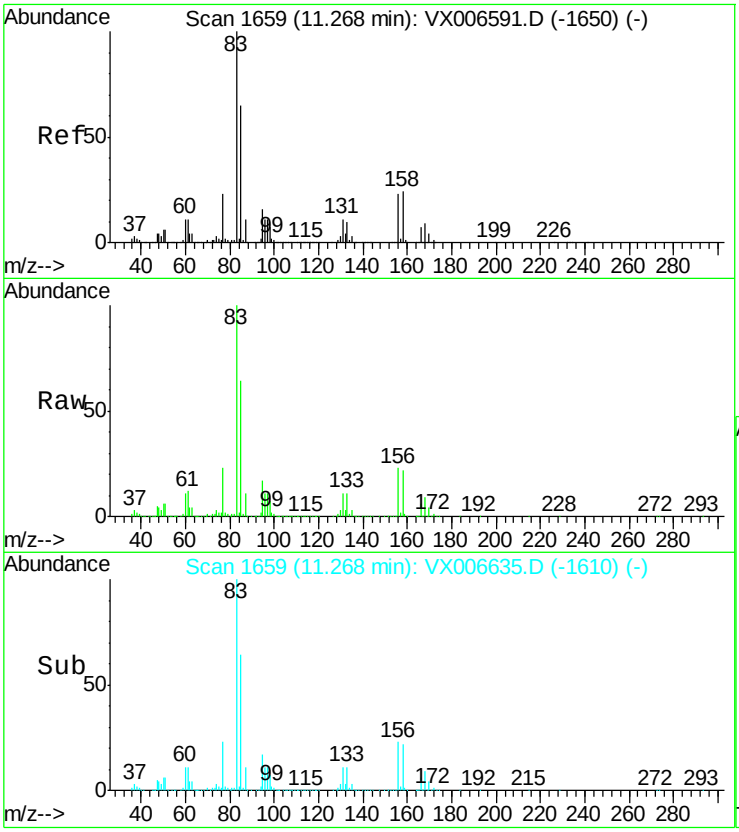
Tgt Ion: 43 Resp: 570015

Ion	Ratio	Lower	Upper
43	100		
70	43.9	35.8	53.8
55	24.1	19.4	29.0
61	24.7	20.1	30.1



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

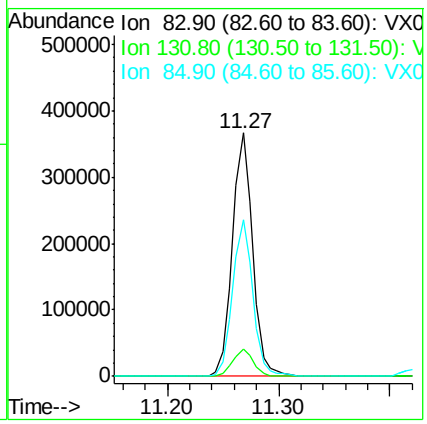
Manual Integrations APPROVED
MMDadoda
12/20/2018 10:00:18 AM

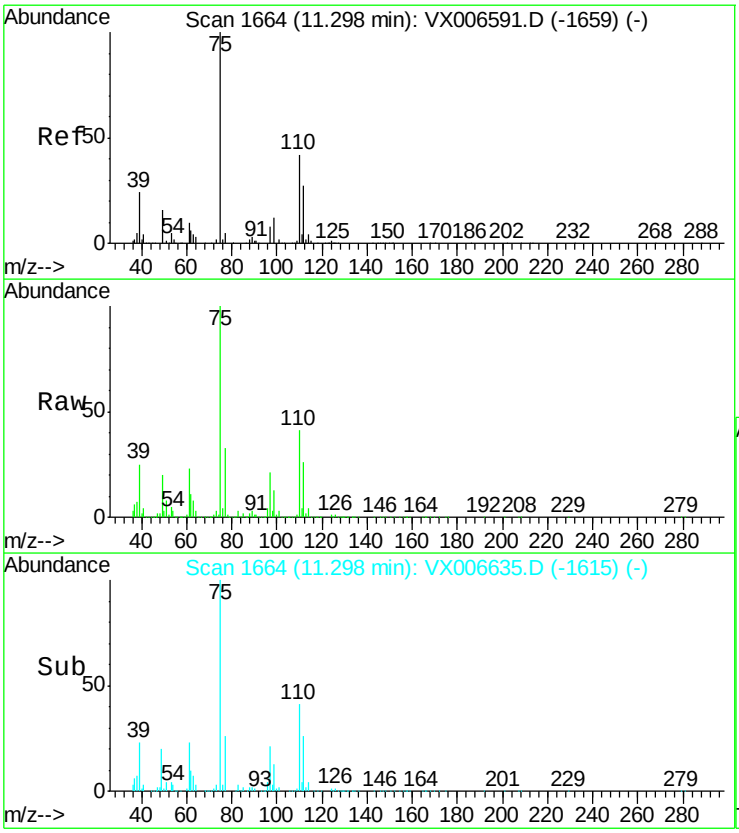


#75
1,1,2,2-Tetrachloroethane
Concen: 49.520 ug/l
RT: 11.27 min Scan# 1659
Delta R.T. 0.00 min
Lab File: VX006635.D
Acq: 19 Dec 2018 14:22

Tgt Ion: 83 Resp: 461974

Ion	Ratio	Lower	Upper
83	100		
131	11.3	5.7	17.1
85	64.4	32.2	96.6

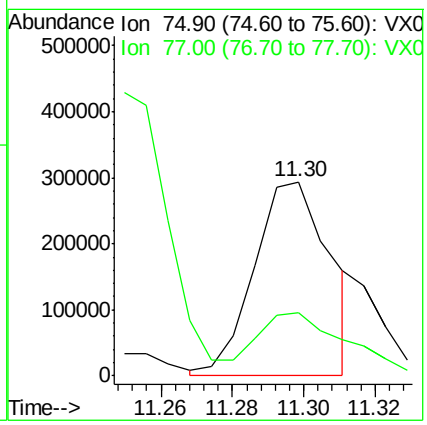




#76
1,2,3-Trichloropropane
Concen: 50.894 ug/l m
RT: 11.30 min Scan# 1664
Delta R.T. 0.00 min
Lab File: VX006635.D
Acq: 19 Dec 2018 14:22

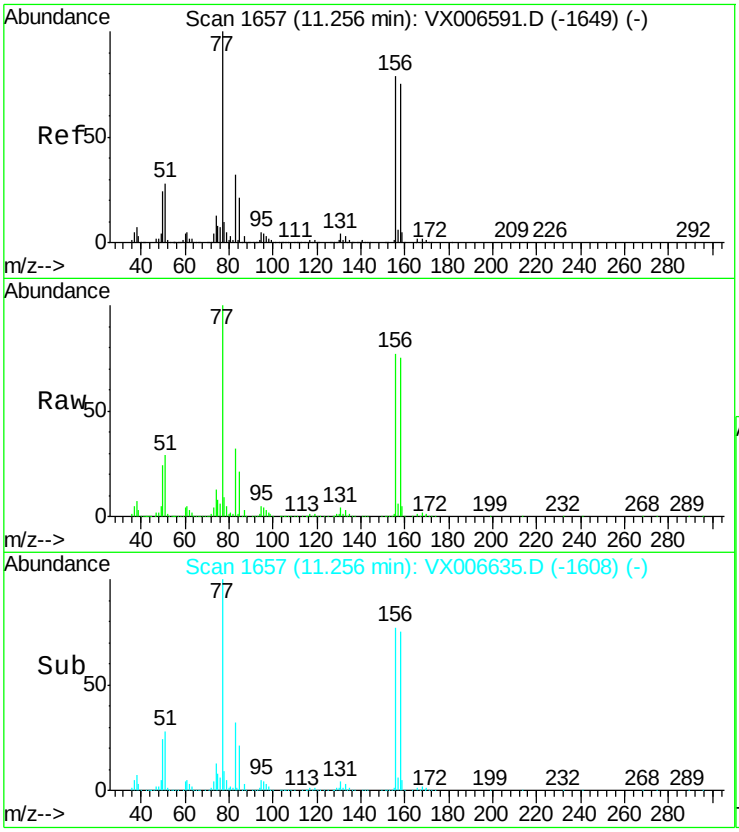
Tgt Ion: 75 Resp: 433683

Ion	Ratio	Lower	Upper
75	100		
77	37.7	18.5	55.5



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

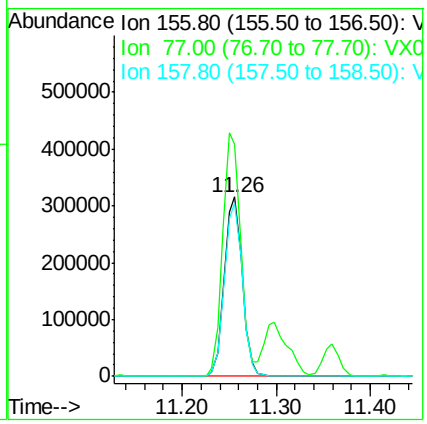
Manual Integrations APPROVED
MMDadoda
12/20/2018 10:00:18 AM

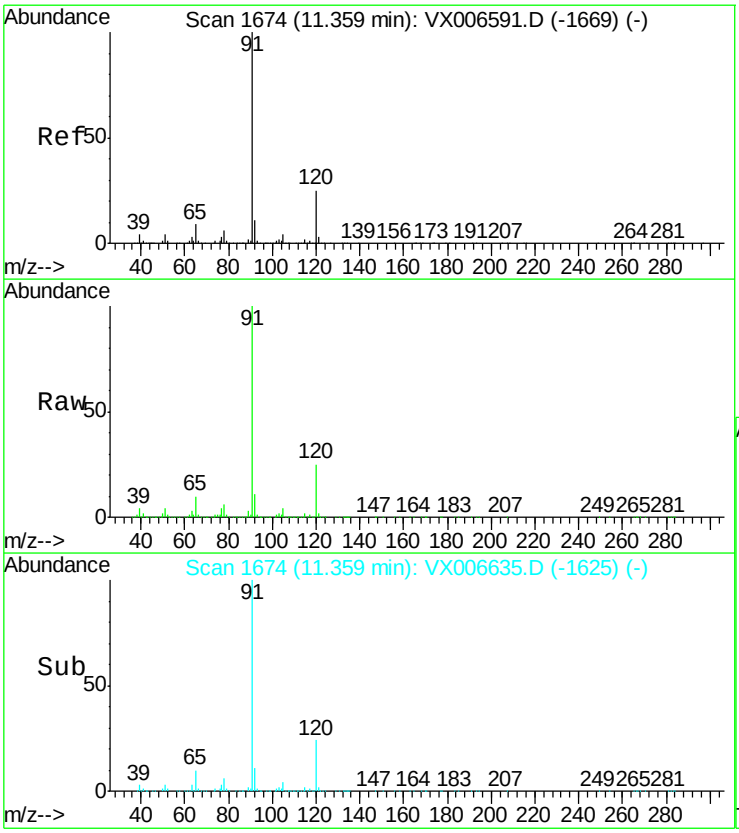


#77
Bromobenzene
Concen: 49.221 ug/l
RT: 11.26 min Scan# 1657
Delta R.T. 0.00 min
Lab File: VX006635.D
Acq: 19 Dec 2018 14:22

Tgt Ion:156 Resp: 417421

Ion	Ratio	Lower	Upper
156	100		
77	135.2	68.0	204.0
158	96.8	48.3	144.8

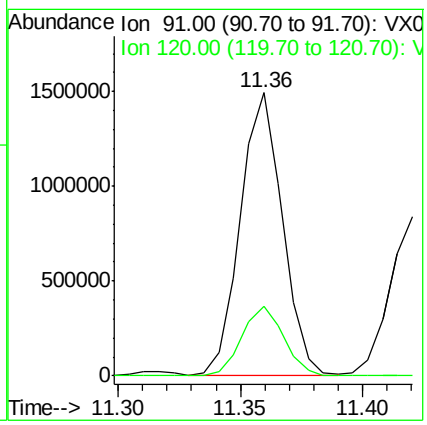




#78
n-propylbenzene
Concen: 51.322 ug/l
RT: 11.36 min Scan# 1674
Delta R.T. 0.00 min
Lab File: VX006635.D
Acq: 19 Dec 2018 14:22

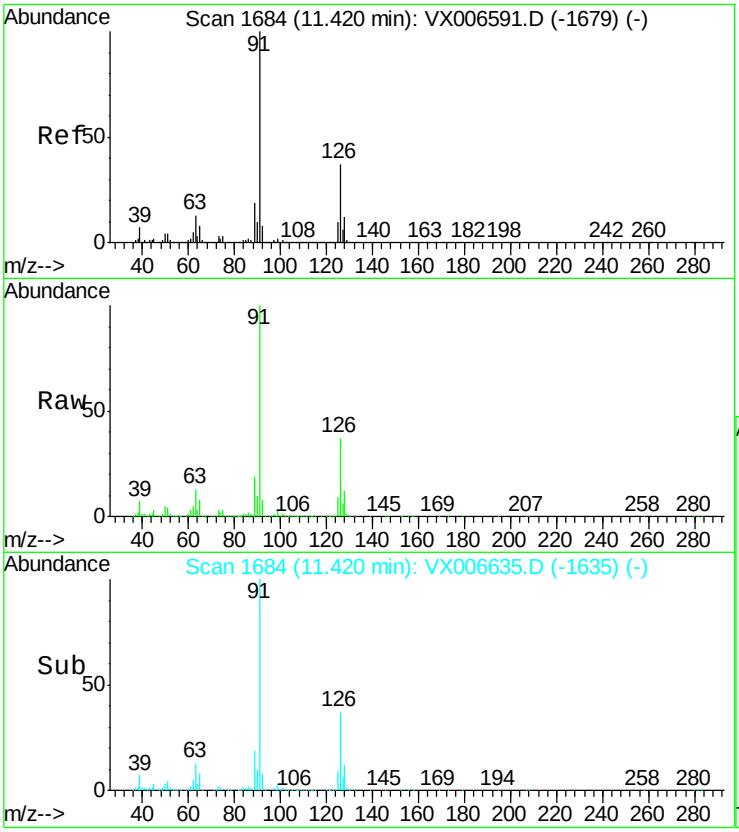
Tgt Ion: 91 Resp: 1772827

Ion	Ratio	Lower	Upper
91	100		
120	24.9	12.7	38.0



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

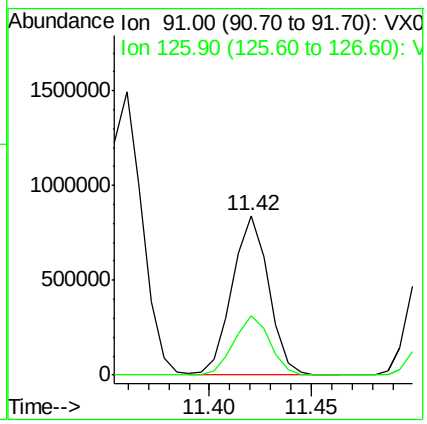
Manual Integrations APPROVED
MMDadoda
12/20/2018 10:00:18 AM

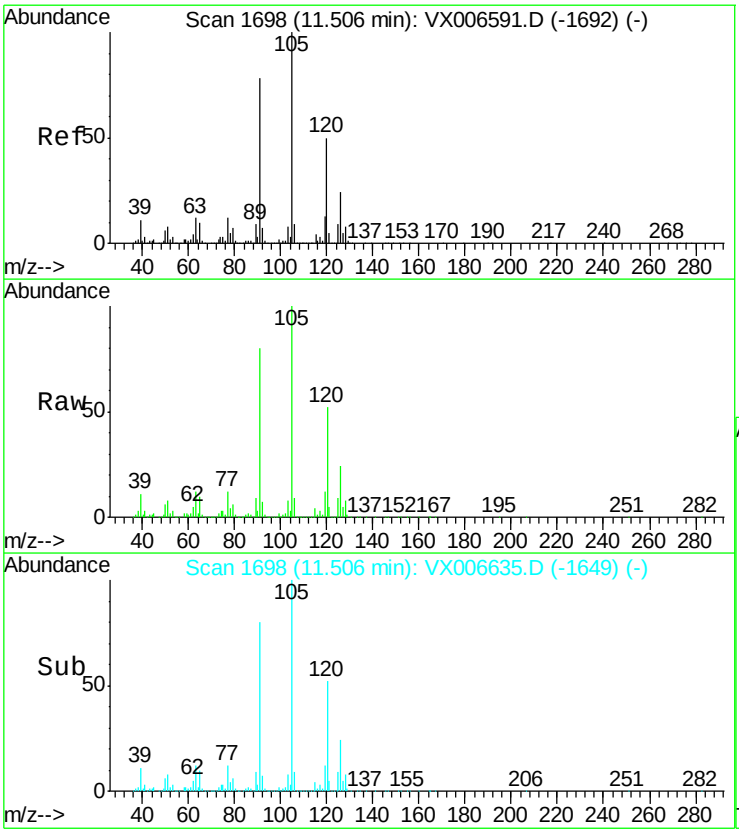


#79
2-Chlorotoluene
Concen: 49.424 ug/l
RT: 11.42 min Scan# 1684
Delta R.T. 0.00 min
Lab File: VX006635.D
Acq: 19 Dec 2018 14:22

Tgt Ion: 91 Resp: 1034607

Ion	Ratio	Lower	Upper
91	100		
126	37.3	18.6	56.0

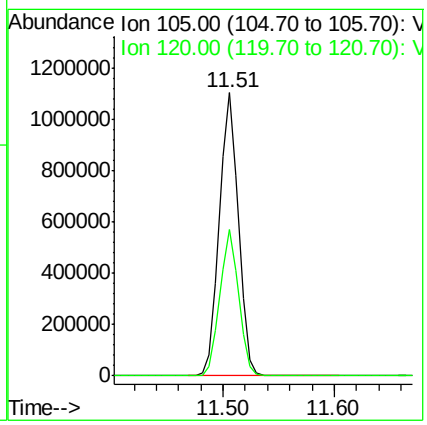


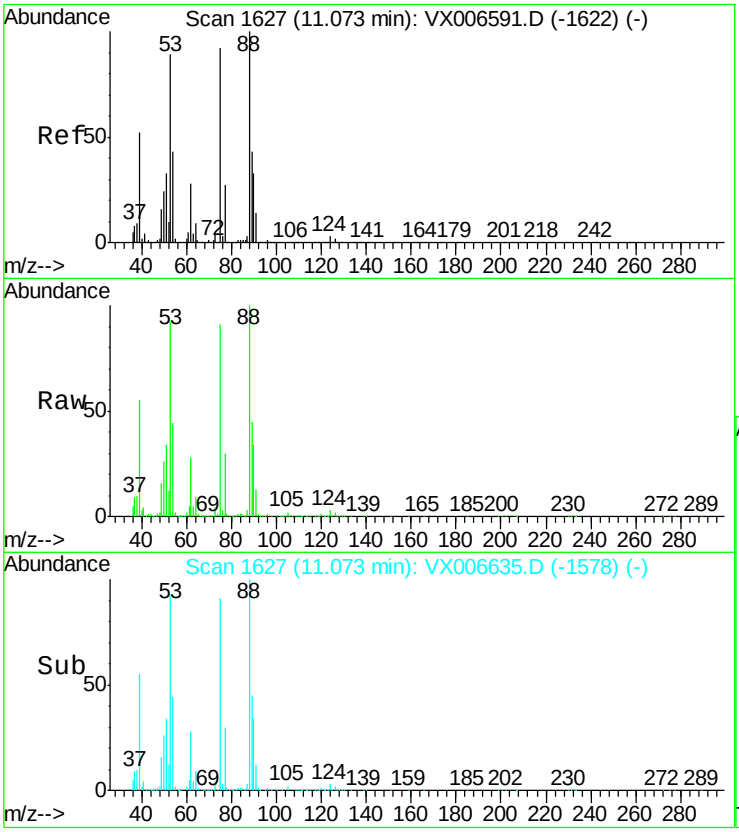


#80
1,3,5-Trimethylbenzene
Concen: 50.631 ug/l
RT: 11.51 min Scan# 1698
Delta R.T. 0.00 min
Lab File: VX006635.D
Acq: 19 Dec 2018 14:22

Tgt Ion:105 Resp: 1308157

Ion	Ratio	Lower	Upper
105	100		
120	51.2	25.1	75.3

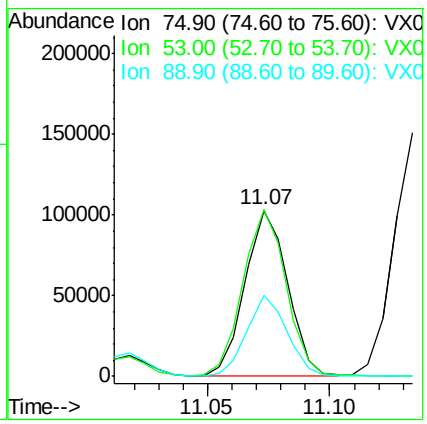




#81
trans-1,4-Dichloro-2-butene
Concen: 44.749 ug/l
RT: 11.07 min Scan# 1627
Delta R.T. 0.00 min
Lab File: VX006635.D
Acq: 19 Dec 2018 14:22

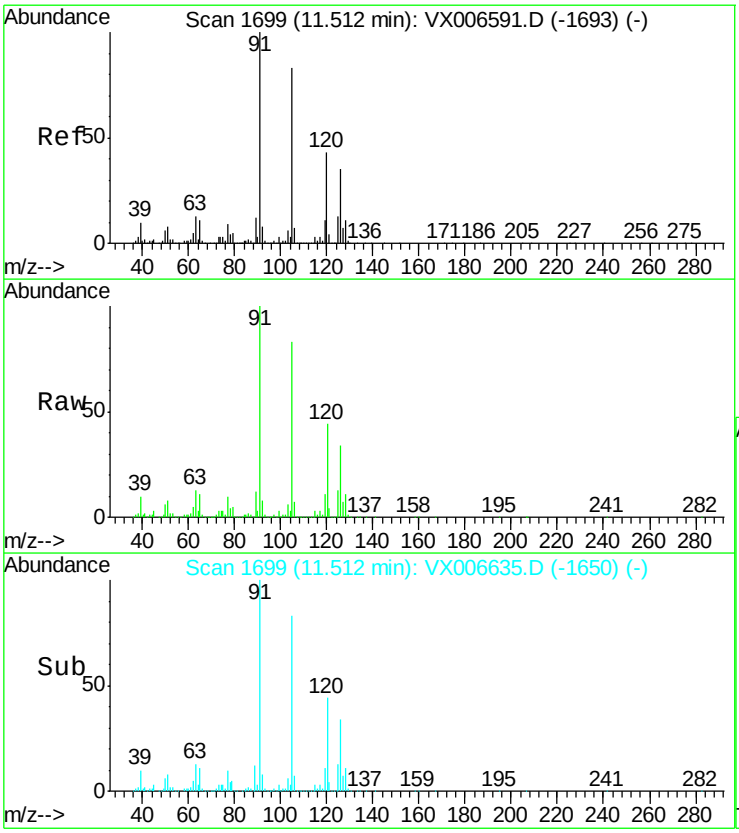
Tgt Ion: 75 Resp: 123938

Ion	Ratio	Lower	Upper
75	100		
53	102.3	79.7	119.5
89	46.7	38.0	57.0



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

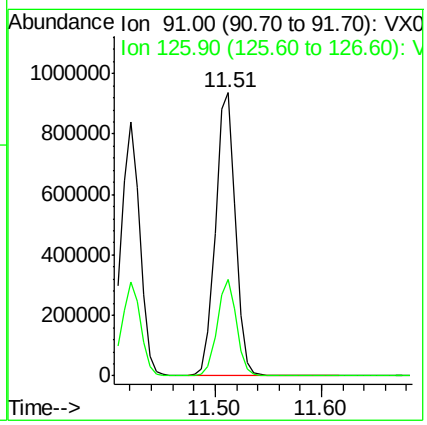
Manual Integrations APPROVED
MMDadoda
12/20/2018 10:00:18 AM

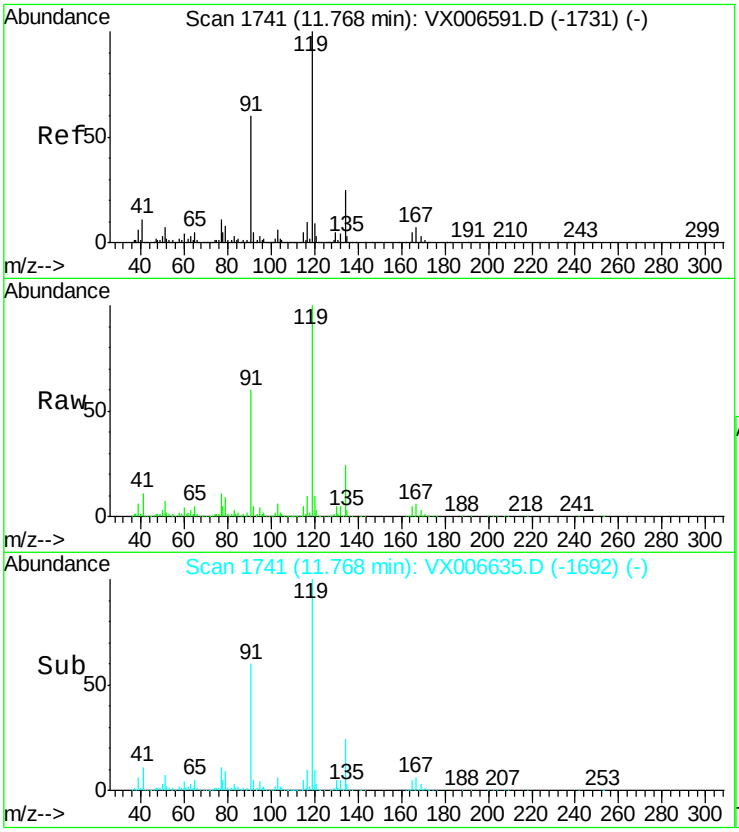


#82
4-Chlorotoluene
Concen: 50.326 ug/l
RT: 11.51 min Scan# 1699
Delta R.T. 0.00 min
Lab File: VX006635.D
Acq: 19 Dec 2018 14:22

Tgt Ion: 91 Resp: 1208434

Ion	Ratio	Lower	Upper
91	100		
126	32.9	16.3	48.9

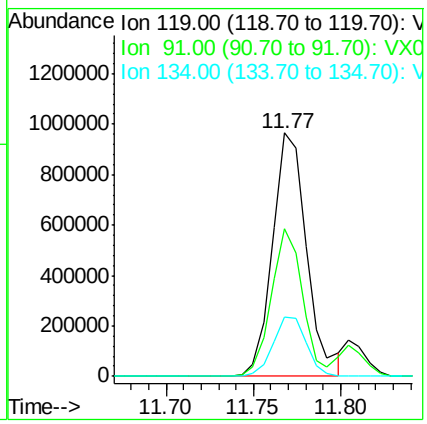


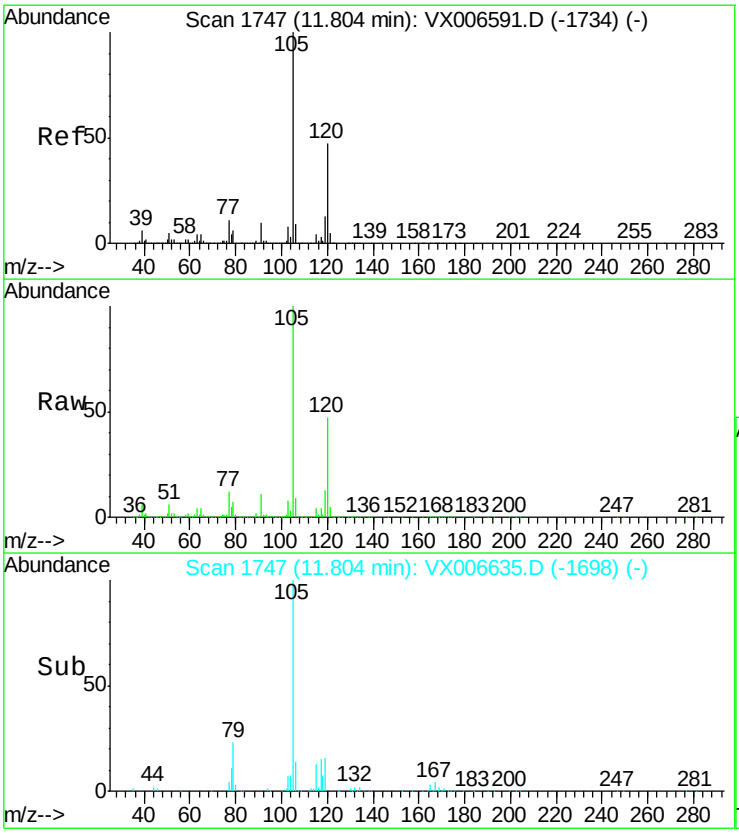


#83
tert-Butylbenzene
Concen: 50.892 ug/l
RT: 11.77 min Scan# 1741
Delta R.T. 0.00 min
Lab File: VX006635.D
Acq: 19 Dec 2018 14:22

Tgt Ion:119 Resp: 1316003

Ion	Ratio	Lower	Upper
119	100		
91	55.3	27.7	83.1
134	23.9	11.9	35.5

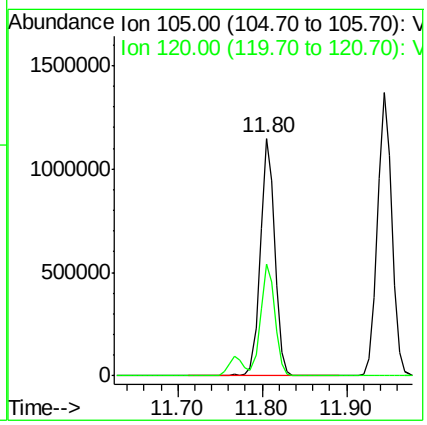




#84
1,2,4-Trimethylbenzene
Concen: 49.634 ug/l
RT: 11.80 min Scan# 1747
Delta R.T. 0.00 min
Lab File: VX006635.D
Acq: 19 Dec 2018 14:22

Tgt Ion:105 Resp: 1348854

Ion	Ratio	Lower	Upper
105	100		
120	46.3	23.2	69.6

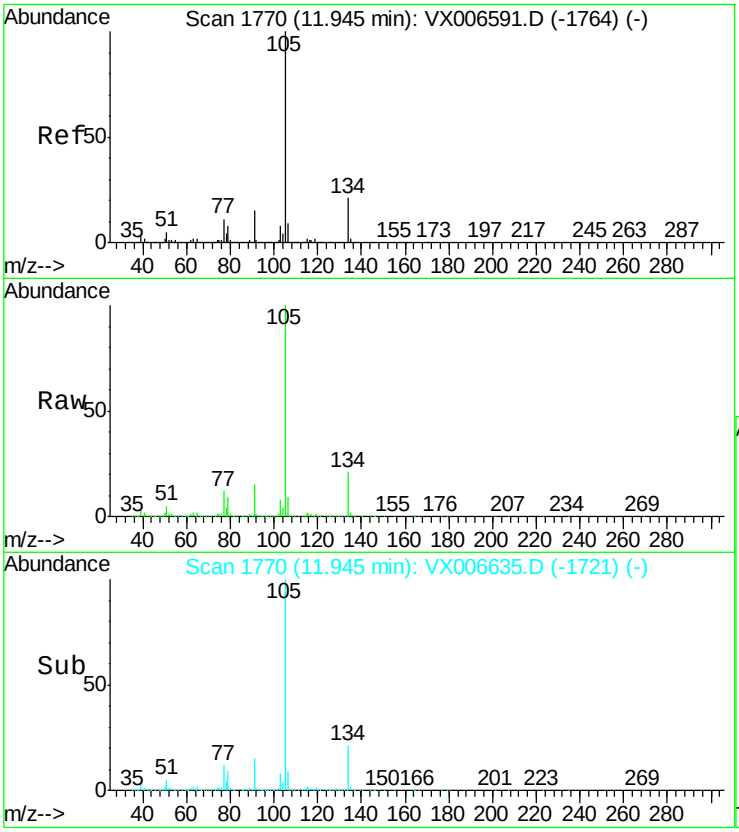


Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

Manual Integrations APPROVED
MMDadoda
12/20/2018 10:00:18 AM

Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

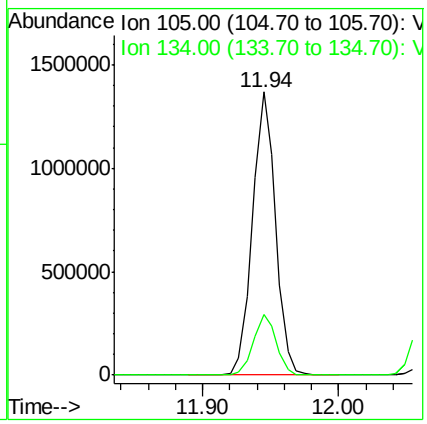
Manual Integrations APPROVED
MMDadoda
12/20/2018 10:00:18 AM

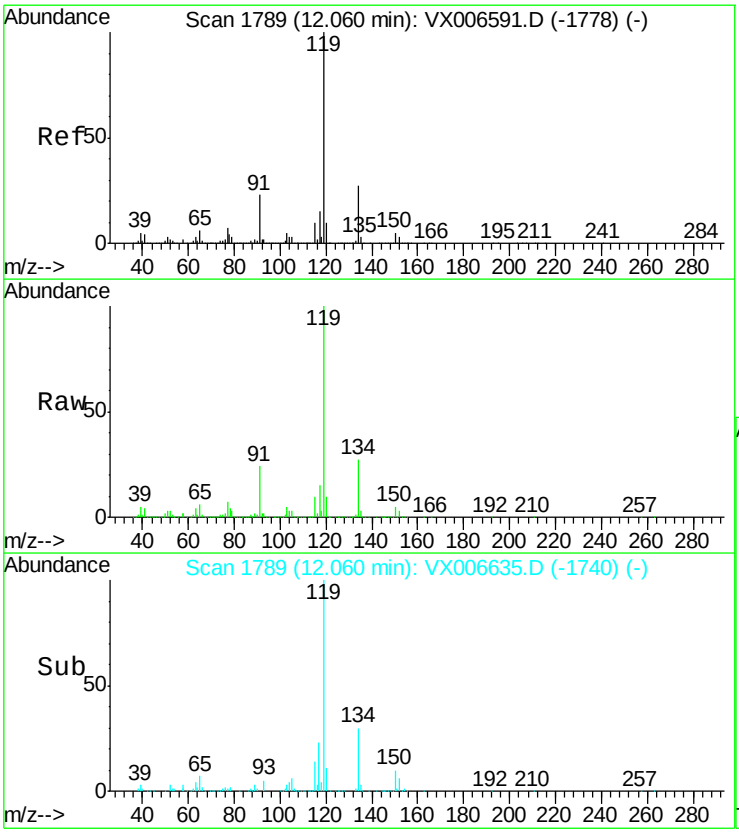


#85
sec-Butylbenzene
Concen: 51.188 ug/l
RT: 11.94 min Scan# 1770
Delta R.T. 0.00 min
Lab File: VX006635.D
Acq: 19 Dec 2018 14:22

Tgt Ion:105 Resp: 1622892

Ion	Ratio	Lower	Upper
105	100		
134	21.4	10.7	31.9

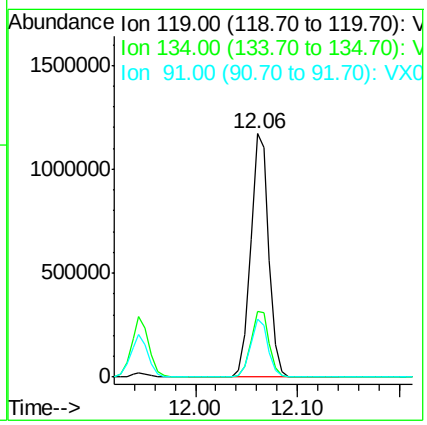




#86
p-Isopropyltoluene
Concen: 51.765 ug/l
RT: 12.06 min Scan# 1789
Delta R.T. 0.00 min
Lab File: VX006635.D
Acq: 19 Dec 2018 14:22

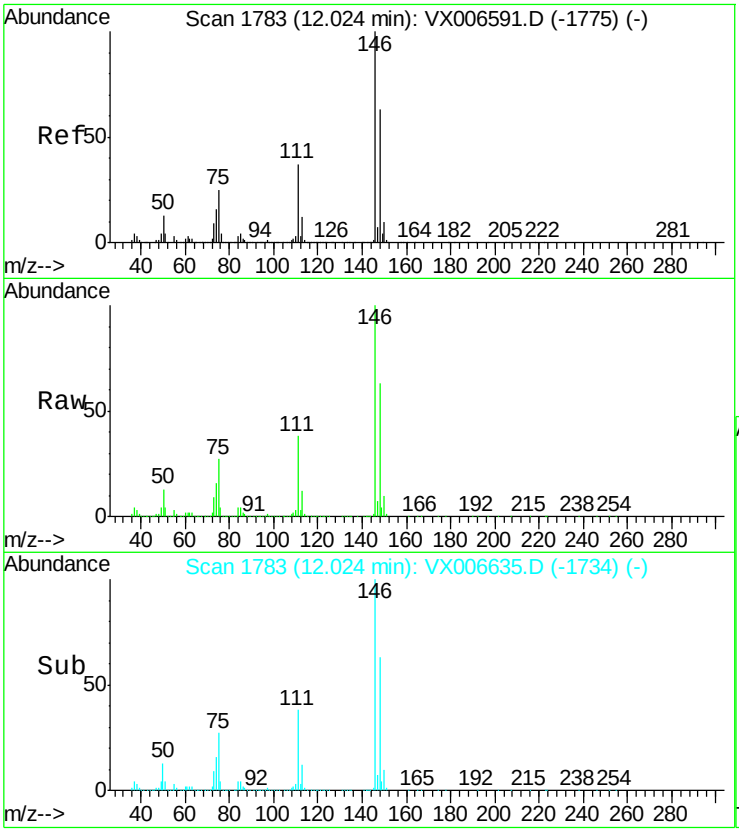
Tgt Ion:119 Resp: 1442659

Ion	Ratio	Lower	Upper
119	100		
134	27.4	14.0	41.9
91	23.0	11.3	33.9



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

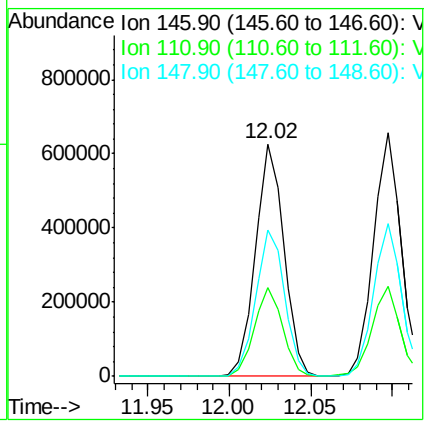
Manual Integrations APPROVED
MMDadoda
12/20/2018 10:00:18 AM

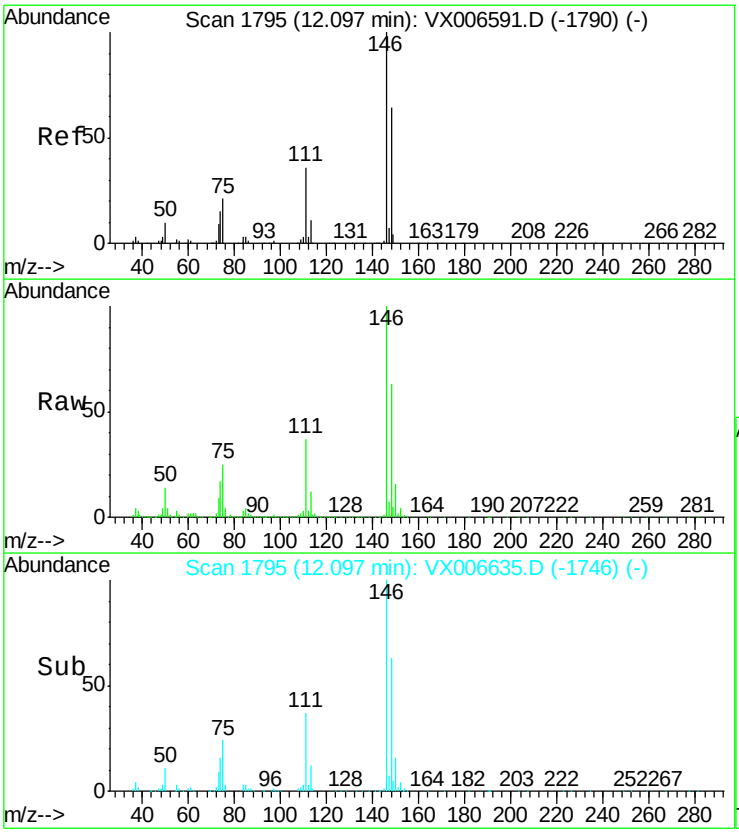


#87
1,3-Dichlorobenzene
Concen: 50.079 ug/l
RT: 12.02 min Scan# 1783
Delta R.T. 0.00 min
Lab File: VX006635.D
Acq: 19 Dec 2018 14:22

Tgt Ion:146 Resp: 765420

Ion	Ratio	Lower	Upper
146	100		
111	38.0	18.6	55.8
148	63.9	31.8	95.3

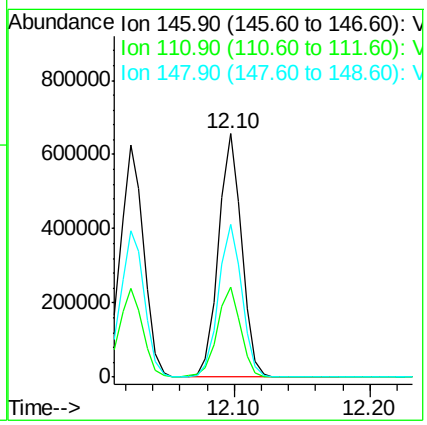




#88
1,4-Dichlorobenzene
Concen: 49.256 ug/l
RT: 12.10 min Scan# 1795
Delta R.T. 0.00 min
Lab File: VX006635.D
Acq: 19 Dec 2018 14:22

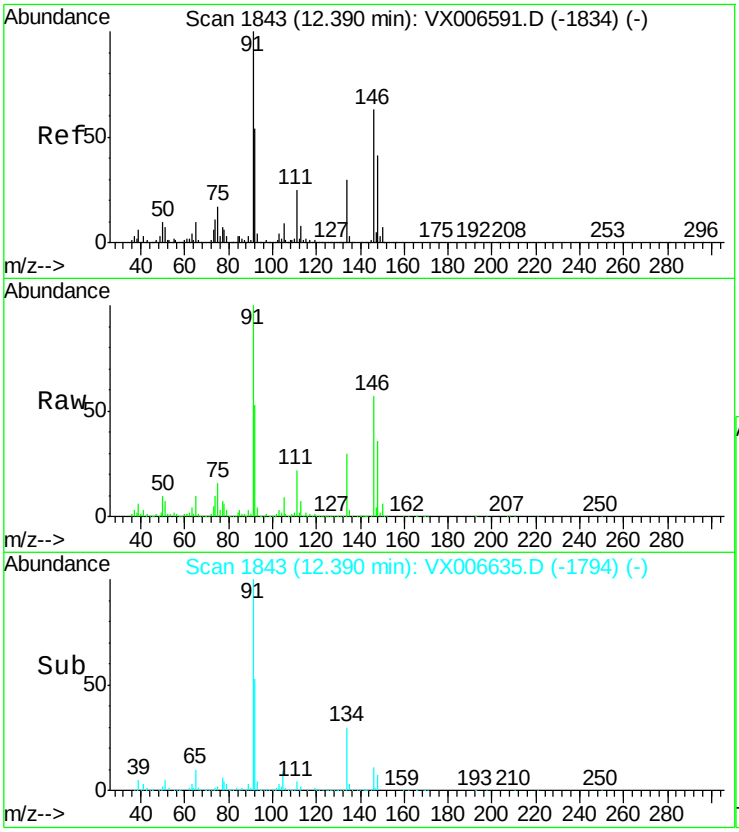
Tgt Ion:146 Resp: 771765

Ion	Ratio	Lower	Upper
146	100		
111	37.2	18.1	54.1
148	63.4	31.9	95.9



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

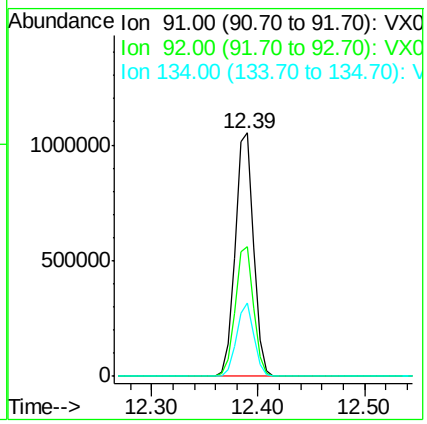
Manual Integrations APPROVED
MMDadoda
12/20/2018 10:00:18 AM

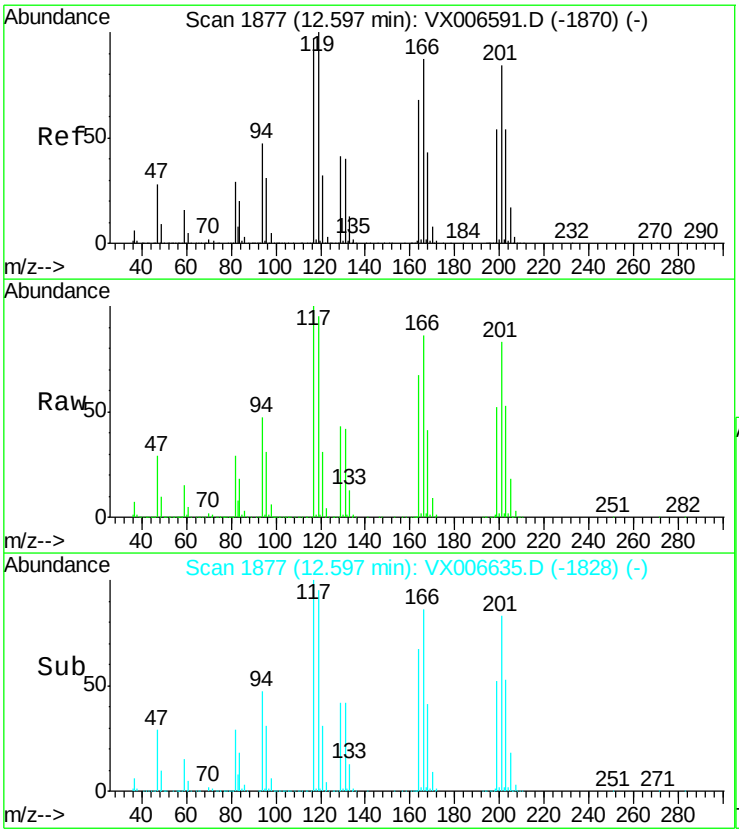


#89
n-Butylbenzene
Concen: 53.763 ug/l
RT: 12.39 min Scan# 1843
Delta R.T. 0.00 min
Lab File: VX006635.D
Acq: 19 Dec 2018 14:22

Tgt Ion: 91 Resp: 1275175

Ion	Ratio	Lower	Upper
91	100		
92	53.2	26.8	80.4
134	28.4	14.4	43.2

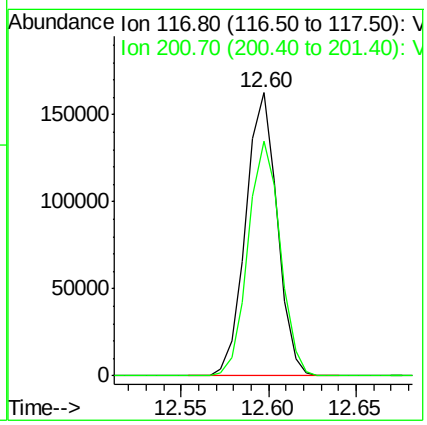




#90
Hexachloroethane
Concen: 46.890 ug/l
RT: 12.60 min Scan# 1877
Delta R.T. 0.00 min
Lab File: VX006635.D
Acq: 19 Dec 2018 14:22

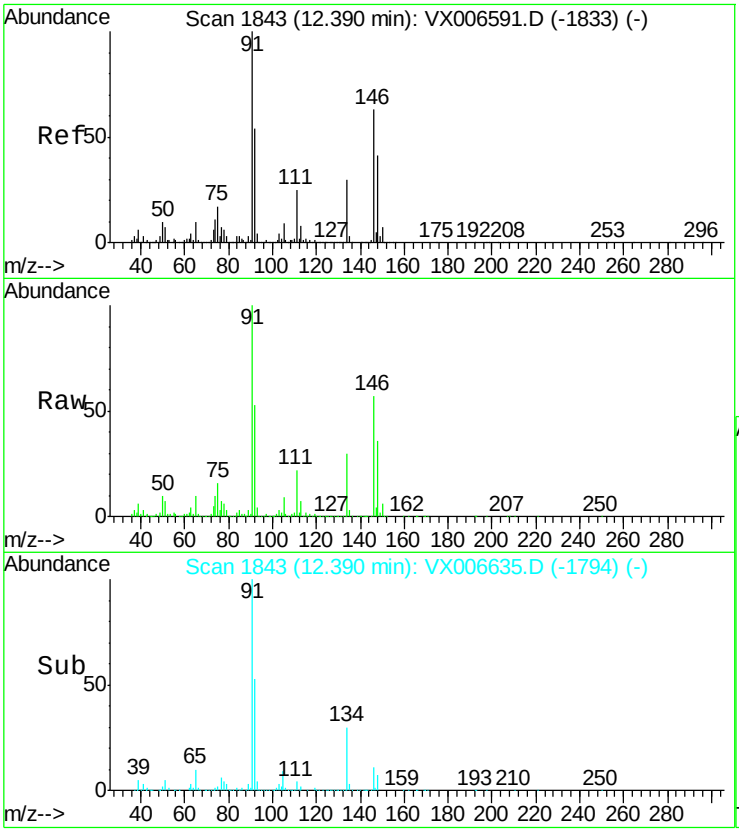
Tgt Ion:117 Resp: 203566

Ion	Ratio	Lower	Upper
117	100		
201	84.6	42.9	128.7



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

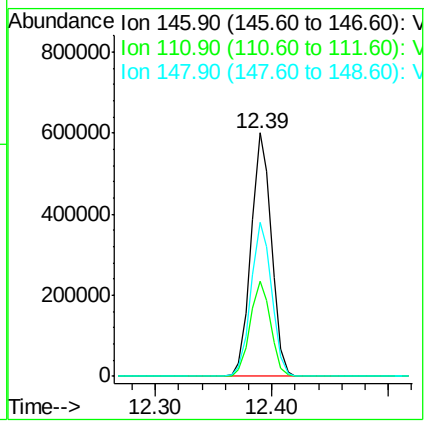
Manual Integrations APPROVED
MMDadoda
12/20/2018 10:00:18 AM

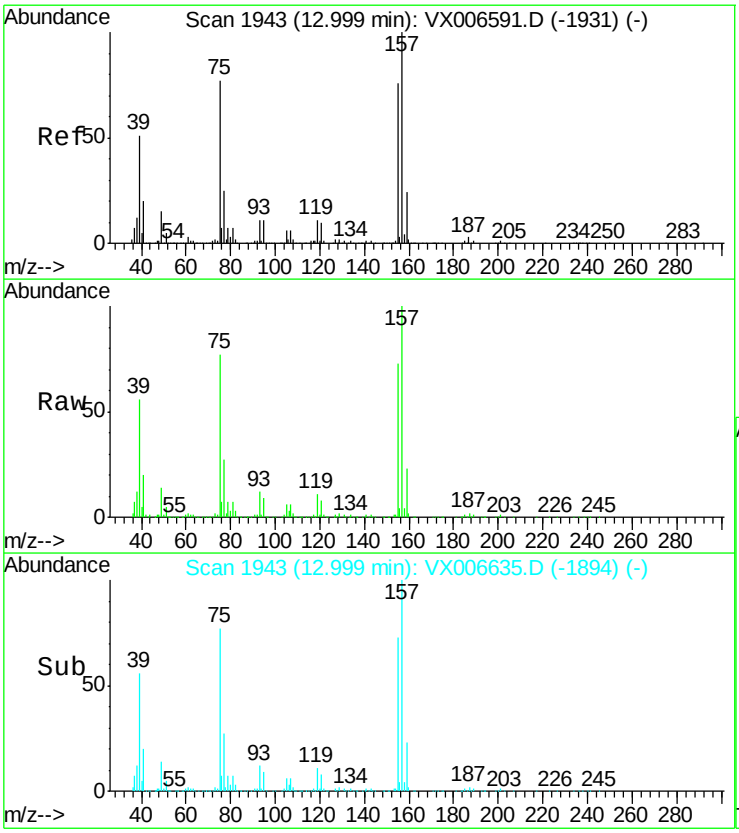


#91
1,2-Dichlorobenzene
Concen: 48.254 ug/l
RT: 12.39 min Scan# 1843
Delta R.T. 0.00 min
Lab File: VX006635.D
Acq: 19 Dec 2018 14:22

Tgt Ion:146 Resp: 737777

Ion	Ratio	Lower	Upper
146	100		
111	39.2	19.4	58.2
148	64.2	32.3	96.9

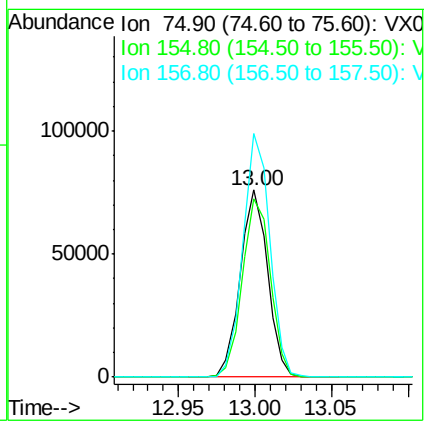




#92
1,2-Dibromo-3-Chloropropane
Concen: 49.199 ug/l
RT: 13.00 min Scan# 1943
Delta R.T. 0.00 min
Lab File: VX006635.D
Acq: 19 Dec 2018 14:22

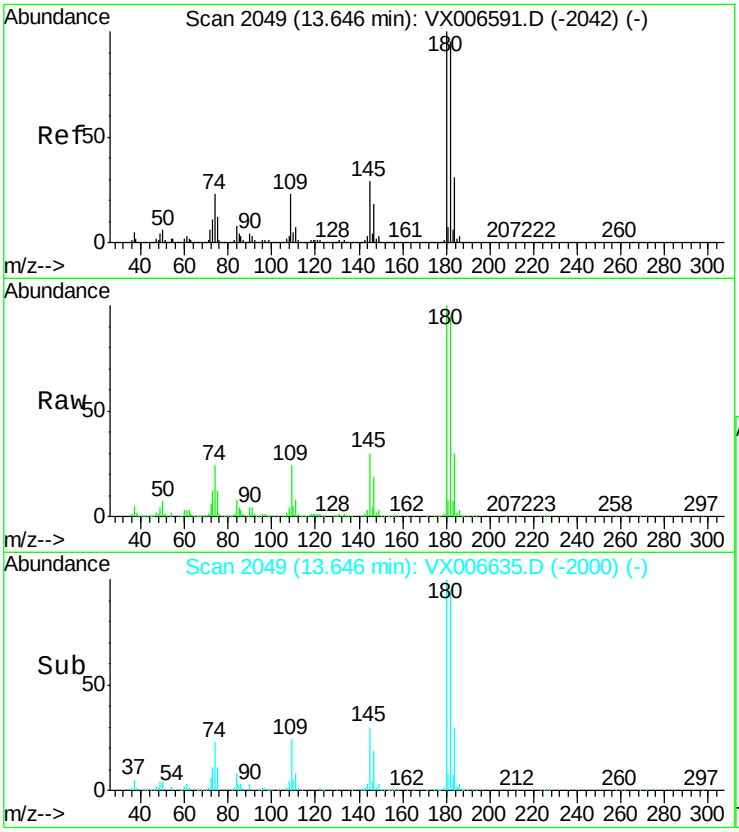
Tgt Ion: 75 Resp: 94968

Ion	Ratio	Lower	Upper
75	100		
155	97.6	50.6	151.8
157	126.9	64.6	193.8



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

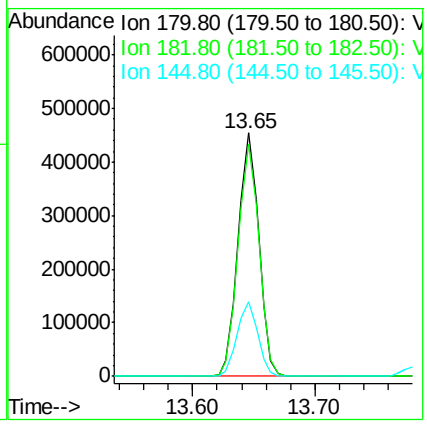
Manual Integrations APPROVED
MMDadoda
12/20/2018 10:00:18 AM

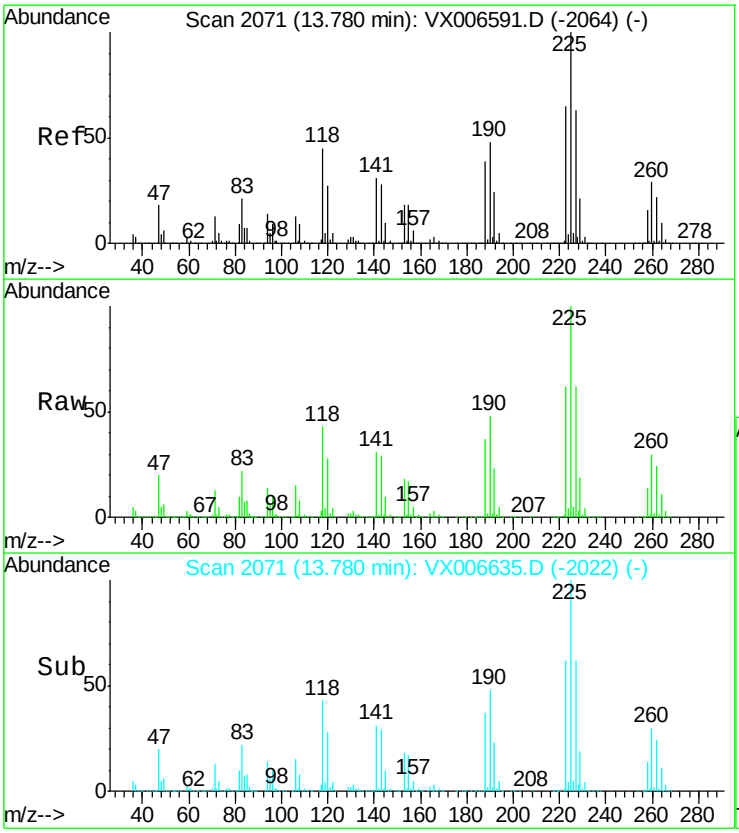


#93
1,2,4-Trichlorobenzene
Concen: 50.158 ug/l
RT: 13.65 min Scan# 2049
Delta R.T. 0.00 min
Lab File: VX006635.D
Acq: 19 Dec 2018 14:22

Tgt Ion:180 Resp: 528998

Ion	Ratio	Lower	Upper
180	100		
182	96.6	47.3	142.0
145	30.8	14.8	44.3

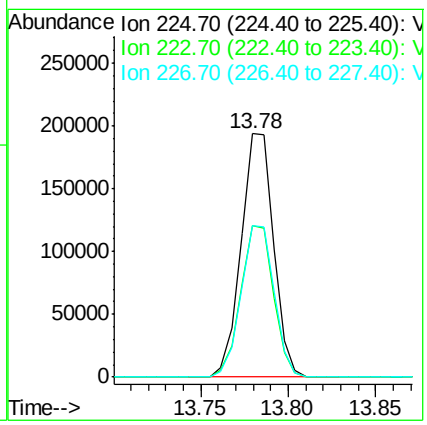




#94
Hexachlorobutadiene
Concen: 50.438 ug/l
RT: 13.78 min Scan# 2071
Delta R.T. 0.00 min
Lab File: VX006635.D
Acq: 19 Dec 2018 14:22

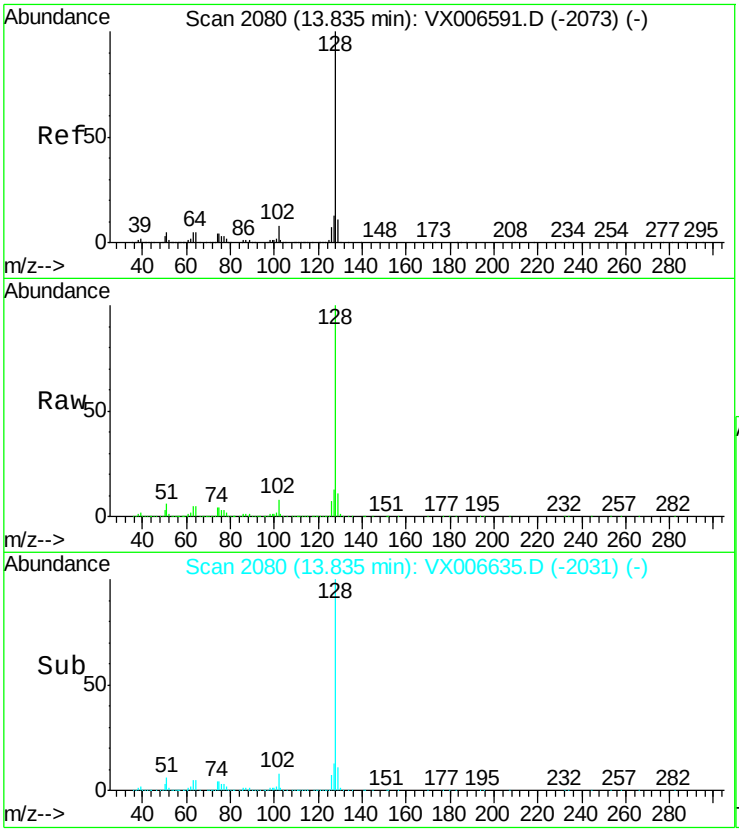
Tgt Ion:225 Resp: 250731

Ion	Ratio	Lower	Upper
225	100		
223	62.8	32.1	96.3
227	63.3	32.3	96.8



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

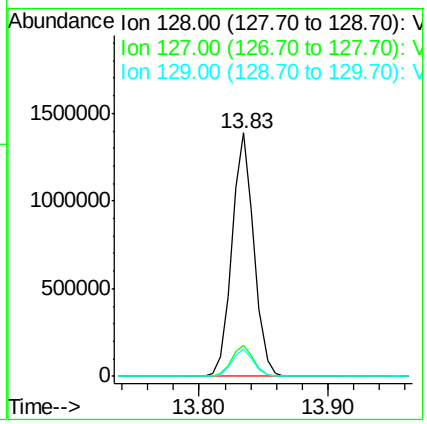
Manual Integrations APPROVED
MMDadoda
12/20/2018 10:00:18 AM

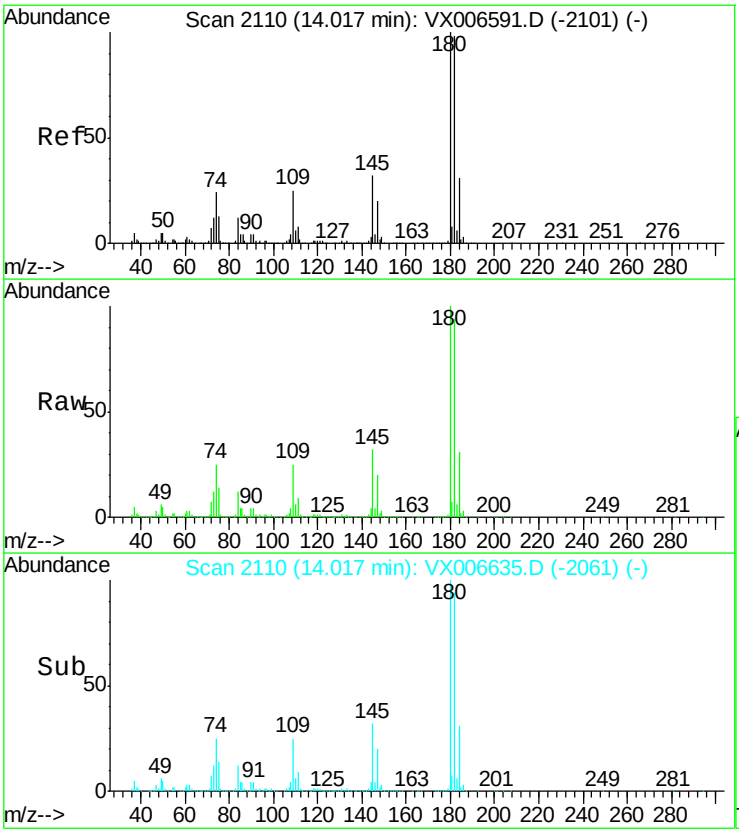


#95
Naphthalene
Concen: 48.790 ug/l
RT: 13.83 min Scan# 2080
Delta R.T. 0.00 min
Lab File: VX006635.D
Acq: 19 Dec 2018 14:22

Tgt Ion:128 Resp: 1642312

Ion	Ratio	Lower	Upper
128	100		
127	12.9	10.1	15.1
129	10.8	8.6	13.0

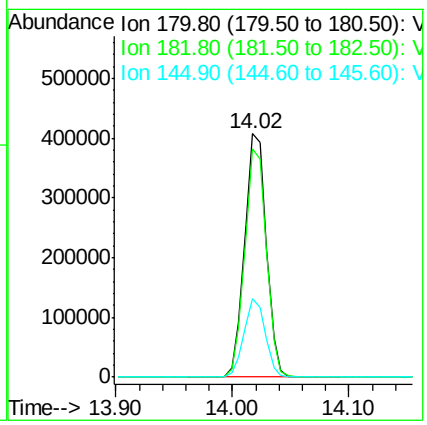




#96
1,2,3-Trichlorobenzene
Concen: 48.859 ug/l
RT: 14.02 min Scan# 2110
Delta R.T. 0.00 min
Lab File: VX006635.D
Acq: 19 Dec 2018 14:22

Tgt Ion:180 Resp: 532033

Ion	Ratio	Lower	Upper
180	100		
182	93.8	48.5	145.5
145	31.5	16.0	47.9



Evaluate Continuing Calibration Report

Data Path : Z:\voasrv\HPCHEM1\MSVOA X\Data\VX121918\
Data File : VX006635.D
Acq On : 19 Dec 2018 14:22
Operator : JC/MD
Sample : VSTDCCC050
Misc : 5.0mL/MSVOA X/WATER
ALS Vial : 2 Sample Multiplier: 1

Instrument : MSVOA_X
LabSampleId : VSTDCCC050

Quant Time: Dec 20 04:12:37 2018
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121818W.M
Quant Title : SW846 8260
QLast Update : Wed Dec 19 15:20:58 2018
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	Pentafluorobenzene	1.000	1.000	0.0	97	0.00
2	T	Dichlorodifluoromethane	0.457	0.447	2.2	98	0.00
3	P	Chloromethane	0.493	0.463	6.1	95	0.00
4	C	Vinyl Chloride	0.515	0.501	2.7#	98	0.00
5	T	Bromomethane	0.560	0.502	10.4	100	0.00
6	T	Chloroethane	0.356	0.322	9.6	98	0.00
7	T	Trichlorofluoromethane	0.802	0.787	1.9	97	0.00
8	T	Diethyl Ether	0.319	0.302	5.3	97	0.00
9	T	1,1,2-Trichlorotrifluoroeth	0.471	0.485	-3.0	103	0.00
10	T	Methyl Iodide	0.674	0.707	-4.9	96	0.00
11	T	Tert butyl alcohol	0.120	0.113	5.8	93	0.00
12	CM	1,1-Dichloroethene	0.447	0.433	3.1#	99	0.00
13	T	Acrolein	0.081	0.073	9.9	91	0.00
14	T	Allyl chloride	0.752	0.734	2.4	97	0.00
15	T	Acrylonitrile	0.267	0.262	1.9	96	0.00
16	T	Acetone	0.248	0.247	0.4	101	0.00
17	T	Carbon Disulfide	1.182	1.076	9.0	93	0.00
18	T	Methyl Acetate	0.728	0.713	2.1	97	0.00
19	T	Methyl tert-butyl Ether	1.483	1.466	1.1	97	0.00
20	T	Methylene Chloride	0.512	0.484	5.5	99	0.00
21	T	trans-1,2-Dichloroethene	0.495	0.463	6.5	98	0.00
22	T	Diisopropyl ether	1.376	1.395	-1.4	99	0.00
23	T	Vinyl Acetate	1.125	1.170	-4.0	101	0.00
24	P	1,1-Dichloroethane	0.821	0.810	1.3	102	0.00
25	T	2-Butanone	0.348	0.347	0.3	98	0.00
26	T	2,2-Dichloropropane	0.634	0.624	1.6	97	0.00
27	T	cis-1,2-Dichloroethene	0.546	0.535	2.0	97	0.00
28	T	Bromochloromethane	0.378	0.372	1.6	102	0.00
29	T	Tetrahydrofuran	0.229	0.224	2.2	96	0.00
30	C	Chloroform	0.850	0.851	-0.1#	100	0.00
31	T	Cyclohexane	0.746	0.744	0.3	99	0.00
32	T	1,1,1-Trichloroethane	0.718	0.726	-1.1	96	0.00
33	S	1,2-Dichloroethane-d4	0.539	0.527	2.2	94	0.00
34	I	1,4-Difluorobenzene	1.000	1.000	0.0	94	0.00
35	S	Dibromofluoromethane	0.316	0.311	1.6	93	0.00
36	T	1,1-Dichloropropene	0.414	0.419	-1.2	99	0.00
37	T	Ethyl Acetate	0.431	0.414	3.9	95	0.00
38	T	Carbon Tetrachloride	0.402	0.407	-1.2	97	0.00
39	T	Methylcyclohexane	0.545	0.562	-3.1	102	0.00
40	TM	Benzene	1.259	1.262	-0.2	98	0.00
41	T	Methacrylonitrile	0.229	0.238	-3.9	96	0.00
42	TM	1,2-Dichloroethane	0.429	0.421	1.9	99	0.00
43	T	Isopropyl Acetate	0.656	0.682	-4.0	98	0.00
44	TM	Trichloroethene	0.381	0.375	1.6	99	0.00
45	C	1,2-Dichloropropane	0.306	0.309	-1.0#	101	0.00

Evaluate Continuing Calibration Report

Data Path : Z:\voasrv\HPCHEM1\MSVOA X\Data\VX121918\
Data File : VX006635.D
Acq On : 19 Dec 2018 14:22
Operator : JC/MD
Sample : VSTDCCC050
Misc : 5.0mL/MSVOA X/WATER
ALS Vial : 2 Sample Multiplier: 1

Instrument : MSVOA_X
LabSampleId : VSTDCCC050

Quant Time: Dec 20 04:12:37 2018
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121818W.M
Quant Title : SW846 8260
QLast Update : Wed Dec 19 15:20:58 2018
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
46	T	Dibromomethane	0.225	0.224	0.4	97	0.00
47	T	Bromodichloromethane	0.374	0.389	-4.0	98	0.00
48	T	Methyl methacrylate	0.334	0.348	-4.2	97	0.00
49	T	1,4-Dioxane	0.009	0.009	0.0	93	0.00
50	S	Toluene-d8	1.192	1.184	0.7	95	0.00
51	T	4-Methyl-2-Pentanone	0.417	0.441	-5.8	98	0.00
52	CM	Toluene	0.813	0.838	-3.1#	99	0.00
53	T	t-1,3-Dichloropropene	0.401	0.434	-8.2	97	0.00
54	T	cis-1,3-Dichloropropene	0.440	0.479	-8.9	97	0.00
55	T	1,1,2-Trichloroethane	0.333	0.342	-2.7	100	0.00
56	T	Ethyl methacrylate	0.470	0.502	-6.8	97	0.00
57	T	1,3-Dichloropropane	0.536	0.539	-0.6	99	0.00
58	T	2-Chloroethyl Vinyl ether	0.250	0.258	-3.2	99	0.00
59	T	2-Hexanone	0.319	0.343	-7.5	100	0.00
60	T	Dibromochloromethane	0.307	0.337	-9.8	97	0.00
61	T	1,2-Dibromoethane	0.354	0.367	-3.7	98	0.00
62	S	4-Bromofluorobenzene	0.437	0.453	-3.7	96	0.00
63	I	Chlorobenzene-d5	1.000	1.000	0.0	96	0.00
64	T	Tetrachloroethene	0.396	0.385	2.8	100	0.00
65	PM	Chlorobenzene	1.058	1.041	1.6	99	0.00
66	T	1,1,1,2-Tetrachloroethane	0.330	0.350	-6.1	99	0.00
67	C	Ethyl Benzene	1.729	1.742	-0.8#	100	0.00
68	T	m/p-Xylenes	0.682	0.697	-2.2	100	0.00
69	T	o-Xylene	0.674	0.688	-2.1	99	0.00
70	T	Styrene	1.066	1.115	-4.6	99	0.00
71	P	Bromoform	0.251	0.263	-4.8	95	0.00
72	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	98	0.00
73	T	Isopropylbenzene	3.421	3.405	0.5	100	0.00
74	T	N-amyl acetate	1.224	1.243	-1.6	98	0.00
75	P	1,1,2,2-Tetrachloroethane	1.017	1.008	0.9	98	0.00
76	T	1,2,3-Trichloropropane	0.929	0.946	-1.8	97	0.00
77	T	Bromobenzene	0.925	0.910	1.6	98	0.00
78	T	n-propylbenzene	3.767	3.866	-2.6	102	0.00
79	T	2-Chlorotoluene	2.283	2.256	1.2	101	0.00
80	T	1,3,5-Trimethylbenzene	2.817	2.853	-1.3	101	0.00
81	T	trans-1,4-Dichloro-2-butene	0.259	0.270	-4.2	98	0.00
82	T	4-Chlorotoluene	2.618	2.635	-0.6	102	0.00
83	T	tert-Butylbenzene	2.820	2.870	-1.8	99	0.00
84	T	1,2,4-Trimethylbenzene	2.963	2.942	0.7	101	0.00
85	T	sec-Butylbenzene	3.457	3.539	-2.4	102	0.00
86	T	p-Isopropyltoluene	3.039	3.146	-3.5	102	0.00
87	T	1,3-Dichlorobenzene	1.667	1.669	-0.1	100	0.00
88	T	1,4-Dichlorobenzene	1.709	1.683	1.5	101	0.00
89	T	n-Butylbenzene	2.586	2.781	-7.5	106	0.00

Evaluate Continuing Calibration Report

Data Path : Z:\voasrv\HPCHEM1\MSVOA X\Data\VX121918\
Data File : VX006635.D
Acq On : 19 Dec 2018 14:22
Operator : JC/MD
Sample : VSTDCCC050
Misc : 5.0mL/MSVOA X/WATER
ALS Vial : 2 Sample Multiplier: 1

Instrument : MSVOA_X
LabSampleId : VSTDCCC050

Quant Time: Dec 20 04:12:37 2018
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121818W.M
Quant Title : SW846 8260
QLast Update : Wed Dec 19 15:20:58 2018
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
90 T	Hexachloroethane	0.414	0.444	-7.2	101	0.00
91 T	1,2-Dichlorobenzene	1.667	1.609	3.5	99	0.00
92 T	1,2-Dibromo-3-Chloropropane	0.210	0.207	1.4	95	0.00
93 T	1,2,4-Trichlorobenzene	1.150	1.154	-0.3	100	0.00
94 T	Hexachlorobutadiene	0.542	0.547	-0.9	105	0.00
95 T	Naphthalene	3.671	3.582	2.4	97	0.00
96 T	1,2,3-Trichlorobenzene	1.187	1.160	2.3	101	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 6

Evaluate Continuing Calibration Report

Data Path : Z:\voasrv\HPCHEM1\MSVOA X\Data\VX121918\
Data File : VX006635.D
Acq On : 19 Dec 2018 14:22
Operator : JC/MD
Sample : VSTDCCC050
Misc : 5.0mL/MSVOA X/WATER
ALS Vial : 2 Sample Multiplier: 1

Instrument : MSVOA_X
LabSampleId : VSTDCCC050

Quant Time: Dec 20 04:12:37 2018
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121818W.M
Quant Title : SW846 8260
QLast Update : Wed Dec 19 15:20:58 2018
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	Pentafluorobenzene	50.000	50.000	0.0	97	0.00
2	T	Dichlorodifluoromethane	50.000	48.826	2.3	98	0.00
3	P	Chloromethane	50.000	46.995	6.0	95	0.00
4	C	Vinyl Chloride	50.000	48.687	2.6#	98	0.00
5	T	Bromomethane	50.000	52.376	-4.8	100	0.00
6	T	Chloroethane	50.000	45.128	9.7	98	0.00
7	T	Trichlorofluoromethane	50.000	49.015	2.0	97	0.00
8	T	Diethyl Ether	50.000	47.407	5.2	97	0.00
9	T	1,1,2-Trichlorotrifluoroeth	50.000	51.424	-2.8	103	0.00
10	T	Methyl Iodide	50.000	52.408	-4.8	96	0.00
11	T	Tert butyl alcohol	250.000	234.666	6.1	93	0.00
12	CM	1,1-Dichloroethene	50.000	48.517	3.0#	99	0.00
13	T	Acrolein	250.000	225.673	9.7	91	0.00
14	T	Allyl chloride	50.000	48.806	2.4	97	0.00
15	T	Acrylonitrile	250.000	244.941	2.0	96	0.00
16	T	Acetone	250.000	249.355	0.3	101	0.00
17	T	Carbon Disulfide	50.000	45.520	9.0	93	0.00
18	T	Methyl Acetate	50.000	48.990	2.0	97	0.00
19	T	Methyl tert-butyl Ether	50.000	49.427	1.1	97	0.00
20	T	Methylene Chloride	50.000	47.313	5.4	99	0.00
21	T	trans-1,2-Dichloroethene	50.000	46.730	6.5	98	0.00
22	T	Diisopropyl ether	50.000	50.707	-1.4	99	0.00
23	T	Vinyl Acetate	250.000	260.033	-4.0	101	0.00
24	P	1,1-Dichloroethane	50.000	49.292	1.4	102	0.00
25	T	2-Butanone	250.000	248.795	0.5	98	0.00
26	T	2,2-Dichloropropane	50.000	49.215	1.6	97	0.00
27	T	cis-1,2-Dichloroethene	50.000	49.013	2.0	97	0.00
28	T	Bromochloromethane	50.000	53.947	-7.9	102	0.00
29	T	Tetrahydrofuran	250.000	244.128	2.3	96	0.00
30	C	Chloroform	50.000	50.026	-0.1#	100	0.00
31	T	Cyclohexane	50.000	49.878	0.2	99	0.00
32	T	1,1,1-Trichloroethane	50.000	50.534	-1.1	96	0.00
33	S	1,2-Dichloroethane-d4	50.000	48.881	2.2	94	0.00
34	I	1,4-Difluorobenzene	50.000	50.000	0.0	94	0.00
35	S	Dibromofluoromethane	50.000	49.141	1.7	93	0.00
36	T	1,1-Dichloropropene	50.000	50.614	-1.2	99	0.00
37	T	Ethyl Acetate	50.000	48.082	3.8	95	0.00
38	T	Carbon Tetrachloride	50.000	50.539	-1.1	97	0.00
39	T	Methylcyclohexane	50.000	51.541	-3.1	102	0.00
40	TM	Benzene	50.000	50.138	-0.3	98	0.00
41	T	Methacrylonitrile	50.000	51.997	-4.0	96	0.00
42	TM	1,2-Dichloroethane	50.000	49.132	1.7	99	0.00
43	T	Isopropyl Acetate	50.000	52.014	-4.0	98	0.00
44	TM	Trichloroethene	50.000	49.256	1.5	99	0.00
45	C	1,2-Dichloropropane	50.000	50.449	-0.9#	101	0.00

Evaluate Continuing Calibration Report

Data Path : Z:\voasrv\HPCHEM1\MSVOA X\Data\VX121918\
Data File : VX006635.D
Acq On : 19 Dec 2018 14:22
Operator : JC/MD
Sample : VSTDCCC050
Misc : 5.0mL/MSVOA X/WATER
ALS Vial : 2 Sample Multiplier: 1

Instrument : MSVOA_X
LabSampleId : VSTDCCC050

Quant Time: Dec 20 04:12:37 2018
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121818W.M
Quant Title : SW846 8260
QLast Update : Wed Dec 19 15:20:58 2018
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
46	T	Dibromomethane	50.000	49.789	0.4	97	0.00
47	T	Bromodichloromethane	50.000	51.957	-3.9	98	0.00
48	T	Methyl methacrylate	50.000	52.208	-4.4	97	0.00
49	T	1,4-Dioxane	1000.000	1006.586	-0.7	93	0.00
50	S	Toluene-d8	50.000	49.663	0.7	95	0.00
51	T	4-Methyl-2-Pentanone	250.000	264.285	-5.7	98	0.00
52	CM	Toluene	50.000	51.545	-3.1#	99	0.00
53	T	t-1,3-Dichloropropene	50.000	54.098	-8.2	97	0.00
54	T	cis-1,3-Dichloropropene	50.000	54.411	-8.8	97	0.00
55	T	1,1,2-Trichloroethane	50.000	51.381	-2.8	100	0.00
56	T	Ethyl methacrylate	50.000	53.333	-6.7	97	0.00
57	T	1,3-Dichloropropane	50.000	50.354	-0.7	99	0.00
58	T	2-Chloroethyl Vinyl ether	250.000	258.046	-3.2	99	0.00
59	T	2-Hexanone	250.000	268.789	-7.5	100	0.00
60	T	Dibromochloromethane	50.000	48.479	3.0	97	0.00
61	T	1,2-Dibromoethane	50.000	51.923	-3.8	98	0.00
62	S	4-Bromofluorobenzene	50.000	51.884	-3.8	96	0.00
63	I	Chlorobenzene-d5	50.000	50.000	0.0	96	0.00
64	T	Tetrachloroethene	50.000	48.588	2.8	100	0.00
65	PM	Chlorobenzene	50.000	49.190	1.6	99	0.00
66	T	1,1,1,2-Tetrachloroethane	50.000	53.089	-6.2	99	0.00
67	C	Ethyl Benzene	50.000	50.397	-0.8#	100	0.00
68	T	m/p-Xylenes	100.000	102.228	-2.2	100	0.00
69	T	o-Xylene	50.000	51.098	-2.2	99	0.00
70	T	Styrene	50.000	52.309	-4.6	99	0.00
71	P	Bromoform	50.000	44.624	10.8	95	0.00
72	I	1,4-Dichlorobenzene-d4	50.000	50.000	0.0	98	0.00
73	T	Isopropylbenzene	50.000	49.776	0.4	100	0.00
74	T	N-amyl acetate	50.000	50.767	-1.5	98	0.00
75	P	1,1,2,2-Tetrachloroethane	50.000	49.520	1.0	98	0.00
76	T	1,2,3-Trichloropropane	50.000	50.894	-1.8	97	0.00
77	T	Bromobenzene	50.000	49.221	1.6	98	0.00
78	T	n-propylbenzene	50.000	51.322	-2.6	102	0.00
79	T	2-Chlorotoluene	50.000	49.424	1.2	101	0.00
80	T	1,3,5-Trimethylbenzene	50.000	50.631	-1.3	101	0.00
81	T	trans-1,4-Dichloro-2-butene	50.000	44.749	10.5	98	0.00
82	T	4-Chlorotoluene	50.000	50.326	-0.7	102	0.00
83	T	tert-Butylbenzene	50.000	50.892	-1.8	99	0.00
84	T	1,2,4-Trimethylbenzene	50.000	49.634	0.7	101	0.00
85	T	sec-Butylbenzene	50.000	51.188	-2.4	102	0.00
86	T	p-Isopropyltoluene	50.000	51.765	-3.5	102	0.00
87	T	1,3-Dichlorobenzene	50.000	50.079	-0.2	100	0.00
88	T	1,4-Dichlorobenzene	50.000	49.256	1.5	101	0.00
89	T	n-Butylbenzene	50.000	53.763	-7.5	106	0.00

Evaluate Continuing Calibration Report

Data Path : Z:\voasrv\HPCHEM1\MSVOA X\Data\VX121918\
Data File : VX006635.D
Acq On : 19 Dec 2018 14:22
Operator : JC/MD
Sample : VSTDCCC050
Misc : 5.0mL/MSVOA X/WATER
ALS Vial : 2 Sample Multiplier: 1

Instrument : MSVOA_X
LabSampleId : VSTDCCC050

Quant Time: Dec 20 04:12:37 2018
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121818W.M
Quant Title : SW846 8260
QLast Update : Wed Dec 19 15:20:58 2018
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
90 T	Hexachloroethane	50.000	46.890	6.2	101	0.00
91 T	1,2-Dichlorobenzene	50.000	48.254	3.5	99	0.00
92 T	1,2-Dibromo-3-Chloropropane	50.000	49.199	1.6	95	0.00
93 T	1,2,4-Trichlorobenzene	50.000	50.158	-0.3	100	0.00
94 T	Hexachlorobutadiene	50.000	50.438	-0.9	105	0.00
95 T	Naphthalene	50.000	48.790	2.4	97	0.00
96 T	1,2,3-Trichlorobenzene	50.000	48.859	2.3	101	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 6

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: DAYE01

Lab Code: CHEM Case No.: J6484 SAS No.: J6484 SDG No.: J6484

Instrument ID: MSVOA_X Calibration Date/Time: 12/20/2018 09:00

Lab File ID: VX006662.D Init. Calib. Date(s): 12/18/2018 12/18/2018

Heated Purge: (Y/N) N Init. Calib. Time(s): 10:45 12:57

GC Column: DB-624UI ID: 0.18 (mm)

COMPOUND	RRF	RRF050	MIN RRF	%D	MAX%D
Dichlorodifluoromethane	0.457	0.430		-5.91	20
Chloromethane	0.493	0.462	0.1	-6.29	20
Vinyl Chloride	0.515	0.484		-6.02	20
Bromomethane	0.560	0.497		-11.25	20
Chloroethane	0.356	0.311		-12.64	20
Trichlorofluoromethane	0.802	0.766		-4.49	20
1,1,2-Trichlorotrifluoroethane	0.471	0.470		-0.21	20
1,1-Dichloroethene	0.447	0.419		-6.26	20
Acetone	0.248	0.250		0.81	20
Carbon Disulfide	1.182	1.073		-9.22	20
Methyl tert-butyl Ether	1.483	1.448		-2.36	20
Methyl Acetate	0.728	0.694		-4.67	20
Methylene Chloride	0.512	0.469		-8.4	20
trans-1,2-Dichloroethene	0.495	0.453		-8.48	20
1,1-Dichloroethane	0.821	0.796	0.1	-3.05	20
Cyclohexane	0.746	0.725		-2.82	20
2-Butanone	0.348	0.340		-2.3	20
Carbon Tetrachloride	0.402	0.417		3.73	20
cis-1,2-Dichloroethene	0.546	0.518		-5.13	20
Bromochloromethane	0.378	0.345		-8.73	20
Chloroform	0.850	0.826		-2.82	20
1,1,1-Trichloroethane	0.718	0.712		-0.84	20
Methylcyclohexane	0.545	0.557		2.2	20
Benzene	1.259	1.254		-0.4	20
1,2-Dichloroethane	0.429	0.421		-1.87	20
Trichloroethene	0.381	0.377		-1.05	20
1,2-Dichloropropane	0.306	0.312		1.96	20
Bromodichloromethane	0.374	0.396		5.88	20
4-Methyl-2-Pentanone	0.417	0.438		5.04	20
Toluene	0.813	0.843		3.69	20
t-1,3-Dichloropropene	0.401	0.450		12.22	20
cis-1,3-Dichloropropene	0.440	0.492		11.82	20
1,1,2-Trichloroethane	0.333	0.343		3	20
2-Hexanone	0.319	0.342		7.21	20
Dibromochloromethane	0.307	0.352		14.66	20
1,2-Dibromoethane	0.354	0.372		5.09	20
Tetrachloroethene	0.396	0.389		-1.77	20
Chlorobenzene	1.058	1.048	0.3	-0.94	20
Ethyl Benzene	1.729	1.739		0.58	20

All other compounds must meet a minimum RRF of 0.010.
RRF of 1,4-Dioxane = Value should be divide by 1000.

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: DAYE01

Lab Code: CHEM Case No.: J6484 SAS No.: J6484 SDG No.: J6484

Instrument ID: MSVOA_X Calibration Date/Time: 12/20/2018 09:00

Lab File ID: VX006662.D Init. Calib. Date(s): 12/18/2018 12/18/2018

Heated Purge: (Y/N) N Init. Calib. Time(s): 10:45 12:57

GC Column: DB-624UI ID: 0.18 (mm)

COMPOUND	RRF	RRF050	MIN RRF	%D	MAX%D
m/p-Xylenes	0.682	0.696		2.05	20
o-Xylene	0.674	0.681		1.04	20
Styrene	1.066	1.111		4.22	20
Bromoform	0.251	0.276	0.1	9.96	20
Isopropylbenzene	3.421	3.469		1.4	20
1,1,2,2-Tetrachloroethane	1.017	1.012	0.3	-0.49	20
1,3-Dichlorobenzene	1.667	1.683		0.96	20
1,4-Dichlorobenzene	1.709	1.686		-1.35	20
1,2-Dichlorobenzene	1.667	1.623		-2.64	20
1,2-Dibromo-3-Chloropropane	0.210	0.213		1.43	20
1,2,4-Trichlorobenzene	1.150	1.207		4.96	20
1,2,3-Trichlorobenzene	1.187	1.197		0.84	20
1,2-Dichloroethane-d4	0.539	0.500		-7.24	20
Dibromofluoromethane	0.316	0.313		-0.95	20
Toluene-d8	1.192	1.188		-0.34	20
4-Bromofluorobenzene	0.437	0.448		2.52	20

All other compounds must meet a minimum RRF of 0.010.
RRF of 1,4-Dioxane = Value should be divide by 1000.

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX122018\
Data File : VX006662.D
Acq On : 20 Dec 2018 09:00
Operator : JC/MD
Sample : VSTDCCC050
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 2 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

Manual Integrations APPROVED
MMDadoda
12/21/2018 10:18:50 AM

Quant Time: Dec 21 03:44:35 2018
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121818W.M
Quant Title : SW846 8260
QLast Update : Wed Dec 19 15:20:58 2018
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	5.66	168	737861	50.00	ug/l	0.00
34) 1,4-Difluorobenzene	6.86	114	1095979	50.00	ug/l	0.00
63) Chlorobenzene-d5	10.11	117	1030351	50.00	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	12.08	152	539742	50.00	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	6.07	65	368630	46.35	ug/l	0.00
Spiked Amount 50.000			Recovery = 92.70%			
35) Dibromofluoromethane	5.50	113	342606	49.43	ug/l	0.00
Spiked Amount 50.000			Recovery = 98.86%			
50) Toluene-d8	8.71	98	1302142	49.83	ug/l	0.00
Spiked Amount 50.000			Recovery = 99.66%			
62) 4-Bromofluorobenzene	11.13	95	491496	51.36	ug/l	0.00
Spiked Amount 50.000			Recovery = 102.72%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.20	85	317498	47.036	ug/l	98
3) Chloromethane	1.33	50	341239	46.923	ug/l	98
4) Vinyl Chloride	1.41	62	357138	47.022	ug/l	99
5) Bromomethane	1.64	94	366482	51.774	ug/l	100
6) Chloroethane	1.71	64	229177	43.578	ug/l	97
7) Trichlorofluoromethane	1.93	101	565113	47.723	ug/l	98
8) Diethyl Ether	2.19	74	217704	46.287	ug/l	98
9) 1,1,2-Trichlorotrifluoroet	2.39	101	346827	49.883	ug/l	99
10) Methyl Iodide	2.51	142	519851	52.233	ug/l	100
11) Tert butyl alcohol	3.07	59	405970	228.748	ug/l	100
12) 1,1-Dichloroethene	2.37	96	309525	46.951	ug/l	99
13) Acrolein	2.29	56	240770	201.102	ug/l	99
14) Allyl chloride	2.73	41	531996	47.941	ug/l	99
15) Acrylonitrile	3.15	53	931191	236.313	ug/l	100
16) Acetone	2.45	43	921667	252.266	ug/l	98
17) Carbon Disulfide	2.57	76	792014	45.397	ug/l	100
18) Methyl Acetate	2.78	43	512365	47.692	ug/l	97
19) Methyl tert-butyl Ether	3.20	73	1068527	48.834	ug/l	100
20) Methylene Chloride	2.85	84	346203	45.825	ug/l	98
21) trans-1,2-Dichloroethene	3.17	96	334277	45.763	ug/l	99
22) Diisopropyl ether	3.87	45	1037631	51.112	ug/l	98
23) Vinyl Acetate	3.82	43	4358933	262.498	ug/l	99
24) 1,1-Dichloroethane	3.70	63	587139	48.449	ug/l	98
25) 2-Butanone	4.70	43	1255633	244.325	ug/l	100
26) 2,2-Dichloropropane	4.59	77	460792	49.223	ug/l	99
27) cis-1,2-Dichloroethene	4.60	96	382076	47.408	ug/l	98
28) Bromochloromethane	5.02	49	254646	49.841	ug/l	97
29) Tetrahydrofuran	5.15	42	799090	236.080	ug/l	100
30) Chloroform	5.21	83	609790	48.590	ug/l	100
31) Cyclohexane	5.57	56	534736	48.570	ug/l	97
32) 1,1,1-Trichloroethane	5.49	97	525504	49.591	ug/l	100
36) 1,1-Dichloropropene	5.80	75	460237	50.702	ug/l	100
37) Ethyl Acetate	4.85	43	470842	49.836	ug/l	98
38) Carbon Tetrachloride	5.78	117	456805	51.782	ug/l	100

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX122018\
Data File : VX006662.D
Acq On : 20 Dec 2018 09:00
Operator : JC/MD
Sample : VSTDCCC050
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 21 03:44:35 2018
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121818W.M
Quant Title : SW846 8260
QLast Update : Wed Dec 19 15:20:58 2018
Response via : Initial Calibration

Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

Manual Integrations APPROVED
MMDadoda
12/21/2018 10:18:50 AM

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
39) Methylcyclohexane	7.46	83	610308	51.070	ug/l		96
40) Benzene	6.14	78	1374214	49.805	ug/l		98
41) Methacrylonitrile	5.06	41	259232	51.681	ug/l		99
42) 1,2-Dichloroethane	6.20	62	460891	49.020	ug/l		99
43) Isopropyl Acetate	6.46	43	759229	52.815	ug/l		99
44) Trichloroethene	7.21	130	413066	49.462	ug/l		97
45) 1,2-Dichloropropane	7.51	63	342198	50.964	ug/l		99
46) Dibromomethane	7.66	93	243717	49.347	ug/l		99
47) Bromodichloromethane	7.90	83	433945	52.923	ug/l		100
48) Methyl methacrylate	7.77	41	390805	53.460	ug/l		99
49) 1,4-Dioxane	7.75	88	193228	1010.459	ug/l		99
51) 4-Methyl-2-Pentanone	8.65	43	2402581	262.678	ug/l		100
52) Toluene	8.78	92	923795	51.824	ug/l		100
53) t-1,3-Dichloropropene	9.04	75	492875	56.047	ug/l		97
54) cis-1,3-Dichloropropene	8.43	75	538837	55.843	ug/l		98
55) 1,1,2-Trichloroethane	9.21	97	376306	51.575	ug/l		98
56) Ethyl methacrylate	9.18	69	552302	53.557	ug/l		97
57) 1,3-Dichloropropane	9.37	76	590597	50.311	ug/l		100
58) 2-Chloroethyl Vinyl ether	8.31	63	1366707	249.322	ug/l		100
59) 2-Hexanone	9.49	43	1876175	268.096	ug/l		100
60) Dibromochloromethane	9.58	129	385551	50.499	ug/l		99
61) 1,2-Dibromoethane	9.67	107	407761	52.573	ug/l		100
64) Tetrachloroethene	9.34	164	400769	49.121	ug/l		96
65) Chlorobenzene	10.13	112	1080184	49.554	ug/l		100
66) 1,1,1,2-Tetrachloroethane	10.22	131	368262	54.149	ug/l		100
67) Ethyl Benzene	10.25	91	1792229	50.316	ug/l		99
68) m/p-Xylenes	10.36	106	1433979	102.024	ug/l		100
69) o-Xylene	10.69	106	701316	50.530	ug/l		98
70) Styrene	10.71	104	1144746	52.134	ug/l		100
71) Bromoform	10.86	173	284449	46.693	ug/l	#	100
73) Isopropylbenzene	11.02	105	1872108	50.700	ug/l		99
74) N-amyl acetate	10.90	43	698610	52.857	ug/l		99
75) 1,1,2,2-Tetrachloroethane	11.27	83	546363	49.753	ug/l		100
76) 1,2,3-Trichloropropane	11.30	75	514231m	51.266	ug/l		
77) Bromobenzene	11.26	156	499744	50.061	ug/l		100
78) n-propylbenzene	11.36	91	2123165	52.215	ug/l		100
79) 2-Chlorotoluene	11.42	91	1228784	49.867	ug/l		100
80) 1,3,5-Trimethylbenzene	11.51	105	1549044	50.933	ug/l		100
81) trans-1,4-Dichloro-2-buten	11.07	75	154797	47.222	ug/l		99
82) 4-Chlorotoluene	11.51	91	1422681	50.333	ug/l		100
83) tert-Butylbenzene	11.77	119	1579027	51.875	ug/l		99
84) 1,2,4-Trimethylbenzene	11.80	105	1597702	49.944	ug/l		100
85) sec-Butylbenzene	11.94	105	1920148	51.450	ug/l		100
86) p-Isopropyltoluene	12.06	119	1735161	52.891	ug/l		100
87) 1,3-Dichlorobenzene	12.02	146	908444	50.493	ug/l		99
88) 1,4-Dichlorobenzene	12.10	146	909922	49.335	ug/l		99
89) n-Butylbenzene	12.38	91	1516852	54.329	ug/l		99
90) Hexachloroethane	12.60	117	254072	49.519	ug/l		100
91) 1,2-Dichlorobenzene	12.39	146	876225	48.685	ug/l		99
92) 1,2-Dibromo-3-Chloropropan	13.00	75	114802	50.524	ug/l		99

Data Path : Z:\VOASRV\HPCHEM1\MSVOA X\DATA\VX122018\
Data File : VX006662.D
Acq On : 20 Dec 2018 09:00
Operator : JC/MD
Sample : VSTDCCC050
Misc : 5.0mL/MSVOA X/WATER
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 21 03:44:35 2018
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121818W.M
Quant Title : SW846 8260
QLast Update : Wed Dec 19 15:20:58 2018
Response via : Initial Calibration

Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

Manual Integrations APPROVED
MMDadoda
12/21/2018 10:18:50 AM

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
93) 1,2,4-Trichlorobenzene	13.65	180	651470	52.476	ug/l	99
94) Hexachlorobutadiene	13.78	225	303850	51.926	ug/l	100
95) Naphthalene	13.83	128	1966877	49.639	ug/l	100
96) 1,2,3-Trichlorobenzene	14.02	180	645857	50.387	ug/l	98

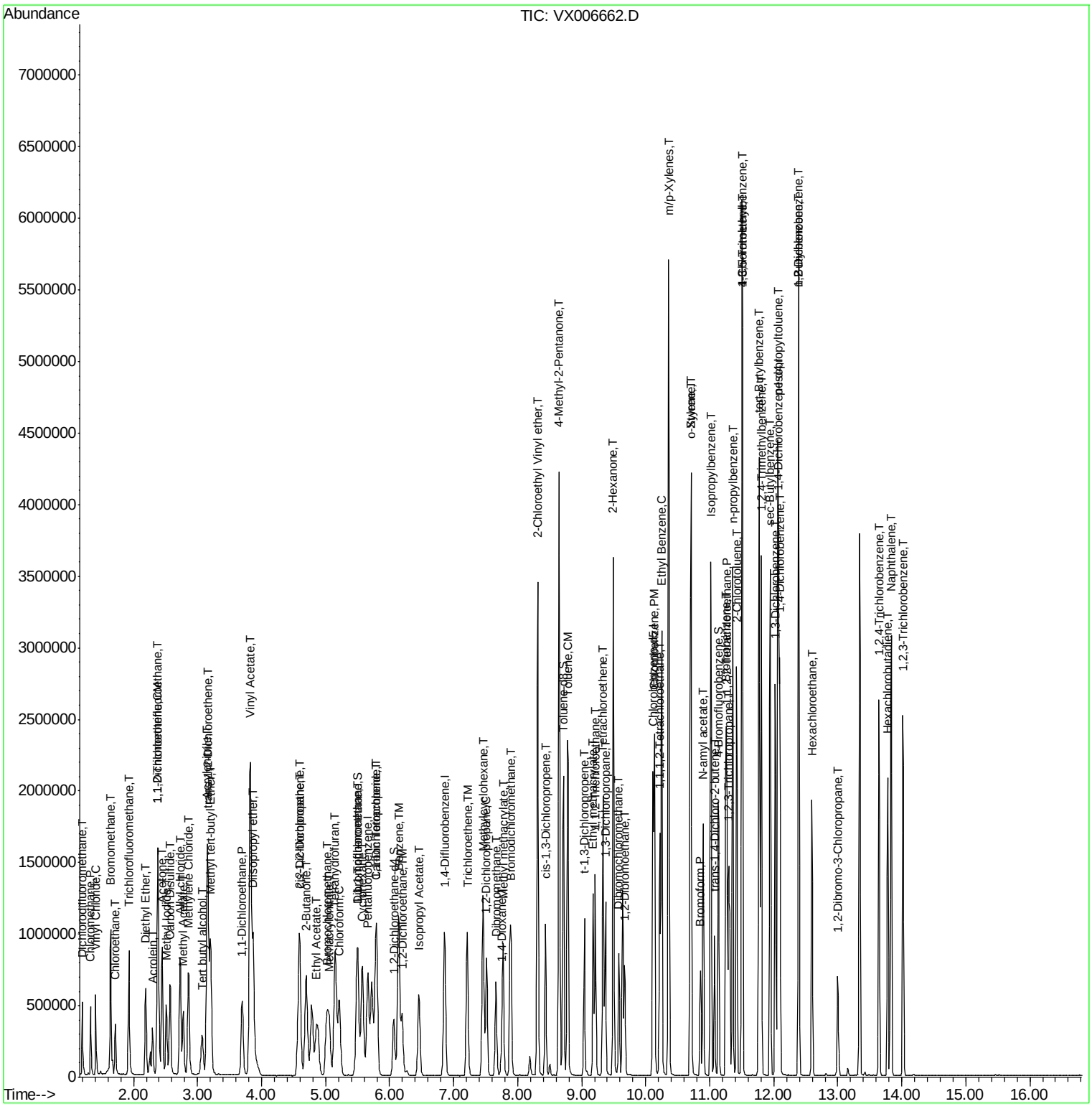
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX122018\
Data File : VX006662.D
Acq On : 20 Dec 2018 09:00
Operator : JC/MD
Sample : VSTDCCC050
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 21 03:44:35 2018
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121818W.M
Quant Title : SW846 8260
QLast Update : Wed Dec 19 15:20:58 2018
Response via : Initial Calibration

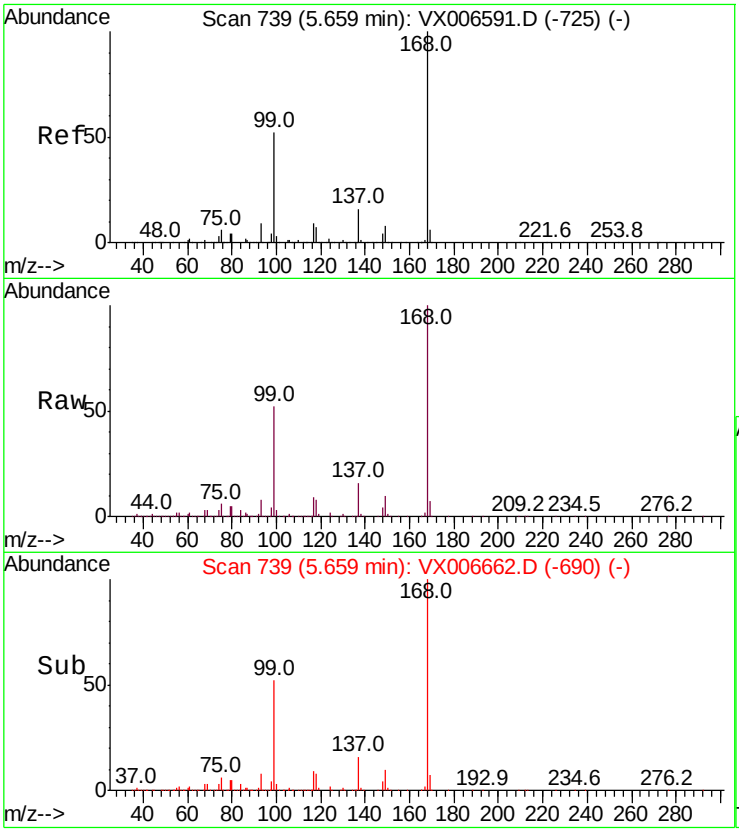
Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

Manual Integrations APPROVED
MMDadoda
12/21/2018 10:18:50 AM



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

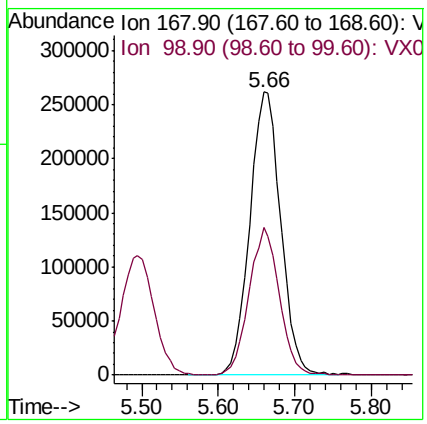
Manual Integrations APPROVED
MMDadoda
12/21/2018 10:18:50 AM

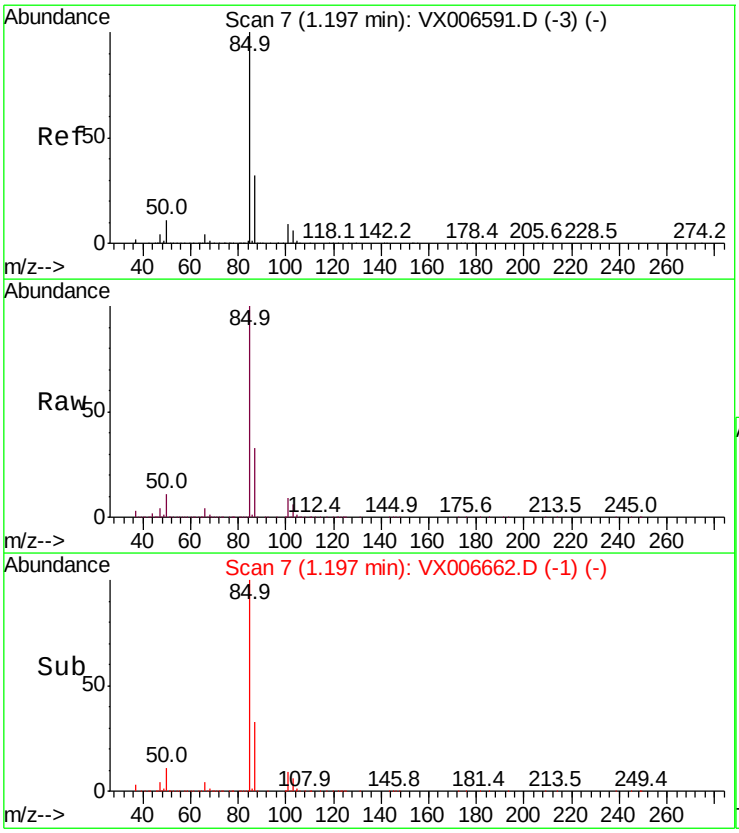


#1
Pentafluorobenzene
Concen: 50.000 ug/l
RT: 5.66 min Scan# 739
Delta R.T. -0.00 min
Lab File: VX006662.D
Acq: 20 Dec 2018 09:00

Tgt Ion:168 Resp: 737861

Ion	Ratio	Lower	Upper
168	100		
99	52.1	41.8	62.8

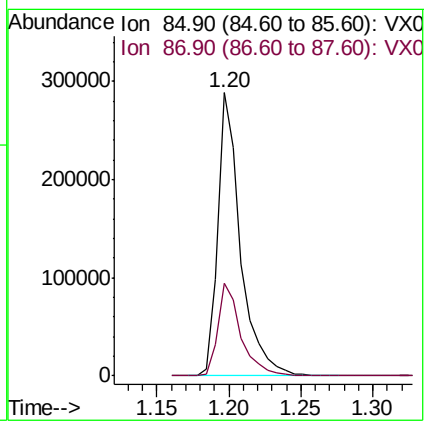




#2
Dichlorodifluoromethane
Concen: 47.036 ug/l
RT: 1.20 min Scan# 7
Delta R.T. -0.00 min
Lab File: VX006662.D
Acq: 20 Dec 2018 09:00

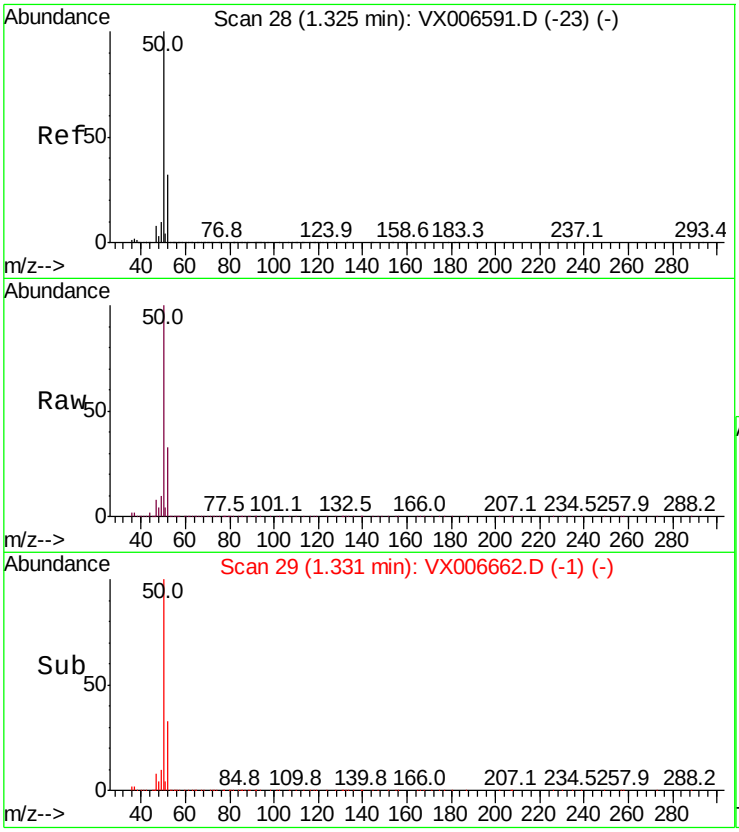
Tgt Ion: 85 Resp: 317498

Ion	Ratio	Lower	Upper
85	100		
87	32.6	15.9	47.6



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

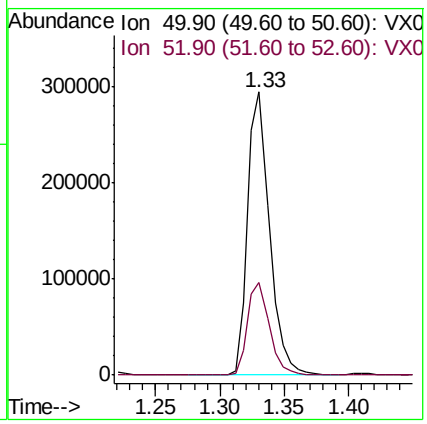
Manual Integrations APPROVED
MMDadoda
12/21/2018 10:18:50 AM

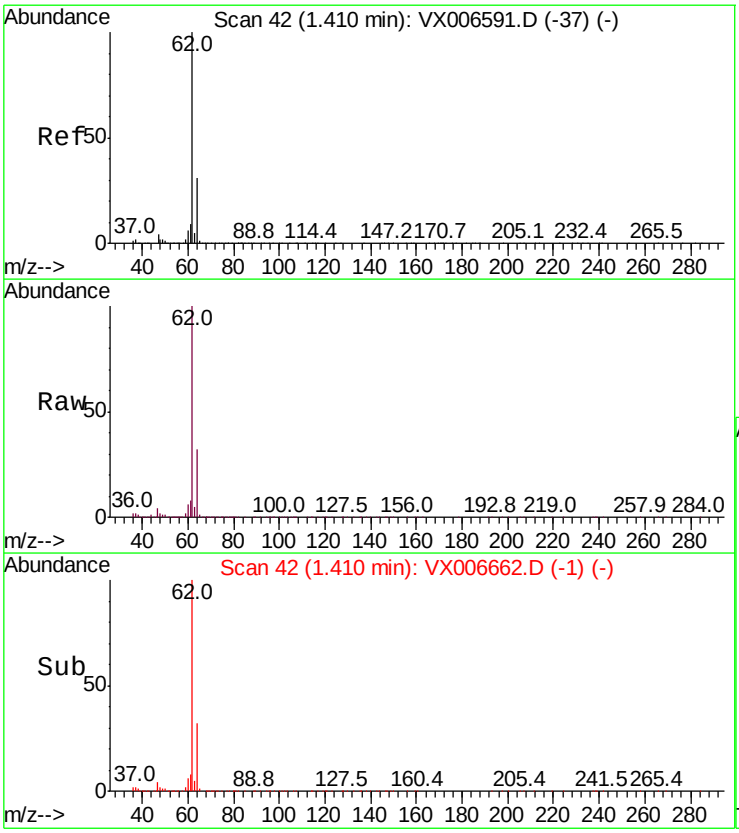


#3
Chloromethane
Concen: 46.923 ug/l
RT: 1.33 min Scan# 29
Delta R.T. 0.01 min
Lab File: VX006662.D
Acq: 20 Dec 2018 09:00

Tgt Ion: 50 Resp: 341239

Ion	Ratio	Lower	Upper
50	100		
52	32.7	25.4	38.2

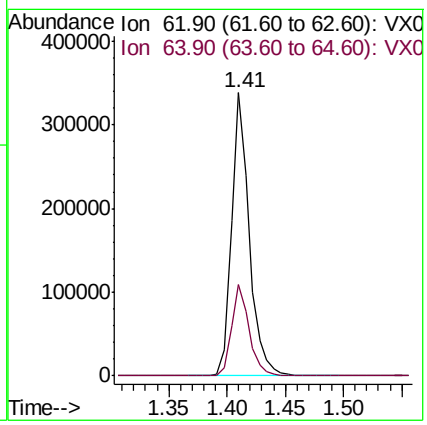




#4
Vinyl Chloride
Concen: 47.022 ug/l
RT: 1.41 min Scan# 42
Delta R.T. -0.00 min
Lab File: VX006662.D
Acq: 20 Dec 2018 09:00

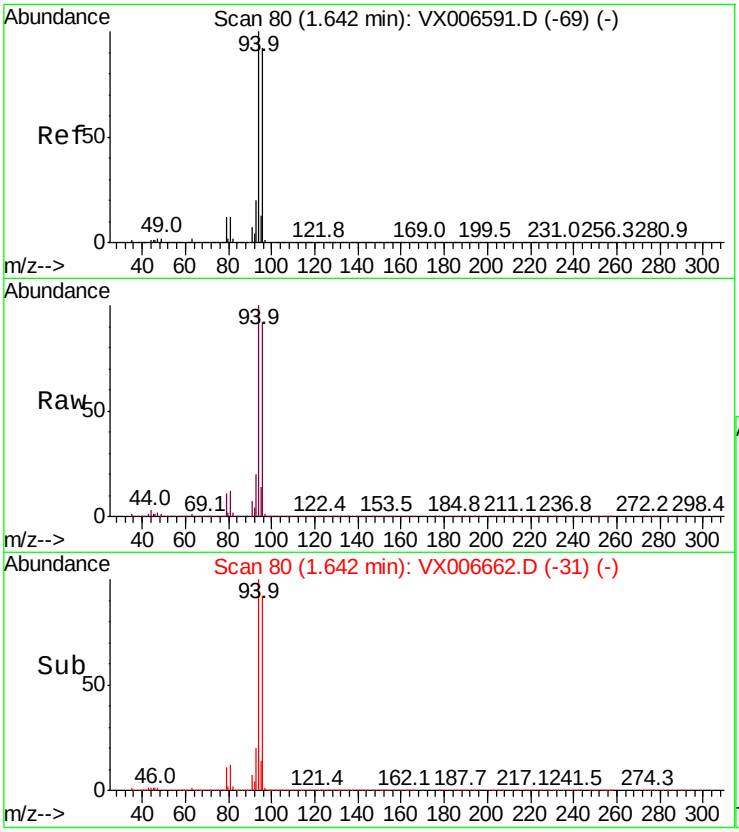
Tgt Ion: 62 Resp: 357138

Ion	Ratio	Lower	Upper
62	100		
64	32.1	25.1	37.7



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

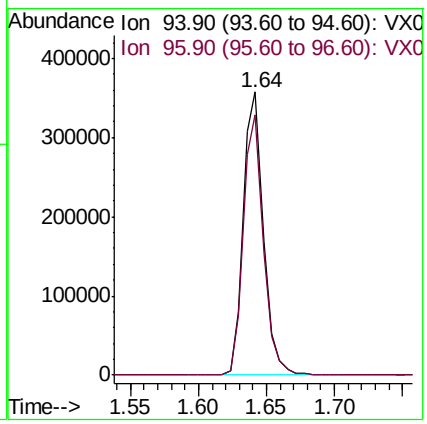
Manual Integrations APPROVED
MMDadoda
12/21/2018 10:18:50 AM

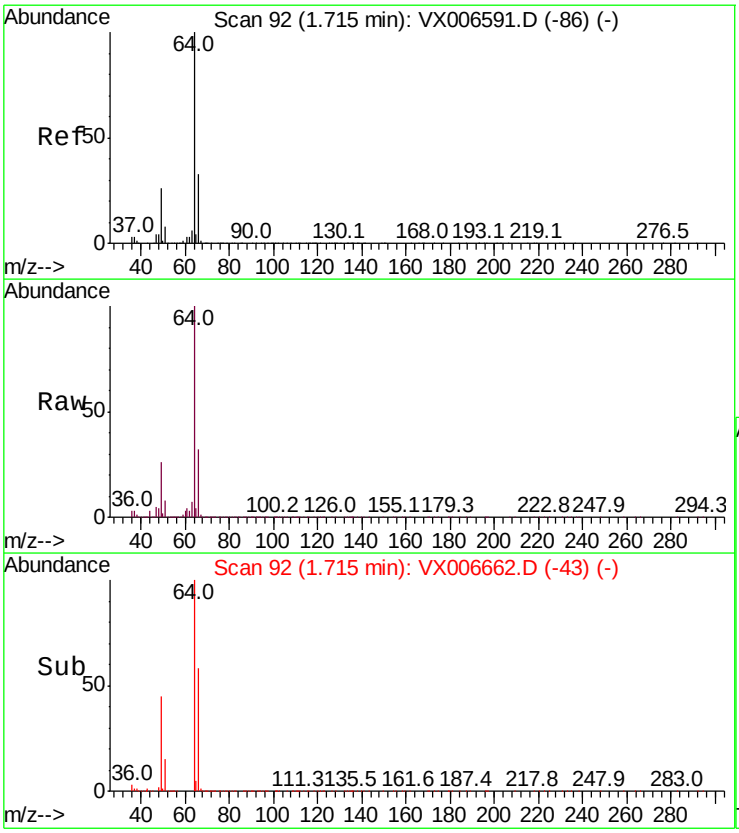


#5
Bromomethane
Concen: 51.774 ug/l
RT: 1.64 min Scan# 80
Delta R.T. 0.00 min
Lab File: VX006662.D
Acq: 20 Dec 2018 09:00

Tgt Ion: 94 Resp: 366482

Ion	Ratio	Lower	Upper
94	100		
96	92.2	73.4	110.2

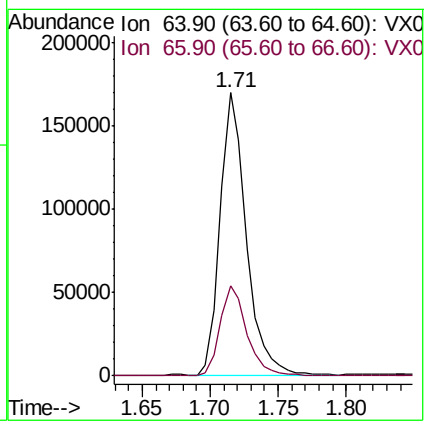




#6
Chloroethane
Concen: 43.578 ug/l
RT: 1.71 min Scan# 92
Delta R.T. -0.00 min
Lab File: VX006662.D
Acq: 20 Dec 2018 09:00

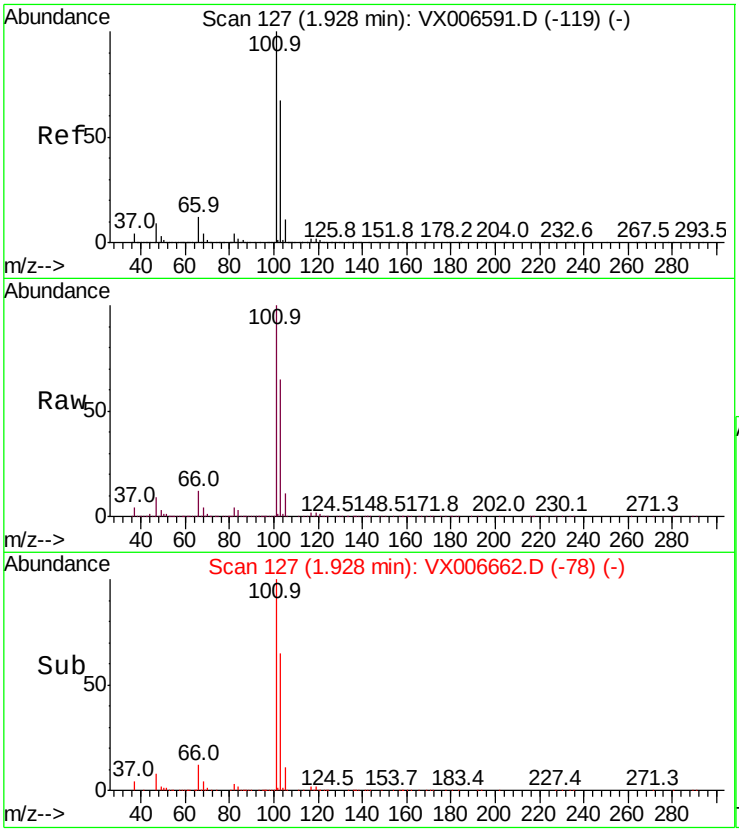
Tgt Ion: 64 Resp: 229177

Ion	Ratio	Lower	Upper
64	100		
66	31.5	26.4	39.6



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

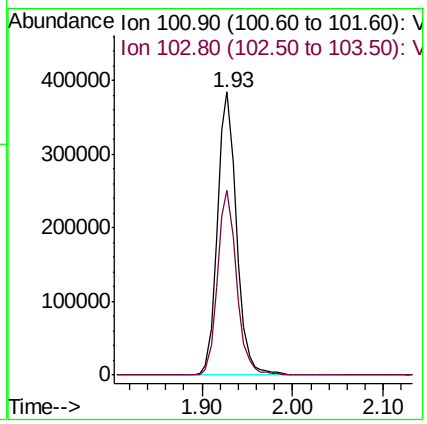
Manual Integrations APPROVED
MMDadoda
12/21/2018 10:18:50 AM

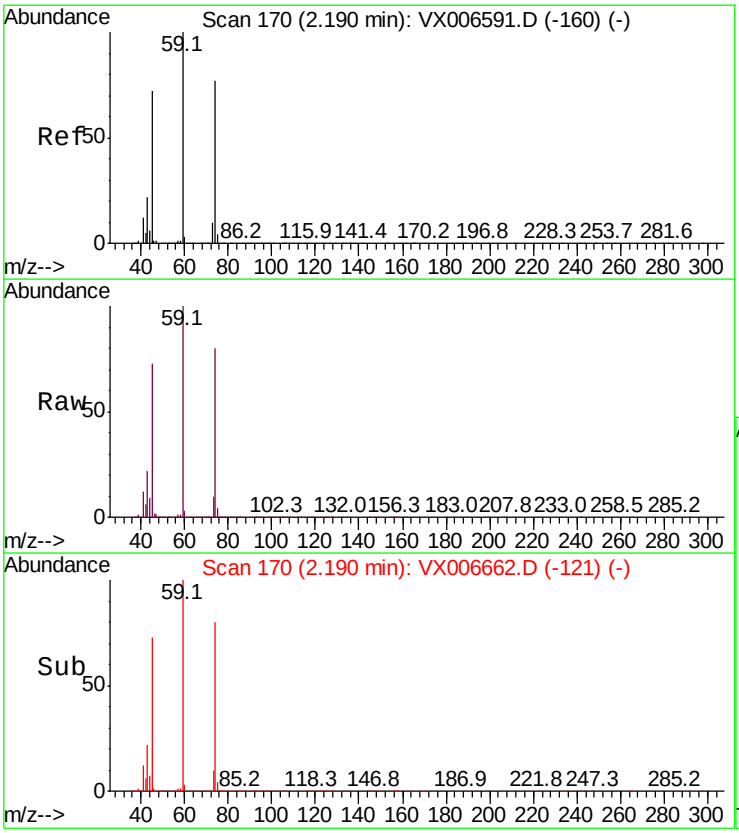


#7
Trichlorofluoromethane
Concen: 47.723 ug/l
RT: 1.93 min Scan# 127
Delta R.T. -0.00 min
Lab File: VX006662.D
Acq: 20 Dec 2018 09:00

Tgt Ion:101 Resp: 565113

Ion	Ratio	Lower	Upper
101	100		
103	65.3	53.2	79.8

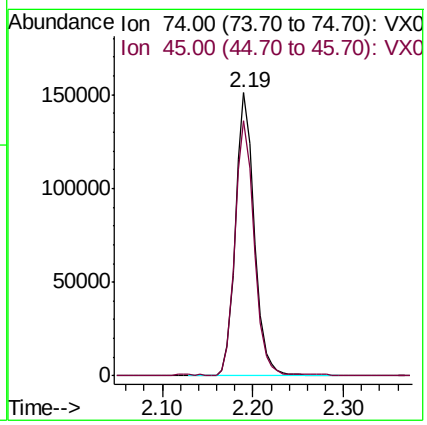


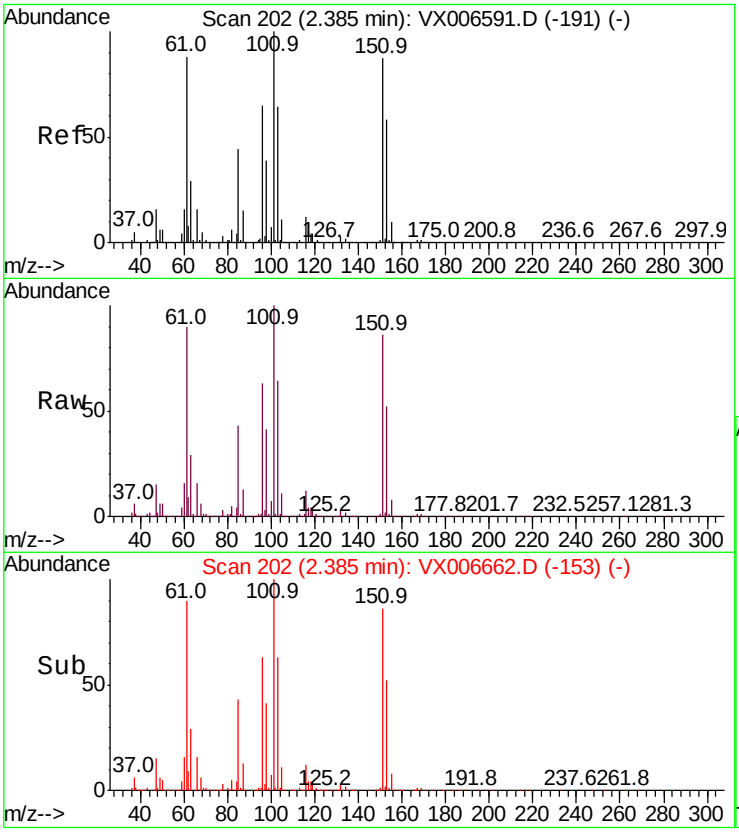


#8
Diethyl Ether
Concen: 46.287 ug/l
RT: 2.19 min Scan# 170
Delta R.T. -0.00 min
Lab File: VX006662.D
Acq: 20 Dec 2018 09:00

Tgt Ion: 74 Resp: 217704

Ion	Ratio	Lower	Upper
74	100		
45	90.9	46.3	138.9

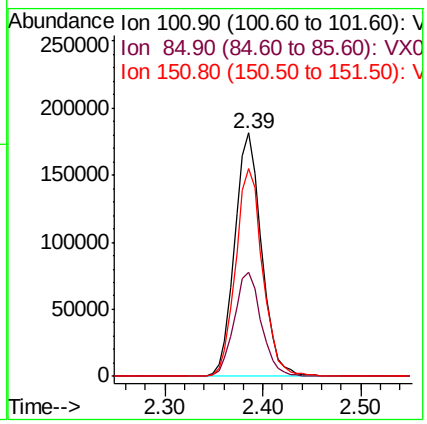




#9
1,1,2-Trichlorotrifluoroethane
Concen: 49.883 ug/l
RT: 2.39 min Scan# 202
Delta R.T. -0.00 min
Lab File: VX006662.D
Acq: 20 Dec 2018 09:00

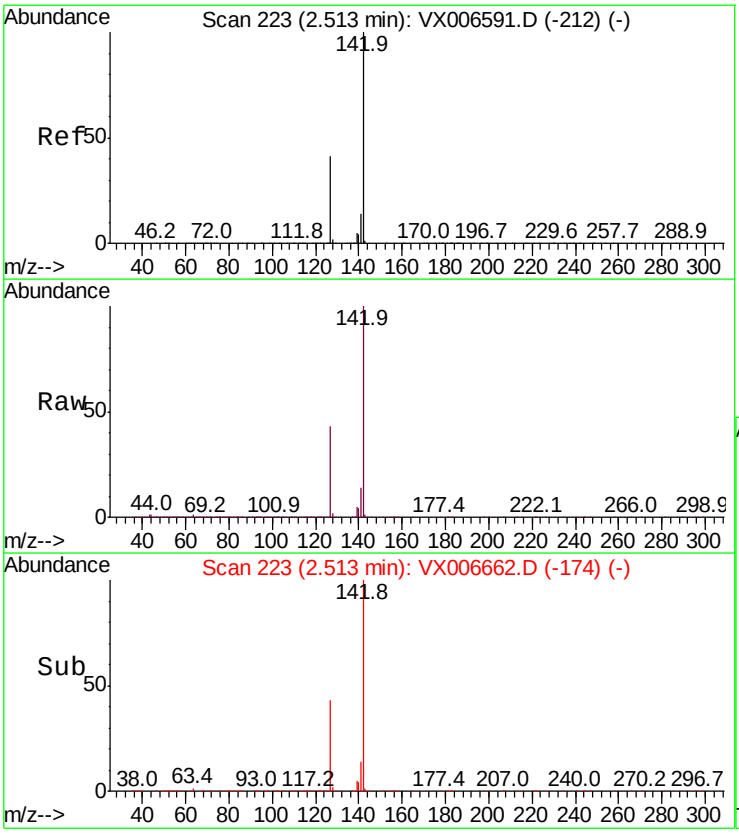
Tgt Ion:101 Resp: 346827

Ion	Ratio	Lower	Upper
101	100		
85	43.0	35.1	52.7
151	85.8	68.9	103.3



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

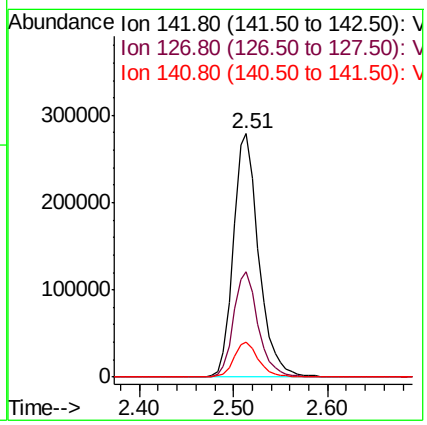
Manual Integrations APPROVED
MMDadoda
12/21/2018 10:18:50 AM



#10
Methyl Iodide
Concen: 52.233 ug/l
RT: 2.51 min Scan# 223
Delta R.T. -0.00 min
Lab File: VX006662.D
Acq: 20 Dec 2018 09:00

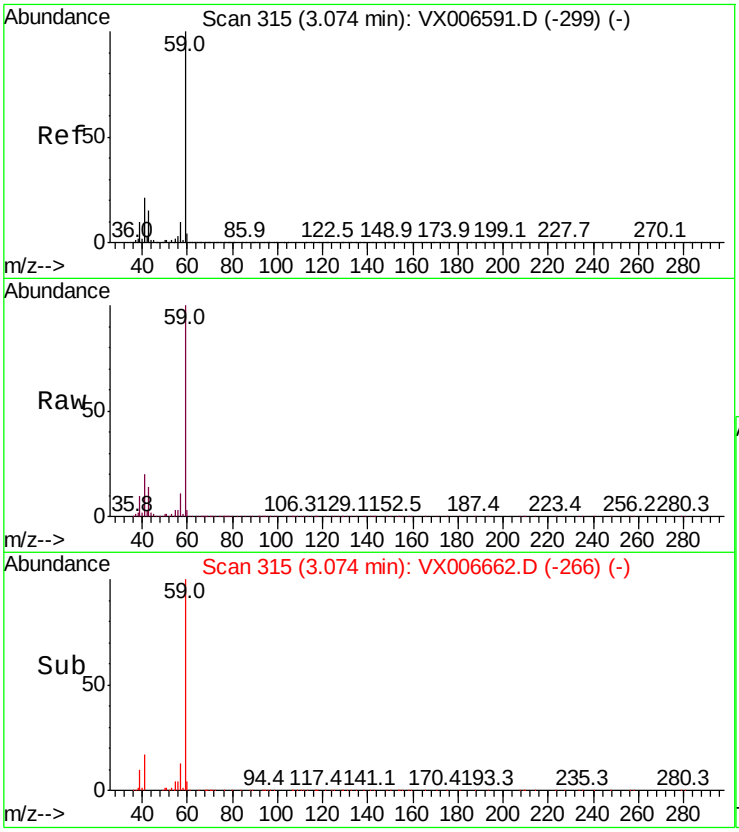
Tgt Ion:142 Resp: 519851

Ion	Ratio	Lower	Upper
142	100		
127	42.2	33.9	50.9
141	14.1	11.4	17.0



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

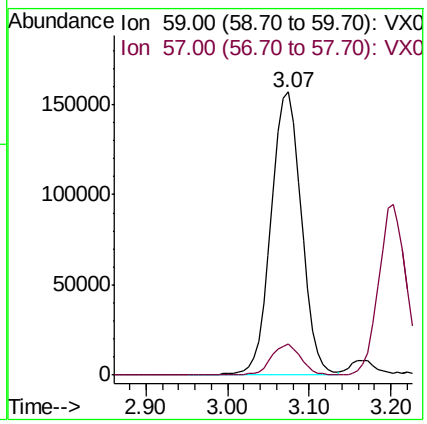
Manual Integrations APPROVED
MMDadoda
12/21/2018 10:18:50 AM

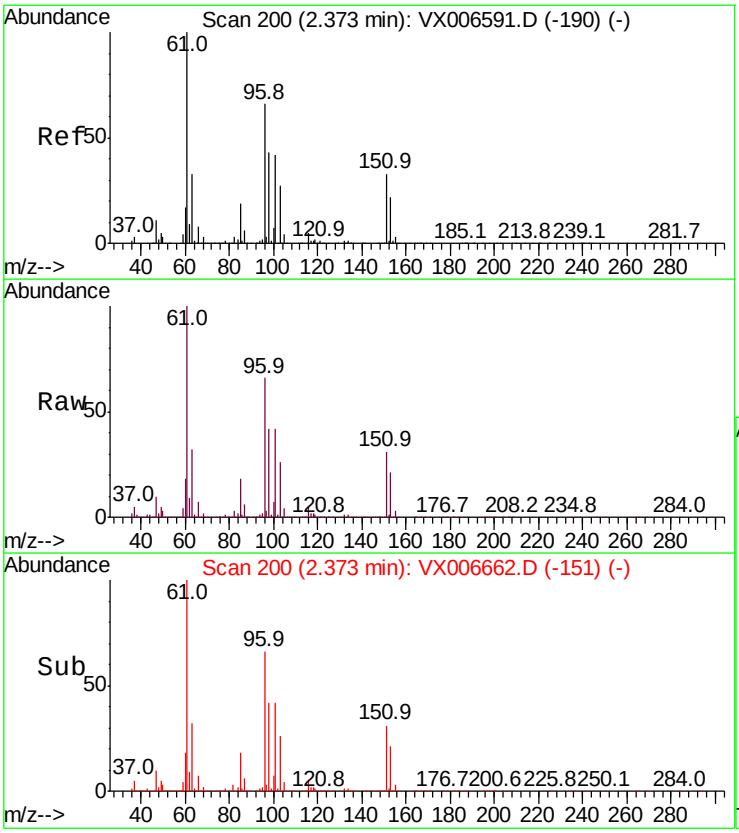


#11
Tert butyl alcohol
Concen: 228.748 ug/l
RT: 3.07 min Scan# 315
Delta R.T. -0.00 min
Lab File: VX006662.D
Acq: 20 Dec 2018 09:00

Tgt Ion: 59 Resp: 405970

Ion	Ratio	Lower	Upper
59	100		
57	10.4	8.5	12.7

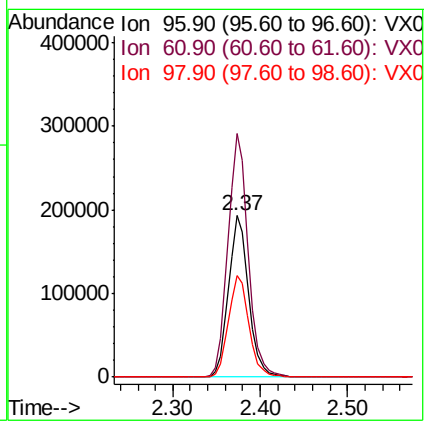




#12
1,1-Dichloroethene
Concen: 46.951 ug/l
RT: 2.37 min Scan# 200
Delta R.T. -0.00 min
Lab File: VX006662.D
Acq: 20 Dec 2018 09:00

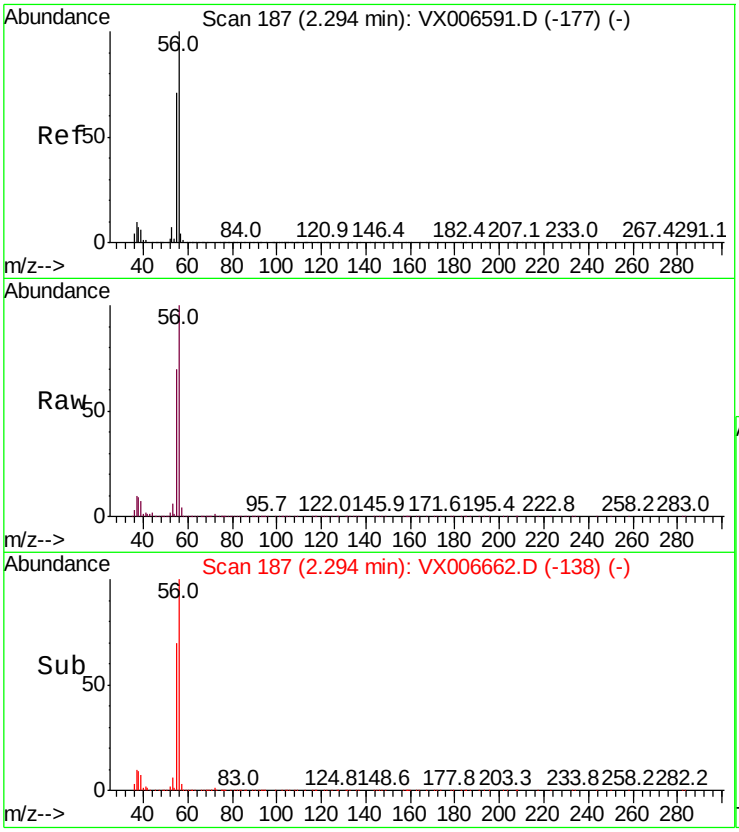
Tgt Ion: 96 Resp: 309525

Ion	Ratio	Lower	Upper
96	100		
61	151.1	121.4	182.2
98	62.7	51.9	77.9



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

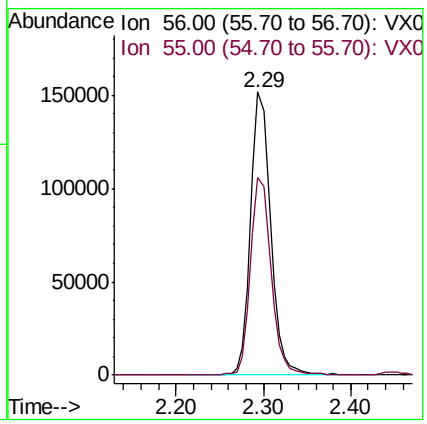
Manual Integrations APPROVED
MMDadoda
12/21/2018 10:18:50 AM

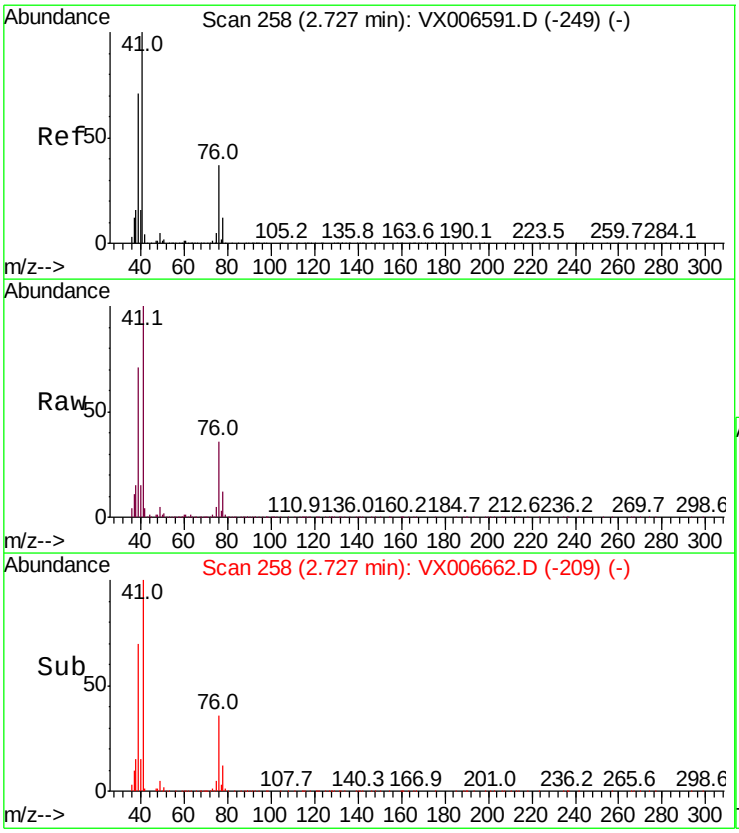


#13
Acrolein
Concen: 201.102 ug/l
RT: 2.29 min Scan# 187
Delta R.T. -0.00 min
Lab File: VX006662.D
Acq: 20 Dec 2018 09:00

Tgt Ion: 56 Resp: 240770

Ion	Ratio	Lower	Upper
56	100		
55	71.9	58.2	87.4

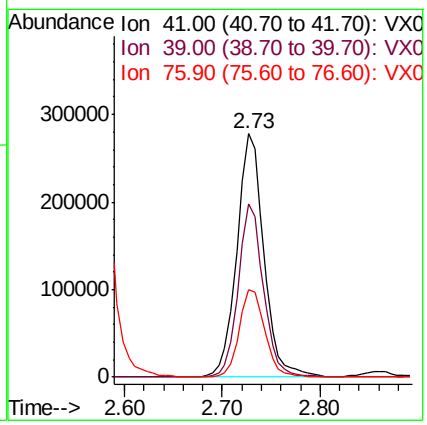




#14
Allyl chloride
Concen: 47.941 ug/l
RT: 2.73 min Scan# 258
Delta R.T. -0.00 min
Lab File: VX006662.D
Acq: 20 Dec 2018 09:00

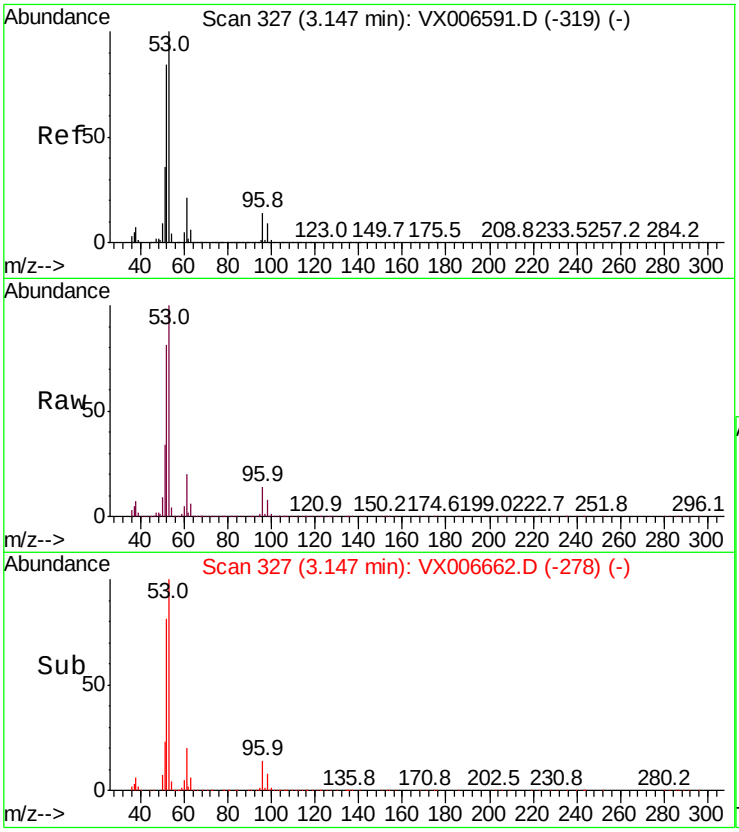
Tgt Ion: 41 Resp: 531996

Ion	Ratio	Lower	Upper
41	100		
39	66.0	53.6	80.4
76	34.0	27.4	41.2



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

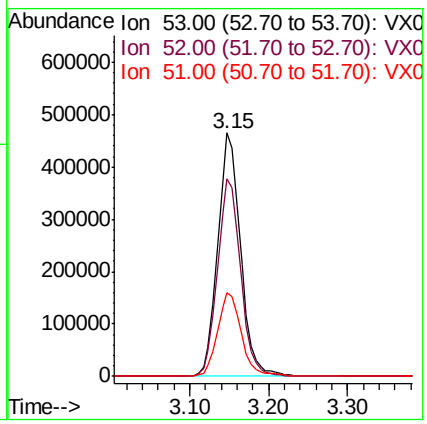
Manual Integrations APPROVED
MMDadoda
12/21/2018 10:18:50 AM

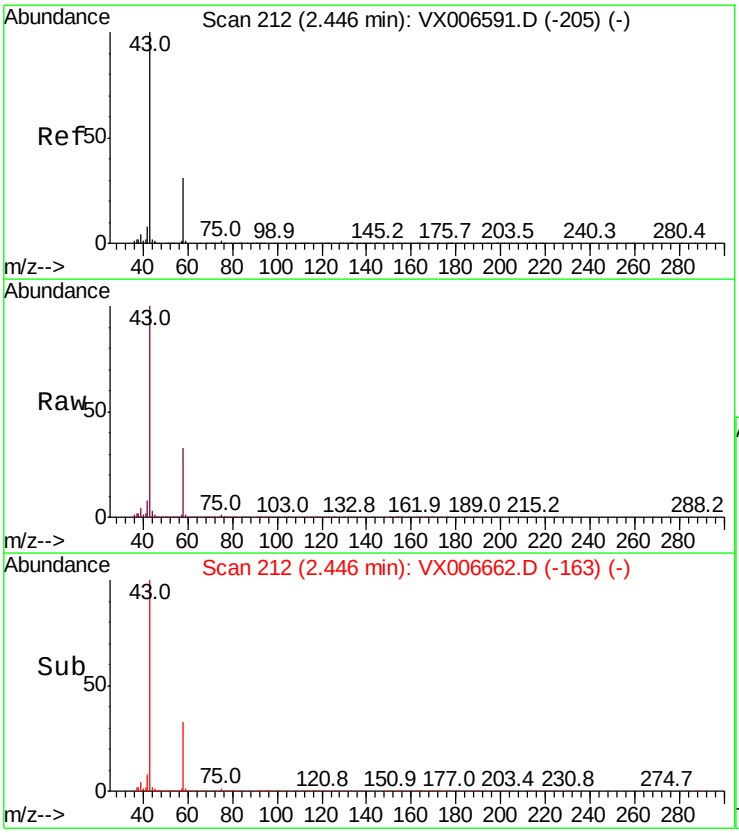


#15
Acrylonitrile
Concen: 236.313 ug/l
RT: 3.15 min Scan# 327
Delta R.T. -0.00 min
Lab File: VX006662.D
Acq: 20 Dec 2018 09:00

Tgt Ion: 53 Resp: 931191

Ion	Ratio	Lower	Upper
53	100		
52	82.2	66.0	99.0
51	35.7	28.6	42.8

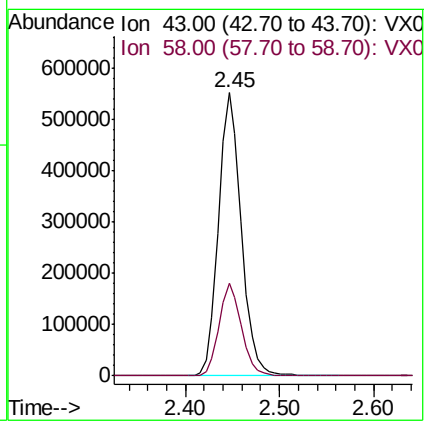




#16
Acetone
Concen: 252.266 ug/l
RT: 2.45 min Scan# 212
Delta R.T. -0.00 min
Lab File: VX006662.D
Acq: 20 Dec 2018 09:00

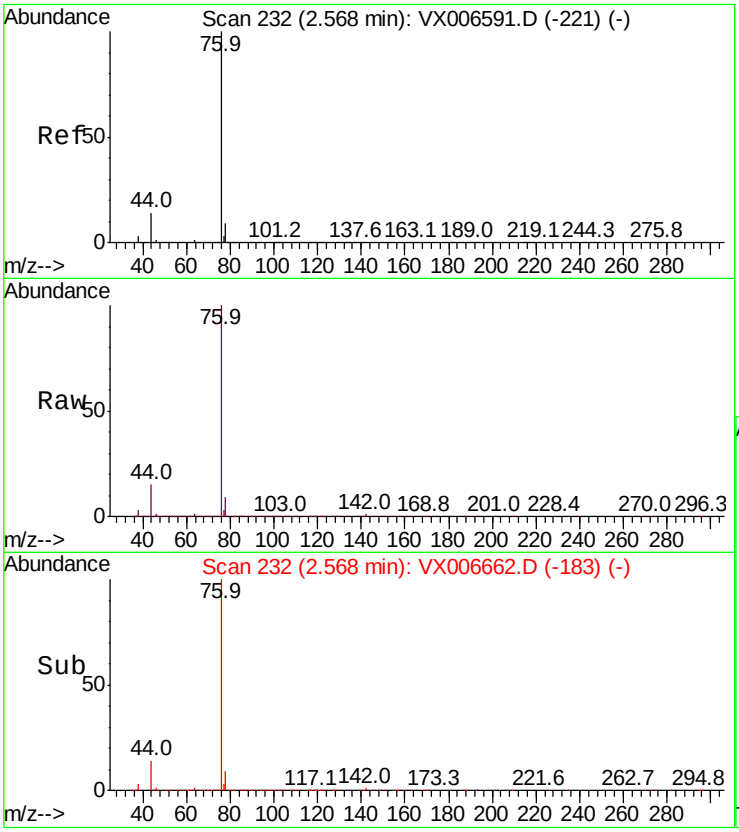
Tgt Ion: 43 Resp: 921667

Ion	Ratio	Lower	Upper
43	100		
58	32.6	25.0	37.6



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

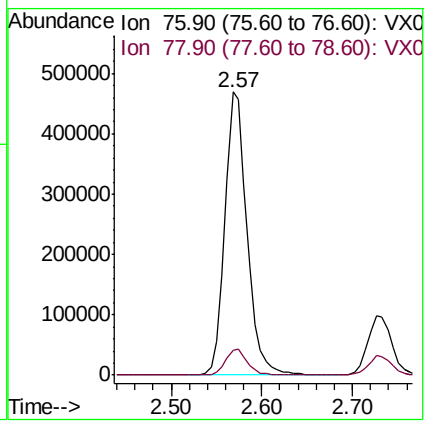
Manual Integrations APPROVED
MMDadoda
12/21/2018 10:18:50 AM

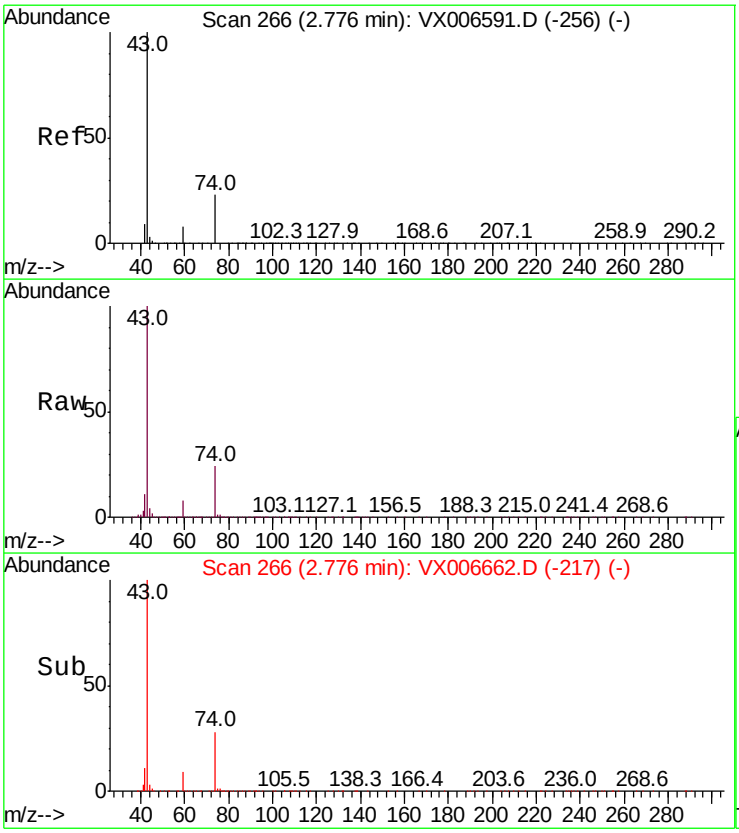


#17
Carbon Disulfide
Concen: 45.397 ug/l
RT: 2.57 min Scan# 232
Delta R.T. -0.00 min
Lab File: VX006662.D
Acq: 20 Dec 2018 09:00

Tgt Ion: 76 Resp: 792014

Ion	Ratio	Lower	Upper
76	100		
78	8.8	7.0	10.6

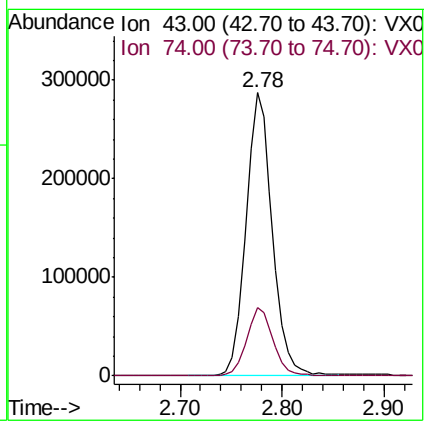




#18
Methyl Acetate
Concen: 47.692 ug/l
RT: 2.78 min Scan# 266
Delta R.T. -0.00 min
Lab File: VX006662.D
Acq: 20 Dec 2018 09:00

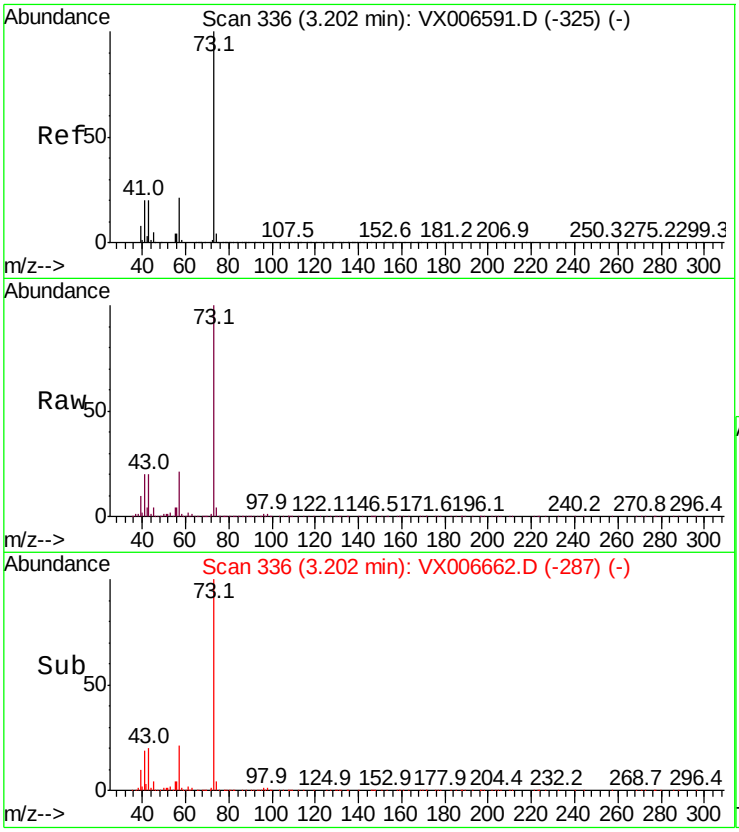
Tgt Ion: 43 Resp: 512365

Ion	Ratio	Lower	Upper
43	100		
74	24.8	18.6	28.0



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

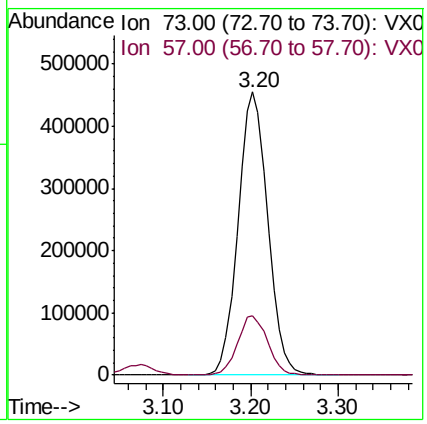
Manual Integrations APPROVED
MMDadoda
12/21/2018 10:18:50 AM

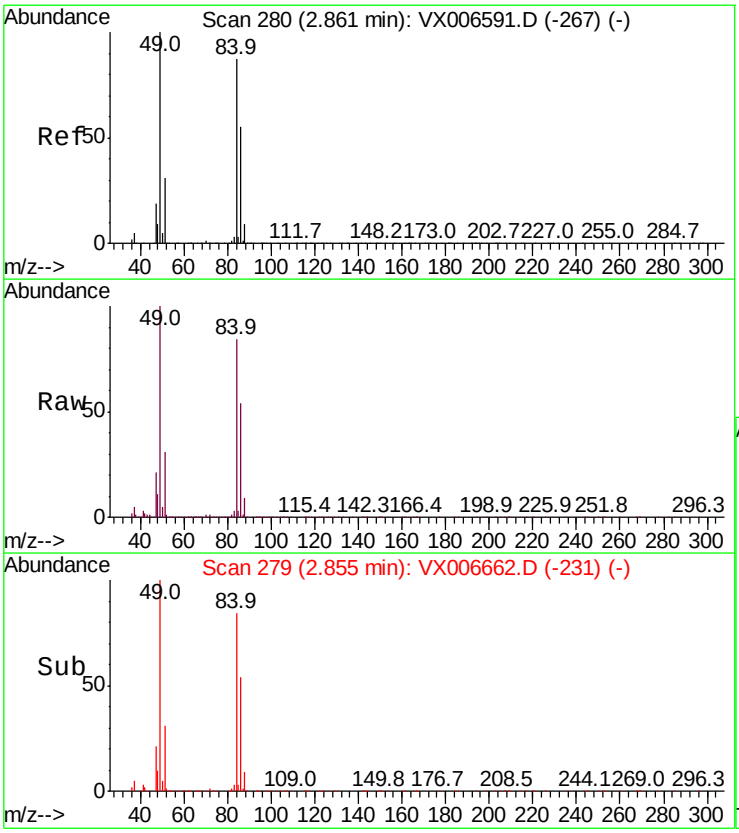


#19
Methyl tert-butyl Ether
Concen: 48.834 ug/l
RT: 3.20 min Scan# 336
Delta R.T. -0.00 min
Lab File: VX006662.D
Acq: 20 Dec 2018 09:00

Tgt Ion: 73 Resp: 1068527

Ion	Ratio	Lower	Upper
73	100		
57	20.8	16.8	25.2

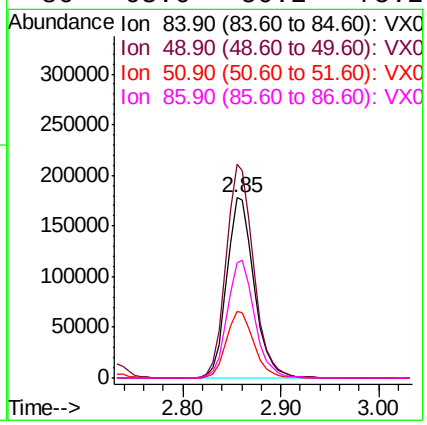




#20
Methylene Chloride
Concen: 45.825 ug/l
RT: 2.85 min Scan# 279
Delta R.T. -0.01 min
Lab File: VX006662.D
Acq: 20 Dec 2018 09:00

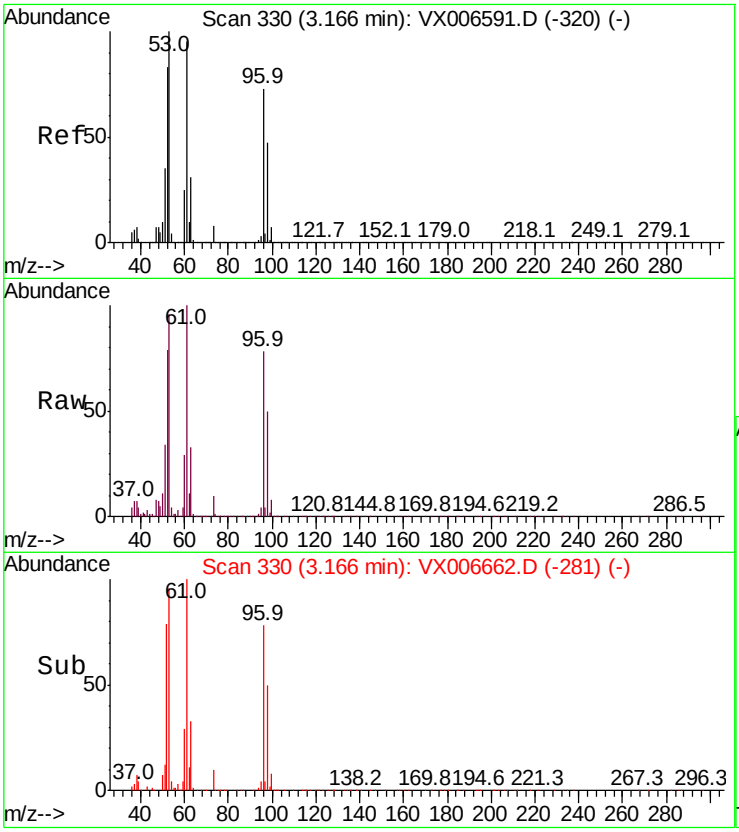
Tgt Ion: 84 Resp: 346203

Ion	Ratio	Lower	Upper
84	100		
49	118.2	91.8	137.6
51	36.9	28.5	42.7
86	63.6	50.2	75.2



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

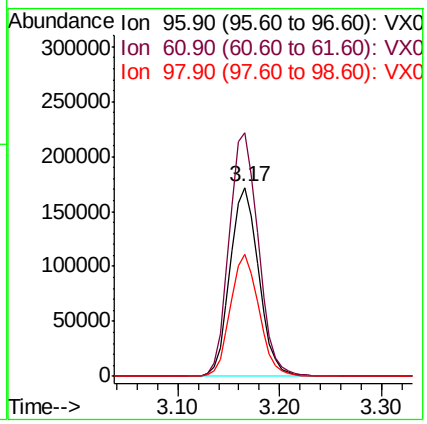
Manual Integrations APPROVED
MMDadoda
12/21/2018 10:18:50 AM

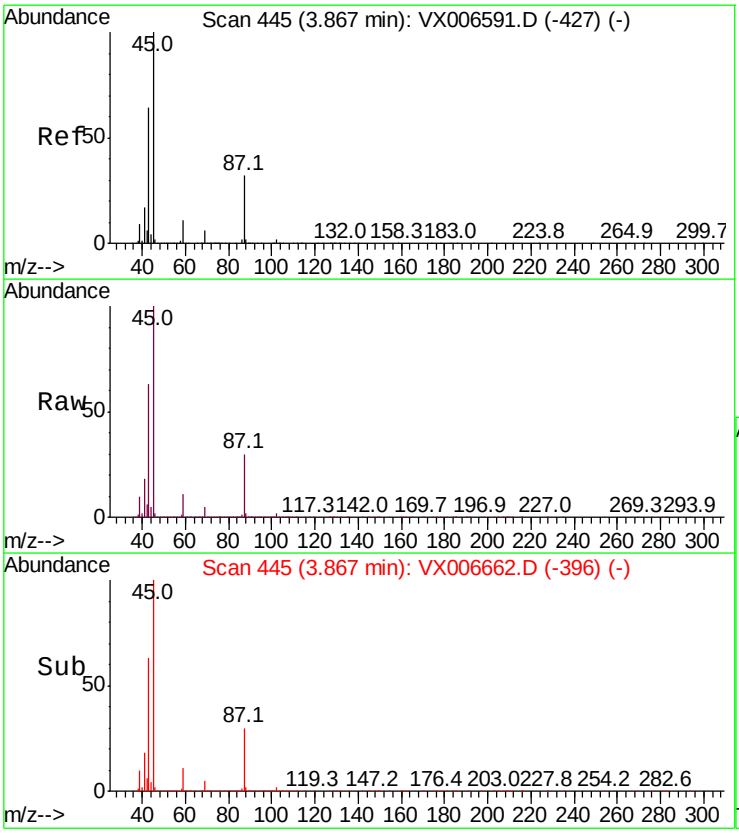


#21
trans-1,2-Dichloroethene
Concen: 45.763 ug/l
RT: 3.17 min Scan# 330
Delta R.T. -0.00 min
Lab File: VX006662.D
Acq: 20 Dec 2018 09:00

Tgt Ion: 96 Resp: 334277

Ion	Ratio	Lower	Upper
96	100		
61	128.8	103.7	155.5
98	64.7	51.0	76.6

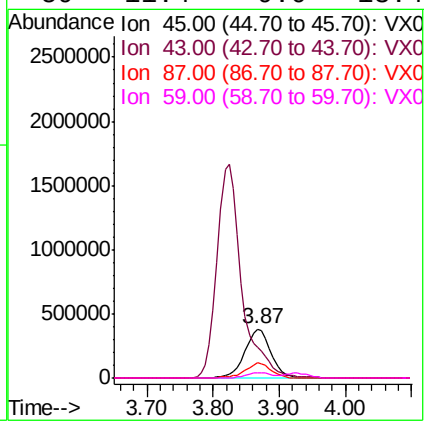




#22
Diisopropyl ether
Concen: 51.112 ug/l
RT: 3.87 min Scan# 445
Delta R.T. -0.00 min
Lab File: VX006662.D
Acq: 20 Dec 2018 09:00

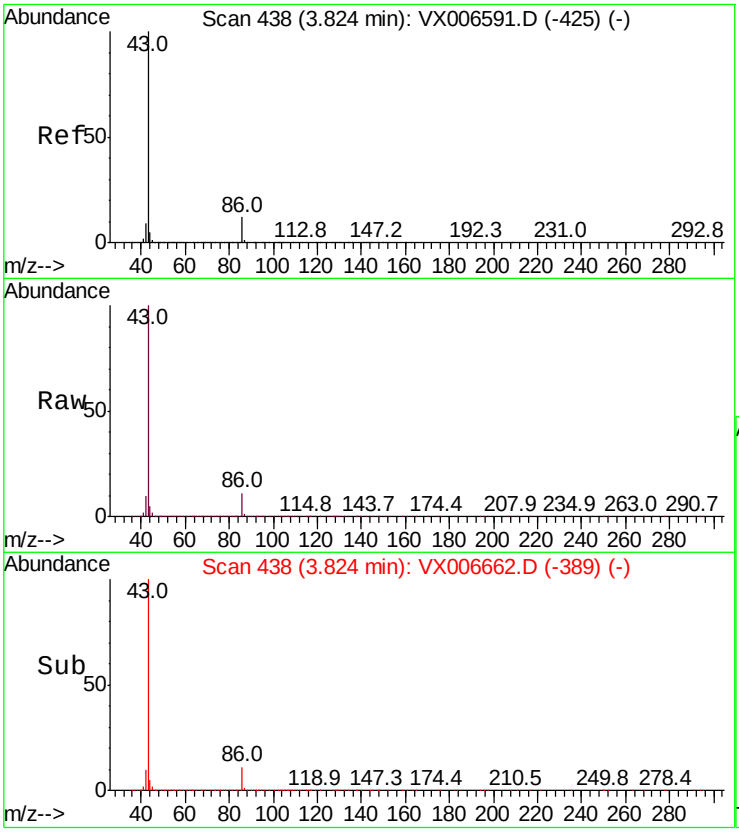
Tgt Ion: 45 Resp: 1037631

Ion	Ratio	Lower	Upper
45	100		
43	62.5	51.2	76.8
87	30.2	25.8	38.6
59	11.4	9.0	13.4



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

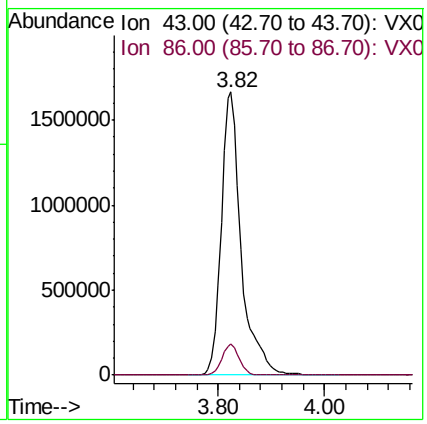
Manual Integrations APPROVED
MMDadoda
12/21/2018 10:18:50 AM

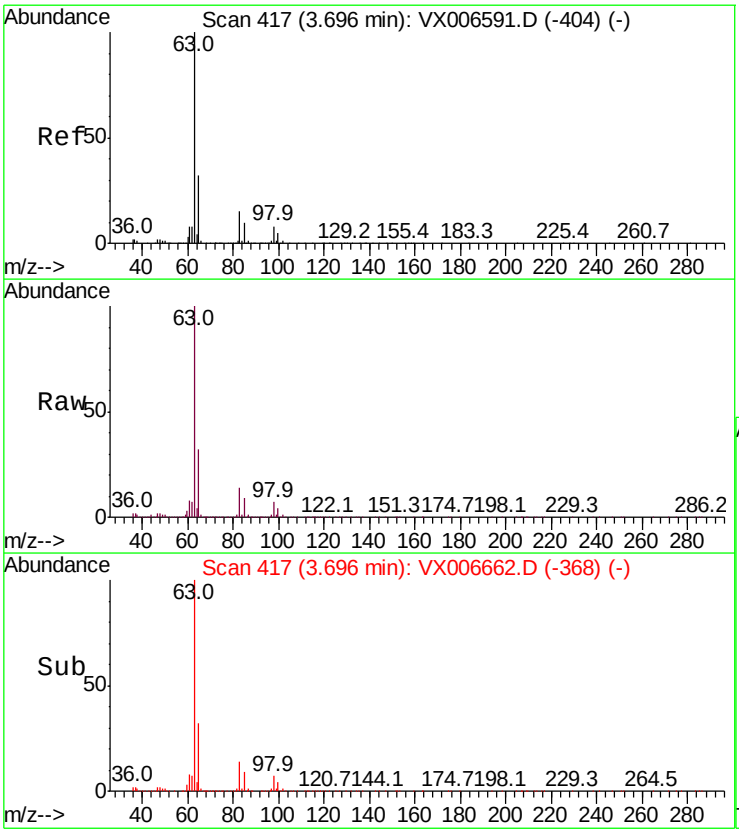


#23
Vinyl Acetate
Concen: 262.498 ug/l
RT: 3.82 min Scan# 438
Delta R.T. -0.00 min
Lab File: VX006662.D
Acq: 20 Dec 2018 09:00

Tgt Ion: 43 Resp: 4358933

Ion	Ratio	Lower	Upper
43	100		
86	11.2	9.2	13.8

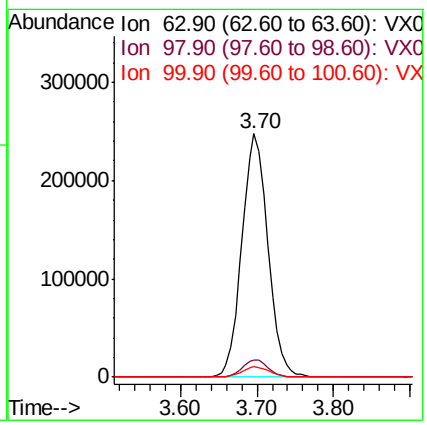




#24
1,1-Dichloroethane
Concen: 48.449 ug/l
RT: 3.70 min Scan# 417
Delta R.T. -0.00 min
Lab File: VX006662.D
Acq: 20 Dec 2018 09:00

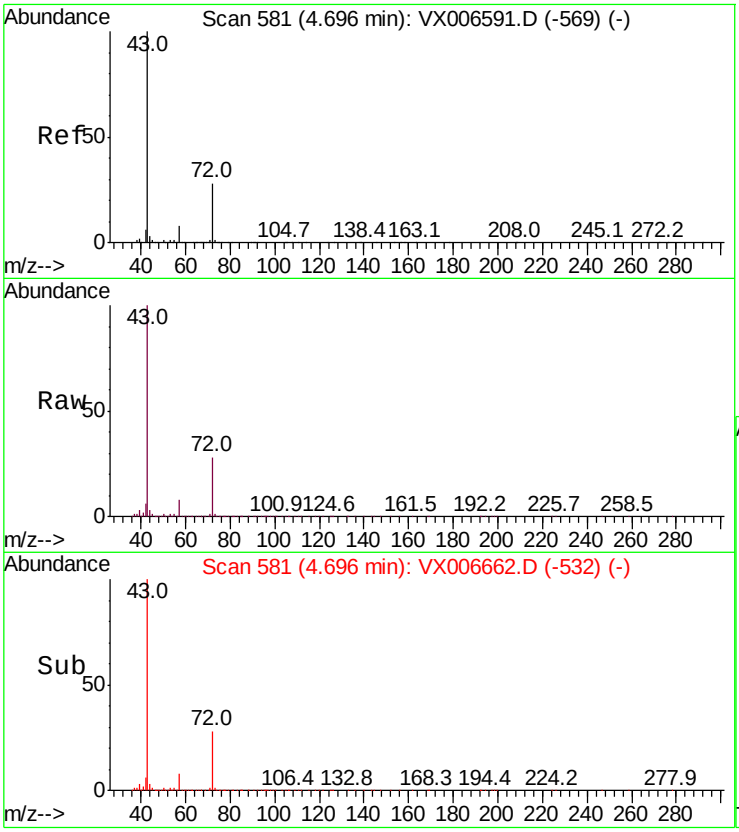
Tgt Ion: 63 Resp: 587139

Ion	Ratio	Lower	Upper
63	100		
98	7.0	3.9	11.5
100	4.3	2.4	7.2



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

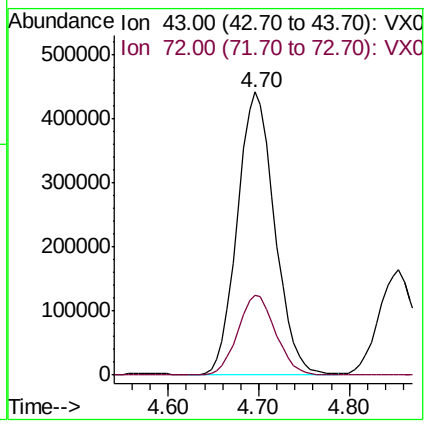
Manual Integrations APPROVED
MMDadoda
12/21/2018 10:18:50 AM

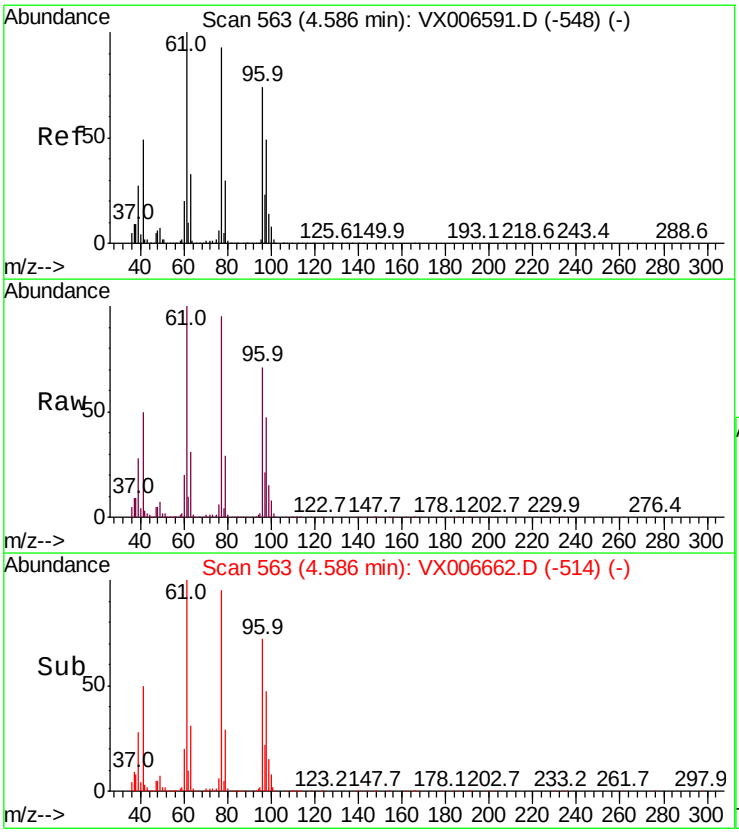


#25
2-Butanone
Concen: 244.325 ug/l
RT: 4.70 min Scan# 581
Delta R.T. -0.00 min
Lab File: VX006662.D
Acq: 20 Dec 2018 09:00

Tgt Ion: 43 Resp: 1255633

Ion	Ratio	Lower	Upper
43	100		
72	28.2	22.4	33.6

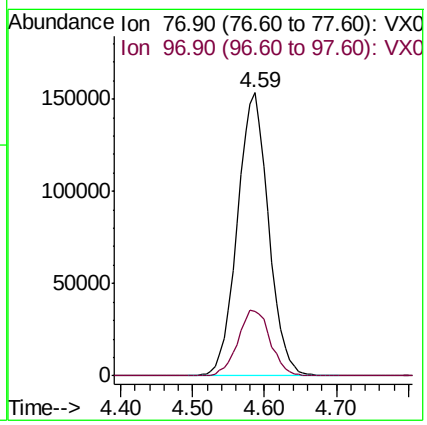




#26
2,2-Dichloropropane
Concen: 49.223 ug/l
RT: 4.59 min Scan# 563
Delta R.T. -0.00 min
Lab File: VX006662.D
Acq: 20 Dec 2018 09:00

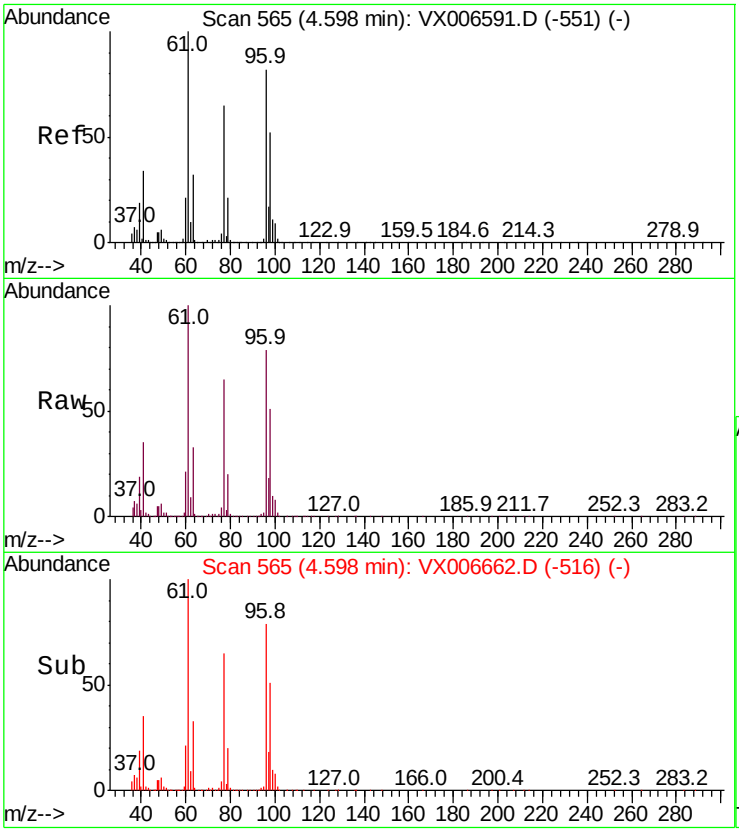
Tgt Ion: 77 Resp: 460792

Ion	Ratio	Lower	Upper
77	100		
97	24.2	12.4	37.4



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

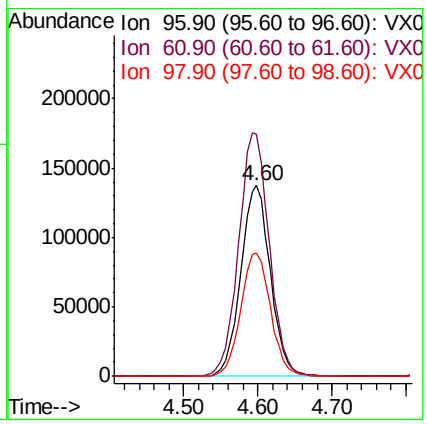
Manual Integrations APPROVED
MMDadoda
12/21/2018 10:18:50 AM

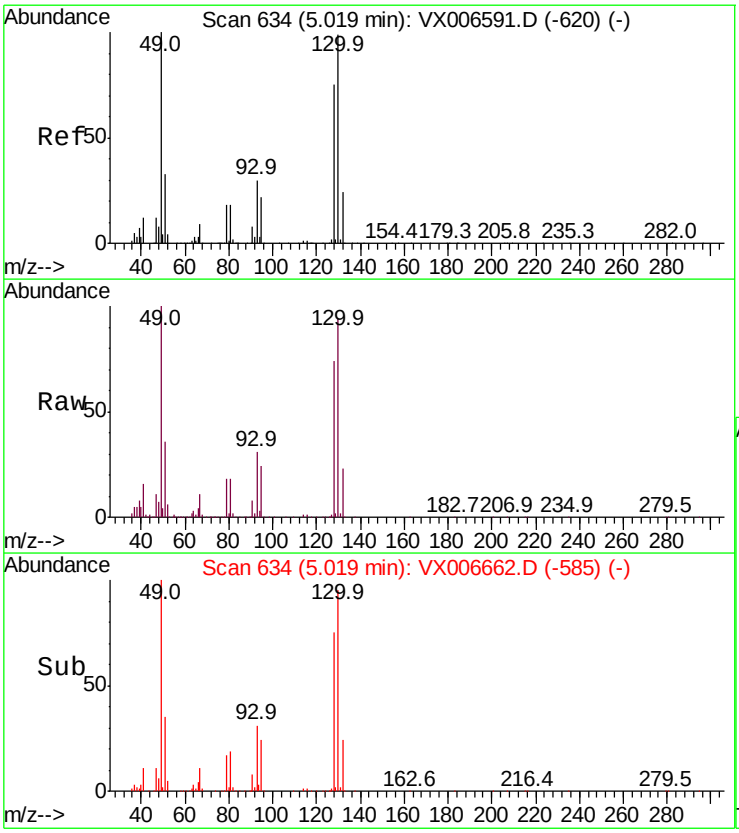


#27
cis-1,2-Dichloroethene
Concen: 47.408 ug/l
RT: 4.60 min Scan# 565
Delta R.T. -0.00 min
Lab File: VX006662.D
Acq: 20 Dec 2018 09:00

Tgt Ion: 96 Resp: 382076

Ion	Ratio	Lower	Upper
96	100		
61	132.9	0.0	258.6
98	65.6	0.0	132.0

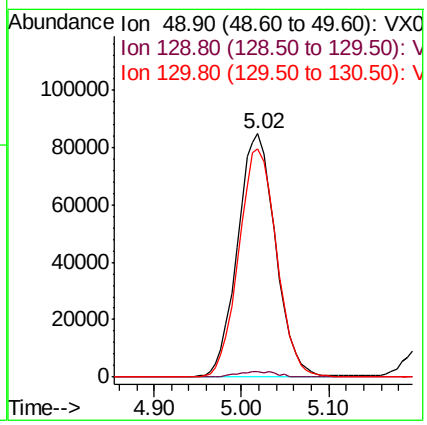




#28
Bromochloromethane
Concen: 49.841 ug/l
RT: 5.02 min Scan# 634
Delta R.T. 0.00 min
Lab File: VX006662.D
Acq: 20 Dec 2018 09:00

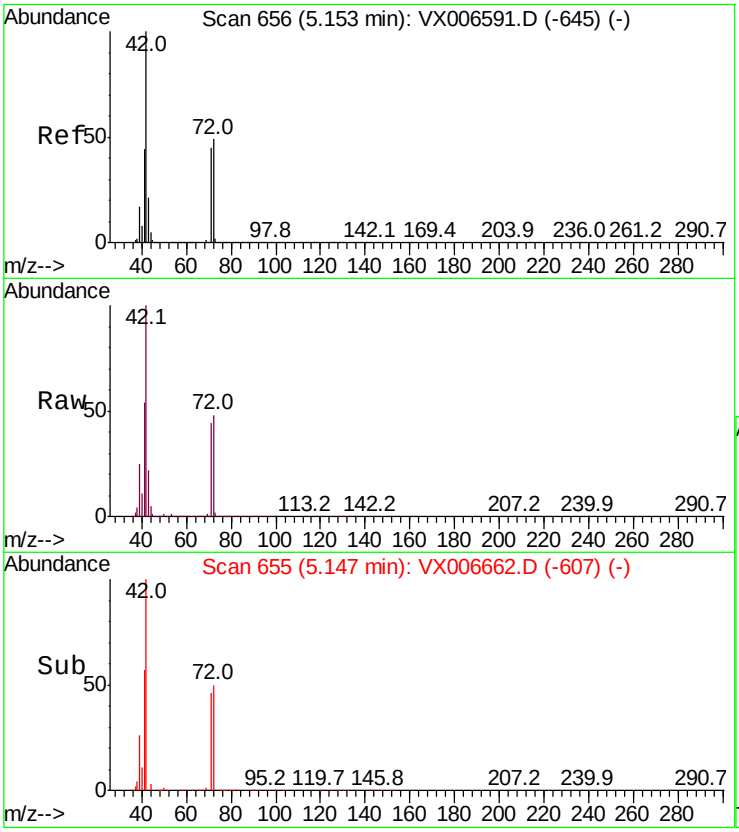
Tgt Ion: 49 Resp: 254646

Ion	Ratio	Lower	Upper
49	100		
129	2.4	0.0	5.4
130	94.0	77.7	116.5



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

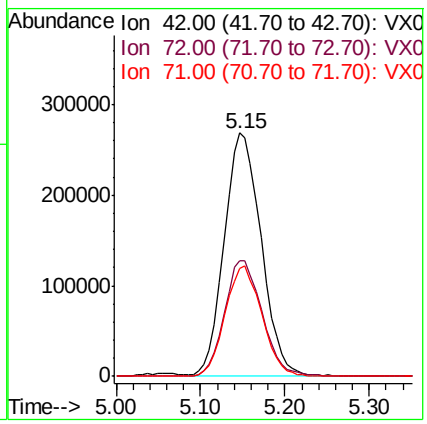
Manual Integrations APPROVED
MMDadoda
12/21/2018 10:18:50 AM

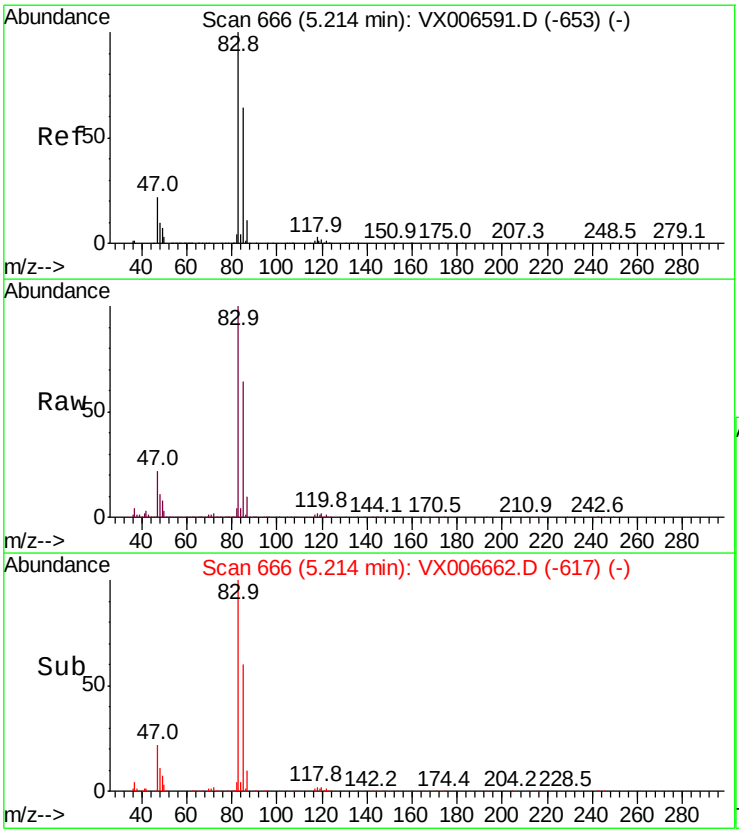


#29
Tetrahydrofuran
Concen: 236.080 ug/l
RT: 5.15 min Scan# 655
Delta R.T. -0.01 min
Lab File: VX006662.D
Acq: 20 Dec 2018 09:00

Tgt Ion: 42 Resp: 799090

Ion	Ratio	Lower	Upper
42	100		
72	48.6	38.9	58.3
71	45.3	36.2	54.4

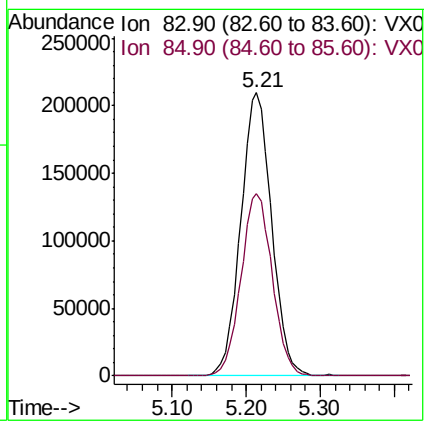




#30
Chloroform
Concen: 48.590 ug/l
RT: 5.21 min Scan# 666
Delta R.T. -0.00 min
Lab File: VX006662.D
Acq: 20 Dec 2018 09:00

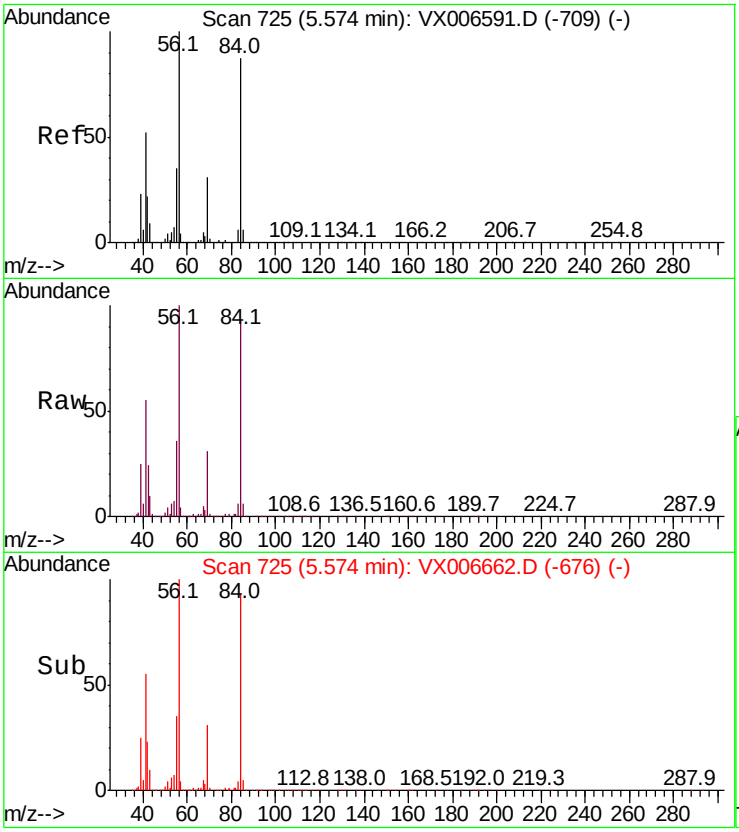
Tgt Ion: 83 Resp: 609790

Ion	Ratio	Lower	Upper
83	100		
85	64.4	51.2	76.8



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

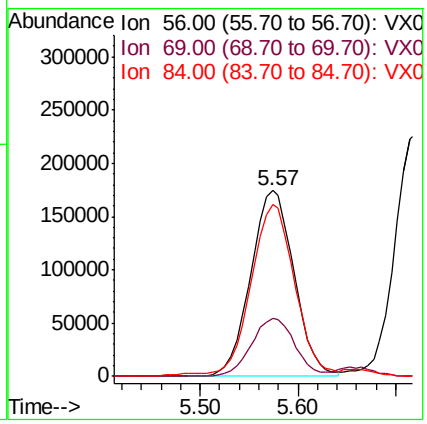
Manual Integrations APPROVED
MMDadoda
12/21/2018 10:18:50 AM

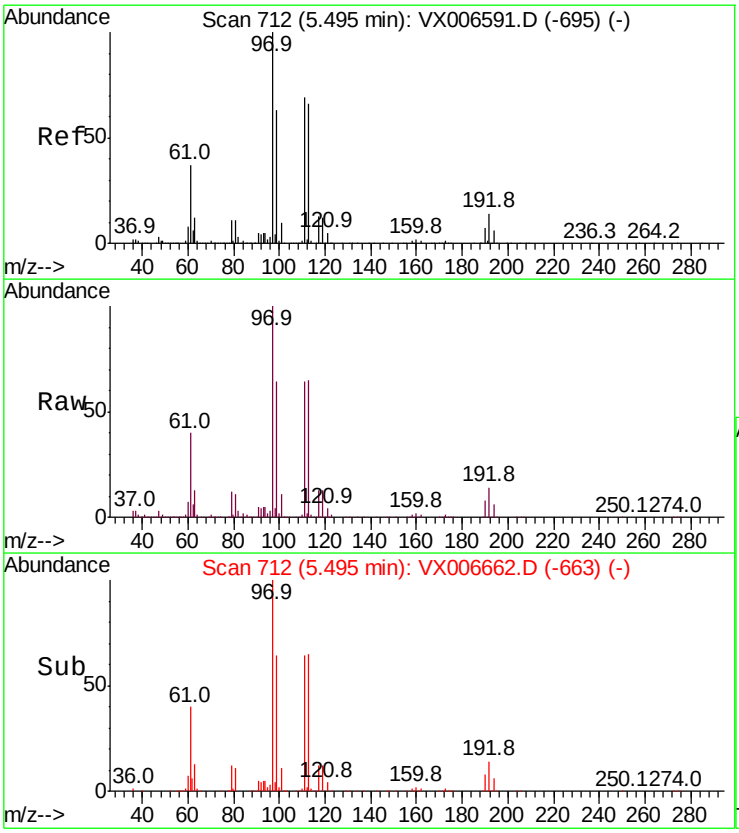


#31
Cyclohexane
Concen: 48.570 ug/l
RT: 5.57 min Scan# 725
Delta R.T. -0.00 min
Lab File: VX006662.D
Acq: 20 Dec 2018 09:00

Tgt Ion: 56 Resp: 534736

Ion	Ratio	Lower	Upper
56	100		
69	31.1	24.4	36.6
84	91.2	70.0	105.0

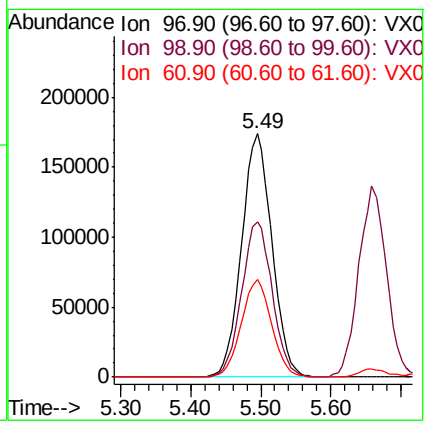




#32
1,1,1-Trichloroethane
Concen: 49.591 ug/l
RT: 5.49 min Scan# 712
Delta R.T. -0.00 min
Lab File: VX006662.D
Acq: 20 Dec 2018 09:00

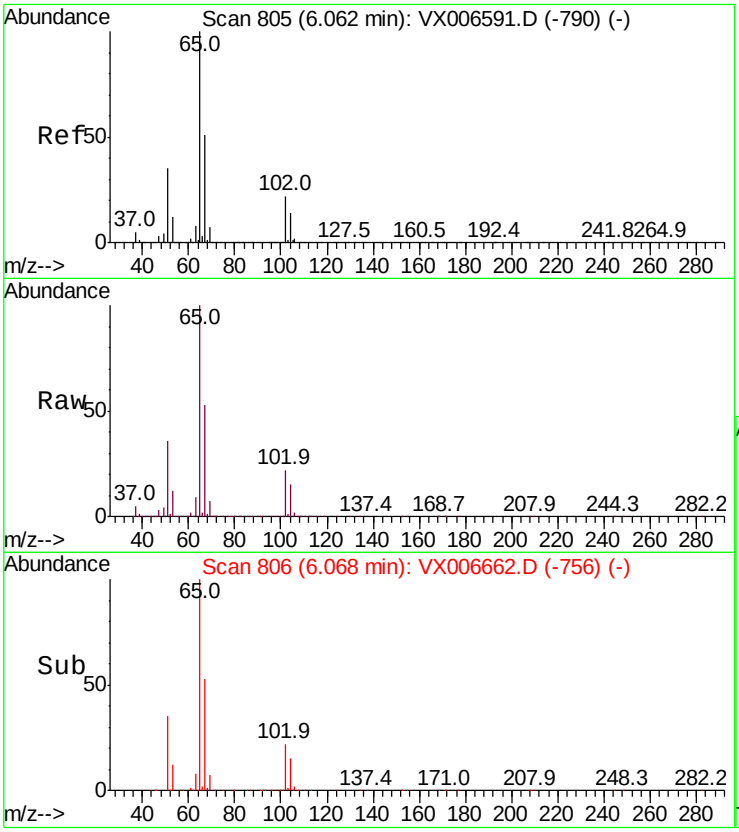
Tgt Ion: 97 Resp: 525504

Ion	Ratio	Lower	Upper
97	100		
99	64.4	51.7	77.5
61	39.5	31.3	46.9



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

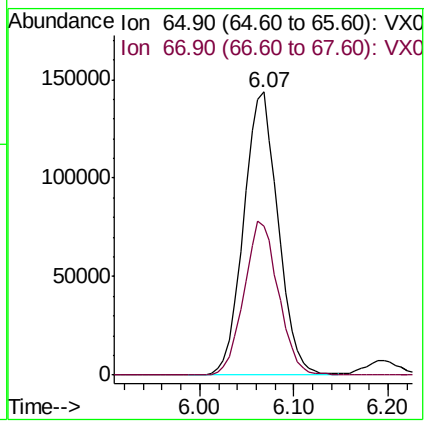
Manual Integrations APPROVED
MMDadoda
12/21/2018 10:18:50 AM

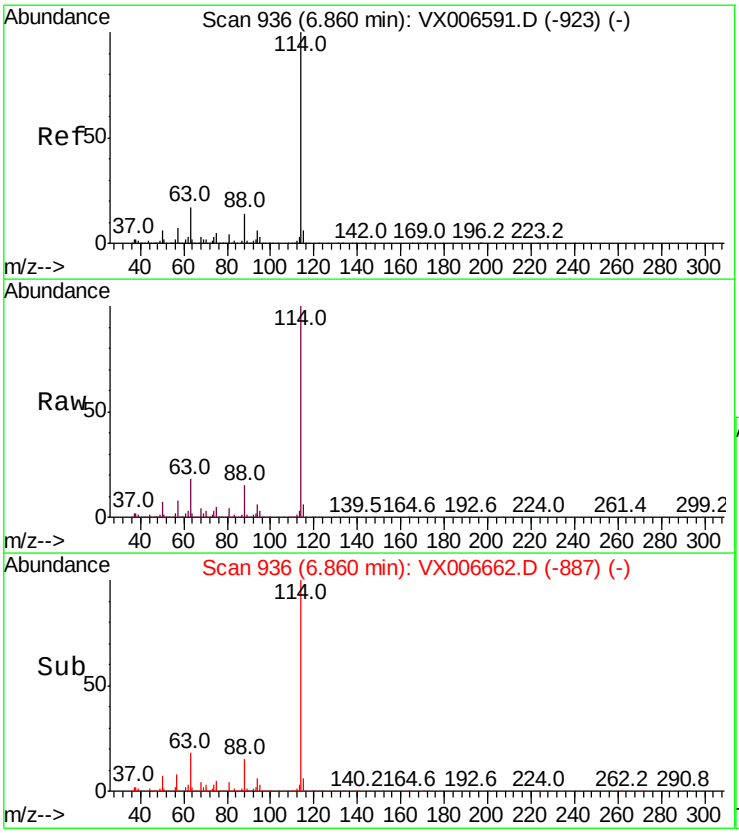


#33
1,2-Dichloroethane-d4
Concen: 46.355 ug/l
RT: 6.07 min Scan# 806
Delta R.T. 0.01 min
Lab File: VX006662.D
Acq: 20 Dec 2018 09:00

Tgt Ion: 65 Resp: 368630

Ion	Ratio	Lower	Upper
65	100		
67	53.9	0.0	105.0

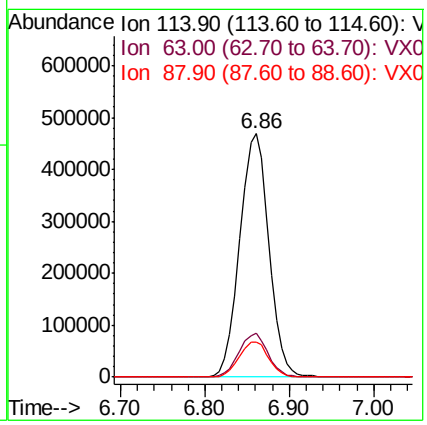




#34
1,4-Difluorobenzene
Concen: 50.000 ug/l
RT: 6.86 min Scan# 936
Delta R.T. -0.00 min
Lab File: VX006662.D
Acq: 20 Dec 2018 09:00

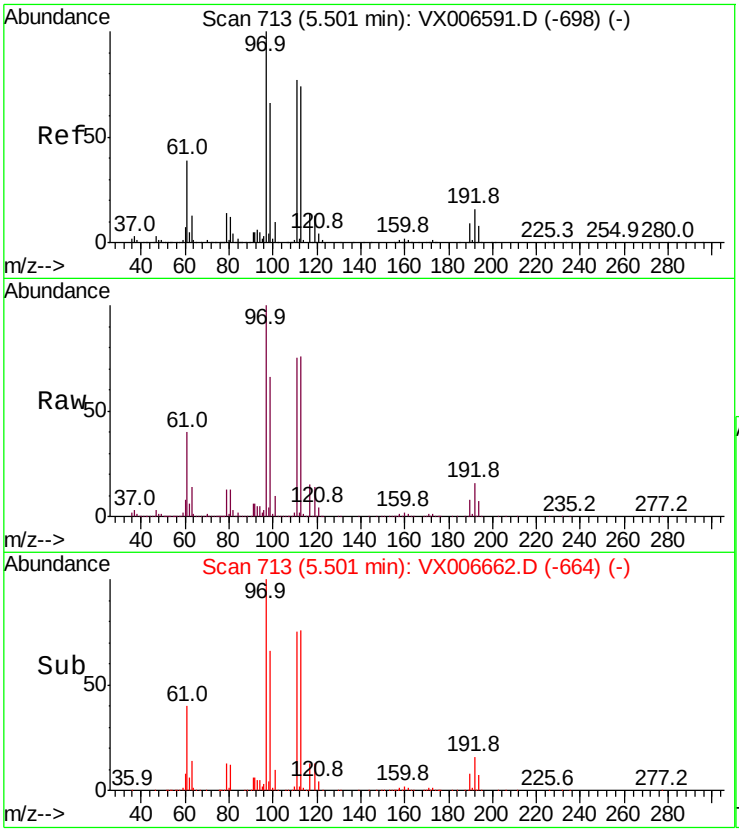
Tgt Ion:114 Resp: 1095979

Ion	Ratio	Lower	Upper
114	100		
63	18.2	0.0	34.8
88	14.6	0.0	28.8



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

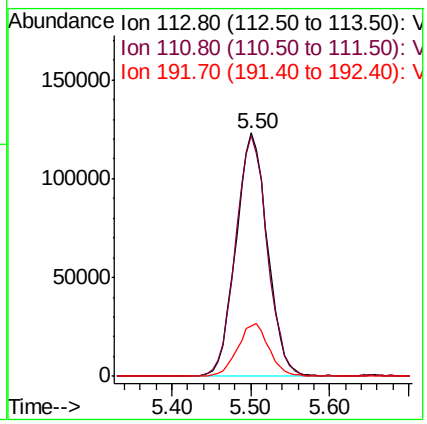
Manual Integrations APPROVED
MMDadoda
12/21/2018 10:18:50 AM

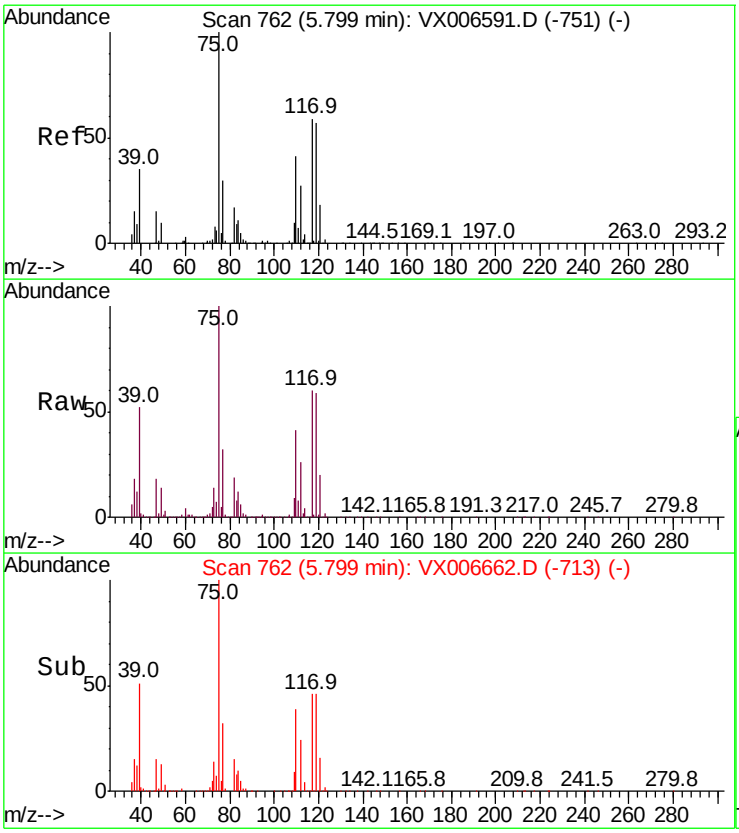


#35
Dibromofluoromethane
Concen: 49.433 ug/l
RT: 5.50 min Scan# 713
Delta R.T. -0.00 min
Lab File: VX006662.D
Acq: 20 Dec 2018 09:00

Tgt Ion:113 Resp: 342606

Ion	Ratio	Lower	Upper
113	100		
111	99.4	81.6	122.4
192	21.4	16.7	25.1

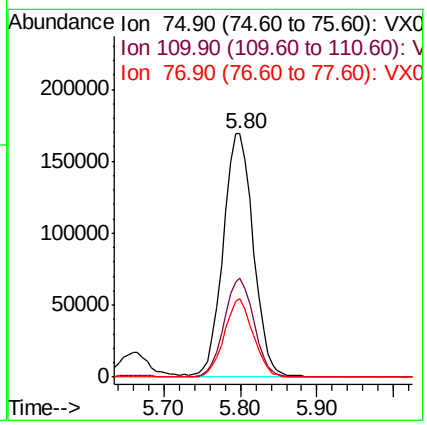




#36
1,1-Dichloropropene
Concen: 50.702 ug/l
RT: 5.80 min Scan# 762
Delta R.T. -0.00 min
Lab File: VX006662.D
Acq: 20 Dec 2018 09:00

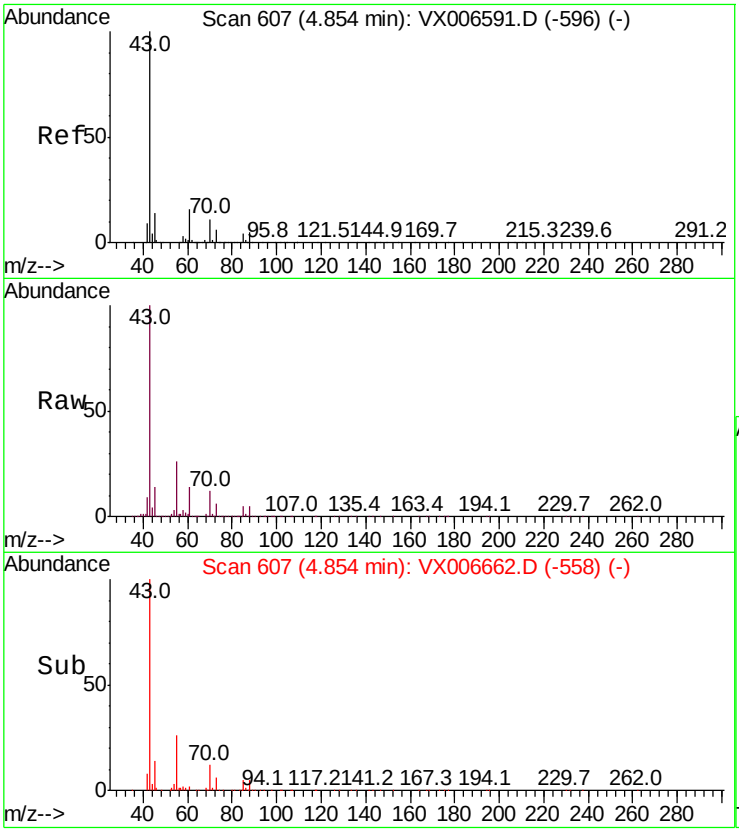
Tgt Ion: 75 Resp: 460237

Ion	Ratio	Lower	Upper
75	100		
110	40.1	20.2	60.5
77	30.8	24.8	37.2



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

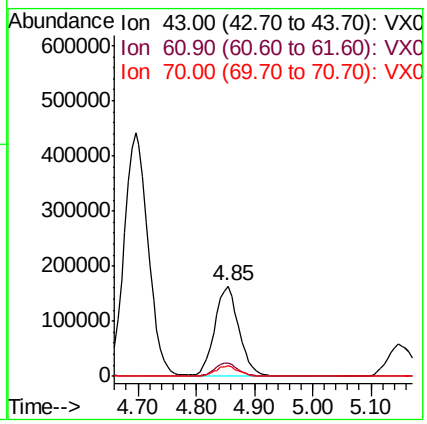
Manual Integrations APPROVED
MMDadoda
12/21/2018 10:18:50 AM

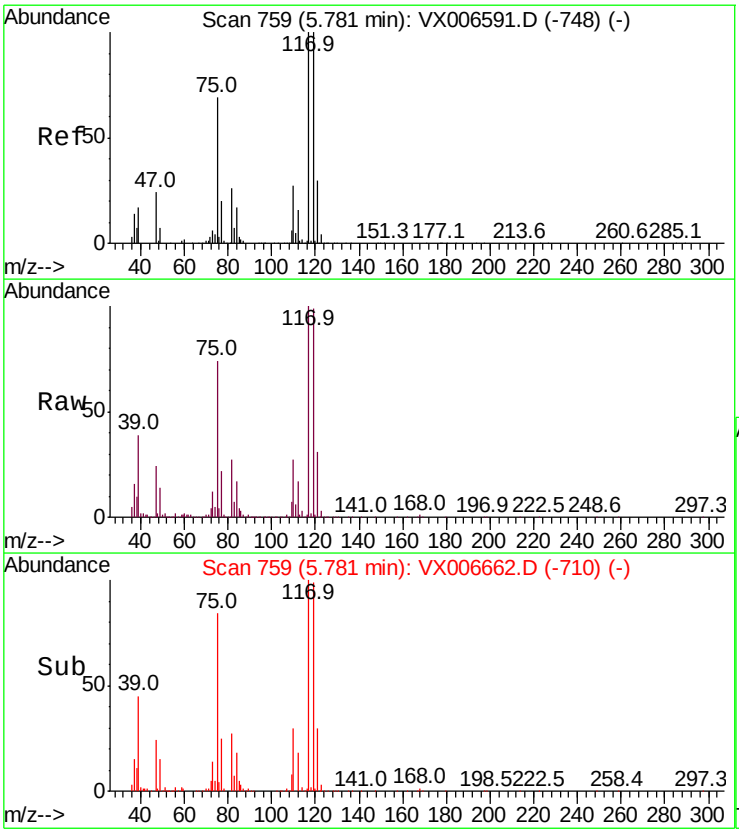


#37
Ethyl Acetate
Concen: 49.836 ug/l
RT: 4.85 min Scan# 607
Delta R.T. -0.00 min
Lab File: VX006662.D
Acq: 20 Dec 2018 09:00

Tgt Ion: 43 Resp: 470842

Ion	Ratio	Lower	Upper
43	100		
61	14.1	11.9	17.9
70	11.2	9.7	14.5

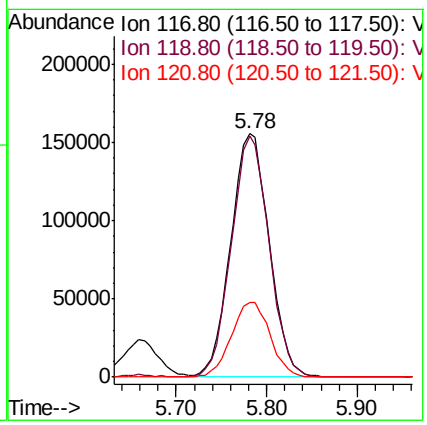




#38
Carbon Tetrachloride
Concen: 51.782 ug/l
RT: 5.78 min Scan# 759
Delta R.T. -0.00 min
Lab File: VX006662.D
Acq: 20 Dec 2018 09:00

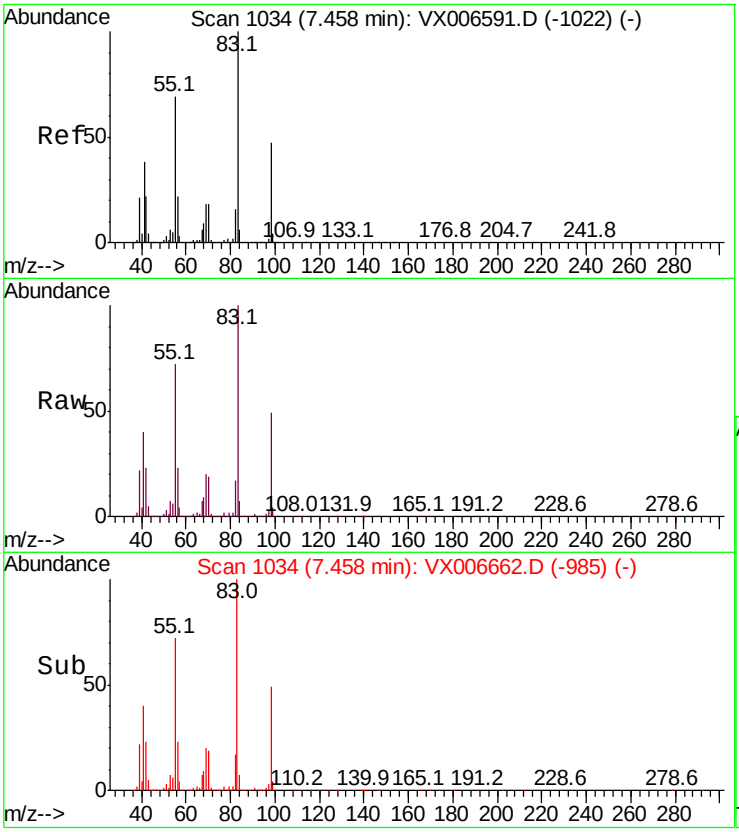
Tgt Ion:117 Resp: 456805

Ion	Ratio	Lower	Upper
117	100		
119	99.1	79.4	119.2
121	30.8	24.0	36.0



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

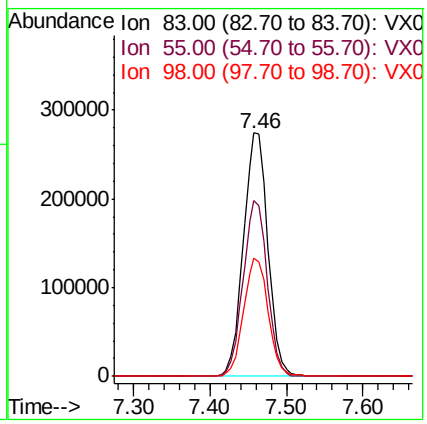
Manual Integrations APPROVED
MMDadoda
12/21/2018 10:18:50 AM

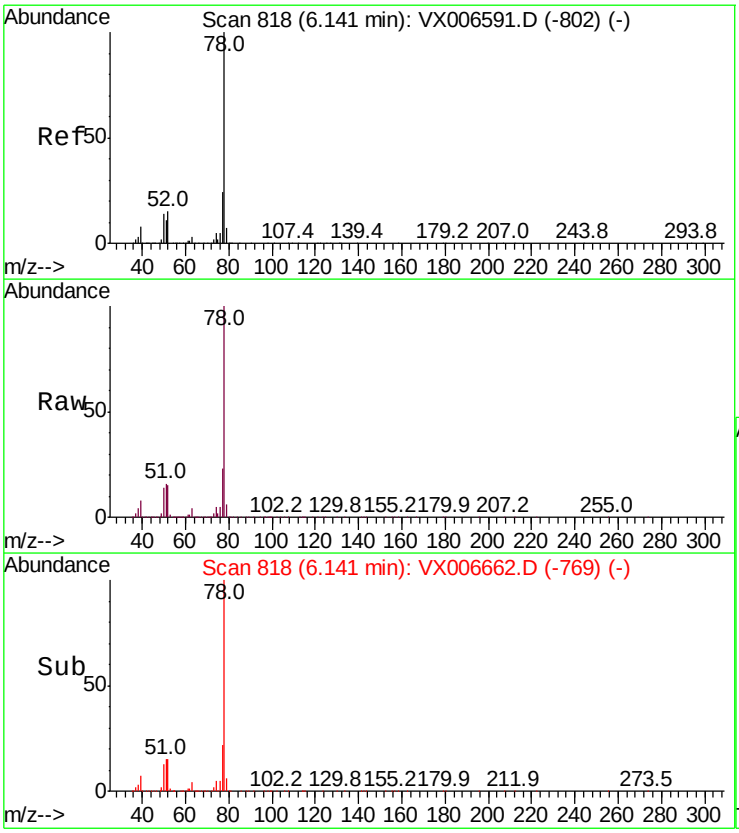


#39
Methylcyclohexane
Concen: 51.070 ug/l
RT: 7.46 min Scan# 1034
Delta R.T. -0.00 min
Lab File: VX006662.D
Acq: 20 Dec 2018 09:00

Tgt Ion: 83 Resp: 610308

Ion	Ratio	Lower	Upper
83	100		
55	72.4	54.9	82.3
98	48.7	37.9	56.9

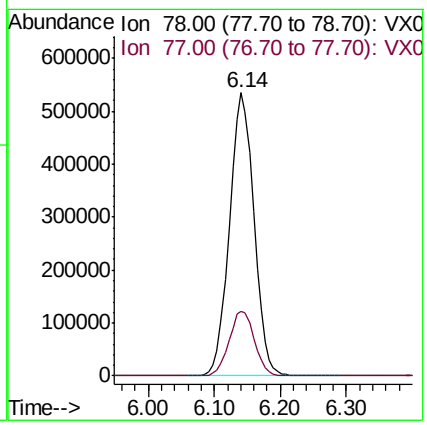




#40
Benzene
Concen: 49.805 ug/l
RT: 6.14 min Scan# 818
Delta R.T. -0.00 min
Lab File: VX006662.D
Acq: 20 Dec 2018 09:00

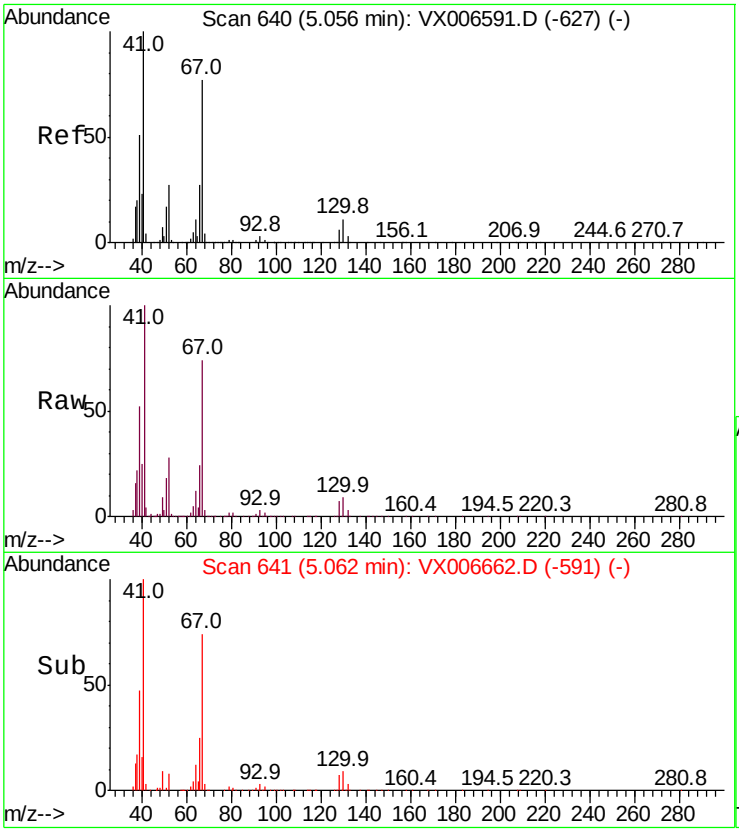
Tgt Ion: 78 Resp: 1374214

Ion	Ratio	Lower	Upper
78	100		
77	22.8	19.2	28.8



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

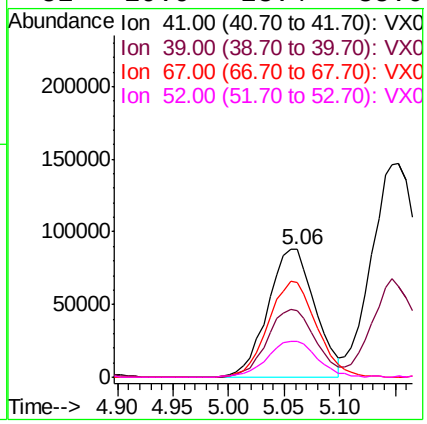
Manual Integrations APPROVED
MMDadoda
12/21/2018 10:18:50 AM

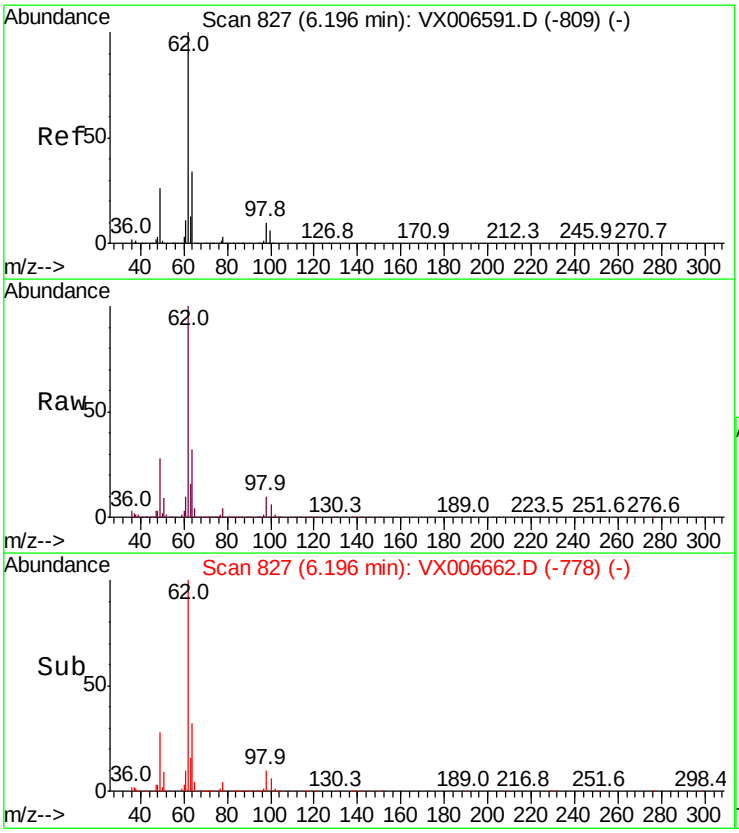


#41
Methacrylonitrile
Concen: 51.681 ug/l
RT: 5.06 min Scan# 641
Delta R.T. 0.01 min
Lab File: VX006662.D
Acq: 20 Dec 2018 09:00

Tgt Ion: 41 Resp: 259232

Ion	Ratio	Lower	Upper
41	100		
39	54.5	42.8	64.2
67	77.1	62.1	93.1
52	29.9	23.4	35.0

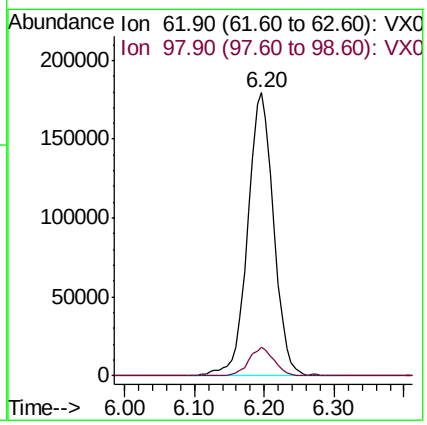




#42
1,2-Dichloroethane
Concen: 49.020 ug/l
RT: 6.20 min Scan# 827
Delta R.T. -0.00 min
Lab File: VX006662.D
Acq: 20 Dec 2018 09:00

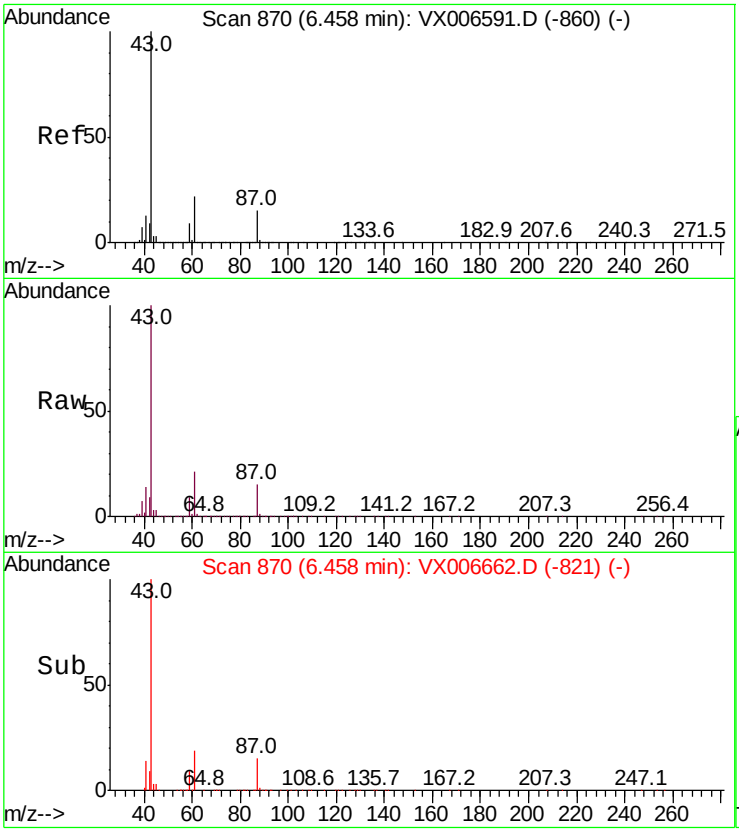
Tgt Ion: 62 Resp: 460891

Ion	Ratio	Lower	Upper
62	100		
98	9.7	0.0	20.2



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

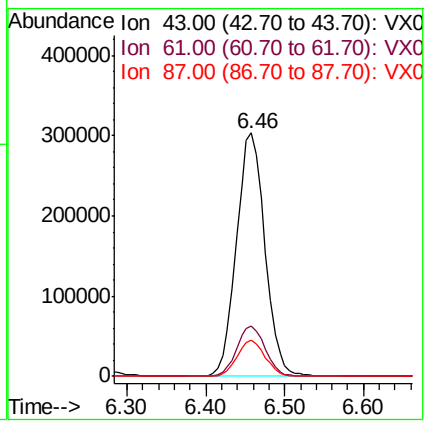
Manual Integrations APPROVED
MMDadoda
12/21/2018 10:18:50 AM

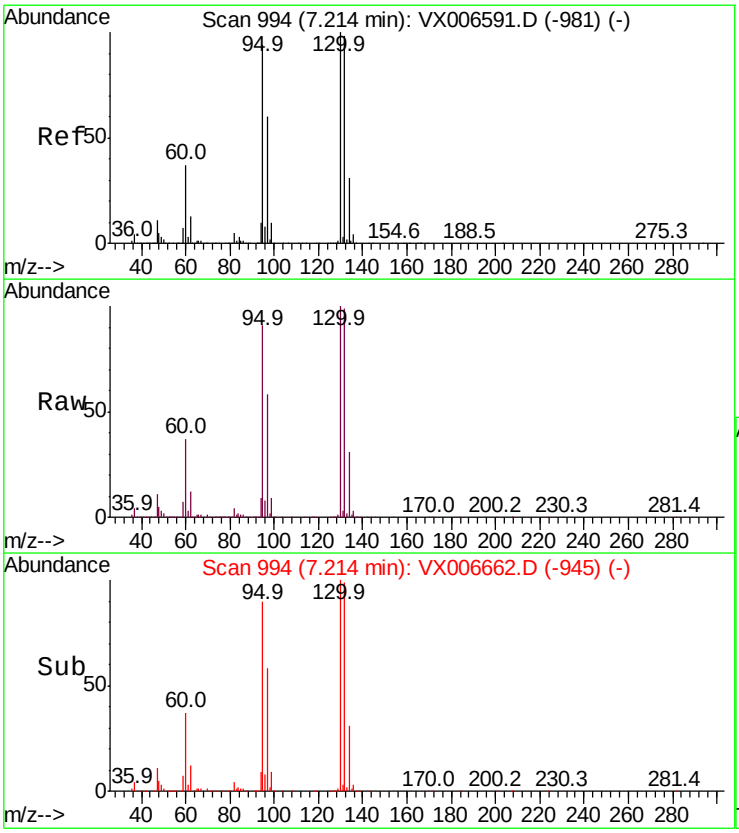


#43
Isopropyl Acetate
Concen: 52.815 ug/l
RT: 6.46 min Scan# 870
Delta R.T. -0.00 min
Lab File: VX006662.D
Acq: 20 Dec 2018 09:00

Tgt Ion: 43 Resp: 759229

Ion	Ratio	Lower	Upper
43	100		
61	20.6	16.8	25.2
87	14.8	12.4	18.6

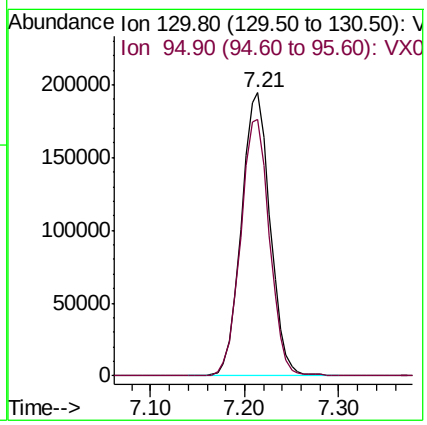




#44
Trichloroethene
Concen: 49.462 ug/l
RT: 7.21 min Scan# 994
Delta R.T. -0.00 min
Lab File: VX006662.D
Acq: 20 Dec 2018 09:00

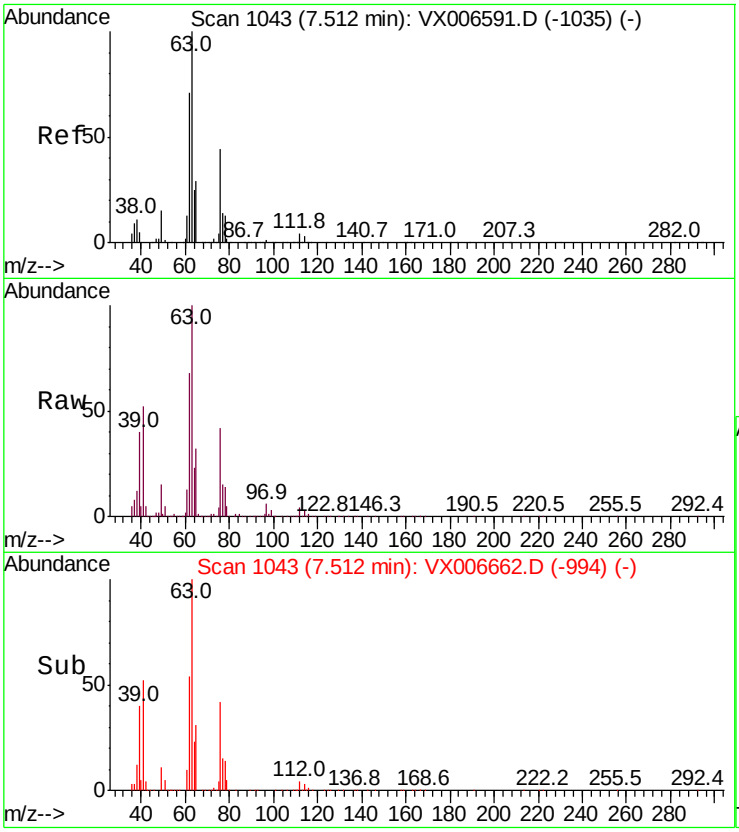
Tgt Ion:130 Resp: 413066

Ion	Ratio	Lower	Upper
130	100		
95	90.5	0.0	187.0



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

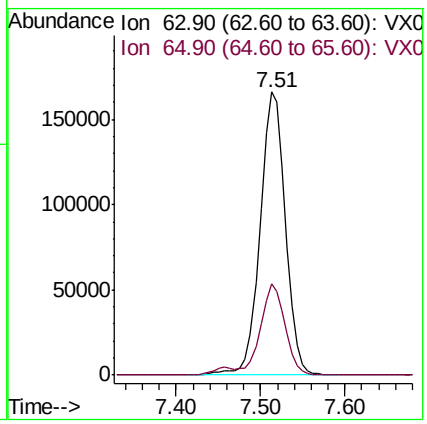
Manual Integrations APPROVED
MMDadoda
12/21/2018 10:18:50 AM

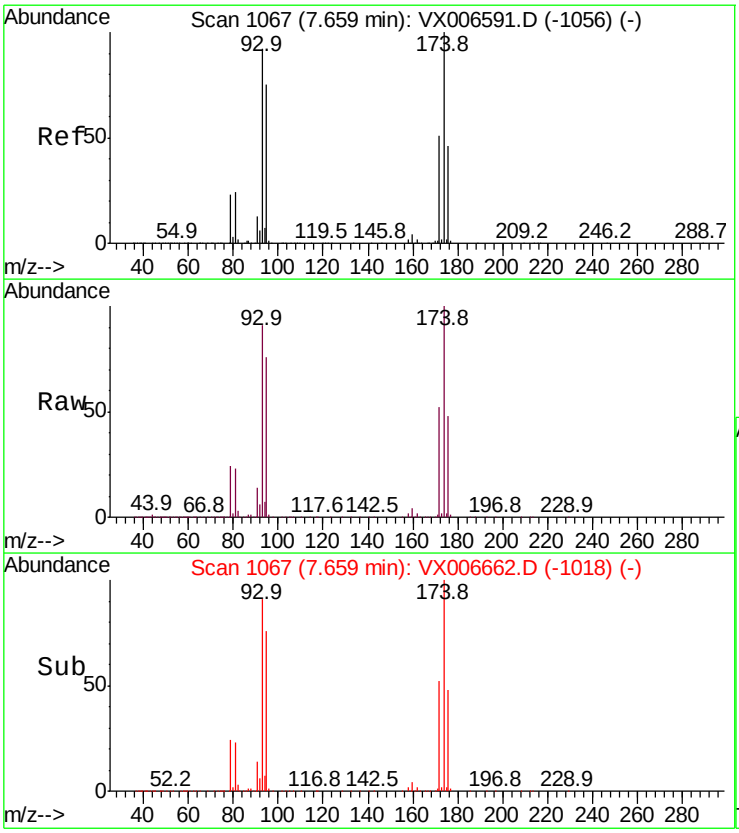


#45
1,2-Dichloropropane
Concen: 50.964 ug/l
RT: 7.51 min Scan# 1043
Delta R.T. -0.00 min
Lab File: VX006662.D
Acq: 20 Dec 2018 09:00

Tgt Ion: 63 Resp: 342198

Ion	Ratio	Lower	Upper
63	100		
65	32.3	25.4	38.0

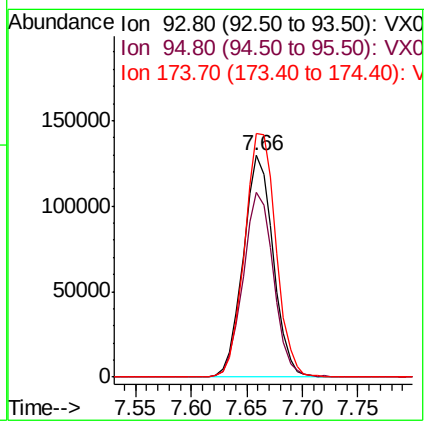




#46
Dibromomethane
Concen: 49.347 ug/l
RT: 7.66 min Scan# 1067
Delta R.T. -0.00 min
Lab File: VX006662.D
Acq: 20 Dec 2018 09:00

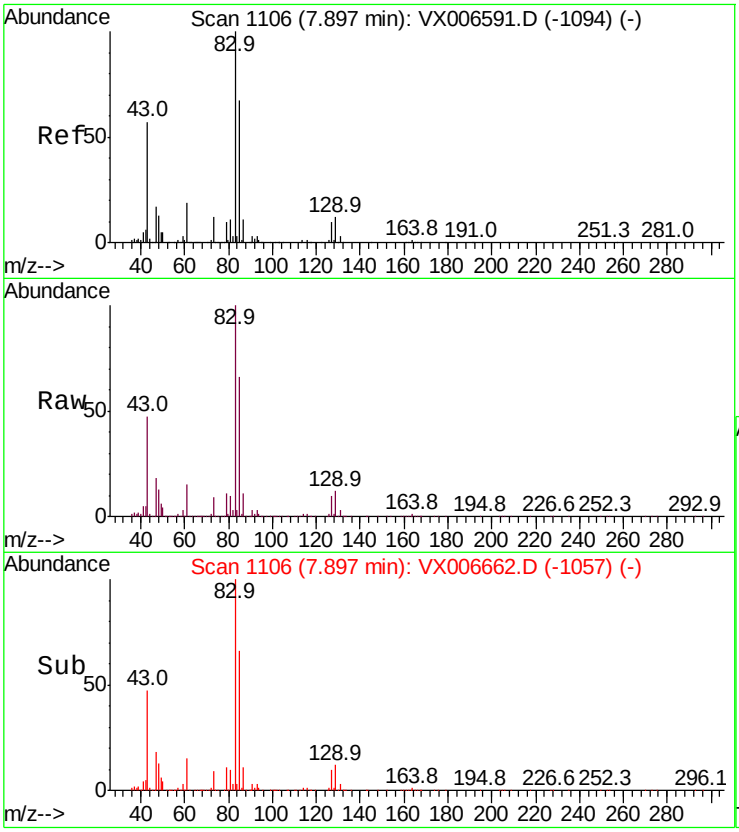
Tgt Ion: 93 Resp: 243717

Ion	Ratio	Lower	Upper
93	100		
95	84.4	66.2	99.4
174	114.9	91.0	136.4



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

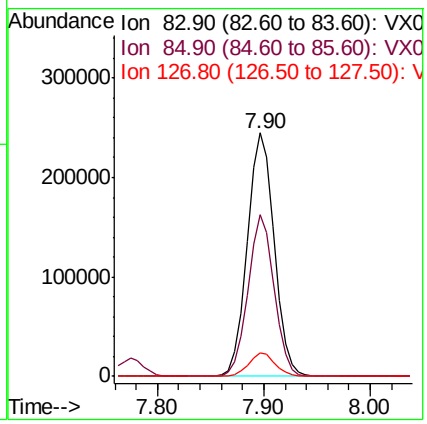
Manual Integrations APPROVED
MMDadoda
12/21/2018 10:18:50 AM

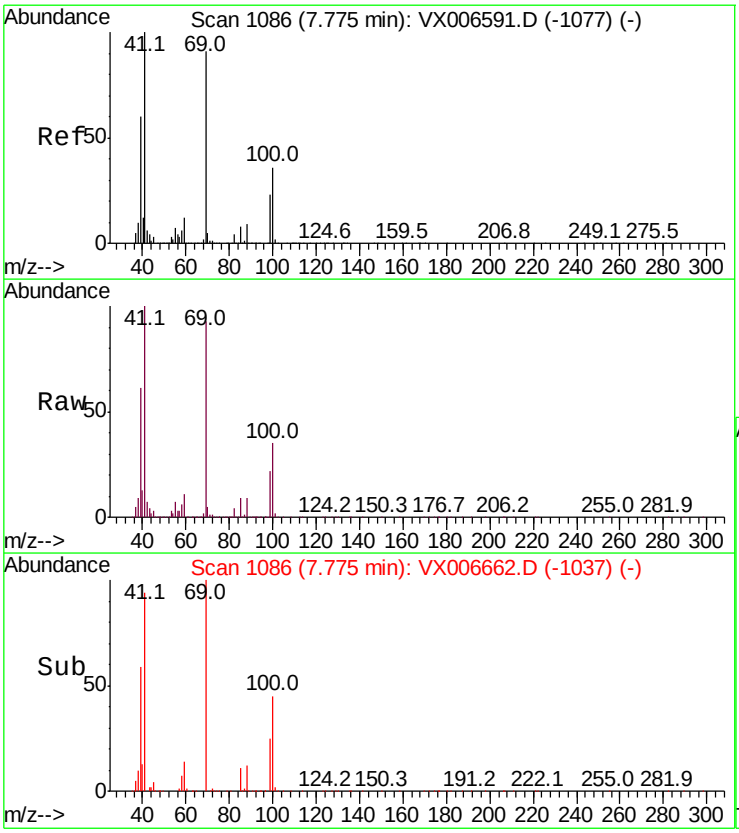


#47
Bromodichloromethane
Concen: 52.923 ug/l
RT: 7.90 min Scan# 1106
Delta R.T. -0.00 min
Lab File: VX006662.D
Acq: 20 Dec 2018 09:00

Tgt Ion: 83 Resp: 433945

Ion	Ratio	Lower	Upper
83	100		
85	66.3	53.2	79.8
127	9.8	7.8	11.6

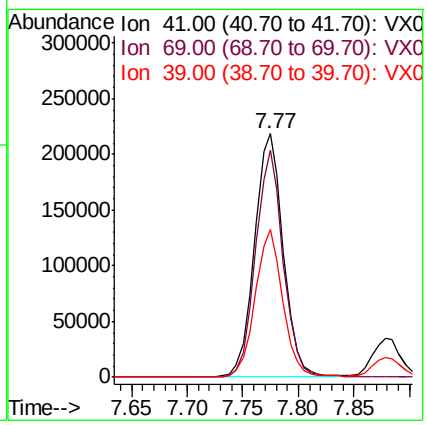




#48
Methyl methacrylate
Concen: 53.460 ug/l
RT: 7.77 min Scan# 1086
Delta R.T. -0.00 min
Lab File: VX006662.D
Acq: 20 Dec 2018 09:00

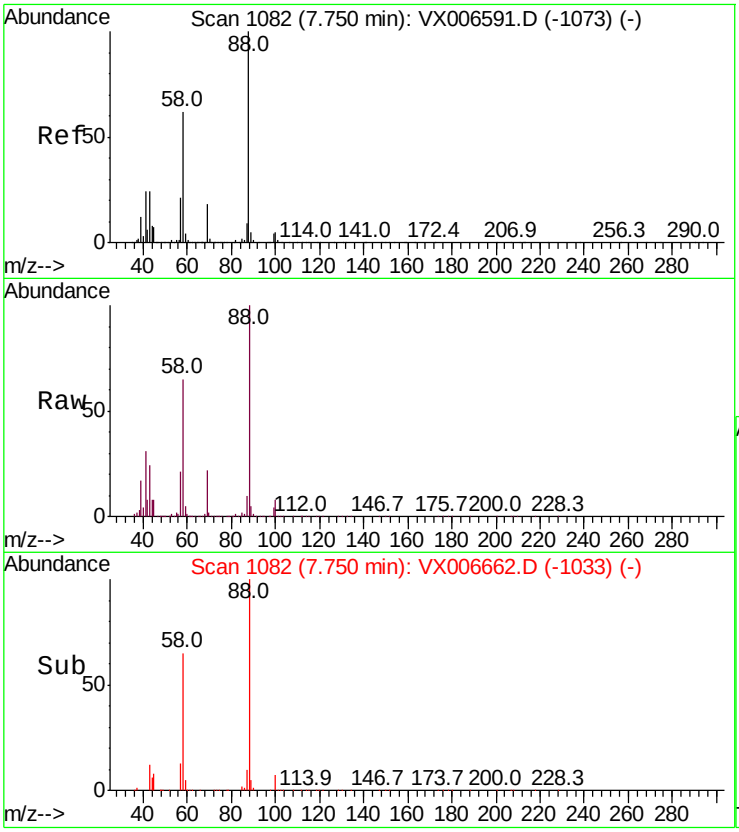
Tgt Ion: 41 Resp: 390805

Ion	Ratio	Lower	Upper
41	100		
69	90.1	72.4	108.6
39	58.4	45.8	68.8



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

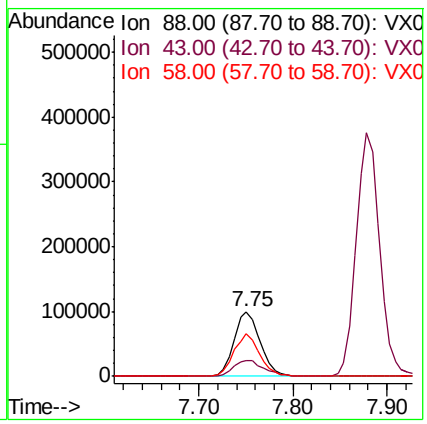
Manual Integrations APPROVED
MMDadoda
12/21/2018 10:18:50 AM

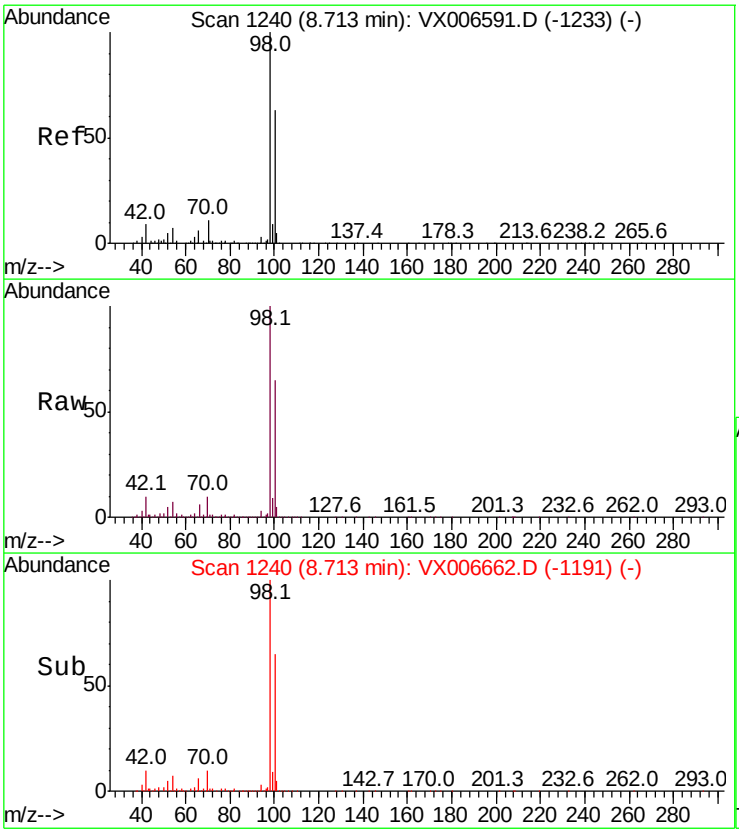


#49
1,4-Dioxane
Concen: 1010.459 ug/l
RT: 7.75 min Scan# 1082
Delta R.T. 0.00 min
Lab File: VX006662.D
Acq: 20 Dec 2018 09:00

Tgt Ion: 88 Resp: 193228

Ion	Ratio	Lower	Upper
88	100		
43	28.3	22.2	33.4
58	64.4	51.0	76.4

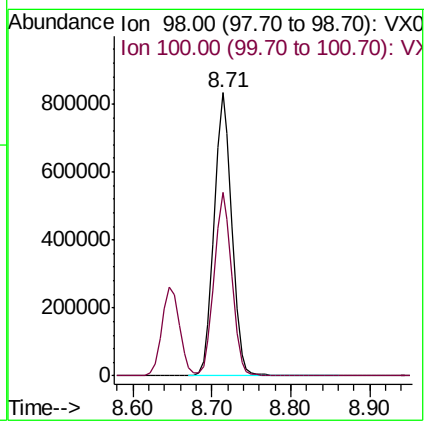




#50
Toluene-d8
Concen: 49.835 ug/l
RT: 8.71 min Scan# 1240
Delta R.T. -0.00 min
Lab File: VX006662.D
Acq: 20 Dec 2018 09:00

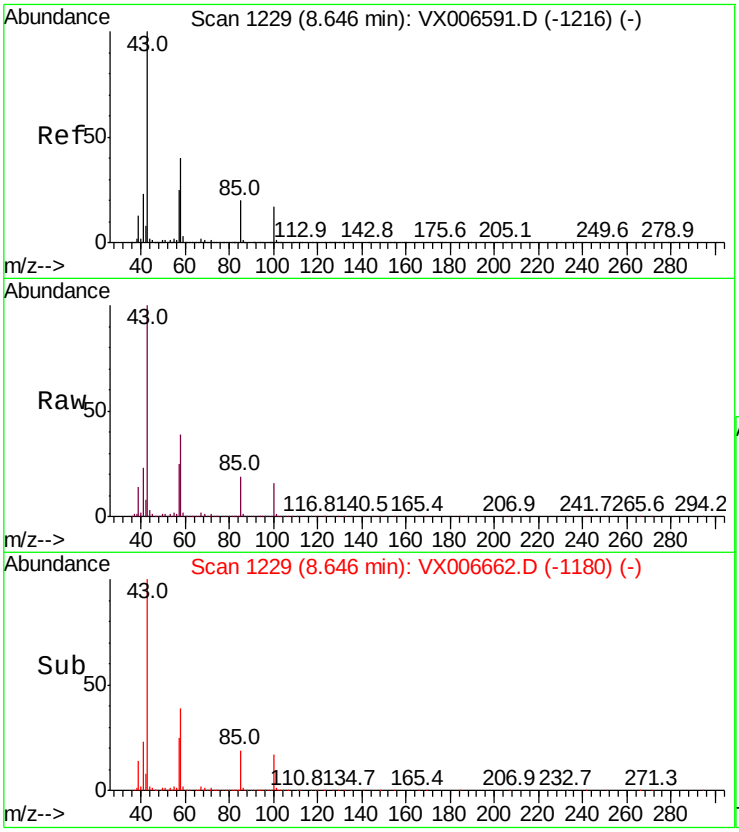
Tgt Ion: 98 Resp: 1302142

Ion	Ratio	Lower	Upper
98	100		
100	65.0	52.0	78.0



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

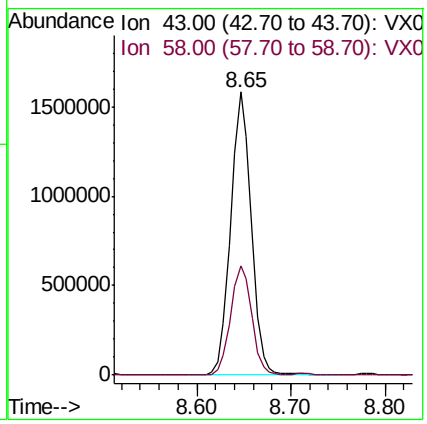
Manual Integrations APPROVED
MMDadoda
12/21/2018 10:18:50 AM

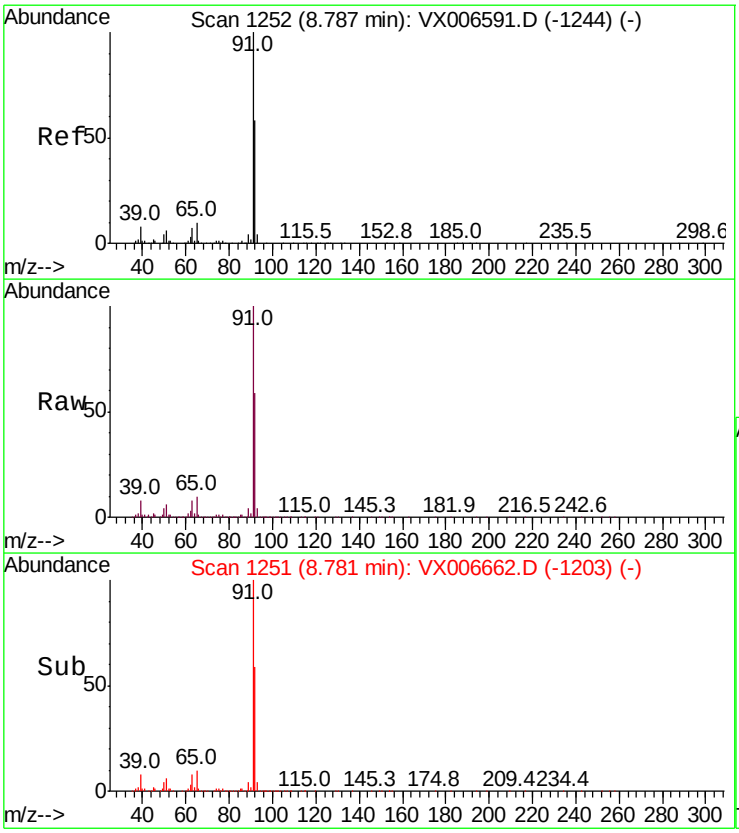


#51
4-Methyl-2-Pentanone
Concen: 262.678 ug/l
RT: 8.65 min Scan# 1229
Delta R.T. -0.00 min
Lab File: VX006662.D
Acq: 20 Dec 2018 09:00

Tgt Ion: 43 Resp: 2402581

Ion	Ratio	Lower	Upper
43	100		
58	39.5	31.8	47.6

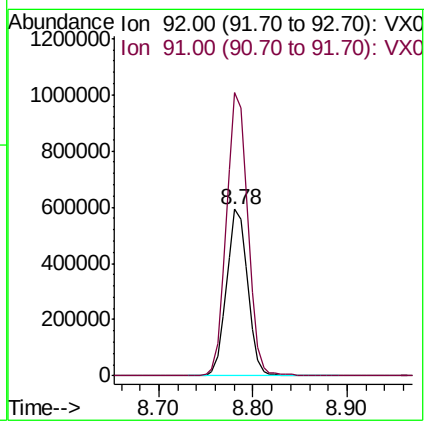




#52
Toluene
Concen: 51.824 ug/l
RT: 8.78 min Scan# 1251
Delta R.T. -0.01 min
Lab File: VX006662.D
Acq: 20 Dec 2018 09:00

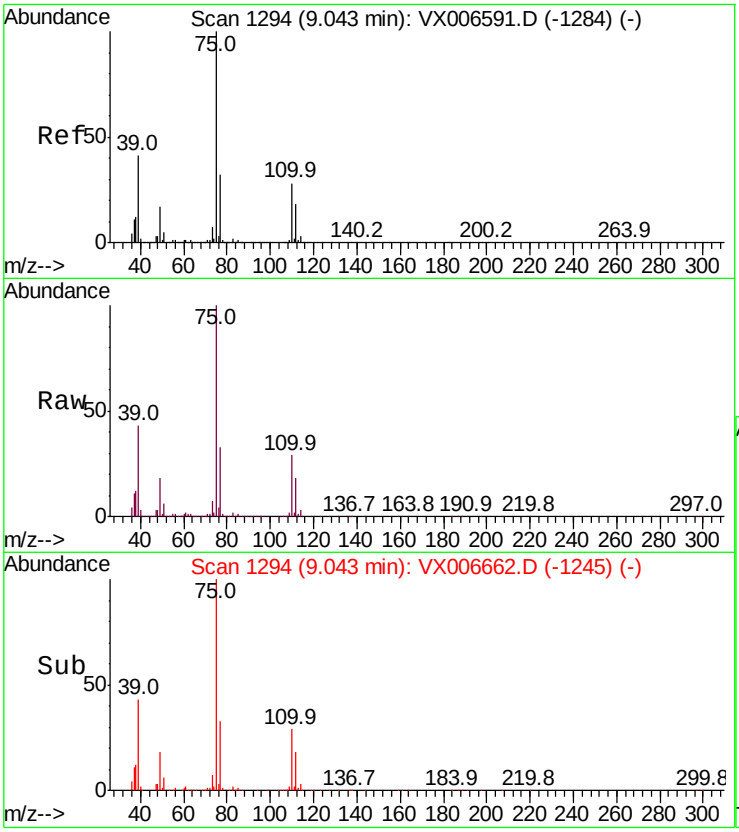
Tgt Ion: 92 Resp: 923795

Ion	Ratio	Lower	Upper
92	100		
91	172.2	137.6	206.4



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

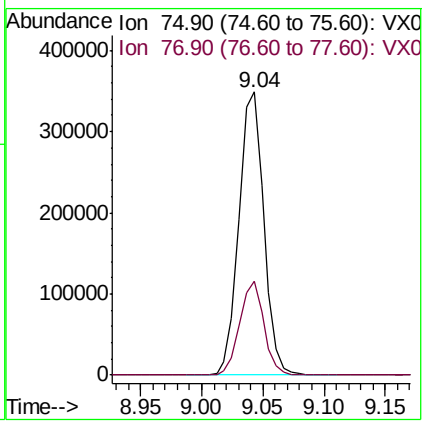
Manual Integrations APPROVED
MMDadoda
12/21/2018 10:18:50 AM

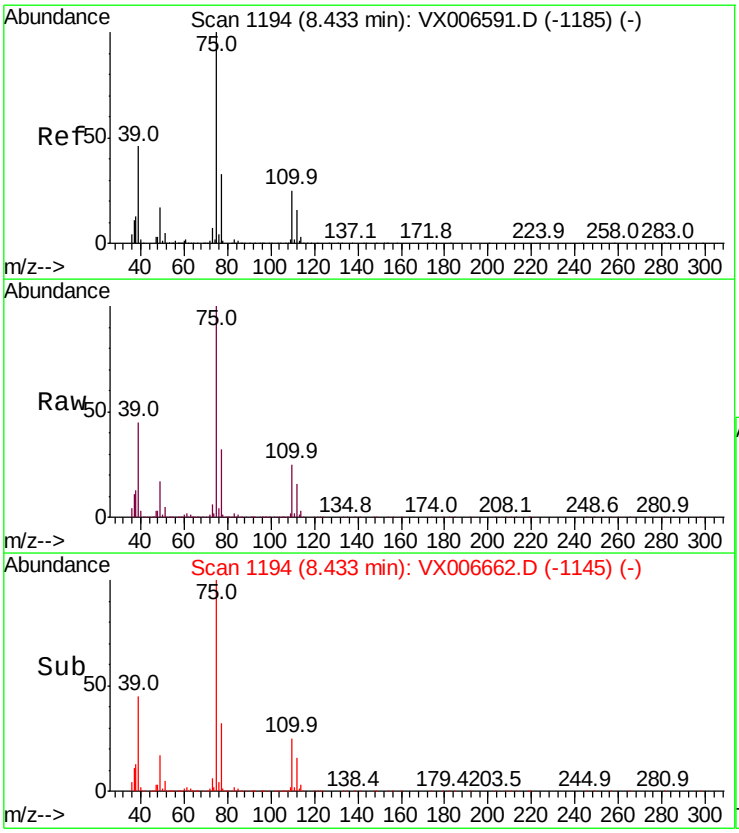


#53
t-1,3-Dichloropropene
Concen: 56.047 ug/l
RT: 9.04 min Scan# 1294
Delta R.T. -0.00 min
Lab File: VX006662.D
Acq: 20 Dec 2018 09:00

Tgt Ion: 75 Resp: 492875

Ion	Ratio	Lower	Upper
75	100		
77	33.1	25.4	38.0

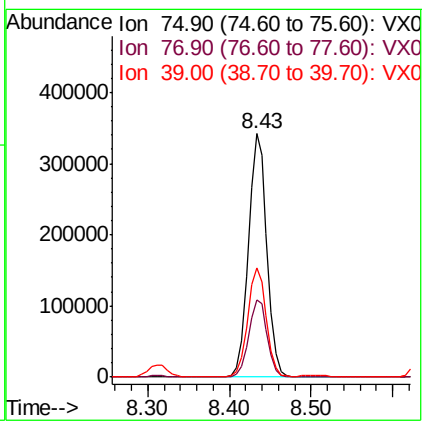




#54
cis-1,3-Dichloropropene
Concen: 55.843 ug/l
RT: 8.43 min Scan# 1194
Delta R.T. -0.00 min
Lab File: VX006662.D
Acq: 20 Dec 2018 09:00

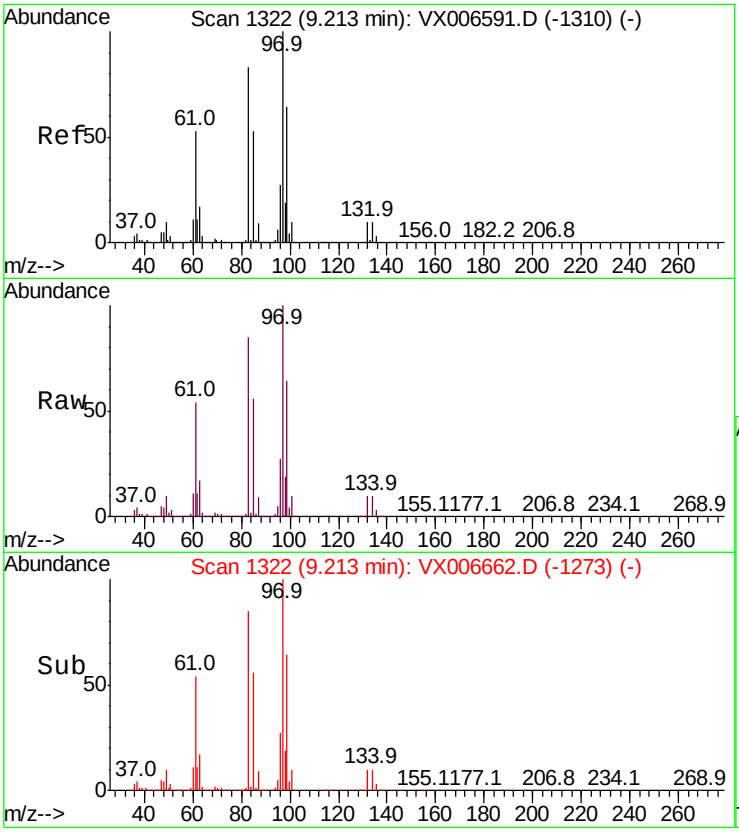
Tgt Ion: 75 Resp: 538837

Ion	Ratio	Lower	Upper
75	100		
77	31.6	26.2	39.2
39	44.9	36.7	55.1



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

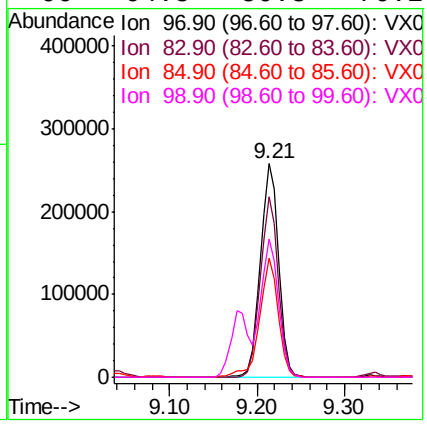
Manual Integrations APPROVED
MMDadoda
12/21/2018 10:18:50 AM

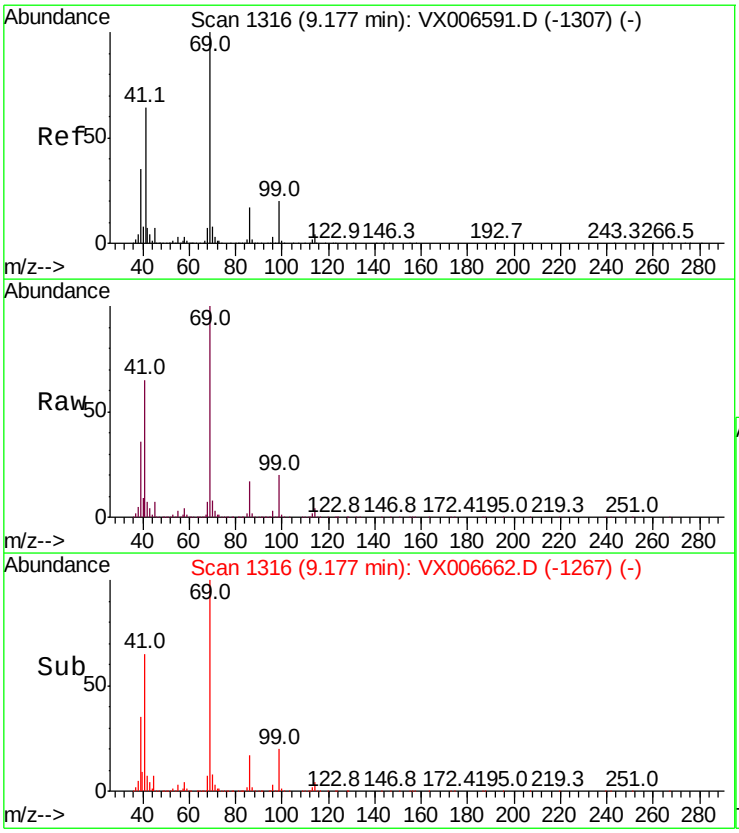


#55
1,1,2-Trichloroethane
Concen: 51.575 ug/l
RT: 9.21 min Scan# 1322
Delta R.T. -0.00 min
Lab File: VX006662.D
Acq: 20 Dec 2018 09:00

Tgt Ion: 97 Resp: 376306

Ion	Ratio	Lower	Upper
97	100		
83	84.6	66.6	99.8
85	55.8	42.7	64.1
99	64.5	50.8	76.2

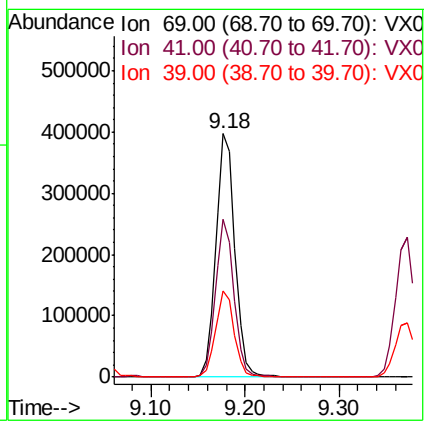




#56
Ethyl methacrylate
Concen: 53.557 ug/l
RT: 9.18 min Scan# 1316
Delta R.T. -0.00 min
Lab File: VX006662.D
Acq: 20 Dec 2018 09:00

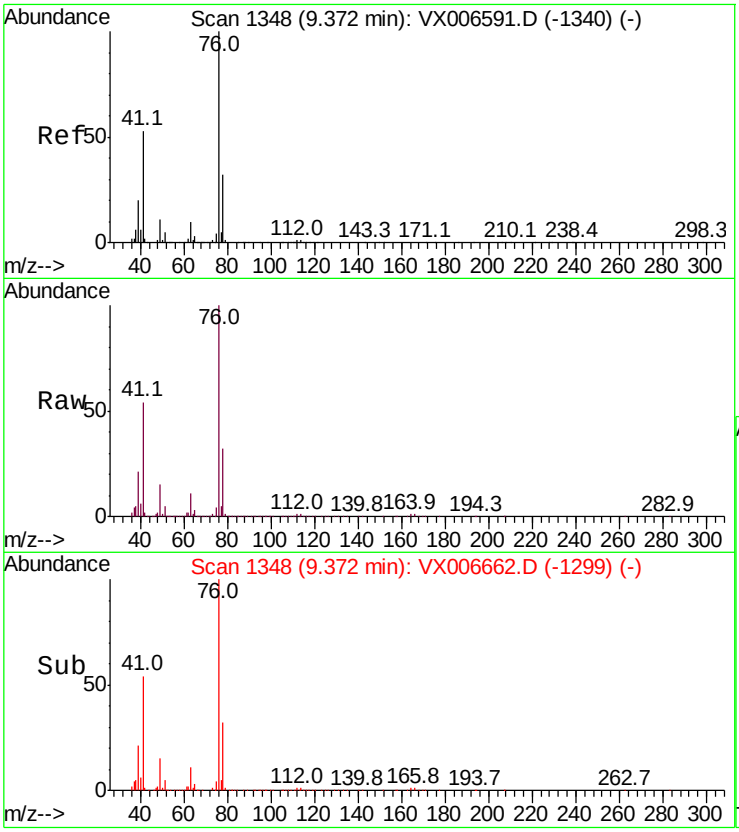
Tgt Ion: 69 Resp: 552302

Ion	Ratio	Lower	Upper
69	100		
41	63.0	48.7	73.1
39	35.3	27.0	40.6



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

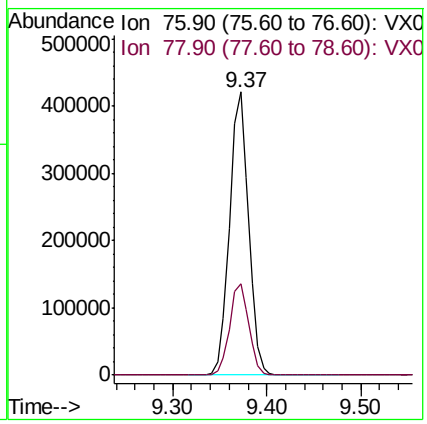
Manual Integrations APPROVED
MMDadoda
12/21/2018 10:18:50 AM

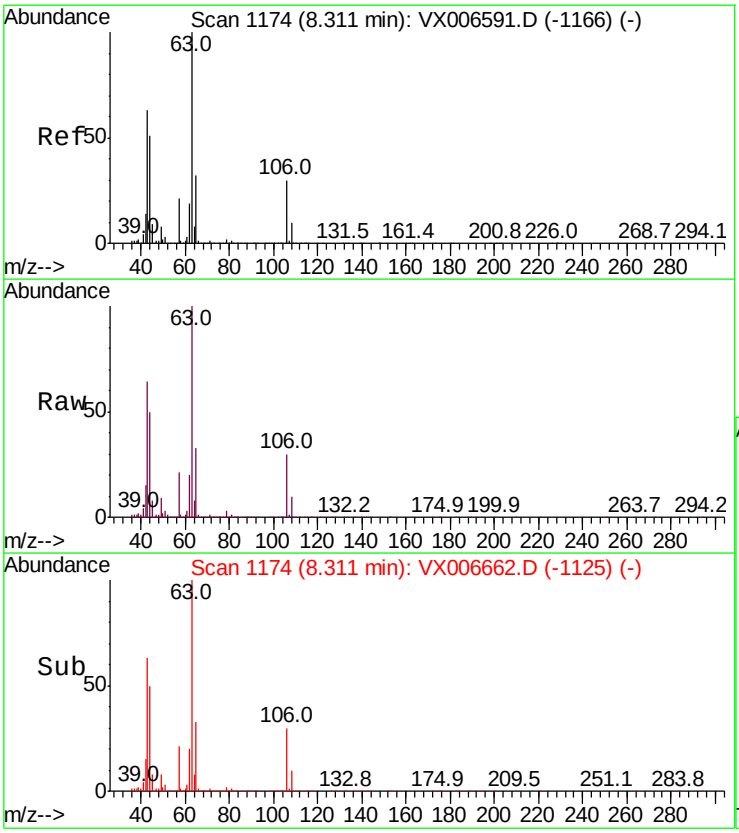


#57
1,3-Dichloropropane
Concen: 50.311 ug/l
RT: 9.37 min Scan# 1348
Delta R.T. -0.00 min
Lab File: VX006662.D
Acq: 20 Dec 2018 09:00

Tgt Ion: 76 Resp: 590597

Ion	Ratio	Lower	Upper
76	100		
78	32.5	26.0	39.0

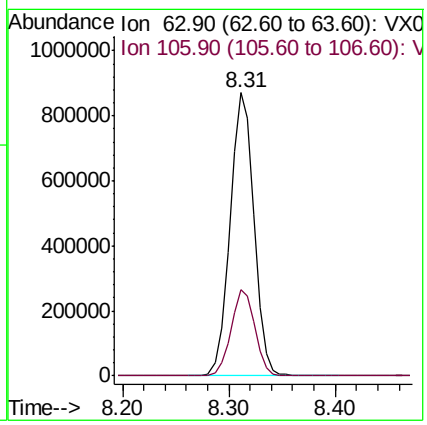




#58
2-Chloroethyl Vinyl ether
Concen: 249.322 ug/l
RT: 8.31 min Scan# 1174
Delta R.T. -0.00 min
Lab File: VX006662.D
Acq: 20 Dec 2018 09:00

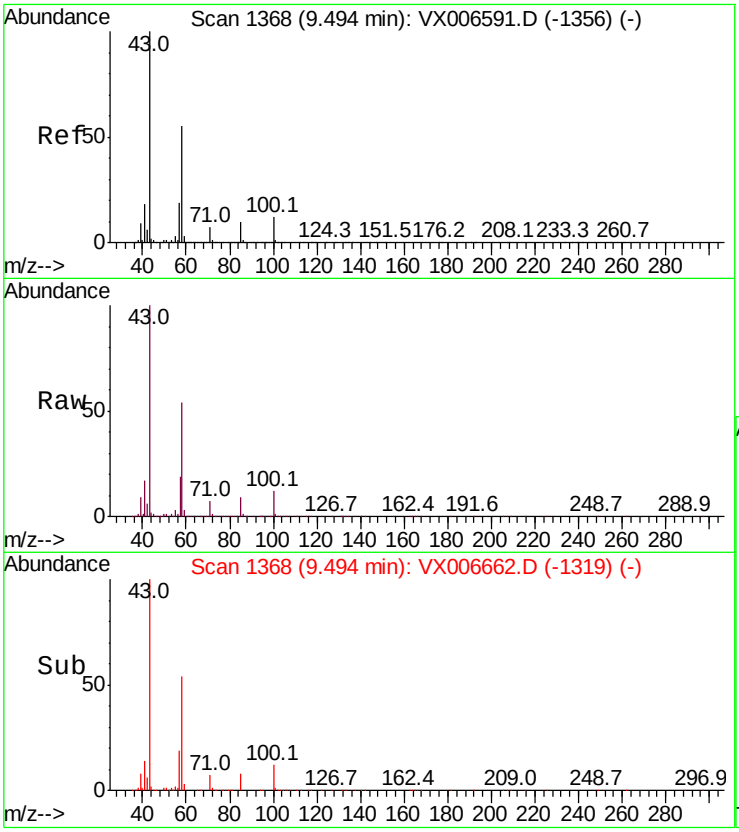
Tgt Ion: 63 Resp: 1366707

Ion	Ratio	Lower	Upper
63	100		
106	30.5	24.6	36.8



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

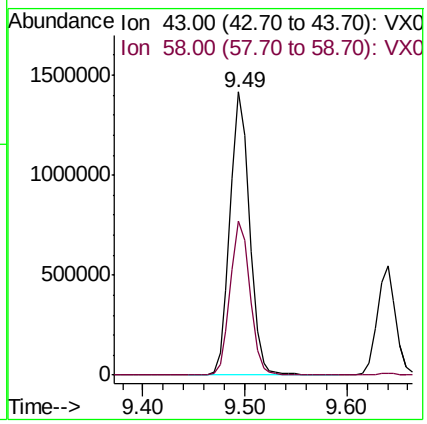
Manual Integrations APPROVED
MMDadoda
12/21/2018 10:18:50 AM

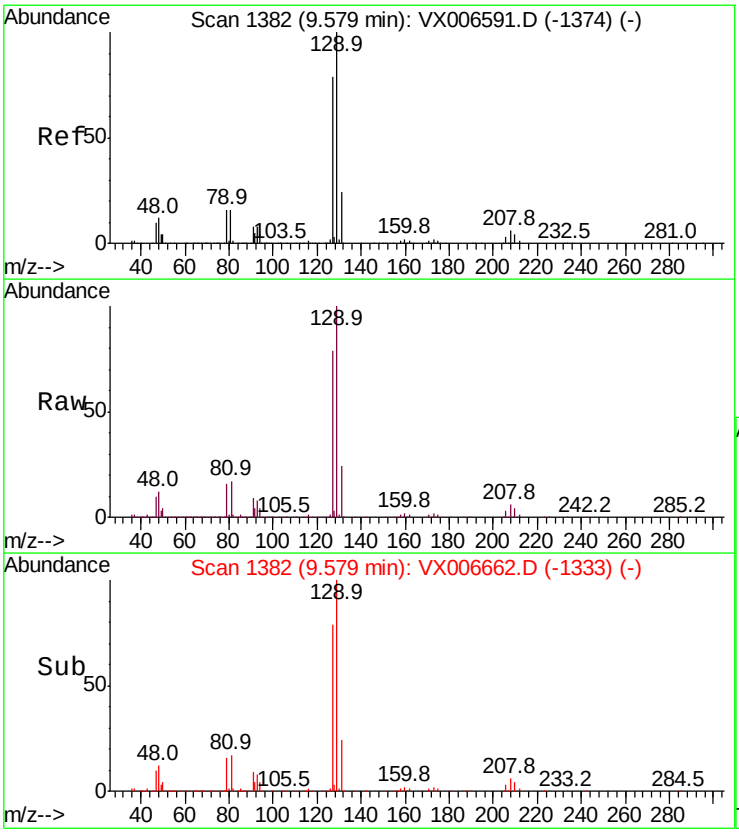


#59
2-Hexanone
Concen: 268.096 ug/l
RT: 9.49 min Scan# 1368
Delta R.T. -0.00 min
Lab File: VX006662.D
Acq: 20 Dec 2018 09:00

Tgt Ion: 43 Resp: 1876175

Ion	Ratio	Lower	Upper
43	100		
58	55.1	27.7	83.1

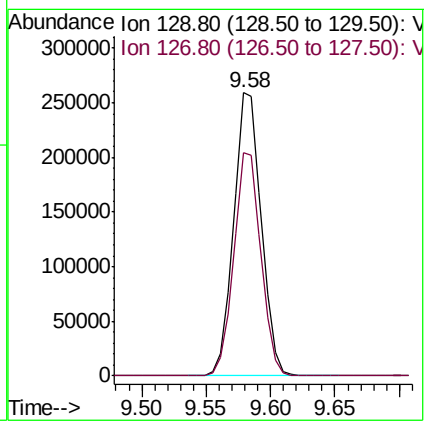




#60
Dibromochloromethane
Concen: 50.499 ug/l
RT: 9.58 min Scan# 1382
Delta R.T. 0.00 min
Lab File: VX006662.D
Acq: 20 Dec 2018 09:00

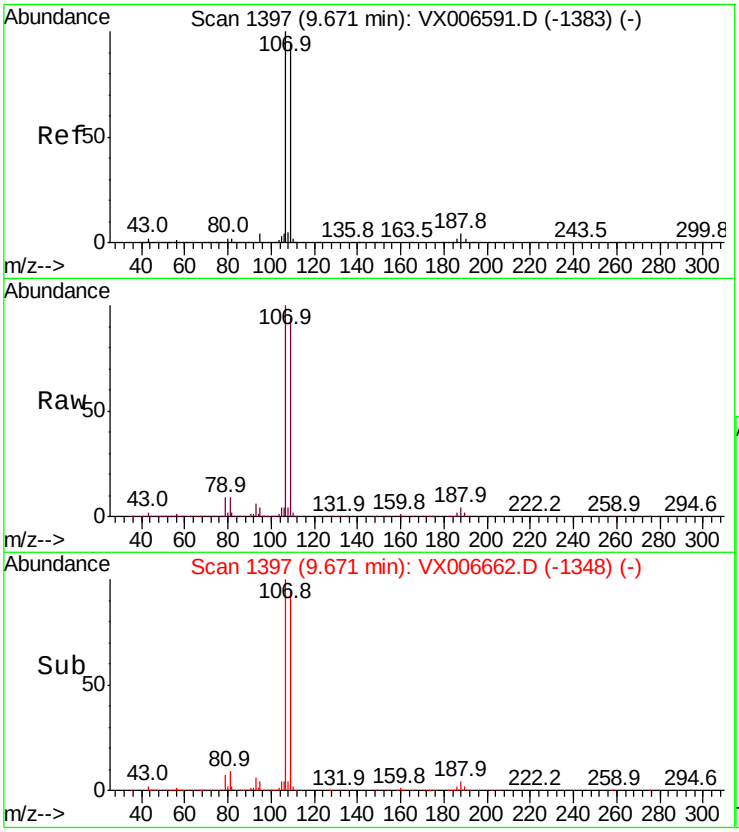
Tgt Ion:129 Resp: 385551

Ion	Ratio	Lower	Upper
129	100		
127	77.5	39.3	117.8



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

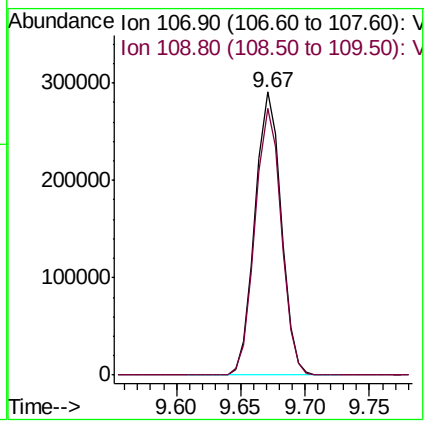
Manual Integrations APPROVED
MMDadoda
12/21/2018 10:18:50 AM

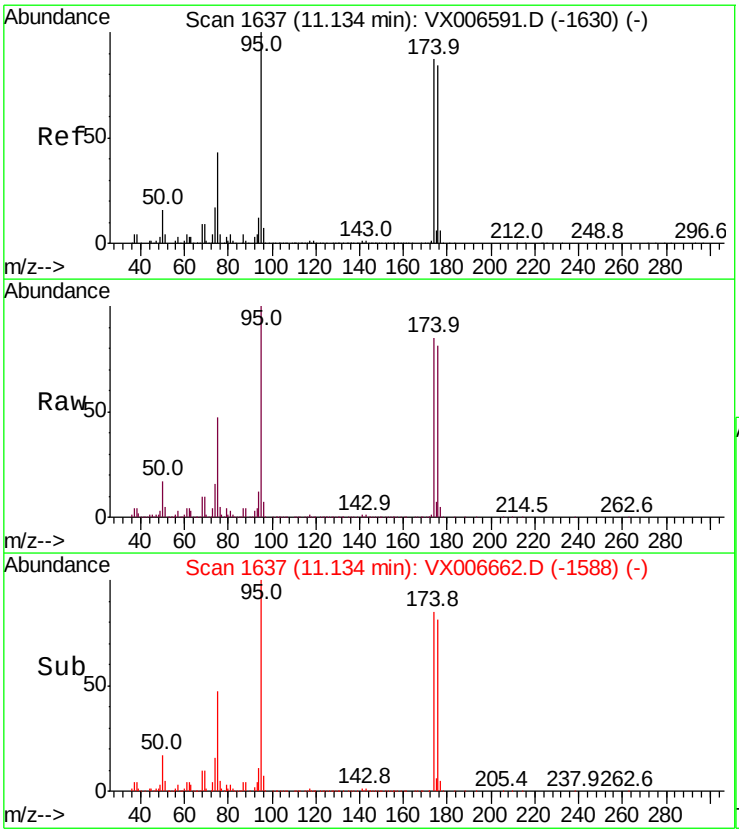


#61
1,2-Dibromoethane
Concen: 52.573 ug/l
RT: 9.67 min Scan# 1397
Delta R.T. -0.00 min
Lab File: VX006662.D
Acq: 20 Dec 2018 09:00

Tgt Ion:107 Resp: 407761

Ion	Ratio	Lower	Upper
107	100		
109	94.6	75.8	113.6

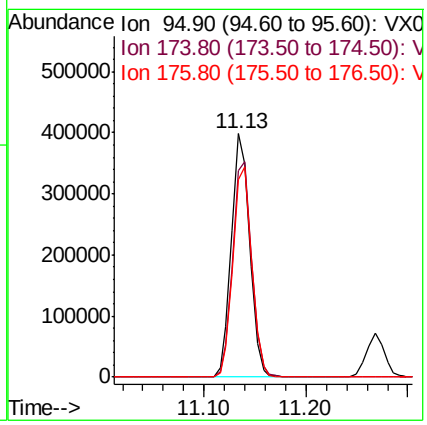




#62
4-Bromofluorobenzene
Concen: 51.360 ug/l
RT: 11.13 min Scan# 1637
Delta R.T. -0.00 min
Lab File: VX006662.D
Acq: 20 Dec 2018 09:00

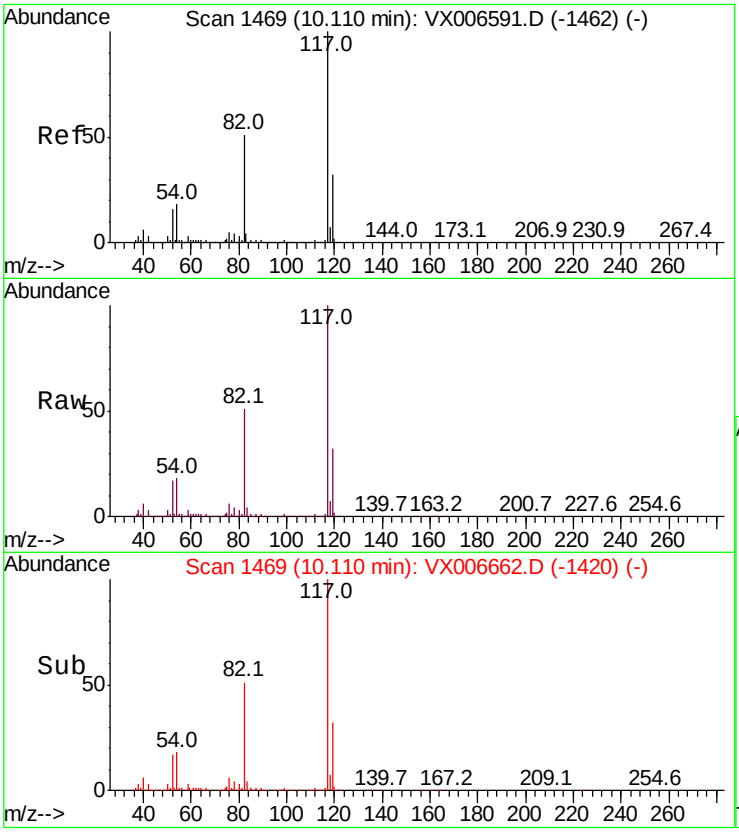
Tgt Ion: 95 Resp: 491496

Ion	Ratio	Lower	Upper
95	100		
174	91.3	0.0	182.2
176	88.5	0.0	178.8



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

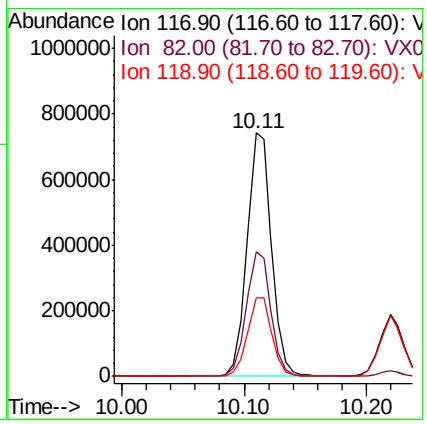
Manual Integrations APPROVED
MMDadoda
12/21/2018 10:18:50 AM

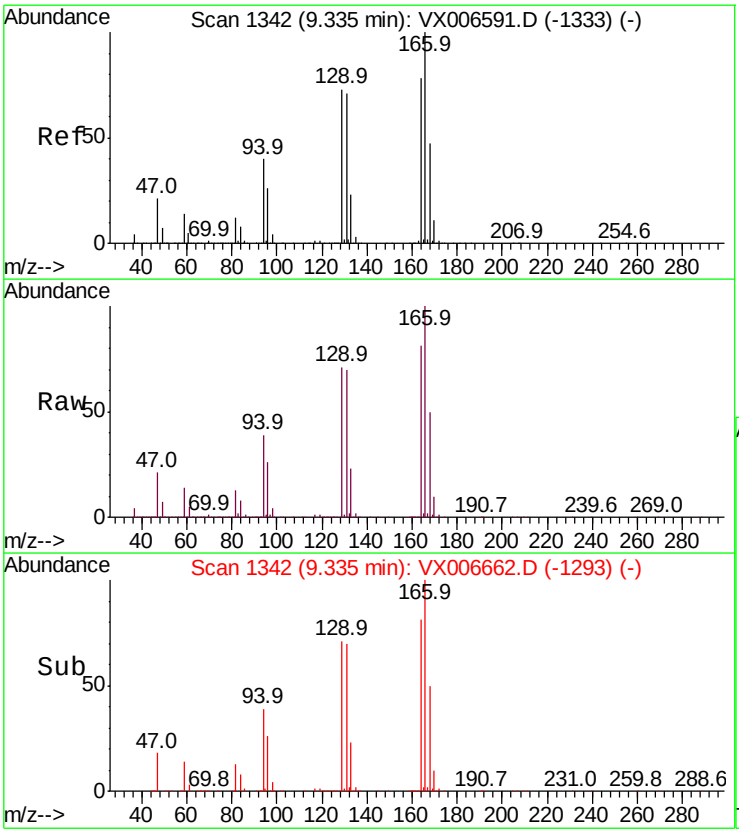


#63
Chlorobenzene-d5
Concen: 50.000 ug/l
RT: 10.11 min Scan# 1469
Delta R.T. -0.00 min
Lab File: VX006662.D
Acq: 20 Dec 2018 09:00

Tgt Ion:117 Resp: 1030351

Ion	Ratio	Lower	Upper
117	100		
82	51.3	41.0	61.6
119	32.3	25.4	38.0

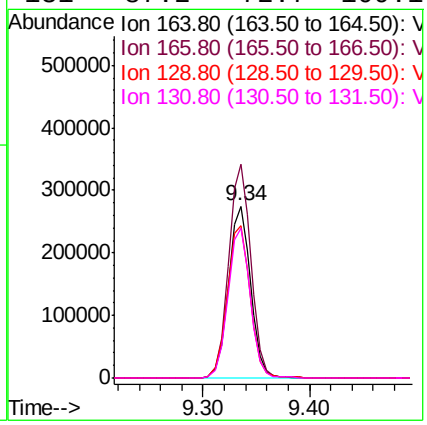




#64
Tetrachloroethene
Concen: 49.121 ug/l
RT: 9.34 min Scan# 1342
Delta R.T. -0.00 min
Lab File: VX006662.D
Acq: 20 Dec 2018 09:00

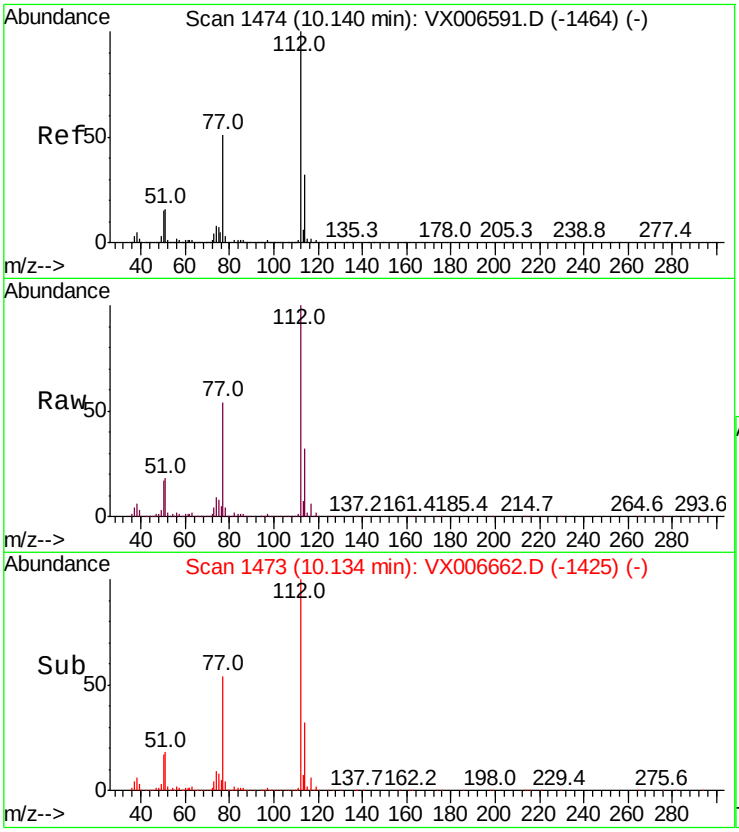
Tgt Ion:164 Resp: 400769

Ion	Ratio	Lower	Upper
164	100		
166	124.2	102.5	153.7
129	88.2	75.1	112.7
131	87.2	72.7	109.1



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

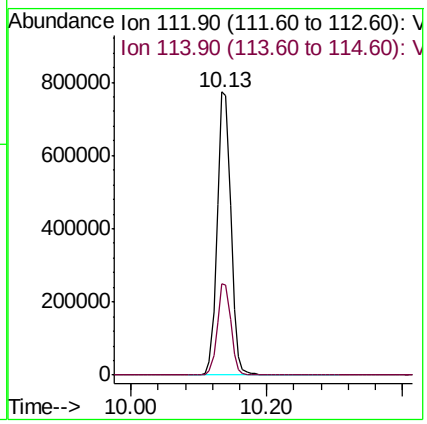
Manual Integrations APPROVED
MMDadoda
12/21/2018 10:18:50 AM

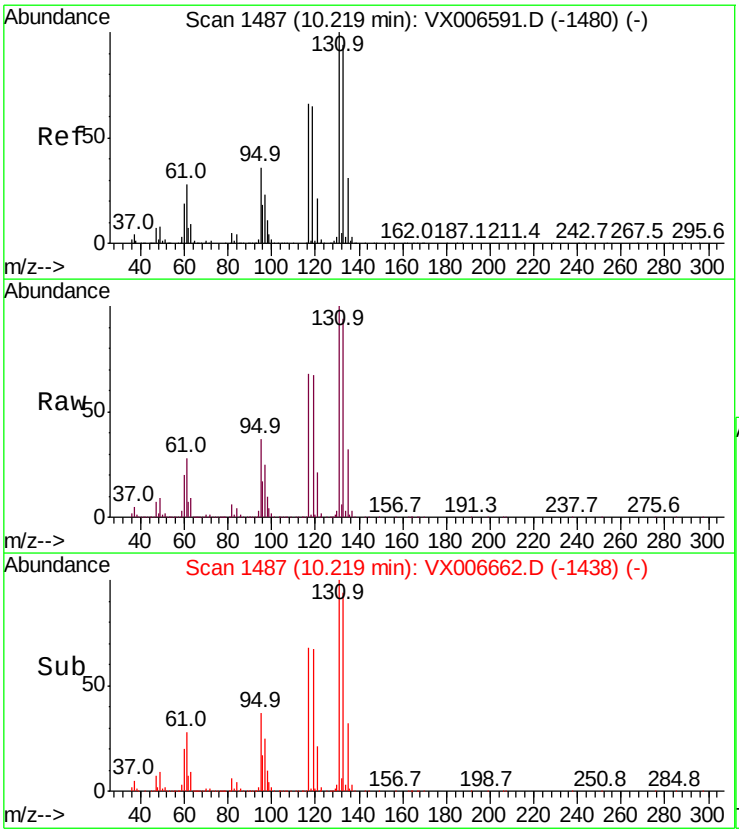


#65
Chlorobenzene
Concen: 49.554 ug/l
RT: 10.13 min Scan# 1473
Delta R.T. -0.01 min
Lab File: VX006662.D
Acq: 20 Dec 2018 09:00

Tgt Ion:112 Resp: 1080184

Ion	Ratio	Lower	Upper
112	100		
114	32.3	25.7	38.5

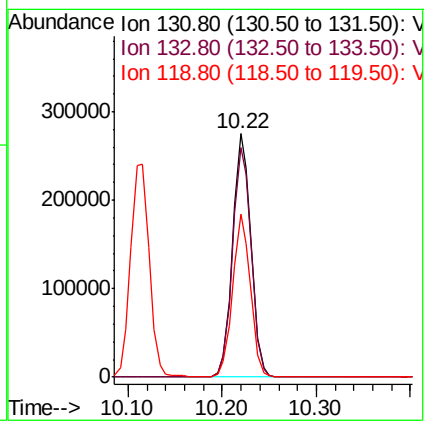




#66
1,1,1,2-Tetrachloroethane
Concen: 54.149 ug/l
RT: 10.22 min Scan# 1487
Delta R.T. -0.00 min
Lab File: VX006662.D
Acq: 20 Dec 2018 09:00

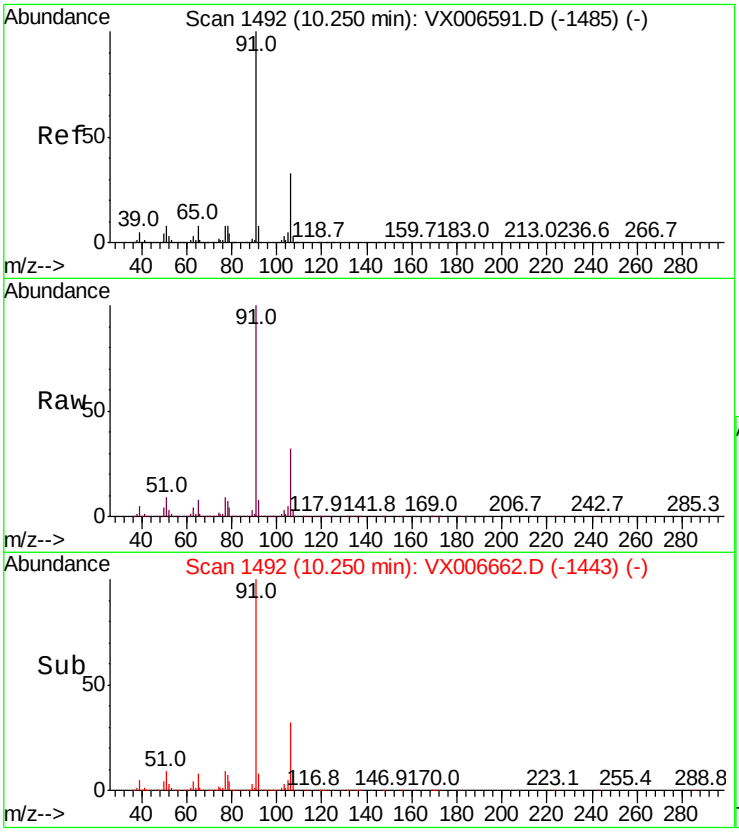
Tgt Ion:131 Resp: 368262

Ion	Ratio	Lower	Upper
131	100		
133	95.8	48.0	144.2
119	65.3	32.6	97.8



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

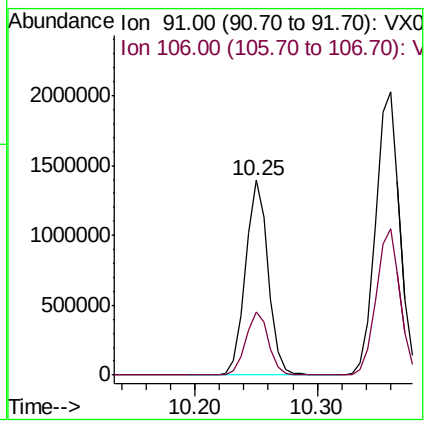
Manual Integrations APPROVED
MMDadoda
12/21/2018 10:18:50 AM

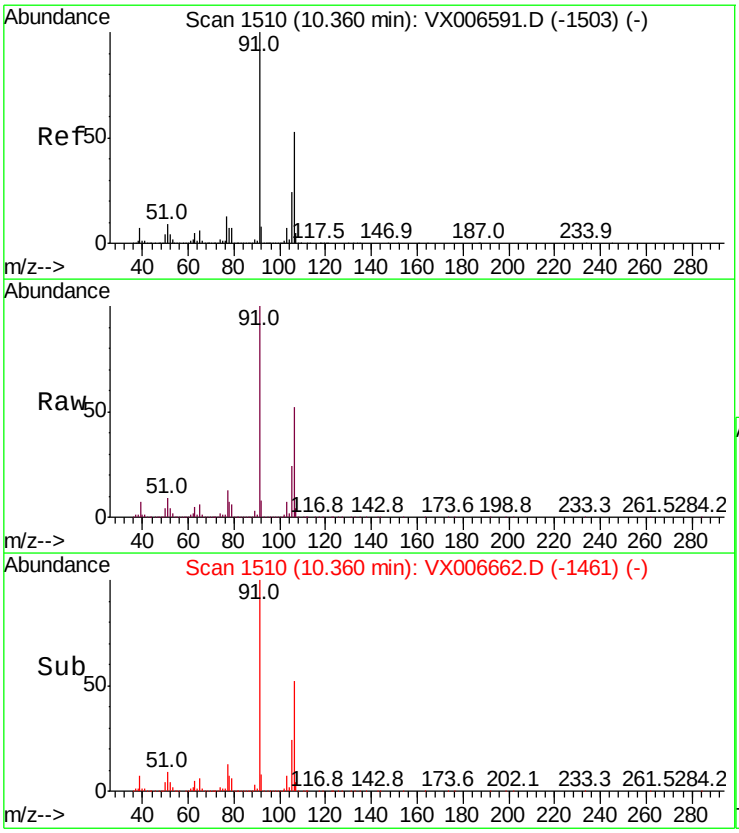


#67
Ethyl Benzene
Concen: 50.316 ug/l
RT: 10.25 min Scan# 1492
Delta R.T. -0.00 min
Lab File: VX006662.D
Acq: 20 Dec 2018 09:00

Tgt Ion: 91 Resp: 1792229

Ion	Ratio	Lower	Upper
91	100		
106	32.4	26.4	39.6

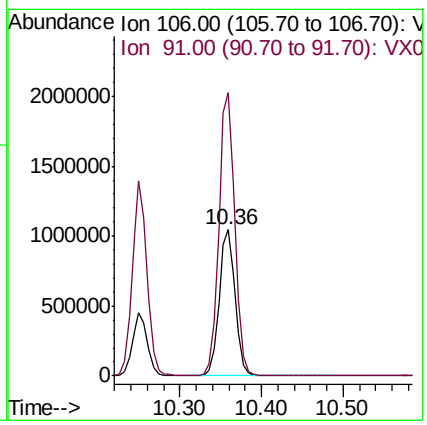




#68
m/p-Xylenes
Concen: 102.024 ug/l
RT: 10.36 min Scan# 1510
Delta R.T. -0.00 min
Lab File: VX006662.D
Acq: 20 Dec 2018 09:00

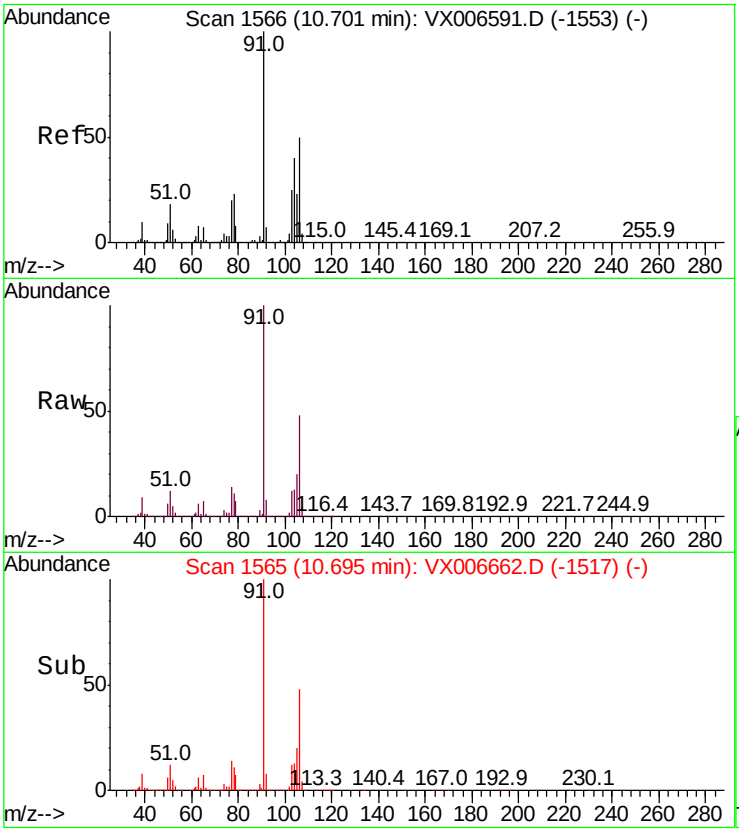
Tgt Ion:106 Resp: 1433979

Ion	Ratio	Lower	Upper
106	100		
91	194.2	155.8	233.6



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

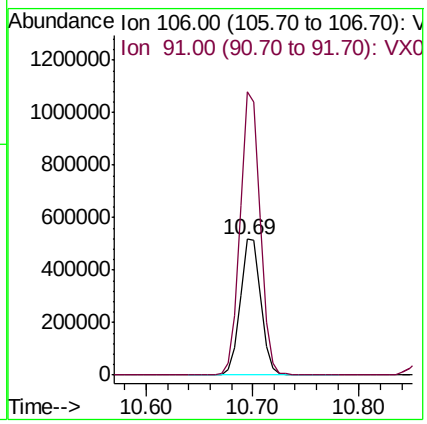
Manual Integrations APPROVED
MMDadoda
12/21/2018 10:18:50 AM

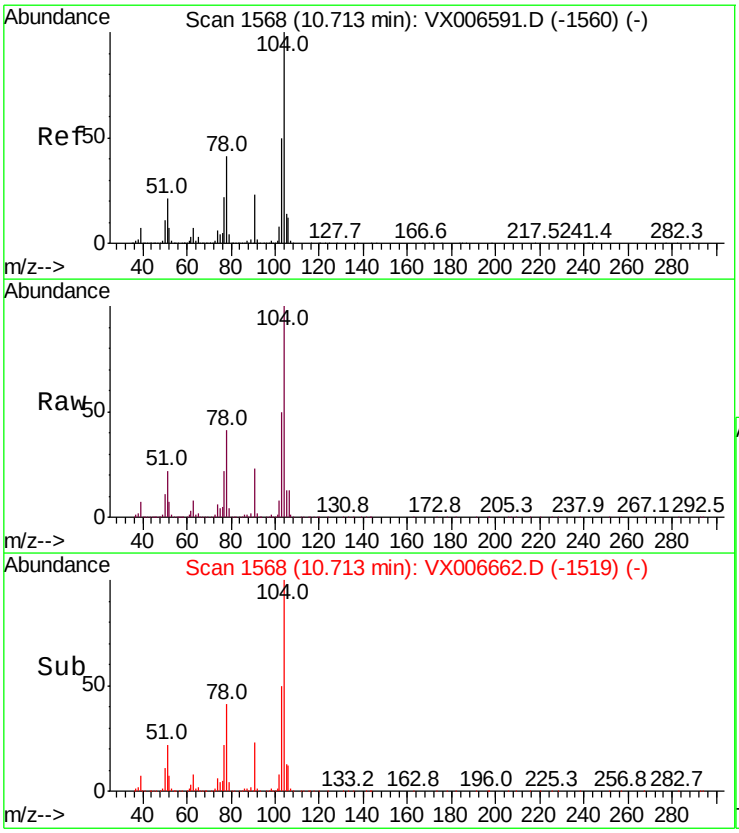


#69
o-Xylene
Concen: 50.530 ug/l
RT: 10.69 min Scan# 1565
Delta R.T. -0.01 min
Lab File: VX006662.D
Acq: 20 Dec 2018 09:00

Tgt Ion:106 Resp: 701316

Ion	Ratio	Lower	Upper
106	100		
91	204.9	101.3	303.7

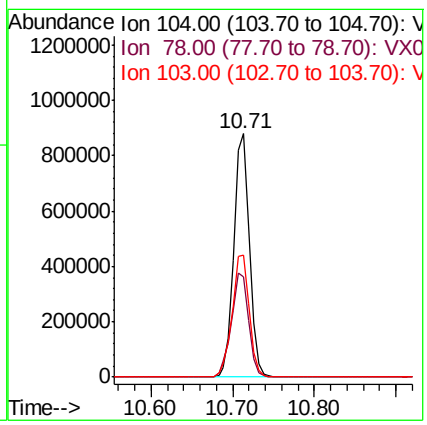




#70
Styrene
Concen: 52.134 ug/l
RT: 10.71 min Scan# 1568
Delta R.T. -0.00 min
Lab File: VX006662.D
Acq: 20 Dec 2018 09:00

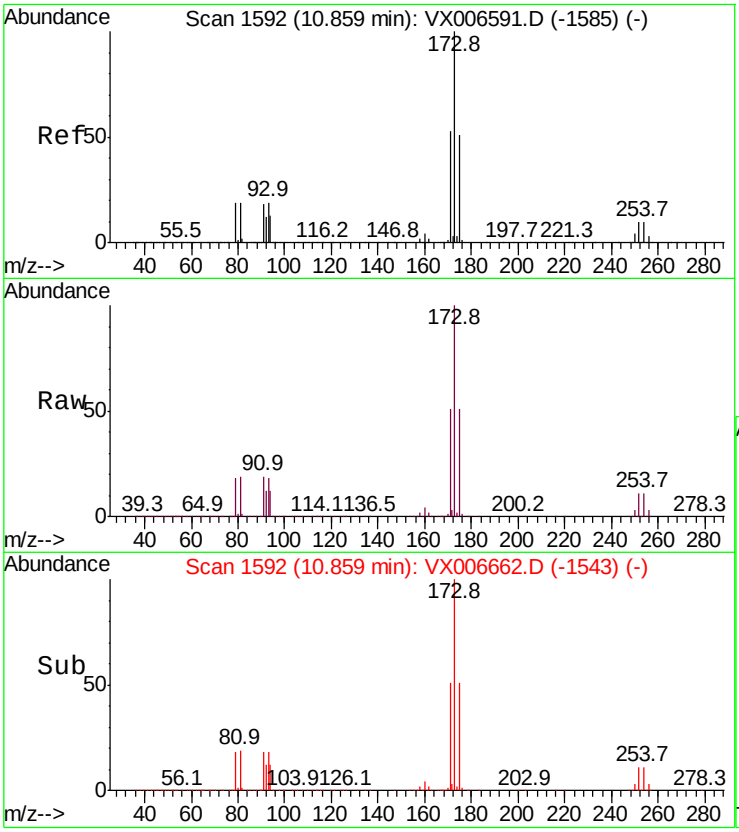
Tgt Ion:104 Resp: 1144746

Ion	Ratio	Lower	Upper
104	100		
78	47.4	37.7	56.5
103	55.0	43.8	65.8



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

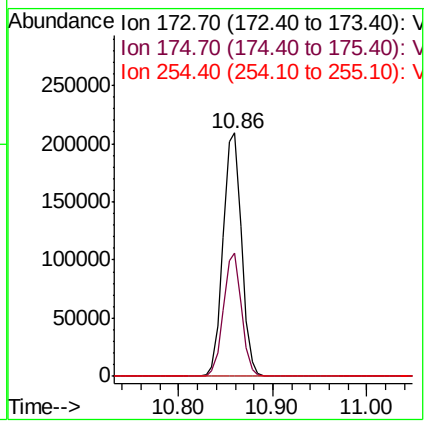
Manual Integrations APPROVED
MMDadoda
12/21/2018 10:18:50 AM

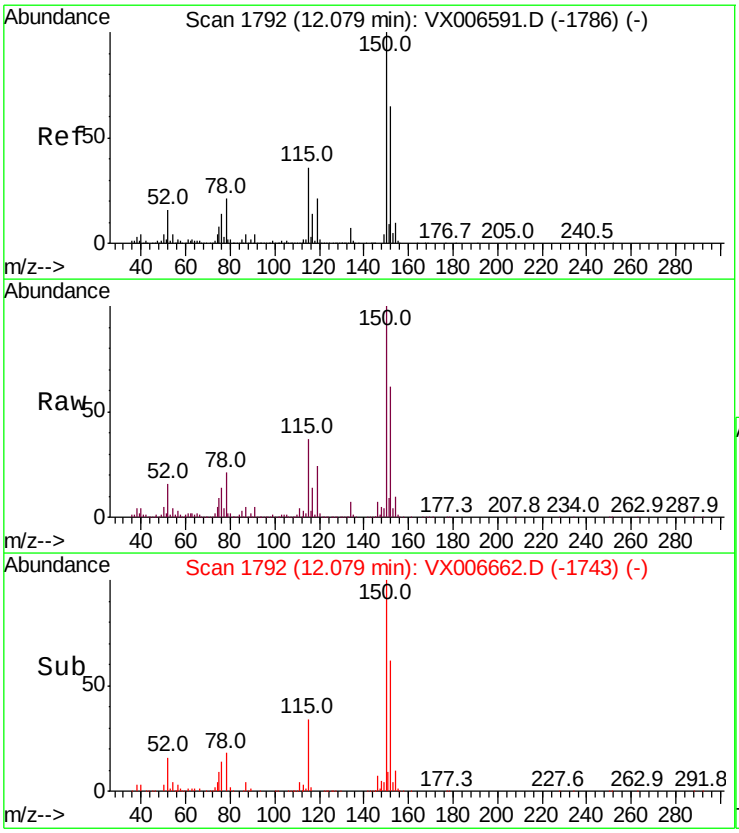


#71
Bromoform
Concen: 46.693 ug/l
RT: 10.86 min Scan# 1592
Delta R.T. 0.00 min
Lab File: VX006662.D
Acq: 20 Dec 2018 09:00

Tgt Ion:173 Resp: 284449

Ion	Ratio	Lower	Upper
173	100		
175	49.3	24.7	74.1
254	0.2	0.2	0.2#

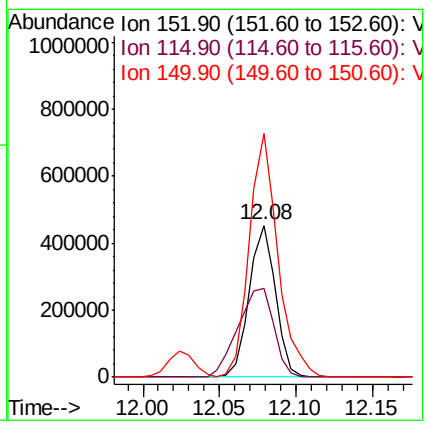




#72
1,4-Dichlorobenzene-d4
Concen: 50.000 ug/l
RT: 12.08 min Scan# 1792
Delta R.T. -0.00 min
Lab File: VX006662.D
Acq: 20 Dec 2018 09:00

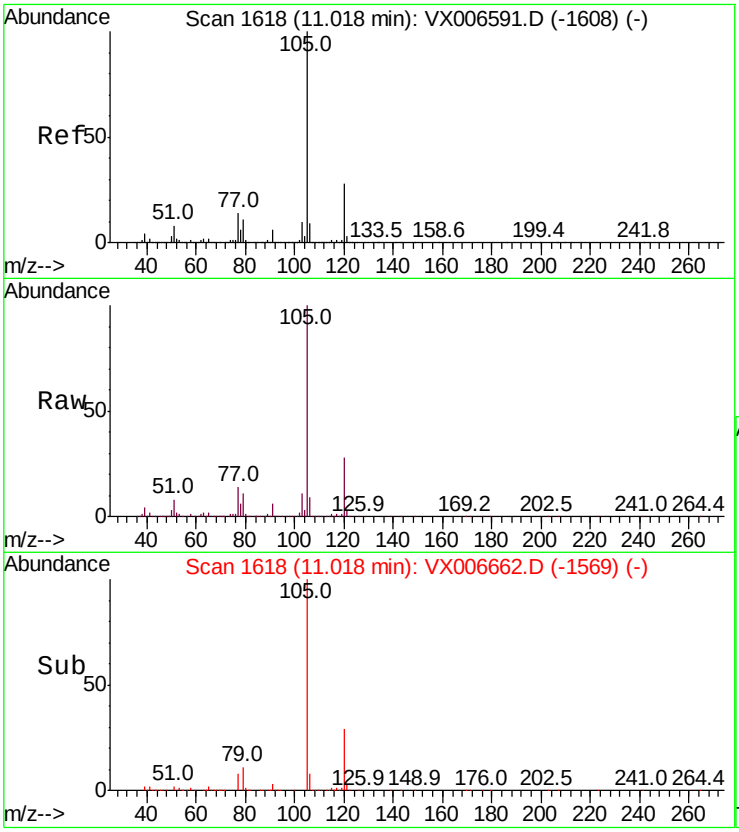
Tgt Ion:152 Resp: 539742

Ion	Ratio	Lower	Upper
152	100		
115	79.6	39.1	117.2
150	175.0	0.0	344.8



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

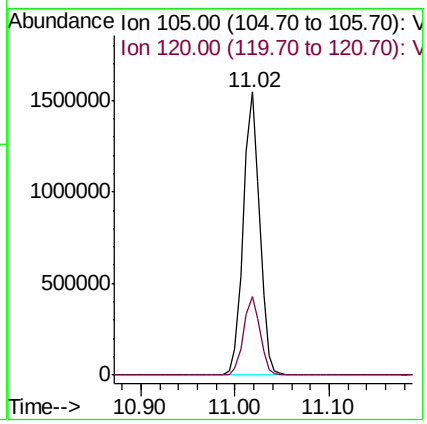
Manual Integrations APPROVED
MMDadoda
12/21/2018 10:18:50 AM

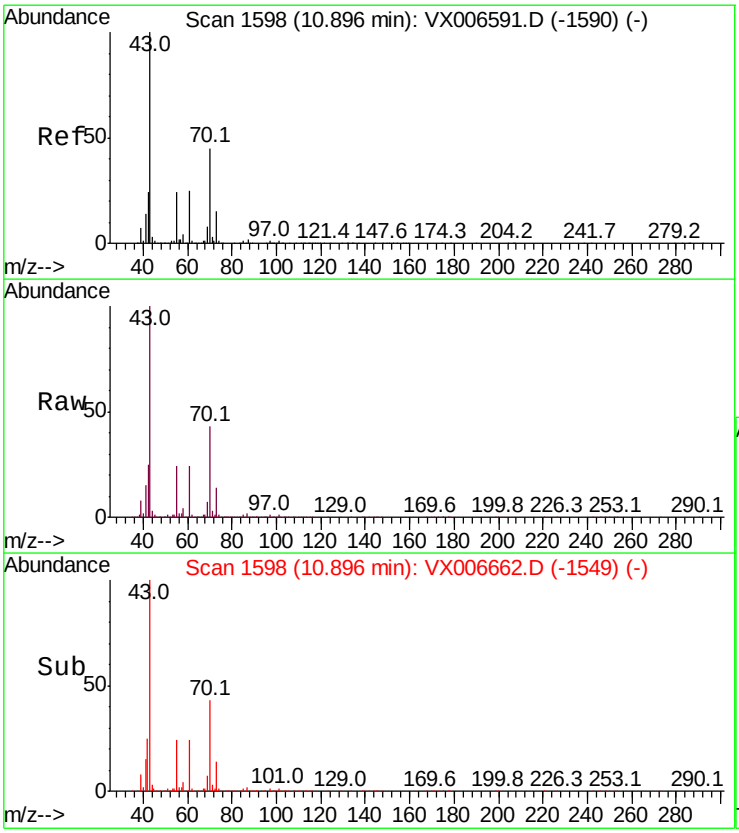


#73
Isopropylbenzene
Concen: 50.700 ug/l
RT: 11.02 min Scan# 1618
Delta R.T. -0.00 min
Lab File: VX006662.D
Acq: 20 Dec 2018 09:00

Tgt Ion:105 Resp: 1872108

Ion	Ratio	Lower	Upper
105	100		
120	27.8	14.1	42.4

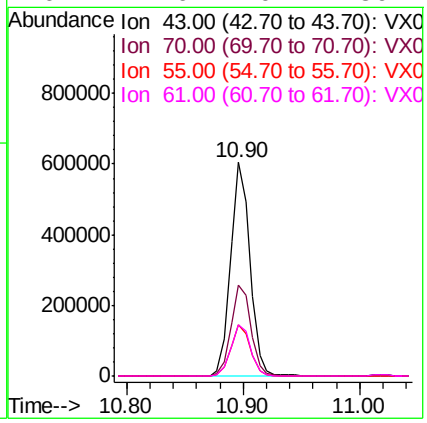


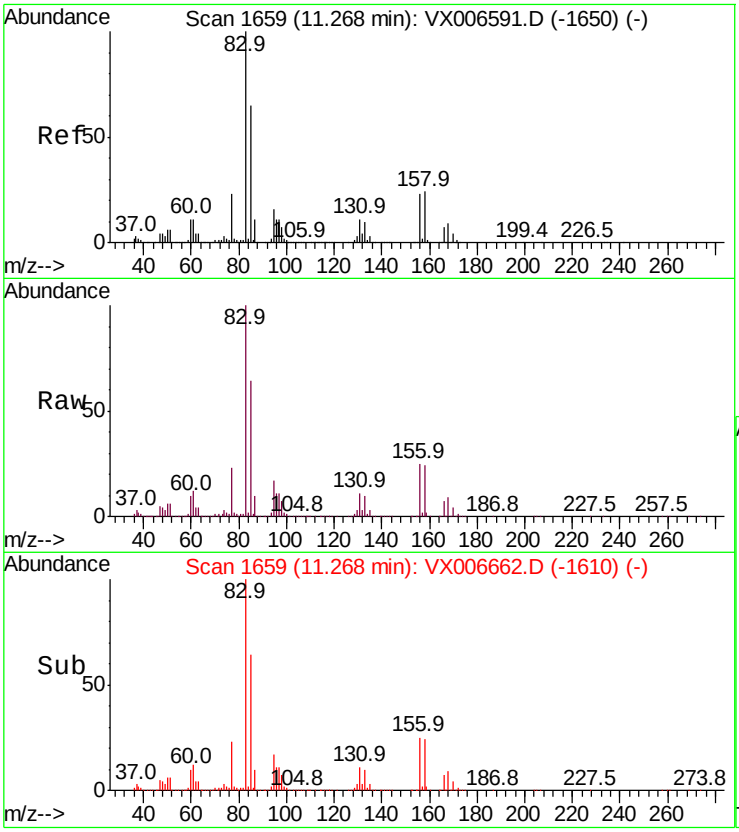


#74
N-amyl acetate
Concen: 52.857 ug/l
RT: 10.90 min Scan# 1598
Delta R.T. -0.00 min
Lab File: VX006662.D
Acq: 20 Dec 2018 09:00

Tgt Ion: 43 Resp: 698610

Ion	Ratio	Lower	Upper
43	100		
70	43.7	35.8	53.8
55	24.1	19.4	29.0
61	24.6	20.1	30.1

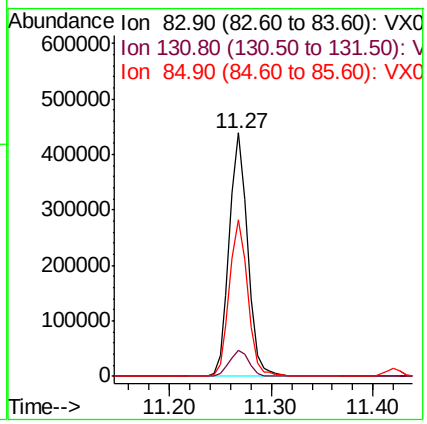


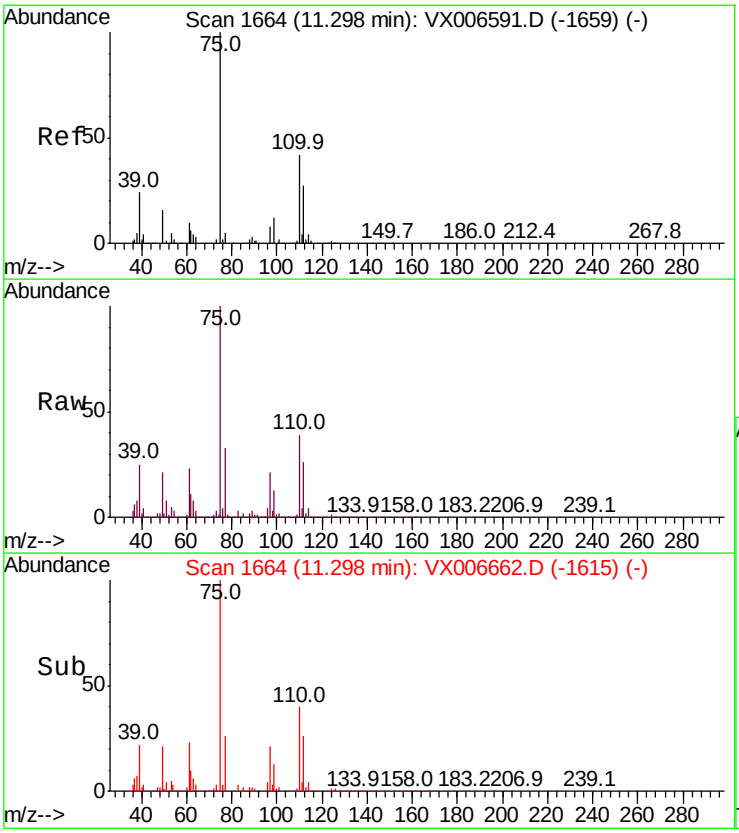


#75
1,1,2,2-Tetrachloroethane
Concen: 49.753 ug/l
RT: 11.27 min Scan# 1659
Delta R.T. -0.00 min
Lab File: VX006662.D
Acq: 20 Dec 2018 09:00

Tgt Ion: 83 Resp: 546363

Ion	Ratio	Lower	Upper
83	100		
131	11.2	5.7	17.1
85	64.8	32.2	96.6

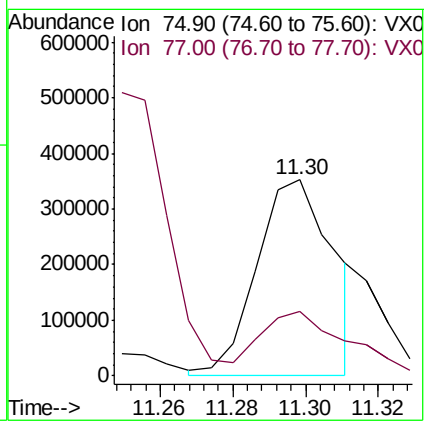




#76
1,2,3-Trichloropropane
Concen: 51.266 ug/l m
RT: 11.30 min Scan# 1664
Delta R.T. -0.00 min
Lab File: VX006662.D
Acq: 20 Dec 2018 09:00

Tgt Ion: 75 Resp: 514231

Ion	Ratio	Lower	Upper
75	100		
77	37.6	18.5	55.5

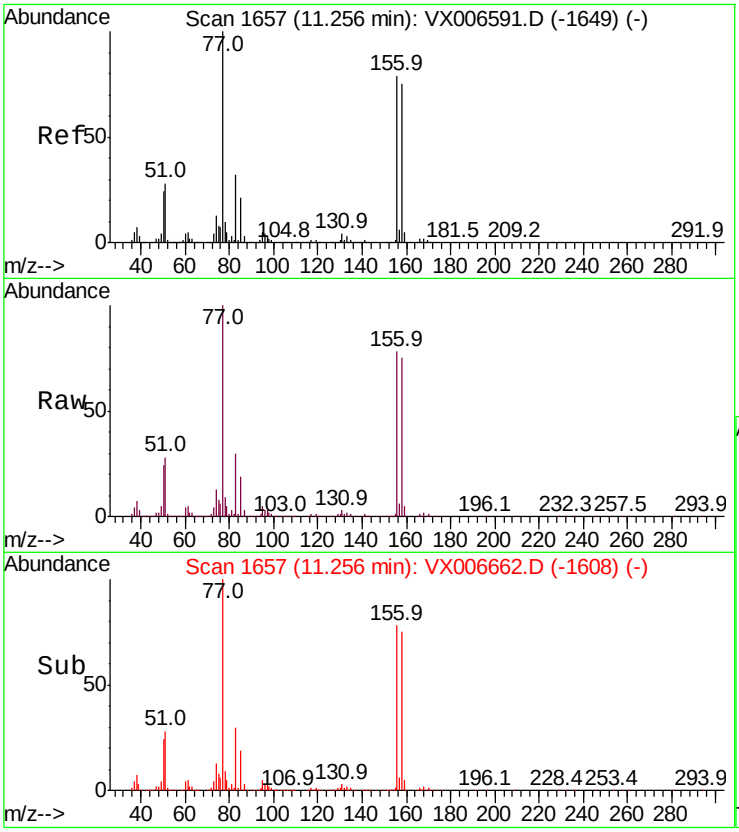


Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

Manual Integrations APPROVED
MMDadoda
12/21/2018 10:18:50 AM

Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

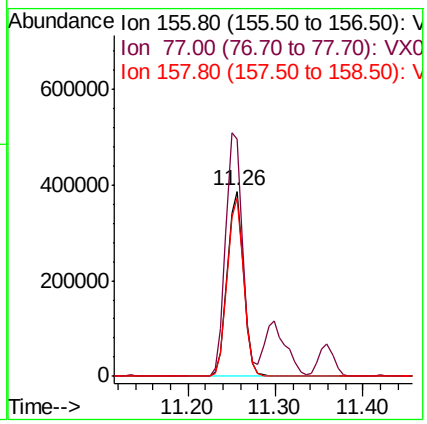
Manual Integrations APPROVED
MMDadoda
12/21/2018 10:18:50 AM

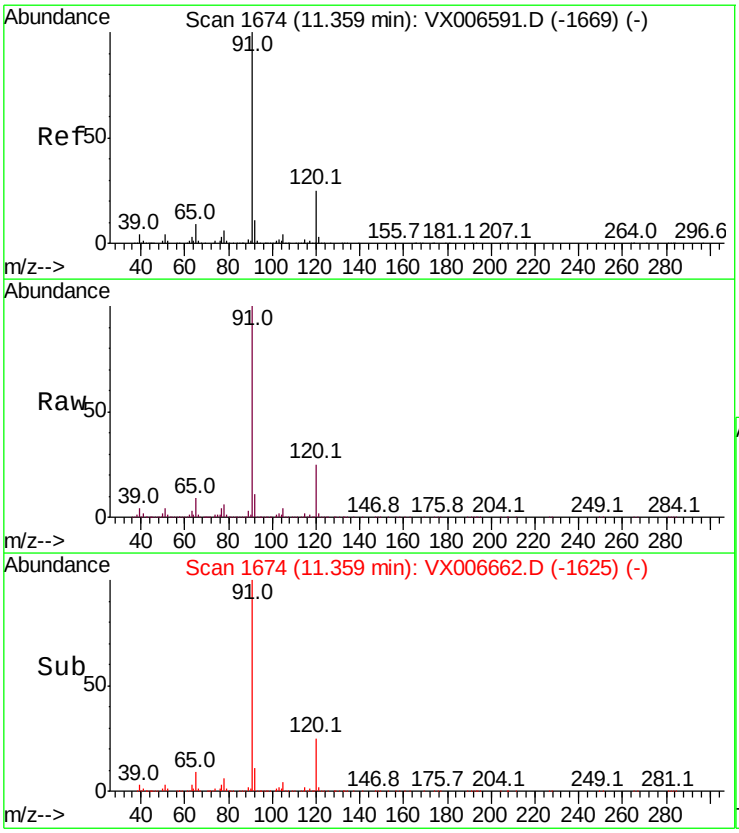


#77
Bromobenzene
Concen: 50.061 ug/l
RT: 11.26 min Scan# 1657
Delta R.T. -0.00 min
Lab File: VX006662.D
Acq: 20 Dec 2018 09:00

Tgt Ion:156 Resp: 499744

Ion	Ratio	Lower	Upper
156	100		
77	136.3	68.0	204.0
158	97.0	48.3	144.8

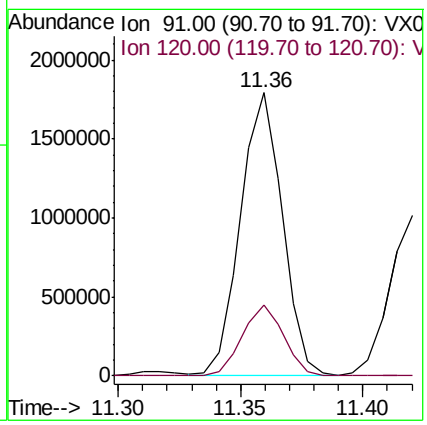




#78
n-propylbenzene
Concen: 52.215 ug/l
RT: 11.36 min Scan# 1674
Delta R.T. -0.00 min
Lab File: VX006662.D
Acq: 20 Dec 2018 09:00

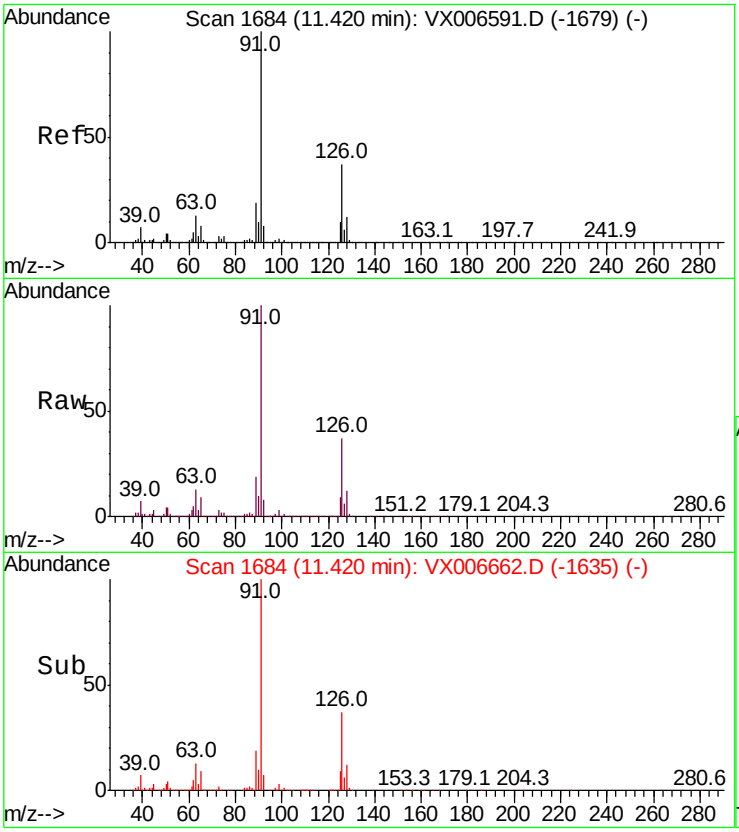
Tgt Ion: 91 Resp: 2123165

Ion	Ratio	Lower	Upper
91	100		
120	25.1	12.7	38.0



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

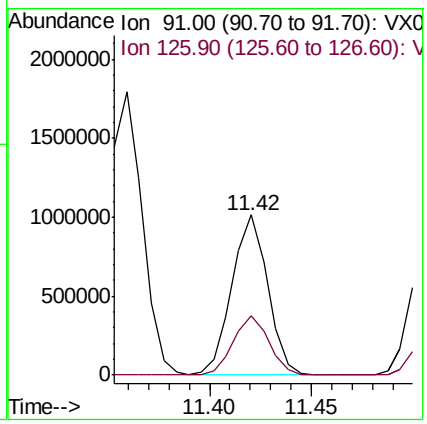
Manual Integrations APPROVED
MMDadoda
12/21/2018 10:18:50 AM

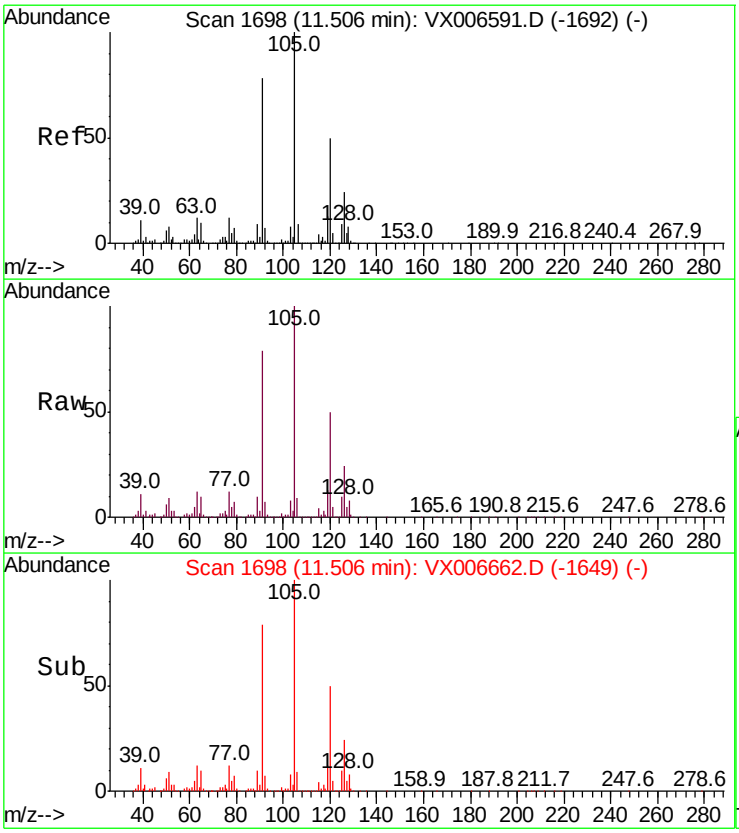


#79
2-Chlorotoluene
Concen: 49.867 ug/l
RT: 11.42 min Scan# 1684
Delta R.T. -0.00 min
Lab File: VX006662.D
Acq: 20 Dec 2018 09:00

Tgt Ion: 91 Resp: 1228784

Ion	Ratio	Lower	Upper
91	100		
126	37.2	18.6	56.0

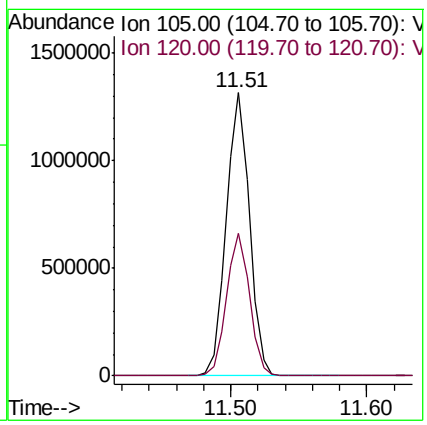


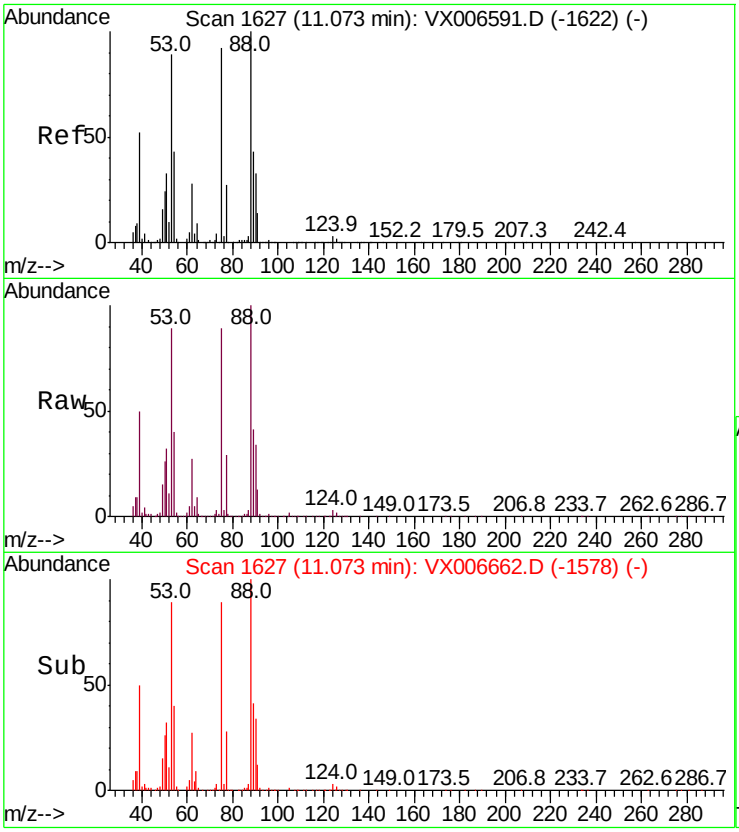


#80
1,3,5-Trimethylbenzene
Concen: 50.933 ug/l
RT: 11.51 min Scan# 1698
Delta R.T. -0.00 min
Lab File: VX006662.D
Acq: 20 Dec 2018 09:00

Tgt Ion:105 Resp: 1549044

Ion	Ratio	Lower	Upper
105	100		
120	50.0	25.1	75.3





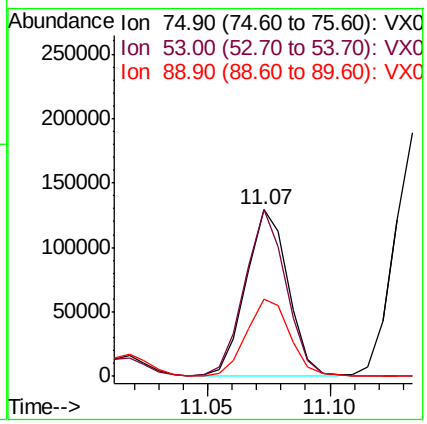
#81
trans-1,4-Dichloro-2-butene
Concen: 47.222 ug/l
RT: 11.07 min Scan# 1627
Delta R.T. 0.00 min
Lab File: VX006662.D
Acq: 20 Dec 2018 09:00

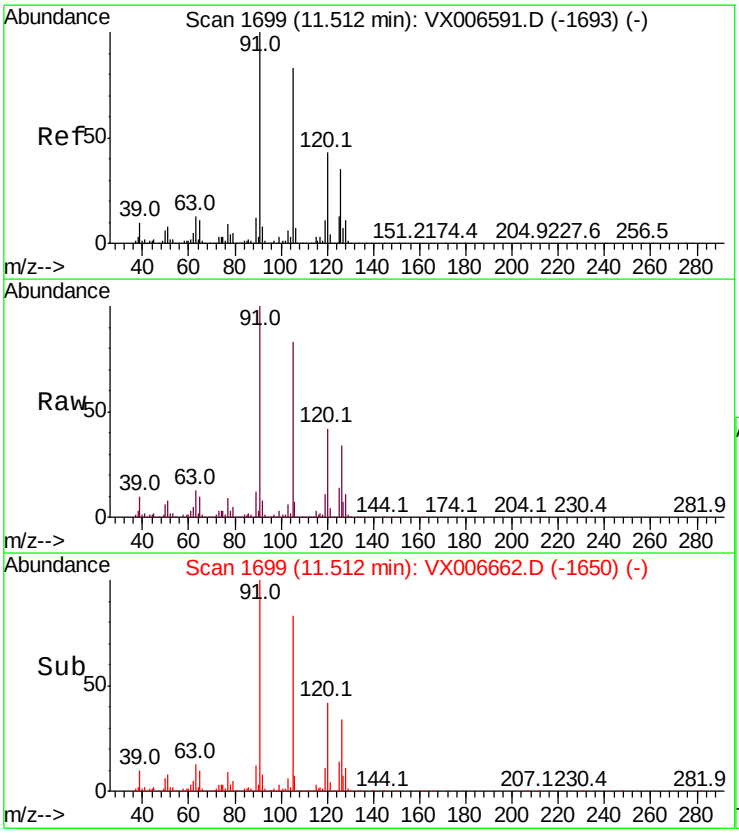
Tgt Ion: 75 Resp: 154797

Ion	Ratio	Lower	Upper
75	100		
53	98.6	79.7	119.5
89	48.2	38.0	57.0

Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

Manual Integrations APPROVED
MMDadoda
12/21/2018 10:18:50 AM

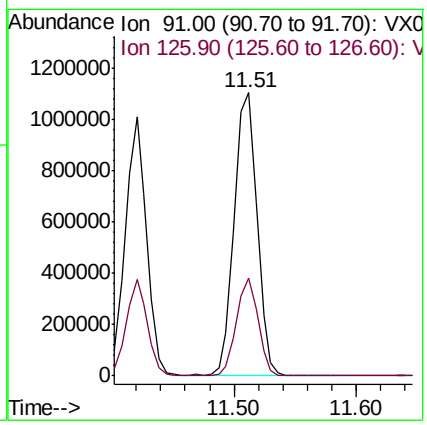




#82
4-Chlorotoluene
Concen: 50.333 ug/l
RT: 11.51 min Scan# 1699
Delta R.T. -0.00 min
Lab File: VX006662.D
Acq: 20 Dec 2018 09:00

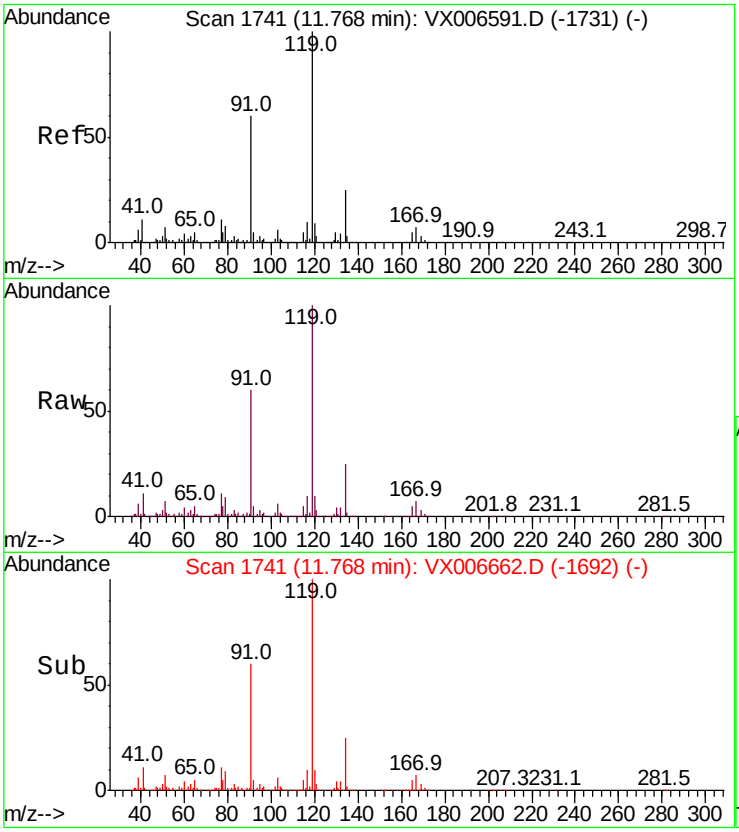
Tgt Ion: 91 Resp: 1422681

Ion	Ratio	Lower	Upper
91	100		
126	32.8	16.3	48.9



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

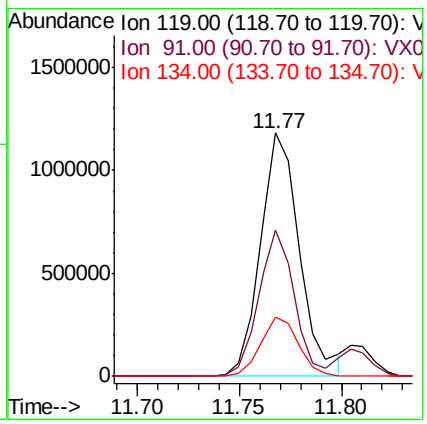
Manual Integrations APPROVED
MMDadoda
12/21/2018 10:18:50 AM

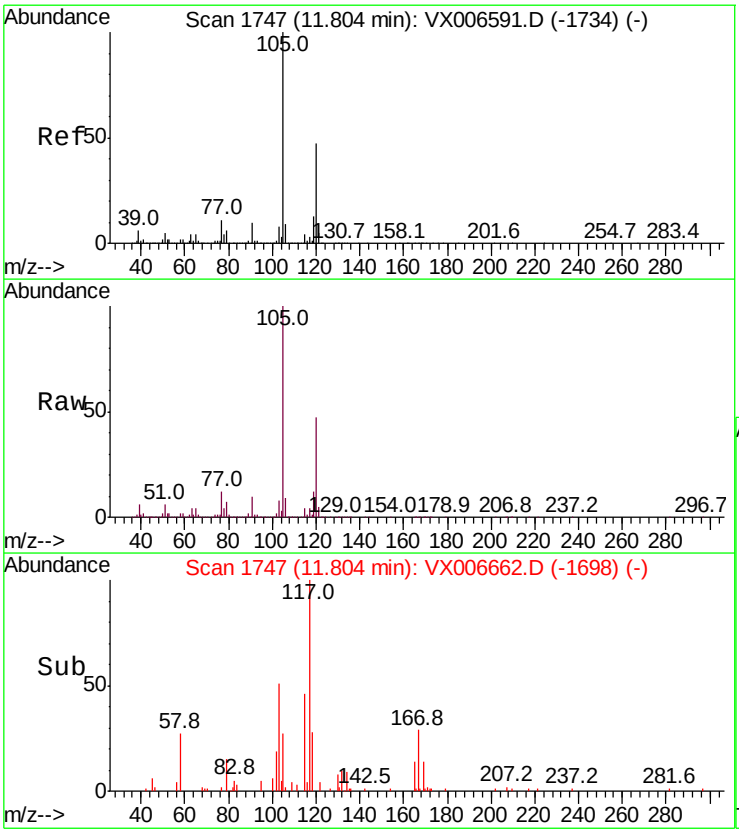


#83
tert-Butylbenzene
Concen: 51.875 ug/l
RT: 11.77 min Scan# 1741
Delta R.T. -0.00 min
Lab File: VX006662.D
Acq: 20 Dec 2018 09:00

Tgt Ion:119 Resp: 1579027

Ion	Ratio	Lower	Upper
119	100		
91	54.6	27.7	83.1
134	23.5	11.9	35.5

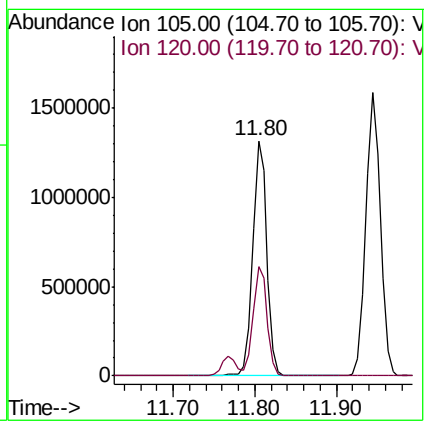




#84
1,2,4-Trimethylbenzene
Concen: 49.944 ug/l
RT: 11.80 min Scan# 1747
Delta R.T. -0.00 min
Lab File: VX006662.D
Acq: 20 Dec 2018 09:00

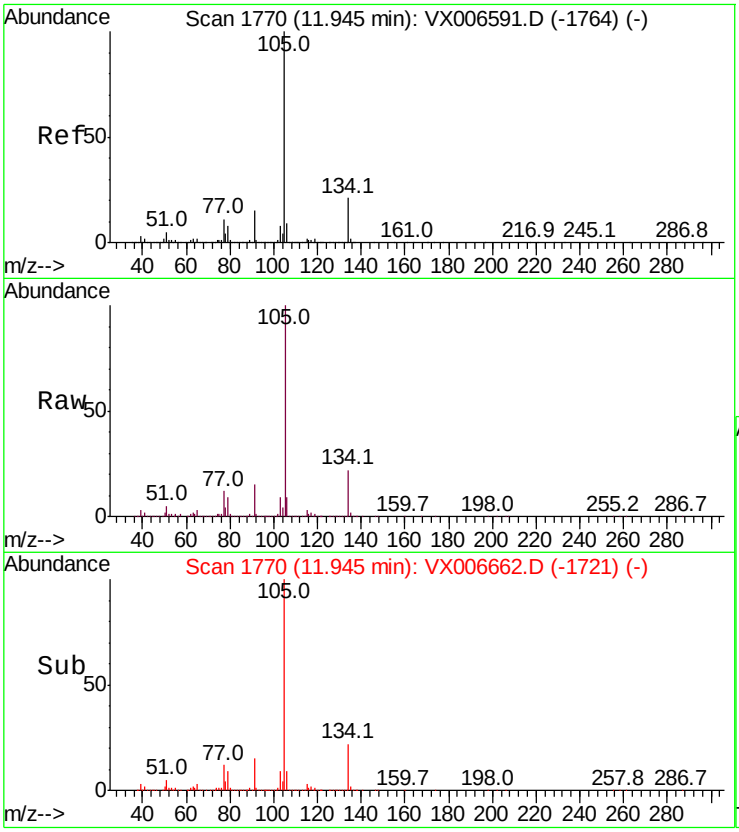
Tgt Ion:105 Resp: 1597702

Ion	Ratio	Lower	Upper
105	100		
120	46.1	23.2	69.6



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

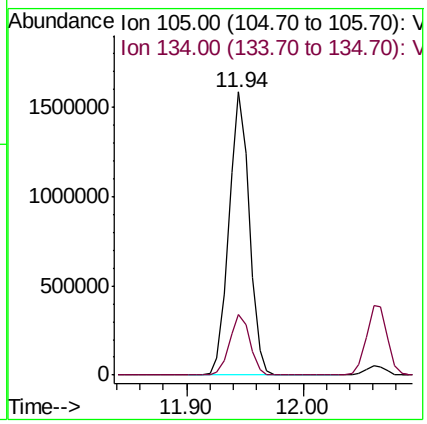
Manual Integrations APPROVED
MMDadoda
12/21/2018 10:18:50 AM

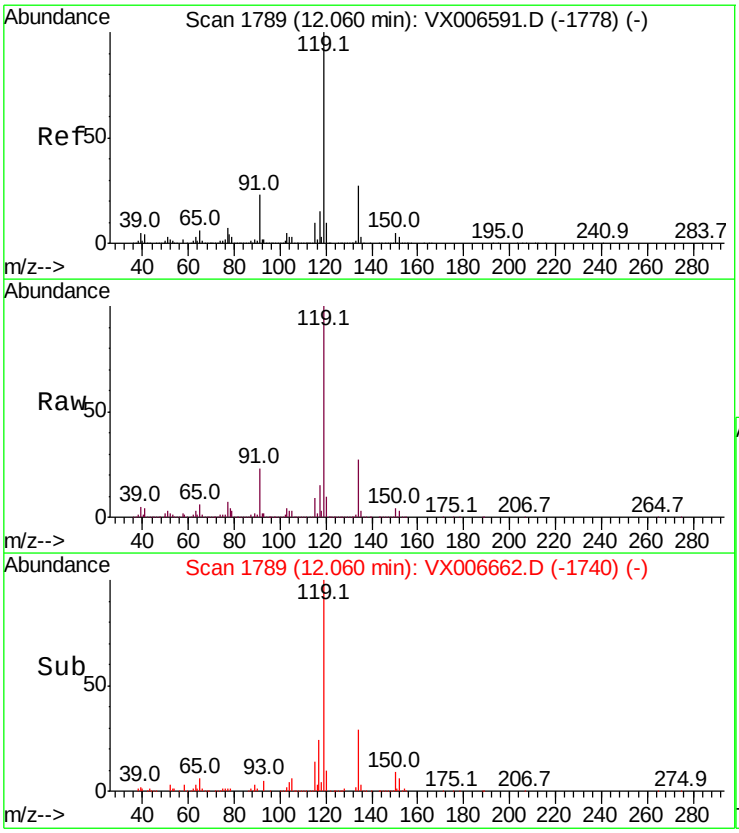


#85
sec-Butylbenzene
Concen: 51.450 ug/l
RT: 11.94 min Scan# 1770
Delta R.T. -0.00 min
Lab File: VX006662.D
Acq: 20 Dec 2018 09:00

Tgt Ion:105 Resp: 1920148

Ion	Ratio	Lower	Upper
105	100		
134	21.5	10.7	31.9

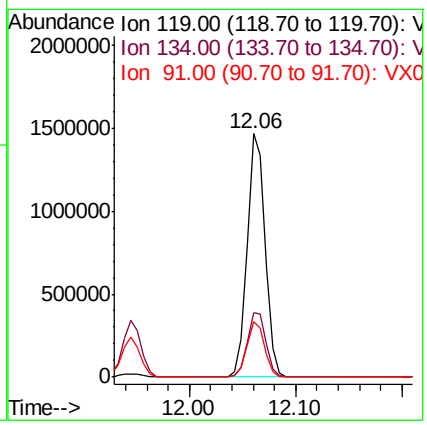




#86
p-Isopropyltoluene
Concen: 52.891 ug/l
RT: 12.06 min Scan# 1789
Delta R.T. -0.00 min
Lab File: VX006662.D
Acq: 20 Dec 2018 09:00

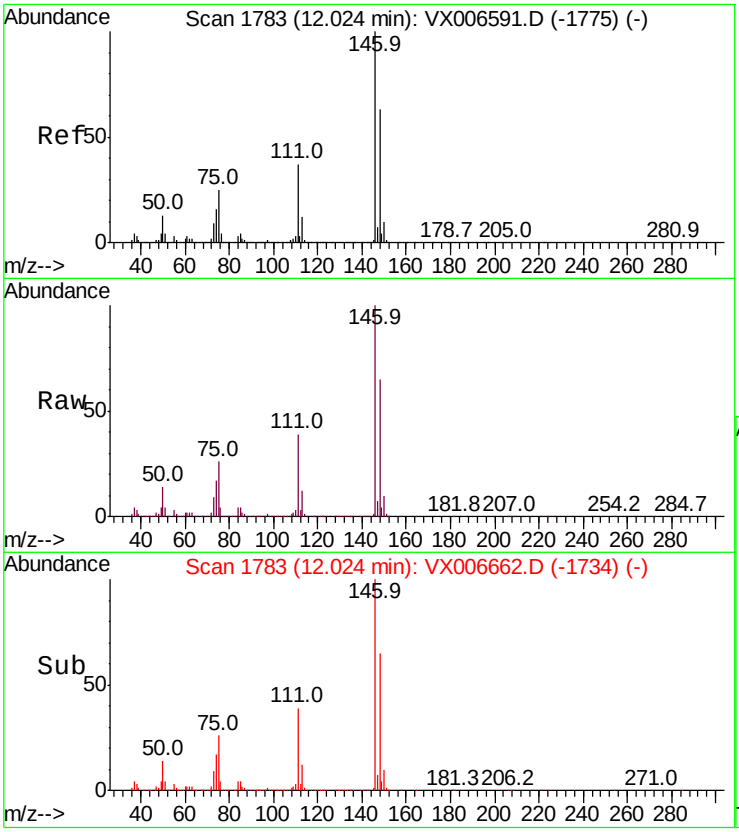
Tgt Ion:119 Resp: 1735161

Ion	Ratio	Lower	Upper
119	100		
134	27.6	14.0	41.9
91	22.7	11.3	33.9



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

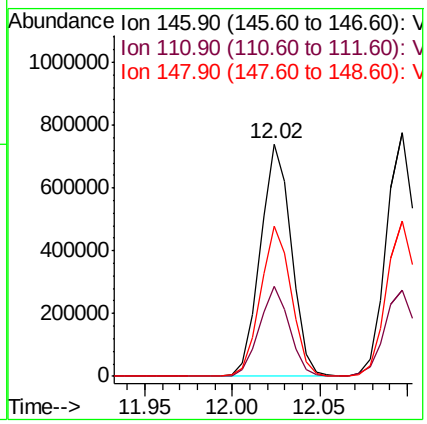
Manual Integrations APPROVED
MMDadoda
12/21/2018 10:18:50 AM

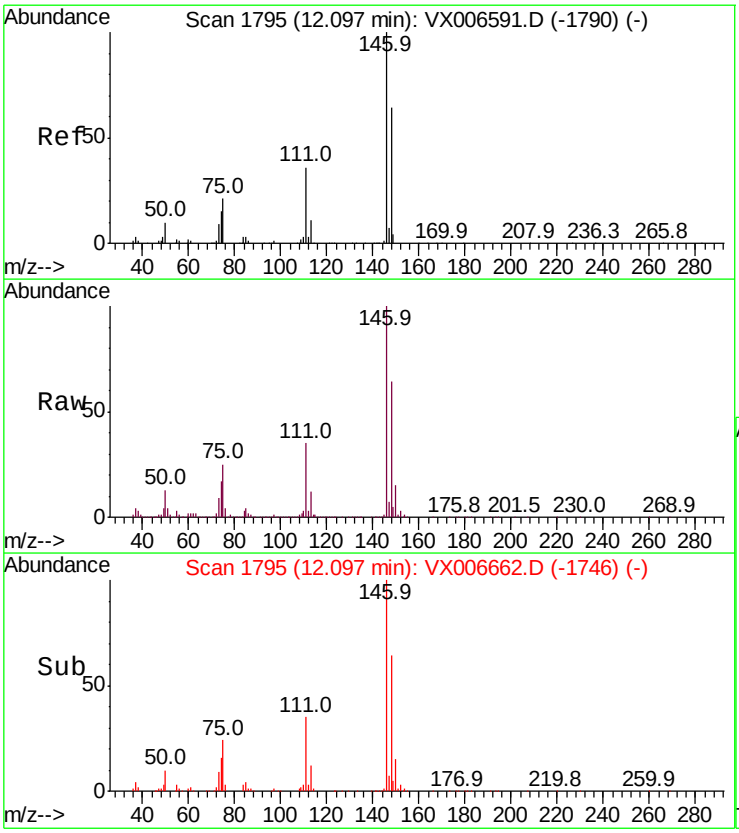


#87
1,3-Dichlorobenzene
Concen: 50.493 ug/l
RT: 12.02 min Scan# 1783
Delta R.T. -0.00 min
Lab File: VX006662.D
Acq: 20 Dec 2018 09:00

Tgt Ion:146 Resp: 908444

Ion	Ratio	Lower	Upper
146	100		
111	37.6	18.6	55.8
148	64.1	31.8	95.3

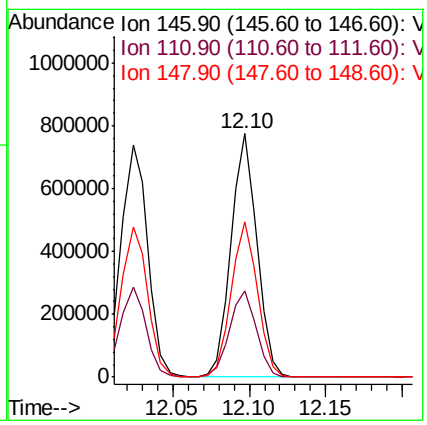




#88
1,4-Dichlorobenzene
Concen: 49.335 ug/l
RT: 12.10 min Scan# 1795
Delta R.T. -0.00 min
Lab File: VX006662.D
Acq: 20 Dec 2018 09:00

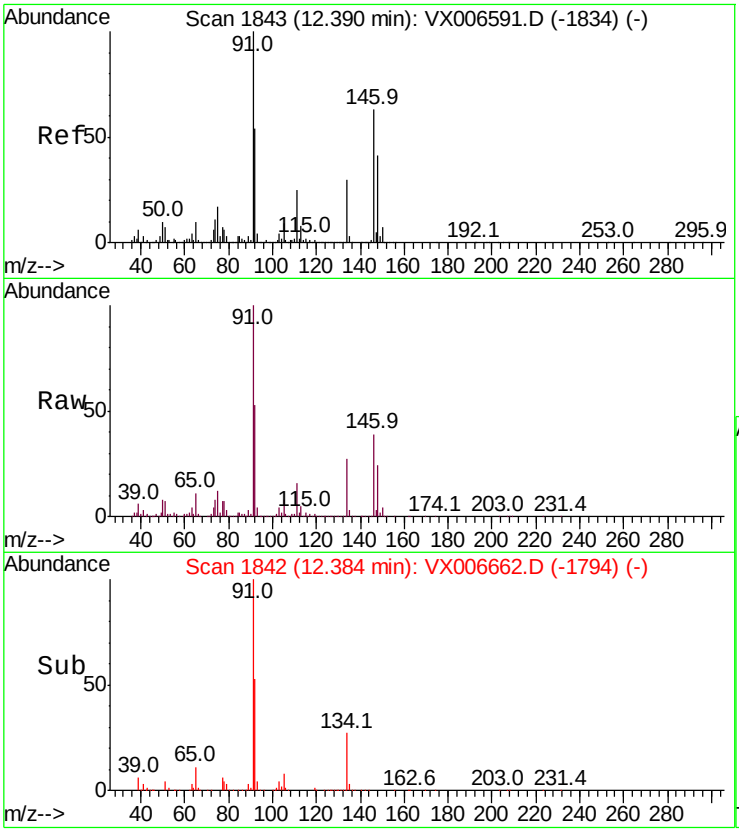
Tgt Ion:146 Resp: 909922

Ion	Ratio	Lower	Upper
146	100		
111	36.8	18.1	54.1
148	64.6	31.9	95.9



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

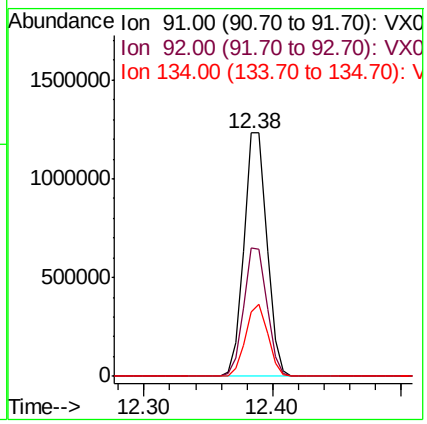
Manual Integrations APPROVED
MMDadoda
12/21/2018 10:18:50 AM

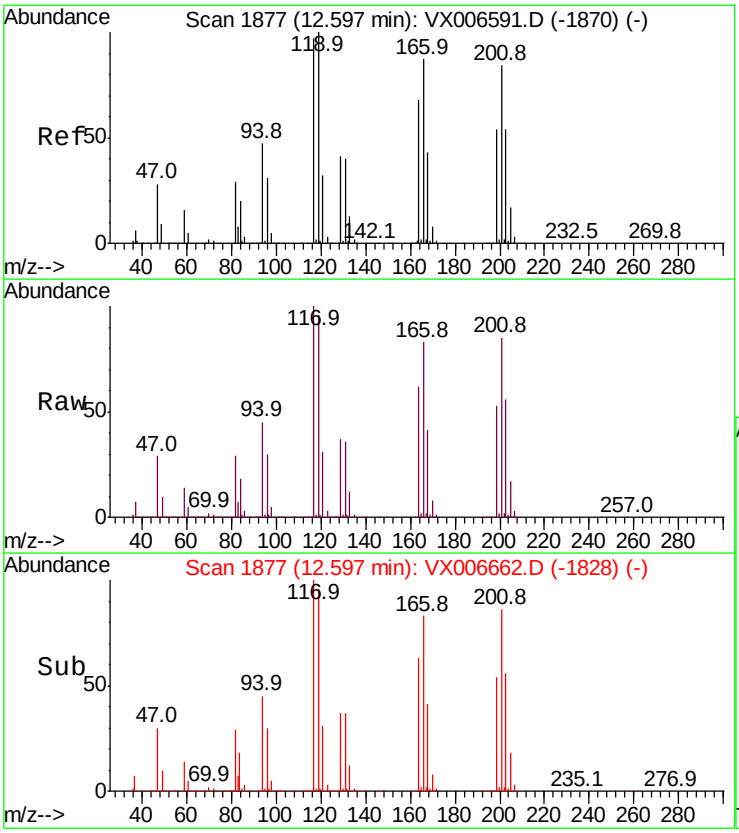


#89
n-Butylbenzene
Concen: 54.329 ug/l
RT: 12.38 min Scan# 1842
Delta R.T. -0.01 min
Lab File: VX006662.D
Acq: 20 Dec 2018 09:00

Tgt Ion: 91 Resp: 1516852

Ion	Ratio	Lower	Upper
91	100		
92	53.0	26.8	80.4
134	28.7	14.4	43.2

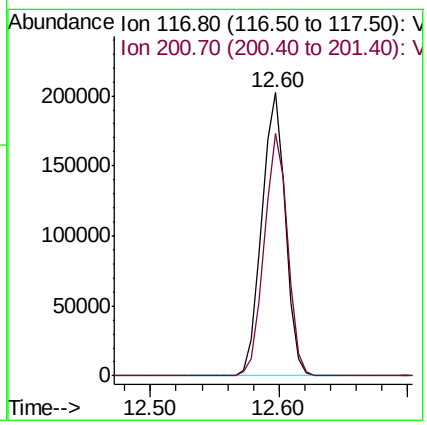


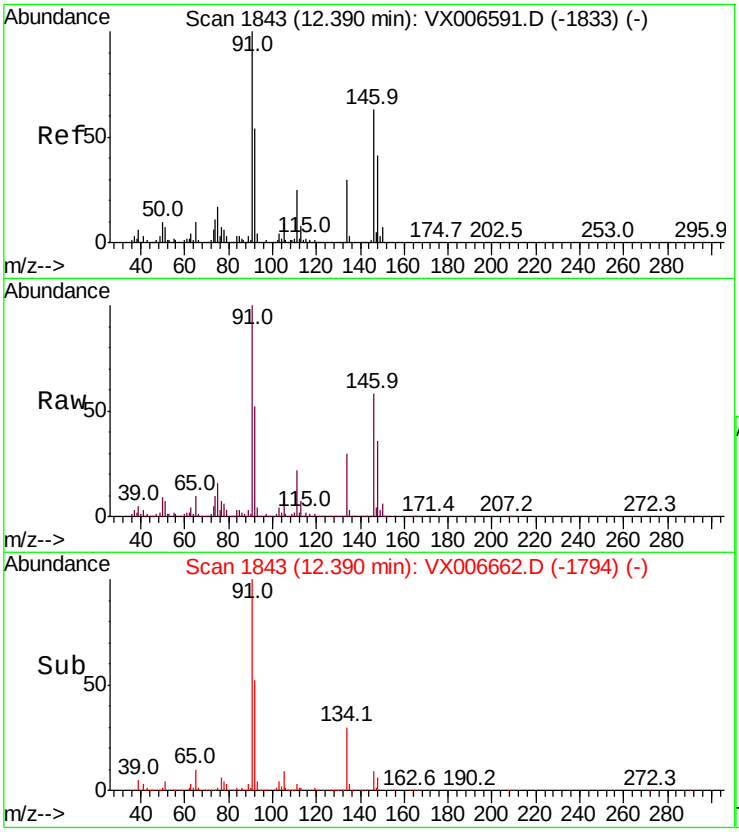


#90
Hexachloroethane
Concen: 49.519 ug/l
RT: 12.60 min Scan# 1877
Delta R.T. 0.00 min
Lab File: VX006662.D
Acq: 20 Dec 2018 09:00

Tgt Ion:117 Resp: 254072

Ion	Ratio	Lower	Upper
117	100		
201	85.3	42.9	128.7

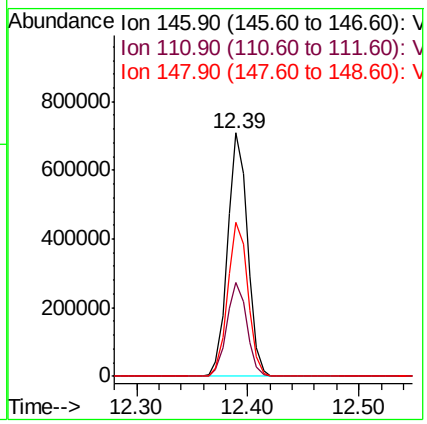




#91
1,2-Dichlorobenzene
Concen: 48.685 ug/l
RT: 12.39 min Scan# 1843
Delta R.T. -0.00 min
Lab File: VX006662.D
Acq: 20 Dec 2018 09:00

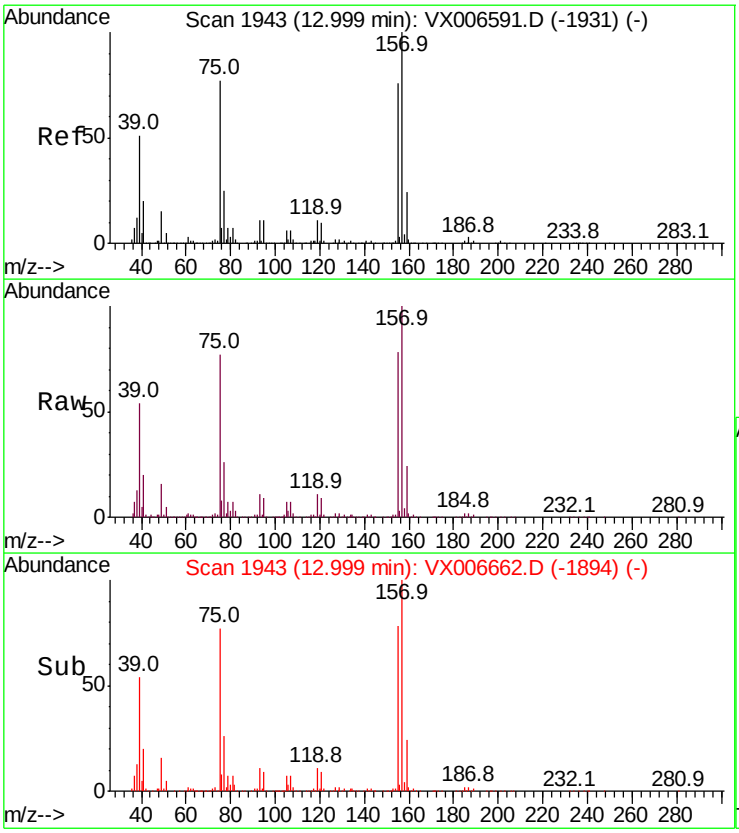
Tgt Ion:146 Resp: 876225

Ion	Ratio	Lower	Upper
146	100		
111	38.7	19.4	58.2
148	64.0	32.3	96.9



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

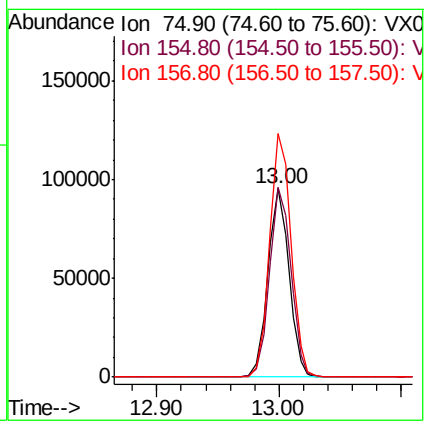
Manual Integrations APPROVED
MMDadoda
12/21/2018 10:18:50 AM



#92
1,2-Dibromo-3-Chloropropane
Concen: 50.524 ug/l
RT: 13.00 min Scan# 1943
Delta R.T. -0.00 min
Lab File: VX006662.D
Acq: 20 Dec 2018 09:00

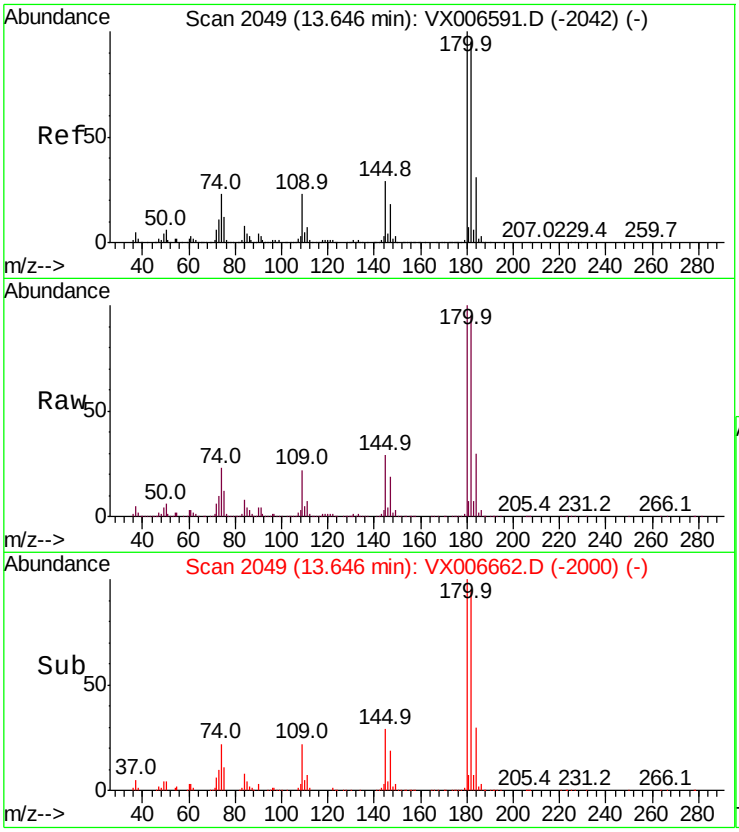
Tgt Ion: 75 Resp: 114802

Ion	Ratio	Lower	Upper
75	100		
155	101.9	50.6	151.8
157	130.3	64.6	193.8



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

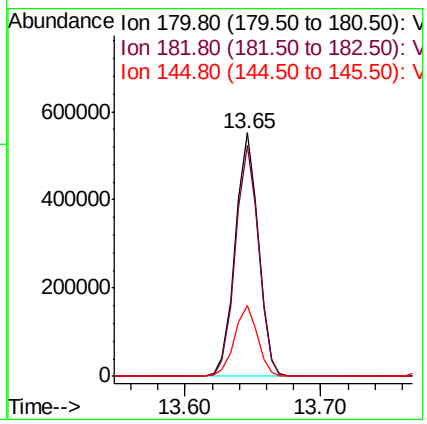
Manual Integrations APPROVED
MMDadoda
12/21/2018 10:18:50 AM

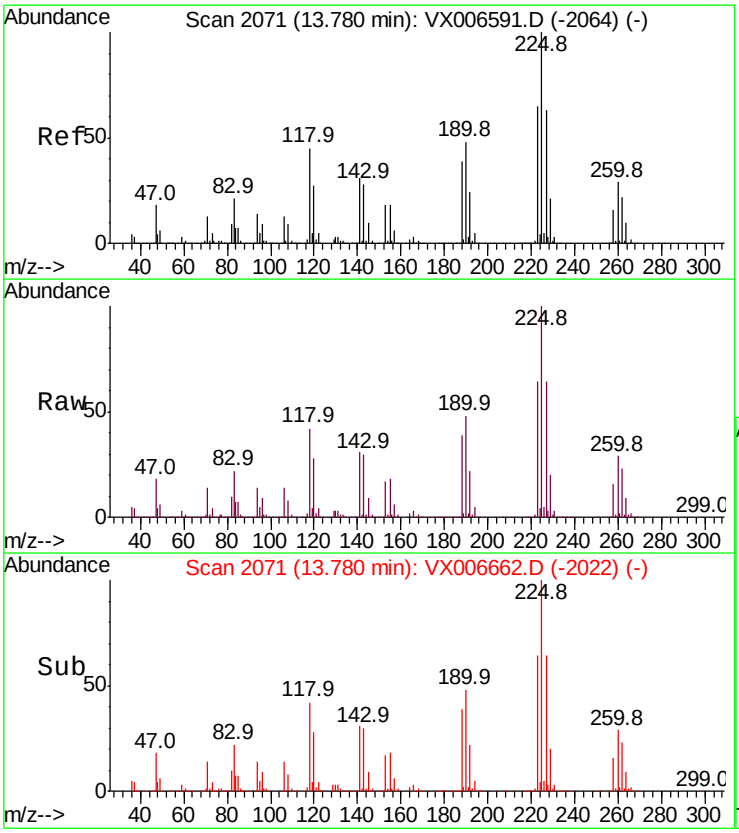


#93
1,2,4-Trichlorobenzene
Concen: 52.476 ug/l
RT: 13.65 min Scan# 2049
Delta R.T. -0.00 min
Lab File: VX006662.D
Acq: 20 Dec 2018 09:00

Tgt Ion:180 Resp: 651470

Ion	Ratio	Lower	Upper
180	100		
182	95.3	47.3	142.0
145	29.1	14.8	44.3

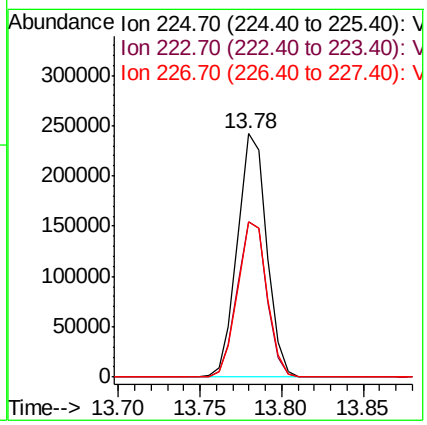




#94
Hexachlorobutadiene
Concen: 51.926 ug/l
RT: 13.78 min Scan# 2071
Delta R.T. -0.00 min
Lab File: VX006662.D
Acq: 20 Dec 2018 09:00

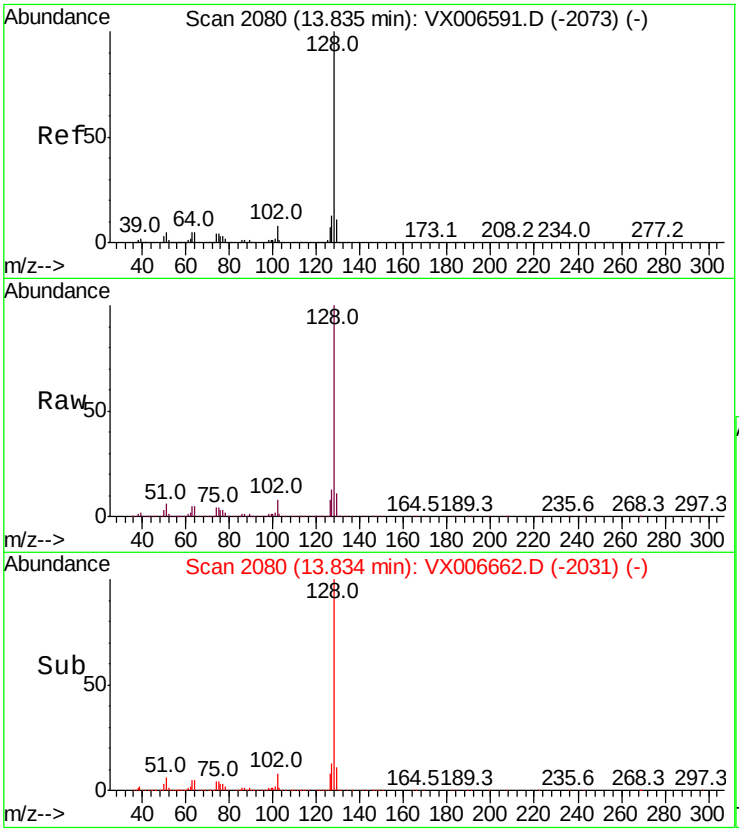
Tgt Ion:225 Resp: 303850

Ion	Ratio	Lower	Upper
225	100		
223	64.1	32.1	96.3
227	64.4	32.3	96.8



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

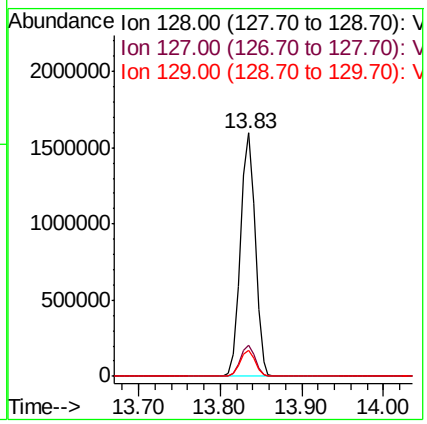
Manual Integrations APPROVED
MMDadoda
12/21/2018 10:18:50 AM

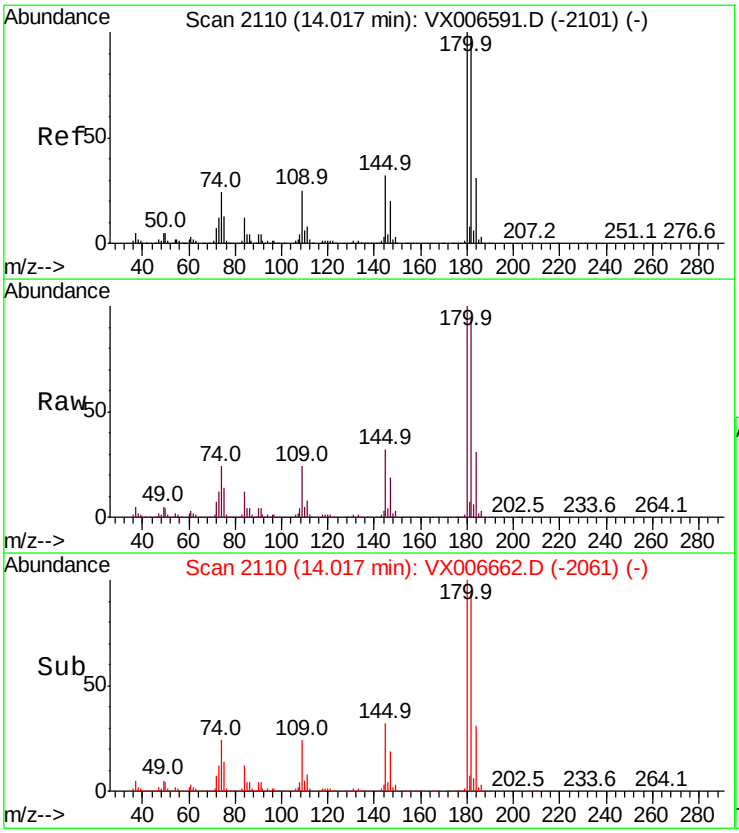


#95
Naphthalene
Concen: 49.639 ug/l
RT: 13.83 min Scan# 2080
Delta R.T. -0.00 min
Lab File: VX006662.D
Acq: 20 Dec 2018 09:00

Tgt Ion:128 Resp: 1966877

Ion	Ratio	Lower	Upper
128	100		
127	12.9	10.1	15.1
129	10.8	8.6	13.0

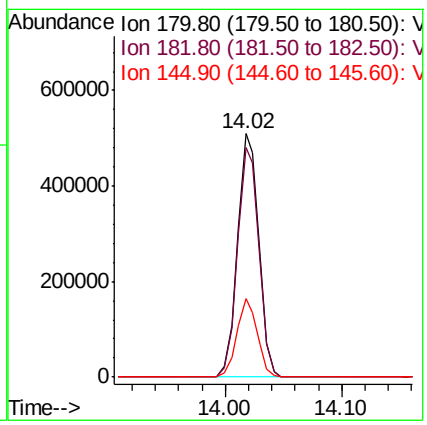




#96
1,2,3-Trichlorobenzene
Concen: 50.387 ug/l
RT: 14.02 min Scan# 2110
Delta R.T. -0.00 min
Lab File: VX006662.D
Acq: 20 Dec 2018 09:00

Tgt Ion:180 Resp: 645857

Ion	Ratio	Lower	Upper
180	100		
182	95.1	48.5	145.5
145	31.0	16.0	47.9



Evaluate Continuing Calibration Report

Data Path : Z:\voasrv\HPCHEM1\MSVOA X\Data\VX122018\
Data File : VX006662.D
Acq On : 20 Dec 2018 09:00
Operator : JC/MD
Sample : VSTDCCC050
Misc : 5.0mL/MSVOA X/WATER
ALS Vial : 2 Sample Multiplier: 1

Instrument : MSVOA_X
LabSampleId : VSTDCCC050

Quant Time: Dec 21 03:44:35 2018
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121818W.M
Quant Title : SW846 8260
QLast Update : Wed Dec 19 15:20:58 2018
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	Pentafluorobenzene	50.000	50.000	0.0	118	0.00
2	T	Dichlorodifluoromethane	50.000	47.036	5.9	116	0.00
3	P	Chloromethane	50.000	46.923	6.2	116	0.00
4	C	Vinyl Chloride	50.000	47.022	6.0#	116	0.00
5	T	Bromomethane	50.000	51.774	-3.5	120	0.00
6	T	Chloroethane	50.000	43.578	12.8	115	0.00
7	T	Trichlorofluoromethane	50.000	47.723	4.6	116	0.00
8	T	Diethyl Ether	50.000	46.287	7.4	116	0.00
9	T	1,1,2-Trichlorotrifluoroeth	50.000	49.883	0.2	122	0.00
10	T	Methyl Iodide	50.000	52.233	-4.5	116	0.00
11	T	Tert butyl alcohol	250.000	228.748	8.5	110	0.00
12	CM	1,1-Dichloroethene	50.000	46.951	6.1#	117	0.00
13	T	Acrolein	250.000	201.102	19.6	99	0.00
14	T	Allyl chloride	50.000	47.941	4.1	116	0.00
15	T	Acrylonitrile	250.000	236.313	5.5	113	0.00
16	T	Acetone	250.000	252.266	-0.9	125	0.00
17	T	Carbon Disulfide	50.000	45.397	9.2	114	0.00
18	T	Methyl Acetate	50.000	47.692	4.6	116	0.00
19	T	Methyl tert-butyl Ether	50.000	48.834	2.3	117	0.00
20	T	Methylene Chloride	50.000	45.825	8.3	117	0.00
21	T	trans-1,2-Dichloroethene	50.000	45.763	8.5	117	0.00
22	T	Diisopropyl ether	50.000	51.112	-2.2	122	0.00
23	T	Vinyl Acetate	250.000	262.498	-5.0	125	0.00
24	P	1,1-Dichloroethane	50.000	48.449	3.1	122	0.00
25	T	2-Butanone	250.000	244.325	2.3	118	0.00
26	T	2,2-Dichloropropane	50.000	49.223	1.6	119	0.00
27	T	cis-1,2-Dichloroethene	50.000	47.408	5.2	115	0.00
28	T	Bromochloromethane	50.000	49.841	0.3	115	0.00
29	T	Tetrahydrofuran	250.000	236.080	5.6	114	0.00
30	C	Chloroform	50.000	48.590	2.8#	118	0.00
31	T	Cyclohexane	50.000	48.570	2.9	118	0.00
32	T	1,1,1-Trichloroethane	50.000	49.591	0.8	116	0.00
33	S	1,2-Dichloroethane-d4	50.000	46.355	7.3	109	0.00
34	I	1,4-Difluorobenzene	50.000	50.000	0.0	113	0.00
35	S	Dibromofluoromethane	50.000	49.433	1.1	112	0.00
36	T	1,1-Dichloropropene	50.000	50.702	-1.4	118	0.00
37	T	Ethyl Acetate	50.000	49.836	0.3	118	0.00
38	T	Carbon Tetrachloride	50.000	51.782	-3.6	118	0.00
39	T	Methylcyclohexane	50.000	51.070	-2.1	121	0.00
40	TM	Benzene	50.000	49.805	0.4	116	0.00
41	T	Methacrylonitrile	50.000	51.681	-3.4	114	0.00
42	TM	1,2-Dichloroethane	50.000	49.020	2.0	118	0.00
43	T	Isopropyl Acetate	50.000	52.815	-5.6	119	0.00
44	TM	Trichloroethene	50.000	49.462	1.1	119	0.00
45	C	1,2-Dichloropropane	50.000	50.964	-1.9#	122	0.00

Evaluate Continuing Calibration Report

Data Path : Z:\voasrv\HPCHEM1\MSVOA X\Data\VX122018\
Data File : VX006662.D
Acq On : 20 Dec 2018 09:00
Operator : JC/MD
Sample : VSTDCCC050
Misc : 5.0mL/MSVOA X/WATER
ALS Vial : 2 Sample Multiplier: 1

Instrument : MSVOA_X
LabSampleId : VSTDCCC050

Quant Time: Dec 21 03:44:35 2018
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121818W.M
Quant Title : SW846 8260
QLast Update : Wed Dec 19 15:20:58 2018
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
46	T	Dibromomethane	50.000	49.347	1.3	115	0.00
47	T	Bromodichloromethane	50.000	52.923	-5.8	119	0.00
48	T	Methyl methacrylate	50.000	53.460	-6.9	118	0.00
49	T	1,4-Dioxane	1000.000	1010.459	-1.0	112	0.00
50	S	Toluene-d8	50.000	49.835	0.3	113	0.00
51	T	4-Methyl-2-Pentanone	250.000	262.678	-5.1	117	0.00
52	CM	Toluene	50.000	51.824	-3.6#	119	0.00
53	T	t-1,3-Dichloropropene	50.000	56.047	-12.1	120	0.00
54	T	cis-1,3-Dichloropropene	50.000	55.843	-11.7	119	0.00
55	T	1,1,2-Trichloroethane	50.000	51.575	-3.2	120	0.00
56	T	Ethyl methacrylate	50.000	53.557	-7.1	116	0.00
57	T	1,3-Dichloropropane	50.000	50.311	-0.6	118	0.00
58	T	2-Chloroethyl Vinyl ether	250.000	249.322	0.3	114	0.00
59	T	2-Hexanone	250.000	268.096	-7.2	119	0.00
60	T	Dibromochloromethane	50.000	50.499	-1.0	122	0.00
61	T	1,2-Dibromoethane	50.000	52.573	-5.1	118	0.00
62	S	4-Bromofluorobenzene	50.000	51.360	-2.7	114	0.00
63	I	Chlorobenzene-d5	50.000	50.000	0.0	116	0.00
64	T	Tetrachloroethene	50.000	49.121	1.8	121	0.00
65	PM	Chlorobenzene	50.000	49.554	0.9	119	0.00
66	T	1,1,1,2-Tetrachloroethane	50.000	54.149	-8.3	121	0.00
67	C	Ethyl Benzene	50.000	50.316	-0.6#	120	0.00
68	T	m/p-Xylenes	100.000	102.024	-2.0	120	0.00
69	T	o-Xylene	50.000	50.530	-1.1	118	0.00
70	T	Styrene	50.000	52.134	-4.3	118	0.00
71	P	Bromoform	50.000	46.693	6.6	120	0.00
72	I	1,4-Dichlorobenzene-d4	50.000	50.000	0.0	116	0.00
73	T	Isopropylbenzene	50.000	50.700	-1.4	120	0.00
74	T	N-amyl acetate	50.000	52.857	-5.7	120	0.00
75	P	1,1,2,2-Tetrachloroethane	50.000	49.753	0.5	116	0.00
76	T	1,2,3-Trichloropropane	50.000	51.266	-2.5	115	0.00
77	T	Bromobenzene	50.000	50.061	-0.1	117	0.00
78	T	n-propylbenzene	50.000	52.215	-4.4	122	0.00
79	T	2-Chlorotoluene	50.000	49.867	0.3	120	0.00
80	T	1,3,5-Trimethylbenzene	50.000	50.933	-1.9	119	0.00
81	T	trans-1,4-Dichloro-2-butene	50.000	47.222	5.6	122	0.00
82	T	4-Chlorotoluene	50.000	50.333	-0.7	120	0.00
83	T	tert-Butylbenzene	50.000	51.875	-3.8	119	0.00
84	T	1,2,4-Trimethylbenzene	50.000	49.944	0.1	120	0.00
85	T	sec-Butylbenzene	50.000	51.450	-2.9	120	0.00
86	T	p-Isopropyltoluene	50.000	52.891	-5.8	122	0.00
87	T	1,3-Dichlorobenzene	50.000	50.493	-1.0	119	0.00
88	T	1,4-Dichlorobenzene	50.000	49.335	1.3	119	0.00
89	T	n-Butylbenzene	50.000	54.329	-8.7	126	0.00

Evaluate Continuing Calibration Report

Data Path : Z:\voasrv\HPCHEM1\MSVOA X\Data\VX122018\
Data File : VX006662.D
Acq On : 20 Dec 2018 09:00
Operator : JC/MD
Sample : VSTDCCC050
Misc : 5.0mL/MSVOA X/WATER
ALS Vial : 2 Sample Multiplier: 1

Instrument : MSVOA_X
LabSampleId : VSTDCCC050

Quant Time: Dec 21 03:44:35 2018
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121818W.M
Quant Title : SW846 8260
QLast Update : Wed Dec 19 15:20:58 2018
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
90 T	Hexachloroethane	50.000	49.519	1.0	126	0.00
91 T	1,2-Dichlorobenzene	50.000	48.685	2.6	117	0.00
92 T	1,2-Dibromo-3-Chloropropane	50.000	50.524	-1.0	115	0.00
93 T	1,2,4-Trichlorobenzene	50.000	52.476	-5.0	123	0.00
94 T	Hexachlorobutadiene	50.000	51.926	-3.9	127	0.00
95 T	Naphthalene	50.000	49.639	0.7	117	0.00
96 T	1,2,3-Trichlorobenzene	50.000	50.387	-0.8	123	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 6

Evaluate Continuing Calibration Report

Data Path : Z:\voasrv\HPCHEM1\MSVOA X\Data\VX122018\
Data File : VX006662.D
Acq On : 20 Dec 2018 09:00
Operator : JC/MD
Sample : VSTDCCC050
Misc : 5.0mL/MSVOA X/WATER
ALS Vial : 2 Sample Multiplier: 1

Instrument : MSVOA_X
LabSampleId : VSTDCCC050

Quant Time: Dec 21 03:44:35 2018
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121818W.M
Quant Title : SW846 8260
QLast Update : Wed Dec 19 15:20:58 2018
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	Pentafluorobenzene	1.000	1.000	0.0	118	0.00
2	T	Dichlorodifluoromethane	0.457	0.430	5.9	116	0.00
3	P	Chloromethane	0.493	0.462	6.3	116	0.00
4	C	Vinyl Chloride	0.515	0.484	6.0#	116	0.00
5	T	Bromomethane	0.560	0.497	11.3	120	0.00
6	T	Chloroethane	0.356	0.311	12.6	115	0.00
7	T	Trichlorofluoromethane	0.802	0.766	4.5	116	0.00
8	T	Diethyl Ether	0.319	0.295	7.5	116	0.00
9	T	1,1,2-Trichlorotrifluoroeth	0.471	0.470	0.2	122	0.00
10	T	Methyl Iodide	0.674	0.705	-4.6	116	0.00
11	T	Tert butyl alcohol	0.120	0.110	8.3	110	0.00
12	CM	1,1-Dichloroethene	0.447	0.419	6.3#	117	0.00
13	T	Acrolein	0.081	0.065	19.8	99	0.00
14	T	Allyl chloride	0.752	0.721	4.1	116	0.00
15	T	Acrylonitrile	0.267	0.252	5.6	113	0.00
16	T	Acetone	0.248	0.250	-0.8	125	0.00
17	T	Carbon Disulfide	1.182	1.073	9.2	114	0.00
18	T	Methyl Acetate	0.728	0.694	4.7	116	0.00
19	T	Methyl tert-butyl Ether	1.483	1.448	2.4	117	0.00
20	T	Methylene Chloride	0.512	0.469	8.4	117	0.00
21	T	trans-1,2-Dichloroethene	0.495	0.453	8.5	117	0.00
22	T	Diisopropyl ether	1.376	1.406	-2.2	122	0.00
23	T	Vinyl Acetate	1.125	1.182	-5.1	125	0.00
24	P	1,1-Dichloroethane	0.821	0.796	3.0	122	0.00
25	T	2-Butanone	0.348	0.340	2.3	118	0.00
26	T	2,2-Dichloropropane	0.634	0.624	1.6	119	0.00
27	T	cis-1,2-Dichloroethene	0.546	0.518	5.1	115	0.00
28	T	Bromochloromethane	0.378	0.345	8.7	115	0.00
29	T	Tetrahydrofuran	0.229	0.217	5.2	114	0.00
30	C	Chloroform	0.850	0.826	2.8#	118	0.00
31	T	Cyclohexane	0.746	0.725	2.8	118	0.00
32	T	1,1,1-Trichloroethane	0.718	0.712	0.8	116	0.00
33	S	1,2-Dichloroethane-d4	0.539	0.500	7.2	109	0.00
34	I	1,4-Difluorobenzene	1.000	1.000	0.0	113	0.00
35	S	Dibromofluoromethane	0.316	0.313	0.9	112	0.00
36	T	1,1-Dichloropropene	0.414	0.420	-1.4	118	0.00
37	T	Ethyl Acetate	0.431	0.430	0.2	118	0.00
38	T	Carbon Tetrachloride	0.402	0.417	-3.7	118	0.00
39	T	Methylcyclohexane	0.545	0.557	-2.2	121	0.00
40	TM	Benzene	1.259	1.254	0.4	116	0.00
41	T	Methacrylonitrile	0.229	0.237	-3.5	114	0.00
42	TM	1,2-Dichloroethane	0.429	0.421	1.9	118	0.00
43	T	Isopropyl Acetate	0.656	0.693	-5.6	119	0.00
44	TM	Trichloroethene	0.381	0.377	1.0	119	0.00
45	C	1,2-Dichloropropane	0.306	0.312	-2.0#	122	0.00

Evaluate Continuing Calibration Report

Data Path : Z:\voasrv\HPCHEM1\MSVOA X\Data\VX122018\
Data File : VX006662.D
Acq On : 20 Dec 2018 09:00
Operator : JC/MD
Sample : VSTDCCC050
Misc : 5.0mL/MSVOA X/WATER
ALS Vial : 2 Sample Multiplier: 1

Instrument : MSVOA_X
LabSampleId : VSTDCCC050

Quant Time: Dec 21 03:44:35 2018
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121818W.M
Quant Title : SW846 8260
QLast Update : Wed Dec 19 15:20:58 2018
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
46	T	Dibromomethane	0.225	0.222	1.3	115	0.00
47	T	Bromodichloromethane	0.374	0.396	-5.9	119	0.00
48	T	Methyl methacrylate	0.334	0.357	-6.9	118	0.00
49	T	1,4-Dioxane	0.009	0.009	0.0	112	0.00
50	S	Toluene-d8	1.192	1.188	0.3	113	0.00
51	T	4-Methyl-2-Pentanone	0.417	0.438	-5.0	117	0.00
52	CM	Toluene	0.813	0.843	-3.7#	119	0.00
53	T	t-1,3-Dichloropropene	0.401	0.450	-12.2	120	0.00
54	T	cis-1,3-Dichloropropene	0.440	0.492	-11.8	119	0.00
55	T	1,1,2-Trichloroethane	0.333	0.343	-3.0	120	0.00
56	T	Ethyl methacrylate	0.470	0.504	-7.2	116	0.00
57	T	1,3-Dichloropropane	0.536	0.539	-0.6	118	0.00
58	T	2-Chloroethyl Vinyl ether	0.250	0.249	0.4	114	0.00
59	T	2-Hexanone	0.319	0.342	-7.2	119	0.00
60	T	Dibromochloromethane	0.307	0.352	-14.7	122	0.00
61	T	1,2-Dibromoethane	0.354	0.372	-5.1	118	0.00
62	S	4-Bromofluorobenzene	0.437	0.448	-2.5	114	0.00
63	I	Chlorobenzene-d5	1.000	1.000	0.0	116	0.00
64	T	Tetrachloroethene	0.396	0.389	1.8	121	0.00
65	PM	Chlorobenzene	1.058	1.048	0.9	119	0.00
66	T	1,1,1,2-Tetrachloroethane	0.330	0.357	-8.2	121	0.00
67	C	Ethyl Benzene	1.729	1.739	-0.6#	120	0.00
68	T	m/p-Xylenes	0.682	0.696	-2.1	120	0.00
69	T	o-Xylene	0.674	0.681	-1.0	118	0.00
70	T	Styrene	1.066	1.111	-4.2	118	0.00
71	P	Bromoform	0.251	0.276	-10.0	120	0.00
72	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	116	0.00
73	T	Isopropylbenzene	3.421	3.469	-1.4	120	0.00
74	T	N-amyl acetate	1.224	1.294	-5.7	120	0.00
75	P	1,1,2,2-Tetrachloroethane	1.017	1.012	0.5	116	0.00
76	T	1,2,3-Trichloropropane	0.929	0.953	-2.6	115	0.00
77	T	Bromobenzene	0.925	0.926	-0.1	117	0.00
78	T	n-propylbenzene	3.767	3.934	-4.4	122	0.00
79	T	2-Chlorotoluene	2.283	2.277	0.3	120	0.00
80	T	1,3,5-Trimethylbenzene	2.817	2.870	-1.9	119	0.00
81	T	trans-1,4-Dichloro-2-butene	0.259	0.287	-10.8	122	0.00
82	T	4-Chlorotoluene	2.618	2.636	-0.7	120	0.00
83	T	tert-Butylbenzene	2.820	2.926	-3.8	119	0.00
84	T	1,2,4-Trimethylbenzene	2.963	2.960	0.1	120	0.00
85	T	sec-Butylbenzene	3.457	3.558	-2.9	120	0.00
86	T	p-Isopropyltoluene	3.039	3.215	-5.8	122	0.00
87	T	1,3-Dichlorobenzene	1.667	1.683	-1.0	119	0.00
88	T	1,4-Dichlorobenzene	1.709	1.686	1.3	119	0.00
89	T	n-Butylbenzene	2.586	2.810	-8.7	126	0.00

Evaluate Continuing Calibration Report

Instrument :
MSVOA_X
LabSampleId :
VSTDCCC050

Data Path : Z:\voasrv\HPCHEM1\MSVOA X\Data\VX122018\
Data File : VX006662.D
Acq On : 20 Dec 2018 09:00
Operator : JC/MD
Sample : VSTDCCC050
Misc : 5.0mL/MSVOA X/WATER
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 21 03:44:35 2018
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121818W.M
Quant Title : SW846 8260
QLast Update : Wed Dec 19 15:20:58 2018
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
90 T	Hexachloroethane	0.414	0.471	-13.8	126	0.00
91 T	1,2-Dichlorobenzene	1.667	1.623	2.6	117	0.00
92 T	1,2-Dibromo-3-Chloropropane	0.210	0.213	-1.4	115	0.00
93 T	1,2,4-Trichlorobenzene	1.150	1.207	-5.0	123	0.00
94 T	Hexachlorobutadiene	0.542	0.563	-3.9	127	0.00
95 T	Naphthalene	3.671	3.644	0.7	117	0.00
96 T	1,2,3-Trichlorobenzene	1.187	1.197	-0.8	123	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 6

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: DAYE01

Lab Code: CHEM Case No.: J6484 SAS No.: J6484 SDG No.: J6484

Instrument ID: MSVOA_X Calibration Date/Time: 12/21/2018 09:07

Lab File ID: VX006713.D Init. Calib. Date(s): 12/18/2018 12/18/2018

Heated Purge: (Y/N) N Init. Calib. Time(s): 10:45 12:57

GC Column: DB-624UI ID: 0.18 (mm)

COMPOUND	RRF	RRF050	MIN RRF	%D	MAX%D
Dichlorodifluoromethane	0.457	0.408		-10.72	20
Chloromethane	0.493	0.401	0.1	-18.66	20
Vinyl Chloride	0.515	0.464		-9.9	20
Bromomethane	0.560	0.420		-25	20
Chloroethane	0.356	0.301		-15.45	20
Trichlorofluoromethane	0.802	0.756		-5.74	20
1,1,2-Trichlorotrifluoroethane	0.471	0.458		-2.76	20
1,1-Dichloroethene	0.447	0.410		-8.28	20
Acetone	0.248	0.280		12.9	20
Carbon Disulfide	1.182	0.995		-15.82	20
Methyl tert-butyl Ether	1.483	1.451		-2.16	20
Methyl Acetate	0.728	0.725		-0.41	20
Methylene Chloride	0.512	0.459		-10.35	20
trans-1,2-Dichloroethene	0.495	0.441		-10.91	20
1,1-Dichloroethane	0.821	0.763	0.1	-7.07	20
Cyclohexane	0.746	0.687		-7.91	20
2-Butanone	0.348	0.355		2.01	20
Carbon Tetrachloride	0.402	0.406		1	20
cis-1,2-Dichloroethene	0.546	0.513		-6.04	20
Bromochloromethane	0.378	0.342		-9.52	20
Chloroform	0.850	0.800		-5.88	20
1,1,1-Trichloroethane	0.718	0.683		-4.88	20
Methylcyclohexane	0.545	0.539		-1.1	20
Benzene	1.259	1.242		-1.35	20
1,2-Dichloroethane	0.429	0.413		-3.73	20
Trichloroethene	0.381	0.368		-3.41	20
1,2-Dichloropropane	0.306	0.311		1.63	20
Bromodichloromethane	0.374	0.380		1.6	20
4-Methyl-2-Pentanone	0.417	0.435		4.32	20
Toluene	0.813	0.816		0.37	20
t-1,3-Dichloropropene	0.401	0.427		6.48	20
cis-1,3-Dichloropropene	0.440	0.475		7.95	20
1,1,2-Trichloroethane	0.333	0.330		-0.9	20
2-Hexanone	0.319	0.339		6.27	20
Dibromochloromethane	0.307	0.331		7.82	20
1,2-Dibromoethane	0.354	0.362		2.26	20
Tetrachloroethene	0.396	0.395		-0.25	20
Chlorobenzene	1.058	1.056	0.3	-0.19	20
Ethyl Benzene	1.729	1.737		0.46	20

All other compounds must meet a minimum RRF of 0.010.
RRF of 1,4-Dioxane = Value should be divide by 1000.

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: DAYE01

Lab Code: CHEM Case No.: J6484 SAS No.: J6484 SDG No.: J6484

Instrument ID: MSVOA_X Calibration Date/Time: 12/21/2018 09:07

Lab File ID: VX006713.D Init. Calib. Date(s): 12/18/2018 12/18/2018

Heated Purge: (Y/N) N Init. Calib. Time(s): 10:45 12:57

GC Column: DB-624UI ID: 0.18 (mm)

COMPOUND	RRF	RRF050	MIN RRF	%D	MAX%D
m/p-Xylenes	0.682	0.685		0.44	20
o-Xylene	0.674	0.669		-0.74	20
Styrene	1.066	1.078		1.13	20
Bromoform	0.251	0.268	0.1	6.77	20
Isopropylbenzene	3.421	3.481		1.75	20
1,1,2,2-Tetrachloroethane	1.017	1.038	0.3	2.07	20
1,3-Dichlorobenzene	1.667	1.666		-0.06	20
1,4-Dichlorobenzene	1.709	1.662		-2.75	20
1,2-Dichlorobenzene	1.667	1.615		-3.12	20
1,2-Dibromo-3-Chloropropane	0.210	0.217		3.33	20
1,2,4-Trichlorobenzene	1.150	1.191		3.57	20
1,2,3-Trichlorobenzene	1.187	1.180		-0.59	20
1,2-Dichloroethane-d4	0.539	0.503		-6.68	20
Dibromofluoromethane	0.316	0.321		1.58	20
Toluene-d8	1.192	1.189		-0.25	20
4-Bromofluorobenzene	0.437	0.423		-3.2	20

All other compounds must meet a minimum RRF of 0.010.
RRF of 1,4-Dioxane = Value should be divide by 1000.

Quantitation Report (QT Reviewed)

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX122118\
Data File : VX006713.D
Acq On : 21 Dec 2018 09:07
Operator : JC/MD
Sample : VSTDCCC050
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 22 04:18:01 2018
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121818W.M
Quant Title : SW846 8260
QLast Update : Wed Dec 19 15:20:58 2018
Response via : Initial Calibration

Instrument : MSVOA_X
ClientSampleId : VSTDCCC050

Manual Integrations APPROVED
MMDadoda
12/22/2018 11:20:53 AM

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	5.67	168	654895	50.00	ug/l	0.00
34) 1,4-Difluorobenzene	6.86	114	954779	50.00	ug/l	0.00
63) Chlorobenzene-d5	10.12	117	852706	50.00	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	12.08	152	439290	50.00	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	6.07	65	329704	46.71	ug/l	0.00
Spiked Amount 50.000			Recovery = 93.42%			
35) Dibromofluoromethane	5.50	113	306904	50.83	ug/l	0.00
Spiked Amount 50.000			Recovery = 101.66%			
50) Toluene-d8	8.71	98	1135246	49.87	ug/l	0.00
Spiked Amount 50.000			Recovery = 99.74%			
62) 4-Bromofluorobenzene	11.13	95	403686	48.42	ug/l	0.00
Spiked Amount 50.000			Recovery = 96.84%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.20	85	267091	44.581	ug/l	98
3) Chloromethane	1.33	50	262937	40.737	ug/l	99
4) Vinyl Chloride	1.41	62	304193	45.125	ug/l	100
5) Bromomethane	1.64	94	274823	43.434	ug/l	97
6) Chloroethane	1.71	64	197286	42.266	ug/l	95
7) Trichlorofluoromethane	1.93	101	495014	47.099	ug/l	97
8) Diethyl Ether	2.19	74	190300	45.587	ug/l	100
9) 1,1,2-Trichlorotrifluoroet	2.39	101	299816	48.585	ug/l	100
10) Methyl Iodide	2.51	142	285829	32.357	ug/l	99
11) Tert butyl alcohol	3.07	59	367803	233.497	ug/l	99
12) 1,1-Dichloroethene	2.37	96	268411	45.872	ug/l	98
13) Acrolein	2.29	56	208078	195.813	ug/l	99
14) Allyl chloride	2.73	41	463550	47.065	ug/l	99
15) Acrylonitrile	3.15	53	849500	242.893	ug/l	100
16) Acetone	2.45	43	918082	283.119	ug/l	98
17) Carbon Disulfide	2.57	76	651765	42.091	ug/l	100
18) Methyl Acetate	2.78	43	474915	49.806	ug/l	97
19) Methyl tert-butyl Ether	3.20	73	950493	48.943	ug/l	99
20) Methylene Chloride	2.85	84	300620	44.832	ug/l	96
21) trans-1,2-Dichloroethene	3.17	96	288641	44.521	ug/l	97
22) Diisopropyl ether	3.87	45	875789	48.605	ug/l	93
23) Vinyl Acetate	3.82	43	3581621	243.012	ug/l	99
24) 1,1-Dichloroethane	3.70	63	499585	46.447	ug/l	99
25) 2-Butanone	4.70	43	1162620	254.886	ug/l	100
26) 2,2-Dichloropropane	4.59	77	385541	46.402	ug/l	99
27) cis-1,2-Dichloroethene	4.60	96	335951	46.966	ug/l	100
28) Bromochloromethane	5.02	49	224287	49.445	ug/l	99
29) Tetrahydrofuran	5.15	42	726204	241.727	ug/l	99
30) Chloroform	5.21	83	523622	47.010	ug/l	98
31) Cyclohexane	5.57	56	450108	46.062	ug/l	97
32) 1,1,1-Trichloroethane	5.49	97	447141	47.542	ug/l	99
36) 1,1-Dichloropropene	5.80	75	389819	49.296	ug/l	99
37) Ethyl Acetate	4.85	43	414412	50.350	ug/l	99
38) Carbon Tetrachloride	5.78	117	387207	50.384	ug/l	96

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX122118\
Data File : VX006713.D
Acq On : 21 Dec 2018 09:07
Operator : JC/MD
Sample : VSTDCCC050
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 22 04:18:01 2018
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121818W.M
Quant Title : SW846 8260
QLast Update : Wed Dec 19 15:20:58 2018
Response via : Initial Calibration

Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

Manual Integrations APPROVED
MMDadoda
12/22/2018 11:20:53 AM

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
39) Methylcyclohexane	7.46	83	514450	49.415	ug/l		98
40) Benzene	6.14	78	1186039	49.342	ug/l		97
41) Methacrylonitrile	5.06	41	232464	53.198	ug/l		98
42) 1,2-Dichloroethane	6.20	62	394780	48.198	ug/l		100
43) Isopropyl Acetate	6.46	43	663047	52.946	ug/l		99
44) Trichloroethene	7.21	130	351535	48.319	ug/l		96
45) 1,2-Dichloropropane	7.51	63	297241	50.816	ug/l		97
46) Dibromomethane	7.66	93	209947	48.796	ug/l		98
47) Bromodichloromethane	7.90	83	362831	50.794	ug/l		96
48) Methyl methacrylate	7.77	41	334926	52.592	ug/l		99
49) 1,4-Dioxane	7.75	88	167705	1006.610	ug/l		100
51) 4-Methyl-2-Pentanone	8.65	43	2077678	260.749	ug/l		99
52) Toluene	8.79	92	778727	50.147	ug/l		100
53) t-1,3-Dichloropropene	9.04	75	407933	53.248	ug/l		99
54) cis-1,3-Dichloropropene	8.43	75	453879	53.994	ug/l		97
55) 1,1,2-Trichloroethane	9.21	97	315392	49.619	ug/l		98
56) Ethyl methacrylate	9.18	69	464689	51.725	ug/l		97
57) 1,3-Dichloropropane	9.37	76	500805	48.971	ug/l		99
58) 2-Chloroethyl Vinyl ether	8.31	63	1209772	253.330	ug/l		100
59) 2-Hexanone	9.49	43	1619445	265.633	ug/l		100
60) Dibromochloromethane	9.59	129	316158	47.671	ug/l		98
61) 1,2-Dibromoethane	9.67	107	345291	51.102	ug/l		99
64) Tetrachloroethene	9.34	164	336496	49.836	ug/l		97
65) Chlorobenzene	10.14	112	900464	49.916	ug/l		99
66) 1,1,1,2-Tetrachloroethane	10.22	131	309555	54.999	ug/l		99
67) Ethyl Benzene	10.25	91	1481490	50.257	ug/l		99
68) m/p-Xylenes	10.36	106	1168380	100.445	ug/l		100
69) o-Xylene	10.70	106	570406	49.660	ug/l		98
70) Styrene	10.71	104	918992	50.572	ug/l		99
71) Bromoform	10.86	173	228361	45.429	ug/l	#	100
73) Isopropylbenzene	11.02	105	1528961	50.876	ug/l		99
74) N-amyl acetate	10.90	43	581427	54.050	ug/l		99
75) 1,1,2,2-Tetrachloroethane	11.27	83	456021	51.022	ug/l		99
76) 1,2,3-Trichloropropane	11.30	75	420848m	51.550	ug/l		
77) Bromobenzene	11.26	156	401841	49.458	ug/l		99
78) n-propylbenzene	11.36	91	1719860	51.969	ug/l		99
79) 2-Chlorotoluene	11.42	91	989941	49.361	ug/l		100
80) 1,3,5-Trimethylbenzene	11.51	105	1258286	50.833	ug/l		100
81) trans-1,4-Dichloro-2-buten	11.07	75	119464	44.996	ug/l		97
82) 4-Chlorotoluene	11.51	91	1148343	49.917	ug/l		100
83) tert-Butylbenzene	11.77	119	1279544	51.648	ug/l		99
84) 1,2,4-Trimethylbenzene	11.80	105	1286486	49.411	ug/l		100
85) sec-Butylbenzene	11.94	105	1549260	51.005	ug/l		100
86) p-Isopropyltoluene	12.07	119	1402019	52.509	ug/l		99
87) 1,3-Dichlorobenzene	12.02	146	731959	49.987	ug/l		99
88) 1,4-Dichlorobenzene	12.10	146	729965	48.628	ug/l		99
89) n-Butylbenzene	12.39	91	1222556	53.802	ug/l		99
90) Hexachloroethane	12.60	117	198901	47.756	ug/l		98
91) 1,2-Dichlorobenzene	12.39	146	709383	48.428	ug/l		100
92) 1,2-Dibromo-3-Chloropropan	13.00	75	95192	51.474	ug/l		98

Data Path : Z:\VOASRV\HPCHEM1\MSVOA X\DATA\VX122118\
Data File : VX006713.D
Acq On : 21 Dec 2018 09:07
Operator : JC/MD
Sample : VSTDCCC050
Misc : 5.0mL/MSVOA X/WATER
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 22 04:18:01 2018
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121818W.M
Quant Title : SW846 8260
QLast Update : Wed Dec 19 15:20:58 2018
Response via : Initial Calibration

Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

Manual Integrations APPROVED
MMDadoda
12/22/2018 11:20:53 AM

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
93) 1,2,4-Trichlorobenzene	13.65	180	523339	51.794 ug/l	99
94) Hexachlorobutadiene	13.79	225	250307	52.557 ug/l	98
95) Naphthalene	13.83	128	1586574	49.197 ug/l	99
96) 1,2,3-Trichlorobenzene	14.02	180	518356	49.687 ug/l	98

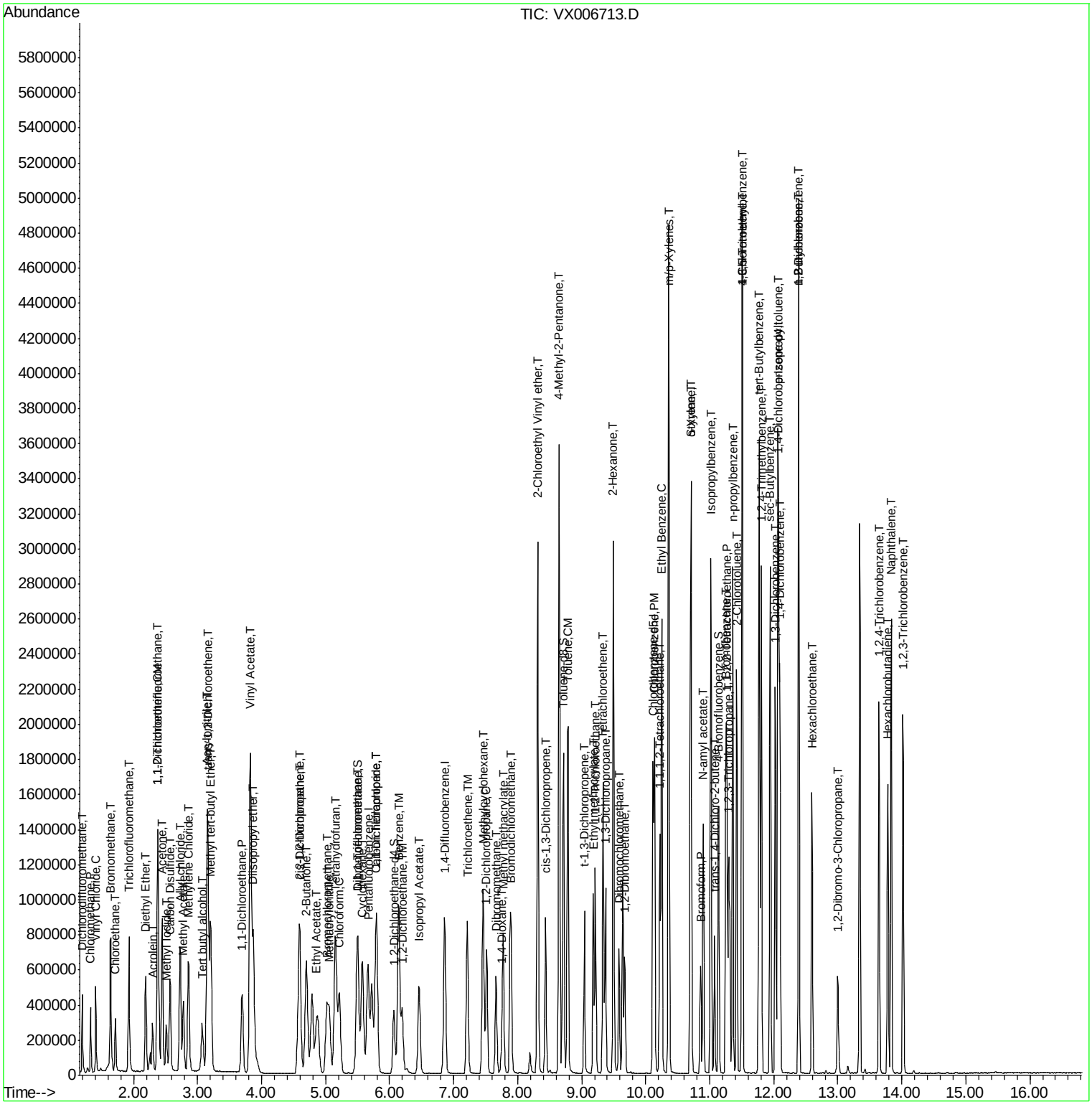
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX122118\
Data File : VX006713.D
Acq On : 21 Dec 2018 09:07
Operator : JC/MD
Sample : VSTDCCC050
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 22 04:18:01 2018
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121818W.M
Quant Title : SW846 8260
QLast Update : Wed Dec 19 15:20:58 2018
Response via : Initial Calibration

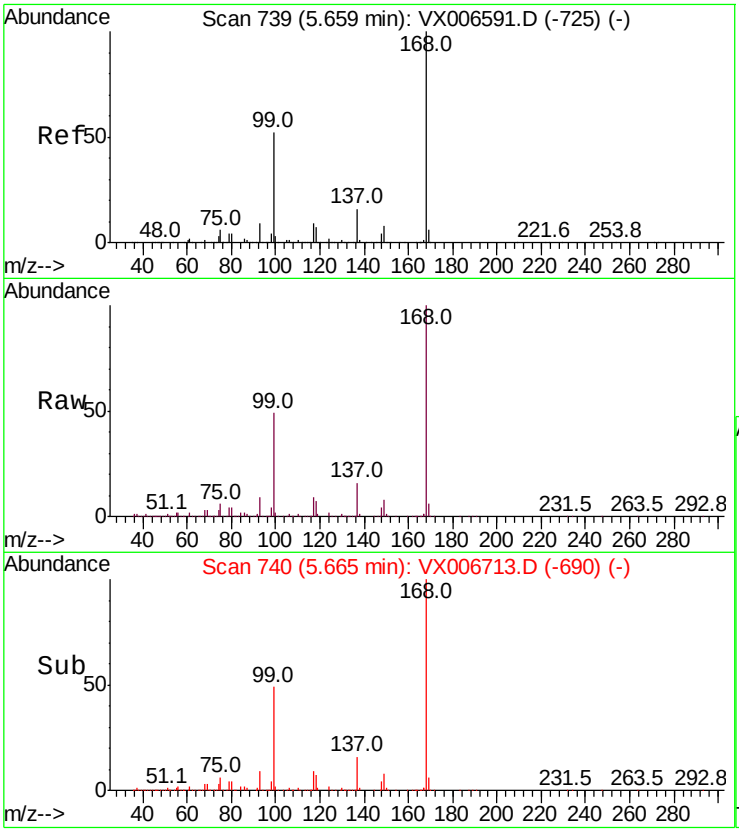
Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

Manual Integrations APPROVED
MMDadoda
12/22/2018 11:20:53 AM



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

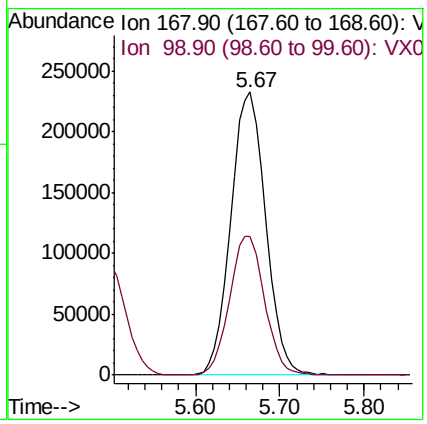
Manual Integrations APPROVED
MMDadoda
12/22/2018 11:20:53 AM

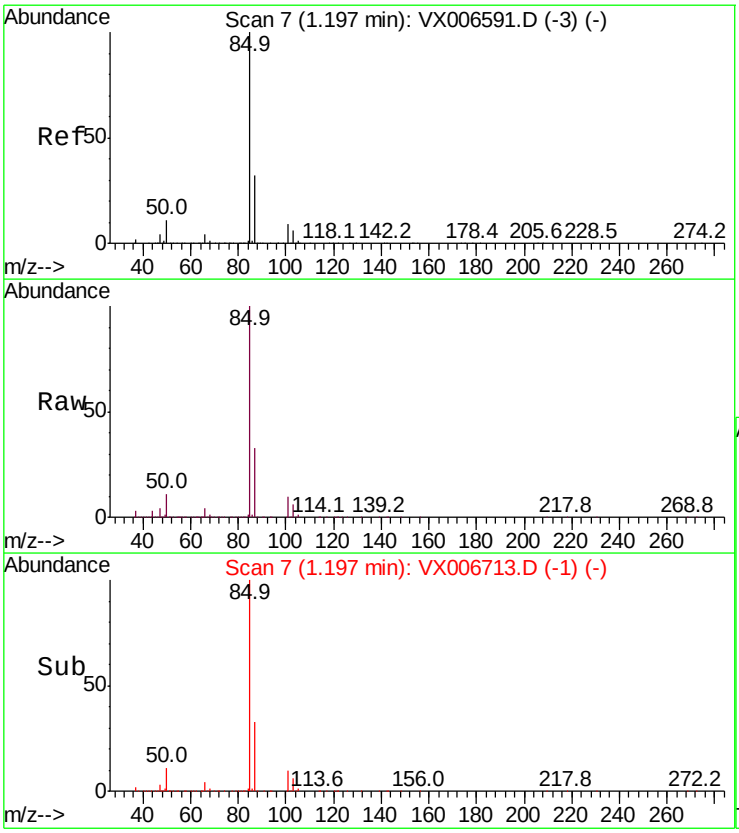


#1
Pentafluorobenzene
Concen: 50.000 ug/l
RT: 5.67 min Scan# 740
Delta R.T. 0.01 min
Lab File: VX006713.D
Acq: 21 Dec 2018 09:07

Tgt Ion:168 Resp: 654895

Ion	Ratio	Lower	Upper
168	100		
99	49.0	41.8	62.8

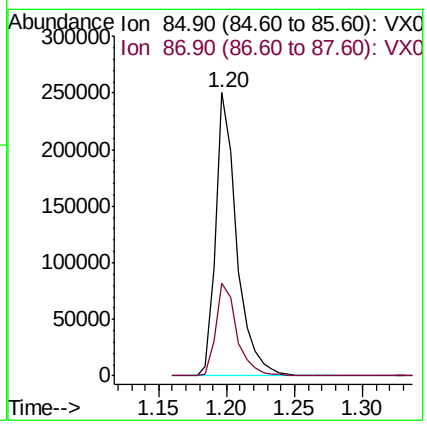




#2
Dichlorodifluoromethane
Concen: 44.581 ug/l
RT: 1.20 min Scan# 7
Delta R.T. -0.00 min
Lab File: VX006713.D
Acq: 21 Dec 2018 09:07

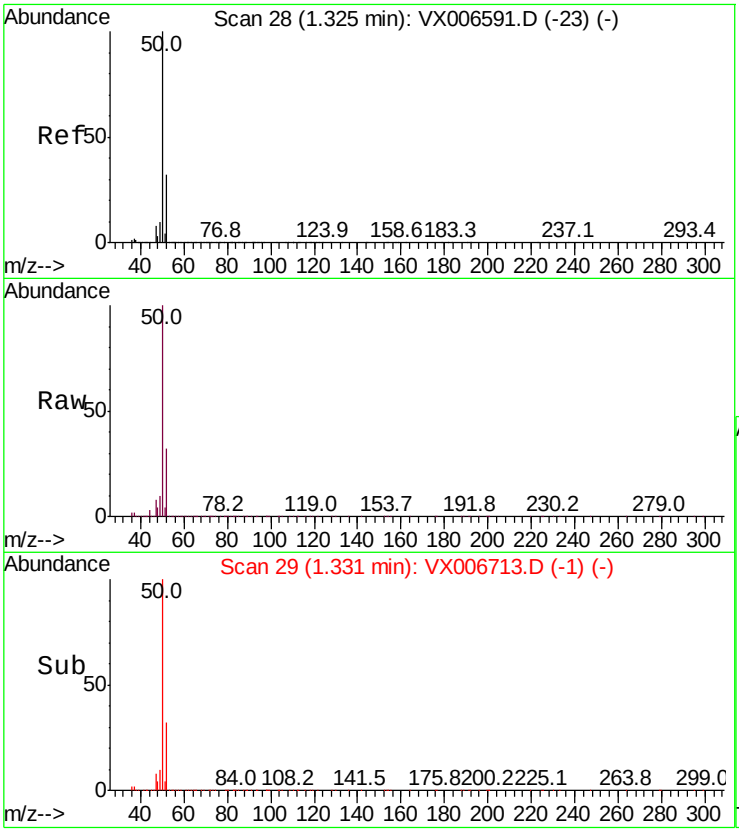
Tgt Ion: 85 Resp: 267091

Ion	Ratio	Lower	Upper
85	100		
87	32.9	15.9	47.6



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

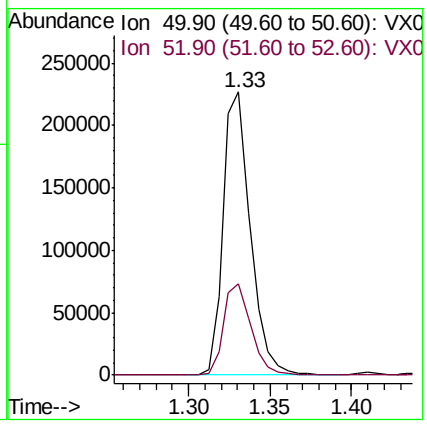
Manual Integrations APPROVED
MMDadoda
12/22/2018 11:20:53 AM

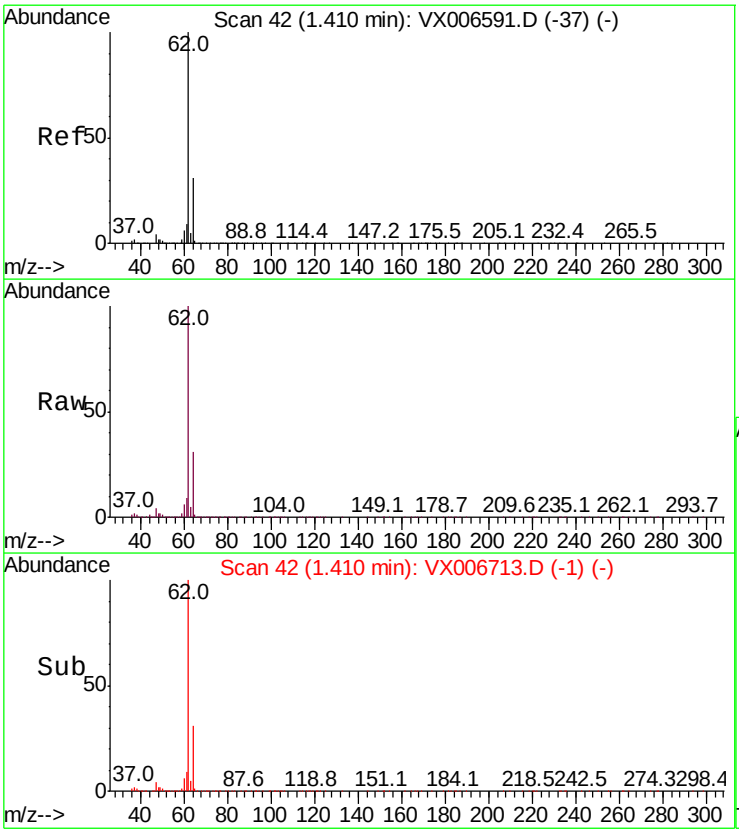


#3
Chloromethane
Concen: 40.737 ug/l
RT: 1.33 min Scan# 29
Delta R.T. 0.01 min
Lab File: VX006713.D
Acq: 21 Dec 2018 09:07

Tgt Ion: 50 Resp: 262937

Ion	Ratio	Lower	Upper
50	100		
52	32.4	25.4	38.2

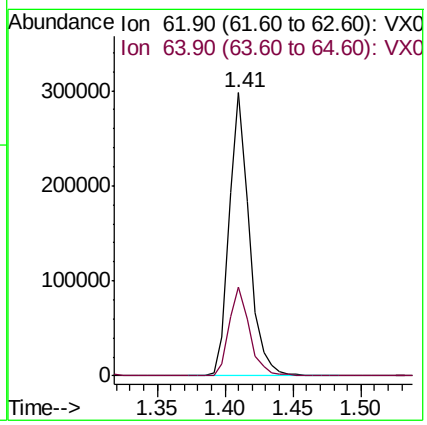




#4
Vinyl Chloride
Concen: 45.125 ug/l
RT: 1.41 min Scan# 42
Delta R.T. -0.00 min
Lab File: VX006713.D
Acq: 21 Dec 2018 09:07

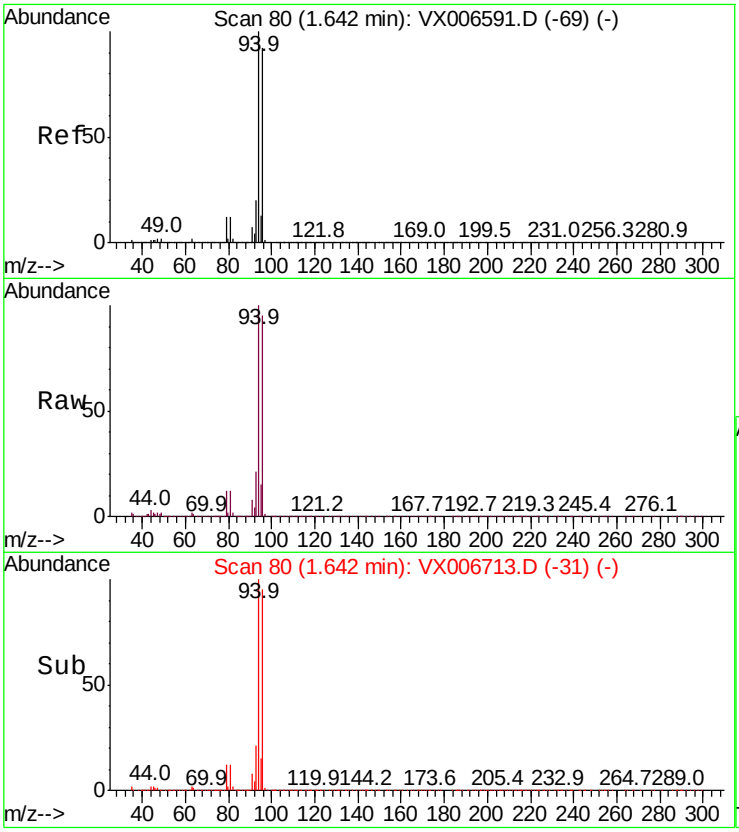
Tgt Ion: 62 Resp: 304193

Ion	Ratio	Lower	Upper
62	100		
64	31.3	25.1	37.7



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

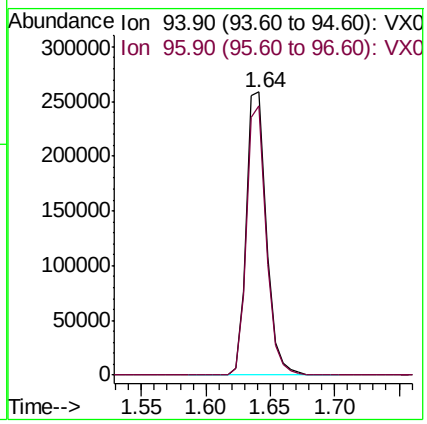
Manual Integrations APPROVED
MMDadoda
12/22/2018 11:20:53 AM

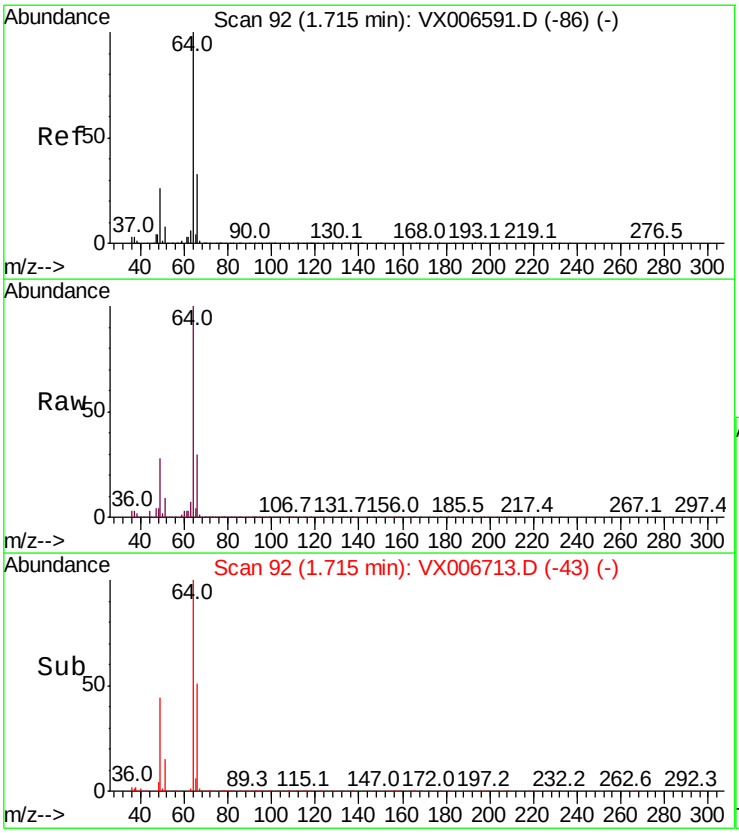


#5
Bromomethane
Concen: 43.434 ug/l
RT: 1.64 min Scan# 80
Delta R.T. 0.00 min
Lab File: VX006713.D
Acq: 21 Dec 2018 09:07

Tgt Ion: 94 Resp: 274823

Ion	Ratio	Lower	Upper
94	100		
96	95.0	73.4	110.2

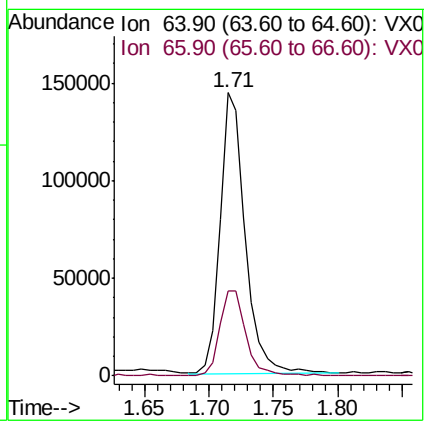




#6
Chloroethane
Concen: 42.266 ug/l
RT: 1.71 min Scan# 92
Delta R.T. -0.00 min
Lab File: VX006713.D
Acq: 21 Dec 2018 09:07

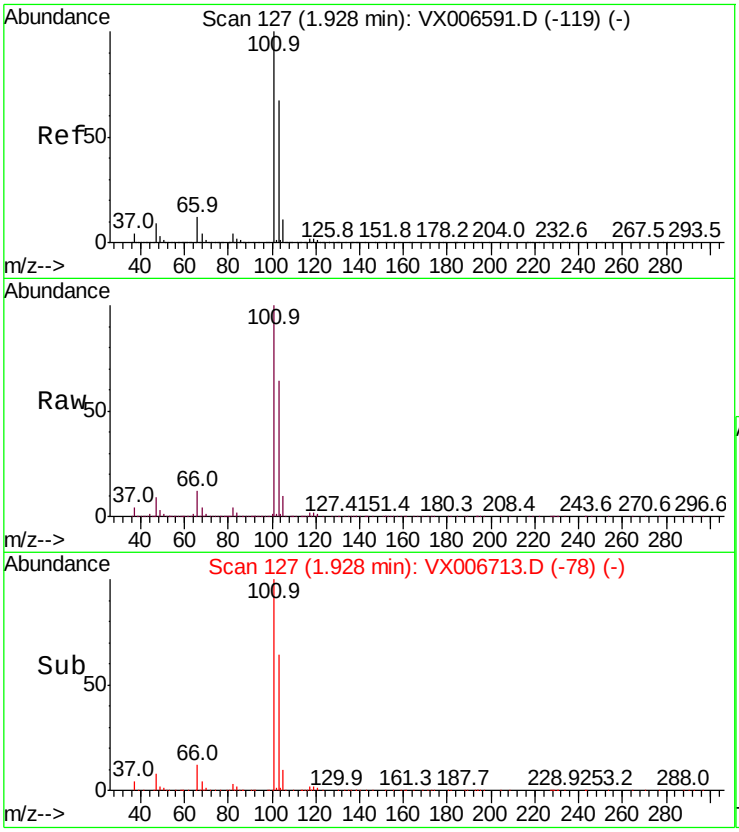
Tgt Ion: 64 Resp: 197286

Ion	Ratio	Lower	Upper
64	100		
66	30.3	26.4	39.6



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

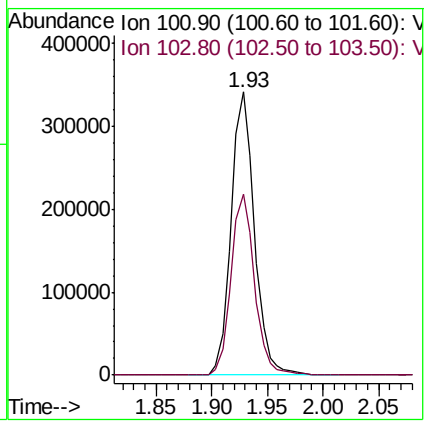
Manual Integrations APPROVED
MMDadoda
12/22/2018 11:20:53 AM

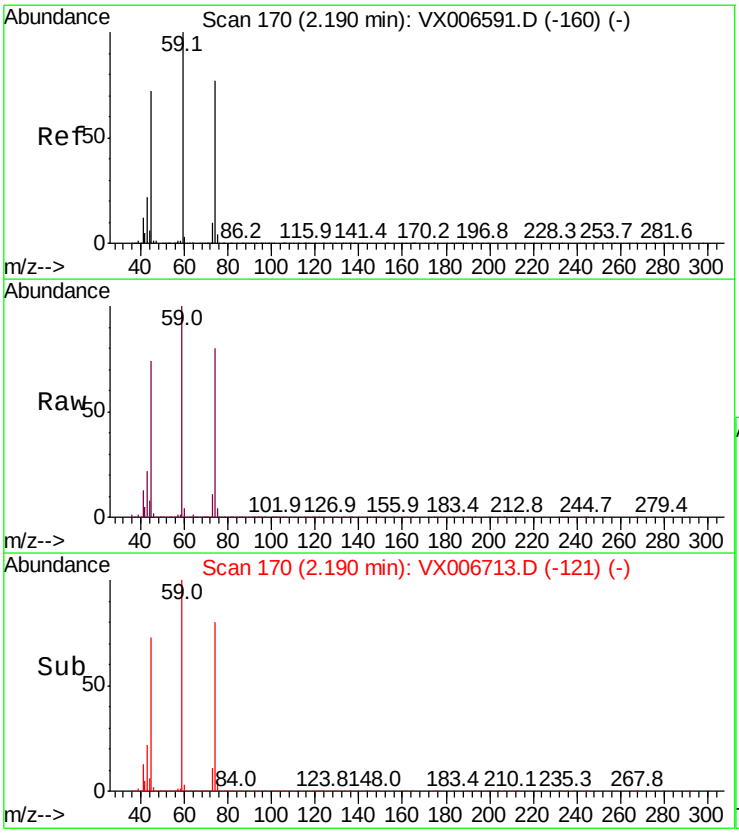


#7
Trichlorofluoromethane
Concen: 47.099 ug/l
RT: 1.93 min Scan# 127
Delta R.T. -0.00 min
Lab File: VX006713.D
Acq: 21 Dec 2018 09:07

Tgt Ion:101 Resp: 495014

Ion	Ratio	Lower	Upper
101	100		
103	63.7	53.2	79.8

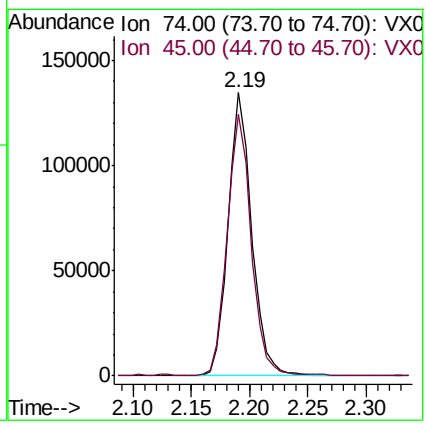


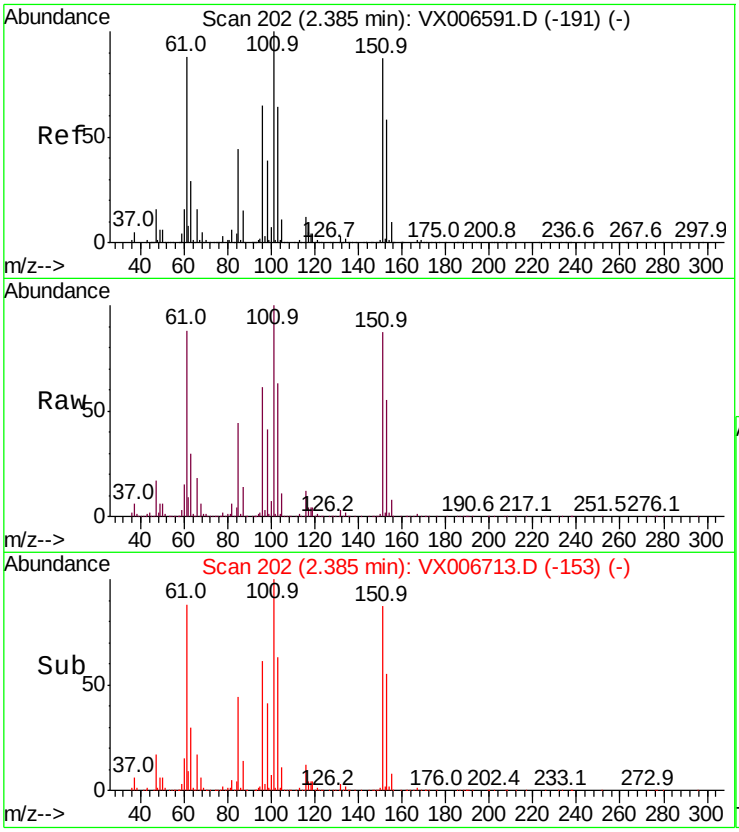


#8
Diethyl Ether
Concen: 45.587 ug/l
RT: 2.19 min Scan# 170
Delta R.T. -0.00 min
Lab File: VX006713.D
Acq: 21 Dec 2018 09:07

Tgt Ion: 74 Resp: 190300

Ion	Ratio	Lower	Upper
74	100		
45	92.8	46.3	138.9

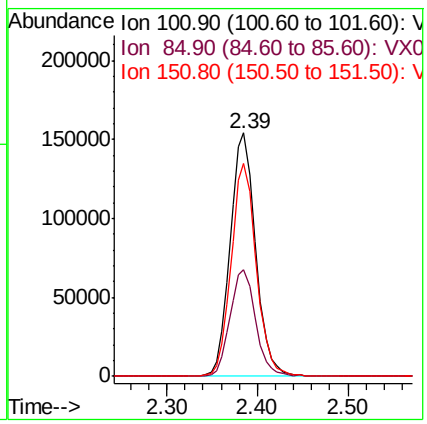




#9
1,1,2-Trichlorotrifluoroethane
Concen: 48.585 ug/l
RT: 2.39 min Scan# 202
Delta R.T. -0.00 min
Lab File: VX006713.D
Acq: 21 Dec 2018 09:07

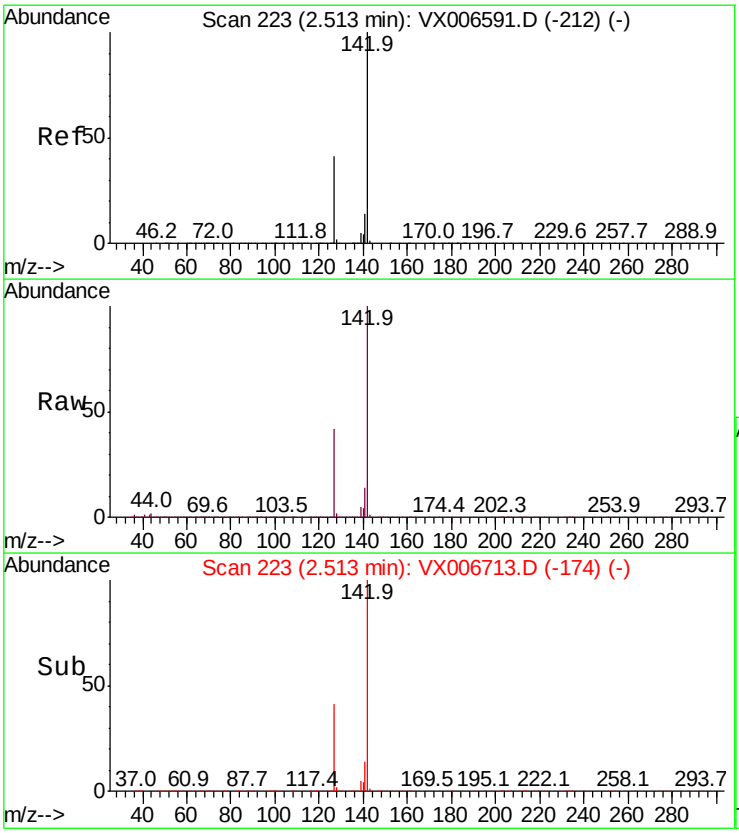
Tgt Ion:101 Resp: 299816

Ion	Ratio	Lower	Upper
101	100		
85	43.8	35.1	52.7
151	86.5	68.9	103.3



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

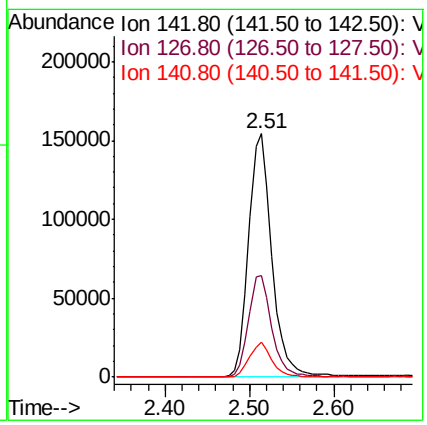
Manual Integrations APPROVED
MMDadoda
12/22/2018 11:20:53 AM



#10
Methyl Iodide
Concen: 32.357 ug/l
RT: 2.51 min Scan# 223
Delta R.T. -0.00 min
Lab File: VX006713.D
Acq: 21 Dec 2018 09:07

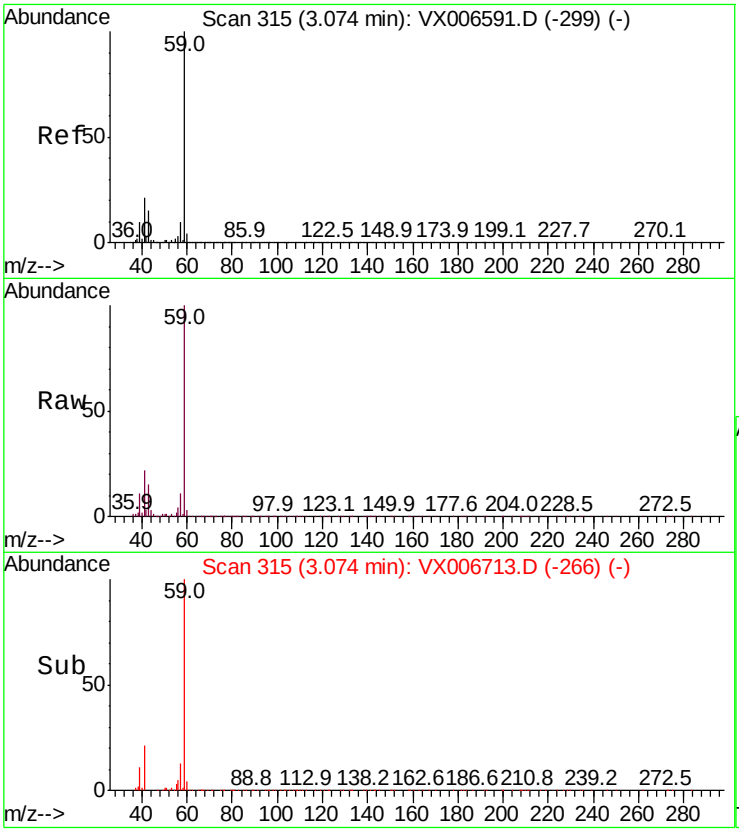
Tgt Ion:142 Resp: 285829

Ion	Ratio	Lower	Upper
142	100		
127	41.9	33.9	50.9
141	13.9	11.4	17.0



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

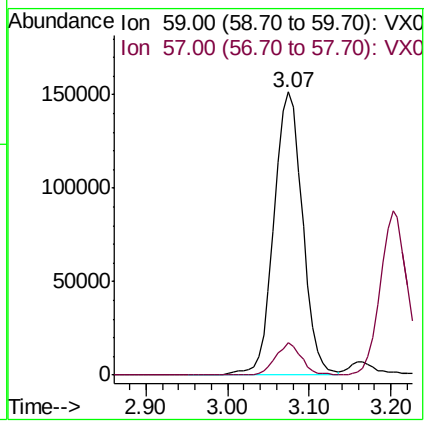
Manual Integrations APPROVED
MMDadoda
12/22/2018 11:20:53 AM

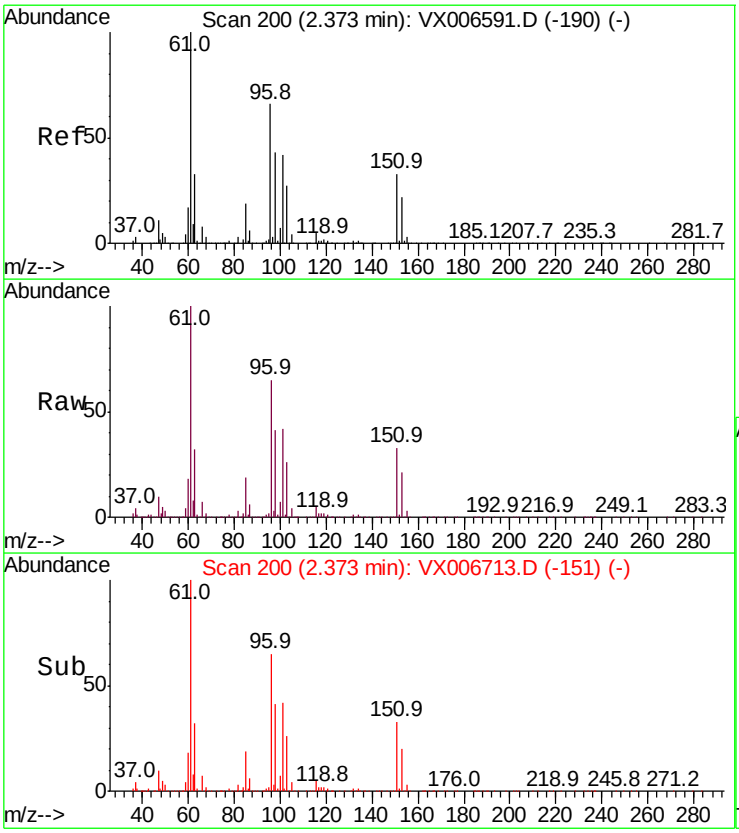


#11
Tert butyl alcohol
Concen: 233.497 ug/l
RT: 3.07 min Scan# 315
Delta R.T. -0.00 min
Lab File: VX006713.D
Acq: 21 Dec 2018 09:07

Tgt Ion: 59 Resp: 367803

Ion	Ratio	Lower	Upper
59	100		
57	10.1	8.5	12.7

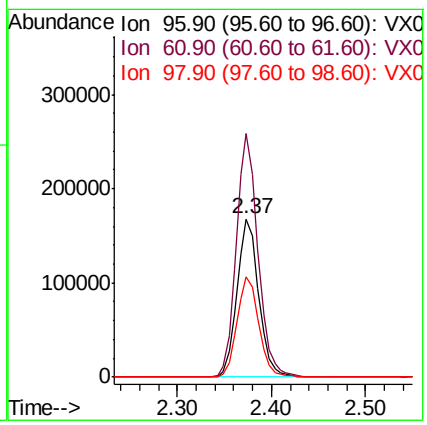




#12
1,1-Dichloroethene
Concen: 45.872 ug/l
RT: 2.37 min Scan# 200
Delta R.T. -0.00 min
Lab File: VX006713.D
Acq: 21 Dec 2018 09:07

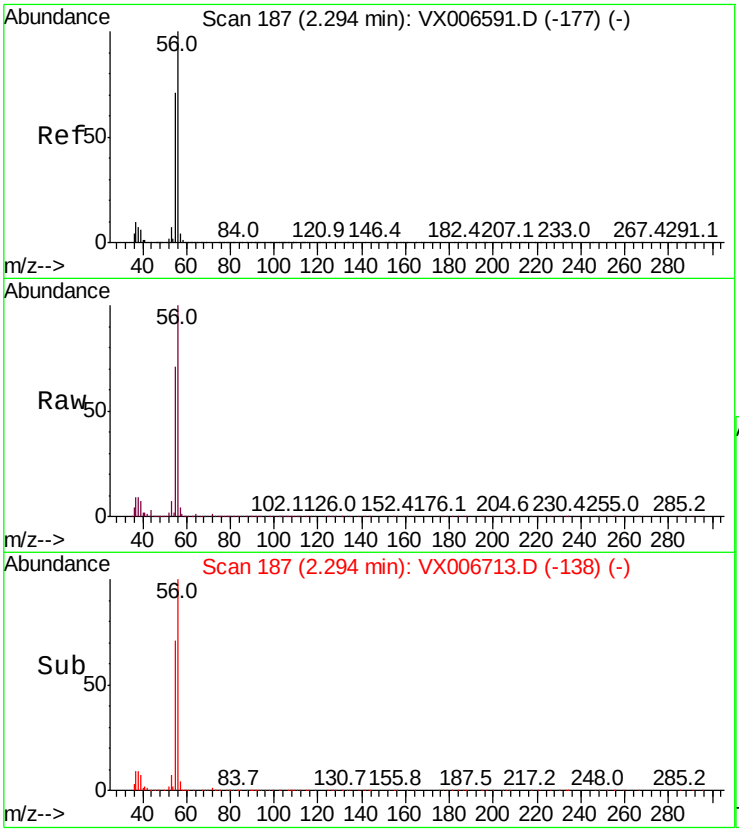
Tgt Ion: 96 Resp: 268411

Ion	Ratio	Lower	Upper
96	100		
61	153.7	121.4	182.2
98	63.1	51.9	77.9



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

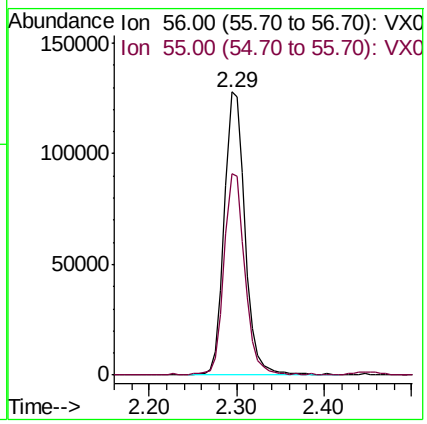
Manual Integrations APPROVED
MMDadoda
12/22/2018 11:20:53 AM

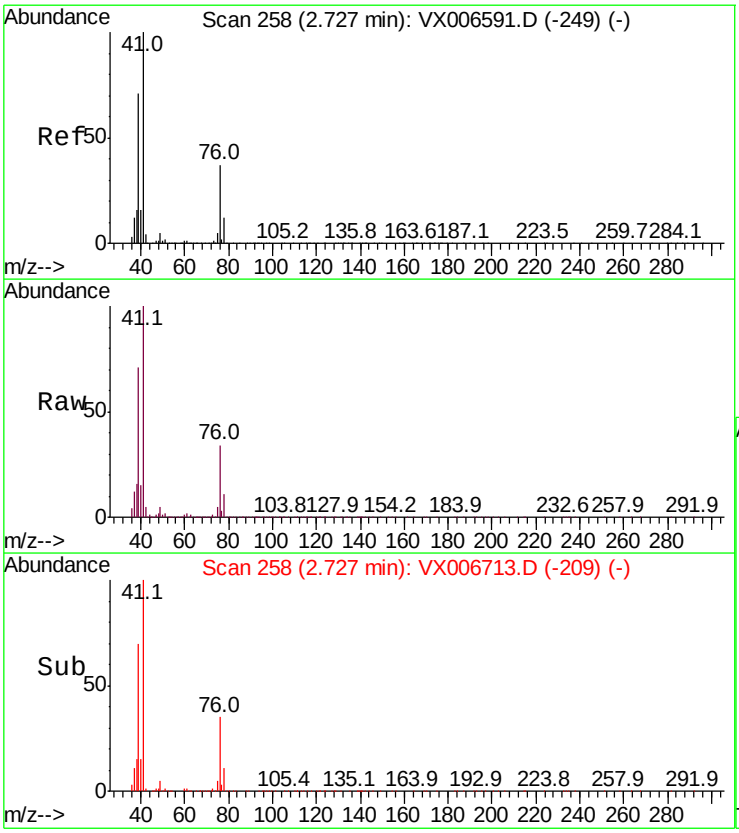


#13
Acrolein
Concen: 195.813 ug/l
RT: 2.29 min Scan# 187
Delta R.T. -0.00 min
Lab File: VX006713.D
Acq: 21 Dec 2018 09:07

Tgt Ion: 56 Resp: 208078

Ion	Ratio	Lower	Upper
56	100		
55	72.0	58.2	87.4

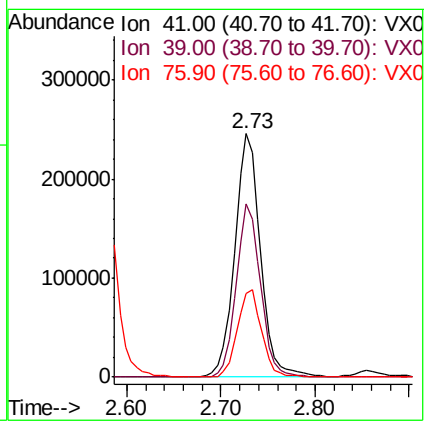




#14
Allyl chloride
Concen: 47.065 ug/l
RT: 2.73 min Scan# 258
Delta R.T. -0.00 min
Lab File: VX006713.D
Acq: 21 Dec 2018 09:07

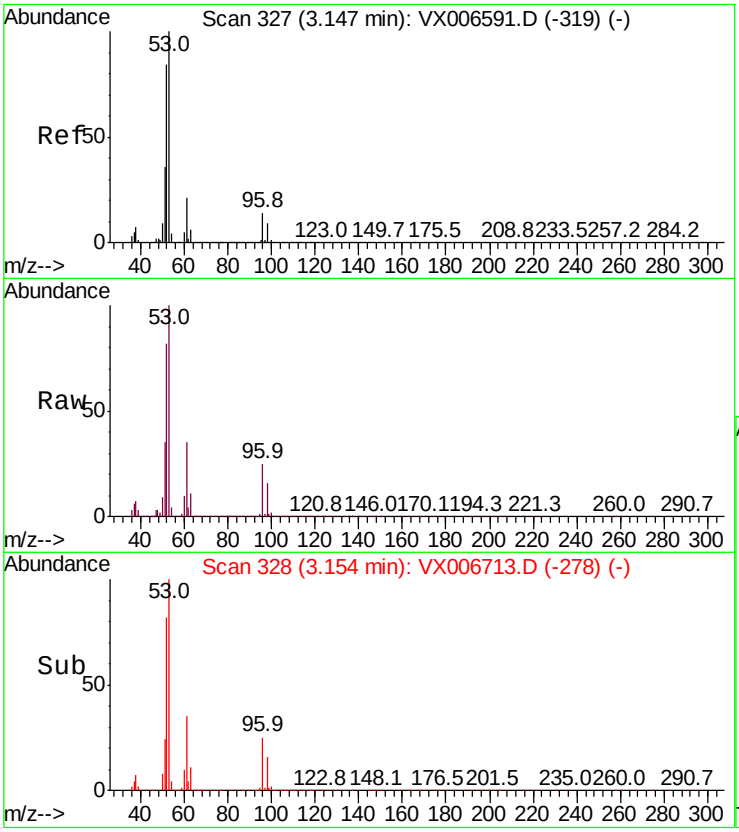
Tgt Ion: 41 Resp: 463550

Ion	Ratio	Lower	Upper
41	100		
39	67.3	53.6	80.4
76	33.7	27.4	41.2



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

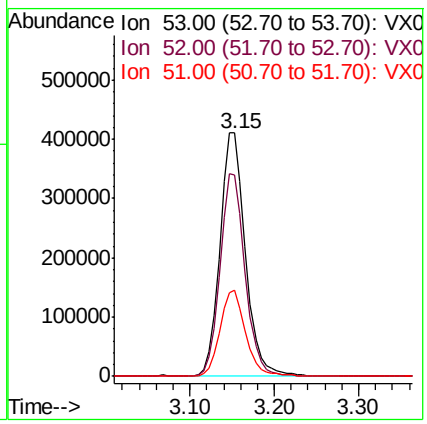
Manual Integrations APPROVED
MMDadoda
12/22/2018 11:20:53 AM

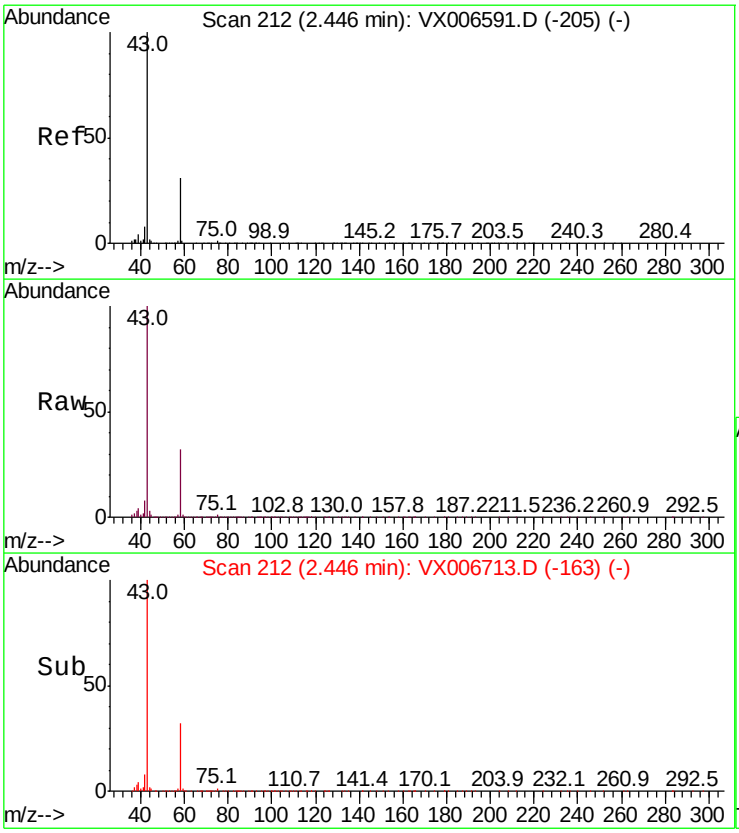


#15
Acrylonitrile
Concen: 242.893 ug/l
RT: 3.15 min Scan# 328
Delta R.T. 0.01 min
Lab File: VX006713.D
Acq: 21 Dec 2018 09:07

Tgt Ion: 53 Resp: 849500

Ion	Ratio	Lower	Upper
53	100		
52	82.1	66.0	99.0
51	35.7	28.6	42.8

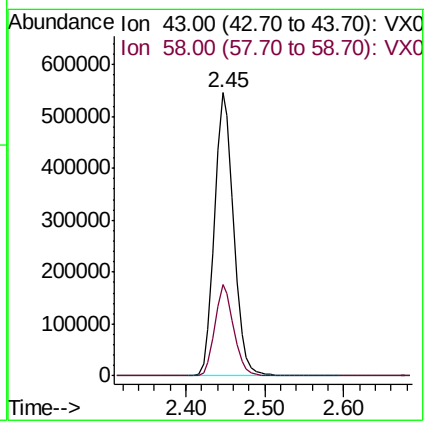




#16
Acetone
Concen: 283.119 ug/l
RT: 2.45 min Scan# 212
Delta R.T. -0.00 min
Lab File: VX006713.D
Acq: 21 Dec 2018 09:07

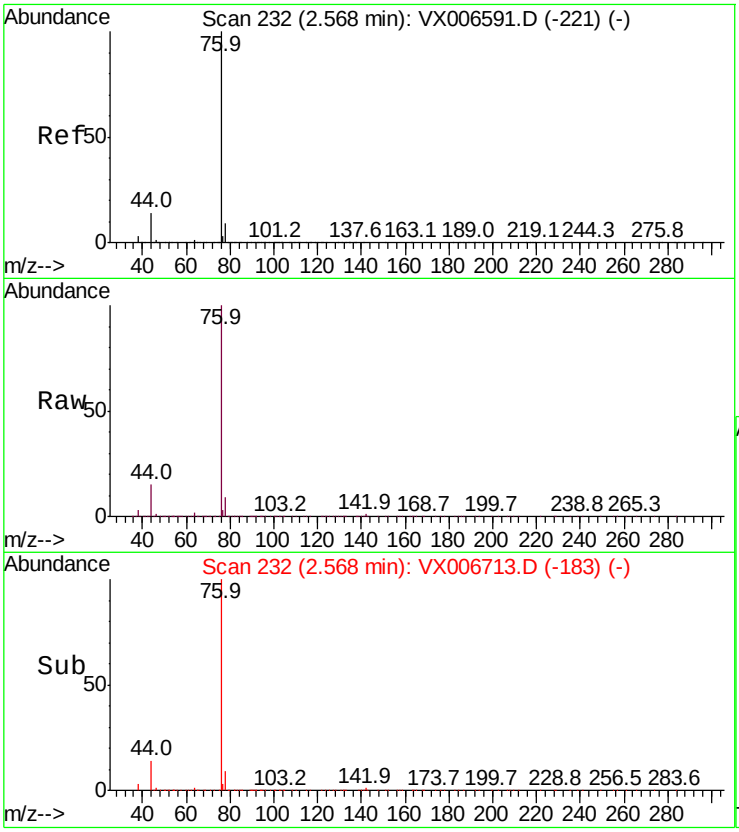
Tgt Ion: 43 Resp: 918082

Ion	Ratio	Lower	Upper
43	100		
58	32.4	25.0	37.6



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

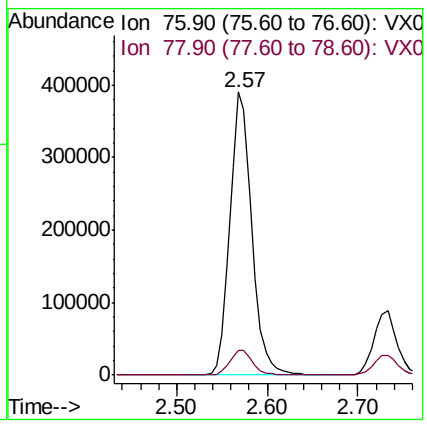
Manual Integrations APPROVED
MMDadoda
12/22/2018 11:20:53 AM

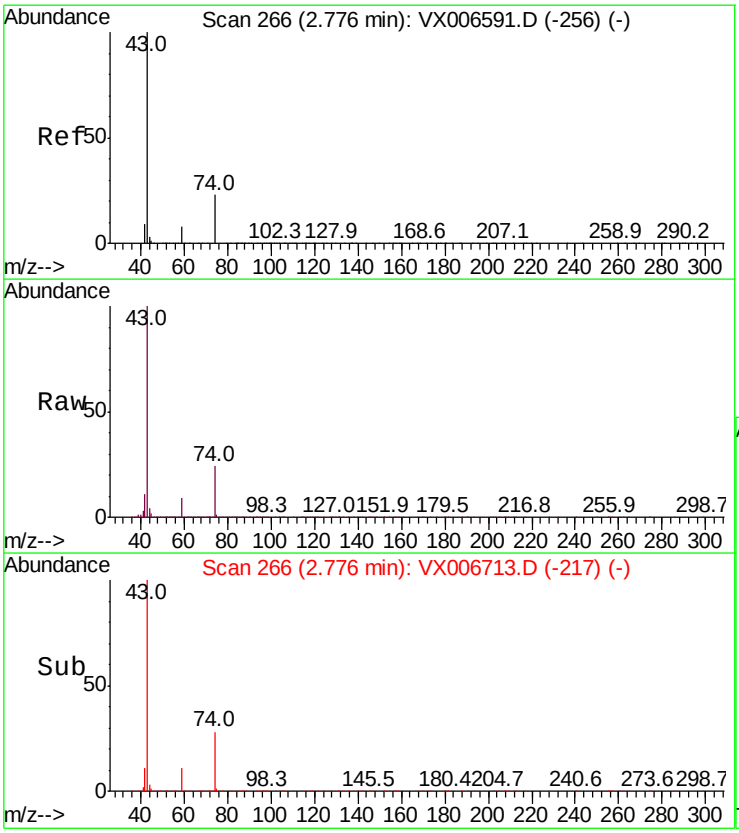


#17
Carbon Disulfide
Concen: 42.091 ug/l
RT: 2.57 min Scan# 232
Delta R.T. -0.00 min
Lab File: VX006713.D
Acq: 21 Dec 2018 09:07

Tgt Ion: 76 Resp: 651765

Ion	Ratio	Lower	Upper
76	100		
78	8.9	7.0	10.6

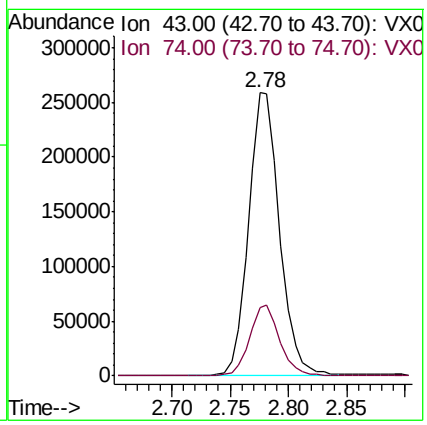




#18
Methyl Acetate
Concen: 49.806 ug/l
RT: 2.78 min Scan# 266
Delta R.T. -0.00 min
Lab File: VX006713.D
Acq: 21 Dec 2018 09:07

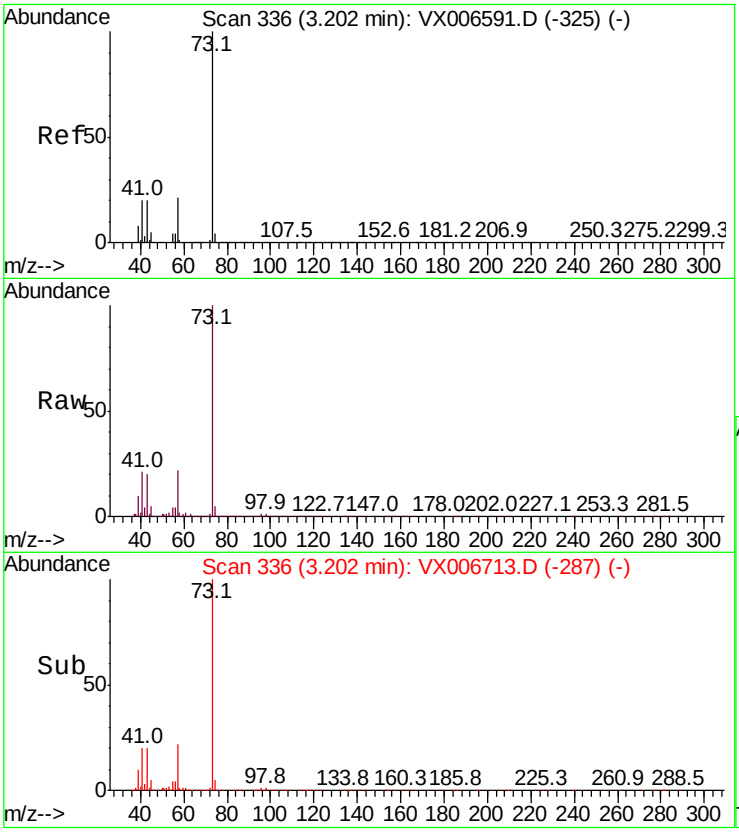
Tgt Ion: 43 Resp: 474915

Ion	Ratio	Lower	Upper
43	100		
74	24.6	18.6	28.0



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

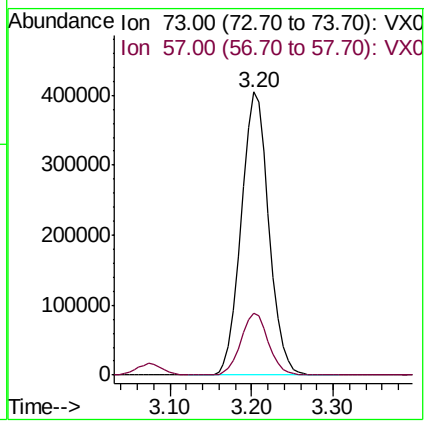
Manual Integrations APPROVED
MMDadoda
12/22/2018 11:20:53 AM

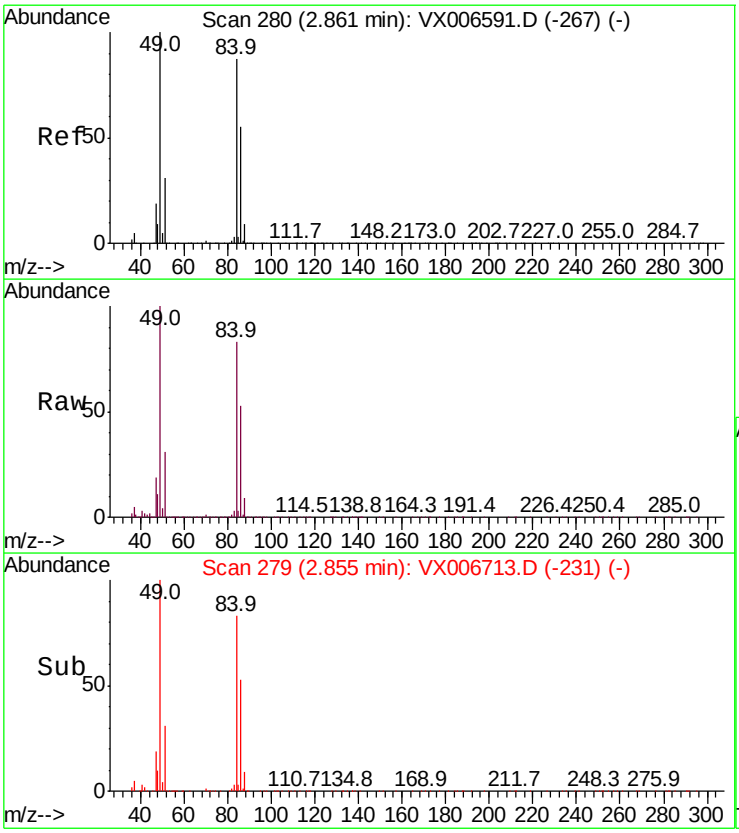


#19
Methyl tert-butyl Ether
Concen: 48.943 ug/l
RT: 3.20 min Scan# 336
Delta R.T. -0.00 min
Lab File: VX006713.D
Acq: 21 Dec 2018 09:07

Tgt Ion: 73 Resp: 950493

Ion	Ratio	Lower	Upper
73	100		
57	21.7	16.8	25.2

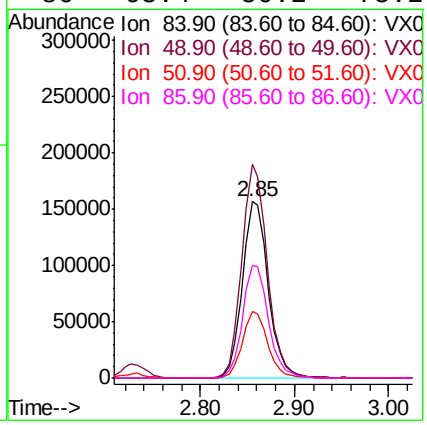




#20
Methylene Chloride
Concen: 44.832 ug/l
RT: 2.85 min Scan# 279
Delta R.T. -0.01 min
Lab File: VX006713.D
Acq: 21 Dec 2018 09:07

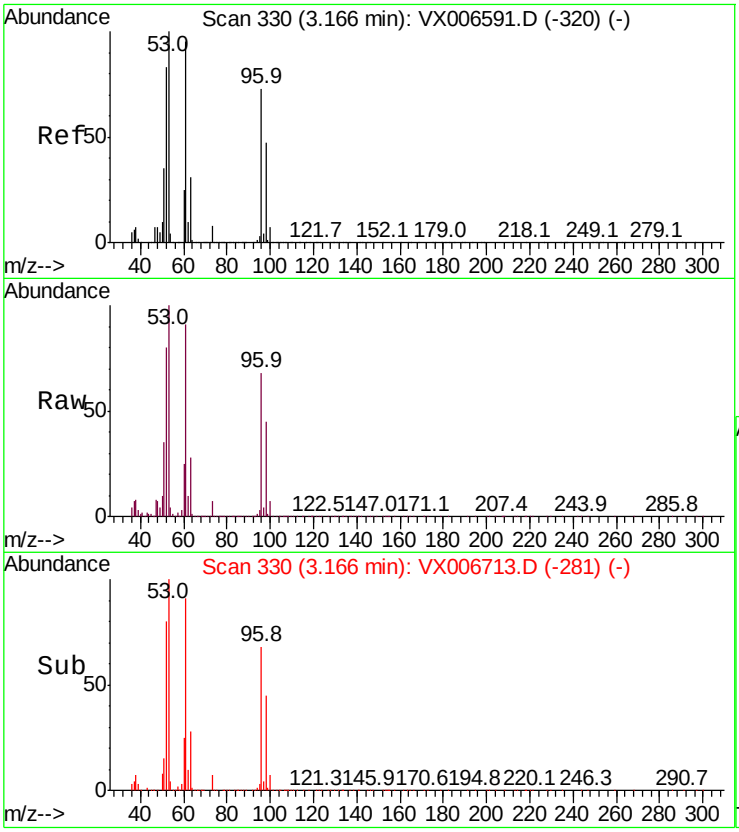
Tgt Ion: 84 Resp: 300620

Ion	Ratio	Lower	Upper
84	100		
49	120.9	91.8	137.6
51	37.6	28.5	42.7
86	63.4	50.2	75.2



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

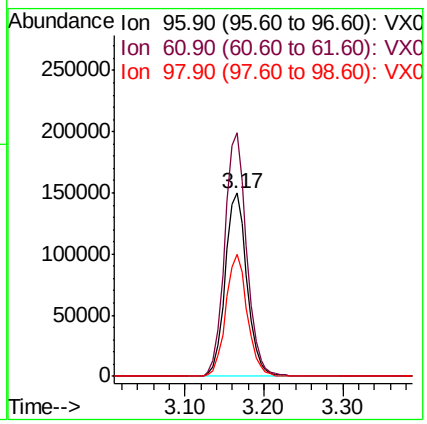
Manual Integrations APPROVED
MMDadoda
12/22/2018 11:20:53 AM

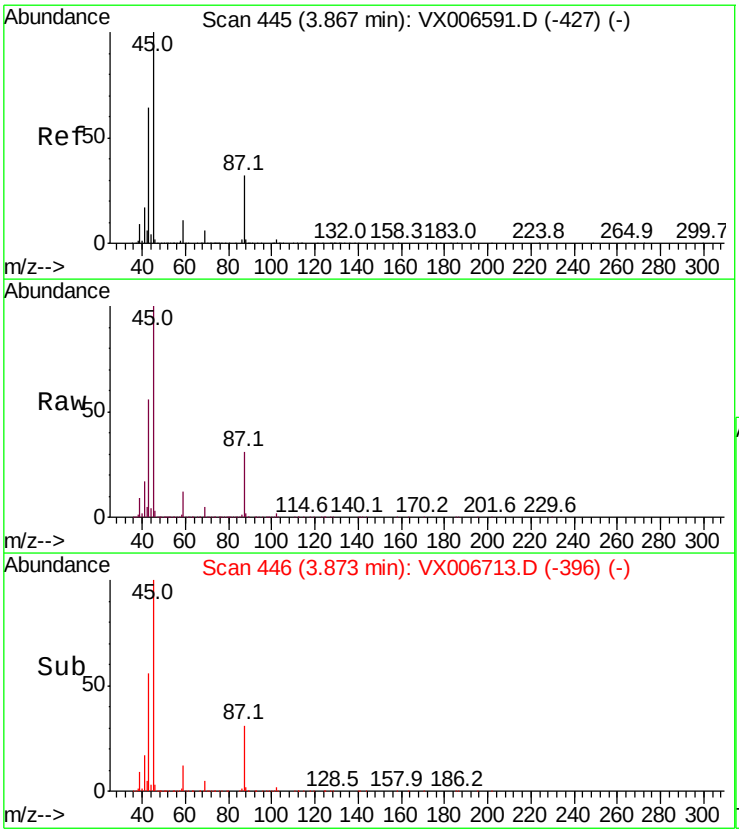


#21
trans-1,2-Dichloroethene
Concen: 44.521 ug/l
RT: 3.17 min Scan# 330
Delta R.T. -0.00 min
Lab File: VX006713.D
Acq: 21 Dec 2018 09:07

Tgt Ion: 96 Resp: 288641

Ion	Ratio	Lower	Upper
96	100		
61	133.0	103.7	155.5
98	66.5	51.0	76.6

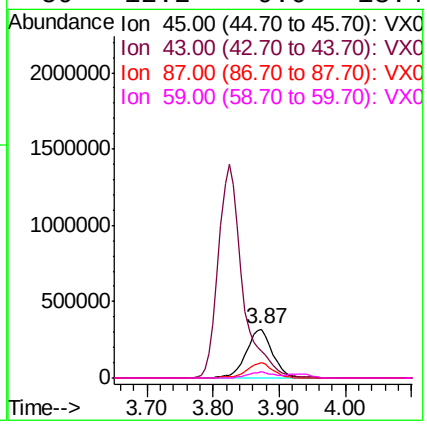




#22
Diisopropyl ether
Concen: 48.605 ug/l
RT: 3.87 min Scan# 446
Delta R.T. 0.01 min
Lab File: VX006713.D
Acq: 21 Dec 2018 09:07

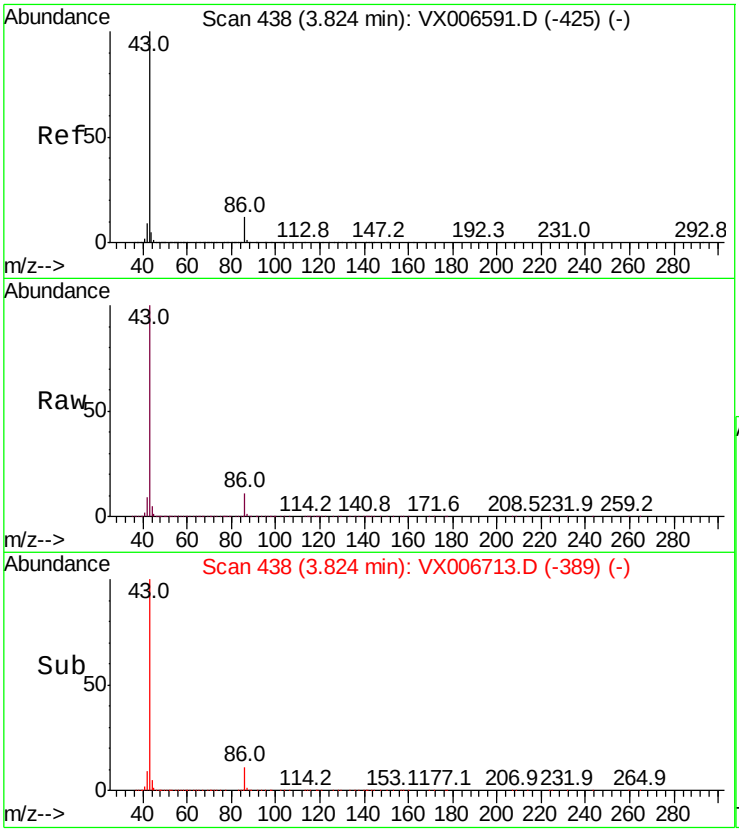
Tgt Ion: 45 Resp: 875789

Ion	Ratio	Lower	Upper
45	100		
43	55.7	51.2	76.8
87	31.2	25.8	38.6
59	12.2	9.0	13.4



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

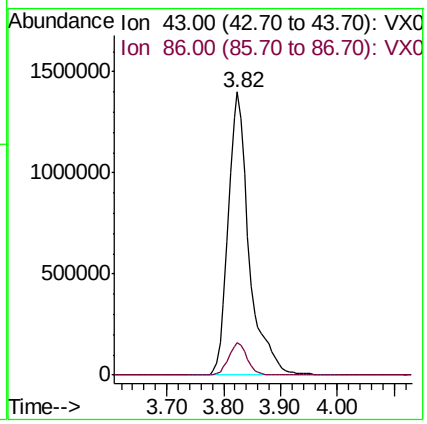
Manual Integrations APPROVED
MMDadoda
12/22/2018 11:20:53 AM

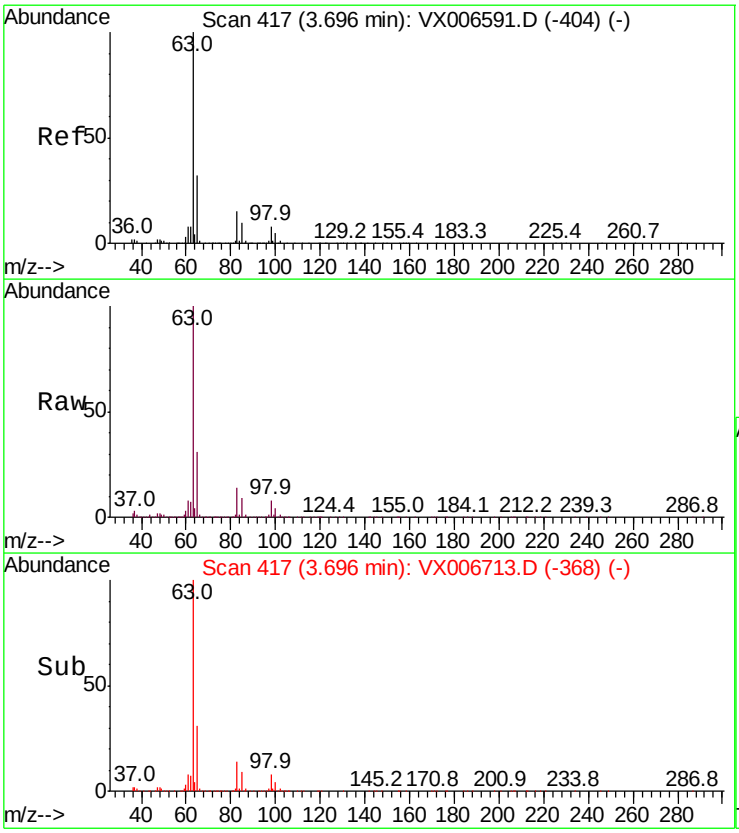


#23
Vinyl Acetate
Concen: 243.012 ug/l
RT: 3.82 min Scan# 438
Delta R.T. -0.00 min
Lab File: VX006713.D
Acq: 21 Dec 2018 09:07

Tgt Ion: 43 Resp: 3581621

Ion	Ratio	Lower	Upper
43	100		
86	11.3	9.2	13.8

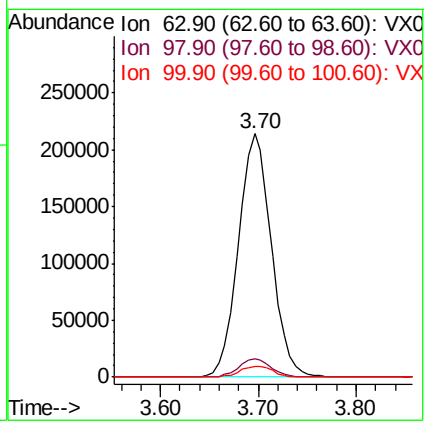




#24
1,1-Dichloroethane
Concen: 46.447 ug/l
RT: 3.70 min Scan# 417
Delta R.T. -0.00 min
Lab File: VX006713.D
Acq: 21 Dec 2018 09:07

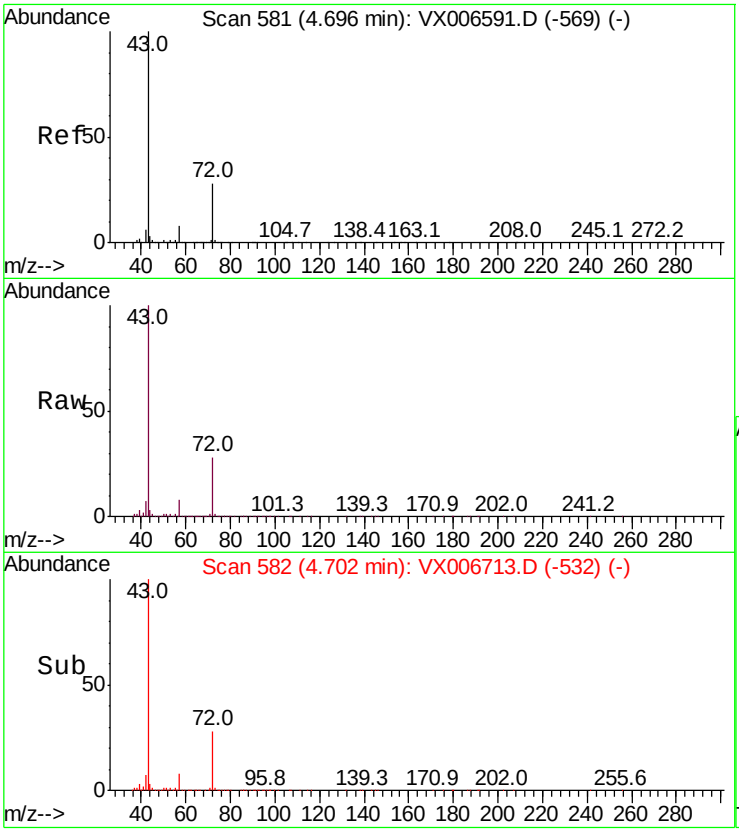
Tgt Ion: 63 Resp: 499585

Ion	Ratio	Lower	Upper
63	100		
98	7.7	3.9	11.5
100	4.2	2.4	7.2



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

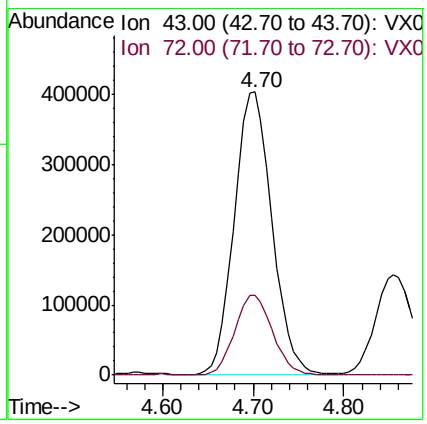
Manual Integrations APPROVED
MMDadoda
12/22/2018 11:20:53 AM

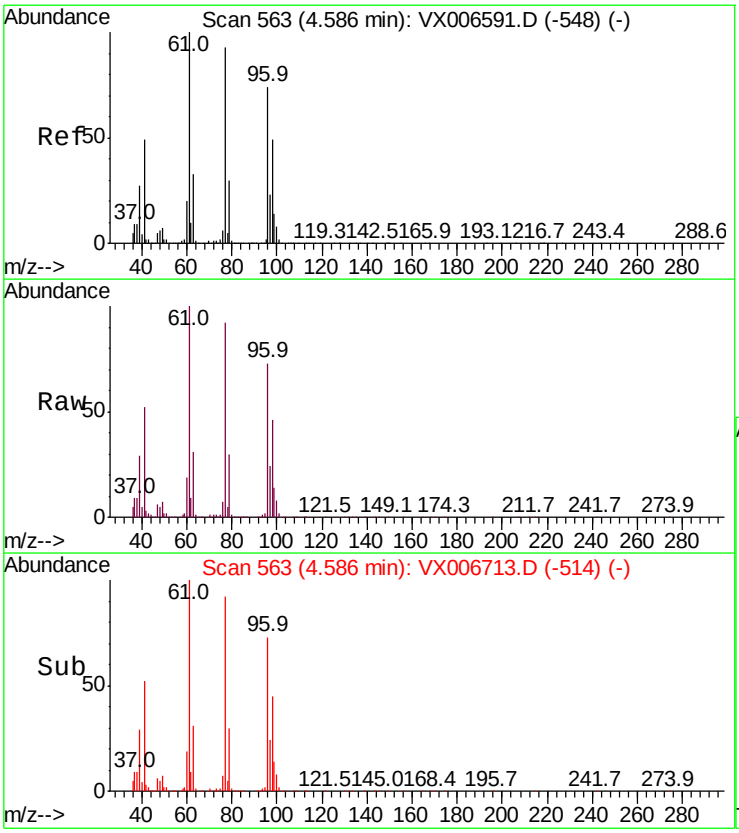


#25
2-Butanone
Concen: 254.886 ug/l
RT: 4.70 min Scan# 582
Delta R.T. 0.01 min
Lab File: VX006713.D
Acq: 21 Dec 2018 09:07

Tgt Ion: 43 Resp: 1162620

Ion	Ratio	Lower	Upper
43	100		
72	28.0	22.4	33.6

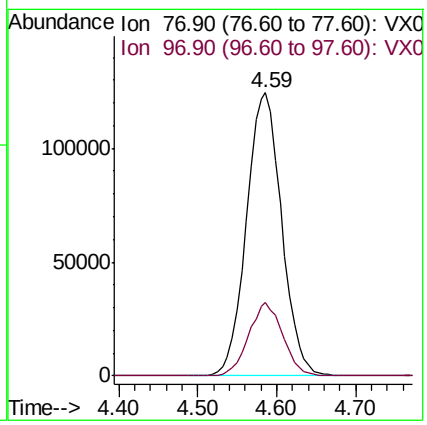




#26
2,2-Dichloropropane
Concen: 46.402 ug/l
RT: 4.59 min Scan# 563
Delta R.T. -0.00 min
Lab File: VX006713.D
Acq: 21 Dec 2018 09:07

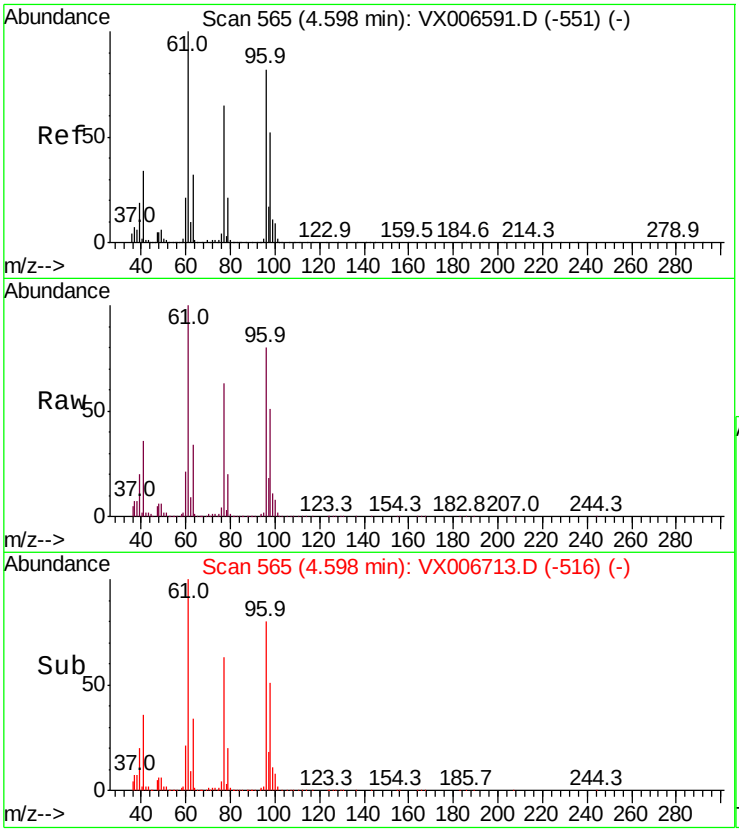
Tgt Ion: 77 Resp: 385541

Ion	Ratio	Lower	Upper
77	100		
97	25.2	12.4	37.4



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

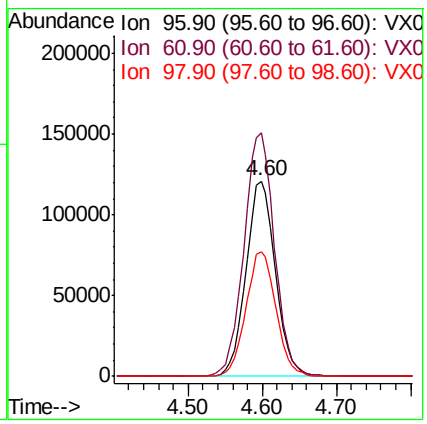
Manual Integrations APPROVED
MMDadoda
12/22/2018 11:20:53 AM

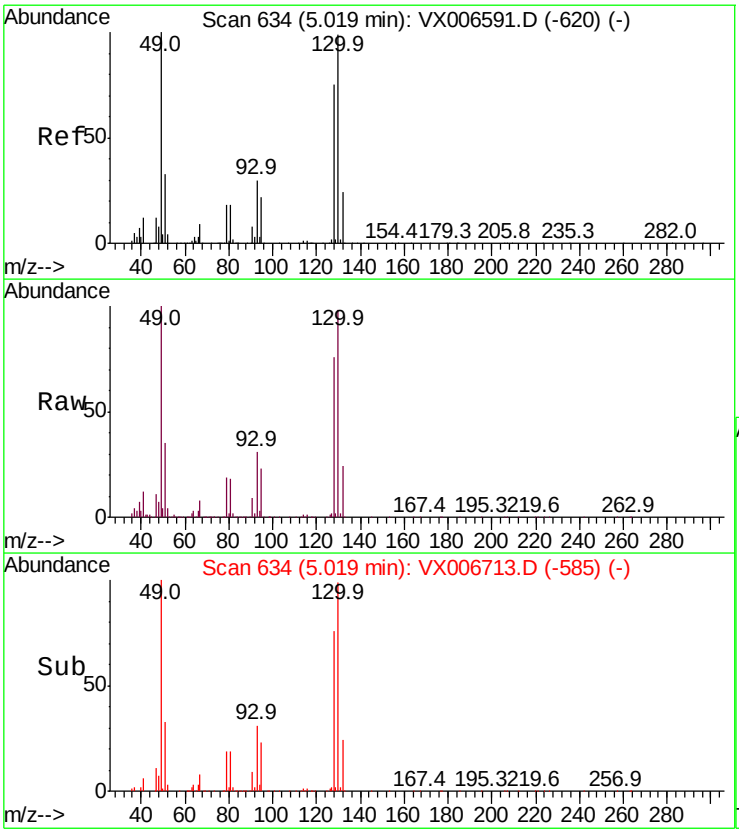


#27
cis-1,2-Dichloroethene
Concen: 46.966 ug/l
RT: 4.60 min Scan# 565
Delta R.T. -0.00 min
Lab File: VX006713.D
Acq: 21 Dec 2018 09:07

Tgt Ion: 96 Resp: 335951

Ion	Ratio	Lower	Upper
96	100		
61	129.2	0.0	258.6
98	65.0	0.0	132.0

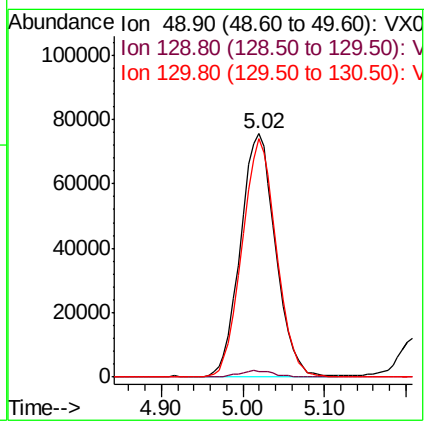




#28
Bromochloromethane
Concen: 49.445 ug/l
RT: 5.02 min Scan# 634
Delta R.T. 0.00 min
Lab File: VX006713.D
Acq: 21 Dec 2018 09:07

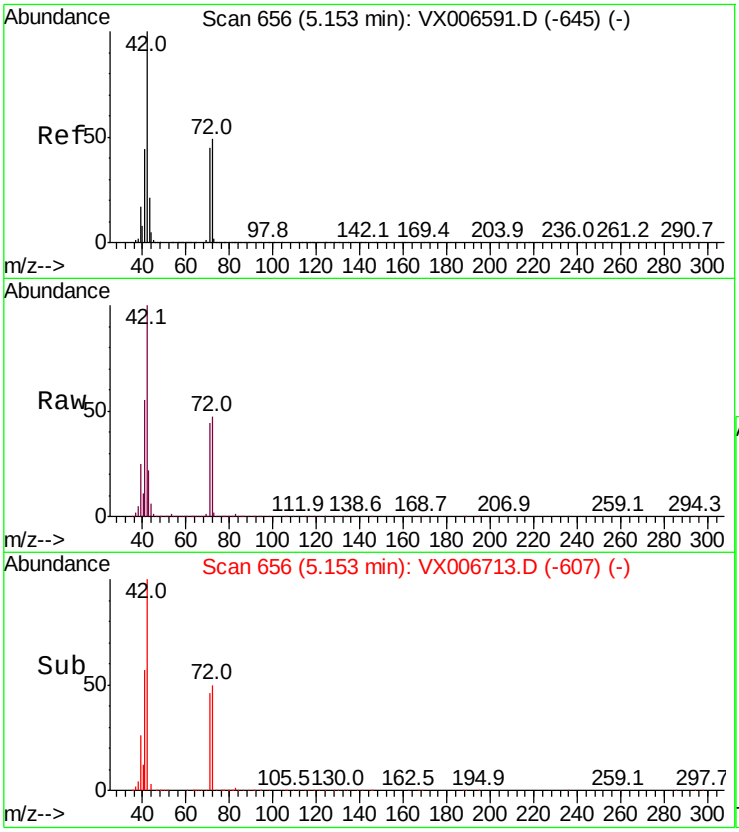
Tgt Ion: 49 Resp: 224287

Ion	Ratio	Lower	Upper
49	100		
129	2.7	0.0	5.4
130	96.4	77.7	116.5



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

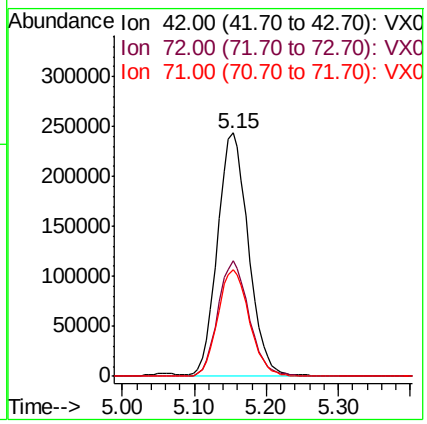
Manual Integrations APPROVED
MMDadoda
12/22/2018 11:20:53 AM

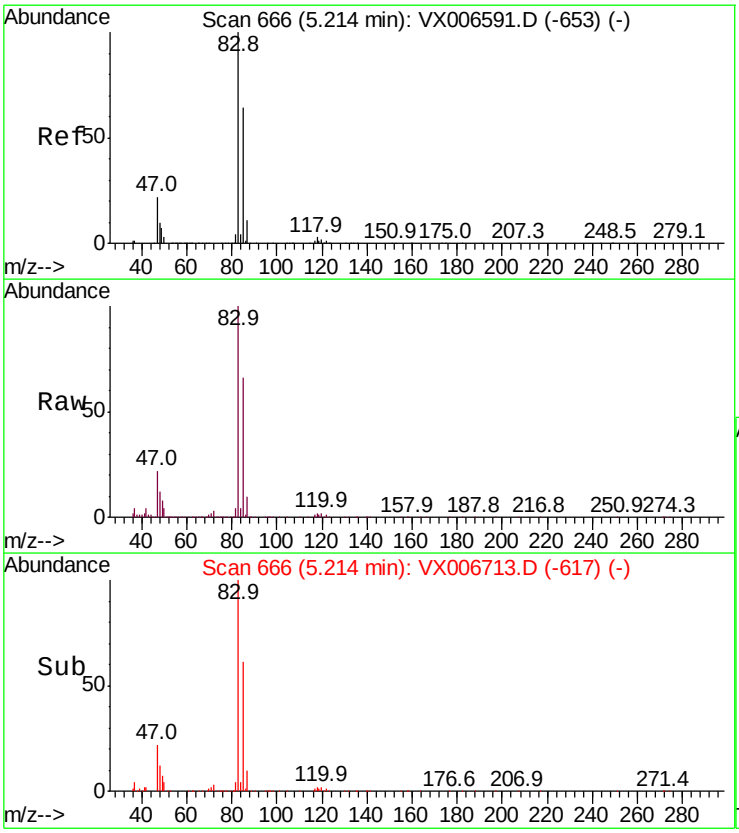


#29
Tetrahydrofuran
Concen: 241.727 ug/l
RT: 5.15 min Scan# 656
Delta R.T. -0.00 min
Lab File: VX006713.D
Acq: 21 Dec 2018 09:07

Tgt Ion: 42 Resp: 726204

Ion	Ratio	Lower	Upper
42	100		
72	47.9	38.9	58.3
71	44.5	36.2	54.4

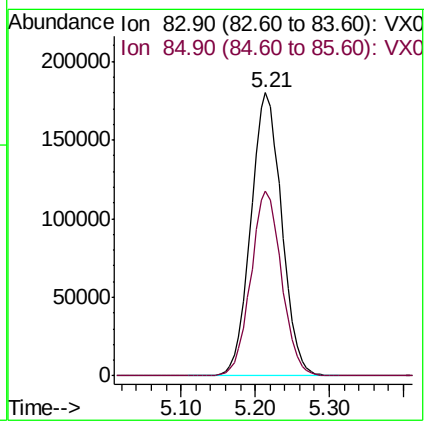




#30
Chloroform
Concen: 47.010 ug/l
RT: 5.21 min Scan# 666
Delta R.T. -0.00 min
Lab File: VX006713.D
Acq: 21 Dec 2018 09:07

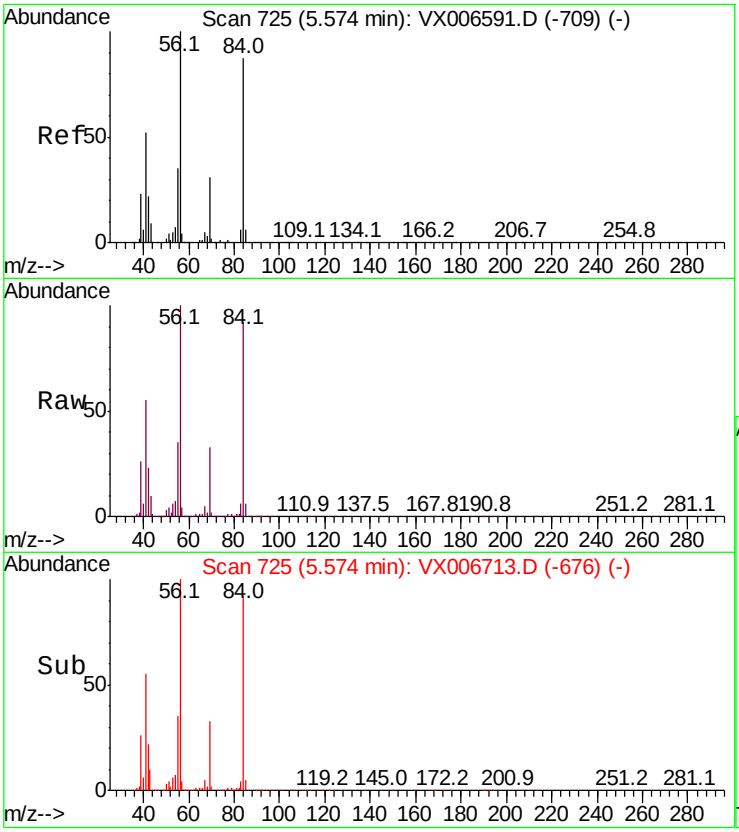
Tgt Ion: 83 Resp: 523622

Ion	Ratio	Lower	Upper
83	100		
85	65.5	51.2	76.8



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

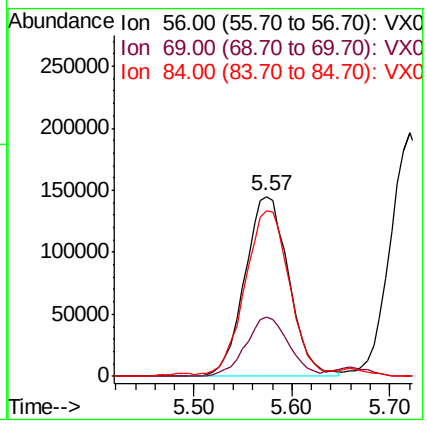
Manual Integrations APPROVED
MMDadoda
12/22/2018 11:20:53 AM

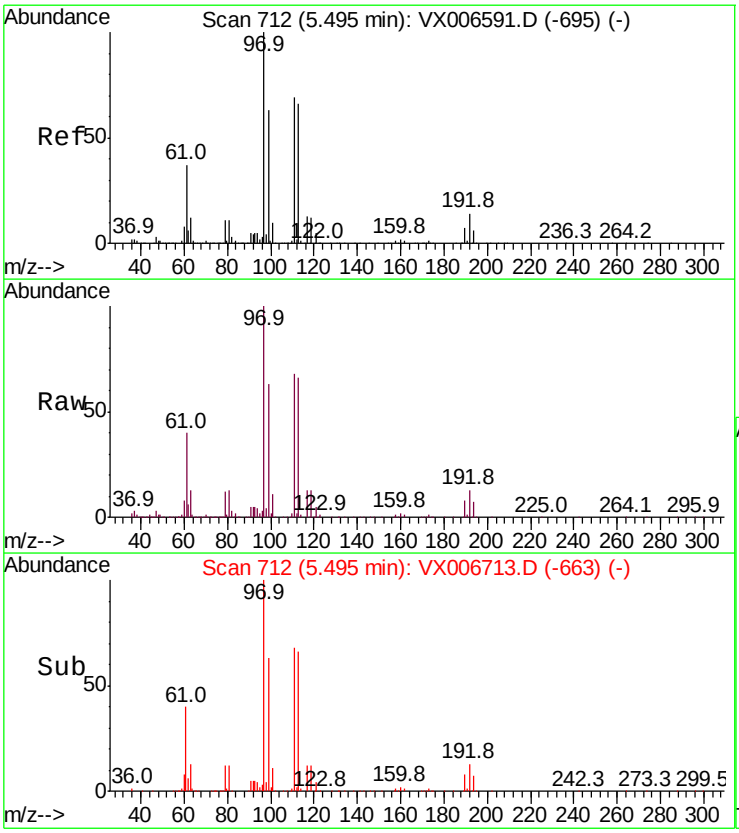


#31
Cyclohexane
Concen: 46.062 ug/l
RT: 5.57 min Scan# 725
Delta R.T. -0.00 min
Lab File: VX006713.D
Acq: 21 Dec 2018 09:07

Tgt Ion: 56 Resp: 450108

Ion	Ratio	Lower	Upper
56	100		
69	32.9	24.4	36.6
84	90.1	70.0	105.0

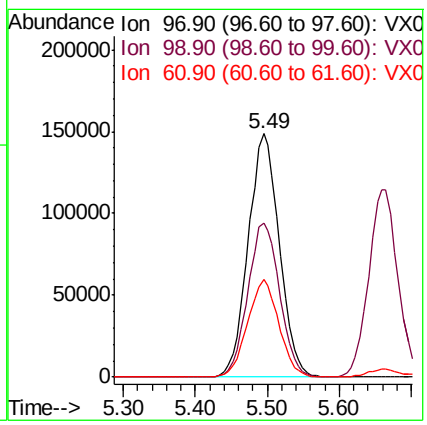




#32
1,1,1-Trichloroethane
Concen: 47.542 ug/l
RT: 5.49 min Scan# 712
Delta R.T. -0.00 min
Lab File: VX006713.D
Acq: 21 Dec 2018 09:07

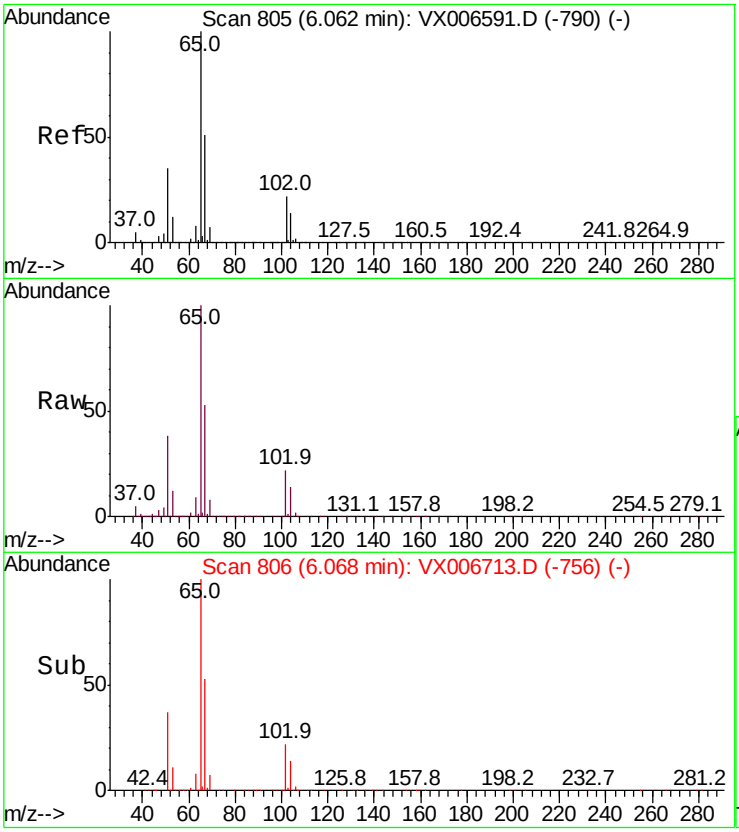
Tgt Ion: 97 Resp: 447141

Ion	Ratio	Lower	Upper
97	100		
99	64.8	51.7	77.5
61	40.1	31.3	46.9



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

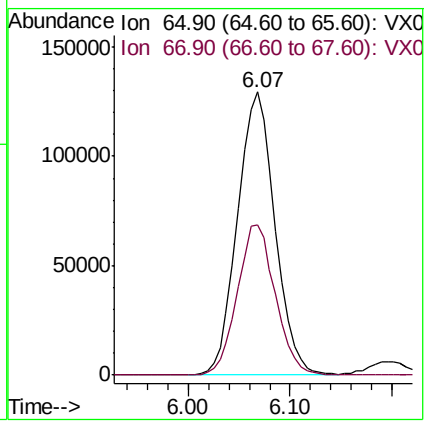
Manual Integrations APPROVED
MMDadoda
12/22/2018 11:20:53 AM

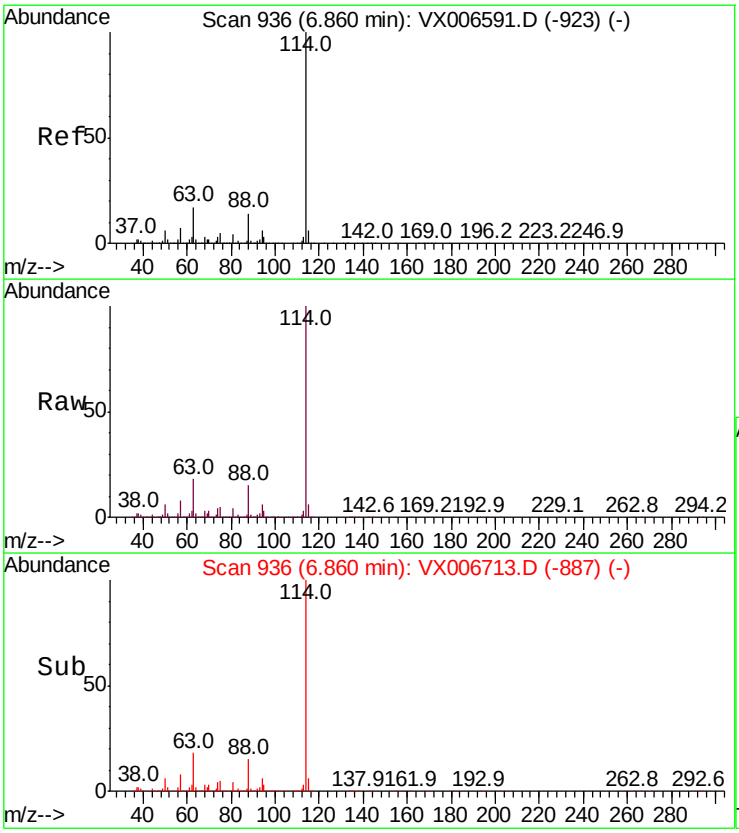


#33
1,2-Dichloroethane-d4
Concen: 46.712 ug/l
RT: 6.07 min Scan# 806
Delta R.T. 0.01 min
Lab File: VX006713.D
Acq: 21 Dec 2018 09:07

Tgt Ion: 65 Resp: 329704

Ion	Ratio	Lower	Upper
65	100		
67	54.0	0.0	105.0

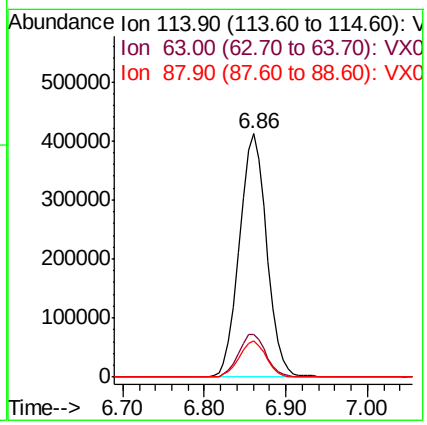




#34
1,4-Difluorobenzene
Concen: 50.000 ug/l
RT: 6.86 min Scan# 936
Delta R.T. -0.00 min
Lab File: VX006713.D
Acq: 21 Dec 2018 09:07

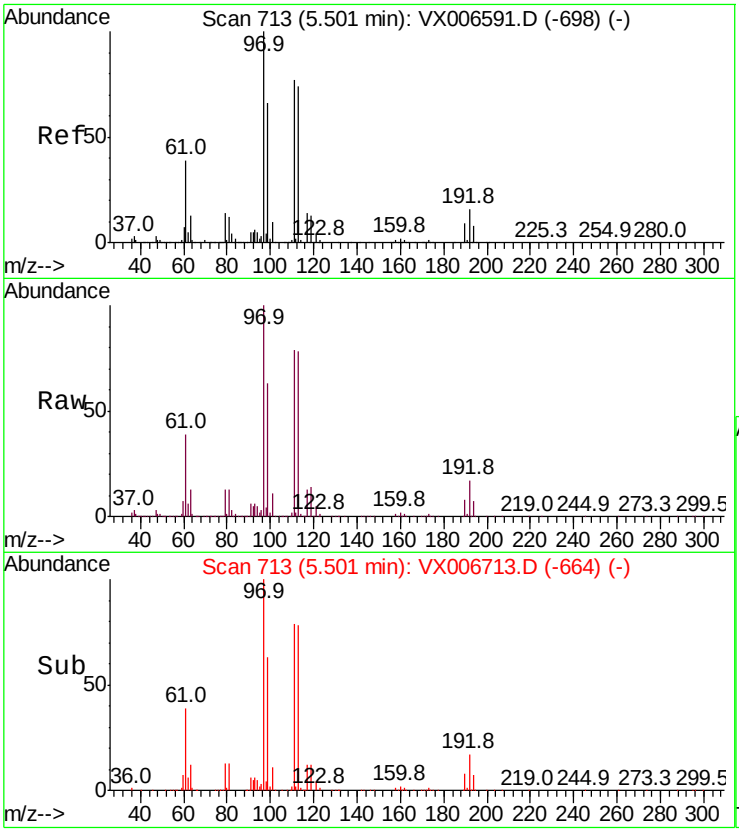
Tgt Ion:114 Resp: 954779

Ion	Ratio	Lower	Upper
114	100		
63	17.7	0.0	34.8
88	14.8	0.0	28.8



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

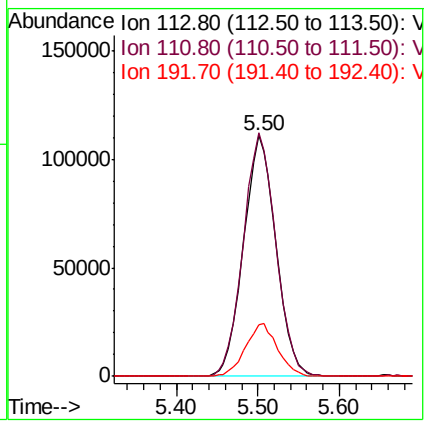
Manual Integrations APPROVED
MMDadoda
12/22/2018 11:20:53 AM

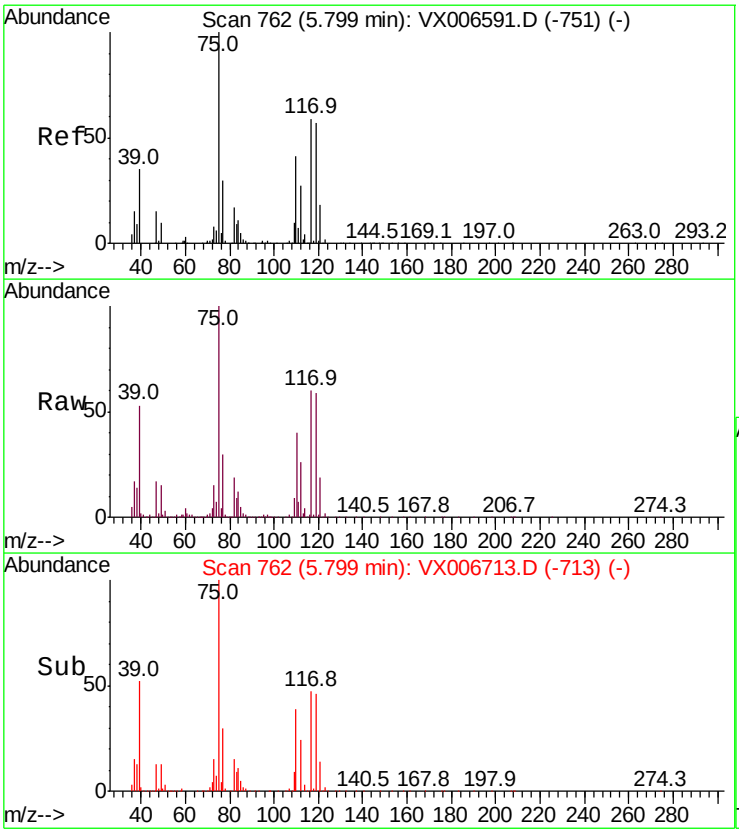


#35
Dibromofluoromethane
Concen: 50.830 ug/l
RT: 5.50 min Scan# 713
Delta R.T. -0.00 min
Lab File: VX006713.D
Acq: 21 Dec 2018 09:07

Tgt Ion:113 Resp: 306904

Ion	Ratio	Lower	Upper
113	100		
111	101.7	81.6	122.4
192	21.9	16.7	25.1

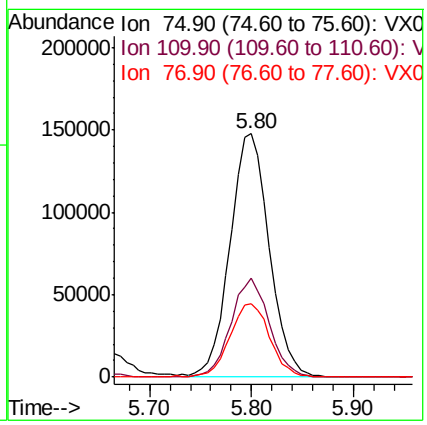




#36
1,1-Dichloropropene
Concen: 49.296 ug/l
RT: 5.80 min Scan# 762
Delta R.T. 0.00 min
Lab File: VX006713.D
Acq: 21 Dec 2018 09:07

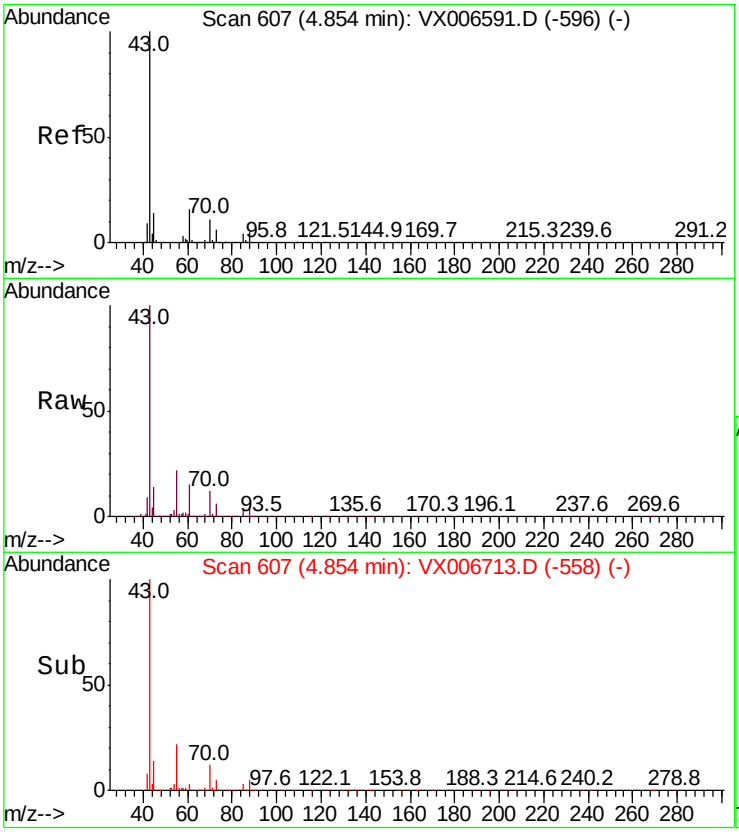
Tgt Ion: 75 Resp: 389819

Ion	Ratio	Lower	Upper
75	100		
110	40.2	20.2	60.5
77	30.4	24.8	37.2



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

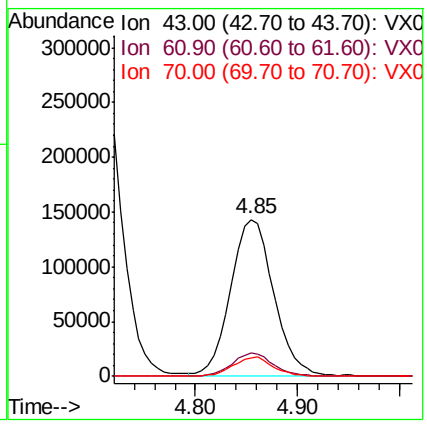
Manual Integrations APPROVED
MMDadoda
12/22/2018 11:20:53 AM

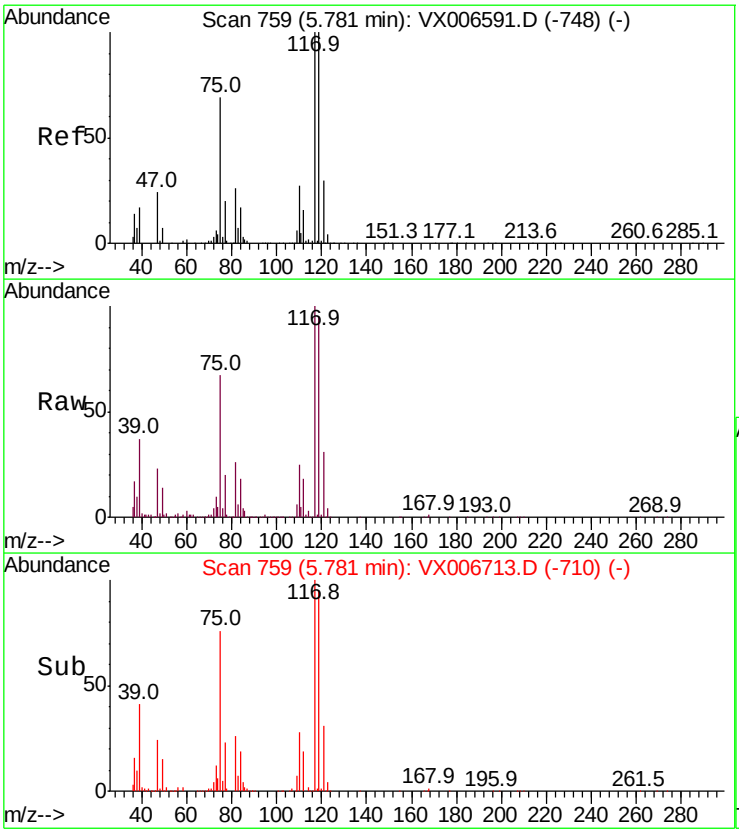


#37
Ethyl Acetate
Concen: 50.350 ug/l
RT: 4.85 min Scan# 607
Delta R.T. -0.00 min
Lab File: VX006713.D
Acq: 21 Dec 2018 09:07

Tgt Ion: 43 Resp: 414412

Ion	Ratio	Lower	Upper
43	100		
61	14.3	11.9	17.9
70	11.6	9.7	14.5

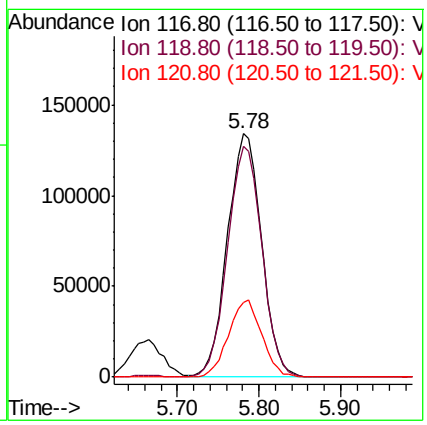




#38
Carbon Tetrachloride
Concen: 50.384 ug/l
RT: 5.78 min Scan# 759
Delta R.T. -0.00 min
Lab File: VX006713.D
Acq: 21 Dec 2018 09:07

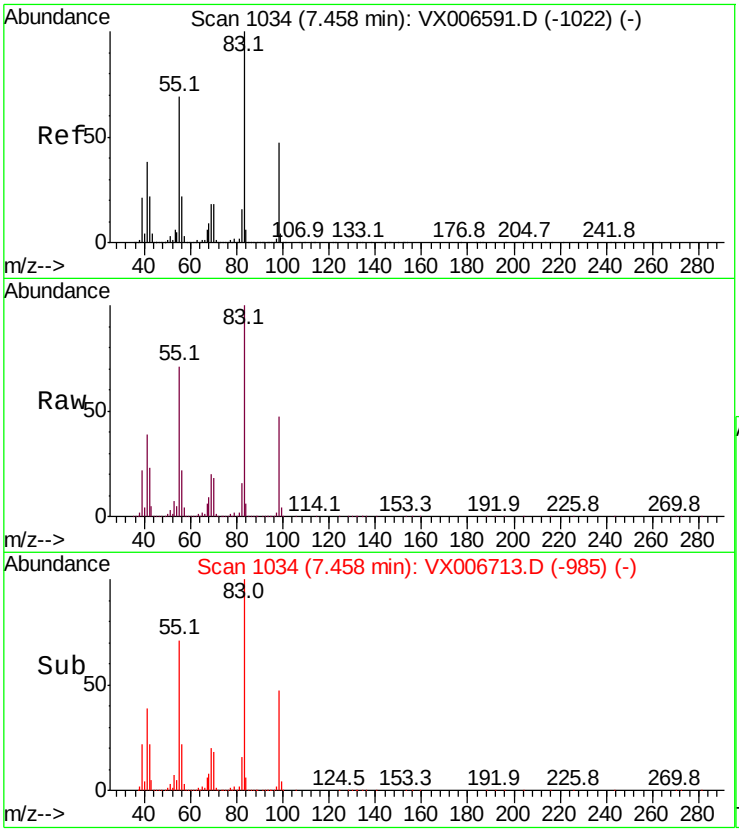
Tgt Ion:117 Resp: 387207

Ion	Ratio	Lower	Upper
117	100		
119	94.9	79.4	119.2
121	30.7	24.0	36.0



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

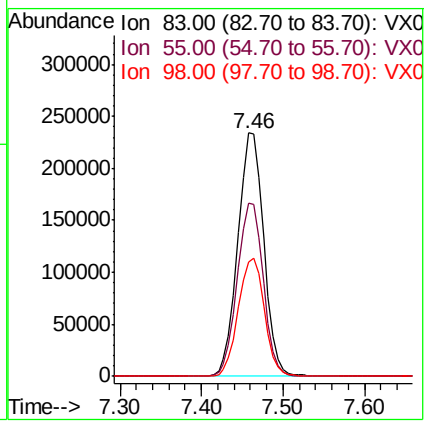
Manual Integrations APPROVED
MMDadoda
12/22/2018 11:20:53 AM

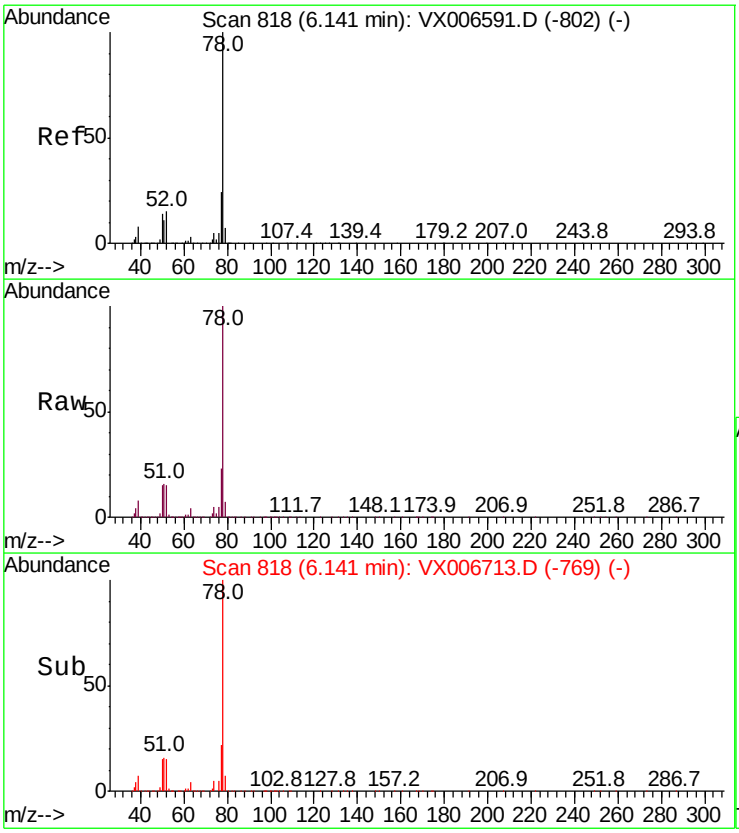


#39
Methylcyclohexane
Concen: 49.415 ug/l
RT: 7.46 min Scan# 1034
Delta R.T. -0.00 min
Lab File: VX006713.D
Acq: 21 Dec 2018 09:07

Tgt Ion: 83 Resp: 514450

Ion	Ratio	Lower	Upper
83	100		
55	71.3	54.9	82.3
98	47.2	37.9	56.9

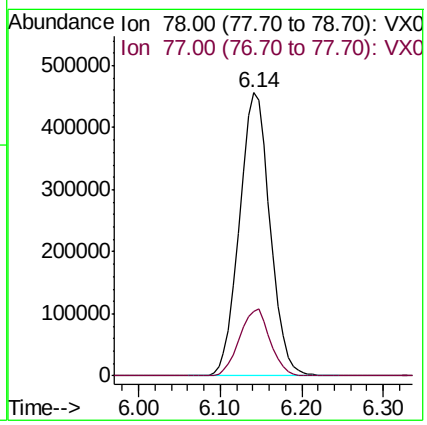




#40
Benzene
Concen: 49.342 ug/l
RT: 6.14 min Scan# 818
Delta R.T. -0.00 min
Lab File: VX006713.D
Acq: 21 Dec 2018 09:07

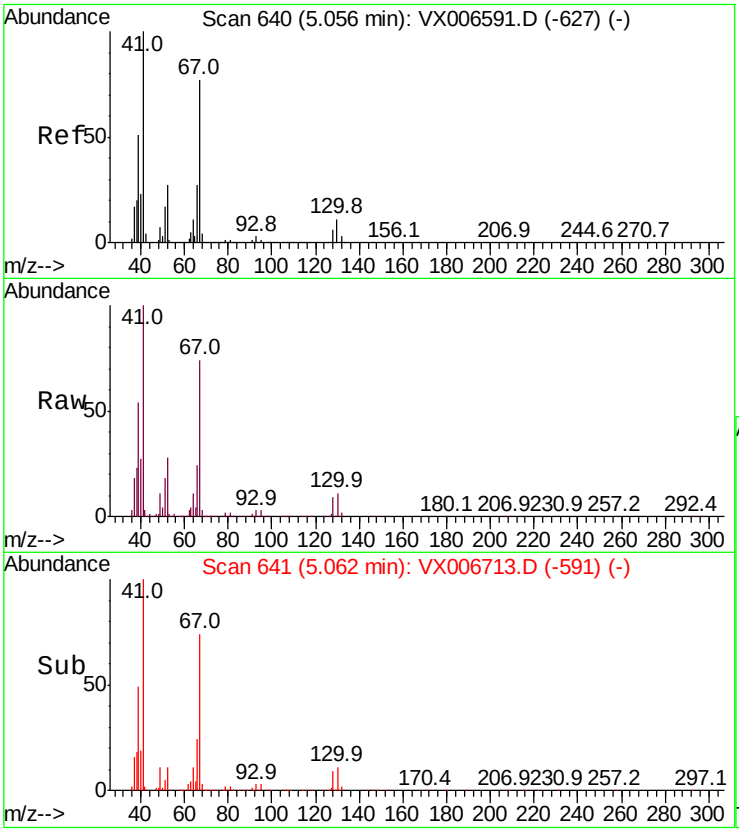
Tgt Ion: 78 Resp: 1186039

Ion	Ratio	Lower	Upper
78	100		
77	22.6	19.2	28.8



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

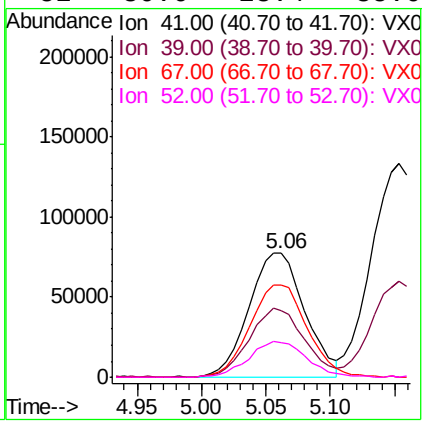
Manual Integrations APPROVED
MMDadoda
12/22/2018 11:20:53 AM

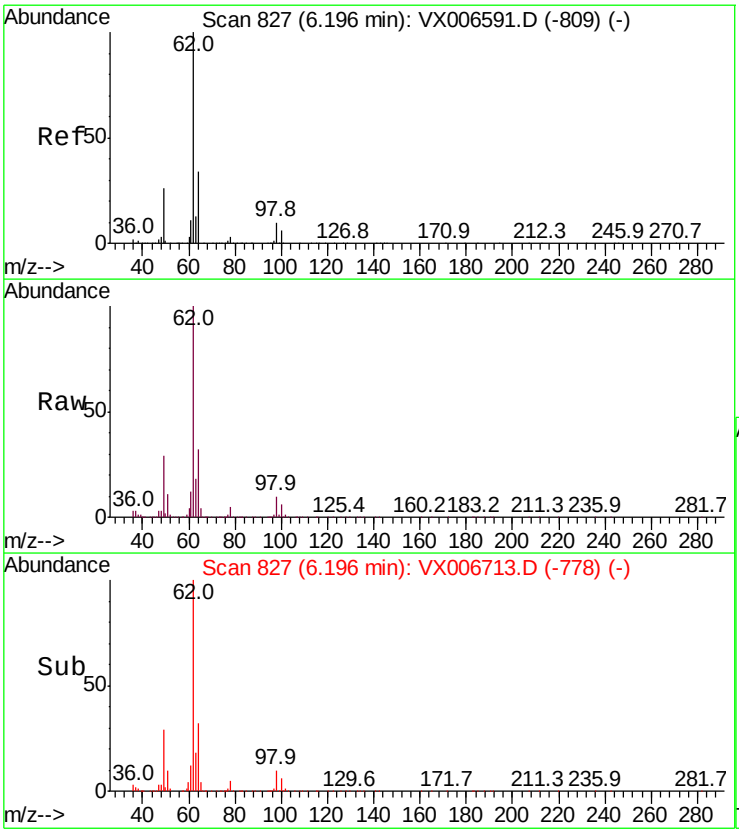


#41
Methacrylonitrile
Concen: 53.198 ug/l
RT: 5.06 min Scan# 641
Delta R.T. 0.01 min
Lab File: VX006713.D
Acq: 21 Dec 2018 09:07

Tgt Ion: 41 Resp: 232464

Ion	Ratio	Lower	Upper
41	100		
39	54.9	42.8	64.2
67	76.8	62.1	93.1
52	30.6	23.4	35.0

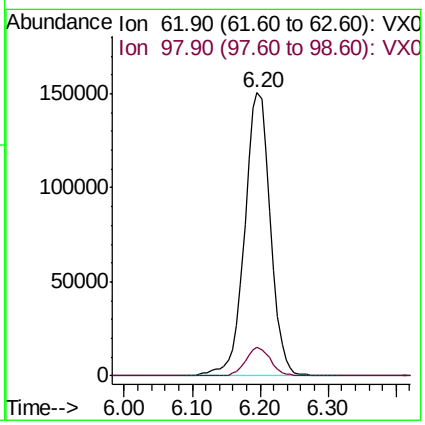




#42
1,2-Dichloroethane
Concen: 48.198 ug/l
RT: 6.20 min Scan# 827
Delta R.T. -0.00 min
Lab File: VX006713.D
Acq: 21 Dec 2018 09:07

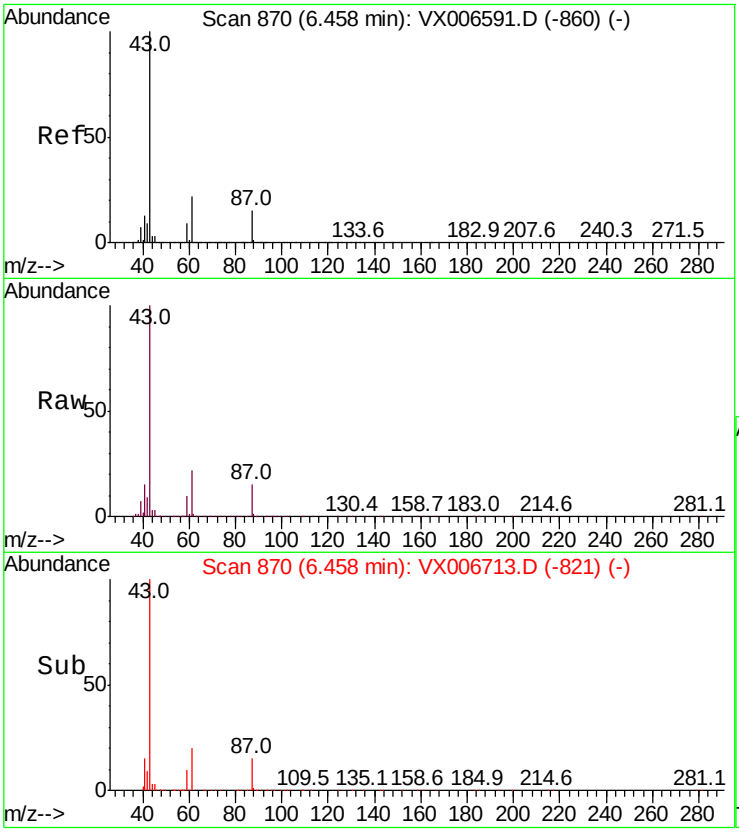
Tgt Ion: 62 Resp: 394780

Ion	Ratio	Lower	Upper
62	100		
98	9.9	0.0	20.2



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

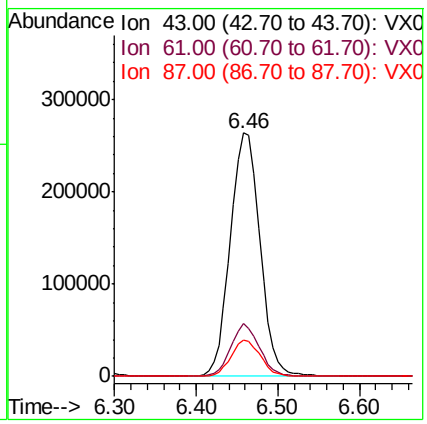
Manual Integrations APPROVED
MMDadoda
12/22/2018 11:20:53 AM

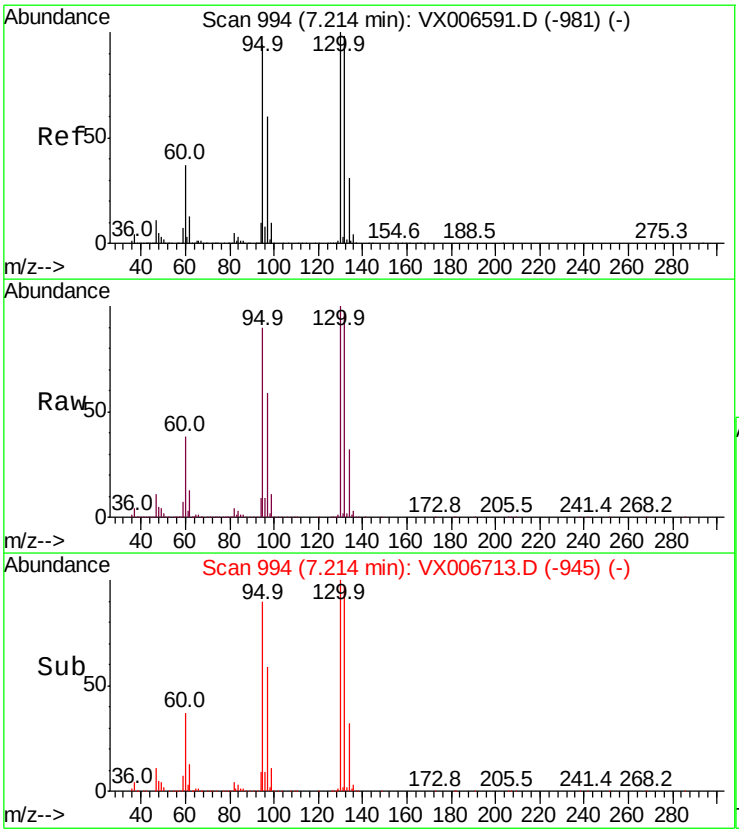


#43
Isopropyl Acetate
Concen: 52.946 ug/l
RT: 6.46 min Scan# 870
Delta R.T. -0.00 min
Lab File: VX006713.D
Acq: 21 Dec 2018 09:07

Tgt Ion: 43 Resp: 663047

Ion	Ratio	Lower	Upper
43	100		
61	20.7	16.8	25.2
87	14.5	12.4	18.6

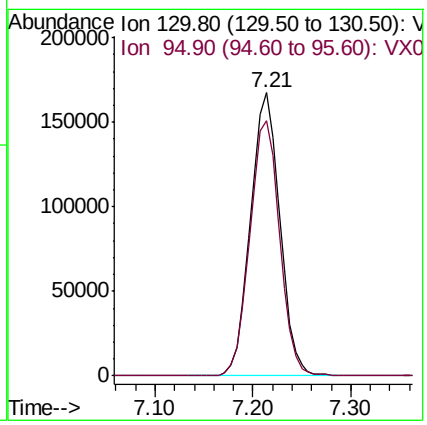




#44
Trichloroethene
Concen: 48.319 ug/l
RT: 7.21 min Scan# 994
Delta R.T. -0.00 min
Lab File: VX006713.D
Acq: 21 Dec 2018 09:07

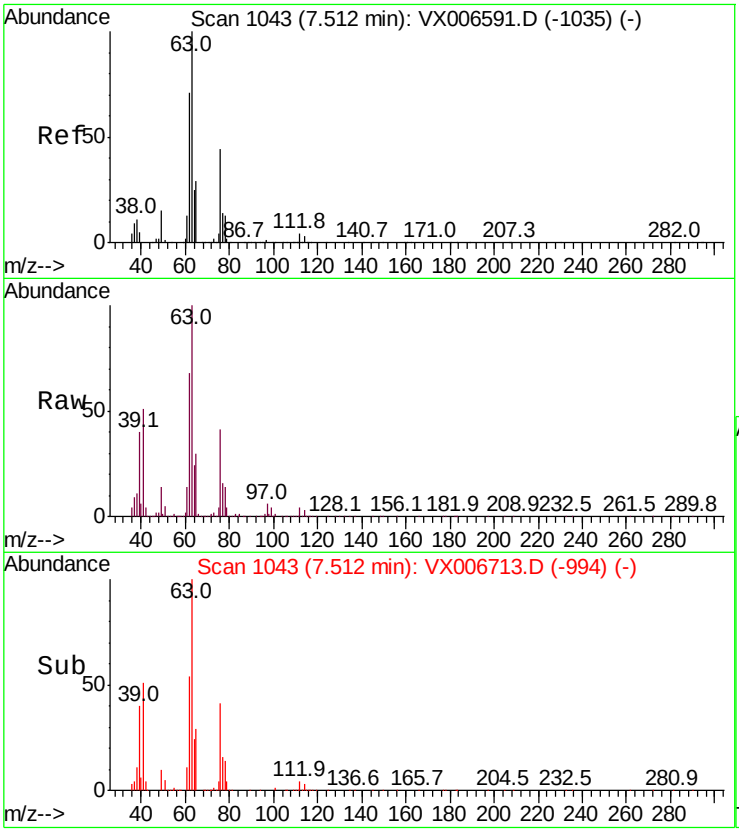
Tgt Ion:130 Resp: 351535

Ion	Ratio	Lower	Upper
130	100		
95	90.0	0.0	187.0



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

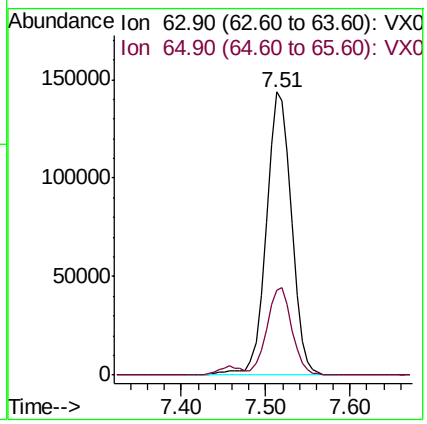
Manual Integrations APPROVED
MMDadoda
12/22/2018 11:20:53 AM

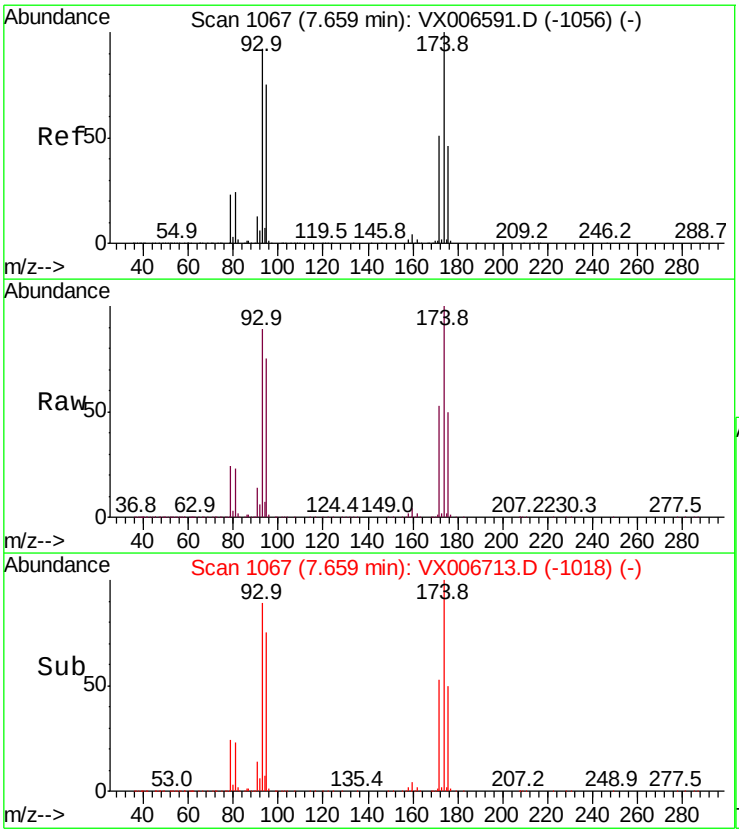


#45
1,2-Dichloropropane
Concen: 50.816 ug/l
RT: 7.51 min Scan# 1043
Delta R.T. -0.00 min
Lab File: VX006713.D
Acq: 21 Dec 2018 09:07

Tgt Ion: 63 Resp: 297241

Ion	Ratio	Lower	Upper
63	100		
65	30.2	25.4	38.0

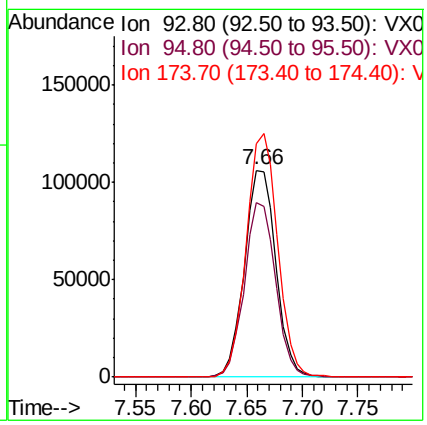




#46
Dibromomethane
Concen: 48.796 ug/l
RT: 7.66 min Scan# 1067
Delta R.T. -0.00 min
Lab File: VX006713.D
Acq: 21 Dec 2018 09:07

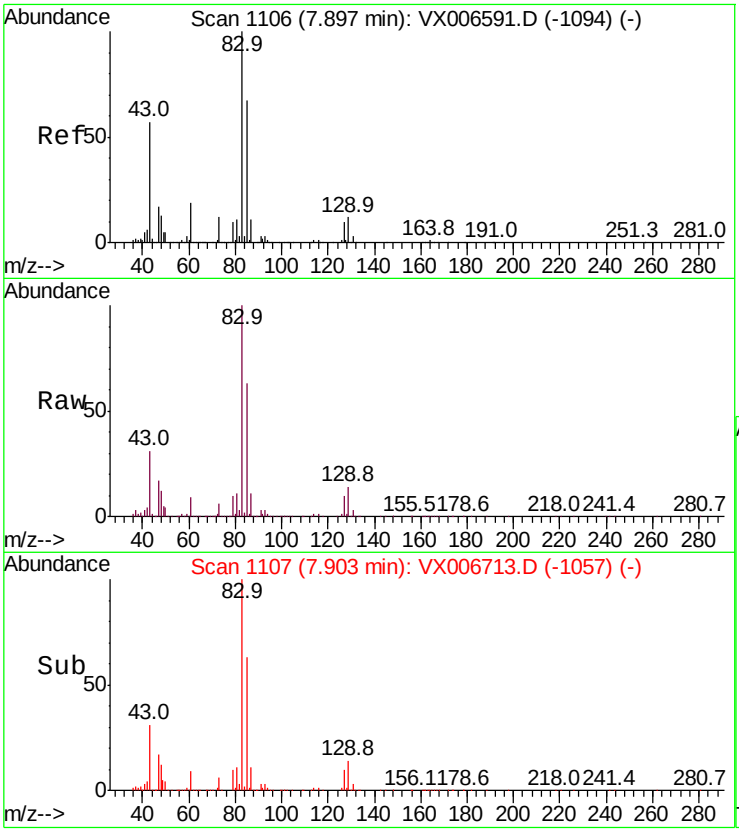
Tgt Ion: 93 Resp: 209947

Ion	Ratio	Lower	Upper
93	100		
95	83.6	66.2	99.4
174	117.4	91.0	136.4



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

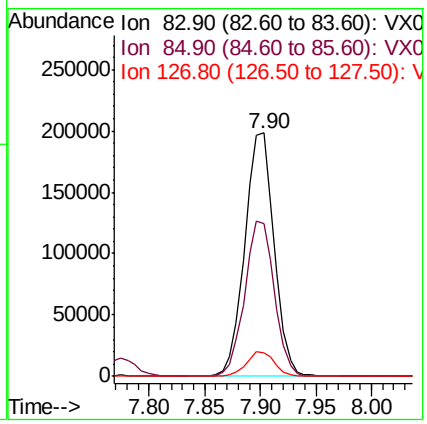
Manual Integrations APPROVED
MMDadoda
12/22/2018 11:20:53 AM

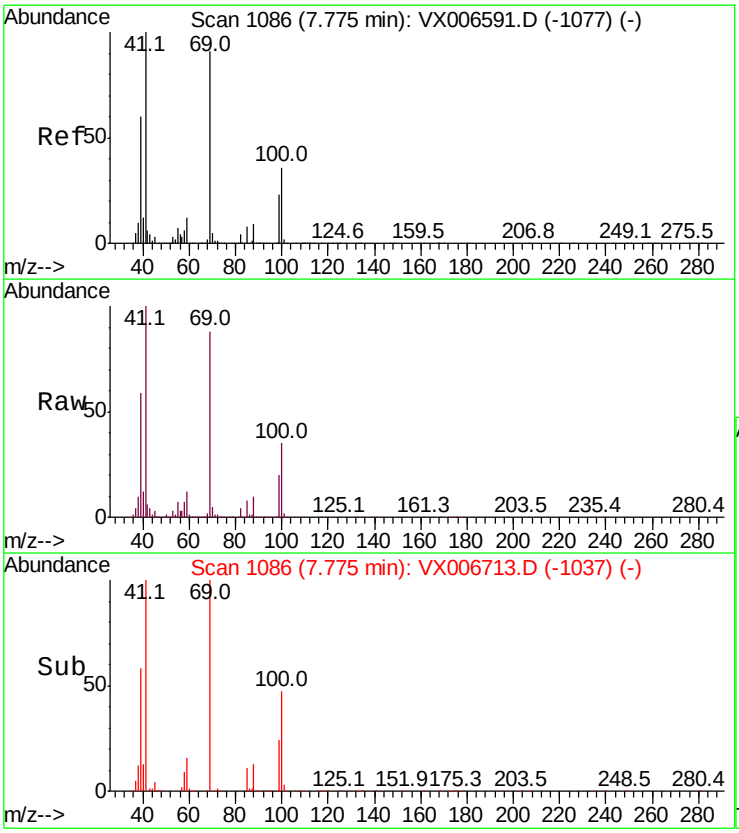


#47
Bromodichloromethane
Concen: 50.794 ug/l
RT: 7.90 min Scan# 1107
Delta R.T. 0.01 min
Lab File: VX006713.D
Acq: 21 Dec 2018 09:07

Tgt Ion: 83 Resp: 362831

Ion	Ratio	Lower	Upper
83	100		
85	62.8	53.2	79.8
127	9.8	7.8	11.6

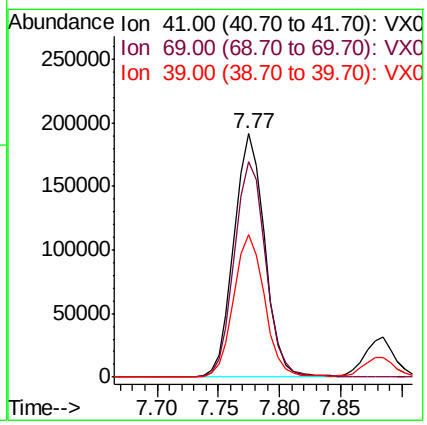




#48
Methyl methacrylate
Concen: 52.592 ug/l
RT: 7.77 min Scan# 1086
Delta R.T. -0.00 min
Lab File: VX006713.D
Acq: 21 Dec 2018 09:07

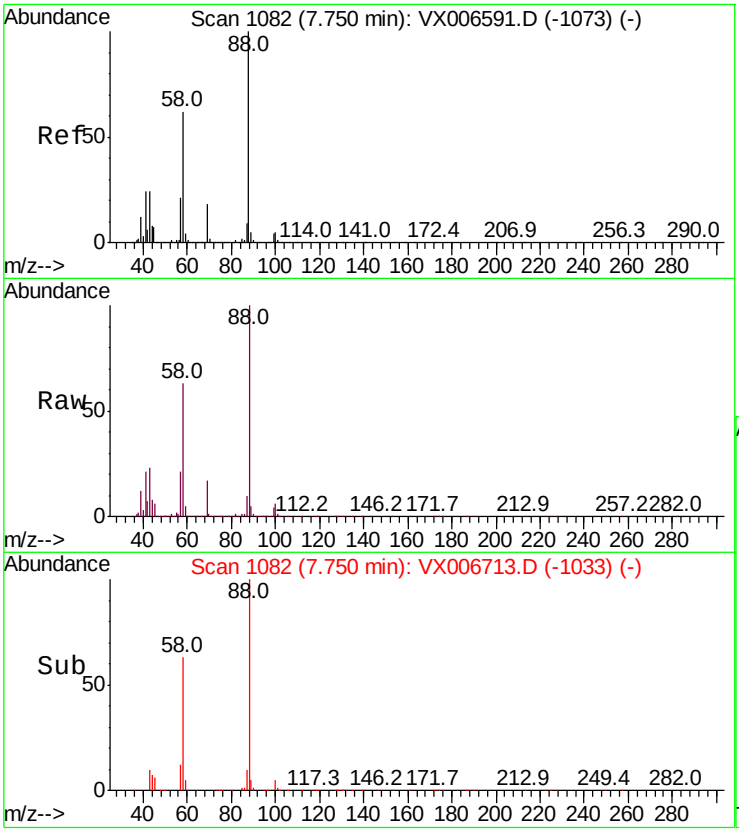
Tgt Ion: 41 Resp: 334926

Ion	Ratio	Lower	Upper
41	100		
69	90.7	72.4	108.6
39	58.4	45.8	68.8



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

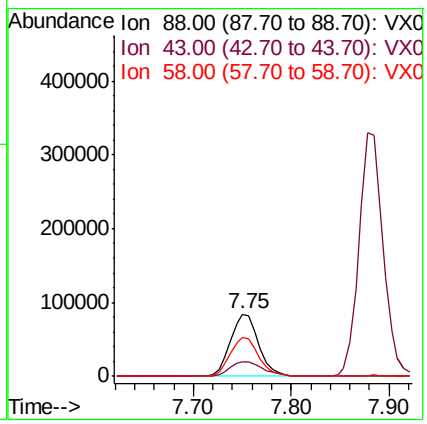
Manual Integrations APPROVED
MMDadoda
12/22/2018 11:20:53 AM

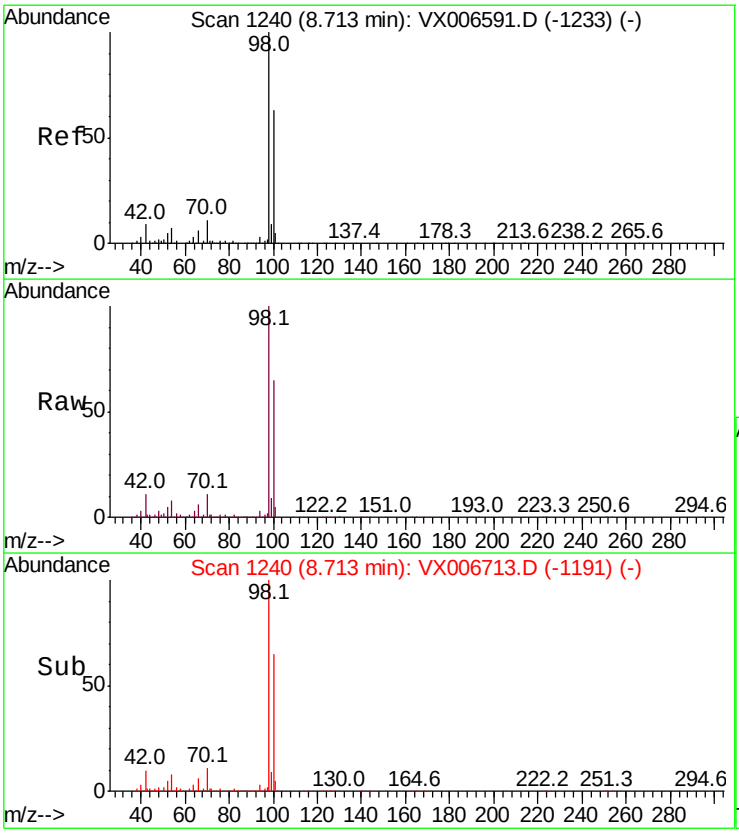


#49
1,4-Dioxane
Concen: 1006.610 ug/l
RT: 7.75 min Scan# 1082
Delta R.T. 0.00 min
Lab File: VX006713.D
Acq: 21 Dec 2018 09:07

Tgt Ion: 88 Resp: 167705

Ion	Ratio	Lower	Upper
88	100		
43	27.8	22.2	33.4
58	64.0	51.0	76.4

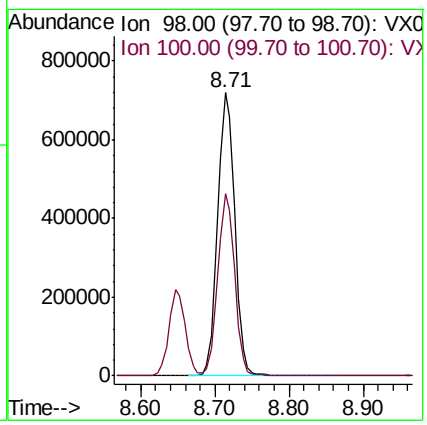




#50
Toluene-d8
Concen: 49.873 ug/l
RT: 8.71 min Scan# 1240
Delta R.T. -0.00 min
Lab File: VX006713.D
Acq: 21 Dec 2018 09:07

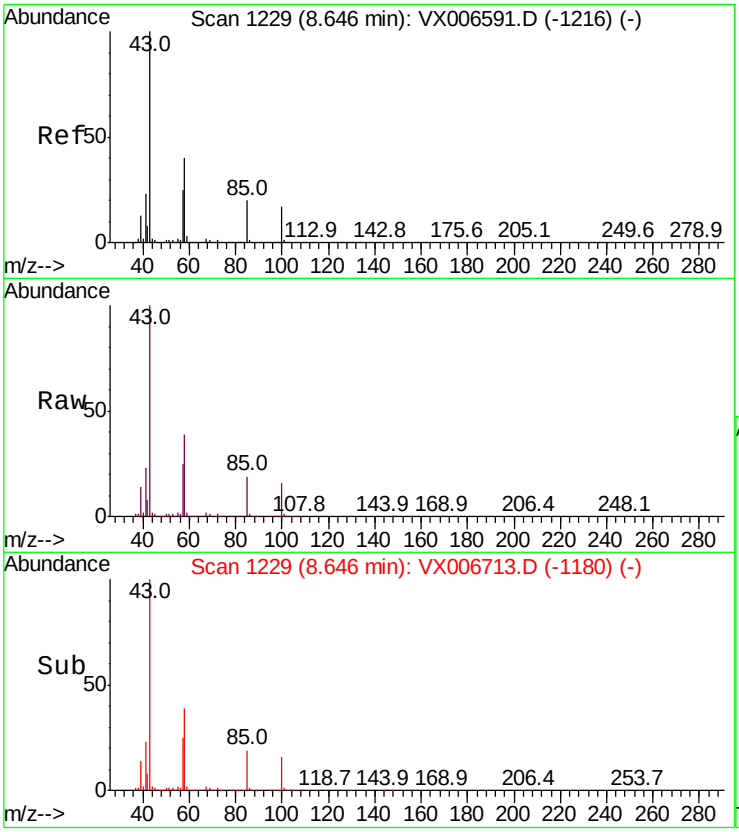
Tgt Ion: 98 Resp: 1135246

Ion	Ratio	Lower	Upper
98	100		
100	63.7	52.0	78.0



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

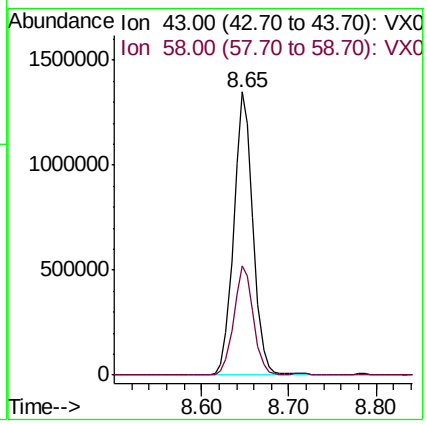
Manual Integrations APPROVED
MMDadoda
12/22/2018 11:20:53 AM

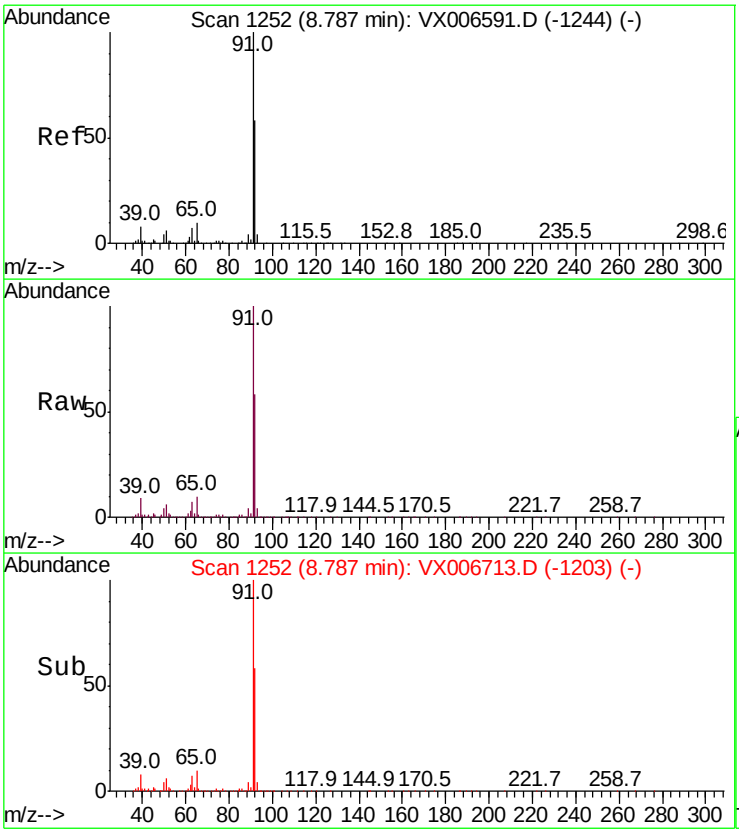


#51
4-Methyl-2-Pentanone
Concen: 260.749 ug/l
RT: 8.65 min Scan# 1229
Delta R.T. 0.00 min
Lab File: VX006713.D
Acq: 21 Dec 2018 09:07

Tgt Ion: 43 Resp: 2077678

Ion	Ratio	Lower	Upper
43	100		
58	39.1	31.8	47.6

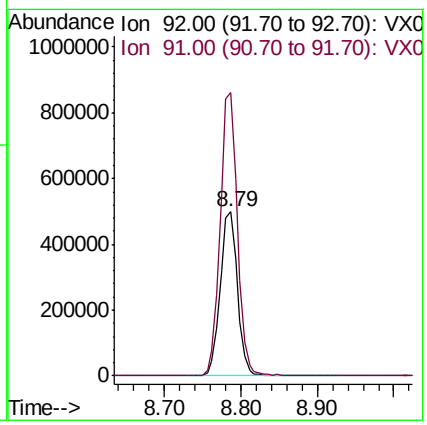




#52
Toluene
Concen: 50.147 ug/l
RT: 8.79 min Scan# 1252
Delta R.T. -0.00 min
Lab File: VX006713.D
Acq: 21 Dec 2018 09:07

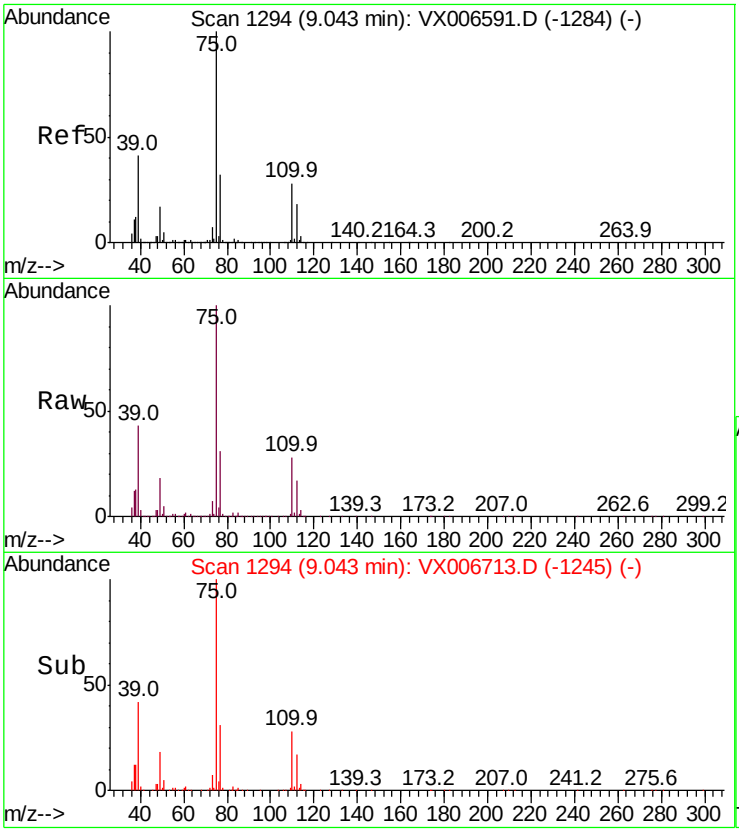
Tgt Ion: 92 Resp: 778727

Ion	Ratio	Lower	Upper
92	100		
91	172.4	137.6	206.4



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

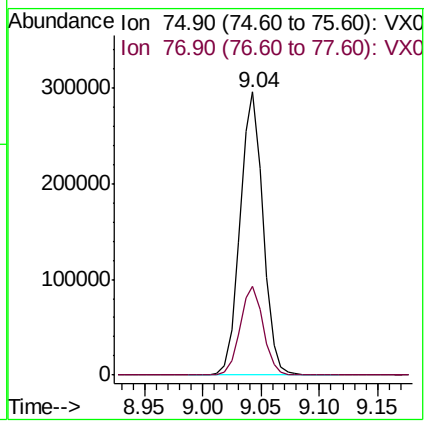
Manual Integrations APPROVED
MMDadoda
12/22/2018 11:20:53 AM

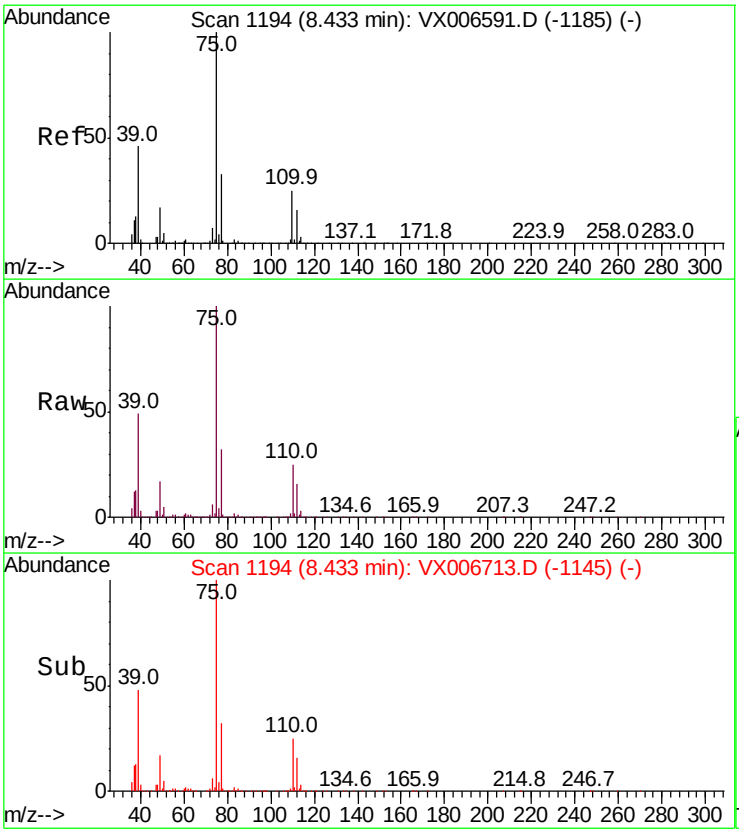


#53
t-1,3-Dichloropropene
Concen: 53.248 ug/l
RT: 9.04 min Scan# 1294
Delta R.T. -0.00 min
Lab File: VX006713.D
Acq: 21 Dec 2018 09:07

Tgt Ion: 75 Resp: 407933

Ion	Ratio	Lower	Upper
75	100		
77	31.1	25.4	38.0

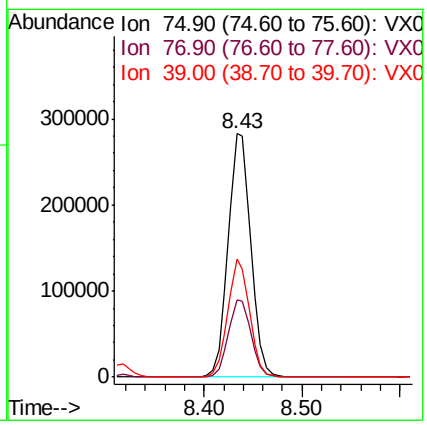




#54
cis-1,3-Dichloropropene
Concen: 53.994 ug/l
RT: 8.43 min Scan# 1194
Delta R.T. -0.00 min
Lab File: VX006713.D
Acq: 21 Dec 2018 09:07

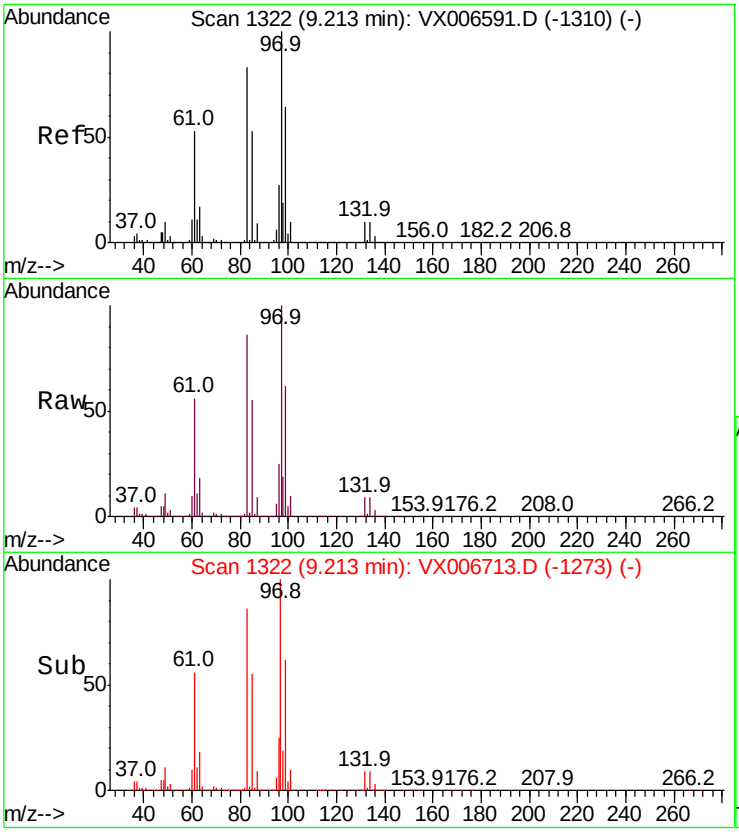
Tgt Ion: 75 Resp: 453879

Ion	Ratio	Lower	Upper
75	100		
77	31.9	26.2	39.2
39	48.4	36.7	55.1



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

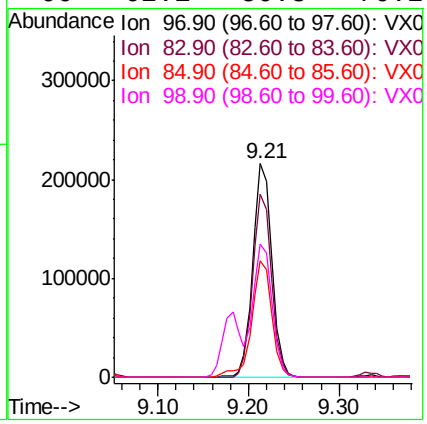
Manual Integrations APPROVED
MMDadoda
12/22/2018 11:20:53 AM

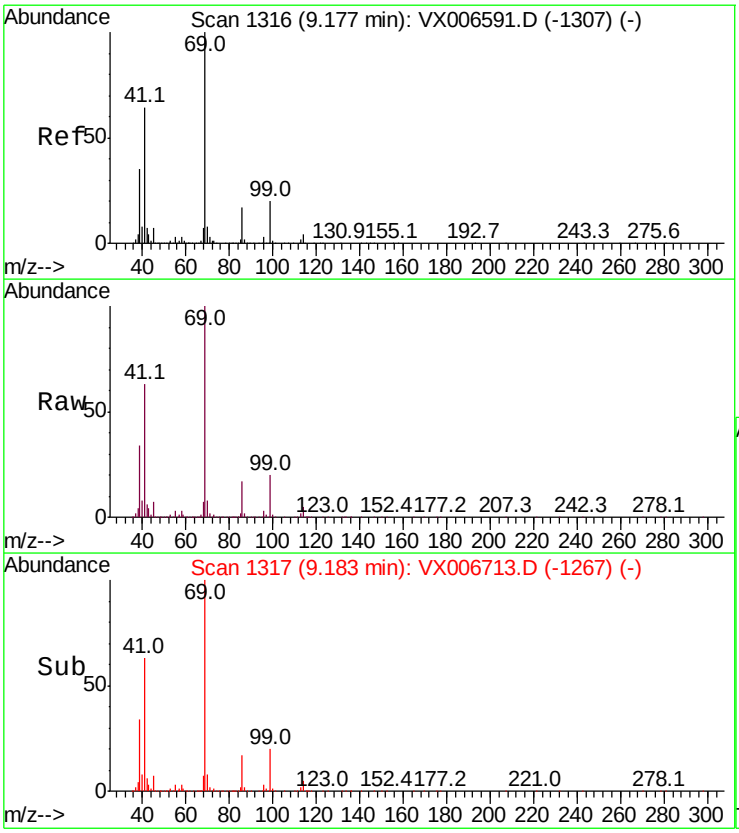


#55
1,1,2-Trichloroethane
Concen: 49.619 ug/l
RT: 9.21 min Scan# 1322
Delta R.T. -0.00 min
Lab File: VX006713.D
Acq: 21 Dec 2018 09:07

Tgt Ion: 97 Resp: 315392

Ion	Ratio	Lower	Upper
97	100		
83	85.5	66.6	99.8
85	54.8	42.7	64.1
99	62.1	50.8	76.2

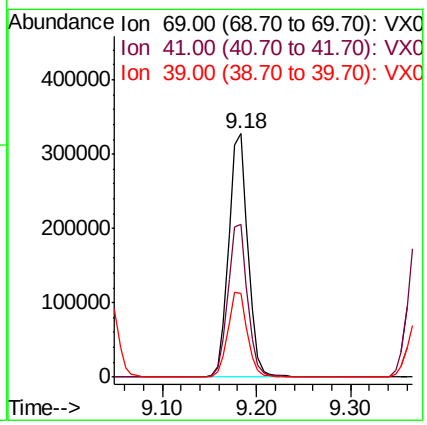




#56
Ethyl methacrylate
Concen: 51.725 ug/l
RT: 9.18 min Scan# 1317
Delta R.T. 0.01 min
Lab File: VX006713.D
Acq: 21 Dec 2018 09:07

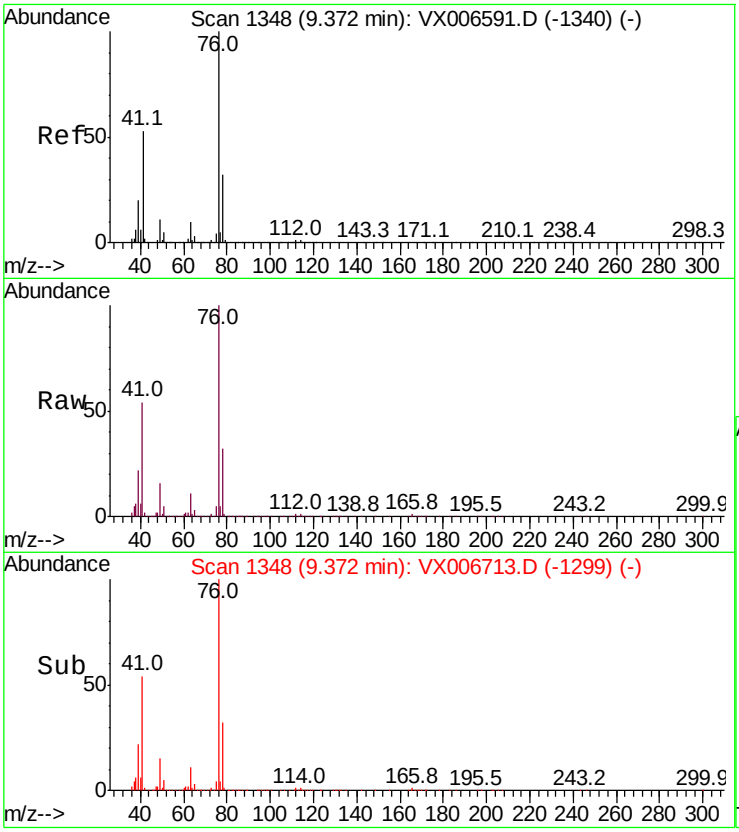
Tgt Ion: 69 Resp: 464689

Ion	Ratio	Lower	Upper
69	100		
41	63.3	48.7	73.1
39	35.1	27.0	40.6



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

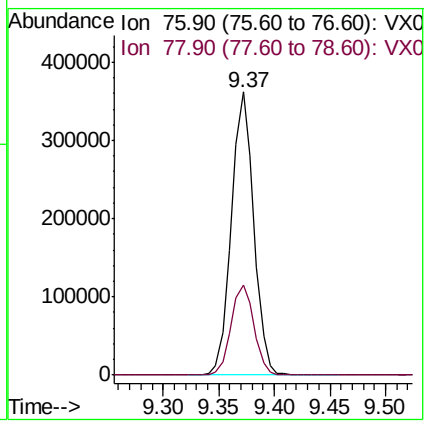
Manual Integrations APPROVED
MMDadoda
12/22/2018 11:20:53 AM

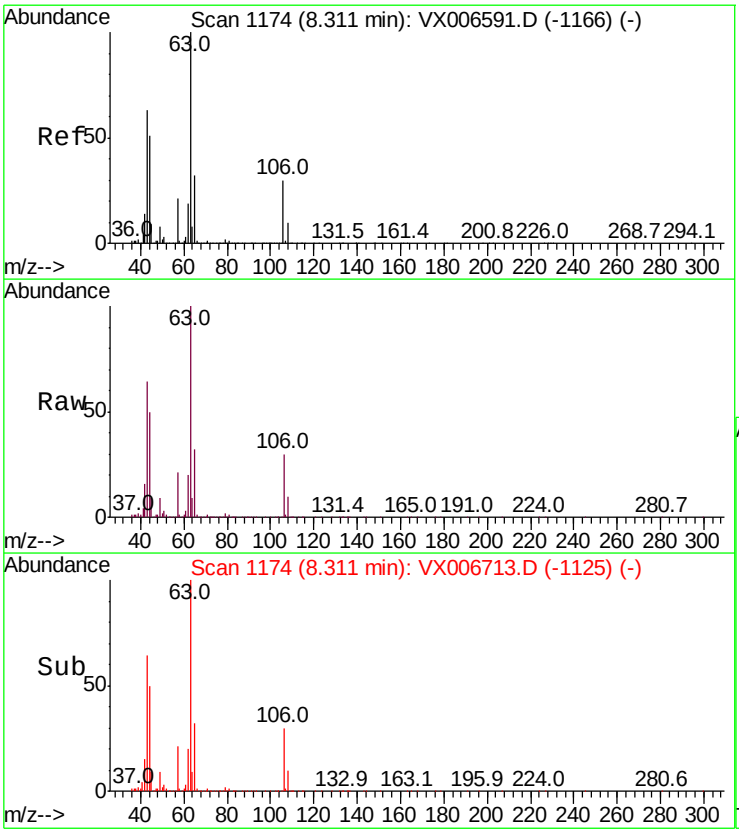


#57
1,3-Dichloropropane
Concen: 48.971 ug/l
RT: 9.37 min Scan# 1348
Delta R.T. -0.00 min
Lab File: VX006713.D
Acq: 21 Dec 2018 09:07

Tgt Ion: 76 Resp: 500805

Ion	Ratio	Lower	Upper
76	100		
78	33.0	26.0	39.0

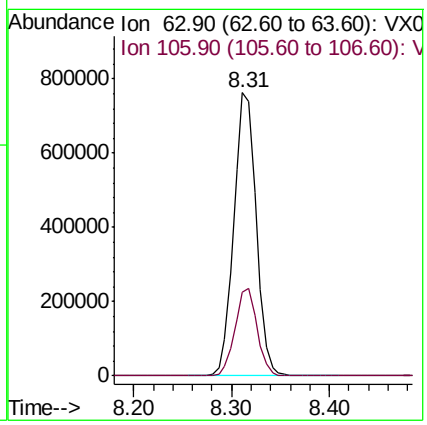




#58
2-Chloroethyl Vinyl ether
Concen: 253.330 ug/l
RT: 8.31 min Scan# 1174
Delta R.T. -0.00 min
Lab File: VX006713.D
Acq: 21 Dec 2018 09:07

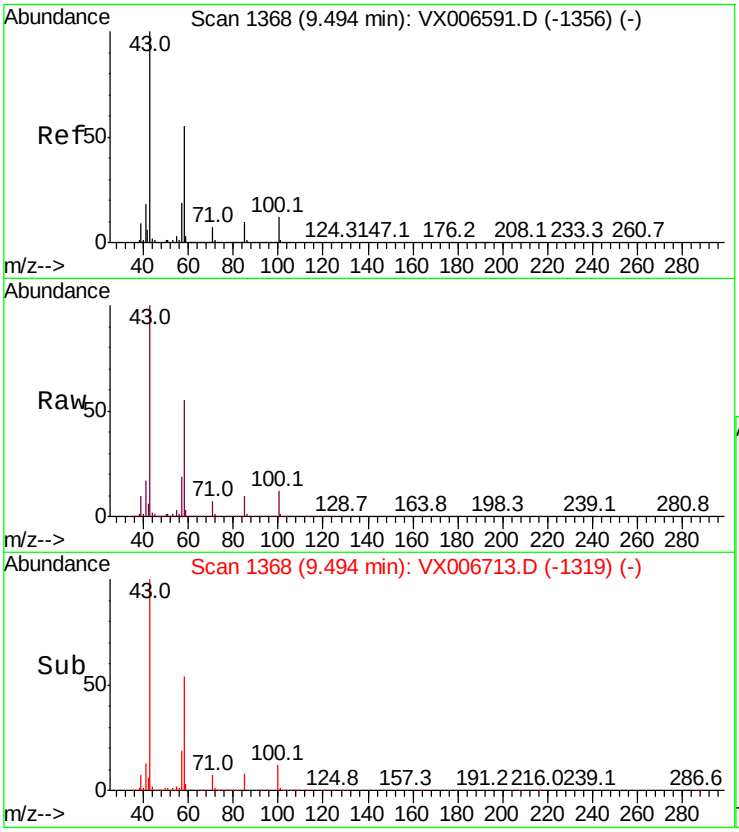
Tgt Ion: 63 Resp: 1209772

Ion	Ratio	Lower	Upper
63	100		
106	30.7	24.6	36.8



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

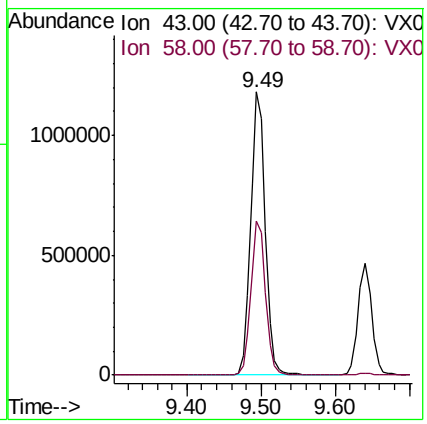
Manual Integrations APPROVED
MMDadoda
12/22/2018 11:20:53 AM

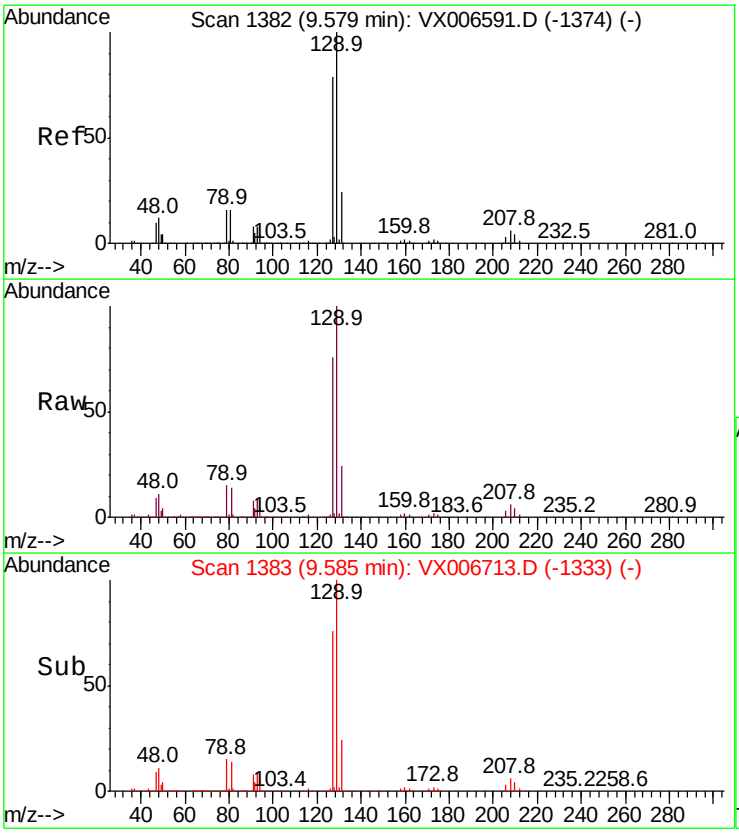


#59
2-Hexanone
Concen: 265.633 ug/l
RT: 9.49 min Scan# 1368
Delta R.T. -0.00 min
Lab File: VX006713.D
Acq: 21 Dec 2018 09:07

Tgt Ion: 43 Resp: 1619445

Ion	Ratio	Lower	Upper
43	100		
58	55.1	27.7	83.1

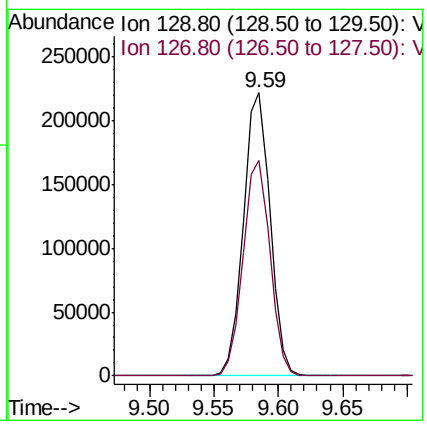




#60
Dibromochloromethane
Concen: 47.671 ug/l
RT: 9.59 min Scan# 1383
Delta R.T. 0.01 min
Lab File: VX006713.D
Acq: 21 Dec 2018 09:07

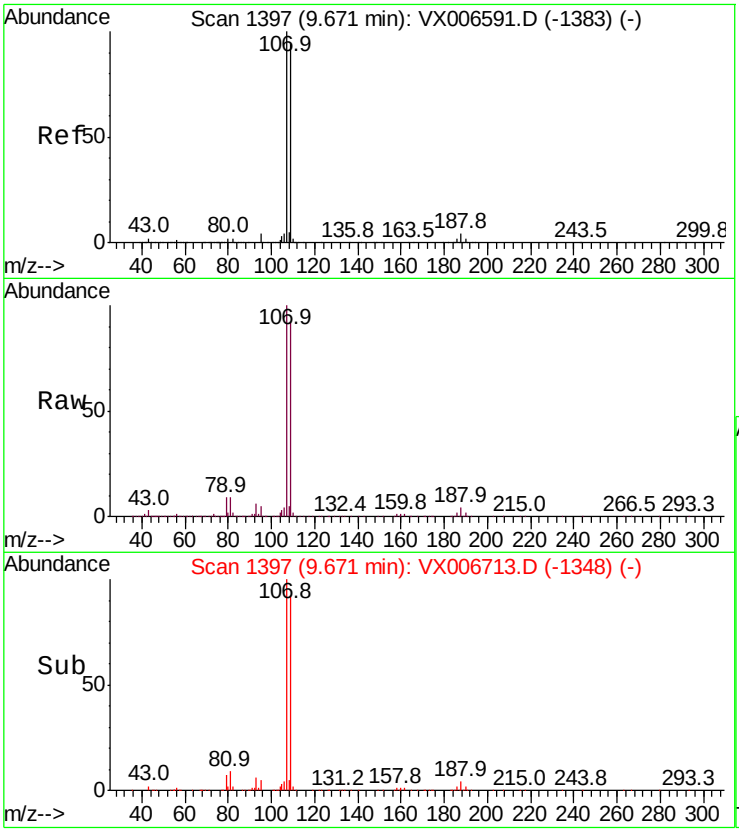
Tgt Ion:129 Resp: 316158

Ion	Ratio	Lower	Upper
129	100		
127	77.0	39.3	117.8



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

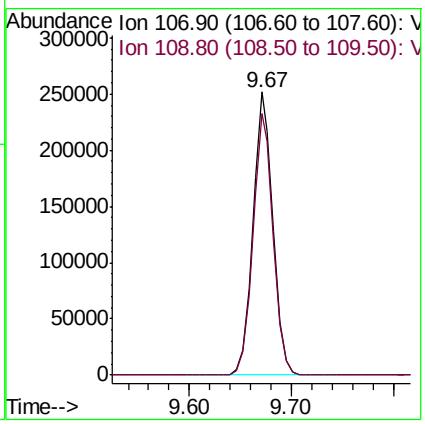
Manual Integrations APPROVED
MMDadoda
12/22/2018 11:20:53 AM

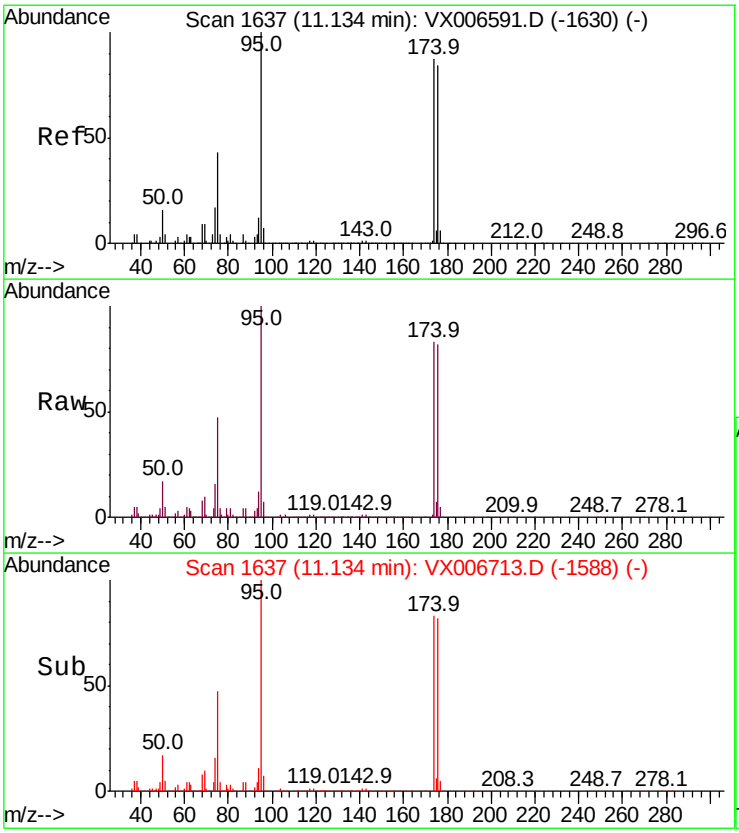


#61
1,2-Dibromoethane
Concen: 51.102 ug/l
RT: 9.67 min Scan# 1397
Delta R.T. -0.00 min
Lab File: VX006713.D
Acq: 21 Dec 2018 09:07

Tgt Ion:107 Resp: 345291

Ion	Ratio	Lower	Upper
107	100		
109	93.4	75.8	113.6

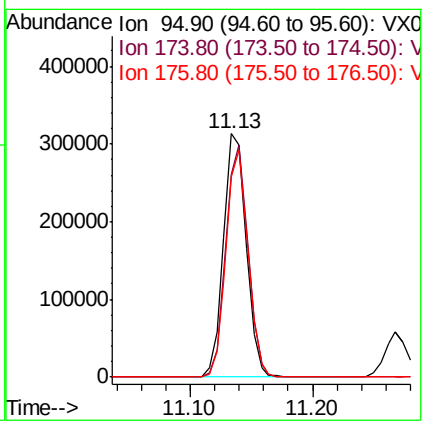




#62
4-Bromofluorobenzene
Concen: 48.423 ug/l
RT: 11.13 min Scan# 1637
Delta R.T. -0.00 min
Lab File: VX006713.D
Acq: 21 Dec 2018 09:07

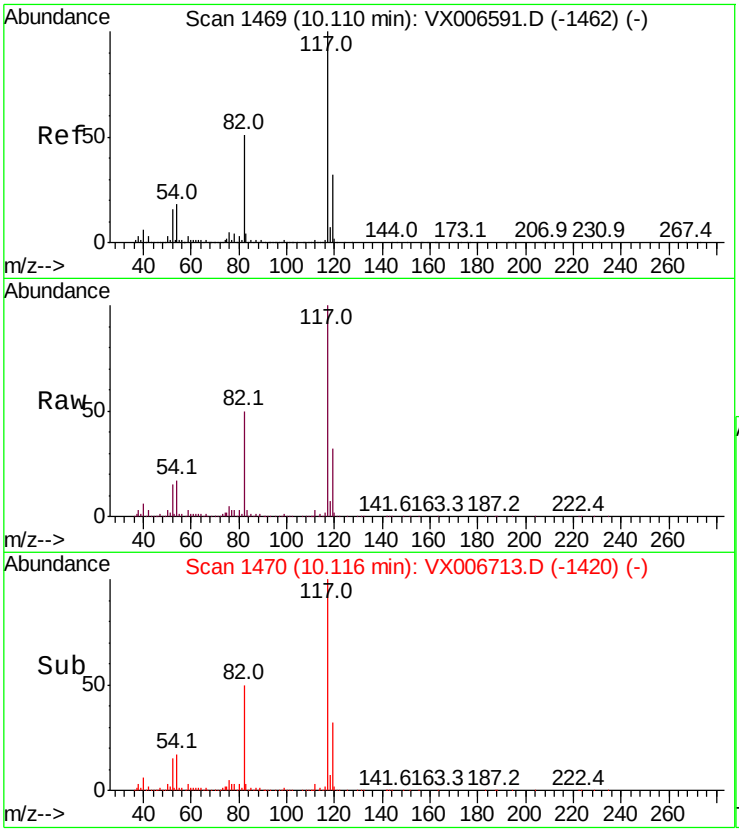
Tgt Ion: 95 Resp: 403686

Ion	Ratio	Lower	Upper
95	100		
174	92.6	0.0	182.2
176	90.2	0.0	178.8



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

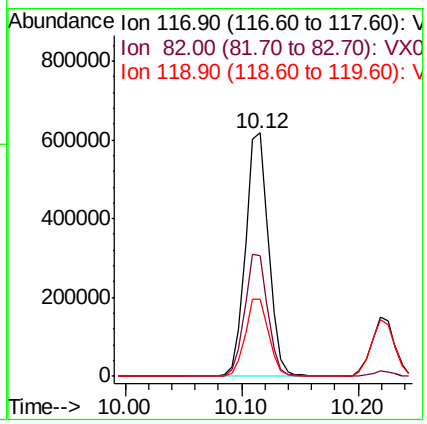
Manual Integrations APPROVED
MMDadoda
12/22/2018 11:20:53 AM

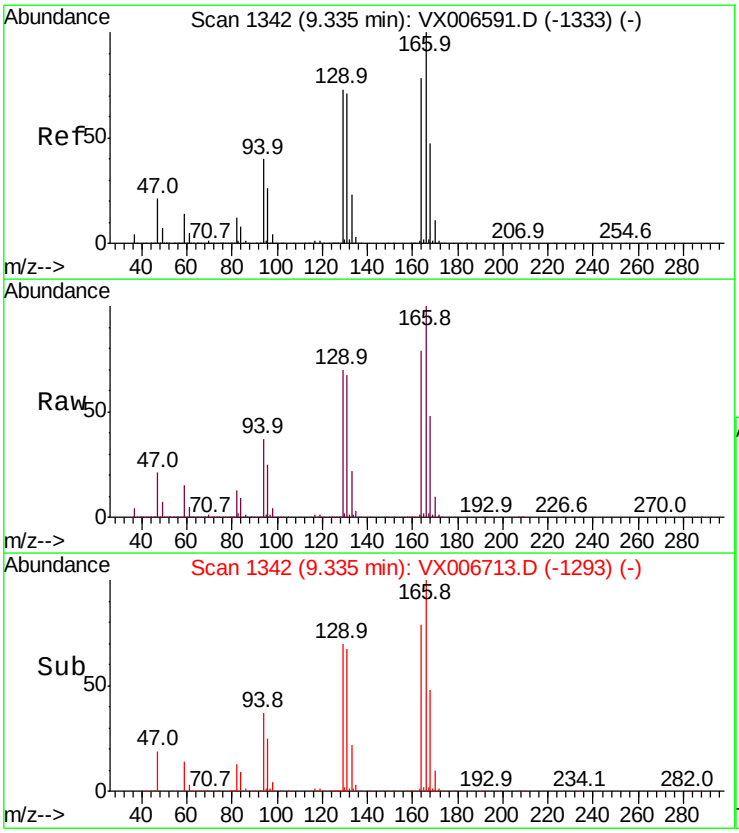


#63
Chlorobenzene-d5
Concen: 50.000 ug/l
RT: 10.12 min Scan# 1470
Delta R.T. 0.01 min
Lab File: VX006713.D
Acq: 21 Dec 2018 09:07

Tgt Ion:117 Resp: 852706

Ion	Ratio	Lower	Upper
117	100		
82	49.7	41.0	61.6
119	31.9	25.4	38.0

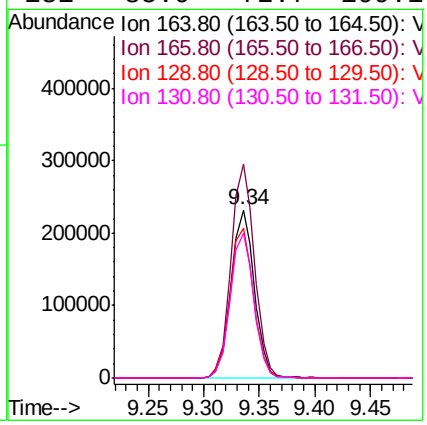




#64
Tetrachloroethene
Concen: 49.836 ug/l
RT: 9.34 min Scan# 1342
Delta R.T. 0.00 min
Lab File: VX006713.D
Acq: 21 Dec 2018 09:07

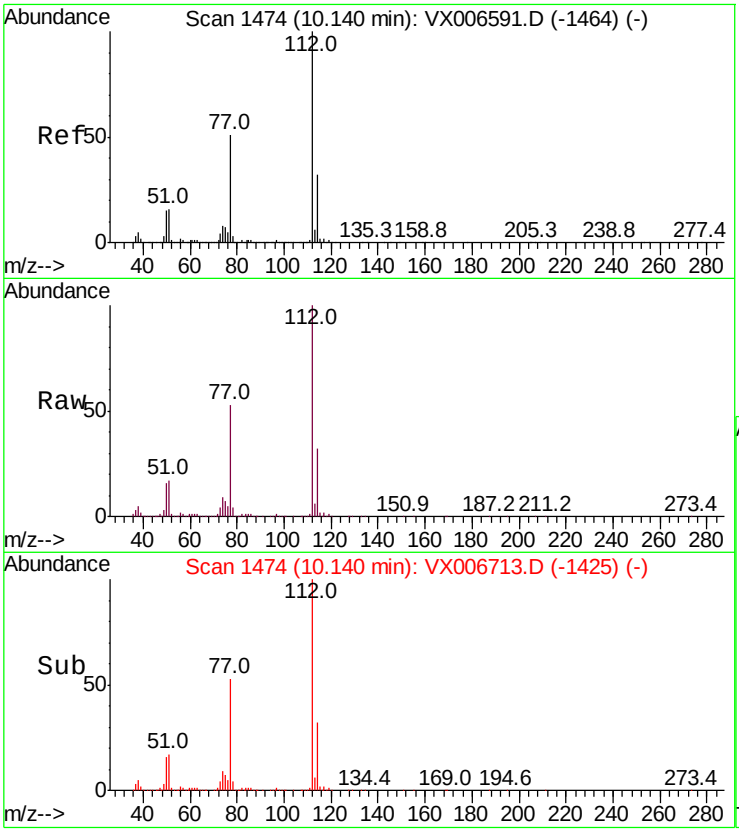
Tgt Ion:164 Resp: 336496

Ion	Ratio	Lower	Upper
164	100		
166	127.3	102.5	153.7
129	89.1	75.1	112.7
131	85.9	72.7	109.1



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

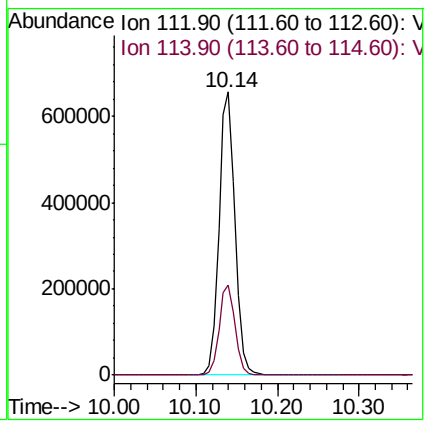
Manual Integrations APPROVED
MMDadoda
12/22/2018 11:20:53 AM

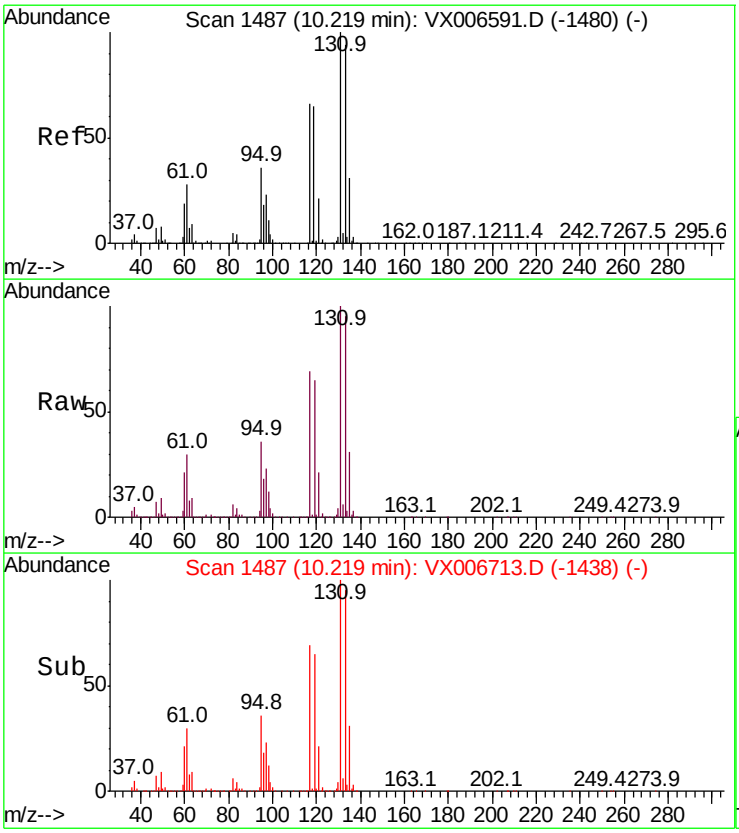


#65
Chlorobenzene
Concen: 49.916 ug/l
RT: 10.14 min Scan# 1474
Delta R.T. 0.00 min
Lab File: VX006713.D
Acq: 21 Dec 2018 09:07

Tgt Ion:112 Resp: 900464

Ion	Ratio	Lower	Upper
112	100		
114	31.7	25.7	38.5

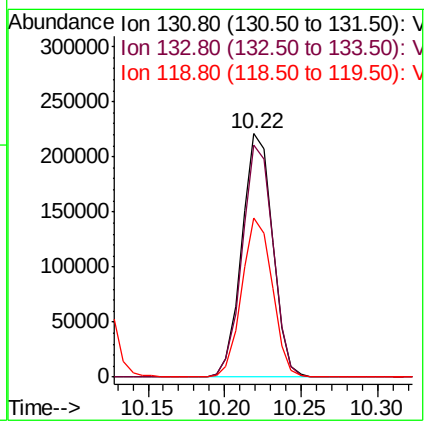




#66
1,1,1,2-Tetrachloroethane
Concen: 54.999 ug/l
RT: 10.22 min Scan# 1487
Delta R.T. -0.00 min
Lab File: VX006713.D
Acq: 21 Dec 2018 09:07

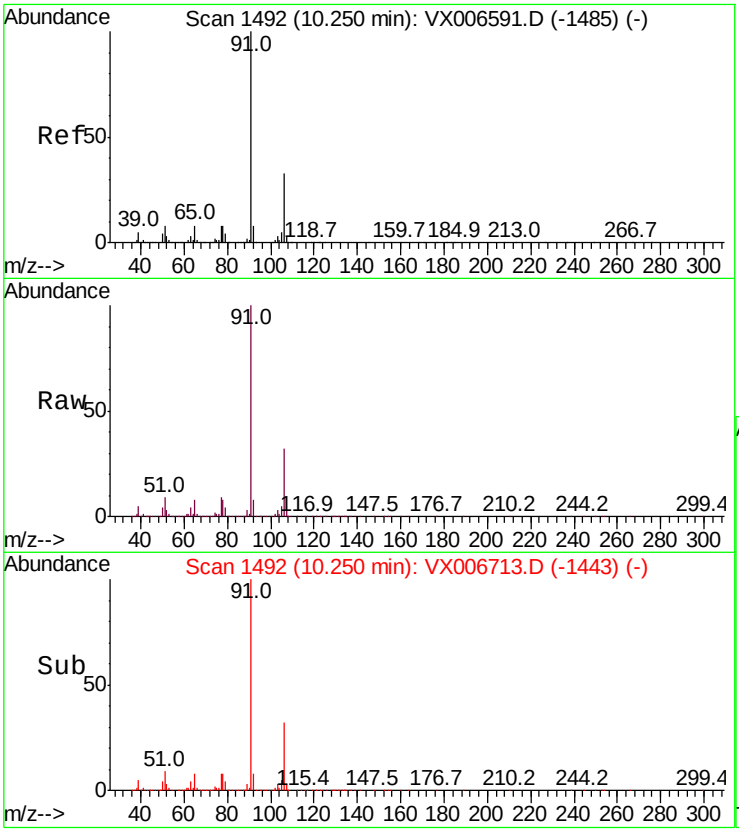
Tgt Ion:131 Resp: 309555

Ion	Ratio	Lower	Upper
131	100		
133	95.6	48.0	144.2
119	64.6	32.6	97.8



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

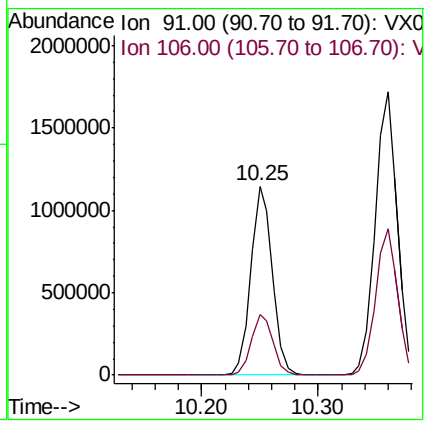
Manual Integrations APPROVED
MMDadoda
12/22/2018 11:20:53 AM

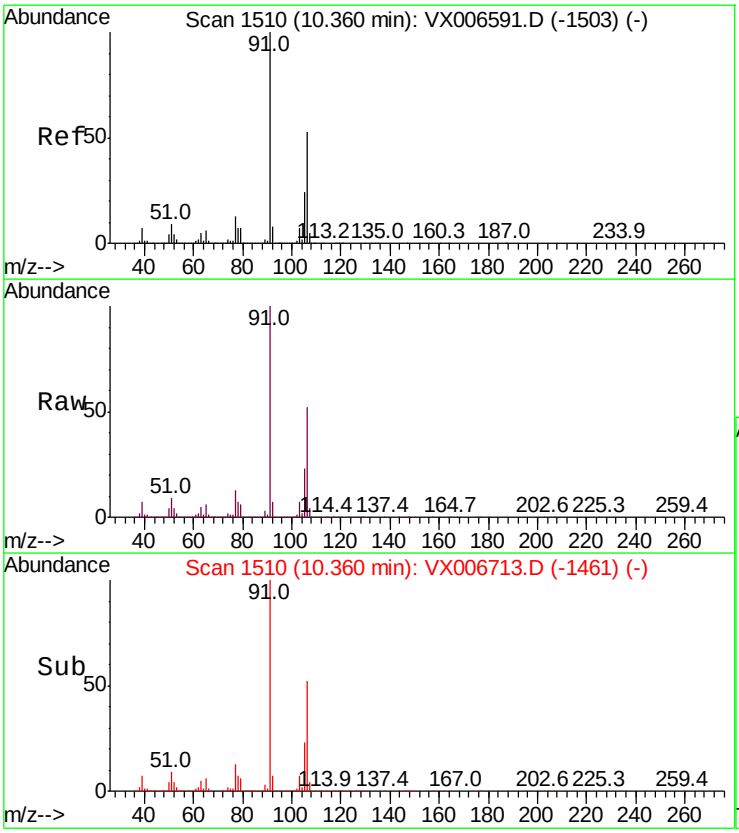


#67
Ethyl Benzene
Concen: 50.257 ug/l
RT: 10.25 min Scan# 1492
Delta R.T. -0.00 min
Lab File: VX006713.D
Acq: 21 Dec 2018 09:07

Tgt Ion: 91 Resp: 1481490

Ion	Ratio	Lower	Upper
91	100		
106	32.4	26.4	39.6

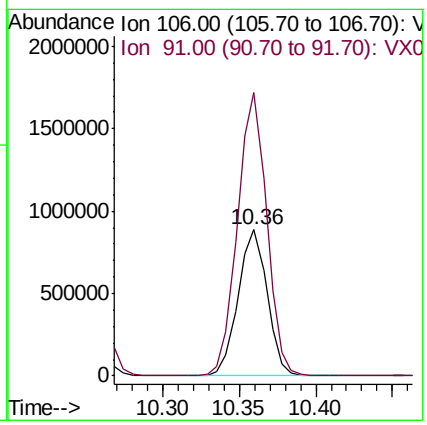




#68
m/p-Xylenes
Concen: 100.445 ug/l
RT: 10.36 min Scan# 1510
Delta R.T. -0.00 min
Lab File: VX006713.D
Acq: 21 Dec 2018 09:07

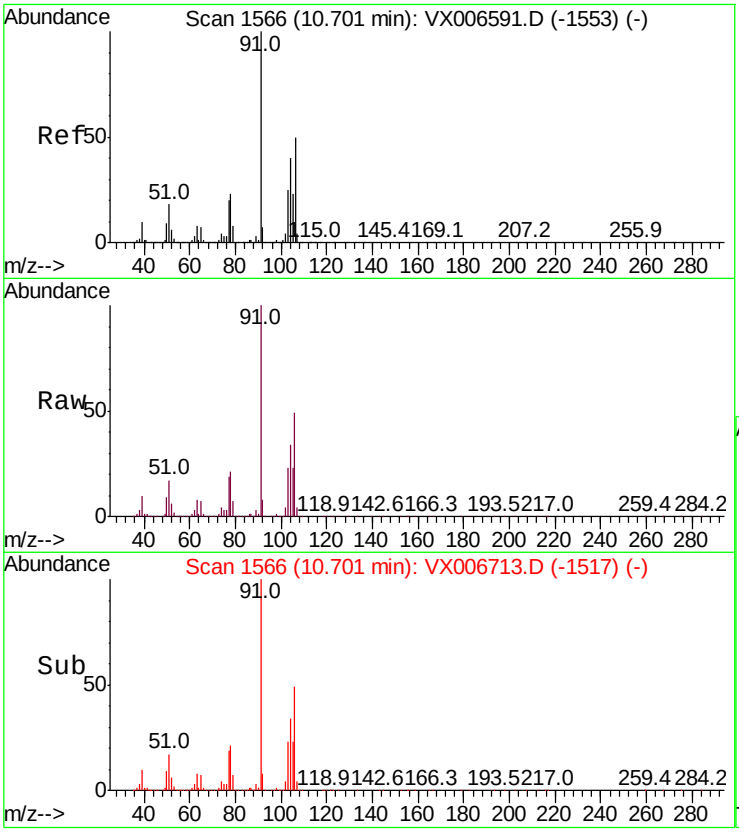
Tgt Ion:106 Resp: 1168380

Ion	Ratio	Lower	Upper
106	100		
91	195.1	155.8	233.6



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

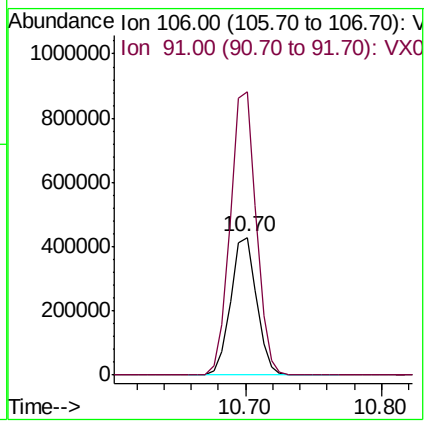
Manual Integrations APPROVED
MMDadoda
12/22/2018 11:20:53 AM

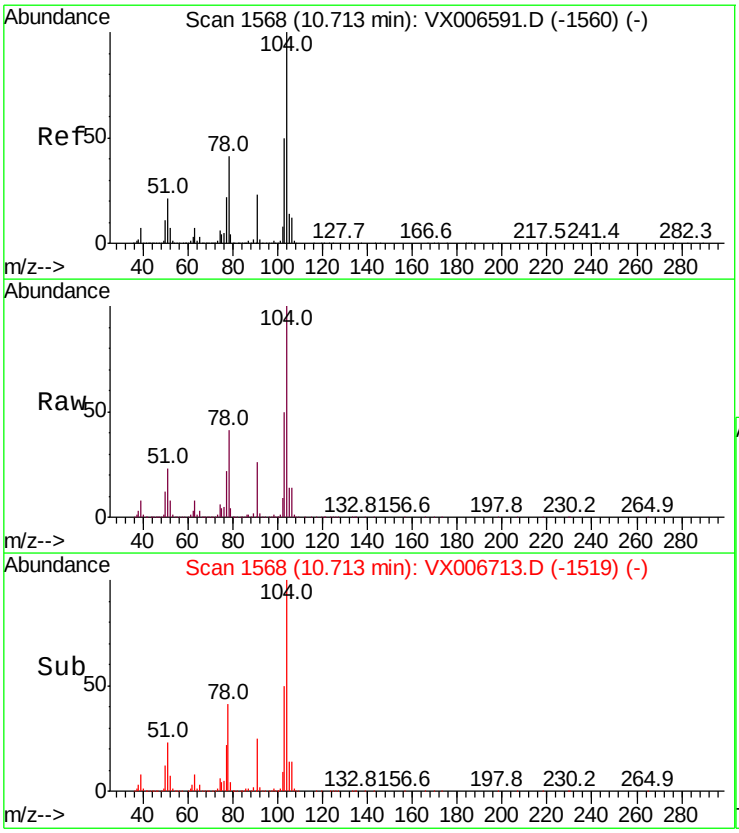


#69
o-Xylene
Concen: 49.660 ug/l
RT: 10.70 min Scan# 1566
Delta R.T. -0.00 min
Lab File: VX006713.D
Acq: 21 Dec 2018 09:07

Tgt Ion:106 Resp: 570406

Ion	Ratio	Lower	Upper
106	100		
91	205.6	101.3	303.7

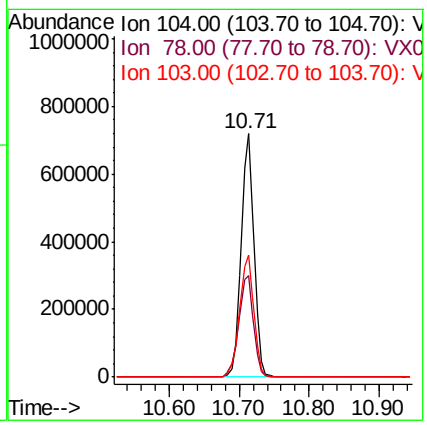




#70
Styrene
Concen: 50.572 ug/l
RT: 10.71 min Scan# 1568
Delta R.T. -0.00 min
Lab File: VX006713.D
Acq: 21 Dec 2018 09:07

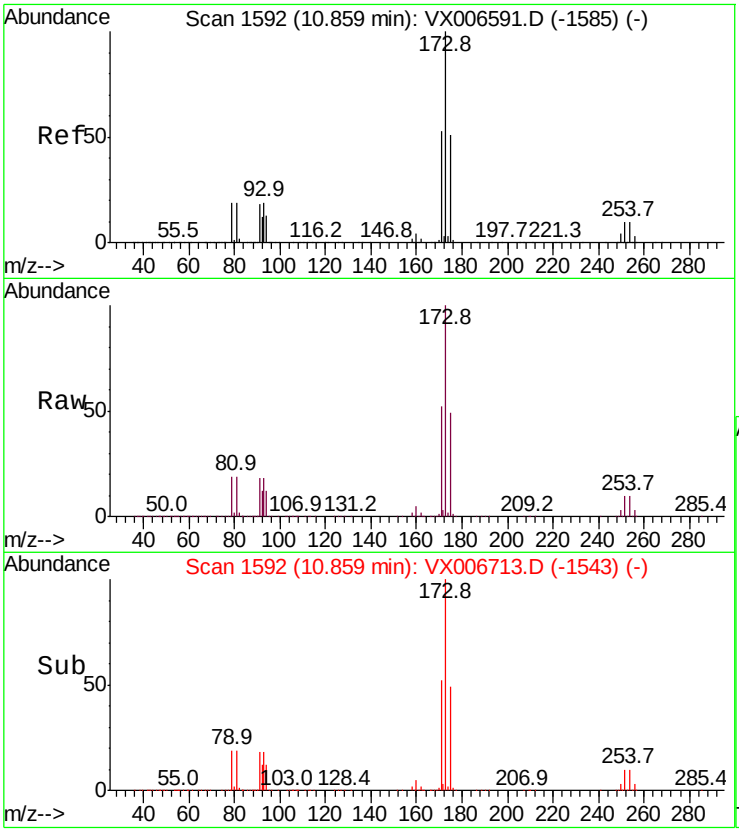
Tgt Ion:104 Resp: 918992

Ion	Ratio	Lower	Upper
104	100		
78	47.4	37.7	56.5
103	55.5	43.8	65.8



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

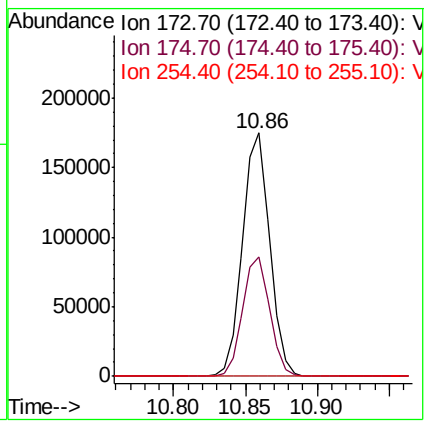
Manual Integrations APPROVED
MMDadoda
12/22/2018 11:20:53 AM

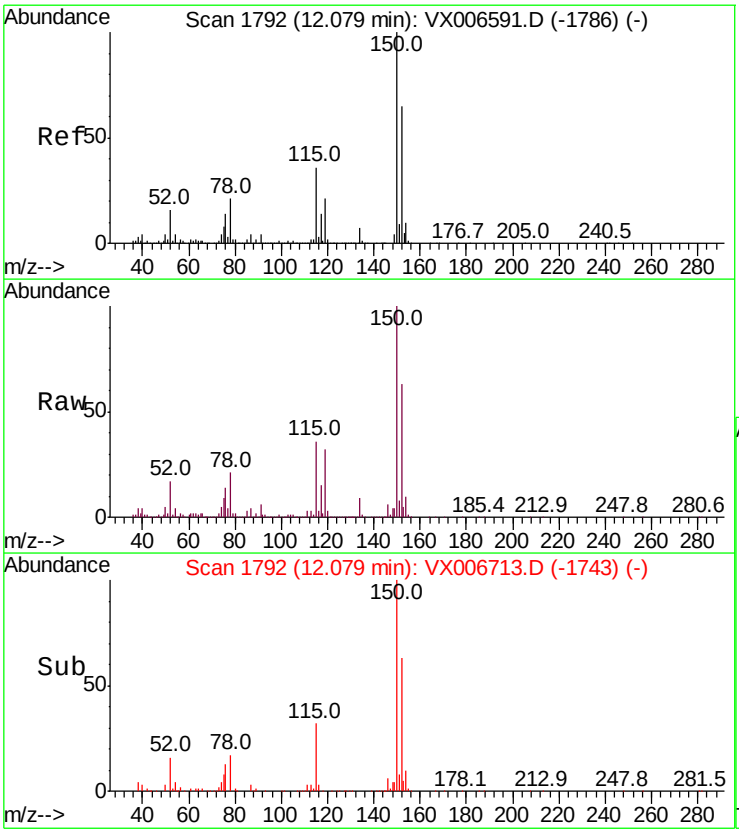


#71
Bromoform
Concen: 45.429 ug/l
RT: 10.86 min Scan# 1592
Delta R.T. 0.00 min
Lab File: VX006713.D
Acq: 21 Dec 2018 09:07

Tgt Ion:173 Resp: 228361

Ion	Ratio	Lower	Upper
173	100		
175	49.1	24.7	74.1
254	0.1	0.2	0.2#

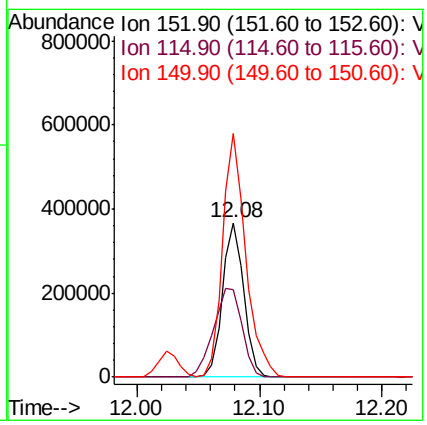




#72
1,4-Dichlorobenzene-d4
Concen: 50.000 ug/l
RT: 12.08 min Scan# 1792
Delta R.T. -0.00 min
Lab File: VX006713.D
Acq: 21 Dec 2018 09:07

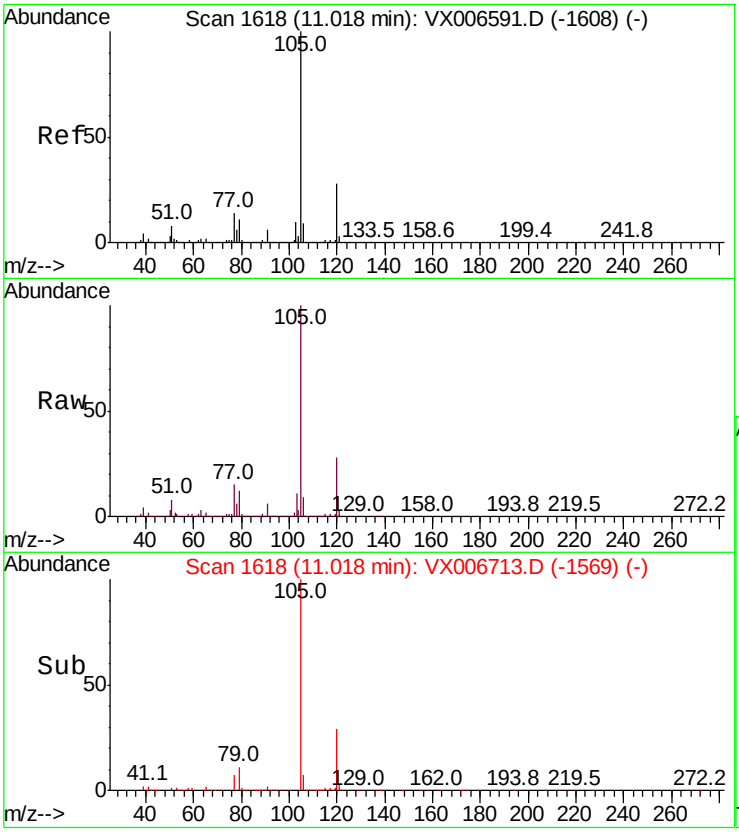
Tgt Ion:152 Resp: 439290

Ion	Ratio	Lower	Upper
152	100		
115	77.6	39.1	117.2
150	172.3	0.0	344.8



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

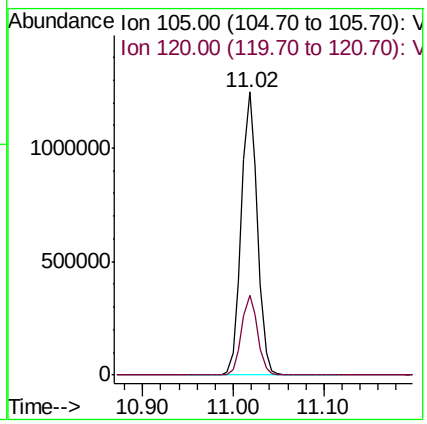
Manual Integrations APPROVED
MMDadoda
12/22/2018 11:20:53 AM

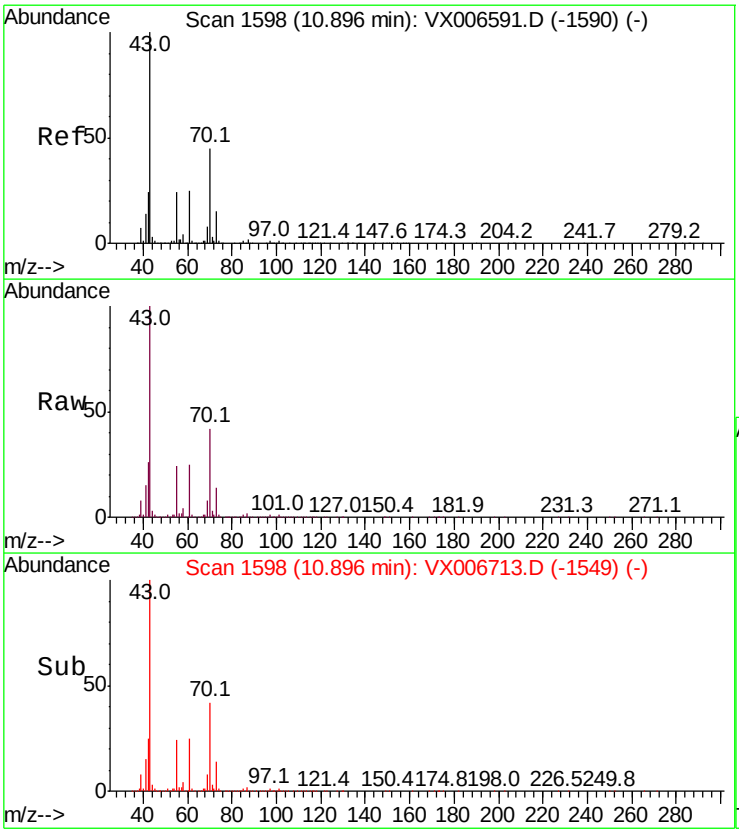


#73
Isopropylbenzene
Concen: 50.876 ug/l
RT: 11.02 min Scan# 1618
Delta R.T. -0.00 min
Lab File: VX006713.D
Acq: 21 Dec 2018 09:07

Tgt Ion:105 Resp: 1528961

Ion	Ratio	Lower	Upper
105	100		
120	28.0	14.1	42.4

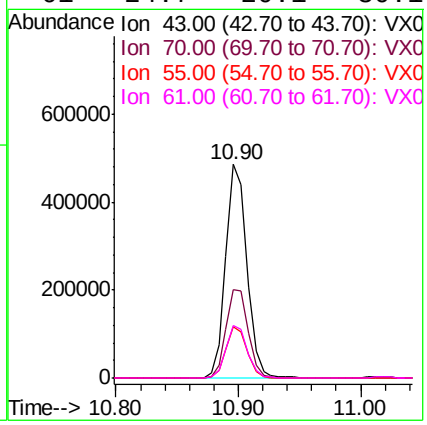


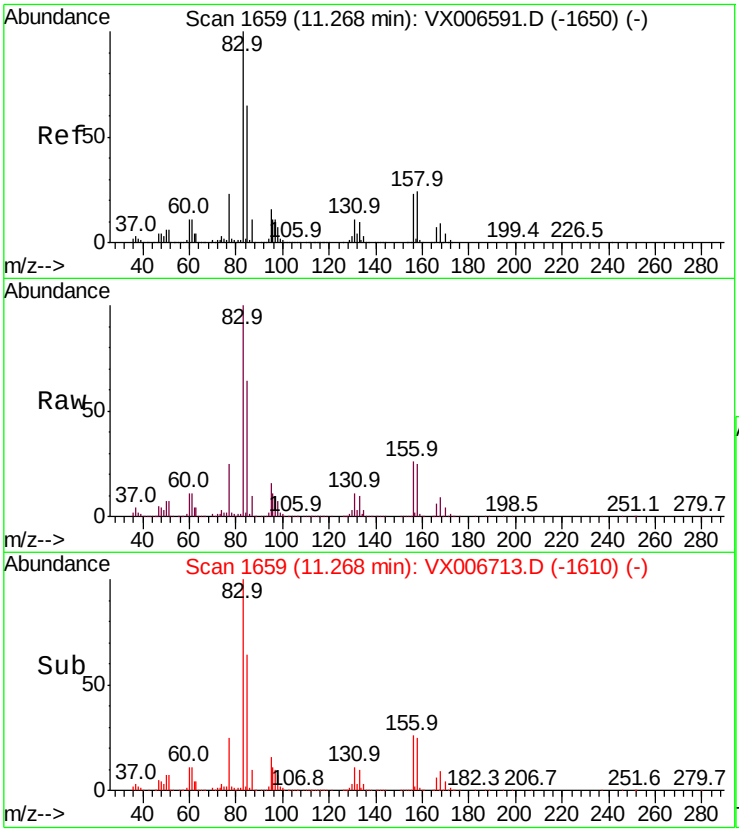


#74
N-amyl acetate
Concen: 54.050 ug/l
RT: 10.90 min Scan# 1598
Delta R.T. -0.00 min
Lab File: VX006713.D
Acq: 21 Dec 2018 09:07

Tgt Ion: 43 Resp: 581427

Ion	Ratio	Lower	Upper
43	100		
70	43.5	35.8	53.8
55	24.1	19.4	29.0
61	24.7	20.1	30.1

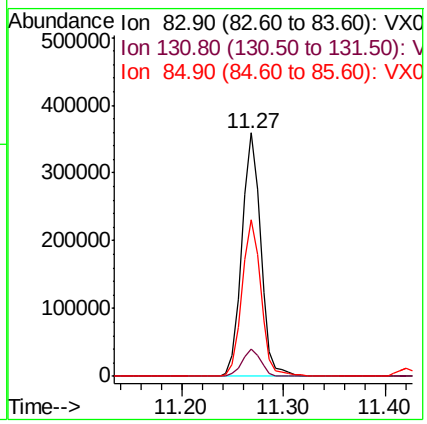




#75
1,1,2,2-Tetrachloroethane
Concen: 51.022 ug/l
RT: 11.27 min Scan# 1659
Delta R.T. -0.00 min
Lab File: VX006713.D
Acq: 21 Dec 2018 09:07

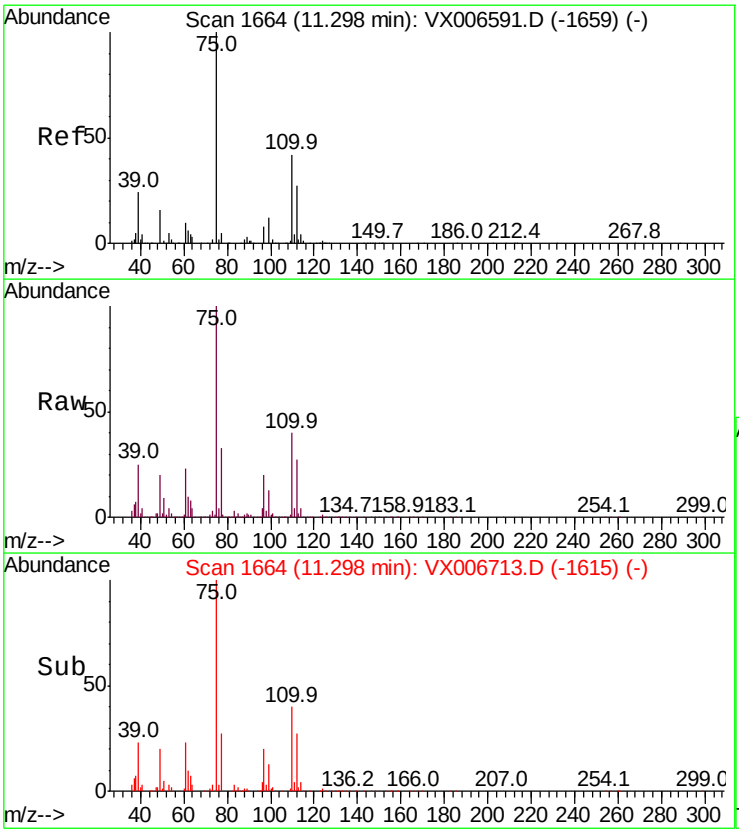
Tgt Ion: 83 Resp: 456021

Ion	Ratio	Lower	Upper
83	100		
131	11.3	5.7	17.1
85	65.0	32.2	96.6



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

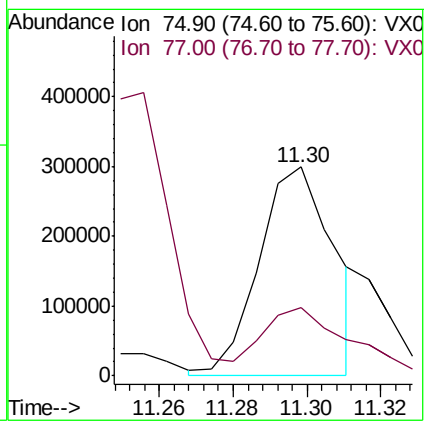
Manual Integrations APPROVED
MMDadoda
12/22/2018 11:20:53 AM



#76
1,2,3-Trichloropropane
Concen: 51.550 ug/l m
RT: 11.30 min Scan# 1664
Delta R.T. -0.00 min
Lab File: VX006713.D
Acq: 21 Dec 2018 09:07

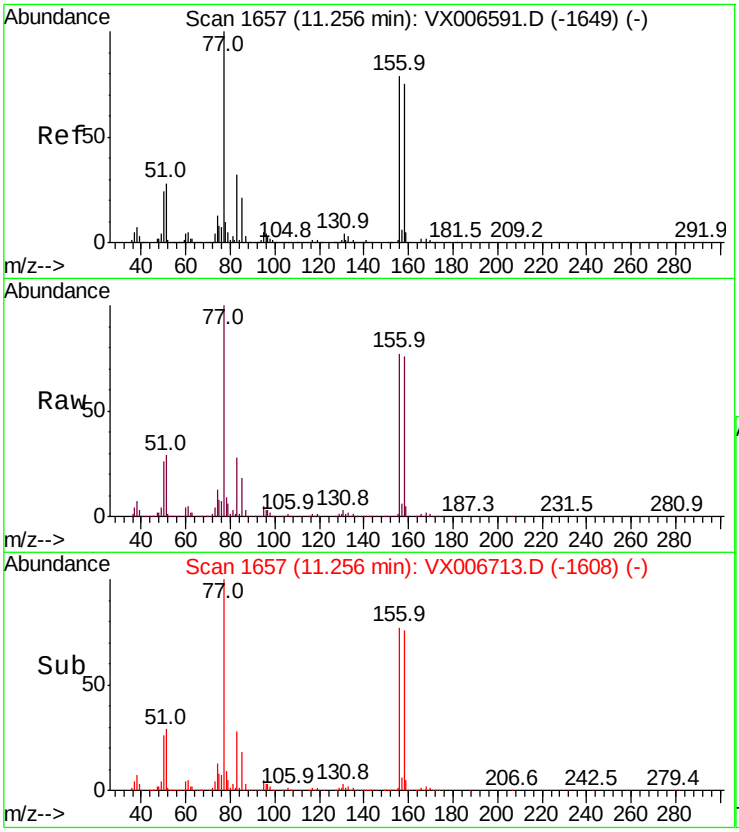
Tgt Ion: 75 Resp: 420848

Ion	Ratio	Lower	Upper
75	100		
77	38.0	18.5	55.5



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

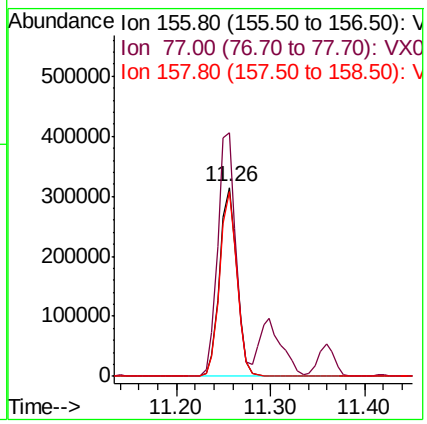
Manual Integrations APPROVED
MMDadoda
12/22/2018 11:20:53 AM

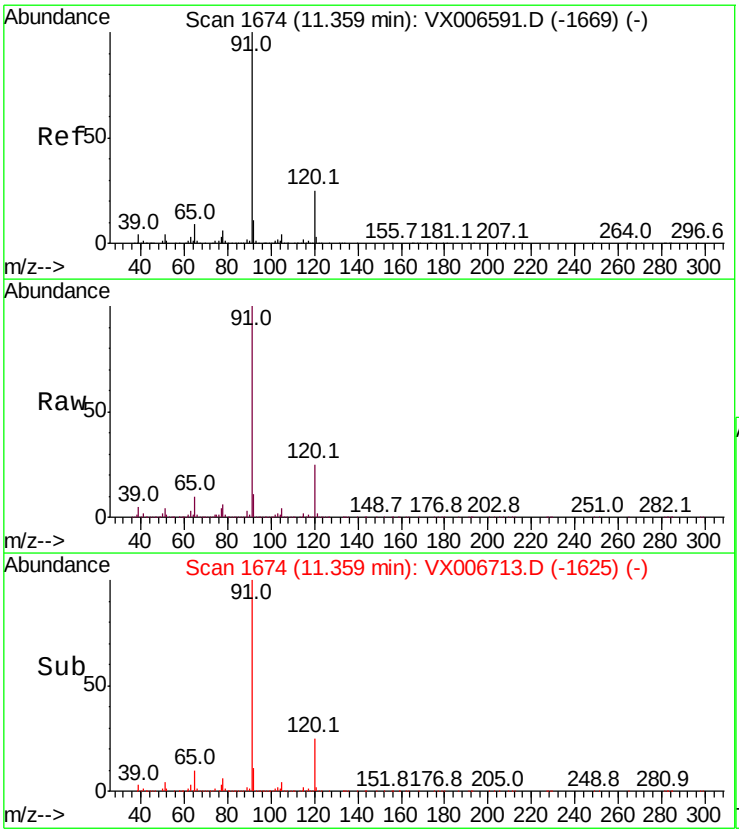


#77
Bromobenzene
Concen: 49.458 ug/l
RT: 11.26 min Scan# 1657
Delta R.T. -0.00 min
Lab File: VX006713.D
Acq: 21 Dec 2018 09:07

Tgt Ion:156 Resp: 401841

Ion	Ratio	Lower	Upper
156	100		
77	135.0	68.0	204.0
158	97.3	48.3	144.8

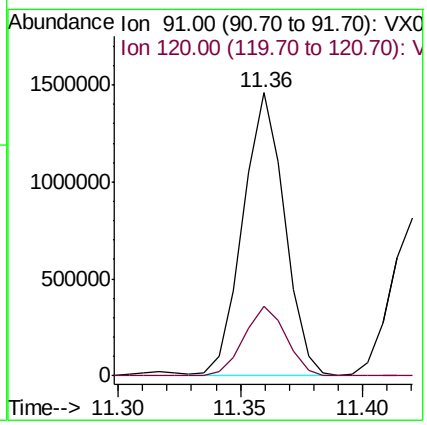




#78
n-propylbenzene
Concen: 51.969 ug/l
RT: 11.36 min Scan# 1674
Delta R.T. -0.00 min
Lab File: VX006713.D
Acq: 21 Dec 2018 09:07

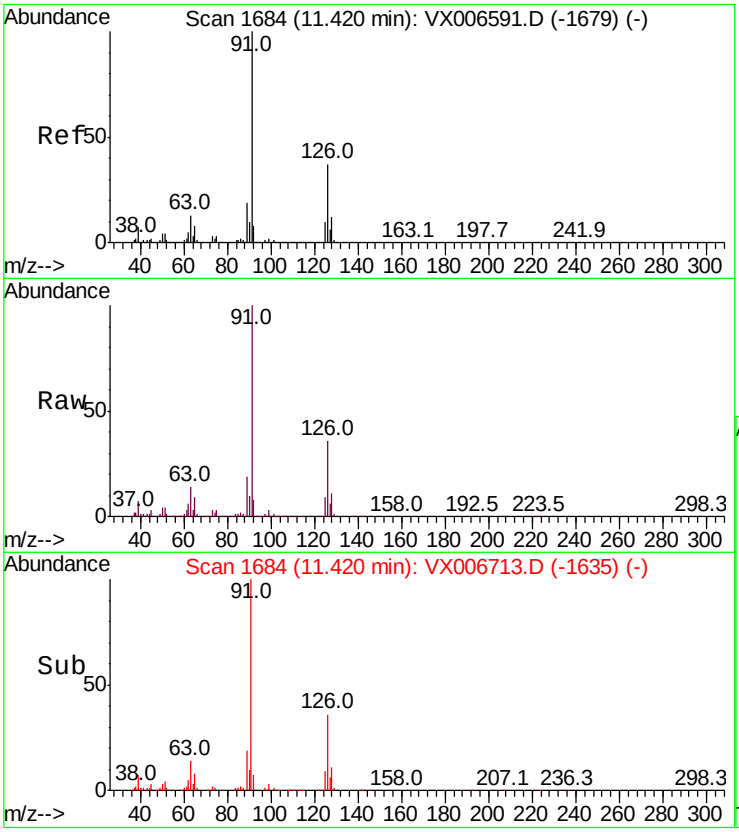
Tgt Ion: 91 Resp: 1719860

Ion	Ratio	Lower	Upper
91	100		
120	25.0	12.7	38.0



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

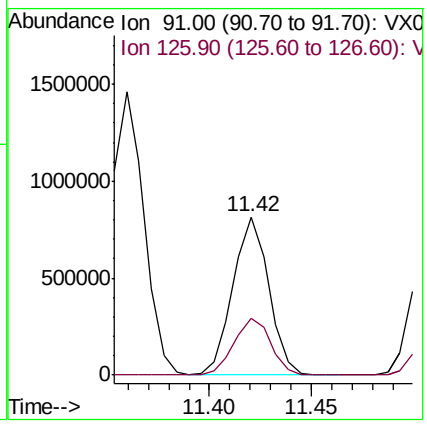
Manual Integrations APPROVED
MMDadoda
12/22/2018 11:20:53 AM

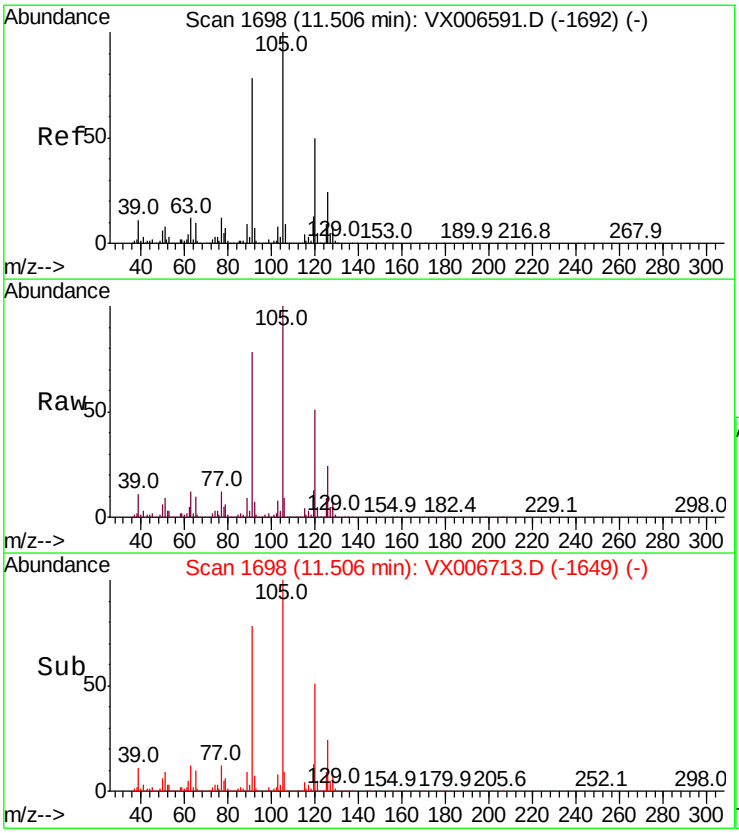


#79
2-Chlorotoluene
Concen: 49.361 ug/l
RT: 11.42 min Scan# 1684
Delta R.T. -0.00 min
Lab File: VX006713.D
Acq: 21 Dec 2018 09:07

Tgt Ion: 91 Resp: 989941

Ion	Ratio	Lower	Upper
91	100		
126	37.4	18.6	56.0

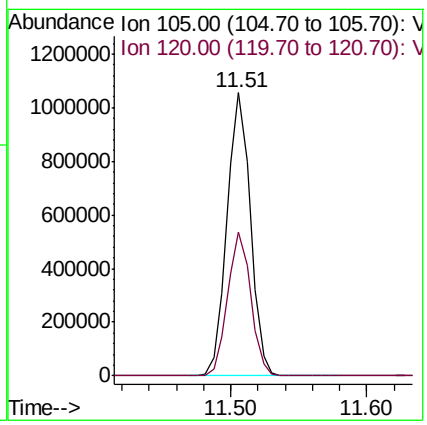


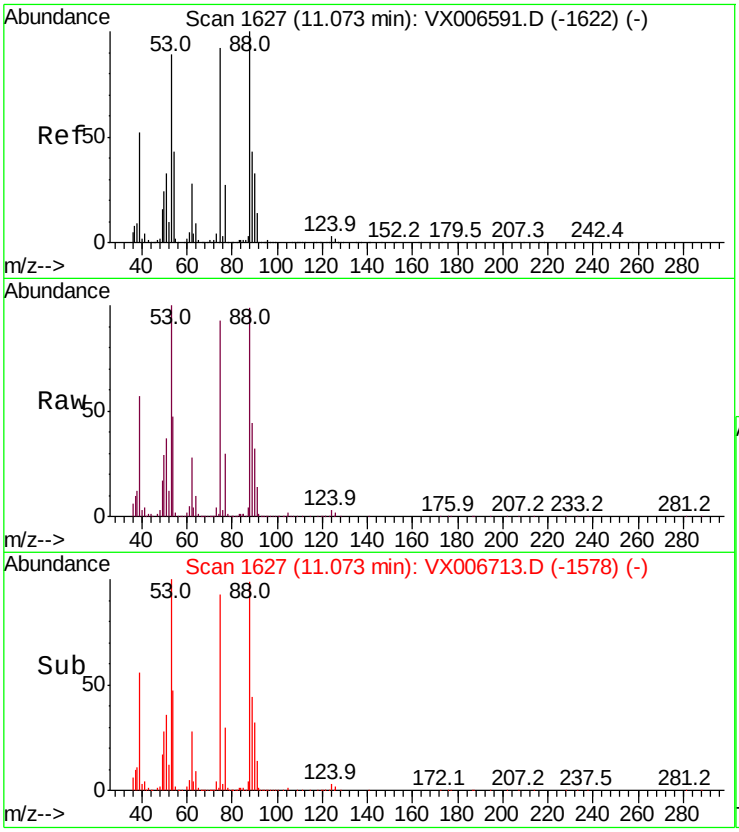


#80
1,3,5-Trimethylbenzene
Concen: 50.833 ug/l
RT: 11.51 min Scan# 1698
Delta R.T. -0.00 min
Lab File: VX006713.D
Acq: 21 Dec 2018 09:07

Tgt Ion:105 Resp: 1258286

Ion	Ratio	Lower	Upper
105	100		
120	50.3	25.1	75.3

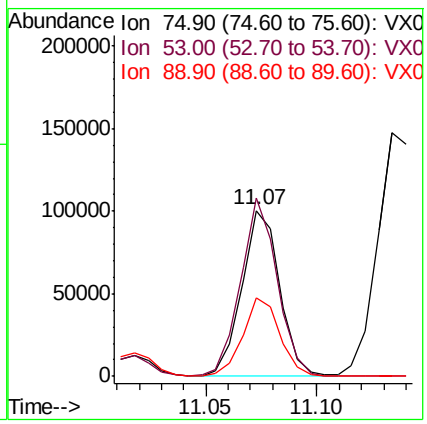




#81
trans-1,4-Dichloro-2-butene
Concen: 44.996 ug/l
RT: 11.07 min Scan# 1627
Delta R.T. 0.00 min
Lab File: VX006713.D
Acq: 21 Dec 2018 09:07

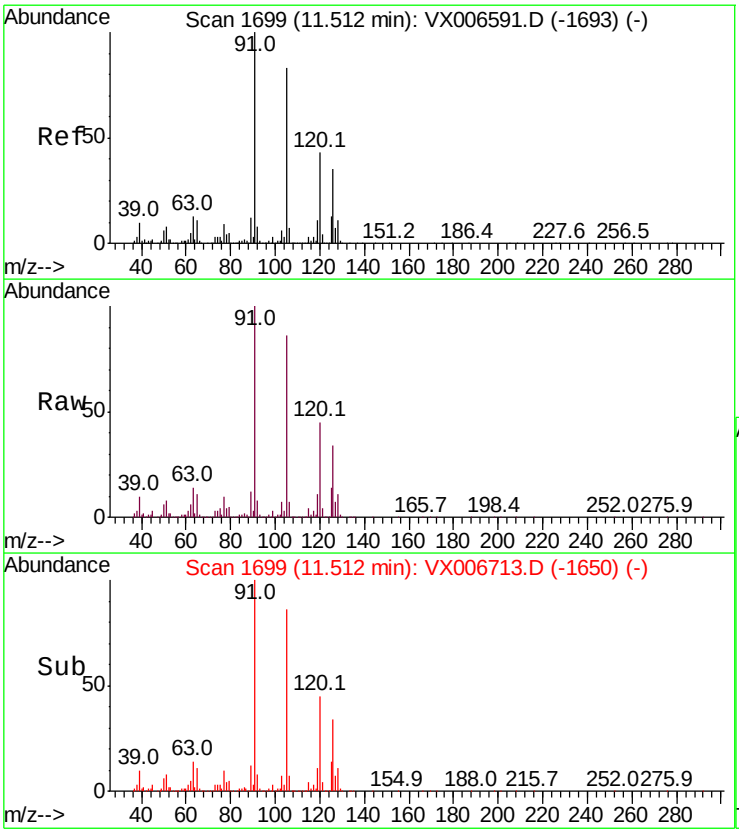
Tgt Ion: 75 Resp: 119464

Ion	Ratio	Lower	Upper
75	100		
53	103.6	79.7	119.5
89	46.2	38.0	57.0



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

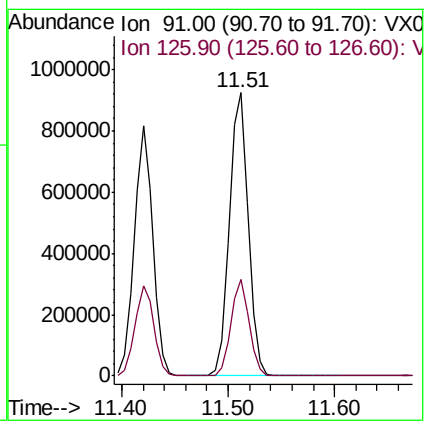
Manual Integrations APPROVED
MMDadoda
12/22/2018 11:20:53 AM



#82
4-Chlorotoluene
Concen: 49.917 ug/l
RT: 11.51 min Scan# 1699
Delta R.T. -0.00 min
Lab File: VX006713.D
Acq: 21 Dec 2018 09:07

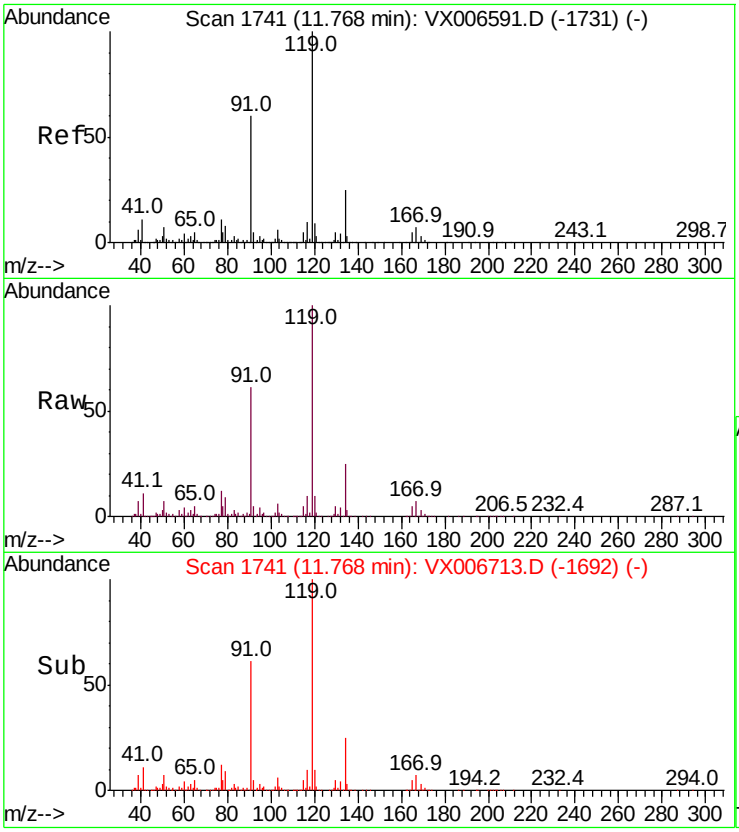
Tgt Ion: 91 Resp: 1148343

Ion	Ratio	Lower	Upper
91	100		
126	32.8	16.3	48.9



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

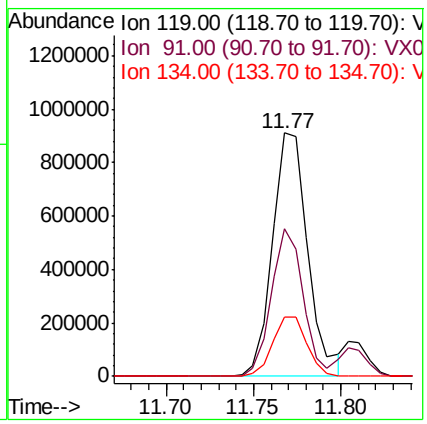
Manual Integrations APPROVED
MMDadoda
12/22/2018 11:20:53 AM

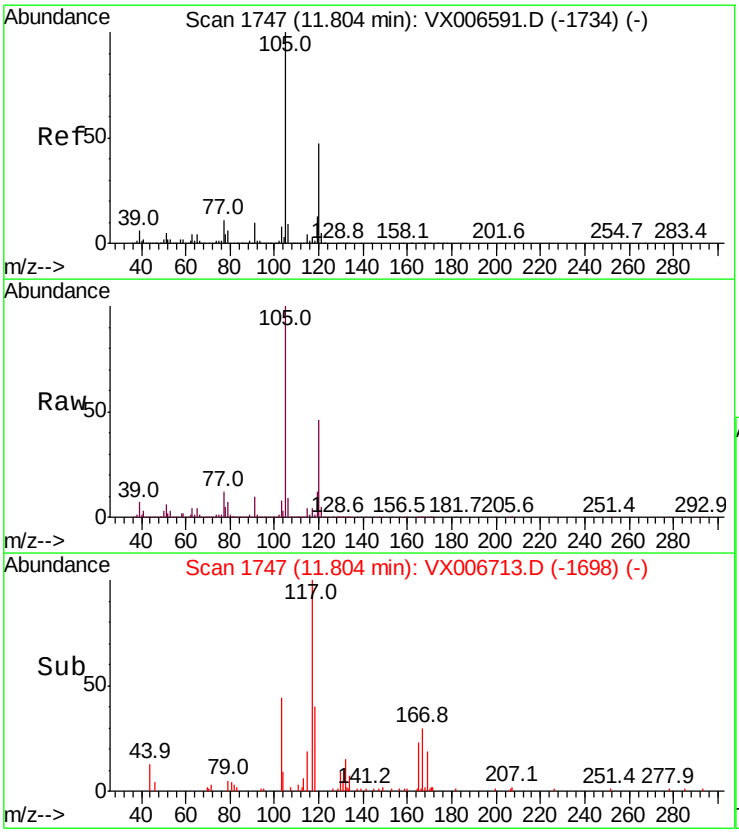


#83
tert-Butylbenzene
Concen: 51.648 ug/l
RT: 11.77 min Scan# 1741
Delta R.T. -0.00 min
Lab File: VX006713.D
Acq: 21 Dec 2018 09:07

Tgt Ion:119 Resp: 1279544

Ion	Ratio	Lower	Upper
119	100		
91	54.6	27.7	83.1
134	23.9	11.9	35.5

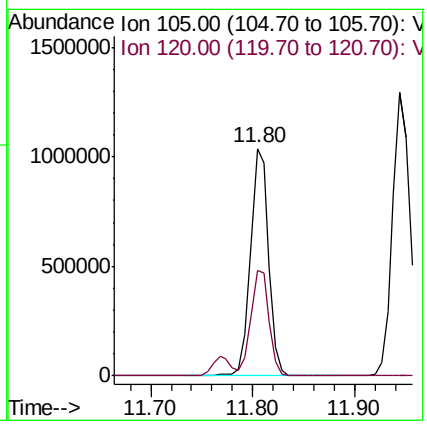




#84
1,2,4-Trimethylbenzene
Concen: 49.411 ug/l
RT: 11.80 min Scan# 1747
Delta R.T. -0.00 min
Lab File: VX006713.D
Acq: 21 Dec 2018 09:07

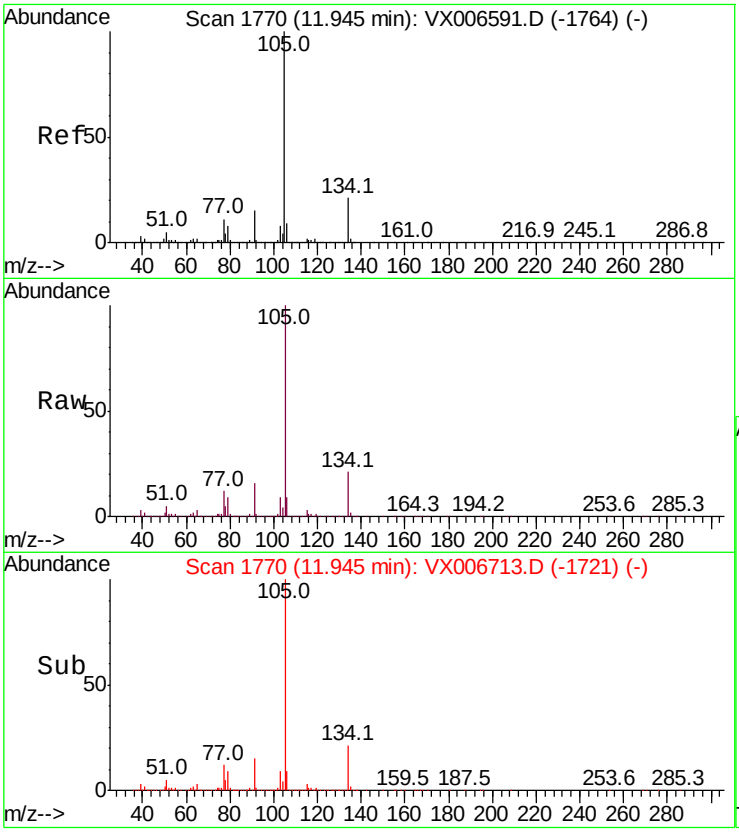
Tgt Ion:105 Resp: 1286486

Ion	Ratio	Lower	Upper
105	100		
120	46.5	23.2	69.6



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

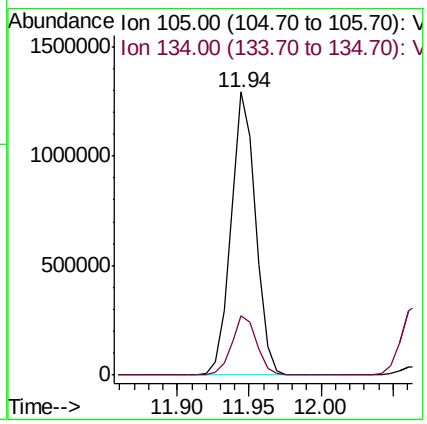
Manual Integrations APPROVED
MMDadoda
12/22/2018 11:20:53 AM

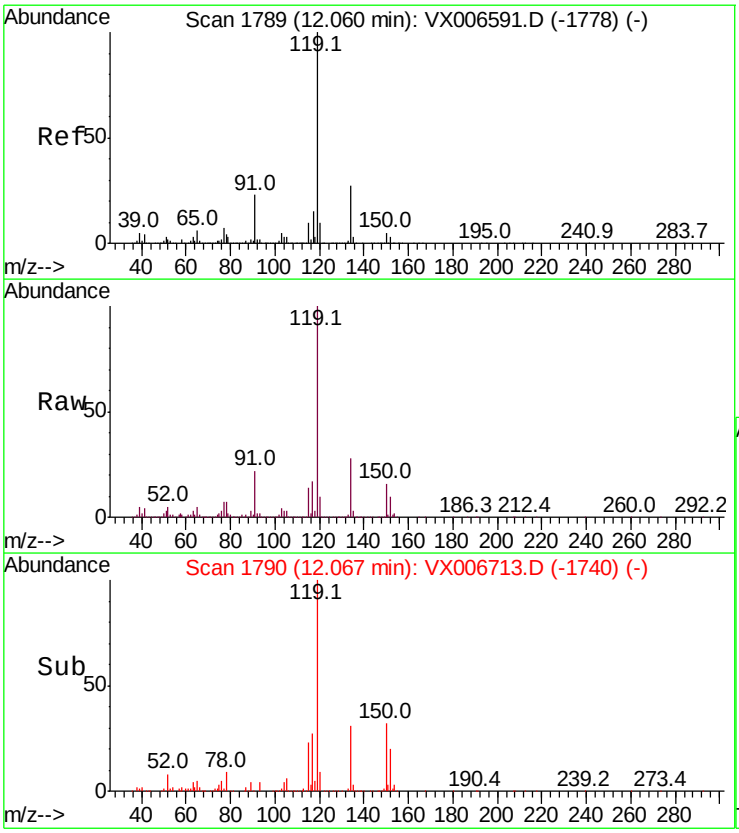


#85
sec-Butylbenzene
Concen: 51.005 ug/l
RT: 11.94 min Scan# 1770
Delta R.T. -0.00 min
Lab File: VX006713.D
Acq: 21 Dec 2018 09:07

Tgt Ion:105 Resp: 1549260

Ion	Ratio	Lower	Upper
105	100		
134	21.4	10.7	31.9

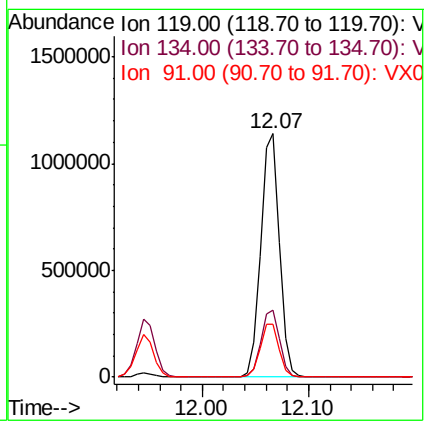




#86
p-Isopropyltoluene
Concen: 52.509 ug/l
RT: 12.07 min Scan# 1790
Delta R.T. 0.01 min
Lab File: VX006713.D
Acq: 21 Dec 2018 09:07

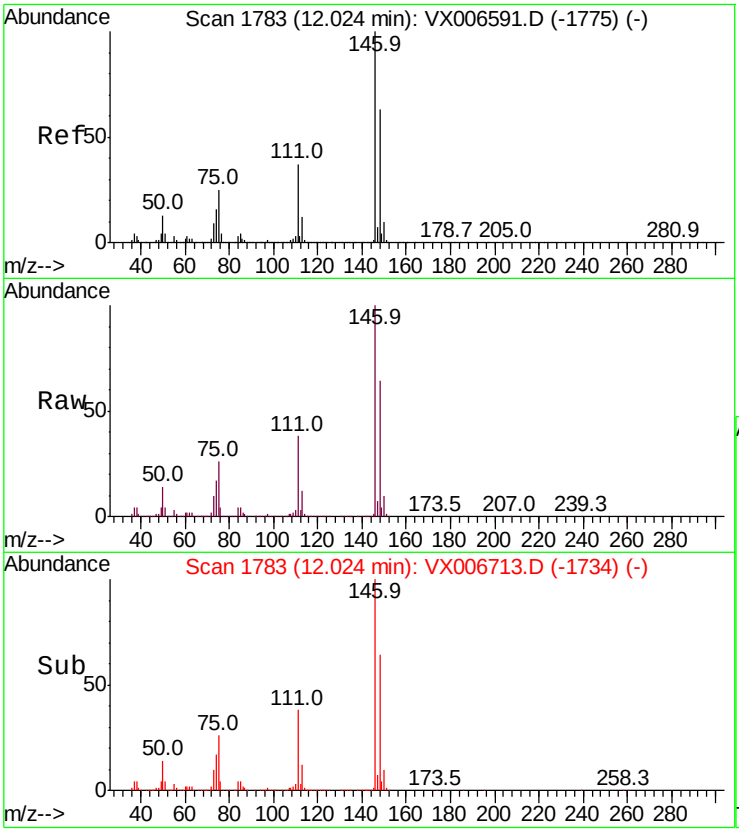
Tgt Ion:119 Resp: 1402019

Ion	Ratio	Lower	Upper
119	100		
134	27.5	14.0	41.9
91	22.1	11.3	33.9



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

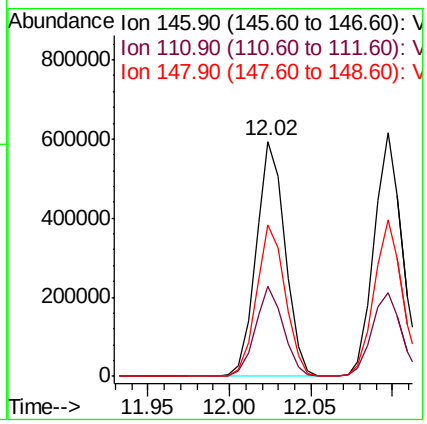
Manual Integrations APPROVED
MMDadoda
12/22/2018 11:20:53 AM

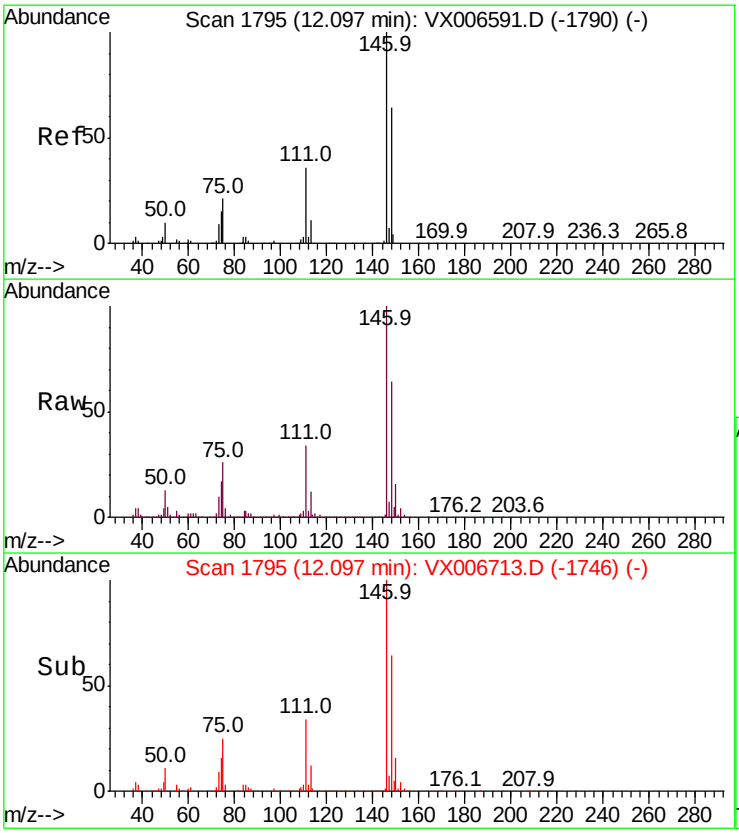


#87
1,3-Dichlorobenzene
Concen: 49.987 ug/l
RT: 12.02 min Scan# 1783
Delta R.T. -0.00 min
Lab File: VX006713.D
Acq: 21 Dec 2018 09:07

Tgt Ion:146 Resp: 731959

Ion	Ratio	Lower	Upper
146	100		
111	37.2	18.6	55.8
148	64.1	31.8	95.3

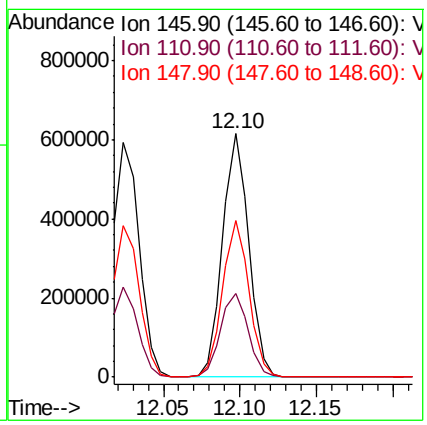




#88
1,4-Dichlorobenzene
Concen: 48.628 ug/l
RT: 12.10 min Scan# 1795
Delta R.T. -0.00 min
Lab File: VX006713.D
Acq: 21 Dec 2018 09:07

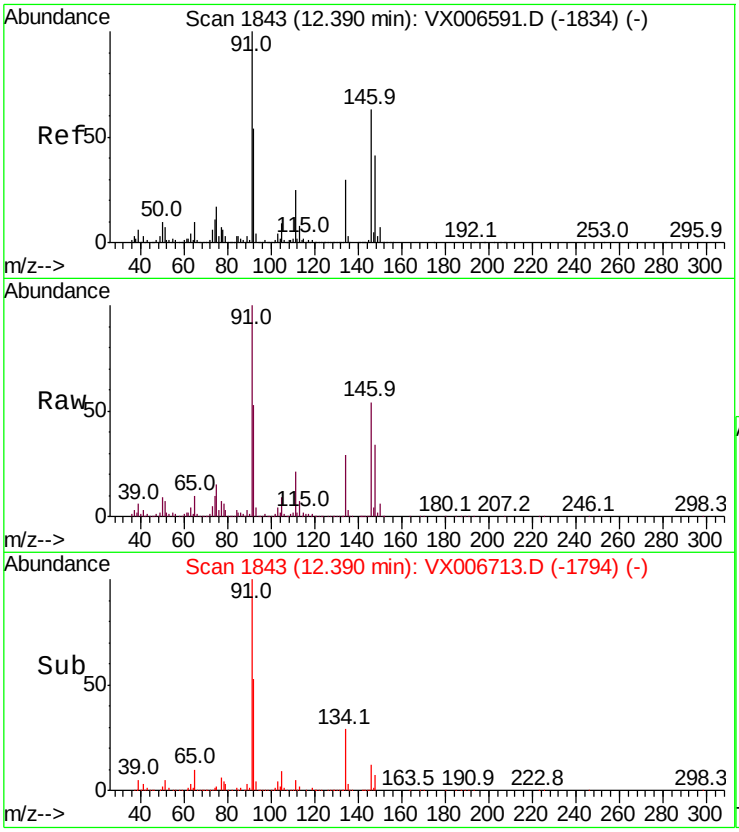
Tgt Ion:146 Resp: 729965

Ion	Ratio	Lower	Upper
146	100		
111	36.2	18.1	54.1
148	64.8	31.9	95.9



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

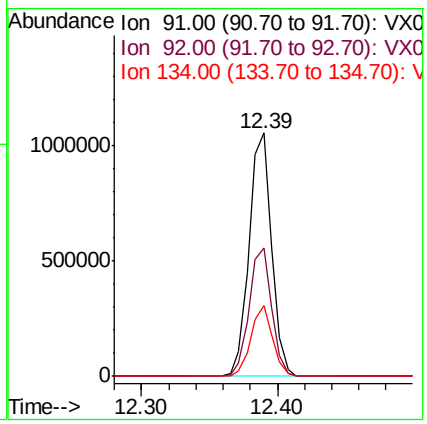
Manual Integrations APPROVED
MMDadoda
12/22/2018 11:20:53 AM

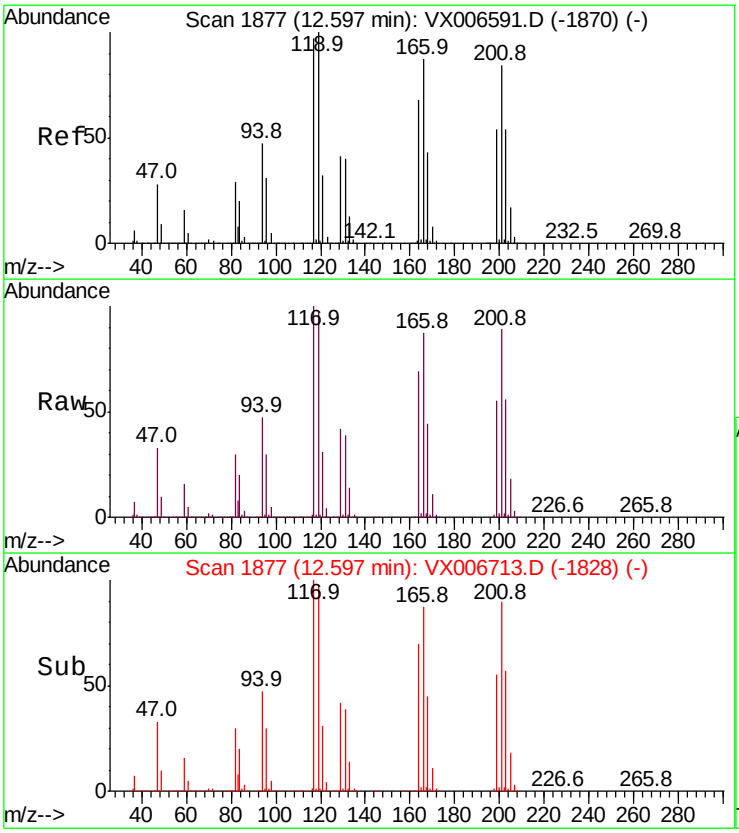


#89
n-Butylbenzene
Concen: 53.802 ug/l
RT: 12.39 min Scan# 1843
Delta R.T. -0.00 min
Lab File: VX006713.D
Acq: 21 Dec 2018 09:07

Tgt Ion: 91 Resp: 1222556

Ion	Ratio	Lower	Upper
91	100		
92	53.0	26.8	80.4
134	28.2	14.4	43.2

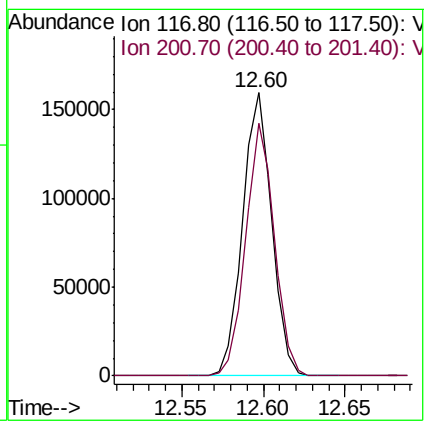




#90
Hexachloroethane
Concen: 47.756 ug/l
RT: 12.60 min Scan# 1877
Delta R.T. 0.00 min
Lab File: VX006713.D
Acq: 21 Dec 2018 09:07

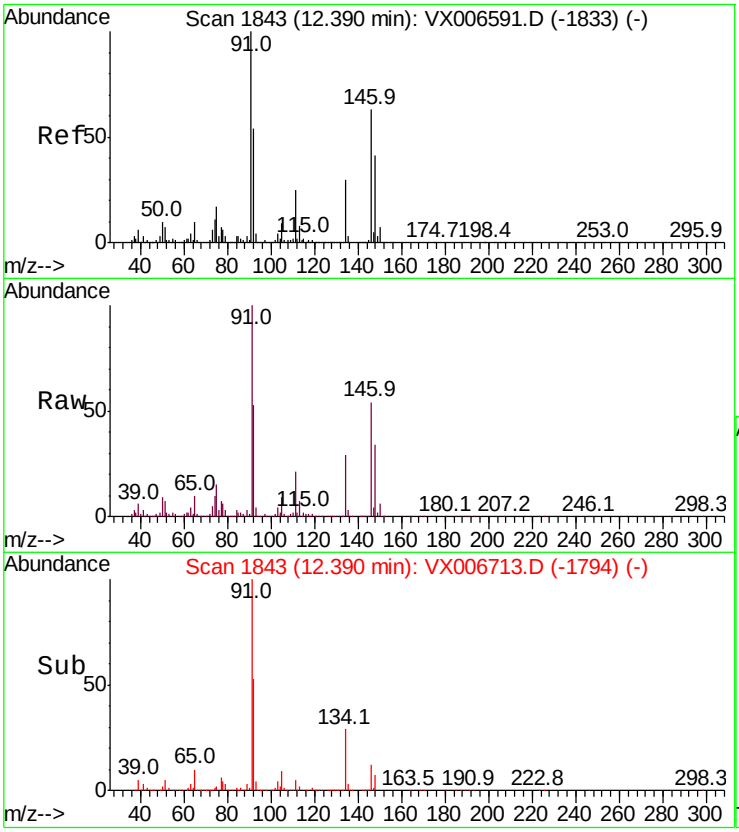
Tgt Ion:117 Resp: 198901

Ion	Ratio	Lower	Upper
117	100		
201	88.0	42.9	128.7



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

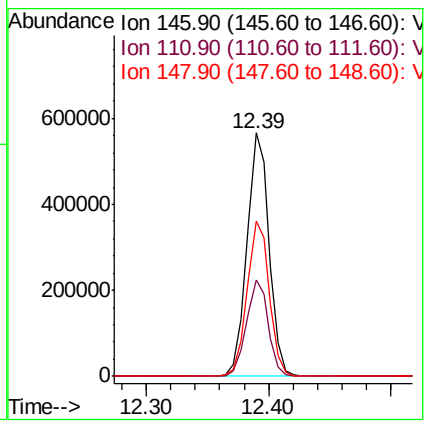
Manual Integrations APPROVED
MMDadoda
12/22/2018 11:20:53 AM

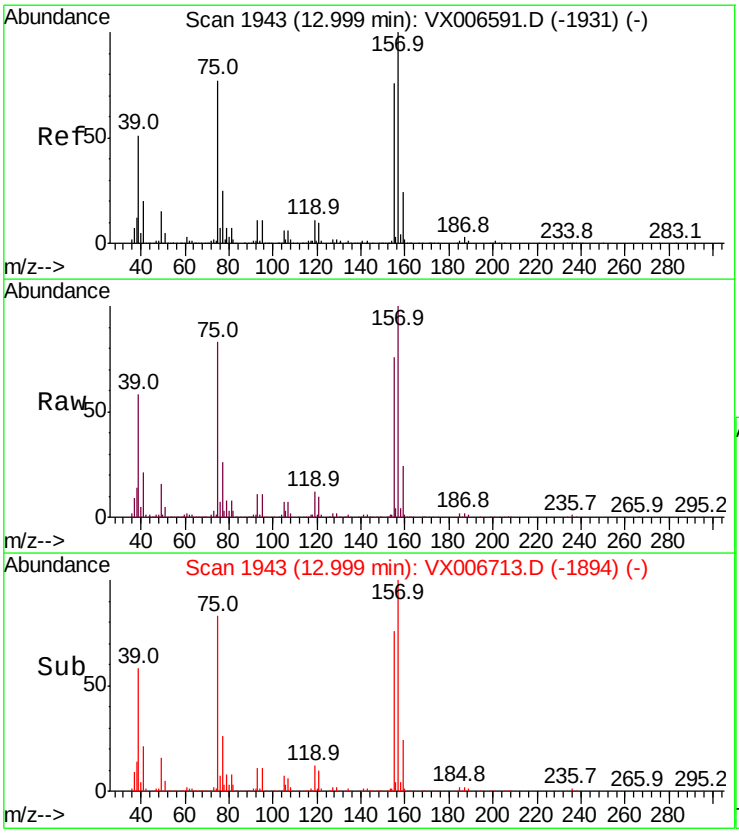


#91
1,2-Dichlorobenzene
Concen: 48.428 ug/l
RT: 12.39 min Scan# 1843
Delta R.T. -0.00 min
Lab File: VX006713.D
Acq: 21 Dec 2018 09:07

Tgt Ion:146 Resp: 709383

Ion	Ratio	Lower	Upper
146	100		
111	38.8	19.4	58.2
148	64.1	32.3	96.9

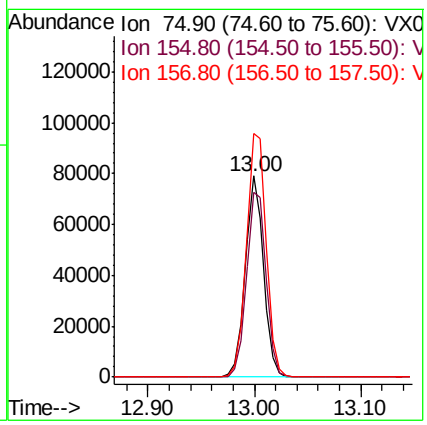




#92
1,2-Dibromo-3-Chloropropane
Concen: 51.474 ug/l
RT: 13.00 min Scan# 1943
Delta R.T. -0.00 min
Lab File: VX006713.D
Acq: 21 Dec 2018 09:07

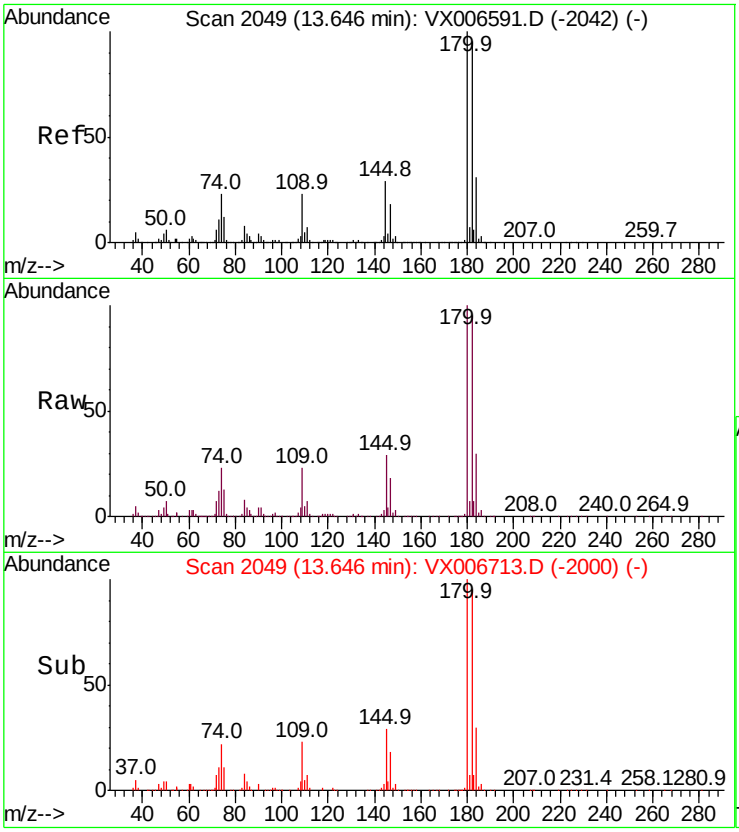
Tgt Ion: 75 Resp: 95192

Ion	Ratio	Lower	Upper
75	100		
155	98.4	50.6	151.8
157	130.4	64.6	193.8



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

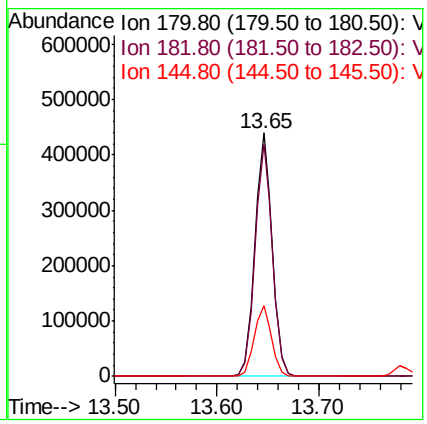
Manual Integrations APPROVED
MMDadoda
12/22/2018 11:20:53 AM

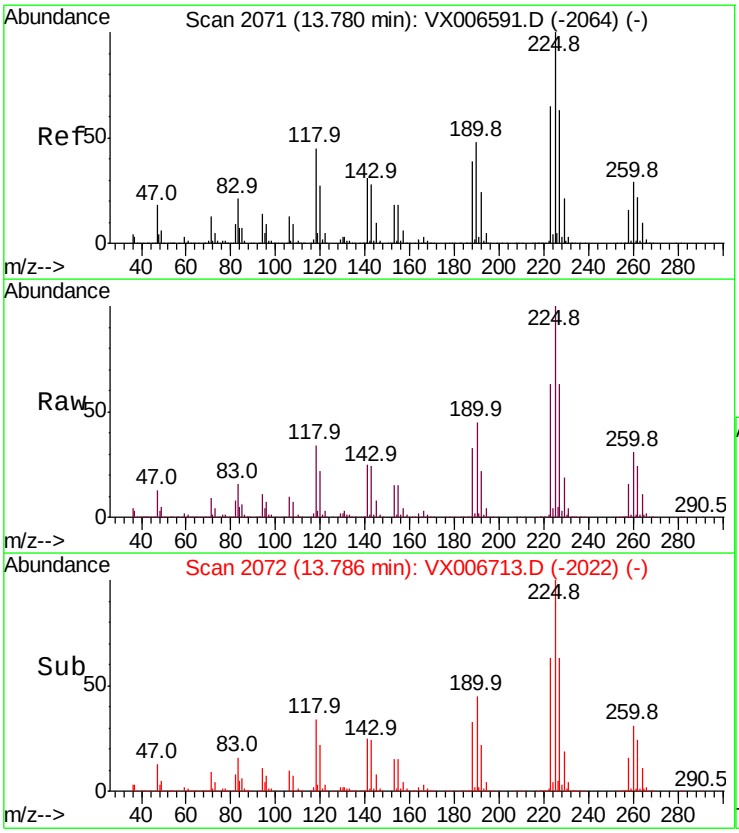


#93
1,2,4-Trichlorobenzene
Concen: 51.794 ug/l
RT: 13.65 min Scan# 2049
Delta R.T. -0.00 min
Lab File: VX006713.D
Acq: 21 Dec 2018 09:07

Tgt Ion:180 Resp: 523339

Ion	Ratio	Lower	Upper
180	100		
182	95.9	47.3	142.0
145	29.2	14.8	44.3

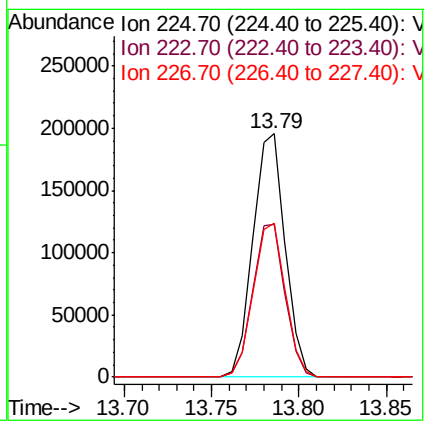




#94
Hexachlorobutadiene
Concen: 52.557 ug/l
RT: 13.79 min Scan# 2072
Delta R.T. 0.01 min
Lab File: VX006713.D
Acq: 21 Dec 2018 09:07

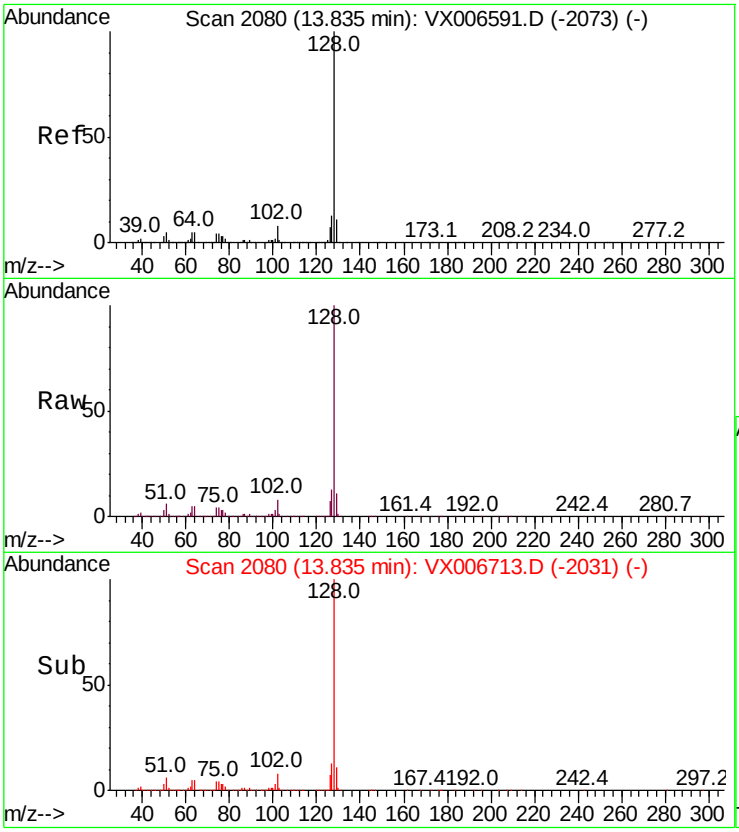
Tgt Ion:225 Resp: 250307

Ion	Ratio	Lower	Upper
225	100		
223	62.8	32.1	96.3
227	63.2	32.3	96.8



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

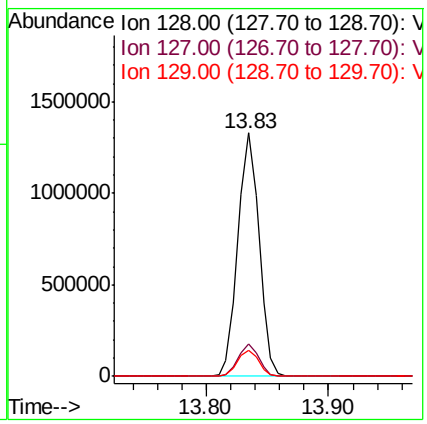
Manual Integrations APPROVED
MMDadoda
12/22/2018 11:20:53 AM

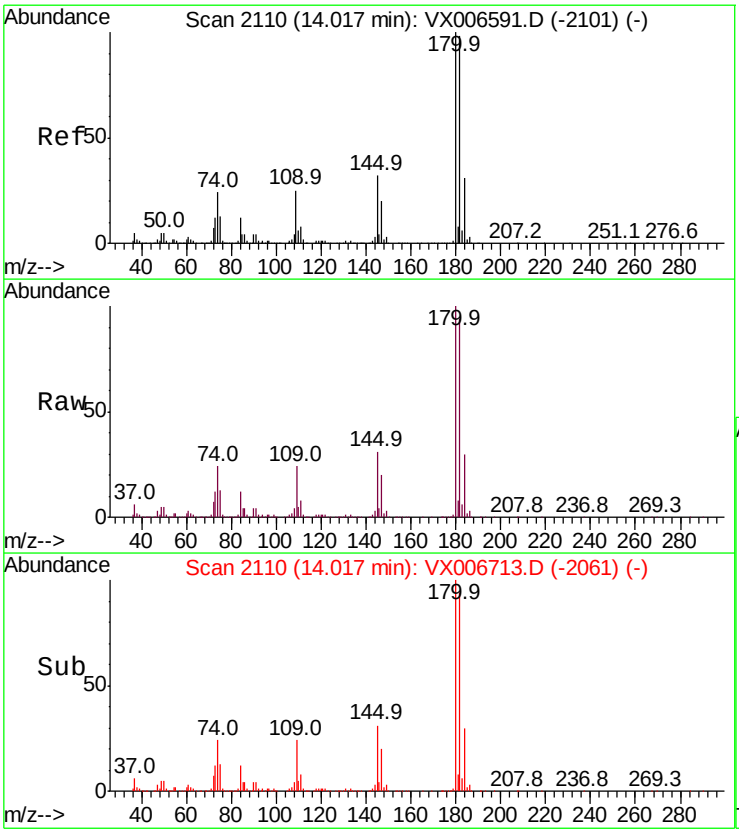


#95
Naphthalene
Concen: 49.197 ug/l
RT: 13.83 min Scan# 2080
Delta R.T. -0.00 min
Lab File: VX006713.D
Acq: 21 Dec 2018 09:07

Tgt Ion:128 Resp: 1586574

Ion	Ratio	Lower	Upper
128	100		
127	13.0	10.1	15.1
129	10.9	8.6	13.0

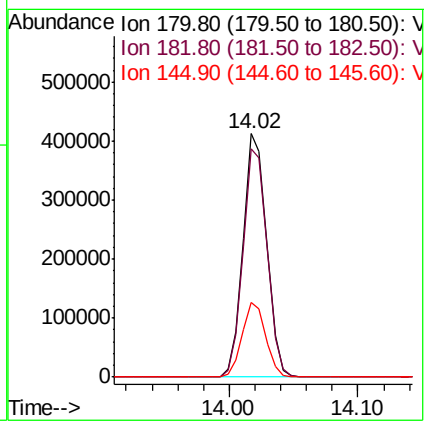




#96
1,2,3-Trichlorobenzene
Concen: 49.687 ug/l
RT: 14.02 min Scan# 2110
Delta R.T. -0.00 min
Lab File: VX006713.D
Acq: 21 Dec 2018 09:07

Tgt Ion:180 Resp: 518356

Ion	Ratio	Lower	Upper
180	100		
182	95.6	48.5	145.5
145	30.8	16.0	47.9



Evaluate Continuing Calibration Report

Data Path : Z:\voasrv\HPCHEM1\MSVOA X\Data\VX122118\
Data File : VX006713.D
Acq On : 21 Dec 2018 09:07
Operator : JC/MD
Sample : VSTDCCC050
Misc : 5.0mL/MSVOA X/WATER
ALS Vial : 2 Sample Multiplier: 1

Instrument : MSVOA_X
LabSampleId : VSTDCCC050

Quant Time: Dec 22 04:18:01 2018
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121818W.M
Quant Title : SW846 8260
QLast Update : Wed Dec 19 15:20:58 2018
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	Pentafluorobenzene	1.000	1.000	0.0	105	0.00
2	T	Dichlorodifluoromethane	0.457	0.408	10.7	97	0.00
3	P	Chloromethane	0.493	0.401	18.7	90	0.00
4	C	Vinyl Chloride	0.515	0.464	9.9#	99	0.00
5	T	Bromomethane	0.560	0.420	25.0#	90	0.00
6	T	Chloroethane	0.356	0.301	15.4	99	0.00
7	T	Trichlorofluoromethane	0.802	0.756	5.7	101	0.00
8	T	Diethyl Ether	0.319	0.291	8.8	102	0.00
9	T	1,1,2-Trichlorotrifluoroeth	0.471	0.458	2.8	105	0.00
10	T	Methyl Iodide	0.674	0.436	35.3#	64	0.00
11	T	Tert butyl alcohol	0.120	0.112	6.7	100	0.00
12	CM	1,1-Dichloroethene	0.447	0.410	8.3#	101	0.00
13	T	Acrolein	0.081	0.064	21.0#	86	0.00
14	T	Allyl chloride	0.752	0.708	5.9	101	0.00
15	T	Acrylonitrile	0.267	0.259	3.0	103	0.00
16	T	Acetone	0.248	0.280	-12.9	124	0.00
17	T	Carbon Disulfide	1.182	0.995	15.8	94	0.00
18	T	Methyl Acetate	0.728	0.725	0.4	107	0.00
19	T	Methyl tert-butyl Ether	1.483	1.451	2.2	104	0.00
20	T	Methylene Chloride	0.512	0.459	10.4	101	0.00
21	T	trans-1,2-Dichloroethene	0.495	0.441	10.9	101	0.00
22	T	Diisopropyl ether	1.376	1.337	2.8	103	0.00
23	T	Vinyl Acetate	1.125	1.094	2.8	103	0.00
24	P	1,1-Dichloroethane	0.821	0.763	7.1	104	0.00
25	T	2-Butanone	0.348	0.355	-2.0	109	0.00
26	T	2,2-Dichloropropane	0.634	0.589	7.1	100	0.00
27	T	cis-1,2-Dichloroethene	0.546	0.513	6.0	101	0.00
28	T	Bromochloromethane	0.378	0.342	9.5	101	0.00
29	T	Tetrahydrofuran	0.229	0.222	3.1	103	0.00
30	C	Chloroform	0.850	0.800	5.9#	102	0.00
31	T	Cyclohexane	0.746	0.687	7.9	100	0.00
32	T	1,1,1-Trichloroethane	0.718	0.683	4.9	98	0.00
33	S	1,2-Dichloroethane-d4	0.539	0.503	6.7	98	0.00
34	I	1,4-Difluorobenzene	1.000	1.000	0.0	98	0.00
35	S	Dibromofluoromethane	0.316	0.321	-1.6	100	0.00
36	T	1,1-Dichloropropene	0.414	0.408	1.4	100	0.00
37	T	Ethyl Acetate	0.431	0.434	-0.7	104	0.00
38	T	Carbon Tetrachloride	0.402	0.406	-1.0	100	0.00
39	T	Methylcyclohexane	0.545	0.539	1.1	102	0.00
40	TM	Benzene	1.259	1.242	1.4	100	0.00
41	T	Methacrylonitrile	0.229	0.243	-6.1	103	0.00
42	TM	1,2-Dichloroethane	0.429	0.413	3.7	101	0.00
43	T	Isopropyl Acetate	0.656	0.694	-5.8	104	0.00
44	TM	Trichloroethene	0.381	0.368	3.4	101	0.00
45	C	1,2-Dichloropropane	0.306	0.311	-1.6#	106	0.00

Evaluate Continuing Calibration Report

Data Path : Z:\voasrv\HPCHEM1\MSVOA X\Data\VX122118\
Data File : VX006713.D
Acq On : 21 Dec 2018 09:07
Operator : JC/MD
Sample : VSTDCCC050
Misc : 5.0mL/MSVOA X/WATER
ALS Vial : 2 Sample Multiplier: 1

Instrument : MSVOA_X
LabSampleId : VSTDCCC050

Quant Time: Dec 22 04:18:01 2018
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121818W.M
Quant Title : SW846 8260
QLast Update : Wed Dec 19 15:20:58 2018
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
46	T	Dibromomethane	0.225	0.220	2.2	99	0.00
47	T	Bromodichloromethane	0.374	0.380	-1.6	100	0.00
48	T	Methyl methacrylate	0.334	0.351	-5.1	101	0.00
49	T	1,4-Dioxane	0.009	0.009	0.0	97	0.00
50	S	Toluene-d8	1.192	1.189	0.3	99	0.00
51	T	4-Methyl-2-Pentanone	0.417	0.435	-4.3	101	0.00
52	CM	Toluene	0.813	0.816	-0.4#	101	0.00
53	T	t-1,3-Dichloropropene	0.401	0.427	-6.5	99	0.00
54	T	cis-1,3-Dichloropropene	0.440	0.475	-8.0	101	0.00
55	T	1,1,2-Trichloroethane	0.333	0.330	0.9	100	0.00
56	T	Ethyl methacrylate	0.470	0.487	-3.6	98	0.00
57	T	1,3-Dichloropropane	0.536	0.525	2.1	100	0.00
58	T	2-Chloroethyl Vinyl ether	0.250	0.253	-1.2	101	0.00
59	T	2-Hexanone	0.319	0.339	-6.3	102	0.00
60	T	Dibromochloromethane	0.307	0.331	-7.8	100	0.00
61	T	1,2-Dibromoethane	0.354	0.362	-2.3	100	0.00
62	S	4-Bromofluorobenzene	0.437	0.423	3.2	93	0.00
63	I	Chlorobenzene-d5	1.000	1.000	0.0	96	0.00
64	T	Tetrachloroethene	0.396	0.395	0.3	101	0.00
65	PM	Chlorobenzene	1.058	1.056	0.2	99	0.00
66	T	1,1,1,2-Tetrachloroethane	0.330	0.363	-10.0	101	0.00
67	C	Ethyl Benzene	1.729	1.737	-0.5#	99	0.00
68	T	m/p-Xylenes	0.682	0.685	-0.4	97	0.00
69	T	o-Xylene	0.674	0.669	0.7	96	0.00
70	T	Styrene	1.066	1.078	-1.1	95	0.00
71	P	Bromoform	0.251	0.268	-6.8	96	0.00
72	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	94	0.00
73	T	Isopropylbenzene	3.421	3.481	-1.8	98	0.00
74	T	N-amyl acetate	1.224	1.324	-8.2	100	0.00
75	P	1,1,2,2-Tetrachloroethane	1.017	1.038	-2.1	97	0.00
76	T	1,2,3-Trichloropropane	0.929	0.958	-3.1	94	0.00
77	T	Bromobenzene	0.925	0.915	1.1	94	0.00
78	T	n-propylbenzene	3.767	3.915	-3.9	99	0.00
79	T	2-Chlorotoluene	2.283	2.254	1.3	96	0.00
80	T	1,3,5-Trimethylbenzene	2.817	2.864	-1.7	97	0.00
81	T	trans-1,4-Dichloro-2-butene	0.259	0.272	-5.0	94	0.00
82	T	4-Chlorotoluene	2.618	2.614	0.2	96	0.00
83	T	tert-Butylbenzene	2.820	2.913	-3.3	96	0.00
84	T	1,2,4-Trimethylbenzene	2.963	2.929	1.1	96	0.00
85	T	sec-Butylbenzene	3.457	3.527	-2.0	97	0.00
86	T	p-Isopropyltoluene	3.039	3.192	-5.0	99	0.00
87	T	1,3-Dichlorobenzene	1.667	1.666	0.1	96	0.00
88	T	1,4-Dichlorobenzene	1.709	1.662	2.8	95	0.00
89	T	n-Butylbenzene	2.586	2.783	-7.6	101	0.00

Evaluate Continuing Calibration Report

Data Path : Z:\voasrv\HPCHEM1\MSVOA X\Data\VX122118\
Data File : VX006713.D
Acq On : 21 Dec 2018 09:07
Operator : JC/MD
Sample : VSTDCCC050
Misc : 5.0mL/MSVOA X/WATER
ALS Vial : 2 Sample Multiplier: 1

Instrument : MSVOA_X
LabSampleId : VSTDCCC050

Quant Time: Dec 22 04:18:01 2018
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121818W.M
Quant Title : SW846 8260
QLast Update : Wed Dec 19 15:20:58 2018
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
90 T	Hexachloroethane	0.414	0.453	-9.4	98	0.00
91 T	1,2-Dichlorobenzene	1.667	1.615	3.1	95	0.00
92 T	1,2-Dibromo-3-Chloropropane	0.210	0.217	-3.3	96	0.00
93 T	1,2,4-Trichlorobenzene	1.150	1.191	-3.6	99	0.00
94 T	Hexachlorobutadiene	0.542	0.570	-5.2	104	0.00
95 T	Naphthalene	3.671	3.612	1.6	94	0.00
96 T	1,2,3-Trichlorobenzene	1.187	1.180	0.6	99	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 6

Evaluate Continuing Calibration Report

Data Path : Z:\voasrv\HPCHEM1\MSVOA X\Data\VX122118\
Data File : VX006713.D
Acq On : 21 Dec 2018 09:07
Operator : JC/MD
Sample : VSTDCCC050
Misc : 5.0mL/MSVOA X/WATER
ALS Vial : 2 Sample Multiplier: 1

Instrument : MSVOA_X
LabSampleId : VSTDCCC050

Quant Time: Dec 22 04:18:01 2018
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121818W.M
Quant Title : SW846 8260
QLast Update : Wed Dec 19 15:20:58 2018
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	Pentafluorobenzene	50.000	50.000	0.0	105	0.00
2	T	Dichlorodifluoromethane	50.000	44.581	10.8	97	0.00
3	P	Chloromethane	50.000	40.737	18.5	90	0.00
4	C	Vinyl Chloride	50.000	45.125	9.8#	99	0.00
5	T	Bromomethane	50.000	43.434	13.1	90	0.00
6	T	Chloroethane	50.000	42.266	15.5	99	0.00
7	T	Trichlorofluoromethane	50.000	47.099	5.8	101	0.00
8	T	Diethyl Ether	50.000	45.587	8.8	102	0.00
9	T	1,1,2-Trichlorotrifluoroeth	50.000	48.585	2.8	105	0.00
10	T	Methyl Iodide	50.000	32.357	35.3#	64	0.00
11	T	Tert butyl alcohol	250.000	233.497	6.6	100	0.00
12	CM	1,1-Dichloroethene	50.000	45.872	8.3#	101	0.00
13	T	Acrolein	250.000	195.813	21.7#	86	0.00
14	T	Allyl chloride	50.000	47.065	5.9	101	0.00
15	T	Acrylonitrile	250.000	242.893	2.8	103	0.00
16	T	Acetone	250.000	283.119	-13.2	124	0.00
17	T	Carbon Disulfide	50.000	42.091	15.8	94	0.00
18	T	Methyl Acetate	50.000	49.806	0.4	107	0.00
19	T	Methyl tert-butyl Ether	50.000	48.943	2.1	104	0.00
20	T	Methylene Chloride	50.000	44.832	10.3	101	0.00
21	T	trans-1,2-Dichloroethene	50.000	44.521	11.0	101	0.00
22	T	Diisopropyl ether	50.000	48.605	2.8	103	0.00
23	T	Vinyl Acetate	250.000	243.012	2.8	103	0.00
24	P	1,1-Dichloroethane	50.000	46.447	7.1	104	0.00
25	T	2-Butanone	250.000	254.886	-2.0	109	0.00
26	T	2,2-Dichloropropane	50.000	46.402	7.2	100	0.00
27	T	cis-1,2-Dichloroethene	50.000	46.966	6.1	101	0.00
28	T	Bromochloromethane	50.000	49.445	1.1	101	0.00
29	T	Tetrahydrofuran	250.000	241.727	3.3	103	0.00
30	C	Chloroform	50.000	47.010	6.0#	102	0.00
31	T	Cyclohexane	50.000	46.062	7.9	100	0.00
32	T	1,1,1-Trichloroethane	50.000	47.542	4.9	98	0.00
33	S	1,2-Dichloroethane-d4	50.000	46.712	6.6	98	0.00
34	I	1,4-Difluorobenzene	50.000	50.000	0.0	98	0.00
35	S	Dibromofluoromethane	50.000	50.830	-1.7	100	0.00
36	T	1,1-Dichloropropene	50.000	49.296	1.4	100	0.00
37	T	Ethyl Acetate	50.000	50.350	-0.7	104	0.00
38	T	Carbon Tetrachloride	50.000	50.384	-0.8	100	0.00
39	T	Methylcyclohexane	50.000	49.415	1.2	102	0.00
40	TM	Benzene	50.000	49.342	1.3	100	0.00
41	T	Methacrylonitrile	50.000	53.198	-6.4	103	0.00
42	TM	1,2-Dichloroethane	50.000	48.198	3.6	101	0.00
43	T	Isopropyl Acetate	50.000	52.946	-5.9	104	0.00
44	TM	Trichloroethene	50.000	48.319	3.4	101	0.00
45	C	1,2-Dichloropropane	50.000	50.816	-1.6#	106	0.00

Evaluate Continuing Calibration Report

Data Path : Z:\voasrv\HPCHEM1\MSVOA X\Data\VX122118\
Data File : VX006713.D
Acq On : 21 Dec 2018 09:07
Operator : JC/MD
Sample : VSTDCCC050
Misc : 5.0mL/MSVOA X/WATER
ALS Vial : 2 Sample Multiplier: 1

Instrument : MSVOA_X
LabSampleId : VSTDCCC050

Quant Time: Dec 22 04:18:01 2018
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121818W.M
Quant Title : SW846 8260
QLast Update : Wed Dec 19 15:20:58 2018
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
46	T	Dibromomethane	50.000	48.796	2.4	99	0.00
47	T	Bromodichloromethane	50.000	50.794	-1.6	100	0.00
48	T	Methyl methacrylate	50.000	52.592	-5.2	101	0.00
49	T	1,4-Dioxane	1000.000	1006.610	-0.7	97	0.00
50	S	Toluene-d8	50.000	49.873	0.3	99	0.00
51	T	4-Methyl-2-Pentanone	250.000	260.749	-4.3	101	0.00
52	CM	Toluene	50.000	50.147	-0.3#	101	0.00
53	T	t-1,3-Dichloropropene	50.000	53.248	-6.5	99	0.00
54	T	cis-1,3-Dichloropropene	50.000	53.994	-8.0	101	0.00
55	T	1,1,2-Trichloroethane	50.000	49.619	0.8	100	0.00
56	T	Ethyl methacrylate	50.000	51.725	-3.5	98	0.00
57	T	1,3-Dichloropropane	50.000	48.971	2.1	100	0.00
58	T	2-Chloroethyl Vinyl ether	250.000	253.330	-1.3	101	0.00
59	T	2-Hexanone	250.000	265.633	-6.3	102	0.00
60	T	Dibromochloromethane	50.000	47.671	4.7	100	0.00
61	T	1,2-Dibromoethane	50.000	51.102	-2.2	100	0.00
62	S	4-Bromofluorobenzene	50.000	48.423	3.2	93	0.00
63	I	Chlorobenzene-d5	50.000	50.000	0.0	96	0.00
64	T	Tetrachloroethene	50.000	49.836	0.3	101	0.00
65	PM	Chlorobenzene	50.000	49.916	0.2	99	0.00
66	T	1,1,1,2-Tetrachloroethane	50.000	54.999	-10.0	101	0.00
67	C	Ethyl Benzene	50.000	50.257	-0.5#	99	0.00
68	T	m/p-Xylenes	100.000	100.445	-0.4	97	0.00
69	T	o-Xylene	50.000	49.660	0.7	96	0.00
70	T	Styrene	50.000	50.572	-1.1	95	0.00
71	P	Bromoform	50.000	45.429	9.1	96	0.00
72	I	1,4-Dichlorobenzene-d4	50.000	50.000	0.0	94	0.00
73	T	Isopropylbenzene	50.000	50.876	-1.8	98	0.00
74	T	N-amyl acetate	50.000	54.050	-8.1	100	0.00
75	P	1,1,2,2-Tetrachloroethane	50.000	51.022	-2.0	97	0.00
76	T	1,2,3-Trichloropropane	50.000	51.550	-3.1	94	0.00
77	T	Bromobenzene	50.000	49.458	1.1	94	0.00
78	T	n-propylbenzene	50.000	51.969	-3.9	99	0.00
79	T	2-Chlorotoluene	50.000	49.361	1.3	96	0.00
80	T	1,3,5-Trimethylbenzene	50.000	50.833	-1.7	97	0.00
81	T	trans-1,4-Dichloro-2-butene	50.000	44.996	10.0	94	0.00
82	T	4-Chlorotoluene	50.000	49.917	0.2	96	0.00
83	T	tert-Butylbenzene	50.000	51.648	-3.3	96	0.00
84	T	1,2,4-Trimethylbenzene	50.000	49.411	1.2	96	0.00
85	T	sec-Butylbenzene	50.000	51.005	-2.0	97	0.00
86	T	p-Isopropyltoluene	50.000	52.509	-5.0	99	0.00
87	T	1,3-Dichlorobenzene	50.000	49.987	0.0	96	0.00
88	T	1,4-Dichlorobenzene	50.000	48.628	2.7	95	0.00
89	T	n-Butylbenzene	50.000	53.802	-7.6	101	0.00

Evaluate Continuing Calibration Report

Data Path : Z:\voasrv\HPCHEM1\MSVOA X\Data\VX122118\
Data File : VX006713.D
Acq On : 21 Dec 2018 09:07
Operator : JC/MD
Sample : VSTDCCC050
Misc : 5.0mL/MSVOA X/WATER
ALS Vial : 2 Sample Multiplier: 1

Instrument : MSVOA_X
LabSampleId : VSTDCCC050

Quant Time: Dec 22 04:18:01 2018
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121818W.M
Quant Title : SW846 8260
QLast Update : Wed Dec 19 15:20:58 2018
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
90 T	Hexachloroethane	50.000	47.756	4.5	98	0.00
91 T	1,2-Dichlorobenzene	50.000	48.428	3.1	95	0.00
92 T	1,2-Dibromo-3-Chloropropane	50.000	51.474	-2.9	96	0.00
93 T	1,2,4-Trichlorobenzene	50.000	51.794	-3.6	99	0.00
94 T	Hexachlorobutadiene	50.000	52.557	-5.1	104	0.00
95 T	Naphthalene	50.000	49.197	1.6	94	0.00
96 T	1,2,3-Trichlorobenzene	50.000	49.687	0.6	99	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 6

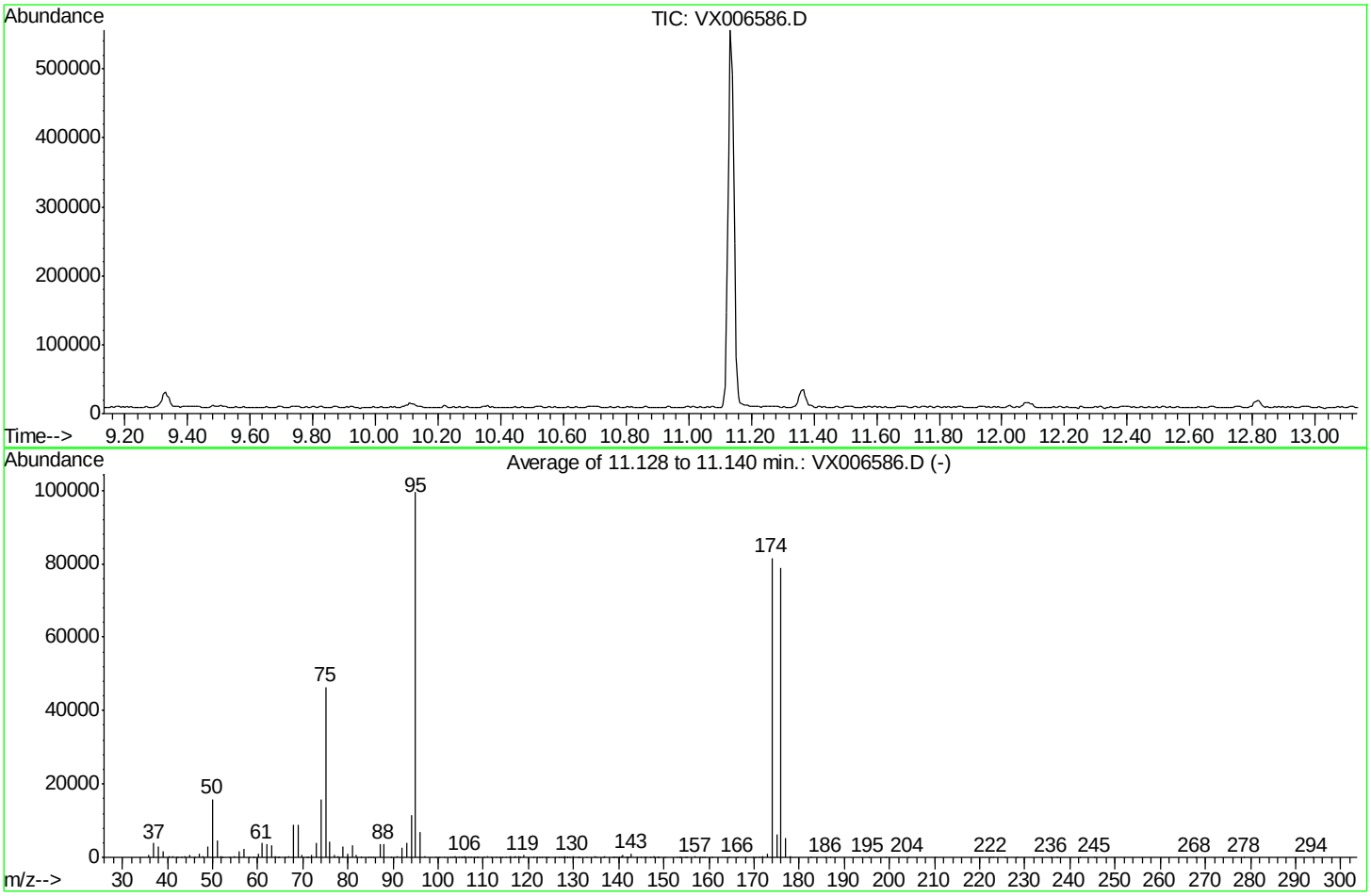
QC SAMPLE DATA

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX121818\
Data File : VX006586.D
Acq On : 18 Dec 2018 08:18
Operator : JC/MD
Sample : BFB
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 1 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
BFB

Integration File: RTEINT.P

Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121818W.M
Title : SW846 8260
Last Update : Wed Dec 19 00:58:54 2018



AutoFind: Scans 1636, 1637, 1638; Background Corrected with Scan 1625

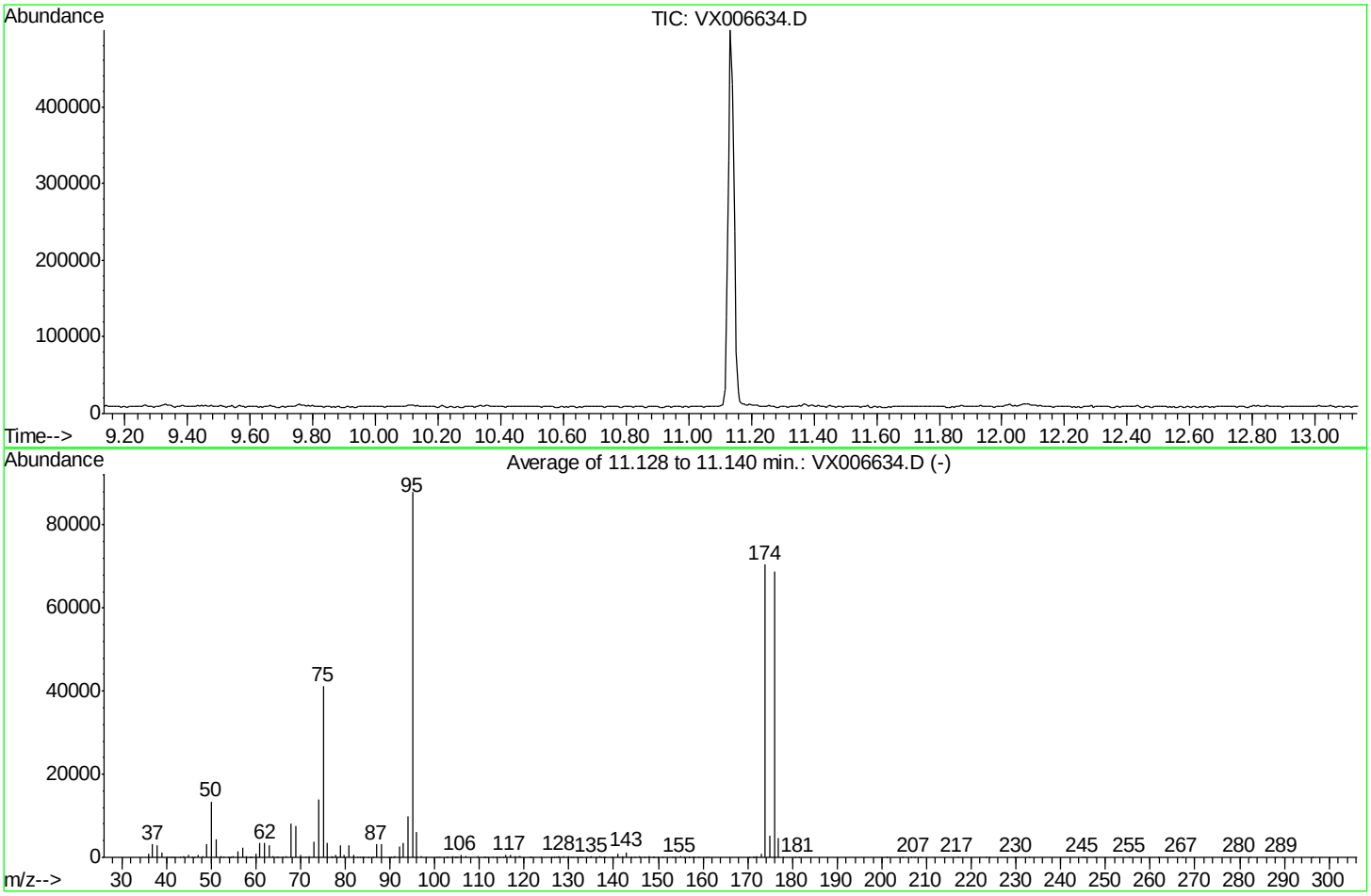
Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	15.9	15849	PASS
75	95	30	60	46.6	46384	PASS
95	95	100	100	100.0	99496	PASS
96	95	5	9	6.9	6824	PASS
173	174	0.00	2	1.4	1125	PASS
174	95	50	100	81.9	81509	PASS
175	174	5	9	7.5	6107	PASS
176	174	95	101	96.8	78928	PASS
177	176	5	9	6.6	5230	PASS

Data Path : Z:\voasrv\HPCHEM1\MSVOA X\Data\VX121918\
Data File : VX006634.D
Acq On : 19 Dec 2018 13:50
Operator : JC/MD
Sample : BFB
Misc : 5.0mL/MSVOA X/WATER
ALS Vial : 1 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
BFB

Integration File: RTEINT.P

Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121818W.M
Title : SW846 8260
Last Update : Wed Dec 19 15:20:58 2018



AutoFind: Scans 1636, 1637, 1638; Background Corrected with Scan 1629

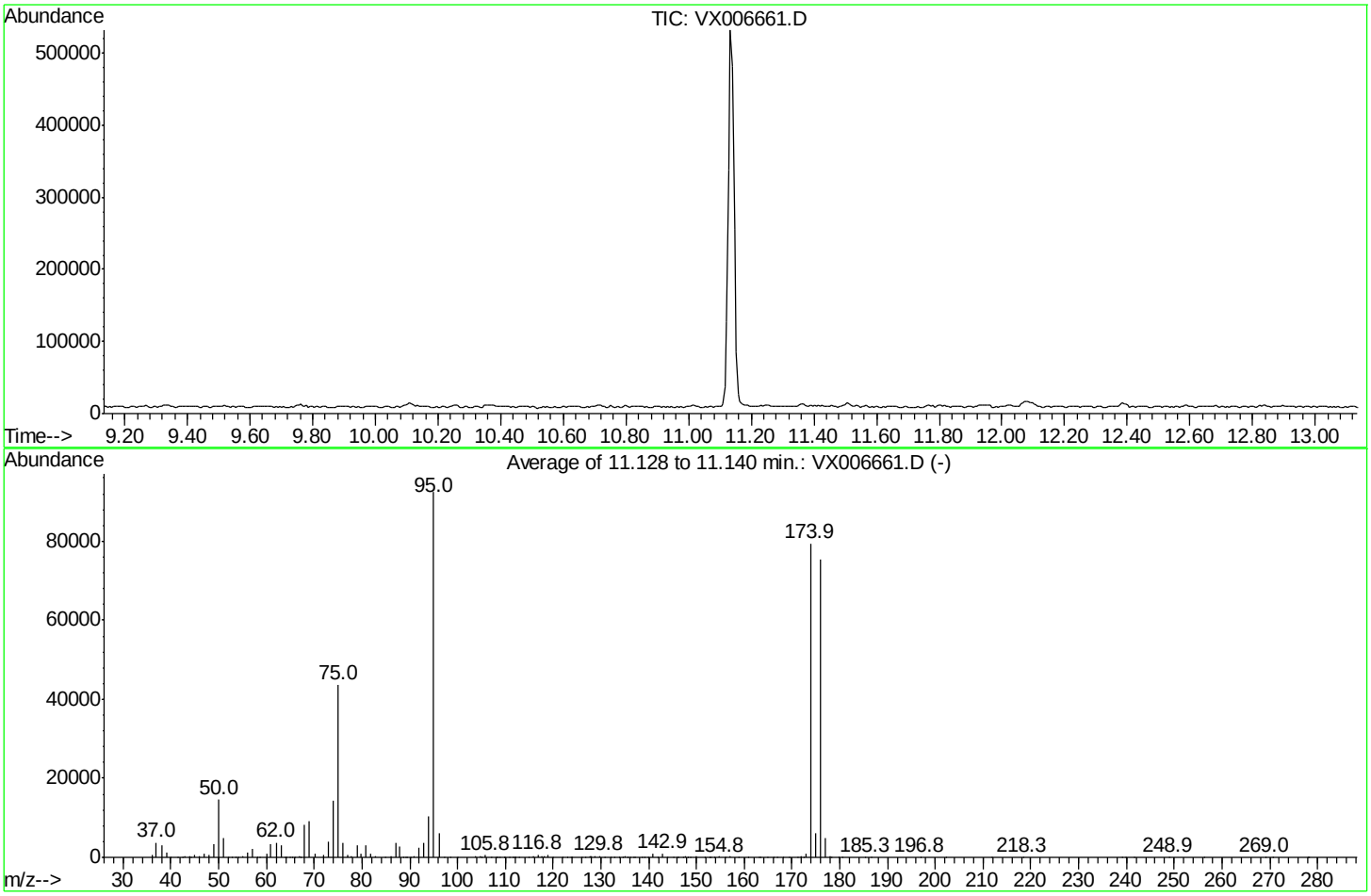
Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	15.3	13423	PASS
75	95	30	60	46.9	41185	PASS
95	95	100	100	100.0	87893	PASS
96	95	5	9	6.9	6081	PASS
173	174	0.00	2	1.4	1005	PASS
174	95	50	100	80.2	70493	PASS
175	174	5	9	7.3	5163	PASS
176	174	95	101	97.6	68834	PASS
177	176	5	9	6.6	4565	PASS

Data Path : Z:\voasrv\HPCHEM1\MSVOA X\Data\VX122018\
Data File : VX006661.D
Acq On : 20 Dec 2018 08:31
Operator : JC/MD
Sample : BFB
Misc : 5.0mL/MSVOA X/WATER
ALS Vial : 1 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
BFB

Integration File: RTEINT.P

Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121818W.M
Title : SW846 8260
Last Update : Wed Dec 19 15:20:58 2018



AutoFind: Scans 1636, 1637, 1638; Background Corrected with Scan 1626

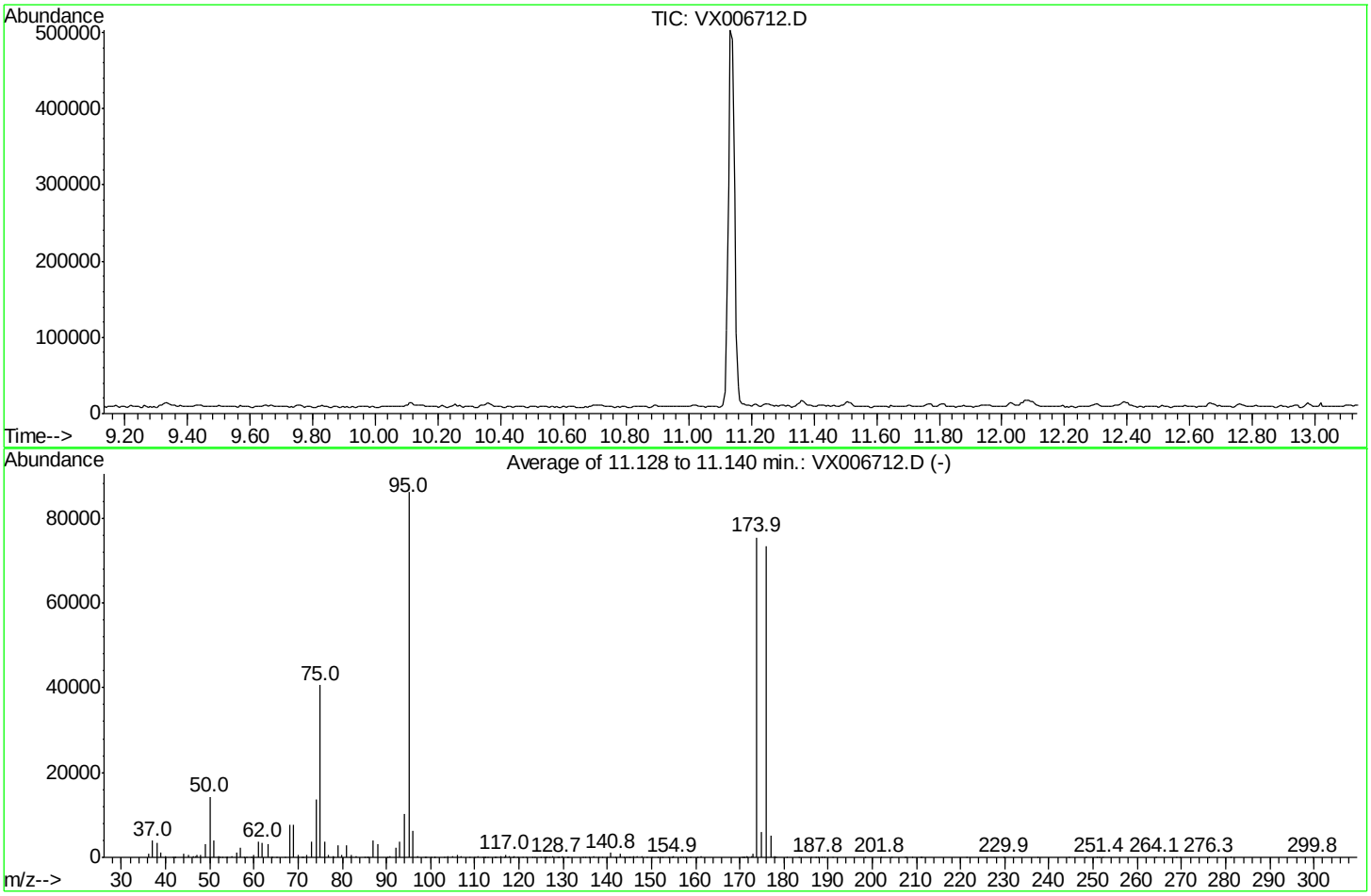
Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	15.8	14618	PASS
75	95	30	60	47.3	43736	PASS
95	95	100	100	100.0	92416	PASS
96	95	5	9	6.6	6126	PASS
173	174	0.00	2	1.2	976	PASS
174	95	50	100	85.9	79378	PASS
175	174	5	9	7.7	6110	PASS
176	174	95	101	94.9	75330	PASS
177	176	5	9	6.6	4970	PASS

Data Path : Z:\voasrv\HPCHEM1\MSVOA X\Data\VX122118\
Data File : VX006712.D
Acq On : 21 Dec 2018 08:37
Operator : JC/MD
Sample : BFB
Misc : 5.0mL/MSVOA X/WATER
ALS Vial : 1 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
BFB

Integration File: RTEINT.P

Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121818W.M
Title : SW846 8260
Last Update : Wed Dec 19 15:20:58 2018



AutoFind: Scans 1636, 1637, 1638; Background Corrected with Scan 1629

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	16.5	14245	PASS
75	95	30	60	47.2	40622	PASS
95	95	100	100	100.0	86096	PASS
96	95	5	9	7.2	6201	PASS
173	174	0.00	2	1.1	803	PASS
174	95	50	100	87.6	75413	PASS
175	174	5	9	7.8	5887	PASS
176	174	95	101	97.4	73456	PASS
177	176	5	9	7.1	5181	PASS

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Day Environmental, Inc.	Date Collected:	
Project:	Andrew St. RI	Date Received:	
Client Sample ID:	VX1219WBL01	SDG No.:	J6484
Lab Sample ID:	VX1219WBL01	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	DB-624UI ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX006636.D	1		12/19/18 14:54	VX121918

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
75-71-8	Dichlorodifluoromethane	1	U	0.2	0.2	1	ug/L
74-87-3	Chloromethane	1	U	0.2	0.2	1	ug/L
75-01-4	Vinyl Chloride	1	U	0.2	0.2	1	ug/L
74-83-9	Bromomethane	1	U	0.2	0.2	1	ug/L
75-00-3	Chloroethane	1	U	0.2	0.5	1	ug/L
75-69-4	Trichlorofluoromethane	1	U	0.2	0.2	1	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	1	U	0.2	0.2	1	ug/L
75-35-4	1,1-Dichloroethene	1	U	0.2	0.2	1	ug/L
67-64-1	Acetone	5	U	0.5	1	5	ug/L
75-15-0	Carbon Disulfide	1	U	0.2	0.2	1	ug/L
1634-04-4	Methyl tert-butyl Ether	1	U	0.35	0.5	1	ug/L
79-20-9	Methyl Acetate	1	U	0.2	0.5	1	ug/L
75-09-2	Methylene Chloride	1	U	0.2	0.2	1	ug/L
156-60-5	trans-1,2-Dichloroethene	1	U	0.2	0.2	1	ug/L
75-34-3	1,1-Dichloroethane	1	U	0.2	0.2	1	ug/L
110-82-7	Cyclohexane	1	U	0.2	0.2	1	ug/L
78-93-3	2-Butanone	5	U	1.3	2.5	5	ug/L
56-23-5	Carbon Tetrachloride	1	U	0.2	0.2	1	ug/L
156-59-2	cis-1,2-Dichloroethene	1	U	0.2	0.2	1	ug/L
74-97-5	Bromochloromethane	1	U	0.2	0.5	1	ug/L
67-66-3	Chloroform	1	U	0.2	0.2	1	ug/L
71-55-6	1,1,1-Trichloroethane	1	U	0.2	0.2	1	ug/L
108-87-2	Methylcyclohexane	1	U	0.2	0.2	1	ug/L
71-43-2	Benzene	1	U	0.2	0.2	1	ug/L
107-06-2	1,2-Dichloroethane	1	U	0.2	0.2	1	ug/L
79-01-6	Trichloroethene	1	U	0.2	0.2	1	ug/L
78-87-5	1,2-Dichloropropane	1	U	0.2	0.2	1	ug/L
75-27-4	Bromodichloromethane	1	U	0.2	0.2	1	ug/L
108-10-1	4-Methyl-2-Pentanone	5	U	1	1	5	ug/L
108-88-3	Toluene	1	U	0.2	0.2	1	ug/L
10061-02-6	t-1,3-Dichloropropene	1	U	0.2	0.2	1	ug/L
10061-01-5	cis-1,3-Dichloropropene	1	U	0.2	0.2	1	ug/L

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Day Environmental, Inc.	Date Collected:	
Project:	Andrew St. RI	Date Received:	
Client Sample ID:	VX1219WBL01	SDG No.:	J6484
Lab Sample ID:	VX1219WBL01	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	DB-624UI ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX006636.D	1		12/19/18 14:54	VX121918

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
79-00-5	1,1,2-Trichloroethane	1	U	0.2	0.2	1	ug/L
591-78-6	2-Hexanone	5	U	1.9	2.5	5	ug/L
124-48-1	Dibromochloromethane	1	U	0.2	0.2	1	ug/L
106-93-4	1,2-Dibromoethane	1	U	0.2	0.2	1	ug/L
127-18-4	Tetrachloroethene	1	U	0.2	0.2	1	ug/L
108-90-7	Chlorobenzene	1	U	0.2	0.2	1	ug/L
100-41-4	Ethyl Benzene	1	U	0.2	0.2	1	ug/L
179601-23-1	m/p-Xylenes	2	U	0.4	0.4	2	ug/L
95-47-6	o-Xylene	1	U	0.2	0.2	1	ug/L
100-42-5	Styrene	1	U	0.2	0.2	1	ug/L
75-25-2	Bromoform	1	U	0.2	0.2	1	ug/L
98-82-8	Isopropylbenzene	1	U	0.2	0.2	1	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	1	U	0.2	0.2	1	ug/L
541-73-1	1,3-Dichlorobenzene	1	U	0.2	0.2	1	ug/L
106-46-7	1,4-Dichlorobenzene	1	U	0.2	0.2	1	ug/L
95-50-1	1,2-Dichlorobenzene	1	U	0.2	0.2	1	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	1	U	0.2	0.2	1	ug/L
120-82-1	1,2,4-Trichlorobenzene	1	U	0.2	0.2	1	ug/L
87-61-6	1,2,3-Trichlorobenzene	1	U	0.2	0.2	1	ug/L
SURROGATES							
17060-07-0	1,2-Dichloroethane-d4	50.2		61 - 141		100%	SPK: 50
1868-53-7	Dibromofluoromethane	47.7		69 - 133		95%	SPK: 50
2037-26-5	Toluene-d8	49.2		65 - 126		98%	SPK: 50
460-00-4	4-Bromofluorobenzene	48		58 - 135		96%	SPK: 50
INTERNAL STANDARDS							
363-72-4	Pentafluorobenzene	672339	5.67				
540-36-3	1,4-Difluorobenzene	1051250	6.86				
3114-55-4	Chlorobenzene-d5	955698	10.11				
3855-82-1	1,4-Dichlorobenzene-d4	452100	12.08				

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Day Environmental, Inc.	Date Collected:	
Project:	Andrew St. RI	Date Received:	
Client Sample ID:	VX1219WBL01	SDG No.:	J6484
Lab Sample ID:	VX1219WBL01	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	DB-624UI ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX006636.D	1		12/19/18 14:54	VX121918

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit
A = Aldol-Condensation Reaction Products

Quantitation Report (QT Reviewed)

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX121918\
Data File : VX006636.D
Acq On : 19 Dec 2018 14:54
Operator : JC/MD
Sample : VX1219WBL01
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 3 Sample Multiplier: 1

Instrument : MSVOA_X
ClientSampleId : VX1219WBL01

Quant Time: Dec 20 04:15:03 2018
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121818W.M
Quant Title : SW846 8260
QLast Update : Wed Dec 19 15:20:58 2018
Response via : Initial Calibration

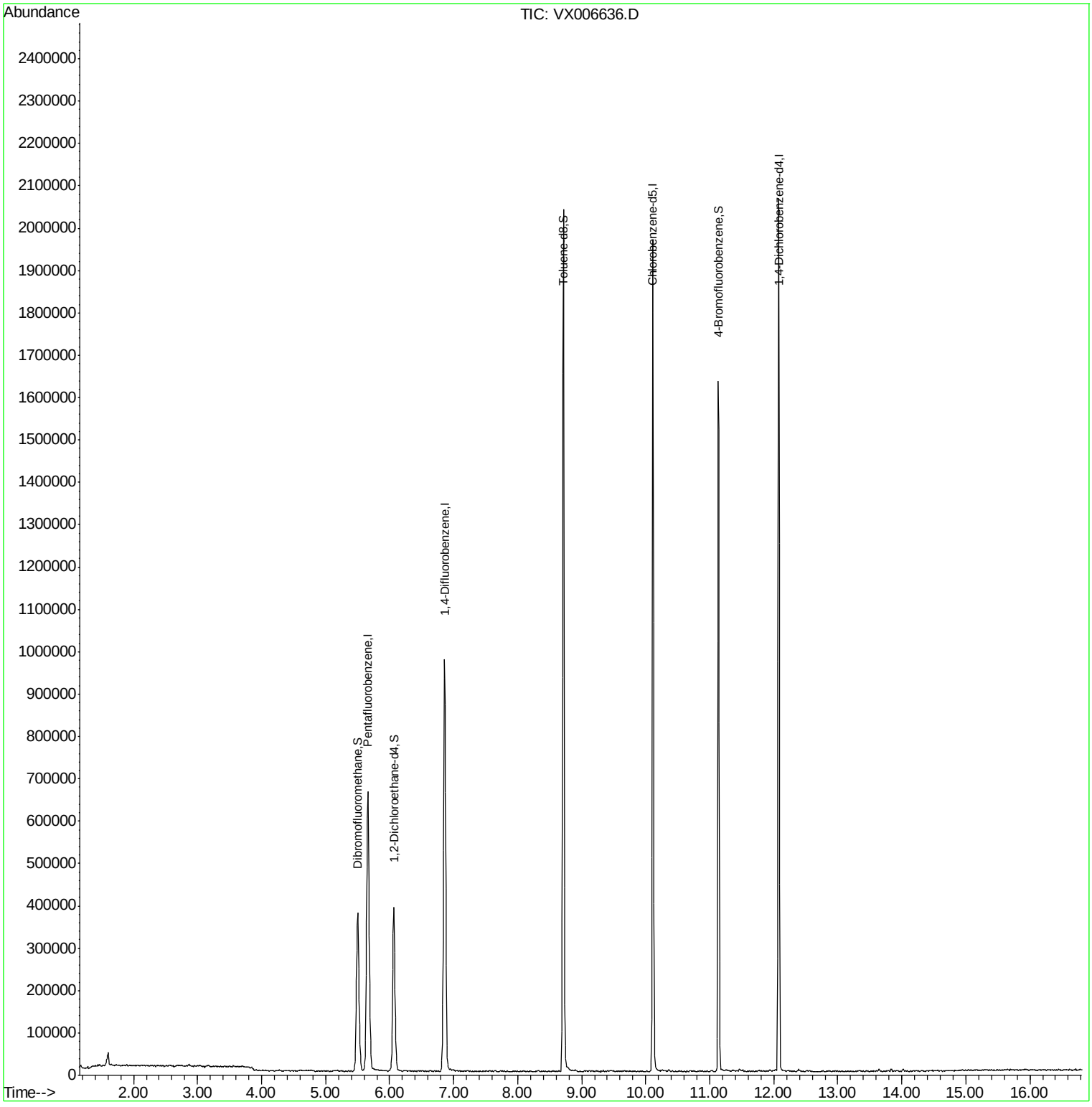
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	5.67	168	672339	50.00	ug/l	0.00
34) 1,4-Difluorobenzene	6.86	114	1051248	50.00	ug/l	0.00
63) Chlorobenzene-d5	10.11	117	955698	50.00	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	12.08	152	452100	50.00	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	6.07	65	363699	50.19	ug/l	0.00
Spiked Amount 50.000			Recovery =	100.38%		
35) Dibromofluoromethane	5.50	113	317029	47.69	ug/l	0.00
Spiked Amount 50.000			Recovery =	95.38%		
50) Toluene-d8	8.71	98	1232715	49.19	ug/l	0.00
Spiked Amount 50.000			Recovery =	98.38%		
62) 4-Bromofluorobenzene	11.13	95	440626	48.00	ug/l	0.00
Spiked Amount 50.000			Recovery =	96.00%		
Target Compounds						Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

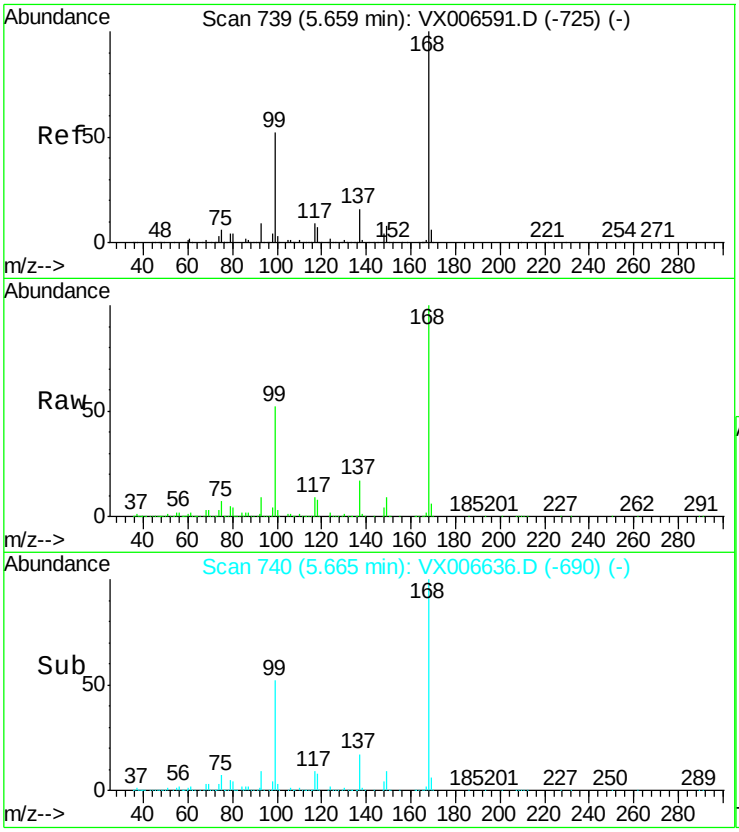
Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX121918\
Data File : VX006636.D
Acq On : 19 Dec 2018 14:54
Operator : JC/MD
Sample : VX1219WBL01
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 3 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
VX1219WBL01

Quant Time: Dec 20 04:15:03 2018
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121818W.M
Quant Title : SW846 8260
QLast Update : Wed Dec 19 15:20:58 2018
Response via : Initial Calibration



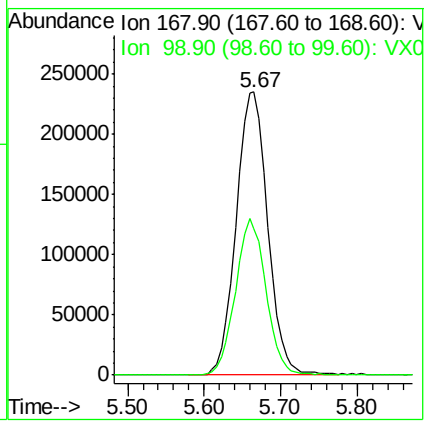
Instrument :
MSVOA_X
ClientSampleId :
VX1219WBL01

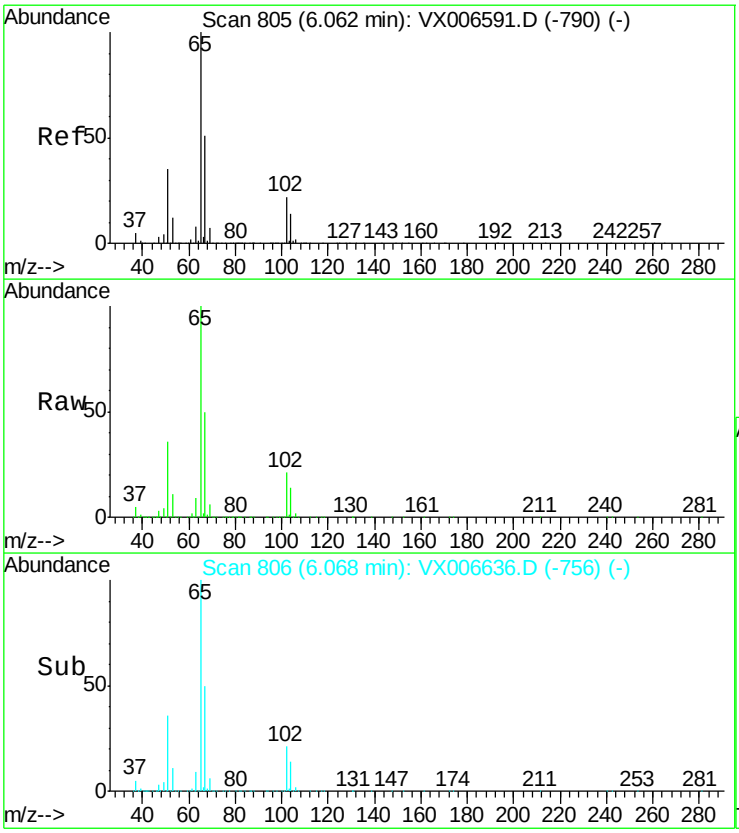


#1
Pentafluorobenzene
Concen: 50.000 ug/l
RT: 5.67 min Scan# 740
Delta R.T. 0.01 min
Lab File: VX006636.D
Acq: 19 Dec 2018 14:54

Tgt Ion:168 Resp: 672339

Ion	Ratio	Lower	Upper
168	100		
99	51.7	41.8	62.8

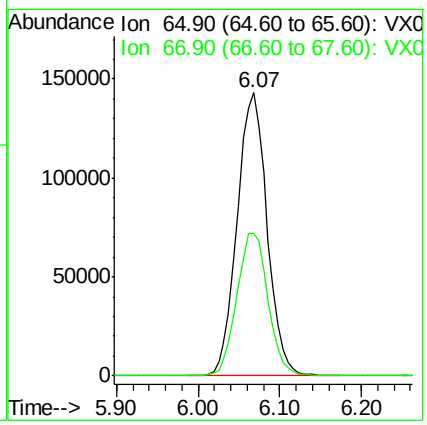




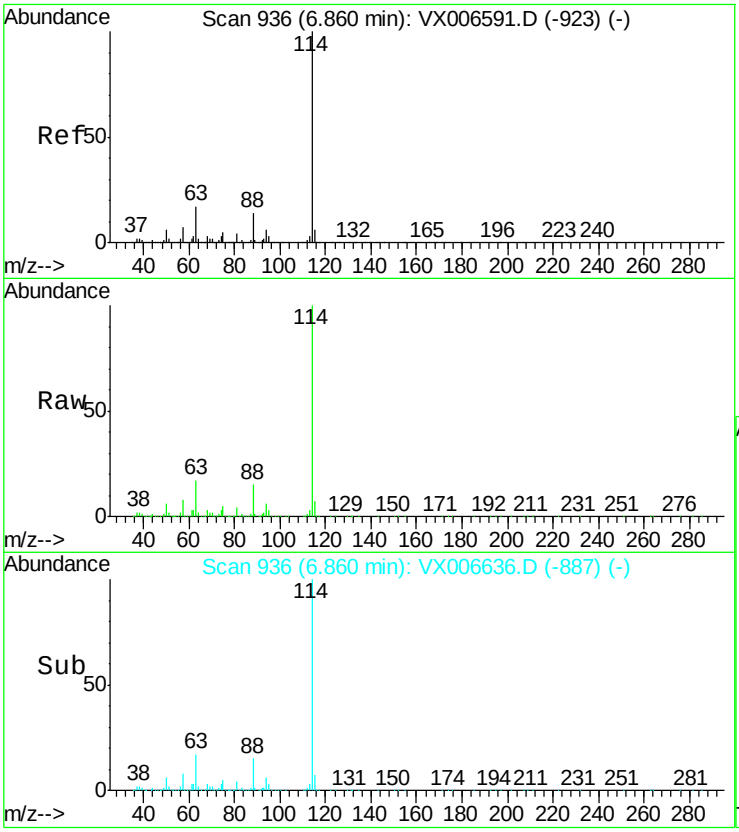
#33
1,2-Dichloroethane-d4
Concen: 50.192 ug/l
RT: 6.07 min Scan# 806
Delta R.T. 0.01 min
Lab File: VX006636.D
Acq: 19 Dec 2018 14:54

Tgt Ion: 65 Resp: 363699

Ion	Ratio	Lower	Upper
65	100		
67	52.4	0.0	105.0



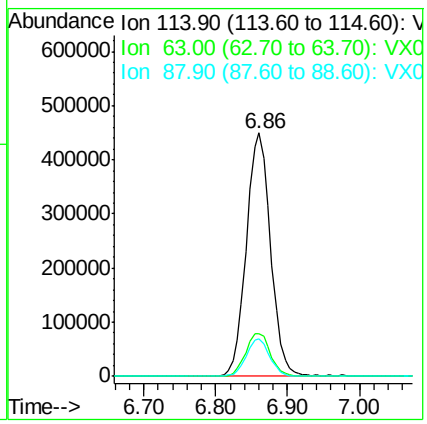
Instrument :
MSVOA_X
ClientSampleId :
VX1219WBL01

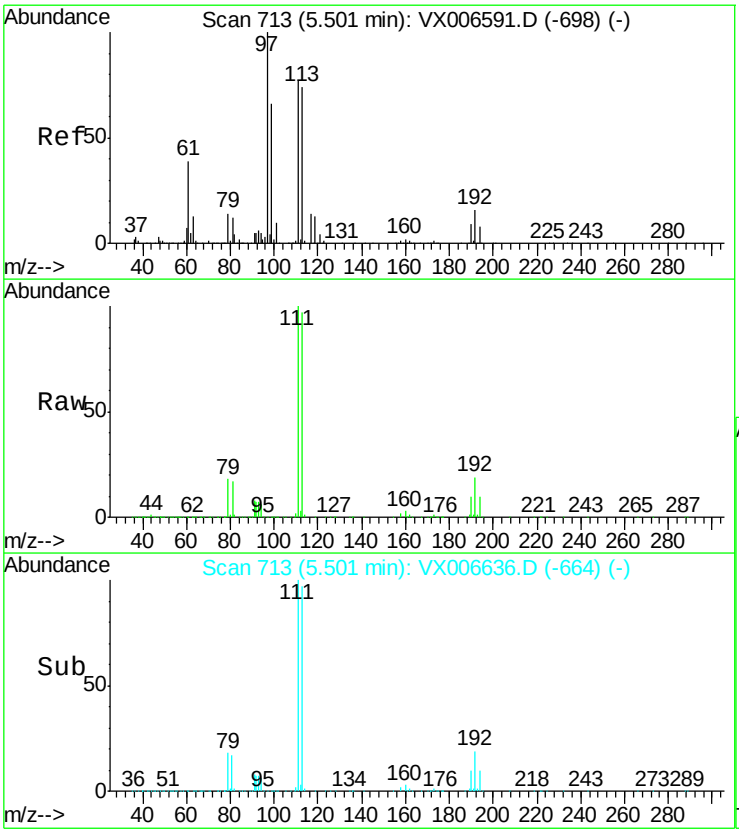


#34
1,4-Difluorobenzene
Concen: 50.000 ug/l
RT: 6.86 min Scan# 936
Delta R.T. 0.00 min
Lab File: VX006636.D
Acq: 19 Dec 2018 14:54

Tgt Ion:114 Resp: 1051248

Ion	Ratio	Lower	Upper
114	100		
63	17.5	0.0	34.8
88	15.4	0.0	28.8

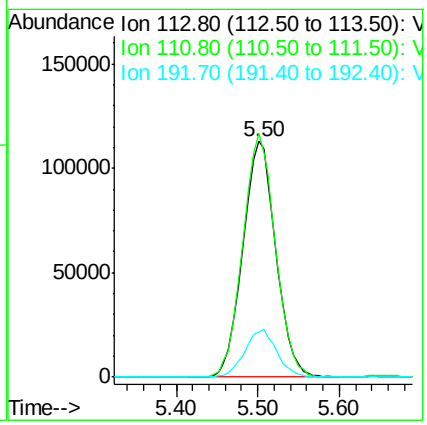




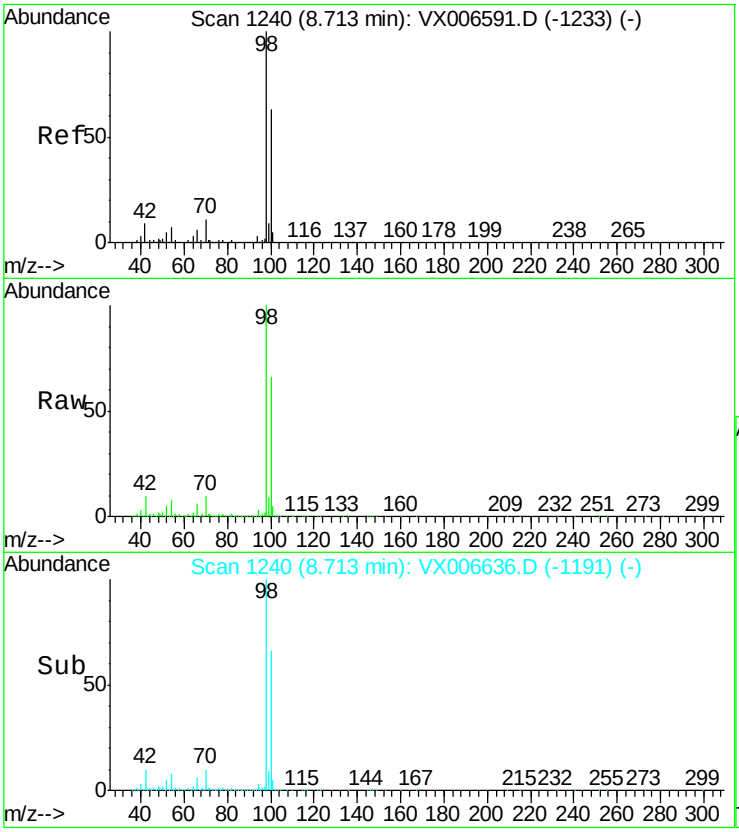
#35
Dibromofluoromethane
Concen: 47.689 ug/l
RT: 5.50 min Scan# 713
Delta R.T. 0.00 min
Lab File: VX006636.D
Acq: 19 Dec 2018 14:54

Tgt Ion:113 Resp: 317029

Ion	Ratio	Lower	Upper
113	100		
111	102.0	81.6	122.4
192	19.8	16.7	25.1



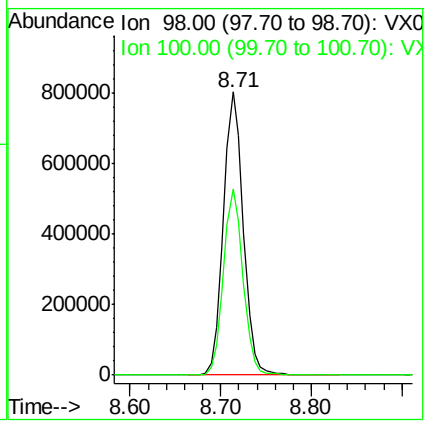
Instrument :
MSVOA_X
ClientSampleId :
VX1219WBL01

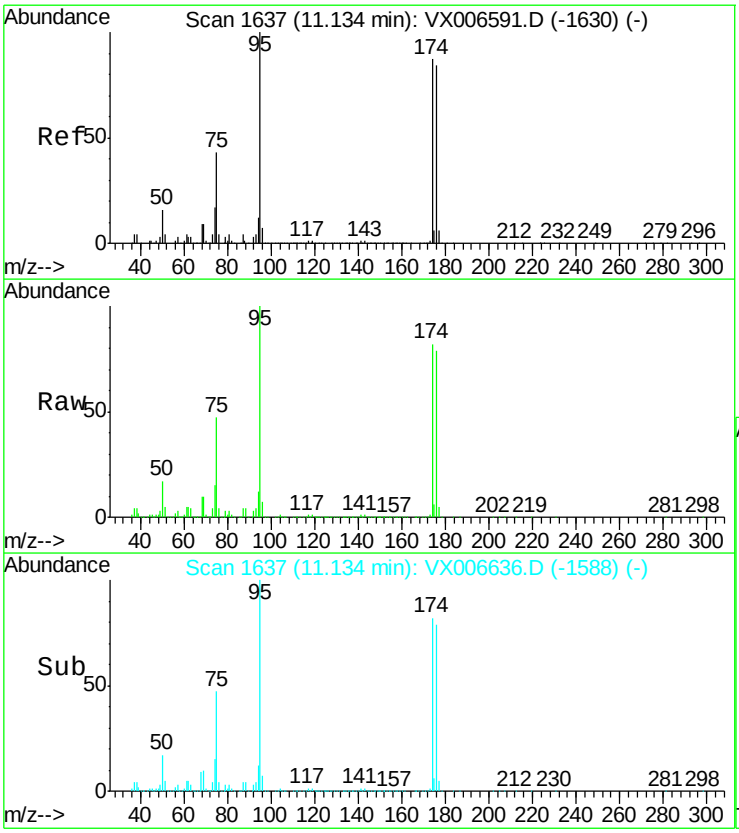


#50
Toluene-d8
Concen: 49.185 ug/l
RT: 8.71 min Scan# 1240
Delta R.T. 0.00 min
Lab File: VX006636.D
Acq: 19 Dec 2018 14:54

Tgt Ion: 98 Resp: 1232715

Ion	Ratio	Lower	Upper
98	100		
100	64.9	52.0	78.0

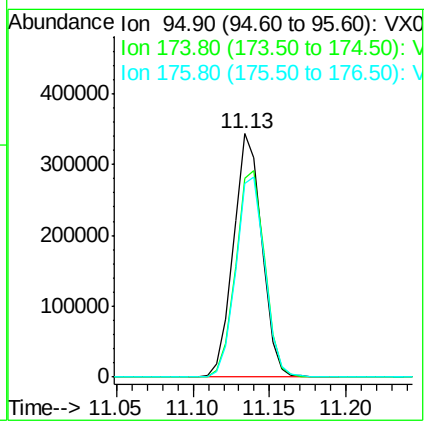




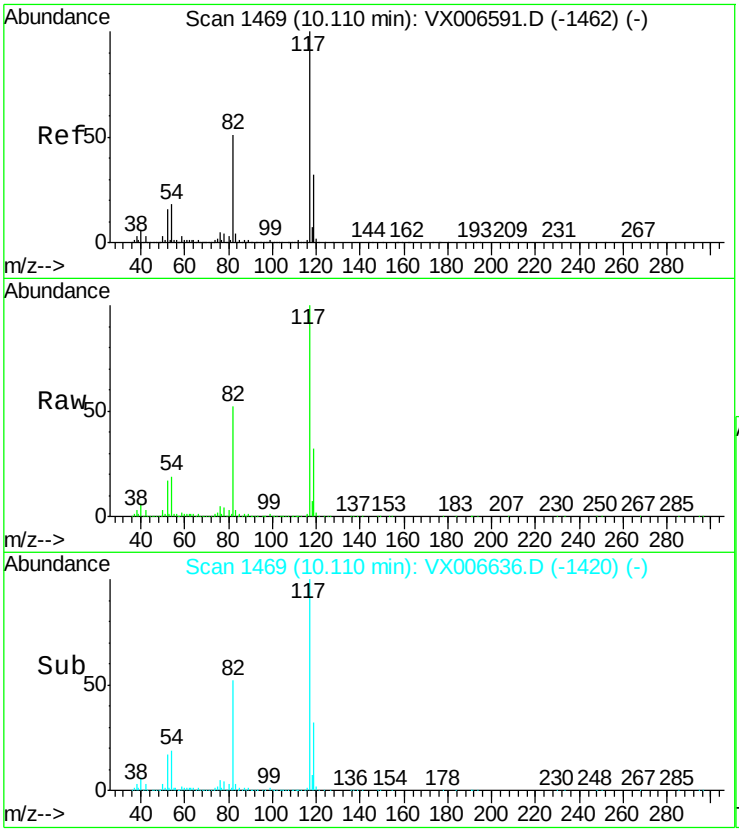
#62
4-Bromofluorobenzene
Concen: 48.004 ug/l
RT: 11.13 min Scan# 1637
Delta R.T. 0.00 min
Lab File: VX006636.D
Acq: 19 Dec 2018 14:54

Tgt Ion: 95 Resp: 440626

Ion	Ratio	Lower	Upper
95	100		
174	86.7	0.0	182.2
176	83.8	0.0	178.8



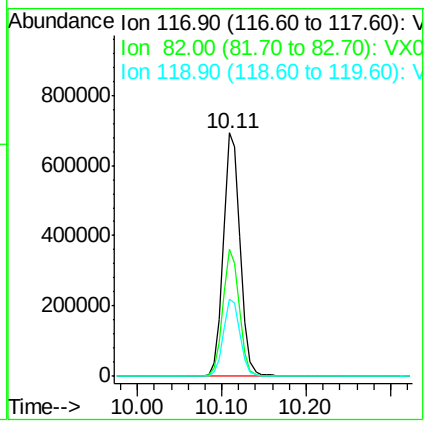
Instrument :
MSVOA_X
ClientSampleId :
VX1219WBL01

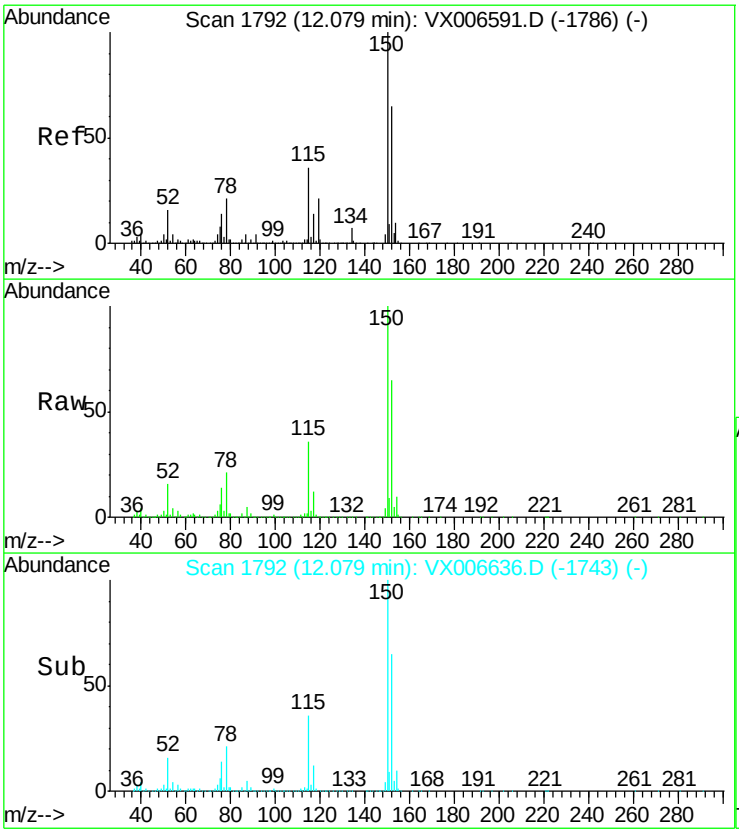


#63
Chlorobenzene-d5
Concen: 50.000 ug/l
RT: 10.11 min Scan# 1469
Delta R.T. 0.00 min
Lab File: VX006636.D
Acq: 19 Dec 2018 14:54

Tgt Ion:117 Resp: 955698

Ion	Ratio	Lower	Upper
117	100		
82	52.0	41.0	61.6
119	31.7	25.4	38.0

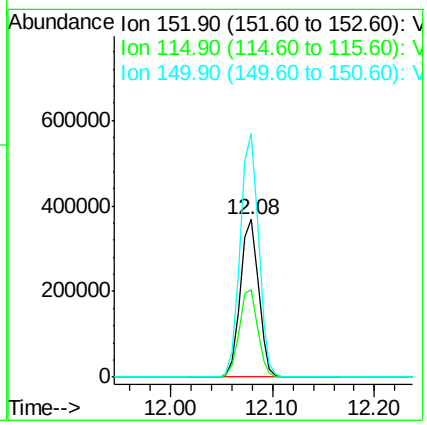




#72
1,4-Dichlorobenzene-d4
Concen: 50.000 ug/l
RT: 12.08 min Scan# 1792
Delta R.T. 0.00 min
Lab File: VX006636.D
Acq: 19 Dec 2018 14:54

Tgt Ion:152 Resp: 452100

Ion	Ratio	Lower	Upper
152	100		
115	56.4	39.1	117.2
150	155.5	0.0	344.8



LSC Area Percent Report

Instrument :
MSVOA_X
ClientSampleId :
VX1219WBL01

Data Path : Z:\VOASRV\HPCHEM1\MSVOA X\DATA\VX121918\
Data File : VX006636.D
Acq On : 19 Dec 2018 14:54
Operator : JC/MD
Sample : VX1219WBL01
Misc : 5.0mL/MSVOA X/WATER
ALS Vial : 3 Sample Multiplier: 1

Integration Parameters: RTEINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 3 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121818W.M
Title : SW846 8260

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	1.605	67	74	79	rVB	30394	53780	1.72%	0.321%
2	5.501	700	713	726	rBV2	375141	1057813	33.81%	6.310%
3	5.659	728	739	751	rBV	658897	1835188	58.66%	10.947%
4	6.068	795	806	820	rBV	387748	1006582	32.17%	6.004%
5	6.860	925	936	948	rBV	972106	2279102	72.85%	13.595%
6	8.713	1233	1240	1260	rBV	2034763	3128615	100.00%	18.662%
7	10.110	1463	1469	1484	rBV	1963825	2687967	85.92%	16.033%
8	11.134	1632	1637	1644	rBV	1628573	2108402	67.39%	12.576%
9	12.079	1786	1792	1805	rVB	2060536	2607421	83.34%	15.553%

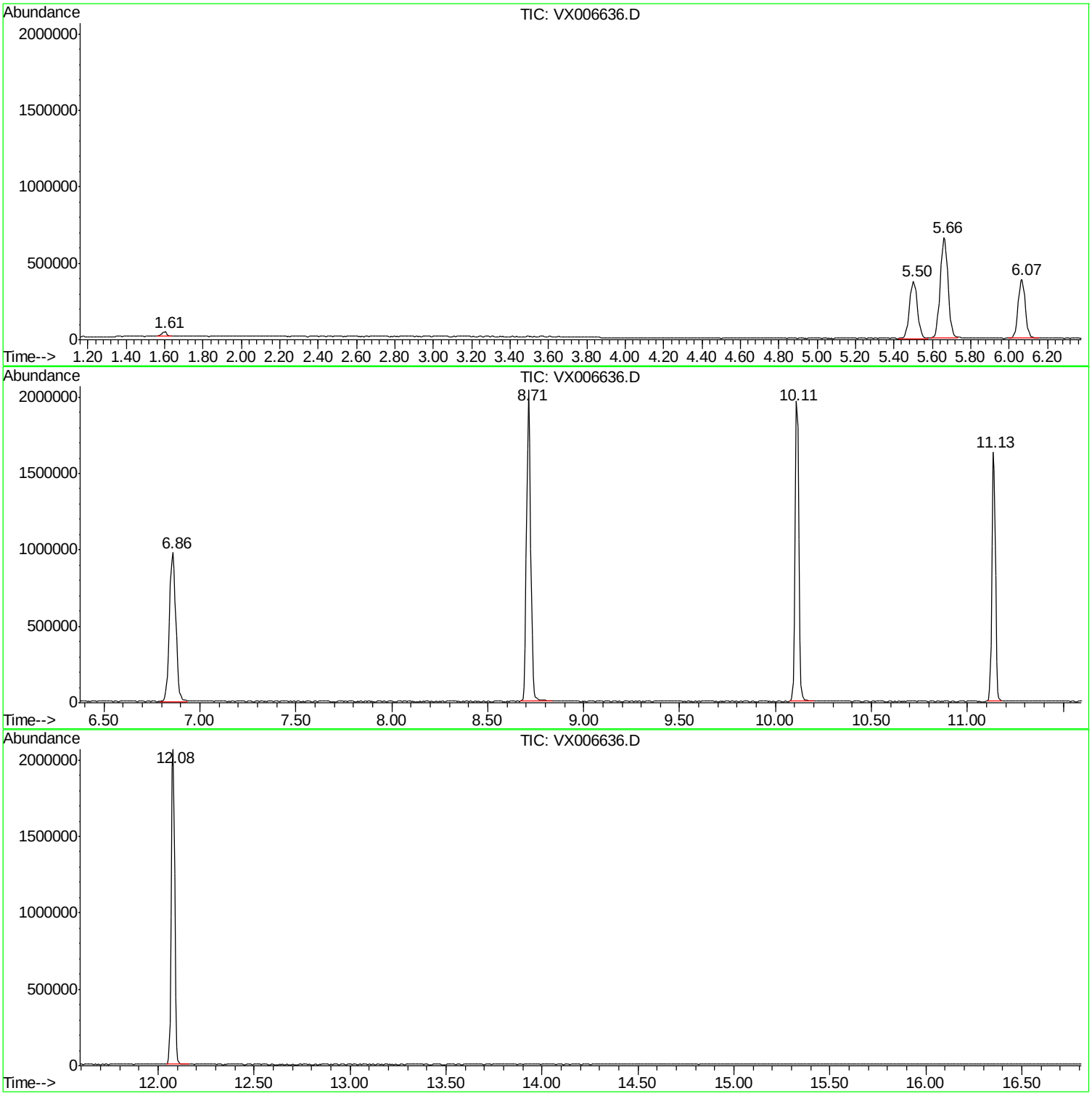
Sum of corrected areas: 16764870

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX121918\
Data File : VX006636.D
Acq On : 19 Dec 2018 14:54
Operator : JC/MD
Sample : VX1219WBL01
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 3 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
VX1219WBL01

Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121818W.M
Quant Title : SW846 8260

TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P



Library Search Compound Report

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX121918\
Data File : VX006636.D
Acq On : 19 Dec 2018 14:54
Operator : JC/MD
Sample : VX1219WBL01
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 3 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
VX1219WBL01

Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121818W.M
Quant Title : SW846 8260

TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

No Library Search Compounds Detected

****

Tentatively Identified Compound (LSC) summary

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX121918\
Data File : VX006636.D
Acq On : 19 Dec 2018 14:54
Operator : JC/MD
Sample : VX1219WBL01
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 3 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
VX1219WBL01

Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121818W.M
Quant Title : SW846 8260

TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

					Internal Standard			
TIC Top Hit name	RT	EstConc	Units	Response	#	RT	Resp	Conc

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Day Environmental, Inc.	Date Collected:	
Project:	Andrew St. RI	Date Received:	
Client Sample ID:	VX1220WBL01	SDG No.:	J6484
Lab Sample ID:	VX1220WBL01	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	DB-624UI ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX006663.D	1		12/20/18 09:34	VX122018

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
75-71-8	Dichlorodifluoromethane	1	U	0.2	0.2	1	ug/L
74-87-3	Chloromethane	1	U	0.2	0.2	1	ug/L
75-01-4	Vinyl Chloride	1	U	0.2	0.2	1	ug/L
74-83-9	Bromomethane	1	U	0.2	0.2	1	ug/L
75-00-3	Chloroethane	1	U	0.2	0.5	1	ug/L
75-69-4	Trichlorofluoromethane	1	U	0.2	0.2	1	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	1	U	0.2	0.2	1	ug/L
75-35-4	1,1-Dichloroethene	1	U	0.2	0.2	1	ug/L
67-64-1	Acetone	5	U	0.5	1	5	ug/L
75-15-0	Carbon Disulfide	1	U	0.2	0.2	1	ug/L
1634-04-4	Methyl tert-butyl Ether	1	U	0.35	0.5	1	ug/L
79-20-9	Methyl Acetate	1	U	0.2	0.5	1	ug/L
75-09-2	Methylene Chloride	1	U	0.2	0.2	1	ug/L
156-60-5	trans-1,2-Dichloroethene	1	U	0.2	0.2	1	ug/L
75-34-3	1,1-Dichloroethane	1	U	0.2	0.2	1	ug/L
110-82-7	Cyclohexane	1	U	0.2	0.2	1	ug/L
78-93-3	2-Butanone	5	U	1.3	2.5	5	ug/L
56-23-5	Carbon Tetrachloride	1	U	0.2	0.2	1	ug/L
156-59-2	cis-1,2-Dichloroethene	1	U	0.2	0.2	1	ug/L
74-97-5	Bromochloromethane	1	U	0.2	0.5	1	ug/L
67-66-3	Chloroform	1	U	0.2	0.2	1	ug/L
71-55-6	1,1,1-Trichloroethane	1	U	0.2	0.2	1	ug/L
108-87-2	Methylcyclohexane	1	U	0.2	0.2	1	ug/L
71-43-2	Benzene	1	U	0.2	0.2	1	ug/L
107-06-2	1,2-Dichloroethane	1	U	0.2	0.2	1	ug/L
79-01-6	Trichloroethene	1	U	0.2	0.2	1	ug/L
78-87-5	1,2-Dichloropropane	1	U	0.2	0.2	1	ug/L
75-27-4	Bromodichloromethane	1	U	0.2	0.2	1	ug/L
108-10-1	4-Methyl-2-Pentanone	5	U	1	1	5	ug/L
108-88-3	Toluene	1	U	0.2	0.2	1	ug/L
10061-02-6	t-1,3-Dichloropropene	1	U	0.2	0.2	1	ug/L
10061-01-5	cis-1,3-Dichloropropene	1	U	0.2	0.2	1	ug/L

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Day Environmental, Inc.	Date Collected:	
Project:	Andrew St. RI	Date Received:	
Client Sample ID:	VX1220WBL01	SDG No.:	J6484
Lab Sample ID:	VX1220WBL01	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	DB-624UI ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX006663.D	1		12/20/18 09:34	VX122018

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
79-00-5	1,1,2-Trichloroethane	1	U	0.2	0.2	1	ug/L
591-78-6	2-Hexanone	5	U	1.9	2.5	5	ug/L
124-48-1	Dibromochloromethane	1	U	0.2	0.2	1	ug/L
106-93-4	1,2-Dibromoethane	1	U	0.2	0.2	1	ug/L
127-18-4	Tetrachloroethene	1	U	0.2	0.2	1	ug/L
108-90-7	Chlorobenzene	1	U	0.2	0.2	1	ug/L
100-41-4	Ethyl Benzene	1	U	0.2	0.2	1	ug/L
179601-23-1	m/p-Xylenes	2	U	0.4	0.4	2	ug/L
95-47-6	o-Xylene	1	U	0.2	0.2	1	ug/L
100-42-5	Styrene	1	U	0.2	0.2	1	ug/L
75-25-2	Bromoform	1	U	0.2	0.2	1	ug/L
98-82-8	Isopropylbenzene	1	U	0.2	0.2	1	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	1	U	0.2	0.2	1	ug/L
541-73-1	1,3-Dichlorobenzene	1	U	0.2	0.2	1	ug/L
106-46-7	1,4-Dichlorobenzene	1	U	0.2	0.2	1	ug/L
95-50-1	1,2-Dichlorobenzene	1	U	0.2	0.2	1	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	1	U	0.2	0.2	1	ug/L
120-82-1	1,2,4-Trichlorobenzene	1	U	0.2	0.2	1	ug/L
87-61-6	1,2,3-Trichlorobenzene	1	U	0.2	0.2	1	ug/L
SURROGATES							
17060-07-0	1,2-Dichloroethane-d4	48.4		61 - 141		97%	SPK: 50
1868-53-7	Dibromofluoromethane	47.6		69 - 133		95%	SPK: 50
2037-26-5	Toluene-d8	49.1		65 - 126		98%	SPK: 50
460-00-4	4-Bromofluorobenzene	48.4		58 - 135		97%	SPK: 50
INTERNAL STANDARDS							
363-72-4	Pentafluorobenzene	621558	5.67				
540-36-3	1,4-Difluorobenzene	952733	6.86				
3114-55-4	Chlorobenzene-d5	861800	10.11				
3855-82-1	1,4-Dichlorobenzene-d4	416981	12.08				

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Day Environmental, Inc.	Date Collected:	
Project:	Andrew St. RI	Date Received:	
Client Sample ID:	VX1220WBL01	SDG No.:	J6484
Lab Sample ID:	VX1220WBL01	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	DB-624UI ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX006663.D	1		12/20/18 09:34	VX122018

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit
A = Aldol-Condensation Reaction Products

Quantitation Report (QT Reviewed)

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX122018\
Data File : VX006663.D
Acq On : 20 Dec 2018 09:34
Operator : JC/MD
Sample : VX1220WBL01
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 3 Sample Multiplier: 1

Instrument : MSVOA_X
ClientSampleId : VX1220WBL01

Quant Time: Dec 21 03:47:02 2018
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121818W.M
Quant Title : SW846 8260
QLast Update : Wed Dec 19 15:20:58 2018
Response via : Initial Calibration

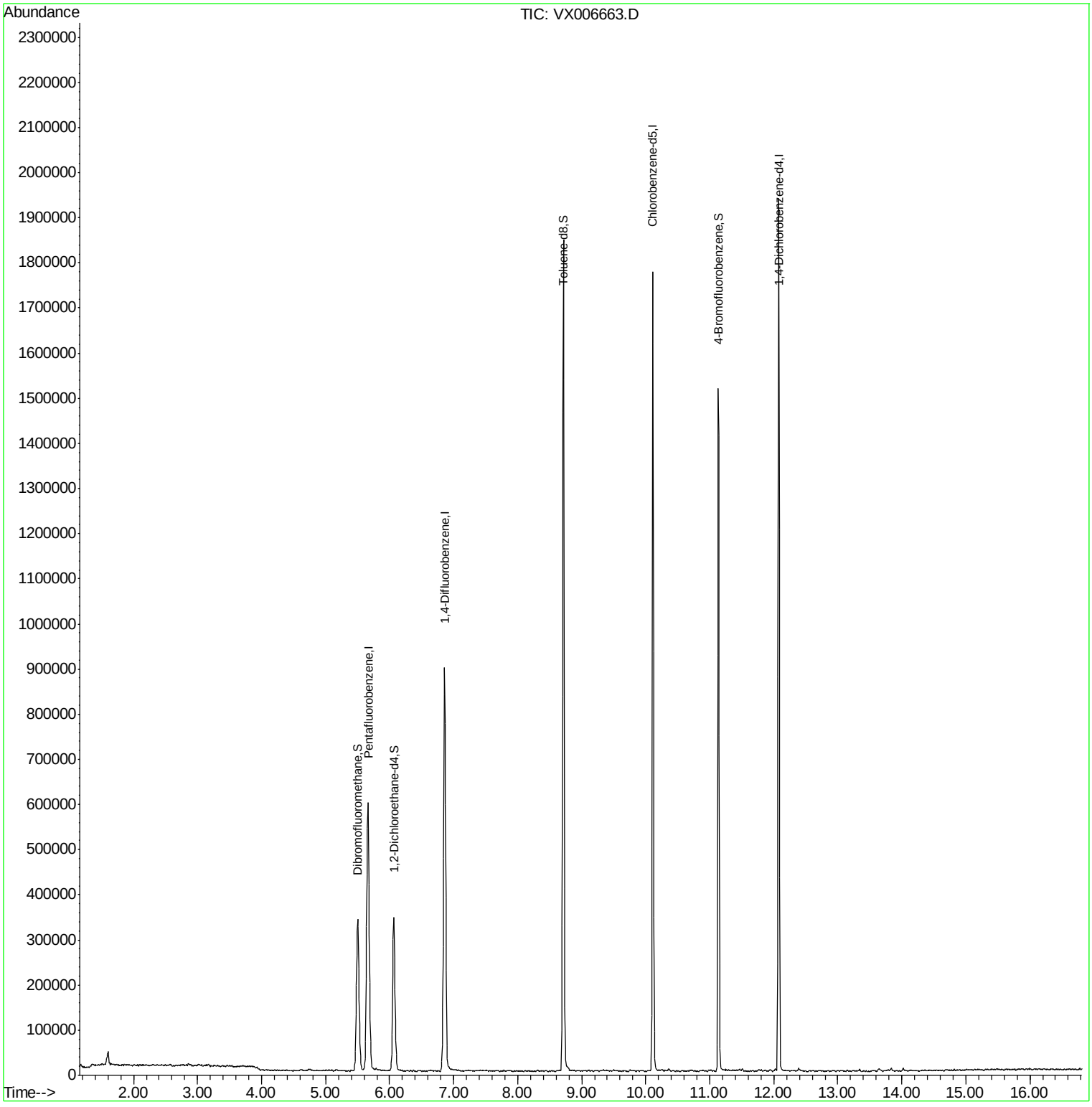
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	5.67	168	621558	50.00	ug/l	0.00
34) 1,4-Difluorobenzene	6.86	114	952733	50.00	ug/l	0.00
63) Chlorobenzene-d5	10.11	117	861800	50.00	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	12.08	152	416981	50.00	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	6.07	65	324103	48.38	ug/l	0.00
Spiked Amount 50.000			Recovery = 96.76%			
35) Dibromofluoromethane	5.50	113	286879	47.62	ug/l	0.00
Spiked Amount 50.000			Recovery = 95.24%			
50) Toluene-d8	8.71	98	1115043	49.09	ug/l	0.00
Spiked Amount 50.000			Recovery = 98.18%			
62) 4-Bromofluorobenzene	11.13	95	402284	48.36	ug/l	0.00
Spiked Amount 50.000			Recovery = 96.72%			
Target Compounds						Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

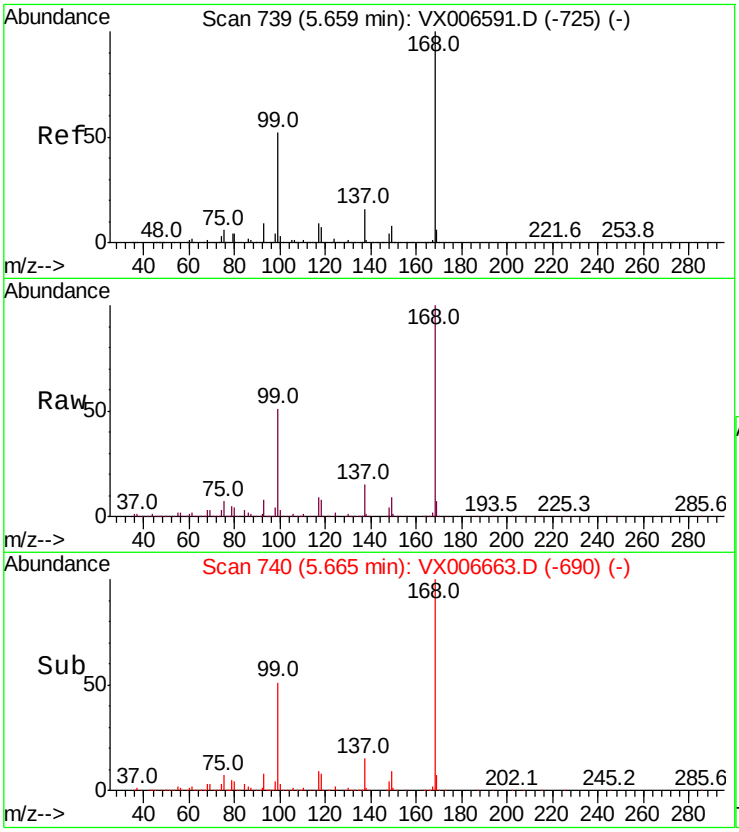
Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX122018\
Data File : VX006663.D
Acq On : 20 Dec 2018 09:34
Operator : JC/MD
Sample : VX1220WBL01
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 3 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
VX1220WBL01

Quant Time: Dec 21 03:47:02 2018
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121818W.M
Quant Title : SW846 8260
QLast Update : Wed Dec 19 15:20:58 2018
Response via : Initial Calibration



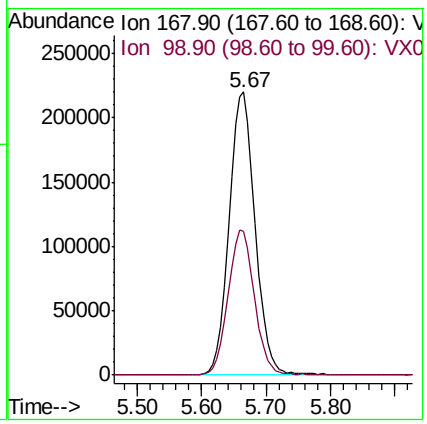
Instrument :
MSVOA_X
ClientSampleId :
VX1220WBL01

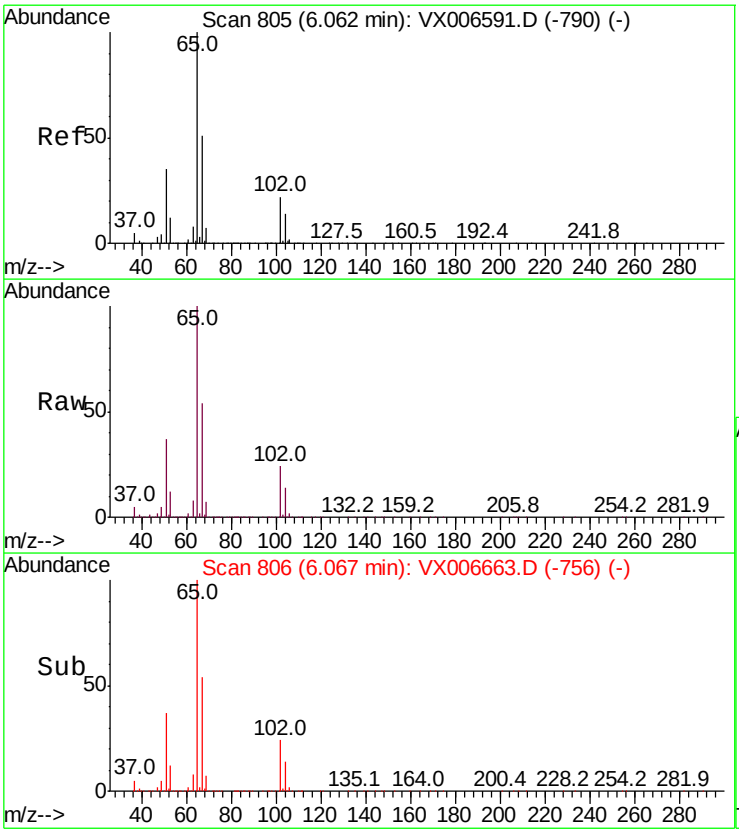


#1
Pentafluorobenzene
Concen: 50.000 ug/l
RT: 5.67 min Scan# 740
Delta R.T. 0.01 min
Lab File: VX006663.D
Acq: 20 Dec 2018 09:34

Tgt Ion:168 Resp: 621558

Ion	Ratio	Lower	Upper
168	100		
99	50.5	41.8	62.8

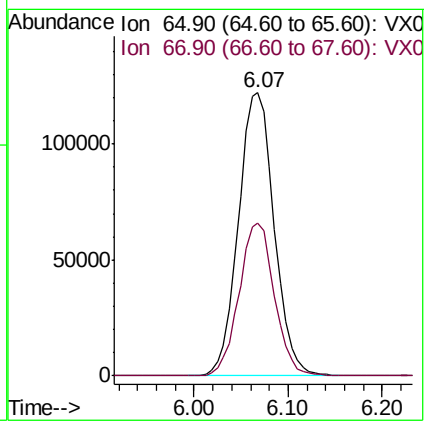




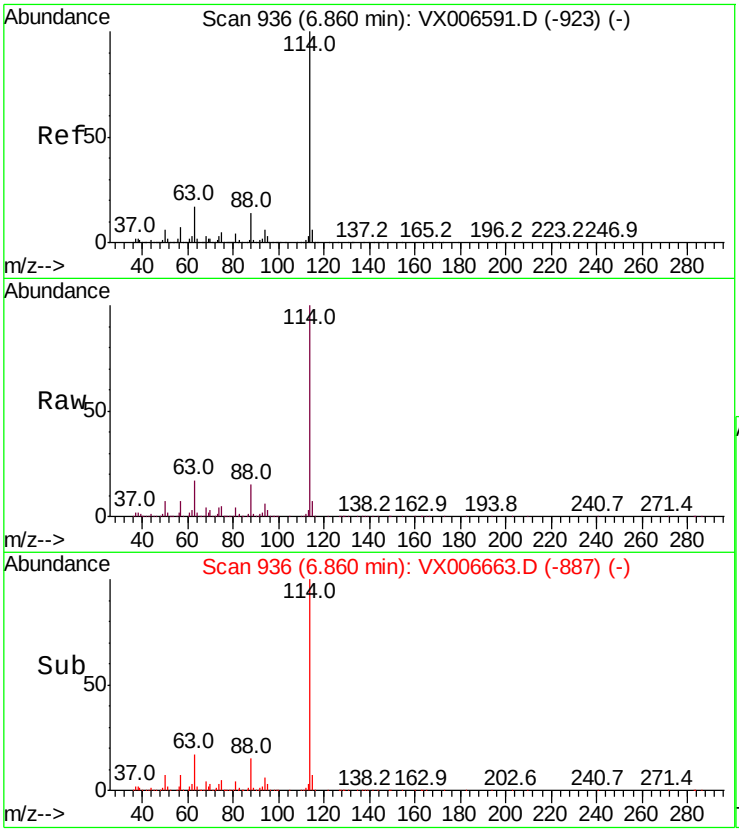
#33
1,2-Dichloroethane-d4
Concen: 48.382 ug/l
RT: 6.07 min Scan# 806
Delta R.T. 0.01 min
Lab File: VX006663.D
Acq: 20 Dec 2018 09:34

Tgt Ion: 65 Resp: 324103

Ion	Ratio	Lower	Upper
65	100		
67	53.0	0.0	105.0



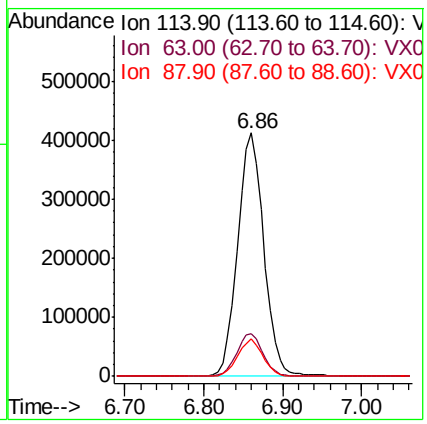
Instrument :
MSVOA_X
ClientSampleId :
VX1220WBL01

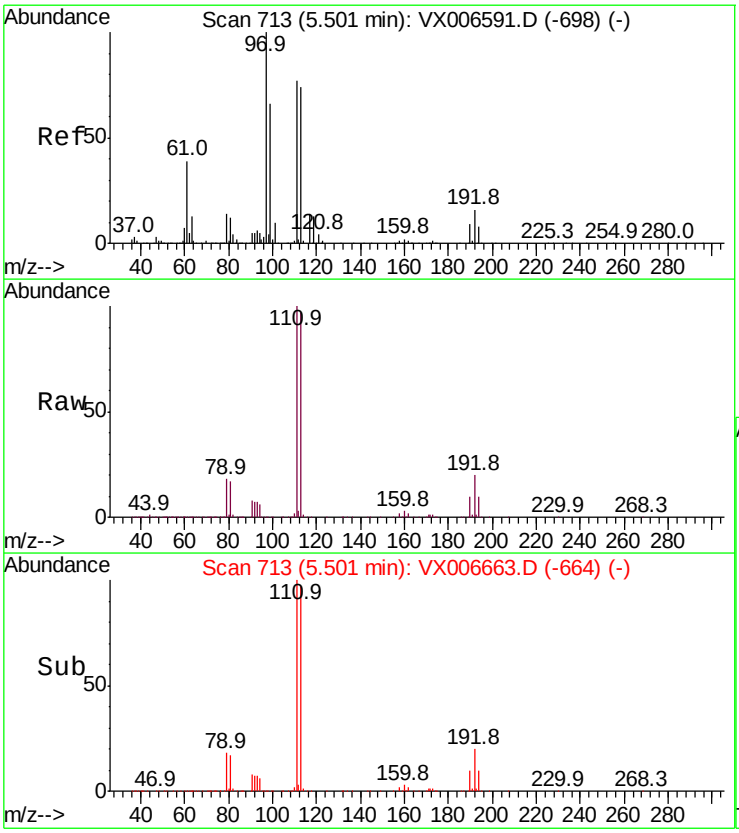


#34
1,4-Difluorobenzene
Concen: 50.000 ug/l
RT: 6.86 min Scan# 936
Delta R.T. -0.00 min
Lab File: VX006663.D
Acq: 20 Dec 2018 09:34

Tgt Ion:114 Resp: 952733

Ion	Ratio	Lower	Upper
114	100		
63	17.3	0.0	34.8
88	15.5	0.0	28.8

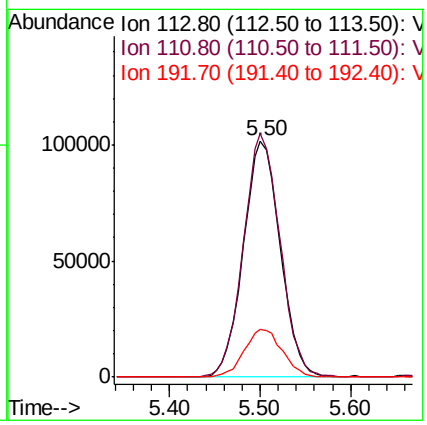




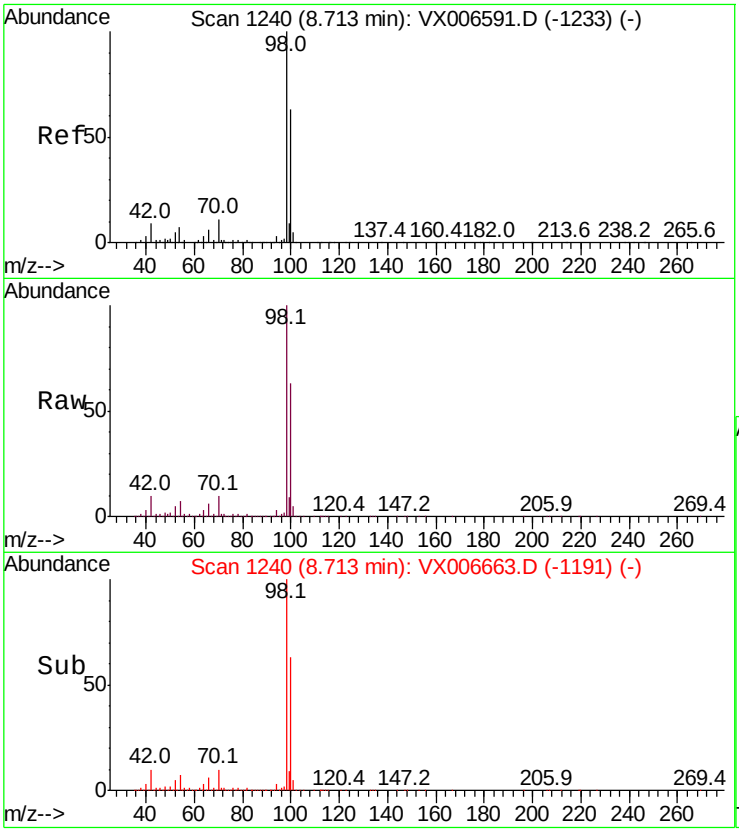
#35
Dibromofluoromethane
Concen: 47.616 ug/l
RT: 5.50 min Scan# 713
Delta R.T. -0.00 min
Lab File: VX006663.D
Acq: 20 Dec 2018 09:34

Tgt Ion:113 Resp: 286879

Ion	Ratio	Lower	Upper
113	100		
111	102.3	81.6	122.4
192	20.8	16.7	25.1



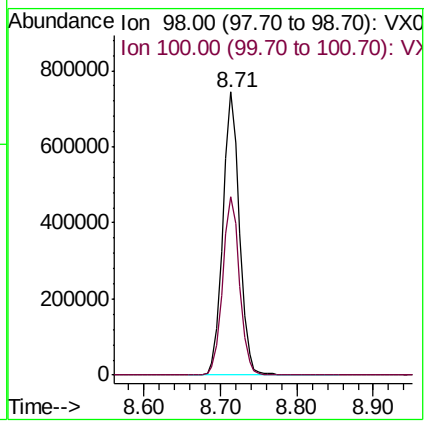
Instrument :
MSVOA_X
ClientSampleId :
VX1220WBL01

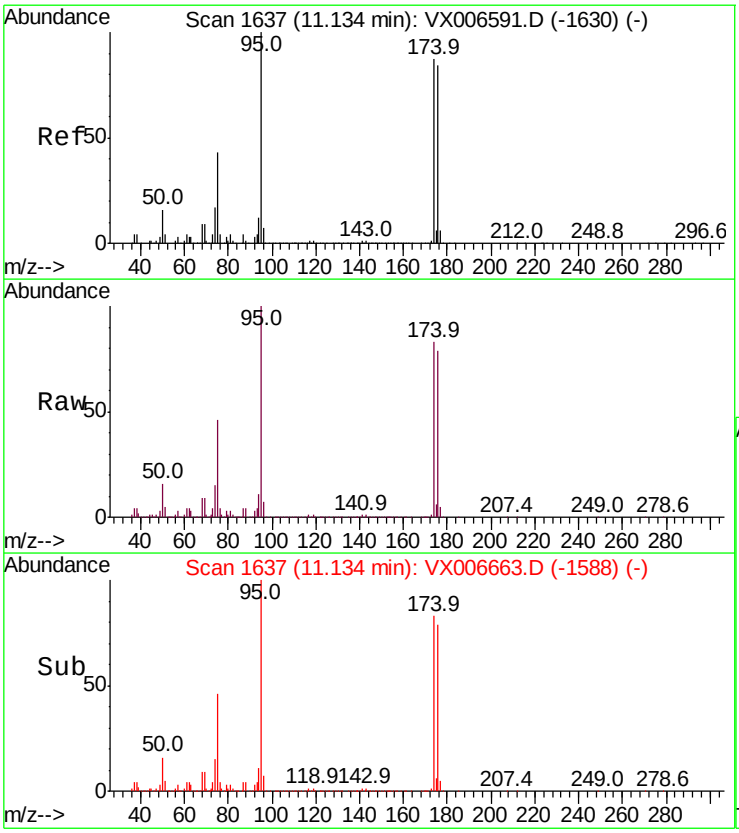


#50
Toluene-d8
Concen: 49.090 ug/l
RT: 8.71 min Scan# 1240
Delta R.T. -0.00 min
Lab File: VX006663.D
Acq: 20 Dec 2018 09:34

Tgt Ion: 98 Resp: 1115043

Ion	Ratio	Lower	Upper
98	100		
100	63.8	52.0	78.0

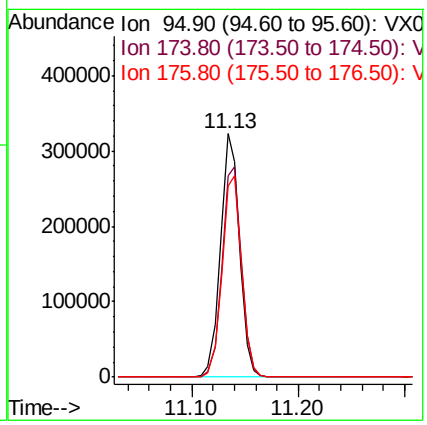




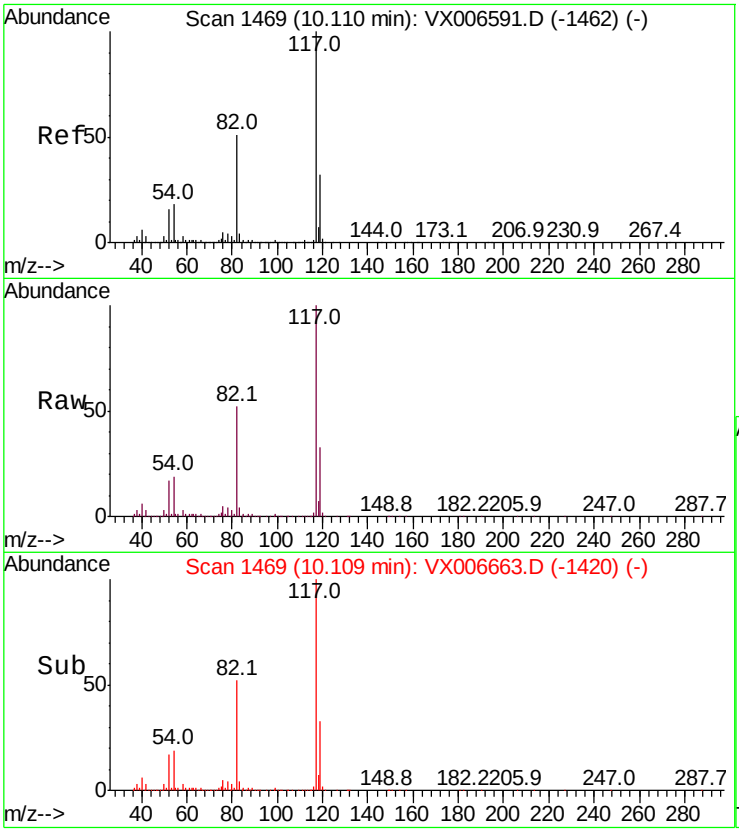
#62
4-Bromofluorobenzene
Concen: 48.358 ug/l
RT: 11.13 min Scan# 1637
Delta R.T. -0.00 min
Lab File: VX006663.D
Acq: 20 Dec 2018 09:34

Tgt Ion: 95 Resp: 402284

Ion	Ratio	Lower	Upper
95	100		
174	88.6	0.0	182.2
176	84.9	0.0	178.8



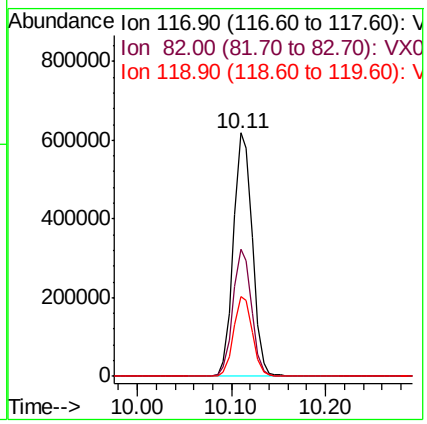
Instrument :
MSVOA_X
ClientSampleId :
VX1220WBL01

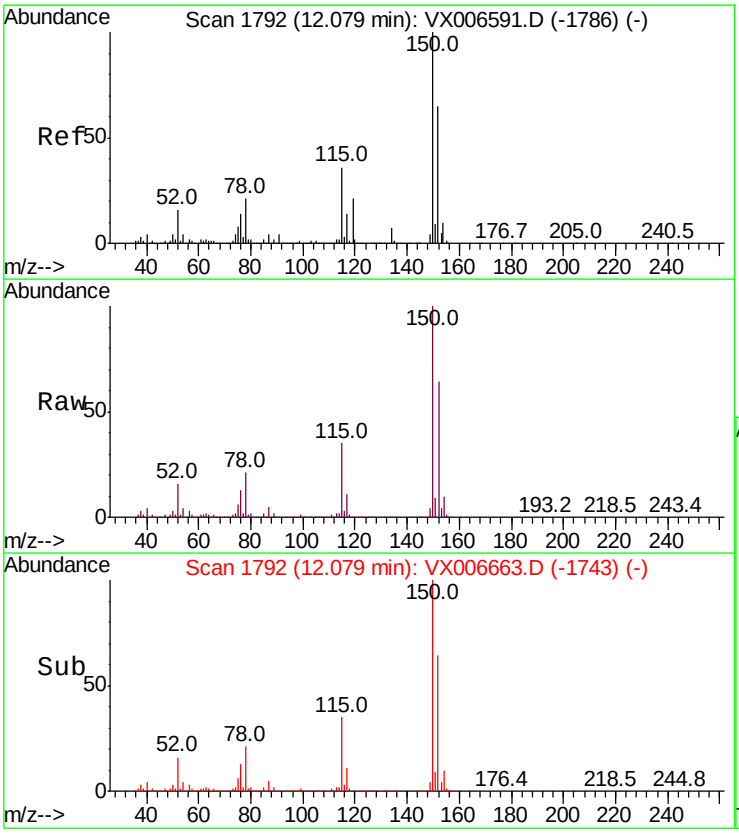


#63
Chlorobenzene-d5
Concen: 50.000 ug/l
RT: 10.11 min Scan# 1469
Delta R.T. -0.00 min
Lab File: VX006663.D
Acq: 20 Dec 2018 09:34

Tgt Ion:117 Resp: 861800

Ion	Ratio	Lower	Upper
117	100		
82	52.5	41.0	61.6
119	32.8	25.4	38.0

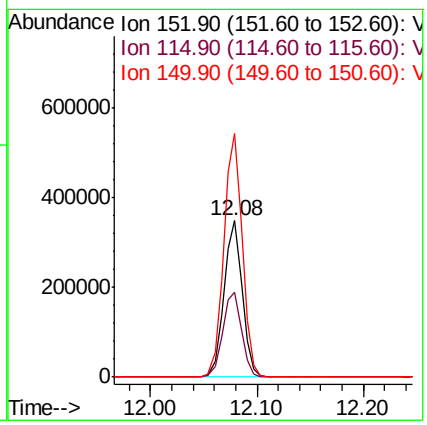




#72
1,4-Dichlorobenzene-d4
Concen: 50.000 ug/l
RT: 12.08 min Scan# 1792
Delta R.T. -0.00 min
Lab File: VX006663.D
Acq: 20 Dec 2018 09:34

Tgt Ion:152 Resp: 416981

Ion	Ratio	Lower	Upper
152	100		
115	55.9	39.1	117.2
150	156.9	0.0	344.8



LSC Area Percent Report

Data Path : Z:\VOASRV\HPCHEM1\MSVOA X\DATA\VX122018\
Data File : VX006663.D
Acq On : 20 Dec 2018 09:34
Operator : JC/MD
Sample : VX1220WBL01
Misc : 5.0mL/MSVOA X/WATER
ALS Vial : 3 Sample Multiplier: 1

Instrument : MSVOA_X
ClientSampleId : VX1220WBL01

Integration Parameters: RTEINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 3 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121818W.M
Title : SW846 8260

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	1.605	66	74	77	rBV3	29056	52824	1.88%	0.347%
2	5.501	701	713	725	rBV	336152	952217	33.93%	6.249%
3	5.665	727	740	756	rVB	591444	1677743	59.79%	11.010%
4	6.067	795	806	821	rBV	340612	904705	32.24%	5.937%
5	6.860	924	936	952	rBV	894095	2060211	73.42%	13.520%
6	8.713	1233	1240	1250	rBV	1841444	2806014	100.00%	18.414%
7	10.109	1463	1469	1483	rBV	1771696	2438959	86.92%	16.006%
8	11.134	1631	1637	1650	rBV	1512372	1941447	69.19%	12.741%
9	12.079	1786	1792	1805	rVB	1932500	2403957	85.67%	15.776%

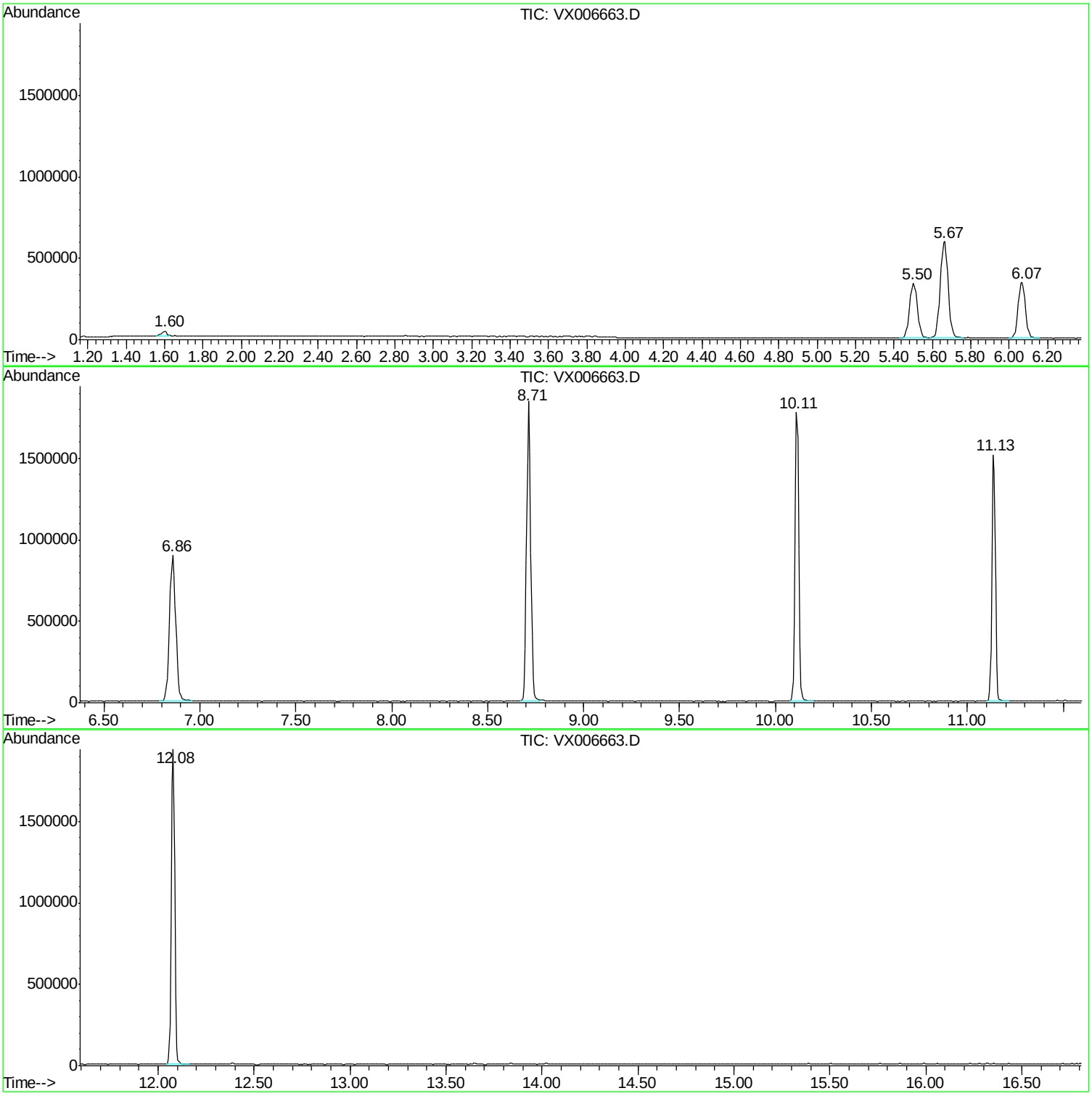
Sum of corrected areas: 15238077

Data Path : Z:\VOASRV\HPCHEM1\MSVOA X\DATA\VX122018\
Data File : VX006663.D
Acq On : 20 Dec 2018 09:34
Operator : JC/MD
Sample : VX1220WBL01
Misc : 5.0mL/MSVOA X/WATER
ALS Vial : 3 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
VX1220WBL01

Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121818W.M
Quant Title : SW846 8260

TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P



Library Search Compound Report

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX122018\
Data File : VX006663.D
Acq On : 20 Dec 2018 09:34
Operator : JC/MD
Sample : VX1220WBL01
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 3 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
VX1220WBL01

Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121818W.M
Quant Title : SW846 8260

TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

No Library Search Compounds Detected

****

Tentatively Identified Compound (LSC) summary

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX122018\
Data File : VX006663.D
Acq On : 20 Dec 2018 09:34
Operator : JC/MD
Sample : VX1220WBL01
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 3 Sample Multiplier: 1

Instrument : MSVOA_X
ClientSampleId : VX1220WBL01

Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121818W.M
Quant Title : SW846 8260

TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

					Internal Standard			
TIC Top Hit name	RT	EstConc	Units	Response	#	RT	Resp	Conc

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Day Environmental, Inc.	Date Collected:	
Project:	Andrew St. RI	Date Received:	
Client Sample ID:	VX1221WBL01	SDG No.:	J6484
Lab Sample ID:	VX1221WBL01	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	DB-624UI ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX006714.D	1		12/21/18 10:58	VX122118

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
75-71-8	Dichlorodifluoromethane	1	U	0.2	0.2	1	ug/L
74-87-3	Chloromethane	1	U	0.2	0.2	1	ug/L
75-01-4	Vinyl Chloride	1	U	0.2	0.2	1	ug/L
74-83-9	Bromomethane	1	U	0.2	0.2	1	ug/L
75-00-3	Chloroethane	1	U	0.2	0.5	1	ug/L
75-69-4	Trichlorofluoromethane	1	U	0.2	0.2	1	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	1	U	0.2	0.2	1	ug/L
75-35-4	1,1-Dichloroethene	1	U	0.2	0.2	1	ug/L
67-64-1	Acetone	5	U	0.5	1	5	ug/L
75-15-0	Carbon Disulfide	1	U	0.2	0.2	1	ug/L
1634-04-4	Methyl tert-butyl Ether	1	U	0.35	0.5	1	ug/L
79-20-9	Methyl Acetate	1	U	0.2	0.5	1	ug/L
75-09-2	Methylene Chloride	1	U	0.2	0.2	1	ug/L
156-60-5	trans-1,2-Dichloroethene	1	U	0.2	0.2	1	ug/L
75-34-3	1,1-Dichloroethane	1	U	0.2	0.2	1	ug/L
110-82-7	Cyclohexane	1	U	0.2	0.2	1	ug/L
78-93-3	2-Butanone	5	U	1.3	2.5	5	ug/L
56-23-5	Carbon Tetrachloride	1	U	0.2	0.2	1	ug/L
156-59-2	cis-1,2-Dichloroethene	1	U	0.2	0.2	1	ug/L
74-97-5	Bromochloromethane	1	U	0.2	0.5	1	ug/L
67-66-3	Chloroform	1	U	0.2	0.2	1	ug/L
71-55-6	1,1,1-Trichloroethane	1	U	0.2	0.2	1	ug/L
108-87-2	Methylcyclohexane	1	U	0.2	0.2	1	ug/L
71-43-2	Benzene	1	U	0.2	0.2	1	ug/L
107-06-2	1,2-Dichloroethane	1	U	0.2	0.2	1	ug/L
79-01-6	Trichloroethene	1	U	0.2	0.2	1	ug/L
78-87-5	1,2-Dichloropropane	1	U	0.2	0.2	1	ug/L
75-27-4	Bromodichloromethane	1	U	0.2	0.2	1	ug/L
108-10-1	4-Methyl-2-Pentanone	5	U	1	1	5	ug/L
108-88-3	Toluene	1	U	0.2	0.2	1	ug/L
10061-02-6	t-1,3-Dichloropropene	1	U	0.2	0.2	1	ug/L
10061-01-5	cis-1,3-Dichloropropene	1	U	0.2	0.2	1	ug/L

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Day Environmental, Inc.	Date Collected:	
Project:	Andrew St. RI	Date Received:	
Client Sample ID:	VX1221WBL01	SDG No.:	J6484
Lab Sample ID:	VX1221WBL01	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	DB-624UI ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX006714.D	1		12/21/18 10:58	VX122118

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
79-00-5	1,1,2-Trichloroethane	1	U	0.2	0.2	1	ug/L
591-78-6	2-Hexanone	5	U	1.9	2.5	5	ug/L
124-48-1	Dibromochloromethane	1	U	0.2	0.2	1	ug/L
106-93-4	1,2-Dibromoethane	1	U	0.2	0.2	1	ug/L
127-18-4	Tetrachloroethene	1	U	0.2	0.2	1	ug/L
108-90-7	Chlorobenzene	1	U	0.2	0.2	1	ug/L
100-41-4	Ethyl Benzene	1	U	0.2	0.2	1	ug/L
179601-23-1	m/p-Xylenes	2	U	0.4	0.4	2	ug/L
95-47-6	o-Xylene	1	U	0.2	0.2	1	ug/L
100-42-5	Styrene	1	U	0.2	0.2	1	ug/L
75-25-2	Bromoform	1	U	0.2	0.2	1	ug/L
98-82-8	Isopropylbenzene	1	U	0.2	0.2	1	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	1	U	0.2	0.2	1	ug/L
541-73-1	1,3-Dichlorobenzene	1	U	0.2	0.2	1	ug/L
106-46-7	1,4-Dichlorobenzene	1	U	0.2	0.2	1	ug/L
95-50-1	1,2-Dichlorobenzene	1	U	0.2	0.2	1	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	1	U	0.2	0.2	1	ug/L
120-82-1	1,2,4-Trichlorobenzene	1	U	0.2	0.2	1	ug/L
87-61-6	1,2,3-Trichlorobenzene	1	U	0.2	0.2	1	ug/L
SURROGATES							
17060-07-0	1,2-Dichloroethane-d4	47.7		61 - 141		95%	SPK: 50
1868-53-7	Dibromofluoromethane	46.4		69 - 133		93%	SPK: 50
2037-26-5	Toluene-d8	49.2		65 - 126		98%	SPK: 50
460-00-4	4-Bromofluorobenzene	48.2		58 - 135		96%	SPK: 50
INTERNAL STANDARDS							
363-72-4	Pentafluorobenzene	678329	5.66				
540-36-3	1,4-Difluorobenzene	1030210	6.86				
3114-55-4	Chlorobenzene-d5	940033	10.11				
3855-82-1	1,4-Dichlorobenzene-d4	448984	12.08				

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Day Environmental, Inc.	Date Collected:	
Project:	Andrew St. RI	Date Received:	
Client Sample ID:	VX1221WBL01	SDG No.:	J6484
Lab Sample ID:	VX1221WBL01	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	DB-624UI ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX006714.D	1		12/21/18 10:58	VX122118

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit
A = Aldol-Condensation Reaction Products

Quantitation Report (QT Reviewed)

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX122118\
Data File : VX006714.D
Acq On : 21 Dec 2018 10:58
Operator : JC/MD
Sample : VX1221WBL01
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 3 Sample Multiplier: 1

Instrument : MSVOA_X
ClientSampleId : VX1221WBL01

Quant Time: Dec 22 04:20:49 2018
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121818W.M
Quant Title : SW846 8260
QLast Update : Wed Dec 19 15:20:58 2018
Response via : Initial Calibration

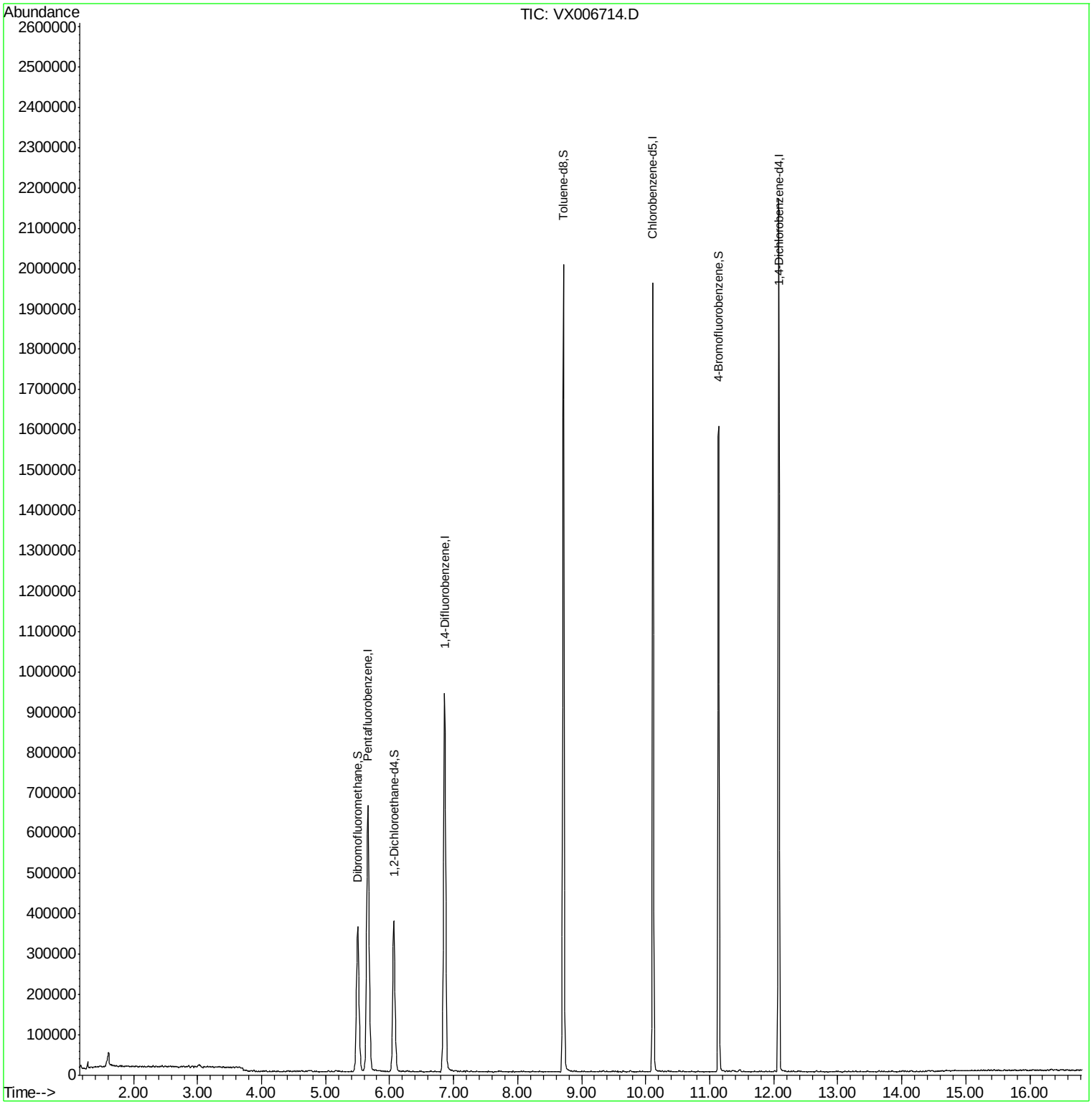
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	5.66	168	678329	50.00	ug/l	0.00
34) 1,4-Difluorobenzene	6.86	114	1030205	50.00	ug/l	0.00
63) Chlorobenzene-d5	10.11	117	940033	50.00	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	12.08	152	448984	50.00	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	6.06	65	348614	47.69	ug/l	0.00
Spiked Amount 50.000			Recovery =	95.38%		
35) Dibromofluoromethane	5.50	113	302547	46.44	ug/l	0.00
Spiked Amount 50.000			Recovery =	92.88%		
50) Toluene-d8	8.71	98	1209547	49.25	ug/l	0.00
Spiked Amount 50.000			Recovery =	98.50%		
62) 4-Bromofluorobenzene	11.13	95	433757	48.22	ug/l	0.00
Spiked Amount 50.000			Recovery =	96.44%		
Target Compounds						Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

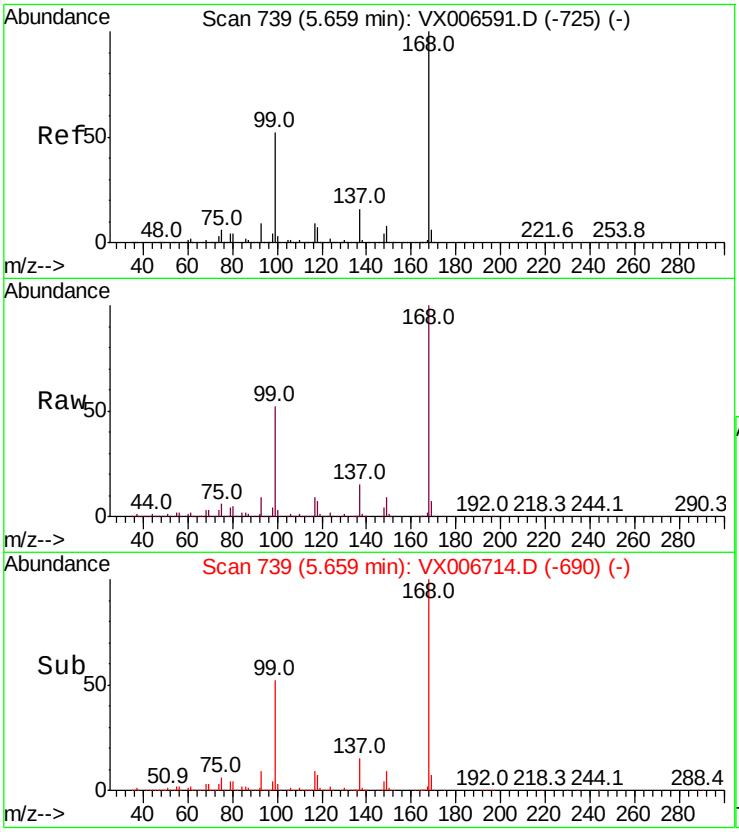
Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX122118\
Data File : VX006714.D
Acq On : 21 Dec 2018 10:58
Operator : JC/MD
Sample : VX1221WBL01
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 3 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
VX1221WBL01

Quant Time: Dec 22 04:20:49 2018
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121818W.M
Quant Title : SW846 8260
QLast Update : Wed Dec 19 15:20:58 2018
Response via : Initial Calibration



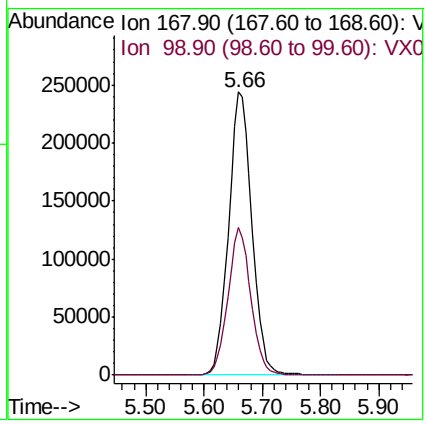
Instrument :
MSVOA_X
ClientSampleId :
VX1221WBL01

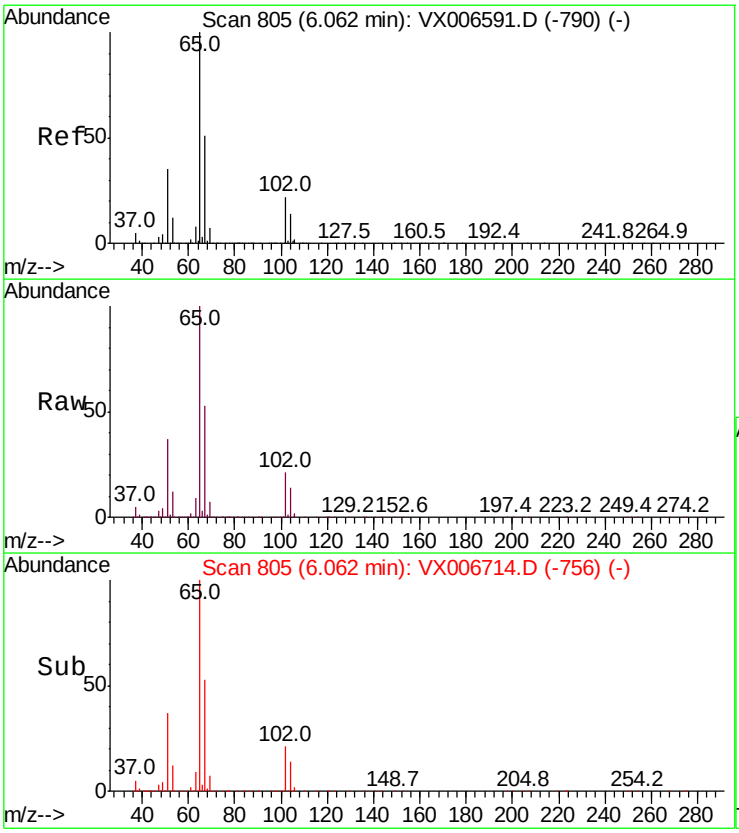


#1
Pentafluorobenzene
Concen: 50.000 ug/l
RT: 5.66 min Scan# 739
Delta R.T. 0.00 min
Lab File: VX006714.D
Acq: 21 Dec 2018 10:58

Tgt Ion:168 Resp: 678329

Ion	Ratio	Lower	Upper
168	100		
99	52.2	41.8	62.8

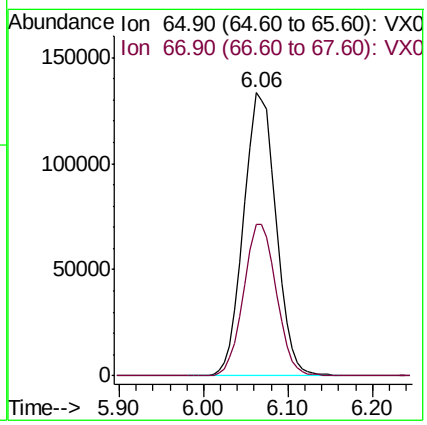




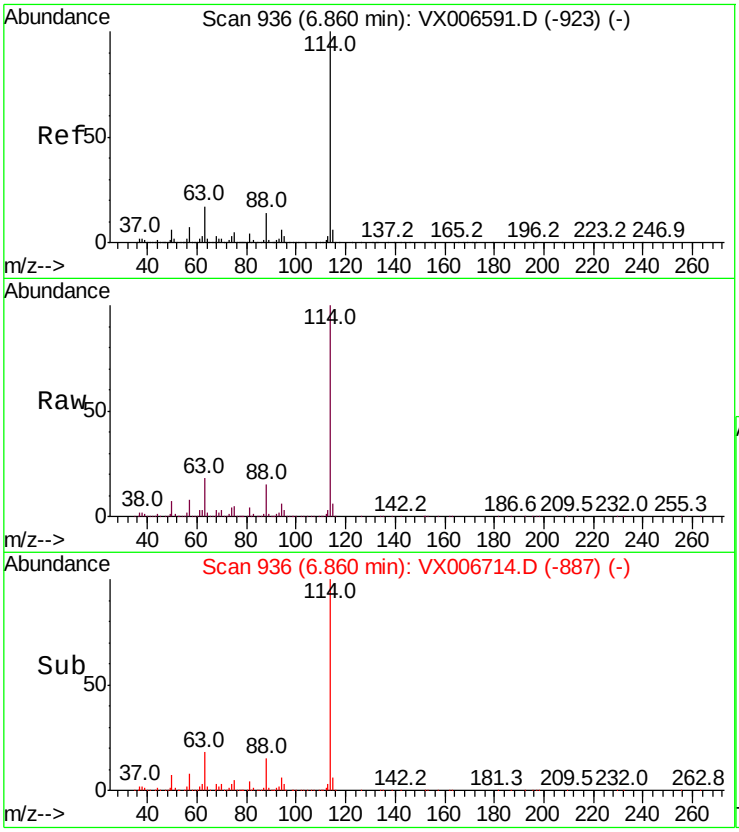
#33
1,2-Dichloroethane-d4
Concen: 47.685 ug/l
RT: 6.06 min Scan# 805
Delta R.T. 0.00 min
Lab File: VX006714.D
Acq: 21 Dec 2018 10:58

Tgt Ion: 65 Resp: 348614

Ion	Ratio	Lower	Upper
65	100		
67	54.0	0.0	105.0



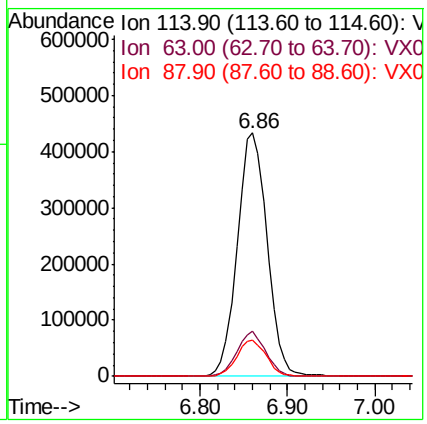
Instrument :
MSVOA_X
ClientSampleId :
VX1221WBL01

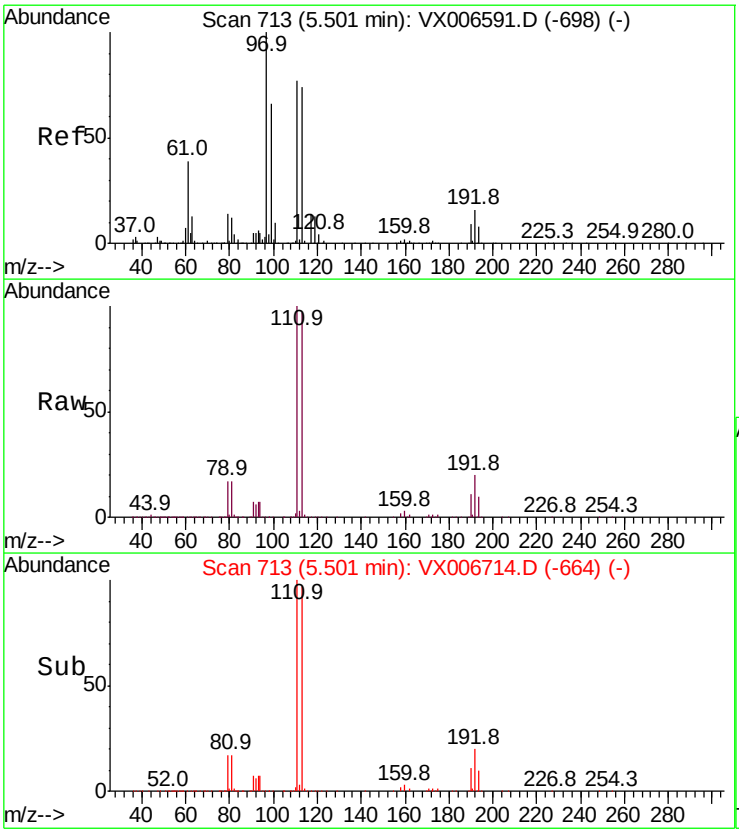


#34
1,4-Difluorobenzene
Concen: 50.000 ug/l
RT: 6.86 min Scan# 936
Delta R.T. 0.00 min
Lab File: VX006714.D
Acq: 21 Dec 2018 10:58

Tgt Ion:114 Resp: 1030205

Ion	Ratio	Lower	Upper
114	100		
63	18.5	0.0	34.8
88	14.8	0.0	28.8

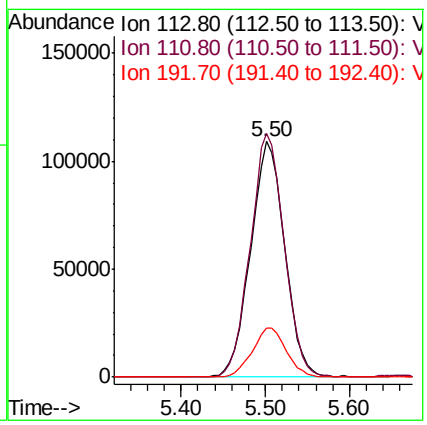




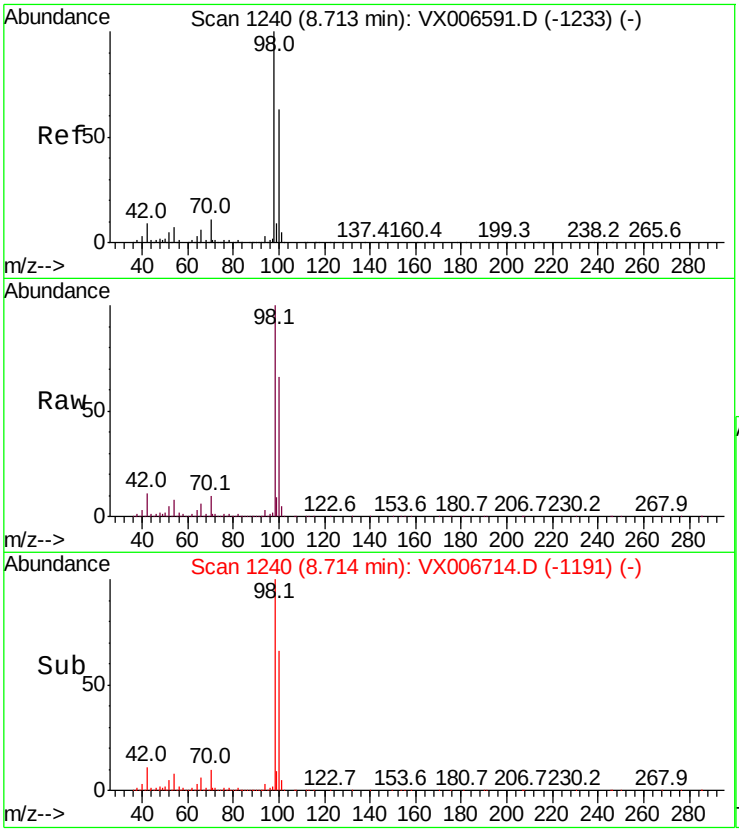
#35
Dibromofluoromethane
Concen: 46.440 ug/l
RT: 5.50 min Scan# 713
Delta R.T. 0.00 min
Lab File: VX006714.D
Acq: 21 Dec 2018 10:58

Tgt Ion:113 Resp: 302547

Ion	Ratio	Lower	Upper
113	100		
111	103.1	81.6	122.4
192	21.0	16.7	25.1



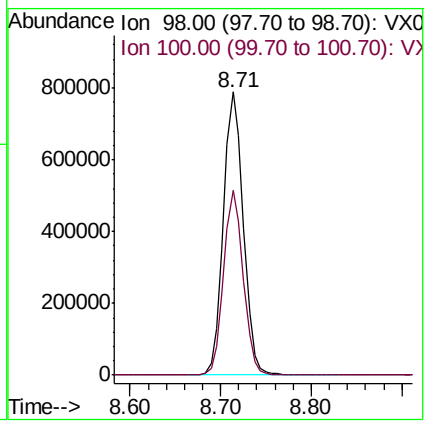
Instrument :
MSVOA_X
ClientSampleId :
VX1221WBL01

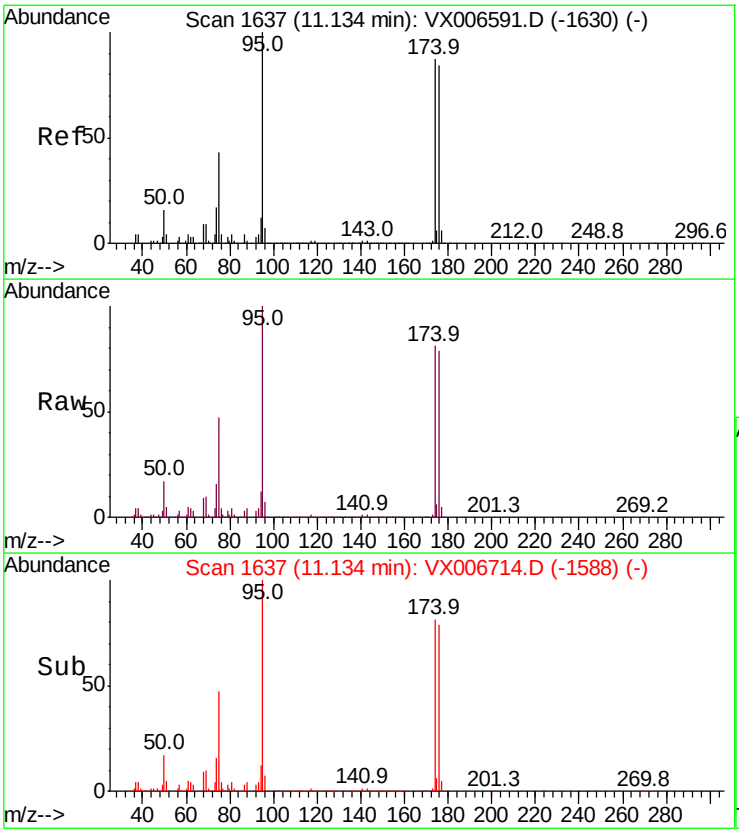


#50
Toluene-d8
Concen: 49.246 ug/l
RT: 8.71 min Scan# 1240
Delta R.T. 0.00 min
Lab File: VX006714.D
Acq: 21 Dec 2018 10:58

Tgt Ion: 98 Resp: 1209547

Ion	Ratio	Lower	Upper
98	100		
100	64.2	52.0	78.0

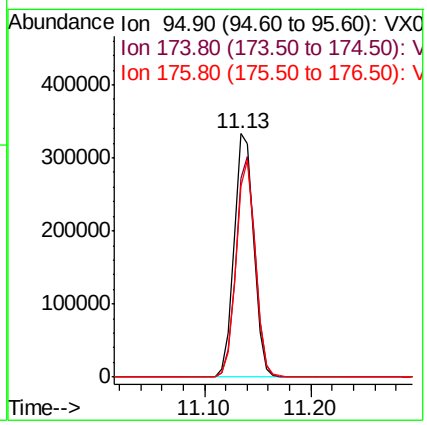




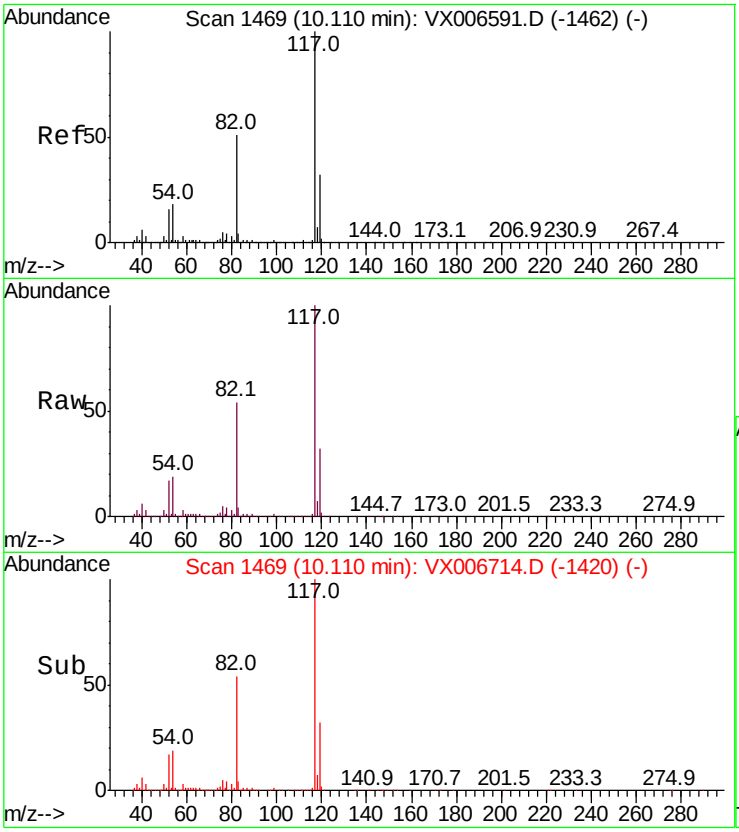
#62
4-Bromofluorobenzene
Concen: 48.220 ug/l
RT: 11.13 min Scan# 1637
Delta R.T. 0.00 min
Lab File: VX006714.D
Acq: 21 Dec 2018 10:58

Tgt Ion: 95 Resp: 433757

Ion	Ratio	Lower	Upper
95	100		
174	88.3	0.0	182.2
176	86.7	0.0	178.8



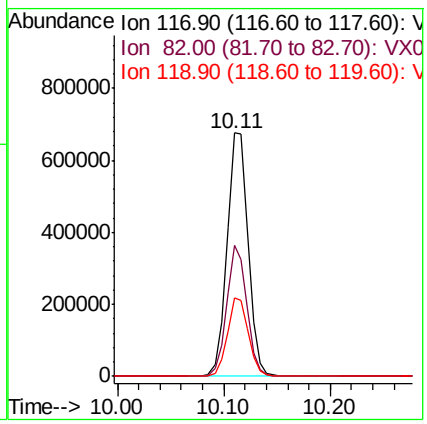
Instrument :
MSVOA_X
ClientSampleId :
VX1221WBL01

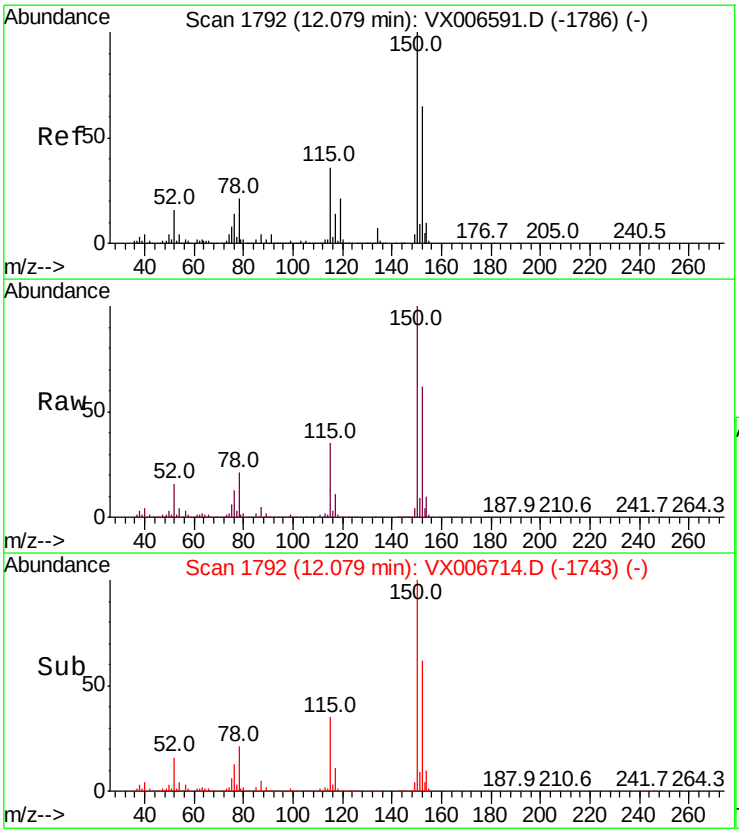


#63
Chlorobenzene-d5
Concen: 50.000 ug/l
RT: 10.11 min Scan# 1469
Delta R.T. 0.00 min
Lab File: VX006714.D
Acq: 21 Dec 2018 10:58

Tgt Ion:117 Resp: 940033

Ion	Ratio	Lower	Upper
117	100		
82	53.6	41.0	61.6
119	32.4	25.4	38.0

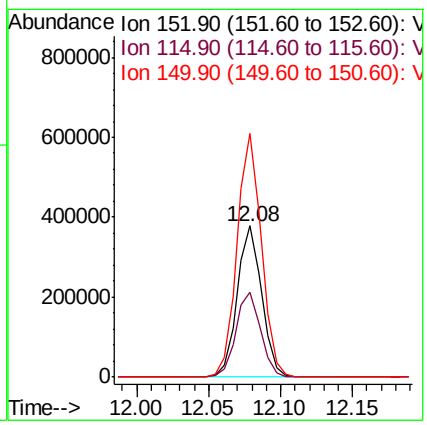




#72
1,4-Dichlorobenzene-d4
Concen: 50.000 ug/l
RT: 12.08 min Scan# 1792
Delta R.T. 0.00 min
Lab File: VX006714.D
Acq: 21 Dec 2018 10:58

Tgt Ion:152 Resp: 448984

Ion	Ratio	Lower	Upper
152	100		
115	57.0	39.1	117.2
150	160.1	0.0	344.8



Instrument :
MSVOA_X
ClientSampleId :
VX1221WBL01

LSC Area Percent Report

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX122118\
Data File : VX006714.D
Acq On : 21 Dec 2018 10:58
Operator : JC/MD
Sample : VX1221WBL01
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 3 Sample Multiplier: 1

Integration Parameters: RTEINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 3 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121818W.M
Title : SW846 8260

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	1.611	67	75	79	rBV2	35425	73366	2.39%	0.442%
2	5.501	701	713	726	rBV	358792	1006412	32.75%	6.061%
3	5.659	728	739	753	rBV	657637	1806738	58.80%	10.881%
4	6.068	792	806	819	rBV	374965	997807	32.47%	6.009%
5	6.860	925	936	952	rBV	939989	2239905	72.90%	13.490%
6	8.714	1232	1240	1251	rBV	2001821	3072772	100.00%	18.506%
7	10.110	1462	1469	1480	rBV	1955512	2660076	86.57%	16.021%
8	11.140	1632	1638	1647	rBV	1599615	2121139	69.03%	12.775%
9	12.079	1785	1792	1802	rBV	2164129	2625782	85.45%	15.814%

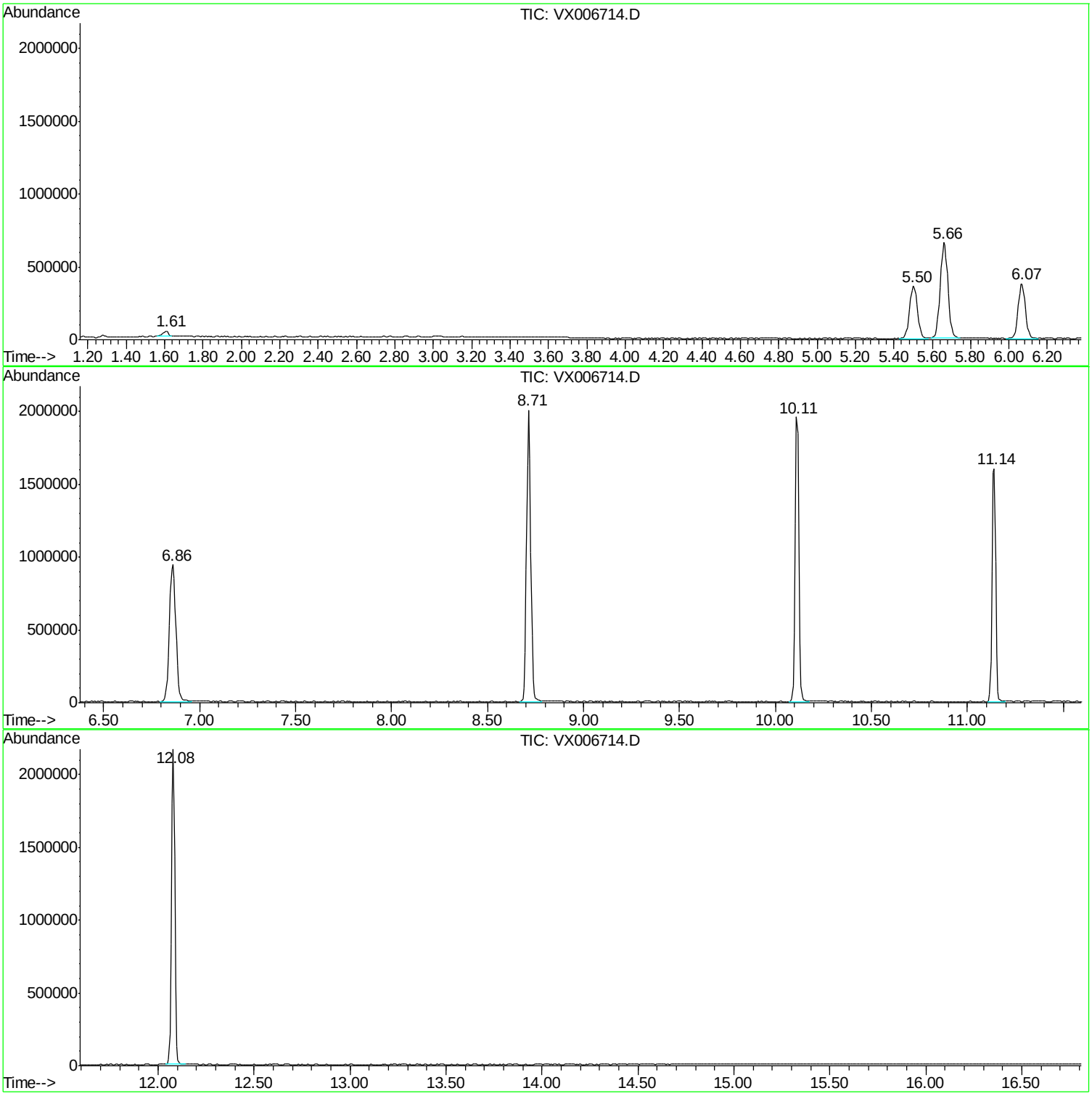
Sum of corrected areas: 16603997

Data Path : Z:\VOASRV\HPCHEM1\MSVOA X\DATA\VX122118\
Data File : VX006714.D
Acq On : 21 Dec 2018 10:58
Operator : JC/MD
Sample : VX1221WBL01
Misc : 5.0mL/MSVOA X/WATER
ALS Vial : 3 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
VX1221WBL01

Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121818W.M
Quant Title : SW846 8260

TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P



Library Search Compound Report

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX122118\
Data File : VX006714.D
Acq On : 21 Dec 2018 10:58
Operator : JC/MD
Sample : VX1221WBL01
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 3 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
VX1221WBL01

Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121818W.M
Quant Title : SW846 8260

TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

No Library Search Compounds Detected

****

Tentatively Identified Compound (LSC) summary

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX122118\
Data File : VX006714.D
Acq On : 21 Dec 2018 10:58
Operator : JC/MD
Sample : VX1221WBL01
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 3 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
VX1221WBL01

Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121818W.M
Quant Title : SW846 8260

TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

					Internal Standard		
TIC Top Hit name	RT	EstConc	Units	Response	#	RT	Resp	Conc

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Day Environmental, Inc.	Date Collected:	
Project:	Andrew St. RI	Date Received:	
Client Sample ID:	VX1219WBS01	SDG No.:	J6484
Lab Sample ID:	VX1219WBS01	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	DB-624UI ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX006637.D	1		12/19/18 15:24	VX121918

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
75-71-8	Dichlorodifluoromethane	20.1		0.2	0.2	1	ug/L
74-87-3	Chloromethane	20		0.2	0.2	1	ug/L
75-01-4	Vinyl Chloride	20.4		0.2	0.2	1	ug/L
74-83-9	Bromomethane	20.4		0.2	0.2	1	ug/L
75-00-3	Chloroethane	19		0.2	0.5	1	ug/L
75-69-4	Trichlorofluoromethane	20.5		0.2	0.2	1	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	21.3		0.2	0.2	1	ug/L
75-35-4	1,1-Dichloroethene	20		0.2	0.2	1	ug/L
67-64-1	Acetone	100		0.5	1	5	ug/L
75-15-0	Carbon Disulfide	17.8		0.2	0.2	1	ug/L
1634-04-4	Methyl tert-butyl Ether	20.8		0.35	0.5	1	ug/L
79-20-9	Methyl Acetate	20.5		0.2	0.5	1	ug/L
75-09-2	Methylene Chloride	20.3		0.2	0.2	1	ug/L
156-60-5	trans-1,2-Dichloroethene	19.5		0.2	0.2	1	ug/L
75-34-3	1,1-Dichloroethane	20		0.2	0.2	1	ug/L
110-82-7	Cyclohexane	20		0.2	0.2	1	ug/L
78-93-3	2-Butanone	100		1.3	2.5	5	ug/L
56-23-5	Carbon Tetrachloride	19.3		0.2	0.2	1	ug/L
156-59-2	cis-1,2-Dichloroethene	19.8		0.2	0.2	1	ug/L
74-97-5	Bromochloromethane	20.1		0.2	0.5	1	ug/L
67-66-3	Chloroform	20.2		0.2	0.2	1	ug/L
71-55-6	1,1,1-Trichloroethane	19.5		0.2	0.2	1	ug/L
108-87-2	Methylcyclohexane	20.2		0.2	0.2	1	ug/L
71-43-2	Benzene	20.1		0.2	0.2	1	ug/L
107-06-2	1,2-Dichloroethane	19.7		0.2	0.2	1	ug/L
79-01-6	Trichloroethene	19.5		0.2	0.2	1	ug/L
78-87-5	1,2-Dichloropropane	20.1		0.2	0.2	1	ug/L
75-27-4	Bromodichloromethane	19.3		0.2	0.2	1	ug/L
108-10-1	4-Methyl-2-Pentanone	110		1	1	5	ug/L
108-88-3	Toluene	20.5		0.2	0.2	1	ug/L
10061-02-6	t-1,3-Dichloropropene	18.6		0.2	0.2	1	ug/L
10061-01-5	cis-1,3-Dichloropropene	19.5		0.2	0.2	1	ug/L

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Day Environmental, Inc.	Date Collected:	
Project:	Andrew St. RI	Date Received:	
Client Sample ID:	VX1219WBS01	SDG No.:	J6484
Lab Sample ID:	VX1219WBS01	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	DB-624UI ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX006637.D	1		12/19/18 15:24	VX121918

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
79-00-5	1,1,2-Trichloroethane	20.5		0.2	0.2	1	ug/L
591-78-6	2-Hexanone	110		1.9	2.5	5	ug/L
124-48-1	Dibromochloromethane	18.7		0.2	0.2	1	ug/L
106-93-4	1,2-Dibromoethane	20.2		0.2	0.2	1	ug/L
127-18-4	Tetrachloroethene	20.4		0.2	0.2	1	ug/L
108-90-7	Chlorobenzene	20.2		0.2	0.2	1	ug/L
100-41-4	Ethyl Benzene	20.2		0.2	0.2	1	ug/L
179601-23-1	m/p-Xylenes	41.3		0.4	0.4	2	ug/L
95-47-6	o-Xylene	20.5		0.2	0.2	1	ug/L
100-42-5	Styrene	20.9		0.2	0.2	1	ug/L
75-25-2	Bromoform	18.1		0.2	0.2	1	ug/L
98-82-8	Isopropylbenzene	20.2		0.2	0.2	1	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	20.6		0.2	0.2	1	ug/L
541-73-1	1,3-Dichlorobenzene	20.4		0.2	0.2	1	ug/L
106-46-7	1,4-Dichlorobenzene	20		0.2	0.2	1	ug/L
95-50-1	1,2-Dichlorobenzene	20.2		0.2	0.2	1	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	18.8		0.2	0.2	1	ug/L
120-82-1	1,2,4-Trichlorobenzene	20.3		0.2	0.2	1	ug/L
87-61-6	1,2,3-Trichlorobenzene	19.4		0.2	0.2	1	ug/L
SURROGATES							
17060-07-0	1,2-Dichloroethane-d4	50.5		61 - 141		101%	SPK: 50
1868-53-7	Dibromofluoromethane	48.9		69 - 133		98%	SPK: 50
2037-26-5	Toluene-d8	50.5		65 - 126		101%	SPK: 50
460-00-4	4-Bromofluorobenzene	51		58 - 135		102%	SPK: 50
INTERNAL STANDARDS							
363-72-4	Pentafluorobenzene	591440	5.67				
540-36-3	1,4-Difluorobenzene	914082	6.86				
3114-55-4	Chlorobenzene-d5	836428	10.11				
3855-82-1	1,4-Dichlorobenzene-d4	440718	12.08				

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Day Environmental, Inc.	Date Collected:	
Project:	Andrew St. RI	Date Received:	
Client Sample ID:	VX1219WBS01	SDG No.:	J6484
Lab Sample ID:	VX1219WBS01	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	DB-624UI ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX006637.D	1		12/19/18 15:24	VX121918

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit
A = Aldol-Condensation Reaction Products

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX121918\
Data File : VX006637.D
Acq On : 19 Dec 2018 15:24
Operator : JC/MD
Sample : VX1219WBS01
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 4 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
VX1219WBS01

Manual Integrations APPROVED
MMDadoda
12/20/2018 10:00:22 AM

Quant Time: Dec 20 04:16:11 2018
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121818W.M
Quant Title : SW846 8260
QLast Update : Wed Dec 19 15:20:58 2018
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	5.67	168	591440	50.00	ug/l	0.00
34) 1,4-Difluorobenzene	6.86	114	914082	50.00	ug/l	0.00
63) Chlorobenzene-d5	10.11	117	836428	50.00	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	12.08	152	440718	50.00	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	6.06	65	322048	50.52	ug/l	0.00
Spiked Amount 50.000			Recovery = 101.04%			
35) Dibromofluoromethane	5.50	113	282834	48.93	ug/l	0.00
Spiked Amount 50.000			Recovery = 97.86%			
50) Toluene-d8	8.71	98	1099638	50.46	ug/l	0.00
Spiked Amount 50.000			Recovery = 100.92%			
62) 4-Bromofluorobenzene	11.13	95	407068	51.00	ug/l	0.00
Spiked Amount 50.000			Recovery = 102.00%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.20	85	108997	20.145	ug/l	99
3) Chloromethane	1.33	50	116487	19.983	ug/l	96
4) Vinyl Chloride	1.41	62	124127	20.389	ug/l	100
5) Bromomethane	1.64	94	122302	20.392	ug/l	97
6) Chloroethane	1.72	64	80076	18.996	ug/l	99
7) Trichlorofluoromethane	1.93	101	194764	20.519	ug/l	100
8) Diethyl Ether	2.19	74	73158	19.405	ug/l	99
9) 1,1,2-Trichlorotrifluoroet	2.39	101	118973	21.348	ug/l	99
10) Methyl Iodide	2.51	142	162011	20.308	ug/l	98
11) Tert butyl alcohol	3.06	59	152935	107.506	ug/l	98
12) 1,1-Dichloroethene	2.38	96	105611	19.986	ug/l	94
13) Acrolein	2.29	56	84018	87.549	ug/l	99
14) Allyl chloride	2.73	41	175668	19.749	ug/l	99
15) Acrylonitrile	3.15	53	324018	102.585	ug/l	99
16) Acetone	2.45	43	306540	104.673	ug/l	97
17) Carbon Disulfide	2.57	76	248466	17.767	ug/l	100
18) Methyl Acetate	2.78	43	176353	20.479	ug/l	97
19) Methyl tert-butyl Ether	3.20	73	364135	20.762	ug/l	98
20) Methylene Chloride	2.85	84	123144	20.335	ug/l	97
21) trans-1,2-Dichloroethene	3.17	96	114350	19.530	ug/l	99
22) Diisopropyl ether	3.87	45	336419	20.674	ug/l	98
23) Vinyl Acetate	3.82	43	1320357	99.197	ug/l	99
24) 1,1-Dichloroethane	3.70	63	194174	19.989	ug/l	98
25) 2-Butanone	4.70	43	419186	101.760	ug/l	98
26) 2,2-Dichloropropane	4.59	77	140269	18.693	ug/l	99
27) cis-1,2-Dichloroethene	4.60	96	128104	19.830	ug/l	98
28) Bromochloromethane	5.02	49	86909	20.116	ug/l	98
29) Tetrahydrofuran	5.15	42	273425	100.778	ug/l	98
30) Chloroform	5.21	83	203217	20.202	ug/l	96
31) Cyclohexane	5.57	56	176394	19.988	ug/l	99
32) 1,1,1-Trichloroethane	5.49	97	165387	19.471	ug/l	97
36) 1,1-Dichloropropene	5.80	75	151387	19.996	ug/l	100
37) Ethyl Acetate	4.85	43	155492	19.733	ug/l	100
38) Carbon Tetrachloride	5.79	117	141673	19.255	ug/l	94

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX121918\
Data File : VX006637.D
Acq On : 19 Dec 2018 15:24
Operator : JC/MD
Sample : VX1219WBS01
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Dec 20 04:16:11 2018
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121818W.M
Quant Title : SW846 8260
QLast Update : Wed Dec 19 15:20:58 2018
Response via : Initial Calibration

Instrument :
MSVOA_X
ClientSampleId :
VX1219WBS01

Manual Integrations APPROVED
MMDadoda
12/20/2018 10:00:22 AM

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
39) Methylcyclohexane	7.46	83	200983	20.165 ug/l	96
40) Benzene	6.14	78	463272	20.131 ug/l	98
41) Methacrylonitrile	5.06	41	86164	20.596 ug/l	98
42) 1,2-Dichloroethane	6.19	62	154801	19.741 ug/l	100
43) Isopropyl Acetate	6.46	43	235371	19.632 ug/l	99
44) Trichloroethene	7.21	130	135526	19.458 ug/l	99
45) 1,2-Dichloropropane	7.51	63	112638	20.114 ug/l	96
46) Dibromomethane	7.66	93	80668	19.584 ug/l	98
47) Bromodichloromethane	7.90	83	132189	19.330 ug/l	95
48) Methyl methacrylate	7.77	41	124778	20.466 ug/l	99
49) 1,4-Dioxane	7.75	88	69009	421.087 ug/l	100
51) 4-Methyl-2-Pentanone	8.65	43	802619	105.214 ug/l	99
52) Toluene	8.78	92	305155	20.526 ug/l	99
53) t-1,3-Dichloropropene	9.04	75	136394	18.596 ug/l	97
54) cis-1,3-Dichloropropene	8.43	75	156882	19.494 ug/l	99
55) 1,1,2-Trichloroethane	9.21	97	124519	20.462 ug/l	98
56) Ethyl methacrylate	9.18	69	178346	20.736 ug/l	99
57) 1,3-Dichloropropane	9.37	76	198366	20.261 ug/l	100
58) 2-Chloroethyl Vinyl ether	8.31	63	461194	100.875 ug/l	100
59) 2-Hexanone	9.49	43	624208	106.946 ug/l	99
60) Dibromochloromethane	9.59	129	109385	18.712 ug/l	99
61) 1,2-Dibromoethane	9.67	107	130969	20.246 ug/l	100
64) Tetrachloroethene	9.34	164	135256	20.421 ug/l	98
65) Chlorobenzene	10.14	112	357488	20.202 ug/l	99
66) 1,1,1,2-Tetrachloroethane	10.22	131	111327	20.165 ug/l	99
67) Ethyl Benzene	10.25	91	584590	20.217 ug/l	100
68) m/p-Xylenes	10.36	106	471229	41.300 ug/l	99
69) o-Xylene	10.69	106	231461	20.543 ug/l	97
70) Styrene	10.71	104	372029	20.871 ug/l	99
71) Bromoform	10.86	173	74395	18.066 ug/l #	99
73) Isopropylbenzene	11.02	105	609511	20.216 ug/l	100
74) N-amyl acetate	10.90	43	221748	20.547 ug/l	99
75) 1,1,2,2-Tetrachloroethane	11.27	83	184492	20.575 ug/l	100
76) 1,2,3-Trichloropropane	11.30	75	168386m	20.559 ug/l	
77) Bromobenzene	11.26	156	161437	19.805 ug/l	99
78) n-propylbenzene	11.36	91	682751	20.564 ug/l	100
79) 2-Chlorotoluene	11.42	91	408769	20.316 ug/l	100
80) 1,3,5-Trimethylbenzene	11.51	105	505270	20.346 ug/l	99
81) trans-1,4-Dichloro-2-buten	11.07	75	37532	16.997 ug/l #	85
82) 4-Chlorotoluene	11.51	91	471583	20.433 ug/l	99
83) tert-Butylbenzene	11.77	119	498849	20.071 ug/l	98
84) 1,2,4-Trimethylbenzene	11.80	105	518904	19.865 ug/l	99
85) sec-Butylbenzene	11.94	105	625082	20.512 ug/l	99
86) p-Isopropyltoluene	12.06	119	554551	20.702 ug/l	99
87) 1,3-Dichlorobenzene	12.02	146	299640	20.397 ug/l	99
88) 1,4-Dichlorobenzene	12.10	146	301111	19.994 ug/l	98
89) n-Butylbenzene	12.39	91	471152	20.667 ug/l	100
90) Hexachloroethane	12.60	117	69174	18.707 ug/l	97
91) 1,2-Dichlorobenzene	12.39	146	297339	20.233 ug/l	99
92) 1,2-Dibromo-3-Chloropropan	13.00	75	34880	18.800 ug/l	96

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX121918\
Data File : VX006637.D
Acq On : 19 Dec 2018 15:24
Operator : JC/MD
Sample : VX1219WBS01
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 4 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
VX1219WBS01

Manual Integrations APPROVED
MMDadoda
12/20/2018 10:00:22 AM

Quant Time: Dec 20 04:16:11 2018
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121818W.M
Quant Title : SW846 8260
QLast Update : Wed Dec 19 15:20:58 2018
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
93) 1,2,4-Trichlorobenzene	13.65	180	205836	20.305	ug/l	99
94) Hexachlorobutadiene	13.78	225	95711	20.031	ug/l	98
95) Naphthalene	13.83	128	635799	19.651	ug/l	100
96) 1,2,3-Trichlorobenzene	14.02	180	203469	19.440	ug/l	100

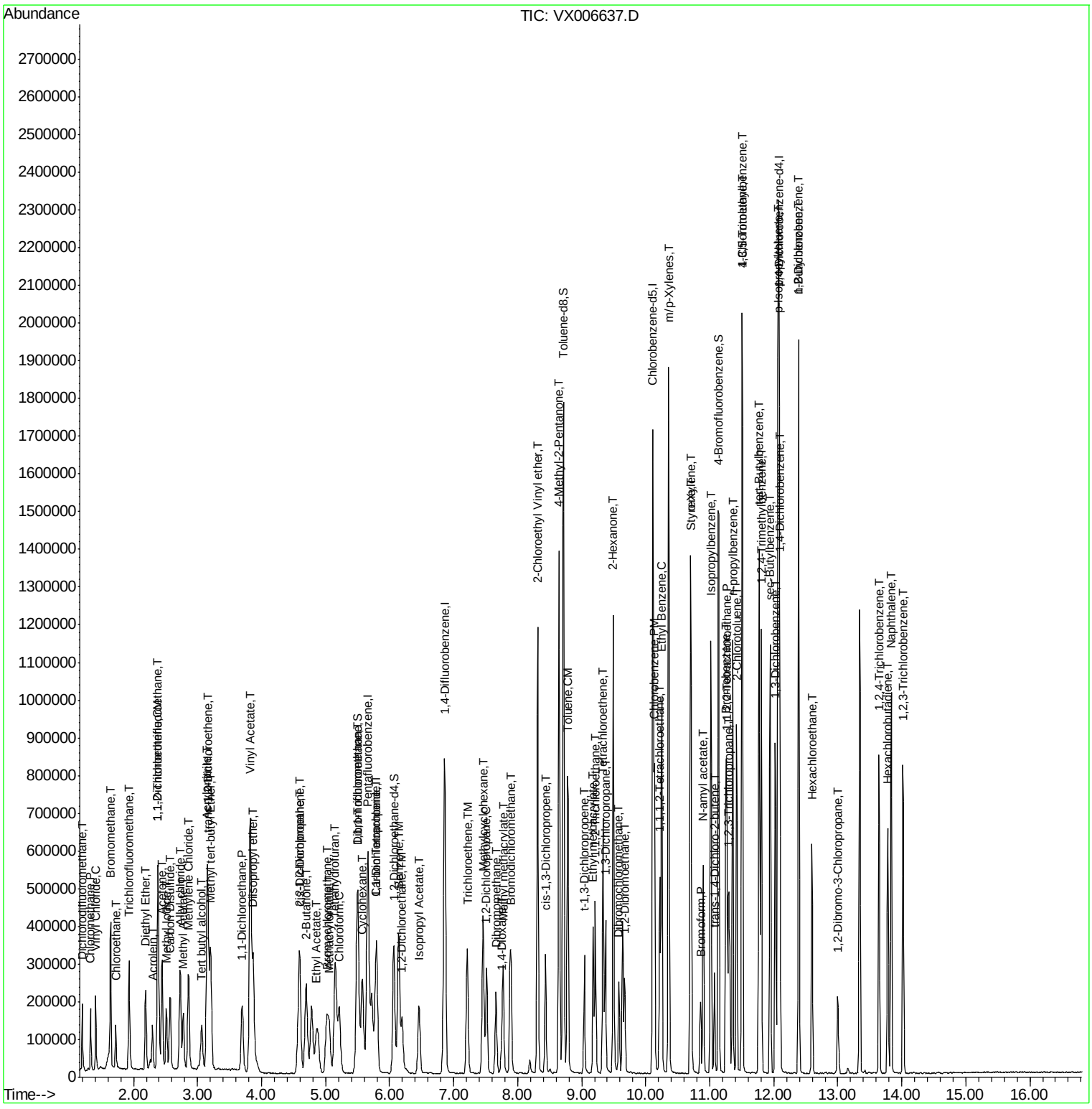
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX121918\
Data File : VX006637.D
Acq On : 19 Dec 2018 15:24
Operator : JC/MD
Sample : VX1219WBS01
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Dec 20 04:16:11 2018
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121818W.M
Quant Title : SW846 8260
QLast Update : Wed Dec 19 15:20:58 2018
Response via : Initial Calibration

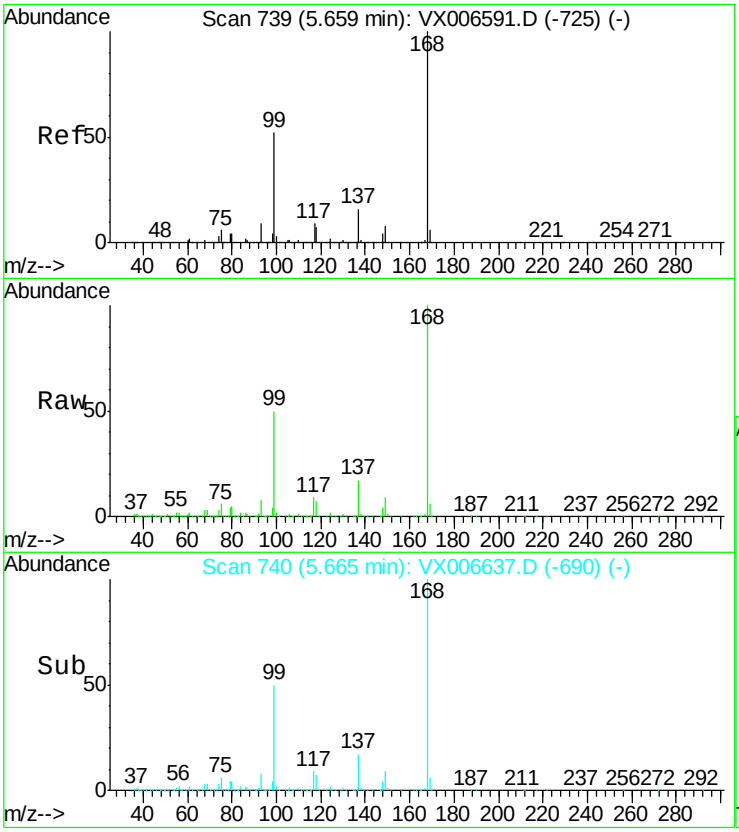
Instrument :
MSVOA_X
ClientSampleId :
VX1219WBS01

Manual Integrations APPROVED
MMDadoda
12/20/2018 10:00:22 AM



Instrument :
MSVOA_X
ClientSampleId :
VX1219WBS01

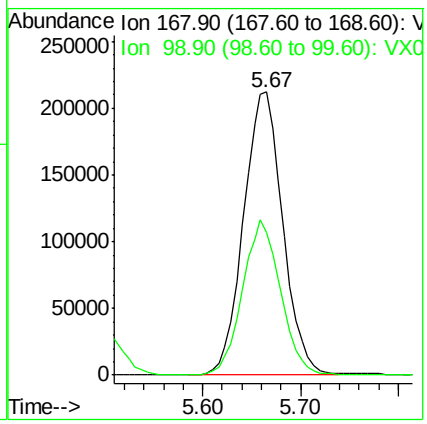
Manual Integrations APPROVED
MMDadoda
12/20/2018 10:00:22 AM

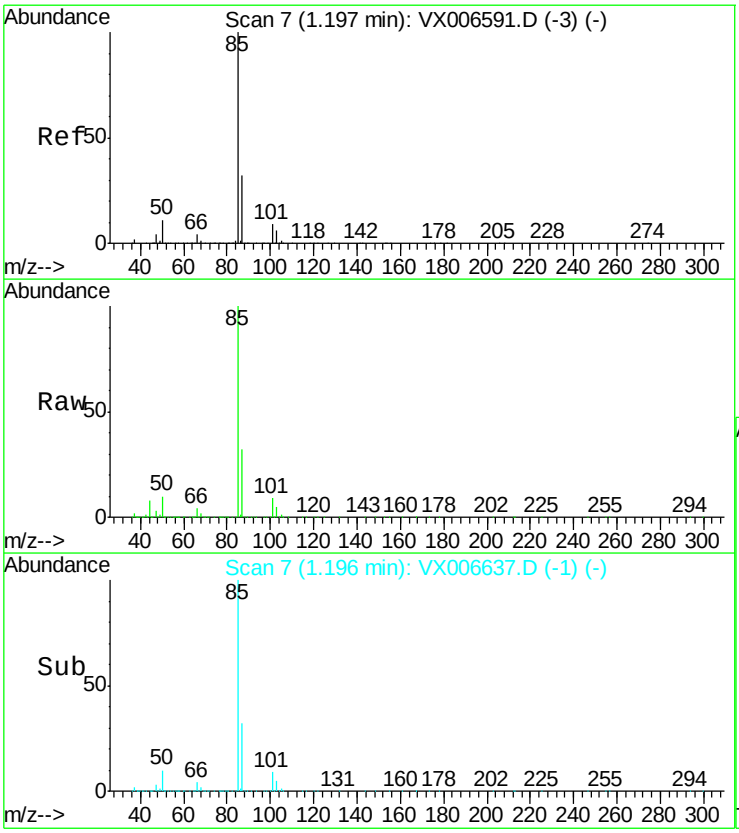


#1
Pentafluorobenzene
Concen: 50.000 ug/l
RT: 5.67 min Scan# 740
Delta R.T. 0.01 min
Lab File: VX006637.D
Acq: 19 Dec 2018 15:24

Tgt Ion:168 Resp: 591440

Ion	Ratio	Lower	Upper
168	100		
99	50.2	41.8	62.8

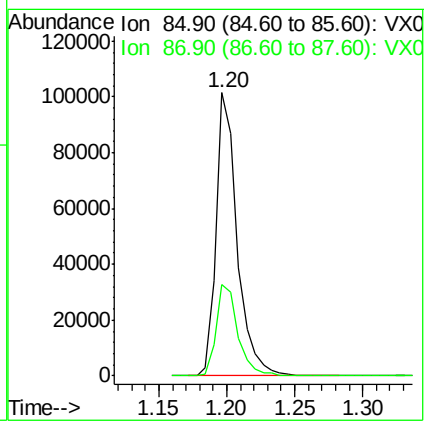




#2
Dichlorodifluoromethane
Concen: 20.145 ug/l
RT: 1.20 min Scan# 7
Delta R.T. -0.00 min
Lab File: VX006637.D
Acq: 19 Dec 2018 15:24

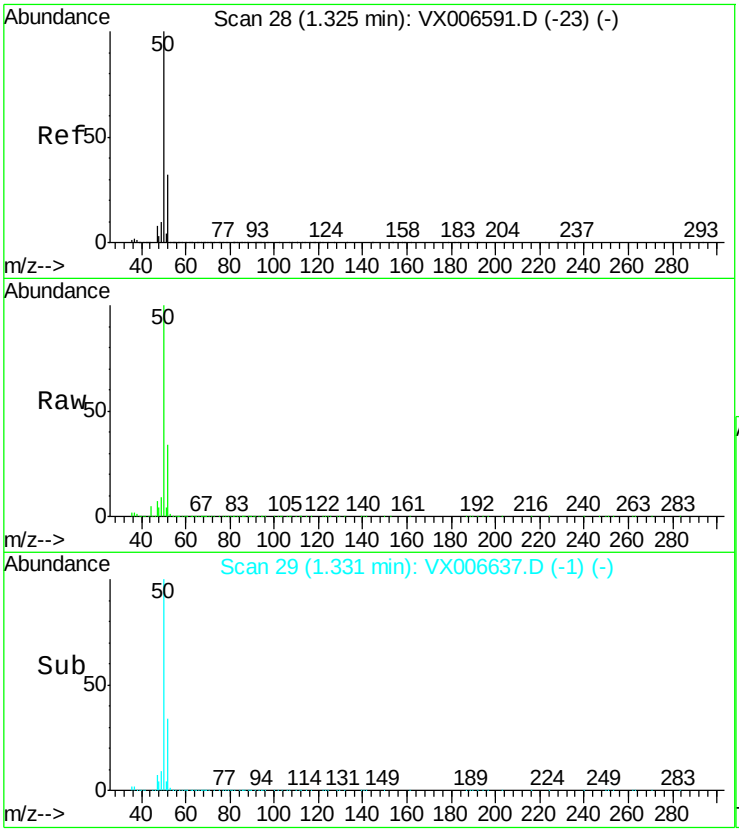
Tgt Ion: 85 Resp: 108997

Ion	Ratio	Lower	Upper
85	100		
87	32.5	15.9	47.6



Instrument :
MSVOA_X
ClientSampleId :
VX1219WBS01

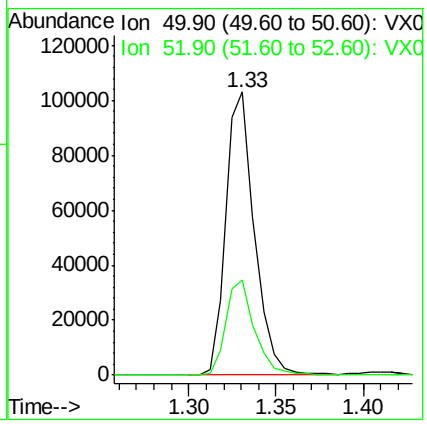
Manual Integrations APPROVED
MMDadoda
12/20/2018 10:00:22 AM

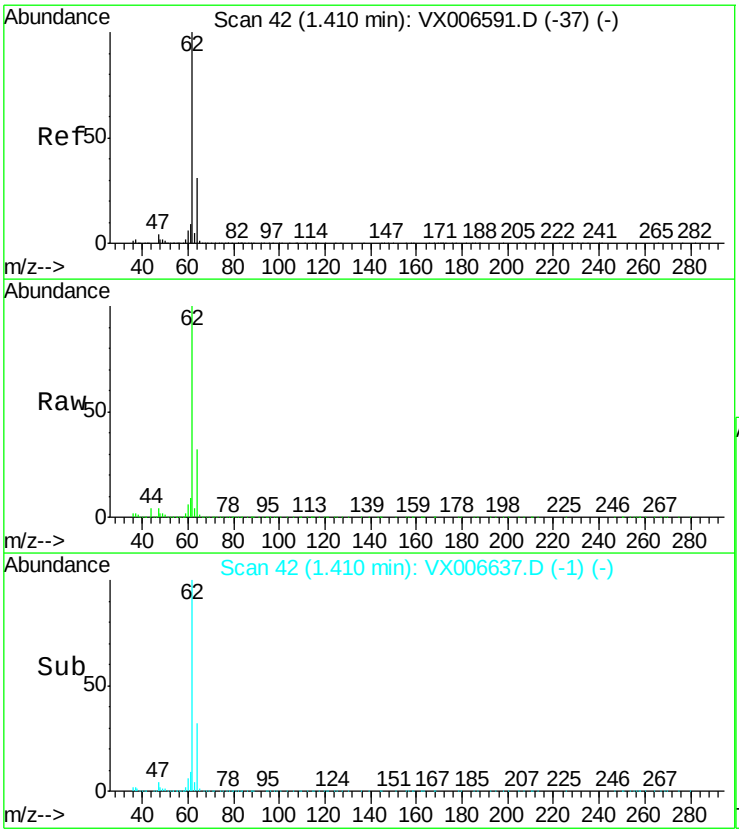


#3
Chloromethane
Concen: 19.983 ug/l
RT: 1.33 min Scan# 29
Delta R.T. 0.01 min
Lab File: VX006637.D
Acq: 19 Dec 2018 15:24

Tgt Ion: 50 Resp: 116487

Ion	Ratio	Lower	Upper
50	100		
52	33.9	25.4	38.2

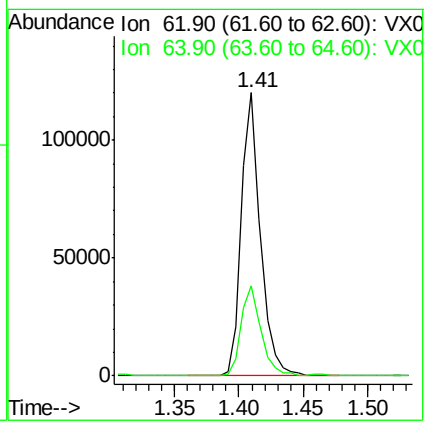




#4
Vinyl Chloride
Concen: 20.389 ug/l
RT: 1.41 min Scan# 42
Delta R.T. -0.00 min
Lab File: VX006637.D
Acq: 19 Dec 2018 15:24

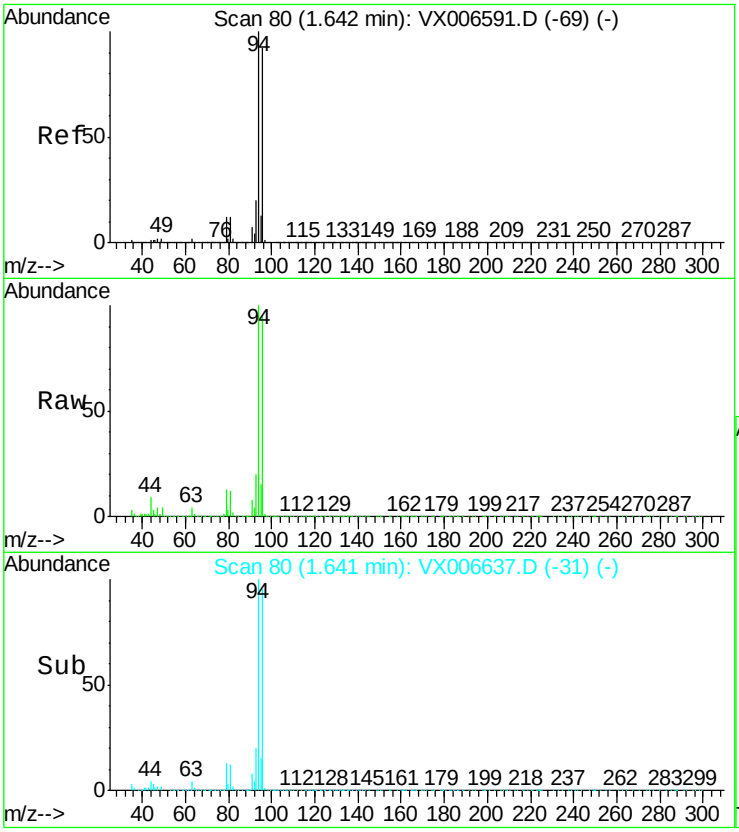
Tgt Ion: 62 Resp: 124127

Ion	Ratio	Lower	Upper
62	100		
64	31.5	25.1	37.7



Instrument :
MSVOA_X
ClientSampleId :
VX1219WBS01

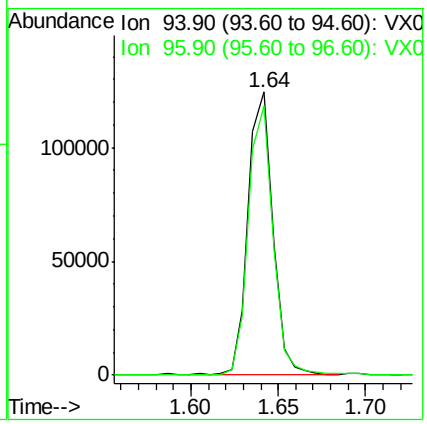
Manual Integrations APPROVED
MMDadoda
12/20/2018 10:00:22 AM

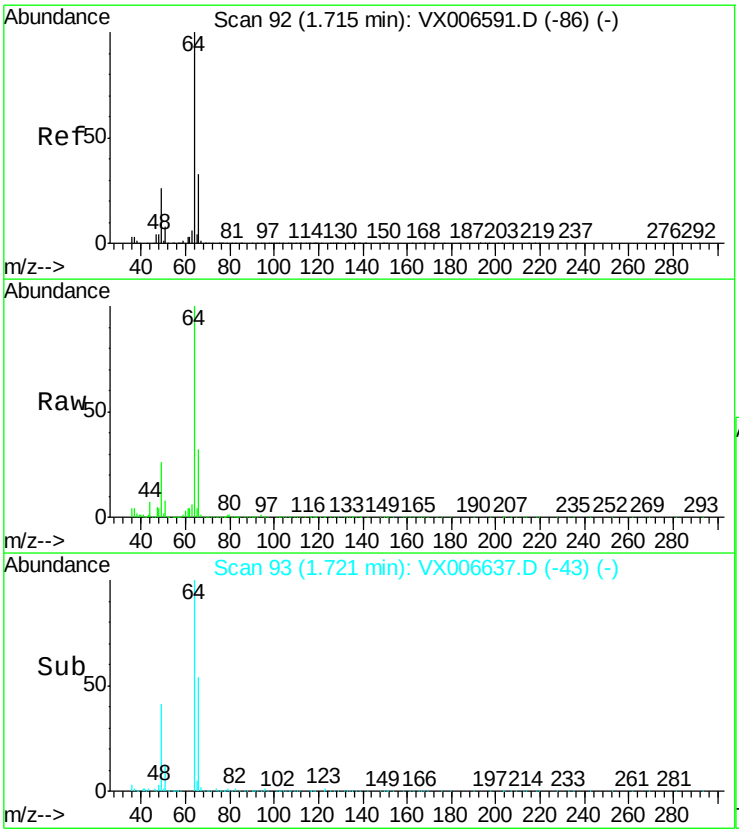


#5
Bromomethane
Concen: 20.392 ug/l
RT: 1.64 min Scan# 80
Delta R.T. 0.00 min
Lab File: VX006637.D
Acq: 19 Dec 2018 15:24

Tgt Ion: 94 Resp: 122302

Ion	Ratio	Lower	Upper
94	100		
96	95.1	73.4	110.2

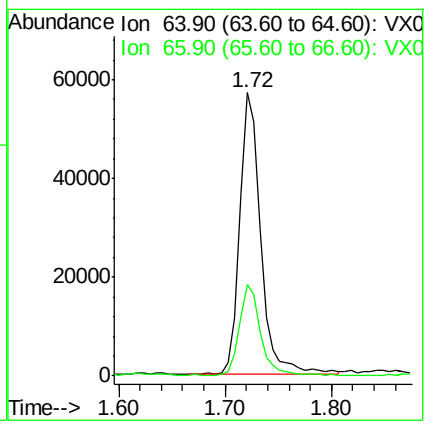




#6
Chloroethane
Concen: 18.996 ug/l
RT: 1.72 min Scan# 93
Delta R.T. 0.01 min
Lab File: VX006637.D
Acq: 19 Dec 2018 15:24

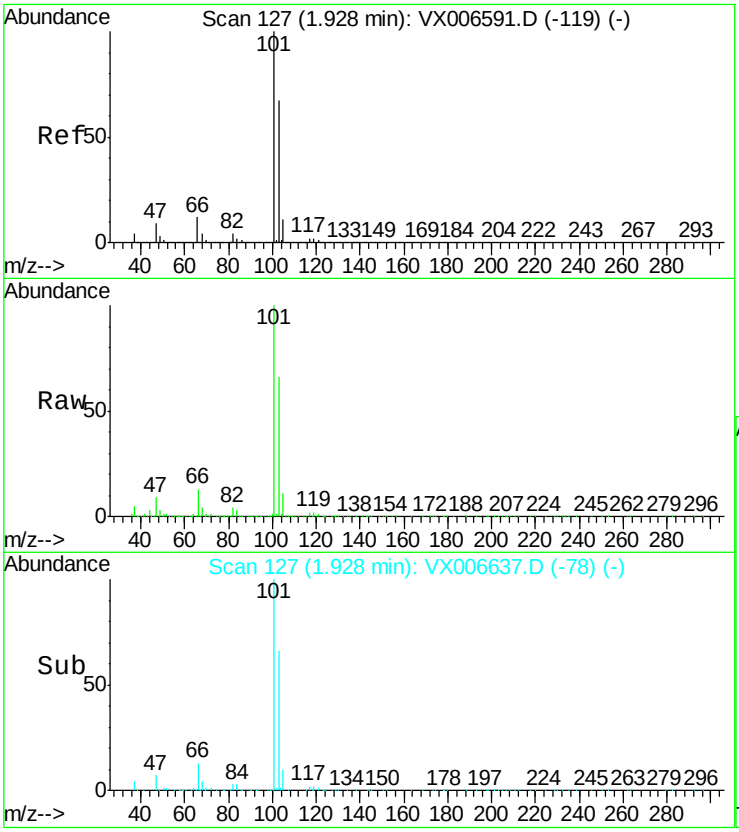
Tgt Ion: 64 Resp: 80076

Ion	Ratio	Lower	Upper
64	100		
66	32.3	26.4	39.6



Instrument :
MSVOA_X
ClientSampleId :
VX1219WBS01

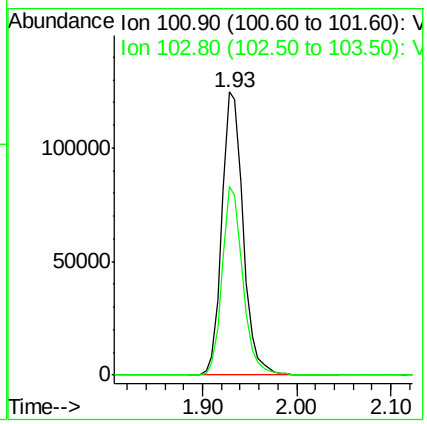
Manual Integrations APPROVED
MMDadoda
12/20/2018 10:00:22 AM

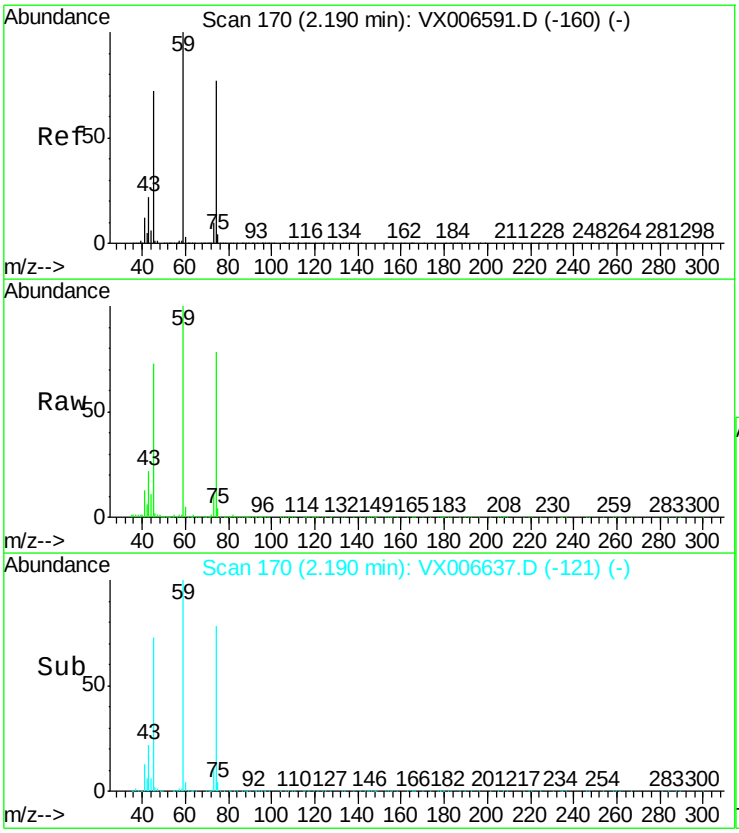


#7
Trichlorofluoromethane
Concen: 20.519 ug/l
RT: 1.93 min Scan# 127
Delta R.T. -0.00 min
Lab File: VX006637.D
Acq: 19 Dec 2018 15:24

Tgt Ion:101 Resp: 194764

Ion	Ratio	Lower	Upper
101	100		
103	66.4	53.2	79.8

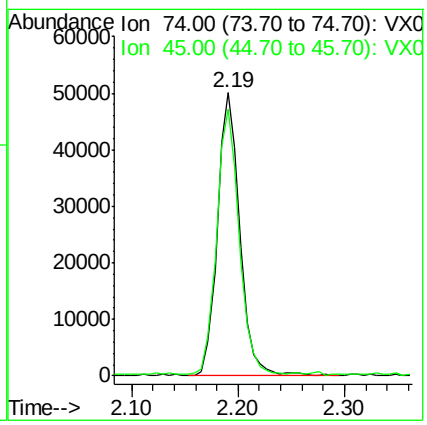


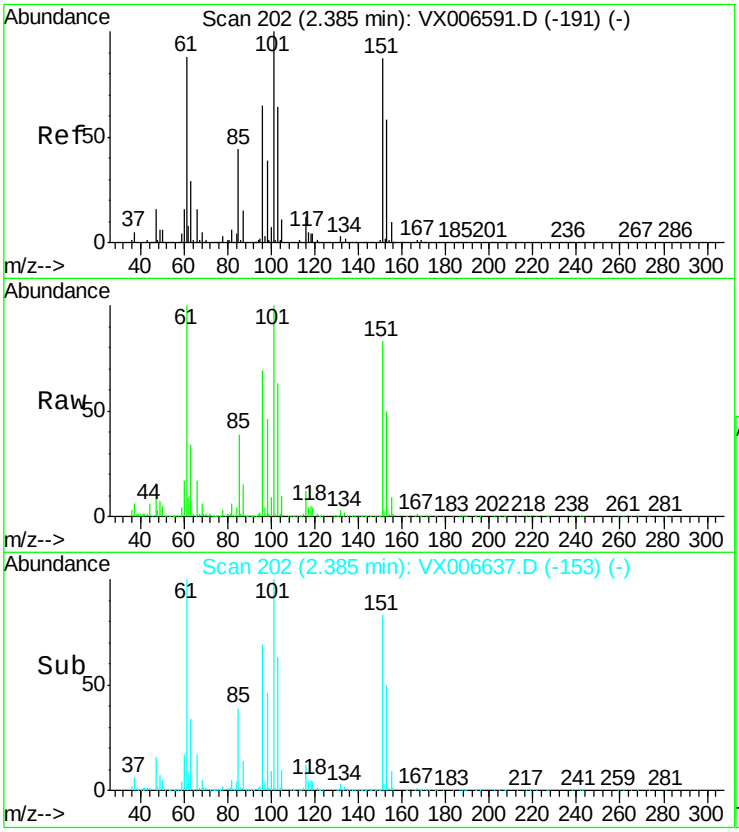


#8
Diethyl Ether
Concen: 19.405 ug/l
RT: 2.19 min Scan# 170
Delta R.T. -0.00 min
Lab File: VX006637.D
Acq: 19 Dec 2018 15:24

Tgt Ion: 74 Resp: 73158

Ion	Ratio	Lower	Upper
74	100		
45	93.7	46.3	138.9

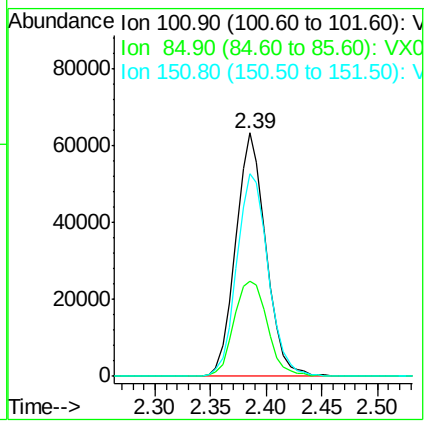




#9
1,1,2-Trichlorotrifluoroethane
Concen: 21.348 ug/l
RT: 2.39 min Scan# 202
Delta R.T. -0.00 min
Lab File: VX006637.D
Acq: 19 Dec 2018 15:24

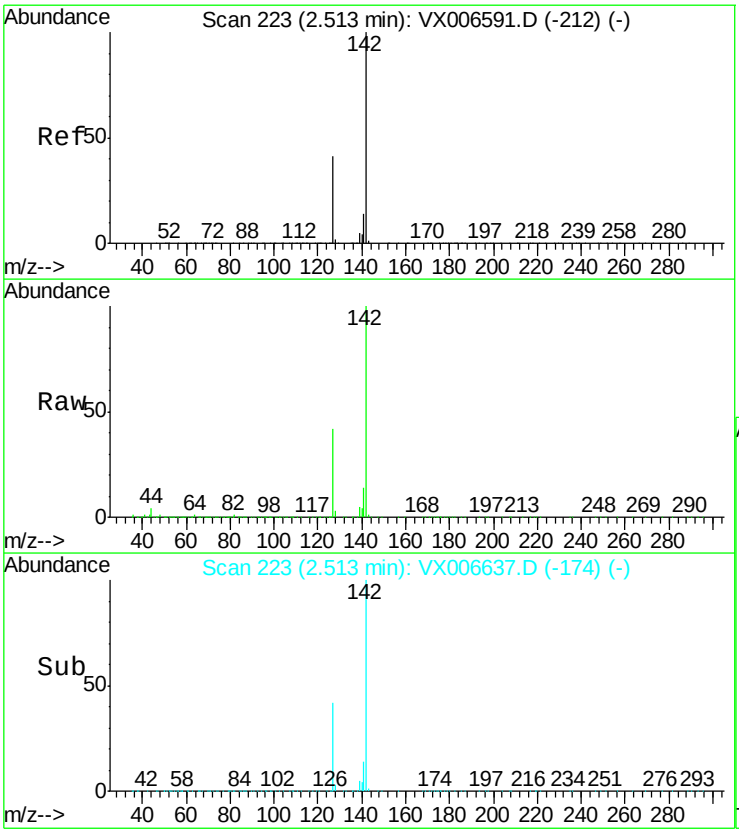
Tgt Ion:101 Resp: 118973

Ion	Ratio	Lower	Upper
101	100		
85	43.6	35.1	52.7
151	86.6	68.9	103.3



Instrument :
MSVOA_X
ClientSampleId :
VX1219WBS01

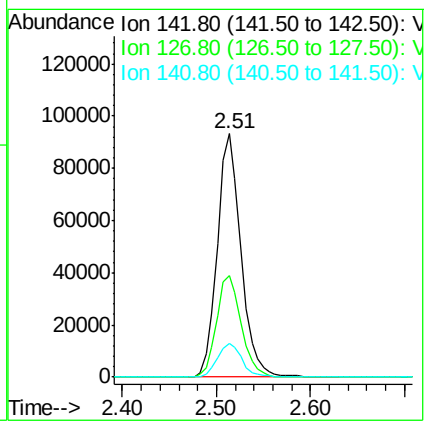
Manual Integrations APPROVED
MMDadoda
12/20/2018 10:00:22 AM



#10
Methyl Iodide
Concen: 20.308 ug/l
RT: 2.51 min Scan# 223
Delta R.T. -0.00 min
Lab File: VX006637.D
Acq: 19 Dec 2018 15:24

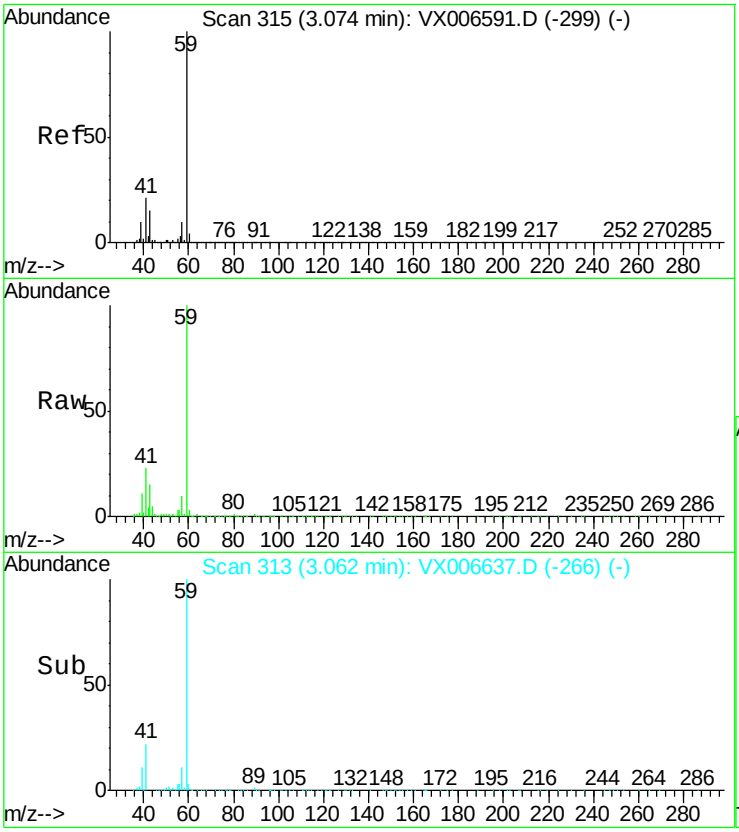
Tgt Ion:142 Resp: 162011

Ion	Ratio	Lower	Upper
142	100		
127	44.1	33.9	50.9
141	14.5	11.4	17.0



Instrument :
MSVOA_X
ClientSampleId :
VX1219WBS01

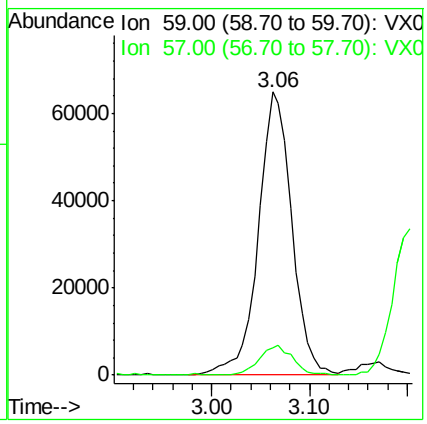
Manual Integrations APPROVED
MMDadoda
12/20/2018 10:00:22 AM

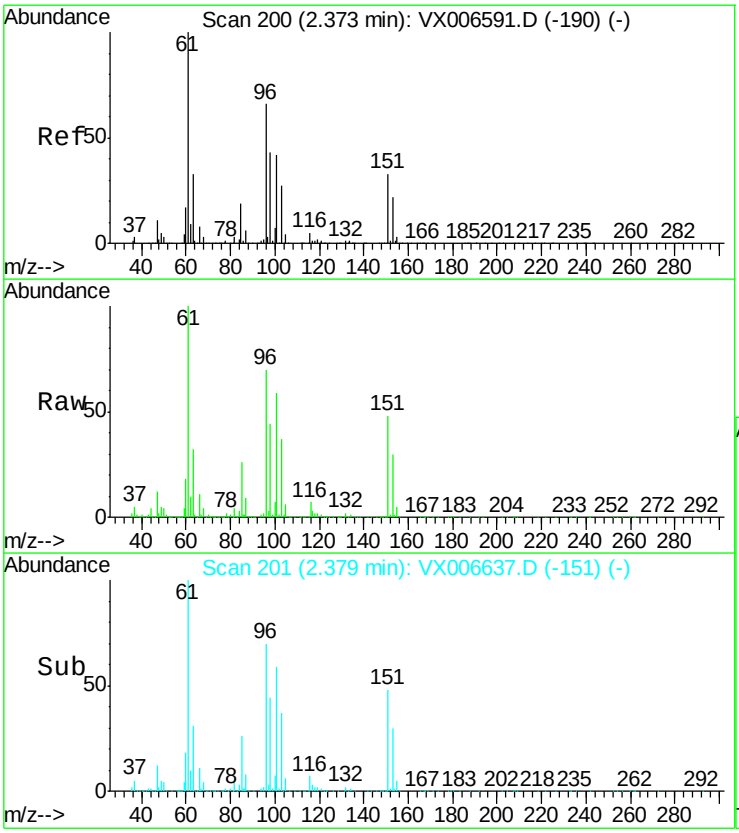


#11
Tert butyl alcohol
Concen: 107.506 ug/l
RT: 3.06 min Scan# 313
Delta R.T. -0.01 min
Lab File: VX006637.D
Acq: 19 Dec 2018 15:24

Tgt Ion: 59 Resp: 152935

Ion	Ratio	Lower	Upper
59	100		
57	10.0	8.5	12.7

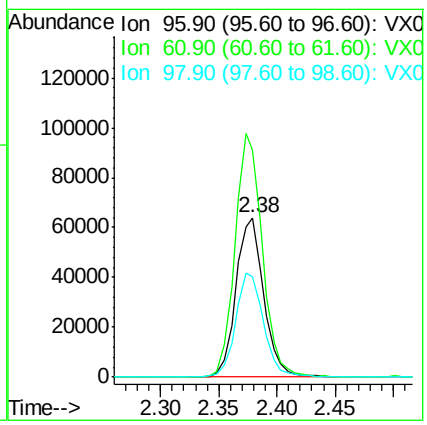




#12
1,1-Dichloroethene
Concen: 19.986 ug/l
RT: 2.38 min Scan# 201
Delta R.T. 0.01 min
Lab File: VX006637.D
Acq: 19 Dec 2018 15:24

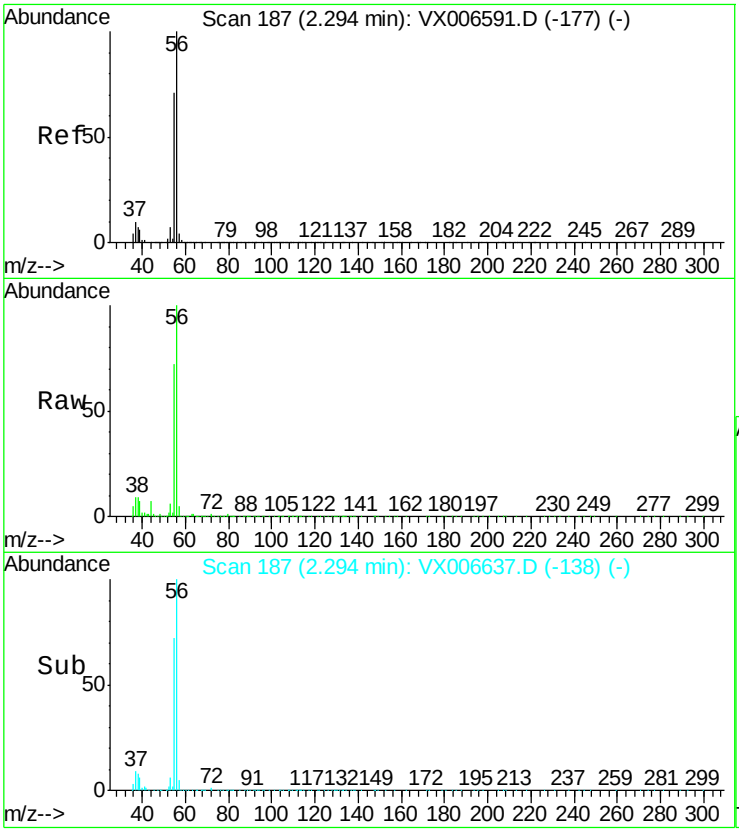
Tgt Ion: 96 Resp: 105611

Ion	Ratio	Lower	Upper
96	100		
61	142.3	121.4	182.2
98	62.8	51.9	77.9



Instrument :
MSVOA_X
ClientSampleId :
VX1219WBS01

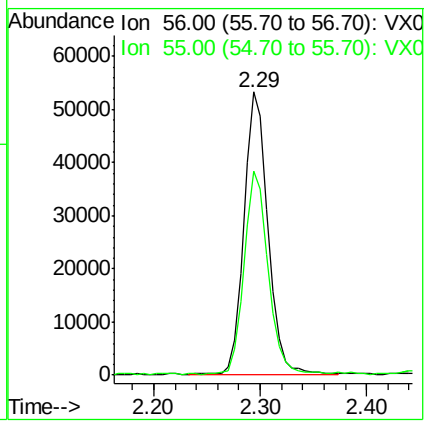
Manual Integrations APPROVED
MMDadoda
12/20/2018 10:00:22 AM

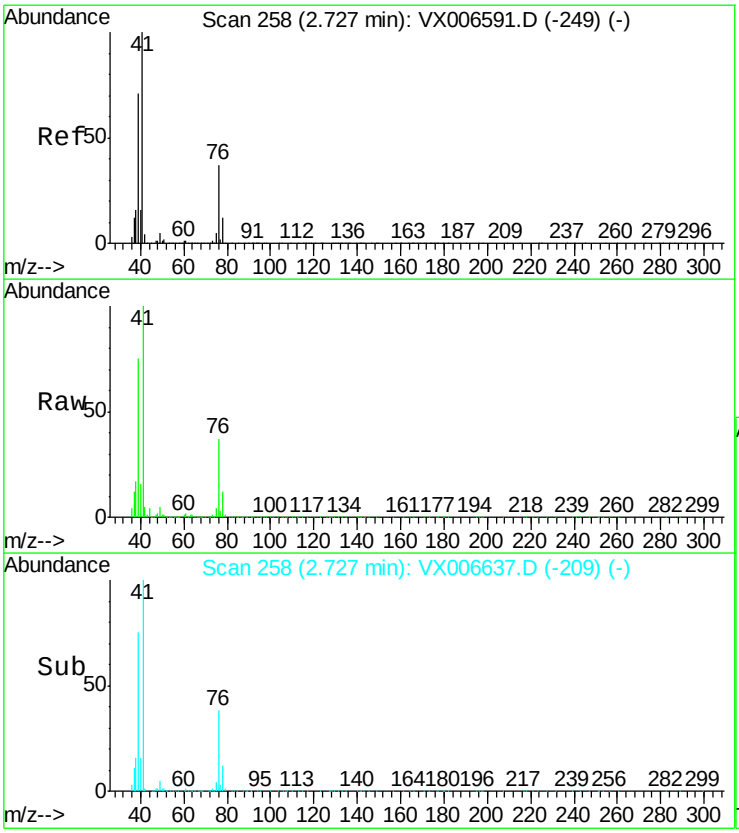


#13
Acrolein
Concen: 87.549 ug/l
RT: 2.29 min Scan# 187
Delta R.T. -0.00 min
Lab File: VX006637.D
Acq: 19 Dec 2018 15:24

Tgt Ion: 56 Resp: 84018

Ion	Ratio	Lower	Upper
56	100		
55	72.2	58.2	87.4

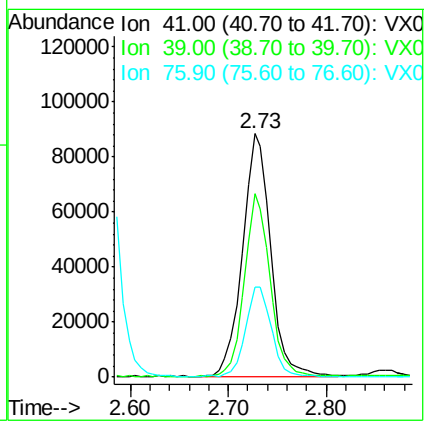




#14
Allyl chloride
Concen: 19.749 ug/l
RT: 2.73 min Scan# 258
Delta R.T. -0.00 min
Lab File: VX006637.D
Acq: 19 Dec 2018 15:24

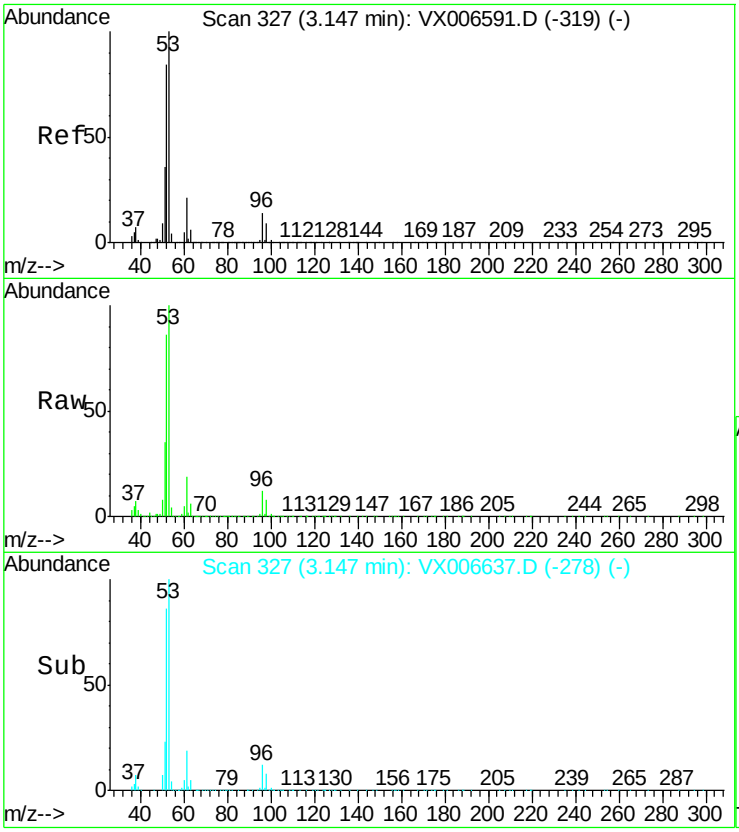
Tgt Ion: 41 Resp: 175668

Ion	Ratio	Lower	Upper
41	100		
39	68.3	53.6	80.4
76	34.1	27.4	41.2



Instrument :
MSVOA_X
ClientSampleId :
VX1219WBS01

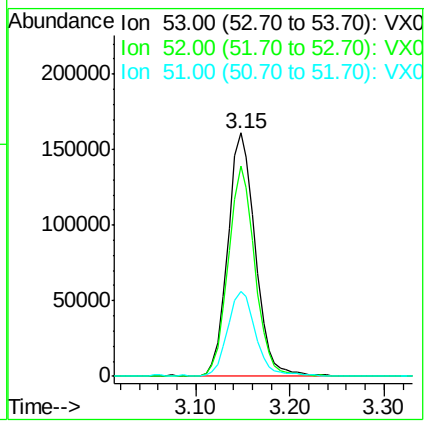
Manual Integrations APPROVED
MMDadoda
12/20/2018 10:00:22 AM

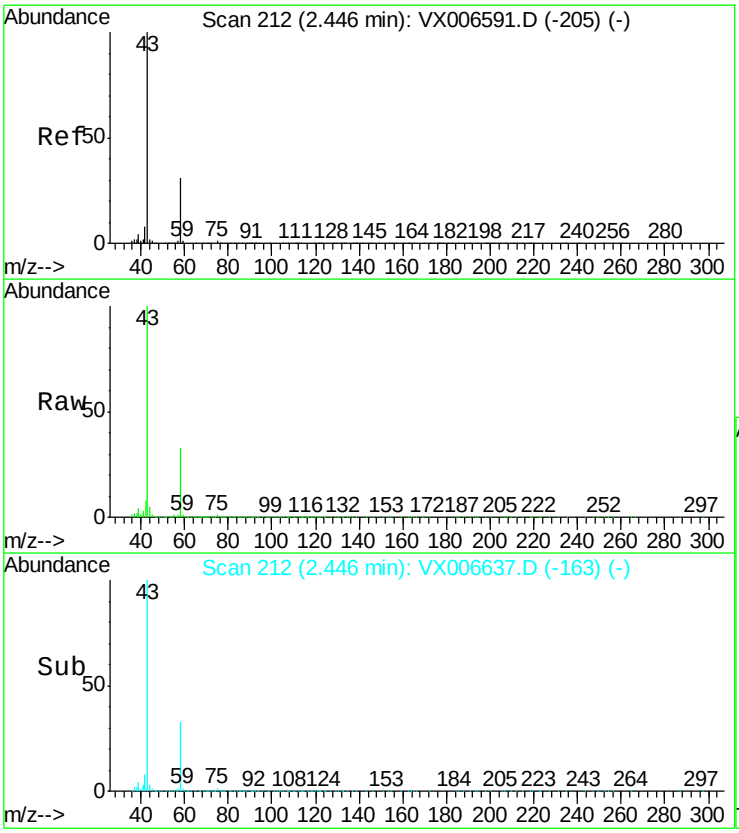


#15
Acrylonitrile
Concen: 102.585 ug/l
RT: 3.15 min Scan# 327
Delta R.T. -0.00 min
Lab File: VX006637.D
Acq: 19 Dec 2018 15:24

Tgt Ion: 53 Resp: 324018

Ion	Ratio	Lower	Upper
53	100		
52	84.0	66.0	99.0
51	35.6	28.6	42.8

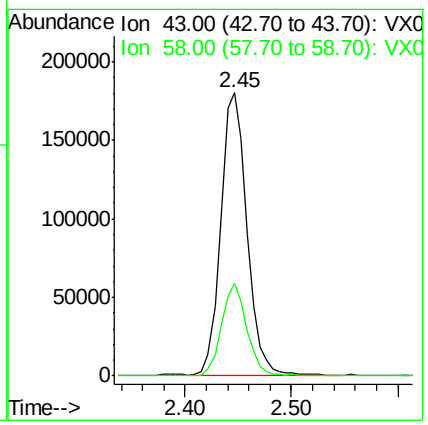




#16
Acetone
Concen: 104.673 ug/l
RT: 2.45 min Scan# 212
Delta R.T. -0.00 min
Lab File: VX006637.D
Acq: 19 Dec 2018 15:24

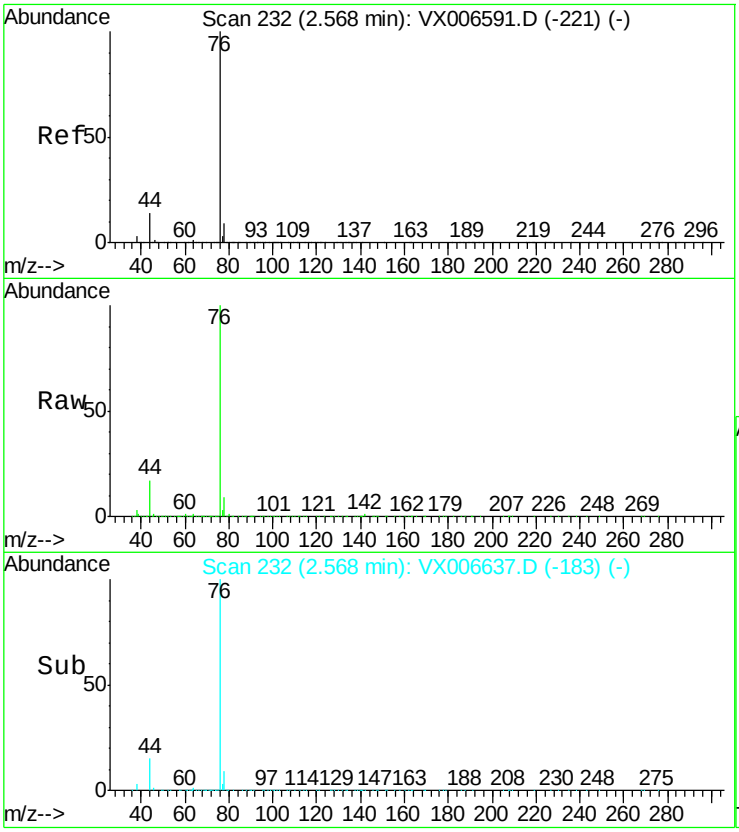
Tgt Ion: 43 Resp: 306540

Ion	Ratio	Lower	Upper
43	100		
58	32.7	25.0	37.6



Instrument :
MSVOA_X
ClientSampleId :
VX1219WBS01

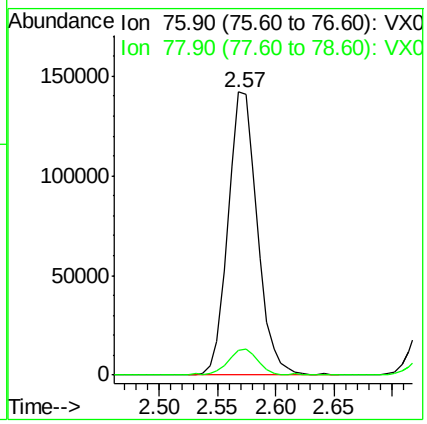
Manual Integrations APPROVED
MMDadoda
12/20/2018 10:00:22 AM

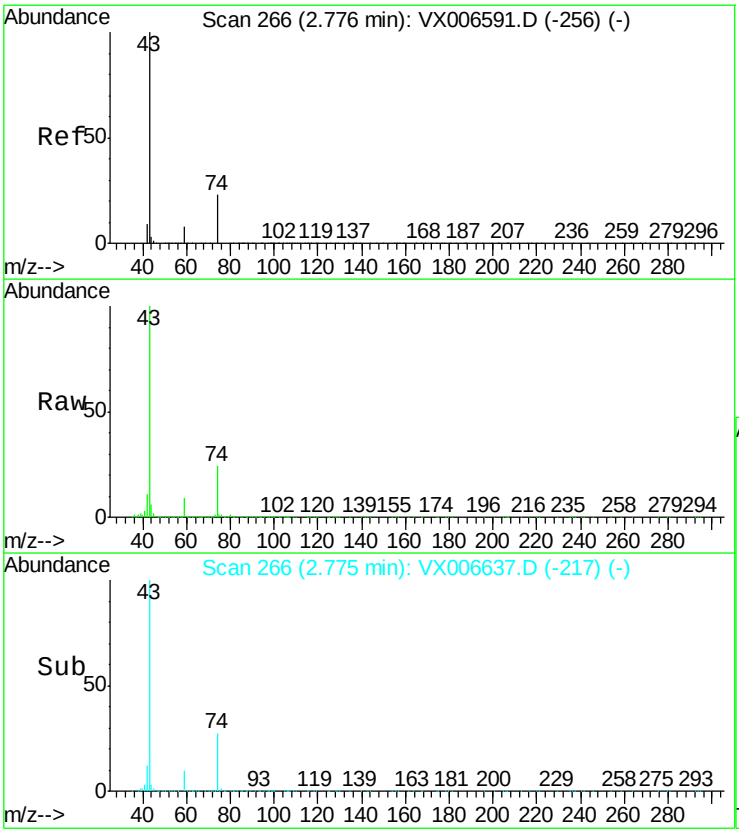


#17
Carbon Disulfide
Concen: 17.767 ug/l
RT: 2.57 min Scan# 232
Delta R.T. -0.00 min
Lab File: VX006637.D
Acq: 19 Dec 2018 15:24

Tgt Ion: 76 Resp: 248466

Ion	Ratio	Lower	Upper
76	100		
78	8.8	7.0	10.6

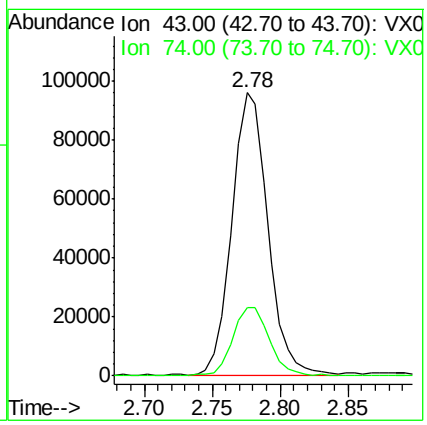




#18
Methyl Acetate
Concen: 20.479 ug/l
RT: 2.78 min Scan# 266
Delta R.T. -0.00 min
Lab File: VX006637.D
Acq: 19 Dec 2018 15:24

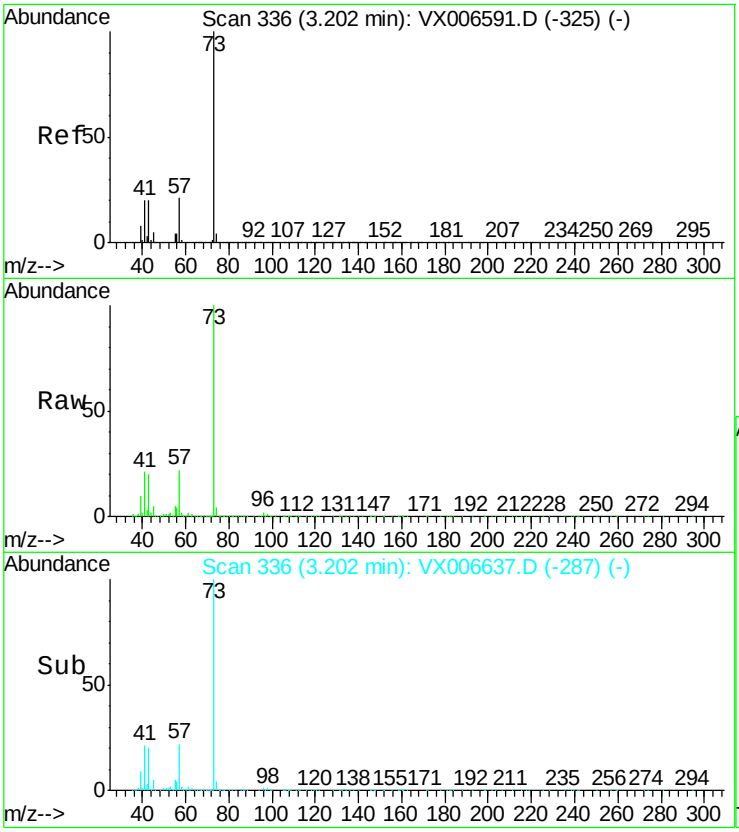
Tgt Ion: 43 Resp: 176353

Ion	Ratio	Lower	Upper
43	100		
74	24.7	18.6	28.0



Instrument :
MSVOA_X
ClientSampleId :
VX1219WBS01

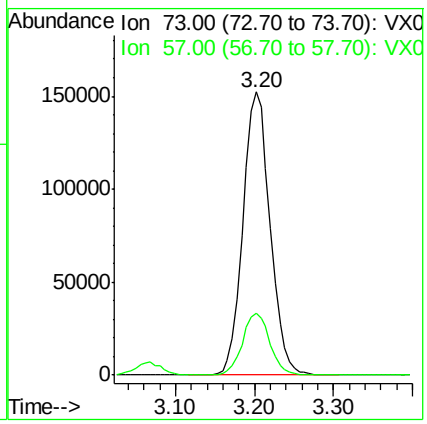
Manual Integrations APPROVED
MMDadoda
12/20/2018 10:00:22 AM

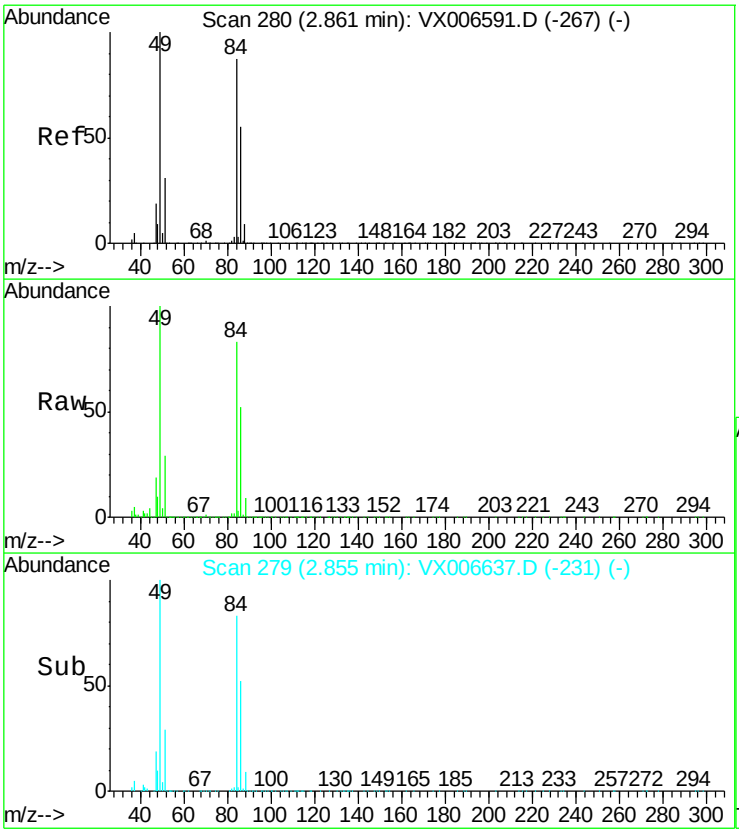


#19
Methyl tert-butyl Ether
Concen: 20.762 ug/l
RT: 3.20 min Scan# 336
Delta R.T. -0.00 min
Lab File: VX006637.D
Acq: 19 Dec 2018 15:24

Tgt Ion: 73 Resp: 364135

Ion	Ratio	Lower	Upper
73	100		
57	21.7	16.8	25.2

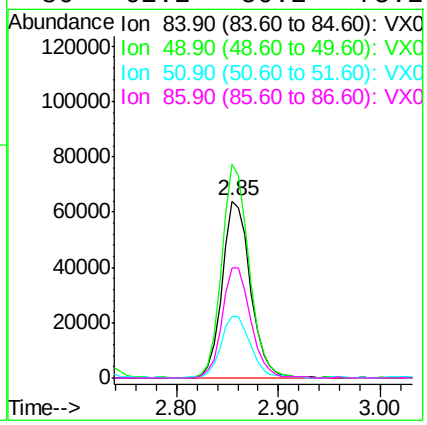




#20
Methylene Chloride
Concen: 20.335 ug/l
RT: 2.85 min Scan# 279
Delta R.T. -0.01 min
Lab File: VX006637.D
Acq: 19 Dec 2018 15:24

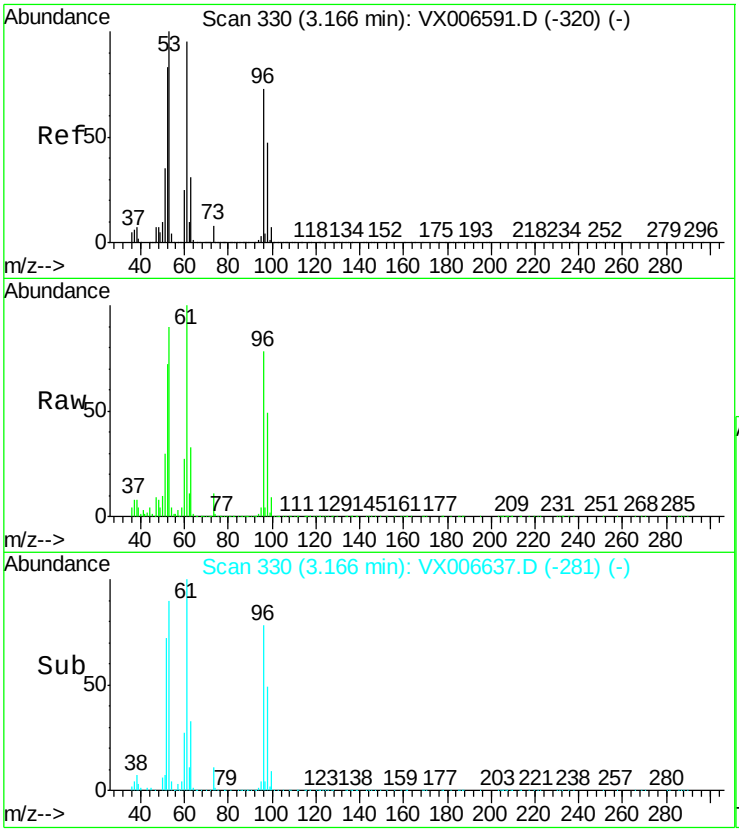
Tgt Ion: 84 Resp: 123144

Ion	Ratio	Lower	Upper
84	100		
49	120.5	91.8	137.6
51	34.7	28.5	42.7
86	62.2	50.2	75.2



Instrument :
MSVOA_X
ClientSampleId :
VX1219WBS01

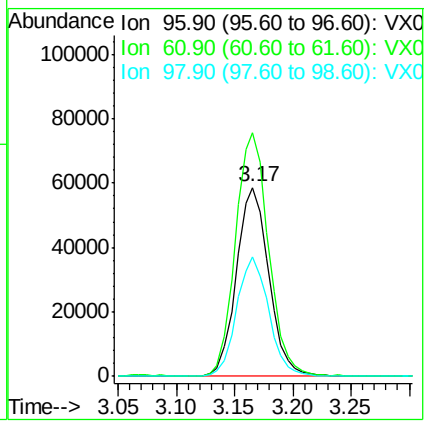
Manual Integrations APPROVED
MMDadoda
12/20/2018 10:00:22 AM

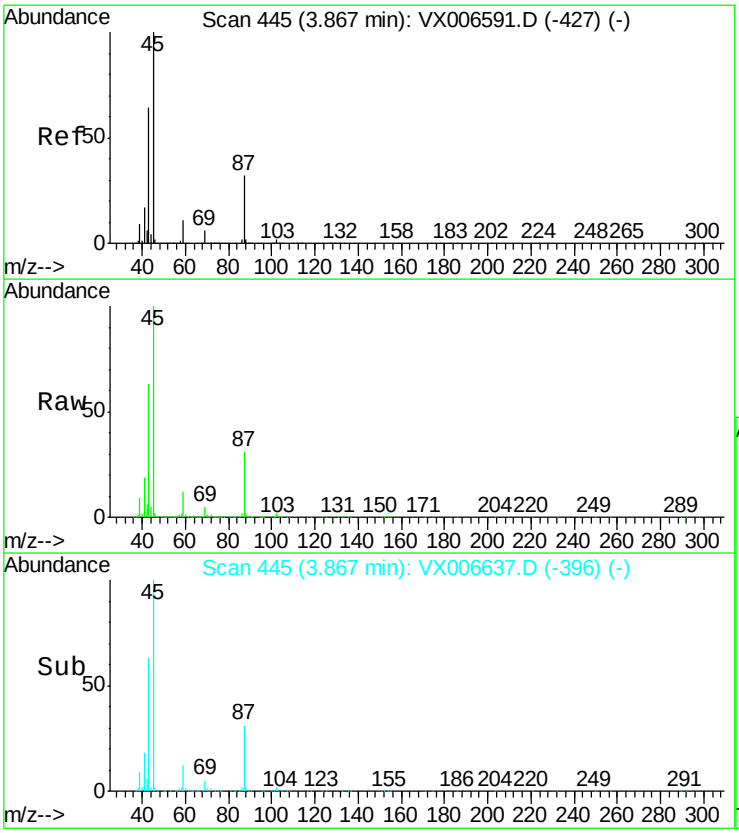


#21
trans-1,2-Dichloroethene
Concen: 19.530 ug/l
RT: 3.17 min Scan# 330
Delta R.T. -0.00 min
Lab File: VX006637.D
Acq: 19 Dec 2018 15:24

Tgt Ion: 96 Resp: 114350

Ion	Ratio	Lower	Upper
96	100		
61	128.5	103.7	155.5
98	63.2	51.0	76.6

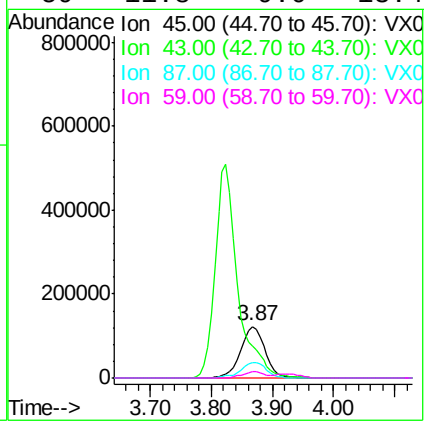




#22
Diisopropyl ether
Concen: 20.674 ug/l
RT: 3.87 min Scan# 445
Delta R.T. -0.00 min
Lab File: VX006637.D
Acq: 19 Dec 2018 15:24

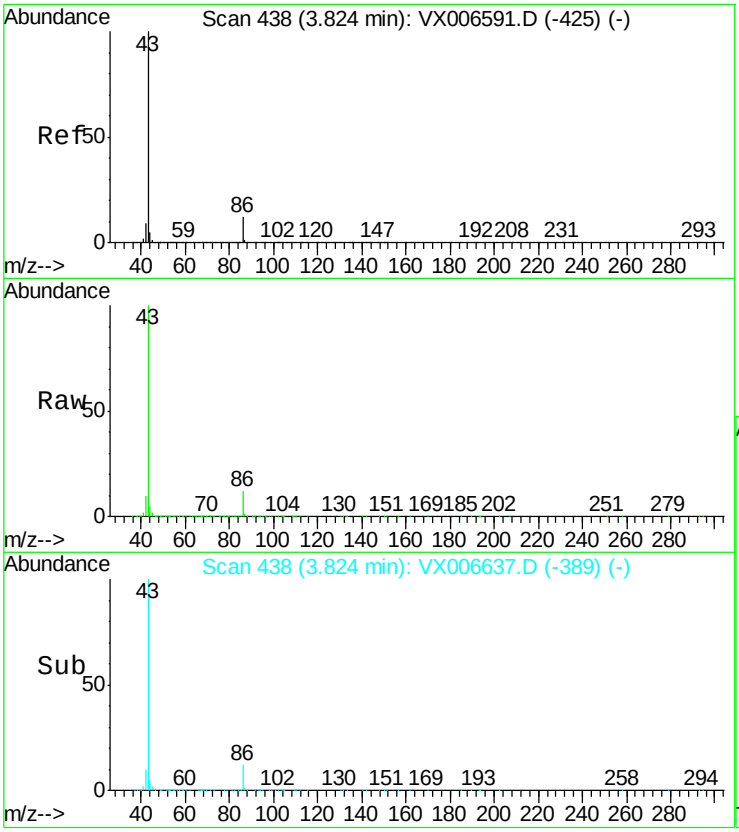
Tgt Ion: 45 Resp: 336419

Ion	Ratio	Lower	Upper
45	100		
43	62.5	51.2	76.8
87	31.2	25.8	38.6
59	11.8	9.0	13.4



Instrument :
MSVOA_X
ClientSampleId :
VX1219WBS01

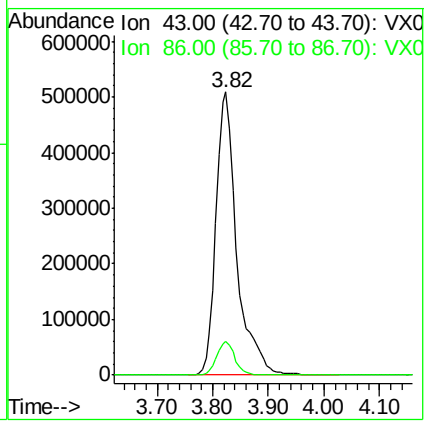
Manual Integrations APPROVED
MMDadoda
12/20/2018 10:00:22 AM

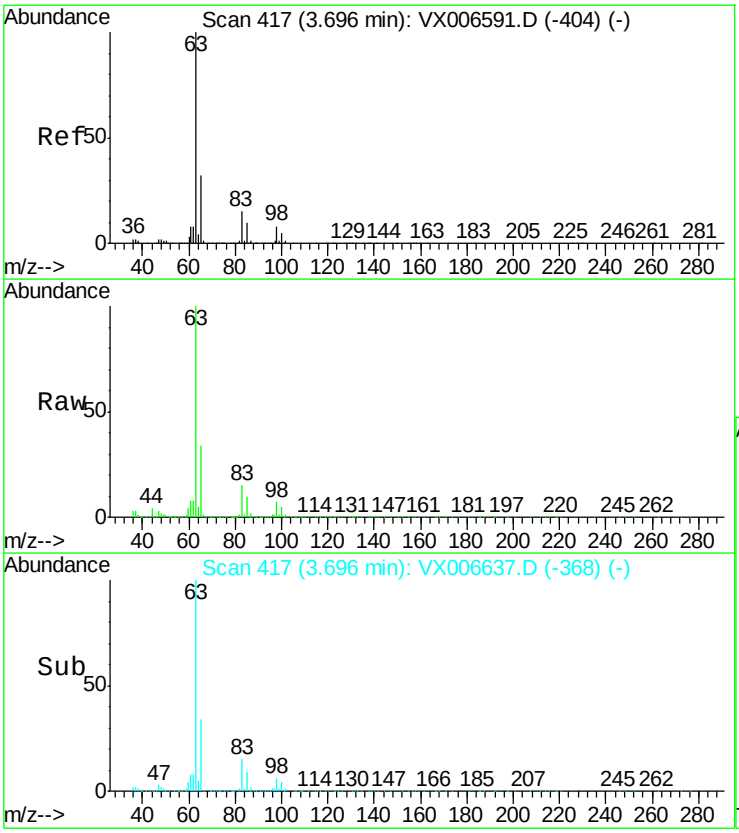


#23
Vinyl Acetate
Concen: 99.197 ug/l
RT: 3.82 min Scan# 438
Delta R.T. -0.00 min
Lab File: VX006637.D
Acq: 19 Dec 2018 15:24

Tgt Ion: 43 Resp: 1320357

Ion	Ratio	Lower	Upper
43	100		
86	12.0	9.2	13.8

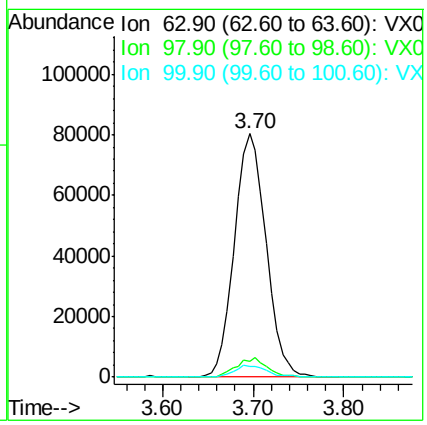




#24
1,1-Dichloroethane
Concen: 19.989 ug/l
RT: 3.70 min Scan# 417
Delta R.T. -0.00 min
Lab File: VX006637.D
Acq: 19 Dec 2018 15:24

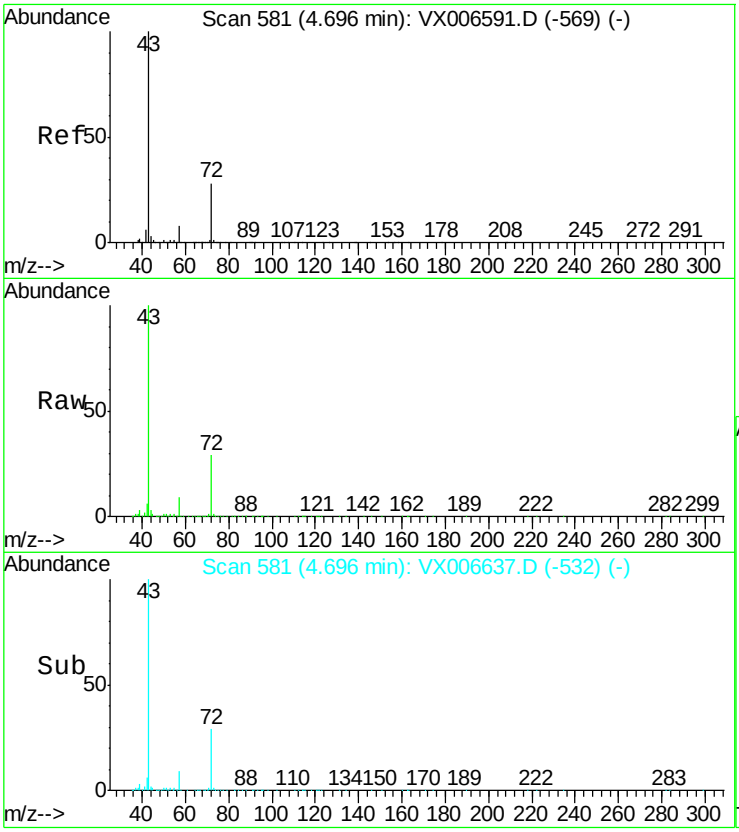
Tgt Ion: 63 Resp: 194174

Ion	Ratio	Lower	Upper
63	100		
98	6.5	3.9	11.5
100	4.6	2.4	7.2



Instrument :
MSVOA_X
ClientSampleId :
VX1219WBS01

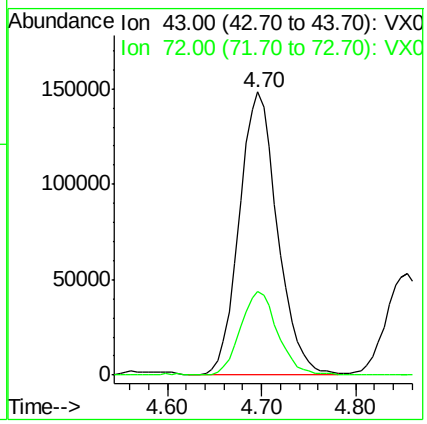
Manual Integrations APPROVED
MMDadoda
12/20/2018 10:00:22 AM

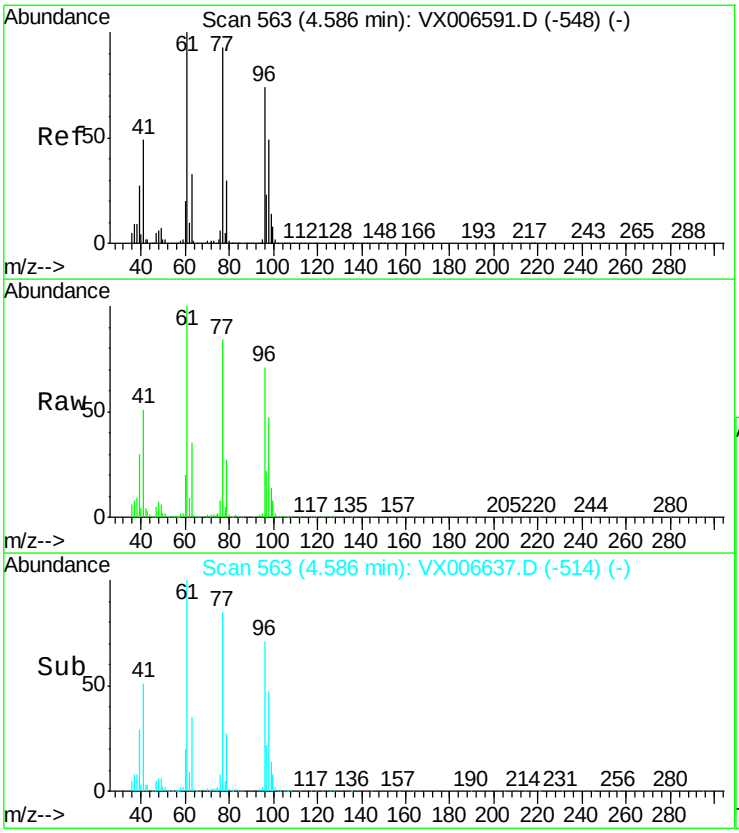


#25
2-Butanone
Concen: 101.760 ug/l
RT: 4.70 min Scan# 581
Delta R.T. -0.00 min
Lab File: VX006637.D
Acq: 19 Dec 2018 15:24

Tgt Ion: 43 Resp: 419186

Ion	Ratio	Lower	Upper
43	100		
72	29.2	22.4	33.6

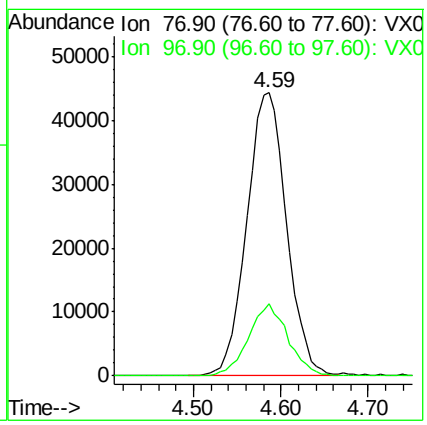




#26
2,2-Dichloropropane
Concen: 18.693 ug/l
RT: 4.59 min Scan# 563
Delta R.T. -0.00 min
Lab File: VX006637.D
Acq: 19 Dec 2018 15:24

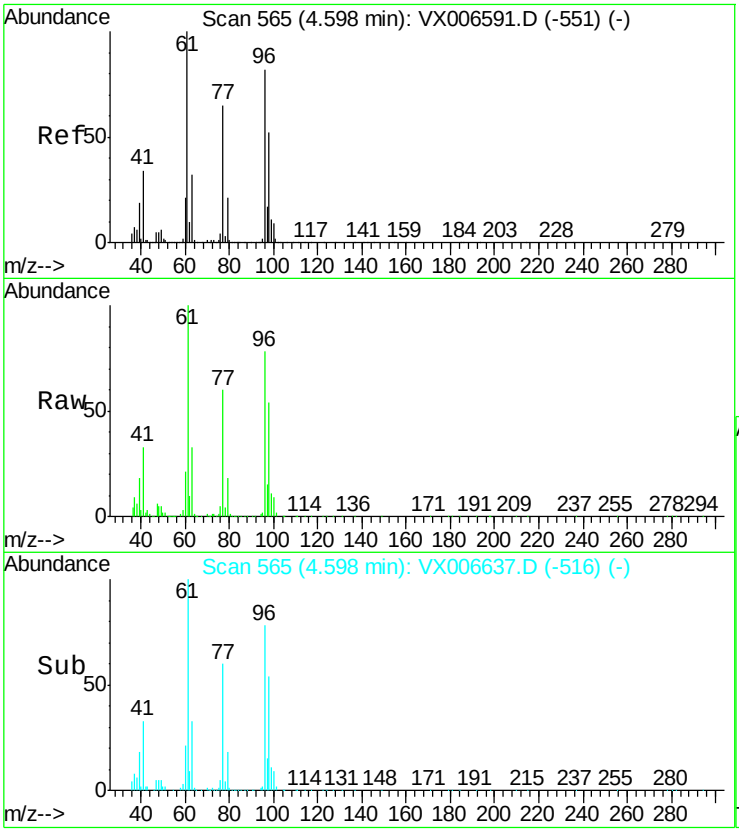
Tgt Ion: 77 Resp: 140269

Ion	Ratio	Lower	Upper
77	100		
97	25.2	12.4	37.4



Instrument :
MSVOA_X
ClientSampleId :
VX1219WBS01

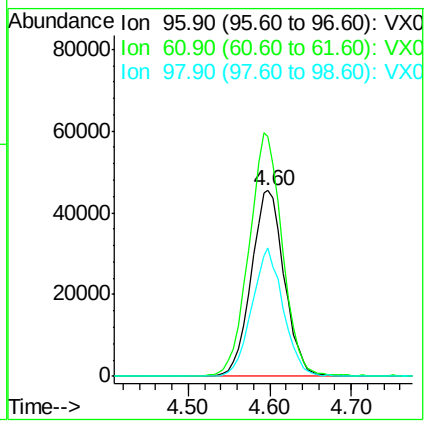
Manual Integrations APPROVED
MMDadoda
12/20/2018 10:00:22 AM

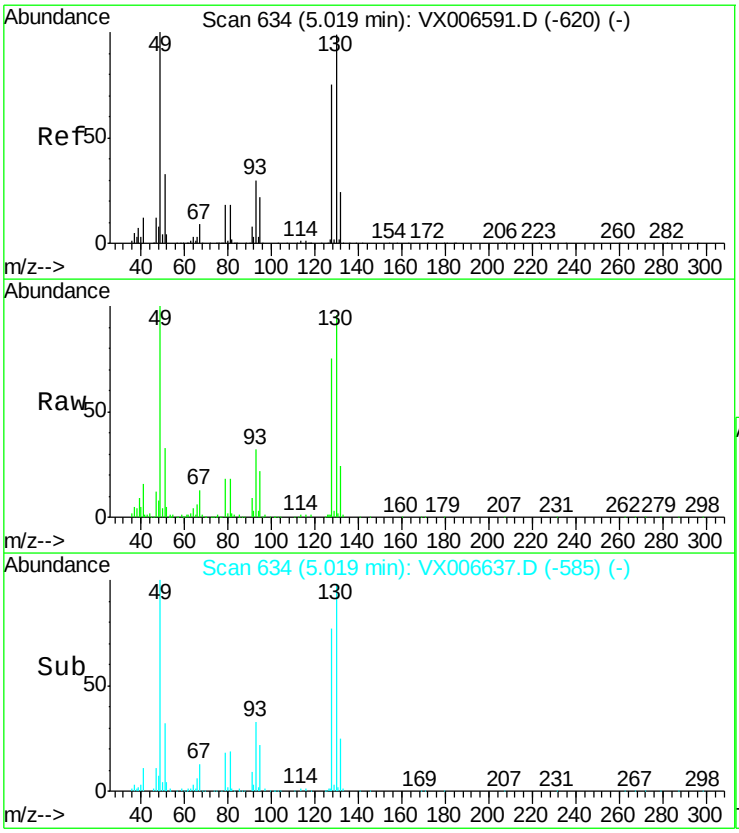


#27
cis-1,2-Dichloroethene
Concen: 19.830 ug/l
RT: 4.60 min Scan# 565
Delta R.T. -0.00 min
Lab File: VX006637.D
Acq: 19 Dec 2018 15:24

Tgt Ion: 96 Resp: 128104

Ion	Ratio	Lower	Upper
96	100		
61	132.2	0.0	258.6
98	65.9	0.0	132.0

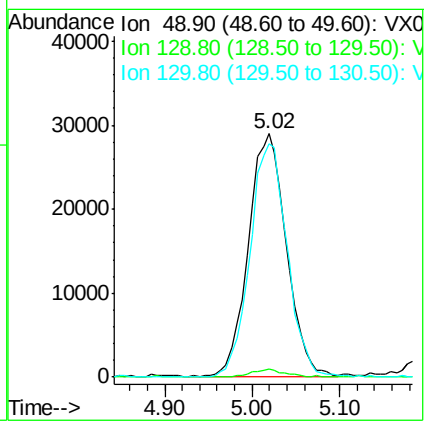




#28
Bromochloromethane
Concen: 20.116 ug/l
RT: 5.02 min Scan# 634
Delta R.T. -0.00 min
Lab File: VX006637.D
Acq: 19 Dec 2018 15:24

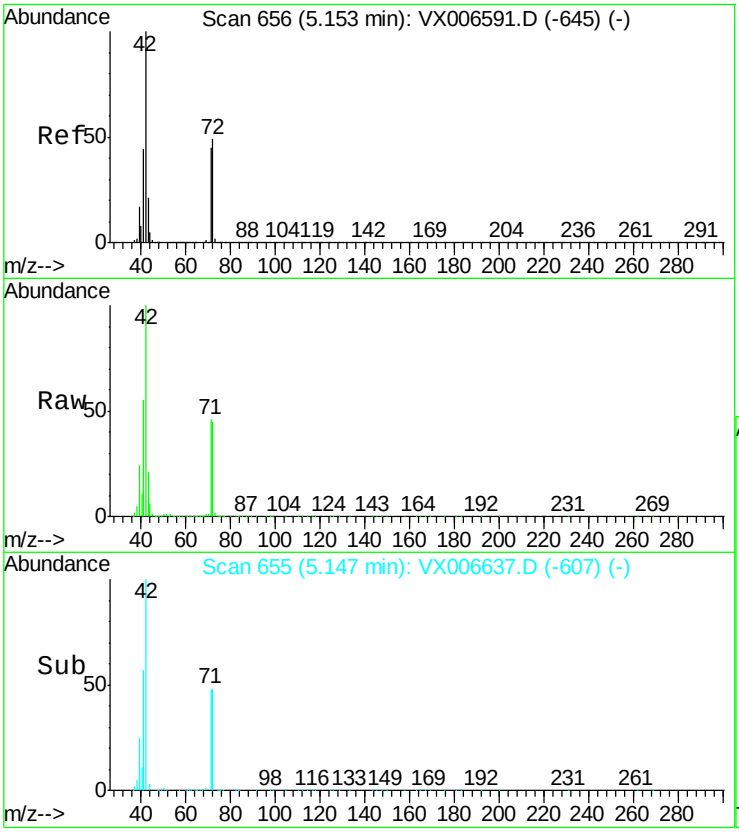
Tgt Ion: 49 Resp: 86909

Ion	Ratio	Lower	Upper
49	100		
129	2.8	0.0	5.4
130	95.0	77.7	116.5



Instrument :
MSVOA_X
ClientSampleId :
VX1219WBS01

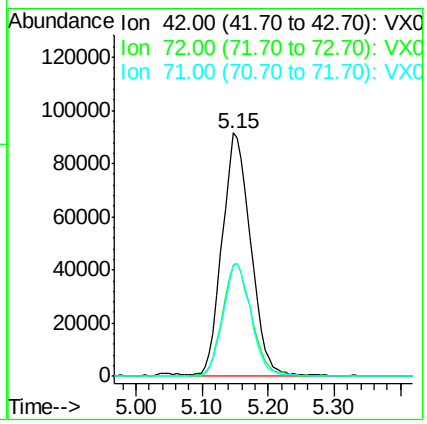
Manual Integrations APPROVED
MMDadoda
12/20/2018 10:00:22 AM

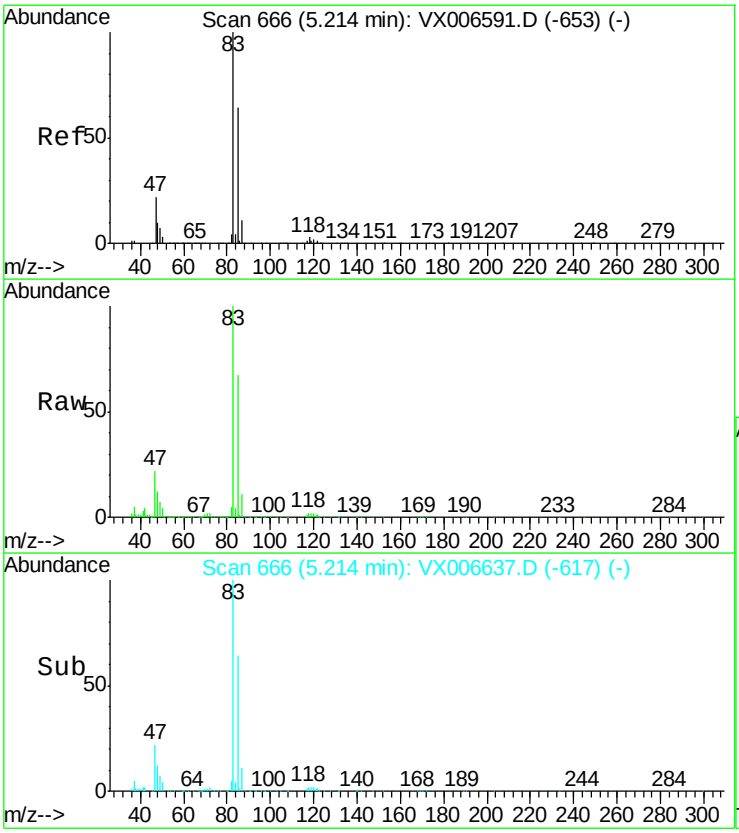


#29
Tetrahydrofuran
Concen: 100.778 ug/l
RT: 5.15 min Scan# 655
Delta R.T. -0.01 min
Lab File: VX006637.D
Acq: 19 Dec 2018 15:24

Tgt Ion: 42 Resp: 273425

Ion	Ratio	Lower	Upper
42	100		
72	47.0	38.9	58.3
71	45.7	36.2	54.4

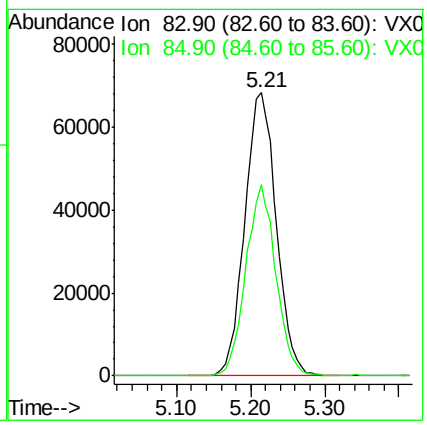




#30
Chloroform
Concen: 20.202 ug/l
RT: 5.21 min Scan# 666
Delta R.T. -0.00 min
Lab File: VX006637.D
Acq: 19 Dec 2018 15:24

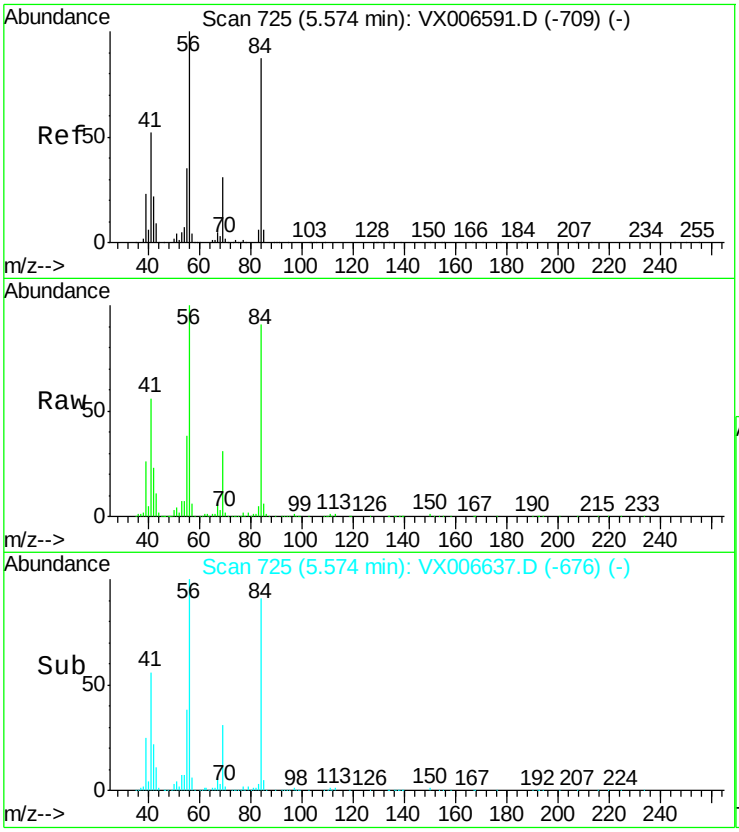
Tgt Ion: 83 Resp: 203217

Ion	Ratio	Lower	Upper
83	100		
85	67.2	51.2	76.8



Instrument :
MSVOA_X
ClientSampleId :
VX1219WBS01

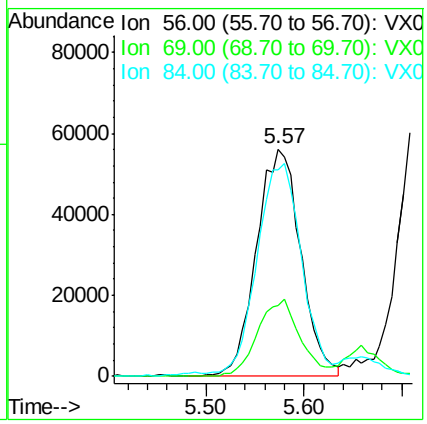
Manual Integrations APPROVED
MMDadoda
12/20/2018 10:00:22 AM

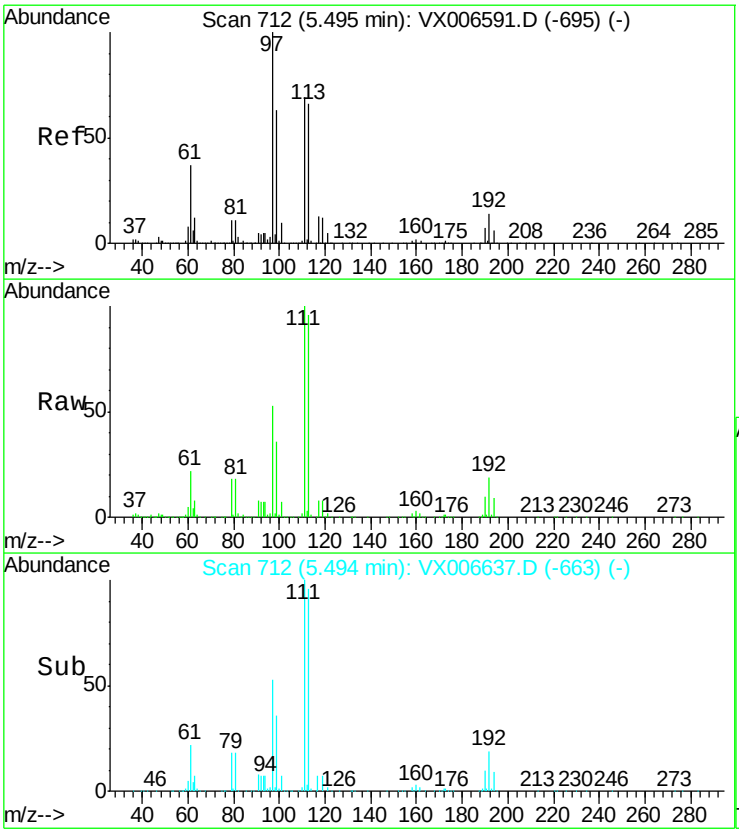


#31
Cyclohexane
Concen: 19.988 ug/l
RT: 5.57 min Scan# 725
Delta R.T. -0.00 min
Lab File: VX006637.D
Acq: 19 Dec 2018 15:24

Tgt Ion: 56 Resp: 176394

Ion	Ratio	Lower	Upper
56	100		
69	30.7	24.4	36.6
84	89.2	70.0	105.0

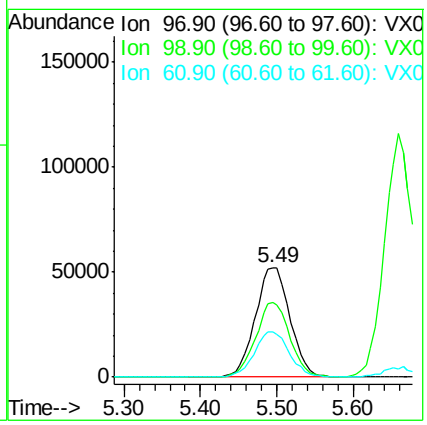




#32
1,1,1-Trichloroethane
Concen: 19.471 ug/l
RT: 5.49 min Scan# 712
Delta R.T. -0.00 min
Lab File: VX006637.D
Acq: 19 Dec 2018 15:24

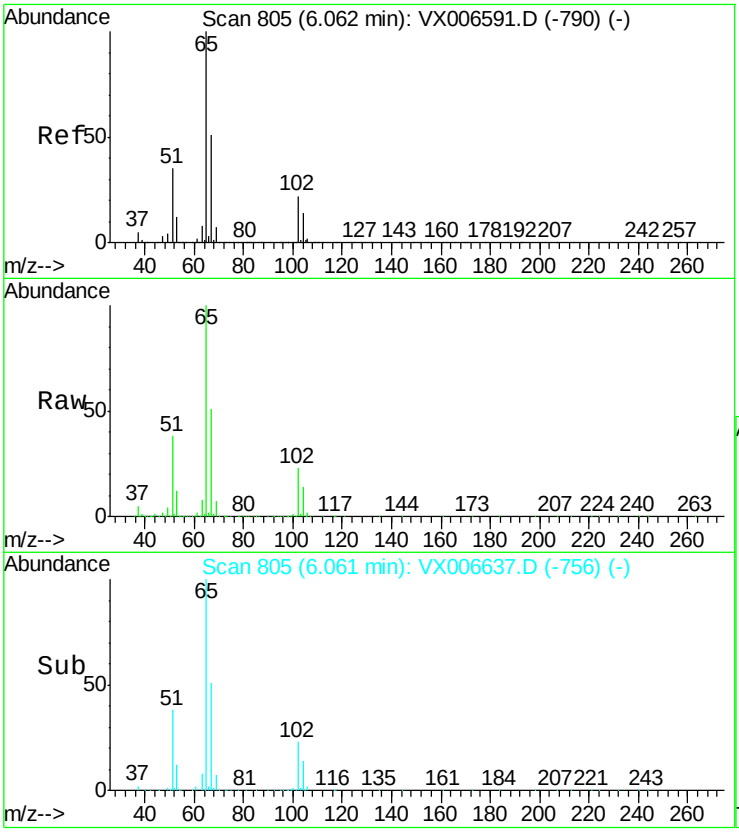
Tgt Ion: 97 Resp: 165387

Ion	Ratio	Lower	Upper
97	100		
99	67.0	51.7	77.5
61	41.6	31.3	46.9



Instrument :
MSVOA_X
ClientSampleId :
VX1219WBS01

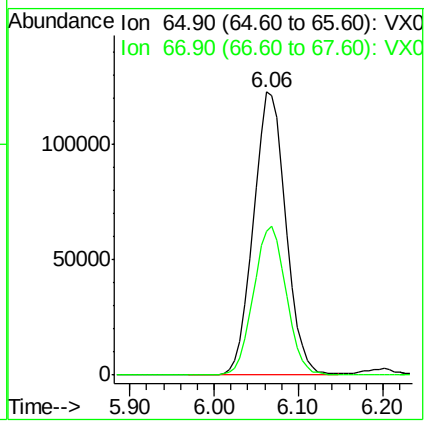
Manual Integrations APPROVED
MMDadoda
12/20/2018 10:00:22 AM

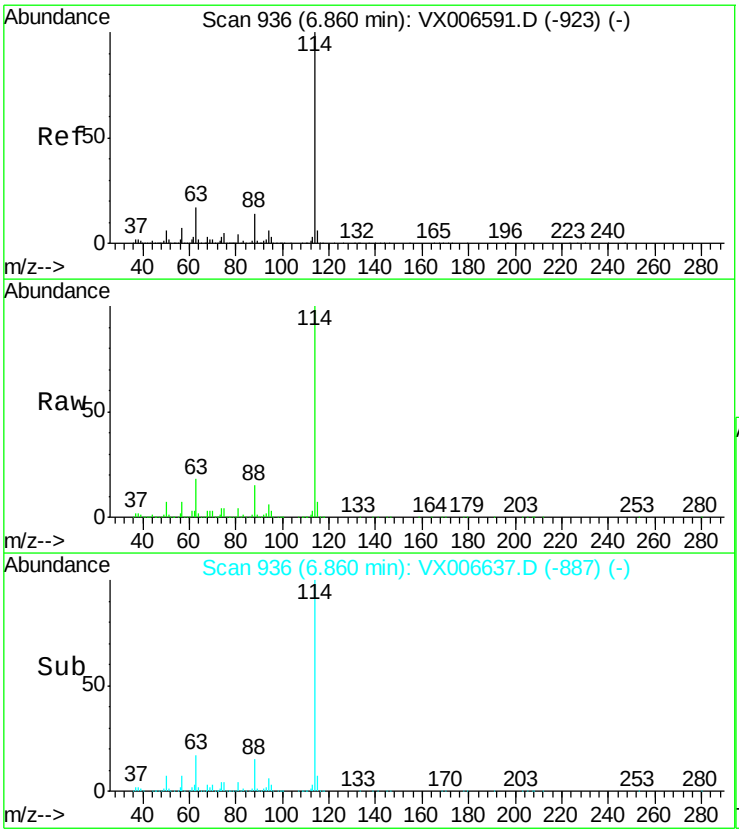


#33
1,2-Dichloroethane-d4
Concen: 50.523 ug/l
RT: 6.06 min Scan# 805
Delta R.T. -0.00 min
Lab File: VX006637.D
Acq: 19 Dec 2018 15:24

Tgt Ion: 65 Resp: 322048

Ion	Ratio	Lower	Upper
65	100		
67	52.9	0.0	105.0

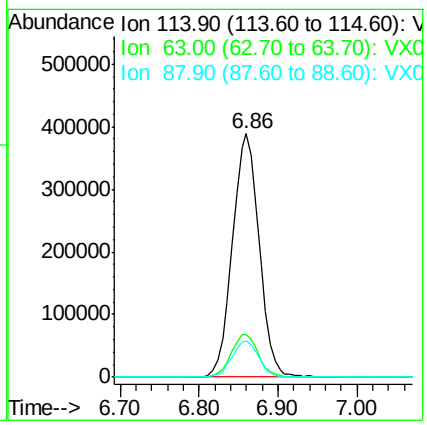




#34
1,4-Difluorobenzene
Concen: 50.000 ug/l
RT: 6.86 min Scan# 936
Delta R.T. -0.00 min
Lab File: VX006637.D
Acq: 19 Dec 2018 15:24

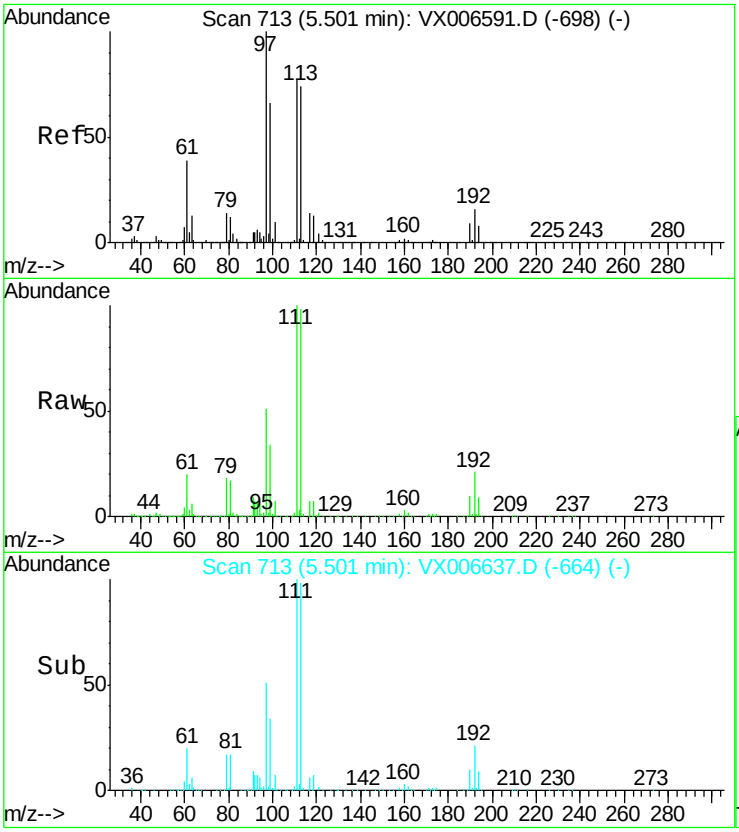
Tgt Ion:114 Resp: 914082

Ion	Ratio	Lower	Upper
114	100		
63	17.5	0.0	34.8
88	15.2	0.0	28.8



Instrument :
MSVOA_X
ClientSampleId :
VX1219WBS01

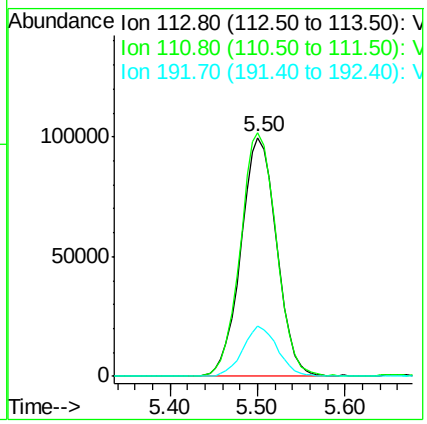
Manual Integrations APPROVED
MMDadoda
12/20/2018 10:00:22 AM

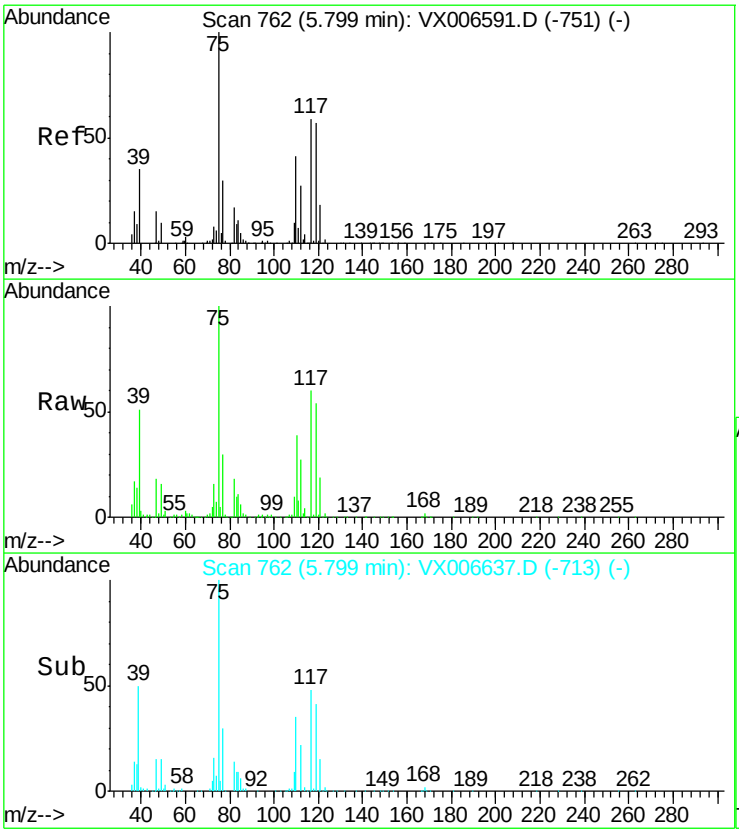


#35
Dibromofluoromethane
Concen: 48.929 ug/l
RT: 5.50 min Scan# 713
Delta R.T. -0.00 min
Lab File: VX006637.D
Acq: 19 Dec 2018 15:24

Tgt Ion:113 Resp: 282834

Ion	Ratio	Lower	Upper
113	100		
111	102.6	81.6	122.4
192	20.4	16.7	25.1

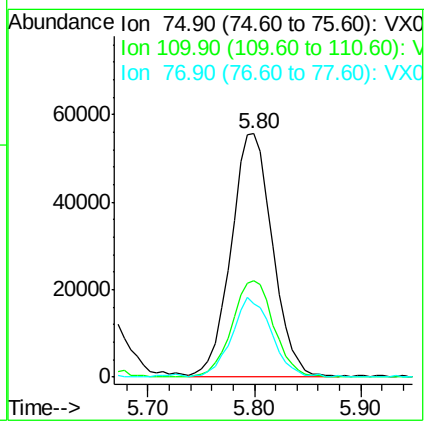




#36
1,1-Dichloropropene
Concen: 19.996 ug/l
RT: 5.80 min Scan# 762
Delta R.T. -0.00 min
Lab File: VX006637.D
Acq: 19 Dec 2018 15:24

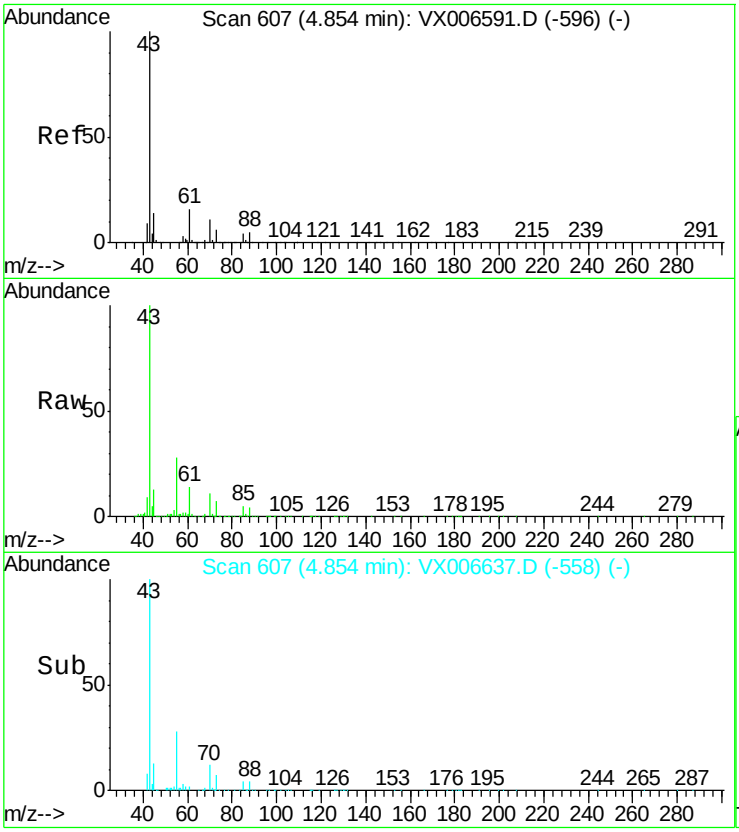
Tgt Ion: 75 Resp: 151387

Ion	Ratio	Lower	Upper
75	100		
110	40.4	20.2	60.5
77	31.0	24.8	37.2



Instrument :
MSVOA_X
ClientSampleId :
VX1219WBS01

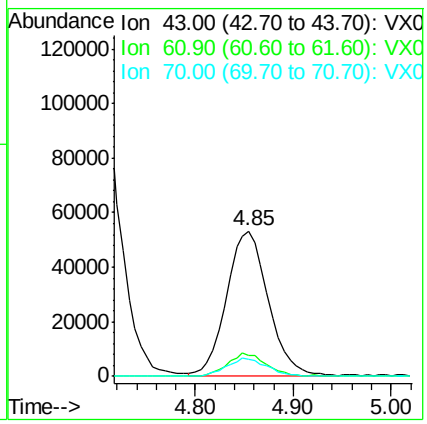
Manual Integrations APPROVED
MMDadoda
12/20/2018 10:00:22 AM

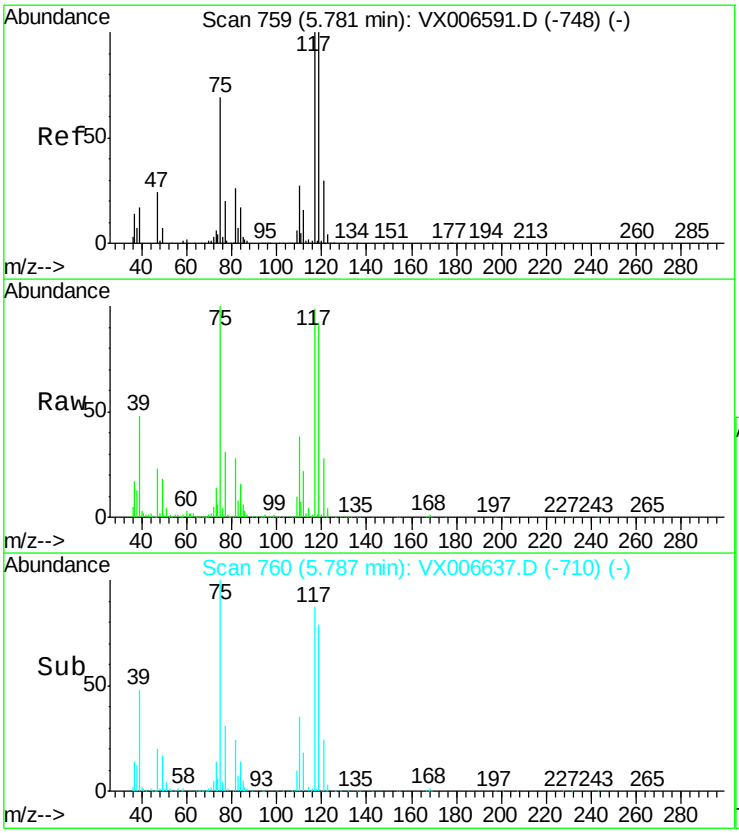


#37
Ethyl Acetate
Concen: 19.733 ug/l
RT: 4.85 min Scan# 607
Delta R.T. -0.00 min
Lab File: VX006637.D
Acq: 19 Dec 2018 15:24

Tgt Ion: 43 Resp: 155492

Ion	Ratio	Lower	Upper
43	100		
61	15.2	11.9	17.9
70	12.2	9.7	14.5

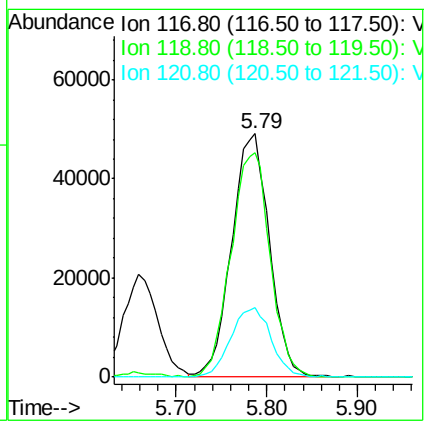




#38
Carbon Tetrachloride
Concen: 19.255 ug/l
RT: 5.79 min Scan# 760
Delta R.T. 0.01 min
Lab File: VX006637.D
Acq: 19 Dec 2018 15:24

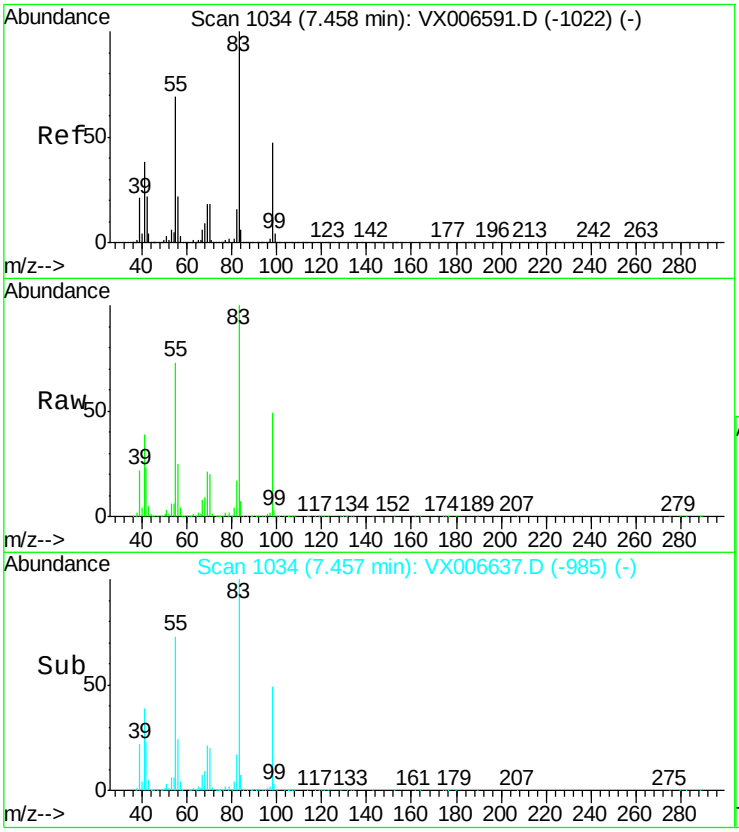
Tgt Ion:117 Resp: 141673

Ion	Ratio	Lower	Upper
117	100		
119	92.2	79.4	119.2
121	28.5	24.0	36.0



Instrument :
MSVOA_X
ClientSampleId :
VX1219WBS01

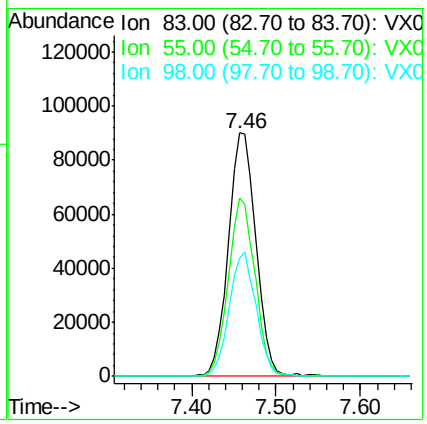
Manual Integrations APPROVED
MMDadoda
12/20/2018 10:00:22 AM

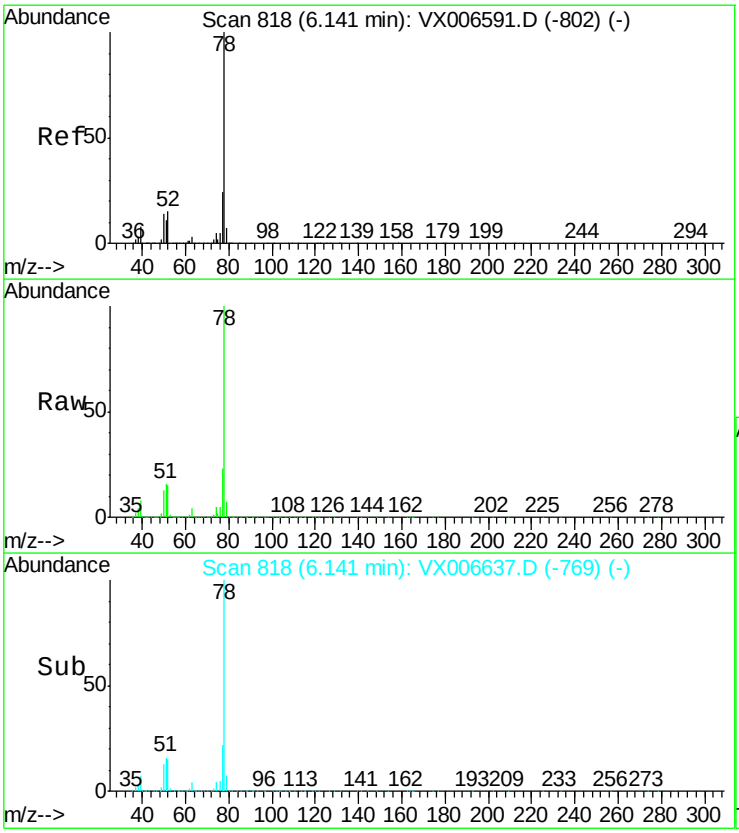


#39
Methylcyclohexane
Concen: 20.165 ug/l
RT: 7.46 min Scan# 1034
Delta R.T. -0.00 min
Lab File: VX006637.D
Acq: 19 Dec 2018 15:24

Tgt Ion: 83 Resp: 200983

Ion	Ratio	Lower	Upper
83	100		
55	72.9	54.9	82.3
98	48.6	37.9	56.9

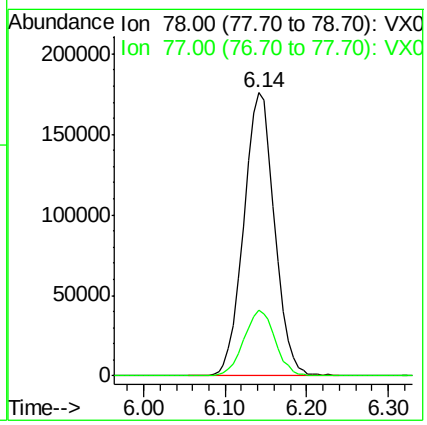




#40
Benzene
Concen: 20.131 ug/l
RT: 6.14 min Scan# 818
Delta R.T. -0.00 min
Lab File: VX006637.D
Acq: 19 Dec 2018 15:24

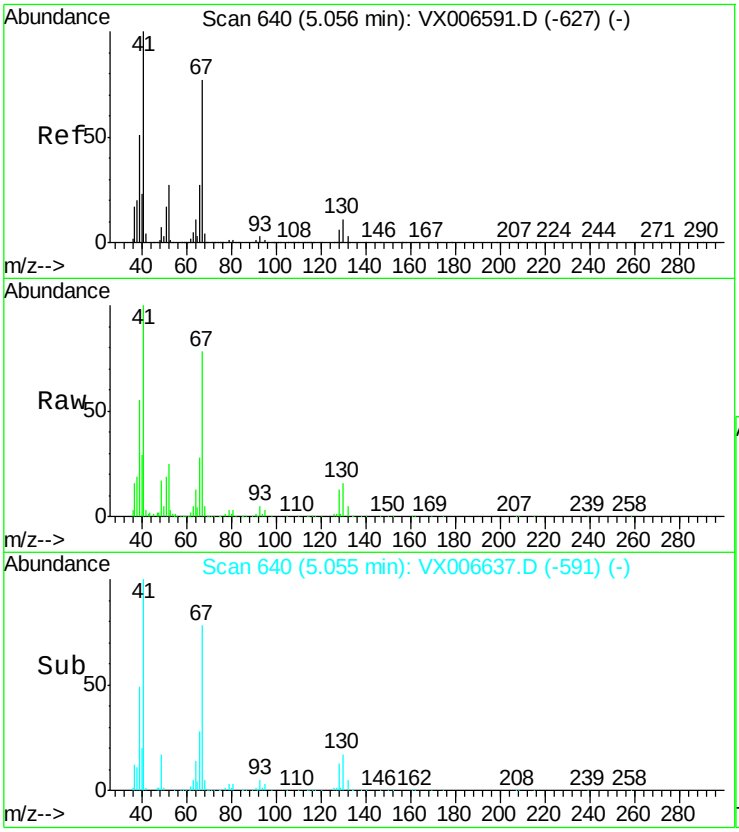
Tgt Ion: 78 Resp: 463272

Ion	Ratio	Lower	Upper
78	100		
77	23.1	19.2	28.8



Instrument :
MSVOA_X
ClientSampleId :
VX1219WBS01

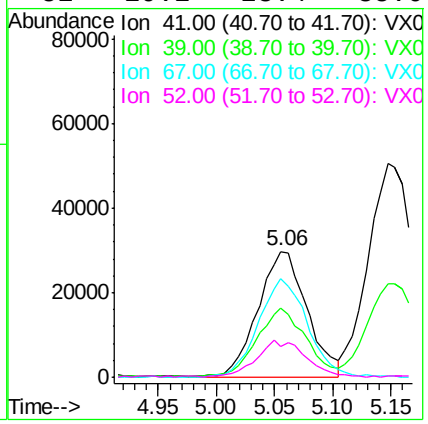
Manual Integrations APPROVED
MMDadoda
12/20/2018 10:00:22 AM

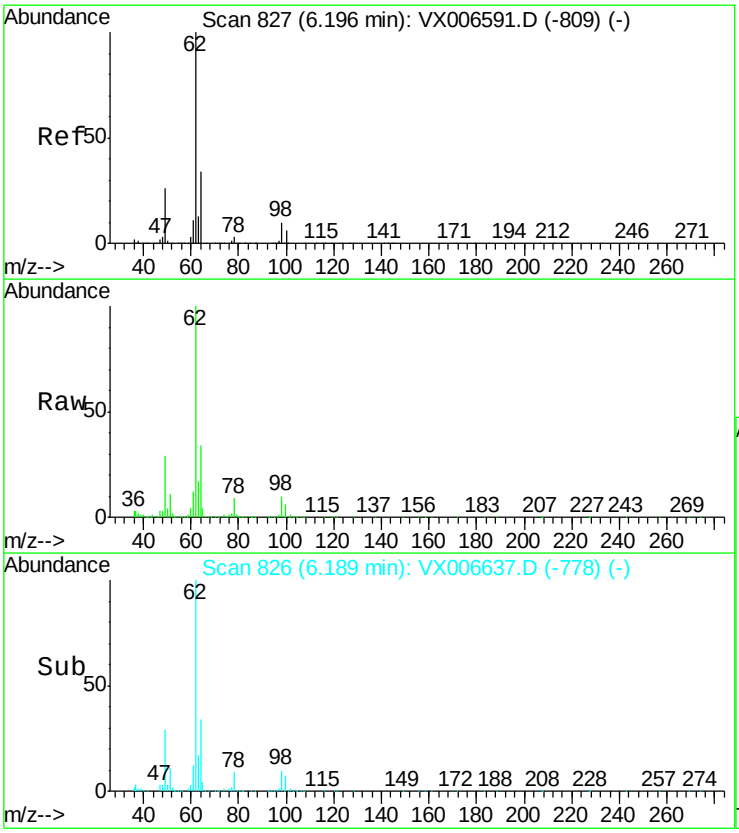


#41
Methacrylonitrile
Concen: 20.596 ug/l
RT: 5.06 min Scan# 640
Delta R.T. -0.00 min
Lab File: VX006637.D
Acq: 19 Dec 2018 15:24

Tgt Ion: 41 Resp: 86164

Ion	Ratio	Lower	Upper
41	100		
39	55.1	42.8	64.2
67	79.8	62.1	93.1
52	29.2	23.4	35.0

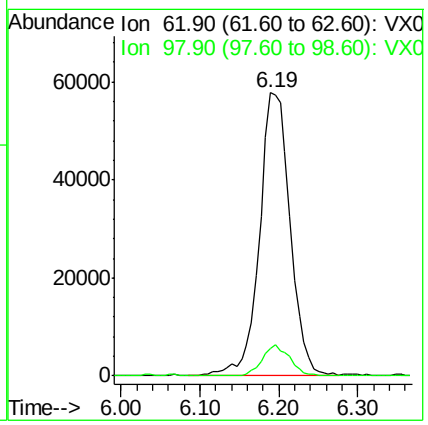




#42
1,2-Dichloroethane
Concen: 19.741 ug/l
RT: 6.19 min Scan# 826
Delta R.T. -0.01 min
Lab File: VX006637.D
Acq: 19 Dec 2018 15:24

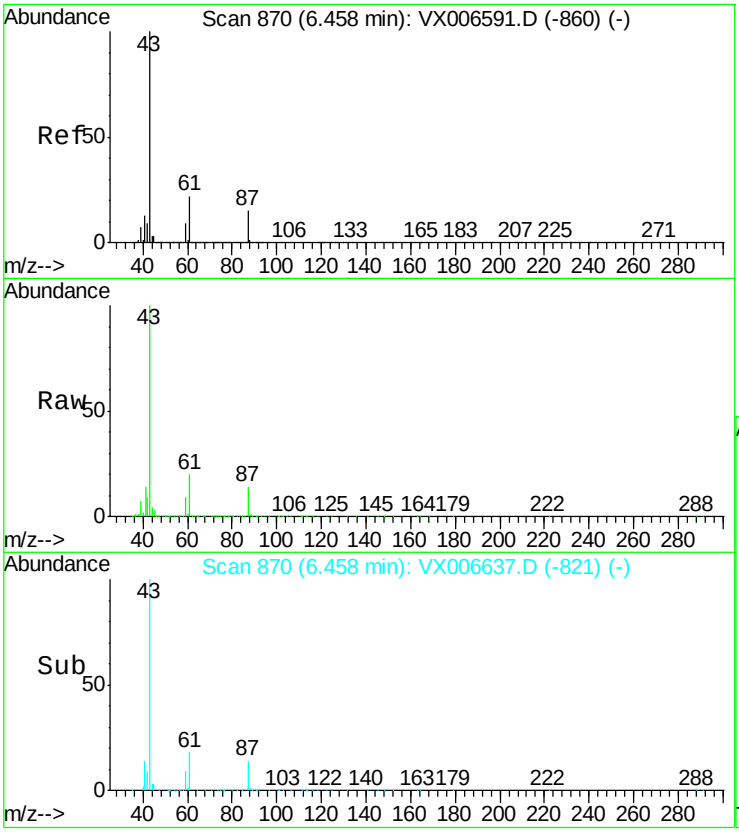
Tgt Ion: 62 Resp: 154801

Ion	Ratio	Lower	Upper
62	100		
98	10.0	0.0	20.2



Instrument :
MSVOA_X
ClientSampleId :
VX1219WBS01

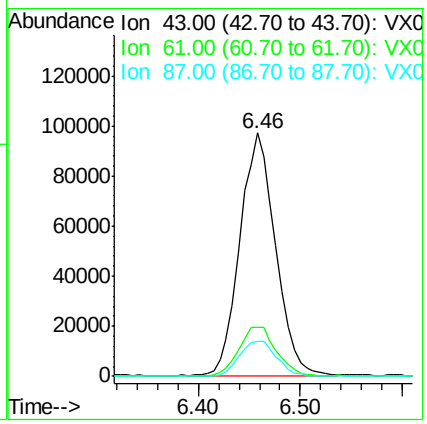
Manual Integrations APPROVED
MMDadoda
12/20/2018 10:00:22 AM

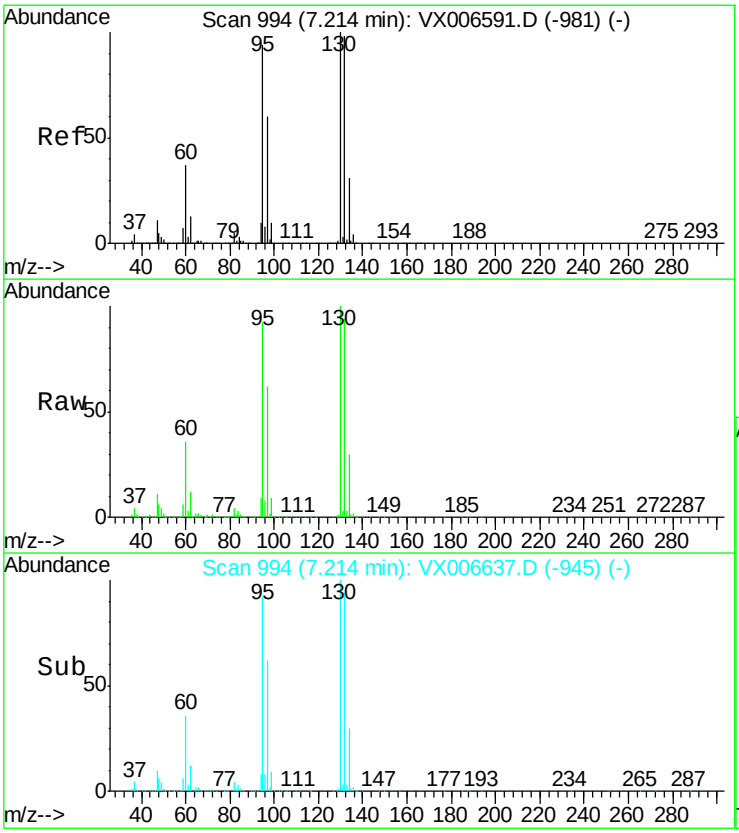


#43
Isopropyl Acetate
Concen: 19.632 ug/l
RT: 6.46 min Scan# 870
Delta R.T. -0.00 min
Lab File: VX006637.D
Acq: 19 Dec 2018 15:24

Tgt Ion: 43 Resp: 235371

Ion	Ratio	Lower	Upper
43	100		
61	21.5	16.8	25.2
87	15.3	12.4	18.6

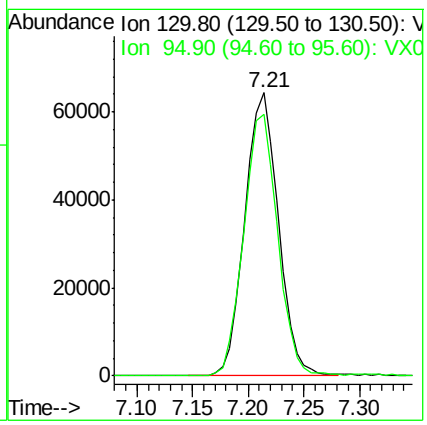




#44
Trichloroethene
Concen: 19.458 ug/l
RT: 7.21 min Scan# 994
Delta R.T. -0.00 min
Lab File: VX006637.D
Acq: 19 Dec 2018 15:24

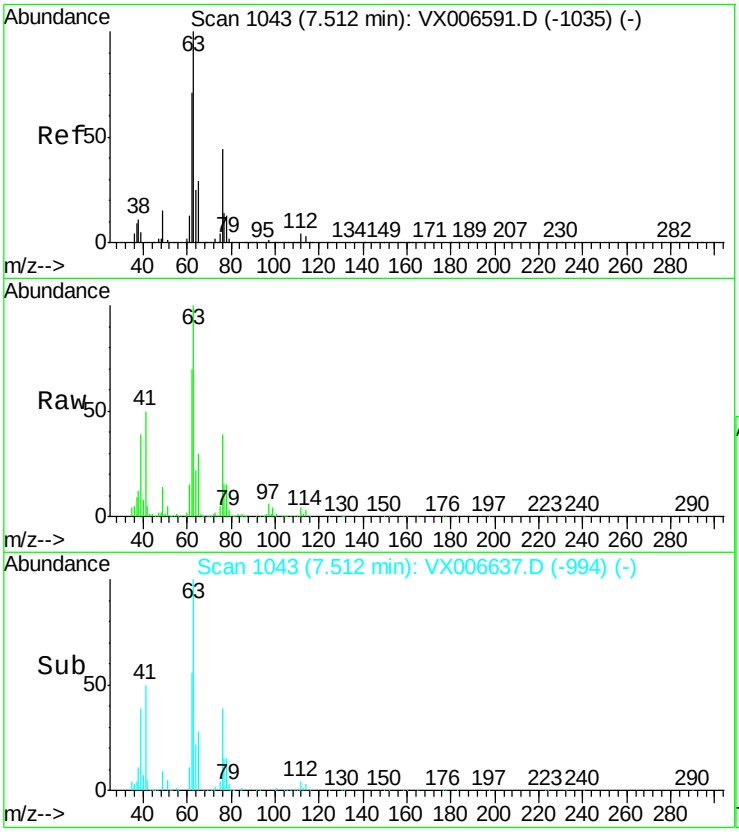
Tgt Ion:130 Resp: 135526

Ion	Ratio	Lower	Upper
130	100		
95	92.2	0.0	187.0



Instrument :
MSVOA_X
ClientSampleId :
VX1219WBS01

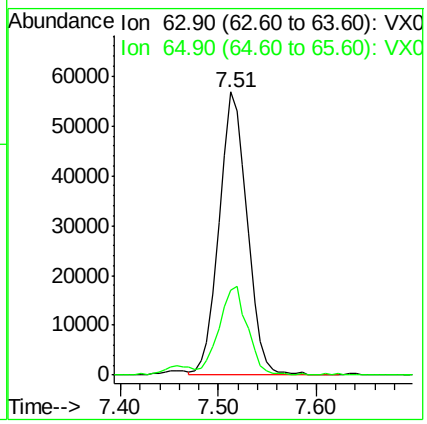
Manual Integrations APPROVED
MMDadoda
12/20/2018 10:00:22 AM

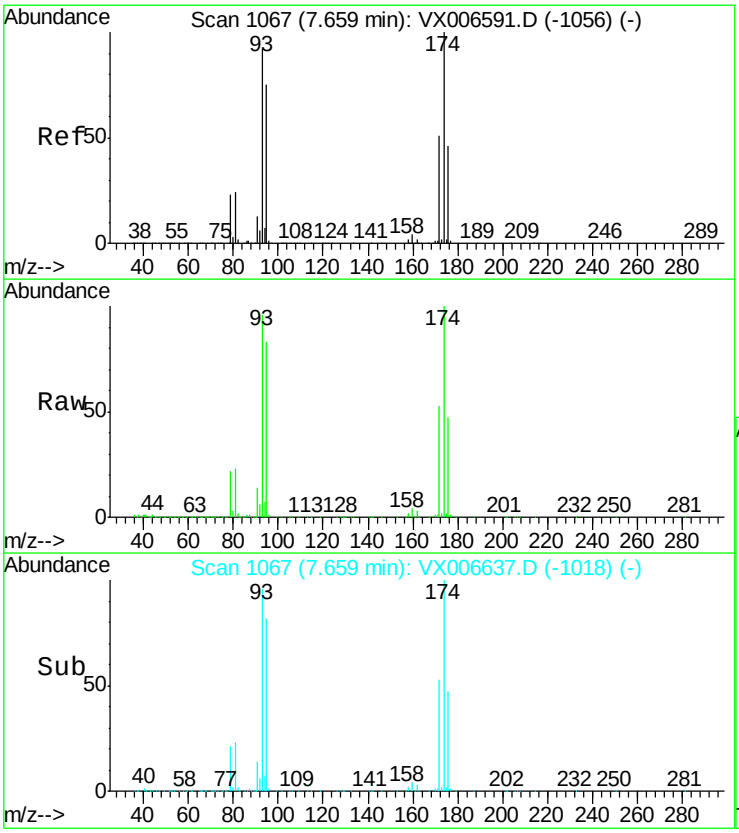


#45
1,2-Dichloropropane
Concen: 20.114 ug/l
RT: 7.51 min Scan# 1043
Delta R.T. -0.00 min
Lab File: VX006637.D
Acq: 19 Dec 2018 15:24

Tgt Ion: 63 Resp: 112638

Ion	Ratio	Lower	Upper
63	100		
65	29.4	25.4	38.0

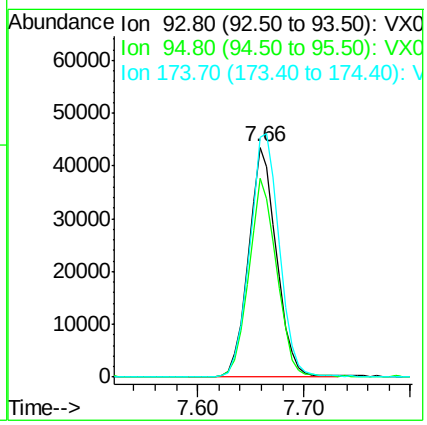




#46
Dibromomethane
Concen: 19.584 ug/l
RT: 7.66 min Scan# 1067
Delta R.T. -0.00 min
Lab File: VX006637.D
Acq: 19 Dec 2018 15:24

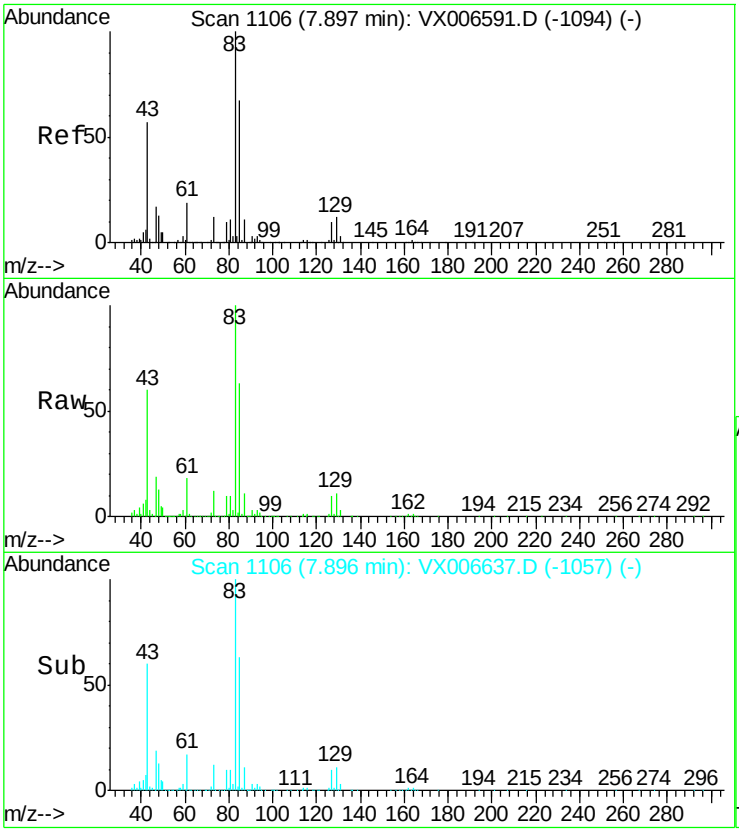
Tgt Ion: 93 Resp: 80668

Ion	Ratio	Lower	Upper
93	100		
95	85.5	66.2	99.4
174	111.5	91.0	136.4



Instrument :
MSVOA_X
ClientSampleId :
VX1219WBS01

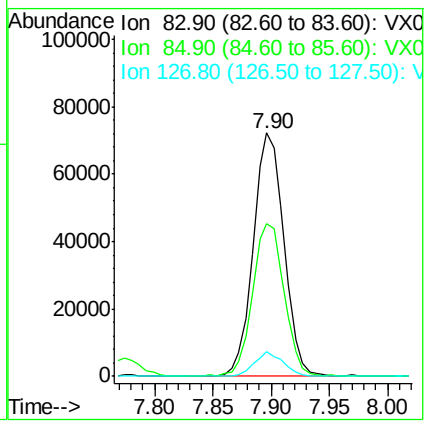
Manual Integrations APPROVED
MMDadoda
12/20/2018 10:00:22 AM

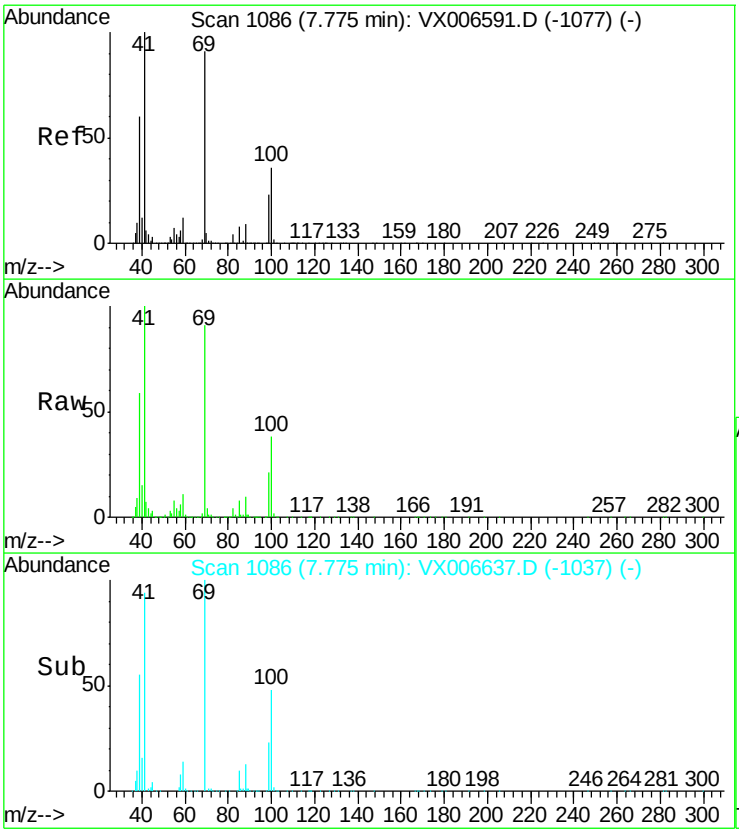


#47
Bromodichloromethane
Concen: 19.330 ug/l
RT: 7.90 min Scan# 1106
Delta R.T. -0.00 min
Lab File: VX006637.D
Acq: 19 Dec 2018 15:24

Tgt Ion: 83 Resp: 132189

Ion	Ratio	Lower	Upper
83	100		
85	62.3	53.2	79.8
127	10.1	7.8	11.6

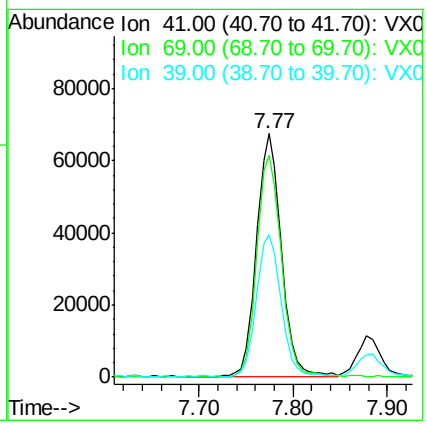




#48
Methyl methacrylate
Concen: 20.466 ug/l
RT: 7.77 min Scan# 1086
Delta R.T. -0.00 min
Lab File: VX006637.D
Acq: 19 Dec 2018 15:24

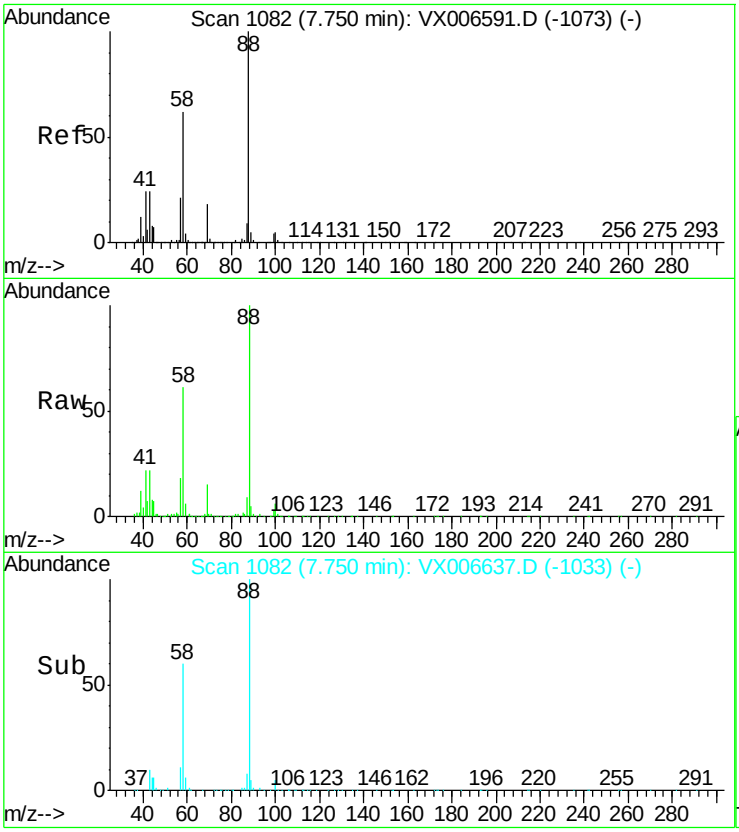
Tgt Ion: 41 Resp: 124778

Ion	Ratio	Lower	Upper
41	100		
69	91.3	72.4	108.6
39	57.9	45.8	68.8



Instrument :
MSVOA_X
ClientSampleId :
VX1219WBS01

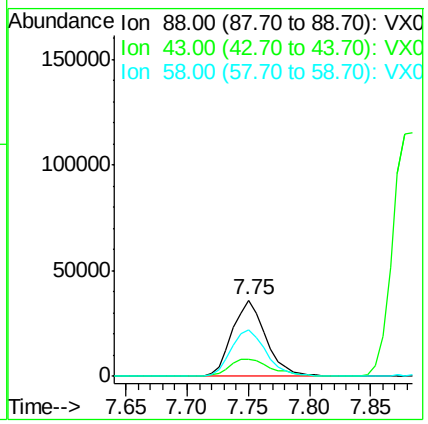
Manual Integrations APPROVED
MMDadoda
12/20/2018 10:00:22 AM

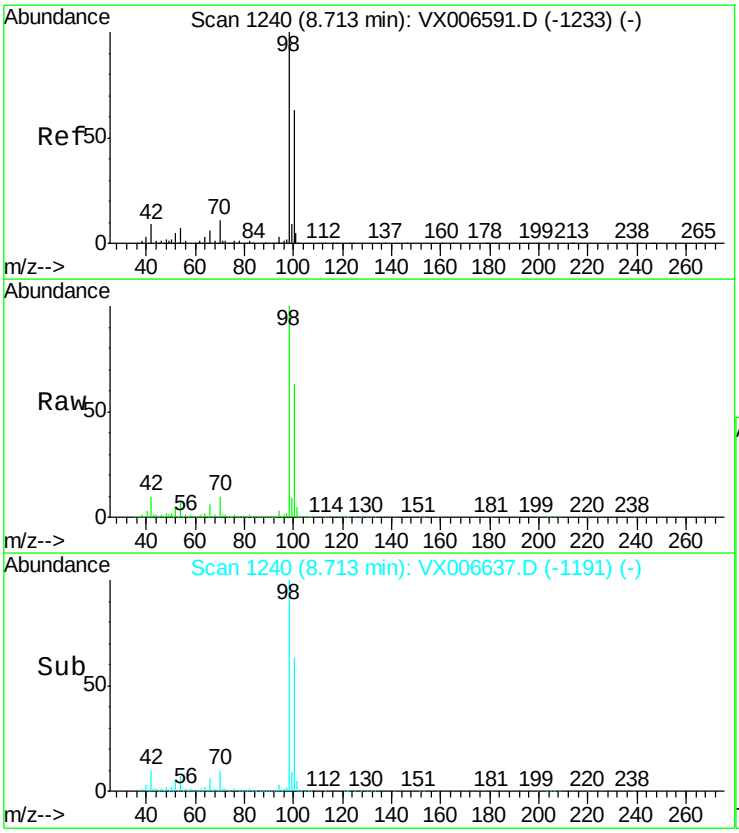


#49
1,4-Dioxane
Concen: 421.087 ug/l
RT: 7.75 min Scan# 1082
Delta R.T. 0.00 min
Lab File: VX006637.D
Acq: 19 Dec 2018 15:24

Tgt Ion: 88 Resp: 69009

Ion	Ratio	Lower	Upper
88	100		
43	27.2	22.2	33.4
58	63.7	51.0	76.4

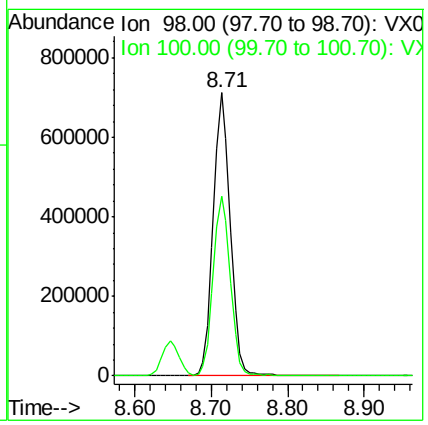




#50
Toluene-d8
Concen: 50.459 ug/l
RT: 8.71 min Scan# 1240
Delta R.T. -0.00 min
Lab File: VX006637.D
Acq: 19 Dec 2018 15:24

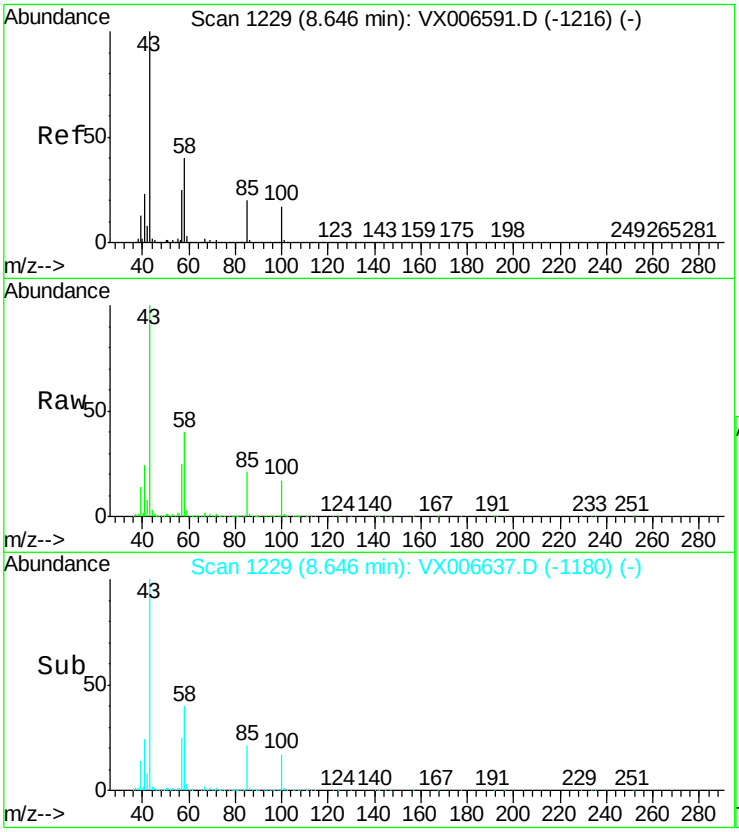
Tgt Ion: 98 Resp: 1099638

Ion	Ratio	Lower	Upper
98	100		
100	64.4	52.0	78.0



Instrument :
MSVOA_X
ClientSampleId :
VX1219WBS01

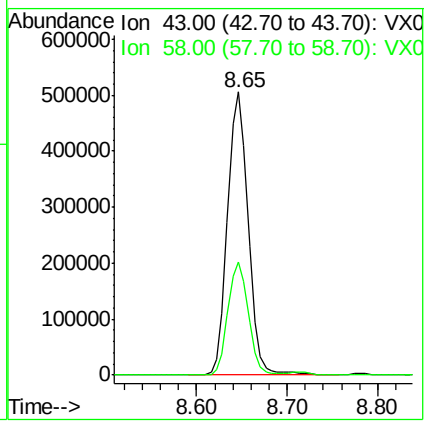
Manual Integrations APPROVED
MMDadoda
12/20/2018 10:00:22 AM

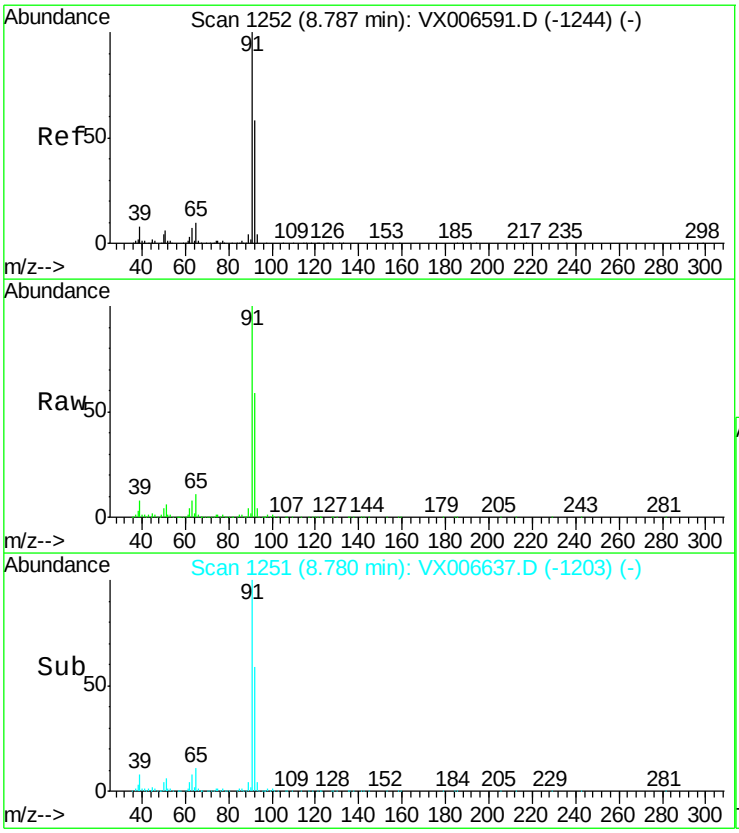


#51
4-Methyl-2-Pentanone
Concen: 105.214 ug/l
RT: 8.65 min Scan# 1229
Delta R.T. -0.00 min
Lab File: VX006637.D
Acq: 19 Dec 2018 15:24

Tgt Ion: 43 Resp: 802619

Ion	Ratio	Lower	Upper
43	100		
58	39.2	31.8	47.6

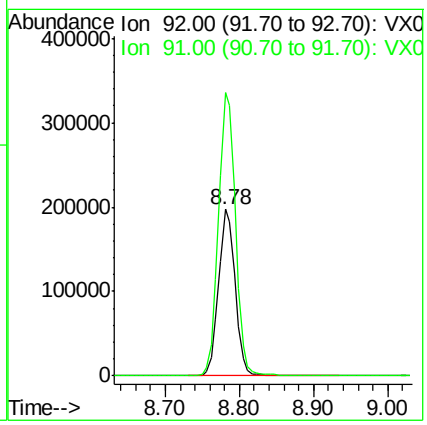




#52
Toluene
Concen: 20.526 ug/l
RT: 8.78 min Scan# 1251
Delta R.T. -0.01 min
Lab File: VX006637.D
Acq: 19 Dec 2018 15:24

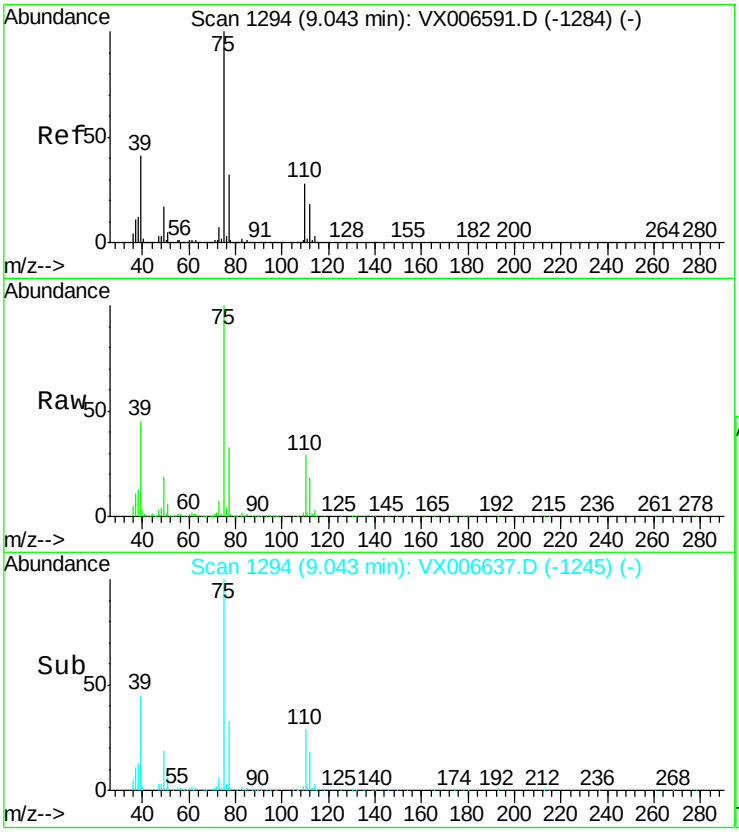
Tgt Ion: 92 Resp: 305155

Ion	Ratio	Lower	Upper
92	100		
91	173.0	137.6	206.4



Instrument :
MSVOA_X
ClientSampleId :
VX1219WBS01

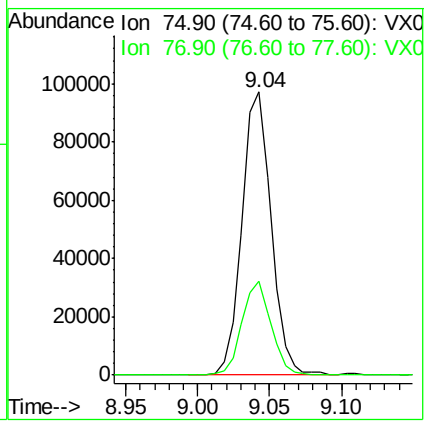
Manual Integrations APPROVED
MMDadoda
12/20/2018 10:00:22 AM

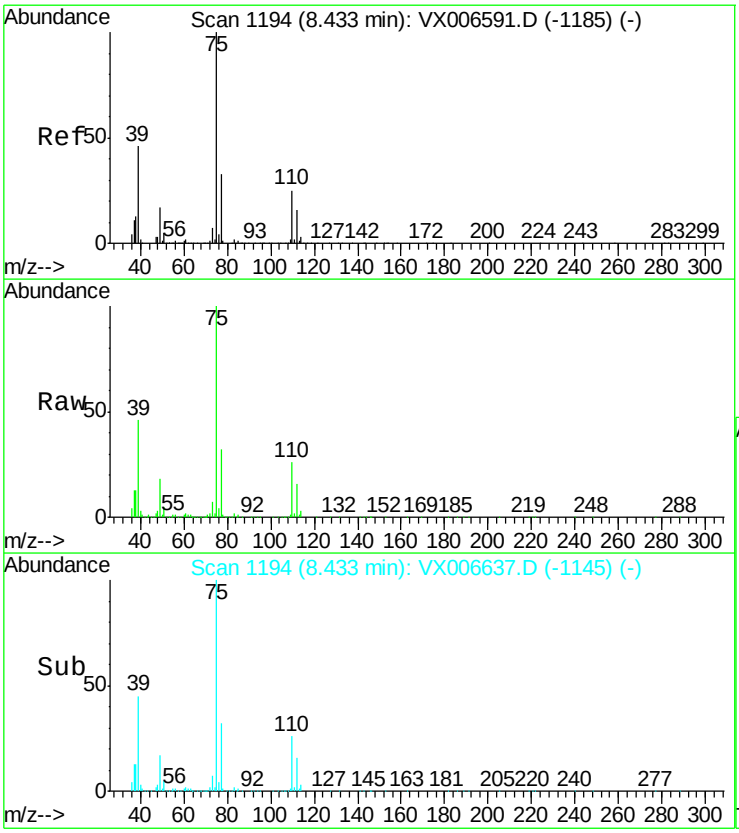


#53
t-1,3-Dichloropropene
Concen: 18.596 ug/l
RT: 9.04 min Scan# 1294
Delta R.T. -0.00 min
Lab File: VX006637.D
Acq: 19 Dec 2018 15:24

Tgt Ion: 75 Resp: 136394

Ion	Ratio	Lower	Upper
75	100		
77	33.1	25.4	38.0

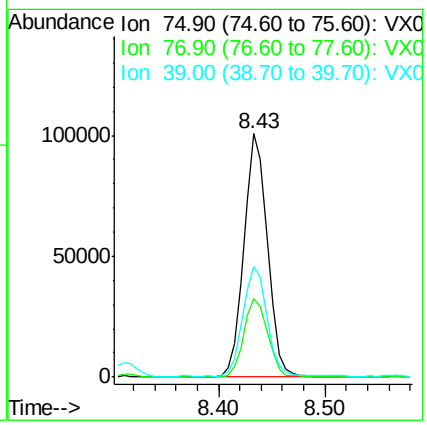




#54
cis-1,3-Dichloropropene
Concen: 19.494 ug/l
RT: 8.43 min Scan# 1194
Delta R.T. -0.00 min
Lab File: VX006637.D
Acq: 19 Dec 2018 15:24

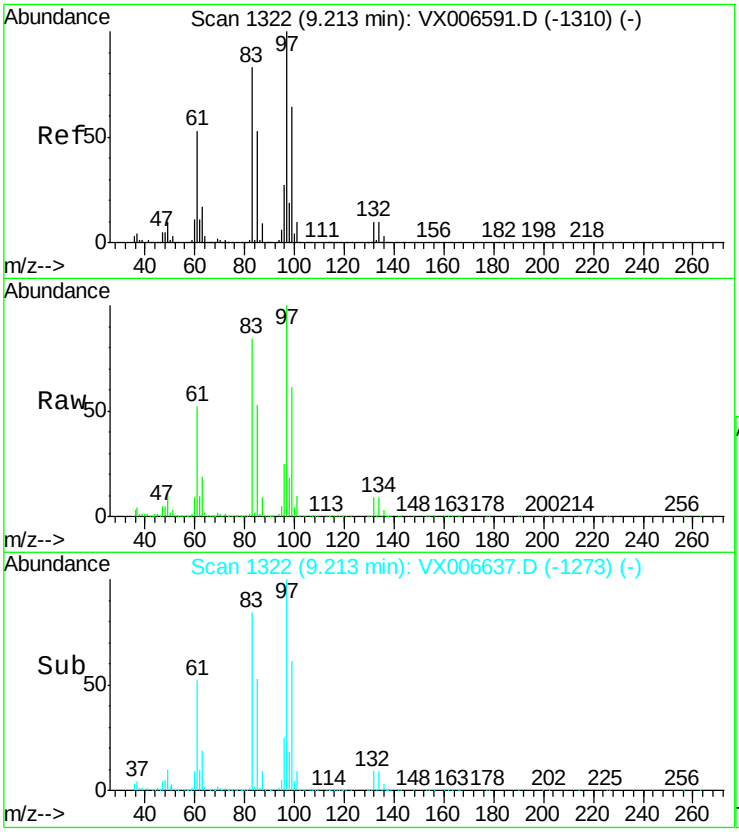
Tgt Ion: 75 Resp: 156882

Ion	Ratio	Lower	Upper
75	100		
77	32.1	26.2	39.2
39	45.1	36.7	55.1



Instrument :
MSVOA_X
ClientSampleId :
VX1219WBS01

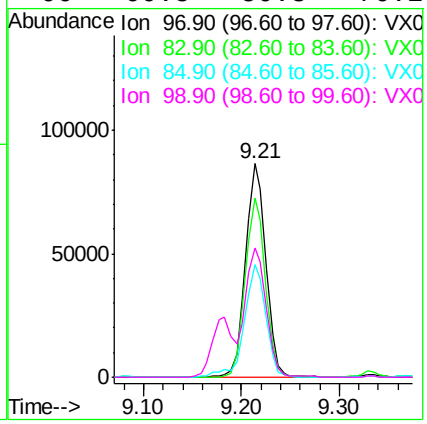
Manual Integrations APPROVED
MMDadoda
12/20/2018 10:00:22 AM

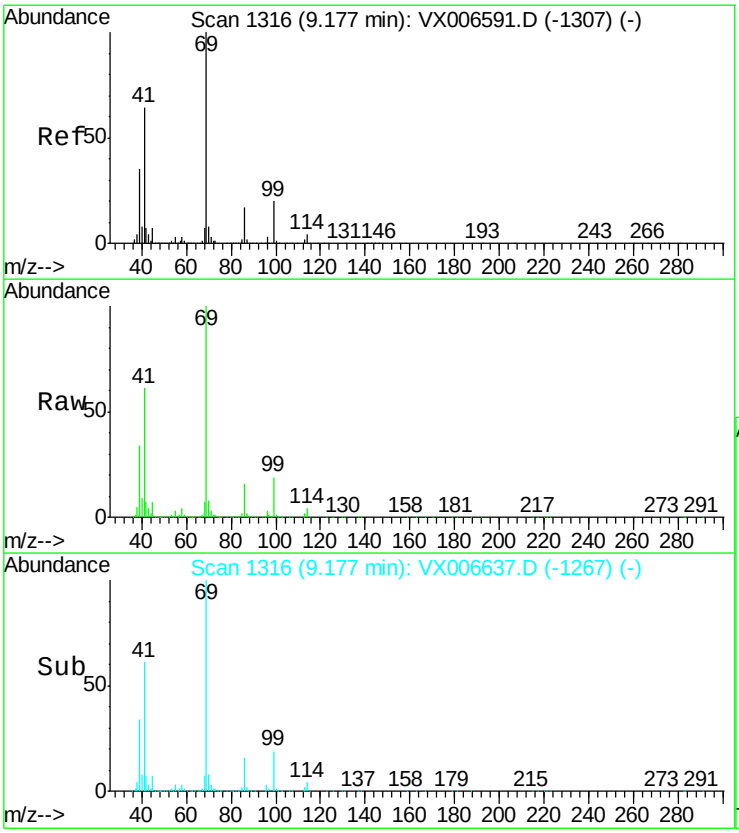


#55
1,1,2-Trichloroethane
Concen: 20.462 ug/l
RT: 9.21 min Scan# 1322
Delta R.T. -0.00 min
Lab File: VX006637.D
Acq: 19 Dec 2018 15:24

Tgt Ion: 97 Resp: 124519

Ion	Ratio	Lower	Upper
97	100		
83	84.1	66.6	99.8
85	52.9	42.7	64.1
99	60.5	50.8	76.2

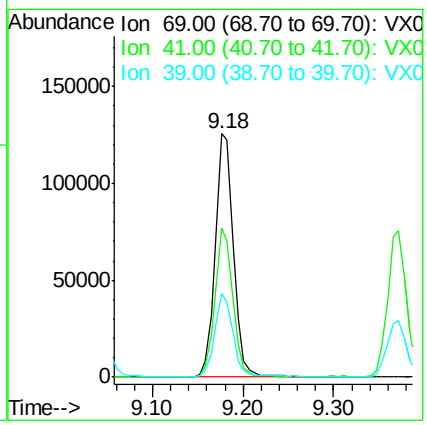




#56
Ethyl methacrylate
Concen: 20.736 ug/l
RT: 9.18 min Scan# 1316
Delta R.T. -0.00 min
Lab File: VX006637.D
Acq: 19 Dec 2018 15:24

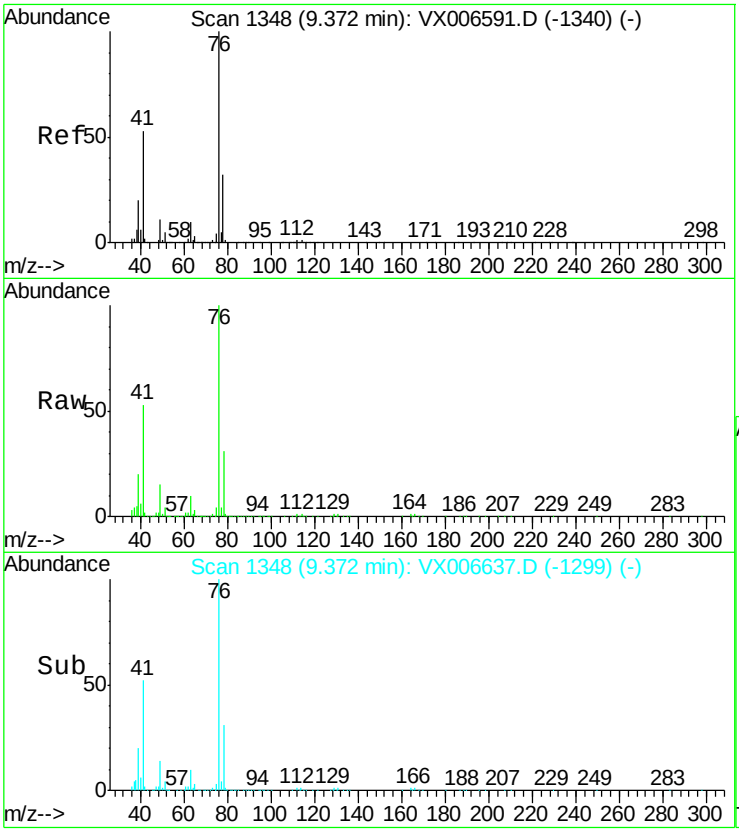
Tgt Ion: 69 Resp: 178346

Ion	Ratio	Lower	Upper
69	100		
41	59.6	48.7	73.1
39	34.0	27.0	40.6



Instrument :
MSVOA_X
ClientSampleId :
VX1219WBS01

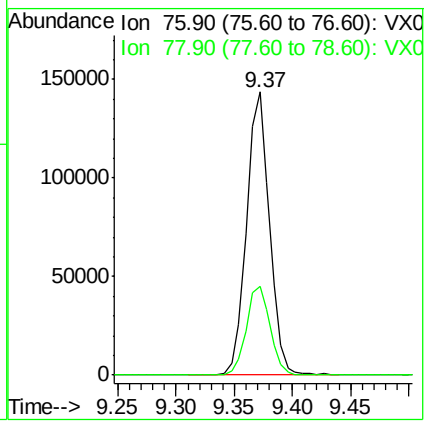
Manual Integrations APPROVED
MMDadoda
12/20/2018 10:00:22 AM

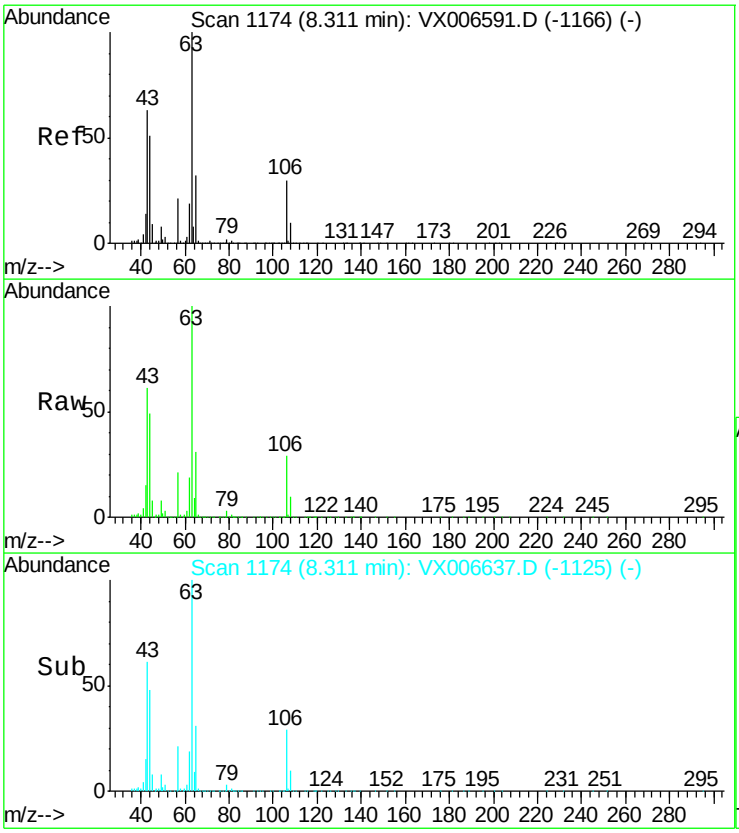


#57
1,3-Dichloropropane
Concen: 20.261 ug/l
RT: 9.37 min Scan# 1348
Delta R.T. -0.00 min
Lab File: VX006637.D
Acq: 19 Dec 2018 15:24

Tgt Ion: 76 Resp: 198366

Ion	Ratio	Lower	Upper
76	100		
78	32.5	26.0	39.0

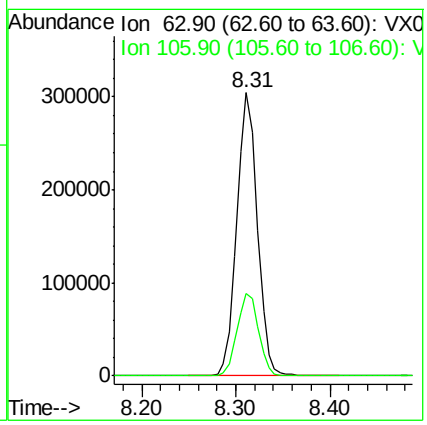




#58
2-Chloroethyl Vinyl ether
Concen: 100.875 ug/l
RT: 8.31 min Scan# 1174
Delta R.T. -0.00 min
Lab File: VX006637.D
Acq: 19 Dec 2018 15:24

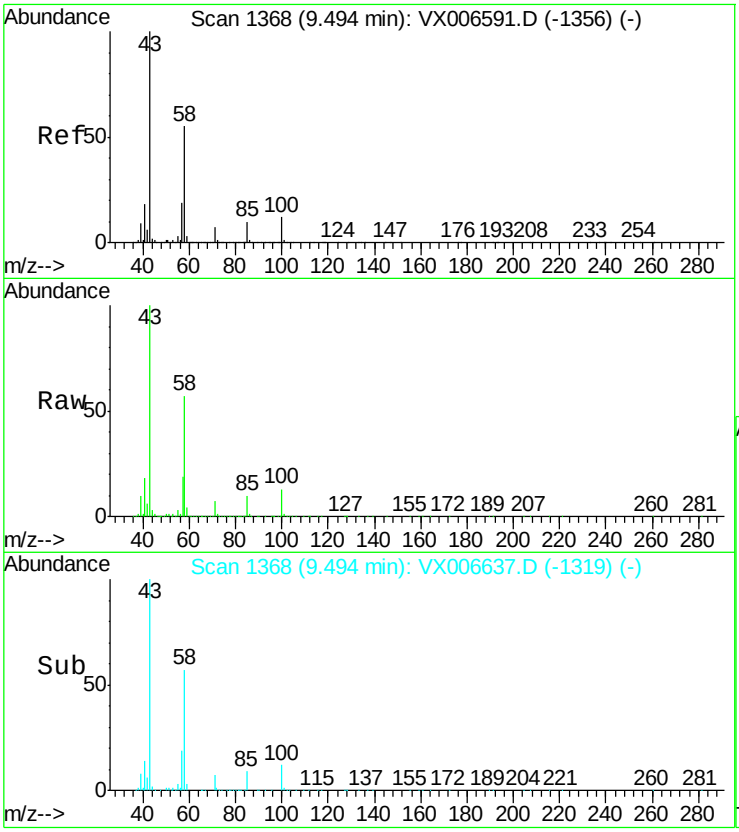
Tgt Ion: 63 Resp: 461194

Ion	Ratio	Lower	Upper
63	100		
106	30.6	24.6	36.8



Instrument :
MSVOA_X
ClientSampleId :
VX1219WBS01

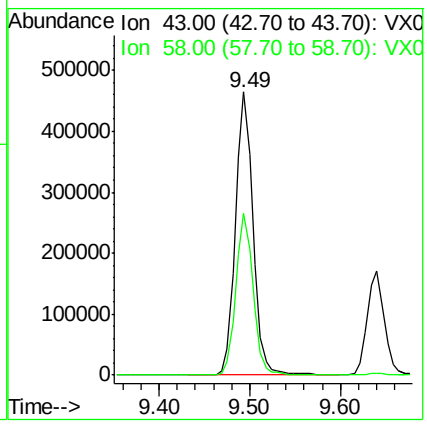
Manual Integrations APPROVED
MMDadoda
12/20/2018 10:00:22 AM

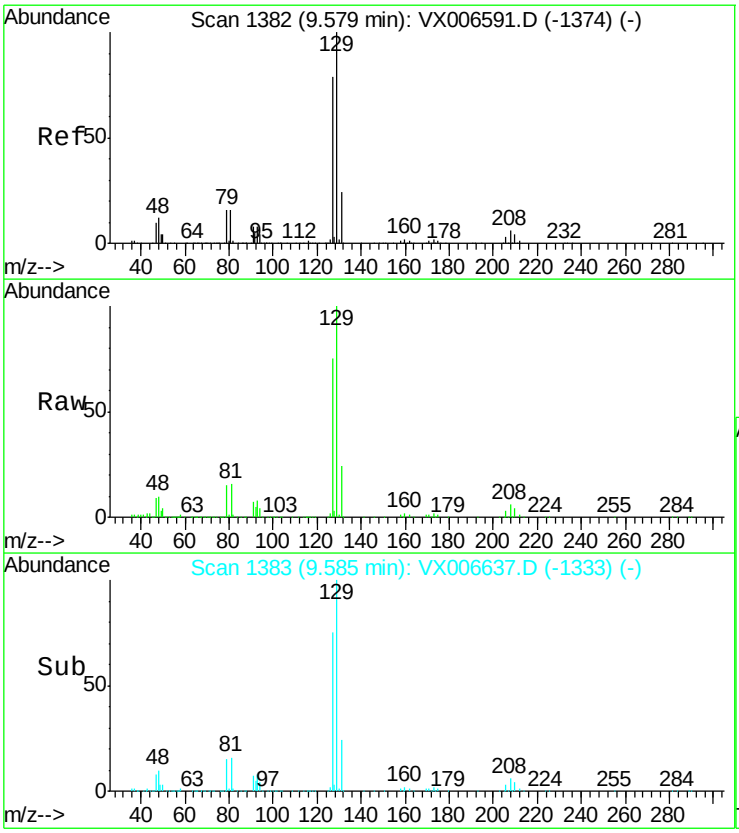


#59
2-Hexanone
Concen: 106.946 ug/l
RT: 9.49 min Scan# 1368
Delta R.T. -0.00 min
Lab File: VX006637.D
Acq: 19 Dec 2018 15:24

Tgt Ion: 43 Resp: 624208

Ion	Ratio	Lower	Upper
43	100		
58	56.4	27.7	83.1

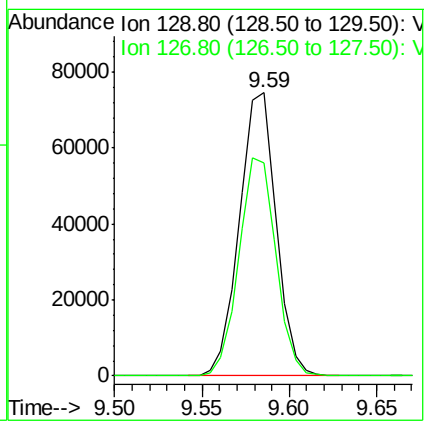




#60
Dibromochloromethane
Concen: 18.712 ug/l
RT: 9.59 min Scan# 1383
Delta R.T. 0.01 min
Lab File: VX006637.D
Acq: 19 Dec 2018 15:24

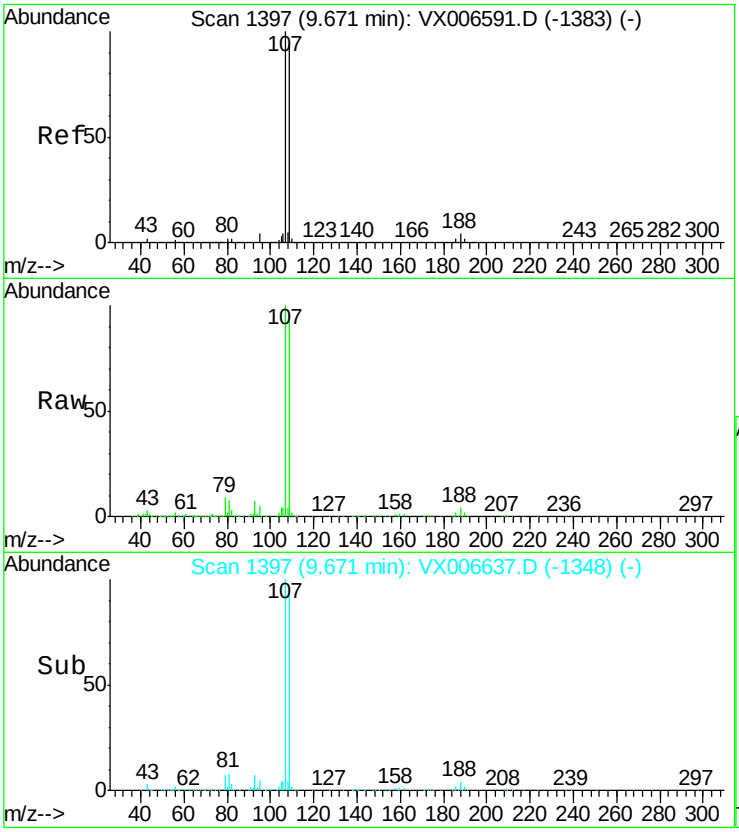
Tgt Ion:129 Resp: 109385

Ion	Ratio	Lower	Upper
129	100		
127	77.5	39.3	117.8



Instrument :
MSVOA_X
ClientSampleId :
VX1219WBS01

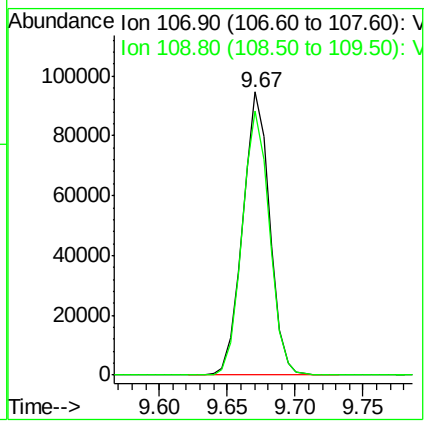
Manual Integrations APPROVED
MMDadoda
12/20/2018 10:00:22 AM

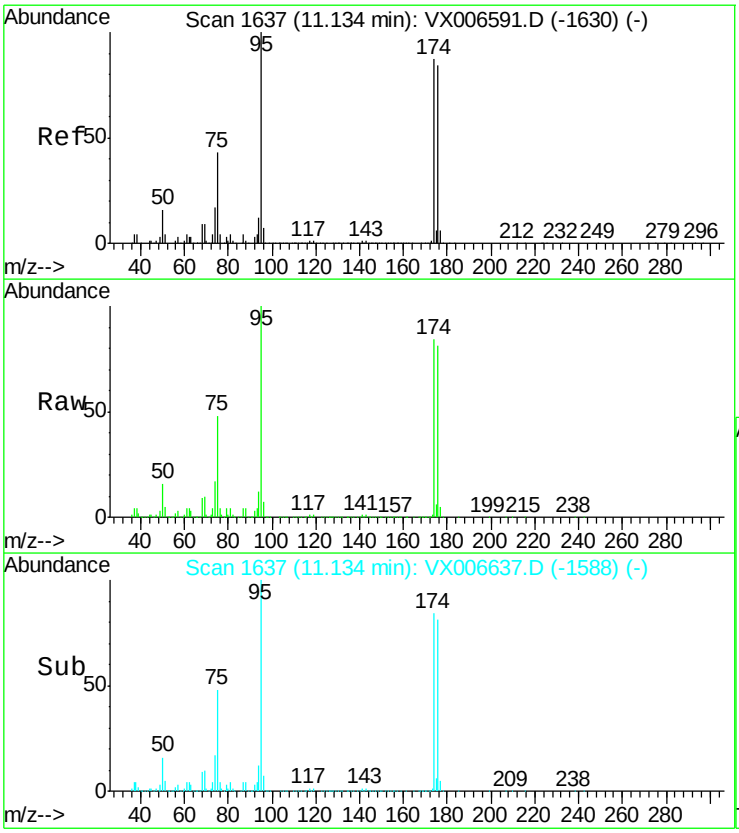


#61
1,2-Dibromoethane
Concen: 20.246 ug/l
RT: 9.67 min Scan# 1397
Delta R.T. -0.00 min
Lab File: VX006637.D
Acq: 19 Dec 2018 15:24

Tgt Ion:107 Resp: 130969

Ion	Ratio	Lower	Upper
107	100		
109	94.8	75.8	113.6

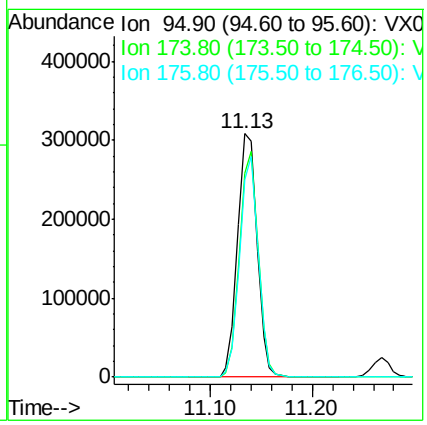




#62
4-Bromofluorobenzene
Concen: 51.002 ug/l
RT: 11.13 min Scan# 1637
Delta R.T. -0.00 min
Lab File: VX006637.D
Acq: 19 Dec 2018 15:24

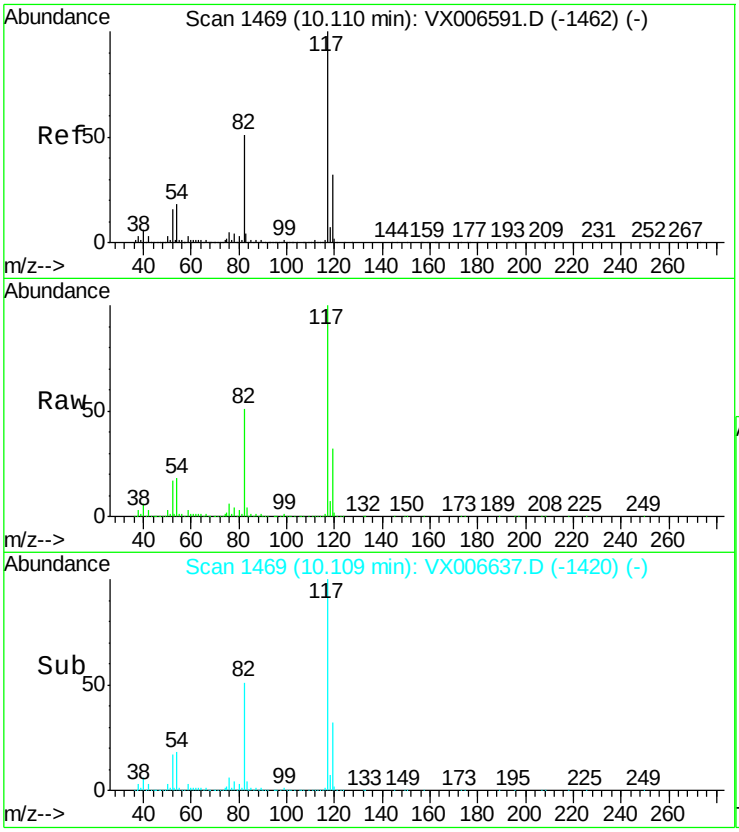
Tgt Ion: 95 Resp: 407068

Ion	Ratio	Lower	Upper
95	100		
174	88.8	0.0	182.2
176	86.4	0.0	178.8



Instrument :
MSVOA_X
ClientSampleId :
VX1219WBS01

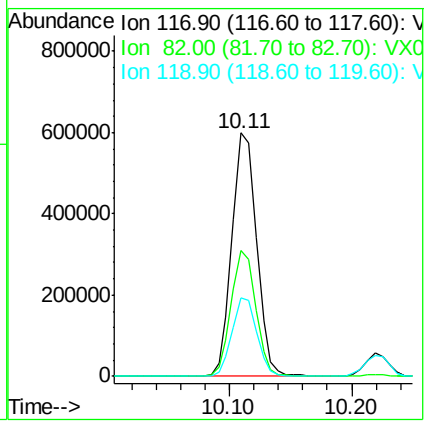
Manual Integrations APPROVED
MMDadoda
12/20/2018 10:00:22 AM

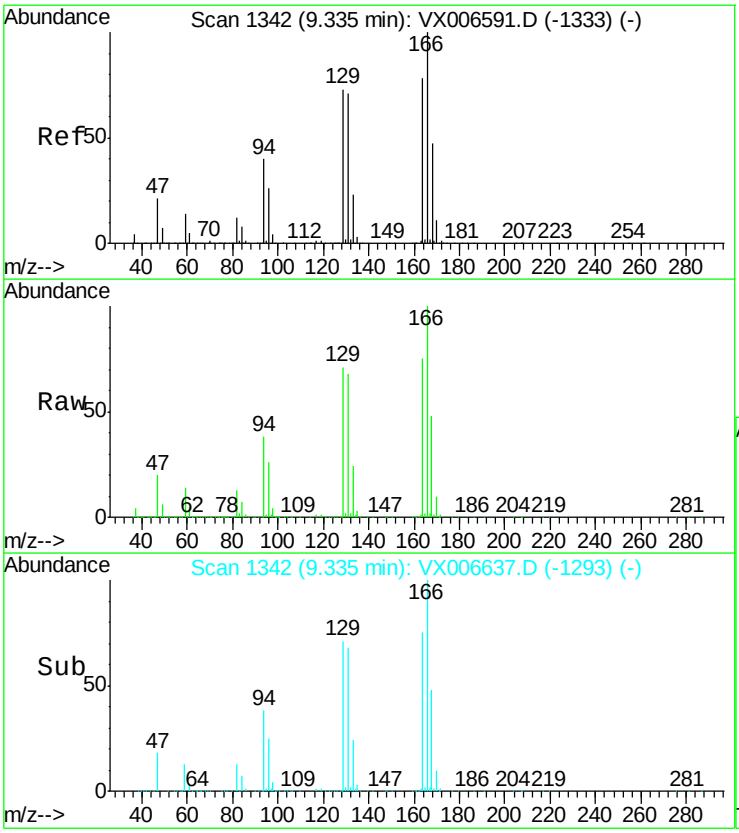


#63
Chlorobenzene-d5
Concen: 50.000 ug/l
RT: 10.11 min Scan# 1469
Delta R.T. -0.00 min
Lab File: VX006637.D
Acq: 19 Dec 2018 15:24

Tgt Ion:117 Resp: 836428

Ion	Ratio	Lower	Upper
117	100		
82	51.5	41.0	61.6
119	32.1	25.4	38.0

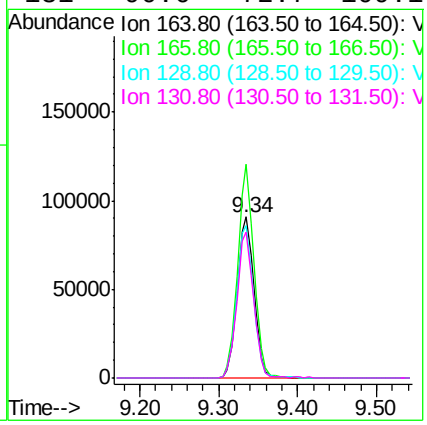




#64
Tetrachloroethene
Concen: 20.421 ug/l
RT: 9.34 min Scan# 1342
Delta R.T. -0.00 min
Lab File: VX006637.D
Acq: 19 Dec 2018 15:24

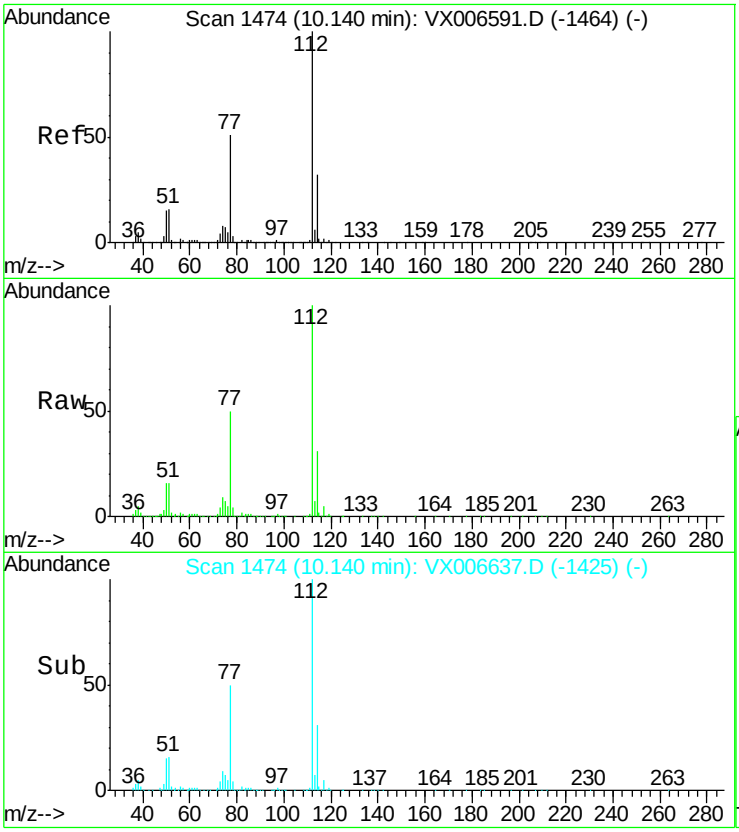
Tgt Ion:164 Resp: 135256

Ion	Ratio	Lower	Upper
164	100		
166	132.7	102.5	153.7
129	94.5	75.1	112.7
131	90.6	72.7	109.1



Instrument :
MSVOA_X
ClientSampleId :
VX1219WBS01

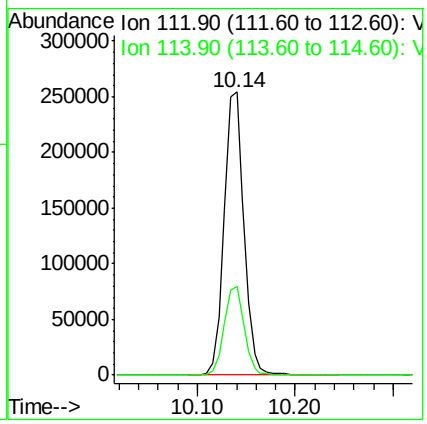
Manual Integrations APPROVED
MMDadoda
12/20/2018 10:00:22 AM

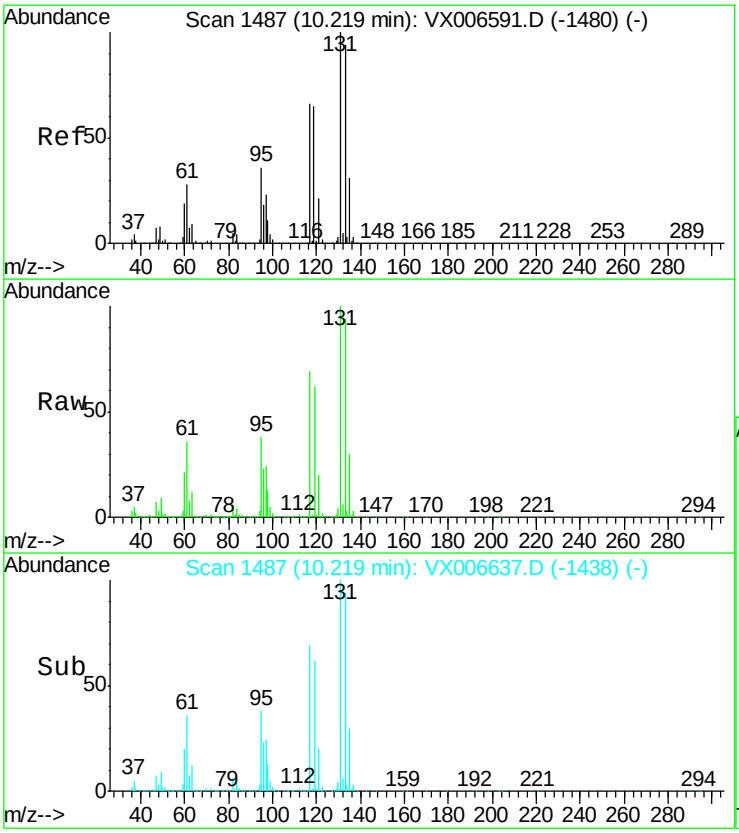


#65
Chlorobenzene
Concen: 20.202 ug/l
RT: 10.14 min Scan# 1474
Delta R.T. -0.00 min
Lab File: VX006637.D
Acq: 19 Dec 2018 15:24

Tgt Ion:112 Resp: 357488

Ion	Ratio	Lower	Upper
112	100		
114	31.4	25.7	38.5

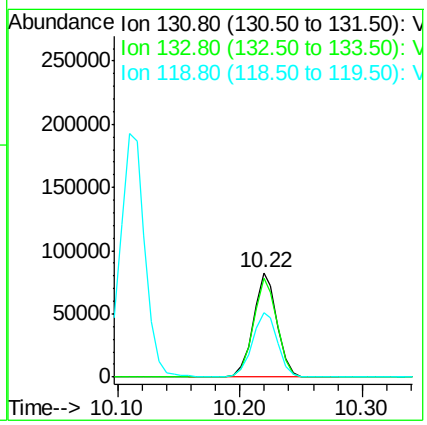




#66
1,1,1,2-Tetrachloroethane
Concen: 20.165 ug/l
RT: 10.22 min Scan# 1487
Delta R.T. -0.00 min
Lab File: VX006637.D
Acq: 19 Dec 2018 15:24

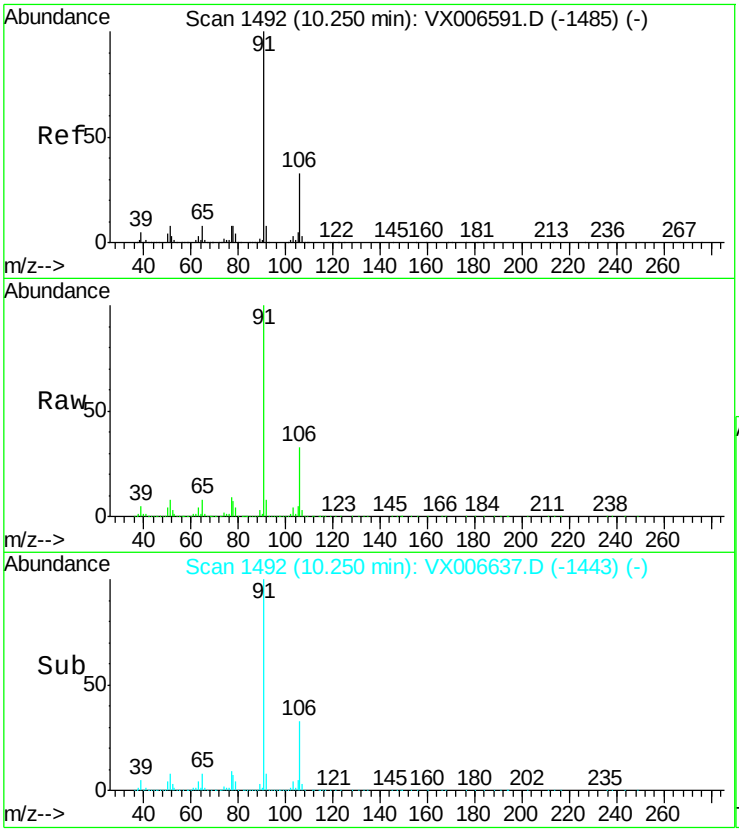
Tgt Ion:131 Resp: 111327

Ion	Ratio	Lower	Upper
131	100		
133	94.8	48.0	144.2
119	65.8	32.6	97.8



Instrument :
MSVOA_X
ClientSampleId :
VX1219WBS01

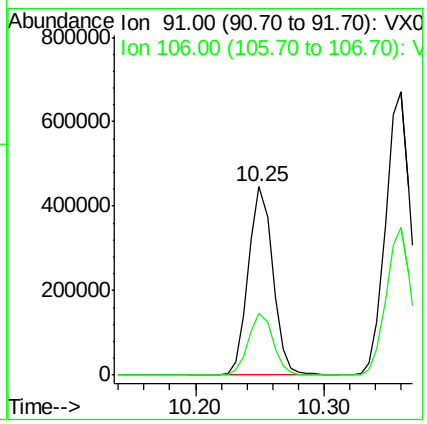
Manual Integrations APPROVED
MMDadoda
12/20/2018 10:00:22 AM

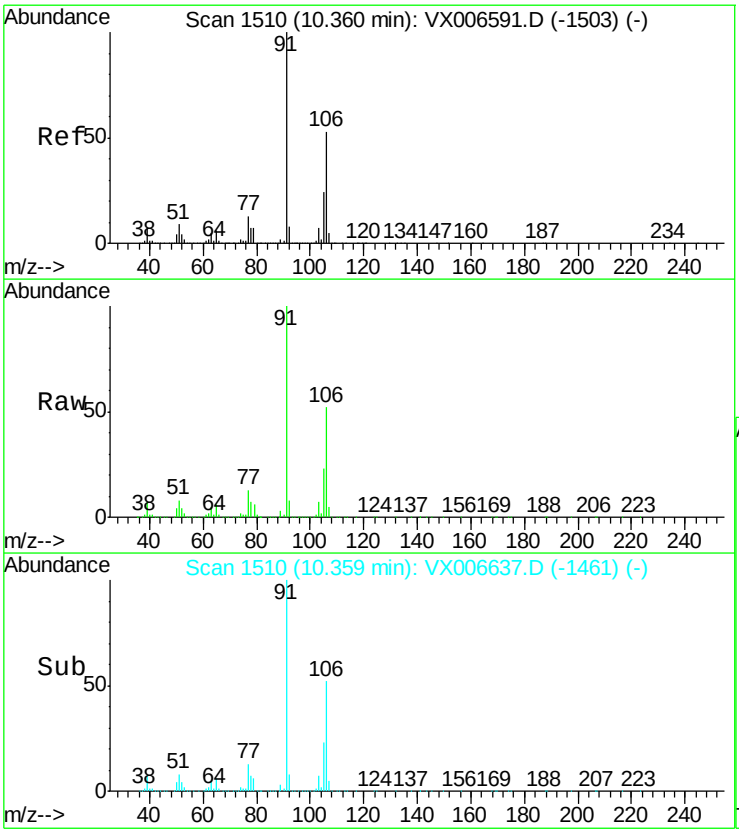


#67
Ethyl Benzene
Concen: 20.217 ug/l
RT: 10.25 min Scan# 1492
Delta R.T. -0.00 min
Lab File: VX006637.D
Acq: 19 Dec 2018 15:24

Tgt Ion: 91 Resp: 584590

Ion	Ratio	Lower	Upper
91	100		
106	32.8	26.4	39.6

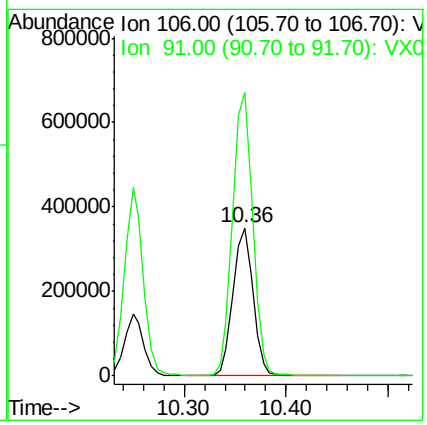




#68
m/p-Xylenes
Concen: 41.300 ug/l
RT: 10.36 min Scan# 1510
Delta R.T. -0.00 min
Lab File: VX006637.D
Acq: 19 Dec 2018 15:24

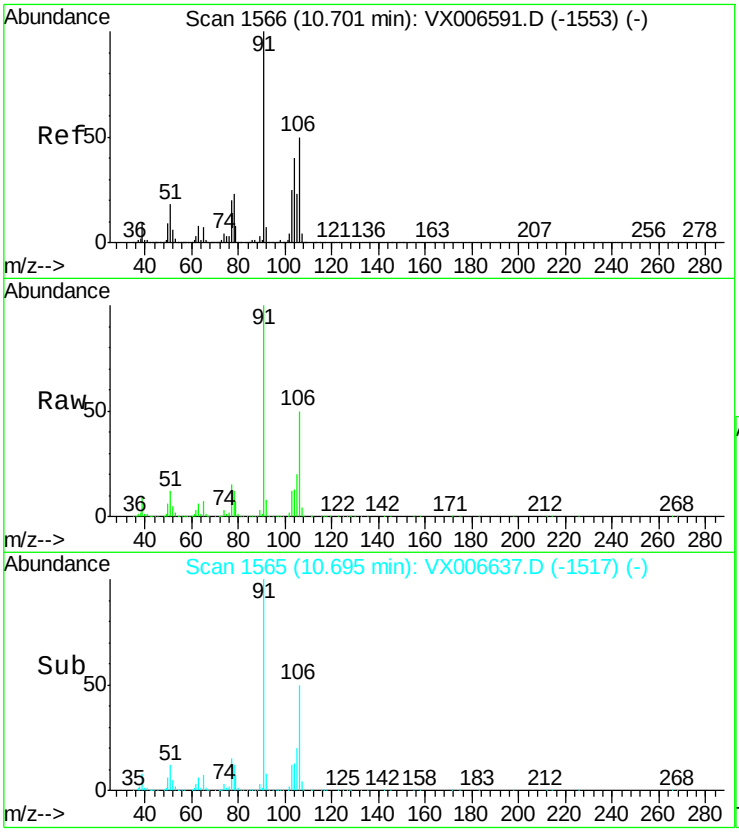
Tgt Ion:106 Resp: 471229

Ion	Ratio	Lower	Upper
106	100		
91	193.9	155.8	233.6



Instrument :
MSVOA_X
ClientSampleId :
VX1219WBS01

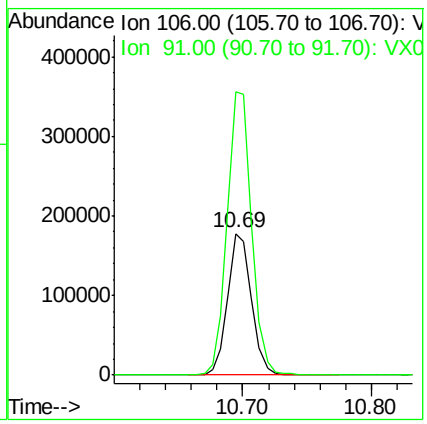
Manual Integrations APPROVED
MMDadoda
12/20/2018 10:00:22 AM

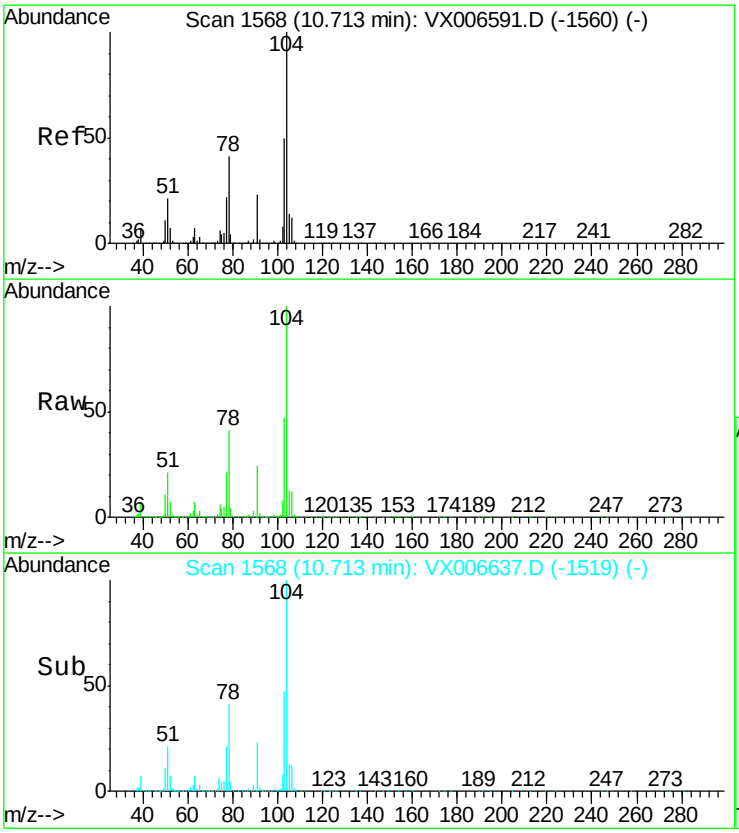


#69
o-Xylene
Concen: 20.543 ug/l
RT: 10.69 min Scan# 1565
Delta R.T. -0.01 min
Lab File: VX006637.D
Acq: 19 Dec 2018 15:24

Tgt Ion:106 Resp: 231461

Ion	Ratio	Lower	Upper
106	100		
91	206.6	101.3	303.7

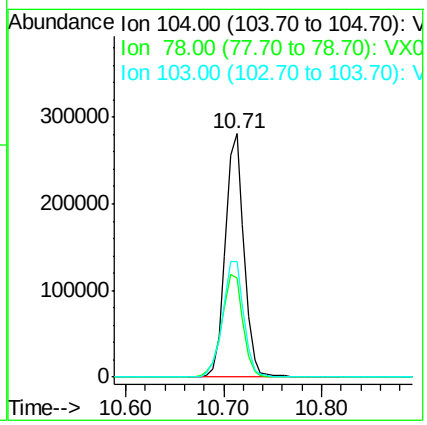




#70
Styrene
Concen: 20.871 ug/l
RT: 10.71 min Scan# 1568
Delta R.T. -0.00 min
Lab File: VX006637.D
Acq: 19 Dec 2018 15:24

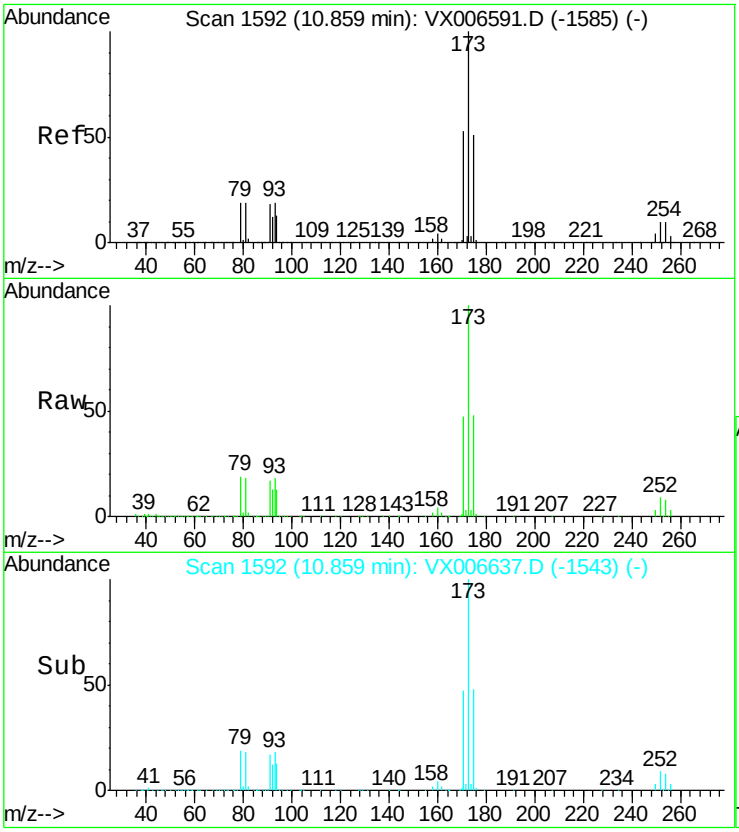
Tgt Ion:104 Resp: 372029

Ion	Ratio	Lower	Upper
104	100		
78	47.9	37.7	56.5
103	54.2	43.8	65.8



Instrument :
MSVOA_X
ClientSampleId :
VX1219WBS01

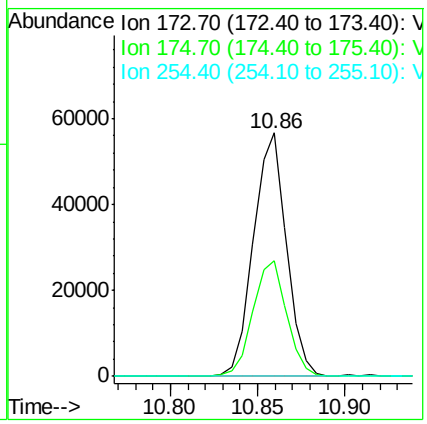
Manual Integrations APPROVED
MMDadoda
12/20/2018 10:00:22 AM

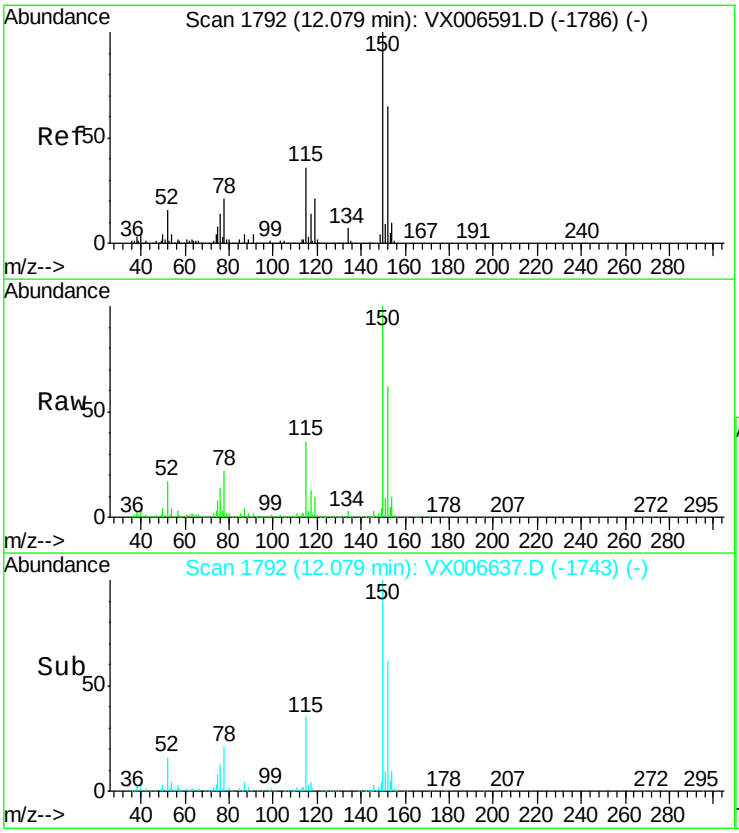


#71
Bromoform
Concen: 18.066 ug/l
RT: 10.86 min Scan# 1592
Delta R.T. 0.00 min
Lab File: VX006637.D
Acq: 19 Dec 2018 15:24

Tgt Ion:173 Resp: 74395

Ion	Ratio	Lower	Upper
173	100		
175	48.6	24.7	74.1
254	0.0	0.2	0.2#

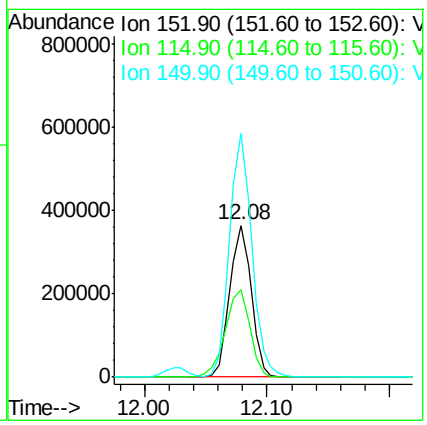




#72
1,4-Dichlorobenzene-d4
Concen: 50.000 ug/l
RT: 12.08 min Scan# 1792
Delta R.T. -0.00 min
Lab File: VX006637.D
Acq: 19 Dec 2018 15:24

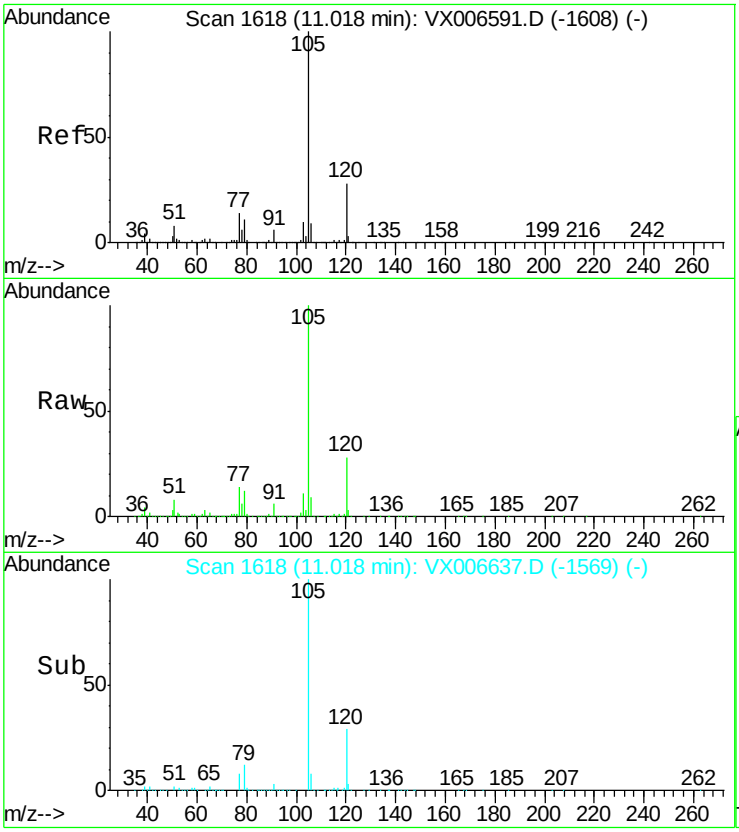
Tgt Ion:152 Resp: 440718

Ion	Ratio	Lower	Upper
152	100		
115	65.9	39.1	117.2
150	166.6	0.0	344.8



Instrument :
MSVOA_X
ClientSampleId :
VX1219WBS01

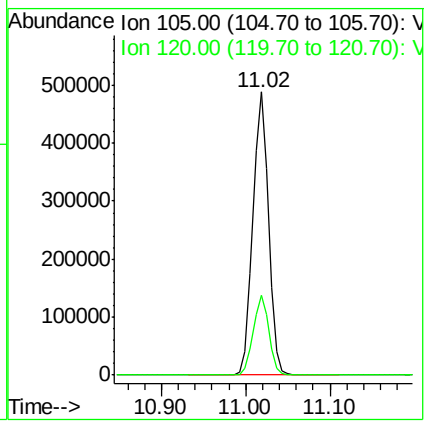
Manual Integrations APPROVED
MMDadoda
12/20/2018 10:00:22 AM

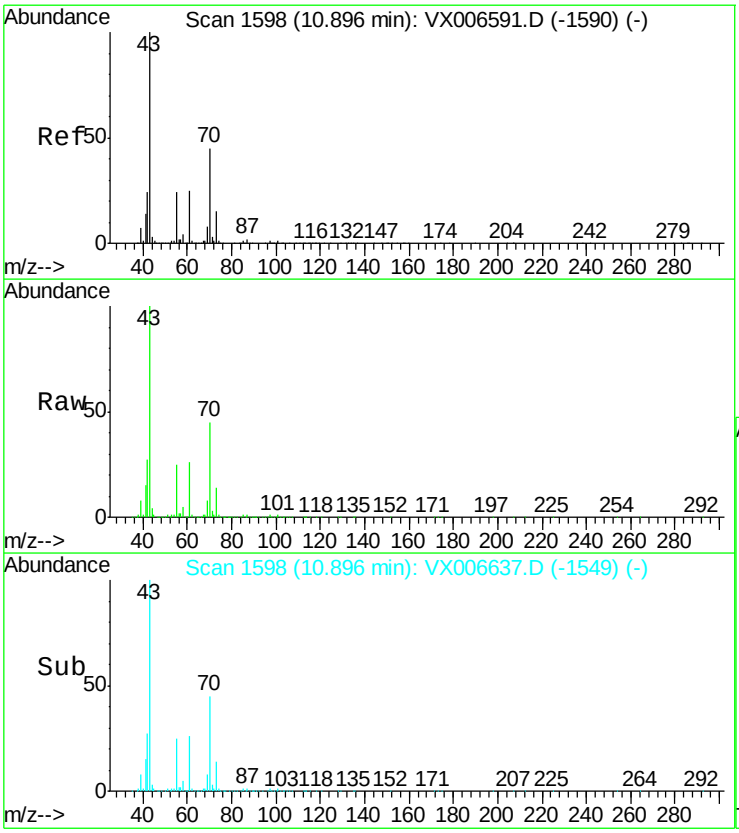


#73
Isopropylbenzene
Concen: 20.216 ug/l
RT: 11.02 min Scan# 1618
Delta R.T. -0.00 min
Lab File: VX006637.D
Acq: 19 Dec 2018 15:24

Tgt Ion:105 Resp: 609511

Ion	Ratio	Lower	Upper
105	100		
120	28.1	14.1	42.4

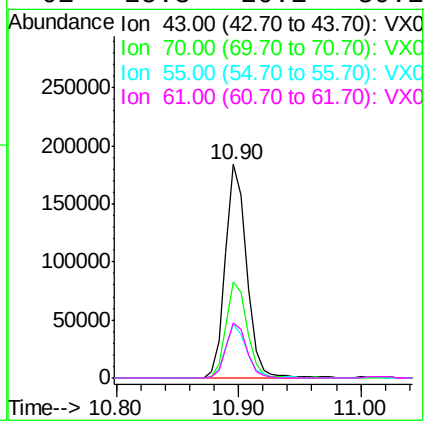




#74
N-amyl acetate
Concen: 20.547 ug/l
RT: 10.90 min Scan# 1598
Delta R.T. -0.00 min
Lab File: VX006637.D
Acq: 19 Dec 2018 15:24

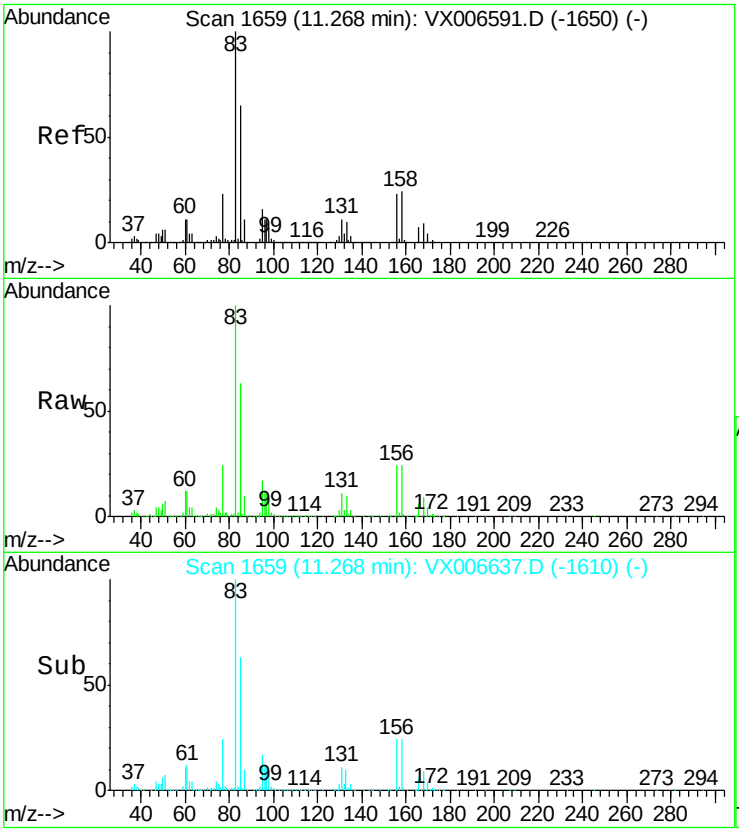
Tgt Ion: 43 Resp: 221748

Ion	Ratio	Lower	Upper
43	100		
70	44.4	35.8	53.8
55	25.0	19.4	29.0
61	25.3	20.1	30.1



Instrument :
MSVOA_X
ClientSampleId :
VX1219WBS01

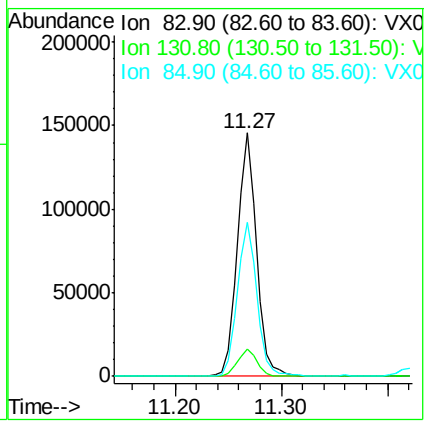
Manual Integrations APPROVED
MMDadoda
12/20/2018 10:00:22 AM

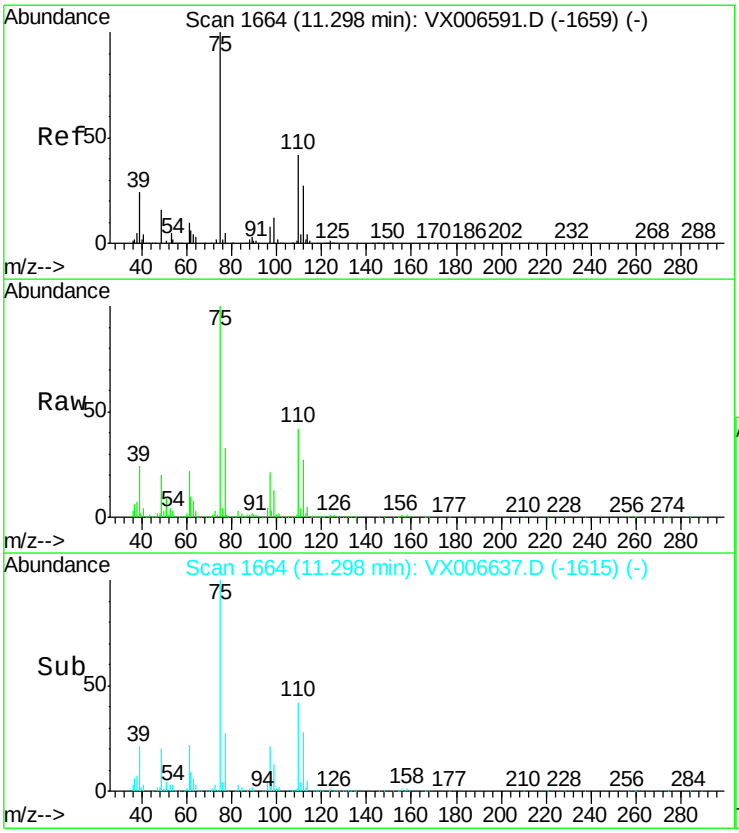


#75
1,1,2,2-Tetrachloroethane
Concen: 20.575 ug/l
RT: 11.27 min Scan# 1659
Delta R.T. -0.00 min
Lab File: VX006637.D
Acq: 19 Dec 2018 15:24

Tgt Ion: 83 Resp: 184492

Ion	Ratio	Lower	Upper
83	100		
131	11.5	5.7	17.1
85	64.7	32.2	96.6

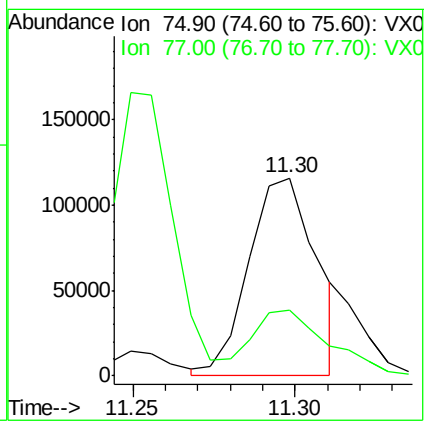




#76
1,2,3-Trichloropropane
Concen: 20.559 ug/l m
RT: 11.30 min Scan# 1664
Delta R.T. -0.00 min
Lab File: VX006637.D
Acq: 19 Dec 2018 15:24

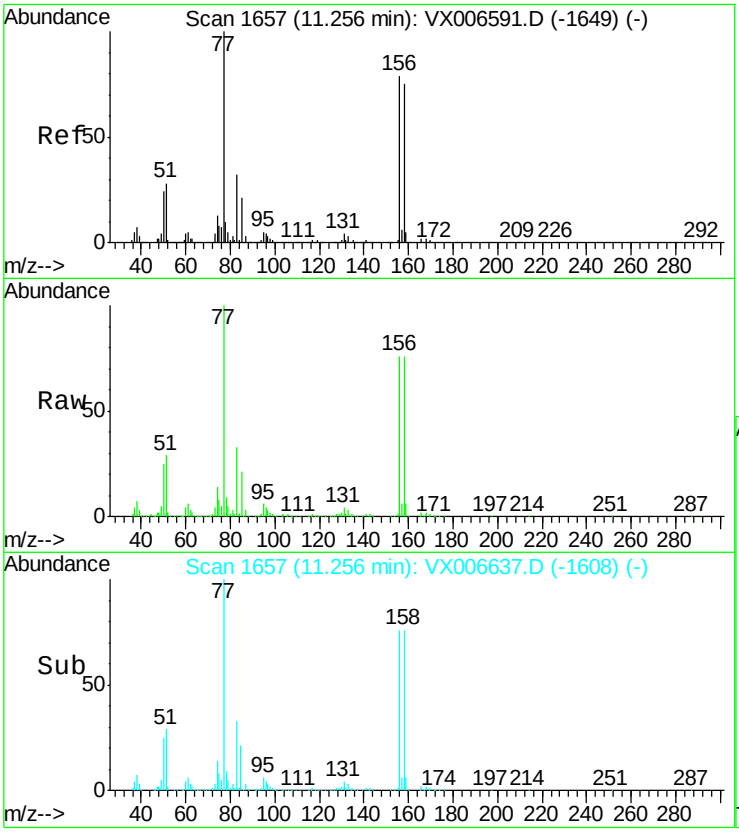
Tgt Ion: 75 Resp: 168386

Ion	Ratio	Lower	Upper
75	100		
77	36.6	18.5	55.5



Instrument :
MSVOA_X
ClientSampleId :
VX1219WBS01

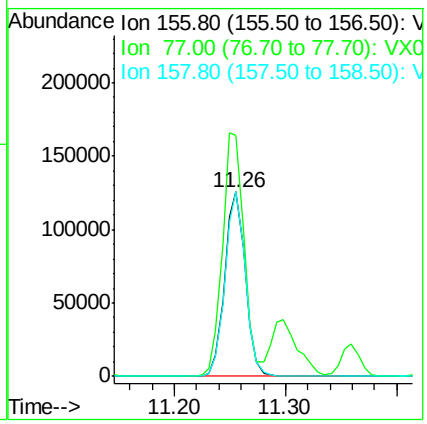
Manual Integrations APPROVED
MMDadoda
12/20/2018 10:00:22 AM

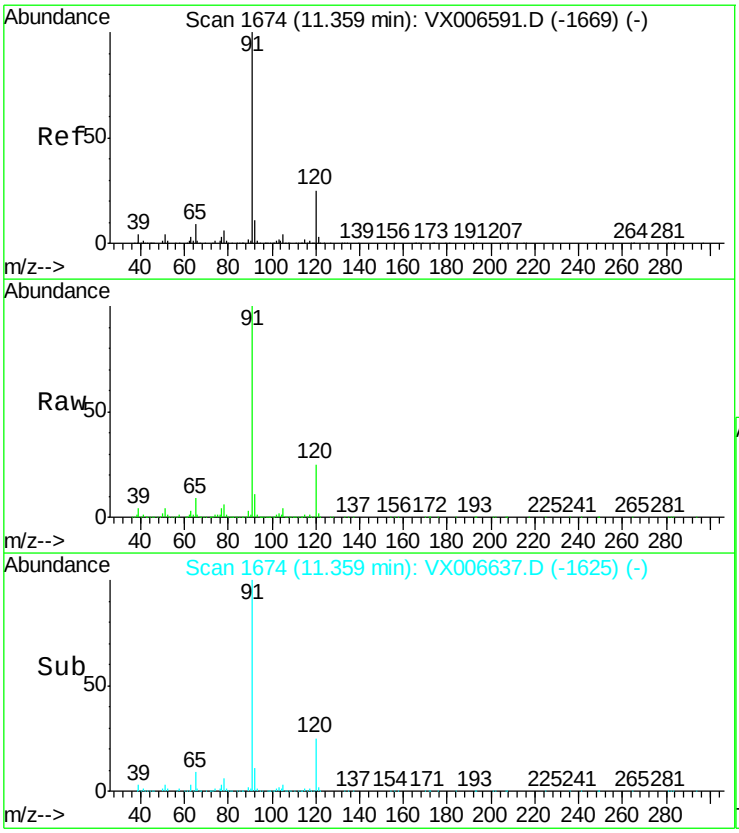


#77
Bromobenzene
Concen: 19.805 ug/l
RT: 11.26 min Scan# 1657
Delta R.T. -0.00 min
Lab File: VX006637.D
Acq: 19 Dec 2018 15:24

Tgt Ion:156 Resp: 161437

Ion	Ratio	Lower	Upper
156	100		
77	136.5	68.0	204.0
158	98.2	48.3	144.8

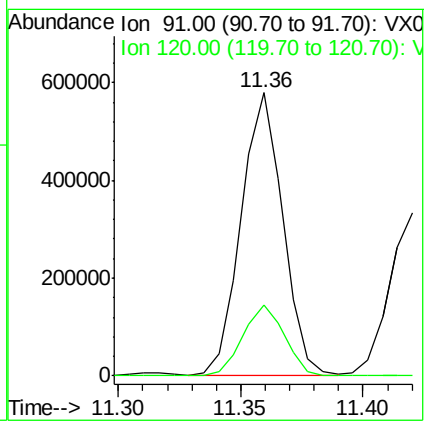




#78
n-propylbenzene
Concen: 20.564 ug/l
RT: 11.36 min Scan# 1674
Delta R.T. -0.00 min
Lab File: VX006637.D
Acq: 19 Dec 2018 15:24

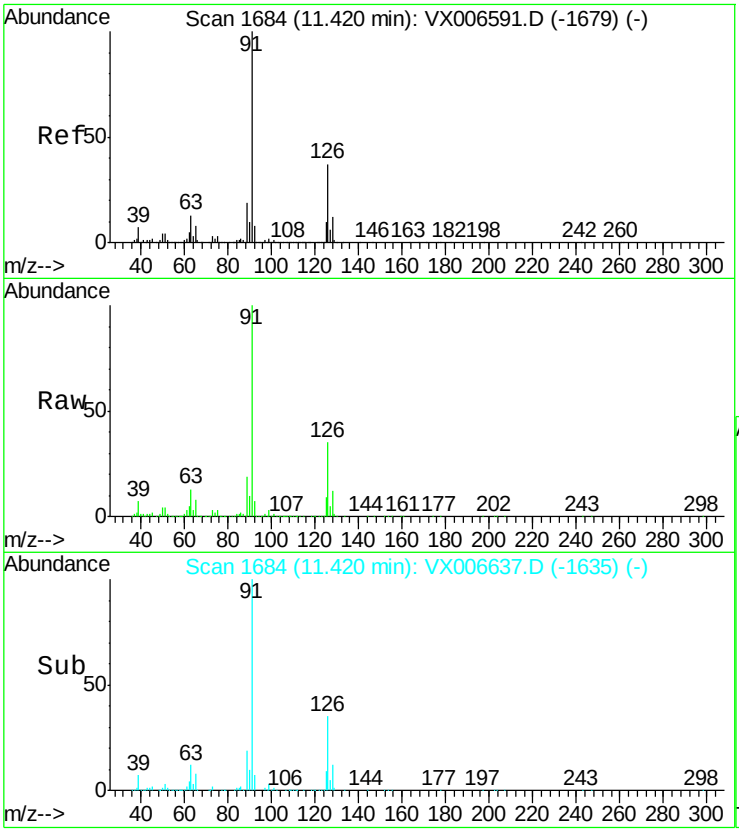
Tgt Ion: 91 Resp: 682751

Ion	Ratio	Lower	Upper
91	100		
120	25.3	12.7	38.0



Instrument :
MSVOA_X
ClientSampleId :
VX1219WBS01

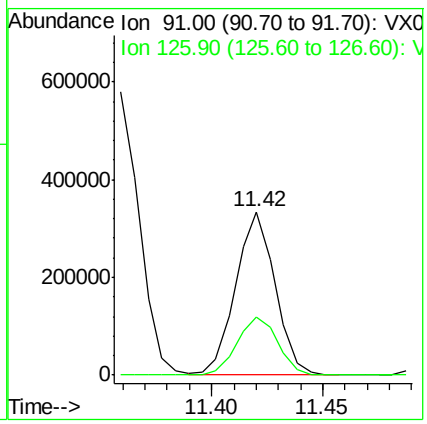
Manual Integrations APPROVED
MMDadoda
12/20/2018 10:00:22 AM

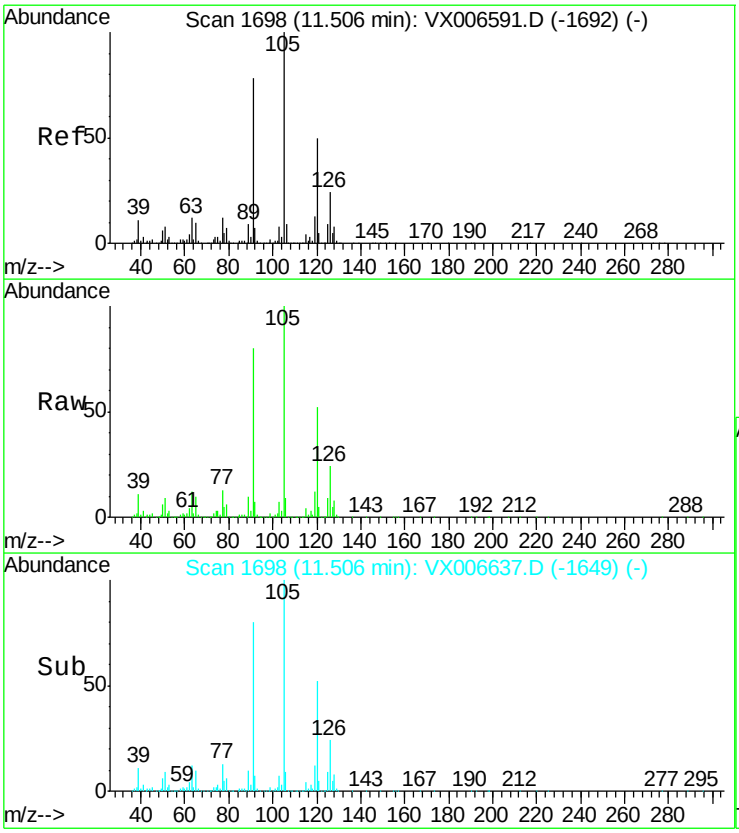


#79
2-Chlorotoluene
Concen: 20.316 ug/l
RT: 11.42 min Scan# 1684
Delta R.T. -0.00 min
Lab File: VX006637.D
Acq: 19 Dec 2018 15:24

Tgt Ion: 91 Resp: 408769

Ion	Ratio	Lower	Upper
91	100		
126	37.2	18.6	56.0

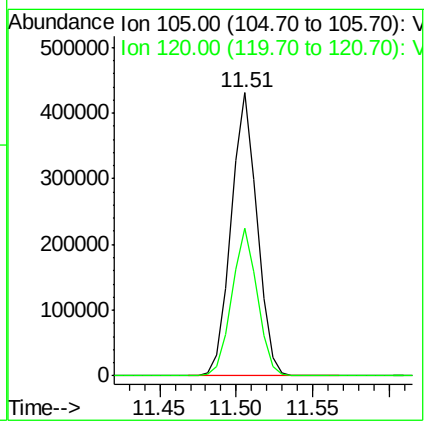


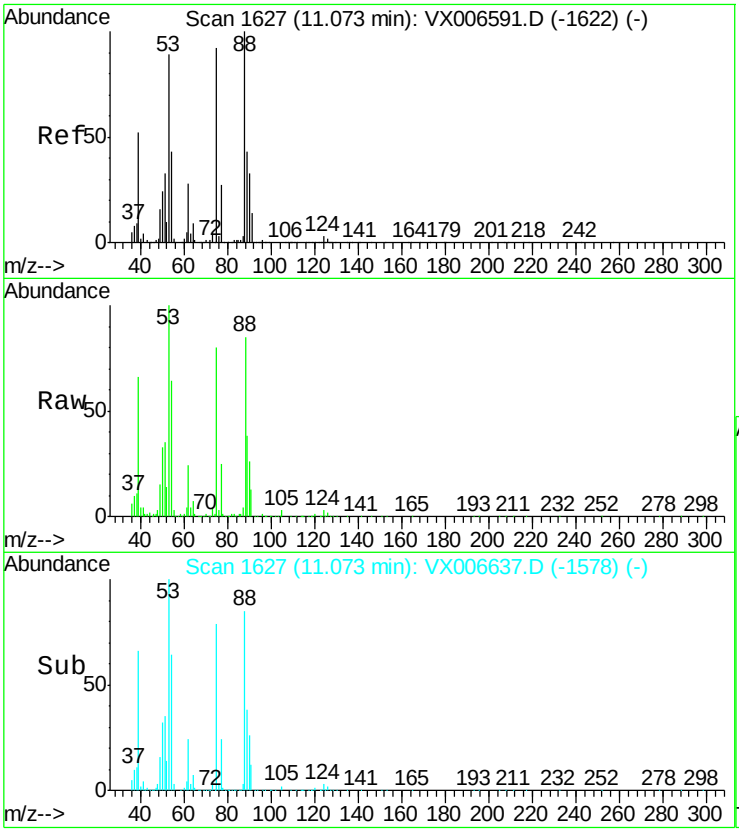


#80
1,3,5-Trimethylbenzene
Concen: 20.346 ug/l
RT: 11.51 min Scan# 1698
Delta R.T. -0.00 min
Lab File: VX006637.D
Acq: 19 Dec 2018 15:24

Tgt Ion:105 Resp: 505270

Ion	Ratio	Lower	Upper
105	100		
120	51.0	25.1	75.3

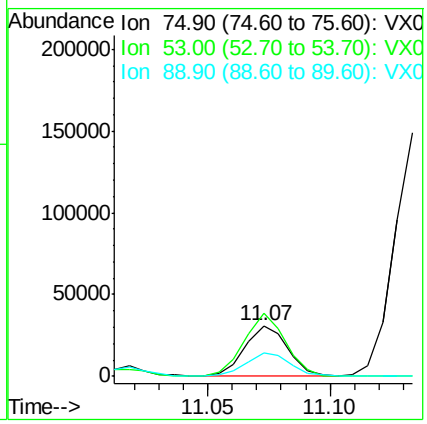




#81
trans-1,4-Dichloro-2-butene
Concen: 16.997 ug/l
RT: 11.07 min Scan# 1627
Delta R.T. 0.00 min
Lab File: VX006637.D
Acq: 19 Dec 2018 15:24

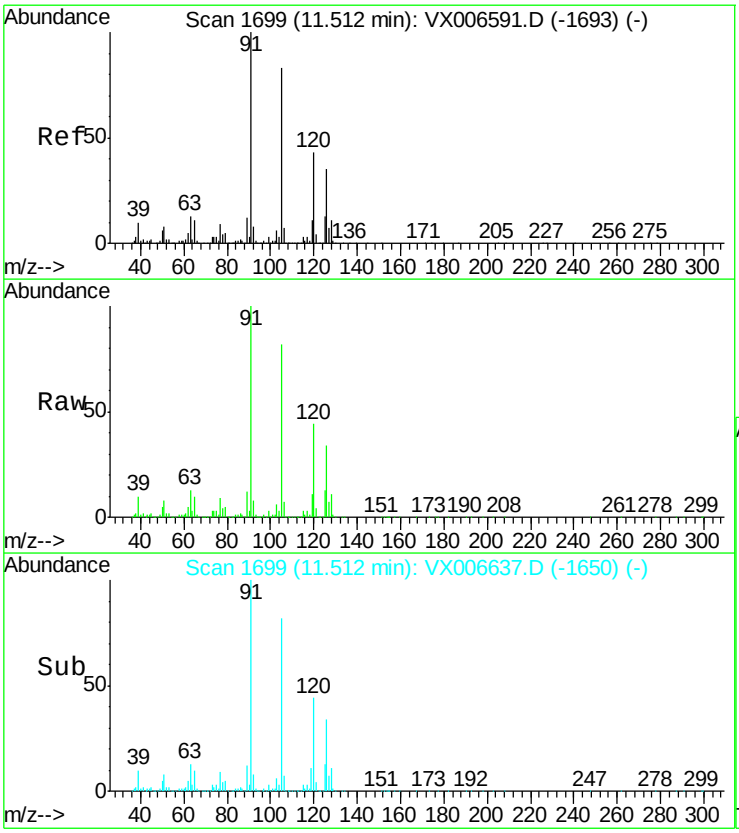
Tgt Ion: 75 Resp: 37532

Ion	Ratio	Lower	Upper
75	100		
53	120.1	79.7	119.5#
89	49.0	38.0	57.0



Instrument :
MSVOA_X
ClientSampleId :
VX1219WBS01

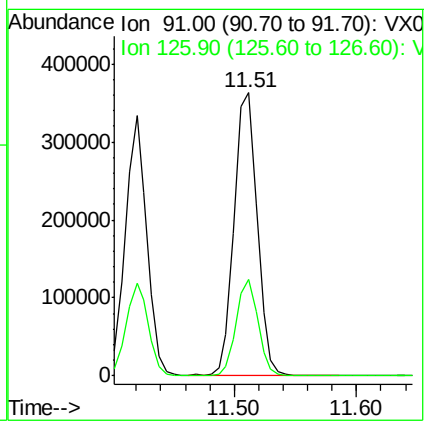
Manual Integrations APPROVED
MMDadoda
12/20/2018 10:00:22 AM



#82
4-Chlorotoluene
Concen: 20.433 ug/l
RT: 11.51 min Scan# 1699
Delta R.T. -0.00 min
Lab File: VX006637.D
Acq: 19 Dec 2018 15:24

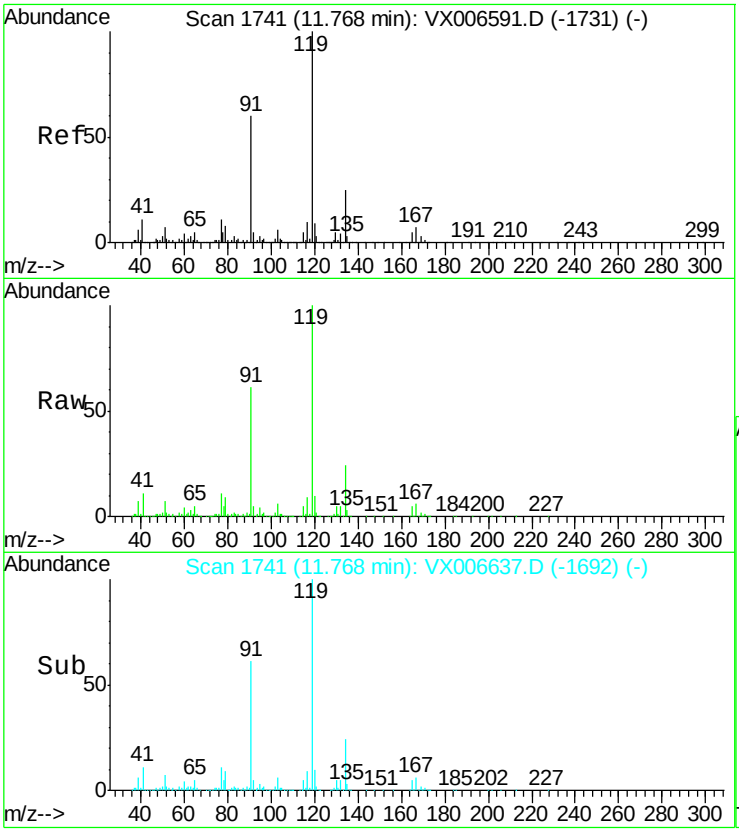
Tgt Ion: 91 Resp: 471583

Ion	Ratio	Lower	Upper
91	100		
126	32.2	16.3	48.9



Instrument :
MSVOA_X
ClientSampleId :
VX1219WBS01

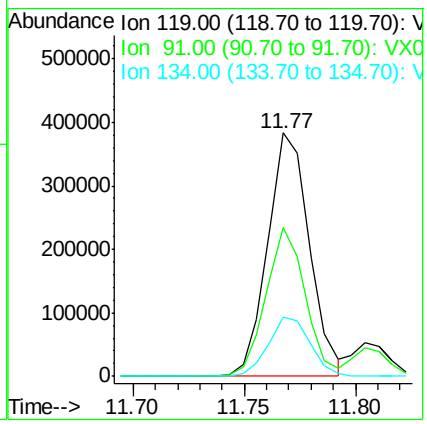
Manual Integrations APPROVED
MMDadoda
12/20/2018 10:00:22 AM

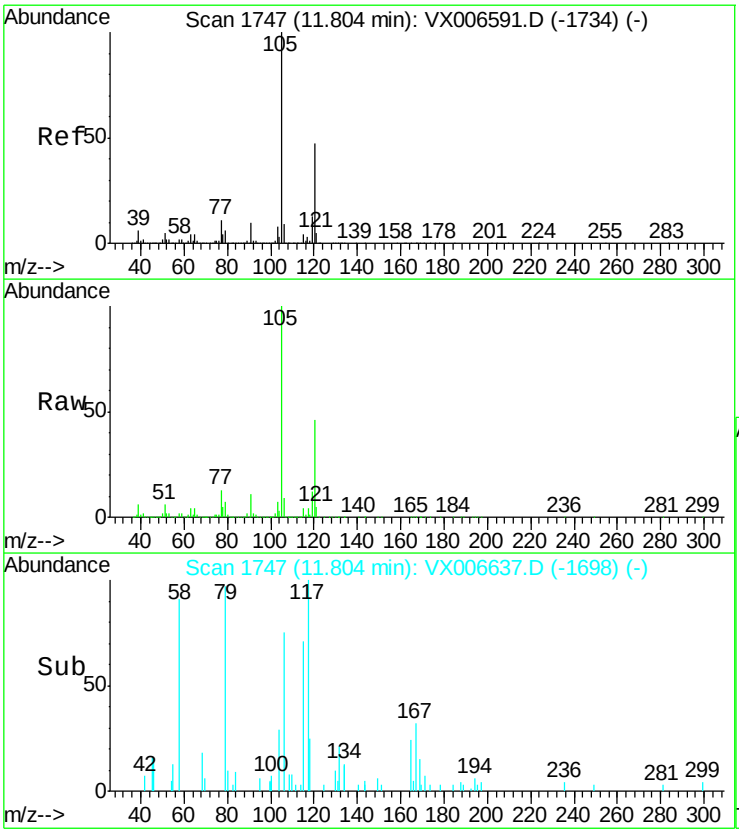


#83
tert-Butylbenzene
Concen: 20.071 ug/l
RT: 11.77 min Scan# 1741
Delta R.T. -0.00 min
Lab File: VX006637.D
Acq: 19 Dec 2018 15:24

Tgt Ion:119 Resp: 498849

Ion	Ratio	Lower	Upper
119	100		
91	57.5	27.7	83.1
134	24.4	11.9	35.5

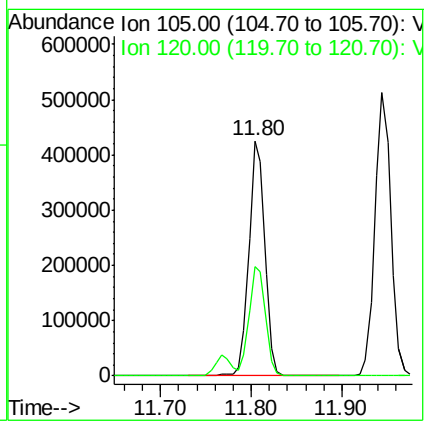




#84
1,2,4-Trimethylbenzene
Concen: 19.865 ug/l
RT: 11.80 min Scan# 1747
Delta R.T. -0.00 min
Lab File: VX006637.D
Acq: 19 Dec 2018 15:24

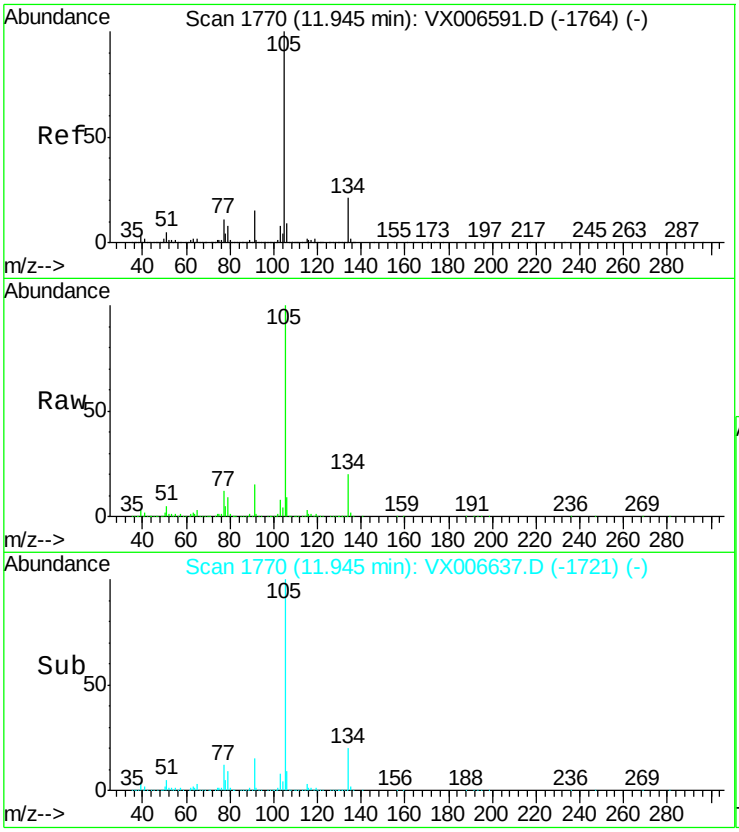
Tgt Ion:105 Resp: 518904

Ion	Ratio	Lower	Upper
105	100		
120	47.1	23.2	69.6



Instrument :
MSVOA_X
ClientSampleId :
VX1219WBS01

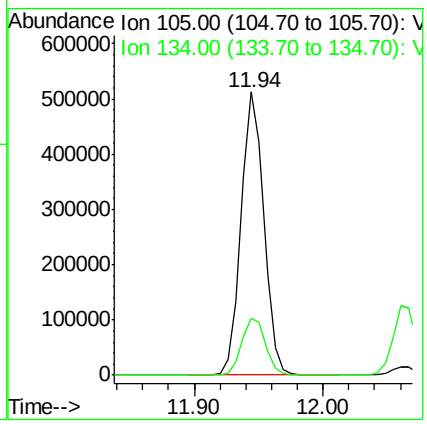
Manual Integrations APPROVED
MMDadoda
12/20/2018 10:00:22 AM

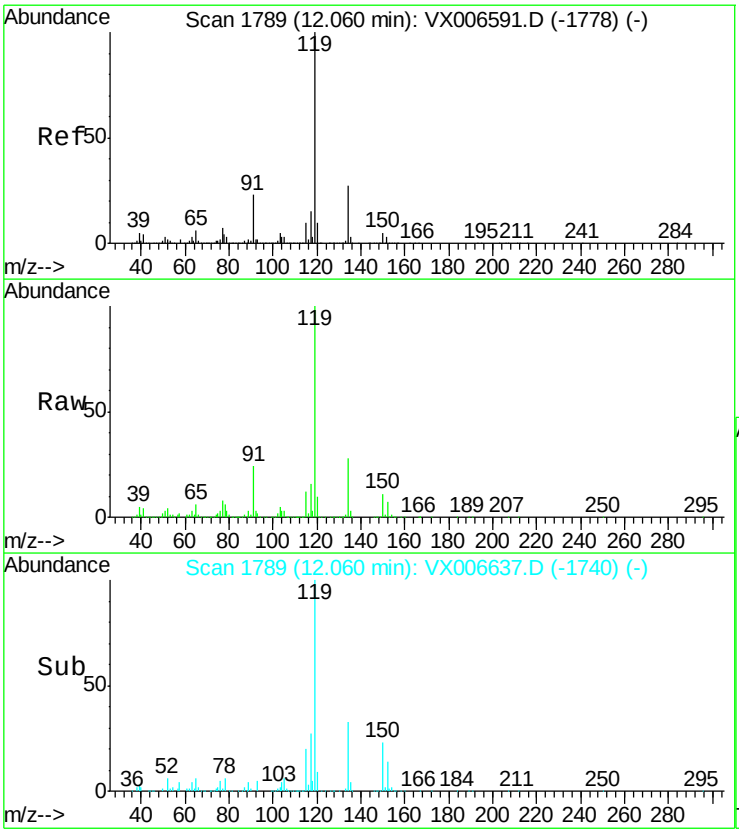


#85
sec-Butylbenzene
Concen: 20.512 ug/l
RT: 11.94 min Scan# 1770
Delta R.T. -0.00 min
Lab File: VX006637.D
Acq: 19 Dec 2018 15:24

Tgt Ion:105 Resp: 625082

Ion	Ratio	Lower	Upper
105	100		
134	21.0	10.7	31.9

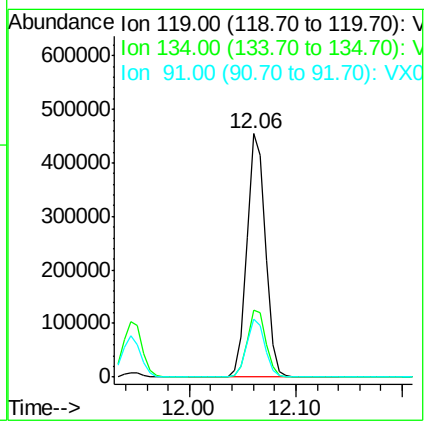




#86
p-Isopropyltoluene
Concen: 20.702 ug/l
RT: 12.06 min Scan# 1789
Delta R.T. -0.00 min
Lab File: VX006637.D
Acq: 19 Dec 2018 15:24

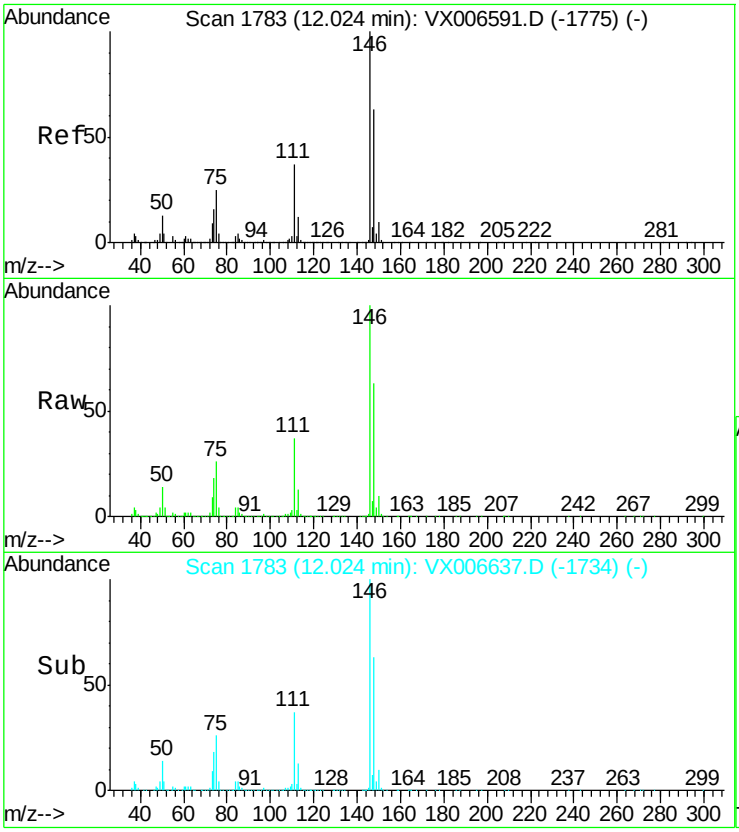
Tgt Ion:119 Resp: 554551

Ion	Ratio	Lower	Upper
119	100		
134	28.0	14.0	41.9
91	23.4	11.3	33.9



Instrument :
MSVOA_X
ClientSampleId :
VX1219WBS01

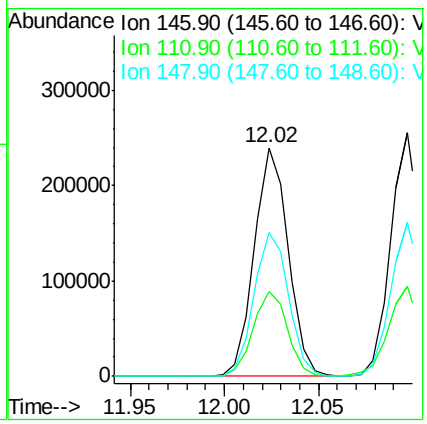
Manual Integrations APPROVED
MMDadoda
12/20/2018 10:00:22 AM

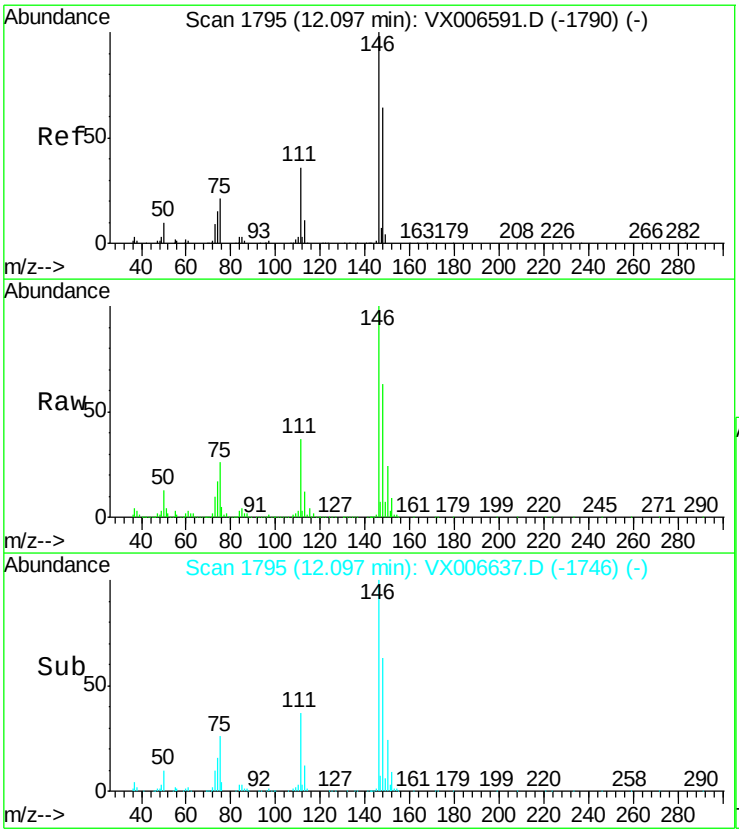


#87
1,3-Dichlorobenzene
Concen: 20.397 ug/l
RT: 12.02 min Scan# 1783
Delta R.T. -0.00 min
Lab File: VX006637.D
Acq: 19 Dec 2018 15:24

Tgt Ion:146 Resp: 299640

Ion	Ratio	Lower	Upper
146	100		
111	37.8	18.6	55.8
148	64.3	31.8	95.3

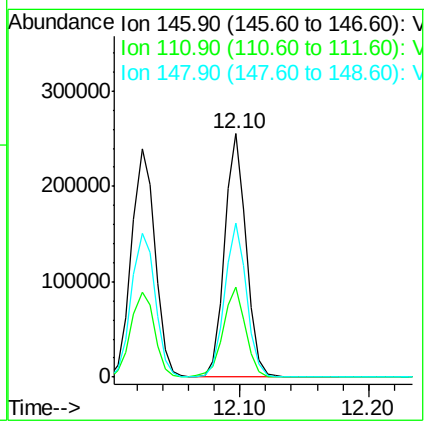




#88
1,4-Dichlorobenzene
Concen: 19.994 ug/l
RT: 12.10 min Scan# 1795
Delta R.T. -0.00 min
Lab File: VX006637.D
Acq: 19 Dec 2018 15:24

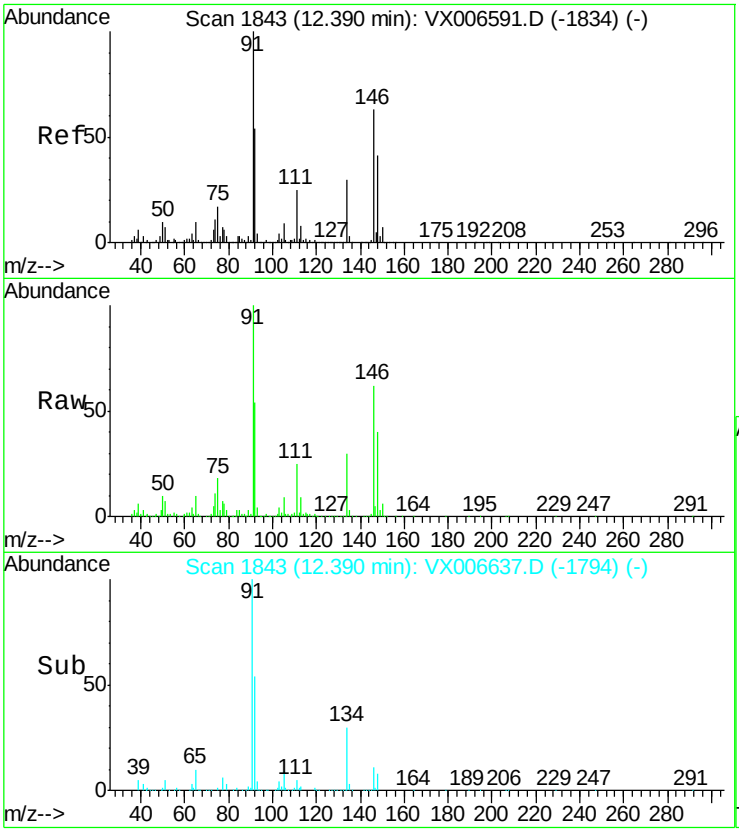
Tgt Ion:146 Resp: 301111

Ion	Ratio	Lower	Upper
146	100		
111	38.4	18.1	54.1
148	64.0	31.9	95.9



Instrument :
MSVOA_X
ClientSampleId :
VX1219WBS01

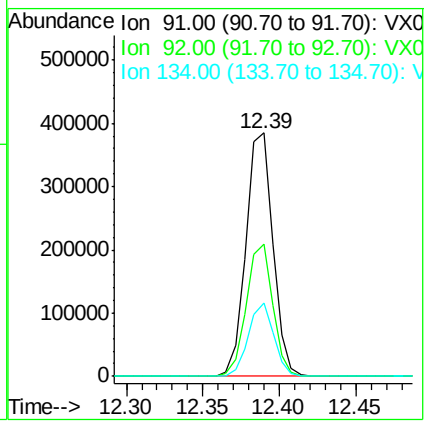
Manual Integrations APPROVED
MMDadoda
12/20/2018 10:00:22 AM

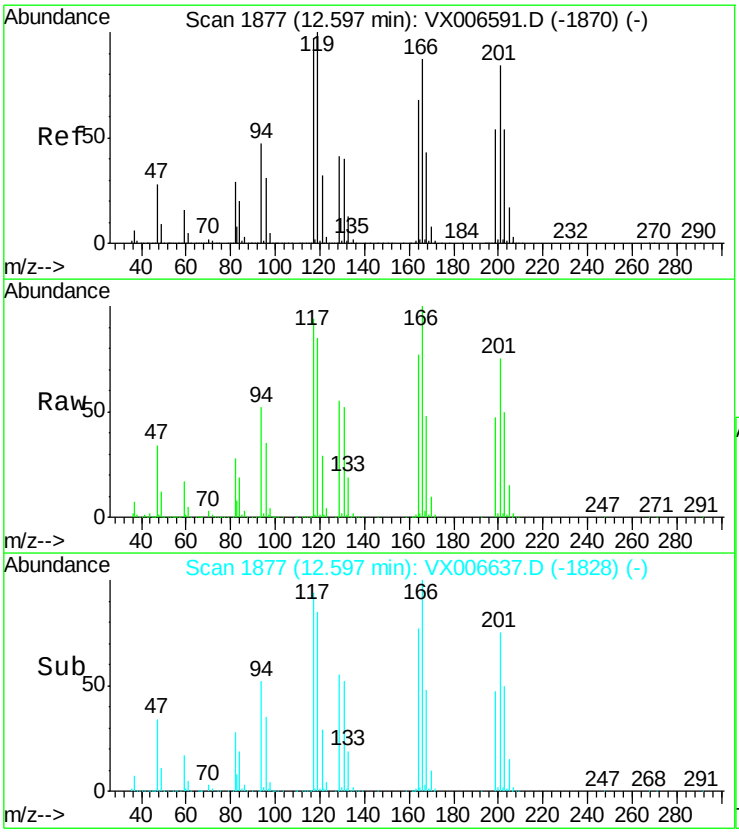


#89
n-Butylbenzene
Concen: 20.667 ug/l
RT: 12.39 min Scan# 1843
Delta R.T. -0.00 min
Lab File: VX006637.D
Acq: 19 Dec 2018 15:24

Tgt Ion: 91 Resp: 471152

Ion	Ratio	Lower	Upper
91	100		
92	53.1	26.8	80.4
134	28.7	14.4	43.2

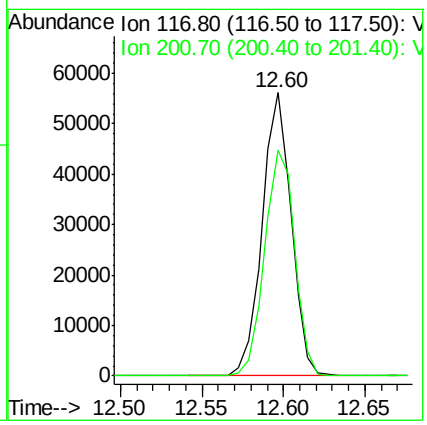




#90
Hexachloroethane
Concen: 18.707 ug/l
RT: 12.60 min Scan# 1877
Delta R.T. 0.00 min
Lab File: VX006637.D
Acq: 19 Dec 2018 15:24

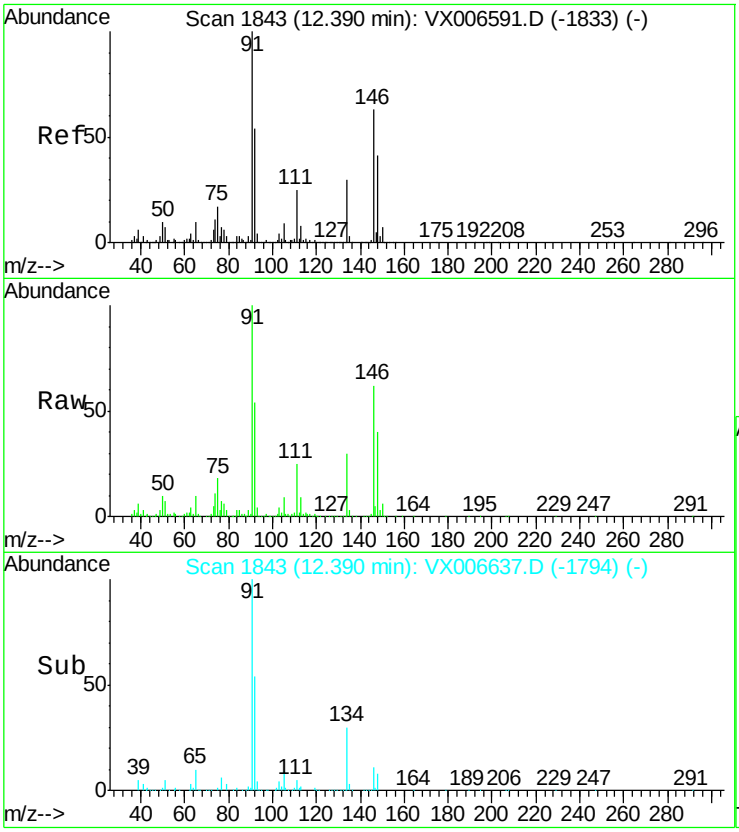
Tgt Ion:117 Resp: 69174

Ion	Ratio	Lower	Upper
117	100		
201	82.9	42.9	128.7



Instrument :
MSVOA_X
ClientSampleId :
VX1219WBS01

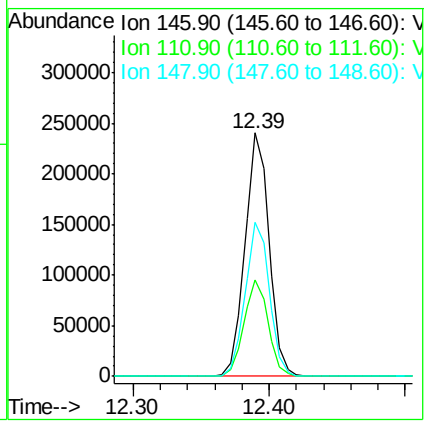
Manual Integrations APPROVED
MMDadoda
12/20/2018 10:00:22 AM

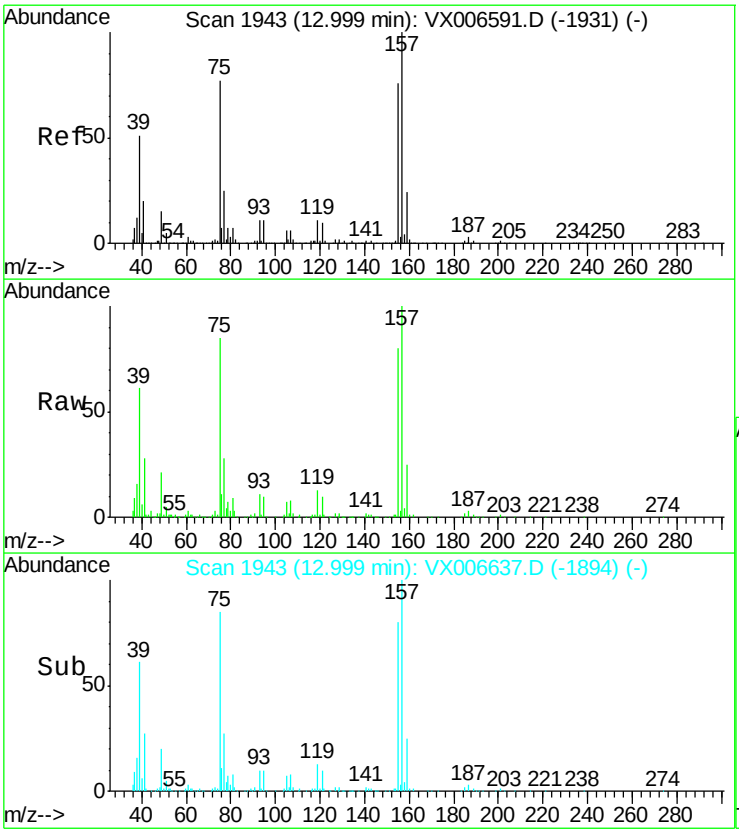


#91
1,2-Dichlorobenzene
Concen: 20.233 ug/l
RT: 12.39 min Scan# 1843
Delta R.T. -0.00 min
Lab File: VX006637.D
Acq: 19 Dec 2018 15:24

Tgt Ion:146 Resp: 297339

Ion	Ratio	Lower	Upper
146	100		
111	39.6	19.4	58.2
148	63.8	32.3	96.9

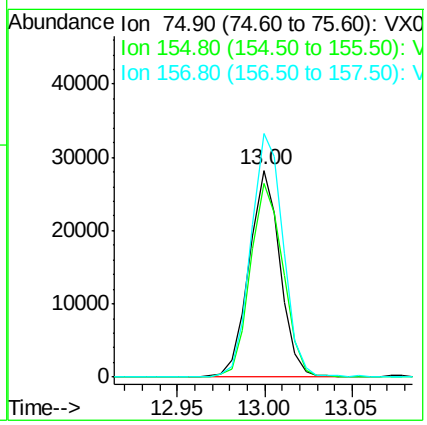


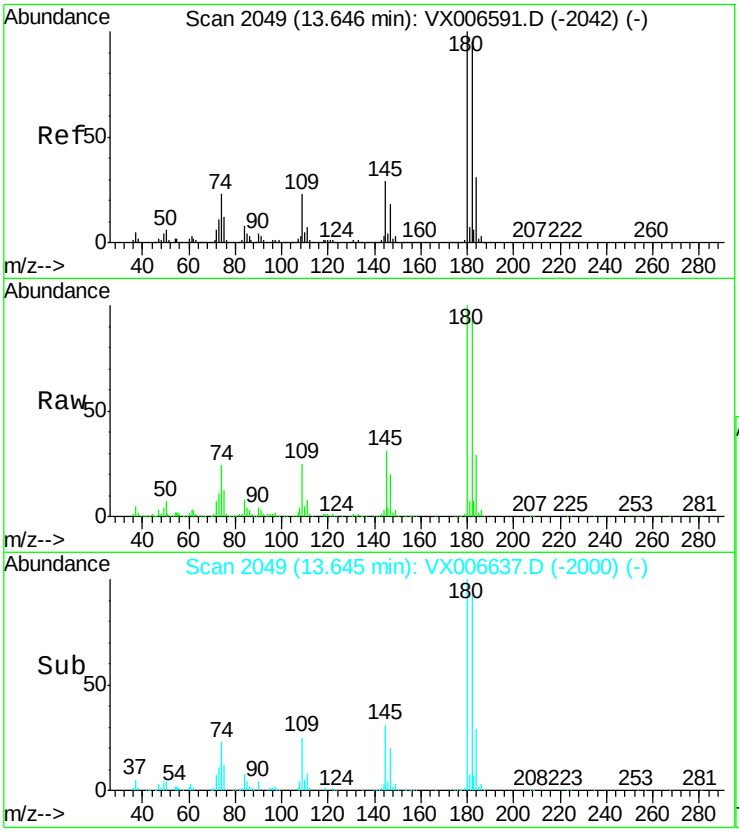


#92
1,2-Dibromo-3-Chloropropane
Concen: 18.800 ug/l
RT: 13.00 min Scan# 1943
Delta R.T. -0.00 min
Lab File: VX006637.D
Acq: 19 Dec 2018 15:24

Tgt Ion: 75 Resp: 34880

Ion	Ratio	Lower	Upper
75	100		
155	99.2	50.6	151.8
157	123.0	64.6	193.8

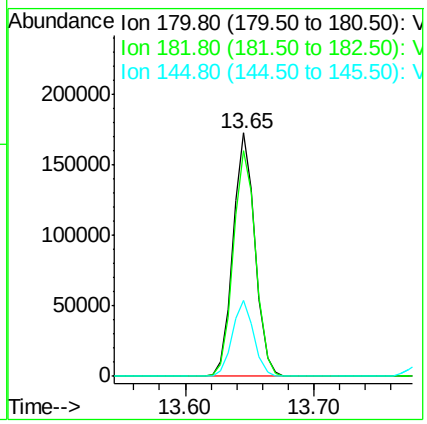




#93
1,2,4-Trichlorobenzene
Concen: 20.305 ug/l
RT: 13.65 min Scan# 2049
Delta R.T. -0.00 min
Lab File: VX006637.D
Acq: 19 Dec 2018 15:24

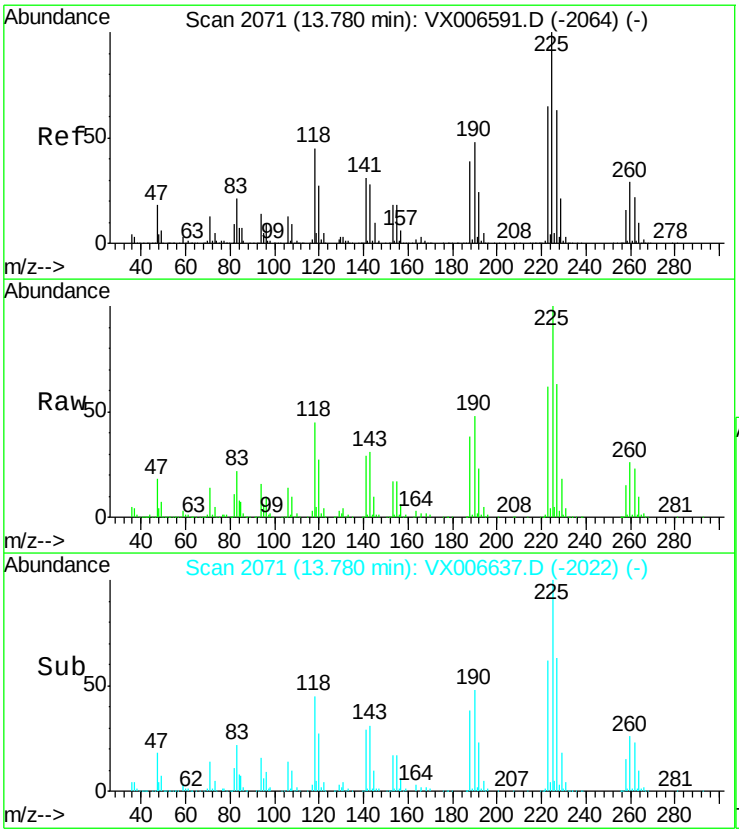
Tgt Ion:180 Resp: 205836

Ion	Ratio	Lower	Upper
180	100		
182	94.5	47.3	142.0
145	30.7	14.8	44.3



Instrument :
MSVOA_X
ClientSampleId :
VX1219WBS01

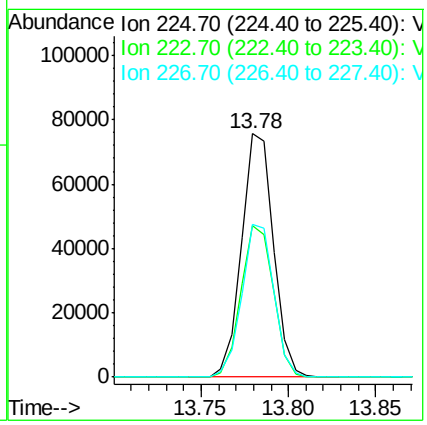
Manual Integrations APPROVED
MMDadoda
12/20/2018 10:00:22 AM



#94
Hexachlorobutadiene
Concen: 20.031 ug/l
RT: 13.78 min Scan# 2071
Delta R.T. -0.00 min
Lab File: VX006637.D
Acq: 19 Dec 2018 15:24

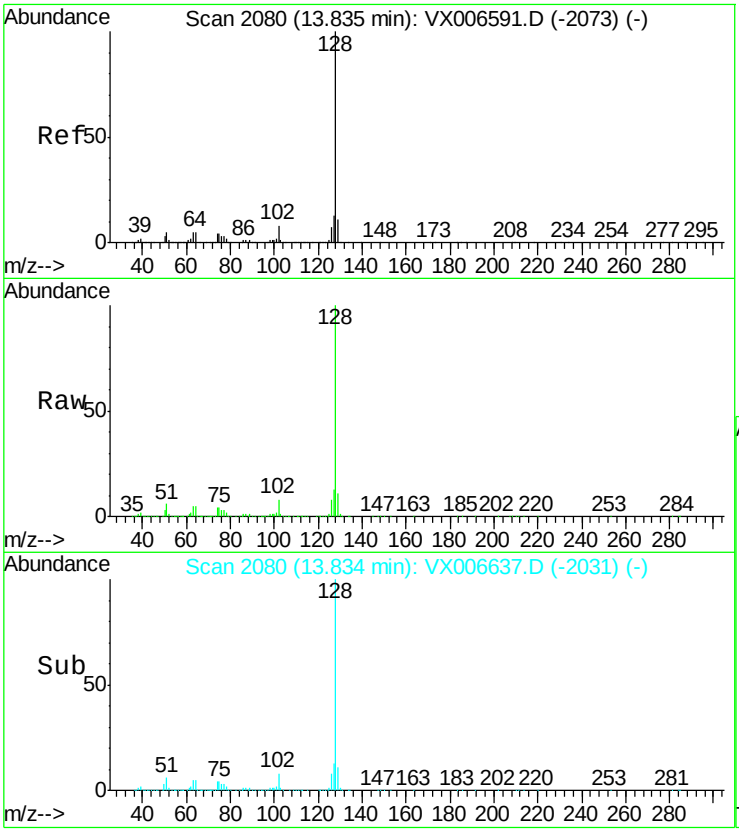
Tgt Ion:225 Resp: 95711

Ion	Ratio	Lower	Upper
225	100		
223	63.2	32.1	96.3
227	62.8	32.3	96.8



Instrument :
MSVOA_X
ClientSampleId :
VX1219WBS01

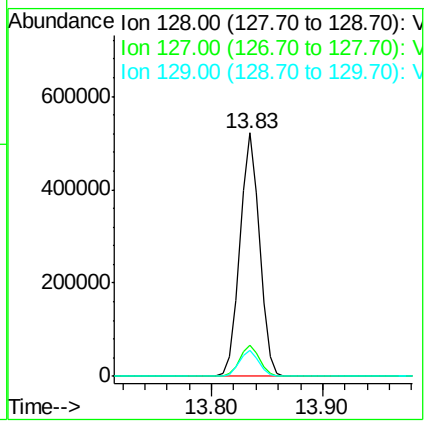
Manual Integrations APPROVED
MMDadoda
12/20/2018 10:00:22 AM

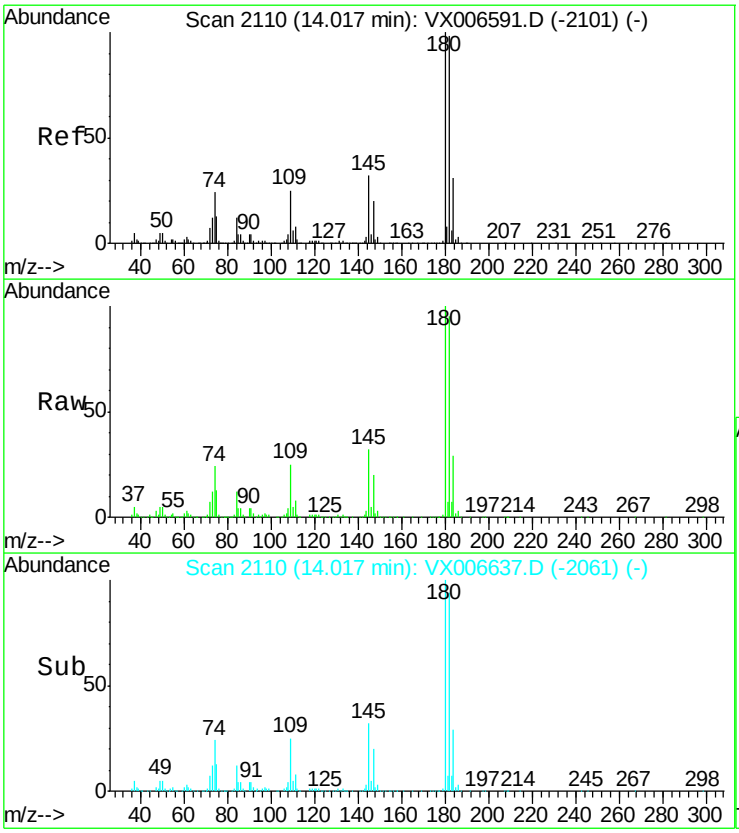


#95
Naphthalene
Concen: 19.651 ug/l
RT: 13.83 min Scan# 2080
Delta R.T. -0.00 min
Lab File: VX006637.D
Acq: 19 Dec 2018 15:24

Tgt Ion:128 Resp: 635799

Ion	Ratio	Lower	Upper
128	100		
127	12.9	10.1	15.1
129	10.7	8.6	13.0

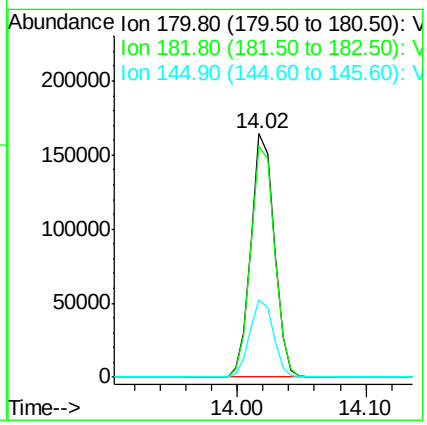




#96
1,2,3-Trichlorobenzene
Concen: 19.440 ug/l
RT: 14.02 min Scan# 2110
Delta R.T. -0.00 min
Lab File: VX006637.D
Acq: 19 Dec 2018 15:24

Tgt Ion:180 Resp: 203469

Ion	Ratio	Lower	Upper
180	100		
182	97.3	48.5	145.5
145	32.5	16.0	47.9



CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Day Environmental, Inc.	Date Collected:	
Project:	Andrew St. RI	Date Received:	
Client Sample ID:	VX1220WBS01	SDG No.:	J6484
Lab Sample ID:	VX1220WBS01	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	DB-624UI ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX006665.D	1		12/20/18 10:27	VX122018

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
75-71-8	Dichlorodifluoromethane	19.2		0.2	0.2	1	ug/L
74-87-3	Chloromethane	20.2		0.2	0.2	1	ug/L
75-01-4	Vinyl Chloride	19.9		0.2	0.2	1	ug/L
74-83-9	Bromomethane	20.9		0.2	0.2	1	ug/L
75-00-3	Chloroethane	18.4		0.2	0.5	1	ug/L
75-69-4	Trichlorofluoromethane	19.9		0.2	0.2	1	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	19.6		0.2	0.2	1	ug/L
75-35-4	1,1-Dichloroethene	19.3		0.2	0.2	1	ug/L
67-64-1	Acetone	100		0.5	1	5	ug/L
75-15-0	Carbon Disulfide	16.8		0.2	0.2	1	ug/L
1634-04-4	Methyl tert-butyl Ether	20.7		0.35	0.5	1	ug/L
79-20-9	Methyl Acetate	21		0.2	0.5	1	ug/L
75-09-2	Methylene Chloride	19.7		0.2	0.2	1	ug/L
156-60-5	trans-1,2-Dichloroethene	18.9		0.2	0.2	1	ug/L
75-34-3	1,1-Dichloroethane	20		0.2	0.2	1	ug/L
110-82-7	Cyclohexane	19.5		0.2	0.2	1	ug/L
78-93-3	2-Butanone	100		1.3	2.5	5	ug/L
56-23-5	Carbon Tetrachloride	18.8		0.2	0.2	1	ug/L
156-59-2	cis-1,2-Dichloroethene	20		0.2	0.2	1	ug/L
74-97-5	Bromochloromethane	20.7		0.2	0.5	1	ug/L
67-66-3	Chloroform	19.8		0.2	0.2	1	ug/L
71-55-6	1,1,1-Trichloroethane	19.6		0.2	0.2	1	ug/L
108-87-2	Methylcyclohexane	19.2		0.2	0.2	1	ug/L
71-43-2	Benzene	19.9		0.2	0.2	1	ug/L
107-06-2	1,2-Dichloroethane	19.7		0.2	0.2	1	ug/L
79-01-6	Trichloroethene	19.4		0.2	0.2	1	ug/L
78-87-5	1,2-Dichloropropane	20.2		0.2	0.2	1	ug/L
75-27-4	Bromodichloromethane	18.7		0.2	0.2	1	ug/L
108-10-1	4-Methyl-2-Pentanone	110		1	1	5	ug/L
108-88-3	Toluene	20		0.2	0.2	1	ug/L
10061-02-6	t-1,3-Dichloropropene	18.6		0.2	0.2	1	ug/L
10061-01-5	cis-1,3-Dichloropropene	19.7		0.2	0.2	1	ug/L

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Day Environmental, Inc.	Date Collected:	
Project:	Andrew St. RI	Date Received:	
Client Sample ID:	VX1220WBS01	SDG No.:	J6484
Lab Sample ID:	VX1220WBS01	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	DB-624UI ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX006665.D	1		12/20/18 10:27	VX122018

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
79-00-5	1,1,2-Trichloroethane	20.3		0.2	0.2	1	ug/L
591-78-6	2-Hexanone	110		1.9	2.5	5	ug/L
124-48-1	Dibromochloromethane	18.4		0.2	0.2	1	ug/L
106-93-4	1,2-Dibromoethane	20.6		0.2	0.2	1	ug/L
127-18-4	Tetrachloroethene	20		0.2	0.2	1	ug/L
108-90-7	Chlorobenzene	19.9		0.2	0.2	1	ug/L
100-41-4	Ethyl Benzene	19.6		0.2	0.2	1	ug/L
179601-23-1	m/p-Xylenes	40.1		0.4	0.4	2	ug/L
95-47-6	o-Xylene	20.1		0.2	0.2	1	ug/L
100-42-5	Styrene	20.2		0.2	0.2	1	ug/L
75-25-2	Bromoform	18.3		0.2	0.2	1	ug/L
98-82-8	Isopropylbenzene	19.7		0.2	0.2	1	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	20.4		0.2	0.2	1	ug/L
541-73-1	1,3-Dichlorobenzene	19.6		0.2	0.2	1	ug/L
106-46-7	1,4-Dichlorobenzene	19.1		0.2	0.2	1	ug/L
95-50-1	1,2-Dichlorobenzene	19.8		0.2	0.2	1	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	18.2		0.2	0.2	1	ug/L
120-82-1	1,2,4-Trichlorobenzene	19.2		0.2	0.2	1	ug/L
87-61-6	1,2,3-Trichlorobenzene	18.6		0.2	0.2	1	ug/L
SURROGATES							
17060-07-0	1,2-Dichloroethane-d4	50.1		61 - 141		100%	SPK: 50
1868-53-7	Dibromofluoromethane	48.6		69 - 133		97%	SPK: 50
2037-26-5	Toluene-d8	49.6		65 - 126		99%	SPK: 50
460-00-4	4-Bromofluorobenzene	49.6		58 - 135		99%	SPK: 50
INTERNAL STANDARDS							
363-72-4	Pentafluorobenzene	588775	5.67				
540-36-3	1,4-Difluorobenzene	912822	6.86				
3114-55-4	Chlorobenzene-d5	837848	10.11				
3855-82-1	1,4-Dichlorobenzene-d4	442553	12.08				

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Day Environmental, Inc.	Date Collected:	
Project:	Andrew St. RI	Date Received:	
Client Sample ID:	VX1220WBS01	SDG No.:	J6484
Lab Sample ID:	VX1220WBS01	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	DB-624UI ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX006665.D	1		12/20/18 10:27	VX122018

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit
A = Aldol-Condensation Reaction Products

Quantitation Report (QT Reviewed)

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX122018\
Data File : VX006665.D
Acq On : 20 Dec 2018 10:27
Operator : JC/MD
Sample : VX1220WBS01
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Dec 21 03:50:59 2018
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121818W.M
Quant Title : SW846 8260
QLast Update : Wed Dec 19 15:20:58 2018
Response via : Initial Calibration

Instrument :
MSVOA_X
ClientSampleId :
VX1220WBS01

Manual Integrations APPROVED
MMDadoda
12/21/2018 10:18:54 AM

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	5.67	168	588775	50.00	ug/l	0.00
34) 1,4-Difluorobenzene	6.86	114	912822	50.00	ug/l	0.00
63) Chlorobenzene-d5	10.11	117	837848	50.00	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	12.08	152	442553	50.00	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	6.07	65	317844	50.09	ug/l	0.00
Spiked Amount 50.000			Recovery = 100.18%			
35) Dibromofluoromethane	5.50	113	280506	48.59	ug/l	0.00
Spiked Amount 50.000			Recovery = 97.18%			
50) Toluene-d8	8.71	98	1079845	49.62	ug/l	0.00
Spiked Amount 50.000			Recovery = 99.24%			
62) 4-Bromofluorobenzene	11.13	95	395648	49.64	ug/l	0.00
Spiked Amount 50.000			Recovery = 99.28%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.20	85	103428	19.202	ug/l	100
3) Chloromethane	1.33	50	117038	20.169	ug/l	100
4) Vinyl Chloride	1.41	62	120528	19.887	ug/l	99
5) Bromomethane	1.64	94	124650	20.925	ug/l	100
6) Chloroethane	1.73	64	77403	18.445	ug/l	98
7) Trichlorofluoromethane	1.93	101	188299	19.928	ug/l	97
8) Diethyl Ether	2.19	74	72526	19.325	ug/l	99
9) 1,1,2-Trichlorotrifluoroet	2.39	101	108619	19.578	ug/l	96
10) Methyl Iodide	2.51	142	164192	20.675	ug/l	99
11) Tert butyl alcohol	3.07	59	148583	104.920	ug/l	99
12) 1,1-Dichloroethene	2.38	96	101468	19.289	ug/l	96
13) Acrolein	2.30	56	80582	84.348	ug/l	93
14) Allyl chloride	2.73	41	174513	19.708	ug/l	99
15) Acrylonitrile	3.15	53	321047	102.104	ug/l	99
16) Acetone	2.45	43	296894	101.838	ug/l	98
17) Carbon Disulfide	2.57	76	234281	16.829	ug/l	100
18) Methyl Acetate	2.78	43	180162	21.016	ug/l	98
19) Methyl tert-butyl Ether	3.21	73	360594	20.653	ug/l	99
20) Methylene Chloride	2.86	84	118460	19.650	ug/l	97
21) trans-1,2-Dichloroethene	3.17	96	110207	18.908	ug/l	97
22) Diisopropyl ether	3.87	45	334454	20.646	ug/l	93
23) Vinyl Acetate	3.82	43	1323485	99.882	ug/l	99
24) 1,1-Dichloroethane	3.70	63	193024	19.961	ug/l	97
25) 2-Butanone	4.70	43	418105	101.957	ug/l	97
26) 2,2-Dichloropropane	4.59	77	138089	18.486	ug/l	99
27) cis-1,2-Dichloroethene	4.60	96	128421	19.969	ug/l	99
28) Bromochloromethane	5.02	49	88651	20.660	ug/l	96
29) Tetrahydrofuran	5.15	42	273314	101.193	ug/l	99
30) Chloroform	5.21	83	198252	19.798	ug/l	96
31) Cyclohexane	5.58	56	171272	19.496	ug/l	97
32) 1,1,1-Trichloroethane	5.49	97	165849	19.614	ug/l	99
36) 1,1-Dichloropropene	5.80	75	148940	19.700	ug/l	99
37) Ethyl Acetate	4.85	43	156209	19.852	ug/l	99
38) Carbon Tetrachloride	5.79	117	138012	18.784	ug/l	96

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX122018\
Data File : VX006665.D
Acq On : 20 Dec 2018 10:27
Operator : JC/MD
Sample : VX1220WBS01
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 5 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
VX1220WBS01

Manual Integrations APPROVED
MMDadoda
12/21/2018 10:18:54 AM

Quant Time: Dec 21 03:50:59 2018
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121818W.M
Quant Title : SW846 8260
QLast Update : Wed Dec 19 15:20:58 2018
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
39) Methylcyclohexane	7.46	83	190661	19.156	ug/l		98
40) Benzene	6.14	78	457014	19.887	ug/l		98
41) Methacrylonitrile	5.06	41	87530	20.952	ug/l		98
42) 1,2-Dichloroethane	6.20	62	153959	19.661	ug/l		99
43) Isopropyl Acetate	6.46	43	241230	20.148	ug/l		99
44) Trichloroethene	7.21	130	135074	19.420	ug/l		94
45) 1,2-Dichloropropane	7.52	63	113044	20.214	ug/l		99
46) Dibromomethane	7.66	93	80849	19.655	ug/l		99
47) Bromodichloromethane	7.90	83	127900	18.728	ug/l		99
48) Methyl methacrylate	7.77	41	126798	20.826	ug/l		99
49) 1,4-Dioxane	7.75	88	68275	416.995	ug/l		98
51) 4-Methyl-2-Pentanone	8.65	43	809345	106.242	ug/l		100
52) Toluene	8.78	92	296198	19.951	ug/l		98
53) t-1,3-Dichloropropene	9.04	75	136098	18.582	ug/l		98
54) cis-1,3-Dichloropropene	8.43	75	158714	19.749	ug/l		99
55) 1,1,2-Trichloroethane	9.21	97	123236	20.279	ug/l		98
56) Ethyl methacrylate	9.18	69	177994	20.724	ug/l		99
57) 1,3-Dichloropropane	9.37	76	194993	19.944	ug/l		99
58) 2-Chloroethyl Vinyl ether	8.31	63	460800	100.928	ug/l		99
59) 2-Hexanone	9.49	43	625075	107.242	ug/l		100
60) Dibromochloromethane	9.58	129	106930	18.366	ug/l		98
61) 1,2-Dibromoethane	9.67	107	132843	20.564	ug/l		99
64) Tetrachloroethene	9.34	164	132627	19.991	ug/l		99
65) Chlorobenzene	10.14	112	352205	19.870	ug/l		100
66) 1,1,1,2-Tetrachloroethane	10.22	131	109876	19.868	ug/l		99
67) Ethyl Benzene	10.25	91	568625	19.632	ug/l		99
68) m/p-Xylenes	10.36	106	458353	40.103	ug/l		100
69) o-Xylene	10.70	106	226529	20.071	ug/l		99
70) Styrene	10.71	104	360355	20.182	ug/l		99
71) Bromoform	10.86	173	75601	18.263	ug/l	#	98
73) Isopropylbenzene	11.02	105	595567	19.671	ug/l		99
74) N-amyl acetate	10.90	43	221409	20.431	ug/l		98
75) 1,1,2,2-Tetrachloroethane	11.27	83	183818	20.415	ug/l		99
76) 1,2,3-Trichloropropane	11.29	75	170912m	20.781	ug/l		
77) Bromobenzene	11.26	156	159149	19.443	ug/l		97
78) n-propylbenzene	11.36	91	652235	19.563	ug/l		99
79) 2-Chlorotoluene	11.42	91	397180	19.658	ug/l		99
80) 1,3,5-Trimethylbenzene	11.51	105	493061	19.772	ug/l		99
81) trans-1,4-Dichloro-2-buten	11.07	75	37832	17.046	ug/l	#	84
82) 4-Chlorotoluene	11.51	91	459033	19.807	ug/l		99
83) tert-Butylbenzene	11.77	119	493506	19.773	ug/l		98
84) 1,2,4-Trimethylbenzene	11.80	105	504297	19.226	ug/l		100
85) sec-Butylbenzene	11.94	105	602595	19.692	ug/l		99
86) p-Isopropyltoluene	12.06	119	534422	19.868	ug/l		100
87) 1,3-Dichlorobenzene	12.02	146	288895	19.584	ug/l		98
88) 1,4-Dichlorobenzene	12.10	146	289291	19.130	ug/l		97
89) n-Butylbenzene	12.38	91	444230	19.405	ug/l		99
90) Hexachloroethane	12.60	117	67022	18.165	ug/l		99
91) 1,2-Dichlorobenzene	12.39	146	291539	19.756	ug/l		100
92) 1,2-Dibromo-3-Chloropropan	13.00	75	33886	18.188	ug/l		98

Data Path : Z:\VOASRV\HPCHEM1\MSVOA X\DATA\VX122018\
Data File : VX006665.D
Acq On : 20 Dec 2018 10:27
Operator : JC/MD
Sample : VX1220WBS01
Misc : 5.0mL/MSVOA X/WATER
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Dec 21 03:50:59 2018
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121818W.M
Quant Title : SW846 8260
QLast Update : Wed Dec 19 15:20:58 2018
Response via : Initial Calibration

Instrument :
MSVOA_X
ClientSampleId :
VX1220WBS01

Manual Integrations APPROVED
MMDadoda
12/21/2018 10:18:54 AM

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
93) 1,2,4-Trichlorobenzene	13.65	180	195427	19.199	ug/l	100
94) Hexachlorobutadiene	13.78	225	89925	18.742	ug/l	98
95) Naphthalene	13.83	128	628321	19.340	ug/l	99
96) 1,2,3-Trichlorobenzene	14.02	180	195481	18.600	ug/l	99

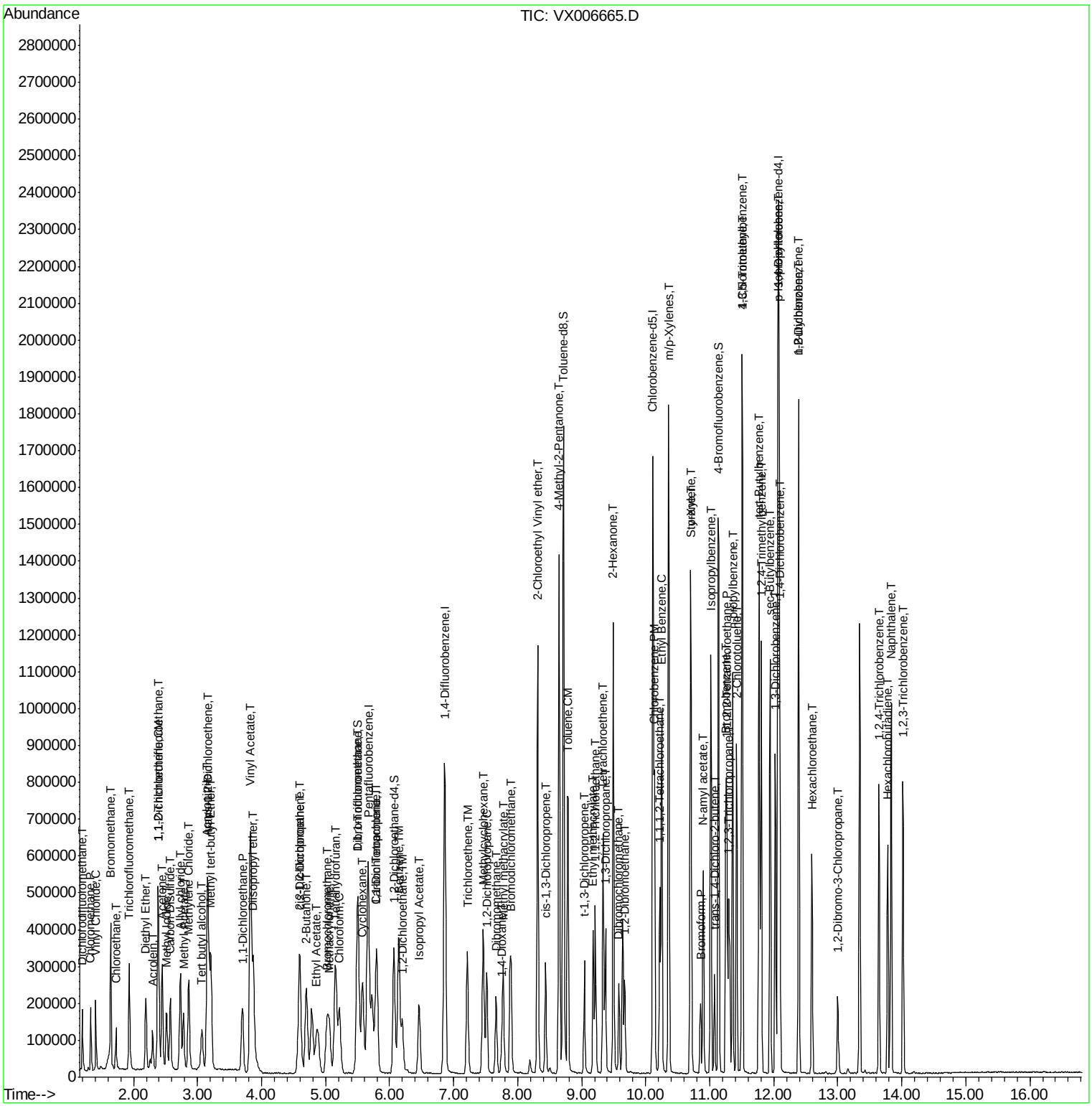
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX122018\
Data File : VX006665.D
Acq On : 20 Dec 2018 10:27
Operator : JC/MD
Sample : VX1220WBS01
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Dec 21 03:50:59 2018
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121818W.M
Quant Title : SW846 8260
QLast Update : Wed Dec 19 15:20:58 2018
Response via : Initial Calibration

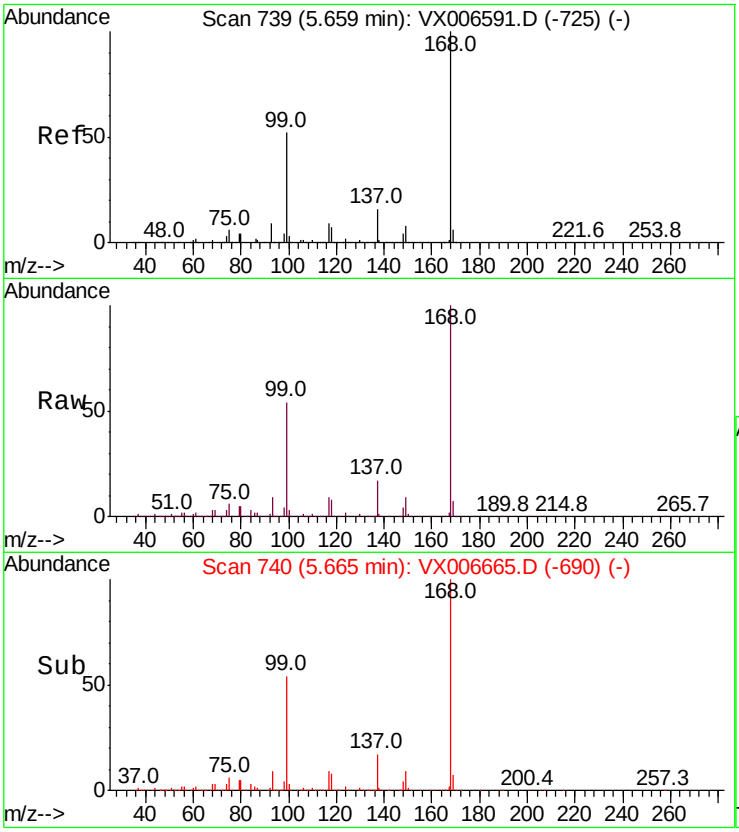
Instrument :
MSVOA_X
ClientSampleId :
VX1220WBS01

Manual Integrations APPROVED
MMDadoda
12/21/2018 10:18:54 AM



Instrument :
MSVOA_X
ClientSampleId :
VX1220WBS01

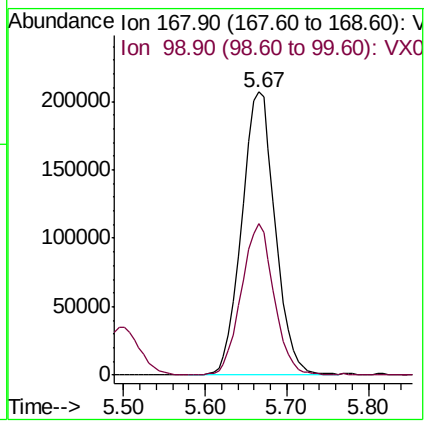
Manual Integrations APPROVED
MMDadoda
12/21/2018 10:18:54 AM

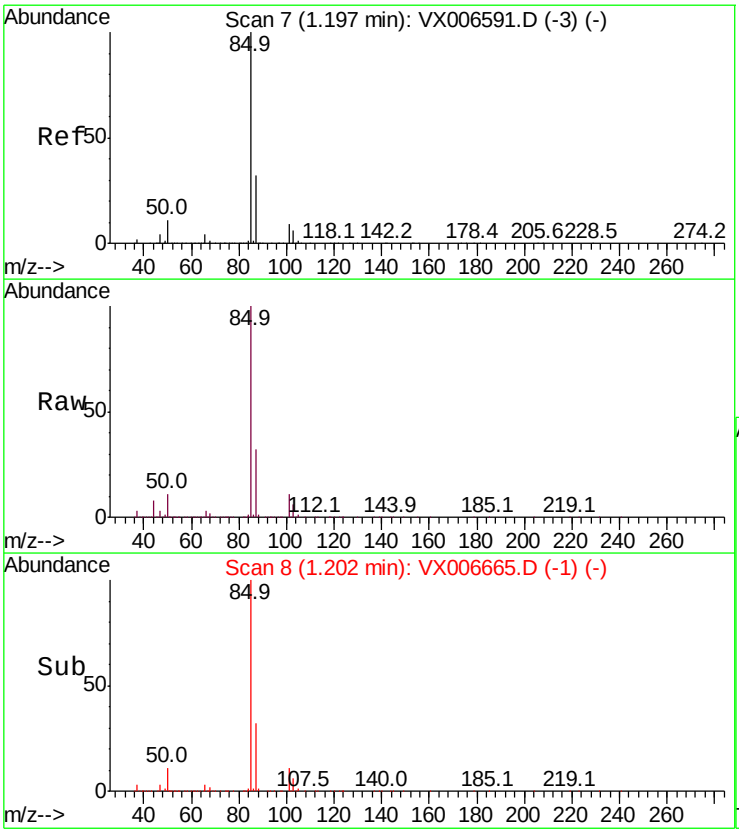


#1
Pentafluorobenzene
Concen: 50.000 ug/l
RT: 5.67 min Scan# 740
Delta R.T. 0.01 min
Lab File: VX006665.D
Acq: 20 Dec 2018 10:27

Tgt Ion:168 Resp: 588775

Ion	Ratio	Lower	Upper
168	100		
99	53.5	41.8	62.8

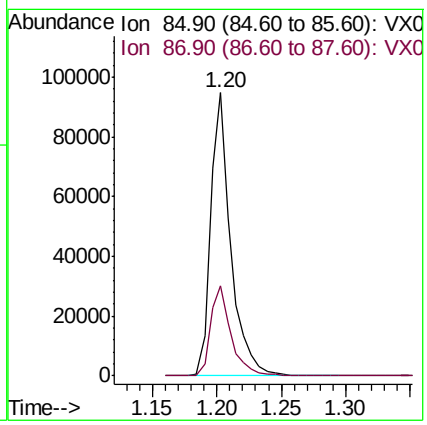




#2
Dichlorodifluoromethane
Concen: 19.202 ug/l
RT: 1.20 min Scan# 8
Delta R.T. 0.01 min
Lab File: VX006665.D
Acq: 20 Dec 2018 10:27

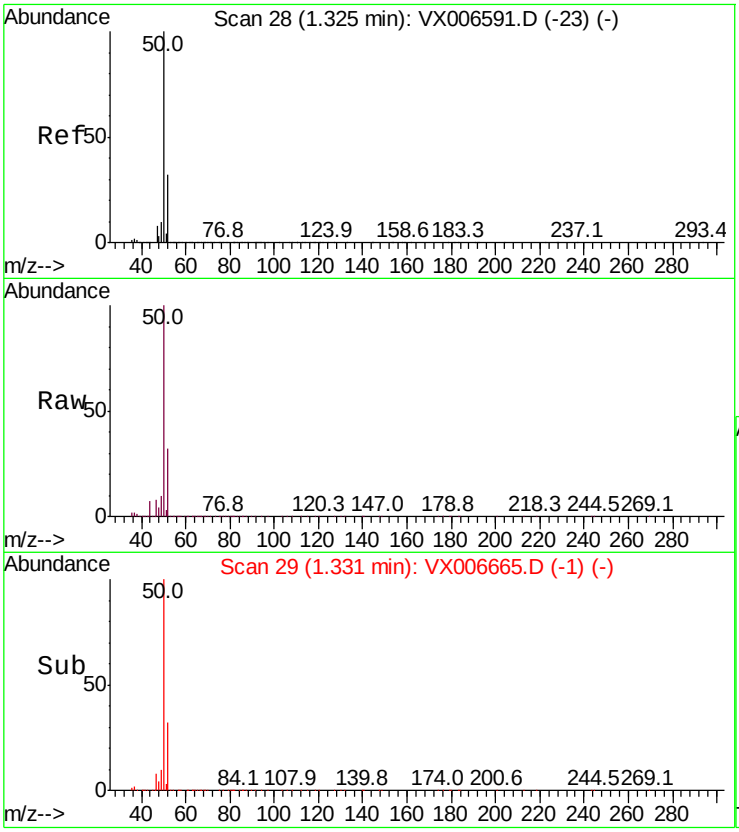
Tgt Ion: 85 Resp: 103428

Ion	Ratio	Lower	Upper
85	100		
87	31.8	15.9	47.6



Instrument :
MSVOA_X
ClientSampleId :
VX1220WBS01

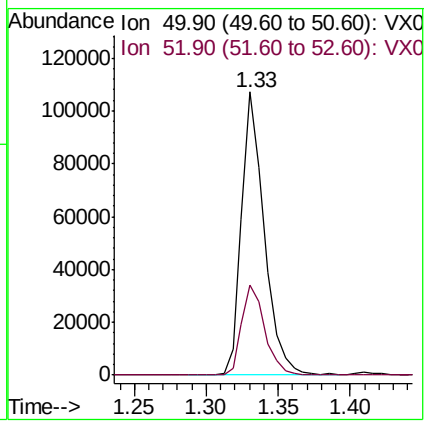
Manual Integrations APPROVED
MMDadoda
12/21/2018 10:18:54 AM

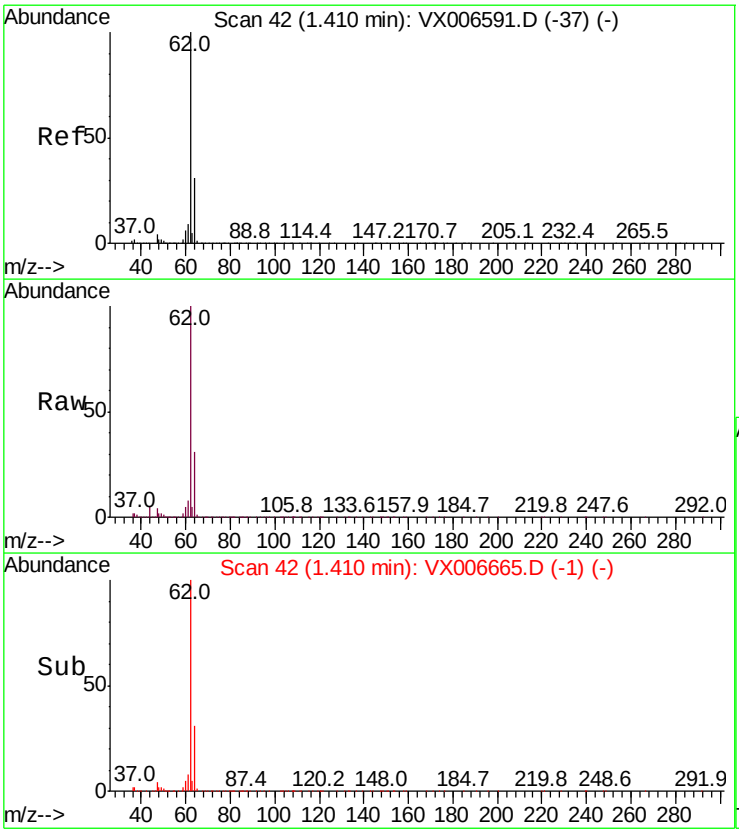


#3
Chloromethane
Concen: 20.169 ug/l
RT: 1.33 min Scan# 29
Delta R.T. 0.01 min
Lab File: VX006665.D
Acq: 20 Dec 2018 10:27

Tgt Ion: 50 Resp: 117038

Ion	Ratio	Lower	Upper
50	100		
52	31.5	25.4	38.2

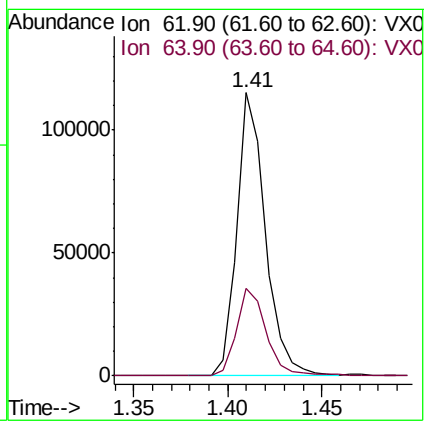




#4
Vinyl Chloride
Concen: 19.887 ug/l
RT: 1.41 min Scan# 42
Delta R.T. -0.00 min
Lab File: VX006665.D
Acq: 20 Dec 2018 10:27

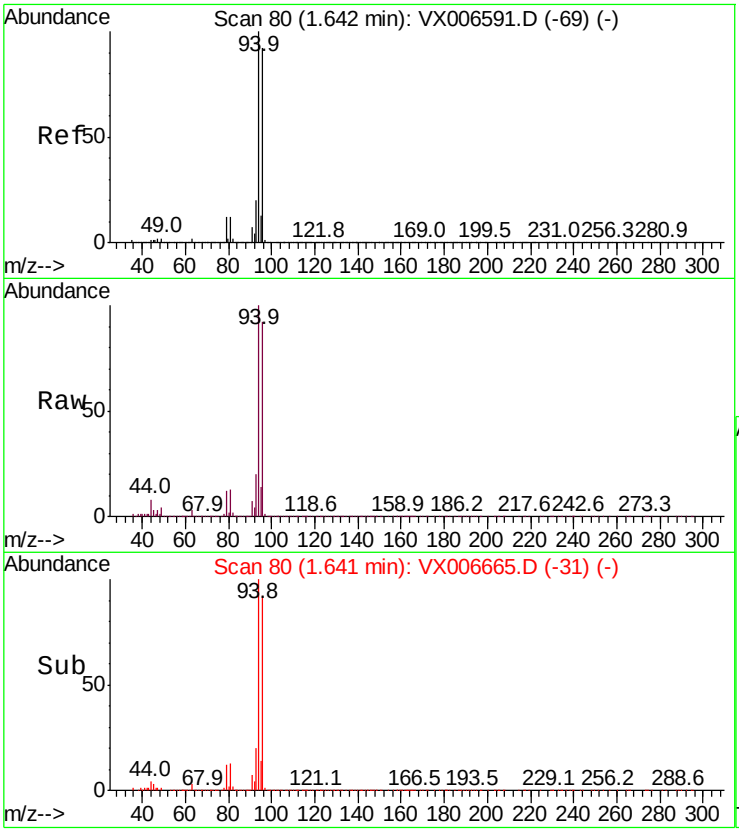
Tgt Ion: 62 Resp: 120528

Ion	Ratio	Lower	Upper
62	100		
64	31.0	25.1	37.7



Instrument :
MSVOA_X
ClientSampleId :
VX1220WBS01

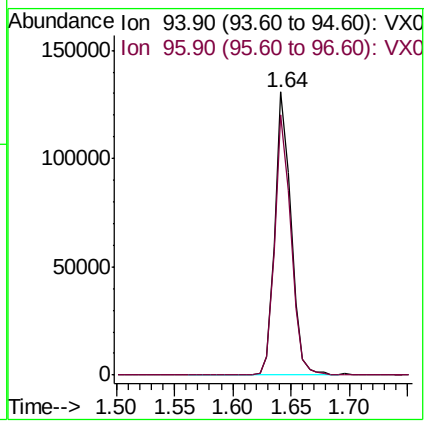
Manual Integrations APPROVED
MMDadoda
12/21/2018 10:18:54 AM

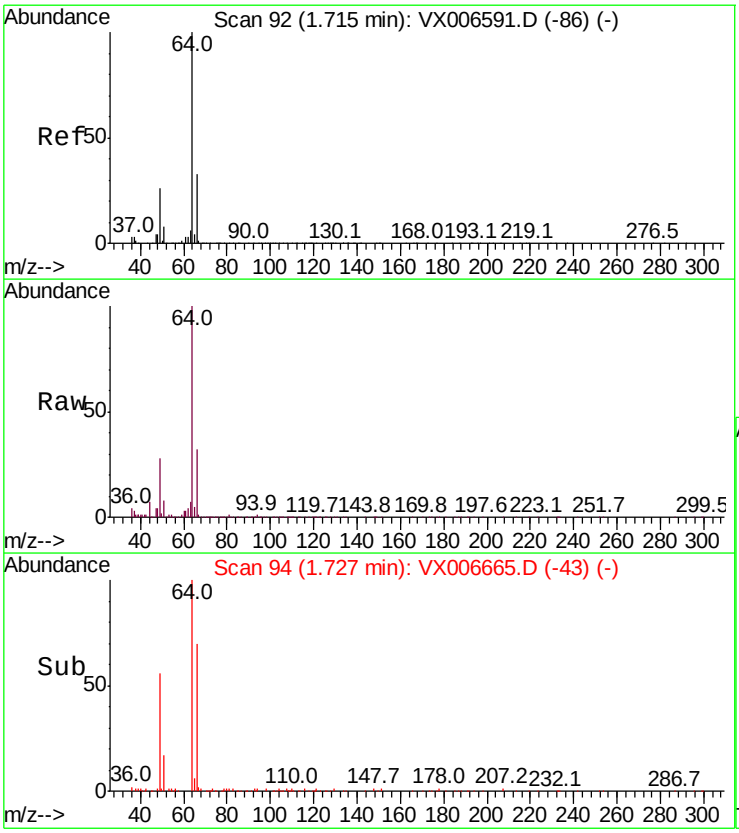


#5
Bromomethane
Concen: 20.925 ug/l
RT: 1.64 min Scan# 80
Delta R.T. 0.00 min
Lab File: VX006665.D
Acq: 20 Dec 2018 10:27

Tgt Ion: 94 Resp: 124650

Ion	Ratio	Lower	Upper
94	100		
96	92.1	73.4	110.2

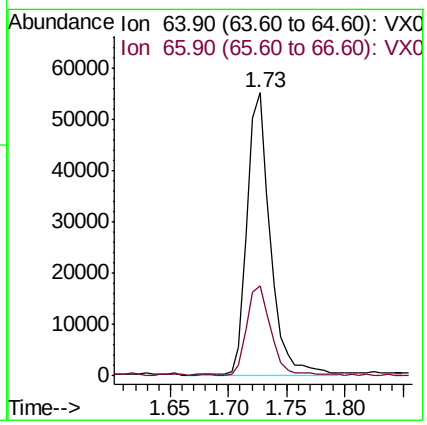




#6
Chloroethane
Concen: 18.445 ug/l
RT: 1.73 min Scan# 94
Delta R.T. 0.01 min
Lab File: VX006665.D
Acq: 20 Dec 2018 10:27

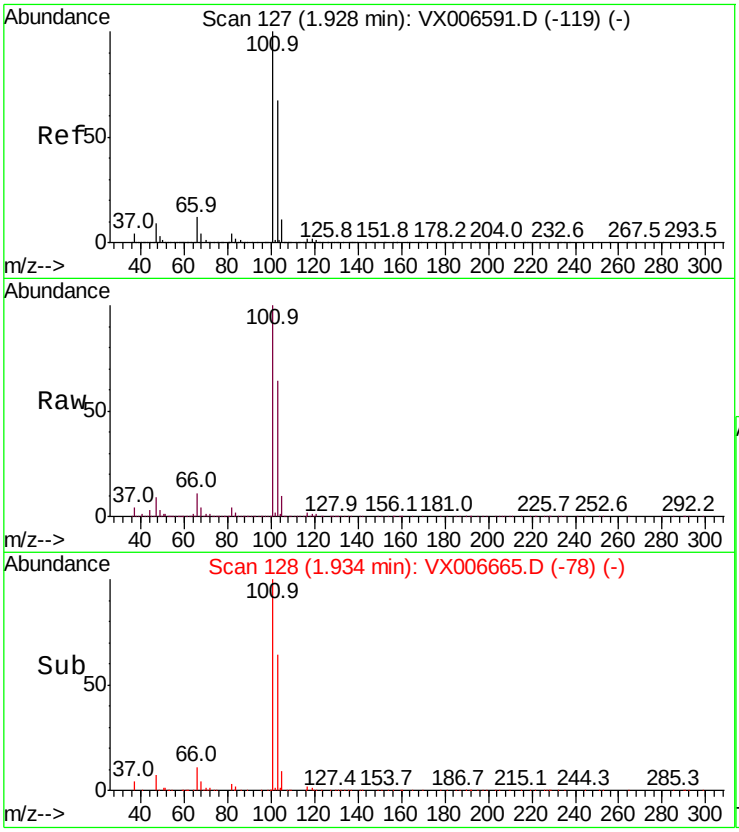
Tgt Ion: 64 Resp: 77403

Ion	Ratio	Lower	Upper
64	100		
66	31.8	26.4	39.6



Instrument :
MSVOA_X
ClientSampleId :
VX1220WBS01

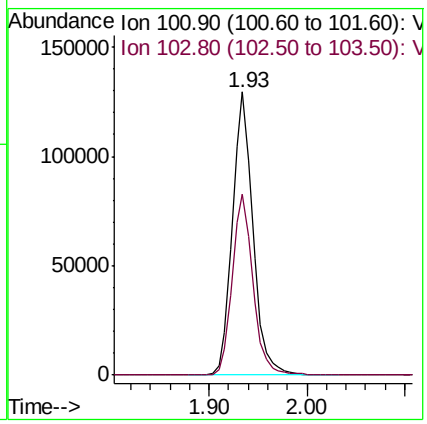
Manual Integrations APPROVED
MMDadoda
12/21/2018 10:18:54 AM

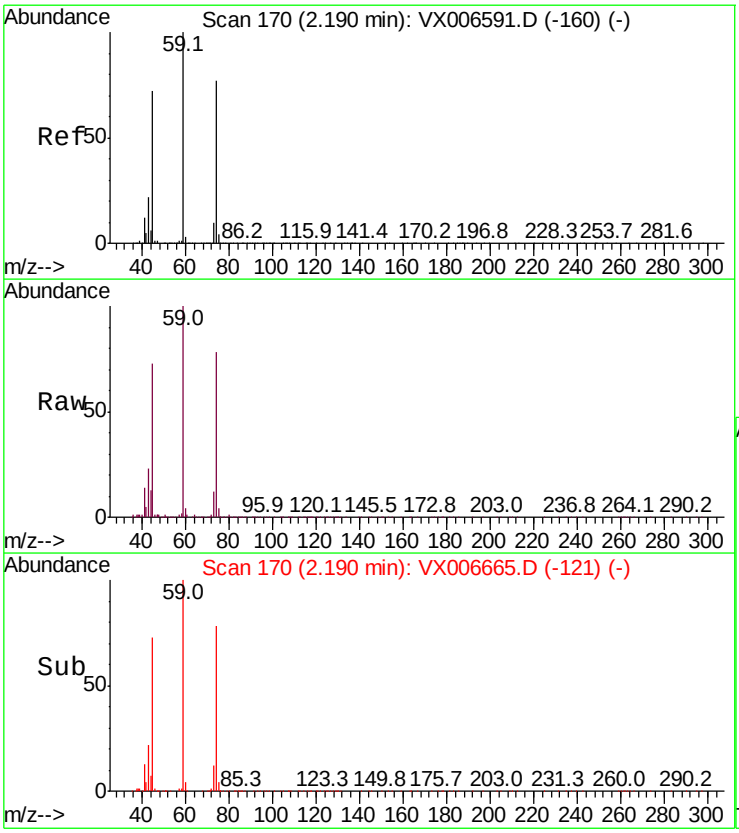


#7
Trichlorofluoromethane
Concen: 19.928 ug/l
RT: 1.93 min Scan# 128
Delta R.T. 0.01 min
Lab File: VX006665.D
Acq: 20 Dec 2018 10:27

Tgt Ion:101 Resp: 188299

Ion	Ratio	Lower	Upper
101	100		
103	63.8	53.2	79.8

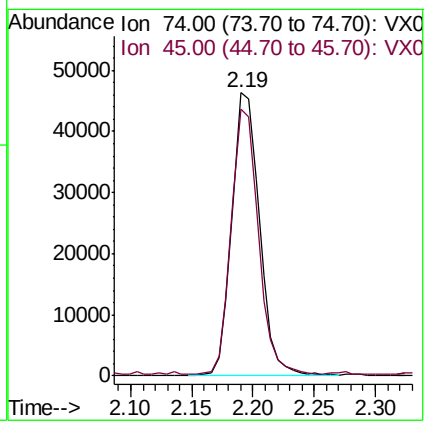




#8
Diethyl Ether
Concen: 19.325 ug/l
RT: 2.19 min Scan# 170
Delta R.T. -0.00 min
Lab File: VX006665.D
Acq: 20 Dec 2018 10:27

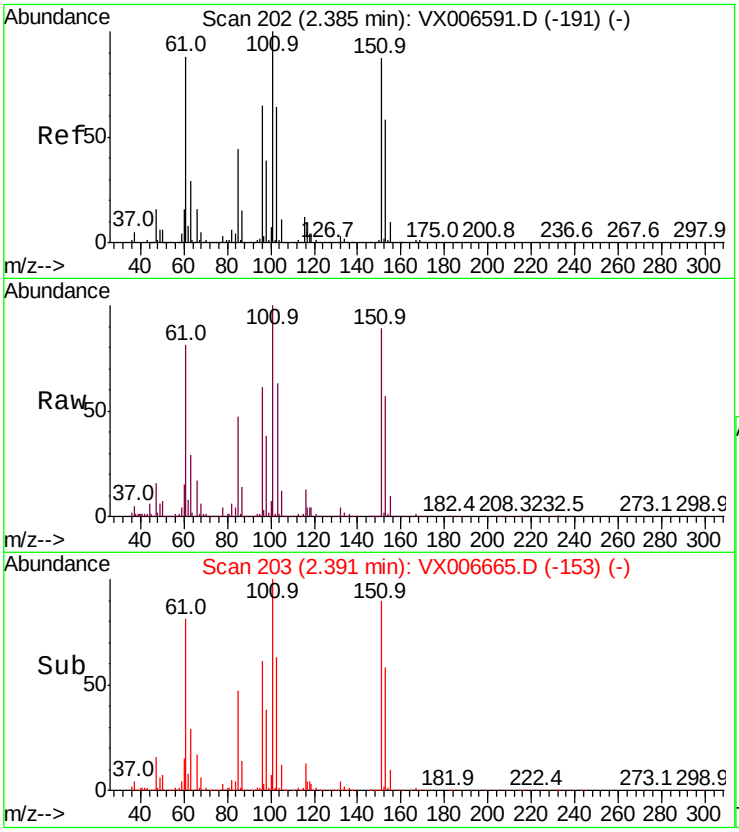
Tgt Ion: 74 Resp: 72526

Ion	Ratio	Lower	Upper
74	100		
45	92.1	46.3	138.9



Instrument :
MSVOA_X
ClientSampleId :
VX1220WBS01

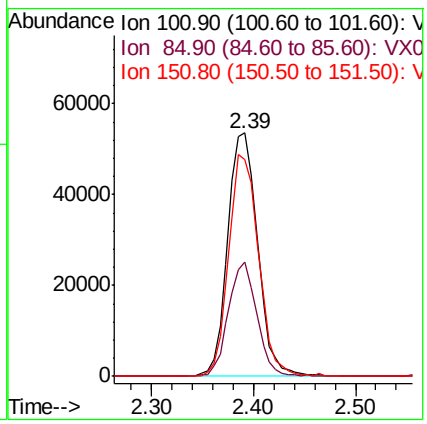
Manual Integrations APPROVED
MMDadoda
12/21/2018 10:18:54 AM

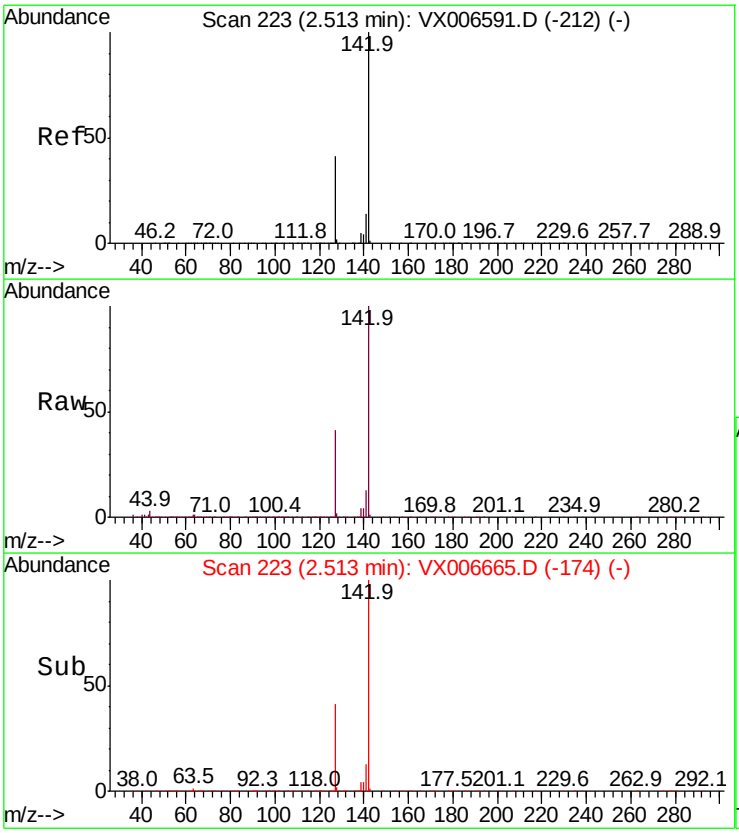


#9
1,1,2-Trichlorotrifluoroethane
Concen: 19.578 ug/l
RT: 2.39 min Scan# 203
Delta R.T. 0.01 min
Lab File: VX006665.D
Acq: 20 Dec 2018 10:27

Tgt Ion:101 Resp: 108619

Ion	Ratio	Lower	Upper
101	100		
85	44.8	35.1	52.7
151	90.5	68.9	103.3

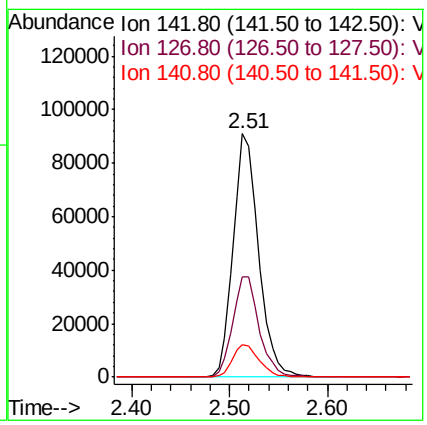




#10
Methyl Iodide
Concen: 20.675 ug/l
RT: 2.51 min Scan# 223
Delta R.T. -0.00 min
Lab File: VX006665.D
Acq: 20 Dec 2018 10:27

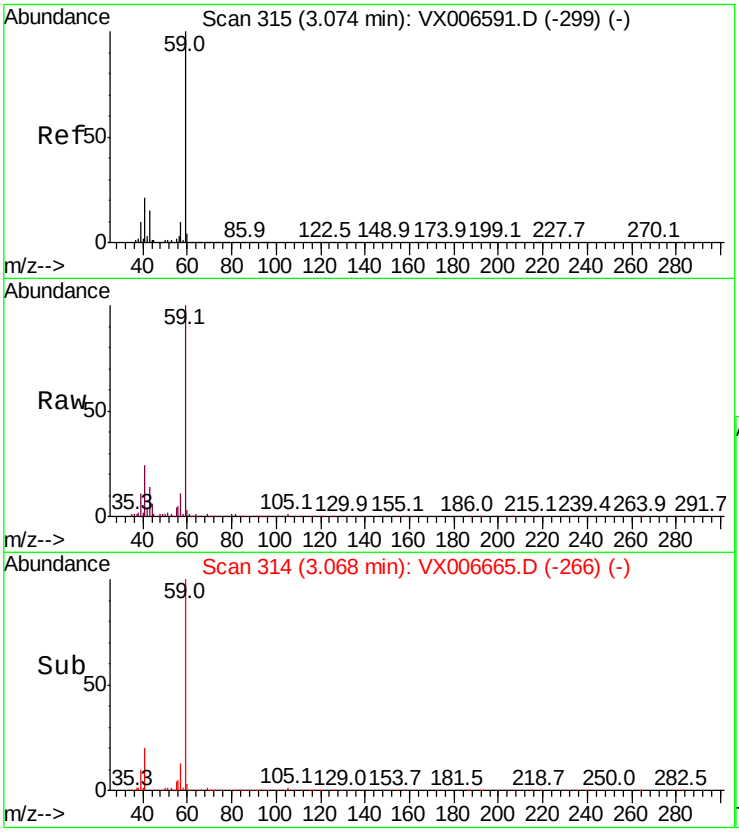
Tgt Ion:142 Resp: 164192

Ion	Ratio	Lower	Upper
142	100		
127	43.2	33.9	50.9
141	14.2	11.4	17.0



Instrument :
MSVOA_X
ClientSampleId :
VX1220WBS01

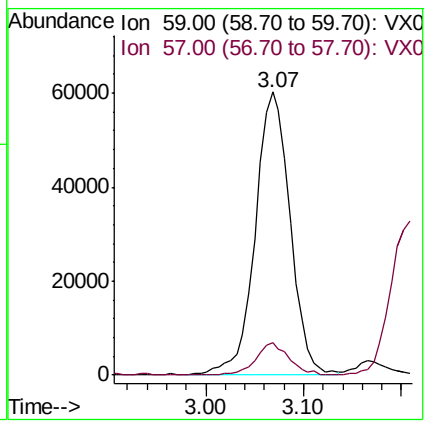
Manual Integrations APPROVED
MMDadoda
12/21/2018 10:18:54 AM

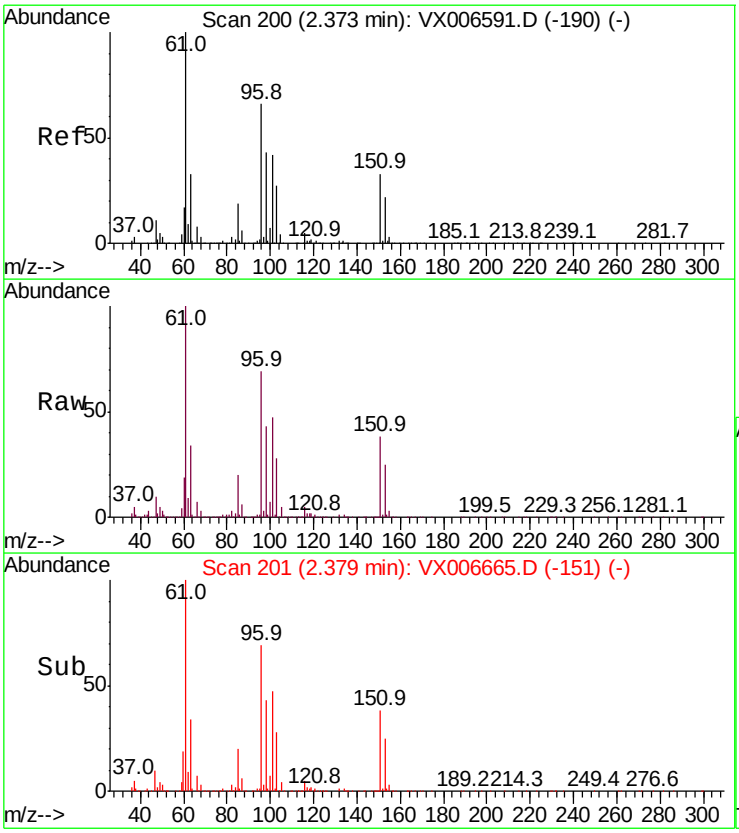


#11
Tert butyl alcohol
Concen: 104.920 ug/l
RT: 3.07 min Scan# 314
Delta R.T. -0.01 min
Lab File: VX006665.D
Acq: 20 Dec 2018 10:27

Tgt Ion: 59 Resp: 148583

Ion	Ratio	Lower	Upper
59	100		
57	10.3	8.5	12.7

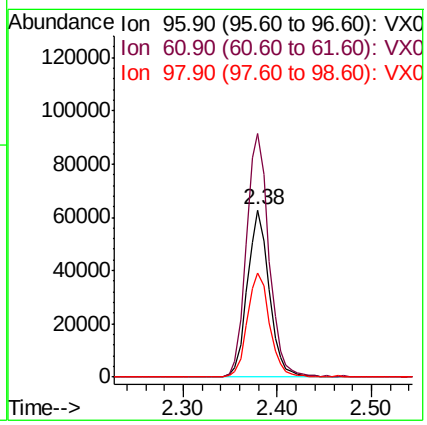




#12
1,1-Dichloroethene
Concen: 19.289 ug/l
RT: 2.38 min Scan# 201
Delta R.T. 0.01 min
Lab File: VX006665.D
Acq: 20 Dec 2018 10:27

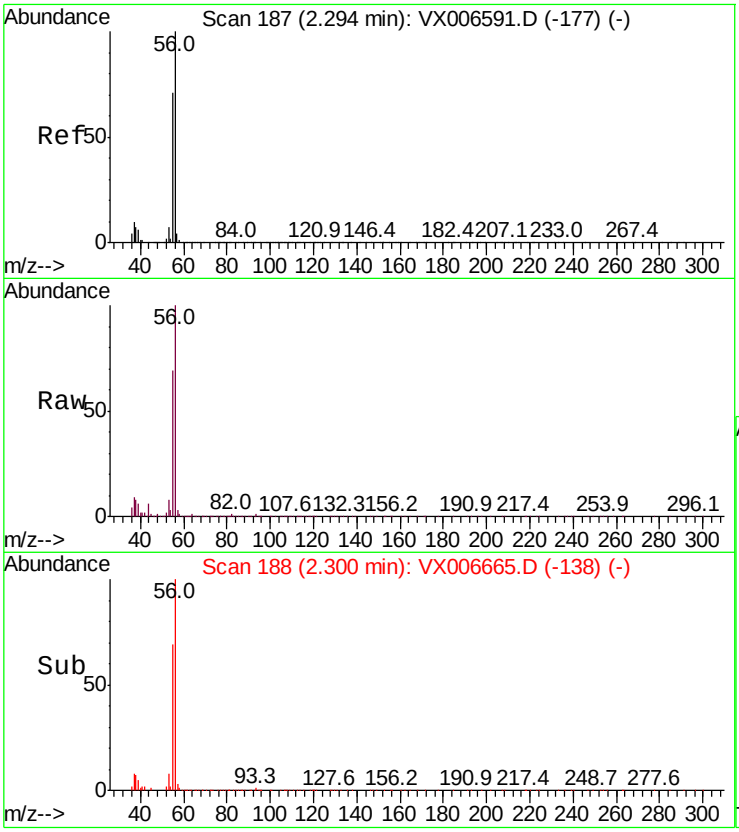
Tgt Ion: 96 Resp: 101468

Ion	Ratio	Lower	Upper
96	100		
61	145.7	121.4	182.2
98	62.6	51.9	77.9



Instrument :
MSVOA_X
ClientSampleId :
VX1220WBS01

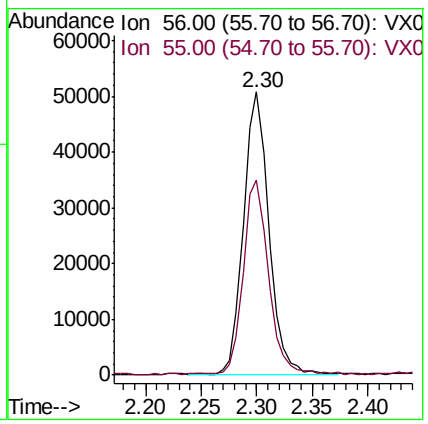
Manual Integrations APPROVED
MMDadoda
12/21/2018 10:18:54 AM

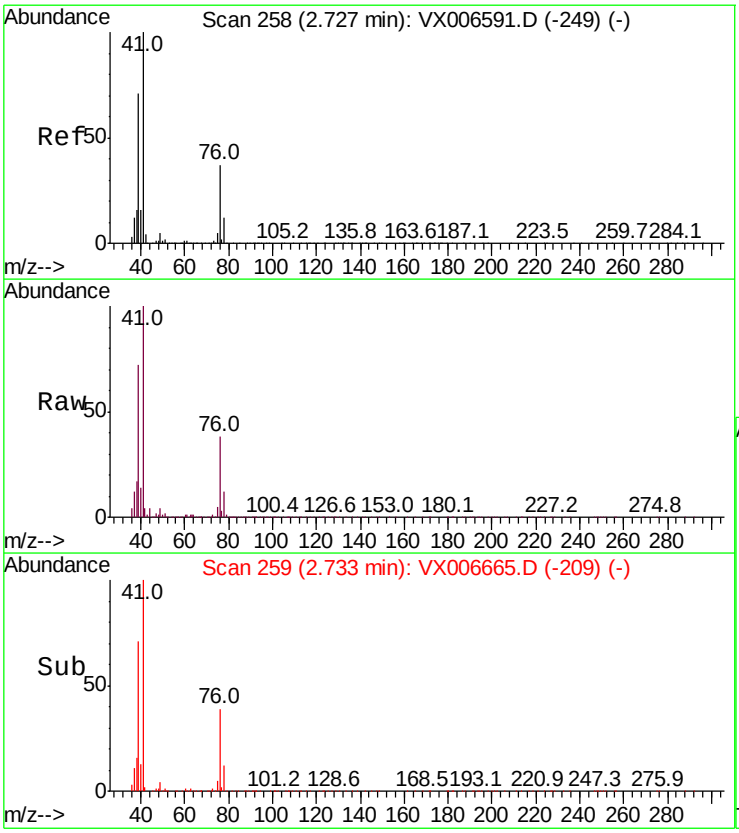


#13
Acrolein
Concen: 84.348 ug/l
RT: 2.30 min Scan# 188
Delta R.T. 0.01 min
Lab File: VX006665.D
Acq: 20 Dec 2018 10:27

Tgt Ion: 56 Resp: 80582

Ion	Ratio	Lower	Upper
56	100		
55	66.9	58.2	87.4

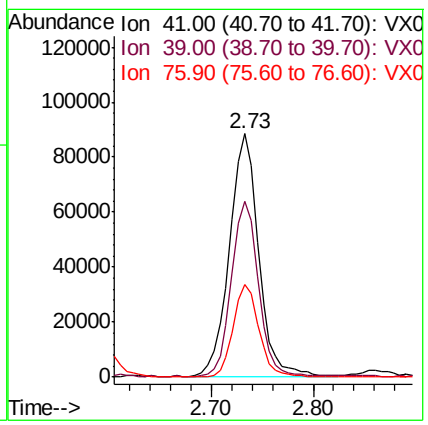




#14
Allyl chloride
Concen: 19.708 ug/l
RT: 2.73 min Scan# 259
Delta R.T. 0.01 min
Lab File: VX006665.D
Acq: 20 Dec 2018 10:27

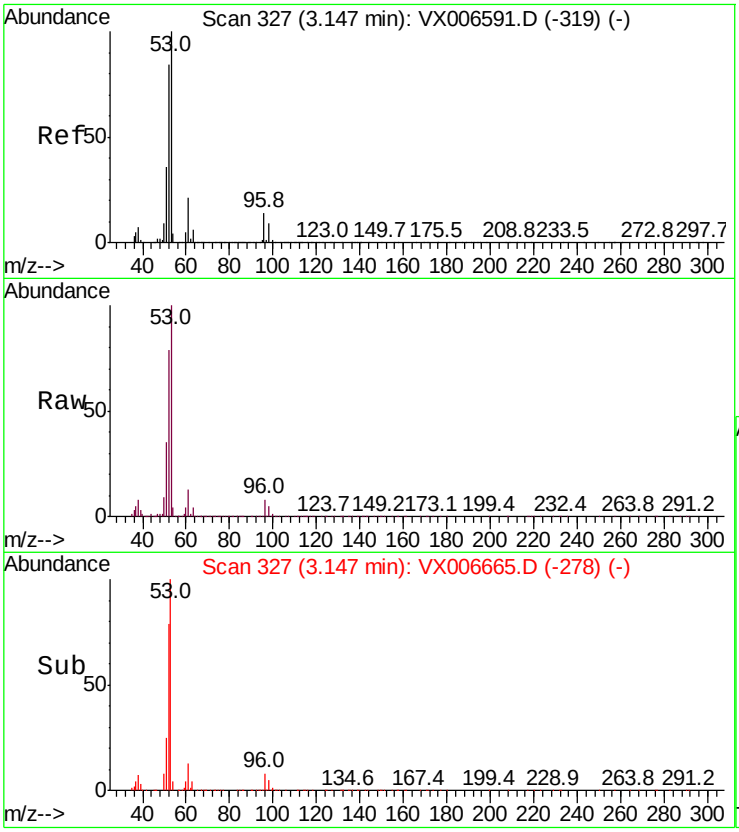
Tgt Ion: 41 Resp: 174513

Ion	Ratio	Lower	Upper
41	100		
39	66.5	53.6	80.4
76	33.0	27.4	41.2



Instrument :
MSVOA_X
ClientSampleId :
VX1220WBS01

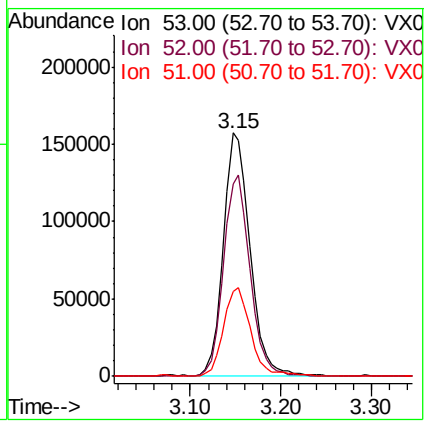
Manual Integrations APPROVED
MMDadoda
12/21/2018 10:18:54 AM

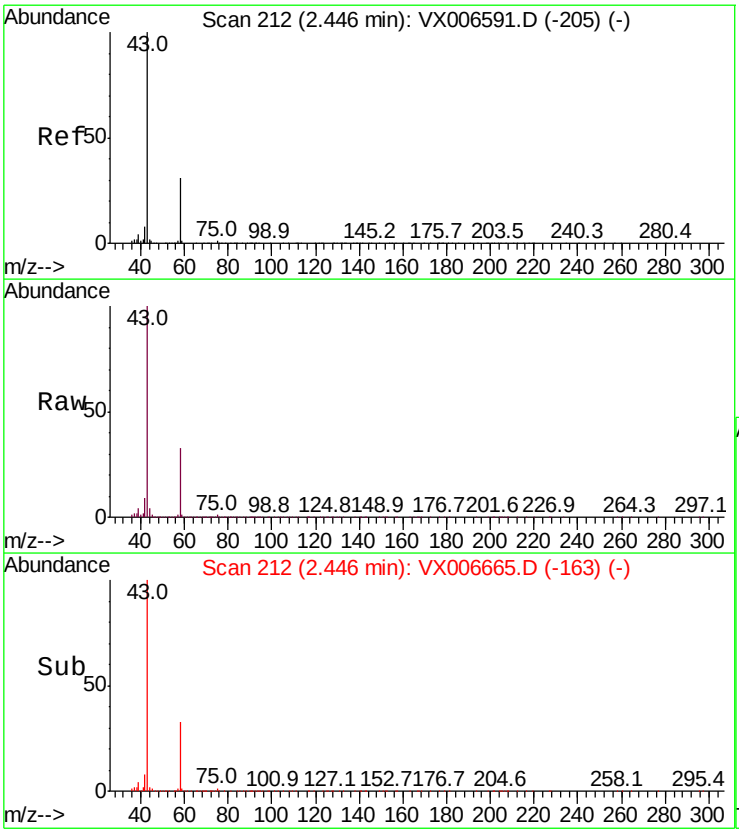


#15
Acrylonitrile
Concen: 102.104 ug/l
RT: 3.15 min Scan# 327
Delta R.T. -0.00 min
Lab File: VX006665.D
Acq: 20 Dec 2018 10:27

Tgt Ion: 53 Resp: 321047

Ion	Ratio	Lower	Upper
53	100		
52	81.9	66.0	99.0
51	36.9	28.6	42.8

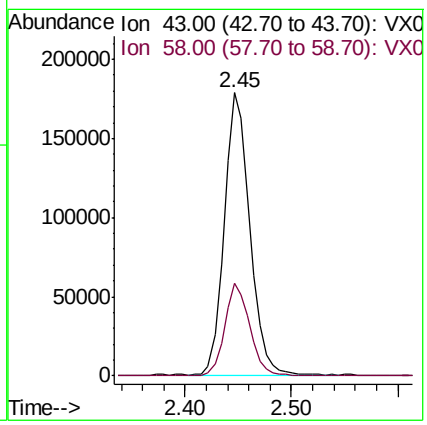




#16
Acetone
Concen: 101.838 ug/l
RT: 2.45 min Scan# 212
Delta R.T. -0.00 min
Lab File: VX006665.D
Acq: 20 Dec 2018 10:27

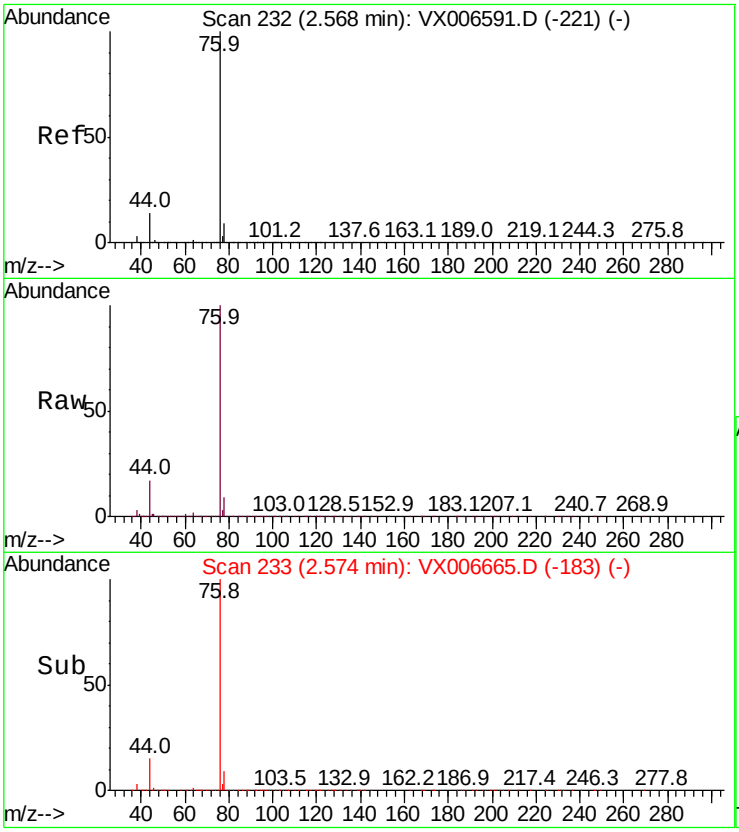
Tgt Ion: 43 Resp: 296894

Ion	Ratio	Lower	Upper
43	100		
58	32.7	25.0	37.6



Instrument :
MSVOA_X
ClientSampleId :
VX1220WBS01

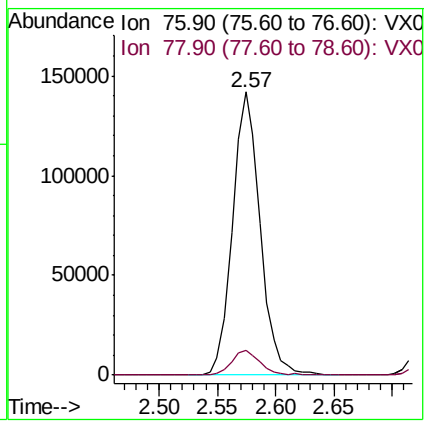
Manual Integrations APPROVED
MMDadoda
12/21/2018 10:18:54 AM

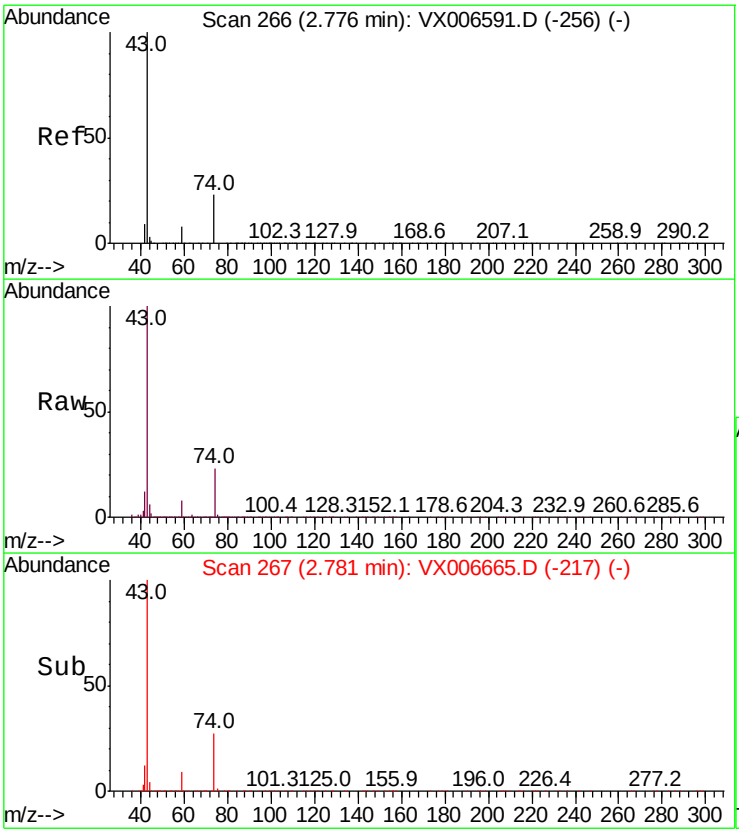


#17
Carbon Disulfide
Concen: 16.829 ug/l
RT: 2.57 min Scan# 233
Delta R.T. 0.01 min
Lab File: VX006665.D
Acq: 20 Dec 2018 10:27

Tgt Ion: 76 Resp: 234281

Ion	Ratio	Lower	Upper
76	100		
78	8.8	7.0	10.6

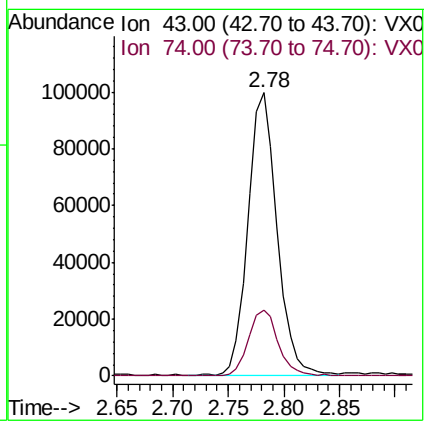




#18
Methyl Acetate
Concen: 21.016 ug/l
RT: 2.78 min Scan# 267
Delta R.T. 0.01 min
Lab File: VX006665.D
Acq: 20 Dec 2018 10:27

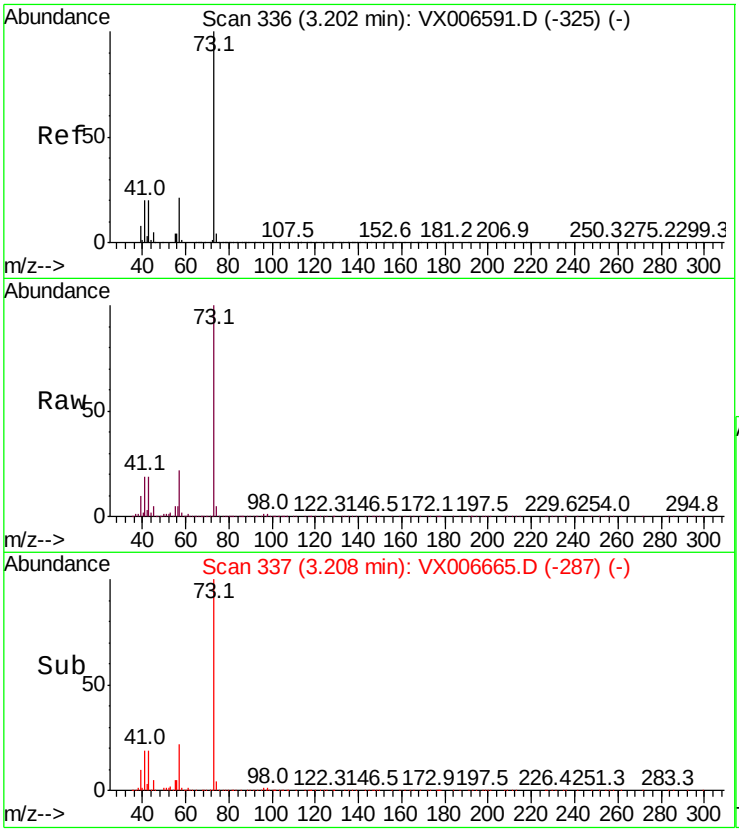
Tgt Ion: 43 Resp: 180162

Ion	Ratio	Lower	Upper
43	100		
74	24.3	18.6	28.0



Instrument :
MSVOA_X
ClientSampleId :
VX1220WBS01

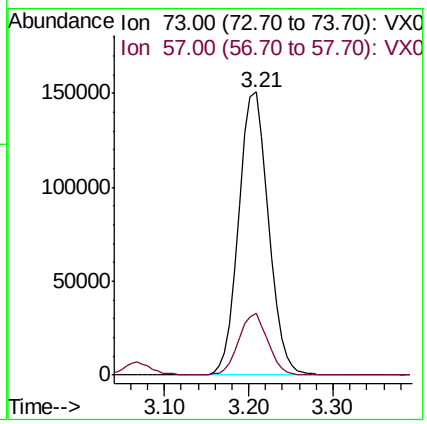
Manual Integrations APPROVED
MMDadoda
12/21/2018 10:18:54 AM

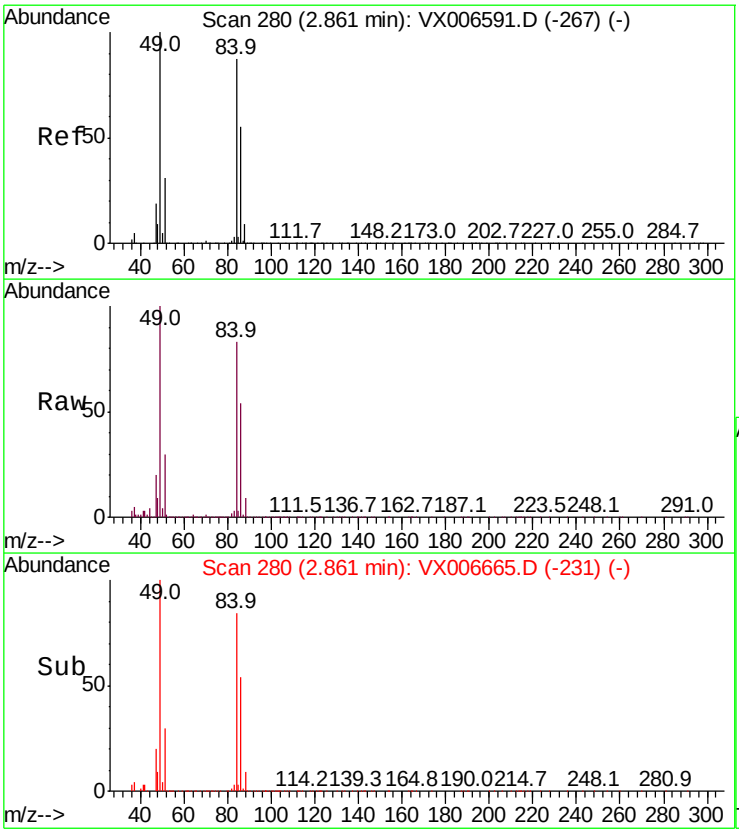


#19
Methyl tert-butyl Ether
Concen: 20.653 ug/l
RT: 3.21 min Scan# 337
Delta R.T. 0.01 min
Lab File: VX006665.D
Acq: 20 Dec 2018 10:27

Tgt Ion: 73 Resp: 360594

Ion	Ratio	Lower	Upper
73	100		
57	21.5	16.8	25.2

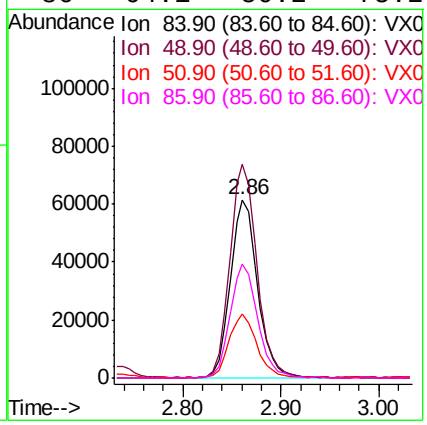




#20
Methylene Chloride
Concen: 19.650 ug/l
RT: 2.86 min Scan# 280
Delta R.T. -0.00 min
Lab File: VX006665.D
Acq: 20 Dec 2018 10:27

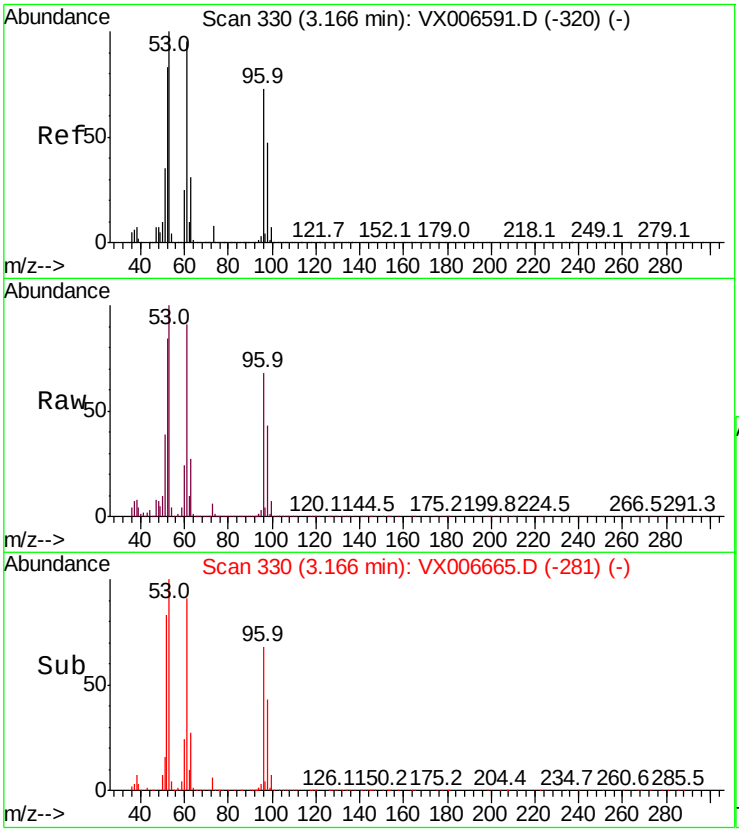
Tgt Ion: 84 Resp: 118460

Ion	Ratio	Lower	Upper
84	100		
49	119.5	91.8	137.6
51	35.8	28.5	42.7
86	64.1	50.2	75.2



Instrument :
MSVOA_X
ClientSampleId :
VX1220WBS01

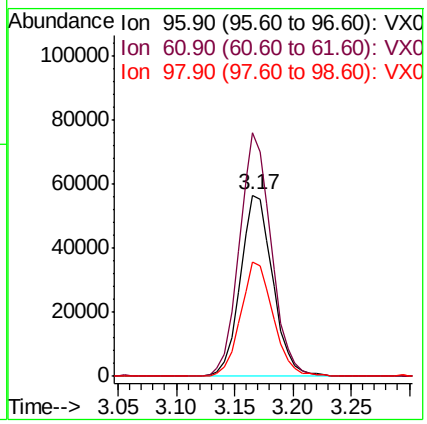
Manual Integrations APPROVED
MMDadoda
12/21/2018 10:18:54 AM

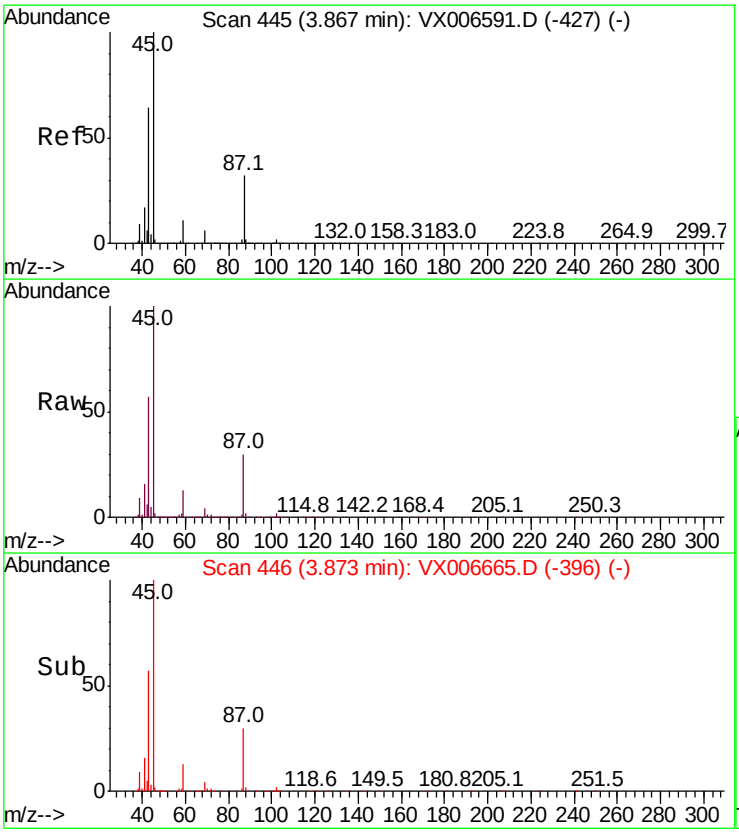


#21
trans-1,2-Dichloroethene
Concen: 18.908 ug/l
RT: 3.17 min Scan# 330
Delta R.T. -0.00 min
Lab File: VX006665.D
Acq: 20 Dec 2018 10:27

Tgt Ion: 96 Resp: 110207

Ion	Ratio	Lower	Upper
96	100		
61	134.1	103.7	155.5
98	63.2	51.0	76.6

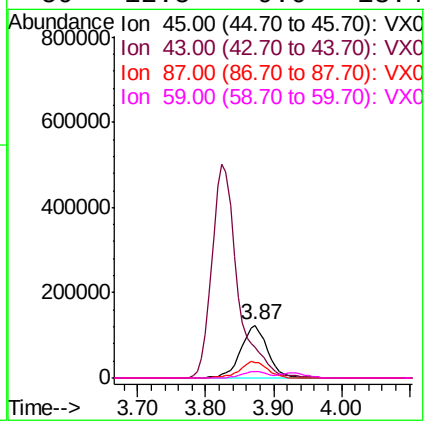




#22
Diisopropyl ether
Concen: 20.646 ug/l
RT: 3.87 min Scan# 446
Delta R.T. 0.01 min
Lab File: VX006665.D
Acq: 20 Dec 2018 10:27

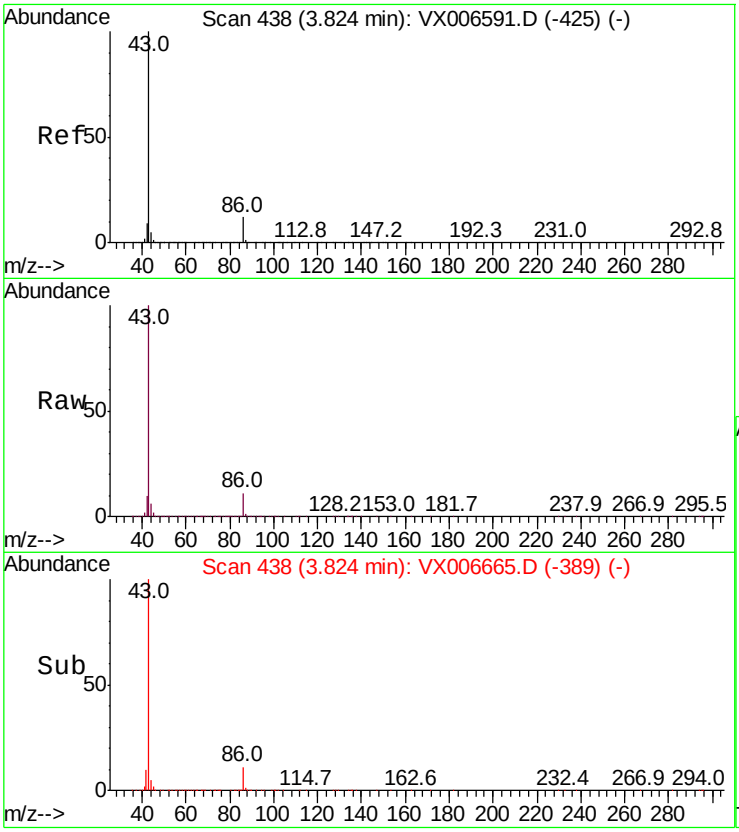
Tgt Ion: 45 Resp: 334454

Ion	Ratio	Lower	Upper
45	100		
43	56.6	51.2	76.8
87	30.3	25.8	38.6
59	12.5	9.0	13.4



Instrument :
MSVOA_X
ClientSampleId :
VX1220WBS01

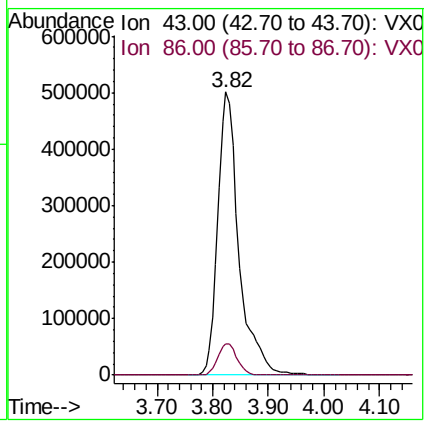
Manual Integrations APPROVED
MMDadoda
12/21/2018 10:18:54 AM

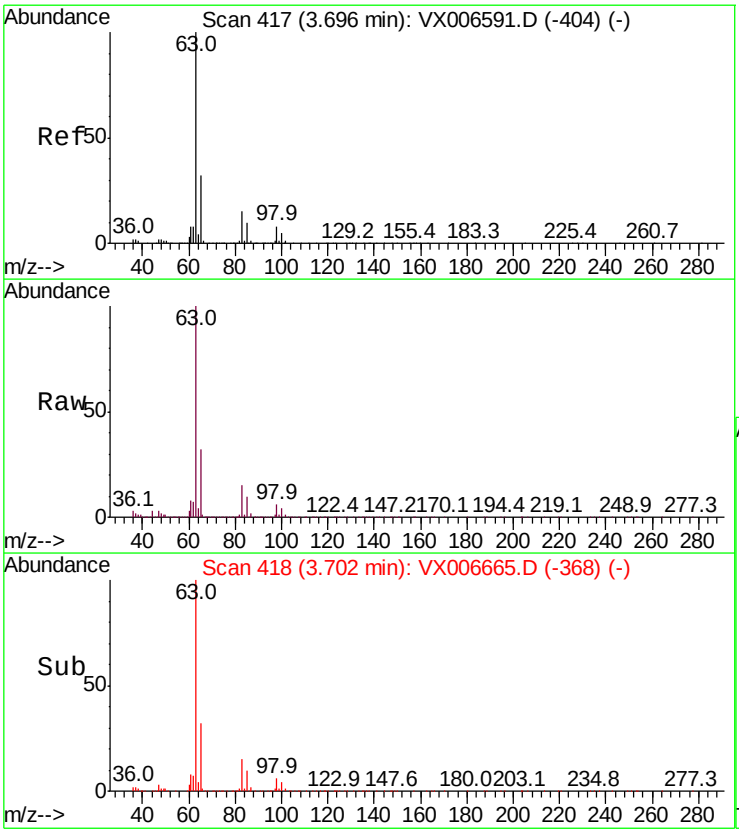


#23
Vinyl Acetate
Concen: 99.882 ug/l
RT: 3.82 min Scan# 438
Delta R.T. -0.00 min
Lab File: VX006665.D
Acq: 20 Dec 2018 10:27

Tgt Ion: 43 Resp: 1323485

Ion	Ratio	Lower	Upper
43	100		
86	11.1	9.2	13.8

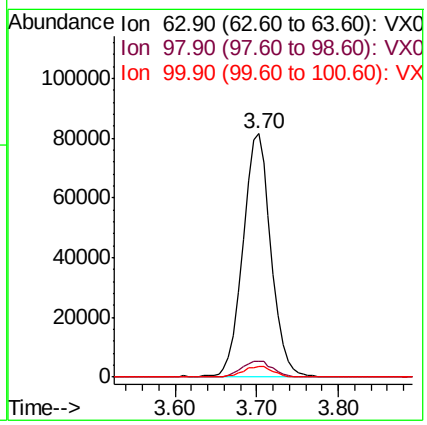




#24
1,1-Dichloroethane
Concen: 19.961 ug/l
RT: 3.70 min Scan# 418
Delta R.T. 0.01 min
Lab File: VX006665.D
Acq: 20 Dec 2018 10:27

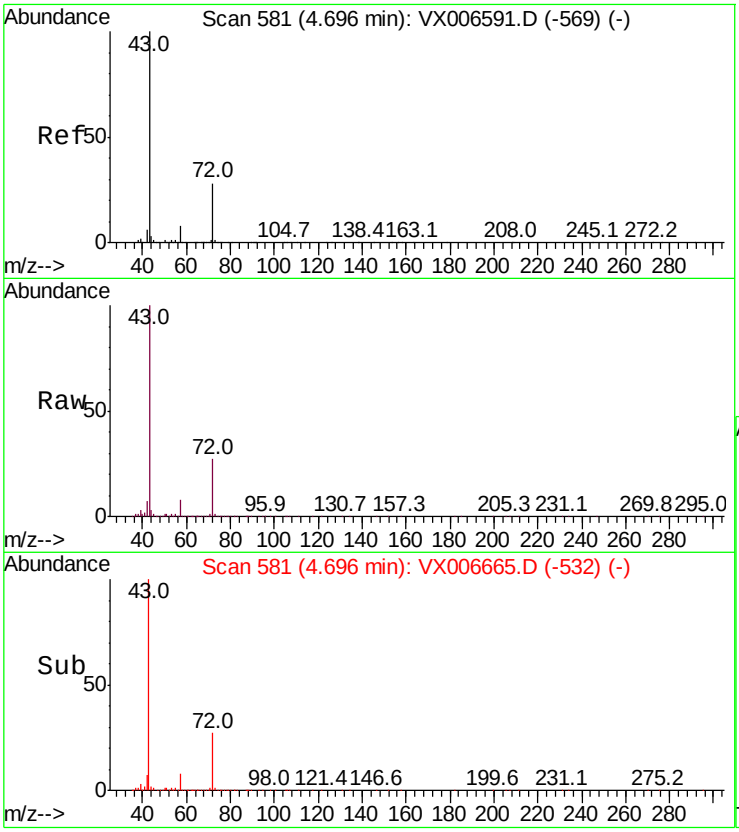
Tgt Ion: 63 Resp: 193024

Ion	Ratio	Lower	Upper
63	100		
98	6.3	3.9	11.5
100	4.3	2.4	7.2



Instrument :
MSVOA_X
ClientSampleId :
VX1220WBS01

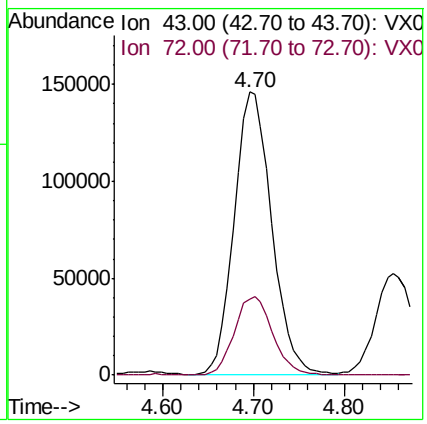
Manual Integrations APPROVED
MMDadoda
12/21/2018 10:18:54 AM

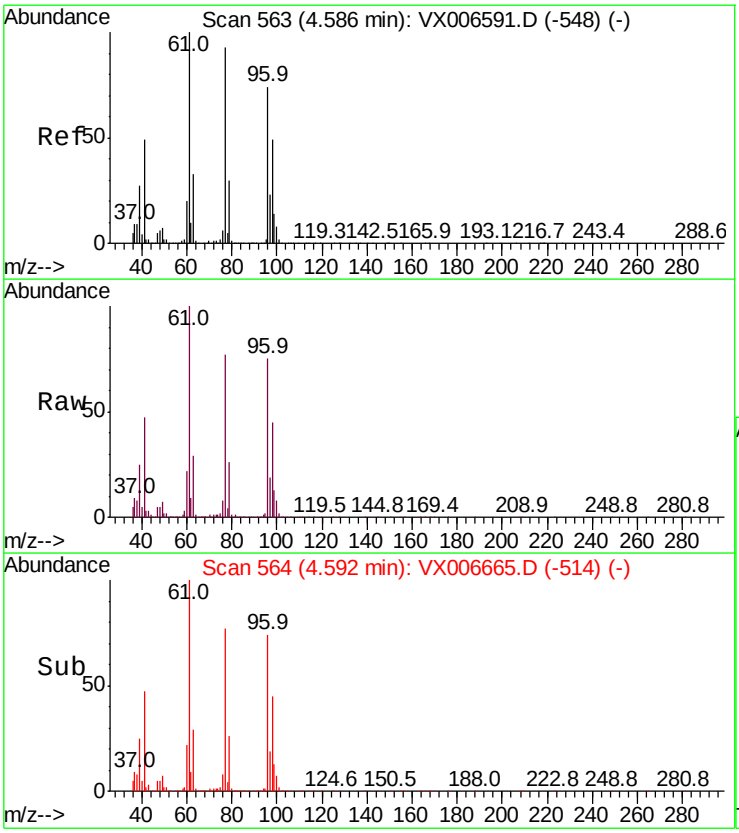


#25
2-Butanone
Concen: 101.957 ug/l
RT: 4.70 min Scan# 581
Delta R.T. -0.00 min
Lab File: VX006665.D
Acq: 20 Dec 2018 10:27

Tgt Ion: 43 Resp: 418105

Ion	Ratio	Lower	Upper
43	100		
72	26.5	22.4	33.6

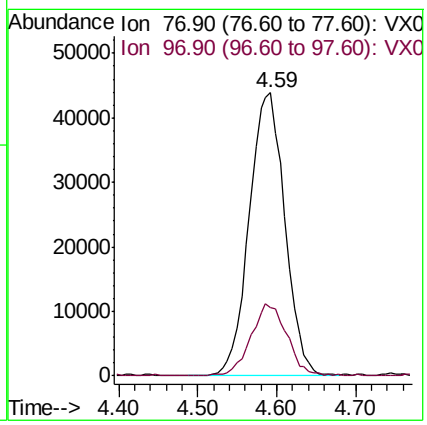




#26
2,2-Dichloropropane
Concen: 18.486 ug/l
RT: 4.59 min Scan# 564
Delta R.T. 0.01 min
Lab File: VX006665.D
Acq: 20 Dec 2018 10:27

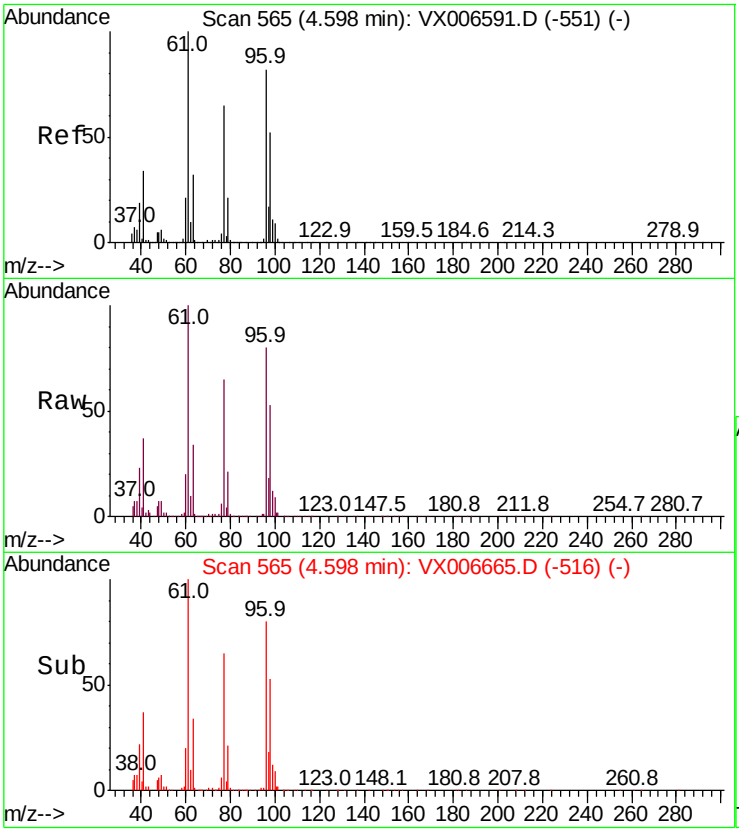
Tgt Ion: 77 Resp: 138089

Ion	Ratio	Lower	Upper
77	100		
97	25.6	12.4	37.4



Instrument :
MSVOA_X
ClientSampleId :
VX1220WBS01

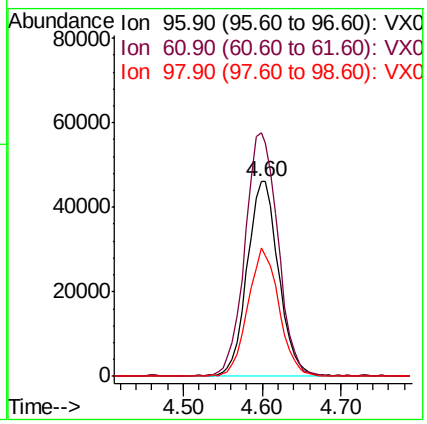
Manual Integrations APPROVED
MMDadoda
12/21/2018 10:18:54 AM

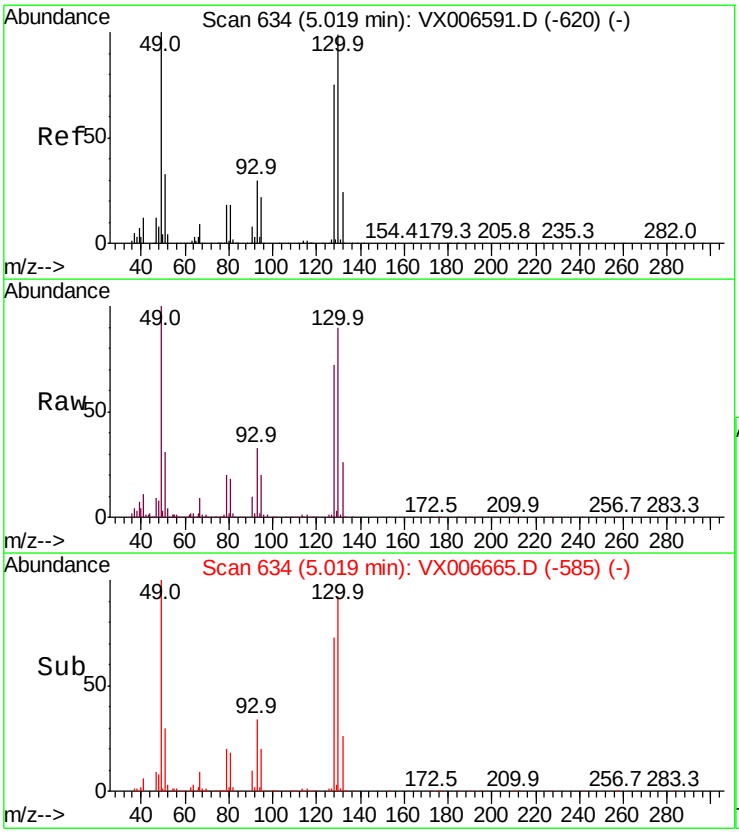


#27
cis-1,2-Dichloroethene
Concen: 19.969 ug/l
RT: 4.60 min Scan# 565
Delta R.T. -0.00 min
Lab File: VX006665.D
Acq: 20 Dec 2018 10:27

Tgt Ion: 96 Resp: 128421

Ion	Ratio	Lower	Upper
96	100		
61	130.1	0.0	258.6
98	64.8	0.0	132.0

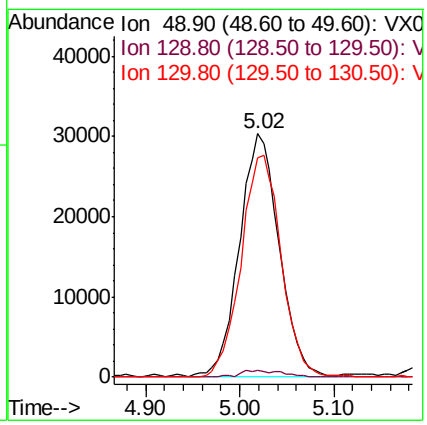




#28
Bromochloromethane
Concen: 20.660 ug/l
RT: 5.02 min Scan# 634
Delta R.T. -0.00 min
Lab File: VX006665.D
Acq: 20 Dec 2018 10:27

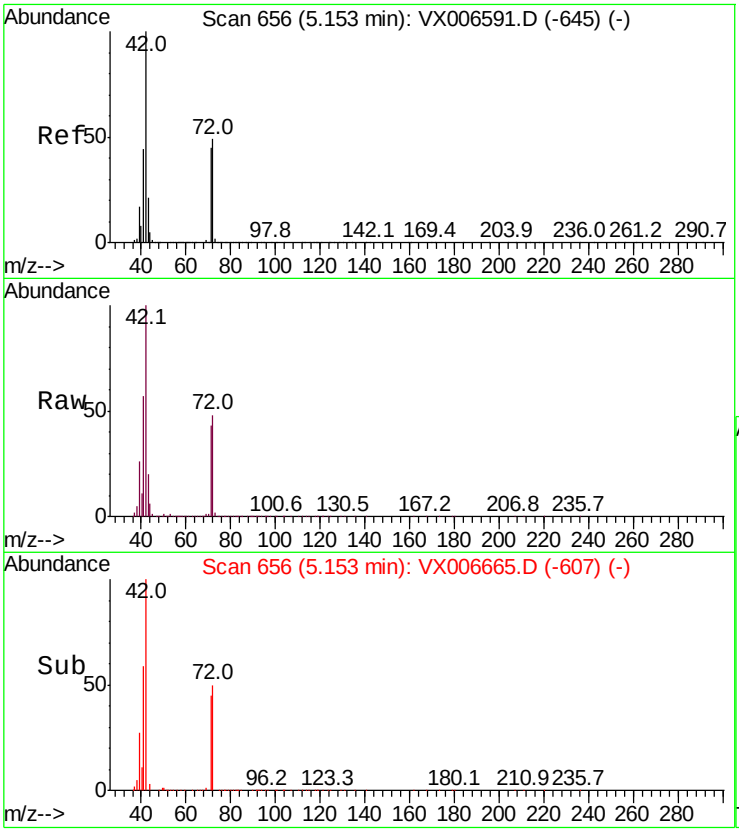
Tgt Ion: 49 Resp: 88651

Ion	Ratio	Lower	Upper
49	100		
129	3.0	0.0	5.4
130	92.9	77.7	116.5



Instrument :
MSVOA_X
ClientSampleId :
VX1220WBS01

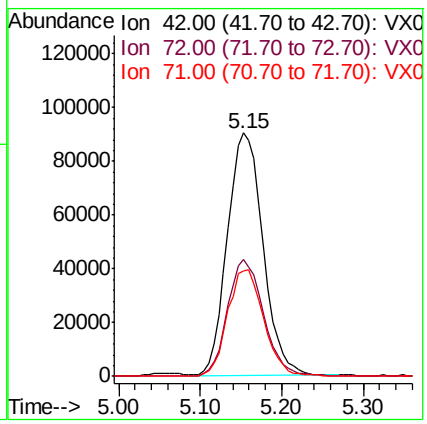
Manual Integrations APPROVED
MMDadoda
12/21/2018 10:18:54 AM

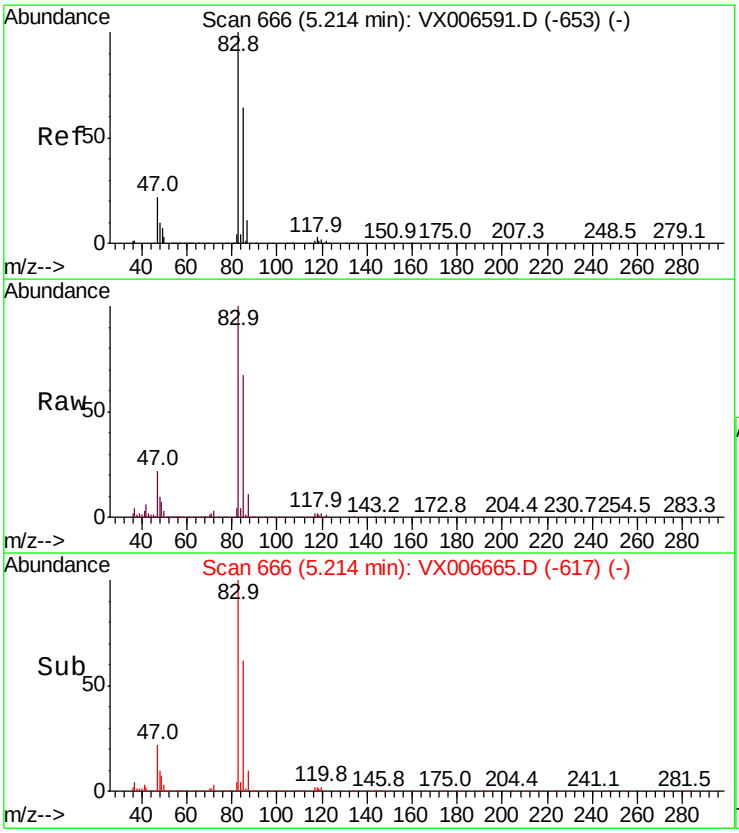


#29
Tetrahydrofuran
Concen: 101.193 ug/l
RT: 5.15 min Scan# 656
Delta R.T. -0.00 min
Lab File: VX006665.D
Acq: 20 Dec 2018 10:27

Tgt Ion: 42 Resp: 273314

Ion	Ratio	Lower	Upper
42	100		
72	48.2	38.9	58.3
71	44.6	36.2	54.4

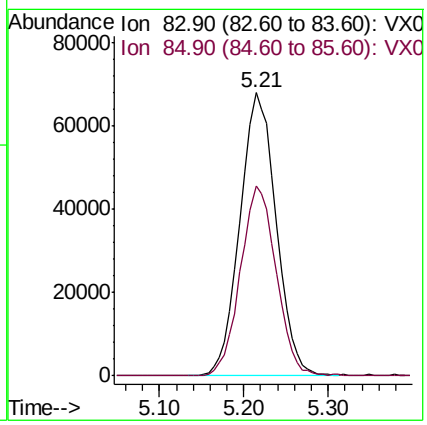




#30
Chloroform
Concen: 19.798 ug/l
RT: 5.21 min Scan# 666
Delta R.T. -0.00 min
Lab File: VX006665.D
Acq: 20 Dec 2018 10:27

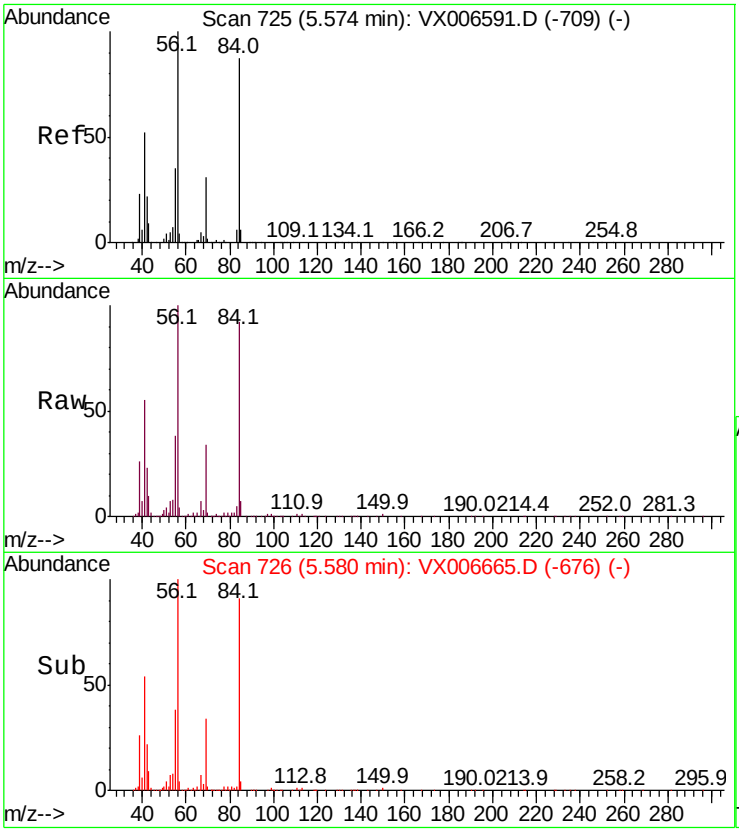
Tgt Ion: 83 Resp: 198252

Ion	Ratio	Lower	Upper
83	100		
85	66.9	51.2	76.8



Instrument :
MSVOA_X
ClientSampleId :
VX1220WBS01

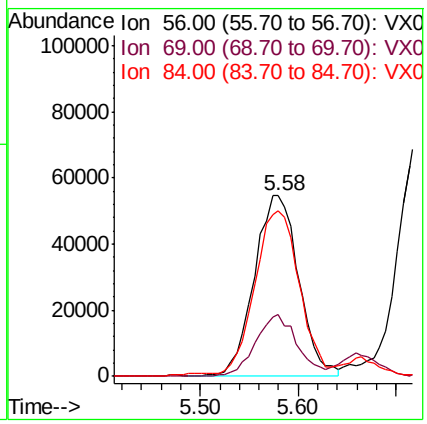
Manual Integrations APPROVED
MMDadoda
12/21/2018 10:18:54 AM

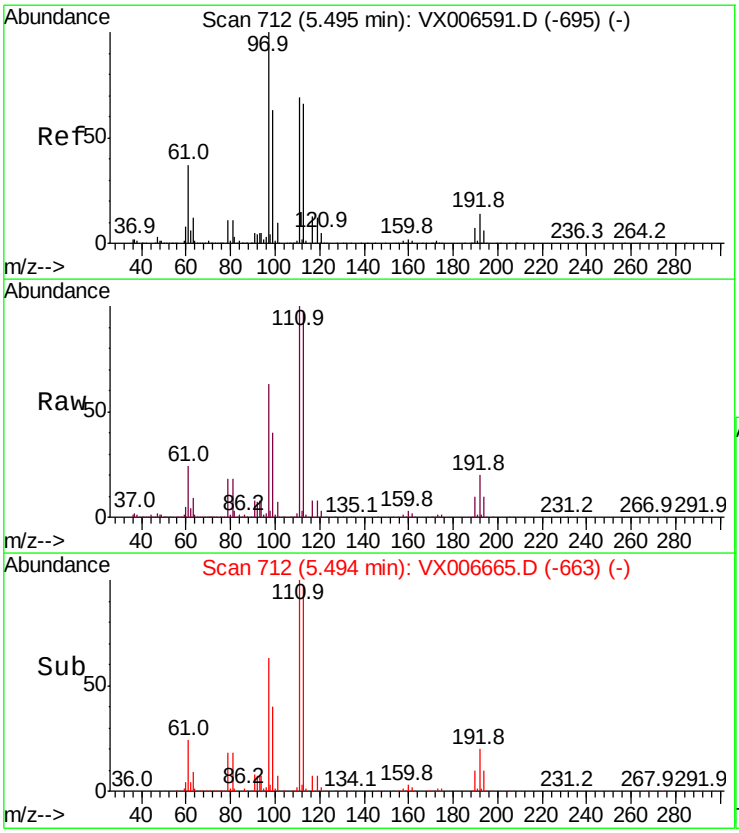


#31
Cyclohexane
Concen: 19.496 ug/l
RT: 5.58 min Scan# 726
Delta R.T. 0.01 min
Lab File: VX006665.D
Acq: 20 Dec 2018 10:27

Tgt Ion: 56 Resp: 171272

Ion	Ratio	Lower	Upper
56	100		
69	33.2	24.4	36.6
84	90.1	70.0	105.0

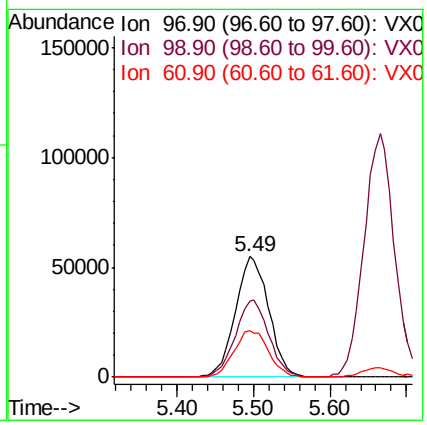




#32
1,1,1-Trichloroethane
Concen: 19.614 ug/l
RT: 5.49 min Scan# 712
Delta R.T. -0.00 min
Lab File: VX006665.D
Acq: 20 Dec 2018 10:27

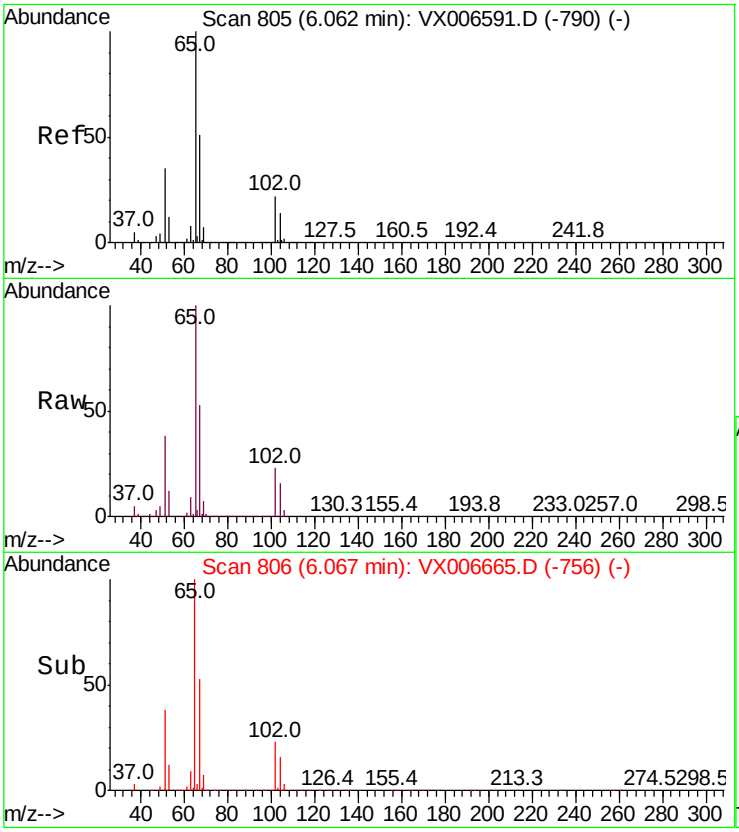
Tgt Ion: 97 Resp: 165849

Ion	Ratio	Lower	Upper
97	100		
99	64.6	51.7	77.5
61	40.7	31.3	46.9



Instrument :
MSVOA_X
ClientSampleId :
VX1220WBS01

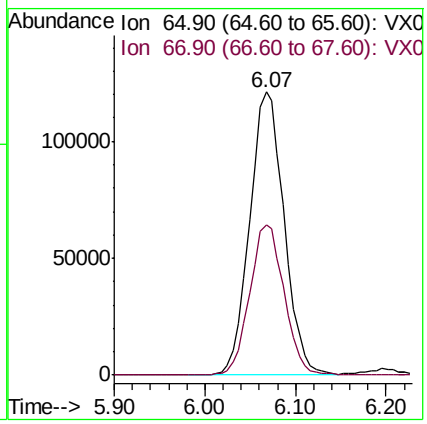
Manual Integrations APPROVED
MMDadoda
12/21/2018 10:18:54 AM

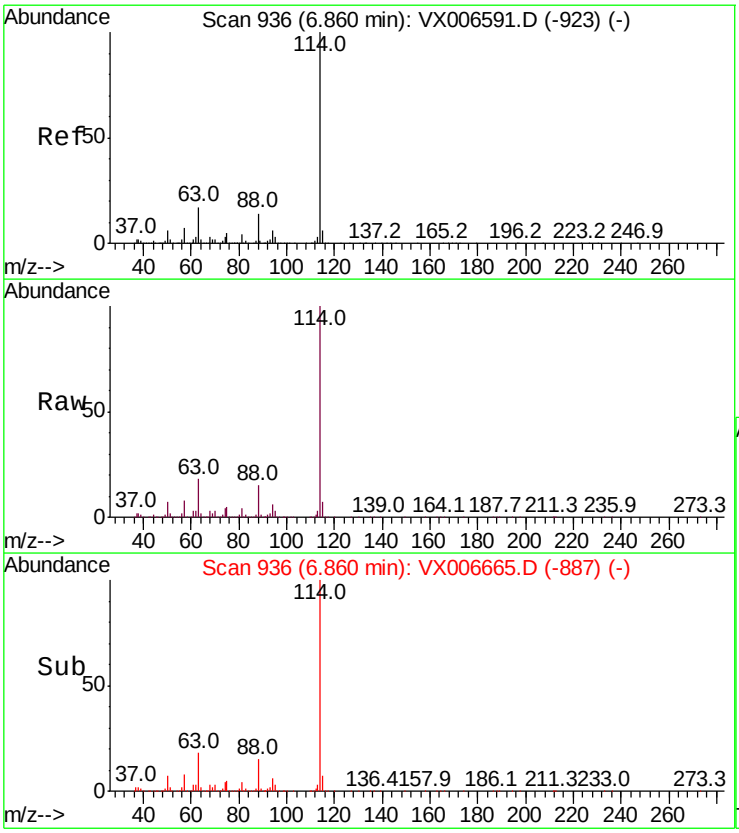


#33
1,2-Dichloroethane-d4
Concen: 50.089 ug/l
RT: 6.07 min Scan# 806
Delta R.T. 0.01 min
Lab File: VX006665.D
Acq: 20 Dec 2018 10:27

Tgt Ion: 65 Resp: 317844

Ion	Ratio	Lower	Upper
65	100		
67	52.8	0.0	105.0

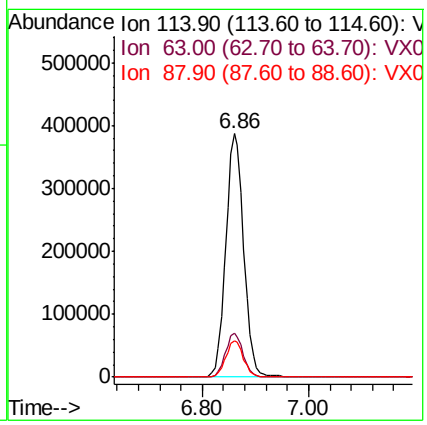




#34
1,4-Difluorobenzene
Concen: 50.000 ug/l
RT: 6.86 min Scan# 936
Delta R.T. -0.00 min
Lab File: VX006665.D
Acq: 20 Dec 2018 10:27

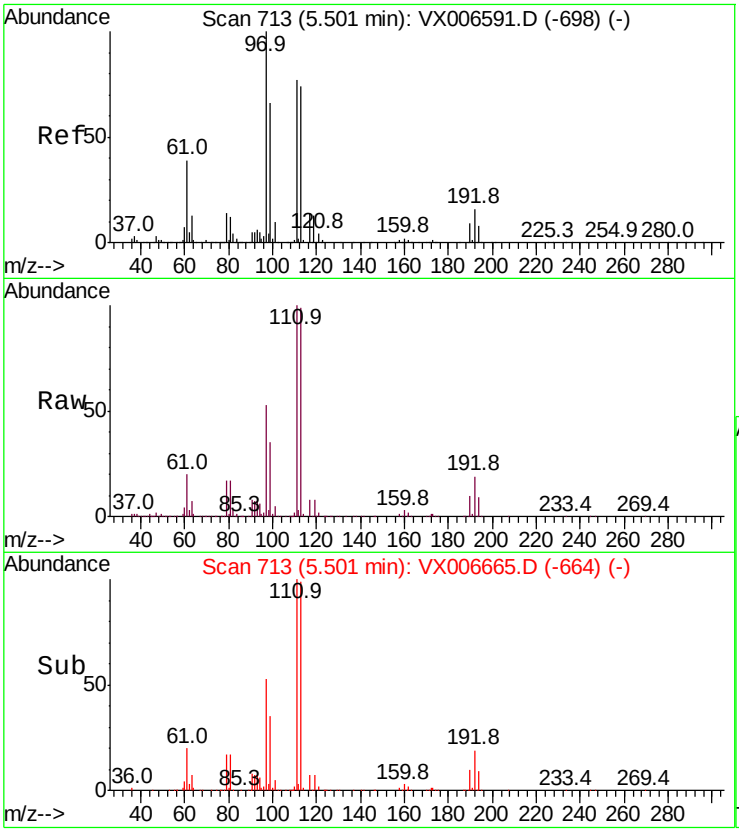
Tgt Ion:114 Resp: 912822

Ion	Ratio	Lower	Upper
114	100		
63	18.1	0.0	34.8
88	14.9	0.0	28.8



Instrument :
MSVOA_X
ClientSampleId :
VX1220WBS01

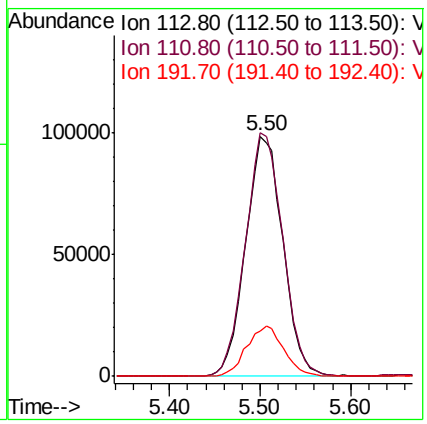
Manual Integrations APPROVED
MMDadoda
12/21/2018 10:18:54 AM

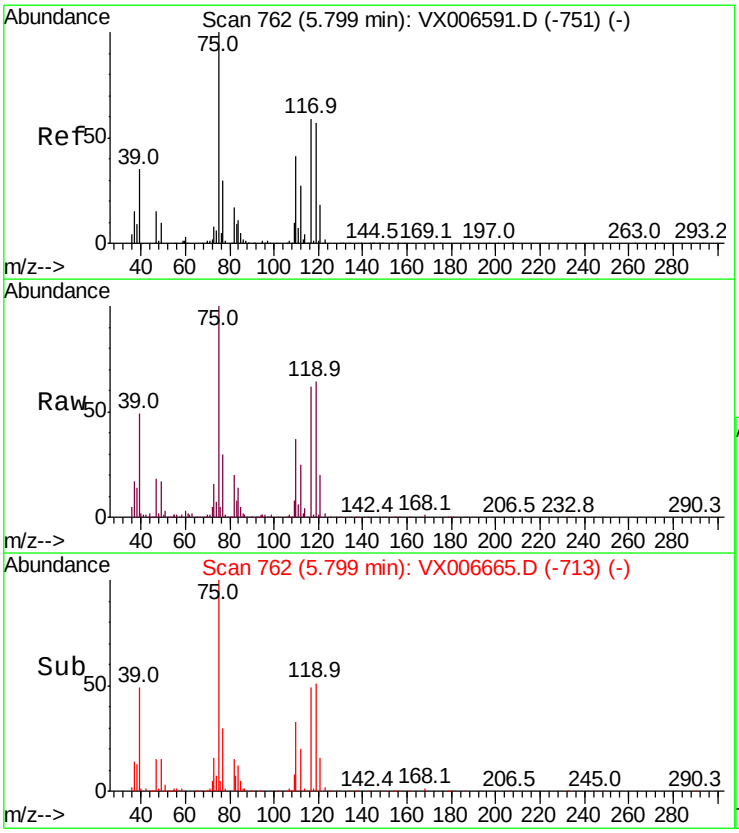


#35
Dibromofluoromethane
Concen: 48.593 ug/l
RT: 5.50 min Scan# 713
Delta R.T. -0.00 min
Lab File: VX006665.D
Acq: 20 Dec 2018 10:27

Tgt Ion:113 Resp: 280506

Ion	Ratio	Lower	Upper
113	100		
111	101.9	81.6	122.4
192	21.0	16.7	25.1

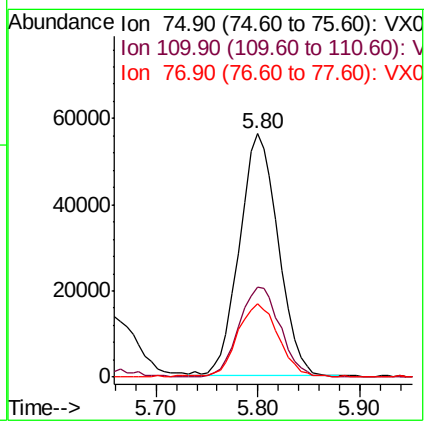




#36
1,1-Dichloropropene
Concen: 19.700 ug/l
RT: 5.80 min Scan# 762
Delta R.T. -0.00 min
Lab File: VX006665.D
Acq: 20 Dec 2018 10:27

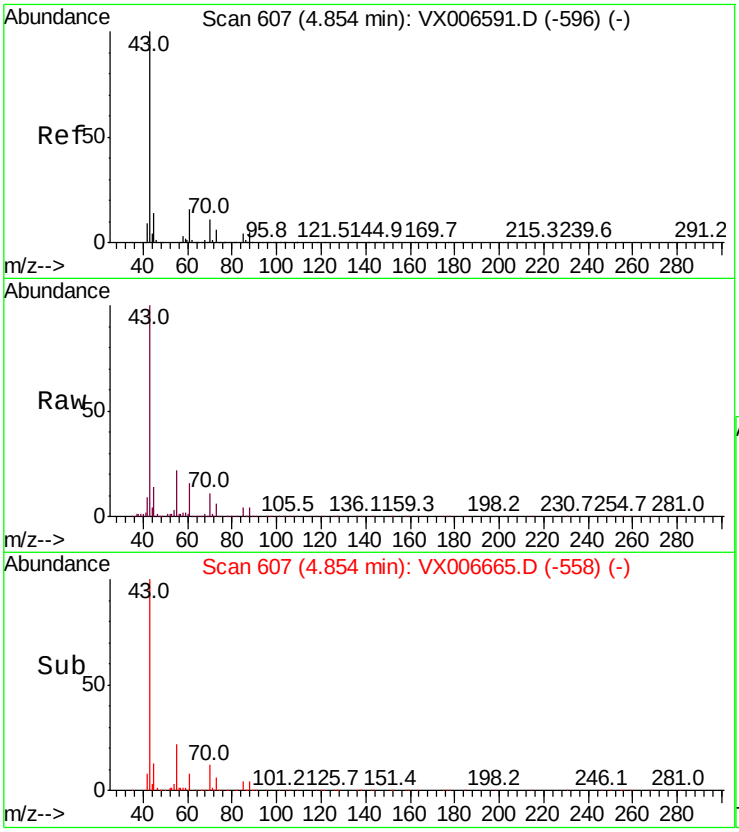
Tgt Ion: 75 Resp: 148940

Ion	Ratio	Lower	Upper
75	100		
110	39.8	20.2	60.5
77	31.5	24.8	37.2



Instrument :
MSVOA_X
ClientSampleId :
VX1220WBS01

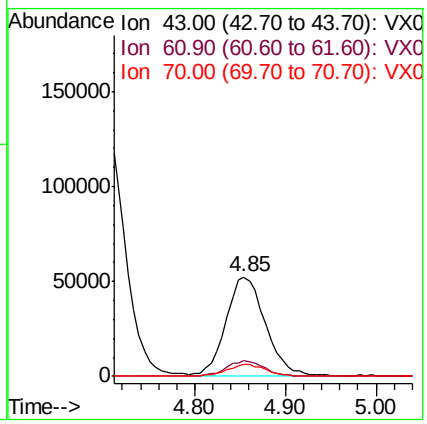
Manual Integrations APPROVED
MMDadoda
12/21/2018 10:18:54 AM

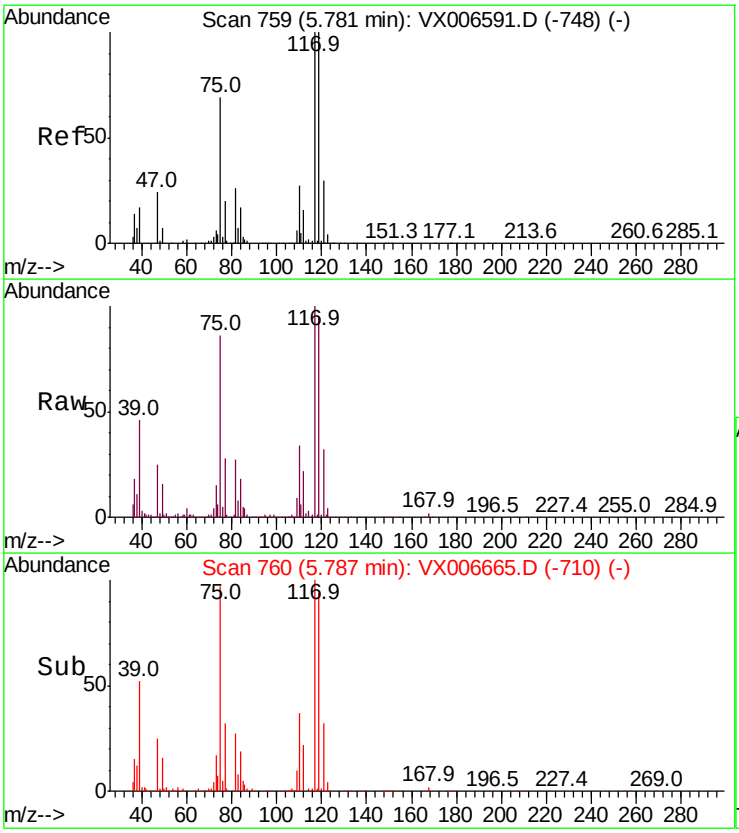


#37
Ethyl Acetate
Concen: 19.852 ug/l
RT: 4.85 min Scan# 607
Delta R.T. -0.00 min
Lab File: VX006665.D
Acq: 20 Dec 2018 10:27

Tgt Ion: 43 Resp: 156209

Ion	Ratio	Lower	Upper
43	100		
61	15.2	11.9	17.9
70	11.5	9.7	14.5

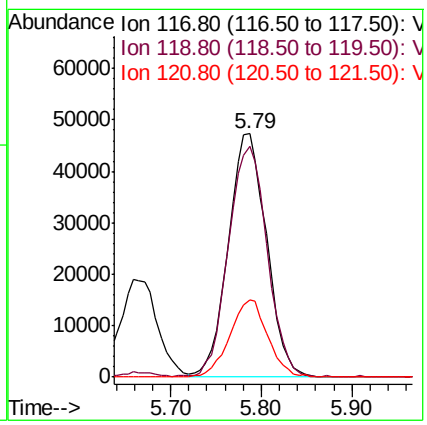




#38
Carbon Tetrachloride
Concen: 18.784 ug/l
RT: 5.79 min Scan# 760
Delta R.T. 0.01 min
Lab File: VX006665.D
Acq: 20 Dec 2018 10:27

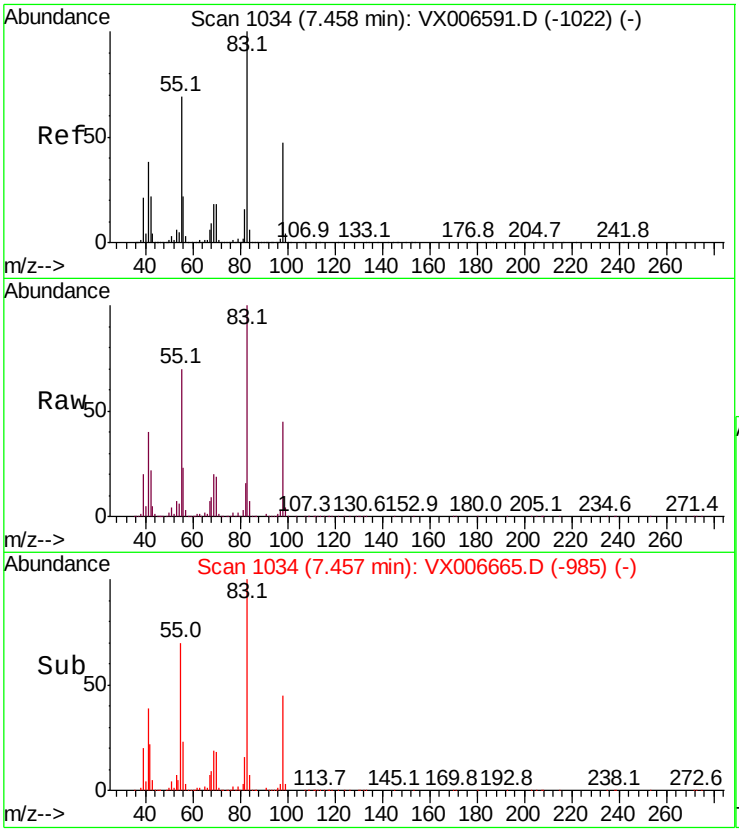
Tgt Ion:117 Resp: 138012

Ion	Ratio	Lower	Upper
117	100		
119	95.2	79.4	119.2
121	31.9	24.0	36.0



Instrument :
MSVOA_X
ClientSampleId :
VX1220WBS01

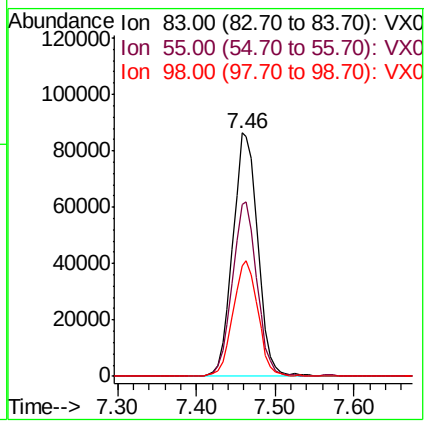
Manual Integrations APPROVED
MMDadoda
12/21/2018 10:18:54 AM

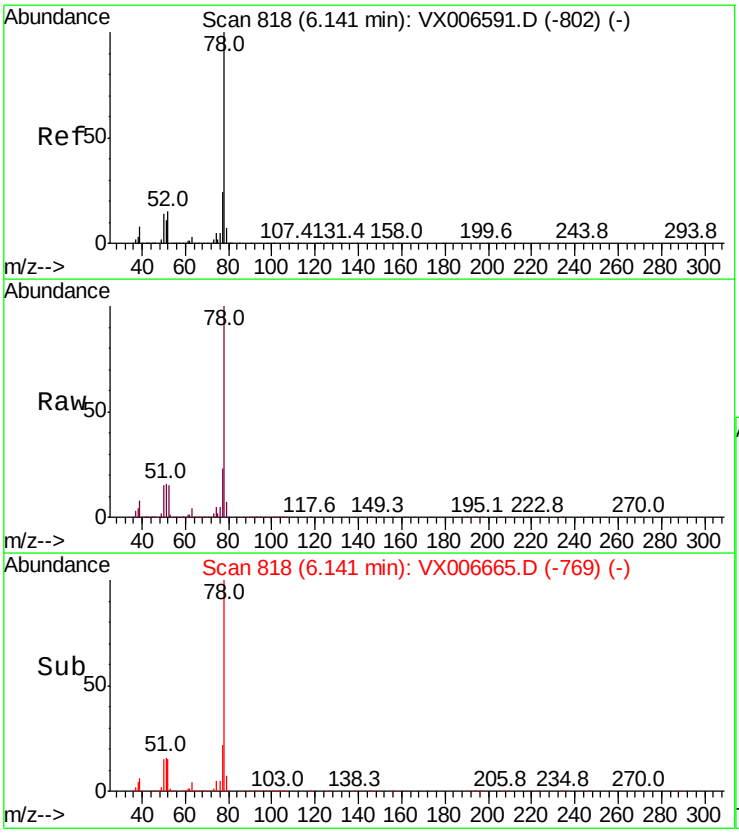


#39
Methylcyclohexane
Concen: 19.156 ug/l
RT: 7.46 min Scan# 1034
Delta R.T. -0.00 min
Lab File: VX006665.D
Acq: 20 Dec 2018 10:27

Tgt Ion: 83 Resp: 190661

Ion	Ratio	Lower	Upper
83	100		
55	70.3	54.9	82.3
98	45.4	37.9	56.9

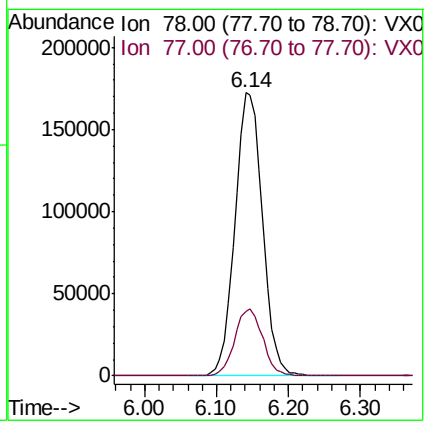




#40
Benzene
Concen: 19.887 ug/l
RT: 6.14 min Scan# 818
Delta R.T. -0.00 min
Lab File: VX006665.D
Acq: 20 Dec 2018 10:27

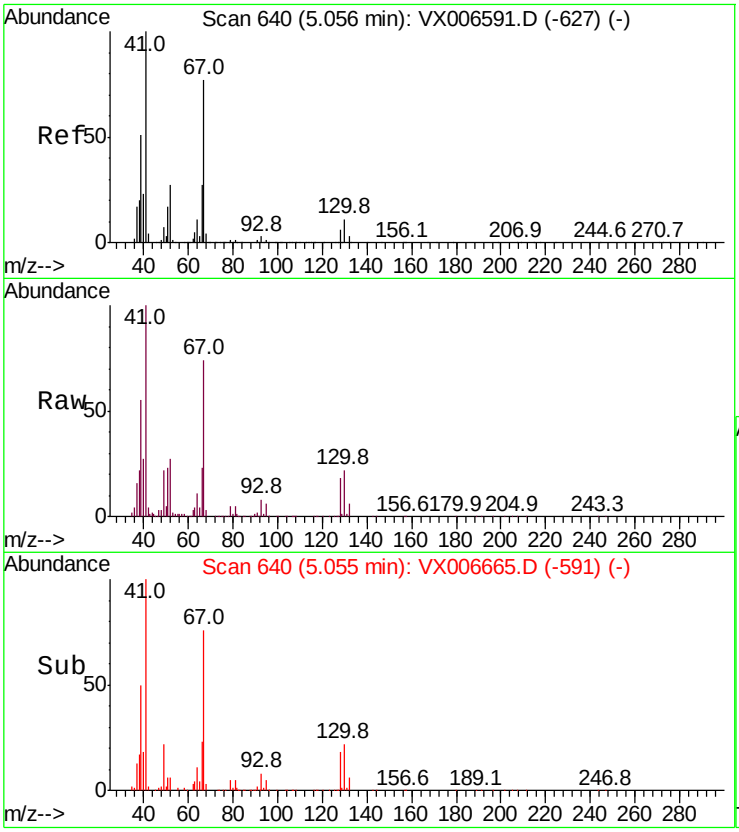
Tgt Ion: 78 Resp: 457014

Ion	Ratio	Lower	Upper
78	100		
77	22.9	19.2	28.8



Instrument :
MSVOA_X
ClientSampleId :
VX1220WBS01

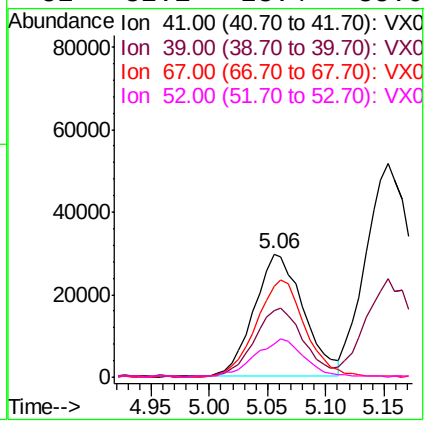
Manual Integrations APPROVED
MMDadoda
12/21/2018 10:18:54 AM

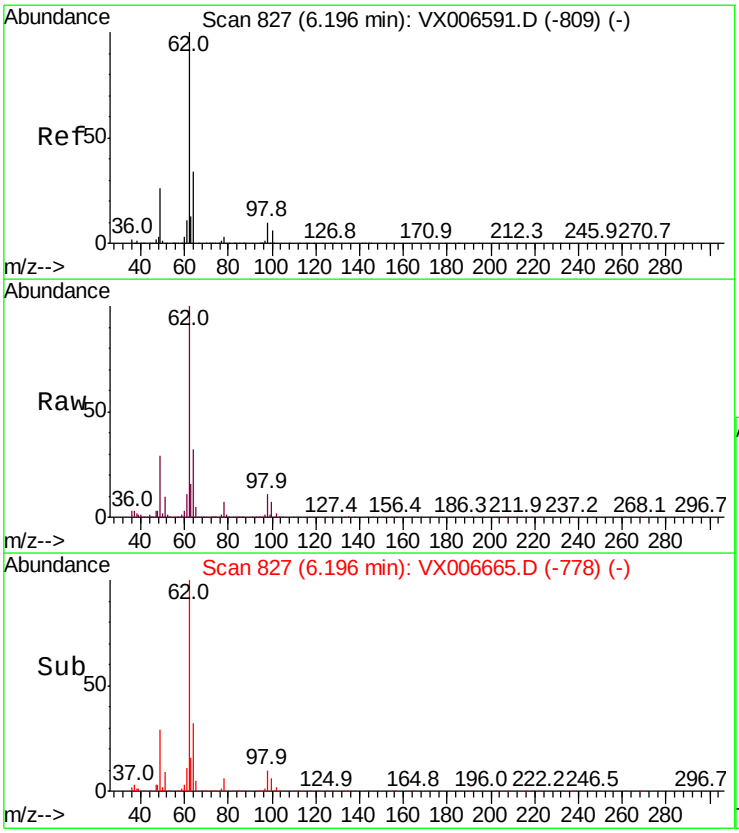


#41
Methacrylonitrile
Concen: 20.952 ug/l
RT: 5.06 min Scan# 640
Delta R.T. -0.00 min
Lab File: VX006665.D
Acq: 20 Dec 2018 10:27

Tgt Ion: 41 Resp: 87530

Ion	Ratio	Lower	Upper
41	100		
39	54.7	42.8	64.2
67	78.4	62.1	93.1
52	32.1	23.4	35.0

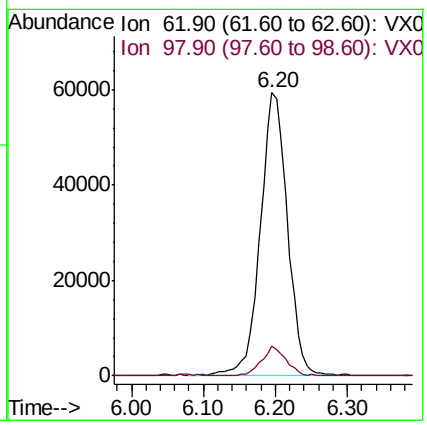




#42
1,2-Dichloroethane
Concen: 19.661 ug/l
RT: 6.20 min Scan# 827
Delta R.T. -0.00 min
Lab File: VX006665.D
Acq: 20 Dec 2018 10:27

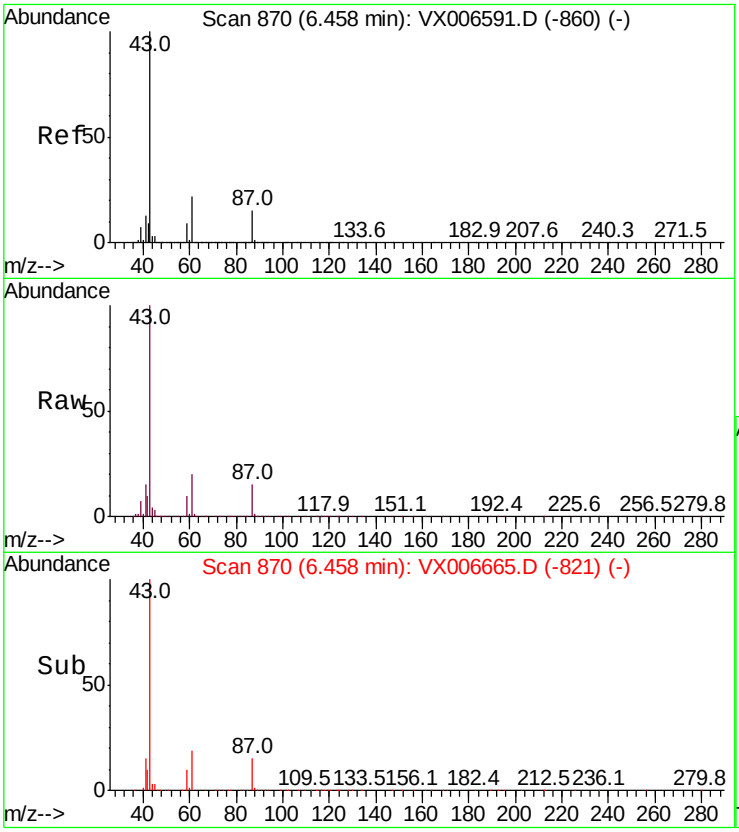
Tgt Ion: 62 Resp: 153959

Ion	Ratio	Lower	Upper
62	100		
98	9.7	0.0	20.2



Instrument :
MSVOA_X
ClientSampleId :
VX1220WBS01

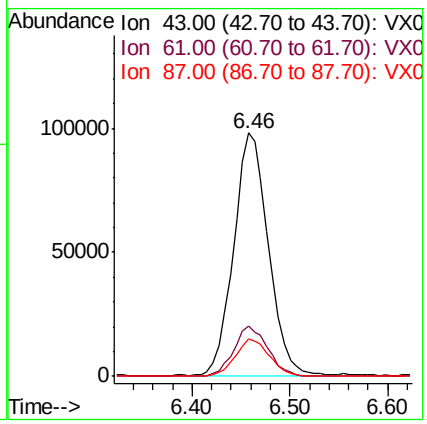
Manual Integrations APPROVED
MMDadoda
12/21/2018 10:18:54 AM

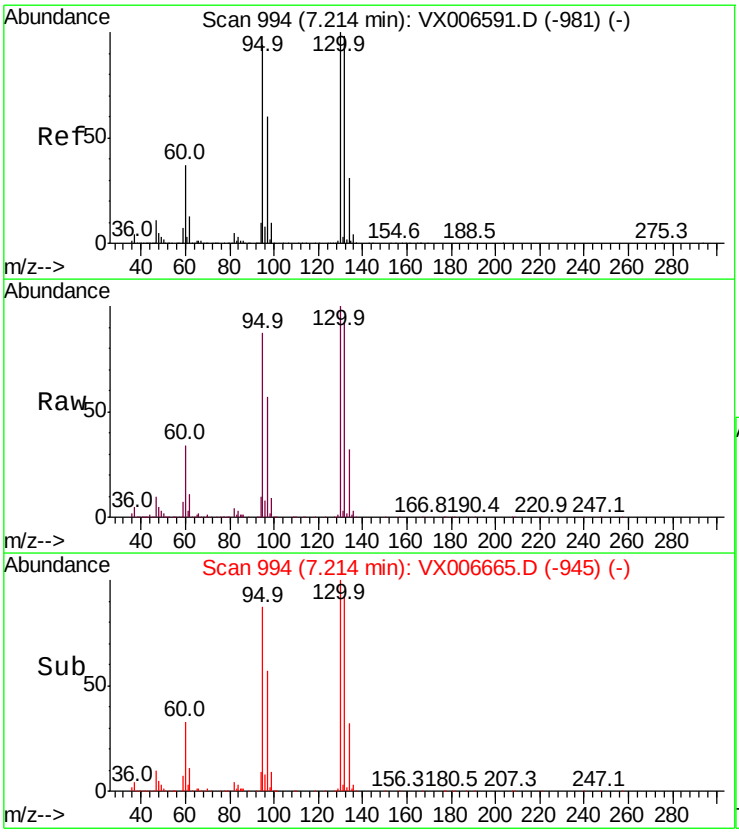


#43
Isopropyl Acetate
Concen: 20.148 ug/l
RT: 6.46 min Scan# 870
Delta R.T. -0.00 min
Lab File: VX006665.D
Acq: 20 Dec 2018 10:27

Tgt Ion: 43 Resp: 241230

Ion	Ratio	Lower	Upper
43	100		
61	20.5	16.8	25.2
87	15.4	12.4	18.6

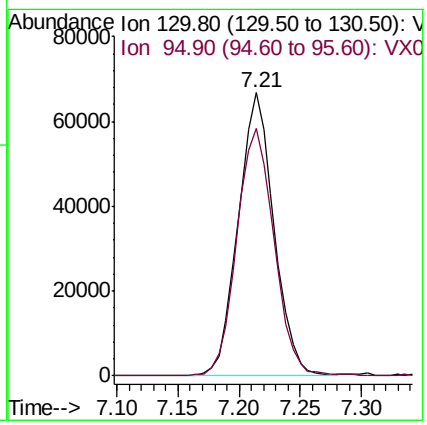




#44
Trichloroethene
Concen: 19.420 ug/l
RT: 7.21 min Scan# 994
Delta R.T. -0.00 min
Lab File: VX006665.D
Acq: 20 Dec 2018 10:27

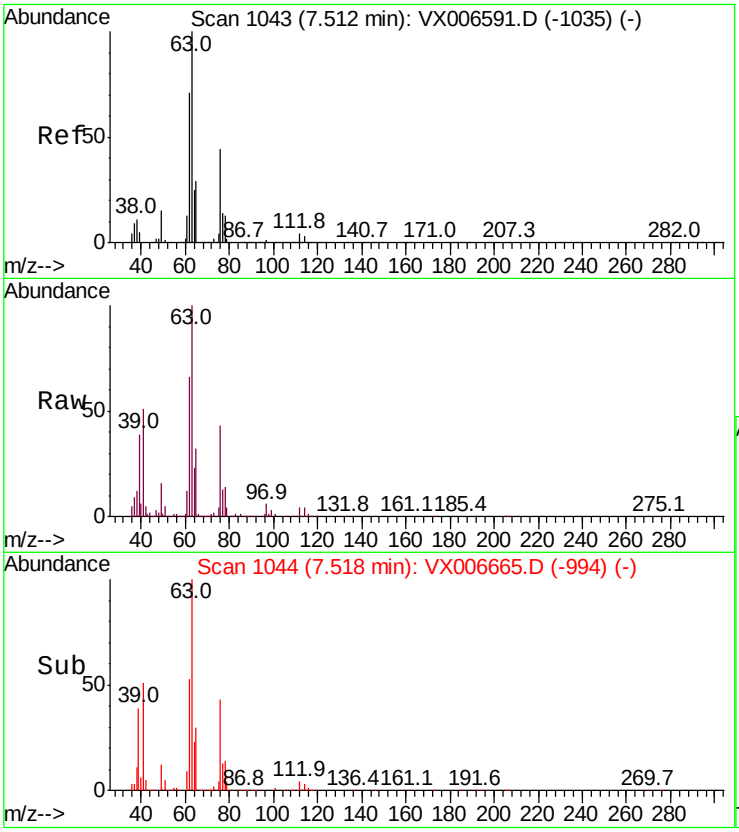
Tgt Ion:130 Resp: 135074

Ion	Ratio	Lower	Upper
130	100		
95	87.4	0.0	187.0



Instrument :
MSVOA_X
ClientSampleId :
VX1220WBS01

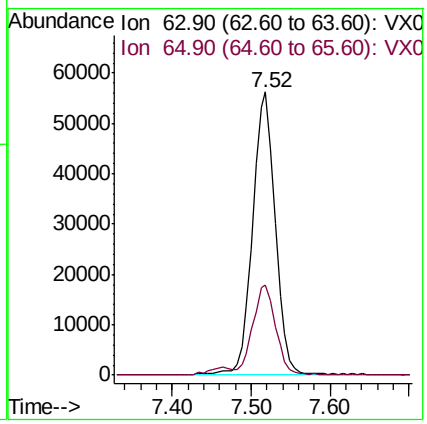
Manual Integrations APPROVED
MMDadoda
12/21/2018 10:18:54 AM

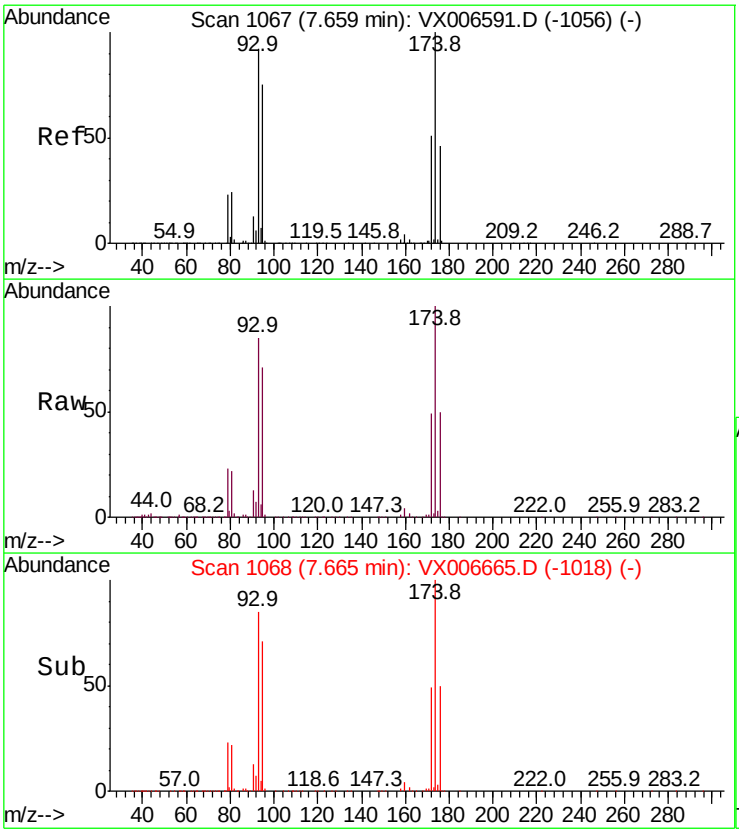


#45
1,2-Dichloropropane
Concen: 20.214 ug/l
RT: 7.52 min Scan# 1044
Delta R.T. 0.01 min
Lab File: VX006665.D
Acq: 20 Dec 2018 10:27

Tgt Ion: 63 Resp: 113044

Ion	Ratio	Lower	Upper
63	100		
65	31.4	25.4	38.0

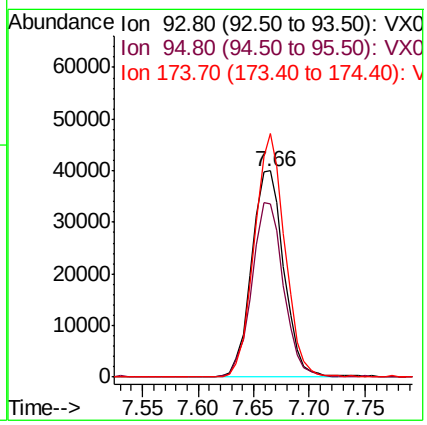




#46
Dibromomethane
Concen: 19.655 ug/l
RT: 7.66 min Scan# 1068
Delta R.T. 0.01 min
Lab File: VX006665.D
Acq: 20 Dec 2018 10:27

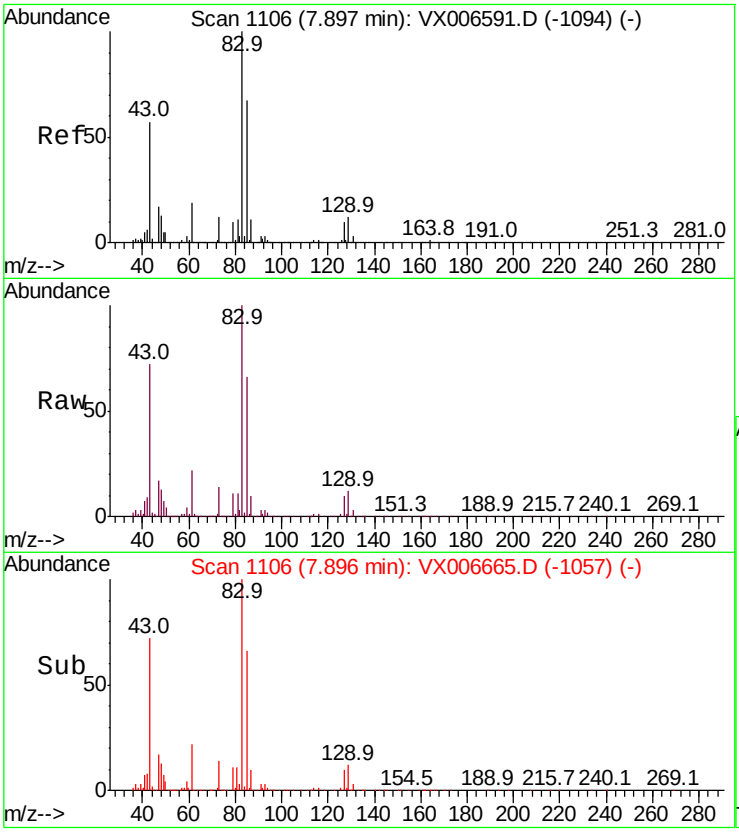
Tgt Ion: 93 Resp: 80849

Ion	Ratio	Lower	Upper
93	100		
95	83.0	66.2	99.4
174	111.4	91.0	136.4



Instrument :
MSVOA_X
ClientSampleId :
VX1220WBS01

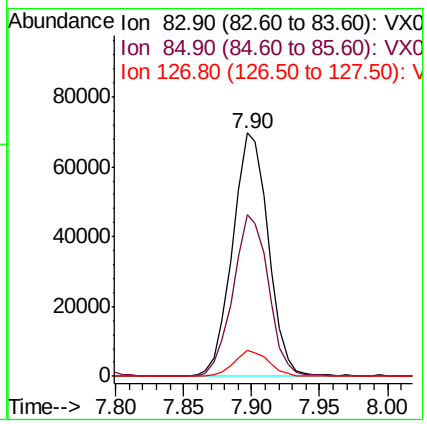
Manual Integrations APPROVED
MMDadoda
12/21/2018 10:18:54 AM

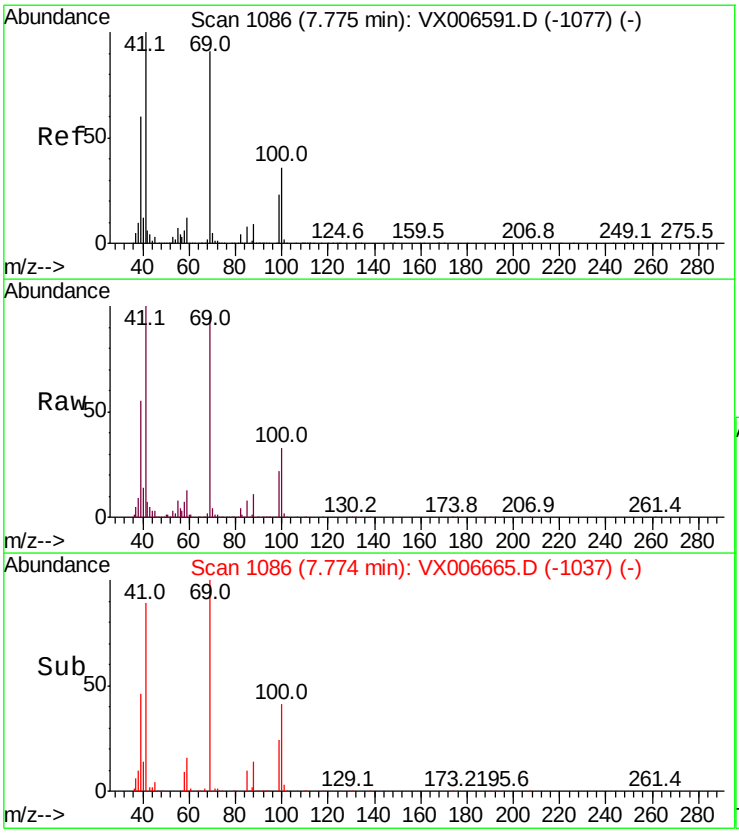


#47
Bromodichloromethane
Concen: 18.728 ug/l
RT: 7.90 min Scan# 1106
Delta R.T. -0.00 min
Lab File: VX006665.D
Acq: 20 Dec 2018 10:27

Tgt Ion: 83 Resp: 127900

Ion	Ratio	Lower	Upper
83	100		
85	66.1	53.2	79.8
127	10.5	7.8	11.6

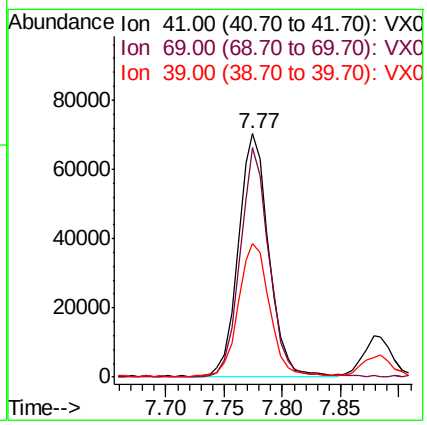




#48
Methyl methacrylate
Concen: 20.826 ug/l
RT: 7.77 min Scan# 1086
Delta R.T. -0.00 min
Lab File: VX006665.D
Acq: 20 Dec 2018 10:27

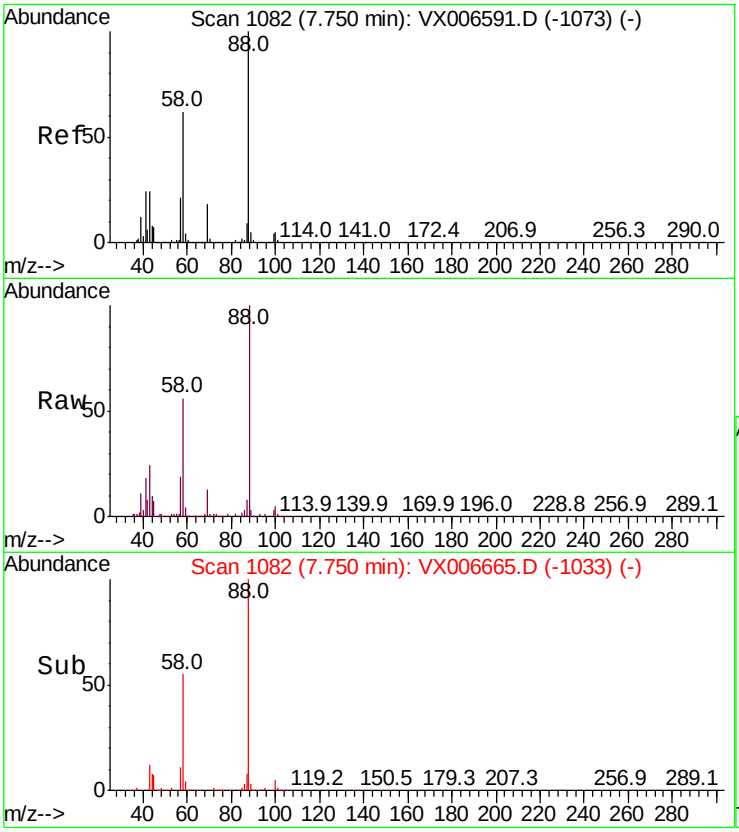
Tgt Ion: 41 Resp: 126798

Ion	Ratio	Lower	Upper
41	100		
69	91.2	72.4	108.6
39	56.8	45.8	68.8



Instrument :
MSVOA_X
ClientSampleId :
VX1220WBS01

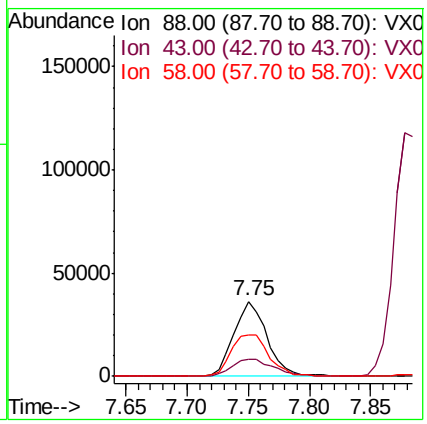
Manual Integrations APPROVED
MMDadoda
12/21/2018 10:18:54 AM

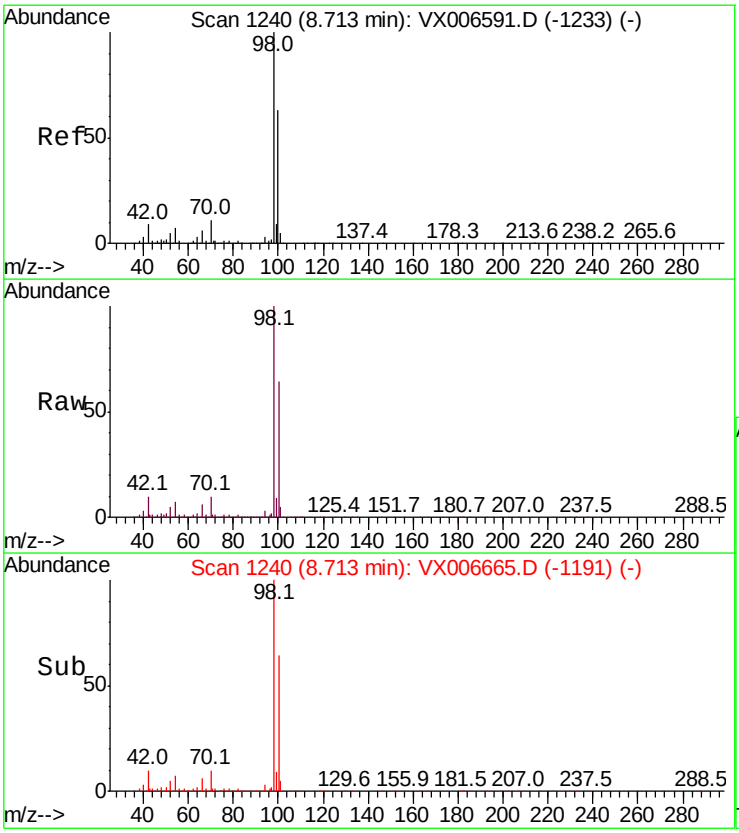


#49
1,4-Dioxane
Concen: 416.995 ug/l
RT: 7.75 min Scan# 1082
Delta R.T. 0.00 min
Lab File: VX006665.D
Acq: 20 Dec 2018 10:27

Tgt Ion: 88 Resp: 68275

Ion	Ratio	Lower	Upper
88	100		
43	29.8	22.2	33.4
58	62.8	51.0	76.4

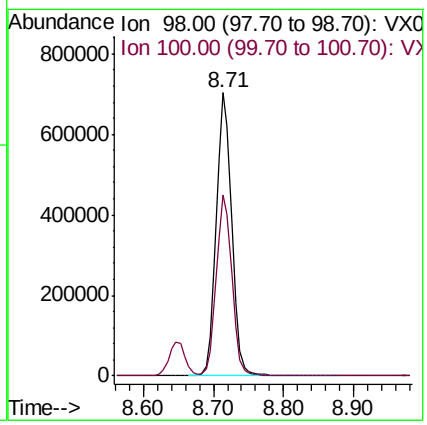




#50
Toluene-d8
Concen: 49.619 ug/l
RT: 8.71 min Scan# 1240
Delta R.T. -0.00 min
Lab File: VX006665.D
Acq: 20 Dec 2018 10:27

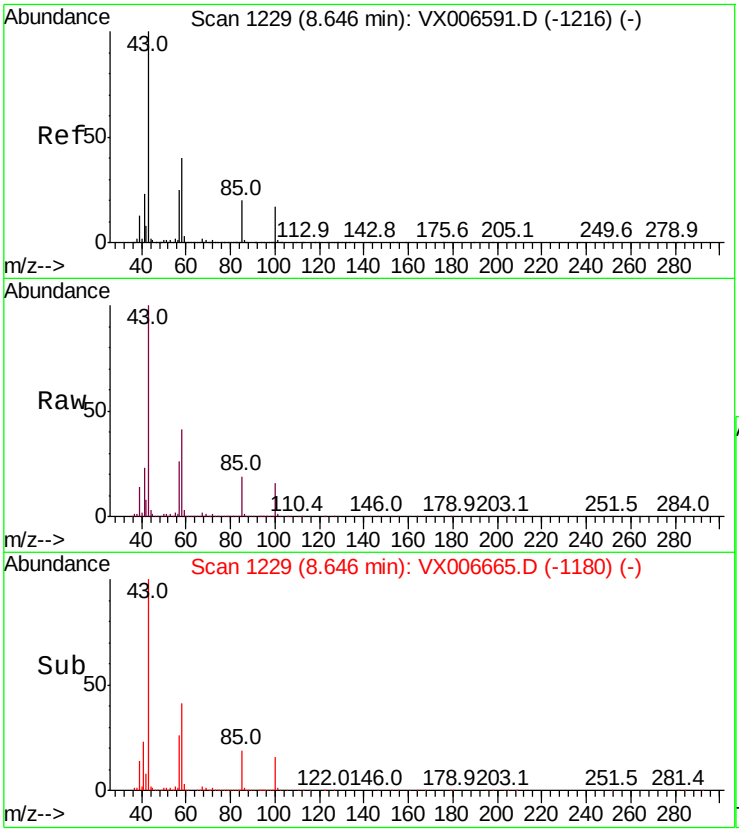
Tgt Ion: 98 Resp: 1079845

Ion	Ratio	Lower	Upper
98	100		
100	64.1	52.0	78.0



Instrument :
MSVOA_X
ClientSampleId :
VX1220WBS01

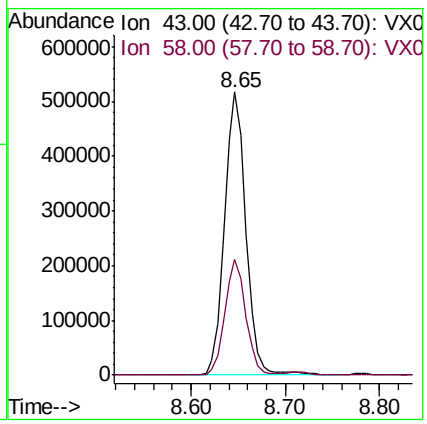
Manual Integrations APPROVED
MMDadoda
12/21/2018 10:18:54 AM

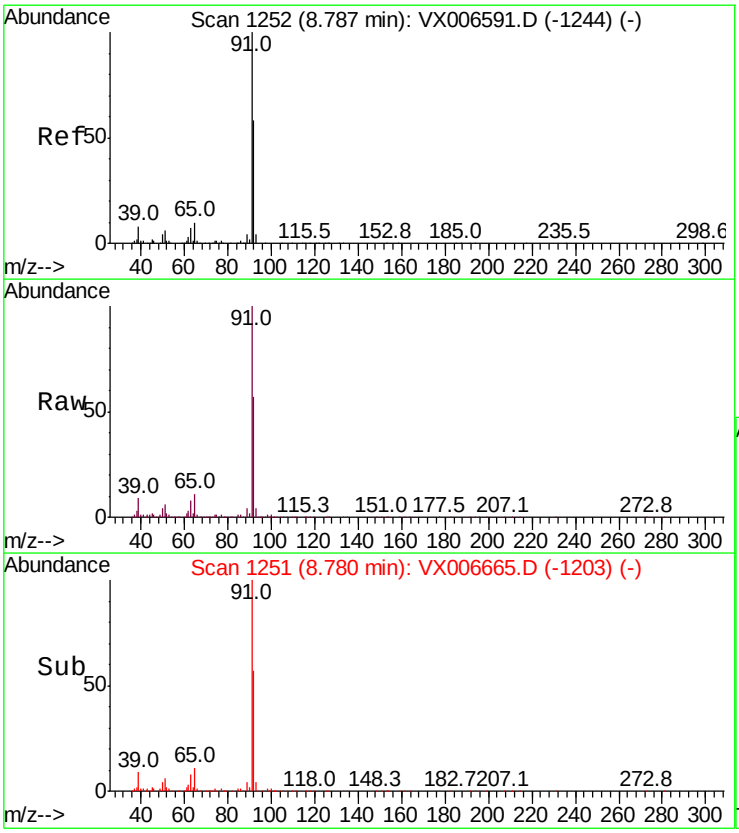


#51
4-Methyl-2-Pentanone
Concen: 106.242 ug/l
RT: 8.65 min Scan# 1229
Delta R.T. -0.00 min
Lab File: VX006665.D
Acq: 20 Dec 2018 10:27

Tgt Ion: 43 Resp: 809345

Ion	Ratio	Lower	Upper
43	100		
58	39.9	31.8	47.6

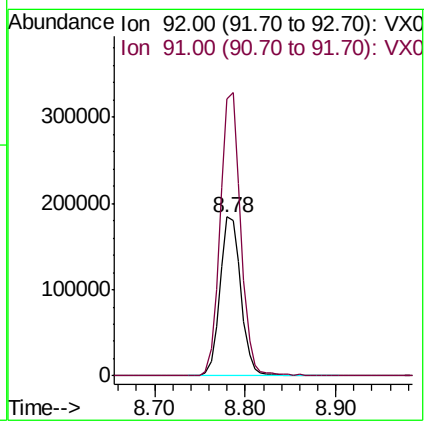




#52
Toluene
Concen: 19.951 ug/l
RT: 8.78 min Scan# 1251
Delta R.T. -0.01 min
Lab File: VX006665.D
Acq: 20 Dec 2018 10:27

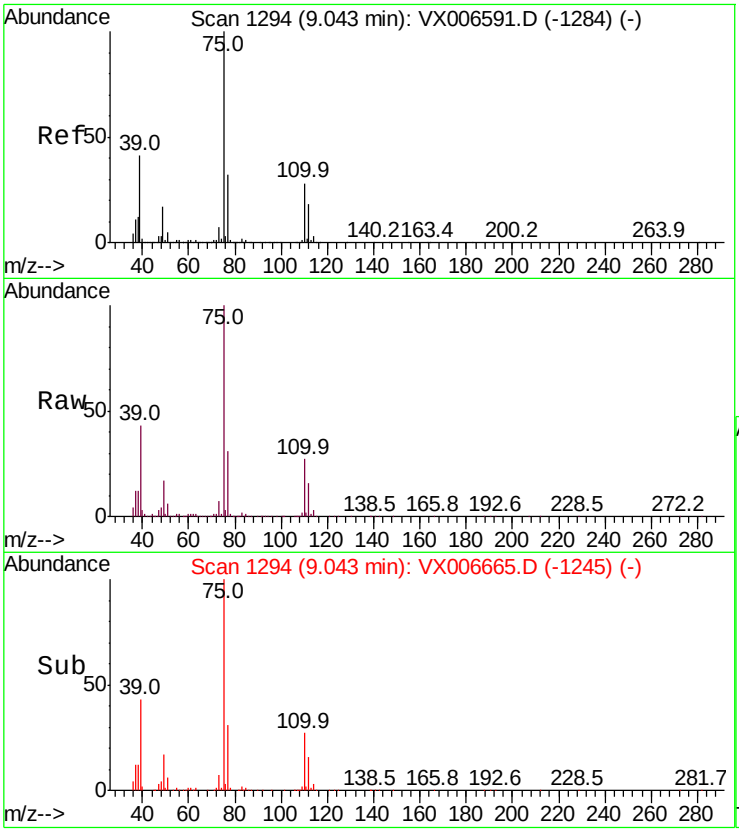
Tgt Ion: 92 Resp: 296198

Ion	Ratio	Lower	Upper
92	100		
91	175.4	137.6	206.4



Instrument :
MSVOA_X
ClientSampleId :
VX1220WBS01

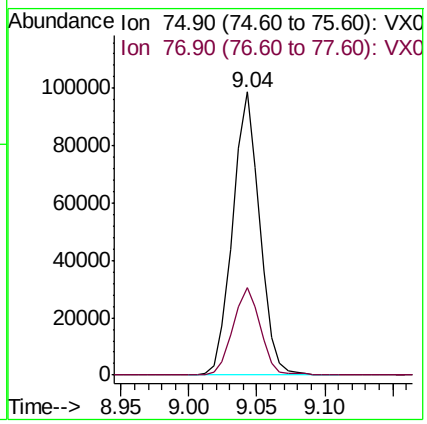
Manual Integrations APPROVED
MMDadoda
12/21/2018 10:18:54 AM

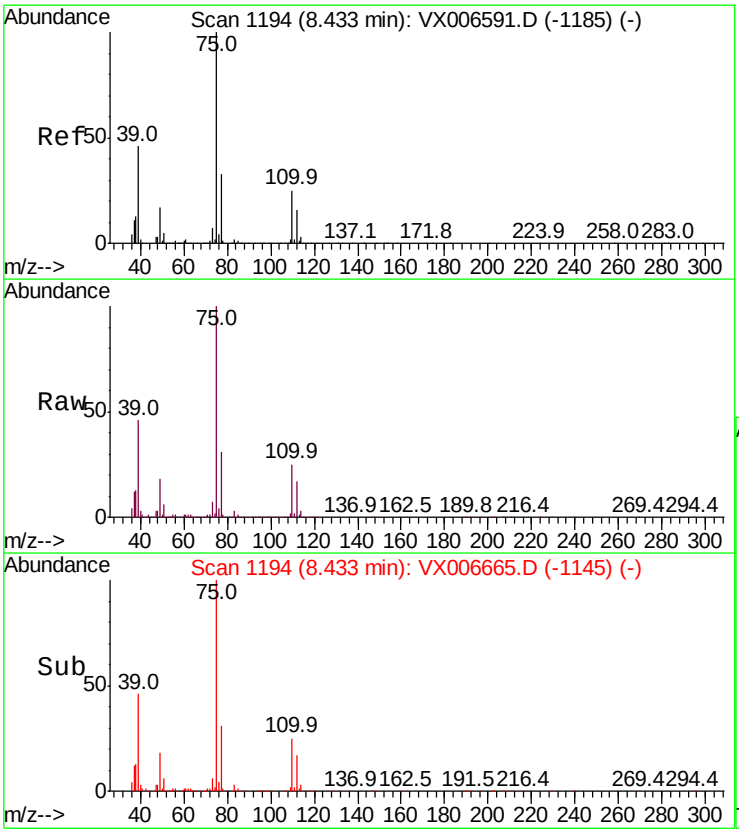


#53
t-1,3-Dichloropropene
Concen: 18.582 ug/l
RT: 9.04 min Scan# 1294
Delta R.T. -0.00 min
Lab File: VX006665.D
Acq: 20 Dec 2018 10:27

Tgt Ion: 75 Resp: 136098

Ion	Ratio	Lower	Upper
75	100		
77	30.7	25.4	38.0

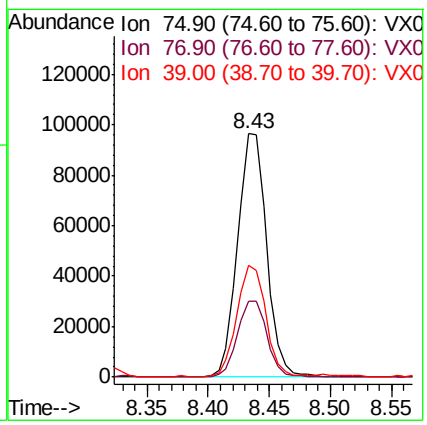




#54
cis-1,3-Dichloropropene
Concen: 19.749 ug/l
RT: 8.43 min Scan# 1194
Delta R.T. -0.00 min
Lab File: VX006665.D
Acq: 20 Dec 2018 10:27

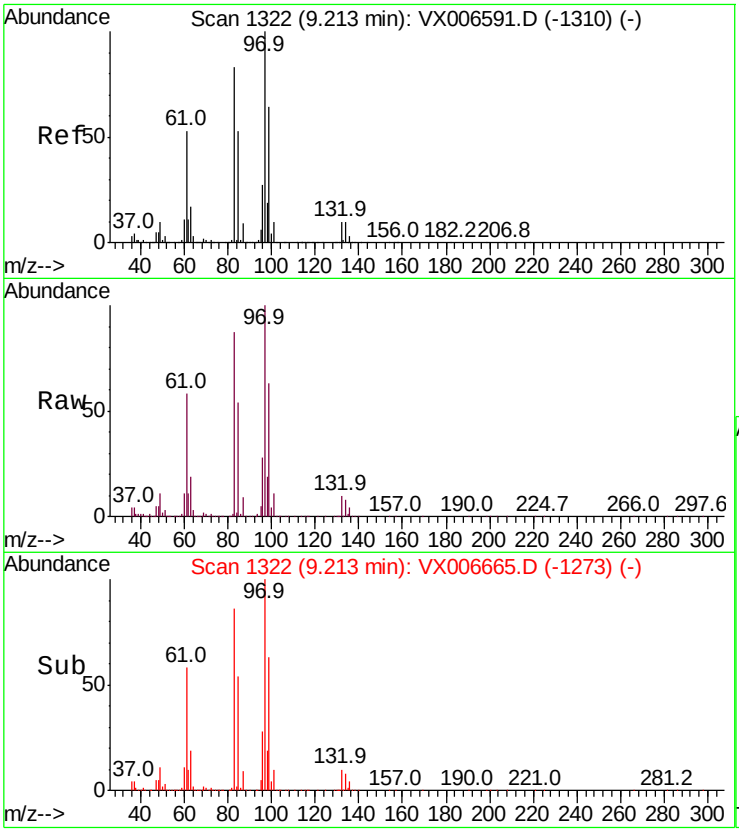
Tgt Ion: 75 Resp: 158714

Ion	Ratio	Lower	Upper
75	100		
77	31.2	26.2	39.2
39	45.6	36.7	55.1



Instrument :
MSVOA_X
ClientSampleId :
VX1220WBS01

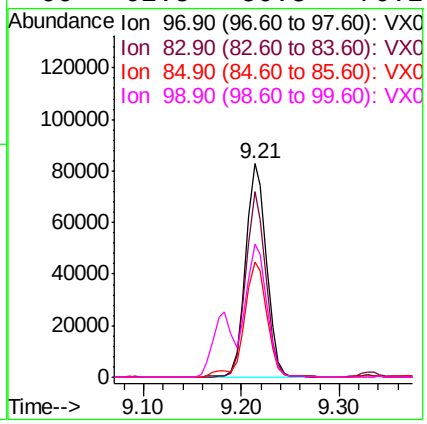
Manual Integrations APPROVED
MMDadoda
12/21/2018 10:18:54 AM

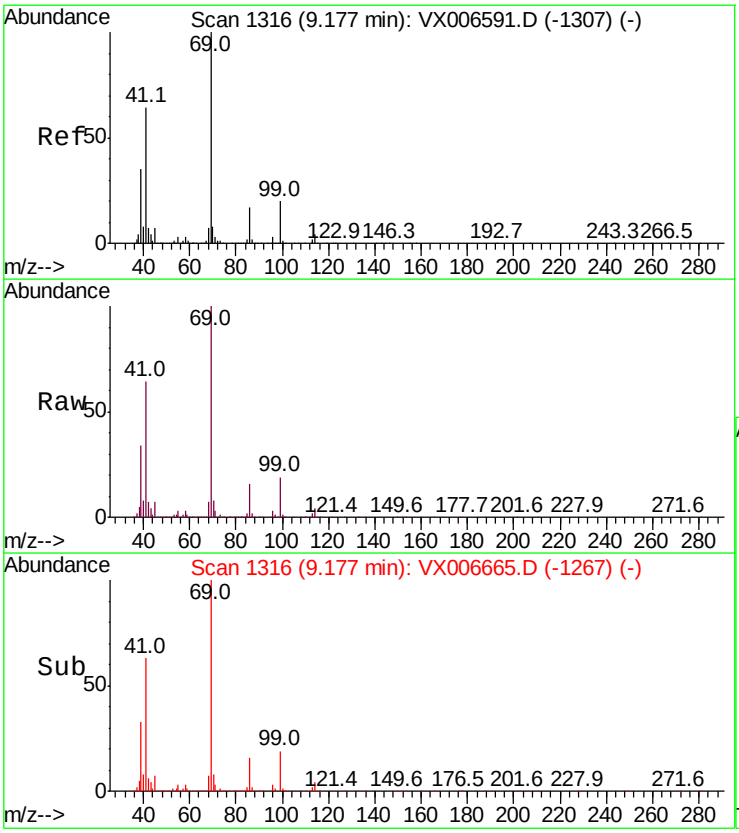


#55
1,1,2-Trichloroethane
Concen: 20.279 ug/l
RT: 9.21 min Scan# 1322
Delta R.T. -0.00 min
Lab File: VX006665.D
Acq: 20 Dec 2018 10:27

Tgt Ion: 97 Resp: 123236

Ion	Ratio	Lower	Upper
97	100		
83	86.6	66.6	99.8
85	54.0	42.7	64.1
99	62.5	50.8	76.2

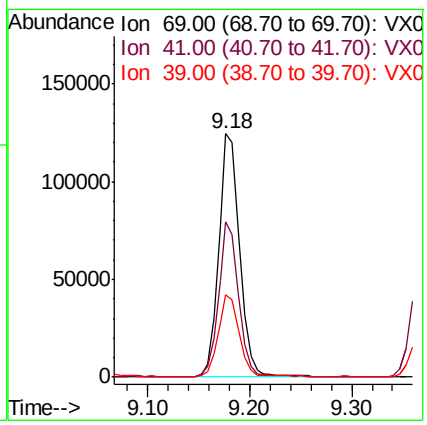




#56
Ethyl methacrylate
Concen: 20.724 ug/l
RT: 9.18 min Scan# 1316
Delta R.T. -0.00 min
Lab File: VX006665.D
Acq: 20 Dec 2018 10:27

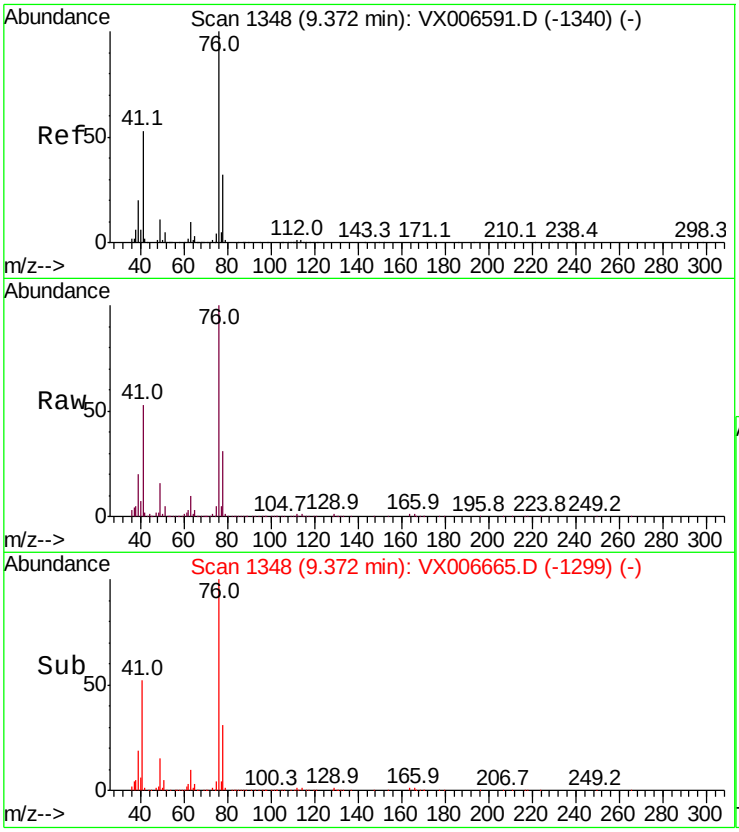
Tgt Ion: 69 Resp: 177994

Ion	Ratio	Lower	Upper
69	100		
41	60.5	48.7	73.1
39	34.9	27.0	40.6



Instrument :
MSVOA_X
ClientSampleId :
VX1220WBS01

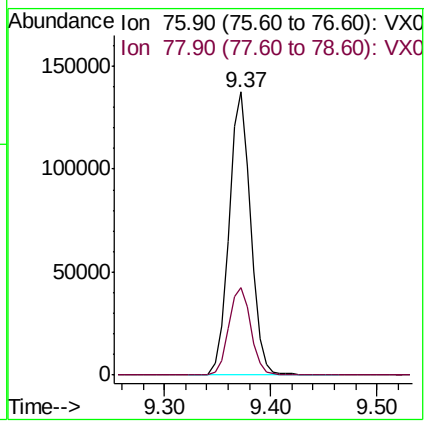
Manual Integrations APPROVED
MMDadoda
12/21/2018 10:18:54 AM

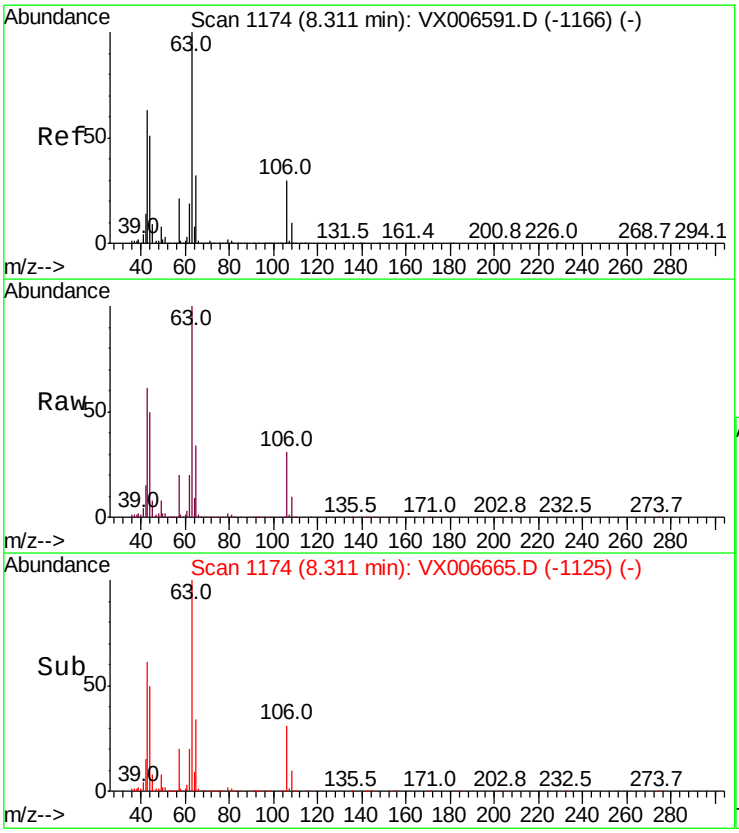


#57
1,3-Dichloropropane
Concen: 19.944 ug/l
RT: 9.37 min Scan# 1348
Delta R.T. -0.00 min
Lab File: VX006665.D
Acq: 20 Dec 2018 10:27

Tgt Ion: 76 Resp: 194993

Ion	Ratio	Lower	Upper
76	100		
78	31.7	26.0	39.0

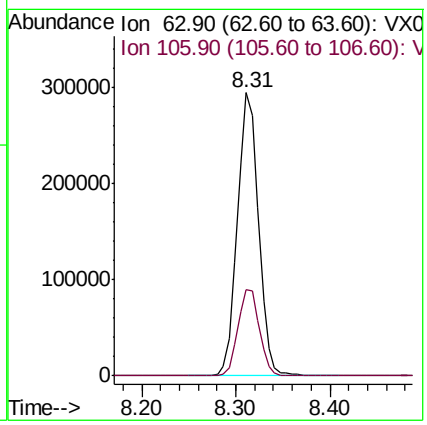




#58
2-Chloroethyl Vinyl ether
Concen: 100.928 ug/l
RT: 8.31 min Scan# 1174
Delta R.T. -0.00 min
Lab File: VX006665.D
Acq: 20 Dec 2018 10:27

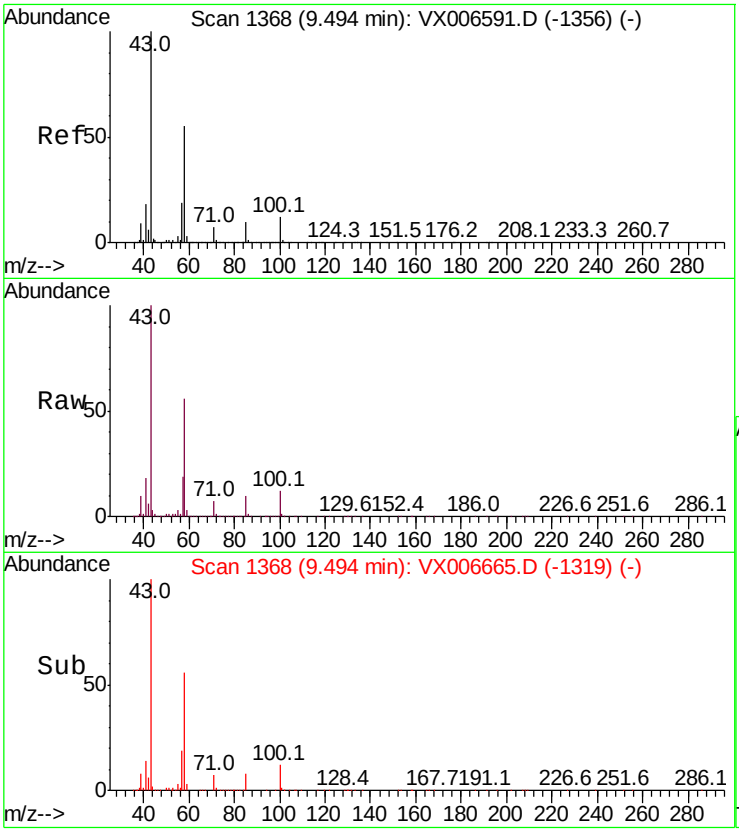
Tgt Ion: 63 Resp: 460800

Ion	Ratio	Lower	Upper
63	100		
106	31.0	24.6	36.8



Instrument :
MSVOA_X
ClientSampleId :
VX1220WBS01

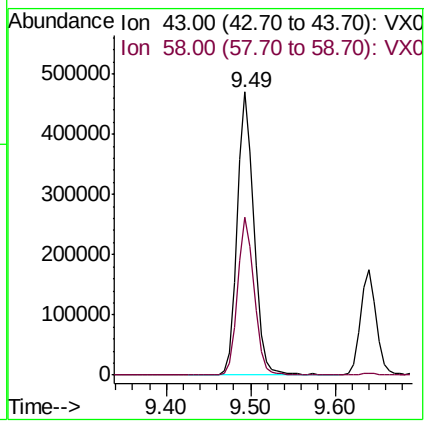
Manual Integrations APPROVED
MMDadoda
12/21/2018 10:18:54 AM

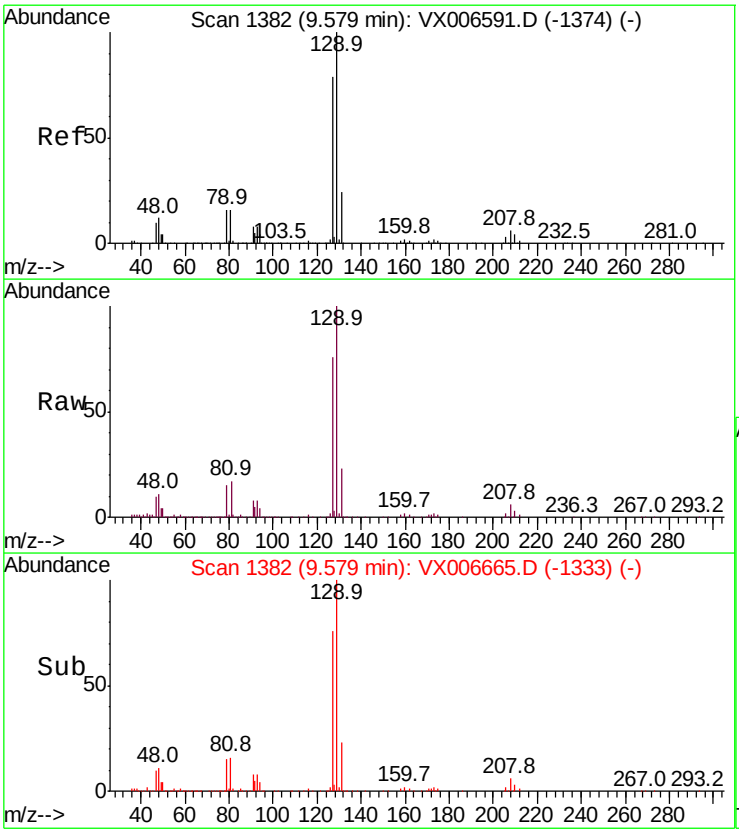


#59
2-Hexanone
Concen: 107.242 ug/l
RT: 9.49 min Scan# 1368
Delta R.T. -0.00 min
Lab File: VX006665.D
Acq: 20 Dec 2018 10:27

Tgt Ion: 43 Resp: 625075

Ion	Ratio	Lower	Upper
43	100		
58	55.2	27.7	83.1

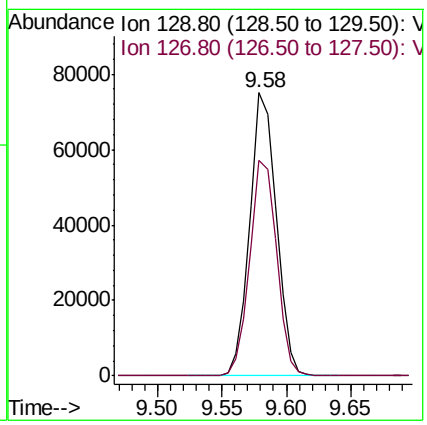




#60
Dibromochloromethane
Concen: 18.366 ug/l
RT: 9.58 min Scan# 1382
Delta R.T. 0.00 min
Lab File: VX006665.D
Acq: 20 Dec 2018 10:27

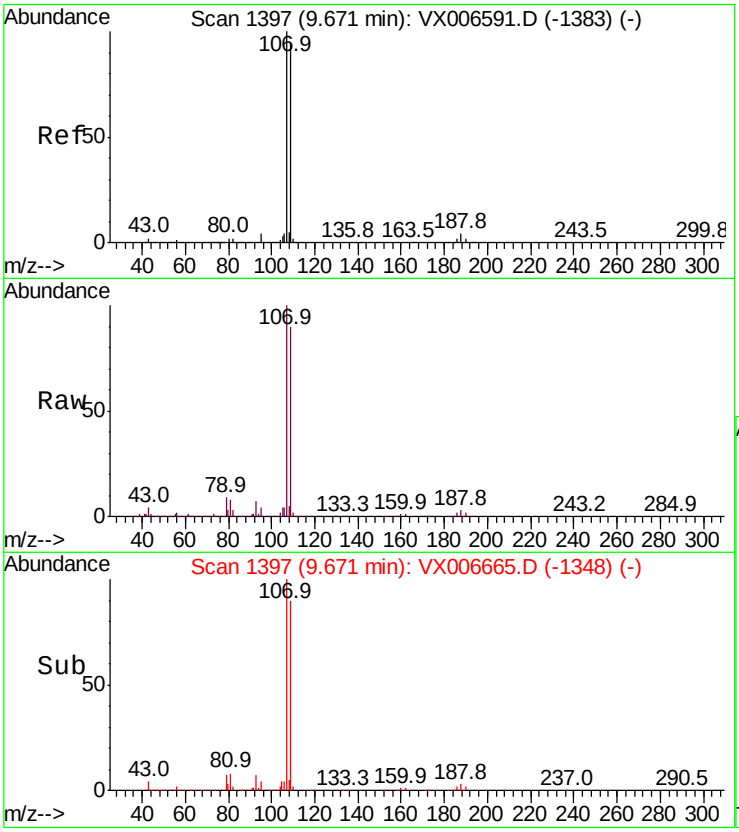
Tgt Ion:129 Resp: 106930

Ion	Ratio	Lower	Upper
129	100		
127	77.0	39.3	117.8



Instrument :
MSVOA_X
ClientSampleId :
VX1220WBS01

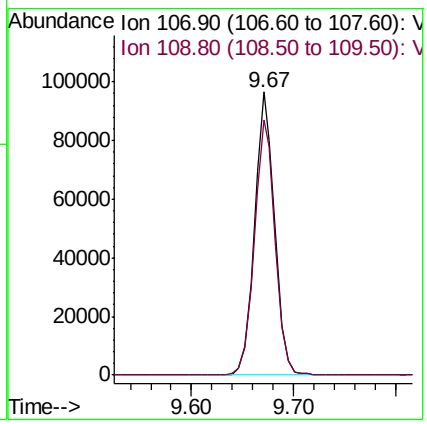
Manual Integrations APPROVED
MMDadoda
12/21/2018 10:18:54 AM

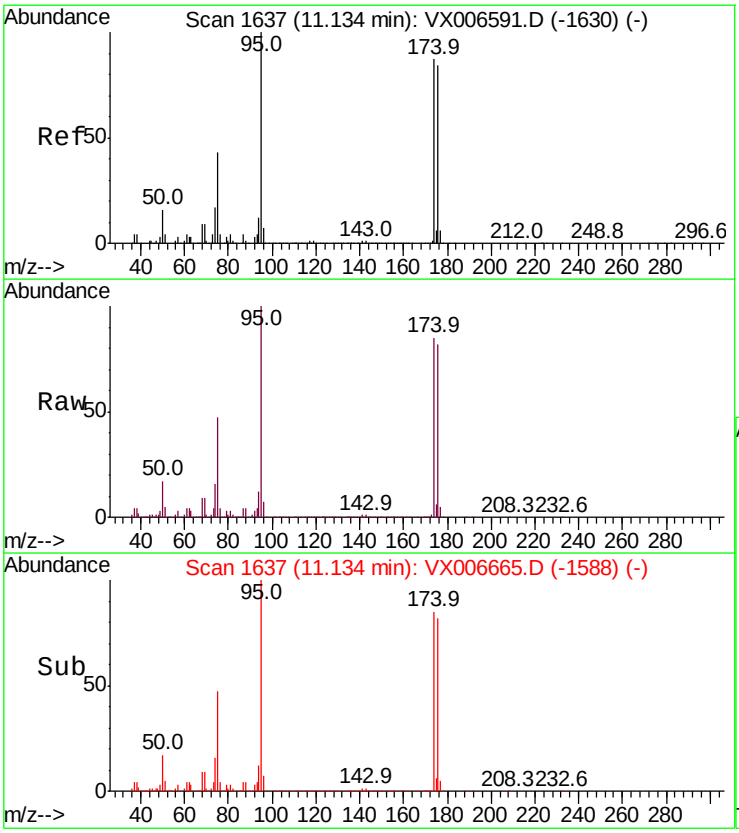


#61
1,2-Dibromoethane
Concen: 20.564 ug/l
RT: 9.67 min Scan# 1397
Delta R.T. -0.00 min
Lab File: VX006665.D
Acq: 20 Dec 2018 10:27

Tgt Ion:107 Resp: 132843

Ion	Ratio	Lower	Upper
107	100		
109	93.2	75.8	113.6

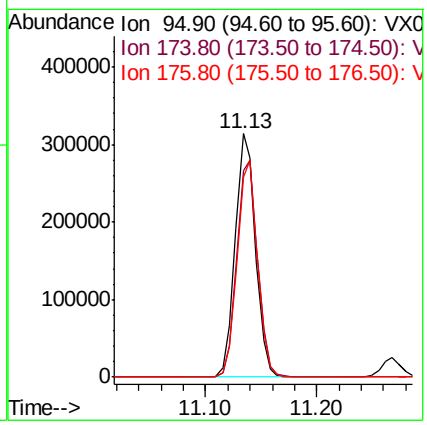




#62
4-Bromofluorobenzene
Concen: 49.640 ug/l
RT: 11.13 min Scan# 1637
Delta R.T. -0.00 min
Lab File: VX006665.D
Acq: 20 Dec 2018 10:27

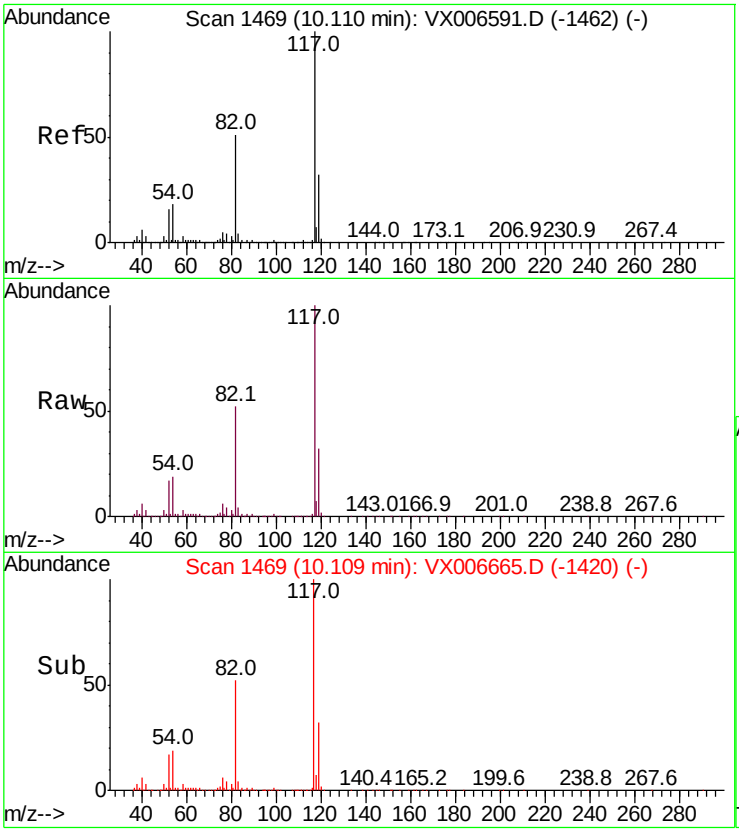
Tgt Ion: 95 Resp: 395648

Ion	Ratio	Lower	Upper
95	100		
174	91.1	0.0	182.2
176	89.2	0.0	178.8



Instrument :
MSVOA_X
ClientSampleId :
VX1220WBS01

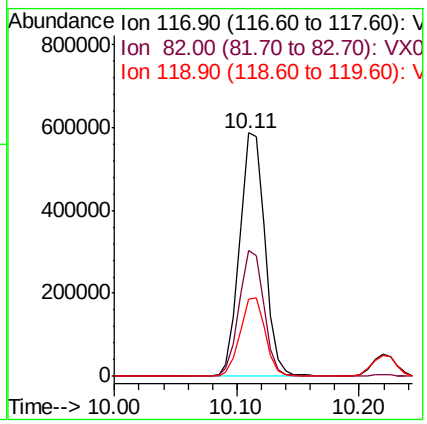
Manual Integrations APPROVED
MMDadoda
12/21/2018 10:18:54 AM

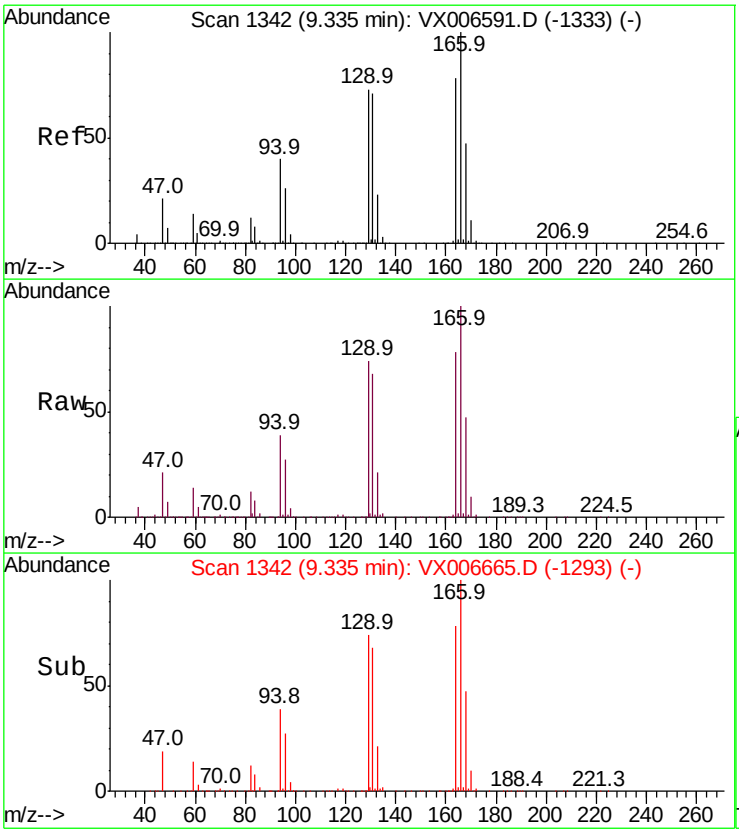


#63
Chlorobenzene-d5
Concen: 50.000 ug/l
RT: 10.11 min Scan# 1469
Delta R.T. -0.00 min
Lab File: VX006665.D
Acq: 20 Dec 2018 10:27

Tgt Ion:117 Resp: 837848

Ion	Ratio	Lower	Upper
117	100		
82	51.7	41.0	61.6
119	31.9	25.4	38.0

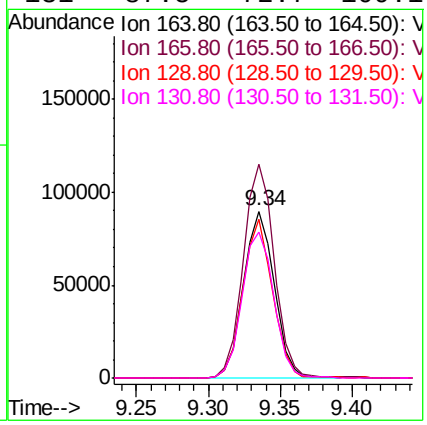




#64
Tetrachloroethene
Concen: 19.991 ug/l
RT: 9.34 min Scan# 1342
Delta R.T. -0.00 min
Lab File: VX006665.D
Acq: 20 Dec 2018 10:27

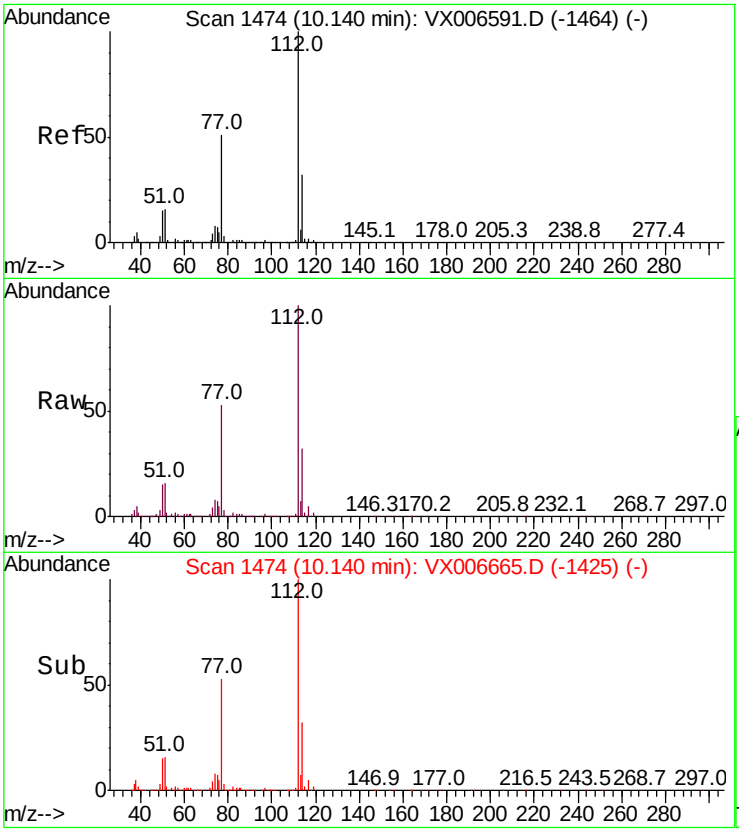
Tgt Ion:164 Resp: 132627

Ion	Ratio	Lower	Upper
164	100		
166	128.1	102.5	153.7
129	95.0	75.1	112.7
131	87.5	72.7	109.1



Instrument :
MSVOA_X
ClientSampleId :
VX1220WBS01

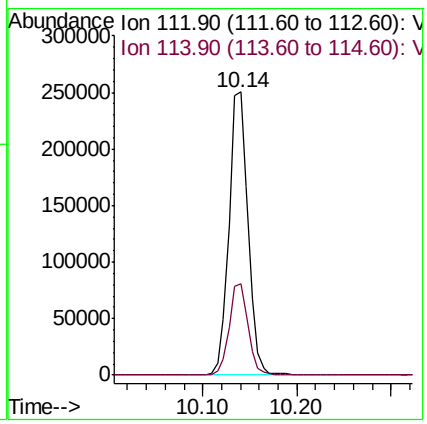
Manual Integrations APPROVED
MMDadoda
12/21/2018 10:18:54 AM

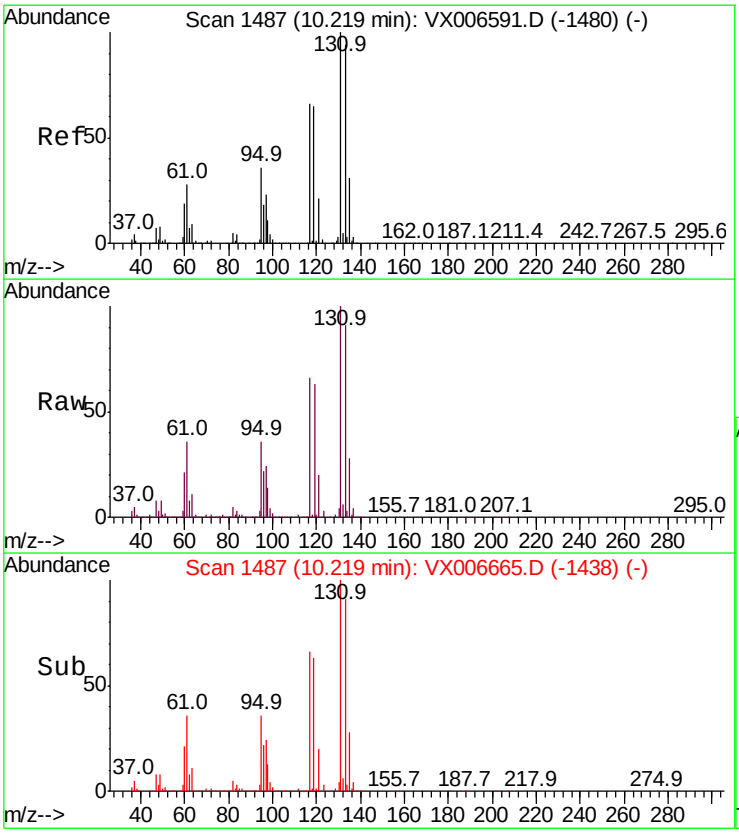


#65
Chlorobenzene
Concen: 19.870 ug/l
RT: 10.14 min Scan# 1474
Delta R.T. -0.00 min
Lab File: VX006665.D
Acq: 20 Dec 2018 10:27

Tgt Ion:112 Resp: 352205

Ion	Ratio	Lower	Upper
112	100		
114	32.1	25.7	38.5

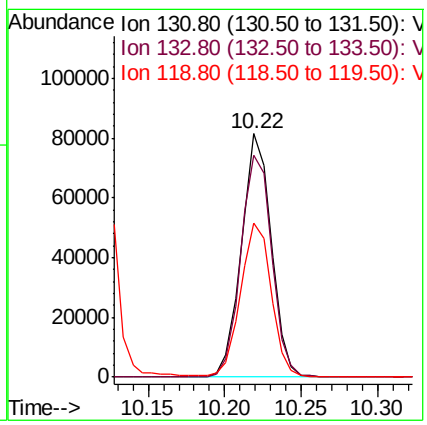




#66
1,1,1,2-Tetrachloroethane
Concen: 19.868 ug/l
RT: 10.22 min Scan# 1487
Delta R.T. -0.00 min
Lab File: VX006665.D
Acq: 20 Dec 2018 10:27

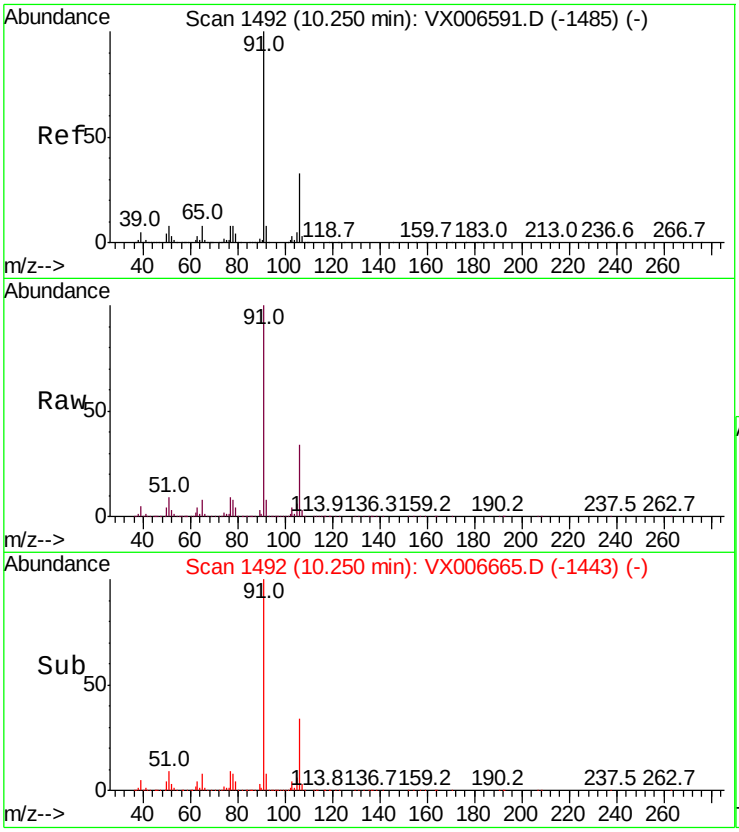
Tgt Ion:131 Resp: 109876

Ion	Ratio	Lower	Upper
131	100		
133	95.3	48.0	144.2
119	66.0	32.6	97.8



Instrument :
MSVOA_X
ClientSampleId :
VX1220WBS01

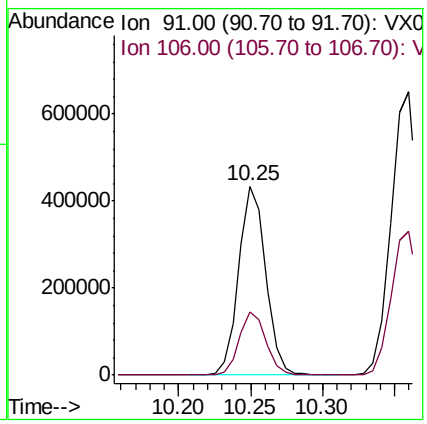
Manual Integrations APPROVED
MMDadoda
12/21/2018 10:18:54 AM

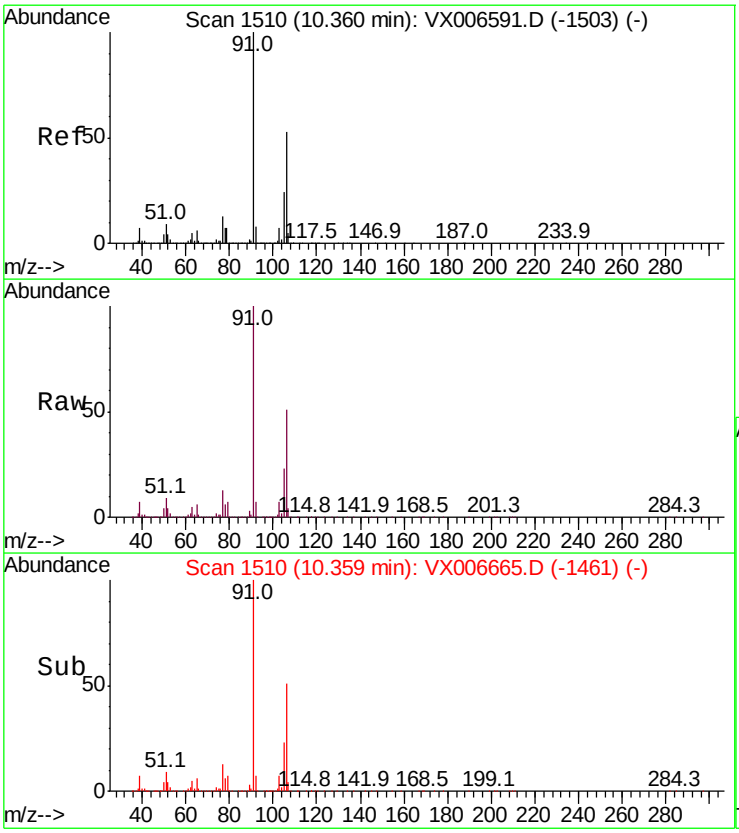


#67
Ethyl Benzene
Concen: 19.632 ug/l
RT: 10.25 min Scan# 1492
Delta R.T. -0.00 min
Lab File: VX006665.D
Acq: 20 Dec 2018 10:27

Tgt Ion: 91 Resp: 568625

Ion	Ratio	Lower	Upper
91	100		
106	33.5	26.4	39.6

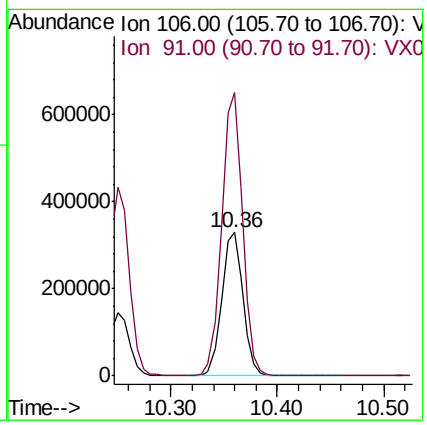




#68
m/p-Xylenes
Concen: 40.103 ug/l
RT: 10.36 min Scan# 1510
Delta R.T. -0.00 min
Lab File: VX006665.D
Acq: 20 Dec 2018 10:27

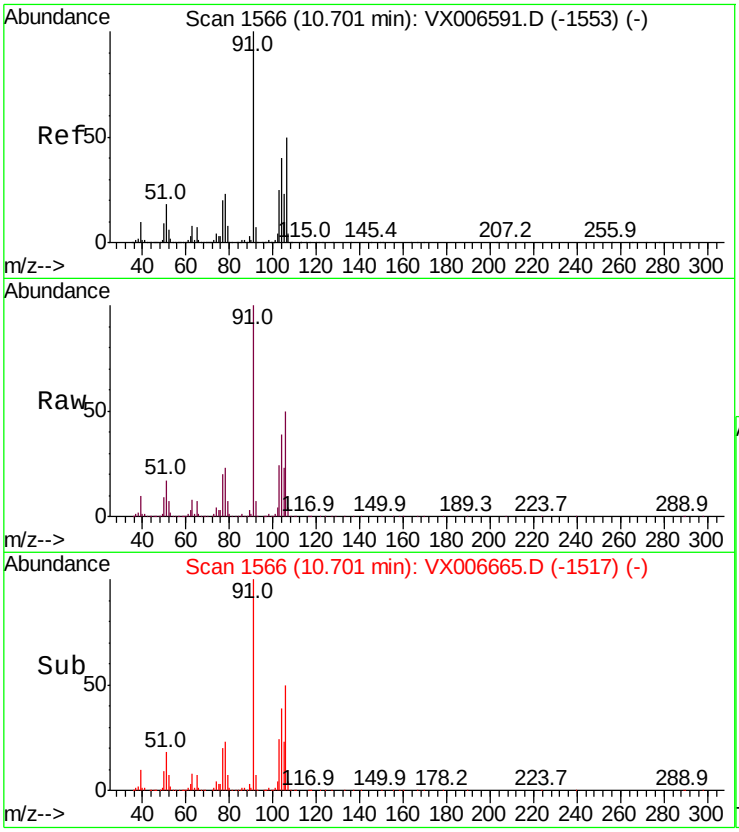
Tgt Ion:106 Resp: 458353

Ion	Ratio	Lower	Upper
106	100		
91	194.3	155.8	233.6



Instrument :
MSVOA_X
ClientSampleId :
VX1220WBS01

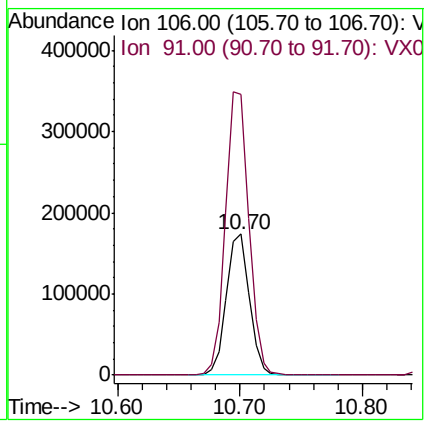
Manual Integrations APPROVED
MMDadoda
12/21/2018 10:18:54 AM

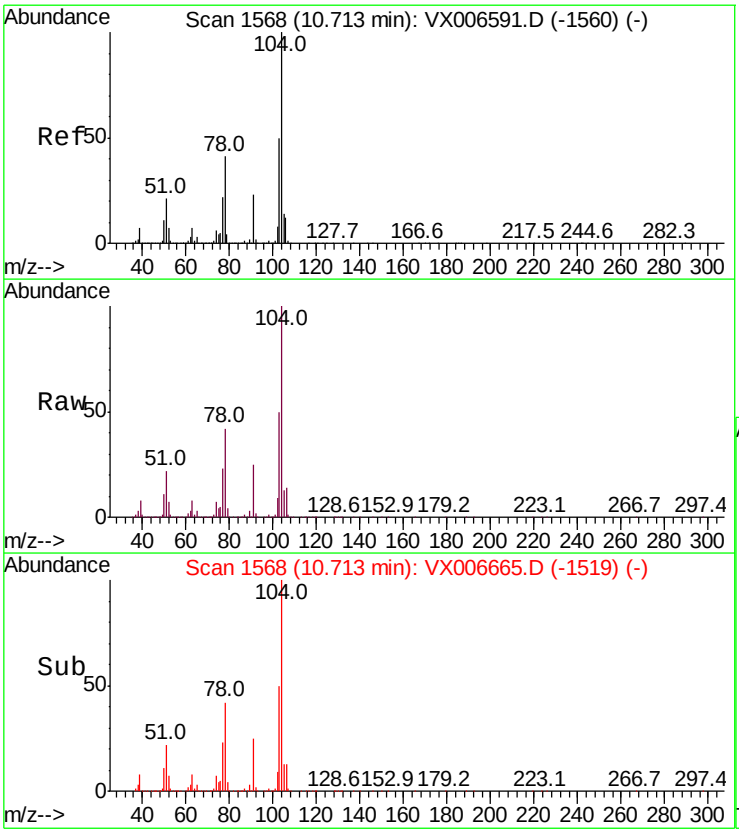


#69
o-Xylene
Concen: 20.071 ug/l
RT: 10.70 min Scan# 1566
Delta R.T. -0.00 min
Lab File: VX006665.D
Acq: 20 Dec 2018 10:27

Tgt Ion:106 Resp: 226529

Ion	Ratio	Lower	Upper
106	100		
91	203.6	101.3	303.7

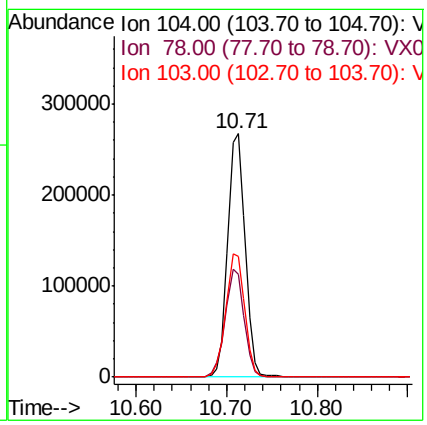


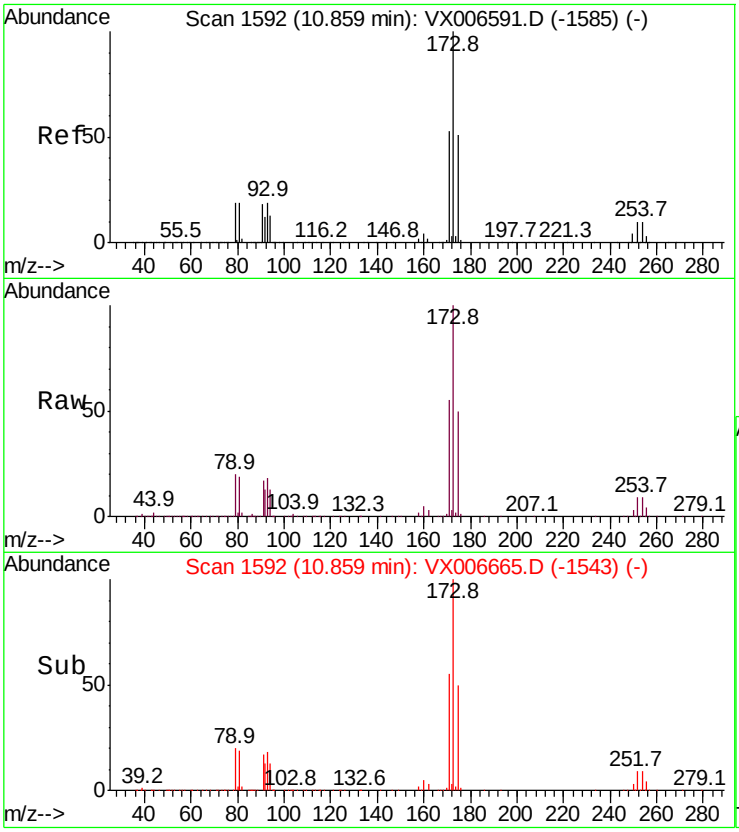


#70
Styrene
Concen: 20.182 ug/l
RT: 10.71 min Scan# 1568
Delta R.T. -0.00 min
Lab File: VX006665.D
Acq: 20 Dec 2018 10:27

Tgt Ion:104 Resp: 360355

Ion	Ratio	Lower	Upper
104	100		
78	47.9	37.7	56.5
103	54.7	43.8	65.8

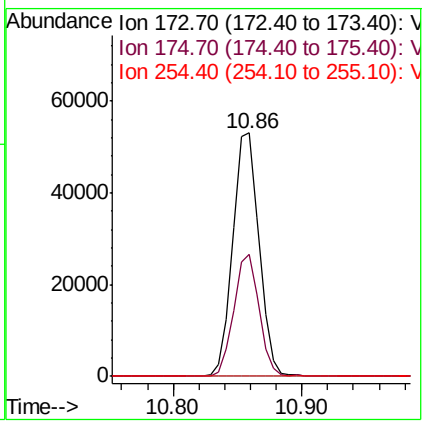




#71
Bromoform
Concen: 18.263 ug/l
RT: 10.86 min Scan# 1592
Delta R.T. 0.00 min
Lab File: VX006665.D
Acq: 20 Dec 2018 10:27

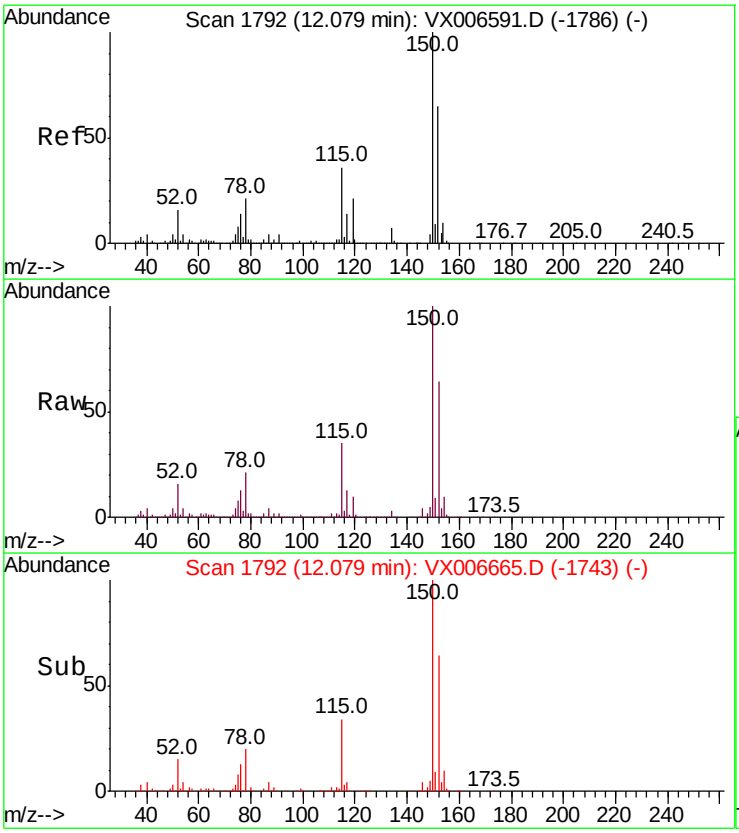
Tgt Ion:173 Resp: 75601

Ion	Ratio	Lower	Upper
173	100		
175	48.3	24.7	74.1
254	0.3	0.2	0.2#



Instrument :
MSVOA_X
ClientSampleId :
VX1220WBS01

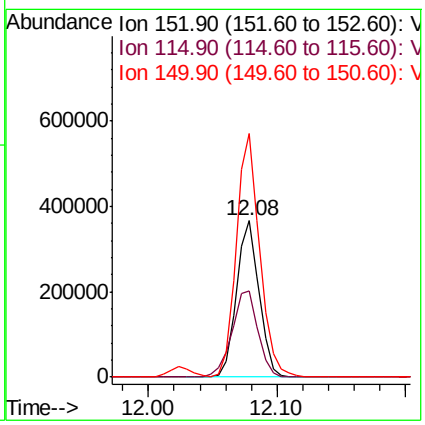
Manual Integrations APPROVED
MMDadoda
12/21/2018 10:18:54 AM



#72
1,4-Dichlorobenzene-d4
Concen: 50.000 ug/l
RT: 12.08 min Scan# 1792
Delta R.T. -0.00 min
Lab File: VX006665.D
Acq: 20 Dec 2018 10:27

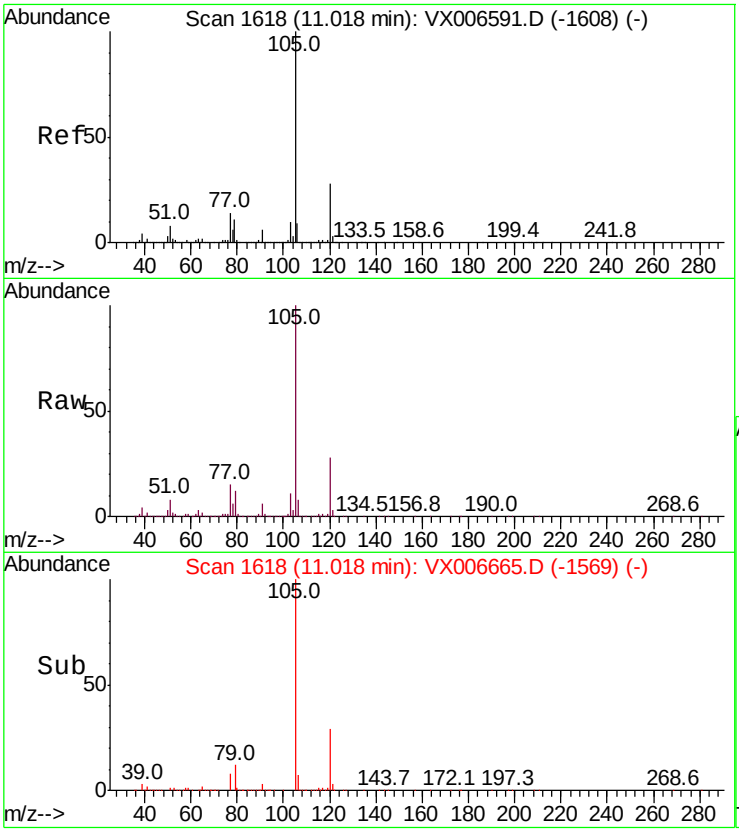
Tgt Ion:152 Resp: 442553

Ion	Ratio	Lower	Upper
152	100		
115	64.4	39.1	117.2
150	162.0	0.0	344.8



Instrument :
MSVOA_X
ClientSampleId :
VX1220WBS01

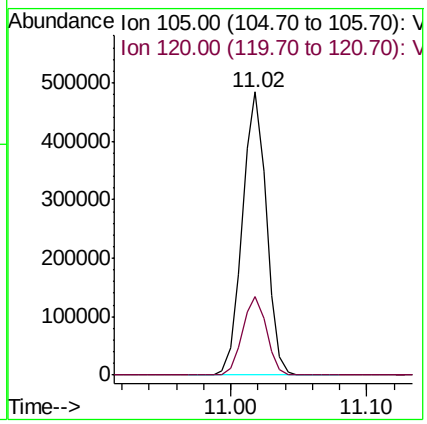
Manual Integrations APPROVED
MMDadoda
12/21/2018 10:18:54 AM

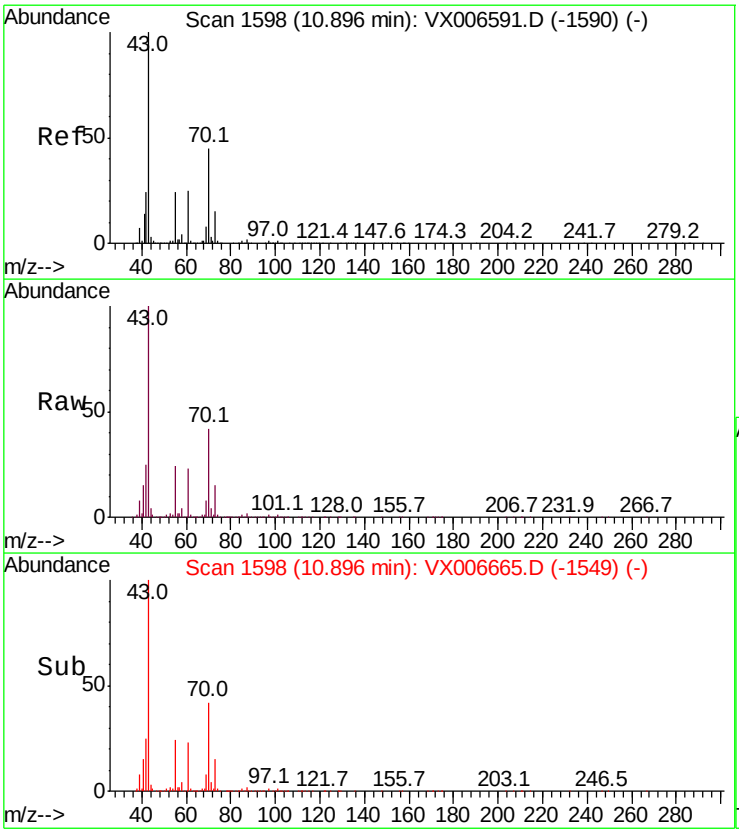


#73
Isopropylbenzene
Concen: 19.671 ug/l
RT: 11.02 min Scan# 1618
Delta R.T. -0.00 min
Lab File: VX006665.D
Acq: 20 Dec 2018 10:27

Tgt Ion:105 Resp: 595567

Ion	Ratio	Lower	Upper
105	100		
120	27.9	14.1	42.4

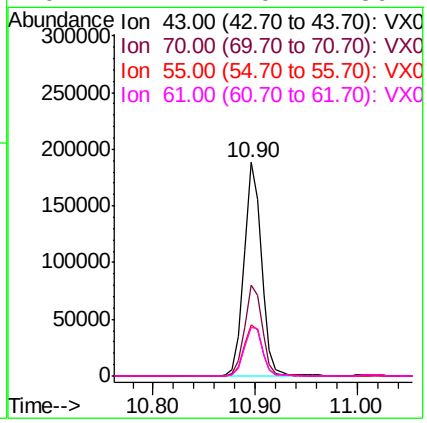




#74
N-amyl acetate
Concen: 20.431 ug/l
RT: 10.90 min Scan# 1598
Delta R.T. -0.00 min
Lab File: VX006665.D
Acq: 20 Dec 2018 10:27

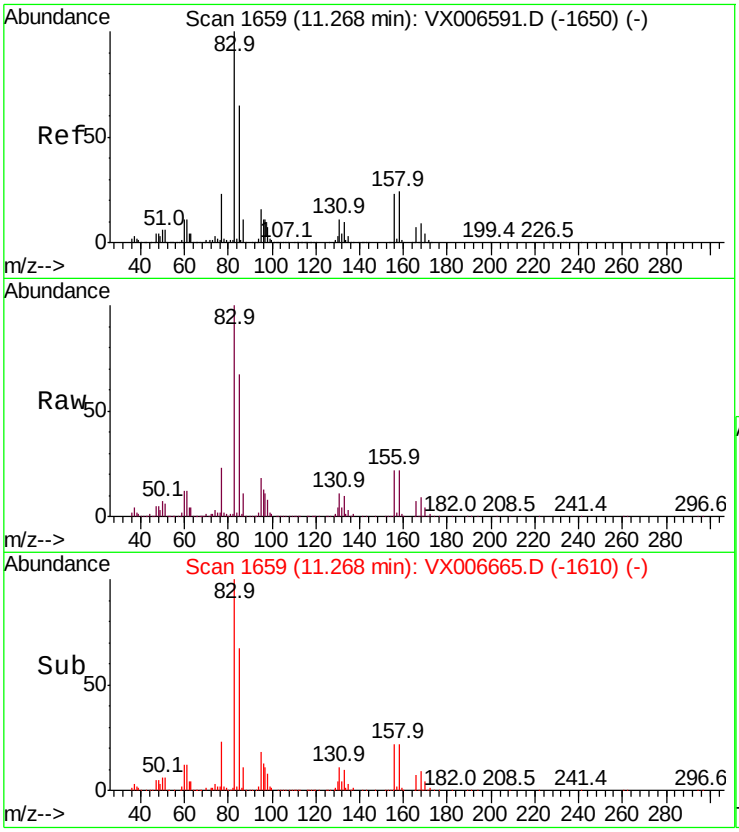
Tgt Ion: 43 Resp: 221409

Ion	Ratio	Lower	Upper
43	100		
70	43.5	35.8	53.8
55	25.0	19.4	29.0
61	24.2	20.1	30.1



Instrument :
MSVOA_X
ClientSampleId :
VX1220WBS01

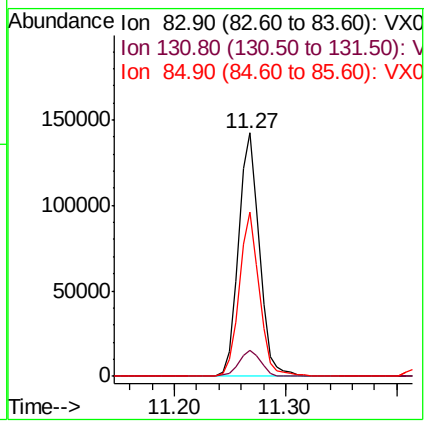
Manual Integrations APPROVED
MMDadoda
12/21/2018 10:18:54 AM

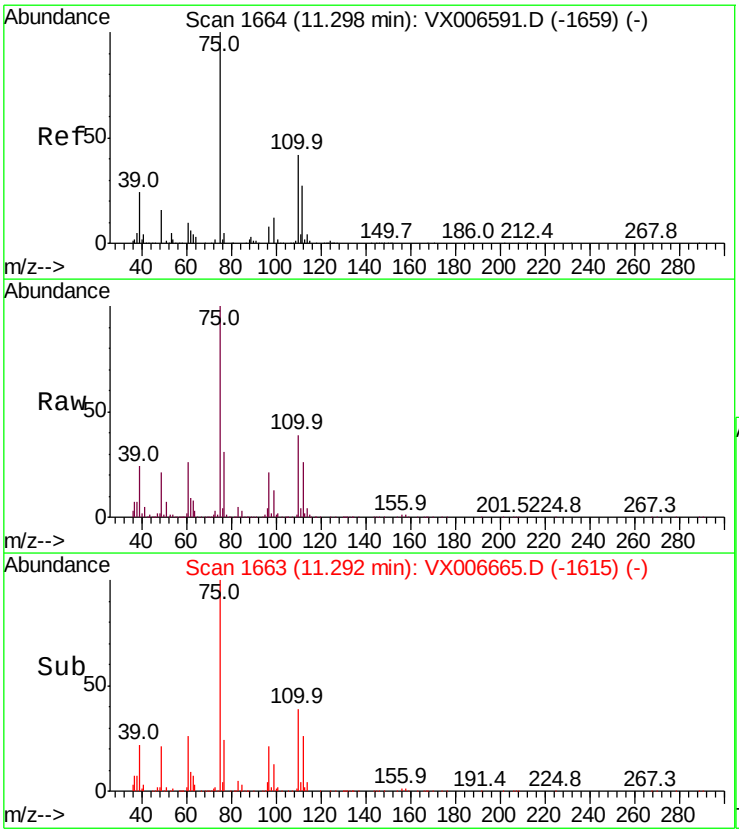


#75
1,1,2,2-Tetrachloroethane
Concen: 20.415 ug/l
RT: 11.27 min Scan# 1659
Delta R.T. -0.00 min
Lab File: VX006665.D
Acq: 20 Dec 2018 10:27

Tgt Ion: 83 Resp: 183818

Ion	Ratio	Lower	Upper
83	100		
131	11.1	5.7	17.1
85	65.2	32.2	96.6

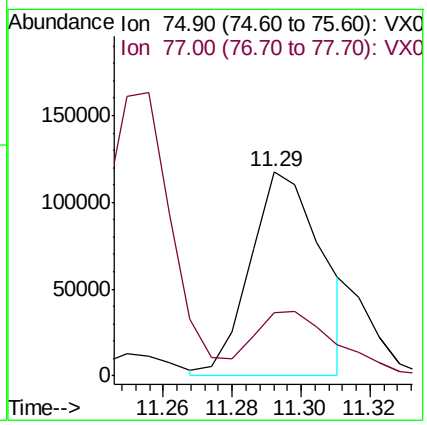




#76
1,2,3-Trichloropropane
Concen: 20.781 ug/l m
RT: 11.29 min Scan# 1663
Delta R.T. -0.01 min
Lab File: VX006665.D
Acq: 20 Dec 2018 10:27

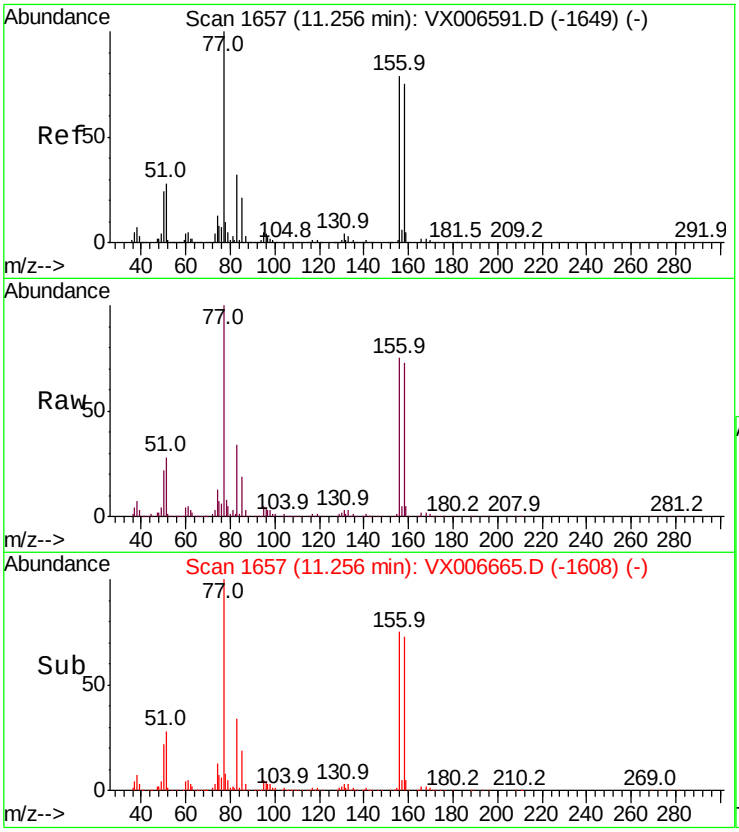
Tgt Ion: 75 Resp: 170912

Ion	Ratio	Lower	Upper
75	100		
77	35.7	18.5	55.5



Instrument :
MSVOA_X
ClientSampleId :
VX1220WBS01

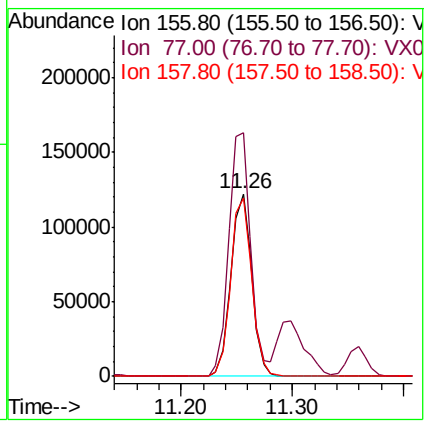
Manual Integrations APPROVED
MMDadoda
12/21/2018 10:18:54 AM

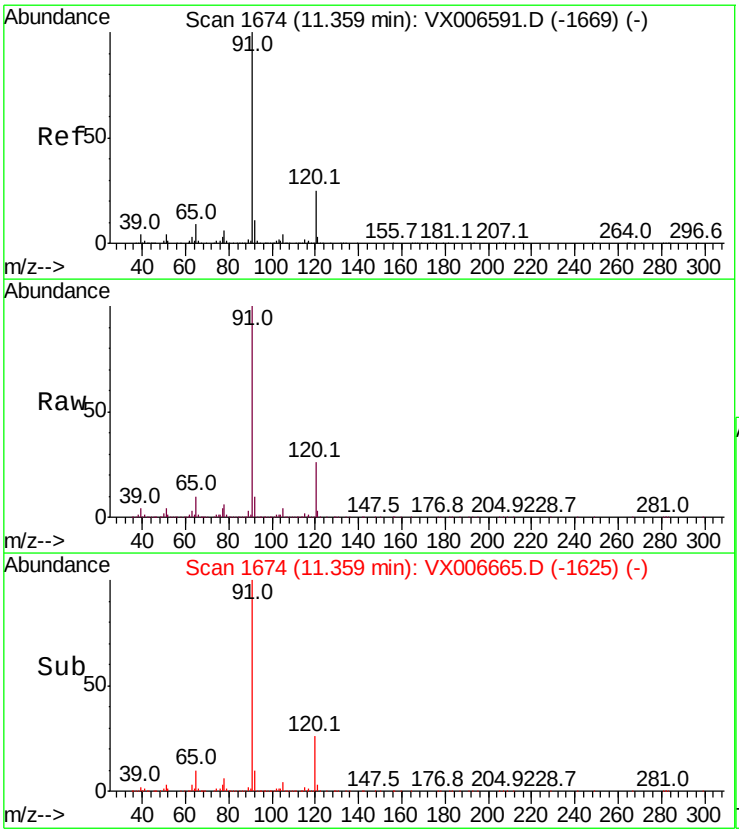


#77
Bromobenzene
Concen: 19.443 ug/l
RT: 11.26 min Scan# 1657
Delta R.T. -0.00 min
Lab File: VX006665.D
Acq: 20 Dec 2018 10:27

Tgt Ion:156 Resp: 159149

Ion	Ratio	Lower	Upper
156	100		
77	139.9	68.0	204.0
158	98.7	48.3	144.8

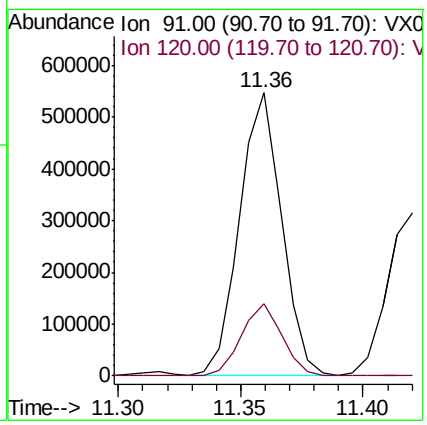




#78
n-propylbenzene
Concen: 19.563 ug/l
RT: 11.36 min Scan# 1674
Delta R.T. -0.00 min
Lab File: VX006665.D
Acq: 20 Dec 2018 10:27

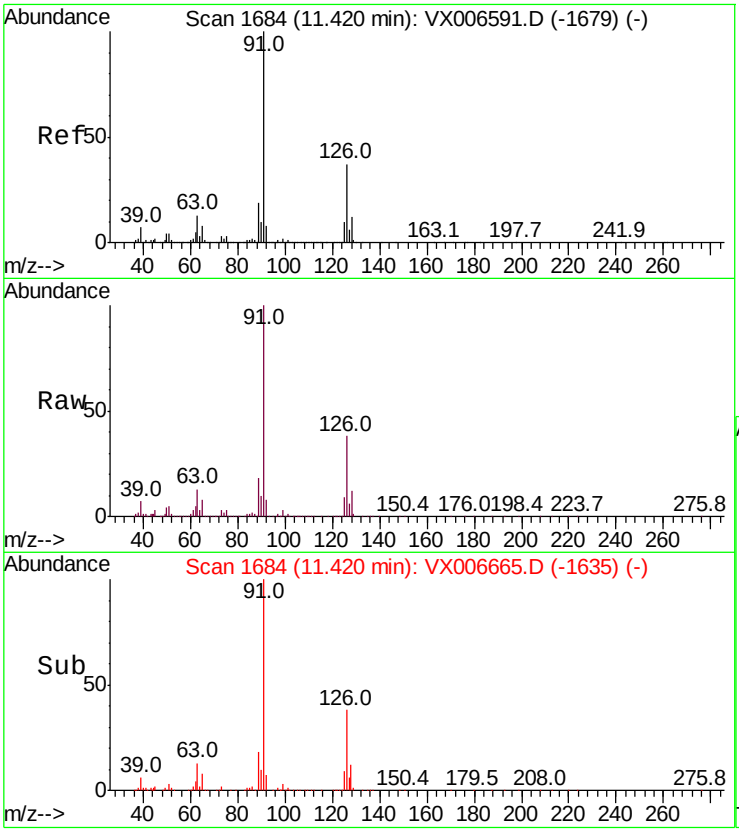
Tgt Ion: 91 Resp: 652235

Ion	Ratio	Lower	Upper
91	100		
120	25.0	12.7	38.0



Instrument :
MSVOA_X
ClientSampleId :
VX1220WBS01

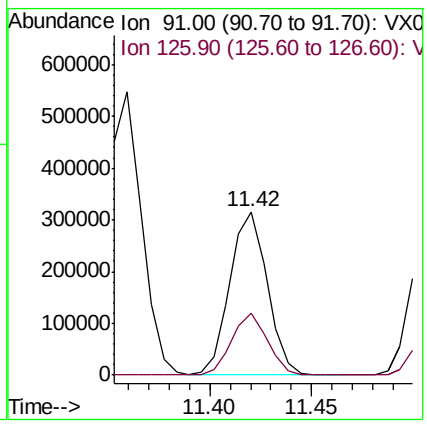
Manual Integrations APPROVED
MMDadoda
12/21/2018 10:18:54 AM

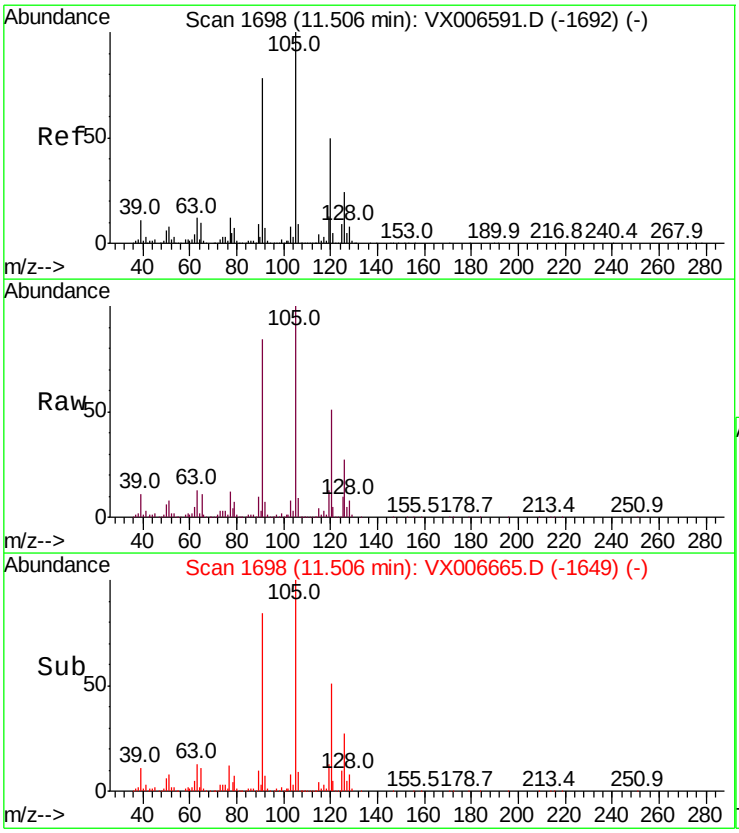


#79
2-Chlorotoluene
Concen: 19.658 ug/l
RT: 11.42 min Scan# 1684
Delta R.T. -0.00 min
Lab File: VX006665.D
Acq: 20 Dec 2018 10:27

Tgt Ion: 91 Resp: 397180

Ion	Ratio	Lower	Upper
91	100		
126	36.8	18.6	56.0

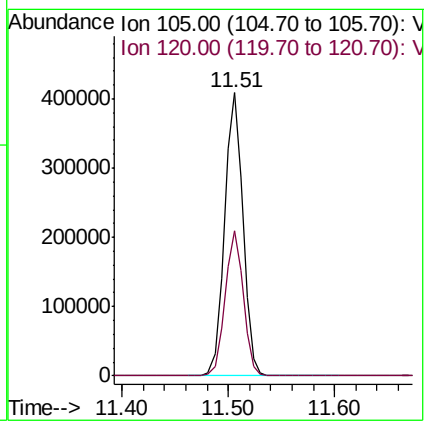


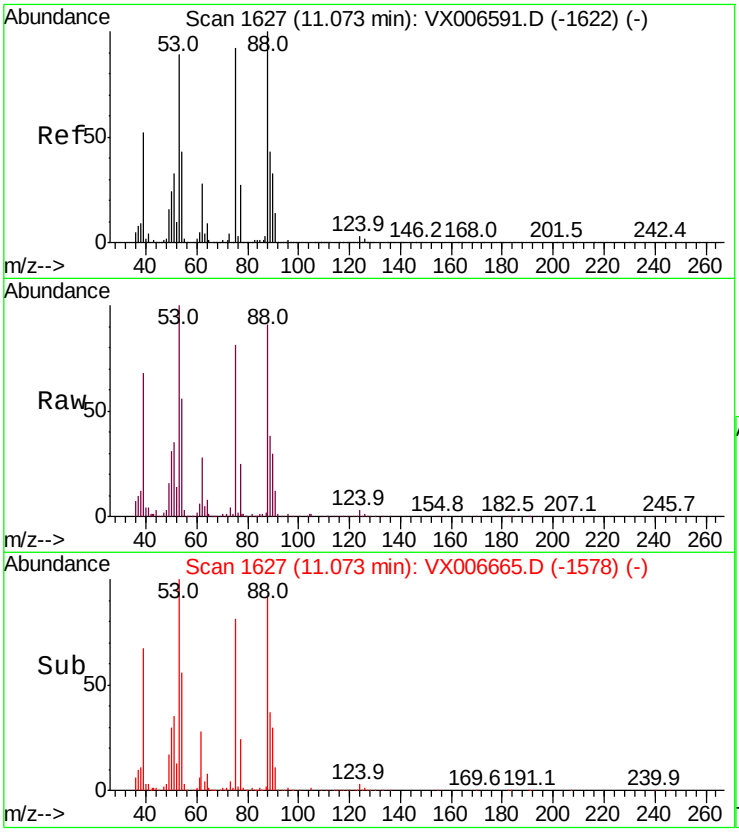


#80
1,3,5-Trimethylbenzene
Concen: 19.772 ug/l
RT: 11.51 min Scan# 1698
Delta R.T. -0.00 min
Lab File: VX006665.D
Acq: 20 Dec 2018 10:27

Tgt Ion:105 Resp: 493061

Ion	Ratio	Lower	Upper
105	100		
120	50.6	25.1	75.3

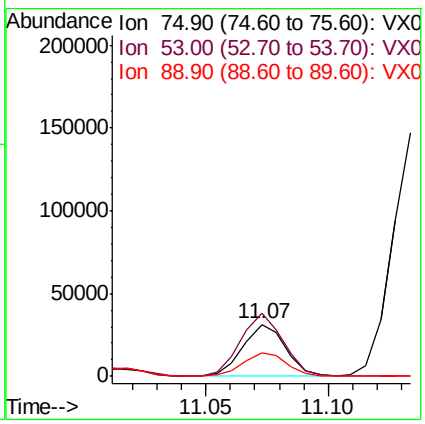




#81
trans-1,4-Dichloro-2-butene
Concen: 17.046 ug/l
RT: 11.07 min Scan# 1627
Delta R.T. 0.00 min
Lab File: VX006665.D
Acq: 20 Dec 2018 10:27

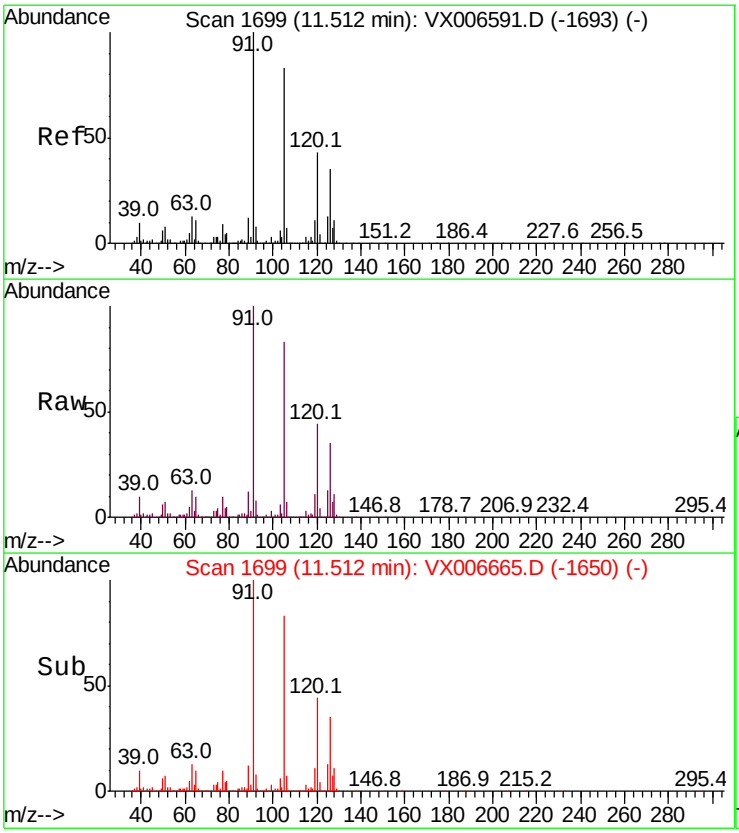
Tgt Ion: 75 Resp: 37832

Ion	Ratio	Lower	Upper
75	100		
53	123.6	79.7	119.5#
89	47.5	38.0	57.0



Instrument :
MSVOA_X
ClientSampleId :
VX1220WBS01

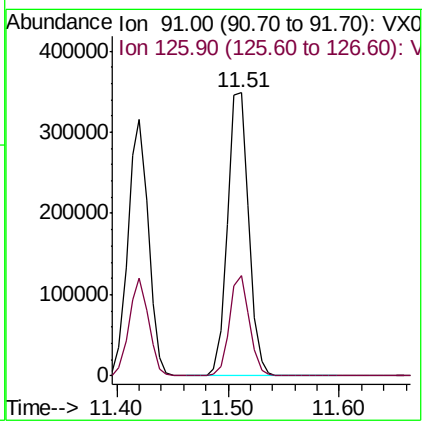
Manual Integrations APPROVED
MMDadoda
12/21/2018 10:18:54 AM

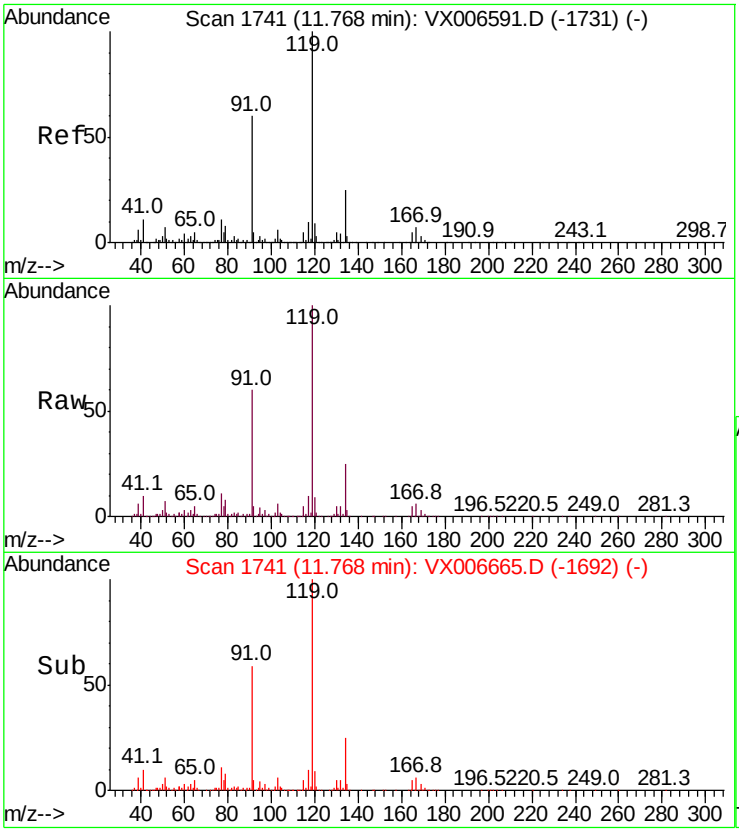


#82
4-Chlorotoluene
Concen: 19.807 ug/l
RT: 11.51 min Scan# 1699
Delta R.T. -0.00 min
Lab File: VX006665.D
Acq: 20 Dec 2018 10:27

Tgt Ion: 91 Resp: 459033

Ion	Ratio	Lower	Upper
91	100		
126	33.2	16.3	48.9

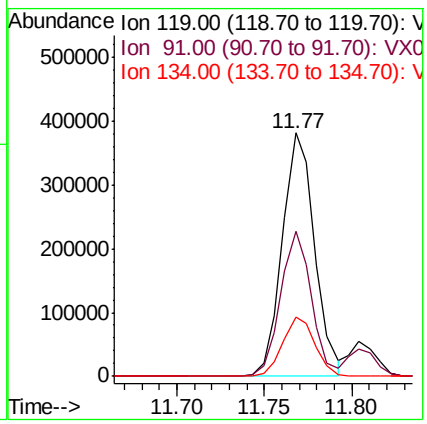




#83
tert-Butylbenzene
Concen: 19.773 ug/l
RT: 11.77 min Scan# 1741
Delta R.T. -0.00 min
Lab File: VX006665.D
Acq: 20 Dec 2018 10:27

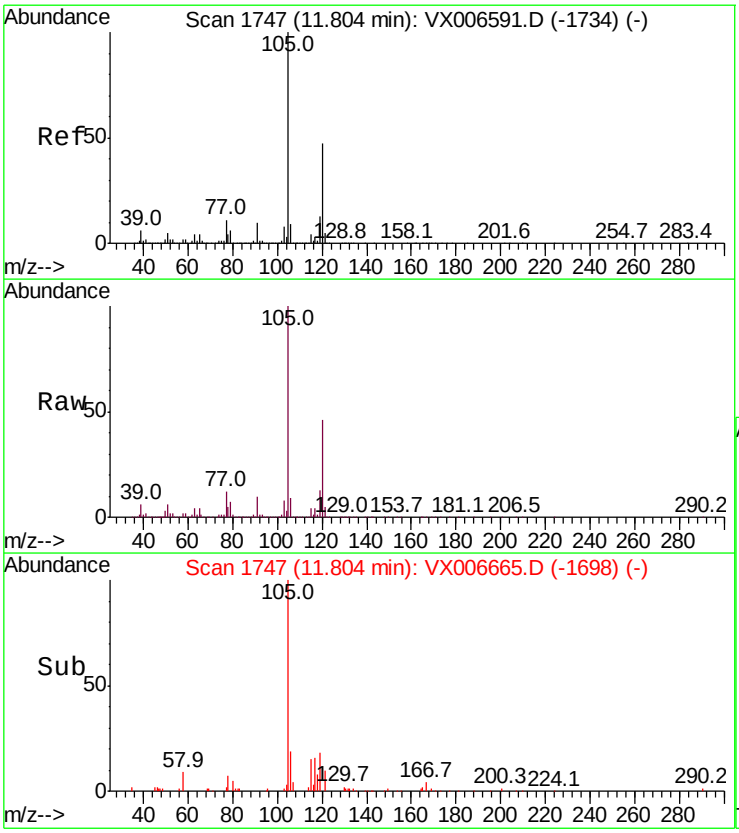
Tgt Ion:119 Resp: 493506

Ion	Ratio	Lower	Upper
119	100		
91	56.9	27.7	83.1
134	24.6	11.9	35.5



Instrument :
MSVOA_X
ClientSampleId :
VX1220WBS01

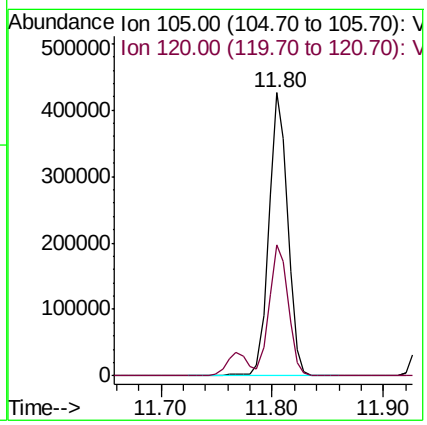
Manual Integrations APPROVED
MMDadoda
12/21/2018 10:18:54 AM



#84
1,2,4-Trimethylbenzene
Concen: 19.226 ug/l
RT: 11.80 min Scan# 1747
Delta R.T. -0.00 min
Lab File: VX006665.D
Acq: 20 Dec 2018 10:27

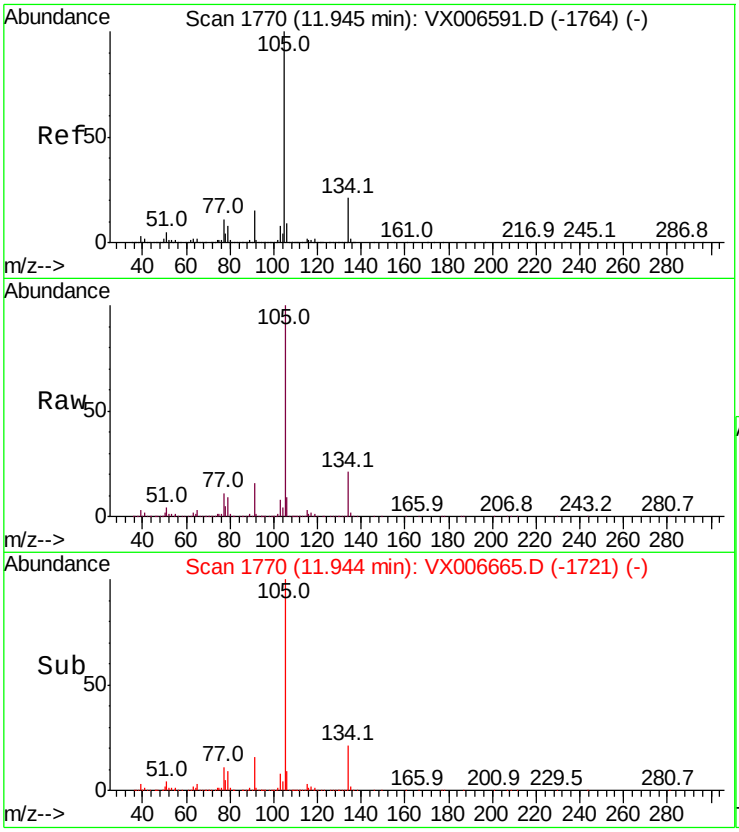
Tgt Ion:105 Resp: 504297

Ion	Ratio	Lower	Upper
105	100		
120	46.3	23.2	69.6



Instrument :
MSVOA_X
ClientSampleId :
VX1220WBS01

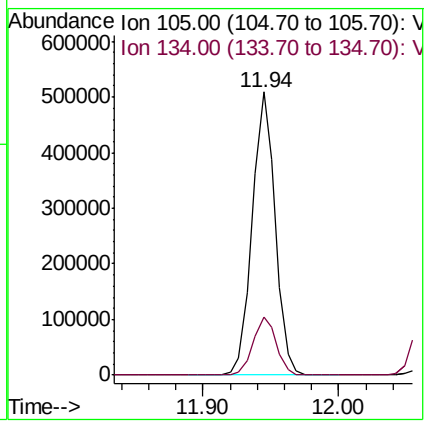
Manual Integrations APPROVED
MMDadoda
12/21/2018 10:18:54 AM

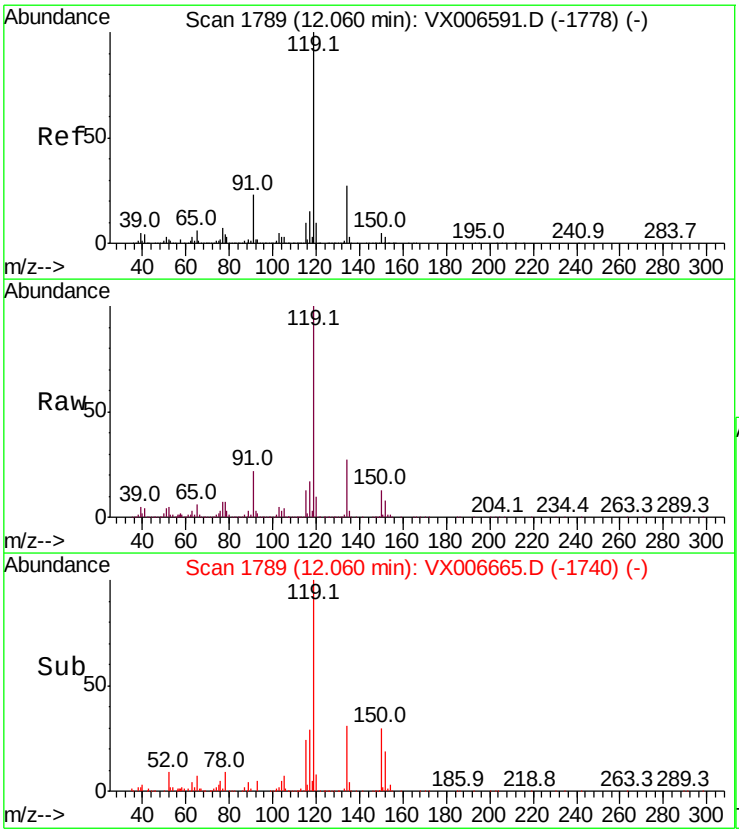


#85
sec-Butylbenzene
Concen: 19.692 ug/l
RT: 11.94 min Scan# 1770
Delta R.T. -0.00 min
Lab File: VX006665.D
Acq: 20 Dec 2018 10:27

Tgt Ion:105 Resp: 602595

Ion	Ratio	Lower	Upper
105	100		
134	21.0	10.7	31.9

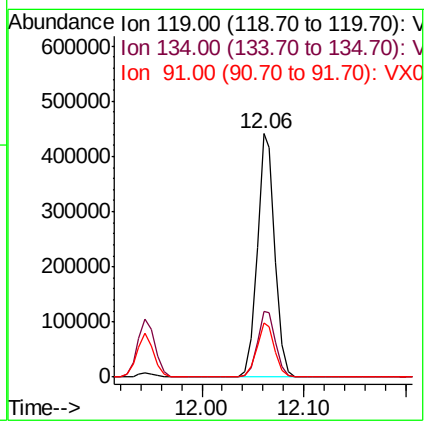




#86
p-Isopropyltoluene
Concen: 19.868 ug/l
RT: 12.06 min Scan# 1789
Delta R.T. -0.00 min
Lab File: VX006665.D
Acq: 20 Dec 2018 10:27

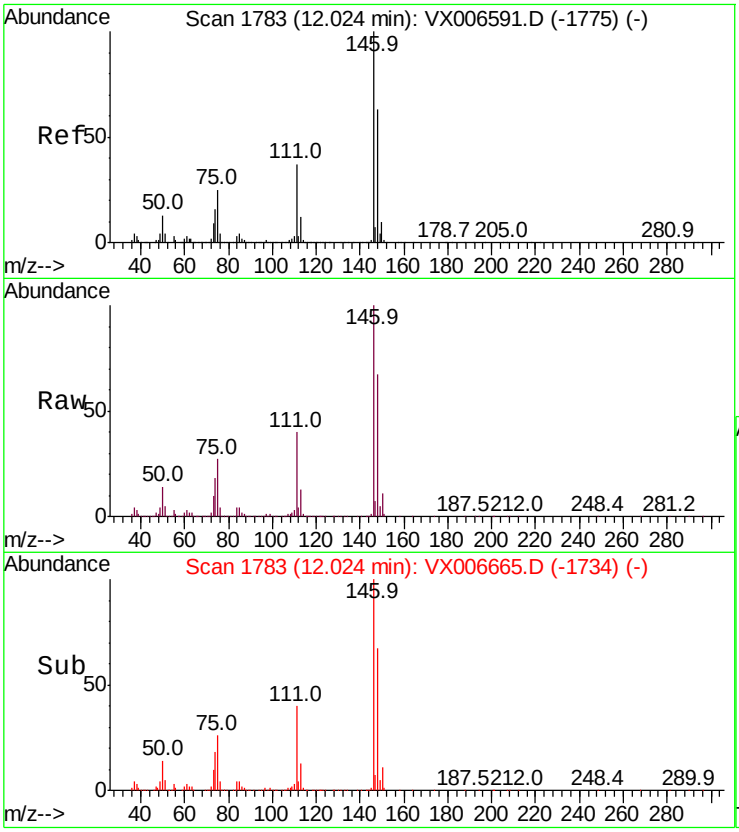
Tgt Ion:119 Resp: 534422

Ion	Ratio	Lower	Upper
119	100		
134	27.8	14.0	41.9
91	22.3	11.3	33.9



Instrument :
MSVOA_X
ClientSampleId :
VX1220WBS01

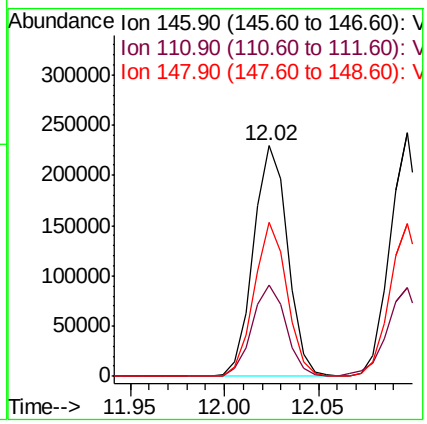
Manual Integrations APPROVED
MMDadoda
12/21/2018 10:18:54 AM

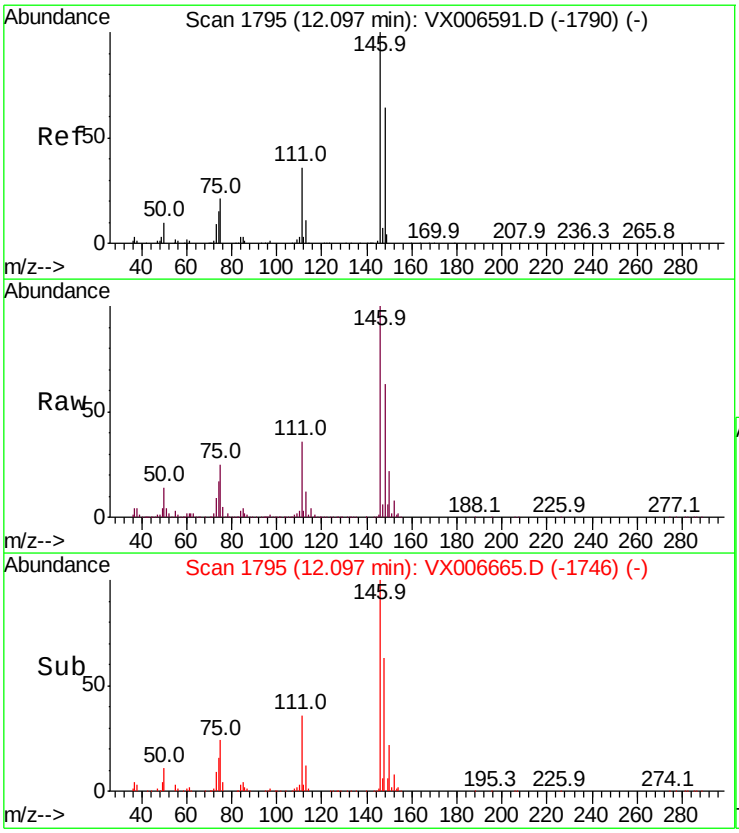


#87
1,3-Dichlorobenzene
Concen: 19.584 ug/l
RT: 12.02 min Scan# 1783
Delta R.T. -0.00 min
Lab File: VX006665.D
Acq: 20 Dec 2018 10:27

Tgt Ion:146 Resp: 288895

Ion	Ratio	Lower	Upper
146	100		
111	39.3	18.6	55.8
148	64.2	31.8	95.3

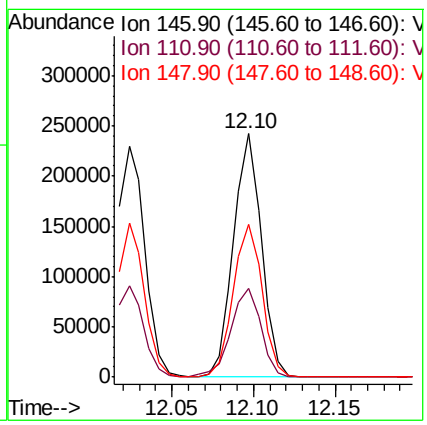




#88
1,4-Dichlorobenzene
Concen: 19.130 ug/l
RT: 12.10 min Scan# 1795
Delta R.T. -0.00 min
Lab File: VX006665.D
Acq: 20 Dec 2018 10:27

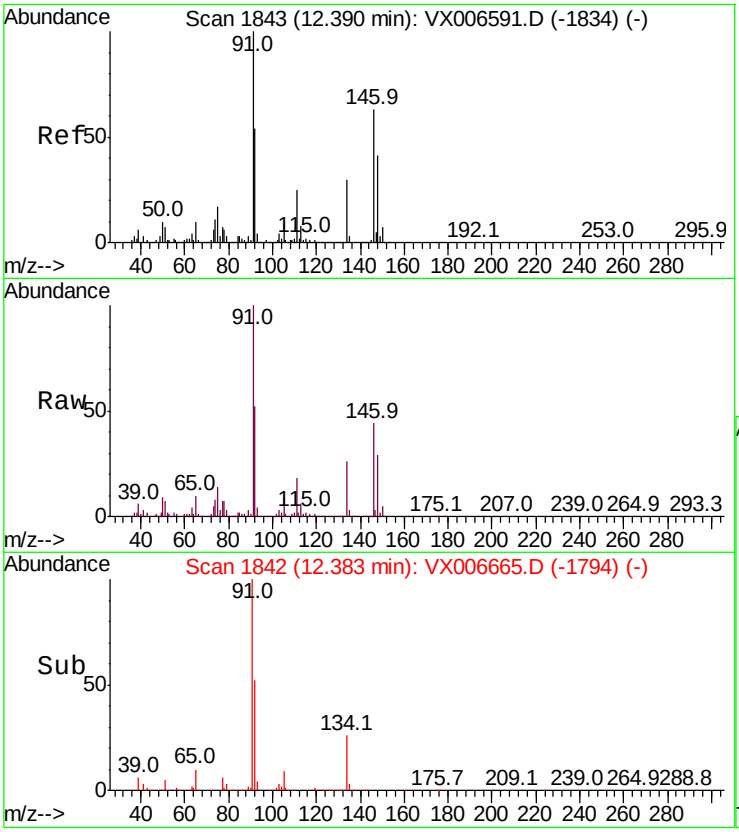
Tgt Ion:146 Resp: 289291

Ion	Ratio	Lower	Upper
146	100		
111	39.3	18.1	54.1
148	65.2	31.9	95.9



Instrument :
MSVOA_X
ClientSampleId :
VX1220WBS01

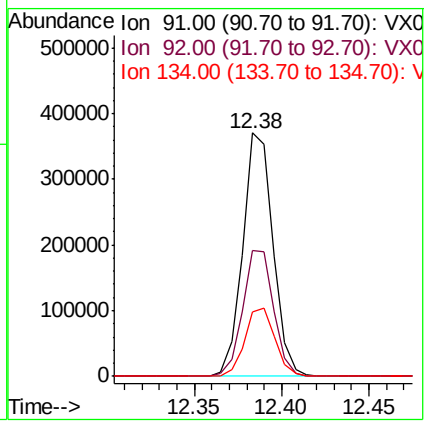
Manual Integrations APPROVED
MMDadoda
12/21/2018 10:18:54 AM

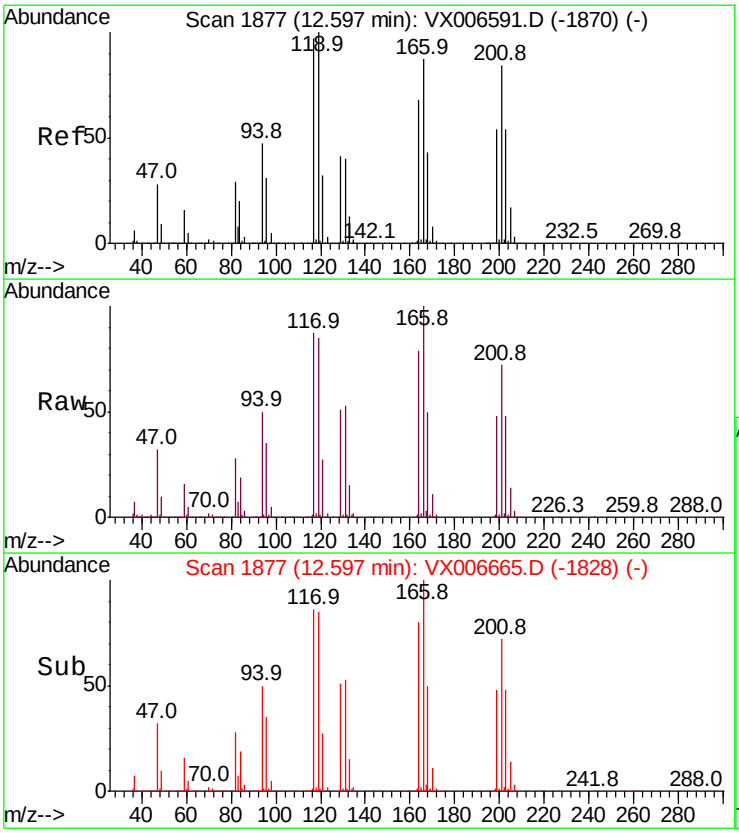


#89
n-Butylbenzene
Concen: 19.405 ug/l
RT: 12.38 min Scan# 1842
Delta R.T. -0.01 min
Lab File: VX006665.D
Acq: 20 Dec 2018 10:27

Tgt Ion: 91 Resp: 444230

Ion	Ratio	Lower	Upper
91	100		
92	52.7	26.8	80.4
134	28.1	14.4	43.2

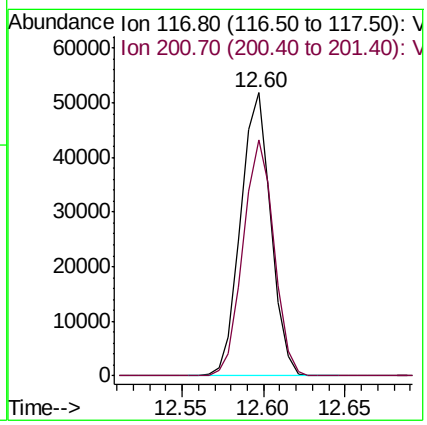


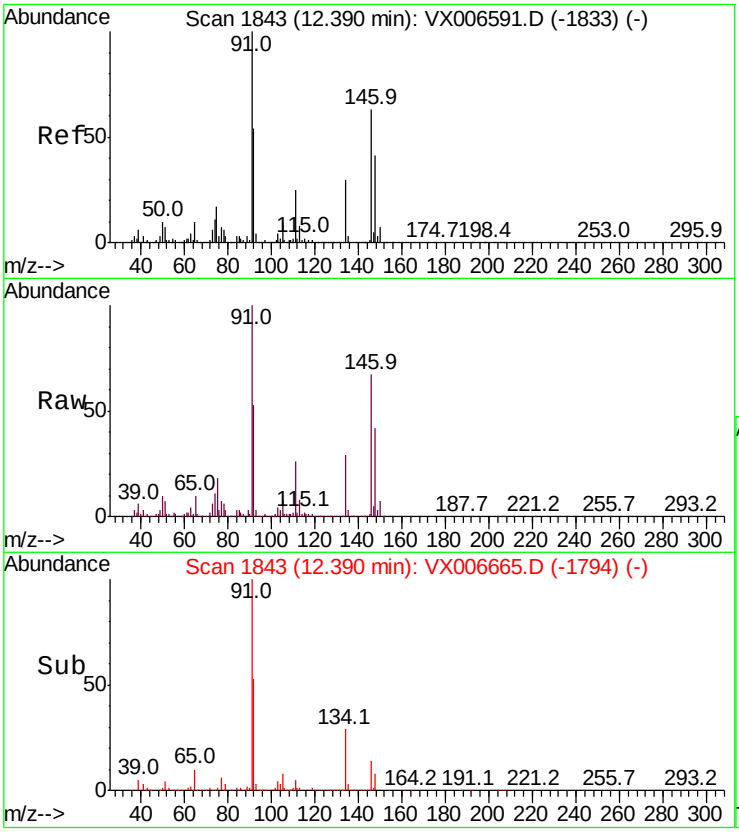


#90
Hexachloroethane
Concen: 18.165 ug/l
RT: 12.60 min Scan# 1877
Delta R.T. 0.00 min
Lab File: VX006665.D
Acq: 20 Dec 2018 10:27

Tgt Ion:117 Resp: 67022

Ion	Ratio	Lower	Upper
117	100		
201	85.0	42.9	128.7

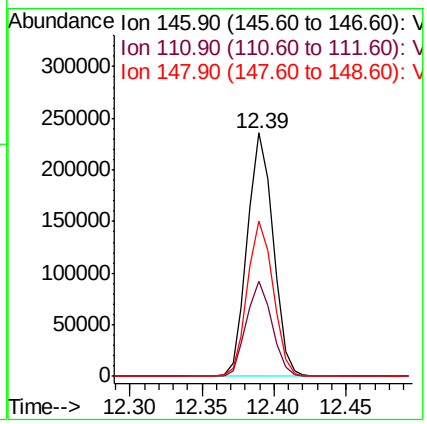




#91
1,2-Dichlorobenzene
Concen: 19.756 ug/l
RT: 12.39 min Scan# 1843
Delta R.T. -0.00 min
Lab File: VX006665.D
Acq: 20 Dec 2018 10:27

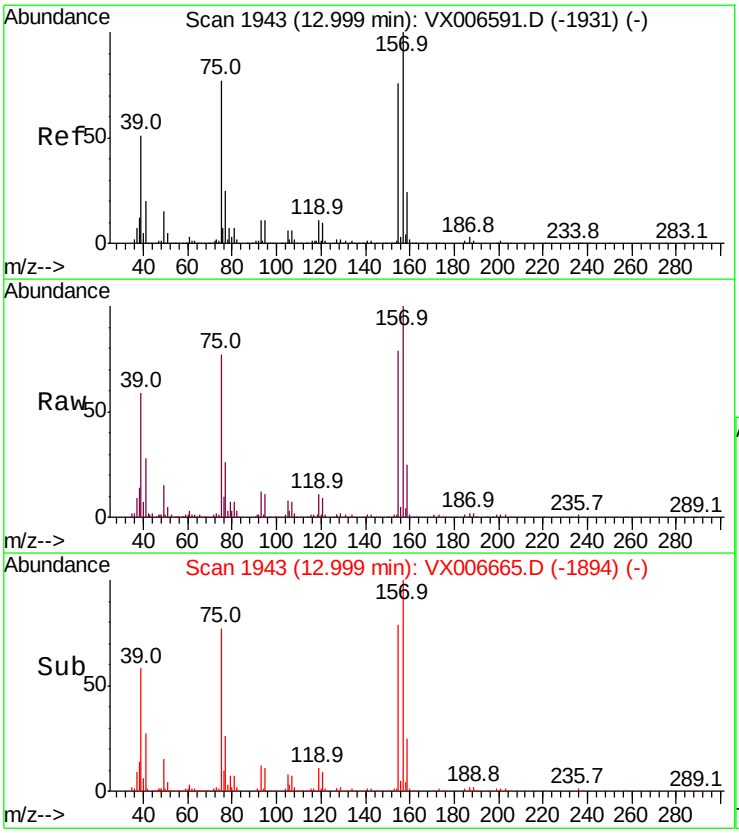
Tgt Ion:146 Resp: 291539

Ion	Ratio	Lower	Upper
146	100		
111	38.6	19.4	58.2
148	64.1	32.3	96.9



Instrument :
MSVOA_X
ClientSampleId :
VX1220WBS01

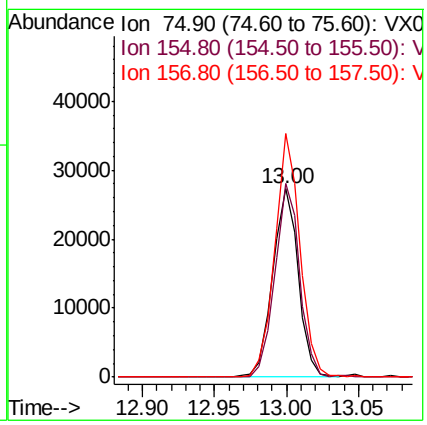
Manual Integrations APPROVED
MMDadoda
12/21/2018 10:18:54 AM

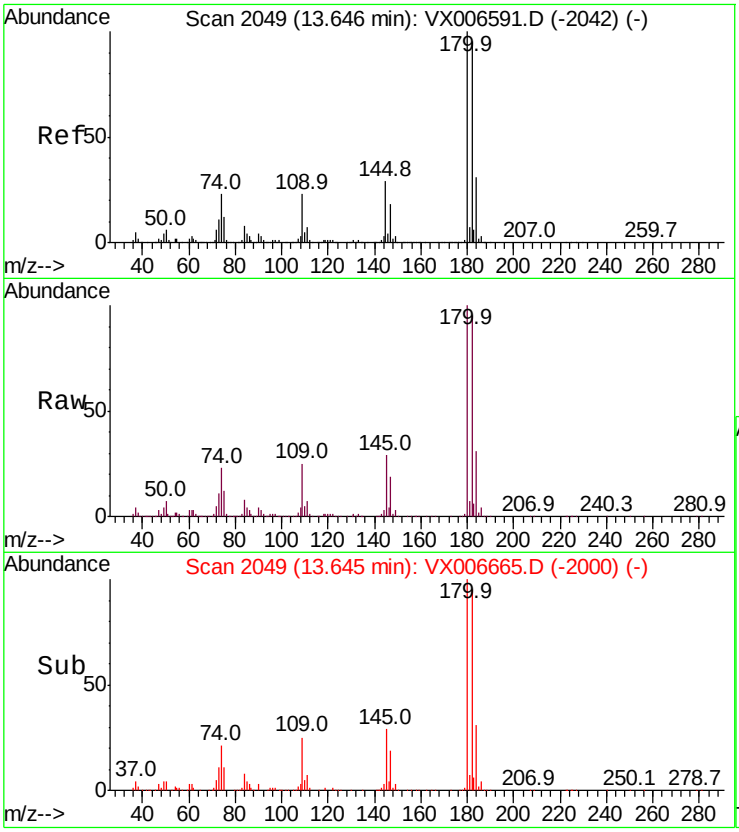


#92
1,2-Dibromo-3-Chloropropane
Concen: 18.188 ug/l
RT: 13.00 min Scan# 1943
Delta R.T. -0.00 min
Lab File: VX006665.D
Acq: 20 Dec 2018 10:27

Tgt Ion: 75 Resp: 33886

Ion	Ratio	Lower	Upper
75	100		
155	99.4	50.6	151.8
157	127.4	64.6	193.8

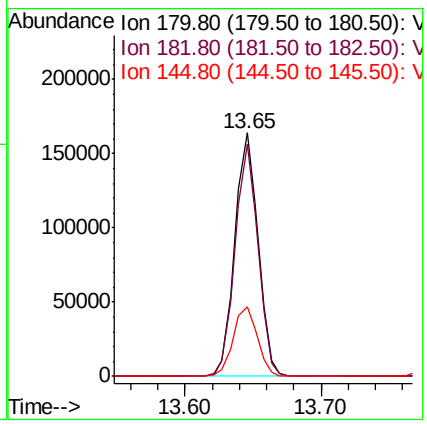




#93
1,2,4-Trichlorobenzene
Concen: 19.199 ug/l
RT: 13.65 min Scan# 2049
Delta R.T. -0.00 min
Lab File: VX006665.D
Acq: 20 Dec 2018 10:27

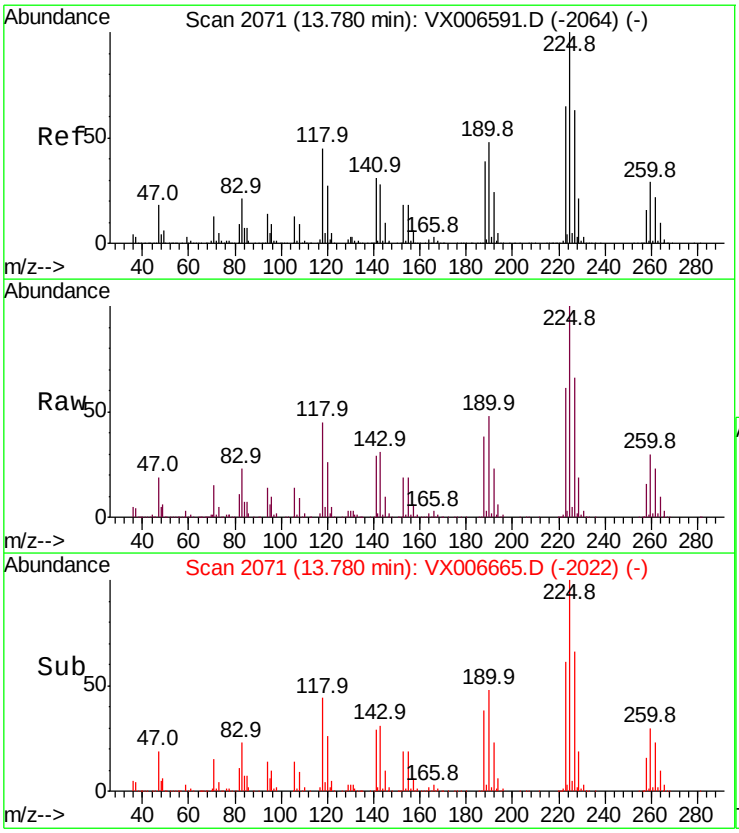
Tgt Ion:180 Resp: 195427

Ion	Ratio	Lower	Upper
180	100		
182	94.2	47.3	142.0
145	29.8	14.8	44.3



Instrument :
MSVOA_X
ClientSampleId :
VX1220WBS01

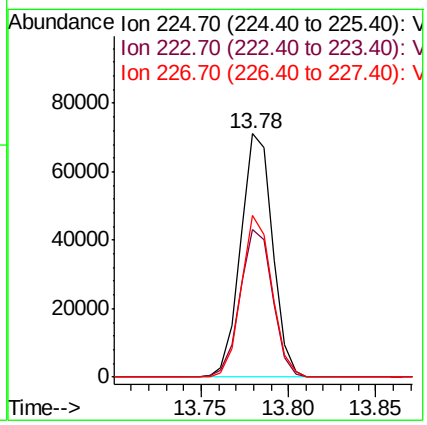
Manual Integrations APPROVED
MMDadoda
12/21/2018 10:18:54 AM



#94
Hexachlorobutadiene
Concen: 18.742 ug/l
RT: 13.78 min Scan# 2071
Delta R.T. -0.00 min
Lab File: VX006665.D
Acq: 20 Dec 2018 10:27

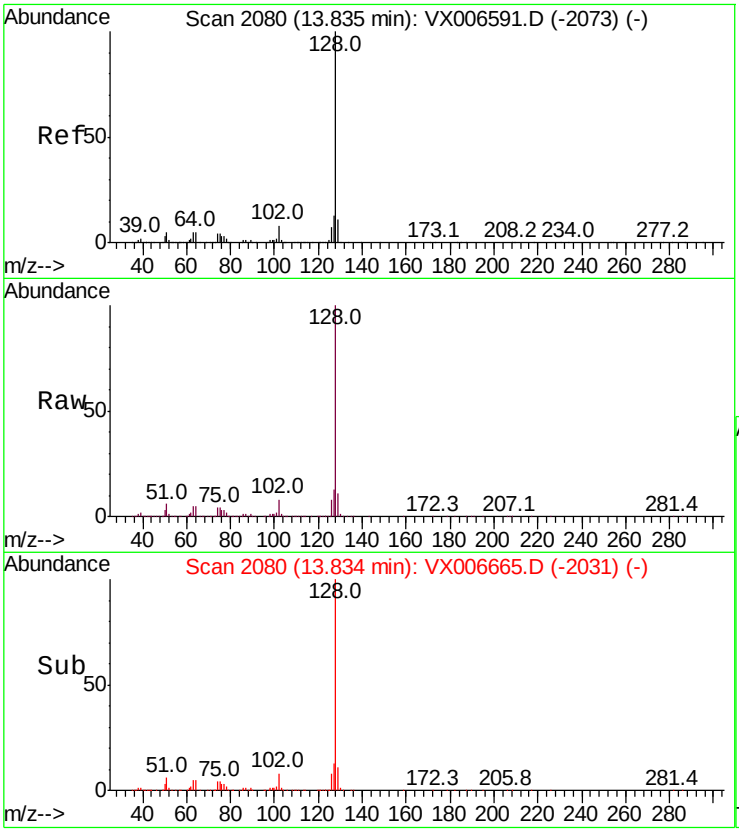
Tgt Ion:225 Resp: 89925

Ion	Ratio	Lower	Upper
225	100		
223	61.7	32.1	96.3
227	63.9	32.3	96.8



Instrument :
MSVOA_X
ClientSampleId :
VX1220WBS01

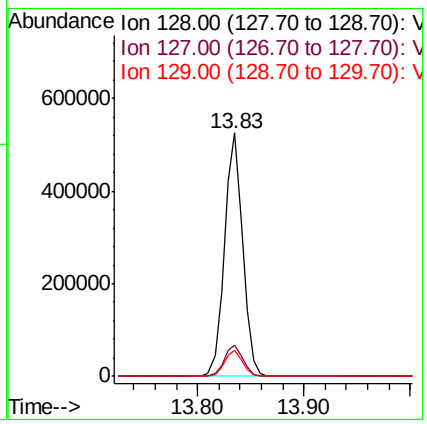
Manual Integrations APPROVED
MMDadoda
12/21/2018 10:18:54 AM

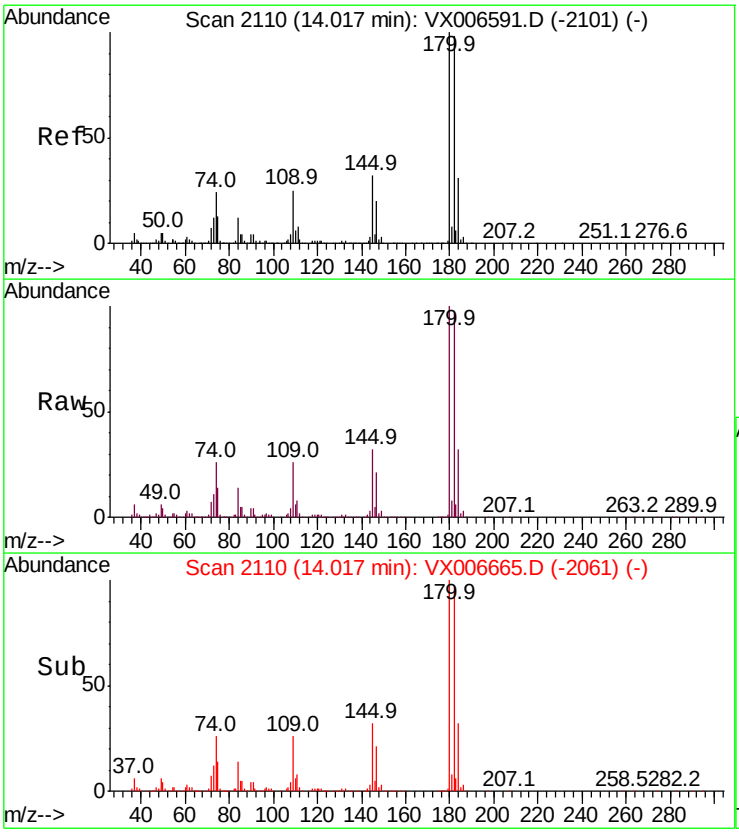


#95
Naphthalene
Concen: 19.340 ug/l
RT: 13.83 min Scan# 2080
Delta R.T. -0.00 min
Lab File: VX006665.D
Acq: 20 Dec 2018 10:27

Tgt Ion:128 Resp: 628321

Ion	Ratio	Lower	Upper
128	100		
127	13.1	10.1	15.1
129	10.7	8.6	13.0

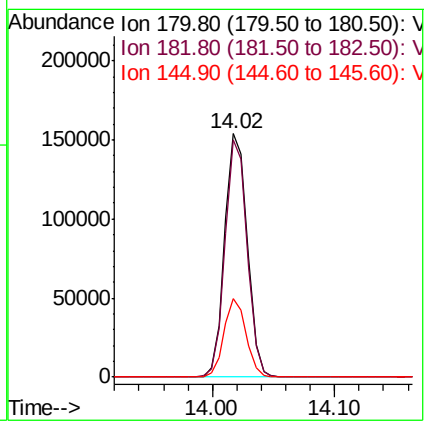




#96
1,2,3-Trichlorobenzene
Concen: 18.600 ug/l
RT: 14.02 min Scan# 2110
Delta R.T. -0.00 min
Lab File: VX006665.D
Acq: 20 Dec 2018 10:27

Tgt Ion:180 Resp: 195481

Ion	Ratio	Lower	Upper
180	100		
182	95.4	48.5	145.5
145	31.7	16.0	47.9



CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Day Environmental, Inc.	Date Collected:	
Project:	Andrew St. RI	Date Received:	
Client Sample ID:	VX1221WBS01	SDG No.:	J6484
Lab Sample ID:	VX1221WBS01	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	DB-624UI ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX006715.D	1		12/21/18 11:29	VX122118

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
75-71-8	Dichlorodifluoromethane	18.3		0.2	0.2	1	ug/L
74-87-3	Chloromethane	17.8		0.2	0.2	1	ug/L
75-01-4	Vinyl Chloride	19		0.2	0.2	1	ug/L
74-83-9	Bromomethane	18.1		0.2	0.2	1	ug/L
75-00-3	Chloroethane	18.4		0.2	0.5	1	ug/L
75-69-4	Trichlorofluoromethane	19.6		0.2	0.2	1	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	20		0.2	0.2	1	ug/L
75-35-4	1,1-Dichloroethene	18.9		0.2	0.2	1	ug/L
67-64-1	Acetone	100		0.5	1	5	ug/L
75-15-0	Carbon Disulfide	15.9		0.2	0.2	1	ug/L
1634-04-4	Methyl tert-butyl Ether	20		0.35	0.5	1	ug/L
79-20-9	Methyl Acetate	21.1		0.2	0.5	1	ug/L
75-09-2	Methylene Chloride	18.8		0.2	0.2	1	ug/L
156-60-5	trans-1,2-Dichloroethene	18.1		0.2	0.2	1	ug/L
75-34-3	1,1-Dichloroethane	18.4		0.2	0.2	1	ug/L
110-82-7	Cyclohexane	19		0.2	0.2	1	ug/L
78-93-3	2-Butanone	100		1.3	2.5	5	ug/L
56-23-5	Carbon Tetrachloride	18.4		0.2	0.2	1	ug/L
156-59-2	cis-1,2-Dichloroethene	19.3		0.2	0.2	1	ug/L
74-97-5	Bromochloromethane	19.7		0.2	0.5	1	ug/L
67-66-3	Chloroform	19.2		0.2	0.2	1	ug/L
71-55-6	1,1,1-Trichloroethane	18.7		0.2	0.2	1	ug/L
108-87-2	Methylcyclohexane	19.4		0.2	0.2	1	ug/L
71-43-2	Benzene	19.5		0.2	0.2	1	ug/L
107-06-2	1,2-Dichloroethane	19.2		0.2	0.2	1	ug/L
79-01-6	Trichloroethene	18.9		0.2	0.2	1	ug/L
78-87-5	1,2-Dichloropropane	20.3		0.2	0.2	1	ug/L
75-27-4	Bromodichloromethane	18.5		0.2	0.2	1	ug/L
108-10-1	4-Methyl-2-Pentanone	110		1	1	5	ug/L
108-88-3	Toluene	19.9		0.2	0.2	1	ug/L
10061-02-6	t-1,3-Dichloropropene	17.9		0.2	0.2	1	ug/L
10061-01-5	cis-1,3-Dichloropropene	19		0.2	0.2	1	ug/L

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Day Environmental, Inc.	Date Collected:	
Project:	Andrew St. RI	Date Received:	
Client Sample ID:	VX1221WBS01	SDG No.:	J6484
Lab Sample ID:	VX1221WBS01	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	DB-624UI ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX006715.D	1		12/21/18 11:29	VX122118

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
79-00-5	1,1,2-Trichloroethane	19.8		0.2	0.2	1	ug/L
591-78-6	2-Hexanone	110		1.9	2.5	5	ug/L
124-48-1	Dibromochloromethane	18.1		0.2	0.2	1	ug/L
106-93-4	1,2-Dibromoethane	19.9		0.2	0.2	1	ug/L
127-18-4	Tetrachloroethene	20.1		0.2	0.2	1	ug/L
108-90-7	Chlorobenzene	19.4		0.2	0.2	1	ug/L
100-41-4	Ethyl Benzene	20		0.2	0.2	1	ug/L
179601-23-1	m/p-Xylenes	39.5		0.4	0.4	2	ug/L
95-47-6	o-Xylene	19.4		0.2	0.2	1	ug/L
100-42-5	Styrene	19.8		0.2	0.2	1	ug/L
75-25-2	Bromoform	18.1		0.2	0.2	1	ug/L
98-82-8	Isopropylbenzene	20.1		0.2	0.2	1	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	20.8		0.2	0.2	1	ug/L
541-73-1	1,3-Dichlorobenzene	20		0.2	0.2	1	ug/L
106-46-7	1,4-Dichlorobenzene	19.7		0.2	0.2	1	ug/L
95-50-1	1,2-Dichlorobenzene	19.7		0.2	0.2	1	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	19		0.2	0.2	1	ug/L
120-82-1	1,2,4-Trichlorobenzene	19.9		0.2	0.2	1	ug/L
87-61-6	1,2,3-Trichlorobenzene	19.3		0.2	0.2	1	ug/L
SURROGATES							
17060-07-0	1,2-Dichloroethane-d4	47.9		61 - 141		96%	SPK: 50
1868-53-7	Dibromofluoromethane	48.9		69 - 133		98%	SPK: 50
2037-26-5	Toluene-d8	49		65 - 126		98%	SPK: 50
460-00-4	4-Bromofluorobenzene	48.9		58 - 135		98%	SPK: 50
INTERNAL STANDARDS							
363-72-4	Pentafluorobenzene	595557	5.67				
540-36-3	1,4-Difluorobenzene	903537	6.86				
3114-55-4	Chlorobenzene-d5	816505	10.12				
3855-82-1	1,4-Dichlorobenzene-d4	422150	12.08				

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Day Environmental, Inc.	Date Collected:	
Project:	Andrew St. RI	Date Received:	
Client Sample ID:	VX1221WBS01	SDG No.:	J6484
Lab Sample ID:	VX1221WBS01	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	DB-624UI ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX006715.D	1		12/21/18 11:29	VX122118

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit
A = Aldol-Condensation Reaction Products

Quantitation Report (QT Reviewed)

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX122118\
Data File : VX006715.D
Acq On : 21 Dec 2018 11:29
Operator : JC/MD
Sample : VX1221WBS01
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Dec 22 04:21:51 2018
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121818W.M
Quant Title : SW846 8260
QLast Update : Wed Dec 19 15:20:58 2018
Response via : Initial Calibration

Instrument :
MSVOA_X
ClientSampleId :
VX1221WBS01

Manual Integrations APPROVED
MMDadoda
12/22/2018 11:20:57 AM

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	5.67	168	595557	50.00	ug/l	0.00
34) 1,4-Difluorobenzene	6.86	114	903537	50.00	ug/l	0.00
63) Chlorobenzene-d5	10.12	117	816505	50.00	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	12.08	152	422150	50.00	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	6.07	65	307364	47.89	ug/l	0.00
Spiked Amount 50.000			Recovery =	95.78%		
35) Dibromofluoromethane	5.51	113	279355	48.89	ug/l	0.00
Spiked Amount 50.000			Recovery =	97.78%		
50) Toluene-d8	8.71	98	1055886	49.02	ug/l	0.00
Spiked Amount 50.000			Recovery =	98.04%		
62) 4-Bromofluorobenzene	11.13	95	385486	48.86	ug/l	0.00
Spiked Amount 50.000			Recovery =	97.72%		
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.20	85	99757	18.310	ug/l	99
3) Chloromethane	1.33	50	104480	17.800	ug/l	95
4) Vinyl Chloride	1.41	62	116474	18.999	ug/l	98
5) Bromomethane	1.64	94	110408	18.075	ug/l	97
6) Chloroethane	1.72	64	77940	18.361	ug/l	93
7) Trichlorofluoromethane	1.93	101	187545	19.622	ug/l	93
8) Diethyl Ether	2.19	74	69372	18.274	ug/l	98
9) 1,1,2-Trichlorotrifluoroet	2.39	101	112478	20.043	ug/l	99
10) Methyl Iodide	2.51	142	106299	13.233	ug/l	100
11) Tert butyl alcohol	3.07	59	153740	107.325	ug/l	98
12) 1,1-Dichloroethene	2.38	96	100738	18.932	ug/l	97
13) Acrolein	2.29	56	107704	111.454	ug/l	96
14) Allyl chloride	2.73	41	170927	19.084	ug/l	99
15) Acrylonitrile	3.15	53	324291	101.961	ug/l	99
16) Acetone	2.45	43	301349	102.189	ug/l	98
17) Carbon Disulfide	2.57	76	224500	15.943	ug/l	99
18) Methyl Acetate	2.78	43	183079	21.113	ug/l	100
19) Methyl tert-butyl Ether	3.20	73	354031	20.046	ug/l	98
20) Methylene Chloride	2.86	84	114589	18.792	ug/l	92
21) trans-1,2-Dichloroethene	3.17	96	106579	18.077	ug/l	96
22) Diisopropyl ether	3.87	45	327363	19.979	ug/l	92
23) Vinyl Acetate	3.82	43	1295358	96.646	ug/l	100
24) 1,1-Dichloroethane	3.70	63	179783	18.380	ug/l	99
25) 2-Butanone	4.70	43	420339	101.334	ug/l	100
26) 2,2-Dichloropropane	4.59	77	126967	16.804	ug/l	98
27) cis-1,2-Dichloroethene	4.60	96	125796	19.339	ug/l	98
28) Bromochloromethane	5.02	49	86047	19.747	ug/l	99
29) Tetrahydrofuran	5.15	42	281012	102.858	ug/l	98
30) Chloroform	5.21	83	194060	19.158	ug/l	98
31) Cyclohexane	5.57	56	169076	19.027	ug/l	94
32) 1,1,1-Trichloroethane	5.49	97	159728	18.675	ug/l	98
36) 1,1-Dichloropropene	5.80	75	143568	19.185	ug/l	98
37) Ethyl Acetate	4.85	43	156182	20.052	ug/l	100
38) Carbon Tetrachloride	5.78	117	133869	18.407	ug/l	96

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX122118\
Data File : VX006715.D
Acq On : 21 Dec 2018 11:29
Operator : JC/MD
Sample : VX1221WBS01
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Dec 22 04:21:51 2018
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121818W.M
Quant Title : SW846 8260
QLast Update : Wed Dec 19 15:20:58 2018
Response via : Initial Calibration

Instrument :
MSVOA_X
ClientSampleId :
VX1221WBS01

Manual Integrations APPROVED
MMDadoda
12/22/2018 11:20:57 AM

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
39) Methylcyclohexane	7.46	83	191245	19.412 ug/l		99
40) Benzene	6.14	78	443690	19.505 ug/l		99
41) Methacrylonitrile	5.06	41	86052	20.809 ug/l		97
42) 1,2-Dichloroethane	6.20	62	148832	19.201 ug/l		99
43) Isopropyl Acetate	6.46	43	235801	19.897 ug/l		100
44) Trichloroethene	7.21	130	130117	18.899 ug/l		96
45) 1,2-Dichloropropane	7.52	63	112287	20.285 ug/l		97
46) Dibromomethane	7.66	93	77504	19.035 ug/l		99
47) Bromodichloromethane	7.90	83	124776	18.458 ug/l		99
48) Methyl methacrylate	7.77	41	126301	20.957 ug/l		99
49) 1,4-Dioxane	7.75	88	66034	406.989 ug/l		98
51) 4-Methyl-2-Pentanone	8.65	43	803194	106.518 ug/l		100
52) Toluene	8.79	92	292680	19.916 ug/l		99
53) t-1,3-Dichloropropene	9.04	75	129551	17.870 ug/l		100
54) cis-1,3-Dichloropropene	8.43	75	151451	19.039 ug/l		96
55) 1,1,2-Trichloroethane	9.21	97	118911	19.769 ug/l		98
56) Ethyl methacrylate	9.18	69	173265	20.380 ug/l		99
57) 1,3-Dichloropropane	9.37	76	190875	19.723 ug/l		99
58) 2-Chloroethyl Vinyl ether	8.31	63	451754	99.964 ug/l		100
59) 2-Hexanone	9.49	43	620223	107.503 ug/l		99
60) Dibromochloromethane	9.59	129	104237	18.123 ug/l		99
61) 1,2-Dibromoethane	9.67	107	127370	19.919 ug/l		99
64) Tetrachloroethene	9.34	164	129776	20.072 ug/l		96
65) Chlorobenzene	10.14	112	335758	19.437 ug/l		98
66) 1,1,1,2-Tetrachloroethane	10.22	131	106692	19.797 ug/l		100
67) Ethyl Benzene	10.25	91	565829	20.046 ug/l		99
68) m/p-Xylenes	10.36	106	440280	39.529 ug/l		100
69) o-Xylene	10.70	106	213700	19.430 ug/l		94
70) Styrene	10.71	104	343987	19.769 ug/l		98
71) Bromoform	10.86	173	73020	18.141 ug/l	#	100
73) Isopropylbenzene	11.02	105	581407	20.132 ug/l		100
74) N-amyl acetate	10.90	43	217301	21.021 ug/l		98
75) 1,1,2,2-Tetrachloroethane	11.27	83	178733	20.810 ug/l		99
76) 1,2,3-Trichloropropane	11.30	75	164963m	21.027 ug/l		
77) Bromobenzene	11.26	156	154664	19.809 ug/l		98
78) n-propylbenzene	11.36	91	647617	20.363 ug/l		100
79) 2-Chlorotoluene	11.42	91	378147	19.621 ug/l		99
80) 1,3,5-Trimethylbenzene	11.51	105	475602	19.994 ug/l		99
81) trans-1,4-Dichloro-2-buten	11.07	75	35349	16.784 ug/l	#	85
82) 4-Chlorotoluene	11.51	91	441970	19.992 ug/l		99
83) tert-Butylbenzene	11.77	119	476094	19.998 ug/l		98
84) 1,2,4-Trimethylbenzene	11.80	105	494605	19.768 ug/l		99
85) sec-Butylbenzene	11.94	105	586389	20.089 ug/l		99
86) p-Isopropyltoluene	12.06	119	527421	20.555 ug/l		100
87) 1,3-Dichlorobenzene	12.02	146	281019	19.970 ug/l		99
88) 1,4-Dichlorobenzene	12.10	146	284284	19.707 ug/l		99
89) n-Butylbenzene	12.39	91	440908	20.191 ug/l		98
90) Hexachloroethane	12.60	117	66146	18.680 ug/l		98
91) 1,2-Dichlorobenzene	12.39	146	277311	19.700 ug/l		100
92) 1,2-Dibromo-3-Chloropropan	13.00	75	33736	18.983 ug/l		97

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX122118\
Data File : VX006715.D
Acq On : 21 Dec 2018 11:29
Operator : JC/MD
Sample : VX1221WBS01
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Dec 22 04:21:51 2018
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121818W.M
Quant Title : SW846 8260
QLast Update : Wed Dec 19 15:20:58 2018
Response via : Initial Calibration

Instrument :
MSVOA_X
ClientSampleId :
VX1221WBS01

Manual Integrations APPROVED
MMDadoda
12/22/2018 11:20:57 AM

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
93) 1,2,4-Trichlorobenzene	13.65	180	192921	19.868	ug/l	99
94) Hexachlorobutadiene	13.79	225	89253	19.501	ug/l	99
95) Naphthalene	13.83	128	602664	19.447	ug/l	99
96) 1,2,3-Trichlorobenzene	14.02	180	193202	19.271	ug/l	99

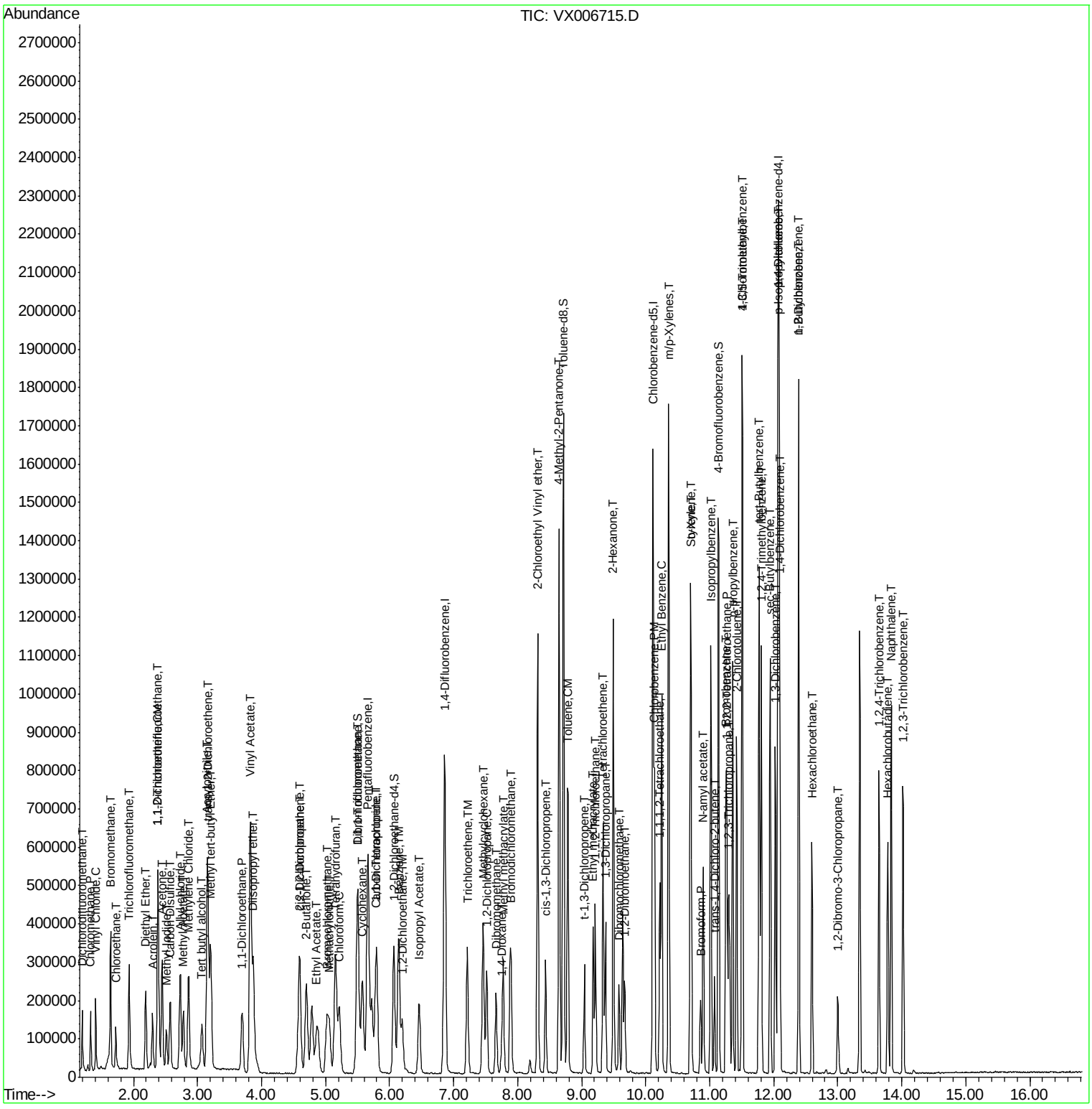
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX122118\
Data File : VX006715.D
Acq On : 21 Dec 2018 11:29
Operator : JC/MD
Sample : VX1221WBS01
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Dec 22 04:21:51 2018
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121818W.M
Quant Title : SW846 8260
QLast Update : Wed Dec 19 15:20:58 2018
Response via : Initial Calibration

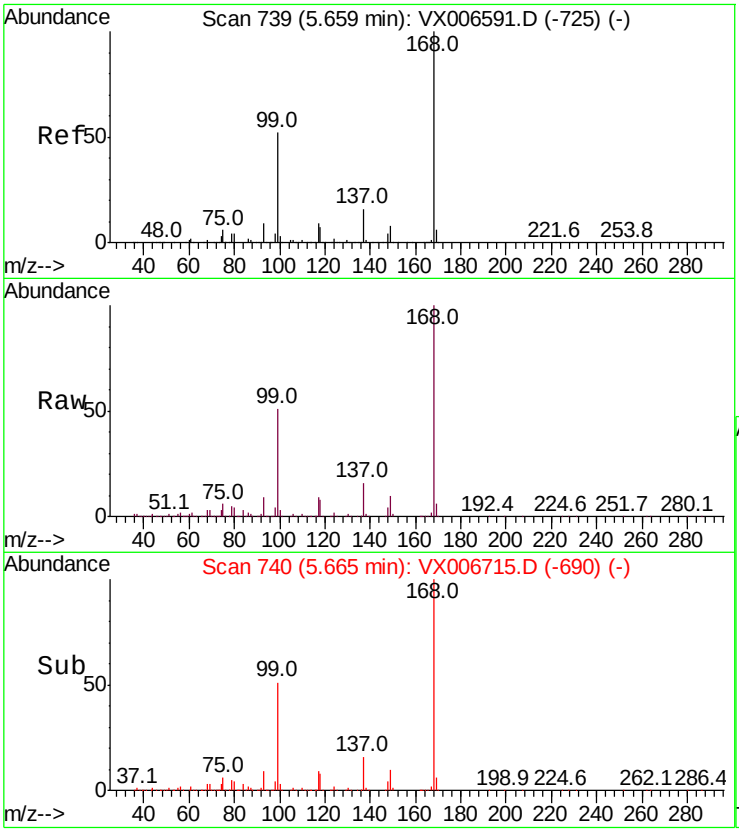
Instrument :
MSVOA_X
ClientSampleId :
VX1221WBS01

Manual Integrations APPROVED
MMDadoda
12/22/2018 11:20:57 AM



Instrument :
MSVOA_X
ClientSampleId :
VX1221WBS01

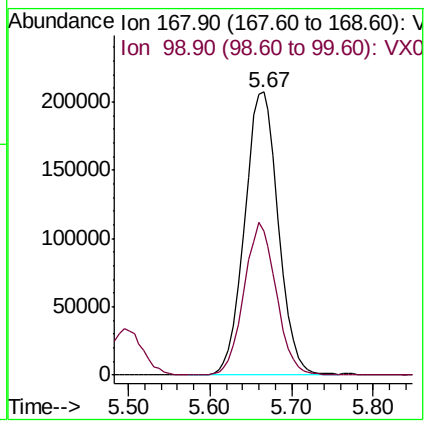
Manual Integrations APPROVED
MMDadoda
12/22/2018 11:20:57 AM

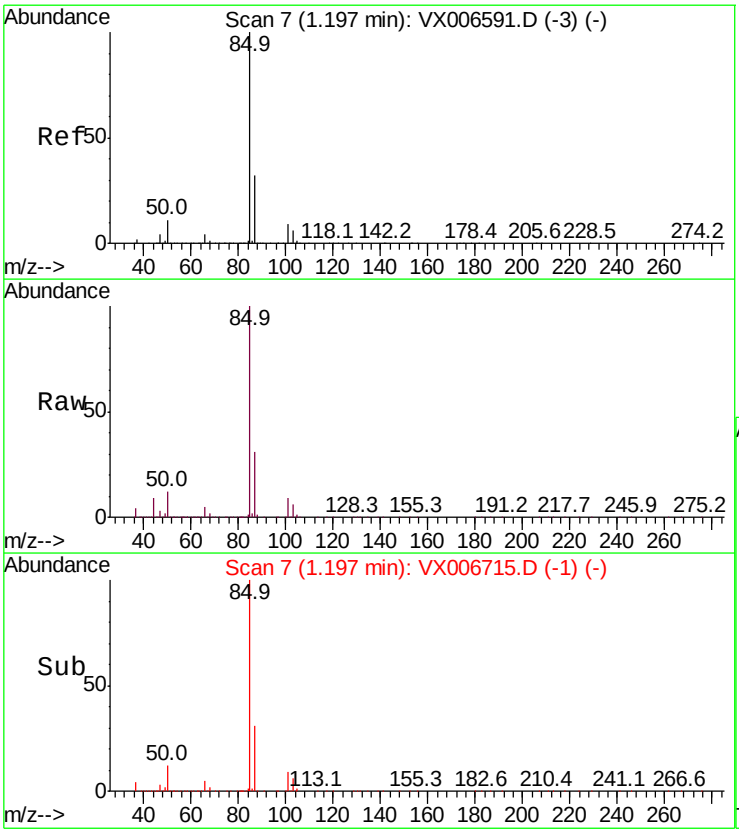


#1
Pentafluorobenzene
Concen: 50.000 ug/l
RT: 5.67 min Scan# 740
Delta R.T. 0.01 min
Lab File: VX006715.D
Acq: 21 Dec 2018 11:29

Tgt Ion:168 Resp: 595557

Ion	Ratio	Lower	Upper
168	100		
99	50.5	41.8	62.8

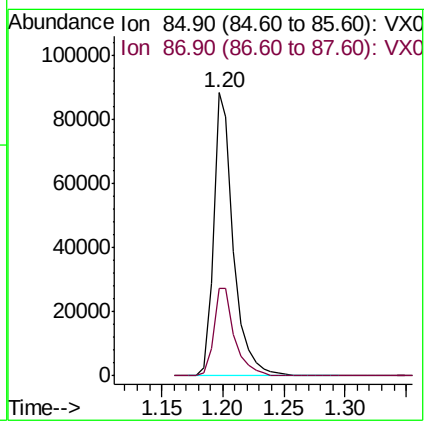




#2
Dichlorodifluoromethane
Concen: 18.310 ug/l
RT: 1.20 min Scan# 7
Delta R.T. 0.00 min
Lab File: VX006715.D
Acq: 21 Dec 2018 11:29

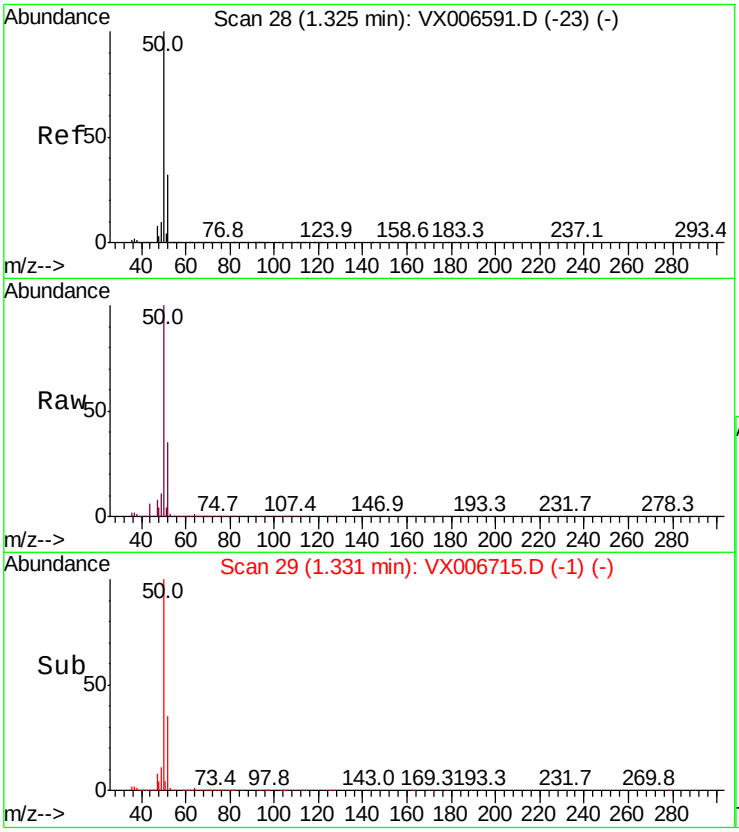
Tgt Ion: 85 Resp: 99757

Ion	Ratio	Lower	Upper
85	100		
87	31.0	15.9	47.6



Instrument :
MSVOA_X
ClientSampleId :
VX1221WBS01

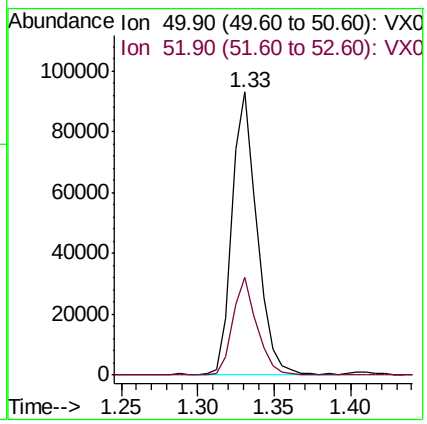
Manual Integrations APPROVED
MMDadoda
12/22/2018 11:20:57 AM

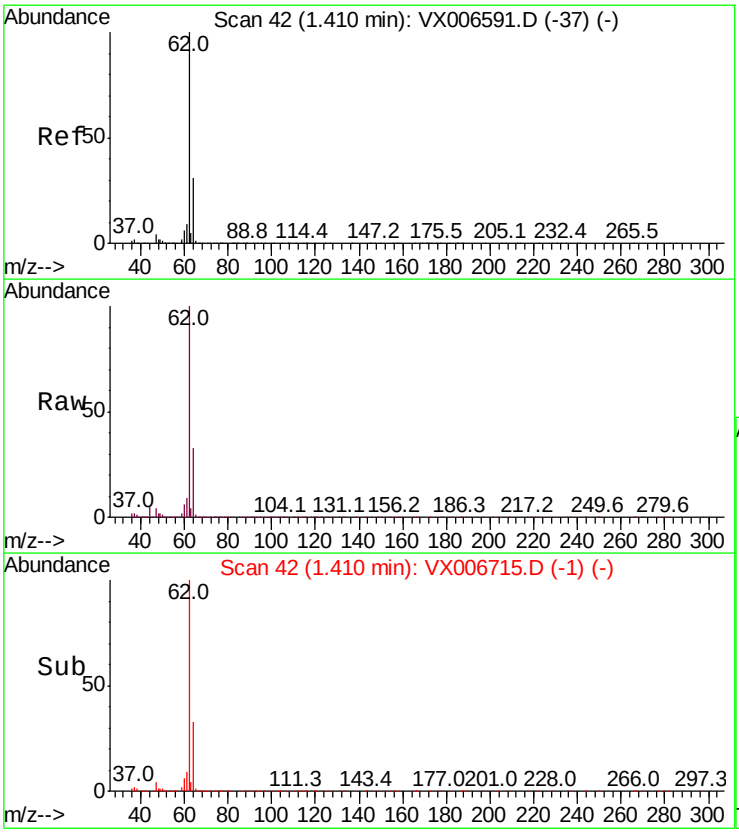


#3
Chloromethane
Concen: 17.800 ug/l
RT: 1.33 min Scan# 29
Delta R.T. 0.01 min
Lab File: VX006715.D
Acq: 21 Dec 2018 11:29

Tgt Ion: 50 Resp: 104480

Ion	Ratio	Lower	Upper
50	100		
52	34.6	25.4	38.2

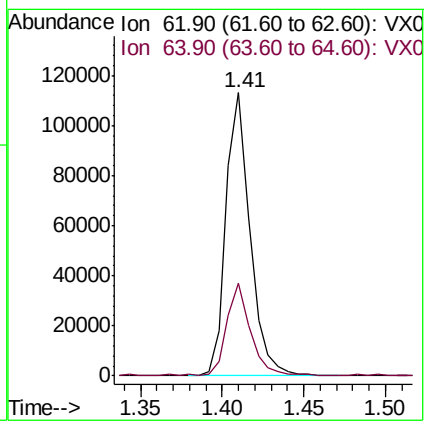




#4
Vinyl Chloride
Concen: 18.999 ug/l
RT: 1.41 min Scan# 42
Delta R.T. 0.00 min
Lab File: VX006715.D
Acq: 21 Dec 2018 11:29

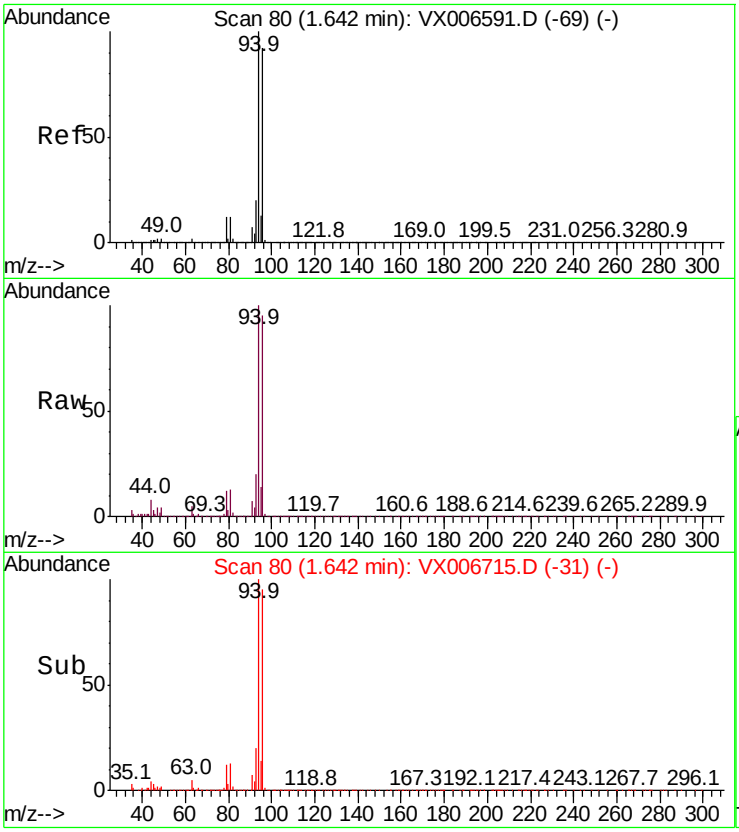
Tgt Ion: 62 Resp: 116474

Ion	Ratio	Lower	Upper
62	100		
64	32.4	25.1	37.7



Instrument :
MSVOA_X
ClientSampleId :
VX1221WBS01

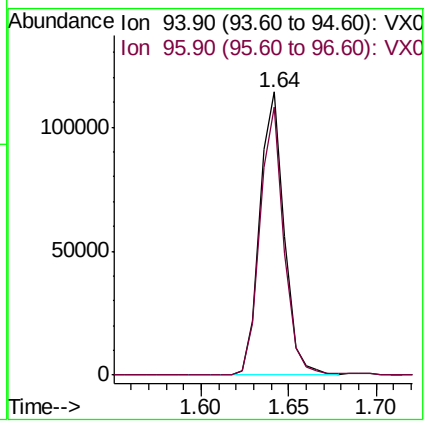
Manual Integrations APPROVED
MMDadoda
12/22/2018 11:20:57 AM

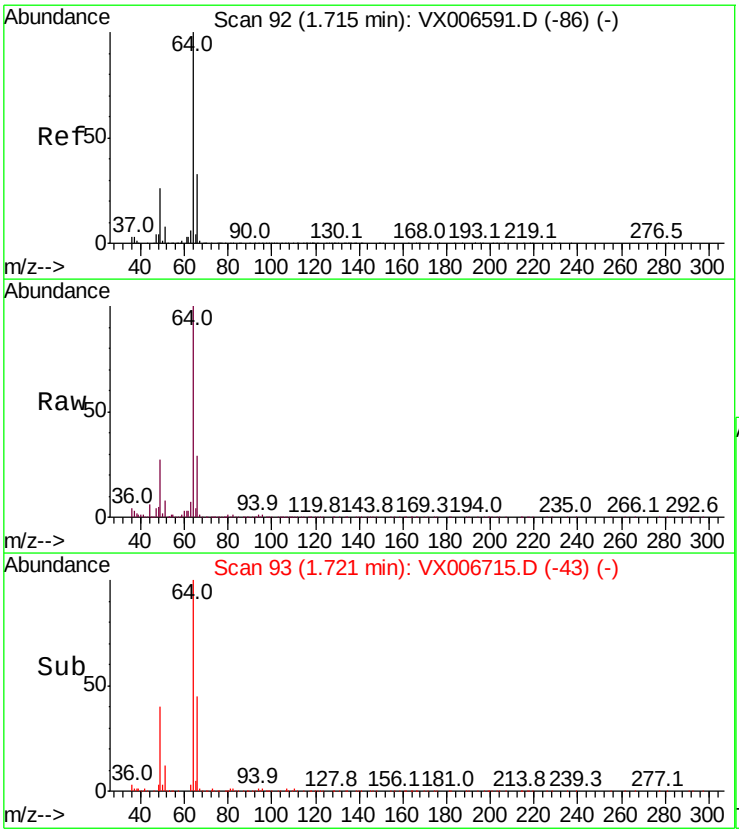


#5
Bromomethane
Concen: 18.075 ug/l
RT: 1.64 min Scan# 80
Delta R.T. 0.00 min
Lab File: VX006715.D
Acq: 21 Dec 2018 11:29

Tgt Ion: 94 Resp: 110408

Ion	Ratio	Lower	Upper
94	100		
96	94.7	73.4	110.2

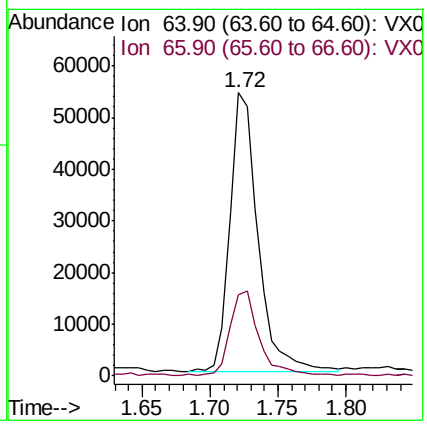




#6
Chloroethane
Concen: 18.361 ug/l
RT: 1.72 min Scan# 93
Delta R.T. 0.01 min
Lab File: VX006715.D
Acq: 21 Dec 2018 11:29

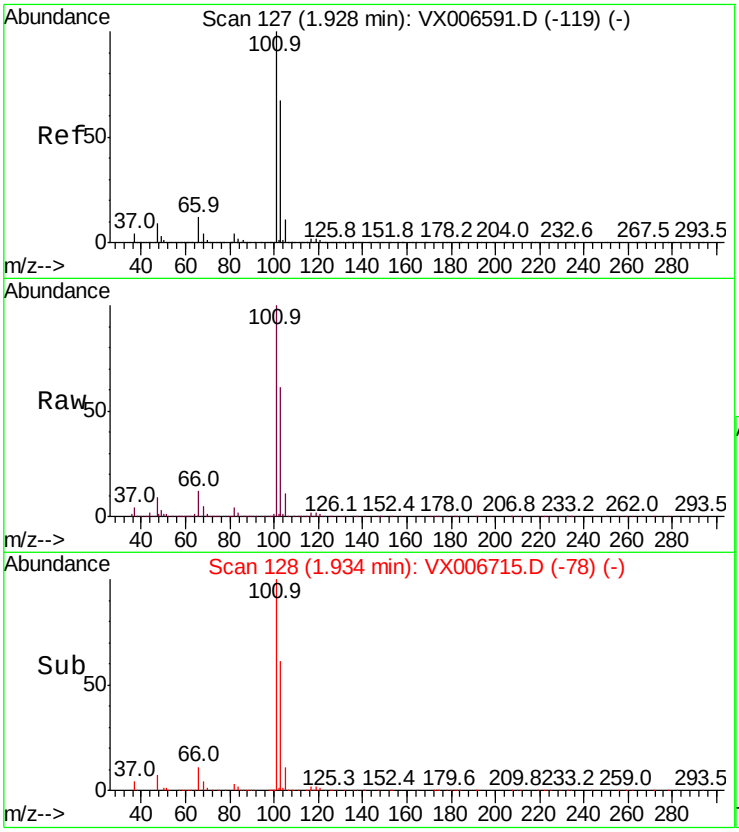
Tgt Ion: 64 Resp: 77940

Ion	Ratio	Lower	Upper
64	100		
66	28.8	26.4	39.6



Instrument :
MSVOA_X
ClientSampleId :
VX1221WBS01

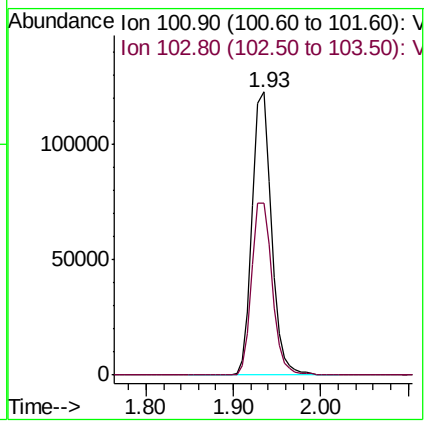
Manual Integrations APPROVED
MMDadoda
12/22/2018 11:20:57 AM

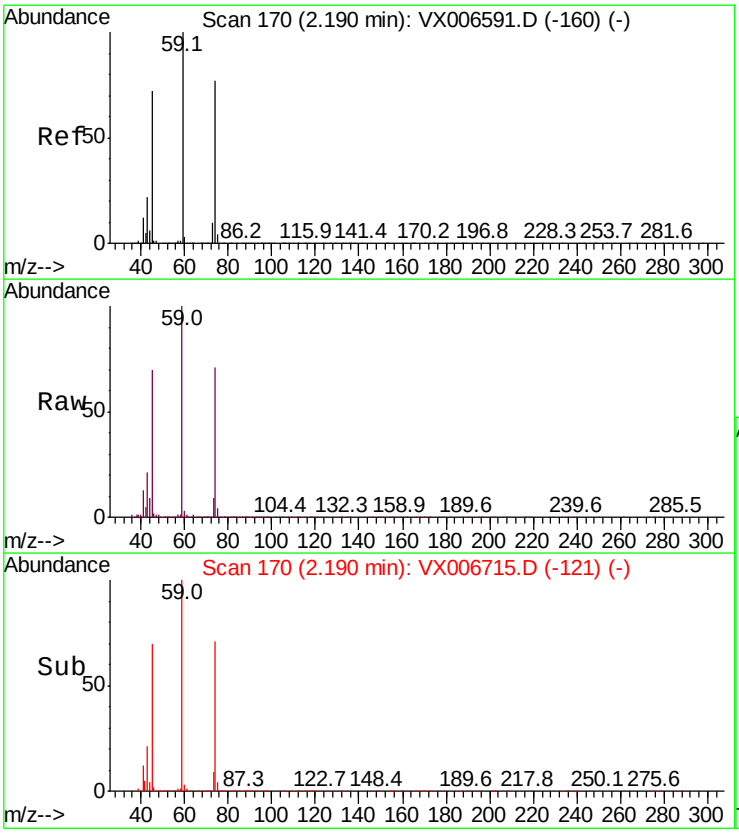


#7
Trichlorofluoromethane
Concen: 19.622 ug/l
RT: 1.93 min Scan# 128
Delta R.T. 0.01 min
Lab File: VX006715.D
Acq: 21 Dec 2018 11:29

Tgt Ion:101 Resp: 187545

Ion	Ratio	Lower	Upper
101	100		
103	60.8	53.2	79.8

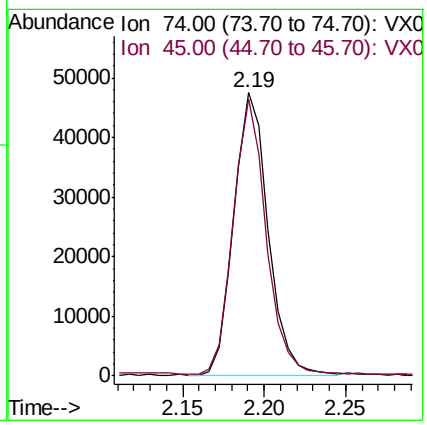


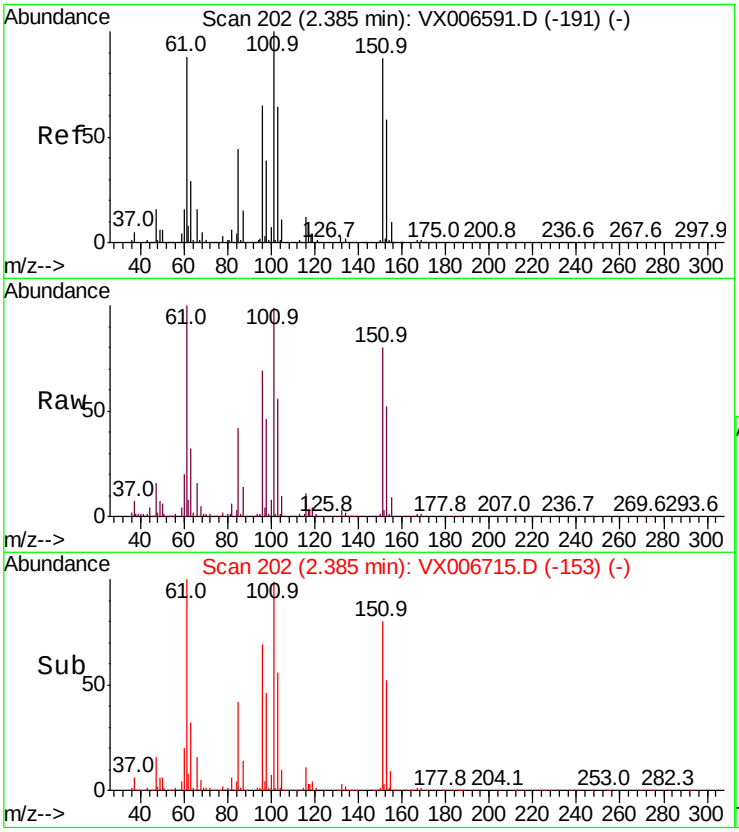


#8
Diethyl Ether
Concen: 18.274 ug/l
RT: 2.19 min Scan# 170
Delta R.T. 0.00 min
Lab File: VX006715.D
Acq: 21 Dec 2018 11:29

Tgt Ion: 74 Resp: 69372

Ion	Ratio	Lower	Upper
74	100		
45	94.5	46.3	138.9





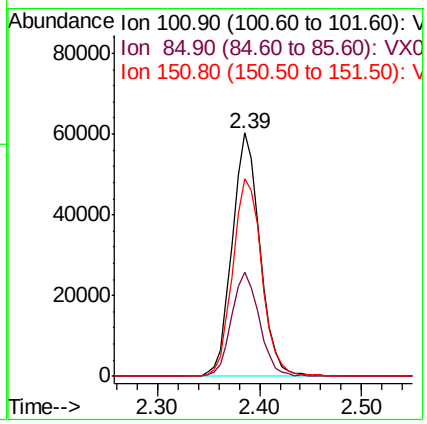
#9
1,1,2-Trichlorotrifluoroethane
Concen: 20.043 ug/l
RT: 2.39 min Scan# 202
Delta R.T. 0.00 min
Lab File: VX006715.D
Acq: 21 Dec 2018 11:29

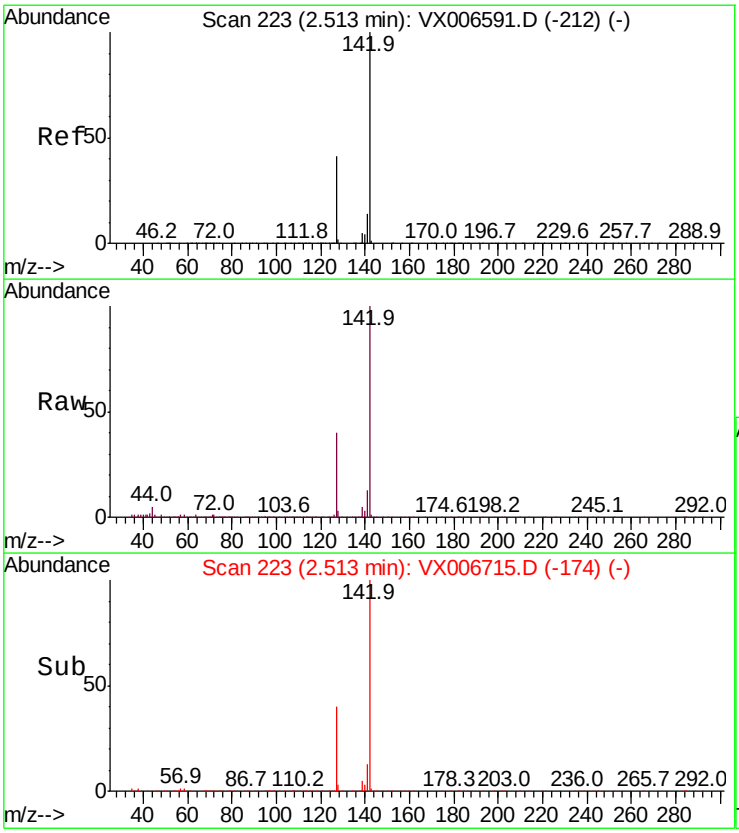
Tgt Ion:101 Resp: 112478

Ion	Ratio	Lower	Upper
101	100		
85	43.0	35.1	52.7
151	85.5	68.9	103.3

Instrument :
MSVOA_X
ClientSampleId :
VX1221WBS01

Manual Integrations APPROVED
MMDadoda
12/22/2018 11:20:57 AM

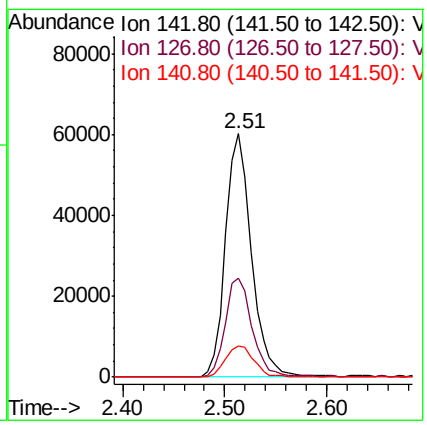




#10
Methyl Iodide
Concen: 13.233 ug/l
RT: 2.51 min Scan# 223
Delta R.T. 0.00 min
Lab File: VX006715.D
Acq: 21 Dec 2018 11:29

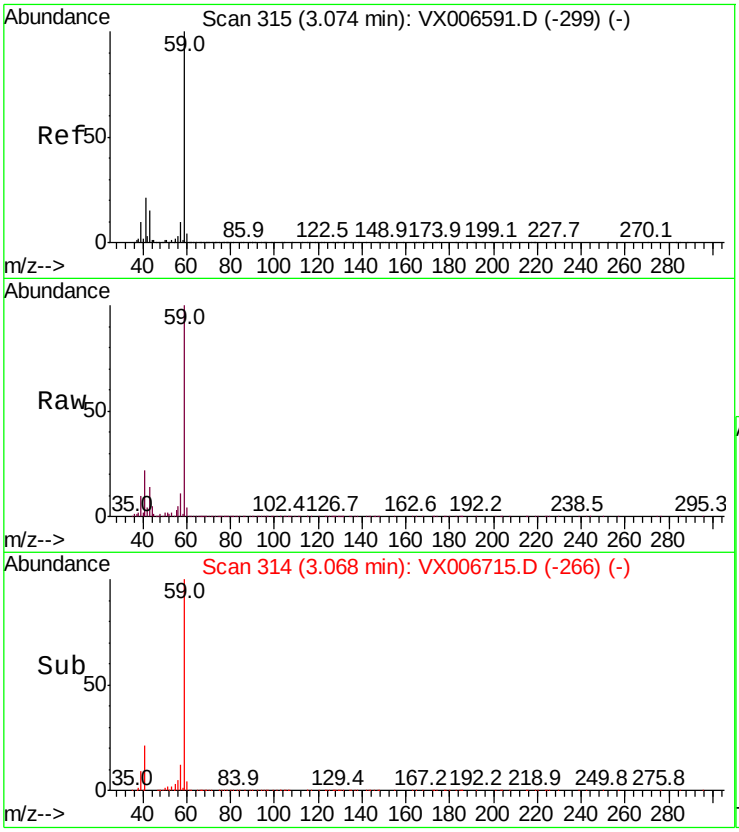
Tgt Ion:142 Resp: 106299

Ion	Ratio	Lower	Upper
142	100		
127	42.6	33.9	50.9
141	14.4	11.4	17.0



Instrument :
MSVOA_X
ClientSampleId :
VX1221WBS01

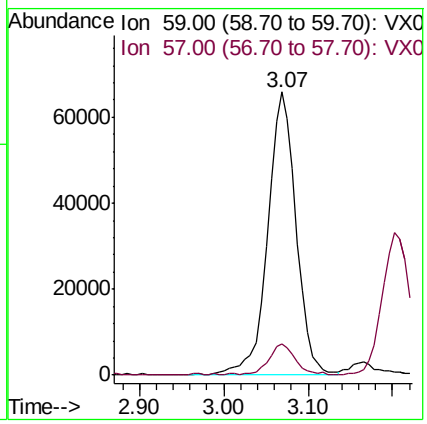
Manual Integrations APPROVED
MMDadoda
12/22/2018 11:20:57 AM

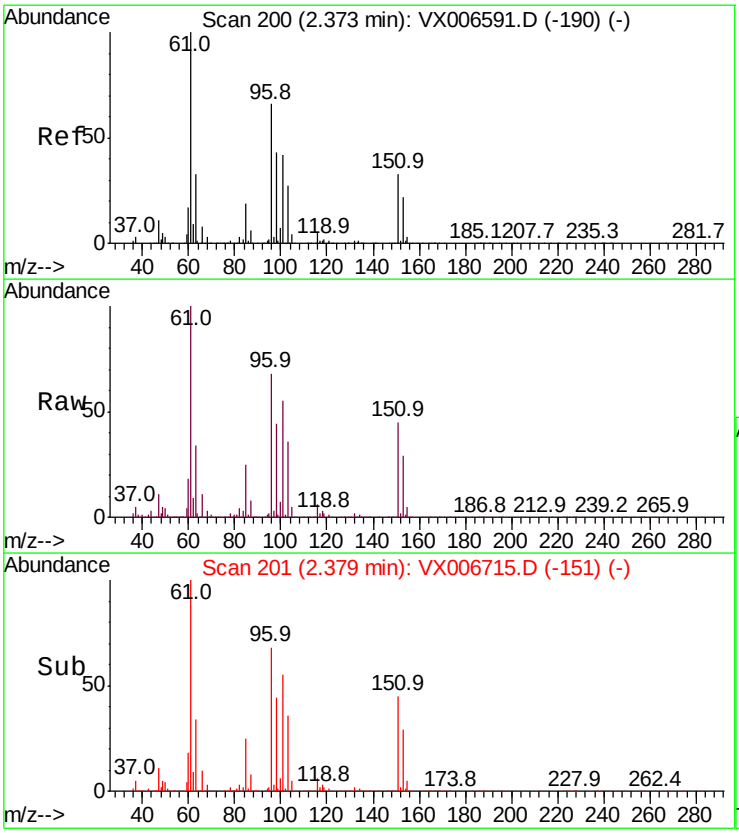


#11
Tert butyl alcohol
Concen: 107.325 ug/l
RT: 3.07 min Scan# 314
Delta R.T. -0.01 min
Lab File: VX006715.D
Acq: 21 Dec 2018 11:29

Tgt Ion: 59 Resp: 153740

Ion	Ratio	Lower	Upper
59	100		
57	9.9	8.5	12.7

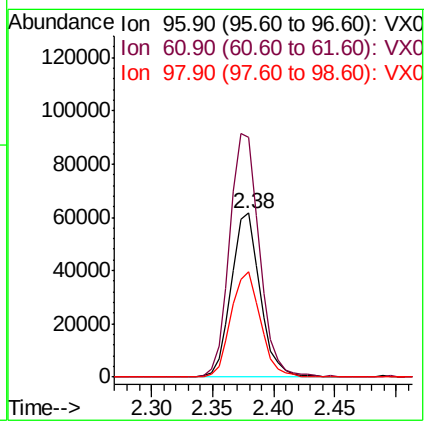




#12
1,1-Dichloroethene
Concen: 18.932 ug/l
RT: 2.38 min Scan# 201
Delta R.T. 0.01 min
Lab File: VX006715.D
Acq: 21 Dec 2018 11:29

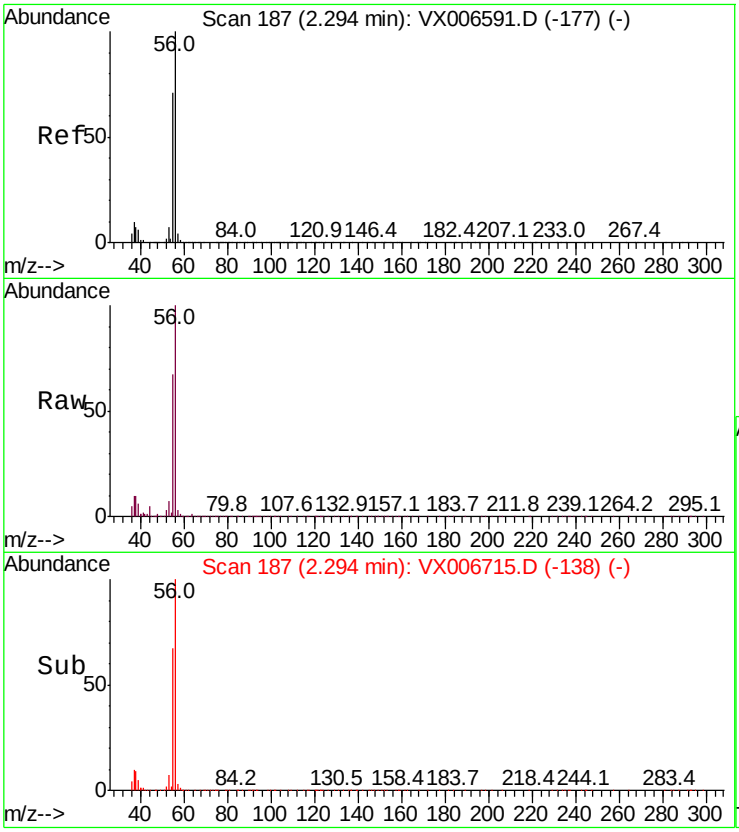
Tgt Ion: 96 Resp: 100738

Ion	Ratio	Lower	Upper
96	100		
61	146.6	121.4	182.2
98	64.2	51.9	77.9



Instrument :
MSVOA_X
ClientSampleId :
VX1221WBS01

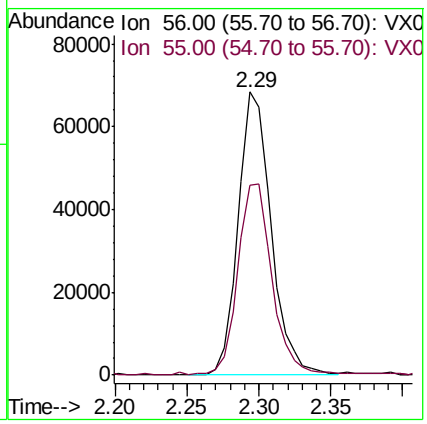
Manual Integrations APPROVED
MMDadoda
12/22/2018 11:20:57 AM

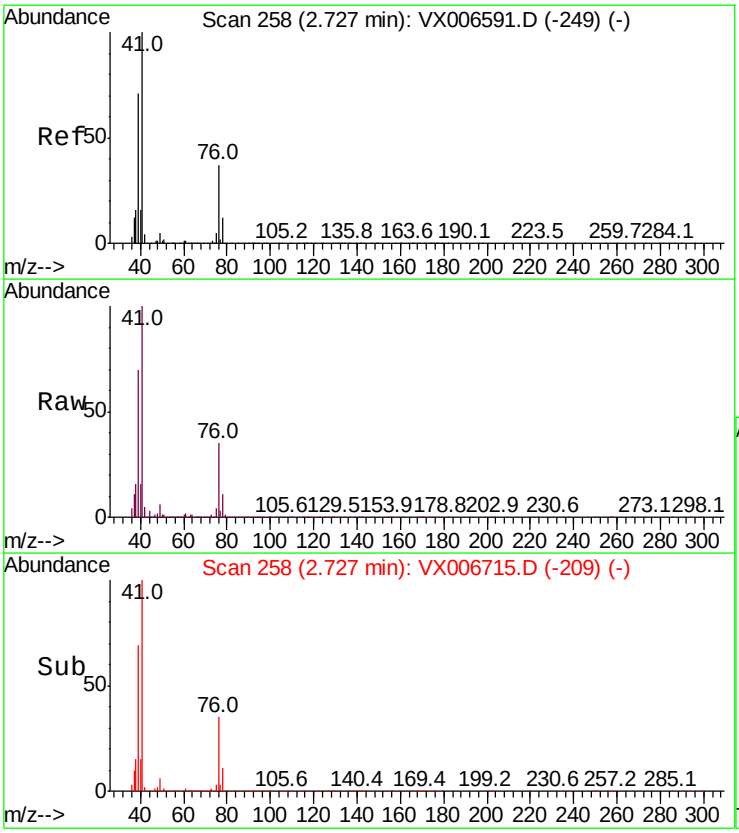


#13
Acrolein
Concen: 111.454 ug/l
RT: 2.29 min Scan# 187
Delta R.T. 0.00 min
Lab File: VX006715.D
Acq: 21 Dec 2018 11:29

Tgt Ion: 56 Resp: 107704

Ion	Ratio	Lower	Upper
56	100		
55	69.6	58.2	87.4

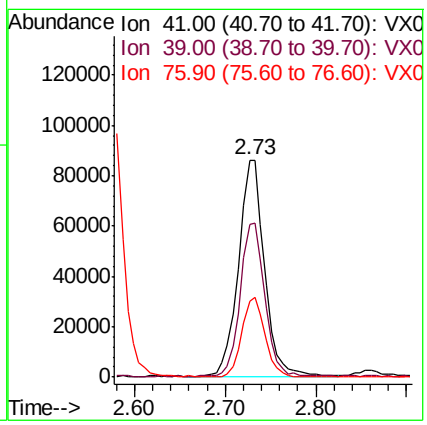




#14
Allyl chloride
Concen: 19.084 ug/l
RT: 2.73 min Scan# 258
Delta R.T. 0.00 min
Lab File: VX006715.D
Acq: 21 Dec 2018 11:29

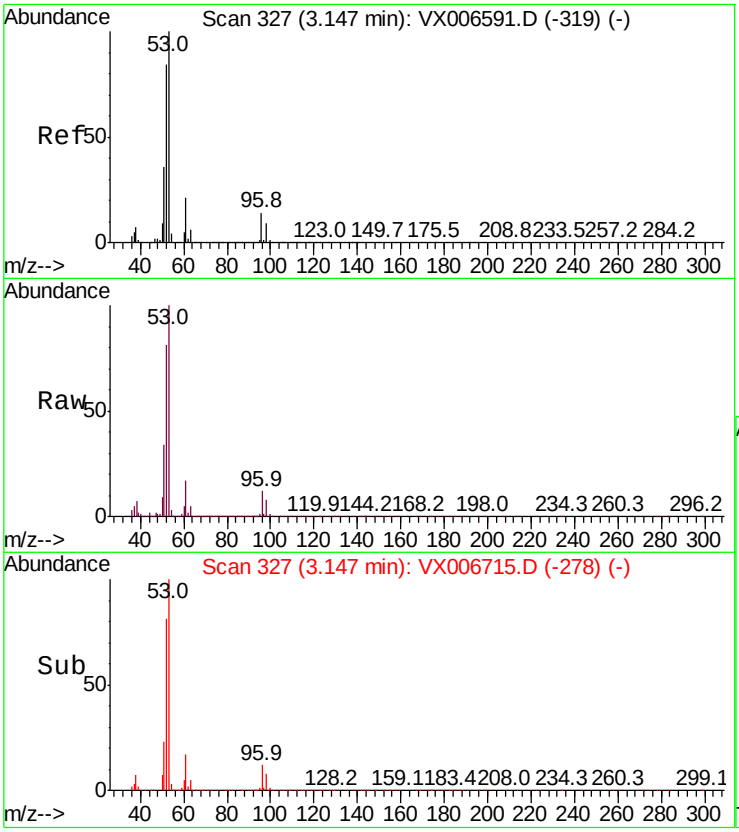
Tgt Ion: 41 Resp: 170927

Ion	Ratio	Lower	Upper
41	100		
39	67.3	53.6	80.4
76	32.5	27.4	41.2



Instrument :
MSVOA_X
ClientSampleId :
VX1221WBS01

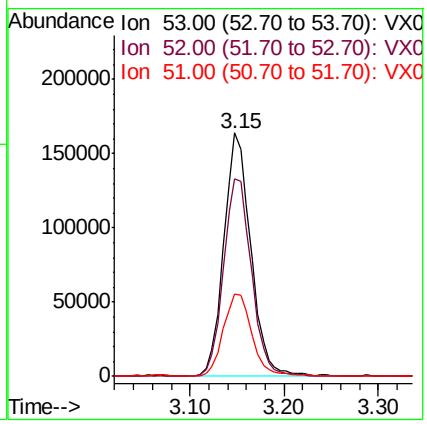
Manual Integrations APPROVED
MMDadoda
12/22/2018 11:20:57 AM

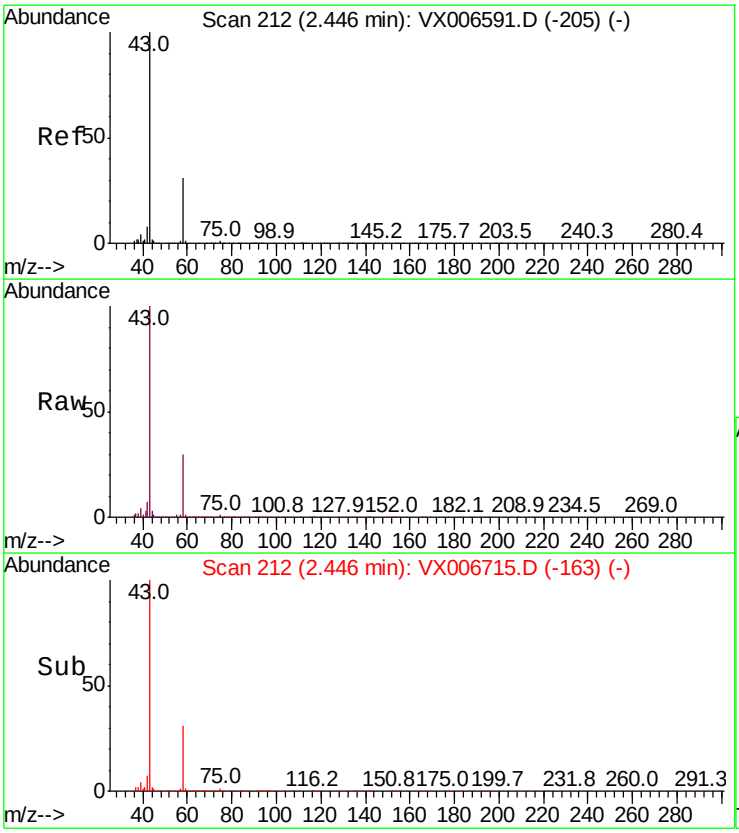


#15
Acrylonitrile
Concen: 101.961 ug/l
RT: 3.15 min Scan# 327
Delta R.T. 0.00 min
Lab File: VX006715.D
Acq: 21 Dec 2018 11:29

Tgt Ion: 53 Resp: 324291

Ion	Ratio	Lower	Upper
53	100		
52	84.2	66.0	99.0
51	36.0	28.6	42.8

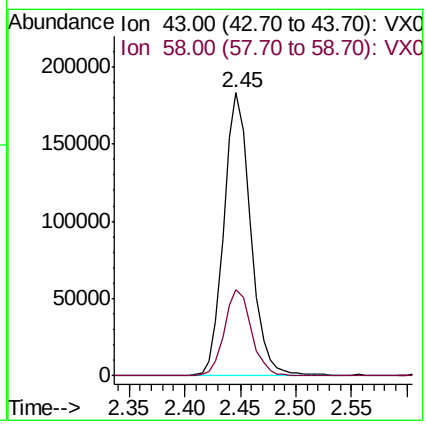




#16
Acetone
Concen: 102.189 ug/l
RT: 2.45 min Scan# 212
Delta R.T. 0.00 min
Lab File: VX006715.D
Acq: 21 Dec 2018 11:29

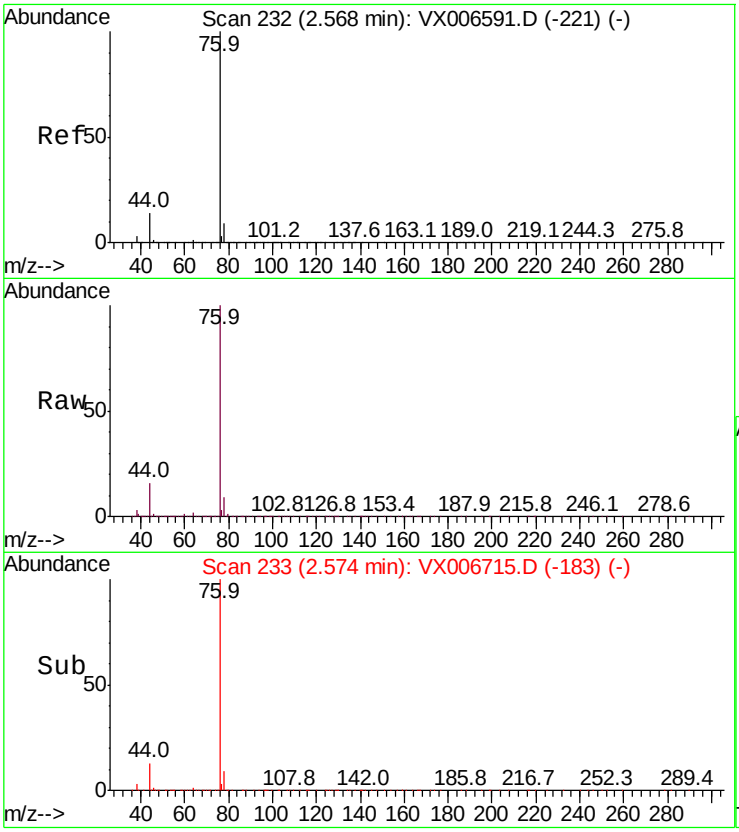
Tgt Ion: 43 Resp: 301349

Ion	Ratio	Lower	Upper
43	100		
58	30.5	25.0	37.6



Instrument :
MSVOA_X
ClientSampleId :
VX1221WBS01

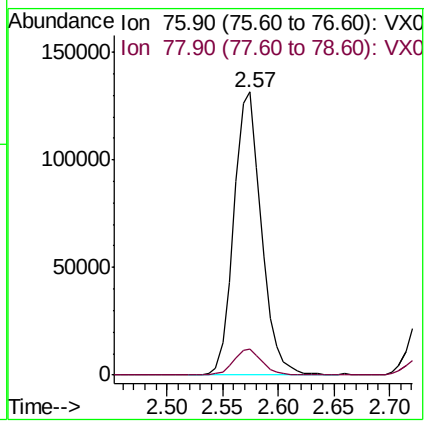
Manual Integrations APPROVED
MMDadoda
12/22/2018 11:20:57 AM

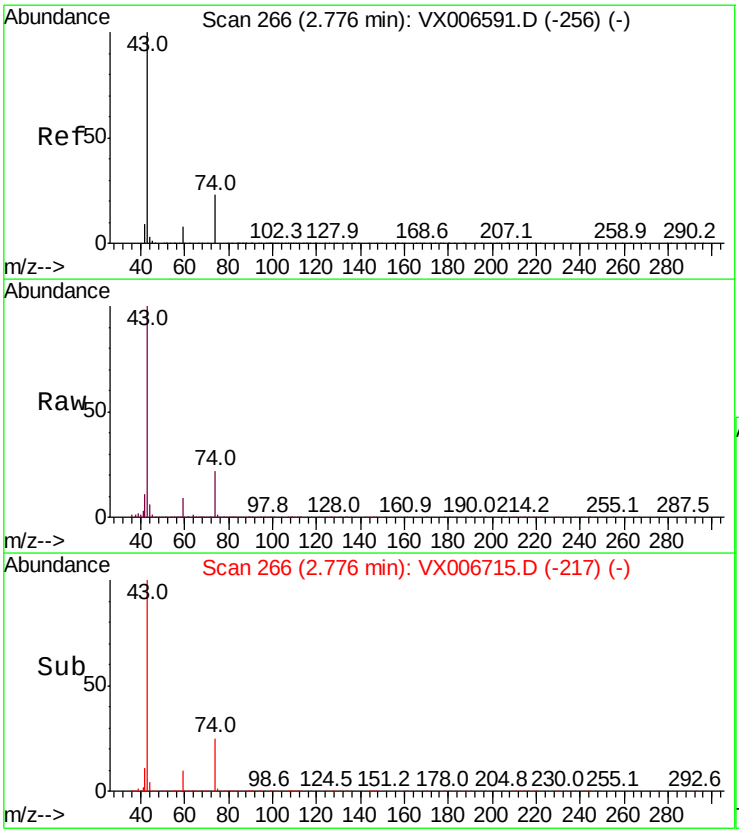


#17
Carbon Disulfide
Concen: 15.943 ug/l
RT: 2.57 min Scan# 233
Delta R.T. 0.01 min
Lab File: VX006715.D
Acq: 21 Dec 2018 11:29

Tgt Ion: 76 Resp: 224500

Ion	Ratio	Lower	Upper
76	100		
78	9.2	7.0	10.6

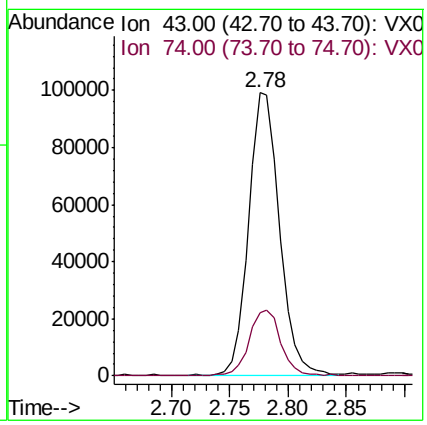




#18
Methyl Acetate
Concen: 21.113 ug/l
RT: 2.78 min Scan# 266
Delta R.T. 0.00 min
Lab File: VX006715.D
Acq: 21 Dec 2018 11:29

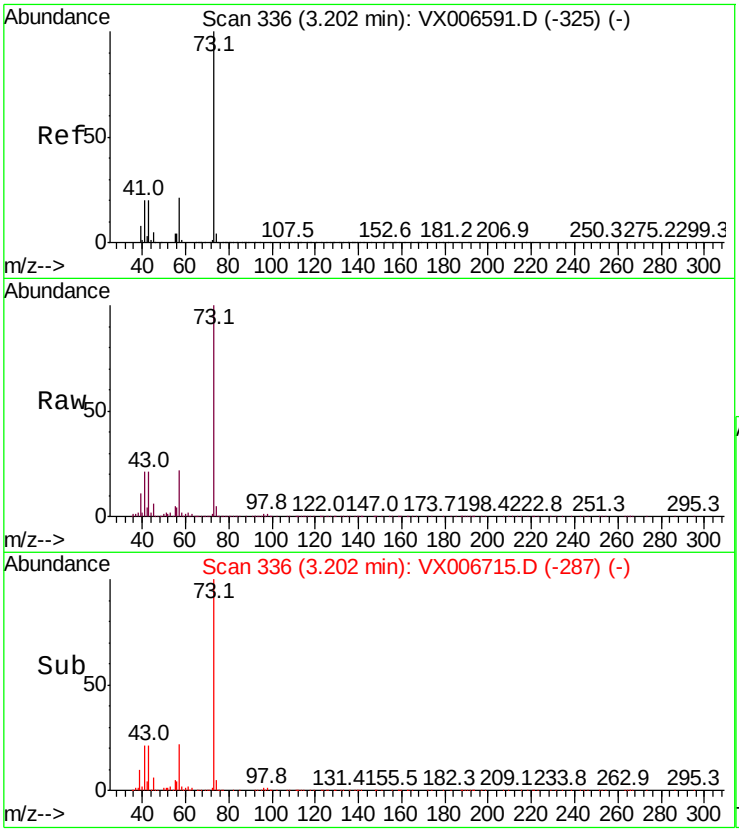
Tgt Ion: 43 Resp: 183079

Ion	Ratio	Lower	Upper
43	100		
74	23.5	18.6	28.0



Instrument :
MSVOA_X
ClientSampleId :
VX1221WBS01

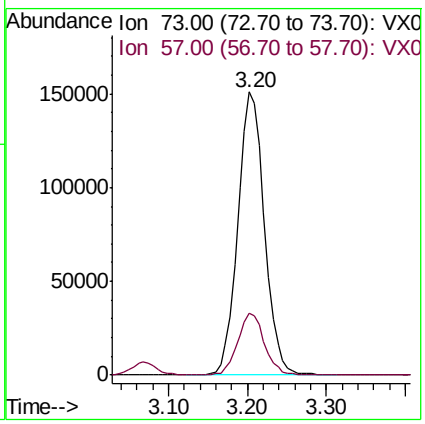
Manual Integrations APPROVED
MMDadoda
12/22/2018 11:20:57 AM

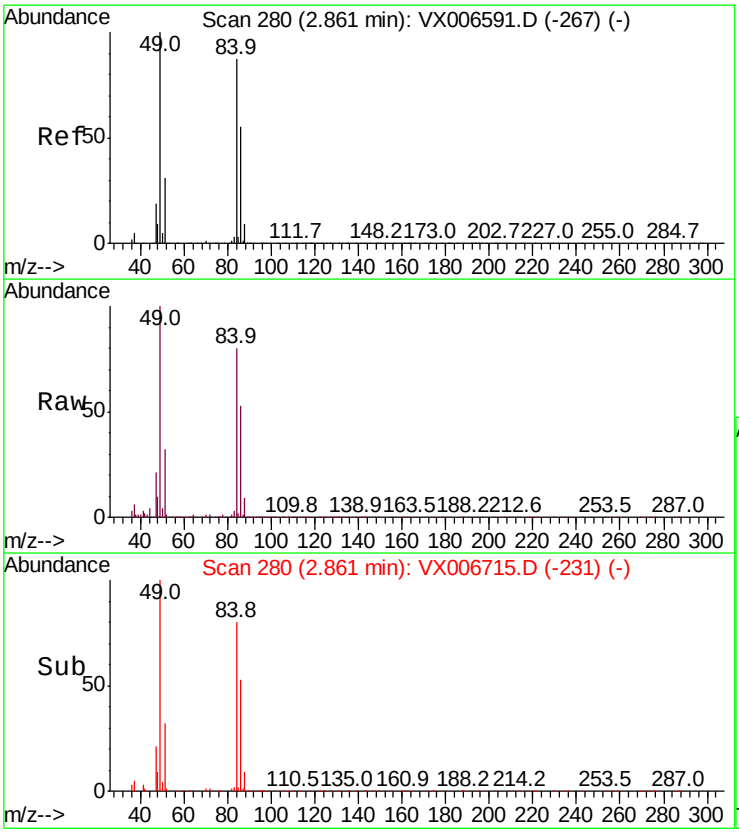


#19
Methyl tert-butyl Ether
Concen: 20.046 ug/l
RT: 3.20 min Scan# 336
Delta R.T. 0.00 min
Lab File: VX006715.D
Acq: 21 Dec 2018 11:29

Tgt Ion: 73 Resp: 354031

Ion	Ratio	Lower	Upper
73	100		
57	21.8	16.8	25.2

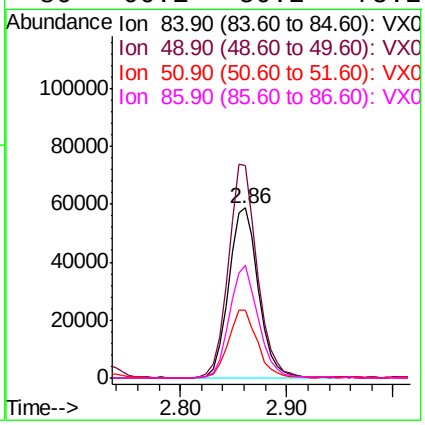




#20
Methylene Chloride
Concen: 18.792 ug/l
RT: 2.86 min Scan# 280
Delta R.T. 0.00 min
Lab File: VX006715.D
Acq: 21 Dec 2018 11:29

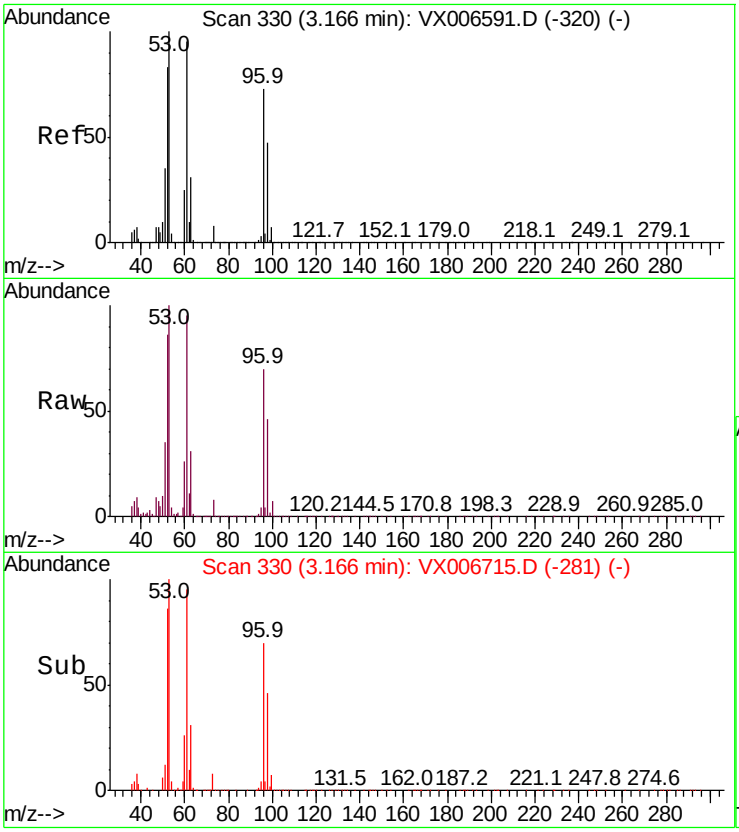
Tgt Ion: 84 Resp: 114589

Ion	Ratio	Lower	Upper
84	100		
49	124.9	91.8	137.6
51	40.1	28.5	42.7
86	66.1	50.2	75.2



Instrument :
MSVOA_X
ClientSampleId :
VX1221WBS01

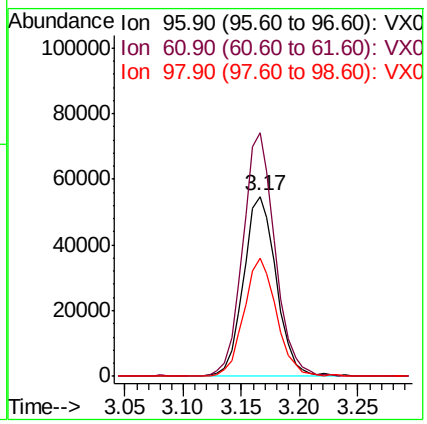
Manual Integrations APPROVED
MMDadoda
12/22/2018 11:20:57 AM

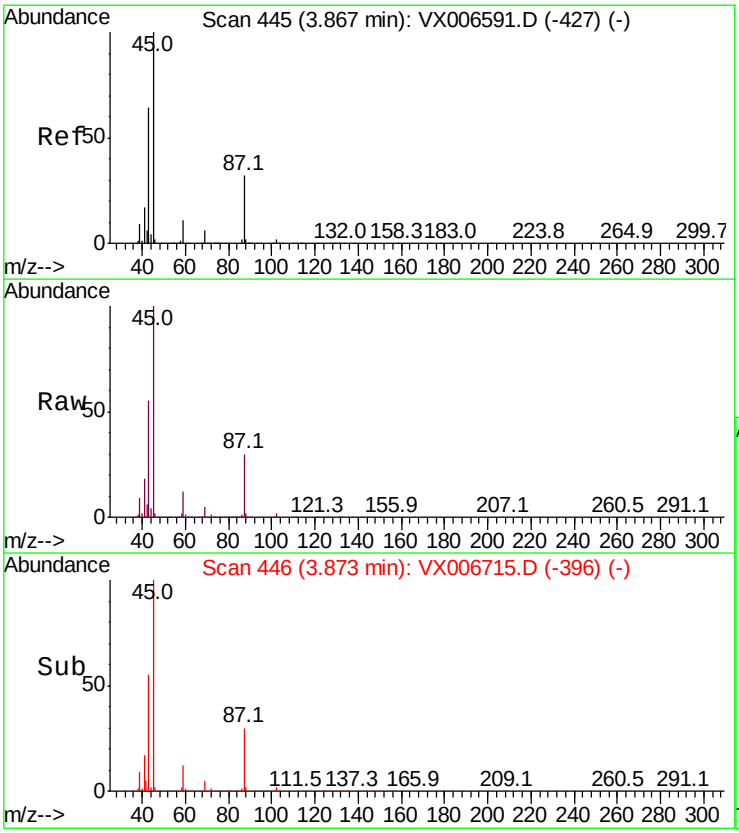


#21
trans-1,2-Dichloroethene
Concen: 18.077 ug/l
RT: 3.17 min Scan# 330
Delta R.T. 0.00 min
Lab File: VX006715.D
Acq: 21 Dec 2018 11:29

Tgt Ion: 96 Resp: 106579

Ion	Ratio	Lower	Upper
96	100		
61	135.3	103.7	155.5
98	65.2	51.0	76.6

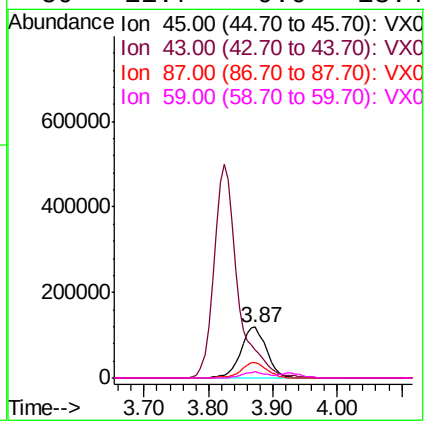




#22
Diisopropyl ether
Concen: 19.979 ug/l
RT: 3.87 min Scan# 446
Delta R.T. 0.01 min
Lab File: VX006715.D
Acq: 21 Dec 2018 11:29

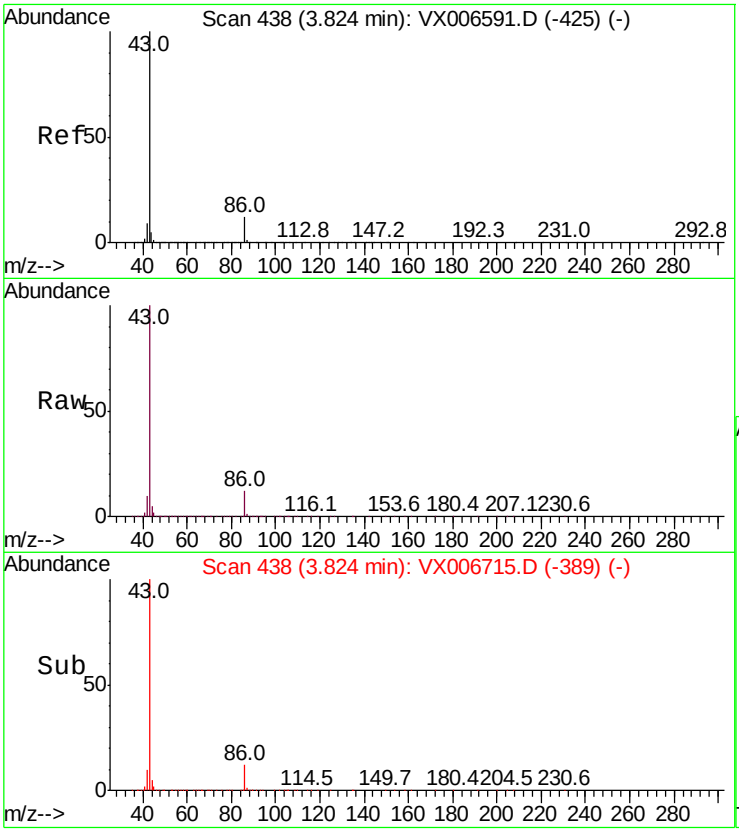
Tgt Ion: 45 Resp: 327363

Ion	Ratio	Lower	Upper
45	100		
43	55.1	51.2	76.8
87	30.2	25.8	38.6
59	11.7	9.0	13.4



Instrument :
MSVOA_X
ClientSampleId :
VX1221WBS01

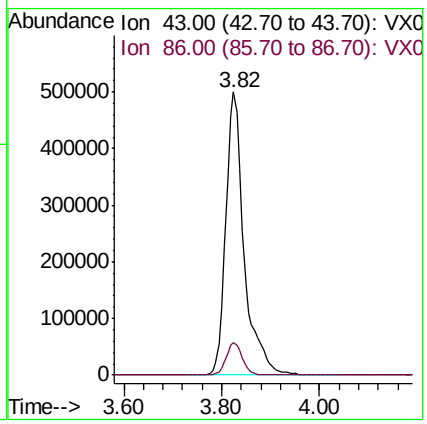
Manual Integrations APPROVED
MMDadoda
12/22/2018 11:20:57 AM

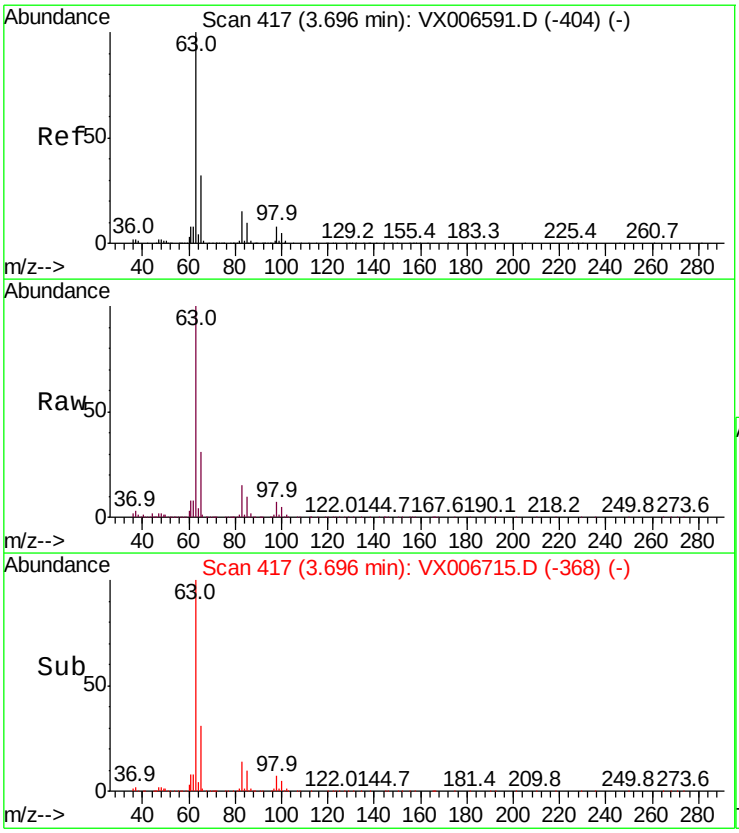


#23
Vinyl Acetate
Concen: 96.646 ug/l
RT: 3.82 min Scan# 438
Delta R.T. 0.00 min
Lab File: VX006715.D
Acq: 21 Dec 2018 11:29

Tgt Ion: 43 Resp: 1295358

Ion	Ratio	Lower	Upper
43	100		
86	11.7	9.2	13.8

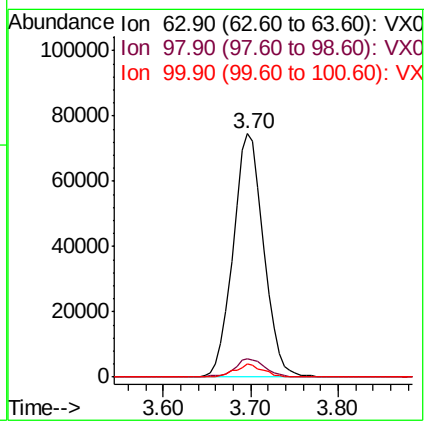




#24
1,1-Dichloroethane
Concen: 18.380 ug/l
RT: 3.70 min Scan# 417
Delta R.T. 0.00 min
Lab File: VX006715.D
Acq: 21 Dec 2018 11:29

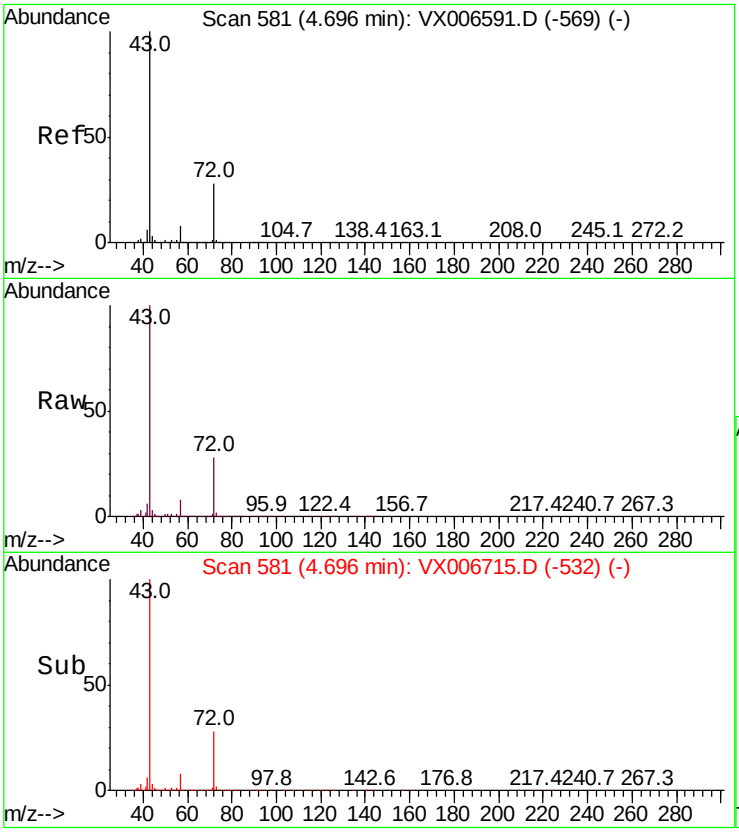
Tgt Ion: 63 Resp: 179783

Ion	Ratio	Lower	Upper
63	100		
98	7.3	3.9	11.5
100	5.3	2.4	7.2



Instrument :
MSVOA_X
ClientSampleId :
VX1221WBS01

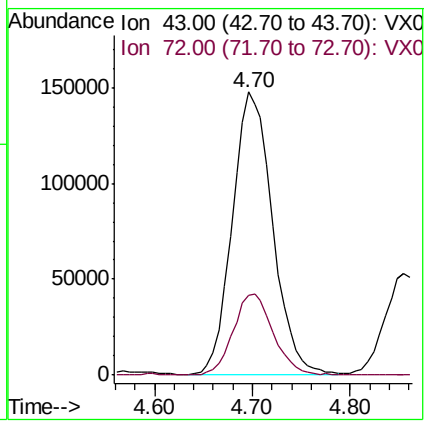
Manual Integrations APPROVED
MMDadoda
12/22/2018 11:20:57 AM

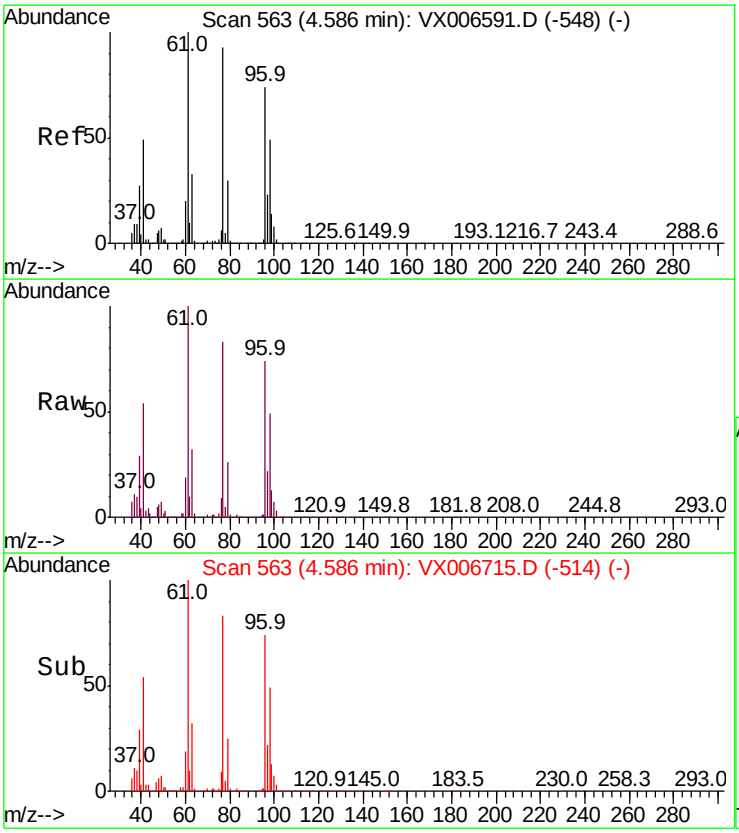


#25
2-Butanone
Concen: 101.334 ug/l
RT: 4.70 min Scan# 581
Delta R.T. 0.00 min
Lab File: VX006715.D
Acq: 21 Dec 2018 11:29

Tgt Ion: 43 Resp: 420339

Ion	Ratio	Lower	Upper
43	100		
72	28.1	22.4	33.6

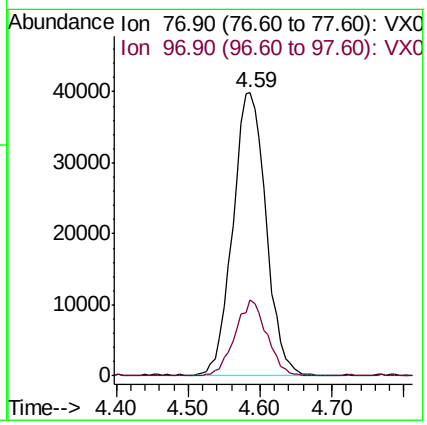




#26
2,2-Dichloropropane
Concen: 16.804 ug/l
RT: 4.59 min Scan# 563
Delta R.T. 0.00 min
Lab File: VX006715.D
Acq: 21 Dec 2018 11:29

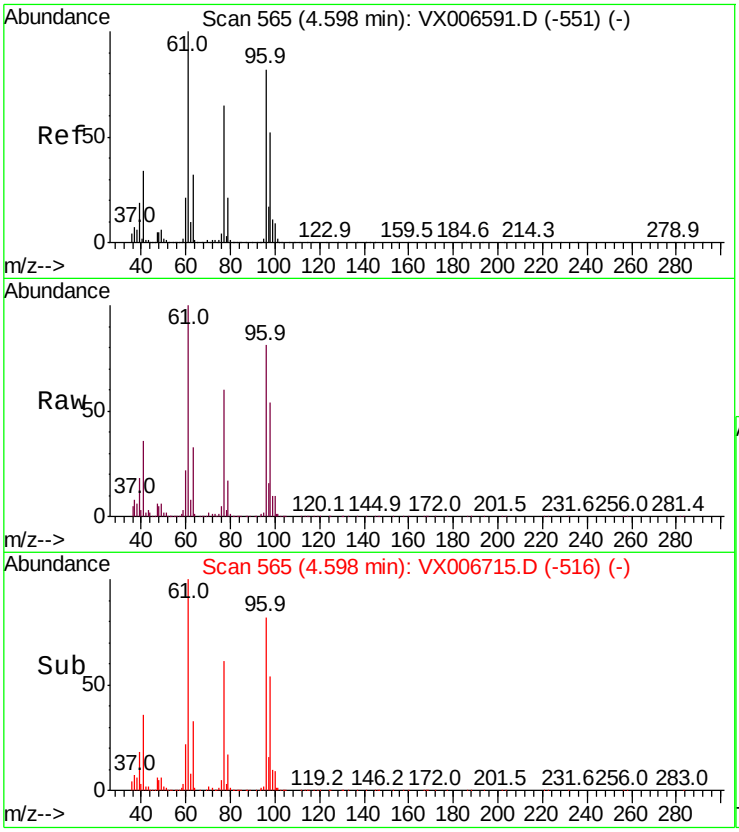
Tgt Ion: 77 Resp: 126967

Ion	Ratio	Lower	Upper
77	100		
97	25.9	12.4	37.4



Instrument :
MSVOA_X
ClientSampleId :
VX1221WBS01

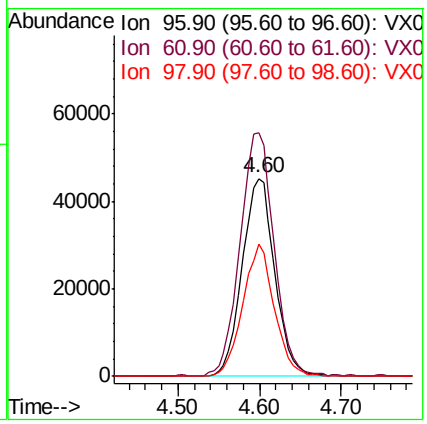
Manual Integrations APPROVED
MMDadoda
12/22/2018 11:20:57 AM

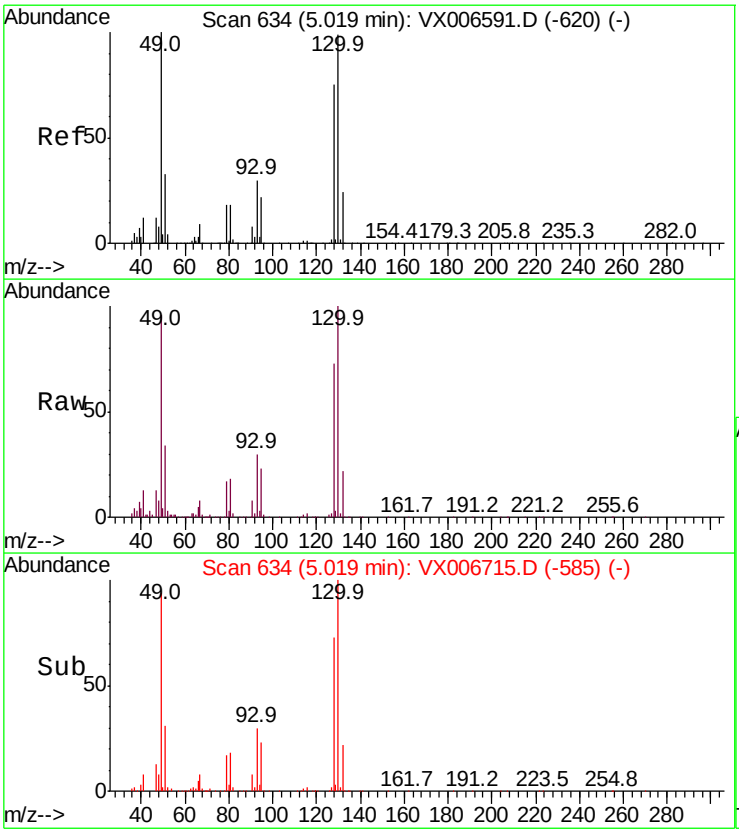


#27
cis-1,2-Dichloroethene
Concen: 19.339 ug/l
RT: 4.60 min Scan# 565
Delta R.T. 0.00 min
Lab File: VX006715.D
Acq: 21 Dec 2018 11:29

Tgt Ion: 96 Resp: 125796

Ion	Ratio	Lower	Upper
96	100		
61	127.5	0.0	258.6
98	64.8	0.0	132.0

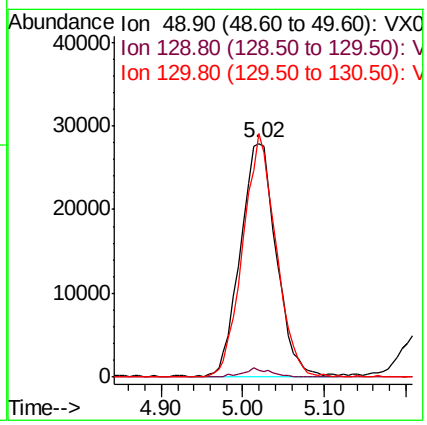




#28
Bromochloromethane
Concen: 19.747 ug/l
RT: 5.02 min Scan# 634
Delta R.T. 0.00 min
Lab File: VX006715.D
Acq: 21 Dec 2018 11:29

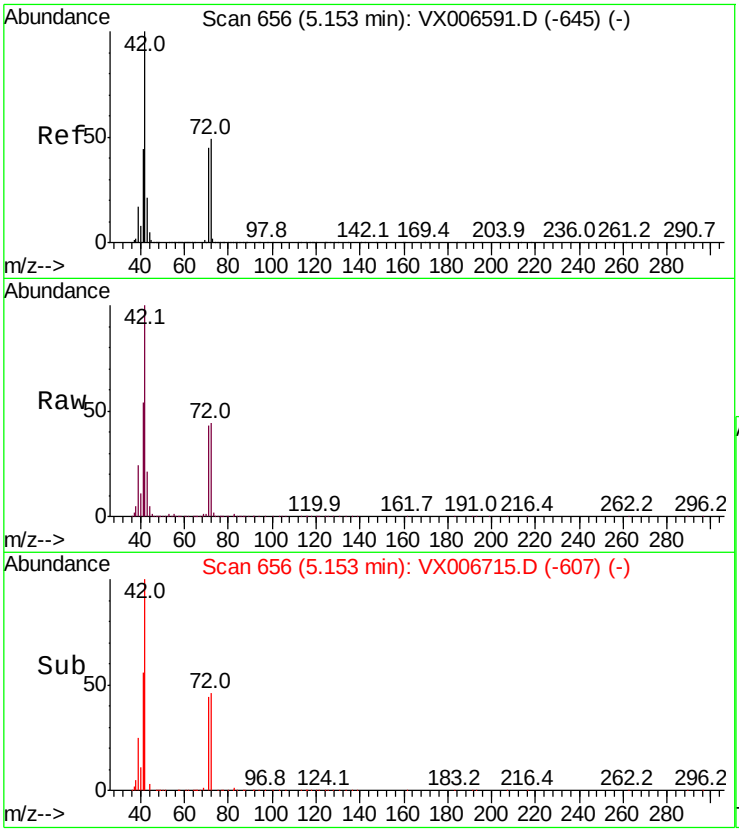
Tgt Ion: 49 Resp: 86047

Ion	Ratio	Lower	Upper
49	100		
129	3.0	0.0	5.4
130	95.9	77.7	116.5



Instrument :
MSVOA_X
ClientSampleId :
VX1221WBS01

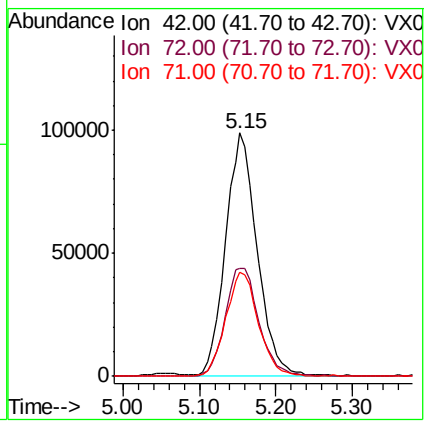
Manual Integrations APPROVED
MMDadoda
12/22/2018 11:20:57 AM

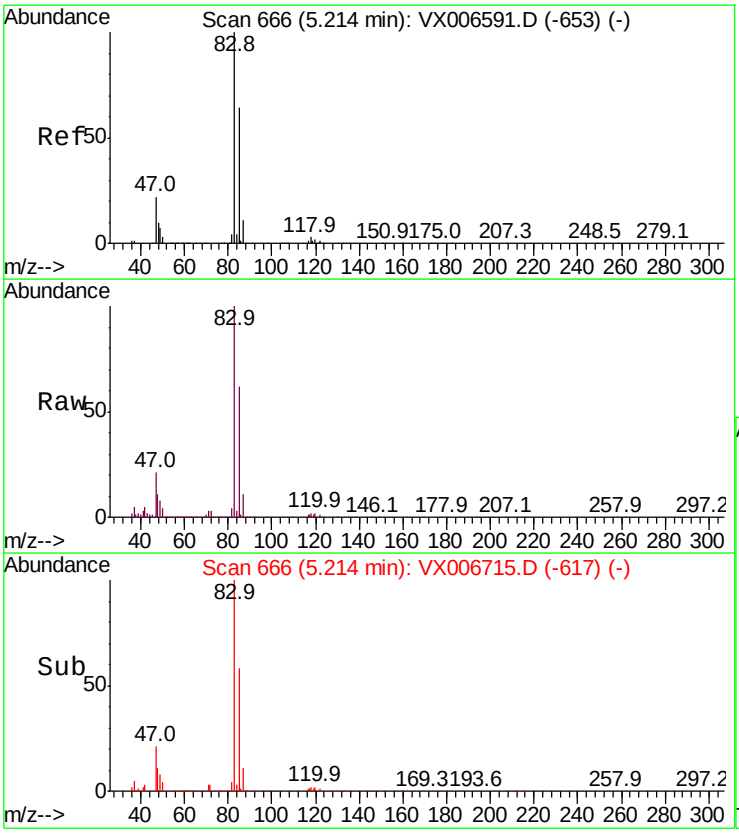


#29
Tetrahydrofuran
Concen: 102.858 ug/l
RT: 5.15 min Scan# 656
Delta R.T. 0.00 min
Lab File: VX006715.D
Acq: 21 Dec 2018 11:29

Tgt Ion: 42 Resp: 281012

Ion	Ratio	Lower	Upper
42	100		
72	47.4	38.9	58.3
71	44.5	36.2	54.4

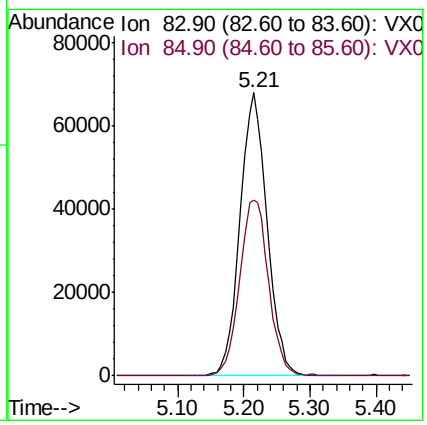




#30
Chloroform
Concen: 19.158 ug/l
RT: 5.21 min Scan# 666
Delta R.T. 0.00 min
Lab File: VX006715.D
Acq: 21 Dec 2018 11:29

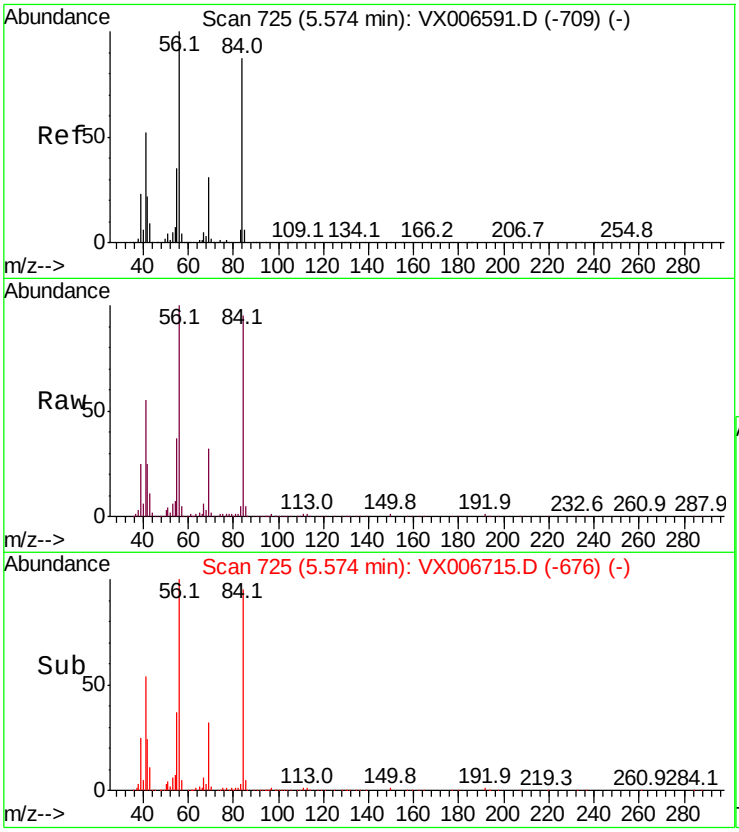
Tgt Ion: 83 Resp: 194060

Ion	Ratio	Lower	Upper
83	100		
85	62.3	51.2	76.8



Instrument :
MSVOA_X
ClientSampleId :
VX1221WBS01

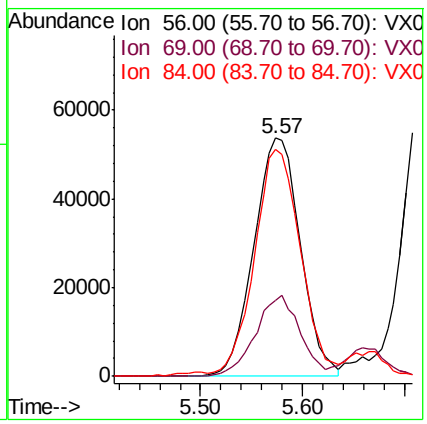
Manual Integrations APPROVED
MMDadoda
12/22/2018 11:20:57 AM

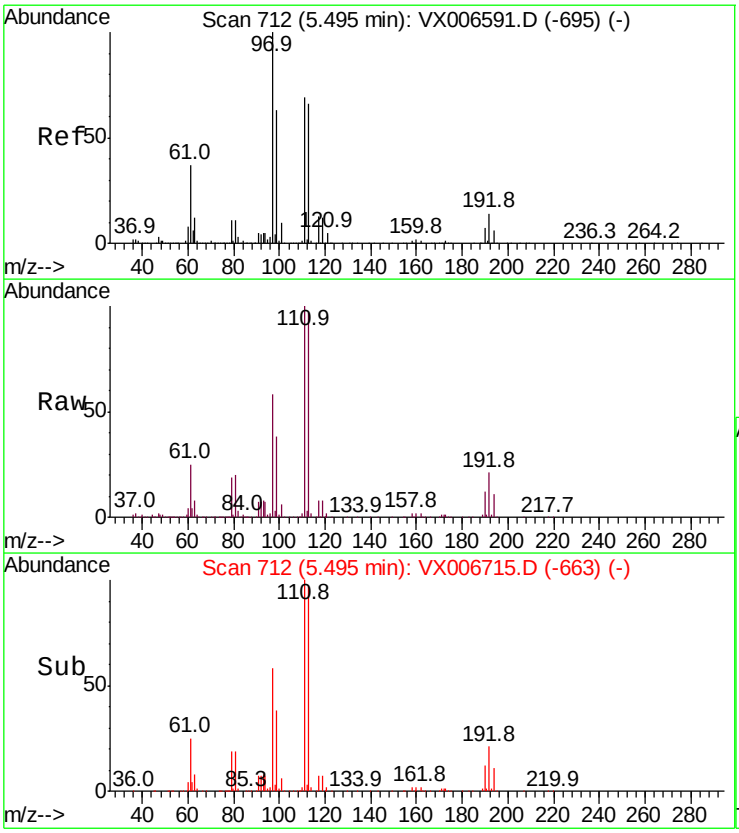


#31
Cyclohexane
Concen: 19.027 ug/l
RT: 5.57 min Scan# 725
Delta R.T. 0.00 min
Lab File: VX006715.D
Acq: 21 Dec 2018 11:29

Tgt Ion: 56 Resp: 169076

Ion	Ratio	Lower	Upper
56	100		
69	31.8	24.4	36.6
84	93.9	70.0	105.0

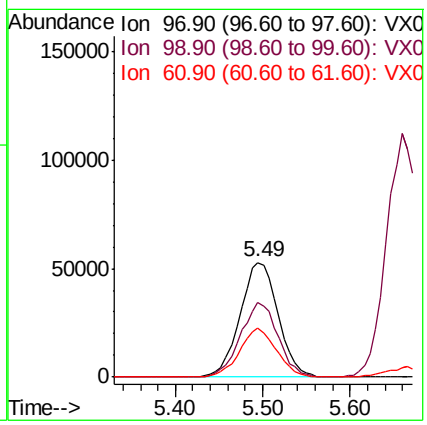




#32
1,1,1-Trichloroethane
Concen: 18.675 ug/l
RT: 5.49 min Scan# 712
Delta R.T. 0.00 min
Lab File: VX006715.D
Acq: 21 Dec 2018 11:29

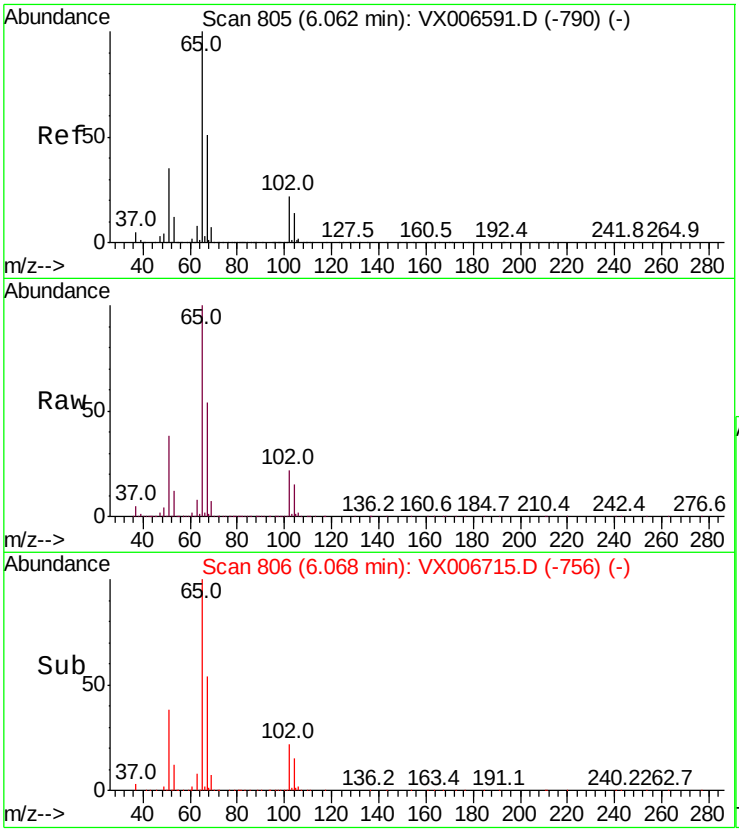
Tgt Ion: 97 Resp: 159728

Ion	Ratio	Lower	Upper
97	100		
99	64.4	51.7	77.5
61	41.5	31.3	46.9



Instrument :
MSVOA_X
ClientSampleId :
VX1221WBS01

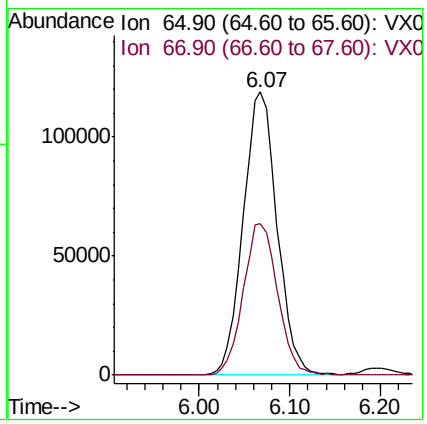
Manual Integrations APPROVED
MMDadoda
12/22/2018 11:20:57 AM

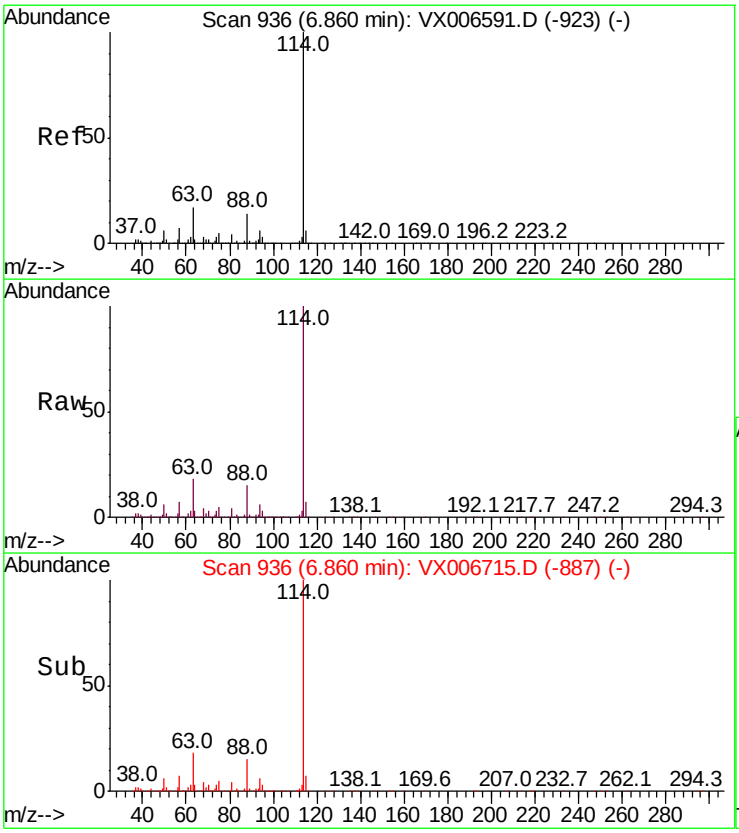


#33
1,2-Dichloroethane-d4
Concen: 47.886 ug/l
RT: 6.07 min Scan# 806
Delta R.T. 0.01 min
Lab File: VX006715.D
Acq: 21 Dec 2018 11:29

Tgt Ion: 65 Resp: 307364

Ion	Ratio	Lower	Upper
65	100		
67	54.5	0.0	105.0

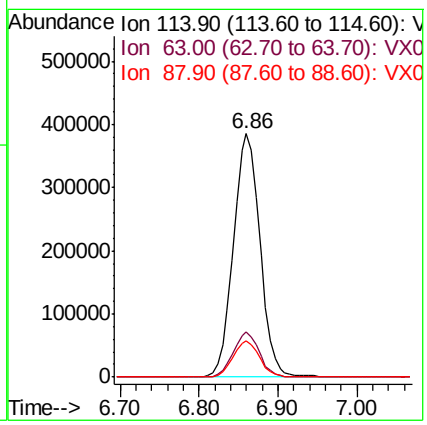




#34
1,4-Difluorobenzene
Concen: 50.000 ug/l
RT: 6.86 min Scan# 936
Delta R.T. 0.00 min
Lab File: VX006715.D
Acq: 21 Dec 2018 11:29

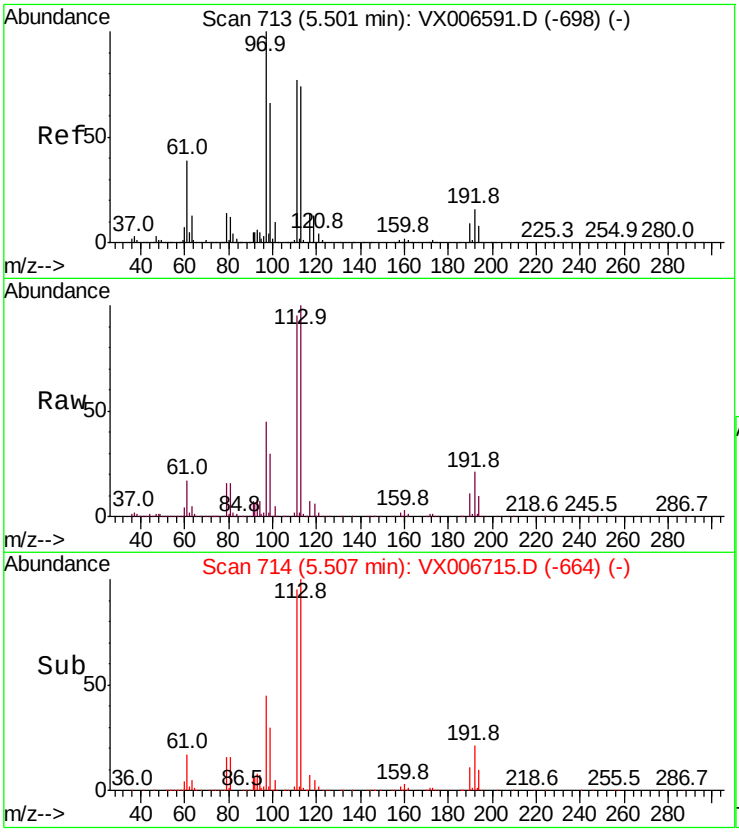
Tgt Ion:114 Resp: 903537

Ion	Ratio	Lower	Upper
114	100		
63	18.3	0.0	34.8
88	15.0	0.0	28.8



Instrument :
MSVOA_X
ClientSampleId :
VX1221WBS01

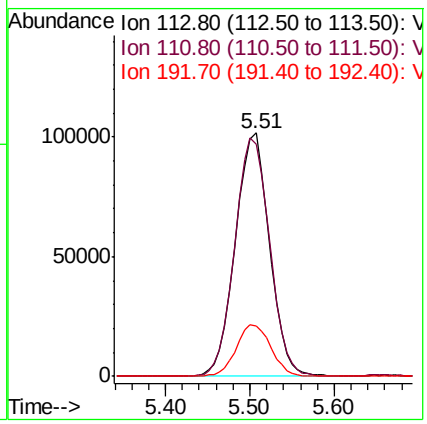
Manual Integrations APPROVED
MMDadoda
12/22/2018 11:20:57 AM

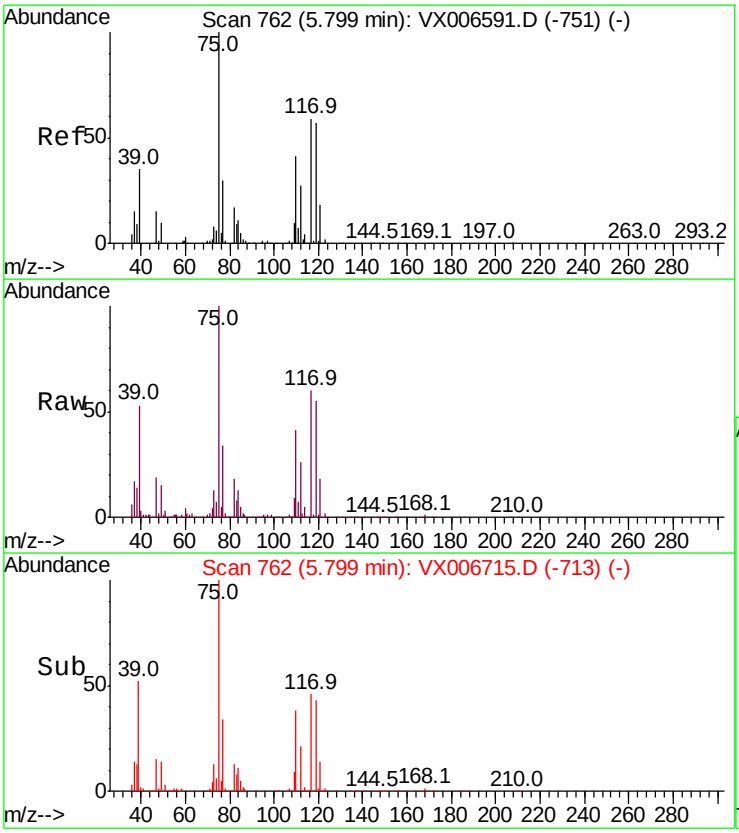


#35
Dibromofluoromethane
Concen: 48.891 ug/l
RT: 5.51 min Scan# 714
Delta R.T. 0.01 min
Lab File: VX006715.D
Acq: 21 Dec 2018 11:29

Tgt Ion:113 Resp: 279355

Ion	Ratio	Lower	Upper
113	100		
111	100.5	81.6	122.4
192	21.6	16.7	25.1

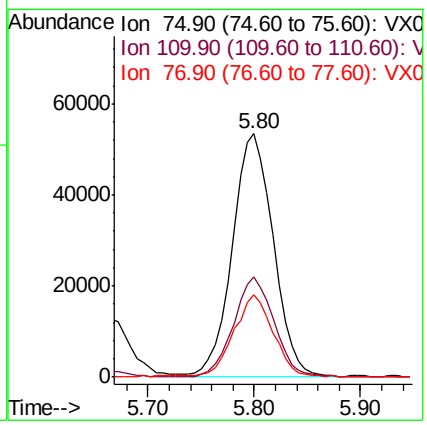




#36
1,1-Dichloropropene
Concen: 19.185 ug/l
RT: 5.80 min Scan# 762
Delta R.T. 0.00 min
Lab File: VX006715.D
Acq: 21 Dec 2018 11:29

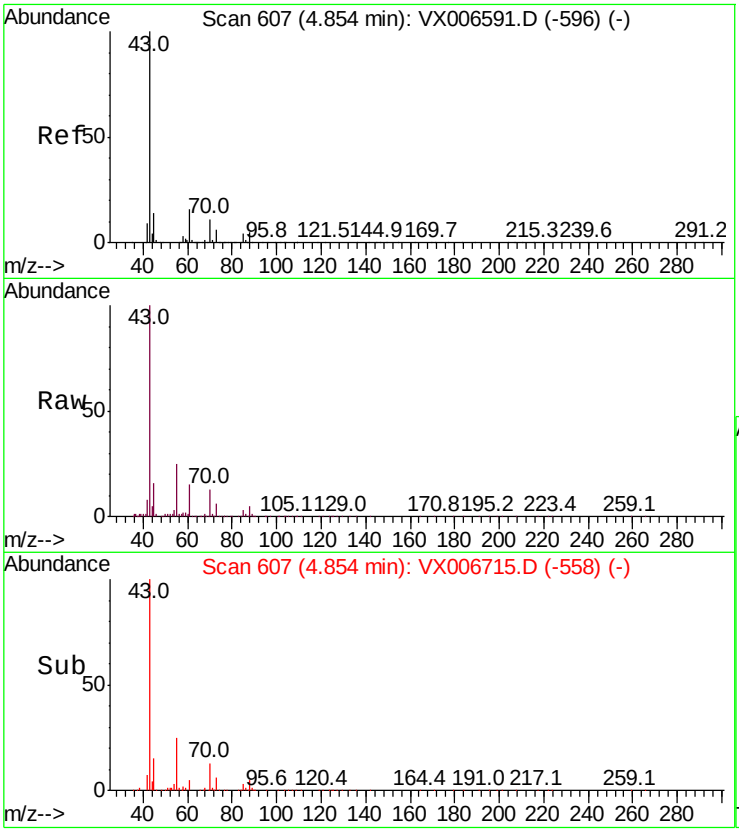
Tgt Ion: 75 Resp: 143568

Ion	Ratio	Lower	Upper
75	100		
110	41.1	20.2	60.5
77	33.0	24.8	37.2



Instrument :
MSVOA_X
ClientSampleId :
VX1221WBS01

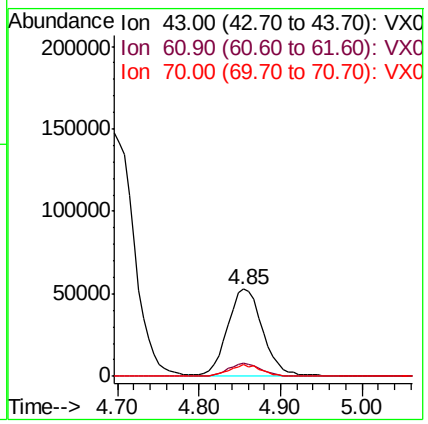
Manual Integrations APPROVED
MMDadoda
12/22/2018 11:20:57 AM

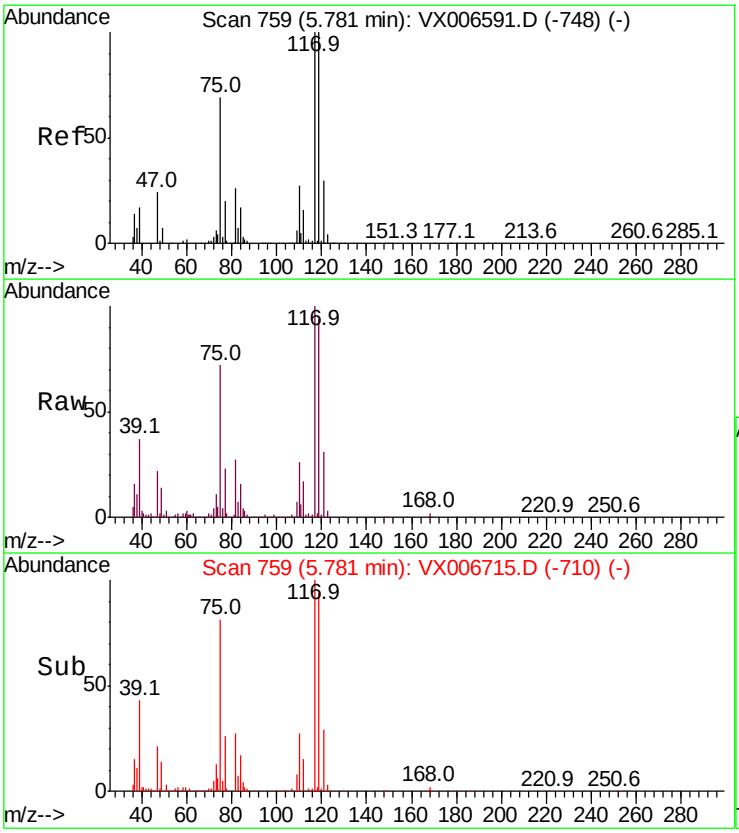


#37
Ethyl Acetate
Concen: 20.052 ug/l
RT: 4.85 min Scan# 607
Delta R.T. 0.00 min
Lab File: VX006715.D
Acq: 21 Dec 2018 11:29

Tgt Ion: 43 Resp: 156182

Ion	Ratio	Lower	Upper
43	100		
61	14.8	11.9	17.9
70	12.3	9.7	14.5

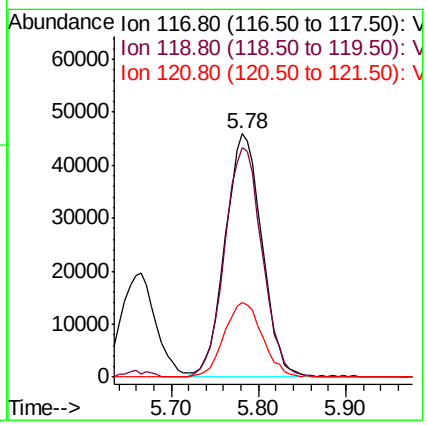




#38
Carbon Tetrachloride
Concen: 18.407 ug/l
RT: 5.78 min Scan# 759
Delta R.T. 0.00 min
Lab File: VX006715.D
Acq: 21 Dec 2018 11:29

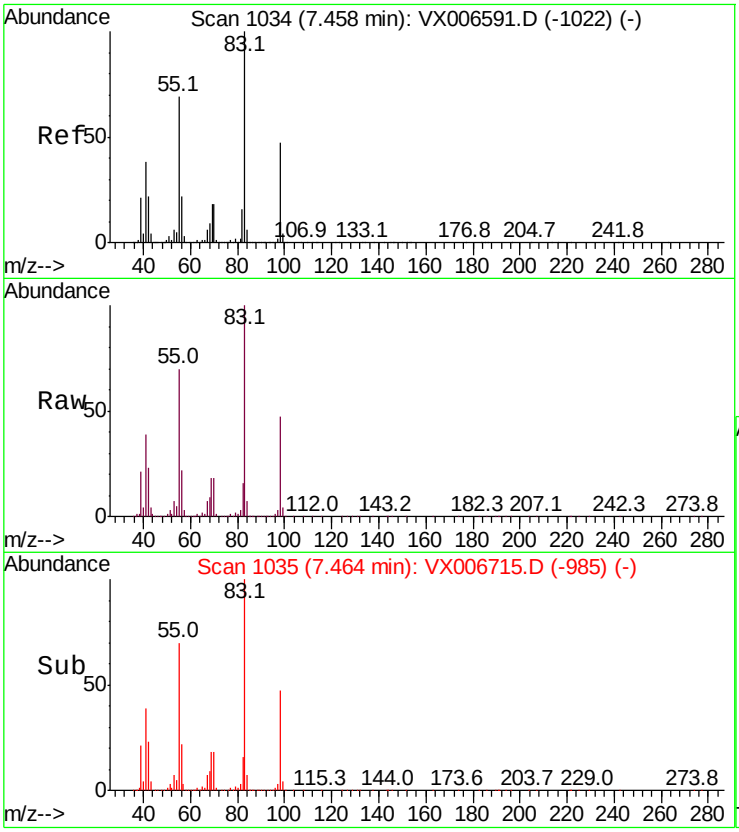
Tgt Ion:117 Resp: 133869

Ion	Ratio	Lower	Upper
117	100		
119	94.3	79.4	119.2
121	30.6	24.0	36.0



Instrument :
MSVOA_X
ClientSampleId :
VX1221WBS01

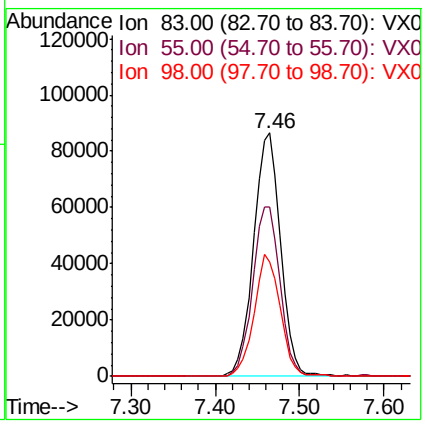
Manual Integrations APPROVED
MMDadoda
12/22/2018 11:20:57 AM

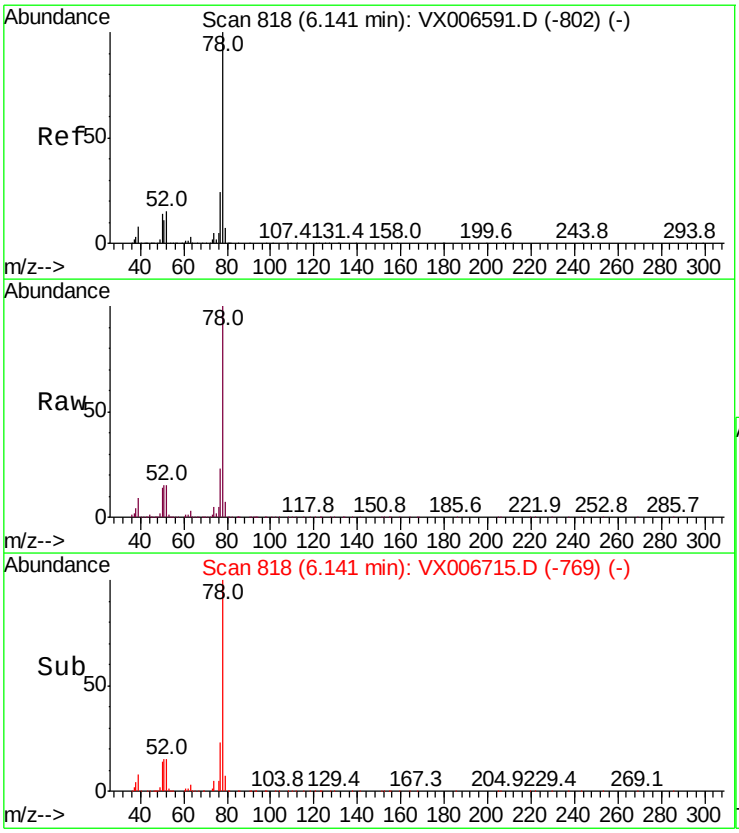


#39
Methylcyclohexane
Concen: 19.412 ug/l
RT: 7.46 min Scan# 1035
Delta R.T. 0.01 min
Lab File: VX006715.D
Acq: 21 Dec 2018 11:29

Tgt Ion: 83 Resp: 191245

Ion	Ratio	Lower	Upper
83	100		
55	69.3	54.9	82.3
98	47.1	37.9	56.9

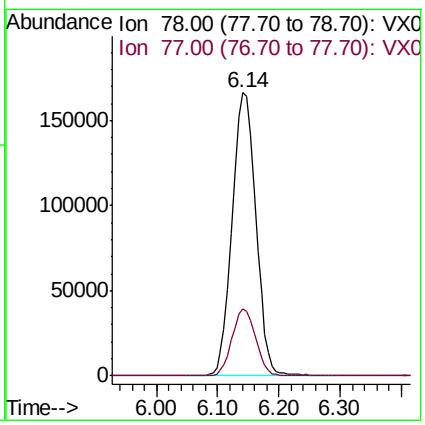




#40
Benzene
Concen: 19.505 ug/l
RT: 6.14 min Scan# 818
Delta R.T. 0.00 min
Lab File: VX006715.D
Acq: 21 Dec 2018 11:29

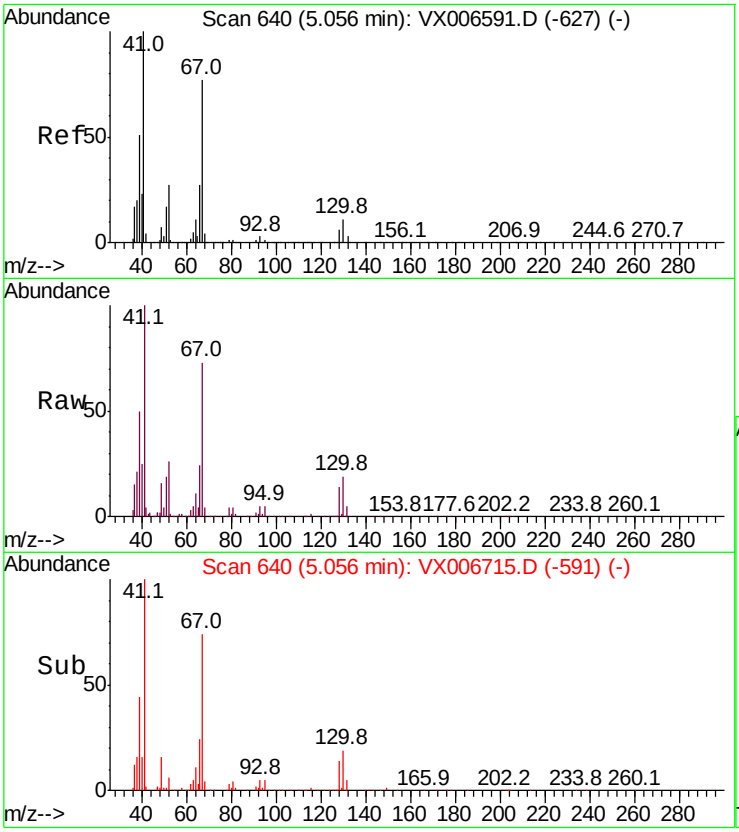
Tgt Ion: 78 Resp: 443690

Ion	Ratio	Lower	Upper
78	100		
77	23.4	19.2	28.8



Instrument :
MSVOA_X
ClientSampleId :
VX1221WBS01

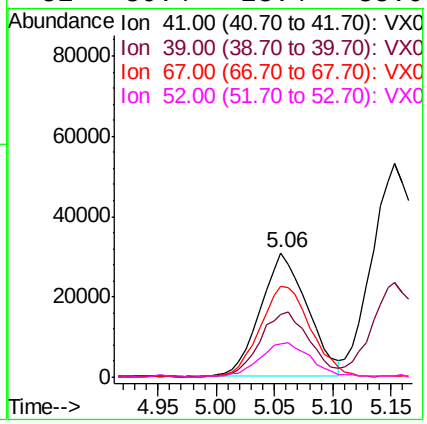
Manual Integrations APPROVED
MMDadoda
12/22/2018 11:20:57 AM

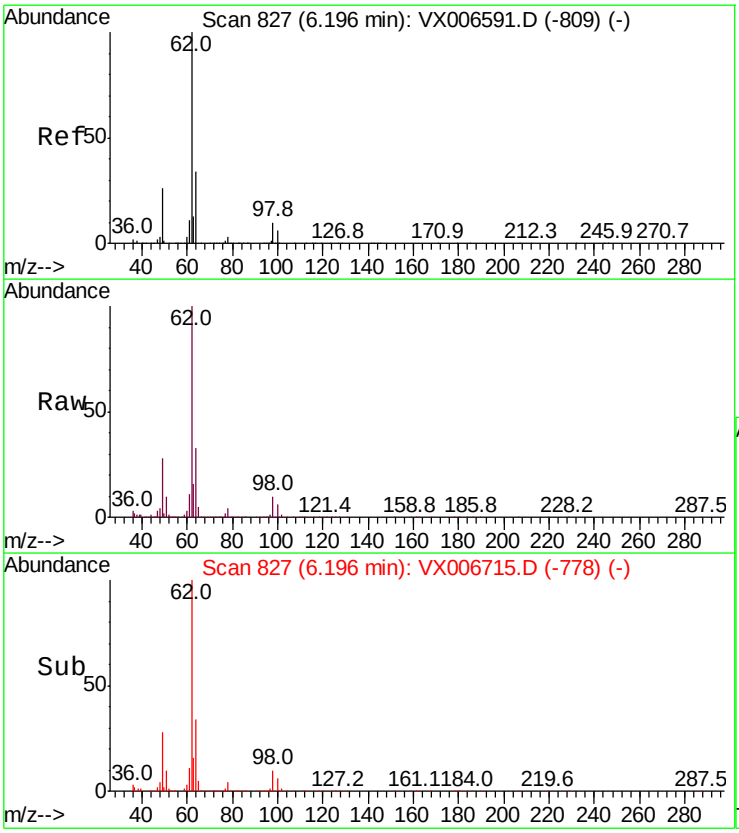


#41
Methacrylonitrile
Concen: 20.809 ug/l
RT: 5.06 min Scan# 640
Delta R.T. 0.00 min
Lab File: VX006715.D
Acq: 21 Dec 2018 11:29

Tgt Ion: 41 Resp: 86052

Ion	Ratio	Lower	Upper
41	100		
39	55.4	42.8	64.2
67	80.0	62.1	93.1
52	30.4	23.4	35.0

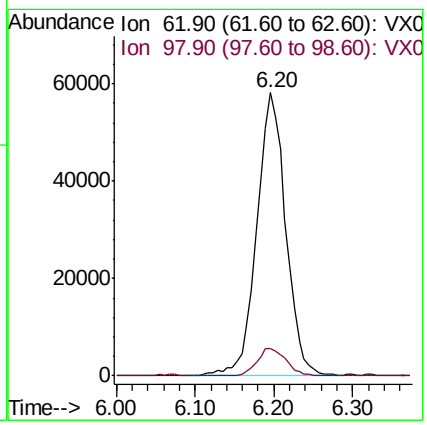




#42
1,2-Dichloroethane
Concen: 19.201 ug/l
RT: 6.20 min Scan# 827
Delta R.T. 0.00 min
Lab File: VX006715.D
Acq: 21 Dec 2018 11:29

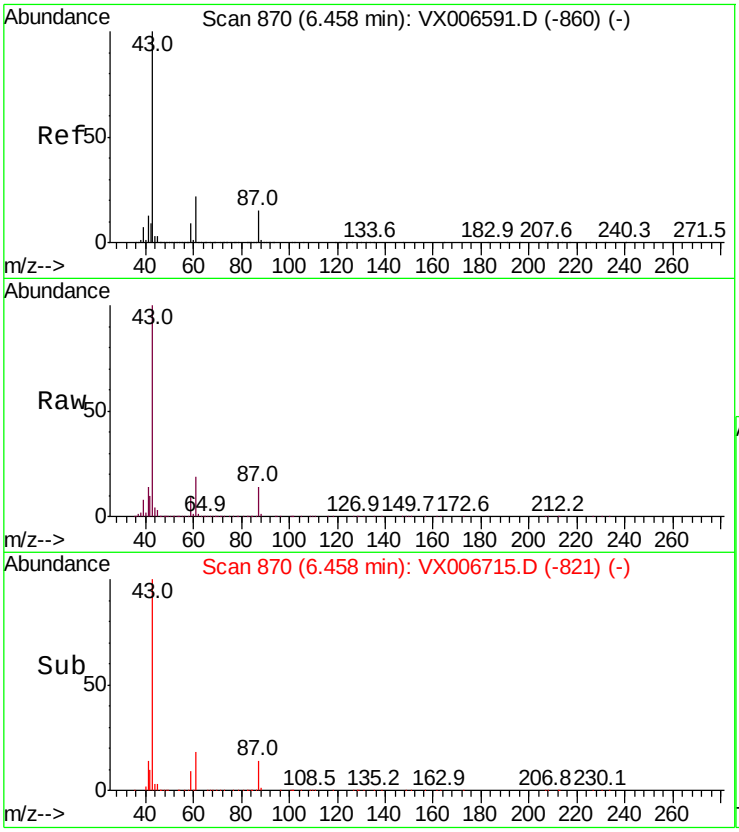
Tgt Ion: 62 Resp: 148832

Ion	Ratio	Lower	Upper
62	100		
98	9.9	0.0	20.2



Instrument :
MSVOA_X
ClientSampleId :
VX1221WBS01

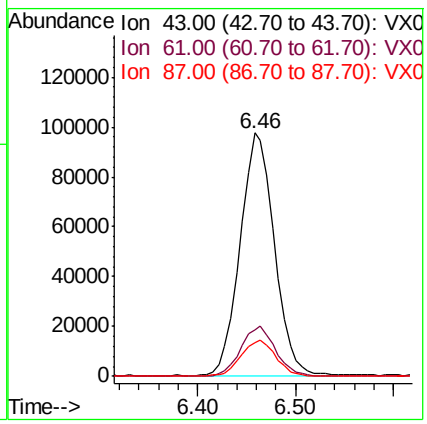
Manual Integrations APPROVED
MMDadoda
12/22/2018 11:20:57 AM

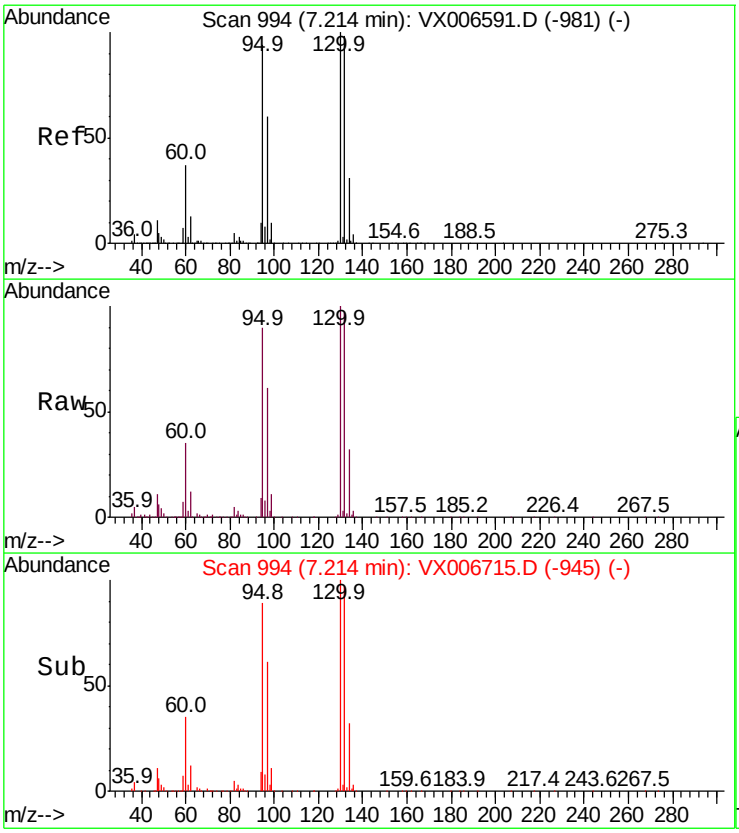


#43
Isopropyl Acetate
Concen: 19.897 ug/l
RT: 6.46 min Scan# 870
Delta R.T. 0.00 min
Lab File: VX006715.D
Acq: 21 Dec 2018 11:29

Tgt Ion: 43 Resp: 235801

Ion	Ratio	Lower	Upper
43	100		
61	20.8	16.8	25.2
87	15.3	12.4	18.6

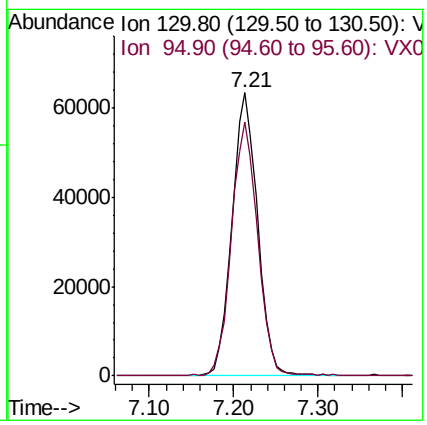




#44
Trichloroethene
Concen: 18.899 ug/l
RT: 7.21 min Scan# 994
Delta R.T. 0.00 min
Lab File: VX006715.D
Acq: 21 Dec 2018 11:29

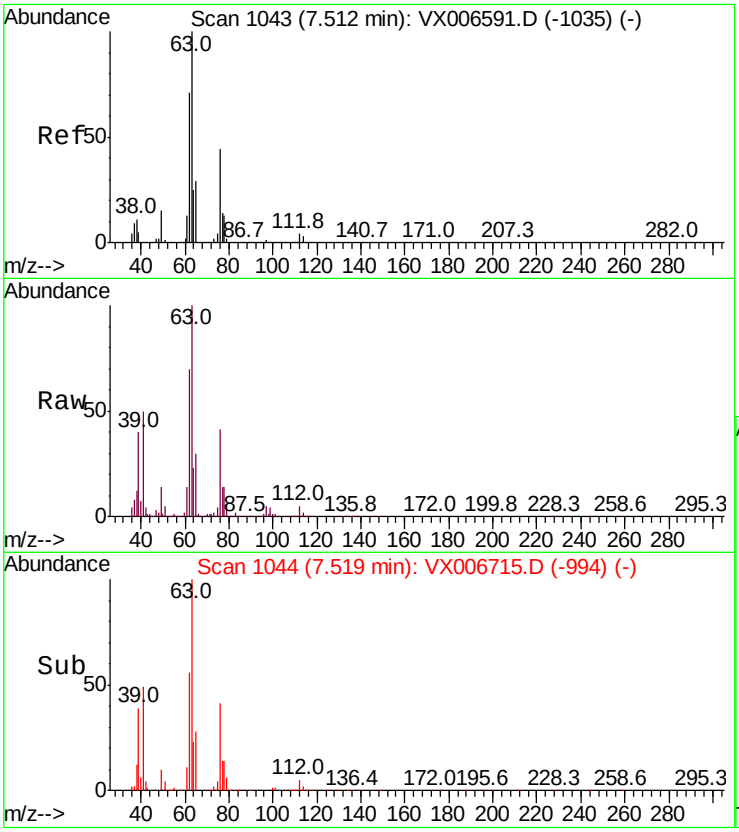
Tgt Ion:130 Resp: 130117

Ion	Ratio	Lower	Upper
130	100		
95	89.5	0.0	187.0



Instrument :
MSVOA_X
ClientSampleId :
VX1221WBS01

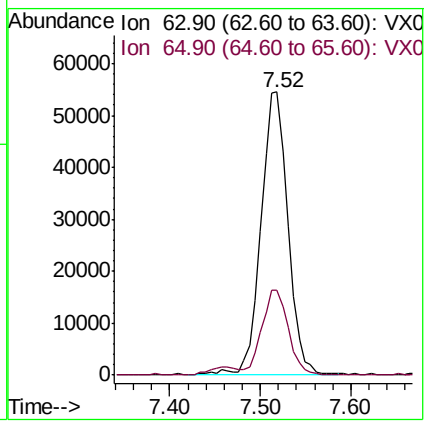
Manual Integrations APPROVED
MMDadoda
12/22/2018 11:20:57 AM

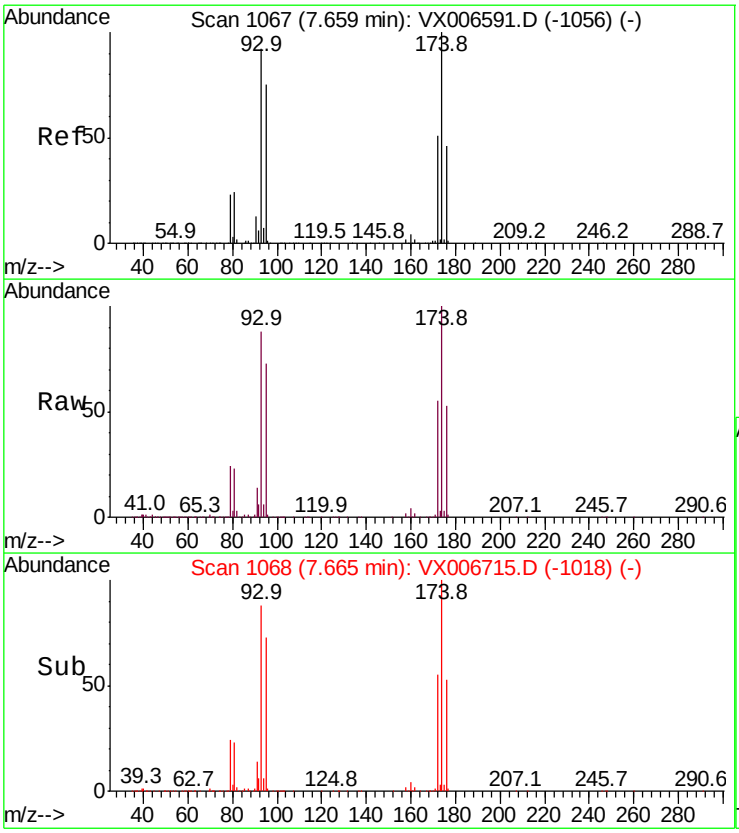


#45
1,2-Dichloropropane
Concen: 20.285 ug/l
RT: 7.52 min Scan# 1044
Delta R.T. 0.01 min
Lab File: VX006715.D
Acq: 21 Dec 2018 11:29

Tgt Ion: 63 Resp: 112287

Ion	Ratio	Lower	Upper
63	100		
65	30.1	25.4	38.0

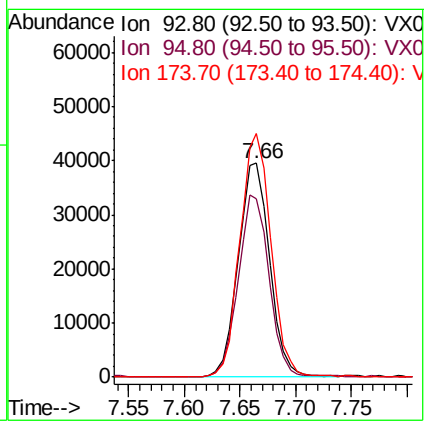




#46
Dibromomethane
Concen: 19.035 ug/l
RT: 7.66 min Scan# 1068
Delta R.T. 0.01 min
Lab File: VX006715.D
Acq: 21 Dec 2018 11:29

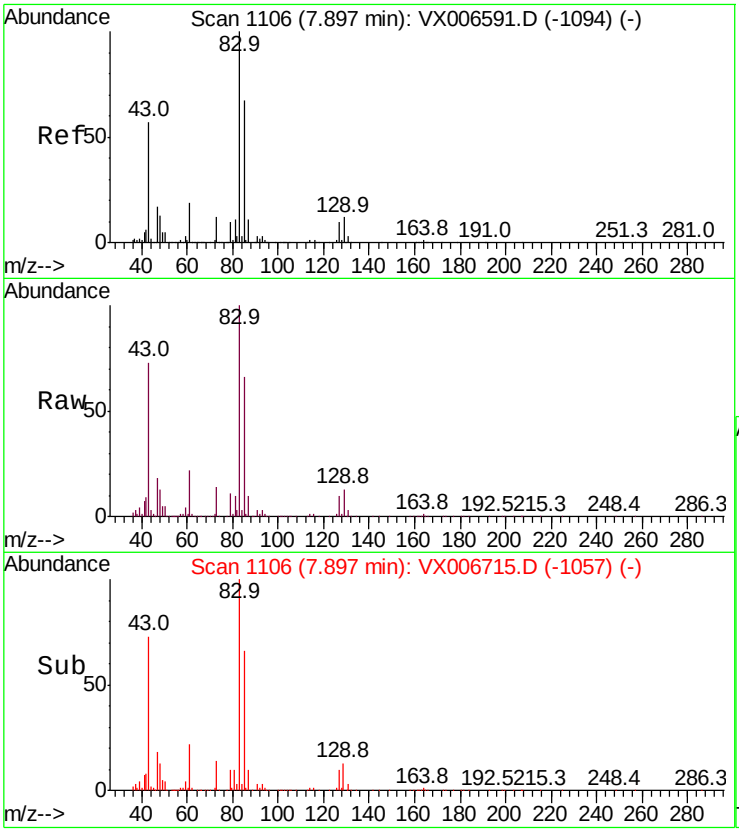
Tgt Ion: 93 Resp: 77504

Ion	Ratio	Lower	Upper
93	100		
95	83.9	66.2	99.4
174	112.9	91.0	136.4



Instrument :
MSVOA_X
ClientSampleId :
VX1221WBS01

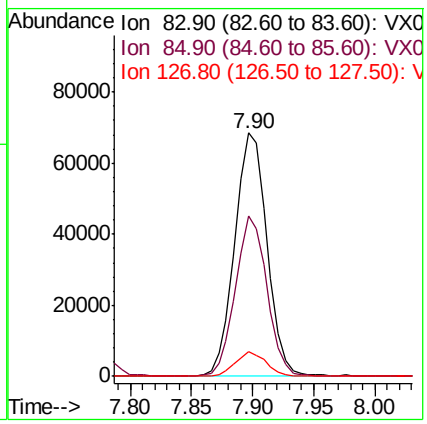
Manual Integrations APPROVED
MMDadoda
12/22/2018 11:20:57 AM

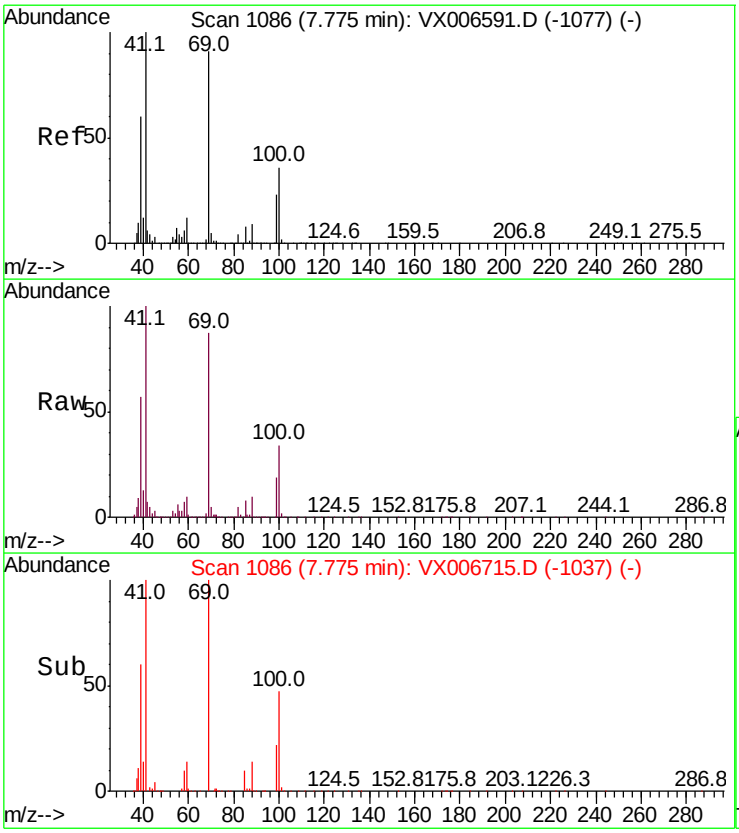


#47
Bromodichloromethane
Concen: 18.458 ug/l
RT: 7.90 min Scan# 1106
Delta R.T. 0.00 min
Lab File: VX006715.D
Acq: 21 Dec 2018 11:29

Tgt Ion: 83 Resp: 124776

Ion	Ratio	Lower	Upper
83	100		
85	65.6	53.2	79.8
127	10.0	7.8	11.6

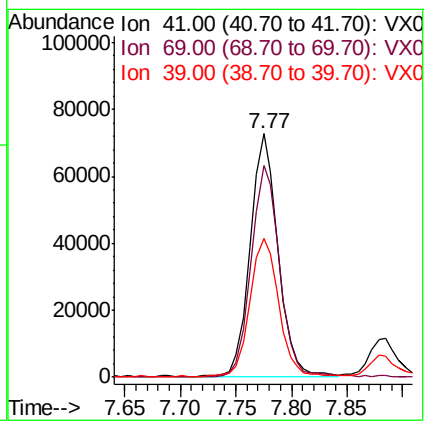




#48
Methyl methacrylate
Concen: 20.957 ug/l
RT: 7.77 min Scan# 1086
Delta R.T. 0.00 min
Lab File: VX006715.D
Acq: 21 Dec 2018 11:29

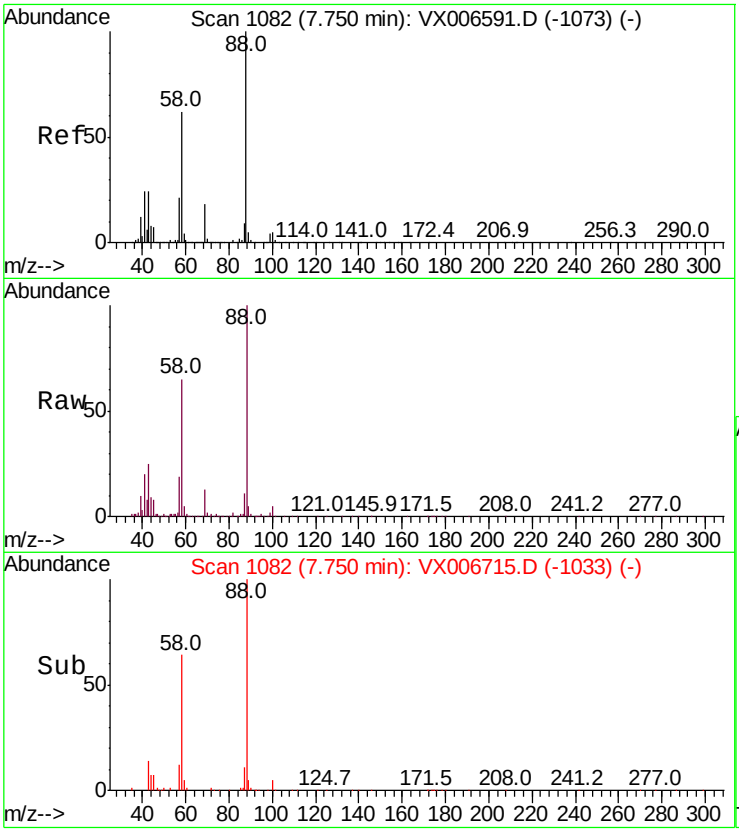
Tgt Ion: 41 Resp: 126301

Ion	Ratio	Lower	Upper
41	100		
69	89.6	72.4	108.6
39	58.9	45.8	68.8



Instrument :
MSVOA_X
ClientSampleId :
VX1221WBS01

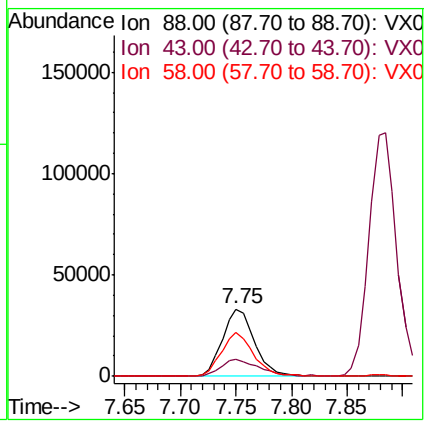
Manual Integrations APPROVED
MMDadoda
12/22/2018 11:20:57 AM

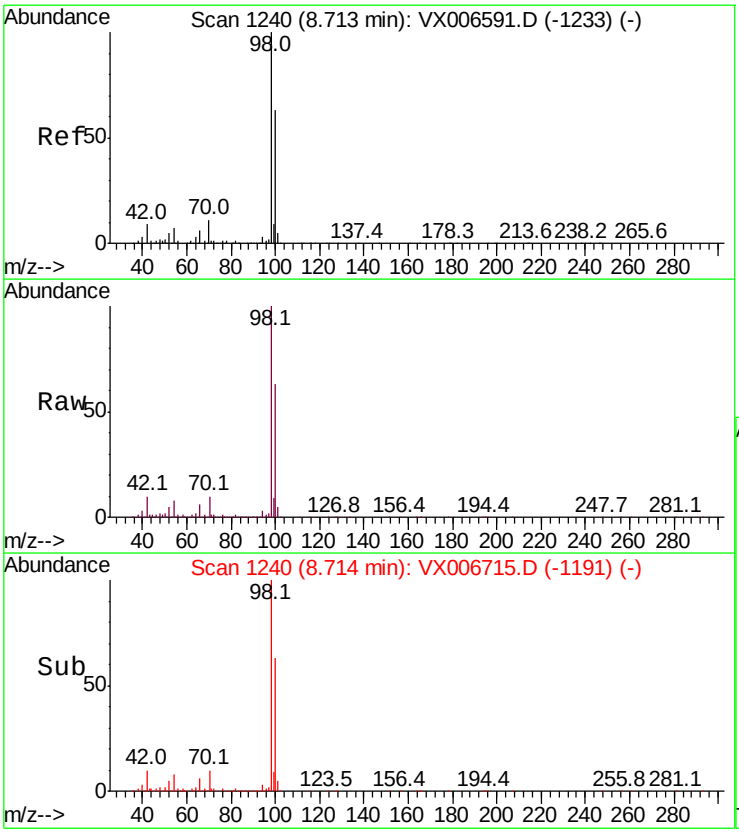


#49
1,4-Dioxane
Concen: 406.989 ug/l
RT: 7.75 min Scan# 1082
Delta R.T. 0.00 min
Lab File: VX006715.D
Acq: 21 Dec 2018 11:29

Tgt Ion: 88 Resp: 66034

Ion	Ratio	Lower	Upper
88	100		
43	27.7	22.2	33.4
58	66.1	51.0	76.4

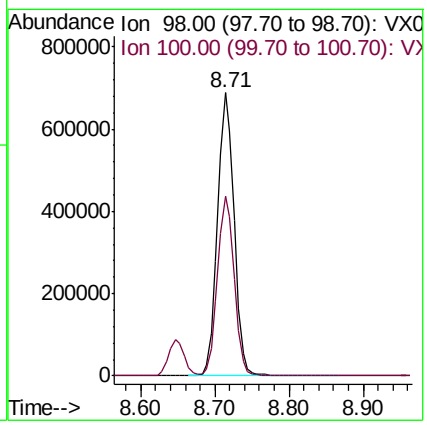




#50
Toluene-d8
Concen: 49.017 ug/l
RT: 8.71 min Scan# 1240
Delta R.T. 0.00 min
Lab File: VX006715.D
Acq: 21 Dec 2018 11:29

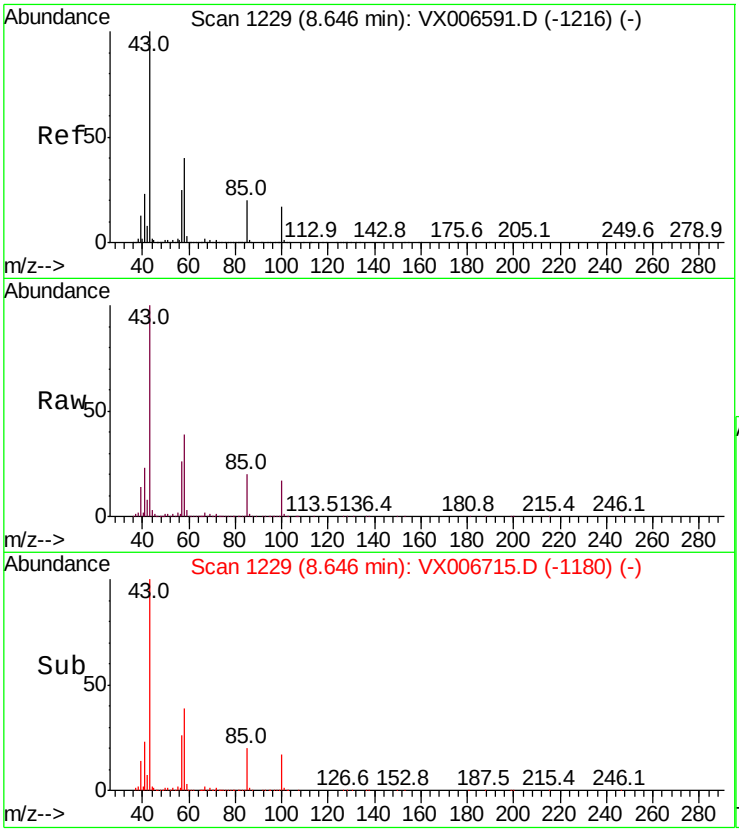
Tgt Ion: 98 Resp: 1055886

Ion	Ratio	Lower	Upper
98	100		
100	64.2	52.0	78.0



Instrument :
MSVOA_X
ClientSampleId :
VX1221WBS01

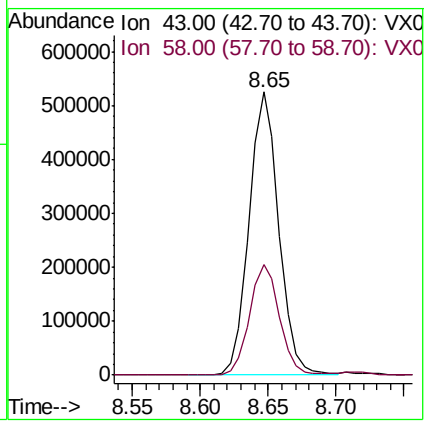
Manual Integrations APPROVED
MMDadoda
12/22/2018 11:20:57 AM

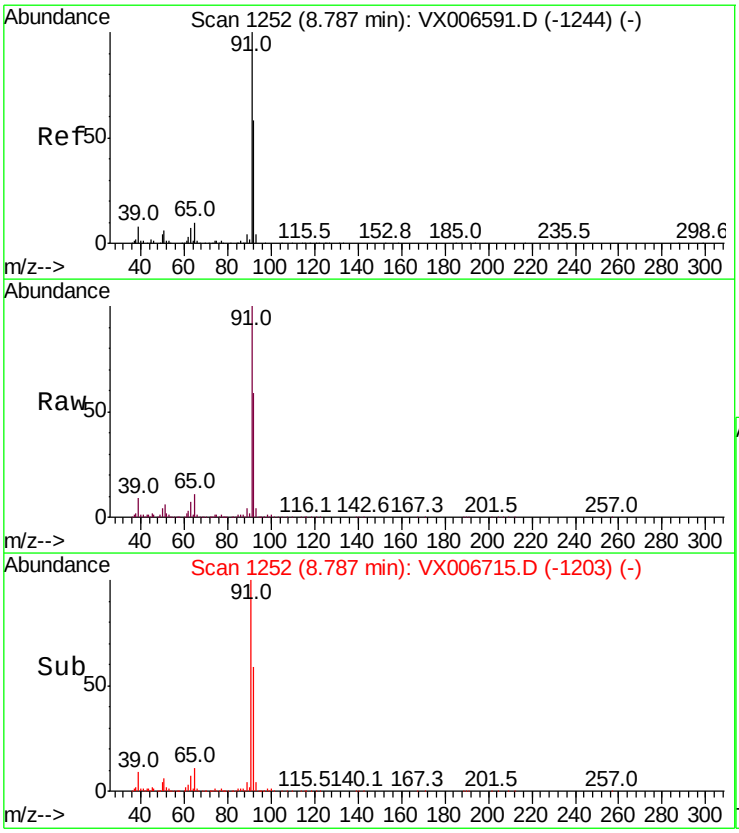


#51
4-Methyl-2-Pentanone
Concen: 106.518 ug/l
RT: 8.65 min Scan# 1229
Delta R.T. 0.00 min
Lab File: VX006715.D
Acq: 21 Dec 2018 11:29

Tgt Ion: 43 Resp: 803194

Ion	Ratio	Lower	Upper
43	100		
58	39.6	31.8	47.6

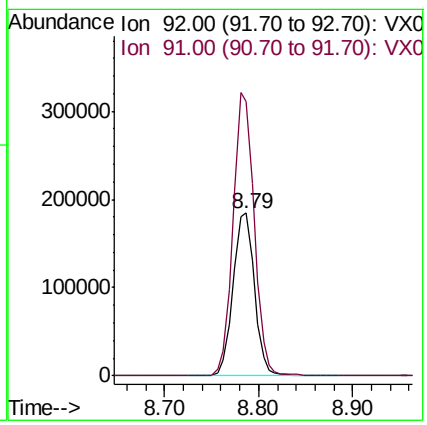




#52
Toluene
Concen: 19.916 ug/l
RT: 8.79 min Scan# 1252
Delta R.T. 0.00 min
Lab File: VX006715.D
Acq: 21 Dec 2018 11:29

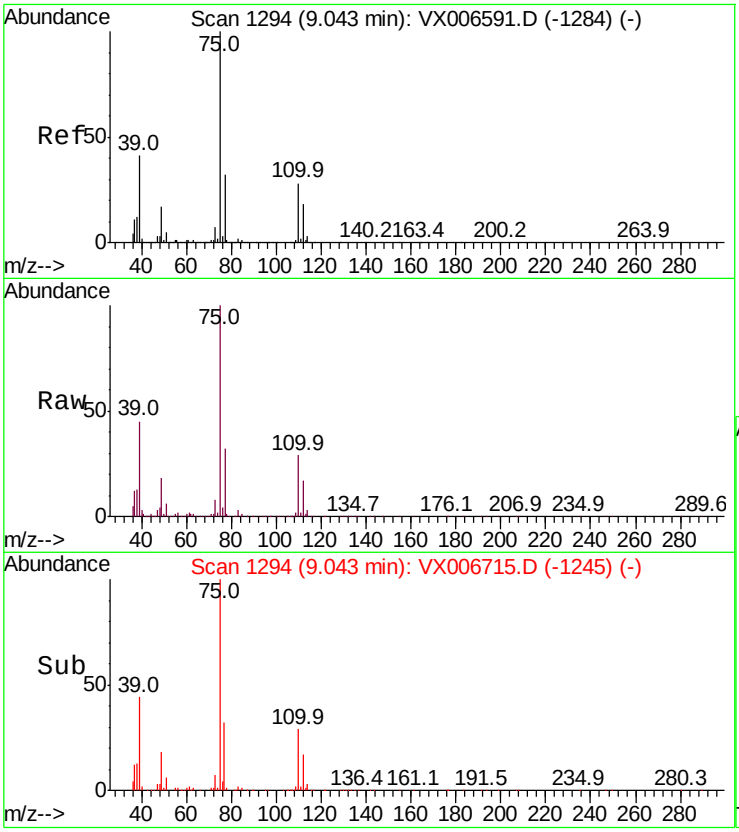
Tgt Ion: 92 Resp: 292680

Ion	Ratio	Lower	Upper
92	100		
91	170.6	137.6	206.4



Instrument :
MSVOA_X
ClientSampleId :
VX1221WBS01

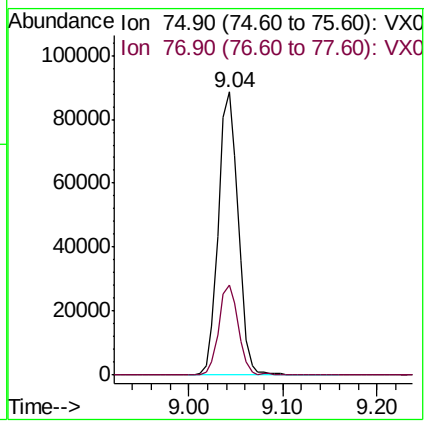
Manual Integrations APPROVED
MMDadoda
12/22/2018 11:20:57 AM

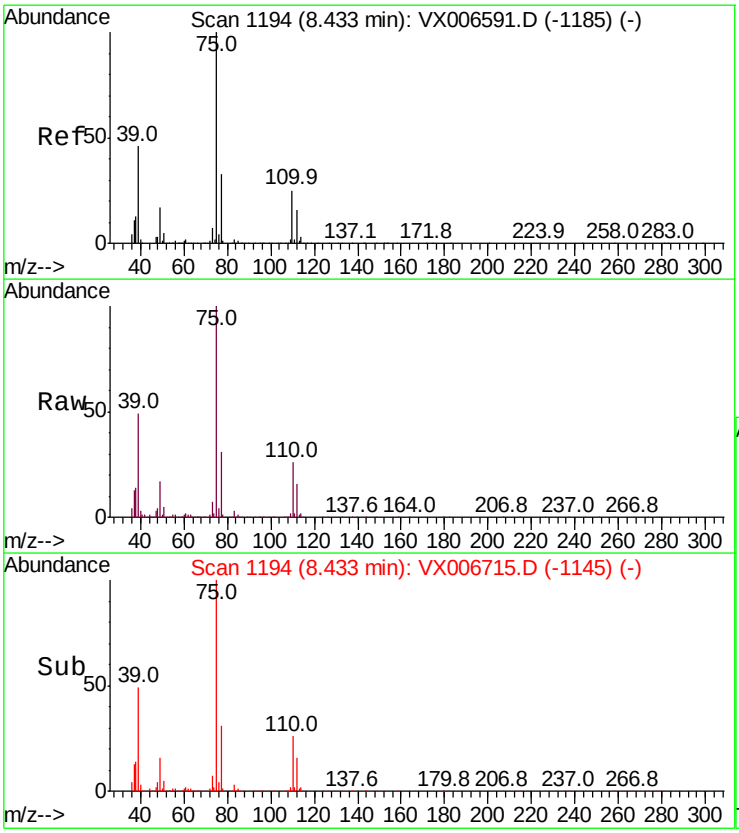


#53
t-1,3-Dichloropropene
Concen: 17.870 ug/l
RT: 9.04 min Scan# 1294
Delta R.T. 0.00 min
Lab File: VX006715.D
Acq: 21 Dec 2018 11:29

Tgt Ion: 75 Resp: 129551

Ion	Ratio	Lower	Upper
75	100		
77	31.8	25.4	38.0

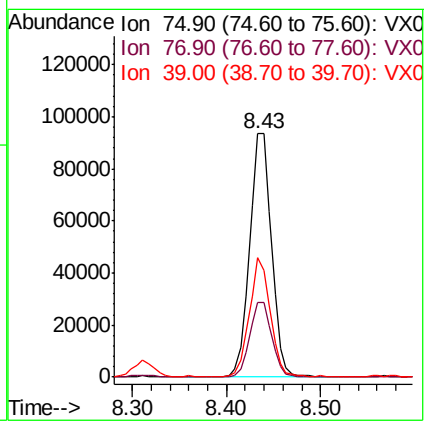




#54
cis-1,3-Dichloropropene
Concen: 19.039 ug/l
RT: 8.43 min Scan# 1194
Delta R.T. 0.00 min
Lab File: VX006715.D
Acq: 21 Dec 2018 11:29

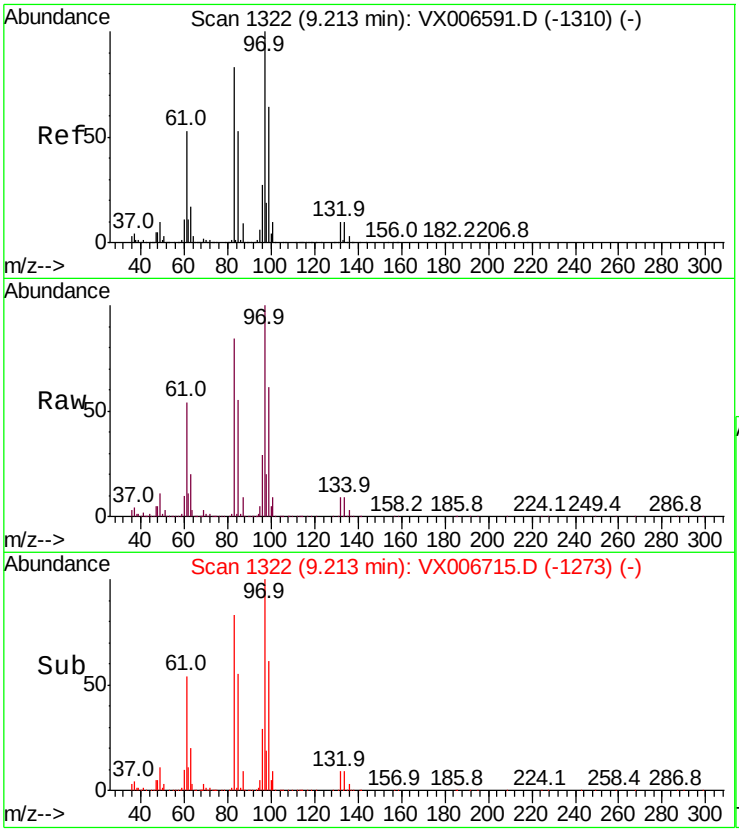
Tgt Ion: 75 Resp: 151451

Ion	Ratio	Lower	Upper
75	100		
77	30.6	26.2	39.2
39	48.5	36.7	55.1



Instrument :
MSVOA_X
ClientSampleId :
VX1221WBS01

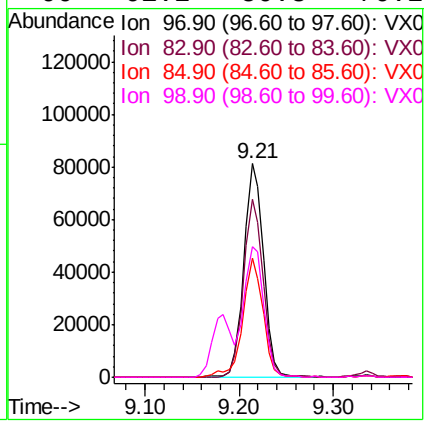
Manual Integrations APPROVED
MMDadoda
12/22/2018 11:20:57 AM

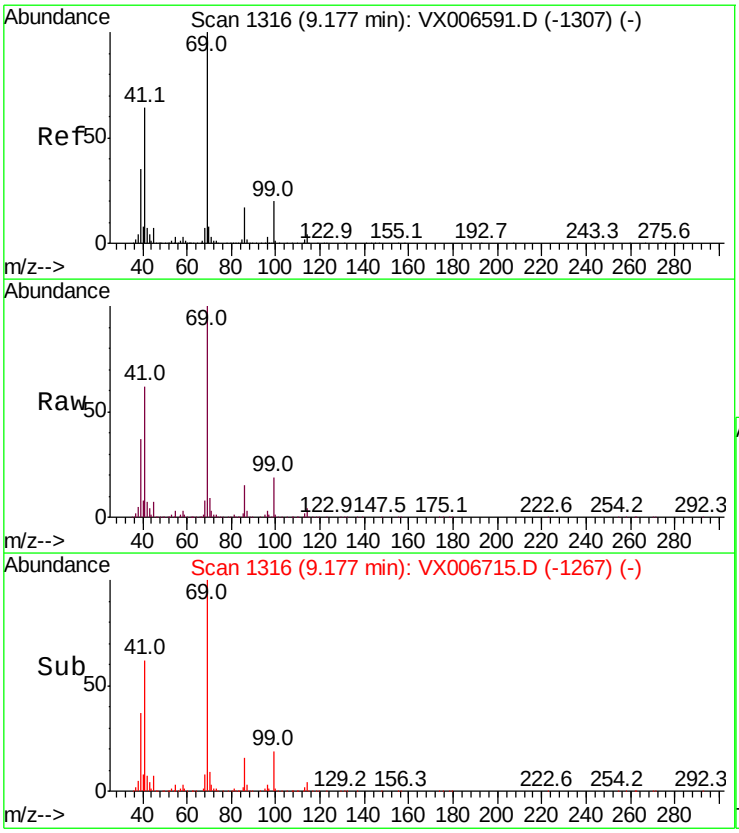


#55
1,1,2-Trichloroethane
Concen: 19.769 ug/l
RT: 9.21 min Scan# 1322
Delta R.T. 0.00 min
Lab File: VX006715.D
Acq: 21 Dec 2018 11:29

Tgt Ion: 97 Resp: 118911

Ion	Ratio	Lower	Upper
97	100		
83	83.6	66.6	99.8
85	55.3	42.7	64.1
99	61.2	50.8	76.2

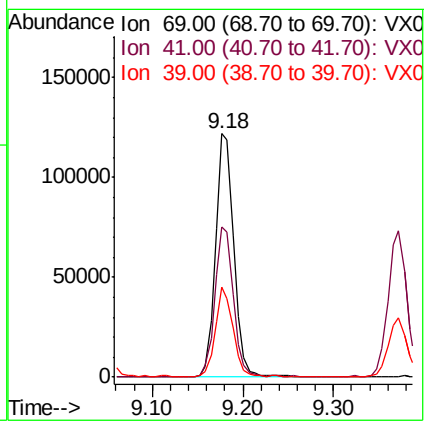




#56
Ethyl methacrylate
Concen: 20.380 ug/l
RT: 9.18 min Scan# 1316
Delta R.T. 0.00 min
Lab File: VX006715.D
Acq: 21 Dec 2018 11:29

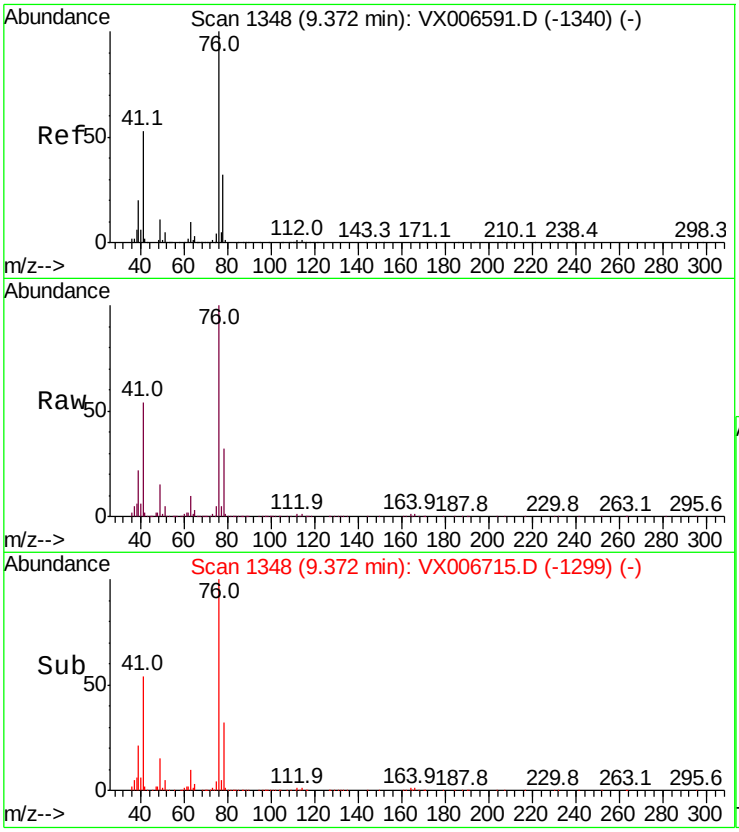
Tgt Ion: 69 Resp: 173265

Ion	Ratio	Lower	Upper
69	100		
41	61.6	48.7	73.1
39	35.2	27.0	40.6



Instrument :
MSVOA_X
ClientSampleId :
VX1221WBS01

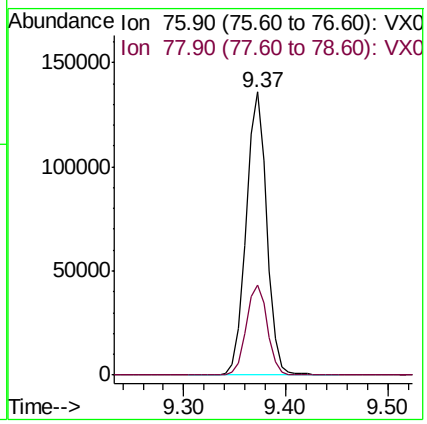
Manual Integrations APPROVED
MMDadoda
12/22/2018 11:20:57 AM

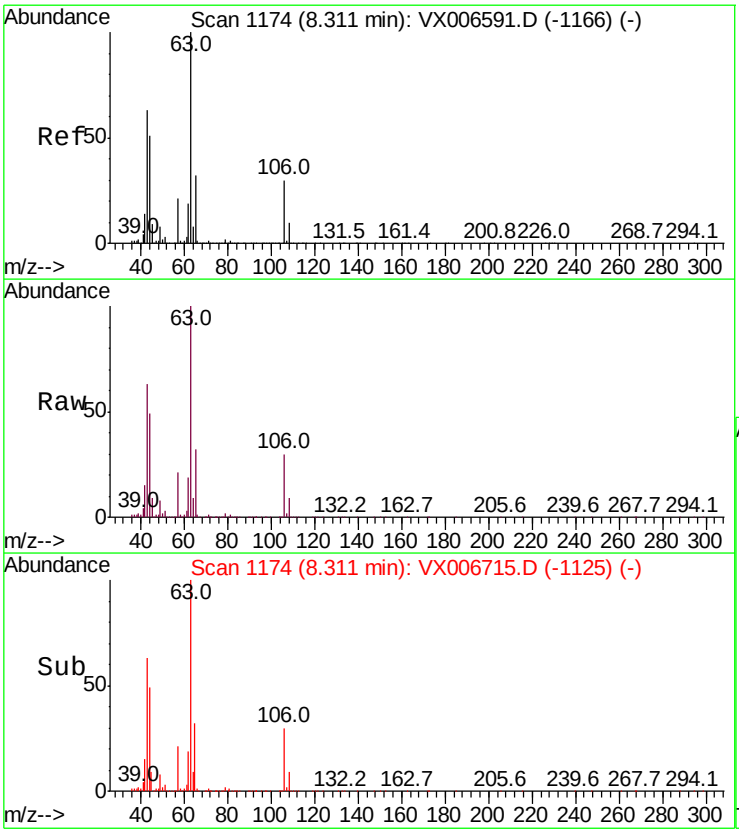


#57
1,3-Dichloropropane
Concen: 19.723 ug/l
RT: 9.37 min Scan# 1348
Delta R.T. 0.00 min
Lab File: VX006715.D
Acq: 21 Dec 2018 11:29

Tgt Ion: 76 Resp: 190875

Ion	Ratio	Lower	Upper
76	100		
78	32.8	26.0	39.0

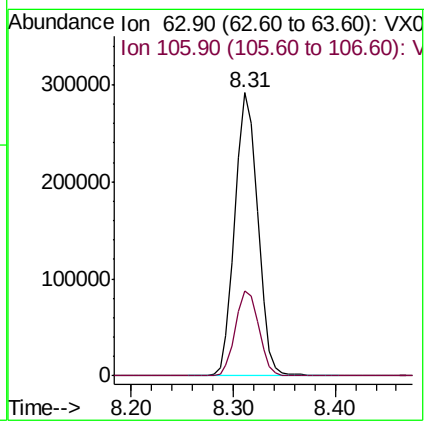




#58
2-Chloroethyl Vinyl ether
Concen: 99.964 ug/l
RT: 8.31 min Scan# 1174
Delta R.T. 0.00 min
Lab File: VX006715.D
Acq: 21 Dec 2018 11:29

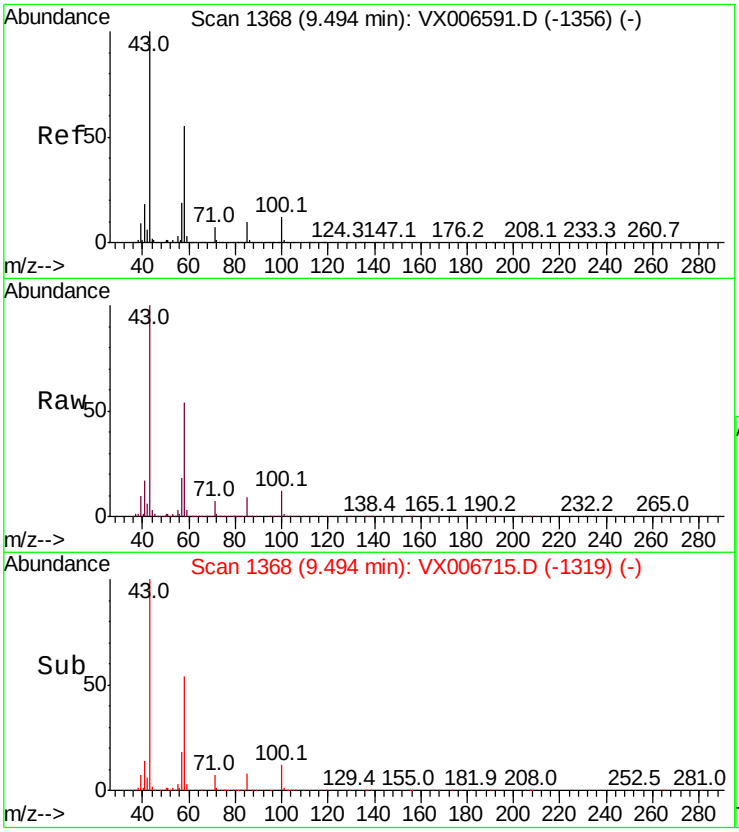
Tgt Ion: 63 Resp: 451754

Ion	Ratio	Lower	Upper
63	100		
106	30.8	24.6	36.8



Instrument :
MSVOA_X
ClientSampleId :
VX1221WBS01

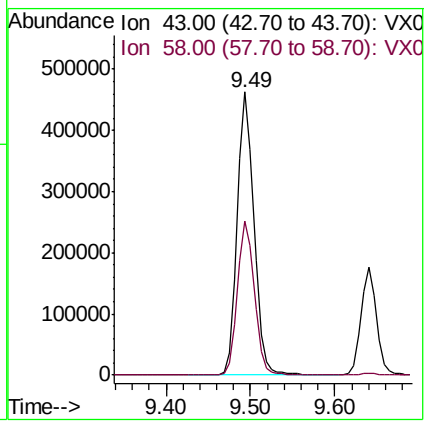
Manual Integrations APPROVED
MMDadoda
12/22/2018 11:20:57 AM

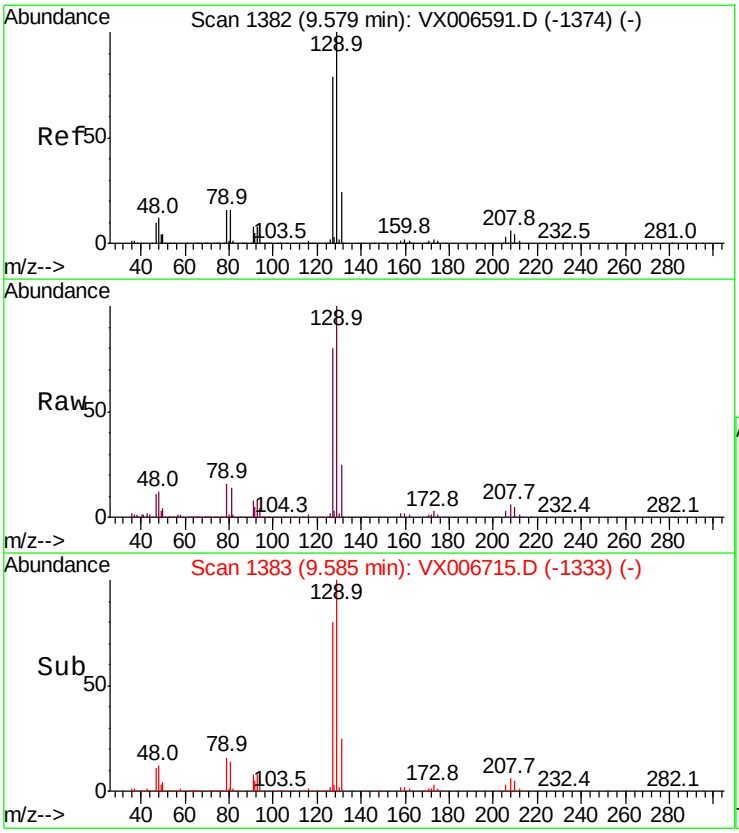


#59
2-Hexanone
Concen: 107.503 ug/l
RT: 9.49 min Scan# 1368
Delta R.T. 0.00 min
Lab File: VX006715.D
Acq: 21 Dec 2018 11:29

Tgt Ion: 43 Resp: 620223

Ion	Ratio	Lower	Upper
43	100		
58	54.8	27.7	83.1

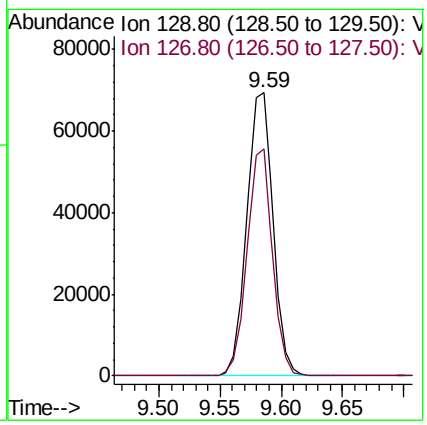




#60
Dibromochloromethane
Concen: 18.123 ug/l
RT: 9.59 min Scan# 1383
Delta R.T. 0.01 min
Lab File: VX006715.D
Acq: 21 Dec 2018 11:29

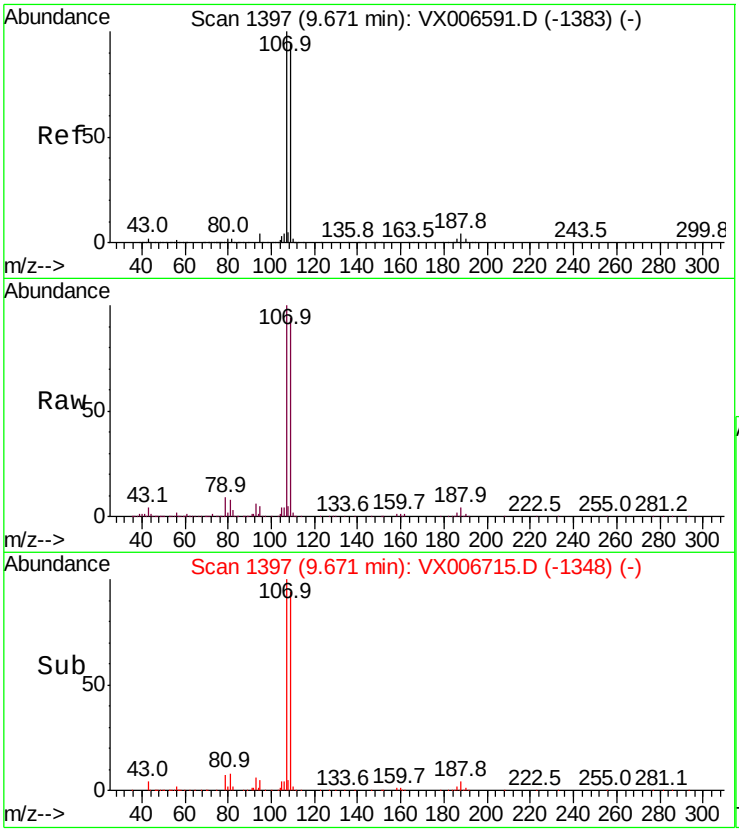
Tgt Ion:129 Resp: 104237

Ion	Ratio	Lower	Upper
129	100		
127	77.5	39.3	117.8



Instrument :
MSVOA_X
ClientSampleId :
VX1221WBS01

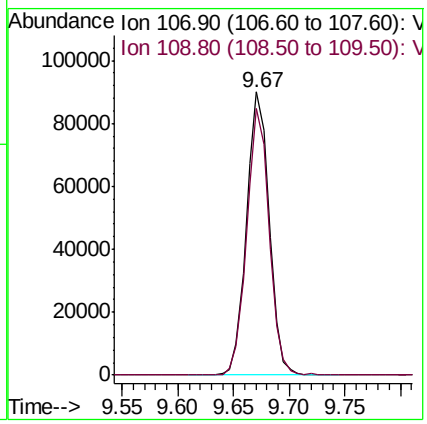
Manual Integrations APPROVED
MMDadoda
12/22/2018 11:20:57 AM

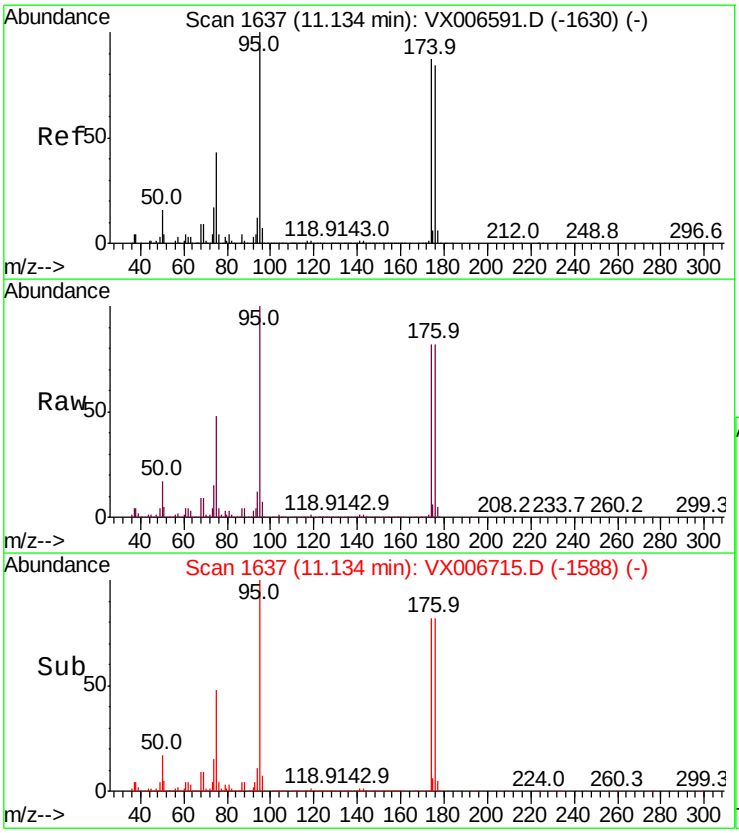


#61
1,2-Dibromoethane
Concen: 19.919 ug/l
RT: 9.67 min Scan# 1397
Delta R.T. 0.00 min
Lab File: VX006715.D
Acq: 21 Dec 2018 11:29

Tgt Ion:107 Resp: 127370

Ion	Ratio	Lower	Upper
107	100		
109	93.5	75.8	113.6

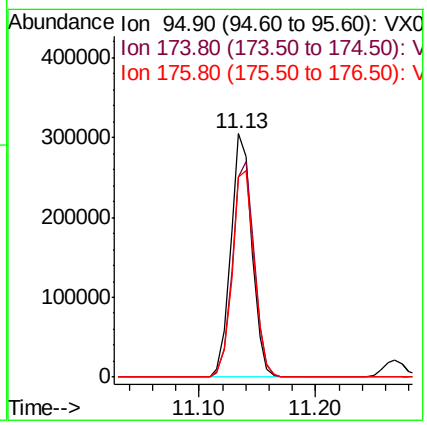


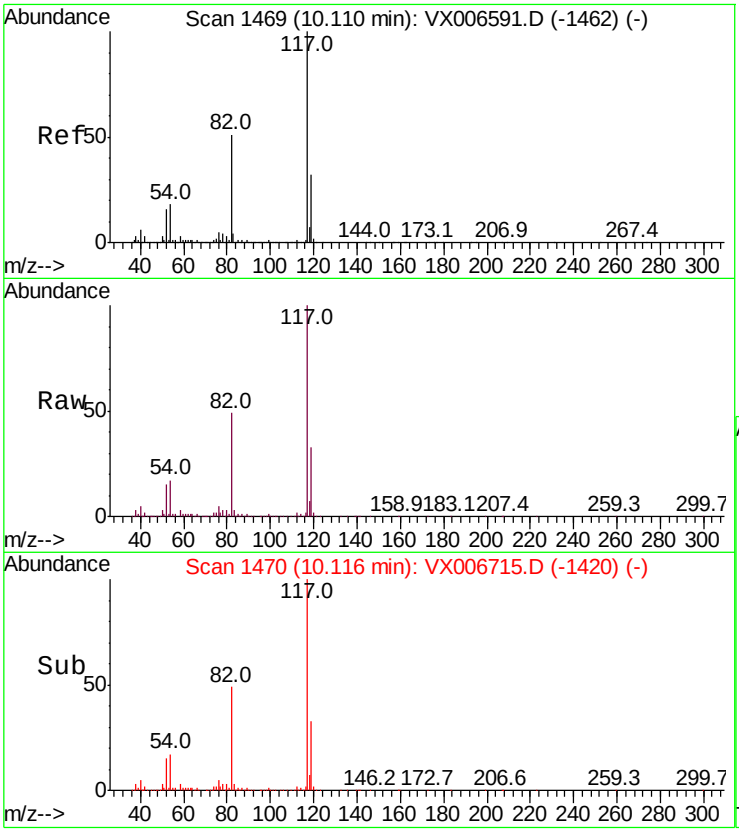


#62
4-Bromofluorobenzene
Concen: 48.862 ug/l
RT: 11.13 min Scan# 1637
Delta R.T. 0.00 min
Lab File: VX006715.D
Acq: 21 Dec 2018 11:29

Tgt Ion: 95 Resp: 385486

Ion	Ratio	Lower	Upper
95	100		
174	90.9	0.0	182.2
176	88.1	0.0	178.8

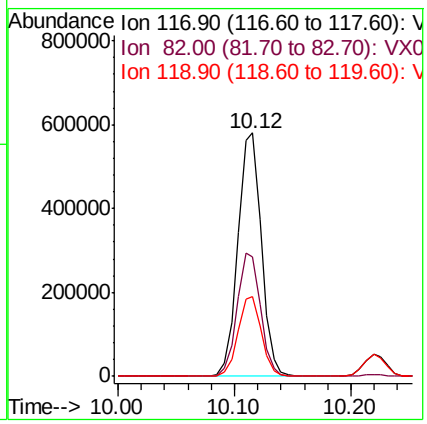




#63
Chlorobenzene-d5
Concen: 50.000 ug/l
RT: 10.12 min Scan# 1470
Delta R.T. 0.01 min
Lab File: VX006715.D
Acq: 21 Dec 2018 11:29

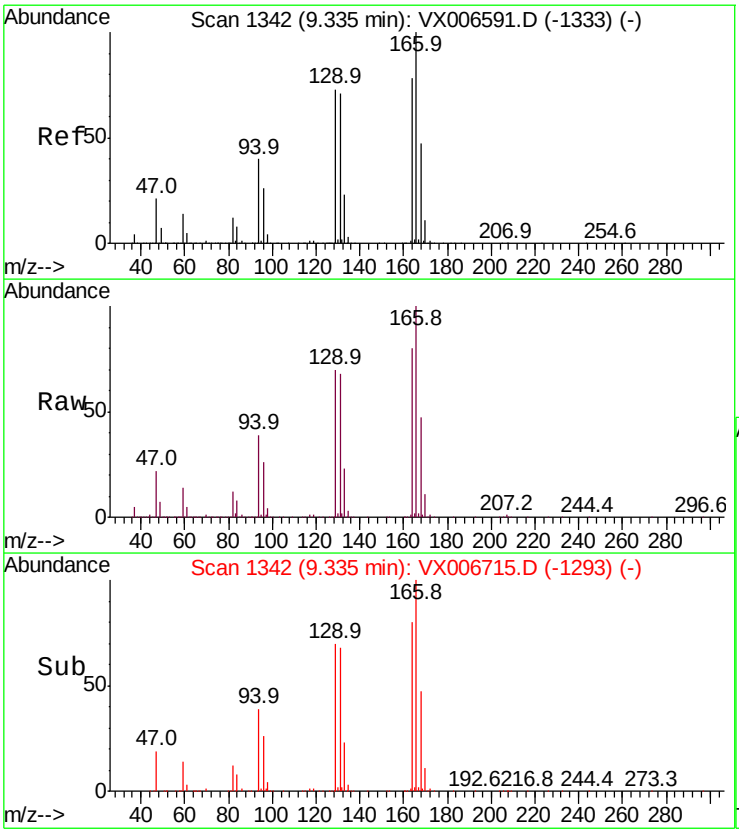
Tgt Ion:117 Resp: 816505

Ion	Ratio	Lower	Upper
117	100		
82	49.2	41.0	61.6
119	32.7	25.4	38.0



Instrument :
MSVOA_X
ClientSampleId :
VX1221WBS01

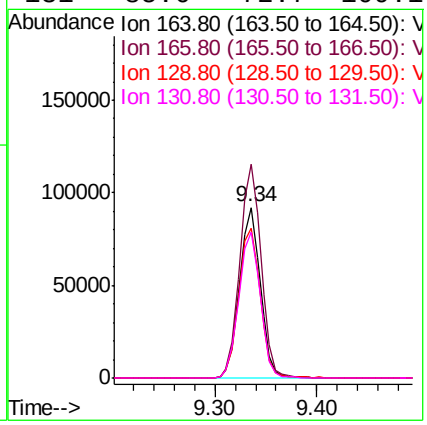
Manual Integrations APPROVED
MMDadoda
12/22/2018 11:20:57 AM



#64
Tetrachloroethene
Concen: 20.072 ug/l
RT: 9.34 min Scan# 1342
Delta R.T. 0.00 min
Lab File: VX006715.D
Acq: 21 Dec 2018 11:29

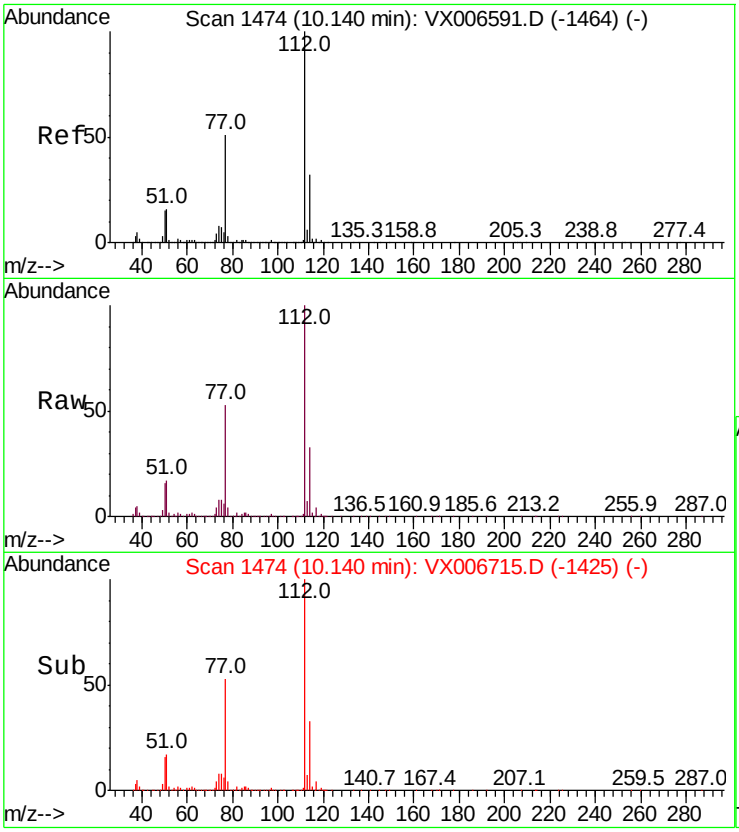
Tgt Ion:164 Resp: 129776

Ion	Ratio	Lower	Upper
164	100		
166	125.3	102.5	153.7
129	88.2	75.1	112.7
131	85.6	72.7	109.1



Instrument :
MSVOA_X
ClientSampleId :
VX1221WBS01

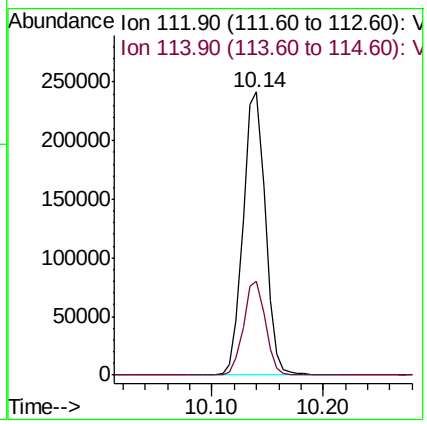
Manual Integrations APPROVED
MMDadoda
12/22/2018 11:20:57 AM

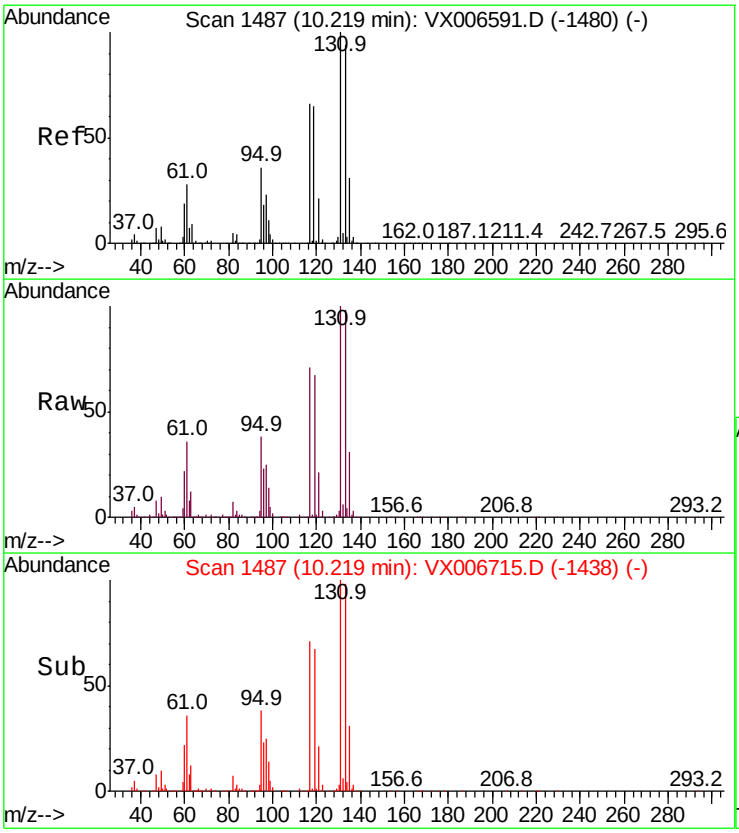


#65
Chlorobenzene
Concen: 19.437 ug/l
RT: 10.14 min Scan# 1474
Delta R.T. 0.00 min
Lab File: VX006715.D
Acq: 21 Dec 2018 11:29

Tgt Ion:112 Resp: 335758

Ion	Ratio	Lower	Upper
112	100		
114	33.4	25.7	38.5

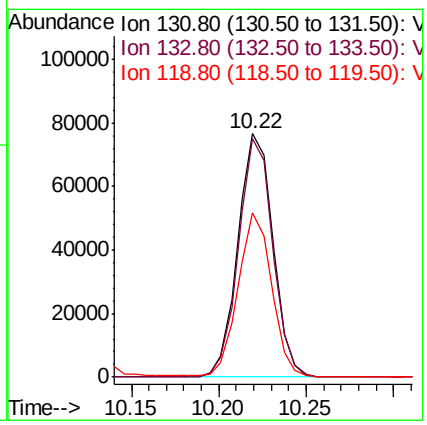




#66
1,1,1,2-Tetrachloroethane
Concen: 19.797 ug/l
RT: 10.22 min Scan# 1487
Delta R.T. 0.00 min
Lab File: VX006715.D
Acq: 21 Dec 2018 11:29

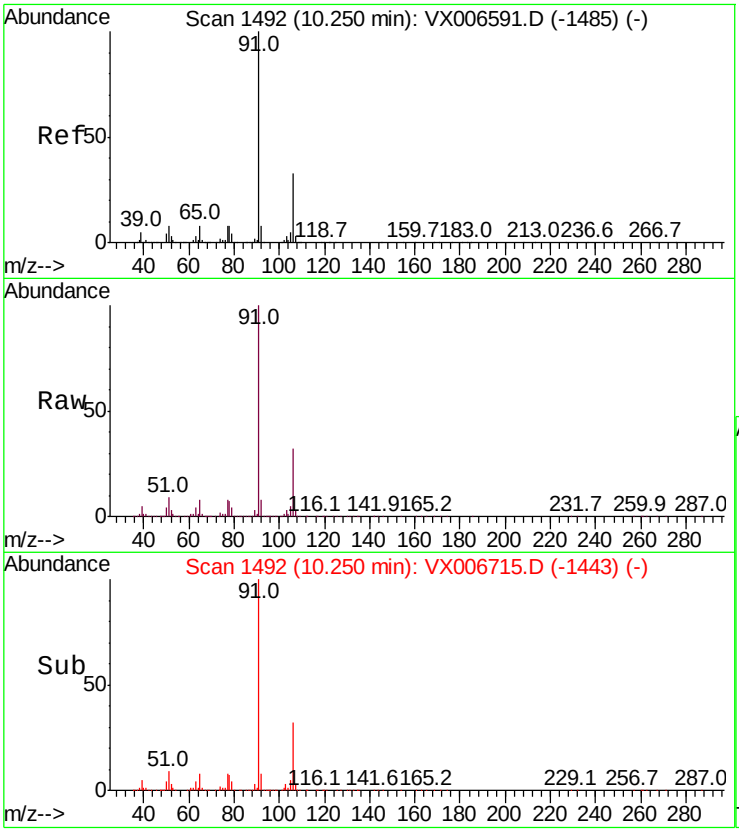
Tgt Ion:131 Resp: 106692

Ion	Ratio	Lower	Upper
131	100		
133	96.1	48.0	144.2
119	65.6	32.6	97.8



Instrument :
MSVOA_X
ClientSampleId :
VX1221WBS01

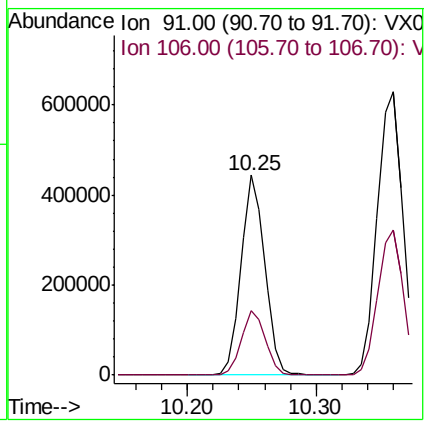
Manual Integrations APPROVED
MMDadoda
12/22/2018 11:20:57 AM

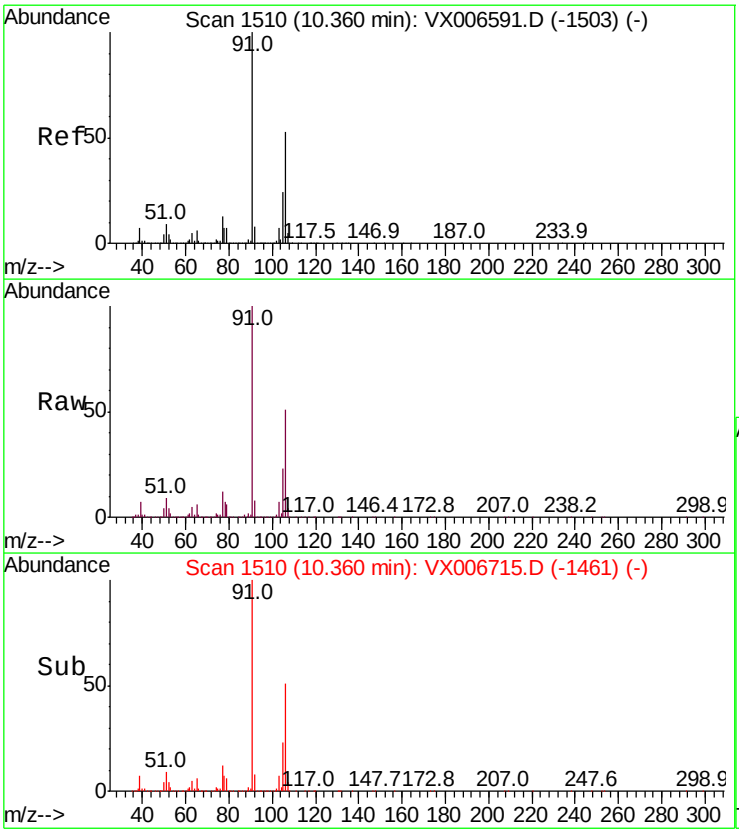


#67
Ethyl Benzene
Concen: 20.046 ug/l
RT: 10.25 min Scan# 1492
Delta R.T. 0.00 min
Lab File: VX006715.D
Acq: 21 Dec 2018 11:29

Tgt Ion: 91 Resp: 565829

Ion	Ratio	Lower	Upper
91	100		
106	32.4	26.4	39.6

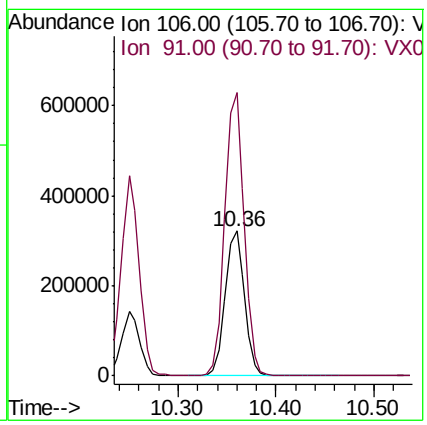




#68
m/p-Xylenes
Concen: 39.529 ug/l
RT: 10.36 min Scan# 1510
Delta R.T. 0.00 min
Lab File: VX006715.D
Acq: 21 Dec 2018 11:29

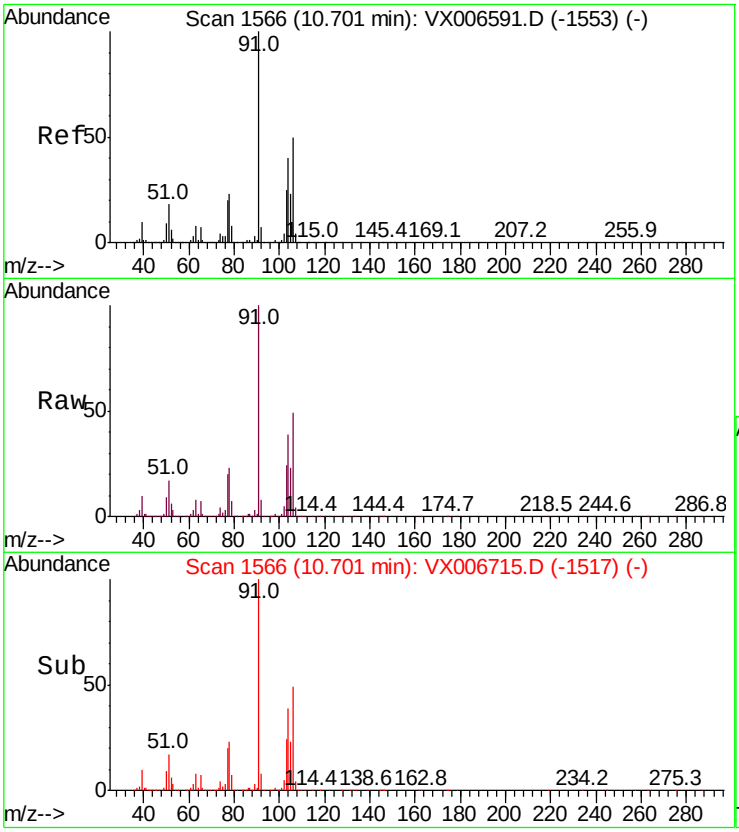
Tgt Ion:106 Resp: 440280

Ion	Ratio	Lower	Upper
106	100		
91	195.3	155.8	233.6



Instrument :
MSVOA_X
ClientSampleId :
VX1221WBS01

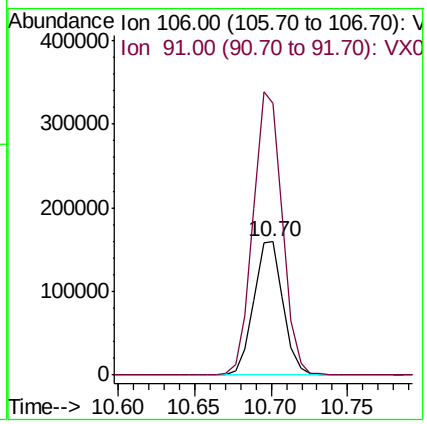
Manual Integrations APPROVED
MMDadoda
12/22/2018 11:20:57 AM

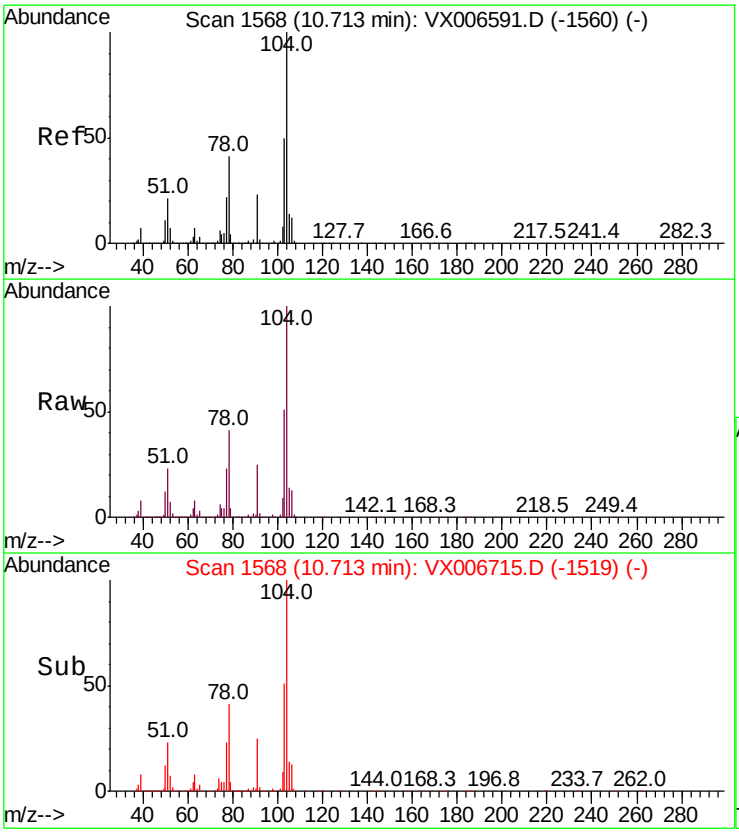


#69
o-Xylene
Concen: 19.430 ug/l
RT: 10.70 min Scan# 1566
Delta R.T. 0.00 min
Lab File: VX006715.D
Acq: 21 Dec 2018 11:29

Tgt Ion:106 Resp: 213700

Ion	Ratio	Lower	Upper
106	100		
91	211.0	101.3	303.7

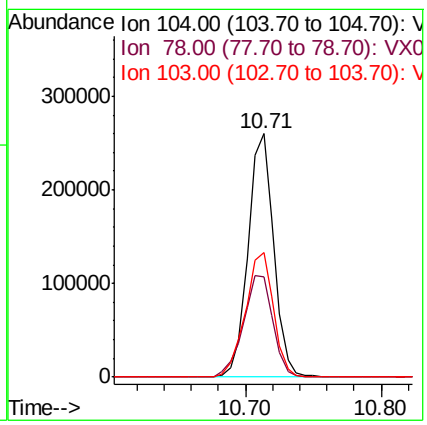


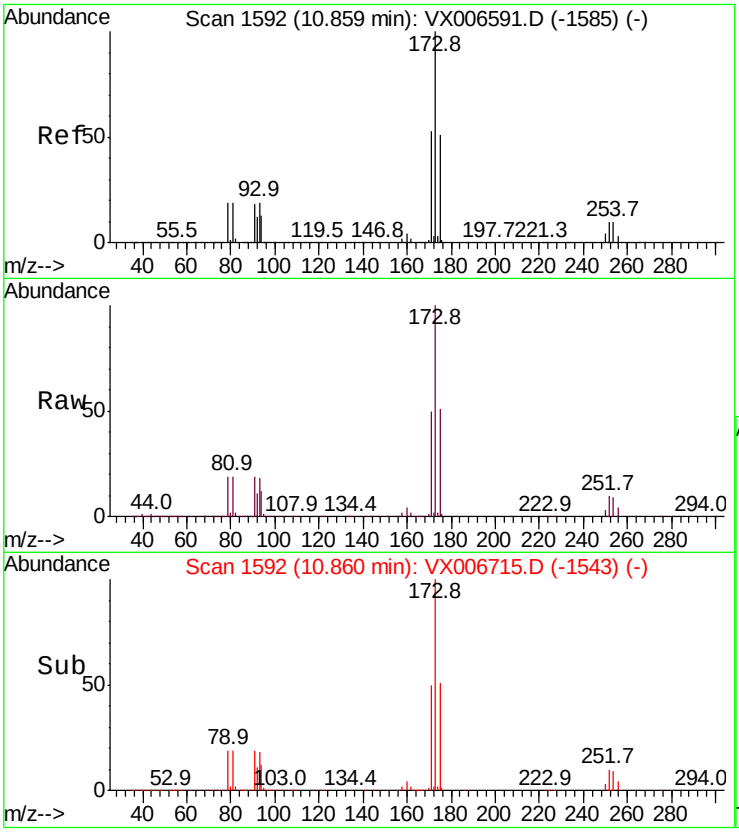


#70
Styrene
Concen: 19.769 ug/l
RT: 10.71 min Scan# 1568
Delta R.T. 0.00 min
Lab File: VX006715.D
Acq: 21 Dec 2018 11:29

Tgt Ion:104 Resp: 343987

Ion	Ratio	Lower	Upper
104	100		
78	48.1	37.7	56.5
103	56.3	43.8	65.8

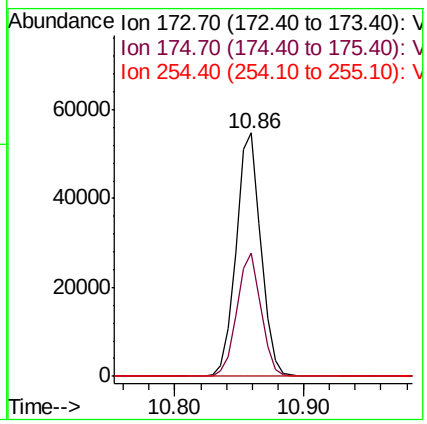




#71
Bromoform
Concen: 18.141 ug/l
RT: 10.86 min Scan# 1592
Delta R.T. 0.00 min
Lab File: VX006715.D
Acq: 21 Dec 2018 11:29

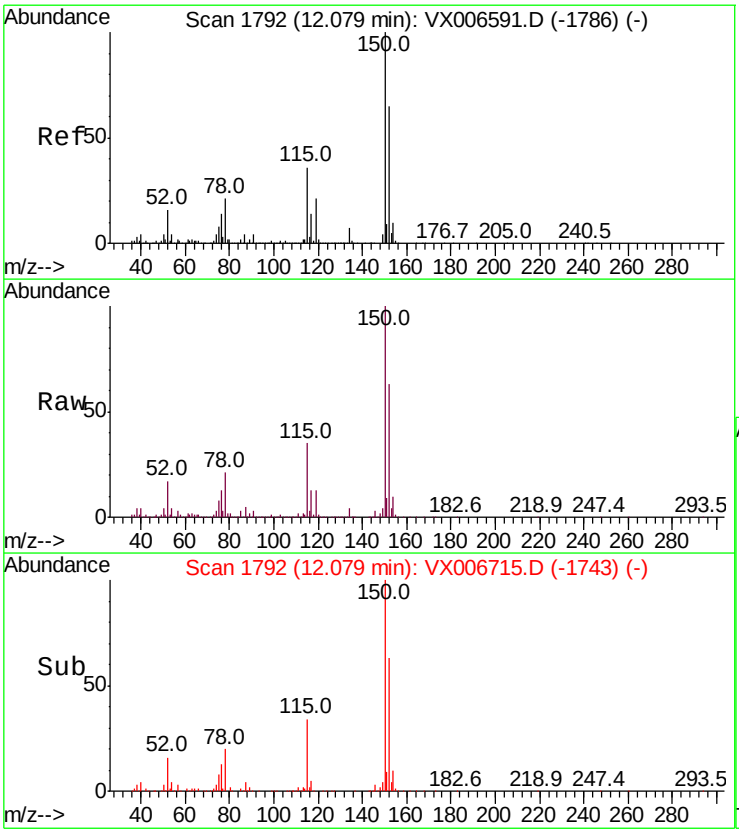
Tgt Ion:173 Resp: 73020

Ion	Ratio	Lower	Upper
173	100		
175	49.5	24.7	74.1
254	0.0	0.2	0.2#



Instrument :
MSVOA_X
ClientSampleId :
VX1221WBS01

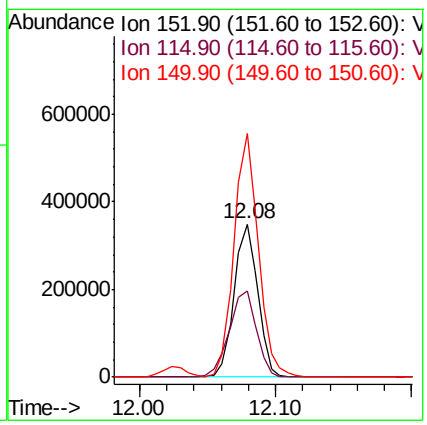
Manual Integrations APPROVED
MMDadoda
12/22/2018 11:20:57 AM



#72
1,4-Dichlorobenzene-d4
Concen: 50.000 ug/l
RT: 12.08 min Scan# 1792
Delta R.T. 0.00 min
Lab File: VX006715.D
Acq: 21 Dec 2018 11:29

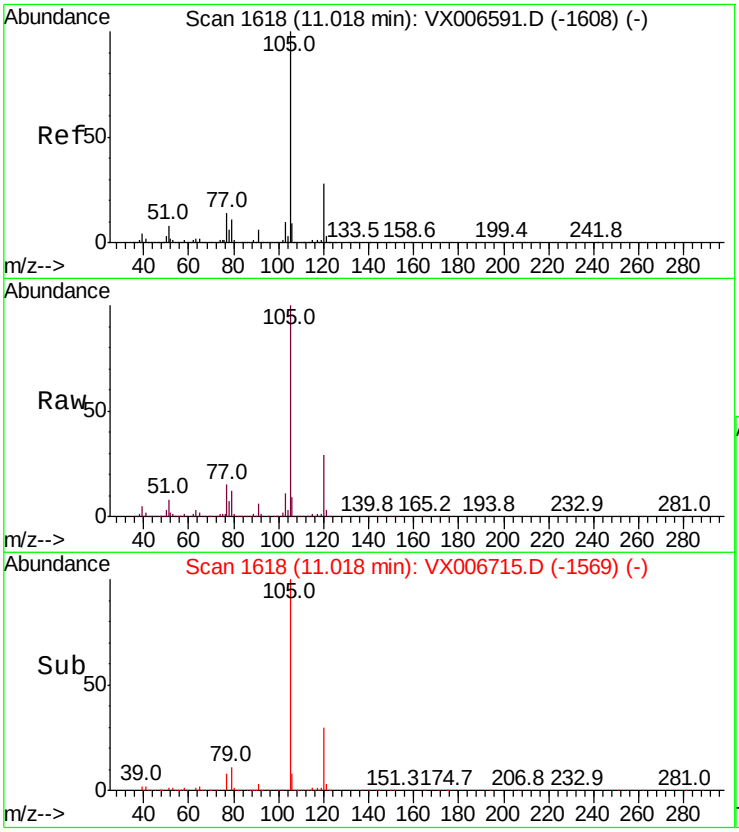
Tgt Ion:152 Resp: 422150

Ion	Ratio	Lower	Upper
152	100		
115	64.5	39.1	117.2
150	163.7	0.0	344.8



Instrument :
MSVOA_X
ClientSampleId :
VX1221WBS01

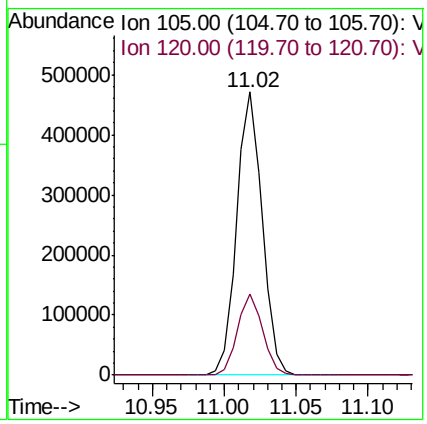
Manual Integrations APPROVED
MMDadoda
12/22/2018 11:20:57 AM

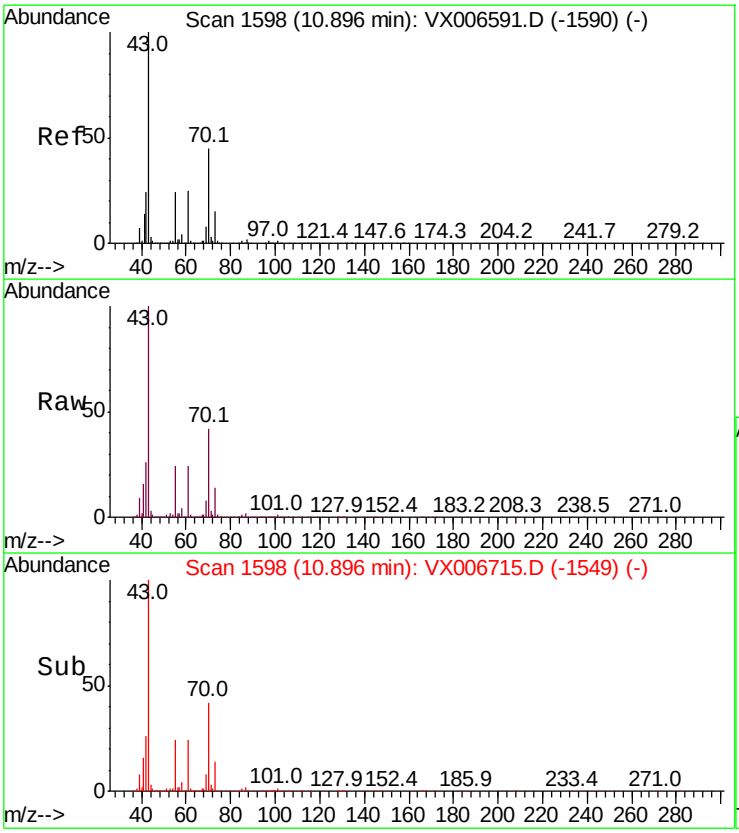


#73
Isopropylbenzene
Concen: 20.132 ug/l
RT: 11.02 min Scan# 1618
Delta R.T. 0.00 min
Lab File: VX006715.D
Acq: 21 Dec 2018 11:29

Tgt Ion:105 Resp: 581407

Ion	Ratio	Lower	Upper
105	100		
120	28.3	14.1	42.4

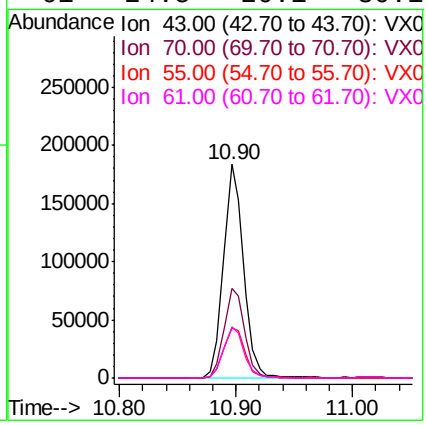




#74
N-amyl acetate
Concen: 21.021 ug/l
RT: 10.90 min Scan# 1598
Delta R.T. 0.00 min
Lab File: VX006715.D
Acq: 21 Dec 2018 11:29

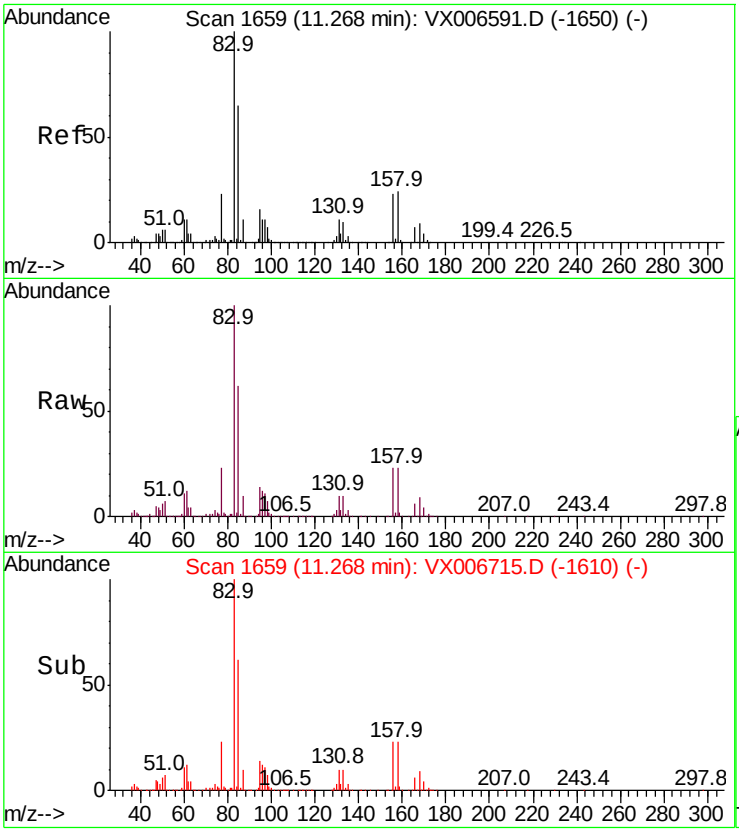
Tgt Ion: 43 Resp: 217301

Ion	Ratio	Lower	Upper
43	100		
70	43.4	35.8	53.8
55	25.3	19.4	29.0
61	24.5	20.1	30.1



Instrument :
MSVOA_X
ClientSampleId :
VX1221WBS01

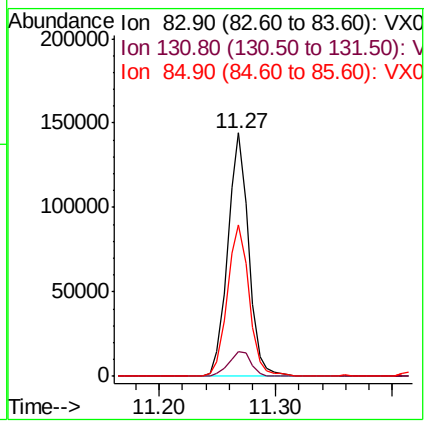
Manual Integrations APPROVED
MMDadoda
12/22/2018 11:20:57 AM

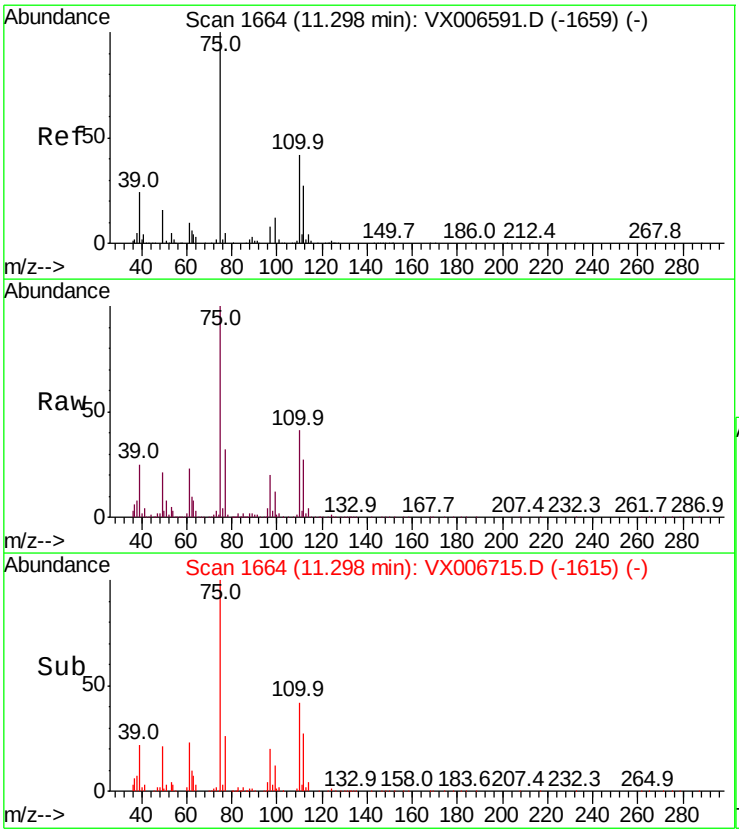


#75
1,1,2,2-Tetrachloroethane
Concen: 20.810 ug/l
RT: 11.27 min Scan# 1659
Delta R.T. 0.00 min
Lab File: VX006715.D
Acq: 21 Dec 2018 11:29

Tgt Ion: 83 Resp: 178733

Ion	Ratio	Lower	Upper
83	100		
131	11.1	5.7	17.1
85	65.4	32.2	96.6

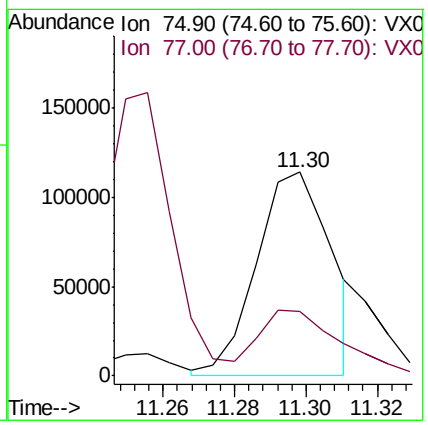




#76
1,2,3-Trichloropropane
Concen: 21.027 ug/l m
RT: 11.30 min Scan# 1664
Delta R.T. 0.00 min
Lab File: VX006715.D
Acq: 21 Dec 2018 11:29

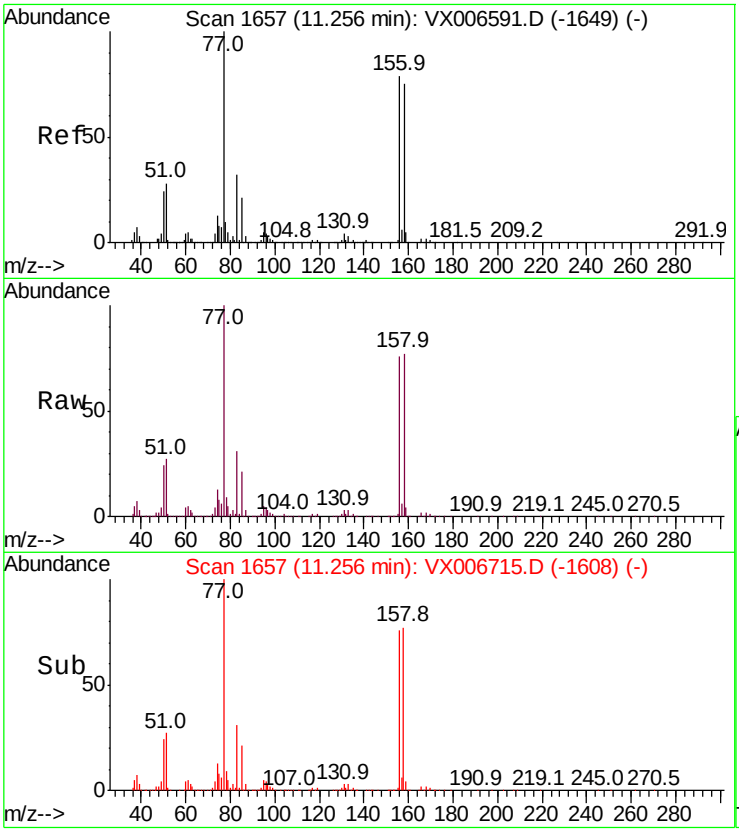
Tgt Ion: 75 Resp: 164963

Ion	Ratio	Lower	Upper
75	100		
77	35.0	18.5	55.5



Instrument :
MSVOA_X
ClientSampleId :
VX1221WBS01

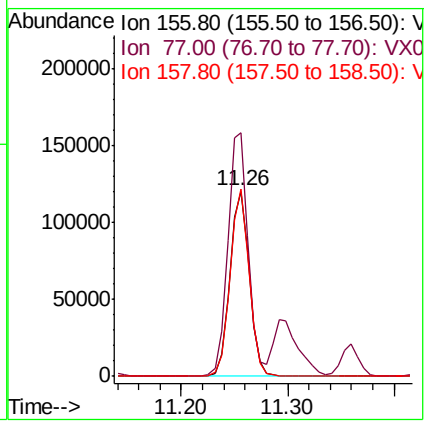
Manual Integrations APPROVED
MMDadoda
12/22/2018 11:20:57 AM

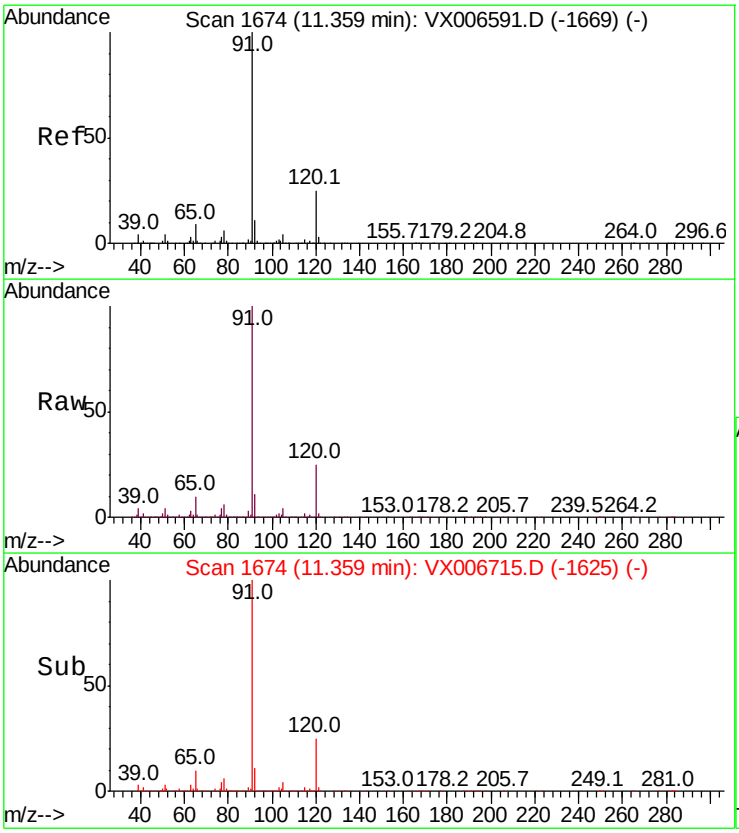


#77
Bromobenzene
Concen: 19.809 ug/l
RT: 11.26 min Scan# 1657
Delta R.T. 0.00 min
Lab File: VX006715.D
Acq: 21 Dec 2018 11:29

Tgt Ion:156 Resp: 154664

Ion	Ratio	Lower	Upper
156	100		
77	137.2	68.0	204.0
158	99.3	48.3	144.8

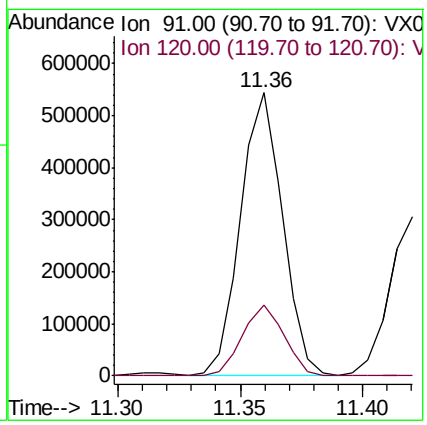




#78
n-propylbenzene
Concen: 20.363 ug/l
RT: 11.36 min Scan# 1674
Delta R.T. 0.00 min
Lab File: VX006715.D
Acq: 21 Dec 2018 11:29

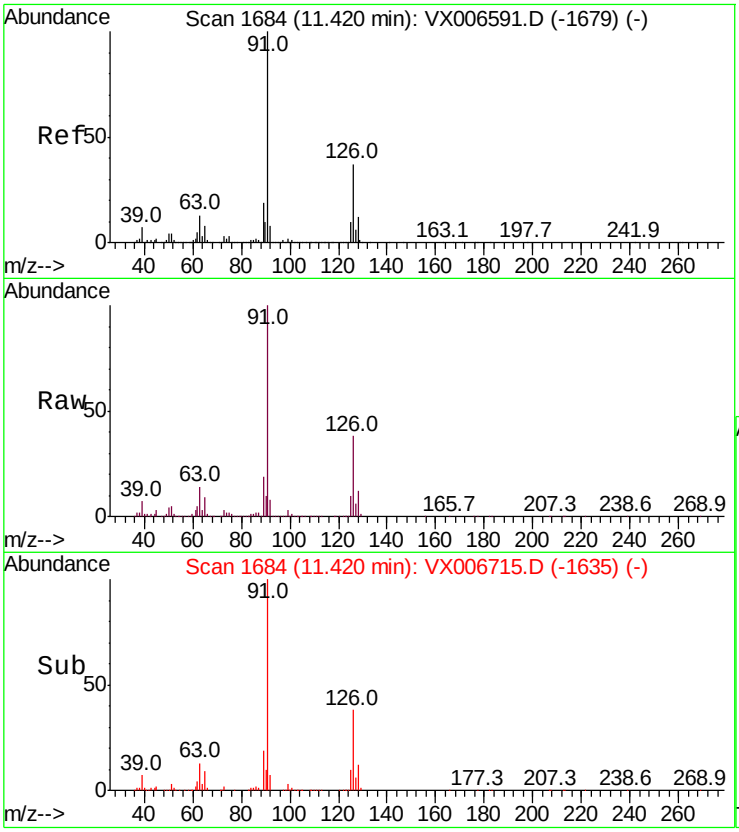
Tgt Ion: 91 Resp: 647617

Ion	Ratio	Lower	Upper
91	100		
120	25.1	12.7	38.0



Instrument :
MSVOA_X
ClientSampleId :
VX1221WBS01

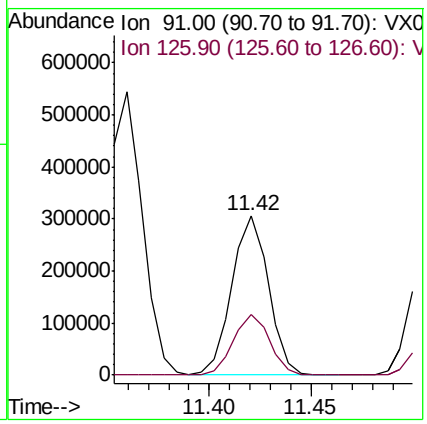
Manual Integrations APPROVED
MMDadoda
12/22/2018 11:20:57 AM

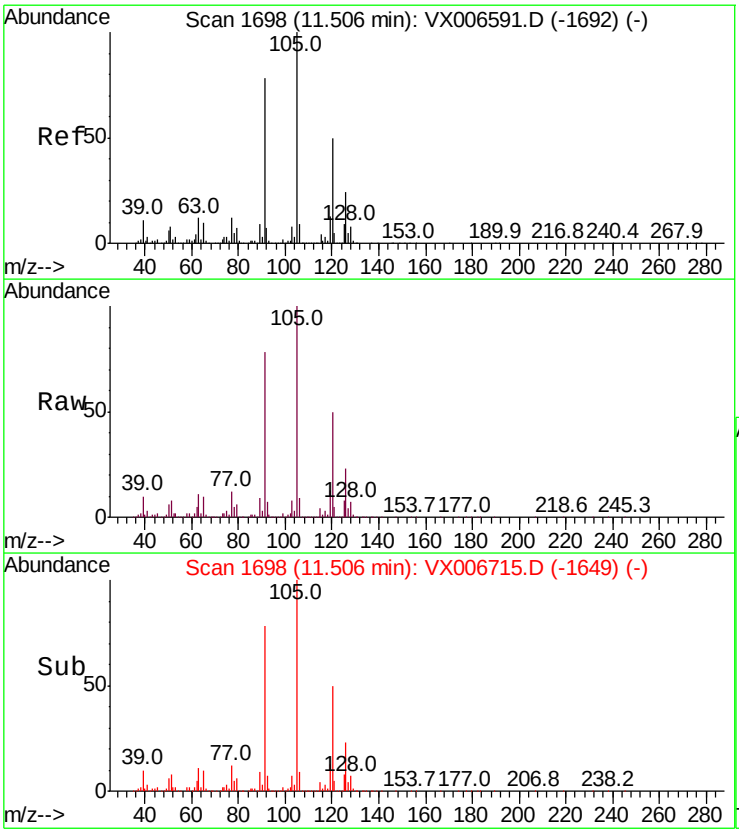


#79
2-Chlorotoluene
Concen: 19.621 ug/l
RT: 11.42 min Scan# 1684
Delta R.T. 0.00 min
Lab File: VX006715.D
Acq: 21 Dec 2018 11:29

Tgt Ion: 91 Resp: 378147

Ion	Ratio	Lower	Upper
91	100		
126	37.9	18.6	56.0

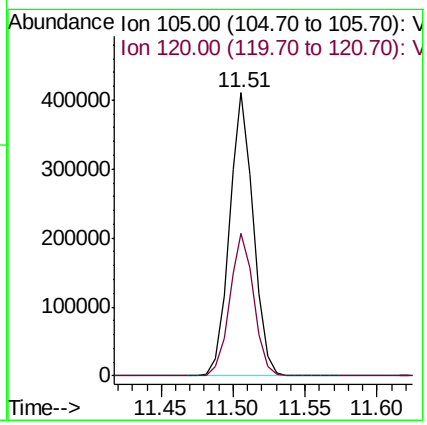


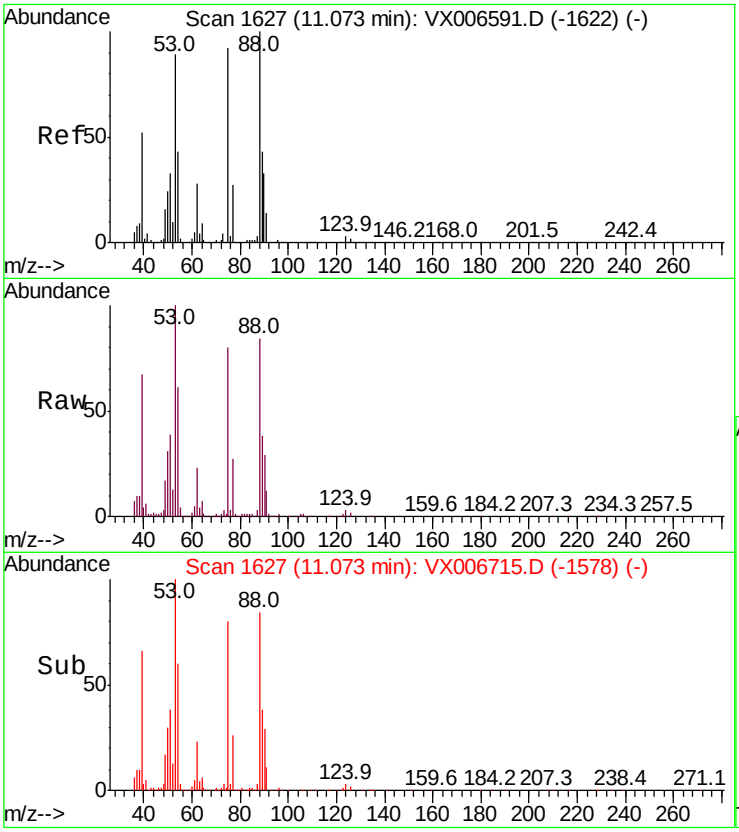


#80
1,3,5-Trimethylbenzene
Concen: 19.994 ug/l
RT: 11.51 min Scan# 1698
Delta R.T. 0.00 min
Lab File: VX006715.D
Acq: 21 Dec 2018 11:29

Tgt Ion:105 Resp: 475602

Ion	Ratio	Lower	Upper
105	100		
120	50.7	25.1	75.3





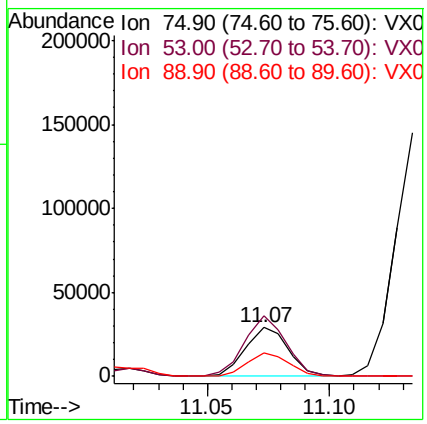
#81
trans-1,4-Dichloro-2-butene
Concen: 16.784 ug/l
RT: 11.07 min Scan# 1627
Delta R.T. 0.00 min
Lab File: VX006715.D
Acq: 21 Dec 2018 11:29

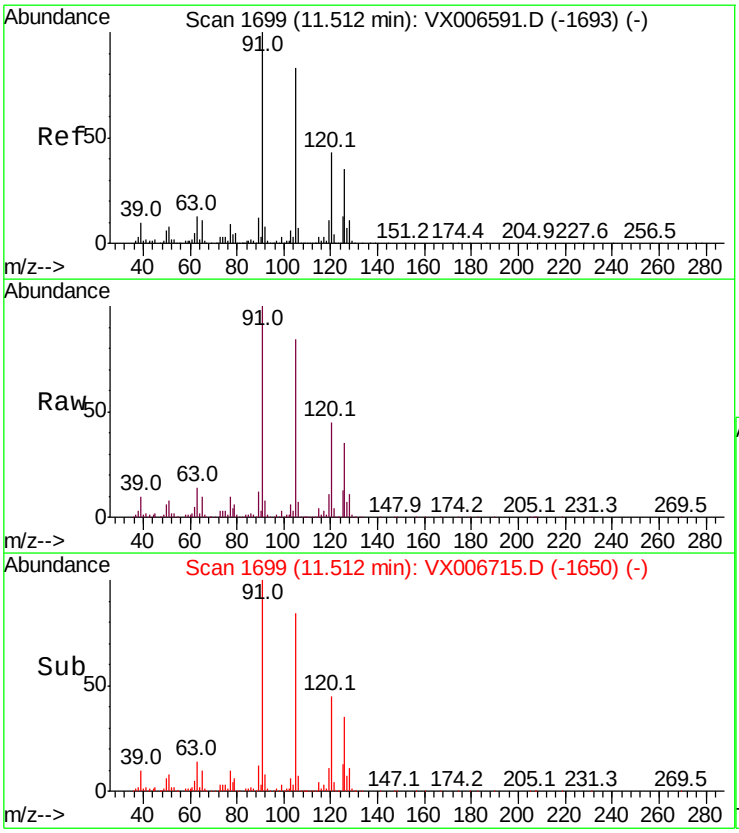
Tgt Ion: 75 Resp: 35349

Ion	Ratio	Lower	Upper
75	100		
53	122.3	79.7	119.5#
89	47.3	38.0	57.0

Instrument :
MSVOA_X
ClientSampleId :
VX1221WBS01

Manual Integrations APPROVED
MMDadoda
12/22/2018 11:20:57 AM

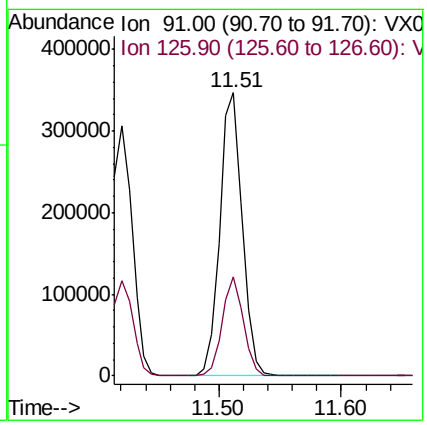




#82
4-Chlorotoluene
Concen: 19.992 ug/l
RT: 11.51 min Scan# 1699
Delta R.T. 0.00 min
Lab File: VX006715.D
Acq: 21 Dec 2018 11:29

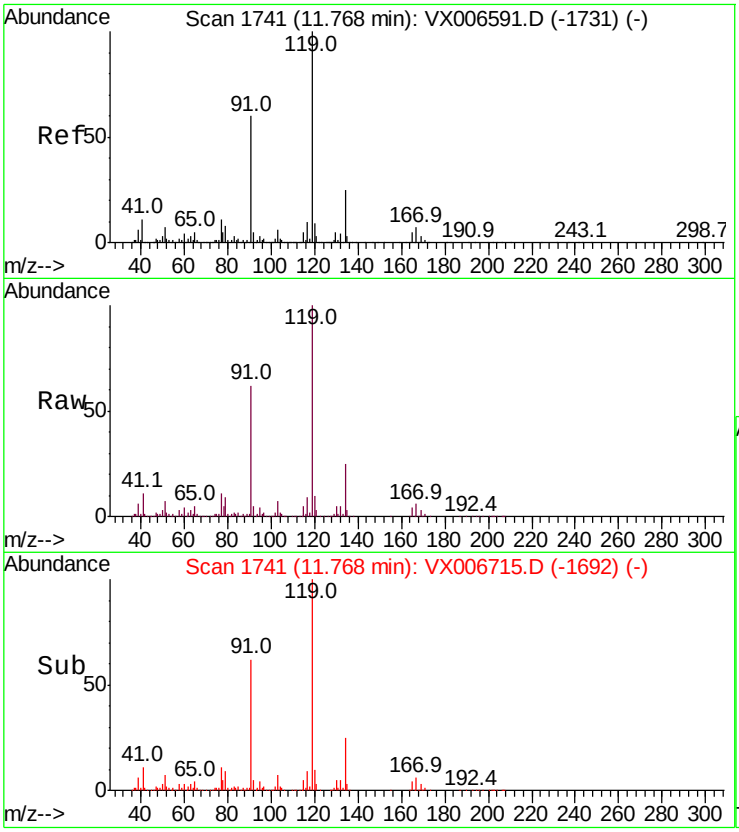
Tgt Ion: 91 Resp: 441970

Ion	Ratio	Lower	Upper
91	100		
126	33.1	16.3	48.9



Instrument :
MSVOA_X
ClientSampleId :
VX1221WBS01

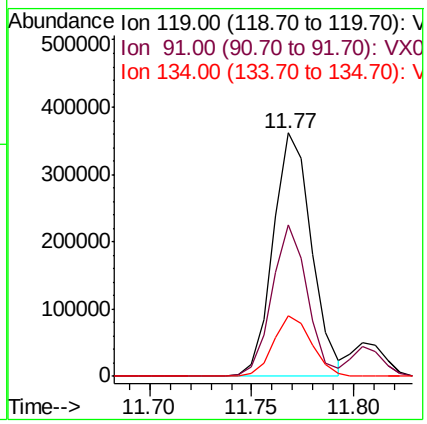
Manual Integrations APPROVED
MMDadoda
12/22/2018 11:20:57 AM

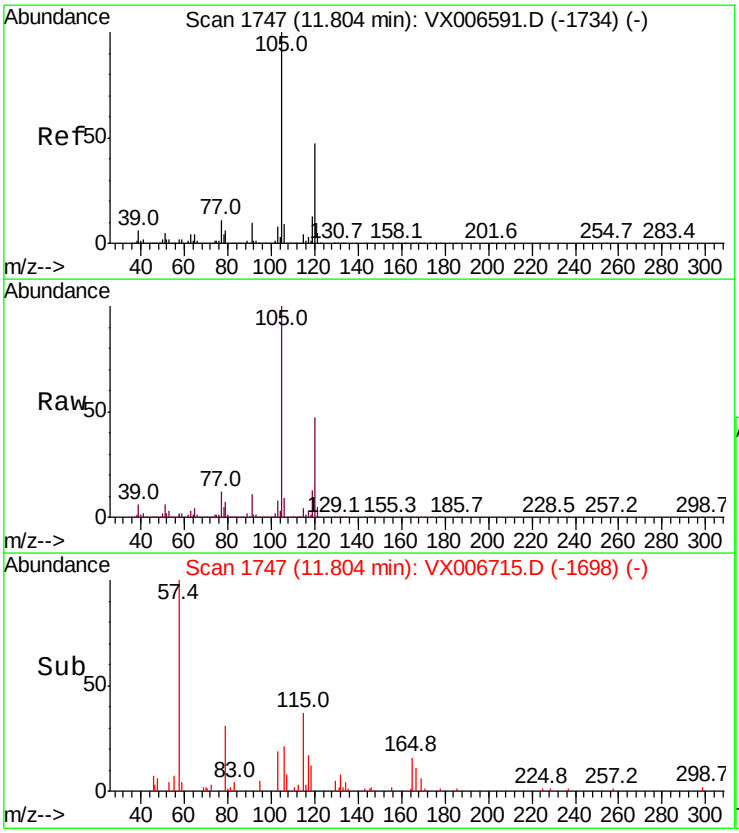


#83
tert-Butylbenzene
Concen: 19.998 ug/l
RT: 11.77 min Scan# 1741
Delta R.T. 0.00 min
Lab File: VX006715.D
Acq: 21 Dec 2018 11:29

Tgt Ion:119 Resp: 476094

Ion	Ratio	Lower	Upper
119	100		
91	57.4	27.7	83.1
134	24.5	11.9	35.5

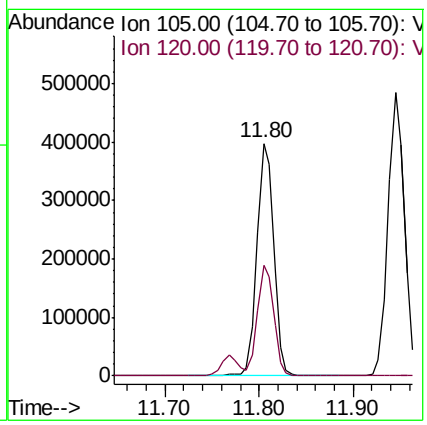




#84
1,2,4-Trimethylbenzene
Concen: 19.768 ug/l
RT: 11.80 min Scan# 1747
Delta R.T. 0.00 min
Lab File: VX006715.D
Acq: 21 Dec 2018 11:29

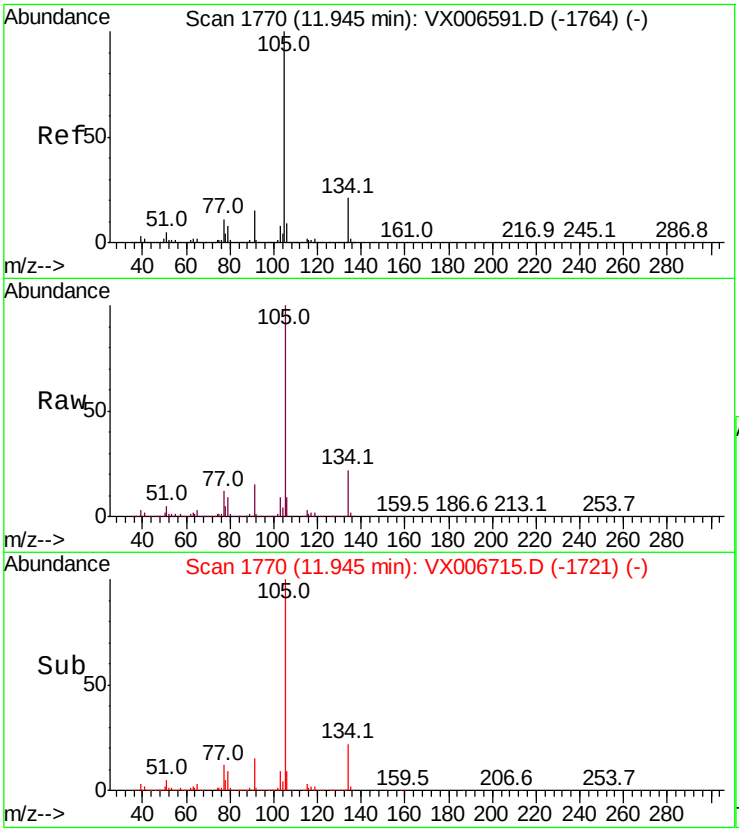
Tgt Ion:105 Resp: 494605

Ion	Ratio	Lower	Upper
105	100		
120	45.9	23.2	69.6



Instrument :
MSVOA_X
ClientSampleId :
VX1221WBS01

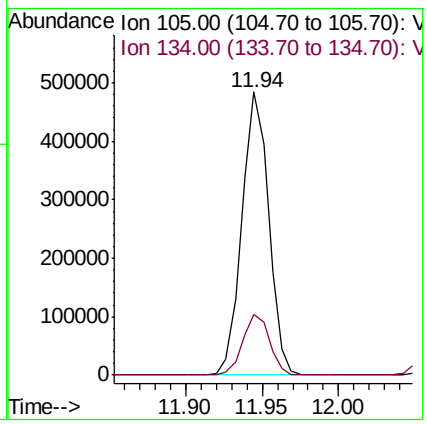
Manual Integrations APPROVED
MMDadoda
12/22/2018 11:20:57 AM

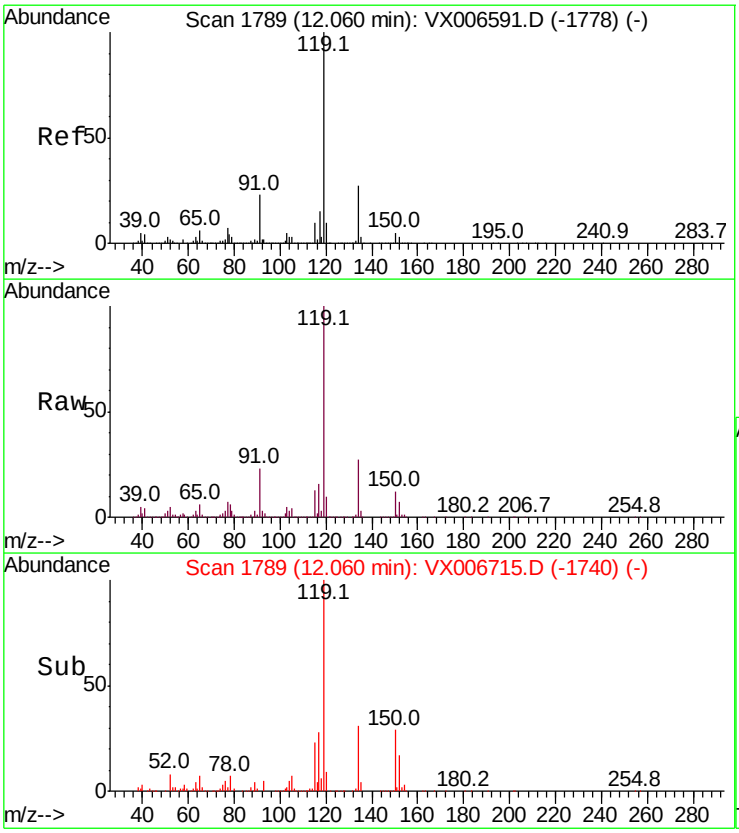


#85
sec-Butylbenzene
Concen: 20.089 ug/l
RT: 11.94 min Scan# 1770
Delta R.T. 0.00 min
Lab File: VX006715.D
Acq: 21 Dec 2018 11:29

Tgt Ion:105 Resp: 586389

Ion	Ratio	Lower	Upper
105	100		
134	21.7	10.7	31.9

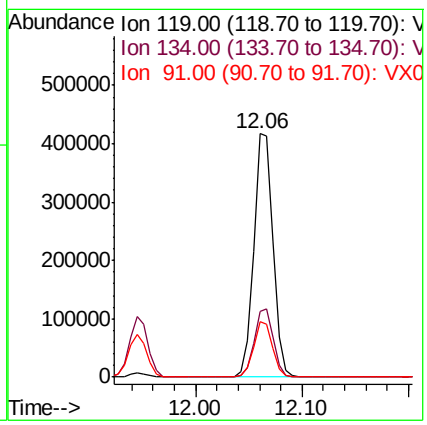




#86
p-Isopropyltoluene
Concen: 20.555 ug/l
RT: 12.06 min Scan# 1789
Delta R.T. 0.00 min
Lab File: VX006715.D
Acq: 21 Dec 2018 11:29

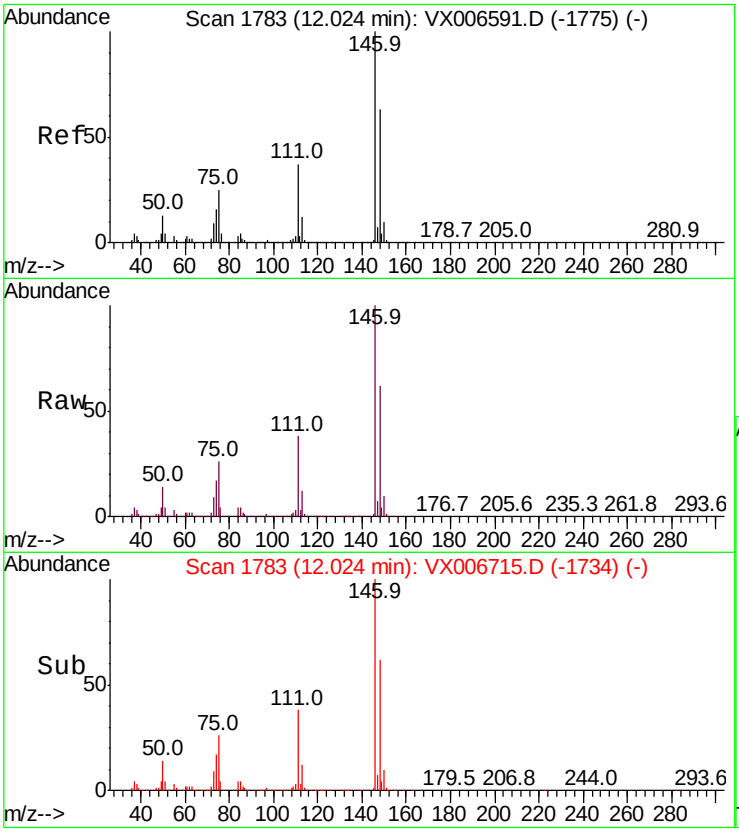
Tgt Ion:119 Resp: 527421

Ion	Ratio	Lower	Upper
119	100		
134	27.7	14.0	41.9
91	22.5	11.3	33.9



Instrument :
MSVOA_X
ClientSampleId :
VX1221WBS01

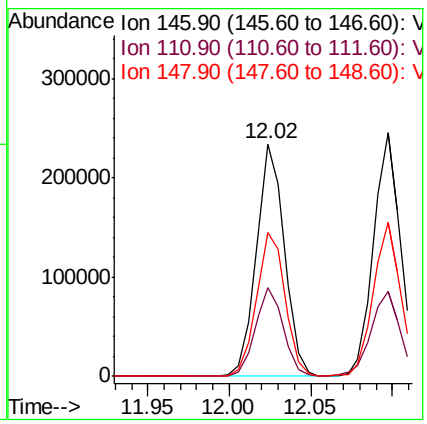
Manual Integrations APPROVED
MMDadoda
12/22/2018 11:20:57 AM

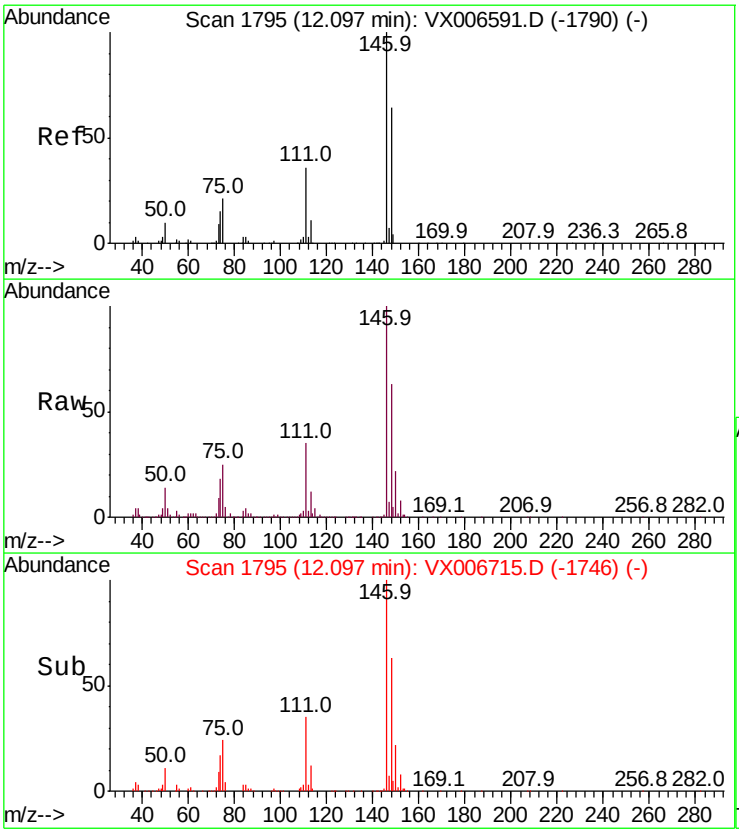


#87
1,3-Dichlorobenzene
Concen: 19.970 ug/l
RT: 12.02 min Scan# 1783
Delta R.T. 0.00 min
Lab File: VX006715.D
Acq: 21 Dec 2018 11:29

Tgt Ion:146 Resp: 281019

Ion	Ratio	Lower	Upper
146	100		
111	37.9	18.6	55.8
148	63.2	31.8	95.3

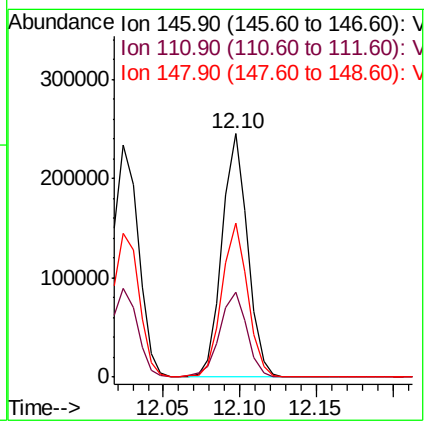




#88
1,4-Dichlorobenzene
Concen: 19.707 ug/l
RT: 12.10 min Scan# 1795
Delta R.T. 0.00 min
Lab File: VX006715.D
Acq: 21 Dec 2018 11:29

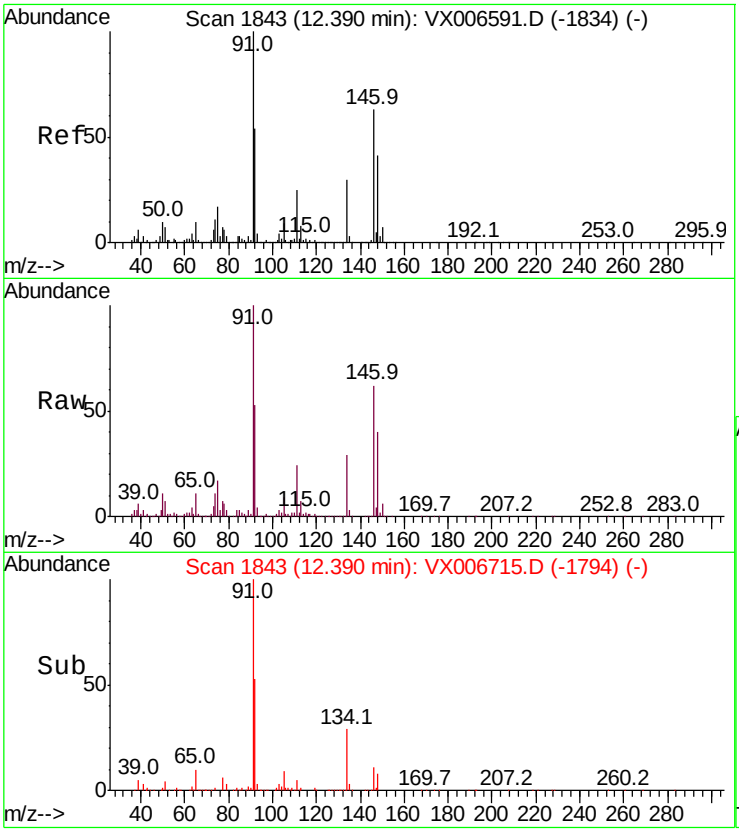
Tgt Ion:146 Resp: 284284

Ion	Ratio	Lower	Upper
146	100		
111	37.1	18.1	54.1
148	64.3	31.9	95.9



Instrument :
MSVOA_X
ClientSampleId :
VX1221WBS01

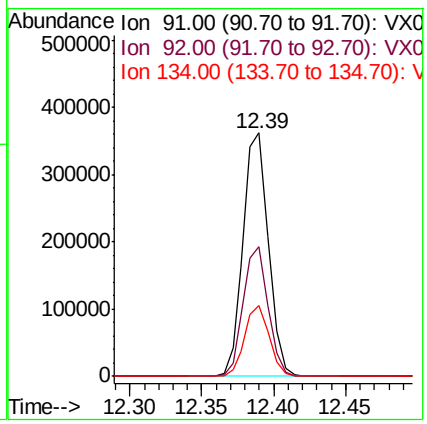
Manual Integrations APPROVED
MMDadoda
12/22/2018 11:20:57 AM

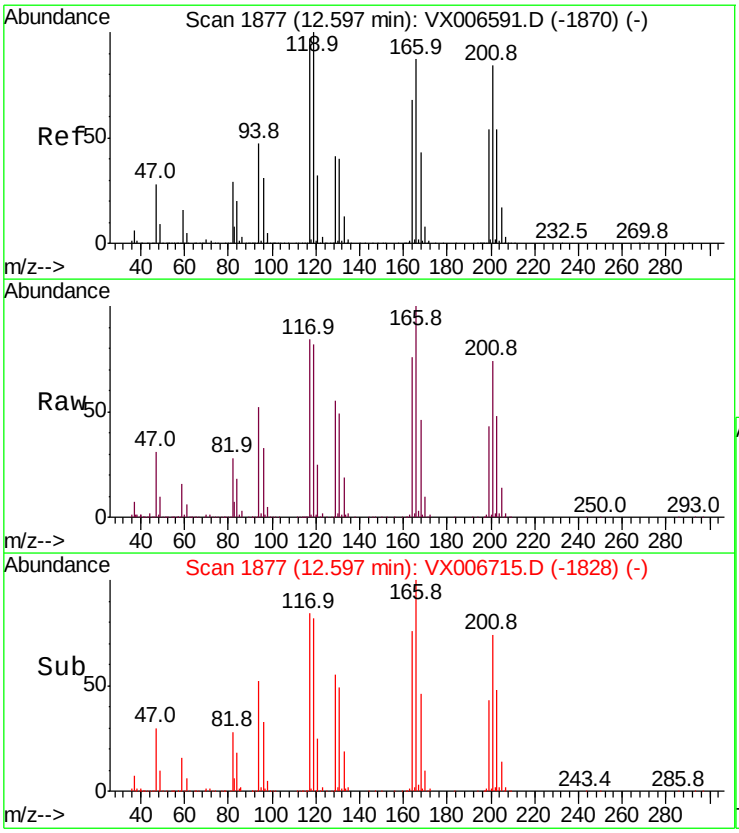


#89
n-Butylbenzene
Concen: 20.191 ug/l
RT: 12.39 min Scan# 1843
Delta R.T. 0.00 min
Lab File: VX006715.D
Acq: 21 Dec 2018 11:29

Tgt Ion: 91 Resp: 440908

Ion	Ratio	Lower	Upper
91	100		
92	52.3	26.8	80.4
134	28.2	14.4	43.2

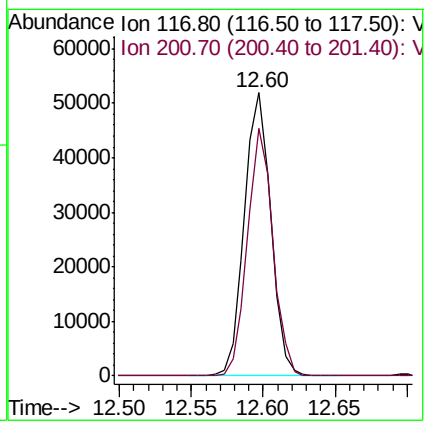




#90
Hexachloroethane
Concen: 18.680 ug/l
RT: 12.60 min Scan# 1877
Delta R.T. 0.00 min
Lab File: VX006715.D
Acq: 21 Dec 2018 11:29

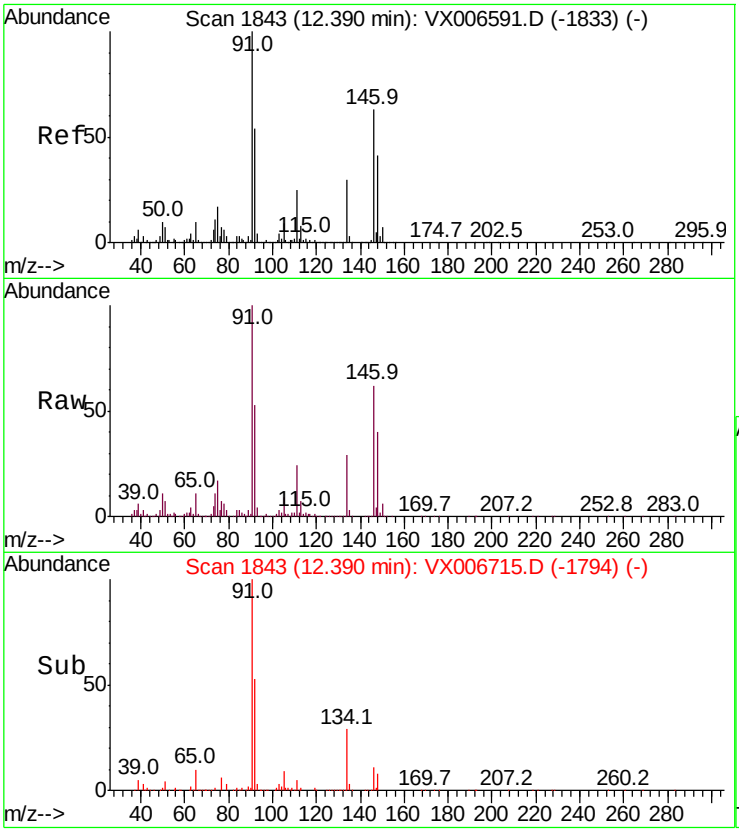
Tgt Ion:117 Resp: 66146

Ion	Ratio	Lower	Upper
117	100		
201	83.6	42.9	128.7



Instrument :
MSVOA_X
ClientSampleId :
VX1221WBS01

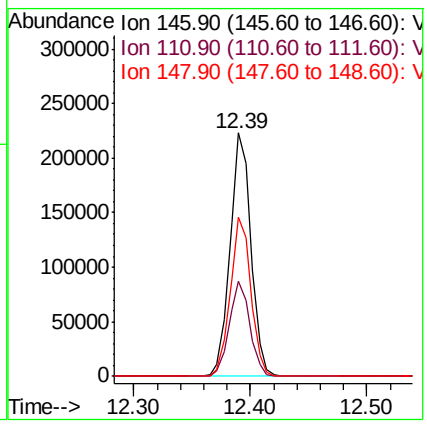
Manual Integrations APPROVED
MMDadoda
12/22/2018 11:20:57 AM

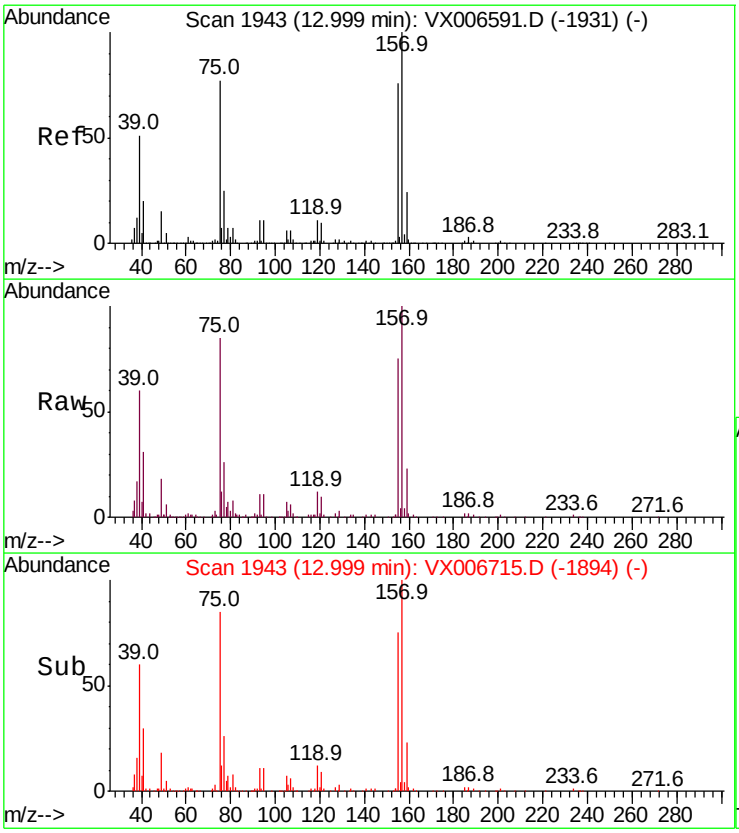


#91
1,2-Dichlorobenzene
Concen: 19.700 ug/l
RT: 12.39 min Scan# 1843
Delta R.T. 0.00 min
Lab File: VX006715.D
Acq: 21 Dec 2018 11:29

Tgt Ion:146 Resp: 277311

Ion	Ratio	Lower	Upper
146	100		
111	38.6	19.4	58.2
148	64.5	32.3	96.9

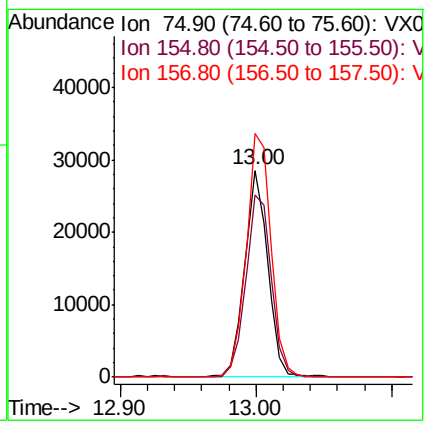




#92
1,2-Dibromo-3-Chloropropane
Concen: 18.983 ug/l
RT: 13.00 min Scan# 1943
Delta R.T. 0.00 min
Lab File: VX006715.D
Acq: 21 Dec 2018 11:29

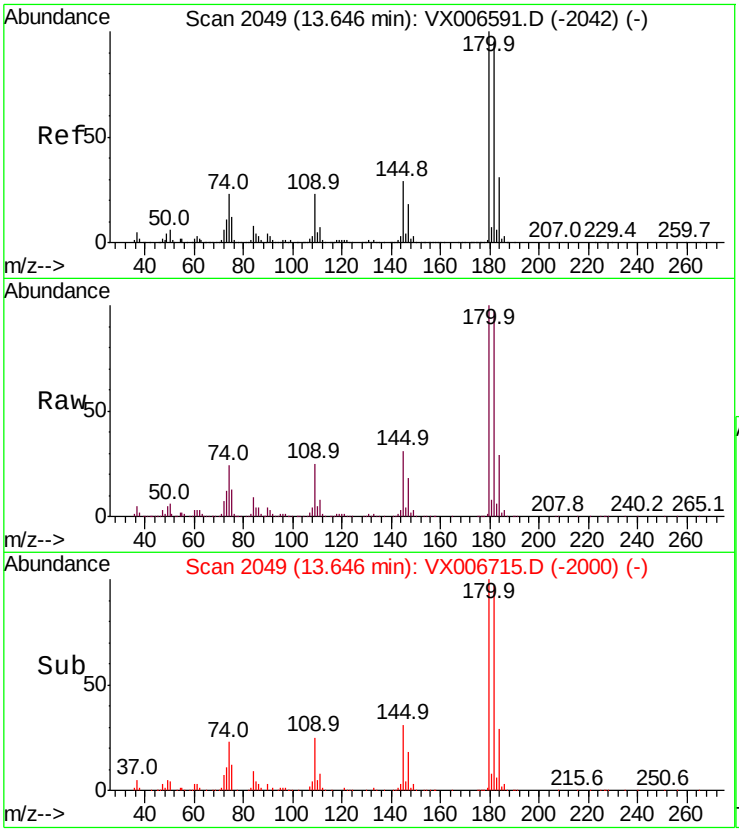
Tgt Ion: 75 Resp: 33736

Ion	Ratio	Lower	Upper
75	100		
155	97.4	50.6	151.8
157	127.2	64.6	193.8



Instrument :
MSVOA_X
ClientSampleId :
VX1221WBS01

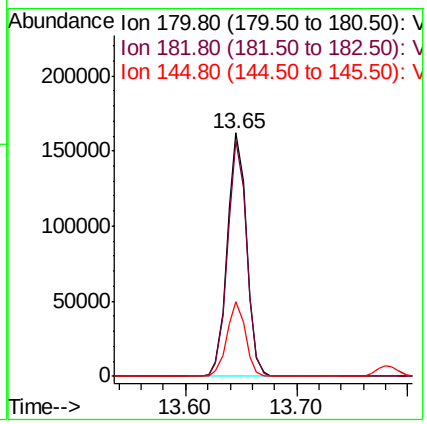
Manual Integrations APPROVED
MMDadoda
12/22/2018 11:20:57 AM

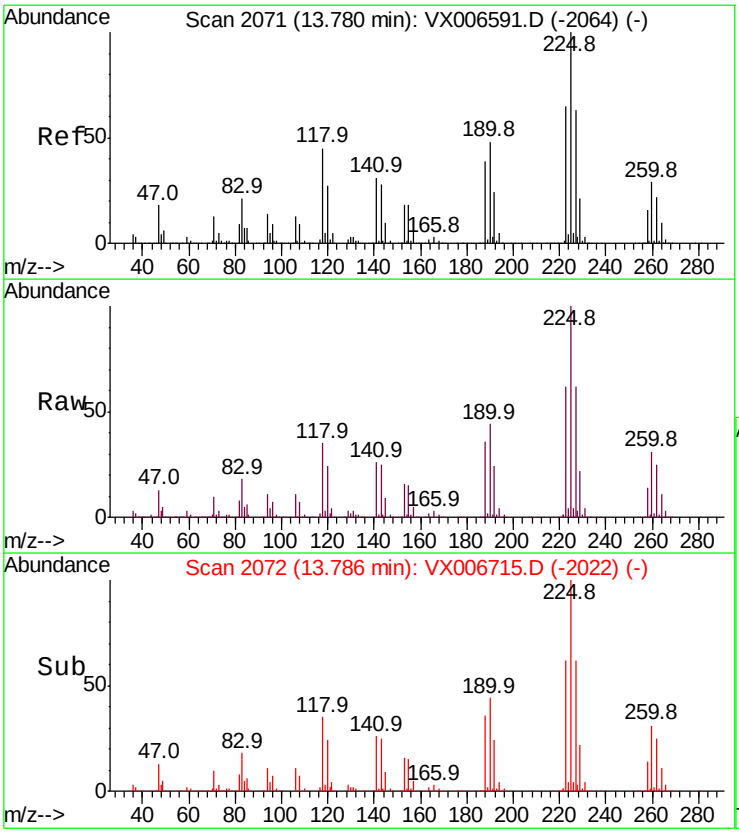


#93
1,2,4-Trichlorobenzene
Concen: 19.868 ug/l
RT: 13.65 min Scan# 2049
Delta R.T. 0.00 min
Lab File: VX006715.D
Acq: 21 Dec 2018 11:29

Tgt Ion:180 Resp: 192921

Ion	Ratio	Lower	Upper
180	100		
182	96.1	47.3	142.0
145	29.7	14.8	44.3

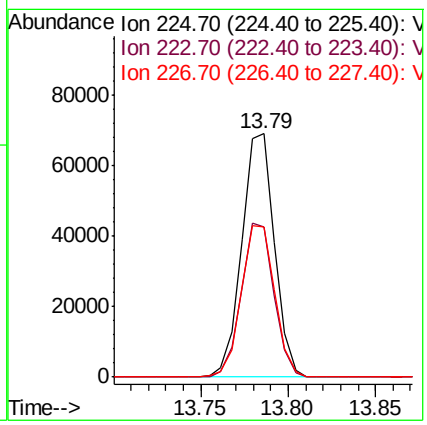




#94
Hexachlorobutadiene
Concen: 19.501 ug/l
RT: 13.79 min Scan# 2072
Delta R.T. 0.01 min
Lab File: VX006715.D
Acq: 21 Dec 2018 11:29

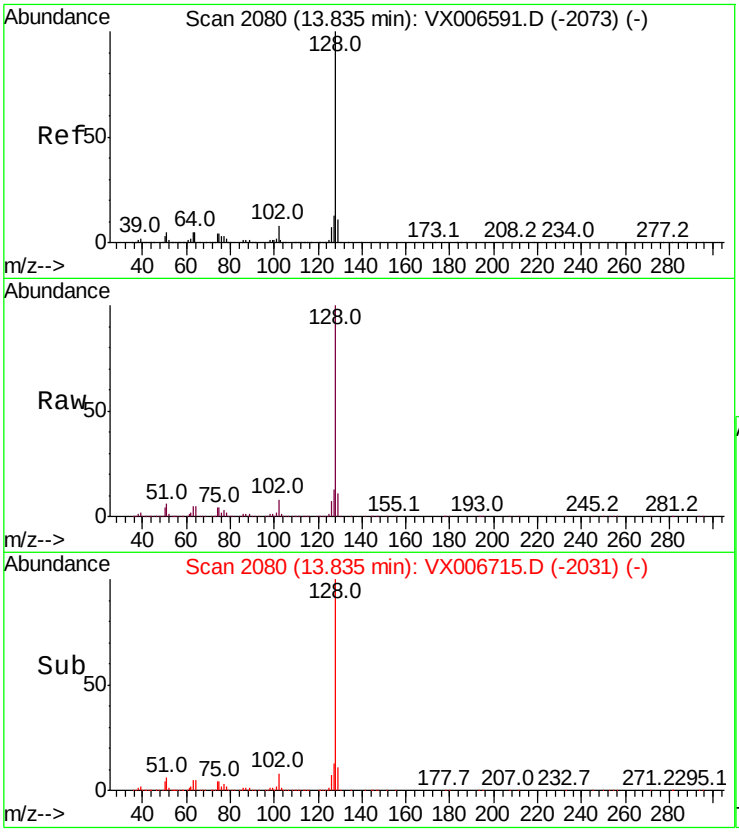
Tgt Ion:225 Resp: 89253

Ion	Ratio	Lower	Upper
225	100		
223	63.4	32.1	96.3
227	63.8	32.3	96.8



Instrument :
MSVOA_X
ClientSampleId :
VX1221WBS01

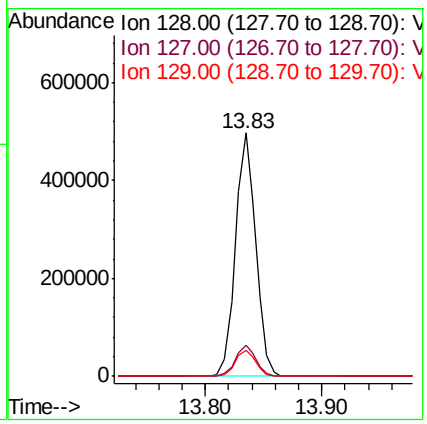
Manual Integrations APPROVED
MMDadoda
12/22/2018 11:20:57 AM

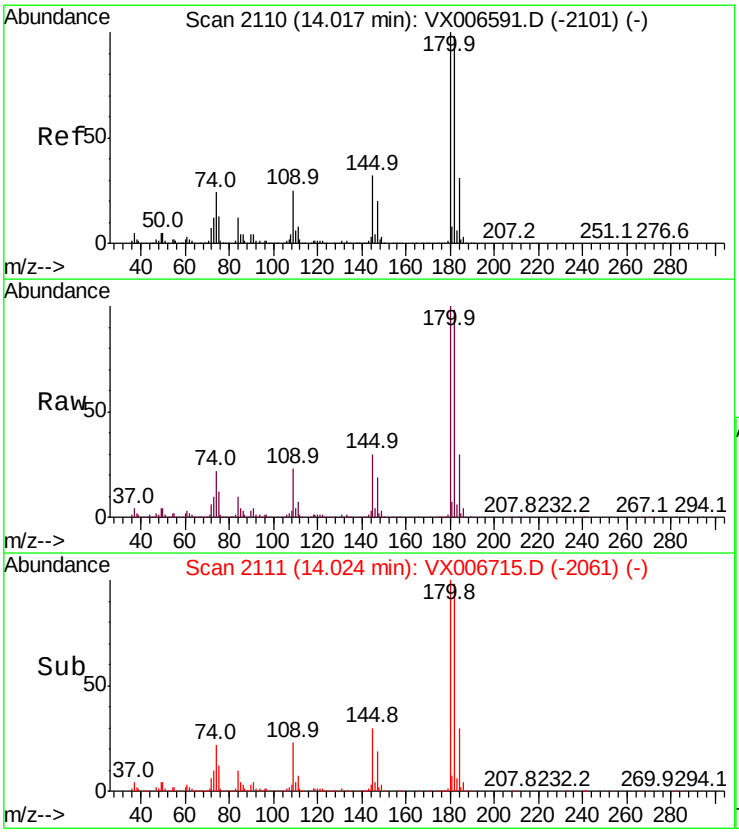


#95
Naphthalene
Concen: 19.447 ug/l
RT: 13.83 min Scan# 2080
Delta R.T. 0.00 min
Lab File: VX006715.D
Acq: 21 Dec 2018 11:29

Tgt Ion:128 Resp: 602664

Ion	Ratio	Lower	Upper
128	100		
127	13.0	10.1	15.1
129	10.9	8.6	13.0

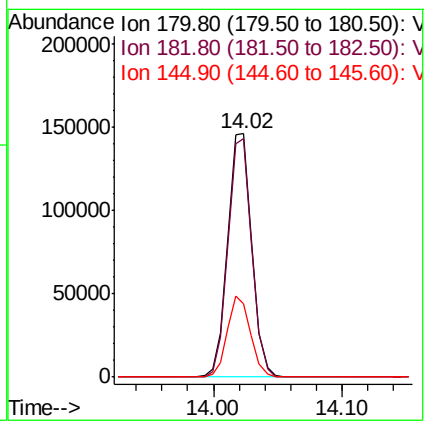




#96
1,2,3-Trichlorobenzene
Concen: 19.271 ug/l
RT: 14.02 min Scan# 2111
Delta R.T. 0.01 min
Lab File: VX006715.D
Acq: 21 Dec 2018 11:29

Tgt Ion:180 Resp: 193202

Ion	Ratio	Lower	Upper
180	100		
182	96.2	48.5	145.5
145	32.0	16.0	47.9



CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Day Environmental, Inc.	Date Collected:	12/18/18
Project:	Andrew St. RI	Date Received:	12/19/18
Client Sample ID:	966-MW-04(23)MS	SDG No.:	J6484
Lab Sample ID:	J6484-05MS	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	DB-624UI ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX006658.D	1		12/20/18 00:44	VX121918

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
75-71-8	Dichlorodifluoromethane	46.7		0.2	0.2	1	ug/L
74-87-3	Chloromethane	49.3		0.2	0.2	1	ug/L
75-01-4	Vinyl Chloride	50.6		0.2	0.2	1	ug/L
74-83-9	Bromomethane	52.6		0.2	0.2	1	ug/L
75-00-3	Chloroethane	46.9		0.2	0.5	1	ug/L
75-69-4	Trichlorofluoromethane	49.9		0.2	0.2	1	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	48		0.2	0.2	1	ug/L
75-35-4	1,1-Dichloroethene	50.7		0.2	0.2	1	ug/L
67-64-1	Acetone	240		0.5	1	5	ug/L
75-15-0	Carbon Disulfide	44.9		0.2	0.2	1	ug/L
1634-04-4	Methyl tert-butyl Ether	52.4		0.35	0.5	1	ug/L
79-20-9	Methyl Acetate	51.8		0.2	0.5	1	ug/L
75-09-2	Methylene Chloride	50.4		0.2	0.2	1	ug/L
156-60-5	trans-1,2-Dichloroethene	48.6		0.2	0.2	1	ug/L
75-34-3	1,1-Dichloroethane	50.3		0.2	0.2	1	ug/L
110-82-7	Cyclohexane	47.7		0.2	0.2	1	ug/L
78-93-3	2-Butanone	260		1.3	2.5	5	ug/L
56-23-5	Carbon Tetrachloride	48.7		0.2	0.2	1	ug/L
156-59-2	cis-1,2-Dichloroethene	50.6		0.2	0.2	1	ug/L
74-97-5	Bromochloromethane	55.1		0.2	0.5	1	ug/L
67-66-3	Chloroform	51.4		0.2	0.2	1	ug/L
71-55-6	1,1,1-Trichloroethane	51.4		0.2	0.2	1	ug/L
108-87-2	Methylcyclohexane	45.4		0.2	0.2	1	ug/L
71-43-2	Benzene	49.1		0.2	0.2	1	ug/L
107-06-2	1,2-Dichloroethane	49.3		0.2	0.2	1	ug/L
79-01-6	Trichloroethene	47.5		0.2	0.2	1	ug/L
78-87-5	1,2-Dichloropropane	50.1		0.2	0.2	1	ug/L
75-27-4	Bromodichloromethane	50.2		0.2	0.2	1	ug/L
108-10-1	4-Methyl-2-Pentanone	270		1	1	5	ug/L
108-88-3	Toluene	50.2		0.2	0.2	1	ug/L
10061-02-6	t-1,3-Dichloropropene	50.9		0.2	0.2	1	ug/L
10061-01-5	cis-1,3-Dichloropropene	51.3		0.2	0.2	1	ug/L

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Day Environmental, Inc.	Date Collected:	12/18/18
Project:	Andrew St. RI	Date Received:	12/19/18
Client Sample ID:	966-MW-04(23)MS	SDG No.:	J6484
Lab Sample ID:	J6484-05MS	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	DB-624UI ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX006658.D	1		12/20/18 00:44	VX121918

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
79-00-5	1,1,2-Trichloroethane	51.3		0.2	0.2	1	ug/L
591-78-6	2-Hexanone	270		1.9	2.5	5	ug/L
124-48-1	Dibromochloromethane	47.1		0.2	0.2	1	ug/L
106-93-4	1,2-Dibromoethane	52.4		0.2	0.2	1	ug/L
127-18-4	Tetrachloroethene	46.2		0.2	0.2	1	ug/L
108-90-7	Chlorobenzene	48.9		0.2	0.2	1	ug/L
100-41-4	Ethyl Benzene	49.1		0.2	0.2	1	ug/L
179601-23-1	m/p-Xylenes	100		0.4	0.4	2	ug/L
95-47-6	o-Xylene	49.9		0.2	0.2	1	ug/L
100-42-5	Styrene	51.3		0.2	0.2	1	ug/L
75-25-2	Bromoform	44.2		0.2	0.2	1	ug/L
98-82-8	Isopropylbenzene	49.3		0.2	0.2	1	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	52		0.2	0.2	1	ug/L
541-73-1	1,3-Dichlorobenzene	49.4		0.2	0.2	1	ug/L
106-46-7	1,4-Dichlorobenzene	48		0.2	0.2	1	ug/L
95-50-1	1,2-Dichlorobenzene	49.1		0.2	0.2	1	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	51.4		0.2	0.2	1	ug/L
120-82-1	1,2,4-Trichlorobenzene	48.7		0.2	0.2	1	ug/L
87-61-6	1,2,3-Trichlorobenzene	48.5		0.2	0.2	1	ug/L
SURROGATES							
17060-07-0	1,2-Dichloroethane-d4	52.5		61 - 141		105%	SPK: 50
1868-53-7	Dibromofluoromethane	51.3		69 - 133		103%	SPK: 50
2037-26-5	Toluene-d8	50.5		65 - 126		101%	SPK: 50
460-00-4	4-Bromofluorobenzene	52.1		58 - 135		104%	SPK: 50
INTERNAL STANDARDS							
363-72-4	Pentafluorobenzene	553996	5.67				
540-36-3	1,4-Difluorobenzene	879261	6.86				
3114-55-4	Chlorobenzene-d5	813759	10.12				
3855-82-1	1,4-Dichlorobenzene-d4	430640	12.08				

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Day Environmental, Inc.	Date Collected:	12/18/18
Project:	Andrew St. RI	Date Received:	12/19/18
Client Sample ID:	966-MW-04(23)MS	SDG No.:	J6484
Lab Sample ID:	J6484-05MS	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	DB-624UI ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX006658.D	1		12/20/18 00:44	VX121918

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit
A = Aldol-Condensation Reaction Products

Quantitation Report (QT Reviewed)

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX121918\
Data File : VX006658.D
Acq On : 20 Dec 2018 00:44
Operator : JC/MD
Sample : J6484-05MS
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 25 Sample Multiplier: 1

Quant Time: Dec 20 05:02:58 2018
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121818W.M
Quant Title : SW846 8260
QLast Update : Wed Dec 19 15:20:58 2018
Response via : Initial Calibration

Instrument :
MSVOA_X
ClientSampleId :
966-MW-04(23)MS

Manual Integrations APPROVED
MMDadoda
12/20/2018 10:00:46 AM

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	5.67	168	553996	50.00	ug/l	0.00
34) 1,4-Difluorobenzene	6.86	114	879261	50.00	ug/l	0.00
63) Chlorobenzene-d5	10.12	117	813759	50.00	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	12.08	152	430640	50.00	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	6.07	65	313162	52.45	ug/l	0.00
Spiked Amount 50.000			Recovery = 104.90%			
35) Dibromofluoromethane	5.50	113	285445	51.34	ug/l	0.00
Spiked Amount 50.000			Recovery = 102.68%			
50) Toluene-d8	8.71	98	1059125	50.52	ug/l	0.00
Spiked Amount 50.000			Recovery = 101.04%			
62) 4-Bromofluorobenzene	11.13	95	400144	52.12	ug/l	0.00
Spiked Amount 50.000			Recovery = 104.24%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.20	85	236654	46.695	ug/l	100
3) Chloromethane	1.33	50	269023	49.271	ug/l	96
4) Vinyl Chloride	1.41	62	288281	50.553	ug/l	99
5) Bromomethane	1.64	94	279205	52.564	ug/l	98
6) Chloroethane	1.72	64	185268	46.921	ug/l	100
7) Trichlorofluoromethane	1.93	101	443233	49.853	ug/l	100
8) Diethyl Ether	2.19	74	175340	49.653	ug/l	99
9) 1,1,2-Trichlorotrifluoroet	2.39	101	250746	48.033	ug/l	98
10) Methyl Iodide	2.51	142	424995	56.874	ug/l	100
11) Tert butyl alcohol	3.07	59	350081	262.724	ug/l	99
12) 1,1-Dichloroethene	2.37	96	250766	50.662	ug/l	98
13) Acrolein	2.29	56	196749	218.874	ug/l	98
14) Allyl chloride	2.73	41	418055	50.177	ug/l	99
15) Acrylonitrile	3.15	53	789990	267.017	ug/l	99
16) Acetone	2.45	43	651798	237.610	ug/l	99
17) Carbon Disulfide	2.57	76	588067	44.894	ug/l	99
18) Methyl Acetate	2.78	43	418073	51.831	ug/l	98
19) Methyl tert-butyl Ether	3.20	73	861415	52.434	ug/l	100
20) Methylene Chloride	2.85	84	286103	50.438	ug/l	98
21) trans-1,2-Dichloroethene	3.17	96	266305	48.557	ug/l	99
22) Diisopropyl ether	3.87	45	800344	52.508	ug/l	99
23) Vinyl Acetate	3.82	43	3010947	241.499	ug/l	100
24) 1,1-Dichloroethane	3.70	63	457963	50.331	ug/l	98
25) 2-Butanone	4.70	43	986615	255.695	ug/l	99
26) 2,2-Dichloropropane	4.59	77	283530	40.340	ug/l	98
27) cis-1,2-Dichloroethene	4.60	96	305896	50.553	ug/l	99
28) Bromochloromethane	5.02	49	210697	55.122	ug/l	98
29) Tetrahydrofuran	5.15	42	670943	264.008	ug/l	100
30) Chloroform	5.21	83	484469	51.416	ug/l	98
31) Cyclohexane	5.57	56	394627	47.740	ug/l	97
32) 1,1,1-Trichloroethane	5.50	97	409036	51.411	ug/l	99
36) 1,1-Dichloropropene	5.80	75	346680	47.606	ug/l	99
37) Ethyl Acetate	4.85	43	357575	47.176	ug/l	99
38) Carbon Tetrachloride	5.78	117	344959	48.742	ug/l	98

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX121918\
Data File : VX006658.D
Acq On : 20 Dec 2018 00:44
Operator : JC/MD
Sample : J6484-05MS
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 25 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
966-MW-04(23)MS

Manual Integrations APPROVED
MMDadoda
12/20/2018 10:00:46 AM

Quant Time: Dec 20 05:02:58 2018
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121818W.M
Quant Title : SW846 8260
QLast Update : Wed Dec 19 15:20:58 2018
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
39) Methylcyclohexane	7.46	83	435636	45.439 ug/l	100
40) Benzene	6.14	78	1087306	49.120 ug/l	99
41) Methacrylonitrile	5.06	41	215078	53.447 ug/l	98
42) 1,2-Dichloroethane	6.20	62	371720	49.281 ug/l	99
43) Isopropyl Acetate	6.46	43	580860	50.367 ug/l	99
44) Trichloroethene	7.21	130	317988	47.462 ug/l	95
45) 1,2-Dichloropropane	7.51	63	269845	50.094 ug/l	99
46) Dibromomethane	7.66	93	197698	49.896 ug/l	99
47) Bromodichloromethane	7.90	83	330293	50.210 ug/l	99
48) Methyl methacrylate	7.77	41	307252	52.390 ug/l	98
49) 1,4-Dioxane	7.75	88	164538	1073.750 ug/l	99
51) 4-Methyl-2-Pentanone	8.65	43	2002996	272.967 ug/l	99
52) Toluene	8.79	92	718184	50.220 ug/l	99
53) t-1,3-Dichloropropene	9.04	75	358983	50.883 ug/l	99
54) cis-1,3-Dichloropropene	8.43	75	396807	51.259 ug/l	97
55) 1,1,2-Trichloroethane	9.21	97	300335	51.308 ug/l	99
56) Ethyl methacrylate	9.18	69	445419	53.839 ug/l	98
57) 1,3-Dichloropropane	9.37	76	476958	50.645 ug/l	100
59) 2-Hexanone	9.49	43	1526105	271.823 ug/l	100
60) Dibromochloromethane	9.59	129	287518	47.105 ug/l	98
61) 1,2-Dibromoethane	9.67	107	326177	52.419 ug/l	100
64) Tetrachloroethene	9.34	164	297847	46.223 ug/l	100
65) Chlorobenzene	10.14	112	841386	48.873 ug/l	100
66) 1,1,1,2-Tetrachloroethane	10.22	131	279011	51.945 ug/l	100
67) Ethyl Benzene	10.25	91	1382392	49.140 ug/l	99
68) m/p-Xylenes	10.36	106	1121894	101.065 ug/l	99
69) o-Xylene	10.69	106	547383	49.936 ug/l	98
70) Styrene	10.71	104	889743	51.305 ug/l	100
71) Bromoform	10.86	173	211187	44.161 ug/l	100
73) Isopropylbenzene	11.02	105	1451025	49.252 ug/l	99
74) N-amyl acetate	10.90	43	525923	49.873 ug/l	99
75) 1,1,2,2-Tetrachloroethane	11.27	83	455918	52.035 ug/l	99
76) 1,2,3-Trichloropropane	11.30	75	418180m	52.252 ug/l	
77) Bromobenzene	11.26	156	389164	48.860 ug/l	98
78) n-propylbenzene	11.36	91	1601362	49.360 ug/l	99
79) 2-Chlorotoluene	11.42	91	953076	48.477 ug/l	99
80) 1,3,5-Trimethylbenzene	11.51	105	1200062	49.455 ug/l	99
81) trans-1,4-Dichloro-2-buten	11.07	75	110123	42.563 ug/l	97
82) 4-Chlorotoluene	11.51	91	1109057	49.178 ug/l	100
83) tert-Butylbenzene	11.77	119	1232702	50.757 ug/l	100
84) 1,2,4-Trimethylbenzene	11.80	105	1239715	48.571 ug/l	100
85) sec-Butylbenzene	11.94	105	1467524	49.285 ug/l	100
86) p-Isopropyltoluene	12.07	119	1316354	50.291 ug/l	99
87) 1,3-Dichlorobenzene	12.02	146	709637	49.436 ug/l	99
88) 1,4-Dichlorobenzene	12.10	146	706516	48.011 ug/l	100
89) n-Butylbenzene	12.39	91	1106366	49.666 ug/l	99
90) Hexachloroethane	12.60	117	184355	45.332 ug/l	98
91) 1,2-Dichlorobenzene	12.39	146	704402	49.054 ug/l	100
92) 1,2-Dibromo-3-Chloropropan	13.00	75	93212	51.415 ug/l	99
93) 1,2,4-Trichlorobenzene	13.65	180	482813	48.743 ug/l	99

Data Path : Z:\VOASRV\HPCHEM1\MSVOA X\DATA\VX121918\
Data File : VX006658.D
Acq On : 20 Dec 2018 00:44
Operator : JC/MD
Sample : J6484-05MS
Misc : 5.0mL/MSVOA X/WATER
ALS Vial : 25 Sample Multiplier: 1

Quant Time: Dec 20 05:02:58 2018
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121818W.M
Quant Title : SW846 8260
QLast Update : Wed Dec 19 15:20:58 2018
Response via : Initial Calibration

Instrument :
MSVOA_X
ClientSampleId :
966-MW-04(23)MS

Manual Integrations APPROVED
MMDadoda
12/20/2018 10:00:46 AM

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
94) Hexachlorobutadiene	13.78	225	211863	45.379 ug/l	99
95) Naphthalene	13.83	128	1573126	49.760 ug/l	99
96) 1,2,3-Trichlorobenzene	14.02	180	495594	48.459 ug/l	98

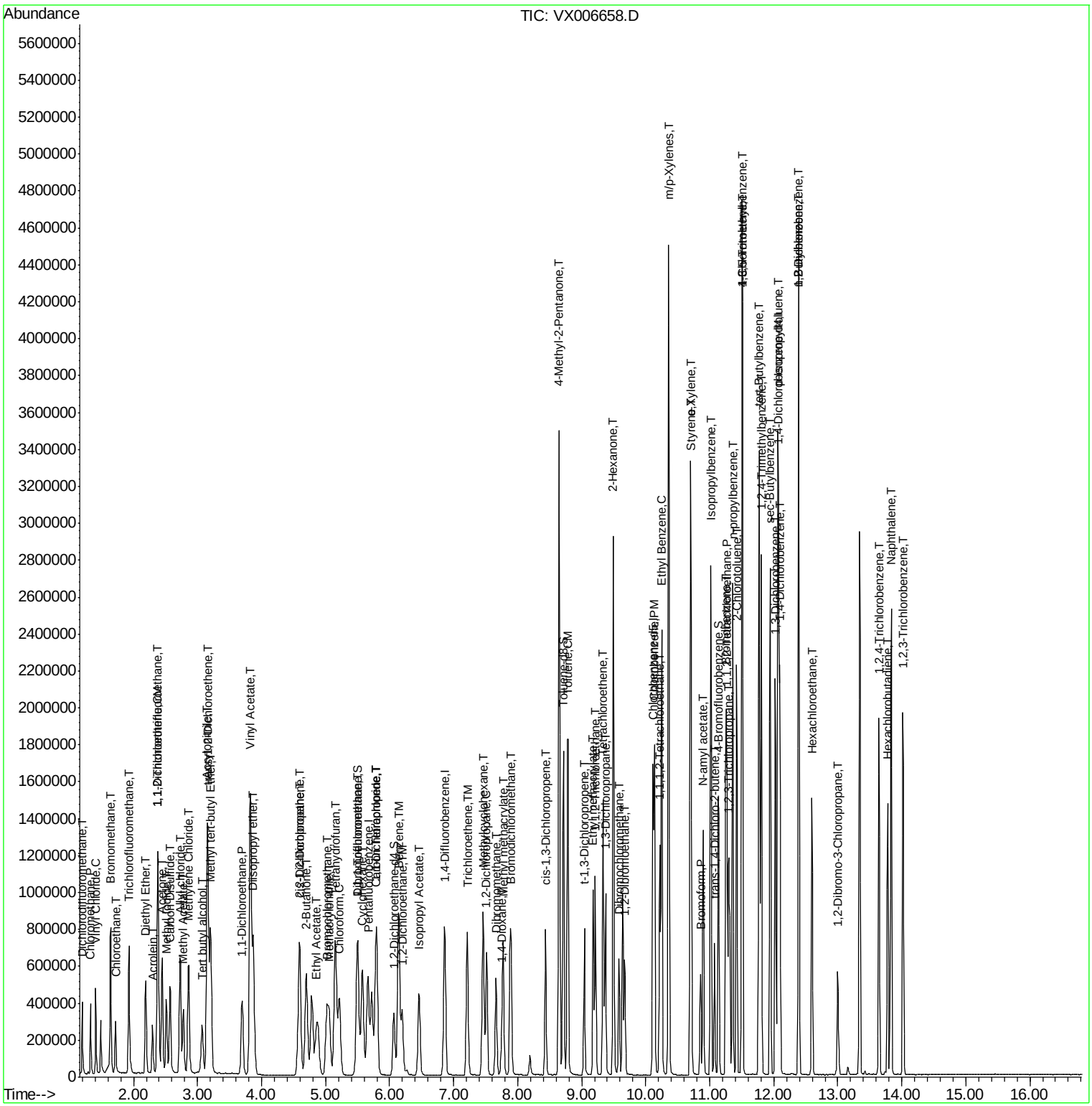
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX121918\
Data File : VX006658.D
Acq On : 20 Dec 2018 00:44
Operator : JC/MD
Sample : J6484-05MS
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 25 Sample Multiplier: 1

Quant Time: Dec 20 05:02:58 2018
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121818W.M
Quant Title : SW846 8260
QLast Update : Wed Dec 19 15:20:58 2018
Response via : Initial Calibration

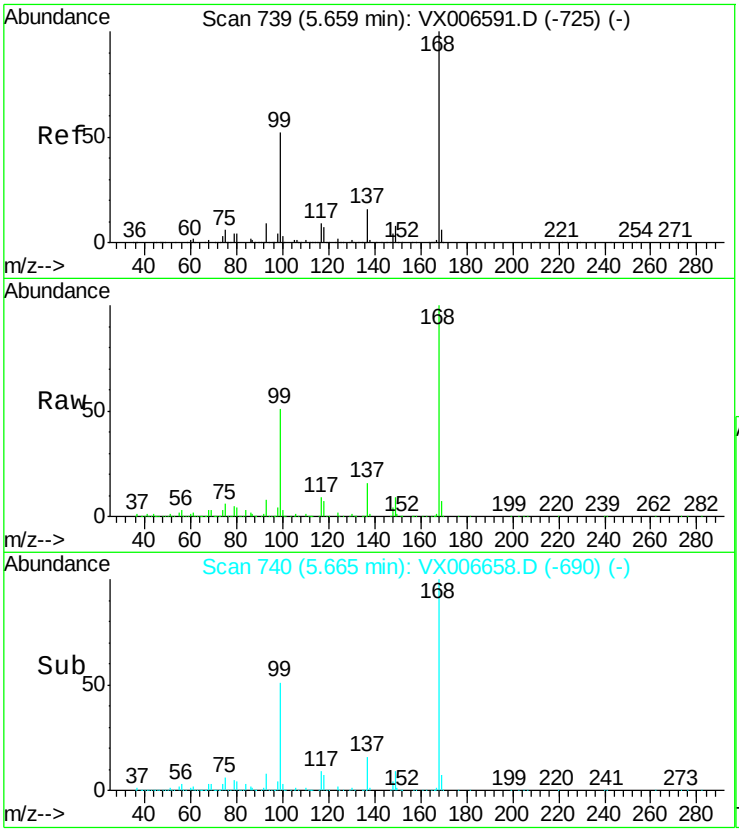
Instrument :
MSVOA_X
ClientSampleId :
966-MW-04(23)MS

Manual Integrations APPROVED
MMDadoda
12/20/2018 10:00:46 AM



Instrument :
MSVOA_X
ClientSampleId :
966-MW-04(23)MS

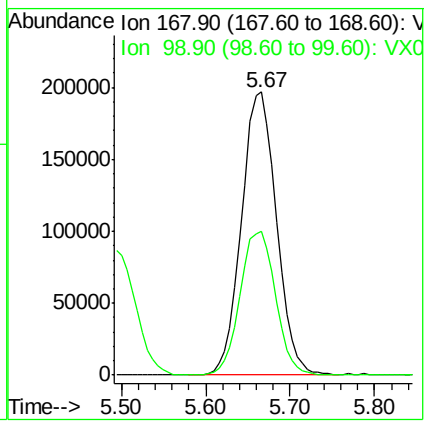
Manual Integrations APPROVED
MMDadoda
12/20/2018 10:00:46 AM

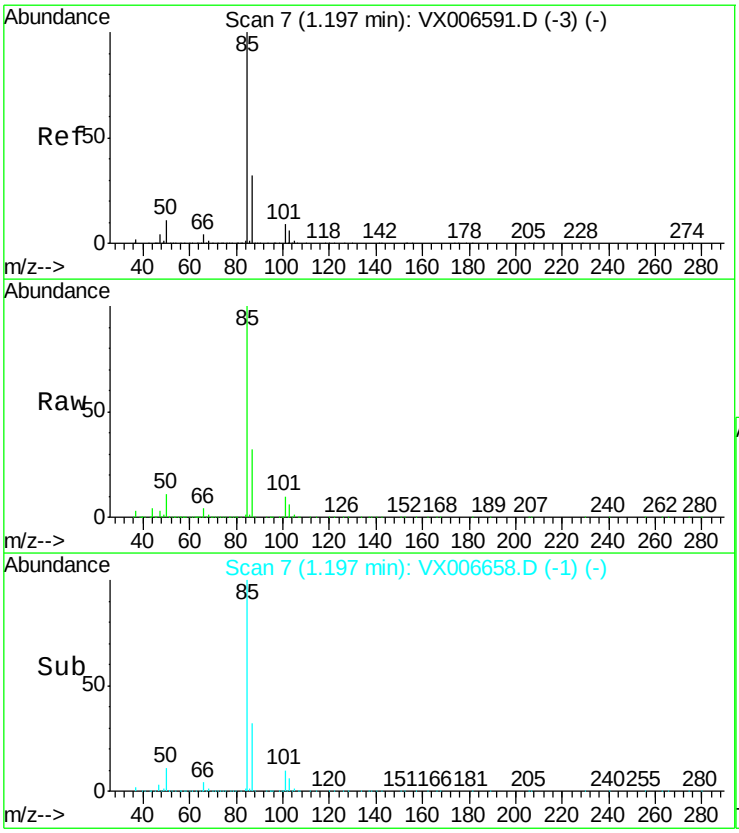


#1
Pentafluorobenzene
Concen: 50.000 ug/l
RT: 5.67 min Scan# 740
Delta R.T. 0.01 min
Lab File: VX006658.D
Acq: 20 Dec 2018 00:44

Tgt Ion:168 Resp: 553996

Ion	Ratio	Lower	Upper
168	100		
99	50.6	41.8	62.8

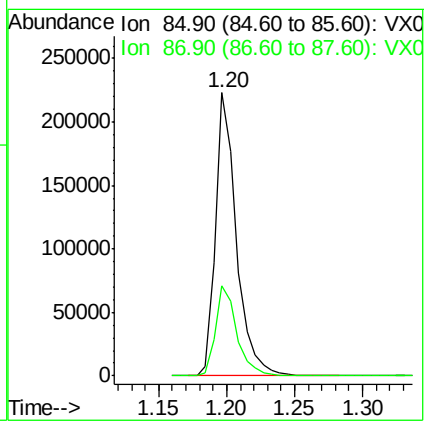




#2
Dichlorodifluoromethane
Concen: 46.695 ug/l
RT: 1.20 min Scan# 7
Delta R.T. -0.00 min
Lab File: VX006658.D
Acq: 20 Dec 2018 00:44

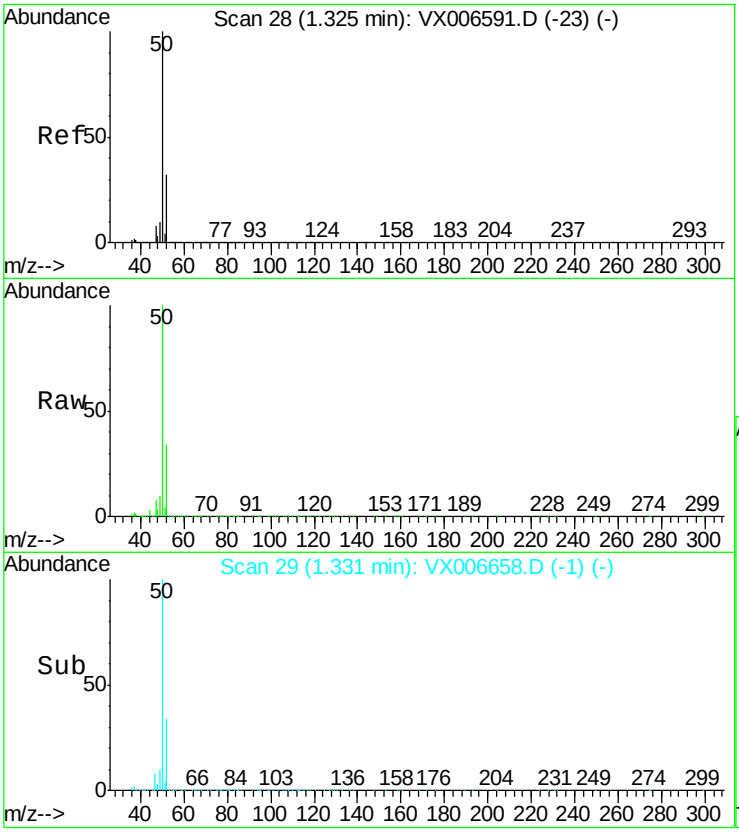
Tgt Ion: 85 Resp: 236654

Ion	Ratio	Lower	Upper
85	100		
87	31.9	15.9	47.6



Instrument :
MSVOA_X
ClientSampleId :
966-MW-04(23)MS

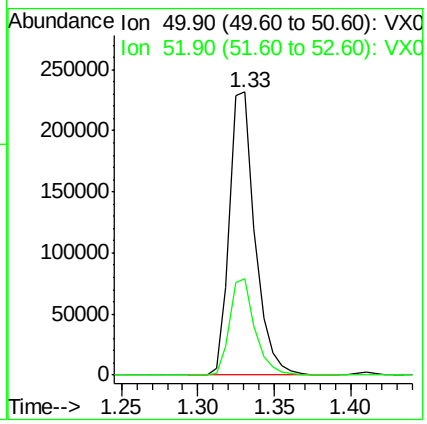
Manual Integrations APPROVED
MMDadoda
12/20/2018 10:00:46 AM

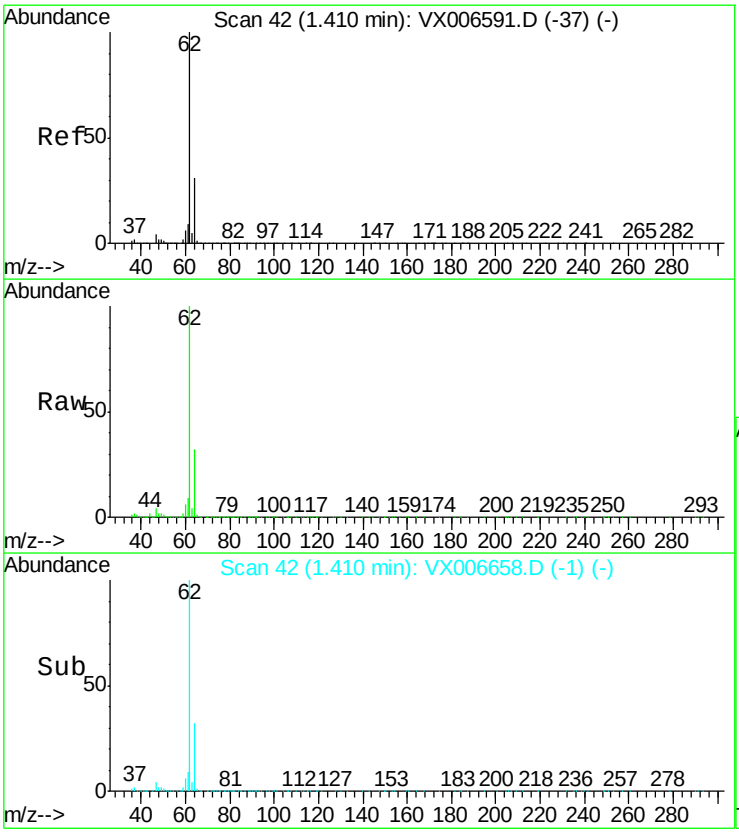


#3
Chloromethane
Concen: 49.271 ug/l
RT: 1.33 min Scan# 29
Delta R.T. 0.01 min
Lab File: VX006658.D
Acq: 20 Dec 2018 00:44

Tgt Ion: 50 Resp: 269023

Ion	Ratio	Lower	Upper
50	100		
52	34.1	25.4	38.2

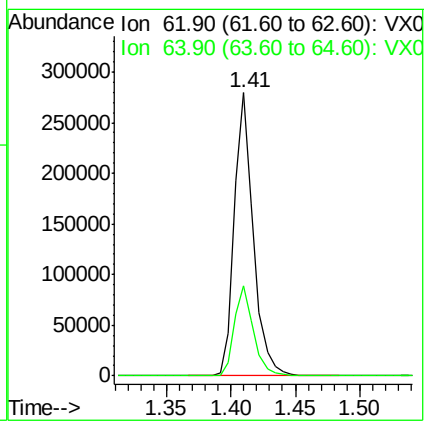




#4
Vinyl Chloride
Concen: 50.553 ug/l
RT: 1.41 min Scan# 42
Delta R.T. -0.00 min
Lab File: VX006658.D
Acq: 20 Dec 2018 00:44

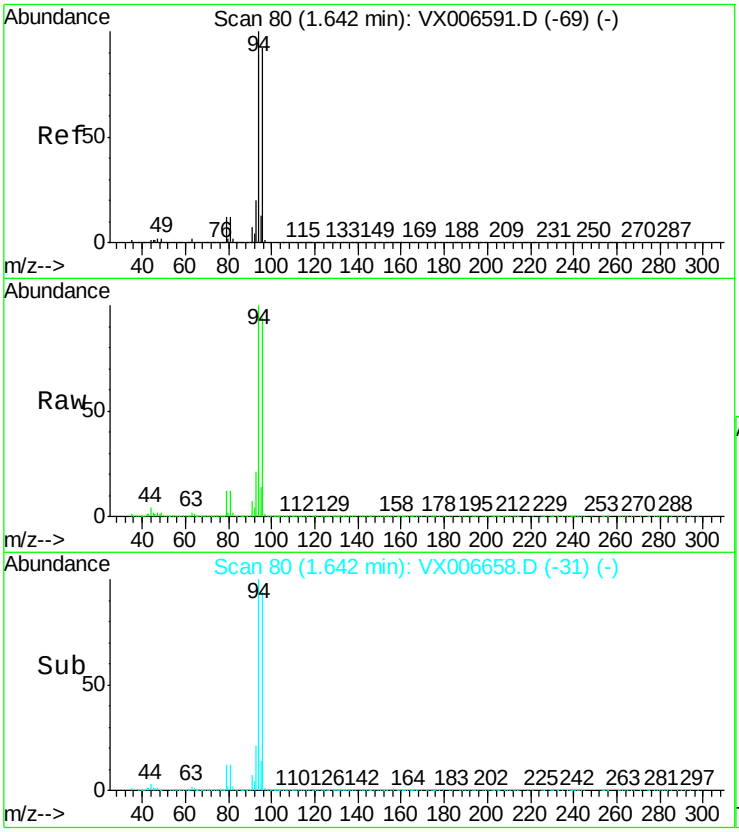
Tgt Ion: 62 Resp: 288281

Ion	Ratio	Lower	Upper
62	100		
64	31.8	25.1	37.7



Instrument :
MSVOA_X
ClientSampleId :
966-MW-04(23)MS

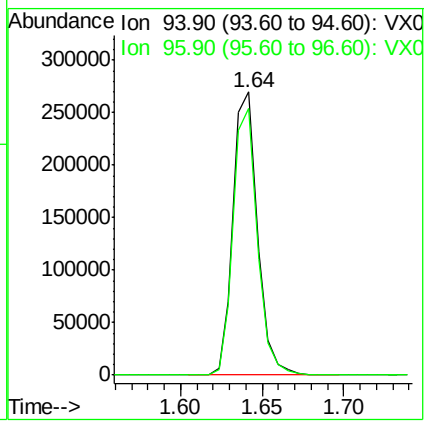
Manual Integrations APPROVED
MMDadoda
12/20/2018 10:00:46 AM

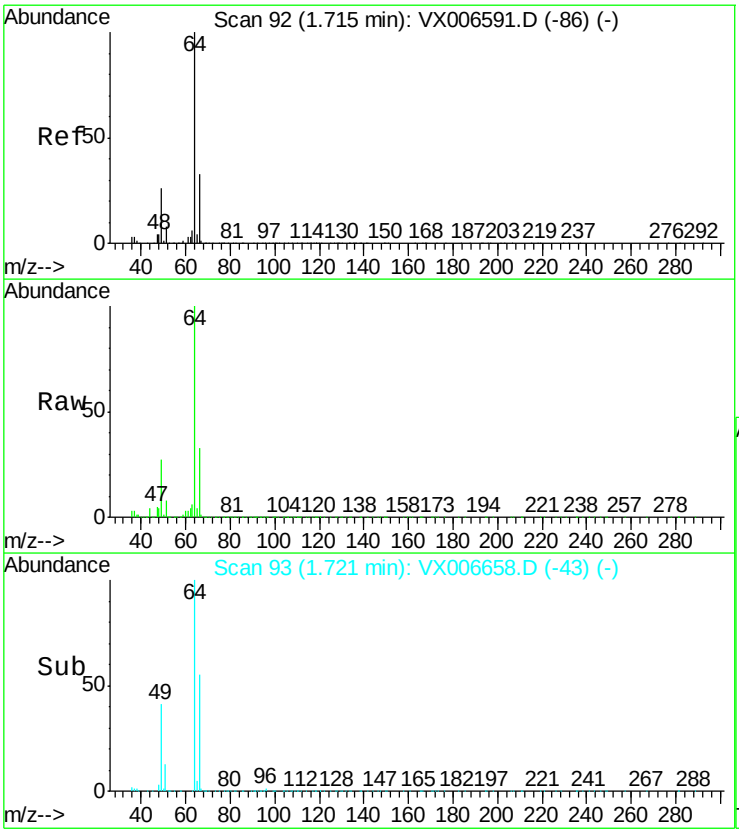


#5
Bromomethane
Concen: 52.564 ug/l
RT: 1.64 min Scan# 80
Delta R.T. 0.00 min
Lab File: VX006658.D
Acq: 20 Dec 2018 00:44

Tgt Ion: 94 Resp: 279205

Ion	Ratio	Lower	Upper
94	100		
96	94.0	73.4	110.2

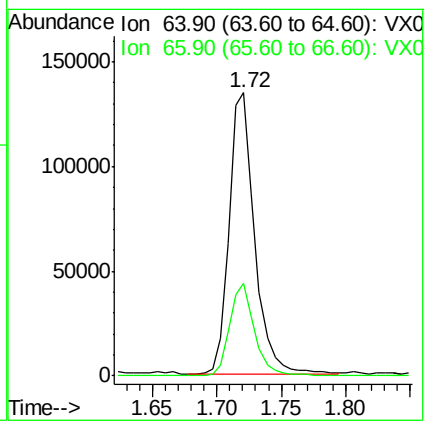




#6
Chloroethane
Concen: 46.921 ug/l
RT: 1.72 min Scan# 93
Delta R.T. 0.01 min
Lab File: VX006658.D
Acq: 20 Dec 2018 00:44

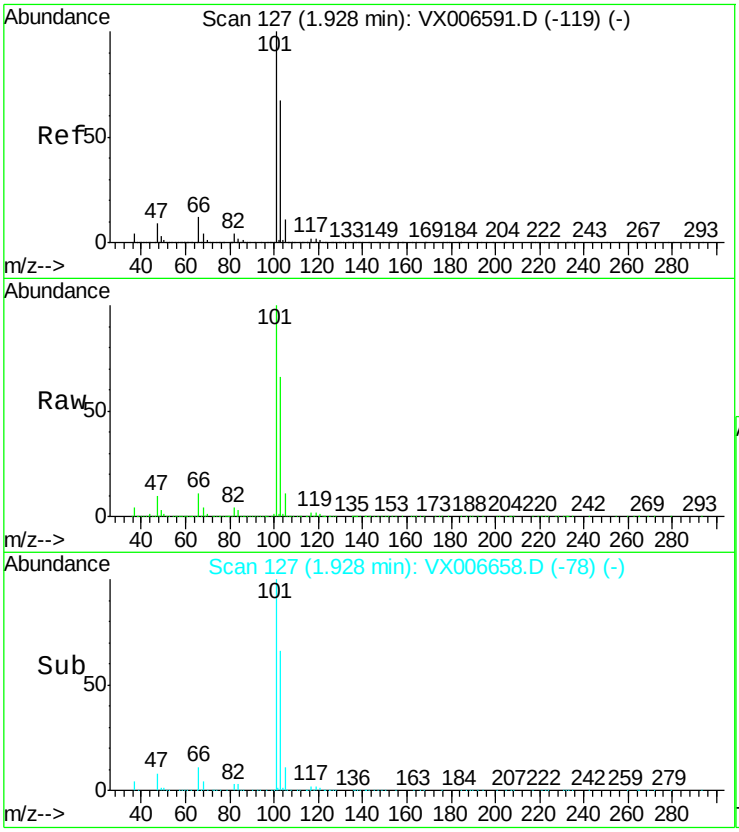
Tgt Ion: 64 Resp: 185268

Ion	Ratio	Lower	Upper
64	100		
66	33.0	26.4	39.6



Instrument :
MSVOA_X
ClientSampleId :
966-MW-04(23)MS

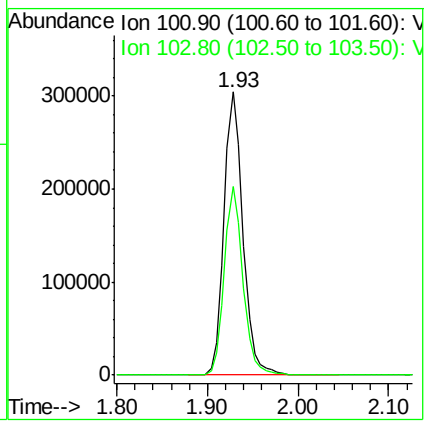
Manual Integrations APPROVED
MMDadoda
12/20/2018 10:00:46 AM

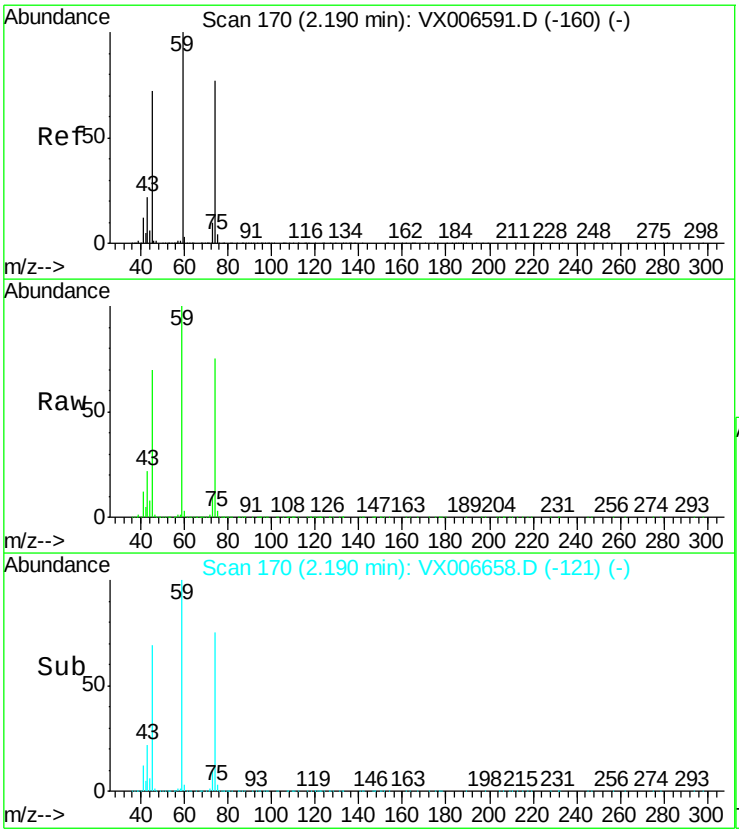


#7
Trichlorofluoromethane
Concen: 49.853 ug/l
RT: 1.93 min Scan# 127
Delta R.T. -0.00 min
Lab File: VX006658.D
Acq: 20 Dec 2018 00:44

Tgt Ion:101 Resp: 443233

Ion	Ratio	Lower	Upper
101	100		
103	66.4	53.2	79.8

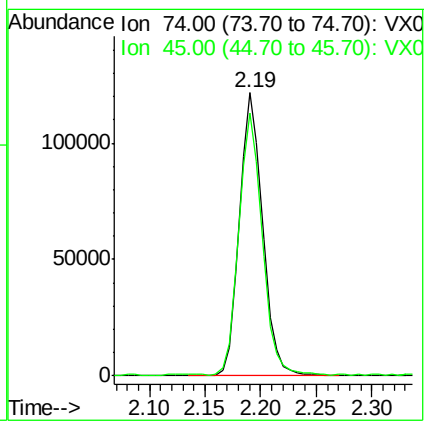


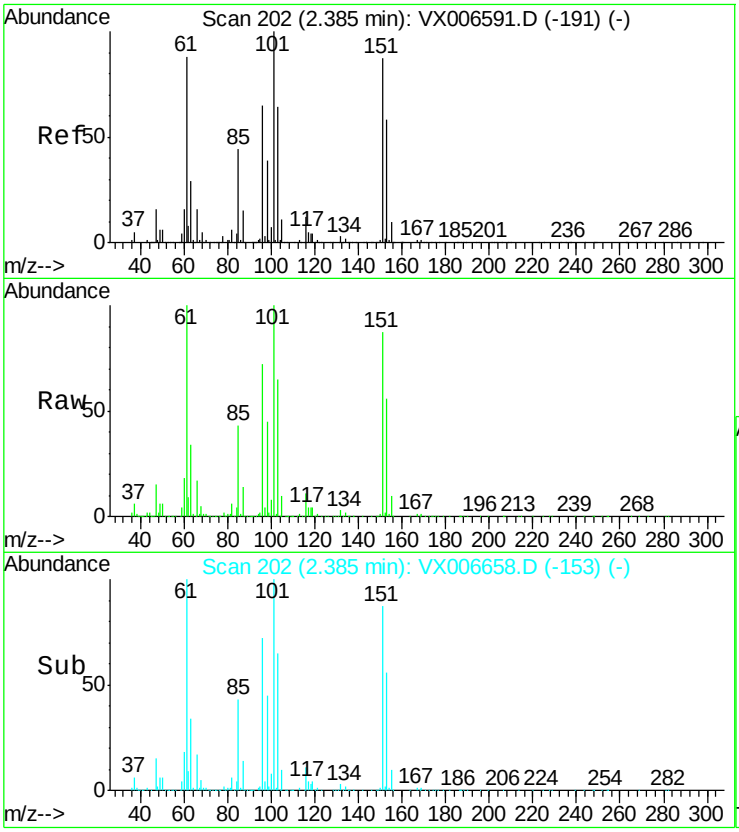


#8
Diethyl Ether
Concen: 49.653 ug/l
RT: 2.19 min Scan# 170
Delta R.T. -0.00 min
Lab File: VX006658.D
Acq: 20 Dec 2018 00:44

Tgt Ion: 74 Resp: 175340

Ion	Ratio	Lower	Upper
74	100		
45	93.5	46.3	138.9

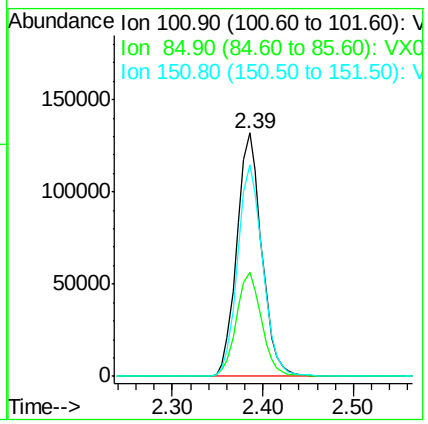




#9
1,1,2-Trichlorotrifluoroethane
Concen: 48.033 ug/l
RT: 2.39 min Scan# 202
Delta R.T. -0.00 min
Lab File: VX006658.D
Acq: 20 Dec 2018 00:44

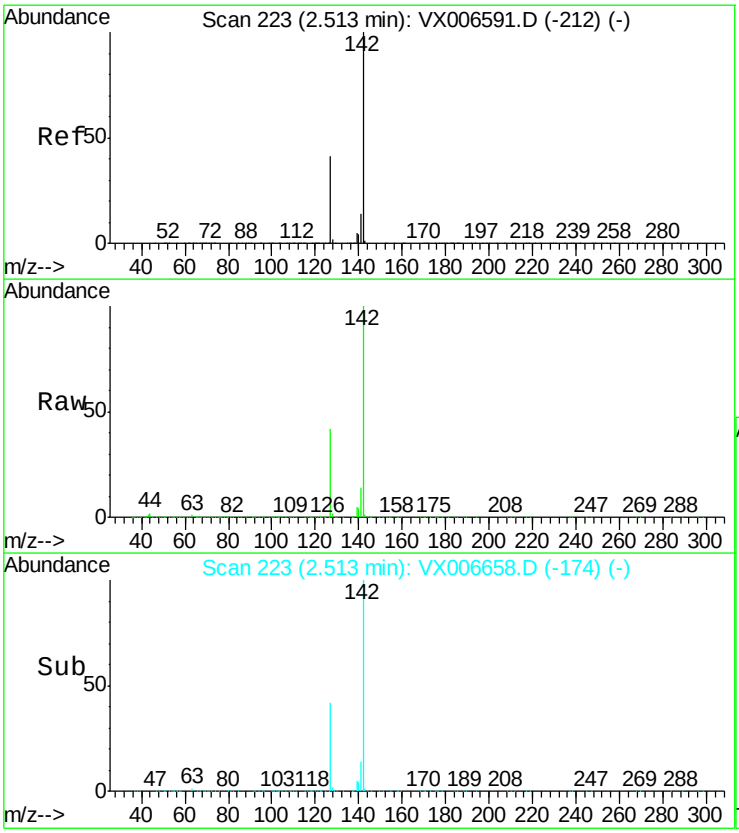
Tgt Ion:101 Resp: 250746

Ion	Ratio	Lower	Upper
101	100		
85	43.2	35.1	52.7
151	87.8	68.9	103.3



Instrument :
MSVOA_X
ClientSampleId :
966-MW-04(23)MS

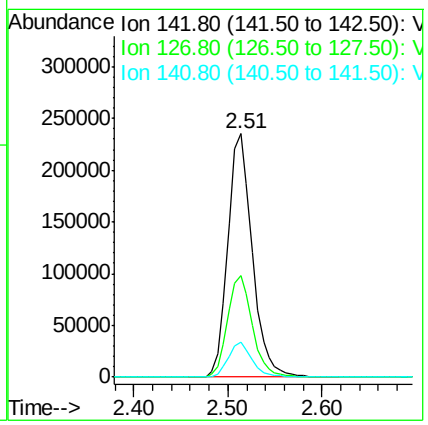
Manual Integrations APPROVED
MMDadoda
12/20/2018 10:00:46 AM



#10
Methyl Iodide
Concen: 56.874 ug/l
RT: 2.51 min Scan# 223
Delta R.T. -0.00 min
Lab File: VX006658.D
Acq: 20 Dec 2018 00:44

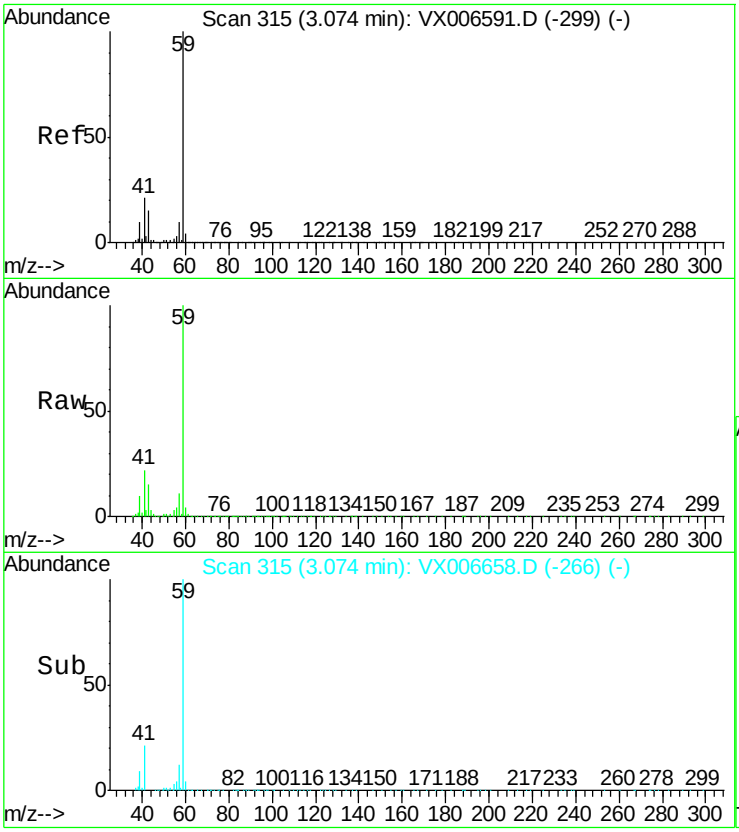
Tgt Ion:142 Resp: 424995

Ion	Ratio	Lower	Upper
142	100		
127	42.2	33.9	50.9
141	13.9	11.4	17.0



Instrument :
MSVOA_X
ClientSampleId :
966-MW-04(23)MS

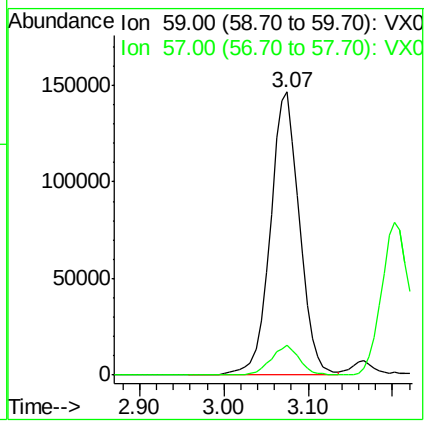
Manual Integrations APPROVED
MMDadoda
12/20/2018 10:00:46 AM

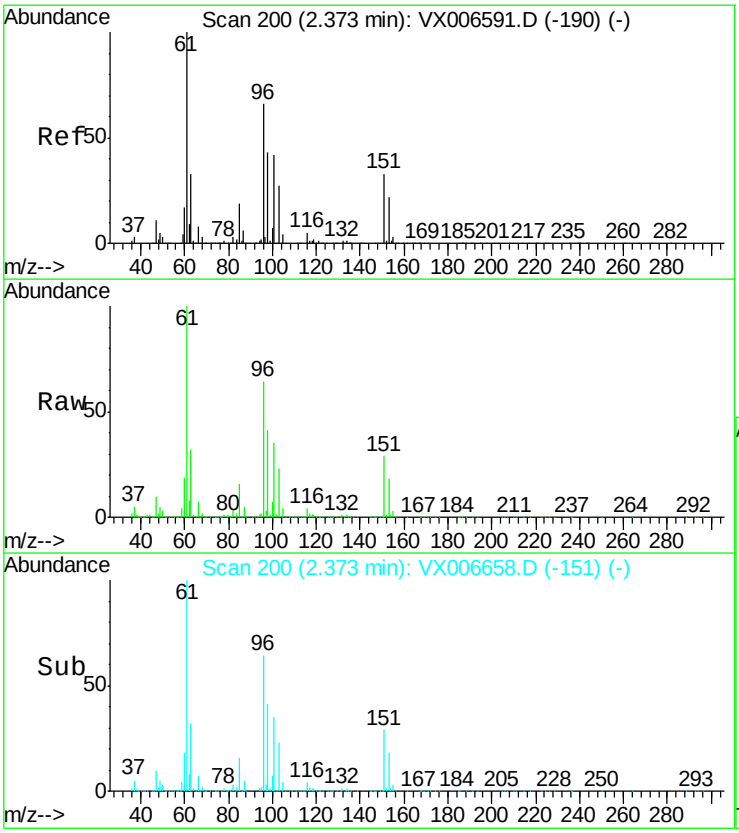


#11
Tert butyl alcohol
Concen: 262.724 ug/l
RT: 3.07 min Scan# 315
Delta R.T. -0.00 min
Lab File: VX006658.D
Acq: 20 Dec 2018 00:44

Tgt Ion: 59 Resp: 350081

Ion	Ratio	Lower	Upper
59	100		
57	10.1	8.5	12.7

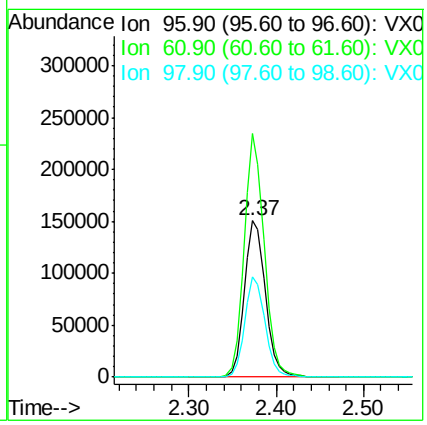




#12
1,1-Dichloroethene
Concen: 50.662 ug/l
RT: 2.37 min Scan# 200
Delta R.T. -0.00 min
Lab File: VX006658.D
Acq: 20 Dec 2018 00:44

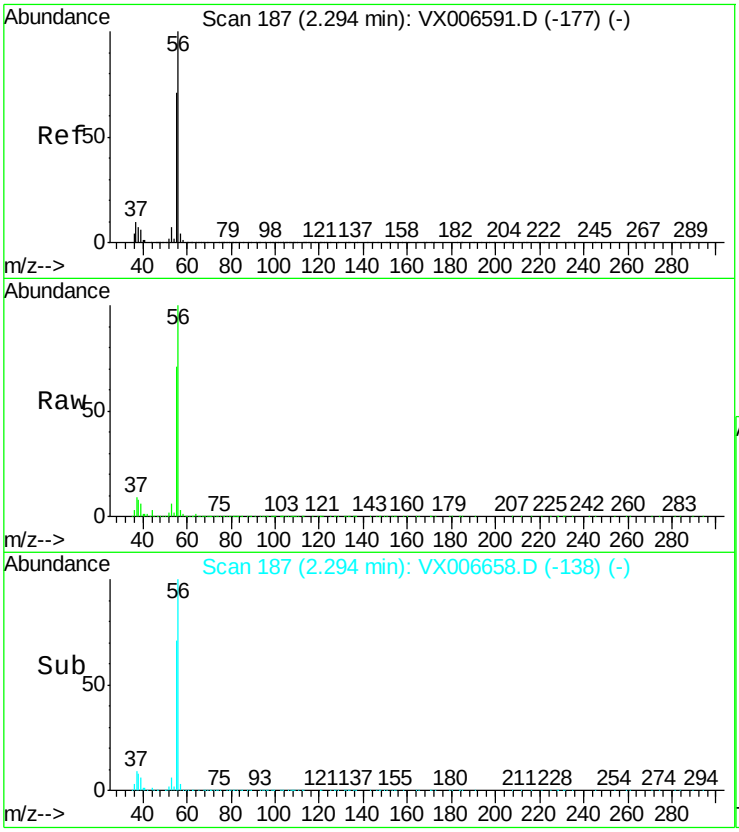
Tgt Ion: 96 Resp: 250766

Ion	Ratio	Lower	Upper
96	100		
61	155.6	121.4	182.2
98	64.3	51.9	77.9



Instrument :
MSVOA_X
ClientSampleId :
966-MW-04(23)MS

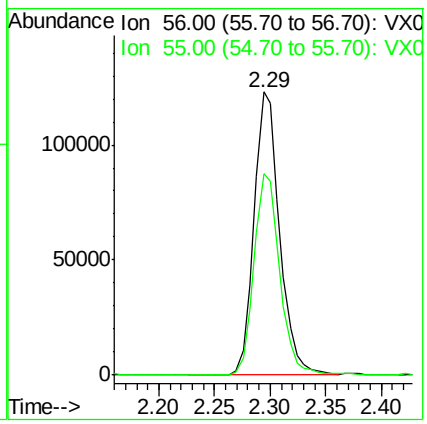
Manual Integrations APPROVED
MMDadoda
12/20/2018 10:00:46 AM

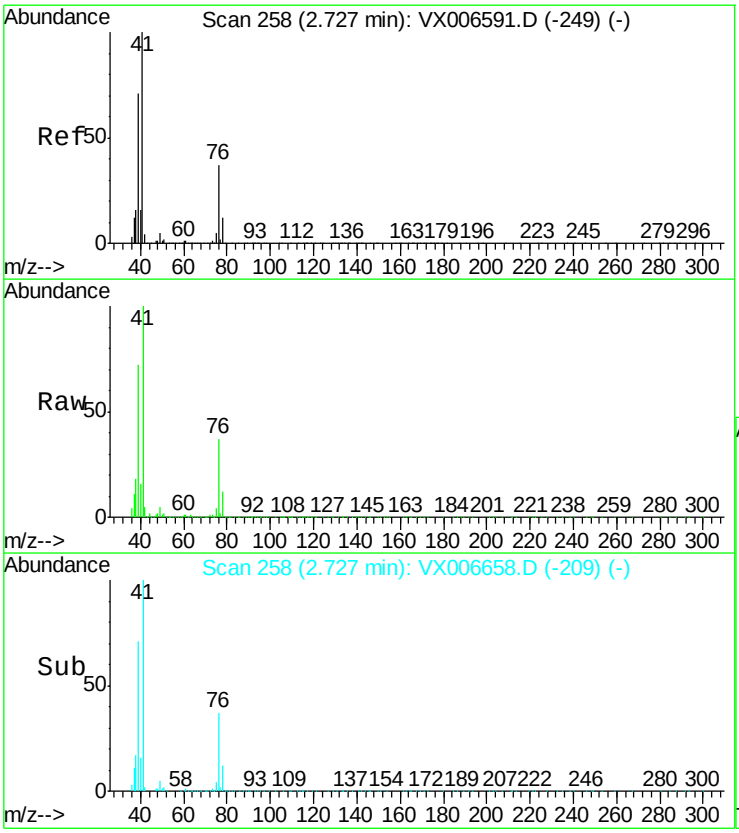


#13
Acrolein
Concen: 218.874 ug/l
RT: 2.29 min Scan# 187
Delta R.T. -0.00 min
Lab File: VX006658.D
Acq: 20 Dec 2018 00:44

Tgt Ion: 56 Resp: 196749

Ion	Ratio	Lower	Upper
56	100		
55	71.3	58.2	87.4

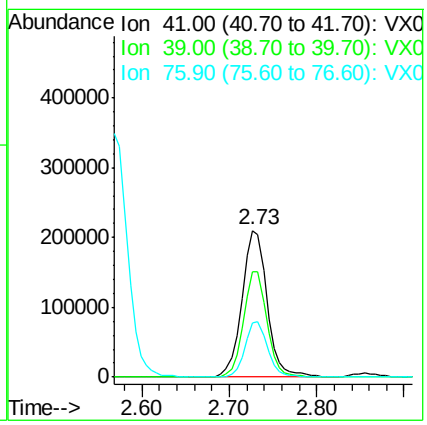




#14
Allyl chloride
Concen: 50.177 ug/l
RT: 2.73 min Scan# 258
Delta R.T. -0.00 min
Lab File: VX006658.D
Acq: 20 Dec 2018 00:44

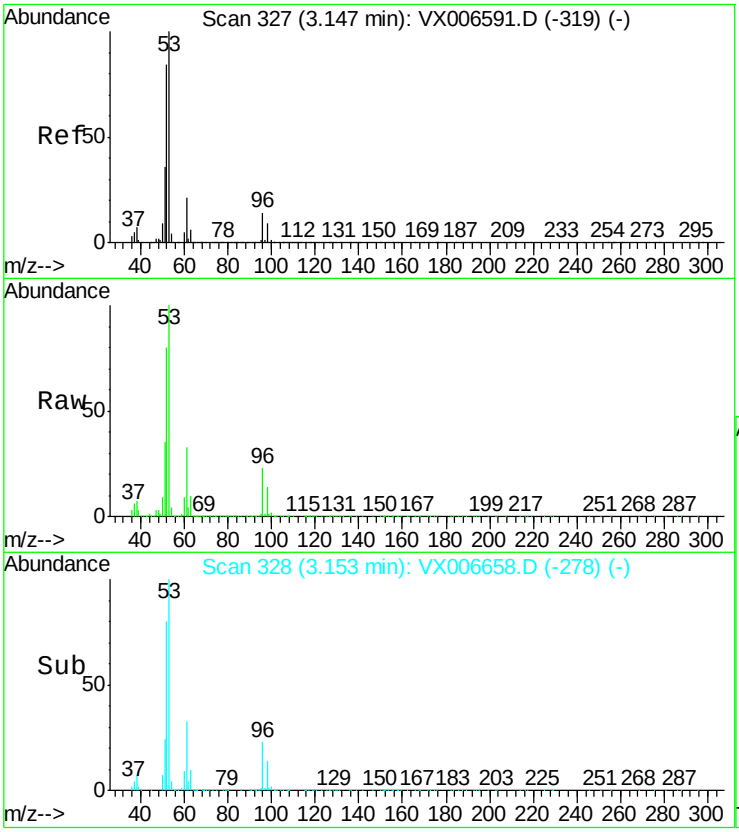
Tgt Ion: 41 Resp: 418055

Ion	Ratio	Lower	Upper
41	100		
39	66.8	53.6	80.4
76	33.6	27.4	41.2



Instrument :
MSVOA_X
ClientSampleId :
966-MW-04(23)MS

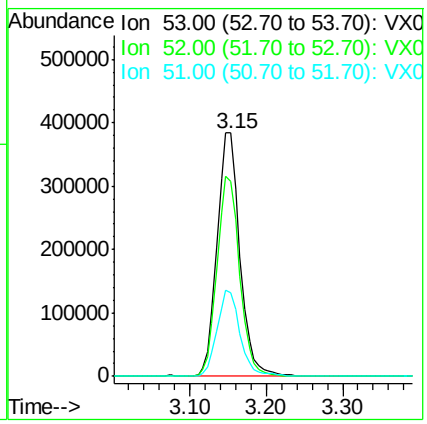
Manual Integrations APPROVED
MMDadoda
12/20/2018 10:00:46 AM

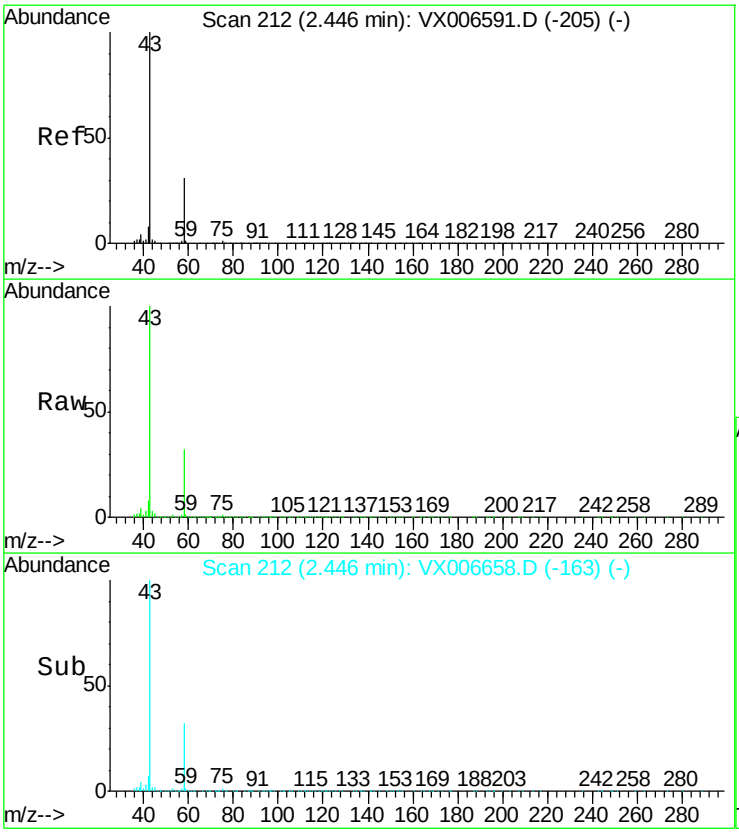


#15
Acrylonitrile
Concen: 267.017 ug/l
RT: 3.15 min Scan# 328
Delta R.T. 0.01 min
Lab File: VX006658.D
Acq: 20 Dec 2018 00:44

Tgt Ion: 53 Resp: 789990

Ion	Ratio	Lower	Upper
53	100		
52	81.6	66.0	99.0
51	35.4	28.6	42.8

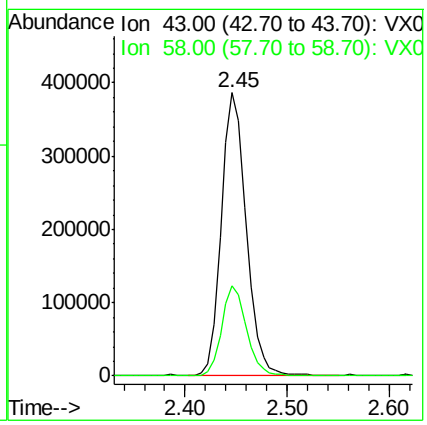




#16
Acetone
Concen: 237.610 ug/l
RT: 2.45 min Scan# 212
Delta R.T. -0.00 min
Lab File: VX006658.D
Acq: 20 Dec 2018 00:44

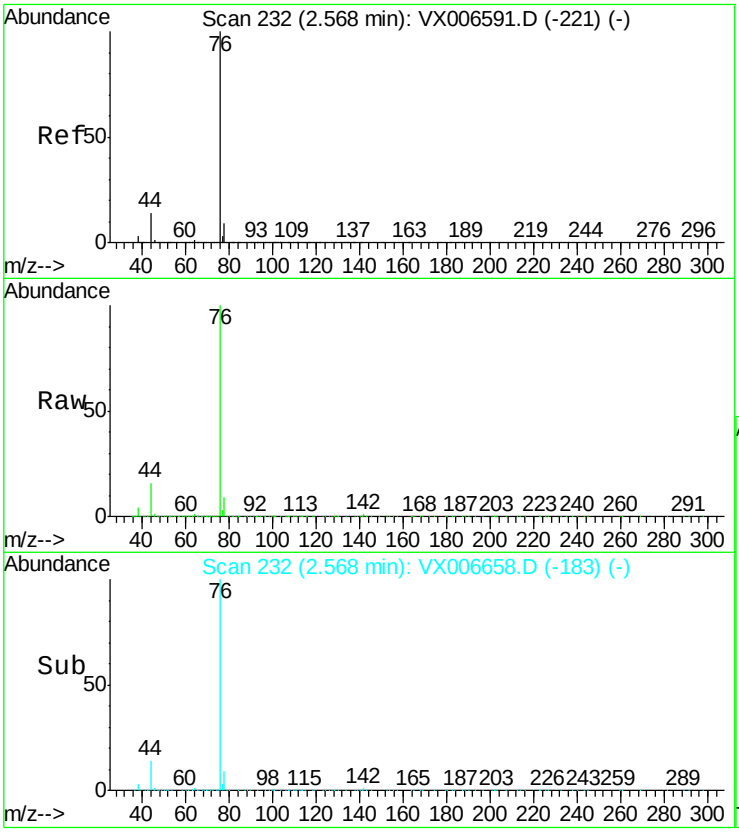
Tgt Ion: 43 Resp: 651798

Ion	Ratio	Lower	Upper
43	100		
58	32.0	25.0	37.6



Instrument :
MSVOA_X
ClientSampleId :
966-MW-04(23)MS

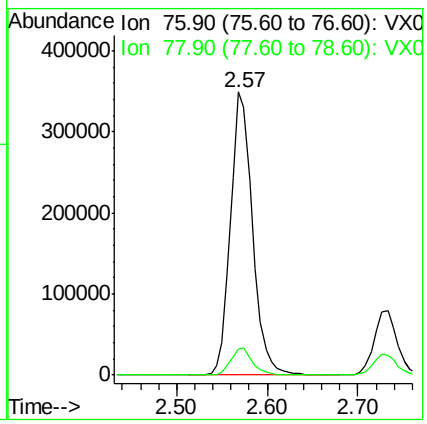
Manual Integrations APPROVED
MMDadoda
12/20/2018 10:00:46 AM

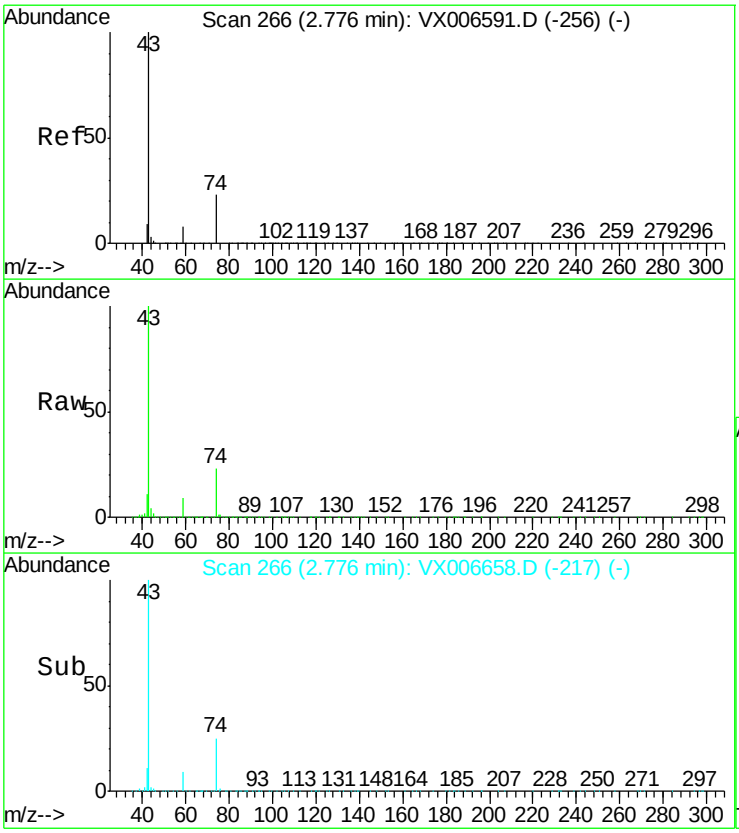


#17
Carbon Disulfide
Concen: 44.894 ug/l
RT: 2.57 min Scan# 232
Delta R.T. -0.00 min
Lab File: VX006658.D
Acq: 20 Dec 2018 00:44

Tgt Ion: 76 Resp: 588067

Ion	Ratio	Lower	Upper
76	100		
78	9.2	7.0	10.6

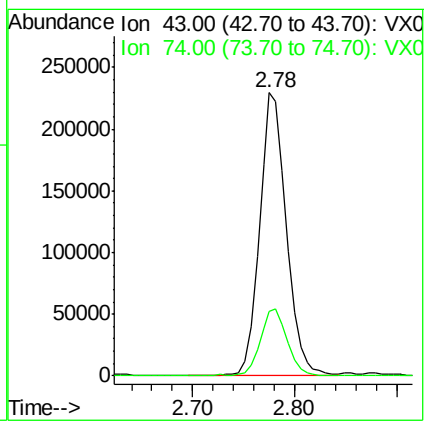




#18
Methyl Acetate
Concen: 51.831 ug/l
RT: 2.78 min Scan# 266
Delta R.T. -0.00 min
Lab File: VX006658.D
Acq: 20 Dec 2018 00:44

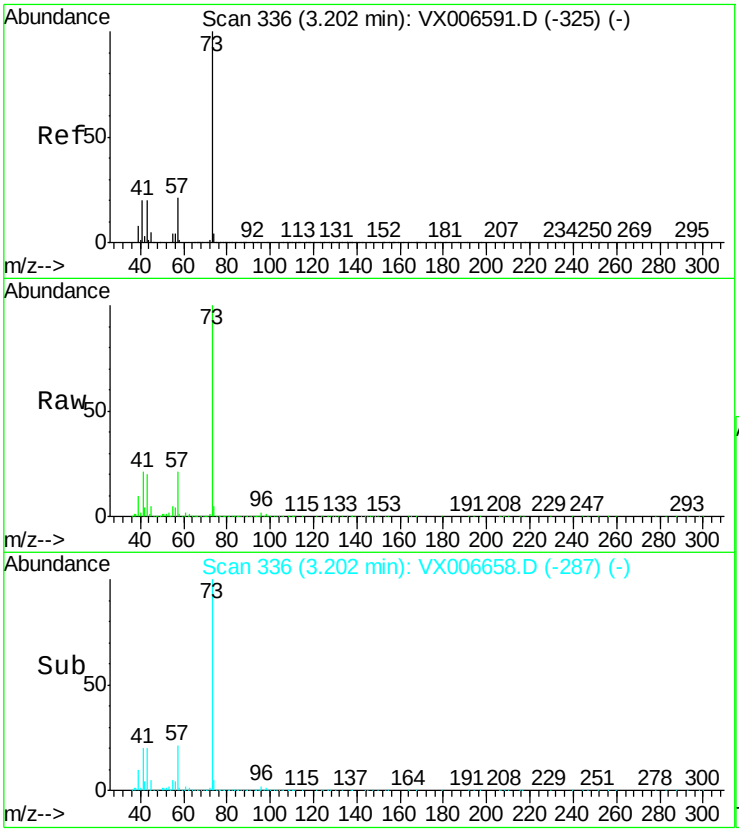
Tgt Ion: 43 Resp: 418073

Ion	Ratio	Lower	Upper
43	100		
74	24.3	18.6	28.0



Instrument :
MSVOA_X
ClientSampleId :
966-MW-04(23)MS

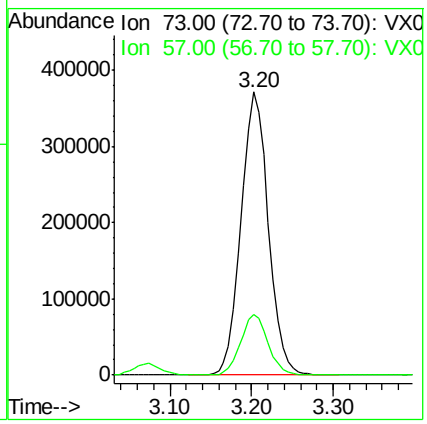
Manual Integrations APPROVED
MMDadoda
12/20/2018 10:00:46 AM

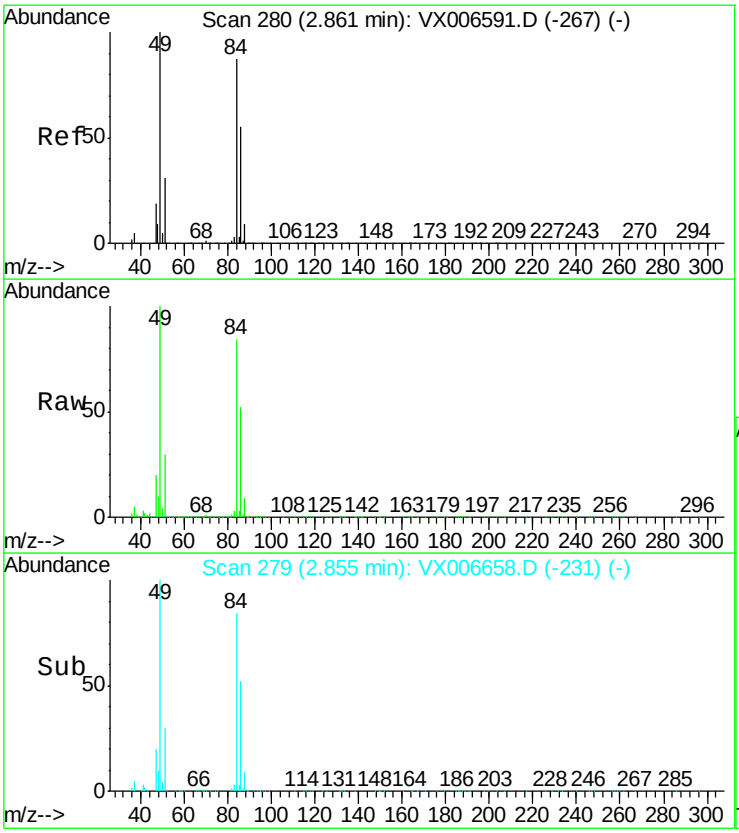


#19
Methyl tert-butyl Ether
Concen: 52.434 ug/l
RT: 3.20 min Scan# 336
Delta R.T. -0.00 min
Lab File: VX006658.D
Acq: 20 Dec 2018 00:44

Tgt Ion: 73 Resp: 861415

Ion	Ratio	Lower	Upper
73	100		
57	21.1	16.8	25.2

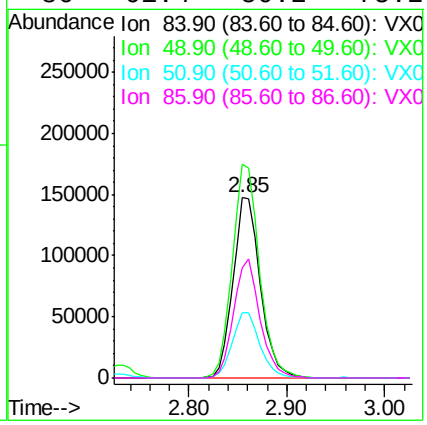




#20
Methylene Chloride
Concen: 50.438 ug/l
RT: 2.85 min Scan# 279
Delta R.T. -0.01 min
Lab File: VX006658.D
Acq: 20 Dec 2018 00:44

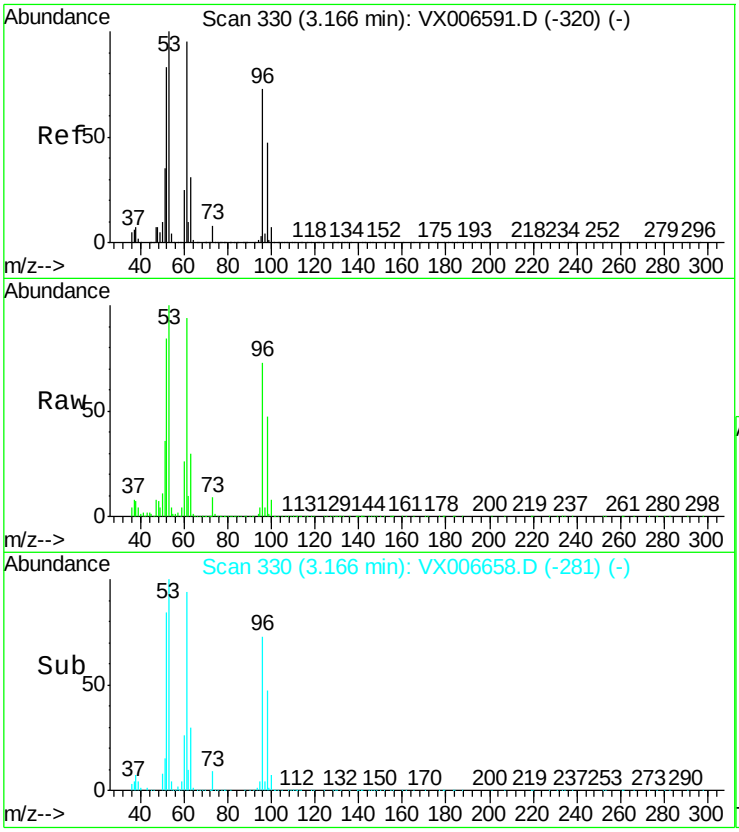
Tgt Ion: 84 Resp: 286103

Ion	Ratio	Lower	Upper
84	100		
49	118.3	91.8	137.6
51	35.9	28.5	42.7
86	61.4	50.2	75.2



Instrument :
MSVOA_X
ClientSampleId :
966-MW-04(23)MS

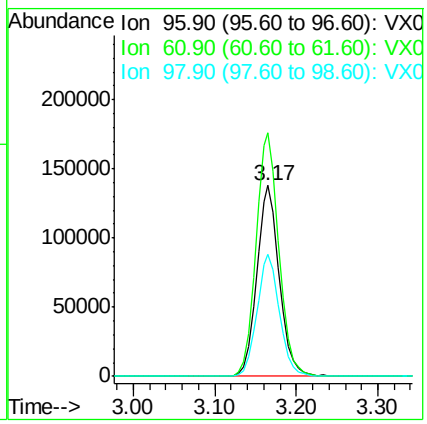
Manual Integrations APPROVED
MMDadoda
12/20/2018 10:00:46 AM

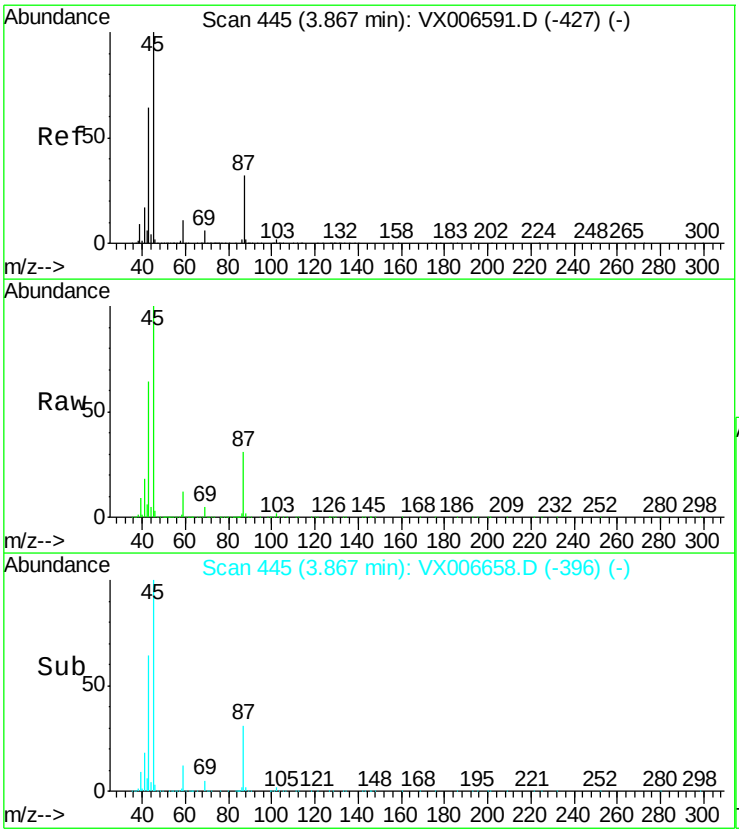


#21
trans-1,2-Dichloroethene
Concen: 48.557 ug/l
RT: 3.17 min Scan# 330
Delta R.T. -0.00 min
Lab File: VX006658.D
Acq: 20 Dec 2018 00:44

Tgt Ion: 96 Resp: 266305

Ion	Ratio	Lower	Upper
96	100		
61	127.4	103.7	155.5
98	63.8	51.0	76.6

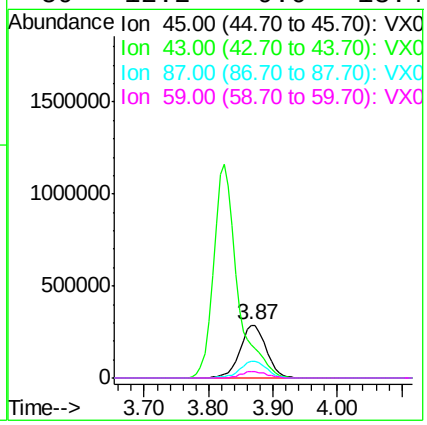




#22
Diisopropyl ether
Concen: 52.508 ug/l
RT: 3.87 min Scan# 445
Delta R.T. -0.00 min
Lab File: VX006658.D
Acq: 20 Dec 2018 00:44

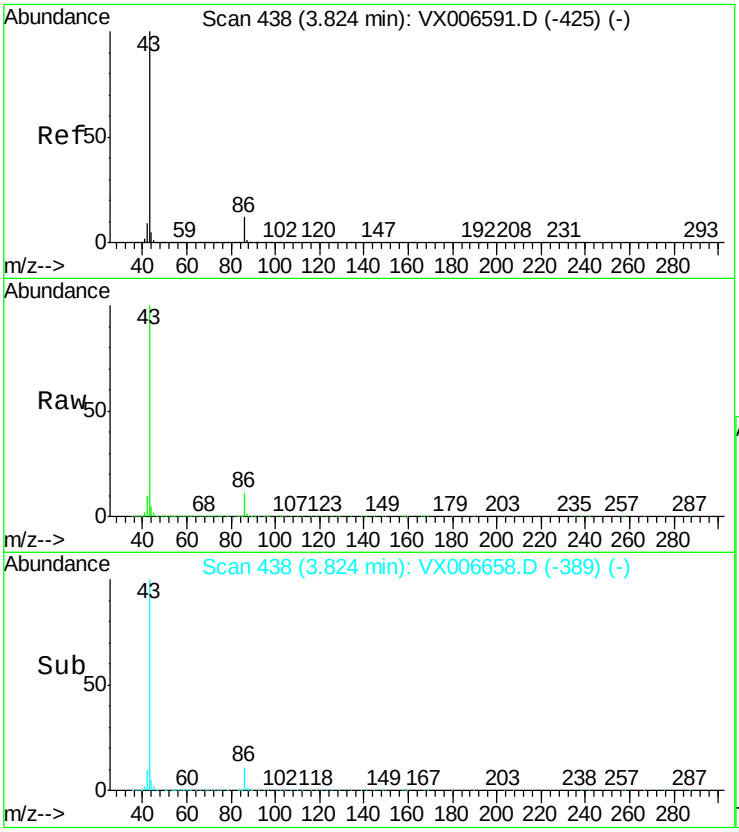
Tgt Ion: 45 Resp: 800344

Ion	Ratio	Lower	Upper
45	100		
43	63.6	51.2	76.8
87	31.4	25.8	38.6
59	12.2	9.0	13.4



Instrument :
MSVOA_X
ClientSampleId :
966-MW-04(23)MS

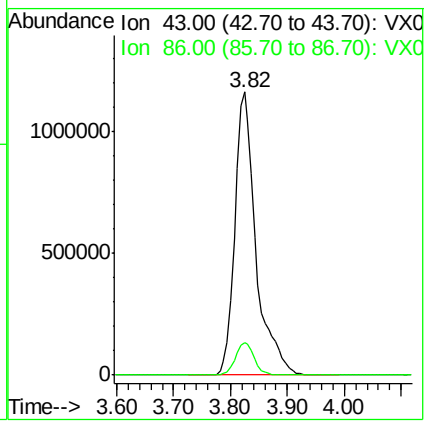
Manual Integrations APPROVED
MMDadoda
12/20/2018 10:00:46 AM

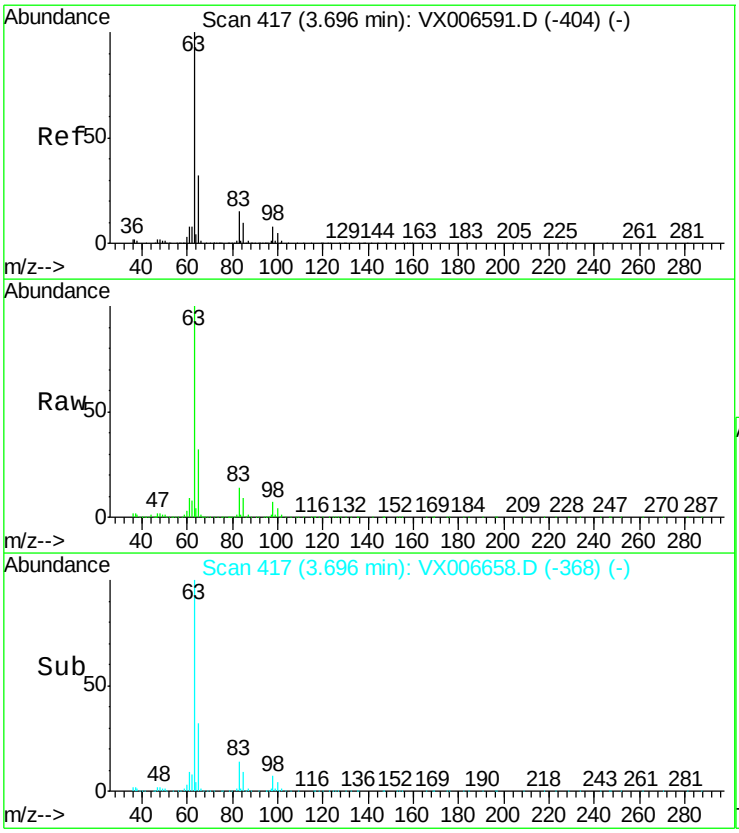


#23
Vinyl Acetate
Concen: 241.499 ug/l
RT: 3.82 min Scan# 438
Delta R.T. -0.00 min
Lab File: VX006658.D
Acq: 20 Dec 2018 00:44

Tgt Ion: 43 Resp: 3010947

Ion	Ratio	Lower	Upper
43	100		
86	11.5	9.2	13.8

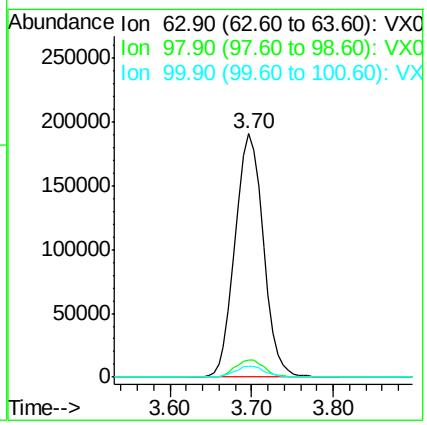




#24
1,1-Dichloroethane
Concen: 50.331 ug/l
RT: 3.70 min Scan# 417
Delta R.T. -0.00 min
Lab File: VX006658.D
Acq: 20 Dec 2018 00:44

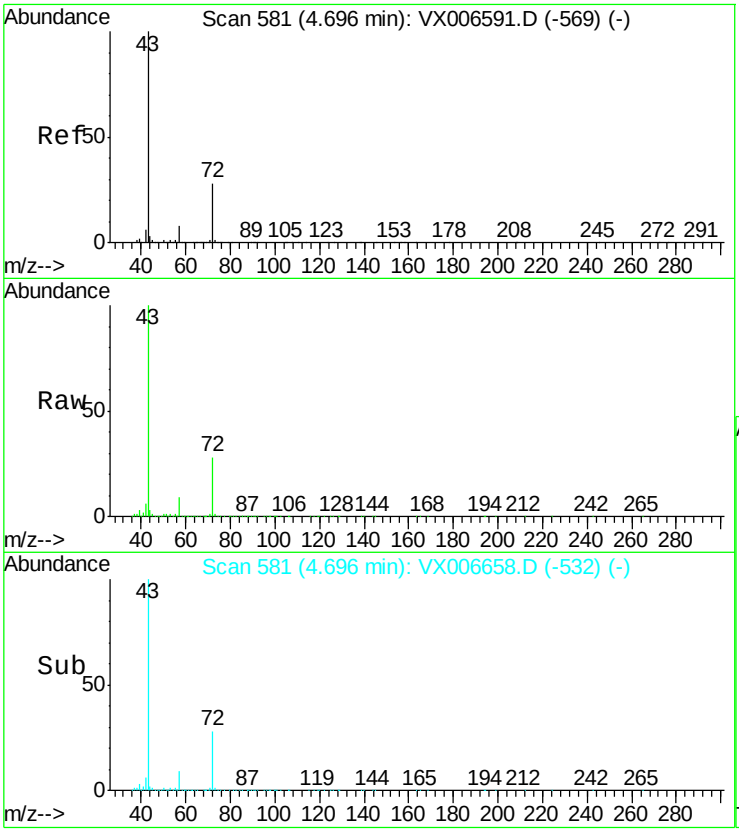
Tgt Ion: 63 Resp: 457963

Ion	Ratio	Lower	Upper
63	100		
98	7.1	3.9	11.5
100	4.3	2.4	7.2



Instrument :
MSVOA_X
ClientSampleId :
966-MW-04(23)MS

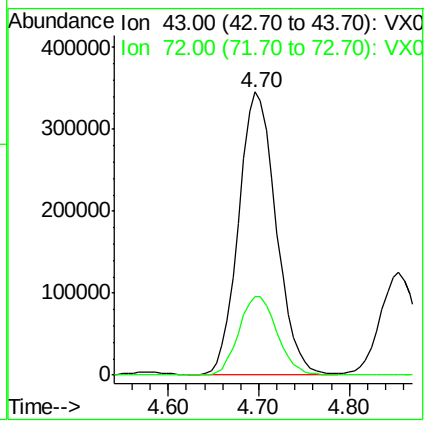
Manual Integrations APPROVED
MMDadoda
12/20/2018 10:00:46 AM

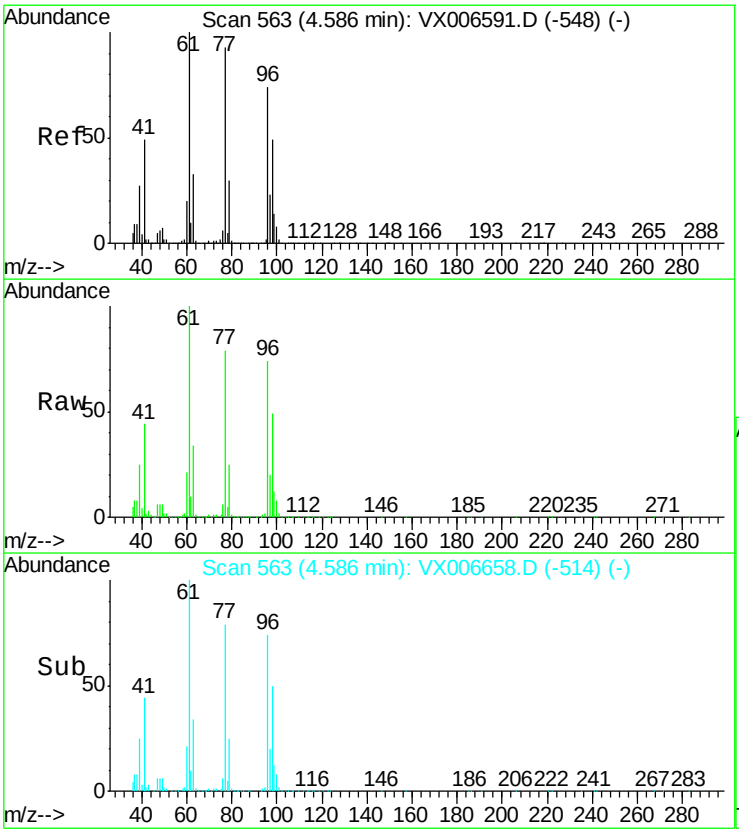


#25
2-Butanone
Concen: 255.695 ug/l
RT: 4.70 min Scan# 581
Delta R.T. -0.00 min
Lab File: VX006658.D
Acq: 20 Dec 2018 00:44

Tgt Ion: 43 Resp: 986615

Ion	Ratio	Lower	Upper
43	100		
72	27.7	22.4	33.6

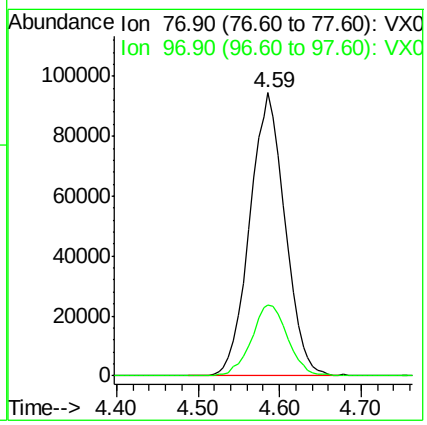




#26
2,2-Dichloropropane
Concen: 40.340 ug/l
RT: 4.59 min Scan# 563
Delta R.T. -0.00 min
Lab File: VX006658.D
Acq: 20 Dec 2018 00:44

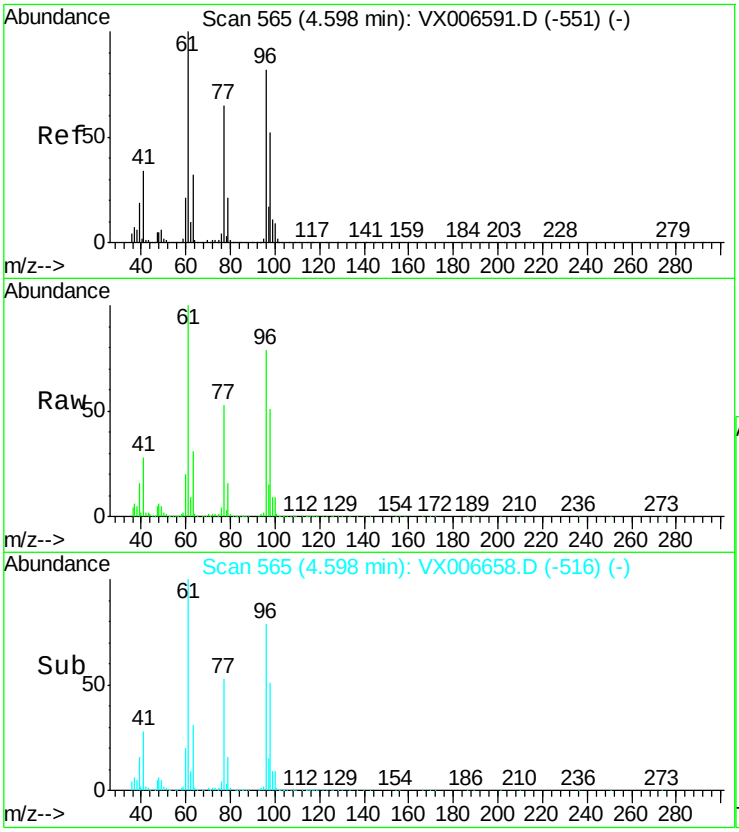
Tgt Ion: 77 Resp: 283530

Ion	Ratio	Lower	Upper
77	100		
97	26.0	12.4	37.4



Instrument :
MSVOA_X
ClientSampleId :
966-MW-04(23)MS

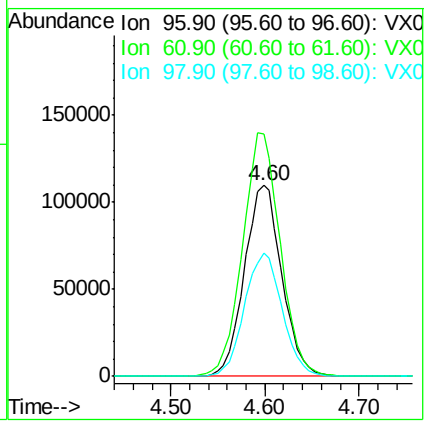
Manual Integrations APPROVED
MMDadoda
12/20/2018 10:00:46 AM

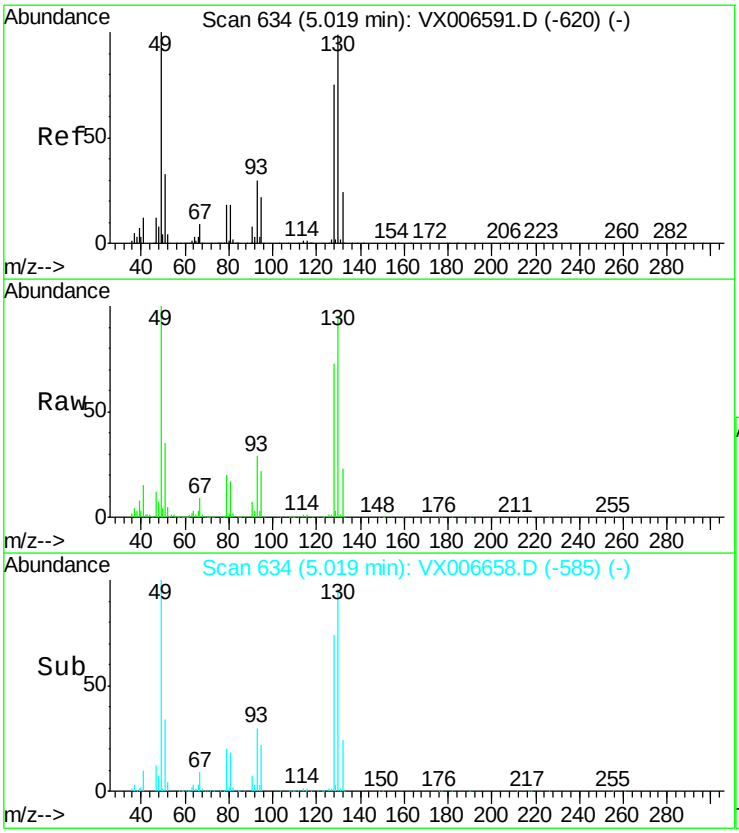


#27
cis-1,2-Dichloroethene
Concen: 50.553 ug/l
RT: 4.60 min Scan# 565
Delta R.T. -0.00 min
Lab File: VX006658.D
Acq: 20 Dec 2018 00:44

Tgt Ion: 96 Resp: 305896

Ion	Ratio	Lower	Upper
96	100		
61	128.5	0.0	258.6
98	65.3	0.0	132.0

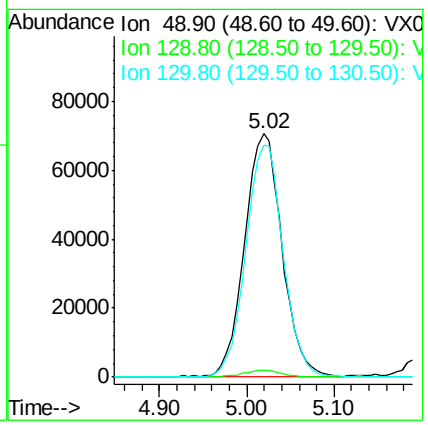




#28
Bromochloromethane
Concen: 55.122 ug/l
RT: 5.02 min Scan# 634
Delta R.T. 0.00 min
Lab File: VX006658.D
Acq: 20 Dec 2018 00:44

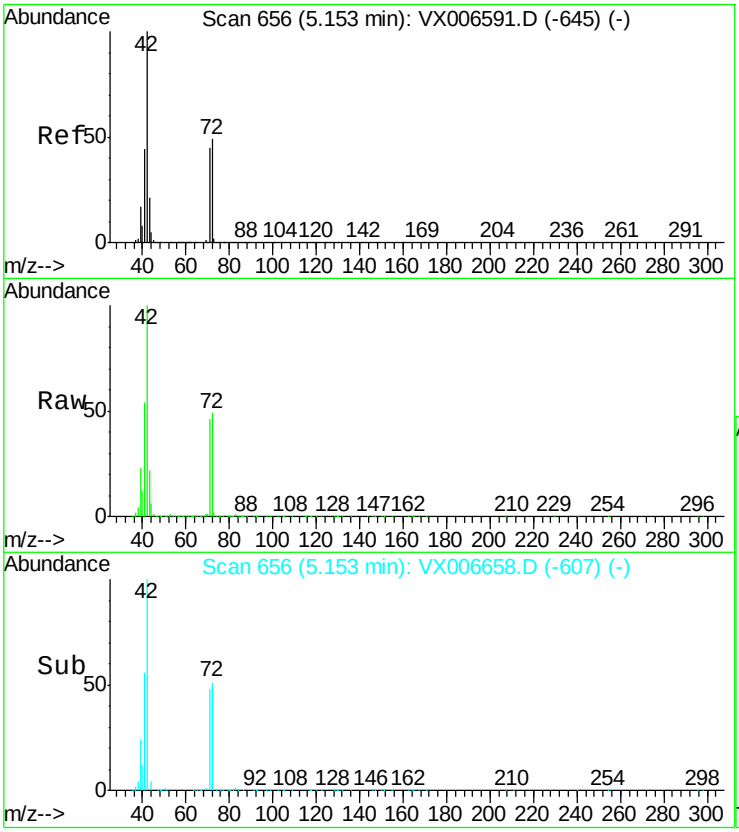
Tgt Ion: 49 Resp: 210697

Ion	Ratio	Lower	Upper
49	100		
129	2.8	0.0	5.4
130	95.0	77.7	116.5



Instrument :
MSVOA_X
ClientSampleId :
966-MW-04(23)MS

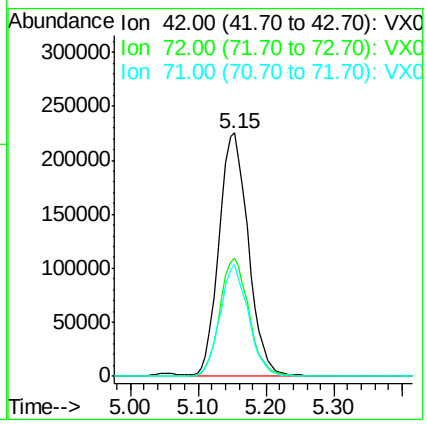
Manual Integrations APPROVED
MMDadoda
12/20/2018 10:00:46 AM

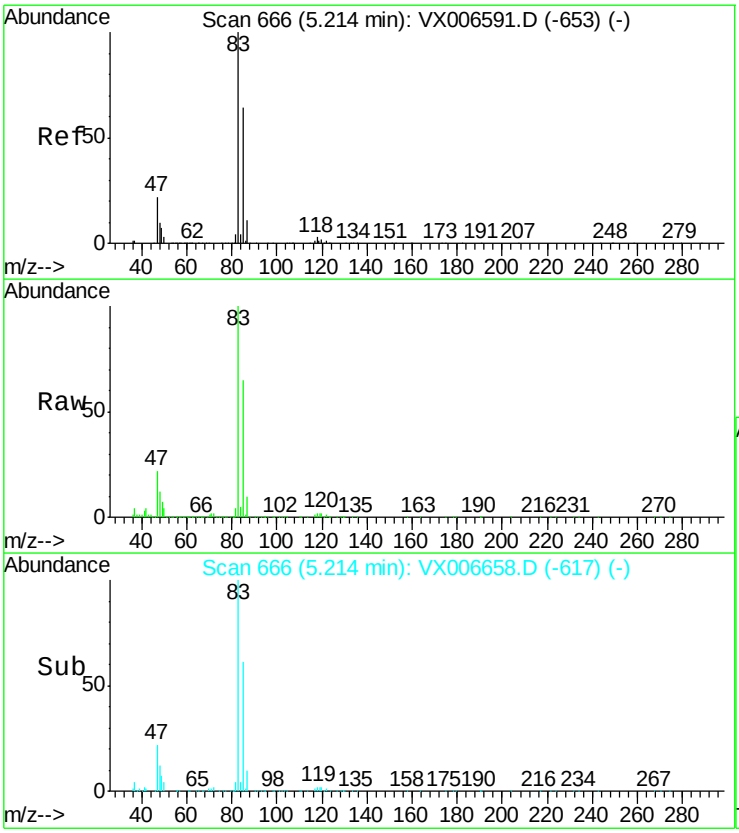


#29
Tetrahydrofuran
Concen: 264.008 ug/l
RT: 5.15 min Scan# 656
Delta R.T. -0.00 min
Lab File: VX006658.D
Acq: 20 Dec 2018 00:44

Tgt Ion: 42 Resp: 670943

Ion	Ratio	Lower	Upper
42	100		
72	48.4	38.9	58.3
71	44.8	36.2	54.4

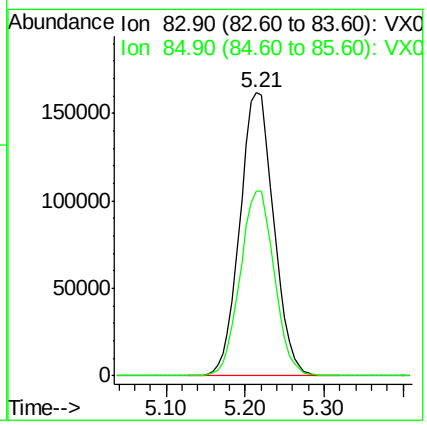




#30
Chloroform
Concen: 51.416 ug/l
RT: 5.21 min Scan# 666
Delta R.T. -0.00 min
Lab File: VX006658.D
Acq: 20 Dec 2018 00:44

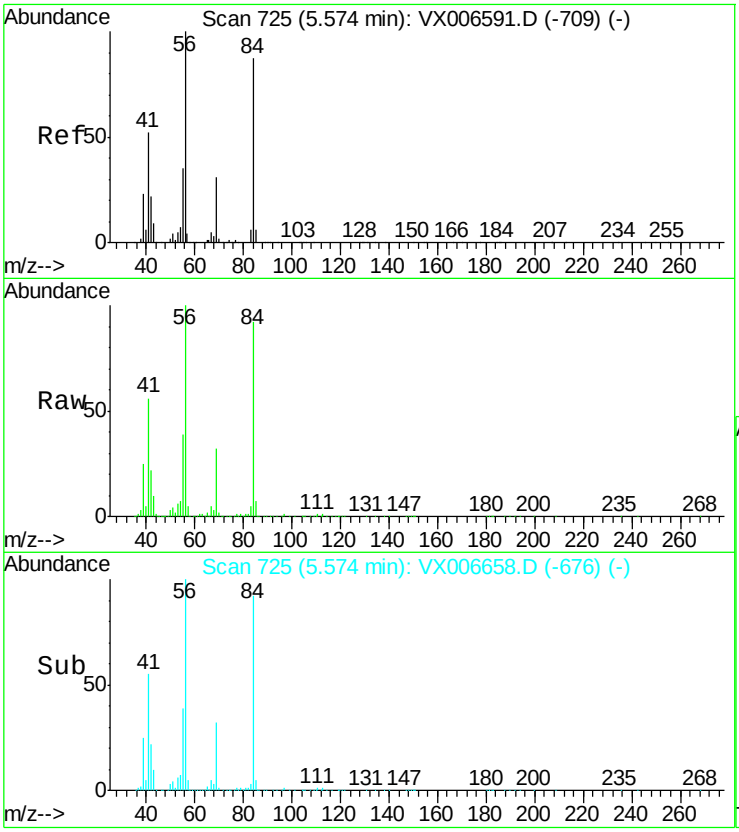
Tgt Ion: 83 Resp: 484469

Ion	Ratio	Lower	Upper
83	100		
85	65.4	51.2	76.8



Instrument :
MSVOA_X
ClientSampleId :
966-MW-04(23)MS

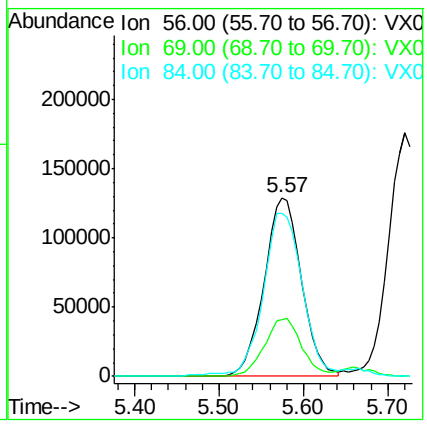
Manual Integrations APPROVED
MMDadoda
12/20/2018 10:00:46 AM

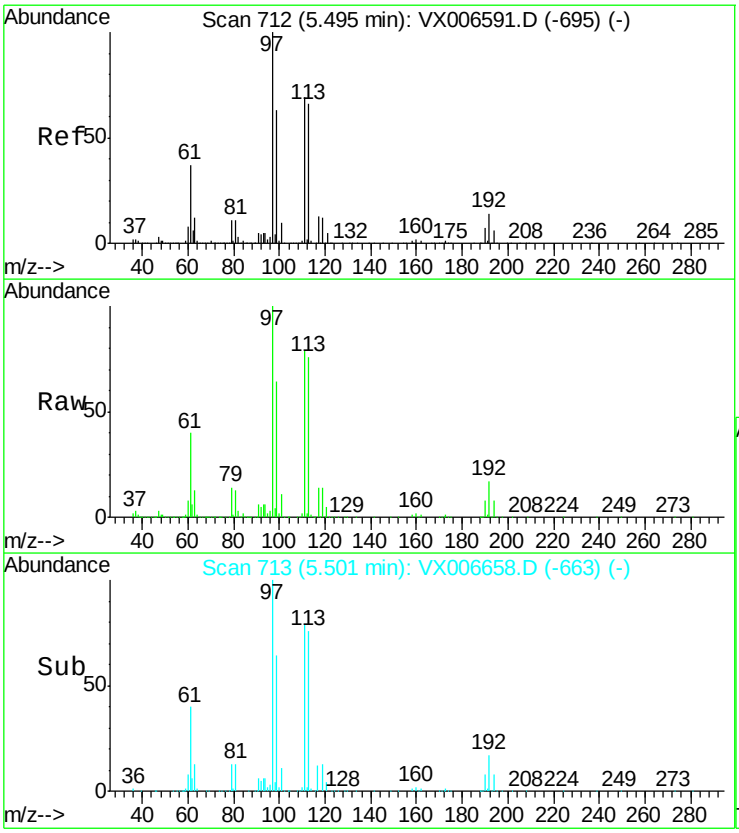


#31
Cyclohexane
Concen: 47.740 ug/l
RT: 5.57 min Scan# 725
Delta R.T. -0.00 min
Lab File: VX006658.D
Acq: 20 Dec 2018 00:44

Tgt Ion: 56 Resp: 394627

Ion	Ratio	Lower	Upper
56	100		
69	31.8	24.4	36.6
84	90.9	70.0	105.0

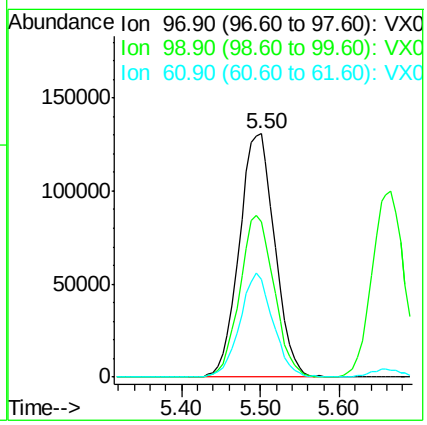




#32
1,1,1-Trichloroethane
Concen: 51.411 ug/l
RT: 5.50 min Scan# 713
Delta R.T. 0.01 min
Lab File: VX006658.D
Acq: 20 Dec 2018 00:44

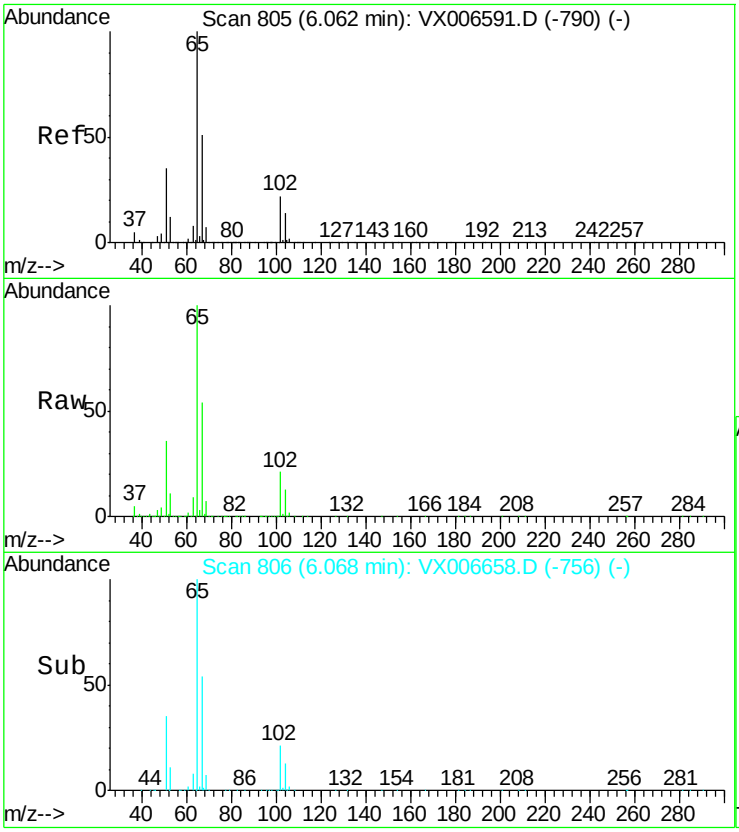
Tgt Ion: 97 Resp: 409036

Ion	Ratio	Lower	Upper
97	100		
99	64.3	51.7	77.5
61	39.6	31.3	46.9



Instrument :
MSVOA_X
ClientSampleId :
966-MW-04(23)MS

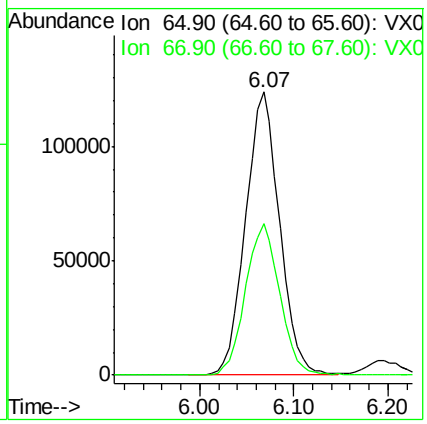
Manual Integrations APPROVED
MMDadoda
12/20/2018 10:00:46 AM

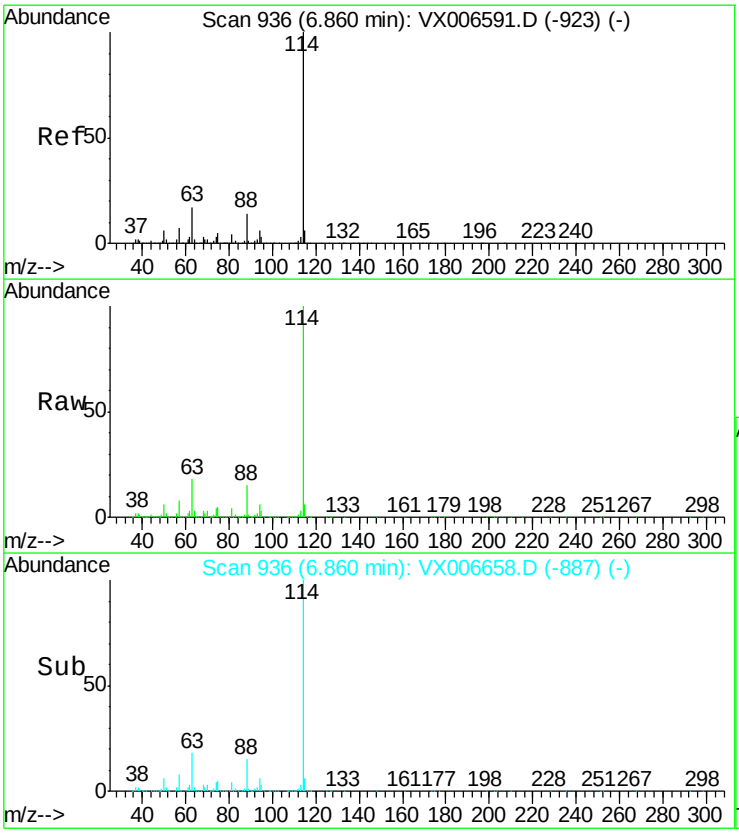


#33
1,2-Dichloroethane-d4
Concen: 52.450 ug/l
RT: 6.07 min Scan# 806
Delta R.T. 0.01 min
Lab File: VX006658.D
Acq: 20 Dec 2018 00:44

Tgt Ion: 65 Resp: 313162

Ion	Ratio	Lower	Upper
65	100		
67	53.9	0.0	105.0

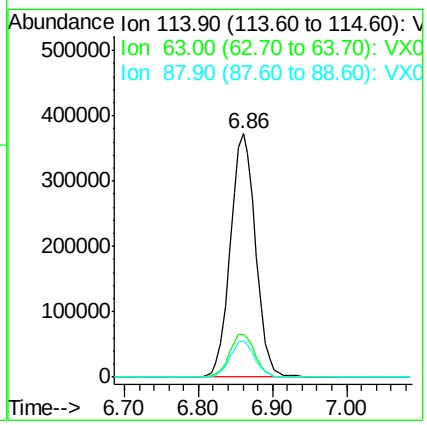




#34
1,4-Difluorobenzene
Concen: 50.000 ug/l
RT: 6.86 min Scan# 936
Delta R.T. -0.00 min
Lab File: VX006658.D
Acq: 20 Dec 2018 00:44

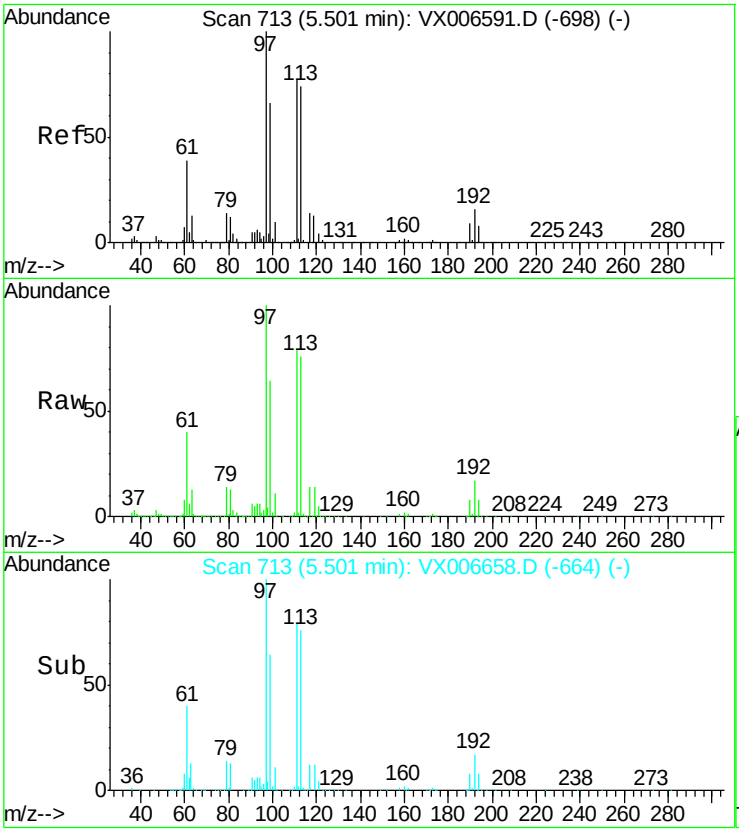
Tgt Ion:114 Resp: 879261

Ion	Ratio	Lower	Upper
114	100		
63	17.7	0.0	34.8
88	15.0	0.0	28.8



Instrument :
MSVOA_X
ClientSampleId :
966-MW-04(23)MS

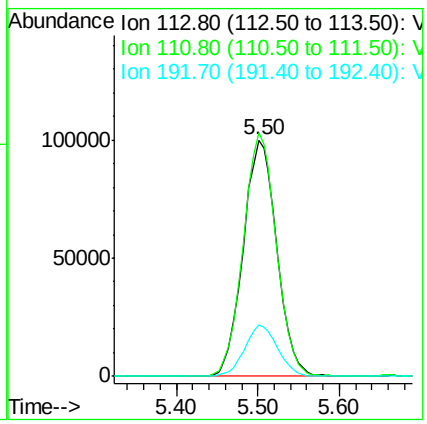
Manual Integrations APPROVED
MMDadoda
12/20/2018 10:00:46 AM

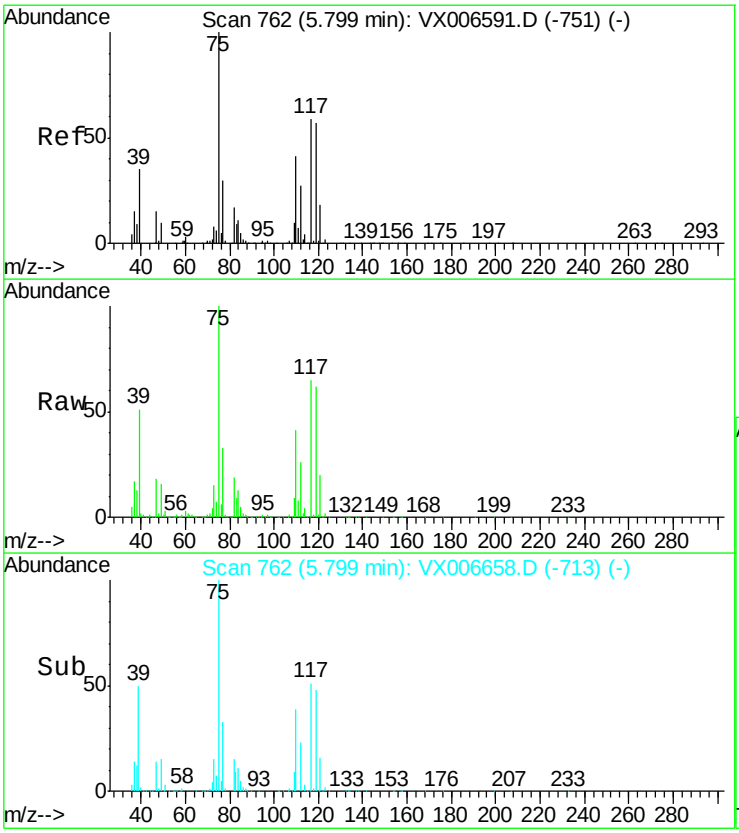


#35
Dibromofluoromethane
Concen: 51.336 ug/l
RT: 5.50 min Scan# 713
Delta R.T. -0.00 min
Lab File: VX006658.D
Acq: 20 Dec 2018 00:44

Tgt Ion:113 Resp: 285445

Ion	Ratio	Lower	Upper
113	100		
111	101.9	81.6	122.4
192	21.3	16.7	25.1

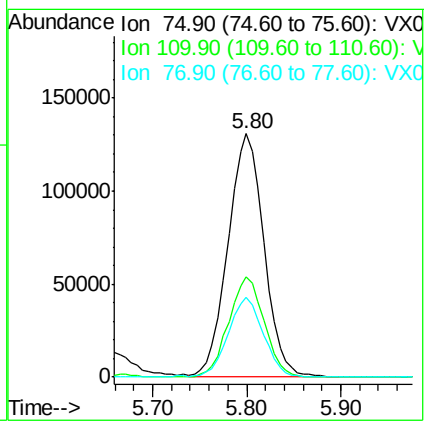




#36
1,1-Dichloropropene
Concen: 47.606 ug/l
RT: 5.80 min Scan# 762
Delta R.T. -0.00 min
Lab File: VX006658.D
Acq: 20 Dec 2018 00:44

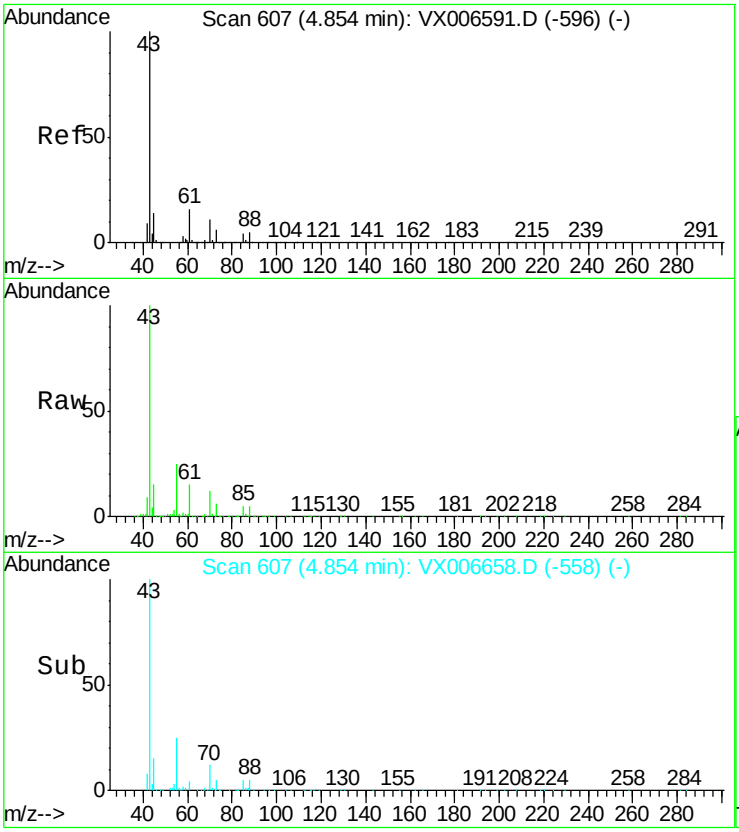
Tgt Ion: 75 Resp: 346680

Ion	Ratio	Lower	Upper
75	100		
110	40.8	20.2	60.5
77	31.8	24.8	37.2



Instrument :
MSVOA_X
ClientSampleId :
966-MW-04(23)MS

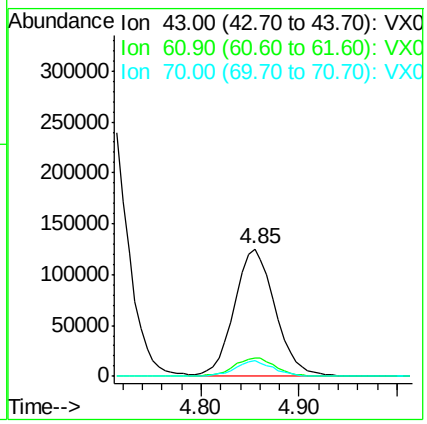
Manual Integrations APPROVED
MMDadoda
12/20/2018 10:00:46 AM

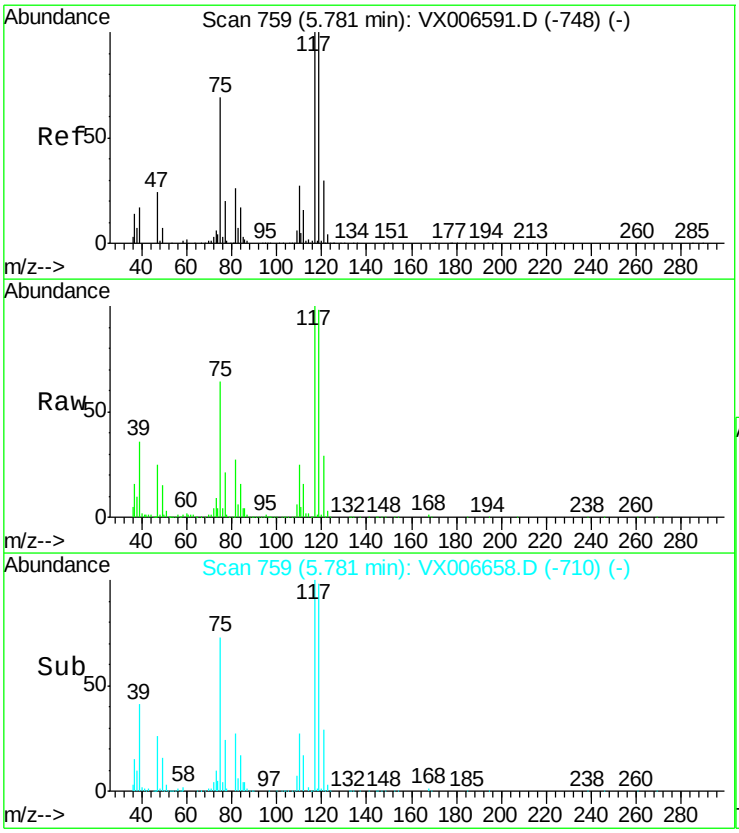


#37
Ethyl Acetate
Concen: 47.176 ug/l
RT: 4.85 min Scan# 607
Delta R.T. -0.00 min
Lab File: VX006658.D
Acq: 20 Dec 2018 00:44

Tgt Ion: 43 Resp: 357575

Ion	Ratio	Lower	Upper
43	100		
61	14.6	11.9	17.9
70	11.7	9.7	14.5

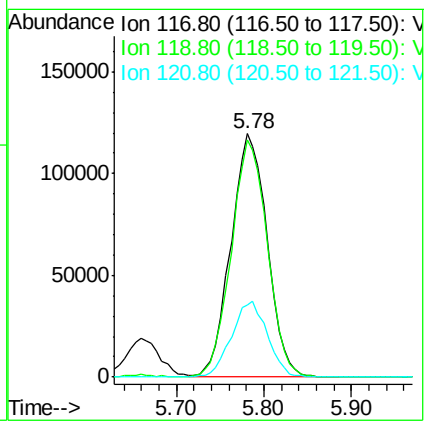




#38
Carbon Tetrachloride
Concen: 48.742 ug/l
RT: 5.78 min Scan# 759
Delta R.T. -0.00 min
Lab File: VX006658.D
Acq: 20 Dec 2018 00:44

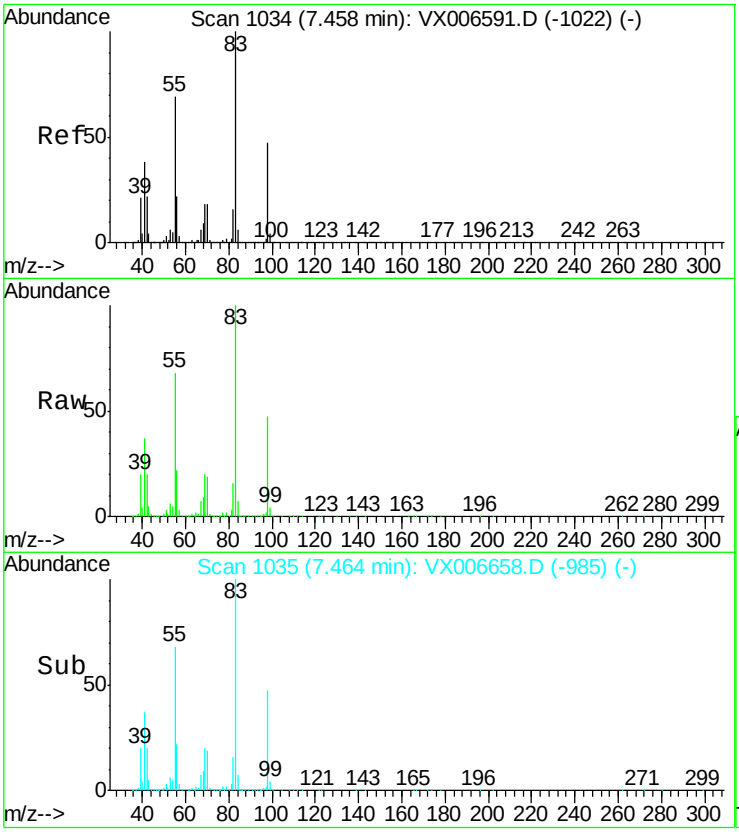
Tgt Ion:117 Resp: 344959

Ion	Ratio	Lower	Upper
117	100		
119	97.5	79.4	119.2
121	29.5	24.0	36.0



Instrument :
MSVOA_X
ClientSampleId :
966-MW-04(23)MS

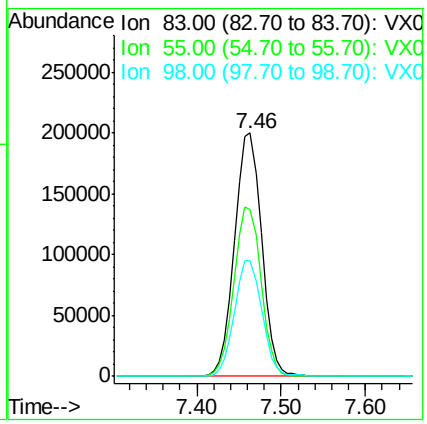
Manual Integrations APPROVED
MMDadoda
12/20/2018 10:00:46 AM

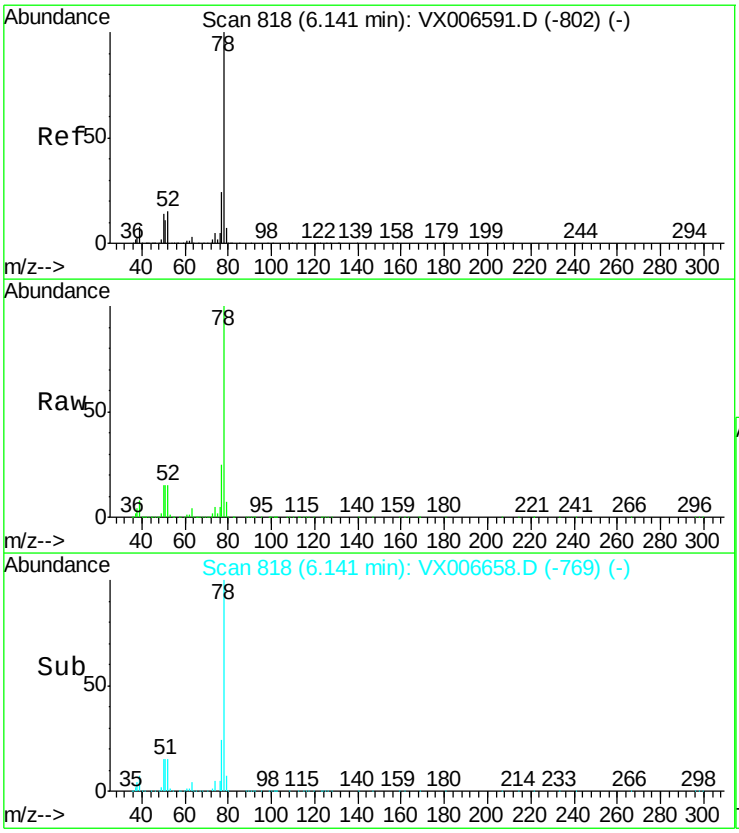


#39
Methylcyclohexane
Concen: 45.439 ug/l
RT: 7.46 min Scan# 1035
Delta R.T. 0.01 min
Lab File: VX006658.D
Acq: 20 Dec 2018 00:44

Tgt Ion: 83 Resp: 435636

Ion	Ratio	Lower	Upper
83	100		
55	68.3	54.9	82.3
98	47.4	37.9	56.9

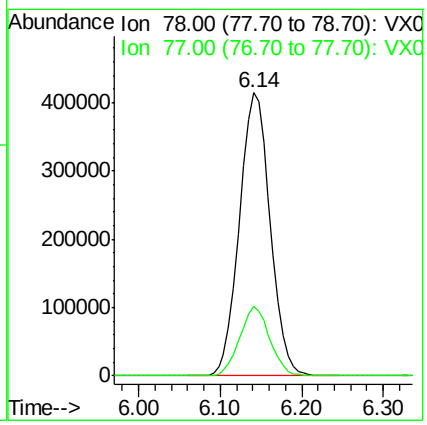




#40
Benzene
Concen: 49.120 ug/l
RT: 6.14 min Scan# 818
Delta R.T. -0.00 min
Lab File: VX006658.D
Acq: 20 Dec 2018 00:44

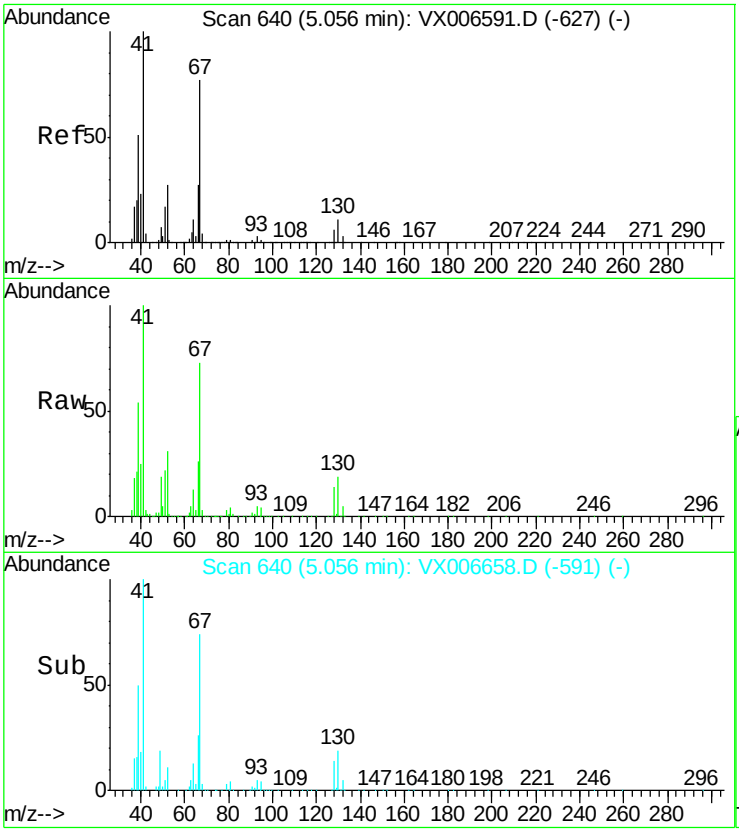
Tgt Ion: 78 Resp: 1087306

Ion	Ratio	Lower	Upper
78	100		
77	24.7	19.2	28.8



Instrument :
MSVOA_X
ClientSampleId :
966-MW-04(23)MS

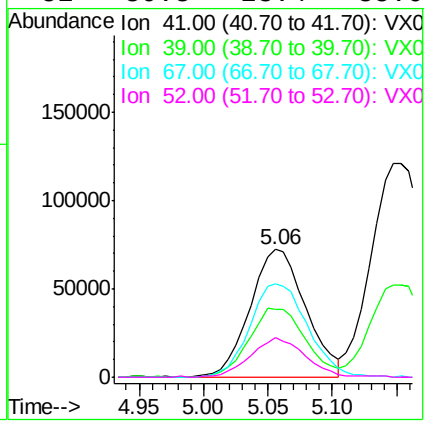
Manual Integrations APPROVED
MMDadoda
12/20/2018 10:00:46 AM

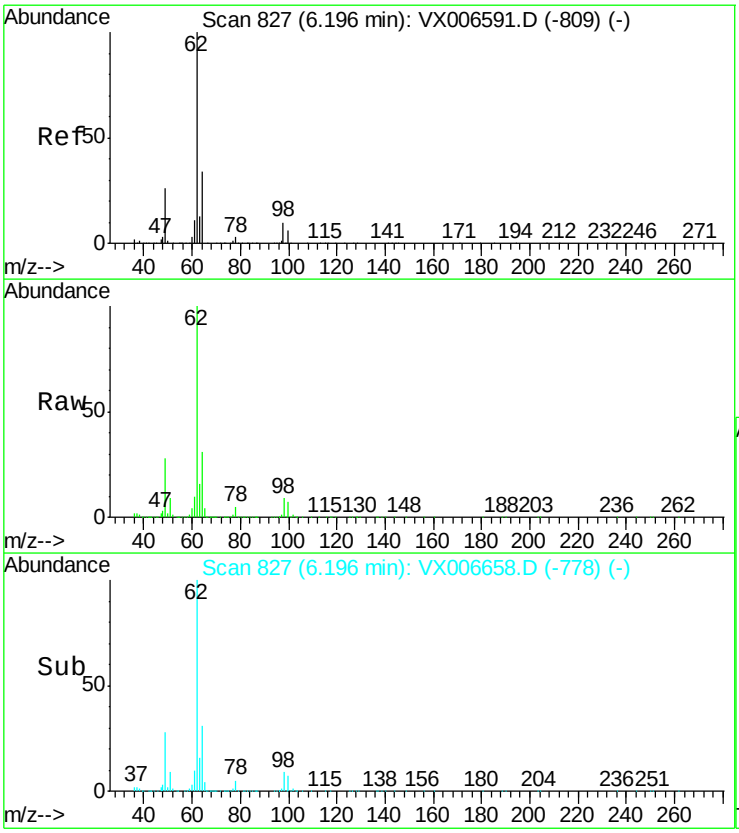


#41
Methacrylonitrile
Concen: 53.447 ug/l
RT: 5.06 min Scan# 640
Delta R.T. -0.00 min
Lab File: VX006658.D
Acq: 20 Dec 2018 00:44

Tgt Ion: 41 Resp: 215078

Ion	Ratio	Lower	Upper
41	100		
39	54.7	42.8	64.2
67	76.6	62.1	93.1
52	30.3	23.4	35.0

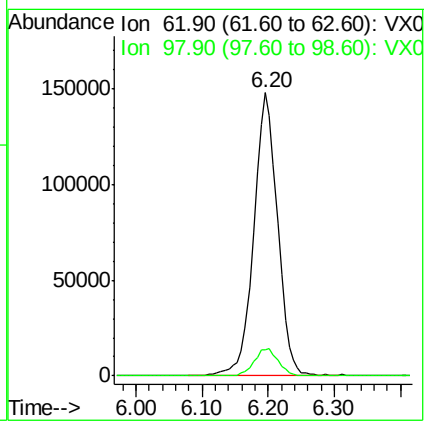




#42
1,2-Dichloroethane
Concen: 49.281 ug/l
RT: 6.20 min Scan# 827
Delta R.T. -0.00 min
Lab File: VX006658.D
Acq: 20 Dec 2018 00:44

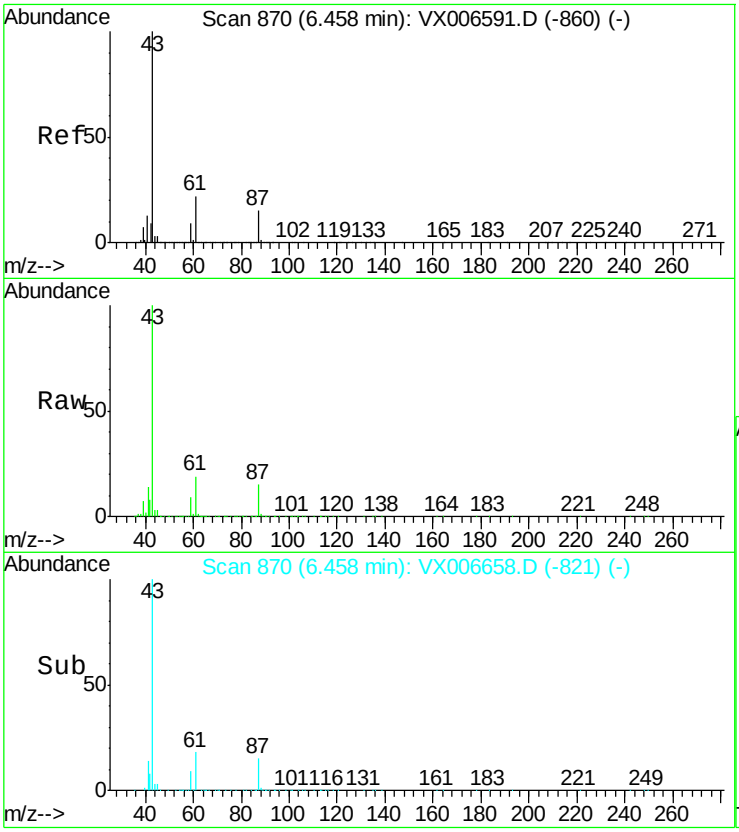
Tgt Ion: 62 Resp: 371720

Ion	Ratio	Lower	Upper
62	100		
98	9.7	0.0	20.2



Instrument :
MSVOA_X
ClientSampleId :
966-MW-04(23)MS

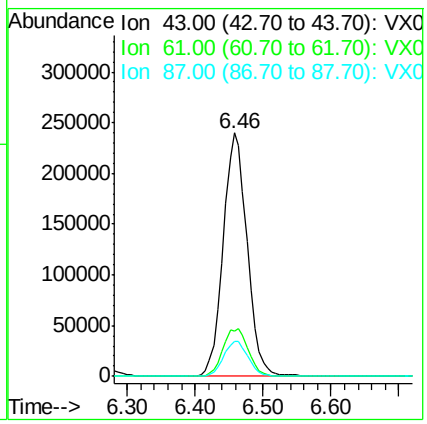
Manual Integrations APPROVED
MMDadoda
12/20/2018 10:00:46 AM

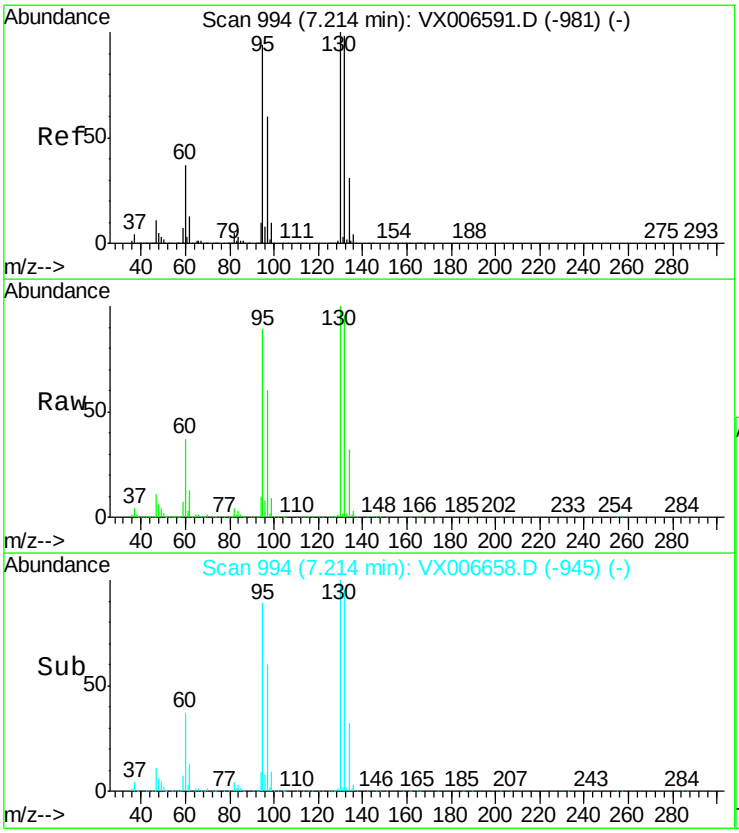


#43
Isopropyl Acetate
Concen: 50.367 ug/l
RT: 6.46 min Scan# 870
Delta R.T. -0.00 min
Lab File: VX006658.D
Acq: 20 Dec 2018 00:44

Tgt Ion: 43 Resp: 580860

Ion	Ratio	Lower	Upper
43	100		
61	20.9	16.8	25.2
87	14.9	12.4	18.6

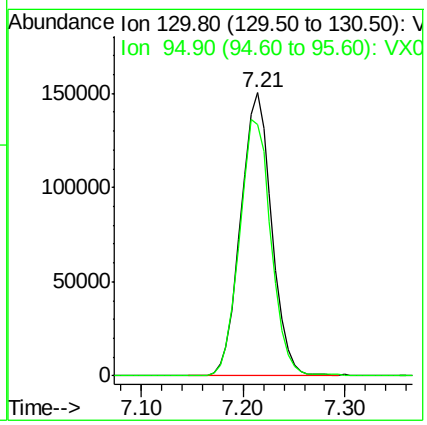




#44
Trichloroethene
Concen: 47.462 ug/l
RT: 7.21 min Scan# 994
Delta R.T. -0.00 min
Lab File: VX006658.D
Acq: 20 Dec 2018 00:44

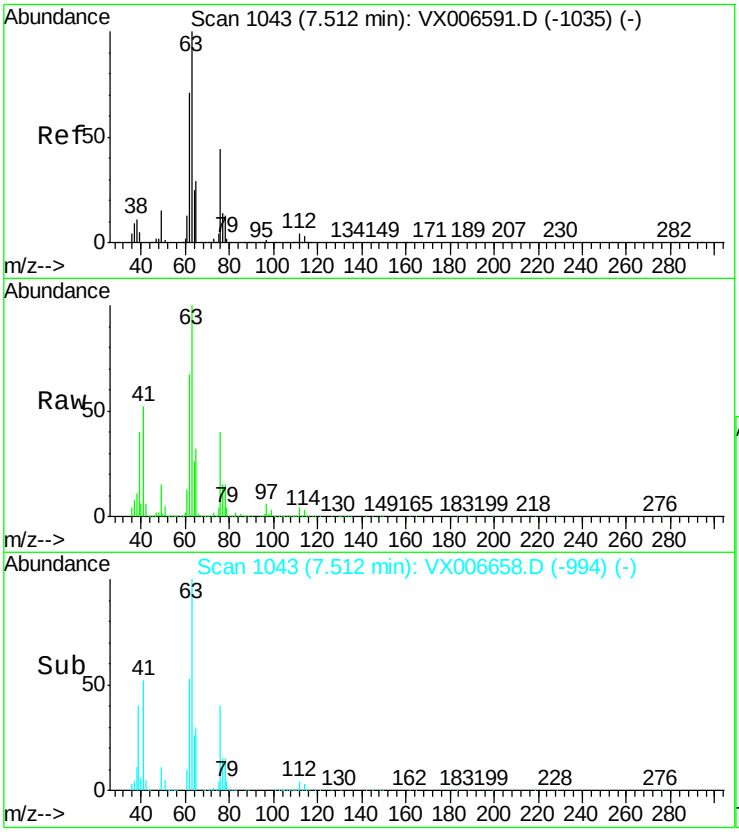
Tgt Ion:130 Resp: 317988

Ion	Ratio	Lower	Upper
130	100		
95	88.7	0.0	187.0



Instrument :
MSVOA_X
ClientSampleId :
966-MW-04(23)MS

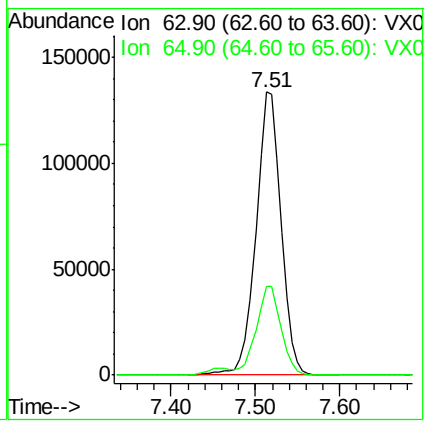
Manual Integrations APPROVED
MMDadoda
12/20/2018 10:00:46 AM

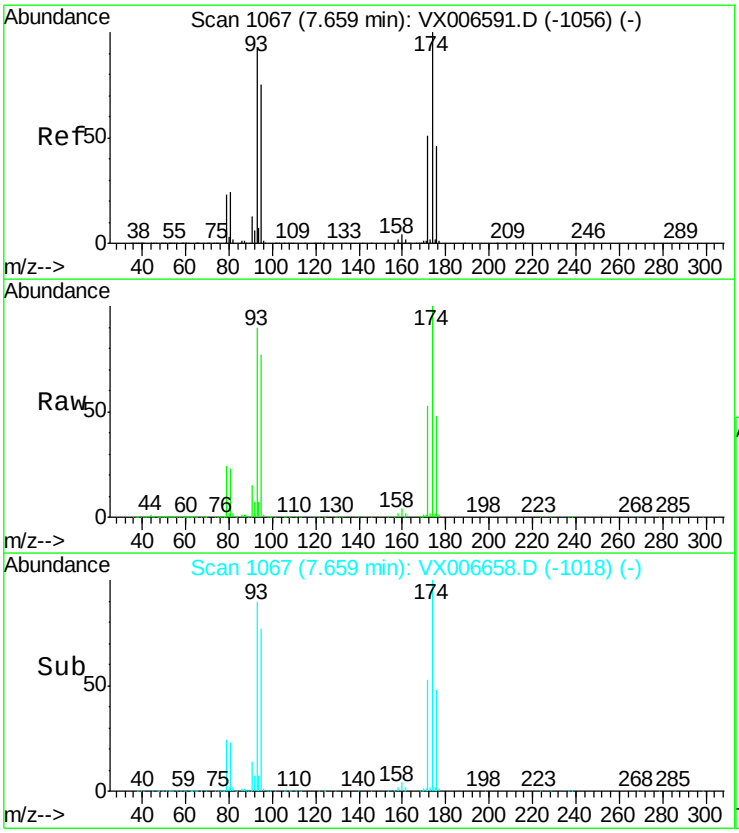


#45
1,2-Dichloropropane
Concen: 50.094 ug/l
RT: 7.51 min Scan# 1043
Delta R.T. -0.00 min
Lab File: VX006658.D
Acq: 20 Dec 2018 00:44

Tgt Ion: 63 Resp: 269845

Ion	Ratio	Lower	Upper
63	100		
65	31.4	25.4	38.0

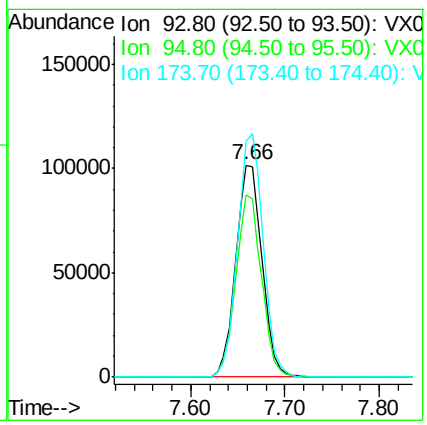




#46
Dibromomethane
Concen: 49.896 ug/l
RT: 7.66 min Scan# 1067
Delta R.T. -0.00 min
Lab File: VX006658.D
Acq: 20 Dec 2018 00:44

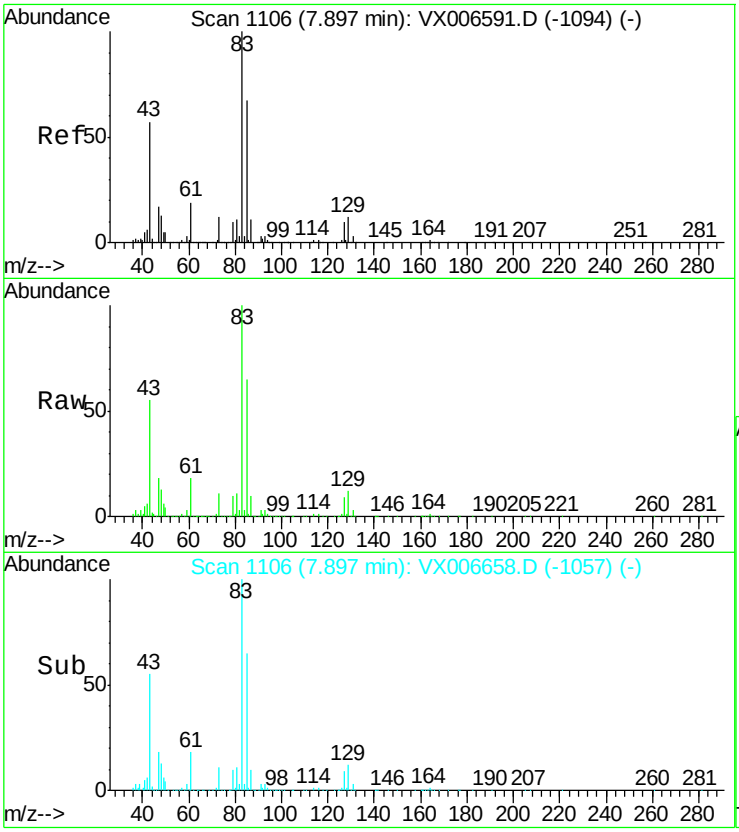
Tgt Ion: 93 Resp: 197698

Ion	Ratio	Lower	Upper
93	100		
95	84.0	66.2	99.4
174	112.5	91.0	136.4



Instrument :
MSVOA_X
ClientSampleId :
966-MW-04(23)MS

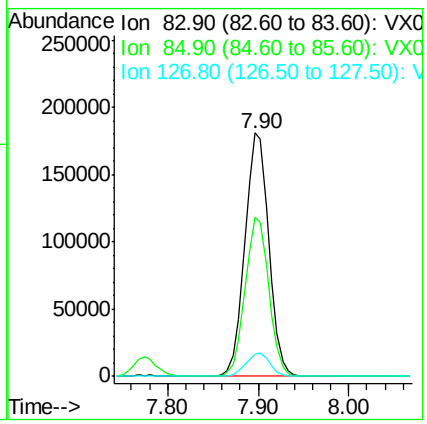
Manual Integrations APPROVED
MMDadoda
12/20/2018 10:00:46 AM

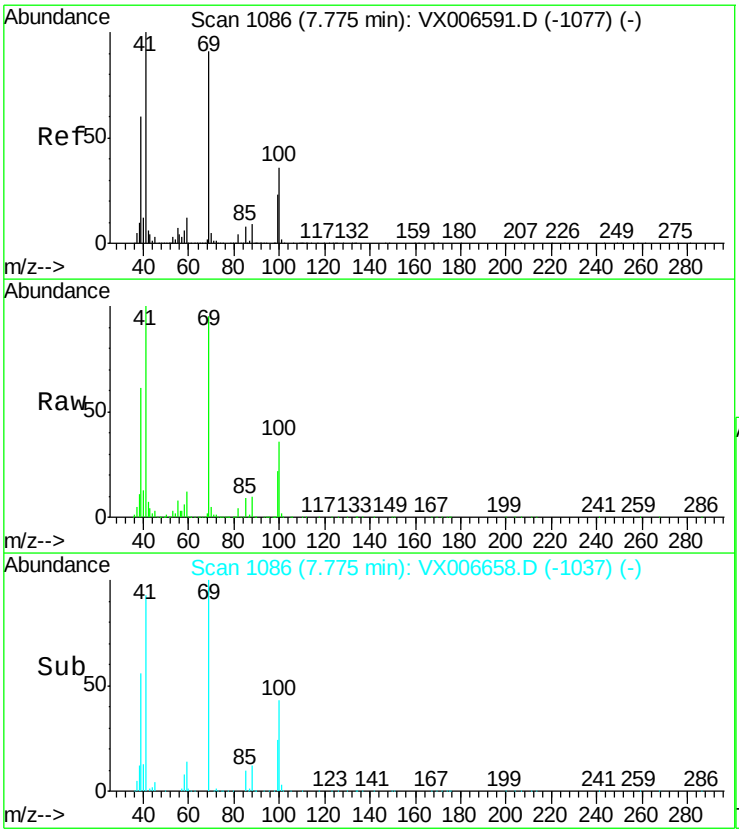


#47
Bromodichloromethane
Concen: 50.210 ug/l
RT: 7.90 min Scan# 1106
Delta R.T. -0.00 min
Lab File: VX006658.D
Acq: 20 Dec 2018 00:44

Tgt Ion: 83 Resp: 330293

Ion	Ratio	Lower	Upper
83	100		
85	65.3	53.2	79.8
127	9.3	7.8	11.6

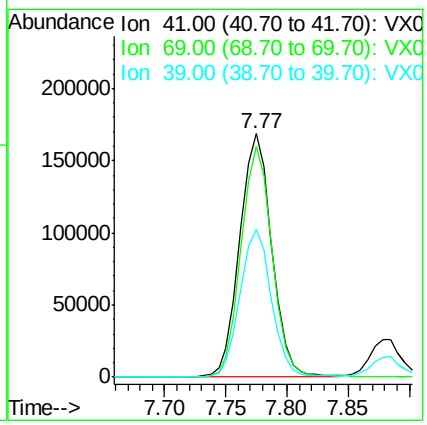




#48
Methyl methacrylate
Concen: 52.390 ug/l
RT: 7.77 min Scan# 1086
Delta R.T. -0.00 min
Lab File: VX006658.D
Acq: 20 Dec 2018 00:44

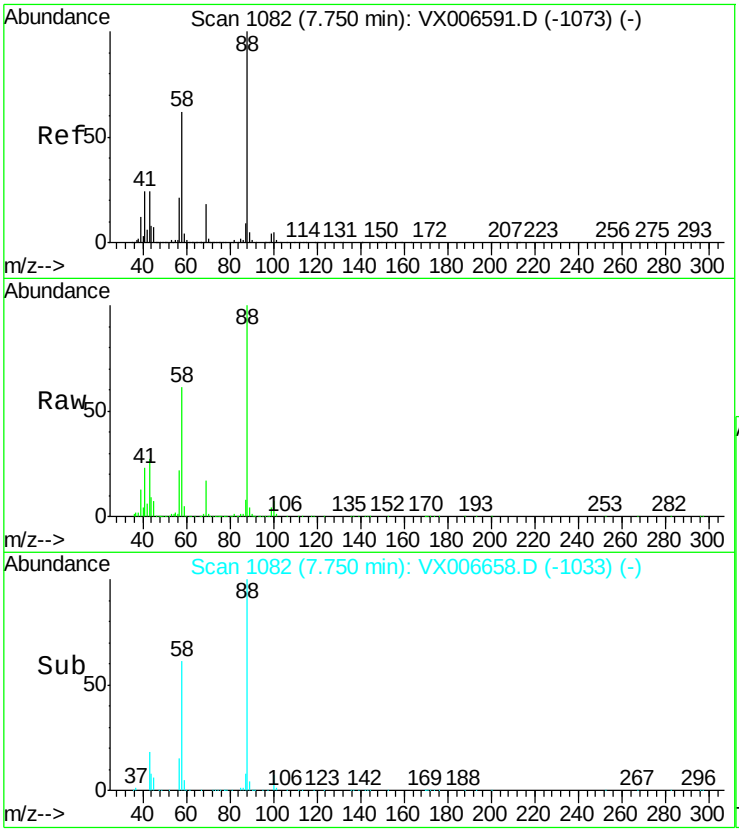
Tgt Ion: 41 Resp: 307252

Ion	Ratio	Lower	Upper
41	100		
69	92.2	72.4	108.6
39	59.6	45.8	68.8



Instrument :
MSVOA_X
ClientSampleId :
966-MW-04(23)MS

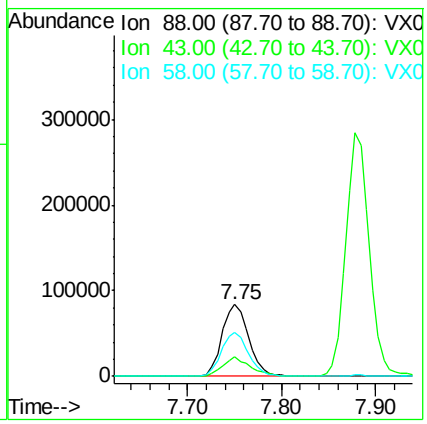
Manual Integrations APPROVED
MMDadoda
12/20/2018 10:00:46 AM

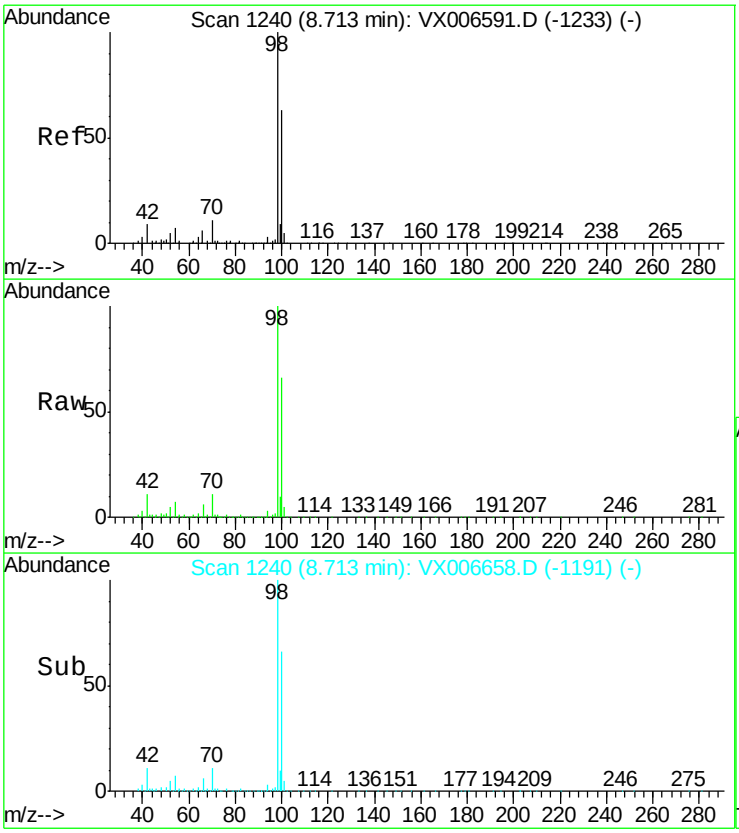


#49
1,4-Dioxane
Concen: 1073.750 ug/l
RT: 7.75 min Scan# 1082
Delta R.T. 0.00 min
Lab File: VX006658.D
Acq: 20 Dec 2018 00:44

Tgt Ion: 88 Resp: 164538

Ion	Ratio	Lower	Upper
88	100		
43	28.1	22.2	33.4
58	62.3	51.0	76.4

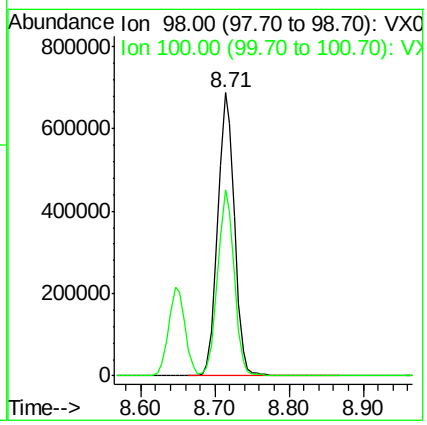




#50
Toluene-d8
Concen: 50.525 ug/l
RT: 8.71 min Scan# 1240
Delta R.T. -0.00 min
Lab File: VX006658.D
Acq: 20 Dec 2018 00:44

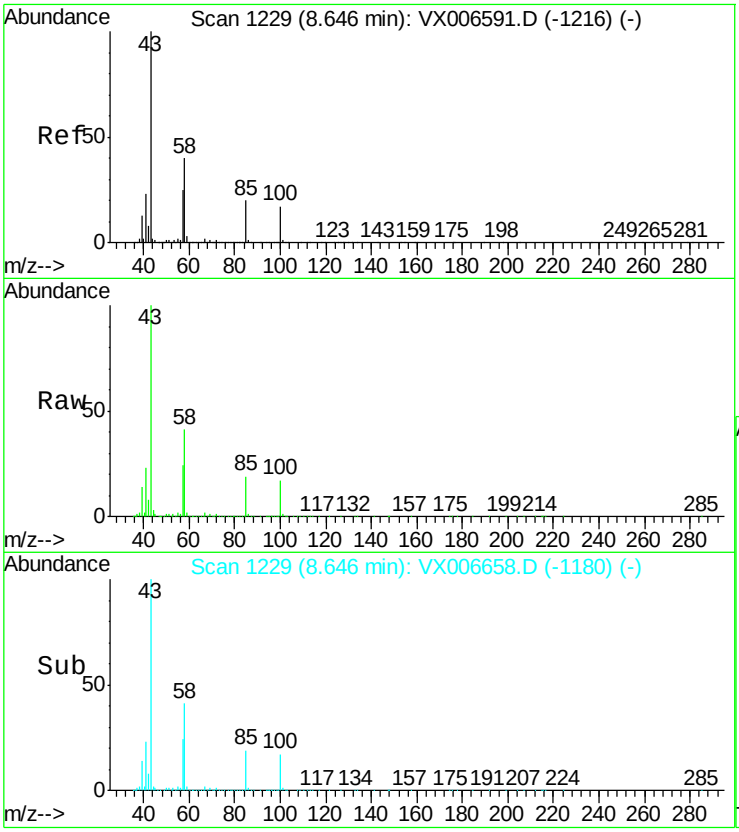
Tgt Ion: 98 Resp: 1059125

Ion	Ratio	Lower	Upper
98	100		
100	65.1	52.0	78.0



Instrument :
MSVOA_X
ClientSampleId :
966-MW-04(23)MS

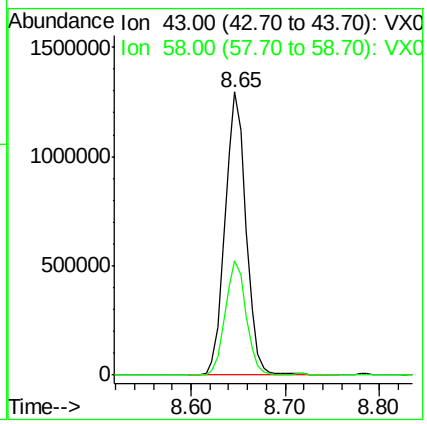
Manual Integrations APPROVED
MMDadoda
12/20/2018 10:00:46 AM

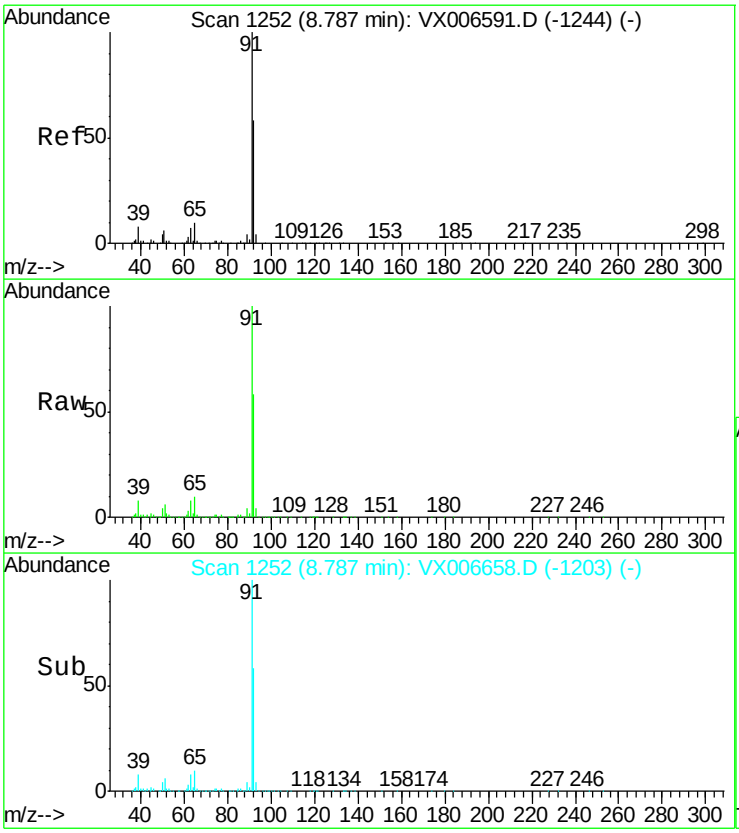


#51
4-Methyl-2-Pentanone
Concen: 272.967 ug/l
RT: 8.65 min Scan# 1229
Delta R.T. -0.00 min
Lab File: VX006658.D
Acq: 20 Dec 2018 00:44

Tgt Ion: 43 Resp: 2002996

Ion	Ratio	Lower	Upper
43	100		
58	40.2	31.8	47.6

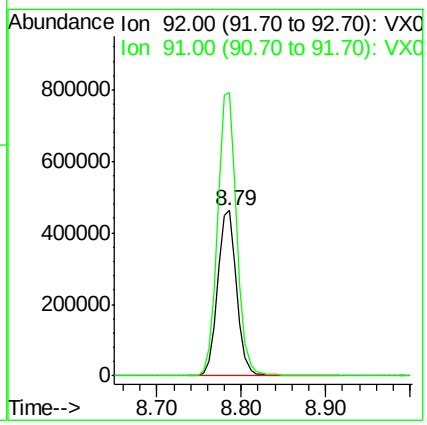




#52
Toluene
Concen: 50.220 ug/l
RT: 8.79 min Scan# 1252
Delta R.T. -0.00 min
Lab File: VX006658.D
Acq: 20 Dec 2018 00:44

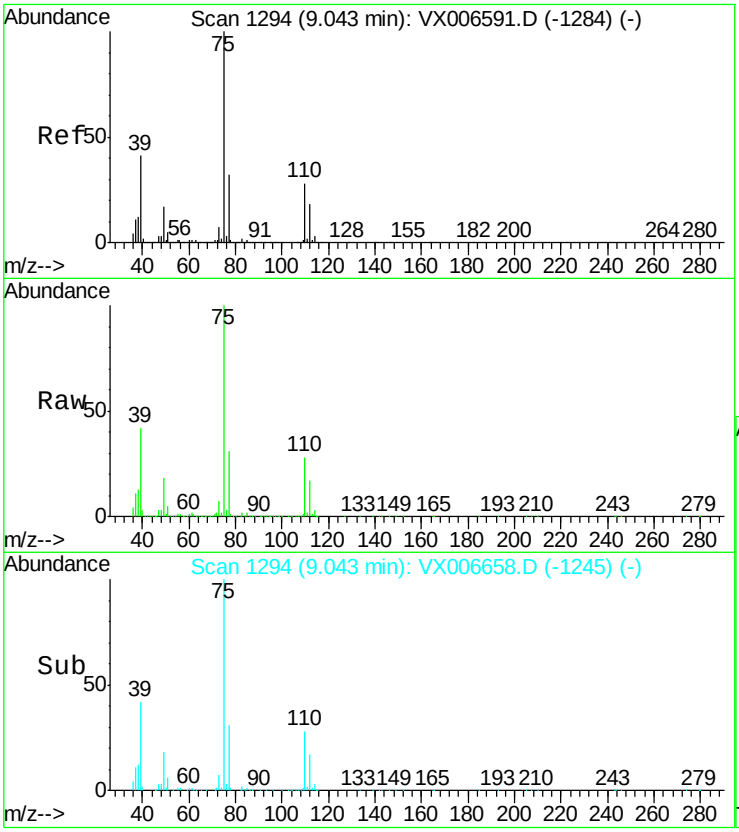
Tgt Ion: 92 Resp: 718184

Ion	Ratio	Lower	Upper
92	100		
91	173.1	137.6	206.4



Instrument :
MSVOA_X
ClientSampleId :
966-MW-04(23)MS

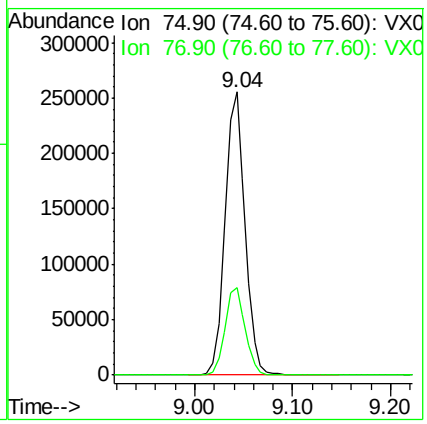
Manual Integrations APPROVED
MMDadoda
12/20/2018 10:00:46 AM

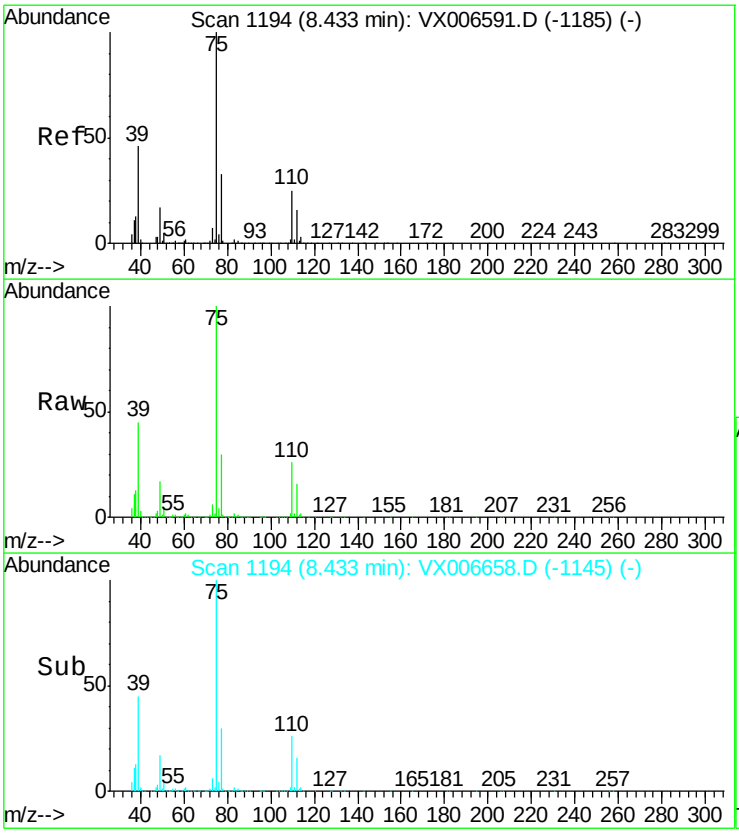


#53
t-1,3-Dichloropropene
Concen: 50.883 ug/l
RT: 9.04 min Scan# 1294
Delta R.T. -0.00 min
Lab File: VX006658.D
Acq: 20 Dec 2018 00:44

Tgt Ion: 75 Resp: 358983

Ion	Ratio	Lower	Upper
75	100		
77	31.1	25.4	38.0

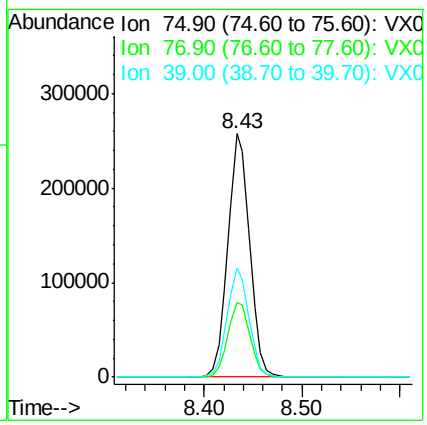




#54
cis-1,3-Dichloropropene
Concen: 51.259 ug/l
RT: 8.43 min Scan# 1194
Delta R.T. -0.00 min
Lab File: VX006658.D
Acq: 20 Dec 2018 00:44

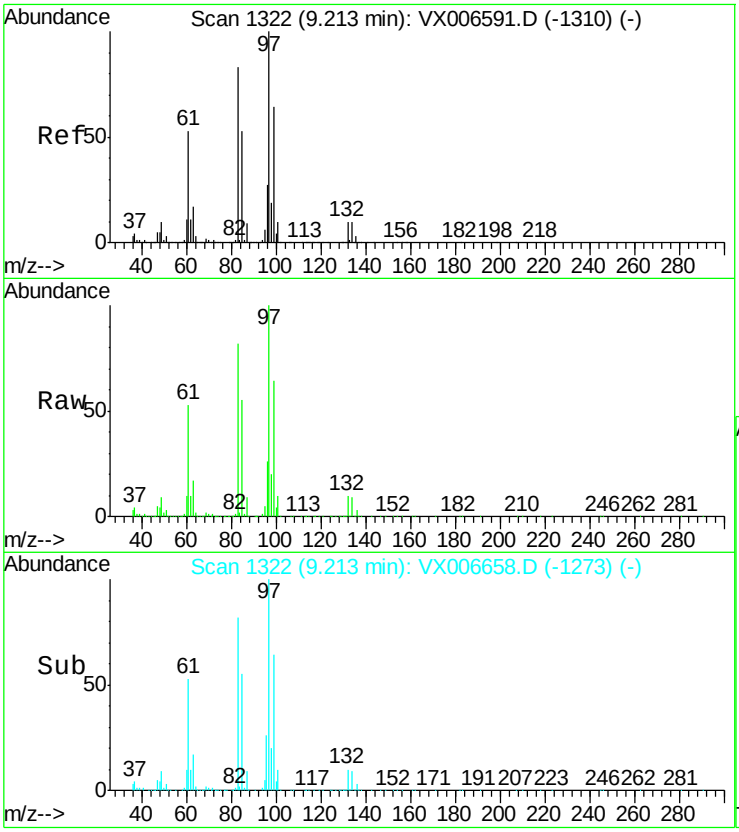
Tgt Ion: 75 Resp: 396807

Ion	Ratio	Lower	Upper
75	100		
77	30.5	26.2	39.2
39	44.7	36.7	55.1



Instrument :
MSVOA_X
ClientSampleId :
966-MW-04(23)MS

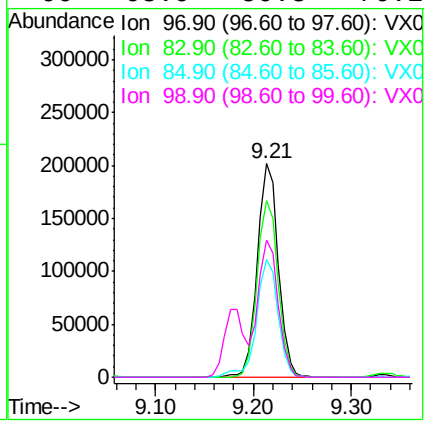
Manual Integrations APPROVED
MMDadoda
12/20/2018 10:00:46 AM

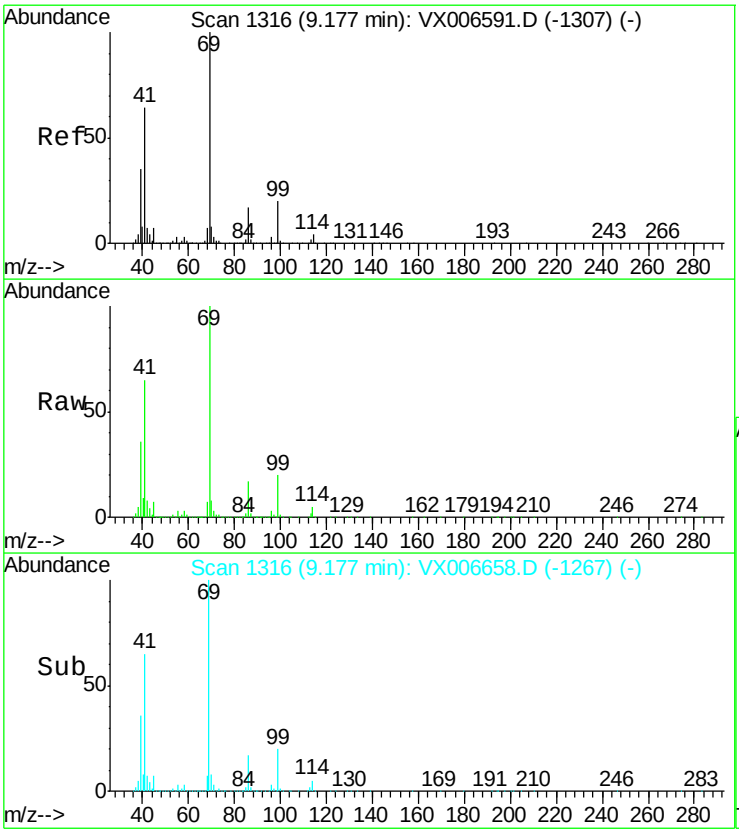


#55
1,1,2-Trichloroethane
Concen: 51.308 ug/l
RT: 9.21 min Scan# 1322
Delta R.T. -0.00 min
Lab File: VX006658.D
Acq: 20 Dec 2018 00:44

Tgt Ion: 97 Resp: 300335

Ion	Ratio	Lower	Upper
97	100		
83	82.5	66.6	99.8
85	54.8	42.7	64.1
99	63.9	50.8	76.2

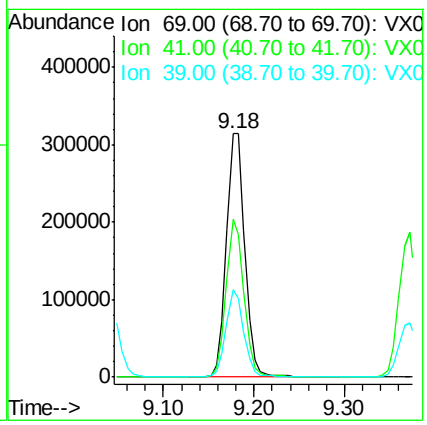




#56
Ethyl methacrylate
Concen: 53.839 ug/l
RT: 9.18 min Scan# 1316
Delta R.T. -0.00 min
Lab File: VX006658.D
Acq: 20 Dec 2018 00:44

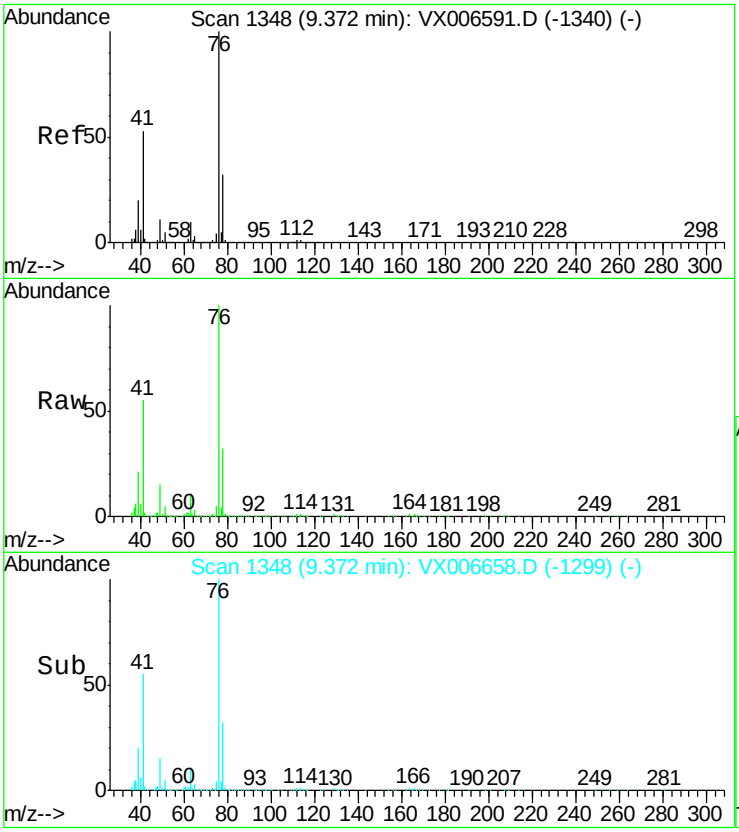
Tgt Ion: 69 Resp: 445419

Ion	Ratio	Lower	Upper
69	100		
41	62.4	48.7	73.1
39	34.5	27.0	40.6



Instrument :
MSVOA_X
ClientSampleId :
966-MW-04(23)MS

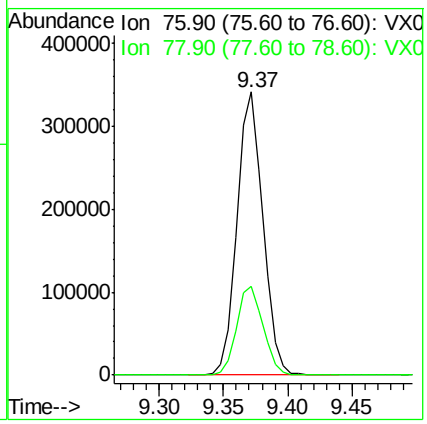
Manual Integrations APPROVED
MMDadoda
12/20/2018 10:00:46 AM

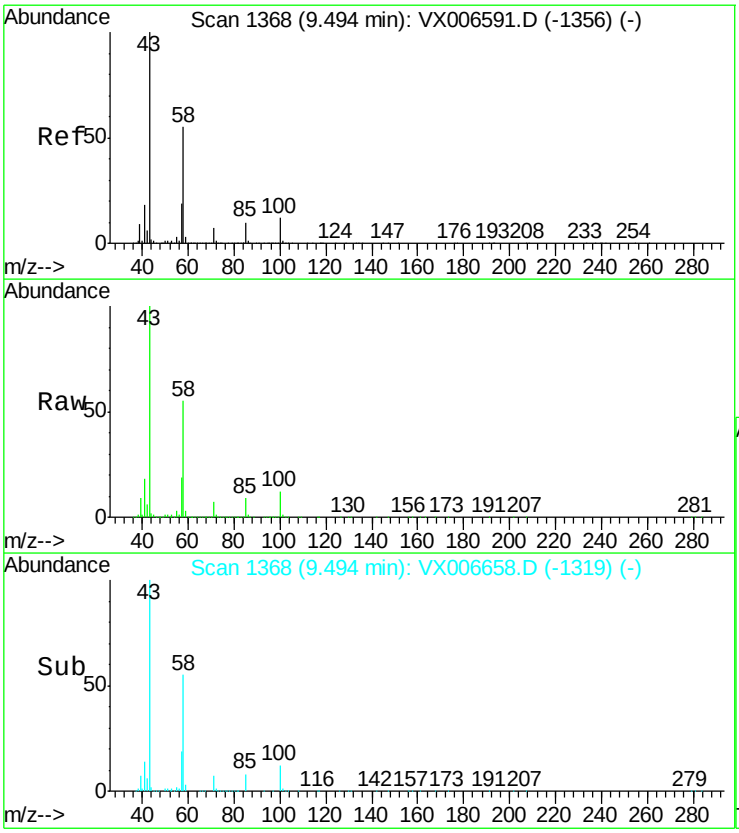


#57
1,3-Dichloropropane
Concen: 50.645 ug/l
RT: 9.37 min Scan# 1348
Delta R.T. -0.00 min
Lab File: VX006658.D
Acq: 20 Dec 2018 00:44

Tgt Ion: 76 Resp: 476958

Ion	Ratio	Lower	Upper
76	100		
78	32.2	26.0	39.0

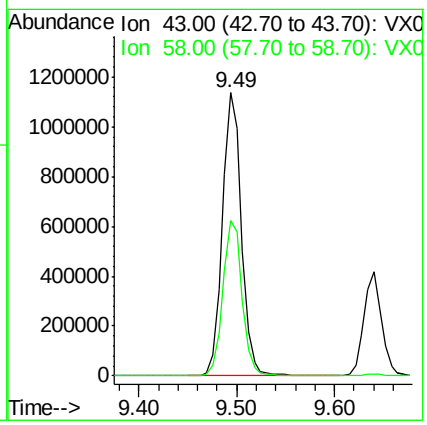




#59
2-Hexanone
Concen: 271.823 ug/l
RT: 9.49 min Scan# 1368
Delta R.T. -0.00 min
Lab File: VX006658.D
Acq: 20 Dec 2018 00:44

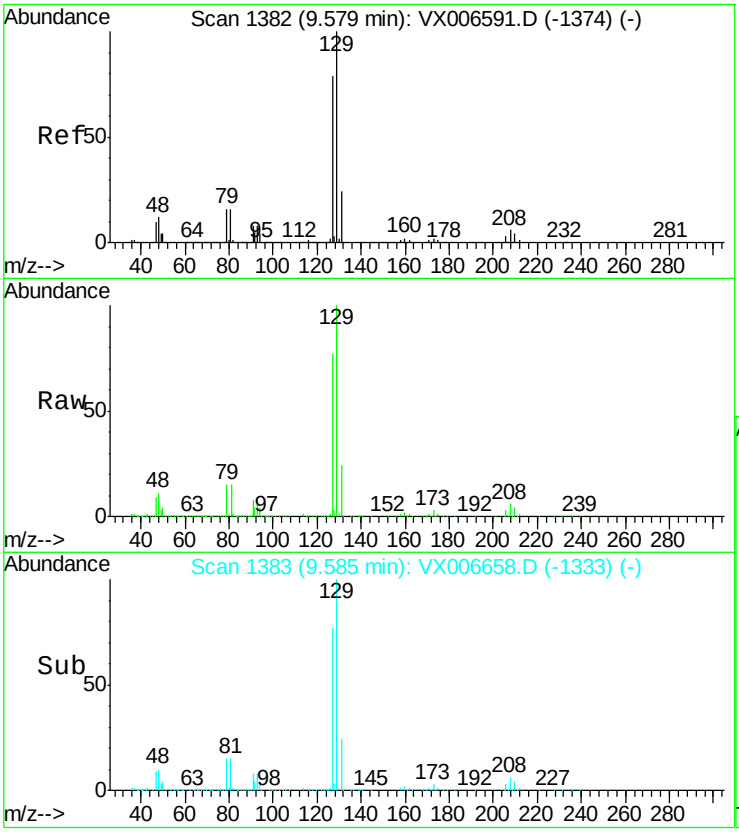
Tgt Ion: 43 Resp: 1526105

Ion	Ratio	Lower	Upper
43	100		
58	55.6	27.7	83.1



Instrument :
MSVOA_X
ClientSampleId :
966-MW-04(23)MS

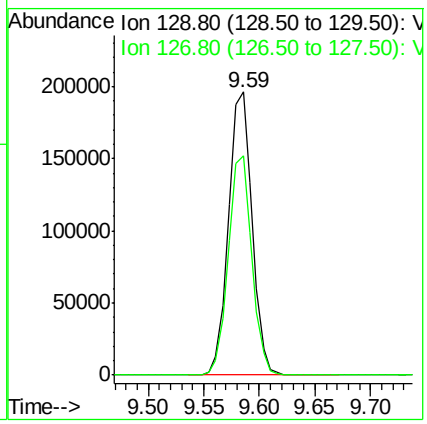
Manual Integrations APPROVED
MMDadoda
12/20/2018 10:00:46 AM

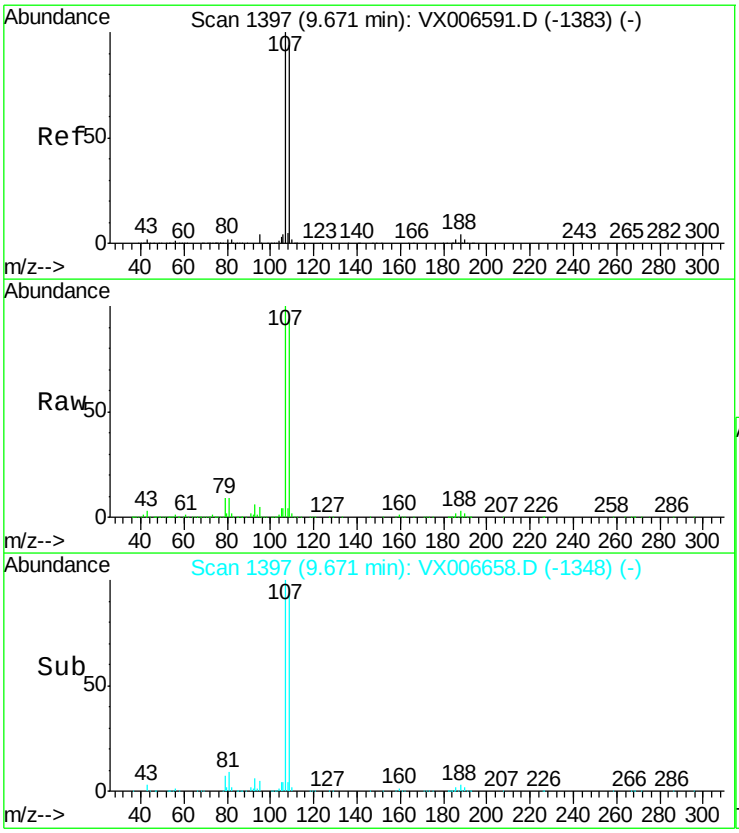


#60
Dibromochloromethane
Concen: 47.105 ug/l
RT: 9.59 min Scan# 1383
Delta R.T. 0.01 min
Lab File: VX006658.D
Acq: 20 Dec 2018 00:44

Tgt Ion:129 Resp: 287518

Ion	Ratio	Lower	Upper
129	100		
127	77.2	39.3	117.8

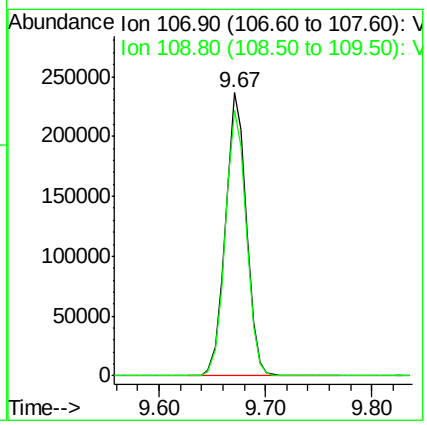




#61
1,2-Dibromoethane
Concen: 52.419 ug/l
RT: 9.67 min Scan# 1397
Delta R.T. -0.00 min
Lab File: VX006658.D
Acq: 20 Dec 2018 00:44

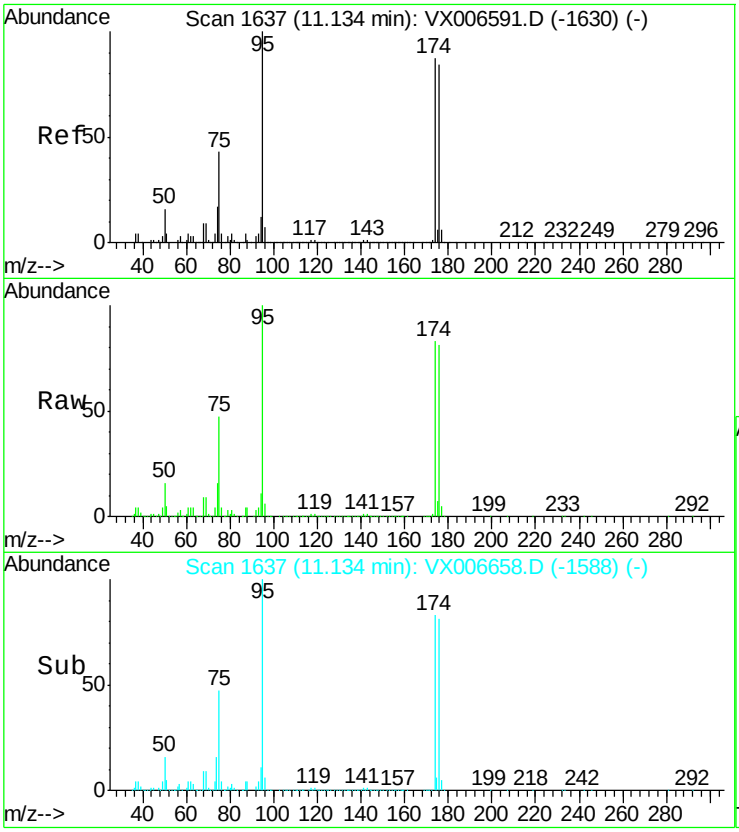
Tgt Ion:107 Resp: 326177

Ion	Ratio	Lower	Upper
107	100		
109	94.8	75.8	113.6



Instrument :
MSVOA_X
ClientSampleId :
966-MW-04(23)MS

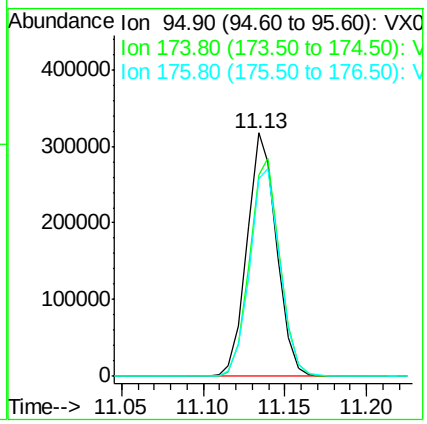
Manual Integrations APPROVED
MMDadoda
12/20/2018 10:00:46 AM

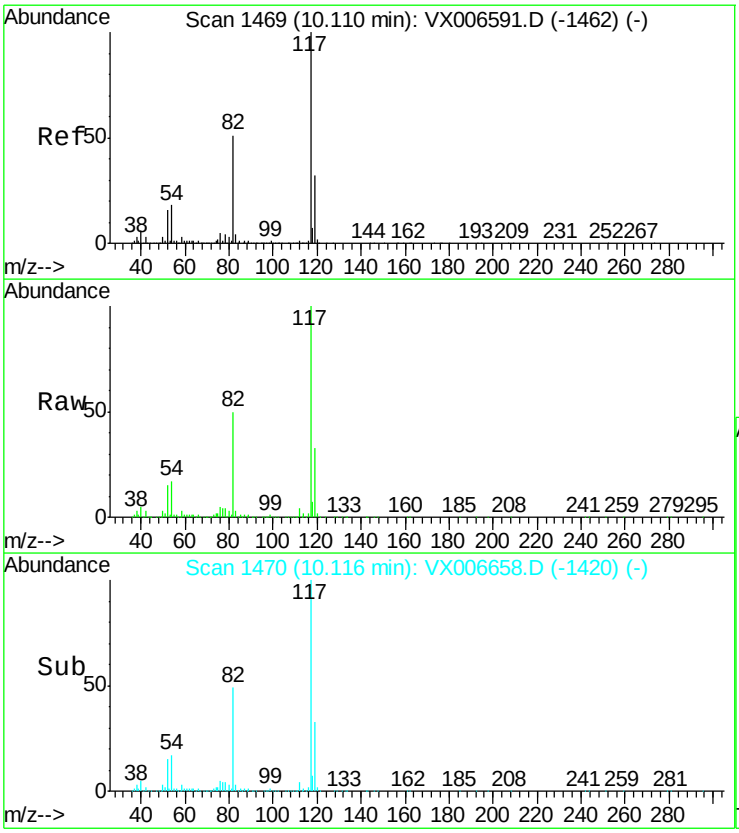


#62
4-Bromofluorobenzene
Concen: 52.120 ug/l
RT: 11.13 min Scan# 1637
Delta R.T. -0.00 min
Lab File: VX006658.D
Acq: 20 Dec 2018 00:44

Tgt Ion: 95 Resp: 400144

Ion	Ratio	Lower	Upper
95	100		
174	91.6	0.0	182.2
176	88.0	0.0	178.8

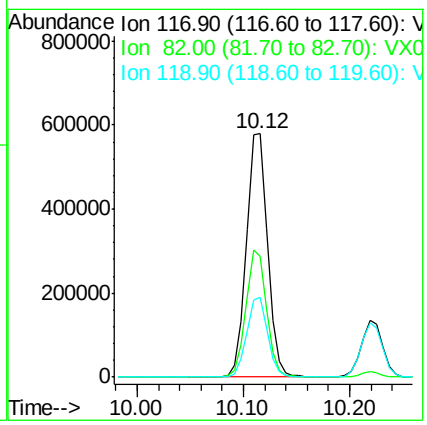




#63
Chlorobenzene-d5
Concen: 50.000 ug/l
RT: 10.12 min Scan# 1470
Delta R.T. 0.01 min
Lab File: VX006658.D
Acq: 20 Dec 2018 00:44

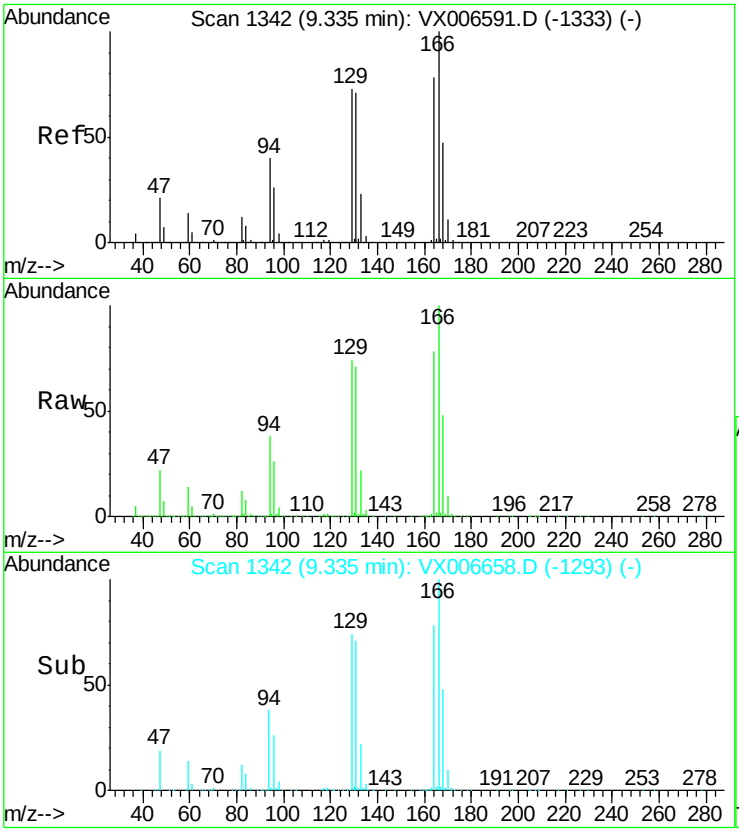
Tgt Ion:117 Resp: 813759

Ion	Ratio	Lower	Upper
117	100		
82	49.5	41.0	61.6
119	32.8	25.4	38.0



Instrument :
MSVOA_X
ClientSampleId :
966-MW-04(23)MS

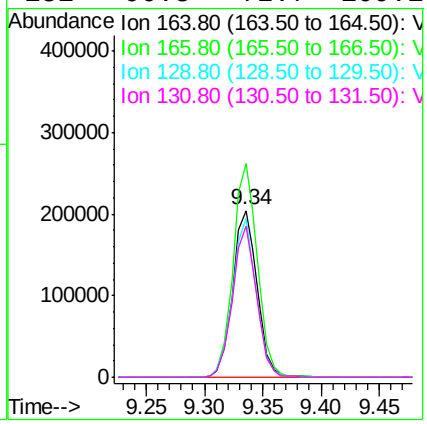
Manual Integrations APPROVED
MMDadoda
12/20/2018 10:00:46 AM

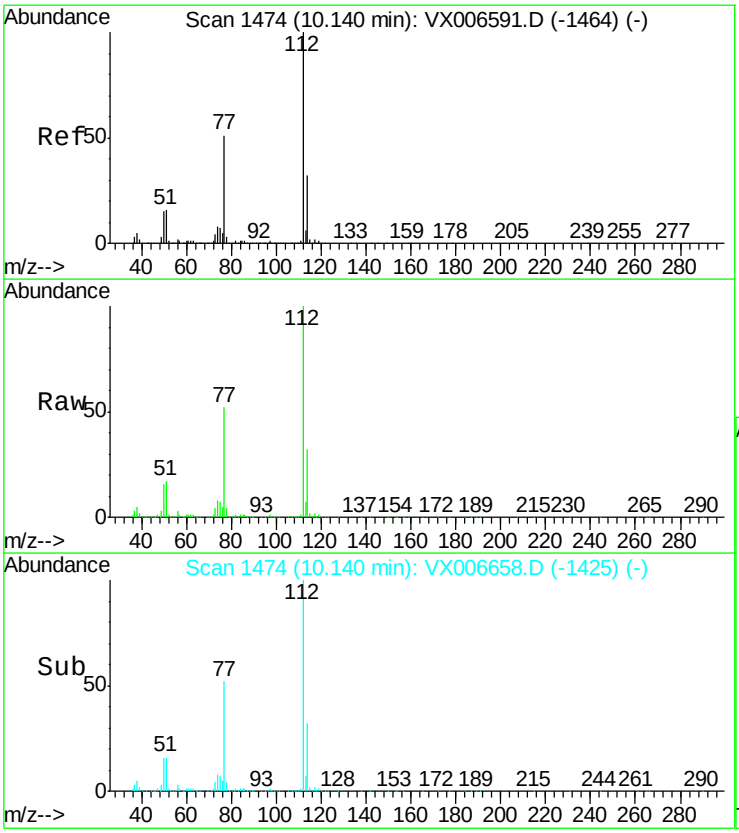


#64
Tetrachloroethene
Concen: 46.223 ug/l
RT: 9.34 min Scan# 1342
Delta R.T. -0.00 min
Lab File: VX006658.D
Acq: 20 Dec 2018 00:44

Tgt Ion:164 Resp: 297847

Ion	Ratio	Lower	Upper
164	100		
166	128.2	102.5	153.7
129	95.0	75.1	112.7
131	90.8	72.7	109.1

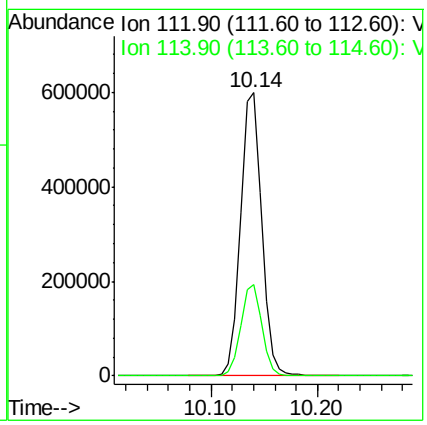


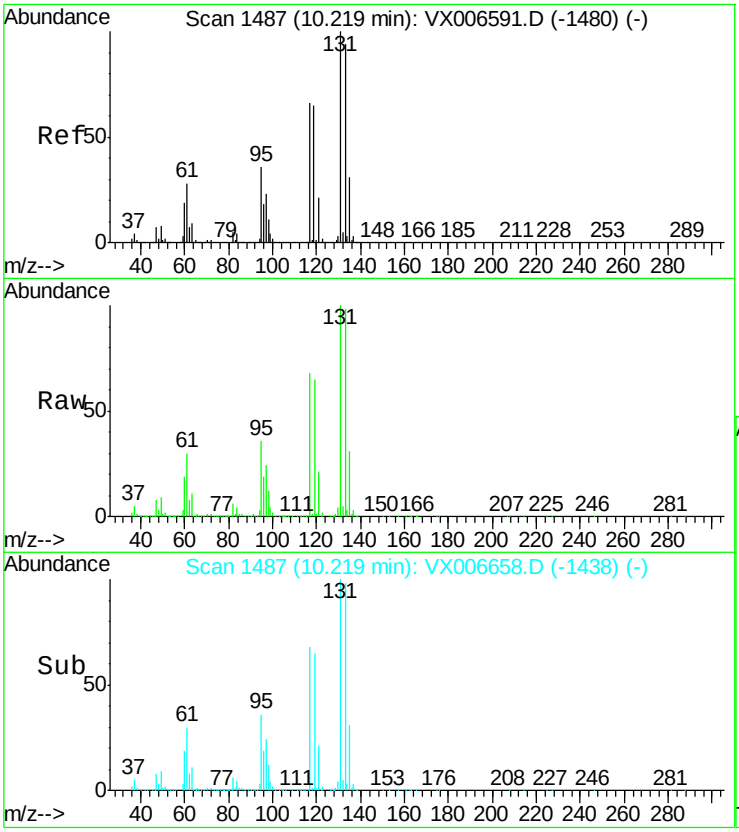


#65
Chlorobenzene
Concen: 48.873 ug/l
RT: 10.14 min Scan# 1474
Delta R.T. -0.00 min
Lab File: VX006658.D
Acq: 20 Dec 2018 00:44

Tgt Ion:112 Resp: 841386

Ion	Ratio	Lower	Upper
112	100		
114	32.1	25.7	38.5

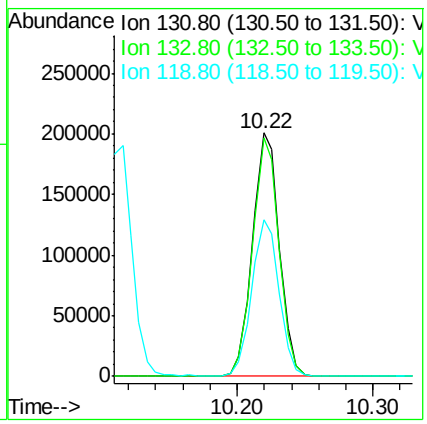




#66
1,1,1,2-Tetrachloroethane
Concen: 51.945 ug/l
RT: 10.22 min Scan# 1487
Delta R.T. -0.00 min
Lab File: VX006658.D
Acq: 20 Dec 2018 00:44

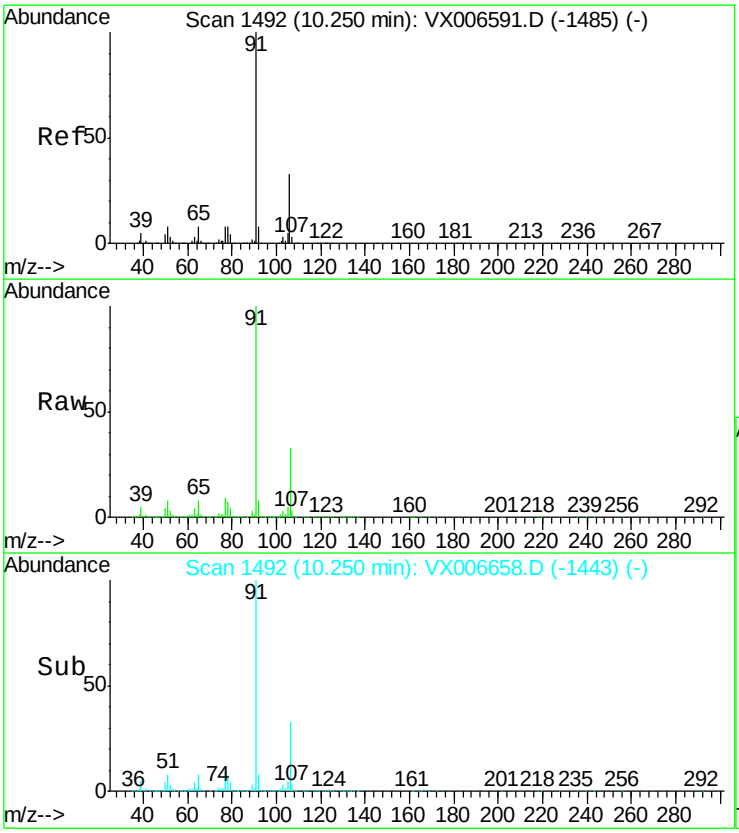
Tgt Ion:131 Resp: 279011

Ion	Ratio	Lower	Upper
131	100		
133	96.5	48.0	144.2
119	65.5	32.6	97.8



Instrument :
MSVOA_X
ClientSampleId :
966-MW-04(23)MS

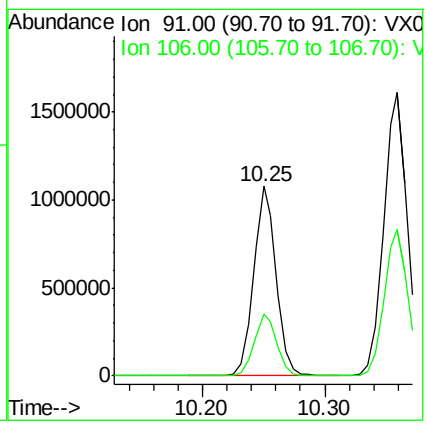
Manual Integrations APPROVED
MMDadoda
12/20/2018 10:00:46 AM



#67
Ethyl Benzene
Concen: 49.140 ug/l
RT: 10.25 min Scan# 1492
Delta R.T. -0.00 min
Lab File: VX006658.D
Acq: 20 Dec 2018 00:44

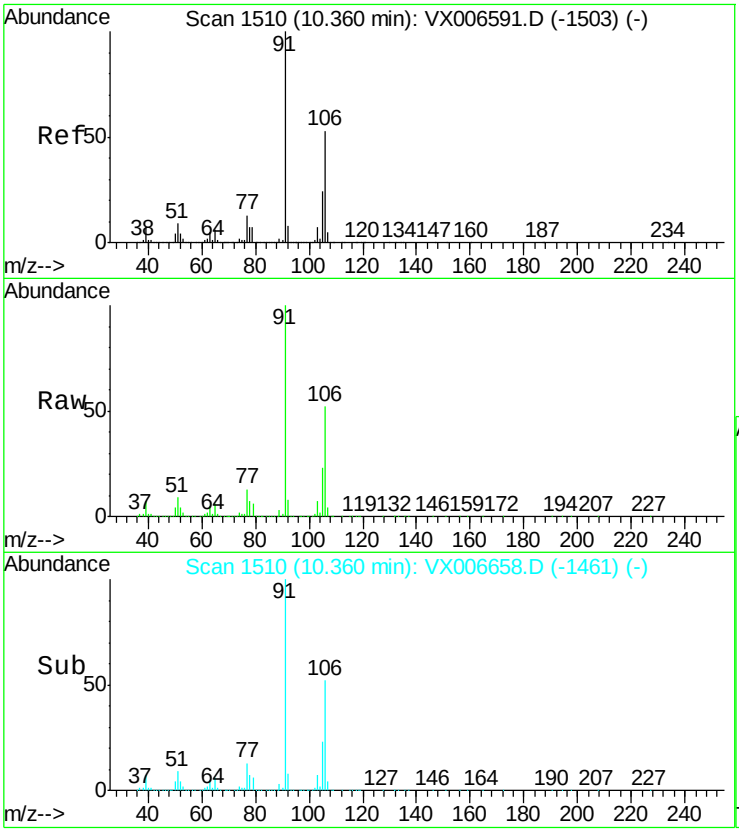
Tgt Ion: 91 Resp: 1382392

Ion	Ratio	Lower	Upper
91	100		
106	32.5	26.4	39.6



Instrument :
MSVOA_X
ClientSampleId :
966-MW-04(23)MS

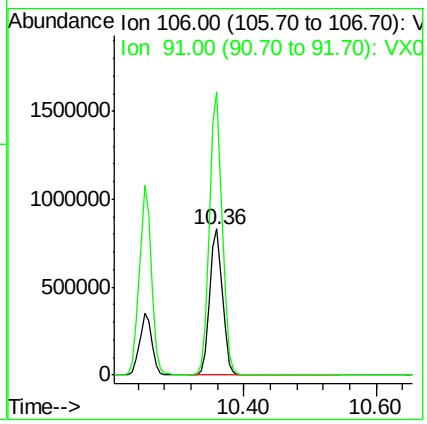
Manual Integrations APPROVED
MMDadoda
12/20/2018 10:00:46 AM

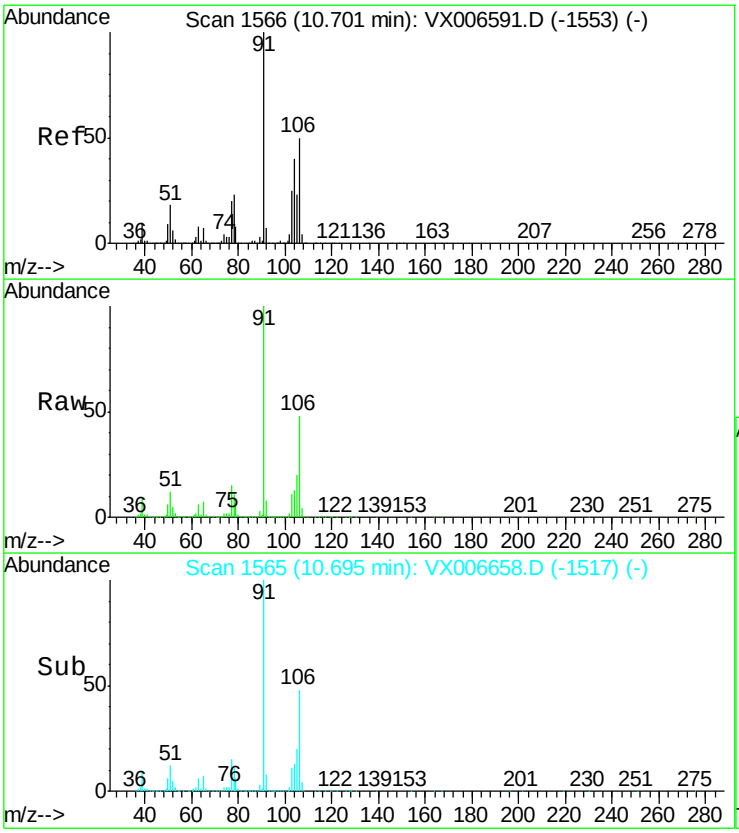


#68
m/p-Xylenes
Concen: 101.065 ug/l
RT: 10.36 min Scan# 1510
Delta R.T. -0.00 min
Lab File: VX006658.D
Acq: 20 Dec 2018 00:44

Tgt Ion:106 Resp: 1121894

Ion	Ratio	Lower	Upper
106	100		
91	193.5	155.8	233.6

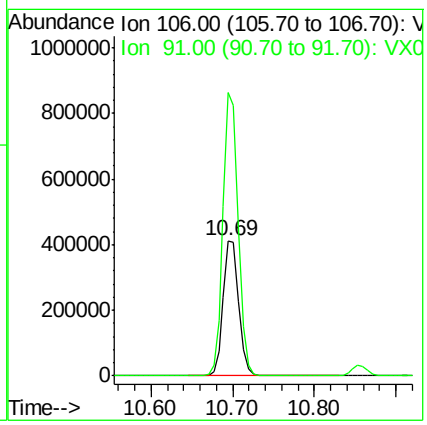


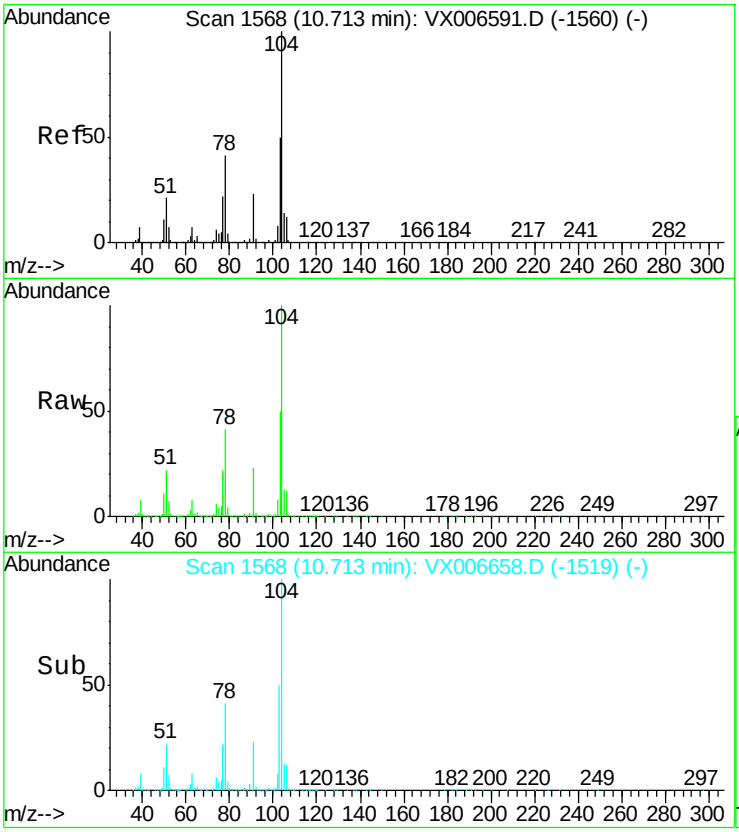


#69
o-Xylene
Concen: 49.936 ug/l
RT: 10.69 min Scan# 1565
Delta R.T. -0.01 min
Lab File: VX006658.D
Acq: 20 Dec 2018 00:44

Tgt Ion:106 Resp: 547383

Ion	Ratio	Lower	Upper
106	100		
91	205.1	101.3	303.7

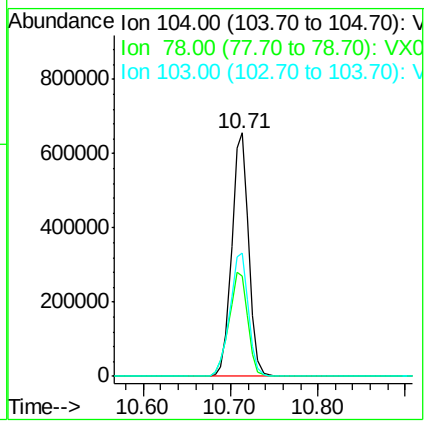


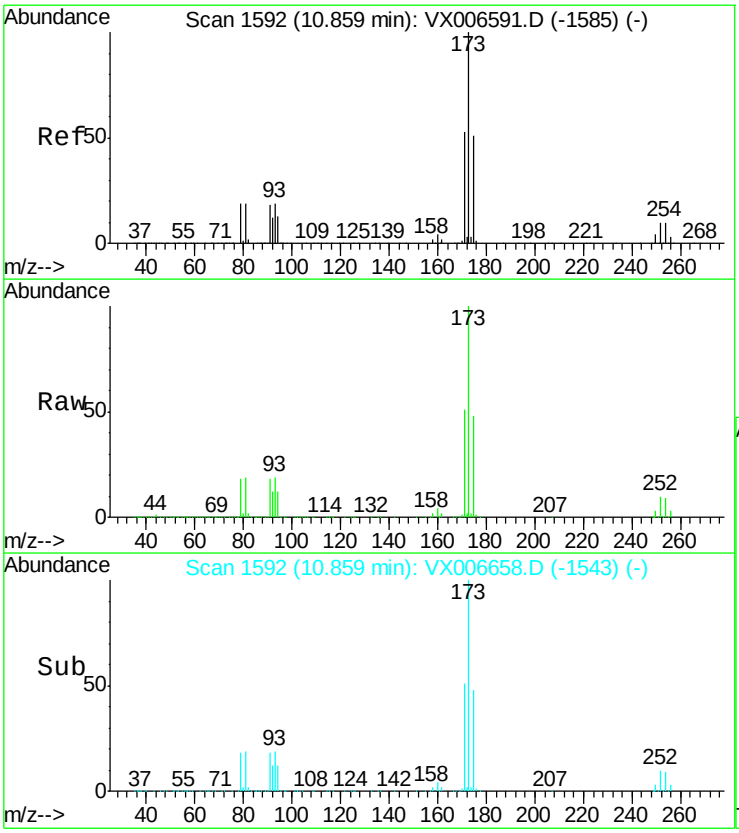


#70
Stvrene
Concen: 51.305 ug/l
RT: 10.71 min Scan# 1568
Delta R.T. -0.00 min
Lab File: VX006658.D
Acq: 20 Dec 2018 00:44

Tgt Ion:104 Resp: 889743

Ion	Ratio	Lower	Upper
104	100		
78	47.0	37.7	56.5
103	55.4	43.8	65.8

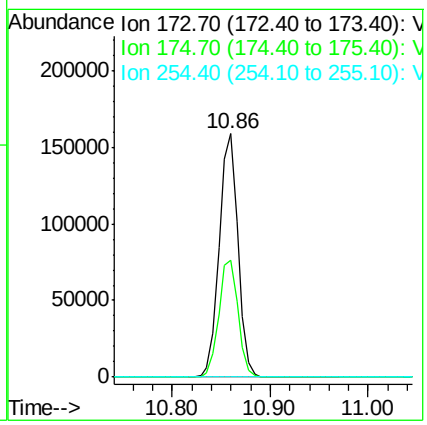




#71
Bromoform
Concen: 44.161 ug/l
RT: 10.86 min Scan# 1592
Delta R.T. 0.00 min
Lab File: VX006658.D
Acq: 20 Dec 2018 00:44

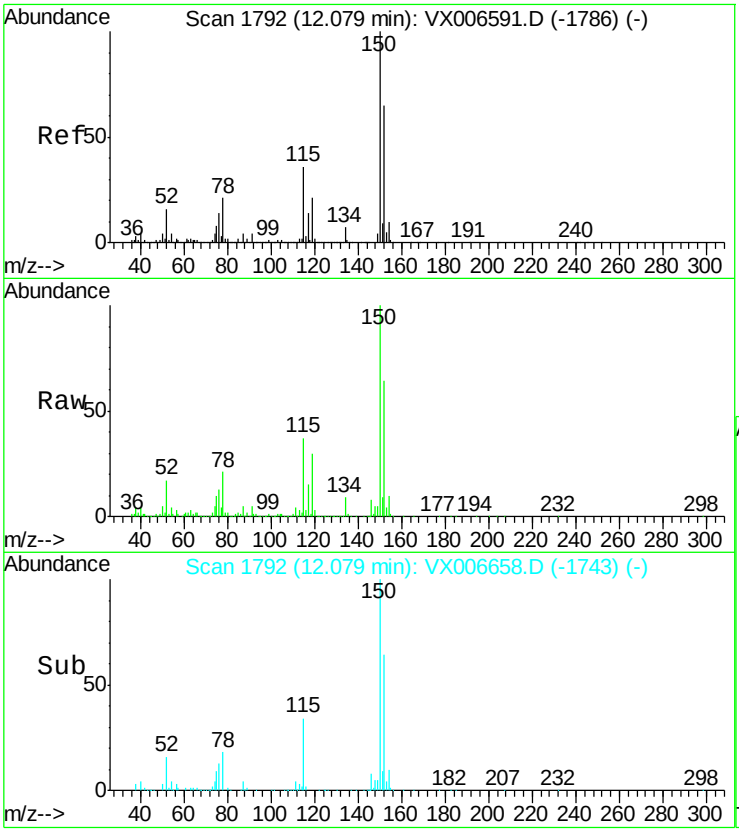
Tgt Ion:173 Resp: 211187

Ion	Ratio	Lower	Upper
173	100		
175	49.3	24.7	74.1
254	0.2	0.2	0.2



Instrument :
MSVOA_X
ClientSampleId :
966-MW-04(23)MS

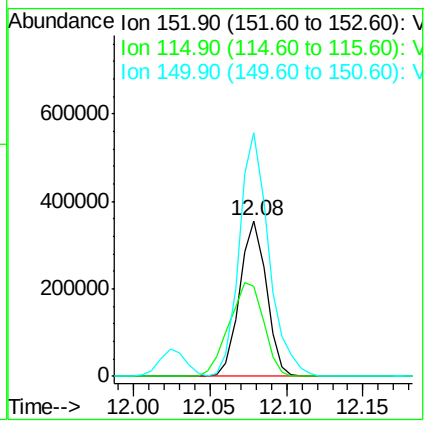
Manual Integrations APPROVED
MMDadoda
12/20/2018 10:00:46 AM



#72
1,4-Dichlorobenzene-d4
Concen: 50.000 ug/l
RT: 12.08 min Scan# 1792
Delta R.T. -0.00 min
Lab File: VX006658.D
Acq: 20 Dec 2018 00:44

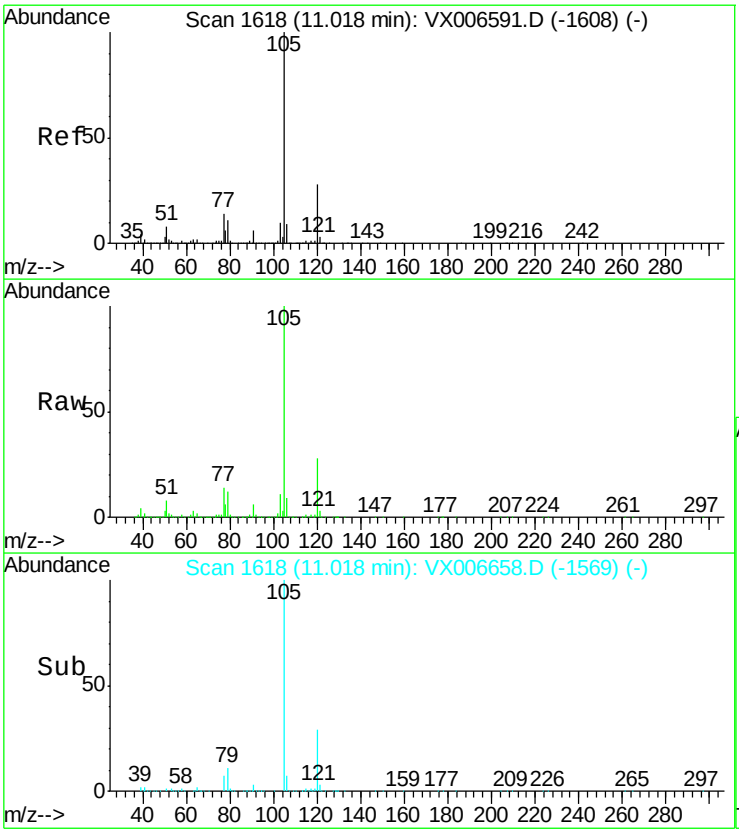
Tgt Ion:152 Resp: 430640

Ion	Ratio	Lower	Upper
152	100		
115	78.2	39.1	117.2
150	173.0	0.0	344.8



Instrument :
MSVOA_X
ClientSampleId :
966-MW-04(23)MS

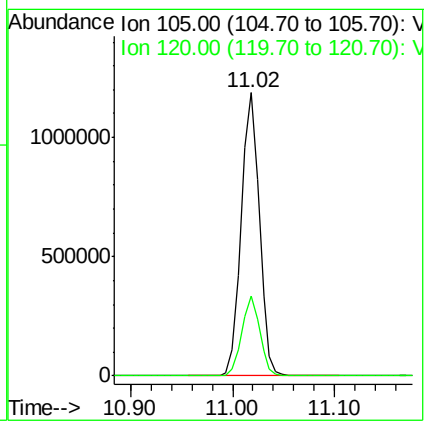
Manual Integrations APPROVED
MMDadoda
12/20/2018 10:00:46 AM



#73
Isopropylbenzene
Concen: 49.252 ug/l
RT: 11.02 min Scan# 1618
Delta R.T. -0.00 min
Lab File: VX006658.D
Acq: 20 Dec 2018 00:44

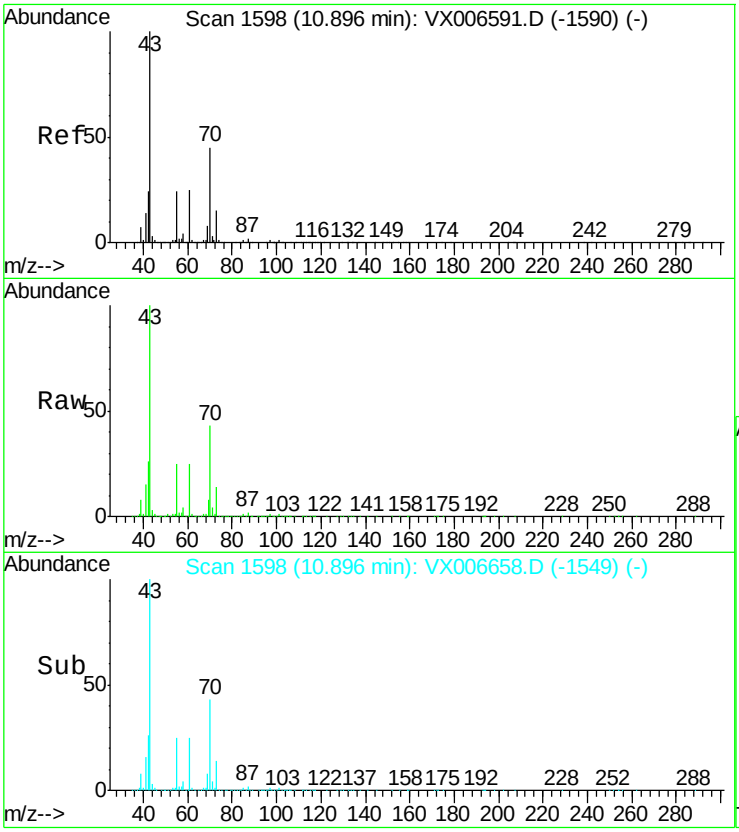
Tgt Ion:105 Resp: 1451025

Ion	Ratio	Lower	Upper
105	100		
120	27.9	14.1	42.4



Instrument :
MSVOA_X
ClientSampleId :
966-MW-04(23)MS

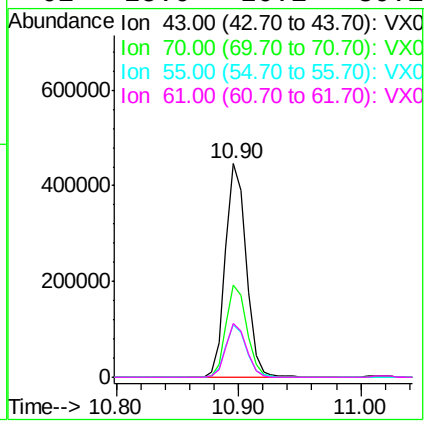
Manual Integrations APPROVED
MMDadoda
12/20/2018 10:00:46 AM

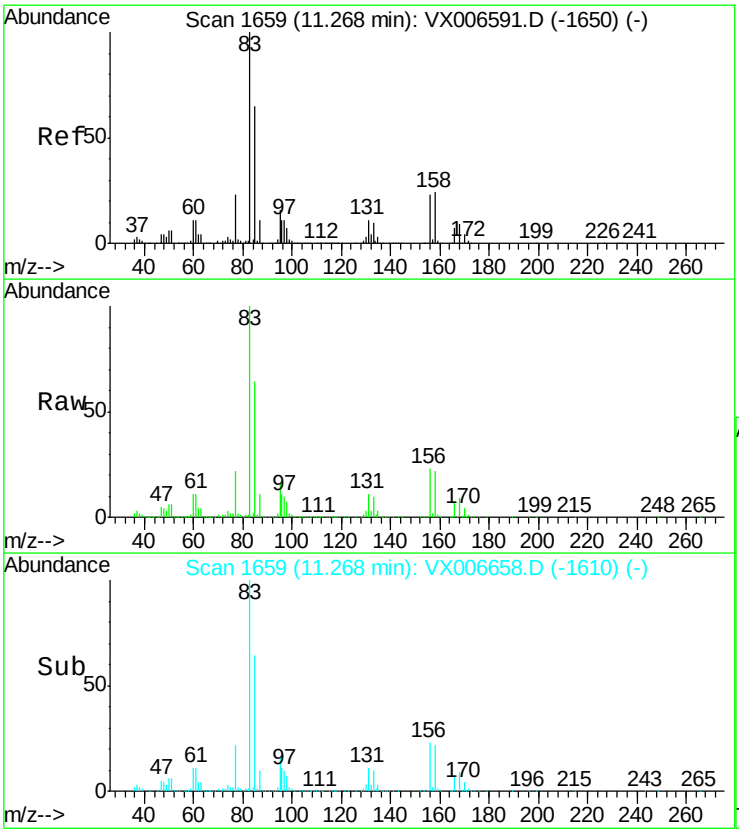


#74
N-amyl acetate
Concen: 49.873 ug/l
RT: 10.90 min Scan# 1598
Delta R.T. -0.00 min
Lab File: VX006658.D
Acq: 20 Dec 2018 00:44

Tgt Ion: 43 Resp: 525923

Ion	Ratio	Lower	Upper
43	100		
70	43.3	35.8	53.8
55	24.6	19.4	29.0
61	25.0	20.1	30.1

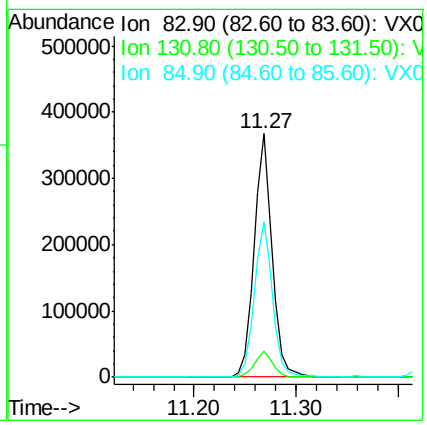




#75
1,1,2,2-Tetrachloroethane
Concen: 52.035 ug/l
RT: 11.27 min Scan# 1659
Delta R.T. -0.00 min
Lab File: VX006658.D
Acq: 20 Dec 2018 00:44

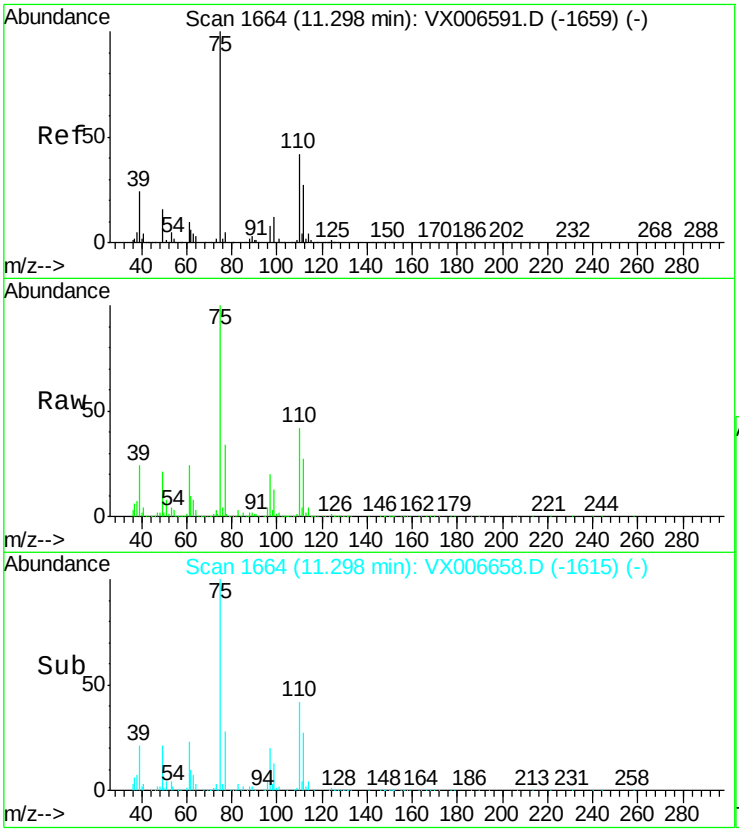
Tgt Ion: 83 Resp: 455918

Ion	Ratio	Lower	Upper
83	100		
131	10.9	5.7	17.1
85	65.0	32.2	96.6



Instrument :
MSVOA_X
ClientSampleId :
966-MW-04(23)MS

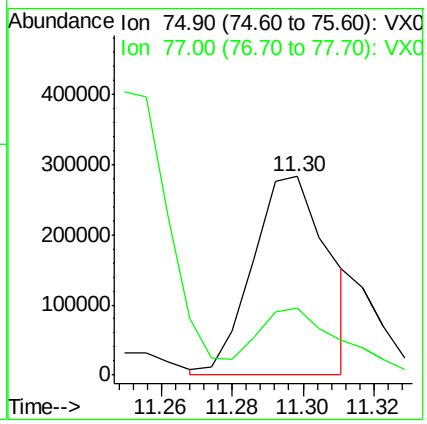
Manual Integrations APPROVED
MMDadoda
12/20/2018 10:00:46 AM

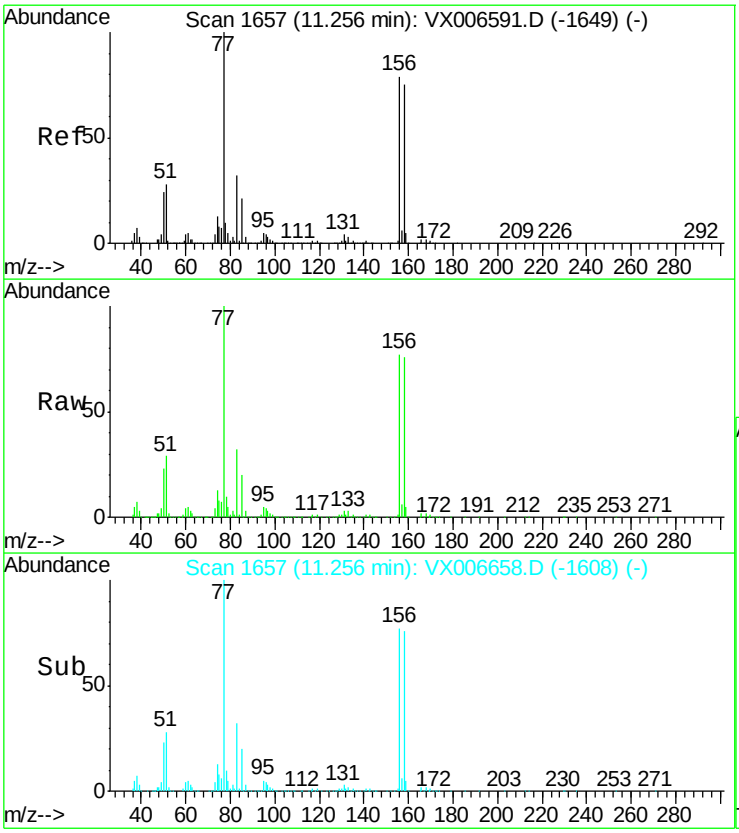


#76
1,2,3-Trichloropropane
Concen: 52.252 ug/l m
RT: 11.30 min Scan# 1664
Delta R.T. -0.00 min
Lab File: VX006658.D
Acq: 20 Dec 2018 00:44

Tgt Ion: 75 Resp: 418180

Ion	Ratio	Lower	Upper
75	100		
77	37.4	18.5	55.5

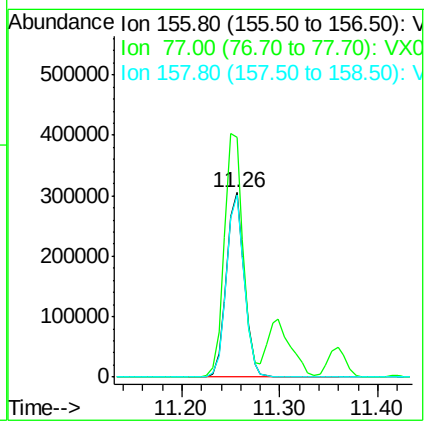




#77
Bromobenzene
Concen: 48.860 ug/l
RT: 11.26 min Scan# 1657
Delta R.T. -0.00 min
Lab File: VX006658.D
Acq: 20 Dec 2018 00:44

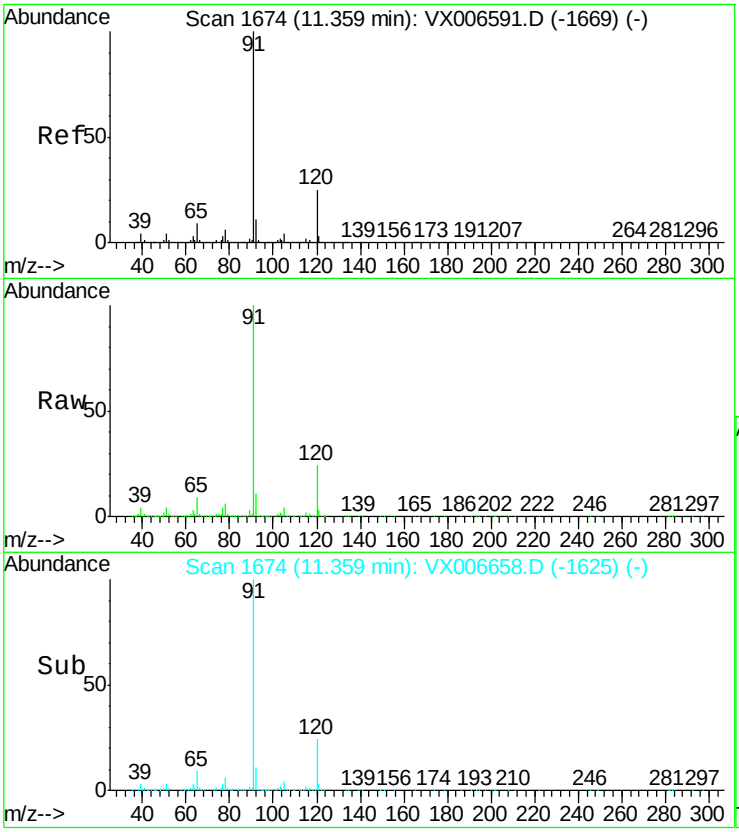
Tgt Ion:156 Resp: 389164

Ion	Ratio	Lower	Upper
156	100		
77	138.7	68.0	204.0
158	98.7	48.3	144.8



Instrument :
MSVOA_X
ClientSampleId :
966-MW-04(23)MS

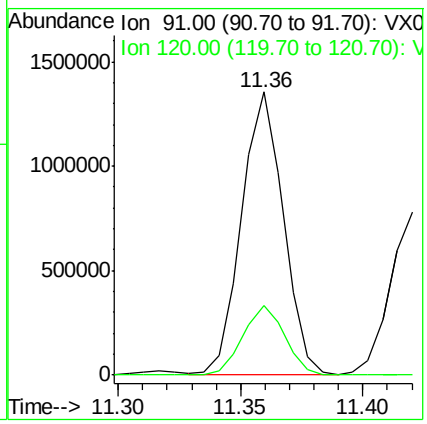
Manual Integrations APPROVED
MMDadoda
12/20/2018 10:00:46 AM

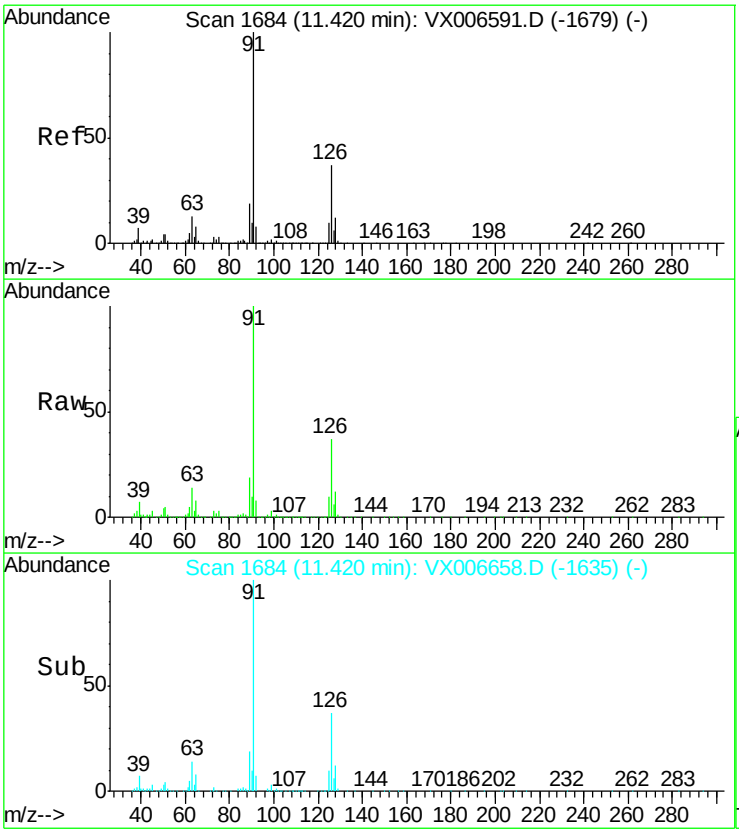


#78
n-propylbenzene
Concen: 49.360 ug/l
RT: 11.36 min Scan# 1674
Delta R.T. -0.00 min
Lab File: VX006658.D
Acq: 20 Dec 2018 00:44

Tgt Ion: 91 Resp: 1601362

Ion	Ratio	Lower	Upper
91	100		
120	24.9	12.7	38.0

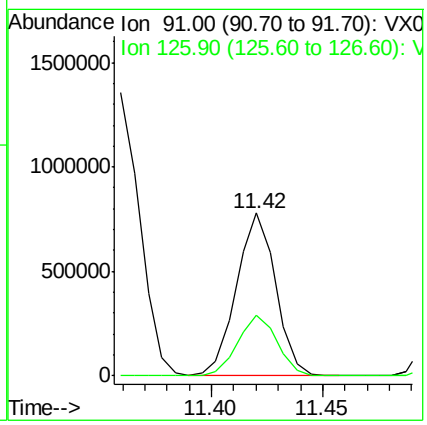


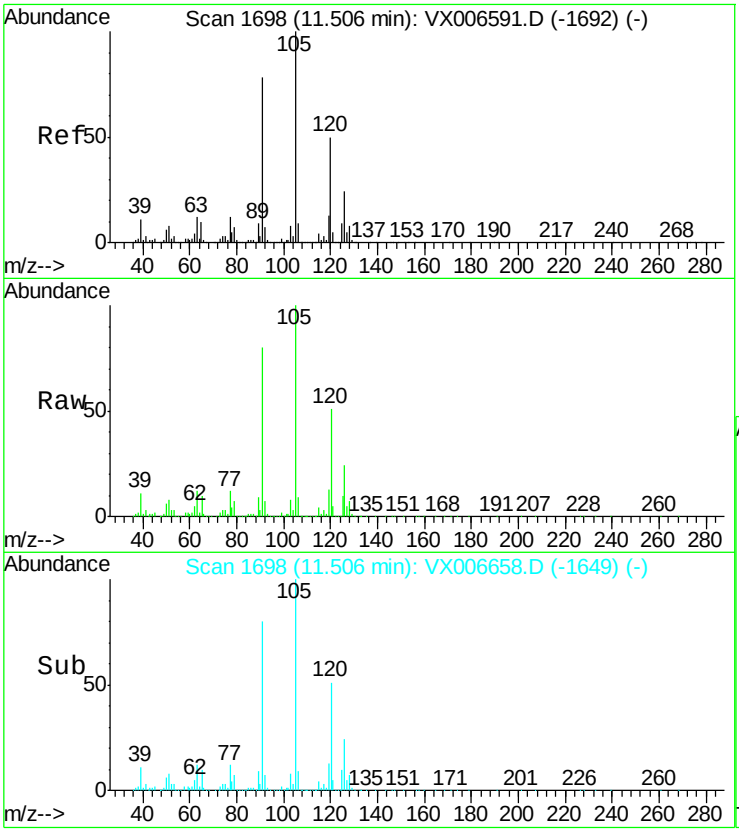


#79
2-Chlorotoluene
Concen: 48.477 ug/l
RT: 11.42 min Scan# 1684
Delta R.T. -0.00 min
Lab File: VX006658.D
Acq: 20 Dec 2018 00:44

Tgt Ion: 91 Resp: 953076

Ion	Ratio	Lower	Upper
91	100		
126	37.6	18.6	56.0

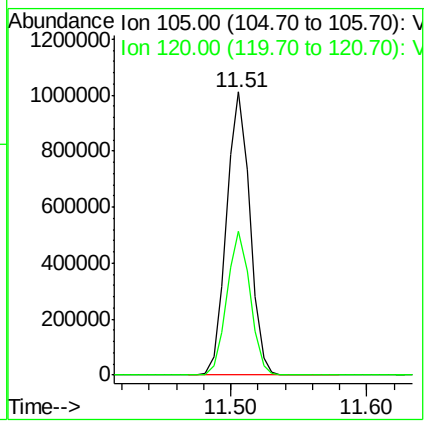




#80
1,3,5-Trimethylbenzene
Concen: 49.455 ug/l
RT: 11.51 min Scan# 1698
Delta R.T. -0.00 min
Lab File: VX006658.D
Acq: 20 Dec 2018 00:44

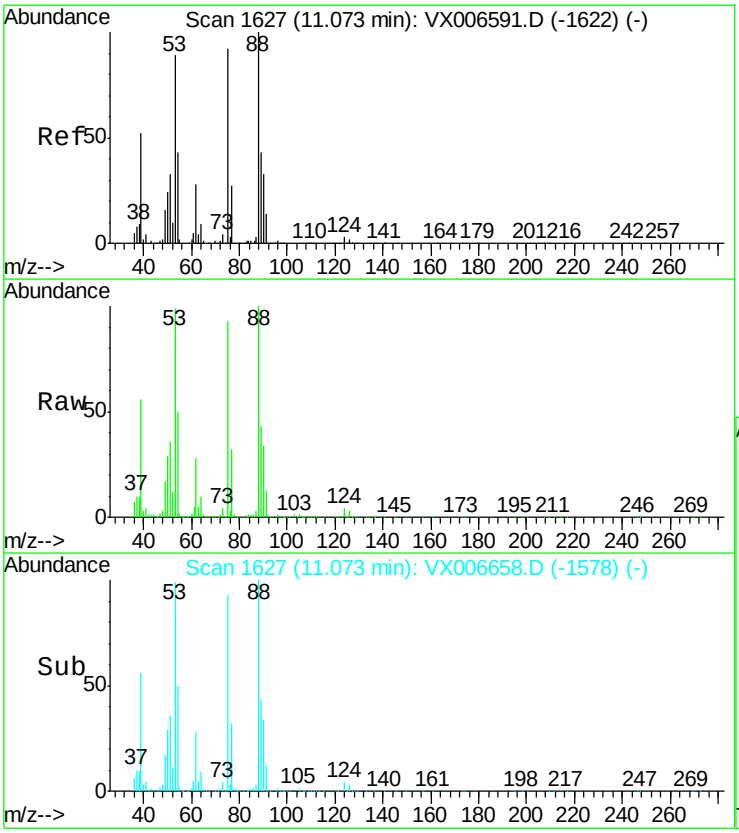
Tgt Ion:105 Resp: 1200062

Ion	Ratio	Lower	Upper
105	100		
120	50.6	25.1	75.3



Instrument :
MSVOA_X
ClientSampleId :
966-MW-04(23)MS

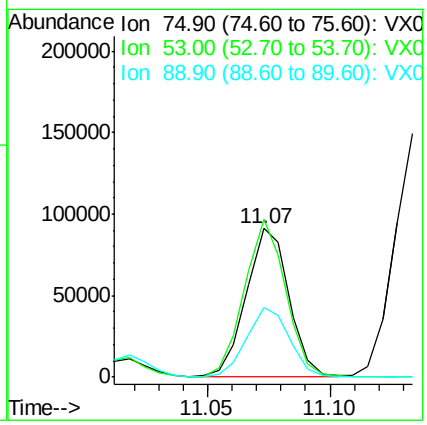
Manual Integrations APPROVED
MMDadoda
12/20/2018 10:00:46 AM

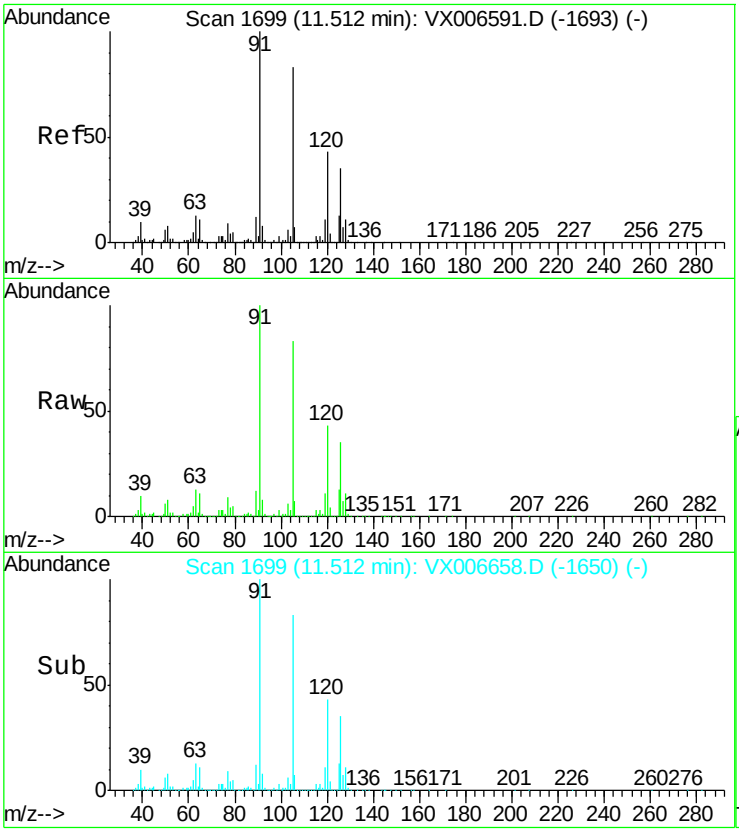


#81
trans-1,4-Dichloro-2-butene
Concen: 42.563 ug/l
RT: 11.07 min Scan# 1627
Delta R.T. 0.00 min
Lab File: VX006658.D
Acq: 20 Dec 2018 00:44

Tgt Ion: 75 Resp: 110123

Ion	Ratio	Lower	Upper
75	100		
53	103.5	79.7	119.5
89	47.6	38.0	57.0

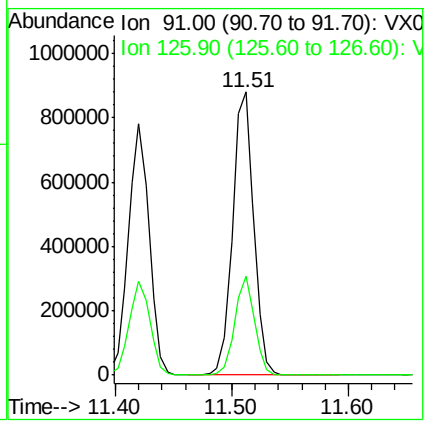




#82
4-Chlorotoluene
Concen: 49.178 ug/l
RT: 11.51 min Scan# 1699
Delta R.T. -0.00 min
Lab File: VX006658.D
Acq: 20 Dec 2018 00:44

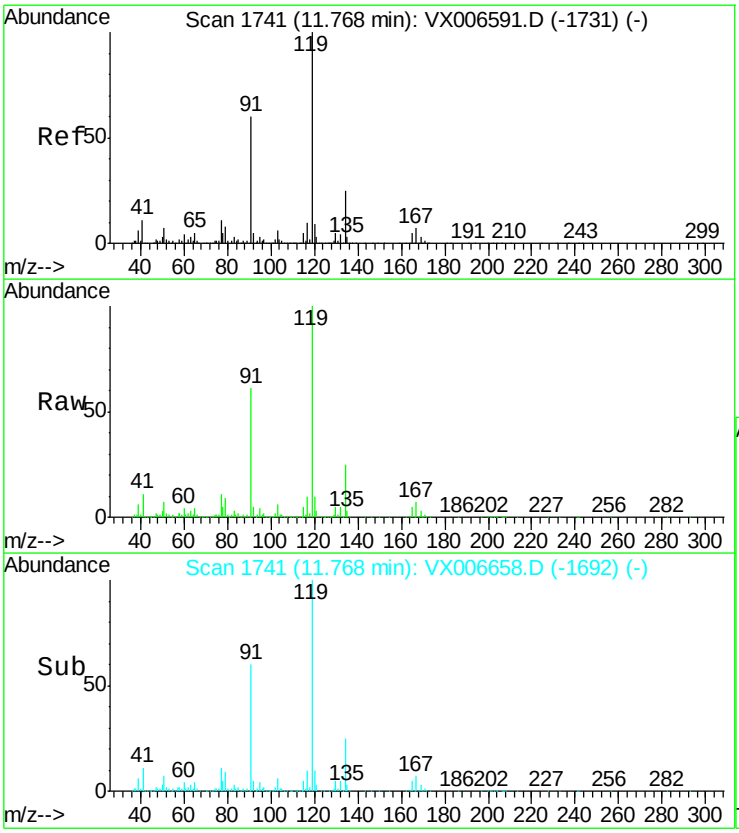
Tgt Ion: 91 Resp: 1109057

Ion	Ratio	Lower	Upper
91	100		
126	32.8	16.3	48.9



Instrument :
MSVOA_X
ClientSampleId :
966-MW-04(23)MS

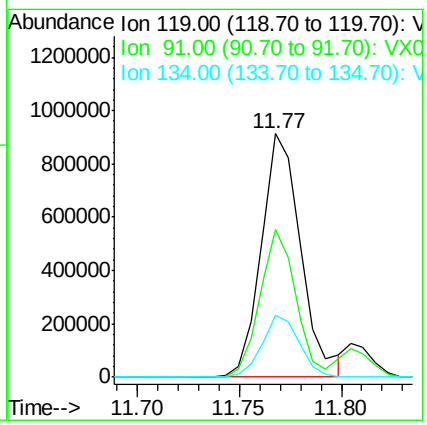
Manual Integrations APPROVED
MMDadoda
12/20/2018 10:00:46 AM



#83
tert-Butylbenzene
Concen: 50.757 ug/l
RT: 11.77 min Scan# 1741
Delta R.T. -0.00 min
Lab File: VX006658.D
Acq: 20 Dec 2018 00:44

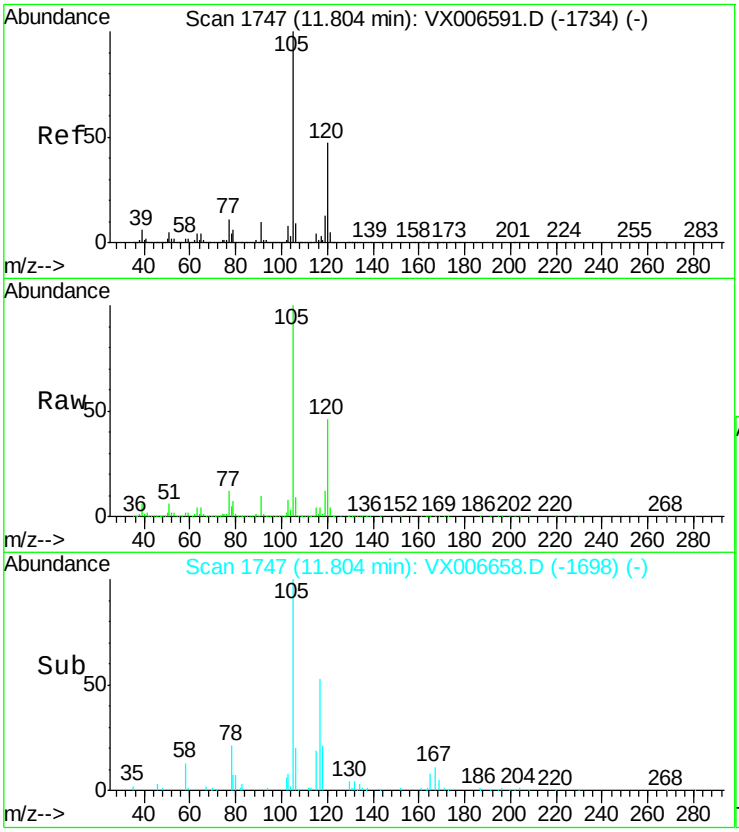
Tgt Ion:119 Resp: 1232702

Ion	Ratio	Lower	Upper
119	100		
91	55.1	27.7	83.1
134	24.0	11.9	35.5



Instrument :
MSVOA_X
ClientSampleId :
966-MW-04(23)MS

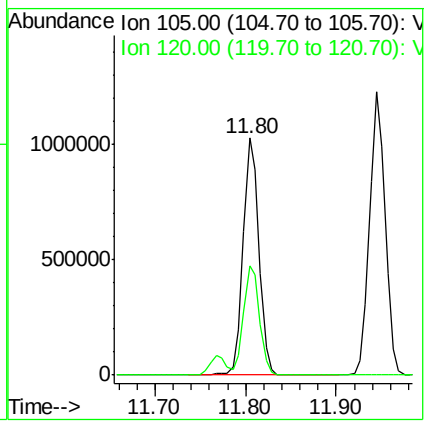
Manual Integrations APPROVED
MMDadoda
12/20/2018 10:00:46 AM

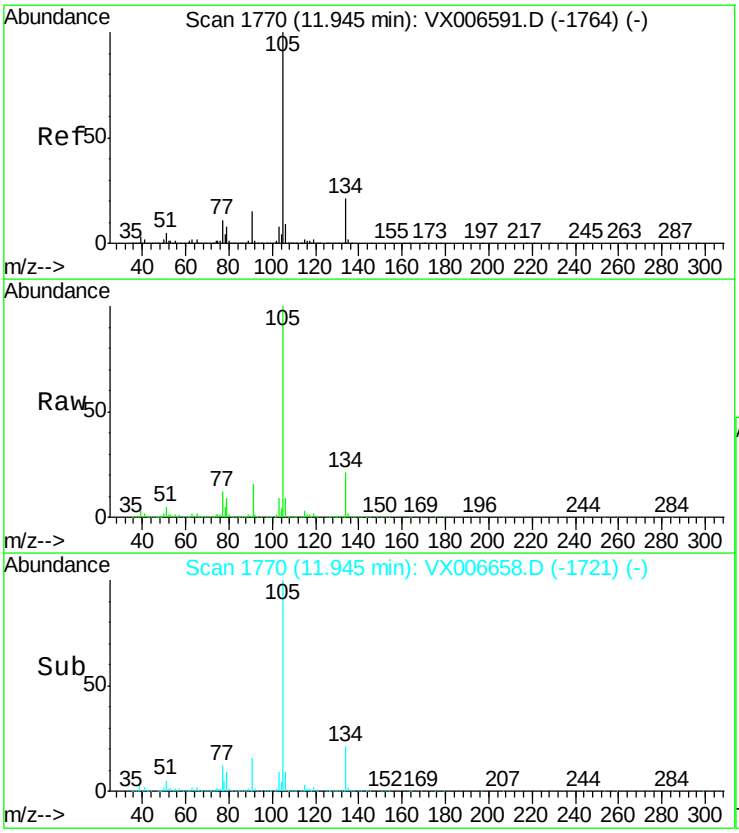


#84
1,2,4-Trimethylbenzene
Concen: 48.571 ug/l
RT: 11.80 min Scan# 1747
Delta R.T. -0.00 min
Lab File: VX006658.D
Acq: 20 Dec 2018 00:44

Tgt Ion:105 Resp: 1239715

Ion	Ratio	Lower	Upper
105	100		
120	46.2	23.2	69.6

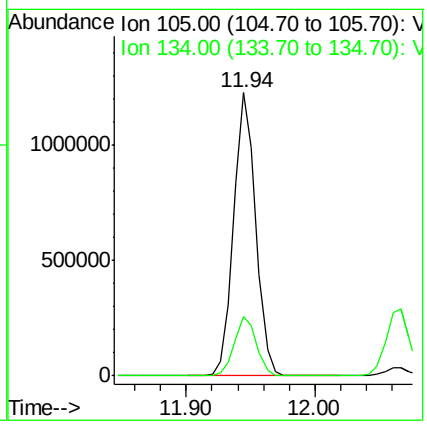




#85
sec-Butylbenzene
Concen: 49.285 ug/l
RT: 11.94 min Scan# 1770
Delta R.T. -0.00 min
Lab File: VX006658.D
Acq: 20 Dec 2018 00:44

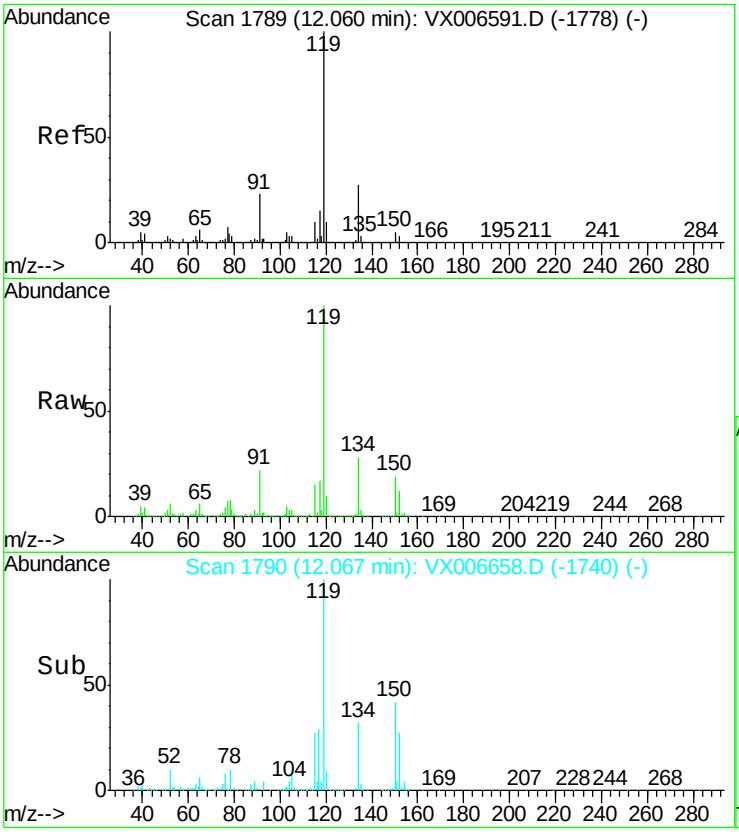
Tgt Ion:105 Resp: 1467524

Ion	Ratio	Lower	Upper
105	100		
134	21.2	10.7	31.9



Instrument :
MSVOA_X
ClientSampleId :
966-MW-04(23)MS

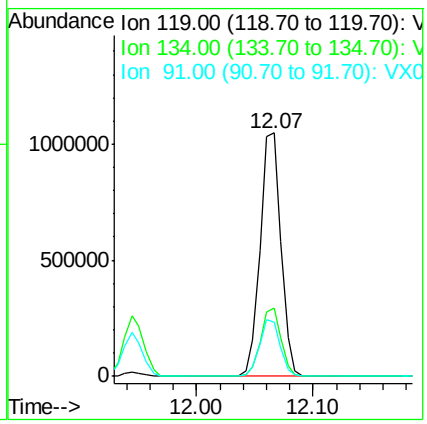
Manual Integrations APPROVED
MMDadoda
12/20/2018 10:00:46 AM

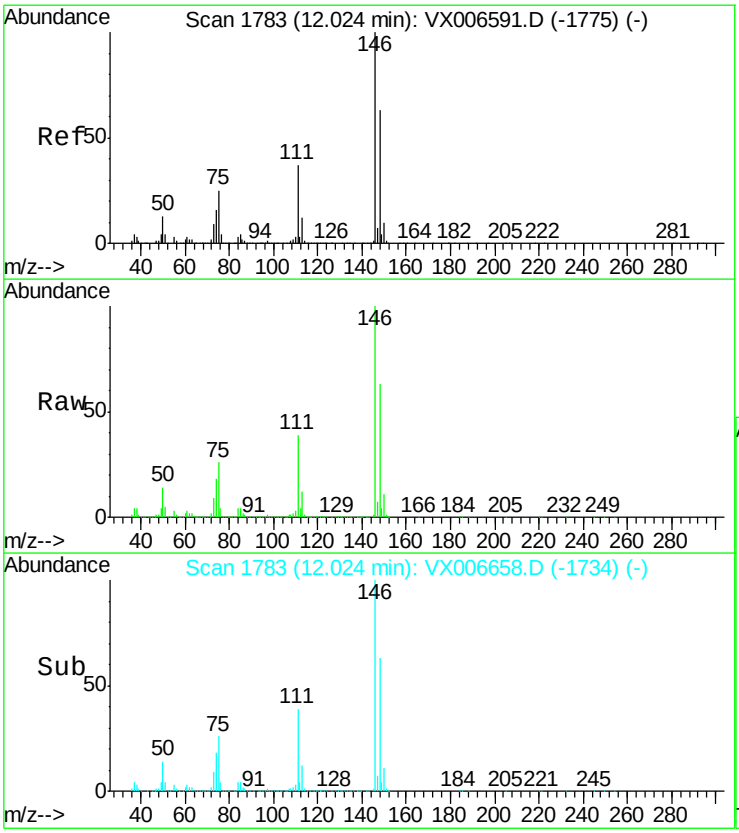


#86
p-Isopropyltoluene
Concen: 50.291 ug/l
RT: 12.07 min Scan# 1790
Delta R.T. 0.01 min
Lab File: VX006658.D
Acq: 20 Dec 2018 00:44

Tgt Ion:119 Resp: 1316354

Ion	Ratio	Lower	Upper
119	100		
134	27.5	14.0	41.9
91	22.8	11.3	33.9

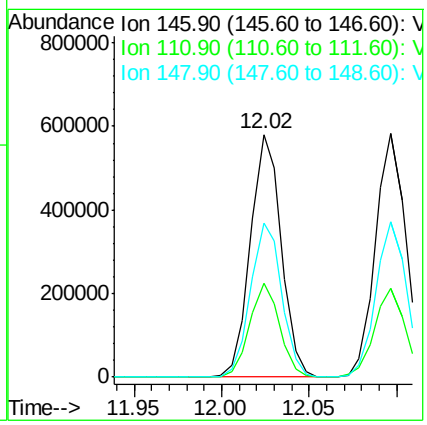




#87
1,3-Dichlorobenzene
Concen: 49.436 ug/l
RT: 12.02 min Scan# 1783
Delta R.T. -0.00 min
Lab File: VX006658.D
Acq: 20 Dec 2018 00:44

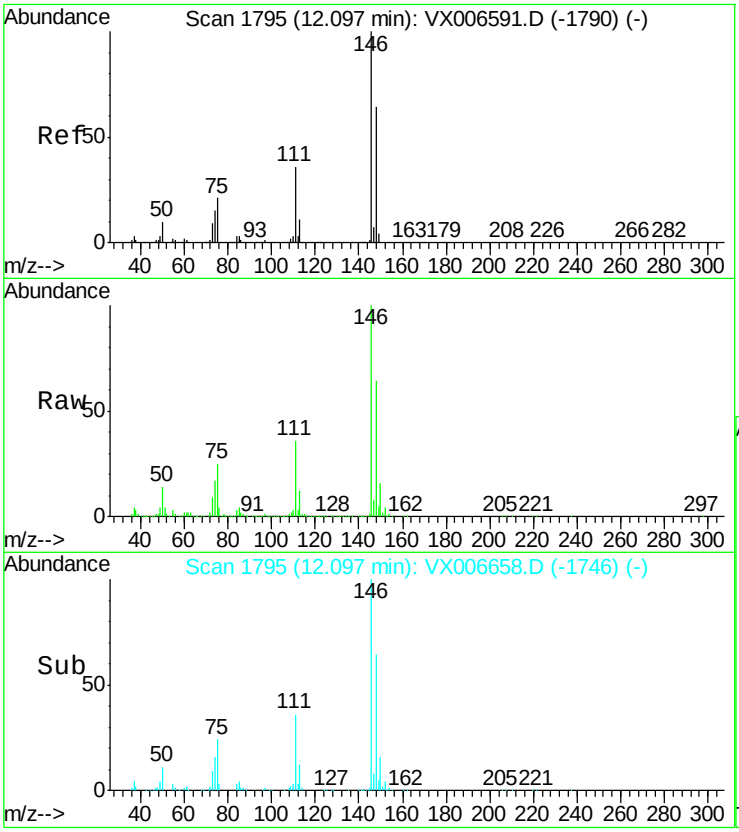
Tgt Ion:146 Resp: 709637

Ion	Ratio	Lower	Upper
146	100		
111	37.8	18.6	55.8
148	64.2	31.8	95.3



Instrument :
MSVOA_X
ClientSampleId :
966-MW-04(23)MS

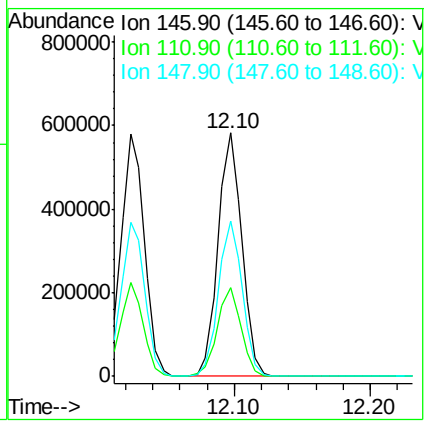
Manual Integrations APPROVED
MMDadoda
12/20/2018 10:00:46 AM

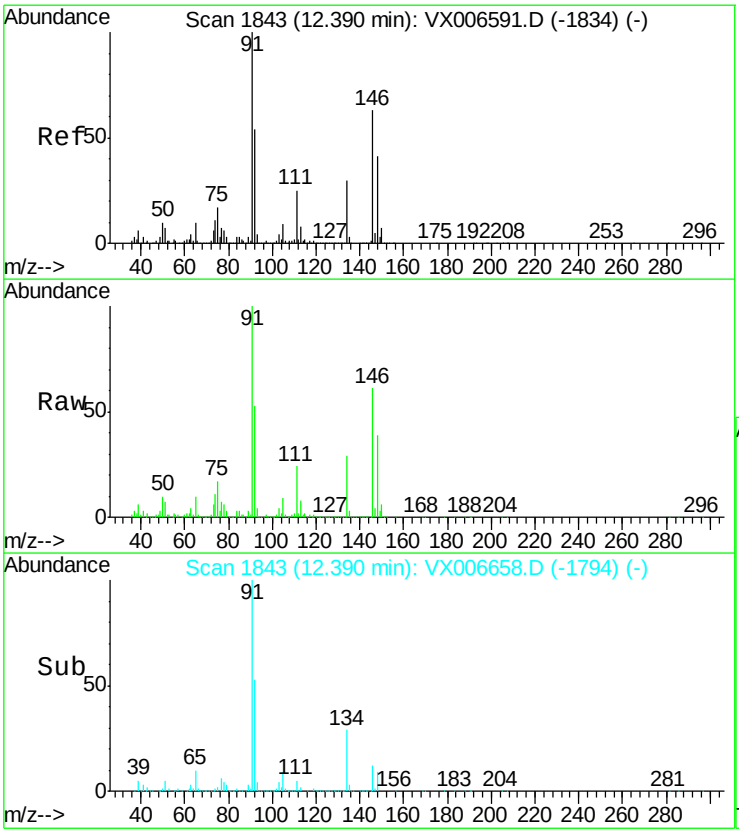


#88
1,4-Dichlorobenzene
Concen: 48.011 ug/l
RT: 12.10 min Scan# 1795
Delta R.T. -0.00 min
Lab File: VX006658.D
Acq: 20 Dec 2018 00:44

Tgt Ion:146 Resp: 706516

Ion	Ratio	Lower	Upper
146	100		
111	36.6	18.1	54.1
148	64.0	31.9	95.9

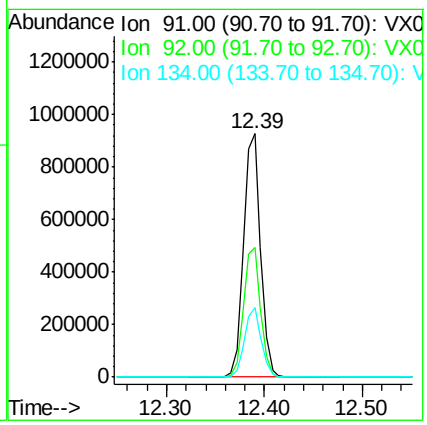




#89
n-Butylbenzene
Concen: 49.666 ug/l
RT: 12.39 min Scan# 1843
Delta R.T. -0.00 min
Lab File: VX006658.D
Acq: 20 Dec 2018 00:44

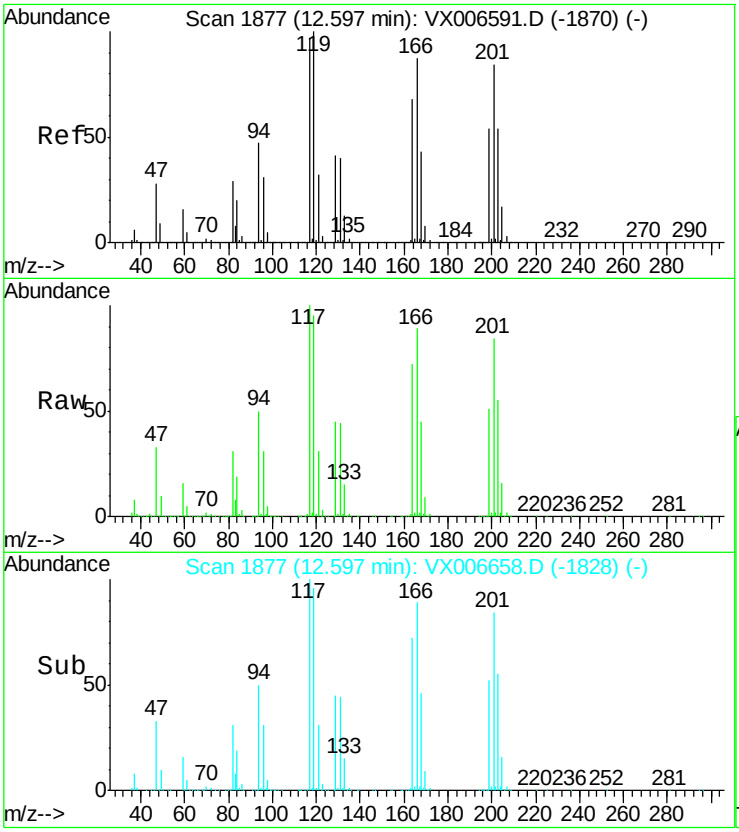
Tgt Ion: 91 Resp: 1106366

Ion	Ratio	Lower	Upper
91	100		
92	53.2	26.8	80.4
134	28.3	14.4	43.2



Instrument :
MSVOA_X
ClientSampleId :
966-MW-04(23)MS

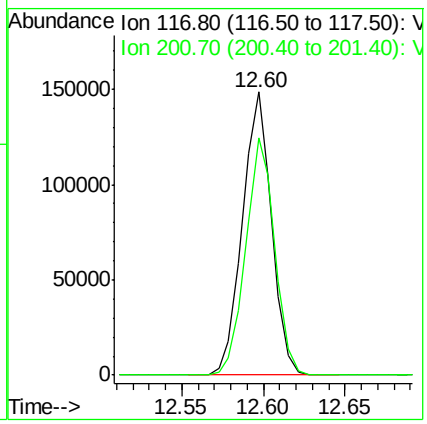
Manual Integrations APPROVED
MMDadoda
12/20/2018 10:00:46 AM

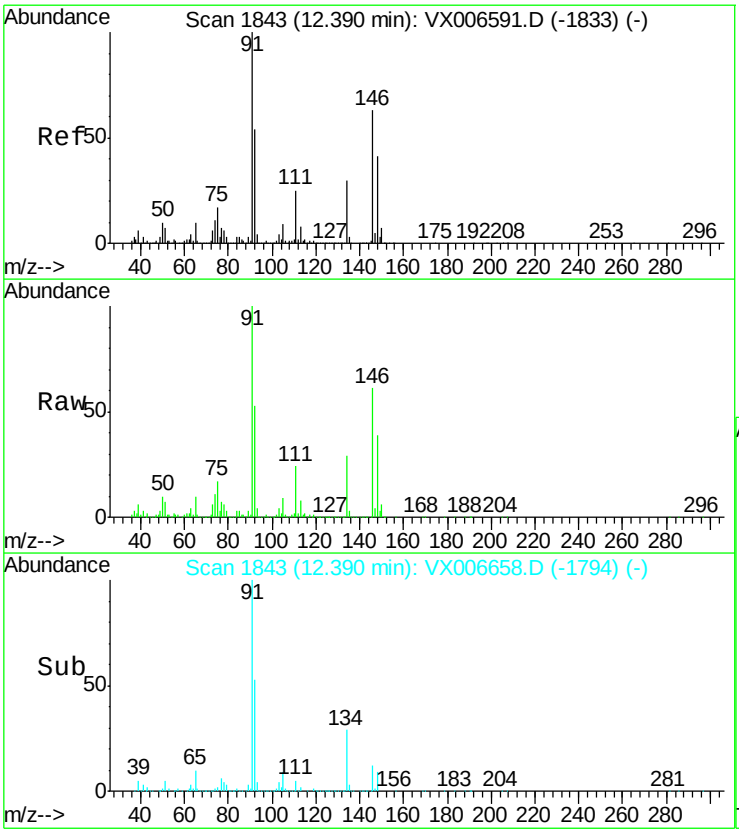


#90
Hexachloroethane
Concen: 45.332 ug/l
RT: 12.60 min Scan# 1877
Delta R.T. 0.00 min
Lab File: VX006658.D
Acq: 20 Dec 2018 00:44

Tgt Ion:117 Resp: 184355

Ion	Ratio	Lower	Upper
117	100		
201	83.5	42.9	128.7

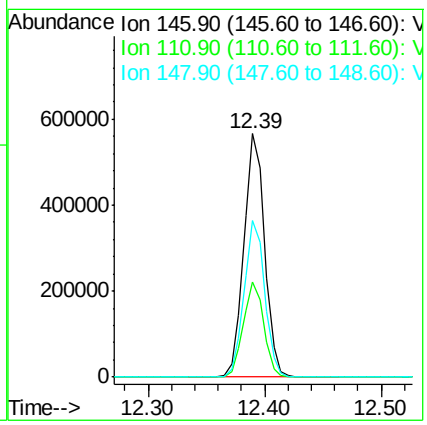


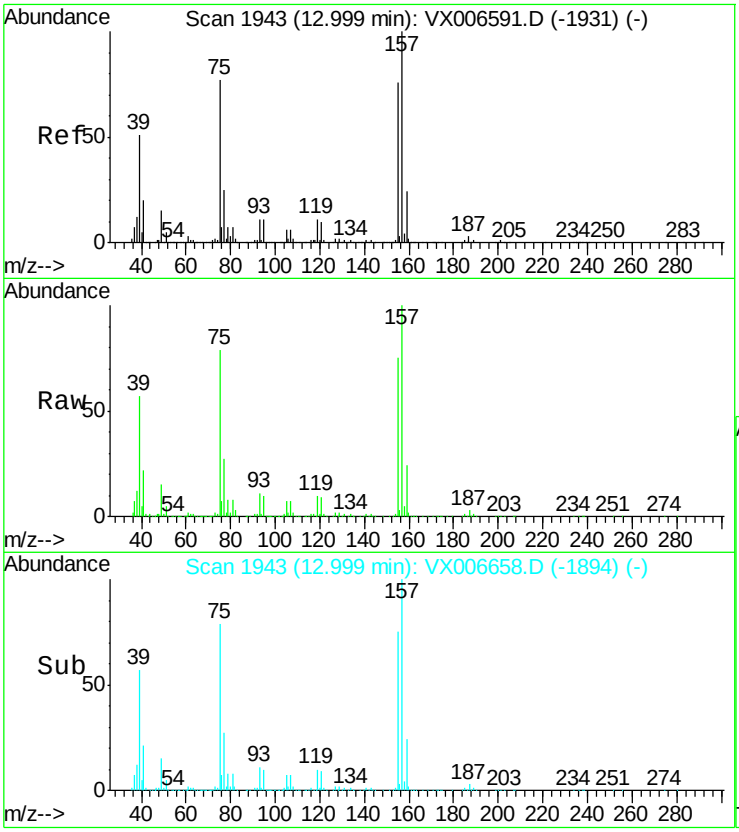


#91
1,2-Dichlorobenzene
Concen: 49.054 ug/l
RT: 12.39 min Scan# 1843
Delta R.T. -0.00 min
Lab File: VX006658.D
Acq: 20 Dec 2018 00:44

Tgt Ion:146 Resp: 704402

Ion	Ratio	Lower	Upper
146	100		
111	38.8	19.4	58.2
148	64.3	32.3	96.9

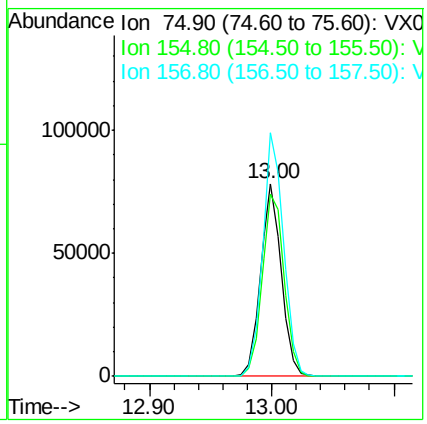




#92
1,2-Dibromo-3-Chloropropane
Concen: 51.415 ug/l
RT: 13.00 min Scan# 1943
Delta R.T. -0.00 min
Lab File: VX006658.D
Acq: 20 Dec 2018 00:44

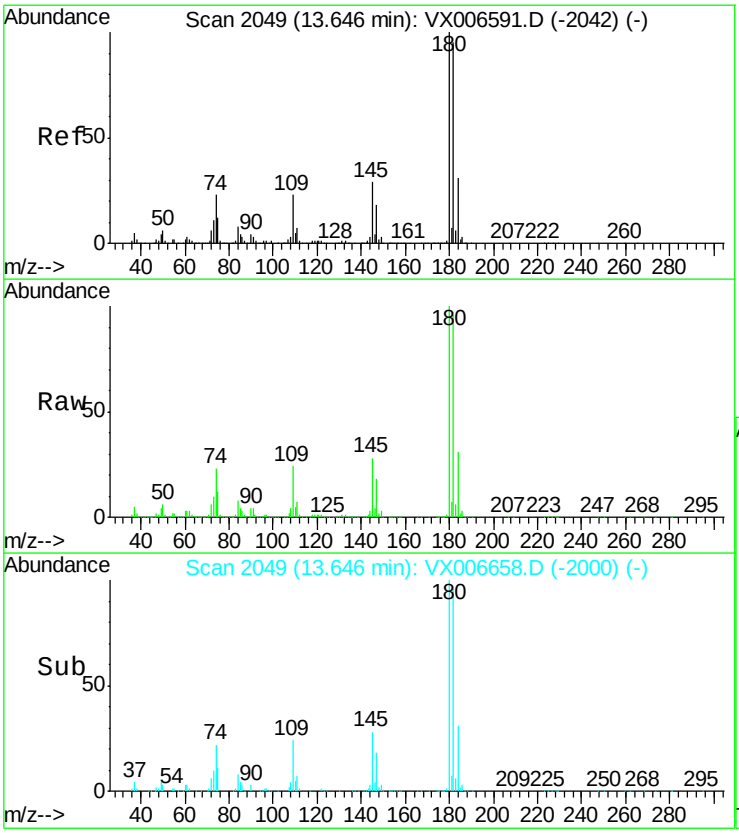
Tgt Ion: 75 Resp: 93212

Ion	Ratio	Lower	Upper
75	100		
155	99.9	50.6	151.8
157	127.4	64.6	193.8



Instrument :
MSVOA_X
ClientSampleId :
966-MW-04(23)MS

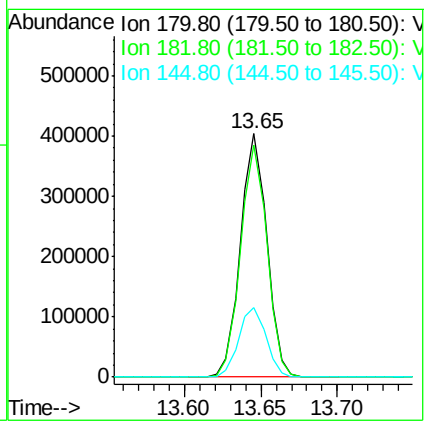
Manual Integrations APPROVED
MMDadoda
12/20/2018 10:00:46 AM



#93
1,2,4-Trichlorobenzene
Concen: 48.743 ug/l
RT: 13.65 min Scan# 2049
Delta R.T. -0.00 min
Lab File: VX006658.D
Acq: 20 Dec 2018 00:44

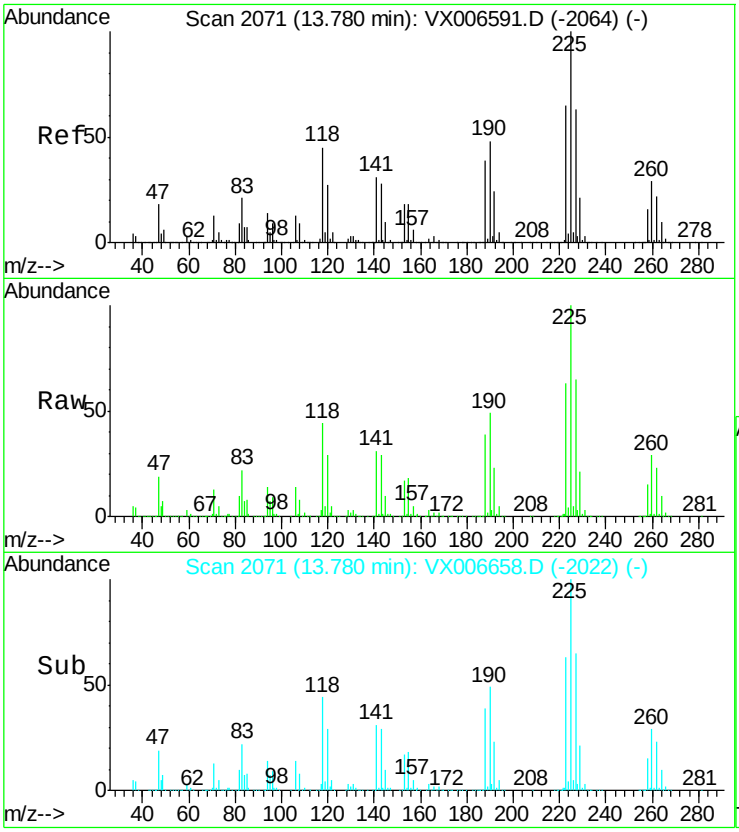
Tgt Ion:180 Resp: 482813

Ion	Ratio	Lower	Upper
180	100		
182	95.7	47.3	142.0
145	29.6	14.8	44.3



Instrument :
MSVOA_X
ClientSampleId :
966-MW-04(23)MS

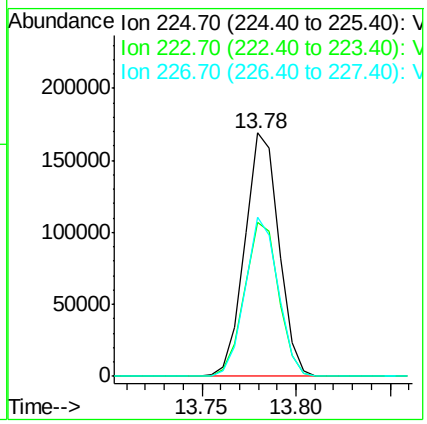
Manual Integrations APPROVED
MMDadoda
12/20/2018 10:00:46 AM

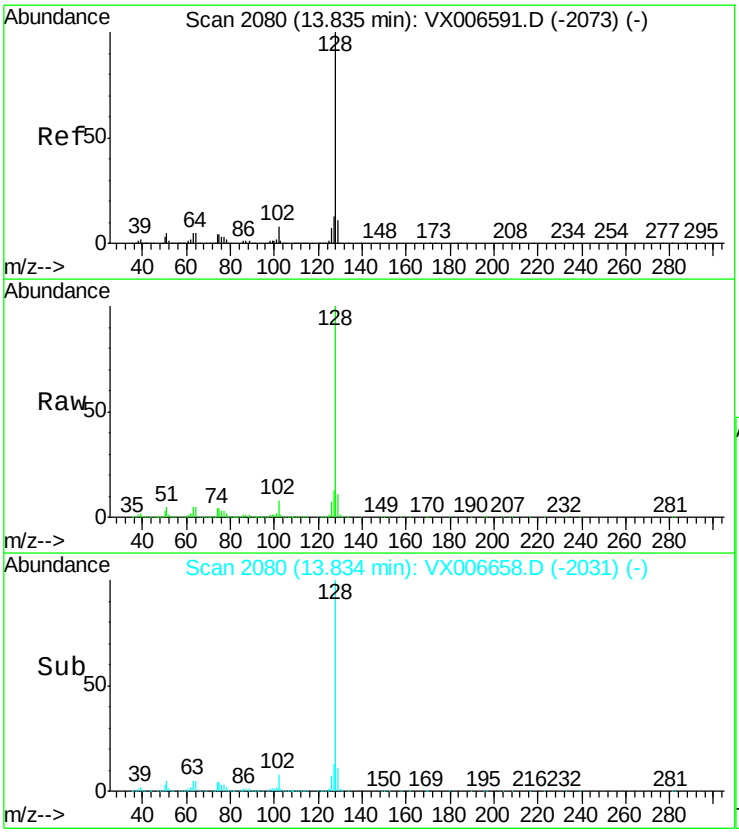


#94
Hexachlorobutadiene
Concen: 45.379 ug/l
RT: 13.78 min Scan# 2071
Delta R.T. -0.00 min
Lab File: VX006658.D
Acq: 20 Dec 2018 00:44

Tgt Ion:225 Resp: 211863

Ion	Ratio	Lower	Upper
225	100		
223	63.5	32.1	96.3
227	63.5	32.3	96.8

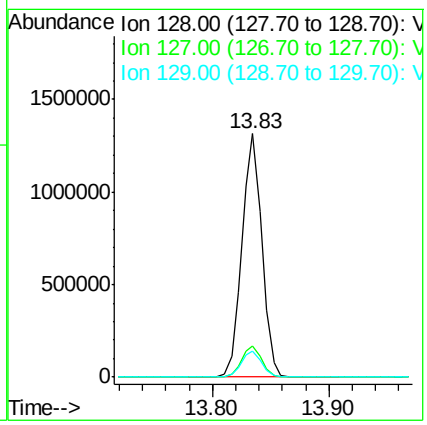


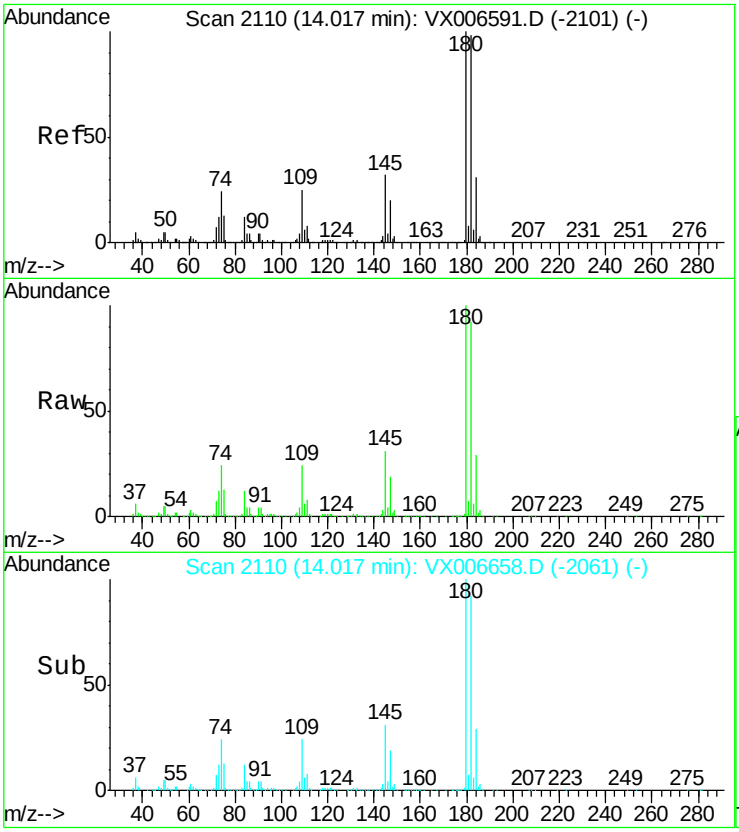


#95
Naphthalene
Concen: 49.760 ug/l
RT: 13.83 min Scan# 2080
Delta R.T. -0.00 min
Lab File: VX006658.D
Acq: 20 Dec 2018 00:44

Tgt Ion:128 Resp: 1573126

Ion	Ratio	Lower	Upper
128	100		
127	13.1	10.1	15.1
129	11.0	8.6	13.0

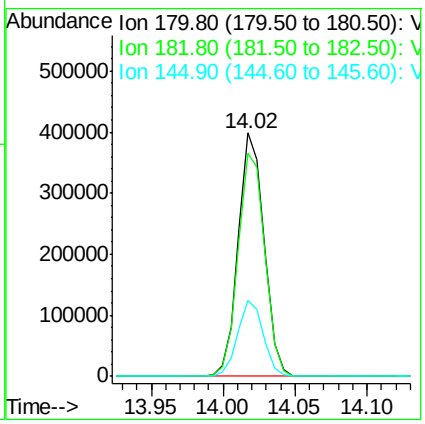




#96
1,2,3-Trichlorobenzene
Concen: 48.459 ug/l
RT: 14.02 min Scan# 2110
Delta R.T. -0.00 min
Lab File: VX006658.D
Acq: 20 Dec 2018 00:44

Tgt Ion:180 Resp: 495594

Ion	Ratio	Lower	Upper
180	100		
182	94.2	48.5	145.5
145	31.1	16.0	47.9



Instrument :
MSVOA_X
ClientSampleId :
966-MW-04(23)MS

Manual Integrations APPROVED
MMDadoda
12/20/2018 10:00:46 AM

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Day Environmental, Inc.	Date Collected:	12/18/18
Project:	Andrew St. RI	Date Received:	12/19/18
Client Sample ID:	966-MW-04(23)MSD	SDG No.:	J6484
Lab Sample ID:	J6484-06MSD	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	DB-624UI ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX006659.D	1		12/20/18 01:11	VX121918

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
TARGETS							
75-71-8	Dichlorodifluoromethane	45.2		0.2	0.2	1	ug/L
74-87-3	Chloromethane	49.4		0.2	0.2	1	ug/L
75-01-4	Vinyl Chloride	50.2		0.2	0.2	1	ug/L
74-83-9	Bromomethane	53.6		0.2	0.2	1	ug/L
75-00-3	Chloroethane	46.7		0.2	0.5	1	ug/L
75-69-4	Trichlorofluoromethane	49.3		0.2	0.2	1	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	46.6		0.2	0.2	1	ug/L
75-35-4	1,1-Dichloroethene	49.3		0.2	0.2	1	ug/L
67-64-1	Acetone	230		0.5	1	5	ug/L
75-15-0	Carbon Disulfide	46		0.2	0.2	1	ug/L
1634-04-4	Methyl tert-butyl Ether	52.6		0.35	0.5	1	ug/L
79-20-9	Methyl Acetate	51.9		0.2	0.5	1	ug/L
75-09-2	Methylene Chloride	49		0.2	0.2	1	ug/L
156-60-5	trans-1,2-Dichloroethene	48.4		0.2	0.2	1	ug/L
75-34-3	1,1-Dichloroethane	50.5		0.2	0.2	1	ug/L
110-82-7	Cyclohexane	47.3		0.2	0.2	1	ug/L
78-93-3	2-Butanone	250		1.3	2.5	5	ug/L
56-23-5	Carbon Tetrachloride	50.6		0.2	0.2	1	ug/L
156-59-2	cis-1,2-Dichloroethene	50.3		0.2	0.2	1	ug/L
74-97-5	Bromochloromethane	53.4		0.2	0.5	1	ug/L
67-66-3	Chloroform	51.7		0.2	0.2	1	ug/L
71-55-6	1,1,1-Trichloroethane	51.8		0.2	0.2	1	ug/L
108-87-2	Methylcyclohexane	44.4		0.2	0.2	1	ug/L
71-43-2	Benzene	50.8		0.2	0.2	1	ug/L
107-06-2	1,2-Dichloroethane	49.6		0.2	0.2	1	ug/L
79-01-6	Trichloroethene	48.5		0.2	0.2	1	ug/L
78-87-5	1,2-Dichloropropane	50.9		0.2	0.2	1	ug/L
75-27-4	Bromodichloromethane	51.6		0.2	0.2	1	ug/L
108-10-1	4-Methyl-2-Pentanone	270		1	1	5	ug/L
108-88-3	Toluene	51.2		0.2	0.2	1	ug/L
10061-02-6	t-1,3-Dichloropropene	52.3		0.2	0.2	1	ug/L
10061-01-5	cis-1,3-Dichloropropene	52.4		0.2	0.2	1	ug/L

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Day Environmental, Inc.	Date Collected:	12/18/18
Project:	Andrew St. RI	Date Received:	12/19/18
Client Sample ID:	966-MW-04(23)MSD	SDG No.:	J6484
Lab Sample ID:	J6484-06MSD	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	DB-624UI ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX006659.D	1		12/20/18 01:11	VX121918

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units
79-00-5	1,1,2-Trichloroethane	51.6		0.2	0.2	1	ug/L
591-78-6	2-Hexanone	270		1.9	2.5	5	ug/L
124-48-1	Dibromochloromethane	48.8		0.2	0.2	1	ug/L
106-93-4	1,2-Dibromoethane	52.3		0.2	0.2	1	ug/L
127-18-4	Tetrachloroethene	47.7		0.2	0.2	1	ug/L
108-90-7	Chlorobenzene	49.6		0.2	0.2	1	ug/L
100-41-4	Ethyl Benzene	50.2		0.2	0.2	1	ug/L
179601-23-1	m/p-Xylenes	100		0.4	0.4	2	ug/L
95-47-6	o-Xylene	51.3		0.2	0.2	1	ug/L
100-42-5	Styrene	52.3		0.2	0.2	1	ug/L
75-25-2	Bromoform	45.4		0.2	0.2	1	ug/L
98-82-8	Isopropylbenzene	50.5		0.2	0.2	1	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	52.4		0.2	0.2	1	ug/L
541-73-1	1,3-Dichlorobenzene	50.9		0.2	0.2	1	ug/L
106-46-7	1,4-Dichlorobenzene	49.6		0.2	0.2	1	ug/L
95-50-1	1,2-Dichlorobenzene	50		0.2	0.2	1	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	51.7		0.2	0.2	1	ug/L
120-82-1	1,2,4-Trichlorobenzene	50.7		0.2	0.2	1	ug/L
87-61-6	1,2,3-Trichlorobenzene	49.1		0.2	0.2	1	ug/L
SURROGATES							
17060-07-0	1,2-Dichloroethane-d4	51.1		61 - 141		102%	SPK: 50
1868-53-7	Dibromofluoromethane	51.8		69 - 133		104%	SPK: 50
2037-26-5	Toluene-d8	51.3		65 - 126		103%	SPK: 50
460-00-4	4-Bromofluorobenzene	52.6		58 - 135		105%	SPK: 50
INTERNAL STANDARDS							
363-72-4	Pentafluorobenzene	570412	5.67				
540-36-3	1,4-Difluorobenzene	887271	6.86				
3114-55-4	Chlorobenzene-d5	826660	10.12				
3855-82-1	1,4-Dichlorobenzene-d4	428595	12.08				

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Day Environmental, Inc.	Date Collected:	12/18/18
Project:	Andrew St. RI	Date Received:	12/19/18
Client Sample ID:	966-MW-04(23)MSD	SDG No.:	J6484
Lab Sample ID:	J6484-06MSD	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	DB-624UI ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX006659.D	1		12/20/18 01:11	VX121918

CAS Number	Parameter	Conc.	Qualifier	MDL	LOD	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit
A = Aldol-Condensation Reaction Products

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX121918\
Data File : VX006659.D
Acq On : 20 Dec 2018 01:11
Operator : JC/MD
Sample : J6484-06MSD
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 26 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
966-MW-04(23)MSD

Manual Integrations APPROVED
MMDadoda
12/20/2018 10:00:51 AM

Quant Time: Dec 20 05:04:18 2018
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121818W.M
Quant Title : SW846 8260
QLast Update : Wed Dec 19 15:20:58 2018
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	5.67	168	570412	50.00	ug/l	0.00
34) 1,4-Difluorobenzene	6.86	114	887271	50.00	ug/l	0.00
63) Chlorobenzene-d5	10.12	117	826660	50.00	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	12.08	152	428595	50.00	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	6.07	65	313928	51.06	ug/l	0.00
Spiked Amount 50.000			Recovery = 102.12%			
35) Dibromofluoromethane	5.51	113	290575	51.79	ug/l	0.00
Spiked Amount 50.000			Recovery = 103.58%			
50) Toluene-d8	8.71	98	1084382	51.26	ug/l	0.00
Spiked Amount 50.000			Recovery = 102.52%			
62) 4-Bromofluorobenzene	11.13	95	407754	52.63	ug/l	0.00
Spiked Amount 50.000			Recovery = 105.26%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.20	85	235651	45.159	ug/l	98
3) Chloromethane	1.33	50	277985	49.447	ug/l	97
4) Vinyl Chloride	1.41	62	294707	50.192	ug/l	99
5) Bromomethane	1.64	94	293154	53.641	ug/l	98
6) Chloroethane	1.72	64	190050	46.746	ug/l	99
7) Trichlorofluoromethane	1.93	101	451366	49.307	ug/l	97
8) Diethyl Ether	2.19	74	177517	48.823	ug/l	100
9) 1,1,2-Trichlorotrifluoroet	2.39	101	250398	46.586	ug/l	99
10) Methyl Iodide	2.51	142	429641	55.841	ug/l	100
11) Tert butyl alcohol	3.07	59	362400	264.142	ug/l	99
12) 1,1-Dichloroethene	2.37	96	251248	49.299	ug/l	99
13) Acrolein	2.30	56	206936	223.581	ug/l	97
14) Allyl chloride	2.73	41	432576	50.425	ug/l	99
15) Acrylonitrile	3.15	53	794245	260.729	ug/l	100
16) Acetone	2.45	43	659641	233.549	ug/l	99
17) Carbon Disulfide	2.57	76	620951	46.040	ug/l	99
18) Methyl Acetate	2.78	43	431073	51.904	ug/l	99
19) Methyl tert-butyl Ether	3.20	73	889804	52.604	ug/l	98
20) Methylene Chloride	2.86	84	286354	49.030	ug/l	95
21) trans-1,2-Dichloroethene	3.17	96	273457	48.426	ug/l	97
22) Diisopropyl ether	3.87	45	823322	52.461	ug/l	99
23) Vinyl Acetate	3.82	43	3270068	254.734	ug/l	99
24) 1,1-Dichloroethane	3.70	63	472763	50.463	ug/l	98
25) 2-Butanone	4.70	43	992279	249.762	ug/l	96
26) 2,2-Dichloropropane	4.59	77	295334	40.810	ug/l	99
27) cis-1,2-Dichloroethene	4.60	96	313575	50.331	ug/l	100
28) Bromochloromethane	5.02	49	210471	53.421	ug/l	99
29) Tetrahydrofuran	5.15	42	679792	259.791	ug/l	99
30) Chloroform	5.21	83	501355	51.677	ug/l	99
31) Cyclohexane	5.57	56	402918	47.340	ug/l	97
32) 1,1,1-Trichloroethane	5.49	97	424279	51.792	ug/l	99
36) 1,1-Dichloropropene	5.80	75	361871	49.243	ug/l	100
37) Ethyl Acetate	4.85	43	384628	50.287	ug/l	99
38) Carbon Tetrachloride	5.78	117	361501	50.618	ug/l	95

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX121918\
Data File : VX006659.D
Acq On : 20 Dec 2018 01:11
Operator : JC/MD
Sample : J6484-06MSD
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 26 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
966-MW-04(23)MSD

Manual Integrations APPROVED
MMDadoda
12/20/2018 10:00:51 AM

Quant Time: Dec 20 05:04:18 2018
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121818W.M
Quant Title : SW846 8260
QLast Update : Wed Dec 19 15:20:58 2018
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
39) Methylcyclohexane	7.46	83	429891	44.435	ug/l	98
40) Benzene	6.14	78	1134155	50.774	ug/l	100
41) Methacrylonitrile	5.06	41	217891	53.657	ug/l	99
42) 1,2-Dichloroethane	6.20	62	377332	49.573	ug/l	100
43) Isopropyl Acetate	6.46	43	611466	52.542	ug/l	100
44) Trichloroethene	7.21	130	328150	48.537	ug/l	96
45) 1,2-Dichloropropane	7.51	63	276858	50.932	ug/l	100
46) Dibromomethane	7.66	93	202054	50.535	ug/l	99
47) Bromodichloromethane	7.90	83	342335	51.571	ug/l	99
48) Methyl methacrylate	7.77	41	319627	54.008	ug/l	99
49) 1,4-Dioxane	7.75	88	165504	1070.239	ug/l	98
51) 4-Methyl-2-Pentanone	8.65	43	2011221	271.613	ug/l	100
52) Toluene	8.79	92	738691	51.188	ug/l	98
53) t-1,3-Dichloropropene	9.04	75	372383	52.306	ug/l	99
54) cis-1,3-Dichloropropene	8.43	75	409379	52.406	ug/l	99
55) 1,1,2-Trichloroethane	9.21	97	304853	51.610	ug/l	99
56) Ethyl methacrylate	9.18	69	458092	54.871	ug/l	99
57) 1,3-Dichloropropane	9.37	76	484991	51.033	ug/l	99
59) 2-Hexanone	9.49	43	1517696	267.885	ug/l	99
60) Dibromochloromethane	9.59	129	301021	48.785	ug/l	98
61) 1,2-Dibromoethane	9.67	107	328094	52.251	ug/l	99
64) Tetrachloroethene	9.34	164	312248	47.701	ug/l	96
65) Chlorobenzene	10.14	112	866626	49.553	ug/l	99
66) 1,1,1,2-Tetrachloroethane	10.22	131	292096	53.533	ug/l	100
67) Ethyl Benzene	10.25	91	1435757	50.240	ug/l	99
68) m/p-Xylenes	10.36	106	1141855	101.258	ug/l	100
69) o-Xylene	10.70	106	570842	51.263	ug/l	100
70) Styrene	10.71	104	920783	52.267	ug/l	99
71) Bromoform	10.86	173	221120	45.379	ug/l	99
73) Isopropylbenzene	11.02	105	1480856	50.505	ug/l	100
74) N-amyl acetate	10.90	43	556322	53.007	ug/l	99
75) 1,1,2,2-Tetrachloroethane	11.27	83	457210	52.432	ug/l	100
76) 1,2,3-Trichloropropane	11.29	75	416773m	52.325	ug/l	
77) Bromobenzene	11.26	156	406002	51.217	ug/l	100
78) n-propylbenzene	11.36	91	1652465	51.178	ug/l	100
79) 2-Chlorotoluene	11.42	91	981526	50.162	ug/l	100
80) 1,3,5-Trimethylbenzene	11.51	105	1230404	50.947	ug/l	100
81) trans-1,4-Dichloro-2-buten	11.07	75	110090	42.735	ug/l	98
82) 4-Chlorotoluene	11.51	91	1134810	50.560	ug/l	100
83) tert-Butylbenzene	11.77	119	1256837	51.998	ug/l	99
84) 1,2,4-Trimethylbenzene	11.80	105	1268149	49.922	ug/l	100
85) sec-Butylbenzene	11.94	105	1502745	50.708	ug/l	100
86) p-Isopropyltoluene	12.07	119	1331094	51.097	ug/l	100
87) 1,3-Dichlorobenzene	12.02	146	727349	50.911	ug/l	100
88) 1,4-Dichlorobenzene	12.10	146	725904	49.564	ug/l	99
89) n-Butylbenzene	12.39	91	1114647	50.277	ug/l	99
90) Hexachloroethane	12.60	117	196362	48.284	ug/l	98
91) 1,2-Dichlorobenzene	12.39	146	714678	50.007	ug/l	99
92) 1,2-Dibromo-3-Chloropropan	13.00	75	93202	51.655	ug/l	99
93) 1,2,4-Trichlorobenzene	13.65	180	500123	50.732	ug/l	100

Data Path : Z:\VOASRV\HPCHEM1\MSVOA X\DATA\VX121918\
Data File : VX006659.D
Acq On : 20 Dec 2018 01:11
Operator : JC/MD
Sample : J6484-06MSD
Misc : 5.0mL/MSVOA X/WATER
ALS Vial : 26 Sample Multiplier: 1

Quant Time: Dec 20 05:04:18 2018
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121818W.M
Quant Title : SW846 8260
QLast Update : Wed Dec 19 15:20:58 2018
Response via : Initial Calibration

Instrument :
MSVOA_X
ClientSampleId :
966-MW-04(23)MSD

Manual Integrations APPROVED
MMDadoda
12/20/2018 10:00:51 AM

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
94) Hexachlorobutadiene	13.78	225	213520	45.952	ug/l	99
95) Naphthalene	13.83	128	1590951	50.564	ug/l	99
96) 1,2,3-Trichlorobenzene	14.02	180	499465	49.071	ug/l	99

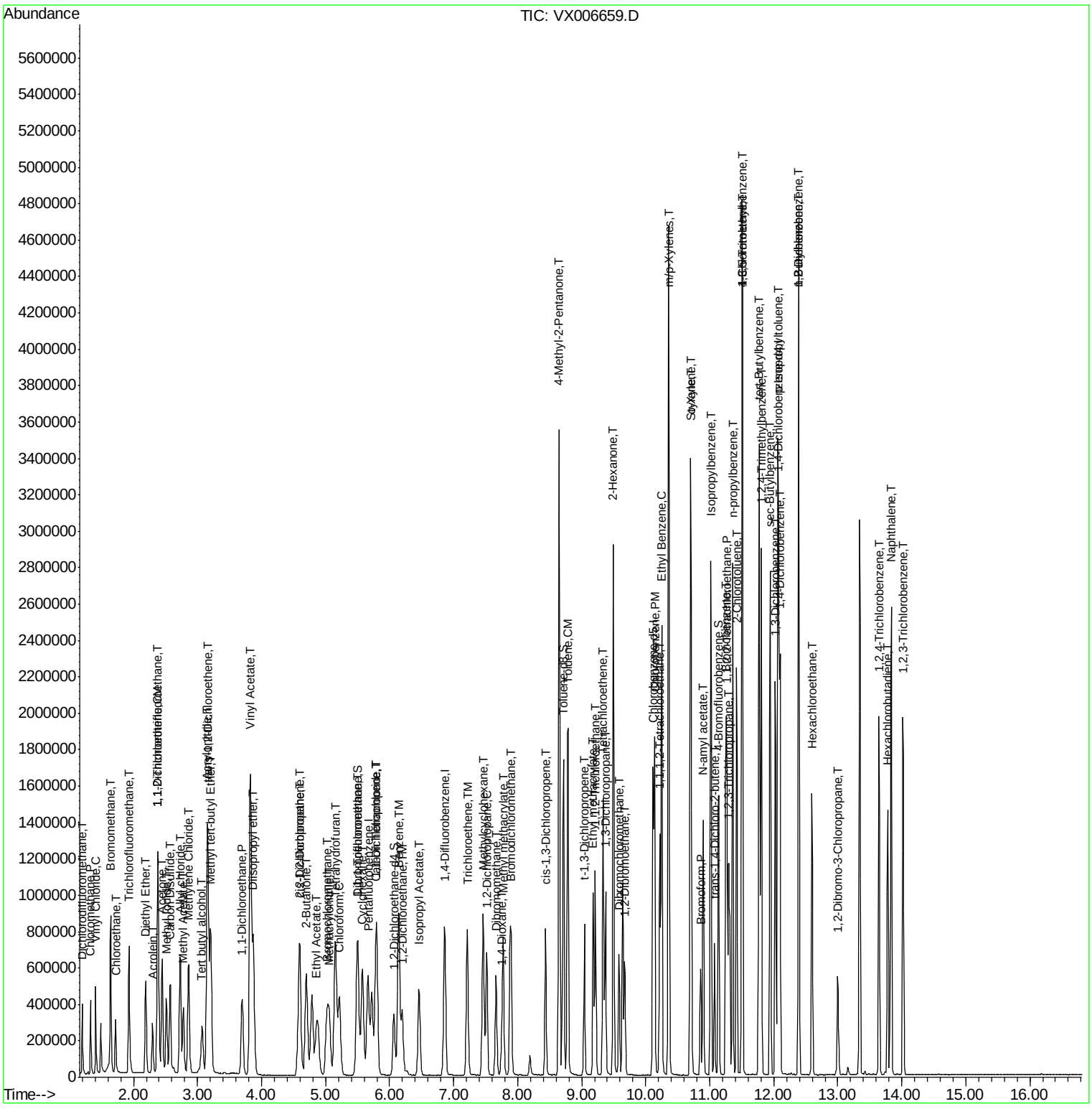
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX121918\
Data File : VX006659.D
Acq On : 20 Dec 2018 01:11
Operator : JC/MD
Sample : J6484-06MSD
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 26 Sample Multiplier: 1

Quant Time: Dec 20 05:04:18 2018
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121818W.M
Quant Title : SW846 8260
QLast Update : Wed Dec 19 15:20:58 2018
Response via : Initial Calibration

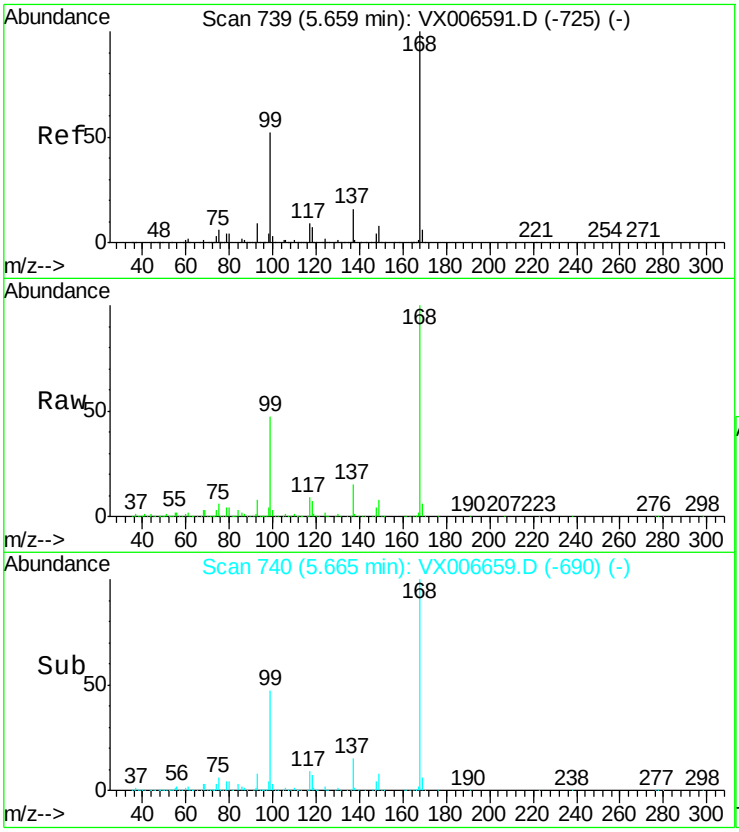
Instrument :
MSVOA_X
ClientSampleId :
966-MW-04(23)MSD

Manual Integrations APPROVED
MMDadoda
12/20/2018 10:00:51 AM



Instrument :
MSVOA_X
ClientSampleId :
966-MW-04(23)MSD

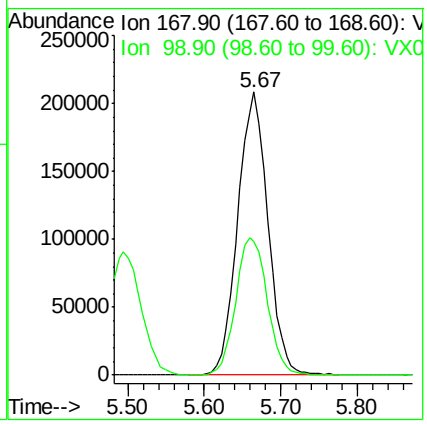
Manual Integrations APPROVED
MMDadoda
12/20/2018 10:00:51 AM

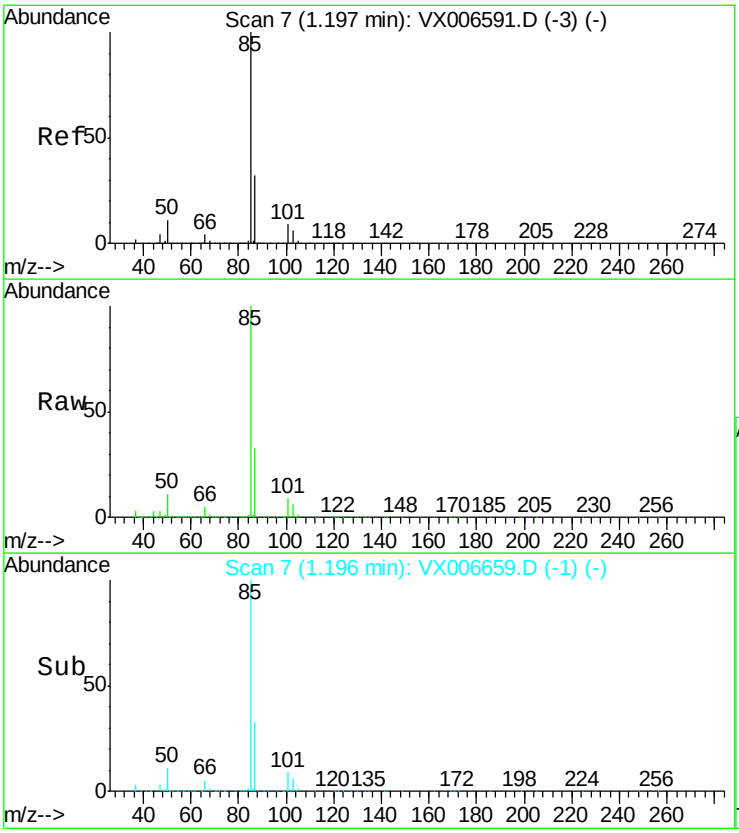


#1
Pentafluorobenzene
Concen: 50.000 ug/l
RT: 5.67 min Scan# 740
Delta R.T. 0.01 min
Lab File: VX006659.D
Acq: 20 Dec 2018 01:11

Tgt Ion:168 Resp: 570412

Ion	Ratio	Lower	Upper
168	100		
99	47.1	41.8	62.8

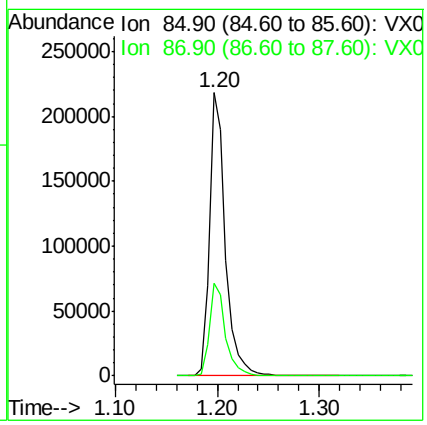




#2
Dichlorodifluoromethane
Concen: 45.159 ug/l
RT: 1.20 min Scan# 7
Delta R.T. -0.00 min
Lab File: VX006659.D
Acq: 20 Dec 2018 01:11

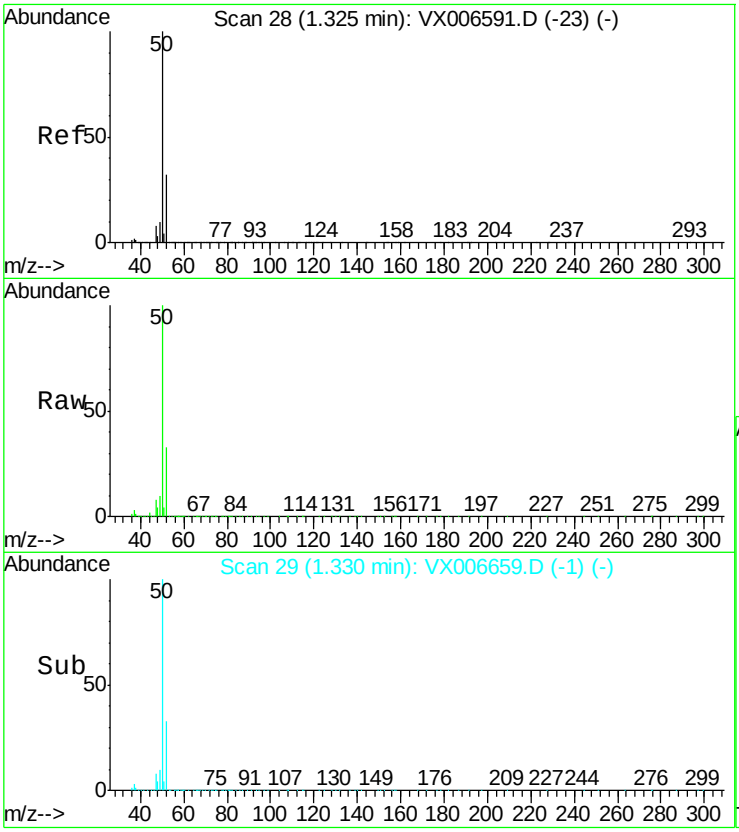
Tgt Ion: 85 Resp: 235651

Ion	Ratio	Lower	Upper
85	100		
87	32.7	15.9	47.6



Instrument :
MSVOA_X
ClientSampleId :
966-MW-04(23)MSD

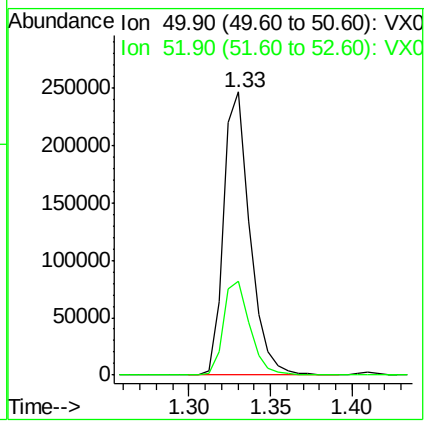
Manual Integrations APPROVED
MMDadoda
12/20/2018 10:00:51 AM

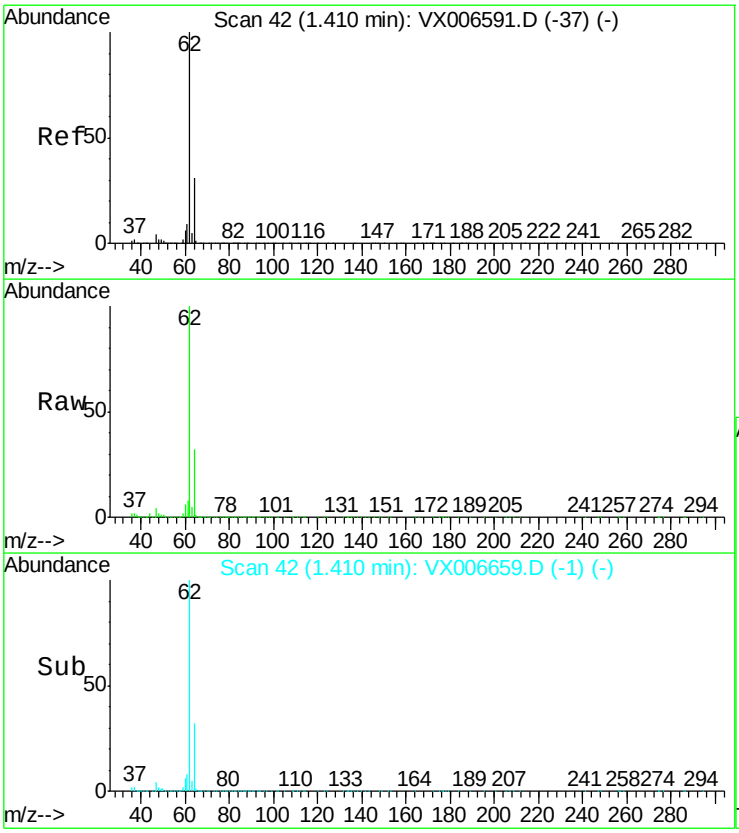


#3
Chloromethane
Concen: 49.447 ug/l
RT: 1.33 min Scan# 29
Delta R.T. 0.01 min
Lab File: VX006659.D
Acq: 20 Dec 2018 01:11

Tgt Ion: 50 Resp: 277985

Ion	Ratio	Lower	Upper
50	100		
52	33.4	25.4	38.2

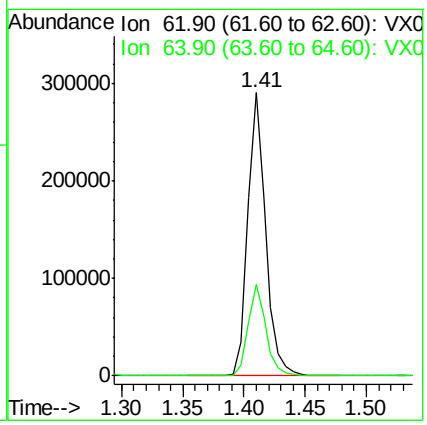




#4
Vinyl Chloride
Concen: 50.192 ug/l
RT: 1.41 min Scan# 42
Delta R.T. -0.00 min
Lab File: VX006659.D
Acq: 20 Dec 2018 01:11

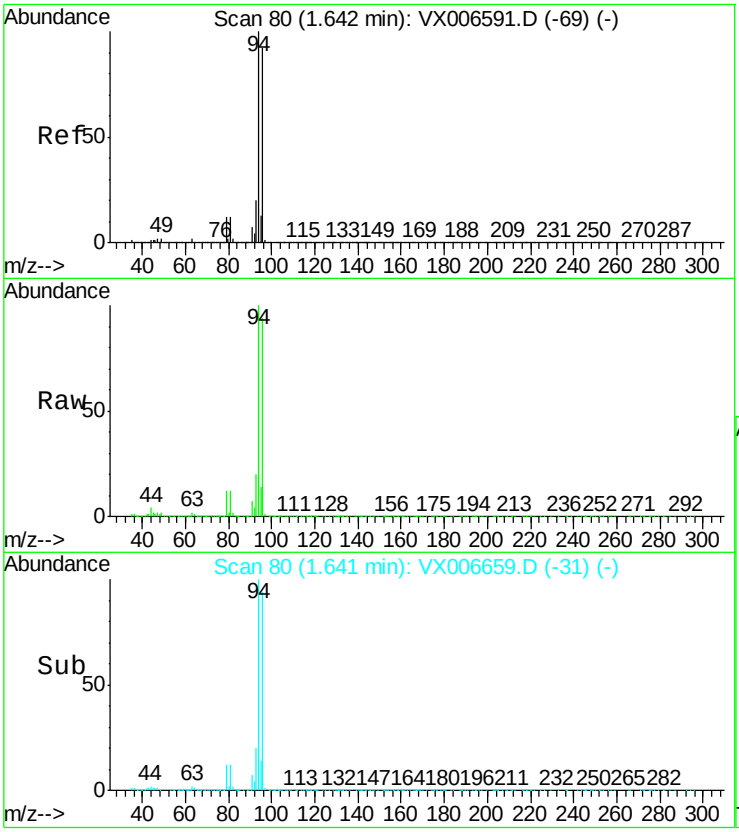
Tgt Ion: 62 Resp: 294707

Ion	Ratio	Lower	Upper
62	100		
64	32.1	25.1	37.7



Instrument :
MSVOA_X
ClientSampleId :
966-MW-04(23)MSD

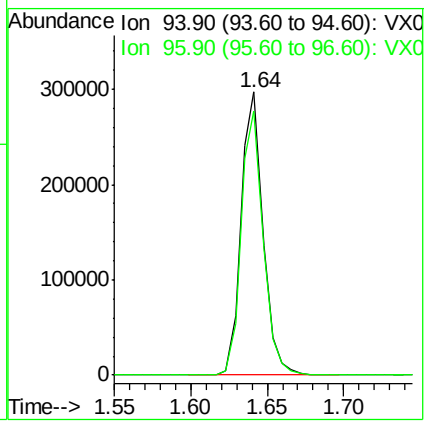
Manual Integrations APPROVED
MMDadoda
12/20/2018 10:00:51 AM

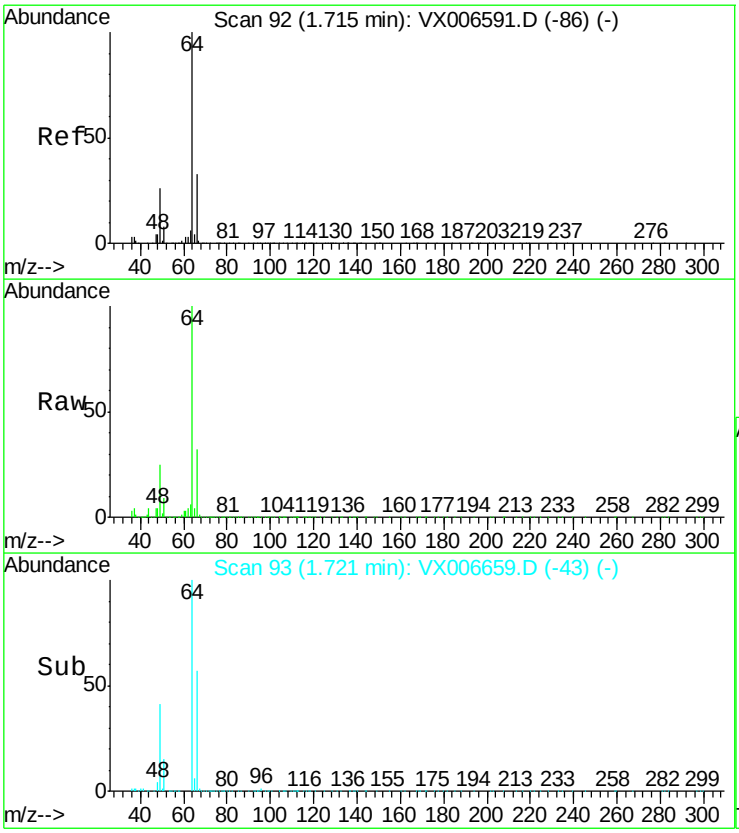


#5
Bromomethane
Concen: 53.641 ug/l
RT: 1.64 min Scan# 80
Delta R.T. 0.00 min
Lab File: VX006659.D
Acq: 20 Dec 2018 01:11

Tgt Ion: 94 Resp: 293154

Ion	Ratio	Lower	Upper
94	100		
96	93.5	73.4	110.2

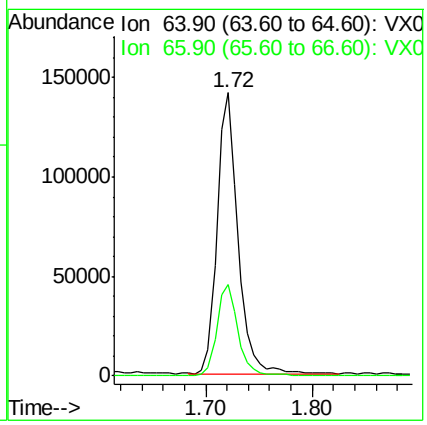




#6
Chloroethane
Concen: 46.746 ug/l
RT: 1.72 min Scan# 93
Delta R.T. 0.01 min
Lab File: VX006659.D
Acq: 20 Dec 2018 01:11

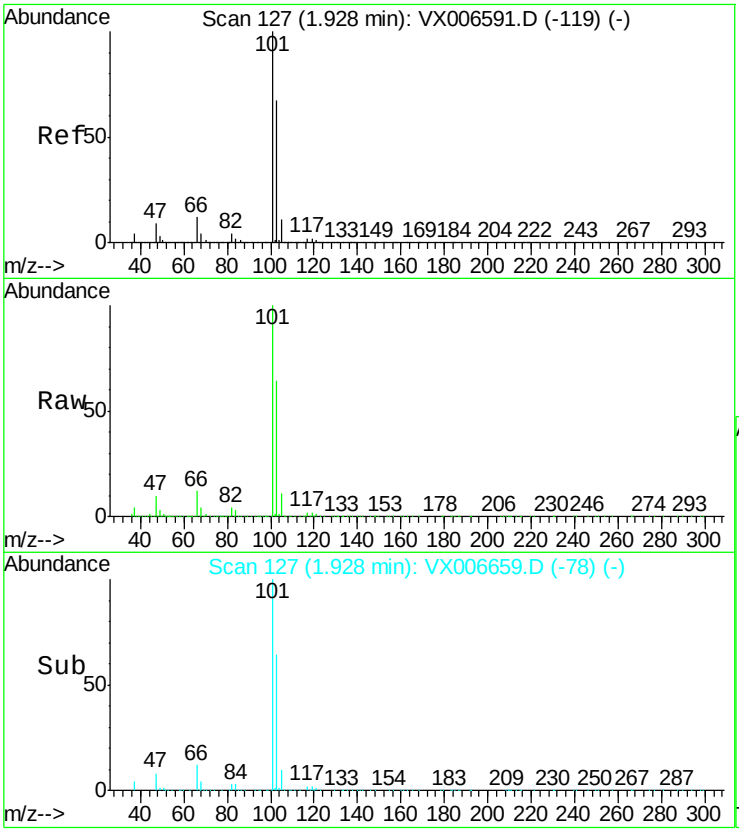
Tgt Ion: 64 Resp: 190050

Ion	Ratio	Lower	Upper
64	100		
66	32.4	26.4	39.6



Instrument :
MSVOA_X
ClientSampleId :
966-MW-04(23)MSD

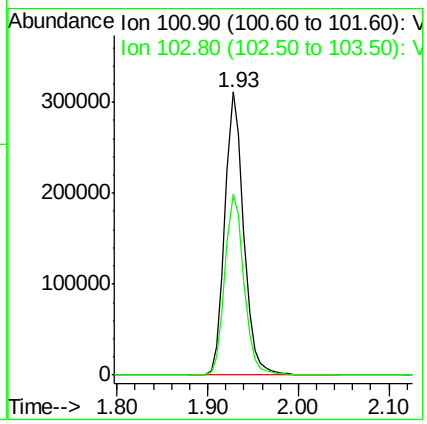
Manual Integrations APPROVED
MMDadoda
12/20/2018 10:00:51 AM

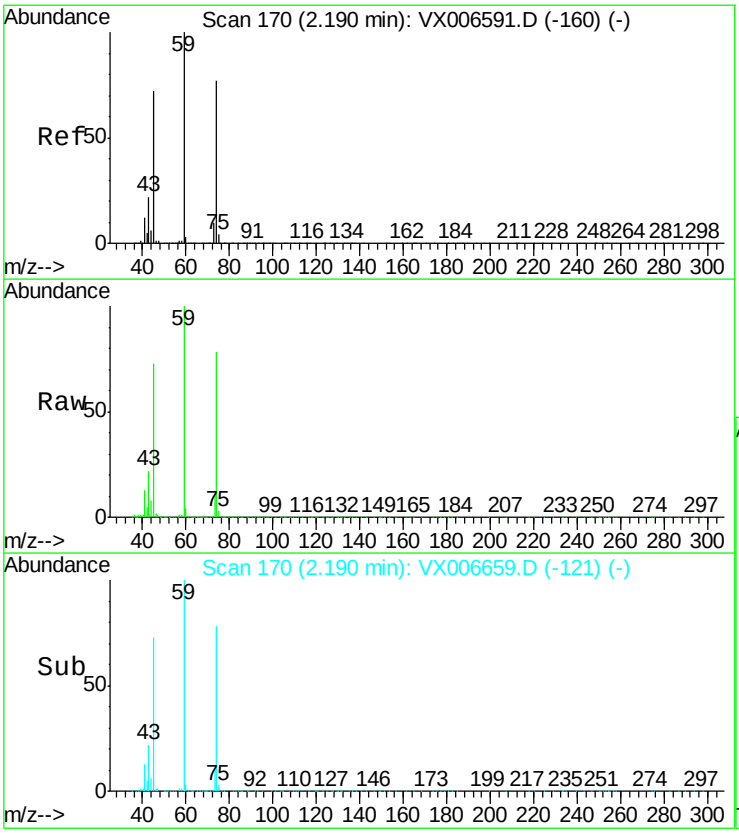


#7
Trichlorofluoromethane
Concen: 49.307 ug/l
RT: 1.93 min Scan# 127
Delta R.T. -0.00 min
Lab File: VX006659.D
Acq: 20 Dec 2018 01:11

Tgt Ion:101 Resp: 451366

Ion	Ratio	Lower	Upper
101	100		
103	64.0	53.2	79.8

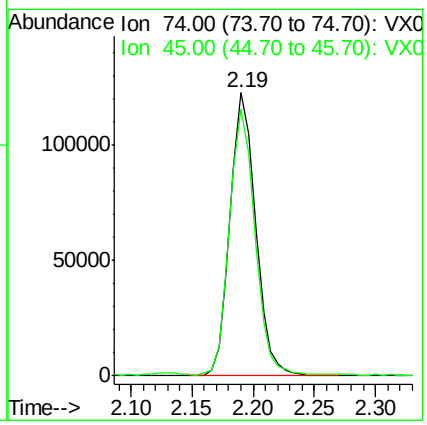


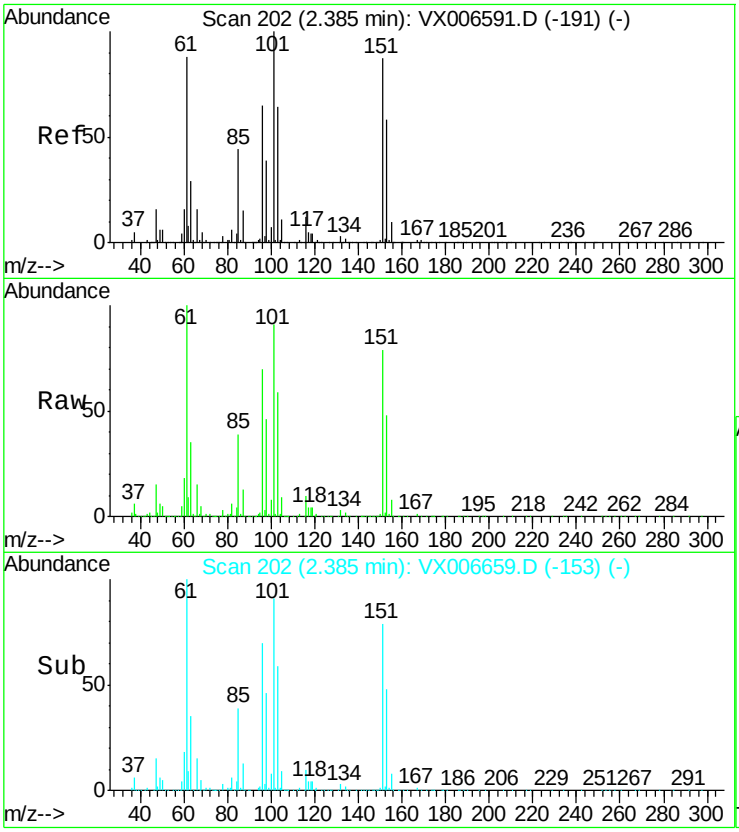


#8
Diethyl Ether
Concen: 48.823 ug/l
RT: 2.19 min Scan# 170
Delta R.T. -0.00 min
Lab File: VX006659.D
Acq: 20 Dec 2018 01:11

Tgt Ion: 74 Resp: 177517

Ion	Ratio	Lower	Upper
74	100		
45	93.0	46.3	138.9

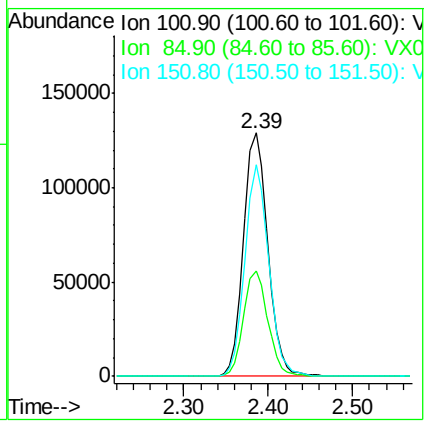




#9
1,1,2-Trichlorotrifluoroethane
Concen: 46.586 ug/l
RT: 2.39 min Scan# 202
Delta R.T. -0.00 min
Lab File: VX006659.D
Acq: 20 Dec 2018 01:11

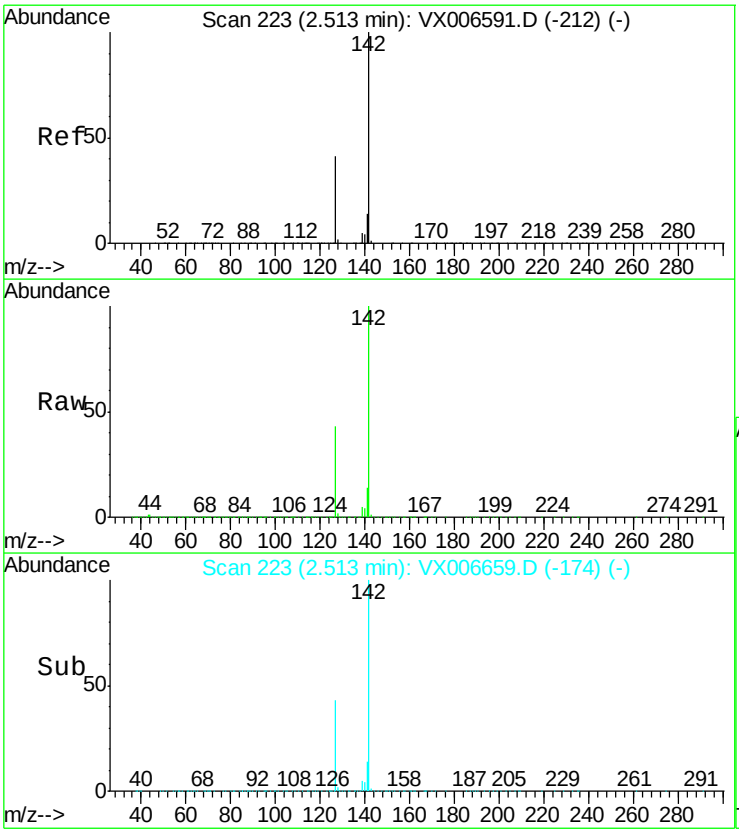
Tgt Ion:101 Resp: 250398

Ion	Ratio	Lower	Upper
101	100		
85	43.1	35.1	52.7
151	85.4	68.9	103.3



Instrument :
MSVOA_X
ClientSampleId :
966-MW-04(23)MSD

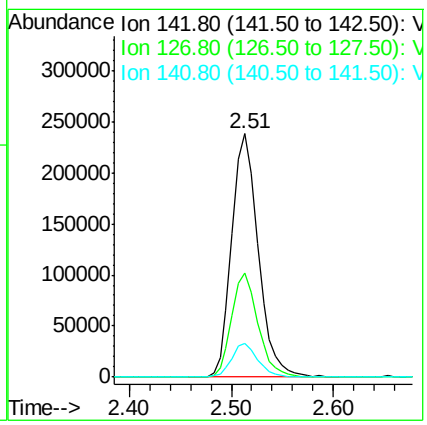
Manual Integrations APPROVED
MMDadoda
12/20/2018 10:00:51 AM



#10
Methyl Iodide
Concen: 55.841 ug/l
RT: 2.51 min Scan# 223
Delta R.T. -0.00 min
Lab File: VX006659.D
Acq: 20 Dec 2018 01:11

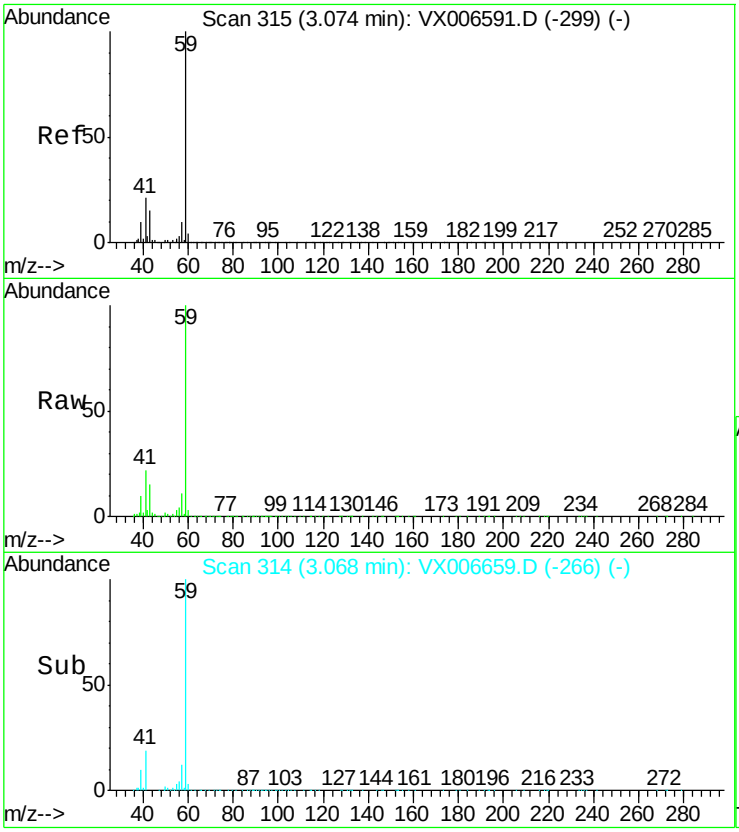
Tgt Ion:142 Resp: 429641

Ion	Ratio	Lower	Upper
142	100		
127	42.5	33.9	50.9
141	13.9	11.4	17.0



Instrument :
MSVOA_X
ClientSampleId :
966-MW-04(23)MSD

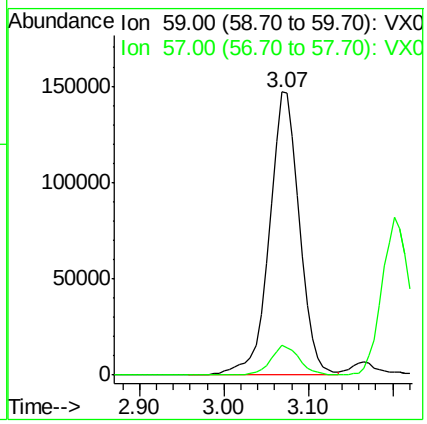
Manual Integrations APPROVED
MMDadoda
12/20/2018 10:00:51 AM

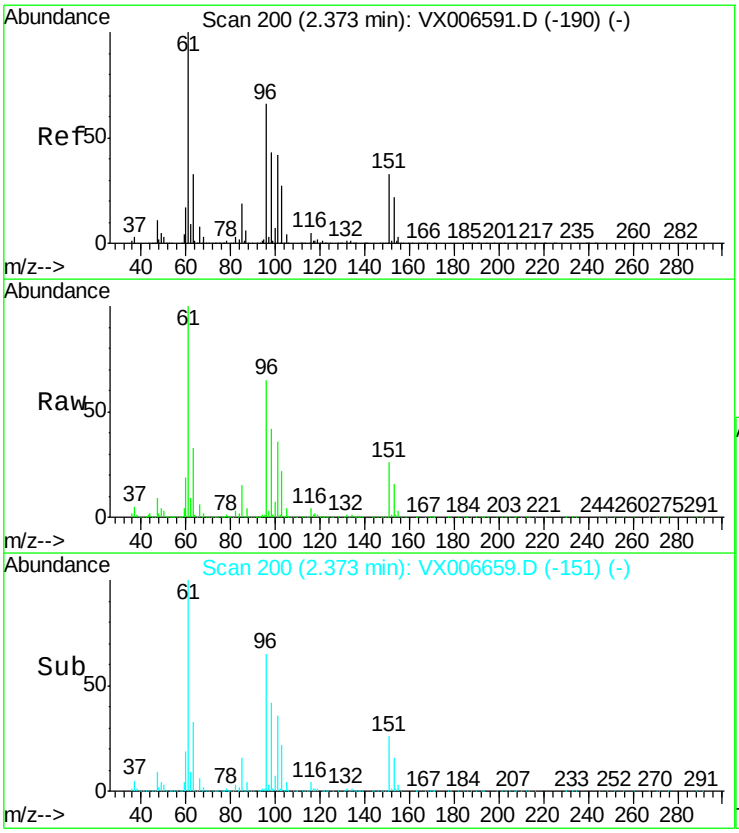


#11
Tert butyl alcohol
Concen: 264.142 ug/l
RT: 3.07 min Scan# 314
Delta R.T. -0.01 min
Lab File: VX006659.D
Acq: 20 Dec 2018 01:11

Tgt Ion: 59 Resp: 362400

Ion	Ratio	Lower	Upper
59	100		
57	10.2	8.5	12.7

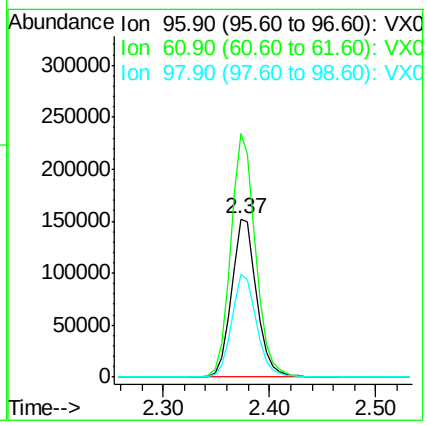




#12
1,1-Dichloroethene
Concen: 49.299 ug/l
RT: 2.37 min Scan# 200
Delta R.T. -0.00 min
Lab File: VX006659.D
Acq: 20 Dec 2018 01:11

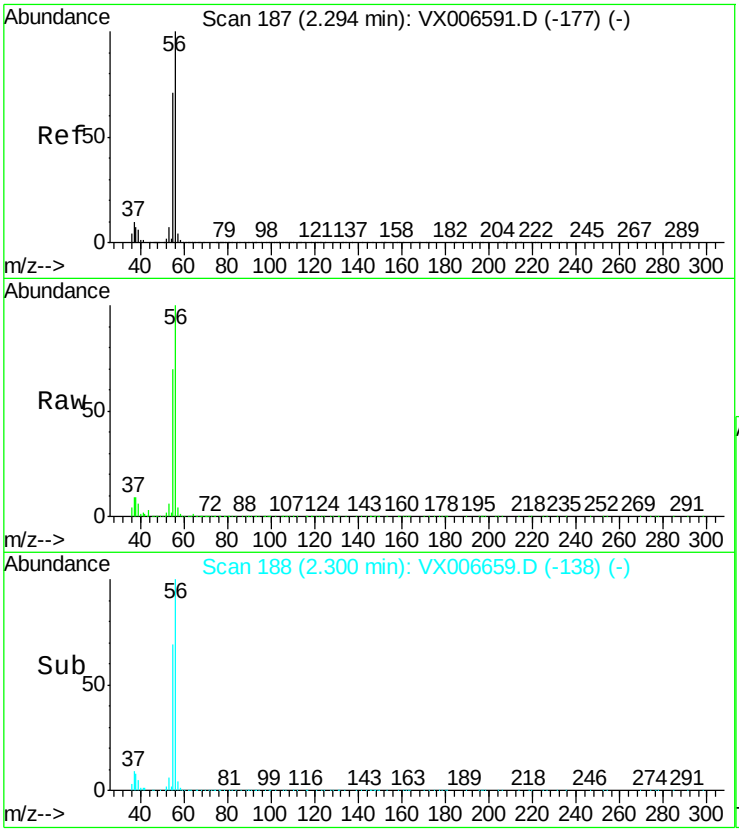
Tgt Ion: 96 Resp: 251248

Ion	Ratio	Lower	Upper
96	100		
61	154.2	121.4	182.2
98	64.8	51.9	77.9



Instrument :
MSVOA_X
ClientSampleId :
966-MW-04(23)MSD

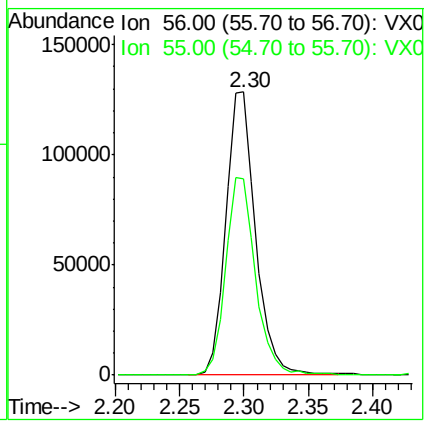
Manual Integrations APPROVED
MMDadoda
12/20/2018 10:00:51 AM

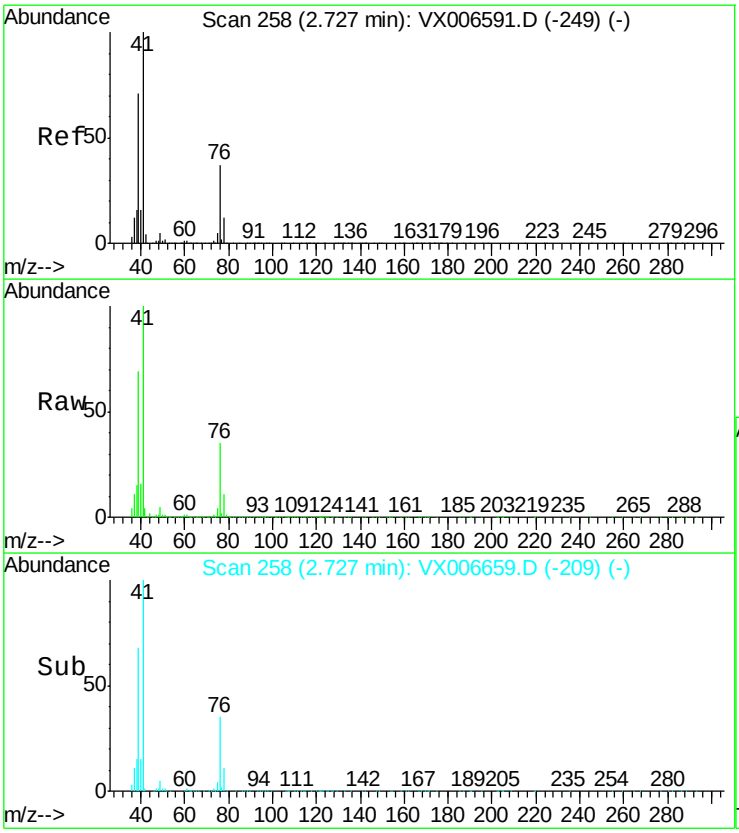


#13
Acrolein
Concen: 223.581 ug/l
RT: 2.30 min Scan# 188
Delta R.T. 0.01 min
Lab File: VX006659.D
Acq: 20 Dec 2018 01:11

Tgt Ion: 56 Resp: 206936

Ion	Ratio	Lower	Upper
56	100		
55	70.3	58.2	87.4

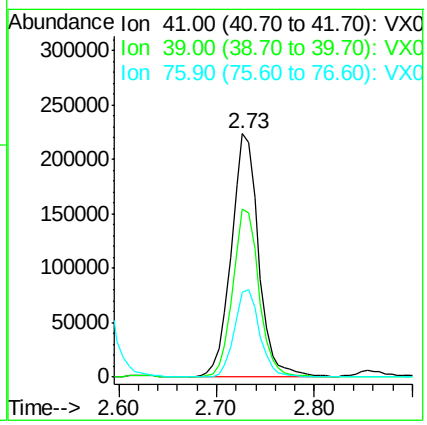




#14
Allyl chloride
Concen: 50.425 ug/l
RT: 2.73 min Scan# 258
Delta R.T. -0.00 min
Lab File: VX006659.D
Acq: 20 Dec 2018 01:11

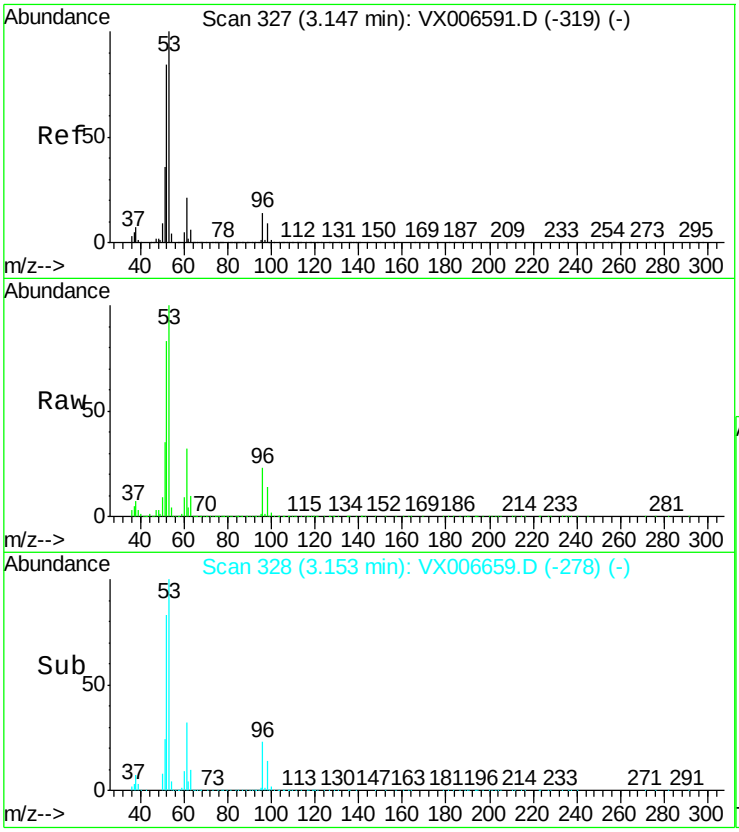
Tgt Ion: 41 Resp: 432576

Ion	Ratio	Lower	Upper
41	100		
39	66.1	53.6	80.4
76	33.3	27.4	41.2



Instrument :
MSVOA_X
ClientSampleId :
966-MW-04(23)MSD

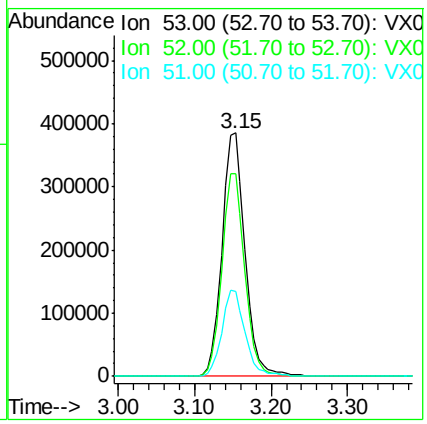
Manual Integrations APPROVED
MMDadoda
12/20/2018 10:00:51 AM

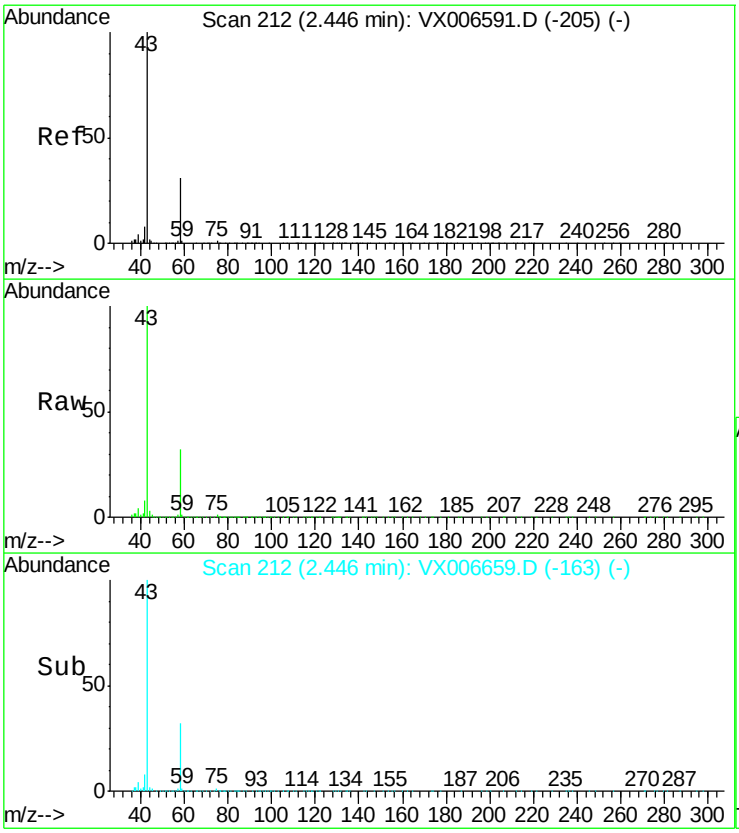


#15
Acrylonitrile
Concen: 260.729 ug/l
RT: 3.15 min Scan# 328
Delta R.T. 0.01 min
Lab File: VX006659.D
Acq: 20 Dec 2018 01:11

Tgt Ion: 53 Resp: 794245

Ion	Ratio	Lower	Upper
53	100		
52	83.0	66.0	99.0
51	35.8	28.6	42.8

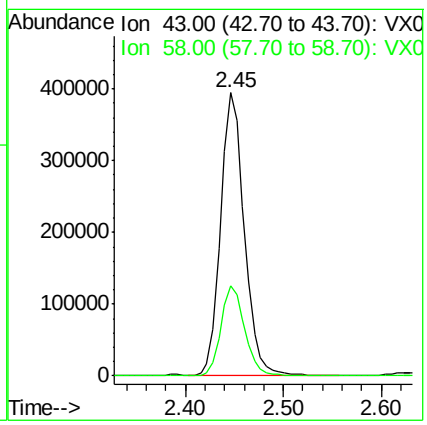




#16
Acetone
Concen: 233.549 ug/l
RT: 2.45 min Scan# 212
Delta R.T. -0.00 min
Lab File: VX006659.D
Acq: 20 Dec 2018 01:11

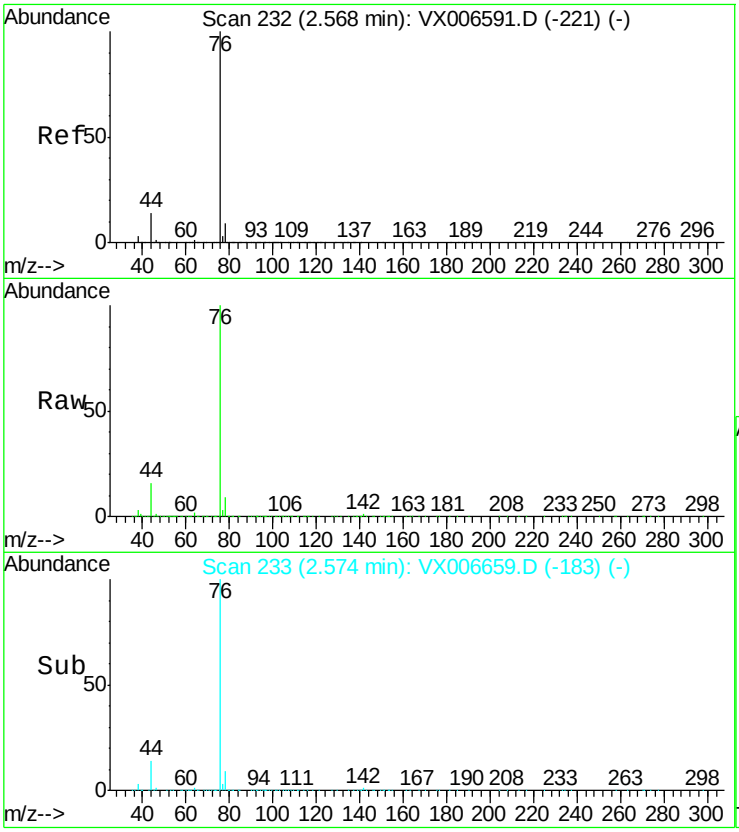
Tgt Ion: 43 Resp: 659641

Ion	Ratio	Lower	Upper
43	100		
58	31.8	25.0	37.6



Instrument :
MSVOA_X
ClientSampleId :
966-MW-04(23)MSD

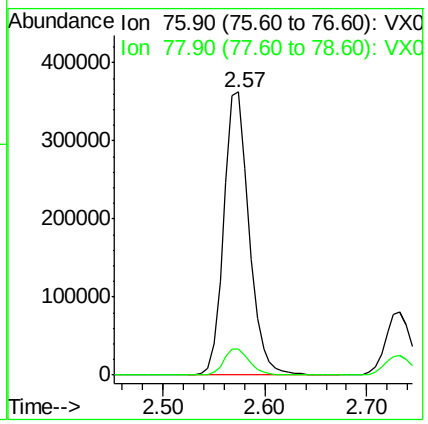
Manual Integrations APPROVED
MMDadoda
12/20/2018 10:00:51 AM

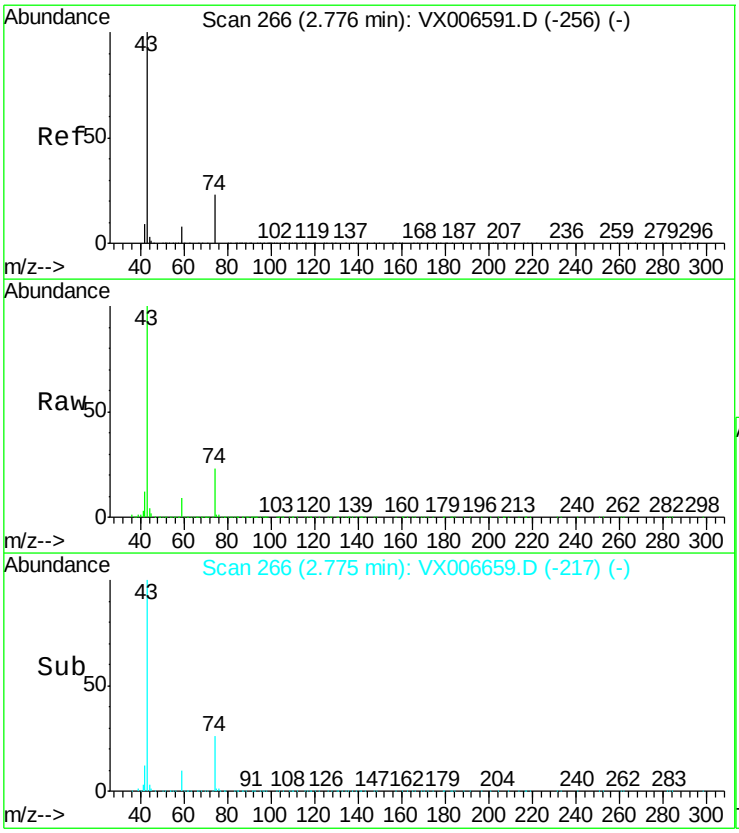


#17
Carbon Disulfide
Concen: 46.040 ug/l
RT: 2.57 min Scan# 233
Delta R.T. 0.01 min
Lab File: VX006659.D
Acq: 20 Dec 2018 01:11

Tgt Ion: 76 Resp: 620951

Ion	Ratio	Lower	Upper
76	100		
78	9.1	7.0	10.6

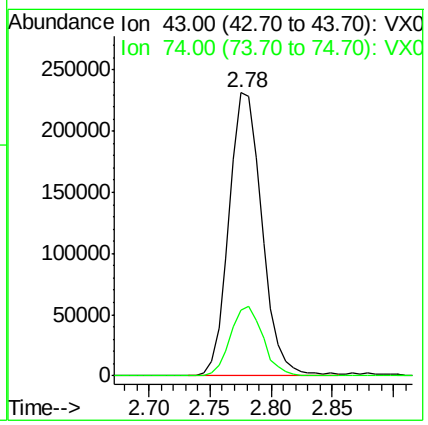




#18
Methyl Acetate
Concen: 51.904 ug/l
RT: 2.78 min Scan# 266
Delta R.T. -0.00 min
Lab File: VX006659.D
Acq: 20 Dec 2018 01:11

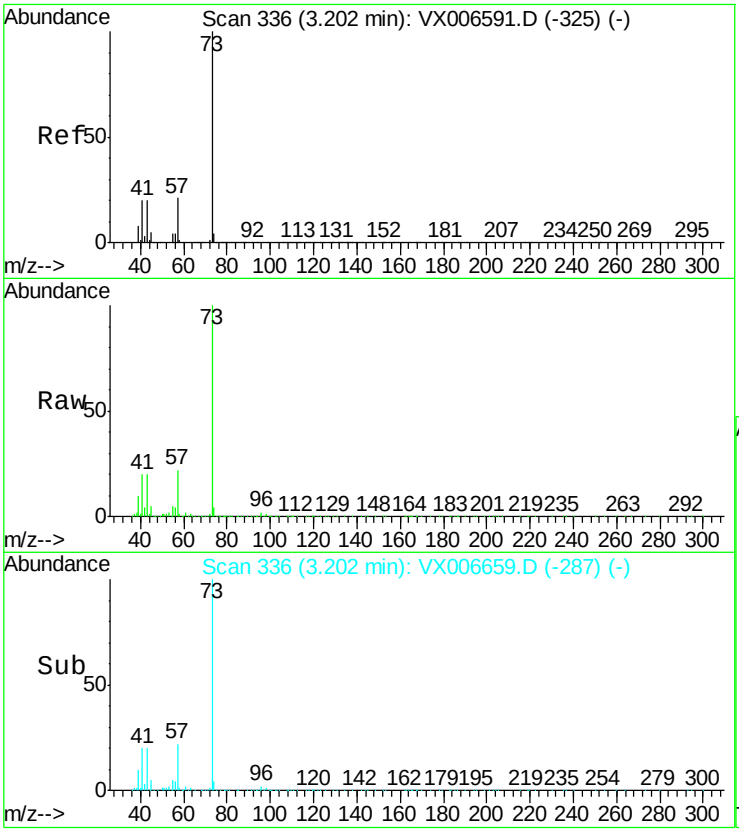
Tgt Ion: 43 Resp: 431073

Ion	Ratio	Lower	Upper
43	100		
74	24.0	18.6	28.0



Instrument :
MSVOA_X
ClientSampleId :
966-MW-04(23)MSD

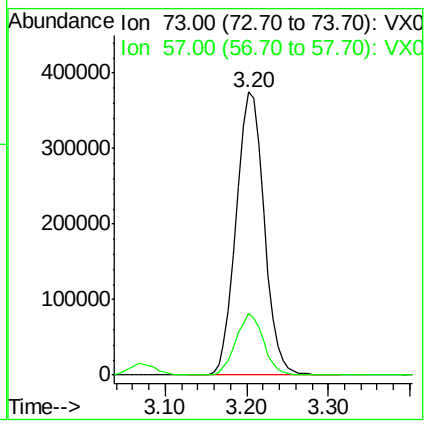
Manual Integrations APPROVED
MMDadoda
12/20/2018 10:00:51 AM

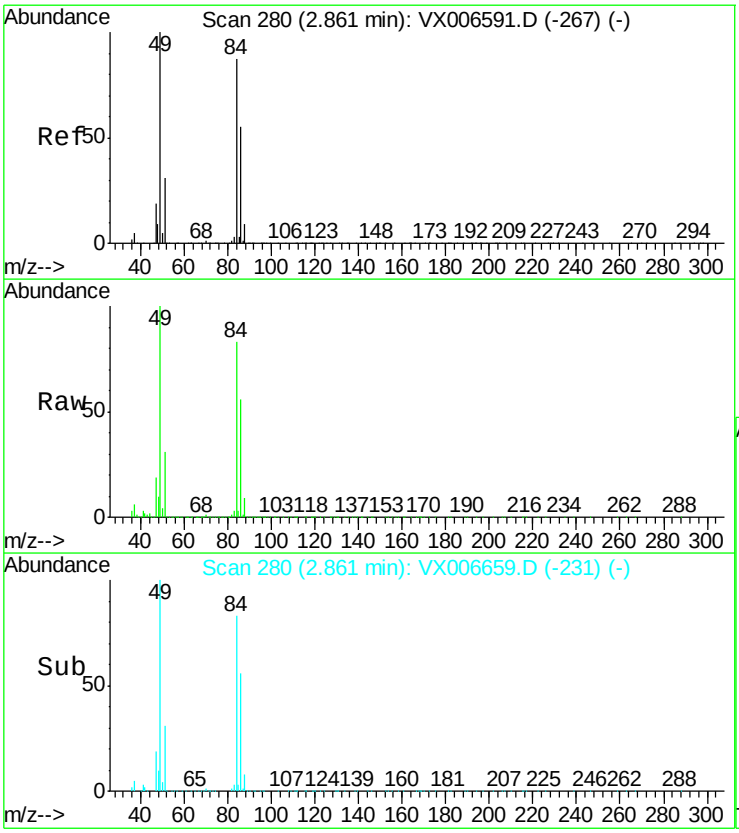


#19
Methyl tert-butyl Ether
Concen: 52.604 ug/l
RT: 3.20 min Scan# 336
Delta R.T. -0.00 min
Lab File: VX006659.D
Acq: 20 Dec 2018 01:11

Tgt Ion: 73 Resp: 889804

Ion	Ratio	Lower	Upper
73	100		
57	21.9	16.8	25.2

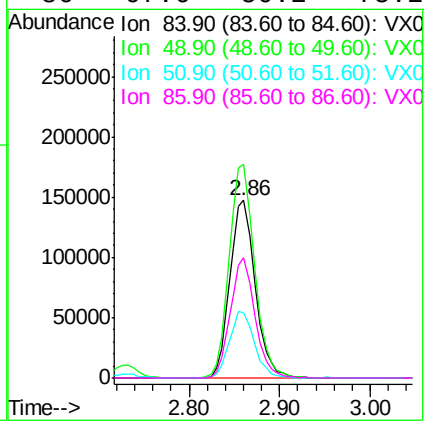




#20
Methylene Chloride
Concen: 49.030 ug/l
RT: 2.86 min Scan# 280
Delta R.T. -0.00 min
Lab File: VX006659.D
Acq: 20 Dec 2018 01:11

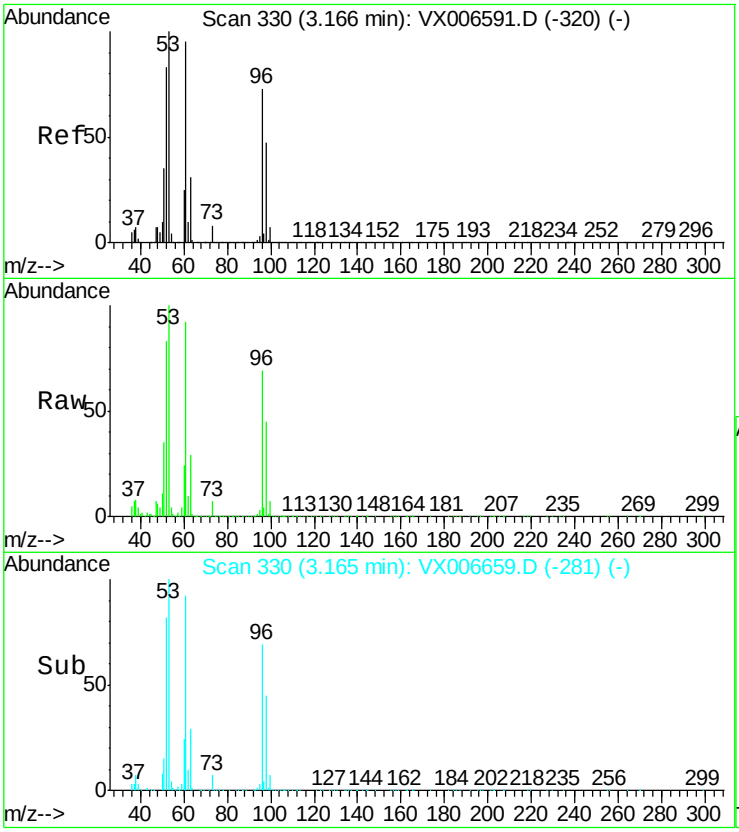
Tgt Ion: 84 Resp: 286354

Ion	Ratio	Lower	Upper
84	100		
49	120.0	91.8	137.6
51	36.9	28.5	42.7
86	67.6	50.2	75.2



Instrument :
MSVOA_X
ClientSampleId :
966-MW-04(23)MSD

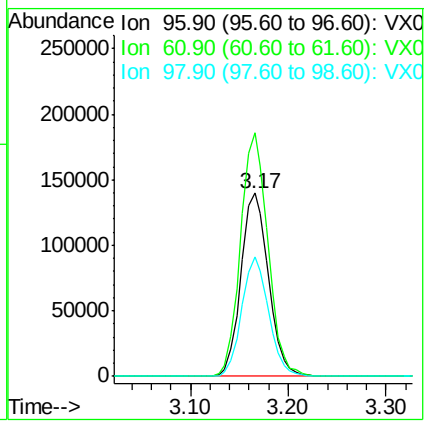
Manual Integrations APPROVED
MMDadoda
12/20/2018 10:00:51 AM

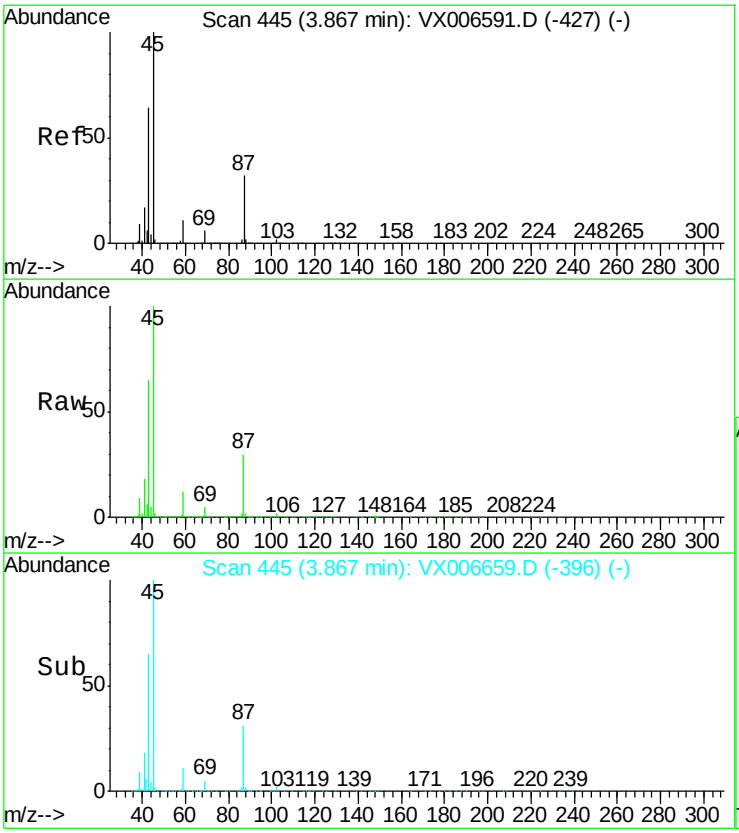


#21
trans-1,2-Dichloroethene
Concen: 48.426 ug/l
RT: 3.17 min Scan# 330
Delta R.T. -0.00 min
Lab File: VX006659.D
Acq: 20 Dec 2018 01:11

Tgt Ion: 96 Resp: 273457

Ion	Ratio	Lower	Upper
96	100		
61	133.1	103.7	155.5
98	65.3	51.0	76.6

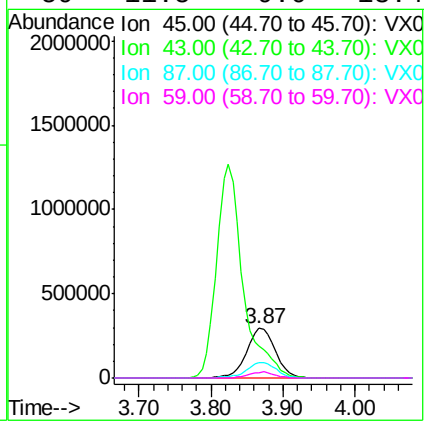




#22
Diisopropyl ether
Concen: 52.461 ug/l
RT: 3.87 min Scan# 445
Delta R.T. -0.00 min
Lab File: VX006659.D
Acq: 20 Dec 2018 01:11

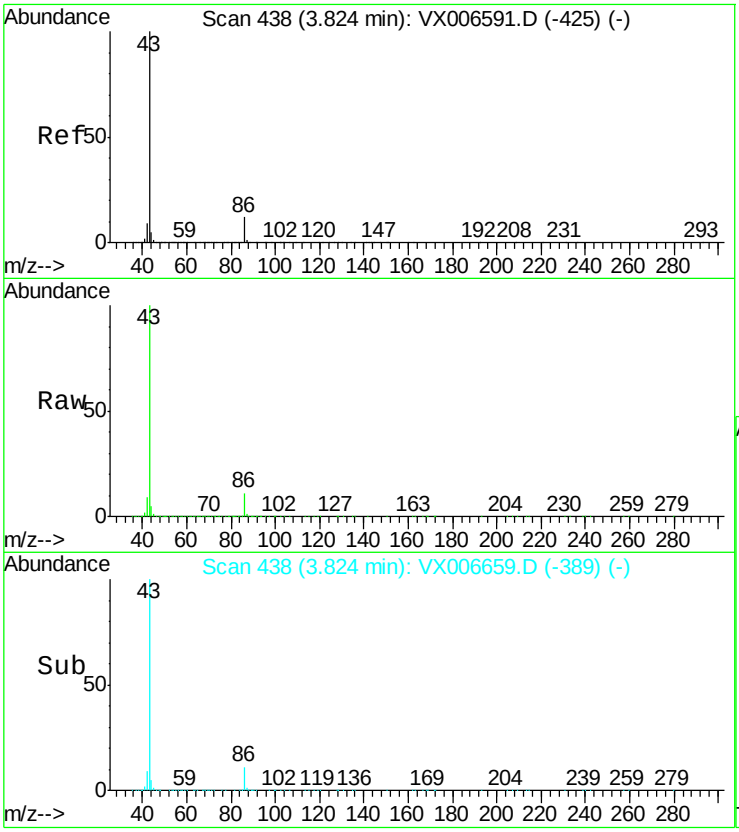
Tgt Ion: 45 Resp: 823322

Ion	Ratio	Lower	Upper
45	100		
43	64.4	51.2	76.8
87	30.4	25.8	38.6
59	11.5	9.0	13.4



Instrument :
MSVOA_X
ClientSampleId :
966-MW-04(23)MSD

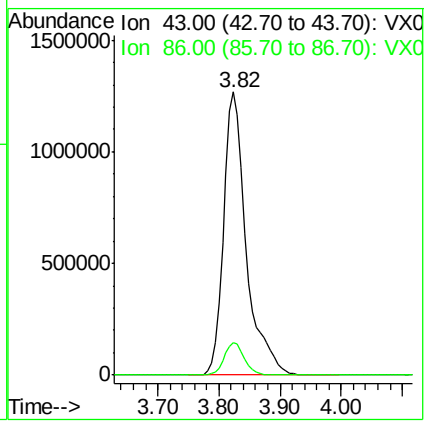
Manual Integrations APPROVED
MMDadoda
12/20/2018 10:00:51 AM

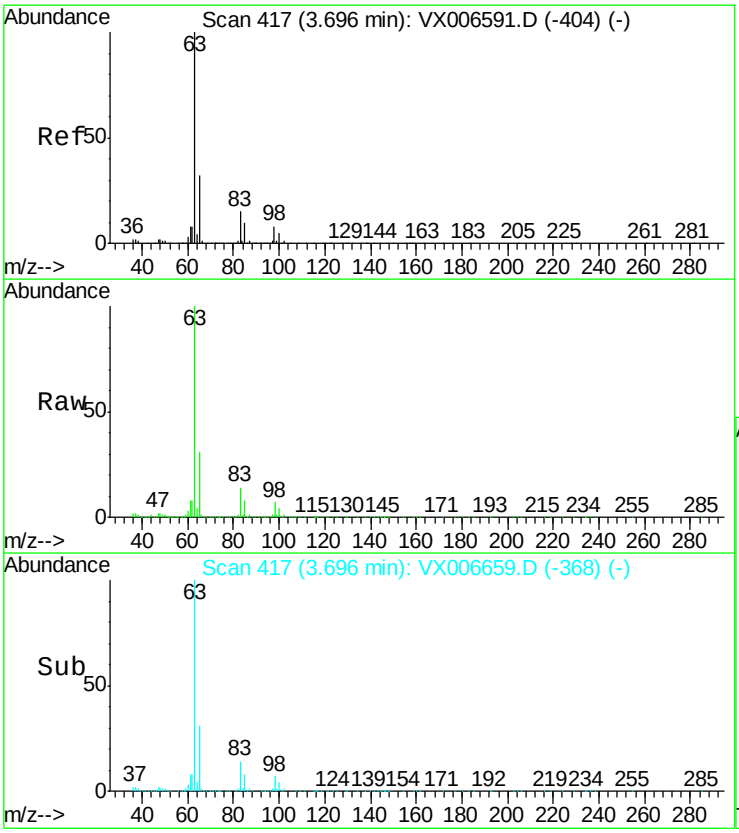


#23
Vinyl Acetate
Concen: 254.734 ug/l
RT: 3.82 min Scan# 438
Delta R.T. -0.00 min
Lab File: VX006659.D
Acq: 20 Dec 2018 01:11

Tgt Ion: 43 Resp: 3270068

Ion	Ratio	Lower	Upper
43	100		
86	11.3	9.2	13.8

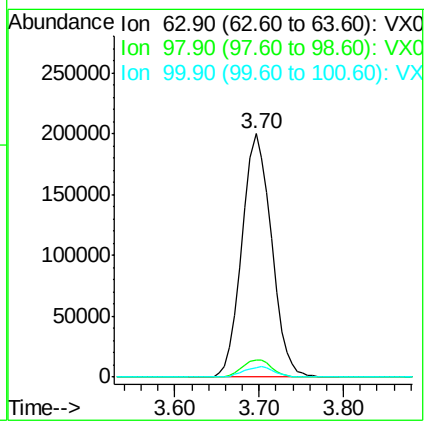




#24
1,1-Dichloroethane
Concen: 50.463 ug/l
RT: 3.70 min Scan# 417
Delta R.T. -0.00 min
Lab File: VX006659.D
Acq: 20 Dec 2018 01:11

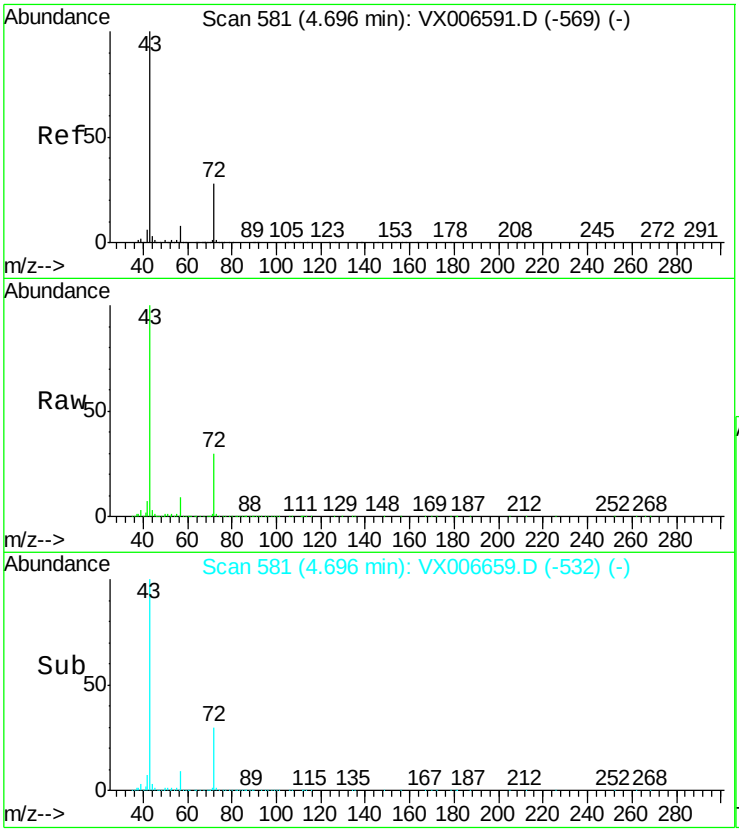
Tgt Ion: 63 Resp: 472763

Ion	Ratio	Lower	Upper
63	100		
98	7.2	3.9	11.5
100	3.9	2.4	7.2



Instrument :
MSVOA_X
ClientSampleId :
966-MW-04(23)MSD

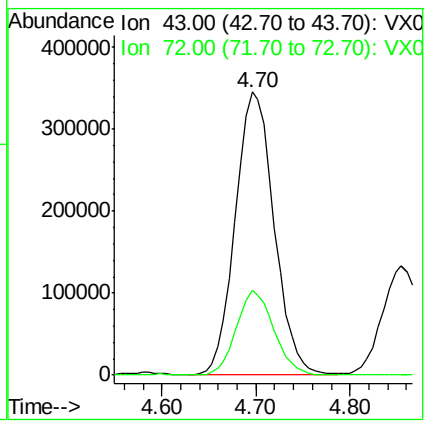
Manual Integrations APPROVED
MMDadoda
12/20/2018 10:00:51 AM

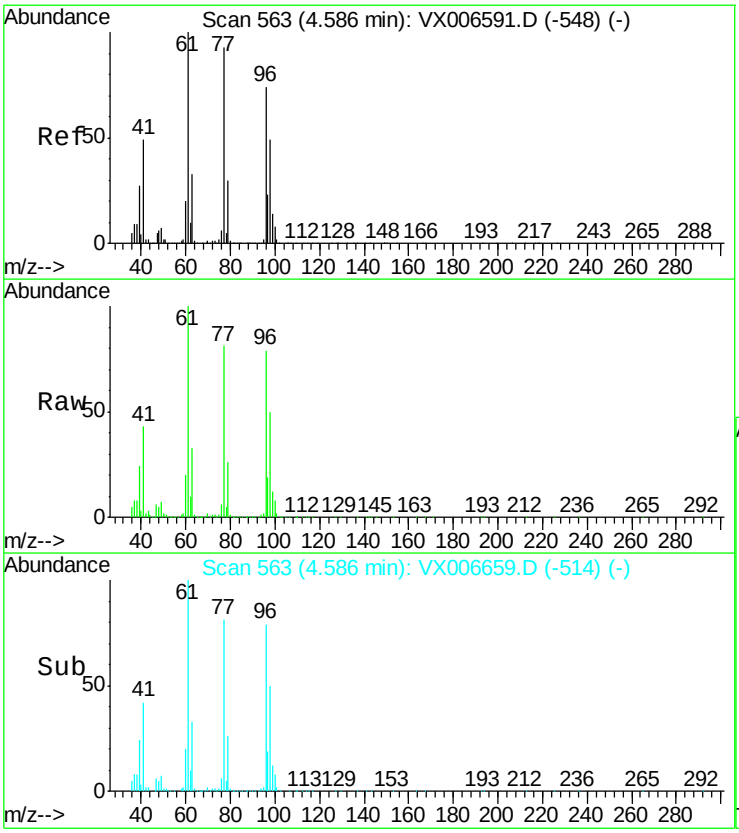


#25
2-Butanone
Concen: 249.762 ug/l
RT: 4.70 min Scan# 581
Delta R.T. -0.00 min
Lab File: VX006659.D
Acq: 20 Dec 2018 01:11

Tgt Ion: 43 Resp: 992279

Ion	Ratio	Lower	Upper
43	100		
72	30.0	22.4	33.6

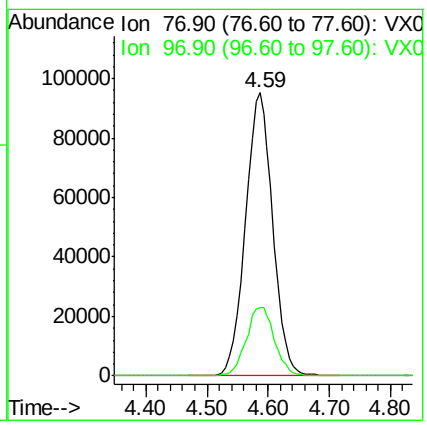




#26
2,2-Dichloropropane
Concen: 40.810 ug/l
RT: 4.59 min Scan# 563
Delta R.T. -0.00 min
Lab File: VX006659.D
Acq: 20 Dec 2018 01:11

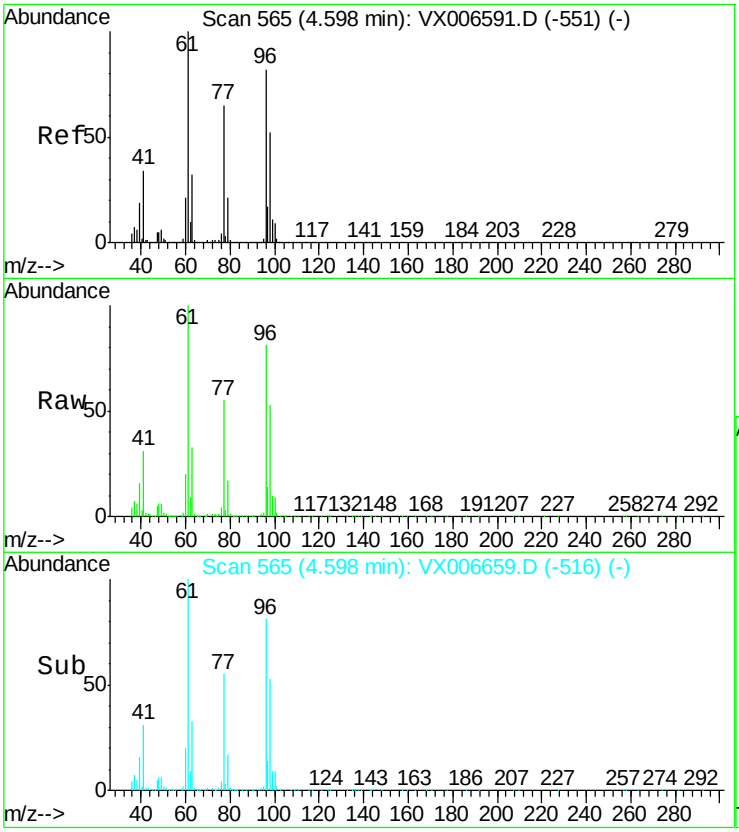
Tgt Ion: 77 Resp: 295334

Ion	Ratio	Lower	Upper
77	100		
97	25.4	12.4	37.4



Instrument :
MSVOA_X
ClientSampleId :
966-MW-04(23)MSD

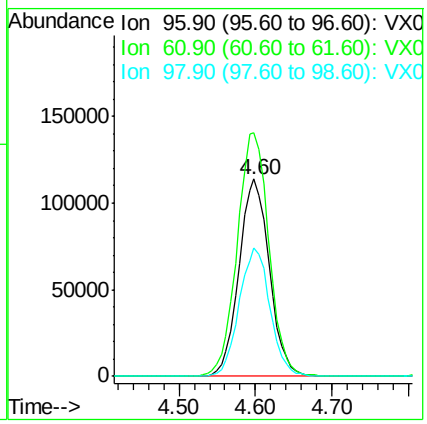
Manual Integrations APPROVED
MMDadoda
12/20/2018 10:00:51 AM

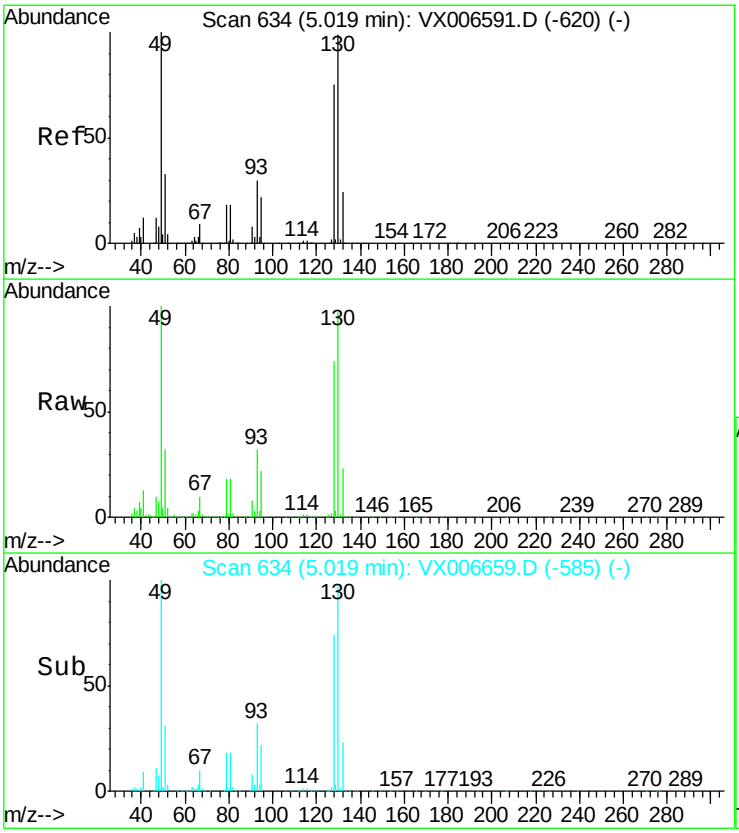


#27
cis-1,2-Dichloroethene
Concen: 50.331 ug/l
RT: 4.60 min Scan# 565
Delta R.T. -0.00 min
Lab File: VX006659.D
Acq: 20 Dec 2018 01:11

Tgt Ion: 96 Resp: 313575

Ion	Ratio	Lower	Upper
96	100		
61	129.3	0.0	258.6
98	66.2	0.0	132.0

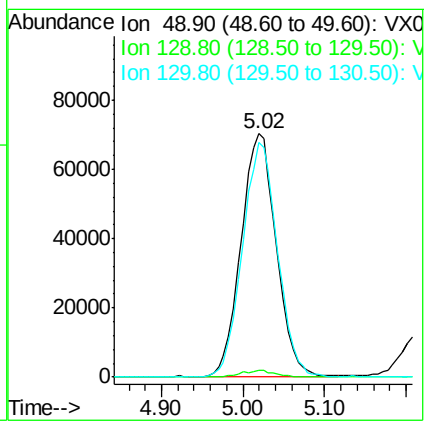




#28
Bromochloromethane
Concen: 53.421 ug/l
RT: 5.02 min Scan# 634
Delta R.T. -0.00 min
Lab File: VX006659.D
Acq: 20 Dec 2018 01:11

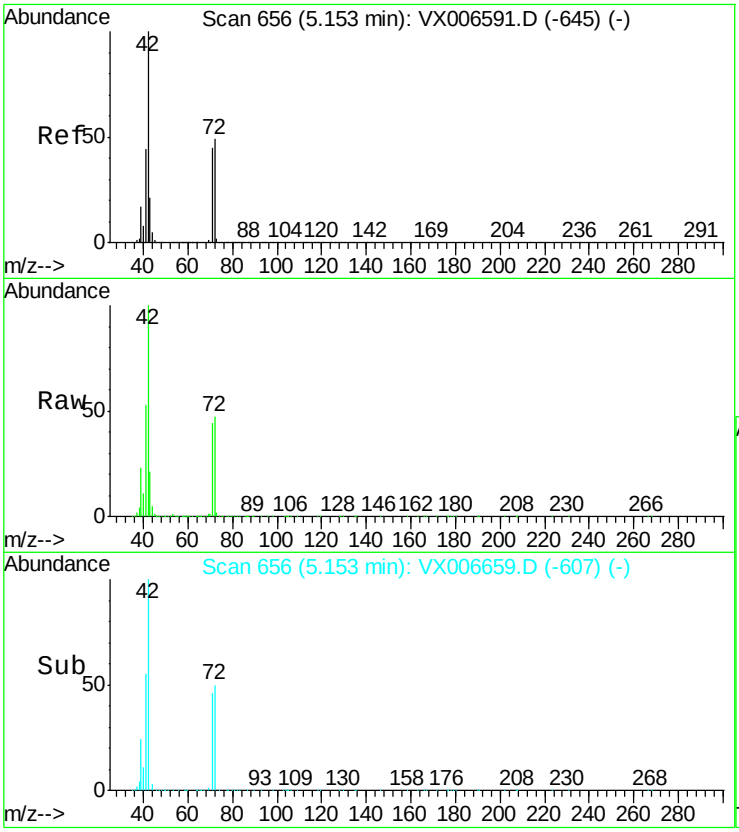
Tgt Ion: 49 Resp: 210471

Ion	Ratio	Lower	Upper
49	100		
129	2.8	0.0	5.4
130	96.3	77.7	116.5



Instrument :
MSVOA_X
ClientSampleId :
966-MW-04(23)MSD

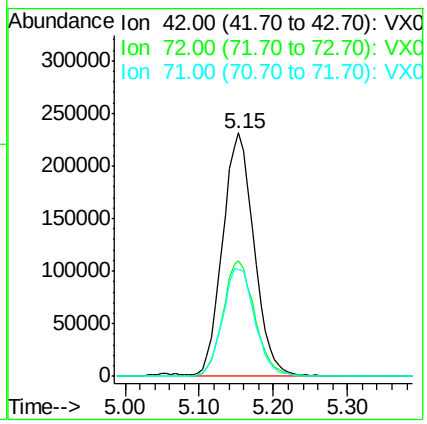
Manual Integrations APPROVED
MMDadoda
12/20/2018 10:00:51 AM

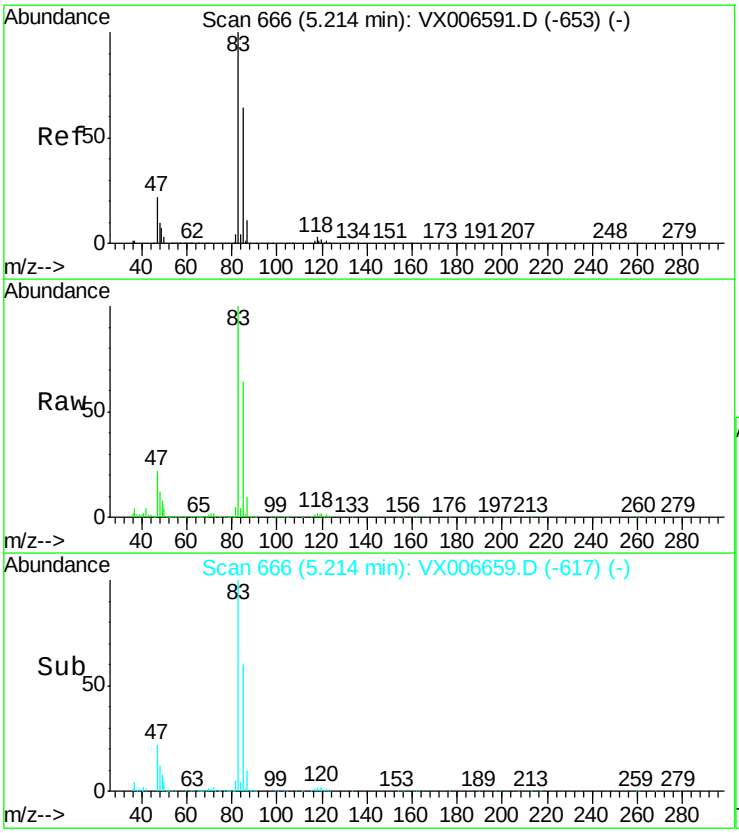


#29
Tetrahydrofuran
Concen: 259.791 ug/l
RT: 5.15 min Scan# 656
Delta R.T. -0.00 min
Lab File: VX006659.D
Acq: 20 Dec 2018 01:11

Tgt Ion: 42 Resp: 679792

Ion	Ratio	Lower	Upper
42	100		
72	48.2	38.9	58.3
71	45.7	36.2	54.4

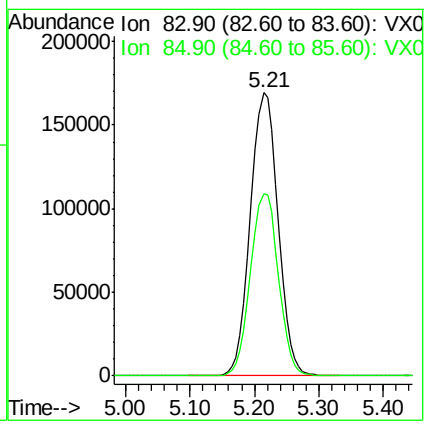




#30
Chloroform
Concen: 51.677 ug/l
RT: 5.21 min Scan# 666
Delta R.T. -0.00 min
Lab File: VX006659.D
Acq: 20 Dec 2018 01:11

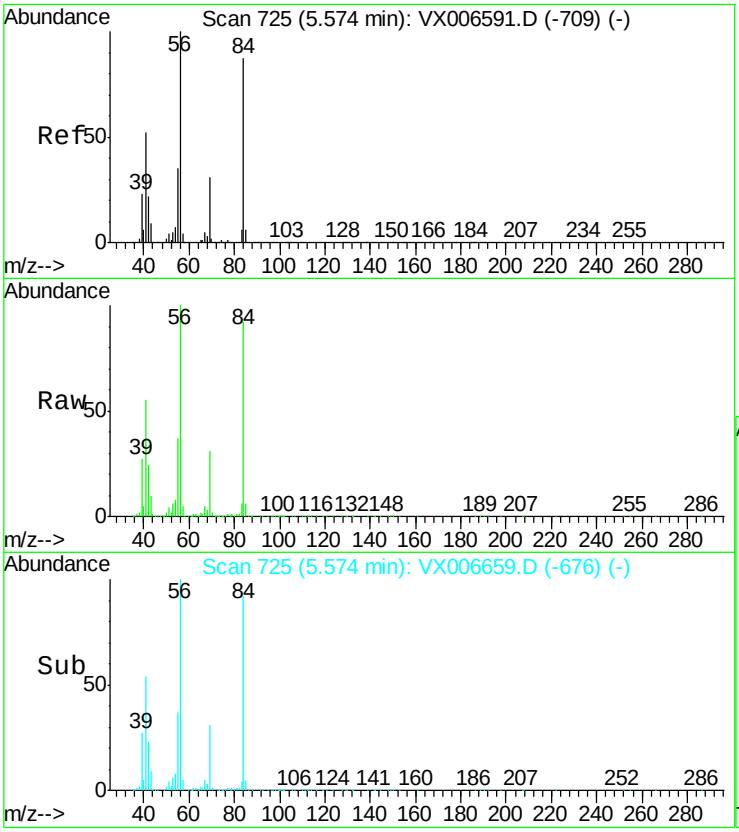
Tgt Ion: 83 Resp: 501355

Ion	Ratio	Lower	Upper
83	100		
85	64.4	51.2	76.8



Instrument :
MSVOA_X
ClientSampleId :
966-MW-04(23)MSD

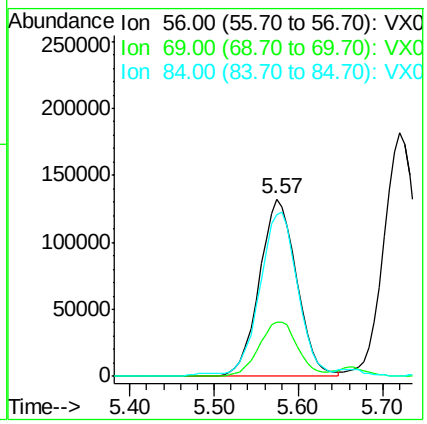
Manual Integrations APPROVED
MMDadoda
12/20/2018 10:00:51 AM

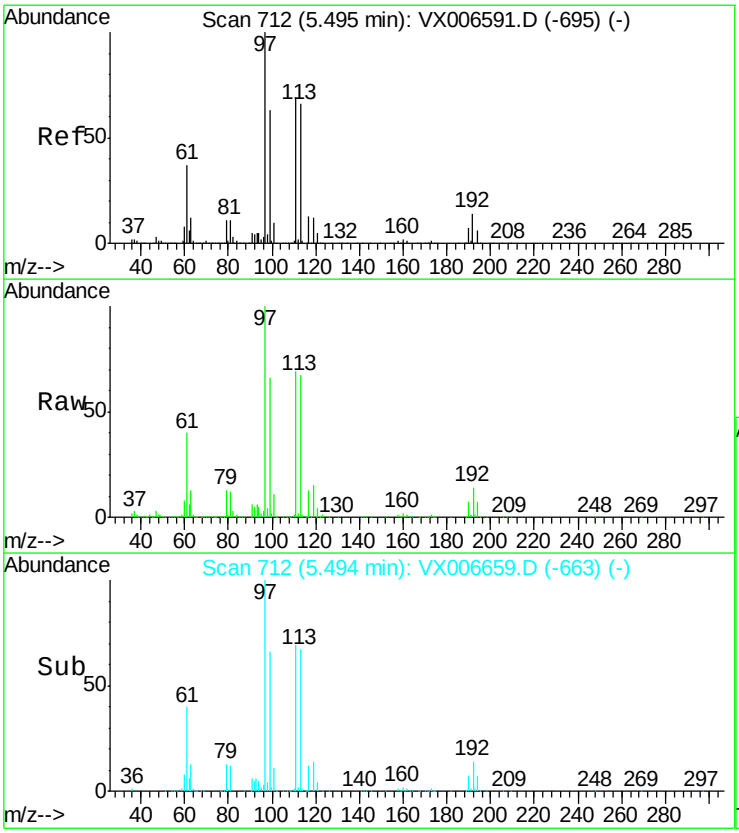


#31
Cyclohexane
Concen: 47.340 ug/l
RT: 5.57 min Scan# 725
Delta R.T. -0.00 min
Lab File: VX006659.D
Acq: 20 Dec 2018 01:11

Tgt Ion: 56 Resp: 402918

Ion	Ratio	Lower	Upper
56	100		
69	30.7	24.4	36.6
84	90.7	70.0	105.0

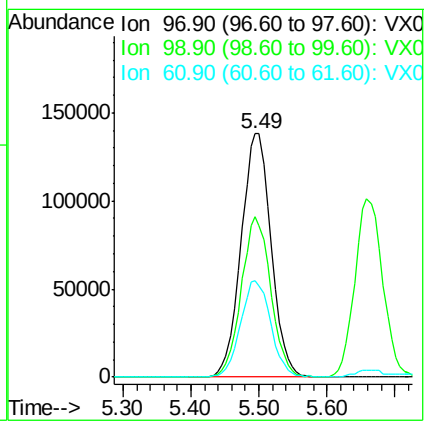




#32
1,1,1-Trichloroethane
Concen: 51.792 ug/l
RT: 5.49 min Scan# 712
Delta R.T. -0.00 min
Lab File: VX006659.D
Acq: 20 Dec 2018 01:11

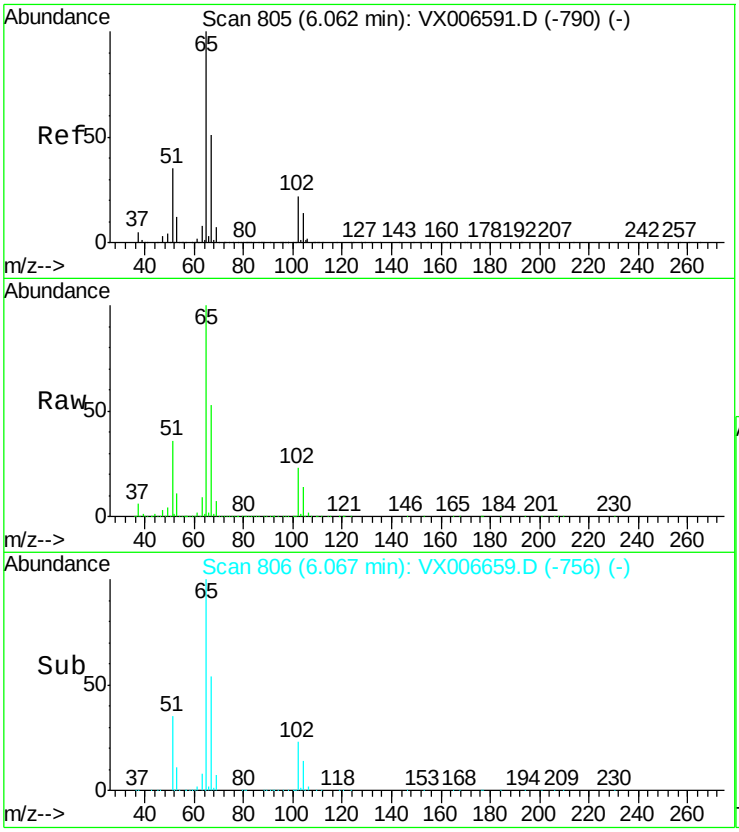
Tgt Ion: 97 Resp: 424279

Ion	Ratio	Lower	Upper
97	100		
99	64.5	51.7	77.5
61	40.0	31.3	46.9



Instrument :
MSVOA_X
ClientSampleId :
966-MW-04(23)MSD

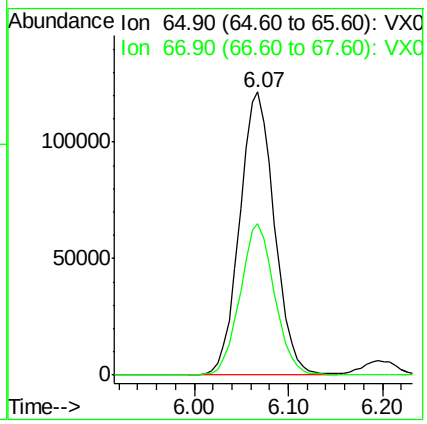
Manual Integrations APPROVED
MMDadoda
12/20/2018 10:00:51 AM

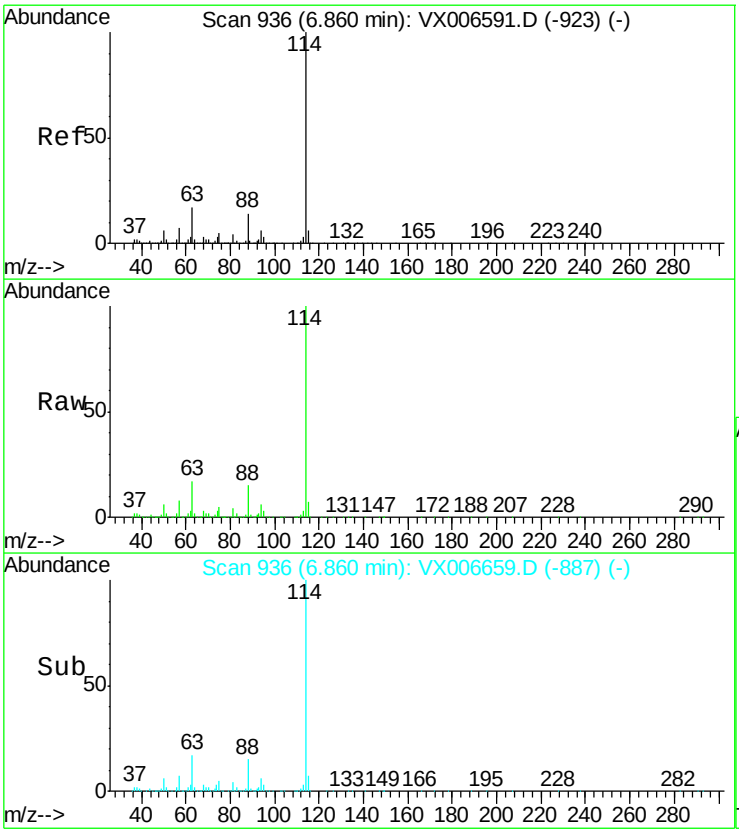


#33
1,2-Dichloroethane-d4
Concen: 51.065 ug/l
RT: 6.07 min Scan# 806
Delta R.T. 0.01 min
Lab File: VX006659.D
Acq: 20 Dec 2018 01:11

Tgt Ion: 65 Resp: 313928

Ion	Ratio	Lower	Upper
65	100		
67	52.8	0.0	105.0

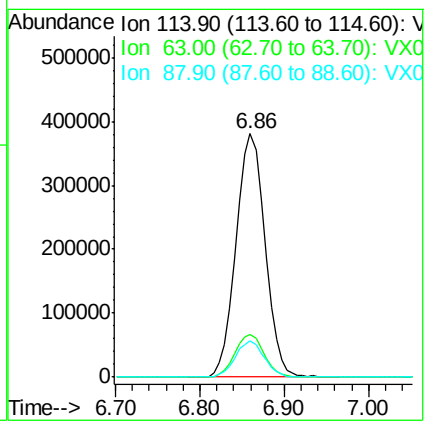




#34
1,4-Difluorobenzene
Concen: 50.000 ug/l
RT: 6.86 min Scan# 936
Delta R.T. -0.00 min
Lab File: VX006659.D
Acq: 20 Dec 2018 01:11

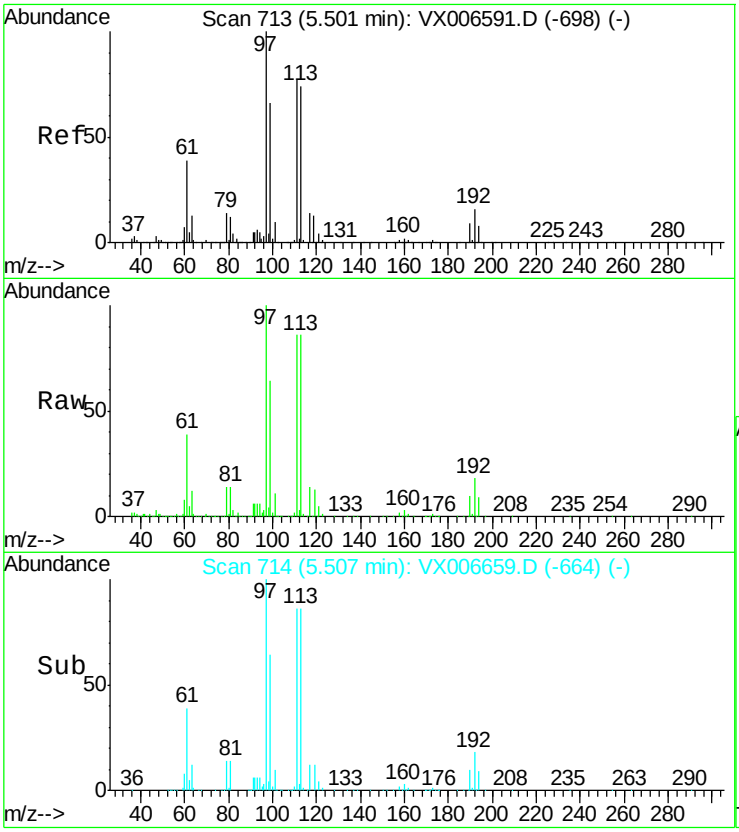
Tgt Ion:114 Resp: 887271

Ion	Ratio	Lower	Upper
114	100		
63	17.3	0.0	34.8
88	14.8	0.0	28.8



Instrument :
MSVOA_X
ClientSampleId :
966-MW-04(23)MSD

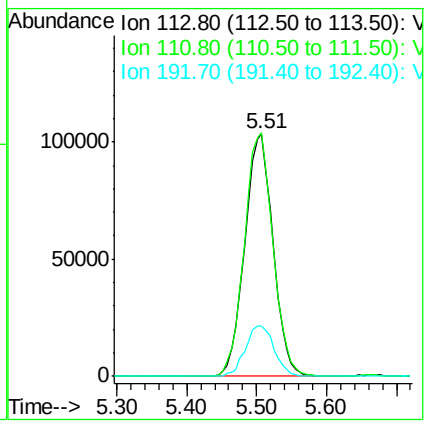
Manual Integrations APPROVED
MMDadoda
12/20/2018 10:00:51 AM

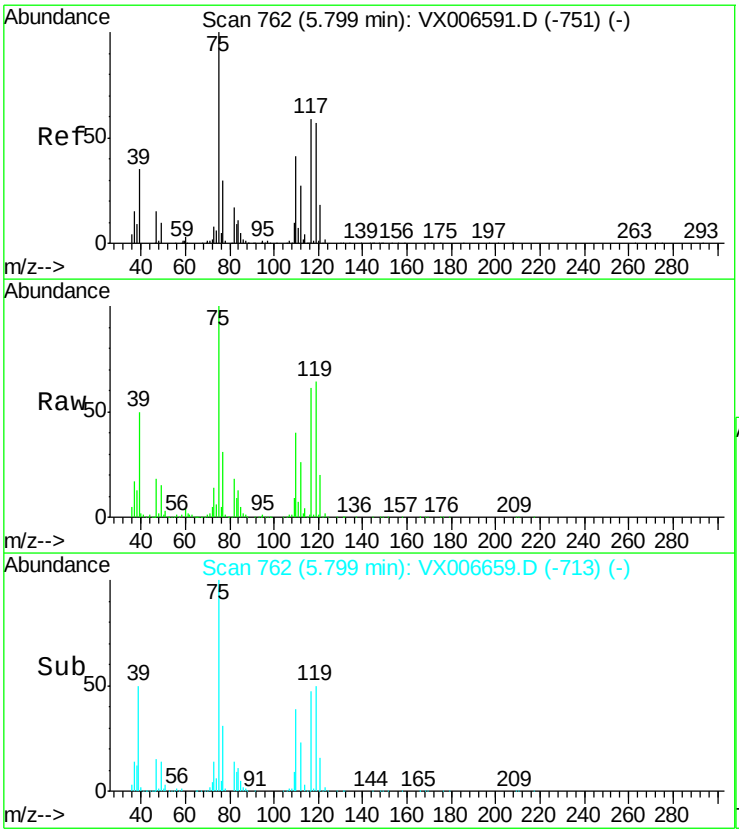


#35
Dibromofluoromethane
Concen: 51.787 ug/l
RT: 5.51 min Scan# 714
Delta R.T. 0.01 min
Lab File: VX006659.D
Acq: 20 Dec 2018 01:11

Tgt Ion:113 Resp: 290575

Ion	Ratio	Lower	Upper
113	100		
111	101.7	81.6	122.4
192	21.2	16.7	25.1

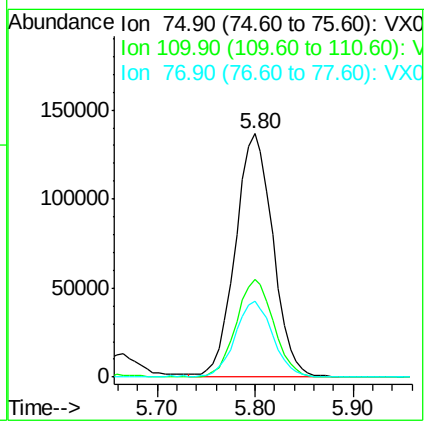




#36
1,1-Dichloropropene
Concen: 49.243 ug/l
RT: 5.80 min Scan# 762
Delta R.T. -0.00 min
Lab File: VX006659.D
Acq: 20 Dec 2018 01:11

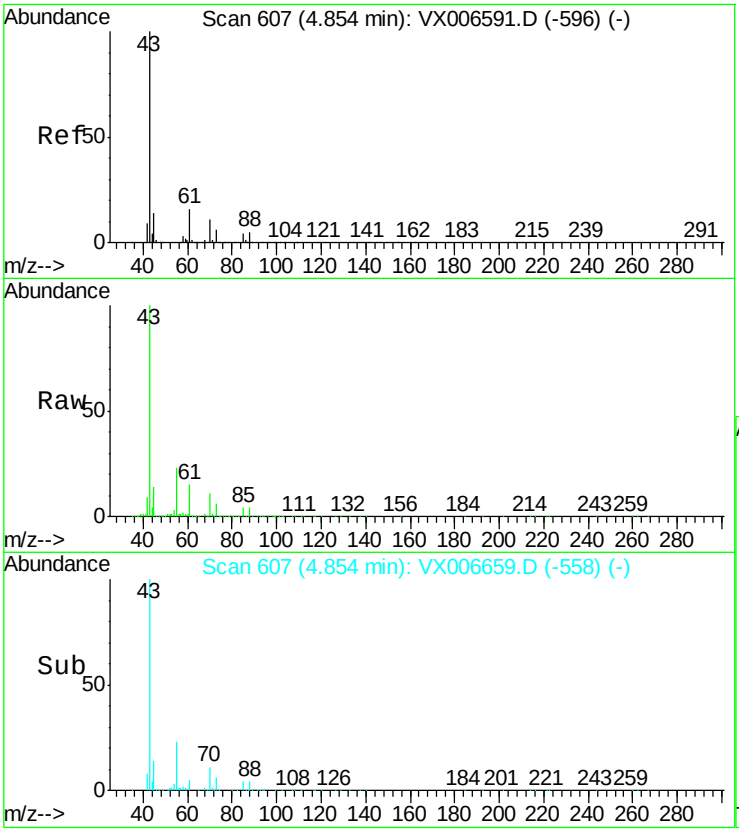
Tgt Ion: 75 Resp: 361871

Ion	Ratio	Lower	Upper
75	100		
110	40.1	20.2	60.5
77	31.2	24.8	37.2



Instrument :
MSVOA_X
ClientSampleId :
966-MW-04(23)MSD

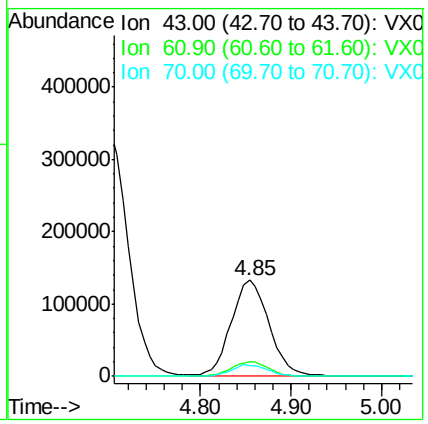
Manual Integrations APPROVED
MMDadoda
12/20/2018 10:00:51 AM

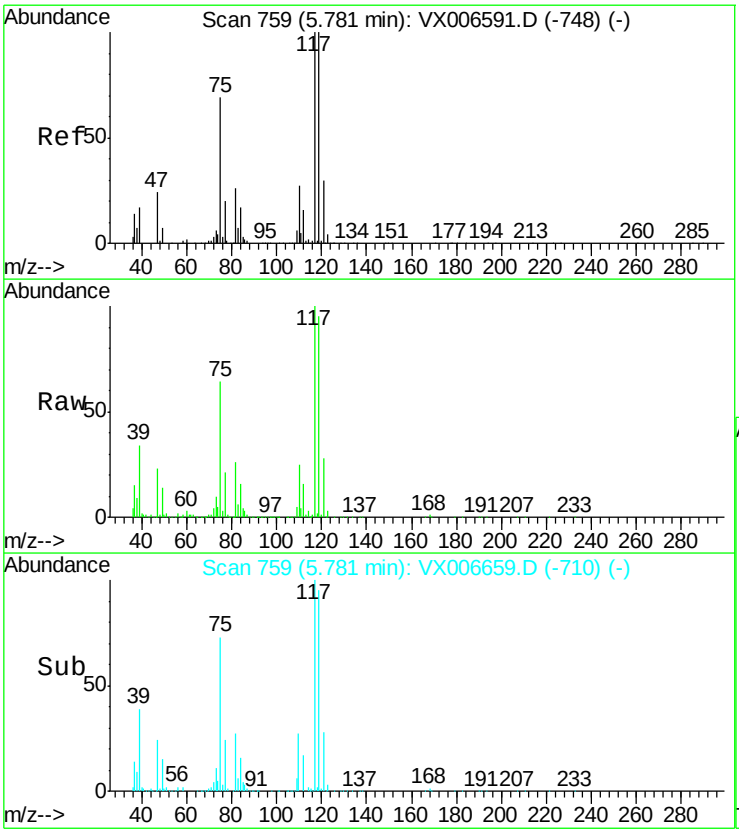


#37
Ethyl Acetate
Concen: 50.287 ug/l
RT: 4.85 min Scan# 607
Delta R.T. -0.00 min
Lab File: VX006659.D
Acq: 20 Dec 2018 01:11

Tgt Ion: 43 Resp: 384628

Ion	Ratio	Lower	Upper
43	100		
61	14.6	11.9	17.9
70	11.6	9.7	14.5

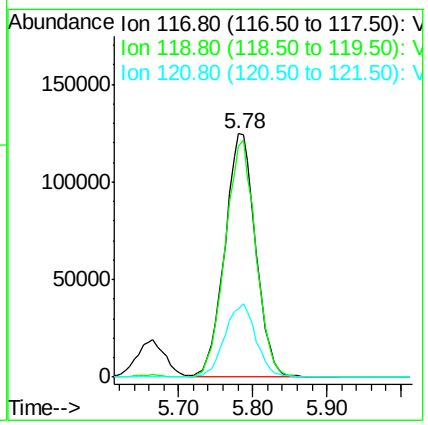




#38
Carbon Tetrachloride
Concen: 50.618 ug/l
RT: 5.78 min Scan# 759
Delta R.T. -0.00 min
Lab File: VX006659.D
Acq: 20 Dec 2018 01:11

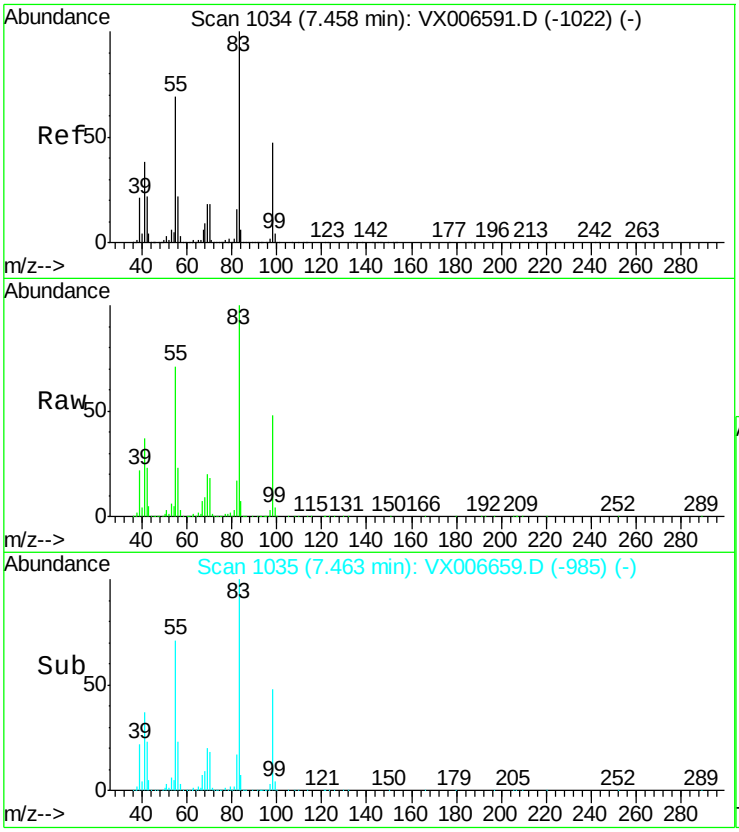
Tgt Ion:117 Resp: 361501

Ion	Ratio	Lower	Upper
117	100		
119	94.5	79.4	119.2
121	28.0	24.0	36.0



Instrument :
MSVOA_X
ClientSampleId :
966-MW-04(23)MSD

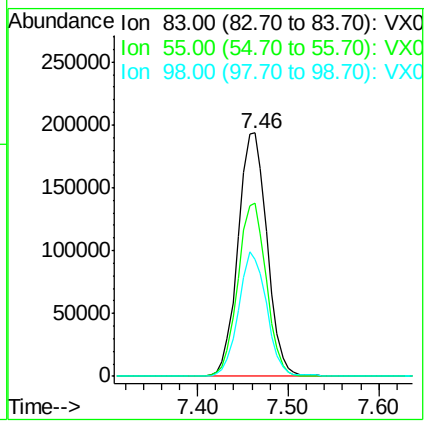
Manual Integrations APPROVED
MMDadoda
12/20/2018 10:00:51 AM

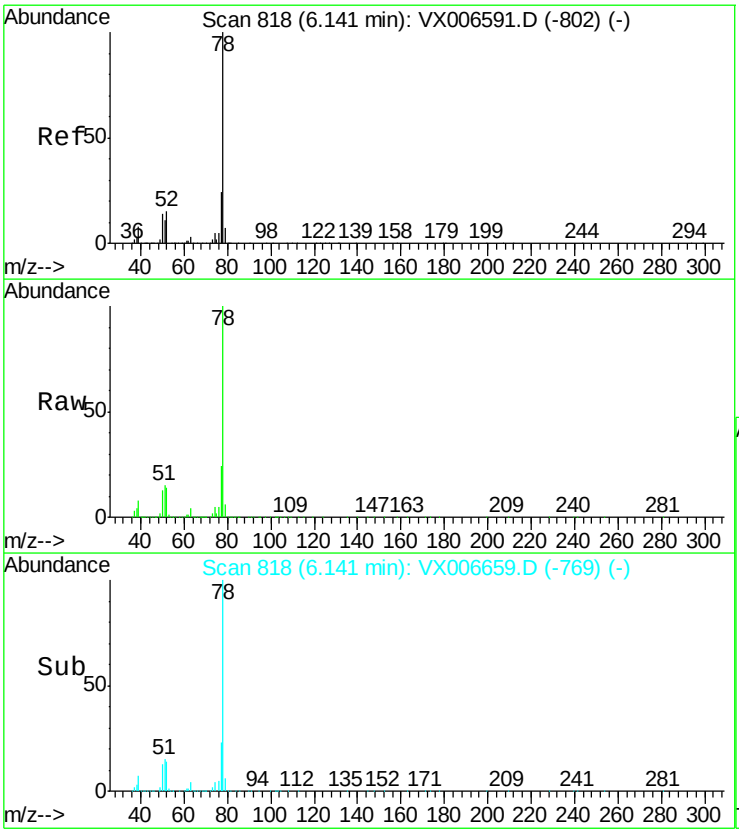


#39
Methylcyclohexane
Concen: 44.435 ug/l
RT: 7.46 min Scan# 1035
Delta R.T. 0.01 min
Lab File: VX006659.D
Acq: 20 Dec 2018 01:11

Tgt Ion: 83 Resp: 429891

Ion	Ratio	Lower	Upper
83	100		
55	71.0	54.9	82.3
98	48.0	37.9	56.9

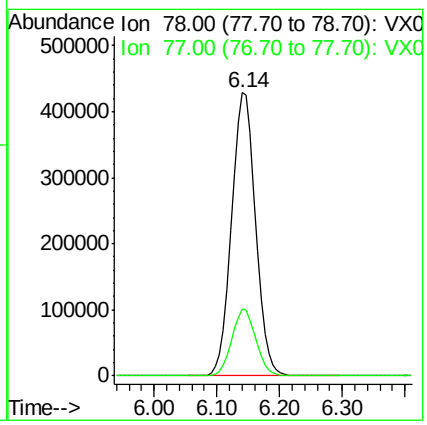




#40
Benzene
Concen: 50.774 ug/l
RT: 6.14 min Scan# 818
Delta R.T. -0.00 min
Lab File: VX006659.D
Acq: 20 Dec 2018 01:11

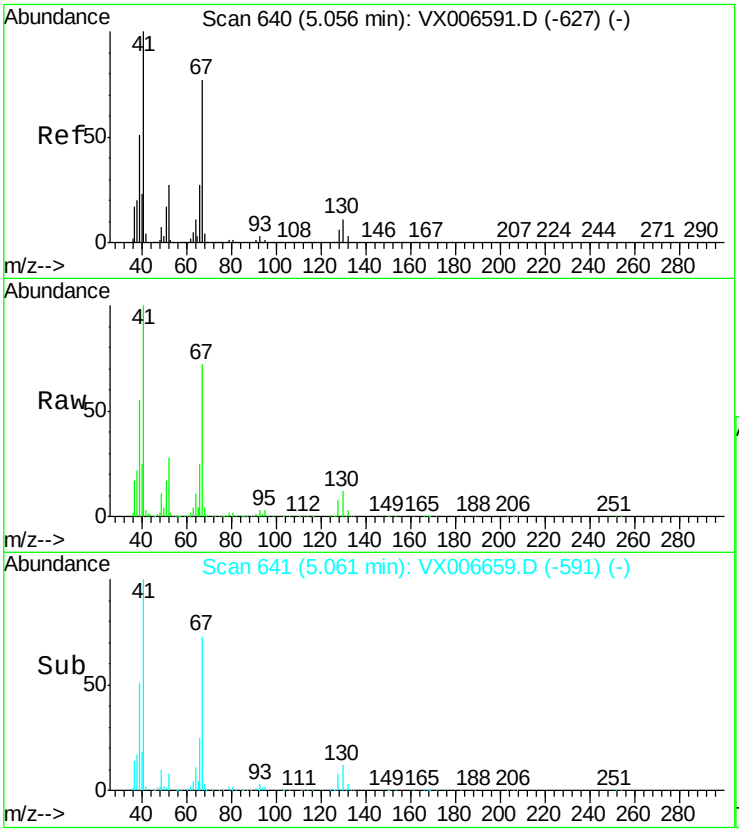
Tgt Ion: 78 Resp: 1134155

Ion	Ratio	Lower	Upper
78	100		
77	23.8	19.2	28.8



Instrument :
MSVOA_X
ClientSampleId :
966-MW-04(23)MSD

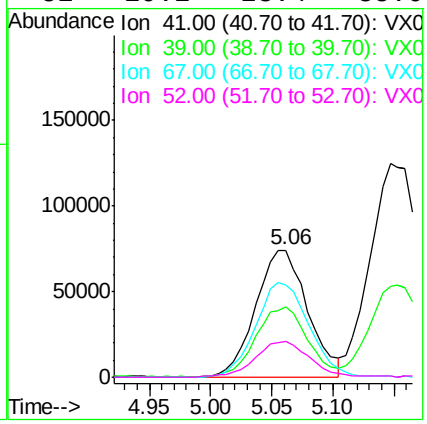
Manual Integrations APPROVED
MMDadoda
12/20/2018 10:00:51 AM

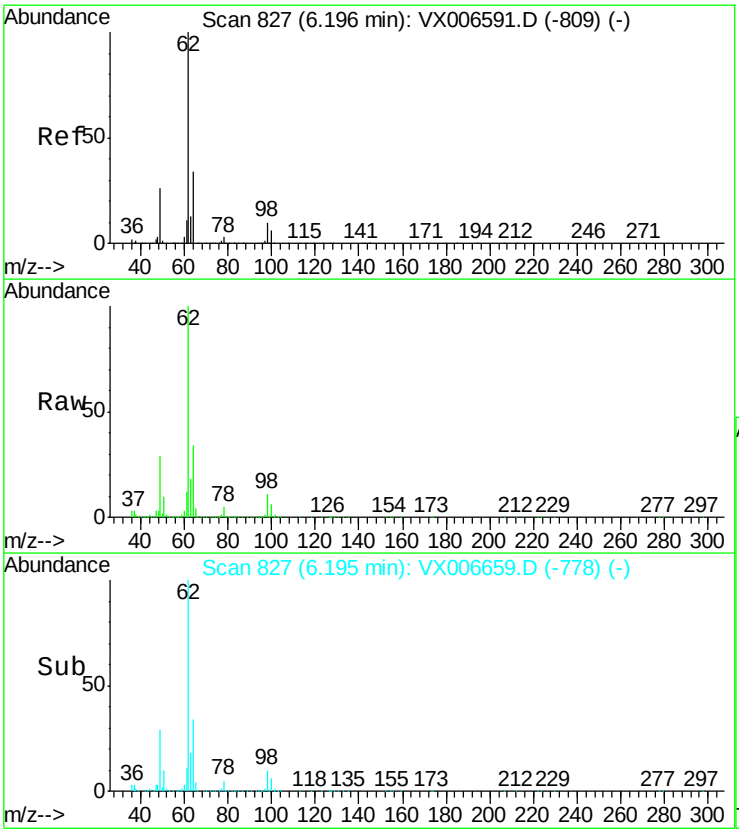


#41
Methacrylonitrile
Concen: 53.657 ug/l
RT: 5.06 min Scan# 641
Delta R.T. 0.01 min
Lab File: VX006659.D
Acq: 20 Dec 2018 01:11

Tgt Ion: 41 Resp: 217891

Ion	Ratio	Lower	Upper
41	100		
39	55.6	42.8	64.2
67	76.9	62.1	93.1
52	29.2	23.4	35.0

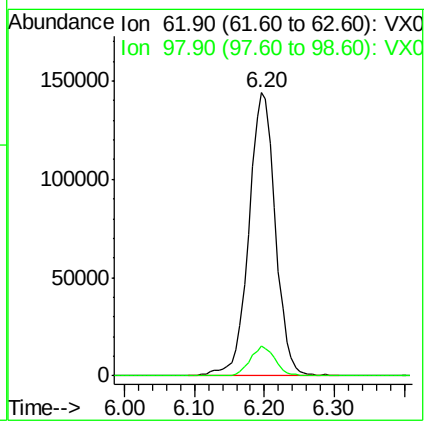




#42
1,2-Dichloroethane
Concen: 49.573 ug/l
RT: 6.20 min Scan# 827
Delta R.T. -0.00 min
Lab File: VX006659.D
Acq: 20 Dec 2018 01:11

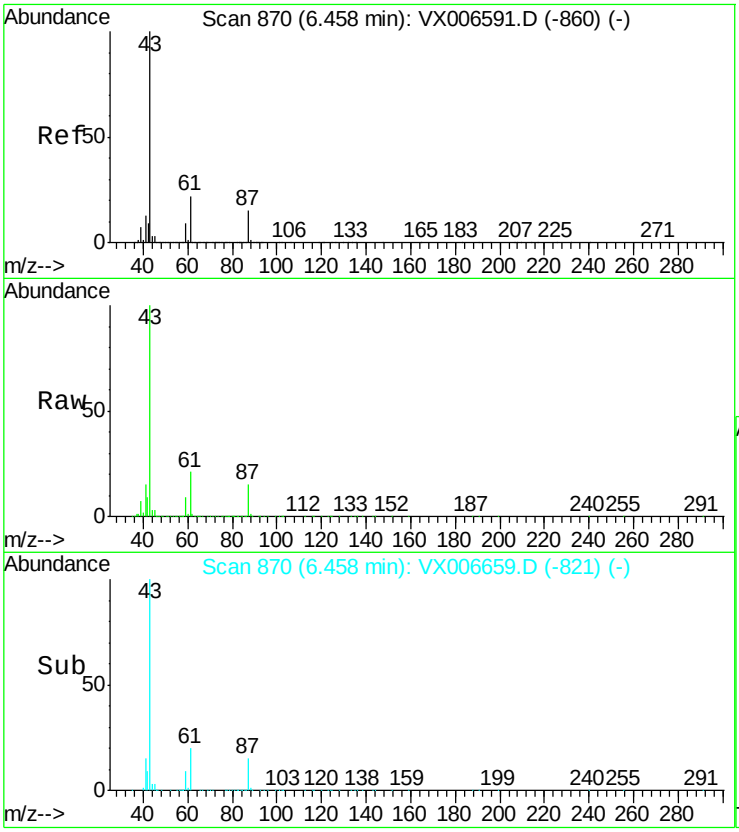
Tgt Ion: 62 Resp: 377332

Ion	Ratio	Lower	Upper
62	100		
98	10.1	0.0	20.2



Instrument :
MSVOA_X
ClientSampleId :
966-MW-04(23)MSD

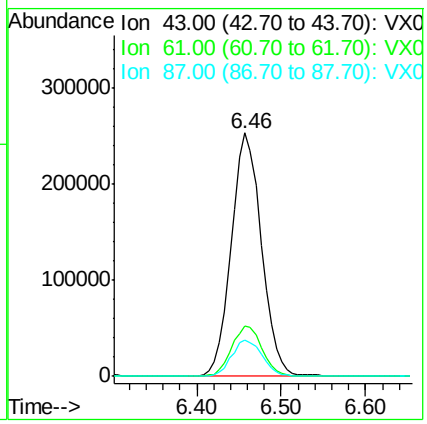
Manual Integrations APPROVED
MMDadoda
12/20/2018 10:00:51 AM

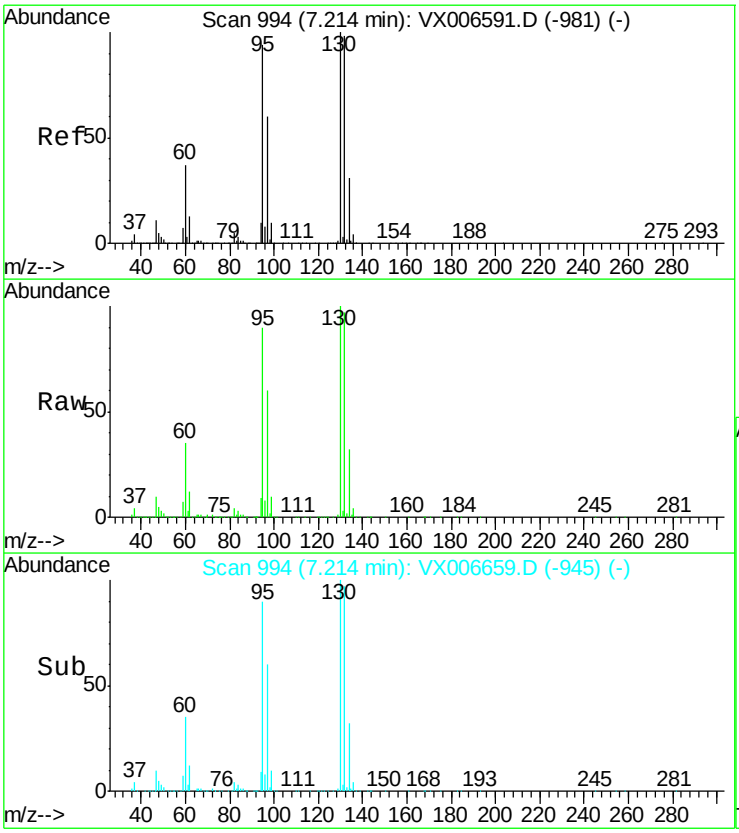


#43
Isopropyl Acetate
Concen: 52.542 ug/l
RT: 6.46 min Scan# 870
Delta R.T. -0.00 min
Lab File: VX006659.D
Acq: 20 Dec 2018 01:11

Tgt Ion: 43 Resp: 611466

Ion	Ratio	Lower	Upper
43	100		
61	20.9	16.8	25.2
87	15.3	12.4	18.6

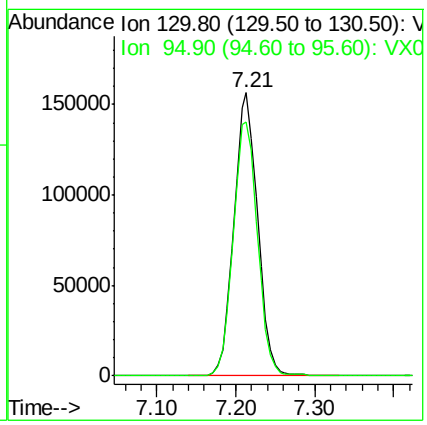




#44
Trichloroethene
Concen: 48.537 ug/l
RT: 7.21 min Scan# 994
Delta R.T. -0.00 min
Lab File: VX006659.D
Acq: 20 Dec 2018 01:11

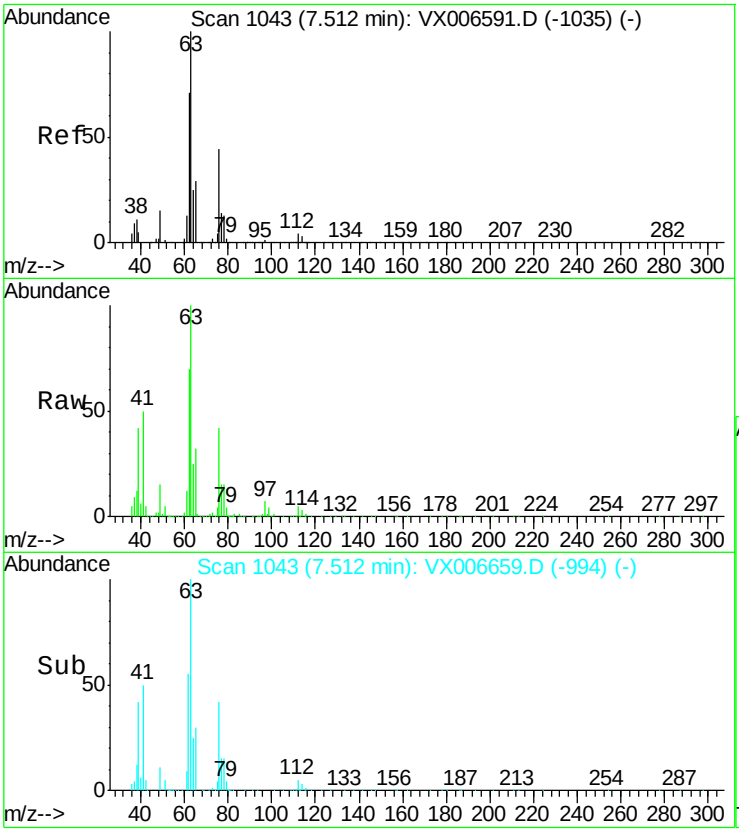
Tgt Ion:130 Resp: 328150

Ion	Ratio	Lower	Upper
130	100		
95	89.6	0.0	187.0



Instrument :
MSVOA_X
ClientSampleId :
966-MW-04(23)MSD

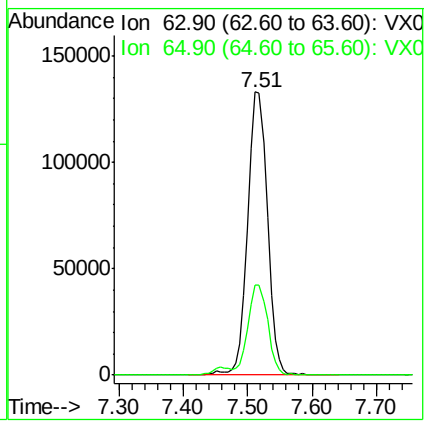
Manual Integrations APPROVED
MMDadoda
12/20/2018 10:00:51 AM

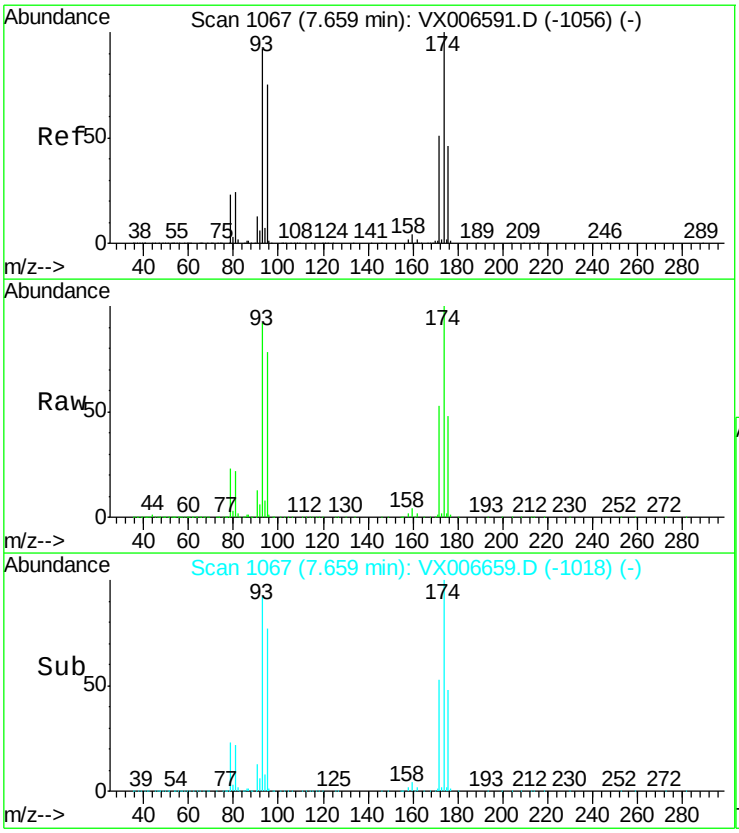


#45
1,2-Dichloropropane
Concen: 50.932 ug/l
RT: 7.51 min Scan# 1043
Delta R.T. -0.00 min
Lab File: VX006659.D
Acq: 20 Dec 2018 01:11

Tgt Ion: 63 Resp: 276858

Ion	Ratio	Lower	Upper
63	100		
65	31.8	25.4	38.0

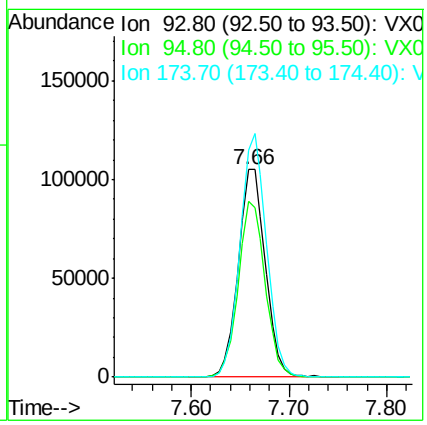




#46
Dibromomethane
Concen: 50.535 ug/l
RT: 7.66 min Scan# 1067
Delta R.T. -0.00 min
Lab File: VX006659.D
Acq: 20 Dec 2018 01:11

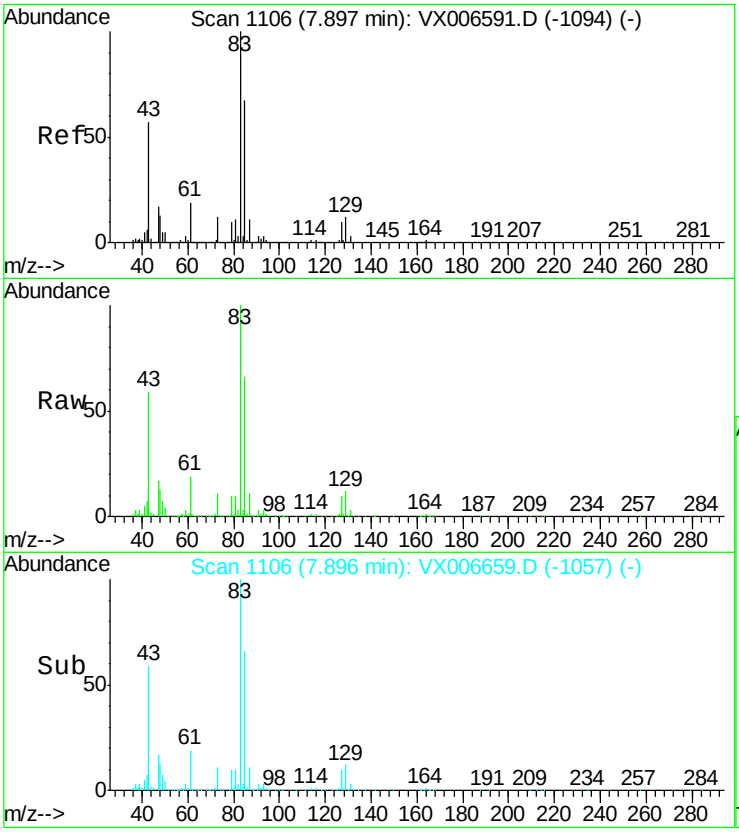
Tgt Ion: 93 Resp: 202054

Ion	Ratio	Lower	Upper
93	100		
95	84.0	66.2	99.4
174	114.3	91.0	136.4



Instrument :
MSVOA_X
ClientSampleId :
966-MW-04(23)MSD

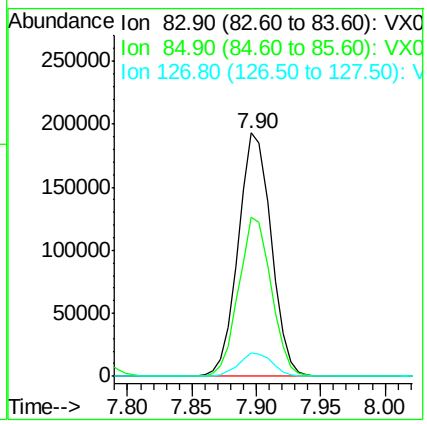
Manual Integrations APPROVED
MMDadoda
12/20/2018 10:00:51 AM

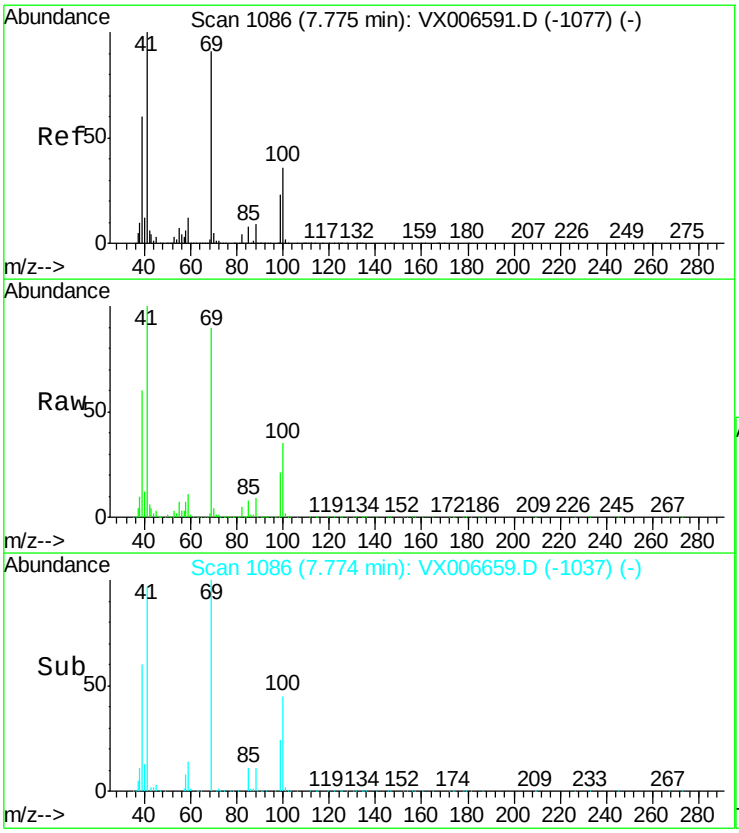


#47
Bromodichloromethane
Concen: 51.571 ug/l
RT: 7.90 min Scan# 1106
Delta R.T. -0.00 min
Lab File: VX006659.D
Acq: 20 Dec 2018 01:11

Tgt Ion: 83 Resp: 342335

Ion	Ratio	Lower	Upper
83	100		
85	65.5	53.2	79.8
127	9.7	7.8	11.6

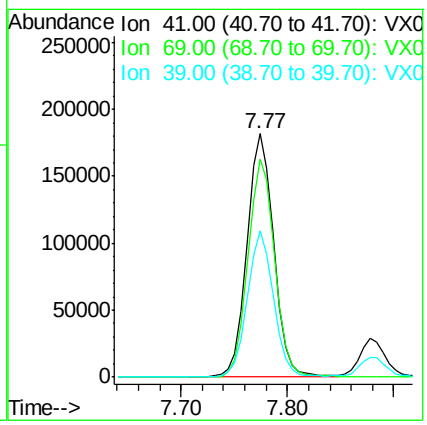




#48
Methyl methacrylate
Concen: 54.008 ug/l
RT: 7.77 min Scan# 1086
Delta R.T. -0.00 min
Lab File: VX006659.D
Acq: 20 Dec 2018 01:11

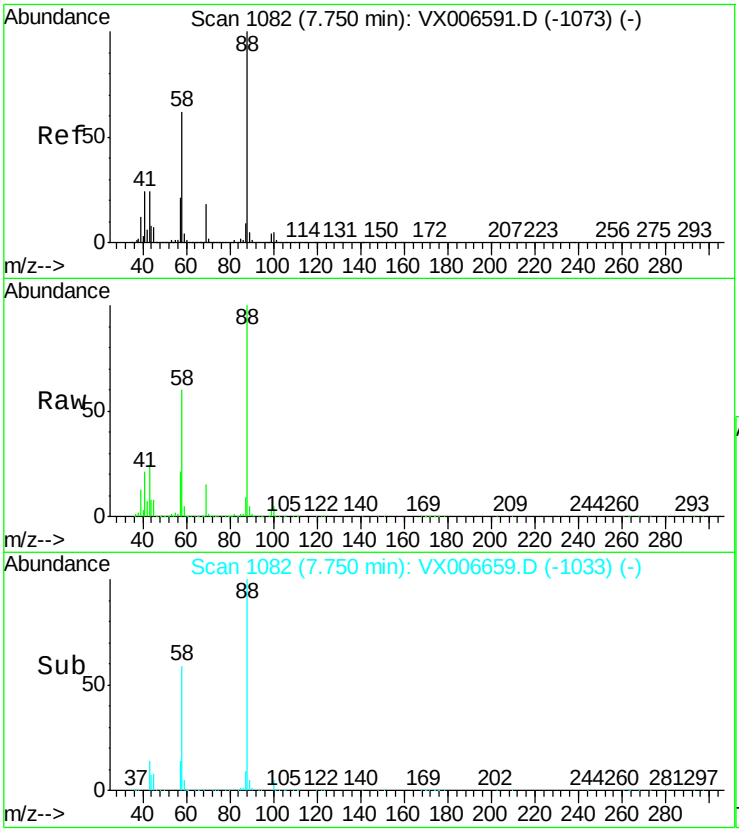
Tgt Ion: 41 Resp: 319627

Ion	Ratio	Lower	Upper
41	100		
69	89.9	72.4	108.6
39	58.8	45.8	68.8



Instrument :
MSVOA_X
ClientSampleId :
966-MW-04(23)MSD

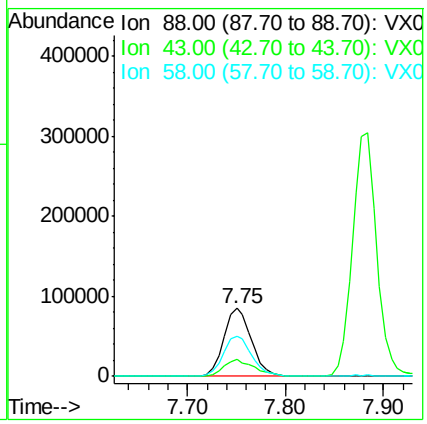
Manual Integrations APPROVED
MMDadoda
12/20/2018 10:00:51 AM

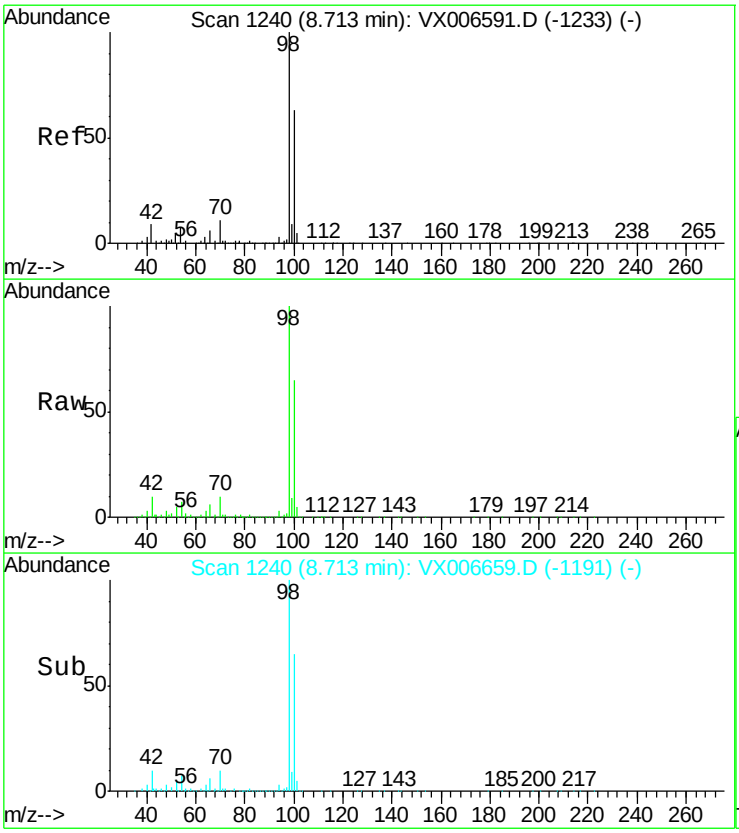


#49
1,4-Dioxane
Concen: 1070.239 ug/l
RT: 7.75 min Scan# 1082
Delta R.T. 0.00 min
Lab File: VX006659.D
Acq: 20 Dec 2018 01:11

Tgt Ion: 88 Resp: 165504

Ion	Ratio	Lower	Upper
88	100		
43	27.1	22.2	33.4
58	62.4	51.0	76.4

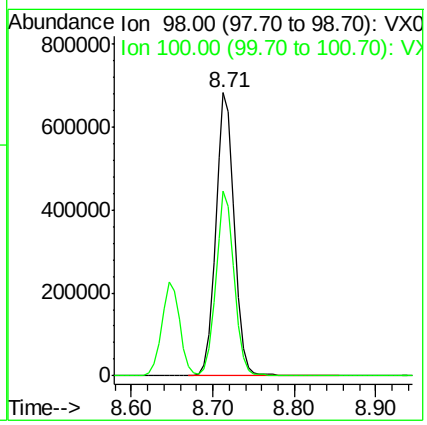




#50
Toluene-d8
Concen: 51.263 ug/l
RT: 8.71 min Scan# 1240
Delta R.T. -0.00 min
Lab File: VX006659.D
Acq: 20 Dec 2018 01:11

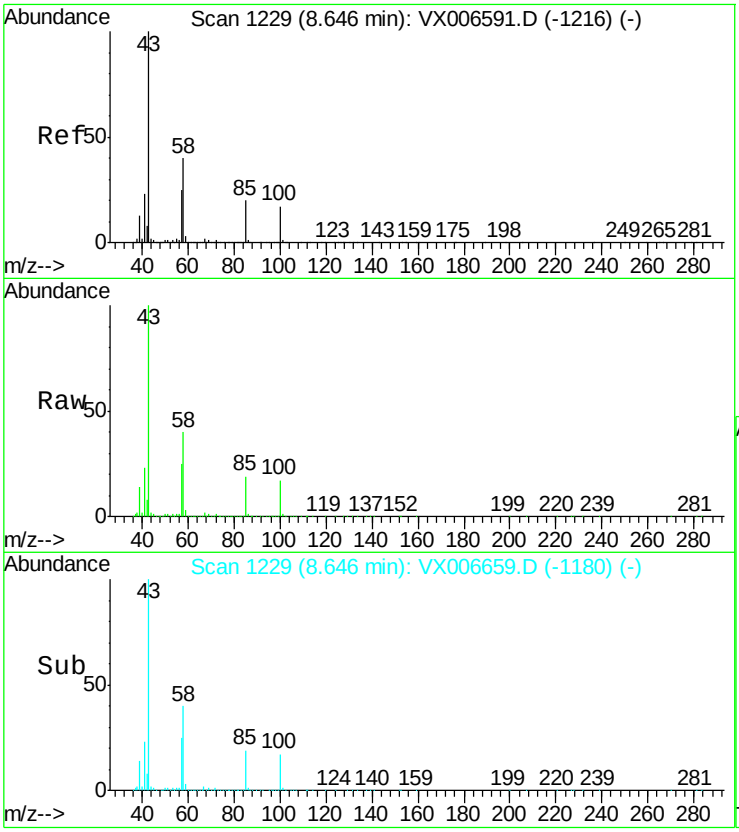
Tgt Ion: 98 Resp: 1084382

Ion	Ratio	Lower	Upper
98	100		
100	64.6	52.0	78.0



Instrument :
MSVOA_X
ClientSampleId :
966-MW-04(23)MSD

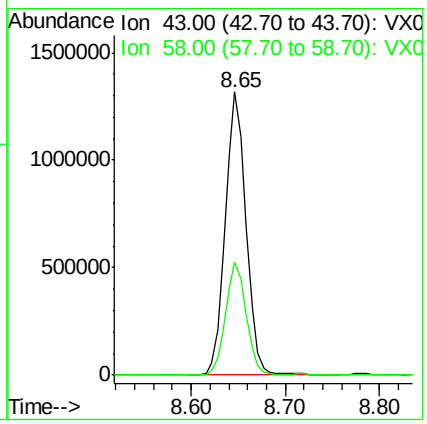
Manual Integrations APPROVED
MMDadoda
12/20/2018 10:00:51 AM

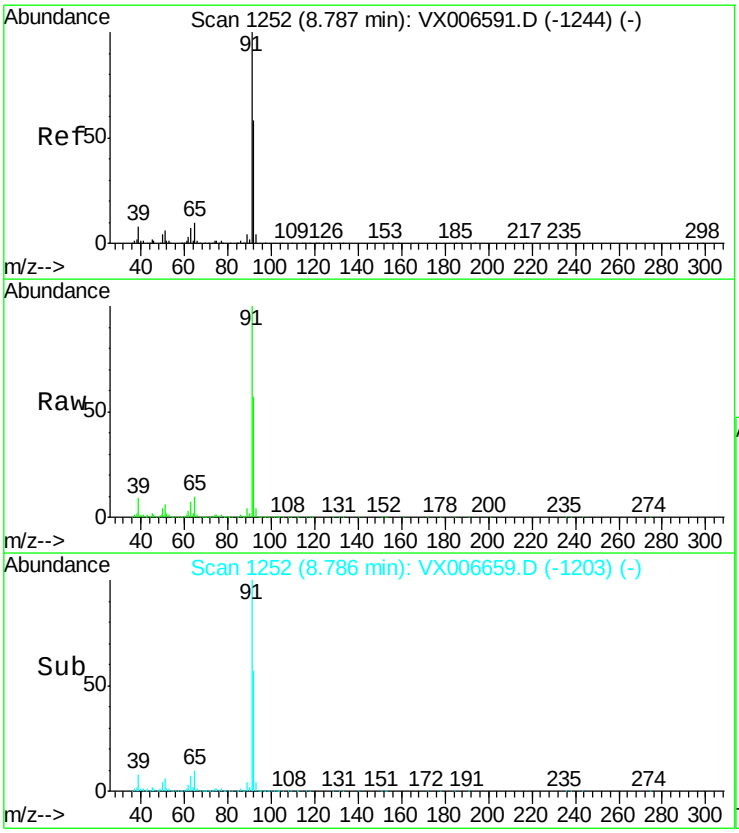


#51
4-Methyl-2-Pentanone
Concen: 271.613 ug/l
RT: 8.65 min Scan# 1229
Delta R.T. -0.00 min
Lab File: VX006659.D
Acq: 20 Dec 2018 01:11

Tgt Ion: 43 Resp: 2011221

Ion	Ratio	Lower	Upper
43	100		
58	39.5	31.8	47.6

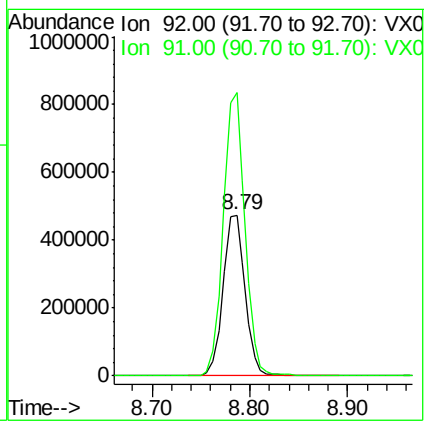




#52
Toluene
Concen: 51.188 ug/l
RT: 8.79 min Scan# 1252
Delta R.T. -0.00 min
Lab File: VX006659.D
Acq: 20 Dec 2018 01:11

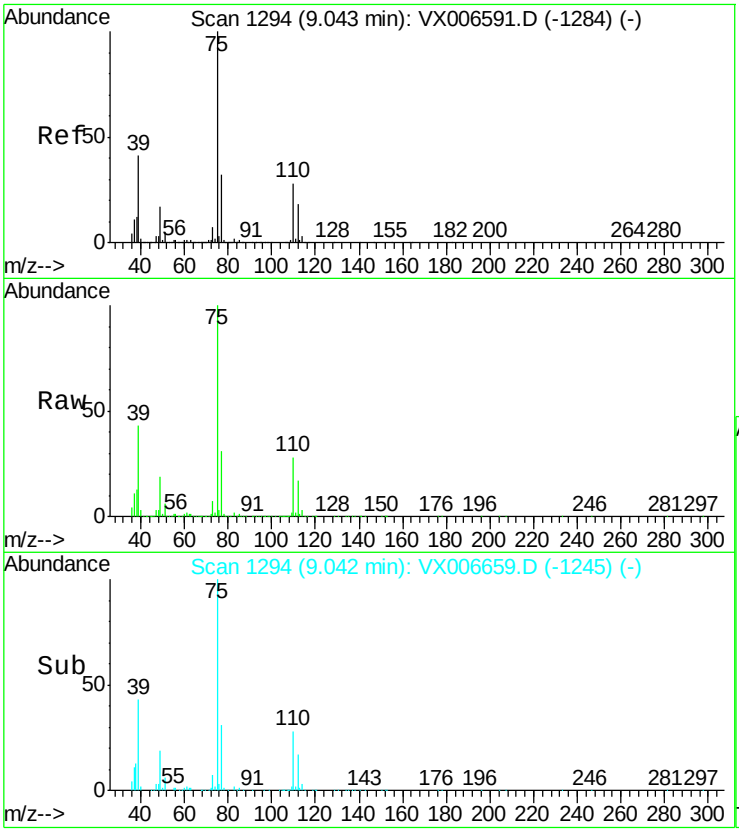
Tgt Ion: 92 Resp: 738691

Ion	Ratio	Lower	Upper
92	100		
91	174.1	137.6	206.4



Instrument :
MSVOA_X
ClientSampleId :
966-MW-04(23)MSD

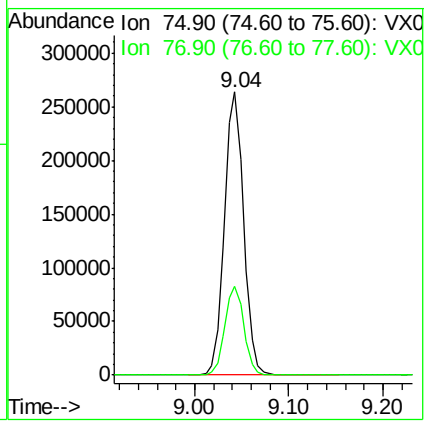
Manual Integrations APPROVED
MMDadoda
12/20/2018 10:00:51 AM

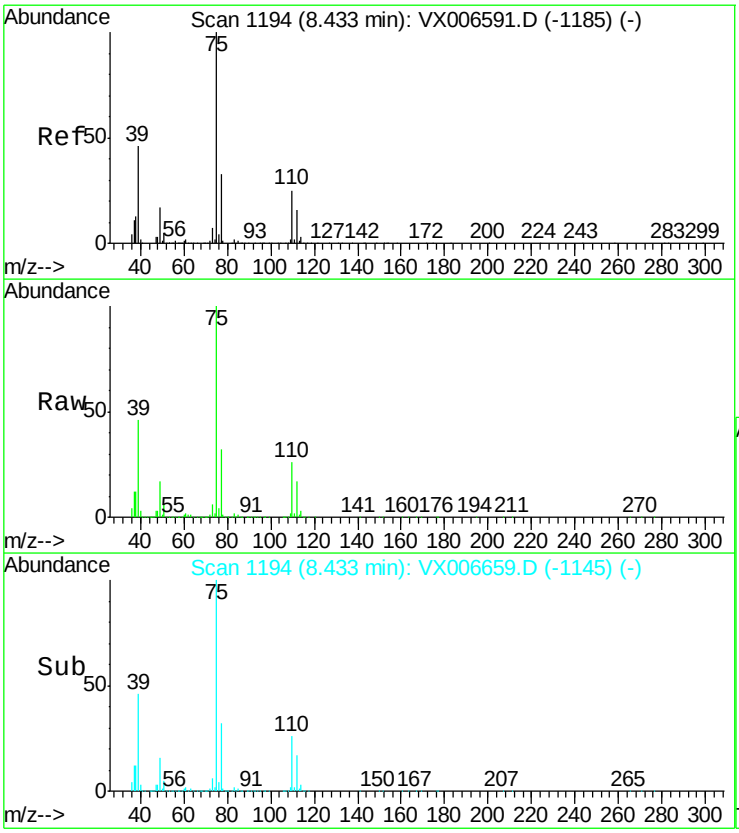


#53
t-1,3-Dichloropropene
Concen: 52.306 ug/l
RT: 9.04 min Scan# 1294
Delta R.T. -0.00 min
Lab File: VX006659.D
Acq: 20 Dec 2018 01:11

Tgt Ion: 75 Resp: 372383

Ion	Ratio	Lower	Upper
75	100		
77	31.4	25.4	38.0

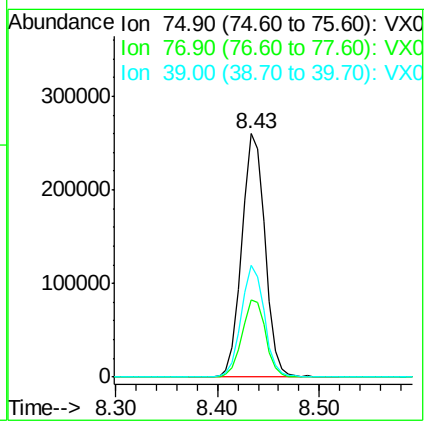




#54
cis-1,3-Dichloropropene
Concen: 52.406 ug/l
RT: 8.43 min Scan# 1194
Delta R.T. -0.00 min
Lab File: VX006659.D
Acq: 20 Dec 2018 01:11

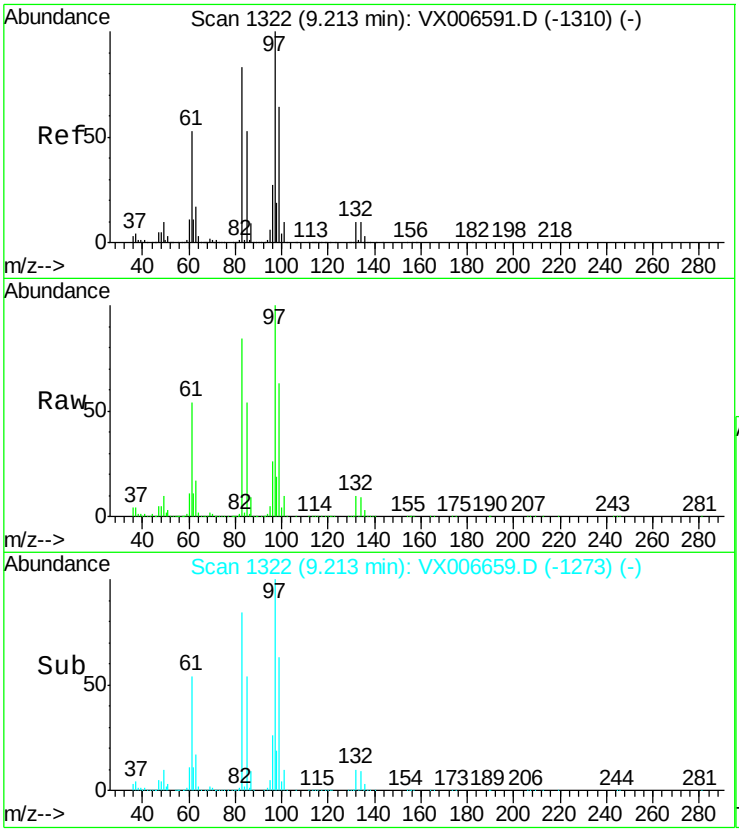
Tgt Ion: 75 Resp: 409379

Ion	Ratio	Lower	Upper
75	100		
77	31.5	26.2	39.2
39	45.6	36.7	55.1



Instrument :
MSVOA_X
ClientSampleId :
966-MW-04(23)MSD

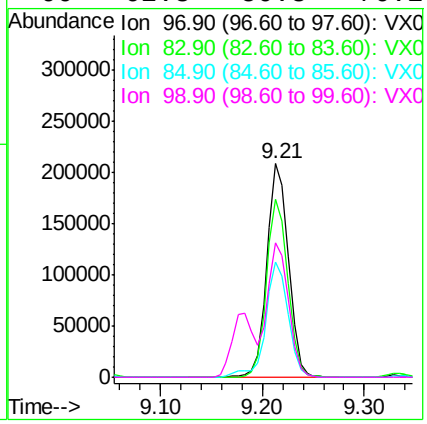
Manual Integrations APPROVED
MMDadoda
12/20/2018 10:00:51 AM

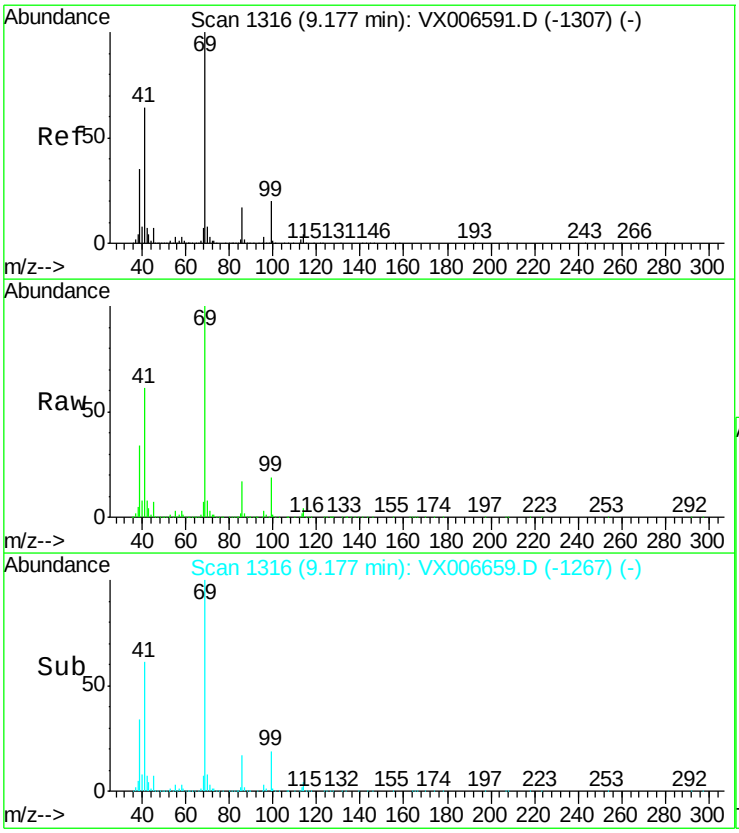


#55
1,1,2-Trichloroethane
Concen: 51.610 ug/l
RT: 9.21 min Scan# 1322
Delta R.T. -0.00 min
Lab File: VX006659.D
Acq: 20 Dec 2018 01:11

Tgt Ion: 97 Resp: 304853

Ion	Ratio	Lower	Upper
97	100		
83	83.5	66.6	99.8
85	53.8	42.7	64.1
99	62.8	50.8	76.2

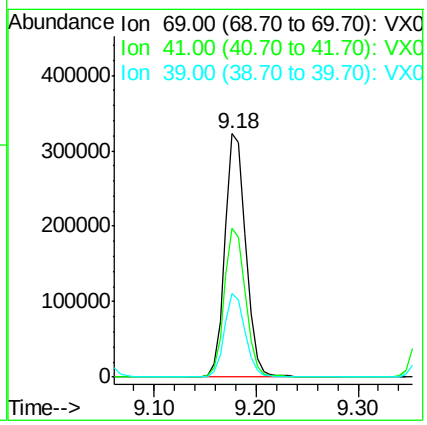




#56
Ethyl methacrylate
Concen: 54.871 ug/l
RT: 9.18 min Scan# 1316
Delta R.T. -0.00 min
Lab File: VX006659.D
Acq: 20 Dec 2018 01:11

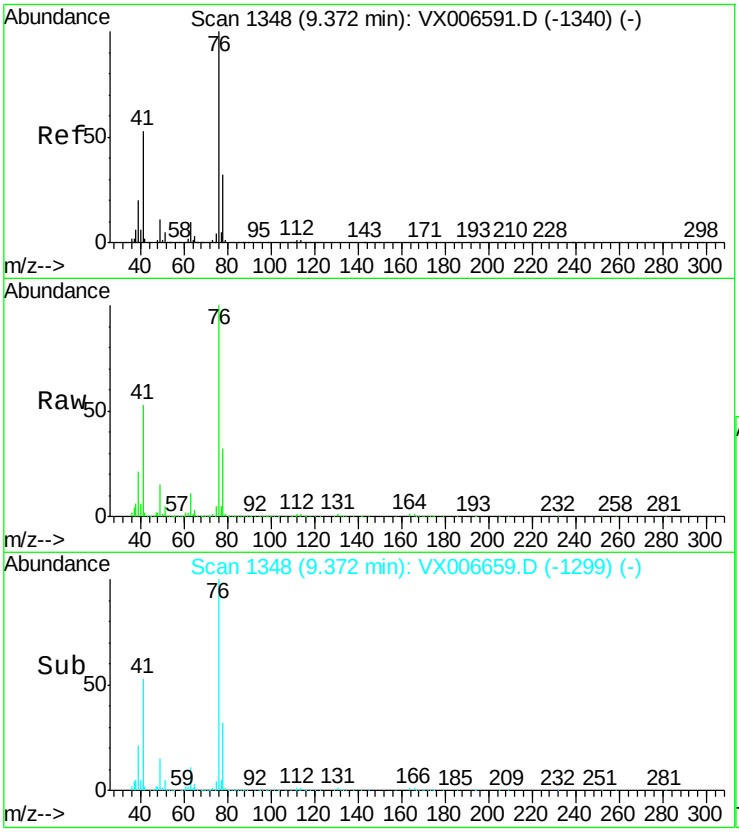
Tgt Ion: 69 Resp: 458092

Ion	Ratio	Lower	Upper
69	100		
41	61.9	48.7	73.1
39	33.9	27.0	40.6



Instrument :
MSVOA_X
ClientSampleId :
966-MW-04(23)MSD

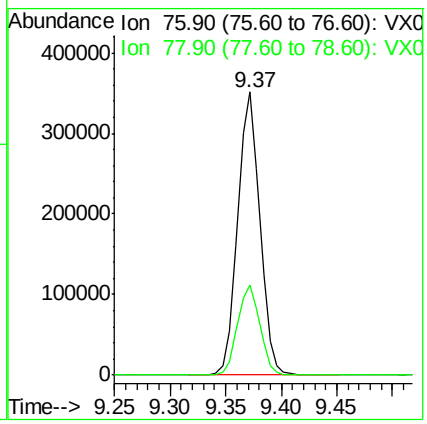
Manual Integrations APPROVED
MMDadoda
12/20/2018 10:00:51 AM

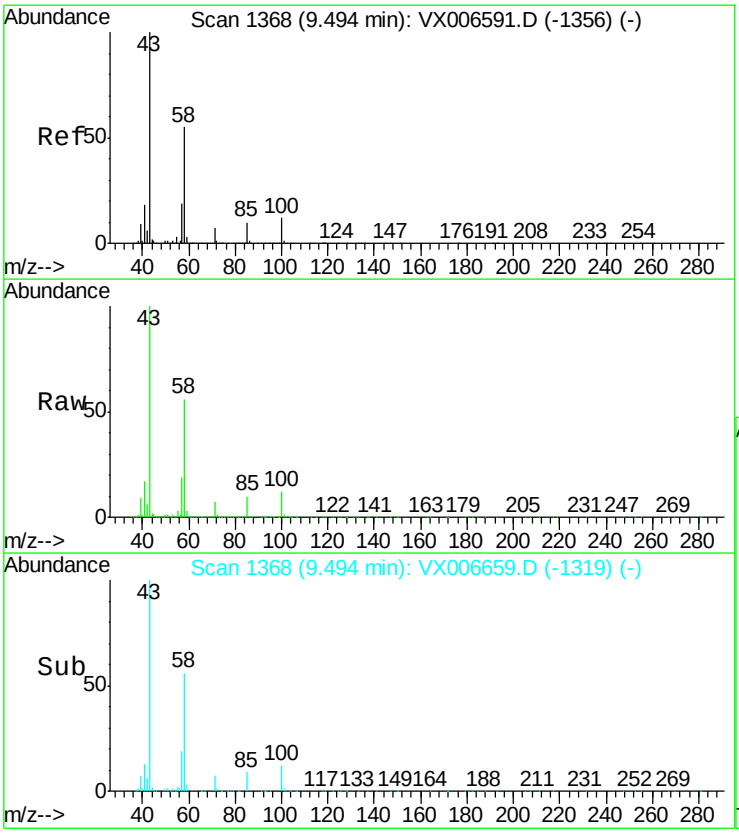


#57
1,3-Dichloropropane
Concen: 51.033 ug/l
RT: 9.37 min Scan# 1348
Delta R.T. -0.00 min
Lab File: VX006659.D
Acq: 20 Dec 2018 01:11

Tgt Ion: 76 Resp: 484991

Ion	Ratio	Lower	Upper
76	100		
78	32.0	26.0	39.0

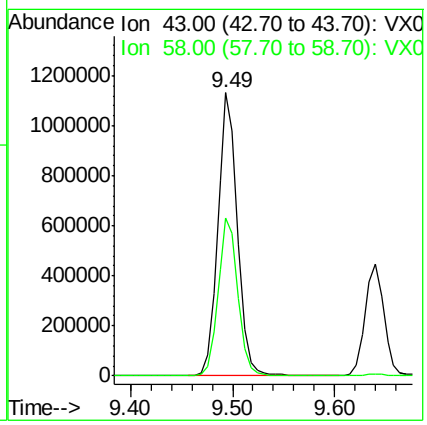




#59
2-Hexanone
Concen: 267.885 ug/l
RT: 9.49 min Scan# 1368
Delta R.T. -0.00 min
Lab File: VX006659.D
Acq: 20 Dec 2018 01:11

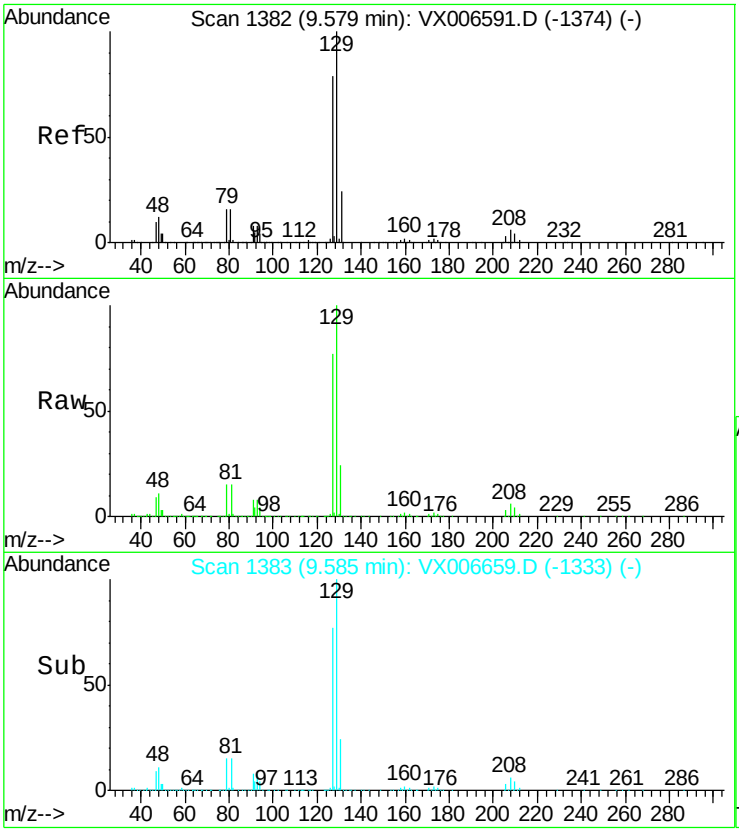
Tgt Ion: 43 Resp: 1517696

Ion	Ratio	Lower	Upper
43	100		
58	56.4	27.7	83.1



Instrument :
MSVOA_X
ClientSampleId :
966-MW-04(23)MSD

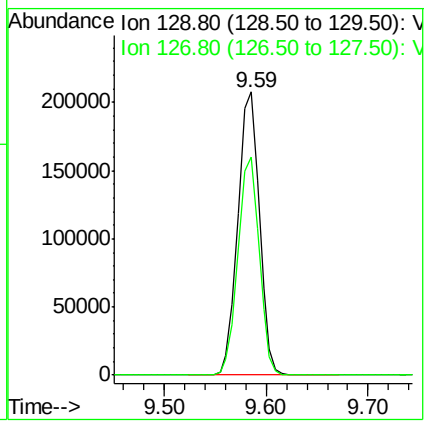
Manual Integrations APPROVED
MMDadoda
12/20/2018 10:00:51 AM

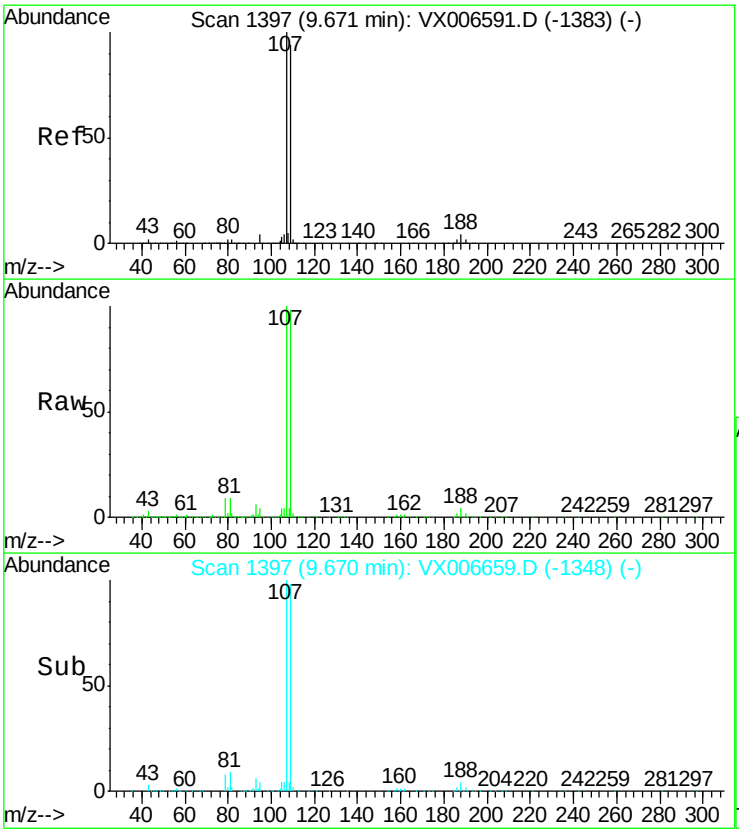


#60
Dibromochloromethane
Concen: 48.785 ug/l
RT: 9.59 min Scan# 1383
Delta R.T. 0.01 min
Lab File: VX006659.D
Acq: 20 Dec 2018 01:11

Tgt Ion:129 Resp: 301021

Ion	Ratio	Lower	Upper
129	100		
127	76.5	39.3	117.8

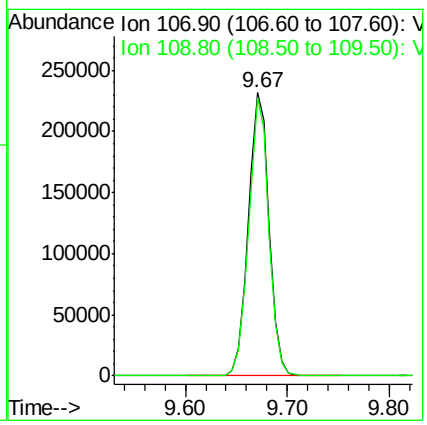




#61
1,2-Dibromoethane
Concen: 52.251 ug/l
RT: 9.67 min Scan# 1397
Delta R.T. -0.00 min
Lab File: VX006659.D
Acq: 20 Dec 2018 01:11

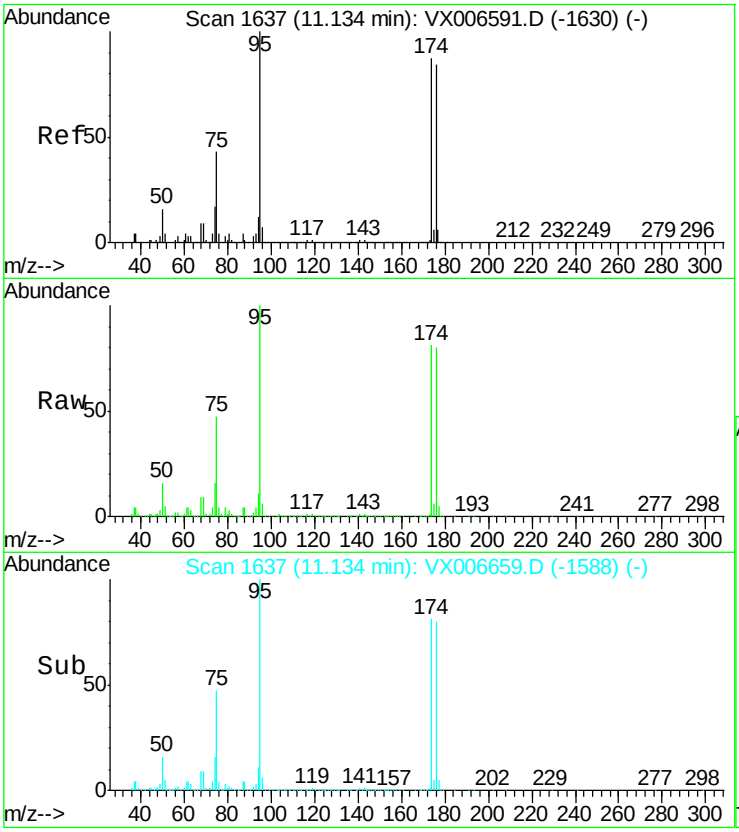
Tgt Ion:107 Resp: 328094

Ion	Ratio	Lower	Upper
107	100		
109	95.4	75.8	113.6



Instrument :
MSVOA_X
ClientSampleId :
966-MW-04(23)MSD

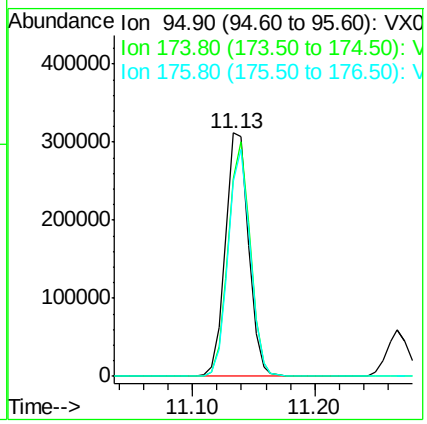
Manual Integrations APPROVED
MMDadoda
12/20/2018 10:00:51 AM

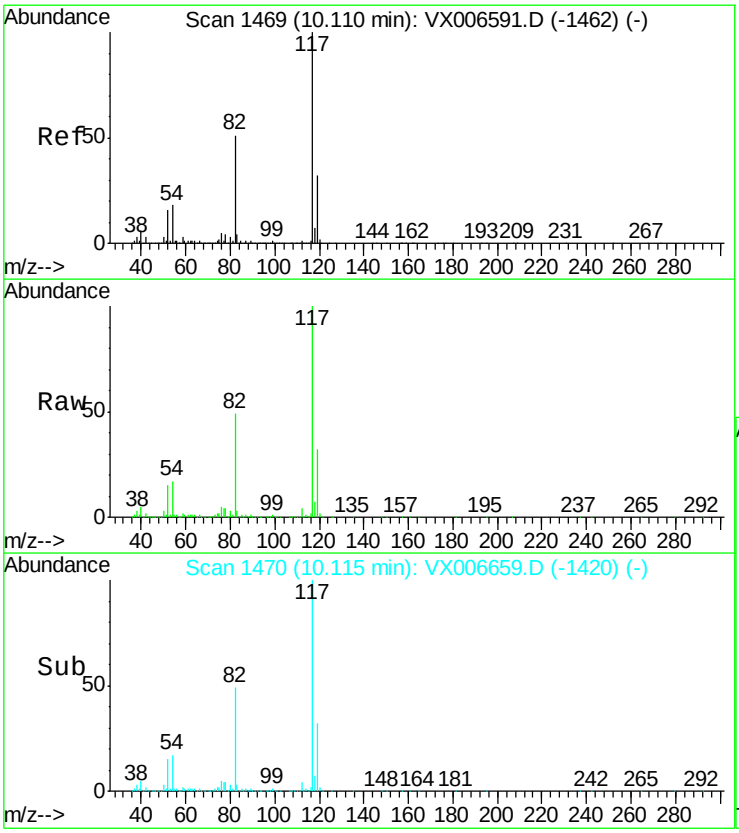


#62
4-Bromofluorobenzene
Concen: 52.632 ug/l
RT: 11.13 min Scan# 1637
Delta R.T. -0.00 min
Lab File: VX006659.D
Acq: 20 Dec 2018 01:11

Tgt Ion: 95 Resp: 407754

Ion	Ratio	Lower	Upper
95	100		
174	91.9	0.0	182.2
176	88.5	0.0	178.8

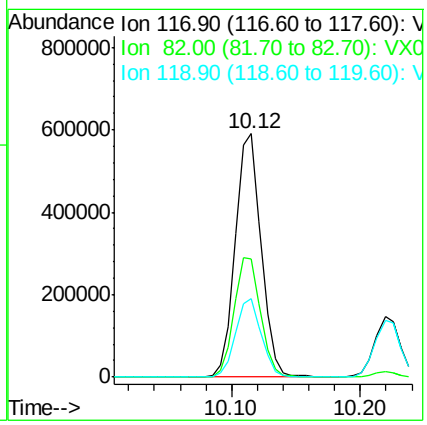




#63
Chlorobenzene-d5
Concen: 50.000 ug/l
RT: 10.12 min Scan# 1470
Delta R.T. 0.01 min
Lab File: VX006659.D
Acq: 20 Dec 2018 01:11

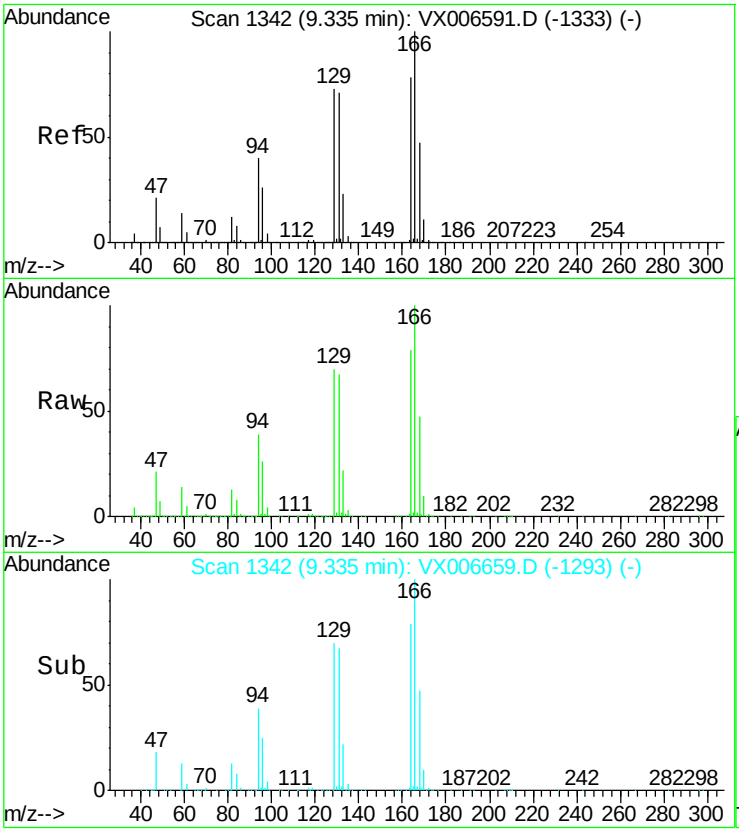
Tgt Ion:117 Resp: 826660

Ion	Ratio	Lower	Upper
117	100		
82	48.7	41.0	61.6
119	32.2	25.4	38.0



Instrument :
MSVOA_X
ClientSampleId :
966-MW-04(23)MSD

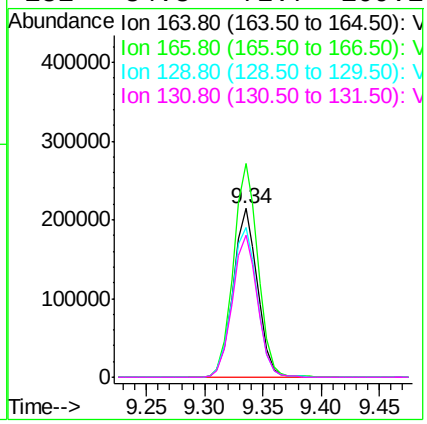
Manual Integrations APPROVED
MMDadoda
12/20/2018 10:00:51 AM

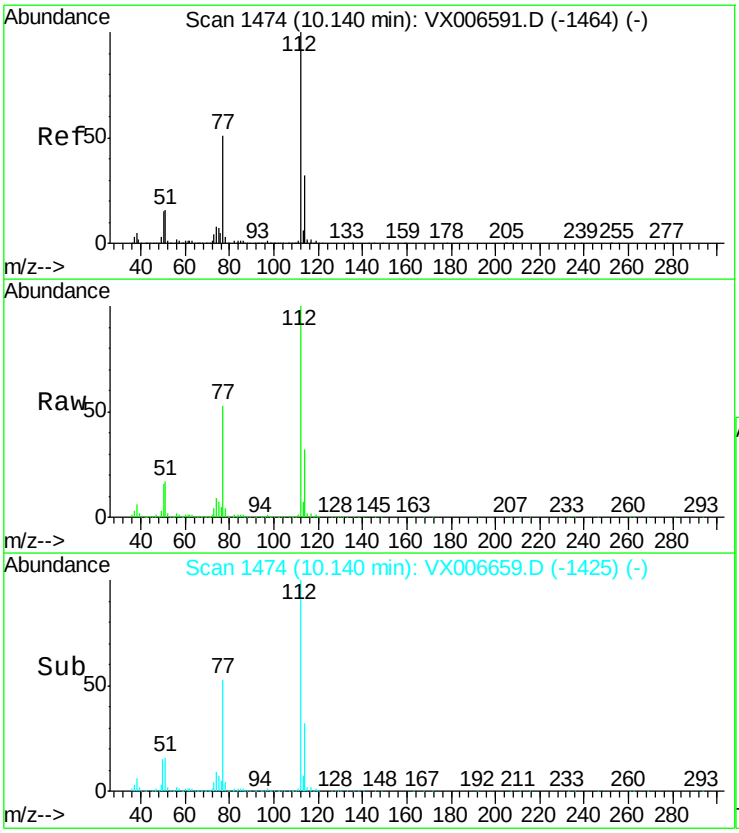


#64
Tetrachloroethene
Concen: 47.701 ug/l
RT: 9.34 min Scan# 1342
Delta R.T. -0.00 min
Lab File: VX006659.D
Acq: 20 Dec 2018 01:11

Tgt Ion:164 Resp: 312248

Ion	Ratio	Lower	Upper
164	100		
166	126.6	102.5	153.7
129	88.6	75.1	112.7
131	84.3	72.7	109.1

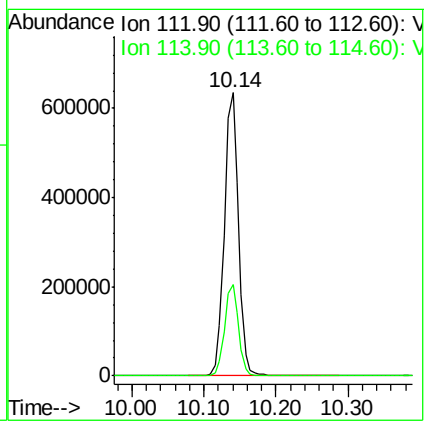


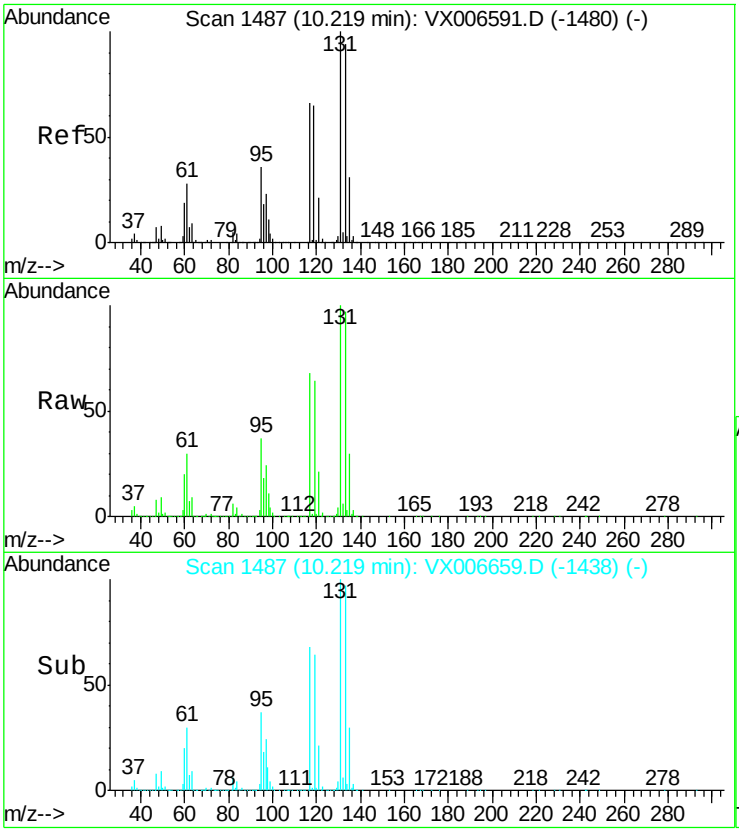


#65
Chlorobenzene
Concen: 49.553 ug/l
RT: 10.14 min Scan# 1474
Delta R.T. -0.00 min
Lab File: VX006659.D
Acq: 20 Dec 2018 01:11

Tgt Ion:112 Resp: 866626

Ion	Ratio	Lower	Upper
112	100		
114	32.5	25.7	38.5

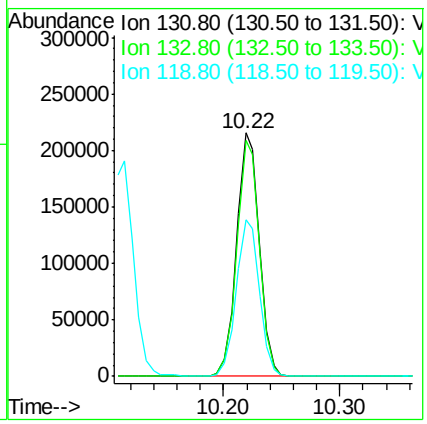




#66
1,1,1,2-Tetrachloroethane
Concen: 53.533 ug/l
RT: 10.22 min Scan# 1487
Delta R.T. -0.00 min
Lab File: VX006659.D
Acq: 20 Dec 2018 01:11

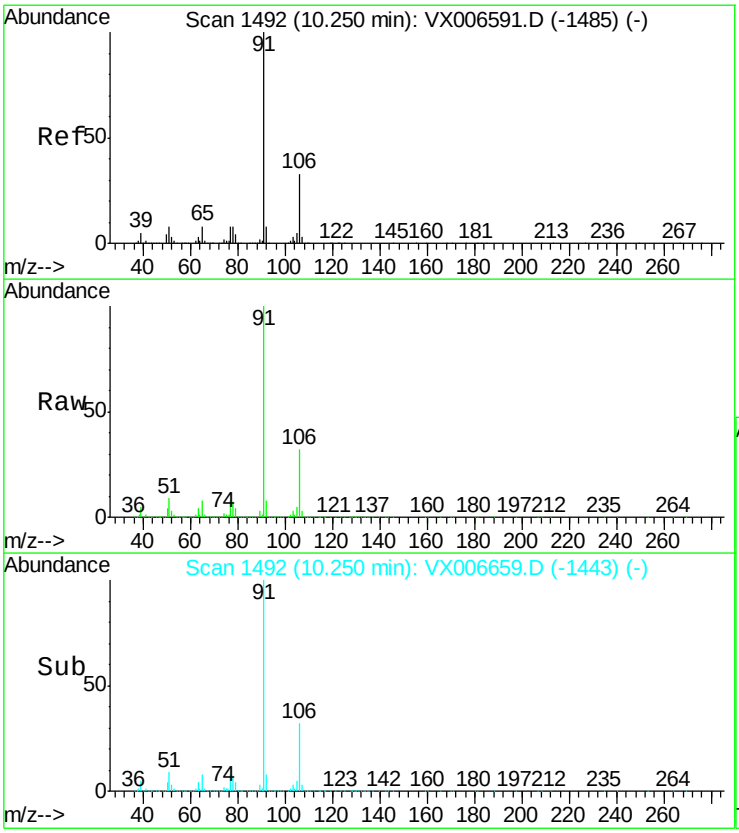
Tgt Ion:131 Resp: 292096

Ion	Ratio	Lower	Upper
131	100		
133	96.3	48.0	144.2
119	65.5	32.6	97.8



Instrument :
MSVOA_X
ClientSampleId :
966-MW-04(23)MSD

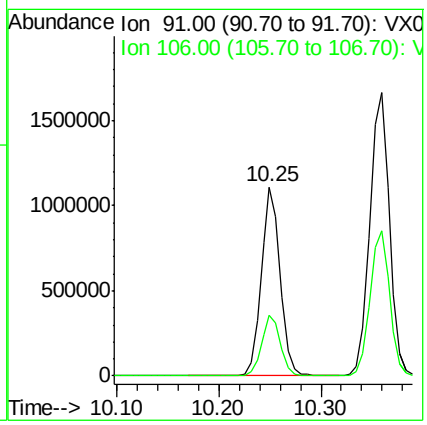
Manual Integrations APPROVED
MMDadoda
12/20/2018 10:00:51 AM



#67
Ethyl Benzene
Concen: 50.240 ug/l
RT: 10.25 min Scan# 1492
Delta R.T. -0.00 min
Lab File: VX006659.D
Acq: 20 Dec 2018 01:11

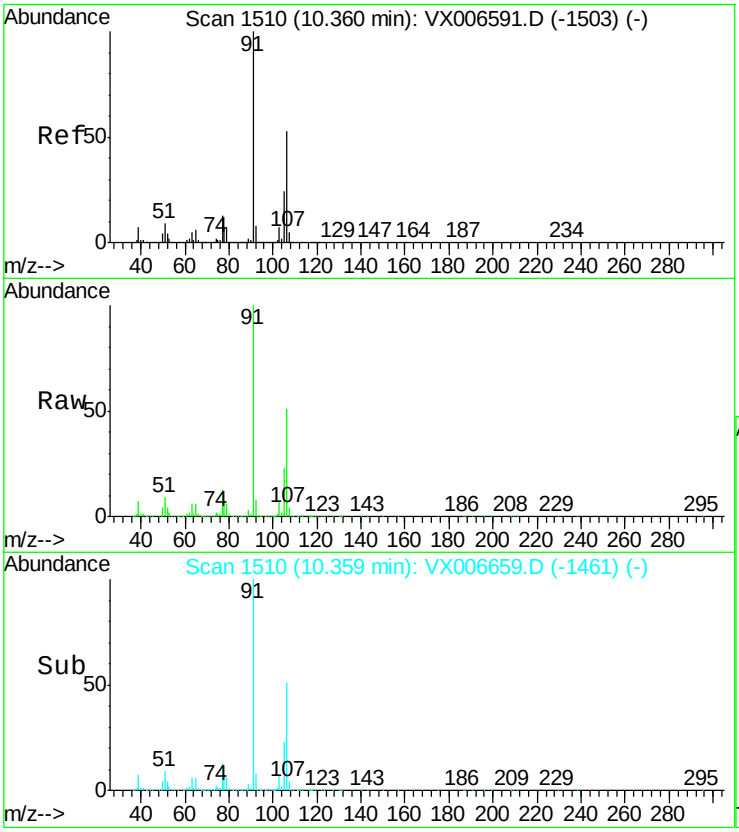
Tgt Ion: 91 Resp: 1435757

Ion	Ratio	Lower	Upper
91	100		
106	32.2	26.4	39.6



Instrument :
MSVOA_X
ClientSampleId :
966-MW-04(23)MSD

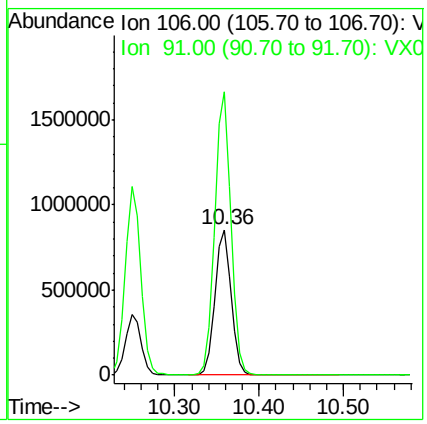
Manual Integrations APPROVED
MMDadoda
12/20/2018 10:00:51 AM

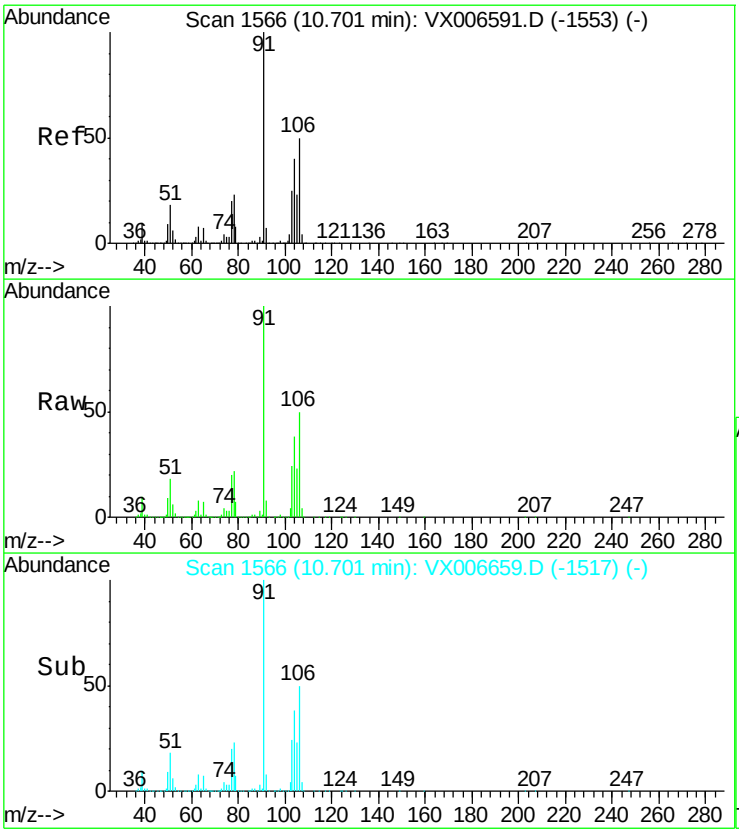


#68
m/p-Xylenes
Concen: 101.258 ug/l
RT: 10.36 min Scan# 1510
Delta R.T. -0.00 min
Lab File: VX006659.D
Acq: 20 Dec 2018 01:11

Tgt Ion:106 Resp: 1141855

Ion	Ratio	Lower	Upper
106	100		
91	194.8	155.8	233.6

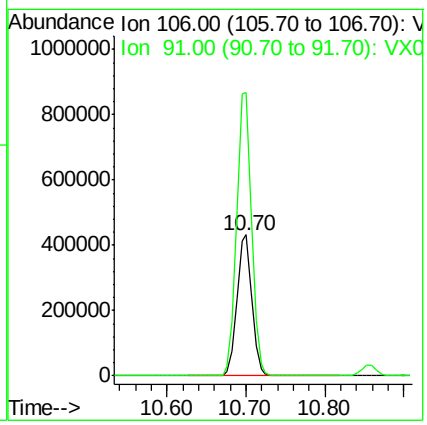




#69
o-Xylene
Concen: 51.263 ug/l
RT: 10.70 min Scan# 1566
Delta R.T. -0.00 min
Lab File: VX006659.D
Acq: 20 Dec 2018 01:11

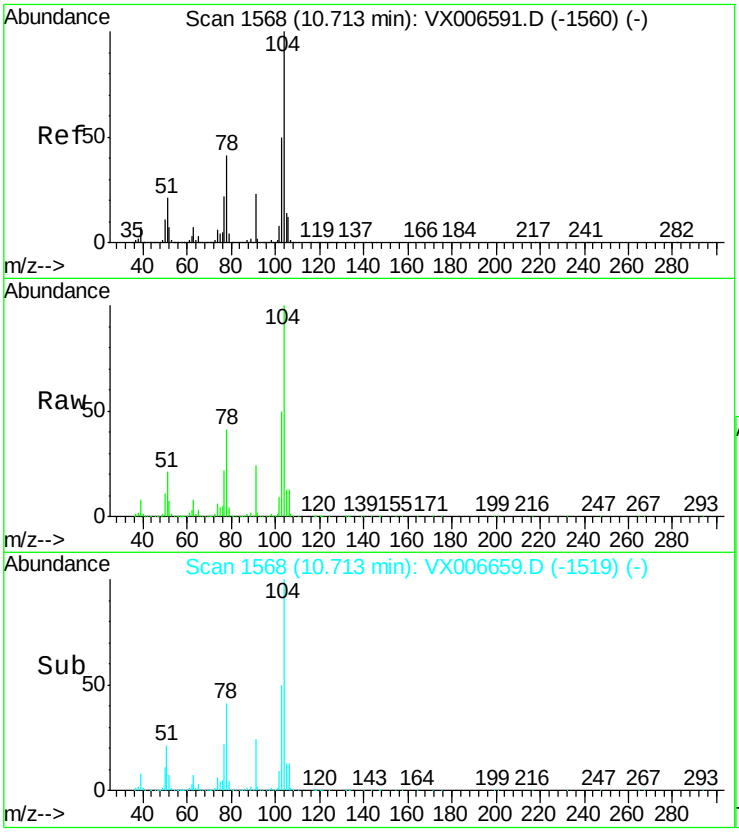
Tgt Ion:106 Resp: 570842

Ion	Ratio	Lower	Upper
106	100		
91	203.1	101.3	303.7



Instrument :
MSVOA_X
ClientSampleId :
966-MW-04(23)MSD

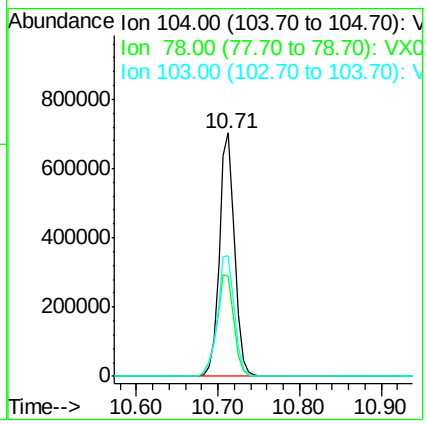
Manual Integrations APPROVED
MMDadoda
12/20/2018 10:00:51 AM

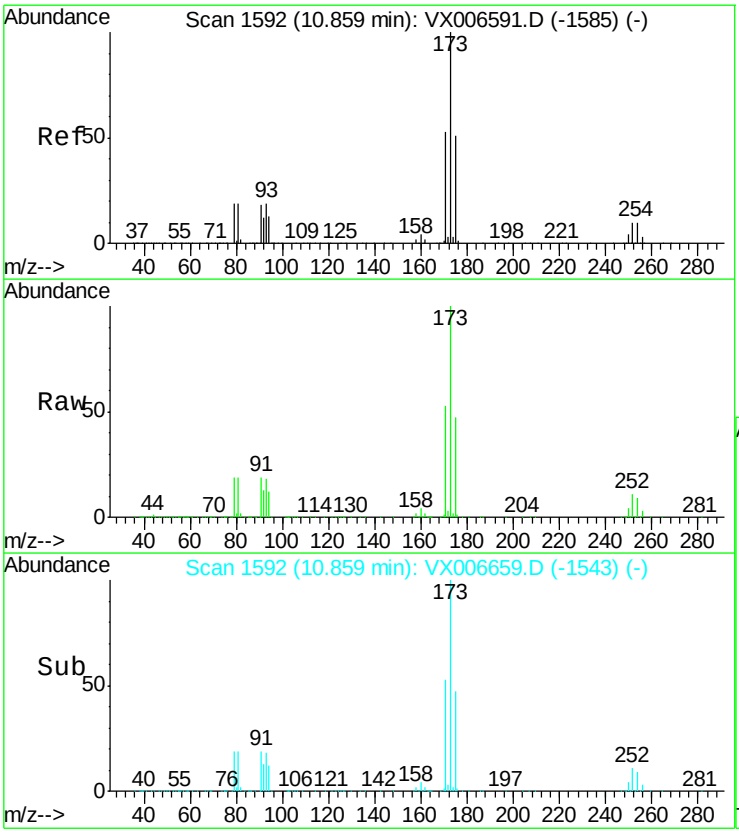


#70
Stvrene
Concen: 52.267 ug/l
RT: 10.71 min Scan# 1568
Delta R.T. -0.00 min
Lab File: VX006659.D
Acq: 20 Dec 2018 01:11

Tgt Ion:104 Resp: 920783

Ion	Ratio	Lower	Upper
104	100		
78	47.5	37.7	56.5
103	55.5	43.8	65.8

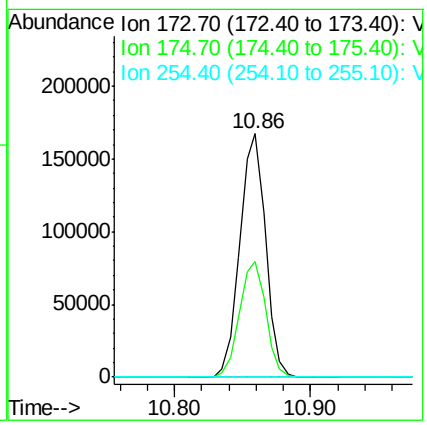


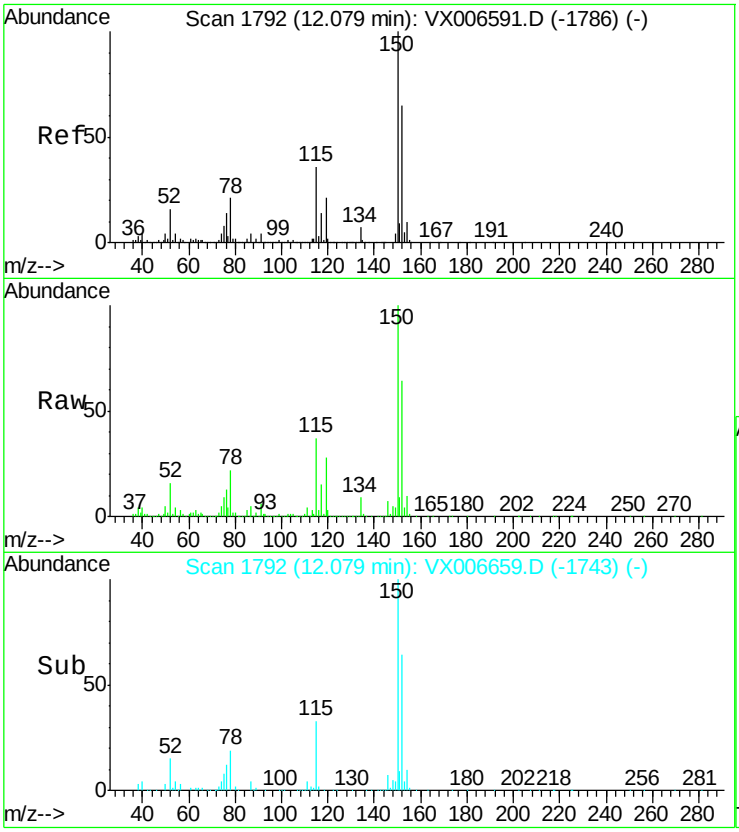


#71
Bromoform
Concen: 45.379 ug/l
RT: 10.86 min Scan# 1592
Delta R.T. 0.00 min
Lab File: VX006659.D
Acq: 20 Dec 2018 01:11

Tgt Ion:173 Resp: 221120

Ion	Ratio	Lower	Upper
173	100		
175	48.5	24.7	74.1
254	0.2	0.2	0.2

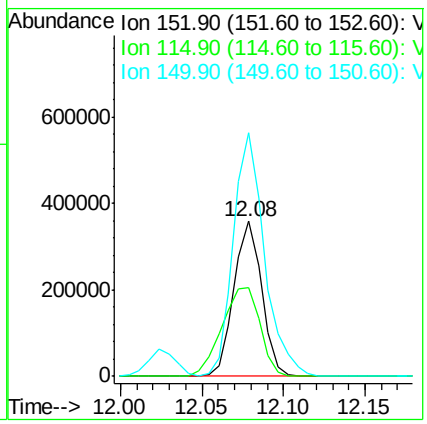




#72
1,4-Dichlorobenzene-d4
Concen: 50.000 ug/l
RT: 12.08 min Scan# 1792
Delta R.T. -0.00 min
Lab File: VX006659.D
Acq: 20 Dec 2018 01:11

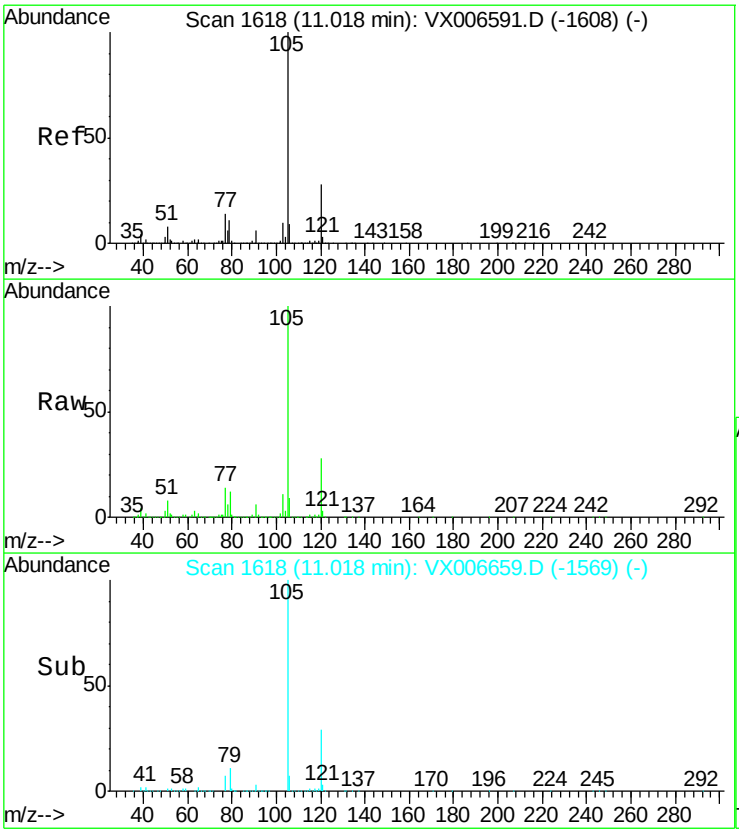
Tgt Ion:152 Resp: 428595

Ion	Ratio	Lower	Upper
152	100		
115	78.6	39.1	117.2
150	174.7	0.0	344.8



Instrument :
MSVOA_X
ClientSampleId :
966-MW-04(23)MSD

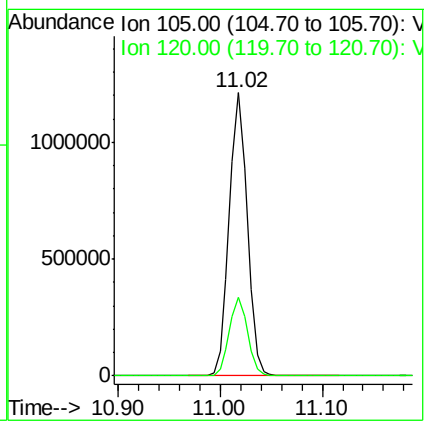
Manual Integrations APPROVED
MMDadoda
12/20/2018 10:00:51 AM



#73
Isopropylbenzene
Concen: 50.505 ug/l
RT: 11.02 min Scan# 1618
Delta R.T. -0.00 min
Lab File: VX006659.D
Acq: 20 Dec 2018 01:11

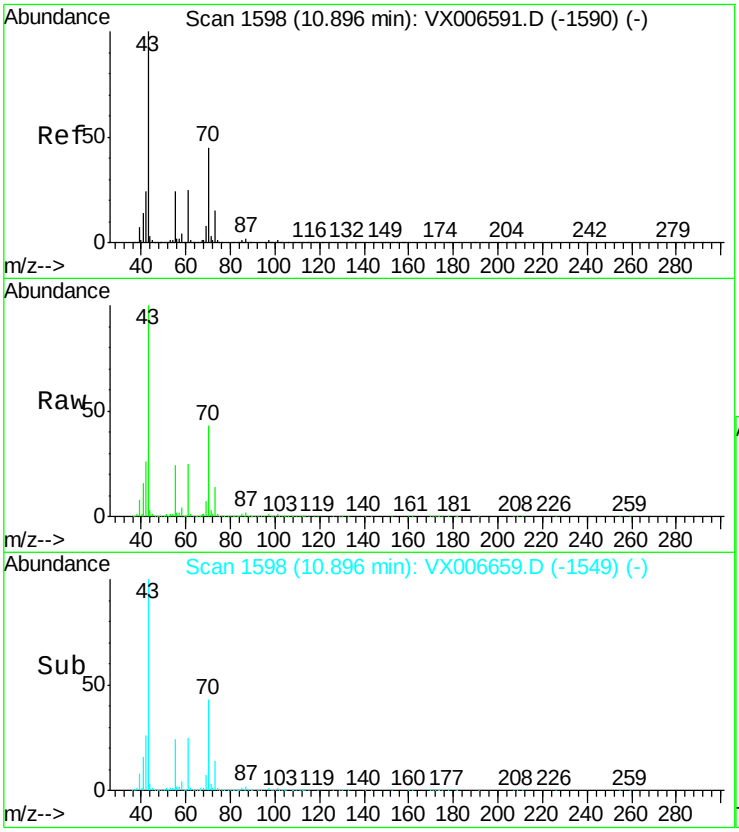
Tgt Ion:105 Resp: 1480856

Ion	Ratio	Lower	Upper
105	100		
120	28.2	14.1	42.4



Instrument :
MSVOA_X
ClientSampleId :
966-MW-04(23)MSD

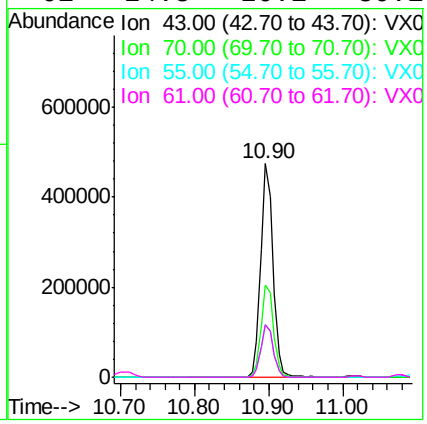
Manual Integrations APPROVED
MMDadoda
12/20/2018 10:00:51 AM

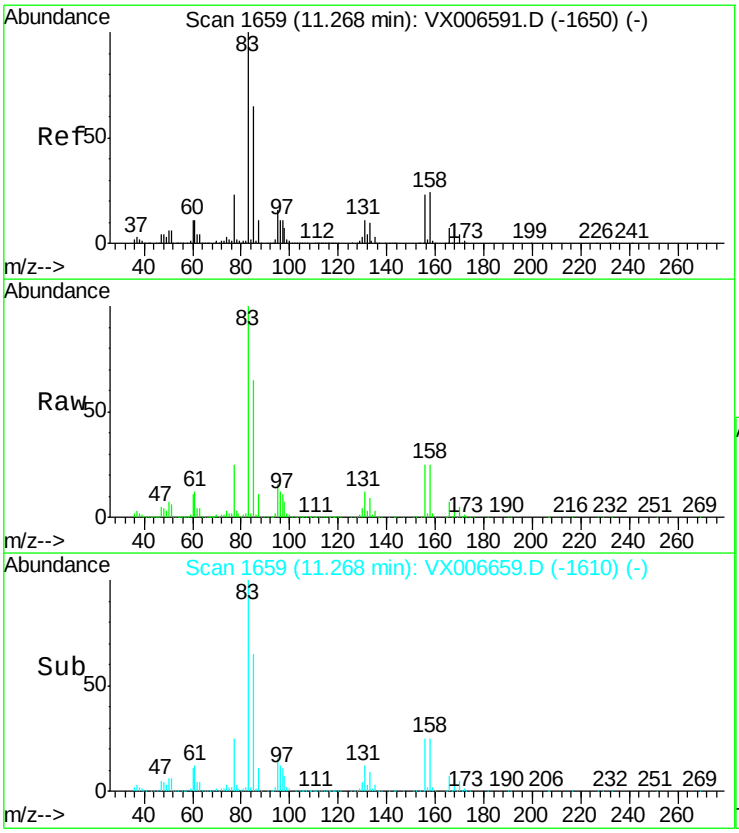


#74
N-amyl acetate
Concen: 53.007 ug/l
RT: 10.90 min Scan# 1598
Delta R.T. -0.00 min
Lab File: VX006659.D
Acq: 20 Dec 2018 01:11

Tgt Ion: 43 Resp: 556322

Ion	Ratio	Lower	Upper
43	100		
70	44.2	35.8	53.8
55	24.6	19.4	29.0
61	24.8	20.1	30.1

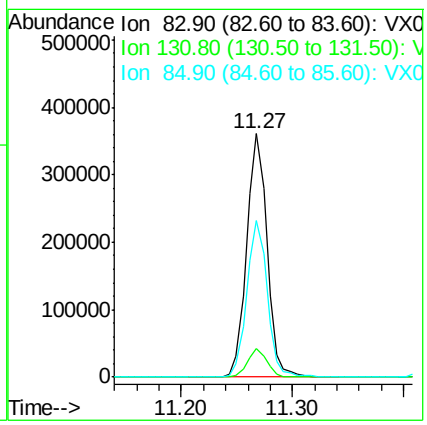




#75
1,1,2,2-Tetrachloroethane
Concen: 52.432 ug/l
RT: 11.27 min Scan# 1659
Delta R.T. -0.00 min
Lab File: VX006659.D
Acq: 20 Dec 2018 01:11

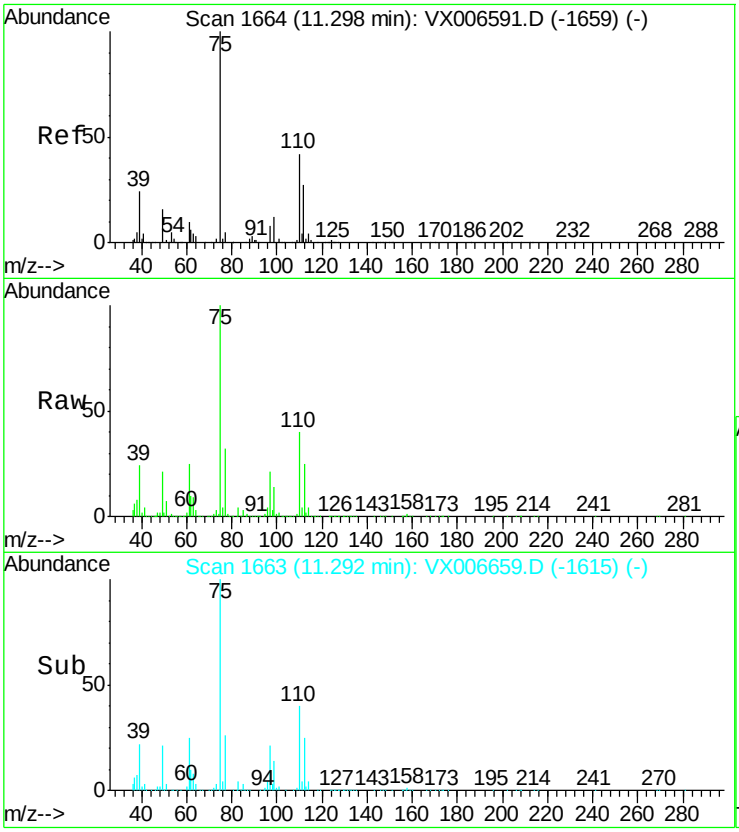
Tgt Ion: 83 Resp: 457210

Ion	Ratio	Lower	Upper
83	100		
131	11.2	5.7	17.1
85	64.7	32.2	96.6



Instrument :
MSVOA_X
ClientSampleId :
966-MW-04(23)MSD

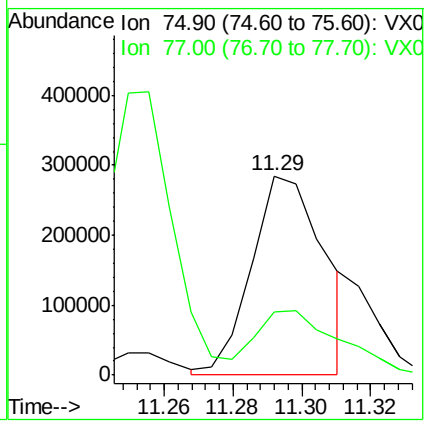
Manual Integrations APPROVED
MMDadoda
12/20/2018 10:00:51 AM

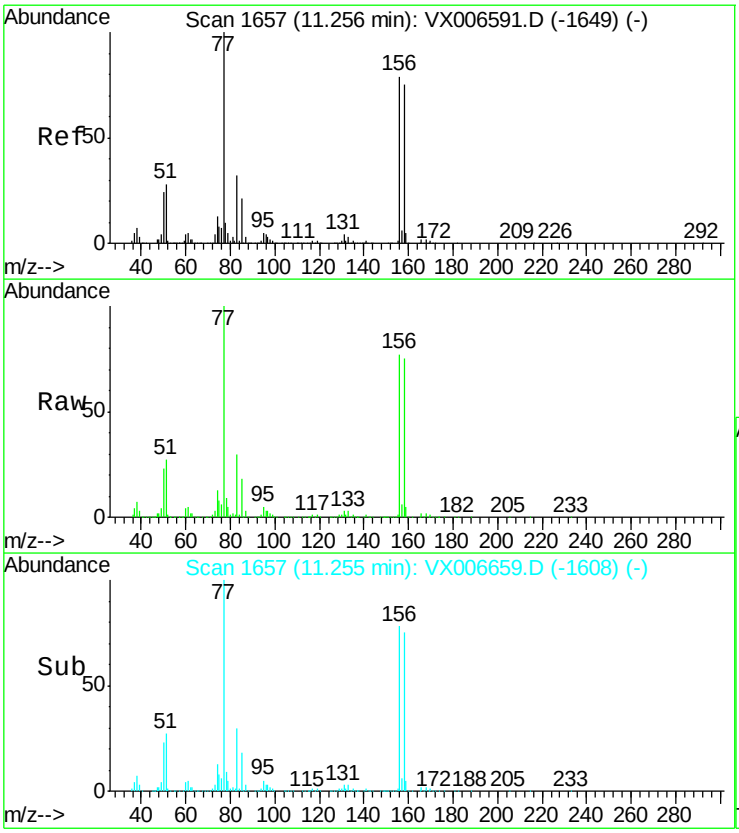


#76
1,2,3-Trichloropropane
Concen: 52.325 ug/l m
RT: 11.29 min Scan# 1663
Delta R.T. -0.01 min
Lab File: VX006659.D
Acq: 20 Dec 2018 01:11

Tgt Ion: 75 Resp: 416773

Ion	Ratio	Lower	Upper
75	100		
77	37.5	18.5	55.5

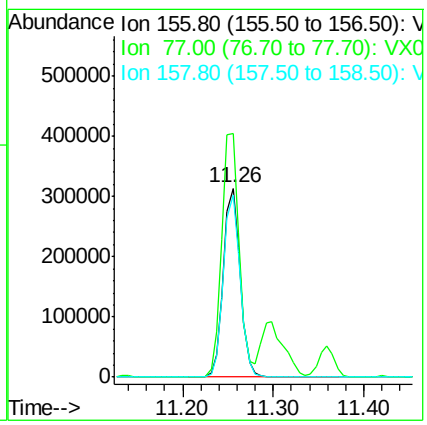




#77
Bromobenzene
Concen: 51.217 ug/l
RT: 11.26 min Scan# 1657
Delta R.T. -0.00 min
Lab File: VX006659.D
Acq: 20 Dec 2018 01:11

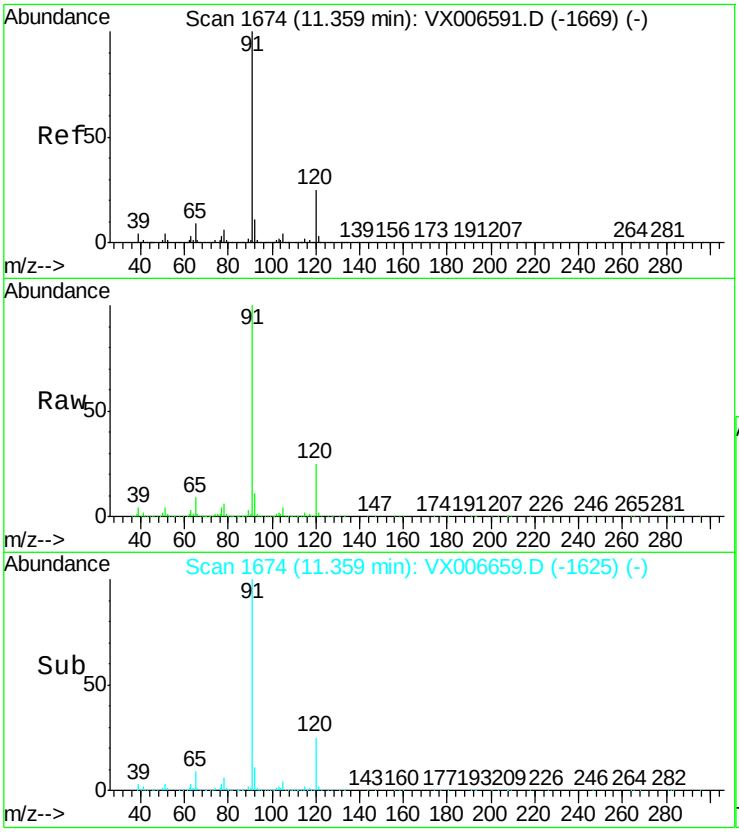
Tgt Ion:156 Resp: 406002

Ion	Ratio	Lower	Upper
156	100		
77	135.6	68.0	204.0
158	96.9	48.3	144.8



Instrument :
MSVOA_X
ClientSampleId :
966-MW-04(23)MSD

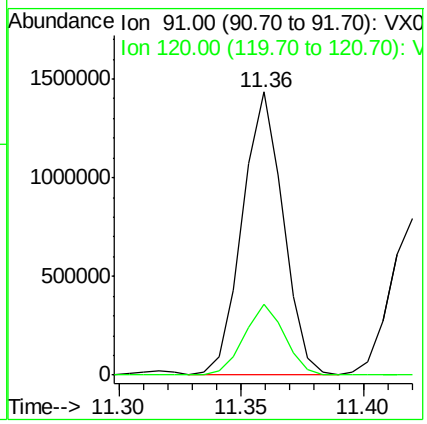
Manual Integrations APPROVED
MMDadoda
12/20/2018 10:00:51 AM

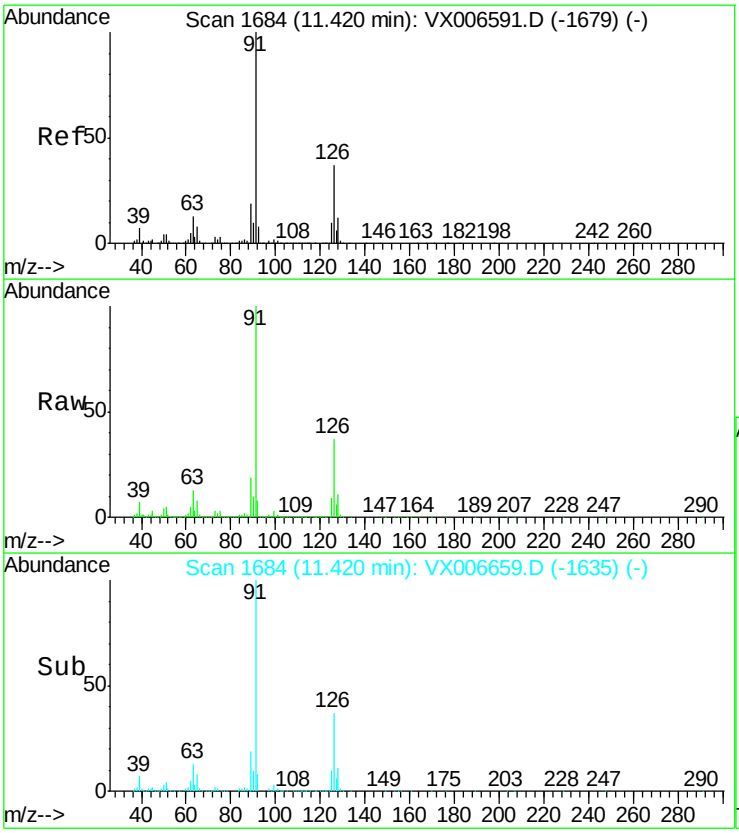


#78
n-propylbenzene
Concen: 51.178 ug/l
RT: 11.36 min Scan# 1674
Delta R.T. -0.00 min
Lab File: VX006659.D
Acq: 20 Dec 2018 01:11

Tgt Ion: 91 Resp: 1652465

Ion	Ratio	Lower	Upper
91	100		
120	25.1	12.7	38.0

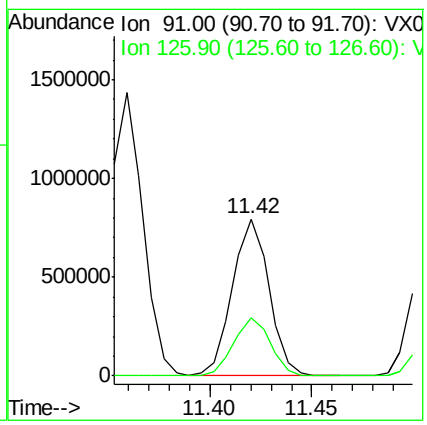


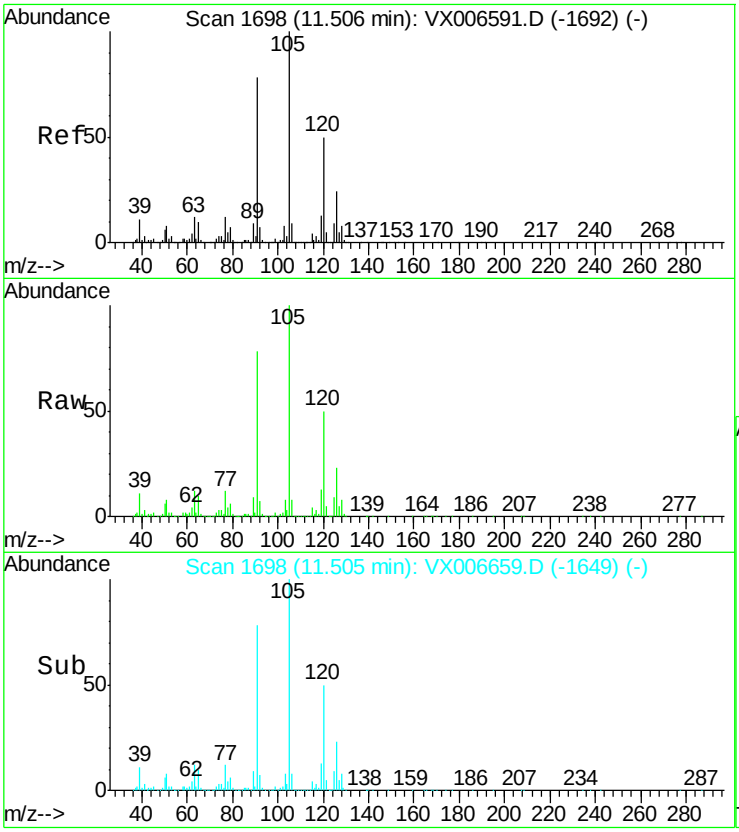


#79
2-Chlorotoluene
Concen: 50.162 ug/l
RT: 11.42 min Scan# 1684
Delta R.T. -0.00 min
Lab File: VX006659.D
Acq: 20 Dec 2018 01:11

Tgt Ion: 91 Resp: 981526

Ion	Ratio	Lower	Upper
91	100		
126	37.6	18.6	56.0

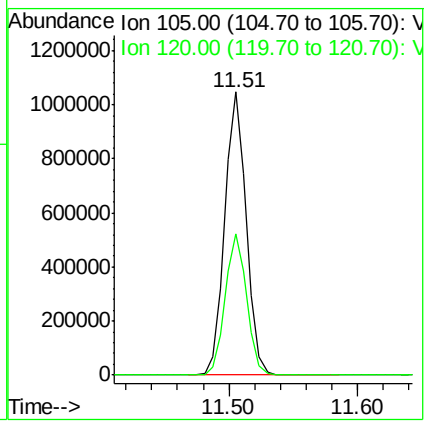




#80
1,3,5-Trimethylbenzene
Concen: 50.947 ug/l
RT: 11.51 min Scan# 1698
Delta R.T. -0.00 min
Lab File: VX006659.D
Acq: 20 Dec 2018 01:11

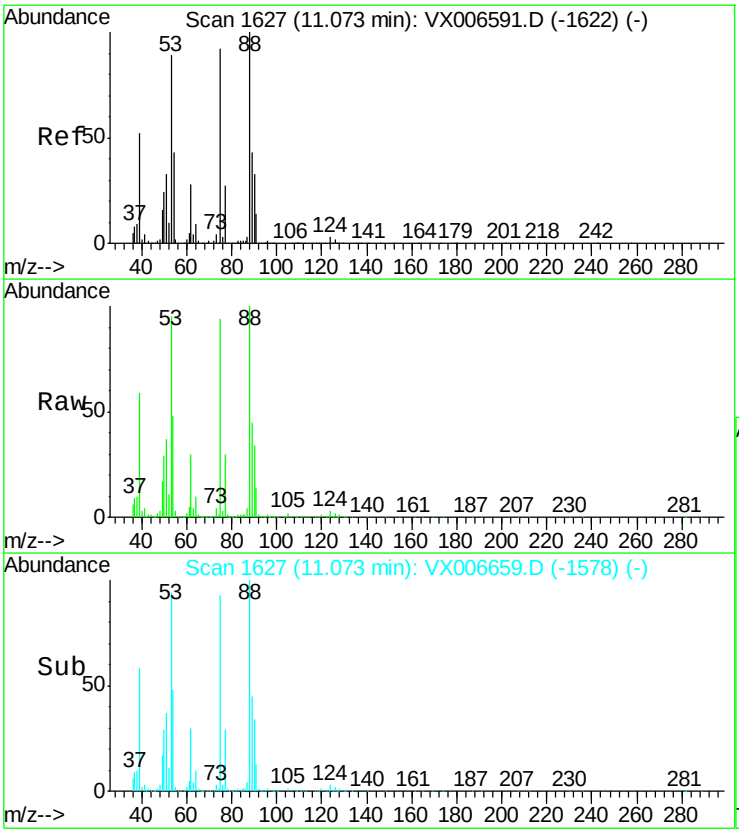
Tgt Ion:105 Resp: 1230404

Ion	Ratio	Lower	Upper
105	100		
120	50.1	25.1	75.3



Instrument :
MSVOA_X
ClientSampleId :
966-MW-04(23)MSD

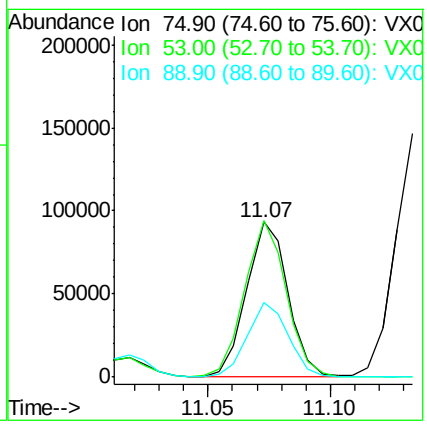
Manual Integrations APPROVED
MMDadoda
12/20/2018 10:00:51 AM



#81
trans-1,4-Dichloro-2-butene
Concen: 42.735 ug/l
RT: 11.07 min Scan# 1627
Delta R.T. 0.00 min
Lab File: VX006659.D
Acq: 20 Dec 2018 01:11

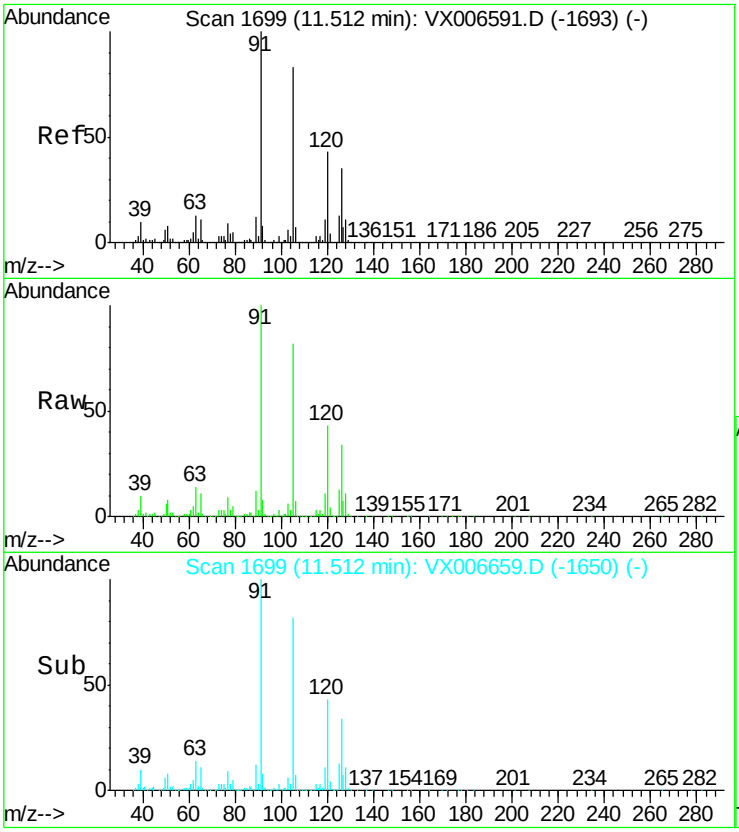
Tgt Ion: 75 Resp: 110090

Ion	Ratio	Lower	Upper
75	100		
53	101.5	79.7	119.5
89	48.4	38.0	57.0



Instrument :
MSVOA_X
ClientSampleId :
966-MW-04(23)MSD

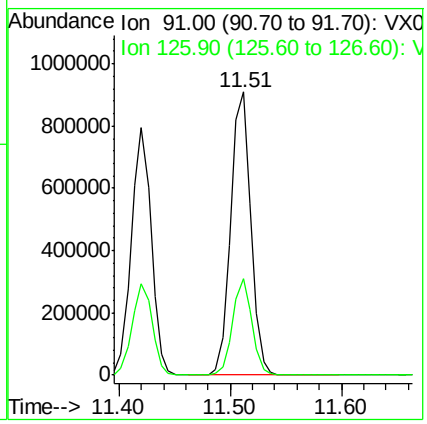
Manual Integrations APPROVED
MMDadoda
12/20/2018 10:00:51 AM

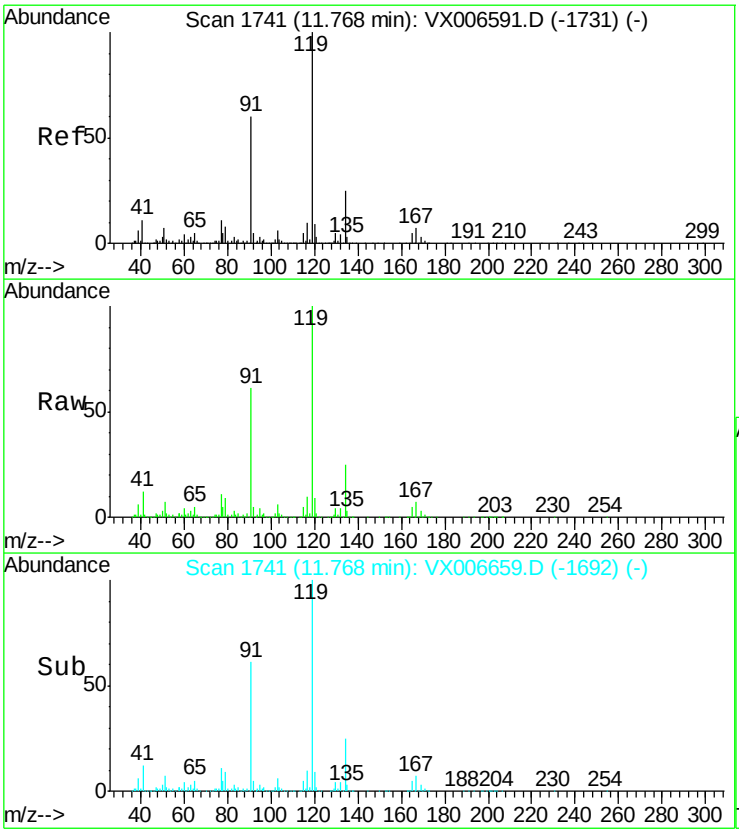


#82
4-Chlorotoluene
Concen: 50.560 ug/l
RT: 11.51 min Scan# 1699
Delta R.T. -0.00 min
Lab File: VX006659.D
Acq: 20 Dec 2018 01:11

Tgt Ion: 91 Resp: 1134810

Ion	Ratio	Lower	Upper
91	100		
126	32.5	16.3	48.9

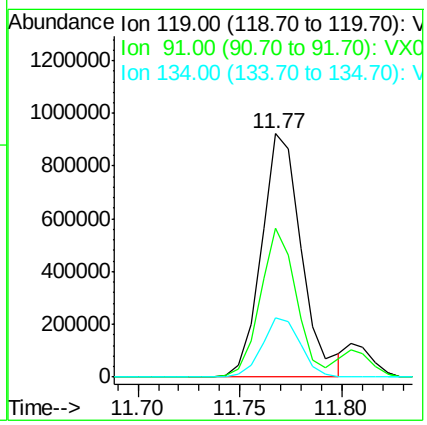




#83
tert-Butylbenzene
Concen: 51.998 ug/l
RT: 11.77 min Scan# 1741
Delta R.T. -0.00 min
Lab File: VX006659.D
Acq: 20 Dec 2018 01:11

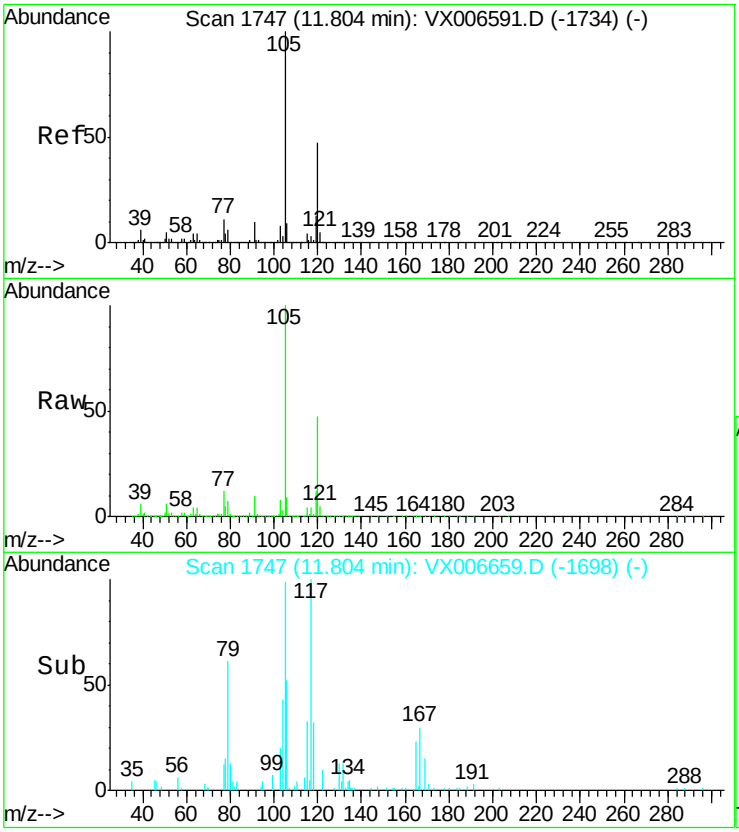
Tgt Ion:119 Resp: 1256837

Ion	Ratio	Lower	Upper
119	100		
91	55.0	27.7	83.1
134	23.5	11.9	35.5



Instrument :
MSVOA_X
ClientSampleId :
966-MW-04(23)MSD

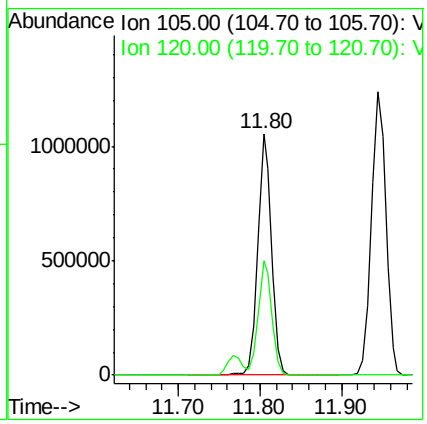
Manual Integrations APPROVED
MMDadoda
12/20/2018 10:00:51 AM

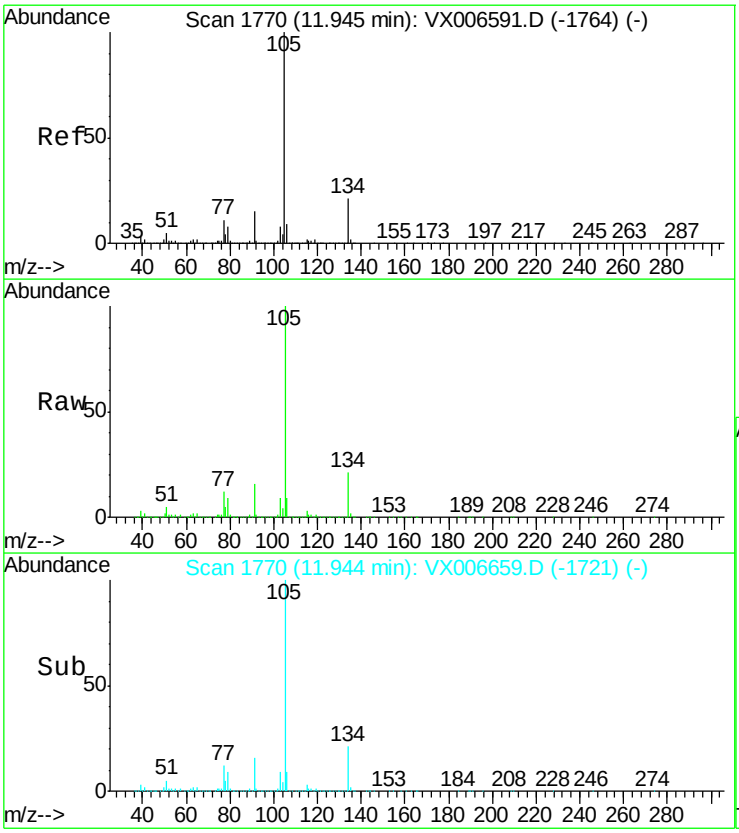


#84
1,2,4-Trimethylbenzene
Concen: 49.922 ug/l
RT: 11.80 min Scan# 1747
Delta R.T. -0.00 min
Lab File: VX006659.D
Acq: 20 Dec 2018 01:11

Tgt Ion:105 Resp: 1268149

Ion	Ratio	Lower	Upper
105	100		
120	46.6	23.2	69.6

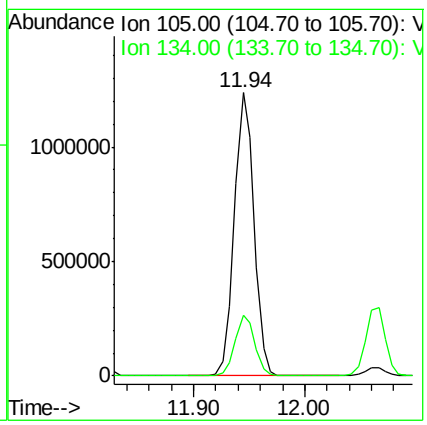




#85
sec-Butylbenzene
Concen: 50.708 ug/l
RT: 11.94 min Scan# 1770
Delta R.T. -0.00 min
Lab File: VX006659.D
Acq: 20 Dec 2018 01:11

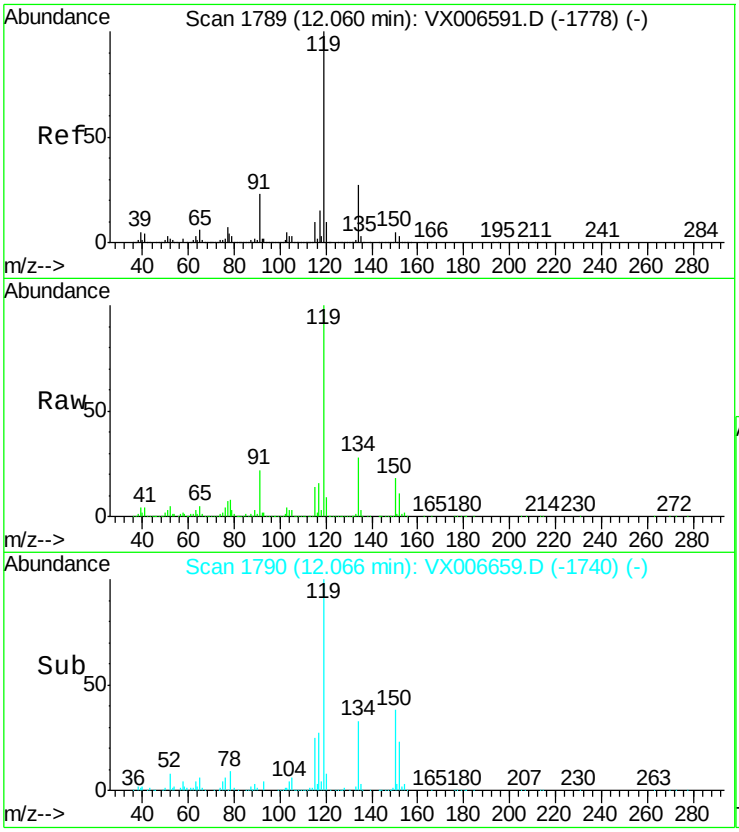
Tgt Ion:105 Resp: 1502745

Ion	Ratio	Lower	Upper
105	100		
134	21.5	10.7	31.9



Instrument :
MSVOA_X
ClientSampleId :
966-MW-04(23)MSD

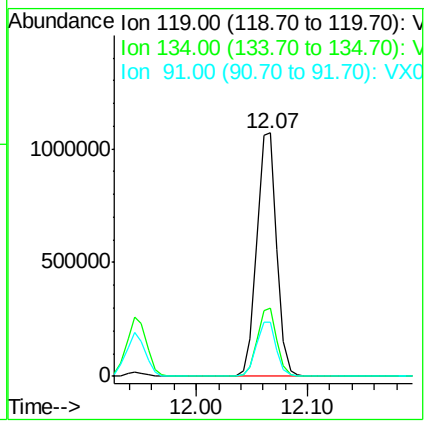
Manual Integrations APPROVED
MMDadoda
12/20/2018 10:00:51 AM

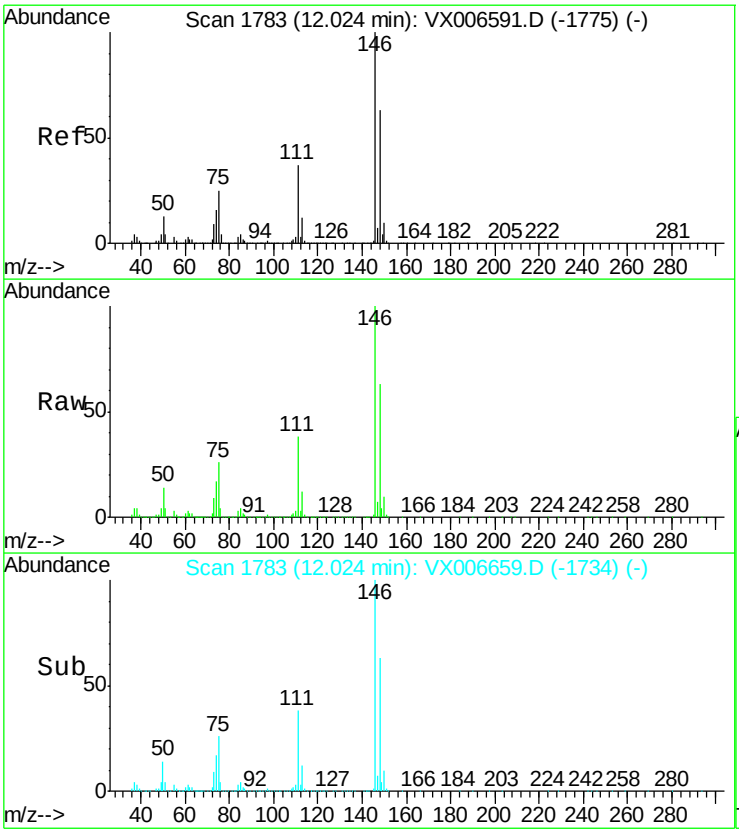


#86
p-Isopropyltoluene
Concen: 51.097 ug/l
RT: 12.07 min Scan# 1790
Delta R.T. 0.01 min
Lab File: VX006659.D
Acq: 20 Dec 2018 01:11

Tgt Ion:119 Resp: 1331094

Ion	Ratio	Lower	Upper
119	100		
134	27.6	14.0	41.9
91	22.5	11.3	33.9

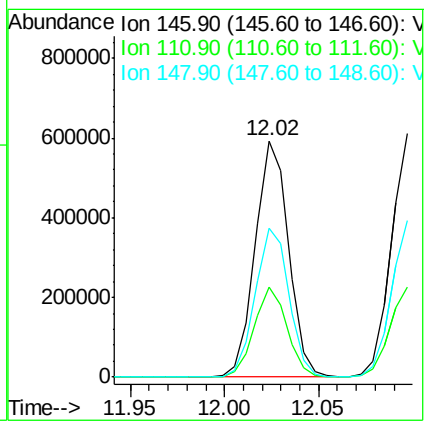


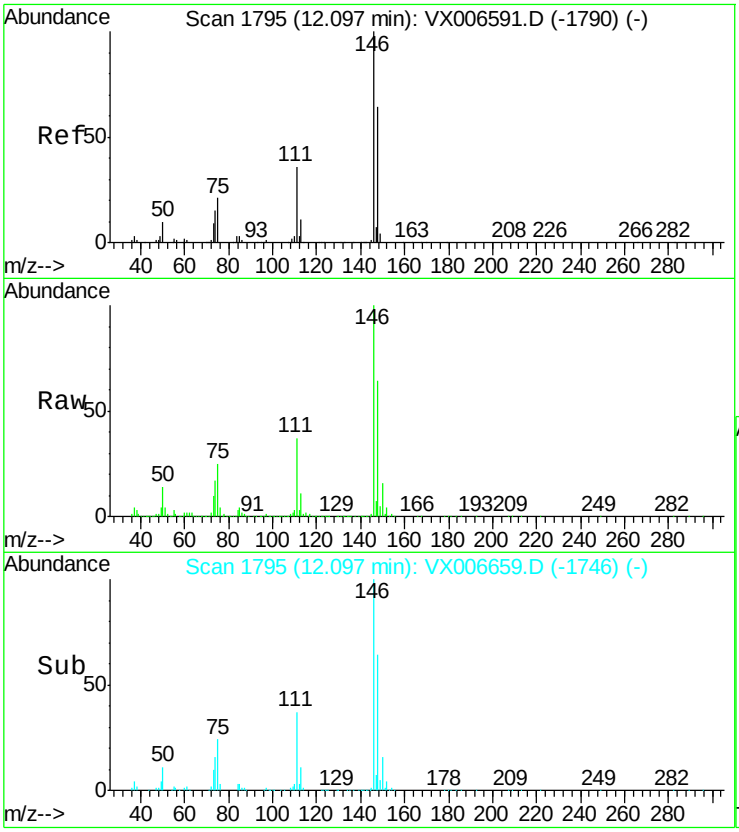


#87
1,3-Dichlorobenzene
Concen: 50.911 ug/l
RT: 12.02 min Scan# 1783
Delta R.T. -0.00 min
Lab File: VX006659.D
Acq: 20 Dec 2018 01:11

Tgt Ion:146 Resp: 727349

Ion	Ratio	Lower	Upper
146	100		
111	37.5	18.6	55.8
148	63.7	31.8	95.3

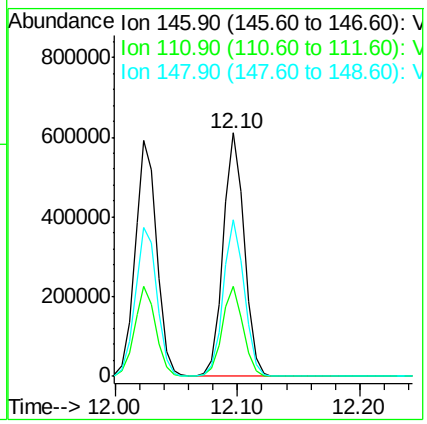




#88
1,4-Dichlorobenzene
Concen: 49.564 ug/l
RT: 12.10 min Scan# 1795
Delta R.T. -0.00 min
Lab File: VX006659.D
Acq: 20 Dec 2018 01:11

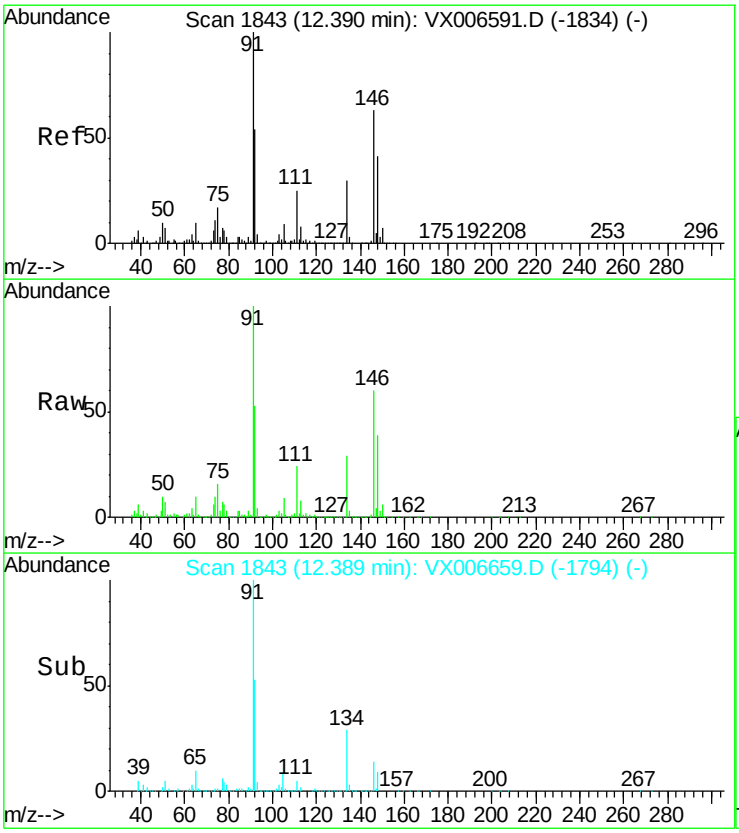
Tgt Ion:146 Resp: 725904

Ion	Ratio	Lower	Upper
146	100		
111	37.0	18.1	54.1
148	64.2	31.9	95.9



Instrument :
MSVOA_X
ClientSampleId :
966-MW-04(23)MSD

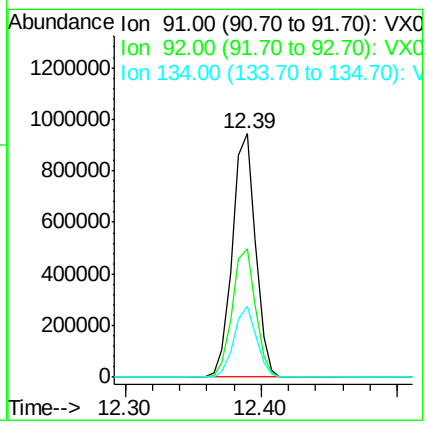
Manual Integrations APPROVED
MMDadoda
12/20/2018 10:00:51 AM



#89
n-Butylbenzene
Concen: 50.277 ug/l
RT: 12.39 min Scan# 1843
Delta R.T. -0.00 min
Lab File: VX006659.D
Acq: 20 Dec 2018 01:11

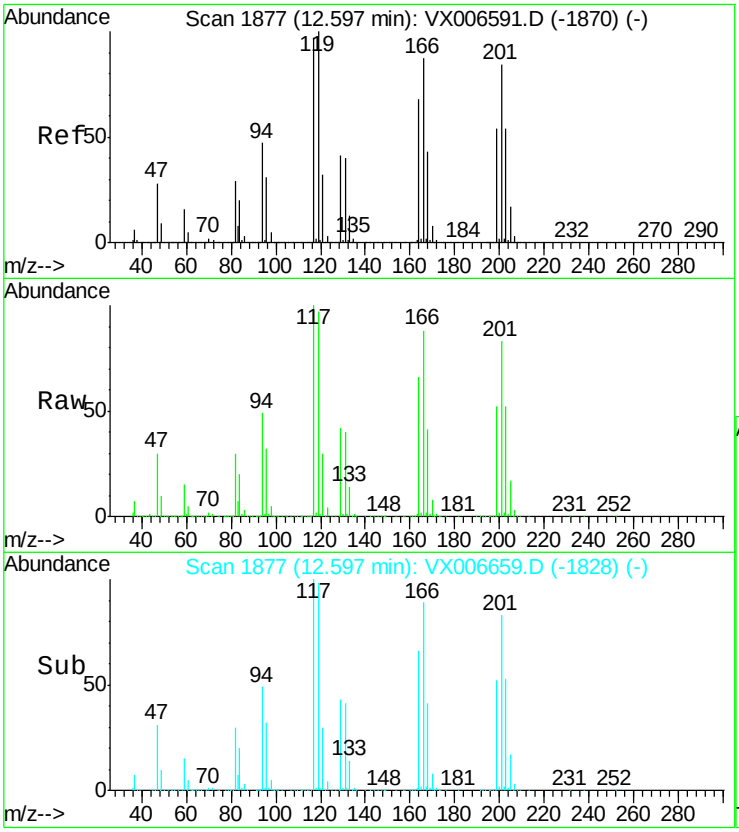
Tgt Ion: 91 Resp: 1114647

Ion	Ratio	Lower	Upper
91	100		
92	53.2	26.8	80.4
134	28.4	14.4	43.2



Instrument :
MSVOA_X
ClientSampleId :
966-MW-04(23)MSD

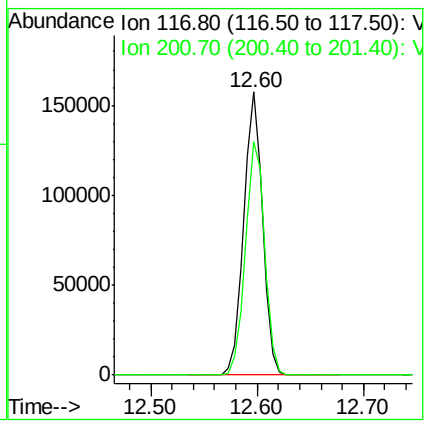
Manual Integrations APPROVED
MMDadoda
12/20/2018 10:00:51 AM

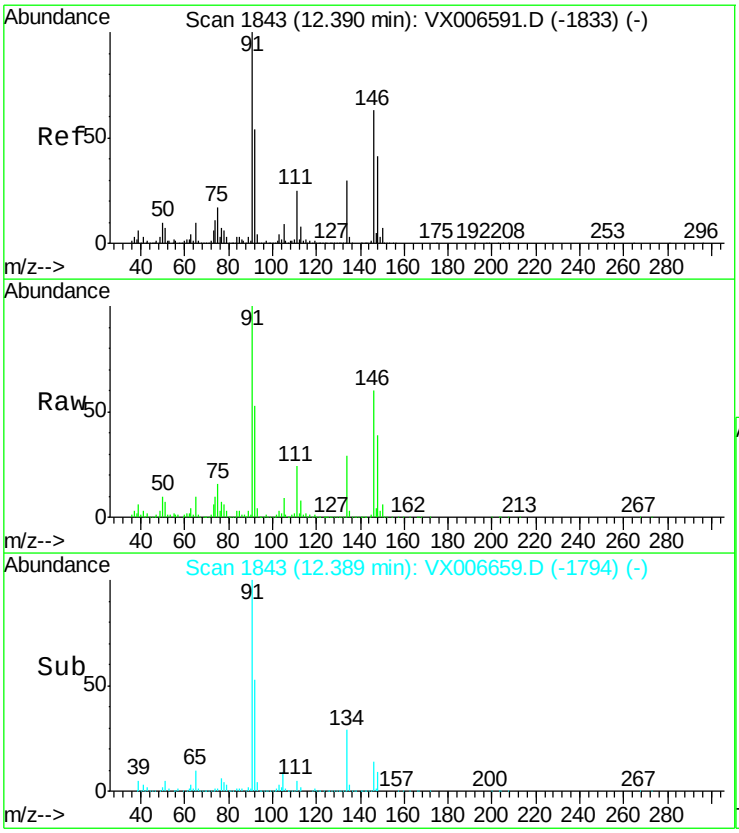


#90
Hexachloroethane
Concen: 48.284 ug/l
RT: 12.60 min Scan# 1877
Delta R.T. 0.00 min
Lab File: VX006659.D
Acq: 20 Dec 2018 01:11

Tgt Ion:117 Resp: 196362

Ion	Ratio	Lower	Upper
117	100		
201	84.0	42.9	128.7

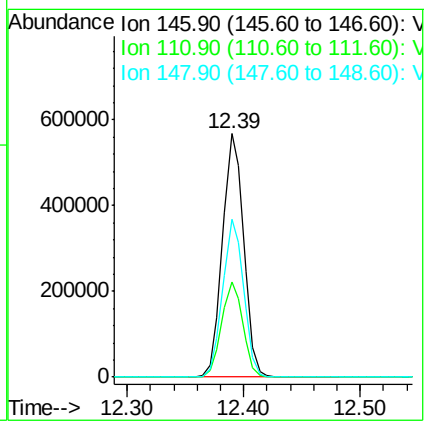


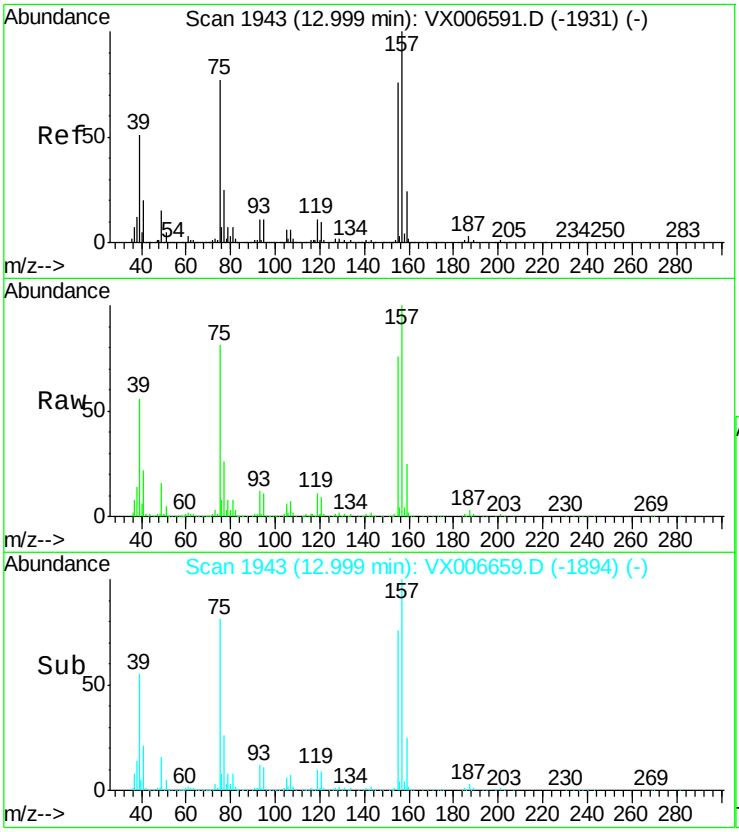


#91
1,2-Dichlorobenzene
Concen: 50.007 ug/l
RT: 12.39 min Scan# 1843
Delta R.T. -0.00 min
Lab File: VX006659.D
Acq: 20 Dec 2018 01:11

Tgt Ion:146 Resp: 714678

Ion	Ratio	Lower	Upper
146	100		
111	39.1	19.4	58.2
148	63.9	32.3	96.9

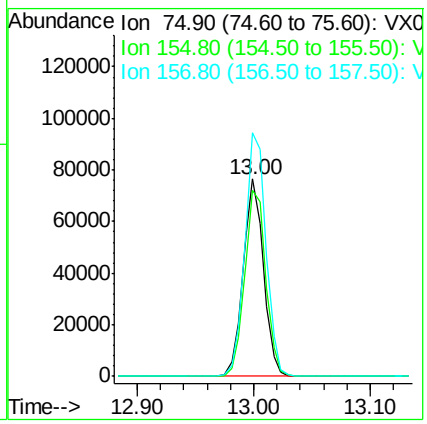




#92
1,2-Dibromo-3-Chloropropane
Concen: 51.655 ug/l
RT: 13.00 min Scan# 1943
Delta R.T. -0.00 min
Lab File: VX006659.D
Acq: 20 Dec 2018 01:11

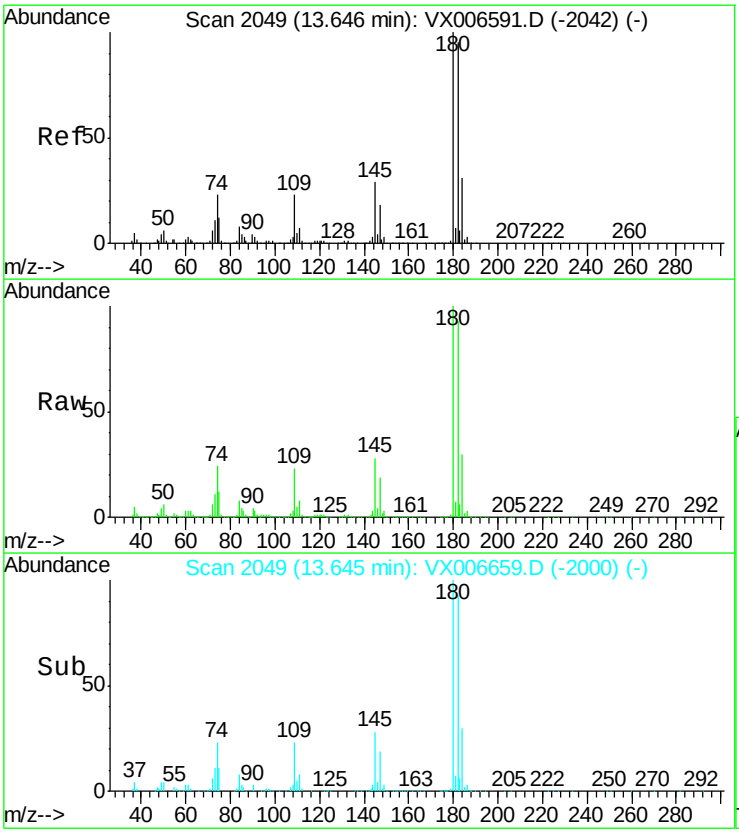
Tgt Ion: 75 Resp: 93202

Ion	Ratio	Lower	Upper
75	100		
155	98.4	50.6	151.8
157	128.7	64.6	193.8



Instrument :
MSVOA_X
ClientSampleId :
966-MW-04(23)MSD

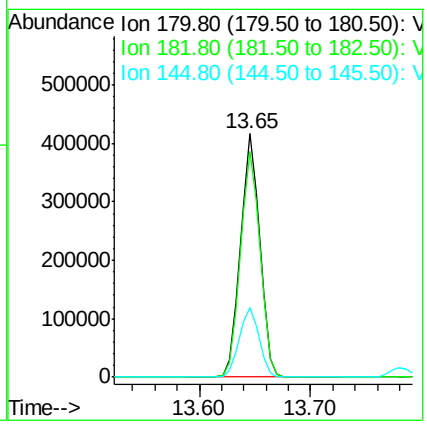
Manual Integrations APPROVED
MMDadoda
12/20/2018 10:00:51 AM



#93
1,2,4-Trichlorobenzene
Concen: 50.732 ug/l
RT: 13.65 min Scan# 2049
Delta R.T. -0.00 min
Lab File: VX006659.D
Acq: 20 Dec 2018 01:11

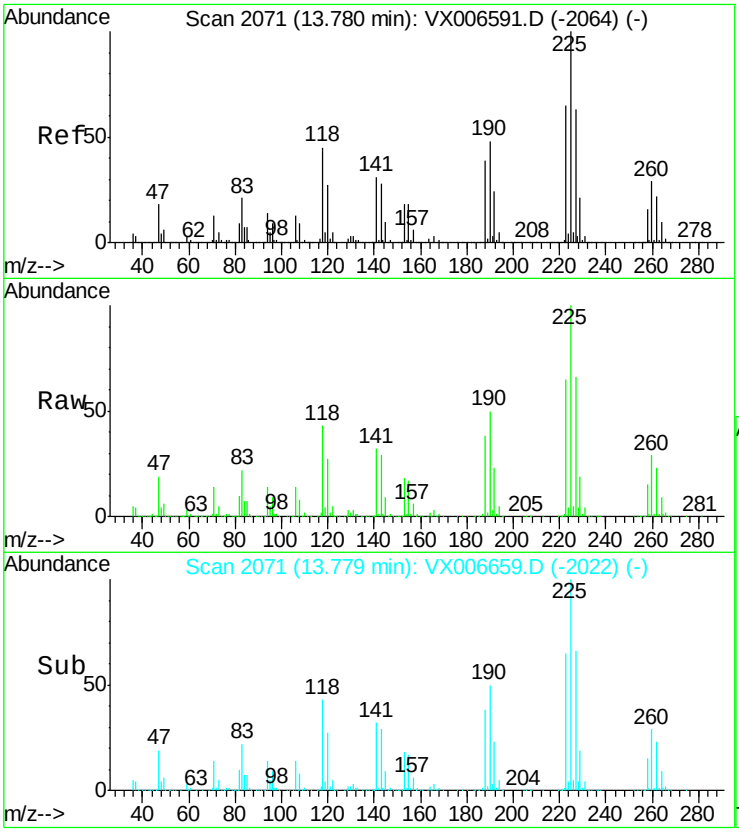
Tgt Ion:180 Resp: 500123

Ion	Ratio	Lower	Upper
180	100		
182	94.2	47.3	142.0
145	29.3	14.8	44.3



Instrument :
MSVOA_X
ClientSampleId :
966-MW-04(23)MSD

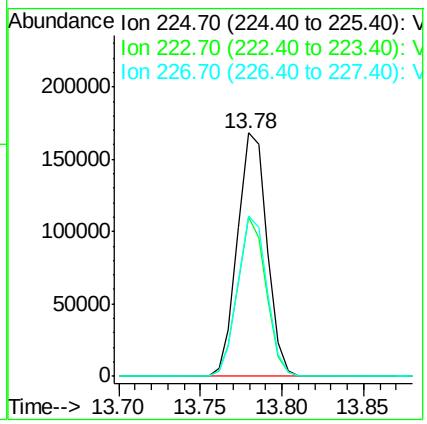
Manual Integrations APPROVED
MMDadoda
12/20/2018 10:00:51 AM

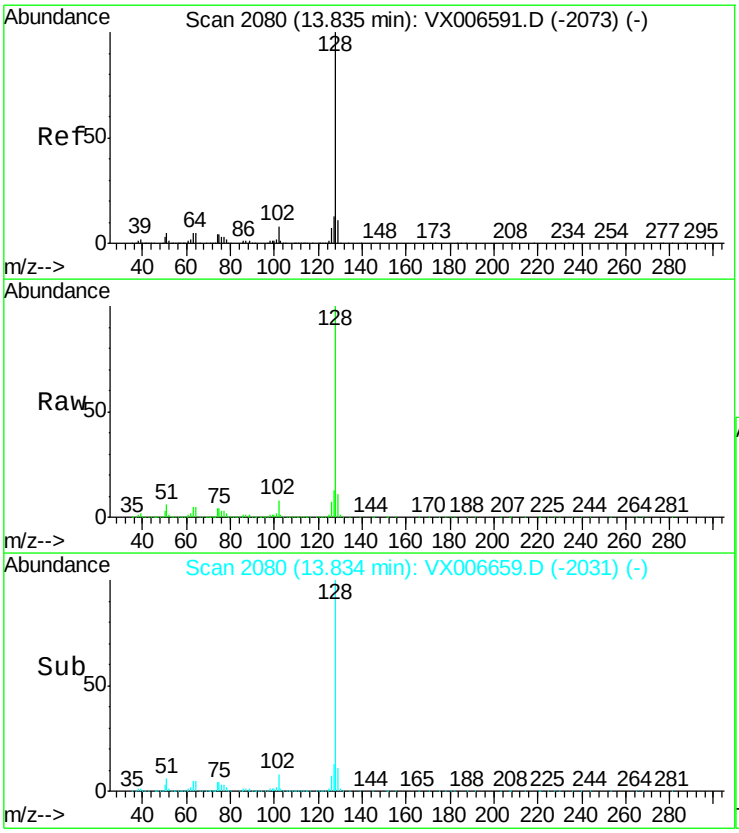


#94
Hexachlorobutadiene
Concen: 45.952 ug/l
RT: 13.78 min Scan# 2071
Delta R.T. -0.00 min
Lab File: VX006659.D
Acq: 20 Dec 2018 01:11

Tgt Ion:225 Resp: 213520

Ion	Ratio	Lower	Upper
225	100		
223	62.8	32.1	96.3
227	65.3	32.3	96.8

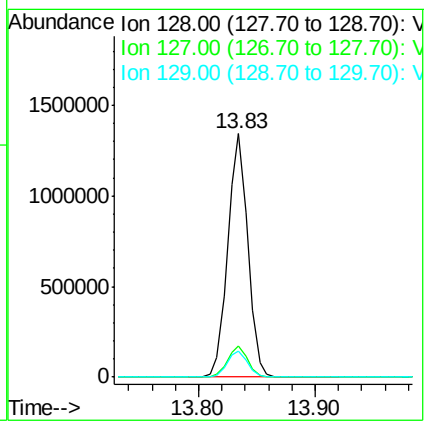


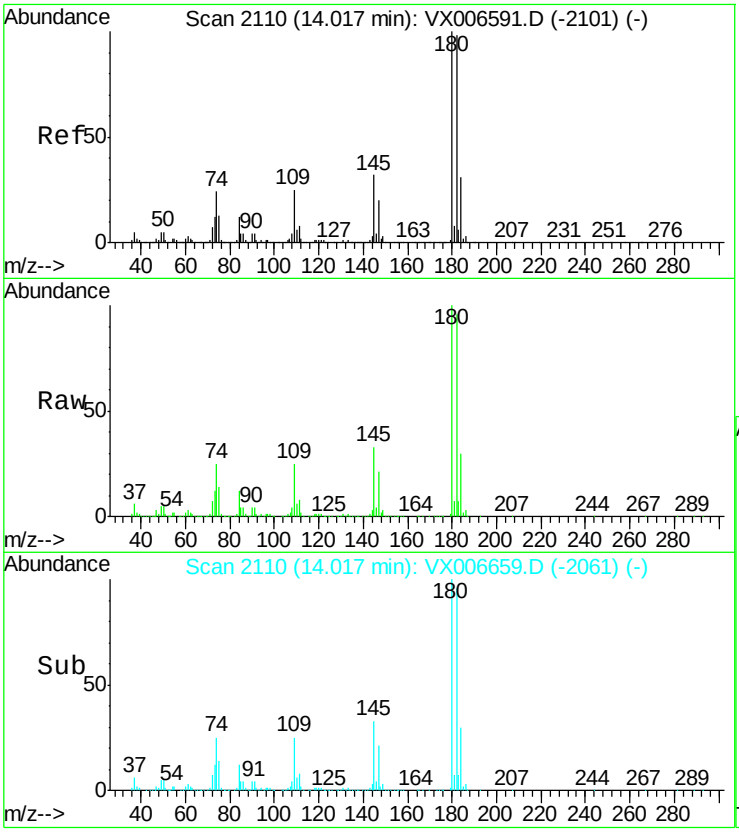


#95
Naphthalene
Concen: 50.564 ug/l
RT: 13.83 min Scan# 2080
Delta R.T. -0.00 min
Lab File: VX006659.D
Acq: 20 Dec 2018 01:11

Tgt Ion:128 Resp: 1590951

Ion	Ratio	Lower	Upper
128	100		
127	13.0	10.1	15.1
129	11.0	8.6	13.0

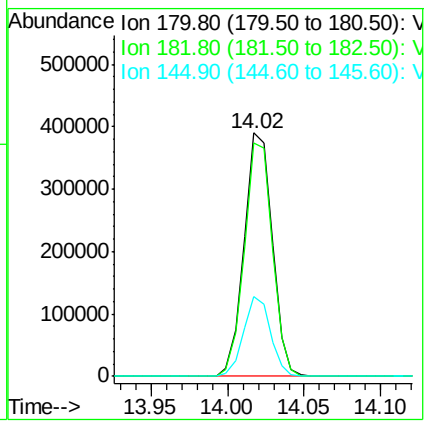




#96
1,2,3-Trichlorobenzene
Concen: 49.071 ug/l
RT: 14.02 min Scan# 2110
Delta R.T. -0.00 min
Lab File: VX006659.D
Acq: 20 Dec 2018 01:11

Tgt Ion:180 Resp: 499465

Ion	Ratio	Lower	Upper
180	100		
182	95.5	48.5	145.5
145	31.4	16.0	47.9



Instrument :
MSVOA_X
ClientSampleId :
966-MW-04(23)MSD

Manual Integrations APPROVED
MMDadoda
12/20/2018 10:00:51 AM

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Manual Integration Report

Sequence:	VX121818	Instrument	MSVOA_x

Sample ID	File ID	Parameter	Review By	Review On	Supervised By	Supervised On	Reason
VSTDICC001	VX006588.D	1,2,3-Trichloropropane	Sweetuben	12/19/2018 11:11:50 AM	MMDadoda	12/19/2018 11:21:48 AM	Peak Integrated by Software incorrectly
VSTDICC001	VX006588.D	1,4-Dichlorobenzene	Sweetuben	12/19/2018 11:11:50 AM	MMDadoda	12/19/2018 11:21:48 AM	Peak Integrated by Software incorrectly
VSTDICC005	VX006589.D	1,2,3-Trichloropropane	Sweetuben	12/19/2018 11:11:46 AM	MMDadoda	12/19/2018 11:21:52 AM	Peak Integrated by Software incorrectly
VSTDICC020	VX006590.D	1,2,3-Trichloropropane	Sweetuben	12/19/2018 11:11:36 AM	MMDadoda	12/19/2018 11:21:58 AM	Peak Integrated by Software incorrectly
VSTDICCC050	VX006591.D	1,2,3-Trichloropropane	Sweetuben	12/19/2018 11:11:31 AM	MMDadoda	12/19/2018 11:22:02 AM	Peak Integrated by Software incorrectly
VSTDICC100	VX006592.D	1,2,3-Trichloropropane	Sweetuben	12/19/2018 11:11:27 AM	MMDadoda	12/19/2018 11:22:05 AM	Peak Integrated by Software incorrectly
VSTDICC150	VX006593.D	1,2,3-Trichloropropane	Sweetuben	12/19/2018 11:11:22 AM	MMDadoda	12/19/2018 11:22:09 AM	Peak Integrated by Software incorrectly
VSTDICV050	VX006594.D	1,2,3-Trichloropropane	Sweetuben	12/19/2018 11:11:18 AM	MMDadoda	12/19/2018 11:22:13 AM	Peak Integrated by Software incorrectly
VSTDCCC050	VX006608.D	1,2,3-Trichloropropane	Sweetuben	12/19/2018 11:11:02 AM	MMDadoda	12/19/2018 11:22:41 AM	Peak Integrated by Software incorrectly
VSTDCCC050	VX006610.D	1,2,3-Trichloropropane	Sweetuben	12/19/2018 11:10:58 AM	MMDadoda	12/19/2018 11:22:45 AM	Peak Integrated by Software incorrectly

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Manual Integration Report

Sequence:	VX121918	Instrument	MSVOA_x

Sample ID	File ID	Parameter	Review By	Review On	Supervised By	Supervised On	Reason
VSTDCCC050	VX006635.D	1,2,3-Trichloropropane	Sweetuben	12/20/2018 8:54:12 AM	MMDadoda	12/20/2018 10:00:18 AM	Peak Integrated by Software incorrectly
VX1219WBS01	VX006637.D	1,2,3-Trichloropropane	Sweetuben	12/20/2018 8:54:08 AM	MMDadoda	12/20/2018 10:00:22 AM	Peak Integrated by Software incorrectly
J6484-05MS	VX006658.D	1,2,3-Trichloropropane	Sweetuben	12/20/2018 8:53:55 AM	MMDadoda	12/20/2018 10:00:46 AM	Peak Integrated by Software incorrectly
J6484-06MSD	VX006659.D	1,2,3-Trichloropropane	Sweetuben	12/20/2018 8:53:59 AM	MMDadoda	12/20/2018 10:00:51 AM	Peak Integrated by Software incorrectly
VSTDCCC050	VX006660.D	1,2,3-Trichloropropane	Sweetuben	12/20/2018 8:54:03 AM	MMDadoda	12/20/2018 10:00:55 AM	Peak Integrated by Software incorrectly

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Manual Integration Report

Sequence:	VX122018	Instrument	MSVOA_x

Sample ID	File ID	Parameter	Review By	Review On	Supervised By	Supervised On	Reason
VSTDCCC050	VX006662.D	1,2,3-Trichloropropane	Sweetuben	12/21/2018 9:46:37 AM	MMDadoda	12/21/2018 10:18:50 AM	Peak Integrated by Software incorrectly
VX1220WBS01	VX006665.D	1,2,3-Trichloropropane	Sweetuben	12/21/2018 9:46:40 AM	MMDadoda	12/21/2018 10:18:54 AM	Peak Integrated by Software incorrectly
VSTDCCC050	VX006687.D	1,2,3-Trichloropropane	Sweetuben	12/21/2018 9:46:50 AM	MMDadoda	12/21/2018 10:19:04 AM	Peak Integrated by Software incorrectly
VSTDCCC050	VX006689.D	1,2,3-Trichloropropane	Sweetuben	12/21/2018 9:46:54 AM	MMDadoda	12/21/2018 10:19:16 AM	Peak Integrated by Software incorrectly
VSTDCCC050	VX006711.D	1,2,3-Trichloropropane	Sweetuben	12/21/2018 9:47:40 AM	MMDadoda	12/21/2018 10:20:02 AM	Peak Integrated by Software incorrectly

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Manual Integration Report

Sequence:	VX122118	Instrument	MSVOA_x

Sample ID	File ID	Parameter	Review By	Review On	Supervised By	Supervised On	Reason
VSTDCCC050	VX006713.D	1,2,3-Trichloropropane	john	12/22/2018 9:39:40 AM	MMDadoda	12/22/2018 11:20:53 AM	Peak Integrated by Software incorrectly
VX1221WBS01	VX006715.D	1,2,3-Trichloropropane	john	12/22/2018 9:39:45 AM	MMDadoda	12/22/2018 11:20:57 AM	Peak Integrated by Software incorrectly
VSTDCCC050	VX006735.D	1,2,3-Trichloropropane	john	12/22/2018 9:39:59 AM	MMDadoda	12/22/2018 11:21:13 AM	Peak Integrated by Software incorrectly
VSTDCCC050	VX006737.D	1,2,3-Trichloropropane	john	12/22/2018 9:40:52 AM	MMDadoda	12/22/2018 11:15:30 AM	Peak Integrated by Software incorrectly

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Instrument ID: MSVOA_X

Daily Analysis Runlog For Sequence/QCBatch ID # VX121818

Review By	Sweetuben	Review On	12/19/2018 11:12:53 AM		
Supervise By	MMDadoda	Supervise On	12/19/2018 11:43:04 AM		
SubDirectory	VX121818	HP Acquire Method	MSVOA_X	HP Processing Method	82x121818w.m

STD. NAME	STD REF.#
Tune/Reschk	VP77947,VP77980
Initial Calibration Stds	VP77963,VP77964,VP77965,VP77966,VP77968,VP77972
CCC	VP77948,VP77949
Internal Standard/PEM	VP75417
ICV/I.BLK	VP77979

Sr#	SampleId	Data File Name	Date-Time	Operator	Status
1	BFB	VX006586.D	18 Dec 2018 08:18	JC/MD	Ok
2	VSTDCCC050	VX006587.D	18 Dec 2018 09:19	JC/MD	Not Ok
3	VSTDICC001	VX006588.D	18 Dec 2018 10:45	JC/MD	Ok,M
4	VSTDICC005	VX006589.D	18 Dec 2018 11:11	JC/MD	Ok,M
5	VSTDICC020	VX006590.D	18 Dec 2018 11:38	JC/MD	Ok,M
6	VSTDICCC050	VX006591.D	18 Dec 2018 12:04	JC/MD	Ok,M
7	VSTDICC100	VX006592.D	18 Dec 2018 12:31	JC/MD	Ok,M
8	VSTDICC150	VX006593.D	18 Dec 2018 12:57	JC/MD	Ok,M
9	VSTDICV050	VX006594.D	18 Dec 2018 13:24	JC/MD	Ok,M
10	VX1218WBL01	VX006595.D	18 Dec 2018 13:56	JC/MD	Ok
11	VX1218WBS01	VX006596.D	18 Dec 2018 14:31	JC/MD	Ok,M
12	J6424-06	VX006597.D	18 Dec 2018 14:58	JC/MD	Ok
13	J6413-02	VX006598.D	18 Dec 2018 15:25	JC/MD	Ok
14	J6438-16	VX006599.D	18 Dec 2018 15:51	JC/MD	Ok
15	J6462-06DL	VX006600.D	18 Dec 2018 16:18	JC/MD	Not Ok
16	VX1218WBSD01	VX006601.D	18 Dec 2018 16:45	JC/MD	Ok,M
17	J6405-13	VX006602.D	18 Dec 2018 17:11	JC/MD	Ok
18	J6411-17DL	VX006603.D	18 Dec 2018 17:38	JC/MD	Ok
19	J6411-18DL	VX006604.D	18 Dec 2018 18:05	JC/MD	Ok
20	J6405-08DL	VX006605.D	18 Dec 2018 18:31	JC/MD	Ok
21	J6405-09	VX006606.D	18 Dec 2018 18:58	JC/MD	Ok
22	J6405-10DL	VX006607.D	18 Dec 2018 19:25	JC/MD	Ok
23	VSTDCCC050	VX006608.D	18 Dec 2018 19:51	JC/MD	Ok,M
24	BFB	VX006609.D	18 Dec 2018 20:18	JC/MD	Ok
25	VSTDCCC050	VX006610.D	18 Dec 2018 21:11	JC/MD	Ok,M
26	VX1218WBL02	VX006611.D	18 Dec 2018 22:05	JC/MD	Ok

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Instrument ID: MSVOA_X

Daily Analysis Runlog For Sequence/QCBatch ID # VX121818

Review By	Sweetuben	Review On	12/19/2018 11:12:53 AM		
Supervise By	MMDadoda	Supervise On	12/19/2018 11:43:04 AM		
SubDirectory	VX121818	HP Acquire Method	MSVOA_X	HP Processing Method	82x121818w.m

STD. NAME	STD REF.#
Tune/Reschk	VP77947,VP77980
Initial Calibration Stds	VP77963,VP77964,VP77965,VP77966,VP77968,VP77972
CCC	VP77948,VP77949
Internal Standard/PEM	VP75417
ICV/I.BLK	VP77979

27	VX1218WBS02	VX006612.D	18 Dec 2018 22:31	JC/MD	Ok,M
28	VX1218WBSD02	VX006613.D	18 Dec 2018 22:58	JC/MD	Ok,M
29	J6405-11DL	VX006614.D	18 Dec 2018 23:25	JC/MD	Ok
30	J6405-12DL	VX006615.D	18 Dec 2018 23:51	JC/MD	Ok
31	J6408-15	VX006616.D	19 Dec 2018 00:18	JC/MD	Ok
32	J6408-07	VX006617.D	19 Dec 2018 00:45	JC/MD	Ok
33	J6408-08	VX006618.D	19 Dec 2018 01:11	JC/MD	Ok
34	J6408-12	VX006619.D	19 Dec 2018 01:38	JC/MD	Ok
35	J6408-13	VX006620.D	19 Dec 2018 02:05	JC/MD	Ok
36	J6408-14	VX006621.D	19 Dec 2018 02:31	JC/MD	Ok
37	J6408-16	VX006622.D	19 Dec 2018 02:58	JC/MD	Ok
38	J6408-17	VX006623.D	19 Dec 2018 03:25	JC/MD	Ok
39	J6408-18	VX006624.D	19 Dec 2018 03:52	JC/MD	Ok
40	J6449-03	VX006625.D	19 Dec 2018 04:18	JC/MD	Ok
41	J6449-04	VX006626.D	19 Dec 2018 04:45	JC/MD	Ok
42	J6449-05	VX006627.D	19 Dec 2018 05:11	JC/MD	Ok
43	J6449-06	VX006628.D	19 Dec 2018 05:38	JC/MD	Ok
44	J6449-07	VX006629.D	19 Dec 2018 06:05	JC/MD	Ok
45	J6408-09	VX006630.D	19 Dec 2018 06:31	JC/MD	Ok
46	J6408-10MS	VX006631.D	19 Dec 2018 06:58	JC/MD	Ok,M
47	J6408-11MSD	VX006632.D	19 Dec 2018 07:25	JC/MD	Ok
48	VSTDCCC050	VX006633.D	19 Dec 2018 07:51	JC/MD	Ok

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Instrument ID: MSVOA_X

Daily Analysis Runlog For Sequence/QCBatch ID # VX121918

Review By	Sweetuben	Review On	12/20/2018 9:29:13 AM		
Supervise By	MMDadoda	Supervise On	12/20/2018 11:41:05 AM		
SubDirectory	VX121918	HP Acquire Method	MSVOA_X	HP Processing Method	82x121818w.m

STD. NAME	STD REF.#
Tune/Reschk	VP78028
Initial Calibration Stds	VP77963,VP77964,VP77965,VP77966,VP77968,VP77972
CCC	VP78029,VP78030
Internal Standard/PEM	VP75417
ICV/I.BLK	VP77979

Sr#	SampleId	Data File Name	Date-Time	Operator	Status
1	BFB	VX006634.D	19 Dec 2018 13:50	JC/MD	Ok
2	VSTDCCC050	VX006635.D	19 Dec 2018 14:22	JC/MD	Ok,M
3	VX1219WBL01	VX006636.D	19 Dec 2018 14:54	JC/MD	Ok
4	VX1219WBS01	VX006637.D	19 Dec 2018 15:24	JC/MD	Ok,M
5	J6479-06	VX006638.D	19 Dec 2018 15:51	JC/MD	Ok
6	J6479-05	VX006639.D	19 Dec 2018 16:18	JC/MD	Ok
7	J6488-01	VX006640.D	19 Dec 2018 16:44	JC/MD	Not Ok
8	J6486-03	VX006641.D	19 Dec 2018 17:11	JC/MD	Ok
9	J6484-18	VX006642.D	19 Dec 2018 17:38	JC/MD	Ok
10	J6484-17	VX006643.D	19 Dec 2018 18:04	JC/MD	Ok
11	J6479-01	VX006644.D	19 Dec 2018 18:31	JC/MD	Ok
12	J6479-02	VX006645.D	19 Dec 2018 18:58	JC/MD	Ok
13	J6479-03	VX006646.D	19 Dec 2018 19:24	JC/MD	Ok
14	J6479-04	VX006647.D	19 Dec 2018 19:51	JC/MD	Ok
15	J6479-07	VX006648.D	19 Dec 2018 20:18	JC/MD	Ok
16	J6491-04	VX006649.D	19 Dec 2018 20:44	JC/MD	Ok
17	J6196-08	VX006650.D	19 Dec 2018 21:11	JC/MD	Ok
18	J6196-10	VX006651.D	19 Dec 2018 21:38	JC/MD	Ok
19	J6196-12	VX006652.D	19 Dec 2018 22:04	JC/MD	Ok
20	J6199-10	VX006653.D	19 Dec 2018 22:31	JC/MD	Ok
21	J6199-12	VX006654.D	19 Dec 2018 22:58	JC/MD	Ok
22	J6194-08	VX006655.D	19 Dec 2018 23:24	JC/MD	Ok
23	J6194-10	VX006656.D	19 Dec 2018 23:51	JC/MD	Ok
24	J6484-04	VX006657.D	20 Dec 2018 00:17	JC/MD	Ok
25	J6484-05MS	VX006658.D	20 Dec 2018 00:44	JC/MD	Ok,M
26	J6484-06MSD	VX006659.D	20 Dec 2018 01:11	JC/MD	Ok,M

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Instrument ID: MSVOA_X

Daily Analysis Runlog For Sequence/QCBatch ID # VX121918

Review By	Sweetuben	Review On	12/20/2018 9:29:13 AM		
Supervise By	MMDadoda	Supervise On	12/20/2018 11:41:05 AM		
SubDirectory	VX121918	HP Acquire Method	MSVOA_X	HP Processing Method	82x121818w.m

STD. NAME	STD REF.#
Tune/Reschk	VP78028
Initial Calibration Stds	VP77963,VP77964,VP77965,VP77966,VP77968,VP77972
CCC	VP78029,VP78030
Internal Standard/PEM	VP75417
ICV/I.BLK	VP77979

27	VSTDCCC050	VX006660.D	20 Dec 2018 01:37	JC/MD	Ok,M

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Instrument ID: MSVOA_X

Daily Analysis Runlog For Sequence/QCBatch ID # VX122018

Review By	Sweetuben	Review On	12/21/2018 10:54:49 AM		
Supervise By	MMDadoda	Supervise On	12/21/2018 10:55:57 AM		
SubDirectory	VX122018	HP Acquire Method	MSVOA_X	HP Processing Method	82x121818w.m

STD. NAME	STD REF.#
Tune/Reschk	VP78062,VP78082
Initial Calibration Stds	VP77963,VP77964,VP77965,VP77966,VP77968,VP77972
CCC	VP78063,VP78064,VP78085,VP78086
Internal Standard/PEM	VP75417
ICV/I.BLK	VP77979

Sr#	SampleId	Data File Name	Date-Time	Operator	Status
1	BFB	VX006661.D	20 Dec 2018 08:31	JC/MD	Ok
2	VSTDCCC050	VX006662.D	20 Dec 2018 09:00	JC/MD	Ok,M
3	VX1220WBL01	VX006663.D	20 Dec 2018 09:34	JC/MD	Ok
4	J6488-01	VX006664.D	20 Dec 2018 10:01	JC/MD	Ok
5	VX1220WBS01	VX006665.D	20 Dec 2018 10:27	JC/MD	Ok,M
6	J6492-04	VX006666.D	20 Dec 2018 10:54	JC/MD	Ok
7	J6492-03	VX006667.D	20 Dec 2018 11:21	JC/MD	Ok
8	J6474-01DL	VX006668.D	20 Dec 2018 11:47	JC/MD	Ok
9	J6492-02	VX006669.D	20 Dec 2018 12:14	JC/MD	Not Ok
10	J6492-01	VX006670.D	20 Dec 2018 12:41	JC/MD	Ok
11	J6484-02	VX006671.D	20 Dec 2018 13:07	JC/MD	Ok
12	J6484-07	VX006672.D	20 Dec 2018 13:34	JC/MD	Ok
13	J6484-08	VX006673.D	20 Dec 2018 14:01	JC/MD	Ok
14	VX1220WBSD01	VX006674.D	20 Dec 2018 14:27	JC/MD	Ok,M
15	J6484-09	VX006675.D	20 Dec 2018 14:54	JC/MD	Ok
16	J6484-10	VX006676.D	20 Dec 2018 15:21	JC/MD	Ok
17	J6484-11	VX006677.D	20 Dec 2018 15:47	JC/MD	Ok
18	J6484-12	VX006678.D	20 Dec 2018 16:14	JC/MD	Ok
19	J6484-14	VX006679.D	20 Dec 2018 16:41	JC/MD	Ok
20	J6484-15	VX006680.D	20 Dec 2018 17:07	JC/MD	Ok
21	J6484-16	VX006681.D	20 Dec 2018 17:34	JC/MD	Ok
22	J6469-02	VX006682.D	20 Dec 2018 18:01	JC/MD	Ok
23	J6516-01	VX006683.D	20 Dec 2018 18:27	JC/MD	Ok
24	J6484-01	VX006684.D	20 Dec 2018 18:54	JC/MD	Dilution
25	J6484-03	VX006685.D	20 Dec 2018 19:21	JC/MD	Dilution
26	J6484-13	VX006686.D	20 Dec 2018 19:47	JC/MD	Ok

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Instrument ID: MSVOA_X

Daily Analysis Runlog For Sequence/QCBatch ID # VX122018

Review By	Sweetuben	Review On	12/21/2018 10:54:49 AM		
Supervise By	MMDadoda	Supervise On	12/21/2018 10:55:57 AM		
SubDirectory	VX122018	HP Acquire Method	MSVOA_X	HP Processing Method	82x121818w.m

STD. NAME	STD REF.#
Tune/Reschk	VP78062,VP78082
Initial Calibration Stds	VP77963,VP77964,VP77965,VP77966,VP77968,VP77972
CCC	VP78063,VP78064,VP78085,VP78086
Internal Standard/PEM	VP75417
ICV/I.BLK	VP77979

27	VSTDCCC050	VX006687.D	20 Dec 2018 20:14	JC/MD	Ok,M
28	BFB	VX006688.D	20 Dec 2018 20:41	JC/MD	Ok
29	VSTDCCC050	VX006689.D	20 Dec 2018 21:34	JC/MD	Ok,M
30	VX1220WBL02	VX006690.D	20 Dec 2018 22:27	JC/MD	Ok
31	VX1220WBS02	VX006691.D	20 Dec 2018 22:54	JC/MD	Ok,M
32	VX1220WBSD02	VX006692.D	20 Dec 2018 23:20	JC/MD	Ok,M
33	J6514-08	VX006693.D	20 Dec 2018 23:47	JC/MD	Ok
34	J6517-09	VX006694.D	21 Dec 2018 00:14	JC/MD	Ok
35	J6514-01	VX006695.D	21 Dec 2018 00:41	JC/MD	Dilution
36	J6514-02	VX006696.D	21 Dec 2018 01:07	JC/MD	Dilution
37	J6514-03	VX006697.D	21 Dec 2018 01:34	JC/MD	Dilution
38	J6514-04	VX006698.D	21 Dec 2018 02:01	JC/MD	Dilution
39	J6514-05	VX006699.D	21 Dec 2018 02:28	JC/MD	ReRun
40	J6514-06	VX006700.D	21 Dec 2018 02:54	JC/MD	Ok
41	J6514-07	VX006701.D	21 Dec 2018 03:21	JC/MD	Ok
42	J6517-01	VX006702.D	21 Dec 2018 03:48	JC/MD	Ok,M
43	J6517-02	VX006703.D	21 Dec 2018 04:15	JC/MD	Ok
44	J6517-03	VX006704.D	21 Dec 2018 04:41	JC/MD	Ok,M
45	J6517-04	VX006705.D	21 Dec 2018 05:08	JC/MD	Ok
46	J6517-05	VX006706.D	21 Dec 2018 05:35	JC/MD	Ok,M
47	J6517-06	VX006707.D	21 Dec 2018 06:01	JC/MD	Ok
48	J6517-10	VX006708.D	21 Dec 2018 06:28	JC/MD	Ok,M
49	J6517-11MS	VX006709.D	21 Dec 2018 06:55	JC/MD	Ok,M
50	J6517-12MSD	VX006710.D	21 Dec 2018 07:21	JC/MD	Ok,M
51	VSTDCCC050	VX006711.D	21 Dec 2018 07:48	JC/MD	Ok,M

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Instrument ID: MSVOA_X

Daily Analysis Runlog For Sequence/QCBatch ID # VX122118

Review By	Sweetuben	Review On	12/24/2018 3:36:52 PM		
Supervise By	MMDadoda	Supervise On	12/24/2018 3:39:44 PM		
SubDirectory	VX122118	HP Acquire Method	MSVOA_X	HP Processing Method	82x121818w.m

STD. NAME	STD REF.#
Tune/Reschk	VP78087,VP78089
Initial Calibration Stds	VP77963,VP77964,VP77965,VP77966,VP77968,VP77972
CCC	VP78088,VP78090
Internal Standard/PEM	VP75417
ICV/I.BLK	VP77979

Sr#	SampleId	Data File Name	Date-Time	Operator	Status
1	BFB	VX006712.D	21 Dec 2018 08:37	JC/MD	Ok
2	VSTDCCC050	VX006713.D	21 Dec 2018 09:07	JC/MD	Ok,M
3	VX1221WBL01	VX006714.D	21 Dec 2018 10:58	JC/MD	Ok
4	VX1221WBS01	VX006715.D	21 Dec 2018 11:29	JC/MD	Ok,M
5	J6514-05	VX006716.D	21 Dec 2018 11:56	JC/MD	Ok
6	J6519-12	VX006717.D	21 Dec 2018 12:22	JC/MD	Dilution
7	J6519-08	VX006718.D	21 Dec 2018 12:49	JC/MD	Ok
8	J6492-02	VX006719.D	21 Dec 2018 13:16	JC/MD	Dilution
9	J6503-01	VX006720.D	21 Dec 2018 13:43	JC/MD	Not Ok
10	J6496-01	VX006721.D	21 Dec 2018 14:09	JC/MD	Not Ok
11	VX1221WBSD01	VX006722.D	21 Dec 2018 14:36	JC/MD	Ok,M
12	J6514-01DL	VX006723.D	21 Dec 2018 15:03	JC/MD	Ok
13	J6514-02DL	VX006724.D	21 Dec 2018 15:29	JC/MD	Ok
14	J6514-03DL	VX006725.D	21 Dec 2018 15:56	JC/MD	Ok
15	J6514-04DL	VX006726.D	21 Dec 2018 16:23	JC/MD	Dilution
16	J6519-08RE	VX006727.D	21 Dec 2018 16:50	JC/MD	Not Ok
17	J6517-03DL	VX006728.D	21 Dec 2018 17:17	JC/MD	Not Ok
18	J6519-07DL	VX006729.D	21 Dec 2018 17:43	JC/MD	Not Ok
19	J6498-07	VX006730.D	21 Dec 2018 18:10	JC/MD	Ok,M
20	J6498-08	VX006731.D	21 Dec 2018 18:37	JC/MD	Ok
21	J6484-03DL	VX006732.D	21 Dec 2018 19:04	JC/MD	Ok
22	J6484-01DL	VX006733.D	21 Dec 2018 19:30	JC/MD	Ok
23	J6519-12DL	VX006734.D	21 Dec 2018 19:57	JC/MD	Not Ok
24	VSTDCCC050	VX006735.D	21 Dec 2018 20:24	JC/MD	Ok,M
25	BFB	VX006736.D	21 Dec 2018 20:51	JC/MD	Ok
26	VSTDCCC050	VX006737.D	21 Dec 2018 21:44	JC/MD	Ok,M

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Instrument ID: MSVOA_X

Daily Analysis Runlog For Sequence/QCBatch ID # VX122118

Review By	Sweetuben	Review On	12/24/2018 3:36:52 PM		
Supervise By	MMDadoda	Supervise On	12/24/2018 3:39:44 PM		
SubDirectory	VX122118	HP Acquire Method	MSVOA_X	HP Processing Method	82x121818w.m

STD. NAME	STD REF.#
Tune/Reschk	VP78087,VP78089
Initial Calibration Stds	VP77963,VP77964,VP77965,VP77966,VP77968,VP77972
CCC	VP78088,VP78090
Internal Standard/PEM	VP75417
ICV/I.BLK	VP77979

27	VX1221WBL02	VX006738.D	21 Dec 2018 22:37	JC/MD	Ok
28	VX1221WBS02	VX006739.D	21 Dec 2018 23:04	JC/MD	Ok,M
29	VX1221WBSD02	VX006740.D	21 Dec 2018 23:31	JC/MD	Ok,M
30	PB115900TB	VX006741.D	21 Dec 2018 23:58	JC/MD	Ok
31	J6191-02	VX006742.D	22 Dec 2018 00:25	JC/MD	Ok
32	J6191-04	VX006743.D	22 Dec 2018 00:51	JC/MD	Ok
33	J6192-04	VX006744.D	22 Dec 2018 01:18	JC/MD	Ok
34	J6501-02	VX006745.D	22 Dec 2018 01:45	JC/MD	Ok
35	J6499-02	VX006746.D	22 Dec 2018 02:11	JC/MD	Ok
36	J6200-02	VX006747.D	22 Dec 2018 02:38	JC/MD	Ok
37	J6518-03	VX006748.D	22 Dec 2018 03:05	JC/MD	Ok
38	J6520-04	VX006749.D	22 Dec 2018 03:32	JC/MD	Ok,M
39	J6188-04	VX006750.D	22 Dec 2018 03:58	JC/MD	Ok,M
40	PB115902TB	VX006751.D	22 Dec 2018 04:25	JC/MD	Ok
41	J6517-01DL	VX006752.D	22 Dec 2018 04:52	JC/MD	Not Ok
42	J6492-02DL	VX006753.D	22 Dec 2018 05:18	JC/MD	Ok
43	J6500-01	VX006754.D	22 Dec 2018 05:45	JC/MD	Ok
44	J6503-01	VX006755.D	22 Dec 2018 06:12	JC/MD	Ok
45	J6503-02	VX006756.D	22 Dec 2018 06:39	JC/MD	Ok
46	J6496-01	VX006757.D	22 Dec 2018 07:05	JC/MD	Ok
47	J6534-01	VX006758.D	22 Dec 2018 07:32	JC/MD	Ok
48	J6534-02	VX006759.D	22 Dec 2018 07:59	JC/MD	Ok
49	VSTDCCC050	VX006760.D	22 Dec 2018 08:25	JC/MD	Ok,M

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Instrument ID: MSVOA_X

Daily Analysis Runlog For Sequence/QCBatch ID # VX121818

Review By	Sweetuben	Review On	12/19/2018 11:12:53 AM		
Supervise By	MMDadoda	Supervise On	12/19/2018 11:43:04 AM		
SubDirectory	VX121818	HP Acquire Method	MSVOA_X	HP Processing Method	82x121818w.m

STD. NAME	STD REF.#
Tune/Reschk	VP77947,VP77980
Initial Calibration Stds	VP77963,VP77964,VP77965,VP77966,VP77968,VP77972
CCC	VP77948,VP77949
Internal Standard/PEM	VP75417
ICV/I.BLK	VP77979

Sr#	SampleId	ClientID	Data File Name	Date-Time	Comment	Operator	Status
1	BFB	BFB	VX006586.D	18 Dec 2018 08:18		JC/MD	Ok
2	VSTDCCC050	VSTDCCC050	VX006587.D	18 Dec 2018 09:19	Need ical	JC/MD	Not Ok
3	VSTDICC001	VSTDICC001	VX006588.D	18 Dec 2018 10:45	Method good for DOD	JC/MD	Ok,M
4	VSTDICC005	VSTDICC005	VX006589.D	18 Dec 2018 11:11	LR-05,28,49,50,71,81,90	JC/MD	Ok,M
5	VSTDICC020	VSTDICC020	VX006590.D	18 Dec 2018 11:38		JC/MD	Ok,M
6	VSTDICCC050	VSTDICCC050	VX006591.D	18 Dec 2018 12:04		JC/MD	Ok,M
7	VSTDICC100	VSTDICC100	VX006592.D	18 Dec 2018 12:31		JC/MD	Ok,M
8	VSTDICC150	VSTDICC150	VX006593.D	18 Dec 2018 12:57		JC/MD	Ok,M
9	VSTDICV050	ICVVX121818	VX006594.D	18 Dec 2018 13:24		JC/MD	Ok,M
10	VX1218WBL01	VX1218WBL01	VX006595.D	18 Dec 2018 13:56	pH#Lot#V9109	JC/MD	Ok
11	VX1218WBS01	VX1218WBS01	VX006596.D	18 Dec 2018 14:31		JC/MD	Ok,M
12	J6424-06	TB01_121318	VX006597.D	18 Dec 2018 14:58	vial A pH<2	JC/MD	Ok
13	J6413-02	MW-2R	VX006598.D	18 Dec 2018 15:25	vial A pH<2	JC/MD	Ok
14	J6438-16	23701	VX006599.D	18 Dec 2018 15:51		JC/MD	Ok
15	J6462-06DL	OILY-WATERDL	VX006600.D	18 Dec 2018 16:18	Need straight run	JC/MD	Not Ok
16	VX1218WBSD01	VX1218WBSD01	VX006601.D	18 Dec 2018 16:45		JC/MD	Ok,M
17	J6405-13	EB01-20181211	VX006602.D	18 Dec 2018 17:11	vial B pH<2	JC/MD	Ok
18	J6411-17DL	EP1-MW-I-1218DL 40X	VX006603.D	18 Dec 2018 17:38	vial B pH<2	JC/MD	Ok
19	J6411-18DL	EP1-MW-K-1218DL 10	VX006604.D	18 Dec 2018 18:05	vial B pH<2	JC/MD	Ok
20	J6405-08DL	RE105D2-20181210DL	VX006605.D	18 Dec 2018 18:31	vial B pH<2	JC/MD	Ok
21	J6405-09	RE108D1-20181210	VX006606.D	18 Dec 2018 18:58	vial B pH<2	JC/MD	Ok

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Instrument ID: MSVOA_X

Daily Analysis Runlog For Sequence/QCBatch ID # VX121818

Review By	Sweetuben	Review On	12/19/2018 11:12:53 AM		
Supervise By	MMDadoda	Supervise On	12/19/2018 11:43:04 AM		
SubDirectory	VX121818	HP Acquire Method	MSVOA_X	HP Processing Method	82x121818w.m

STD. NAME	STD REF.#
Tune/Reschk	VP77947,VP77980
Initial Calibration Stds	VP77963,VP77964,VP77965,VP77966,VP77968,VP77972
CCC	VP77948,VP77949
Internal Standard/PEM	VP75417
ICV/I.BLK	VP77979

22	J6405-10DL	RE108D2-20181210DL	VX006607.D	18 Dec 2018 19:25	vial B pH<2	JC/MD	Ok
23	VSTDCCC050	VSTDCCC050EC	VX006608.D	18 Dec 2018 19:51		JC/MD	Ok,M
24	BFB	BFB	VX006609.D	18 Dec 2018 20:18		JC/MD	Ok
25	VSTDCCC050	VSTDCCC050	VX006610.D	18 Dec 2018 21:11		JC/MD	Ok,M
26	VX1218WBL02	VX1218WBL02	VX006611.D	18 Dec 2018 22:05		JC/MD	Ok
27	VX1218WBS02	VX1218WBS02	VX006612.D	18 Dec 2018 22:31		JC/MD	Ok,M
28	VX1218WBSD02	VX1218WBSD02	VX006613.D	18 Dec 2018 22:58		JC/MD	Ok,M
29	J6405-11DL	DUP03-20181210DL	VX006614.D	18 Dec 2018 23:25	vial B pH<2	JC/MD	Ok
30	J6405-12DL	DUP04-20181210DL	VX006615.D	18 Dec 2018 23:51	vial B pH<2	JC/MD	Ok
31	J6408-15	SA.MW129I-20181208	VX006616.D	19 Dec 2018 00:18	vial A pH<2	JC/MD	Ok
32	J6408-07	SA.PZ157I1-20181208	VX006617.D	19 Dec 2018 00:45	vial A pH<2	JC/MD	Ok
33	J6408-08	SA.PZ138I1-20181208	VX006618.D	19 Dec 2018 01:11	vial A pH<2	JC/MD	Ok
34	J6408-12	SA.157I-20181208	VX006619.D	19 Dec 2018 01:38	vial A pH<2	JC/MD	Ok
35	J6408-13	SA.PZ182I-20181208	VX006620.D	19 Dec 2018 02:05	vial A pH<2	JC/MD	Ok
36	J6408-14	SA.MW127I-20181208	VX006621.D	19 Dec 2018 02:31	vial A pH<2	JC/MD	Ok
37	J6408-16	SA.PZ134I-20181208	VX006622.D	19 Dec 2018 02:58	vial A pH<2	JC/MD	Ok
38	J6408-17	SA.PZ163I-20181208	VX006623.D	19 Dec 2018 03:25	vial A pH<2	JC/MD	Ok
39	J6408-18	DUP01-20181208	VX006624.D	19 Dec 2018 03:52	vial A pH<2	JC/MD	Ok
40	J6449-03	MW-16A_R1	VX006625.D	19 Dec 2018 04:18	vial A pH<2	JC/MD	Ok
41	J6449-04	MW-16B_R1	VX006626.D	19 Dec 2018 04:45	vial A pH<2	JC/MD	Ok
42	J6449-05	MW-16C_R1	VX006627.D	19 Dec 2018 05:11	vial A pH<2	JC/MD	Ok
43	J6449-06	MW-16D_R1	VX006628.D	19 Dec 2018 05:38	vial A pH<2	JC/MD	Ok

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Instrument ID: MSVOA_X

Daily Analysis Runlog For Sequence/QCBatch ID # VX121818

Review By	Sweetuben	Review On	12/19/2018 11:12:53 AM		
Supervise By	MMDadoda	Supervise On	12/19/2018 11:43:04 AM		
SubDirectory	VX121818	HP Acquire Method	MSVOA_X	HP Processing Method	82x121818w.m

STD. NAME	STD REF.#
Tune/Reschk	VP77947,VP77980
Initial Calibration Stds	VP77963,VP77964,VP77965,VP77966,VP77968,VP77972
CCC	VP77948,VP77949
Internal Standard/PEM	VP75417
ICV/I.BLK	VP77979

44	J6449-07	MW-17A_R1	VX006629.D	19 Dec 2018 06:05	vial A pH<2	JC/MD	Ok
45	J6408-09	SA.PZ135I-20181208	VX006630.D	19 Dec 2018 06:31	vial A pH<2	JC/MD	Ok
46	J6408-10MS	SA.PZ135I-20181208M	VX006631.D	19 Dec 2018 06:58	vial A pH<2	JC/MD	Ok,M
47	J6408-11MSD	SA.PZ135I-20181208M	VX006632.D	19 Dec 2018 07:25	Vial A pH<2	JC/MD	Ok
48	VSTDCCC050	VSTDCCC050EC	VX006633.D	19 Dec 2018 07:51		JC/MD	Ok

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Instrument ID: MSVOA_X

Daily Analysis Runlog For Sequence/QCBatch ID # VX121918

Review By	Sweetuben	Review On	12/20/2018 9:29:13 AM		
Supervise By	MMDadoda	Supervise On	12/20/2018 11:41:05 AM		
SubDirectory	VX121918	HP Acquire Method	MSVOA_X	HP Processing Method	82x121818w.m

STD. NAME	STD REF.#
Tune/Reschk	VP78028
Initial Calibration Stds	VP77963,VP77964,VP77965,VP77966,VP77968,VP77972
CCC	VP78029,VP78030
Internal Standard/PEM	VP75417
ICV/I.BLK	VP77979

Sr#	SampleId	ClientID	Data File Name	Date-Time	Comment	Operator	Status
1	BFB	BFB	VX006634.D	19 Dec 2018 13:50		JC/MD	Ok
2	VSTDCCC050	VSTDCCC050	VX006635.D	19 Dec 2018 14:22		JC/MD	Ok,M
3	VX1219WBL01	VX1219WBL01	VX006636.D	19 Dec 2018 14:54	pH#LOT#V9109	JC/MD	Ok
4	VX1219WBS01	VX1219WBS01	VX006637.D	19 Dec 2018 15:24		JC/MD	Ok,M
5	J6479-06	TRIP-BLANK	VX006638.D	19 Dec 2018 15:51	Vial A pH<2	JC/MD	Ok
6	J6479-05	FIELD-BLANK	VX006639.D	19 Dec 2018 16:18	Vial A pH<2	JC/MD	Ok
7	J6488-01	TB-01-181218	VX006640.D	19 Dec 2018 16:44	Contamination of comp# 16,Vial A pH<2	JC/MD	Not Ok
8	J6486-03	S72-EB-2018-2	VX006641.D	19 Dec 2018 17:11	Vial A pH<2	JC/MD	Ok
9	J6484-18	978-TB121818	VX006642.D	19 Dec 2018 17:38	Vial A pH<2	JC/MD	Ok
10	J6484-17	977-FB121818	VX006643.D	19 Dec 2018 18:04	Vial A pH<2	JC/MD	Ok
11	J6479-01	MW-1	VX006644.D	19 Dec 2018 18:31	Vial A pH<2	JC/MD	Ok
12	J6479-02	MW-2	VX006645.D	19 Dec 2018 18:58	Vial A pH<2	JC/MD	Ok
13	J6479-03	MW-4	VX006646.D	19 Dec 2018 19:24	Vial A pH<2	JC/MD	Ok
14	J6479-04	DUP-1	VX006647.D	19 Dec 2018 19:51	Vial A pH<2	JC/MD	Ok
15	J6479-07	MW-3	VX006648.D	19 Dec 2018 20:18	Vial A pH<2	JC/MD	Ok
16	J6491-04	GT103-AFTER-FILTER	VX006649.D	19 Dec 2018 20:44	Vial A pH<2	JC/MD	Ok
17	J6196-08	EO-01-121818-A	VX006650.D	19 Dec 2018 21:11	pH#7.0 vial A	JC/MD	Ok
18	J6196-10	EO-01-121818-B	VX006651.D	19 Dec 2018 21:38	pH#7.0 vial A	JC/MD	Ok
19	J6196-12	EO-01-121818-C	VX006652.D	19 Dec 2018 22:04	pH#7.0 vial A	JC/MD	Ok
20	J6199-10	SU-02-121818-A	VX006653.D	19 Dec 2018 22:31	pH#7.0 vial A	JC/MD	Ok
21	J6199-12	SU-02-121818-B	VX006654.D	19 Dec 2018 22:58	pH#7.0 vial A	JC/MD	Ok

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Instrument ID: MSVOA_X

Daily Analysis Runlog For Sequence/QCBatch ID # VX121918

Review By	Sweetuben	Review On	12/20/2018 9:29:13 AM		
Supervise By	MMDadoda	Supervise On	12/20/2018 11:41:05 AM		
SubDirectory	VX121918	HP Acquire Method	MSVOA_X	HP Processing Method	82x121818w.m

STD. NAME	STD REF.#
Tune/Reschk	VP78028
Initial Calibration Stds	VP77963,VP77964,VP77965,VP77966,VP77968,VP77972
CCC	VP78029,VP78030
Internal Standard/PEM	VP75417
ICV/I.BLK	VP77979

22	J6194-08	OK-01-121818-A	VX006655.D	19 Dec 2018 23:24	pH#7.0 vial A	JC/MD	Ok
23	J6194-10	OK-01-121818-B	VX006656.D	19 Dec 2018 23:51	pH#7.0 vial A	JC/MD	Ok
24	J6484-04	966-MW-04(23)	VX006657.D	20 Dec 2018 00:17	Vial A pH<2	JC/MD	Ok
25	J6484-05MS	966-MW-04(23)MS	VX006658.D	20 Dec 2018 00:44	Vial A pH<2	JC/MD	Ok,M
26	J6484-06MSD	966-MW-04(23)MSD	VX006659.D	20 Dec 2018 01:11	Vial A pH<2	JC/MD	Ok,M
27	VSTDCCC050	VSTDCCC050EC	VX006660.D	20 Dec 2018 01:37		JC/MD	Ok,M

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Instrument ID: MSVOA_X

Daily Analysis Runlog For Sequence/QCBatch ID # VX122018

Review By	Sweetuben	Review On	12/21/2018 10:54:49 AM		
Supervise By	MMDadoda	Supervise On	12/21/2018 10:55:57 AM		
SubDirectory	VX122018	HP Acquire Method	MSVOA_X	HP Processing Method	82x121818w.m

STD. NAME	STD REF.#
Tune/Reschk	VP78062,VP78082
Initial Calibration Stds	VP77963,VP77964,VP77965,VP77966,VP77968,VP77972
CCC	VP78063,VP78064,VP78085,VP78086
Internal Standard/PEM	VP75417
ICV/I.BLK	VP77979

Sr#	SampleId	ClientID	Data File Name	Date-Time	Comment	Operator	Status
1	BFB	BFB	VX006661.D	20 Dec 2018 08:31		JC/MD	Ok
2	VSTDCCC050	VSTDCCC050	VX006662.D	20 Dec 2018 09:00		JC/MD	Ok,M
3	VX1220WBL01	VX1220WBL01	VX006663.D	20 Dec 2018 09:34	pH#Lot#V9109	JC/MD	Ok
4	J6488-01	TB-01-181218	VX006664.D	20 Dec 2018 10:01	vial B pH<2	JC/MD	Ok
5	VX1220WBS01	VX1220WBS01	VX006665.D	20 Dec 2018 10:27		JC/MD	Ok,M
6	J6492-04	QNWP8-TRIP-BLANK	VX006666.D	20 Dec 2018 10:54	vial A pH<2	JC/MD	Ok
7	J6492-03	QNWP8-EQUIP.BLANK	VX006667.D	20 Dec 2018 11:21	vial A pH<2	JC/MD	Ok
8	J6474-01DL	S49-0492DL	VX006668.D	20 Dec 2018 11:47	vial B pH<2	JC/MD	Ok
9	J6492-02	QNWP8-MW27S-GW	VX006669.D	20 Dec 2018 12:14	run straight	JC/MD	Not Ok
10	J6492-01	QNWP8-MW26S-GW	VX006670.D	20 Dec 2018 12:41	vial B pH>2	JC/MD	Ok
11	J6484-02	964-MW-02(23.8)	VX006671.D	20 Dec 2018 13:07	vial A pH<2	JC/MD	Ok
12	J6484-07	967-MW-05(17)	VX006672.D	20 Dec 2018 13:34	vial A pH<2	JC/MD	Ok
13	J6484-08	968-MW-06(17)	VX006673.D	20 Dec 2018 14:01	vial A pH<2	JC/MD	Ok
14	VX1220WBSD01	VX1220WBSD01	VX006674.D	20 Dec 2018 14:27		JC/MD	Ok,M
15	J6484-09	969-MW-07(22.5)	VX006675.D	20 Dec 2018 14:54	vial A pH<2	JC/MD	Ok
16	J6484-10	970-MW-11(15)	VX006676.D	20 Dec 2018 15:21	vial A pH<2	JC/MD	Ok
17	J6484-11	971-MW-15(17)	VX006677.D	20 Dec 2018 15:47	vial A pH<2	JC/MD	Ok
18	J6484-12	972-MW-16(22.5)	VX006678.D	20 Dec 2018 16:14	vial A pH<2	JC/MD	Ok
19	J6484-14	974-MW-18(21.5)	VX006679.D	20 Dec 2018 16:41	vial A pH<2	JC/MD	Ok
20	J6484-15	975-MW-19(28)	VX006680.D	20 Dec 2018 17:07	vial A pH<2	JC/MD	Ok
21	J6484-16	976-MW-20(22)	VX006681.D	20 Dec 2018 17:34	vial A pH<2	JC/MD	Ok

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Instrument ID: MSVOA_X

Daily Analysis Runlog For Sequence/QCBatch ID # VX122018

Review By	Sweetuben	Review On	12/21/2018 10:54:49 AM		
Supervise By	MMDadoda	Supervise On	12/21/2018 10:55:57 AM		
SubDirectory	VX122018	HP Acquire Method	MSVOA_X	HP Processing Method	82x121818w.m

STD. NAME	STD REF.#
Tune/Reschk	VP78062,VP78082
Initial Calibration Stds	VP77963,VP77964,VP77965,VP77966,VP77968,VP77972
CCC	VP78063,VP78064,VP78085,VP78086
Internal Standard/PEM	VP75417
ICV/I.BLK	VP77979

22	J6469-02	DRUM-1	VX006682.D	20 Dec 2018 18:01	pH#7.0 vial A	JC/MD	Ok
23	J6516-01	EXCAVATION-WATER	VX006683.D	20 Dec 2018 18:27	vial A pH<2	JC/MD	Ok
24	J6484-01	963-MW-01(23)	VX006684.D	20 Dec 2018 18:54	vial A pH<2 Need 10X	JC/MD	Dilution
25	J6484-03	965-MW-03A(17)	VX006685.D	20 Dec 2018 19:21	vial A pH<2 Need 10X	JC/MD	Dilution
26	J6484-13	973-MW-17(15.5)	VX006686.D	20 Dec 2018 19:47		JC/MD	Ok
27	VSTDCCC050	VSTDCCC050EC	VX006687.D	20 Dec 2018 20:14		JC/MD	Ok,M
28	BFB	BFB	VX006688.D	20 Dec 2018 20:41		JC/MD	Ok
29	VSTDCCC050	VSTDCCC050	VX006689.D	20 Dec 2018 21:34		JC/MD	Ok,M
30	VX1220WBL02	VX1220WBL02	VX006690.D	20 Dec 2018 22:27		JC/MD	Ok
31	VX1220WBS02	VX1220WBS02	VX006691.D	20 Dec 2018 22:54		JC/MD	Ok,M
32	VX1220WBSD02	VX1220WBSD02	VX006692.D	20 Dec 2018 23:20		JC/MD	Ok,M
33	J6514-08	S49-TB-2018-2	VX006693.D	20 Dec 2018 23:47	vial A pH<2	JC/MD	Ok
34	J6517-09	FB-121918-01	VX006694.D	21 Dec 2018 00:14	vial A pH<2	JC/MD	Ok
35	J6514-01	S49-0494	VX006695.D	21 Dec 2018 00:41	vial A pH<2 Need 10X	JC/MD	Dilution
36	J6514-02	S49-0495	VX006696.D	21 Dec 2018 01:07	vial A pH<2 Need 10X	JC/MD	Dilution
37	J6514-03	S49-0496	VX006697.D	21 Dec 2018 01:34	vial A pH<2 Need 10X	JC/MD	Dilution
38	J6514-04	S49-0499	VX006698.D	21 Dec 2018 02:01	vial A pH<2 Need 20X	JC/MD	Dilution
39	J6514-05	S49-0500	VX006699.D	21 Dec 2018 02:28	vial A pH<2 E flag in previous sample	JC/MD	ReRun
40	J6514-06	S49-0497	VX006700.D	21 Dec 2018 02:54	vial A pH<2	JC/MD	Ok
41	J6514-07	S49-0498	VX006701.D	21 Dec 2018 03:21	vial A pH<2	JC/MD	Ok
42	J6517-01	T3-MW-2-9.0-121918	VX006702.D	21 Dec 2018 03:48	vial A pH<2	JC/MD	Ok,M

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Instrument ID: MSVOA_X

Daily Analysis Runlog For Sequence/QCBatch ID # VX122018

Review By	Sweetuben	Review On	12/21/2018 10:54:49 AM		
Supervise By	MMDadoda	Supervise On	12/21/2018 10:55:57 AM		
SubDirectory	VX122018	HP Acquire Method	MSVOA_X	HP Processing Method	82x121818w.m

STD. NAME	STD REF.#
Tune/Reschk	VP78062,VP78082
Initial Calibration Stds	VP77963,VP77964,VP77965,VP77966,VP77968,VP77972
CCC	VP78063,VP78064,VP78085,VP78086
Internal Standard/PEM	VP75417
ICV/I.BLK	VP77979

43	J6517-02	T2-MW-5-8.0-121918	VX006703.D	21 Dec 2018 04:15	vial A pH<2	JC/MD	Ok
44	J6517-03	T2-MW-4-8.0-121918	VX006704.D	21 Dec 2018 04:41	vial A pH<2	JC/MD	Ok,M
45	J6517-04	T11-MW-3-8.0-121918	VX006705.D	21 Dec 2018 05:08	vial A pH<2	JC/MD	Ok
46	J6517-05	T3-MW-3-9.0-121918	VX006706.D	21 Dec 2018 05:35	vial A pH<2	JC/MD	Ok,M
47	J6517-06	T3-MW-1-9.0-121918	VX006707.D	21 Dec 2018 06:01	vial A pH<2	JC/MD	Ok
48	J6517-10	DUP-121918-01	VX006708.D	21 Dec 2018 06:28	vial A pH<2	JC/MD	Ok,M
49	J6517-11MS	T3-MW-2-9.0-121918M	VX006709.D	21 Dec 2018 06:55	vial A pH<2	JC/MD	Ok,M
50	J6517-12MSD	T3-MW-2-9.0-121918M	VX006710.D	21 Dec 2018 07:21	vial A pH<2	JC/MD	Ok,M
51	VSTDCCC050	VSTDCCC050EC	VX006711.D	21 Dec 2018 07:48		JC/MD	Ok,M

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Instrument ID: MSVOA_X

Daily Analysis Runlog For Sequence/QCBatch ID # VX122118

Review By	Sweetuben	Review On	12/24/2018 3:36:52 PM		
Supervise By	MMDadoda	Supervise On	12/24/2018 3:39:44 PM		
SubDirectory	VX122118	HP Acquire Method	MSVOA_X	HP Processing Method	82x121818w.m

STD. NAME	STD REF.#
Tune/Reschk	VP78087,VP78089
Initial Calibration Stds	VP77963,VP77964,VP77965,VP77966,VP77968,VP77972
CCC	VP78088,VP78090
Internal Standard/PEM	VP75417
ICV/I.BLK	VP77979

Sr#	SampleId	ClientID	Data File Name	Date-Time	Comment	Operator	Status
1	BFB	BFB	VX006712.D	21 Dec 2018 08:37		JC/MD	Ok
2	VSTDCCC050	VSTDCCC050	VX006713.D	21 Dec 2018 09:07		JC/MD	Ok,M
3	VX1221WBL01	VX1221WBL01	VX006714.D	21 Dec 2018 10:58	pH#Lot#V9110	JC/MD	Ok
4	VX1221WBS01	VX1221WBS01	VX006715.D	21 Dec 2018 11:29		JC/MD	Ok,M
5	J6514-05	S49-0500	VX006716.D	21 Dec 2018 11:56	vial B pH<2	JC/MD	Ok
6	J6519-12	DUP-122018-02	VX006717.D	21 Dec 2018 12:22	vial B pH<2 Need 40X	JC/MD	Dilution
7	J6519-08	T11-MW-16-10.5-12201	VX006718.D	21 Dec 2018 12:49	vial B pH<2	JC/MD	Ok
8	J6492-02	QNWP8-MW27S-GW	VX006719.D	21 Dec 2018 13:16	vial B pH<2 Need 5X	JC/MD	Dilution
9	J6503-01	TP-GROUNDWATER-1	VX006720.D	21 Dec 2018 13:43	vial A pH<2 ,run straight	JC/MD	Not Ok
10	J6496-01	WATER-1	VX006721.D	21 Dec 2018 14:09	vial A pH<2 ,run straight	JC/MD	Not Ok
11	VX1221WBSD01	VX1221WBSD01	VX006722.D	21 Dec 2018 14:36		JC/MD	Ok,M
12	J6514-01DL	S49-0494DL	VX006723.D	21 Dec 2018 15:03	vial B pH<2	JC/MD	Ok
13	J6514-02DL	S49-0495DL	VX006724.D	21 Dec 2018 15:29	vial B pH<2	JC/MD	Ok
14	J6514-03DL	S49-0496DL	VX006725.D	21 Dec 2018 15:56	vial B pH<2	JC/MD	Ok
15	J6514-04DL	S49-0499DL	VX006726.D	21 Dec 2018 16:23	Need 100X	JC/MD	Dilution
16	J6519-08RE	T11-MW-16-10.5-12201	VX006727.D	21 Dec 2018 16:50	analyzed to confirm hit	JC/MD	Not Ok
17	J6517-03DL	T2-MW-4-8.0-121918D	VX006728.D	21 Dec 2018 17:17	vial B pH<2	JC/MD	Not Ok
18	J6519-07DL	T11-MW-4-9.0-122018D	VX006729.D	21 Dec 2018 17:43	not matched	JC/MD	Not Ok
19	J6498-07	SSSI-1219-S-TCLP-5	VX006730.D	21 Dec 2018 18:10	Vial A pH#7.0	JC/MD	Ok,M
20	J6498-08	SSSI-1219-S-TCLP-6	VX006731.D	21 Dec 2018 18:37	Vial A pH#7.0	JC/MD	Ok
21	J6484-03DL	965-MW-03A(17)DL	VX006732.D	21 Dec 2018 19:04	vial B pH<2	JC/MD	Ok

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Instrument ID: MSVOA_X

Daily Analysis Runlog For Sequence/QCBatch ID # VX122118

Review By	Sweetuben	Review On	12/24/2018 3:36:52 PM		
Supervise By	MMDadoda	Supervise On	12/24/2018 3:39:44 PM		
SubDirectory	VX122118	HP Acquire Method	MSVOA_X	HP Processing Method	82x121818w.m

STD. NAME	STD REF.#
Tune/Reschk	VP78087,VP78089
Initial Calibration Stds	VP77963,VP77964,VP77965,VP77966,VP77968,VP77972
CCC	VP78088,VP78090
Internal Standard/PEM	VP75417
ICV/I.BLK	VP77979

22	J6484-01DL	963-MW-01(23)DL	VX006733.D	21 Dec 2018 19:30	vial B pH<2	JC/MD	Ok
23	J6519-12DL	DUP-122018-02DL	VX006734.D	21 Dec 2018 19:57	not matched	JC/MD	Not Ok
24	VSTDCCC050	VSTDCCC050EC	VX006735.D	21 Dec 2018 20:24		JC/MD	Ok,M
25	BFB	BFB	VX006736.D	21 Dec 2018 20:51		JC/MD	Ok
26	VSTDCCC050	VSTDCCC050	VX006737.D	21 Dec 2018 21:44		JC/MD	Ok,M
27	VX1221WBL02	VX1221WBL02	VX006738.D	21 Dec 2018 22:37		JC/MD	Ok
28	VX1221WBS02	VX1221WBS02	VX006739.D	21 Dec 2018 23:04		JC/MD	Ok,M
29	VX1221WBSD02	VX1221WBSD02	VX006740.D	21 Dec 2018 23:31		JC/MD	Ok,M
30	PB115900TB	PB115900TB	VX006741.D	21 Dec 2018 23:58		JC/MD	Ok
31	J6191-02	NB-07-122018-A	VX006742.D	22 Dec 2018 00:25	Vial A pH#7.0	JC/MD	Ok
32	J6191-04	NB-07-122018-B	VX006743.D	22 Dec 2018 00:51	Vial A pH#7.0	JC/MD	Ok
33	J6192-04	HD-01-122018	VX006744.D	22 Dec 2018 01:18	Vial A pH#7.0	JC/MD	Ok
34	J6501-02	VNJ-221	VX006745.D	22 Dec 2018 01:45	Vial A pH#7.0	JC/MD	Ok
35	J6499-02	72-11989	VX006746.D	22 Dec 2018 02:11	Vial A pH#7.0	JC/MD	Ok
36	J6200-02	TR-05-122018	VX006747.D	22 Dec 2018 02:38	Vial A pH#7.0	JC/MD	Ok
37	J6518-03	337-SOIL	VX006748.D	22 Dec 2018 03:05	Vial A pH#7.0	JC/MD	Ok
38	J6520-04	ROLLOFF-165	VX006749.D	22 Dec 2018 03:32	Vial A pH#7.0	JC/MD	Ok,M
39	J6188-04	BU-01-122018	VX006750.D	22 Dec 2018 03:58	Vial A pH#7.0	JC/MD	Ok,M
40	PB115902TB	PB115902TB	VX006751.D	22 Dec 2018 04:25		JC/MD	Ok
41	J6517-01DL	T3-MW-2-9.0-121918D	VX006752.D	22 Dec 2018 04:52	vial B pH<2	JC/MD	Not Ok
42	J6492-02DL	QNWP8-MW27S-GWD	VX006753.D	22 Dec 2018 05:18	vial A pH<2	JC/MD	Ok
43	J6500-01	GROUNDWATER	VX006754.D	22 Dec 2018 05:45	vial A pH<2	JC/MD	Ok

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Instrument ID: MSVOA_X

Daily Analysis Runlog For Sequence/QCBatch ID # VX122118

Review By	Sweetuben	Review On	12/24/2018 3:36:52 PM		
Supervise By	MMDadoda	Supervise On	12/24/2018 3:39:44 PM		
SubDirectory	VX122118	HP Acquire Method	MSVOA_X	HP Processing Method	82x121818w.m

STD. NAME	STD REF.#
Tune/Reschk	VP78087,VP78089
Initial Calibration Stds	VP77963,VP77964,VP77965,VP77966,VP77968,VP77972
CCC	VP78088,VP78090
Internal Standard/PEM	VP75417
ICV/I.BLK	VP77979

44	J6503-01	TP-GROUNDWATER-1	VX006755.D	22 Dec 2018 06:12	vial B pH<2	JC/MD	Ok
45	J6503-02	TP-GROUNDWATER-1	VX006756.D	22 Dec 2018 06:39	vial A pH<2	JC/MD	Ok
46	J6496-01	WATER-1	VX006757.D	22 Dec 2018 07:05	vial B pH<2	JC/MD	Ok
47	J6534-01	RMW-2	VX006758.D	22 Dec 2018 07:32	vial A pH<2	JC/MD	Ok
48	J6534-02	MWRV-6	VX006759.D	22 Dec 2018 07:59	vial A pH<2	JC/MD	Ok
49	VSTDCCC050	VSTDCCC050	VX006760.D	22 Dec 2018 08:25		JC/MD	Ok,M

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Prep Standard - Chemical Standard Summary

Order ID : J6484

Test : VOC-TCLVOA-10

Prepbatch ID :

Sequence ID/Qc Batch ID: VX121918,VX122018,VX122118,

Standard ID :
VP72814,VP73258,VP73291,VP74847,VP75417,VP75967,VP76598,VP76657,VP76659,VP76704,VP77168,VP77170,VP77178,VP77200,VP77353,VP77820,VP77825,VP77827,VP77963,VP77964,VP77965,VP77966,VP77968,VP77972,VP77979,VP78028,VP78029,VP78030,VP78062,VP78063,VP78064,VP78082,VP78085,VP78086,VP78087,VP78088,VP78089,VP78090,

Chemical ID :
V1456,V6645,V6647,V7168,V7369,V7850,V8185,V8186,V8187,V8189,V8195,V8274,V8333,V8337,V8406,V8407,V8416,V8480,V8481,V8490,V8589,V8590,V8591,V8620,V8623,V8684,V8690,V8753,V8803,V8809,V8816,V8833,V8834,V8835,V8886,V8887,V8897,V8903,V8906,V8967,V9015,V9021,V9050,V9051,V9119,V9131,V9193,V9194,V9195,V9196,V9201,V9202,

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

STANDARD PREPARATION LOG

RecipeID	NAME	NO.	Prep Date	Expiration D	Prepared By
218	BFB, 25PPM	VP72814	07/12/2018	01/12/2019	sam

FROM 0.500ml of V7850 + 49.500ml of V8684 = Final Quantity: 50.000 ml

RecipeID	NAME	NO.	Prep Date	Expiration D	Prepared By
262	8260 Working STD (BCM)-Second source, 100PPM	VP73258	07/24/2018	01/24/2019	sam

FROM 1.000ml of V7168 + 9.000ml of V8684 = Final Quantity: 10.000 ml

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

STANDARD PREPARATION LOG

RecipeID	NAME	NO.	Prep Date	Expiration D	Prepared By
249	8260 Surrogate, 100PPM	VP73291	07/25/2018	01/25/2019	sam

FROM 0.400ml of V6645 + 99.600ml of V8690 = Final Quantity: 100.000 ml

RecipeID	NAME	NO.	Prep Date	Expiration D	Prepared By
1817	8260 Working Std(2-CVE)-SS, 800ppm	VP74847	09/10/2018	03/10/2019	sam

FROM 1.200ml of V8274 + 13.800ml of V8903 = Final Quantity: 15.000 ml

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

STANDARD PREPARATION LOG

RecipeID	NAME	NO.	Prep Date	Expiration D	Prepared By
247	8260 Internal Standard, 250PPM	VP75417	09/24/2018	02/21/2019	sam

FROM 0.250ml of V7369 + 24.750ml of V8906 = Final Quantity: 25.000 ml

RecipeID	NAME	NO.	Prep Date	Expiration D	Prepared By
1738	8260 surrogate 20 ppm	VP75967	10/09/2018	03/31/2019	sam

FROM 0.020ml of V6645 + 24.980ml of V8753 = Final Quantity: 25.000 ml

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

STANDARD PREPARATION LOG

RecipeID	NAME	NO.	Prep Date	Expiration D	Prepared By
617	8260 Surrogate, 400PPM	VP76598	10/30/2018	03/31/2019	sam

FROM 0.800ml of V6647 + 49.200ml of V9015 = Final Quantity: 50.000 ml

RecipeID	NAME	NO.	Prep Date	Expiration D	Prepared By
1810	8260 Working Std(2-CVE)-800ppm	VP76657	10/31/2018	04/30/2019	sam

FROM 1.200ml of V8833 + 1.200ml of V8834 + 1.200ml of V8835 + 46.000ml of V9021 = Final Quantity: 50.000 ml

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

STANDARD PREPARATION LOG

RecipeID	NAME	NO.	Prep Date	Expiration D	Prepared By
1812	8260 Working Std(2-CVE)-100ppm	VP76659	10/31/2018	04/30/2019	sam

FROM 17.500ml of V9021 + 2.500ml of VP76657 = Final Quantity: 20.000 ml

RecipeID	NAME	NO.	Prep Date	Expiration D	Prepared By
719	8260 Working STD (BCM)-First source, 400PPM	VP76704	11/01/2018	05/01/2019	sam

FROM 1.200ml of V8185 + 1.200ml of V8186 + 1.200ml of V8187 + 1.200ml of V8189 + 1.200ml of V8195 + 24.000ml of V9021 = Final Quantity: 30.000 ml

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

STANDARD PREPARATION LOG

RecipeID	NAME	NO.	Prep Date	Expiration D	Prepared By
257	8260 Calibration Working STD Mix-First source, 160PPM	VP77168	11/19/2018	12/31/2018	sam

FROM 0.400ml of V8333 + 0.800ml of V8407 + 0.800ml of V8481 + 0.800ml of V8803 + 0.800ml of V8887 + 0.800ml of V9051 + 1.200ml of V8406 + 1.200ml of V8480 + 1.200ml of V8589 + 1.200ml of V8590 + 1.200ml of V8809 + 1.200ml of V8886 + 1.200ml of V9050 + 1.600ml of V8591 + 10.600ml of V9131 = Final Quantity: 25.000 ml

RecipeID	NAME	NO.	Prep Date	Expiration D	Prepared By
245	8260 Calibration Working STD Mix-First source, 20PPM	VP77170	11/19/2018	12/31/2018	sam

FROM 17.500ml of V9131 + 2.500ml of VP77168 = Final Quantity: 20.000 ml

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

STANDARD PREPARATION LOG

RecipeID	NAME	NO.	Prep Date	Expiration D	Prepared By
259	8260 Calibration Working STD Mix-Second source, 160PPM	VP77178	11/19/2018	12/31/2018	sam

FROM 0.160ml of V8337 + 0.200ml of V8623 + 0.800ml of V8416 + 0.800ml of V8490 + 0.800ml of V8816 + 0.800ml of V8897 + 0.800ml of V8967 + 1.400ml of V8620 + 4.240ml of V9131 = Final Quantity: 10.000 ml

RecipeID	NAME	NO.	Prep Date	Expiration D	Prepared By
252	8260 Working STD (BCM)-First source, 100PPM	VP77200	11/19/2018	05/20/2019	sam

FROM 1.250ml of V8189 + 23.750ml of V9131 = Final Quantity: 25.000 ml

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

STANDARD PREPARATION LOG

RecipeID	NAME	NO.	Prep Date	Expiration D	Prepared By
253	8260 Working STD (BCM)-First source, 20PPM	VP77353	11/27/2018	05/01/2019	sam

FROM 0.250ml of V8195 = Final Quantity: 25.000 ml

RecipeID	NAME	NO.	Prep Date	Expiration D	Prepared By
263	8260 Working STD (Acrolein)-Second source, 800PPM	VP77820	12/12/2018	01/08/2019	sam

FROM 0.400ml of V9202 + 1.200ml of V9201 + 8.400ml of V9119 = Final Quantity: 10.000 ml

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

STANDARD PREPARATION LOG

RecipeID	NAME	NO.	Prep Date	Expiration D	Prepared By
51	8260 Working STD (Acrolein) -first source, 800PPM	VP77825	12/12/2018	01/10/2019	sam

FROM 0.400ml of V9196 + 1.200ml of V9193 + 1.200ml of V9194 + 1.200ml of V9195 + 21.000ml of V9119 = Final Quantity: 25.000 ml

RecipeID	NAME	NO.	Prep Date	Expiration D	Prepared By
180	8260 Working STD (Acrolein)-First source, 100PPM	VP77827	12/12/2018	01/10/2019	sam

FROM 17.500ml of V9119 + 2.500ml of VP77825 = Final Quantity: 20.000 ml

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

STANDARD PREPARATION LOG

RecipeID	NAME	NO.	Prep Date	Expiration D	Prepared By
334	1 PPB ICC, 8260-Water	VP77963	12/18/2018	12/19/2018	john

FROM 39.982ml of V1456 + 0.002ml of VP75967 + 0.002ml of VP76659 + 0.002ml of VP77170 + 0.002ml of VP77353 + 0.002ml of VP77827 + 0.008ml of VP75417 = Final Quantity: 40.000 ml

RecipeID	NAME	NO.	Prep Date	Expiration D	Prepared By
335	5 PPB ICC, 8260-Water	VP77964	12/18/2018	12/19/2018	john

FROM 39.942ml of V1456 + 0.008ml of VP75417 + 0.010ml of VP75967 + 0.010ml of VP76659 + 0.010ml of VP77170 + 0.010ml of VP77353 + 0.010ml of VP77827 = Final Quantity: 40.000 ml

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

STANDARD PREPARATION LOG

RecipeID	NAME	NO.	Prep Date	Expiration D	Prepared By
337	20 PPB ICC, 8260-Water	VP77965	12/18/2018	12/19/2018	john

FROM 39.961ml of V1456 + 0.005ml of VP76657 + 0.005ml of VP77168 + 0.005ml of VP77825 + 0.008ml of VP73291 + 0.008ml of VP75417 + 0.008ml of VP77200 = Final Quantity: 40.000 ml

RecipeID	NAME	NO.	Prep Date	Expiration D	Prepared By
380	50 PPB ICC, 8260-Water	VP77966	12/18/2018	12/19/2018	john

FROM 39.945ml of V1456 + 0.005ml of VP76598 + 0.005ml of VP76704 + 0.008ml of VP75417 + 0.013ml of VP76657 + 0.013ml of VP77168 + 0.013ml of VP77825 = Final Quantity: 40.000 ml

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

STANDARD PREPARATION LOG

RecipeID	NAME	NO.	Prep Date	Expiration D	Prepared By
381	100 PPB ICC, 8260-Water	VP77968	12/18/2018	12/19/2018	john

FROM 39.897ml of V1456 + 0.008ml of VP75417 + 0.010ml of VP76598 + 0.010ml of VP76704 + 0.025ml of VP76657 + 0.025ml of VP77168 + 0.025ml of VP77825 = Final Quantity: 40.000 ml

RecipeID	NAME	NO.	Prep Date	Expiration D	Prepared By
382	150 PPB ICC, 8260-Water	VP77972	12/18/2018	12/19/2018	john

FROM 39.850ml of V1456 + 0.008ml of VP75417 + 0.015ml of VP76598 + 0.015ml of VP76704 + 0.038ml of VP76657 + 0.038ml of VP77168 + 0.038ml of VP77825 = Final Quantity: 40.000 ml

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

STANDARD PREPARATION LOG

RecipeID	NAME	NO.	Prep Date	Expiration D	Prepared By
385	50 PPB ICV, 8260-Water	VP77979	12/18/2018	12/19/2018	john

FROM 39.930ml of V1456 + 0.005ml of VP76598 + 0.008ml of VP75417 + 0.013ml of VP74847 + 0.013ml of VP77178 + 0.013ml of VP77820 + 0.020ml of VP73258 = Final Quantity: 40.000 ml

RecipeID	NAME	NO.	Prep Date	Expiration D	Prepared By
589	BFB TUNE CHECK	VP78028	12/19/2018	12/20/2018	Sweetuben

FROM 39.984ml of V1456 + 0.016ml of VP72814 = Final Quantity: 40.000 ml

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

STANDARD PREPARATION LOG

RecipeID	NAME	NO.	Prep Date	Expiration D	Prepared By
620	50 PPB CCC, 8260-Water	VP78029	12/19/2018	12/20/2018	Sweetuben

FROM 39.945ml of V1456 + 0.005ml of VP76598 + 0.005ml of VP76704 + 0.008ml of VP75417 + 0.013ml of VP76657 + 0.013ml of VP77168 + 0.013ml of VP77825 = Final Quantity: 40.000 ml

RecipeID	NAME	NO.	Prep Date	Expiration D	Prepared By
620	50 PPB CCC, 8260-Water	VP78030	12/19/2018	12/20/2018	Sweetuben

FROM 39.945ml of V1456 + 0.005ml of VP76598 + 0.005ml of VP76704 + 0.008ml of VP75417 + 0.013ml of VP76657 + 0.013ml of VP77168 + 0.013ml of VP77825 = Final Quantity: 40.000 ml

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

STANDARD PREPARATION LOG

RecipeID	NAME	NO.	Prep Date	Expiration D	Prepared By
589	BFB TUNE CHECK	VP78062	12/20/2018	12/21/2018	Sweetuben

FROM 39.984ml of V1456 + 0.016ml of VP72814 = Final Quantity: 40.000 ml

RecipeID	NAME	NO.	Prep Date	Expiration D	Prepared By
620	50 PPB CCC, 8260-Water	VP78063	12/20/2018	12/21/2018	Sweetuben

FROM 39.945ml of V1456 + 0.005ml of VP76598 + 0.005ml of VP76704 + 0.008ml of VP75417 + 0.013ml of VP76657 + 0.013ml of VP77168 + 0.013ml of VP77825 = Final Quantity: 40.000 ml

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

STANDARD PREPARATION LOG

RecipeID	NAME	NO.	Prep Date	Expiration D	Prepared By
620	50 PPB CCC, 8260-Water	VP78064	12/20/2018	12/21/2018	Sweetuben

FROM 39.945ml of V1456 + 0.005ml of VP76598 + 0.005ml of VP76704 + 0.008ml of VP75417 + 0.013ml of VP76657 + 0.013ml of VP77168 + 0.013ml of VP77825 = Final Quantity: 40.000 ml

RecipeID	NAME	NO.	Prep Date	Expiration D	Prepared By
589	BFB TUNE CHECK	VP78082	12/20/2018	12/21/2018	Sweetuben

FROM 39.984ml of V1456 + 0.016ml of VP72814 = Final Quantity: 40.000 ml

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

STANDARD PREPARATION LOG

RecipeID	NAME	NO.	Prep Date	Expiration D	Prepared By
620	50 PPB CCC, 8260-Water	VP78085	12/20/2018	12/21/2018	Sweetuben

FROM 39.945ml of V1456 + 0.005ml of VP76598 + 0.005ml of VP76704 + 0.008ml of VP75417 + 0.013ml of VP76657 + 0.013ml of VP77168 + 0.013ml of VP77825 = Final Quantity: 40.000 ml

RecipeID	NAME	NO.	Prep Date	Expiration D	Prepared By
620	50 PPB CCC, 8260-Water	VP78086	12/20/2018	12/21/2018	Sweetuben

FROM 39.945ml of V1456 + 0.005ml of VP76598 + 0.005ml of VP76704 + 0.008ml of VP75417 + 0.013ml of VP76657 + 0.013ml of VP77168 + 0.013ml of VP77825 = Final Quantity: 40.000 ml

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

STANDARD PREPARATION LOG

RecipeID	NAME	NO.	Prep Date	Expiration D	Prepared By
589	BFB TUNE CHECK	VP78087	12/21/2018	12/22/2018	john

FROM 39.984ml of V1456 + 0.016ml of VP72814 = Final Quantity: 40.000 ml

RecipeID	NAME	NO.	Prep Date	Expiration D	Prepared By
620	50 PPB CCC, 8260-Water	VP78088	12/21/2018	12/22/2018	john

FROM 39.945ml of V1456 + 0.005ml of VP76598 + 0.005ml of VP76704 + 0.008ml of VP75417 + 0.013ml of VP76657 + 0.013ml of VP77168 + 0.013ml of VP77825 = Final Quantity: 40.000 ml

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

STANDARD PREPARATION LOG

RecipeID	NAME	NO.	Prep Date	Expiration D	Prepared By
589	BFB TUNE CHECK	VP78089	12/21/2018	12/22/2018	john

FROM 39.984ml of V1456 + 0.016ml of VP72814 = Final Quantity: 40.000 ml

RecipeID	NAME	NO.	Prep Date	Expiration D	Prepared By
620	50 PPB CCC, 8260-Water	VP78090	12/21/2018	12/22/2018	john

FROM 39.945ml of V1456 + 0.005ml of VP76598 + 0.005ml of VP76704 + 0.008ml of VP75417 + 0.013ml of VP76657 + 0.013ml of VP77168 + 0.013ml of VP77825 = Final Quantity: 40.000 ml

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Res-Kem General water	DIW / DI Water	DAILY	12/31/2019	03/01/2010 / apatel	03/02/2010 / apatel	V1456

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	555582 / Custom Mixture, 8260 A/B Surrogate Mix [CS 5179-2]	A0118140	03/31/2019	07/25/2018 / sam	03/21/2016 / sam	V6645

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	555582 / Custom Mixture, 8260 A/B Surrogate Mix [CS 5179-2]	A0118140	03/31/2019	10/30/2018 / sam	03/21/2016 / sam	V6647

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	70046 / Bromochloromethane Std. sol/methanol 1000ppm	101416	10/14/2021	07/24/2018 / sam	11/16/2016 / Sam	V7168

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	555581 / Custom Standard, 8260 Internal Std [CS 5179-1]	A0123929	01/31/2020	08/21/2018 / sam	01/06/2017 / Sam	V7369

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	30067 / BFB tuneing solution	A0127174	07/12/2019	07/12/2018 / sam	08/10/2017 / sam	V7850

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	30225 / VOA Mix, bromochloromethane, 2000ug/mL, P&TM, 1mL/ampul	A0133361	12/31/2022	11/01/2018 / sam	12/20/2017 / sam	V8185

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	30225 / VOA Mix, bromochloromethane, 2000ug/mL, P&TM, 1mL/ampul	A0133361	12/31/2022	11/01/2018 / sam	12/20/2017 / sam	V8186

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	30225 / VOA Mix, bromochloromethane, 2000ug/mL, P&TM, 1mL/ampul	A0133361	12/31/2022	11/01/2018 / sam	12/20/2017 / sam	V8187

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	30225 / VOA Mix, bromochloromethane, 2000ug/mL, P&TM, 1mL/ampul	A0133361	12/31/2022	11/01/2018 / sam	12/20/2017 / sam	V8189

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	30225 / VOA Mix, bromochloromethane, 2000ug/mL, P&TM, 1mL/ampul	A0133361	12/31/2022	11/01/2018 / sam	12/20/2017 / sam	V8195

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	95318 / 2-Chloroethyl Vinyl Ether (Min = 5)	012218	01/22/2021	09/10/2018 / sam	01/23/2018 / sam	V8274

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	30470 / VOA Stock Solution, tert-butanol std, 1mL, P&TM	A0133055	12/31/2020	11/17/2018 / sam	02/27/2018 / sam	V8333

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	30470 / VOA Stock Solution, tert-butanol std, 1mL, P&TM	A0126338	12/31/2020	08/07/2018 / sam	02/27/2018 / sam	V8337

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	95319 / Revised Additions Mix (Min = 5)	030918	03/09/2021	11/17/2018 / sam	03/13/2018 / sam	V8406

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	95319 / Revised Additions Mix (Min = 5)	030918	03/09/2021	11/17/2018 / sam	03/13/2018 / sam	V8407

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	95319 / Revised Additions Mix (Min = 5)	030818	03/09/2021	11/19/2018 / sam	03/13/2018 / sam	V8416

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	95317 / Universal VOA Mega Mix (Min order = 5)	111516	11/15/2019	11/17/2018 / sam	04/10/2018 / sam	V8480

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	95317 / Universal VOA Mega Mix (Min order = 5)	111516	11/15/2019	11/17/2018 / sam	04/10/2018 / sam	V8481

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	95317 / Universal VOA Mega Mix (Min order = 5)	041116	11/15/2019	11/19/2018 / sam	04/10/2018 / sam	V8490

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	30006 / VOA Mix, CLP method Calibration Std #1 ketones 5000uq/ml, PTM, 1ml	A0134324	04/30/2021	11/17/2018 / sam	05/24/2018 / sam	V8589

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	30006 / VOA Mix, CLP method Calibration Std #1 ketones 5000uq/ml, PTM, 1ml	A0134324	04/30/2021	11/17/2018 / sam	05/24/2018 / sam	V8590

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	30006 / VOA Mix, CLP method Calibration Std #1 ketones 5000uq/ml, PTM, 1ml	A0134324	04/30/2021	11/17/2018 / sam	05/24/2018 / sam	V8591

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	30006 / VOA Mix, CLP method Calibration Std #1 ketones 5000uq/ml, PTM, 1ml	A0137141	07/31/2021	11/19/2018 / sam	05/31/2018 / sam	V8620

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	30006 / VOA Mix, CLP method Calibration Std #1 ketones 5000uq/ml, PTM, 1ml	A0137141	07/31/2021	11/19/2018 / sam	05/31/2018 / sam	V8623

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA9077-02 / Methanol, Purge/Trap (cs=6x1L)	0000178208	06/21/2019	07/11/2018 / sam	06/26/2018 / sam	V8684

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA9077-02 / Methanol, Purge/Trap (cs=6x1L)	0000178208	01/25/2019	07/25/2018 / sam	06/26/2018 / sam	V8690

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA9077-02 / Methanol, Purge/Trap (cs=6x1L)	0000177891	06/21/2019	10/05/2018 / sam	07/31/2018 / sam	V8753

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	30042 / VOA Mix,500 series method 502.2 Calibration Std #1 gases, 2000uq/ml, PTM, 1ml	A0138634	02/28/2025	11/19/2018 / sam	08/03/2018 / sam	V8803

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	30042 / VOA Mix,500 series method 502.2 Calibration Std #1 gases, 2000uq/ml, PTM, 1ml	A0138634	02/28/2025	11/19/2018 / sam	08/03/2018 / sam	V8809

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	30042 / VOA Mix,500 series method 502.2 Calibration Std #1 gases, 2000ug/ml, PTM, 1ml	A0136734	02/28/2025	11/19/2018 / sam	08/03/2018 / sam	V8816

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	95318 / 2-Chloroethyl Vinyl Ether (Min = 5)	080818	08/08/2021	10/31/2018 / sam	08/09/2018 / sam	V8833

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	95318 / 2-Chloroethyl Vinyl Ether (Min = 5)	080818	08/08/2021	10/31/2018 / sam	08/09/2018 / sam	V8834

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	95318 / 2-Chloroethyl Vinyl Ether (Min = 5)	080818	08/08/2021	10/31/2018 / sam	08/09/2018 / sam	V8835

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	555408 / Custom Standard, Vinyl Acetate Standard w/ Grav [CS 5066-6] TWO SEPARATE LOTS	A0140694	02/28/2019	11/17/2018 / sam	08/17/2018 / sam	V8886

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	555408 / Custom Standard, Vinyl Acetate Standard w/ Grav [CS 5066-6] TWO SEPARATE LOTS	A0140694	02/28/2019	11/17/2018 / sam	08/17/2018 / sam	V8887

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	555408 / Custom Standard, Vinyl Acetate Standard w/ Grav [CS 5066-6] TWO SEPARATE LOTS	A0140567	02/28/2019	11/19/2018 / sam	08/17/2018 / sam	V8897

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA9077-02 / Methanol, Purge/Trap (cs=6x1L)	196627	04/01/2020	09/10/2018 / sam	08/15/2018 / sam	V8903

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA9077-02 / Methanol, Purge/Trap (cs=6x1L)	196627	04/01/2020	09/24/2018 / sam	08/15/2018 / sam	V8906

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	30489 / VOA Mix, 8260B Acetates Mix, P&TM, 1mL	A0139549	01/31/2019	11/19/2018 / sam	09/07/2018 / sam	V8967

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA9077-02 / Methanol, Purge/Trap (cs=6x1L)	196627	04/01/2020	10/30/2018 / sam	09/26/2018 / sam	V9015

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA9077-02 / Methanol, Purge/Trap (cs=6x1L)	196627	04/01/2020	10/31/2018 / sam	09/26/2018 / sam	V9021

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	30489 / VOA Mix, 8260B Acetates Mix, P&TM, 1mL	A0138883	12/31/2018	11/17/2018 / sam	10/13/2018 / sam	V9050

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	30489 / VOA Mix, 8260B Acetates Mix, P&TM, 1mL	A0138883	12/31/2018	11/17/2018 / sam	10/13/2018 / sam	V9051

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA9077-02 / Methanol, Purge/Trap (cs=6x1L)	0000202404	05/18/2020	12/12/2018 / sam	11/07/2018 / sam	V9119

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA9077-02 / Methanol, Purge/Trap (cs=6x1L)	0000202404	05/18/2020	11/17/2018 / sam	11/07/2018 / sam	V9131

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	91980 / Acrolin Std (Min = 5)	121018	01/10/2019	12/12/2018 / sam	12/11/2018 / sam	V9193

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	91980 / Acrolin Std (Min = 5)	121018	01/10/2019	12/12/2018 / sam	12/11/2018 / sam	V9194

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	91980 / Acrolin Std (Min = 5)	121018	01/10/2019	12/12/2018 / sam	12/11/2018 / sam	V9195

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	91980 / Acrolin Std (Min = 5)	121018	01/10/2019	12/12/2018 / sam	12/11/2018 / sam	V9196

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	91980 / Acrolin Std (Min = 5)	120818	01/08/2019	12/12/2018 / sam	12/11/2018 / sam	V9201

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	91980 / Acrolin Std (Min = 5)	120818	01/08/2019	12/12/2018 / sam	12/11/2018 / sam	V9202

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

ISO 9001 QS Registered
ISO 17025-34-35-43 Accredited
Scopes: http://AbsoluteStandards.com

CERTIFIED WEIGHT REPORT

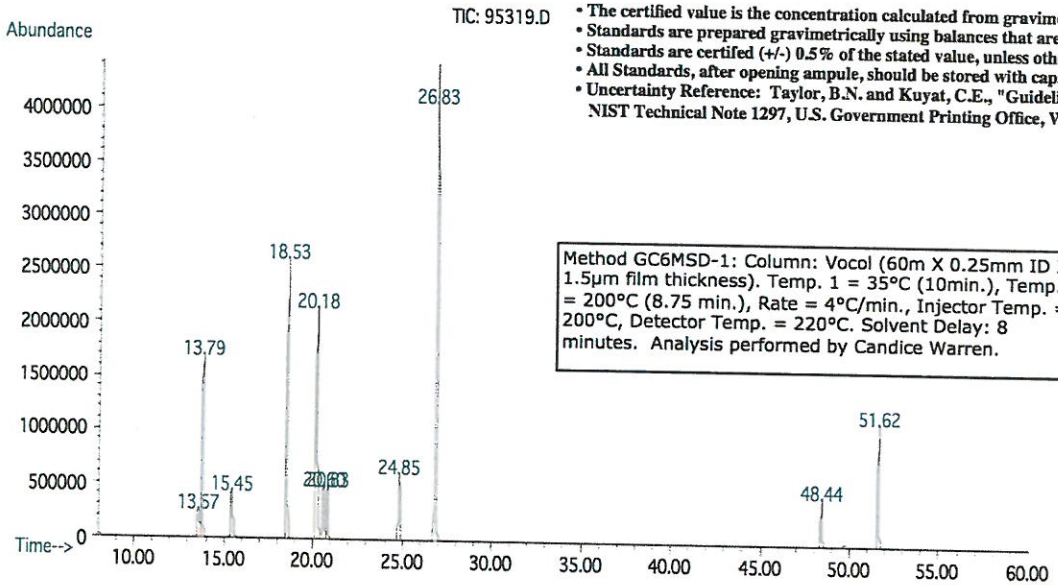
Part Number: 95319
Lot Number: 030818
Description: Revised Additions Mix
11 components
Expiration Date: 030821
Recommended Storage: Refrigerate (4 °C)
Nominal Concentration (µg/mL): Varied
NIST Test ID#: 2506734D

Solvent(s): Methanol **Lot#** DS435

5E-05 Balance Uncertainty
Weight(s) shown below were combined and diluted to (mL): 100.0 0.001 Flask Uncertainty

Formulated By:	Paul Barron	030818 DATE
Reviewed By:	Pedro L. Rentas	030818 DATE

Compound	RM#	Lot Number	Nominal Conc (µg/mL)	Purity (%)	Uncertainty Purity	Target Weight(g)	Actual Weight(g)	Actual Conc (µg/mL)	Expanded Uncertainty (+/-) (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50
1. Acrylonitrile	7	4718CK	10000	99	0.2	1.01021	1.01065	10004.3	40.4	107-13-1	N/A	orl-rat 78 mg/kg
2. 1-Chlorobutane	1072	15538EZ	2000	99.5	0.2	0.20103	0.20127	2002.4	8.1	109-69-3	N/A	orl-rat 2670mg/kg
3. Cyclohexane	1023	13096TK	2000	99.5	0.2	0.20103	0.20117	2001.4	8.1	110-82-7	300 ppm (1050mg/m3/8H)	orl-rat 12705mg/kg
4. Di-isopropyl ether (DIPE)	987	00412MX	2000	99	0.2	0.20204	0.20222	2001.8	8.1	108-20-3	500 ppm (2100mg/m3/8H)	orl-rat 8470mg/kg
5. 1,4-Dioxane	373	03853KE	40000	99	0.2	4.04085	4.04116	40003.1	161.6	123-91-1	25 ppm (90mg/m3/8H)(skin)	orl-mus 5700mg/kg
6. Hexachloroethane	199	12604HBV	2000	99	0.2	0.20204	0.20230	2002.6	8.2	67-72-1	1 ppm (10mg/m3/8H)(skin)	orl-gpg 4970mg/kg
7. Methylcyclohexane	1627	50996APV	2000	99	0.2	0.20204	0.20223	2001.9	8.1	108-87-2	N/A	orl-mus 2250mg/kg
8. Methyl tert-butyl ether (MTBE)	209	AU 01134TR	2000	99.8	0.2	0.20042	0.20076	2003.4	8.1	1634-04-4	N/A	orl-rat 4g/kg
9. Propionitrile	349	1395468	20000	99	0.2	2.02042	2.02088	20004.5	80.8	107-12-0	N/A	orl-rat 39mg/kg
10. Tetrahydrofuran	380	113886	10000	99.9	0.2	1.00111	1.00145	10003.4	40.1	109-99-9	20 ppm (590mg/m3/8H)	orl-rat 2500mg/kg
11. 1,2,3,4-Tetramethylbenzene	491	AP01	2000	93	0.2	0.21508	0.21521	2001.2	8.7	488-23-3	N/A	orl-rat 6408mg/kg



- **The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.**
- **Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).**
- **Standards are certified (+/-) 0.5% of the stated value, unless otherwise stated.**
- **All Standards, after opening ampule, should be stored with caps tight and under appropriate laboratory conditions.**
- **Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, DC, (1994).**

Method GC6MSD-1: Column: Vocol (60m X 0.25mm ID X 1.5µm film thickness). Temp. 1 = 35°C (10min.), Temp. 2 = 200°C (8.75 min.), Rate = 4°C/min., Injector Temp. = 200°C, Detector Temp. = 220°C. Solvent Delay: 8 minutes. Analysis performed by Candice Warren.

Name	MSD RT (min.)
Methyl tert-butyl ether (MTBE)	13.56
Acrylonitrile	13.79
Di-isopropyl ether	15.44
Propionitrile	18.53
Tetrahydrofuran	20.17
Cyclohexane	20.58
1-Chlorobutane	20.83
Methylcyclohexane	24.84
1,4-Dioxane	26.84
Hexachloroethane	48.44
1,2,3,4-Tetramethylbenzene	51.62

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

ISO 9001 QS Registered
ISO 17025-34-35-43 Accredited
Scopes: http://AbsoluteStandards.com

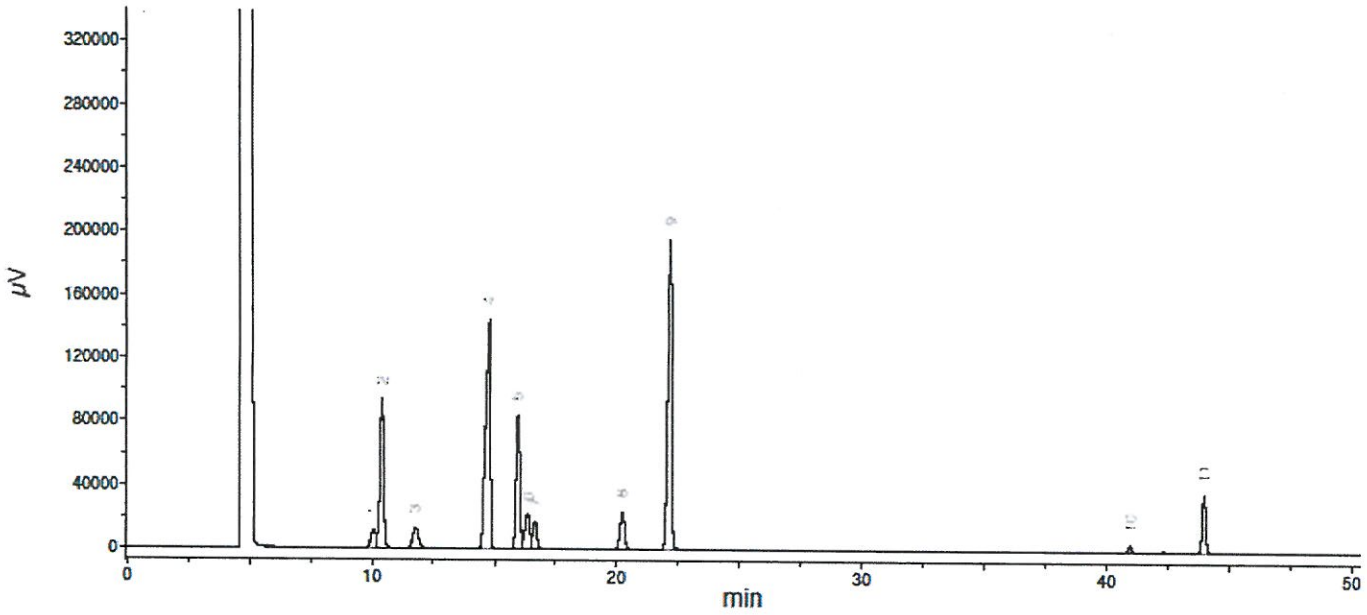
Run 7, "P95319 L030818 [Varied in MeOH]"

Run Length: 50.30 min, 30179 points at 10 points/second.
Created: Fri, Mar 9, 2018 at 1:14:16 PM.
Sampled: Sequence "030918-GC5M1", Method "GC5-M1".
Analyzed using Method "GC5-M1".

Name	FID RT (min.)
Methyl tert-butyl ether (MTBE)	10.05
Acrylonitrile	10.40
Di-isopropyl ether	11.77
Propionitrile	14.78
Tetrahydrofuran	15.96
Cyclohexane	16.35
1-Chlorobutane	16.64
Methylcyclohexane	20.22
1,4-Dioxane	22.16
Hexachloroethane	40.96
1,2,3,4-Tetramethylbenzene	43.96

Comments

GC5-M1 Analysis by Candice Warren
Column ID SPB-Vocol 105 meter X 0.53mm X 3.0µm film thickness
Flow rates: Total flow=290mL/min., Helium (carrier)=10mL/min.,
Helium(make-up)=10mL/min., Hydrogen(make-up)=40mL/min., Air(make-up)=230mL/min.
Oven Profile: Temp. 1=35°C (Time 1=10 min.), Temp 2=200°C (Time 2=8.75 min.),
Rate = 4°C/min., Total run time=60 min. Injector temp.=200°C, FID Temp.=200°C.
FID Signal = Edaq Channel 1
Standard injection = 0.5µL, Range=6



Absolute Standards Inc.

PO Box 5585
Hamden, CT 06518-0585

Phone: 203-281-2917
FAX: 203-281-2922

Safety Data Sheet (SDS) GHS/OSHA Compliant

Section I Product and Company Identification

IDENTITY **ANALYTICAL STANDARD DISSOLVED IN METHANOL**

Manufacturer's Name	ABSOLUTE STANDARDS INC	Emergency Telephone USA & CANADA	**1-800-535-5053**
Address	44 Rossotto Dr. Hamden CT, 06514	Emergency Telephone International Date Prepared/Revised	**1-352-323-3500** May 1, 2015

Section II - Hazards Identification

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

H225	**Highly Flammable Liquid and Vapor**	**H301, 311, 331**	**Toxic if swallowed, skin contact, inhaled**
H370	**Cause damage to organs**	**H351**	**Suspected of causing cancer**
P271	**Use in ventilated area**	**P280**	**Use gloves, eye protection/face sheild**
P302,332	**If on skin, wash with soap and water**	**P305,351,338**	**If in eyes, remove contacts, rinse with water**

Signal Word: DANGER

Section III - Composition

Components (Specific Chemical Identity; Common Name(s))			% (optional)
Methanol	METHYL ALCOHOL	CAS#: 67-56-1	> 97

See Certified Weight Report For Other Analytes Present At Trace Quantities.

INTENDED USE: REFERENCE MATERIAL

Section IV. FIRST AID MEASURES

General advice	Consult a physician. Show this safety data sheet to the doctor in attendance.Move to safe area.
If inhaled	If inhaled, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.
In case of skin contact	Wash with soap and water. Consult a physician.
In case of eye contact	Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.
If swallowed	Do NOT induce vomiting. Rinse mouth with water. Consult a physician.

Section V. FIREFIGHTING MEASURES

Flammability	Flammable in the presence of a source of ignition when the temperature is above the flash point. Keep away from heat/sparks/open flame/hot surface. No smoking.
Suitable extinguishing media	Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Protective equipment for fire	Wear self contained breathing apparatus for fire fighting if necessary.

Section VI. ACCIDENTAL RELEASE MEASURES

Personal precautions	Wear respiratory protection. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Vapours accumulate to form explosive concentrations.
Environmental precautions	Prevent further leakage or spillage if safe to do so. Do not let product enter drains.
Clean up	Contain spillage, and then collect and place in container for disposal according to local regulations (see section 13).

Section VII. HANDLING AND STORAGE

Precautions for safe handling	Avoid contact with skin and eyes. Avoid inhalation of vapour or mist. Use ventilation Keep away from sources of ignition. No smoking. Prevent the build up of electrostatic charge.
Storage Conditions	Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

Section VIII. EXPOSURE CONTROLS/PERSONAL PROTECTION

Methanol 67-56-1 TWA 200 ppm
Skin notation TWA 200 ppm
Potential for skin absorption , ingestion and inhalation.
Personal protective equipment Respiratory protection Handle with gloves. Gloves must be inspected prior to use. Eye protection.
Avoid contact with skin, eyes and clothing. Wash hands thoroughly after handling the product.

Section IX - Physical/Chemical Characteristics

Absolute Standards Inc.

PO Box 5585
Hamden, CT 06518-0585

Phone: 203-281-2917
FAX: 203-281-2922

Boiling Point	65°C	Specific Gravity (H2O = 1)	0.79
Vapor Pressure (mm Hg)	96	Melting Point	-98°C
Vapor Density (AIR = 1)	1.11	Evaporation rate (Butyl Acetate = 1)	4.6

Solubility in Water COMPLETE

Appearance and Odor CLEAR, COLORLESS LIQUID WITH CHARACTERISTIC PUNGENT ODOR.

Section X. STABILITY AND REACTIVITY

Chemical stability — Stable under recommended storage conditions.
Possibility of hazardous reactions — Vapours may form explosive mixture with air.
Conditions to avoid — Heat, flames, sparks, extreme temperature and sunlight.
Materials to avoid — Acid chlorides, Acid anhydrides, Oxidizing agents, Alkali metals, Reducing agents, Acids
Hazardous decomposition products formed under fire conditions. - Carbon oxides

Section XI. TOXICOLOGICAL INFORMATION

LD50 Oral - rat - 5,628 mg/kg
LC50 Inhalation - rat - 4 h - 64000 ppm
LD50 Dermal - rabbit - 15,800 mg/kg
Toxic if absorbed through skin. Causes skin irritation.
Eye damage/eye irritation
Toxic if inhaled. Causes respiratory tract irritation.
Toxic if swallowed.

Section XII. ECOLOGICAL INFORMATION FOR REPORTABLE QUANTITY OF 5000 lbs.

LC50	15,400 mg/l - 96 h
EC50	24,500.00 mg/l - 48 h
EC100	10,000.00 mg/l - 24 h

Section XIII. DISPOSAL CONSIDERATIONS

Dispose with normal Laboratory Solvent Waste.

Section XIV. TRANSPORT INFORMATION

DOT (US)
UN number: 1230 Class: 3 Packing group: II
Proper shipping name: Methanol

IATA
UN number: 1230 Class: 3 Packing group: II
Proper shipping name: Methanol

Section XV. REGULATORY INFORMATION

OSHA Hazards Flammable liquid, Target Organ Effect, Toxic by inhalation., Toxic by ingestion, Toxic by skin absorption, Irritant
SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

Section XVI. Misc. INFORMATION

The information in this Material Safety Data Sheet meets the requirements of the United States Occupational Safety and Health Act and regulations promulgated thereunder (29 CFR 1910.1200 et. seq.) and Global Harmonized System (GHS). This document is intended only as a guide to the appropriate precautionary handling of the material by trained personnel, or supervised by a person trained in chemical handling. The user is responsible for determining the precautions and dangers of this chemical for his or her particular application. Depending on usage, protective clothing including eye and face guards and respirators must be used to avoid contact with material or breathing chemical vapors/fumes. Exposure to this product may have serious adverse health effects. This chemical may interact with other substances. Since the potential uses are so varied, ABSOLUTE STANDARDS INC. cannot warn of all the potential dangers of use or interaction with other chemicals or substances. ABSOLUTE STANDARDS INC. warrants that the chemical meets the specifications set forth on the label. ABSOLUTE STANDARDS INC DISCLAIMS ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED WITH REGARD TO THE PRODUCT SUPPLIED HEREUNDER, ITS MERCHANTABILITY OR ITS FITNESS FOR A PARTICULAR APPLICATION. The user should recognize that this product can cause severe injury or death, especially if improperly handled or the known dangers of use are not heeded. READ ALL PRECAUTIONARY INFORMATION. As new documented general safety information becomes available, Absolute Standards Inc. will periodically revise this Safety Data Sheet. If you have any questions, please call Technical Service at 1-203-281-2917 for assistance.

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

ISO 9001 QS Registered
ISO 17025-34-35-43 Accredited
Scopes: http://AbsoluteStandards.com

CERTIFIED WEIGHT REPORT

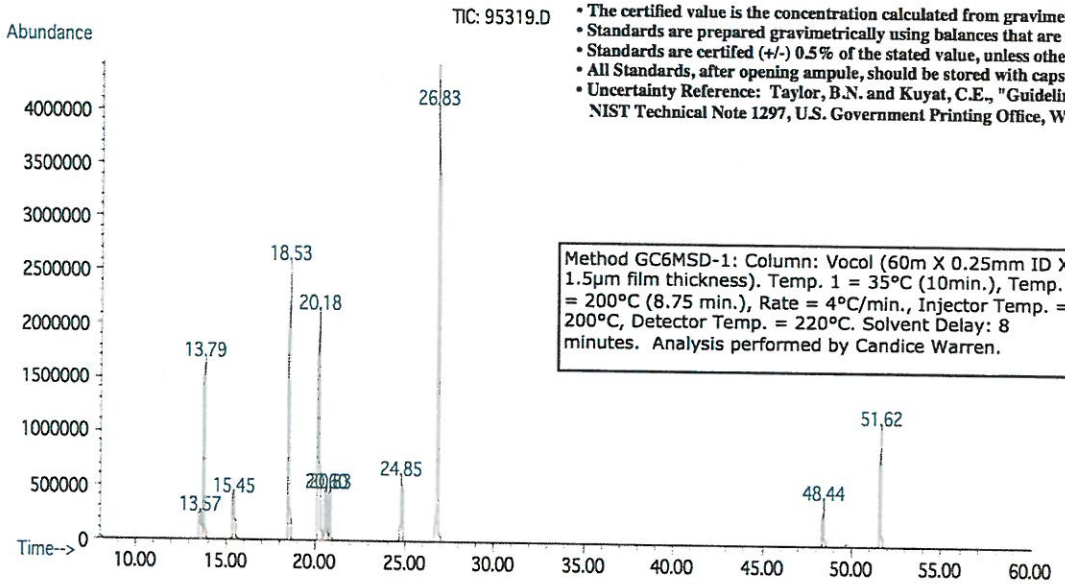
Part Number: 95319
Lot Number: 030918
Description: Revised Additions Mix
11 components
Expiration Date: 030921
Recommended Storage: Refrigerate (4 °C)
Nominal Concentration (µg/mL): Varied
NIST Test ID#: 2506734D

Solvent(s): Methanol **Lot#** DS435

5E-05 Balance Uncertainty
Weight(s) shown below were combined and diluted to (mL): 100.0 0.001 Flask Uncertainty

Formulated By:	Justin Dippold	030918 DATE
Reviewed By:	Pedro L. Rentas	030918 DATE

	Compound	RM#	Lot Number	Nominal Conc (µg/mL)	Purity (%)	Uncertainty Purity	Target Weight(g)	Actual Weight(g)	Actual Conc (µg/mL)	Expanded Uncertainty (+/-) (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50
1.	Acrylonitrile	7	4718CK	10000	99	0.2	1.01021	1.01080	10005.8	40.4	107-13-1	N/A	orl-rat 78 mg/kg
2.	1-Chlorobutane	1072	15538EZ	2000	99.5	0.2	0.20103	0.20130	2002.7	8.1	109-69-3	N/A	orl-rat 2670mg/kg
3.	Cyclohexane	1023	SHBD2795V	2000	99.5	0.2	0.20103	0.20113	2001.0	8.1	110-82-7	300 ppm (1050mg/m3/8H)	orl-rat 12705mg/kg
4.	Di-isopropyl ether (DIPE)	987	00412MX	2000	99	0.2	0.20204	0.20226	2002.2	8.2	108-20-3	500 ppm (2100mg/m3/8H)	orl-rat 8470mg/kg
5.	1,4-Dioxane	373	03853KE	40000	99	0.2	4.04085	4.04105	40002.0	161.6	123-91-1	25 ppm (90mg/m3/8H)(skin)	orl-mus 5700mg/kg
6.	Hexachloroethane	199	12604HBV	2000	99	0.2	0.20204	0.20234	2002.9	8.2	67-72-1	1 ppm (10mg/m3/8H)(skin)	orl-gpg 4970mg/kg
7.	Methylcyclohexane	1627	SHBG0199V	2000	99	0.2	0.20204	0.20231	2002.6	8.2	108-87-2	N/A	orl-mus 2250mg/kg
8.	Methyl tert-butyl ether (MTBE)	209	02197JJ	2000	99.8	0.2	0.20042	0.20070	2002.8	8.1	1634-04-4	N/A	orl-rat 4g/kg
9.	Propionitrile	349	1395468	20000	99	0.2	2.02042	2.02102	20005.9	80.8	107-12-0	N/A	orl-rat 39mg/kg
10.	Tetrahydrofuran	380	113886	10000	99.9	0.2	1.00111	1.00161	10005.0	40.1	109-99-9	20 ppm (590mg/m3/8H)	orl-rat 2500mg/kg
11.	1,2,3,4-Tetramethylbenzene	491	AP01	2000	93	0.2	0.21508	0.21515	2000.7	8.7	488-23-3	N/A	orl-rat 6408mg/kg



- **The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.**
- **Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).**
- **Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.**
- **All Standards, after opening ampule, should be stored with caps tight and under appropriate laboratory conditions.**
- **Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, DC, (1994).**

Method GC6MSD-1: Column: Vocol (60m X 0.25mm ID X 1.5µm film thickness). Temp. 1 = 35°C (10min.), Temp. 2 = 200°C (8.75 min.), Rate = 4°C/min., Injector Temp. = 200°C, Detector Temp. = 220°C. Solvent Delay: 8 minutes. Analysis performed by Candice Warren.

Name	MSD RT (min.)
Methyl tert-butyl ether (MTBE)	13.56
Acrylonitrile	13.79
Di-isopropyl ether	15.44
Propionitrile	18.53
Tetrahydrofuran	20.17
Cyclohexane	20.58
1-Chlorobutane	20.83
Methylcyclohexane	24.84
1,4-Dioxane	26.84
Hexachloroethane	48.44
1,2,3,4-Tetramethylbenzene	51.62

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

ISO 9001 QS Registered
ISO 17025-34-35-43 Accredited
Scopes: http://AbsoluteStandards.com

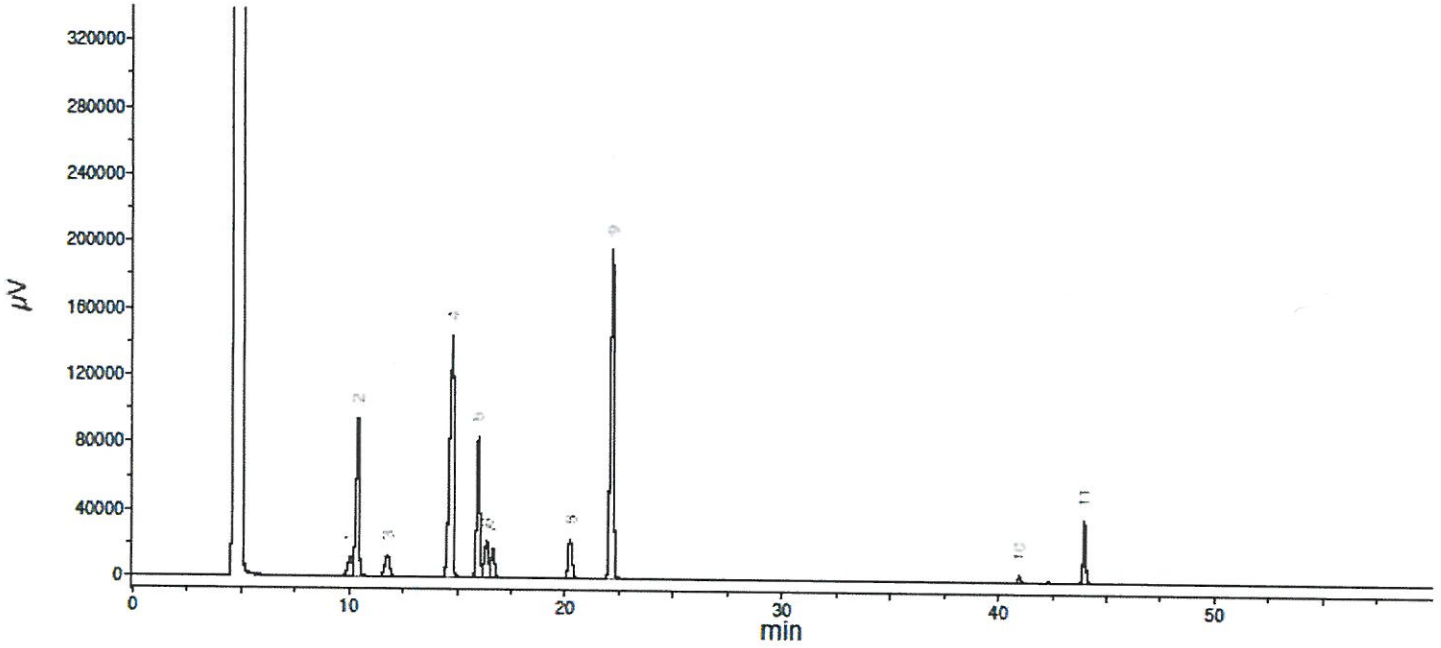
Run 6, "P95319 L030918 [Varied in MeOH]"

Run Length: 60.00 min, 35999 points at 10 points/second.
Created: Fri, Mar 9, 2018 at 12:05:00 PM.
Sampled: Sequence "030918-GC5M1", Method "GC5-M1".
Analyzed using Method "GC5-M1".

Comments

GC5-M1 Analysis by Candice Warren
Column ID SPB-Vocol 105 meter X 0.53mm X 3.0µm film thickness
Flow rates: Total flow=290mL/min., Helium (carrier)=10mL/min.,
Helium(make-up)=10mL/min., Hydrogen(make-up)=40mL/min., Air(make-up)=230mL/min.
Oven Profile: Temp. 1=35°C (Time 1=10 min.), Temp 2=200°C (Time 2=8.75 min.),
Rate = 4°C/min., Total run time=60 min. Injector temp.=200°C, FID Temp.=200°C.
FID Signal = Edaq Channel 1
Standard injection = 0.5µL, Range=6

Name	FID RT (min.)
Methyl tert-butyl ether (MTBE)	10.05
Acrylonitrile	10.40
Di-isopropyl ether	11.77
Propionitrile	14.78
Tetrahydrofuran	15.96
Cyclohexane	16.35
1-Chlorobutane	16.64
Methylcyclohexane	20.22
1,4-Dioxane	22.16
Hexachloroethane	40.96
1,2,3,4-Tetramethylbenzene	43.96



Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

ISO 9001 QS Registered
ISO 17025-34-35-43 Accredited
Scopes: http://AbsoluteStandards.com

CERTIFIED WEIGHT REPORT: Uncertainty < +/-0.5% Stated Values.

Part Number: 95317
Lot Number: 041116
Description: Universal VOA Megamix
69 components
Expiration Date: 041119
Recommended Storage: Freezer (0 °C)
Nominal Concentration(ug/mL): 2000
NIST Test ID#: 822-275872-11
Weight(s) & Volume(s) shown below were combined and diluted to: 100 mL.

Solvent(s): Lot#
Methanol DM417Q19

Formulated By:
Paul Barron 041116
Paul Barron DATE

Reviewed By:
Pedro L. Rentas 041116
Pedro L. Rentas DATE

MSDS Information (Solvent Safety Info. On Attached pg.)

	Compound	(R&W) Part Number	Lot Number	Dil. Factor	Initial Vol. (mL)	Initial Conc.(ug/mL)	Nominal Conc (ug/mL)	Purity (%)	Min. Target Weight(g)	Actual Weight(g)	Actual Conc.(ug/mL)	CAS#	OSHA PEL (TWA)	LD50
1.	Acetonitrile	(0324)	SHBB3849V	na	na	na	2000	99.8	0.20040	0.20060	2002.0	75-05-8	40 ppm (70mg/m3/8h)	orl-rat 2460mg/kg
2.	Allyl chloride (3-Chloropropene)	(0325)	102396	na	na	na	2000	99	0.20202	0.20225	2002.3	107-05-1	1 ppm (3mg/m3/8h)	orl-rat 700mg/kg
3.	Carbon disulphide	(0060)	PO 12273PO	na	na	na	2000	99	0.20202	0.20220	2001.8	75-15-0	4 ppm (12mg/m3) (skin)	orl-rat 1200mg/kg
4.	cis-1,4-Dichloro-2-butene	(1196)	14718EF	na	na	na	2000	95	0.21053	0.21078	2002.4	1476-11-5	N/A	N/A
5.	trans-1,4-Dichloro-2-butene	(0488)	1221BHC	na	na	na	2000	96	0.20406	0.20430	2002.1	110-57-6	N/A	N/A
6.	Diethyl ether (Ethyl ether)	(0153)	02553HC	na	na	na	2000	99.9	0.20020	0.20035	2001.5	60-29-7	400ppm (1200mg/m3/8H)	orl-rat 1215mg/kg
7.	Ethyl methacrylate	(0361)	06126PX	na	na	na	2000	99	0.20202	0.20230	2002.8	97-63-2	N/A	orl-rat 14000mg/kg
8.	Iodomethane	(0489)	12909DQ	na	na	na	2000	99	0.20202	0.20215	2001.3	74-88-4	5 ppm(28mg/m3/8H)(skin)	scu-mus 110mg/kg
9.	Isobutanol	(0445)	13241EB	na	na	na	2000	99.5	0.20101	0.20128	2002.7	78-83-1	50 ppm (150mg/m3/8H)	orl-rat 2460mg/kg
10.	Methacrylonitrile	(0442)	004275T	na	na	na	2000	99	0.20202	0.20220	2001.8	126-98-7	1 ppm (3mg/m3/8h)(skin)	orl-rat 120mg/kg
11.	Methyl acrylate	(1075)	05208KY	na	na	na	2000	99	0.20202	0.20230	2002.8	96-33-3	10 ppm(35mg/m3/8H)(skin)	orl-rat 277mg/kg
12.	Methyl methacrylate	(0404)	030218X	na	na	na	2000	99	0.20202	0.20240	2003.6	80-62-6	100 ppm (410mg/m3/8H)	orl-rat 7872mg/kg
13.	Nitrobenzene	(0228)	01213TV	na	na	na	2000	99	0.20202	0.20210	2000.8	98-95-3	1 ppm (5mg/m3/8h)(skin)	orl-rat 760mg/kg
14.	2-Nitropropane	(0461)	14002JX	na	na	na	2000	95	0.21053	0.21090	2003.6	79-46-9	10 ppm (35mg/m3/8H)	orl-rat 720mg/kg
15.	Pentachloroethane	(0450)	HGA01	na	na	na	2000	98	0.20408	0.20430	2002.1	76-01-7	N/A	N/A
16.	1,1,2-Trichloro-1,2,2-trifluoroethane	(0474)	01221PY	na	na	na	2000	99	0.20202	0.20230	2002.8	76-13-1	1000 ppm (7600mg/m3/8hr)	orl-rat 43g/kg
17.	Bromodichloromethane	35171	101615	0.05	5.00	40012.7	2000	na	na	na	2000.6	75-27-4	N/A	orl-rat 916mg/kg
18.	Dibromochloromethane	35171	101615	0.05	5.00	40005.8	2000	na	na	na	2000.3	124-48-1	N/A	orl-rat 848mg/kg
19.	cis-1,2-Dichloroethene	35171	101615	0.05	5.00	40006.7	2000	na	na	na	2000.3	156-59-2	N/A	N/A
20.	trans-1,2-Dichloroethene	35171	101615	0.05	5.00	40004.9	2000	na	na	na	2000.2	156-60-5	N/A	orl-rat 1235mg/kg
21.	Methylene chloride	35171	101615	0.05	5.00	40002.2	2000	na	na	na	2000.1	75-09-2	500 ppm	orl-rat 2136mg/kg
22.	1,1-Dichloroethene	35251	012815	0.10	10.00	20002.6	2000	na	na	na	2000.3	75-35-4	1 ppm (4mg/m3/8hr)	orl-rat 725mg/kg
23.	Bromoform	95321	012114	0.10	10.00	20004.8	2000	na	na	na	2000.5	75-25-2	0.5 ppm (5mg/m3) (skin)	orl-rat 1147mg/kg
24.	Carbon tetrachloride	95321	012114	0.10	10.00	20004.4	2000	na	na	na	2000.4	56-23-5	2 ppm (12.6mg/m3/8H)	orl-rat 2350mg/kg
25.	Chloroform	95321	012114	0.10	10.00	20005.9	2000	na	na	na	2000.6	67-66-3	50 ppm (240mg/m3) (C)	orl-rat 908mg/kg
26.	Dibromomethane	95321	012114	0.10	10.00	20006.6	2000	na	na	na	2000.7	74-95-3	N/A	orl-rat 108mg/kg
27.	1,1-Dichloroethane	95321	012114	0.10	10.00	20004.9	2000	na	na	na	2000.5	75-34-3	100 ppm	orl-rat 725mg/kg
28.	2,2-Dichloropropane	95321	012114	0.10	10.00	20002.7	2000	na	na	na	2000.3	594-20-7	N/A	N/A
29.	Tetrachloroethene	95321	012114	0.10	10.00	20003.7	2000	na	na	na	2000.4	127-18-4	25 ppm (170mg/m3/8H)(final	orl-rat 2629mg/kg
30.	1,1,1-Trichloroethane	95321	012114	0.10	10.00	20005.9	2000	na	na	na	2000.6	71-55-6	350 ppm (1900mg/m3/8H)	orl-rat 10300mg/kg
31.	1,2-Dibromo-3-chloropropane	35161	021016	0.05	5.00	40004.2	2000	na	na	na	2000.2	96-12-8	0.001 ppm	orl-rat 170mg/kg
32.	1,2-Dibromoethane	35161	021016	0.05	5.00	40002.7	2000	na	na	na	2000.1	106-93-4	20 ppm (8H)	orl-rat 108mg/kg
33.	1,2-Dichloroethane	35161	021016	0.05	5.00	40025.5	2000	na	na	na	2001.3	107-06-2	50 ppm (8H)	orl-rat 670mg/kg
34.	1,2-Dichloropropane	35161	021016	0.05	5.00	40003.2	2000	na	na	na	2000.2	78-87-5	75 ppm (350mg/m3/8H)	orl-rat 1947mg/kg
35.	1,3-Dichloropropane	35161	021016	0.05	5.00	40006.2	2000	na	na	na	2000.3	142-28-9	N/A	orl-mus 2800mg/kg
36.	1,1-Dichloropropene	35161	021016	0.05	5.00	40006.2	2000	na	na	na	2000.3	563-58-6	N/A	N/A
37.	cis-1,3-Dichloropropene	35161	021016	0.05	5.00	40003.9	2000	na	na	na	2000.2	10061-01-5	N/A	N/A
38.	trans-1,3-Dichloropropene	35161	021016	0.05	5.00	40007.3	2000	na	na	na	2000.4	10061-02-6	N/A	N/A
39.	Hexachloro-1,3-butadiene	35161	021016	0.05	5.00	40008.4	2000	na	na	na	2000.4	87-68-3	0.02 ppm (0.24mg/m3/8H)	orl-rat 82mg/kg
40.	1,1,1,2-Tetrachloroethane	35161	021016	0.05	5.00	40012.1	2000	na	na	na	2000.6	630-20-6	N/A	orl-rat 670mg/kg
41.	1,1,2,2-Tetrachloroethane	35161	021016	0.05	5.00	40004.1	2000	na	na	na	2000.2	79-34-5	5 ppm (35mg/m3/8H)(skin)	orl-rat 800mg/kg
42.	1,1,2-Trichloroethane	35161	021016	0.05	5.00	40008.8	2000	na	na	na	2000.4	79-00-5	10 ppm (45mg/m3/8H)(skin)	orl-rat 836mg/kg
43.	Trichloroethene	35161	021016	0.05	5.00	40008.9	2000	na	na	na	2000.4	79-01-6	50 ppm (270mg/m3/8H)	orl-mus 2402mg/kg
44.	1,2,3-Trichloropropane	35161	021016	0.05	5.00	40005.7	2000	na	na	na	2000.3	96-18-4	10 ppm (60mg/m3/8H)	orl-rat 149.8mg/kg
45.	Benzene	35162	021616	0.05	5.00	40047.5	2000	na	na	na	2002.4	71-43-2	1 ppm	orl-rat 489mg/kg
46.	Bromobenzene	35162	021616	0.05	5.00	40012.2	2000	na	na	na	2000.6	108-86-1	N/A	orl-rat 2699mg/kg
47.	n-Butyl benzene	35162	021616	0.05	5.00	40047.2	2000	na	na	na	2002.4	104-51-8	N/A	N/A
48.	Ethyl benzene	35162	021616	0.05	5.00	40010.5	2000	na	na	na	2000.5	100-41-4	100 ppm (435mg/m3/8H)	orl-rat >2000mg/kg
49.	p-Isopropyl toluene	35162	021616	0.05	5.00	40055.2	2000	na	na	na	2002.8	99-87-6	N/A	orl-rat 4750mg/kg
50.	Naphthalene	35162	021616	0.05	5.00	40015.2	2000	na	na	na	2000.6	91-20-3	10 ppm (50mg/m3/8H)	orl-rat 490mg/kg
51.	Styrene	35162	021616	0.05	5.00	40052.8	2000	na	na	na	2002.6	100-42-5	100 ppm	orl-rat 5000mg/kg
52.	Toluene	35162	021616	0.05	5.00	40009.3	2000	na	na	na	2000.5	108-88-3	200 ppm	orl-rat 5000mg/kg
53.	1,2,3-Trichlorobenzene	35162	021616	0.05	5.00	40046.1	2000	na	na	na	2002.3	87-61-6	N/A	ipr-mus 1330mg/kg
54.	1,2,4-Trichlorobenzene	35162	021616	0.05	5.00	40010.7	2000	na	na	na	2000.5	120-82-1	5 ppm (CL) (40mg/m3)	orl-rat 756mg/kg
55.	1,2,4-Trimethylbenzene	35162	021616	0.05	5.00	40015.3	2000	na	na	na	2000.8	95-63-6	N/A	orl-rat 5g/kg
56.	1,3,5-Trimethylbenzene	35162	021616	0.05	5.00	40002.0	2000	na	na	na	2000.1	108-67-8	N/A	N/A
57.	m-Xylene	35162	021616	0.05	5.00	40036.0	2000	na	na	na	2001.8	108-38-3	100 ppm (435mg/m3/8H)	orl-rat 5g/kg
58.	tert-Butyl benzene	35163	021616	0.05	5.00	40041.8	2000	na	na	na	2002.1	98-06-6	N/A	N/A
59.	sec-Butyl benzene	35163	021616	0.05	5.00	40025.5	2000	na	na	na	2001.3	135-98-8	N/A	orl-rat 2240mg/kg
60.	Chlorobenzene	35163	021616	0.05	5.00	40070.1	2000	na	na	na	2003.5	108-90-7	75 ppm (350mg/m3/8H)	orl-rat 2290mg/kg
61.	2-Chlorotoluene	35163	021616	0.05	5.00	40024.5	2000	na	na	na	2001.2	95-49-8	50 ppm (250mg/m3/8H)	orl-rat 3900mg/kg
62.	4-Chlorotoluene	35163	021616	0.05	5.00	40023.6	2000	na	na	na	2001.2	106-43-4	N/A	orl-rat 2100mg/kg
63.	1,2-Dichlorobenzene	35163	021616	0.05	5.00	40085.2	2000	na	na	na	2004.3	95-50-1	50 ppm (300mg/m3) (CL)	orl-rat 500mg/kg
64.	1,3-Dichlorobenzene	35163	021616	0.05	5.00	40009.4	2000	na	na	na	2000.5	541-73-1	N/A	ipr-mus 1067mg/kg
65.	1,4-Dichlorobenzene	35163	021616	0.05	5.00	40049.4	2000	na	na	na	2002.5	106-46-7	75 ppm (450mg/m3/8H)	orl-rat 500mg/kg
66.	Isopropylbenzene	35163	021616	0.05	5.00	40036.3	2000	na	na	na	2001.8	98-82-8	50 ppm (245mg/m3/8H)	orl-rat 1400mg/kg
67.	n-Propylbenzene	35163	021616	0.05	5.00	40048.9	2000	na	na	na	2002.4	103-65-1	N/A	orl-rat 6040mg/kg
68.	o-Xylene	35163	021616	0.05	5.00	40043.3	2000	na	na	na	2002.2	95-47-6	100 ppm (435mg/m3/8H)	ipr-mus 1364mg/kg
69.	p-Xylene	35163	021616	0.05	5.00	40025.1	2000	na	na	na	2001.3	106-42-3	100 ppm (435mg/m3/8H)	orl-rat 5g/kg

Absolute Standards, Inc.
600-368-1131
www.absolutestandards.com

Certified Reference Material CRM

ISO 9001 QS Registered
ISO 17025-34-35-43 Accredited
Scopes: http://AbsoluteStandards.com

CERTIFIED WEIGHT REPORT

Part Number: 95317
Lot Number: 111516
Description: Universal VOA Megamix
69 components
Expiration Date: 111519
Recommended Storage: Freezer (0 °C)
Nominal Concentration (µg/mL): 2000
NIST Test ID#: 822-275872-11 5E-05 Balance Uncertainty
Weight(s) shown below were combined and diluted to (mL): 100.0 0.001 Flask Uncertainty

Solvent(s): Lot#
Methanol DP303Q9

Formulated By: Paul Barron 111516 DATE
Reviewed By: Pedro L. Rentas 111516 DATE

Compound	(PAH*) Part Number	Lot Number	Dil. Factor	Initial Vol. (mL)	Initial Conc.(ug/mL)	Nominal Conc (µg/mL)	Purity (%)	Purity Uncertainty	Uncertainty Pipette (mL)	Target Weight(g)	Actual Weight(g)	Actual Conc (µg/mL)	Expanded Uncertainty (+/-) (µg/mL)	MSDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50
1. Acetonitrile	(0324)	60812	NA	NA	NA	2000	99.9	0.2	NA	0.20022	0.20045	2002.3	8.1	75-05-8	40 ppm (70mg/m3/8H)	orl-rat 2460mg/kg
2. Allyl chloride (3-Chloropropene)	(0326)	102396	NA	NA	NA	2000	99	0.2	NA	0.20204	0.20229	2002.5	8.2	107-05-1	1 ppm (3mg/m3/8H)	orl-rat 700mg/kg
3. Carbon disulphide	(0060)	PO 12278PO	NA	NA	NA	2000	99	0.2	NA	0.20204	0.20224	2002.0	8.1	75-15-0	4 ppm (12mg/m3) (skin)	orl-rat 1200mg/kg
4. cis-1,4-Dichloro-2-butene	(1198)	14718EF	NA	NA	NA	2000	95	0.2	NA	0.21056	0.21083	2002.7	8.5	1476-11-5	N/A	N/A
5. trans-1,4-Dichloro-2-butene	(0486)	12218HC	NA	NA	NA	2000	98	0.2	NA	0.20410	0.20441	2003.0	8.2	110-57-6	N/A	N/A
6. Diethyl ether (Ethyl ether)	(0153)	02553HC	NA	NA	NA	2000	99.9	0.2	NA	0.20022	0.20050	2002.6	8.1	60-29-7	400ppm (1200mg/m3/8H)	orl-rat 1215mg/kg
7. Ethyl methacrylate	(0381)	08126PX	NA	NA	NA	2000	99	0.2	NA	0.20204	0.20237	2003.2	8.2	97-63-2	N/A	orl-rat 14800mg/kg
8. Iodomethane	(0489)	12909DQ	NA	NA	NA	2000	99	0.2	NA	0.20204	0.20222	2001.8	8.1	74-88-4	5 ppm(28mg/m3/8H)(skin)	scu-rat 110mg/kg
9. 2-Methyl-1-propanol	(0445)	15241EB	NA	NA	NA	2000	99.5	0.2	NA	0.20100	0.20130	2002.7	8.1	78-83-1	50 ppm (150mg/m3/8H)	orl-rat 2460mg/kg
10. Methacrylonitrile	(0442)	00427ET	NA	NA	NA	2000	99	0.2	NA	0.20204	0.20224	2002.0	8.1	126-98-7	1 ppm (3mg/m3/8H)(skin)	orl-rat 130mg/kg
11. Methyl acrylate	(1075)	05206KY	NA	NA	NA	2000	99	0.2	NA	0.20204	0.20223	2001.9	8.1	96-33-3	10 ppm(35mg/m3/8H)(skin)	orl-rat 277mg/kg
12. Methyl methacrylate	(0404)	030218X	NA	NA	NA	2000	99	0.2	NA	0.20204	0.20232	2002.7	8.2	80-62-6	100 ppm (410mg/m3/8H)	orl-rat 7872mg/kg
13. Nitrobenzene	(0228)	01213TV	NA	NA	NA	2000	99	0.2	NA	0.20204	0.20219	2001.5	8.1	98-95-3	1 ppm (5mg/m3/8H)(skin)	orl-rat 780mg/kg
14. 2-Nitropropane	(0461)	14002JX	NA	NA	NA	2000	95	0.2	NA	0.21055	0.21080	2002.4	8.5	79-46-9	10 ppm (35mg/m3/8H)	orl-rat 720mg/kg
15. Pentachloroethane	(0450)	HGA01	NA	NA	NA	2000	98	0.2	NA	0.20410	0.20426	2001.5	8.2	76-01-7	N/A	N/A
16. 1,1,2-Trichloro-1,2,2-trifluoroethane	(0474)	01221PY	NA	NA	NA	2000	99	0.2	NA	0.20204	0.20225	2002.1	8.1	76-13-1	1000 ppm (7600mg/m3/8H)	orl-rat 43g/kg
17. Bromodichloromethane	35171	062916	0.05	5.00	40006.9	2000	NA	NA	0.025	NA	NA	2000.1	21.6	75-27-4	N/A	orl-rat 916mg/kg
18. Dibromochloromethane	35171	062916	0.05	5.00	40006.8	2000	NA	NA	0.025	NA	NA	2000.2	21.6	124-48-1	N/A	orl-rat 848mg/kg
19. cis-1,2-Dichloroethene	35171	062916	0.05	5.00	40011.2	2000	NA	NA	0.025	NA	NA	2000.3	21.6	156-59-2	N/A	N/A
20. trans-1,2-Dichloroethene	35171	062916	0.05	5.00	40021.5	2000	NA	NA	0.025	NA	NA	2000.9	21.6	156-60-5	N/A	orl-rat 1235mg/kg
21. Methylene chloride	35171	062916	0.05	5.00	40007.7	2000	NA	NA	0.025	NA	NA	2000.2	21.6	75-09-2	500 ppm	orl-rat 2130mg/kg
22. 1,1-Dichloroethene	32251	100616	0.10	10.00	20003.7	2000	NA	NA	0.006	NA	NA	2000.2	8.4	75-35-4	1 ppm (4mg/m3/8H)	orl-rat 200mg/kg
23. Bromoform	95321	012114	0.10	10.00	20004.6	2000	NA	NA	0.006	NA	NA	2000.2	8.4	75-25-2	0.5 ppm (5mg/m3) (skin)	orl-rat 1147mg/kg
24. Carbon tetrachloride	95321	012114	0.10	10.00	20004.4	2000	NA	NA	0.006	NA	NA	2000.2	8.4	56-23-5	2 ppm (12.6mg/m3/8H)	orl-rat 2350mg/kg
25. Chloroform	95321	012114	0.10	10.00	20005.9	2000	NA	NA	0.006	NA	NA	2000.4	8.4	67-66-3	50 ppm (240mg/m3) (CL)	orl-rat 908mg/kg
26. Dibromomethane	95321	012114	0.10	10.00	20006.8	2000	NA	NA	0.006	NA	NA	2000.5	8.4	74-95-3	N/A	orl-rat 108mg/kg
27. 1,1-Dichloroethane	95321	012114	0.10	10.00	20004.9	2000	NA	NA	0.006	NA	NA	2000.3	8.4	75-34-3	100 ppm	orl-rat 725mg/kg
28. 2,2-Dichloropropane	95321	012114	0.10	10.00	20002.7	2000	NA	NA	0.006	NA	NA	2000.0	8.5	594-20-7	N/A	N/A
29. Tetrachloroethene	95321	012114	0.10	10.00	20003.7	2000	NA	NA	0.006	NA	NA	2000.1	8.4	127-18-4	25 ppm (170mg/m3/8H)(final	orl-rat 2629mg/kg
30. 1,1,1-Trichloroethane	95321	012114	0.10	10.00	20005.9	2000	NA	NA	0.006	NA	NA	2000.4	8.4	71-55-6	350 ppm (1900mg/m3/8H)	orl-rat 10300mg/kg
31. 1,2-Dibromo-3-chloropropane	35161	021016	0.05	5.00	40004.2	2000	NA	NA	0.025	NA	NA	2000.0	21.6	96-12-8	0.001 ppm	orl-rat 170mg/kg
32. 1,2-Dibromoethane	35161	021016	0.05	5.00	40002.7	2000	NA	NA	0.025	NA	NA	1999.9	21.6	106-93-4	20 ppm (8H)	orl-rat 108mg/kg
33. 1,2-Dichloroethane	35161	021016	0.05	5.00	40008.2	2000	NA	NA	0.025	NA	NA	2000.2	21.6	107-06-2	50 ppm (8H)	orl-rat 670mg/kg
34. 1,2-Dichloropropane	35161	021016	0.05	5.00	40003.2	2000	NA	NA	0.025	NA	NA	1999.9	21.6	78-87-5	75 ppm (350mg/m3/8H)	orl-rat 1947mg/kg
35. 1,3-Dichloropropane	35161	021016	0.05	5.00	40006.2	2000	NA	NA	0.025	NA	NA	2000.1	21.6	142-28-9	N/A	unr-mus 3800mg/kg
36. 1,1-Dichloropropene	35161	021016	0.05	5.00	40006.2	2000	NA	NA	0.025	NA	NA	2000.1	21.6	563-58-6	N/A	N/A
37. cis-1,3-Dichloropropene	35161	021016	0.05	5.00	40003.9	2000	NA	NA	0.025	NA	NA	2000.0	21.6	10061-01-5	N/A	N/A
38. trans-1,3-Dichloropropene	35161	021016	0.05	5.00	40007.3	2000	NA	NA	0.025	NA	NA	2000.1	21.7	10061-02-6	N/A	N/A
39. Hexachloro-1,3-butadiene	35161	021016	0.05	5.00	40008.4	2000	NA	NA	0.025	NA	NA	2000.2	21.6	87-68-3	0.02 ppm (0.24mg/m3/8H)	orl-rat 82mg/kg
40. 1,1,1,2-Tetrachloroethane	35161	021016	0.05	5.00	40012.1	2000	NA	NA	0.025	NA	NA	2000.4	21.6	630-20-6	N/A	orl-rat 670mg/kg
41. 1,1,2,2-Tetrachloroethane	35161	021016	0.05	5.00	40004.1	2000	NA	NA	0.025	NA	NA	2000.0	21.6	79-34-5	5 ppm (35mg/m3/8H)(skin)	orl-rat 800mg/kg
42. 1,1,2-Trichloroethane	35161	021016	0.05	5.00	40006.8	2000	NA	NA	0.025	NA	NA	2000.2	21.6	79-00-5	10 ppm (45mg/m3/8H)(skin)	orl-rat 836mg/kg
43. Trichloroethene	35161	021016	0.05	5.00	40006.3	2000	NA	NA	0.025	NA	NA	2000.2	21.6	79-01-6	50 ppm (270mg/m3/8H)	orl-mus 2402mg/kg
44. 1,2,3-Trichloropropane	35161	021016	0.05	5.00	40005.7	2000	NA	NA	0.025	NA	NA	2000.1	21.6	96-18-4	10 ppm (60mg/m3/8H)	orl-rat 149.6mg/kg
45. Benzene	35162	021616	0.05	5.00	40047.5	2000	NA	NA	0.025	NA	NA	2002.2	21.6	71-43-2	1 ppm	orl-rat 4894mg/kg
46. Bromobenzene	35162	021616	0.05	5.00	40012.2	2000	NA	NA	0.025	NA	NA	2000.4	21.6	108-86-1	N/A	orl-rat 2699mg/kg
47. n-Butyl benzene	35162	021616	0.05	5.00	40047.2	2000	NA	NA	0.025	NA	NA	2002.1	21.6	104-51-8	N/A	N/A
48. Ethyl benzene	35162	021616	0.05	5.00	40010.5	2000	NA	NA	0.025	NA	NA	2000.3	21.6	100-41-4	100 ppm (435mg/m3/8H)	orl-rat >2000mg/kg
49. p-Isopropyl toluene	35162	021616	0.05	5.00	40055.2	2000	NA	NA	0.025	NA	NA	2002.5	21.6	99-87-6	N/A	orl-rat 4750mg/kg
50. Naphthalene	35162	021616	0.05	5.00	40015.2	2000	NA	NA	0.025	NA	NA	2000.5	21.6	91-20-3	10 ppm (50mg/m3/8H)	orl-rat 490mg/kg
51. Styrene	35162	021616	0.05	5.00	40052.8	2000	NA	NA	0.025	NA	NA	2002.4	21.6	100-42-5	100 ppm	orl-rat 5000mg/kg
52. Toluene	35162	021616	0.05	5.00	40008.9	2000	NA	NA	0.025	NA	NA	2000.2	21.6	108-88-3	200 ppm	orl-rat 6000mg/kg
53. 1,2,3-Trichlorobenzene	35162	021616	0.05	5.00	40046.1	2000	NA	NA	0.025	NA	NA	2002.1	21.6	87-61-6	N/A	ipr-mus 1360mg/kg
54. 1,2,4-Trichlorobenzene	35162	021616	0.05	5.00	40010.7	2000	NA	NA	0.025	NA	NA	2000.3	21.6	120-82-1	5 ppm (CL) (40mg/m3)	orl-rat 756mg/kg
55. 1,2,4-Trimethylbenzene	35162	021616	0.05	5.00	40015.3	2000	NA	NA	0.025	NA	NA	2000.5	21.6	95-63-6	N/A	orl-rat 5g/kg
56. 1,3,5-Trimethylbenzene	35162	021616	0.05	5.00	40002.0	2000	NA	NA	0.025	NA	NA	1999.9	21.6	108-67-8	N/A	N/A
57. m-Xylene	35162	021616	0.05	5.00	40036.0	2000	NA	NA	0.025	NA	NA	2001.6	21.6	108-38-3	100 ppm (435mg/m3/8H)	orl-rat 5g/kg
58. tert-Butyl benzene	35163	021616	0.05	5.00	40041.8	2000	NA	NA	0.025	NA	NA	2001.9	21.6	98-06-6	N/A	N/A
59. sec-Butyl benzene	35163	021616	0.05	5.00	40025.5	2000	NA	NA	0.025	NA	NA	2001.1	21.6	135-98-8	N/A	orl-rat 2240mg/kg
60. Chlorobenzene	35163	021616	0.05	5.00	40070.1	2000	NA	NA	0.025	NA	NA	2003.3	21.6	108-90-7	75 ppm (350mg/m3/8H)	orl-rat 2290mg/kg
61. 2-Chlorotoluene	35163	021616	0.05	5.00	40024.5	2000	NA	NA	0.025	NA	NA	2001.0	21.6	95-49-8	50 ppm (250mg/m3/8H)	orl-rat 3600mg/kg
62. 4-Chlorotoluene	35163	021616	0.05	5.00	40023.6	2000	NA	NA	0.025	NA	NA	2001.0	21.6	106-43-4	N/A	orl-rat 2100mg/kg
63. 1,2-Dichlorobenzene	35163	021616	0.05	5.00	40055.2	2000	NA	NA	0.025	NA	NA	2004.0	21.6	95-50-1	50 ppm (300mg/m3) (CL)	orl-rat 500mg/kg
64. 1,3-Dichlorobenzene	35163	021616	0.05	5.00	40009.4	2000	NA	NA	0.025	NA	NA	2000.2	21.6	541-73-1	N/A	ipr-mus 1062mg/kg
65. 1,4-Dichlorobenzene	35163	021616	0.05	5.00	40049.4	2000	NA	NA	0.025	NA	NA	2002.2	21.6	106-46-7	75 ppm (450mg/m3/8H)	orl-rat 500mg/kg
66. Isopropylbenzene	35163	021616	0.05	5.00	40035.5	2000	NA	NA	0.025	NA	NA	2001.6	21.6	98-82-8	50 ppm (245mg/m3/8H)	orl-rat 1400mg/kg
67. n-Propylbenzene	35163	021616	0.05	5.00	40048.9	2000	NA	NA	0.025	NA	NA	2002.2	21.6	103-65-1	N/A	orl-rat 6040mg/kg
68. o-Xylene	35163	021616	0.05	5.00	40043.3	2000	NA	NA	0.025	NA	NA	2001.9	21.6	95-47-6	100 ppm (435mg/m3/8H)	ipr-mus 1364mg/kg
69. p-Xylene	35163	021616	0.05	5.00	40026.1	2000	NA	NA	0.025	NA	NA	2001.0	21.6	106-42-3	100 ppm (435mg/m3/8H)	orl-rat 5g/kg

- The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
- Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
- Standards are certified (+/-) 0.5% of the stated value, unless otherwise stated.
- All Standards, after opening ampule, should be stored with caps tight and under appropriate laboratory conditions.
- Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Results," NIST Technical Note 1297, U.S. Government Printing Office, Washington, DC, (1994).

RESTEK
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 30006 **Lot No.:** A0137141

Description : VOA Calibration Mix #1

VOA Calibration Mix #1 5,000µg/mL, P&T Methanol/Water(90:10), 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : July 31, 2021 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Certified Conc. (weight/volume)	Expanded Uncertainty (95% C.I. K=2)		
1	Acetone **CAS #** 67-64-1 (Lot SHBJ3819) **Purity** 99%	5,011.6 µg/mL	+/- 29.1379 +/- 302.3720 +/- 303.0899	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
2	2-Butanone (MEK) **CAS #** 78-93-3 (Lot SHBF2461V) **Purity** 99%	5,011.2 µg/mL	+/- 29.1355 +/- 302.3479 +/- 303.0657	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
3	4-Methyl-2-pentanone (MIBK) **CAS #** 108-10-1 (Lot SHBG7318V) **Purity** 99%	5,004.9 µg/mL	+/- 29.0989 +/- 301.9678 +/- 302.6847	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
4	2-Hexanone **CAS #** 591-78-6 (Lot MKBW0198V) **Purity** 99%	5,007.9 µg/mL	+/- 29.1164 +/- 302.1488 +/- 302.8661	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed

Solvent: P&T Methanol/Water (90:10)
CAS # 67-56-1/7732-18-5
Purity 99%

RESTEK
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 30006 **Lot No.:** A0134324

Description : VOA Calibration Mix #1

VOA Calibration Mix #1 5,000µg/mL, P&T Methanol/Water(90:10), 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : April 30, 2021 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc (weight volume)	Expanded Uncertainty (95% C.L. K=2)		
1	Acetone **CAS #** 67-64-1 (Lot SHBH6933) **Purity** 99%	5,002.7 µg/mL	+/- 29.0861 µg/mL +/- 301.8351 µg/mL +/- 302.5517 µg/mL		Gravimetric Unstressed Stressed
2	2-Butanone (MEK) **CAS #** 78-93-3 (Lot SHBF2461V) **Purity** 99%	5,004.7 µg/mL	+/- 29.0978 µg/mL +/- 301.9557 µg/mL +/- 302.6726 µg/mL		Gravimetric Unstressed Stressed
3	4-Methyl-2-pentanone (MIBK) **CAS #** 108-10-1 (Lot SHBH7006) **Purity** 99%	5,000.1 µg/mL	+/- 29.0710 µg/mL +/- 301.6782 µg/mL +/- 302.3944 µg/mL		Gravimetric Unstressed Stressed
4	2-Hexanone **CAS #** 591-78-6 (Lot MKBW0198V) **Purity** 99%	5,007.4 µg/mL	+/- 29.1135 µg/mL +/- 302.1186 µg/mL +/- 302.8359 µg/mL		Gravimetric Unstressed Stressed

Solvent: P&T Methanol/Water (90:10)
CAS # 67-56-1/7732-18-5
Purity 99%

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Analytical Reference Material ARM

ISO 9001 QS Registered
ISO 17025-34-35-43 Accredited
Scopes: http://AbsoluteStandards.com

CERTIFIED WEIGHT REPORT

Part Number: 95318
Lot Number: 012218
Description: 2-Chloroethyl vinyl ether

Solvent(s): **Lot#**
Methanol DS435

Expiration Date: 012221
Recommended Storage: Refrigerate (4 °C)
Nominal Concentration (µg/mL): 10000
NIST Test ID#: 2506734D

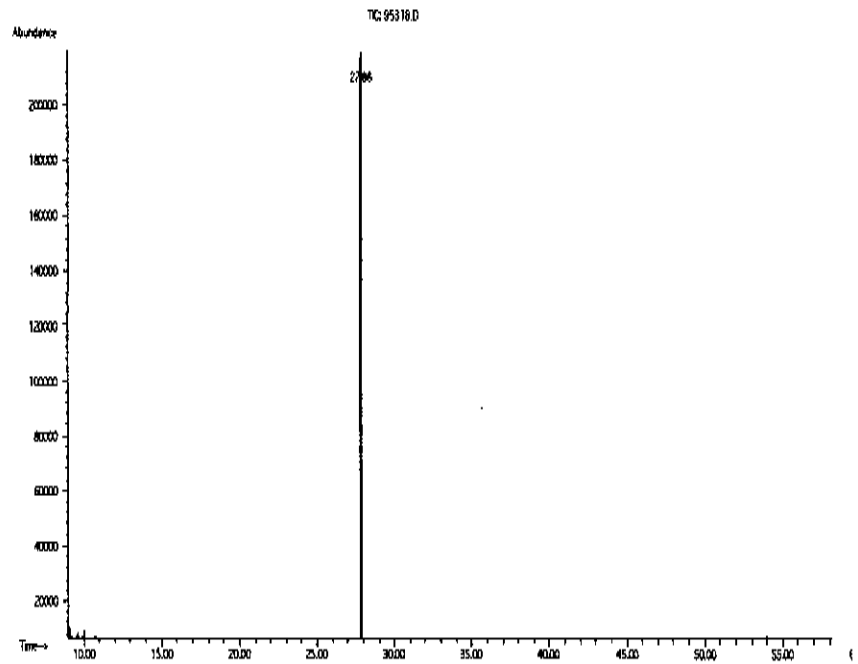
Weight(s) shown below were combined and diluted to (mL): 25.0 | 5E-05 Balance Uncertainty | 0.002 Flask Uncertainty

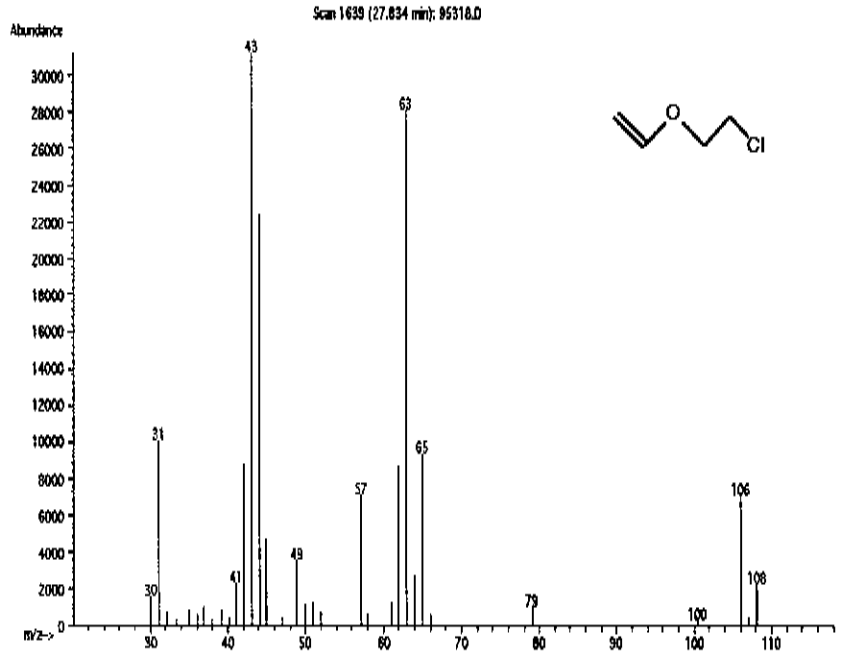
Formulated By: Mario Luis 012218 DATE

Reviewed By: Pedro L. Rentas 012218 DATE

Compound	RM#	Lot Number	Nominal Conc (µg/mL)	Purity (%)	Uncertainty Purity	Target Weight (g)	Actual Weight (g)	Actual Conc(µg/mL)	Expanded Uncertainty (+/-) (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50
1. 2-Chloroethyl vinyl ether	74	03206CI	10000	99	0.2	0.25256	0.02528	1000.9	5.7	110-75-8	N/A	ori-rat 250mg/kg

Method: GC6MSD-1.M. **Detector:** MSD. **Column:** (60m X 0.25mm X 1.5 µm). **Oven Profile:** Temp 1 = 35°C (Time 1=10min.), Temp 2 = 200°C (Time 2=8.75 min.), Rate = 4°C/min., Injector B Temp.= 200°C, Detector B Temp. = 220°C. **Analyst:** Candice Warren.





- The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
- Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
- Standards are certified (+/-) 0.5% of the stated value, unless otherwise stated.
- All Standards, after opening ampule, should be stored with caps tight and under appropriate laboratory conditions.
- Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, DC, (1994).

CERTIFIED WEIGHT REPORT

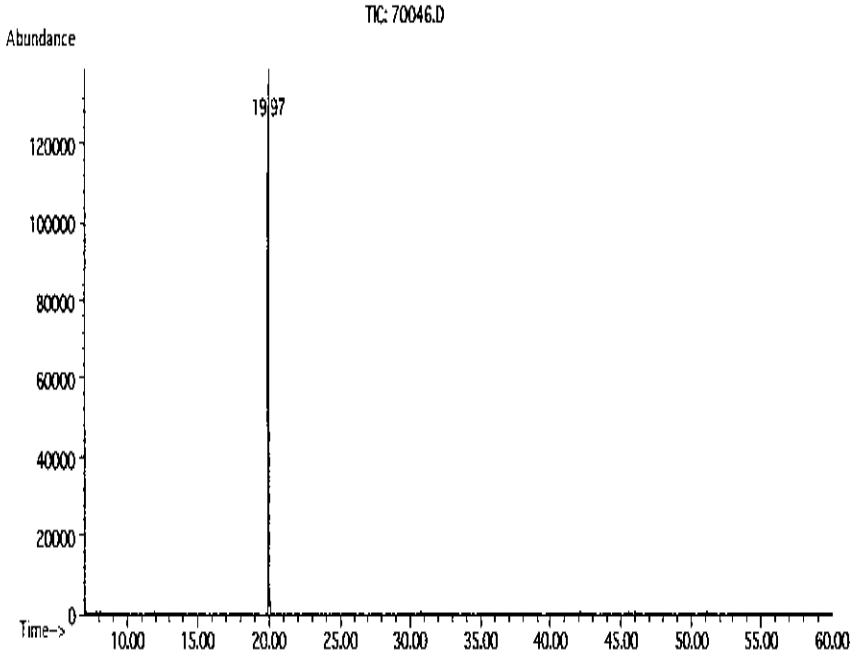
Part Number:	70046	**Solvent(s):**	**Lot#**
Lot Number:	101416	Methanol	DP303
Description:	Bromochloromethane		
Expiration Date:	101421		
Recommended Storage:	Refrigerate (4 °C)		
Nominal Concentration (µg/mL):	1000		
NIST Test ID#:	822-275872-11	5E-05 Balance Uncertainty	
Weight(s) shown below were combined and diluted to (mL):	25.0	0.002 Flask Uncertainty	

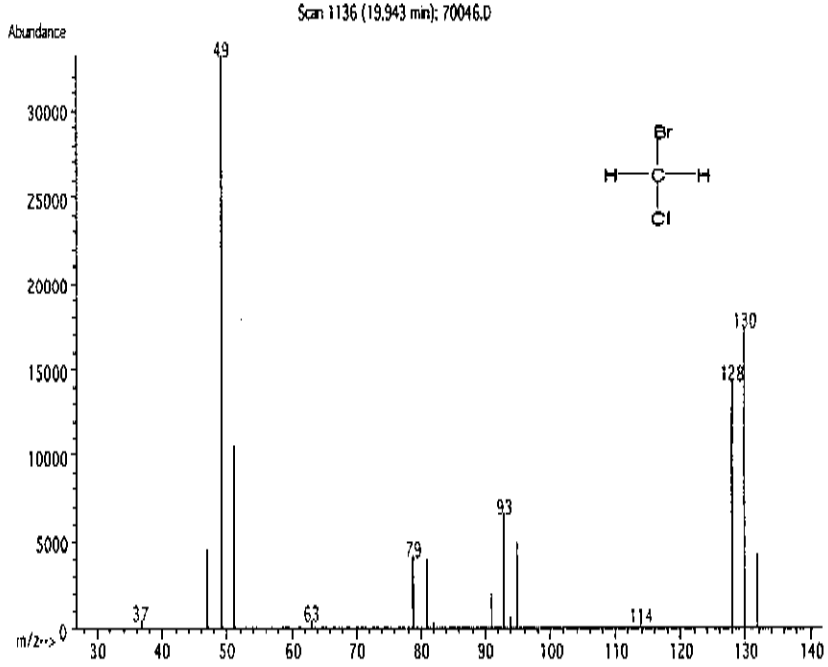
Formulated By: Jason Criscio — 101416 — DATE

Reviewed By: Pedro L. Rentas — 101416 — DATE

Compound	RM#	Lot Number	Nominal Conc (µg/mL)	Purity (%)	Uncertainty Purity	Target Weight(g)	Actual Weight(g)	Actual Conc (µg/mL)	Expanded Uncertainty (+/-) (µg/mL)	MSDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50
1. Bromochloromethane	46	AY01	1000	99	0.2	0.02526	0.02540	1005.7	5.7	74-97-5	200 ppm (1050mg/m3/8H)	orl-rat 5000mg/kg

Method GC6MSD-1.M: Column : (60m X 0.25mm X 1.5 µm) Temp 1 = 35°C (10min.), Temp 2 = 200°C (8.75 min.), Rate = 4°C/min., Injector B= 200°C, Detector B = 220°C. Analyst: Candice Warren





- The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
- Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
- Standards are certified (+/-) 0.5% of the stated value, unless otherwise stated.
- All Standards, after opening ampule, should be stored with caps tight and under appropriate laboratory conditions.
- Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, DC, (1994).

RESTEK
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Gravimetric Certificate

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 555582 **Lot No.:** A0118140

Description : Custom 8260A/B Surrogate Mix

Custom 8260A/B Surrogate Mix 25,000µg/mL, P&T Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : March 31, 2019 **Storage:** 10°C or colder

CERTIFIED VALUES

Component #	Compound	Grav. Conc (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	1,2-Dichloroethane-d4 **CAS #** 17060-07-0 (Lot 12K-027) **Purity** 99%	25,036.0 µg/mL	+/- 231.6879 µg/mL +/- 1,415.2694 µg/mL +/- 1,447.8538 µg/mL	Gravimetric Unstressed Stressed
2	1-Bromo-4-fluorobenzene (BFB) **CAS #** 460-00-4 (Lot 20401KOV) **Purity** 99%	25,016.0 µg/mL	+/- 231.5028 µg/mL +/- 1,414.1388 µg/mL +/- 1,446.6971 µg/mL	Gravimetric Unstressed Stressed
3	Dibromofluoromethane **CAS #** 1868-53-7 (Lot 032015) **Purity** 99%	25,036.0 µg/mL	+/- 231.6879 µg/mL +/- 1,415.2694 µg/mL +/- 1,447.8538 µg/mL	Gravimetric Unstressed Stressed
4	Toluene-d8 **CAS #** 2037-26-5 (Lot PR-26282) **Purity** 99%	25,032.0 µg/mL	+/- 231.6508 µg/mL +/- 1,415.0433 µg/mL +/- 1,447.6224 µg/mL	Gravimetric Unstressed Stressed

RESTEK
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Gravimetric Certificate

ACCREDITED
ISO Guide 34 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 555581 **Lot No.:** A0123929

Description : Custom 8260 Internal Standard Mix

Custom 8260 Internal Standard Mix 25,000µg/mL, P&T Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : January 31, 2020 **Storage:** 10°C or colder

CERTIFIED VALUES

Component #	Compound		Gravimetric (weight/volume)		Expanded Uncertainty (95 % C.I. K=2)		
1	1,4-Dichlorobenzene-d4 **CAS #** 3855-82-1 **Purity** 99%	(Lot PR-18488)	25,088.0	µg/mL	+/- 232.1691 +/- 1,418.2089 +/- 1,450.8610	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
2	1,4-Difluorobenzene **CAS #** 540-36-3 **Purity** 99%	(Lot MKBN8571V)	25,144.0	µg/mL	+/- 232.6873 +/- 1,421.3746 +/- 1,454.0995	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
3	Chlorobenzene-d5 **CAS #** 3114-55-4 **Purity** 99%	(Lot PR-23926)	25,012.0	µg/mL	+/- 231.4658 +/- 1,413.9127 +/- 1,446.4658	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
4	Pentafluorobenzene **CAS #** 363-72-4 **Purity** 99%	(Lot MKBT9337V)	25,224.0	µg/mL	+/- 233.4276 +/- 1,425.8969 +/- 1,458.7260	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed

RESTEK
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 30470 **Lot No.:** A0126338

Description : tert-Butanol Standard

tert-Butanol Std 50,000µg/mL, P&T Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : March 31, 2020 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight volume)	Expanded Uncertainty (Gravimetric, K=2)		
1	tert-Butanol (TBA) **CAS #** 75-65-0 **Purity** 99% (Lot SHBG9852V)	50,060.0 µg/mL	+/- 293.1123 µg/mL +/- 1,072.3516 µg/mL +/- 1,103.4946 µg/mL		Gravimetric Unstressed Stressed

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

RESTEK
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 30067 **Lot No.:** A0127174

Description : 4-Bromofluorobenzene Standard

4-Bromofluorobenzene Standard 2,500µg/mL, P&T Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : April 30, 2022 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav Conc. (weight volume)	Expanded Uncertainty (95% C.L. K=2)		
1	1-Bromo-4-fluorobenzene (BFB)	2,506.0 µg/mL	+/- 14.7066	µg/mL	Gravimetric
	CAS # 460-00-4 (Lot 01127COV)		+/- 140.5232	µg/mL	Unstressed
	Purity 99%		+/- 143.8106	µg/mL	Stressed

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

RESTEK
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

ISO Guide 34 Accredited
Certificate #3222.01

ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 30470 **Lot No.:** A0133055

Description : tert-Butanol Standard

tert-Butanol Std 50,000µg/mL, P&T Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : December 31, 2020 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound		Grav. Conc. (weight/volume)	Expanded Uncertainty (95%, CL, K=2)		
1	tert-Butanol (TBA)		50,032.0 µg/mL	+/- 292.9484	µg/mL	Gravimetric
	CAS # 75-65-0	(Lot SHBG9852V)		+/- 1,071.7518	µg/mL	Unstressed
	Purity 99%			+/- 1,102.8773	µg/mL	Stressed

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

RESTEK
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 30225 **Lot No.:** A0133361

Description : Bromochloromethane Standard

Bromochloromethane 2000µg/mL, P&T Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : December 31, 2022 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Component	Concentration (weight/volume)	Expanded Uncertainty (approx. k=2)		
1	Bromochloromethane **CAS #** 74-97-5 **Purity** 99% (Lot 00004559)	2,000.0 µg/mL	+/- 11.8794 µg/mL +/- 112.1643 µg/mL +/- 114.7876 µg/mL		Gravimetric Unstressed Stressed

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

Methanol
ULTRA RESI-ANALYZED
For Purge and Trap Analysis

J.T.Baker® | avantor™

Material No.: 9077-02
Batch No.: 0000177891
Manufactured Date: 2017/06/23
Expiration Date: 2019/06/21

Certificate of Analysis

Test	Specification	Result
Assay (CH_3OH) (by GC, corrected for water)	>= 99.9 %	100.0
Residue after Evaporation	<= 1.0000 ppm	0.4000
Titrable Acid (µeq/g)	<= 0.3	0.3
Titrable Base (µeq/g)	<= 0.1	<0.01
Water (by KF, coulometric)	<= 0.08 %	< 0.01
Photoionization Detection (PID) Below CRQL	Passes Test	PT
Electroconductivity Detection (ELCD) Below CRQL	Passes Test	PT

For Laboratory, Research or Manufacturing Use
Performance Tested for Use in EPA Methods
500 Series for Drinking Water
600 Series for Wastewater
846 for Solid Waste

Country of Origin: US
Packaging Site: Phillipsburg Mfg Ctr & DC

ISO
Phillipsburg, NJ 9001:2008, 14001:2004, FSSC 22000
Paris, KY 9001:2008
Mexico City, Mexico 9001:2008
Deventer, The Netherlands 9001:2008, 14001:2004, 13485:2003
Gliwice, Poland 9001:2008, 13485:2012
Selangor, Malaysia 9001:2008
Dehradun, India, 9001:2008, 14001:2004, 13485:2003
Mumbai, India, 9001:2008
Panoli, India 9001:2008

James Ethier
Jamie Ethier
Vice President Global Quality

For questions on this Certificate of Analysis please contact Technical Services at 855.282.6867 or +1.610.573.2600
Avantor Performance Materials, LLC.
3477 Corporate Parkway. Center Valley, PA 18034. U.S.A. Phone: 610.573.2600 . Fax: 610.573.2610

Methanol
ULTRA RESI-ANALYZED
For Purge and Trap Analysis

J.T.Baker® | avantor™

Material No.: 9077-02
Batch No.: 0000202404
Manufactured Date: 2018/05/21
Expiration Date: 2020/05/18
Revision No: 1

Certificate of Analysis

Test	Specification	Result
Assay (CH_3OH) (by GC, corrected for water)	>= 99.9 %	100.0
Residue after Evaporation	<= 1.0000 ppm	0.2000
Titrable Acid (µeq/g)	<= 0.3	0.2
Titrable Base (µeq/g)	<= 0.1	<0.01
Water (by KF, coulometric)	<= 0.08 %	0.01
Photoionization Detection (PID) Below CRQL	Passes Test	PT
Electroconductivity Detection (ELCD) Below CRQL	Passes Test	PT

For Laboratory, Research or Manufacturing Use
Performance Tested for Use in EPA Methods
500 Series for Drinking Water
600 Series for Wastewater
846 for Solid Waste

Country of Origin: US
Packaging Site: Phillipsburg Mfg Ctr & DC

ISO
Phillipsburg, NJ 9001:2015, FSSC 22000
Paris, KY 9001:2008
Mexico City, Mexico 9001:2008
Gliwice, Poland 9001:2008
Selangor, Malaysia 9001:2008
Dehradun, India, 9001:2008, 14001:2004, 13485:2003
Mumbai, India, 9001:2015, 17025:2005
Panoli, India 9001:2015

James Ethier
Jamie Ethier
Vice President Global Quality

For questions on this Certificate of Analysis please contact Technical Services at 855.282.6867 or +1.610.573.2600

Avantor Performance Materials, LLC.
3477 Corporate Parkway. Center Valley, PA 18034. U.S.A. Phone: 610.573.2600 . Fax: 610.573.2610

RESTEK

110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Composition

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #2222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 555408-SL **Lot No.:** A0140567

Description : Custom Vinyl Acetate Standard

Custom Vinyl Acetate Standard 8,000µg/mL, P&T Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : February 28, 2019 **Storage:** 0°C or colder

Handling: This product is photosensitive.

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	Vinyl acetate	8,070.0 µg/mL	+/- 47.3593	µg/mL	Gravimetric
	CAS # 108-05-4 (Lot STBD7333V)		+/- 486.9414	µg/mL	Unstressed
	Purity 99%		+/- 488.0973	µg/mL	Stressed

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

Tech Tips:

Vinyl acetate is a volatile organic ester included in the target lists of several US EPA and other methods. Under acidic conditions, esters react with alcohols to form new esters (transesterification). Methanol-based mixes containing halogenated compounds are slightly acidic, so it is important to minimize exposure of vinyl acetate to mixes of halogenated compounds in methanol. For this reason, we offer vinyl acetate in individual solution, and suggest that it be introduced into the working level calibration solution immediately before use. This will minimize problems and ensure more consistent results.

Column:
105m x 0.53mm x 3.0µm
Rtx-502.2 (cat.#10910)

Carrier Gas:
hydrogen-constant pressure 11.0 psi.

Temp. Program:
40°C (hold 2 min.) to 240°C
@ 8°C/min. (hold 5 min.)

Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
FID

This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Joseph Jagiowski - Mix Technician Date Mixed: 13-Aug-2018 Balance: B707717271

Jennifer Pollino - Operations Tech-ARM QC Date Passed: 16-Aug-2018

REVIEWED

Manufactured under Restek's ISO 9001:2015
Registered Quality System
Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k\sqrt{U^2_{gravimetric} + U^2_{homogeneity} + U^2_{storage\ stability} + U^2_{shipping\ stability}}$$

k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

RESTEK®
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Composition

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 555408-FL **Lot No.:** A0140694

Description : Custom Vinyl Acetate Standard

Custom Vinyl Acetate Standard 8,000µg/mL, P&T Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : February 28, 2019 **Storage:** 0°C or colder

Handling: This product is photosensitive.

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	Vinyl acetate **CAS #** 108-05-4 (Lot STBD7333V) **Purity** 99%	8,010.0 µg/mL	+/- 47.0072 µg/mL +/- 483.3210 µg/mL +/- 484.4683 µg/mL	Gravimetric Unstressed Stressed

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

Tech Tips:

Vinyl acetate is a volatile organic ester included in the target lists of several US EPA and other methods. Under acidic conditions, esters react with alcohols to form new esters (transesterification). Methanol-based mixes containing halogenated compounds are slightly acidic, so it is important to minimize exposure of vinyl acetate to mixes of halogenated compounds in methanol. For this reason, we offer vinyl acetate in individual solution, and suggest that it be introduced into the working level calibration solution immediately before use. This will minimize problems and ensure more consistent results.

Column:
105m x 0.53mm x 3.0µm
Rtx-502.2 (cat.#10910)

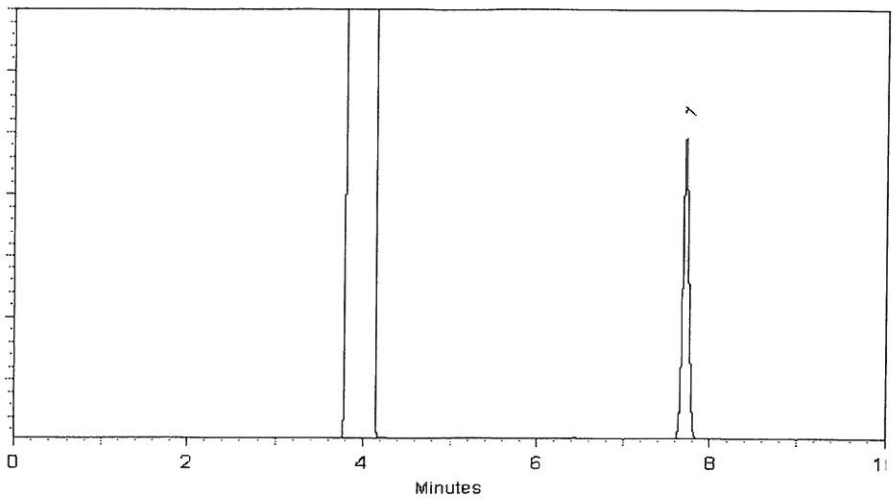
Carrier Gas:
hydrogen-constant pressure 11.0 psi.

Temp. Program:
40°C (hold 2 min.) to 240°C
@ 8°C/min. (hold 5 min.)

Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
FID



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Michael J Maye

Date Mixed: 15-Aug-2018 **Balance:** 1127510105

Jennifer J Pollino
Jennifer Pollino - Operations Tech-ARM QC

Date Passed: 16-Aug-2018

Manufactured under Restek's ISO 9001:2015
Registered Quality System
Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k\sqrt{U^2_{gravimetric} + U^2_{homogeneity} + U^2_{storage\ stability} + U^2_{shipping\ stability}}$$

k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Methanol
ULTRA RESI-ANALYZED
For Purge and Trap Analysis

J.T.Baker® | avantor™

Material No.: 9077-02
Batch No.: 0000178208
Manufactured Date: 2017/06/23
Expiration Date: 2019/06/21

Certificate of Analysis

Test	Specification	Result
Assay (CH_3OH) (by GC, corrected for water)	>= 99.9 %	100.0
Residue after Evaporation	<= 1.0000 ppm	0.3000
Titrable Acid (µeq/g)	<= 0.3	0.2
Titrable Base (µeq/g)	<= 0.1	<0.01
Water (by KF, coulometric)	<= 0.08 %	< 0.01
Photoionization Detection (PID) Below CRQL	Passes Test	PT
Electroconductivity Detection (ELCD) Below CRQL	Passes Test	PT

For Laboratory, Research or Manufacturing Use
Performance Tested for Use in EPA Methods
500 Series for Drinking Water
600 Series for Wastewater
846 for Solid Waste

Country of Origin: US
Packaging Site: Phillipsburg Mfg Ctr & DC

ISO
Phillipsburg, NJ 9001:2008, 14001:2004, FSSC 22000
Paris, KY 9001:2008
Mexico City, Mexico 9001:2008
Deventer, The Netherlands 9001:2008, 14001:2004, 13485:2003
Gliwice, Poland 9001:2008, 13485:2012
Selangor, Malaysia 9001:2008
Dehradun, India, 9001:2008, 14001:2004, 13485:2003
Mumbai, India, 9001:2008
Panoli, India 9001:2008

James T Ethier
Jamie Ethier
Vice President Global Quality

For questions on this Certificate of Analysis please contact Technical Services at 855.282.6867 or +1.610.573.2600

Avantor Performance Materials, LLC.
3477 Corporate Parkway. Center Valley, PA 18034. U.S.A. Phone: 610.573.2600 . Fax: 610.573.2610

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Analytical Reference Material ARM

ISO 9001 QS Registered
ISO 17025-34-35-43 Accredited
Scopes: http://AbsoluteStandards.com

CERTIFIED WEIGHT REPORT

Part Number: 95318
Lot Number: 080818
Description: 2-Chloroethyl vinyl ether

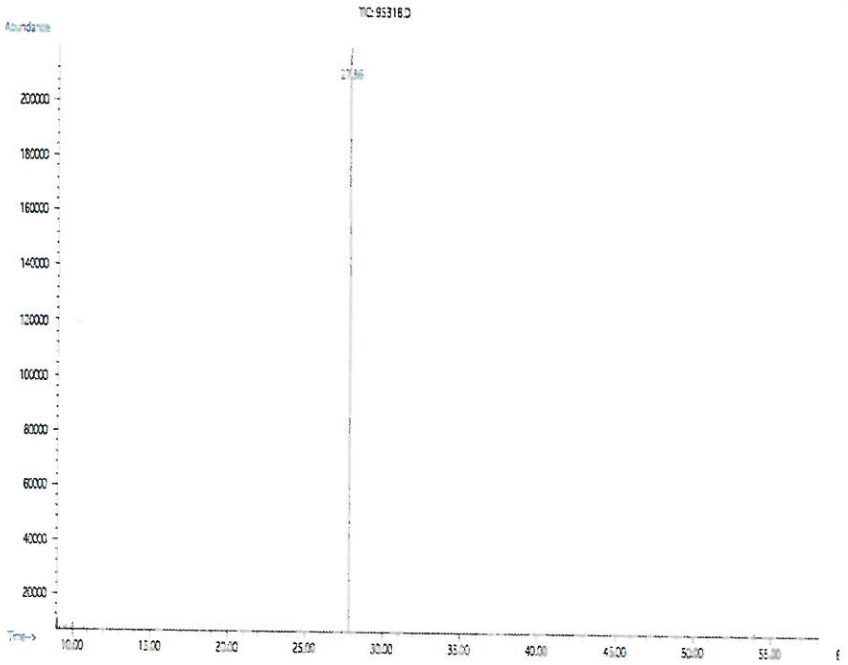
Solvent(s): **Lot#**
Methanol DS526

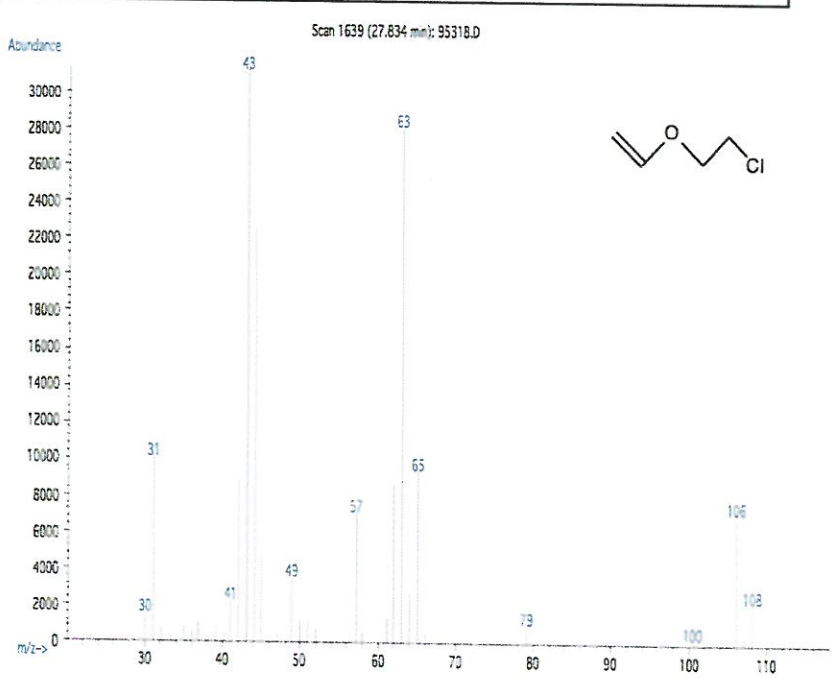
Expiration Date: 080821
Recommended Storage: Refrigerate (4 °C)
Nominal Concentration (µg/mL): 10000
NIST Test ID#: 2684186 5E-05 Balance Uncertainty
Weight(s) shown below were combined and diluted to (mL): 25.0 0.002 Flask Uncertainty

Gabriel Helland	080818
Formulated By: Gabriel Helland	DATE
Pedro Rentas	080818
Reviewed By: Pedro L. Rentas	DATE

Compound	RM#	Lot Number	Nominal Conc (µg/mL)	Purity (%)	Uncertainty Purity	Target Weight (g)	Actual Weight (g)	Actual Conc(µg/mL)	Expanded Uncertainty (+/-) (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50
1. 2-Chloroethyl vinyl ether	74	MKCD0033	10000	99	0.2	0.25256	0.25298	10016.5	40.7	110-75-8	N/A	orl-rat 250mg/kg

Method: GC6MSD-1.M. **Detector:** MSD. **Column:** (60m X 0.25mm X 1.5 µm). **Oven Profile:** Temp 1 = 35°C (Time 1=10min.), Temp 2 = 200°C (Time 2=8.75 min.), Rate = 4°C/min., Injector B Temp.= 200°C, Detector B Temp. = 220°C. **Analyst:** Candice Warren.





- The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
- Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
- Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
- All Standards, after opening ampule, should be stored with caps tight and under appropriate laboratory conditions.
- Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, DC, (1994).

Absolute Standards Inc.

PO Box 5585
Hamden, CT 06518-0585

Phone: 203-281-2917
FAX: 203-281-2922

Safety Data Sheet (SDS) GHS/OSHA Compliant

Section I Product and Company Identification

IDENTITY **ANALYTICAL STANDARD DISSOLVED IN METHANOL**

Manufacturer's Name	ABSOLUTE STANDARDS INC	Emergency Telephone USA & CANADA	**1-800-535-5053**
Address	44 Rossotto Dr. Hamden CT, 06514	Emergency Telephone International Date Prepared/Revised	**1-352-323-3500** May 1, 2015

Section II - Hazards Identification

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

H225	**Highly Flammable Liquid and Vapor**	**H301, 311, 331**	**Toxic if swallowed, skin contact, inhaled**
H370	**Cause damage to organs**	**H351**	**Suspected of causing cancer**
P271	**Use in ventilated area**	**P280**	**Use gloves, eye protection/face sheild**
P302,332	**If on skin, wash with soap and water**	**P305,351,338**	**If in eyes, remove contacts, rinse with water**

Signal Word: DANGER

Section III - Composition

Components (Specific Chemical Identity; Common Name(s))			% (optional)
Methanol	METHYL ALCOHOL	CAS#: 67-56-1	> 97

See Certified Weight Report For Other Analytes Present At Trace Quantities.

INTENDED USE: REFERENCE MATERIAL

Section IV. FIRST AID MEASURES

General advice	Consult a physician. Show this safety data sheet to the doctor in attendance.Move to safe area.
If inhaled	If inhaled, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.
In case of skin contact	Wash with soap and water. Consult a physician.
In case of eye contact	Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.
If swallowed	Do NOT induce vomiting. Rinse mouth with water. Consult a physician.

Section V. FIREFIGHTING MEASURES

Flammability	Flammable in the presence of a source of ignition when the temperature is above the flash point. Keep away from heat/sparks/open flame/hot surface. No smoking.
Suitable extinguishing media	Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Protective equipment for fire	Wear self contained breathing apparatus for fire fighting if necessary.

Section VI. ACCIDENTAL RELEASE MEASURES

Personal precautions	Wear respiratory protection. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Vapours accumulate to form explosive concentrations.
Environmental precautions	Prevent further leakage or spillage if safe to do so. Do not let product enter drains.
Clean up	Contain spillage, and then collect and place in container for disposal according to local regulations (see section 13).

Section VII. HANDLING AND STORAGE

Precautions for safe handling	Avoid contact with skin and eyes. Avoid inhalation of vapour or mist. Use ventilation Keep away from sources of ignition. No smoking. Prevent the build up of electrostatic charge.
Storage Conditions	Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

Section VIII. EXPOSURE CONTROLS/PERSONAL PROTECTION

Methanol 67-56-1 TWA 200 ppm
Skin notation TWA 200 ppm
Potential for skin absorption , ingestion and inhalation.
Personal protective equipment Respiratory protection Handle with gloves. Gloves must be inspected prior to use. Eye protection.
Avoid contact with skin, eyes and clothing. Wash hands thoroughly after handling the product.

Section IX - Physical/Chemical Characteristics

Absolute Standards Inc.

PO Box 5585
Hamden, CT 06518-0585

Phone: 203-281-2917
FAX: 203-281-2922

Boiling Point	65°C	Specific Gravity (H2O = 1)	0.79
Vapor Pressure (mm Hg)	96	Melting Point	-98°C
Vapor Density (AIR = 1)	1.11	Evaporation rate (Butyl Acetate = 1)	4.6
Solubility in Water	COMPLETE		

Appearance and Odor CLEAR, COLORLESS LIQUID WITH CHARACTERISTIC PUNGENT ODOR.

Section X. STABILITY AND REACTIVITY

Chemical stability: Stable under recommended storage conditions.
Possibility of hazardous reactions: Vapours may form explosive mixture with air.
Conditions to avoid: Heat, flames, sparks, extreme temperature and sunlight.
Materials to avoid: Acid chlorides, Acid anhydrides, Oxidizing agents, Alkali metals, Reducing agents, Acids
Hazardous decomposition products formed under fire conditions. - Carbon oxides

Section XI. TOXICOLOGICAL INFORMATION

LD50 Oral - rat - 5,628 mg/kg
LC50 Inhalation - rat - 4 h - 64000 ppm
LD50 Dermal - rabbit - 15,800 mg/kg
Toxic if absorbed through skin. Causes skin irritation.
Eye damage/eye irritation
Toxic if inhaled. Causes respiratory tract irritation.
Toxic if swallowed.

Section XII. ECOLOGICAL INFORMATION FOR REPORTABLE QUANTITY OF 5000 lbs.

LC50	15,400 mg/l - 96 h
EC50	24,500.00 mg/l - 48 h
EC100	10,000.00 mg/l - 24 h

Section XIII. DISPOSAL CONSIDERATIONS

Dispose with normal Laboratory Solvent Waste.

Section XIV. TRANSPORT INFORMATION

DOT (US)
UN number: 1230 Class: 3 Packing group: II
Proper shipping name: Methanol
Reportable Quantity (RQ): 5000 lbs

IATA
UN number: 1230 Class: 3 (6.1) Packing group: II
Proper shipping name: Methanol

Section XV. REGULATORY INFORMATION

OSHA Hazards Flammable liquid, Target Organ Effect, Toxic by inhalation., Toxic by ingestion, Toxic by skin absorption, Irritant
SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

Section XVI. Misc. INFORMATION

The information in this Material Safety Data Sheet meets the requirements of the United States Occupational Safety and Health Act and regulations promulgated thereunder (29 CFR 1910.1200 et. seq.) and Global Harmonized System (GHS). This document is intended only as a guide to the appropriate precautionary handling of the material by trained personnel, or supervised by a person trained in chemical handling. The user is responsible for determining the precautions and dangers of this chemical for his or her particular application. Depending on usage, protective clothing including eye and face guards and respirators must be used to avoid contact with material or breathing chemical vapors/fumes. Exposure to this product may have serious adverse health effects. This chemical may interact with other substances. Since the potential uses are so varied, ABSOLUTE STANDARDS INC. cannot warn of all the potential dangers of use or interaction with other chemicals or substances. ABSOLUTE STANDARDS INC. warrants that the chemical meets the specifications set forth on the label. ABSOLUTE STANDARDS INC DISCLAIMS ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED WITH REGARD TO THE PRODUCT SUPPLIED HEREUNDER, ITS MERCHANTABILITY OR ITS FITNESS FOR A PARTICULAR APPLICATION. The user should recognize that this product can cause severe injury or death, especially if improperly handled or the known dangers of use are not heeded. READ ALL PRECAUTIONARY INFORMATION. As new documented general safety information becomes available, Absolute Standards Inc. will periodically revise this Safety Data Sheet. If you have any questions, please call Technical Service at 1-203-281-2917 for assistance.

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Analytical Reference Material ARM

ISO 9001 QS Registered
ISO 17025-34-35-43 Accredited
Scopes: http://AbsoluteStandards.com

CERTIFIED WEIGHT REPORT

Part Number: 91980
Lot Number: 120818
Description: Acrolein

Solvent(s): Water **Lot#** 111418Q

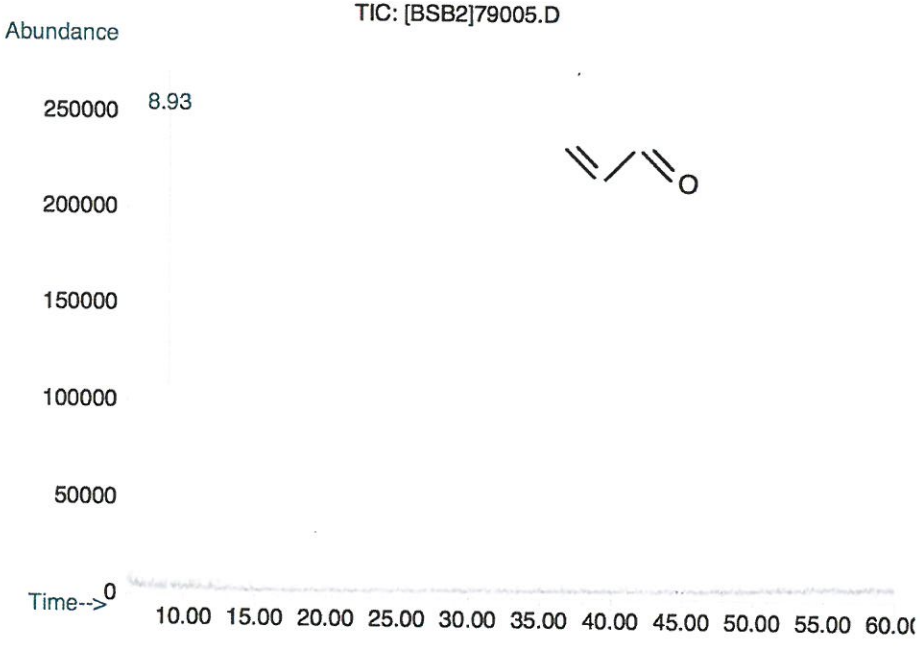
Expiration Date: 010819
Recommended Storage: Refrigerate (4 °C)
Nominal Concentration (µg/mL): 5000
NIST Test ID#: 2684186

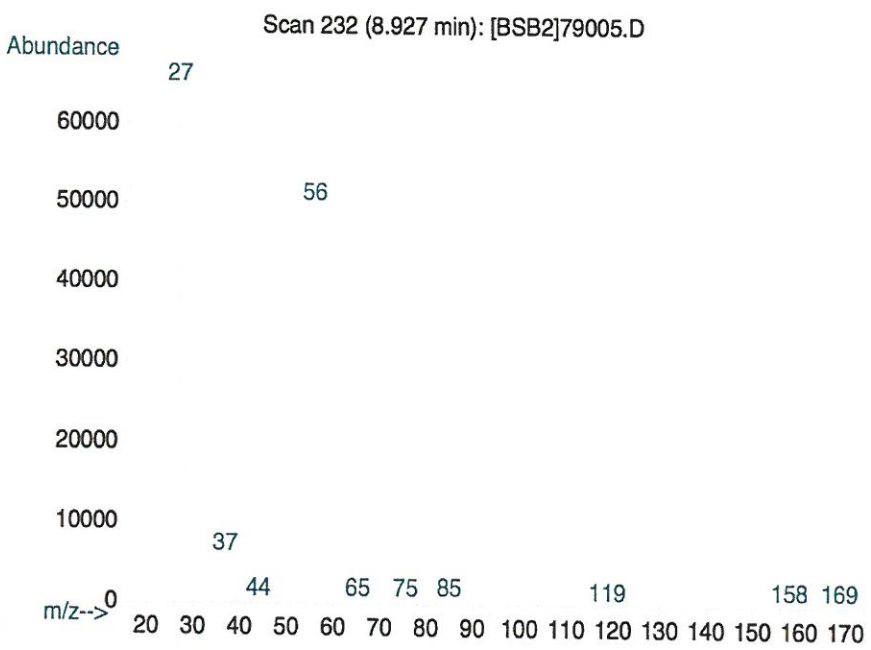
5E-05 Balance Uncertainty
Weight(s) shown below were combined and diluted to (mL): 10.0
0.007 Flask Uncertainty

Formulated By: Justin Dippold	120818 DATE
Reviewed By: Pedro L. Rentas	120818 DATE

Compound	RM#	Lot Number	Nominal Conc (µg/mL)	Purity (%)	Uncertainty Purity	Target Weight(g)	Actual Weight(g)	Actual Conc (µg/mL)	Expanded Uncertainty (+/-) (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50
1. Acrolein	5	04715LL	5000	97	0.2	0.05157	0.05162	5005.2	23.8	107-02-8	0.1 ppm	orl-rat 46mg/kg

Method: GC6MSD-1. **Detector:** Mass Selective Detector (Scan mode). **Column:** Vocol (60m X 0.25mm ID X 1.5µm film thickness). **Oven Profile:** Temp. 1 = 35°C (Time 1 = 10min.), Temp. 2=200°C (Time 2 = 8.75 min.), Rate = 4°C/min., Injector Temp. = 200°C, Detector Temp. = 220°C. **Analyst:** Pedro Rentas. **NOTE:** Due to the instability of acrolein in solution, all solutions of acrolein, and any dilutions thereof, should be used immediately. Long term storage is not recommended. Please contact our technical department if further information is required.





- The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
- Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
- Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
- All Standards, after opening ampule, should be stored with caps tight and under appropriate laboratory conditions.
- Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, DC, (1994).

Absolute Standards Inc.
PO Box 5585
Hamden, CT 06518-0585
Phone: 203-281-2917
FAX: 203-281-2922

Safety Data Sheet (SDS) GHS/OSHA Compliant

Section I Product and Company Identification

IDENTITY **ANALYTICAL STANDARD DISSOLVED IN WATER**

Manufacturer's Name	ABSOLUTE STANDARDS INC	Emergency Telephone USA & CANADA	**1-800-535-5053**
Address	44 Rossotto Dr.	Emergency Telephone International	**1-352-323-3500**
	Hamden CT, 06514	Date Prepared/Revised	May 1, 2015

Section II - Hazards Identification

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

		H315	**Causes skin and eye irritation.**
P271	**Use in ventilated area**	**P280**	**Use gloves, eye protection/face sheild**
P302,332	**If on skin, wash with soap and water**	**P305,351,338**	**If in eyes, remove contacts, rinse with water**

Signal Word: DANGER

Section III - Composition

Components (Specific Chemical Identity; Common Name(s))		% (optional)
Water	CAS#: 7732-18-5	> 97

See Certified Weight Report For Other Analytes Present At Trace Quantities.

INTENDED USE: REFERENCE MATERIAL

Section IV. FIRST AID MEASURES

General advice	Consult a physician. Show this safety data sheet to the doctor in attendance.Move to safe area.
If inhaled	If inhaled, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.
In case of skin contact	Wash with soap and water. Consult a physician.
In case of eye contact	Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.
If swallowed	Do NOT induce vomiting. Rinse mouth with water. Consult a physician.

Section V. FIREFIGHTING MEASURES

Suitable extinguishing media	Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Protective equipment for fire	Wear self contained breathing apparatus for fire fighting if necessary.
Hazardous Decomposition products	Carbon oxides

Section VI. ACCIDENTAL RELEASE MEASURES

Personal precautions	Wear respiratory protection. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Vapours accumulate to form explosive concentrations.
Environmental precautions	Prevent further leakage or spillage if safe to do so. Do not let product enter drains.
Clean up	Contain spillage, and then collect and place in container for disposal according to local regulations (see section 13).

Section VII. HANDLING AND STORAGE

Precautions for safe handling	Avoid contact with skin and eyes. Avoid inhalation of vapour or mist. Use ventilation Keep away from sources of ignition. No smoking. Prevent the build up of electrostatic charge.
Storage Conditions	Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

Section VIII. EXPOSURE CONTROLS/PERSONAL PROTECTION

Water CAS#: 7732-18-5 TWA: 500 ppm

Personal protective equipment Respiratory protection Handle with gloves. Gloves must be inspected prior to use. Eye protection.
Avoid contact with skin, eyes and clothing. Wash hands thoroughly after handling the product.

Section IX - PHYSICAL/CHEMICAL CHARACTERISTICS

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Analytical Reference Material ARM

ISO 9001 QS Registered
ISO 17025-34-35-43 Accredited
Scopes: http://AbsoluteStandards.com

CERTIFIED WEIGHT REPORT

Part Number: 91980
Lot Number: 121018
Description: Acrolein

Solvent(s): **Lot#**
Water 111418Q

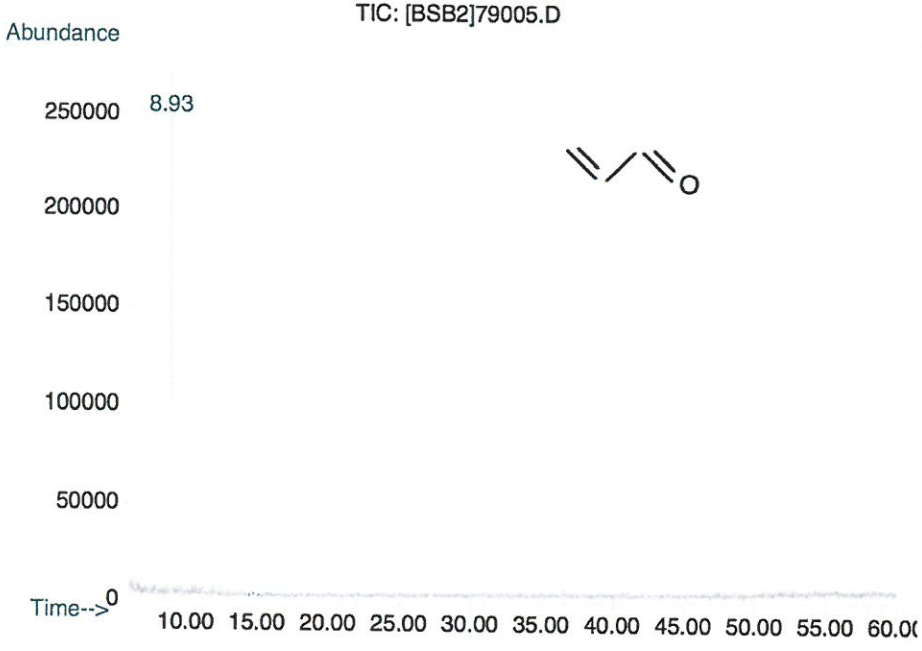
Expiration Date: 011019
Recommended Storage: Refrigerate (4 °C)
Nominal Concentration (µg/mL): 5000
NIST Test ID#: 2684186 5E-05 Balance Uncertainty
Weight(s) shown below were combined and diluted to (mL): 20.0 0.002 Flask Uncertainty

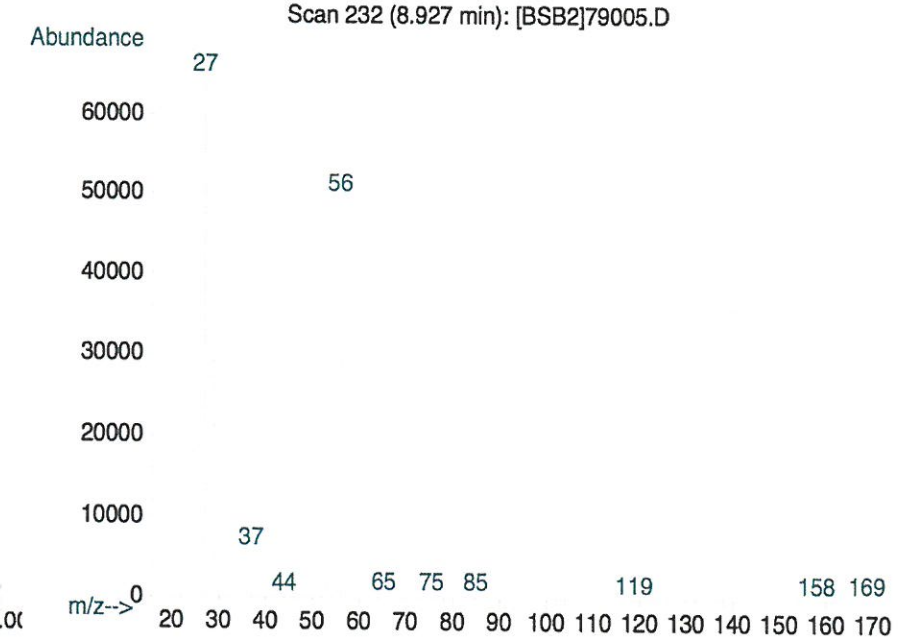
Formulated By: Eli Aliaga 121018 DATE

Reviewed By: Pedro L. Rentas 121018 DATE

Compound	RM#	Lot Number	Nominal Conc (µg/mL)	Purity (%)	Uncertainty Purity	Target Weight(g)	Actual Weight(g)	Actual Conc (µg/mL)	Expanded Uncertainty (+/-) (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50
1. Acrolein	5	07813BN	5000	97	0.2	0.10302	0.10315	5006.4	21.2	107-02-8	0.1 ppm	orl-rat 46mg/kg

Method: GC6MSD-1. **Detector:** Mass Selective Detector (Scan mode). **Column:** Vocol (60m X 0.25mm ID X 1.5µm film thickness). **Oven Profile**: Temp. 1 = 35°C (Time 1 = 10min.), Temp. 2=200°C (Time 2 = 8.75 min.), Rate = 4°C/min., Injector Temp. = 200°C, Detector Temp. = 220°C. **Analyst:** Pedro Rentas. **NOTE:** Due to the instability of acrolein in solution, all solutions of acrolein, and any dilutions thereof, should be used immediately. Long term storage is not recommended. Please contact our technical department if further information is required.





- The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
- Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
- Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
- All Standards, after opening ampule, should be stored with caps tight and under appropriate laboratory conditions.
- Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, DC, (1994).

Methanol
ULTRA RESI-ANALYZED
For Purge and Trap Analysis

J.T.Baker® | avantor™

DISTRIBUTED BY

Seidler Chemical / a Maroon Group LLC Company
537 Raymond Blvd., Newark, NJ 07105
973-465-1122 - www.seidlerchem.com

SEIDLER CHEMICAL | MAROON GROUP

Material No.: 9077-02
Batch No.: 0000196627
Manufactured Date: 2018/04/04
Expiration Date: 2020/04/01
Revision No: 1

Certificate of Analysis

Test	Specification	Result
Assay (CH_3OH) (by GC, corrected for water)	>= 99.9 %	100.0
Residue after Evaporation	<= 1.0000 ppm	0.3000
Titrable Acid (µeq/g)	<= 0.3	0.3
Titrable Base (µeq/g)	<= 0.1	<0.01
Water (by KF, coulometric)	<= 0.08 %	< 0.01
Photoionization Detection (PID) Below CRQL	Passes Test	PT
Electroconductivity Detection (ELCD) Below CRQL	Passes Test	PT

For Laboratory, Research or Manufacturing Use
Performance Tested for Use in EPA Methods
500 Series for Drinking Water
600 Series for Wastewater
846 for Solid Waste

Country of Origin: US
Packaging Site: Phillipsburg Mfg Ctr & DC

ISO
Phillipsburg, NJ 9001:2008, 14001:2004, FSSC 22000
Paris, KY 9001:2008
Mexico City, Mexico 9001:2008
Deventer, The Netherlands 9001:2008, 14001:2004, 13485:2003
Gliwice, Poland 9001:2008, 13485:2012
Selangor, Malaysia 9001:2008
Dehradun, India, 9001:2008, 14001:2004, 13485:2003
Mumbai, India, 9001:2008
Panoli, India 9001:2008

James Ethier
Jamie Ethier
Vice President Global Quality

For questions on this Certificate of Analysis please contact Technical Services at 855.282.6867 or +1.610.573.2600
Avantor Performance Materials, LLC.
3477 Corporate Parkway. Center Valley, PA 18034. U.S.A. Phone: 610.573.2600 . Fax: 610.573.2610

RESTEK®
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ilac-MRA

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 30042 **Lot No.:** A0136734

Description : 502.2 Calibration Mix #1

502.2 Calibration Mix #1 2,000µg/mL, P&T Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : December 31, 2024 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	Dichlorodifluoromethane (CFC-12) **CAS #** 75-71-8 (Lot 00012554) **Purity** 99%	2,001.6 µg/mL	+/- 13.6097 µg/mL +/- 112.4488 µg/mL +/- 115.0697 µg/mL	Gravimetric Unstressed Stressed
2	Chloromethane (methyl chloride) **CAS #** 74-87-3 (Lot SHBH5831) **Purity** 99%	2,000.4 µg/mL	+/- 13.6595 µg/mL +/- 112.3890 µg/mL +/- 115.0082 µg/mL	Gravimetric Unstressed Stressed
3	Vinyl chloride **CAS #** 75-01-4 (Lot 00012557) **Purity** 99%	2,000.0 µg/mL	+/- 13.6543 µg/mL +/- 112.3634 µg/mL +/- 114.9820 µg/mL	Gravimetric Unstressed Stressed
4	Bromomethane (methyl bromide) **CAS #** 74-83-9 (Lot 101604) **Purity** 99%	2,001.8 µg/mL	+/- 13.8346 µg/mL +/- 112.4873 µg/mL +/- 115.1079 µg/mL	Gravimetric Unstressed Stressed
5	Chloroethane (ethyl chloride) **CAS #** 75-00-3 (Lot 107-401039114-1) **Purity** 99%	1,998.9 µg/mL	+/- 13.9088 µg/mL +/- 112.3349 µg/mL +/- 114.9513 µg/mL	Gravimetric Unstressed Stressed
6	Trichlorofluoromethane (CFC-11) **CAS #** 75-69-4 (Lot SHBH4155V) **Purity** 99%	1,999.2 µg/mL	+/- 13.3235 µg/mL +/- 112.2800 µg/mL +/- 114.8984 µg/mL	Gravimetric Unstressed Stressed

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

Column:
60m x 0.25mm x 1.4µm
Rtx-502.2 (cat.#10916)

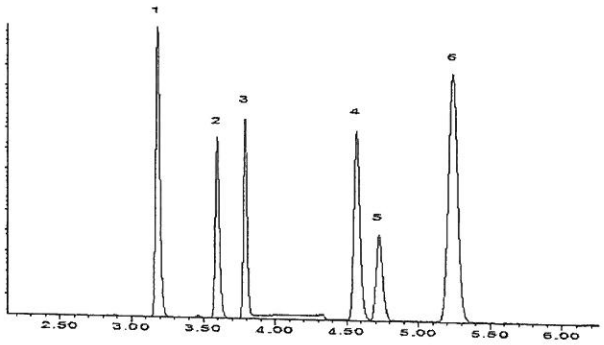
Carrier Gas:
helium-constant flow 2.0 mL/min.

Temp. Program:
40°C (hold 6 min.) to 100°C
@ 6°C/min.

Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
MSD



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Tom Suckal - Mix Technician

Date Mixed: 02-Apr-2018 **Balance:** B251644995

Justine Albertson - Operations Tech-ARM QC

Date Passed: 05-Apr-2018

Manufactured under Restek's ISO 9001:2015
Registered Quality System
Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k\sqrt{U^2_{gravimetric} + U^2_{homogeneity} + U^2_{storage\ stability} + U^2_{shipping\ stability}}$$

k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

RESTEK®
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ilac-MRA

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 30042 **Lot No.:** A0138634

Description : 502.2 Calibration Mix #1

502.2 Calibration Mix #1 2,000µg/mL, P&T Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : February 28, 2025 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	Dichlorodifluoromethane (CFC-12) **CAS #** 75-71-8 (Lot 00012554) **Purity** 99%	1,999.9 µg/mL	+/- 13.9397 µg/mL +/- 112.3940 µg/mL +/- 115.0117 µg/mL	Gravimetric Unstressed Stressed
2	Chloromethane (methyl chloride) **CAS #** 74-87-3 (Lot SHBG9707V) **Purity** 99%	2,000.0 µg/mL	+/- 18.7569 µg/mL +/- 113.0986 µg/mL +/- 115.7007 µg/mL	Gravimetric Unstressed Stressed
3	Vinyl chloride **CAS #** 75-01-4 (Lot 00012557) **Purity** 99%	1,999.8 µg/mL	+/- 15.1537 µg/mL +/- 112.5450 µg/mL +/- 115.1590 µg/mL	Gravimetric Unstressed Stressed
4	Bromomethane (methyl bromide) **CAS #** 74-83-9 (Lot 101604) **Purity** 99%	2,000.0 µg/mL	+/- 17.0459 µg/mL +/- 112.8280 µg/mL +/- 115.4362 µg/mL	Gravimetric Unstressed Stressed
5	Chloroethane (ethyl chloride) **CAS #** 75-00-3 (Lot 107-401039114-1) **Purity** 99%	2,000.0 µg/mL	+/- 16.2685 µg/mL +/- 112.7132 µg/mL +/- 115.3240 µg/mL	Gravimetric Unstressed Stressed
6	Trichlorofluoromethane (CFC-11) **CAS #** 75-69-4 (Lot SHBH4155V) **Purity** 99%	1,999.9 µg/mL	+/- 16.1306 µg/mL +/- 112.6856 µg/mL +/- 115.2967 µg/mL	Gravimetric Unstressed Stressed

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

Column:
60m x 0.25mm x 1.4µm
Rtx-502.2 (cat.#10916)

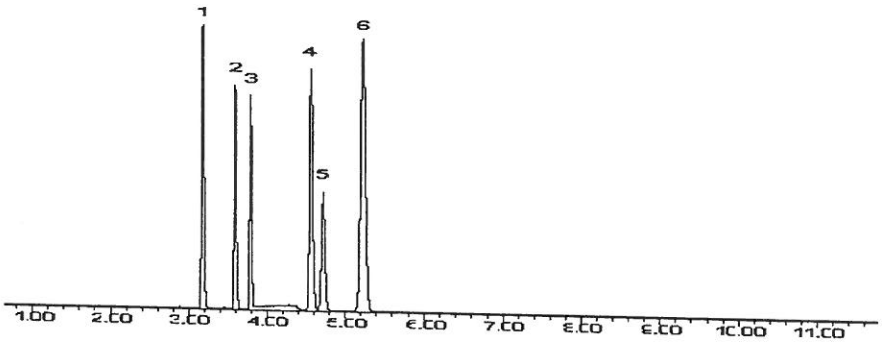
Carrier Gas:
helium-constant flow 2.0 mL/min.

Temp. Program:
40°C (hold 6 min.) to 100°C
@ 6°C/min.

Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
MSD



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

F. Joseph Tallon - Mix Technician

Date Mixed: 07-Jun-2018 **Balance:** B251644995

Diane Shaffer - Operations Tech-ARM QC

Date Passed: 11-Jun-2018

Manufactured under Restek's ISO 9001:2015
Registered Quality System
Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k\sqrt{U^2_{gravimetric} + U^2_{homogeneity} + U^2_{storage\ stability} + U^2_{shipping\ stability}}$$

k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

RESTEK®
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ilac-MRA

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 30489 **Lot No.:** A0138883

Description : 8260B Acetates Mix

8260B Acetates Mix 2,000 µg/mL, P&T Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : December 31, 2018 **Storage:** 0°C or colder

Handling: This product is photosensitive.

CERTIFIED VALUES

Elution Order	Compound		Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	Methyl acetate **CAS #** 79-20-9 **Purity** 99%	(Lot SHBG4345V)	2,011.0 µg/mL	+/- 11.8017 µg/mL +/- 121.3431 µg/mL +/- 121.6312 µg/mL		Gravimetric Unstressed Stressed
2	Vinyl acetate **CAS #** 108-05-4 **Purity** 99%	(Lot STBD7333V)	2,020.0 µg/mL	+/- 11.8545 µg/mL +/- 121.8862 µg/mL +/- 122.1755 µg/mL		Gravimetric Unstressed Stressed
3	Ethyl acetate **CAS #** 141-78-6 **Purity** 99%	(Lot SHBH7407)	2,014.0 µg/mL	+/- 11.8193 µg/mL +/- 121.5242 µg/mL +/- 121.8126 µg/mL		Gravimetric Unstressed Stressed
4	Isopropyl acetate **CAS #** 108-21-4 **Purity** 99%	(Lot BCBR9533V)	2,020.0 µg/mL	+/- 11.8545 µg/mL +/- 121.8862 µg/mL +/- 122.1755 µg/mL		Gravimetric Unstressed Stressed
5	Propyl acetate **CAS #** 109-60-4 **Purity** 99%	(Lot FGL01)	2,015.0 µg/mL	+/- 11.8251 µg/mL +/- 121.5845 µg/mL +/- 121.8731 µg/mL		Gravimetric Unstressed Stressed
6	Butyl acetate **CAS #** 123-86-4 **Purity** 99%	(Lot SHBJ2076)	2,012.0 µg/mL	+/- 11.8075 µg/mL +/- 121.4035 µg/mL +/- 121.6917 µg/mL		Gravimetric Unstressed Stressed
7	Amyl acetate **CAS #** 628-63-7 **Purity** 99%	(Lot 41325/1)	2,019.0 µg/mL	+/- 11.8486 µg/mL +/- 121.8259 µg/mL +/- 122.1150 µg/mL		Gravimetric Unstressed Stressed

RESTEK®
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 30489 **Lot No.:** A0139549

Description : 8260B Acetates Mix

8260B Acetates Mix 2,000 µg/mL, P&T Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : January 31, 2019 **Storage:** 0°C or colder

Handling: This product is photosensitive.

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	Methyl acetate CAS # 79-20-9 Purity 99%	(Lot SHBG4345V)	2,008.0 µg/mL	+/- 11.7841 µg/mL Gravimetric +/- 121.1621 µg/mL Unstressed +/- 121.4497 µg/mL Stressed
2	Vinyl acetate CAS # 108-05-4 Purity 99%	(Lot STBD7333V)	2,019.0 µg/mL	+/- 11.8486 µg/mL Gravimetric +/- 121.8259 µg/mL Unstressed +/- 122.1150 µg/mL Stressed
3	Ethyl acetate CAS # 141-78-6 Purity 99%	(Lot SHBJ1288)	2,013.0 µg/mL	+/- 11.8134 µg/mL Gravimetric +/- 121.4638 µg/mL Unstressed +/- 121.7522 µg/mL Stressed
4	Isopropyl acetate CAS # 108-21-4 Purity 99%	(Lot BCBR9533V)	2,017.0 µg/mL	+/- 11.8369 µg/mL Gravimetric +/- 121.7052 µg/mL Unstressed +/- 121.9941 µg/mL Stressed
5	Propyl acetate CAS # 109-60-4 Purity 99%	(Lot FGL01)	2,005.0 µg/mL	+/- 11.7665 µg/mL Gravimetric +/- 120.9811 µg/mL Unstressed +/- 121.2683 µg/mL Stressed
6	Butyl acetate CAS # 123-86-4 Purity 99%	(Lot SHBH0056V)	2,005.0 µg/mL	+/- 11.7665 µg/mL Gravimetric +/- 120.9811 µg/mL Unstressed +/- 121.2683 µg/mL Stressed
7	Amyl acetate CAS # 628-63-7 Purity 99%	(Lot 41325/1)	2,011.0 µg/mL	+/- 11.8017 µg/mL Gravimetric +/- 121.3431 µg/mL Unstressed +/- 121.6312 µg/mL Stressed

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

Tech Tips:
Vinyl acetate is a volatile organic ester included in the target lists of several US EPA and other methods. Under acidic conditions, esters react with alcohols to form new esters (transesterification). Methanol-based mixes containing halogenated compounds are slightly acidic, so it is important to minimize exposure of vinyl acetate to mixes of halogenated compounds in methanol. For this reason, we offer vinyl acetate in individual solution, and suggest that it be introduced into the working level calibration solution immediately before use. This will minimize problems and ensure more consistent results.

Column:
105m x 0.53mm x 3.0µm
Rtx-502.2 (cat.#10910)

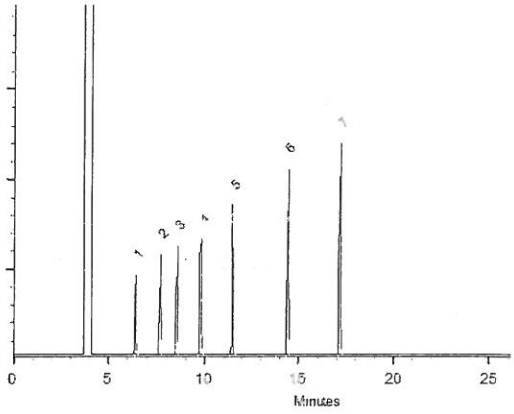
Carrier Gas:
hydrogen-constant pressure 11.0 psi.

Temp. Program:
40°C (hold 2 min.) to 240°C
@ 8°C/min. (hold 5 min.)

Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
FID



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Dawn Brownson - Mix Technician

Date Mixed: 11-Jul-2018 **Balance:** B707717271

Justine Albertson - Operations Tech-ARM QC

Date Passed: 13-Jul-2018

Manufactured under Restek's ISO 9001:2015
Registered Quality System
Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k\sqrt{U^2_{gravimetric} + U^2_{homogeneity} + U^2_{storage\ stability} + U^2_{shipping\ stability}}$$

k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

RESTEK

Safety Data Sheet

Revision Date: 01/17/18
www.restek.com

2 Letter ISO country code/language code: US/EN

1. IDENTIFICATION

Catalog Number / Product Name:	**30489 / 8260B Acetates Mix**
Company:	Restek Corporation
Address:	110 Benner Circle Bellefonte, Pa. 16823
Phone#:	814-353-1300
Fax#:	814-353-1309
Emergency#:	800-424-9300 (CHEMTREC) 703-527-3887 (Outside the US)
Email:	www.restek.com
Revision Number:	13
Intended use:	For Laboratory use only

2. HAZARD(S)IDENTIFICATION

Emergency Overview:

GHS Hazard Symbols:

GHS Classification:
Specific Target Organ Systemic Toxicity (STOT) - Single Exposure Category 1
Flammable Liquid Category 2
Carcinogenicity Category 2
Acute Toxicity - Inhalation Dust / Mist Category 3
Acute Toxicity - Dermal Category 3
Acute Toxicity - Oral Category 3

GHS Signal Word:
Danger

GHS Hazard:
Highly flammable liquid and vapour.
Toxic if swallowed, in contact with skin or if inhaled.
Suspected of causing cancer.
Causes damage to organs.

GHS Precautions:

Safety Precautions:
Obtain special instructions before use.
Do not handle until all safety precautions have been read and understood.
Keep away from heat/sparks/open flames/hot surfaces. – No smoking.
Ground/bond container and receiving equipment.
Use explosion-proof electrical/ventilation and lighting equipment.
Use only non-sparking tools.
Take precautionary measures against static discharge.
Do not breathe dust/fume/gas/mist/vapours/spray.
Wash hands and skin thoroughly after handling.
Do not eat, drink or smoke when using this product.
Use only outdoors or in a well-ventilated area.
Wear protective gloves/protective clothing/eye protection/face protection.

First Aid Measures:
IF SWALLOWED: Immediately call a POISON CENTER/doctor/....
IF ON SKIN: Wash with plenty of soap and water.
IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
Specific treatment see section 4.
Rinse mouth.

Take off immediately all contaminated clothing and wash it before reuse.
In case of fire: Use extinguishing media in section 5 for extinction.

Storage: Store in a well-ventilated place. Keep container tightly closed.
Store in a well-ventilated place. Keep cool.
Store locked up.

Disposal: Dispose of contents/container according to section 13 of the SDS.

Single Exposure Target Organs: Specific target organ toxicity - Single exposure - STOT SE 1: H370 Causes damage to organs. (C >= 10 %; No information to prove exclusion of certain routes of exposure); Specific target organ toxicity - Single exposure - STOT SE 2: H371 May cause damage to organs (3 % <= C <10 %; Concentration limits for acute toxicity cannot be translated into GHS from the DSD especially when minimum classifications are given)

Repeated Exposure Target Organs: No data available

3. COMPOSITION / INFORMATION ON INGREDIENT

Chemical Name	CAS #	EINEC #	% Composition
methanol	67-56-1	200-659-6	98.6
pentyl acetate (n-amyl acetate)	628-63-7	211-047-3	0.2
Isopropyl acetate	108-21-4	203-561-1	0.2
n-Butyl acetate	123-86-4	204-658-1	0.2
Vinyl acetate	108-05-4	203-545-4	0.2
n-Propyl acetate	109-60-4	203-686-1	0.2
Methyl acetate	79-20-9	201-185-2	0.2
Ethyl acetate	141-78-6	205-500-4	0.2

4. FIRST-AID MEASURES

Inhalation: Remove to fresh air. If breathing is difficult, have a trained individual administer oxygen. If not breathing, give artificial respiration and have a trained individual administer oxygen. Get medical attention immediately

Eyes: Immediately flush eyes with plenty of water for at least 20 minutes retracting eyelids often. Tilt the head to prevent chemical from transferring to the uncontaminated eye. Get immediate medical attention and monitor the eye daily as advised by your physician.

Skin Contact: Wash with soap and water. Remove contaminated clothing and launder. Get medical attention if irritation develops or persists.

Ingestion: Do not induce vomiting and seek medical attention immediately. Drink two glasses of water or milk to dilute. Provide medical care provider with this SDS.

5. FIRE- FIGHTING MEASURES

Extinguishing Media: Use alcohol resistant foam, carbon dioxide, or dry chemical extinguishing agents. Water spray or fog may also be effective for extinguishing if swept across the base of the fire. Water can also be used to absorb heat and keep exposed material from being damaged by fire.

Fire and/or Explosion Hazards: Vapors may be ignited by heat, sparks, flames or other sources of ignition at or above the low flash point giving rise to a Class B fire. Vapors are heavier than air and may travel to a source of ignition and flash back

Fire Fighting Methods and Protection: Do not enter fire area without proper protection including self-contained toxic breathing apparatus and full protective equipment. Fight fire from a safe distance and a protected location due to the potential of hazardous vapors and decomposition products. Flammable component(s) of this material may be lighter than water and burn while floating on the surface. Use water spray/fog for cooling. Flammable component(s) of this material may be lighter than water and burn while floating on the surface.

Hazardous Combustion Products: Carbon dioxide, Carbon monoxide

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions and Equipment: Exposure to the spilled material may be severely irritating or toxic. Follow personal protective equipment recommendations found in Section 8 of

this SDS. Personal protective equipment needs must be evaluated based on information provided on this sheet and the special circumstances created by the spill including; the material spilled, the quantity of the spill, the area in which the spill occurred, and the expertise of employees in the area responding to the spill. Never exceed any occupational exposure limits.

Methods for Clean-up: Prevent the spread of any spill to minimize harm to human health and the environment if safe to do so. Wear complete and proper personal protective equipment following the recommendation of Section 8 at a minimum. Dike with suitable absorbent material like granulated clay. Gather and store in a sealed container pending a waste disposal evaluation.

7. HANDLING AND STORAGE

Handling Technical Measures and Precautions: Toxic or severely irritating material. Avoid contacting and avoid breathing the material. Use only in a well ventilated area. Use spark-proof tools and explosion-proof equipment Wash thoroughly after handling Avoid contact with material. Remove contaminated clothing and wash before reuse "Empty" containers retain product residue (liquid and/or vapor) and can be dangerous.

Storage Technical Measures and Conditions: Store in a cool dry ventilated location. Isolate from incompatible materials and conditions. Keep container(s) closed. Keep away from sources of ignition Keep away from heat, sparks, and flame

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

United States:

Chemical Name	CAS No.	IDLH	ACGIH STEL	ACGIH TLV-TWA	OSHA Exposure Limit
methanol	67-56-1	6000 ppm IDLH	250 ppm STEL	200 ppm TWA	200 ppm TWA; 260 mg/m3 TWA
Vinyl acetate	108-05-4	Not established	15 ppm STEL; 53 mg/m3 STEL	10 ppm TWA; 35 mg/m3 TWA	No data available

Personal Protection:

Engineering Measures: Local exhaust ventilation or other engineering controls are normally required when handling or using this product to avoid overexposure.

Respiratory Protection: Respiratory protection may be required to avoid overexposure when handling this product. General or local exhaust ventilation is the preferred means of protection. Use a respirator if general room ventilation is not available or sufficient to eliminate symptoms.If an exposure limit is exceeded or if an operator is experiencing symptoms of inhalation overexposure as explained in Section 3, provide respiratory protection.

Eye Protection: Wear chemically resistant safety glasses with side shields when handling this product. Wear additional eye protection such as chemical splash goggles and/or face shield when the possibility exists for eye contact with splashing or spraying liquid, or airborne material. Do not wear contact lenses. Have an eye wash station available.

Skin Protection: Wear protective gloves. Inspect gloves for chemical break-through and replace at regular intervals. Clean protective equipment regularly. Wash hands and other exposed areas with mild soap and water before eating, drinking, and when leaving work

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance, color:	No data available
Odor:	Mild
Physical State:	Liquid
pH:	Not applicable
Vapor Pressure:	No data available
Vapor Density:	1.1 (air = 1)
Boiling Point (°C):	72.8 °C (HSDB) 64.7 °C at 760 mmHg (HSDB)
Melting Point (°C):	-98 °C
Flash Point (°F):	18
Flammability:	Highly Flammable Extremely Flammable

Upper Flammable/Explosive Limit, % in air:	36
Lower Flammable/Explosive Limit, % in air:	6
Autoignition Temperature (°C):	464 deg C
Decomposition Temperature (°C):	0
Specific Gravity:	0.791 - 0.792 g/cm3 at 20 °C
Evaporation Rate:	No data available
Odor Threshold:	No data available
Solubility:	Moderate; 50-99%
Partition Coefficient: n-octanol in water:	No data available
VOC % by weight:	0
Molecular Weight:	32.04

10. STABILITY AND REACTIVITY

Stability:	Stable under normal conditions.
Conditions to Avoid:	None known.Contamination
Materials to Avoid / Chemical Incompatiability:	Acids Oxidizing materials Peroxides Strong alkalies
Hazardous Decomposition Products:	Carbon dioxide Carbon monoxide

11. TOXICOLOGICAL INFORMATION

Routes of Entry:	Inhalation, Skin Contact, Eye Contact, Ingestion
Target Organs Potentially Affected By Exposure:	Eyes, Central nervous system stimulation, Skin, GI Tract, Respiratory Tract
Chemical Interactions That Change Toxicity:	None Known

Immediate (Acute) Health Effects by Route of Exposure:

Inhalation Irritation:	Can cause moderate respiratory irritation, dizziness, weakness, fatigue, nausea and headache.
Inhalation Toxicity:	Harmful! Can cause systemic damage (see "Target Organs)Methanol can cause central nervous system depression and overexposure can cause damage to the optic nerve resulting in visual impairment or blindness.
Skin Contact:	Can cause moderate skin irritation, defatting, and dermatitis. Not likely to cause permanent damage.
Eye Contact:	Can cause moderate irritation, tearing and reddening, but not likely to permanently injure eye tissue.
Ingestion Irritation:	Irritating to mouth, throat, and stomach. Can cause abdominal discomfort, nausea, vomiting and diarrhea.Highly toxic and may be fatal if swallowed.
Ingestion Toxicity:	Toxic if swallowed. May cause target organ failure and/or death.May be fatal if swallowed.

Long-Term (Chronic) Health Effects:

Carcinogenicity:	No data.
Reproductive and Developmental Toxicity:	No data available to indicate product or any components present at greater than 0.1% may cause birth defects.
Inhalation:	Upon prolonged and/or repeated exposure, can cause moderate respiratory irritation, dizziness, weakness, fatigue, nausea and headache.Harmful! Can cause systemic damage upon prolonged and/or repeated exposure (see "Target Organs)
Skin Contact:	Upon prolonged or repeated contact, can cause moderate skin irritation, defatting, and dermatitis. Not likely to cause permanent damage.
Skin Absorption:	Upon prolonged or repeated exposure, no hazard in normal industrial use.
Ingestion:	Toxic if swallowed. May cause target organ failure and/or death.

Component Toxicological Data:
NIOSH:

Chemical Name	CAS No.	LD50/LC50
Vinyl acetate Acetic acid, vinyl ester	108-05-4	Inhalation LC50 Rat : 11400 mg/m3/4H; Inhalation LC50 Mouse : 1550 ppm/4H; Oral LD50 Rat : 2920 mg/kg; Oral LD50 Mouse : 1613 mg/kg; Dermal LD50 Rabbit : 2335 mg/kg
Methanol	67-56-1	Inhalation LC50 Rat 22500 ppm 8 h

Component Carcinogenic Data:

OSHA:

Chemical Name	CAS No.	
Vinyl acetate	108-05-4	Present

ACGIH:

Chemical Name	CAS No.	
Vinyl acetate	108-05-4	A3 - Confirmed Animal Carcinogen with Unknown Relevance to Humans

NIOSH:

Chemical Name	CAS No.
No data available	

NTP:

Chemical Name	CAS No.
No data available	

IARC:

Chemical Name	CAS No.	Group No.
Monograph 63; 1995	108-05-4	Group 2B

12. ECOLOGICAL INFORMATION

Overview:	Moderate ecological hazard. This product may be dangerous to plants and/or wildlife.
Mobility:	No data
Persistence:	No data
Bioaccumulation:	No data
Degradability:	Biodegrades slowly.
Ecological Toxicity Data:	No data available

13. DISPOSAL CONSIDERATIONS

Waste Description of Spent Product:	Spent or discarded material is a hazardous waste. Mixing spent or discarded material with other materials may render the mixture hazardous. Perform a hazardous waste determination on mixtures.
Disposal Methods:	Dispose of by incineration following Federal, State, Local, or Provincial regulations.
Waste Disposal of Packaging:	Comply with all Local, State, Federal, and Provincial Environmental Regulations.

14. TRANSPORTATION INFORMATION

United States:

DOT Proper Shipping Name:	Flammable liquids, n.o.s. (Methanol, Ethyl acetate)
UN Number:	UN1993
Hazard Class:	3
Packing Group:	II

International:

IATA Proper Shipping Name:	Flammable liquids, n.o.s. (Methanol, Ethyl acetate)
UN Number:	UN1993
Hazard Class:	3
Packing Group:	II

Marine Pollutant: No

Chemical Name	CAS#	Marine Pollutant	Severe Marine Pollutant
No data available			

15. REGULATORY INFORMATION

United States:

Chemical Name	CAS#	CERCLA	SARA 313	SARA EHS 313	TSCA
methanol	67-56-1	X	X	-	X

Vinyl acetate	108-05-4	X	X	X	X

The following chemicals are listed on CA Prop 65:

Chemical Name	CAS #	Regulation
Methanol	67-56-1	Prop 65 Devolop Tox

State Right To Know Listing:

Chemical Name	CAS#	New Jersey	Massachusetts	Pennsylvania	California
methanol	67-56-1	X	X	X	X
pentyl acetate (n-amyl acetate)	628-63-7	X	X	X	X
Isopropyl acetate	108-21-4	X	X	X	X
n-Butyl acetate	123-86-4	X	X	X	X
Vinyl acetate	108-05-4	X	X	X	X
n-Propyl acetate	109-60-4	X	X	X	X
Methyl acetate	79-20-9	X	X	X	X
Ethyl acetate	141-78-6	X	X	X	X

16. OTHER INFORMATION

Prior Version Date: 07/08/16

Other Information: Any changes to the SDS compared to previous versions are marked by a vertical line in front of the concerned paragraph.

References: No data available

Disclaimer: Restek Corporation provides the descriptions, data and information contained herein in good faith but makes no representation as to its comprehensiveness or accuracy. It is provided for your guidance only. Because many factors may affect processing or application/use, Restek Corporation recommends you perform an assessment to determine the suitability of a product for your particular purpose prior to use. No warranties of any kind, either expressed or implied, including fitness for a particular purpose, are made regarding products described, data or information set forth. In no case shall the descriptions, information, or data provided be considered a part of our terms and conditions of sale. Further, the descriptions, data and information furnished hereunder are given gratis. No obligation or liability for the description, data and information given are assumed. All such being given and accepted at your risk.

SHIPPING DOCUMENTS

CHEMTECH
CHAIN OF CUSTODY RECORD

284 Sheffield Street, Mountainside, NJ 07092
(908) 789-8900 Fax (908) 789-8922
www.chemtech.net

1 of 2

CHEMTECH PROJECT NO.
QUOTE NO. J6484
COC Number 2019472

CLIENT INFORMATION
REPORT TO BE SENT TO:
COMPANY: Day Environmental, Inc.
ADDRESS: 1563 Lyell Avenue
CITY: Rochester STATE: NY ZIP: 14606
ATTENTION: Jeff Danzinger
PHONE: 585-454-0210 FAX: 585-454-0825

CLIENT PROJECT INFORMATION
PROJECT NAME: Andrews St. Site
PROJECT NO.: 53345-17 LOCATION: Rochester, NY
PROJECT MANAGER: Jeff Danzinger
e-mail: jdanzinger@daymail.net
PHONE: 585-454-0210 FAX: 585-454-0825

CLIENT BILLING INFORMATION
BILL TO: Day Environmental, Inc. PO#: 53345-17
ADDRESS: 1563 Lyell Avenue
CITY: Rochester STATE: NY ZIP: 14606
ATTENTION: Jeff Danzinger PHONE: 585-454-0210

DATA TURNAROUND INFORMATION
FAX: 5 DAYS *
HARD COPY: DAYS *
EDD: 15 DAYS *
PREAPPROVED TAT: ☒ YES ☐ NO
STANDARD TURNAROUND TIME IS 10 BUSINESS DAYS

DATA DELIVERABLE INFORMATION
☐ RESULTS ONLY ☐ USEPA CLP
☐ RESULTS + QC ☒ New York State ASP "B"
☐ New Jersey REDUCED ☐ New York State ASP "A"
☐ New Jersey CLP ☐ Other
☒ EDD FORMAT NYSDEC EQuIS Excel

ANALYSIS
MeOH extraction requires an additional 4 oz jar for percent solid.
1 TCL VOCs + TICs 8260
2 3 4 5 6 7 8 9

CHEMTECH SAMPLE ID	PROJECT SAMPLE IDENTIFICATION	SAMPLE MATRIX	SAMPLE TYPE COMP	SAMPLE TYPE GRAB	SAMPLE COLLECTION DATE	SAMPLE COLLECTION TIME	# OF BOTTLES	A/E 1	2	3	4	5	6	7	8	9	COMMENTS
1.	963-MW-01 (23)	GW		X	12-18-18	1322	3	X									
2.	964-MW-02 (23.8)	GW				1327	2	X									
3.	965-MW-03A (17)	GW				1331	2	X									
4.	966-MW-04 (23)	GW				1337	6	X									Also do ms/msd
5.	967-MW-05 (17)	GW				1344	2	X									
6.	968-MW-06 (17)	GW				1346	2	X									
7.	969-MW-07 (22.5)	GW				1350	2	X									
8.	970-MW-11 (15)	GW				1425	2	X									
9.	971-MW-15 (17)	GW				1355	2	X									
10.	972-MW-16 (22.5)	GW				1400	2	X									

PRESERVATIVES
COMMENTS ← Specify Preservatives
A-HCl B-HNO_3 C-H_2SO_4 D-NaOH E-ICE F-Other

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION INCLUDING COURIER DELIVERY

RELINQUISHED BY SAMPLER:	DATE/TIME:	RECEIVED BY:
1.	12-18-18/1600	1. FED-EX
RELINQUISHED BY:	DATE/TIME:	RECEIVED BY:
2. Paul Gulak	12-19-18 11:30am	2. Paul Gulak
RELINQUISHED BY:	DATE/TIME:	RECEIVED FOR LAB BY:
3.		3.

Comments:

Cooler Temp.: 2.1
Shipment
Complete: ☑ Yes ☐ No
By Client:
By Chemtech:

CHEMTECH
CHAIN OF CUSTODY RECORD

284 Sheffield Street, Mountainside, NJ 07092
(908) 789-8900 Fax (908) 789-8922
www.chemtech.net

2 of 2

CHEMTECH PROJECT NO.
QUOTE NO. J6484
COC Number 2019473

CLIENT INFORMATION
REPORT TO BE SENT TO:
COMPANY: Day Environmental, Inc
ADDRESS: 1563 Lyell Avenue
CITY: Rochester STATE: NY ZIP: 14606
ATTENTION: Jeff Danzinger
PHONE: 585-454-0210 FAX: 585-454-0825

CLIENT PROJECT INFORMATION
PROJECT NAME: Andrews St. Site
PROJECT NO.: 53343-17 LOCATION: Rochester, NY
PROJECT MANAGER: Jeff Danzinger
e-mail: jdanzinger@daymail.net
PHONE: 585-454-0210 FAX: 585-454-0825

CLIENT BILLING INFORMATION
BILL TO: Day Environmental, Inc PO#: 53345-17
ADDRESS: 1563 Lyell Avenue
CITY: Rochester STATE: NY ZIP: 14606
ATTENTION: Jeff Danzinger PHONE: 585-454-0210

DATA TURNAROUND INFORMATION
FAX: 5 DAYS *
HARD COPY: DAYS *
EDD: 15 DAYS *
PREAPPROVED TAT: ☒ YES ☐ NO
STANDARD TURNAROUND TIME IS 10 BUSINESS DAYS

DATA DELIVERABLE INFORMATION
☐ RESULTS ONLY ☐ USEPA CLP
☐ RESULTS + QC ☒ New York State ASP "B"
☐ New Jersey REDUCED ☐ New York State ASP "A"
☐ New Jersey CLP ☐ Other
☒ EDD FORMAT NYSDEC Equis Excel

ANALYSIS
MeOH extraction requires an additional 4 oz jar for percent solid.
1 TCL VOCs + TICs 8260 2 3 4 5 6 7 8 9

CHEMTECH SAMPLE ID	PROJECT SAMPLE IDENTIFICATION	SAMPLE MATRIX	SAMPLE TYPE COMP	SAMPLE TYPE GRAB	SAMPLE COLLECTION DATE	SAMPLE COLLECTION TIME	# OF BOTTLES	PRESERVATIVES A/E 1	2	3	4	5	6	7	8	9	COMMENTS
1.	973-MW-17 (15.5)	GW		X	12-18-18	1403	2	X									
2.	974-MW-18 (21.5)	GW		X		1406	2	X									
3.	975-MW-19 (28)	GW		X		1409	2	X									
4.	976-MW-20 (22)	GW		X		1412	2	X									
5.	977-FB121818	AQ		X		1310	2	X									
6.	978-TB121818	AQ		X	"	—	2	X									
7.																	
8.																	
9.					12-18-18												
10.																	

← Specify Preservatives
A-HCl B-HNO_3 C-H_2SO_4 D-NaOH E-ICE F-Other

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION INCLUDING COURIER DELIVERY

RELINQUISHED BY SAMPLER:	DATE/TIME:	RECEIVED BY:
1.	12-18-18/1400	1. FED-EX
RELINQUISHED BY:	DATE/TIME:	RECEIVED BY:
2. Paul Czubek	12-19-18 11:30am	2. Paul Czubek
RELINQUISHED BY:	DATE/TIME:	RECEIVED FOR LAB BY:
3.		3.

Comments:

Cooler Temp.: 2.1
Shipment
Complete: ☒ Yes ☐ No
By Client:
By Chemtech:

Laboratory Certification

Certified By	License No.
CAS EPA CLP Contract	EP-W-14-030
Connecticut	PH-0649
DOD ELAP (L-A-B)	L2219
Florida	E87935
Maine	2012025
Maryland	296
New Hampshire	255413
New Jersey	20012
New York	11376
Pennsylvania	68-00548
Soil Permit	P330-13-00380
Texas	T104704488-13-5

CHEMTECH

LOGIN REPORT/SAMPLE TRANSFER

Order ID : J6484 DAYE01
Client Name : Day Environmental, Inc.
Client Contact : Jeff Danzinger
Invoice Name : Day Environmental, Inc.
Invoice Contact : Jeff Danzinger

Order Date : 12/18/2018
Project Name : Andrew St. RI
Receive DateTime : 12/19/2018 11:30:00 AM
Purchase Order :
Login Tech : Tyler

Project Mgr :
Report Type : NYS ASP B
EDD Type : Equis_EQNYDEC/Excel
Hard Copy Date :
Date Signoff :

LAB ID	CLIENT ID	MATRIX	SAMPLE DATE	SAMPLE TIME	TEST	TEST GROUP	METHOD	COMMET	FAX DATE	DUE DATES
J6484-01	963-MW-01(23)	Water	12/18/2018	13:22						
					VOC-TCLVOA-10		8260-Low	5 Bus. Days		
J6484-02	964-MW-02(23.8)	Water	12/18/2018	13:27						
					VOC-TCLVOA-10		8260-Low	5 Bus. Days		
J6484-03	965-MW-03A(17)	Water	12/18/2018	13:31						
					VOC-TCLVOA-10		8260-Low	5 Bus. Days		
J6484-04	966-MW-04(23)	Water	12/18/2018	13:37						
					VOC-TCLVOA-10		8260-Low	5 Bus. Days		
J6484-05	J6484-04MS	Water	12/18/2018	13:37						
					VOC-TCLVOA-10		8260-Low	5 Bus. Days		
J6484-06	J6484-04MSD	Water	12/18/2018	13:37						
					VOC-TCLVOA-10		8260-Low	5 Bus. Days		
J6484-07	967-MW-05(17)	Water	12/18/2018	13:44						
					VOC-TCLVOA-10		8260-Low	5 Bus. Days		
J6484-08	968-MW-06(17)	Water	12/18/2018	13:46						
					VOC-TCLVOA-10		8260-Low	5 Bus. Days		
J6484-09	969-MW-07(22.5)	Water	12/18/2018	13:50						

CHEMTECH

LOGIN REPORT/SAMPLE TRANSFER

Order ID : J6484 DAYE01
Client Name : Day Environmental, Inc.
Client Contact : Jeff Danzinger
Invoice Name : Day Environmental, Inc.
Invoice Contact : Jeff Danzinger

Order Date : 12/18/2018
Project Name : Andrew St. RI
Receive DateTime : 12/19/2018 11:30:00 AM
Purchase Order :
Login Tech : Tyler

Project Mgr :
Report Type : NYS ASP B
EDD Type : Equis_EQNYDEC/Excel
Hard Copy Date :
Date Signoff :

LAB ID	CLIENT ID	MATRIX	SAMPLE DATE	SAMPLE TIME	TEST	TEST GROUP	METHOD	COMMET	FAX DATE	DUE DATES
					VOC-TCLVOA-10		8260-Low	5 Bus. Days		
J6484-10	970-MW-11(15)	Water	12/18/2018	14:25						
					VOC-TCLVOA-10		8260-Low	5 Bus. Days		
J6484-11	971-MW-15(17)	Water	12/18/2018	13:55						
					VOC-TCLVOA-10		8260-Low	5 Bus. Days		
J6484-12	972-MW-16(22.5)	Water	12/18/2018	14:00						
					VOC-TCLVOA-10		8260-Low	5 Bus. Days		
J6484-13	973-MW-17(15.5)	Water	12/18/2018	14:03						
					VOC-TCLVOA-10		8260-Low	5 Bus. Days		
J6484-14	974-MW-18(21.5)	Water	12/18/2018	14:06						
					VOC-TCLVOA-10		8260-Low	5 Bus. Days		
J6484-15	975-MW-19(28)	Water	12/18/2018	14:09						
					VOC-TCLVOA-10		8260-Low	5 Bus. Days		
J6484-16	976-MW-20(22)	Water	12/18/2018	14:12						
					VOC-TCLVOA-10		8260-Low	5 Bus. Days		
J6484-17	977-FB121881	Water	12/18/2018	13:10						
					VOC-TCLVOA-10		8260-Low	5 Bus. Days		

CHEMTECH

LOGIN REPORT/SAMPLE TRANSFER

Order ID : J6484 DAYE01
Client Name : Day Environmental, Inc.
Client Contact : Jeff Danzinger
Invoice Name : Day Environmental, Inc.
Invoice Contact : Jeff Danzinger

Order Date : 12/18/2018
Project Name : Andrew St. RI
Receive DateTime : 12/19/2018 11:30:00 AM
Purchase Order :
Login Tech : Tyler

Project Mgr :
Report Type : NYS ASP B
EDD Type : Equis_EQNYDEC/Excel
Hard Copy Date :
Date Signoff :

LAB ID	CLIENT ID	MATRIX	SAMPLE DATE	SAMPLE TIME	TEST	TEST GROUP	METHOD	COMMET	FAX DATE	DUE DATES
J6484-18	978-TB121818	Water	12/18/2018	00:00						
					VOC-TCLVOA-10		8260-Low	5 Bus. Days		

Relinguished By : Paul Czulak
Date / Time : 12-19-18 2:20pm

Received By :
Date / Time : 12/19/18 2:20

Storage Area : VOA Refridgerator Room

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

DATA PACKAGE

VOLATILE ORGANICS

PROJECT NAME : ANDREW ST. RI

DAY ENVIRONMENTAL, INC.

Canalside Business Center, 1563 Lyell Avenue

Rochester, NY - 14606

Phone No: 585-454-0210

ORDER ID : K6405

ATTENTION : Jeff Danzinger

Table Of Contents for K6405

1) VOLATILES DATA 2
2) Signature Page 4
3) Case Narrative 5
4) Qualifier Page 7
5) Conformance/Non Conformance 8
6) QA Checklist 10
7) Chronicle 11
8) Hit Summary 13
9) QC Data Summary For VOC-TCLVOA-10 16
9.1) Deuterated Monitoring Compound Summary 17
9.2) MS/MSD Summary 19
9.3) LCS/LCSD Summary 23
9.4) Method Blank Summary 29
9.5) GS/MS Tune Summary 32
9.6) Internal Standard Area and RT Summary 36
10) Sample Data 42
10.1) 991-MW-01-(23) 43
10.2) 991-MW-01-(23)DL 60
10.3) 992-MW-02-(23.8) 71
10.4) 993-MW-03A-(17) 87
10.5) 993-MW-03A-(17)DL 102
10.6) 994-MW-05-(17) 113
10.7) 995-MW-11-(15) 127
10.8) 995-MW-11-(15)DL 142
10.9) 996-MW-15-(17) 153
10.10) 997-MW-16-(22.5) 167
10.11) 998-MW-17A-(15.5) 182
10.12) 999-MW-18-(21.5) 201
10.13) 1000-MW-19-(28) 216
10.14) 1001-FB122019 231
10.15) 1002-TB122019 245
11) Calibration Data Summary 258
11.1) Initial Calibration Data 259
11.1.1) VX121319 259
11.2) Continued Calibration Data 632

Table Of Contents for K6405

11.2.1) VX014232.D 632

11.2.2) VX014259.D 692

11.2.3) VX014302.D 752

12) QC Sample Data 812

12.1) Tune Raw Data 813

12.2) Method Blank Data 817

12.3) LCS Data 856

12.4) MS Data 1021

12.5) MSD Data 1076

13) Manual Integration 1131

14) Analytical Runlogs 1135

15) Standard Prep Logs 1149

16) Shipping Document 1275

16.1) Chain Of Custody 1276

16.2) Air Bill 1278

16.3) Lab Certificate 1279

16.4) Internal COC 1280

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Cover Page

Order ID : K6405

Project ID : Andrew St. RI

Client : Day Environmental, Inc.

Lab Sample Number	Client Sample Number
K6405-01	991-MW-01-(23)
K6405-02	992-MW-02-(23.8)
K6405-03	993-MW-03A-(17)
K6405-04	994-MW-05-(17)
K6405-05	995-MW-11-(15)
K6405-06	996-MW-15-(17)
K6405-07	K6405-06MS
K6405-08	K6405-06MSD
K6405-09	997-MW-16-(22.5)
K6405-10	998-MW-17A-(15.5)
K6405-11	999-MW-18-(21.5)
K6405-12	1000-MW-19-(28)
K6405-13	1001-FB122019
K6405-14	1002-TB122019

I certify that the data package is in compliance with the terms and conditions of the contract,both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hard copy data package has been authorized by the laboratory manager or his designee, as verified by the following signature.

Signature : N. N. Pandya

APPROVED

Date: 1/9/2020

By Nimisha Pandya, QA QC Supervisor at 11:53 am, Jan 09, 2020

NYDOH CERTIFICATION NO - 11376

NJDEP CERTIFICATION NO - 20012

CHEMTECH
284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

CASE NARRATIVE

Day Environmental, Inc.
Project Name: Andrew St. RI
Project # N/A
Chemtech Project # K6405
Test Name: VOC-TCLVOA-10

A. Number of Samples and Date of Receipt:
14 Water samples were received on 12/21/2019.

B. Parameters
According to the Chain of Custody document, the following analyses were requested: VOC-TCLVOA-10. This data package contains results for VOC-TCLVOA-10.

C. Analytical Techniques:
The analysis performed on instrument MSVOA_X were done using GC column DB-624UI 20m 0.18mm 1.0 um. Cat#121-1324UIThe analysis of VOC-TCLVOA-10 was based on method 8260-Low.

D. QA/ QC Samples:
The Holding Times were met for all analysis.
The Surrogate recoveries met the acceptable criteria.
The Internal Standards Areas met the acceptable requirements.
The Retention Times were acceptable for all samples.
The MS recoveries met the requirements for all compounds .
The MSD recoveries met the acceptable requirements .
The RPD met criteria .
The Blank Spike met requirements for all samples .
The Blank analysis did not indicate the presence of lab contamination.

The % RSD is greater than 15% in the Initial Calibration method (82X121319W.M) for Carbon Disulfide, Bromochloromethane those compounds are passing on Linear Regression.

The Continuous Calibration met the requirements with FIEL ID:VX014259.D met the acceptable requirements for all the Compounds except for Bromochloromethane.

The Tuning criteria met requirements.

Samples 991-MW-01-(23), 993-MW-03A-(17) and 995-MW-11-(15) were diluted due to high concentrations.

E. Additional Comments:

Please use %D calculated based on Avg RF and CCRF for all compounds using Average Response Factor when the %RSD value for a compound is <15% for the Initial Calibration curve and use %D calculated based on Amount added and Calculated amount for all compounds using Linear Regression when the %RSD value for a compound is > 15% for the Initial Calibration curve for SW-846 analysis.

F. Manual Integration Comments:
Please refer to the Manual integration Report included with the Run Logs for information on the manual integrations performed.

I certify that the data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. The laboratory manager or his designee, as verified by the following signature has authorized release of the data contained in this hard copy data package.

Signature_ N. N. Pandya

APPROVED
By Nimisha Pandya, QA QC Supervisor at 11:53 am, Jan 09, 2020

DATA REPORTING QUALIFIERS- ORGANIC

For reporting results, the following " Results Qualifiers" are used:

Value	If the result is a value greater than or equal to the detection limit, report the value
U	Indicates the compound was analyzed for but was not detected. Report the minimum detection limit for the sample with the U, i.e. "10 U". This is not necessarily the instrument detection limit attainable for this particular sample based on any concentration or dilution that may have been required.
ND	Indicates the analyte was analyzed for, but not detected
J	Indicates an estimated value. This flag is used: (1) When estimating a concentration for a tentatively identified compound (library search hits, where a 1:1 response is assumed.) (2) When the mass spectral data indicated the identification, however the result was less than the specified detection limit greater than zero. If the detection limit was 10ug/L and a concentration of 3 ug/L was calculated report as 3 J. This is flag is used when similar situation arise on any organic parameter i.e. Pest, PCB and others.
B	Indicates the analyte was found in the blank as well as the sample report as "12 B".
E	Indicates the analyte 's concentration exceeds the calibrated range of the instrument for that specific analysis.
D	This flag identifies all compounds identified in an analysis at a secondary dilution factor.
P	This flag is used for Pesticide/PCB target analyte when there is >25% difference for detected concentrations between the two GC columns. The lower of the two values is reported on Form 1 and flagged with a "P".
N	This flag indicates presumptive evidence of a compound. This is only used for tentatively identified compounds (TICs), where the identification is based on a mass spectral library search. It applies to all TIC results. For generic characterization of a TIC, such as chlorinated hydrocarbon, the flag is not used.
A	This flag indicates that a Tentatively Identified Compound is a suspected aldol-condensation product.
Q	Indicates the LCS did not meet the control limits requirements

CHEMTECH
284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

GC/MS VOA CONFORMANCE/NON-CONFORMANCE SUMMARY

CHEMTECH PROJECT NUMBER: K6405 MATRIX: Water

METHOD: 8260-Low

		NA	NO	YES
1.	Chromatograms Labeled/Compounds Identified. (Field samples and Method Blanks)			✓
2.	GC/MS Tuning Specifications BFB Meet Criteria (NOTE THAT THERE ARE DIFFERENT CRITERIA FOR NY ASP CLP, CLP AND NJ)			✓
3.	GC/MS Tuning Frequency - Performed every 24 hours for 600 series and 12 hours for 8000 Series.			✓
4.	GC/MS Calibration - Initial Calibration performed before sample analysis and continuing calibration performed within 24 hours of sample analysis for 600 series and 12 hours for 8000 series.			✓
5.	GC/MS Calibration Requirements. The % RSD is greater than 15% in the Initial Calibration method (82X121319W.M) for Carbon Disulfide, Bromochloromethane those compounds are passing on Linear Regression. The Continuous Calibration met the requirements with FIEL ID:VX014259.D met the acceptable requirements for all the Compounds except for Bromochloromethane.			✓
6.	Blank Contamination - If yes, list compounds and concentrations in each blank:		✓	
7.	Surrogate Recoveries Meet Criteria If not met, list those compounds and their recoveries which fall outside the acceptable ranges.			✓
8.	Matrix Spike/Matrix Spike Duplicate Recoveries Meet Criteria If not met, list those compounds and their recoveries which fall outside the acceptable range.			✓

CHEMTECH
284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

GC/MS VOA CONFORMANCE/NON-CONFORMANCE SUMMARY (CONTINUED)

		NA	NO	YES
9.	Internal Standard Area/Retention Time Shift Meet Criteria			✓
	Comments:			
10.	Analysis Holding Time Met			✓
	If not met, list number of days exceeded for each sample:			

ADDITIONAL COMMENTS:

Samples 991-MW-01-(23), 993-MW-03A-(17) and 995-MW-11-(15) were diluted due to high concentrations.

Please use %D calculated based on Avg RF and CCRF for all compounds using Average Response Factor when the %RSD value for a compound is <15% for the Initial Calibration curve and use %D calculated based on Amount added and Calculated amount for all compounds using Linear Regression when the %RSD value for a compound is > 15% for the Initial Calibration curve for SW-846 analysis.

QA REVIEW

REVIEWED
By Aparana Soni at 11:48 am, Jan 09, 2020

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

APPENDIX A

QA REVIEW GENERAL DOCUMENTATION

Project #: K6405

	Completed
For thorough review, the report must have the following:	
GENERAL:	
Are all original paperwork present (chain of custody, record of communication,airbill, sample management lab chronicle, login page)	✓
Check chain-of-custody for proper relinquish/return of samples	✓
Is the chain of custody signed and complete	✓
Check internal chain-of-custody for proper relinquish/return of samples /sample extracts	✓
Collect information for each project id from server. Were all requirements followed	✓
COVER PAGE:	
Do numbers of samples correspond to the number of samples in the Chain of Custody on login page	✓
Do lab numbers and client Ids on cover page agree with the Chain of Custody	✓
CHAIN OF CUSTODY:	
Do requested analyses on Chain of Custody agree with form I results	✓
Do requested analyses on Chain of Custody agree with the log-in page	✓
Were the correct method log-in for analysis according to the Analytical Request and Chain of Castody	✓
Were the samples received within hold time	✓
Were any problems found with the samples at arrival recorded in the Sample Management Laboratory Chronicle	✓
ANALYTICAL:	
Was method requirement followed?	✓
Was client requirement followed?	✓
Does the case narrative summarize all QC failure?	✓
All runlogs and manual integration are reviewed for requirements	✓
All manual calculations and /or hand notations verified	✓

1st Level QA Review Signature: APARNA SONI **Date:** 01/09/2020

2nd Level QA Review Signature: N. N. Pandya **Date:**

APPROVED
By Nimisha Pandya, QA QC Supervisor at 11:53 am, Jan 09, 2020

CHEMTECH

284 Sheffield Street, Mountainside, New Jersey - 07092

Phone: (908) 789 8900 Fax: (908) 789 8922

LAB CHRONICLE

OrderID:	K6405	**OrderDate:**	12/23/2019 8:22:00 AM
Client:	Day Environmental, Inc.	**Project:**	Andrew St. RI
Contact:	Jeff Danzinger	**Location:**	D11

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
K6405-01	**991-MW-01-(23)**	**Water**			**12/20/19**			**12/21/19**
			VOC-TCLVOA-10	8260-Low			12/24/19	
K6405-01DL	**991-MW-01-(23)DL**	**Water**			**12/20/19**			**12/21/19**
			VOC-TCLVOA-10	8260-Low			12/26/19	
K6405-02	**992-MW-02-(23.8)**	**Water**			**12/20/19**			**12/21/19**
			VOC-TCLVOA-10	8260-Low			12/26/19	
K6405-03	**993-MW-03A-(17)**	**Water**			**12/20/19**			**12/21/19**
			VOC-TCLVOA-10	8260-Low			12/24/19	
K6405-03DL	**993-MW-03A-(17)DL**	**Water**			**12/20/19**			**12/21/19**
			VOC-TCLVOA-10	8260-Low			12/26/19	
K6405-04	**994-MW-05-(17)**	**Water**			**12/20/19**			**12/21/19**
			VOC-TCLVOA-10	8260-Low			12/26/19	
K6405-05	**995-MW-11-(15)**	**Water**			**12/20/19**			**12/21/19**
			VOC-TCLVOA-10	8260-Low			12/24/19	
K6405-05DL	**995-MW-11-(15)DL**	**Water**			**12/20/19**			**12/21/19**
			VOC-TCLVOA-10	8260-Low			12/26/19	
K6405-06	**996-MW-15-(17)**	**Water**			**12/20/19**			**12/21/19**
			VOC-TCLVOA-10	8260-Low			12/26/19	
K6405-09	**997-MW-16-(22.5)**	**Water**			**12/20/19**			**12/21/19**
			VOC-TCLVOA-10	8260-Low			12/26/19	
K6405-10	**998-MW-17A-(15.5)**	**Water**			**12/20/19**			**12/21/19**
			VOC-TCLVOA-10	8260-Low			12/24/19	
K6405-11	**999-MW-18-(21.5)**	**Water**			**12/20/19**			**12/21/19**
			VOC-TCLVOA-10	8260-Low			12/26/19	

CHEMTECH

284 Sheffield Street, Mountainside, New Jersey - 07092

Phone: (908) 789 8900 Fax: (908) 789 8922

LAB CHRONICLE

K6405-12	**1000-MW-19-(28)**	**Water**			**12/20/19**		**12/21/19**
			VOC-TCLVOA-10	8260-Low		12/26/19	
K6405-13	**1001-FB122019**	**Water**			**12/20/19**		**12/21/19**
			VOC-TCLVOA-10	8260-Low		12/27/19	
K6405-14	**1002-TB122019**	**Water**			**12/20/19**		**12/21/19**
			VOC-TCLVOA-10	8260-Low		12/26/19	

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Hit Summary Sheet
SW-846

SDG No.: K6405

Client: Day Environmental, Inc.

Sample ID	Client ID	Matrix	Parameter		Concentration	C	MDL	RDL	Units
Client ID:	**991-MW-01-(23)**								
K6405-01	991-MW-01-(23)	Water	Vinyl Chloride		1.20		0.16	1.00	ug/L
K6405-01	991-MW-01-(23)	Water	Acetone		3.60	J	0.90	5.00	ug/L
K6405-01	991-MW-01-(23)	Water	trans-1,2-Dichloroethene		2.80		0.24	1.00	ug/L
K6405-01	991-MW-01-(23)	Water	cis-1,2-Dichloroethene		84.30		0.30	1.00	ug/L
K6405-01	991-MW-01-(23)	Water	Trichloroethene		100.00		0.27	1.00	ug/L
K6405-01	991-MW-01-(23)	Water	Tetrachloroethene		1,000.00	E	0.15	1.00	ug/L
			Total Voc :		1191.9				
			Total Concentration:		1191.9				
Client ID:	**991-MW-01-(23)DL**								
K6405-01DL	991-MW-01-(23)DL	Water	cis-1,2-Dichloroethene		81.30	D	5.90	20.0	ug/L
K6405-01DL	991-MW-01-(23)DL	Water	Trichloroethene		96.40	D	5.40	20.0	ug/L
K6405-01DL	991-MW-01-(23)DL	Water	Tetrachloroethene		820.00	D	3.10	20.0	ug/L
			Total Voc :		997.7				
			Total Concentration:		997.7				
Client ID:	**992-MW-02-(23.8)**								
K6405-02	992-MW-02-(23.8)	Water	Vinyl Chloride		1.60		0.16	1.00	ug/L
K6405-02	992-MW-02-(23.8)	Water	Acetone		3.20	J	0.90	5.00	ug/L
K6405-02	992-MW-02-(23.8)	Water	trans-1,2-Dichloroethene		1.20		0.24	1.00	ug/L
K6405-02	992-MW-02-(23.8)	Water	cis-1,2-Dichloroethene		36.00		0.30	1.00	ug/L
K6405-02	992-MW-02-(23.8)	Water	Trichloroethene		34.30		0.27	1.00	ug/L
K6405-02	992-MW-02-(23.8)	Water	Tetrachloroethene		57.50		0.15	1.00	ug/L
			Total Voc :		133.8				
K6405-02	992-MW-02-(23.8)	Water	Isobutane	*	5.40	J	0	0	ug/L
			Total Tics :		5.4				
			Total Concentration:		139.2				
Client ID:	**993-MW-03A-(17)**								
K6405-03	993-MW-03A-(17)	Water	Acetone		3.10	J	0.90	5.00	ug/L
K6405-03	993-MW-03A-(17)	Water	cis-1,2-Dichloroethene		29.40		0.30	1.00	ug/L
K6405-03	993-MW-03A-(17)	Water	Trichloroethene		34.00		0.27	1.00	ug/L
K6405-03	993-MW-03A-(17)	Water	Tetrachloroethene		300.00	E	0.15	1.00	ug/L
			Total Voc :		366.5				
			Total Concentration:		366.5				
Client ID:	**993-MW-03A-(17)DL**								
K6405-03DL	993-MW-03A-(17)DL	Water	cis-1,2-Dichloroethene		30.00	D	1.50	5.00	ug/L
K6405-03DL	993-MW-03A-(17)DL	Water	Trichloroethene		36.10	D	1.30	5.00	ug/L
K6405-03DL	993-MW-03A-(17)DL	Water	Tetrachloroethene		290.00	D	0.77	5.00	ug/L
			Total Voc :		356.1				
			Total Concentration:		356.1				
Client ID:	**994-MW-05-(17)**								

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Hit Summary Sheet
SW-846

SDG No.: K6405

Client: Day Environmental, Inc.

Sample ID	Client ID	Matrix	Parameter		Concentration	C	MDL	RDL	Units
K6405-04	994-MW-05-(17)	Water	Trichloroethene		0.76	J	0.27	1.00	ug/L
K6405-04	994-MW-05-(17)	Water	Tetrachloroethene		28.10		0.15	1.00	ug/L
			Total Voc :		28.86				
			Total Concentration:		28.86				
Client ID:	**995-MW-11-(15)**								
K6405-05	995-MW-11-(15)	Water	Acetone		3.60	J	0.90	5.00	ug/L
K6405-05	995-MW-11-(15)	Water	cis-1,2-Dichloroethene		4.20		0.30	1.00	ug/L
K6405-05	995-MW-11-(15)	Water	Trichloroethene		7.30		0.27	1.00	ug/L
K6405-05	995-MW-11-(15)	Water	Tetrachloroethene		240.00	E	0.15	1.00	ug/L
			Total Voc :		255.1				
			Total Concentration:		255.1				
Client ID:	**995-MW-11-(15)DL**								
K6405-05DL	995-MW-11-(15)DL	Water	cis-1,2-Dichloroethene		4.80	JD	1.50	5.00	ug/L
K6405-05DL	995-MW-11-(15)DL	Water	Trichloroethene		7.20	D	1.30	5.00	ug/L
K6405-05DL	995-MW-11-(15)DL	Water	Tetrachloroethene		220.00	D	0.77	5.00	ug/L
			Total Voc :		232				
			Total Concentration:		232				
Client ID:	**996-MW-15-(17)**								
K6405-06	996-MW-15-(17)	Water	Acetone		4.00	J	0.90	5.00	ug/L
K6405-06	996-MW-15-(17)	Water	Tetrachloroethene		0.55	J	0.15	1.00	ug/L
			Total Voc :		4.55				
K6405-06	996-MW-15-(17)	Water	Isopropyl Alcohol	*	6.90	J	0	1.00	ug/L
			Total Tics :		6.9				
			Total Concentration:		11.45				
Client ID:	**997-MW-16-(22.5)**								
K6405-09	997-MW-16-(22.5)	Water	Acetone		4.50	J	0.90	5.00	ug/L
K6405-09	997-MW-16-(22.5)	Water	Trichloroethene		0.62	J	0.27	1.00	ug/L
K6405-09	997-MW-16-(22.5)	Water	Tetrachloroethene		2.50		0.15	1.00	ug/L
			Total Voc :		7.62				
			Total Concentration:		7.62				
Client ID:	**998-MW-17A-(15.5)**								
K6405-10	998-MW-17A-(15.5)	Water	Vinyl Chloride		2.30		0.16	1.00	ug/L
K6405-10	998-MW-17A-(15.5)	Water	Acetone		5.00		0.90	5.00	ug/L
K6405-10	998-MW-17A-(15.5)	Water	trans-1,2-Dichloroethene		1.90		0.24	1.00	ug/L
K6405-10	998-MW-17A-(15.5)	Water	Cyclohexane		3.90	J	1.20	5.00	ug/L
K6405-10	998-MW-17A-(15.5)	Water	cis-1,2-Dichloroethene		69.60		0.30	1.00	ug/L
K6405-10	998-MW-17A-(15.5)	Water	Methylcyclohexane		1.70		0.17	1.00	ug/L
K6405-10	998-MW-17A-(15.5)	Water	Benzene		0.51	J	0.10	1.00	ug/L
K6405-10	998-MW-17A-(15.5)	Water	Trichloroethene		26.60		0.27	1.00	ug/L
K6405-10	998-MW-17A-(15.5)	Water	Tetrachloroethene		28.00		0.15	1.00	ug/L

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Hit Summary Sheet
SW-846

SDG No.: K6405

Client: Day Environmental, Inc.

Sample ID	Client ID	Matrix	Parameter		Concentration	C	MDL	RDL	Units
K6405-10	998-MW-17A-(15.5)	Water	o-Xylene		0.32	J	0.13	1.00	ug/L
			Total Voc :		139.83				
K6405-10	998-MW-17A-(15.5)	Water	Isobutane	*	9.90	J	0	0	ug/L
K6405-10	998-MW-17A-(15.5)	Water	Butane, 2-methyl-	*	12.20	J	0	0	ug/L
			Total Tics :		22.1				
			Total Concentration:		161.93				
Client ID:	**999-MW-18-(21.5)**								
K6405-11	999-MW-18-(21.5)	Water	Acetone		9.30		0.90	5.00	ug/L
K6405-11	999-MW-18-(21.5)	Water	Trichloroethene		0.97	J	0.27	1.00	ug/L
K6405-11	999-MW-18-(21.5)	Water	Tetrachloroethene		4.70		0.15	1.00	ug/L
			Total Voc :		14.97				
K6405-11	999-MW-18-(21.5)	Water	Isopropyl Alcohol	*	6.70	J	0	1.00	ug/L
			Total Tics :		6.7				
			Total Concentration:		21.67				
Client ID:	**1000-MW-19-(28)**								
K6405-12	1000-MW-19-(28)	Water	Acetone		4.70	J	0.90	5.00	ug/L
K6405-12	1000-MW-19-(28)	Water	cis-1,2-Dichloroethene		0.50	J	0.30	1.00	ug/L
K6405-12	1000-MW-19-(28)	Water	Trichloroethene		0.69	J	0.27	1.00	ug/L
K6405-12	1000-MW-19-(28)	Water	Tetrachloroethene		1.10		0.15	1.00	ug/L
			Total Voc :		6.99				
K6405-12	1000-MW-19-(28)	Water	Propane, 2-ethoxy-	*	5.20	J	0	0	ug/L
			Total Tics :		5.2				
			Total Concentration:		12.19				
Client ID:	**1001-FB122019**								
K6405-13	1001-FB122019	Water	Acetone		7.30		0.90	5.00	ug/L
			Total Voc :		7.3				
K6405-13	1001-FB122019	Water	1-Hexanol, 2-ethyl-	*	9.60	J	0	0	ug/L
			Total Tics :		9.6				
			Total Concentration:		16.9				

QC SUMMARY

Surrogate Summary

SDG No.: K6405

Client: Day Environmental, Inc.

Analytical Method: SW8260-Low

Lab Sample ID	Client ID	Parameter	Spike	Result	RecoveryQual	Limits Low	Limits High
K6405-01	991-MW-01-(23)	1,2-Dichloroethane-d4	50	48.5	97	61	141
		Dibromofluoromethane	50	48.5	97	69	133
		Toluene-d8	50	50.2	100	65	126
		4-Bromofluorobenzene	50	46.9	94	58	135
K6405-01DL	991-MW-01-(23)DL	1,2-Dichloroethane-d4	50	49.4	99	61	141
		Dibromofluoromethane	50	49.1	98	69	133
		Toluene-d8	50	50.8	102	65	126
		4-Bromofluorobenzene	50	46.3	93	58	135
K6405-02	992-MW-02-(23.8)	1,2-Dichloroethane-d4	50	48.5	97	61	141
		Dibromofluoromethane	50	48.4	97	69	133
		Toluene-d8	50	50.1	100	65	126
		4-Bromofluorobenzene	50	45.5	91	58	135
K6405-03	993-MW-03A-(17)	1,2-Dichloroethane-d4	50	48.2	96	61	141
		Dibromofluoromethane	50	48.7	97	69	133
		Toluene-d8	50	50.2	100	65	126
		4-Bromofluorobenzene	50	46.5	93	58	135
K6405-03DL	993-MW-03A-(17)DL	1,2-Dichloroethane-d4	50	49.0	98	61	141
		Dibromofluoromethane	50	49.0	98	69	133
		Toluene-d8	50	49.8	100	65	126
		4-Bromofluorobenzene	50	45.5	91	58	135
K6405-04	994-MW-05-(17)	1,2-Dichloroethane-d4	50	49.6	99	61	141
		Dibromofluoromethane	50	48.9	98	69	133
		Toluene-d8	50	50.3	101	65	126
		4-Bromofluorobenzene	50	45.5	91	58	135
K6405-05	995-MW-11-(15)	1,2-Dichloroethane-d4	50	49.2	98	61	141
		Dibromofluoromethane	50	49.2	98	69	133
		Toluene-d8	50	50.6	101	65	126
		4-Bromofluorobenzene	50	46.5	93	58	135
K6405-05DL	995-MW-11-(15)DL	1,2-Dichloroethane-d4	50	50.0	100	61	141
		Dibromofluoromethane	50	50.0	100	69	133
		Toluene-d8	50	50.9	102	65	126
		4-Bromofluorobenzene	50	46.6	93	58	135
K6405-06	996-MW-15-(17)	1,2-Dichloroethane-d4	50	49.9	100	61	141
		Dibromofluoromethane	50	48.9	98	69	133
		Toluene-d8	50	50.1	100	65	126
		4-Bromofluorobenzene	50	46.1	92	58	135
K6405-07MS	996-MW-15-(17)MS	1,2-Dichloroethane-d4	50	51.3	103	61	141
		Dibromofluoromethane	50	50.3	101	69	133
		Toluene-d8	50	49.2	98	65	126
		4-Bromofluorobenzene	50	48.3	97	58	135
K6405-08MSD	996-MW-15-(17)MSD	1,2-Dichloroethane-d4	50	51.1	102	61	141
		Dibromofluoromethane	50	51.7	103	69	133
		Toluene-d8	50	50.6	101	65	126
		4-Bromofluorobenzene	50	49.5	99	58	135
K6405-09	997-MW-16-(22.5)	1,2-Dichloroethane-d4	50	48.8	98	61	141
		Dibromofluoromethane	50	49.4	99	69	133
		Toluene-d8	50	50.2	100	65	126
		4-Bromofluorobenzene	50	45.8	92	58	135
K6405-10	998-MW-17A-(15.5)	1,2-Dichloroethane-d4	50	48.5	97	61	141
		Dibromofluoromethane	50	49.6	99	69	133
		Toluene-d8	50	49.7	99	65	126
		4-Bromofluorobenzene	50	45.2	90	58	135

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Surrogate Summary

SDG No.: K6405

Client: Day Environmental, Inc.

Analytical Method: SW8260-Low

Lab Sample ID	Client ID	Parameter	Spike	Result	RecoveryQual	Limits Low	Limits High
K6405-11	999-MW-18-(21.5)	1,2-Dichloroethane-d4	50	50.0	100	61	141
		Dibromofluoromethane	50	48.4	97	69	133
		Toluene-d8	50	49.8	100	65	126
		4-Bromofluorobenzene	50	45.6	91	58	135
K6405-12	1000-MW-19-(28)	1,2-Dichloroethane-d4	50	49.8	99	61	141
		Dibromofluoromethane	50	49.2	98	69	133
		Toluene-d8	50	50.7	101	65	126
		4-Bromofluorobenzene	50	45.5	91	58	135
K6405-13	1001-FB122019	1,2-Dichloroethane-d4	50	49.3	99	61	141
		Dibromofluoromethane	50	49.1	98	69	133
		Toluene-d8	50	50.2	100	65	126
		4-Bromofluorobenzene	50	45.9	92	58	135
K6405-14	1002-TB122019	1,2-Dichloroethane-d4	50	49.7	99	61	141
		Dibromofluoromethane	50	48.9	98	69	133
		Toluene-d8	50	50.1	100	65	126
		4-Bromofluorobenzene	50	46.2	92	58	135
VX1224WBL01	VX1224WBL01	1,2-Dichloroethane-d4	50	49.4	99	61	141
		Dibromofluoromethane	50	49.2	98	69	133
		Toluene-d8	50	50.5	101	65	126
		4-Bromofluorobenzene	50	46.9	94	58	135
VX1224WBS01	VX1224WBS01	1,2-Dichloroethane-d4	50	47.9	96	61	141
		Dibromofluoromethane	50	49.6	99	69	133
		Toluene-d8	50	49.5	99	65	126
		4-Bromofluorobenzene	50	48.2	96	58	135
VX1226WBL01	VX1226WBL01	1,2-Dichloroethane-d4	50	49.1	98	61	141
		Dibromofluoromethane	50	49.5	99	69	133
		Toluene-d8	50	50.5	101	65	126
		4-Bromofluorobenzene	50	46.4	93	58	135
VX1226WBS01	VX1226WBS01	1,2-Dichloroethane-d4	50	50.8	102	61	141
		Dibromofluoromethane	50	51.9	104	69	133
		Toluene-d8	50	52.2	104	65	126
		4-Bromofluorobenzene	50	49.3	99	58	135
VX1227WBL01	VX1227WBL01	1,2-Dichloroethane-d4	50	49.0	98	61	141
		Dibromofluoromethane	50	49.5	99	69	133
		Toluene-d8	50	50.6	101	65	126
		4-Bromofluorobenzene	50	45.4	91	58	135
VX1227WBS01	VX1227WBS01	1,2-Dichloroethane-d4	50	49.1	98	61	141
		Dibromofluoromethane	50	50.7	101	69	133
		Toluene-d8	50	50.0	100	65	126
		4-Bromofluorobenzene	50	48.4	97	58	135

CHEMTECH

Matrix Spike/Matrix Spike Duplicate Summary
SW-846

SDG No.: K6405

Client: Day Environmental, Inc.

Analytical Method: SW8260-Low

Parameter	Spike	Sample Result	Result	Units	Rec	Rec Qual	RPD	RPD Qual	Limits Low	Limits High	Limits RPD
Lab Sample ID : K6405-07MS		**Client Sample ID : 996-MW-15-(17)MS**						**Datafile :**	VX014255.D		
Dichlorodifluoromethane	50	0	43.3	ug/L	87				47	161	
Chloromethane	50	0	46.8	ug/L	94				53	157	
Vinyl chloride	50	0	47.8	ug/L	96				57	149	
Bromomethane	50	0	44.6	ug/L	89				45	165	
Chloroethane	50	0	49.4	ug/L	99				47	166	
Trichlorofluoromethane	50	0	48.9	ug/L	98				51	165	
1,1,2-Trichlorotrifluoroethane	50	0	47.9	ug/L	96				61	145	
1,1-Dichloroethene	50	0	48.5	ug/L	97				55	148	
Acetone	250	4.00	180	ug/L	70				11	159	
Carbon disulfide	50	0	44.6	ug/L	89				13	149	
Methyl tert-butyl Ether	50	0	51.9	ug/L	104				60	145	
Methyl Acetate	50	0	49.1	ug/L	98				27	167	
Methylene Chloride	50	0	48.1	ug/L	96				56	146	
trans-1,2-Dichloroethene	50	0	48.4	ug/L	97				60	141	
1,1-Dichloroethane	50	0	50.5	ug/L	101				61	144	
Cyclohexane	50	0	49.3	ug/L	99				57	142	
2-Butanone	250	0	230	ug/L	92				42	145	
Carbon Tetrachloride	50	0	49.6	ug/L	99				60	140	
cis-1,2-Dichloroethene	50	0	50.5	ug/L	101				48	156	
Bromochloromethane	50	0	55.8	ug/L	112				59	146	
Chloroform	50	0	52.1	ug/L	104				63	140	
1,1,1-Trichloroethane	50	0	50.5	ug/L	101				65	140	
Methylcyclohexane	50	0	45.0	ug/L	90				62	128	
Benzene	50	0	49.1	ug/L	98				62	134	
1,2-Dichloroethane	50	0	49.5	ug/L	99				67	136	
Trichloroethene	50	0	47.3	ug/L	95				64	131	
1,2-Dichloropropane	50	0	50.5	ug/L	101				69	130	
Bromodichloromethane	50	0	50.3	ug/L	101				66	132	
4-Methyl-2-Pentanone	250	0	260	ug/L	104				57	148	
Toluene	50	0	48.2	ug/L	96				68	129	
t-1,3-Dichloropropene	50	0	50.1	ug/L	100				54	136	
cis-1,3-Dichloropropene	50	0	49.9	ug/L	100				56	133	
1,1,2-Trichloroethane	50	0	49.6	ug/L	99				68	134	
2-Hexanone	250	0	240	ug/L	96				46	158	
Dibromochloromethane	50	0	51.7	ug/L	103				59	136	
1,2-Dibromoethane	50	0	50.5	ug/L	101				65	138	
Tetrachloroethene	50	1.60	45.7	ug/L	88				29	137	
Chlorobenzene	50	0	48.8	ug/L	98				68	126	
Ethyl Benzene	50	0	49.5	ug/L	99				61	131	
m/p-Xylenes	100	0	97.1	ug/L	97				64	125	
o-Xylene	50	0	49.2	ug/L	98				65	126	
Styrene	50	0	49.3	ug/L	99				40	140	
Bromoform	50	0	51.4	ug/L	103				42	134	
Isopropylbenzene	50	0	51.0	ug/L	102				58	132	
1,1,2,2-Tetrachloroethane	50	0	51.3	ug/L	103				61	136	
1,3-Dichlorobenzene	50	0	47.4	ug/L	95				63	125	
1,4-Dichlorobenzene	50	0	46.4	ug/L	93				64	124	

CHEMTECH

Matrix Spike/Matrix Spike Duplicate Summary
SW-846

SDG No.: K6405

Client: Day Environmental, Inc.

Analytical Method: SW8260-Low

Parameter	Spike	Sample Result	Result	Units	Rec	Rec Qual	RPD	RPD Qual	Limits Low	Limits High	Limits RPD
1,2-Dichlorobenzene	50	0	48.0	ug/L	96				64	126	
1,2-Dibromo-3-Chloropropane	50	0	48.2	ug/L	96				57	139	
1,2,4-Trichlorobenzene	50	0	47.3	ug/L	95				57	130	
1,2,3-Trichlorobenzene	50	0	48.8	ug/L	98				57	131	

CHEMTECH

Matrix Spike/Matrix Spike Duplicate Summary
SW-846

SDG No.: K6405

Client: Day Environmental, Inc.

Analytical Method: SW8260-Low

Parameter	Spike	Sample Result	Result	Units	Rec	Rec Qual	RPD	RPD Qual	Limits Low	Limits High	Limits RPD
Lab Sample ID : K6405-08MSD		**Client Sample ID : 996-MW-15-(17)MSD**						**Datafile :**	VX014256.D		
Dichlorodifluoromethane	50	0	43.8	ug/L	88		1		47	161	20
Chloromethane	50	0	46.8	ug/L	94		0		53	157	20
Vinyl chloride	50	0	47.3	ug/L	95		1		57	149	20
Bromomethane	50	0	46.2	ug/L	92		4		45	165	20
Chloroethane	50	0	49.5	ug/L	99		0		47	166	20
Trichlorofluoromethane	50	0	48.5	ug/L	97		1		51	165	20
1,1,2-Trichlorotrifluoroethane	50	0	48.0	ug/L	96		0		61	145	20
1,1-Dichloroethene	50	0	49.4	ug/L	99		2		55	148	20
Acetone	250	4.00	170	ug/L	66		6		11	159	20
Carbon disulfide	50	0	45.1	ug/L	90		1		13	149	20
Methyl tert-butyl Ether	50	0	52.2	ug/L	104		1		60	145	20
Methyl Acetate	50	0	49.7	ug/L	99		1		27	167	20
Methylene Chloride	50	0	48.4	ug/L	97		1		56	146	20
trans-1,2-Dichloroethene	50	0	48.5	ug/L	97		0		60	141	20
1,1-Dichloroethane	50	0	50.4	ug/L	101		0		61	144	20
Cyclohexane	50	0	49.7	ug/L	99		1		57	142	20
2-Butanone	250	0	240	ug/L	96		4		42	145	20
Carbon Tetrachloride	50	0	49.9	ug/L	100		1		60	140	20
cis-1,2-Dichloroethene	50	0	50.4	ug/L	101		0		48	156	20
Bromochloromethane	50	0	55.6	ug/L	111		0		59	146	20
Chloroform	50	0	51.3	ug/L	103		2		63	140	20
1,1,1-Trichloroethane	50	0	50.3	ug/L	101		0		65	140	20
Methylcyclohexane	50	0	46.1	ug/L	92		2		62	128	20
Benzene	50	0	48.7	ug/L	97		1		62	134	20
1,2-Dichloroethane	50	0	49.3	ug/L	99		0		67	136	20
Trichloroethene	50	0	47.7	ug/L	95		1		64	131	20
1,2-Dichloropropane	50	0	51.0	ug/L	102		1		69	130	20
Bromodichloromethane	50	0	50.9	ug/L	102		1		66	132	20
4-Methyl-2-Pentanone	250	0	260	ug/L	104		0		57	148	20
Toluene	50	0	48.1	ug/L	96		0		68	129	20
t-1,3-Dichloropropene	50	0	50.7	ug/L	101		1		54	136	20
cis-1,3-Dichloropropene	50	0	50.8	ug/L	102		2		56	133	20
1,1,2-Trichloroethane	50	0	50.0	ug/L	100		1		68	134	20
2-Hexanone	250	0	240	ug/L	96		0		46	158	20
Dibromochloromethane	50	0	52.4	ug/L	105		1		59	136	20
1,2-Dibromoethane	50	0	50.0	ug/L	100		1		65	138	20
Tetrachloroethene	50	1.60	45.3	ug/L	87		1		29	137	20
Chlorobenzene	50	0	47.8	ug/L	96		2		68	126	20
Ethyl Benzene	50	0	49.2	ug/L	98		1		61	131	20
m/p-Xylenes	100	0	97.7	ug/L	98		1		64	125	20
o-Xylene	50	0	48.5	ug/L	97		1		65	126	20
Styrene	50	0	49.4	ug/L	99		0		40	140	20
Bromoform	50	0	52.3	ug/L	105		2		42	134	20
Isopropylbenzene	50	0	50.9	ug/L	102		0		58	132	20
1,1,2,2-Tetrachloroethane	50	0	51.1	ug/L	102		0		61	136	20
1,3-Dichlorobenzene	50	0	46.9	ug/L	94		1		63	125	20
1,4-Dichlorobenzene	50	0	46.7	ug/L	93		1		64	124	20

CHEMTECH

Matrix Spike/Matrix Spike Duplicate Summary
SW-846

SDG No.: K6405

Client: Day Environmental, Inc.

Analytical Method: SW8260-Low

Parameter	Spike	Sample Result	Result	Units	Rec	Rec Qual	RPD	RPD Qual	Limits Low	Limits High	Limits RPD
1,2-Dichlorobenzene	50	0	47.5	ug/L	95		1		64	126	20
1,2-Dibromo-3-Chloropropane	50	0	48.1	ug/L	96		0		57	139	20
1,2,4-Trichlorobenzene	50	0	48.0	ug/L	96		1		57	130	20
1,2,3-Trichlorobenzene	50	0	49.5	ug/L	99		1		57	131	20

CHEMTECH

Laboratory Control Sample/Laboratory Control Sample Duplicate Summary
SW-846

SDG No.: K6405
Client: Day Environmental, Inc.
Analytical Method: SW8260-Low **Datafile :** VX014235.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	Limits Low	Limits High	RPD
VX1224WBS01	Dichlorodifluoromethane	20	17.3	ug/L	86			46	139	
	Chloromethane	20	17.6	ug/L	88			58	139	
	Vinyl chloride	20	17.5	ug/L	88			65	137	
	Bromomethane	20	15.1	ug/L	76			50	162	
	Chloroethane	20	18.6	ug/L	93			54	160	
	Trichlorofluoromethane	20	18.5	ug/L	93			67	143	
	1,1,2-Trichlorotrifluoroethane	20	19.0	ug/L	95			71	136	
	1,1-Dichloroethene	20	18.1	ug/L	91			69	134	
	Acetone	100	87.1	ug/L	87			41	181	
	Carbon disulfide	20	16.9	ug/L	85			63	138	
	Methyl tert-butyl Ether	20	18.8	ug/L	94			72	136	
	Methyl Acetate	20	19.2	ug/L	96			51	158	
	Methylene Chloride	20	18.6	ug/L	93			67	138	
	trans-1,2-Dichloroethene	20	18.4	ug/L	92			72	132	
	1,1-Dichloroethane	20	18.5	ug/L	93			74	135	
	Cyclohexane	20	18.7	ug/L	94			67	132	
	2-Butanone	100	92.5	ug/L	93			64	146	
	Carbon Tetrachloride	20	19.3	ug/L	97			71	134	
	cis-1,2-Dichloroethene	20	18.4	ug/L	92			74	130	
	Bromochloromethane	20	21.3	ug/L	106			71	136	
	Chloroform	20	18.8	ug/L	94			74	134	
	1,1,1-Trichloroethane	20	18.1	ug/L	91			74	133	
	Methylcyclohexane	20	19.0	ug/L	95			71	125	
	Benzene	20	18.9	ug/L	95			75	125	
	1,2-Dichloroethane	20	19.2	ug/L	96			76	130	
	Trichloroethene	20	18.3	ug/L	92			73	127	
	1,2-Dichloropropane	20	19.2	ug/L	96			76	125	
	Bromodichloromethane	20	19.0	ug/L	95			78	127	
	4-Methyl-2-Pentanone	100	95.2	ug/L	95			71	140	
	Toluene	20	18.7	ug/L	94			74	125	
	t-1,3-Dichloropropene	20	18.8	ug/L	94			74	131	
	cis-1,3-Dichloropropene	20	19.1	ug/L	96			74	128	
	1,1,2-Trichloroethane	20	19.2	ug/L	96			75	129	
	2-Hexanone	100	93.8	ug/L	94			62	153	
	Dibromochloromethane	20	19.1	ug/L	96			74	131	
	1,2-Dibromoethane	20	19.6	ug/L	98			74	129	
	Tetrachloroethene	20	20.3	ug/L	102			46	157	
	Chlorobenzene	20	18.9	ug/L	95			76	123	
	Ethyl Benzene	20	18.9	ug/L	95			75	126	
	m/p-Xylenes	40	37.1	ug/L	93			74	126	
	o-Xylene	20	18.4	ug/L	92			73	127	
	Styrene	20	18.6	ug/L	93			75	126	
	Bromoform	20	17.9	ug/L	90			66	130	
	Isopropylbenzene	20	19.6	ug/L	98			70	127	
	1,1,2,2-Tetrachloroethane	20	18.7	ug/L	94			66	131	
	1,3-Dichlorobenzene	20	18.3	ug/L	92			70	125	
	1,4-Dichlorobenzene	20	18.3	ug/L	92			71	124	
	1,2-Dichlorobenzene	20	18.3	ug/L	92			71	126	
	1,2-Dibromo-3-Chloropropane	20	17.3	ug/L	86			62	134	

CHEMTECH

Laboratory Control Sample/Laboratory Control Sample Duplicate Summary
SW-846

SDG No.: K6405

Client: Day Environmental, Inc.

Analytical Method: SW8260-Low **Datafile :** VX014235.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	Limits Low	Limits High	Limits RPD
VX1224WBS01	1,2,4-Trichlorobenzene	20	18.5	ug/L	93			62	129	
	1,2,3-Trichlorobenzene	20	18.7	ug/L	94			58	130	

CHEMTECH

Laboratory Control Sample/Laboratory Control Sample Duplicate Summary
SW-846

SDG No.: K6405
Client: Day Environmental, Inc.
Analytical Method: SW8260-Low **Datafile :** VX014262.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	Limits Low	Limits High	RPD
VX1226WBS01	Dichlorodifluoromethane	20	17.8	ug/L	89			46	139	
	Chloromethane	20	18.5	ug/L	93			58	139	
	Vinyl chloride	20	18.3	ug/L	92			65	137	
	Bromomethane	20	15.7	ug/L	79			50	162	
	Chloroethane	20	20.2	ug/L	101			54	160	
	Trichlorofluoromethane	20	19.6	ug/L	98			67	143	
	1,1,2-Trichlorotrifluoroethane	20	20.0	ug/L	100			71	136	
	1,1-Dichloroethene	20	19.2	ug/L	96			69	134	
	Acetone	100	75.3	ug/L	75			41	181	
	Carbon disulfide	20	17.9	ug/L	90			63	138	
	Methyl tert-butyl Ether	20	19.7	ug/L	99			72	136	
	Methyl Acetate	20	20.6	ug/L	103			51	158	
	Methylene Chloride	20	18.8	ug/L	94			67	138	
	trans-1,2-Dichloroethene	20	18.9	ug/L	95			72	132	
	1,1-Dichloroethane	20	19.3	ug/L	97			74	135	
	Cyclohexane	20	19.3	ug/L	97			67	132	
	2-Butanone	100	91.3	ug/L	91			64	146	
	Carbon Tetrachloride	20	19.9	ug/L	100			71	134	
	cis-1,2-Dichloroethene	20	19.2	ug/L	96			74	130	
	Bromochloromethane	20	22.7	ug/L	114			71	136	
	Chloroform	20	20.1	ug/L	101			74	134	
	1,1,1-Trichloroethane	20	19.2	ug/L	96			74	133	
	Methylcyclohexane	20	19.0	ug/L	95			71	125	
	Benzene	20	19.7	ug/L	99			75	125	
	1,2-Dichloroethane	20	19.9	ug/L	100			76	130	
	Trichloroethene	20	19.3	ug/L	97			73	127	
	1,2-Dichloropropane	20	20.0	ug/L	100			76	125	
	Bromodichloromethane	20	19.9	ug/L	100			78	127	
	4-Methyl-2-Pentanone	100	100	ug/L	100			71	140	
	Toluene	20	19.3	ug/L	97			74	125	
	t-1,3-Dichloropropene	20	19.6	ug/L	98			74	131	
	cis-1,3-Dichloropropene	20	19.9	ug/L	100			74	128	
	1,1,2-Trichloroethane	20	20.1	ug/L	101			75	129	
	2-Hexanone	100	94.1	ug/L	94			62	153	
	Dibromochloromethane	20	19.7	ug/L	99			74	131	
	1,2-Dibromoethane	20	20.1	ug/L	101			74	129	
	Tetrachloroethene	20	20.0	ug/L	100			46	157	
	Chlorobenzene	20	19.3	ug/L	97			76	123	
	Ethyl Benzene	20	19.8	ug/L	99			75	126	
	m/p-Xylenes	40	39.5	ug/L	99			74	126	
	o-Xylene	20	19.4	ug/L	97			73	127	
	Styrene	20	19.3	ug/L	97			75	126	
	Bromoform	20	19.1	ug/L	96			66	130	
	Isopropylbenzene	20	20.7	ug/L	104			70	127	
	1,1,2,2-Tetrachloroethane	20	20.1	ug/L	101			66	131	
	1,3-Dichlorobenzene	20	19.3	ug/L	97			70	125	
	1,4-Dichlorobenzene	20	18.8	ug/L	94			71	124	
	1,2-Dichlorobenzene	20	19.0	ug/L	95			71	126	
	1,2-Dibromo-3-Chloropropane	20	17.7	ug/L	89			62	134	

CHEMTECH

Laboratory Control Sample/Laboratory Control Sample Duplicate Summary
SW-846

SDG No.: K6405

Client: Day Environmental, Inc.

Analytical Method: SW8260-Low **Datafile :** VX014262.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	Limits Low	Limits High	Limits RPD
VX1226WBS01	1,2,4-Trichlorobenzene	20	19.1	ug/L	96			62	129	
	1,2,3-Trichlorobenzene	20	19.5	ug/L	98			58	130	

CHEMTECH

Laboratory Control Sample/Laboratory Control Sample Duplicate Summary
SW-846

SDG No.: K6405
Client: Day Environmental, Inc.
Analytical Method: SW8260-Low **Datafile :** VX014304.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	Limits Low	Limits High	RPD
VX1227WBS01	Dichlorodifluoromethane	20	16.2	ug/L	81			46	139	
	Chloromethane	20	17.6	ug/L	88			58	139	
	Vinyl chloride	20	17.5	ug/L	88			65	137	
	Bromomethane	20	15.7	ug/L	79			50	162	
	Chloroethane	20	19.0	ug/L	95			54	160	
	Trichlorofluoromethane	20	18.4	ug/L	92			67	143	
	1,1,2-Trichlorotrifluoroethane	20	18.8	ug/L	94			71	136	
	1,1-Dichloroethene	20	17.4	ug/L	87			69	134	
	Acetone	100	81.1	ug/L	81			41	181	
	Carbon disulfide	20	16.4	ug/L	82			63	138	
	Methyl tert-butyl Ether	20	18.8	ug/L	94			72	136	
	Methyl Acetate	20	18.8	ug/L	94			51	158	
	Methylene Chloride	20	17.9	ug/L	90			67	138	
	trans-1,2-Dichloroethene	20	17.5	ug/L	88			72	132	
	1,1-Dichloroethane	20	18.8	ug/L	94			74	135	
	Cyclohexane	20	18.1	ug/L	91			67	132	
	2-Butanone	100	89.8	ug/L	90			64	146	
	Carbon Tetrachloride	20	18.5	ug/L	93			71	134	
	cis-1,2-Dichloroethene	20	18.4	ug/L	92			74	130	
	Bromochloromethane	20	21.7	ug/L	109			71	136	
	Chloroform	20	19.0	ug/L	95			74	134	
	1,1,1-Trichloroethane	20	18.0	ug/L	90			74	133	
	Methylcyclohexane	20	18.4	ug/L	92			71	125	
	Benzene	20	18.8	ug/L	94			75	125	
	1,2-Dichloroethane	20	18.7	ug/L	94			76	130	
	Trichloroethene	20	18.5	ug/L	93			73	127	
	1,2-Dichloropropane	20	19.1	ug/L	96			76	125	
	Bromodichloromethane	20	18.5	ug/L	93			78	127	
	4-Methyl-2-Pentanone	100	93.3	ug/L	93			71	140	
	Toluene	20	18.5	ug/L	93			74	125	
	t-1,3-Dichloropropene	20	18.8	ug/L	94			74	131	
	cis-1,3-Dichloropropene	20	19.0	ug/L	95			74	128	
	1,1,2-Trichloroethane	20	19.1	ug/L	96			75	129	
	2-Hexanone	100	90.7	ug/L	91			62	153	
	Dibromochloromethane	20	18.8	ug/L	94			74	131	
	1,2-Dibromoethane	20	19.2	ug/L	96			74	129	
	Tetrachloroethene	20	19.6	ug/L	98			46	157	
	Chlorobenzene	20	18.5	ug/L	93			76	123	
	Ethyl Benzene	20	18.9	ug/L	95			75	126	
	m/p-Xylenes	40	37.8	ug/L	95			74	126	
	o-Xylene	20	18.6	ug/L	93			73	127	
	Styrene	20	18.6	ug/L	93			75	126	
	Bromoform	20	18.0	ug/L	90			66	130	
	Isopropylbenzene	20	19.3	ug/L	97			70	127	
	1,1,2,2-Tetrachloroethane	20	18.6	ug/L	93			66	131	
	1,3-Dichlorobenzene	20	18.5	ug/L	93			70	125	
	1,4-Dichlorobenzene	20	18.3	ug/L	92			71	124	
	1,2-Dichlorobenzene	20	18.2	ug/L	91			71	126	
	1,2-Dibromo-3-Chloropropane	20	16.2	ug/L	81			62	134	

CHEMTECH

Laboratory Control Sample/Laboratory Control Sample Duplicate Summary
SW-846

SDG No.: K6405

Client: Day Environmental, Inc.

Analytical Method: SW8260-Low **Datafile :** VX014304.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	Limits Low	Limits High	Limits RPD
VX1227WBS01	1,2,4-Trichlorobenzene	20	18.4	ug/L	92			62	129	
	1,2,3-Trichlorobenzene	20	19.2	ug/L	96			58	130	

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VX1224WBL01

Lab Name: CHEMTECH Contract: DAYE01

Lab Code: CHEM Case No.: K6405 SAS No.: K6405 SDG NO.: K6405

Lab File ID: VX014234.D Lab Sample ID: VX1224WBL01

Date Analyzed: 12/24/2019 Time Analyzed: 10:32

GC Column: DB-624UI ID: 0.18 (mm) Heated Purge: (Y/N) N

Instrument ID: MSVOA_X

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
VX1224WBS01	VX1224WBS01	VX014235.D	12/24/2019
991-MW-01-(23)	K6405-01	VX014247.D	12/24/2019
993-MW-03A-(17)	K6405-03	VX014249.D	12/24/2019
995-MW-11-(15)	K6405-05	VX014251.D	12/24/2019
998-MW-17A-(15.5)	K6405-10	VX014254.D	12/24/2019
996-MW-15-(17)MS	K6405-07MS	VX014255.D	12/24/2019
996-MW-15-(17)MSD	K6405-08MSD	VX014256.D	12/24/2019

COMMENTS:

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VX1226WBL01

Lab Name: CHEMTECH Contract: DAYE01

Lab Code: CHEM Case No.: K6405 SAS No.: K6405 SDG NO.: K6405

Lab File ID: VX014261.D Lab Sample ID: VX1226WBL01

Date Analyzed: 12/26/2019 Time Analyzed: 11:45

GC Column: DB-624UI ID: 0.18 (mm) Heated Purge: (Y/N) N

Instrument ID: MSVOA_X

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
VX1226WBS01	VX1226WBS01	VX014262.D	12/26/2019
1002-TB122019	K6405-14	VX014265.D	12/26/2019
992-MW-02-(23.8)	K6405-02	VX014271.D	12/26/2019
994-MW-05-(17)	K6405-04	VX014272.D	12/26/2019
996-MW-15-(17)	K6405-06	VX014273.D	12/26/2019
997-MW-16-(22.5)	K6405-09	VX014274.D	12/26/2019
999-MW-18-(21.5)	K6405-11	VX014275.D	12/26/2019
1000-MW-19-(28)	K6405-12	VX014276.D	12/26/2019
991-MW-01-(23)DL	K6405-01DL	VX014281.D	12/26/2019
993-MW-03A-(17)DL	K6405-03DL	VX014282.D	12/26/2019
995-MW-11-(15)DL	K6405-05DL	VX014283.D	12/26/2019

COMMENTS:

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VX1227WBL01

Lab Name: CHEMTECH Contract: DAYE01

Lab Code: CHEM Case No.: K6405 SAS No.: K6405 SDG NO.: K6405

Lab File ID: VX014303.D Lab Sample ID: VX1227WBL01

Date Analyzed: 12/27/2019 Time Analyzed: 12:41

GC Column: DB-624UI ID: 0.18 (mm) Heated Purge: (Y/N) N

Instrument ID: MSVOA_X

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
VX1227WBS01	VX1227WBS01	VX014304.D	12/27/2019
1001-FB122019	K6405-13	VX014310.D	12/27/2019

COMMENTS:

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: CHEMTECH Contract: DAYE01

Lab Code: CHEM Case No.: K6405 SAS No.: K6405 SDG NO.: K6405

Lab File ID: VX014005.D BFB Injection Date: 12/13/2019

Instrument ID: MSVOA_X BFB Injection Time: 12:35

GC Column: DB-624UI ID: 0.18 (mm) Heated Purge: Y/N N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	18.1
75	30.0 - 60.0% of mass 95	48.7
95	Base Peak, 100% relative abundance	100
96	5.0 - 9.0% of mass 95	6.5
173	Less than 2.0% of mass 174	1 (1.1) 1
174	50.0 - 100.0% of mass 95	91.7
175	5.0 - 9.0% of mass 174	6.8 (7.4) 1
176	95.0 - 101.0% of mass 174	89.8 (97.9) 1
177	5.0 - 9.0% of mass 176	5.8 (6.5) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
VSTDICC001	VSTDICC001	VX014007.D	12/13/2019	14:49
VSTDICC005	VSTDICC005	VX014008.D	12/13/2019	15:12
VSTDICC020	VSTDICC020	VX014009.D	12/13/2019	15:36
VSTDICCC050	VSTDICCC050	VX014010.D	12/13/2019	15:59
VSTDICC100	VSTDICC100	VX014011.D	12/13/2019	16:22
VSTDICC150	VSTDICC150	VX014012.D	12/13/2019	16:45

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: CHEMTECH Contract: DAYE01

Lab Code: CHEM Case No.: K6405 SAS No.: K6405 SDG NO.: K6405

Lab File ID: VX014231.D BFB Injection Date: 12/24/2019

Instrument ID: MSVOA_X BFB Injection Time: 08:54

GC Column: DB-624UI ID: 0.18 (mm) Heated Purge: Y/N N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	20
75	30.0 - 60.0% of mass 95	49.7
95	Base Peak, 100% relative abundance	100
96	5.0 - 9.0% of mass 95	6.9
173	Less than 2.0% of mass 174	1.3 (1.6) 1
174	50.0 - 100.0% of mass 95	85.1
175	5.0 - 9.0% of mass 174	6.6 (7.7) 1
176	95.0 - 101.0% of mass 174	81.3 (95.5) 1
177	5.0 - 9.0% of mass 176	5.3 (6.5) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
VSTDCCC050	VSTDCCC050	VX014232.D	12/24/2019	09:28
VX1224WBL01	VX1224WBL01	VX014234.D	12/24/2019	10:32
VX1224WBS01	VX1224WBS01	VX014235.D	12/24/2019	11:09
991-MW-01-(23)	K6405-01	VX014247.D	12/24/2019	16:01
993-MW-03A-(17)	K6405-03	VX014249.D	12/24/2019	16:48
995-MW-11-(15)	K6405-05	VX014251.D	12/24/2019	17:35
998-MW-17A-(15.5)	K6405-10	VX014254.D	12/24/2019	18:45
996-MW-15-(17)MS	K6405-07MS	VX014255.D	12/24/2019	19:08
996-MW-15-(17)MSD	K6405-08MSD	VX014256.D	12/24/2019	19:31

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: CHEMTECH Contract: DAYE01

Lab Code: CHEM Case No.: K6405 SAS No.: K6405 SDG NO.: K6405

Lab File ID: VX014258.D BFB Injection Date: 12/26/2019

Instrument ID: MSVOA_X BFB Injection Time: 10:14

GC Column: DB-624UI ID: 0.18 (mm) Heated Purge: Y/N N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	19.6
75	30.0 - 60.0% of mass 95	49.8
95	Base Peak, 100% relative abundance	100
96	5.0 - 9.0% of mass 95	6.6
173	Less than 2.0% of mass 174	0.9 (1.1) 1
174	50.0 - 100.0% of mass 95	81.4
175	5.0 - 9.0% of mass 174	6.1 (7.5) 1
176	95.0 - 101.0% of mass 174	78.8 (96.9) 1
177	5.0 - 9.0% of mass 176	5.6 (7.1) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
VSTDCCC050	VSTDCCC050	VX014259.D	12/26/2019	10:46
VX1226WBL01	VX1226WBL01	VX014261.D	12/26/2019	11:45
VX1226WBS01	VX1226WBS01	VX014262.D	12/26/2019	12:18
1002-TB122019	K6405-14	VX014265.D	12/26/2019	13:38
992-MW-02-(23.8)	K6405-02	VX014271.D	12/26/2019	15:58
994-MW-05-(17)	K6405-04	VX014272.D	12/26/2019	16:21
996-MW-15-(17)	K6405-06	VX014273.D	12/26/2019	16:44
997-MW-16-(22.5)	K6405-09	VX014274.D	12/26/2019	17:08
999-MW-18-(21.5)	K6405-11	VX014275.D	12/26/2019	17:31
1000-MW-19-(28)	K6405-12	VX014276.D	12/26/2019	17:54
991-MW-01-(23)DL	K6405-01DL	VX014281.D	12/26/2019	19:50
993-MW-03A-(17)DL	K6405-03DL	VX014282.D	12/26/2019	20:14
995-MW-11-(15)DL	K6405-05DL	VX014283.D	12/26/2019	20:37

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: CHEMTECH Contract: DAYE01

Lab Code: CHEM Case No.: K6405 SAS No.: K6405 SDG NO.: K6405

Lab File ID: VX014301.D BFB Injection Date: 12/27/2019

Instrument ID: MSVOA_X BFB Injection Time: 11:31

GC Column: DB-624UI ID: 0.18 (mm) Heated Purge: Y/N N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	19.2
75	30.0 - 60.0% of mass 95	49.3
95	Base Peak, 100% relative abundance	100
96	5.0 - 9.0% of mass 95	7.1
173	Less than 2.0% of mass 174	1.1 (1.3) 1
174	50.0 - 100.0% of mass 95	85.3
175	5.0 - 9.0% of mass 174	6.5 (7.6) 1
176	95.0 - 101.0% of mass 174	81.3 (95.2) 1
177	5.0 - 9.0% of mass 176	5.3 (6.5) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
VSTDCCC050	VSTDCCC050	VX014302.D	12/27/2019	12:03
VX1227WBL01	VX1227WBL01	VX014303.D	12/27/2019	12:41
VX1227WBS01	VX1227WBS01	VX014304.D	12/27/2019	13:15
1001-FB122019	K6405-13	VX014310.D	12/27/2019	15:44

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH Contract: DAYE01

Lab Code: CHEM Case No.: K6405 SAS No.: K6405 SDG NO.: K6405

Lab File ID: VX014232.D Date Analyzed: 12/24/2019

Instrument ID: MSVOA_X Time Analyzed: 09:28

GC Column: DB-624UI ID: 0.18 (mm) Heated Purge: (Y/N) N

	IS1 AREA #	RT #	IS2 AREA #	RT #	IS3 AREA #	RT #
12 HOUR STD	538017	5.65	799944	6.85	721140	10.10
UPPER LIMIT	1076030	6.15	1599890	7.35	1442280	10.6
LOWER LIMIT	269009	5.15	399972	6.35	360570	9.6
EPA SAMPLE NO.						
991-MW-01-(23)	550345	5.65	843221	6.85	749280	10.11
993-MW-03A-(17)	554049	5.65	852225	6.85	755465	10.11
995-MW-11-(15)	538402	5.65	828843	6.85	759077	10.11
996-MW-15-(17)MS	483179	5.65	766167	6.85	688774	10.11
996-MW-15-(17)MSD	488343	5.65	767359	6.85	695552	10.11
998-MW-17A-(15.5)	556094	5.65	844118	6.85	741493	10.11
VX1224WBL01	561321	5.65	856402	6.85	773822	10.11
VX1224WBS01	525210	5.65	786891	6.84	709008	10.10

IS1 = Pentafluorobenzene
IS2 = 1,4-Difluorobenzene
IS3 = Chlorobenzene-d5

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH Contract: DAYE01

Lab Code: CHEM Case No.: K6405 SAS No.: K6405 SDG NO.: K6405

Lab File ID: VX014232.D Date Analyzed: 12/24/2019

Instrument ID: MSVOA_X Time Analyzed: 09:28

GC Column: DB-624UI ID: 0.18 (mm) Heated Purge: (Y/N) N

	IS4 AREA #	RT #				
12 HOUR STD	364828	12.07				
UPPER LIMIT	729656	12.57				
LOWER LIMIT	182414	11.57				
EPA SAMPLE NO.						
991-MW-01-(23)	335916	12.07				
993-MW-03A-(17)	335833	12.07				
995-MW-11-(15)	334150	12.07				
996-MW-15-(17)MS	338475	12.07				
996-MW-15-(17)MSD	343564	12.07				
998-MW-17A-(15.5)	318309	12.07				
VX1224WBL01	345231	12.07				
VX1224WBS01	349083	12.07				

IS4 = 1,4-Dichlorobenzene-d4

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH Contract: DAYE01

Lab Code: CHEM Case No.: K6405 SAS No.: K6405 SDG NO.: K6405

Lab File ID: VX014259.D Date Analyzed: 12/26/2019

Instrument ID: MSVOA_X Time Analyzed: 10:46

GC Column: DB-624UI ID: 0.18 (mm) Heated Purge: (Y/N) N

	IS1 AREA #	RT #	IS2 AREA #	RT #	IS3 AREA #	RT #
12 HOUR STD	521803	5.65	782219	6.85	705002	10.10
UPPER LIMIT	1043610	6.15	1564440	7.35	1410000	10.6
LOWER LIMIT	260902	5.15	391110	6.35	352501	9.6
EPA SAMPLE NO.						
991-MW-01-(23)DL	525064	5.65	807481	6.85	734095	10.11
992-MW-02-(23.8)	541143	5.65	834985	6.85	744345	10.11
993-MW-03A-(17)DL	527397	5.65	815574	6.85	730963	10.11
994-MW-05-(17)	540190	5.65	830906	6.85	751127	10.11
995-MW-11-(15)DL	530079	5.65	816484	6.85	736656	10.11
996-MW-15-(17)	524511	5.65	812062	6.85	727039	10.11
997-MW-16-(22.5)	530795	5.65	815830	6.85	734502	10.11
999-MW-18-(21.5)	527117	5.65	826945	6.85	741103	10.11
1000-MW-19-(28)	532412	5.65	820686	6.85	734410	10.11
1002-TB122019	540463	5.65	841355	6.85	752846	10.11
VX1226WBL01	553692	5.65	848003	6.85	767663	10.10
VX1226WBS01	495545	5.65	752803	6.85	673248	10.10

IS1 = Pentafluorobenzene
IS2 = 1,4-Difluorobenzene
IS3 = Chlorobenzene-d5

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH Contract: DAYE01

Lab Code: CHEM Case No.: K6405 SAS No.: K6405 SDG NO.: K6405

Lab File ID: VX014259.D Date Analyzed: 12/26/2019

Instrument ID: MSVOA_X Time Analyzed: 10:46

GC Column: DB-624UI ID: 0.18 (mm) Heated Purge: (Y/N) N

	IS4 AREA #	RT #				
12 HOUR STD	355197	12.07				
UPPER LIMIT	710394	12.57				
LOWER LIMIT	177599	11.57				
EPA SAMPLE NO.						
991-MW-01-(23)DL	319659	12.07				
992-MW-02-(23.8)	328519	12.07				
993-MW-03A-(17)DL	317988	12.07				
994-MW-05-(17)	326744	12.07				
995-MW-11-(15)DL	320708	12.07				
996-MW-15-(17)	312996	12.07				
997-MW-16-(22.5)	317706	12.07				
999-MW-18-(21.5)	320484	12.07				
1000-MW-19-(28)	317429	12.07				
1002-TB122019	332840	12.07				
VX1226WBL01	338103	12.07				
VX1226WBS01	331077	12.07				

IS4 = 1,4-Dichlorobenzene-d4

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH Contract: DAYE01

Lab Code: CHEM Case No.: K6405 SAS No.: K6405 SDG NO.: K6405

Lab File ID: VX014302.D Date Analyzed: 12/27/2019

Instrument ID: MSVOA_X Time Analyzed: 12:03

GC Column: DB-624UI ID: 0.18 (mm) Heated Purge: (Y/N) N

	IS1 AREA #	RT #	IS2 AREA #	RT #	IS3 AREA #	RT #
12 HOUR STD	510192	5.65	769144	6.85	696368	10.10
UPPER LIMIT	1020380	6.15	1538290	7.35	1392740	10.6
LOWER LIMIT	255096	5.15	384572	6.35	348184	9.6
EPA SAMPLE NO.						
1001-FB122019	517477	5.65	804362	6.85	720729	10.11
VX1227WBL01	544872	5.65	840483	6.84	752515	10.10
VX1227WBS01	502000	5.65	756236	6.85	675604	10.10

IS1 = Pentafluorobenzene
IS2 = 1,4-Difluorobenzene
IS3 = Chlorobenzene-d5

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH Contract: DAYE01

Lab Code: CHEM Case No.: K6405 SAS No.: K6405 SDG NO.: K6405

Lab File ID: VX014302.D Date Analyzed: 12/27/2019

Instrument ID: MSVOA_X Time Analyzed: 12:03

GC Column: DB-624UI ID: 0.18 (mm) Heated Purge: (Y/N) N

	IS4 AREA #	RT #				
12 HOUR STD	361319	12.07				
UPPER LIMIT	722638	12.57				
LOWER LIMIT	180660	11.57				
EPA SAMPLE NO.						
1001-FB122019	310917	12.07				
VX1227WBL01	322319	12.07				
VX1227WBS01	335091	12.07				

IS4 = 1,4-Dichlorobenzene-d4

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

 # Column used to flag values outside QC limits with an asterisk.
*** Values outside of QC limits.**

SAMPLE DATA

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Day Environmental, Inc.	Date Collected:	12/20/19
Project:	Andrew St. RI	Date Received:	12/21/19
Client Sample ID:	991-MW-01-(23)	SDG No.:	K6405
Lab Sample ID:	K6405-01	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	DB-624UI ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX014247.D	1		12/24/19 16:01	VX122419

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
75-71-8	Dichlorodifluoromethane	1.00	U	0.22	1.00	ug/L
74-87-3	Chloromethane	1.00	U	0.30	1.00	ug/L
75-01-4	Vinyl Chloride	1.20		0.16	1.00	ug/L
74-83-9	Bromomethane	5.00	U	2.10	5.00	ug/L
75-00-3	Chloroethane	1.00	U	0.34	1.00	ug/L
75-69-4	Trichlorofluoromethane	1.00	U	0.16	1.00	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	1.00	U	0.21	1.00	ug/L
75-35-4	1,1-Dichloroethene	1.00	U	0.18	1.00	ug/L
67-64-1	Acetone	3.60	J	0.90	5.00	ug/L
75-15-0	Carbon Disulfide	1.00	U	0.23	1.00	ug/L
1634-04-4	Methyl tert-butyl Ether	1.00	U	0.070	1.00	ug/L
79-20-9	Methyl Acetate	1.00	U	0.65	1.00	ug/L
75-09-2	Methylene Chloride	1.00	U	0.33	1.00	ug/L
156-60-5	trans-1,2-Dichloroethene	2.80		0.24	1.00	ug/L
75-34-3	1,1-Dichloroethane	1.00	U	0.17	1.00	ug/L
110-82-7	Cyclohexane	5.00	U	1.20	5.00	ug/L
78-93-3	2-Butanone	5.00	U	0.71	5.00	ug/L
56-23-5	Carbon Tetrachloride	1.00	U	0.22	1.00	ug/L
156-59-2	cis-1,2-Dichloroethene	84.3		0.30	1.00	ug/L
74-97-5	Bromochloromethane	1.00	U	0.31	1.00	ug/L
67-66-3	Chloroform	1.00	U	0.14	1.00	ug/L
71-55-6	1,1,1-Trichloroethane	1.00	U	0.12	1.00	ug/L
108-87-2	Methylcyclohexane	1.00	U	0.17	1.00	ug/L
71-43-2	Benzene	1.00	U	0.10	1.00	ug/L
107-06-2	1,2-Dichloroethane	1.00	U	0.13	1.00	ug/L
79-01-6	Trichloroethene	100		0.27	1.00	ug/L
78-87-5	1,2-Dichloropropane	1.00	U	0.14	1.00	ug/L
75-27-4	Bromodichloromethane	1.00	U	0.10	1.00	ug/L
108-10-1	4-Methyl-2-Pentanone	5.00	U	0.85	5.00	ug/L
108-88-3	Toluene	1.00	U	0.12	1.00	ug/L
10061-02-6	t-1,3-Dichloropropene	1.00	U	0.19	1.00	ug/L
10061-01-5	cis-1,3-Dichloropropene	1.00	U	0.16	1.00	ug/L

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Day Environmental, Inc.	Date Collected:	12/20/19
Project:	Andrew St. RI	Date Received:	12/21/19
Client Sample ID:	991-MW-01-(23)	SDG No.:	K6405
Lab Sample ID:	K6405-01	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	DB-624UI ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX014247.D	1		12/24/19 16:01	VX122419

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
79-00-5	1,1,2-Trichloroethane	1.00	U	0.12	1.00	ug/L
591-78-6	2-Hexanone	5.00	U	1.40	5.00	ug/L
124-48-1	Dibromochloromethane	1.00	U	0.16	1.00	ug/L
106-93-4	1,2-Dibromoethane	1.00	U	0.14	1.00	ug/L
127-18-4	Tetrachloroethene	1000	E	0.15	1.00	ug/L
108-90-7	Chlorobenzene	1.00	U	0.080	1.00	ug/L
100-41-4	Ethyl Benzene	1.00	U	0.080	1.00	ug/L
179601-23-1	m/p-Xylenes	2.00	U	0.20	2.00	ug/L
95-47-6	o-Xylene	1.00	U	0.13	1.00	ug/L
100-42-5	Styrene	1.00	U	0.11	1.00	ug/L
75-25-2	Bromoform	1.00	U	0.15	1.00	ug/L
98-82-8	Isopropylbenzene	1.00	U	0.13	1.00	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	1.00	U	0.15	1.00	ug/L
541-73-1	1,3-Dichlorobenzene	1.00	U	0.14	1.00	ug/L
106-46-7	1,4-Dichlorobenzene	1.00	U	0.20	1.00	ug/L
95-50-1	1,2-Dichlorobenzene	1.00	U	0.12	1.00	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	1.00	U	0.54	1.00	ug/L
120-82-1	1,2,4-Trichlorobenzene	1.00	U	0.24	1.00	ug/L
87-61-6	1,2,3-Trichlorobenzene	1.00	U	0.26	1.00	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	48.5		61 - 141	97%	SPK: 50
1868-53-7	Dibromofluoromethane	48.5		69 - 133	97%	SPK: 50
2037-26-5	Toluene-d8	50.2		65 - 126	100%	SPK: 50
460-00-4	4-Bromofluorobenzene	46.9		58 - 135	94%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	550000	5.65			
540-36-3	1,4-Difluorobenzene	843000	6.85			
3114-55-4	Chlorobenzene-d5	749000	10.11			
3855-82-1	1,4-Dichlorobenzene-d4	336000	12.07			

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Day Environmental, Inc.	Date Collected:	12/20/19
Project:	Andrew St. RI	Date Received:	12/21/19
Client Sample ID:	991-MW-01-(23)	SDG No.:	K6405
Lab Sample ID:	K6405-01	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	DB-624UI ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX014247.D	1		12/24/19 16:01	VX122419

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit
A = Aldol-Condensation Reaction Products

Quantitation Report (LSC Reviewed)

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX122419\
Data File : VX014247.D
Acq On : 24 Dec 2019 16:01
Operator : JC/SP
Sample : K6405-01
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 17 Sample Multiplier: 1

Instrument : MSVOA_X
ClientSampleId : 991-MW-01-(23)

Quant Time: Dec 25 07:38:43 2019
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121319W.M
Quant Title : SW846 8260
QLast Update : Tue Dec 17 03:01:07 2019
Response via : Initial Calibration

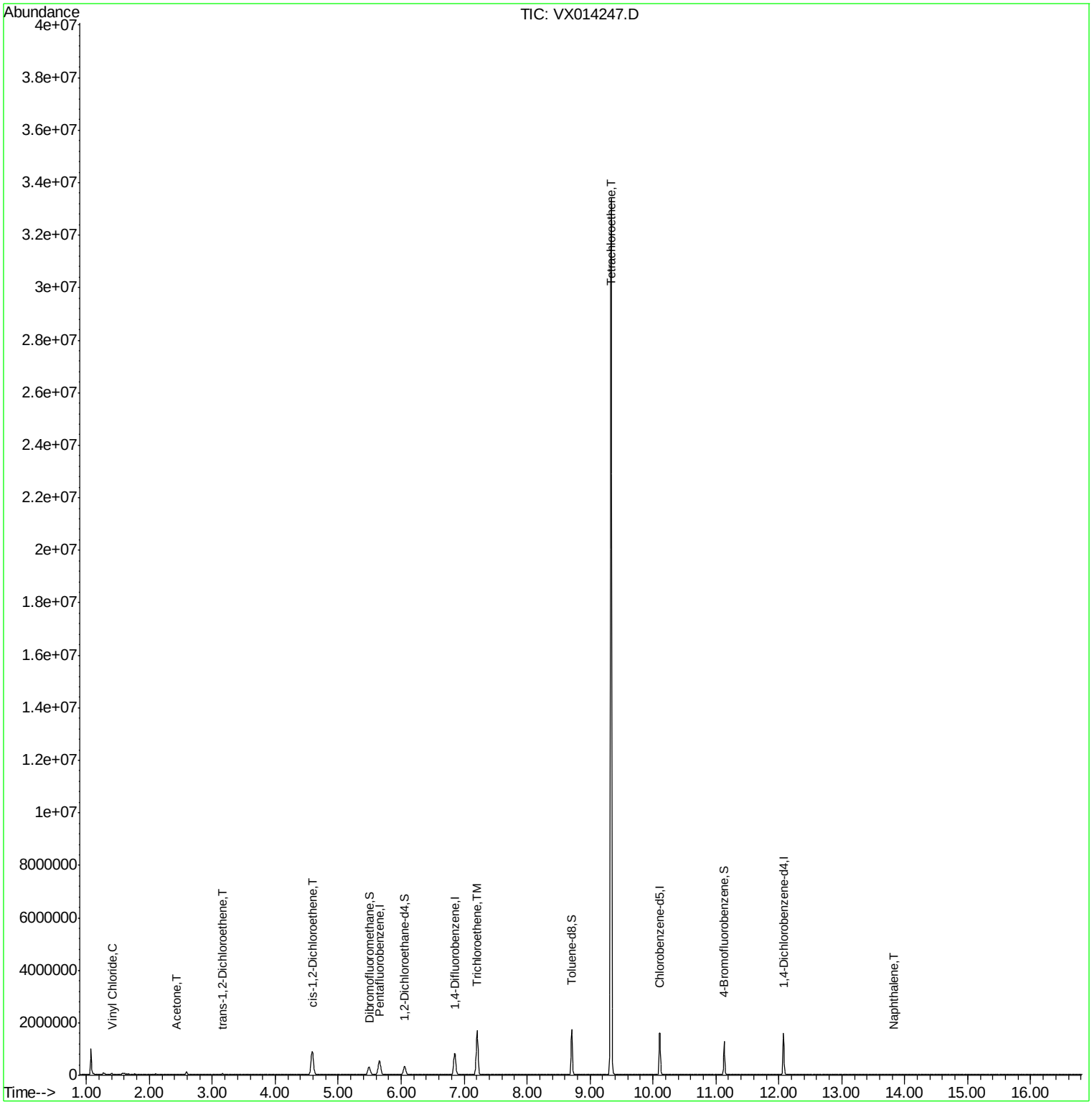
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	5.65	168	550345	50.00	ug/l	0.00
34) 1,4-Difluorobenzene	6.85	114	843221	50.00	ug/l	0.00
63) Chlorobenzene-d5	10.11	117	749280	50.00	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	12.07	152	335916	50.00	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	6.05	65	302751	48.54	ug/l	0.00
Spiked Amount 50.000			Recovery =	97.08%		
35) Dibromofluoromethane	5.49	113	248395	48.46	ug/l	0.00
Spiked Amount 50.000			Recovery =	96.92%		
50) Toluene-d8	8.71	98	1002051	50.21	ug/l	0.00
Spiked Amount 50.000			Recovery =	100.42%		
62) 4-Bromofluorobenzene	11.14	95	342415	46.94	ug/l	0.00
Spiked Amount 50.000			Recovery =	93.88%		
Target Compounds						Qvalue
4) Vinyl Chloride	1.40	62	8574	1.230	ug/l	92
16) Acetone	2.44	43	14520	3.586	ug/l	95
21) trans-1,2-Dichloroethene	3.16	96	16235	2.784	ug/l	87
27) cis-1,2-Dichloroethene	4.58	96	556313	84.340	ug/l	90
44) Trichloroethene	7.21	130	664771	101.100	ug/l	98
64) Tetrachloroethene	9.34	164	6721041	1013.701	ug/l	97
95) Naphthalene	13.83	128	5423	0.247	ug/l #	91

(#) = qualifier out of range (m) = manual integration (+) = signals summed

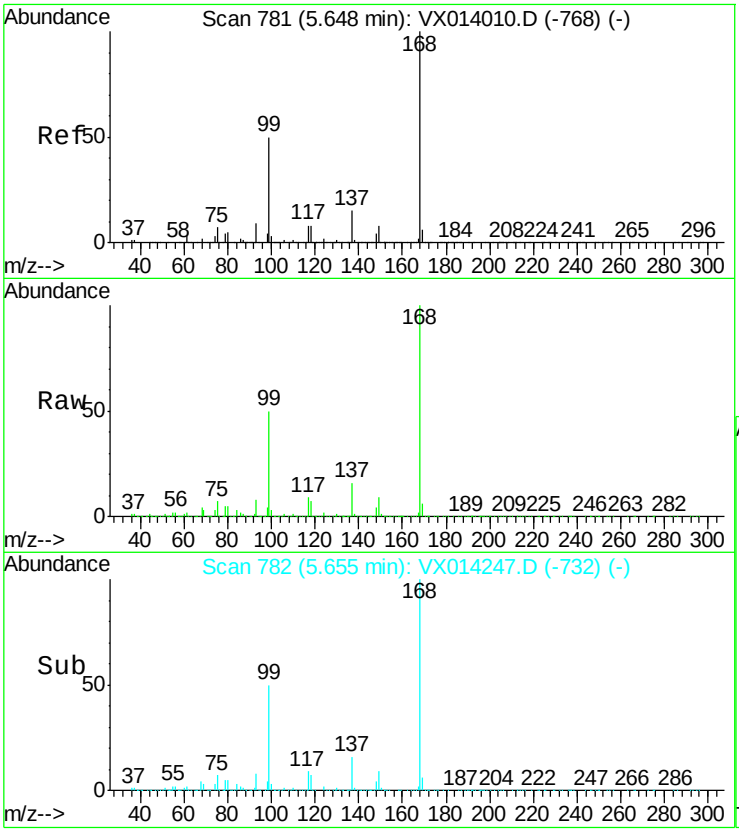
Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX122419\
Data File : VX014247.D
Acq On : 24 Dec 2019 16:01
Operator : JC/SP
Sample : K6405-01
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 17 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
991-MW-01-(23)

Quant Time: Dec 25 07:38:43 2019
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121319W.M
Quant Title : SW846 8260
QLast Update : Tue Dec 17 03:01:07 2019
Response via : Initial Calibration



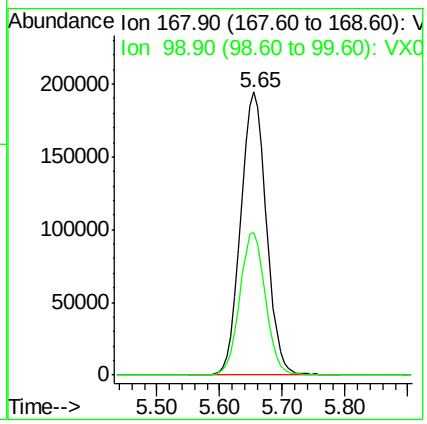
Instrument :
MSVOA_X
ClientSampleId :
991-MW-01-(23)

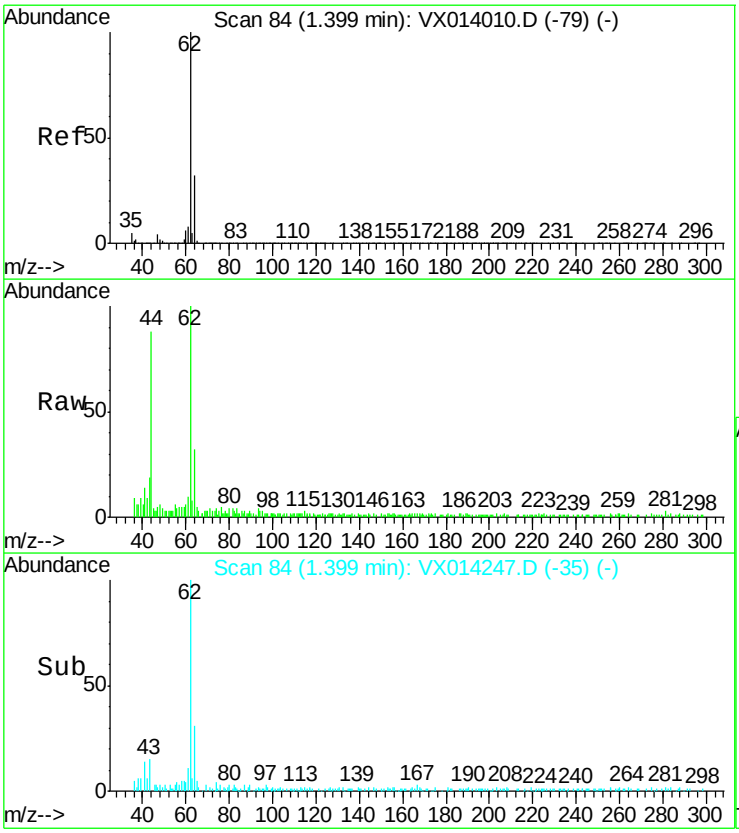


#1
Pentafluorobenzene
Concen: 50.000 ug/l
RT: 5.65 min Scan# 782
Delta R.T. 0.01 min
Lab File: VX014247.D
Acq: 24 Dec 2019 16:01

Tgt Ion:168 Resp: 550345

Ion	Ratio	Lower	Upper
168	100		
99	50.3	40.3	60.5

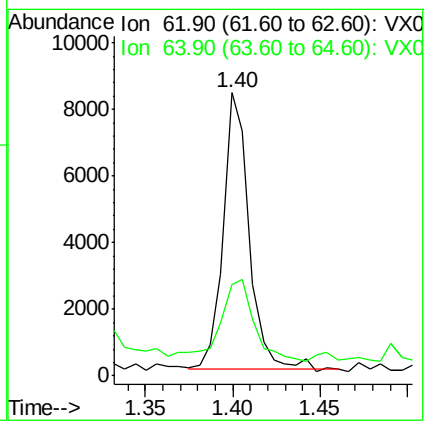




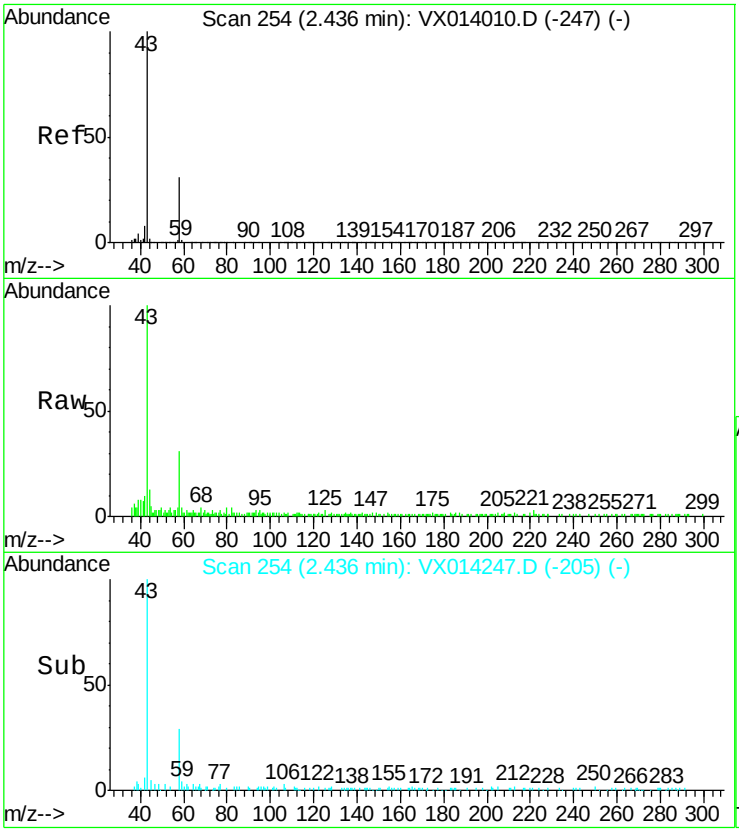
#4
Vinyl Chloride
Concen: 1.230 ug/l
RT: 1.40 min Scan# 84
Delta R.T. 0.00 min
Lab File: VX014247.D
Acq: 24 Dec 2019 16:01

Tgt Ion: 62 Resp: 8574

Ion	Ratio	Lower	Upper
62	100		
64	27.5	25.7	38.5



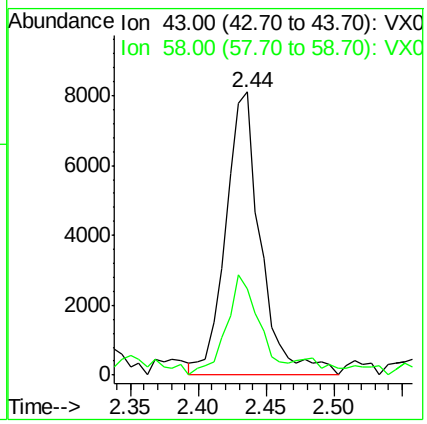
Instrument :
MSVOA_X
ClientSampleId :
991-MW-01-(23)

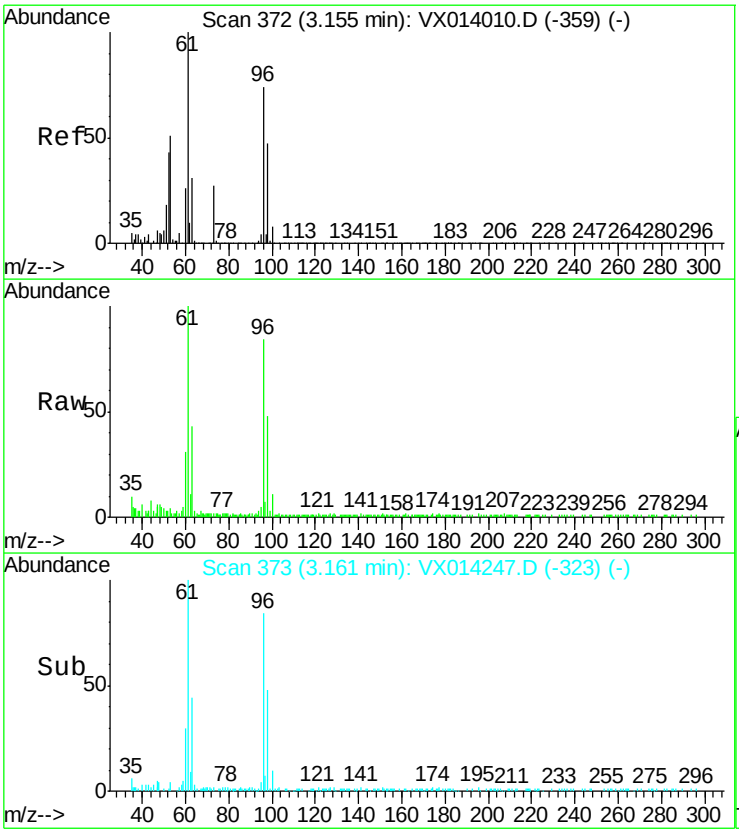


#16
Acetone
Concen: 3.586 ug/l
RT: 2.44 min Scan# 254
Delta R.T. 0.00 min
Lab File: VX014247.D
Acq: 24 Dec 2019 16:01

Tgt Ion: 43 Resp: 14520

Ion	Ratio	Lower	Upper
43	100		
58	28.1	24.9	37.3

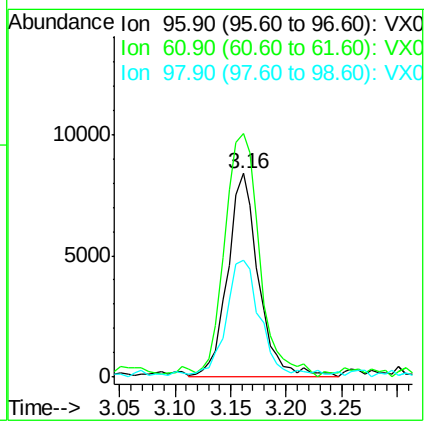




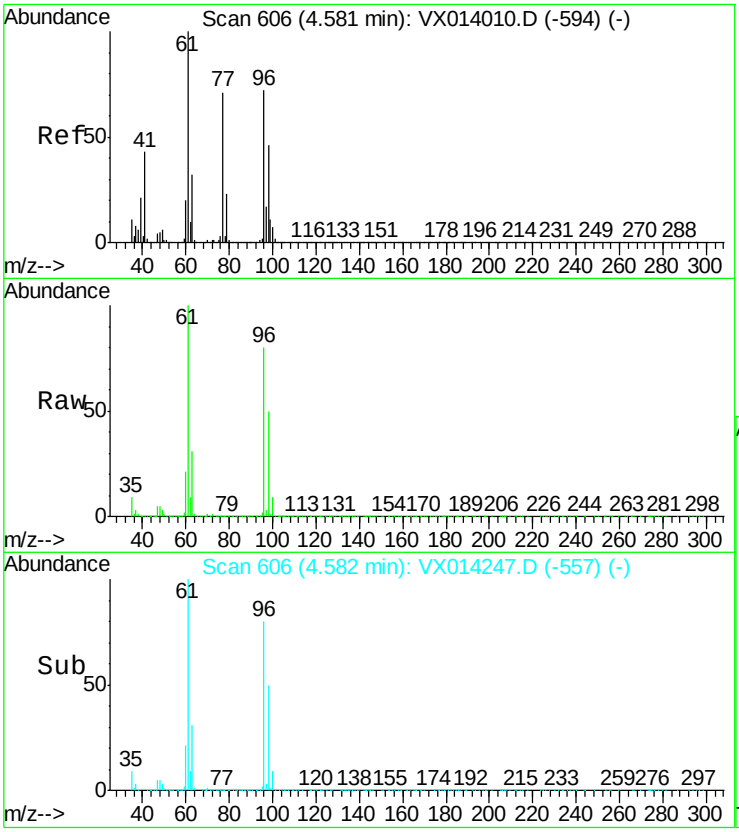
#21
trans-1,2-Dichloroethene
Concen: 2.784 ug/l
RT: 3.16 min Scan# 373
Delta R.T. 0.01 min
Lab File: VX014247.D
Acq: 24 Dec 2019 16:01

Tgt Ion: 96 Resp: 16235

Ion	Ratio	Lower	Upper
96	100		
61	117.3	108.3	162.5
98	55.8	50.8	76.2



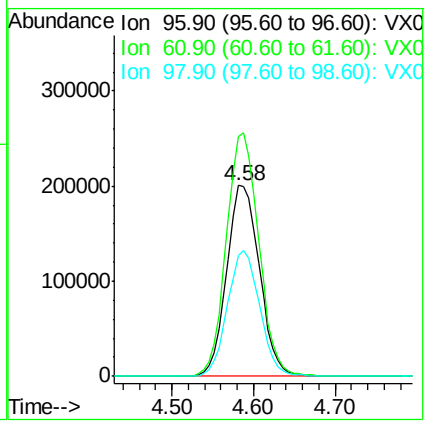
Instrument :
MSVOA_X
ClientSampleId :
991-MW-01-(23)

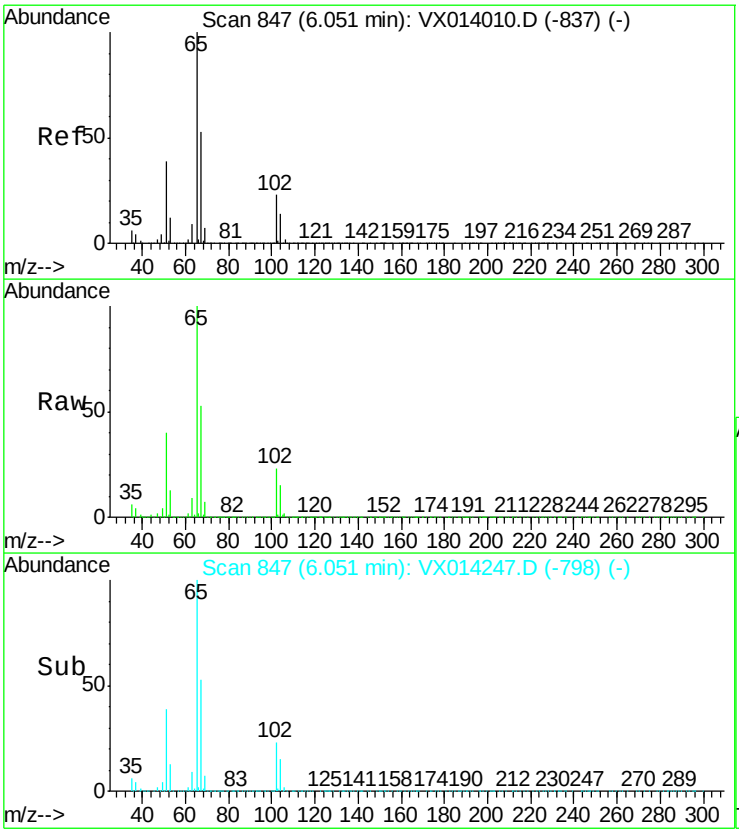


#27
cis-1,2-Dichloroethene
Concen: 84.340 ug/l
RT: 4.58 min Scan# 606
Delta R.T. 0.00 min
Lab File: VX014247.D
Acq: 24 Dec 2019 16:01

Tgt Ion: 96 Resp: 556313

Ion	Ratio	Lower	Upper
96	100		
61	126.5	0.0	288.4
98	64.8	0.0	129.6

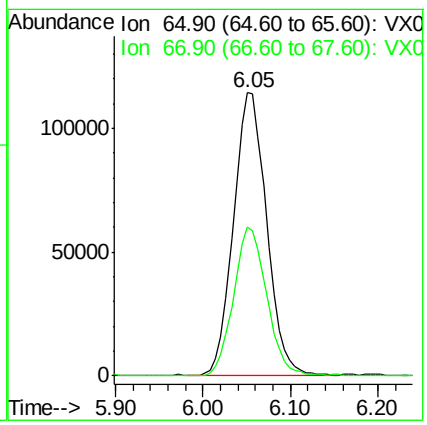




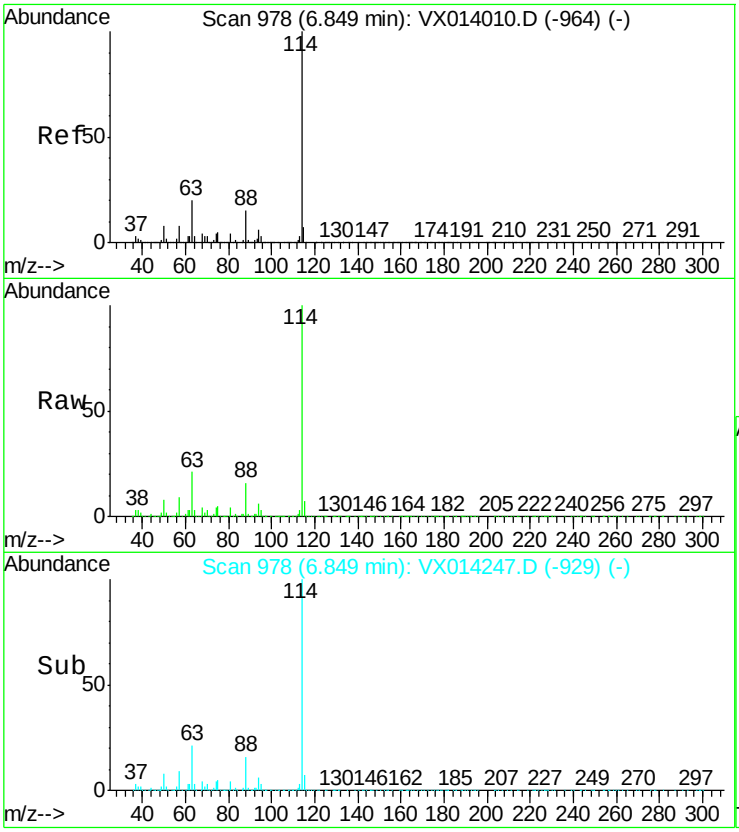
#33
1,2-Dichloroethane-d4
Concen: 48.538 ug/l
RT: 6.05 min Scan# 847
Delta R.T. 0.00 min
Lab File: VX014247.D
Acq: 24 Dec 2019 16:01

Tgt Ion: 65 Resp: 302751

Ion	Ratio	Lower	Upper
65	100		
67	52.0	0.0	106.4



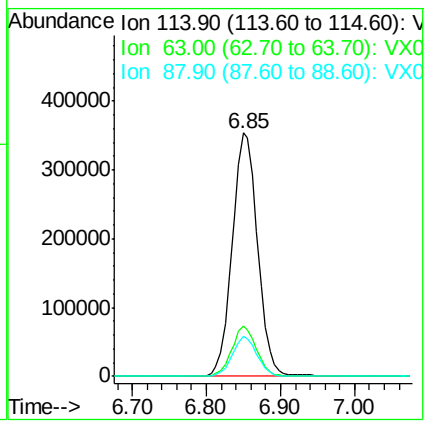
Instrument :
MSVOA_X
ClientSampleId :
991-MW-01-(23)

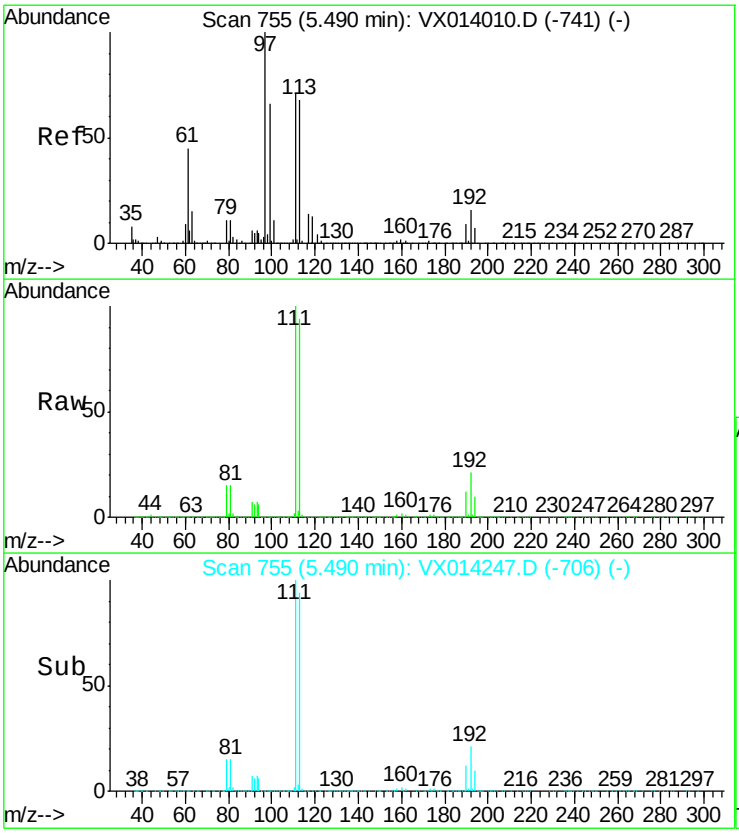


#34
1,4-Difluorobenzene
Concen: 50.000 ug/l
RT: 6.85 min Scan# 978
Delta R.T. 0.00 min
Lab File: VX014247.D
Acq: 24 Dec 2019 16:01

Tgt Ion:114 Resp: 843221

Ion	Ratio	Lower	Upper
114	100		
63	20.6	0.0	40.8
88	16.2	0.0	30.4

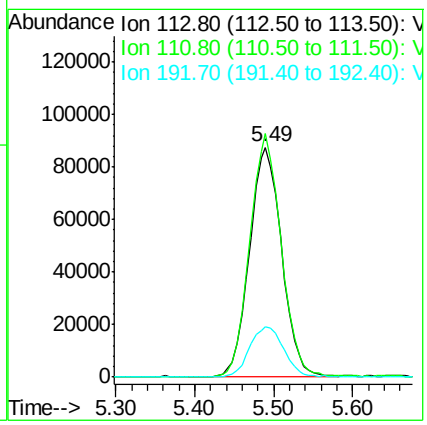




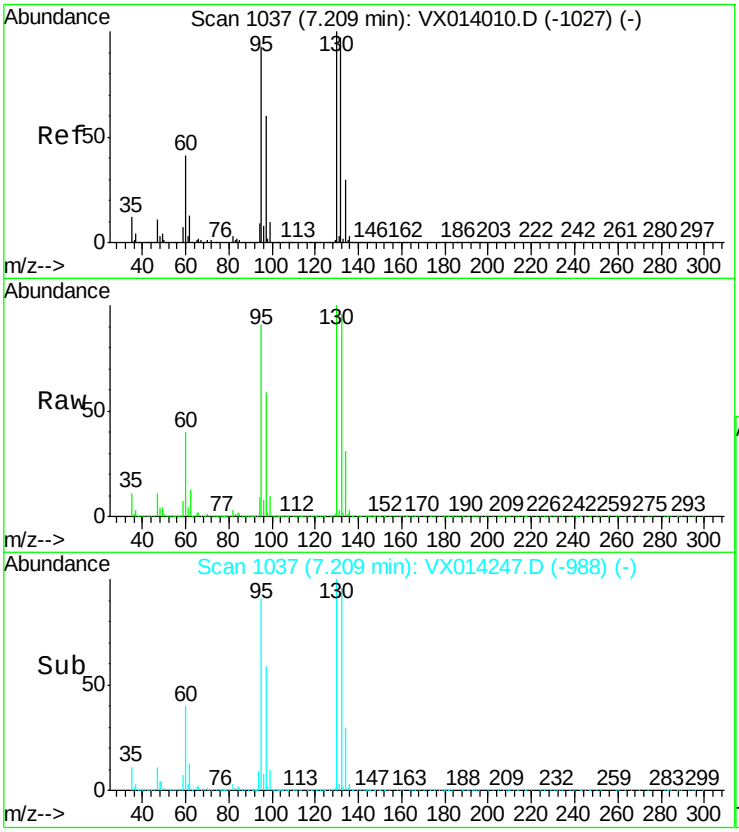
#35
Dibromofluoromethane
Concen: 48.459 ug/l
RT: 5.49 min Scan# 755
Delta R.T. 0.00 min
Lab File: VX014247.D
Acq: 24 Dec 2019 16:01

Tgt Ion:113 Resp: 248395

Ion	Ratio	Lower	Upper
113	100		
111	103.9	82.0	123.0
192	23.6	19.3	28.9



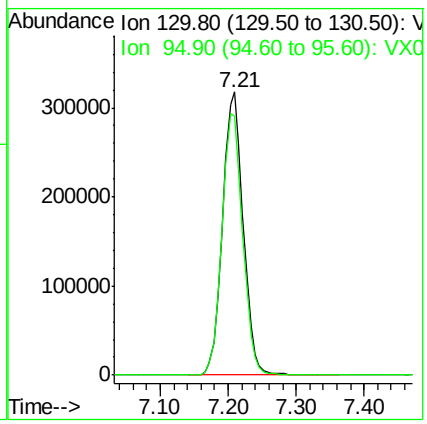
Instrument :
MSVOA_X
ClientSampleId :
991-MW-01-(23)

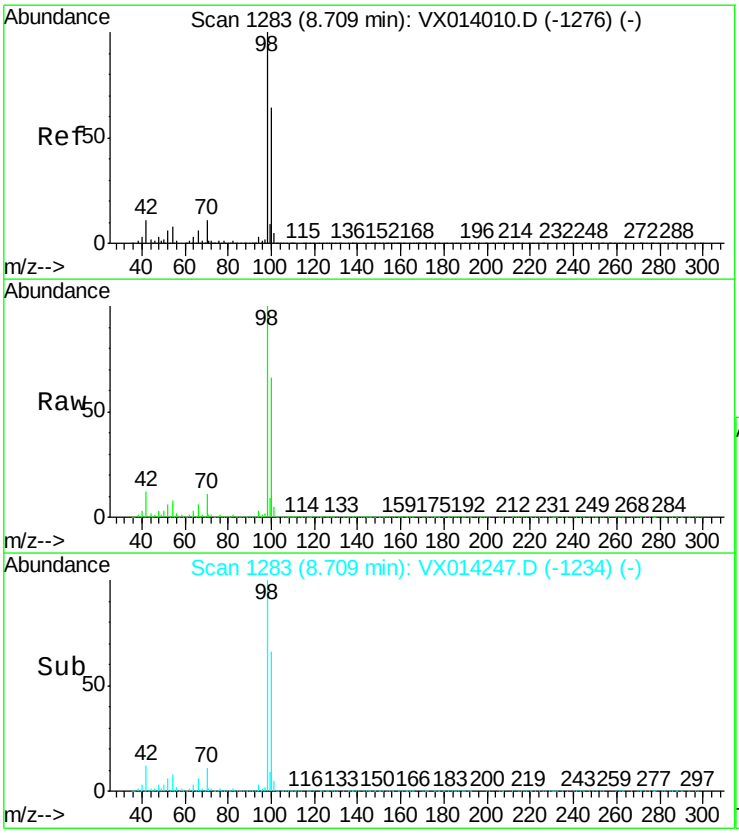


#44
Trichloroethene
Concen: 101.100 ug/l
RT: 7.21 min Scan# 1037
Delta R.T. 0.00 min
Lab File: VX014247.D
Acq: 24 Dec 2019 16:01

Tgt Ion:130 Resp: 664771

Ion	Ratio	Lower	Upper
130	100		
95	91.3	0.0	185.6

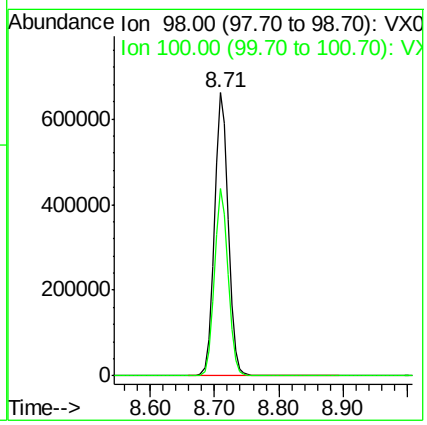




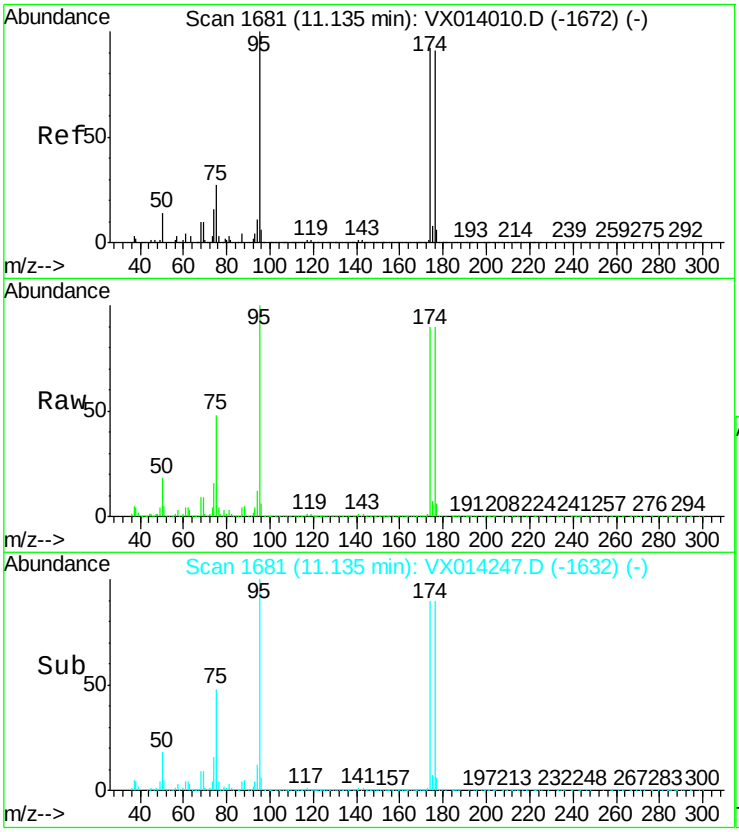
#50
Toluene-d8
Concen: 50.213 ug/l
RT: 8.71 min Scan# 1283
Delta R.T. 0.00 min
Lab File: VX014247.D
Acq: 24 Dec 2019 16:01

Tgt Ion: 98 Resp: 1002051

Ion	Ratio	Lower	Upper
98	100		
100	65.6	52.9	79.3



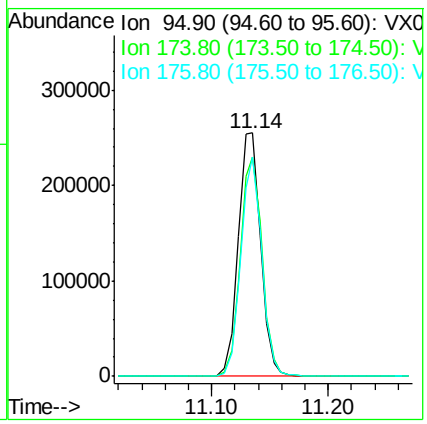
Instrument :
MSVOA_X
ClientSampleId :
991-MW-01-(23)

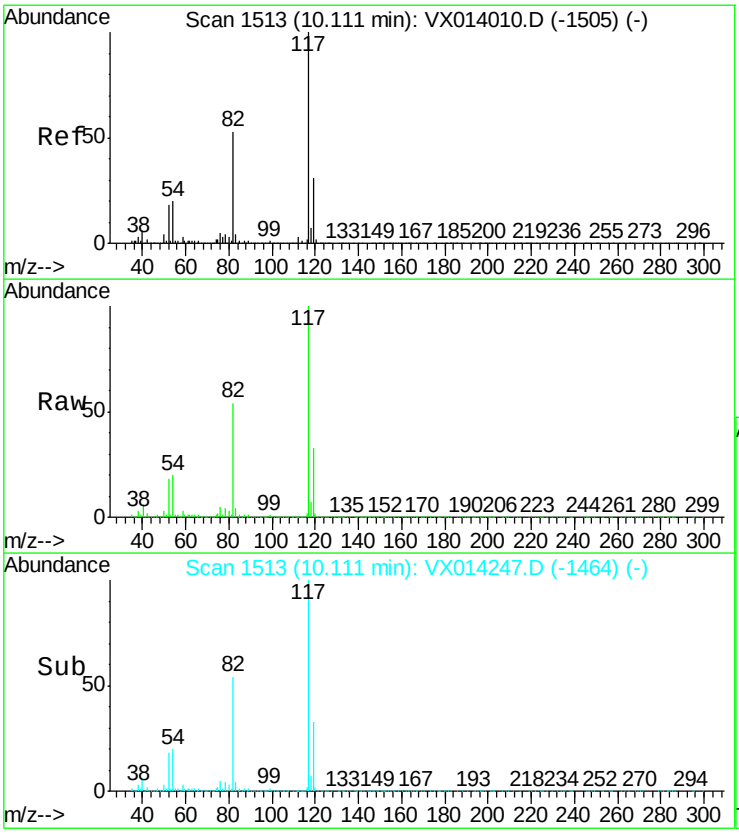


#62
4-Bromofluorobenzene
Concen: 46.939 ug/l
RT: 11.14 min Scan# 1681
Delta R.T. 0.00 min
Lab File: VX014247.D
Acq: 24 Dec 2019 16:01

Tgt Ion: 95 Resp: 342415

Ion	Ratio	Lower	Upper
95	100		
174	87.8	0.0	175.8
176	84.6	0.0	173.0

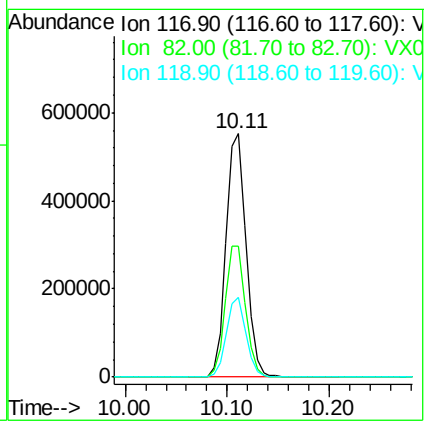




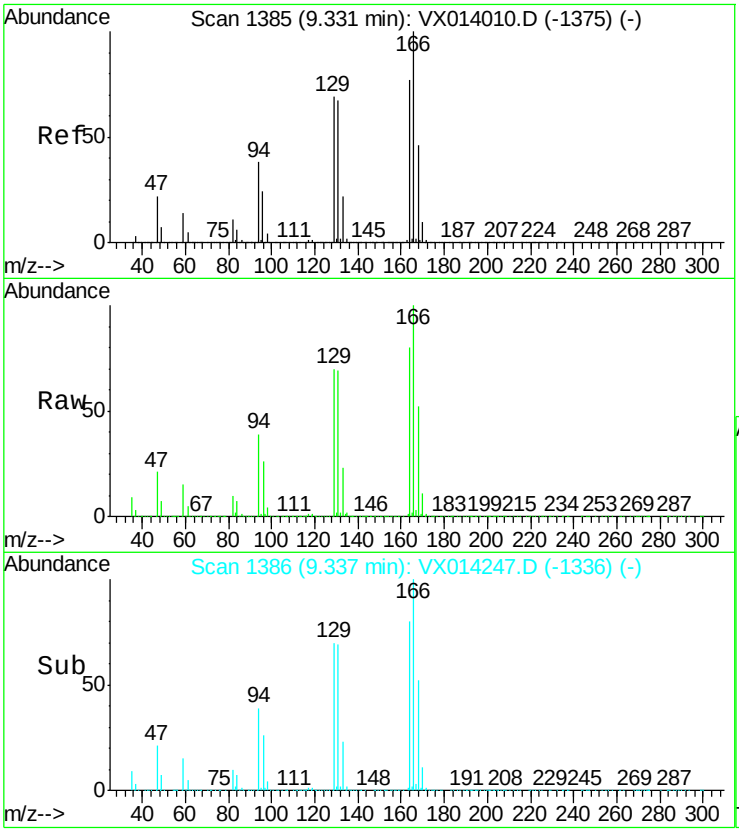
#63
Chlorobenzene-d5
Concen: 50.000 ug/l
RT: 10.11 min Scan# 1513
Delta R.T. 0.00 min
Lab File: VX014247.D
Acq: 24 Dec 2019 16:01

Tgt Ion:117 Resp: 749280

Ion	Ratio	Lower	Upper
117	100		
82	53.7	42.2	63.4
119	32.6	25.1	37.7



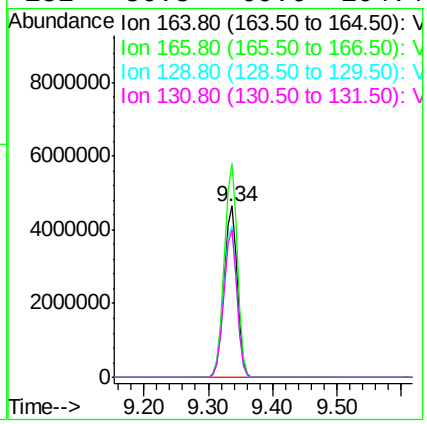
Instrument :
MSVOA_X
ClientSampleId :
991-MW-01-(23)

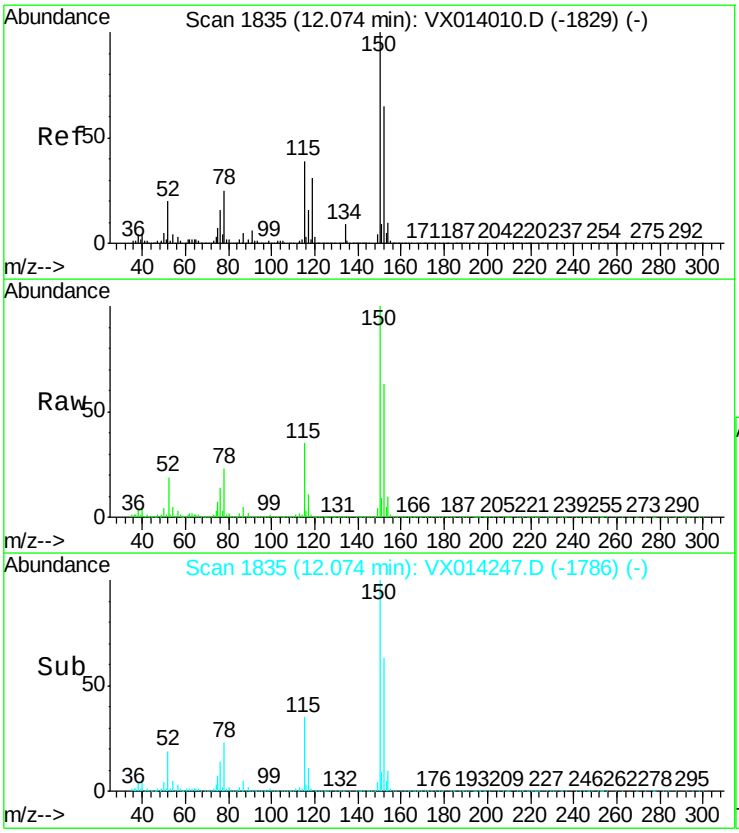


#64
Tetrachloroethene
Concen: 1013.701 ug/l
RT: 9.34 min Scan# 1386
Delta R.T. 0.01 min
Lab File: VX014247.D
Acq: 24 Dec 2019 16:01

Tgt Ion:164 Resp: 6721041

Ion	Ratio	Lower	Upper
164	100		
166	124.9	104.0	156.0
129	88.0	72.2	108.4
131	86.3	69.6	104.4

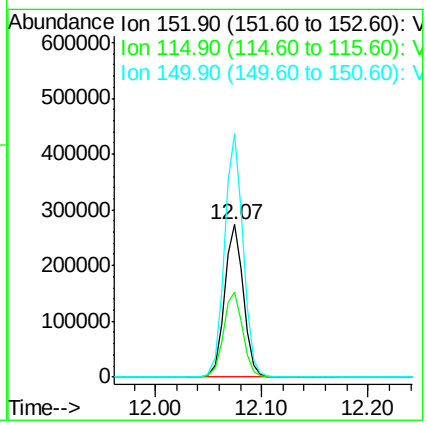


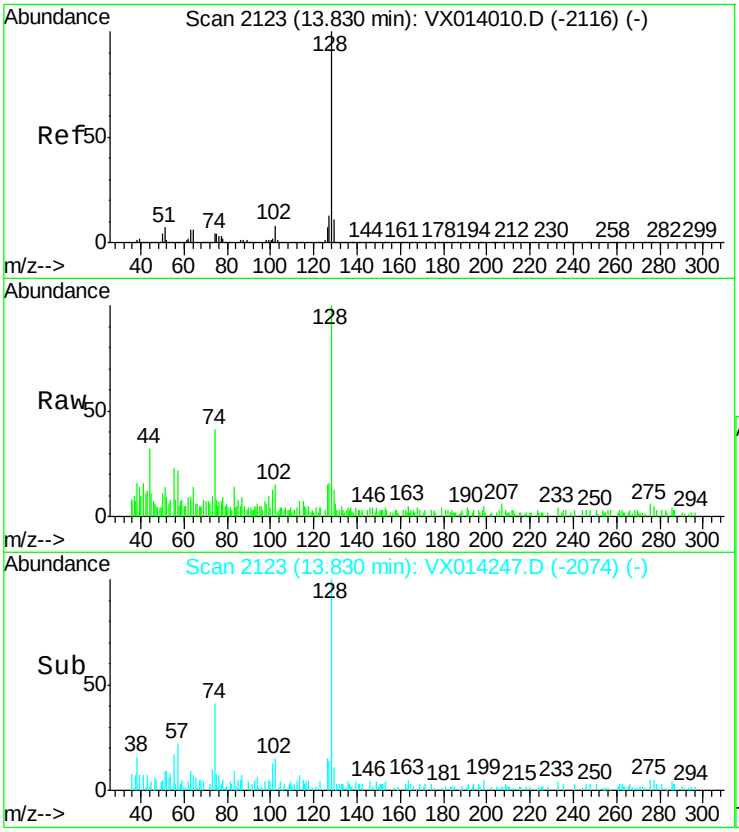


#72
1,4-Dichlorobenzene-d4
Concen: 50.000 ug/l
RT: 12.07 min Scan# 1835
Delta R.T. 0.00 min
Lab File: VX014247.D
Acq: 24 Dec 2019 16:01

Tgt Ion:152 Resp: 335916

Ion	Ratio	Lower	Upper
152	100		
115	57.0	38.3	114.9
150	157.8	0.0	345.4

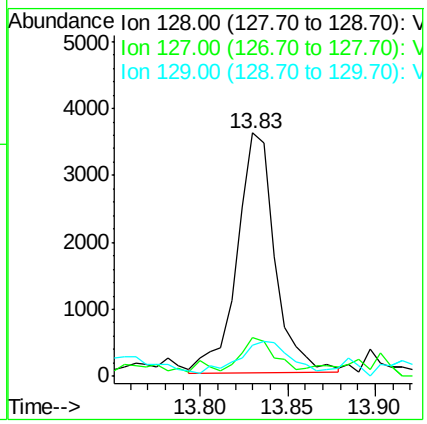




#95
Naphthalene
Concen: 0.247 ug/l
RT: 13.83 min Scan# 2123
Delta R.T. 0.00 min
Lab File: VX014247.D
Acq: 24 Dec 2019 16:01

Tgt Ion:128 Resp: 5423

Ion	Ratio	Lower	Upper
128	100		
127	14.0	10.2	15.4
129	17.0	8.7	13.1#



Instrument :
MSVOA_X
ClientSampleId :
991-MW-01-(23)

LSC Area Percent Report

Data Path : Z:\VOASRV\HPCHEM1\MSVOA X\DATA\VX122419\
Data File : VX014247.D
Acq On : 24 Dec 2019 16:01
Operator : JC/SP
Sample : K6405-01
Misc : 5.0mL/MSVOA X/WATER
ALS Vial : 17 Sample Multiplier: 1

Instrument : MSVOA_X
ClientSampleId : 991-MW-01-(23)

Integration Parameters: RTEINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 3 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121319W.M
Title : SW846 8260

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	1.070	26	30	43	rBV	969671	1195430	2.46%	1.728%
2	4.588	595	607	621	rBV	874040	2400545	4.94%	3.470%
3	5.490	743	755	767	rBV	289591	824023	1.70%	1.191%
4	5.655	772	782	797	rVB	524323	1457309	3.00%	2.106%
5	6.051	837	847	859	rBV	329744	841830	1.73%	1.217%
6	6.849	968	978	990	rBV	797750	1874965	3.86%	2.710%
7	7.209	1027	1037	1050	rBV	1676487	3555294	7.32%	5.139%
8	8.709	1277	1283	1295	rBV	1705367	2591560	5.33%	3.746%
9	9.337	1378	1386	1402	rBV	33370778	48600289	100.00%	70.243%
10	10.111	1507	1513	1523	rVB	1593591	2188495	4.50%	3.163%
11	11.135	1675	1681	1689	rBV	1252878	1667084	3.43%	2.409%
12	12.074	1829	1835	1842	rBV	1594284	1992333	4.10%	2.880%

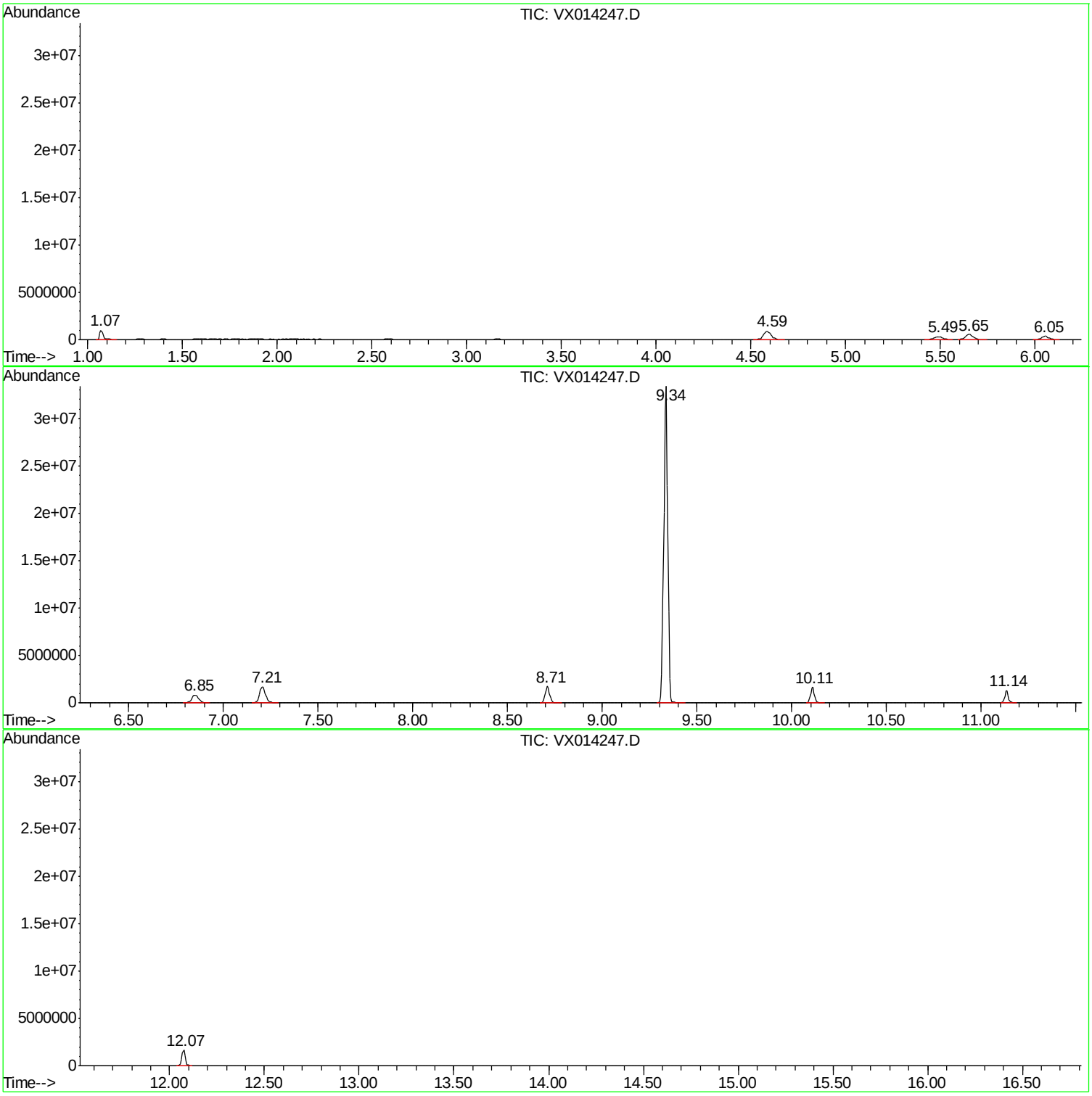
Sum of corrected areas: 69189157

Data Path : Z:\VOASRV\HPCHEM1\MSVOA X\DATA\VX122419\
Data File : VX014247.D
Acq On : 24 Dec 2019 16:01
Operator : JC/SP
Sample : K6405-01
Misc : 5.0mL/MSVOA X/WATER
ALS Vial : 17 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
991-MW-01-(23)

Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121319W.M
Quant Title : SW846 8260

TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P



Library Search Compound Report

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX122419\
Data File : VX014247.D
Acq On : 24 Dec 2019 16:01
Operator : JC/SP
Sample : K6405-01
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 17 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
991-MW-01-(23)

Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121319W.M
Quant Title : SW846 8260

TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

No Library Search Compounds Detected

****

Tentatively Identified Compound (LSC) summary

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX122419\
Data File : VX014247.D
Acq On : 24 Dec 2019 16:01
Operator : JC/SP
Sample : K6405-01
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 17 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
991-MW-01-(23)

Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121319W.M
Quant Title : SW846 8260

TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

					Internal Standard		
TIC Top Hit name	RT	EstConc	Units	Response	#	RT	Resp	Conc

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Day Environmental, Inc.	Date Collected:	12/20/19
Project:	Andrew St. RI	Date Received:	12/21/19
Client Sample ID:	991-MW-01-(23)DL	SDG No.:	K6405
Lab Sample ID:	K6405-01DL	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	DB-624UI ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX014281.D	20		12/26/19 19:50	VX122619

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
75-71-8	Dichlorodifluoromethane	20.0	UD	4.40	20.0	ug/L
74-87-3	Chloromethane	20.0	UD	6.00	20.0	ug/L
75-01-4	Vinyl Chloride	20.0	UD	3.20	20.0	ug/L
74-83-9	Bromomethane	100	UD	41.1	100	ug/L
75-00-3	Chloroethane	20.0	UD	6.70	20.0	ug/L
75-69-4	Trichlorofluoromethane	20.0	UD	3.10	20.0	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	20.0	UD	4.10	20.0	ug/L
75-35-4	1,1-Dichloroethene	20.0	UD	3.70	20.0	ug/L
67-64-1	Acetone	100	UD	17.9	100	ug/L
75-15-0	Carbon Disulfide	20.0	UD	4.70	20.0	ug/L
1634-04-4	Methyl tert-butyl Ether	20.0	UD	1.40	20.0	ug/L
79-20-9	Methyl Acetate	20.0	UD	13.0	20.0	ug/L
75-09-2	Methylene Chloride	20.0	UD	6.50	20.0	ug/L
156-60-5	trans-1,2-Dichloroethene	20.0	UD	4.70	20.0	ug/L
75-34-3	1,1-Dichloroethane	20.0	UD	3.30	20.0	ug/L
110-82-7	Cyclohexane	100	UD	24.0	100	ug/L
78-93-3	2-Butanone	100	UD	14.1	100	ug/L
56-23-5	Carbon Tetrachloride	20.0	UD	4.40	20.0	ug/L
156-59-2	cis-1,2-Dichloroethene	81.3	D	5.90	20.0	ug/L
74-97-5	Bromochloromethane	20.0	UD	6.30	20.0	ug/L
67-66-3	Chloroform	20.0	UD	2.80	20.0	ug/L
71-55-6	1,1,1-Trichloroethane	20.0	UD	2.50	20.0	ug/L
108-87-2	Methylcyclohexane	20.0	UD	3.40	20.0	ug/L
71-43-2	Benzene	20.0	UD	2.00	20.0	ug/L
107-06-2	1,2-Dichloroethane	20.0	UD	2.60	20.0	ug/L
79-01-6	Trichloroethene	96.4	D	5.40	20.0	ug/L
78-87-5	1,2-Dichloropropane	20.0	UD	2.70	20.0	ug/L
75-27-4	Bromodichloromethane	20.0	UD	2.10	20.0	ug/L
108-10-1	4-Methyl-2-Pentanone	100	UD	17.0	100	ug/L
108-88-3	Toluene	20.0	UD	2.30	20.0	ug/L
10061-02-6	t-1,3-Dichloropropene	20.0	UD	3.80	20.0	ug/L
10061-01-5	cis-1,3-Dichloropropene	20.0	UD	3.10	20.0	ug/L

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Day Environmental, Inc.	Date Collected:	12/20/19
Project:	Andrew St. RI	Date Received:	12/21/19
Client Sample ID:	991-MW-01-(23)DL	SDG No.:	K6405
Lab Sample ID:	K6405-01DL	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	DB-624UI ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX014281.D	20		12/26/19 19:50	VX122619

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
79-00-5	1,1,2-Trichloroethane	20.0	UD	2.50	20.0	ug/L
591-78-6	2-Hexanone	100	UD	27.1	100	ug/L
124-48-1	Dibromochloromethane	20.0	UD	3.10	20.0	ug/L
106-93-4	1,2-Dibromoethane	20.0	UD	2.80	20.0	ug/L
127-18-4	Tetrachloroethene	820	D	3.10	20.0	ug/L
108-90-7	Chlorobenzene	20.0	UD	1.50	20.0	ug/L
100-41-4	Ethyl Benzene	20.0	UD	1.70	20.0	ug/L
179601-23-1	m/p-Xylenes	40.0	UD	3.90	40.0	ug/L
95-47-6	o-Xylene	20.0	UD	2.60	20.0	ug/L
100-42-5	Styrene	20.0	UD	2.10	20.0	ug/L
75-25-2	Bromoform	20.0	UD	3.00	20.0	ug/L
98-82-8	Isopropylbenzene	20.0	UD	2.60	20.0	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	20.0	UD	3.00	20.0	ug/L
541-73-1	1,3-Dichlorobenzene	20.0	UD	2.80	20.0	ug/L
106-46-7	1,4-Dichlorobenzene	20.0	UD	4.00	20.0	ug/L
95-50-1	1,2-Dichlorobenzene	20.0	UD	2.40	20.0	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	20.0	UD	10.9	20.0	ug/L
120-82-1	1,2,4-Trichlorobenzene	20.0	UD	4.70	20.0	ug/L
87-61-6	1,2,3-Trichlorobenzene	20.0	UD	5.20	20.0	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	49.4		61 - 141	99%	SPK: 50
1868-53-7	Dibromofluoromethane	49.1		69 - 133	98%	SPK: 50
2037-26-5	Toluene-d8	50.8		65 - 126	102%	SPK: 50
460-00-4	4-Bromofluorobenzene	46.3		58 - 135	93%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	525000	5.65			
540-36-3	1,4-Difluorobenzene	807000	6.85			
3114-55-4	Chlorobenzene-d5	734000	10.11			
3855-82-1	1,4-Dichlorobenzene-d4	320000	12.07			

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Day Environmental, Inc.	Date Collected:	12/20/19
Project:	Andrew St. RI	Date Received:	12/21/19
Client Sample ID:	991-MW-01-(23)DL	SDG No.:	K6405
Lab Sample ID:	K6405-01DL	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	DB-624UI ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX014281.D	20		12/26/19 19:50	VX122619

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit
A = Aldol-Condensation Reaction Products

Quantitation Report (QT Reviewed)

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX122619\
Data File : VX014281.D
Acq On : 26 Dec 2019 19:50
Operator : JC/SP
Sample : K6405-01DL 20X
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 24 Sample Multiplier: 1

Instrument : MSVOA_X
ClientSampleId : 991-MW-01-(23)DL

Quant Time: Dec 27 07:26:58 2019
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121319W.M
Quant Title : SW846 8260
QLast Update : Tue Dec 17 03:01:07 2019
Response via : Initial Calibration

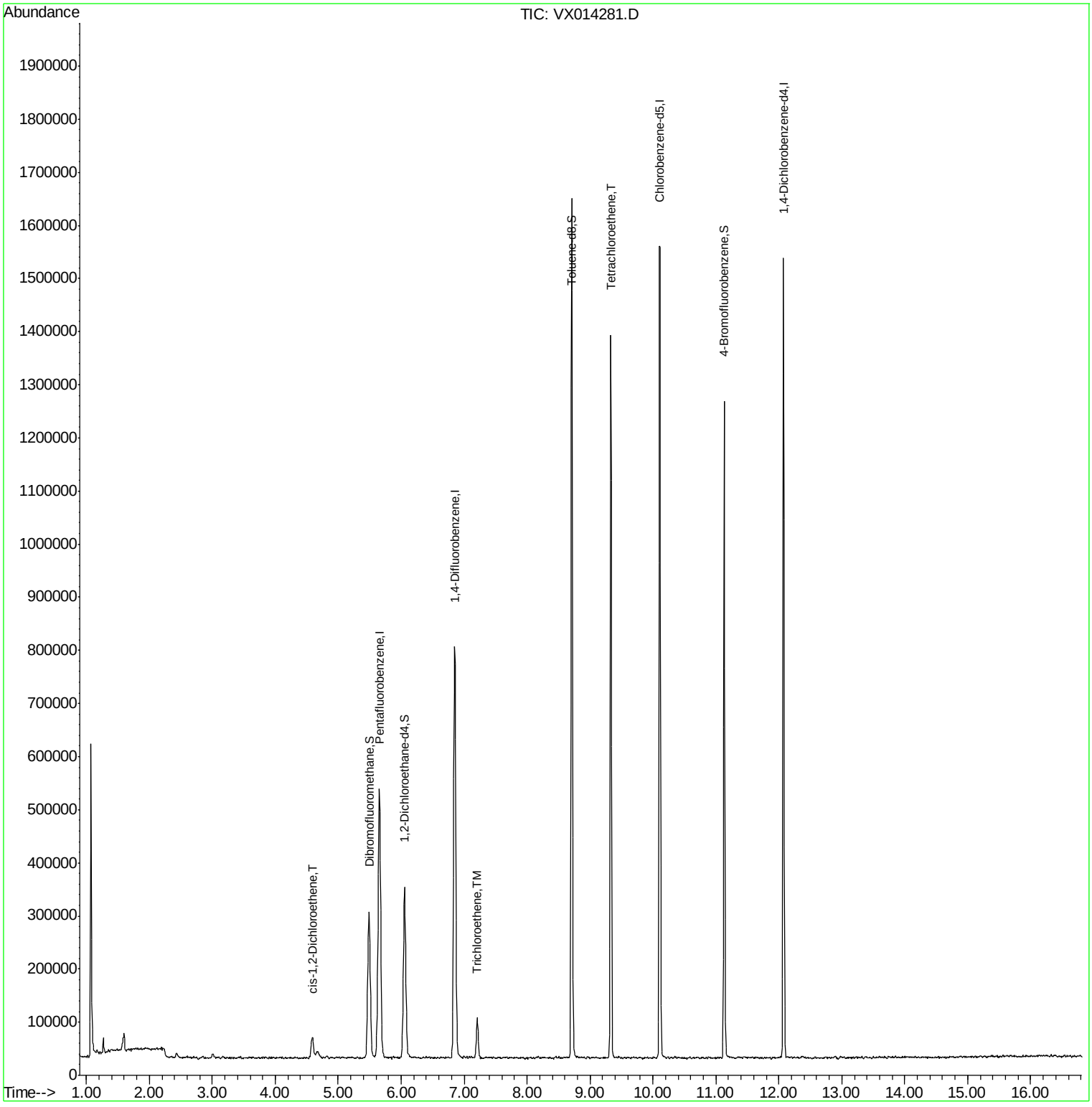
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	5.65	168	525064	50.00	ug/l	0.00
34) 1,4-Difluorobenzene	6.85	114	807481	50.00	ug/l	0.00
63) Chlorobenzene-d5	10.11	117	734095	50.00	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	12.07	152	319659	50.00	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	6.05	65	294060	49.41	ug/l	0.00
Spiked Amount 50.000			Recovery = 98.82%			
35) Dibromofluoromethane	5.49	113	240899	49.08	ug/l	0.00
Spiked Amount 50.000			Recovery = 98.16%			
50) Toluene-d8	8.71	98	970563	50.79	ug/l	0.00
Spiked Amount 50.000			Recovery = 101.58%			
62) 4-Bromofluorobenzene	11.14	95	323745	46.34	ug/l	0.00
Spiked Amount 50.000			Recovery = 92.68%			
Target Compounds						Qvalue
27) cis-1,2-Dichloroethene	4.59	96	25576	4.064	ug/l	93
44) Trichloroethene	7.21	130	30352	4.820	ug/l	96
64) Tetrachloroethene	9.33	164	267655	41.204	ug/l	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

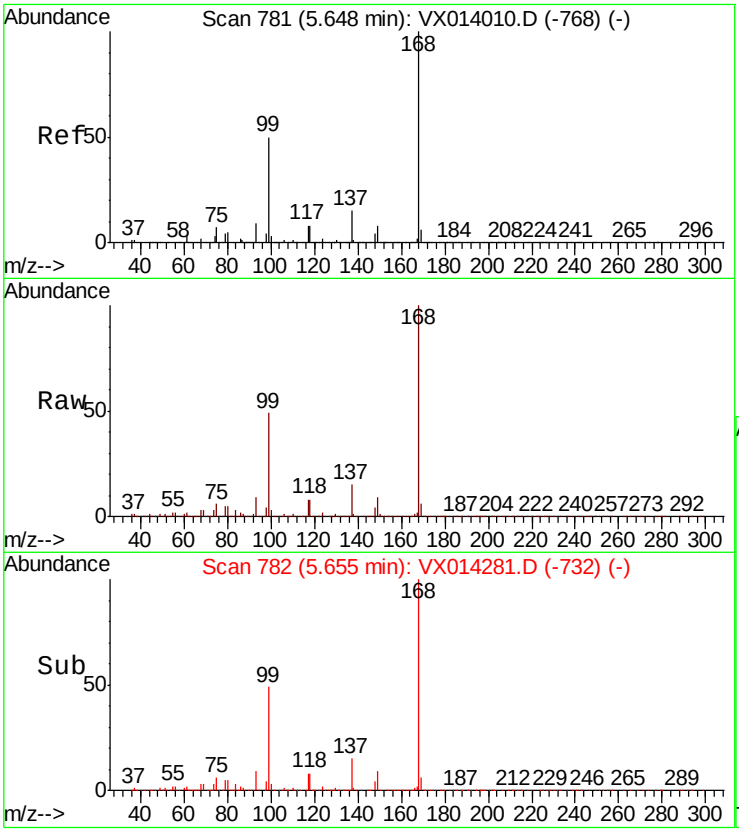
Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX122619\
Data File : VX014281.D
Acq On : 26 Dec 2019 19:50
Operator : JC/SP
Sample : K6405-01DL 20X
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 24 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
991-MW-01-(23)DL

Quant Time: Dec 27 07:26:58 2019
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121319W.M
Quant Title : SW846 8260
QLast Update : Tue Dec 17 03:01:07 2019
Response via : Initial Calibration



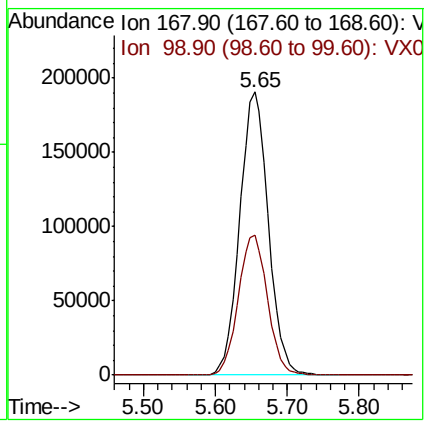
Instrument :
MSVOA_X
ClientSampleId :
991-MW-01-(23)DL

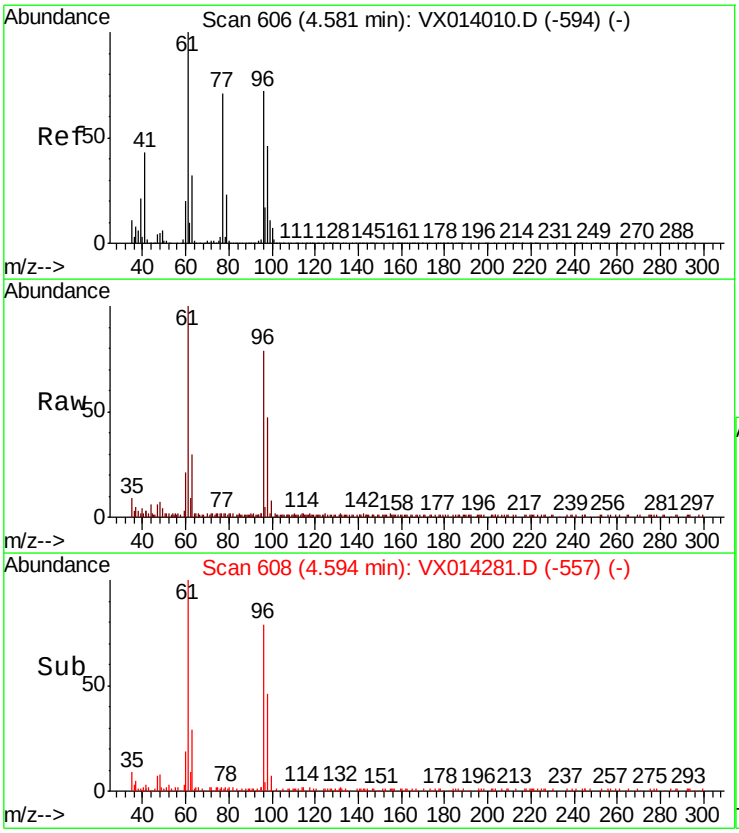


#1
Pentafluorobenzene
Concen: 50.000 ug/l
RT: 5.65 min Scan# 782
Delta R.T. 0.01 min
Lab File: VX014281.D
Acq: 26 Dec 2019 19:50

Tgt Ion:168 Resp: 525064

Ion	Ratio	Lower	Upper
168	100		
99	49.2	40.3	60.5

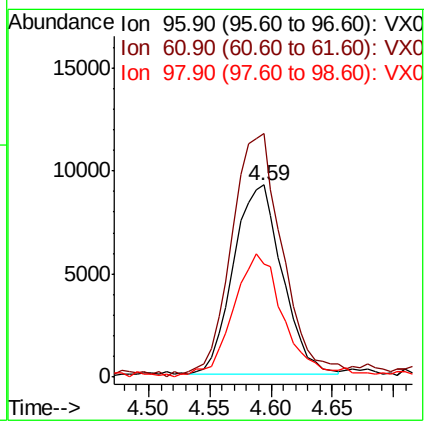




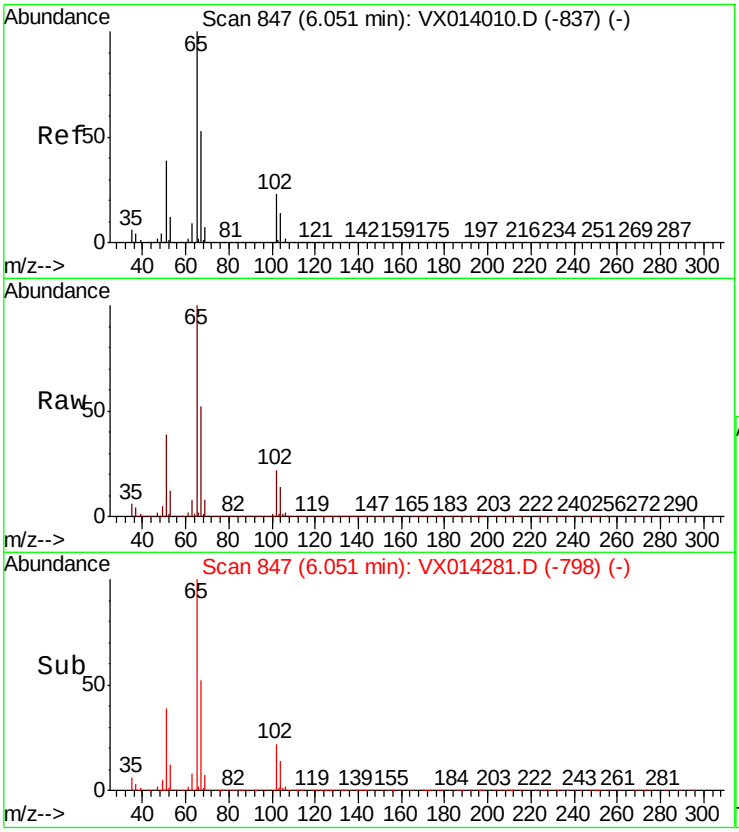
#27
cis-1,2-Dichloroethene
Concen: 4.064 ug/l
RT: 4.59 min Scan# 608
Delta R.T. 0.01 min
Lab File: VX014281.D
Acq: 26 Dec 2019 19:50

Tgt Ion: 96 Resp: 25576

Ion	Ratio	Lower	Upper
96	100		
61	135.0	0.0	288.4
98	69.1	0.0	129.6



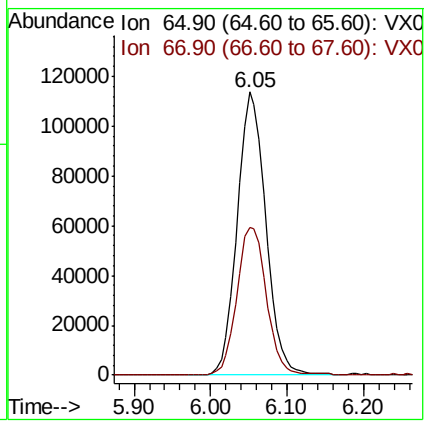
Instrument :
MSVOA_X
ClientSampleId :
991-MW-01-(23)DL

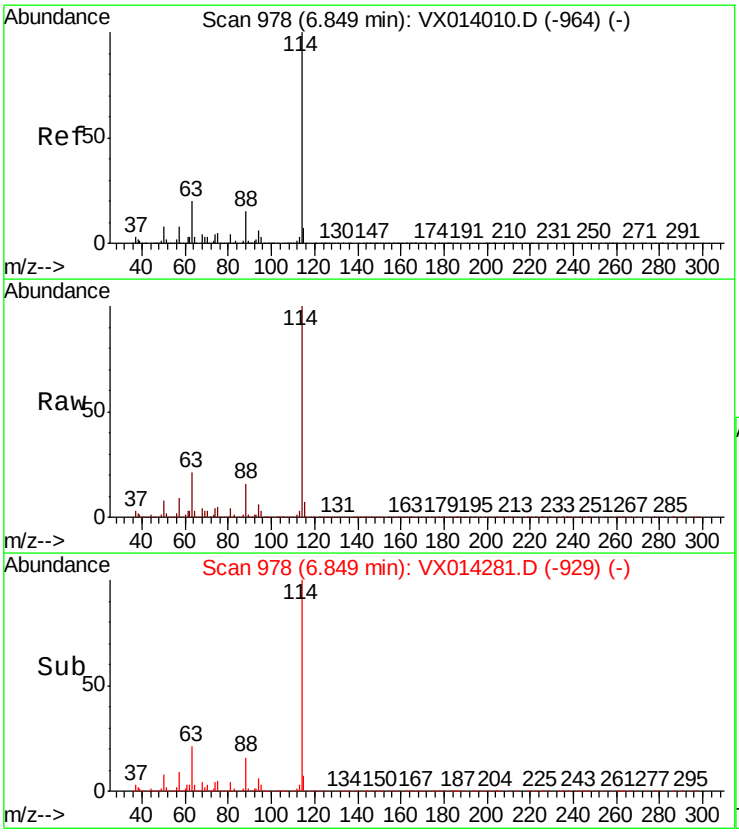


#33
1,2-Dichloroethane-d4
Concen: 49.415 ug/l
RT: 6.05 min Scan# 847
Delta R.T. 0.00 min
Lab File: VX014281.D
Acq: 26 Dec 2019 19:50

Tgt Ion: 65 Resp: 294060

Ion	Ratio	Lower	Upper
65	100		
67	53.6	0.0	106.4

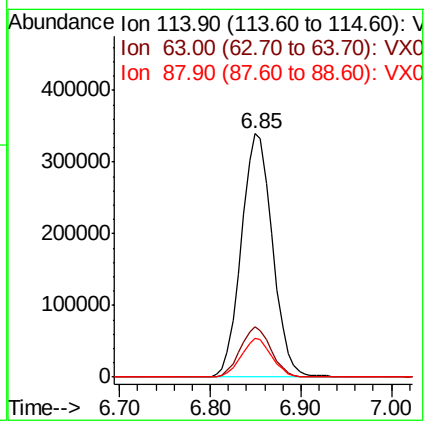




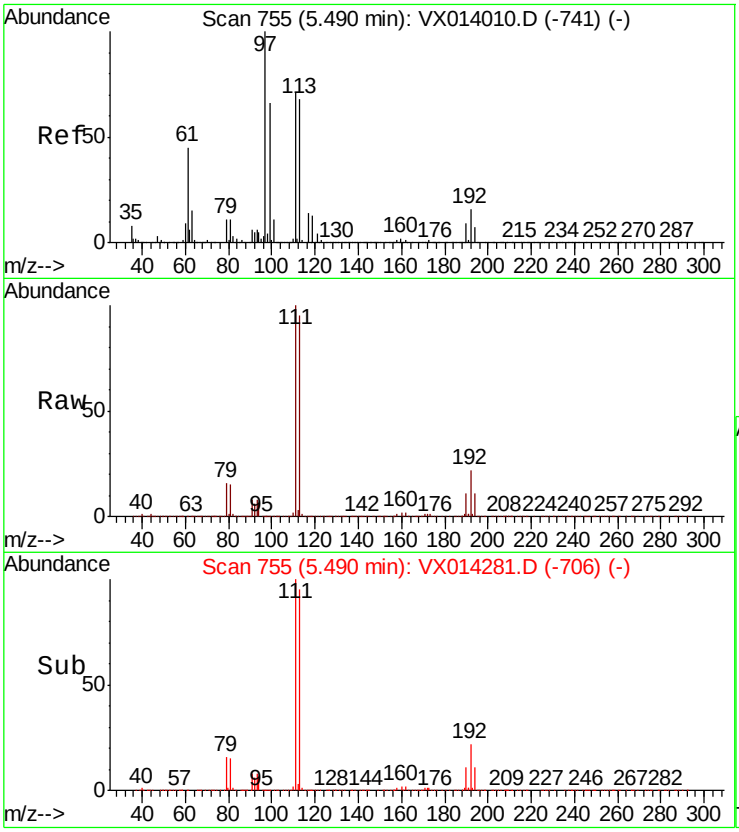
#34
1,4-Difluorobenzene
Concen: 50.000 ug/l
RT: 6.85 min Scan# 978
Delta R.T. 0.00 min
Lab File: VX014281.D
Acq: 26 Dec 2019 19:50

Tgt Ion:114 Resp: 807481

Ion	Ratio	Lower	Upper
114	100		
63	20.7	0.0	40.8
88	15.9	0.0	30.4



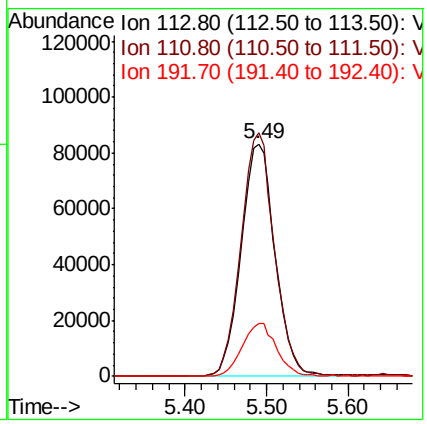
Instrument :
MSVOA_X
ClientSampleId :
991-MW-01-(23)DL

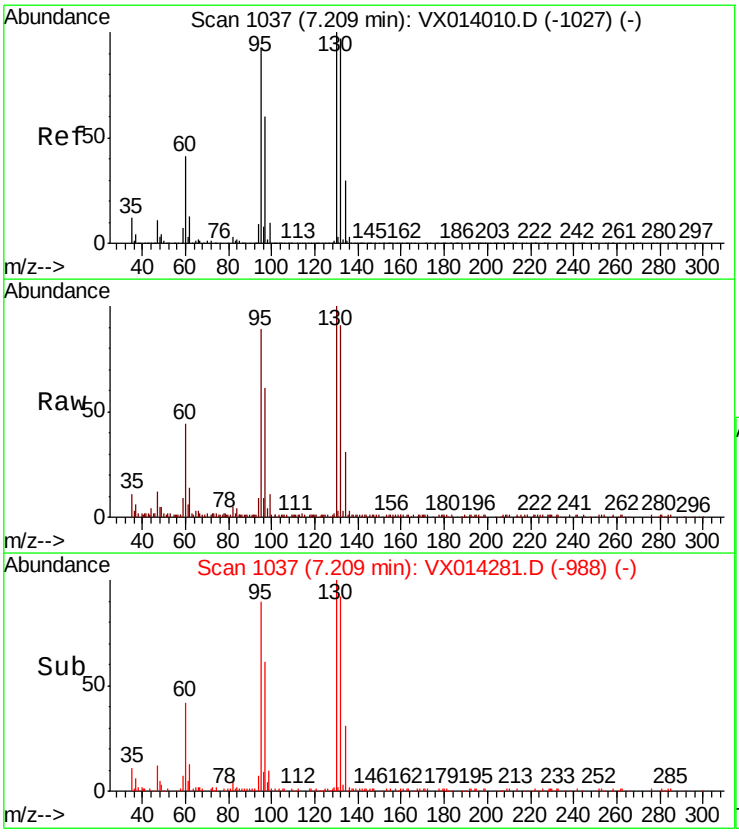


#35
Dibromofluoromethane
Concen: 49.077 ug/l
RT: 5.49 min Scan# 755
Delta R.T. 0.00 min
Lab File: VX014281.D
Acq: 26 Dec 2019 19:50

Tgt Ion:113 Resp: 240899

Ion	Ratio	Lower	Upper
113	100		
111	102.6	82.0	123.0
192	23.3	19.3	28.9

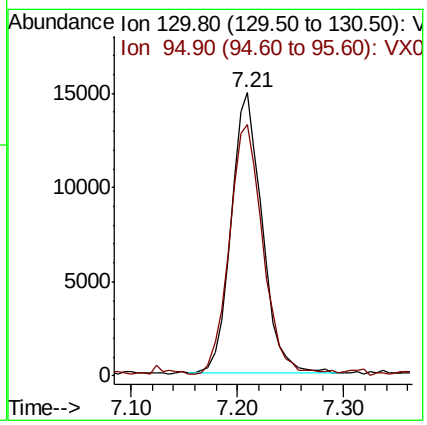




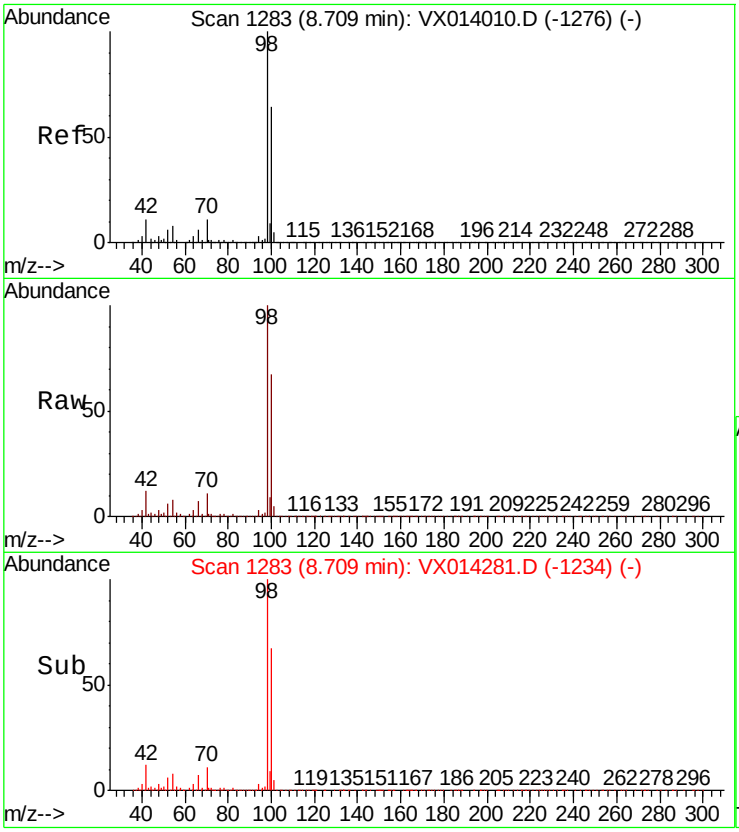
#44
Trichloroethene
Concen: 4.820 ug/l
RT: 7.21 min Scan# 1037
Delta R.T. 0.00 min
Lab File: VX014281.D
Acq: 26 Dec 2019 19:50

Tgt Ion:130 Resp: 30352

Ion	Ratio	Lower	Upper
130	100		
95	89.2	0.0	185.6



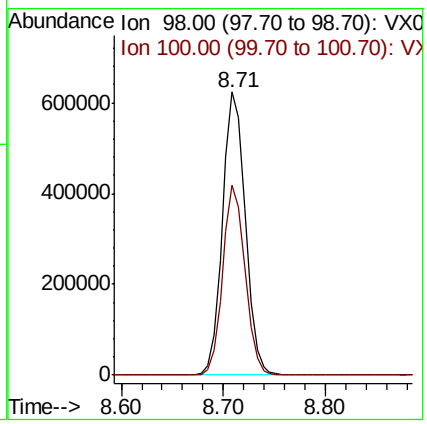
Instrument :
MSVOA_X
ClientSampleId :
991-MW-01-(23)DL

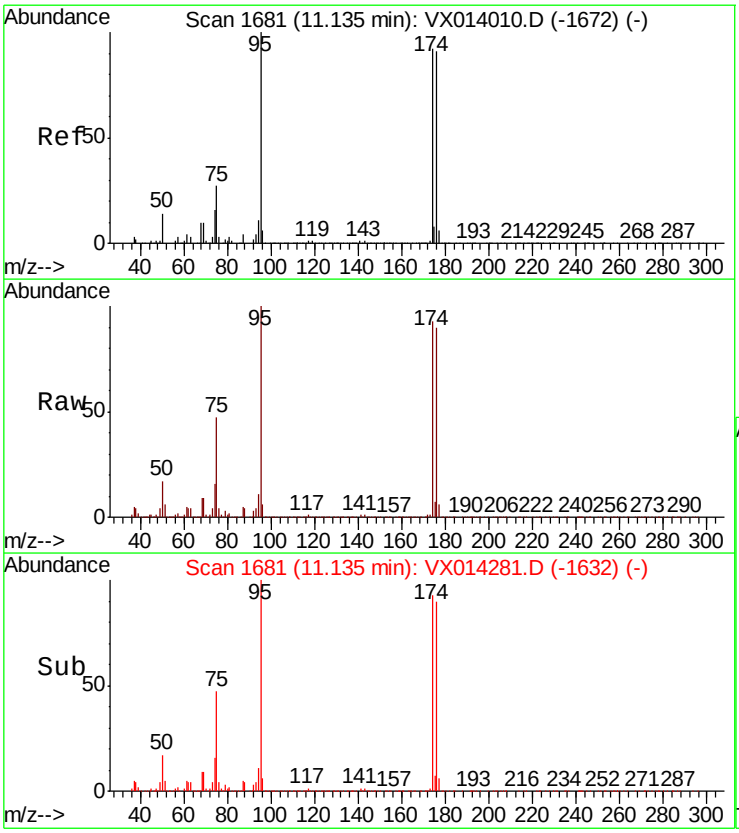


#50
Toluene-d8
Concen: 50.787 ug/l
RT: 8.71 min Scan# 1283
Delta R.T. 0.00 min
Lab File: VX014281.D
Acq: 26 Dec 2019 19:50

Tgt Ion: 98 Resp: 970563

Ion	Ratio	Lower	Upper
98	100		
100	65.6	52.9	79.3

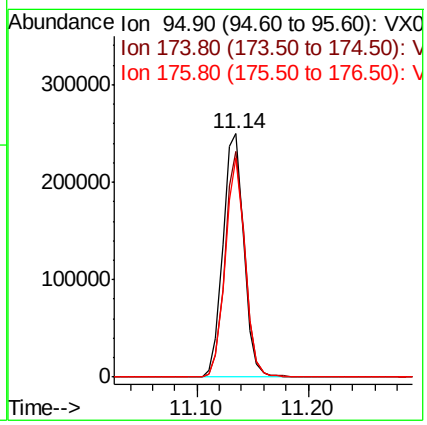




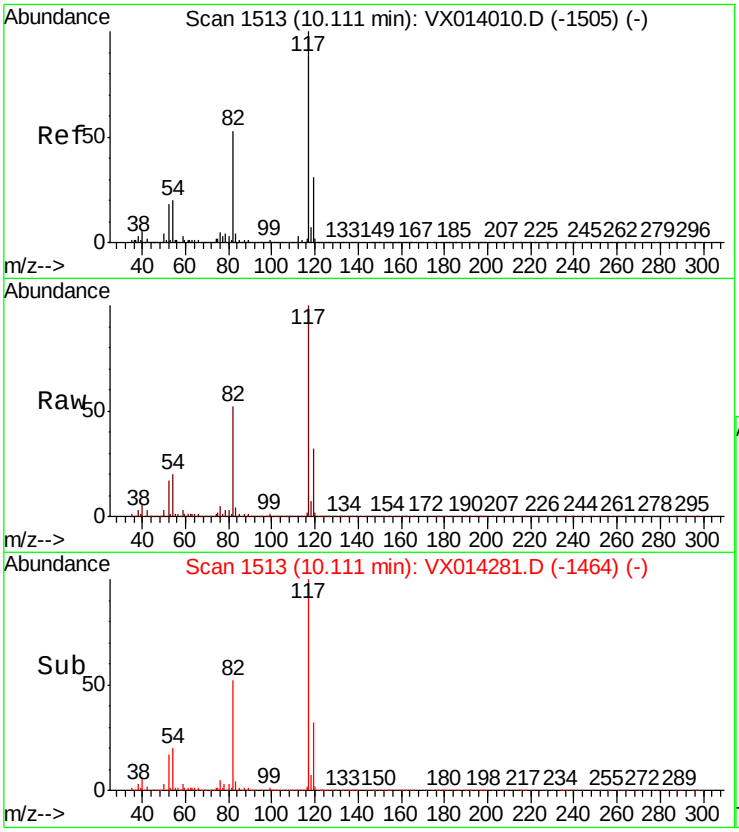
#62
4-Bromofluorobenzene
Concen: 46.344 ug/l
RT: 11.14 min Scan# 1681
Delta R.T. 0.00 min
Lab File: VX014281.D
Acq: 26 Dec 2019 19:50

Tgt Ion: 95 Resp: 323745

Ion	Ratio	Lower	Upper
95	100		
174	88.3	0.0	175.8
176	85.3	0.0	173.0



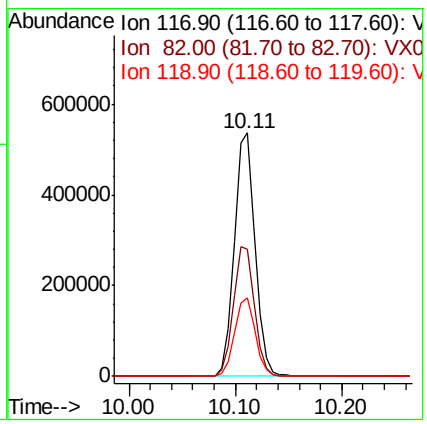
Instrument :
MSVOA_X
ClientSampleId :
991-MW-01-(23)DL

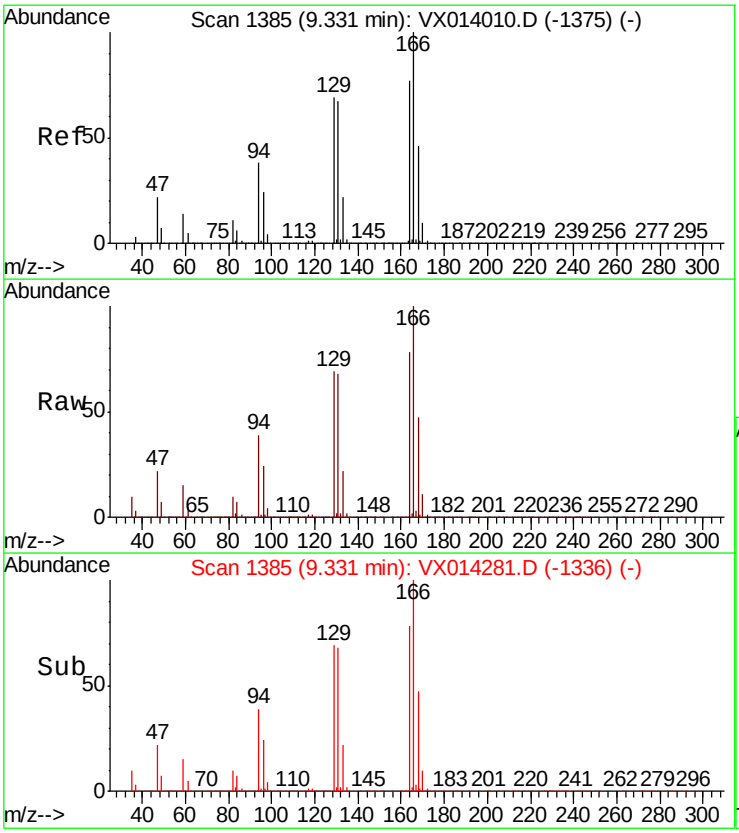


#63
Chlorobenzene-d5
Concen: 50.000 ug/l
RT: 10.11 min Scan# 1513
Delta R.T. 0.00 min
Lab File: VX014281.D
Acq: 26 Dec 2019 19:50

Tgt Ion:117 Resp: 734095

Ion	Ratio	Lower	Upper
117	100		
82	52.0	42.2	63.4
119	32.1	25.1	37.7

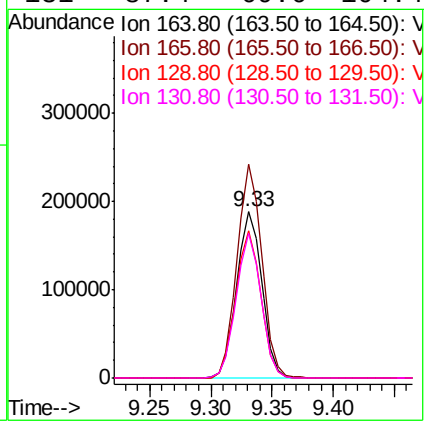




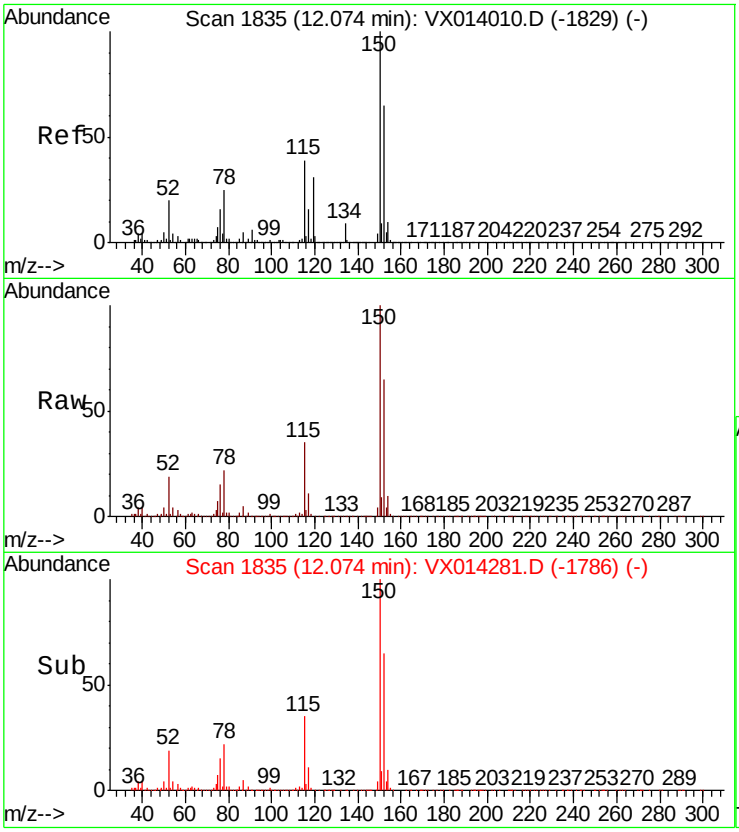
#64
Tetrachloroethene
Concen: 41.204 ug/l
RT: 9.33 min Scan# 1385
Delta R.T. 0.00 min
Lab File: VX014281.D
Acq: 26 Dec 2019 19:50

Tgt Ion:164 Resp: 267655

Ion	Ratio	Lower	Upper
164	100		
166	128.5	104.0	156.0
129	88.7	72.2	108.4
131	87.4	69.6	104.4



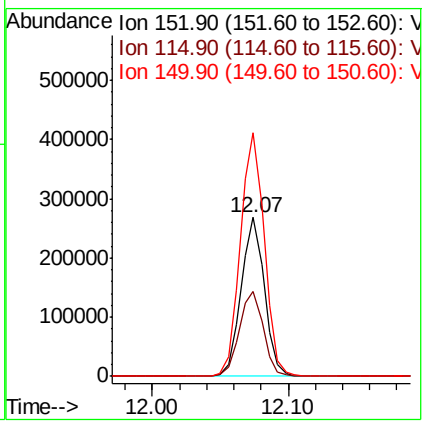
Instrument :
MSVOA_X
ClientSampleId :
991-MW-01-(23)DL



#72
1,4-Dichlorobenzene-d4
Concen: 50.000 ug/l
RT: 12.07 min Scan# 1835
Delta R.T. 0.00 min
Lab File: VX014281.D
Acq: 26 Dec 2019 19:50

Tgt Ion:152 Resp: 319659

Ion	Ratio	Lower	Upper
152	100		
115	54.9	38.3	114.9
150	157.5	0.0	345.4



CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Day Environmental, Inc.	Date Collected:	12/20/19
Project:	Andrew St. RI	Date Received:	12/21/19
Client Sample ID:	992-MW-02-(23.8)	SDG No.:	K6405
Lab Sample ID:	K6405-02	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	DB-624UI ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX014271.D	1		12/26/19 15:58	VX122619

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
75-71-8	Dichlorodifluoromethane	1.00	U	0.22	1.00	ug/L
74-87-3	Chloromethane	1.00	U	0.30	1.00	ug/L
75-01-4	Vinyl Chloride	1.60		0.16	1.00	ug/L
74-83-9	Bromomethane	5.00	U	2.10	5.00	ug/L
75-00-3	Chloroethane	1.00	U	0.34	1.00	ug/L
75-69-4	Trichlorofluoromethane	1.00	U	0.16	1.00	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	1.00	U	0.21	1.00	ug/L
75-35-4	1,1-Dichloroethene	1.00	U	0.18	1.00	ug/L
67-64-1	Acetone	3.20	J	0.90	5.00	ug/L
75-15-0	Carbon Disulfide	1.00	U	0.23	1.00	ug/L
1634-04-4	Methyl tert-butyl Ether	1.00	U	0.070	1.00	ug/L
79-20-9	Methyl Acetate	1.00	U	0.65	1.00	ug/L
75-09-2	Methylene Chloride	1.00	U	0.33	1.00	ug/L
156-60-5	trans-1,2-Dichloroethene	1.20		0.24	1.00	ug/L
75-34-3	1,1-Dichloroethane	1.00	U	0.17	1.00	ug/L
110-82-7	Cyclohexane	5.00	U	1.20	5.00	ug/L
78-93-3	2-Butanone	5.00	U	0.71	5.00	ug/L
56-23-5	Carbon Tetrachloride	1.00	U	0.22	1.00	ug/L
156-59-2	cis-1,2-Dichloroethene	36.0		0.30	1.00	ug/L
74-97-5	Bromochloromethane	1.00	U	0.31	1.00	ug/L
67-66-3	Chloroform	1.00	U	0.14	1.00	ug/L
71-55-6	1,1,1-Trichloroethane	1.00	U	0.12	1.00	ug/L
108-87-2	Methylcyclohexane	1.00	U	0.17	1.00	ug/L
71-43-2	Benzene	1.00	U	0.10	1.00	ug/L
107-06-2	1,2-Dichloroethane	1.00	U	0.13	1.00	ug/L
79-01-6	Trichloroethene	34.3		0.27	1.00	ug/L
78-87-5	1,2-Dichloropropane	1.00	U	0.14	1.00	ug/L
75-27-4	Bromodichloromethane	1.00	U	0.10	1.00	ug/L
108-10-1	4-Methyl-2-Pentanone	5.00	U	0.85	5.00	ug/L
108-88-3	Toluene	1.00	U	0.12	1.00	ug/L
10061-02-6	t-1,3-Dichloropropene	1.00	U	0.19	1.00	ug/L
10061-01-5	cis-1,3-Dichloropropene	1.00	U	0.16	1.00	ug/L

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Day Environmental, Inc.	Date Collected:	12/20/19
Project:	Andrew St. RI	Date Received:	12/21/19
Client Sample ID:	992-MW-02-(23.8)	SDG No.:	K6405
Lab Sample ID:	K6405-02	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	DB-624UI ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX014271.D	1		12/26/19 15:58	VX122619

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
79-00-5	1,1,2-Trichloroethane	1.00	U	0.12	1.00	ug/L
591-78-6	2-Hexanone	5.00	U	1.40	5.00	ug/L
124-48-1	Dibromochloromethane	1.00	U	0.16	1.00	ug/L
106-93-4	1,2-Dibromoethane	1.00	U	0.14	1.00	ug/L
127-18-4	Tetrachloroethene	57.5		0.15	1.00	ug/L
108-90-7	Chlorobenzene	1.00	U	0.080	1.00	ug/L
100-41-4	Ethyl Benzene	1.00	U	0.080	1.00	ug/L
179601-23-1	m/p-Xylenes	2.00	U	0.20	2.00	ug/L
95-47-6	o-Xylene	1.00	U	0.13	1.00	ug/L
100-42-5	Styrene	1.00	U	0.11	1.00	ug/L
75-25-2	Bromoform	1.00	U	0.15	1.00	ug/L
98-82-8	Isopropylbenzene	1.00	U	0.13	1.00	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	1.00	U	0.15	1.00	ug/L
541-73-1	1,3-Dichlorobenzene	1.00	U	0.14	1.00	ug/L
106-46-7	1,4-Dichlorobenzene	1.00	U	0.20	1.00	ug/L
95-50-1	1,2-Dichlorobenzene	1.00	U	0.12	1.00	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	1.00	U	0.54	1.00	ug/L
120-82-1	1,2,4-Trichlorobenzene	1.00	U	0.24	1.00	ug/L
87-61-6	1,2,3-Trichlorobenzene	1.00	U	0.26	1.00	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	48.5		61 - 141	97%	SPK: 50
1868-53-7	Dibromofluoromethane	48.4		69 - 133	97%	SPK: 50
2037-26-5	Toluene-d8	50.1		65 - 126	100%	SPK: 50
460-00-4	4-Bromofluorobenzene	45.5		58 - 135	91%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	541000	5.65			
540-36-3	1,4-Difluorobenzene	835000	6.85			
3114-55-4	Chlorobenzene-d5	744000	10.11			
3855-82-1	1,4-Dichlorobenzene-d4	329000	12.07			
TENTATIVE IDENTIFIED COMPOUNDS						
000075-28-5	Isobutane	5.40	J		1.30	ug/L

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Day Environmental, Inc.	Date Collected:	12/20/19
Project:	Andrew St. RI	Date Received:	12/21/19
Client Sample ID:	992-MW-02-(23.8)	SDG No.:	K6405
Lab Sample ID:	K6405-02	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	DB-624UI ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX014271.D	1		12/26/19 15:58	VX122619

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit
A = Aldol-Condensation Reaction Products

Quantitation Report (LSC Reviewed)

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX122619\
Data File : VX014271.D
Acq On : 26 Dec 2019 15:58
Operator : JC/SP
Sample : K6405-02
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 14 Sample Multiplier: 1

Instrument : MSVOA_X
ClientSampleId : 992-MW-02-(23.8)

Quant Time: Dec 27 07:05:16 2019
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121319W.M
Quant Title : SW846 8260
QLast Update : Tue Dec 17 03:01:07 2019
Response via : Initial Calibration

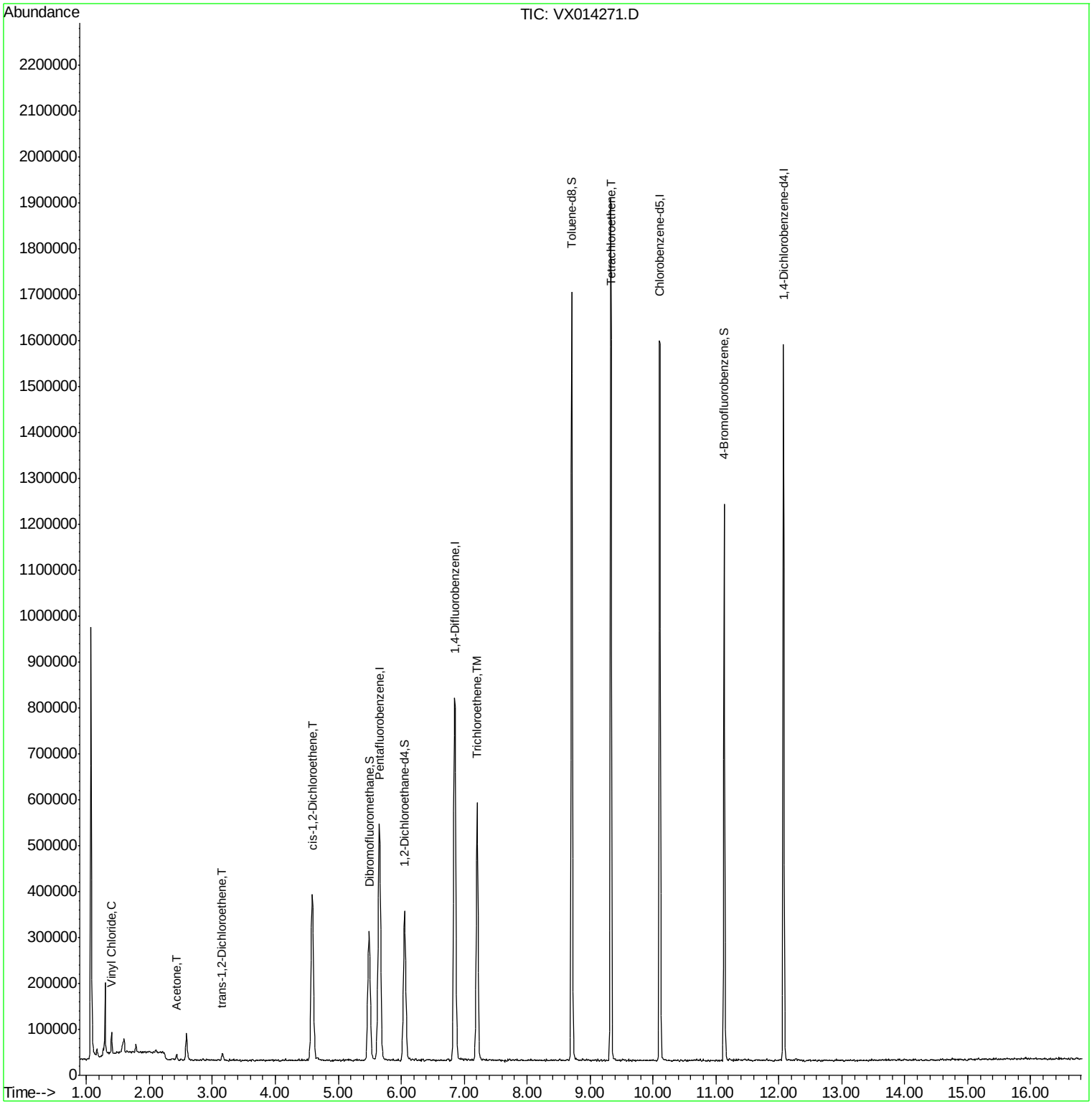
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	5.65	168	541143	50.00	ug/l	0.00
34) 1,4-Difluorobenzene	6.85	114	834985	50.00	ug/l	0.00
63) Chlorobenzene-d5	10.11	117	744345	50.00	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	12.07	152	328519	50.00	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	6.05	65	297402	48.49	ug/l	0.00
Spiked Amount 50.000			Recovery = 96.98%			
35) Dibromofluoromethane	5.49	113	245585	48.38	ug/l	0.00
Spiked Amount 50.000			Recovery = 96.76%			
50) Toluene-d8	8.71	98	990079	50.10	ug/l	0.00
Spiked Amount 50.000			Recovery = 100.20%			
62) 4-Bromofluorobenzene	11.13	95	328897	45.53	ug/l	0.00
Spiked Amount 50.000			Recovery = 91.06%			
Target Compounds						Qvalue
4) Vinyl Chloride	1.40	62	11063	1.614	ug/l	94
16) Acetone	2.43	43	12865	3.231	ug/l	95
21) trans-1,2-Dichloroethene	3.15	96	7077	1.234	ug/l	90
27) cis-1,2-Dichloroethene	4.59	96	233473	35.998	ug/l	90
44) Trichloroethene	7.21	130	223324	34.299	ug/l	100
64) Tetrachloroethene	9.33	164	378988	57.540	ug/l	97

(#) = qualifier out of range (m) = manual integration (+) = signals summed

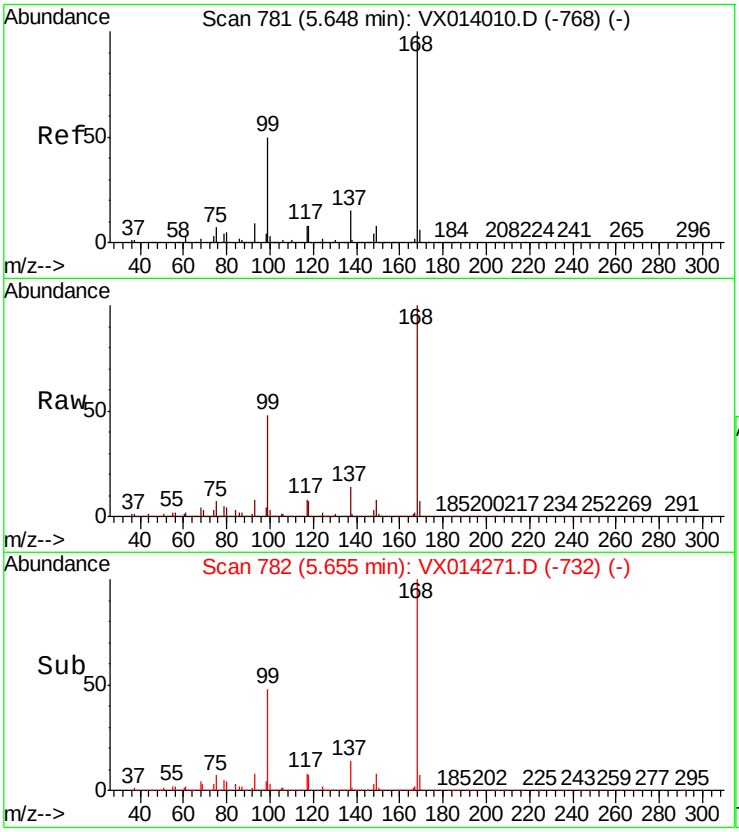
Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX122619\
Data File : VX014271.D
Acq On : 26 Dec 2019 15:58
Operator : JC/SP
Sample : K6405-02
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 14 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
992-MW-02-(23.8)

Quant Time: Dec 27 07:05:16 2019
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121319W.M
Quant Title : SW846 8260
QLast Update : Tue Dec 17 03:01:07 2019
Response via : Initial Calibration



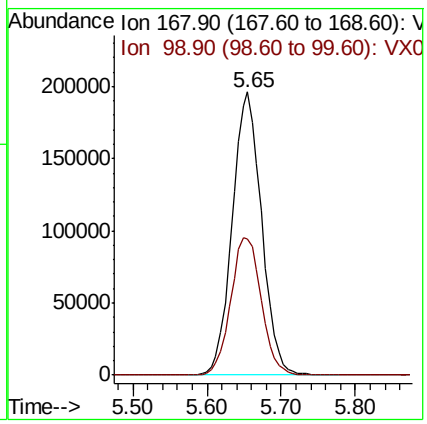
Instrument :
MSVOA_X
ClientSampleId :
992-MW-02-(23.8)

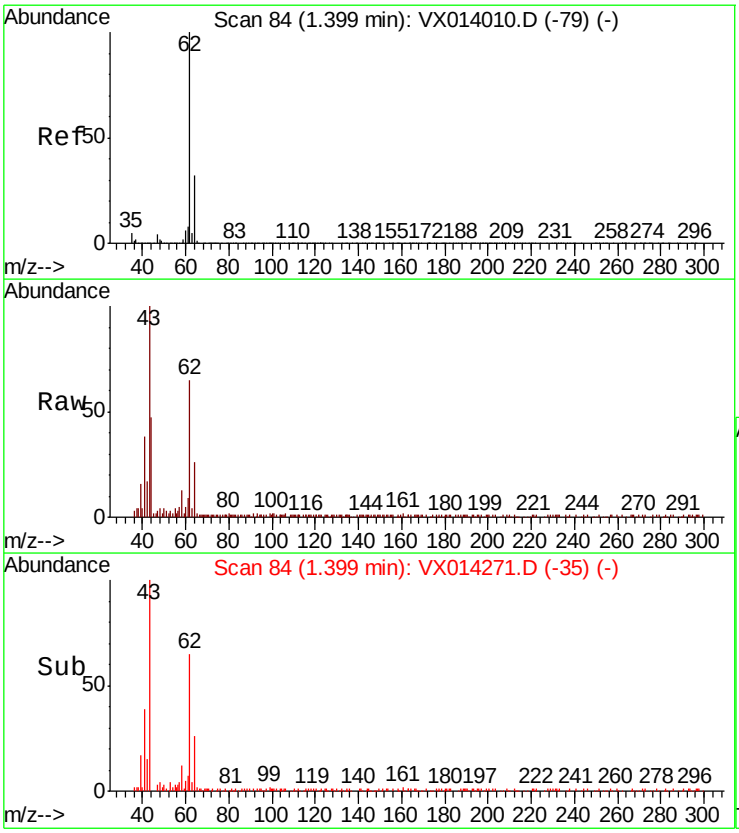


#1
Pentafluorobenzene
Concen: 50.000 ug/l
RT: 5.65 min Scan# 782
Delta R.T. 0.01 min
Lab File: VX014271.D
Acq: 26 Dec 2019 15:58

Tgt Ion:168 Resp: 541143

Ion	Ratio	Lower	Upper
168	100		
99	48.0	40.3	60.5

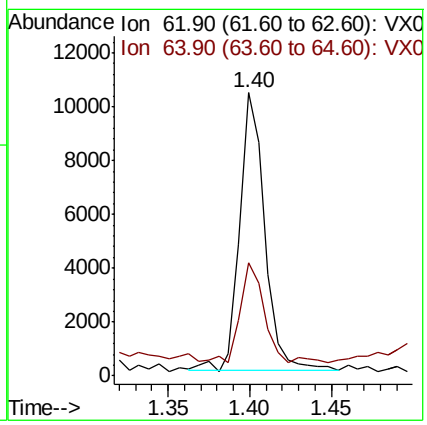




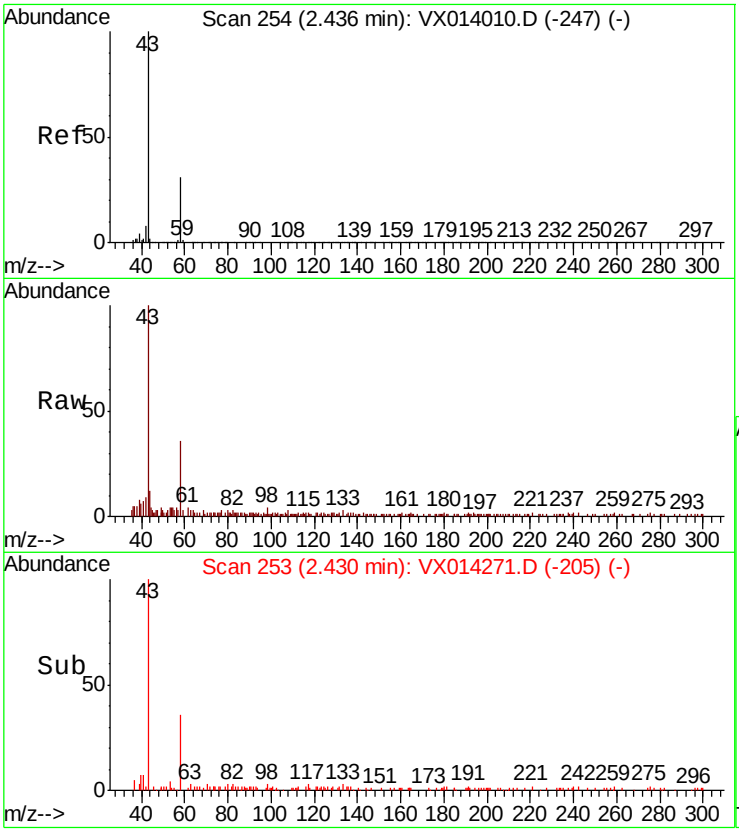
#4
Vinyl Chloride
Concen: 1.614 ug/l
RT: 1.40 min Scan# 84
Delta R.T. 0.00 min
Lab File: VX014271.D
Acq: 26 Dec 2019 15:58

Tgt Ion: 62 Resp: 11063

Ion	Ratio	Lower	Upper
62	100		
64	35.3	25.7	38.5



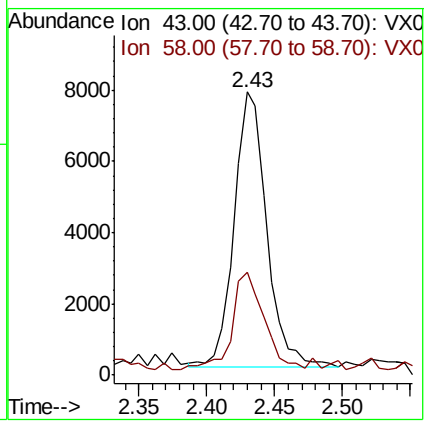
Instrument :
MSVOA_X
ClientSampleId :
992-MW-02-(23.8)

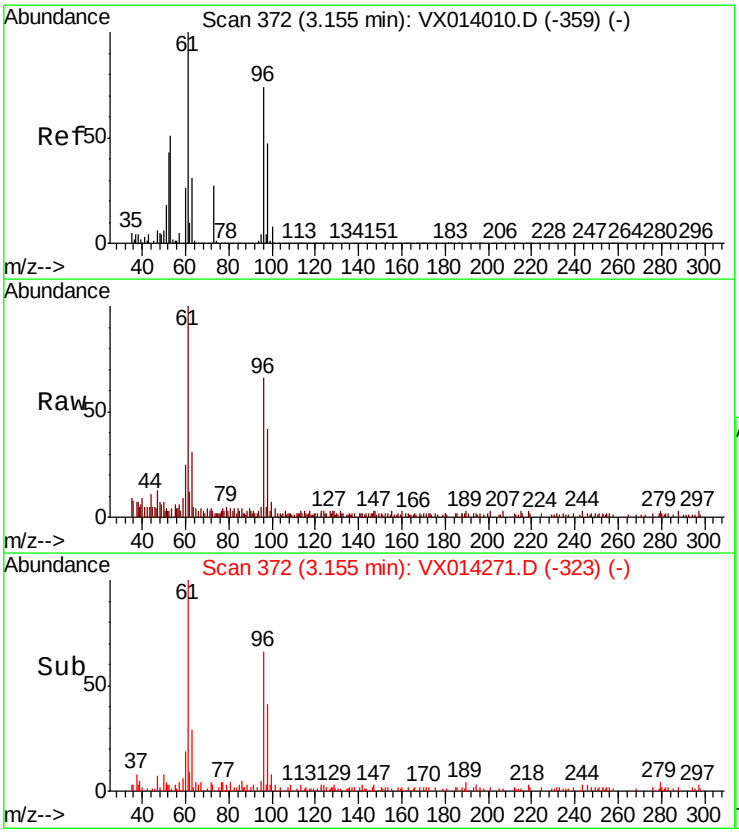


#16
Acetone
Concen: 3.231 ug/l
RT: 2.43 min Scan# 253
Delta R.T. -0.01 min
Lab File: VX014271.D
Acq: 26 Dec 2019 15:58

Tgt Ion: 43 Resp: 12865

Ion	Ratio	Lower	Upper
43	100		
58	33.9	24.9	37.3

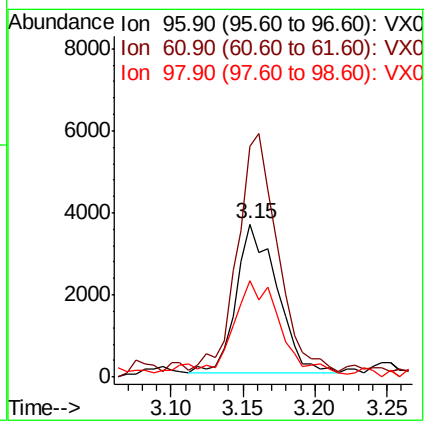




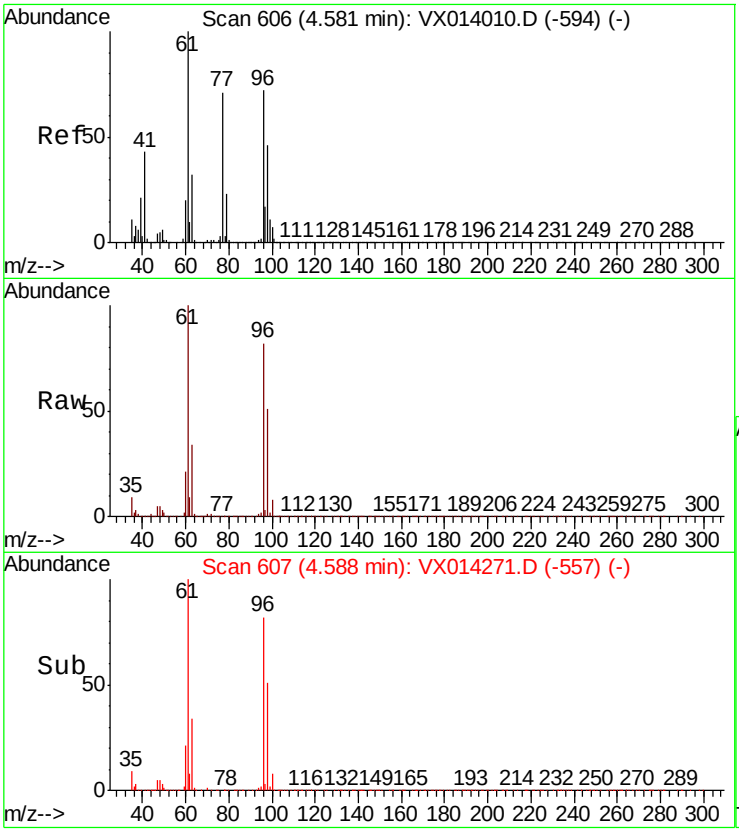
#21
trans-1,2-Dichloroethene
Concen: 1.234 ug/l
RT: 3.15 min Scan# 372
Delta R.T. 0.00 min
Lab File: VX014271.D
Acq: 26 Dec 2019 15:58

Tgt Ion: 96 Resp: 7077

Ion	Ratio	Lower	Upper
96	100		
61	151.6	108.3	162.5
98	61.7	50.8	76.2



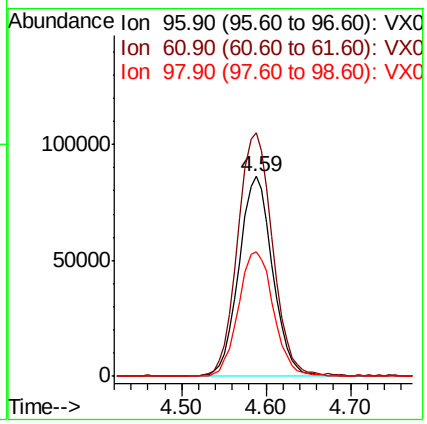
Instrument :
MSVOA_X
ClientSampleId :
992-MW-02-(23.8)

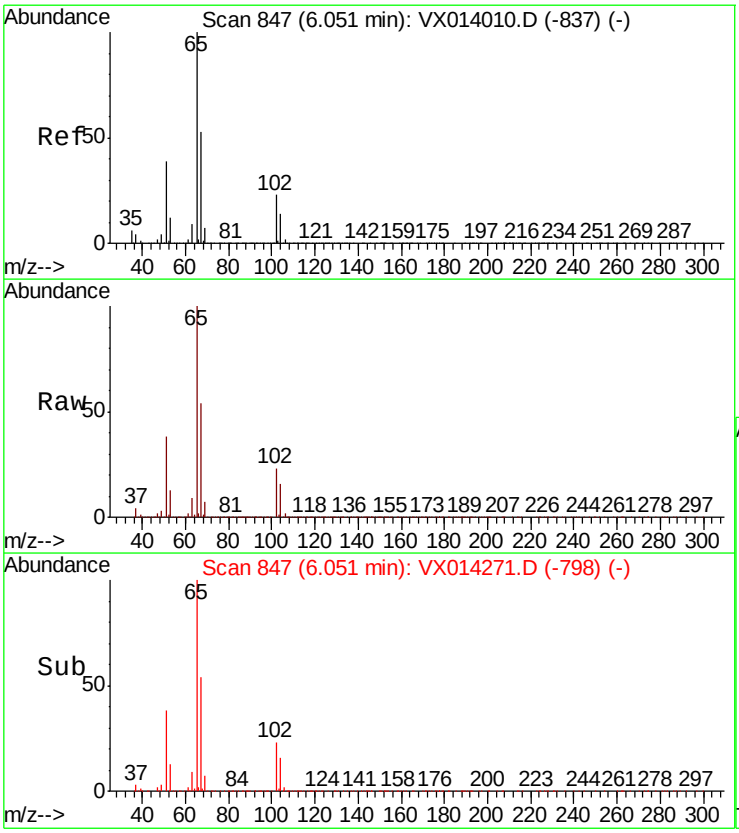


#27
cis-1,2-Dichloroethene
Concen: 35.998 ug/l
RT: 4.59 min Scan# 607
Delta R.T. 0.01 min
Lab File: VX014271.D
Acq: 26 Dec 2019 15:58

Tgt Ion: 96 Resp: 233473

Ion	Ratio	Lower	Upper
96	100		
61	125.8	0.0	288.4
98	64.4	0.0	129.6

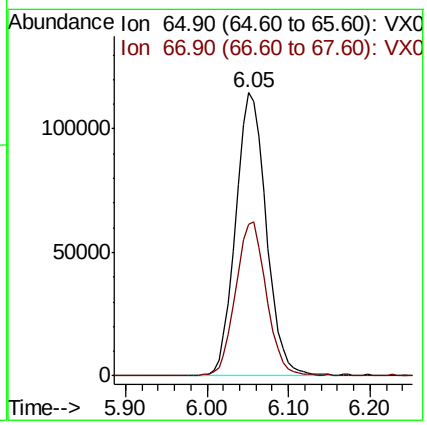




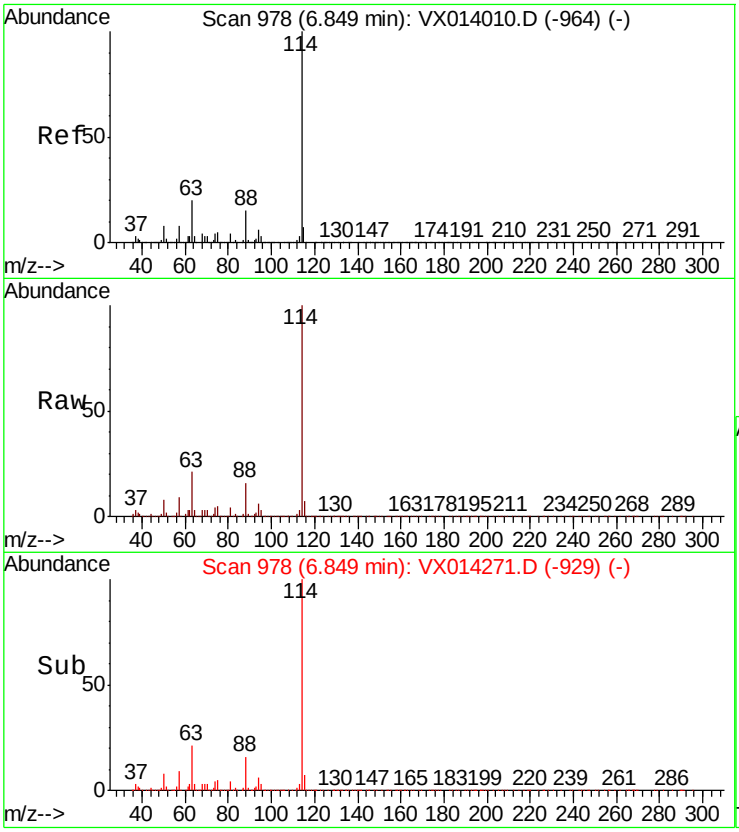
#33
1,2-Dichloroethane-d4
Concen: 48.491 ug/l
RT: 6.05 min Scan# 847
Delta R.T. 0.00 min
Lab File: VX014271.D
Acq: 26 Dec 2019 15:58

Tgt Ion: 65 Resp: 297402

Ion	Ratio	Lower	Upper
65	100		
67	54.8	0.0	106.4



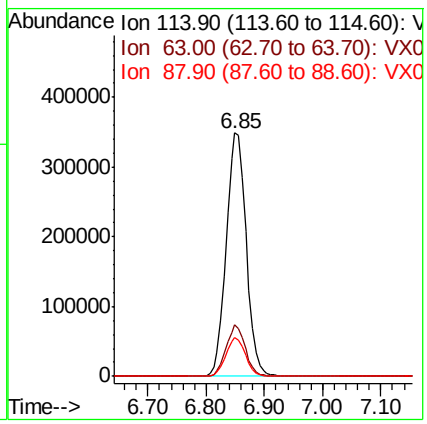
Instrument :
MSVOA_X
ClientSampleId :
992-MW-02-(23.8)

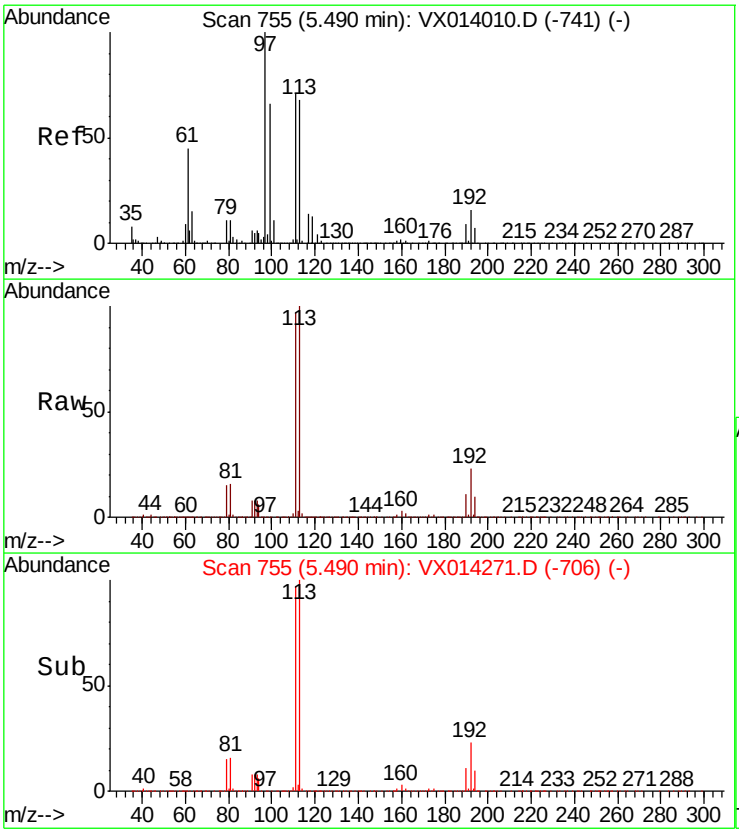


#34
1,4-Difluorobenzene
Concen: 50.000 ug/l
RT: 6.85 min Scan# 978
Delta R.T. 0.00 min
Lab File: VX014271.D
Acq: 26 Dec 2019 15:58

Tgt Ion:114 Resp: 834985

Ion	Ratio	Lower	Upper
114	100		
63	20.9	0.0	40.8
88	16.1	0.0	30.4

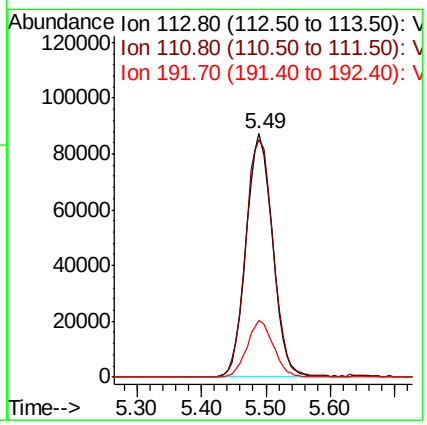




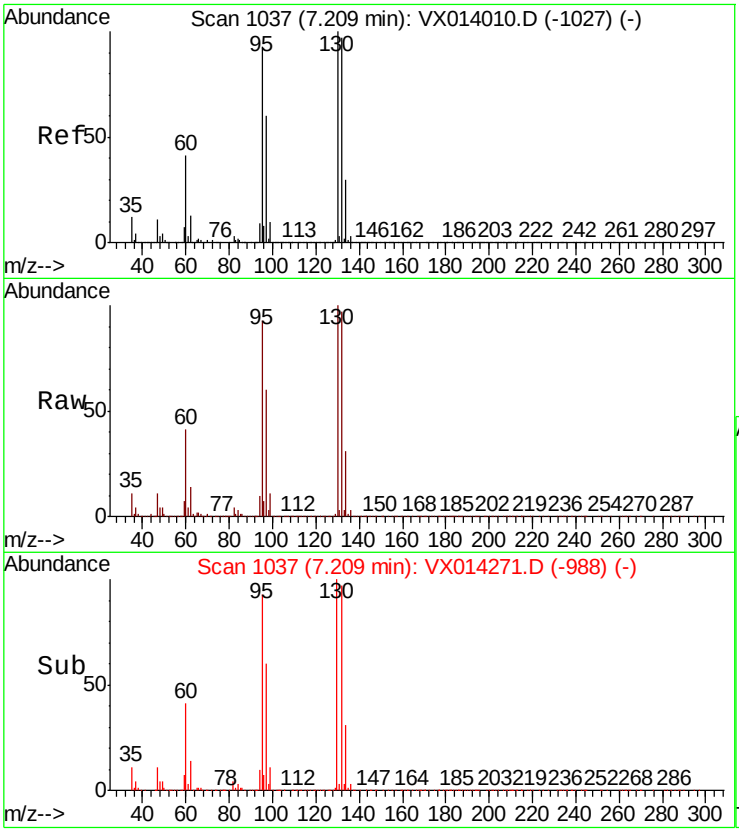
#35
Dibromofluoromethane
Concen: 48.384 ug/l
RT: 5.49 min Scan# 755
Delta R.T. 0.00 min
Lab File: VX014271.D
Acq: 26 Dec 2019 15:58

Tgt Ion:113 Resp: 245585

Ion	Ratio	Lower	Upper
113	100		
111	100.7	82.0	123.0
192	23.2	19.3	28.9



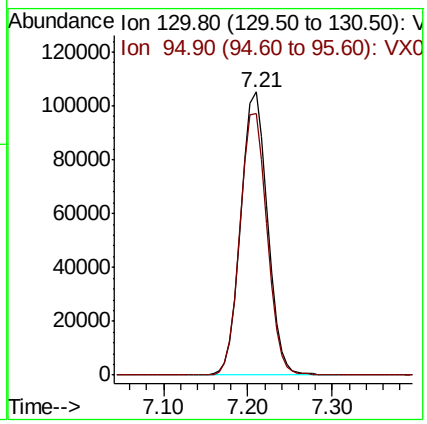
Instrument :
MSVOA_X
ClientSampleId :
992-MW-02-(23.8)

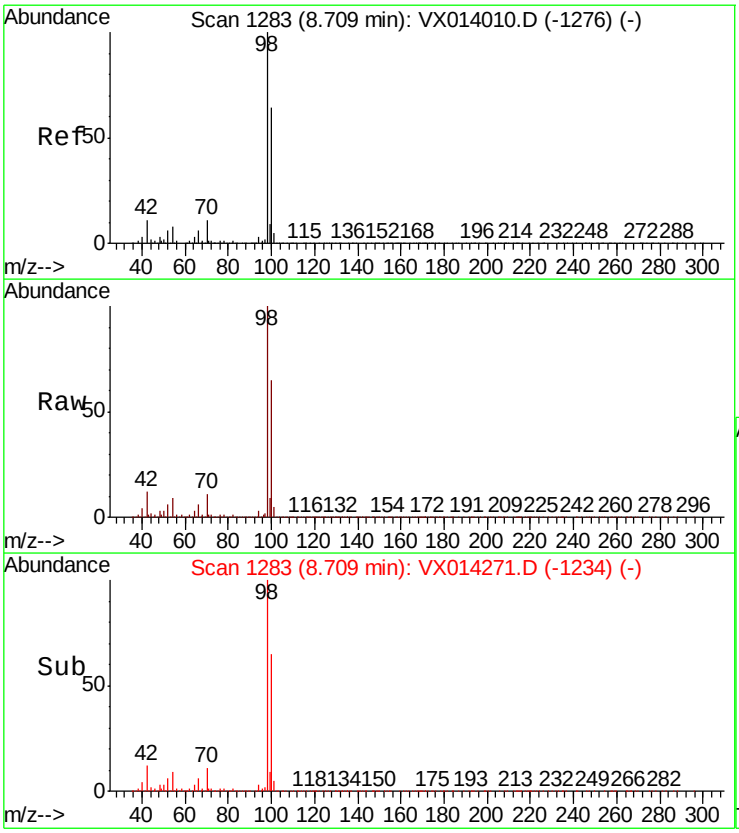


#44
Trichloroethene
Concen: 34.299 ug/l
RT: 7.21 min Scan# 1037
Delta R.T. 0.00 min
Lab File: VX014271.D
Acq: 26 Dec 2019 15:58

Tgt Ion:130 Resp: 223324

Ion	Ratio	Lower	Upper
130	100		
95	92.5	0.0	185.6

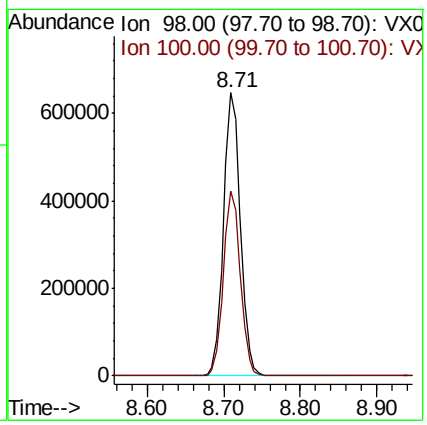




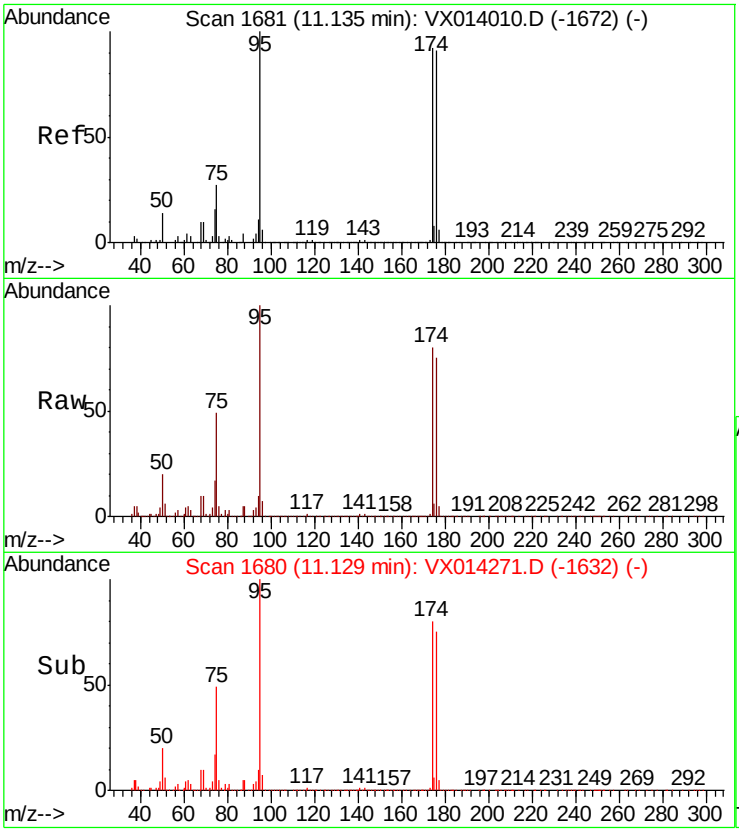
#50
Toluene-d8
Concen: 50.102 ug/l
RT: 8.71 min Scan# 1283
Delta R.T. 0.00 min
Lab File: VX014271.D
Acq: 26 Dec 2019 15:58

Tgt Ion: 98 Resp: 990079

Ion	Ratio	Lower	Upper
98	100		
100	65.7	52.9	79.3



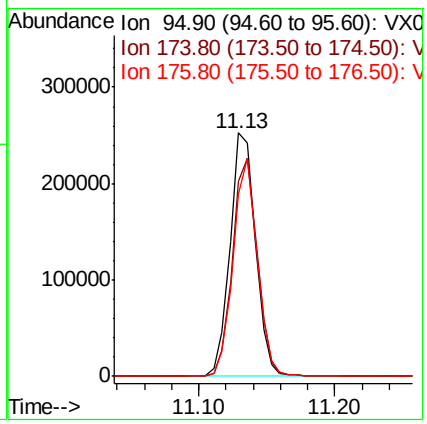
Instrument :
MSVOA_X
ClientSampleId :
992-MW-02-(23.8)

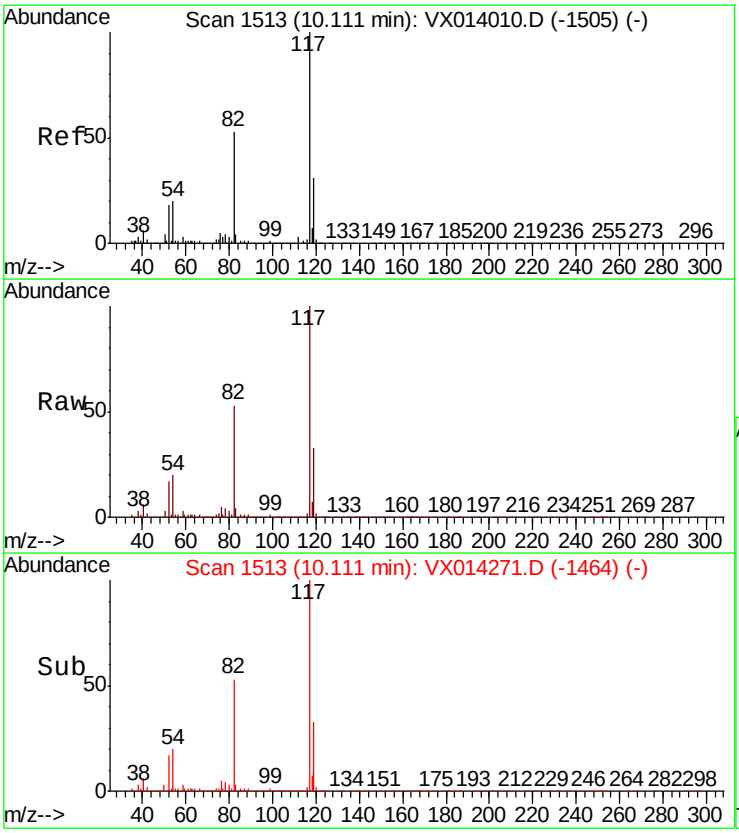


#62
4-Bromofluorobenzene
Concen: 45.531 ug/l
RT: 11.13 min Scan# 1680
Delta R.T. -0.01 min
Lab File: VX014271.D
Acq: 26 Dec 2019 15:58

Tgt Ion: 95 Resp: 328897

Ion	Ratio	Lower	Upper
95	100		
174	88.3	0.0	175.8
176	85.0	0.0	173.0

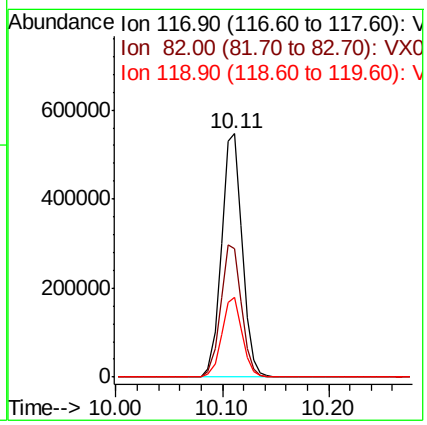




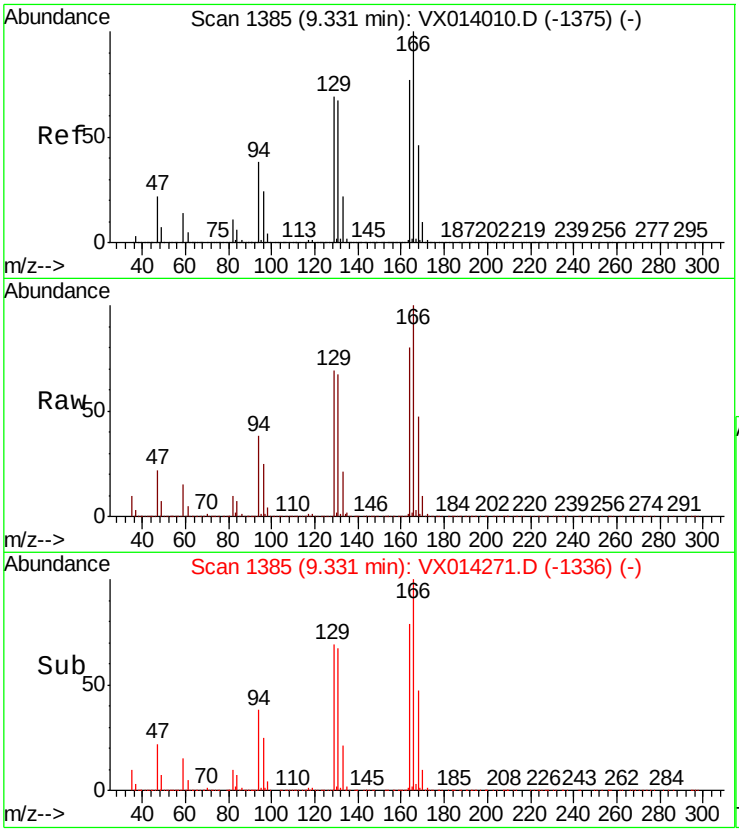
#63
Chlorobenzene-d5
Concen: 50.000 ug/l
RT: 10.11 min Scan# 1513
Delta R.T. 0.00 min
Lab File: VX014271.D
Acq: 26 Dec 2019 15:58

Tgt Ion:117 Resp: 744345

Ion	Ratio	Lower	Upper
117	100		
82	52.7	42.2	63.4
119	32.5	25.1	37.7



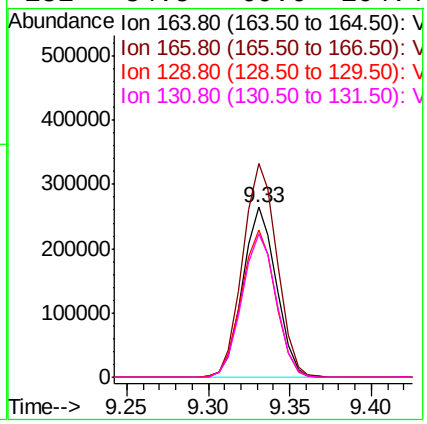
Instrument :
MSVOA_X
ClientSampleId :
992-MW-02-(23.8)

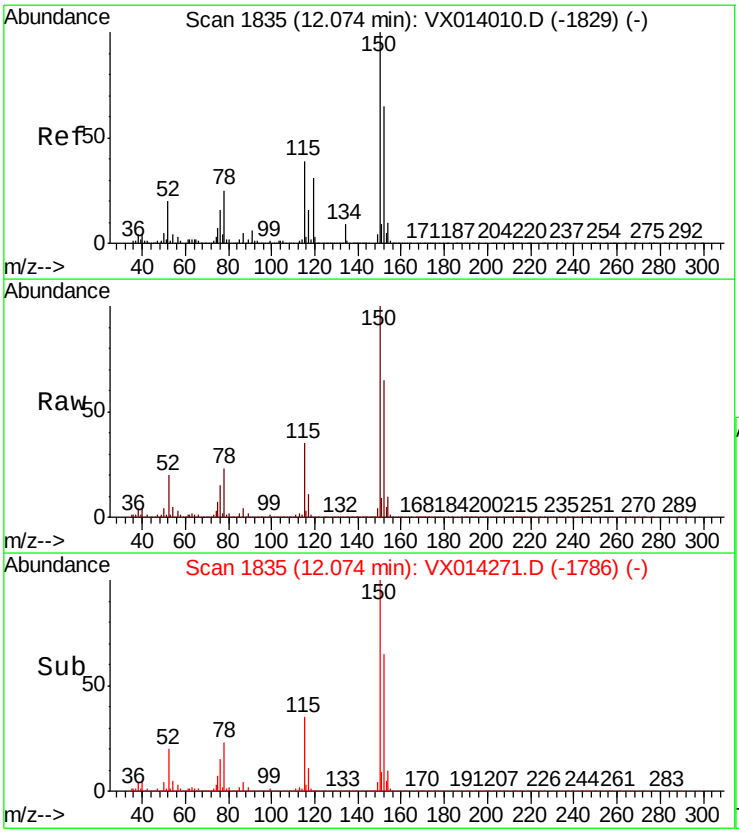


#64
Tetrachloroethene
Concen: 57.540 ug/l
RT: 9.33 min Scan# 1385
Delta R.T. 0.00 min
Lab File: VX014271.D
Acq: 26 Dec 2019 15:58

Tgt Ion:164 Resp: 378988

Ion	Ratio	Lower	Upper
164	100		
166	125.7	104.0	156.0
129	86.9	72.2	108.4
131	84.5	69.6	104.4

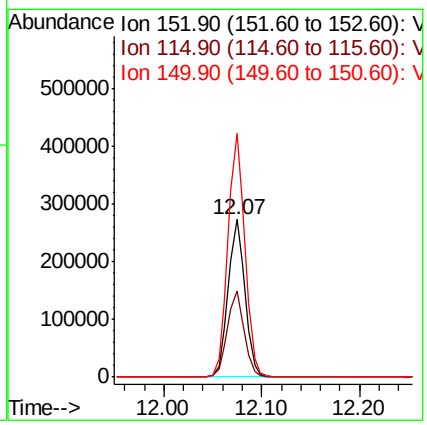




#72
1,4-Dichlorobenzene-d4
Concen: 50.000 ug/l
RT: 12.07 min Scan# 1835
Delta R.T. 0.00 min
Lab File: VX014271.D
Acq: 26 Dec 2019 15:58

Tgt Ion:152 Resp: 328519

Ion	Ratio	Lower	Upper
152	100		
115	54.3	38.3	114.9
150	154.7	0.0	345.4



LSC Area Percent Report

Data Path : Z:\VOASRV\HPCHEM1\MSVOA X\DATA\VX122619\
Data File : VX014271.D
Acq On : 26 Dec 2019 15:58
Operator : JC/SP
Sample : K6405-02
Misc : 5.0mL/MSVOA X/WATER
ALS Vial : 14 Sample Multiplier: 1

Instrument : MSVOA_X
ClientSampleId : 992-MW-02-(23.8)

Integration Parameters: RTEINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 3 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121319W.M
Title : SW846 8260

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	1.070	26	30	41	rBV	938895	1159535	42.13%	5.875%
2	1.296	64	67	73	rVB	156057	156002	5.67%	0.790%
3	1.399	81	84	90	rVB	46695	43521	1.58%	0.221%
4	1.600	109	117	120	rVB10	31263	67898	2.47%	0.344%
5	2.588	271	279	286	rBV	60251	114732	4.17%	0.581%
6	3.155	368	372	379	rVB2	17061	34218	1.24%	0.173%
7	4.588	596	607	617	rBV	361211	975928	35.46%	4.945%
8	5.490	744	755	769	rBV	279566	786350	28.57%	3.984%
9	5.655	770	782	796	rVB	514396	1447200	52.59%	7.333%
10	6.057	837	848	860	rBV	326664	866022	31.47%	4.388%
11	6.849	967	978	991	rBV	790332	1874017	68.09%	9.495%
12	7.209	1027	1037	1050	rBV	562403	1198649	43.55%	6.073%
13	8.709	1276	1283	1293	rBV	1674406	2573034	93.49%	13.037%
14	9.331	1378	1385	1393	rBV	1878861	2752110	100.00%	13.945%
15	10.105	1506	1512	1523	rBV	1568666	2171115	78.89%	11.001%
16	11.135	1675	1681	1691	rBV	1214105	1615438	58.70%	8.185%
17	12.074	1829	1835	1841	rBV	1561019	1900134	69.04%	9.628%

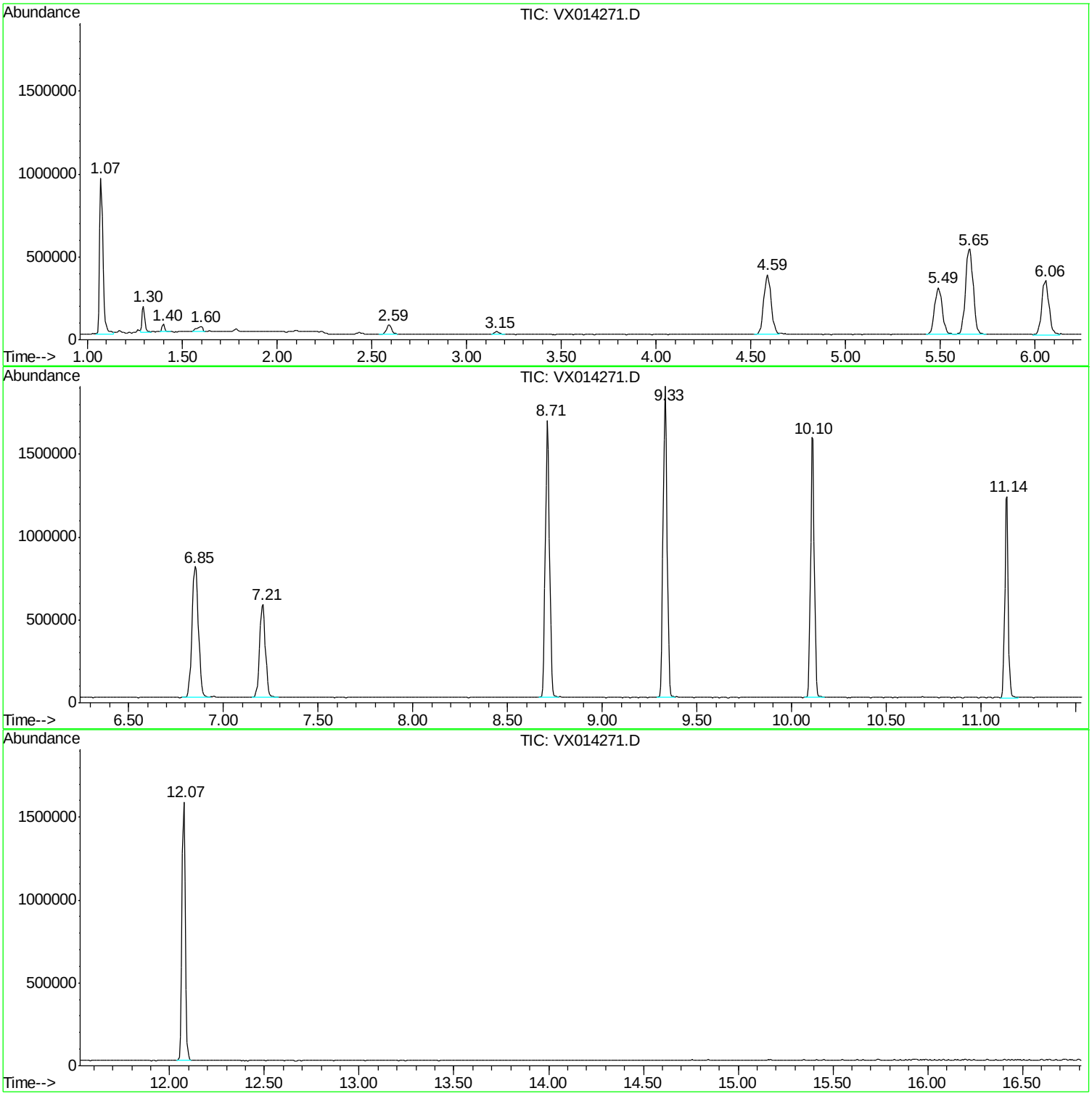
Sum of corrected areas: 19735903

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX122619\
Data File : VX014271.D
Acq On : 26 Dec 2019 15:58
Operator : JC/SP
Sample : K6405-02
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 14 Sample Multiplier: 1

Instrument : MSVOA_X
ClientSampleId : 992-MW-02-(23.8)

Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121319W.M
Quant Title : SW846 8260

TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P



Library Search Compound Report

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX122619\
Data File : VX014271.D
Acq On : 26 Dec 2019 15:58
Operator : JC/SP
Sample : K6405-02
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 14 Sample Multiplier: 1

Instrument : MSVOA_X
ClientSampleId : 992-MW-02-(23.8)

Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121319W.M
Quant Title : SW846 8260

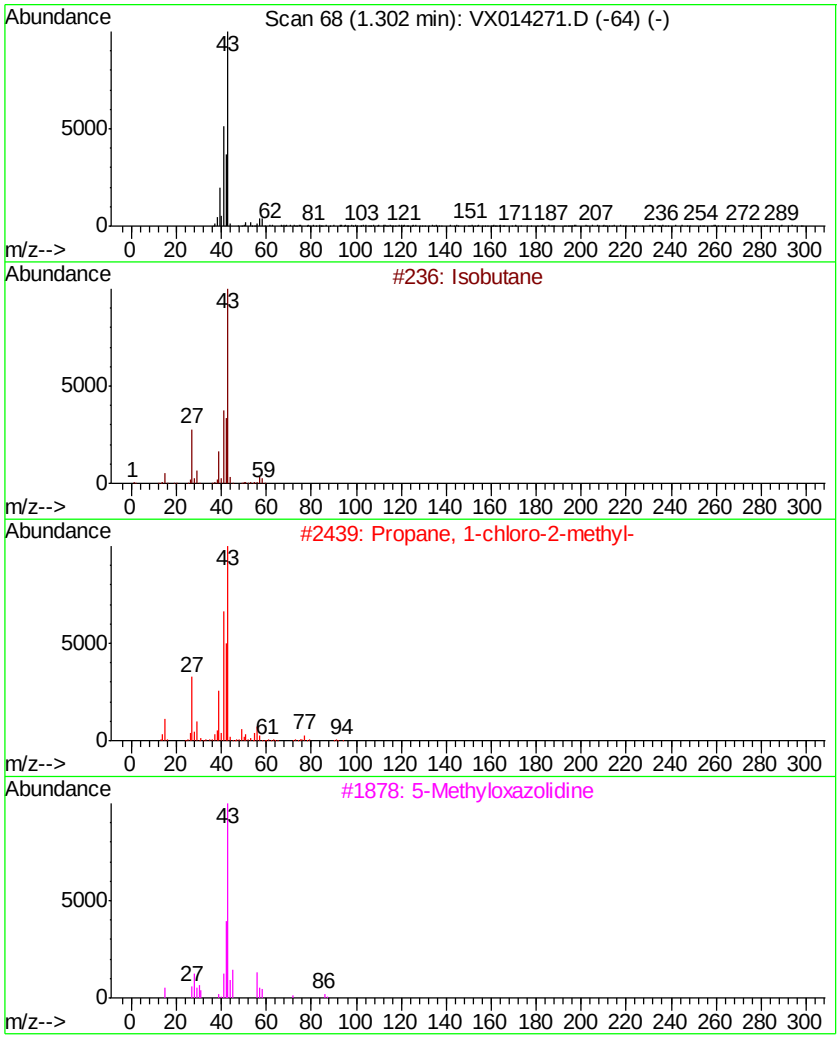
TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

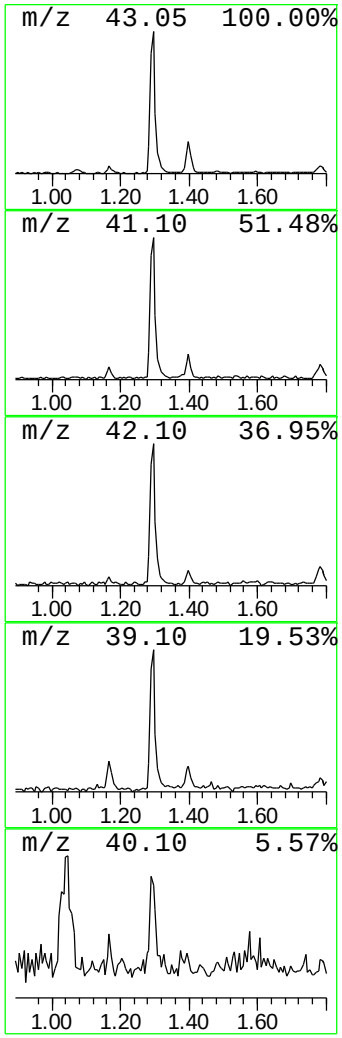
****

Peak Number 2 Isobutane Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
1.30	5.39 ug/l	156002	Pentafluorobenzene	5.65

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Isobutane	58	C4H10	000075-28-5	80
2	Propane, 1-chloro-2-methyl-	92	C4H9Cl	000513-36-0	50
3	5-Methyloxazolidine	87	C4H9NO	058328-22-6	9
4	Butanal, 2,2-dimethyl-	100	C6H12O	002094-75-9	9
5	Isopropylsulfonyl chloride	142	C3H7ClO2S	010147-37-2	9





Instrument :
MSVOA_X
ClientSampleId :
992-MW-02-(23.8)

Tentatively Identified Compound (LSC) summary

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX122619\
Data File : VX014271.D
Acq On : 26 Dec 2019 15:58
Operator : JC/SP
Sample : K6405-02
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 14 Sample Multiplier: 1

Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121319W.M
Quant Title : SW846 8260

TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

					Internal Standard			
TIC Top Hit name	RT	EstConc	Units	Response	#	RT	Resp	Conc
Isobutane	1.30	5.4	ug/l	156002	1	5.65	1447200	50.0

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Day Environmental, Inc.	Date Collected:	12/20/19
Project:	Andrew St. RI	Date Received:	12/21/19
Client Sample ID:	993-MW-03A-(17)	SDG No.:	K6405
Lab Sample ID:	K6405-03	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	DB-624UI ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX014249.D	1		12/24/19 16:48	VX122419

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
75-71-8	Dichlorodifluoromethane	1.00	U	0.22	1.00	ug/L
74-87-3	Chloromethane	1.00	U	0.30	1.00	ug/L
75-01-4	Vinyl Chloride	1.00	U	0.16	1.00	ug/L
74-83-9	Bromomethane	5.00	U	2.10	5.00	ug/L
75-00-3	Chloroethane	1.00	U	0.34	1.00	ug/L
75-69-4	Trichlorofluoromethane	1.00	U	0.16	1.00	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	1.00	U	0.21	1.00	ug/L
75-35-4	1,1-Dichloroethene	1.00	U	0.18	1.00	ug/L
67-64-1	Acetone	3.10	J	0.90	5.00	ug/L
75-15-0	Carbon Disulfide	1.00	U	0.23	1.00	ug/L
1634-04-4	Methyl tert-butyl Ether	1.00	U	0.070	1.00	ug/L
79-20-9	Methyl Acetate	1.00	U	0.65	1.00	ug/L
75-09-2	Methylene Chloride	1.00	U	0.33	1.00	ug/L
156-60-5	trans-1,2-Dichloroethene	1.00	U	0.24	1.00	ug/L
75-34-3	1,1-Dichloroethane	1.00	U	0.17	1.00	ug/L
110-82-7	Cyclohexane	5.00	U	1.20	5.00	ug/L
78-93-3	2-Butanone	5.00	U	0.71	5.00	ug/L
56-23-5	Carbon Tetrachloride	1.00	U	0.22	1.00	ug/L
156-59-2	cis-1,2-Dichloroethene	29.4		0.30	1.00	ug/L
74-97-5	Bromochloromethane	1.00	U	0.31	1.00	ug/L
67-66-3	Chloroform	1.00	U	0.14	1.00	ug/L
71-55-6	1,1,1-Trichloroethane	1.00	U	0.12	1.00	ug/L
108-87-2	Methylcyclohexane	1.00	U	0.17	1.00	ug/L
71-43-2	Benzene	1.00	U	0.10	1.00	ug/L
107-06-2	1,2-Dichloroethane	1.00	U	0.13	1.00	ug/L
79-01-6	Trichloroethene	34.0		0.27	1.00	ug/L
78-87-5	1,2-Dichloropropane	1.00	U	0.14	1.00	ug/L
75-27-4	Bromodichloromethane	1.00	U	0.10	1.00	ug/L
108-10-1	4-Methyl-2-Pentanone	5.00	U	0.85	5.00	ug/L
108-88-3	Toluene	1.00	U	0.12	1.00	ug/L
10061-02-6	t-1,3-Dichloropropene	1.00	U	0.19	1.00	ug/L
10061-01-5	cis-1,3-Dichloropropene	1.00	U	0.16	1.00	ug/L

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Day Environmental, Inc.	Date Collected:	12/20/19
Project:	Andrew St. RI	Date Received:	12/21/19
Client Sample ID:	993-MW-03A-(17)	SDG No.:	K6405
Lab Sample ID:	K6405-03	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	DB-624UI ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX014249.D	1		12/24/19 16:48	VX122419

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
79-00-5	1,1,2-Trichloroethane	1.00	U	0.12	1.00	ug/L
591-78-6	2-Hexanone	5.00	U	1.40	5.00	ug/L
124-48-1	Dibromochloromethane	1.00	U	0.16	1.00	ug/L
106-93-4	1,2-Dibromoethane	1.00	U	0.14	1.00	ug/L
127-18-4	Tetrachloroethene	300	E	0.15	1.00	ug/L
108-90-7	Chlorobenzene	1.00	U	0.080	1.00	ug/L
100-41-4	Ethyl Benzene	1.00	U	0.080	1.00	ug/L
179601-23-1	m/p-Xylenes	2.00	U	0.20	2.00	ug/L
95-47-6	o-Xylene	1.00	U	0.13	1.00	ug/L
100-42-5	Styrene	1.00	U	0.11	1.00	ug/L
75-25-2	Bromoform	1.00	U	0.15	1.00	ug/L
98-82-8	Isopropylbenzene	1.00	U	0.13	1.00	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	1.00	U	0.15	1.00	ug/L
541-73-1	1,3-Dichlorobenzene	1.00	U	0.14	1.00	ug/L
106-46-7	1,4-Dichlorobenzene	1.00	U	0.20	1.00	ug/L
95-50-1	1,2-Dichlorobenzene	1.00	U	0.12	1.00	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	1.00	U	0.54	1.00	ug/L
120-82-1	1,2,4-Trichlorobenzene	1.00	U	0.24	1.00	ug/L
87-61-6	1,2,3-Trichlorobenzene	1.00	U	0.26	1.00	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	48.2		61 - 141	96%	SPK: 50
1868-53-7	Dibromofluoromethane	48.7		69 - 133	97%	SPK: 50
2037-26-5	Toluene-d8	50.2		65 - 126	100%	SPK: 50
460-00-4	4-Bromofluorobenzene	46.5		58 - 135	93%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	554000	5.65			
540-36-3	1,4-Difluorobenzene	852000	6.85			
3114-55-4	Chlorobenzene-d5	755000	10.11			
3855-82-1	1,4-Dichlorobenzene-d4	336000	12.07			

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Day Environmental, Inc.	Date Collected:	12/20/19
Project:	Andrew St. RI	Date Received:	12/21/19
Client Sample ID:	993-MW-03A-(17)	SDG No.:	K6405
Lab Sample ID:	K6405-03	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	DB-624UI ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX014249.D	1		12/24/19 16:48	VX122419

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit
A = Aldol-Condensation Reaction Products

Quantitation Report (LSC Reviewed)

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX122419\
Data File : VX014249.D
Acq On : 24 Dec 2019 16:48
Operator : JC/SP
Sample : K6405-03
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 19 Sample Multiplier: 1

Instrument : MSVOA_X
ClientSampleId : 993-MW-03A-(17)

Quant Time: Dec 25 07:43:50 2019
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121319W.M
Quant Title : SW846 8260
QLast Update : Tue Dec 17 03:01:07 2019
Response via : Initial Calibration

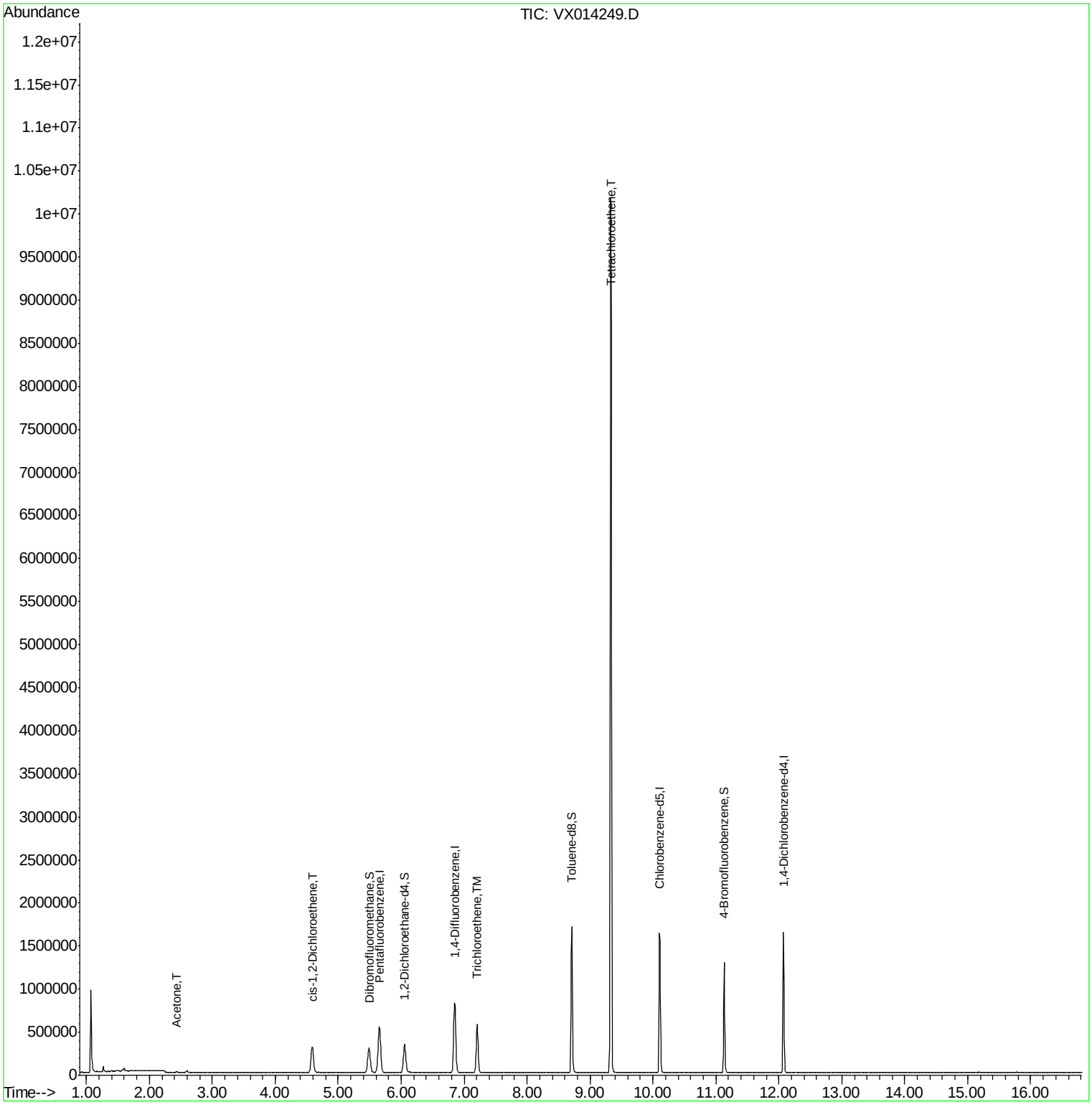
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	5.65	168	554049	50.00	ug/l	0.00
34) 1,4-Difluorobenzene	6.85	114	852225	50.00	ug/l	0.00
63) Chlorobenzene-d5	10.11	117	755465	50.00	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	12.07	152	335833	50.00	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	6.05	65	302385	48.16	ug/l	0.00
Spiked Amount 50.000			Recovery =	96.32%		
35) Dibromofluoromethane	5.49	113	252118	48.67	ug/l	0.00
Spiked Amount 50.000			Recovery =	97.34%		
50) Toluene-d8	8.71	98	1013125	50.23	ug/l	0.00
Spiked Amount 50.000			Recovery =	100.46%		
62) 4-Bromofluorobenzene	11.13	95	342652	46.48	ug/l	0.00
Spiked Amount 50.000			Recovery =	92.96%		
Target Compounds						Qvalue
16) Acetone	2.43	43	12767	3.132	ug/l	99
27) cis-1,2-Dichloroethene	4.59	96	195298	29.410	ug/l	91
44) Trichloroethene	7.21	130	226079	34.019	ug/l	99
64) Tetrachloroethene	9.33	164	2005269	299.969	ug/l	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

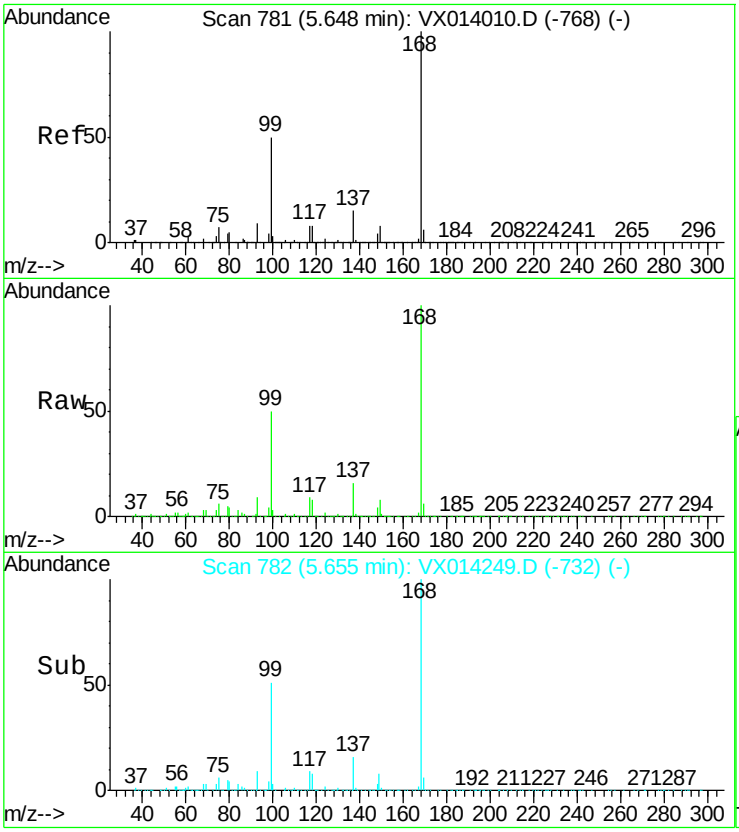
Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX122419\
Data File : VX014249.D
Acq On : 24 Dec 2019 16:48
Operator : JC/SP
Sample : K6405-03
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 19 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
993-MW-03A-(17)

Quant Time: Dec 25 07:43:50 2019
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121319W.M
Quant Title : SW846 8260
QLast Update : Tue Dec 17 03:01:07 2019
Response via : Initial Calibration



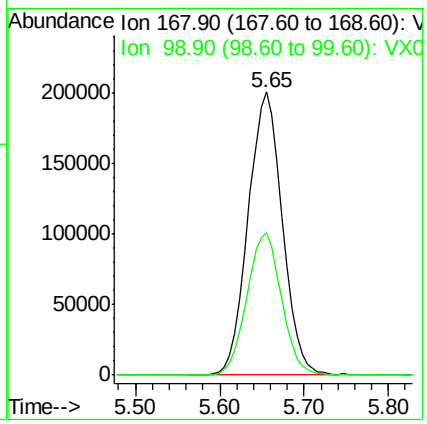
Instrument :
MSVOA_X
ClientSampleId :
993-MW-03A-(17)

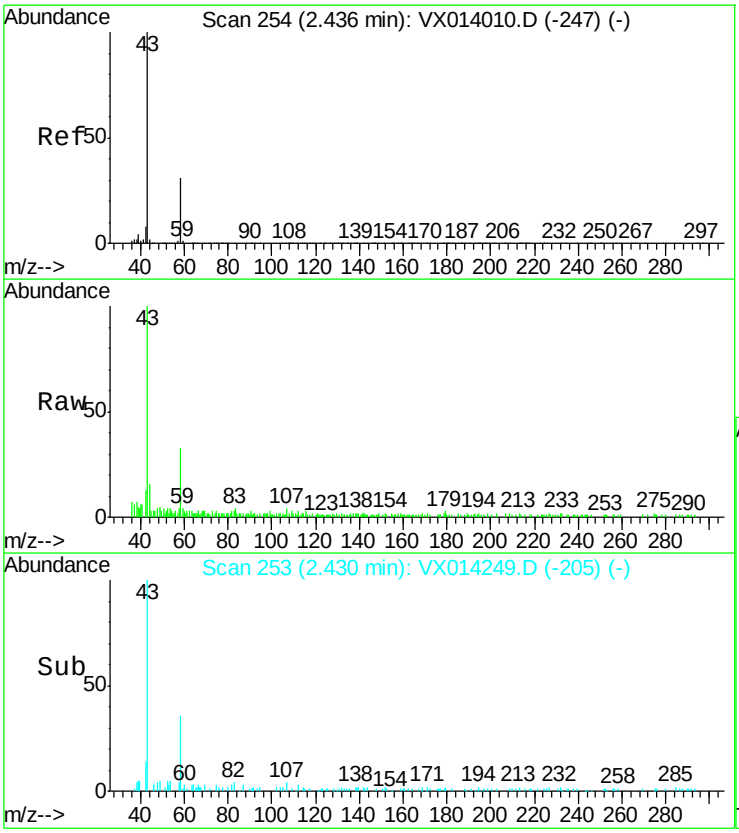


#1
Pentafluorobenzene
Concen: 50.000 ug/l
RT: 5.65 min Scan# 782
Delta R.T. 0.01 min
Lab File: VX014249.D
Acq: 24 Dec 2019 16:48

Tgt Ion:168 Resp: 554049

Ion	Ratio	Lower	Upper
168	100		
99	50.3	40.3	60.5

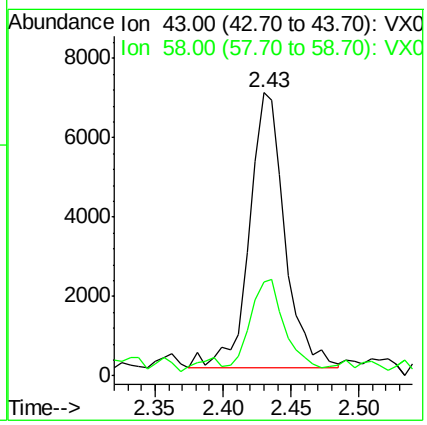




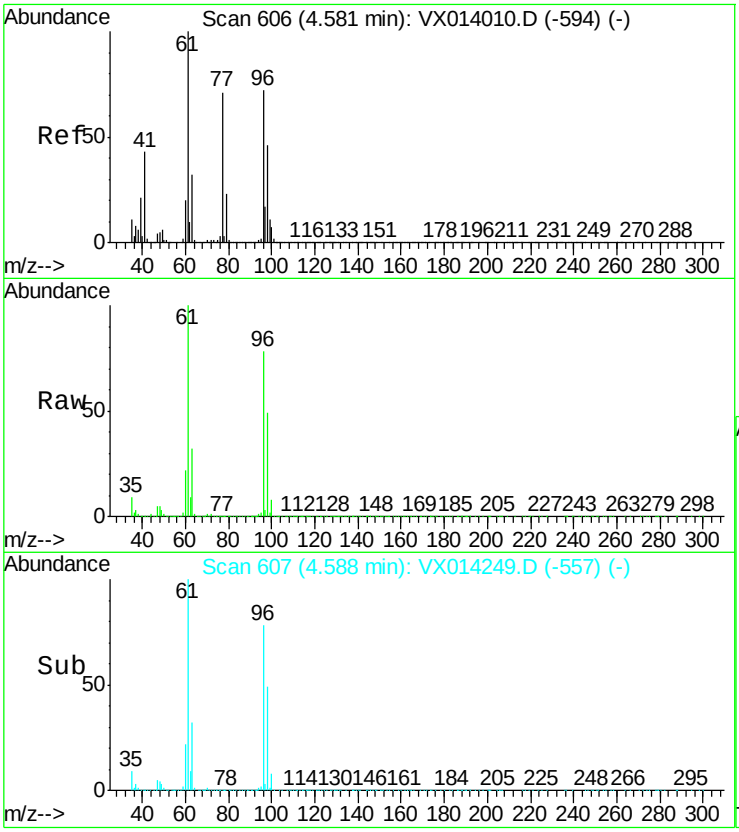
#16
Acetone
Concen: 3.132 ug/l
RT: 2.43 min Scan# 253
Delta R.T. -0.01 min
Lab File: VX014249.D
Acq: 24 Dec 2019 16:48

Tgt Ion: 43 Resp: 12767

Ion	Ratio	Lower	Upper
43	100		
58	30.4	24.9	37.3



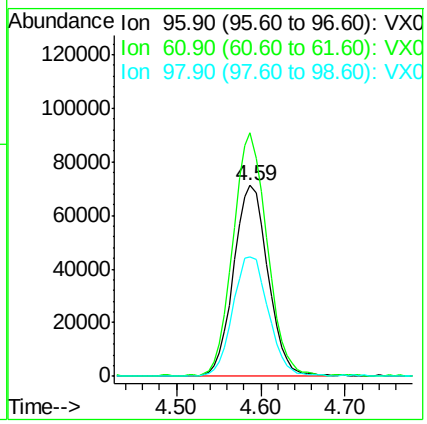
Instrument :
MSVOA_X
ClientSampleId :
993-MW-03A-(17)

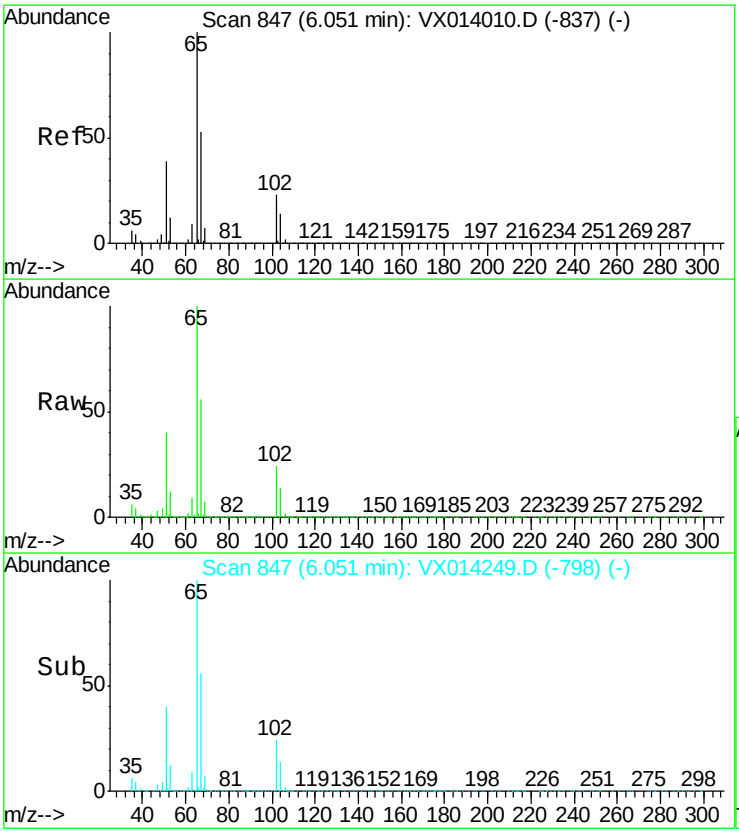


#27
cis-1,2-Dichloroethene
Concen: 29.410 ug/l
RT: 4.59 min Scan# 607
Delta R.T. 0.01 min
Lab File: VX014249.D
Acq: 24 Dec 2019 16:48

Tgt Ion: 96 Resp: 195298

Ion	Ratio	Lower	Upper
96	100		
61	127.9	0.0	288.4
98	65.1	0.0	129.6

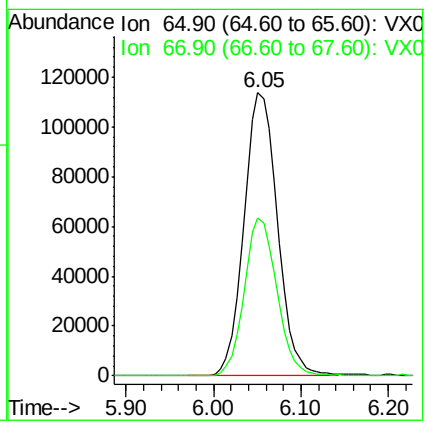




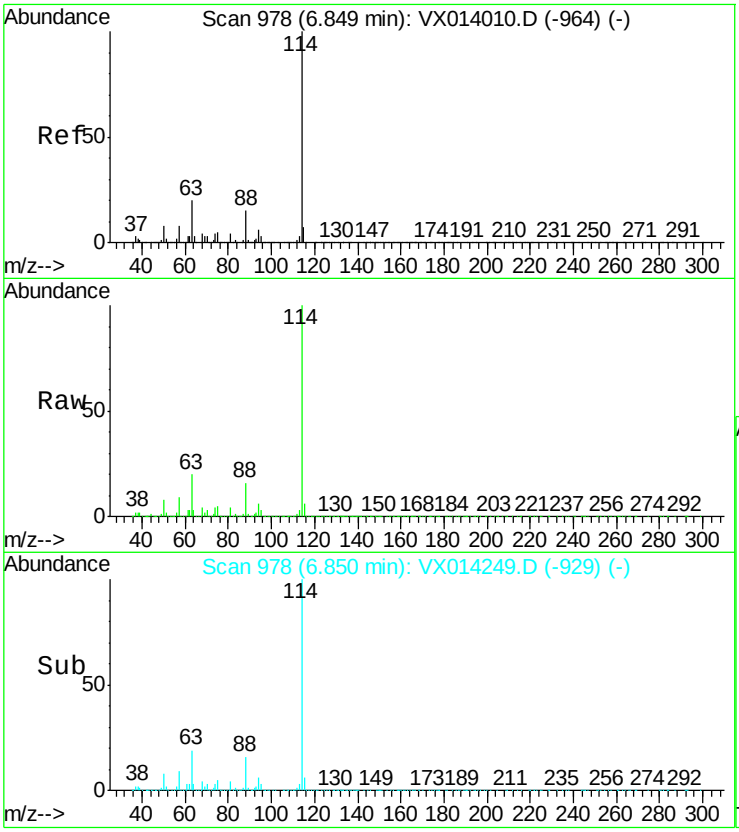
#33
1,2-Dichloroethane-d4
Concen: 48.155 ug/l
RT: 6.05 min Scan# 847
Delta R.T. 0.00 min
Lab File: VX014249.D
Acq: 24 Dec 2019 16:48

Tgt Ion: 65 Resp: 302385

Ion	Ratio	Lower	Upper
65	100		
67	53.8	0.0	106.4



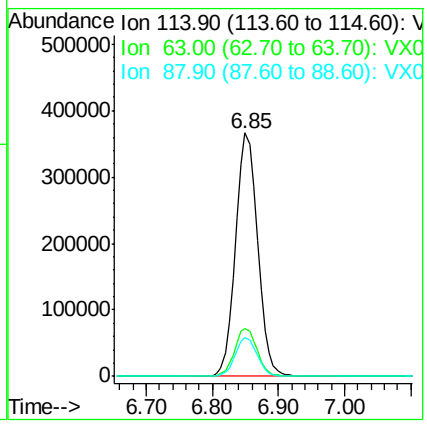
Instrument :
MSVOA_X
ClientSampleId :
993-MW-03A-(17)

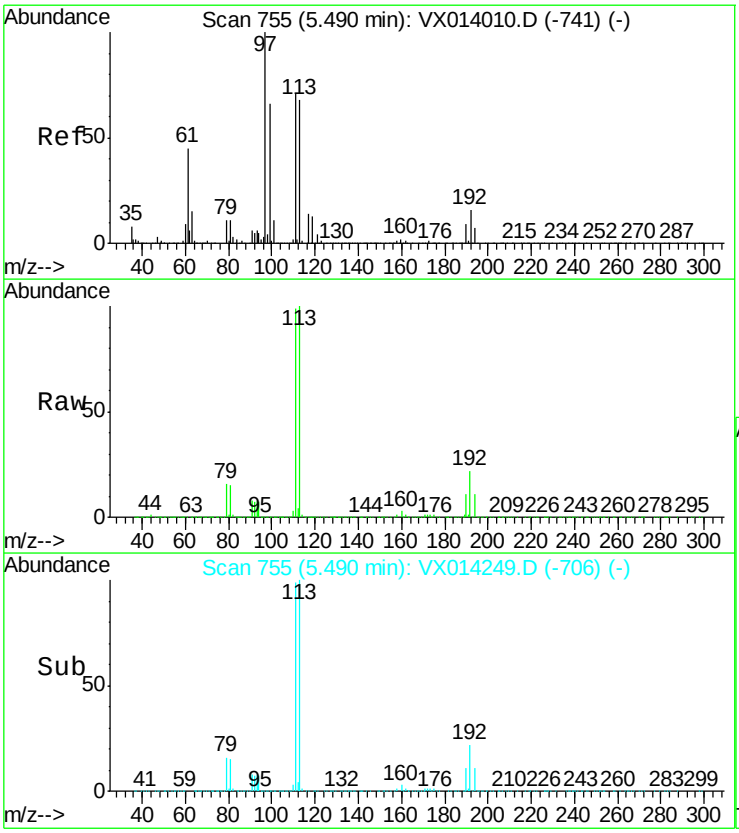


#34
1,4-Difluorobenzene
Concen: 50.000 ug/l
RT: 6.85 min Scan# 978
Delta R.T. 0.00 min
Lab File: VX014249.D
Acq: 24 Dec 2019 16:48

Tgt Ion:114 Resp: 852225

Ion	Ratio	Lower	Upper
114	100		
63	19.4	0.0	40.8
88	15.8	0.0	30.4

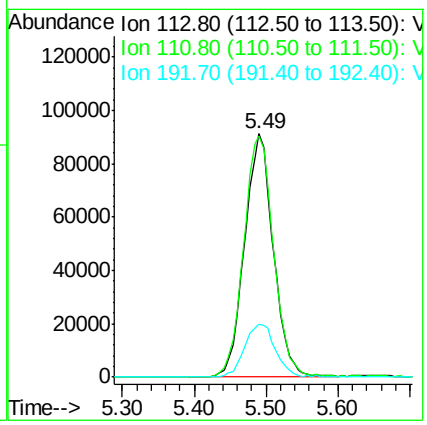




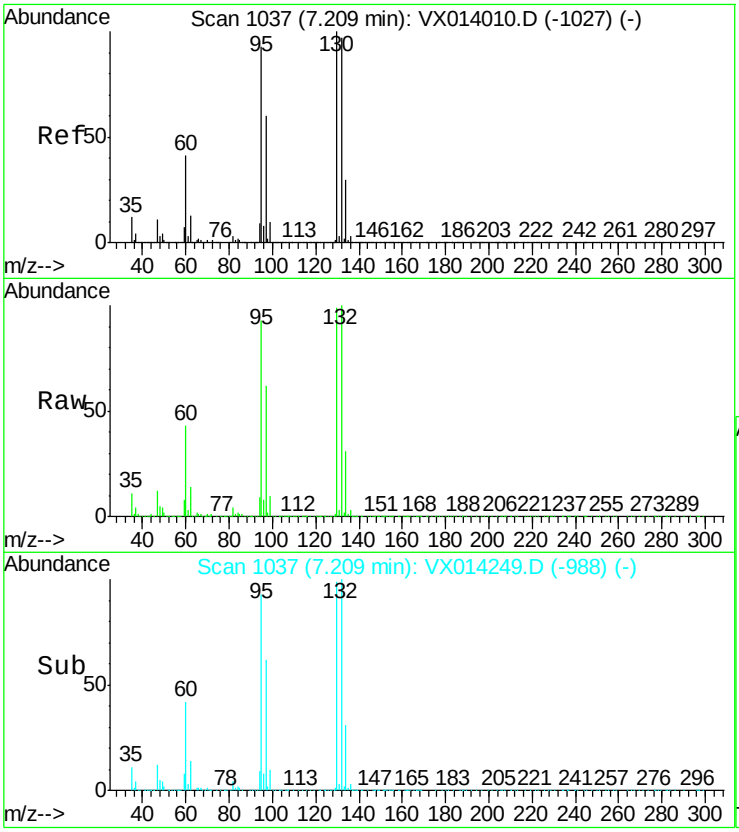
#35
Dibromofluoromethane
Concen: 48.666 ug/l
RT: 5.49 min Scan# 755
Delta R.T. 0.00 min
Lab File: VX014249.D
Acq: 24 Dec 2019 16:48

Tgt Ion:113 Resp: 252118

Ion	Ratio	Lower	Upper
113	100		
111	103.1	82.0	123.0
192	23.5	19.3	28.9



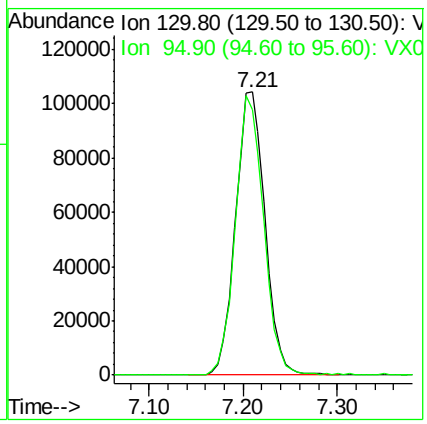
Instrument :
MSVOA_X
ClientSampleId :
993-MW-03A-(17)

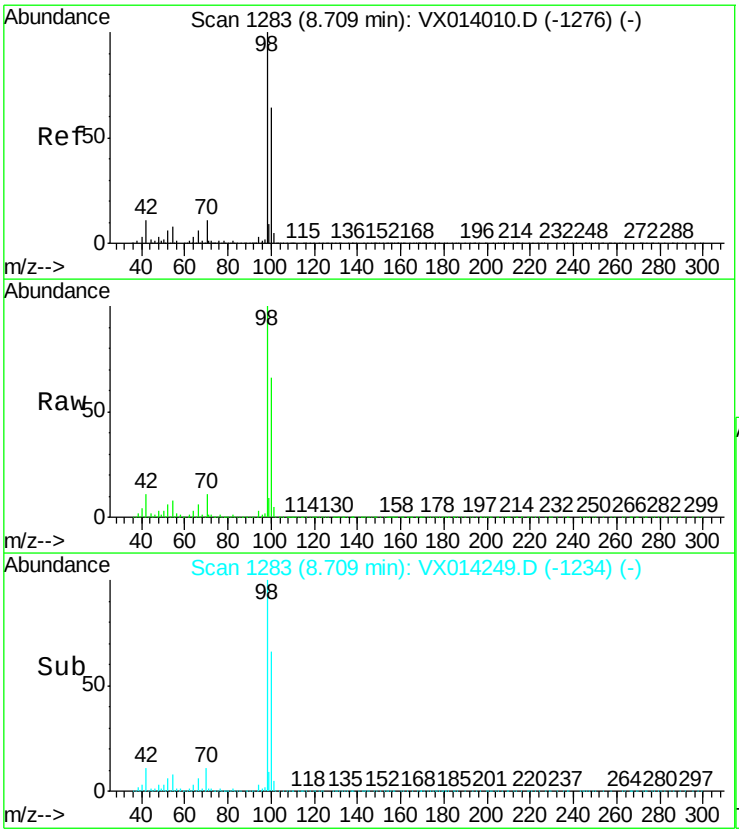


#44
Trichloroethene
Concen: 34.019 ug/l
RT: 7.21 min Scan# 1037
Delta R.T. 0.00 min
Lab File: VX014249.D
Acq: 24 Dec 2019 16:48

Tgt Ion:130 Resp: 226079

Ion	Ratio	Lower	Upper
130	100		
95	93.7	0.0	185.6

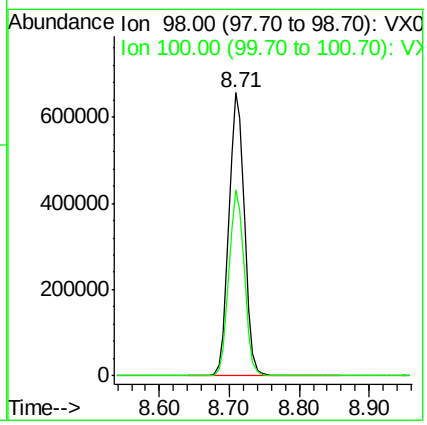




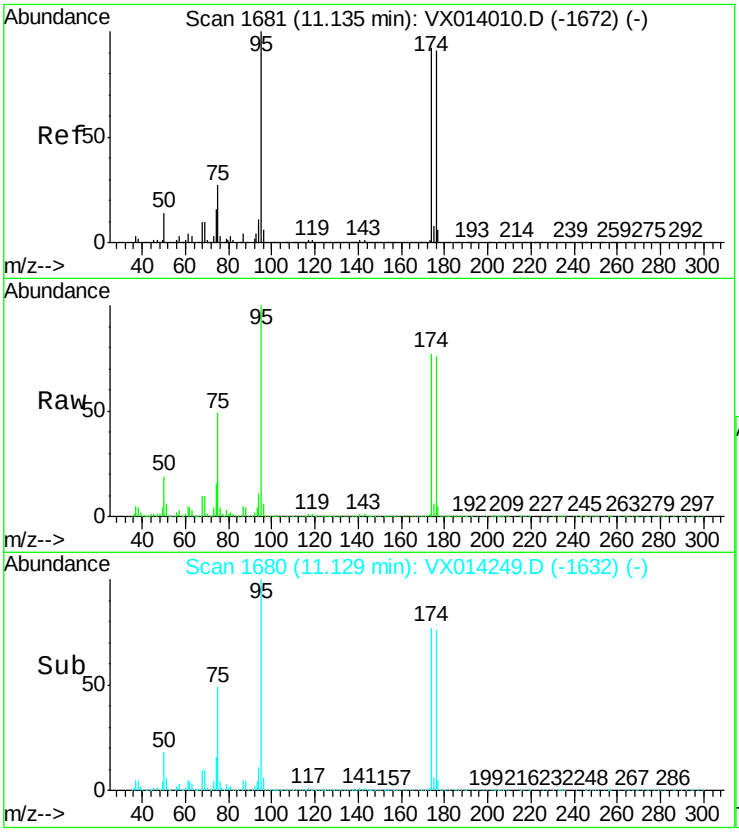
#50
Toluene-d8
Concen: 50.231 ug/l
RT: 8.71 min Scan# 1283
Delta R.T. 0.00 min
Lab File: VX014249.D
Acq: 24 Dec 2019 16:48

Tgt Ion: 98 Resp: 1013125

Ion	Ratio	Lower	Upper
98	100		
100	65.2	52.9	79.3



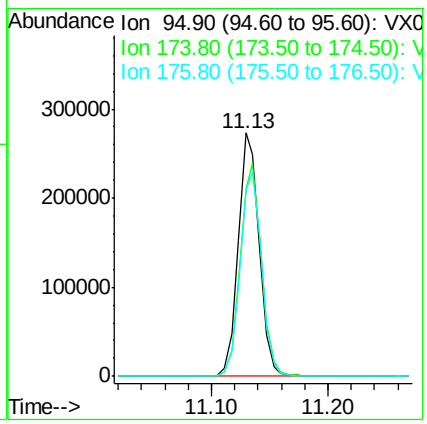
Instrument :
MSVOA_X
ClientSampleId :
993-MW-03A-(17)

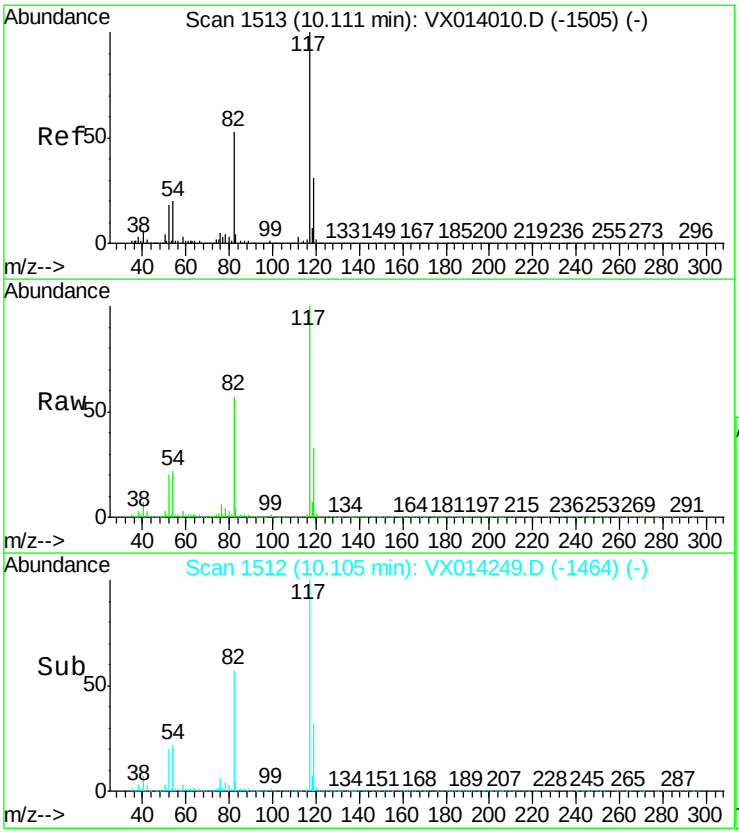


#62
4-Bromofluorobenzene
Concen: 46.475 ug/l
RT: 11.13 min Scan# 1680
Delta R.T. -0.01 min
Lab File: VX014249.D
Acq: 24 Dec 2019 16:48

Tgt Ion: 95 Resp: 342652

Ion	Ratio	Lower	Upper
95	100		
174	88.5	0.0	175.8
176	85.6	0.0	173.0

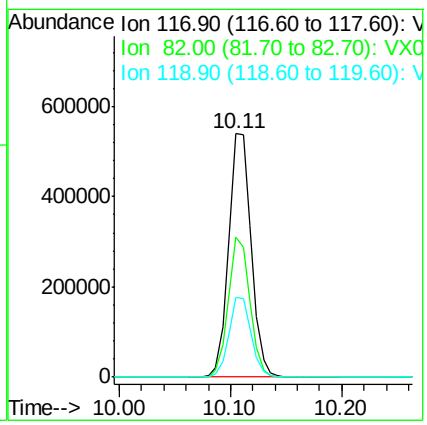




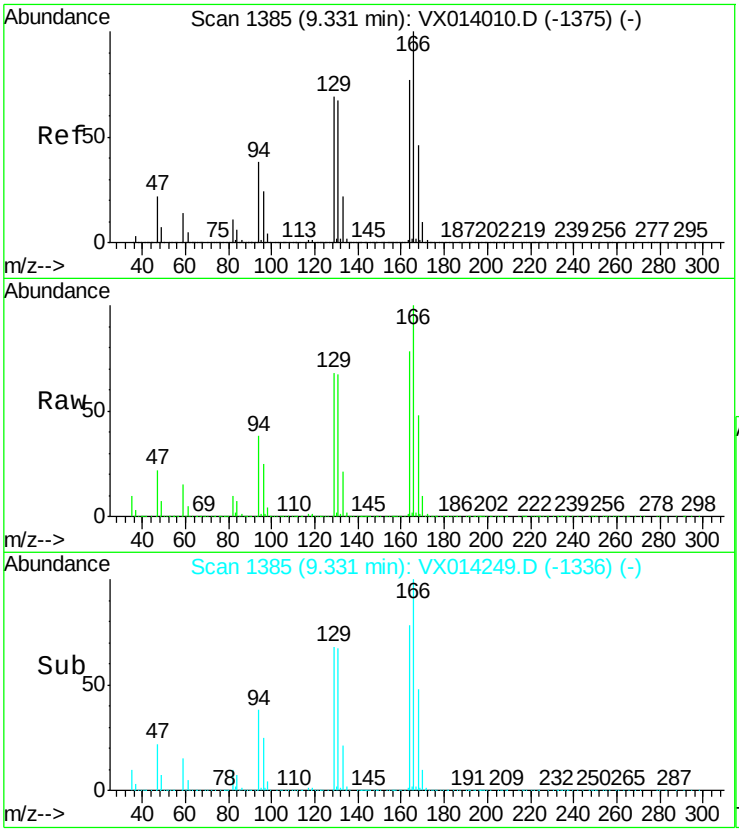
#63
Chlorobenzene-d5
Concen: 50.000 ug/l
RT: 10.11 min Scan# 1512
Delta R.T. -0.01 min
Lab File: VX014249.D
Acq: 24 Dec 2019 16:48

Tgt Ion:117 Resp: 755465

Ion	Ratio	Lower	Upper
117	100		
82	57.4	42.2	63.4
119	32.5	25.1	37.7



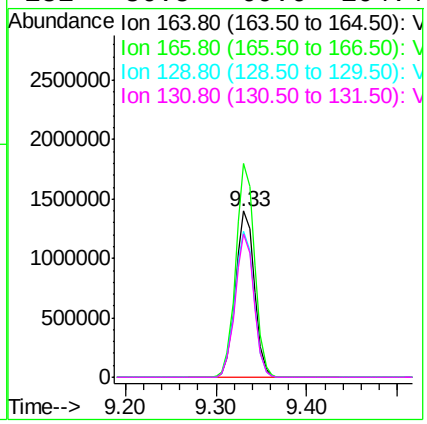
Instrument :
MSVOA_X
ClientSampleId :
993-MW-03A-(17)

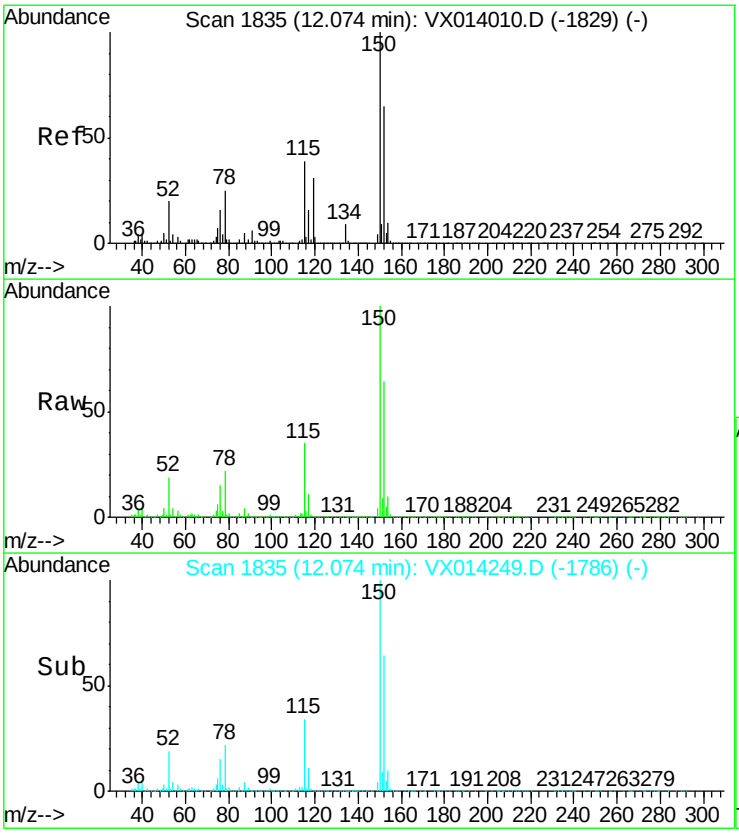


#64
Tetrachloroethene
Concen: 299.969 ug/l
RT: 9.33 min Scan# 1385
Delta R.T. 0.00 min
Lab File: VX014249.D
Acq: 24 Dec 2019 16:48

Tgt Ion:164 Resp: 2005269

Ion	Ratio	Lower	Upper
164	100		
166	128.6	104.0	156.0
129	87.7	72.2	108.4
131	86.5	69.6	104.4

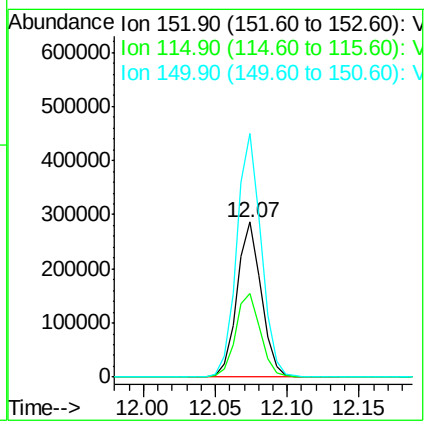




#72
1,4-Dichlorobenzene-d4
Concen: 50.000 ug/l
RT: 12.07 min Scan# 1835
Delta R.T. 0.00 min
Lab File: VX014249.D
Acq: 24 Dec 2019 16:48

Tgt Ion:152 Resp: 335833

Ion	Ratio	Lower	Upper
152	100		
115	56.2	38.3	114.9
150	159.1	0.0	345.4



LSC Area Percent Report

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX122419\
Data File : VX014249.D
Acq On : 24 Dec 2019 16:48
Operator : JC/SP
Sample : K6405-03
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 19 Sample Multiplier: 1

Instrument : MSVOA_X
ClientSampleId : 993-MW-03A-(17)

Integration Parameters: RTEINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 3 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121319W.M
Title : SW846 8260

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	1.070	26	30	43	rBV	952055	1188533	8.21%	3.803%
2	4.588	597	607	622	rBV	302157	830246	5.73%	2.657%
3	5.490	745	755	767	rBV	292472	820558	5.67%	2.626%
4	5.655	769	782	795	rVB	533439	1489860	10.29%	4.768%
5	6.057	838	848	859	rBV	329695	872182	6.02%	2.791%
6	6.850	966	978	989	rBV	816565	1904241	13.15%	6.094%
7	7.209	1029	1037	1047	rBV	569036	1208725	8.35%	3.868%
8	8.709	1277	1283	1293	rBV	1692648	2599387	17.95%	8.318%
9	9.331	1378	1385	1393	rBV	10151664	14479754	100.00%	46.337%
10	10.105	1507	1512	1524	rBV	1622042	2209704	15.26%	7.071%
11	11.129	1675	1680	1689	rVB	1278682	1671173	11.54%	5.348%
12	12.074	1829	1835	1843	rBV	1633436	1974595	13.64%	6.319%

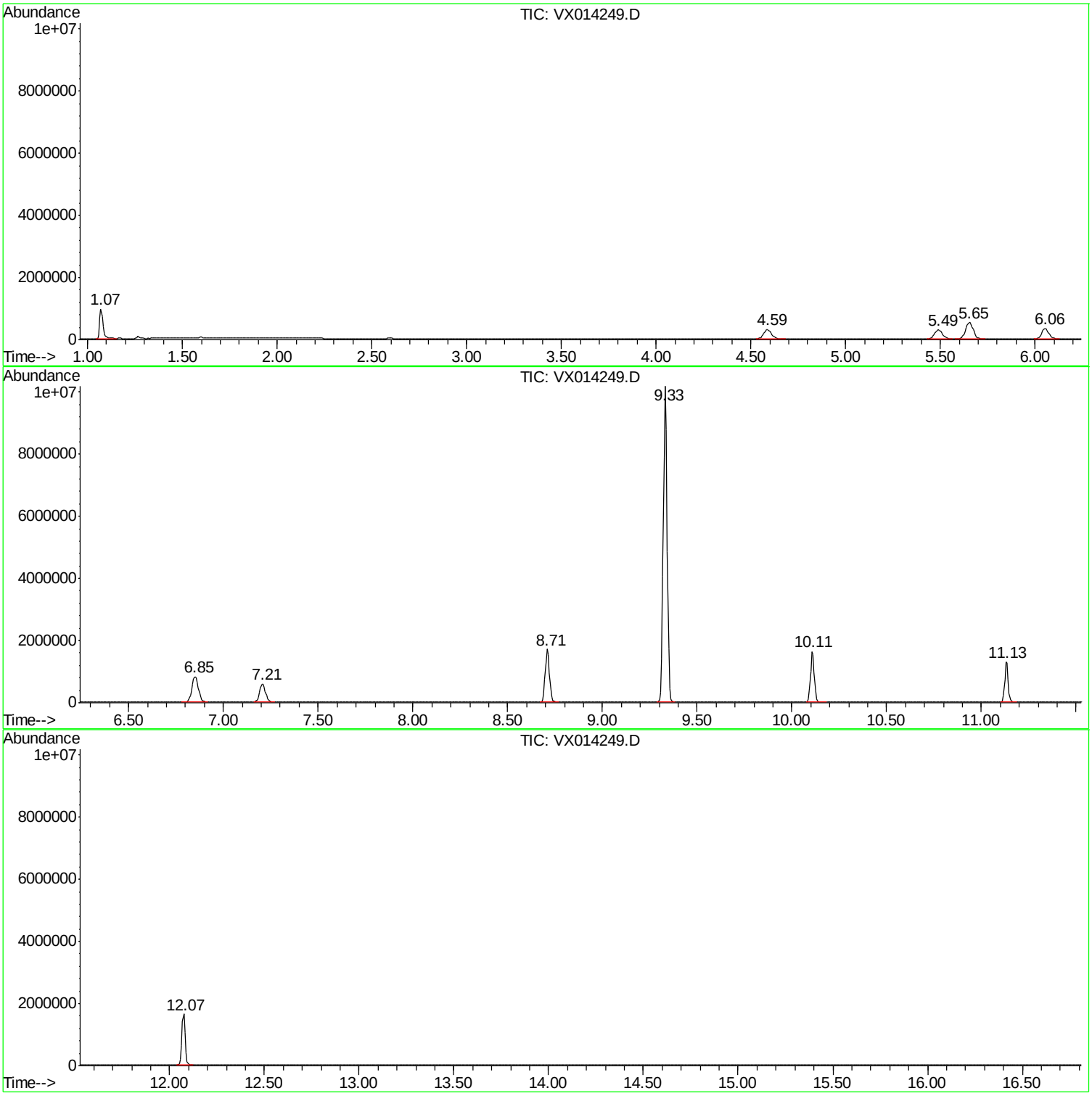
Sum of corrected areas: 31248958

Data Path : Z:\VOASRV\HPCHEM1\MSVOA X\DATA\VX122419\
Data File : VX014249.D
Acq On : 24 Dec 2019 16:48
Operator : JC/SP
Sample : K6405-03
Misc : 5.0mL/MSVOA X/WATER
ALS Vial : 19 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
993-MW-03A-(17)

Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121319W.M
Quant Title : SW846 8260

TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P



Library Search Compound Report

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX122419\
Data File : VX014249.D
Acq On : 24 Dec 2019 16:48
Operator : JC/SP
Sample : K6405-03
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 19 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
993-MW-03A-(17)

Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121319W.M
Quant Title : SW846 8260

TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

No Library Search Compounds Detected

****

Tentatively Identified Compound (LSC) summary

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX122419\
Data File : VX014249.D
Acq On : 24 Dec 2019 16:48
Operator : JC/SP
Sample : K6405-03
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 19 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
993-MW-03A-(17)

Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121319W.M
Quant Title : SW846 8260

TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

					Internal Standard		
TIC Top Hit name	RT	EstConc	Units	Response	#	RT	Resp	Conc

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Day Environmental, Inc.	Date Collected:	12/20/19
Project:	Andrew St. RI	Date Received:	12/21/19
Client Sample ID:	993-MW-03A-(17)DL	SDG No.:	K6405
Lab Sample ID:	K6405-03DL	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	DB-624UI ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX014282.D	5		12/26/19 20:14	VX122619

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
75-71-8	Dichlorodifluoromethane	5.00	UD	1.10	5.00	ug/L
74-87-3	Chloromethane	5.00	UD	1.50	5.00	ug/L
75-01-4	Vinyl Chloride	5.00	UD	0.80	5.00	ug/L
74-83-9	Bromomethane	25.0	UD	10.3	25.0	ug/L
75-00-3	Chloroethane	5.00	UD	1.70	5.00	ug/L
75-69-4	Trichlorofluoromethane	5.00	UD	0.79	5.00	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	5.00	UD	1.00	5.00	ug/L
75-35-4	1,1-Dichloroethene	5.00	UD	0.91	5.00	ug/L
67-64-1	Acetone	25.0	UD	4.50	25.0	ug/L
75-15-0	Carbon Disulfide	5.00	UD	1.20	5.00	ug/L
1634-04-4	Methyl tert-butyl Ether	5.00	UD	0.35	5.00	ug/L
79-20-9	Methyl Acetate	5.00	UD	3.20	5.00	ug/L
75-09-2	Methylene Chloride	5.00	UD	1.60	5.00	ug/L
156-60-5	trans-1,2-Dichloroethene	5.00	UD	1.20	5.00	ug/L
75-34-3	1,1-Dichloroethane	5.00	UD	0.83	5.00	ug/L
110-82-7	Cyclohexane	25.0	UD	6.00	25.0	ug/L
78-93-3	2-Butanone	25.0	UD	3.50	25.0	ug/L
56-23-5	Carbon Tetrachloride	5.00	UD	1.10	5.00	ug/L
156-59-2	cis-1,2-Dichloroethene	30.0	D	1.50	5.00	ug/L
74-97-5	Bromochloromethane	5.00	UD	1.60	5.00	ug/L
67-66-3	Chloroform	5.00	UD	0.71	5.00	ug/L
71-55-6	1,1,1-Trichloroethane	5.00	UD	0.62	5.00	ug/L
108-87-2	Methylcyclohexane	5.00	UD	0.86	5.00	ug/L
71-43-2	Benzene	5.00	UD	0.49	5.00	ug/L
107-06-2	1,2-Dichloroethane	5.00	UD	0.65	5.00	ug/L
79-01-6	Trichloroethene	36.1	D	1.30	5.00	ug/L
78-87-5	1,2-Dichloropropane	5.00	UD	0.68	5.00	ug/L
75-27-4	Bromodichloromethane	5.00	UD	0.51	5.00	ug/L
108-10-1	4-Methyl-2-Pentanone	25.0	UD	4.30	25.0	ug/L
108-88-3	Toluene	5.00	UD	0.58	5.00	ug/L
10061-02-6	t-1,3-Dichloropropene	5.00	UD	0.96	5.00	ug/L
10061-01-5	cis-1,3-Dichloropropene	5.00	UD	0.78	5.00	ug/L

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Day Environmental, Inc.	Date Collected:	12/20/19
Project:	Andrew St. RI	Date Received:	12/21/19
Client Sample ID:	993-MW-03A-(17)DL	SDG No.:	K6405
Lab Sample ID:	K6405-03DL	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	DB-624UI ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX014282.D	5		12/26/19 20:14	VX122619

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
79-00-5	1,1,2-Trichloroethane	5.00	UD	0.61	5.00	ug/L
591-78-6	2-Hexanone	25.0	UD	6.80	25.0	ug/L
124-48-1	Dibromochloromethane	5.00	UD	0.78	5.00	ug/L
106-93-4	1,2-Dibromoethane	5.00	UD	0.69	5.00	ug/L
127-18-4	Tetrachloroethene	290	D	0.77	5.00	ug/L
108-90-7	Chlorobenzene	5.00	UD	0.38	5.00	ug/L
100-41-4	Ethyl Benzene	5.00	UD	0.41	5.00	ug/L
179601-23-1	m/p-Xylenes	10.0	UD	0.98	10.0	ug/L
95-47-6	o-Xylene	5.00	UD	0.65	5.00	ug/L
100-42-5	Styrene	5.00	UD	0.53	5.00	ug/L
75-25-2	Bromoform	5.00	UD	0.75	5.00	ug/L
98-82-8	Isopropylbenzene	5.00	UD	0.66	5.00	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	5.00	UD	0.76	5.00	ug/L
541-73-1	1,3-Dichlorobenzene	5.00	UD	0.70	5.00	ug/L
106-46-7	1,4-Dichlorobenzene	5.00	UD	1.00	5.00	ug/L
95-50-1	1,2-Dichlorobenzene	5.00	UD	0.60	5.00	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	5.00	UD	2.70	5.00	ug/L
120-82-1	1,2,4-Trichlorobenzene	5.00	UD	1.20	5.00	ug/L
87-61-6	1,2,3-Trichlorobenzene	5.00	UD	1.30	5.00	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	49.0		61 - 141	98%	SPK: 50
1868-53-7	Dibromofluoromethane	49.0		69 - 133	98%	SPK: 50
2037-26-5	Toluene-d8	49.8		65 - 126	100%	SPK: 50
460-00-4	4-Bromofluorobenzene	45.5		58 - 135	91%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	527000	5.65			
540-36-3	1,4-Difluorobenzene	816000	6.85			
3114-55-4	Chlorobenzene-d5	731000	10.11			
3855-82-1	1,4-Dichlorobenzene-d4	318000	12.07			

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Day Environmental, Inc.	Date Collected:	12/20/19
Project:	Andrew St. RI	Date Received:	12/21/19
Client Sample ID:	993-MW-03A-(17)DL	SDG No.:	K6405
Lab Sample ID:	K6405-03DL	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	DB-624UI ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX014282.D	5		12/26/19 20:14	VX122619

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit
A = Aldol-Condensation Reaction Products

Quantitation Report (QT Reviewed)

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX122619\
Data File : VX014282.D
Acq On : 26 Dec 2019 20:14
Operator : JC/SP
Sample : K6405-03DL 5X
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 25 Sample Multiplier: 1

Instrument : MSVOA_X
ClientSampleId : 993-MW-03A-(17)DL

Quant Time: Dec 27 07:30:22 2019
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121319W.M
Quant Title : SW846 8260
QLast Update : Tue Dec 17 03:01:07 2019
Response via : Initial Calibration

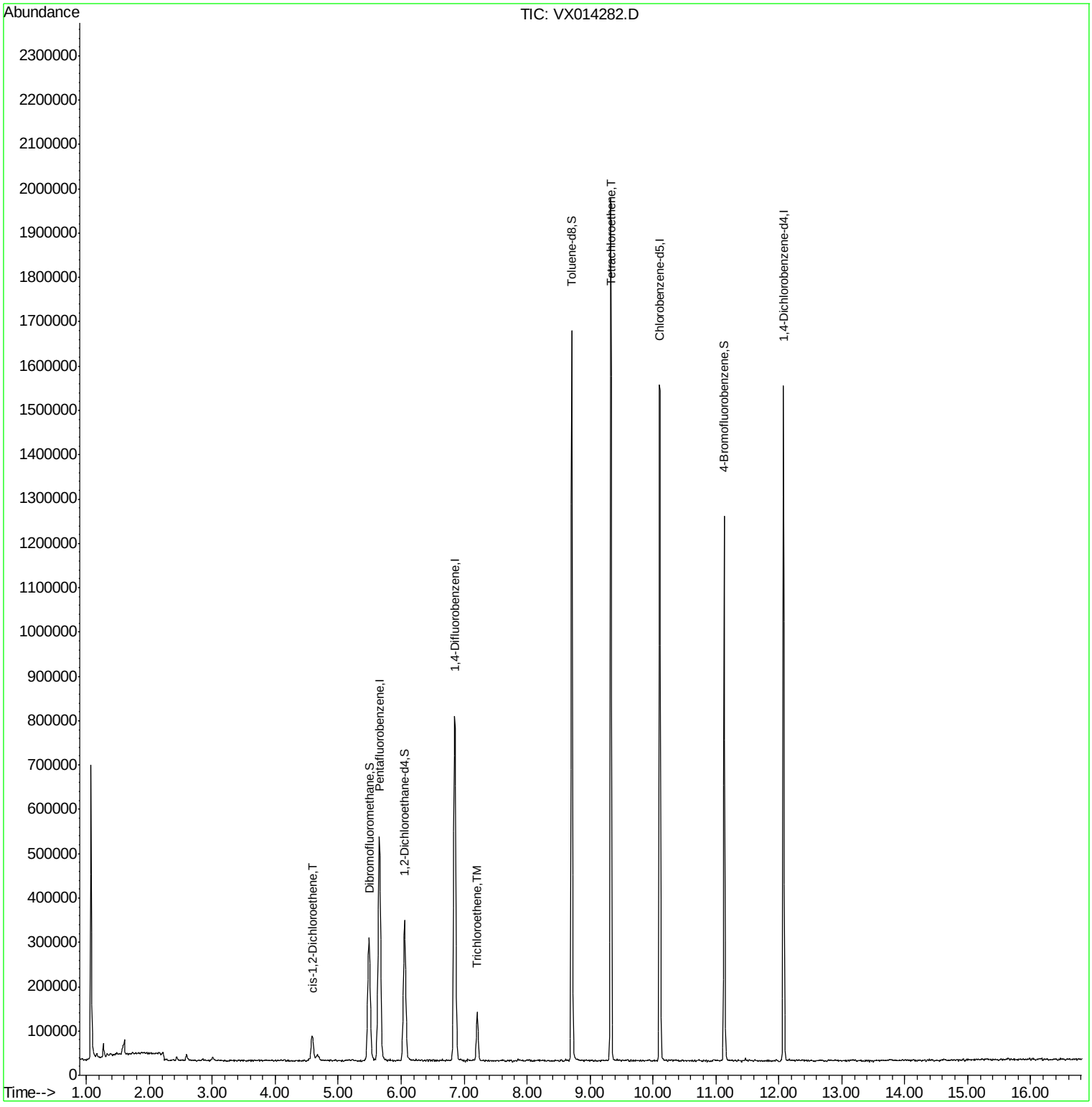
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	5.65	168	527397	50.00	ug/l	0.00
34) 1,4-Difluorobenzene	6.85	114	815574	50.00	ug/l	0.00
63) Chlorobenzene-d5	10.11	117	730963	50.00	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	12.07	152	317988	50.00	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	6.06	65	292862	49.00	ug/l	0.00
Spiked Amount 50.000			Recovery = 98.00%			
35) Dibromofluoromethane	5.49	113	243092	49.03	ug/l	0.00
Spiked Amount 50.000			Recovery = 98.06%			
50) Toluene-d8	8.71	98	961203	49.80	ug/l	0.00
Spiked Amount 50.000			Recovery = 99.60%			
62) 4-Bromofluorobenzene	11.14	95	321356	45.55	ug/l	0.00
Spiked Amount 50.000			Recovery = 91.10%			
Target Compounds						Qvalue
27) cis-1,2-Dichloroethene	4.59	96	37929	6.000	ug/l	89
44) Trichloroethene	7.21	130	45863	7.211	ug/l	95
64) Tetrachloroethene	9.33	164	370872	57.338	ug/l	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

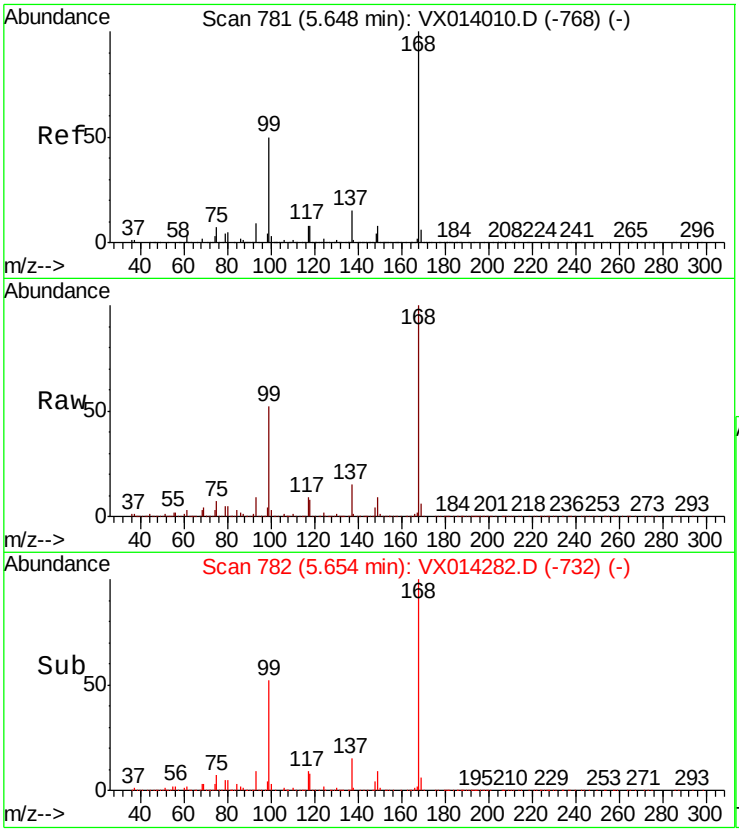
Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX122619\
Data File : VX014282.D
Acq On : 26 Dec 2019 20:14
Operator : JC/SP
Sample : K6405-03DL 5X
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 25 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
993-MW-03A-(17)DL

Quant Time: Dec 27 07:30:22 2019
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121319W.M
Quant Title : SW846 8260
QLast Update : Tue Dec 17 03:01:07 2019
Response via : Initial Calibration



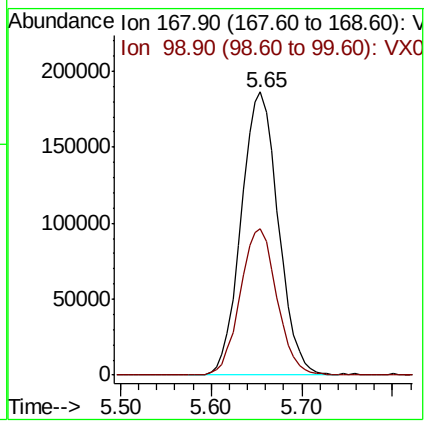
Instrument :
MSVOA_X
ClientSampleId :
993-MW-03A-(17)DL

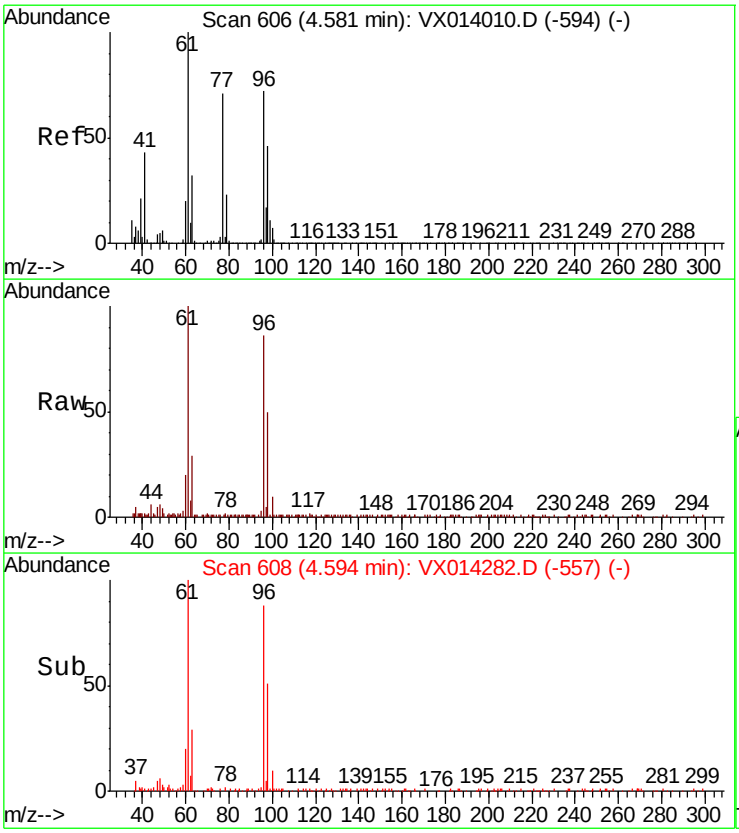


#1
Pentafluorobenzene
Concen: 50.000 ug/l
RT: 5.65 min Scan# 782
Delta R.T. 0.01 min
Lab File: VX014282.D
Acq: 26 Dec 2019 20:14

Tgt Ion:168 Resp: 527397

Ion	Ratio	Lower	Upper
168	100		
99	51.5	40.3	60.5

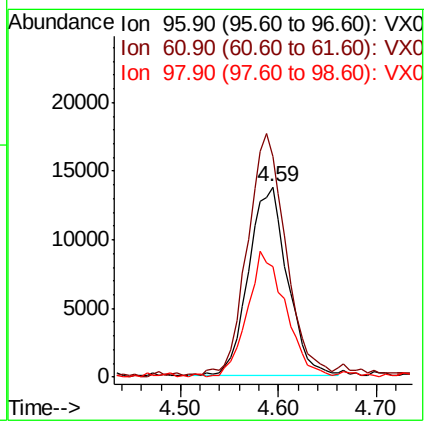




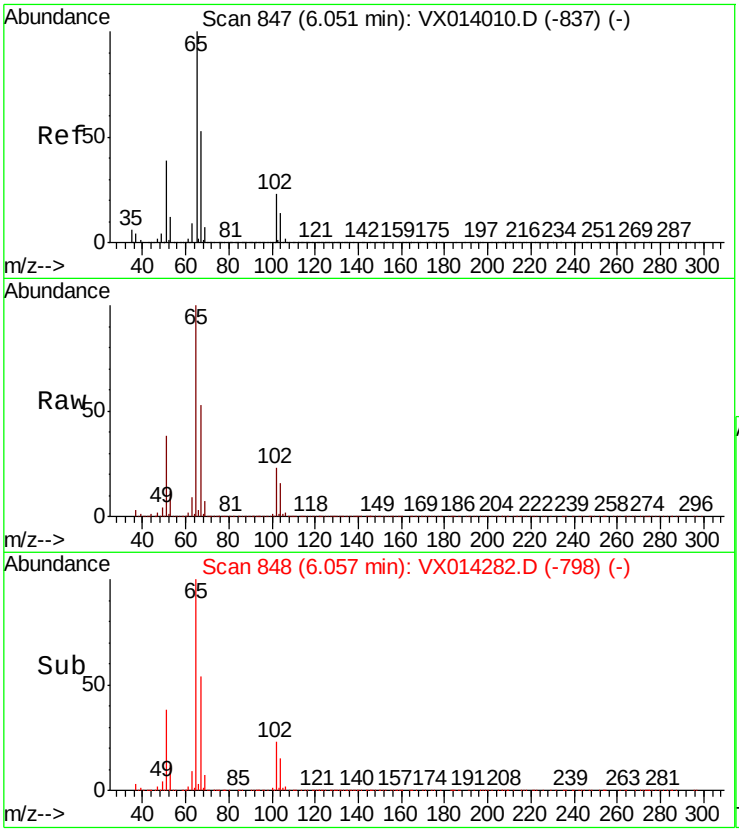
#27
cis-1,2-Dichloroethene
Concen: 6.000 ug/l
RT: 4.59 min Scan# 608
Delta R.T. 0.01 min
Lab File: VX014282.D
Acq: 26 Dec 2019 20:14

Tgt Ion: 96 Resp: 37929

Ion	Ratio	Lower	Upper
96	100		
61	124.8	0.0	288.4
98	65.5	0.0	129.6



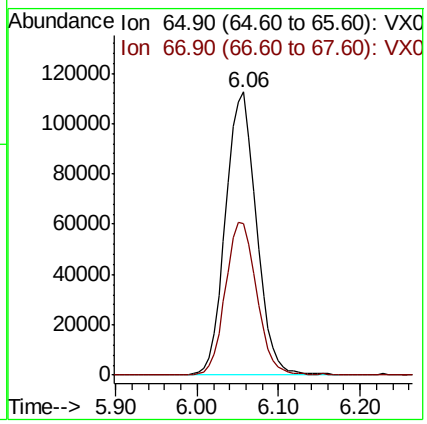
Instrument :
MSVOA_X
ClientSampleId :
993-MW-03A-(17)DL

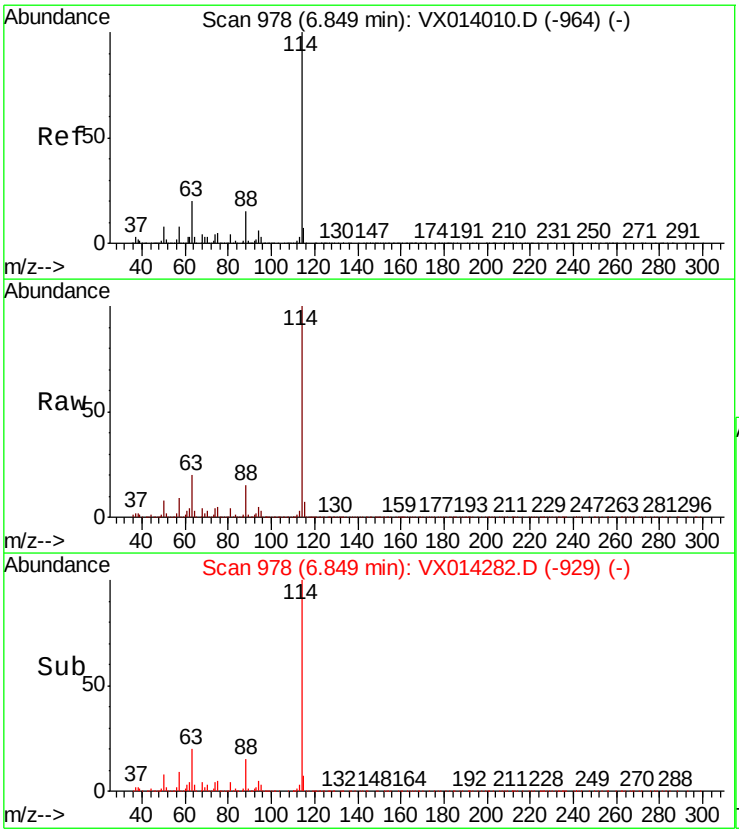


#33
1,2-Dichloroethane-d4
Concen: 48.996 ug/l
RT: 6.06 min Scan# 848
Delta R.T. 0.01 min
Lab File: VX014282.D
Acq: 26 Dec 2019 20:14

Tgt Ion: 65 Resp: 292862

Ion	Ratio	Lower	Upper
65	100		
67	54.4	0.0	106.4

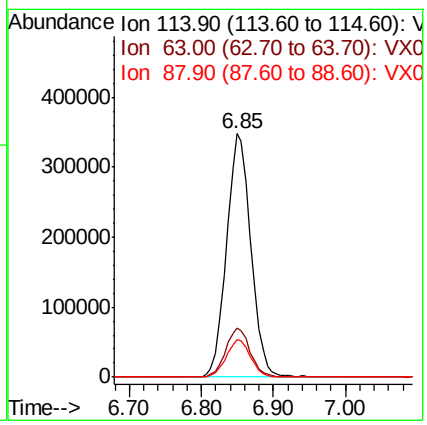




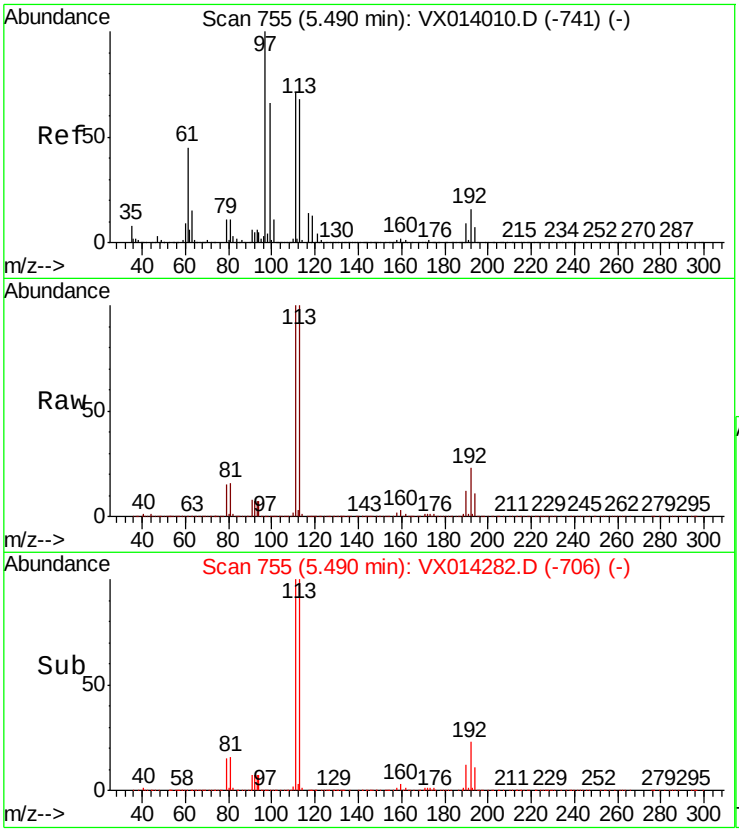
#34
1,4-Difluorobenzene
Concen: 50.000 ug/l
RT: 6.85 min Scan# 978
Delta R.T. 0.00 min
Lab File: VX014282.D
Acq: 26 Dec 2019 20:14

Tgt Ion:114 Resp: 815574

Ion	Ratio	Lower	Upper
114	100		
63	20.1	0.0	40.8
88	15.3	0.0	30.4



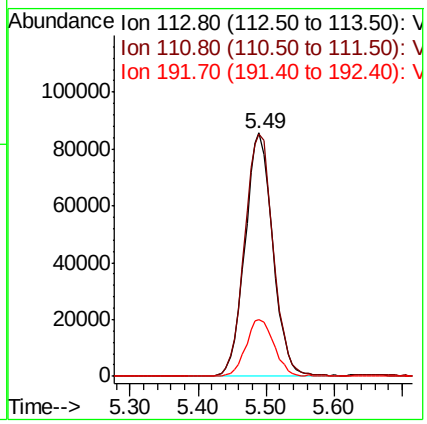
Instrument :
MSVOA_X
ClientSampleId :
993-MW-03A-(17)DL

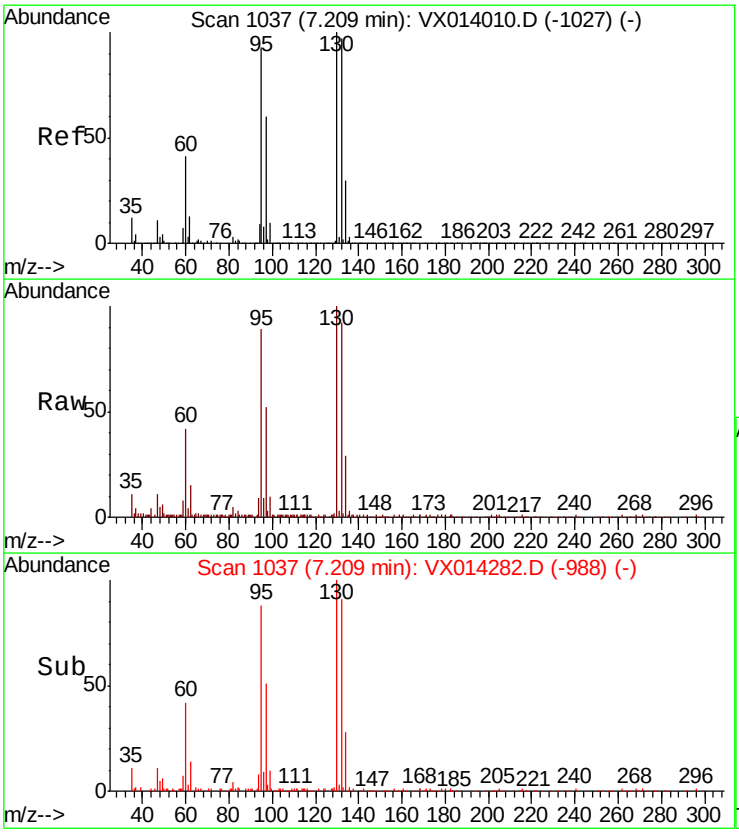


#35
Dibromofluoromethane
Concen: 49.032 ug/l
RT: 5.49 min Scan# 755
Delta R.T. 0.00 min
Lab File: VX014282.D
Acq: 26 Dec 2019 20:14

Tgt Ion:113 Resp: 243092

Ion	Ratio	Lower	Upper
113	100		
111	102.3	82.0	123.0
192	23.8	19.3	28.9

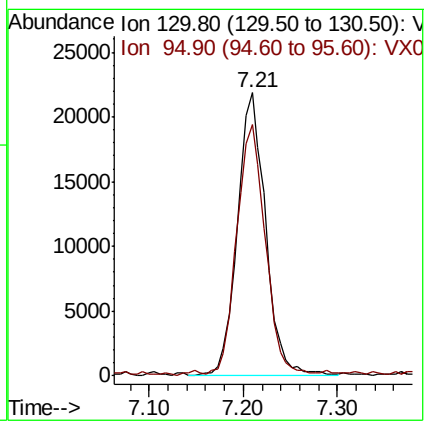




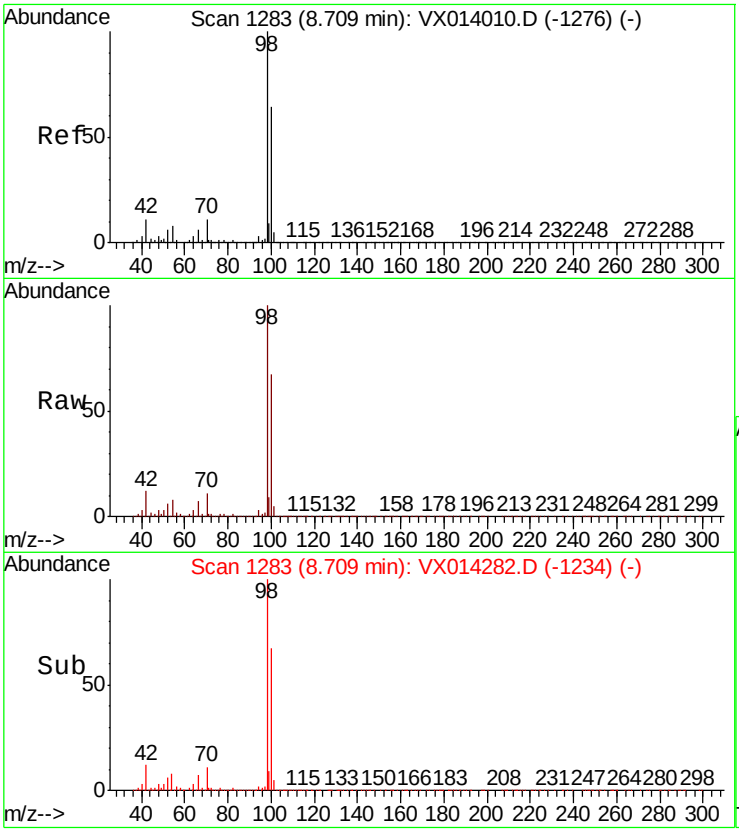
#44
Trichloroethene
Concen: 7.211 ug/l
RT: 7.21 min Scan# 1037
Delta R.T. 0.00 min
Lab File: VX014282.D
Acq: 26 Dec 2019 20:14

Tgt Ion:130 Resp: 45863

Ion	Ratio	Lower	Upper
130	100		
95	87.8	0.0	185.6



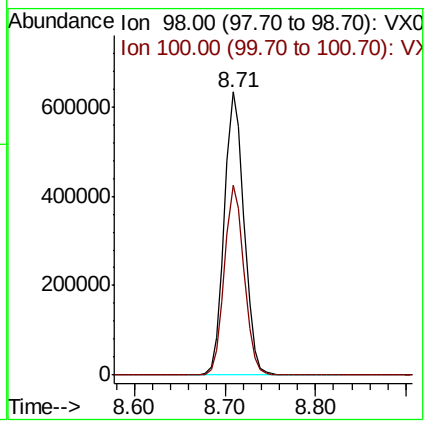
Instrument :
MSVOA_X
ClientSampleId :
993-MW-03A-(17)DL

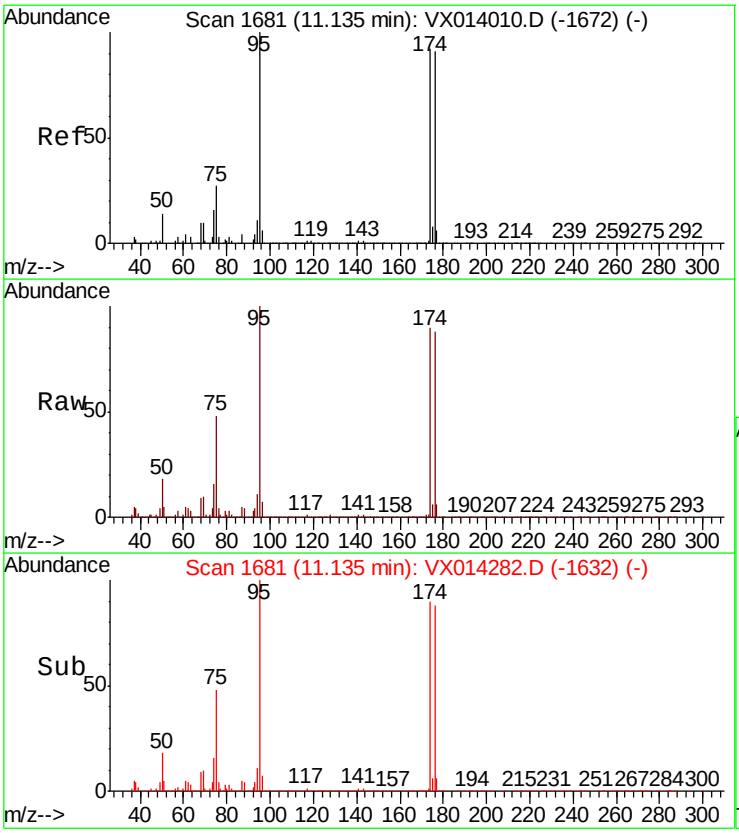


#50
Toluene-d8
Concen: 49.798 ug/l
RT: 8.71 min Scan# 1283
Delta R.T. 0.00 min
Lab File: VX014282.D
Acq: 26 Dec 2019 20:14

Tgt Ion: 98 Resp: 961203

Ion	Ratio	Lower	Upper
98	100		
100	66.8	52.9	79.3

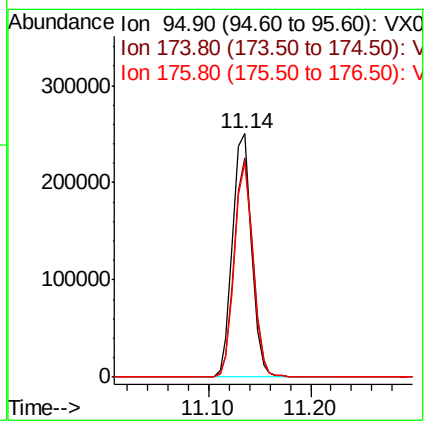




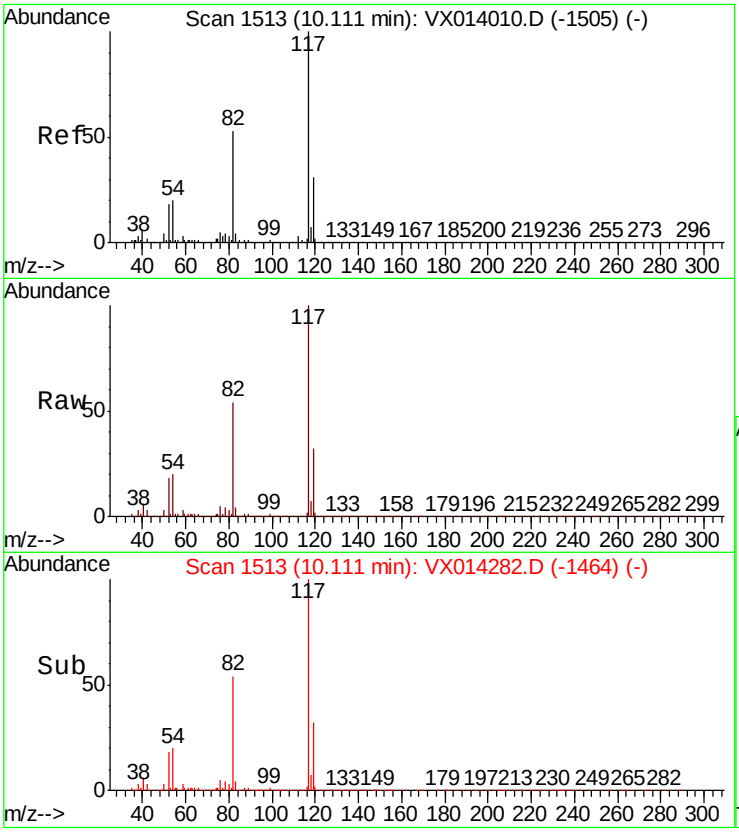
#62
4-Bromofluorobenzene
Concen: 45.546 ug/l
RT: 11.14 min Scan# 1681
Delta R.T. 0.00 min
Lab File: VX014282.D
Acq: 26 Dec 2019 20:14

Tgt Ion: 95 Resp: 321356

Ion	Ratio	Lower	Upper
95	100		
174	88.7	0.0	175.8
176	85.7	0.0	173.0



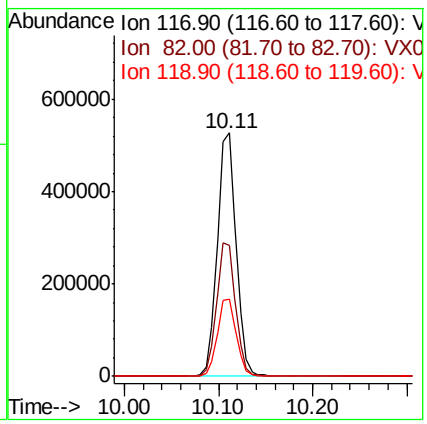
Instrument :
MSVOA_X
ClientSampleId :
993-MW-03A-(17)DL

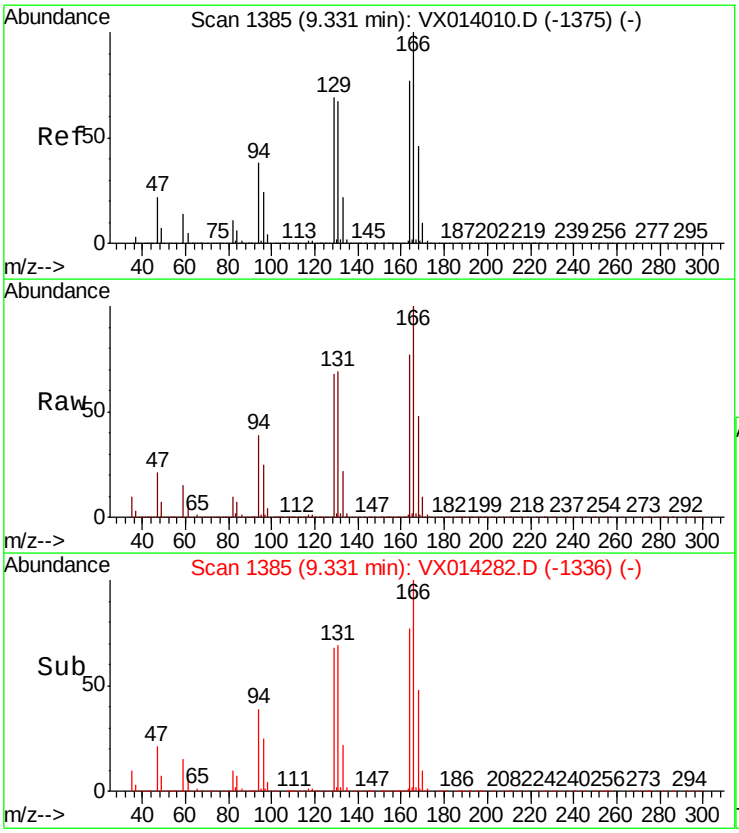


#63
Chlorobenzene-d5
Concen: 50.000 ug/l
RT: 10.11 min Scan# 1513
Delta R.T. 0.00 min
Lab File: VX014282.D
Acq: 26 Dec 2019 20:14

Tgt Ion:117 Resp: 730963

Ion	Ratio	Lower	Upper
117	100		
82	53.8	42.2	63.4
119	31.9	25.1	37.7

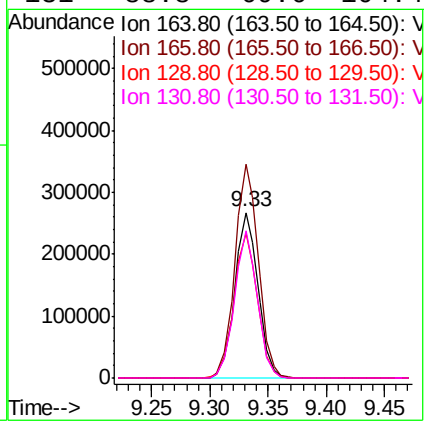




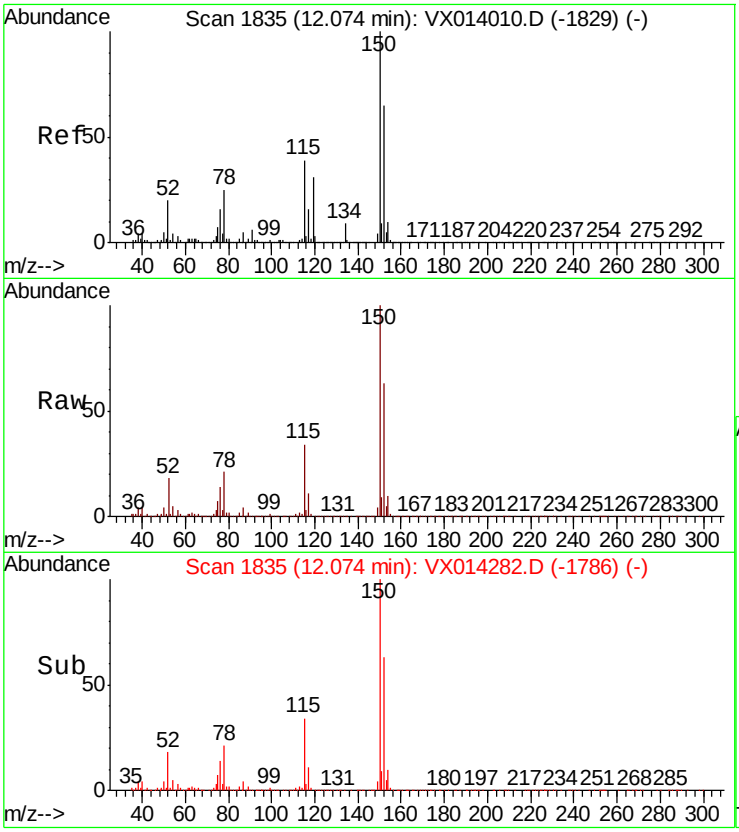
#64
Tetrachloroethene
Concen: 57.338 ug/l
RT: 9.33 min Scan# 1385
Delta R.T. 0.00 min
Lab File: VX014282.D
Acq: 26 Dec 2019 20:14

Tgt Ion:164 Resp: 370872

Ion	Ratio	Lower	Upper
164	100		
166	129.2	104.0	156.0
129	87.4	72.2	108.4
131	88.8	69.6	104.4



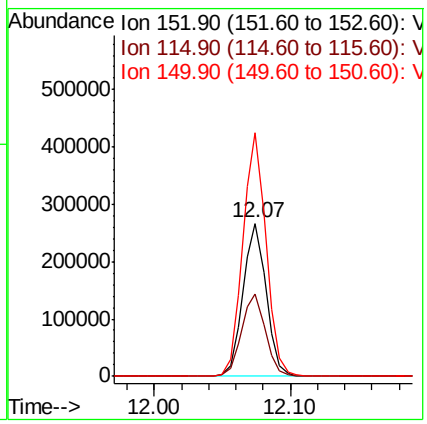
Instrument :
MSVOA_X
ClientSampleId :
993-MW-03A-(17)DL



#72
1,4-Dichlorobenzene-d4
Concen: 50.000 ug/l
RT: 12.07 min Scan# 1835
Delta R.T. 0.00 min
Lab File: VX014282.D
Acq: 26 Dec 2019 20:14

Tgt Ion:152 Resp: 317988

Ion	Ratio	Lower	Upper
152	100		
115	54.7	38.3	114.9
150	158.4	0.0	345.4



CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Day Environmental, Inc.	Date Collected:	12/20/19
Project:	Andrew St. RI	Date Received:	12/21/19
Client Sample ID:	994-MW-05-(17)	SDG No.:	K6405
Lab Sample ID:	K6405-04	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	DB-624UI ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX014272.D	1		12/26/19 16:21	VX122619

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
75-71-8	Dichlorodifluoromethane	1.00	U	0.22	1.00	ug/L
74-87-3	Chloromethane	1.00	U	0.30	1.00	ug/L
75-01-4	Vinyl Chloride	1.00	U	0.16	1.00	ug/L
74-83-9	Bromomethane	5.00	U	2.10	5.00	ug/L
75-00-3	Chloroethane	1.00	U	0.34	1.00	ug/L
75-69-4	Trichlorofluoromethane	1.00	U	0.16	1.00	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	1.00	U	0.21	1.00	ug/L
75-35-4	1,1-Dichloroethene	1.00	U	0.18	1.00	ug/L
67-64-1	Acetone	5.00	U	0.90	5.00	ug/L
75-15-0	Carbon Disulfide	1.00	U	0.23	1.00	ug/L
1634-04-4	Methyl tert-butyl Ether	1.00	U	0.070	1.00	ug/L
79-20-9	Methyl Acetate	1.00	U	0.65	1.00	ug/L
75-09-2	Methylene Chloride	1.00	U	0.33	1.00	ug/L
156-60-5	trans-1,2-Dichloroethene	1.00	U	0.24	1.00	ug/L
75-34-3	1,1-Dichloroethane	1.00	U	0.17	1.00	ug/L
110-82-7	Cyclohexane	5.00	U	1.20	5.00	ug/L
78-93-3	2-Butanone	5.00	U	0.71	5.00	ug/L
56-23-5	Carbon Tetrachloride	1.00	U	0.22	1.00	ug/L
156-59-2	cis-1,2-Dichloroethene	1.00	U	0.30	1.00	ug/L
74-97-5	Bromochloromethane	1.00	U	0.31	1.00	ug/L
67-66-3	Chloroform	1.00	U	0.14	1.00	ug/L
71-55-6	1,1,1-Trichloroethane	1.00	U	0.12	1.00	ug/L
108-87-2	Methylcyclohexane	1.00	U	0.17	1.00	ug/L
71-43-2	Benzene	1.00	U	0.10	1.00	ug/L
107-06-2	1,2-Dichloroethane	1.00	U	0.13	1.00	ug/L
79-01-6	Trichloroethene	0.76	J	0.27	1.00	ug/L
78-87-5	1,2-Dichloropropane	1.00	U	0.14	1.00	ug/L
75-27-4	Bromodichloromethane	1.00	U	0.10	1.00	ug/L
108-10-1	4-Methyl-2-Pentanone	5.00	U	0.85	5.00	ug/L
108-88-3	Toluene	1.00	U	0.12	1.00	ug/L
10061-02-6	t-1,3-Dichloropropene	1.00	U	0.19	1.00	ug/L
10061-01-5	cis-1,3-Dichloropropene	1.00	U	0.16	1.00	ug/L

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Day Environmental, Inc.	Date Collected:	12/20/19
Project:	Andrew St. RI	Date Received:	12/21/19
Client Sample ID:	994-MW-05-(17)	SDG No.:	K6405
Lab Sample ID:	K6405-04	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	DB-624UI ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX014272.D	1		12/26/19 16:21	VX122619

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
79-00-5	1,1,2-Trichloroethane	1.00	U	0.12	1.00	ug/L
591-78-6	2-Hexanone	5.00	U	1.40	5.00	ug/L
124-48-1	Dibromochloromethane	1.00	U	0.16	1.00	ug/L
106-93-4	1,2-Dibromoethane	1.00	U	0.14	1.00	ug/L
127-18-4	Tetrachloroethene	28.1		0.15	1.00	ug/L
108-90-7	Chlorobenzene	1.00	U	0.080	1.00	ug/L
100-41-4	Ethyl Benzene	1.00	U	0.080	1.00	ug/L
179601-23-1	m/p-Xylenes	2.00	U	0.20	2.00	ug/L
95-47-6	o-Xylene	1.00	U	0.13	1.00	ug/L
100-42-5	Styrene	1.00	U	0.11	1.00	ug/L
75-25-2	Bromoform	1.00	U	0.15	1.00	ug/L
98-82-8	Isopropylbenzene	1.00	U	0.13	1.00	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	1.00	U	0.15	1.00	ug/L
541-73-1	1,3-Dichlorobenzene	1.00	U	0.14	1.00	ug/L
106-46-7	1,4-Dichlorobenzene	1.00	U	0.20	1.00	ug/L
95-50-1	1,2-Dichlorobenzene	1.00	U	0.12	1.00	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	1.00	U	0.54	1.00	ug/L
120-82-1	1,2,4-Trichlorobenzene	1.00	U	0.24	1.00	ug/L
87-61-6	1,2,3-Trichlorobenzene	1.00	U	0.26	1.00	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	49.6		61 - 141	99%	SPK: 50
1868-53-7	Dibromofluoromethane	48.9		69 - 133	98%	SPK: 50
2037-26-5	Toluene-d8	50.3		65 - 126	101%	SPK: 50
460-00-4	4-Bromofluorobenzene	45.5		58 - 135	91%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	540000	5.65			
540-36-3	1,4-Difluorobenzene	831000	6.85			
3114-55-4	Chlorobenzene-d5	751000	10.11			
3855-82-1	1,4-Dichlorobenzene-d4	327000	12.07			

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Day Environmental, Inc.	Date Collected:	12/20/19
Project:	Andrew St. RI	Date Received:	12/21/19
Client Sample ID:	994-MW-05-(17)	SDG No.:	K6405
Lab Sample ID:	K6405-04	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	DB-624UI ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX014272.D	1		12/26/19 16:21	VX122619

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit
A = Aldol-Condensation Reaction Products

Quantitation Report (LSC Reviewed)

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX122619\
Data File : VX014272.D
Acq On : 26 Dec 2019 16:21
Operator : JC/SP
Sample : K6405-04
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 15 Sample Multiplier: 1

Instrument : MSVOA_X
ClientSampleId : 994-MW-05-(17)

Quant Time: Dec 27 07:07:05 2019
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121319W.M
Quant Title : SW846 8260
QLast Update : Tue Dec 17 03:01:07 2019
Response via : Initial Calibration

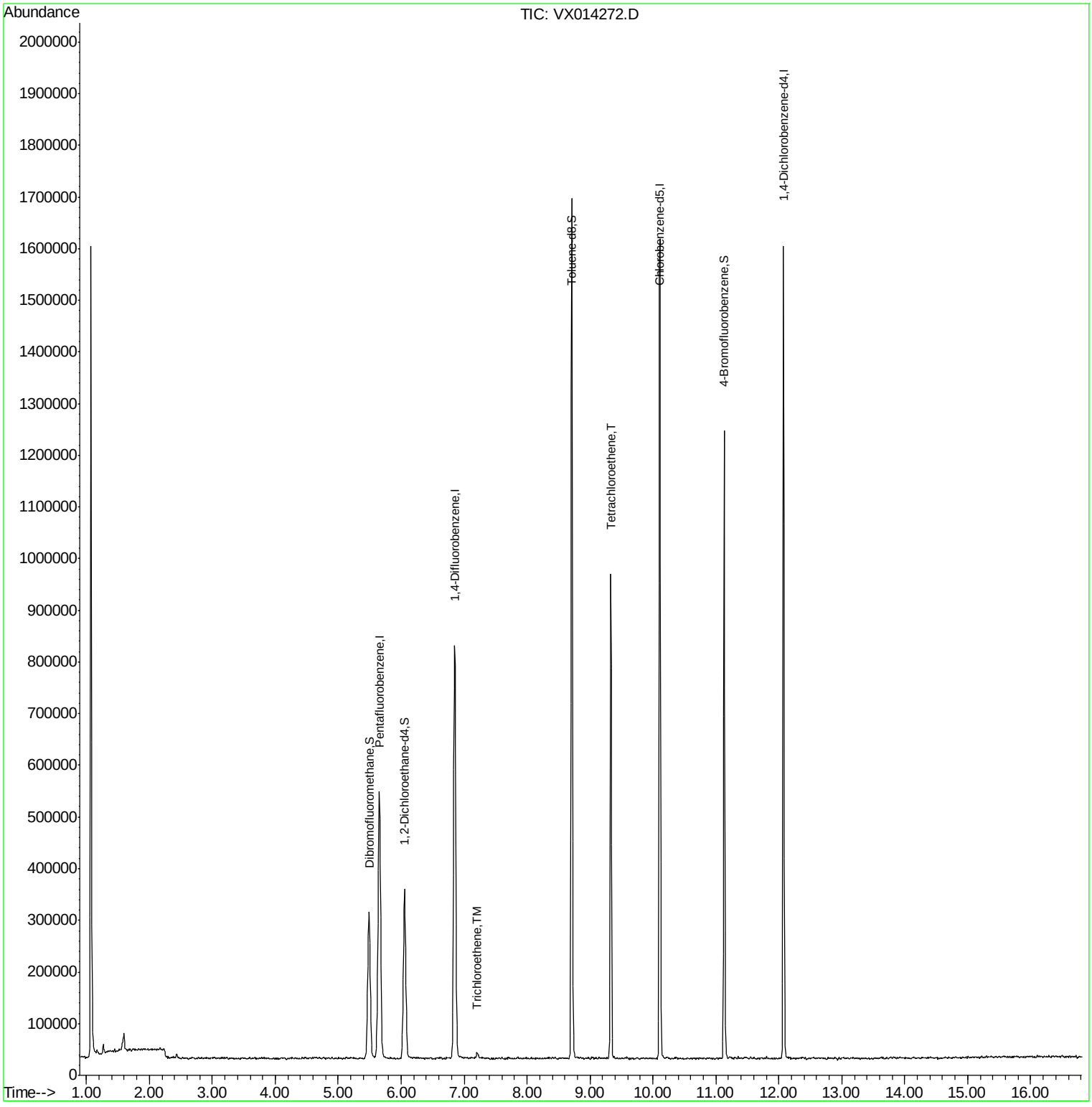
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	5.65	168	540190	50.00	ug/l	0.00
34) 1,4-Difluorobenzene	6.85	114	830906	50.00	ug/l	0.00
63) Chlorobenzene-d5	10.11	117	751127	50.00	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	12.07	152	326744	50.00	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	6.05	65	303560	49.58	ug/l	0.00
Spiked Amount 50.000			Recovery = 99.16%			
35) Dibromofluoromethane	5.49	113	246914	48.88	ug/l	0.00
Spiked Amount 50.000			Recovery = 97.76%			
50) Toluene-d8	8.71	98	988677	50.28	ug/l	0.00
Spiked Amount 50.000			Recovery = 100.56%			
62) 4-Bromofluorobenzene	11.13	95	326971	45.49	ug/l	0.00
Spiked Amount 50.000			Recovery = 90.98%			
Target Compounds						Qvalue
44) Trichloroethene	7.22	130	4907	0.757	ug/l	78
64) Tetrachloroethene	9.33	164	187044	28.142	ug/l	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

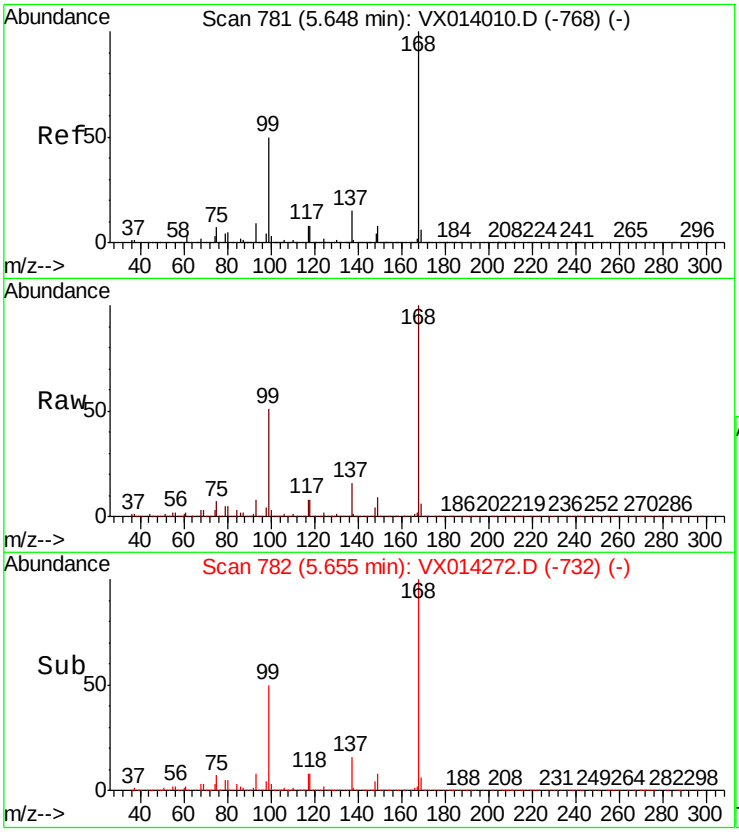
Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX122619\
Data File : VX014272.D
Acq On : 26 Dec 2019 16:21
Operator : JC/SP
Sample : K6405-04
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Dec 27 07:07:05 2019
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121319W.M
Quant Title : SW846 8260
QLast Update : Tue Dec 17 03:01:07 2019
Response via : Initial Calibration

Instrument :
MSVOA_X
ClientSampleId :
994-MW-05-(17)



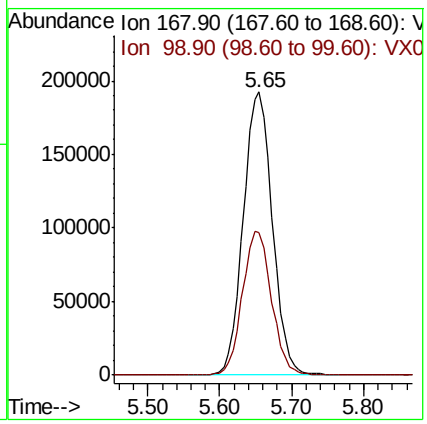
Instrument :
MSVOA_X
ClientSampleId :
994-MW-05-(17)

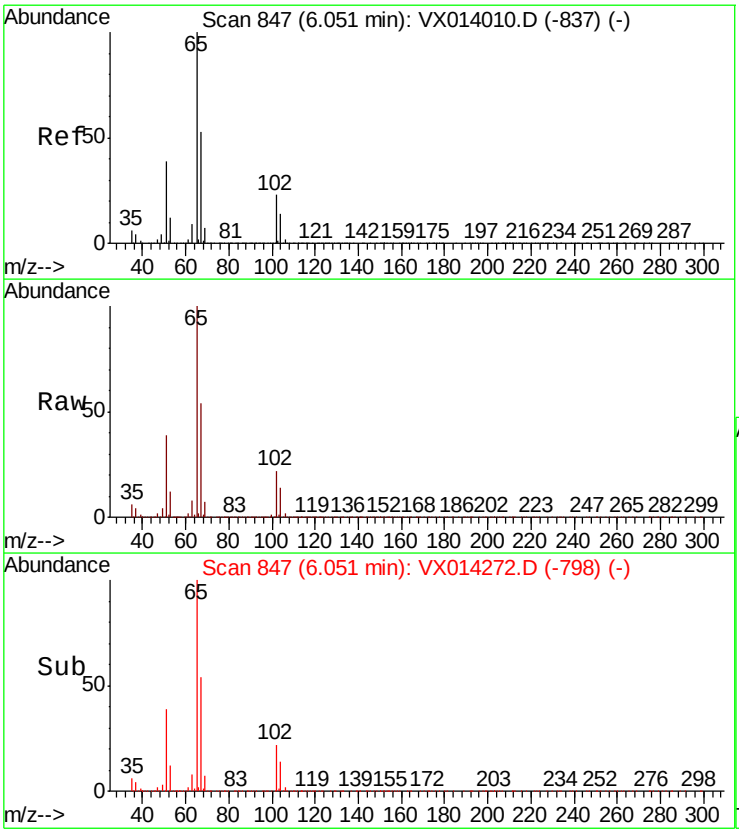


#1
Pentafluorobenzene
Concen: 50.000 ug/l
RT: 5.65 min Scan# 782
Delta R.T. 0.01 min
Lab File: VX014272.D
Acq: 26 Dec 2019 16:21

Tgt Ion:168 Resp: 540190

Ion	Ratio	Lower	Upper
168	100		
99	50.4	40.3	60.5

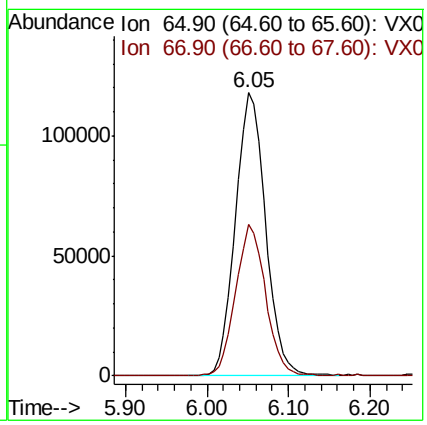




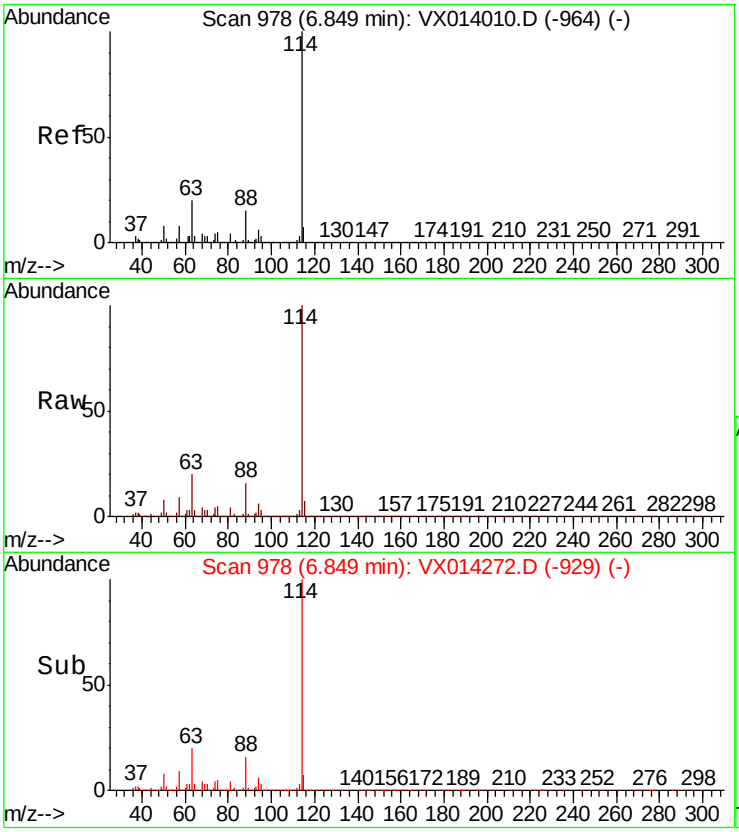
#33
1,2-Dichloroethane-d4
Concen: 49.583 ug/l
RT: 6.05 min Scan# 847
Delta R.T. 0.00 min
Lab File: VX014272.D
Acq: 26 Dec 2019 16:21

Tgt Ion: 65 Resp: 303560

Ion	Ratio	Lower	Upper
65	100		
67	52.9	0.0	106.4



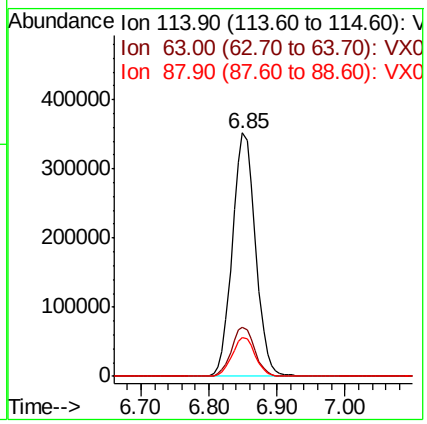
Instrument :
MSVOA_X
ClientSampleId :
994-MW-05-(17)

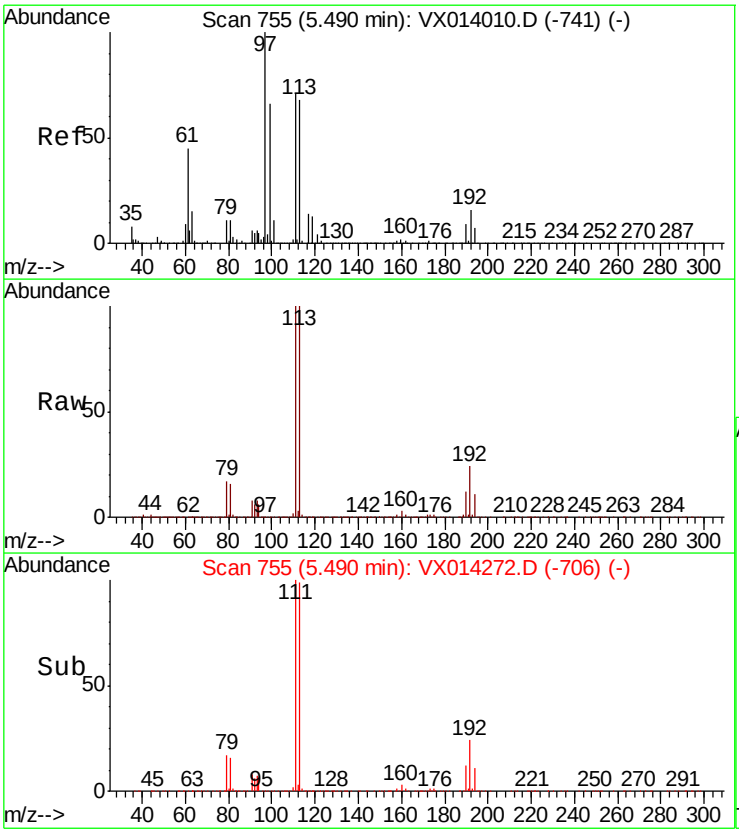


#34
1,4-Difluorobenzene
Concen: 50.000 ug/l
RT: 6.85 min Scan# 978
Delta R.T. 0.00 min
Lab File: VX014272.D
Acq: 26 Dec 2019 16:21

Tgt Ion:114 Resp: 830906

Ion	Ratio	Lower	Upper
114	100		
63	20.0	0.0	40.8
88	15.9	0.0	30.4

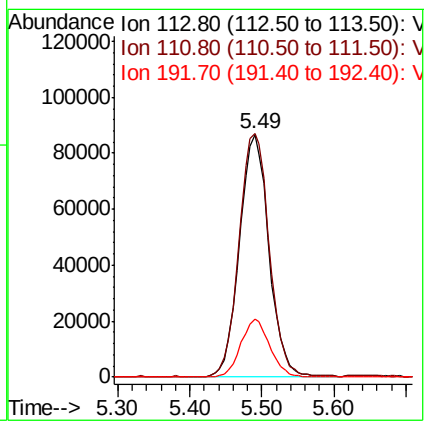




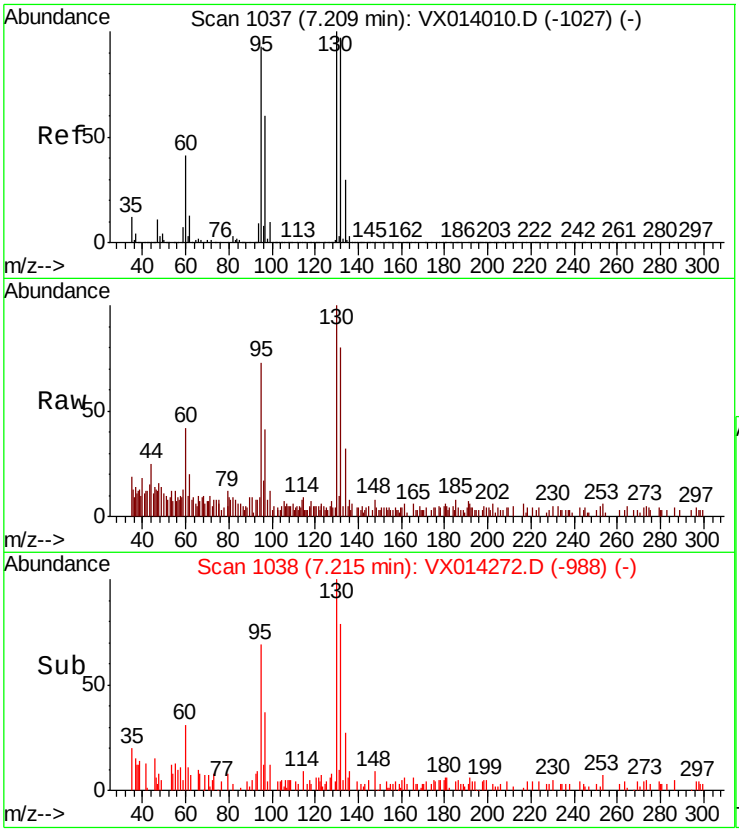
#35
Dibromofluoromethane
Concen: 48.884 ug/l
RT: 5.49 min Scan# 755
Delta R.T. 0.00 min
Lab File: VX014272.D
Acq: 26 Dec 2019 16:21

Tgt Ion:113 Resp: 246914

Ion	Ratio	Lower	Upper
113	100		
111	102.4	82.0	123.0
192	23.3	19.3	28.9



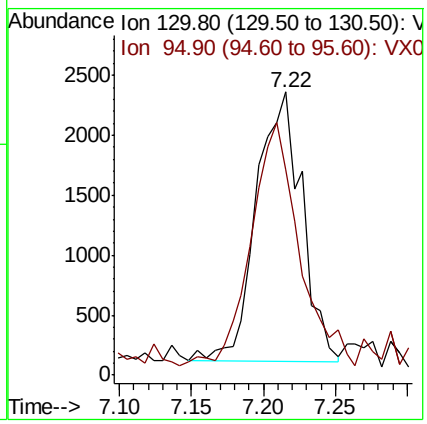
Instrument :
MSVOA_X
ClientSampleId :
994-MW-05-(17)

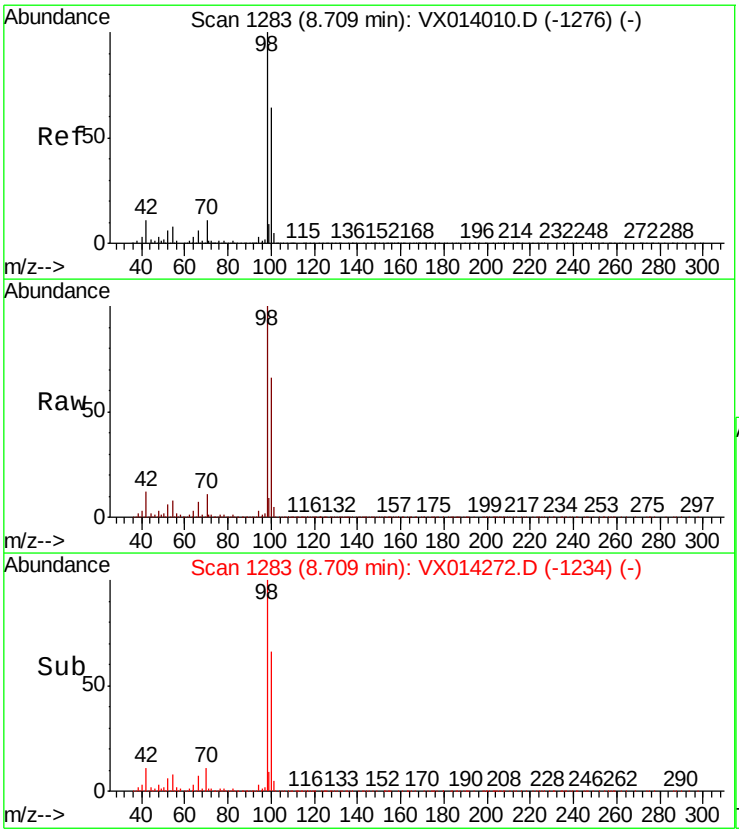


#44
Trichloroethene
Concen: 0.757 ug/l
RT: 7.22 min Scan# 1038
Delta R.T. 0.01 min
Lab File: VX014272.D
Acq: 26 Dec 2019 16:21

Tgt Ion:130 Resp: 4907

Ion	Ratio	Lower	Upper
130	100		
95	71.5	0.0	185.6

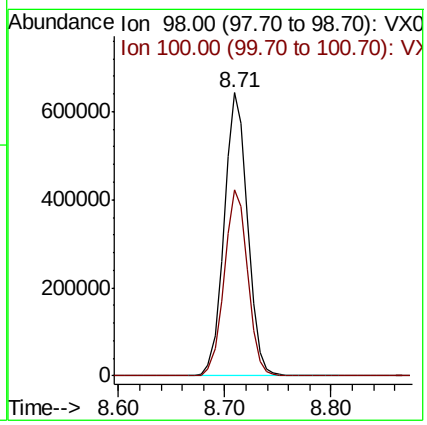




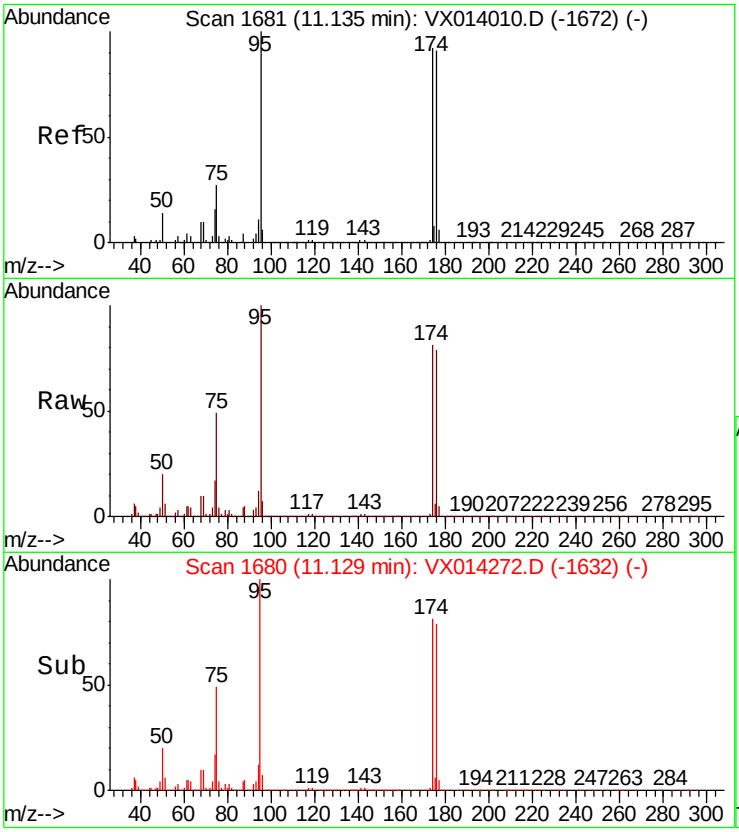
#50
Toluene-d8
Concen: 50.277 ug/l
RT: 8.71 min Scan# 1283
Delta R.T. 0.00 min
Lab File: VX014272.D
Acq: 26 Dec 2019 16:21

Tgt Ion: 98 Resp: 988677

Ion	Ratio	Lower	Upper
98	100		
100	65.8	52.9	79.3



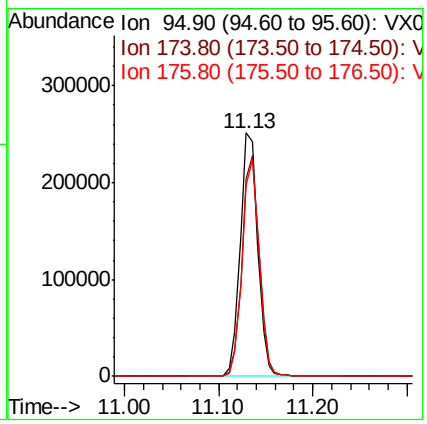
Instrument :
MSVOA_X
ClientSampleId :
994-MW-05-(17)

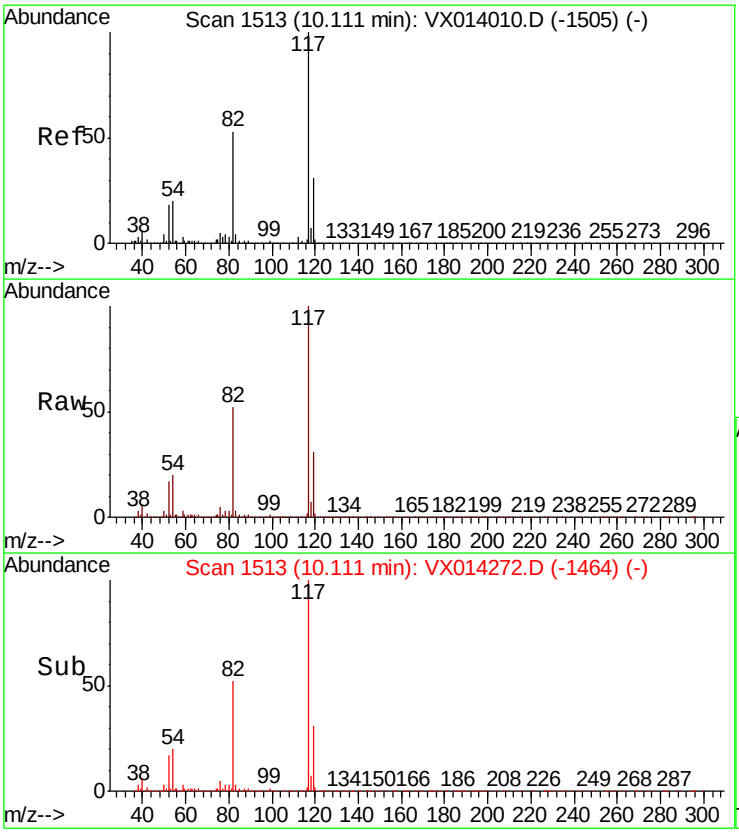


#62
4-Bromofluorobenzene
Concen: 45.486 ug/l
RT: 11.13 min Scan# 1680
Delta R.T. -0.01 min
Lab File: VX014272.D
Acq: 26 Dec 2019 16:21

Tgt Ion: 95 Resp: 326971

Ion	Ratio	Lower	Upper
95	100		
174	88.5	0.0	175.8
176	86.8	0.0	173.0

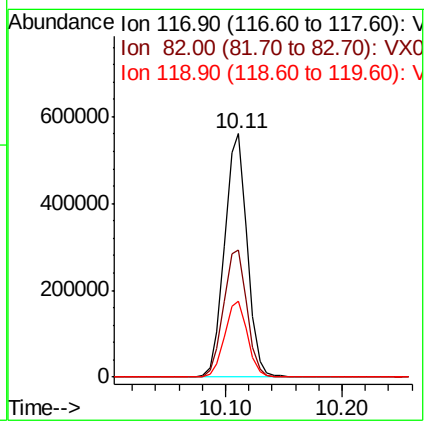




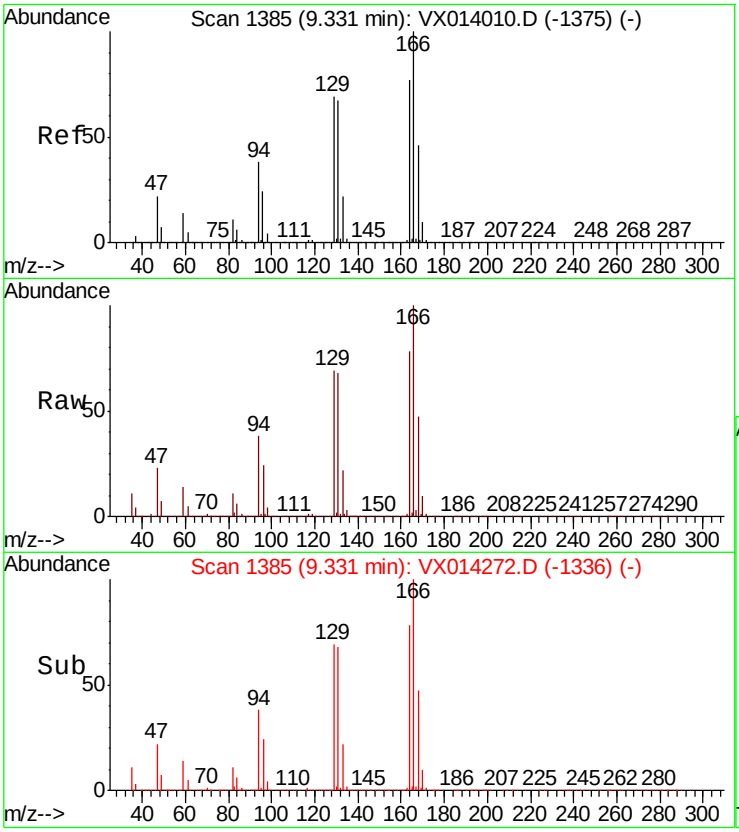
#63
Chlorobenzene-d5
Concen: 50.000 ug/l
RT: 10.11 min Scan# 1513
Delta R.T. 0.00 min
Lab File: VX014272.D
Acq: 26 Dec 2019 16:21

Tgt Ion:117 Resp: 751127

Ion	Ratio	Lower	Upper
117	100		
82	52.2	42.2	63.4
119	31.0	25.1	37.7



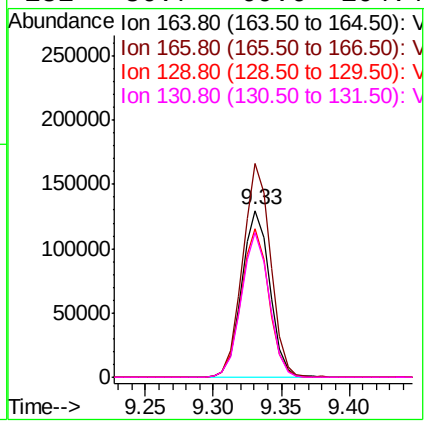
Instrument :
MSVOA_X
ClientSampleId :
994-MW-05-(17)

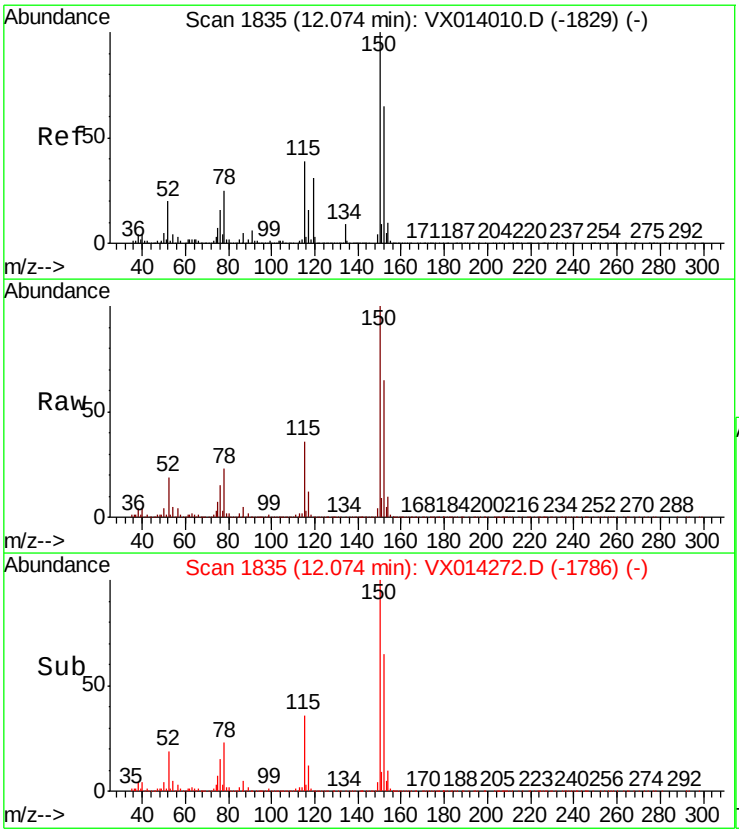


#64
Tetrachloroethene
Concen: 28.142 ug/l
RT: 9.33 min Scan# 1385
Delta R.T. 0.00 min
Lab File: VX014272.D
Acq: 26 Dec 2019 16:21

Tgt Ion:164 Resp: 187044

Ion	Ratio	Lower	Upper
164	100		
166	127.9	104.0	156.0
129	88.8	72.2	108.4
131	86.7	69.6	104.4

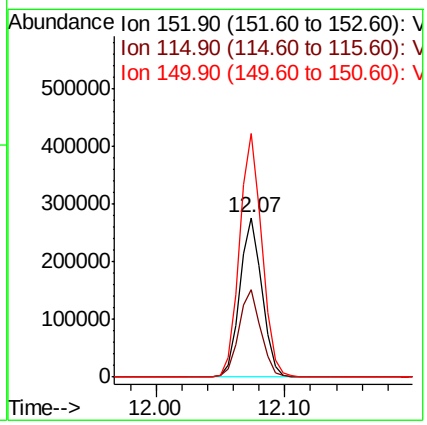




#72
1,4-Dichlorobenzene-d4
Concen: 50.000 ug/l
RT: 12.07 min Scan# 1835
Delta R.T. 0.00 min
Lab File: VX014272.D
Acq: 26 Dec 2019 16:21

Tgt Ion:152 Resp: 326744

Ion	Ratio	Lower	Upper
152	100		
115	54.8	38.3	114.9
150	155.0	0.0	345.4



LSC Area Percent Report

Data Path : Z:\VOASRV\HPCHEM1\MSVOA X\DATA\VX122619\
Data File : VX014272.D
Acq On : 26 Dec 2019 16:21
Operator : JC/SP
Sample : K6405-04
Misc : 5.0mL/MSVOA X/WATER
ALS Vial : 15 Sample Multiplier: 1

Instrument : MSVOA_X
ClientSampleId : 994-MW-05-(17)

Integration Parameters: RTEINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 3 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121319W.M
Title : SW846 8260

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	1.070	26	30	40	rBV	1567012	1905994	74.22%	11.515%
2	1.265	59	62	67	rBV	18827	25926	1.01%	0.157%
3	1.594	109	116	119	rBV9	31350	59491	2.32%	0.359%
4	5.490	744	755	768	rBV	282905	803740	31.30%	4.856%
5	5.655	771	782	799	rVB	515127	1447679	56.38%	8.746%
6	6.051	838	847	861	rBV	328604	855653	33.32%	5.169%
7	6.849	967	978	990	rBV	799014	1859469	72.41%	11.233%
8	8.709	1276	1283	1296	rBV	1665298	2567930	100.00%	15.513%
9	9.331	1378	1385	1391	rBV	937479	1336241	52.04%	8.073%
10	10.111	1506	1513	1523	rBV	1588970	2193995	85.44%	13.254%
11	11.129	1675	1680	1690	rVB	1215145	1608011	62.62%	9.714%
12	12.074	1830	1835	1844	rBV	1572594	1888763	73.55%	11.410%

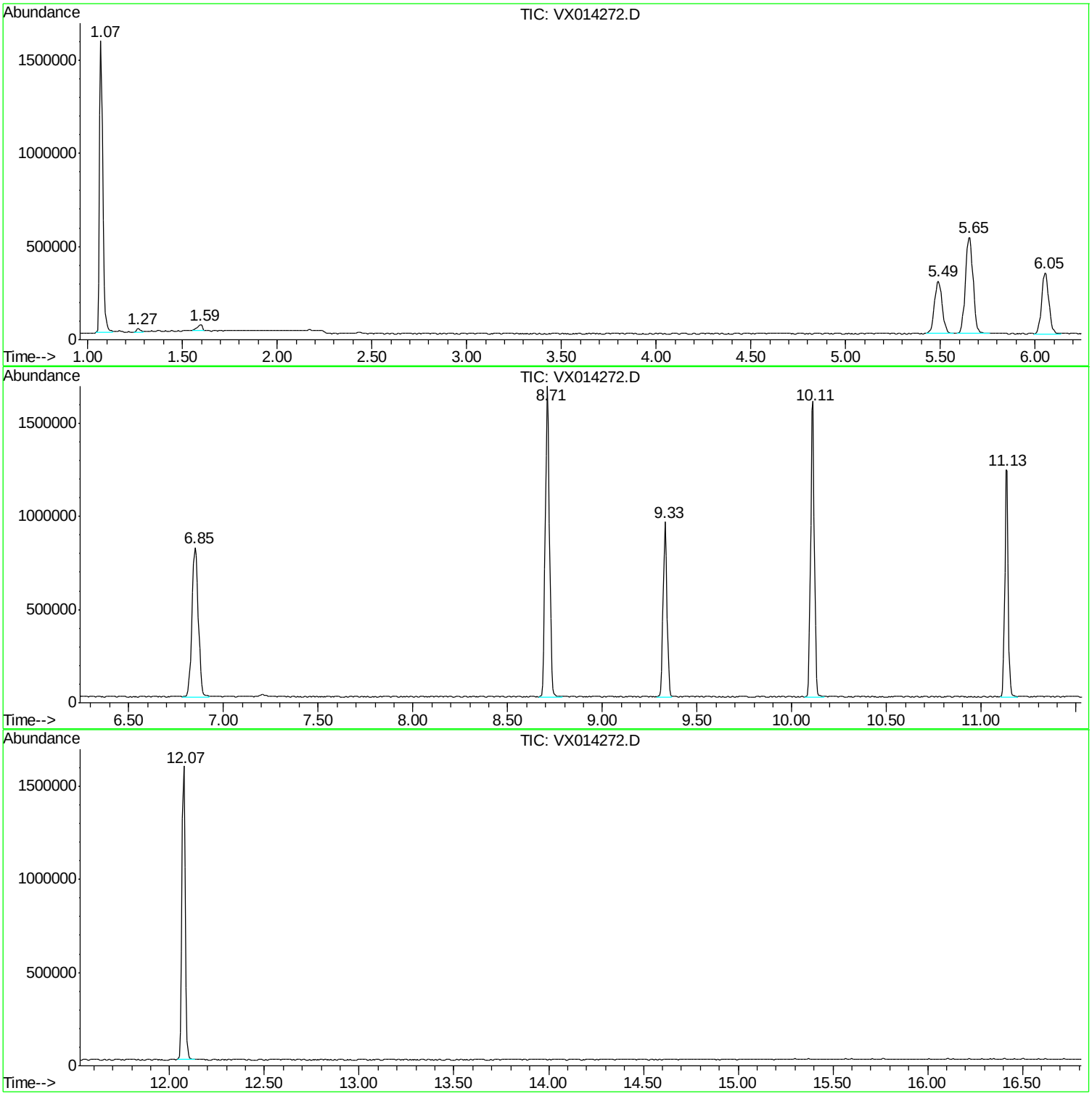
Sum of corrected areas: 16552892

Data Path : Z:\VOASRV\HPCHEM1\MSVOA X\DATA\VX122619\
Data File : VX014272.D
Acq On : 26 Dec 2019 16:21
Operator : JC/SP
Sample : K6405-04
Misc : 5.0mL/MSVOA X/WATER
ALS Vial : 15 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
994-MW-05-(17)

Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121319W.M
Quant Title : SW846 8260

TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P



Library Search Compound Report

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX122619\
Data File : VX014272.D
Acq On : 26 Dec 2019 16:21
Operator : JC/SP
Sample : K6405-04
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 15 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
994-MW-05-(17)

Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121319W.M
Quant Title : SW846 8260

TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

No Library Search Compounds Detected

****

Tentatively Identified Compound (LSC) summary

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX122619\
Data File : VX014272.D
Acq On : 26 Dec 2019 16:21
Operator : JC/SP
Sample : K6405-04
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 15 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
994-MW-05-(17)

Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121319W.M
Quant Title : SW846 8260

TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

TIC Top Hit name	RT	EstConc	Units	Response	Internal Standard #	Internal Standard RT	Internal Standard Resp	Internal Standard Conc

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Day Environmental, Inc.	Date Collected:	12/20/19
Project:	Andrew St. RI	Date Received:	12/21/19
Client Sample ID:	995-MW-11-(15)	SDG No.:	K6405
Lab Sample ID:	K6405-05	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	DB-624UI ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX014251.D	1		12/24/19 17:35	VX122419

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
75-71-8	Dichlorodifluoromethane	1.00	U	0.22	1.00	ug/L
74-87-3	Chloromethane	1.00	U	0.30	1.00	ug/L
75-01-4	Vinyl Chloride	1.00	U	0.16	1.00	ug/L
74-83-9	Bromomethane	5.00	U	2.10	5.00	ug/L
75-00-3	Chloroethane	1.00	U	0.34	1.00	ug/L
75-69-4	Trichlorofluoromethane	1.00	U	0.16	1.00	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	1.00	U	0.21	1.00	ug/L
75-35-4	1,1-Dichloroethene	1.00	U	0.18	1.00	ug/L
67-64-1	Acetone	3.60	J	0.90	5.00	ug/L
75-15-0	Carbon Disulfide	1.00	U	0.23	1.00	ug/L
1634-04-4	Methyl tert-butyl Ether	1.00	U	0.070	1.00	ug/L
79-20-9	Methyl Acetate	1.00	U	0.65	1.00	ug/L
75-09-2	Methylene Chloride	1.00	U	0.33	1.00	ug/L
156-60-5	trans-1,2-Dichloroethene	1.00	U	0.24	1.00	ug/L
75-34-3	1,1-Dichloroethane	1.00	U	0.17	1.00	ug/L
110-82-7	Cyclohexane	5.00	U	1.20	5.00	ug/L
78-93-3	2-Butanone	5.00	U	0.71	5.00	ug/L
56-23-5	Carbon Tetrachloride	1.00	U	0.22	1.00	ug/L
156-59-2	cis-1,2-Dichloroethene	4.20		0.30	1.00	ug/L
74-97-5	Bromochloromethane	1.00	U	0.31	1.00	ug/L
67-66-3	Chloroform	1.00	U	0.14	1.00	ug/L
71-55-6	1,1,1-Trichloroethane	1.00	U	0.12	1.00	ug/L
108-87-2	Methylcyclohexane	1.00	U	0.17	1.00	ug/L
71-43-2	Benzene	1.00	U	0.10	1.00	ug/L
107-06-2	1,2-Dichloroethane	1.00	U	0.13	1.00	ug/L
79-01-6	Trichloroethene	7.30		0.27	1.00	ug/L
78-87-5	1,2-Dichloropropane	1.00	U	0.14	1.00	ug/L
75-27-4	Bromodichloromethane	1.00	U	0.10	1.00	ug/L
108-10-1	4-Methyl-2-Pentanone	5.00	U	0.85	5.00	ug/L
108-88-3	Toluene	1.00	U	0.12	1.00	ug/L
10061-02-6	t-1,3-Dichloropropene	1.00	U	0.19	1.00	ug/L
10061-01-5	cis-1,3-Dichloropropene	1.00	U	0.16	1.00	ug/L

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Day Environmental, Inc.	Date Collected:	12/20/19
Project:	Andrew St. RI	Date Received:	12/21/19
Client Sample ID:	995-MW-11-(15)	SDG No.:	K6405
Lab Sample ID:	K6405-05	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	DB-624UI ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX014251.D	1		12/24/19 17:35	VX122419

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
79-00-5	1,1,2-Trichloroethane	1.00	U	0.12	1.00	ug/L
591-78-6	2-Hexanone	5.00	U	1.40	5.00	ug/L
124-48-1	Dibromochloromethane	1.00	U	0.16	1.00	ug/L
106-93-4	1,2-Dibromoethane	1.00	U	0.14	1.00	ug/L
127-18-4	Tetrachloroethene	240	E	0.15	1.00	ug/L
108-90-7	Chlorobenzene	1.00	U	0.080	1.00	ug/L
100-41-4	Ethyl Benzene	1.00	U	0.080	1.00	ug/L
179601-23-1	m/p-Xylenes	2.00	U	0.20	2.00	ug/L
95-47-6	o-Xylene	1.00	U	0.13	1.00	ug/L
100-42-5	Styrene	1.00	U	0.11	1.00	ug/L
75-25-2	Bromoform	1.00	U	0.15	1.00	ug/L
98-82-8	Isopropylbenzene	1.00	U	0.13	1.00	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	1.00	U	0.15	1.00	ug/L
541-73-1	1,3-Dichlorobenzene	1.00	U	0.14	1.00	ug/L
106-46-7	1,4-Dichlorobenzene	1.00	U	0.20	1.00	ug/L
95-50-1	1,2-Dichlorobenzene	1.00	U	0.12	1.00	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	1.00	U	0.54	1.00	ug/L
120-82-1	1,2,4-Trichlorobenzene	1.00	U	0.24	1.00	ug/L
87-61-6	1,2,3-Trichlorobenzene	1.00	U	0.26	1.00	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	49.2		61 - 141	98%	SPK: 50
1868-53-7	Dibromofluoromethane	49.2		69 - 133	98%	SPK: 50
2037-26-5	Toluene-d8	50.6		65 - 126	101%	SPK: 50
460-00-4	4-Bromofluorobenzene	46.6		58 - 135	93%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	538000	5.65			
540-36-3	1,4-Difluorobenzene	829000	6.85			
3114-55-4	Chlorobenzene-d5	759000	10.11			
3855-82-1	1,4-Dichlorobenzene-d4	334000	12.07			

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Day Environmental, Inc.	Date Collected:	12/20/19
Project:	Andrew St. RI	Date Received:	12/21/19
Client Sample ID:	995-MW-11-(15)	SDG No.:	K6405
Lab Sample ID:	K6405-05	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	DB-624UI ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX014251.D	1		12/24/19 17:35	VX122419

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit
A = Aldol-Condensation Reaction Products

Quantitation Report (LSC Reviewed)

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX122419\
Data File : VX014251.D
Acq On : 24 Dec 2019 17:35
Operator : JC/SP
Sample : K6405-05
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 21 Sample Multiplier: 1

Instrument : MSVOA_X
ClientSampleId : 995-MW-11-(15)

Quant Time: Dec 25 07:48:29 2019
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121319W.M
Quant Title : SW846 8260
QLast Update : Tue Dec 17 03:01:07 2019
Response via : Initial Calibration

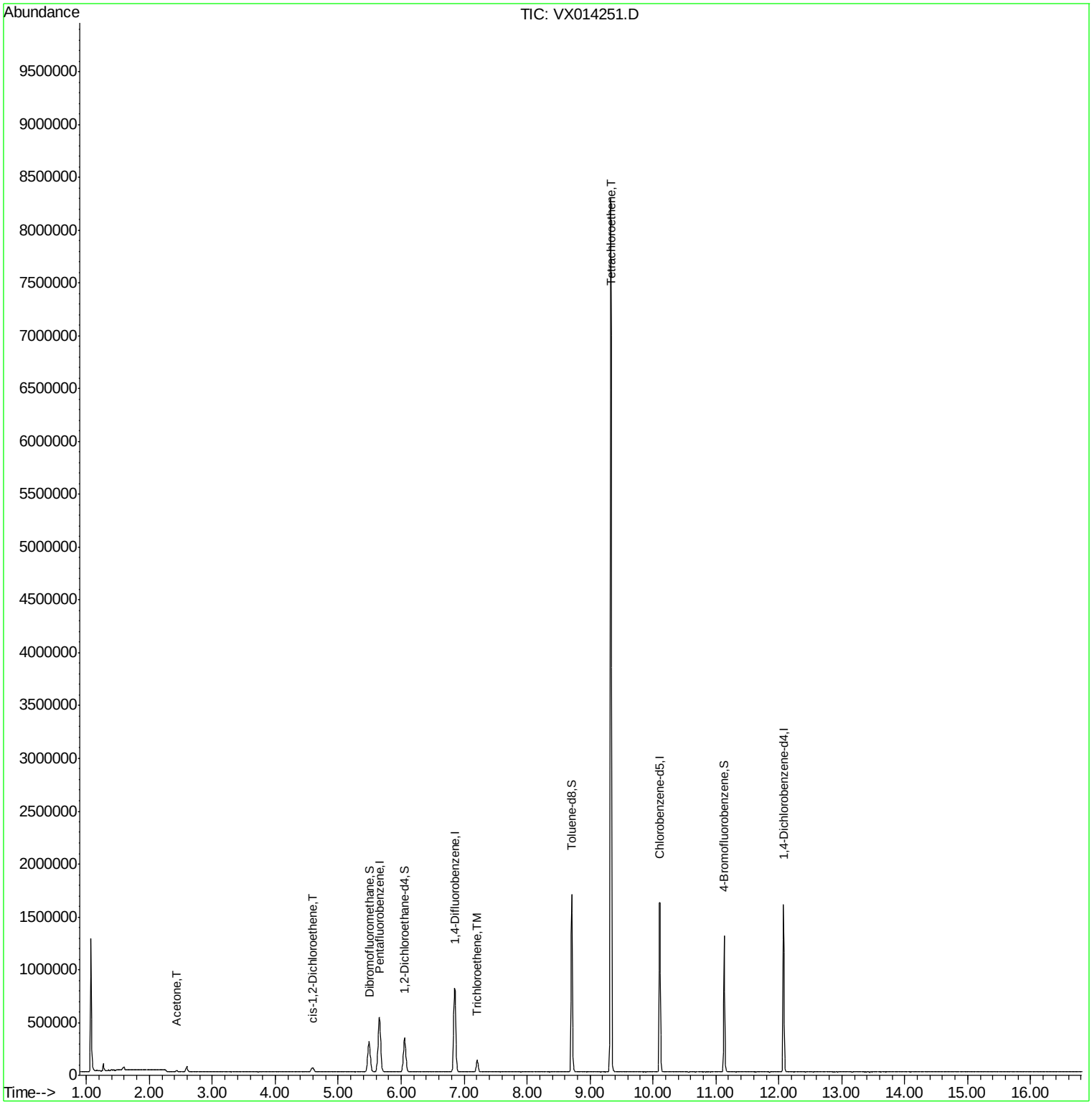
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	5.65	168	538402	50.00	ug/l	0.00
34) 1,4-Difluorobenzene	6.85	114	828843	50.00	ug/l	0.00
63) Chlorobenzene-d5	10.11	117	759077	50.00	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	12.07	152	334150	50.00	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	6.05	65	300316	49.22	ug/l	0.00
Spiked Amount 50.000			Recovery =	98.44%		
35) Dibromofluoromethane	5.49	113	247836	49.19	ug/l	0.00
Spiked Amount 50.000			Recovery =	98.38%		
50) Toluene-d8	8.71	98	992016	50.57	ug/l	0.00
Spiked Amount 50.000			Recovery =	101.14%		
62) 4-Bromofluorobenzene	11.14	95	333814	46.55	ug/l	0.00
Spiked Amount 50.000			Recovery =	93.10%		
Target Compounds						Qvalue
16) Acetone	2.43	43	14143	3.570	ug/l	98
27) cis-1,2-Dichloroethene	4.59	96	27056	4.193	ug/l	93
44) Trichloroethene	7.21	130	47056	7.281	ug/l	90
64) Tetrachloroethene	9.33	164	1620509	241.259	ug/l	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

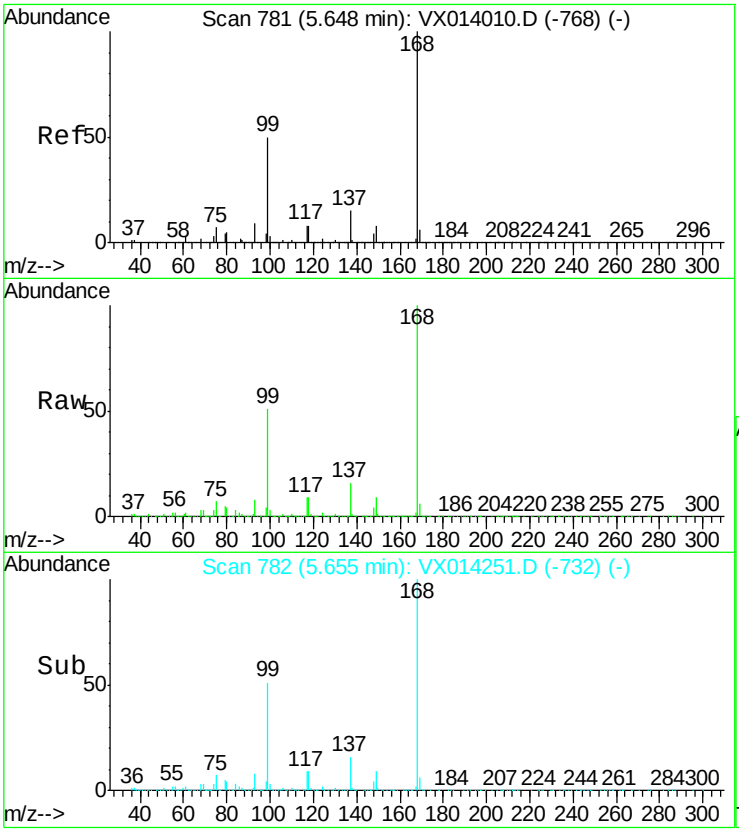
Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX122419\
Data File : VX014251.D
Acq On : 24 Dec 2019 17:35
Operator : JC/SP
Sample : K6405-05
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 21 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
995-MW-11-(15)

Quant Time: Dec 25 07:48:29 2019
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121319W.M
Quant Title : SW846 8260
QLast Update : Tue Dec 17 03:01:07 2019
Response via : Initial Calibration



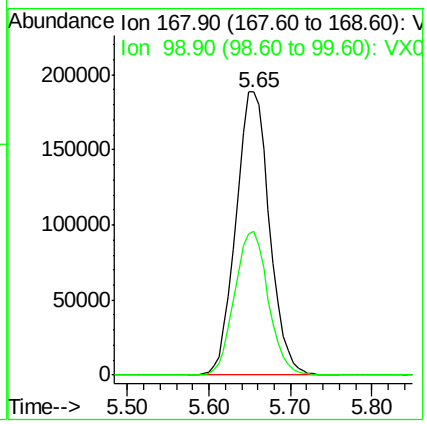
Instrument :
MSVOA_X
ClientSampleId :
995-MW-11-(15)

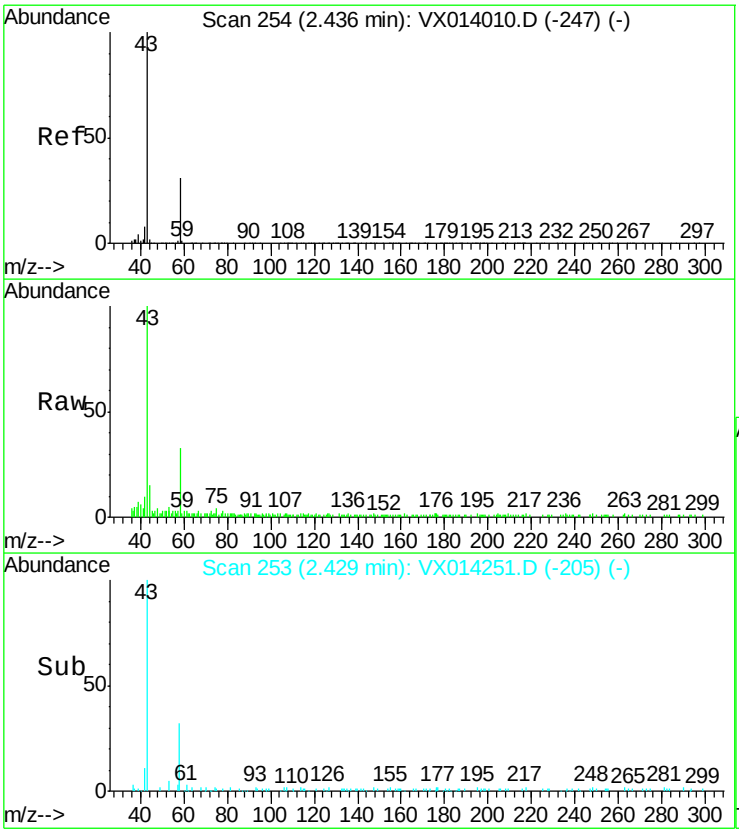


#1
Pentafluorobenzene
Concen: 50.000 ug/l
RT: 5.65 min Scan# 782
Delta R.T. 0.01 min
Lab File: VX014251.D
Acq: 24 Dec 2019 17:35

Tgt Ion:168 Resp: 538402

Ion	Ratio	Lower	Upper
168	100		
99	50.9	40.3	60.5

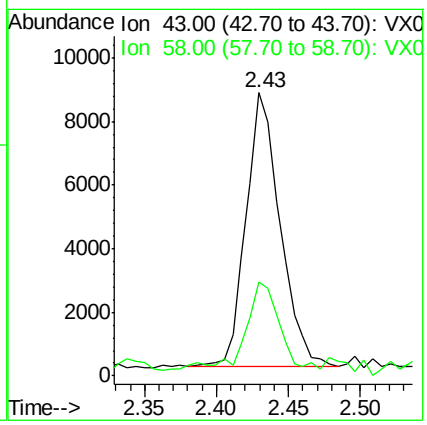




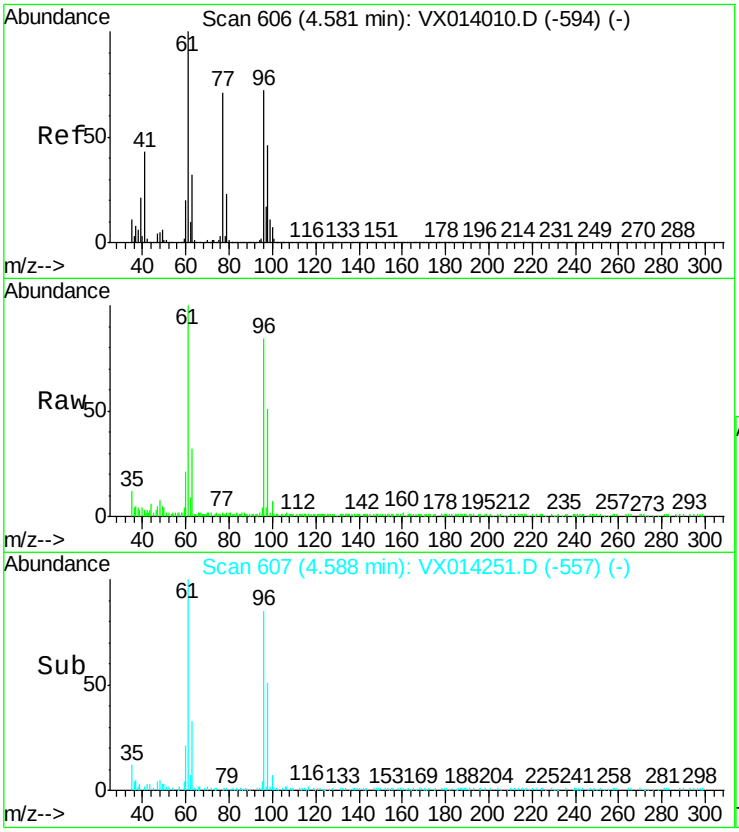
#16
Acetone
Concen: 3.570 ug/l
RT: 2.43 min Scan# 253
Delta R.T. -0.01 min
Lab File: VX014251.D
Acq: 24 Dec 2019 17:35

Tgt Ion: 43 Resp: 14143

Ion	Ratio	Lower	Upper
43	100		
58	30.3	24.9	37.3



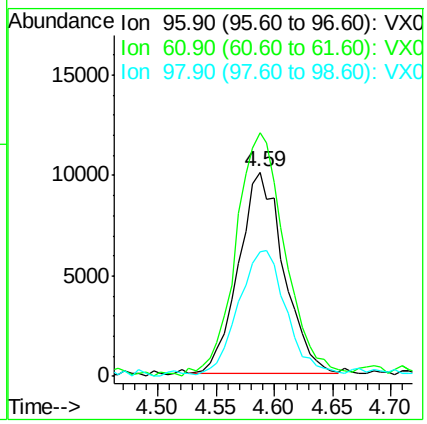
Instrument :
MSVOA_X
ClientSampleId :
995-MW-11-(15)

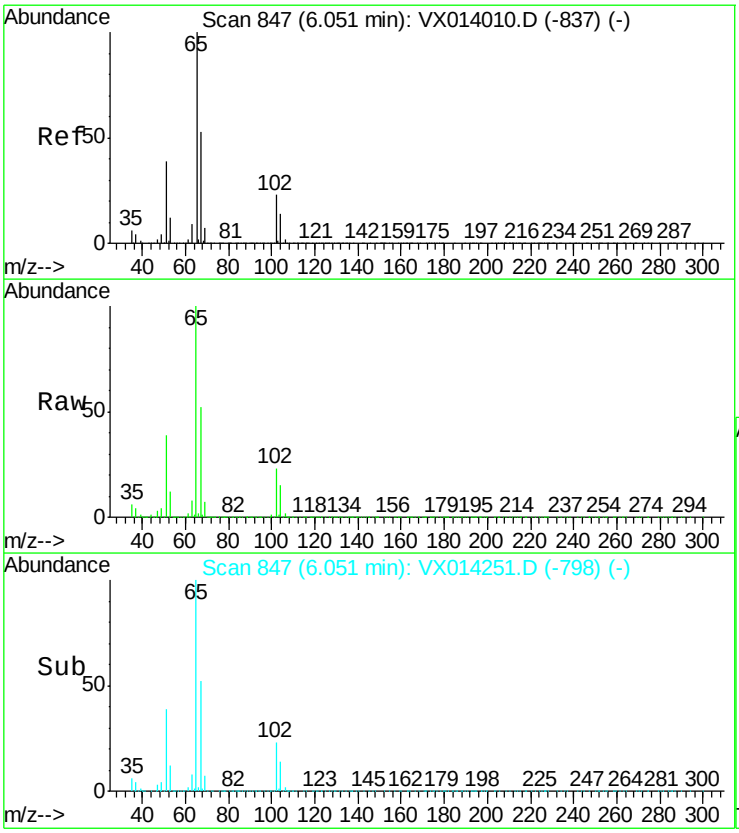


#27
cis-1,2-Dichloroethene
Concen: 4.193 ug/l
RT: 4.59 min Scan# 607
Delta R.T. 0.01 min
Lab File: VX014251.D
Acq: 24 Dec 2019 17:35

Tgt Ion: 96 Resp: 27056

Ion	Ratio	Lower	Upper
96	100		
61	132.6	0.0	288.4
98	64.6	0.0	129.6

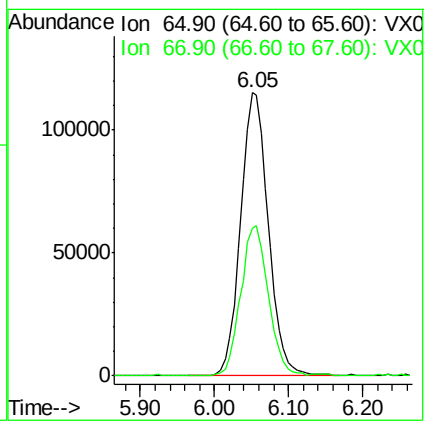




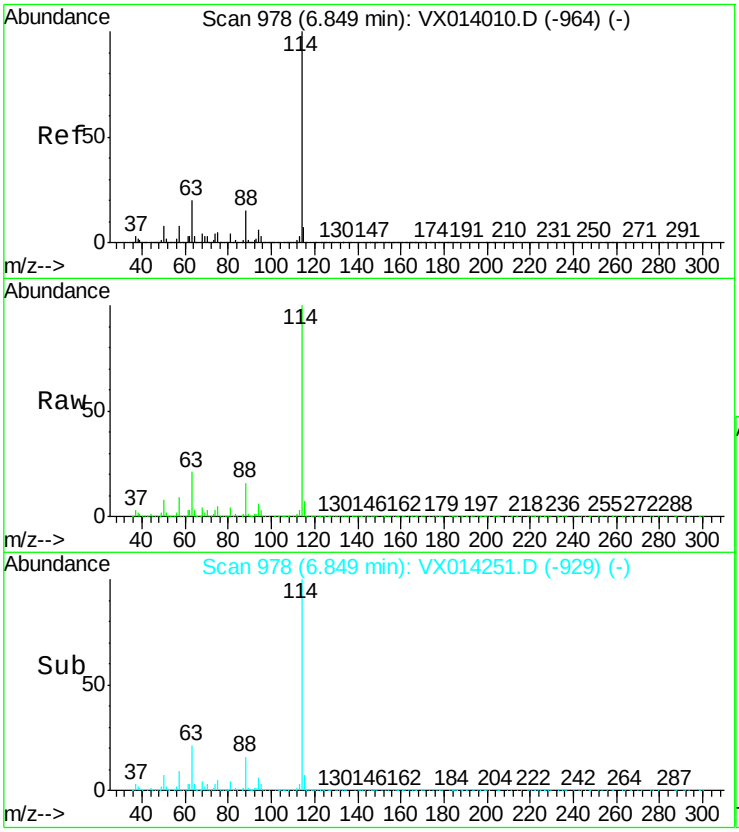
#33
1,2-Dichloroethane-d4
Concen: 49.216 ug/l
RT: 6.05 min Scan# 847
Delta R.T. 0.00 min
Lab File: VX014251.D
Acq: 24 Dec 2019 17:35

Tgt Ion: 65 Resp: 300316

Ion	Ratio	Lower	Upper
65	100		
67	53.2	0.0	106.4



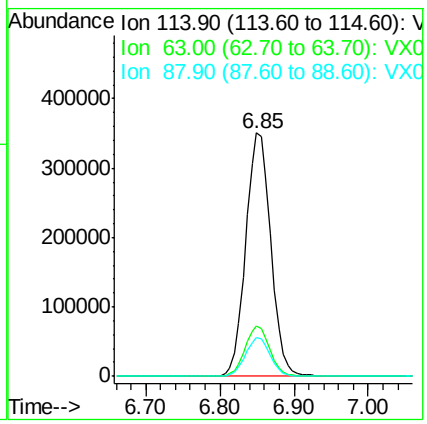
Instrument :
MSVOA_X
ClientSampleId :
995-MW-11-(15)

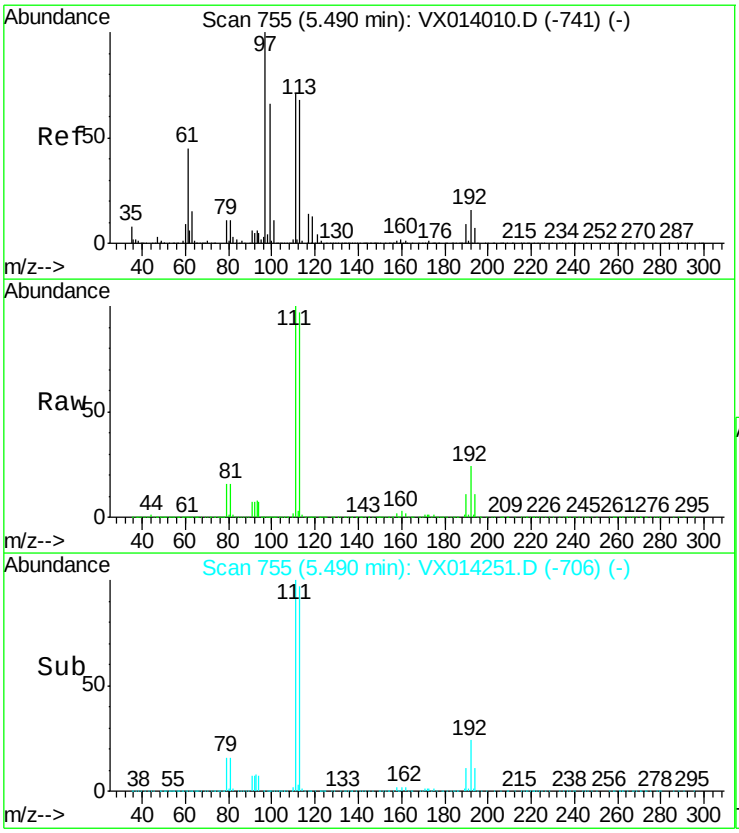


#34
1,4-Difluorobenzene
Concen: 50.000 ug/l
RT: 6.85 min Scan# 978
Delta R.T. 0.00 min
Lab File: VX014251.D
Acq: 24 Dec 2019 17:35

Tgt Ion:114 Resp: 828843

Ion	Ratio	Lower	Upper
114	100		
63	20.4	0.0	40.8
88	15.9	0.0	30.4

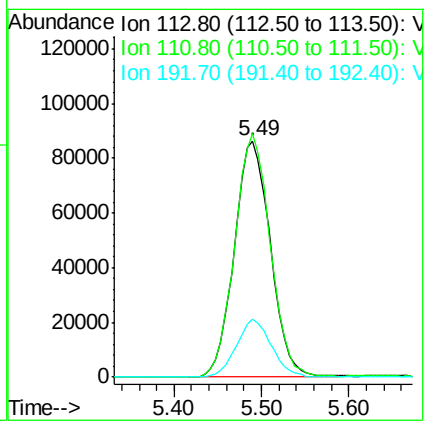




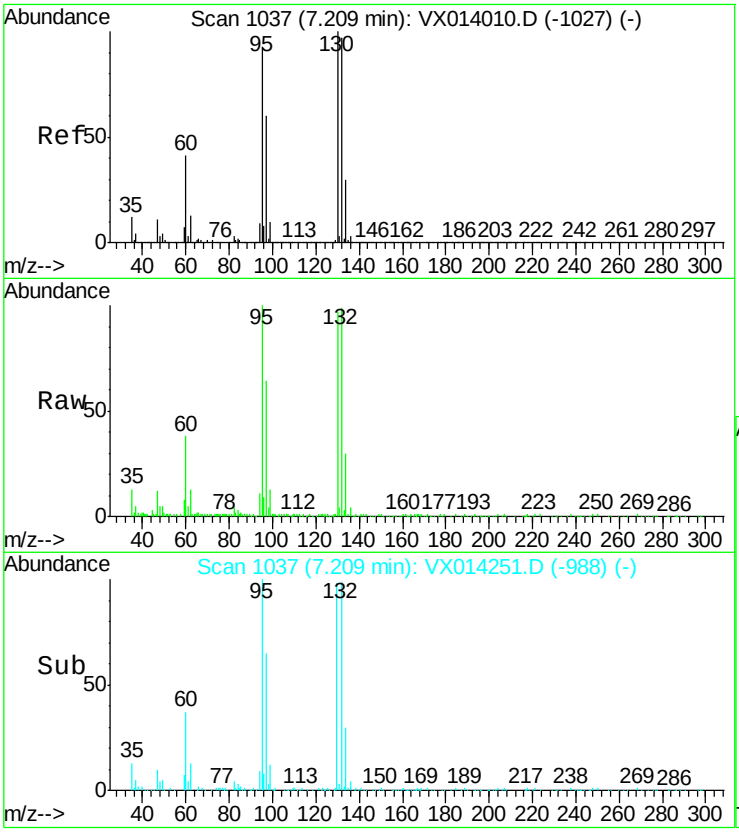
#35
Dibromofluoromethane
Concen: 49.189 ug/l
RT: 5.49 min Scan# 755
Delta R.T. 0.00 min
Lab File: VX014251.D
Acq: 24 Dec 2019 17:35

Tgt Ion:113 Resp: 247836

Ion	Ratio	Lower	Upper
113	100		
111	101.2	82.0	123.0
192	23.9	19.3	28.9



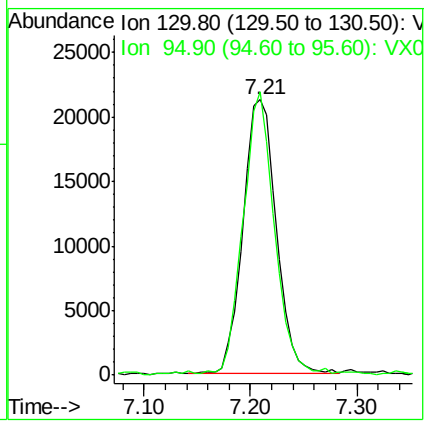
Instrument :
MSVOA_X
ClientSampleId :
995-MW-11-(15)

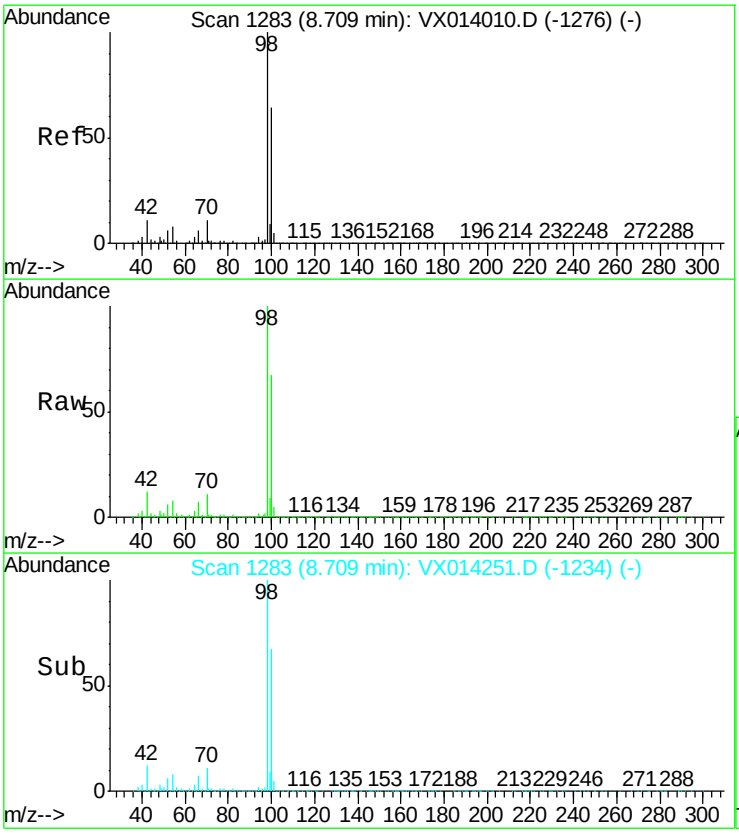


#44
Trichloroethene
Concen: 7.281 ug/l
RT: 7.21 min Scan# 1037
Delta R.T. 0.00 min
Lab File: VX014251.D
Acq: 24 Dec 2019 17:35

Tgt Ion:130 Resp: 47056

Ion	Ratio	Lower	Upper
130	100		
95	102.2	0.0	185.6

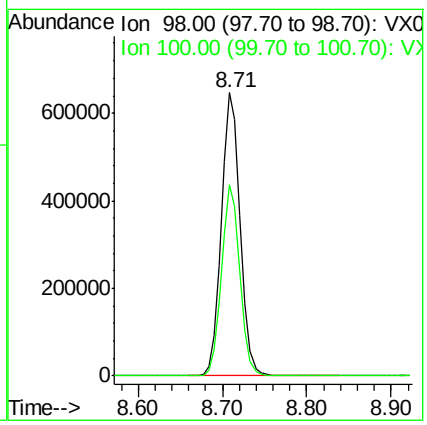




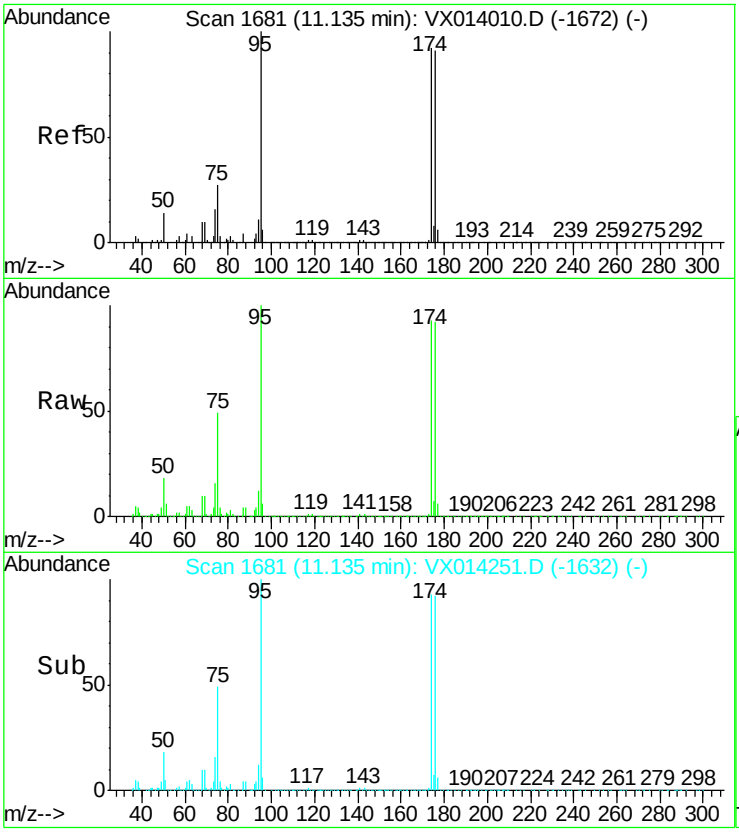
#50
Toluene-d8
Concen: 50.572 ug/l
RT: 8.71 min Scan# 1283
Delta R.T. 0.00 min
Lab File: VX014251.D
Acq: 24 Dec 2019 17:35

Tgt Ion: 98 Resp: 992016

Ion	Ratio	Lower	Upper
98	100		
100	65.8	52.9	79.3



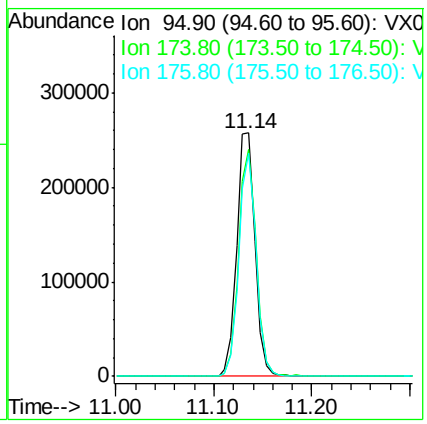
Instrument :
MSVOA_X
ClientSampleId :
995-MW-11-(15)

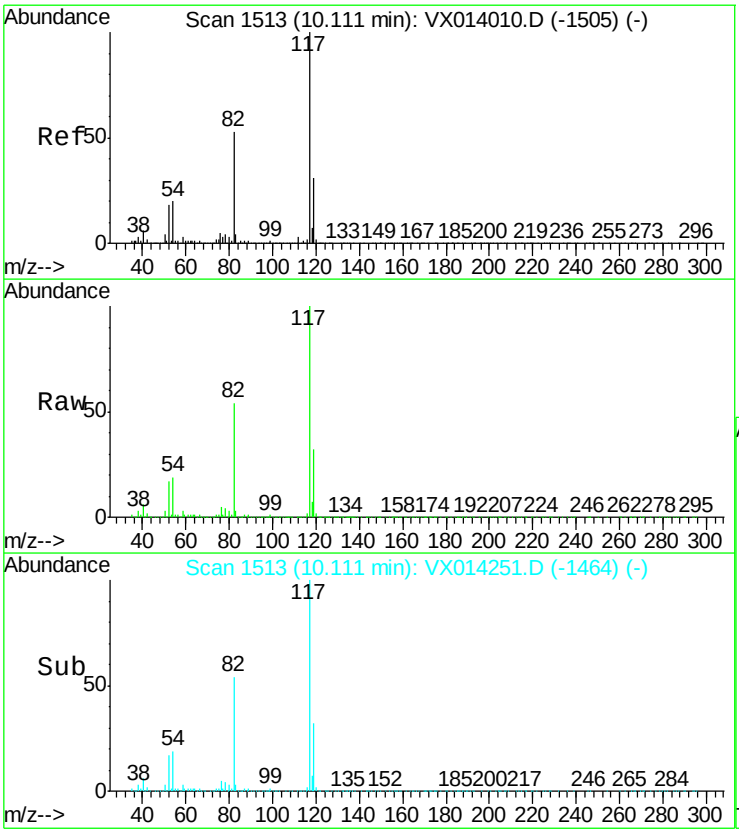


#62
4-Bromofluorobenzene
Concen: 46.554 ug/l
RT: 11.14 min Scan# 1681
Delta R.T. 0.00 min
Lab File: VX014251.D
Acq: 24 Dec 2019 17:35

Tgt Ion: 95 Resp: 333814

Ion	Ratio	Lower	Upper
95	100		
174	89.6	0.0	175.8
176	86.8	0.0	173.0

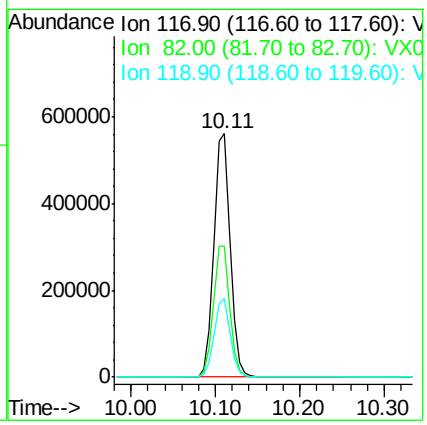




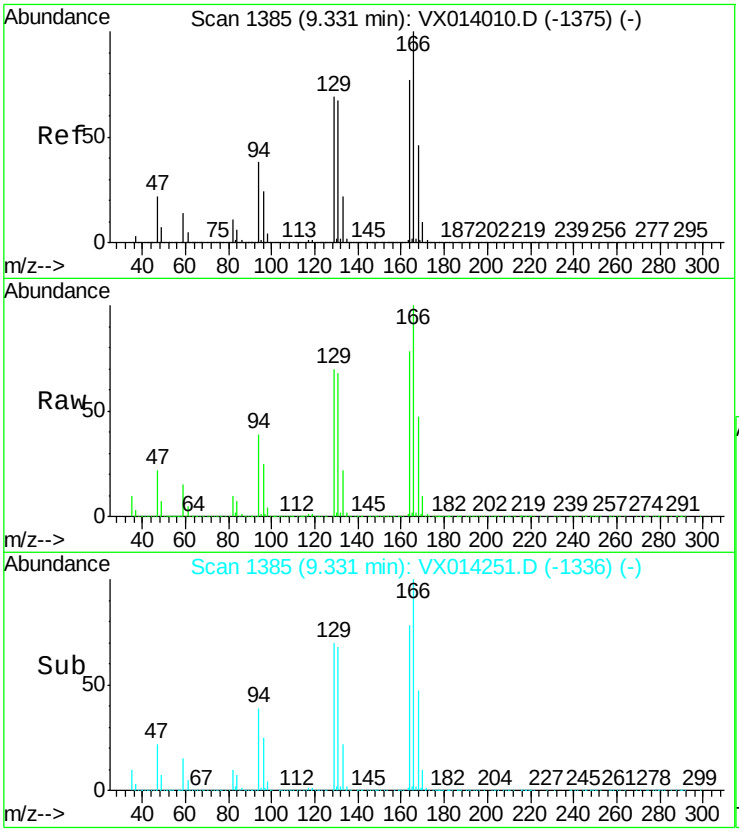
#63
Chlorobenzene-d5
Concen: 50.000 ug/l
RT: 10.11 min Scan# 1513
Delta R.T. 0.00 min
Lab File: VX014251.D
Acq: 24 Dec 2019 17:35

Tgt Ion:117 Resp: 759077

Ion	Ratio	Lower	Upper
117	100		
82	53.6	42.2	63.4
119	32.0	25.1	37.7



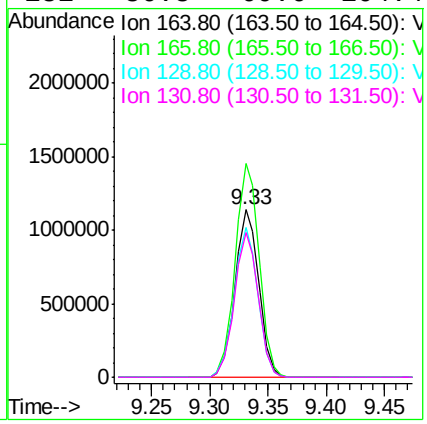
Instrument :
MSVOA_X
ClientSampleId :
995-MW-11-(15)

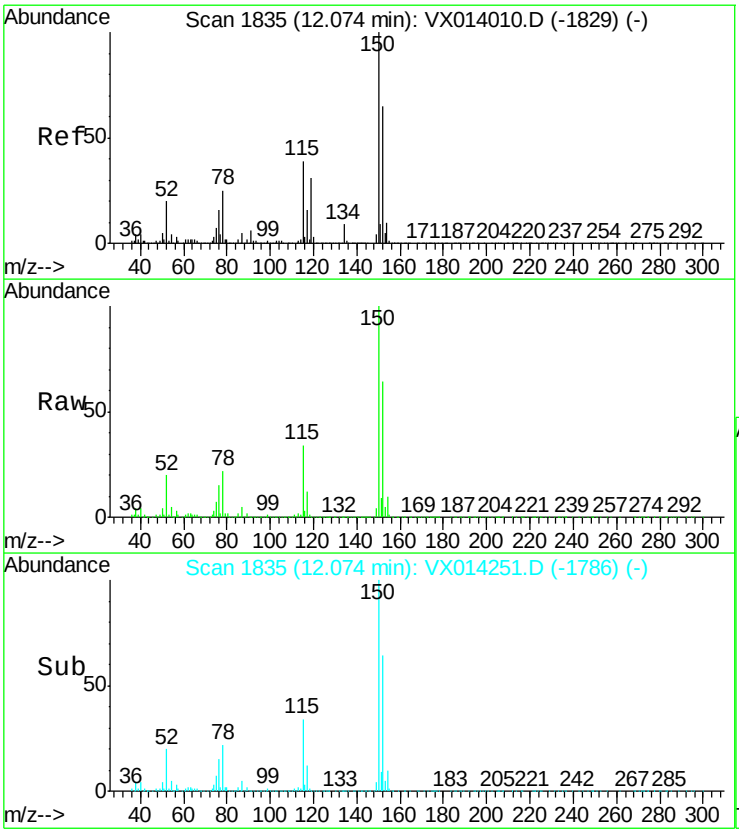


#64
Tetrachloroethene
Concen: 241.259 ug/l
RT: 9.33 min Scan# 1385
Delta R.T. 0.00 min
Lab File: VX014251.D
Acq: 24 Dec 2019 17:35

Tgt Ion:164 Resp: 1620509

Ion	Ratio	Lower	Upper
164	100		
166	127.7	104.0	156.0
129	89.2	72.2	108.4
131	86.8	69.6	104.4

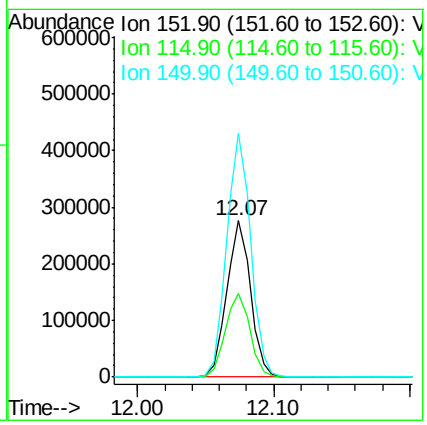




#72
1,4-Dichlorobenzene-d4
Concen: 50.000 ug/l
RT: 12.07 min Scan# 1835
Delta R.T. 0.00 min
Lab File: VX014251.D
Acq: 24 Dec 2019 17:35

Tgt Ion:152 Resp: 334150

Ion	Ratio	Lower	Upper
152	100		
115	55.0	38.3	114.9
150	157.3	0.0	345.4



Instrument :
MSVOA_X
ClientSampleId :
995-MW-11-(15)

LSC Area Percent Report

Data Path : Z:\VOASRV\HPCHEM1\MSVOA X\DATA\VX122419\
Data File : VX014251.D
Acq On : 24 Dec 2019 17:35
Operator : JC/SP
Sample : K6405-05
Misc : 5.0mL/MSVOA X/WATER
ALS Vial : 21 Sample Multiplier: 1

Integration Parameters: RTEINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 3 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121319W.M
Title : SW846 8260

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	1.070	26	30	44	rBV	1256514	1526745	12.98%	5.687%
2	5.490	745	755	767	rBV	284972	807970	6.87%	3.010%
3	5.655	771	782	795	rVB	511440	1442487	12.27%	5.373%
4	6.051	838	847	861	rBV	326904	855096	7.27%	3.185%
5	6.849	967	978	988	rBV	793087	1848313	15.72%	6.885%
6	7.209	1030	1037	1045	rBV2	113725	239026	2.03%	0.890%
7	8.709	1275	1283	1292	rBV	1677891	2574666	21.90%	9.591%
8	9.331	1378	1385	1399	rBV	8270921	11757824	100.00%	43.799%
9	10.105	1507	1512	1523	rBV	1603878	2194992	18.67%	8.176%
10	11.135	1675	1681	1691	rBV	1288001	1649401	14.03%	6.144%
11	12.074	1830	1835	1843	rBV	1586041	1948671	16.57%	7.259%

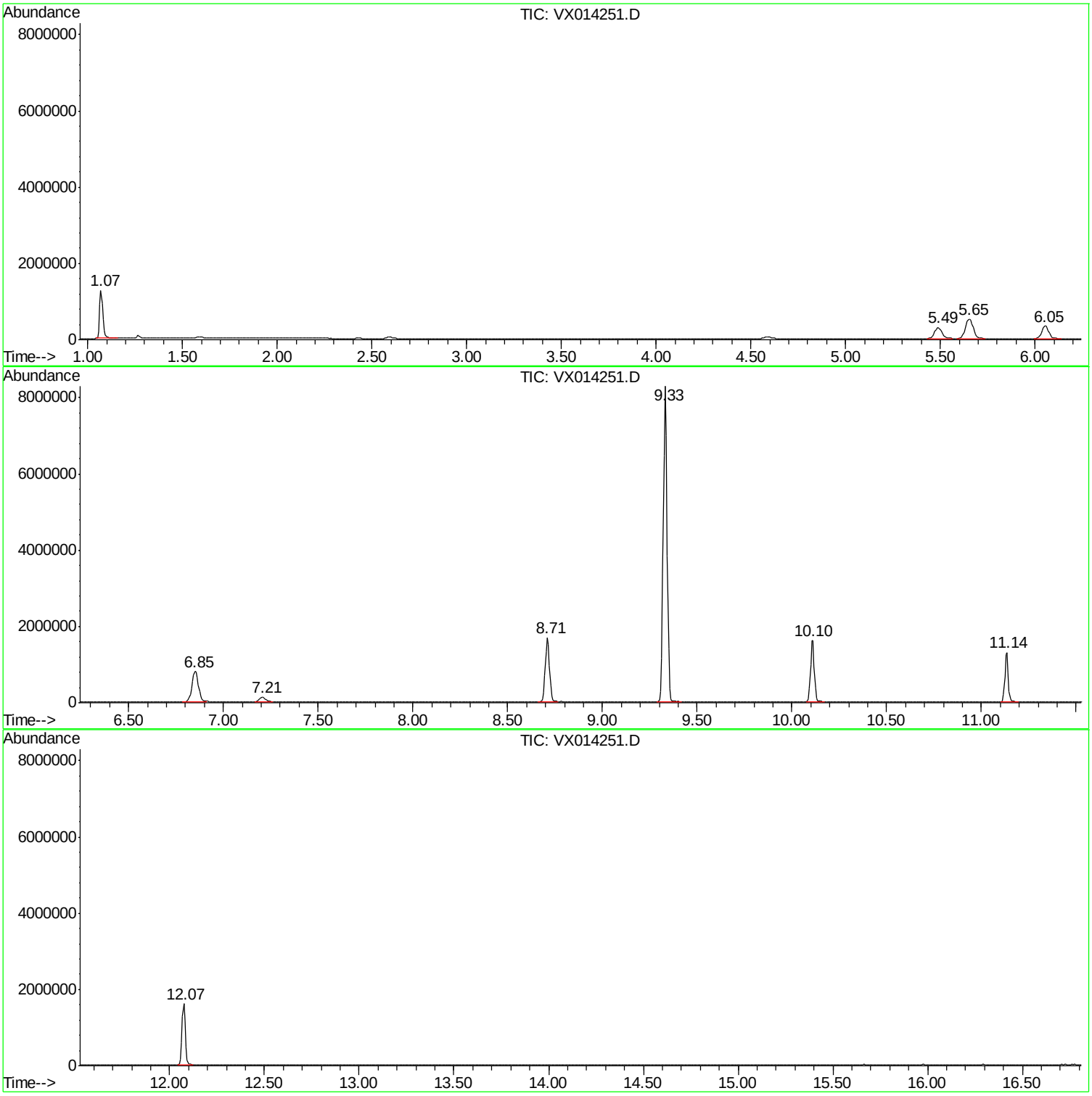
Sum of corrected areas: 26845191

Data Path : Z:\VOASRV\HPCHEM1\MSVOA X\DATA\VX122419\
Data File : VX014251.D
Acq On : 24 Dec 2019 17:35
Operator : JC/SP
Sample : K6405-05
Misc : 5.0mL/MSVOA X/WATER
ALS Vial : 21 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
995-MW-11-(15)

Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121319W.M
Quant Title : SW846 8260

TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P



Library Search Compound Report

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX122419\
Data File : VX014251.D
Acq On : 24 Dec 2019 17:35
Operator : JC/SP
Sample : K6405-05
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 21 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
995-MW-11-(15)

Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121319W.M
Quant Title : SW846 8260

TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

No Library Search Compounds Detected

****

Instrument :
MSVOA_X
ClientSampleId :
995-MW-11-(15)

Tentatively Identified Compound (LSC) summary

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX122419\
Data File : VX014251.D
Acq On : 24 Dec 2019 17:35
Operator : JC/SP
Sample : K6405-05
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 21 Sample Multiplier: 1

Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121319W.M
Quant Title : SW846 8260

TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

					Internal Standard			
TIC Top Hit name	RT	EstConc	Units	Response	#	RT	Resp	Conc

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Day Environmental, Inc.	Date Collected:	12/20/19
Project:	Andrew St. RI	Date Received:	12/21/19
Client Sample ID:	995-MW-11-(15)DL	SDG No.:	K6405
Lab Sample ID:	K6405-05DL	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	DB-624UI ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX014283.D	5		12/26/19 20:37	VX122619

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
75-71-8	Dichlorodifluoromethane	5.00	UD	1.10	5.00	ug/L
74-87-3	Chloromethane	5.00	UD	1.50	5.00	ug/L
75-01-4	Vinyl Chloride	5.00	UD	0.80	5.00	ug/L
74-83-9	Bromomethane	25.0	UD	10.3	25.0	ug/L
75-00-3	Chloroethane	5.00	UD	1.70	5.00	ug/L
75-69-4	Trichlorofluoromethane	5.00	UD	0.79	5.00	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	5.00	UD	1.00	5.00	ug/L
75-35-4	1,1-Dichloroethene	5.00	UD	0.91	5.00	ug/L
67-64-1	Acetone	25.0	UD	4.50	25.0	ug/L
75-15-0	Carbon Disulfide	5.00	UD	1.20	5.00	ug/L
1634-04-4	Methyl tert-butyl Ether	5.00	UD	0.35	5.00	ug/L
79-20-9	Methyl Acetate	5.00	UD	3.20	5.00	ug/L
75-09-2	Methylene Chloride	5.00	UD	1.60	5.00	ug/L
156-60-5	trans-1,2-Dichloroethene	5.00	UD	1.20	5.00	ug/L
75-34-3	1,1-Dichloroethane	5.00	UD	0.83	5.00	ug/L
110-82-7	Cyclohexane	25.0	UD	6.00	25.0	ug/L
78-93-3	2-Butanone	25.0	UD	3.50	25.0	ug/L
56-23-5	Carbon Tetrachloride	5.00	UD	1.10	5.00	ug/L
156-59-2	cis-1,2-Dichloroethene	4.80	JD	1.50	5.00	ug/L
74-97-5	Bromochloromethane	5.00	UD	1.60	5.00	ug/L
67-66-3	Chloroform	5.00	UD	0.71	5.00	ug/L
71-55-6	1,1,1-Trichloroethane	5.00	UD	0.62	5.00	ug/L
108-87-2	Methylcyclohexane	5.00	UD	0.86	5.00	ug/L
71-43-2	Benzene	5.00	UD	0.49	5.00	ug/L
107-06-2	1,2-Dichloroethane	5.00	UD	0.65	5.00	ug/L
79-01-6	Trichloroethene	7.20	D	1.30	5.00	ug/L
78-87-5	1,2-Dichloropropane	5.00	UD	0.68	5.00	ug/L
75-27-4	Bromodichloromethane	5.00	UD	0.51	5.00	ug/L
108-10-1	4-Methyl-2-Pentanone	25.0	UD	4.30	25.0	ug/L
108-88-3	Toluene	5.00	UD	0.58	5.00	ug/L
10061-02-6	t-1,3-Dichloropropene	5.00	UD	0.96	5.00	ug/L
10061-01-5	cis-1,3-Dichloropropene	5.00	UD	0.78	5.00	ug/L

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Day Environmental, Inc.	Date Collected:	12/20/19
Project:	Andrew St. RI	Date Received:	12/21/19
Client Sample ID:	995-MW-11-(15)DL	SDG No.:	K6405
Lab Sample ID:	K6405-05DL	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	DB-624UI ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX014283.D	5		12/26/19 20:37	VX122619

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
79-00-5	1,1,2-Trichloroethane	5.00	UD	0.61	5.00	ug/L
591-78-6	2-Hexanone	25.0	UD	6.80	25.0	ug/L
124-48-1	Dibromochloromethane	5.00	UD	0.78	5.00	ug/L
106-93-4	1,2-Dibromoethane	5.00	UD	0.69	5.00	ug/L
127-18-4	Tetrachloroethene	220	D	0.77	5.00	ug/L
108-90-7	Chlorobenzene	5.00	UD	0.38	5.00	ug/L
100-41-4	Ethyl Benzene	5.00	UD	0.41	5.00	ug/L
179601-23-1	m/p-Xylenes	10.0	UD	0.98	10.0	ug/L
95-47-6	o-Xylene	5.00	UD	0.65	5.00	ug/L
100-42-5	Styrene	5.00	UD	0.53	5.00	ug/L
75-25-2	Bromoform	5.00	UD	0.75	5.00	ug/L
98-82-8	Isopropylbenzene	5.00	UD	0.66	5.00	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	5.00	UD	0.76	5.00	ug/L
541-73-1	1,3-Dichlorobenzene	5.00	UD	0.70	5.00	ug/L
106-46-7	1,4-Dichlorobenzene	5.00	UD	1.00	5.00	ug/L
95-50-1	1,2-Dichlorobenzene	5.00	UD	0.60	5.00	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	5.00	UD	2.70	5.00	ug/L
120-82-1	1,2,4-Trichlorobenzene	5.00	UD	1.20	5.00	ug/L
87-61-6	1,2,3-Trichlorobenzene	5.00	UD	1.30	5.00	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	49.9		61 - 141	100%	SPK: 50
1868-53-7	Dibromofluoromethane	50.1		69 - 133	100%	SPK: 50
2037-26-5	Toluene-d8	50.9		65 - 126	102%	SPK: 50
460-00-4	4-Bromofluorobenzene	46.6		58 - 135	93%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	530000	5.65			
540-36-3	1,4-Difluorobenzene	816000	6.85			
3114-55-4	Chlorobenzene-d5	737000	10.11			
3855-82-1	1,4-Dichlorobenzene-d4	321000	12.07			

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Day Environmental, Inc.	Date Collected:	12/20/19
Project:	Andrew St. RI	Date Received:	12/21/19
Client Sample ID:	995-MW-11-(15)DL	SDG No.:	K6405
Lab Sample ID:	K6405-05DL	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	DB-624UI ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX014283.D	5		12/26/19 20:37	VX122619

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit
A = Aldol-Condensation Reaction Products

Quantitation Report (QT Reviewed)

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX122619\
Data File : VX014283.D
Acq On : 26 Dec 2019 20:37
Operator : JC/SP
Sample : K6405-05DL 5X
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 26 Sample Multiplier: 1

Instrument : MSVOA_X
ClientSampleId : 995-MW-11-(15)DL

Quant Time: Dec 27 07:32:34 2019
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121319W.M
Quant Title : SW846 8260
QLast Update : Tue Dec 17 03:01:07 2019
Response via : Initial Calibration

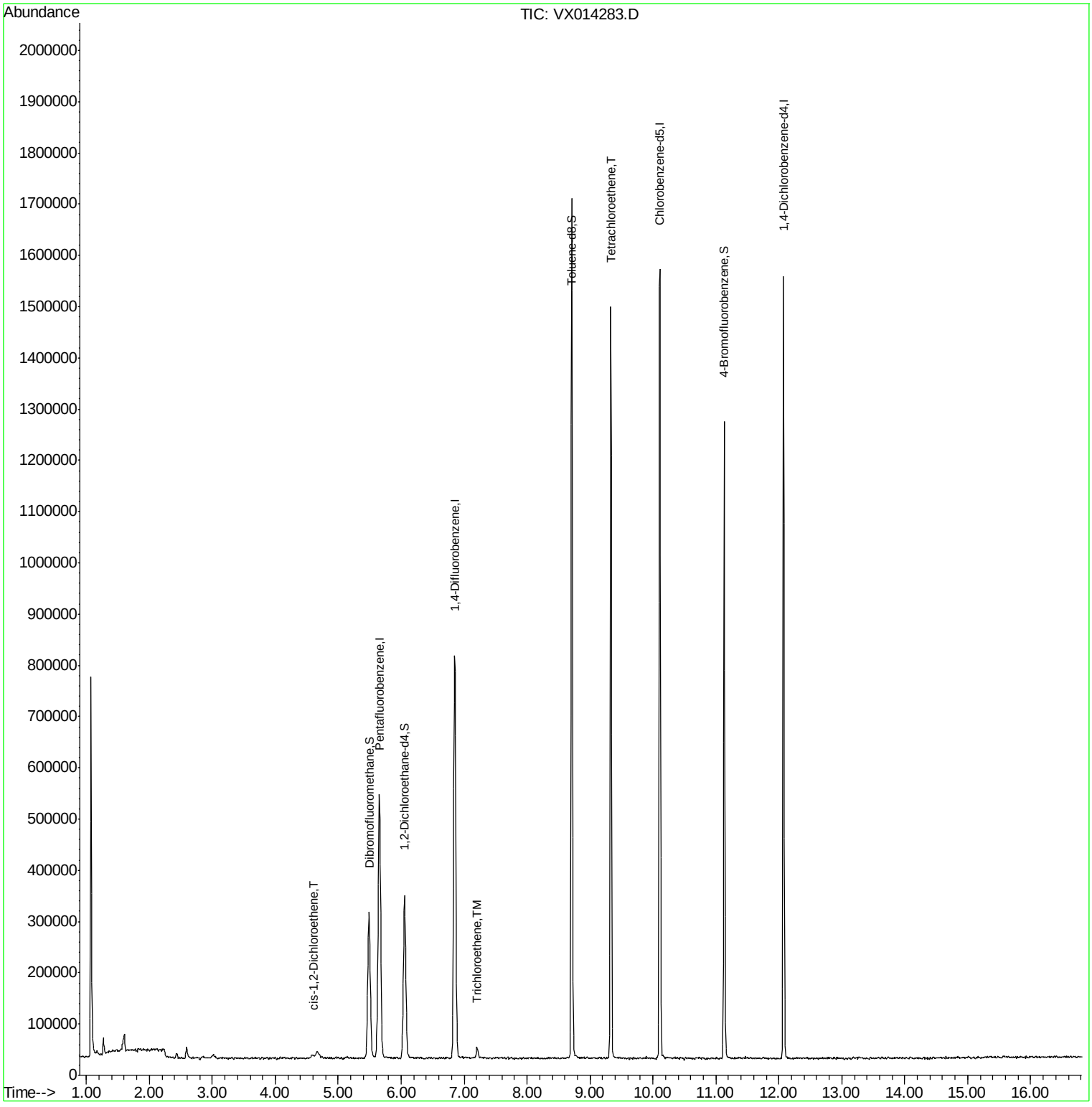
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	5.65	168	530079	50.00	ug/l	0.00
34) 1,4-Difluorobenzene	6.85	114	816484	50.00	ug/l	0.00
63) Chlorobenzene-d5	10.11	117	736656	50.00	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	12.07	152	320708	50.00	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	6.05	65	300079	49.95	ug/l	0.00
Spiked Amount 50.000			Recovery = 99.90%			
35) Dibromofluoromethane	5.49	113	248434	50.05	ug/l	0.00
Spiked Amount 50.000			Recovery = 100.10%			
50) Toluene-d8	8.71	98	982658	50.85	ug/l	0.00
Spiked Amount 50.000			Recovery = 101.70%			
62) 4-Bromofluorobenzene	11.13	95	329402	46.63	ug/l	0.00
Spiked Amount 50.000			Recovery = 93.26%			
Target Compounds						Qvalue
27) cis-1,2-Dichloroethene	4.59	96	6125	0.964	ug/l	85
44) Trichloroethene	7.21	130	9225	1.449	ug/l	90
64) Tetrachloroethene	9.33	164	282687	43.367	ug/l	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

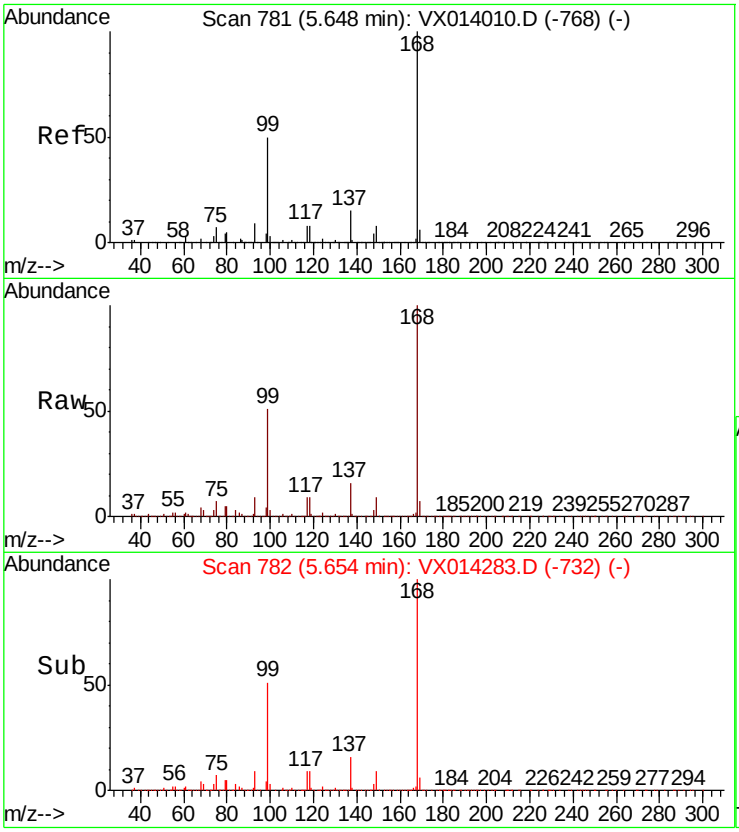
Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX122619\
Data File : VX014283.D
Acq On : 26 Dec 2019 20:37
Operator : JC/SP
Sample : K6405-05DL 5X
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 26 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
995-MW-11-(15)DL

Quant Time: Dec 27 07:32:34 2019
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121319W.M
Quant Title : SW846 8260
QLast Update : Tue Dec 17 03:01:07 2019
Response via : Initial Calibration



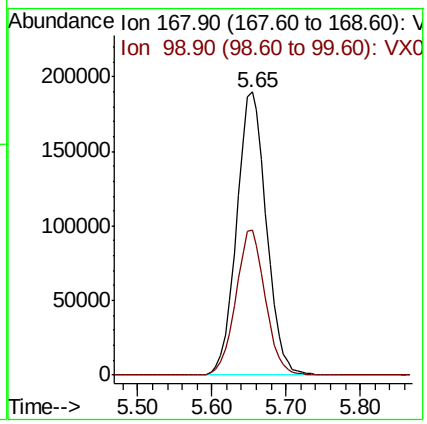
Instrument :
MSVOA_X
ClientSampleId :
995-MW-11-(15)DL

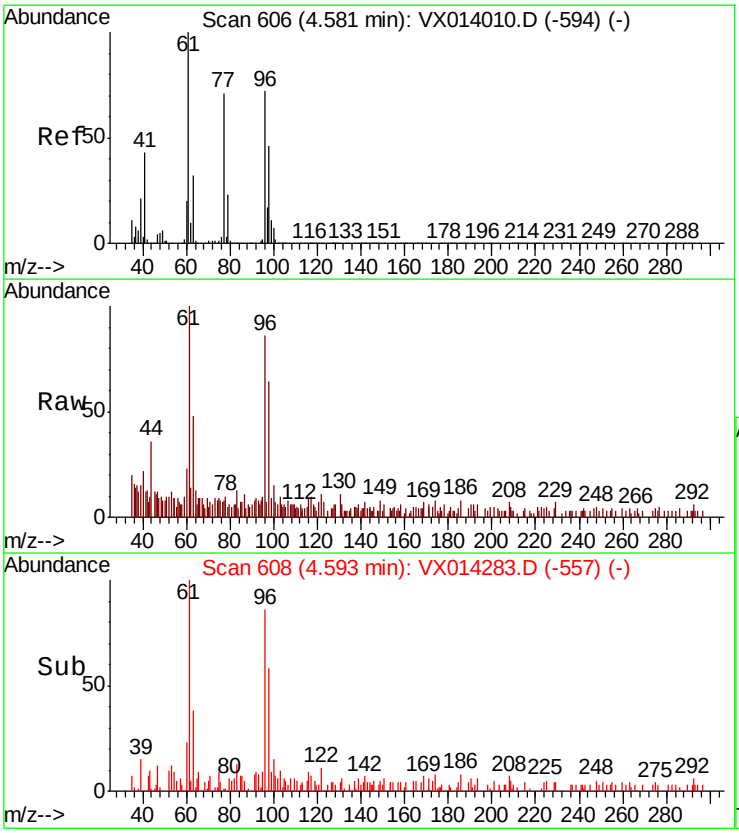


#1
Pentafluorobenzene
Concen: 50.000 ug/l
RT: 5.65 min Scan# 782
Delta R.T. 0.01 min
Lab File: VX014283.D
Acq: 26 Dec 2019 20:37

Tgt Ion:168 Resp: 530079

Ion	Ratio	Lower	Upper
168	100		
99	51.0	40.3	60.5

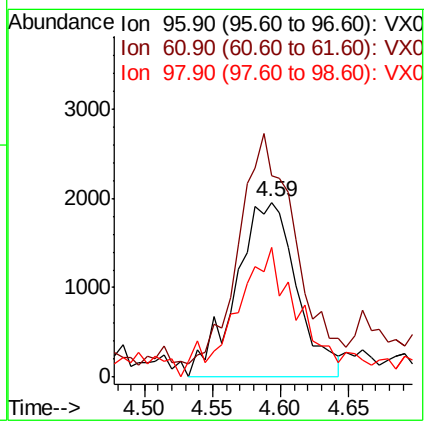




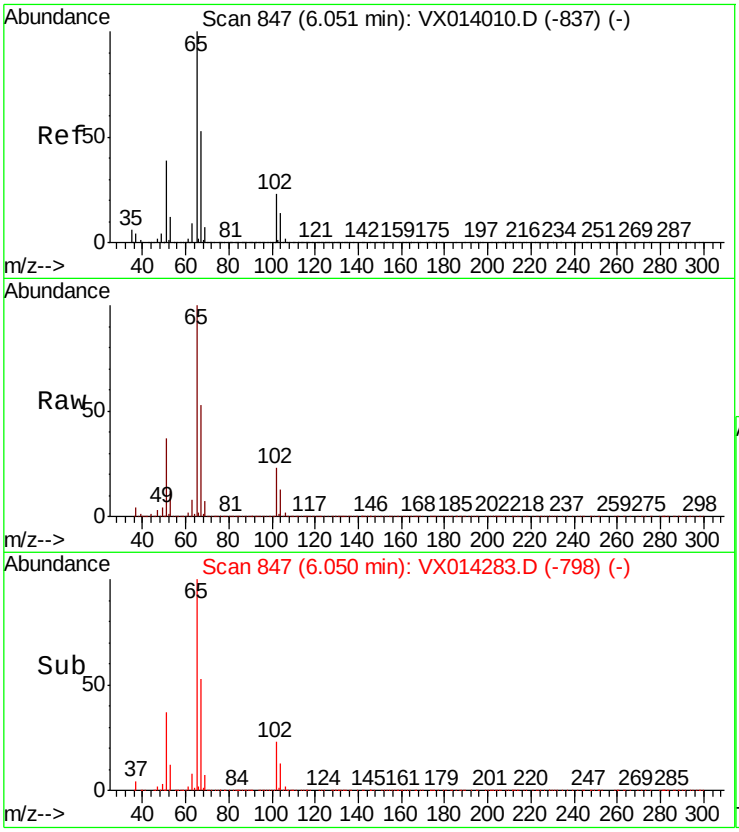
#27
cis-1,2-Dichloroethene
Concen: 0.964 ug/l
RT: 4.59 min Scan# 608
Delta R.T. 0.01 min
Lab File: VX014283.D
Acq: 26 Dec 2019 20:37

Tgt Ion: 96 Resp: 6125

Ion	Ratio	Lower	Upper
96	100		
61	119.6	0.0	288.4
98	60.8	0.0	129.6



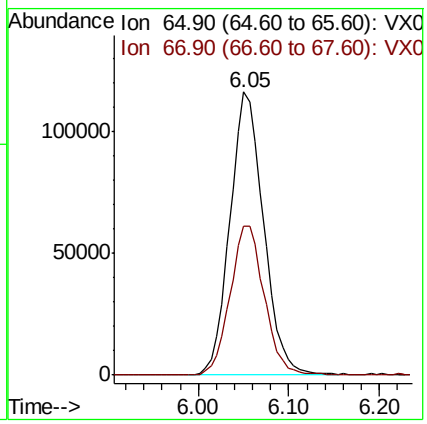
Instrument :
MSVOA_X
ClientSampleId :
995-MW-11-(15)DL

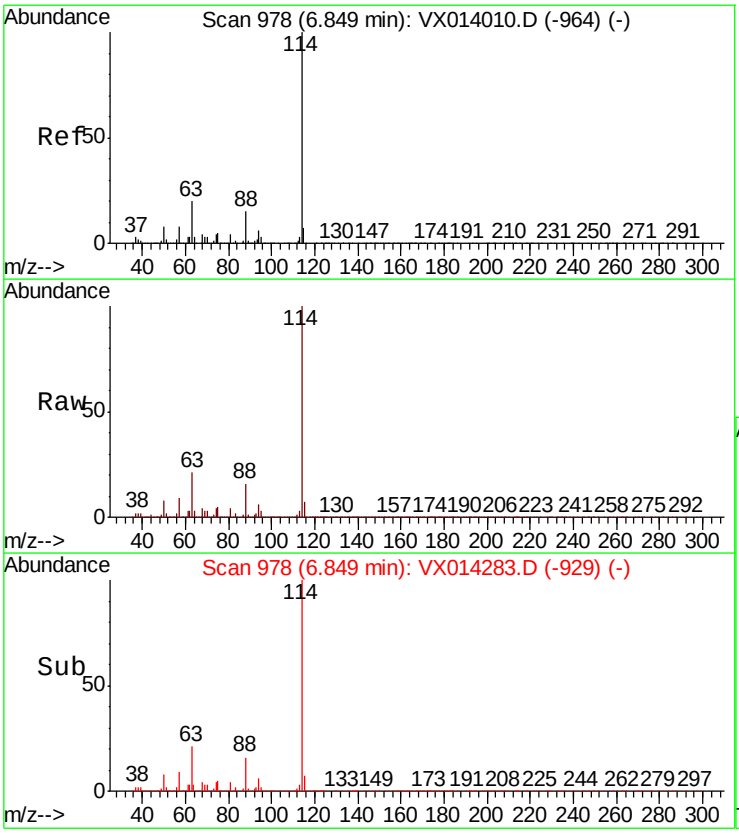


#33
1,2-Dichloroethane-d4
Concen: 49.949 ug/l
RT: 6.05 min Scan# 847
Delta R.T. -0.00 min
Lab File: VX014283.D
Acq: 26 Dec 2019 20:37

Tgt Ion: 65 Resp: 300079

Ion	Ratio	Lower	Upper
65	100		
67	53.2	0.0	106.4

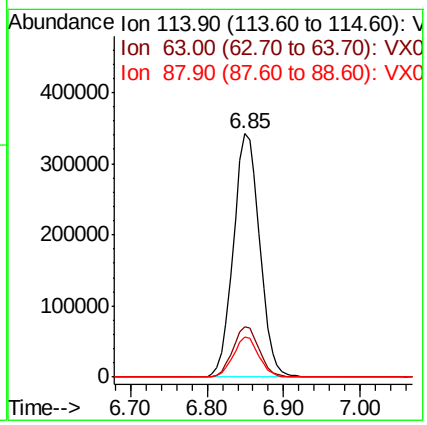




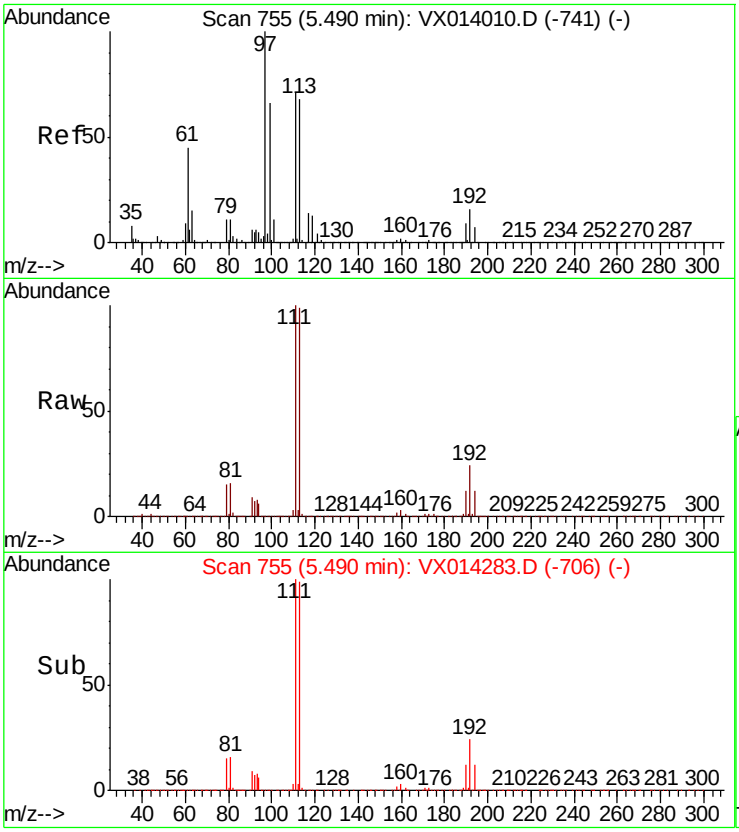
#34
1,4-Difluorobenzene
Concen: 50.000 ug/l
RT: 6.85 min Scan# 978
Delta R.T. -0.00 min
Lab File: VX014283.D
Acq: 26 Dec 2019 20:37

Tgt Ion:114 Resp: 816484

Ion	Ratio	Lower	Upper
114	100		
63	20.6	0.0	40.8
88	16.2	0.0	30.4



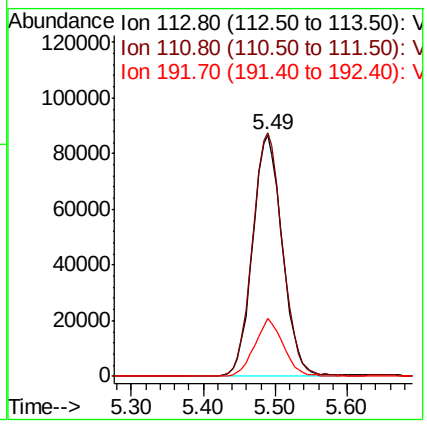
Instrument :
MSVOA_X
ClientSampleId :
995-MW-11-(15)DL

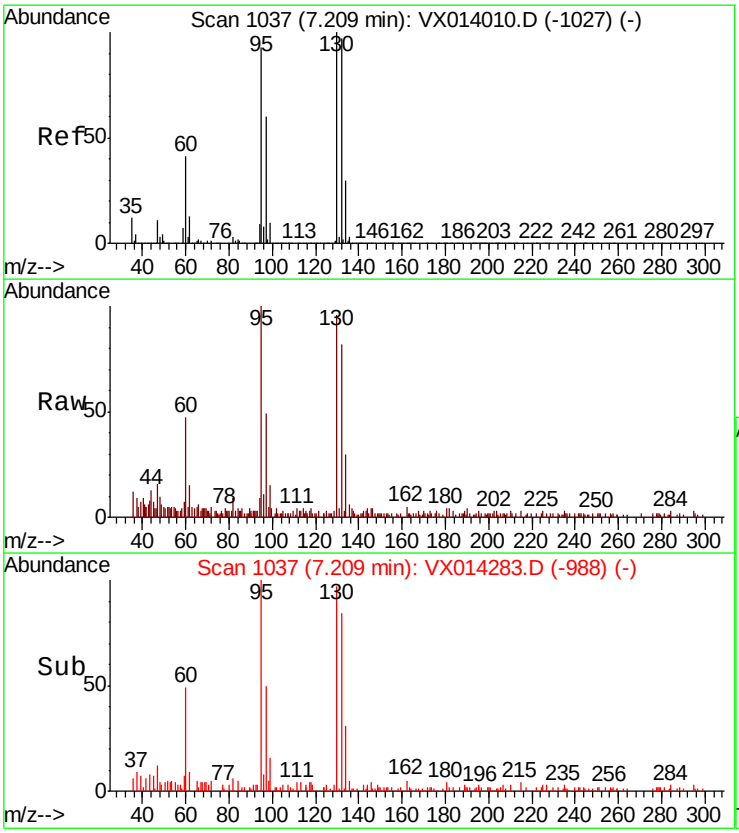


#35
Dibromofluoromethane
Concen: 50.054 ug/l
RT: 5.49 min Scan# 755
Delta R.T. -0.00 min
Lab File: VX014283.D
Acq: 26 Dec 2019 20:37

Tgt Ion:113 Resp: 248434

Ion	Ratio	Lower	Upper
113	100		
111	101.5	82.0	123.0
192	22.8	19.3	28.9

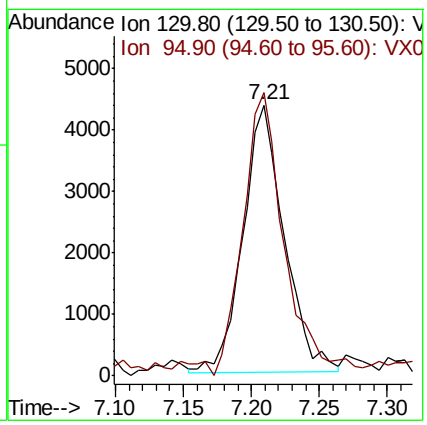




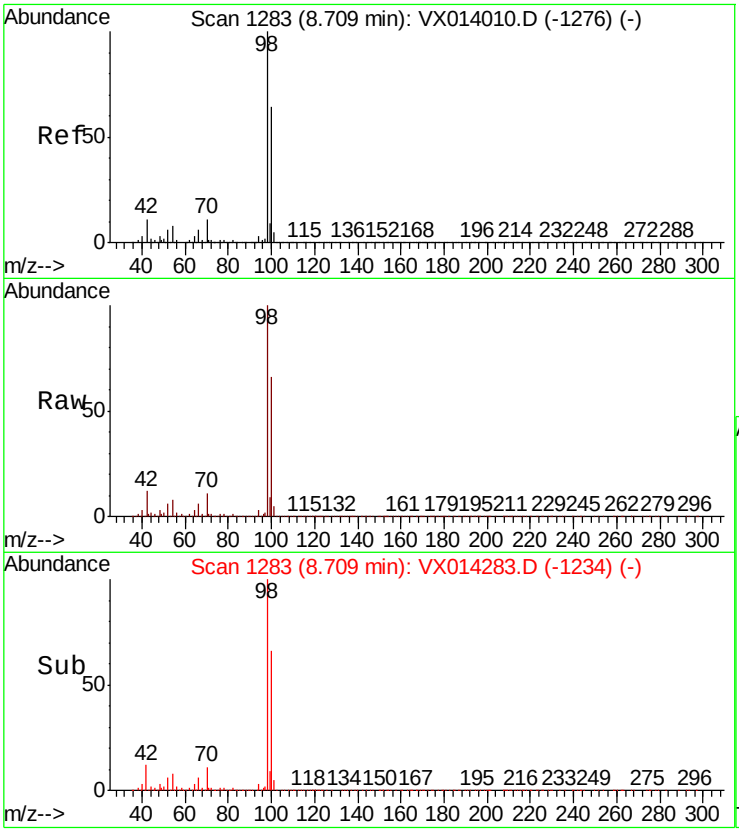
#44
Trichloroethene
Concen: 1.449 ug/l
RT: 7.21 min Scan# 1037
Delta R.T. -0.00 min
Lab File: VX014283.D
Acq: 26 Dec 2019 20:37

Tgt Ion:130 Resp: 9225

Ion	Ratio	Lower	Upper
130	100		
95	102.6	0.0	185.6



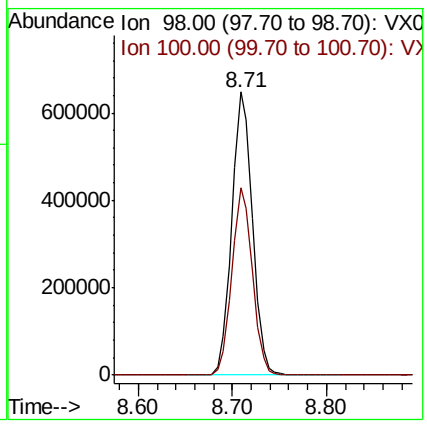
Instrument :
MSVOA_X
ClientSampleId :
995-MW-11-(15)DL

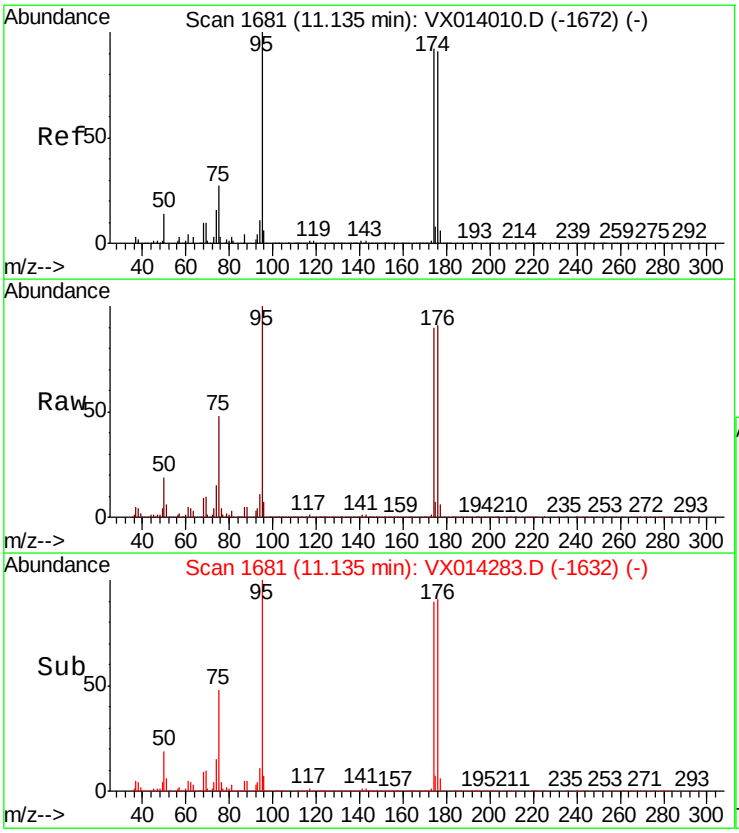


#50
Toluene-d8
Concen: 50.853 ug/l
RT: 8.71 min Scan# 1283
Delta R.T. -0.00 min
Lab File: VX014283.D
Acq: 26 Dec 2019 20:37

Tgt Ion: 98 Resp: 982658

Ion	Ratio	Lower	Upper
98	100		
100	65.9	52.9	79.3

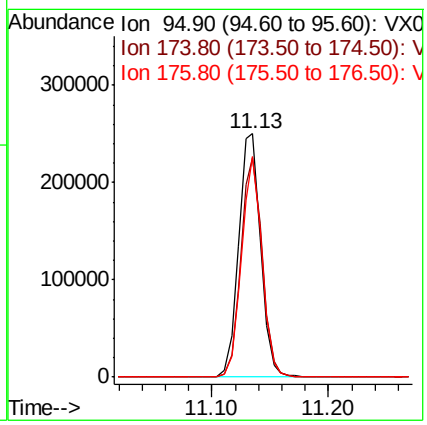




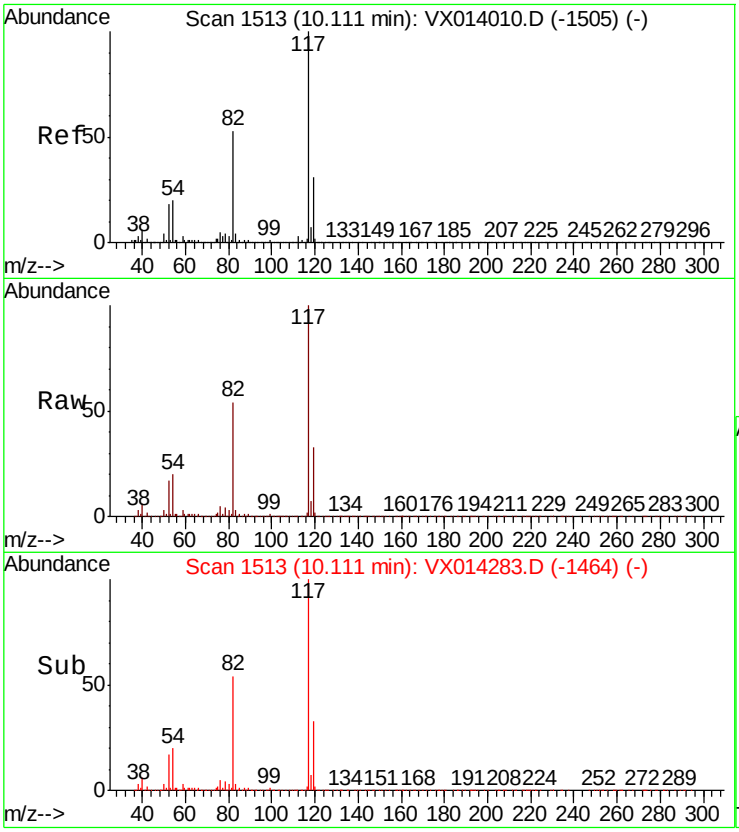
#62
4-Bromofluorobenzene
Concen: 46.634 ug/l
RT: 11.13 min Scan# 1681
Delta R.T. -0.00 min
Lab File: VX014283.D
Acq: 26 Dec 2019 20:37

Tgt Ion: 95 Resp: 329402

Ion	Ratio	Lower	Upper
95	100		
174	87.5	0.0	175.8
176	84.5	0.0	173.0



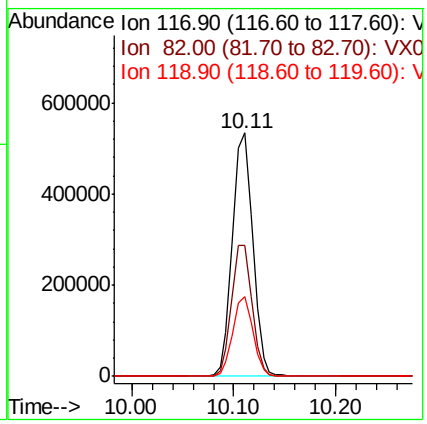
Instrument :
MSVOA_X
ClientSampleId :
995-MW-11-(15)DL

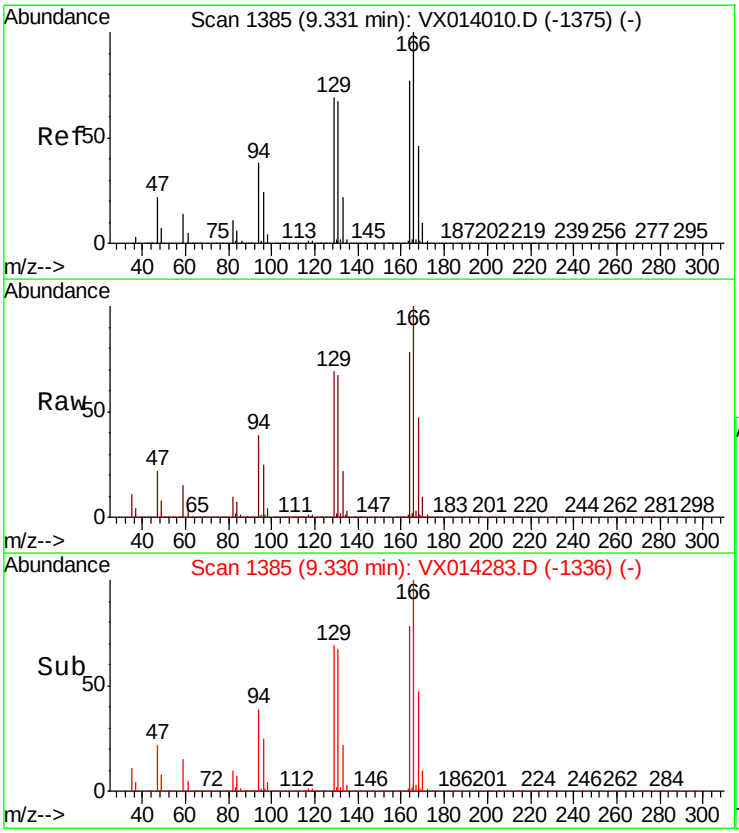


#63
Chlorobenzene-d5
Concen: 50.000 ug/l
RT: 10.11 min Scan# 1513
Delta R.T. -0.00 min
Lab File: VX014283.D
Acq: 26 Dec 2019 20:37

Tgt Ion:117 Resp: 736656

Ion	Ratio	Lower	Upper
117	100		
82	54.0	42.2	63.4
119	33.0	25.1	37.7

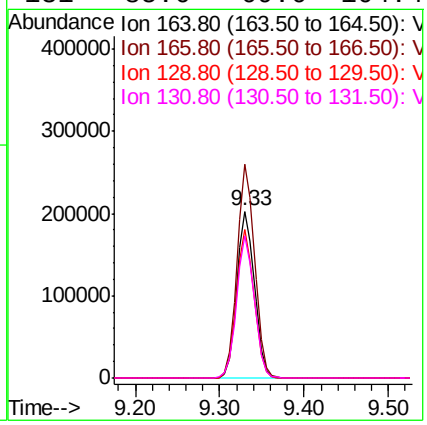




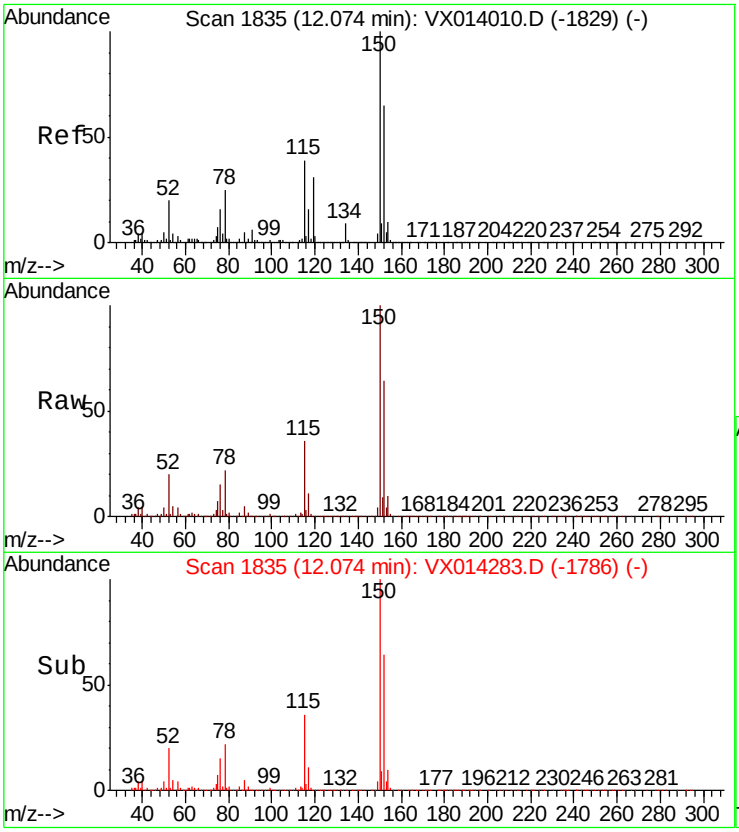
#64
Tetrachloroethene
Concen: 43.367 ug/l
RT: 9.33 min Scan# 1385
Delta R.T. -0.00 min
Lab File: VX014283.D
Acq: 26 Dec 2019 20:37

Tgt Ion:164 Resp: 282687

Ion	Ratio	Lower	Upper
164	100		
166	128.1	104.0	156.0
129	88.9	72.2	108.4
131	85.6	69.6	104.4



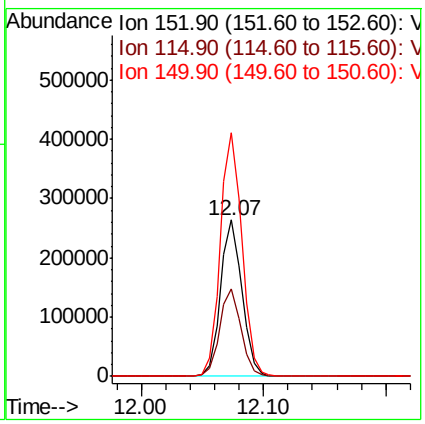
Instrument :
MSVOA_X
ClientSampleId :
995-MW-11-(15)DL



#72
1,4-Dichlorobenzene-d4
Concen: 50.000 ug/l
RT: 12.07 min Scan# 1835
Delta R.T. -0.00 min
Lab File: VX014283.D
Acq: 26 Dec 2019 20:37

Tgt Ion:152 Resp: 320708

Ion	Ratio	Lower	Upper
152	100		
115	56.3	38.3	114.9
150	157.4	0.0	345.4



CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Day Environmental, Inc.	Date Collected:	12/20/19
Project:	Andrew St. RI	Date Received:	12/21/19
Client Sample ID:	996-MW-15-(17)	SDG No.:	K6405
Lab Sample ID:	K6405-06	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	DB-624UI ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX014273.D	1		12/26/19 16:44	VX122619

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
75-71-8	Dichlorodifluoromethane	1.00	U	0.22	1.00	ug/L
74-87-3	Chloromethane	1.00	U	0.30	1.00	ug/L
75-01-4	Vinyl Chloride	1.00	U	0.16	1.00	ug/L
74-83-9	Bromomethane	5.00	U	2.10	5.00	ug/L
75-00-3	Chloroethane	1.00	U	0.34	1.00	ug/L
75-69-4	Trichlorofluoromethane	1.00	U	0.16	1.00	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	1.00	U	0.21	1.00	ug/L
75-35-4	1,1-Dichloroethene	1.00	U	0.18	1.00	ug/L
67-64-1	Acetone	4.00	J	0.90	5.00	ug/L
75-15-0	Carbon Disulfide	1.00	U	0.23	1.00	ug/L
1634-04-4	Methyl tert-butyl Ether	1.00	U	0.070	1.00	ug/L
79-20-9	Methyl Acetate	1.00	U	0.65	1.00	ug/L
75-09-2	Methylene Chloride	1.00	U	0.33	1.00	ug/L
156-60-5	trans-1,2-Dichloroethene	1.00	U	0.24	1.00	ug/L
75-34-3	1,1-Dichloroethane	1.00	U	0.17	1.00	ug/L
110-82-7	Cyclohexane	5.00	U	1.20	5.00	ug/L
78-93-3	2-Butanone	5.00	U	0.71	5.00	ug/L
56-23-5	Carbon Tetrachloride	1.00	U	0.22	1.00	ug/L
156-59-2	cis-1,2-Dichloroethene	1.00	U	0.30	1.00	ug/L
74-97-5	Bromochloromethane	1.00	U	0.31	1.00	ug/L
67-66-3	Chloroform	1.00	U	0.14	1.00	ug/L
71-55-6	1,1,1-Trichloroethane	1.00	U	0.12	1.00	ug/L
108-87-2	Methylcyclohexane	1.00	U	0.17	1.00	ug/L
71-43-2	Benzene	1.00	U	0.10	1.00	ug/L
107-06-2	1,2-Dichloroethane	1.00	U	0.13	1.00	ug/L
79-01-6	Trichloroethene	1.00	U	0.27	1.00	ug/L
78-87-5	1,2-Dichloropropane	1.00	U	0.14	1.00	ug/L
75-27-4	Bromodichloromethane	1.00	U	0.10	1.00	ug/L
108-10-1	4-Methyl-2-Pentanone	5.00	U	0.85	5.00	ug/L
108-88-3	Toluene	1.00	U	0.12	1.00	ug/L
10061-02-6	t-1,3-Dichloropropene	1.00	U	0.19	1.00	ug/L
10061-01-5	cis-1,3-Dichloropropene	1.00	U	0.16	1.00	ug/L

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Day Environmental, Inc.	Date Collected:	12/20/19
Project:	Andrew St. RI	Date Received:	12/21/19
Client Sample ID:	996-MW-15-(17)	SDG No.:	K6405
Lab Sample ID:	K6405-06	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	DB-624UI ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX014273.D	1		12/26/19 16:44	VX122619

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
79-00-5	1,1,2-Trichloroethane	1.00	U	0.12	1.00	ug/L
591-78-6	2-Hexanone	5.00	U	1.40	5.00	ug/L
124-48-1	Dibromochloromethane	1.00	U	0.16	1.00	ug/L
106-93-4	1,2-Dibromoethane	1.00	U	0.14	1.00	ug/L
127-18-4	Tetrachloroethene	0.55	J	0.15	1.00	ug/L
108-90-7	Chlorobenzene	1.00	U	0.080	1.00	ug/L
100-41-4	Ethyl Benzene	1.00	U	0.080	1.00	ug/L
179601-23-1	m/p-Xylenes	2.00	U	0.20	2.00	ug/L
95-47-6	o-Xylene	1.00	U	0.13	1.00	ug/L
100-42-5	Styrene	1.00	U	0.11	1.00	ug/L
75-25-2	Bromoform	1.00	U	0.15	1.00	ug/L
98-82-8	Isopropylbenzene	1.00	U	0.13	1.00	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	1.00	U	0.15	1.00	ug/L
541-73-1	1,3-Dichlorobenzene	1.00	U	0.14	1.00	ug/L
106-46-7	1,4-Dichlorobenzene	1.00	U	0.20	1.00	ug/L
95-50-1	1,2-Dichlorobenzene	1.00	U	0.12	1.00	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	1.00	U	0.54	1.00	ug/L
120-82-1	1,2,4-Trichlorobenzene	1.00	U	0.24	1.00	ug/L
87-61-6	1,2,3-Trichlorobenzene	1.00	U	0.26	1.00	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	49.9		61 - 141	100%	SPK: 50
1868-53-7	Dibromofluoromethane	48.9		69 - 133	98%	SPK: 50
2037-26-5	Toluene-d8	50.1		65 - 126	100%	SPK: 50
460-00-4	4-Bromofluorobenzene	46.1		58 - 135	92%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	525000	5.65			
540-36-3	1,4-Difluorobenzene	812000	6.85			
3114-55-4	Chlorobenzene-d5	727000	10.11			
3855-82-1	1,4-Dichlorobenzene-d4	313000	12.07			
TENTATIVE IDENTIFIED COMPOUNDS						
67-63-0	Isopropyl Alcohol	6.90	J		2.59	ug/L

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Day Environmental, Inc.	Date Collected:	12/20/19
Project:	Andrew St. RI	Date Received:	12/21/19
Client Sample ID:	996-MW-15-(17)	SDG No.:	K6405
Lab Sample ID:	K6405-06	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	DB-624UI ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX014273.D	1		12/26/19 16:44	VX122619

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit
A = Aldol-Condensation Reaction Products

Quantitation Report (LSC Reviewed)

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX122619\
Data File : VX014273.D
Acq On : 26 Dec 2019 16:44
Operator : JC/SP
Sample : K6405-06
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 16 Sample Multiplier: 1

Instrument : MSVOA_X
ClientSampleId : 996-MW-15-(17)

Quant Time: Dec 27 07:08:47 2019
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121319W.M
Quant Title : SW846 8260
QLast Update : Tue Dec 17 03:01:07 2019
Response via : Initial Calibration

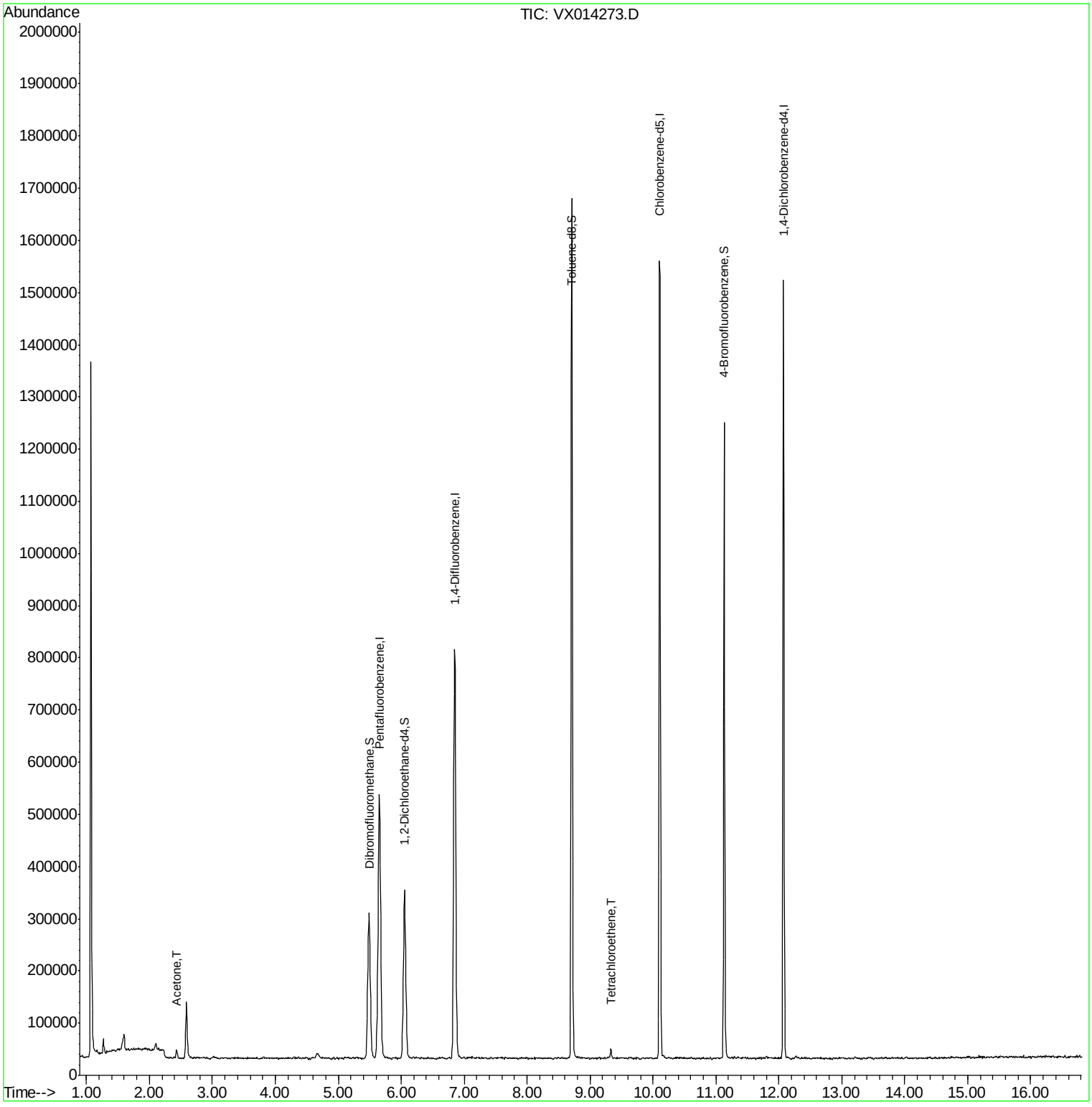
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	5.65	168	524511	50.00	ug/l	0.00
34) 1,4-Difluorobenzene	6.85	114	812062	50.00	ug/l	0.00
63) Chlorobenzene-d5	10.11	117	727039	50.00	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	12.07	152	312996	50.00	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	6.05	65	296363	49.85	ug/l	0.00
Spiked Amount 50.000			Recovery = 99.70%			
35) Dibromofluoromethane	5.49	113	241412	48.90	ug/l	0.00
Spiked Amount 50.000			Recovery = 97.80%			
50) Toluene-d8	8.71	98	963670	50.14	ug/l	0.00
Spiked Amount 50.000			Recovery = 100.28%			
62) 4-Bromofluorobenzene	11.13	95	323949	46.11	ug/l	0.00
Spiked Amount 50.000			Recovery = 92.22%			
Target Compounds						Qvalue
16) Acetone	2.44	43	15403	3.991	ug/l	95
64) Tetrachloroethene	9.33	164	3519	0.547	ug/l	86

(#) = qualifier out of range (m) = manual integration (+) = signals summed

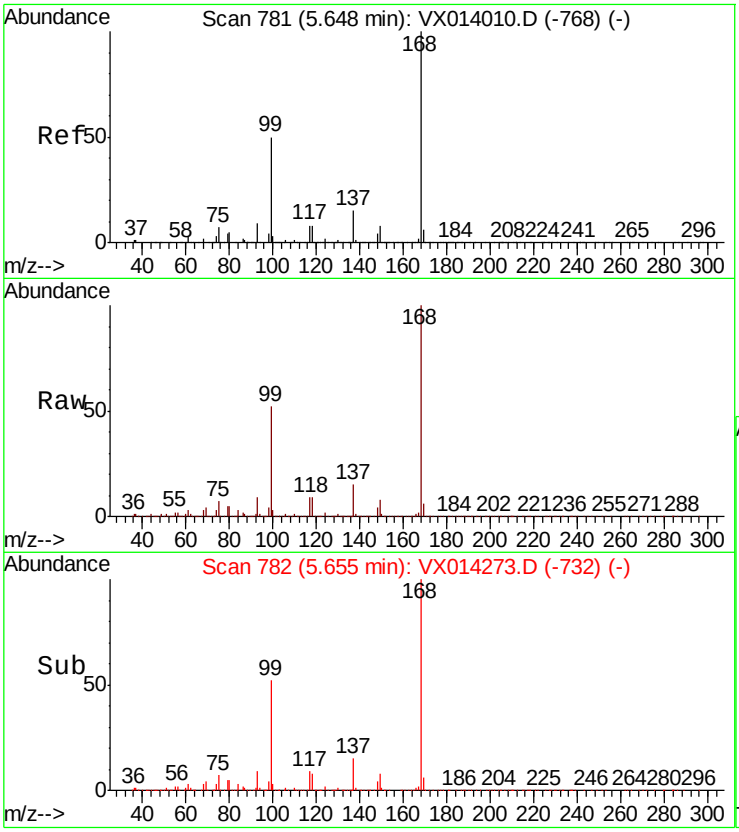
Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX122619\
Data File : VX014273.D
Acq On : 26 Dec 2019 16:44
Operator : JC/SP
Sample : K6405-06
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Dec 27 07:08:47 2019
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121319W.M
Quant Title : SW846 8260
QLast Update : Tue Dec 17 03:01:07 2019
Response via : Initial Calibration

Instrument :
MSVOA_X
ClientSampleId :
996-MW-15-(17)



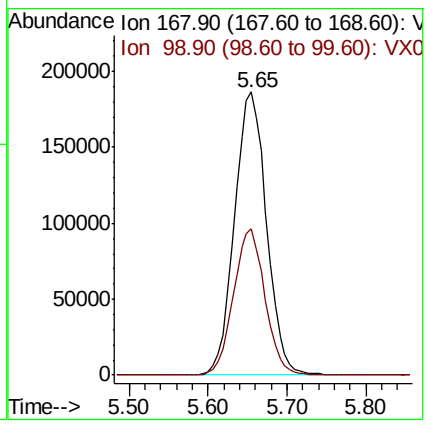
Instrument :
MSVOA_X
ClientSampleId :
996-MW-15-(17)

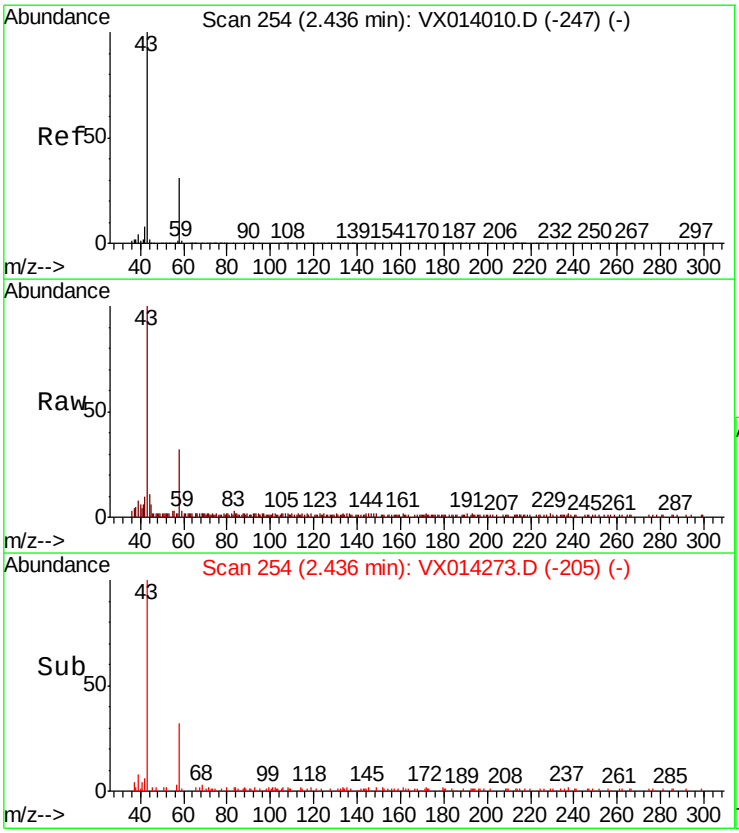


#1
Pentafluorobenzene
Concen: 50.000 ug/l
RT: 5.65 min Scan# 782
Delta R.T. 0.01 min
Lab File: VX014273.D
Acq: 26 Dec 2019 16:44

Tgt Ion:168 Resp: 524511

Ion	Ratio	Lower	Upper
168	100		
99	51.6	40.3	60.5

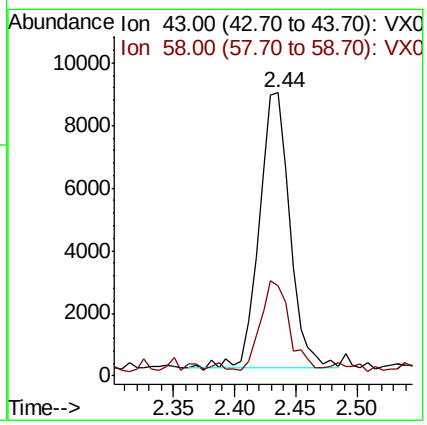




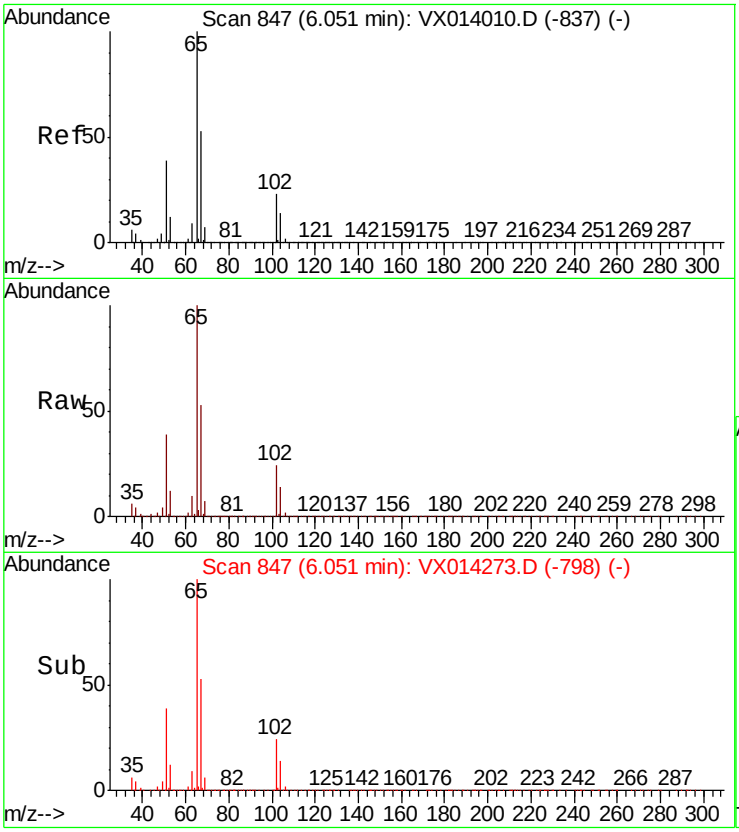
#16
Acetone
Concen: 3.991 ug/l
RT: 2.44 min Scan# 254
Delta R.T. 0.00 min
Lab File: VX014273.D
Acq: 26 Dec 2019 16:44

Tgt Ion: 43 Resp: 15403

Ion	Ratio	Lower	Upper
43	100		
58	28.2	24.9	37.3



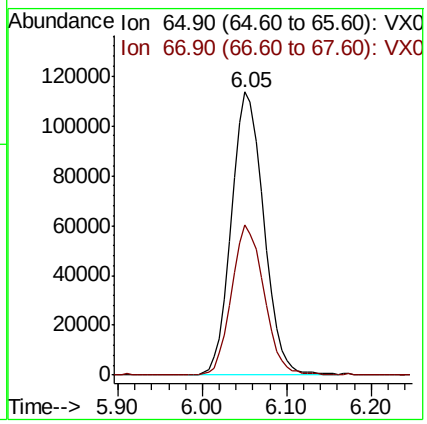
Instrument :
MSVOA_X
ClientSampleId :
996-MW-15-(17)

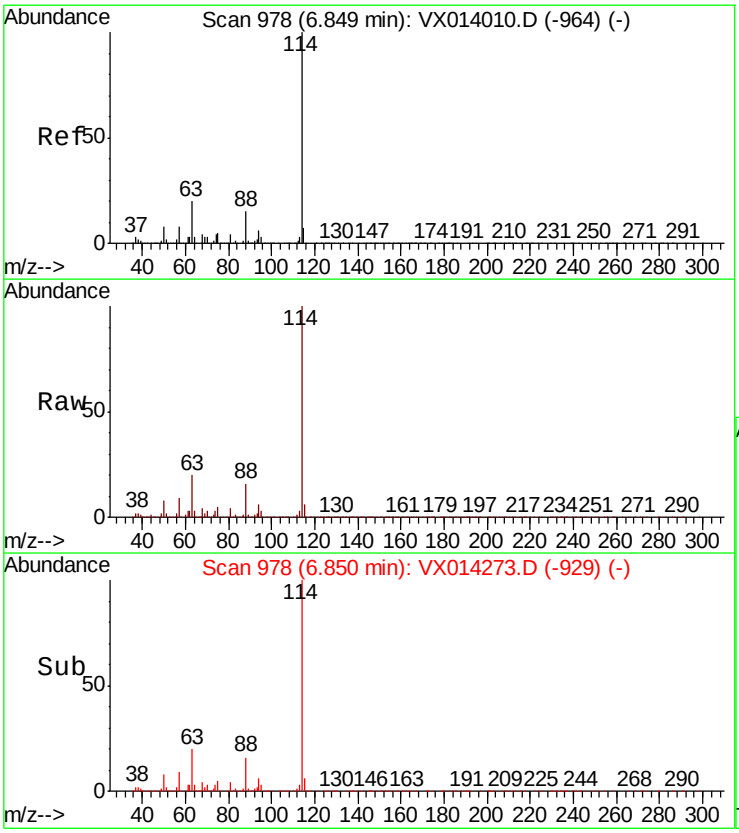


#33
1,2-Dichloroethane-d4
Concen: 49.854 ug/l
RT: 6.05 min Scan# 847
Delta R.T. 0.00 min
Lab File: VX014273.D
Acq: 26 Dec 2019 16:44

Tgt Ion: 65 Resp: 296363

Ion	Ratio	Lower	Upper
65	100		
67	52.0	0.0	106.4

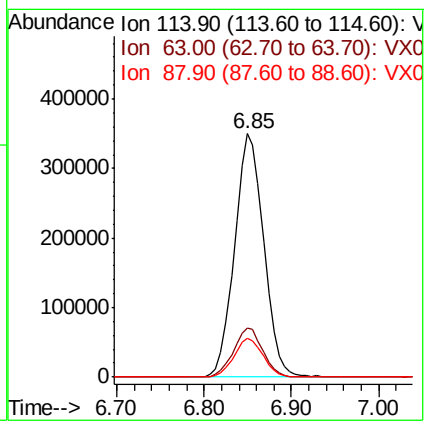




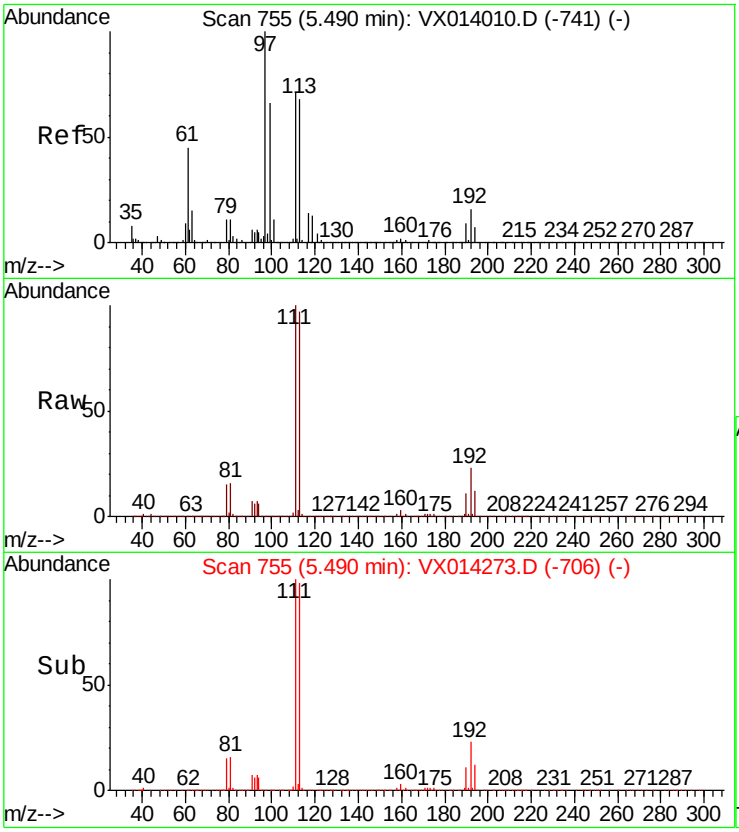
#34
1,4-Difluorobenzene
Concen: 50.000 ug/l
RT: 6.85 min Scan# 978
Delta R.T. 0.00 min
Lab File: VX014273.D
Acq: 26 Dec 2019 16:44

Tgt Ion:114 Resp: 812062

Ion	Ratio	Lower	Upper
114	100		
63	20.0	0.0	40.8
88	16.0	0.0	30.4



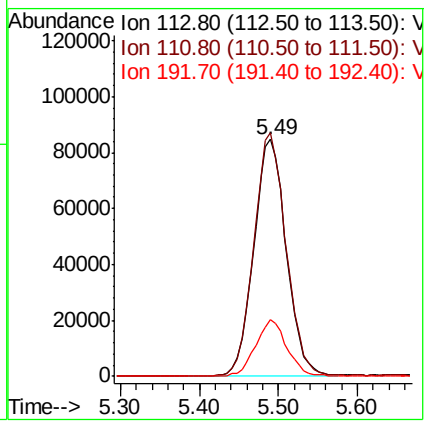
Instrument :
MSVOA_X
ClientSampleId :
996-MW-15-(17)

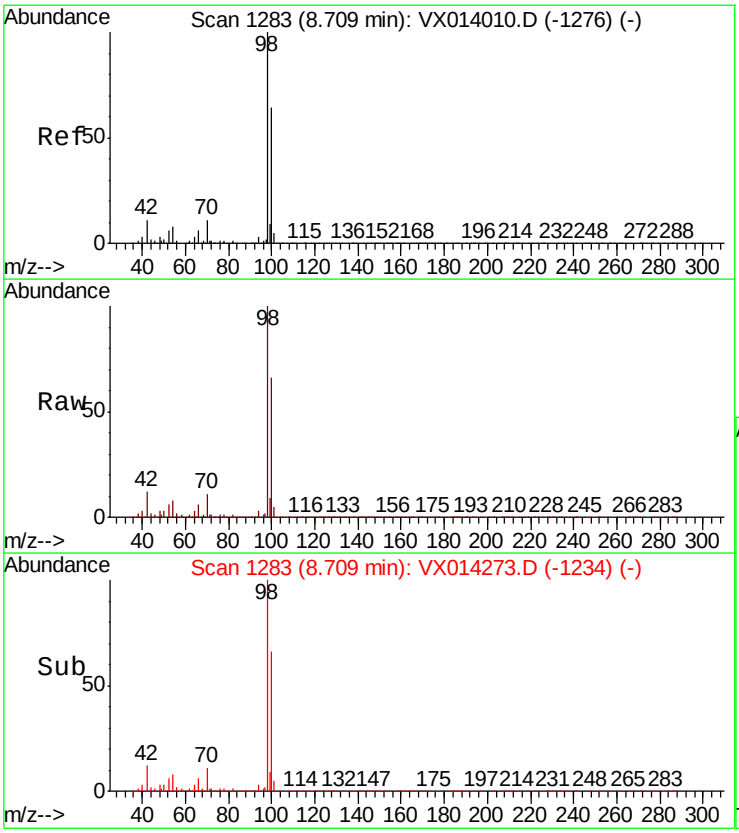


#35
Dibromofluoromethane
Concen: 48.904 ug/l
RT: 5.49 min Scan# 755
Delta R.T. 0.00 min
Lab File: VX014273.D
Acq: 26 Dec 2019 16:44

Tgt Ion:113 Resp: 241412

Ion	Ratio	Lower	Upper
113	100		
111	101.8	82.0	123.0
192	23.3	19.3	28.9

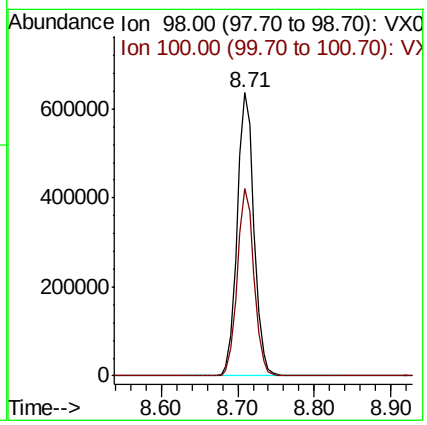




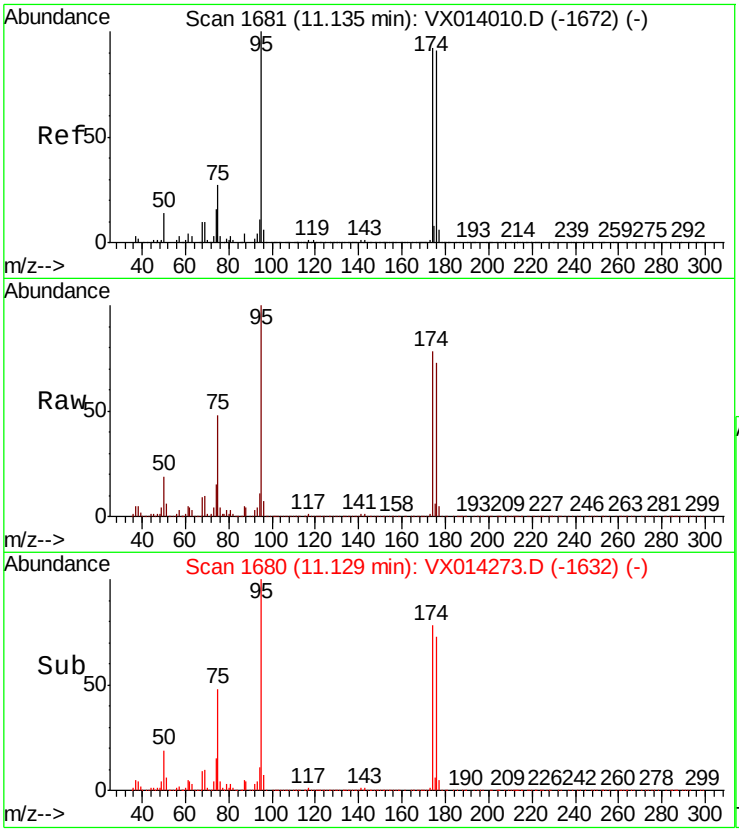
#50
Toluene-d8
Concen: 50.142 ug/l
RT: 8.71 min Scan# 1283
Delta R.T. 0.00 min
Lab File: VX014273.D
Acq: 26 Dec 2019 16:44

Tgt Ion: 98 Resp: 963670

Ion	Ratio	Lower	Upper
98	100		
100	65.9	52.9	79.3



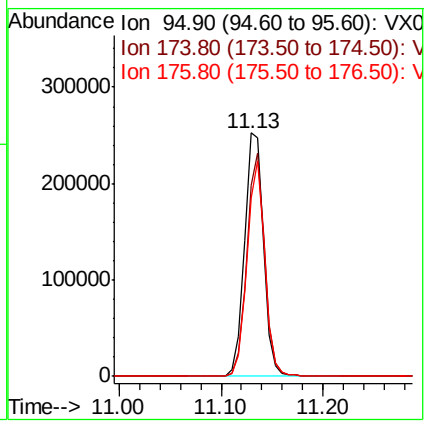
Instrument :
MSVOA_X
ClientSampleId :
996-MW-15-(17)

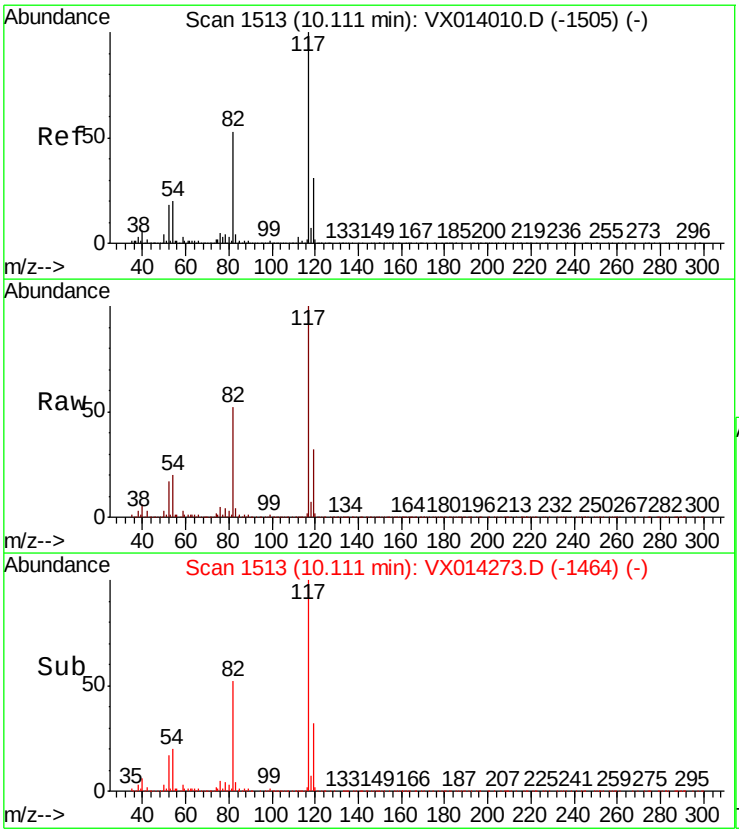


#62
4-Bromofluorobenzene
Concen: 46.112 ug/l
RT: 11.13 min Scan# 1680
Delta R.T. -0.01 min
Lab File: VX014273.D
Acq: 26 Dec 2019 16:44

Tgt Ion: 95 Resp: 323949

Ion	Ratio	Lower	Upper
95	100		
174	86.9	0.0	175.8
176	83.3	0.0	173.0

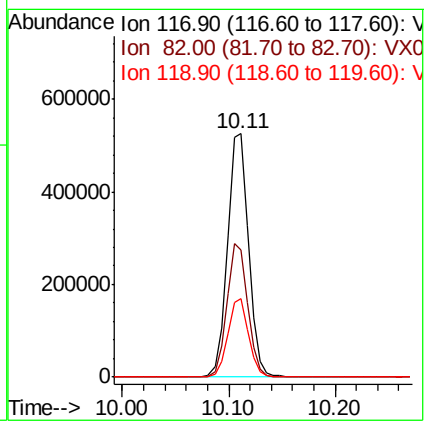




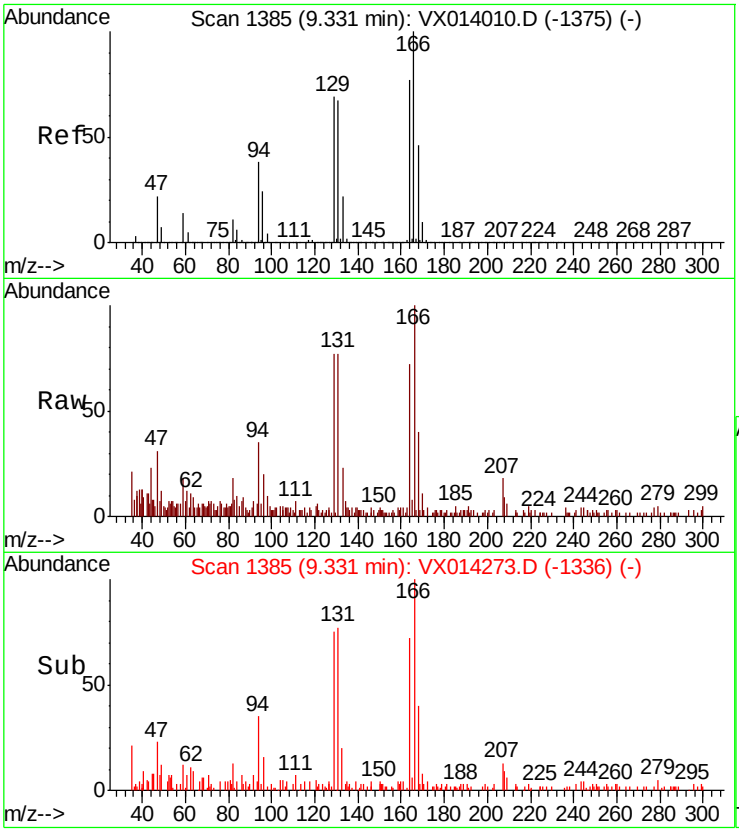
#63
Chlorobenzene-d5
Concen: 50.000 ug/l
RT: 10.11 min Scan# 1513
Delta R.T. 0.00 min
Lab File: VX014273.D
Acq: 26 Dec 2019 16:44

Tgt Ion:117 Resp: 727039

Ion	Ratio	Lower	Upper
117	100		
82	52.3	42.2	63.4
119	32.3	25.1	37.7



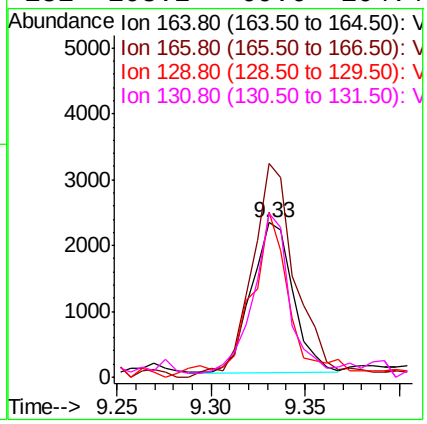
Instrument :
MSVOA_X
ClientSampleId :
996-MW-15-(17)

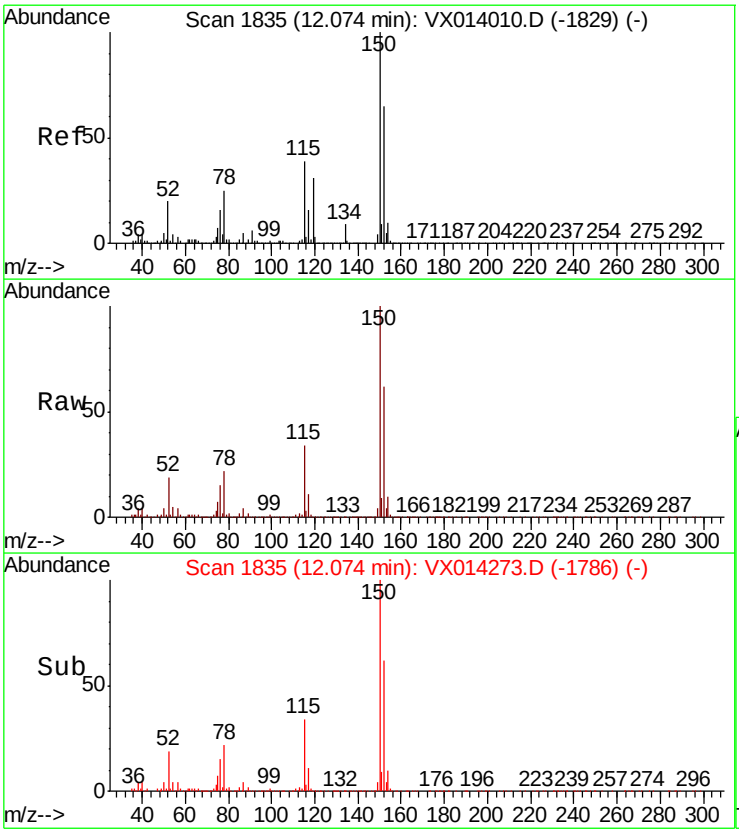


#64
Tetrachloroethene
Concen: 0.547 ug/l
RT: 9.33 min Scan# 1385
Delta R.T. 0.00 min
Lab File: VX014273.D
Acq: 26 Dec 2019 16:44

Tgt Ion:164 Resp: 3519

Ion	Ratio	Lower	Upper
164	100		
166	142.5	104.0	156.0
129	104.3	72.2	108.4
131	103.2	69.6	104.4

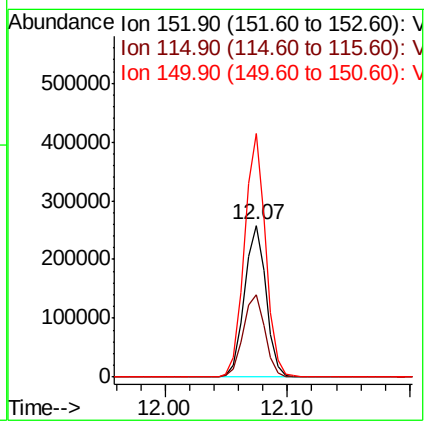




#72
1,4-Dichlorobenzene-d4
Concen: 50.000 ug/l
RT: 12.07 min Scan# 1835
Delta R.T. 0.00 min
Lab File: VX014273.D
Acq: 26 Dec 2019 16:44

Tgt Ion:152 Resp: 312996

Ion	Ratio	Lower	Upper
152	100		
115	55.0	38.3	114.9
150	157.1	0.0	345.4



LSC Area Percent Report

Data Path : Z:\VOASRV\HPCHEM1\MSVOA X\DATA\VX122619\
Data File : VX014273.D
Acq On : 26 Dec 2019 16:44
Operator : JC/SP
Sample : K6405-06
Misc : 5.0mL/MSVOA X/WATER
ALS Vial : 16 Sample Multiplier: 1

Instrument : MSVOA_X
ClientSampleId : 996-MW-15-(17)

Integration Parameters: RTEINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 3 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121319W.M
Title : SW846 8260

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	1.070	26	30	42	rBV	1330364	1572915	62.88%	10.618%
2	1.265	59	62	69	rVB	28357	37968	1.52%	0.256%
3	1.601	109	117	122	rVB10	32576	70974	2.84%	0.479%
4	2.430	250	253	260	rVB	16550	25510	1.02%	0.172%
5	2.588	271	279	286	rBV	109030	193948	7.75%	1.309%
6	4.673	616	621	632	rVB3	10096	28637	1.14%	0.193%
7	5.490	744	755	768	rBV	278502	783386	31.32%	5.288%
8	5.655	768	782	798	rBV	505995	1411579	56.43%	9.529%
9	6.051	837	847	859	rBV	323019	823880	32.94%	5.562%
10	6.850	968	978	989	rBV	785654	1825780	72.99%	12.325%
11	8.709	1277	1283	1291	rBV	1647697	2501479	100.00%	16.887%
12	9.331	1379	1385	1391	rVB3	19170	30924	1.24%	0.209%
13	10.105	1506	1512	1519	rBV	1530028	2112349	84.44%	14.260%
14	11.135	1675	1681	1691	rBV	1218094	1555494	62.18%	10.501%
15	12.074	1829	1835	1842	rBV	1492237	1838557	73.50%	12.411%

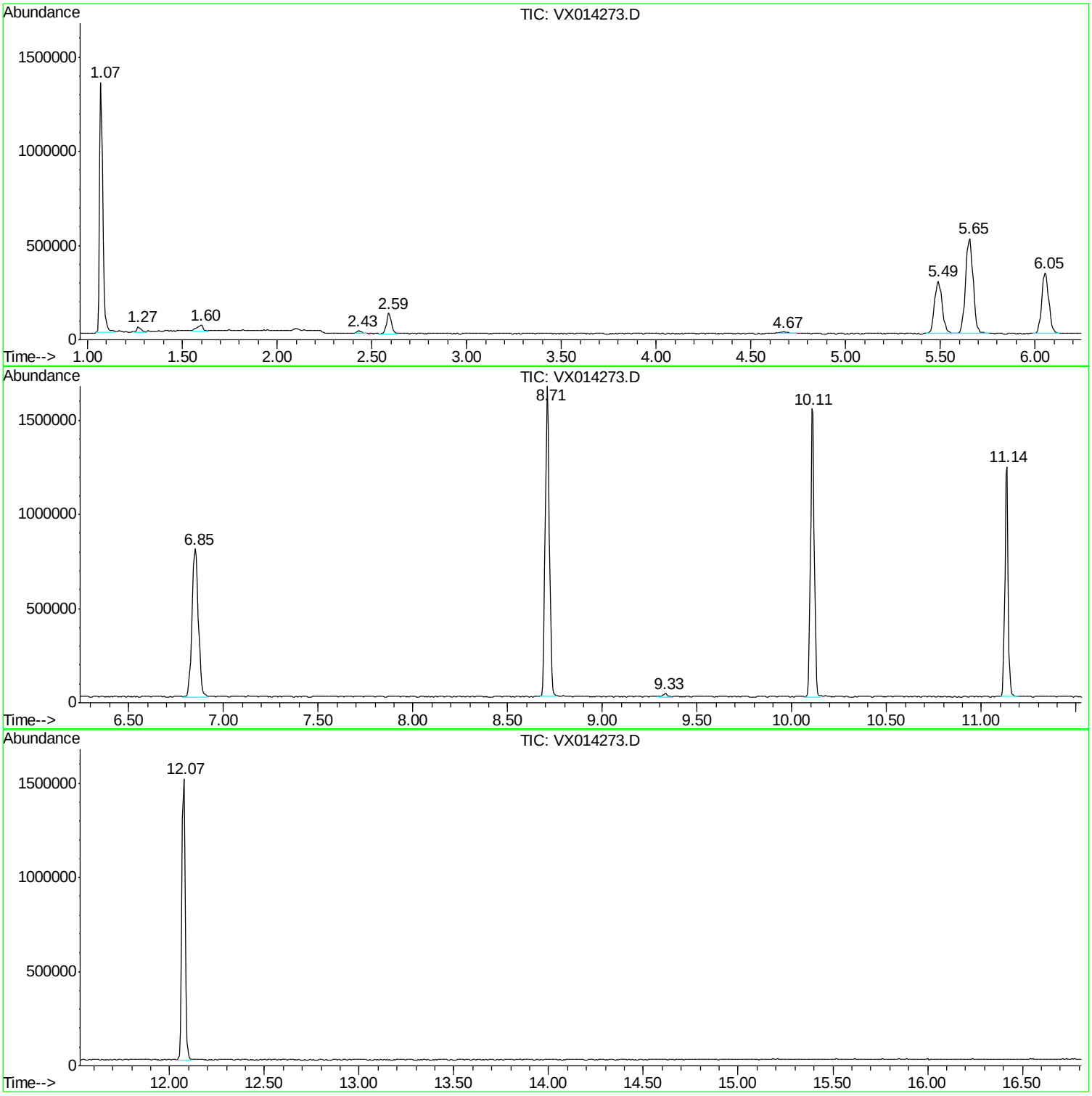
Sum of corrected areas: 14813380

Data Path : Z:\VOASRV\HPCHEM1\MSVOA X\DATA\VX122619\
Data File : VX014273.D
Acq On : 26 Dec 2019 16:44
Operator : JC/SP
Sample : K6405-06
Misc : 5.0mL/MSVOA X/WATER
ALS Vial : 16 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
996-MW-15-(17)

Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121319W.M
Quant Title : SW846 8260

TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P



Library Search Compound Report

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX122619\
Data File : VX014273.D
Acq On : 26 Dec 2019 16:44
Operator : JC/SP
Sample : K6405-06
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 16 Sample Multiplier: 1

Instrument : MSVOA_X
ClientSampleId : 996-MW-15-(17)

Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121319W.M
Quant Title : SW846 8260

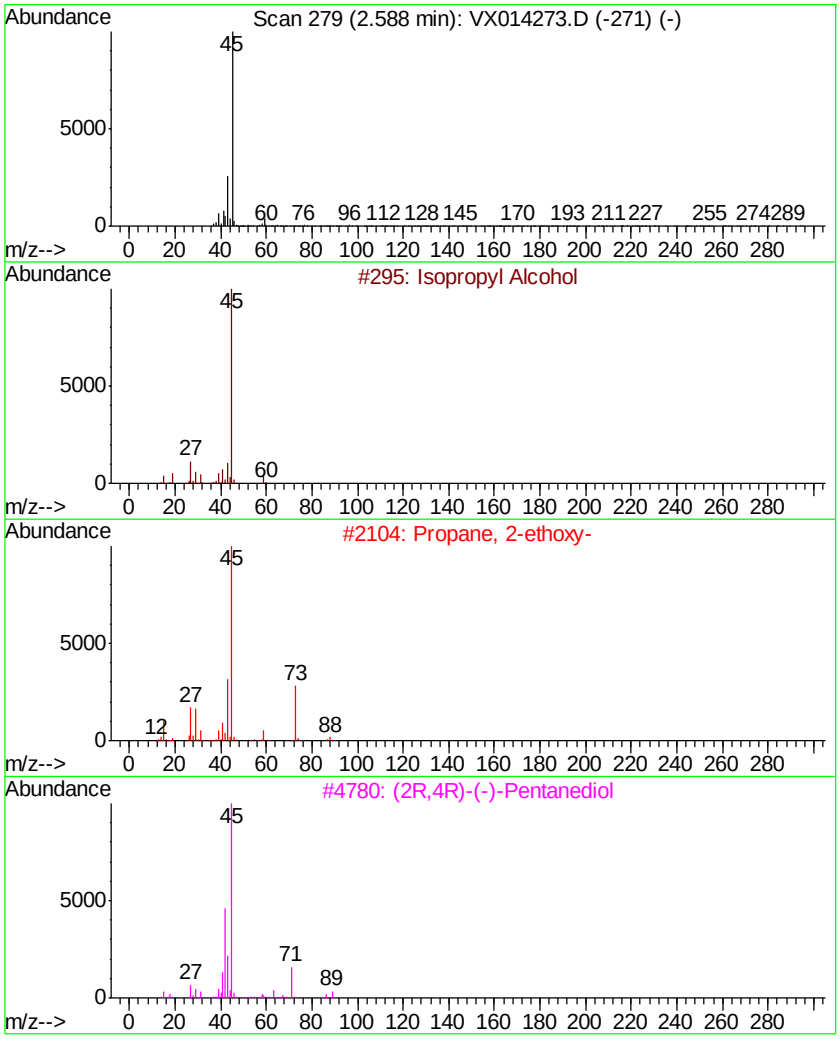
TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

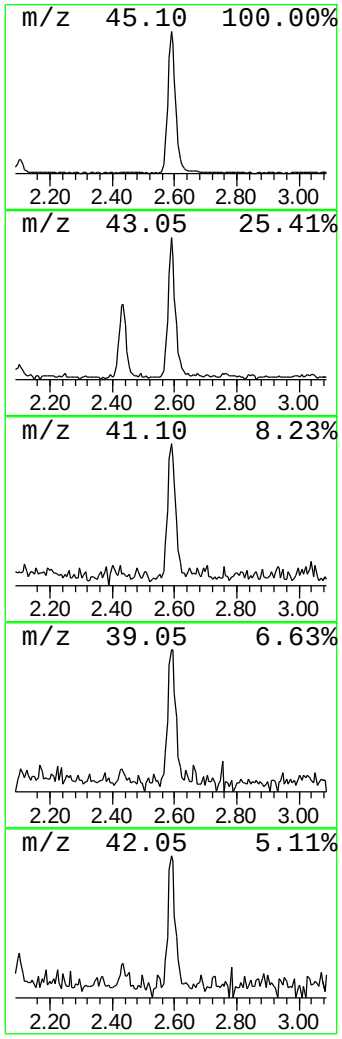
****

Peak Number 2 Isopropyl Alcohol Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
2.59	6.87 ug/l	193948	Pentafluorobenzene	5.65

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Isopropyl Alcohol	60	C3H8O	000067-63-0	80
2	Propane, 2-ethoxy-	88	C5H12O	000625-54-7	56
3	(2R,4R)-(-)-Pentanediol	104	C5H12O2	042075-32-1	40
4	Formic acid, 1-methylethyl ester	88	C4H8O2	000625-55-8	39
5	Propylene Glycol	76	C3H8O2	000057-55-6	9





Tentatively Identified Compound (LSC) summary

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX122619\
Data File : VX014273.D
Acq On : 26 Dec 2019 16:44
Operator : JC/SP
Sample : K6405-06
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 16 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
996-MW-15-(17)

Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121319W.M
Quant Title : SW846 8260

TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

					Internal Standard			
TIC Top Hit name	RT	EstConc	Units	Response	#	RT	Resp	Conc
Isopropyl Alcohol	2.59	6.9	ug/l	193948	1	5.65	1411580	50.0

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Day Environmental, Inc.	Date Collected:	12/20/19
Project:	Andrew St. RI	Date Received:	12/21/19
Client Sample ID:	997-MW-16-(22.5)	SDG No.:	K6405
Lab Sample ID:	K6405-09	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	DB-624UI ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX014274.D	1		12/26/19 17:08	VX122619

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
75-71-8	Dichlorodifluoromethane	1.00	U	0.22	1.00	ug/L
74-87-3	Chloromethane	1.00	U	0.30	1.00	ug/L
75-01-4	Vinyl Chloride	1.00	U	0.16	1.00	ug/L
74-83-9	Bromomethane	5.00	U	2.10	5.00	ug/L
75-00-3	Chloroethane	1.00	U	0.34	1.00	ug/L
75-69-4	Trichlorofluoromethane	1.00	U	0.16	1.00	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	1.00	U	0.21	1.00	ug/L
75-35-4	1,1-Dichloroethene	1.00	U	0.18	1.00	ug/L
67-64-1	Acetone	4.50	J	0.90	5.00	ug/L
75-15-0	Carbon Disulfide	1.00	U	0.23	1.00	ug/L
1634-04-4	Methyl tert-butyl Ether	1.00	U	0.070	1.00	ug/L
79-20-9	Methyl Acetate	1.00	U	0.65	1.00	ug/L
75-09-2	Methylene Chloride	1.00	U	0.33	1.00	ug/L
156-60-5	trans-1,2-Dichloroethene	1.00	U	0.24	1.00	ug/L
75-34-3	1,1-Dichloroethane	1.00	U	0.17	1.00	ug/L
110-82-7	Cyclohexane	5.00	U	1.20	5.00	ug/L
78-93-3	2-Butanone	5.00	U	0.71	5.00	ug/L
56-23-5	Carbon Tetrachloride	1.00	U	0.22	1.00	ug/L
156-59-2	cis-1,2-Dichloroethene	1.00	U	0.30	1.00	ug/L
74-97-5	Bromochloromethane	1.00	U	0.31	1.00	ug/L
67-66-3	Chloroform	1.00	U	0.14	1.00	ug/L
71-55-6	1,1,1-Trichloroethane	1.00	U	0.12	1.00	ug/L
108-87-2	Methylcyclohexane	1.00	U	0.17	1.00	ug/L
71-43-2	Benzene	1.00	U	0.10	1.00	ug/L
107-06-2	1,2-Dichloroethane	1.00	U	0.13	1.00	ug/L
79-01-6	Trichloroethene	0.62	J	0.27	1.00	ug/L
78-87-5	1,2-Dichloropropane	1.00	U	0.14	1.00	ug/L
75-27-4	Bromodichloromethane	1.00	U	0.10	1.00	ug/L
108-10-1	4-Methyl-2-Pentanone	5.00	U	0.85	5.00	ug/L
108-88-3	Toluene	1.00	U	0.12	1.00	ug/L
10061-02-6	t-1,3-Dichloropropene	1.00	U	0.19	1.00	ug/L
10061-01-5	cis-1,3-Dichloropropene	1.00	U	0.16	1.00	ug/L

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Day Environmental, Inc.	Date Collected:	12/20/19
Project:	Andrew St. RI	Date Received:	12/21/19
Client Sample ID:	997-MW-16-(22.5)	SDG No.:	K6405
Lab Sample ID:	K6405-09	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	DB-624UI ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX014274.D	1		12/26/19 17:08	VX122619

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
79-00-5	1,1,2-Trichloroethane	1.00	U	0.12	1.00	ug/L
591-78-6	2-Hexanone	5.00	U	1.40	5.00	ug/L
124-48-1	Dibromochloromethane	1.00	U	0.16	1.00	ug/L
106-93-4	1,2-Dibromoethane	1.00	U	0.14	1.00	ug/L
127-18-4	Tetrachloroethene	2.50		0.15	1.00	ug/L
108-90-7	Chlorobenzene	1.00	U	0.080	1.00	ug/L
100-41-4	Ethyl Benzene	1.00	U	0.080	1.00	ug/L
179601-23-1	m/p-Xylenes	2.00	U	0.20	2.00	ug/L
95-47-6	o-Xylene	1.00	U	0.13	1.00	ug/L
100-42-5	Styrene	1.00	U	0.11	1.00	ug/L
75-25-2	Bromoform	1.00	U	0.15	1.00	ug/L
98-82-8	Isopropylbenzene	1.00	U	0.13	1.00	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	1.00	U	0.15	1.00	ug/L
541-73-1	1,3-Dichlorobenzene	1.00	U	0.14	1.00	ug/L
106-46-7	1,4-Dichlorobenzene	1.00	U	0.20	1.00	ug/L
95-50-1	1,2-Dichlorobenzene	1.00	U	0.12	1.00	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	1.00	U	0.54	1.00	ug/L
120-82-1	1,2,4-Trichlorobenzene	1.00	U	0.24	1.00	ug/L
87-61-6	1,2,3-Trichlorobenzene	1.00	U	0.26	1.00	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	48.8		61 - 141	98%	SPK: 50
1868-53-7	Dibromofluoromethane	49.4		69 - 133	99%	SPK: 50
2037-26-5	Toluene-d8	50.2		65 - 126	100%	SPK: 50
460-00-4	4-Bromofluorobenzene	45.8		58 - 135	92%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	531000	5.65			
540-36-3	1,4-Difluorobenzene	816000	6.85			
3114-55-4	Chlorobenzene-d5	735000	10.11			
3855-82-1	1,4-Dichlorobenzene-d4	318000	12.07			

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Day Environmental, Inc.	Date Collected:	12/20/19
Project:	Andrew St. RI	Date Received:	12/21/19
Client Sample ID:	997-MW-16-(22.5)	SDG No.:	K6405
Lab Sample ID:	K6405-09	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	DB-624UI ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX014274.D	1		12/26/19 17:08	VX122619

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit
A = Aldol-Condensation Reaction Products

Quantitation Report (LSC Reviewed)

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX122619\
Data File : VX014274.D
Acq On : 26 Dec 2019 17:08
Operator : JC/SP
Sample : K6405-09
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 17 Sample Multiplier: 1

Instrument : MSVOA_X
ClientSampleId : 997-MW-16-(22.5)

Quant Time: Jan 08 02:38:43 2020
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121319W.M
Quant Title : SW846 8260
QLast Update : Tue Dec 17 03:01:07 2019
Response via : Initial Calibration

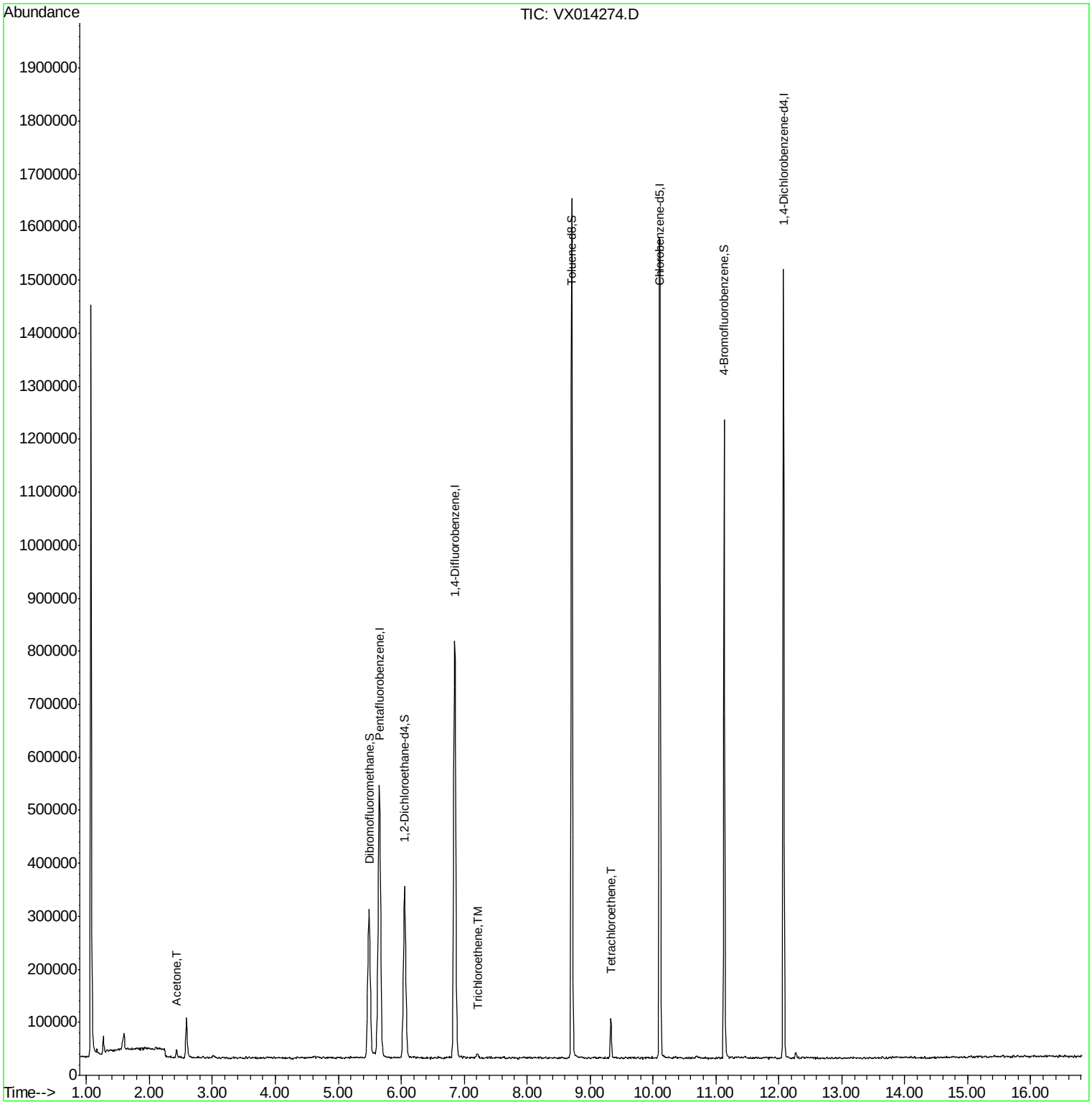
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	5.65	168	530795	50.00	ug/l	0.00
34) 1,4-Difluorobenzene	6.85	114	815830	50.00	ug/l	0.00
63) Chlorobenzene-d5	10.11	117	734502	50.00	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	12.07	152	317706	50.00	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	6.05	65	293807	48.84	ug/l	0.00
Spiked Amount 50.000			Recovery = 97.68%			
35) Dibromofluoromethane	5.49	113	244744	49.35	ug/l	0.00
Spiked Amount 50.000			Recovery = 98.70%			
50) Toluene-d8	8.71	98	968395	50.16	ug/l	0.00
Spiked Amount 50.000			Recovery = 100.32%			
62) 4-Bromofluorobenzene	11.13	95	322937	45.76	ug/l	0.00
Spiked Amount 50.000			Recovery = 91.52%			
Target Compounds						Qvalue
16) Acetone	2.43	43	17379	4.450	ug/l	97
44) Trichloroethene	7.22	130	3914	0.615	ug/l	86
64) Tetrachloroethene	9.33	164	16265	2.503	ug/l	96

(#) = qualifier out of range (m) = manual integration (+) = signals summed

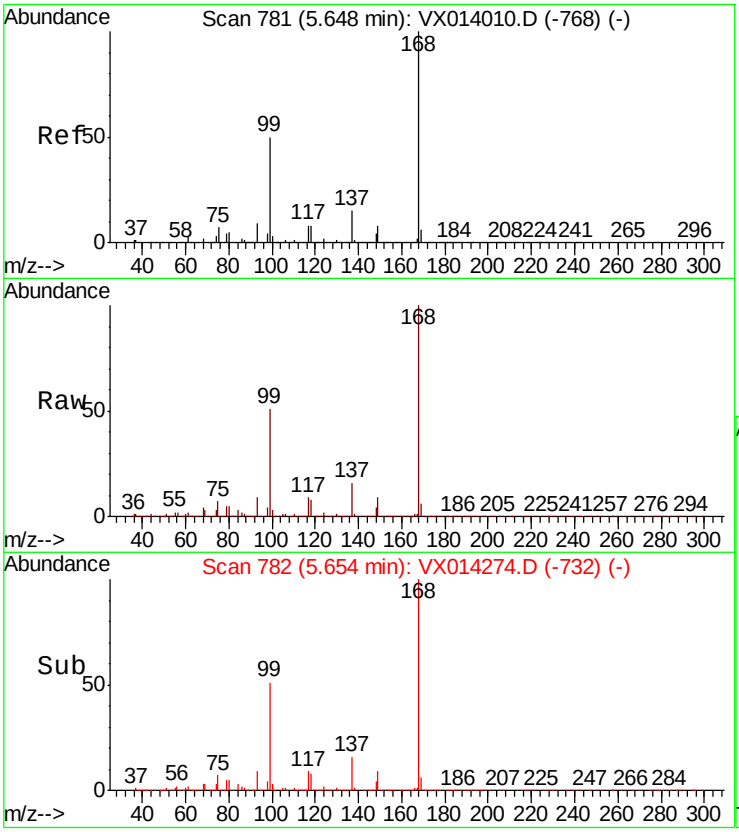
Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX122619\
Data File : VX014274.D
Acq On : 26 Dec 2019 17:08
Operator : JC/SP
Sample : K6405-09
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 17 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
997-MW-16-(22.5)

Quant Time: Jan 08 02:38:43 2020
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121319W.M
Quant Title : SW846 8260
QLast Update : Tue Dec 17 03:01:07 2019
Response via : Initial Calibration



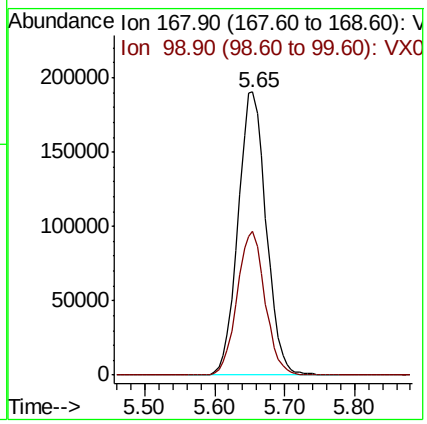
Instrument :
MSVOA_X
ClientSampleId :
997-MW-16-(22.5)

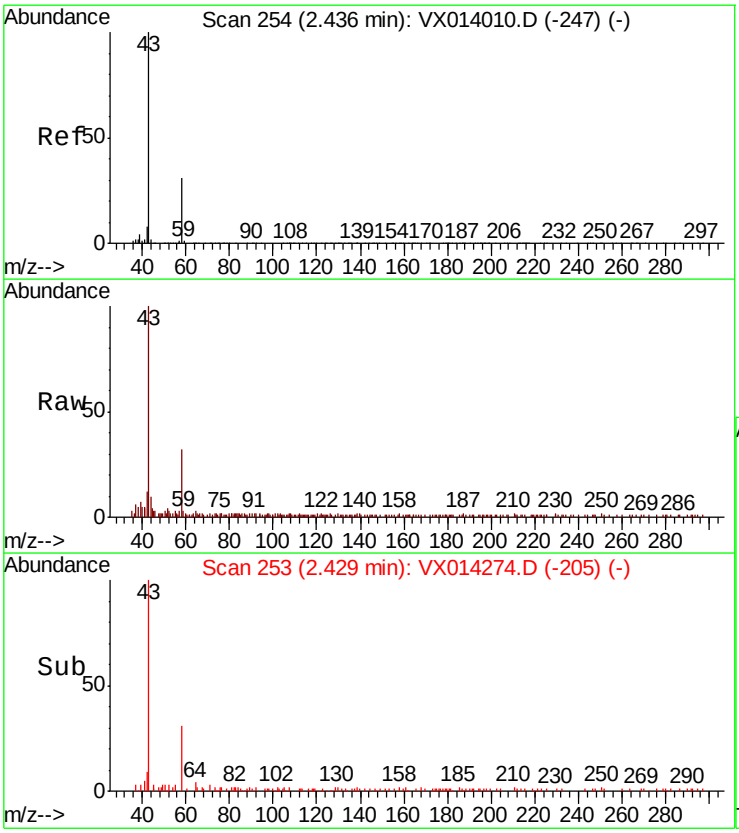


#1
Pentafluorobenzene
Concen: 50.000 ug/l
RT: 5.65 min Scan# 782
Delta R.T. 0.01 min
Lab File: VX014274.D
Acq: 26 Dec 2019 17:08

Tgt Ion:168 Resp: 530795

Ion	Ratio	Lower	Upper
168	100		
99	50.5	40.3	60.5

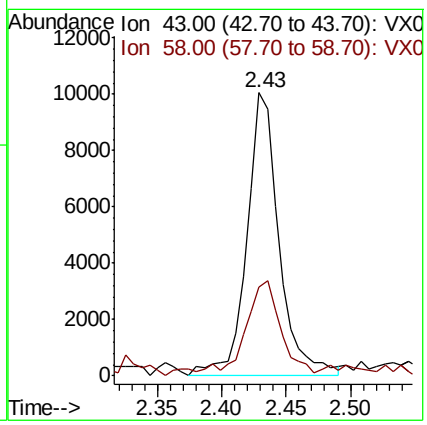




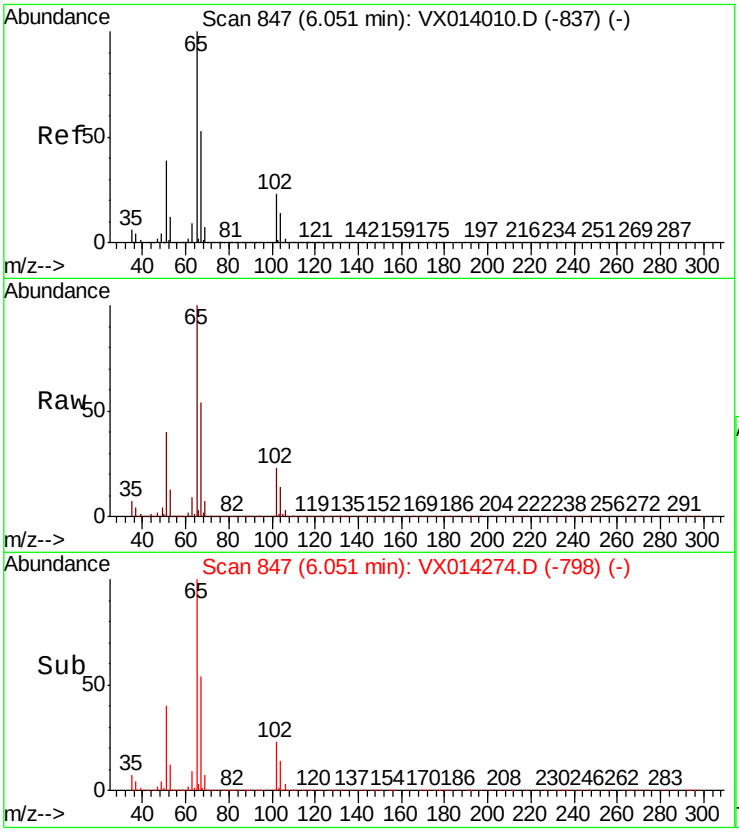
#16
Acetone
Concen: 4.450 ug/l
RT: 2.43 min Scan# 253
Delta R.T. -0.01 min
Lab File: VX014274.D
Acq: 26 Dec 2019 17:08

Tgt Ion: 43 Resp: 17379

Ion	Ratio	Lower	Upper
43	100		
58	29.4	24.9	37.3



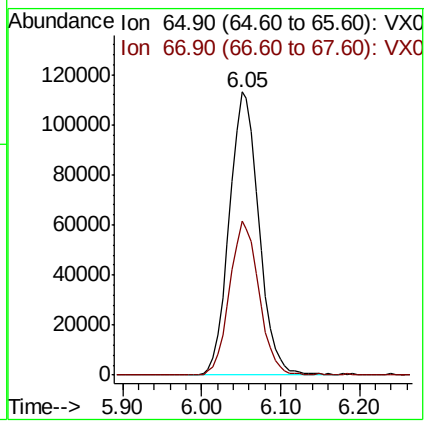
Instrument :
MSVOA_X
ClientSampleId :
997-MW-16-(22.5)

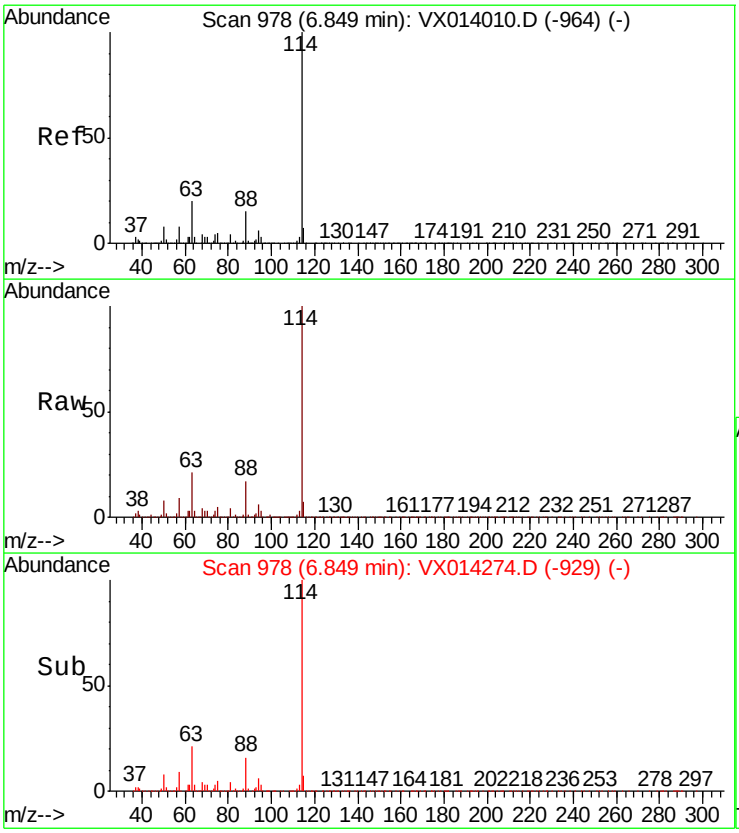


#33
1,2-Dichloroethane-d4
Concen: 48.839 ug/l
RT: 6.05 min Scan# 847
Delta R.T. -0.00 min
Lab File: VX014274.D
Acq: 26 Dec 2019 17:08

Tgt Ion: 65 Resp: 293807

Ion	Ratio	Lower	Upper
65	100		
67	53.7	0.0	106.4

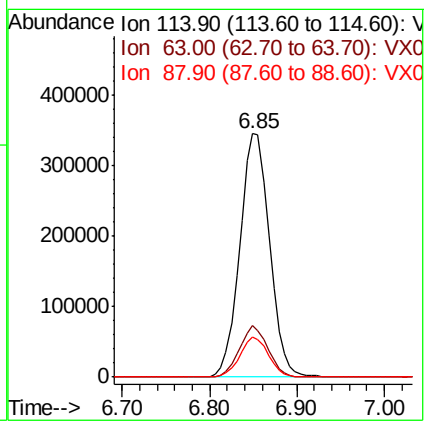




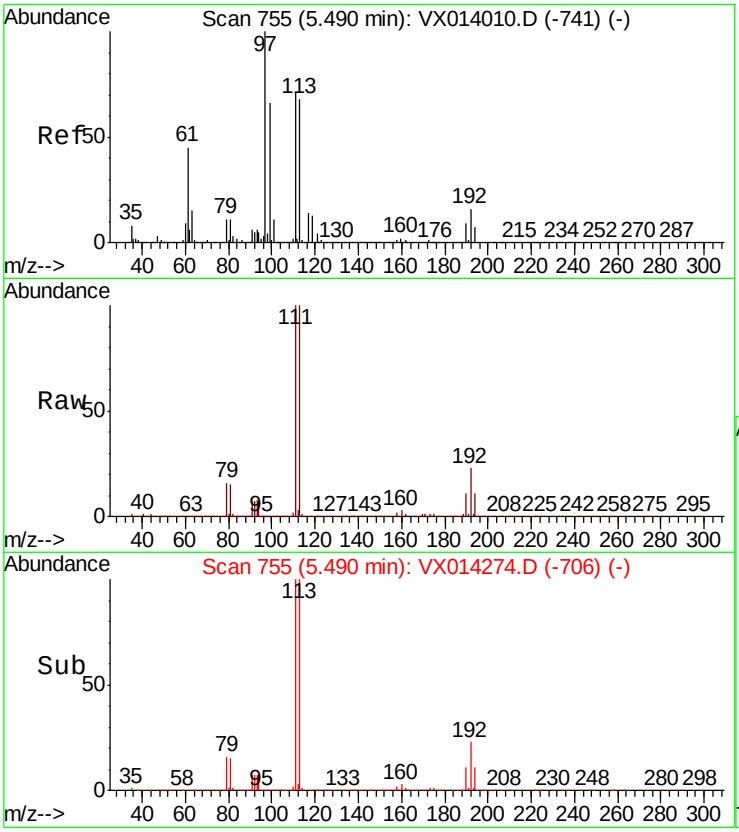
#34
1,4-Difluorobenzene
Concen: 50.000 ug/l
RT: 6.85 min Scan# 978
Delta R.T. -0.00 min
Lab File: VX014274.D
Acq: 26 Dec 2019 17:08

Tgt Ion:114 Resp: 815830

Ion	Ratio	Lower	Upper
114	100		
63	21.1	0.0	40.8
88	16.5	0.0	30.4



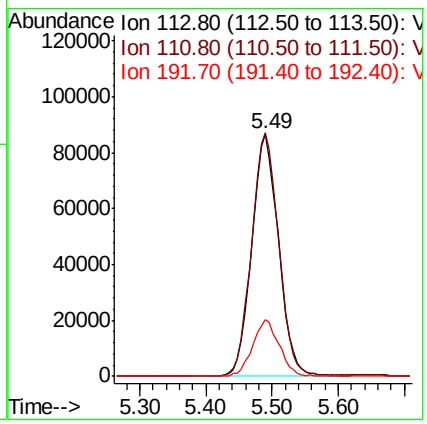
Instrument :
MSVOA_X
ClientSampleId :
997-MW-16-(22.5)

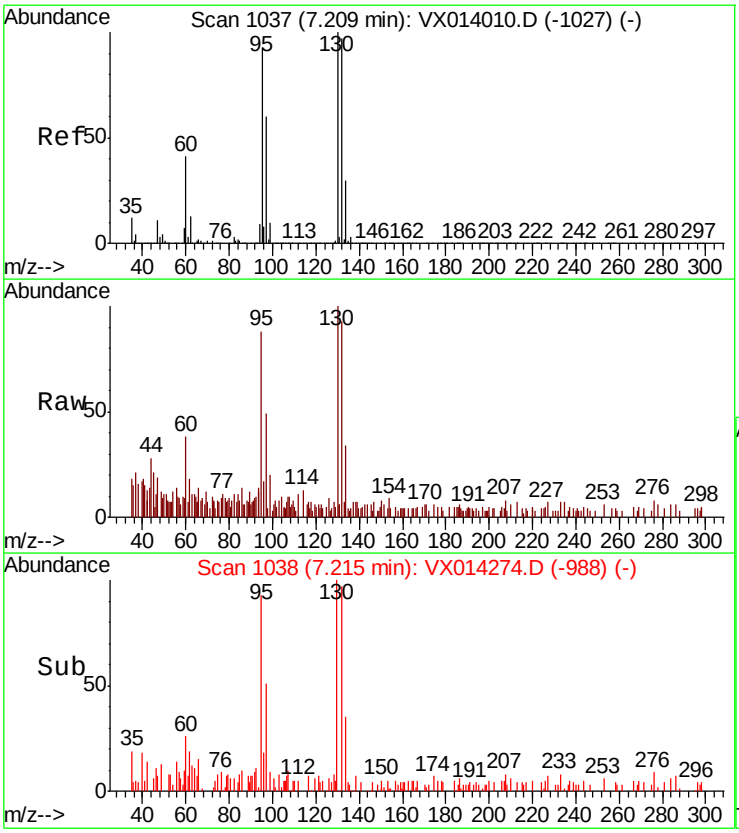


#35
Dibromofluoromethane
Concen: 49.350 ug/l
RT: 5.49 min Scan# 755
Delta R.T. -0.00 min
Lab File: VX014274.D
Acq: 26 Dec 2019 17:08

Tgt Ion:113 Resp: 244744

Ion	Ratio	Lower	Upper
113	100		
111	101.2	82.0	123.0
192	23.3	19.3	28.9

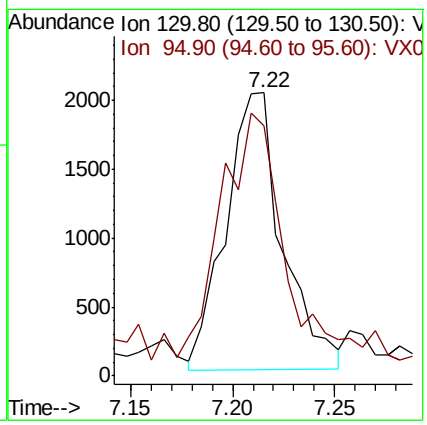




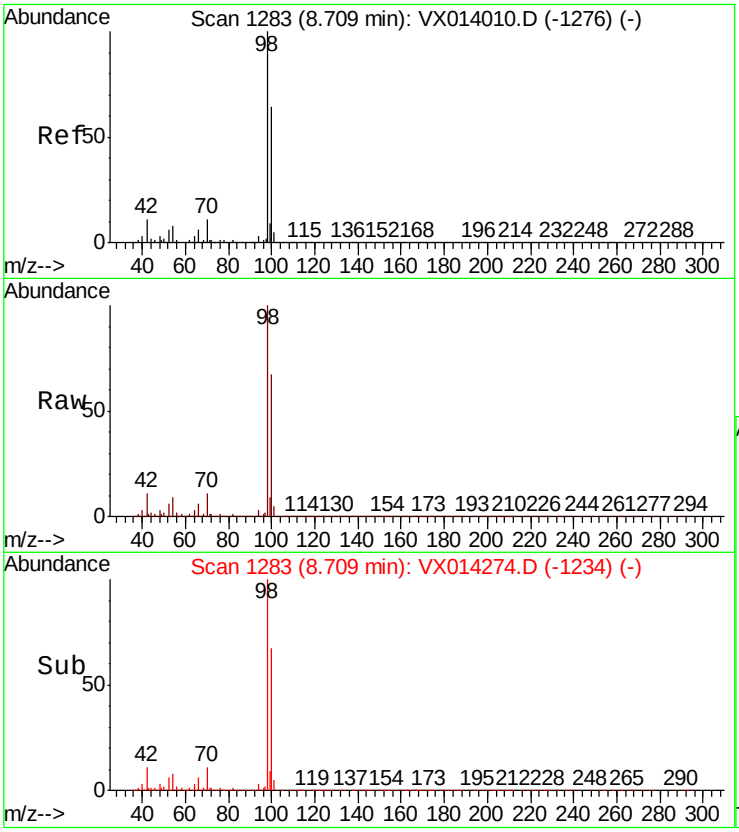
#44
Trichloroethene
Concen: 0.615 ug/l
RT: 7.22 min Scan# 1038
Delta R.T. 0.01 min
Lab File: VX014274.D
Acq: 26 Dec 2019 17:08

Tgt Ion:130 Resp: 3914

Ion	Ratio	Lower	Upper
130	100		
95	79.8	0.0	185.6



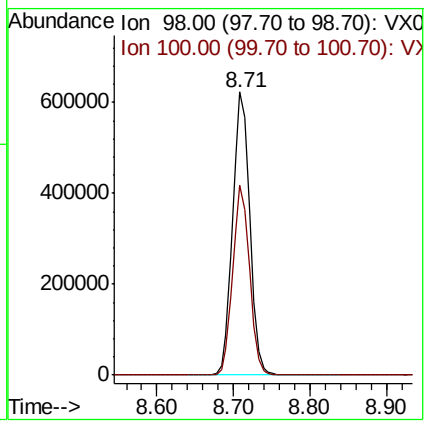
Instrument :
MSVOA_X
ClientSampleId :
997-MW-16-(22.5)

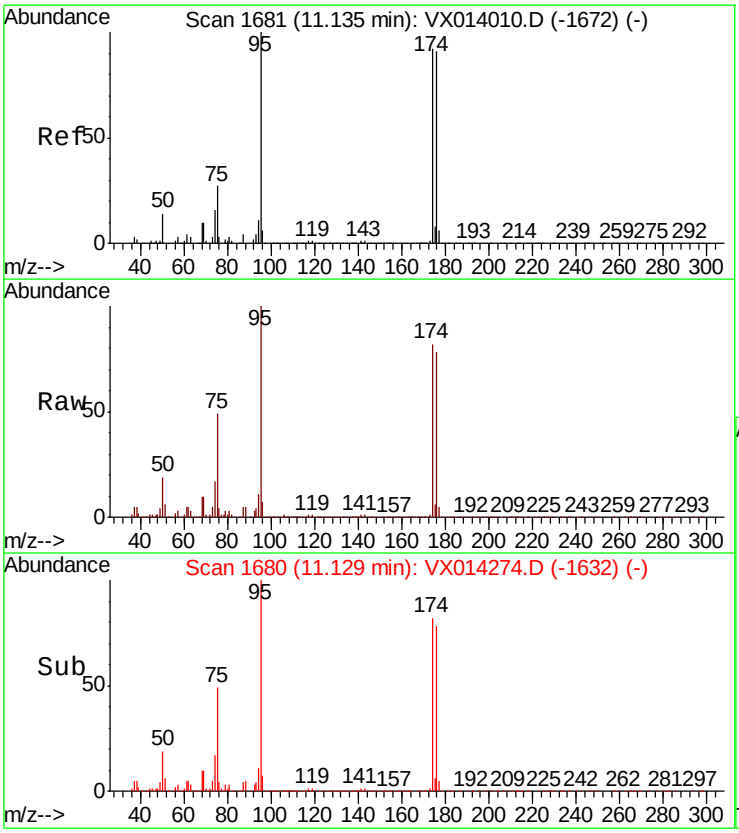


#50
Toluene-d8
Concen: 50.155 ug/l
RT: 8.71 min Scan# 1283
Delta R.T. -0.00 min
Lab File: VX014274.D
Acq: 26 Dec 2019 17:08

Tgt Ion: 98 Resp: 968395

Ion	Ratio	Lower	Upper
98	100		
100	65.6	52.9	79.3

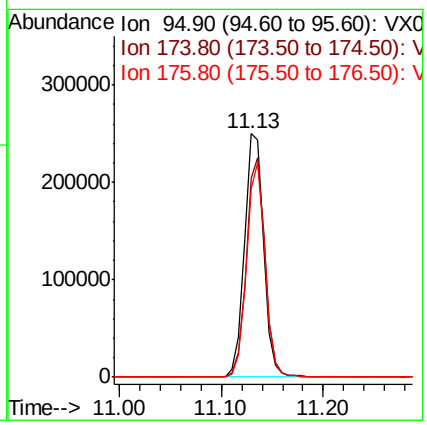




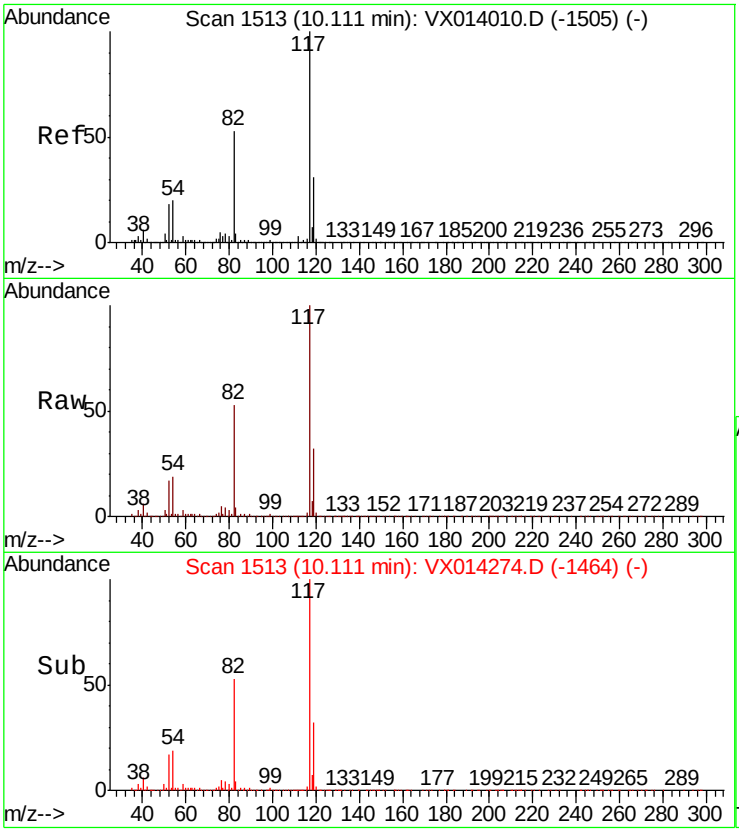
#62
4-Bromofluorobenzene
Concen: 45.755 ug/l
RT: 11.13 min Scan# 1680
Delta R.T. -0.01 min
Lab File: VX014274.D
Acq: 26 Dec 2019 17:08

Tgt Ion: 95 Resp: 322937

Ion	Ratio	Lower	Upper
95	100		
174	88.8	0.0	175.8
176	85.2	0.0	173.0



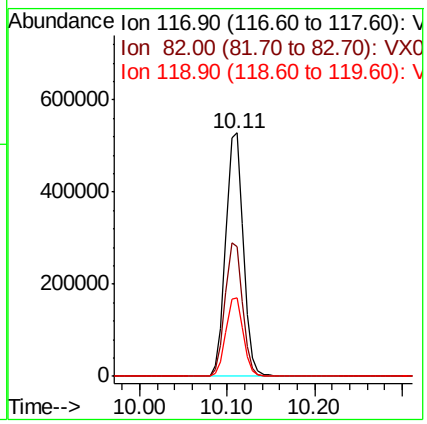
Instrument :
MSVOA_X
ClientSampleId :
997-MW-16-(22.5)

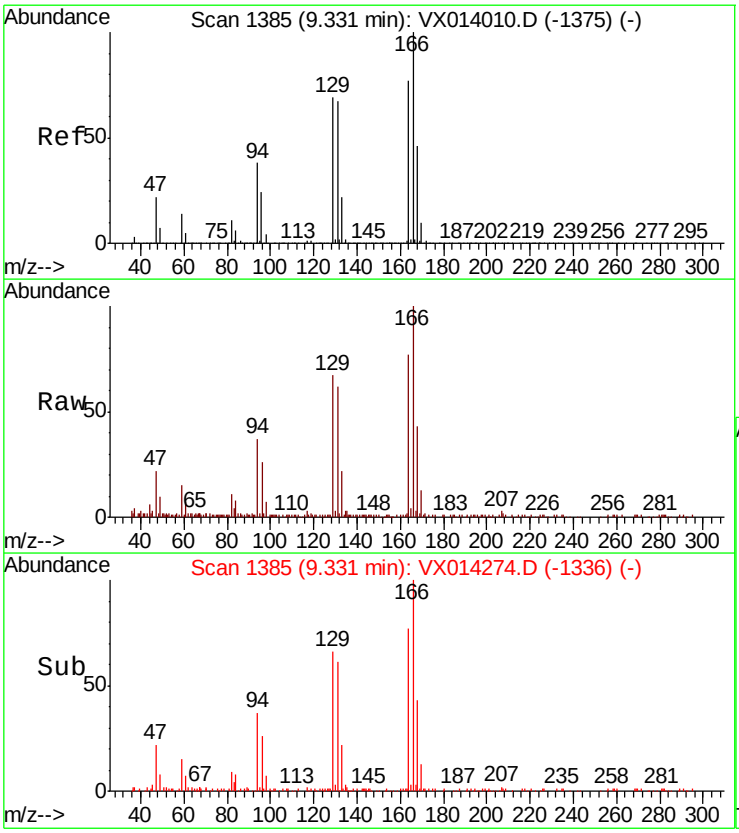


#63
Chlorobenzene-d5
Concen: 50.000 ug/l
RT: 10.11 min Scan# 1513
Delta R.T. -0.00 min
Lab File: VX014274.D
Acq: 26 Dec 2019 17:08

Tgt Ion:117 Resp: 734502

Ion	Ratio	Lower	Upper
117	100		
82	53.4	42.2	63.4
119	32.4	25.1	37.7

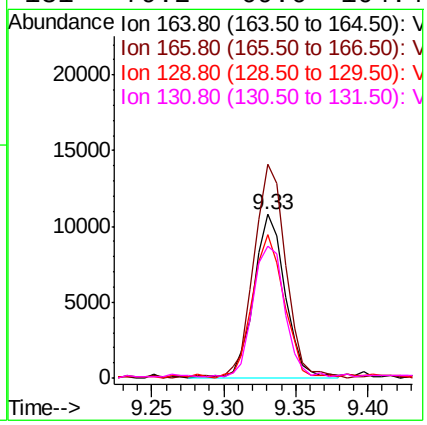




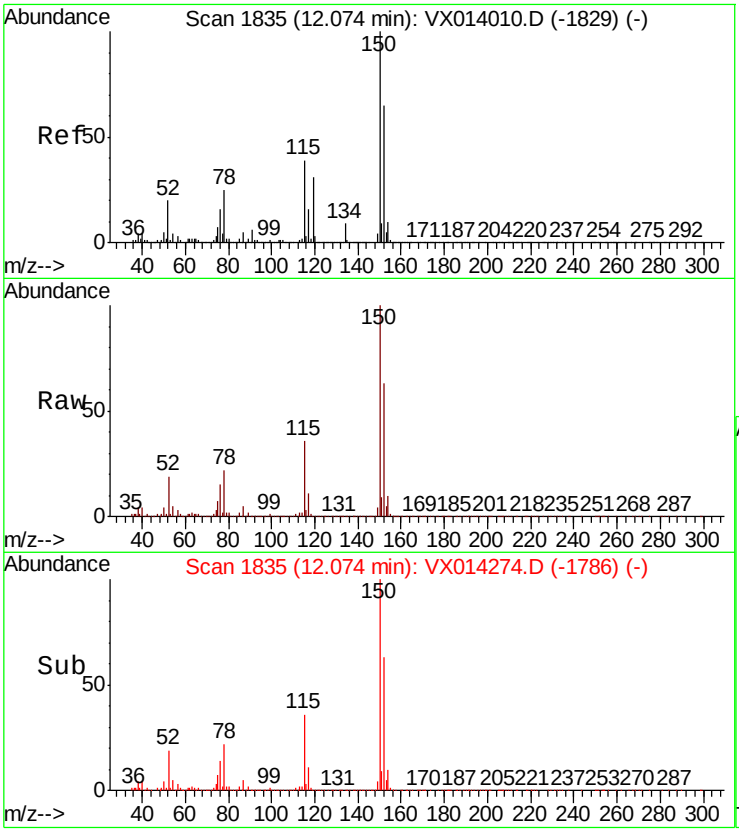
#64
Tetrachloroethene
Concen: 2.503 ug/l
RT: 9.33 min Scan# 1385
Delta R.T. -0.00 min
Lab File: VX014274.D
Acq: 26 Dec 2019 17:08

Tgt Ion:164 Resp: 16265

Ion	Ratio	Lower	Upper
164	100		
166	129.8	104.0	156.0
129	86.4	72.2	108.4
131	79.2	69.6	104.4



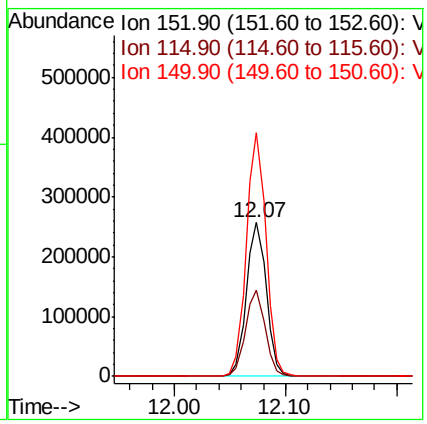
Instrument :
MSVOA_X
ClientSampleId :
997-MW-16-(22.5)



#72
1,4-Dichlorobenzene-d4
Concen: 50.000 ug/l
RT: 12.07 min Scan# 1835
Delta R.T. -0.00 min
Lab File: VX014274.D
Acq: 26 Dec 2019 17:08

Tgt Ion:152 Resp: 317706

Ion	Ratio	Lower	Upper
152	100		
115	55.5	38.3	114.9
150	156.5	0.0	345.4



LSC Area Percent Report

Instrument :
MSVOA_X
ClientSampleId :
997-MW-16-(22.5)

Data Path : Z:\VOASRV\HPCHEM1\MSVOA X\DATA\VX122619\
Data File : VX014274.D
Acq On : 26 Dec 2019 17:08
Operator : JC/SP
Sample : K6405-09
Misc : 5.0mL/MSVOA X/WATER
ALS Vial : 17 Sample Multiplier: 1

Integration Parameters: RTEINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 3 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121319W.M
Title : SW846 8260

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	1.070	26	30	44	rBV	1415156	1702806	67.63%	11.322%
2	1.265	58	62	67	rBV	34760	46370	1.84%	0.308%
3	1.600	109	117	120	rBV6	30807	60820	2.42%	0.404%
4	2.588	272	279	288	rBV	76443	140362	5.57%	0.933%
5	5.490	744	755	765	rBV	281879	798459	31.71%	5.309%
6	5.654	772	782	794	rVB	512757	1405584	55.82%	9.345%
7	6.051	836	847	861	rBV	323387	833416	33.10%	5.541%
8	6.849	969	978	991	rBV	785711	1820348	72.29%	12.103%
9	7.215	1029	1038	1042	rBV	9481	26862	1.07%	0.179%
10	8.709	1275	1283	1295	rBV	1622163	2517964	100.00%	16.741%
11	9.331	1379	1385	1391	rBV	75859	111680	4.44%	0.743%
12	10.105	1507	1512	1520	rBV	1547827	2128912	84.55%	14.155%
13	11.129	1675	1680	1694	rBV	1204848	1592861	63.26%	10.591%
14	12.074	1829	1835	1844	rBV	1488782	1853936	73.63%	12.326%

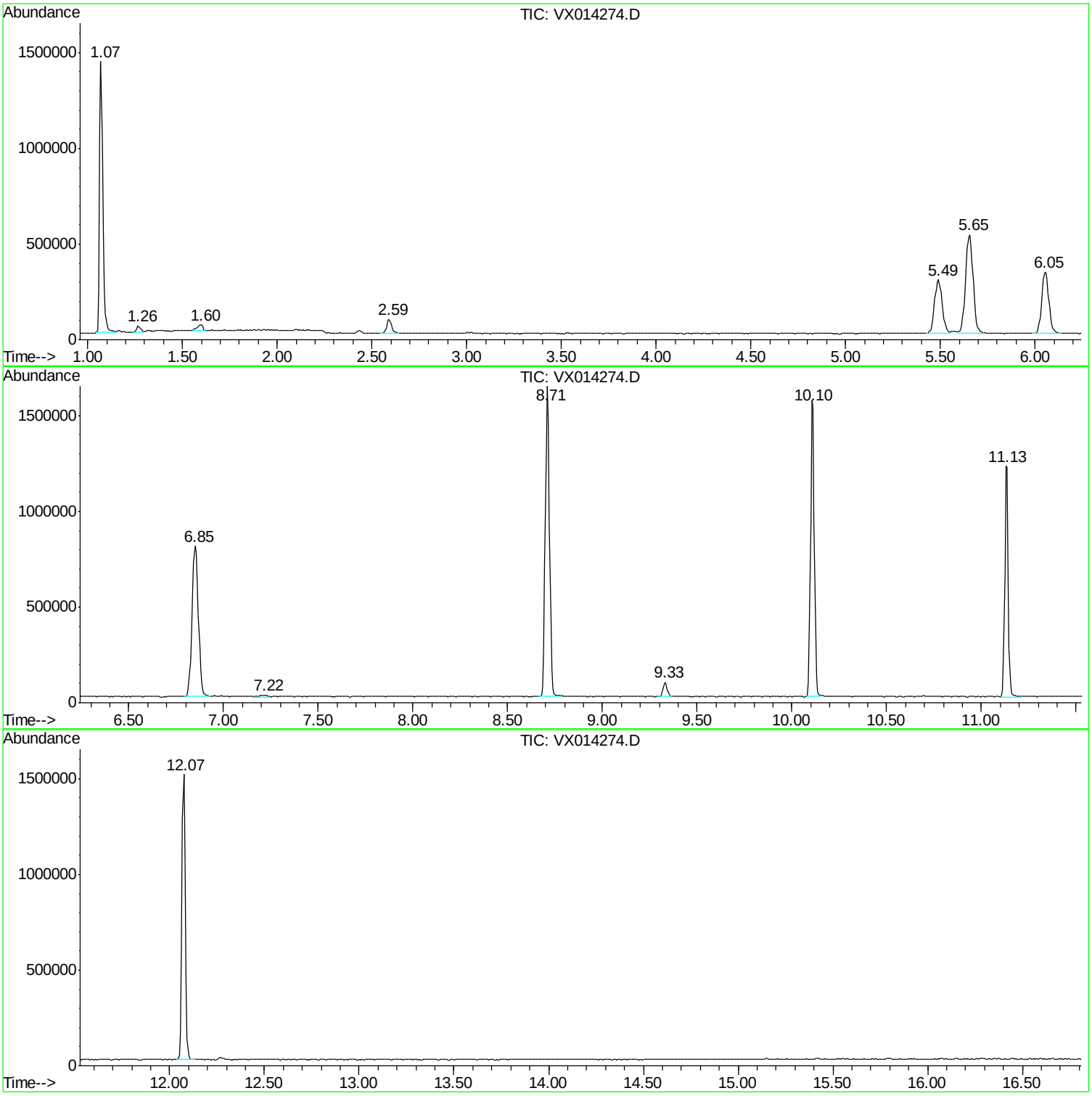
Sum of corrected areas: 15040380

Data Path : Z:\VOASRV\HPCHEM1\MSVOA X\DATA\VX122619\
Data File : VX014274.D
Acq On : 26 Dec 2019 17:08
Operator : JC/SP
Sample : K6405-09
Misc : 5.0mL/MSVOA X/WATER
ALS Vial : 17 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
997-MW-16-(22.5)

Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121319W.M
Quant Title : SW846 8260

TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P



Library Search Compound Report

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX122619\
Data File : VX014274.D
Acq On : 26 Dec 2019 17:08
Operator : JC/SP
Sample : K6405-09
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 17 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
997-MW-16-(22.5)

Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121319W.M
Quant Title : SW846 8260

TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

No Library Search Compounds Detected

****

Instrument :
MSVOA_X
ClientSampleId :
997-MW-16-(22.5)

Tentatively Identified Compound (LSC) summary

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX122619\
Data File : VX014274.D
Acq On : 26 Dec 2019 17:08
Operator : JC/SP
Sample : K6405-09
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 17 Sample Multiplier: 1

Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121319W.M
Quant Title : SW846 8260

TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

					Internal Standard		
TIC Top Hit name	RT	EstConc	Units	Response	#	RT	Resp	Conc

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Day Environmental, Inc.	Date Collected:	12/20/19
Project:	Andrew St. RI	Date Received:	12/21/19
Client Sample ID:	998-MW-17A-(15.5)	SDG No.:	K6405
Lab Sample ID:	K6405-10	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	DB-624UI ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX014254.D	1		12/24/19 18:45	VX122419

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
75-71-8	Dichlorodifluoromethane	1.00	U	0.22	1.00	ug/L
74-87-3	Chloromethane	1.00	U	0.30	1.00	ug/L
75-01-4	Vinyl Chloride	2.30		0.16	1.00	ug/L
74-83-9	Bromomethane	5.00	U	2.10	5.00	ug/L
75-00-3	Chloroethane	1.00	U	0.34	1.00	ug/L
75-69-4	Trichlorofluoromethane	1.00	U	0.16	1.00	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	1.00	U	0.21	1.00	ug/L
75-35-4	1,1-Dichloroethene	1.00	U	0.18	1.00	ug/L
67-64-1	Acetone	5.00		0.90	5.00	ug/L
75-15-0	Carbon Disulfide	1.00	U	0.23	1.00	ug/L
1634-04-4	Methyl tert-butyl Ether	1.00	U	0.070	1.00	ug/L
79-20-9	Methyl Acetate	1.00	U	0.65	1.00	ug/L
75-09-2	Methylene Chloride	1.00	U	0.33	1.00	ug/L
156-60-5	trans-1,2-Dichloroethene	1.90		0.24	1.00	ug/L
75-34-3	1,1-Dichloroethane	1.00	U	0.17	1.00	ug/L
110-82-7	Cyclohexane	3.90	J	1.20	5.00	ug/L
78-93-3	2-Butanone	5.00	U	0.71	5.00	ug/L
56-23-5	Carbon Tetrachloride	1.00	U	0.22	1.00	ug/L
156-59-2	cis-1,2-Dichloroethene	69.6		0.30	1.00	ug/L
74-97-5	Bromochloromethane	1.00	U	0.31	1.00	ug/L
67-66-3	Chloroform	1.00	U	0.14	1.00	ug/L
71-55-6	1,1,1-Trichloroethane	1.00	U	0.12	1.00	ug/L
108-87-2	Methylcyclohexane	1.70		0.17	1.00	ug/L
71-43-2	Benzene	0.51	J	0.10	1.00	ug/L
107-06-2	1,2-Dichloroethane	1.00	U	0.13	1.00	ug/L
79-01-6	Trichloroethene	26.6		0.27	1.00	ug/L
78-87-5	1,2-Dichloropropane	1.00	U	0.14	1.00	ug/L
75-27-4	Bromodichloromethane	1.00	U	0.10	1.00	ug/L
108-10-1	4-Methyl-2-Pentanone	5.00	U	0.85	5.00	ug/L
108-88-3	Toluene	1.00	U	0.12	1.00	ug/L
10061-02-6	t-1,3-Dichloropropene	1.00	U	0.19	1.00	ug/L
10061-01-5	cis-1,3-Dichloropropene	1.00	U	0.16	1.00	ug/L

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Day Environmental, Inc.	Date Collected:	12/20/19
Project:	Andrew St. RI	Date Received:	12/21/19
Client Sample ID:	998-MW-17A-(15.5)	SDG No.:	K6405
Lab Sample ID:	K6405-10	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	DB-624UI ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX014254.D	1		12/24/19 18:45	VX122419

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
79-00-5	1,1,2-Trichloroethane	1.00	U	0.12	1.00	ug/L
591-78-6	2-Hexanone	5.00	U	1.40	5.00	ug/L
124-48-1	Dibromochloromethane	1.00	U	0.16	1.00	ug/L
106-93-4	1,2-Dibromoethane	1.00	U	0.14	1.00	ug/L
127-18-4	Tetrachloroethene	28.0		0.15	1.00	ug/L
108-90-7	Chlorobenzene	1.00	U	0.080	1.00	ug/L
100-41-4	Ethyl Benzene	1.00	U	0.080	1.00	ug/L
179601-23-1	m/p-Xylenes	2.00	U	0.20	2.00	ug/L
95-47-6	o-Xylene	0.32	J	0.13	1.00	ug/L
100-42-5	Styrene	1.00	U	0.11	1.00	ug/L
75-25-2	Bromoform	1.00	U	0.15	1.00	ug/L
98-82-8	Isopropylbenzene	1.00	U	0.13	1.00	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	1.00	U	0.15	1.00	ug/L
541-73-1	1,3-Dichlorobenzene	1.00	U	0.14	1.00	ug/L
106-46-7	1,4-Dichlorobenzene	1.00	U	0.20	1.00	ug/L
95-50-1	1,2-Dichlorobenzene	1.00	U	0.12	1.00	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	1.00	U	0.54	1.00	ug/L
120-82-1	1,2,4-Trichlorobenzene	1.00	U	0.24	1.00	ug/L
87-61-6	1,2,3-Trichlorobenzene	1.00	U	0.26	1.00	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	48.6		61 - 141	97%	SPK: 50
1868-53-7	Dibromofluoromethane	49.6		69 - 133	99%	SPK: 50
2037-26-5	Toluene-d8	49.7		65 - 126	99%	SPK: 50
460-00-4	4-Bromofluorobenzene	45.2		58 - 135	90%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	556000	5.65			
540-36-3	1,4-Difluorobenzene	844000	6.85			
3114-55-4	Chlorobenzene-d5	741000	10.11			
3855-82-1	1,4-Dichlorobenzene-d4	318000	12.07			
TENTATIVE IDENTIFIED COMPOUNDS						
000075-28-5	Isobutane	9.90	J		1.30	ug/L
000078-78-4	Butane, 2-methyl-	12.2	J		1.78	ug/L

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Day Environmental, Inc.	Date Collected:	12/20/19
Project:	Andrew St. RI	Date Received:	12/21/19
Client Sample ID:	998-MW-17A-(15.5)	SDG No.:	K6405
Lab Sample ID:	K6405-10	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	DB-624UI ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX014254.D	1		12/24/19 18:45	VX122419

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit
A = Aldol-Condensation Reaction Products

Quantitation Report (LSC Reviewed)

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX122419\
Data File : VX014254.D
Acq On : 24 Dec 2019 18:45
Operator : JC/SP
Sample : K6405-10
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 24 Sample Multiplier: 1

Instrument : MSVOA_X
ClientSampleId : 998-MW-17A-(15.5)

Quant Time: Dec 25 08:07:43 2019
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121319W.M
Quant Title : SW846 8260
QLast Update : Tue Dec 17 03:01:07 2019
Response via : Initial Calibration

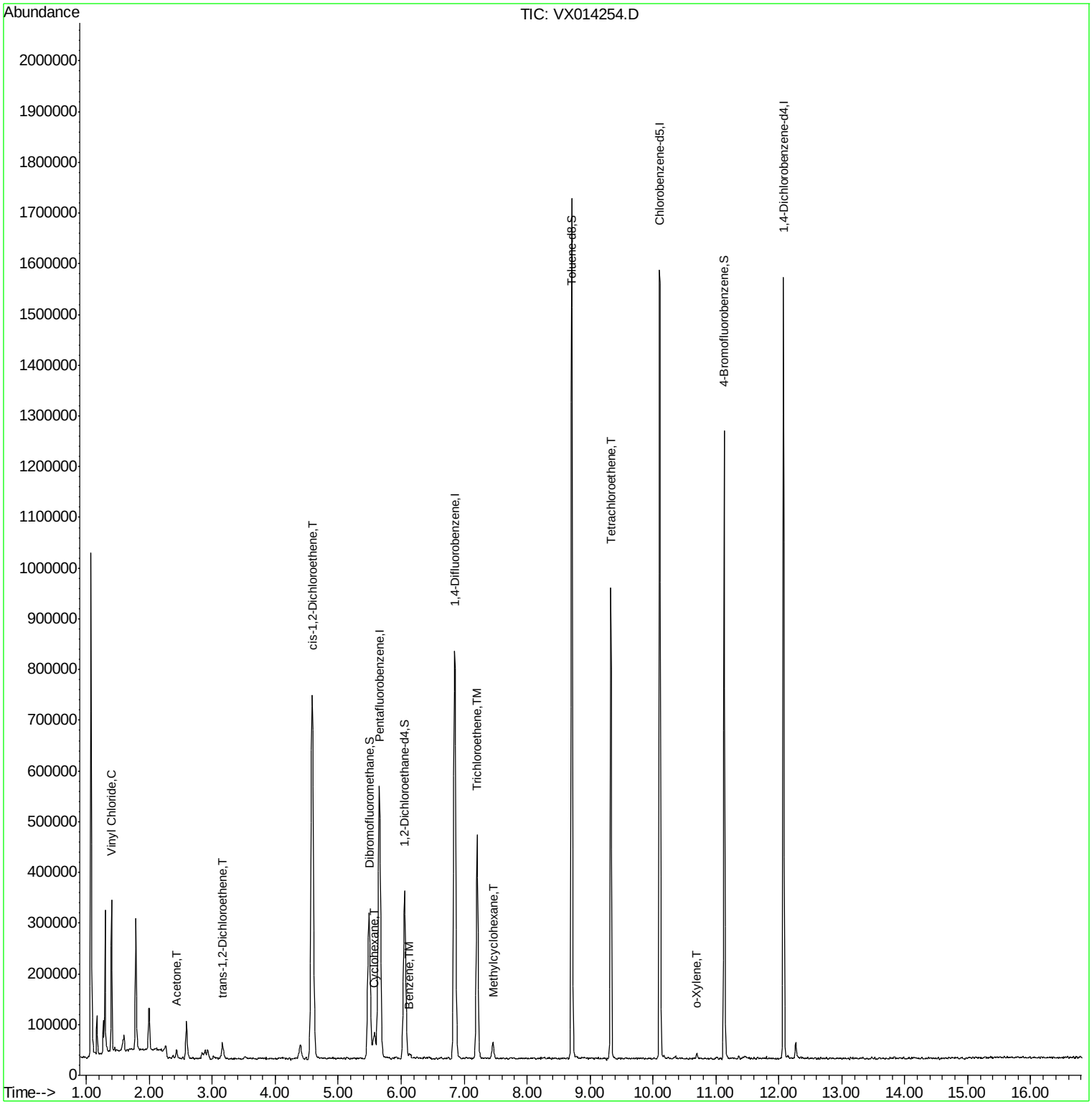
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	5.65	168	556094	50.00	ug/l	0.00
34) 1,4-Difluorobenzene	6.85	114	844118	50.00	ug/l	0.00
63) Chlorobenzene-d5	10.11	117	741493	50.00	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	12.07	152	318309	50.00	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	6.05	65	305993	48.55	ug/l	0.00
Spiked Amount 50.000			Recovery = 97.10%			
35) Dibromofluoromethane	5.49	113	254407	49.58	ug/l	0.00
Spiked Amount 50.000			Recovery = 99.16%			
50) Toluene-d8	8.71	98	993695	49.74	ug/l	0.00
Spiked Amount 50.000			Recovery = 99.48%			
62) 4-Bromofluorobenzene	11.14	95	329822	45.16	ug/l	0.00
Spiked Amount 50.000			Recovery = 90.32%			
Target Compounds						Qvalue
4) Vinyl Chloride	1.40	62	16191	2.298	ug/l	97
16) Acetone	2.43	43	20413	4.989	ug/l	97
21) trans-1,2-Dichloroethene	3.16	96	11436	1.941	ug/l	97
27) cis-1,2-Dichloroethene	4.59	96	463831	69.593	ug/l	89
31) Cyclohexane	5.56	56	36696	3.896	ug/l	98
39) Methylcyclohexane	7.46	83	16060	1.679	ug/l	94
40) Benzene	6.13	78	12150	0.510	ug/l	100
44) Trichloroethene	7.21	130	175315	26.634	ug/l	99
64) Tetrachloroethene	9.33	164	183845	28.020	ug/l	98
69) o-Xylene	10.70	106	3262	0.319	ug/l	90

(#) = qualifier out of range (m) = manual integration (+) = signals summed

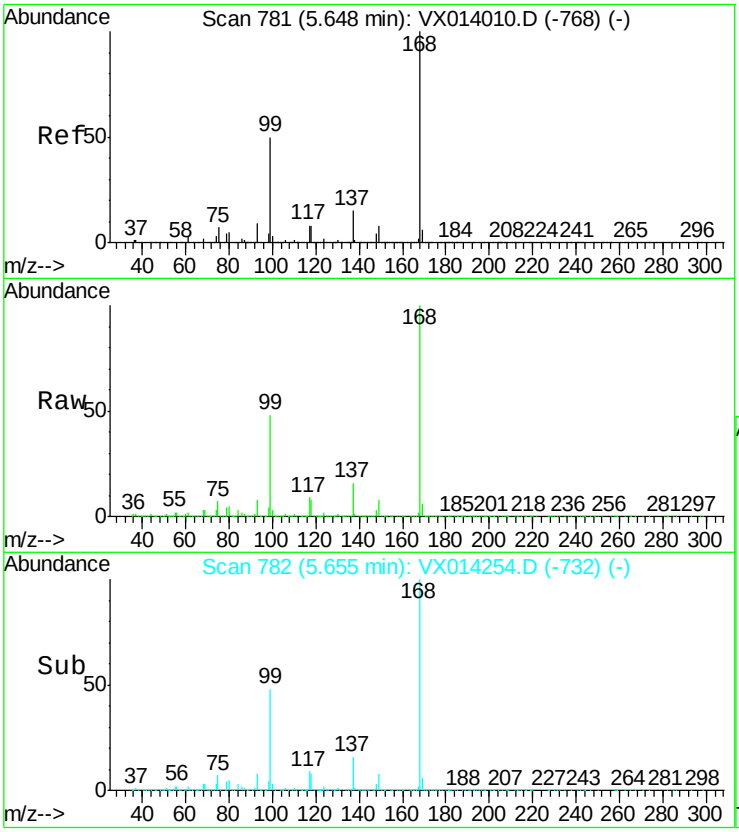
Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX122419\
Data File : VX014254.D
Acq On : 24 Dec 2019 18:45
Operator : JC/SP
Sample : K6405-10
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 24 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
998-MW-17A-(15.5)

Quant Time: Dec 25 08:07:43 2019
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121319W.M
Quant Title : SW846 8260
QLast Update : Tue Dec 17 03:01:07 2019
Response via : Initial Calibration



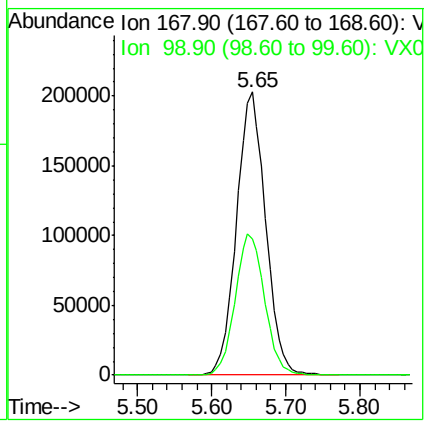
Instrument :
MSVOA_X
ClientSampleId :
998-MW-17A-(15.5)

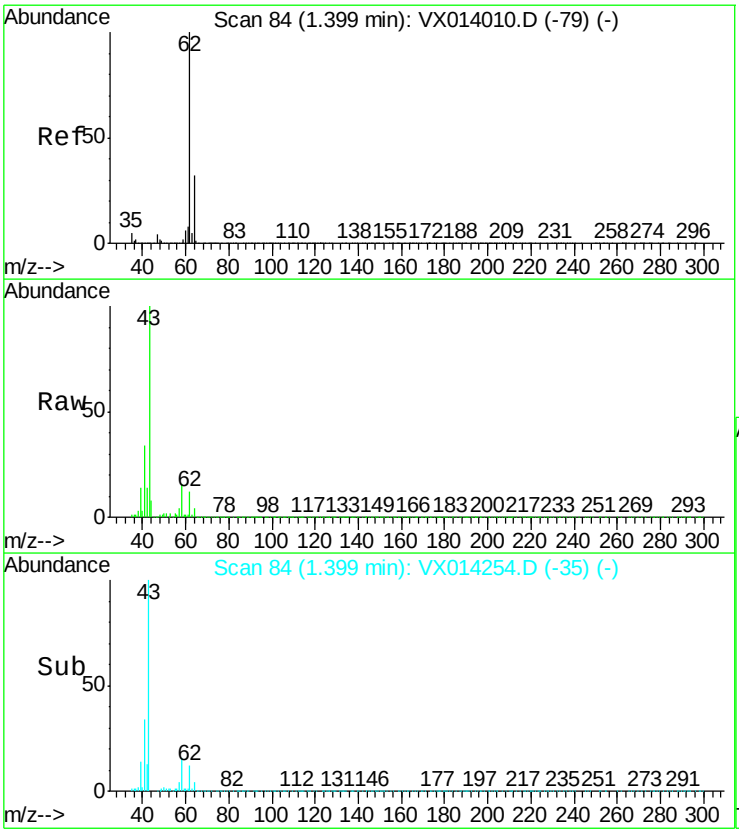


#1
Pentafluorobenzene
Concen: 50.000 ug/l
RT: 5.65 min Scan# 782
Delta R.T. 0.01 min
Lab File: VX014254.D
Acq: 24 Dec 2019 18:45

Tgt Ion:168 Resp: 556094

Ion	Ratio	Lower	Upper
168	100		
99	47.8	40.3	60.5

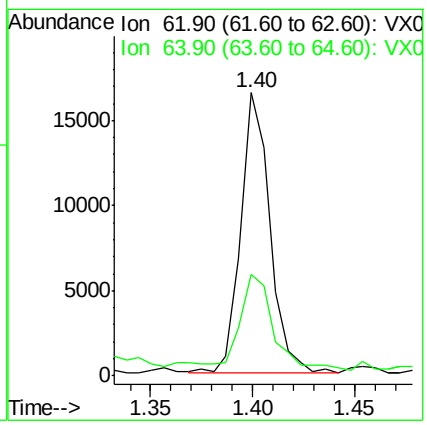




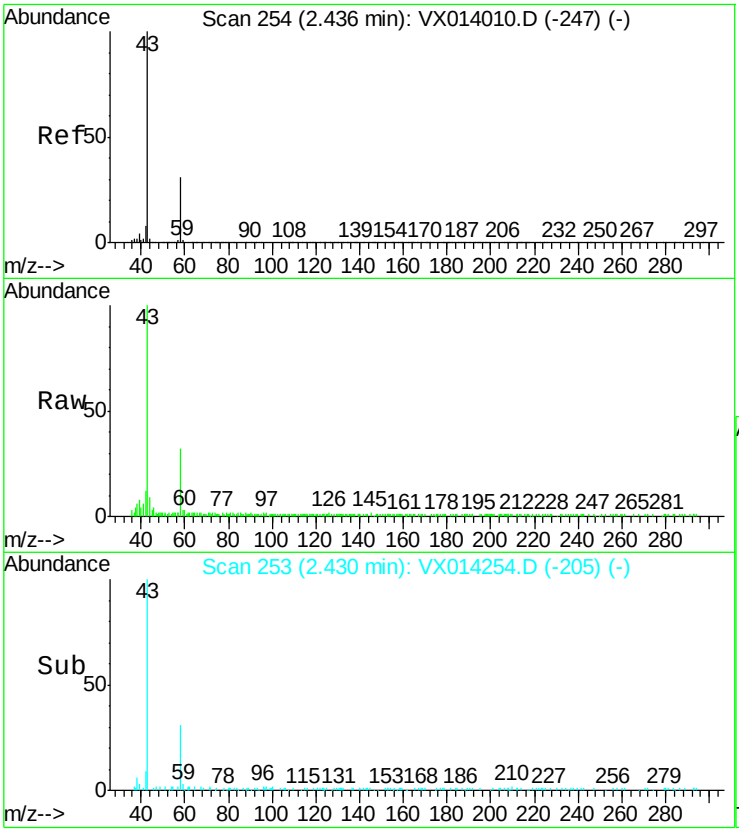
#4
Vinyl Chloride
Concen: 2.298 ug/l
RT: 1.40 min Scan# 84
Delta R.T. 0.00 min
Lab File: VX014254.D
Acq: 24 Dec 2019 18:45

Tgt Ion: 62 Resp: 16191

Ion	Ratio	Lower	Upper
62	100		
64	33.5	25.7	38.5



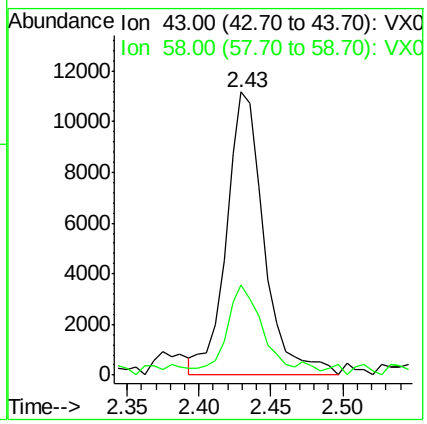
Instrument :
MSVOA_X
ClientSampleId :
998-MW-17A-(15.5)

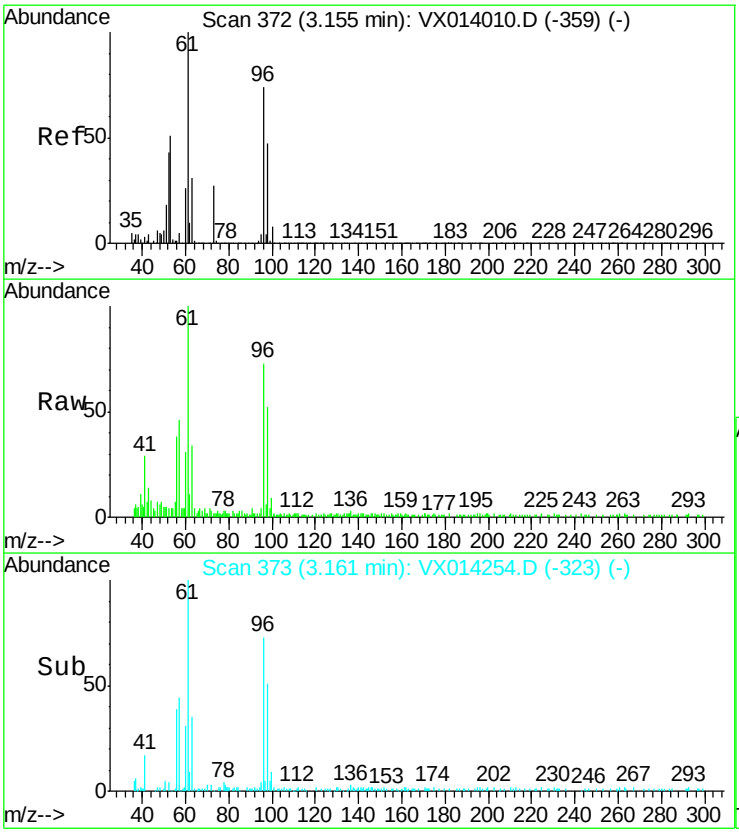


#16
Acetone
Concen: 4.989 ug/l
RT: 2.43 min Scan# 253
Delta R.T. -0.01 min
Lab File: VX014254.D
Acq: 24 Dec 2019 18:45

Tgt Ion: 43 Resp: 20413

Ion	Ratio	Lower	Upper
43	100		
58	29.6	24.9	37.3

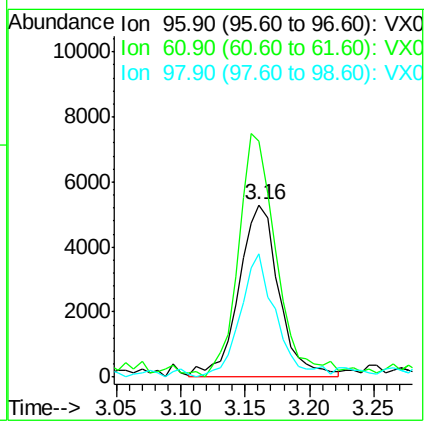




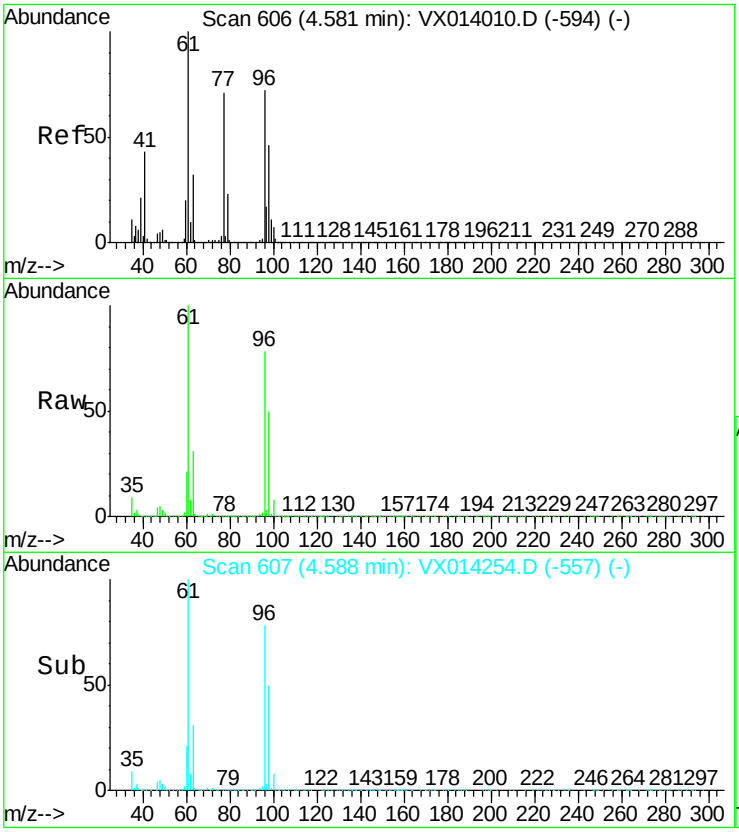
#21
trans-1,2-Dichloroethene
Concen: 1.941 ug/l
RT: 3.16 min Scan# 373
Delta R.T. 0.01 min
Lab File: VX014254.D
Acq: 24 Dec 2019 18:45

Tgt Ion: 96 Resp: 11436

Ion	Ratio	Lower	Upper
96	100		
61	134.2	108.3	162.5
98	70.2	50.8	76.2



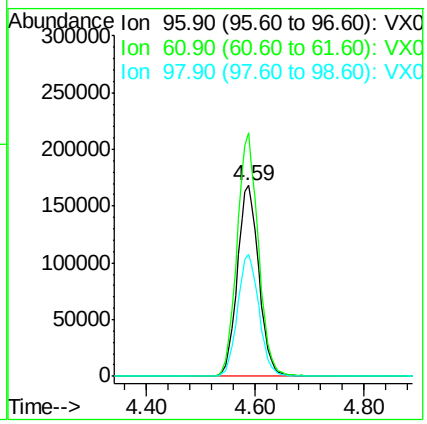
Instrument :
MSVOA_X
ClientSampleId :
998-MW-17A-(15.5)

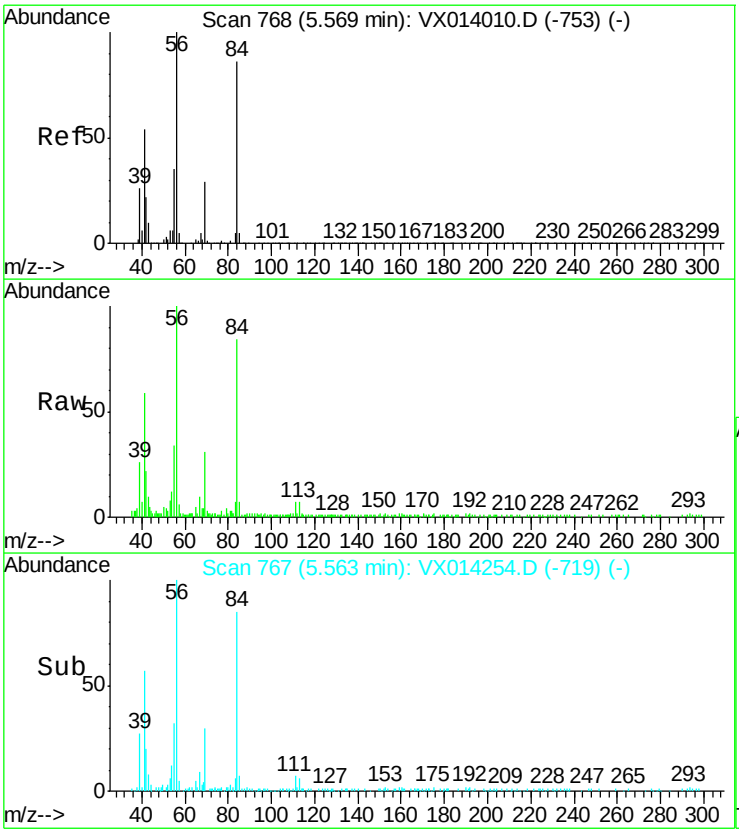


#27
cis-1,2-Dichloroethene
Concen: 69.593 ug/l
RT: 4.59 min Scan# 607
Delta R.T. 0.01 min
Lab File: VX014254.D
Acq: 24 Dec 2019 18:45

Tgt Ion: 96 Resp: 463831

Ion	Ratio	Lower	Upper
96	100		
61	125.3	0.0	288.4
98	63.5	0.0	129.6

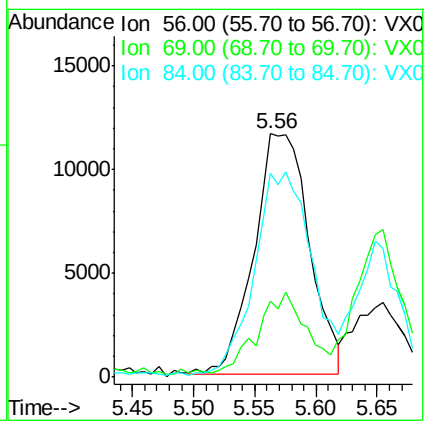




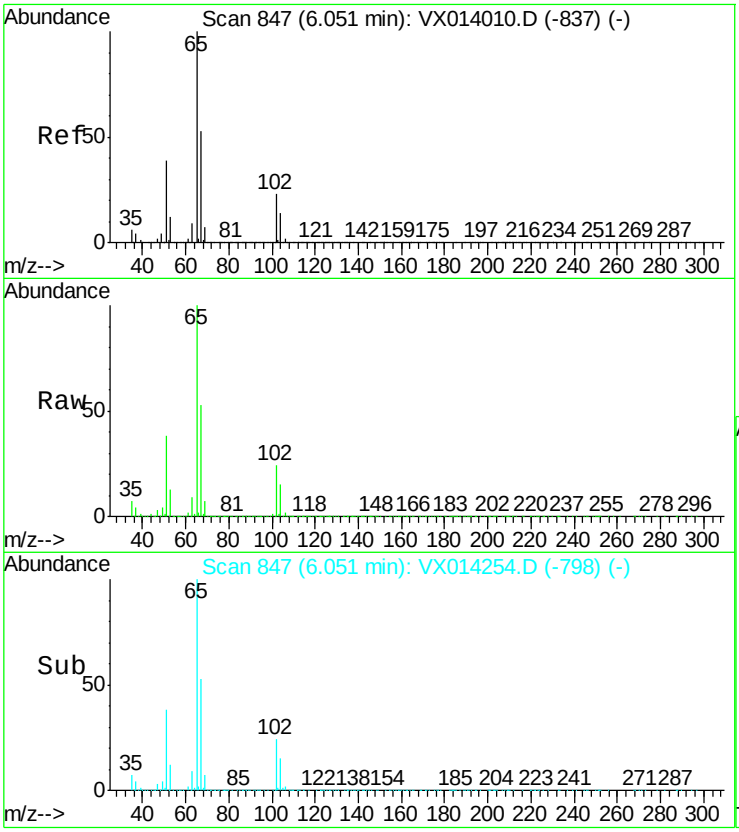
#31
Cyclohexane
Concen: 3.896 ug/l
RT: 5.56 min Scan# 767
Delta R.T. -0.01 min
Lab File: VX014254.D
Acq: 24 Dec 2019 18:45

Tgt Ion: 56 Resp: 36696

Ion	Ratio	Lower	Upper
56	100		
69	29.5	23.2	34.8
84	83.8	69.2	103.8



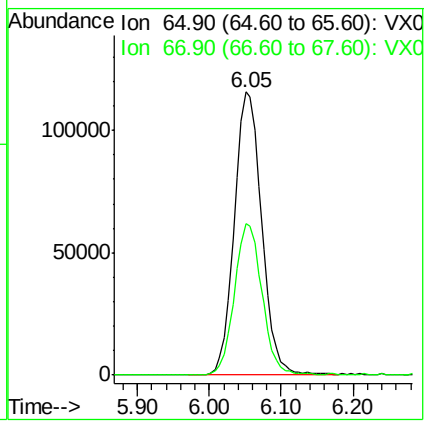
Instrument :
MSVOA_X
ClientSampleId :
998-MW-17A-(15.5)

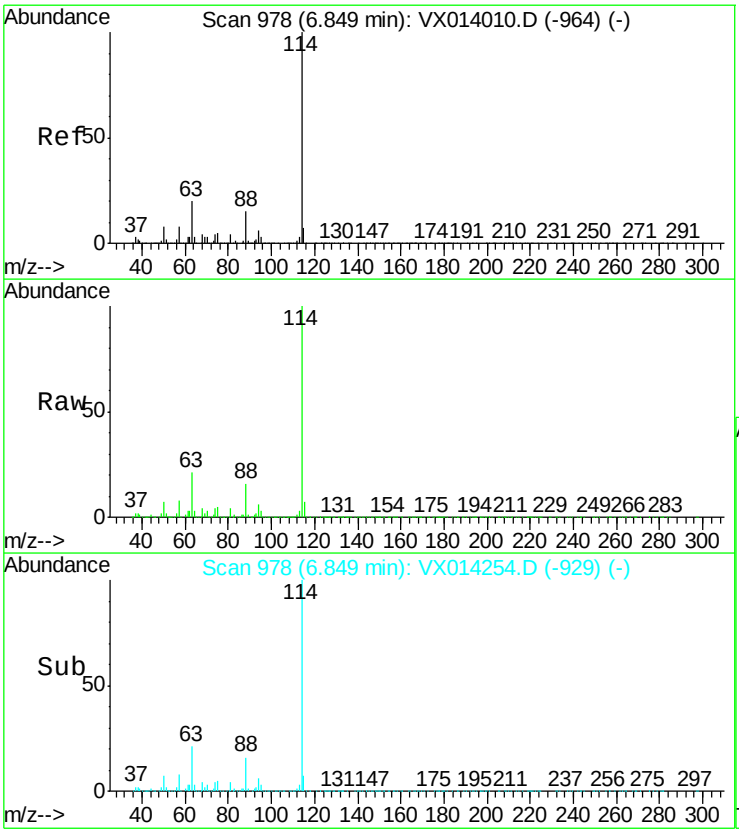


#33
1,2-Dichloroethane-d4
Concen: 48.551 ug/l
RT: 6.05 min Scan# 847
Delta R.T. 0.00 min
Lab File: VX014254.D
Acq: 24 Dec 2019 18:45

Tgt Ion: 65 Resp: 305993

Ion	Ratio	Lower	Upper
65	100		
67	53.1	0.0	106.4

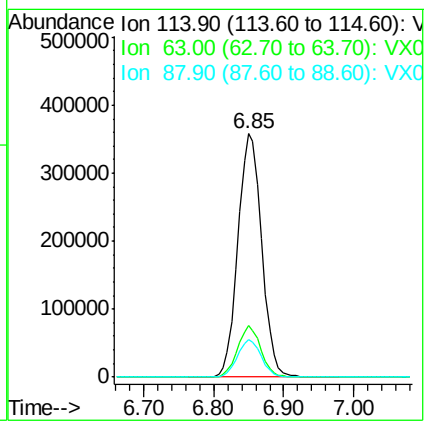




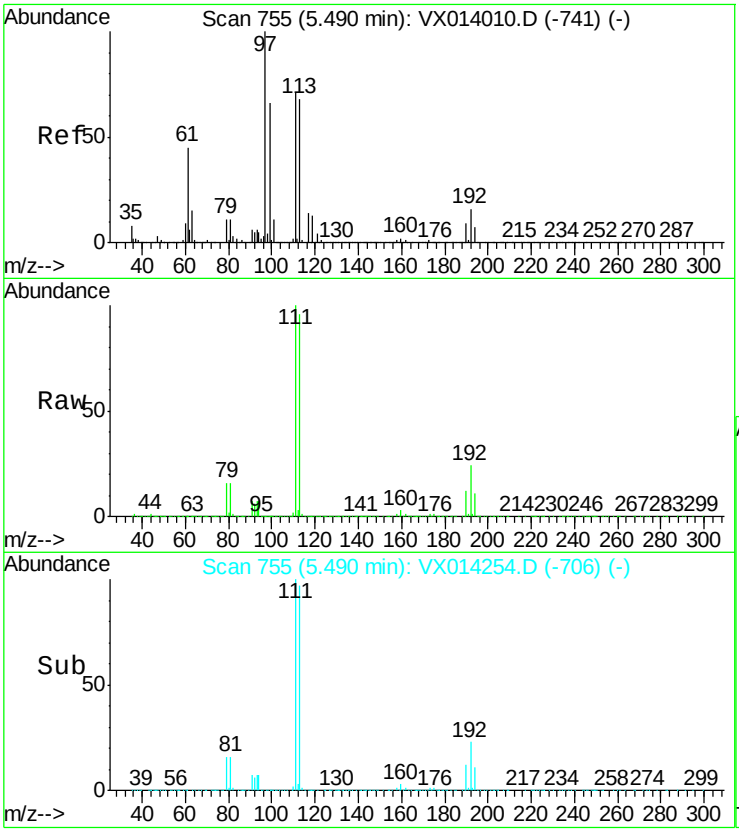
#34
1,4-Difluorobenzene
Concen: 50.000 ug/l
RT: 6.85 min Scan# 978
Delta R.T. 0.00 min
Lab File: VX014254.D
Acq: 24 Dec 2019 18:45

Tgt Ion:114 Resp: 844118

Ion	Ratio	Lower	Upper
114	100		
63	20.9	0.0	40.8
88	15.6	0.0	30.4



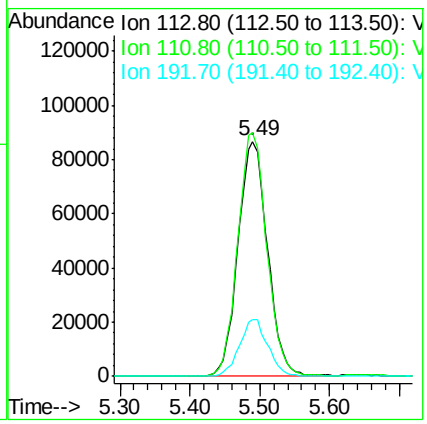
Instrument :
MSVOA_X
ClientSampleId :
998-MW-17A-(15.5)

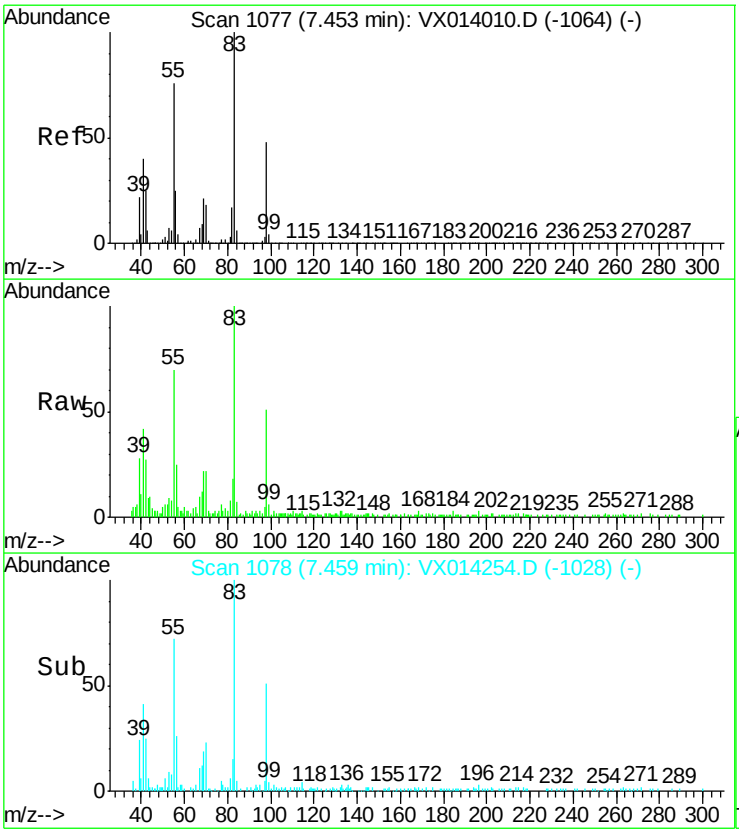


#35
Dibromofluoromethane
Concen: 49.579 ug/l
RT: 5.49 min Scan# 755
Delta R.T. 0.00 min
Lab File: VX014254.D
Acq: 24 Dec 2019 18:45

Tgt Ion:113 Resp: 254407

Ion	Ratio	Lower	Upper
113	100		
111	101.5	82.0	123.0
192	23.2	19.3	28.9

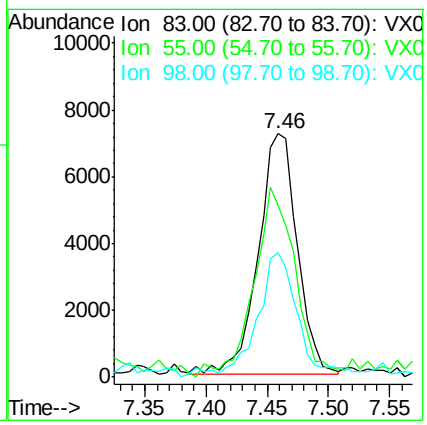




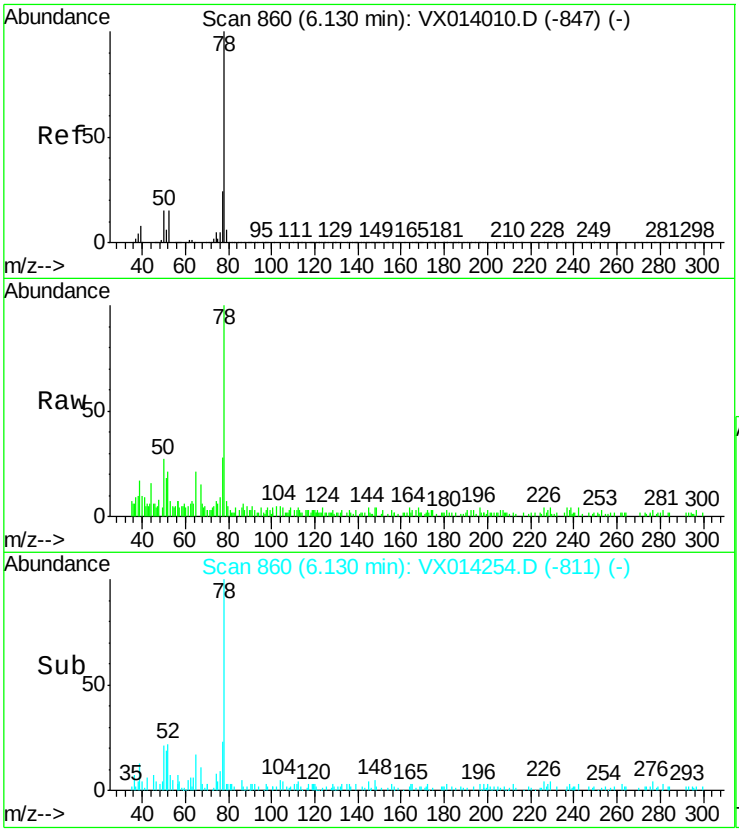
#39
Methylcyclohexane
Concen: 1.679 ug/l
RT: 7.46 min Scan# 1078
Delta R.T. 0.01 min
Lab File: VX014254.D
Acq: 24 Dec 2019 18:45

Tgt Ion: 83 Resp: 16060

Ion	Ratio	Lower	Upper
83	100		
55	69.7	61.0	91.6
98	50.5	38.6	57.8



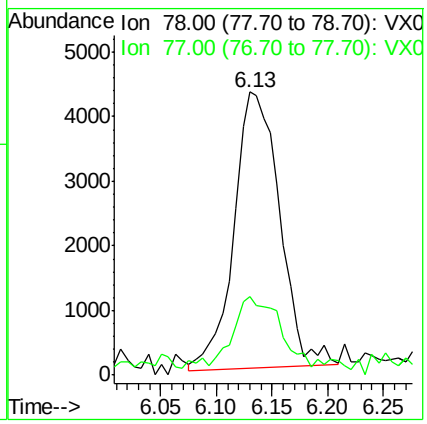
Instrument :
MSVOA_X
ClientSampleId :
998-MW-17A-(15.5)

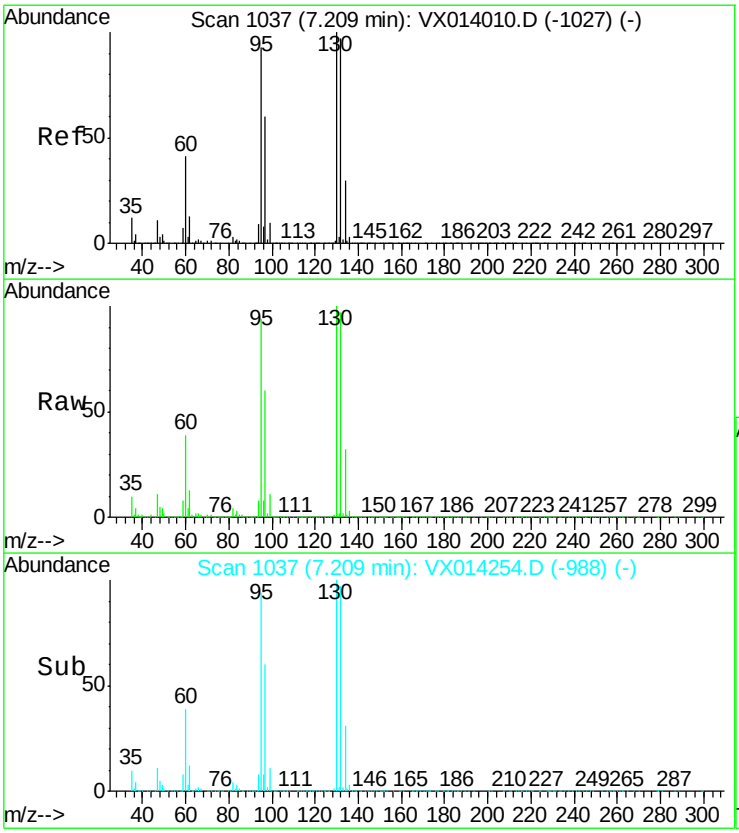


#40
Benzene
Concen: 0.510 ug/l
RT: 6.13 min Scan# 860
Delta R.T. 0.00 min
Lab File: VX014254.D
Acq: 24 Dec 2019 18:45

Tgt Ion: 78 Resp: 12150

Ion	Ratio	Lower	Upper
78	100		
77	23.5	18.8	28.2

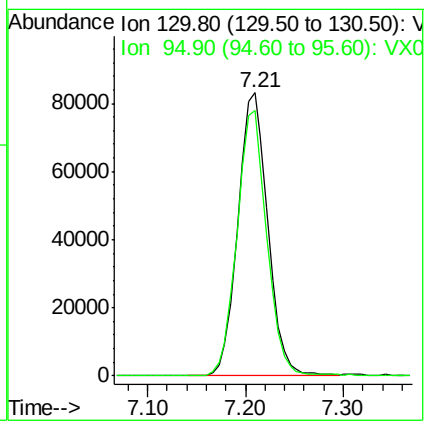




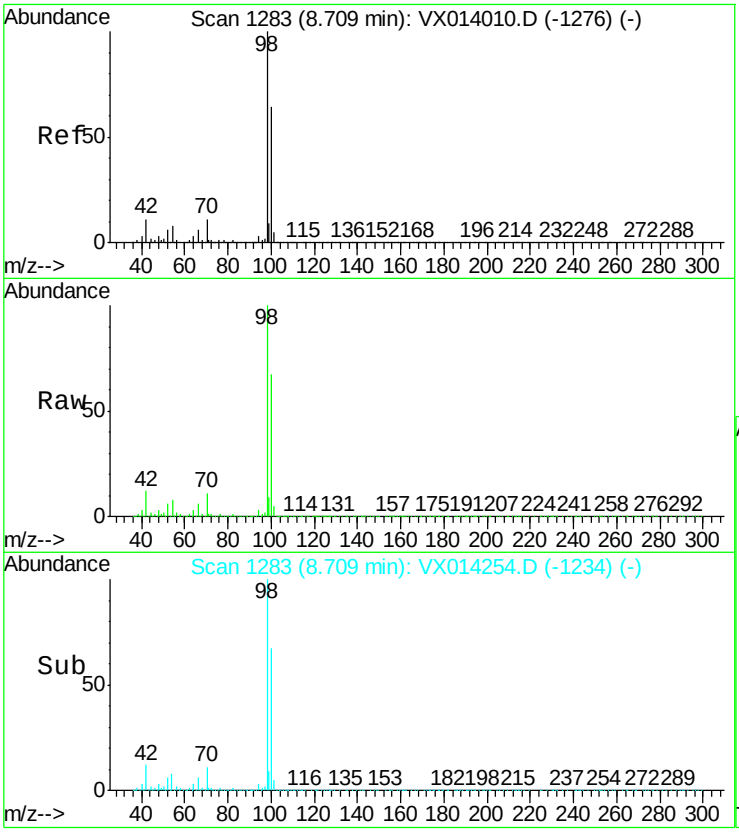
#44
Trichloroethene
Concen: 26.634 ug/l
RT: 7.21 min Scan# 1037
Delta R.T. 0.00 min
Lab File: VX014254.D
Acq: 24 Dec 2019 18:45

Tgt Ion:130 Resp: 175315

Ion	Ratio	Lower	Upper
130	100		
95	93.9	0.0	185.6



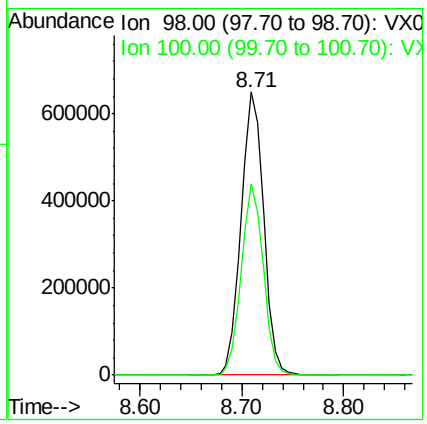
Instrument :
MSVOA_X
ClientSampleId :
998-MW-17A-(15.5)

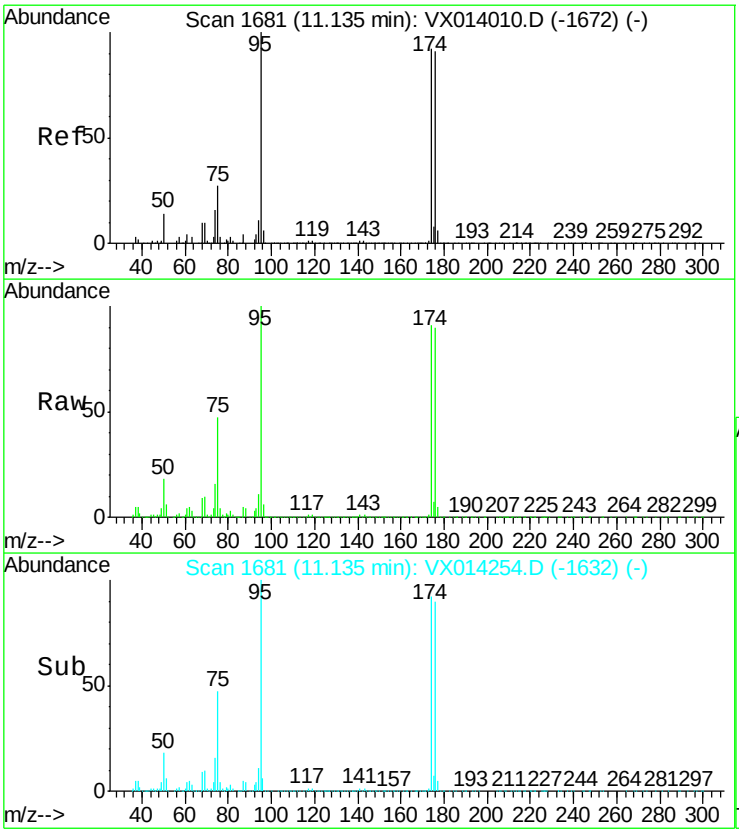


#50
Toluene-d8
Concen: 49.741 ug/l
RT: 8.71 min Scan# 1283
Delta R.T. 0.00 min
Lab File: VX014254.D
Acq: 24 Dec 2019 18:45

Tgt Ion: 98 Resp: 993695

Ion	Ratio	Lower	Upper
98	100		
100	65.8	52.9	79.3

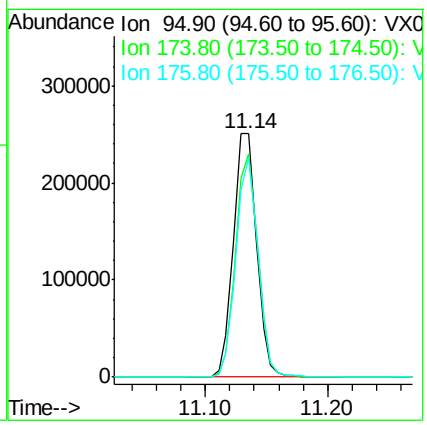




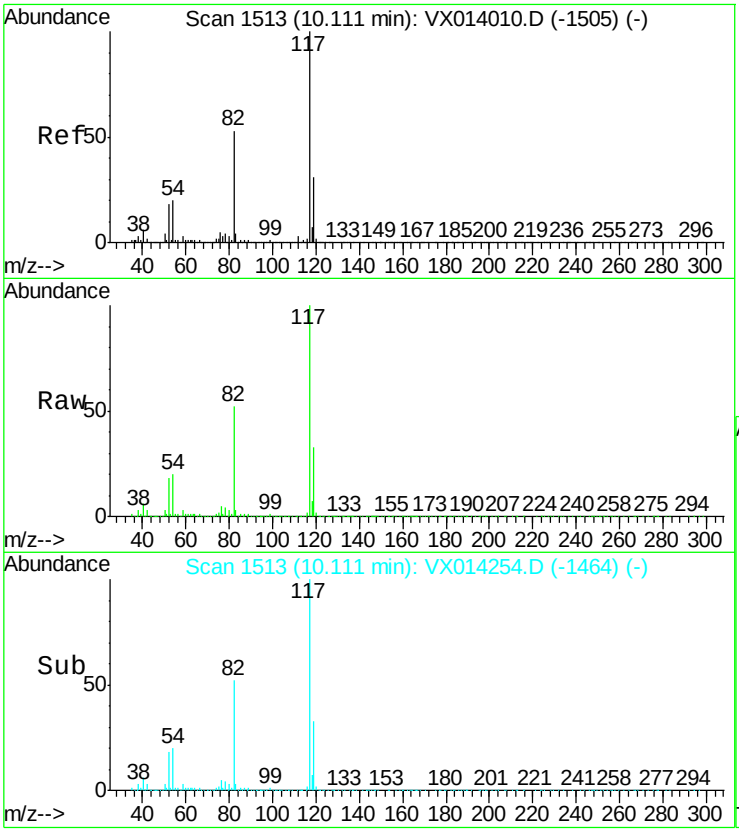
#62
4-Bromofluorobenzene
Concen: 45.165 ug/l
RT: 11.14 min Scan# 1681
Delta R.T. 0.00 min
Lab File: VX014254.D
Acq: 24 Dec 2019 18:45

Tgt Ion: 95 Resp: 329822

Ion	Ratio	Lower	Upper
95	100		
174	88.1	0.0	175.8
176	85.4	0.0	173.0



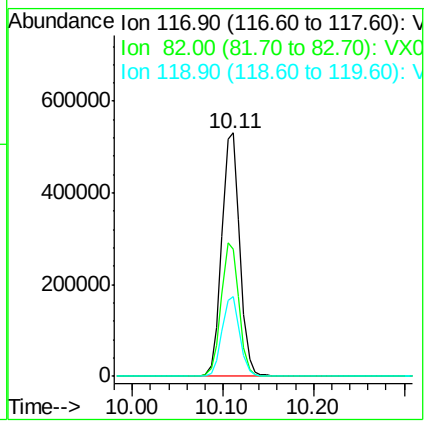
Instrument :
MSVOA_X
ClientSampleId :
998-MW-17A-(15.5)

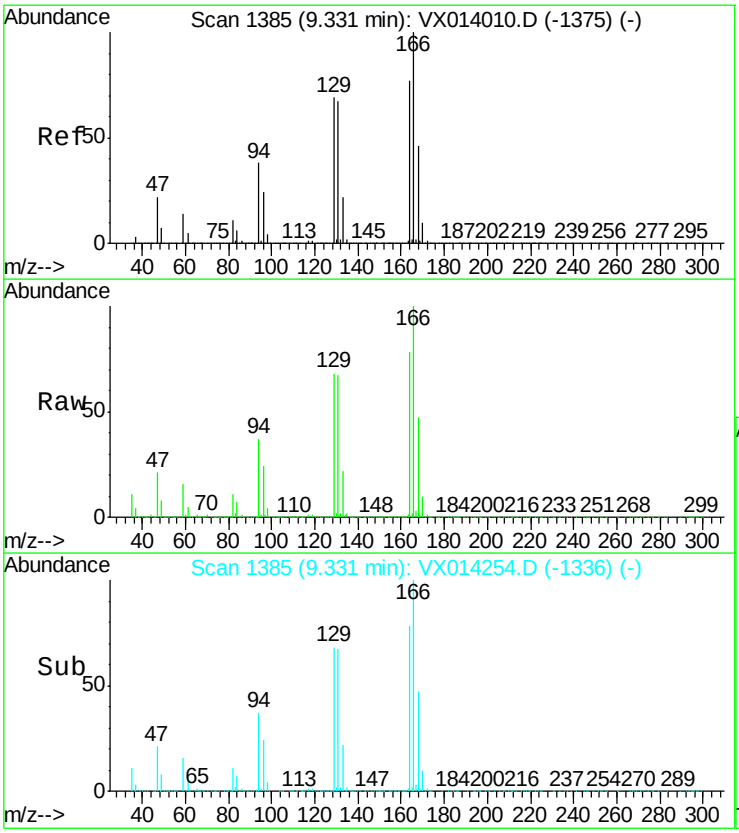


#63
Chlorobenzene-d5
Concen: 50.000 ug/l
RT: 10.11 min Scan# 1513
Delta R.T. 0.00 min
Lab File: VX014254.D
Acq: 24 Dec 2019 18:45

Tgt Ion:117 Resp: 741493

Ion	Ratio	Lower	Upper
117	100		
82	52.0	42.2	63.4
119	32.9	25.1	37.7

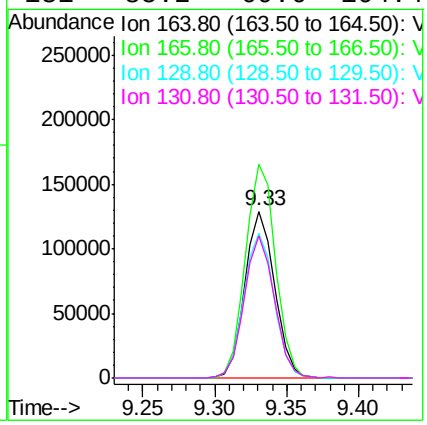




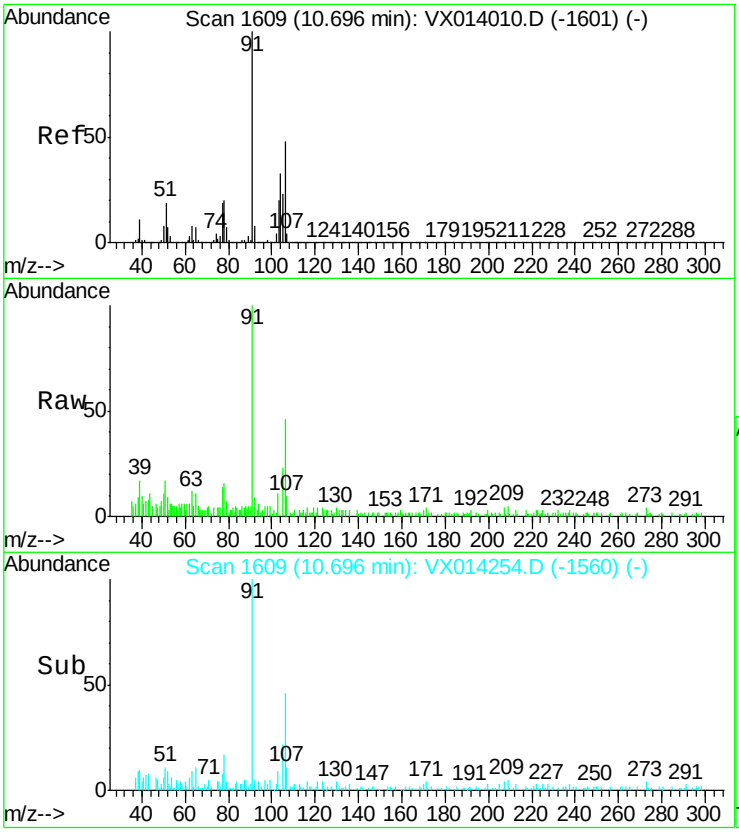
#64
Tetrachloroethene
Concen: 28.020 ug/l
RT: 9.33 min Scan# 1385
Delta R.T. 0.00 min
Lab File: VX014254.D
Acq: 24 Dec 2019 18:45

Tgt Ion:164 Resp: 183845

Ion	Ratio	Lower	Upper
164	100		
166	128.0	104.0	156.0
129	86.8	72.2	108.4
131	85.2	69.6	104.4



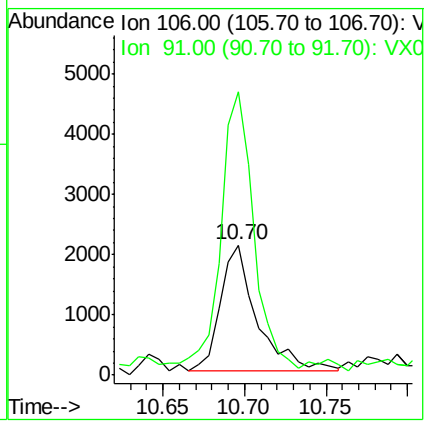
Instrument :
MSVOA_X
ClientSampleId :
998-MW-17A-(15.5)

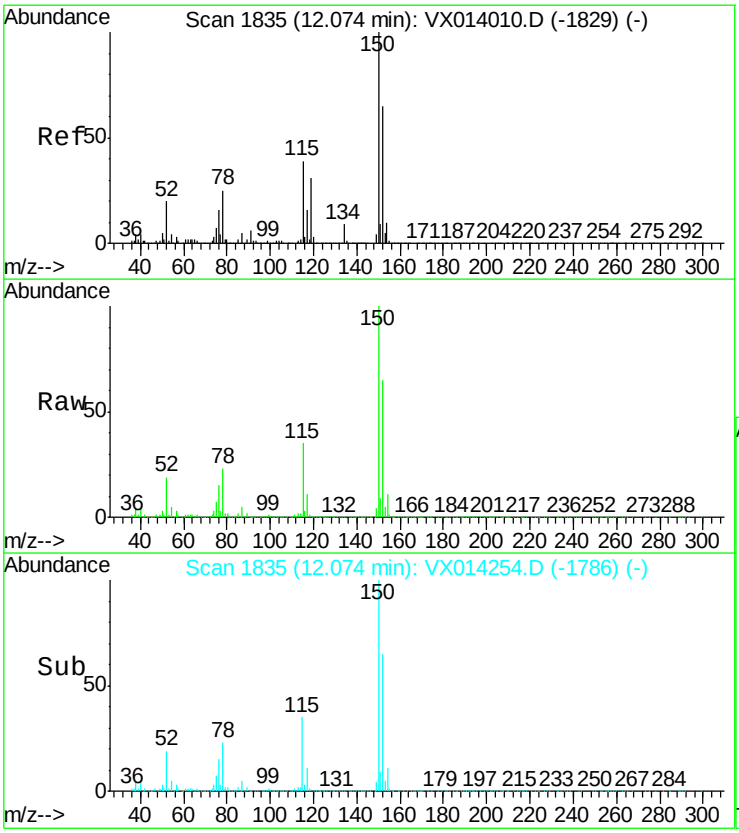


#69
o-Xylene
Concen: 0.319 ug/l
RT: 10.70 min Scan# 1609
Delta R.T. 0.00 min
Lab File: VX014254.D
Acq: 24 Dec 2019 18:45

Tgt Ion:106 Resp: 3262

Ion	Ratio	Lower	Upper
106	100		
91	192.9	104.2	312.6

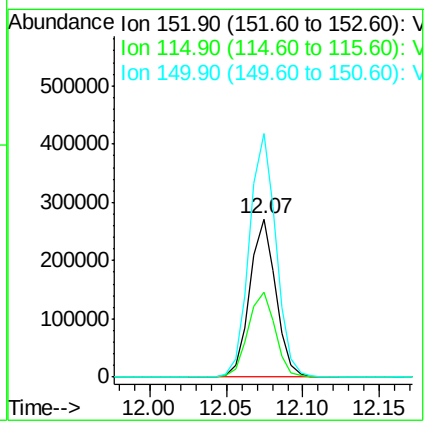




#72
1,4-Dichlorobenzene-d4
Concen: 50.000 ug/l
RT: 12.07 min Scan# 1835
Delta R.T. 0.00 min
Lab File: VX014254.D
Acq: 24 Dec 2019 18:45

Tgt Ion:152 Resp: 318309

Ion	Ratio	Lower	Upper
152	100		
115	55.8	38.3	114.9
150	158.6	0.0	345.4



LSC Area Percent Report

Data Path : Z:\VOASRV\HPCHEM1\MSVOA X\DATA\VX122419\
Data File : VX014254.D
Acq On : 24 Dec 2019 18:45
Operator : JC/SP
Sample : K6405-10
Misc : 5.0mL/MSVOA X/WATER
ALS Vial : 24 Sample Multiplier: 1

Instrument : MSVOA_X
ClientSampleId : 998-MW-17A-(15.5)

Integration Parameters: RTEINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 3 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121319W.M
Title : SW846 8260

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	1.070	26	30	38	rBV	993064	1213534	46.85%	5.873%
2	1.168	43	46	52	rVB	77228	73430	2.83%	0.355%
3	1.265	59	62	64	rBV	65674	68275	2.64%	0.330%
4	1.296	64	67	75	rVB	280721	292045	11.27%	1.413%
5	1.399	80	84	89	rVV	298016	284030	10.96%	1.375%
6	1.600	109	117	121	rVB9	31179	61268	2.37%	0.297%
7	1.783	143	147	157	rVB	261414	360019	13.90%	1.742%
8	1.991	177	181	187	rVB	82643	121151	4.68%	0.586%
9	2.253	222	224	231	rVB2	24749	42699	1.65%	0.207%
10	2.430	248	253	262	rVB	17704	31752	1.23%	0.154%
11	2.588	273	279	288	rBV	74653	139701	5.39%	0.676%
12	2.923	331	334	341	rVB2	18756	37589	1.45%	0.182%
13	3.161	365	373	381	rBV2	33223	75935	2.93%	0.368%
14	4.393	567	575	584	rBV3	26901	77260	2.98%	0.374%
15	4.588	595	607	622	rBV	719332	1975586	76.27%	9.561%
16	5.490	744	755	763	rBV	288928	834421	32.21%	4.038%
17	5.575	764	769	773	rVV2	51493	133007	5.13%	0.644%
18	5.655	773	782	793	rVB	534741	1476479	57.00%	7.146%
19	6.051	838	847	857	rBV	331440	850848	32.85%	4.118%
20	6.849	969	978	990	rBV	805454	1882702	72.68%	9.112%
21	7.209	1026	1037	1047	rBV	441289	927256	35.80%	4.488%
22	7.459	1071	1078	1085	rVB2	33687	72896	2.81%	0.353%
23	8.709	1274	1283	1292	rBV	1697696	2590356	100.00%	12.537%
24	9.331	1377	1385	1393	rBV	928965	1339870	51.73%	6.485%
25	10.105	1507	1512	1521	rBV	1555122	2164010	83.54%	10.473%
26	11.135	1675	1681	1691	rBV	1237321	1615368	62.36%	7.818%
27	12.074	1830	1835	1842	rBV	1540086	1865744	72.03%	9.030%
28	12.269	1857	1867	1874	rBV	33549	55194	2.13%	0.267%

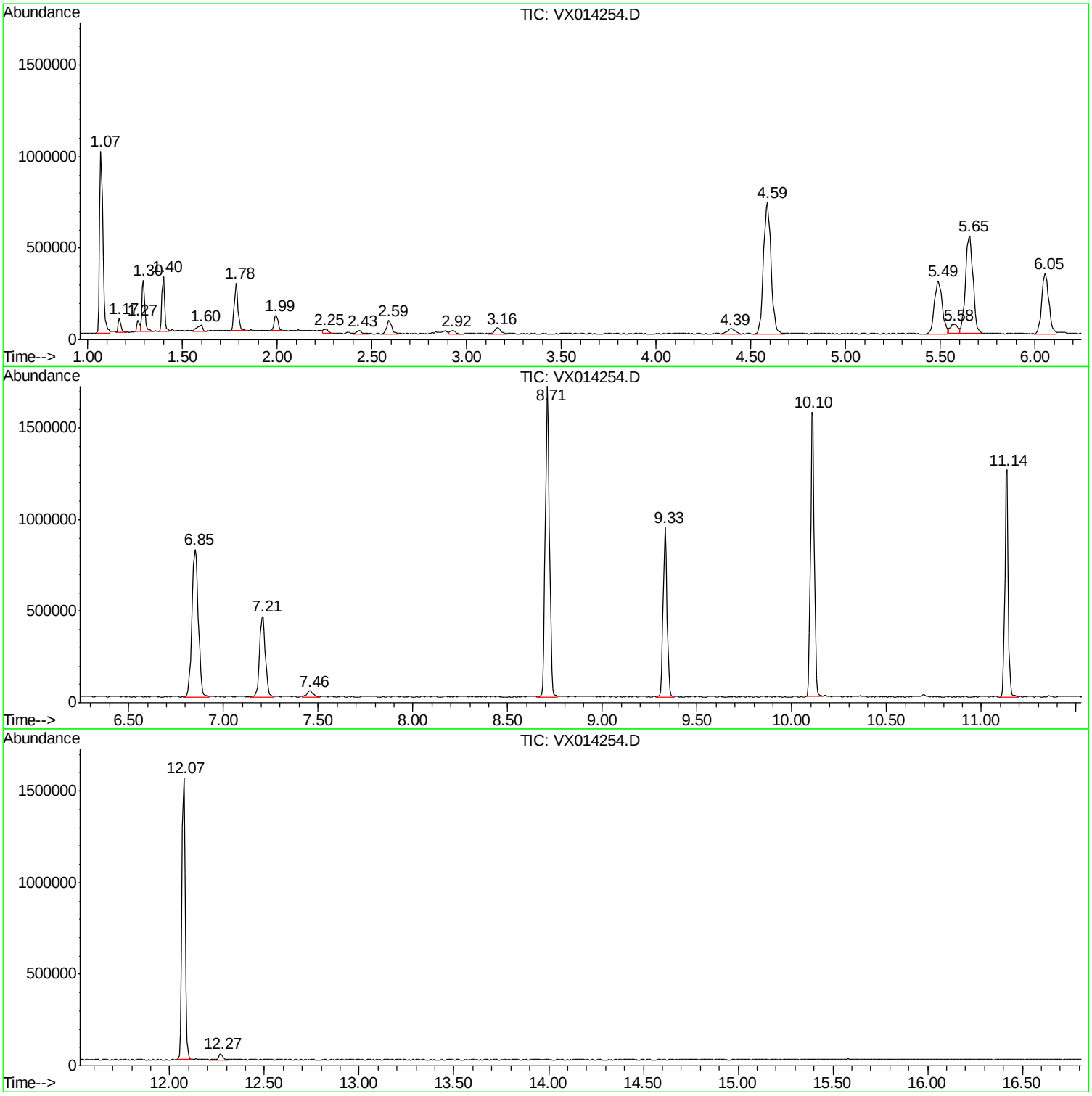
Sum of corrected areas: 20662425

Data Path : Z:\VOASRV\HPCHEM1\MSVOA X\DATA\VX122419\
Data File : VX014254.D
Acq On : 24 Dec 2019 18:45
Operator : JC/SP
Sample : K6405-10
Misc : 5.0mL/MSVOA X/WATER
ALS Vial : 24 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
998-MW-17A-(15.5)

Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121319W.M
Quant Title : SW846 8260

TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P



Library Search Compound Report

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX122419\
Data File : VX014254.D
Acq On : 24 Dec 2019 18:45
Operator : JC/SP
Sample : K6405-10
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 24 Sample Multiplier: 1

Instrument : MSVOA_X
ClientSampleId : 998-MW-17A-(15.5)

Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121319W.M
Quant Title : SW846 8260

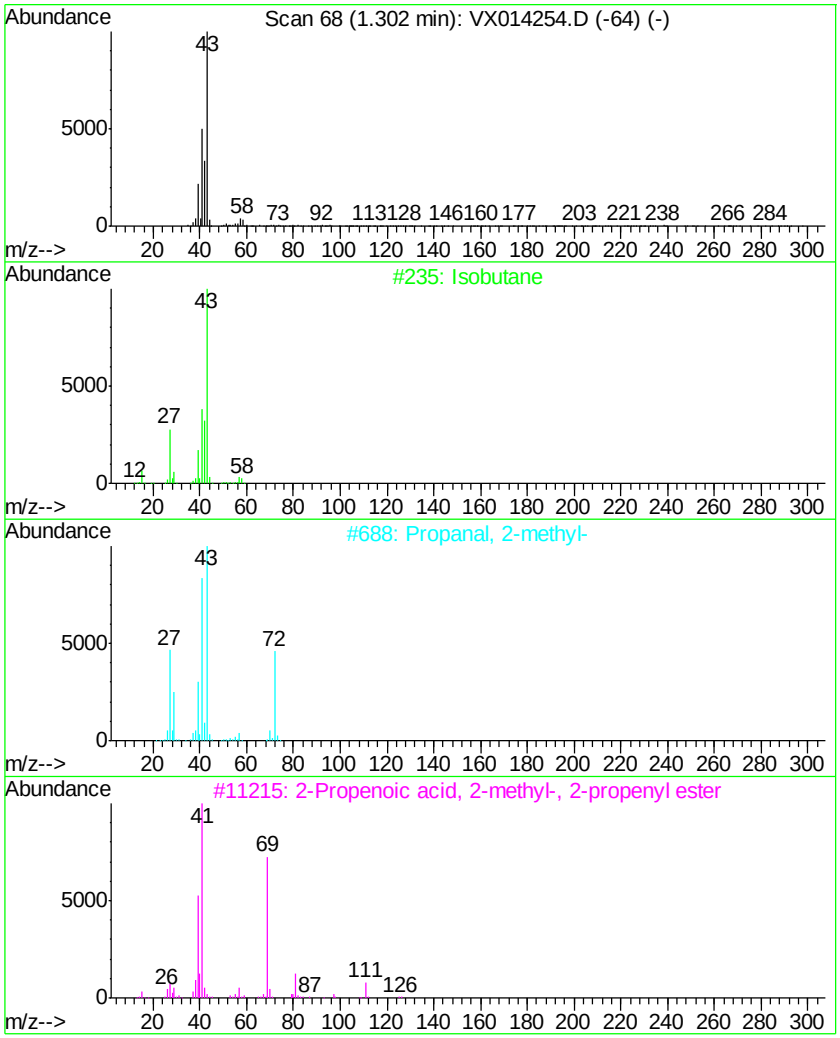
TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

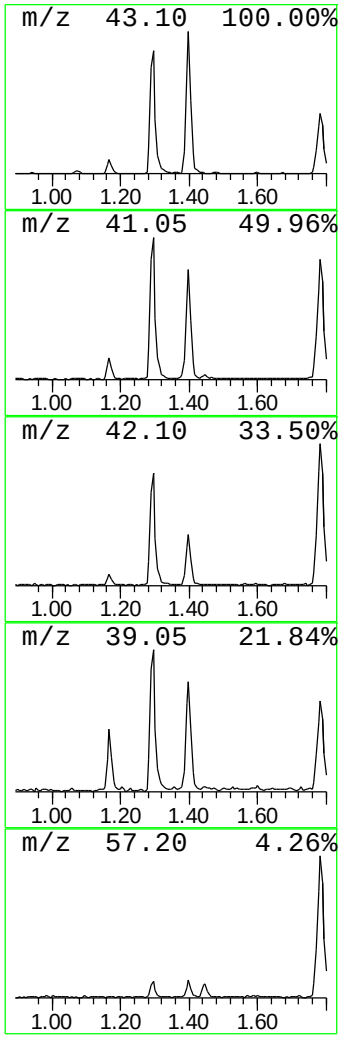
****

Peak Number 2 Isobutane Concentration Rank 3

R.T.	EstConc	Area	Relative to ISTD	R.T.
1.30	9.89 ug/l	292045	Pentafluorobenzene	5.65

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Isobutane	58	C4H10	000075-28-5	72
2	Propanal, 2-methyl-	72	C4H8O	000078-84-2	25
3	2-Propenoic acid, 2-methyl-, 2-p...	126	C7H10O2	000096-05-9	9
4	Isopropylsulfonyl chloride	142	C3H7ClO2S	010147-37-2	9
5	Propane, 1-chloro-2-methyl-	92	C4H9Cl	000513-36-0	9





Library Search Compound Report

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX122419\
Data File : VX014254.D
Acq On : 24 Dec 2019 18:45
Operator : JC/SP
Sample : K6405-10
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 24 Sample Multiplier: 1

Instrument : MSVOA_X
ClientSampleId : 998-MW-17A-(15.5)

Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121319W.M
Quant Title : SW846 8260

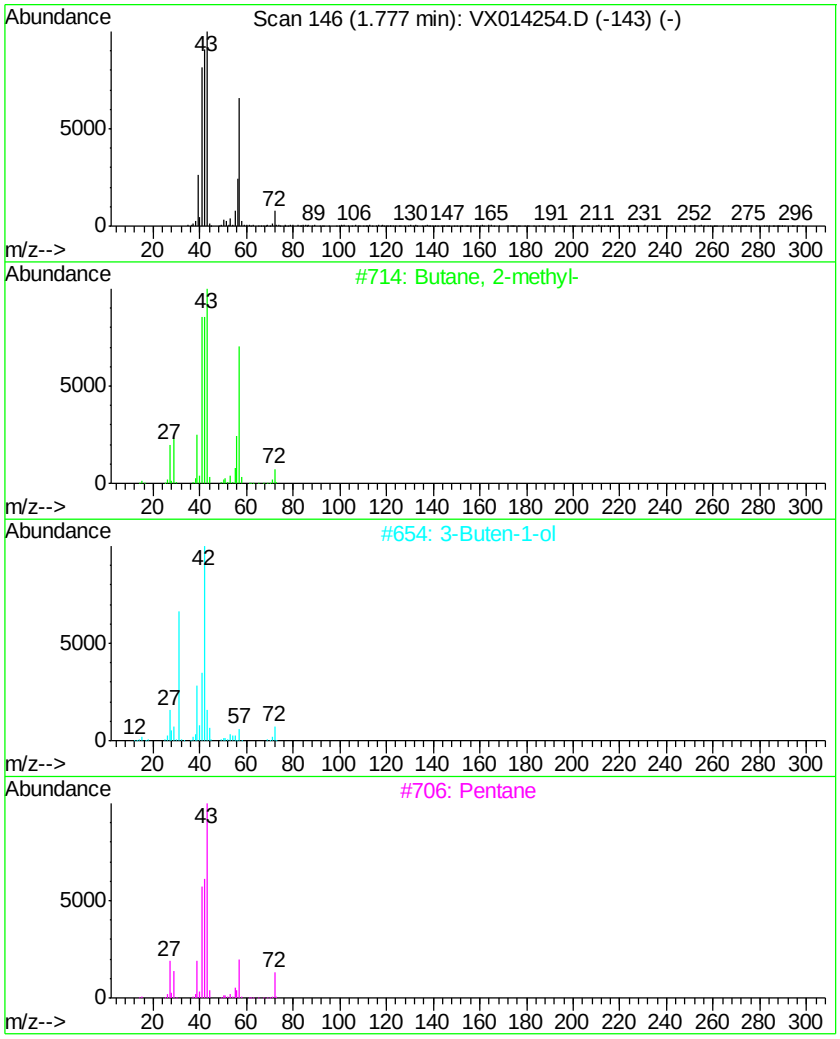
TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

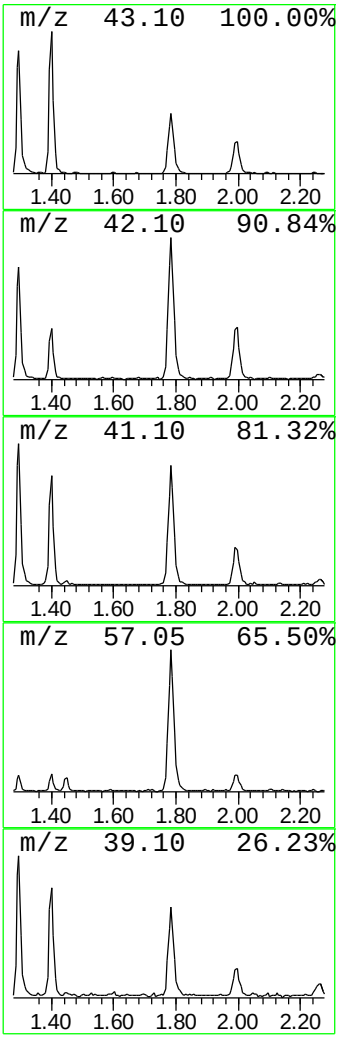
****

Peak Number 3 Butane, 2-methyl- Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
1.78	12.19 ug/l	360019	Pentafluorobenzene	5.65

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Butane, 2-methyl-	72	C5H12	000078-78-4	90
2	3-Buten-1-ol	72	C4H8O	000627-27-0	43
3	Pentane	72	C5H12	000109-66-0	36
4	Cyclobutane, methyl-	70	C5H10	000598-61-8	25
5	1-Butene	56	C4H8	000106-98-9	10





Tentatively Identified Compound (LSC) summary

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX122419\
Data File : VX014254.D
Acq On : 24 Dec 2019 18:45
Operator : JC/SP
Sample : K6405-10
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 24 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
998-MW-17A-(15.5)

Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121319W.M
Quant Title : SW846 8260

TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

					Internal Standard			
TIC Top Hit name	RT	EstConc	Units	Response	#	RT	Resp	Conc
Isobutane	1.30	9.9	ug/l	292045	1	5.65	1476480	50.0
Butane, 2-methyl-	1.78	12.2	ug/l	360019	1	5.65	1476480	50.0

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Day Environmental, Inc.	Date Collected:	12/20/19
Project:	Andrew St. RI	Date Received:	12/21/19
Client Sample ID:	999-MW-18-(21.5)	SDG No.:	K6405
Lab Sample ID:	K6405-11	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	DB-624UI ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX014275.D	1		12/26/19 17:31	VX122619

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
75-71-8	Dichlorodifluoromethane	1.00	U	0.22	1.00	ug/L
74-87-3	Chloromethane	1.00	U	0.30	1.00	ug/L
75-01-4	Vinyl Chloride	1.00	U	0.16	1.00	ug/L
74-83-9	Bromomethane	5.00	U	2.10	5.00	ug/L
75-00-3	Chloroethane	1.00	U	0.34	1.00	ug/L
75-69-4	Trichlorofluoromethane	1.00	U	0.16	1.00	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	1.00	U	0.21	1.00	ug/L
75-35-4	1,1-Dichloroethene	1.00	U	0.18	1.00	ug/L
67-64-1	Acetone	9.30		0.90	5.00	ug/L
75-15-0	Carbon Disulfide	1.00	U	0.23	1.00	ug/L
1634-04-4	Methyl tert-butyl Ether	1.00	U	0.070	1.00	ug/L
79-20-9	Methyl Acetate	1.00	U	0.65	1.00	ug/L
75-09-2	Methylene Chloride	1.00	U	0.33	1.00	ug/L
156-60-5	trans-1,2-Dichloroethene	1.00	U	0.24	1.00	ug/L
75-34-3	1,1-Dichloroethane	1.00	U	0.17	1.00	ug/L
110-82-7	Cyclohexane	5.00	U	1.20	5.00	ug/L
78-93-3	2-Butanone	5.00	U	0.71	5.00	ug/L
56-23-5	Carbon Tetrachloride	1.00	U	0.22	1.00	ug/L
156-59-2	cis-1,2-Dichloroethene	1.00	U	0.30	1.00	ug/L
74-97-5	Bromochloromethane	1.00	U	0.31	1.00	ug/L
67-66-3	Chloroform	1.00	U	0.14	1.00	ug/L
71-55-6	1,1,1-Trichloroethane	1.00	U	0.12	1.00	ug/L
108-87-2	Methylcyclohexane	1.00	U	0.17	1.00	ug/L
71-43-2	Benzene	1.00	U	0.10	1.00	ug/L
107-06-2	1,2-Dichloroethane	1.00	U	0.13	1.00	ug/L
79-01-6	Trichloroethene	0.97	J	0.27	1.00	ug/L
78-87-5	1,2-Dichloropropane	1.00	U	0.14	1.00	ug/L
75-27-4	Bromodichloromethane	1.00	U	0.10	1.00	ug/L
108-10-1	4-Methyl-2-Pentanone	5.00	U	0.85	5.00	ug/L
108-88-3	Toluene	1.00	U	0.12	1.00	ug/L
10061-02-6	t-1,3-Dichloropropene	1.00	U	0.19	1.00	ug/L
10061-01-5	cis-1,3-Dichloropropene	1.00	U	0.16	1.00	ug/L

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Day Environmental, Inc.	Date Collected:	12/20/19
Project:	Andrew St. RI	Date Received:	12/21/19
Client Sample ID:	999-MW-18-(21.5)	SDG No.:	K6405
Lab Sample ID:	K6405-11	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	DB-624UI ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX014275.D	1		12/26/19 17:31	VX122619

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
79-00-5	1,1,2-Trichloroethane	1.00	U	0.12	1.00	ug/L
591-78-6	2-Hexanone	5.00	U	1.40	5.00	ug/L
124-48-1	Dibromochloromethane	1.00	U	0.16	1.00	ug/L
106-93-4	1,2-Dibromoethane	1.00	U	0.14	1.00	ug/L
127-18-4	Tetrachloroethene	4.70		0.15	1.00	ug/L
108-90-7	Chlorobenzene	1.00	U	0.080	1.00	ug/L
100-41-4	Ethyl Benzene	1.00	U	0.080	1.00	ug/L
179601-23-1	m/p-Xylenes	2.00	U	0.20	2.00	ug/L
95-47-6	o-Xylene	1.00	U	0.13	1.00	ug/L
100-42-5	Styrene	1.00	U	0.11	1.00	ug/L
75-25-2	Bromoform	1.00	U	0.15	1.00	ug/L
98-82-8	Isopropylbenzene	1.00	U	0.13	1.00	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	1.00	U	0.15	1.00	ug/L
541-73-1	1,3-Dichlorobenzene	1.00	U	0.14	1.00	ug/L
106-46-7	1,4-Dichlorobenzene	1.00	U	0.20	1.00	ug/L
95-50-1	1,2-Dichlorobenzene	1.00	U	0.12	1.00	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	1.00	U	0.54	1.00	ug/L
120-82-1	1,2,4-Trichlorobenzene	1.00	U	0.24	1.00	ug/L
87-61-6	1,2,3-Trichlorobenzene	1.00	U	0.26	1.00	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	50.0		61 - 141	100%	SPK: 50
1868-53-7	Dibromofluoromethane	48.3		69 - 133	97%	SPK: 50
2037-26-5	Toluene-d8	49.8		65 - 126	100%	SPK: 50
460-00-4	4-Bromofluorobenzene	45.6		58 - 135	91%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	527000	5.65			
540-36-3	1,4-Difluorobenzene	827000	6.85			
3114-55-4	Chlorobenzene-d5	741000	10.11			
3855-82-1	1,4-Dichlorobenzene-d4	320000	12.07			
TENTATIVE IDENTIFIED COMPOUNDS						
67-63-0	Isopropyl Alcohol	6.70	J		2.59	ug/L

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Day Environmental, Inc.	Date Collected:	12/20/19
Project:	Andrew St. RI	Date Received:	12/21/19
Client Sample ID:	999-MW-18-(21.5)	SDG No.:	K6405
Lab Sample ID:	K6405-11	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	DB-624UI ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX014275.D	1		12/26/19 17:31	VX122619

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit
A = Aldol-Condensation Reaction Products

Quantitation Report (LSC Reviewed)

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX122619\
Data File : VX014275.D
Acq On : 26 Dec 2019 17:31
Operator : JC/SP
Sample : K6405-11
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 18 Sample Multiplier: 1

Instrument : MSVOA_X
ClientSampleId : 999-MW-18-(21.5)

Quant Time: Dec 27 07:12:46 2019
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121319W.M
Quant Title : SW846 8260
QLast Update : Tue Dec 17 03:01:07 2019
Response via : Initial Calibration

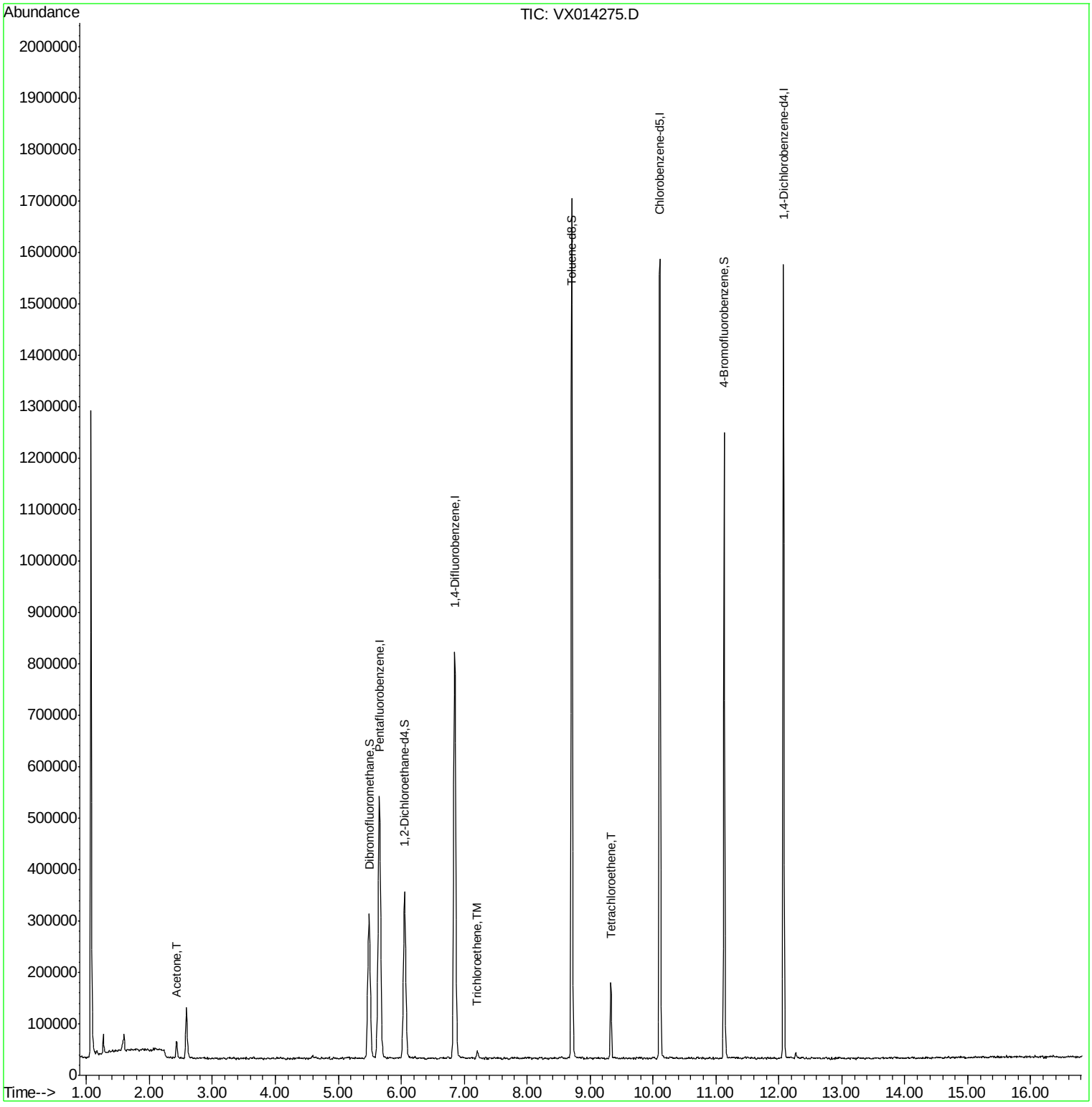
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	5.65	168	527117	50.00	ug/l	0.00
34) 1,4-Difluorobenzene	6.85	114	826945	50.00	ug/l	0.00
63) Chlorobenzene-d5	10.11	117	741103	50.00	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	12.07	152	320484	50.00	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	6.05	65	298937	50.04	ug/l	0.00
Spiked Amount 50.000			Recovery = 100.08%			
35) Dibromofluoromethane	5.49	113	243034	48.35	ug/l	0.00
Spiked Amount 50.000			Recovery = 96.70%			
50) Toluene-d8	8.71	98	975414	49.84	ug/l	0.00
Spiked Amount 50.000			Recovery = 99.68%			
62) 4-Bromofluorobenzene	11.13	95	326249	45.60	ug/l	0.00
Spiked Amount 50.000			Recovery = 91.20%			
Target Compounds						Qvalue
16) Acetone	2.43	43	35901	9.256	ug/l	95
44) Trichloroethene	7.21	130	6232	0.966	ug/l	90
64) Tetrachloroethene	9.33	164	30510	4.652	ug/l	96

(#) = qualifier out of range (m) = manual integration (+) = signals summed

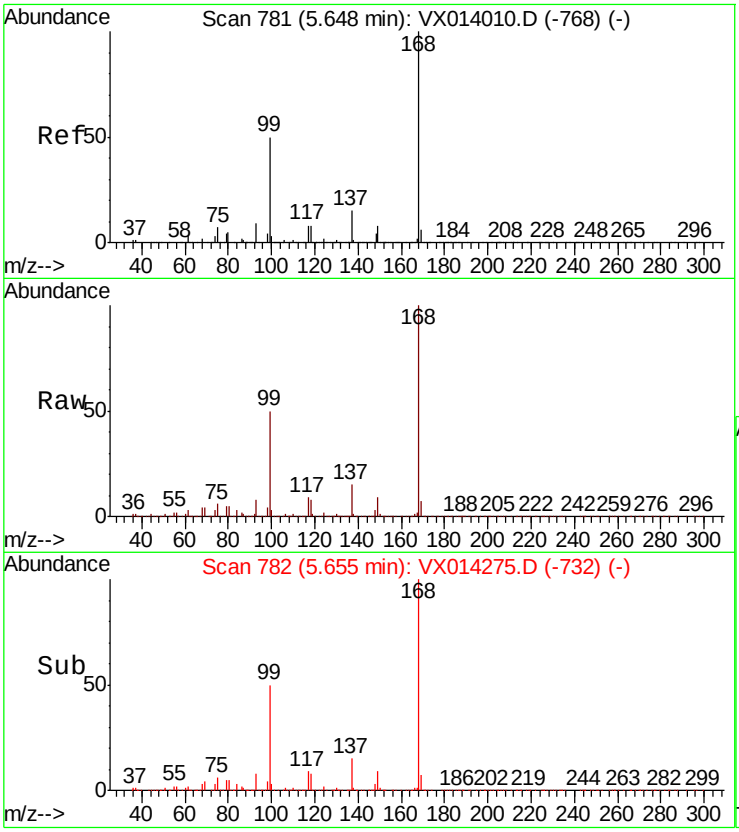
Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX122619\
Data File : VX014275.D
Acq On : 26 Dec 2019 17:31
Operator : JC/SP
Sample : K6405-11
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 18 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
999-MW-18-(21.5)

Quant Time: Dec 27 07:12:46 2019
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121319W.M
Quant Title : SW846 8260
QLast Update : Tue Dec 17 03:01:07 2019
Response via : Initial Calibration



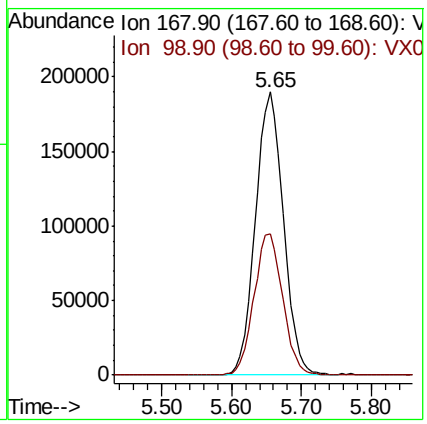
Instrument :
MSVOA_X
ClientSampleId :
999-MW-18-(21.5)

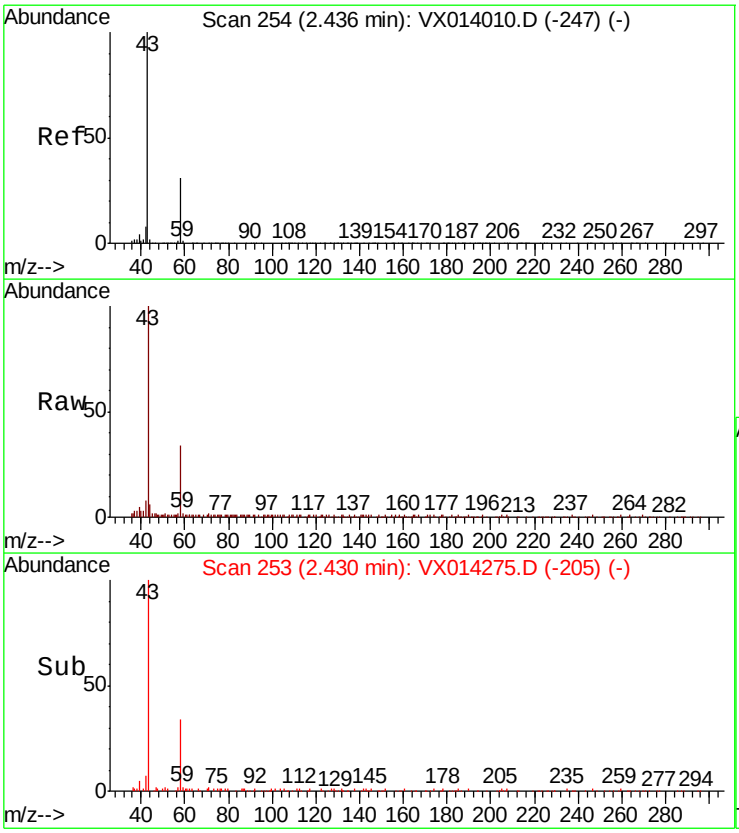


#1
Pentafluorobenzene
Concen: 50.000 ug/l
RT: 5.65 min Scan# 782
Delta R.T. 0.01 min
Lab File: VX014275.D
Acq: 26 Dec 2019 17:31

Tgt Ion:168 Resp: 527117

Ion	Ratio	Lower	Upper
168	100		
99	49.8	40.3	60.5

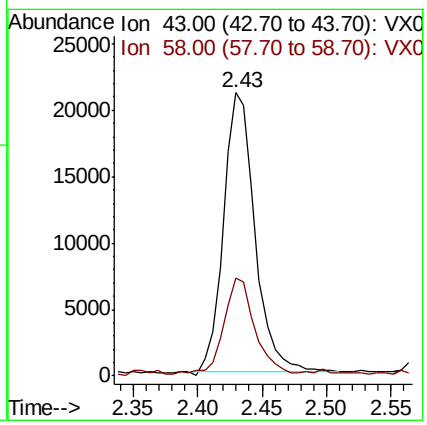




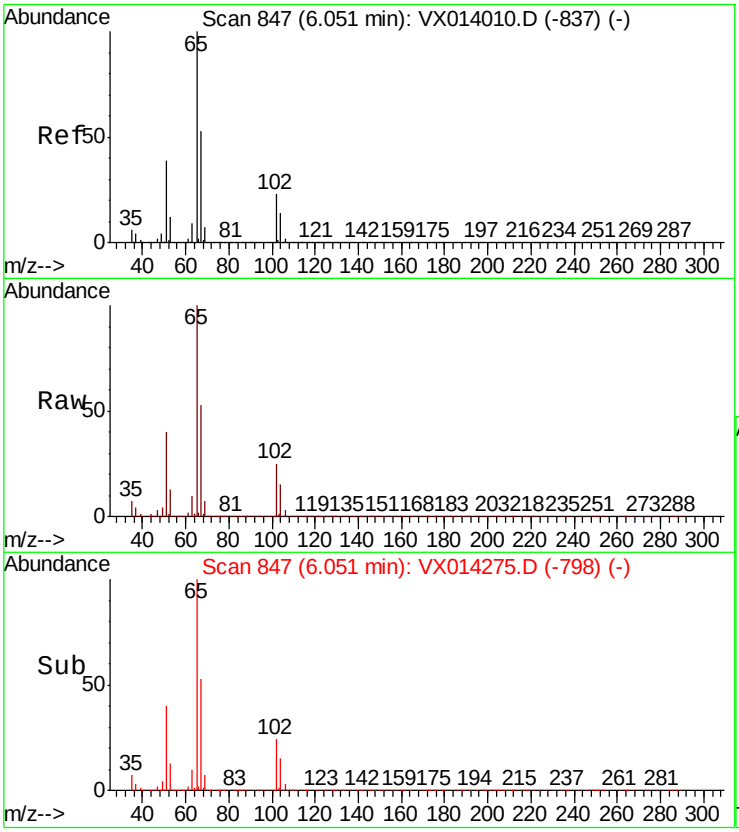
#16
Acetone
Concen: 9.256 ug/l
RT: 2.43 min Scan# 253
Delta R.T. -0.01 min
Lab File: VX014275.D
Acq: 26 Dec 2019 17:31

Tgt Ion: 43 Resp: 35901

Ion	Ratio	Lower	Upper
43	100		
58	33.7	24.9	37.3



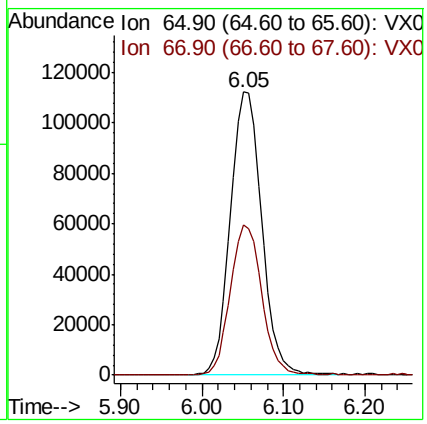
Instrument :
MSVOA_X
ClientSampleId :
999-MW-18-(21.5)

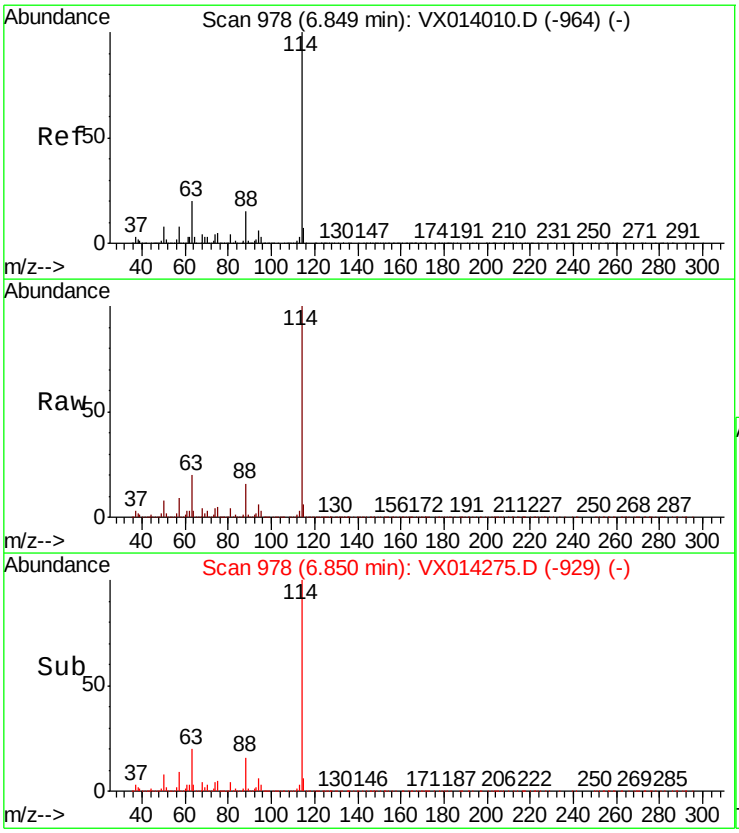


#33
1,2-Dichloroethane-d4
Concen: 50.038 ug/l
RT: 6.05 min Scan# 847
Delta R.T. 0.00 min
Lab File: VX014275.D
Acq: 26 Dec 2019 17:31

Tgt Ion: 65 Resp: 298937

Ion	Ratio	Lower	Upper
65	100		
67	52.7	0.0	106.4

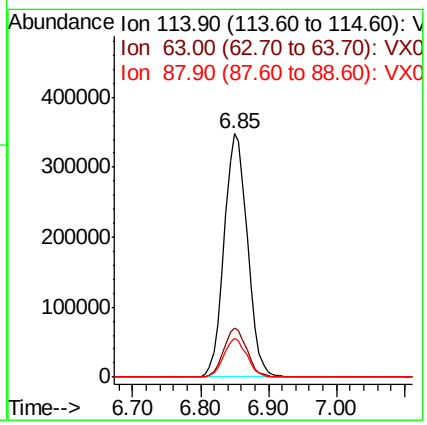




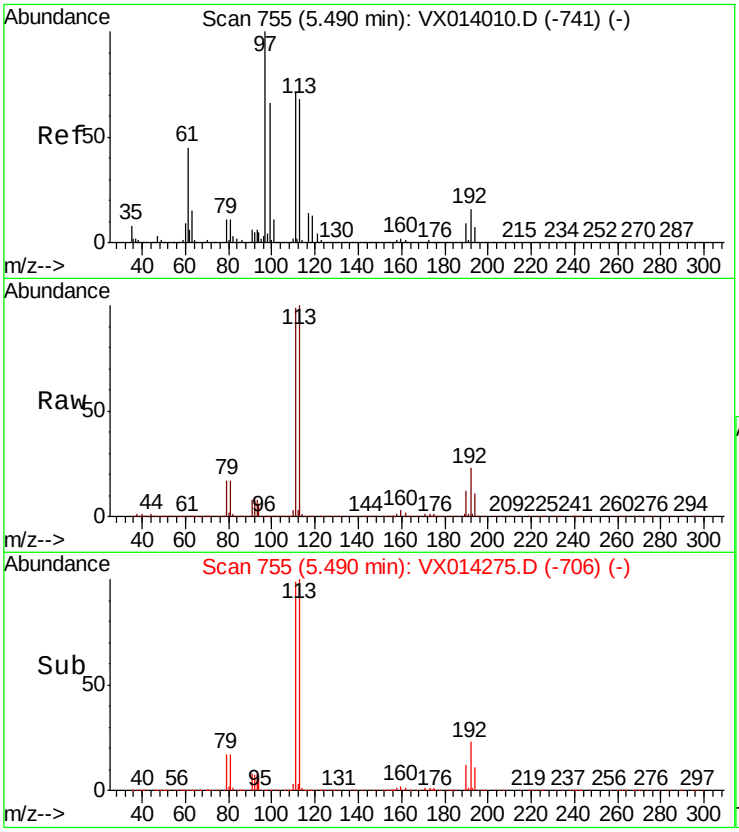
#34
1,4-Difluorobenzene
Concen: 50.000 ug/l
RT: 6.85 min Scan# 978
Delta R.T. 0.00 min
Lab File: VX014275.D
Acq: 26 Dec 2019 17:31

Tgt Ion:114 Resp: 826945

Ion	Ratio	Lower	Upper
114	100		
63	20.2	0.0	40.8
88	15.8	0.0	30.4



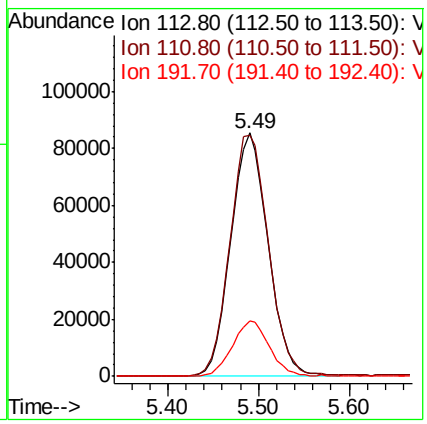
Instrument :
MSVOA_X
ClientSampleId :
999-MW-18-(21.5)

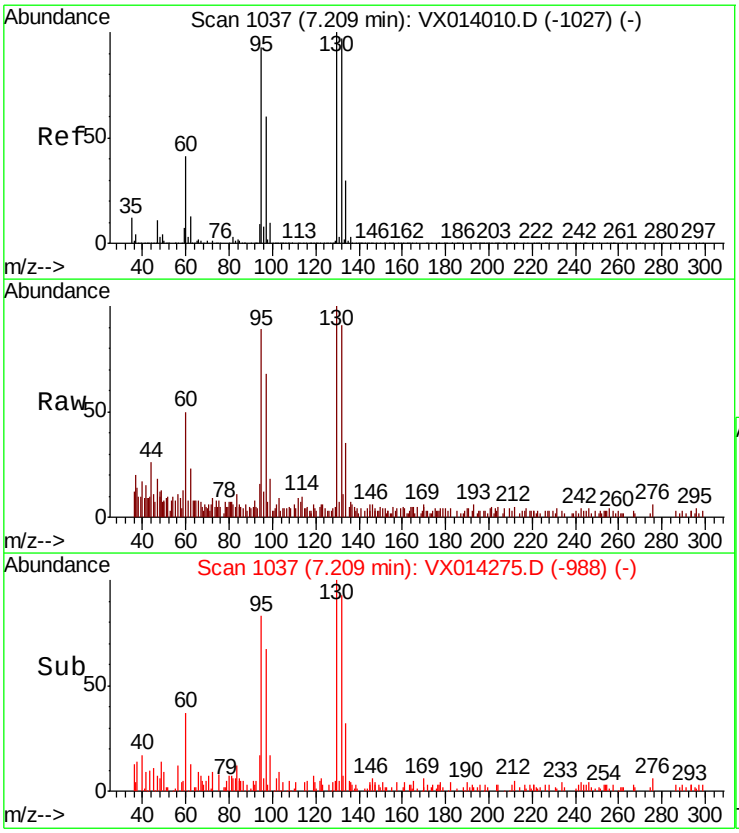


#35
Dibromofluoromethane
Concen: 48.347 ug/l
RT: 5.49 min Scan# 755
Delta R.T. 0.00 min
Lab File: VX014275.D
Acq: 26 Dec 2019 17:31

Tgt Ion:113 Resp: 243034

Ion	Ratio	Lower	Upper
113	100		
111	102.6	82.0	123.0
192	22.6	19.3	28.9

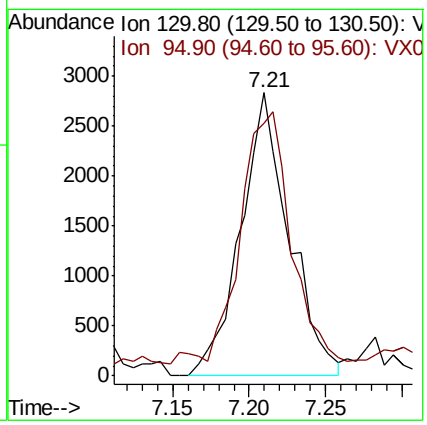




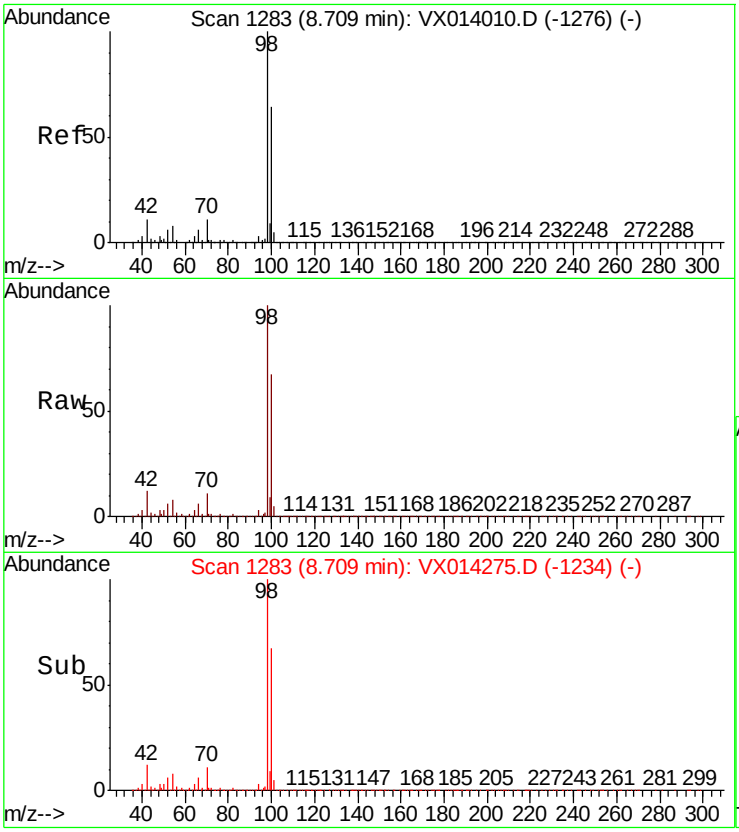
#44
Trichloroethene
Concen: 0.966 ug/l
RT: 7.21 min Scan# 1037
Delta R.T. 0.00 min
Lab File: VX014275.D
Acq: 26 Dec 2019 17:31

Tgt Ion:130 Resp: 6232

Ion	Ratio	Lower	Upper
130	100		
95	83.1	0.0	185.6



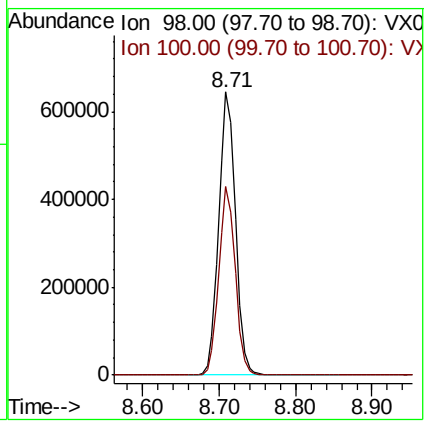
Instrument :
MSVOA_X
ClientSampleId :
999-MW-18-(21.5)

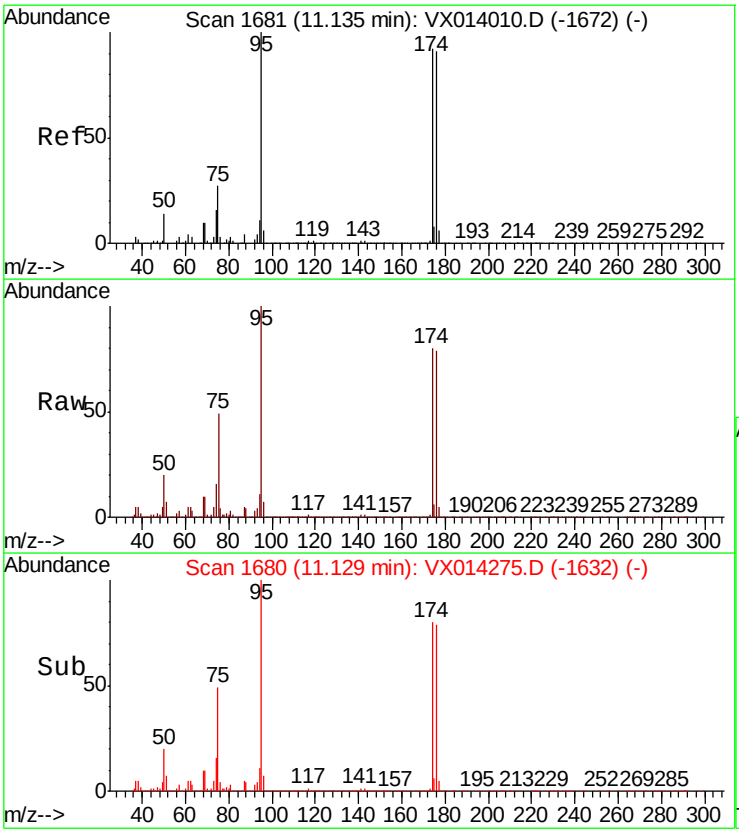


#50
Toluene-d8
Concen: 49.840 ug/l
RT: 8.71 min Scan# 1283
Delta R.T. 0.00 min
Lab File: VX014275.D
Acq: 26 Dec 2019 17:31

Tgt Ion: 98 Resp: 975414

Ion	Ratio	Lower	Upper
98	100		
100	65.5	52.9	79.3

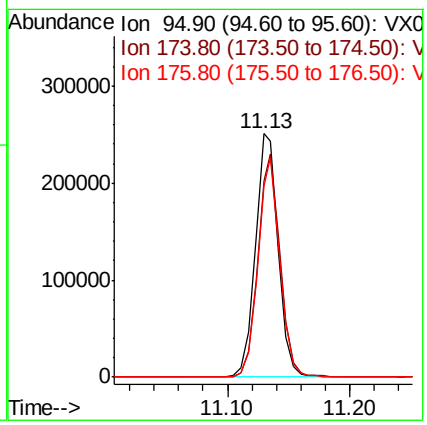




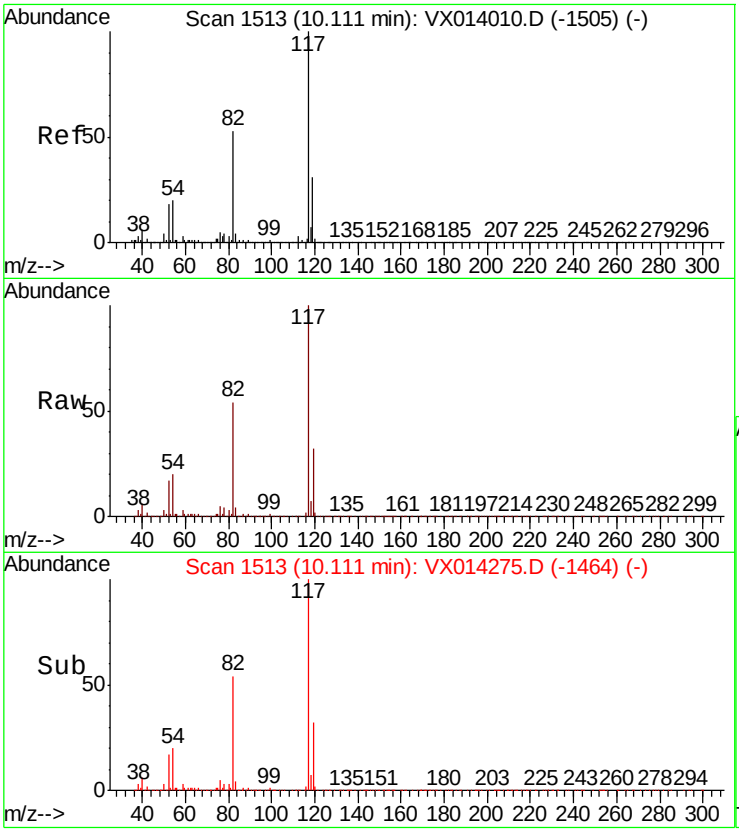
#62
4-Bromofluorobenzene
Concen: 45.603 ug/l
RT: 11.13 min Scan# 1680
Delta R.T. -0.01 min
Lab File: VX014275.D
Acq: 26 Dec 2019 17:31

Tgt Ion: 95 Resp: 326249

Ion	Ratio	Lower	Upper
95	100		
174	89.2	0.0	175.8
176	86.3	0.0	173.0



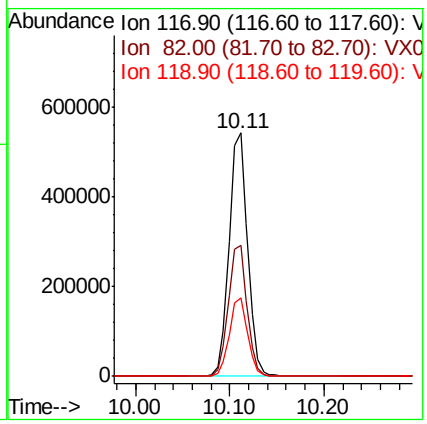
Instrument :
MSVOA_X
ClientSampleId :
999-MW-18-(21.5)

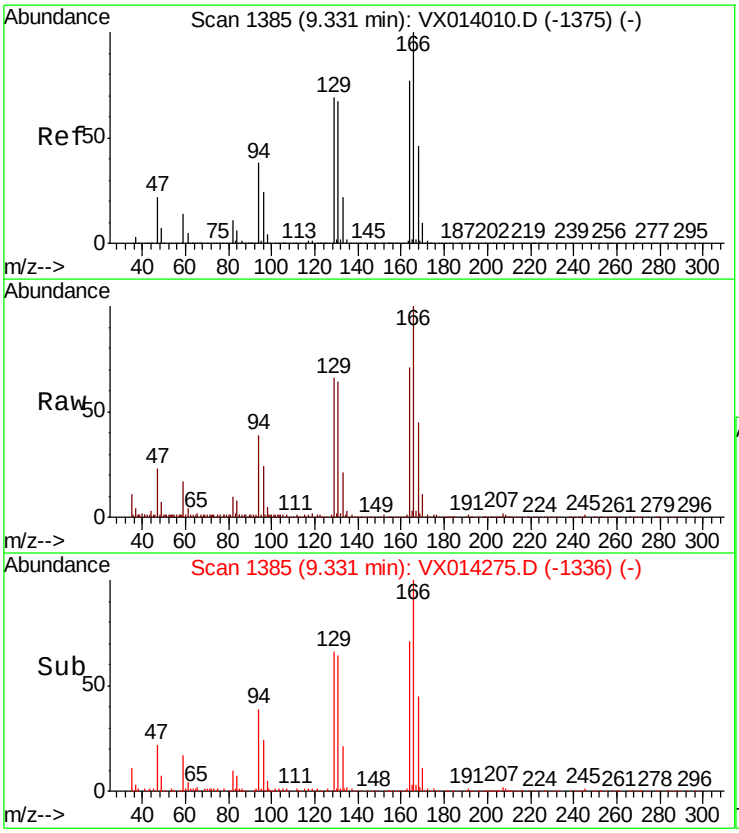


#63
Chlorobenzene-d5
Concen: 50.000 ug/l
RT: 10.11 min Scan# 1513
Delta R.T. 0.00 min
Lab File: VX014275.D
Acq: 26 Dec 2019 17:31

Tgt Ion:117 Resp: 741103

Ion	Ratio	Lower	Upper
117	100		
82	53.7	42.2	63.4
119	32.4	25.1	37.7

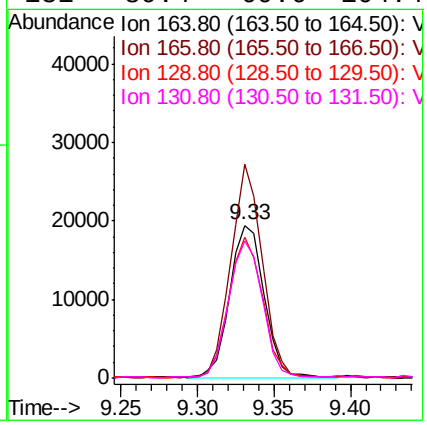




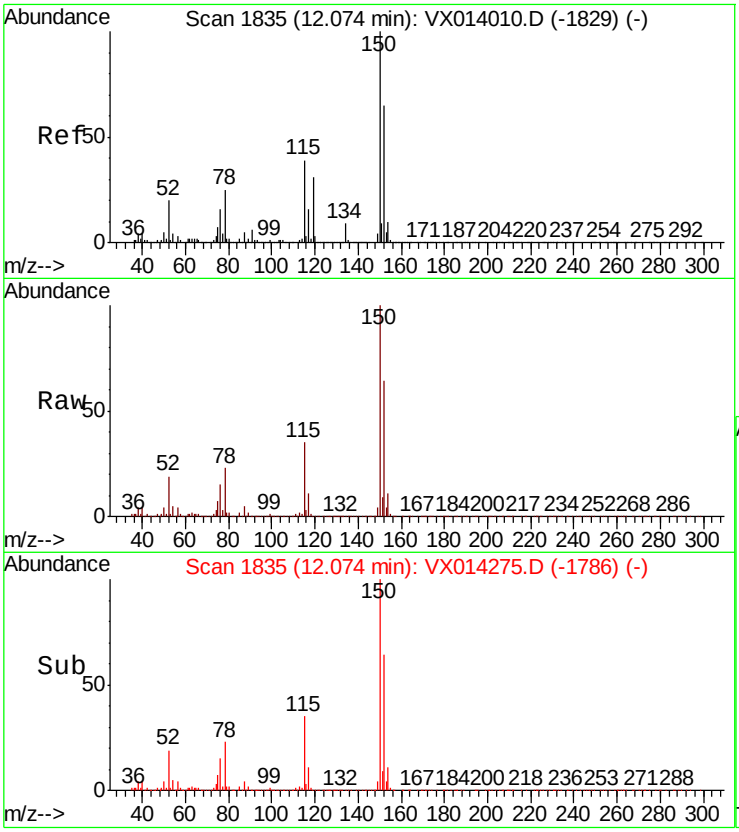
#64
Tetrachloroethene
Concen: 4.652 ug/l
RT: 9.33 min Scan# 1385
Delta R.T. 0.00 min
Lab File: VX014275.D
Acq: 26 Dec 2019 17:31

Tgt Ion:164 Resp: 30510

Ion	Ratio	Lower	Upper
164	100		
166	139.3	104.0	156.0
129	91.4	72.2	108.4
131	89.4	69.6	104.4



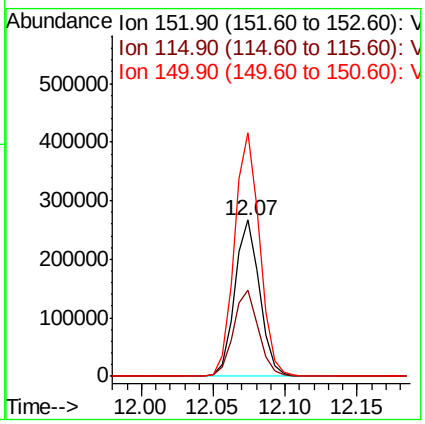
Instrument :
MSVOA_X
ClientSampleId :
999-MW-18-(21.5)



#72
1,4-Dichlorobenzene-d4
Concen: 50.000 ug/l
RT: 12.07 min Scan# 1835
Delta R.T. 0.00 min
Lab File: VX014275.D
Acq: 26 Dec 2019 17:31

Tgt Ion:152 Resp: 320484

Ion	Ratio	Lower	Upper
152	100		
115	55.7	38.3	114.9
150	158.5	0.0	345.4



LSC Area Percent Report

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX122619\
Data File : VX014275.D
Acq On : 26 Dec 2019 17:31
Operator : JC/SP
Sample : K6405-11
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 18 Sample Multiplier: 1

Instrument : MSVOA_X
ClientSampleId : 999-MW-18-(21.5)

Integration Parameters: RTEINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 3 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121319W.M
Title : SW846 8260

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	1.070	26	30	40	rBV	1257053	1483059	58.76%	9.788%
2	1.265	59	62	68	rBV	37665	46325	1.84%	0.306%
3	1.601	109	117	120	rVB9	31082	54462	2.16%	0.359%
4	2.430	249	253	261	rVB	32037	52289	2.07%	0.345%
5	2.588	271	279	289	rBV	99548	190418	7.54%	1.257%
6	5.490	742	755	769	rBV	281367	802370	31.79%	5.295%
7	5.655	771	782	794	rBV	507874	1415256	56.07%	9.340%
8	6.051	838	847	859	rBV	324329	835865	33.12%	5.516%
9	6.850	968	978	989	rBV	789564	1843182	73.03%	12.164%
10	7.209	1030	1037	1045	rBV6	17664	40103	1.59%	0.265%
11	8.709	1276	1283	1292	rBV	1671019	2523962	100.00%	16.657%
12	9.331	1379	1385	1390	rBV	149087	223792	8.87%	1.477%
13	10.111	1507	1513	1520	rBV	1553515	2148672	85.13%	14.180%
14	11.135	1676	1681	1691	rBV	1216760	1605542	63.61%	10.596%
15	12.074	1830	1835	1843	rVB	1543035	1887122	74.77%	12.454%

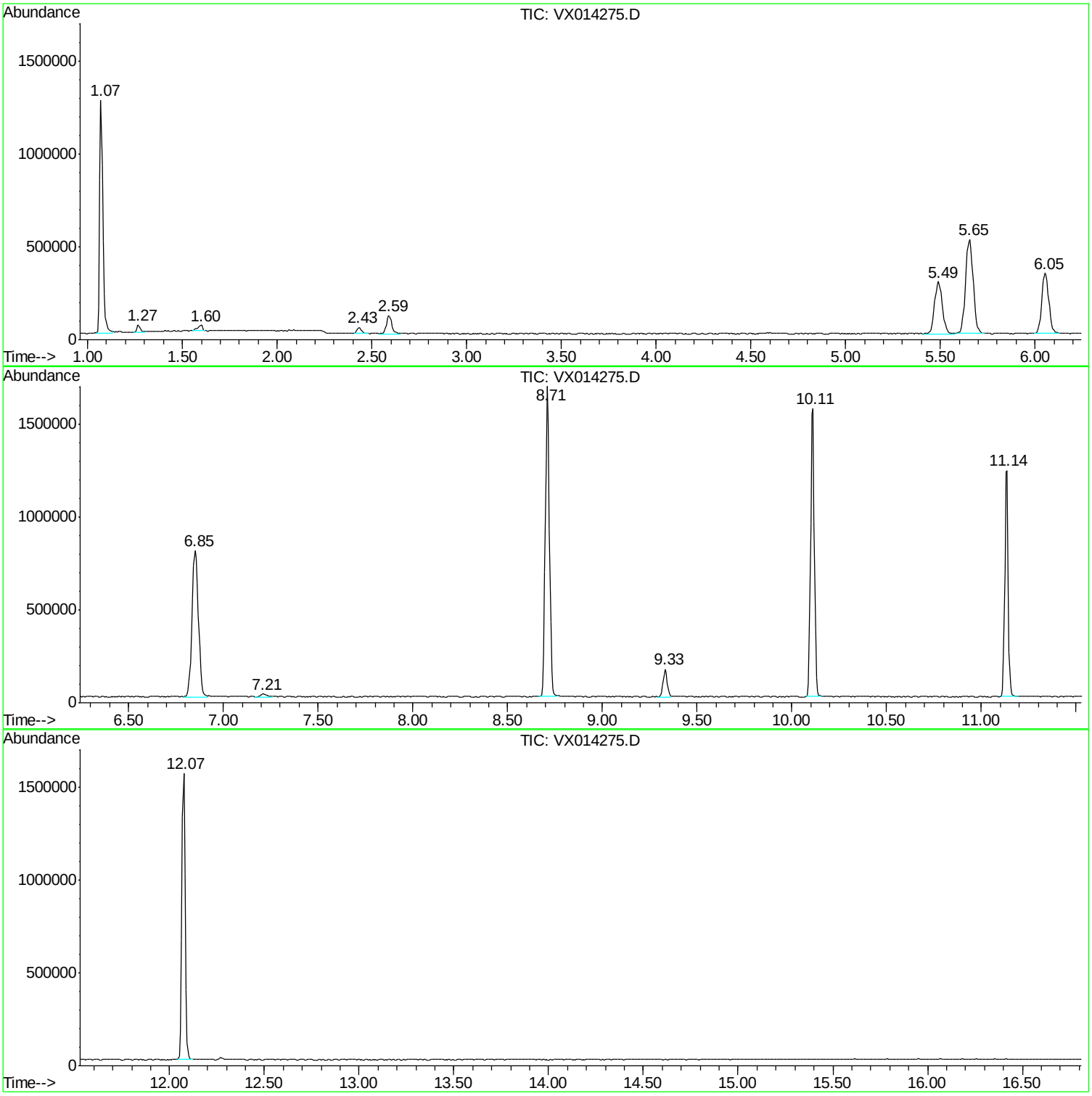
Sum of corrected areas: 15152419

Data Path : Z:\VOASRV\HPCHEM1\MSVOA X\DATA\VX122619\
Data File : VX014275.D
Acq On : 26 Dec 2019 17:31
Operator : JC/SP
Sample : K6405-11
Misc : 5.0mL/MSVOA X/WATER
ALS Vial : 18 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
999-MW-18-(21.5)

Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121319W.M
Quant Title : SW846 8260

TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P



Library Search Compound Report

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX122619\
Data File : VX014275.D
Acq On : 26 Dec 2019 17:31
Operator : JC/SP
Sample : K6405-11
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 18 Sample Multiplier: 1

Instrument : MSVOA_X
ClientSampleId : 999-MW-18-(21.5)

Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121319W.M
Quant Title : SW846 8260

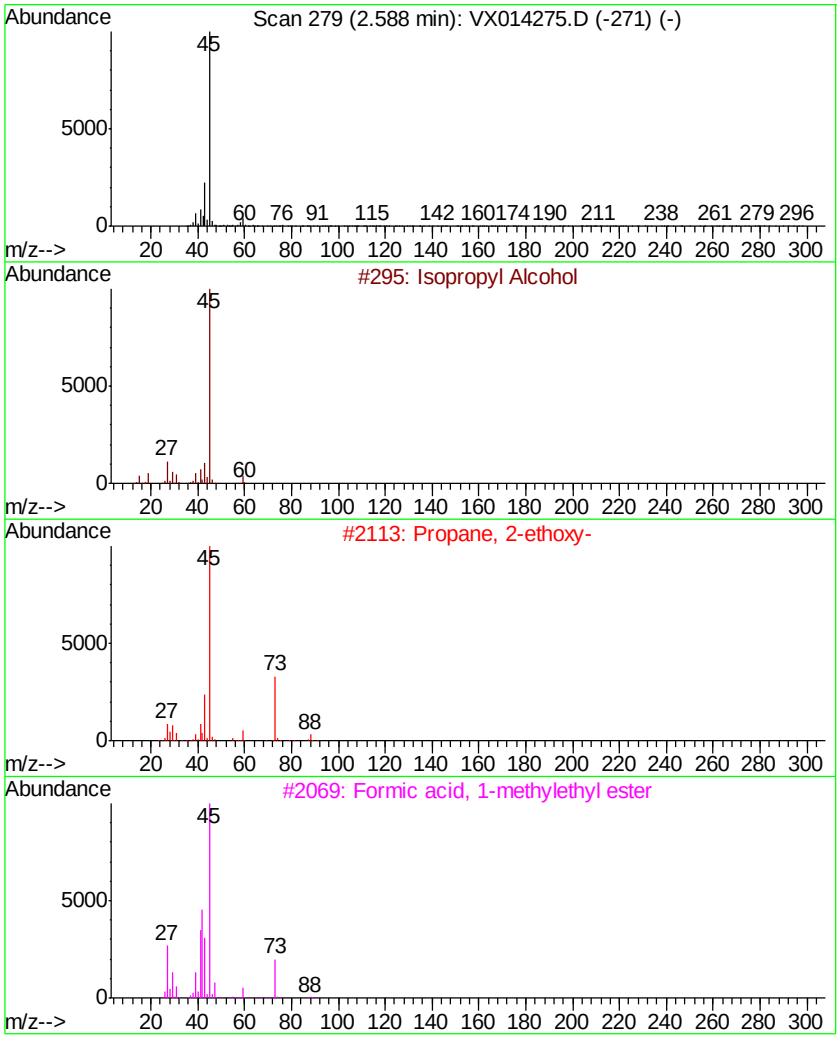
TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

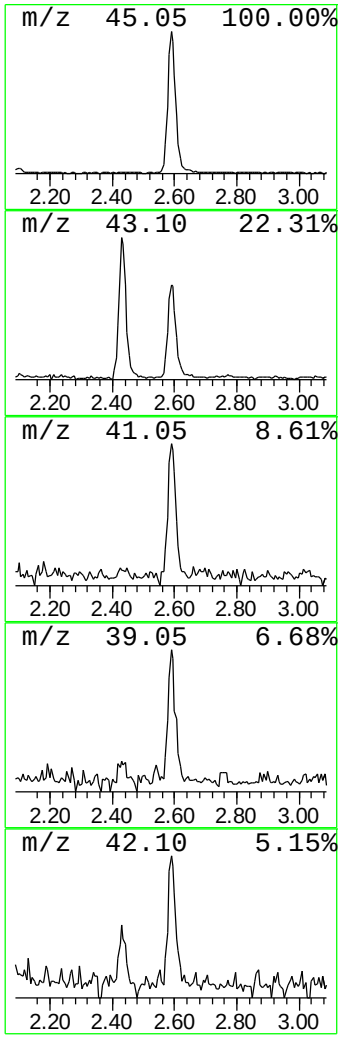
****

Peak Number 2 Isopropyl Alcohol Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
2.59	6.73 ug/l	190418	Pentafluorobenzene	5.65

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Isopropyl Alcohol	60	C3H8O	000067-63-0	80
2	Propane, 2-ethoxy-	88	C5H12O	000625-54-7	40
3	Formic acid, 1-methylethyl ester	88	C4H8O2	000625-55-8	39
4	Propylene Glycol	76	C3H8O2	000057-55-6	9
5	Ethanol, 2-nitro-	91	C2H5NO3	000625-48-9	9





Instrument :
MSVOA_X
ClientSampleId :
999-MW-18-(21.5)

Tentatively Identified Compound (LSC) summary

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX122619\
Data File : VX014275.D
Acq On : 26 Dec 2019 17:31
Operator : JC/SP
Sample : K6405-11
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 18 Sample Multiplier: 1

Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121319W.M
Quant Title : SW846 8260

TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

					Internal Standard			
TIC Top Hit name	RT	EstConc	Units	Response	#	RT	Resp	Conc
Isopropyl Alcohol	2.59	6.7	ug/l	190418	1	5.65	1415260	50.0

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Day Environmental, Inc.	Date Collected:	12/20/19
Project:	Andrew St. RI	Date Received:	12/21/19
Client Sample ID:	1000-MW-19-(28)	SDG No.:	K6405
Lab Sample ID:	K6405-12	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	DB-624UI ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX014276.D	1		12/26/19 17:54	VX122619

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
75-71-8	Dichlorodifluoromethane	1.00	U	0.22	1.00	ug/L
74-87-3	Chloromethane	1.00	U	0.30	1.00	ug/L
75-01-4	Vinyl Chloride	1.00	U	0.16	1.00	ug/L
74-83-9	Bromomethane	5.00	U	2.10	5.00	ug/L
75-00-3	Chloroethane	1.00	U	0.34	1.00	ug/L
75-69-4	Trichlorofluoromethane	1.00	U	0.16	1.00	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	1.00	U	0.21	1.00	ug/L
75-35-4	1,1-Dichloroethene	1.00	U	0.18	1.00	ug/L
67-64-1	Acetone	4.70	J	0.90	5.00	ug/L
75-15-0	Carbon Disulfide	1.00	U	0.23	1.00	ug/L
1634-04-4	Methyl tert-butyl Ether	1.00	U	0.070	1.00	ug/L
79-20-9	Methyl Acetate	1.00	U	0.65	1.00	ug/L
75-09-2	Methylene Chloride	1.00	U	0.33	1.00	ug/L
156-60-5	trans-1,2-Dichloroethene	1.00	U	0.24	1.00	ug/L
75-34-3	1,1-Dichloroethane	1.00	U	0.17	1.00	ug/L
110-82-7	Cyclohexane	5.00	U	1.20	5.00	ug/L
78-93-3	2-Butanone	5.00	U	0.71	5.00	ug/L
56-23-5	Carbon Tetrachloride	1.00	U	0.22	1.00	ug/L
156-59-2	cis-1,2-Dichloroethene	0.50	J	0.30	1.00	ug/L
74-97-5	Bromochloromethane	1.00	U	0.31	1.00	ug/L
67-66-3	Chloroform	1.00	U	0.14	1.00	ug/L
71-55-6	1,1,1-Trichloroethane	1.00	U	0.12	1.00	ug/L
108-87-2	Methylcyclohexane	1.00	U	0.17	1.00	ug/L
71-43-2	Benzene	1.00	U	0.10	1.00	ug/L
107-06-2	1,2-Dichloroethane	1.00	U	0.13	1.00	ug/L
79-01-6	Trichloroethene	0.69	J	0.27	1.00	ug/L
78-87-5	1,2-Dichloropropane	1.00	U	0.14	1.00	ug/L
75-27-4	Bromodichloromethane	1.00	U	0.10	1.00	ug/L
108-10-1	4-Methyl-2-Pentanone	5.00	U	0.85	5.00	ug/L
108-88-3	Toluene	1.00	U	0.12	1.00	ug/L
10061-02-6	t-1,3-Dichloropropene	1.00	U	0.19	1.00	ug/L
10061-01-5	cis-1,3-Dichloropropene	1.00	U	0.16	1.00	ug/L

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Day Environmental, Inc.	Date Collected:	12/20/19
Project:	Andrew St. RI	Date Received:	12/21/19
Client Sample ID:	1000-MW-19-(28)	SDG No.:	K6405
Lab Sample ID:	K6405-12	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	DB-624UI ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX014276.D	1		12/26/19 17:54	VX122619

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
79-00-5	1,1,2-Trichloroethane	1.00	U	0.12	1.00	ug/L
591-78-6	2-Hexanone	5.00	U	1.40	5.00	ug/L
124-48-1	Dibromochloromethane	1.00	U	0.16	1.00	ug/L
106-93-4	1,2-Dibromoethane	1.00	U	0.14	1.00	ug/L
127-18-4	Tetrachloroethene	1.10		0.15	1.00	ug/L
108-90-7	Chlorobenzene	1.00	U	0.080	1.00	ug/L
100-41-4	Ethyl Benzene	1.00	U	0.080	1.00	ug/L
179601-23-1	m/p-Xylenes	2.00	U	0.20	2.00	ug/L
95-47-6	o-Xylene	1.00	U	0.13	1.00	ug/L
100-42-5	Styrene	1.00	U	0.11	1.00	ug/L
75-25-2	Bromoform	1.00	U	0.15	1.00	ug/L
98-82-8	Isopropylbenzene	1.00	U	0.13	1.00	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	1.00	U	0.15	1.00	ug/L
541-73-1	1,3-Dichlorobenzene	1.00	U	0.14	1.00	ug/L
106-46-7	1,4-Dichlorobenzene	1.00	U	0.20	1.00	ug/L
95-50-1	1,2-Dichlorobenzene	1.00	U	0.12	1.00	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	1.00	U	0.54	1.00	ug/L
120-82-1	1,2,4-Trichlorobenzene	1.00	U	0.24	1.00	ug/L
87-61-6	1,2,3-Trichlorobenzene	1.00	U	0.26	1.00	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	49.7		61 - 141	99%	SPK: 50
1868-53-7	Dibromofluoromethane	49.2		69 - 133	98%	SPK: 50
2037-26-5	Toluene-d8	50.7		65 - 126	101%	SPK: 50
460-00-4	4-Bromofluorobenzene	45.4		58 - 135	91%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	532000	5.65			
540-36-3	1,4-Difluorobenzene	821000	6.85			
3114-55-4	Chlorobenzene-d5	734000	10.11			
3855-82-1	1,4-Dichlorobenzene-d4	317000	12.07			
TENTATIVE IDENTIFIED COMPOUNDS						
000625-54-7	Propane, 2-ethoxy-	5.20	J		2.59	ug/L

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Day Environmental, Inc.	Date Collected:	12/20/19
Project:	Andrew St. RI	Date Received:	12/21/19
Client Sample ID:	1000-MW-19-(28)	SDG No.:	K6405
Lab Sample ID:	K6405-12	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	DB-624UI ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX014276.D	1		12/26/19 17:54	VX122619

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit
A = Aldol-Condensation Reaction Products

Quantitation Report (LSC Reviewed)

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX122619\
Data File : VX014276.D
Acq On : 26 Dec 2019 17:54
Operator : JC/SP
Sample : K6405-12
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 19 Sample Multiplier: 1

Instrument : MSVOA_X
ClientSampleId : 1000-MW-19-(28)

Quant Time: Dec 27 07:14:57 2019
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121319W.M
Quant Title : SW846 8260
QLast Update : Tue Dec 17 03:01:07 2019
Response via : Initial Calibration

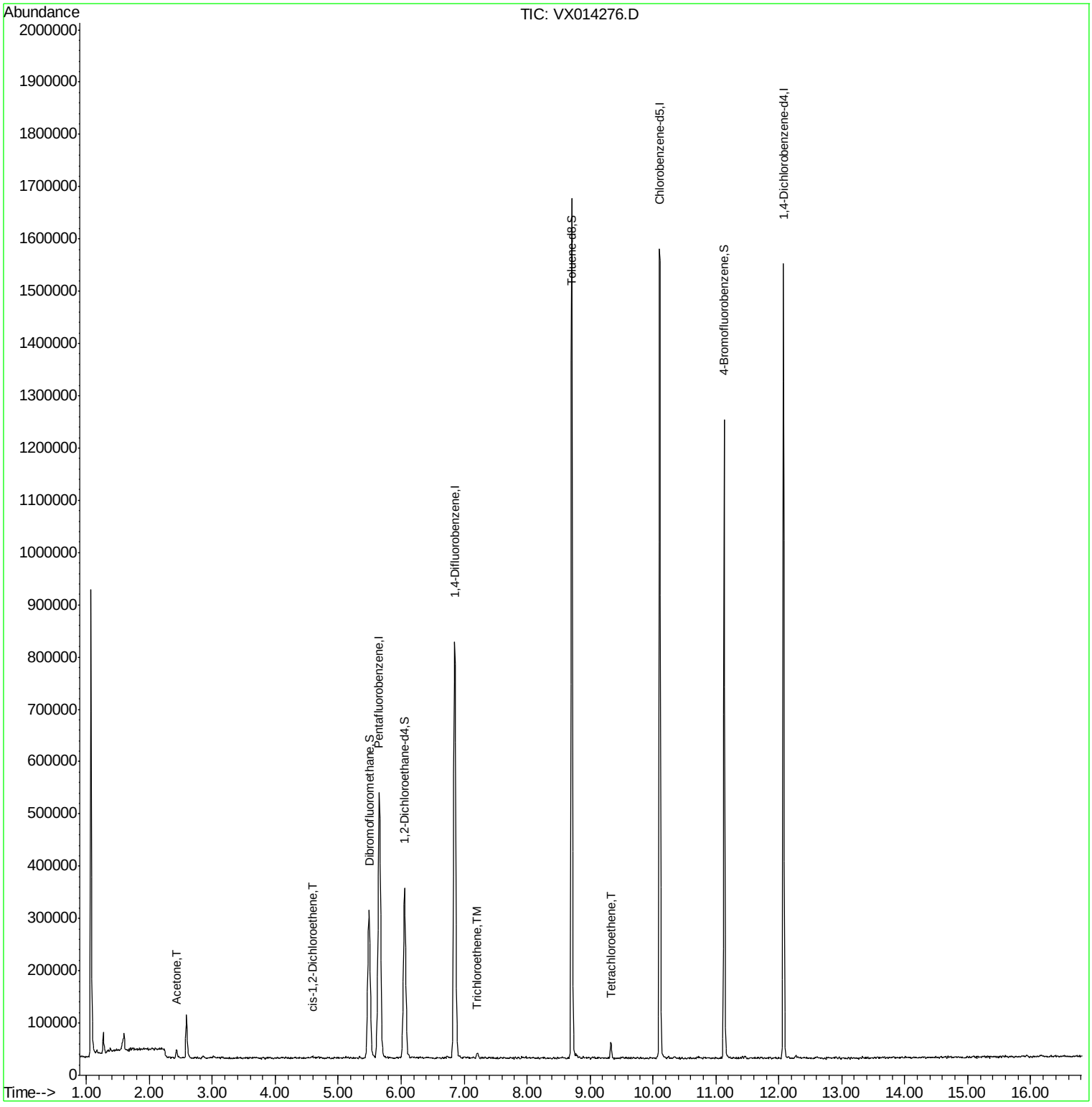
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	5.65	168	532412	50.00	ug/l	0.00
34) 1,4-Difluorobenzene	6.85	114	820686	50.00	ug/l	0.00
63) Chlorobenzene-d5	10.11	117	734410	50.00	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	12.07	152	317429	50.00	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	6.06	65	300179	49.75	ug/l	0.00
Spiked Amount 50.000			Recovery = 99.50%			
35) Dibromofluoromethane	5.49	113	245448	49.20	ug/l	0.00
Spiked Amount 50.000			Recovery = 98.40%			
50) Toluene-d8	8.71	98	984854	50.71	ug/l	0.00
Spiked Amount 50.000			Recovery = 101.42%			
62) 4-Bromofluorobenzene	11.14	95	322687	45.45	ug/l	0.00
Spiked Amount 50.000			Recovery = 90.90%			
Target Compounds						Qvalue
16) Acetone	2.43	43	18283	4.667	ug/l	98
27) cis-1,2-Dichloroethene	4.59	96	3159	0.495	ug/l	69
44) Trichloroethene	7.22	130	4429	0.692	ug/l	76
64) Tetrachloroethene	9.33	164	7060	1.086	ug/l	90

(#) = qualifier out of range (m) = manual integration (+) = signals summed

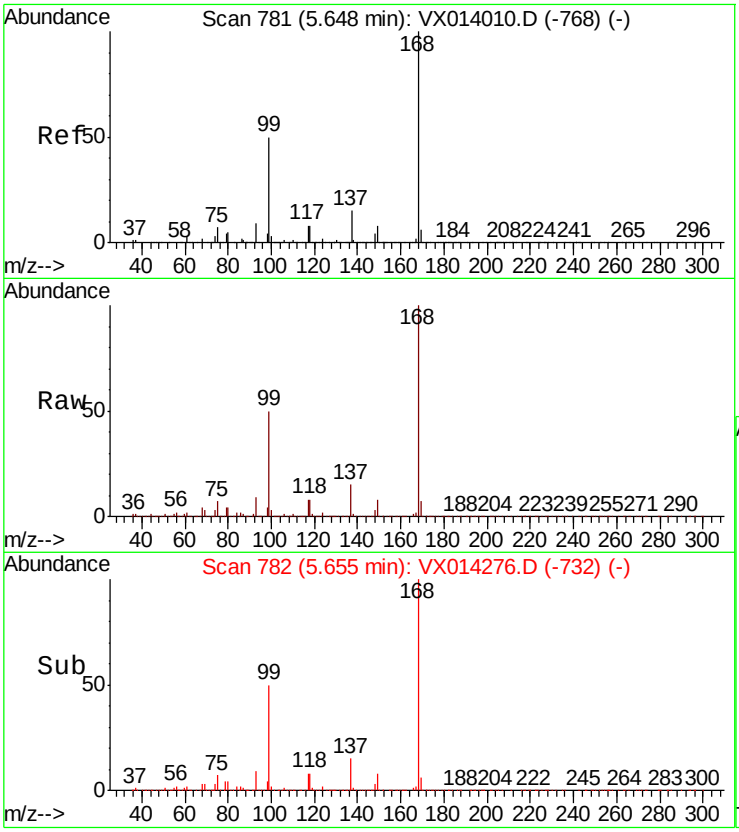
Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX122619\
Data File : VX014276.D
Acq On : 26 Dec 2019 17:54
Operator : JC/SP
Sample : K6405-12
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 19 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
1000-MW-19-(28)

Quant Time: Dec 27 07:14:57 2019
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121319W.M
Quant Title : SW846 8260
QLast Update : Tue Dec 17 03:01:07 2019
Response via : Initial Calibration



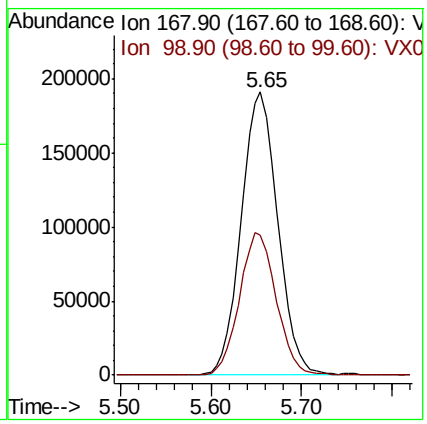
Instrument :
MSVOA_X
ClientSampleId :
1000-MW-19-(28)

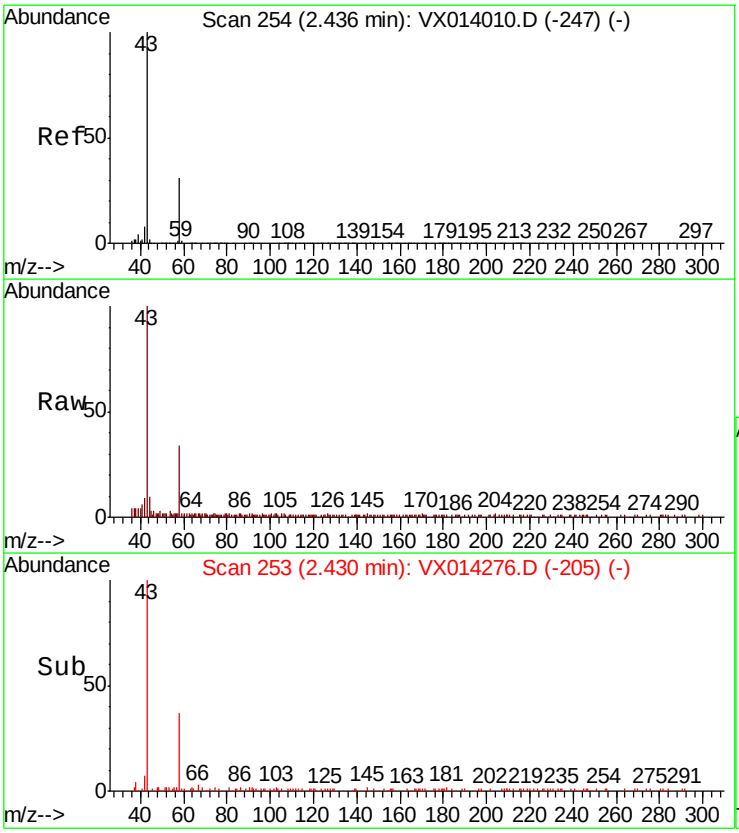


#1
Pentafluorobenzene
Concen: 50.000 ug/l
RT: 5.65 min Scan# 782
Delta R.T. 0.01 min
Lab File: VX014276.D
Acq: 26 Dec 2019 17:54

Tgt Ion:168 Resp: 532412

Ion	Ratio	Lower	Upper
168	100		
99	49.5	40.3	60.5

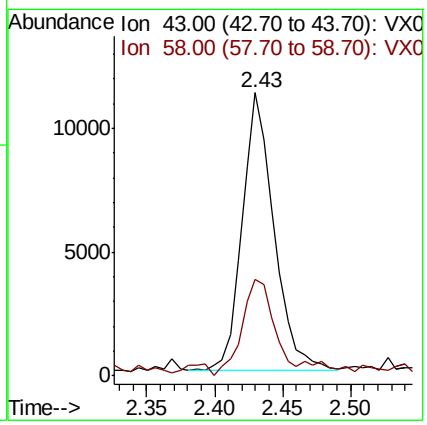




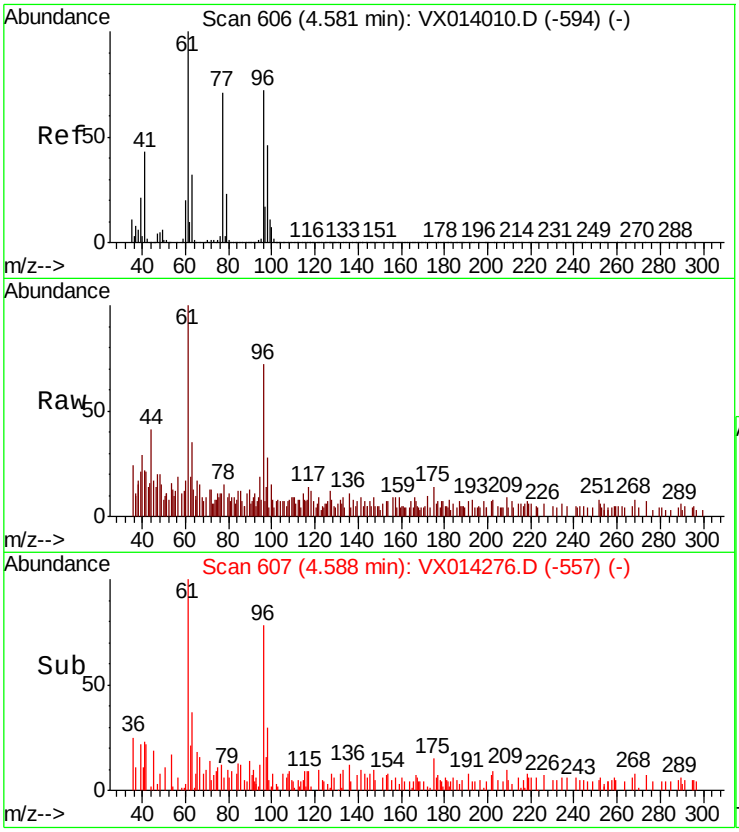
#16
Acetone
Concen: 4.667 ug/l
RT: 2.43 min Scan# 253
Delta R.T. -0.01 min
Lab File: VX014276.D
Acq: 26 Dec 2019 17:54

Tgt Ion: 43 Resp: 18283

Ion	Ratio	Lower	Upper
43	100		
58	32.1	24.9	37.3



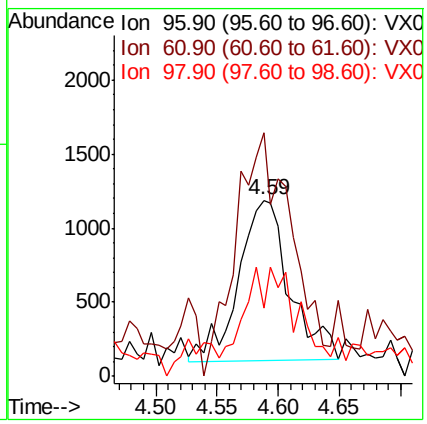
Instrument :
MSVOA_X
ClientSampleId :
1000-MW-19-(28)

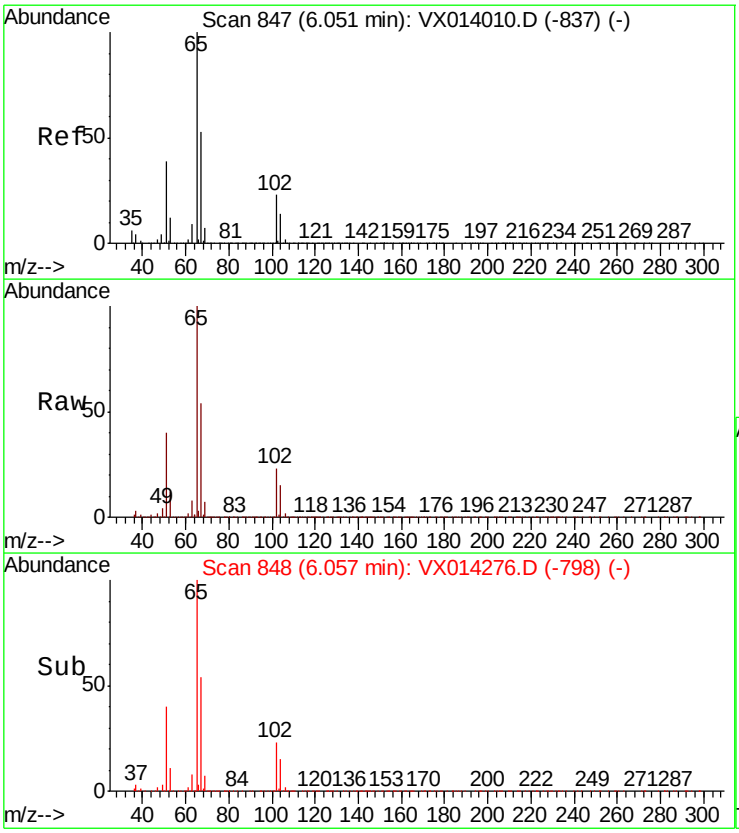


#27
cis-1,2-Dichloroethene
Concen: 0.495 ug/l
RT: 4.59 min Scan# 607
Delta R.T. 0.01 min
Lab File: VX014276.D
Acq: 26 Dec 2019 17:54

Tgt Ion: 96 Resp: 3159

Ion	Ratio	Lower	Upper
96	100		
61	167.8	0.0	288.4
98	20.3	0.0	129.6

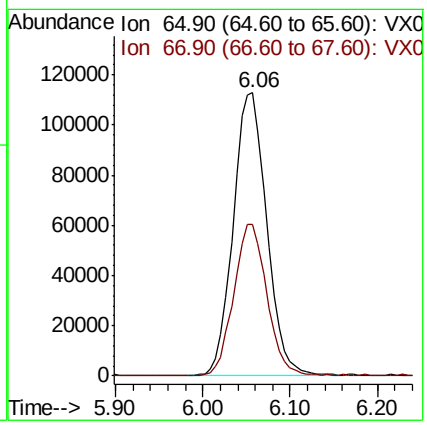




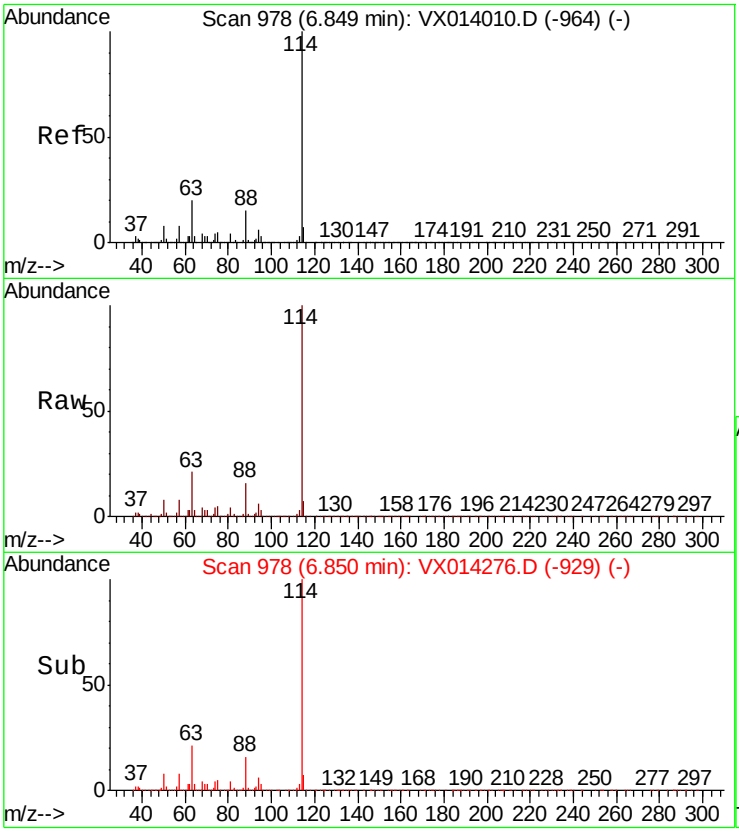
#33
1,2-Dichloroethane-d4
Concen: 49.747 ug/l
RT: 6.06 min Scan# 848
Delta R.T. 0.01 min
Lab File: VX014276.D
Acq: 26 Dec 2019 17:54

Tgt Ion: 65 Resp: 300179

Ion	Ratio	Lower	Upper
65	100		
67	53.0	0.0	106.4



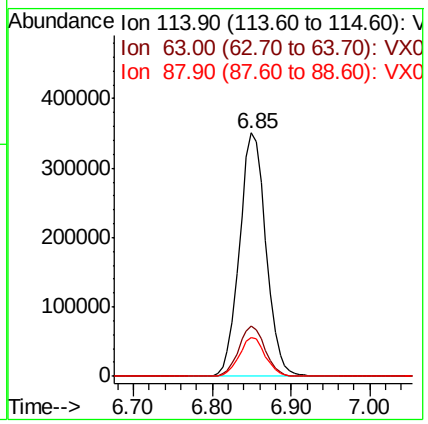
Instrument :
MSVOA_X
ClientSampleId :
1000-MW-19-(28)

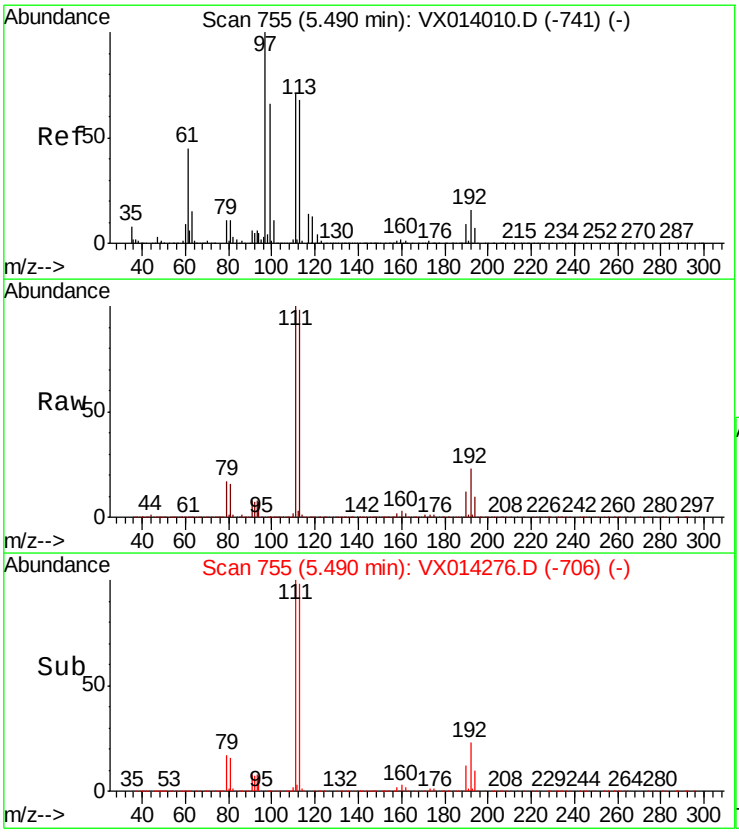


#34
1,4-Difluorobenzene
Concen: 50.000 ug/l
RT: 6.85 min Scan# 978
Delta R.T. 0.00 min
Lab File: VX014276.D
Acq: 26 Dec 2019 17:54

Tgt Ion:114 Resp: 820686

Ion	Ratio	Lower	Upper
114	100		
63	20.8	0.0	40.8
88	15.8	0.0	30.4

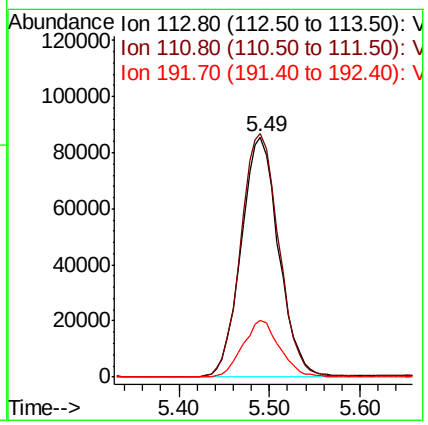




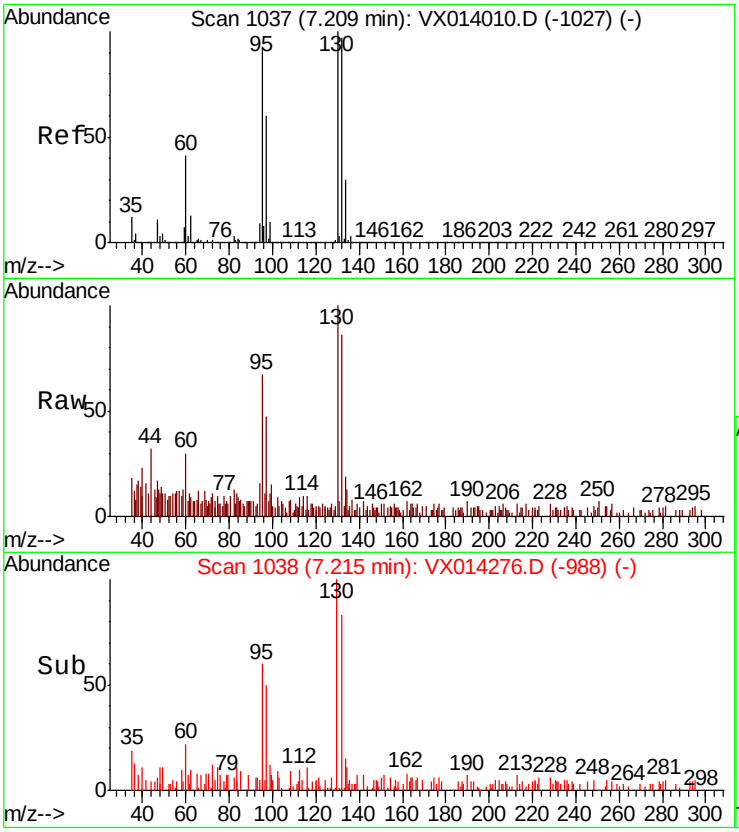
#35
Dibromofluoromethane
Concen: 49.199 ug/l
RT: 5.49 min Scan# 755
Delta R.T. 0.00 min
Lab File: VX014276.D
Acq: 26 Dec 2019 17:54

Tgt Ion:113 Resp: 245448

Ion	Ratio	Lower	Upper
113	100		
111	103.2	82.0	123.0
192	23.4	19.3	28.9



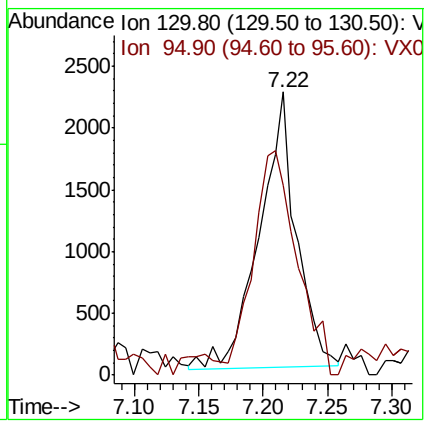
Instrument :
MSVOA_X
ClientSampleId :
1000-MW-19-(28)

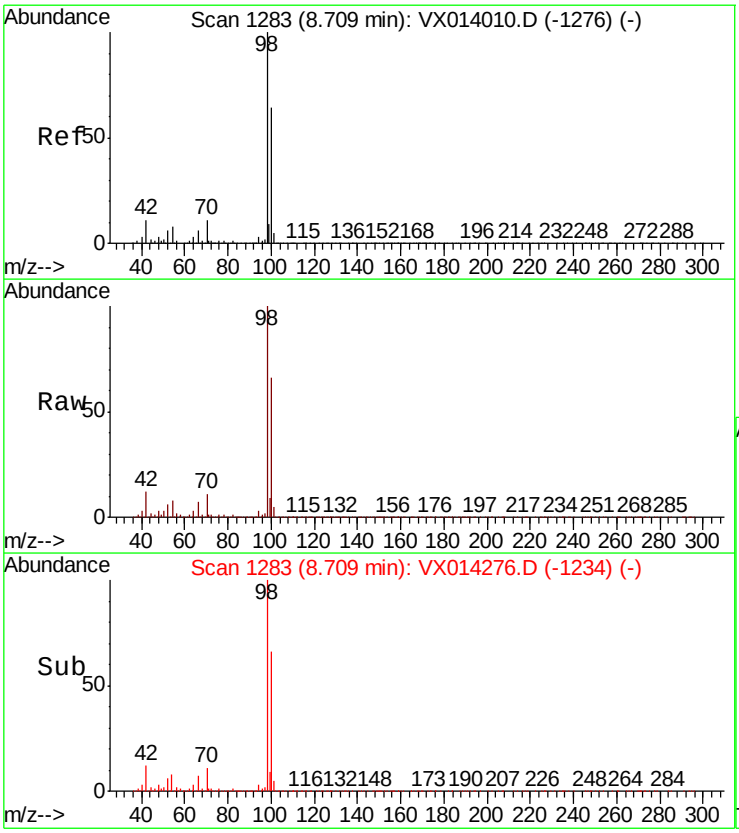


#44
Trichloroethene
Concen: 0.692 ug/l
RT: 7.22 min Scan# 1038
Delta R.T. 0.01 min
Lab File: VX014276.D
Acq: 26 Dec 2019 17:54

Tgt Ion:130 Resp: 4429

Ion	Ratio	Lower	Upper
130	100		
95	69.5	0.0	185.6

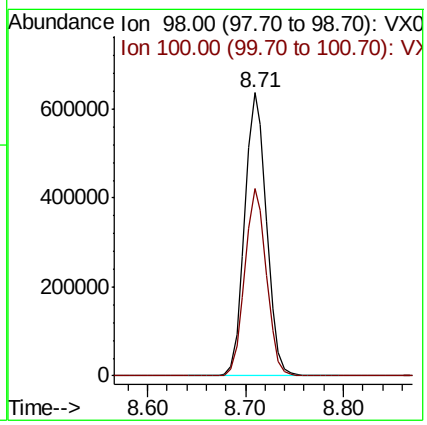




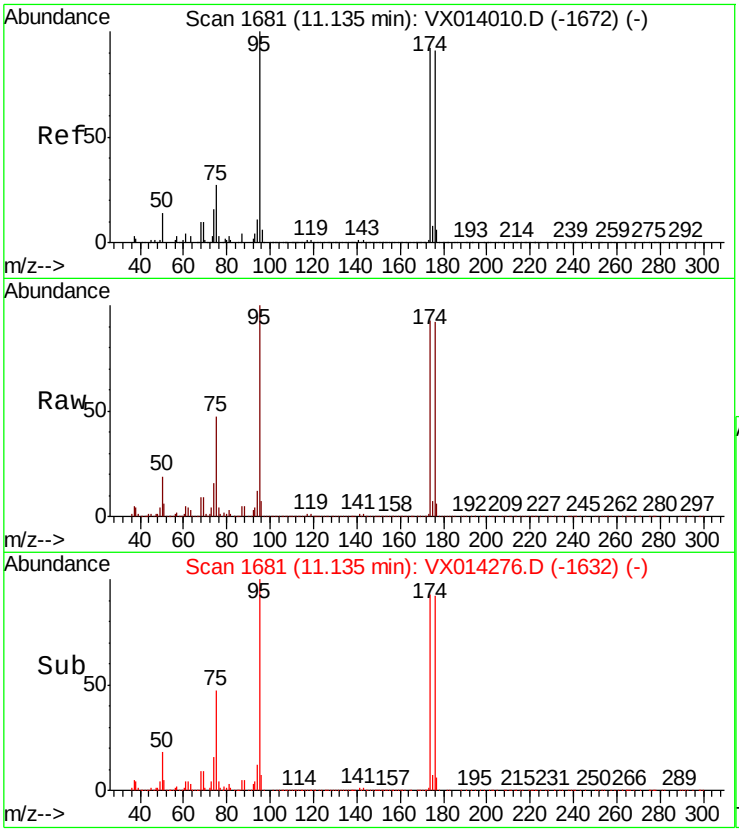
#50
Toluene-d8
Concen: 50.706 ug/l
RT: 8.71 min Scan# 1283
Delta R.T. 0.00 min
Lab File: VX014276.D
Acq: 26 Dec 2019 17:54

Tgt Ion: 98 Resp: 984854

Ion	Ratio	Lower	Upper
98	100		
100	66.0	52.9	79.3



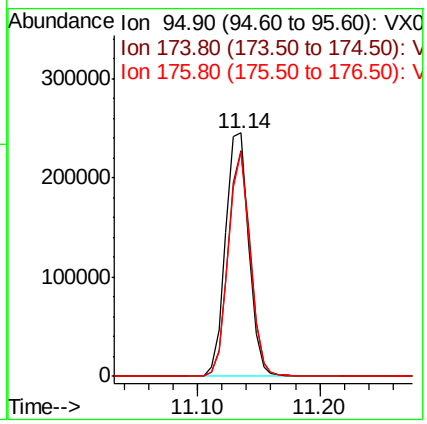
Instrument :
MSVOA_X
ClientSampleId :
1000-MW-19-(28)

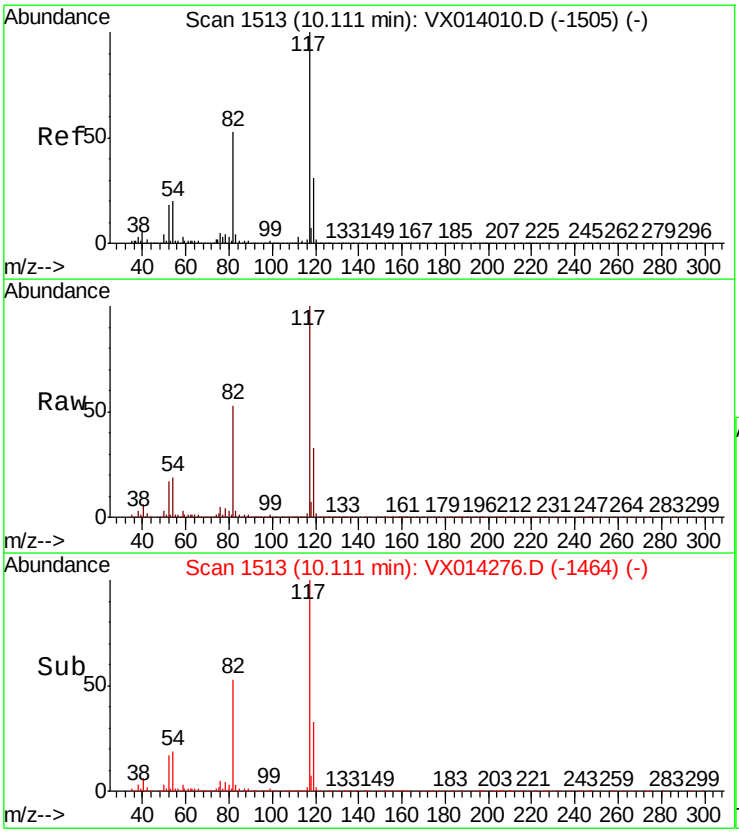


#62
4-Bromofluorobenzene
Concen: 45.449 ug/l
RT: 11.14 min Scan# 1681
Delta R.T. 0.00 min
Lab File: VX014276.D
Acq: 26 Dec 2019 17:54

Tgt Ion: 95 Resp: 322687

Ion	Ratio	Lower	Upper
95	100		
174	88.2	0.0	175.8
176	86.1	0.0	173.0

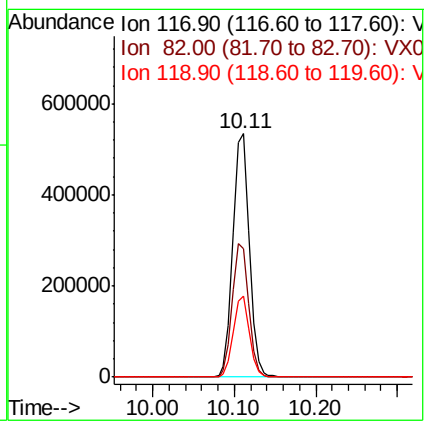




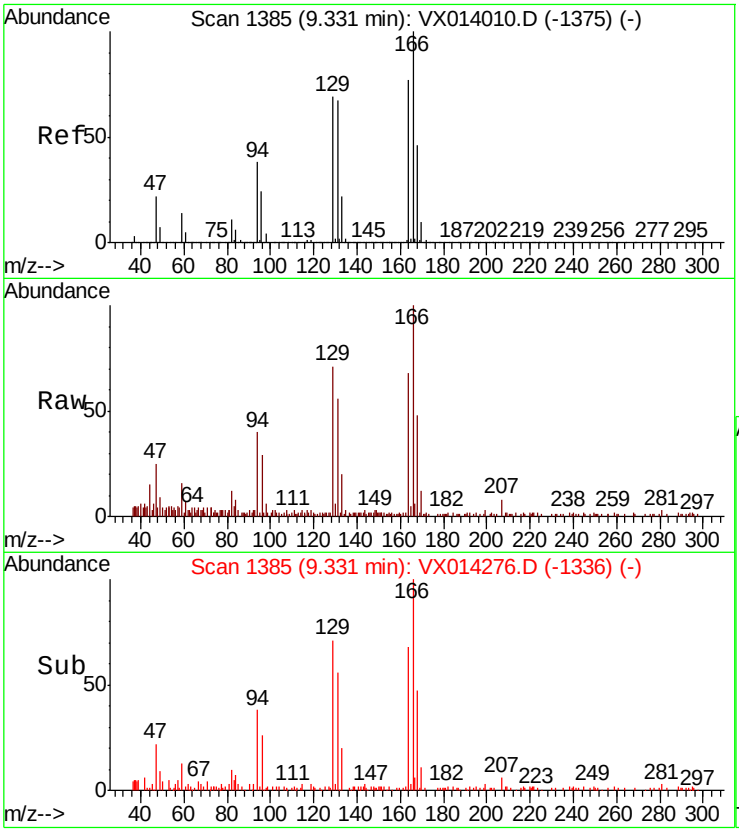
#63
Chlorobenzene-d5
Concen: 50.000 ug/l
RT: 10.11 min Scan# 1513
Delta R.T. 0.00 min
Lab File: VX014276.D
Acq: 26 Dec 2019 17:54

Tgt Ion:117 Resp: 734410

Ion	Ratio	Lower	Upper
117	100		
82	52.5	42.2	63.4
119	33.1	25.1	37.7



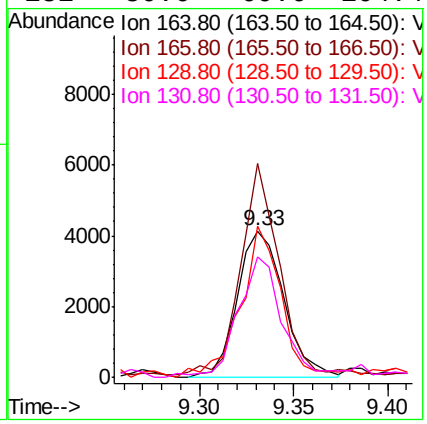
Instrument :
MSVOA_X
ClientSampleId :
1000-MW-19-(28)

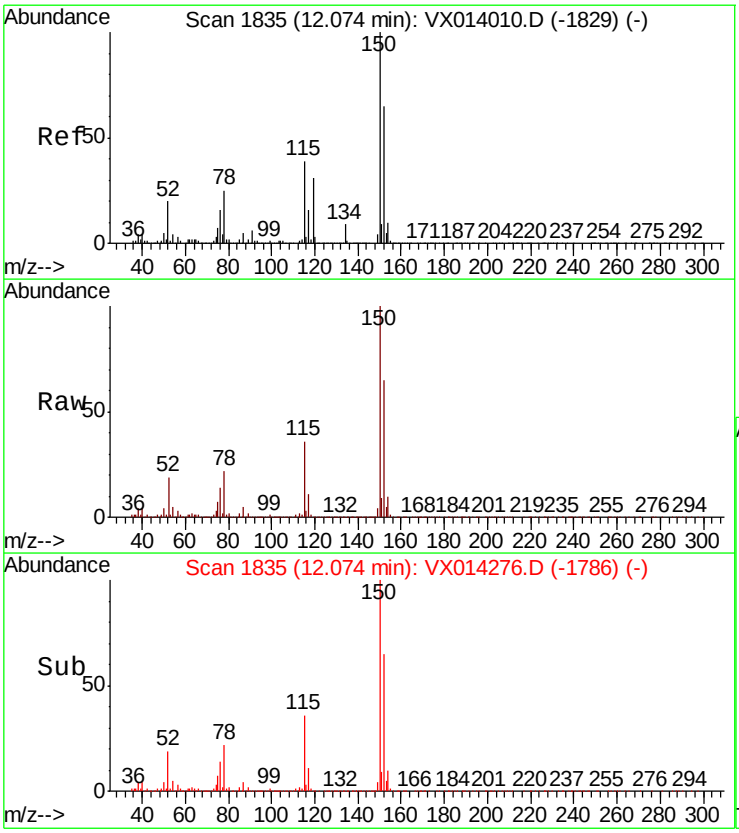


#64
Tetrachloroethene
Concen: 1.086 ug/l
RT: 9.33 min Scan# 1385
Delta R.T. 0.00 min
Lab File: VX014276.D
Acq: 26 Dec 2019 17:54

Tgt Ion:164 Resp: 7060

Ion	Ratio	Lower	Upper
164	100		
166	142.8	104.0	156.0
129	100.0	72.2	108.4
131	80.6	69.6	104.4

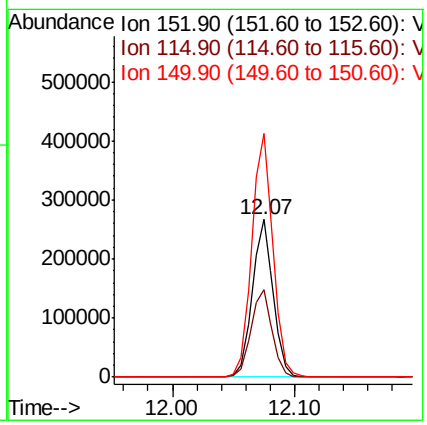




#72
1,4-Dichlorobenzene-d4
Concen: 50.000 ug/l
RT: 12.07 min Scan# 1835
Delta R.T. 0.00 min
Lab File: VX014276.D
Acq: 26 Dec 2019 17:54

Tgt Ion:152 Resp: 317429

Ion	Ratio	Lower	Upper
152	100		
115	56.4	38.3	114.9
150	156.9	0.0	345.4



LSC Area Percent Report

Data Path : Z:\VOASRV\HPCHEM1\MSVOA X\DATA\VX122619\
Data File : VX014276.D
Acq On : 26 Dec 2019 17:54
Operator : JC/SP
Sample : K6405-12
Misc : 5.0mL/MSVOA X/WATER
ALS Vial : 19 Sample Multiplier: 1

Instrument : MSVOA_X
ClientSampleId : 1000-MW-19-(28)

Integration Parameters: RTEINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 3 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121319W.M
Title : SW846 8260

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	1.070	26	30	42	rBV	893101	1098569	42.92%	7.558%
2	1.265	58	62	69	rBV	41580	56905	2.22%	0.391%
3	1.601	106	117	120	rBV10	32751	68632	2.68%	0.472%
4	2.430	247	253	258	rBV	17522	31397	1.23%	0.216%
5	2.588	273	279	289	rBV	82908	148996	5.82%	1.025%
6	5.490	743	755	768	rBV	282681	809545	31.63%	5.569%
7	5.649	771	781	792	rBV	507141	1428022	55.79%	9.824%
8	6.051	838	847	862	rVB	324797	841743	32.88%	5.791%
9	6.850	969	978	990	rBV	795478	1835566	71.71%	12.628%
10	8.709	1276	1283	1293	rBV	1645936	2559814	100.00%	17.610%
11	9.331	1380	1385	1393	rVB2	32614	54053	2.11%	0.372%
12	10.105	1507	1512	1524	rVB	1546784	2142463	83.70%	14.739%
13	11.135	1675	1681	1689	rBV	1223009	1595879	62.34%	10.979%
14	12.074	1829	1835	1844	rBV	1520442	1864450	72.84%	12.826%

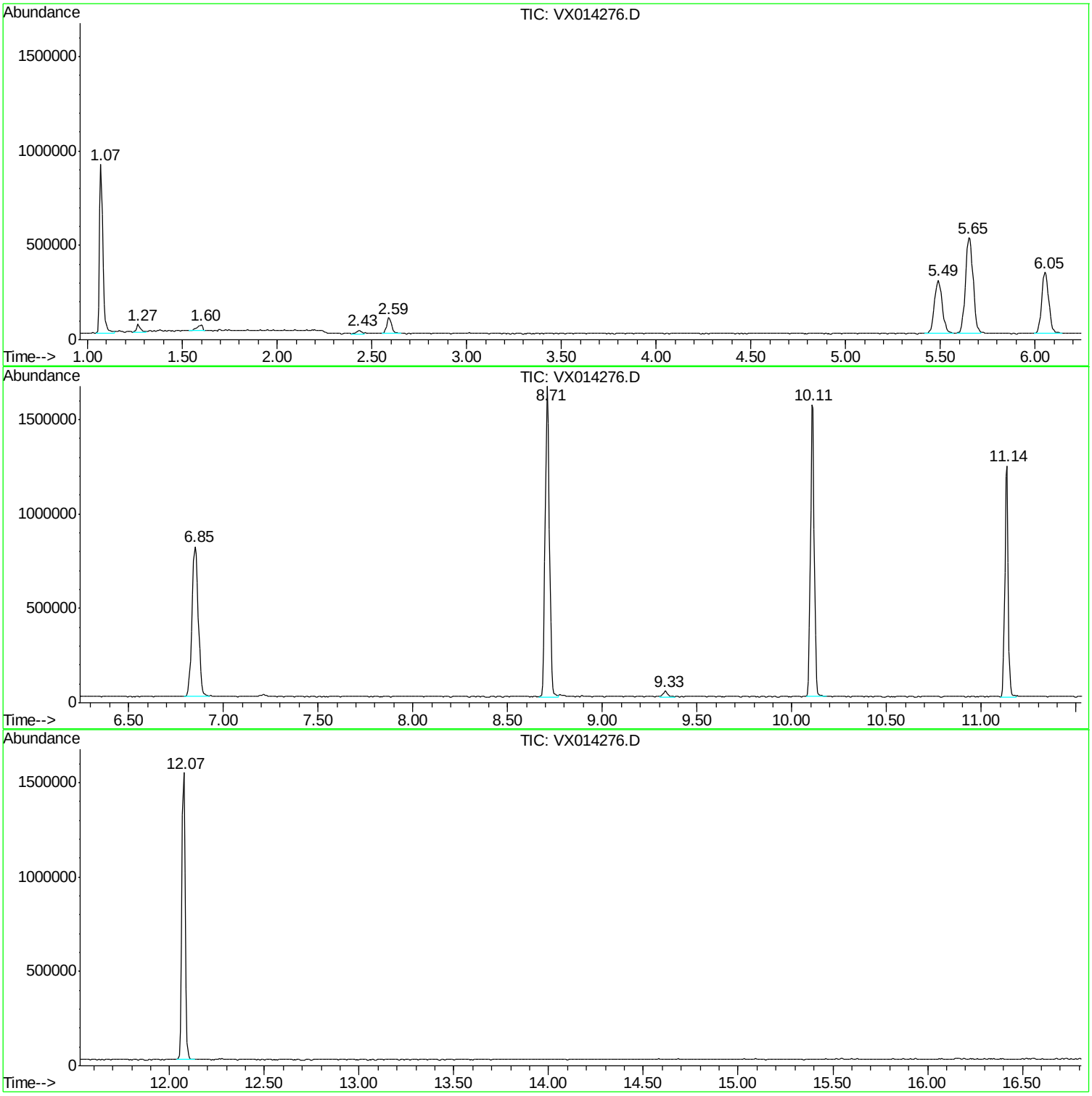
Sum of corrected areas: 14536034

Data Path : Z:\VOASRV\HPCHEM1\MSVOA X\DATA\VX122619\
Data File : VX014276.D
Acq On : 26 Dec 2019 17:54
Operator : JC/SP
Sample : K6405-12
Misc : 5.0mL/MSVOA X/WATER
ALS Vial : 19 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
1000-MW-19-(28)

Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121319W.M
Quant Title : SW846 8260

TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P



Library Search Compound Report

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX122619\
Data File : VX014276.D
Acq On : 26 Dec 2019 17:54
Operator : JC/SP
Sample : K6405-12
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 19 Sample Multiplier: 1

Instrument : MSVOA_X
ClientSampleId : 1000-MW-19-(28)

Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121319W.M
Quant Title : SW846 8260

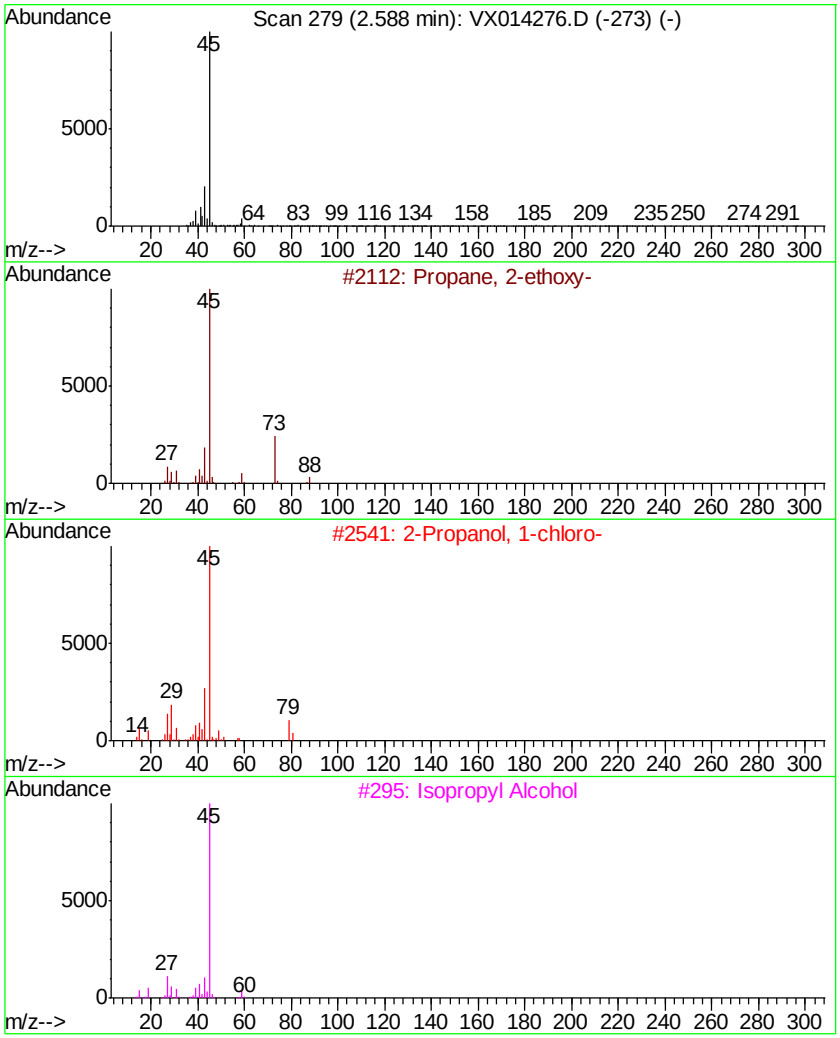
TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

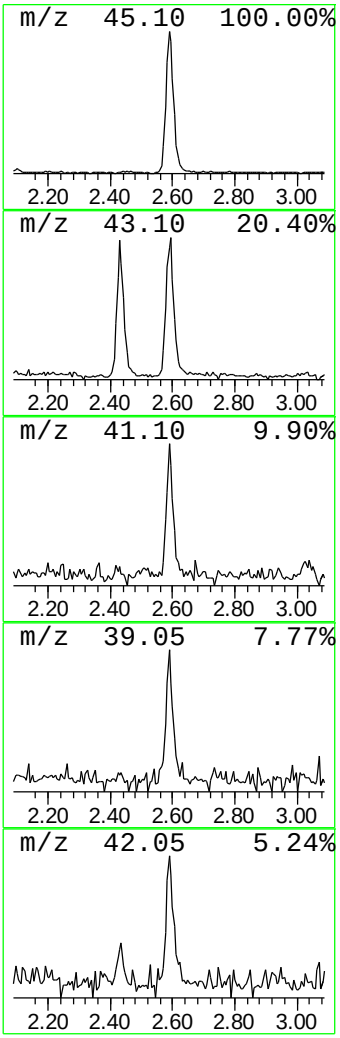
****

Peak Number 2 Propane, 2-ethoxy- Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
2.59	5.22 ug/l	148996	Pentafluorobenzene	5.65

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Propane, 2-ethoxy-	88	C5H12O	000625-54-7	56
2	2-Propanol, 1-chloro-	94	C3H7ClO	000127-00-4	50
3	Isopropyl Alcohol	60	C3H8O	000067-63-0	50
4	Formic acid, 1-methylethyl ester	88	C4H8O2	000625-55-8	50
5	2-Butanol, 3-methyl-	88	C5H12O	000598-75-4	39





Instrument :
MSVOA_X
ClientSampleId :
1000-MW-19-(28)

Tentatively Identified Compound (LSC) summary

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX122619\
Data File : VX014276.D
Acq On : 26 Dec 2019 17:54
Operator : JC/SP
Sample : K6405-12
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 19 Sample Multiplier: 1

Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121319W.M
Quant Title : SW846 8260

TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

					Internal Standard			
TIC Top Hit name	RT	EstConc	Units	Response	#	RT	Resp	Conc
Propane, 2-ethoxy-	2.59	5.2	ug/l	148996	1	5.65	1428020	50.0

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Day Environmental, Inc.	Date Collected:	12/20/19
Project:	Andrew St. RI	Date Received:	12/21/19
Client Sample ID:	1001-FB122019	SDG No.:	K6405
Lab Sample ID:	K6405-13	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	DB-624UI ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX014310.D	1		12/27/19 15:44	VX122719

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
75-71-8	Dichlorodifluoromethane	1.00	U	0.22	1.00	ug/L
74-87-3	Chloromethane	1.00	U	0.30	1.00	ug/L
75-01-4	Vinyl Chloride	1.00	U	0.16	1.00	ug/L
74-83-9	Bromomethane	5.00	U	2.10	5.00	ug/L
75-00-3	Chloroethane	1.00	U	0.34	1.00	ug/L
75-69-4	Trichlorofluoromethane	1.00	U	0.16	1.00	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	1.00	U	0.21	1.00	ug/L
75-35-4	1,1-Dichloroethene	1.00	U	0.18	1.00	ug/L
67-64-1	Acetone	7.30		0.90	5.00	ug/L
75-15-0	Carbon Disulfide	1.00	U	0.23	1.00	ug/L
1634-04-4	Methyl tert-butyl Ether	1.00	U	0.070	1.00	ug/L
79-20-9	Methyl Acetate	1.00	U	0.65	1.00	ug/L
75-09-2	Methylene Chloride	1.00	U	0.33	1.00	ug/L
156-60-5	trans-1,2-Dichloroethene	1.00	U	0.24	1.00	ug/L
75-34-3	1,1-Dichloroethane	1.00	U	0.17	1.00	ug/L
110-82-7	Cyclohexane	5.00	U	1.20	5.00	ug/L
78-93-3	2-Butanone	5.00	U	0.71	5.00	ug/L
56-23-5	Carbon Tetrachloride	1.00	U	0.22	1.00	ug/L
156-59-2	cis-1,2-Dichloroethene	1.00	U	0.30	1.00	ug/L
74-97-5	Bromochloromethane	1.00	U	0.31	1.00	ug/L
67-66-3	Chloroform	1.00	U	0.14	1.00	ug/L
71-55-6	1,1,1-Trichloroethane	1.00	U	0.12	1.00	ug/L
108-87-2	Methylcyclohexane	1.00	U	0.17	1.00	ug/L
71-43-2	Benzene	1.00	U	0.10	1.00	ug/L
107-06-2	1,2-Dichloroethane	1.00	U	0.13	1.00	ug/L
79-01-6	Trichloroethene	1.00	U	0.27	1.00	ug/L
78-87-5	1,2-Dichloropropane	1.00	U	0.14	1.00	ug/L
75-27-4	Bromodichloromethane	1.00	U	0.10	1.00	ug/L
108-10-1	4-Methyl-2-Pentanone	5.00	U	0.85	5.00	ug/L
108-88-3	Toluene	1.00	U	0.12	1.00	ug/L
10061-02-6	t-1,3-Dichloropropene	1.00	U	0.19	1.00	ug/L
10061-01-5	cis-1,3-Dichloropropene	1.00	U	0.16	1.00	ug/L

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Day Environmental, Inc.	Date Collected:	12/20/19
Project:	Andrew St. RI	Date Received:	12/21/19
Client Sample ID:	1001-FB122019	SDG No.:	K6405
Lab Sample ID:	K6405-13	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	DB-624UI ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX014310.D	1		12/27/19 15:44	VX122719

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
79-00-5	1,1,2-Trichloroethane	1.00	U	0.12	1.00	ug/L
591-78-6	2-Hexanone	5.00	U	1.40	5.00	ug/L
124-48-1	Dibromochloromethane	1.00	U	0.16	1.00	ug/L
106-93-4	1,2-Dibromoethane	1.00	U	0.14	1.00	ug/L
127-18-4	Tetrachloroethene	1.00	U	0.15	1.00	ug/L
108-90-7	Chlorobenzene	1.00	U	0.080	1.00	ug/L
100-41-4	Ethyl Benzene	1.00	U	0.080	1.00	ug/L
179601-23-1	m/p-Xylenes	2.00	U	0.20	2.00	ug/L
95-47-6	o-Xylene	1.00	U	0.13	1.00	ug/L
100-42-5	Styrene	1.00	U	0.11	1.00	ug/L
75-25-2	Bromoform	1.00	U	0.15	1.00	ug/L
98-82-8	Isopropylbenzene	1.00	U	0.13	1.00	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	1.00	U	0.15	1.00	ug/L
541-73-1	1,3-Dichlorobenzene	1.00	U	0.14	1.00	ug/L
106-46-7	1,4-Dichlorobenzene	1.00	U	0.20	1.00	ug/L
95-50-1	1,2-Dichlorobenzene	1.00	U	0.12	1.00	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	1.00	U	0.54	1.00	ug/L
120-82-1	1,2,4-Trichlorobenzene	1.00	U	0.24	1.00	ug/L
87-61-6	1,2,3-Trichlorobenzene	1.00	U	0.26	1.00	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	49.3		61 - 141	99%	SPK: 50
1868-53-7	Dibromofluoromethane	49.1		69 - 133	98%	SPK: 50
2037-26-5	Toluene-d8	50.2		65 - 126	100%	SPK: 50
460-00-4	4-Bromofluorobenzene	45.9		58 - 135	92%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	517000	5.65			
540-36-3	1,4-Difluorobenzene	804000	6.85			
3114-55-4	Chlorobenzene-d5	721000	10.11			
3855-82-1	1,4-Dichlorobenzene-d4	311000	12.07			
TENTATIVE IDENTIFIED COMPOUNDS						
000104-76-7	1-Hexanol, 2-ethyl-	9.60	J		12.3	ug/L

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Day Environmental, Inc.	Date Collected:	12/20/19
Project:	Andrew St. RI	Date Received:	12/21/19
Client Sample ID:	1001-FB122019	SDG No.:	K6405
Lab Sample ID:	K6405-13	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	DB-624UI ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX014310.D	1		12/27/19 15:44	VX122719

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit
A = Aldol-Condensation Reaction Products

Quantitation Report (LSC Reviewed)

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX122719\
Data File : VX014310.D
Acq On : 27 Dec 2019 15:44
Operator : JC/SP
Sample : K6405-13
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 10 Sample Multiplier: 1

Instrument : MSVOA_X
ClientSampleId : 1001-FB122019

Quant Time: Dec 30 06:07:04 2019
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121319W.M
Quant Title : SW846 8260
QLast Update : Tue Dec 17 03:01:07 2019
Response via : Initial Calibration

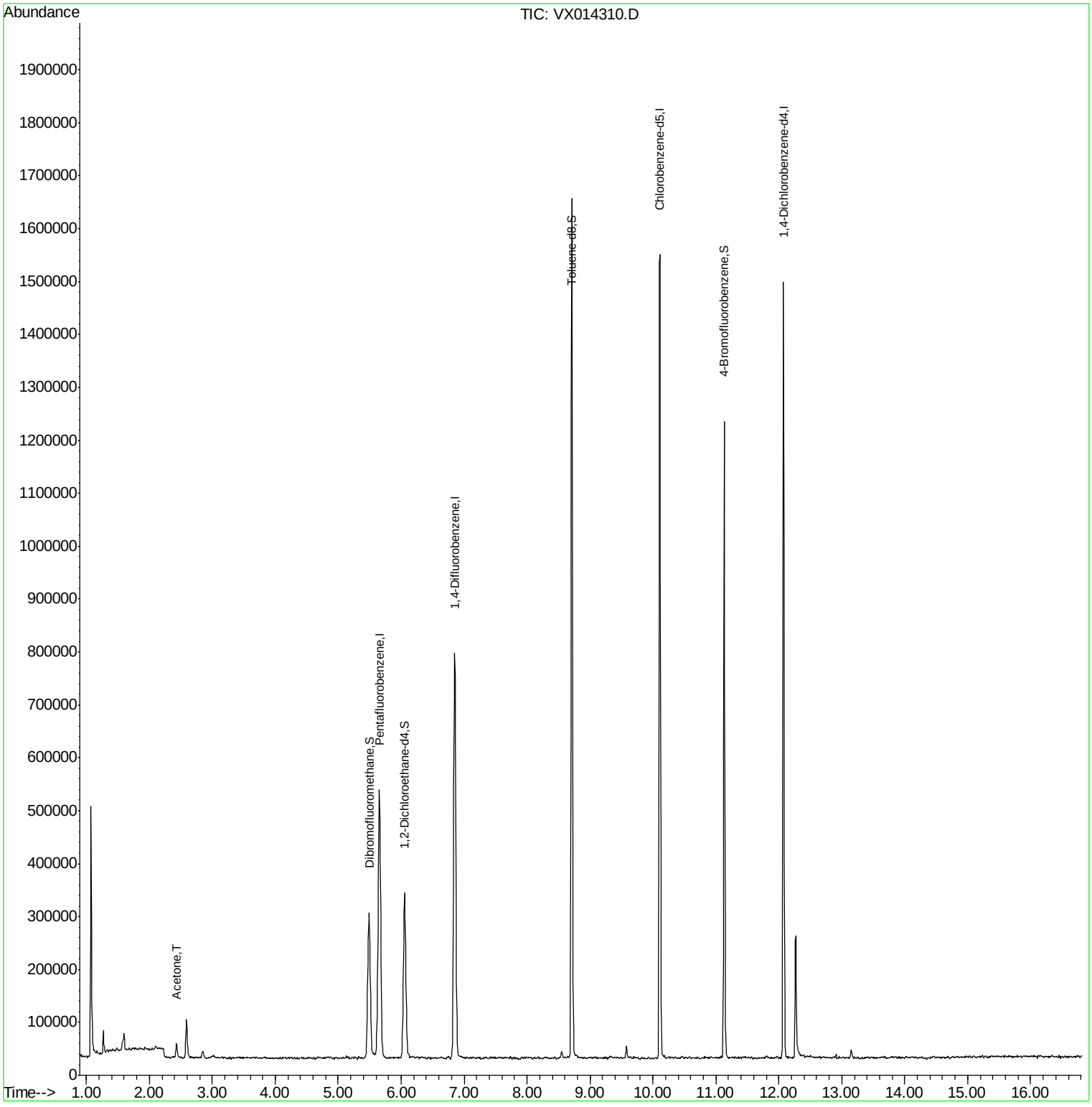
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	5.65	168	517477	50.00	ug/l	0.00
34) 1,4-Difluorobenzene	6.85	114	804362	50.00	ug/l	0.00
63) Chlorobenzene-d5	10.11	117	720729	50.00	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	12.07	152	310917	50.00	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	6.05	65	288992	49.27	ug/l	0.00
Spiked Amount 50.000			Recovery = 98.54%			
35) Dibromofluoromethane	5.49	113	240295	49.14	ug/l	0.00
Spiked Amount 50.000			Recovery = 98.28%			
50) Toluene-d8	8.71	98	956215	50.23	ug/l	0.00
Spiked Amount 50.000			Recovery = 100.46%			
62) 4-Bromofluorobenzene	11.14	95	319080	45.85	ug/l	0.00
Spiked Amount 50.000			Recovery = 91.70%			
Target Compounds						Qvalue
16) Acetone	2.43	43	27939	7.338	ug/l	95

(#) = qualifier out of range (m) = manual integration (+) = signals summed

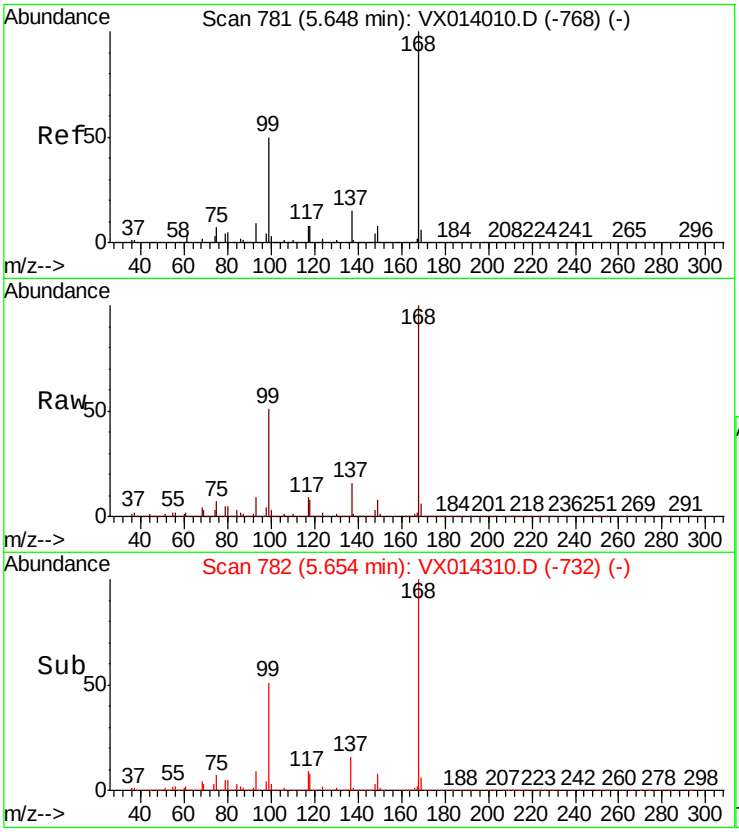
Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX122719\
Data File : VX014310.D
Acq On : 27 Dec 2019 15:44
Operator : JC/SP
Sample : K6405-13
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Dec 30 06:07:04 2019
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121319W.M
Quant Title : SW846 8260
QLast Update : Tue Dec 17 03:01:07 2019
Response via : Initial Calibration

Instrument :
MSVOA_X
ClientSampleId :
1001-FB122019



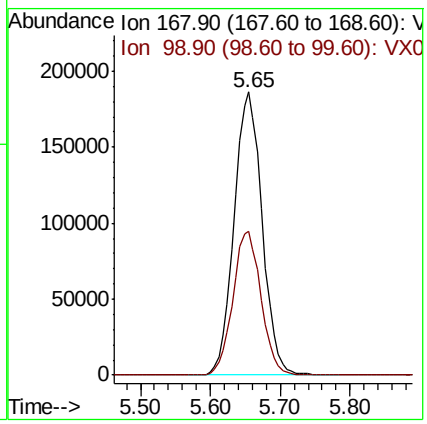
Instrument :
MSVOA_X
ClientSampleId :
1001-FB122019

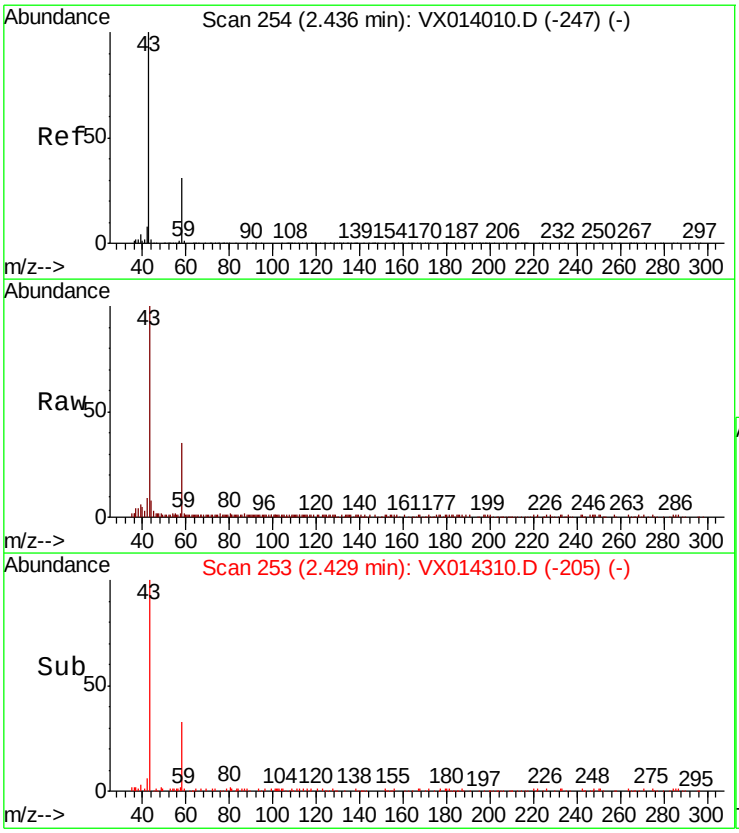


#1
Pentafluorobenzene
Concen: 50.000 ug/l
RT: 5.65 min Scan# 782
Delta R.T. 0.01 min
Lab File: VX014310.D
Acq: 27 Dec 2019 15:44

Tgt Ion:168 Resp: 517477

Ion	Ratio	Lower	Upper
168	100		
99	50.6	40.3	60.5

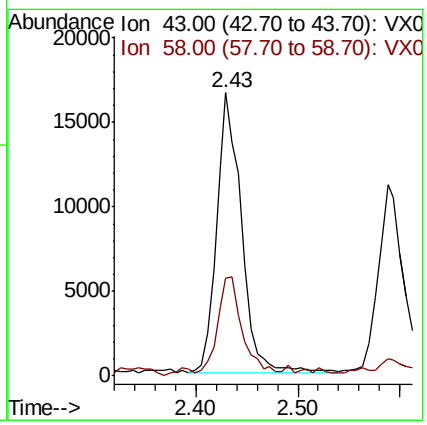




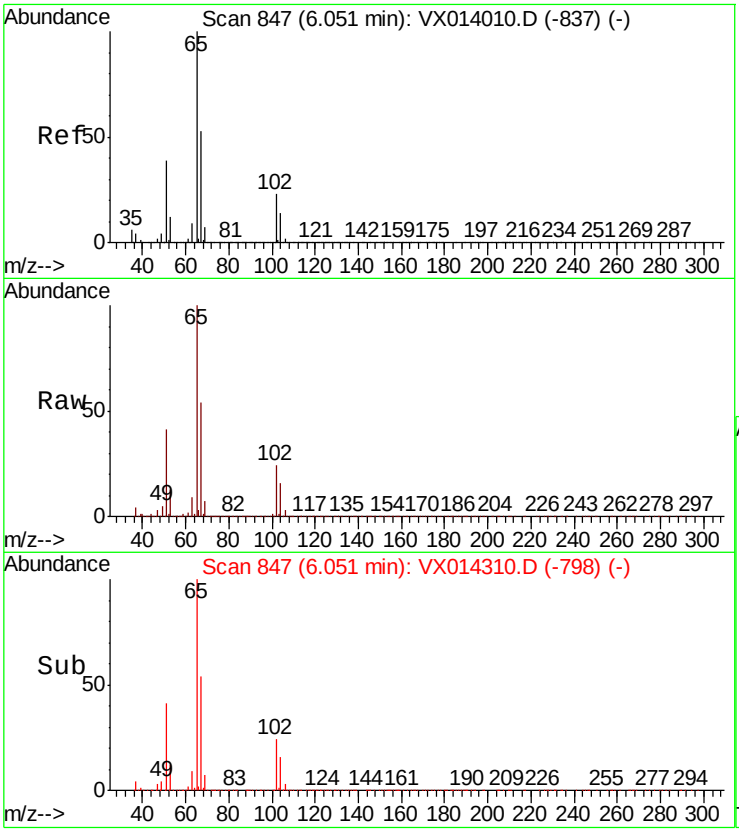
#16
Acetone
Concen: 7.338 ug/l
RT: 2.43 min Scan# 253
Delta R.T. -0.01 min
Lab File: VX014310.D
Acq: 27 Dec 2019 15:44

Tgt Ion: 43 Resp: 27939

Ion	Ratio	Lower	Upper
43	100		
58	33.8	24.9	37.3



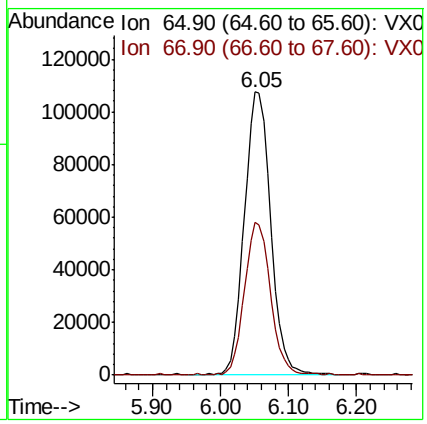
Instrument :
MSVOA_X
ClientSampleId :
1001-FB122019

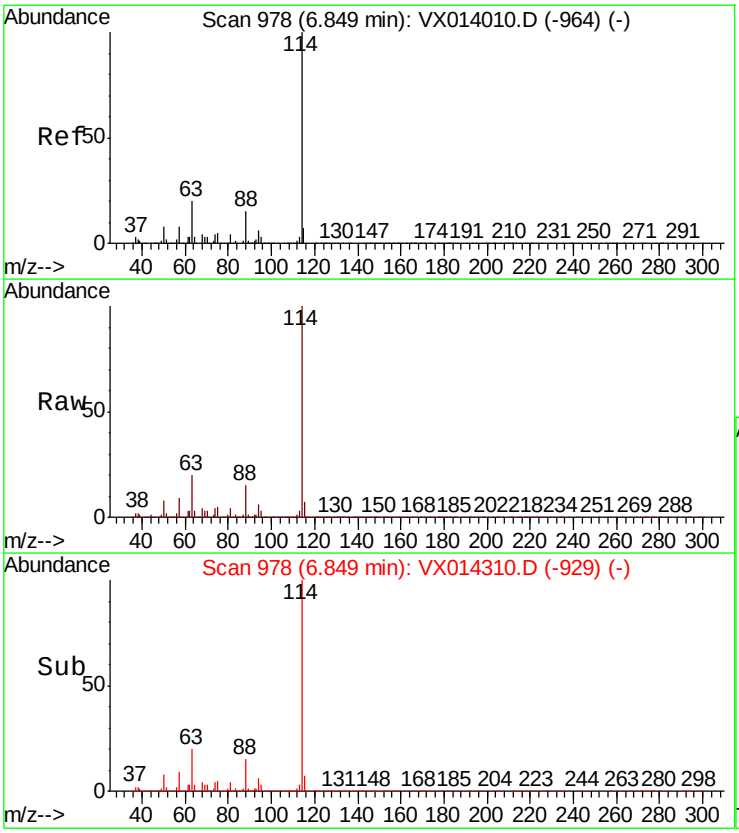


#33
1,2-Dichloroethane-d4
Concen: 49.275 ug/l
RT: 6.05 min Scan# 847
Delta R.T. 0.00 min
Lab File: VX014310.D
Acq: 27 Dec 2019 15:44

Tgt Ion: 65 Resp: 288992

Ion	Ratio	Lower	Upper
65	100		
67	52.8	0.0	106.4

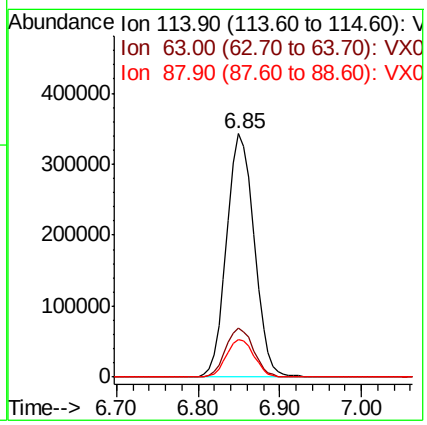




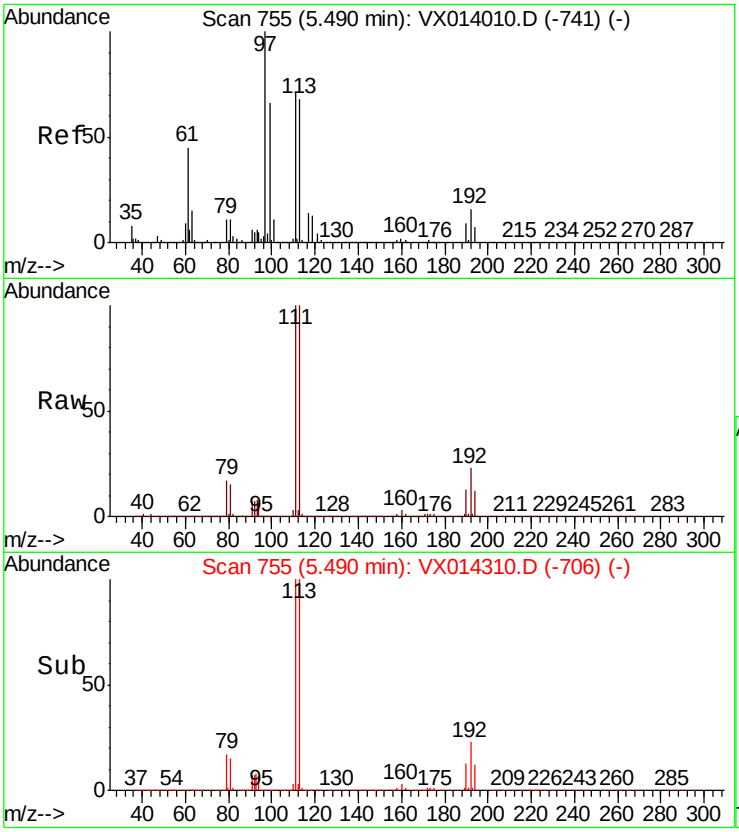
#34
1,4-Difluorobenzene
Concen: 50.000 ug/l
RT: 6.85 min Scan# 978
Delta R.T. 0.00 min
Lab File: VX014310.D
Acq: 27 Dec 2019 15:44

Tgt Ion:114 Resp: 804362

Ion	Ratio	Lower	Upper
114	100		
63	19.8	0.0	40.8
88	15.2	0.0	30.4



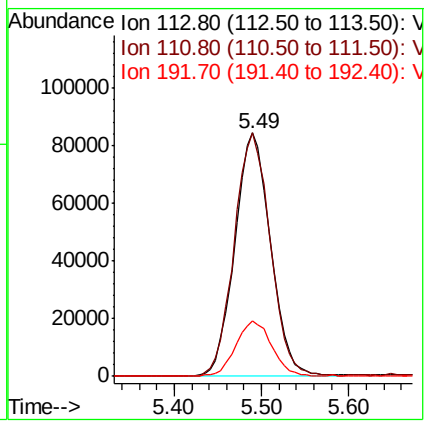
Instrument :
MSVOA_X
ClientSampleId :
1001-FB122019

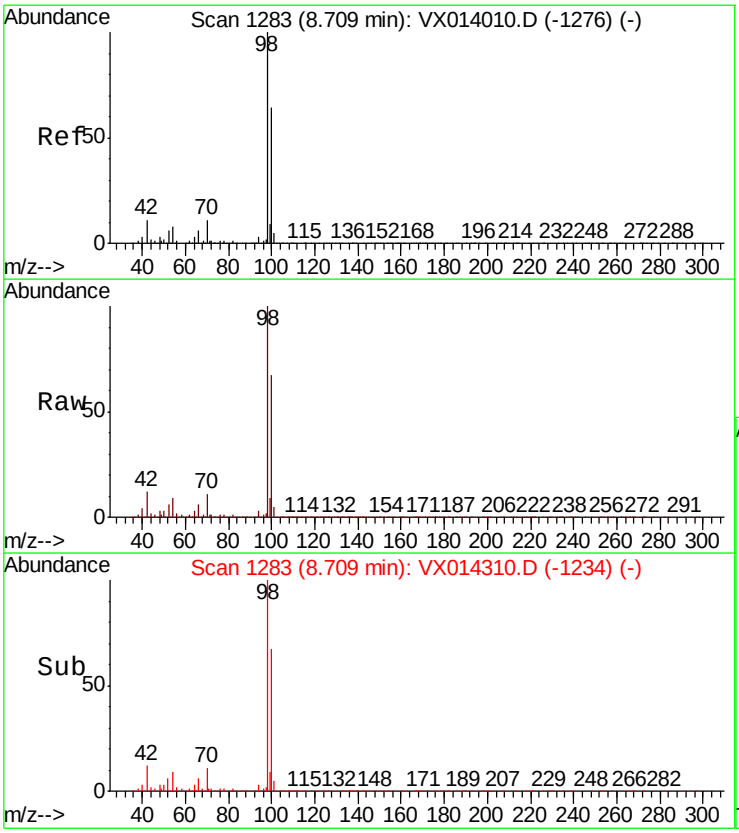


#35
Dibromofluoromethane
Concen: 49.144 ug/l
RT: 5.49 min Scan# 755
Delta R.T. 0.00 min
Lab File: VX014310.D
Acq: 27 Dec 2019 15:44

Tgt Ion:113 Resp: 240295

Ion	Ratio	Lower	Upper
113	100		
111	100.4	82.0	123.0
192	23.2	19.3	28.9

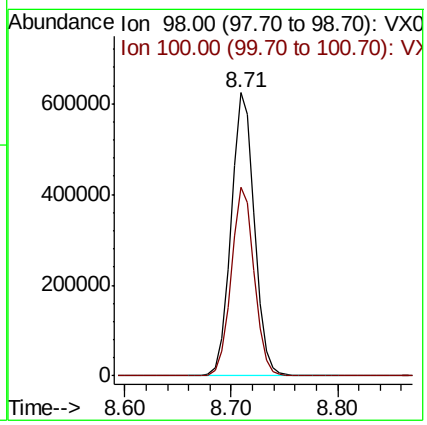




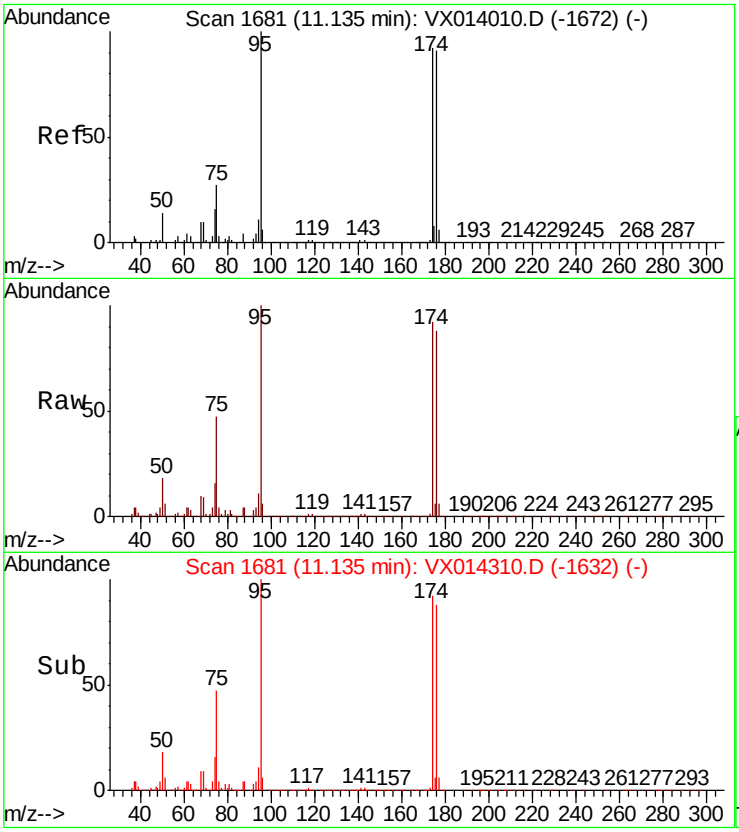
#50
Toluene-d8
Concen: 50.231 ug/l
RT: 8.71 min Scan# 1283
Delta R.T. 0.00 min
Lab File: VX014310.D
Acq: 27 Dec 2019 15:44

Tgt Ion: 98 Resp: 956215

Ion	Ratio	Lower	Upper
98	100		
100	65.7	52.9	79.3



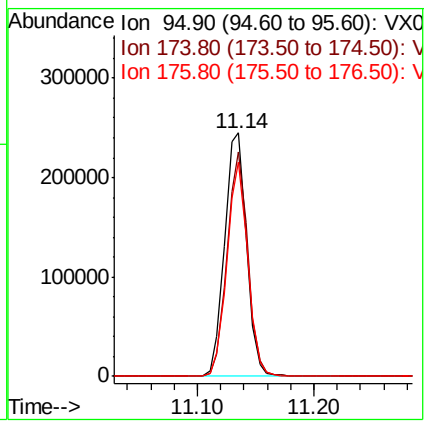
Instrument :
MSVOA_X
ClientSampleId :
1001-FB122019

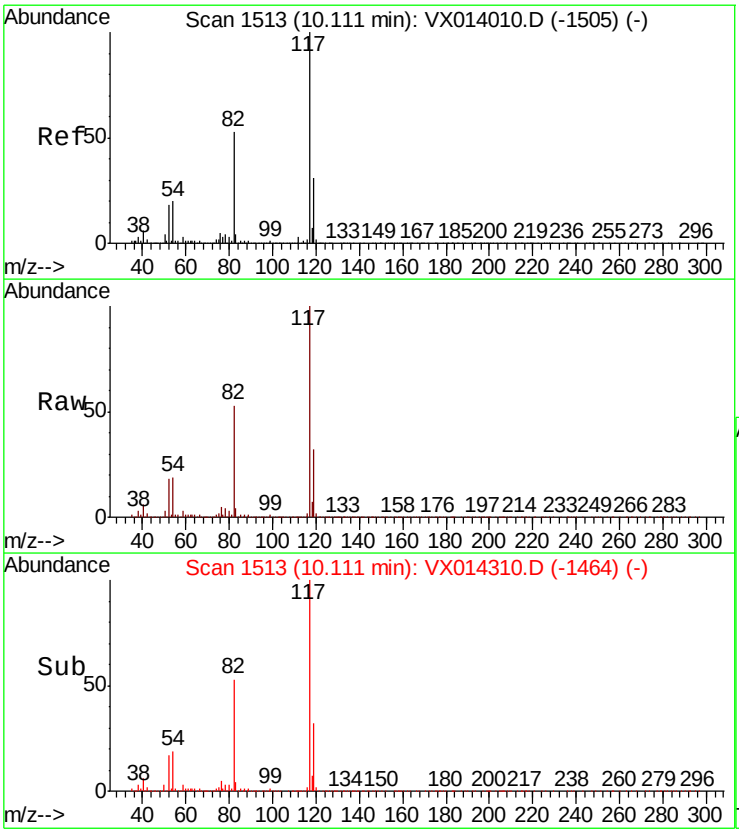


#62
4-Bromofluorobenzene
Concen: 45.853 ug/l
RT: 11.14 min Scan# 1681
Delta R.T. 0.00 min
Lab File: VX014310.D
Acq: 27 Dec 2019 15:44

Tgt Ion: 95 Resp: 319080

Ion	Ratio	Lower	Upper
95	100		
174	87.4	0.0	175.8
176	83.5	0.0	173.0

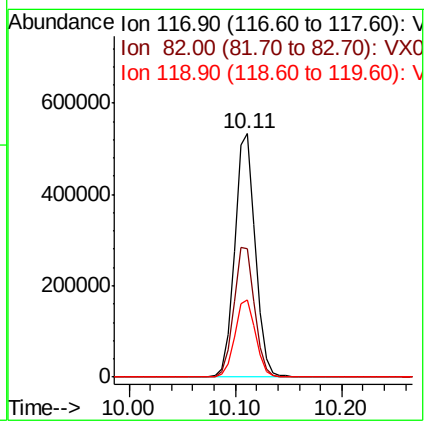




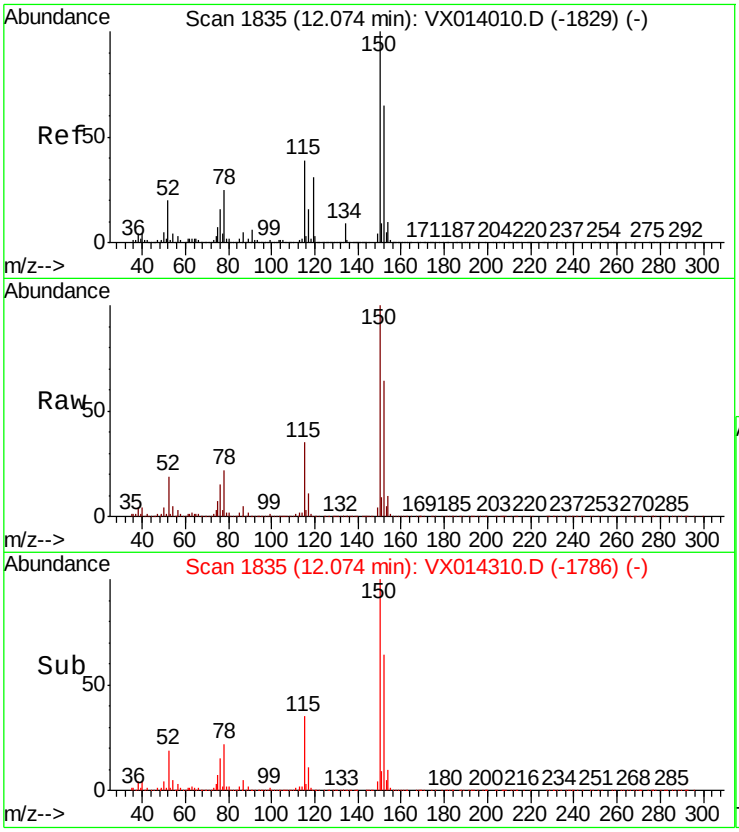
#63
Chlorobenzene-d5
Concen: 50.000 ug/l
RT: 10.11 min Scan# 1513
Delta R.T. 0.00 min
Lab File: VX014310.D
Acq: 27 Dec 2019 15:44

Tgt Ion:117 Resp: 720729

Ion	Ratio	Lower	Upper
117	100		
82	52.7	42.2	63.4
119	31.8	25.1	37.7



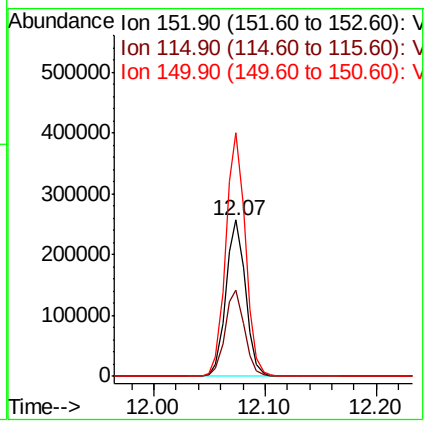
Instrument :
MSVOA_X
ClientSampleId :
1001-FB122019



#72
1,4-Dichlorobenzene-d4
Concen: 50.000 ug/l
RT: 12.07 min Scan# 1835
Delta R.T. 0.00 min
Lab File: VX014310.D
Acq: 27 Dec 2019 15:44

Tgt Ion:152 Resp: 310917

Ion	Ratio	Lower	Upper
152	100		
115	54.8	38.3	114.9
150	155.8	0.0	345.4



LSC Area Percent Report

Data Path : Z:\VOASRV\HPCHEM1\MSVOA X\DATA\VX122719\
Data File : VX014310.D
Acq On : 27 Dec 2019 15:44
Operator : JC/SP
Sample : K6405-13
Misc : 5.0mL/MSVOA X/WATER
ALS Vial : 10 Sample Multiplier: 1

Instrument : MSVOA_X
ClientSampleId : 1001-FB122019

Integration Parameters: RTEINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 3 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121319W.M
Title : SW846 8260

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	1.070	26	30	37	rBV	472111	593947	24.00%	4.221%
2	1.265	58	62	69	rBV	46556	63329	2.56%	0.450%
3	1.600	109	117	120	rVB8	30777	56992	2.30%	0.405%
4	2.429	248	253	260	rVB	26220	39510	1.60%	0.281%
5	2.588	274	279	289	rVB	72883	130206	5.26%	0.925%
6	2.850	317	322	327	rVB3	13556	26981	1.09%	0.192%
7	5.490	743	755	766	rBV	275412	789802	31.92%	5.613%
8	5.654	772	782	797	rVB	505900	1391557	56.24%	9.889%
9	6.057	838	848	860	rVB	311837	814485	32.92%	5.788%
10	6.849	967	978	990	rBV	768001	1811777	73.22%	12.875%
11	8.709	1276	1283	1293	rBV	1623658	2474456	100.00%	17.584%
12	9.575	1421	1425	1430	rBV2	24075	33232	1.34%	0.236%
13	10.111	1507	1513	1524	rBV	1520067	2103790	85.02%	14.950%
14	11.135	1675	1681	1690	rVB	1203775	1549003	62.60%	11.008%
15	12.074	1829	1835	1842	rBV	1468163	1811492	73.21%	12.873%
16	12.269	1862	1867	1880	rBV	230618	348039	14.07%	2.473%
17	13.147	2004	2011	2018	rBV3	18145	33457	1.35%	0.238%

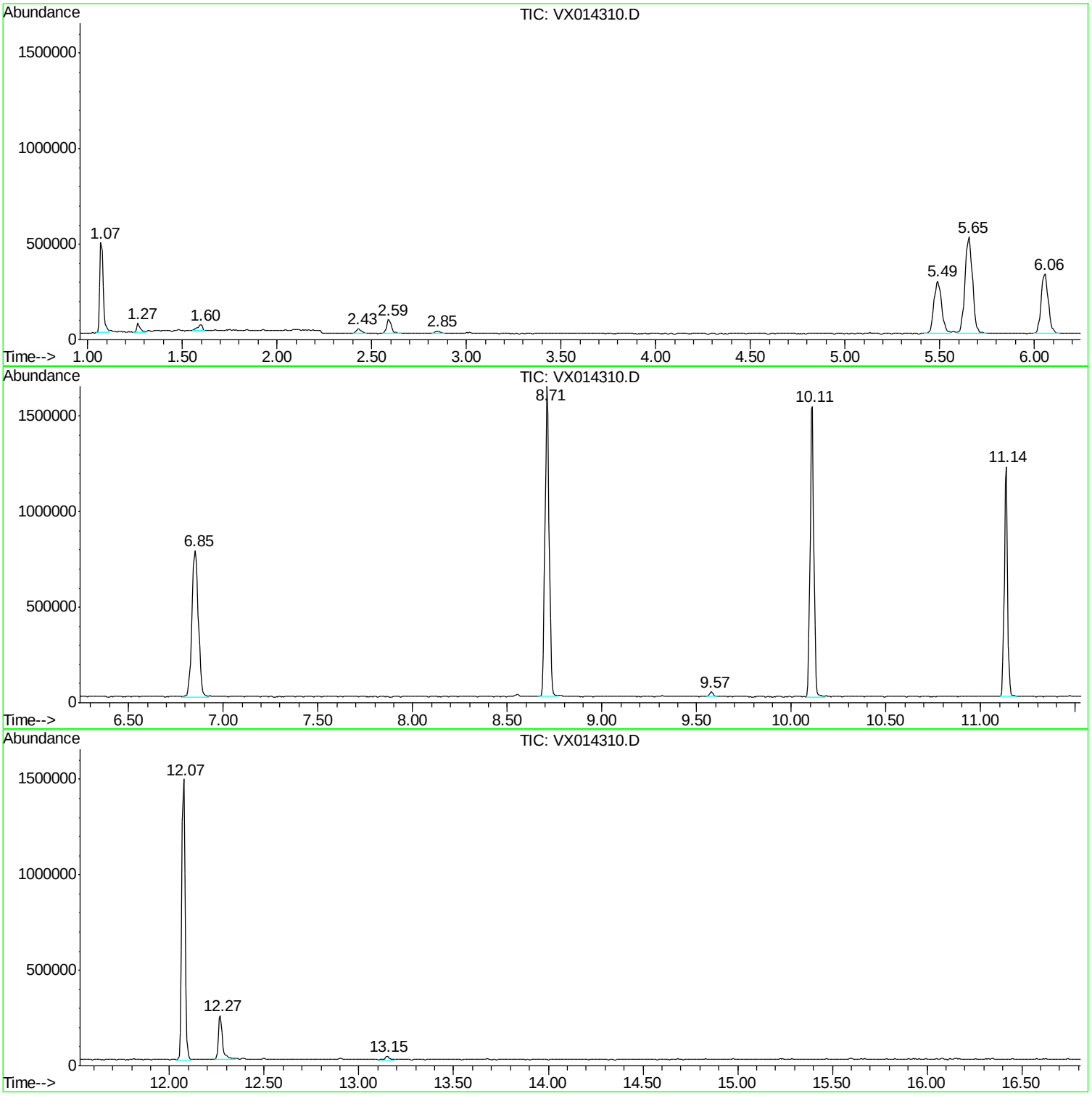
Sum of corrected areas: 14072055

Data Path : Z:\VOASRV\HPCHEM1\MSVOA X\DATA\VX122719\
Data File : VX014310.D
Acq On : 27 Dec 2019 15:44
Operator : JC/SP
Sample : K6405-13
Misc : 5.0mL/MSVOA X/WATER
ALS Vial : 10 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
1001-FB122019

Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121319W.M
Quant Title : SW846 8260

TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P



Library Search Compound Report

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX122719\
Data File : VX014310.D
Acq On : 27 Dec 2019 15:44
Operator : JC/SP
Sample : K6405-13
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 10 Sample Multiplier: 1

Instrument : MSVOA_X
ClientSampleId : 1001-FB122019

Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121319W.M
Quant Title : SW846 8260

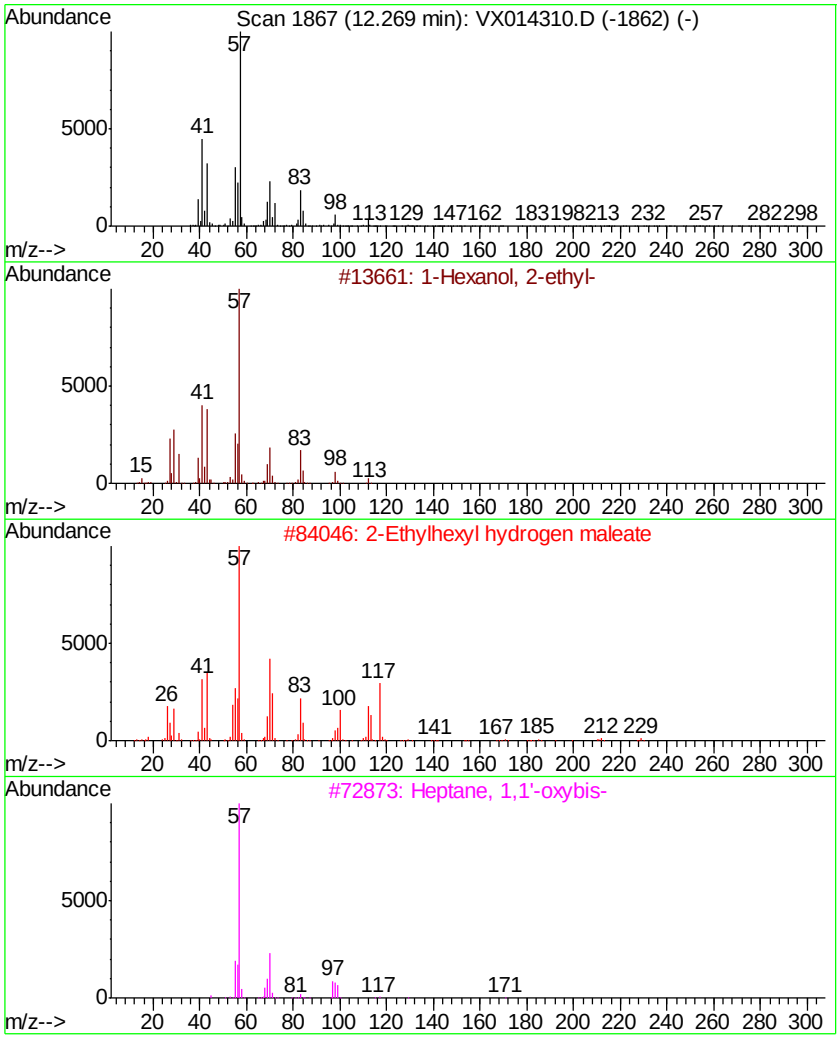
TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

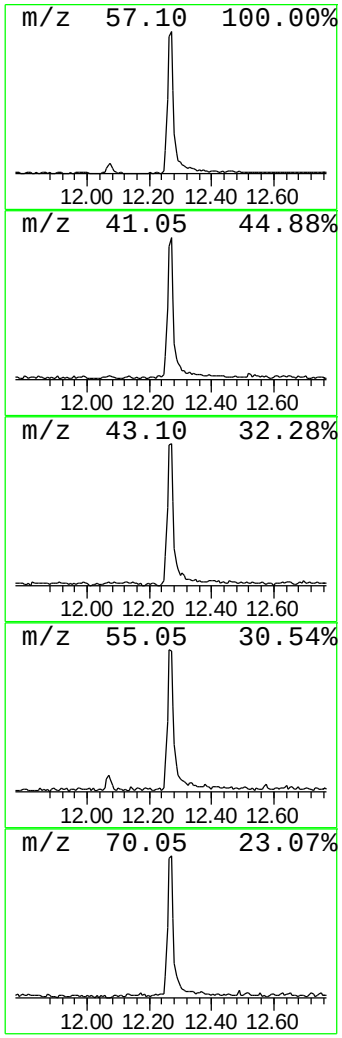
****

Peak Number 2 1-Hexanol, 2-ethyl- Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
12.27	9.61 ug/l	348039	1,4-Dichlorobenzene-d4	12.07

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	1-Hexanol, 2-ethyl-	130	C8H18O	000104-76-7	72
2	2-Ethylhexyl hydrogen maleate	228	C12H20O4	002370-71-0	53
3	Heptane, 1,1'-oxybis-	214	C14H30O	000629-64-1	53
4	1-Pentanol, 2-ethyl-4-methyl-	130	C8H18O	000106-67-2	50
5	2-Propyl-1-pentanol	130	C8H18O	058175-57-8	50





Tentatively Identified Compound (LSC) summary

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX122719\
Data File : VX014310.D
Acq On : 27 Dec 2019 15:44
Operator : JC/SP
Sample : K6405-13
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 10 Sample Multiplier: 1

Instrument : MSVOA_X
ClientSampleId : 1001-FB122019

Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121319W.M
Quant Title : SW846 8260

TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

					Internal Standard			
TIC Top Hit name	RT	EstConc	Units	Response	#	RT	Resp	Conc
1-Hexanol, 2-ethyl-	12.27	9.6	ug/l	348039	4	12.07	1811490	50.0

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Day Environmental, Inc.	Date Collected:	12/20/19
Project:	Andrew St. RI	Date Received:	12/21/19
Client Sample ID:	1002-TB122019	SDG No.:	K6405
Lab Sample ID:	K6405-14	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	DB-624UI ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX014265.D	1		12/26/19 13:38	VX122619

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
75-71-8	Dichlorodifluoromethane	1.00	U	0.22	1.00	ug/L
74-87-3	Chloromethane	1.00	U	0.30	1.00	ug/L
75-01-4	Vinyl Chloride	1.00	U	0.16	1.00	ug/L
74-83-9	Bromomethane	5.00	U	2.10	5.00	ug/L
75-00-3	Chloroethane	1.00	U	0.34	1.00	ug/L
75-69-4	Trichlorofluoromethane	1.00	U	0.16	1.00	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	1.00	U	0.21	1.00	ug/L
75-35-4	1,1-Dichloroethene	1.00	U	0.18	1.00	ug/L
67-64-1	Acetone	5.00	U	0.90	5.00	ug/L
75-15-0	Carbon Disulfide	1.00	U	0.23	1.00	ug/L
1634-04-4	Methyl tert-butyl Ether	1.00	U	0.070	1.00	ug/L
79-20-9	Methyl Acetate	1.00	U	0.65	1.00	ug/L
75-09-2	Methylene Chloride	1.00	U	0.33	1.00	ug/L
156-60-5	trans-1,2-Dichloroethene	1.00	U	0.24	1.00	ug/L
75-34-3	1,1-Dichloroethane	1.00	U	0.17	1.00	ug/L
110-82-7	Cyclohexane	5.00	U	1.20	5.00	ug/L
78-93-3	2-Butanone	5.00	U	0.71	5.00	ug/L
56-23-5	Carbon Tetrachloride	1.00	U	0.22	1.00	ug/L
156-59-2	cis-1,2-Dichloroethene	1.00	U	0.30	1.00	ug/L
74-97-5	Bromochloromethane	1.00	U	0.31	1.00	ug/L
67-66-3	Chloroform	1.00	U	0.14	1.00	ug/L
71-55-6	1,1,1-Trichloroethane	1.00	U	0.12	1.00	ug/L
108-87-2	Methylcyclohexane	1.00	U	0.17	1.00	ug/L
71-43-2	Benzene	1.00	U	0.10	1.00	ug/L
107-06-2	1,2-Dichloroethane	1.00	U	0.13	1.00	ug/L
79-01-6	Trichloroethene	1.00	U	0.27	1.00	ug/L
78-87-5	1,2-Dichloropropane	1.00	U	0.14	1.00	ug/L
75-27-4	Bromodichloromethane	1.00	U	0.10	1.00	ug/L
108-10-1	4-Methyl-2-Pentanone	5.00	U	0.85	5.00	ug/L
108-88-3	Toluene	1.00	U	0.12	1.00	ug/L
10061-02-6	t-1,3-Dichloropropene	1.00	U	0.19	1.00	ug/L
10061-01-5	cis-1,3-Dichloropropene	1.00	U	0.16	1.00	ug/L

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Day Environmental, Inc.	Date Collected:	12/20/19
Project:	Andrew St. RI	Date Received:	12/21/19
Client Sample ID:	1002-TB122019	SDG No.:	K6405
Lab Sample ID:	K6405-14	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	DB-624UI ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX014265.D	1		12/26/19 13:38	VX122619

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
79-00-5	1,1,2-Trichloroethane	1.00	U	0.12	1.00	ug/L
591-78-6	2-Hexanone	5.00	U	1.40	5.00	ug/L
124-48-1	Dibromochloromethane	1.00	U	0.16	1.00	ug/L
106-93-4	1,2-Dibromoethane	1.00	U	0.14	1.00	ug/L
127-18-4	Tetrachloroethene	1.00	U	0.15	1.00	ug/L
108-90-7	Chlorobenzene	1.00	U	0.080	1.00	ug/L
100-41-4	Ethyl Benzene	1.00	U	0.080	1.00	ug/L
179601-23-1	m/p-Xylenes	2.00	U	0.20	2.00	ug/L
95-47-6	o-Xylene	1.00	U	0.13	1.00	ug/L
100-42-5	Styrene	1.00	U	0.11	1.00	ug/L
75-25-2	Bromoform	1.00	U	0.15	1.00	ug/L
98-82-8	Isopropylbenzene	1.00	U	0.13	1.00	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	1.00	U	0.15	1.00	ug/L
541-73-1	1,3-Dichlorobenzene	1.00	U	0.14	1.00	ug/L
106-46-7	1,4-Dichlorobenzene	1.00	U	0.20	1.00	ug/L
95-50-1	1,2-Dichlorobenzene	1.00	U	0.12	1.00	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	1.00	U	0.54	1.00	ug/L
120-82-1	1,2,4-Trichlorobenzene	1.00	U	0.24	1.00	ug/L
87-61-6	1,2,3-Trichlorobenzene	1.00	U	0.26	1.00	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	49.7		61 - 141	99%	SPK: 50
1868-53-7	Dibromofluoromethane	48.9		69 - 133	98%	SPK: 50
2037-26-5	Toluene-d8	50.1		65 - 126	100%	SPK: 50
460-00-4	4-Bromofluorobenzene	46.2		58 - 135	92%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	540000	5.65			
540-36-3	1,4-Difluorobenzene	841000	6.85			
3114-55-4	Chlorobenzene-d5	753000	10.11			
3855-82-1	1,4-Dichlorobenzene-d4	333000	12.07			

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Day Environmental, Inc.	Date Collected:	12/20/19
Project:	Andrew St. RI	Date Received:	12/21/19
Client Sample ID:	1002-TB122019	SDG No.:	K6405
Lab Sample ID:	K6405-14	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	DB-624UI ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX014265.D	1		12/26/19 13:38	VX122619

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit
A = Aldol-Condensation Reaction Products

Quantitation Report (LSC Reviewed)

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX122619\
Data File : VX014265.D
Acq On : 26 Dec 2019 13:38
Operator : JC/SP
Sample : K6405-14
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 8 Sample Multiplier: 1

Instrument : MSVOA_X
ClientSampleId : 1002-TB122019

Quant Time: Dec 27 06:51:17 2019
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121319W.M
Quant Title : SW846 8260
QLast Update : Tue Dec 17 03:01:07 2019
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	5.65	168	540463	50.00	ug/l	0.00
34) 1,4-Difluorobenzene	6.85	114	841355	50.00	ug/l	0.00
63) Chlorobenzene-d5	10.11	117	752846	50.00	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	12.07	152	332840	50.00	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	6.05	65	304615	49.73	ug/l	0.00
Spiked Amount 50.000			Recovery = 99.46%			
35) Dibromofluoromethane	5.49	113	250140	48.91	ug/l	0.00
Spiked Amount 50.000			Recovery = 97.82%			
50) Toluene-d8	8.71	98	997476	50.09	ug/l	0.00
Spiked Amount 50.000			Recovery = 100.18%			
62) 4-Bromofluorobenzene	11.13	95	336472	46.23	ug/l	0.00
Spiked Amount 50.000			Recovery = 92.46%			

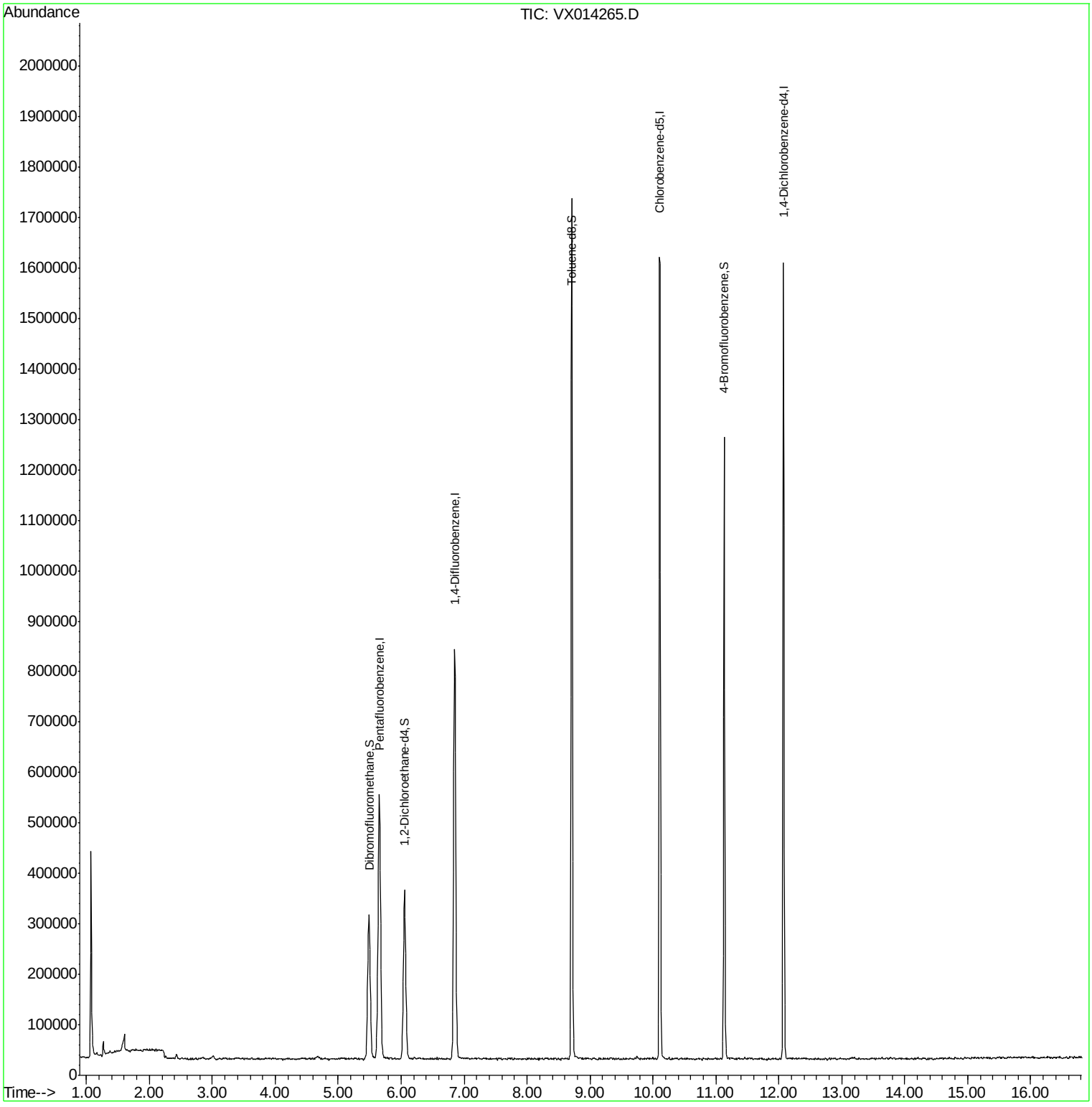
Target Compounds	Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

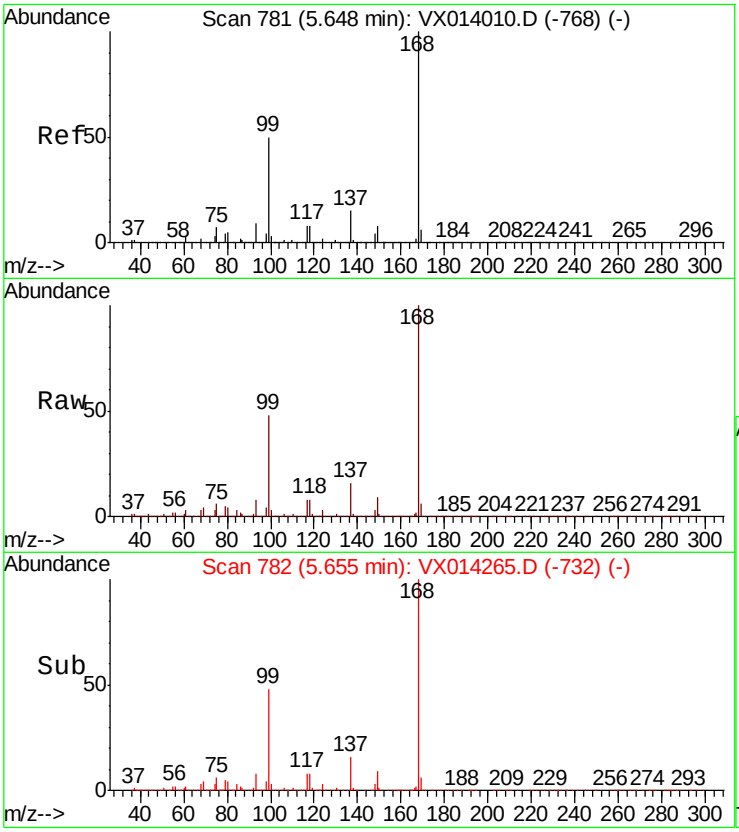
Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX122619\
Data File : VX014265.D
Acq On : 26 Dec 2019 13:38
Operator : JC/SP
Sample : K6405-14
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 8 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
1002-TB122019

Quant Time: Dec 27 06:51:17 2019
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121319W.M
Quant Title : SW846 8260
QLast Update : Tue Dec 17 03:01:07 2019
Response via : Initial Calibration



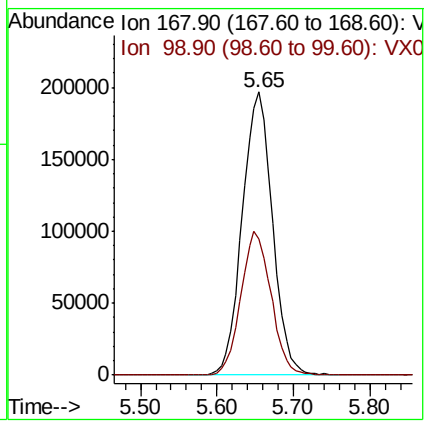
Instrument :
MSVOA_X
ClientSampleId :
1002-TB122019

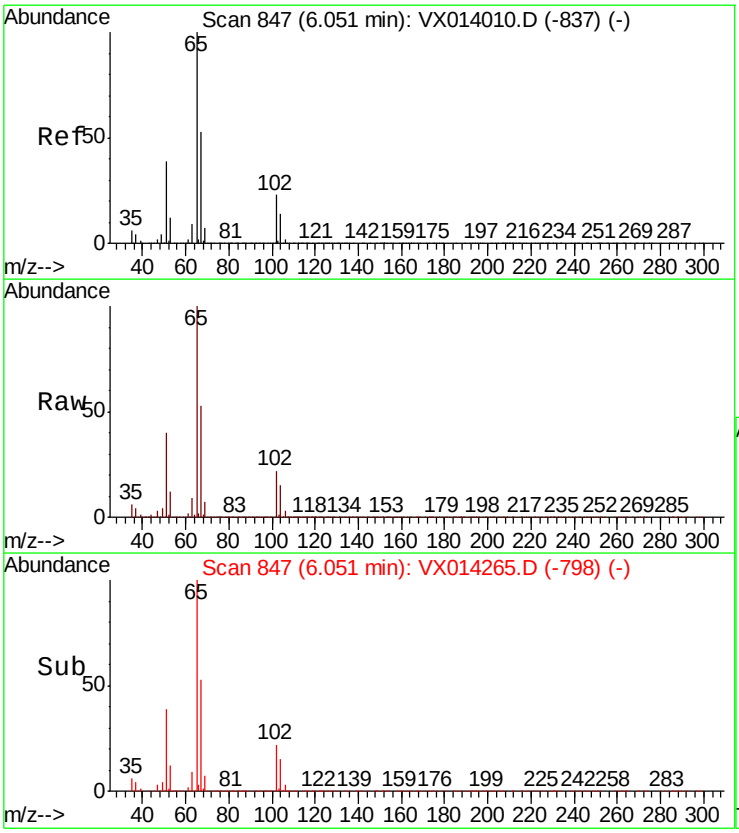


#1
Pentafluorobenzene
Concen: 50.000 ug/l
RT: 5.65 min Scan# 782
Delta R.T. 0.01 min
Lab File: VX014265.D
Acq: 26 Dec 2019 13:38

Tgt Ion:168 Resp: 540463

Ion	Ratio	Lower	Upper
168	100		
99	48.3	40.3	60.5

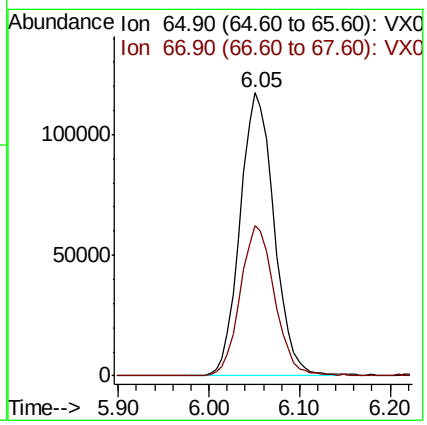




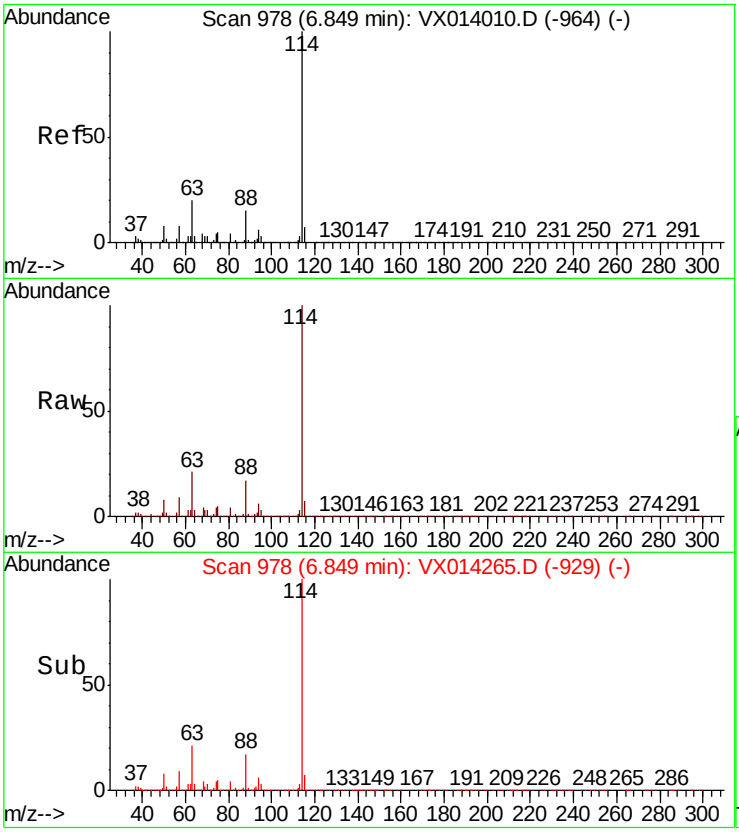
#33
1,2-Dichloroethane-d4
Concen: 49.730 ug/l
RT: 6.05 min Scan# 847
Delta R.T. 0.00 min
Lab File: VX014265.D
Acq: 26 Dec 2019 13:38

Tgt Ion: 65 Resp: 304615

Ion	Ratio	Lower	Upper
65	100		
67	53.6	0.0	106.4



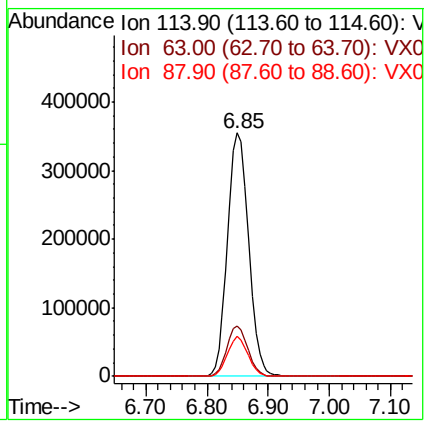
Instrument :
MSVOA_X
ClientSampleId :
1002-TB122019

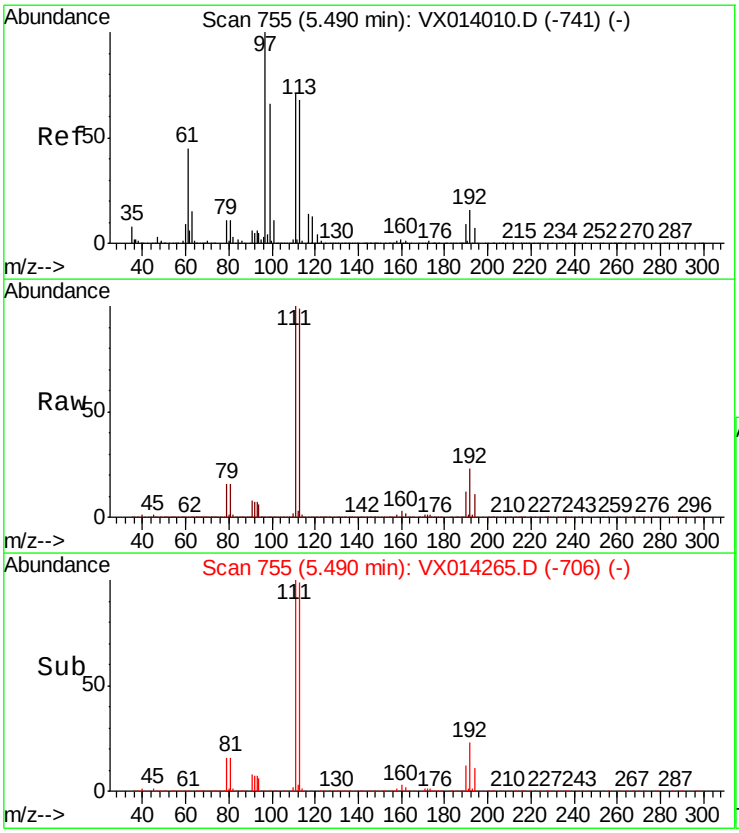


#34
1,4-Difluorobenzene
Concen: 50.000 ug/l
RT: 6.85 min Scan# 978
Delta R.T. 0.00 min
Lab File: VX014265.D
Acq: 26 Dec 2019 13:38

Tgt Ion:114 Resp: 841355

Ion	Ratio	Lower	Upper
114	100		
63	20.6	0.0	40.8
88	16.6	0.0	30.4

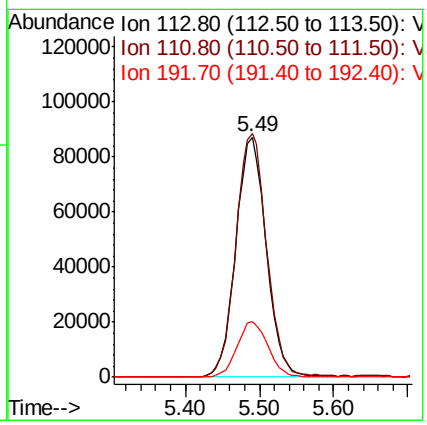




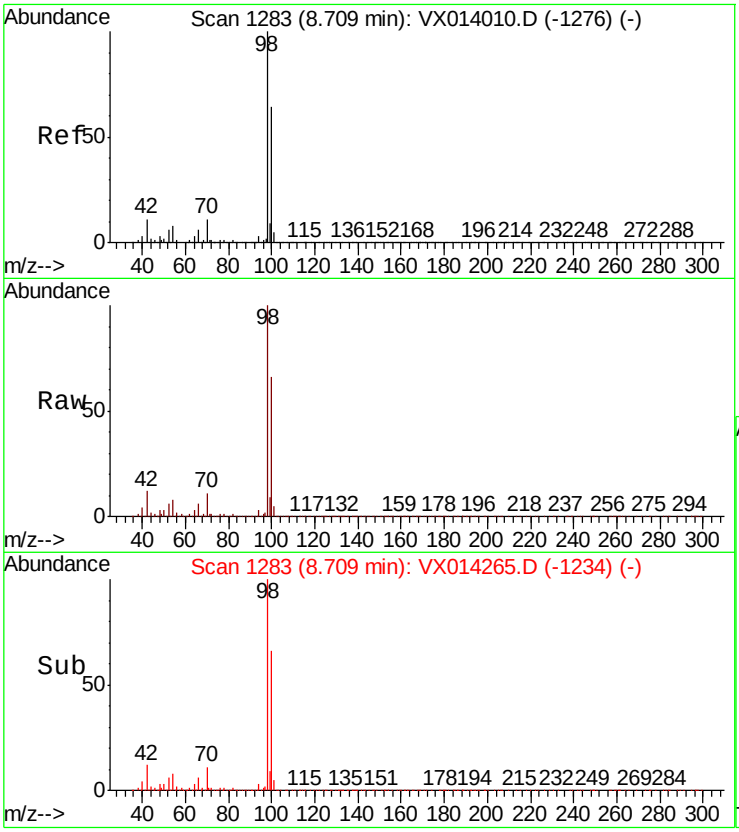
#35
Dibromofluoromethane
Concen: 48.908 ug/l
RT: 5.49 min Scan# 755
Delta R.T. 0.00 min
Lab File: VX014265.D
Acq: 26 Dec 2019 13:38

Tgt Ion:113 Resp: 250140

Ion	Ratio	Lower	Upper
113	100		
111	102.0	82.0	123.0
192	23.1	19.3	28.9



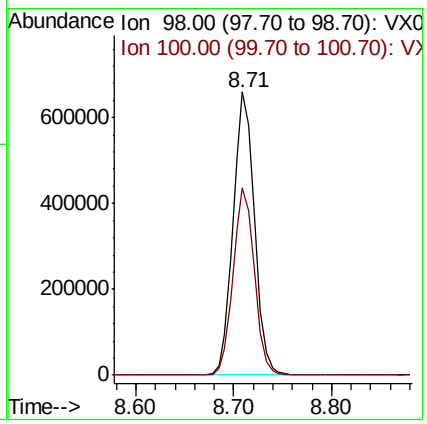
Instrument :
MSVOA_X
ClientSampleId :
1002-TB122019

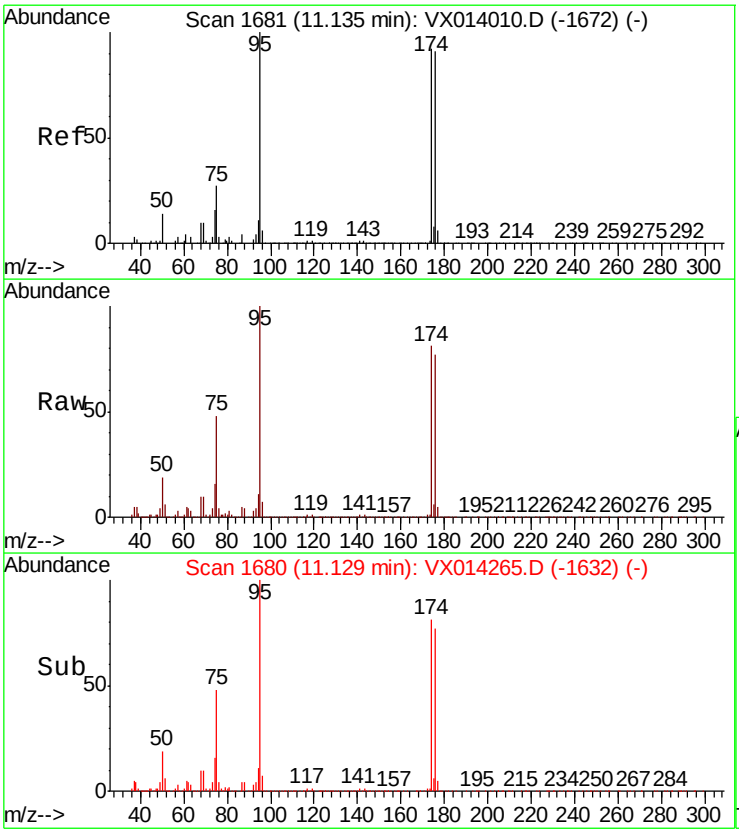


#50
Toluene-d8
Concen: 50.094 ug/l
RT: 8.71 min Scan# 1283
Delta R.T. 0.00 min
Lab File: VX014265.D
Acq: 26 Dec 2019 13:38

Tgt Ion: 98 Resp: 997476

Ion	Ratio	Lower	Upper
98	100		
100	65.7	52.9	79.3

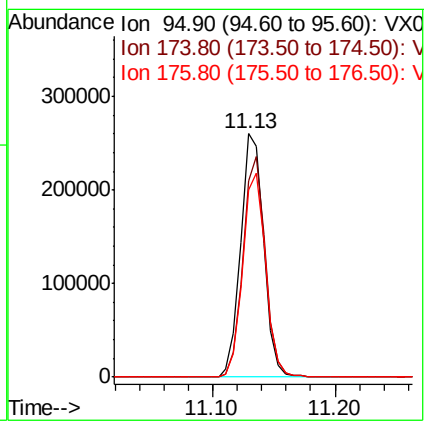




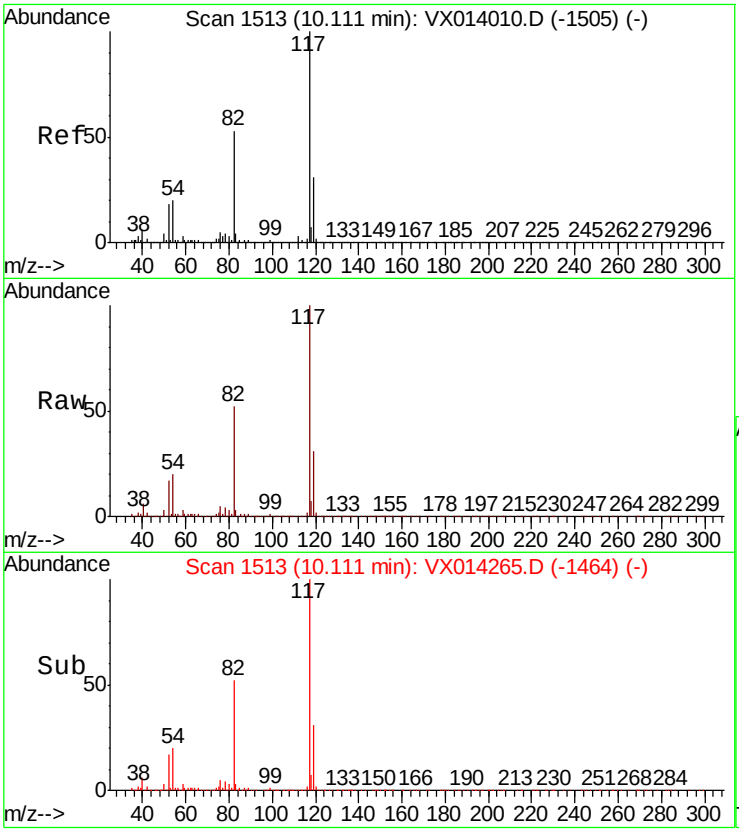
#62
4-Bromofluorobenzene
Concen: 46.227 ug/l
RT: 11.13 min Scan# 1680
Delta R.T. -0.01 min
Lab File: VX014265.D
Acq: 26 Dec 2019 13:38

Tgt Ion: 95 Resp: 336472

Ion	Ratio	Lower	Upper
95	100		
174	88.9	0.0	175.8
176	84.1	0.0	173.0



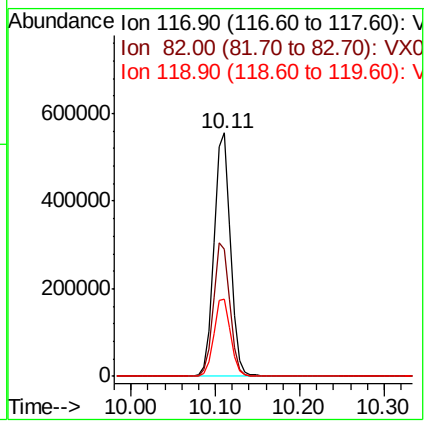
Instrument :
MSVOA_X
ClientSampleId :
1002-TB122019

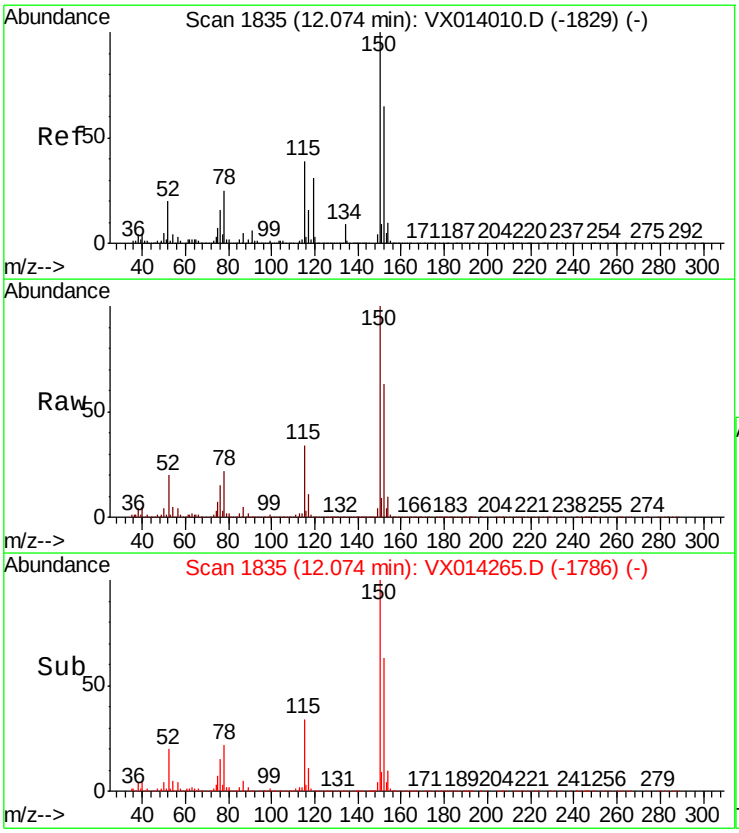


#63
Chlorobenzene-d5
Concen: 50.000 ug/l
RT: 10.11 min Scan# 1513
Delta R.T. 0.00 min
Lab File: VX014265.D
Acq: 26 Dec 2019 13:38

Tgt Ion:117 Resp: 752846

Ion	Ratio	Lower	Upper
117	100		
82	52.4	42.2	63.4
119	31.4	25.1	37.7

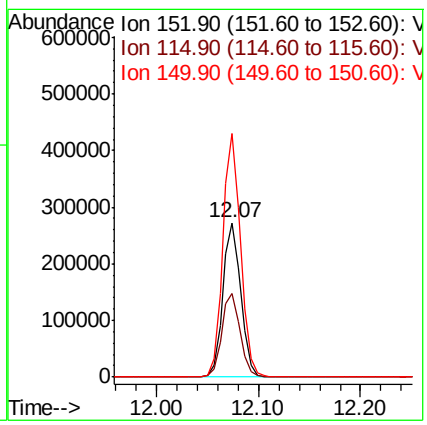




#72
1,4-Dichlorobenzene-d4
Concen: 50.000 ug/l
RT: 12.07 min Scan# 1835
Delta R.T. 0.00 min
Lab File: VX014265.D
Acq: 26 Dec 2019 13:38

Tgt Ion:152 Resp: 332840

Ion	Ratio	Lower	Upper
152	100		
115	55.2	38.3	114.9
150	155.9	0.0	345.4



LSC Area Percent Report

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX122619\
Data File : VX014265.D
Acq On : 26 Dec 2019 13:38
Operator : JC/SP
Sample : K6405-14
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 8 Sample Multiplier: 1

Instrument : MSVOA_X
ClientSampleId : 1002-TB122019

Integration Parameters: RTEINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 3 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121319W.M
Title : SW846 8260

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	1.070	26	30	41	rBV	408171	526601	20.32%	3.748%
2	1.265	59	62	69	rBV	31334	51581	1.99%	0.367%
3	1.600	109	117	122	rVB	33034	65583	2.53%	0.467%
4	5.490	743	755	767	rBV	286349	827368	31.92%	5.889%
5	5.655	771	782	796	rVV	522724	1447174	55.84%	10.301%
6	6.051	837	847	860	rVB	335263	862429	33.28%	6.139%
7	6.849	965	978	994	rBV	812857	1902961	73.43%	13.545%
8	8.709	1276	1283	1292	rBV	1706352	2591615	100.00%	18.447%
9	10.105	1507	1512	1520	rBV	1588116	2190052	84.51%	15.589%
10	11.129	1675	1680	1689	rBV	1231450	1636804	63.16%	11.651%
11	12.074	1829	1835	1845	rBV	1579042	1946806	75.12%	13.857%

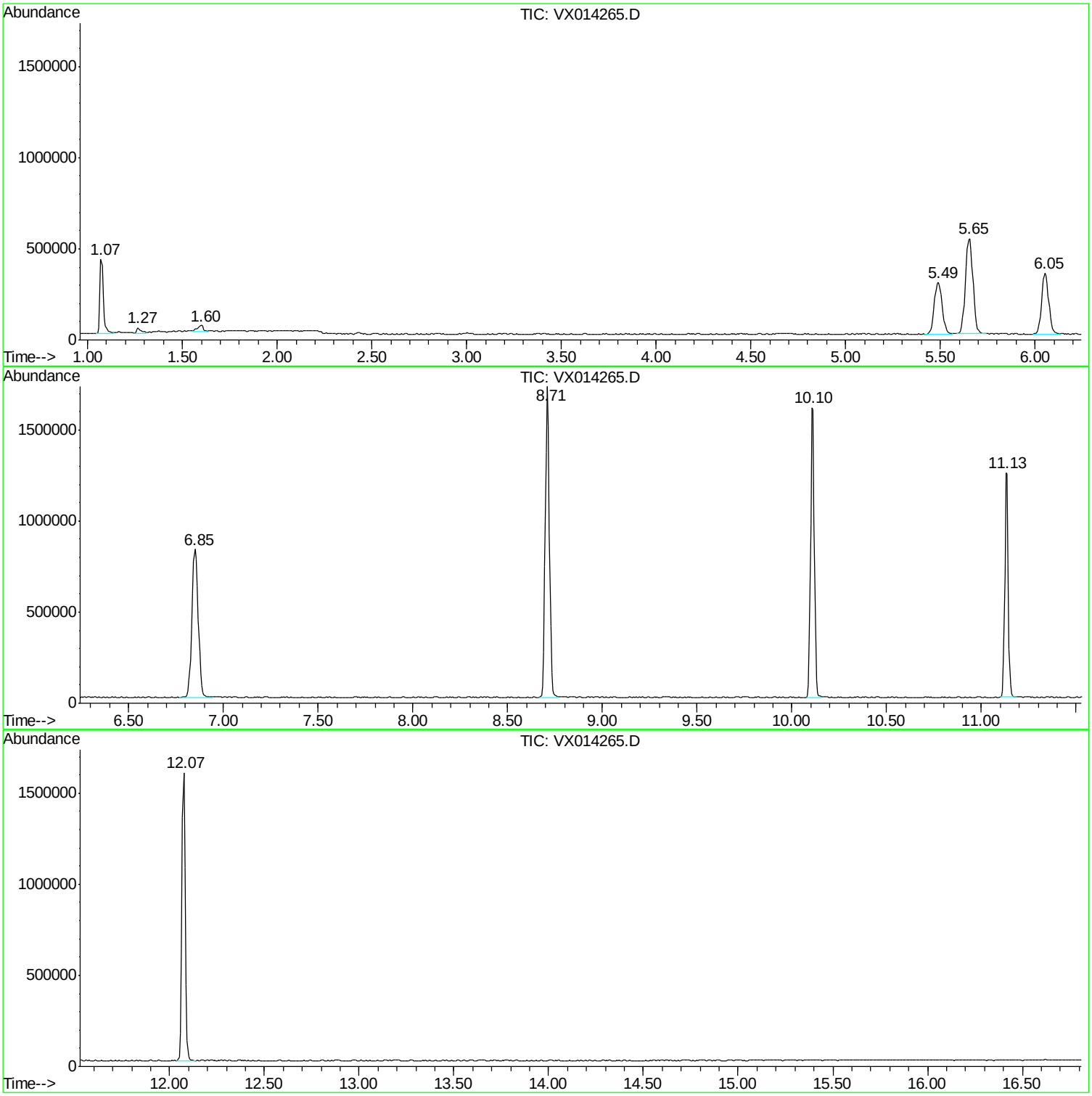
Sum of corrected areas: 14048974

Data Path : Z:\VOASRV\HPCHEM1\MSVOA X\DATA\VX122619\
Data File : VX014265.D
Acq On : 26 Dec 2019 13:38
Operator : JC/SP
Sample : K6405-14
Misc : 5.0mL/MSVOA X/WATER
ALS Vial : 8 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
1002-TB122019

Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121319W.M
Quant Title : SW846 8260

TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P



Library Search Compound Report

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX122619\
Data File : VX014265.D
Acq On : 26 Dec 2019 13:38
Operator : JC/SP
Sample : K6405-14
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 8 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
1002-TB122019

Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121319W.M
Quant Title : SW846 8260

TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

No Library Search Compounds Detected

****

Tentatively Identified Compound (LSC) summary

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX122619\
Data File : VX014265.D
Acq On : 26 Dec 2019 13:38
Operator : JC/SP
Sample : K6405-14
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 8 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
1002-TB122019

Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121319W.M
Quant Title : SW846 8260

TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

TIC Top Hit name	RT	EstConc	Units	Response	Internal Standard #	Internal Standard RT	Internal Standard Resp	Internal Standard Conc

CALIBRATION SUMMARY

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: CHEMTECH Contract: DAYE01

Lab Code: CHEM Case No.: K6405 SAS No.: K6405 SDG No.: K6405

Instrument ID: MSVOA_X Calibration Date(s): 12/13/2019 12/13/2019

Heated Purge: (Y/N) N Calibration Time(s): 14:49 16:45

GC Column: DB-624UI ID: 0.18 (mm)

LAB FILE ID: RRF001 = VX014007.D RRF005 = VX014008.D RRF020 = VX014009.D
RRF050 = VX014010.D RRF100 = VX014011.D RRF150 = VX014012.D

COMPOUND	RRF001	RRF005	RRF020	RRF050	RRF100	RRF150	$\overline{RRF}$	% RSD
Dichlorodifluoromethane	0.477	0.447	0.446	0.431	0.441	0.442	0.447	3.5
Chloromethane	0.668	0.604	0.599	0.583	0.571	0.577	0.600	5.9
Vinyl Chloride	0.767	0.606	0.615	0.603	0.608	0.602	0.633	10.4
Bromomethane		0.513	0.434	0.414	0.432	0.454	0.450	8.5
Chloroethane	0.457	0.403	0.377	0.373	0.369	0.366	0.391	9
Trichlorofluoromethane	0.889	0.764	0.766	0.753	0.762	0.771	0.784	6.6
1,1,2-Trichlorotrifluoroethane	0.521	0.489	0.459	0.449	0.456	0.462	0.473	5.8
1,1-Dichloroethene	0.532	0.487	0.459	0.457	0.471	0.479	0.481	5.7
Acetone	0.397	0.332	0.394	0.366	0.365	0.354	0.368	6.7
Carbon Disulfide	1.891	1.351	1.288	1.290	1.324	1.363	1.418	16.5
Methyl tert-butyl Ether	1.649	1.571	1.550	1.545	1.569	1.600	1.580	2.5
Methyl Acetate	0.801	0.708	0.702	0.690	0.731	0.742	0.729	5.5
Methylene Chloride	0.735	0.604	0.546	0.523	0.531	0.538	0.579	14
trans-1,2-Dichloroethene	0.629	0.532	0.502	0.496	0.509	0.511	0.530	9.4
1,1-Dichloroethane	1.111	0.946	0.903	0.899	0.922	0.932	0.952	8.4
Cyclohexane		0.850	0.840	0.839	0.846	0.859	0.847	0.9
2-Butanone	0.439	0.450	0.473	0.450	0.456	0.454	0.454	2.5
Carbon Tetrachloride	0.429	0.394	0.402	0.418	0.426	0.439	0.418	4.1
cis-1,2-Dichloroethene	0.703	0.573	0.576	0.568	0.582	0.593	0.599	8.6
Bromochloromethane	0.286	0.222	0.374	0.371	0.371	0.366	0.332	19.1
Chloroform	0.989	0.885	0.883	0.878	0.882	0.898	0.903	4.8
1,1,1-Trichloroethane	0.844	0.750	0.738	0.743	0.764	0.776	0.769	5.1
Methylcyclohexane	0.628	0.539	0.552	0.548	0.560	0.572	0.566	5.6
Benzene	1.587	1.419	1.367	1.353	1.369	1.374	1.412	6.3
1,2-Dichloroethane	0.491	0.503	0.480	0.459	0.466	0.471	0.479	3.5
Trichloroethene	0.477	0.386	0.361	0.362	0.374	0.379	0.390	11.2
1,2-Dichloropropane	0.391	0.365	0.355	0.348	0.354	0.357	0.362	4.2
Bromodichloromethane	0.480	0.419	0.429	0.444	0.460	0.472	0.451	5.3
4-Methyl-2-Pentanone	0.510	0.545	0.527	0.515	0.528	0.534	0.527	2.4
Toluene	1.011	0.885	0.870	0.858	0.860	0.870	0.892	6.6
t-1,3-Dichloropropene	0.466	0.425	0.478	0.508	0.534	0.553	0.494	9.5
cis-1,3-Dichloropropene	0.520	0.497	0.546	0.562	0.580	0.597	0.550	6.8
1,1,2-Trichloroethane	0.398	0.345	0.357	0.345	0.347	0.354	0.358	5.8

* Compounds with required minimum RRF and maximum %RSD values.
All other compounds must meet a minimum RRF of 0.010.
RRF of 1,4-Dioxane = Value should be divide by 1000.

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: CHEMTECH Contract: DAYE01

Lab Code: CHEM Case No.: K6405 SAS No.: K6405 SDG No.: K6405

Instrument ID: MSVOA_X Calibration Date(s): 12/13/2019 12/13/2019

Heated Purge: (Y/N) N Calibration Time(s): 14:49 16:45

GC Column: DB-624UI ID: 0.18 (mm)

LAB FILE ID: RRF001 = VX014007.D RRF005 = VX014008.D RRF020 = VX014009.D
RRF050 = VX014010.D RRF100 = VX014011.D RRF150 = VX014012.D

COMPOUND	RRF001	RRF005	RRF020	RRF050	RRF100	RRF150	$\overline{RRF}$	% RSD
2-Hexanone	0.385	0.421	0.439	0.426	0.437	0.435	0.424	4.8
Dibromochloromethane	0.330	0.321	0.346	0.361	0.380	0.394	0.355	8
1,2-Dibromoethane	0.388	0.344	0.362	0.361	0.366	0.374	0.366	4
Tetrachloroethene	0.489	0.418	0.403	0.424	0.472	0.449	0.442	7.6
Chlorobenzene	1.214	1.071	1.027	1.016	1.024	1.028	1.063	7.2
Ethyl Benzene	1.986	1.800	1.789	1.809	1.789	1.794	1.828	4.3
m/p-Xylenes	0.764	0.693	0.683	0.689	0.694	0.695	0.703	4.3
o-Xylene	0.742	0.689	0.667	0.676	0.678	0.685	0.689	3.9
Styrene	1.222	1.076	1.125	1.172	1.187	1.213	1.166	4.8
Bromoform	0.287	0.260	0.280	0.310	0.337	0.356	0.305	12
Isopropylbenzene	3.867	3.577	3.530	3.471	3.394	3.284	3.520	5.6
1,1,2,2-Tetrachloroethane	1.306	1.258	1.224	1.194	1.179	1.162	1.220	4.4
1,3-Dichlorobenzene	2.043	1.661	1.617	1.602	1.634	1.630	1.698	10
1,4-Dichlorobenzene	2.201	1.698	1.598	1.595	1.629	1.636	1.726	13.6
1,2-Dichlorobenzene	2.038	1.727	1.632	1.627	1.623	1.607	1.709	9.7
1,2-Dibromo-3-Chloropropane	0.346	0.265	0.246	0.252	0.258	0.253	0.270	13.9
1,2,4-Trichlorobenzene	1.309	0.998	1.013	1.076	1.131	1.138	1.111	10.2
1,2,3-Trichlorobenzene	1.218	1.011	1.035	1.088	1.120	1.107	1.096	6.7
1,2-Dichloroethane-d4		0.620	0.520	0.554	0.563	0.577	0.567	6.4
Dibromofluoromethane		0.322	0.276	0.301	0.306	0.315	0.304	5.8
Toluene-d8		1.238	1.102	1.191	1.190	1.196	1.183	4.2
4-Bromofluorobenzene		0.436	0.387	0.434	0.446	0.461	0.433	6.4

* Compounds with required minimum RRF and maximum %RSD values.
All other compounds must meet a minimum RRF of 0.010.
RRF of 1,4-Dioxane = Value should be divide by 1000.

Response Factor Report MSVOA_X

Method Path : Z:\VOASRV\HPCHEM1\MSVOA X\METHOD\
Method File : 82X121319W.M
Title : SW846 8260
Last Update : Tue Dec 17 03:01:07 2019
Response Via : Initial Calibration

Calibration Files
1 =VX014007.D 5 =VX014008.D 20 =VX014009.D
50 =VX014010.D 100 =VX014011.D 150 =VX014012.D

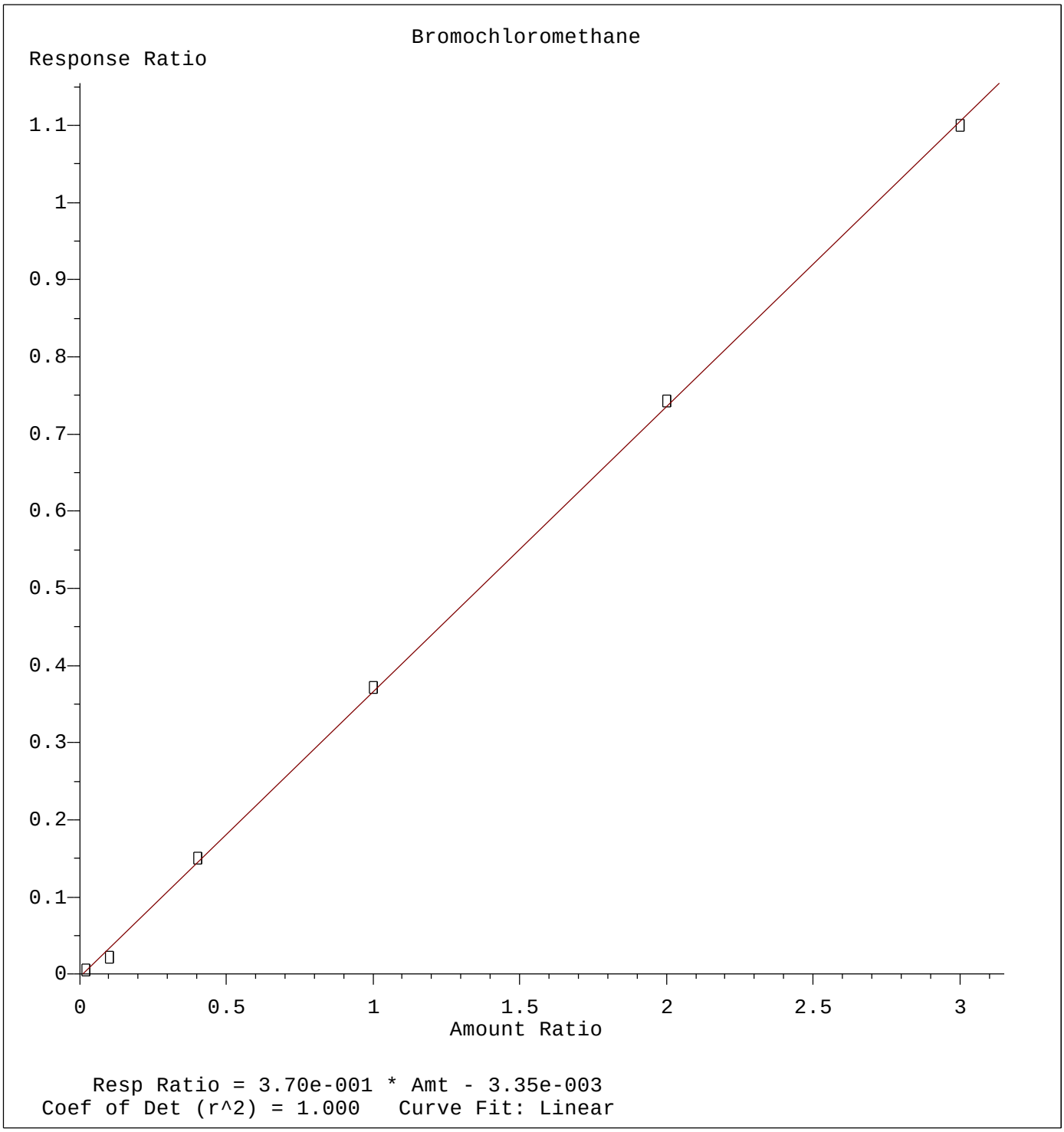
		Compound	1	5	20	50	100	150	Avg	%RSD
1)	I	Pentafluorobenzene	----------	ISTD	----------					
2)	T	Dichlorodifluorom	0.477	0.447	0.446	0.431	0.441	0.442	0.447	3.52
3)	P	Chloromethane	0.668	0.604	0.599	0.583	0.571	0.577	0.600	5.91
4)	C	Vinyl Chloride	0.767	0.606	0.615	0.603	0.608	0.602	0.633	10.36#
5)	T	Bromomethane		0.513	0.434	0.414	0.432	0.454	0.450	8.54
6)	T	Chloroethane	0.457	0.403	0.377	0.373	0.369	0.366	0.391	8.98
7)	T	Trichlorofluorome	0.889	0.764	0.766	0.753	0.762	0.771	0.784	6.58
8)	T	Diethyl Ether	0.446	0.372	0.349	0.345	0.345	0.351	0.368	10.75
9)	T	1,1,2-Trichlorotr	0.521	0.489	0.459	0.449	0.456	0.462	0.473	5.80
10)	T	Methyl Iodide		0.427	0.541	0.612	0.651	0.643	0.575	16.27
11)	T	Tert butyl alcoho		0.150	0.116	0.112	0.116	0.119	0.122	12.57
12)	CM	1,1-Dichloroethen	0.532	0.487	0.459	0.457	0.471	0.479	0.481	5.72#
13)	T	Acrolein		0.068	0.062	0.065	0.073	0.083	0.070	12.01
14)	T	Allyl chloride	0.925	0.814	0.839	0.834	0.863	0.878	0.859	4.57
15)	T	Acrylonitrile	0.300	0.294	0.280	0.272	0.281	0.287	0.286	3.52
16)	T	Acetone	0.397	0.332	0.394	0.366	0.365	0.354	0.368	6.68
17)	T	Carbon Disulfide	1.891	1.351	1.288	1.290	1.324	1.363	1.418	16.48
18)	T	Methyl Acetate	0.801	0.708	0.702	0.690	0.731	0.742	0.729	5.53
19)	T	Methyl tert-butyl	1.649	1.571	1.550	1.545	1.569	1.600	1.580	2.45
20)	T	Methylene Chlorid	0.735	0.604	0.546	0.523	0.531	0.538	0.579	14.02
21)	T	trans-1,2-Dichlor	0.629	0.532	0.502	0.496	0.509	0.511	0.530	9.42
22)	T	Diisopropyl ether	1.791	1.733	1.690	1.662	1.681	1.711	1.711	2.69
23)	T	Vinyl Acetate	1.465	1.404	1.418	1.382	1.334	1.375	1.397	3.16
24)	P	1,1-Dichloroethan	1.111	0.946	0.903	0.899	0.922	0.932	0.952	8.41
25)	T	2-Butanone	0.439	0.450	0.473	0.450	0.456	0.454	0.454	2.49
26)	T	2,2-Dichloropropa	0.826	0.688	0.711	0.719	0.740	0.752	0.739	6.49
27)	T	cis-1,2-Dichloroe	0.703	0.573	0.576	0.568	0.582	0.593	0.599	8.63
28)	T	Bromochloromethan	0.286	0.222	0.374	0.371	0.371	0.366	0.332	19.15
29)	T	Tetrahydrofuran	0.271	0.249	0.248	0.244	0.253	0.257	0.254	3.80
30)	C	Chloroform	0.989	0.885	0.883	0.878	0.882	0.898	0.903	4.77#
31)	T	Cyclohexane		0.850	0.840	0.839	0.846	0.859	0.847	0.94
32)	T	1,1,1-Trichloroet	0.844	0.750	0.738	0.743	0.764	0.776	0.769	5.10
33)	S	1,2-Dichloroethan		0.620	0.520	0.554	0.563	0.577	0.567	6.39
34)	I	1,4-Difluorobenzene	----------	ISTD	----------					
35)	S	Dibromofluorometh		0.322	0.276	0.301	0.306	0.315	0.304	5.76
36)	T	1,1-Dichloroprope	0.518	0.447	0.438	0.441	0.450	0.458	0.459	6.54
37)	T	Ethyl Acetate	0.499	0.504	0.515	0.502	0.505	0.514	0.507	1.25
38)	T	Carbon Tetrachlor	0.429	0.394	0.402	0.418	0.426	0.439	0.418	4.11
39)	T	Methylcyclohexane	0.628	0.539	0.552	0.548	0.560	0.572	0.566	5.64
40)	TM	Benzene	1.587	1.419	1.367	1.353	1.369	1.374	1.412	6.30
41)	T	Methacrylonitrile	0.296	0.257	0.287	0.270	0.291	0.286	0.281	5.22
42)	TM	1,2-Dichloroethan	0.491	0.503	0.480	0.459	0.466	0.471	0.479	3.45
43)	T	Isopropyl Acetate	0.849	0.822	0.815	0.820	0.854	0.871	0.838	2.74
44)	TM	Trichloroethene	0.477	0.386	0.361	0.362	0.374	0.379	0.390	11.24
45)	C	1,2-Dichloropropa	0.391	0.365	0.355	0.348	0.354	0.357	0.362	4.21#
46)	T	Dibromomethane	0.297	0.223	0.227	0.225	0.228	0.234	0.239	11.94
47)	T	Bromodichlorometh	0.480	0.419	0.429	0.444	0.460	0.472	0.451	5.34
48)	T	Methyl methacryla	0.417	0.384	0.406	0.406	0.423	0.428	0.411	3.89
49)	T	1,4-Dioxane	0.009	0.009	0.008	0.008	0.008	0.008	0.008	7.43
50)	S	Toluene-d8		1.238	1.102	1.191	1.190	1.196	1.183	4.19
51)	T	4-Methyl-2-Pentan	0.510	0.545	0.527	0.515	0.528	0.534	0.527	2.37
52)	CM	Toluene	1.011	0.885	0.870	0.858	0.860	0.870	0.892	6.59#

Method Path : Z:\VOASRV\HPCHEM1\MSVOA X\METHOD\
Method File : 82X121319W.M
Title : SW846 8260
Last Update : Tue Dec 17 03:01:07 2019
Response Via : Initial Calibration

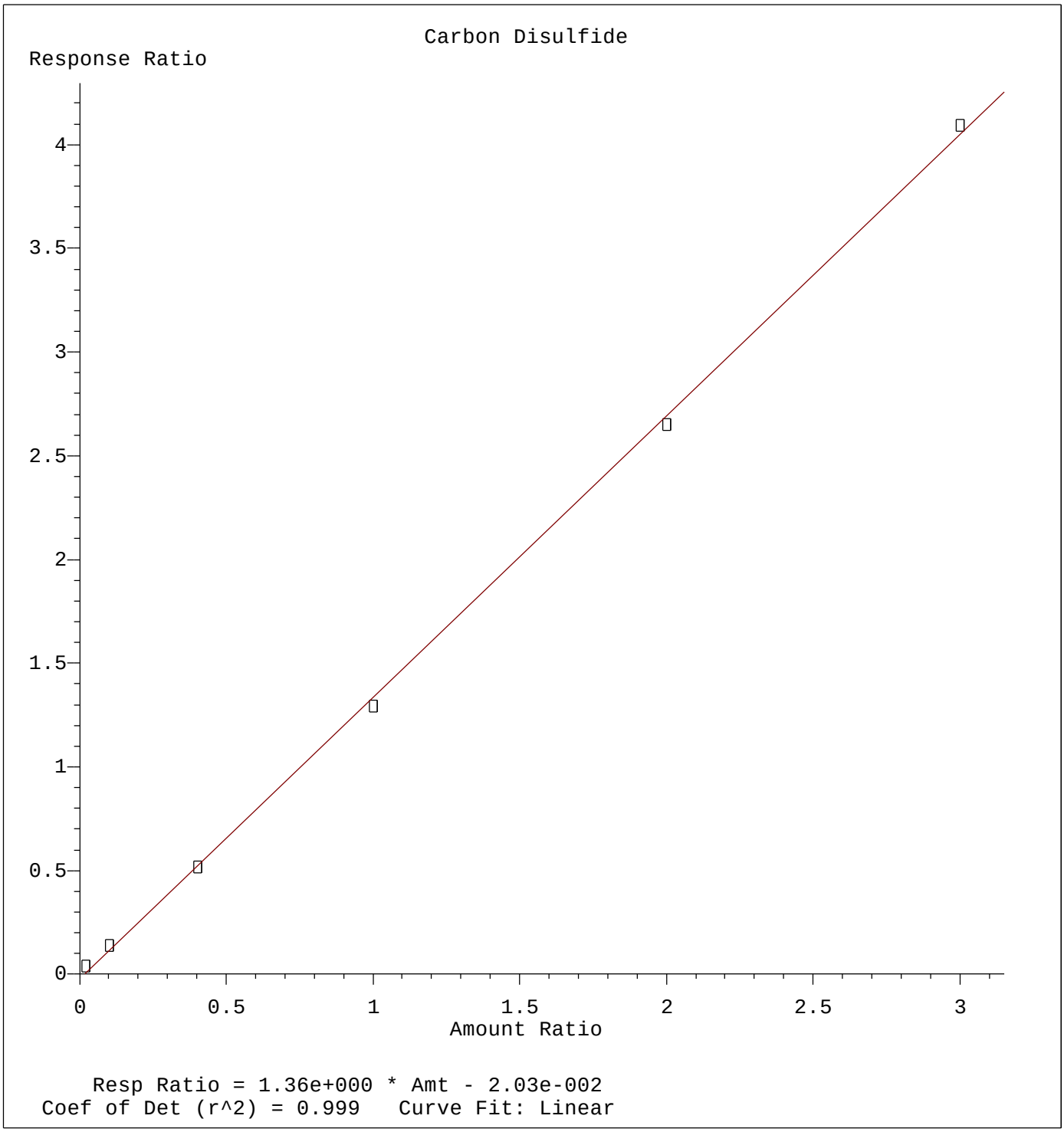
Calibration Files
1 =VX014007.D 5 =VX014008.D 20 =VX014009.D
50 =VX014010.D 100 =VX014011.D 150 =VX014012.D

		Compound	1	5	20	50	100	150	Avg	%RSD
53)	T	t-1,3-Dichloropro	0.466	0.425	0.478	0.508	0.534	0.553	0.494	9.51
54)	T	cis-1,3-Dichlorop	0.520	0.497	0.546	0.562	0.580	0.597	0.550	6.78
55)	T	1,1,2-Trichloroet	0.398	0.345	0.357	0.345	0.347	0.354	0.358	5.75
56)	T	Ethyl methacrylat	0.519	0.526	0.556	0.570	0.594	0.607	0.562	6.30
57)	T	1,3-Dichloropropa	0.645	0.601	0.589	0.588	0.590	0.596	0.602	3.63
58)	T	2-Chloroethyl Vin	0.180	0.208	0.216	0.221	0.223	0.228	0.213	8.25
59)	T	2-Hexanone	0.385	0.421	0.439	0.426	0.437	0.435	0.424	4.79
60)	T	Dibromochlorometh	0.330	0.321	0.346	0.361	0.380	0.394	0.355	7.98
61)	T	1,2-Dibromoethane	0.388	0.344	0.362	0.361	0.366	0.374	0.366	4.02
62)	S	4-Bromofluorobenz		0.436	0.387	0.434	0.446	0.461	0.433	6.39
63)	I	Chlorobenzene-d5	----------ISTD----------							
64)	T	Tetrachloroethene	0.489	0.418	0.403	0.424	0.472	0.449	0.442	7.55
65)	PM	Chlorobenzene	1.214	1.071	1.027	1.016	1.024	1.028	1.063	7.18
66)	T	1,1,1,2-Tetrachlo	0.404	0.363	0.370	0.372	0.382	0.387	0.380	3.92
67)	C	Ethyl Benzene	1.986	1.800	1.789	1.809	1.789	1.794	1.828	4.26#
68)	T	m/p-Xylenes	0.764	0.693	0.683	0.689	0.694	0.695	0.703	4.28
69)	T	o-Xylene	0.742	0.689	0.667	0.676	0.678	0.685	0.689	3.91
70)	T	Styrene	1.222	1.076	1.125	1.172	1.187	1.213	1.166	4.79
71)	P	Bromoform	0.287	0.260	0.280	0.310	0.337	0.356	0.305	11.97
72)	I	1,4-Dichlorobenzene-d	----------ISTD----------							
73)	T	Isopropylbenzene	3.867	3.577	3.530	3.471	3.394	3.284	3.520	5.64
74)	T	N-amyl acetate	1.669	1.583	1.637	1.657	1.682	1.673	1.650	2.20
75)	P	1,1,2,2-Tetrachlo	1.306	1.258	1.224	1.194	1.179	1.162	1.220	4.44
76)	T	1,2,3-Trichloropr	1.076	1.126	1.113	1.098	1.063	1.037	1.085	3.08
77)	T	Bromobenzene	1.205	0.961	0.930	0.902	0.910	0.904	0.969	12.20
78)	T	n-propylbenzene	4.283	3.780	3.945	3.963	3.926	3.794	3.949	4.60
79)	T	2-Chlorotoluene	2.727	2.375	2.383	2.360	2.302	2.255	2.400	6.98
80)	T	1,3,5-Trimethylbe	3.201	2.926	2.963	2.927	2.913	2.846	2.963	4.14
81)	T	trans-1,4-Dichlor		0.306	0.360	0.401	0.425	0.431	0.385	13.56
82)	T	4-Chlorotoluene	3.186	2.727	2.722	2.688	2.713	2.669	2.784	7.12
83)	T	tert-Butylbenzene	3.255	2.927	2.866	2.807	2.719	2.726	2.883	6.90
84)	T	1,2,4-Trimethylbe	3.148	2.928	2.962	2.940	2.923	2.901	2.967	3.06
85)	T	sec-Butylbenzene	3.705	3.313	3.325	3.368	3.395	3.317	3.404	4.43
86)	T	p-Isopropyltoluen	3.200	3.057	3.079	3.101	3.122	3.122	3.114	1.59
87)	T	1,3-Dichlorobenze	2.043	1.661	1.617	1.602	1.634	1.630	1.698	10.02
88)	T	1,4-Dichlorobenze	2.201	1.698	1.598	1.595	1.629	1.636	1.726	13.65
89)	T	n-Butylbenzene	2.768	2.384	2.527	2.696	2.777	2.787	2.657	6.22
90)	T	Hexachloroethane	0.569	0.505	0.537	0.560	0.587	0.598	0.559	6.06
91)	T	1,2-Dichlorobenze	2.038	1.727	1.632	1.627	1.623	1.607	1.709	9.75
92)	T	1,2-Dibromo-3-Chl	0.346	0.265	0.246	0.252	0.258	0.253	0.270	13.94
93)	T	1,2,4-Trichlorobe	1.309	0.998	1.013	1.076	1.131	1.138	1.111	10.19
94)	T	Hexachlorobutadie	0.685	0.494	0.481	0.506	0.524	0.512	0.534	14.17
95)	T	Naphthalene	3.470	2.850	3.146	3.318	3.415	3.380	3.263	7.09
96)	T	1,2,3-Trichlorobe	1.218	1.011	1.035	1.088	1.120	1.107	1.096	6.65

(#) = Out of Range



Method Name: Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121319W.M
Calibration Table Last Updated: Tue Dec 17 03:01:07 2019



Method Name: Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121319W.M
Calibration Table Last Updated: Tue Dec 17 03:01:07 2019

Quantitation Report (QT Reviewed)

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX121319\
Data File : VX014007.D
Acq On : 13 Dec 2019 14:49
Operator : JC/SP
Sample : VSTDICC001
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 3 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
VSTDICC001

Manual Integrations APPROVED
apatel
12/17/2019 2:48:42 PM

Quant Time: Dec 17 03:02:15 2019
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121319W.M
Quant Title : SW846 8260
QLast Update : Fri Dec 13 16:34:01 2019
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Pentafluorobenzene	5.65	168	788651	50.00	ug/l		0.00
34) 1,4-Difluorobenzene	6.84	114	1189953	50.00	ug/l		0.00
63) Chlorobenzene-d5	10.11	117	1042212	50.00	ug/l		0.00
72) 1,4-Dichlorobenzene-d4	12.07	152	492183	50.00	ug/l		0.00
System Monitoring Compounds							
33) 1,2-Dichloroethane-d4	0.00	65	0d	0.00	ug/l		
Spiked Amount 50.000			Recovery =	0.00%			
35) Dibromofluoromethane	0.00	113	0d	0.00	ug/l		
Spiked Amount 50.000			Recovery =	0.00%			
50) Toluene-d8	0.00	98	0d	0.00	ug/l		
Spiked Amount 50.000			Recovery =	0.00%			
62) 4-Bromofluorobenzene	0.00	95	0d	0.00	ug/l		
Spiked Amount 50.000			Recovery =	0.00%			
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.19	85	7529	0.893	ug/l		96
3) Chloromethane	1.32	50	10536	1.080	ug/l		96
4) Vinyl Chloride	1.40	62	12099	1.121	ug/l		95
6) Chloroethane	1.71	64	7212	1.146	ug/l	#	85
7) Trichlorofluoromethane	1.92	101	14018	1.135	ug/l		94
8) Diethyl Ether	2.17	74	7038	1.261	ug/l		92
9) 1,1,2-Trichlorotrifluoroet	2.37	101	8222	1.094	ug/l		92
12) 1,1-Dichloroethene	2.36	96	8393	1.120	ug/l		95
14) Allyl chloride	2.72	41	14585	1.074	ug/l		96
15) Acrylonitrile	3.13	53	23664	5.123	ug/l	#	93
16) Acetone	2.43	43	31271	6.588	ug/l		95
17) Carbon Disulfide	2.56	76	29821	1.393	ug/l		99
18) Methyl Acetate	2.76	43	12638	1.029	ug/l		93
19) Methyl tert-butyl Ether	3.18	73	26008	1.046	ug/l		97
20) Methylene Chloride	2.84	84	11586	1.331	ug/l		97
21) trans-1,2-Dichloroethene	3.16	96	9915	1.213	ug/l		85
22) Diisopropyl ether	3.84	45	28244	1.075	ug/l	#	75
23) Vinyl Acetate	3.80	43	115573	5.296	ug/l		100
24) 1,1-Dichloroethane	3.68	63	17531	1.220	ug/l		98
25) 2-Butanone	4.66	43	34597	5.107	ug/l		90
26) 2,2-Dichloropropane	4.57	77	13026	1.100	ug/l		93
27) cis-1,2-Dichloroethene	4.58	96	11096	1.182	ug/l		98
28) Bromochloromethane	5.00	49	4509	0.889	ug/l	#	84
29) Tetrahydrofuran	5.12	42	21384	5.237	ug/l		98
30) Chloroform	5.20	83	15604	1.073	ug/l		94
32) 1,1,1-Trichloroethane	5.48	97	13317	1.096	ug/l	#	50
36) 1,1-Dichloropropene	5.79	75	12335	1.141	ug/l	#	84
37) Ethyl Acetate	4.82	43	11886	0.986	ug/l	#	86
38) Carbon Tetrachloride	5.77	117	10200	1.023	ug/l		89
39) Methylcyclohexane	7.45	83	14939	1.116	ug/l		97
40) Benzene	6.13	78	37774	1.145	ug/l		100
41) Methacrylonitrile	5.03	41	7044	1.070	ug/l	#	80
42) 1,2-Dichloroethane	6.19	62	11688	1.040	ug/l		88
43) Isopropyl Acetate	6.44	43	20213	1.015	ug/l		98

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX121319\
Data File : VX014007.D
Acq On : 13 Dec 2019 14:49
Operator : JC/SP
Sample : VSTDICC001
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 3 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
VSTDICC001

Manual Integrations APPROVED
apatel
12/17/2019 2:48:42 PM

Quant Time: Dec 17 03:02:15 2019
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121319W.M
Quant Title : SW846 8260
QLast Update : Fri Dec 13 16:34:01 2019
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
44) Trichloroethene	7.20	130	11355	1.259 ug/l		88
45) 1,2-Dichloropropane	7.51	63	9301	1.125 ug/l		94
46) Dibromomethane	7.65	93	7070	1.263 ug/l		95
47) Bromodichloromethane	7.89	83	11412	1.079 ug/l		93
48) Methyl methacrylate	7.76	41	9926	1.028 ug/l		91
49) 1,4-Dioxane	7.73	88	4148	19.503 ug/l	#	85
51) 4-Methyl-2-Pentanone	8.64	43	60739	4.856 ug/l		98
52) Toluene	8.78	92	24050	1.172 ug/l		95
53) t-1,3-Dichloropropene	9.04	75	11090	0.922 ug/l		91
54) cis-1,3-Dichloropropene	8.43	75	12372	0.940 ug/l		93
55) 1,1,2-Trichloroethane	9.21	97	9482	1.148 ug/l		94
56) Ethyl methacrylate	9.17	69	12354	0.929 ug/l	#	83
57) 1,3-Dichloropropane	9.36	76	15349	1.077 ug/l		95
58) 2-Chloroethyl Vinyl ether	8.31	63	21365	4.098 ug/l		99
59) 2-Hexanone	9.49	43	45812	4.655 ug/l		96
60) Dibromochloromethane	9.57	129	7865	0.921 ug/l		95
61) 1,2-Dibromoethane	9.67	107	9234	1.048 ug/l		91
64) Tetrachloroethene	9.33	164	10196	1.268 ug/l		94
65) Chlorobenzene	10.13	112	25303	1.163 ug/l		100
66) 1,1,1,2-Tetrachloroethane	10.21	131	8426	1.081 ug/l	#	63
67) Ethyl Benzene	10.25	91	41396	1.108 ug/l		96
68) m/p-Xylenes	10.36	106	31836	2.223 ug/l		97
69) o-Xylene	10.70	106	15471	1.108 ug/l		97
70) Styrene	10.71	104	25473	1.081 ug/l		98
71) Bromoform	10.85	173	5988	0.932 ug/l	#	99
73) Isopropylbenzene	11.01	105	38061	1.101 ug/l		96
74) N-amyl acetate	10.90	43	16431	1.038 ug/l		98
75) 1,1,2,2-Tetrachloroethane	11.26	83	12856	1.074 ug/l		93
76) 1,2,3-Trichloropropane	11.29	75	10589m	0.961 ug/l		
77) Bromobenzene	11.25	156	11866	1.273 ug/l		90
78) n-propylbenzene	11.35	91	42164	1.091 ug/l		96
79) 2-Chlorotoluene	11.42	91	26847	1.154 ug/l		96
80) 1,3,5-Trimethylbenzene	11.50	105	31510	1.109 ug/l		99
82) 4-Chlorotoluene	11.51	91	31365	1.168 ug/l		98
83) tert-Butylbenzene	11.76	119	32037	1.119 ug/l		96
84) 1,2,4-Trimethylbenzene	11.80	105	30986	1.075 ug/l		99
85) sec-Butylbenzene	11.94	105	36468	1.107 ug/l		99
86) p-Isopropyltoluene	12.06	119	31503	1.029 ug/l		90
87) 1,3-Dichlorobenzene	12.02	146	20106	1.235 ug/l		96
88) 1,4-Dichlorobenzene	12.09	146	21665m	1.305 ug/l		
89) n-Butylbenzene	12.39	91	27243	1.042 ug/l		96
90) Hexachloroethane	12.59	117	5598	1.009 ug/l		90
91) 1,2-Dichlorobenzene	12.39	146	20057	1.244 ug/l		99
92) 1,2-Dibromo-3-Chloropropan	12.99	75	3404	1.319 ug/l		78
93) 1,2,4-Trichlorobenzene	13.64	180	12885	1.157 ug/l		98
94) Hexachlorobutadiene	13.78	225	6745	1.251 ug/l		94
95) Naphthalene	13.83	128	34162	1.032 ug/l		97
96) 1,2,3-Trichlorobenzene	14.01	180	11992	1.082 ug/l		92

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX121319\
Data File : VX014007.D
Acq On : 13 Dec 2019 14:49
Operator : JC/SP
Sample : VSTDICC001
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 3 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
VSTDICC001

Manual Integrations APPROVED
apatel
12/17/2019 2:48:42 PM

Quant Time: Dec 17 03:02:15 2019
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121319W.M
Quant Title : SW846 8260
QLast Update : Fri Dec 13 16:34:01 2019
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)

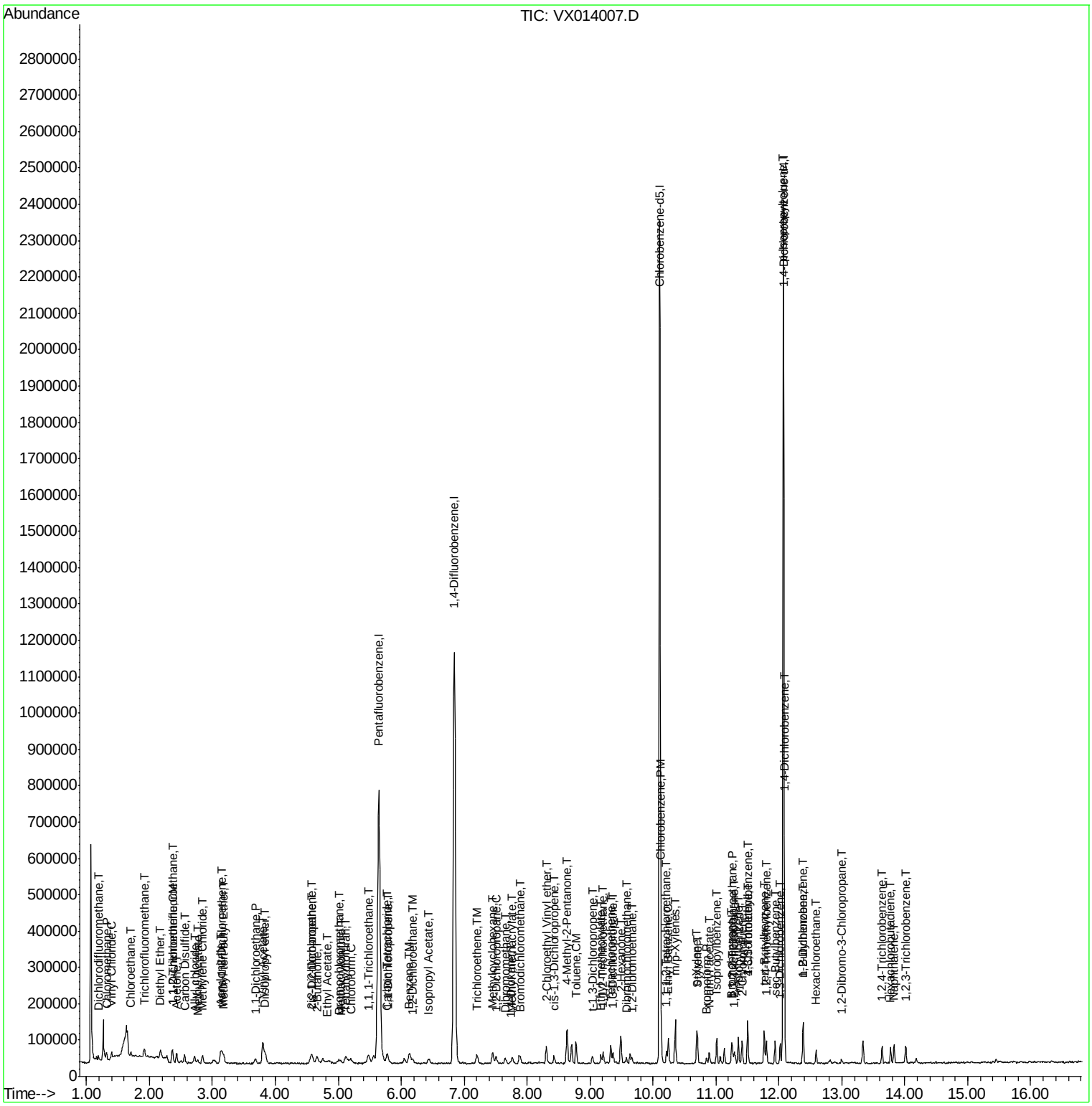
(#) = qualifier out of range (m) = manual integration (+) = signals summed

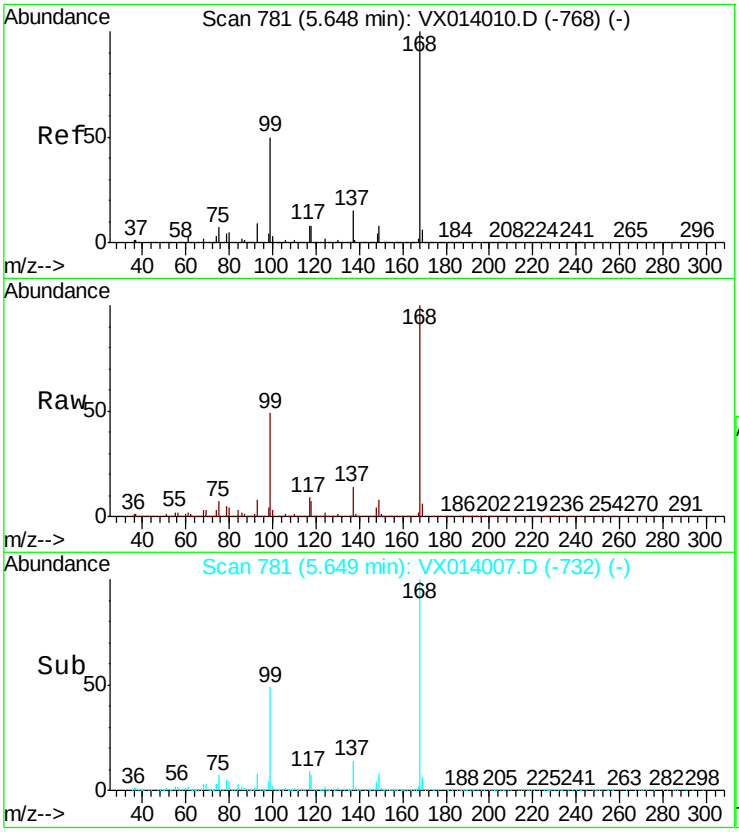
Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX121319\
Data File : VX014007.D
Acq On : 13 Dec 2019 14:49
Operator : JC/SP
Sample : VSTDICC001
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Dec 17 03:02:15 2019
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121319W.M
Quant Title : SW846 8260
QLast Update : Fri Dec 13 16:34:01 2019
Response via : Initial Calibration

Instrument :
MSVOA_X
ClientSampleId :
VSTDICC001

Manual Integrations APPROVED
apatel
12/17/2019 2:48:42 PM

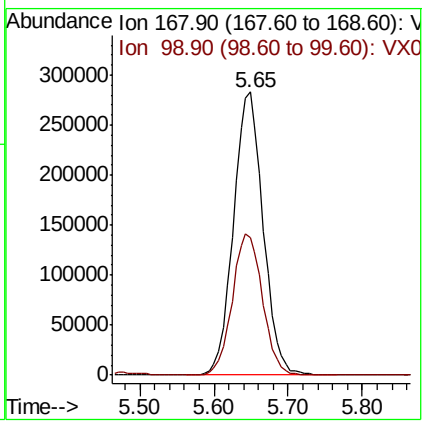


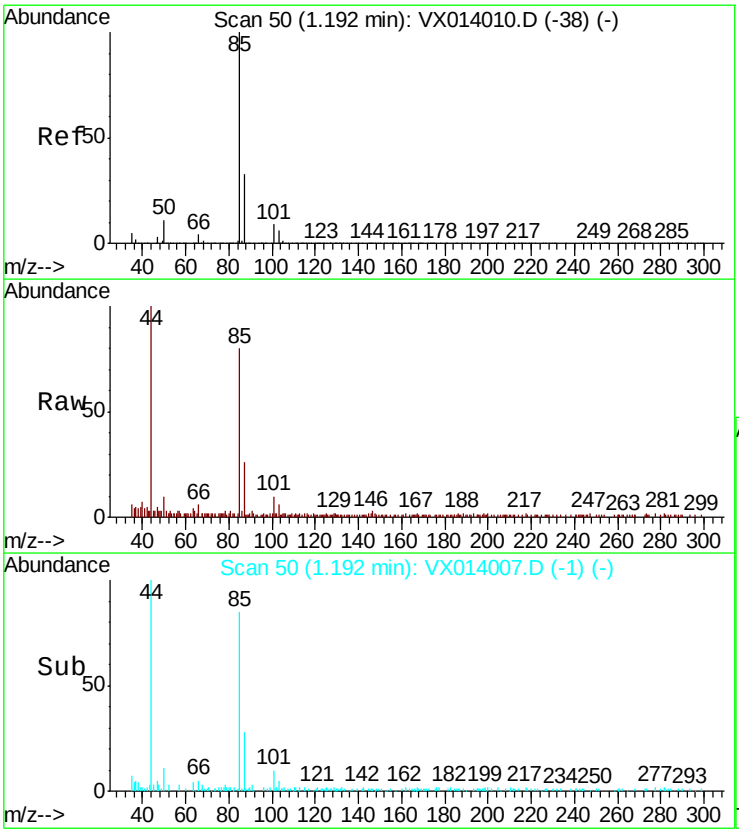


#1
Pentafluorobenzene
Concen: 50.000 ug/l
RT: 5.65 min Scan# 781
Delta R.T. 0.00 min
Lab File: VX014007.D
Acq: 13 Dec 2019 14:49

Tgt Ion:168 Resp: 788651

Ion	Ratio	Lower	Upper
168	100		
99	48.6	40.3	60.5

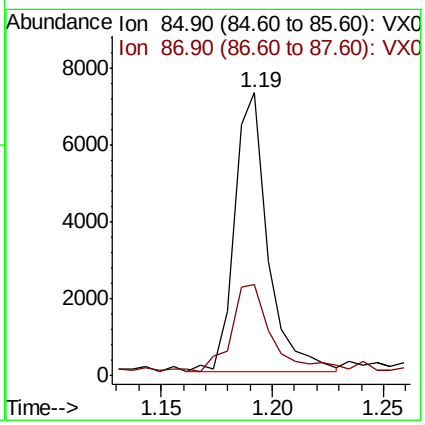




#2
Dichlorodifluoromethane
Concen: 0.893 ug/l
RT: 1.19 min Scan# 50
Delta R.T. 0.00 min
Lab File: VX014007.D
Acq: 13 Dec 2019 14:49

Tgt Ion: 85 Resp: 7529

Ion	Ratio	Lower	Upper
85	100		
87	30.5	16.4	49.2

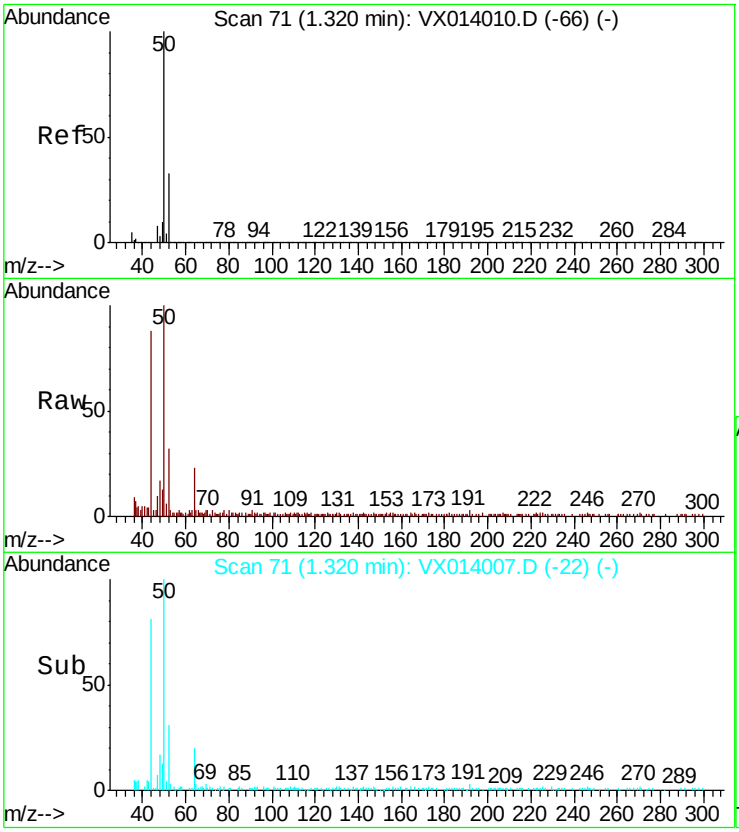


Instrument :
MSVOA_X
ClientSampleId :
VSTDICC001

Manual Integrations APPROVED
apatel
12/17/2019 2:48:42 PM

Instrument :
MSVOA_X
ClientSampleId :
VSTDICC001

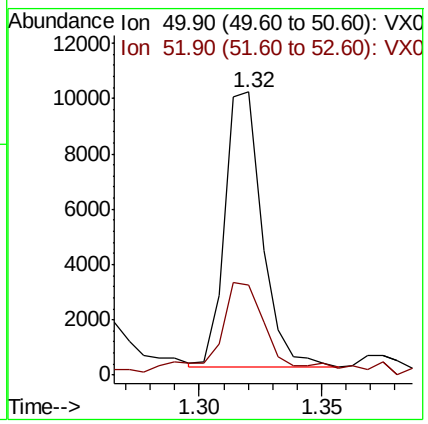
Manual Integrations APPROVED
apatel
12/17/2019 2:48:42 PM

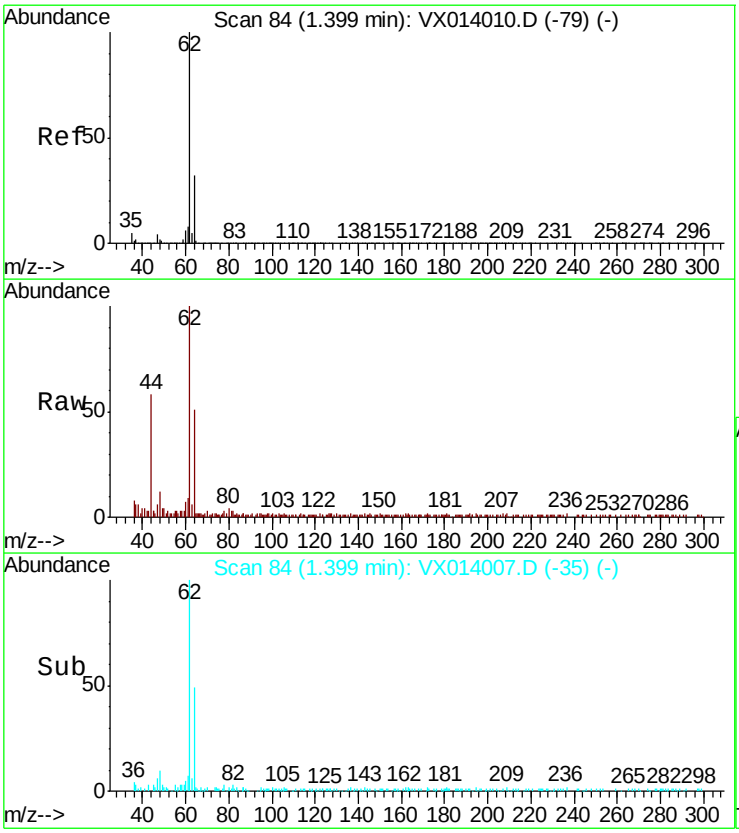


#3
Chloromethane
Concen: 1.080 ug/l
RT: 1.32 min Scan# 71
Delta R.T. 0.00 min
Lab File: VX014007.D
Acq: 13 Dec 2019 14:49

Tgt Ion: 50 Resp: 10536

Ion	Ratio	Lower	Upper
50	100		
52	30.4	26.2	39.4

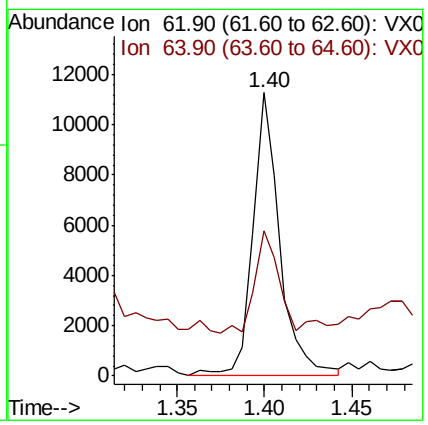


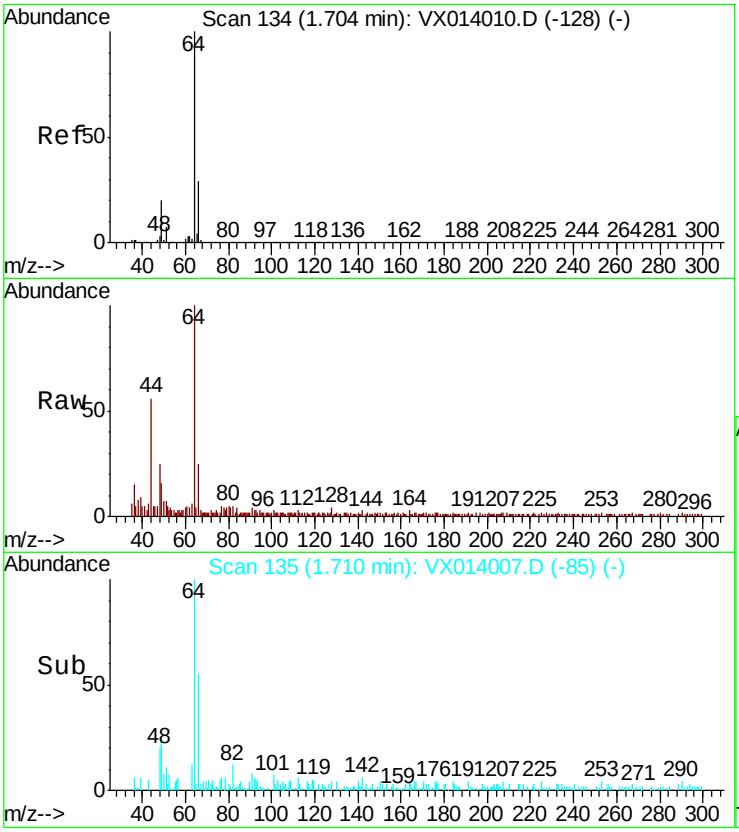


#4
Vinyl Chloride
Concen: 1.121 ug/l
RT: 1.40 min Scan# 84
Delta R.T. 0.00 min
Lab File: VX014007.D
Acq: 13 Dec 2019 14:49

Tgt Ion: 62 Resp: 12099

Ion	Ratio	Lower	Upper
62	100		
64	34.9	25.7	38.5

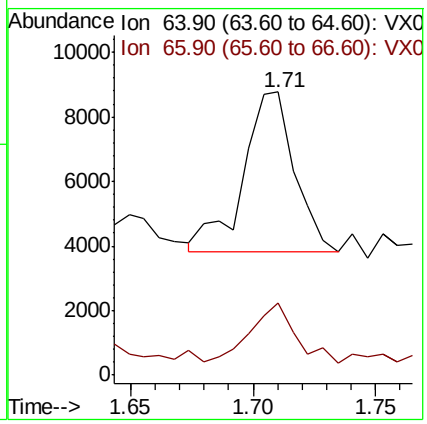




#6
Chloroethane
Concen: 1.146 ug/l
RT: 1.71 min Scan# 135
Delta R.T. 0.01 min
Lab File: VX014007.D
Acq: 13 Dec 2019 14:49

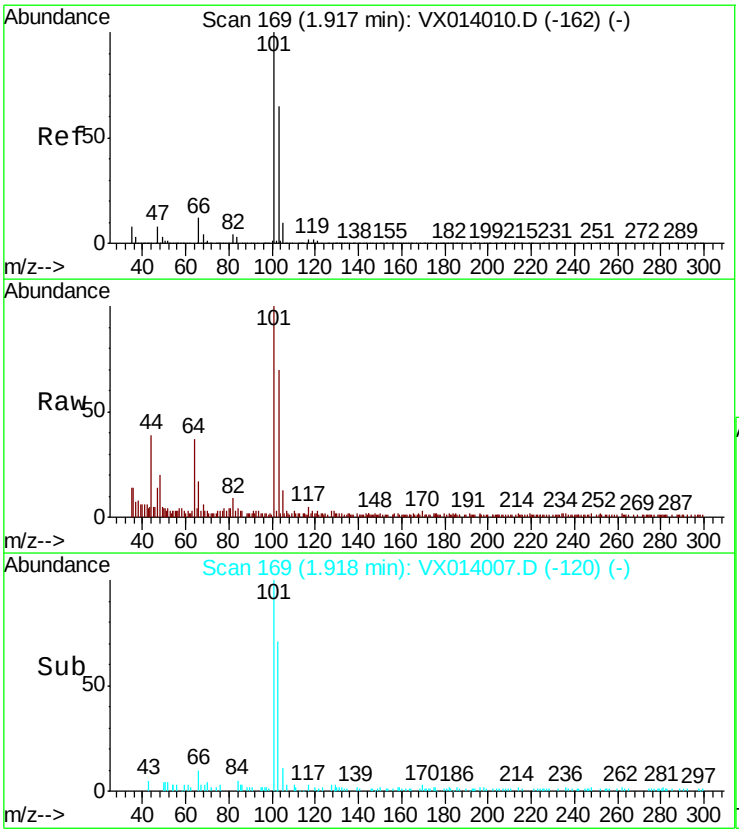
Tgt Ion: 64 Resp: 7212

Ion	Ratio	Lower	Upper
64	100		
66	37.5	23.4	35.2#



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC001

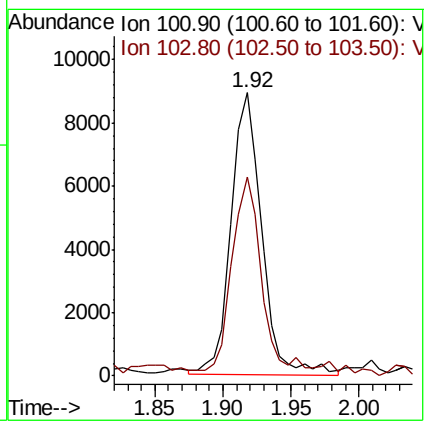
Manual Integrations APPROVED
apatel
12/17/2019 2:48:42 PM

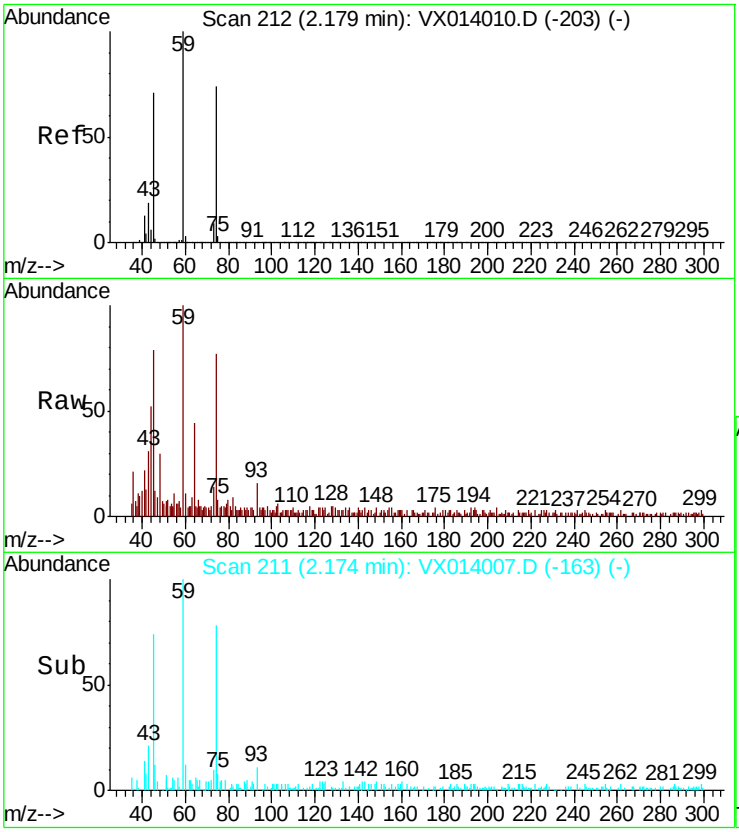


#7
Trichlorofluoromethane
Concen: 1.135 ug/l
RT: 1.92 min Scan# 169
Delta R.T. 0.00 min
Lab File: VX014007.D
Acq: 13 Dec 2019 14:49

Tgt Ion:101 Resp: 14018

Ion	Ratio	Lower	Upper
101	100		
103	69.8	52.2	78.4

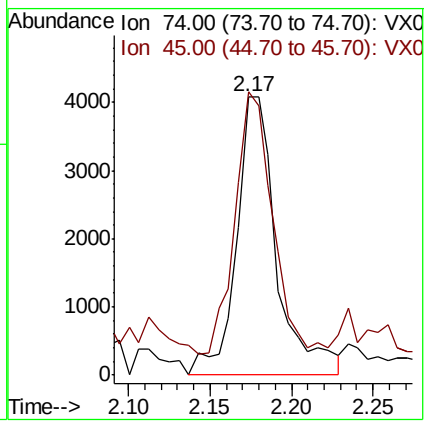




#8
Diethyl Ether
Concen: 1.261 ug/l
RT: 2.17 min Scan# 211
Delta R.T. -0.01 min
Lab File: VX014007.D
Acq: 13 Dec 2019 14:49

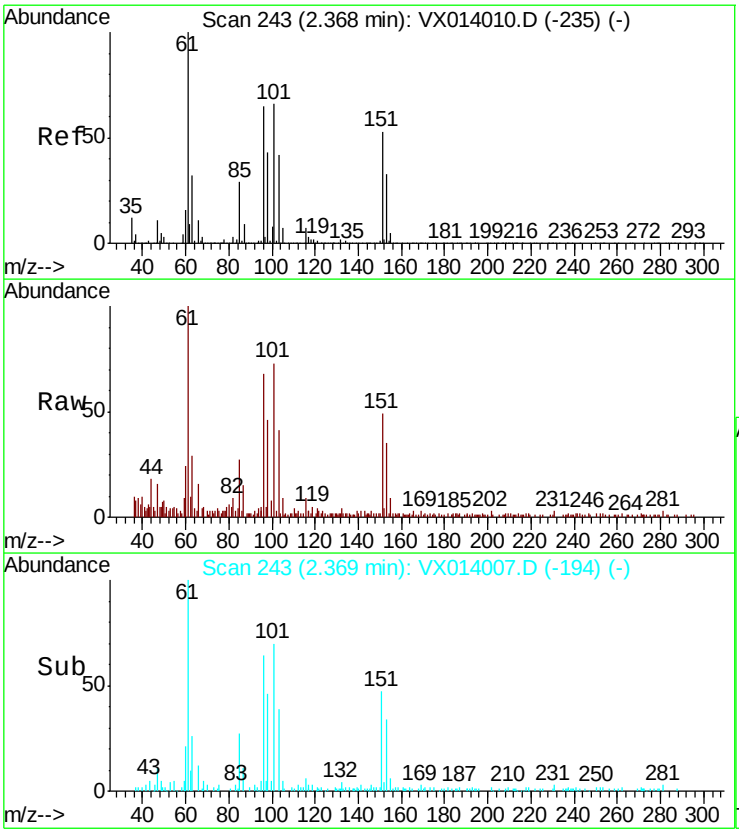
Tgt Ion: 74 Resp: 7038

Ion	Ratio	Lower	Upper
74	100		
45	88.1	48.1	144.3



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC001

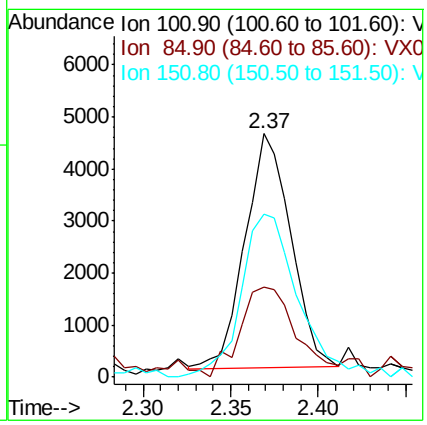
Manual Integrations APPROVED
apatel
12/17/2019 2:48:42 PM

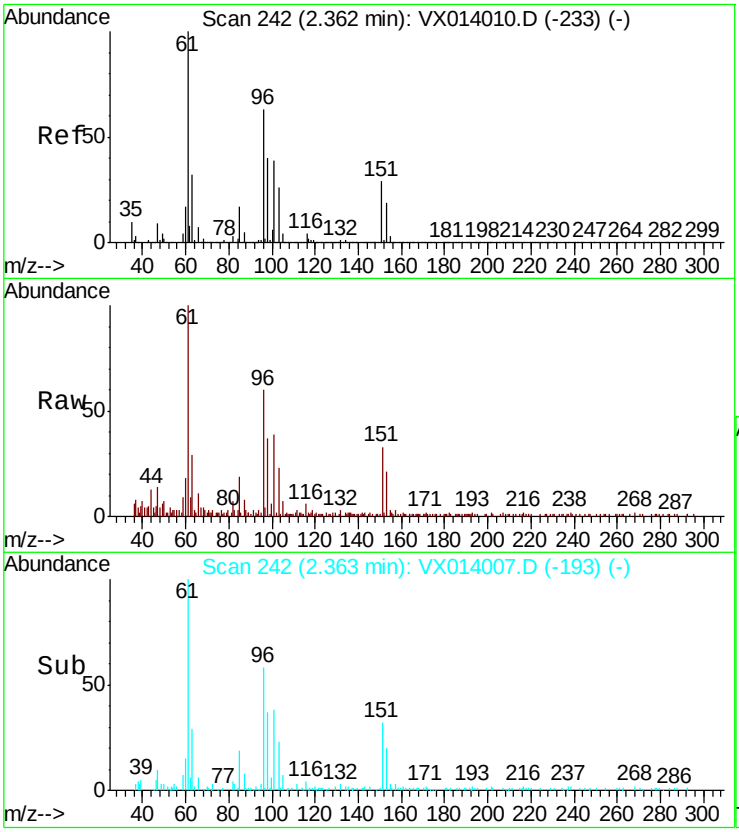


#9
1,1,2-Trichlorotrifluoroethane
Concen: 1.094 ug/l
RT: 2.37 min Scan# 243
Delta R.T. 0.00 min
Lab File: VX014007.D
Acq: 13 Dec 2019 14:49

Tgt Ion:101 Resp: 8222

Ion	Ratio	Lower	Upper
101	100		
85	47.4	33.7	50.5
151	87.0	64.5	96.7

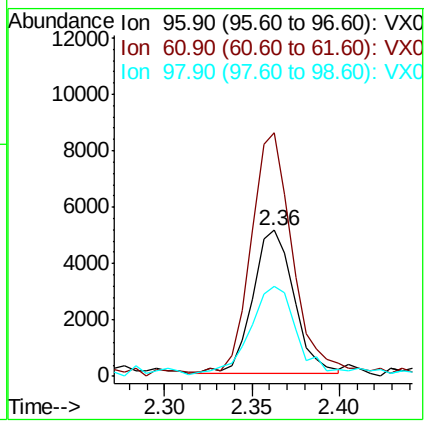




#12
1,1-Dichloroethene
Concen: 1.120 ug/l
RT: 2.36 min Scan# 242
Delta R.T. 0.00 min
Lab File: VX014007.D
Acq: 13 Dec 2019 14:49

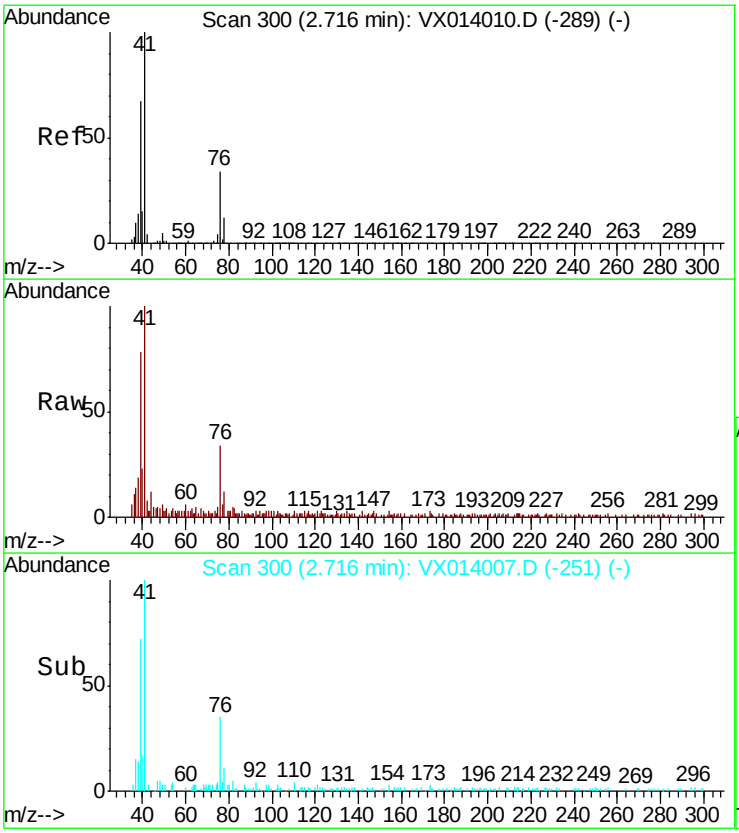
Tgt Ion: 96 Resp: 8393

Ion	Ratio	Lower	Upper
96	100		
61	167.1	127.9	191.9
98	61.4	50.5	75.7



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC001

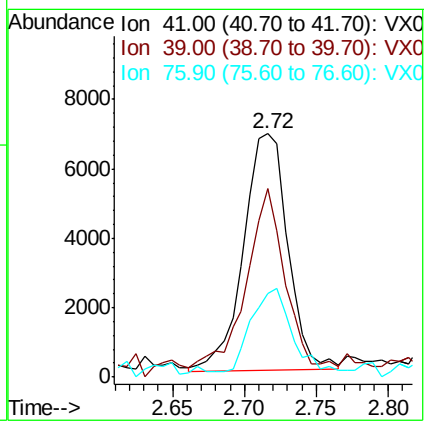
Manual Integrations APPROVED
apatel
12/17/2019 2:48:42 PM



#14
Allyl chloride
Concen: 1.074 ug/l
RT: 2.72 min Scan# 300
Delta R.T. 0.00 min
Lab File: VX014007.D
Acq: 13 Dec 2019 14:49

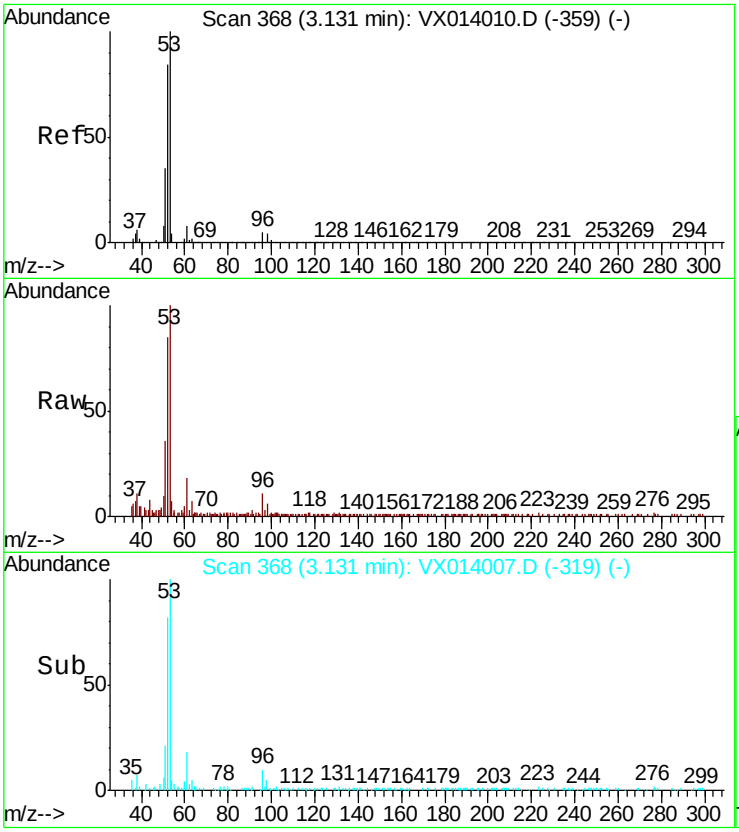
Tgt Ion: 41 Resp: 14585

Ion	Ratio	Lower	Upper
41	100		
39	63.4	51.8	77.8
76	37.0	25.9	38.9



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC001

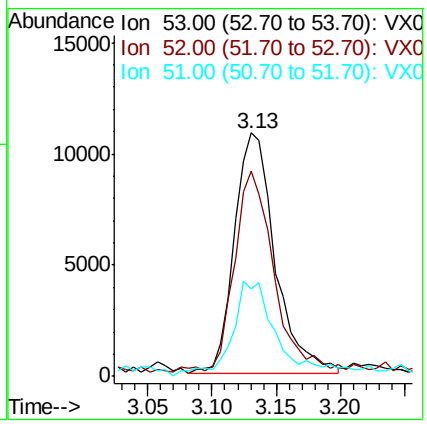
Manual Integrations APPROVED
apatel
12/17/2019 2:48:42 PM

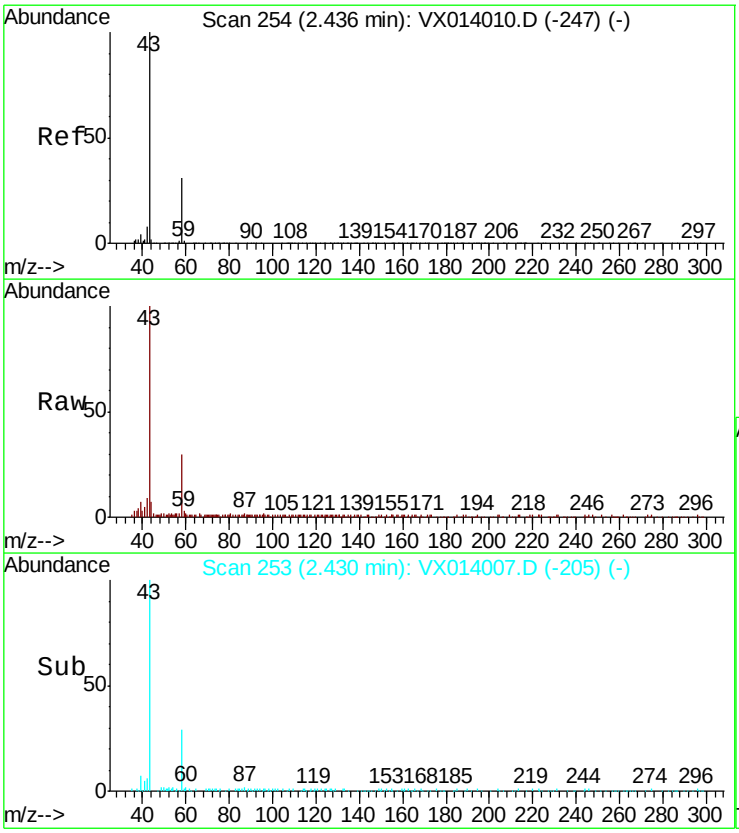


#15
Acrylonitrile
Concen: 5.123 ug/l
RT: 3.13 min Scan# 368
Delta R.T. 0.00 min
Lab File: VX014007.D
Acq: 13 Dec 2019 14:49

Tgt Ion: 53 Resp: 23664

Ion	Ratio	Lower	Upper
53	100		
52	80.4	66.5	99.7
51	44.7	28.1	42.1#

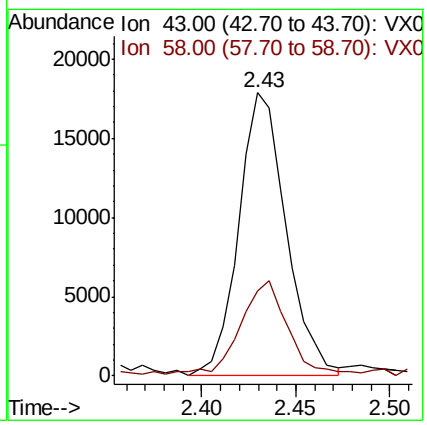


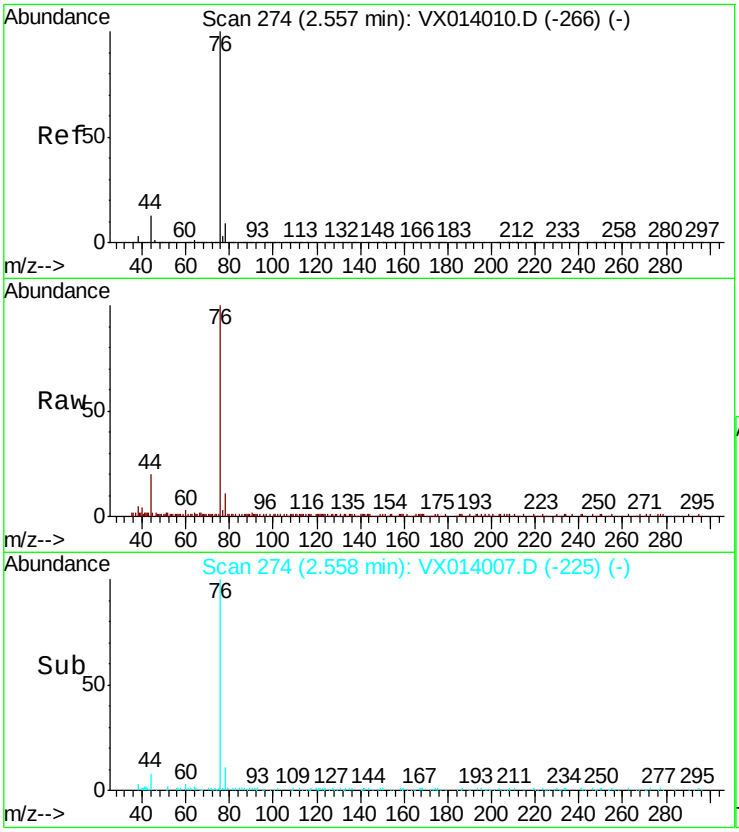


#16
Acetone
Concen: 6.588 ug/l
RT: 2.43 min Scan# 253
Delta R.T. -0.01 min
Lab File: VX014007.D
Acq: 13 Dec 2019 14:49

Tgt Ion: 43 Resp: 31271

Ion	Ratio	Lower	Upper
43	100		
58	28.4	24.9	37.3

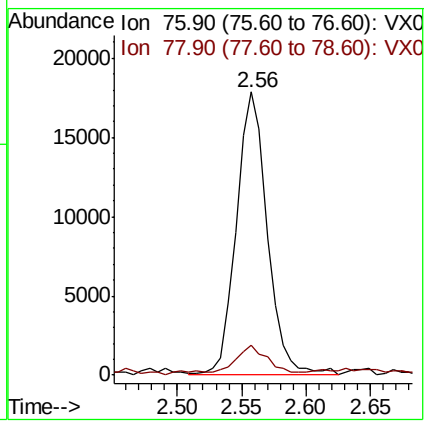


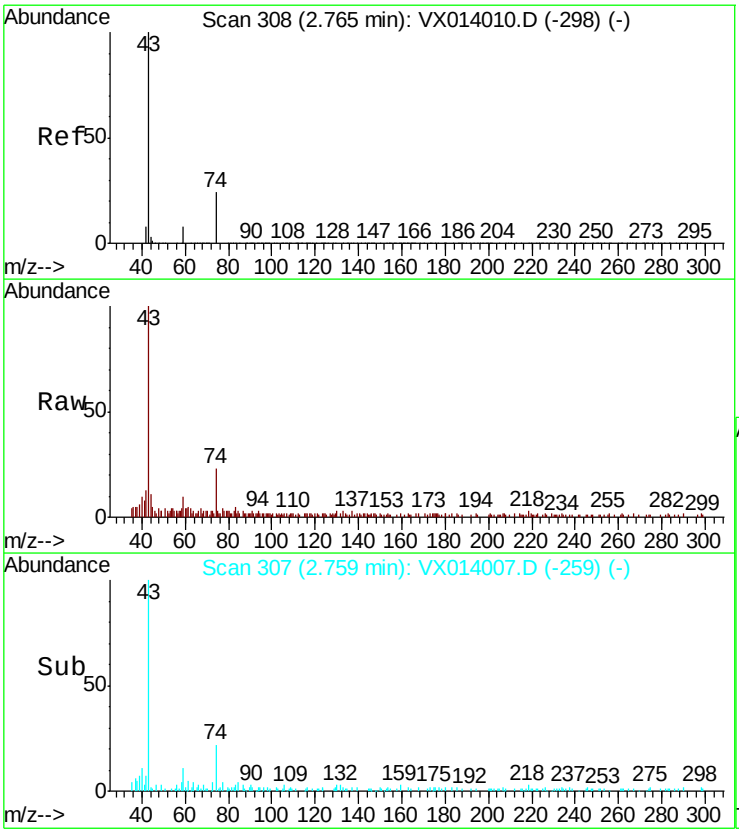


#17
Carbon Disulfide
Concen: 1.393 ug/l
RT: 2.56 min Scan# 274
Delta R.T. 0.00 min
Lab File: VX014007.D
Acq: 13 Dec 2019 14:49

Tgt Ion: 76 Resp: 29821

Ion	Ratio	Lower	Upper
76	100		
78	9.3	7.2	10.8

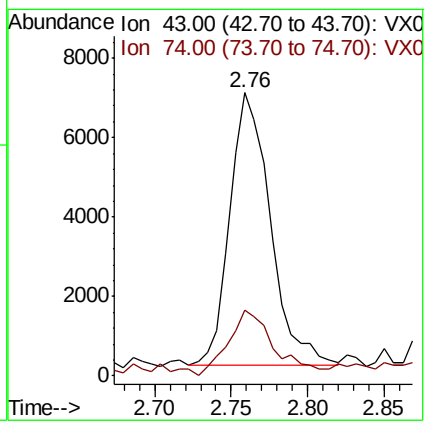




#18
Methyl Acetate
Concen: 1.029 ug/l
RT: 2.76 min Scan# 307
Delta R.T. -0.01 min
Lab File: VX014007.D
Acq: 13 Dec 2019 14:49

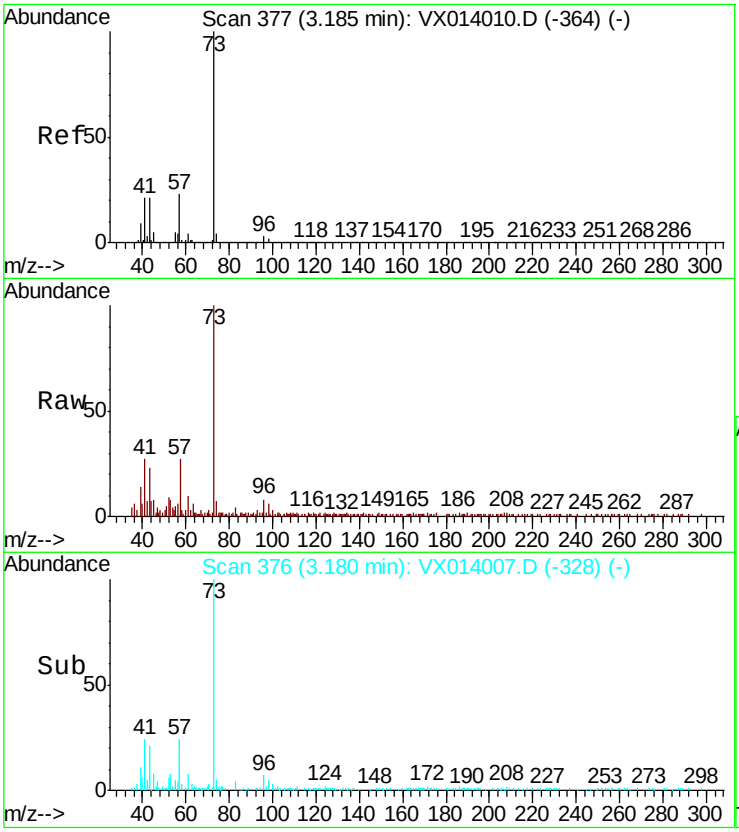
Tgt Ion: 43 Resp: 12638

Ion	Ratio	Lower	Upper
43	100		
74	27.7	19.5	29.3



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC001

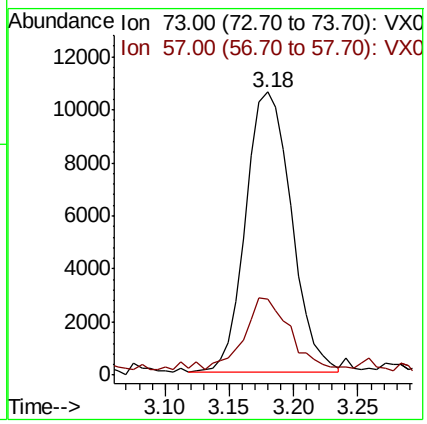
Manual Integrations APPROVED
apatel
12/17/2019 2:48:42 PM



#19
Methyl tert-butyl Ether
Concen: 1.046 ug/l
RT: 3.18 min Scan# 376
Delta R.T. -0.01 min
Lab File: VX014007.D
Acq: 13 Dec 2019 14:49

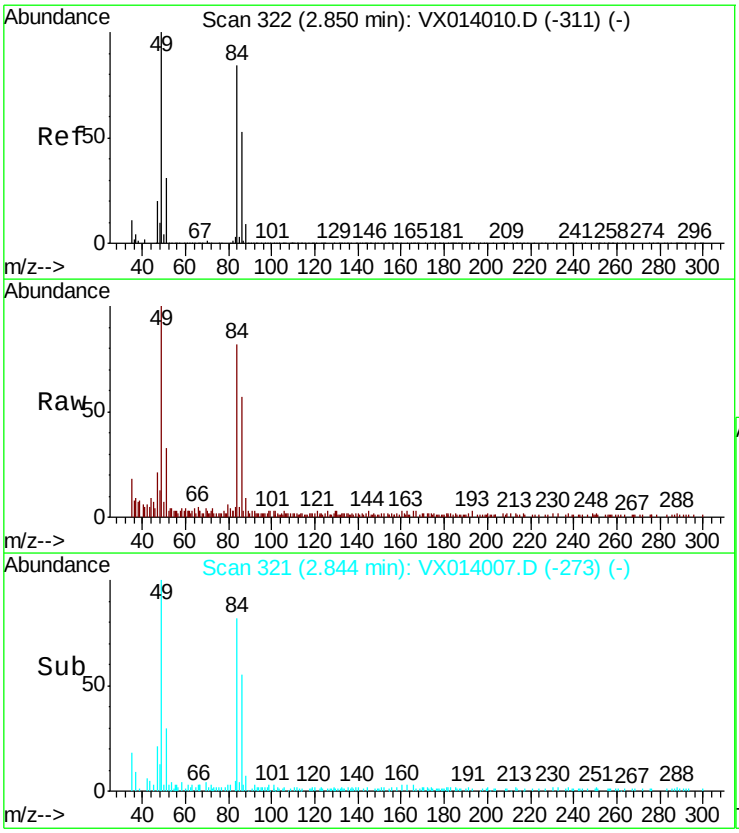
Tgt Ion: 73 Resp: 26008

Ion	Ratio	Lower	Upper
73	100		
57	25.2	18.8	28.2



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC001

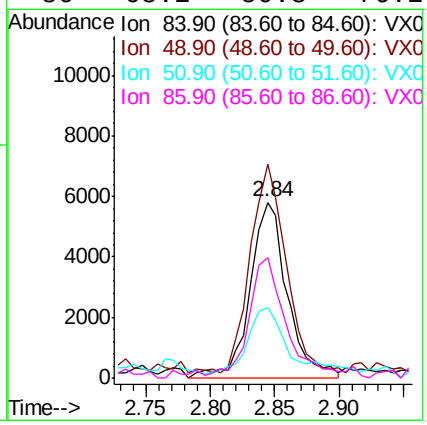
Manual Integrations APPROVED
apatel
12/17/2019 2:48:42 PM



#20
Methylene Chloride
Concen: 1.331 ug/l
RT: 2.84 min Scan# 321
Delta R.T. -0.01 min
Lab File: VX014007.D
Acq: 13 Dec 2019 14:49

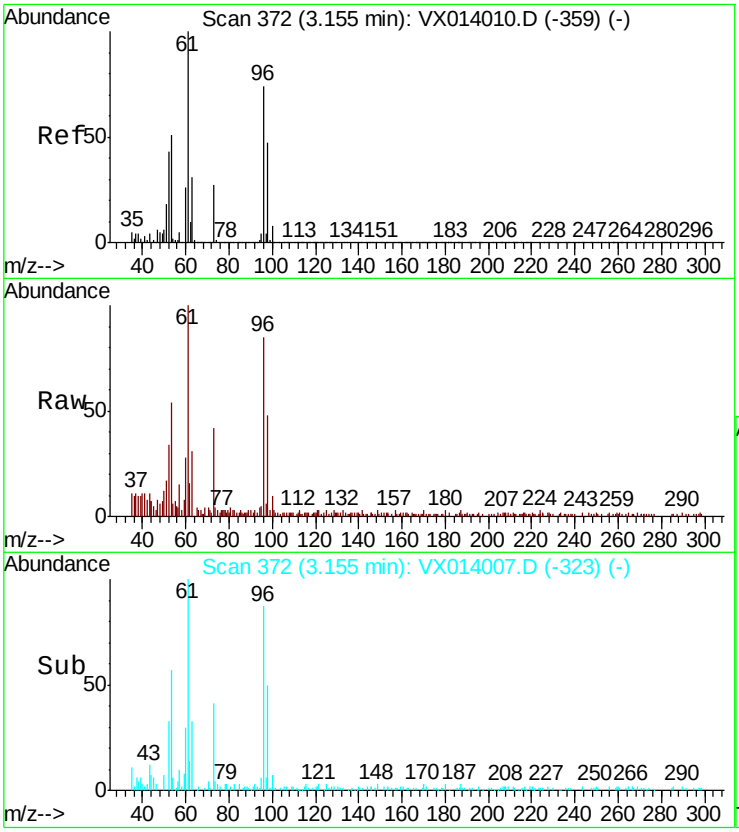
Tgt Ion: 84 Resp: 11586

Ion	Ratio	Lower	Upper
84	100		
49	121.6	95.8	143.6
51	36.8	29.8	44.8
86	68.2	50.8	76.2



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC001

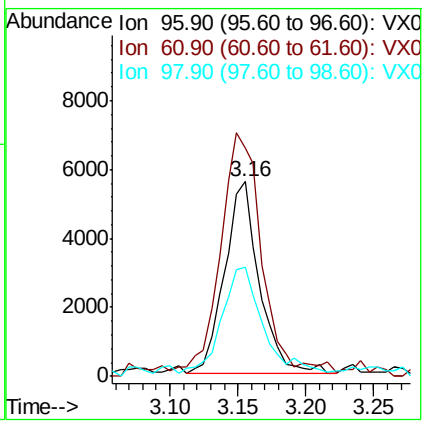
Manual Integrations APPROVED
apatel
12/17/2019 2:48:42 PM

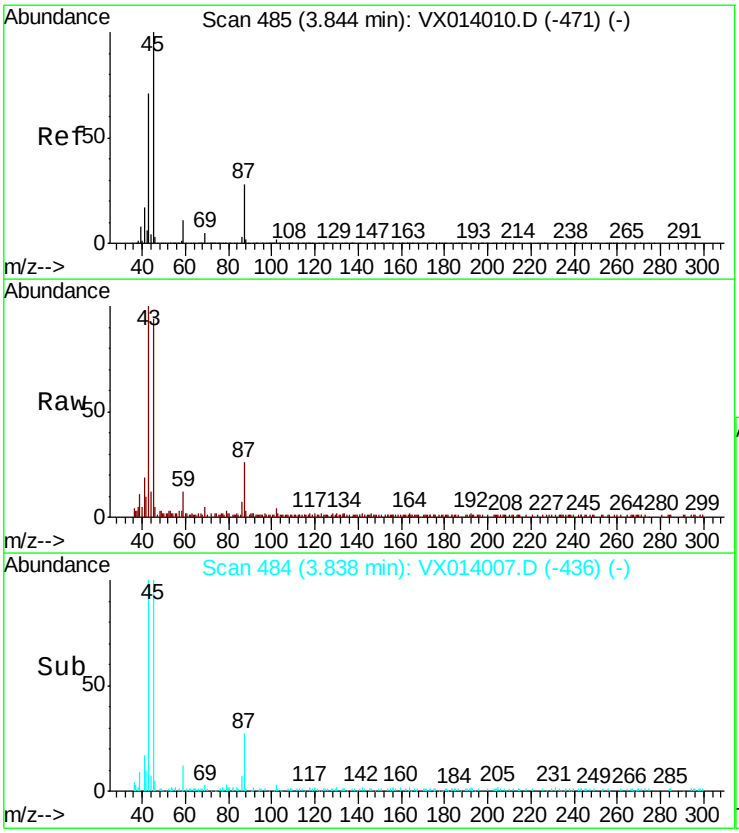


#21
trans-1,2-Dichloroethene
Concen: 1.213 ug/l
RT: 3.16 min Scan# 372
Delta R.T. 0.00 min
Lab File: VX014007.D
Acq: 13 Dec 2019 14:49

Tgt Ion: 96 Resp: 9915

Ion	Ratio	Lower	Upper
96	100		
61	116.6	108.3	162.5
98	54.2	50.8	76.2

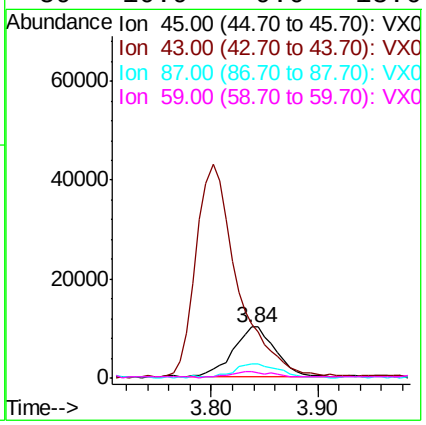


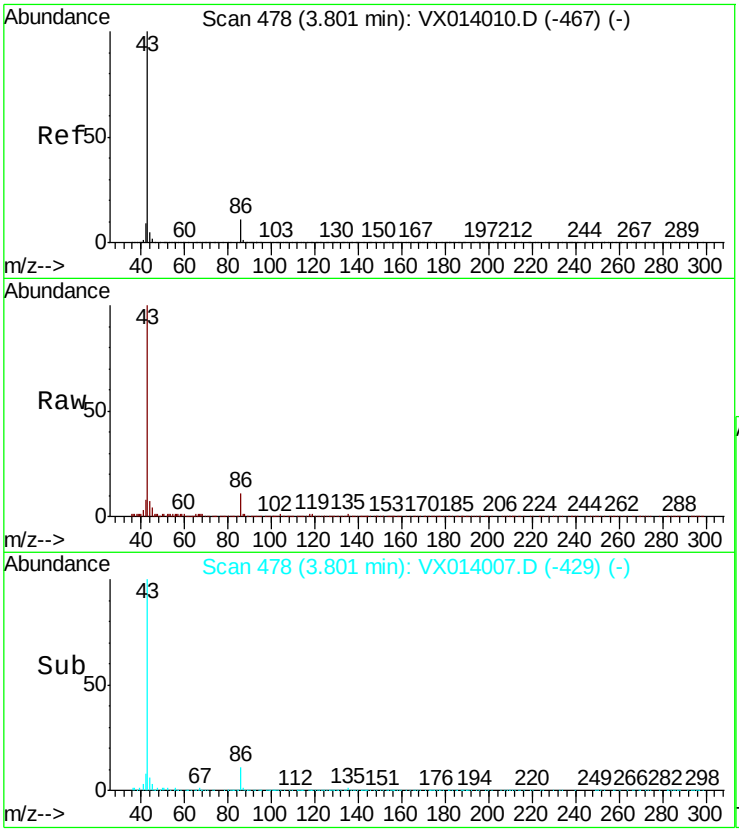


#22
Diisopropyl ether
Concen: 1.075 ug/l
RT: 3.84 min Scan# 484
Delta R.T. -0.01 min
Lab File: VX014007.D
Acq: 13 Dec 2019 14:49

Tgt Ion: 45 Resp: 28244

Ion	Ratio	Lower	Upper
45	100		
43	103.7	57.4	86.0#
87	27.6	21.9	32.9
59	10.9	9.0	13.6

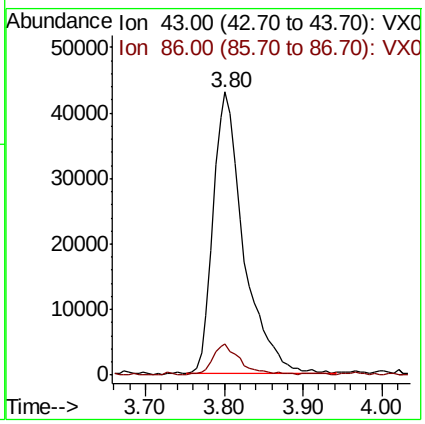




#23
Vinyl Acetate
Concen: 5.296 ug/l
RT: 3.80 min Scan# 478
Delta R.T. 0.00 min
Lab File: VX014007.D
Acq: 13 Dec 2019 14:49

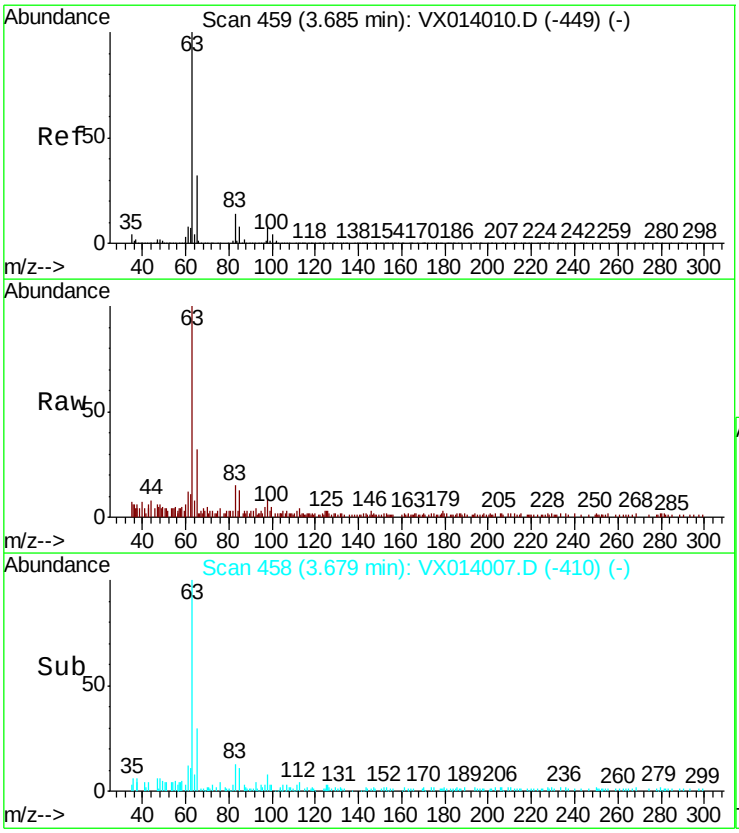
Tgt Ion: 43 Resp: 115573

Ion	Ratio	Lower	Upper
43	100		
86	10.8	8.6	12.8



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC001

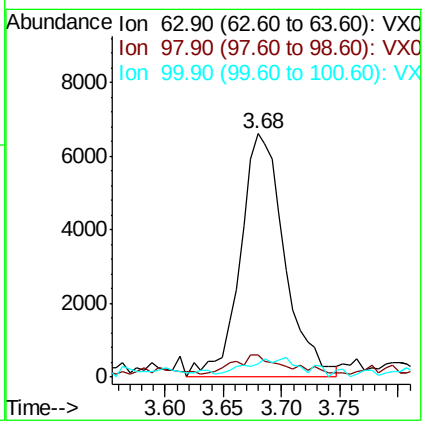
Manual Integrations APPROVED
apatel
12/17/2019 2:48:42 PM

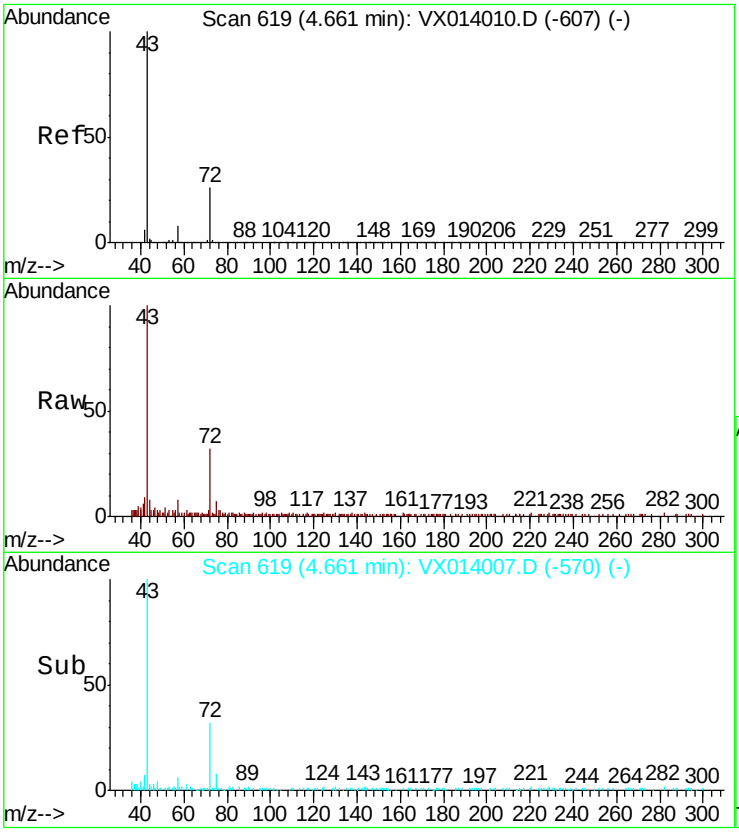


#24
1,1-Dichloroethane
Concen: 1.220 ug/l
RT: 3.68 min Scan# 458
Delta R.T. -0.01 min
Lab File: VX014007.D
Acq: 13 Dec 2019 14:49

Tgt Ion: 63 Resp: 17531

Ion	Ratio	Lower	Upper
63	100		
98	7.5	3.6	10.8
100	3.4	2.3	6.8

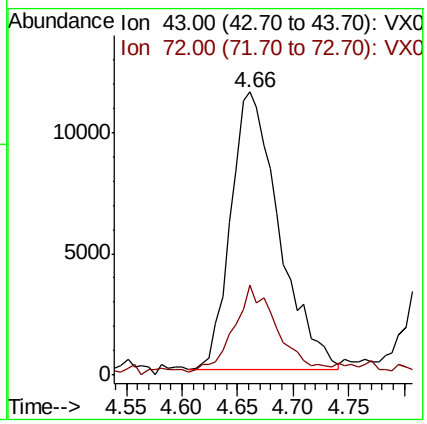




#25
2-Butanone
Concen: 5.107 ug/l
RT: 4.66 min Scan# 619
Delta R.T. 0.00 min
Lab File: VX014007.D
Acq: 13 Dec 2019 14:49

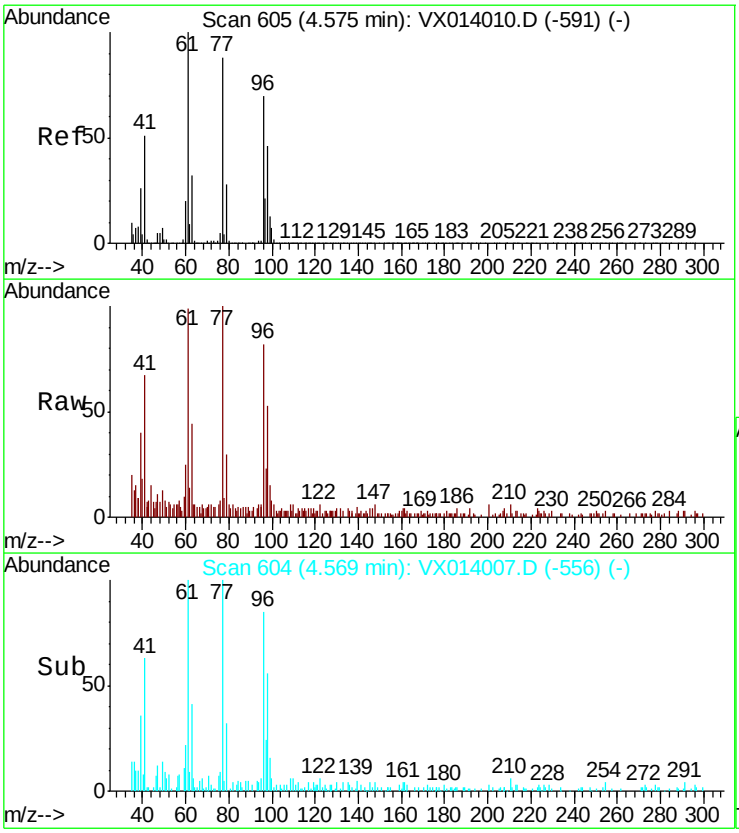
Tgt Ion: 43 Resp: 34597

Ion	Ratio	Lower	Upper
43	100		
72	31.1	21.0	31.4



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC001

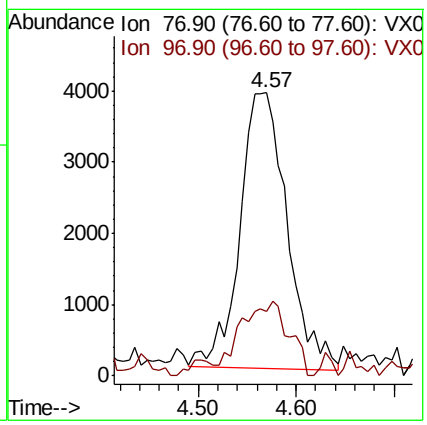
Manual Integrations APPROVED
apatel
12/17/2019 2:48:42 PM

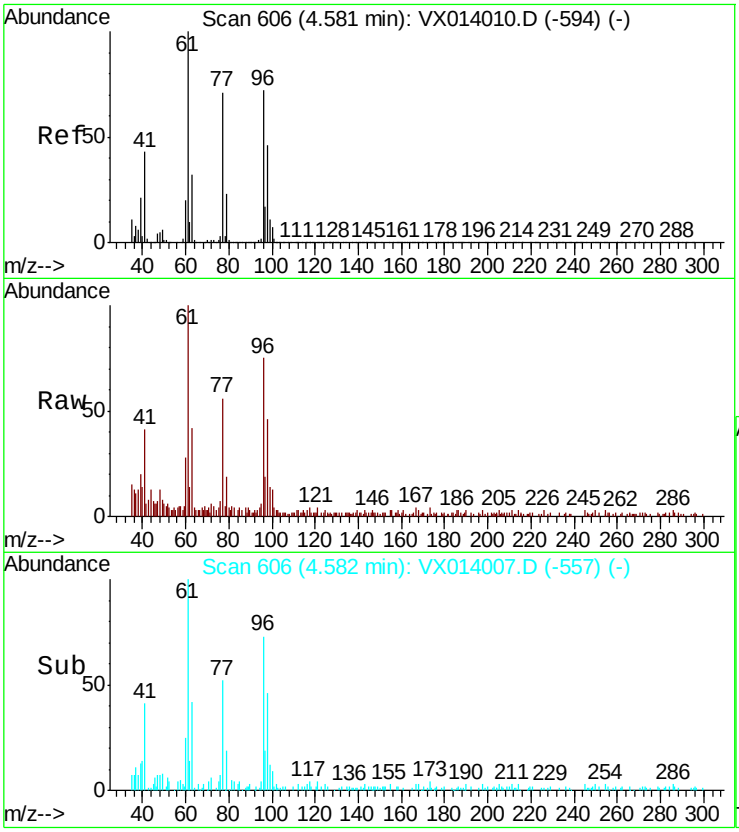


#26
2,2-Dichloropropane
Concen: 1.100 ug/l
RT: 4.57 min Scan# 604
Delta R.T. -0.01 min
Lab File: VX014007.D
Acq: 13 Dec 2019 14:49

Tgt Ion: 77 Resp: 13026

Ion	Ratio	Lower	Upper
77	100		
97	27.4	11.9	35.9

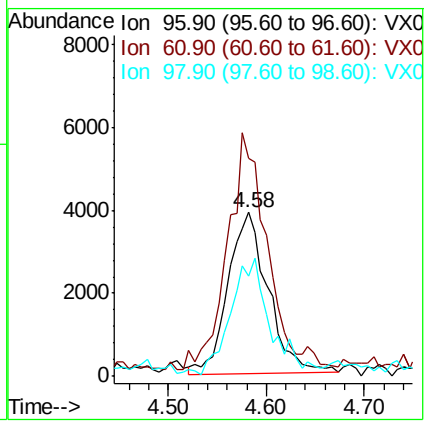




#27
cis-1,2-Dichloroethene
Concen: 1.182 ug/l
RT: 4.58 min Scan# 606
Delta R.T. 0.00 min
Lab File: VX014007.D
Acq: 13 Dec 2019 14:49

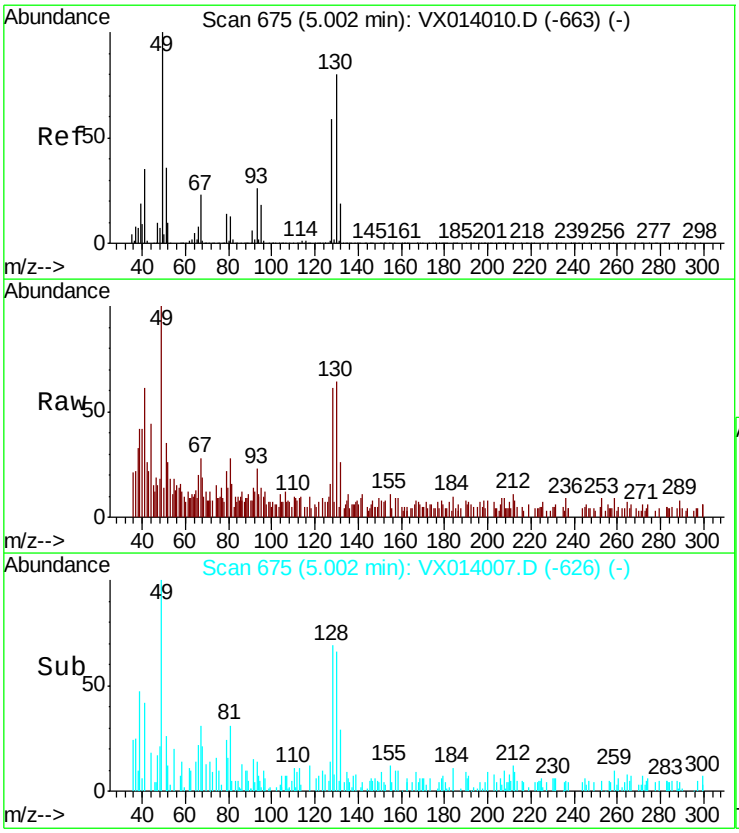
Tgt Ion: 96 Resp: 11096

Ion	Ratio	Lower	Upper
96	100		
61	143.5	0.0	288.4
98	70.0	0.0	129.6



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC001

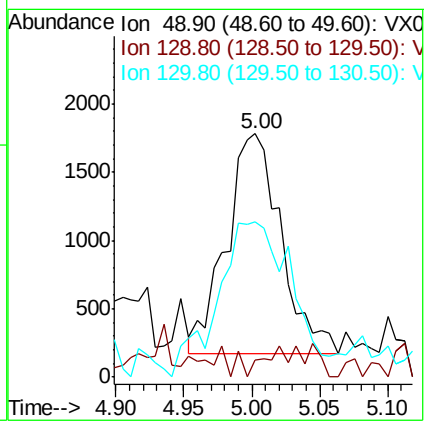
Manual Integrations APPROVED
apatel
12/17/2019 2:48:42 PM

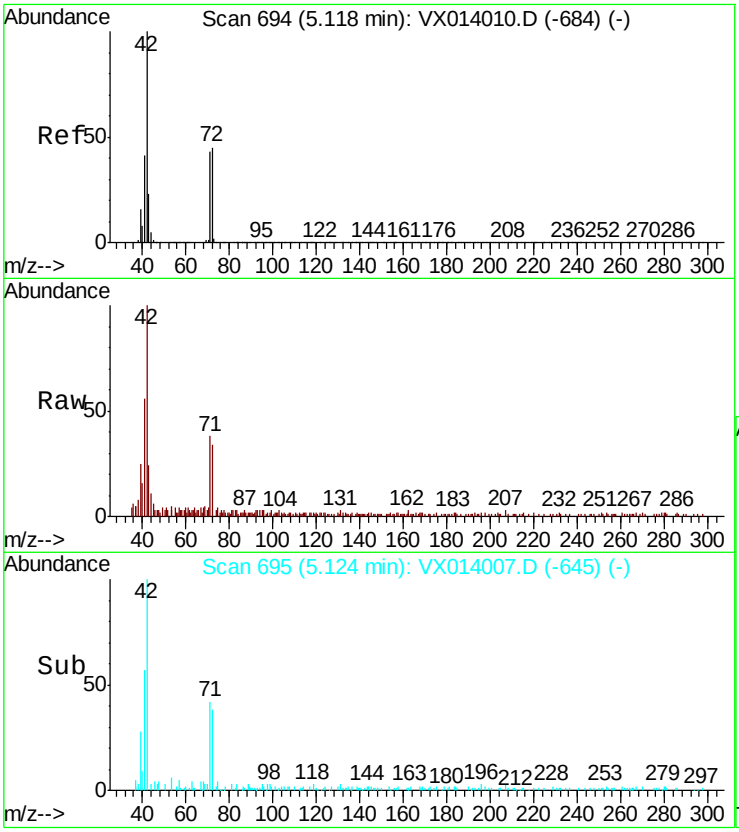


#28
Bromochloromethane
Concen: 0.889 ug/l
RT: 5.00 min Scan# 675
Delta R.T. 0.00 min
Lab File: VX014007.D
Acq: 13 Dec 2019 14:49

Tgt Ion: 49 Resp: 4509

Ion	Ratio	Lower	Upper
49	100		
129	5.8	0.0	5.0#
130	95.3	64.6	97.0

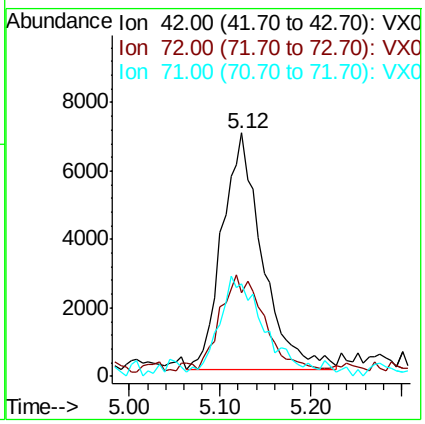


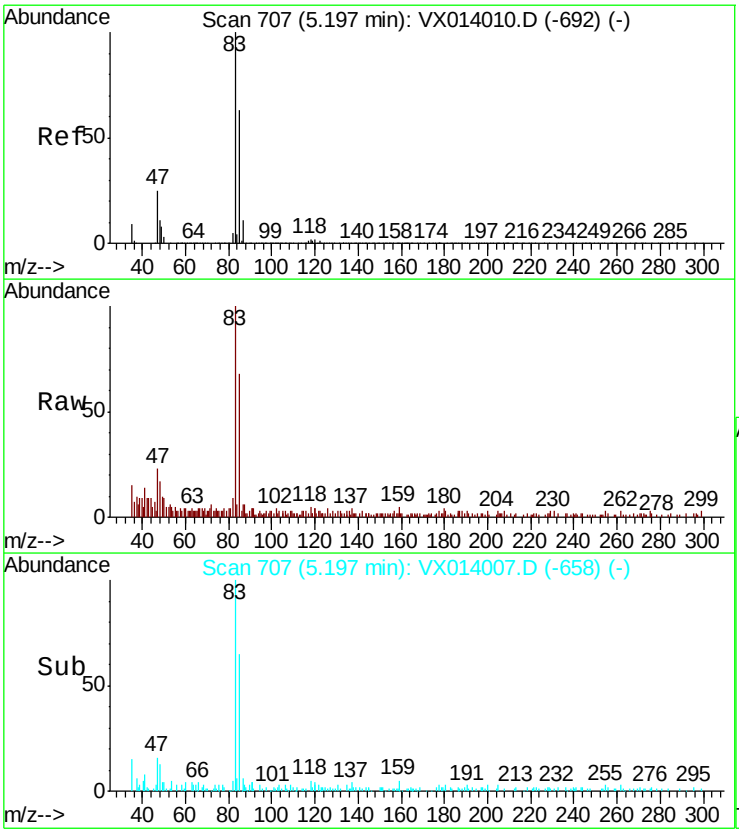


#29
Tetrahydrofuran
Concen: 5.237 ug/l
RT: 5.12 min Scan# 695
Delta R.T. 0.01 min
Lab File: VX014007.D
Acq: 13 Dec 2019 14:49

Tgt Ion: 42 Resp: 21384

Ion	Ratio	Lower	Upper
42	100		
72	43.9	35.8	53.8
71	44.2	33.6	50.4

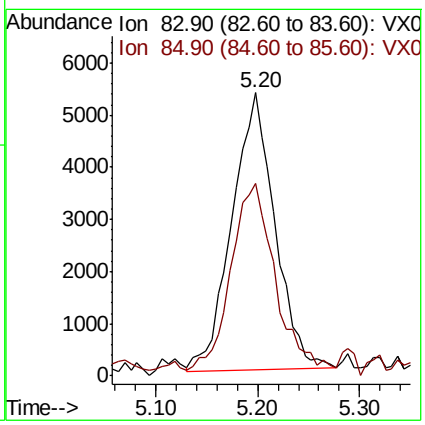




#30
Chloroform
Concen: 1.073 ug/l
RT: 5.20 min Scan# 707
Delta R.T. 0.00 min
Lab File: VX014007.D
Acq: 13 Dec 2019 14:49

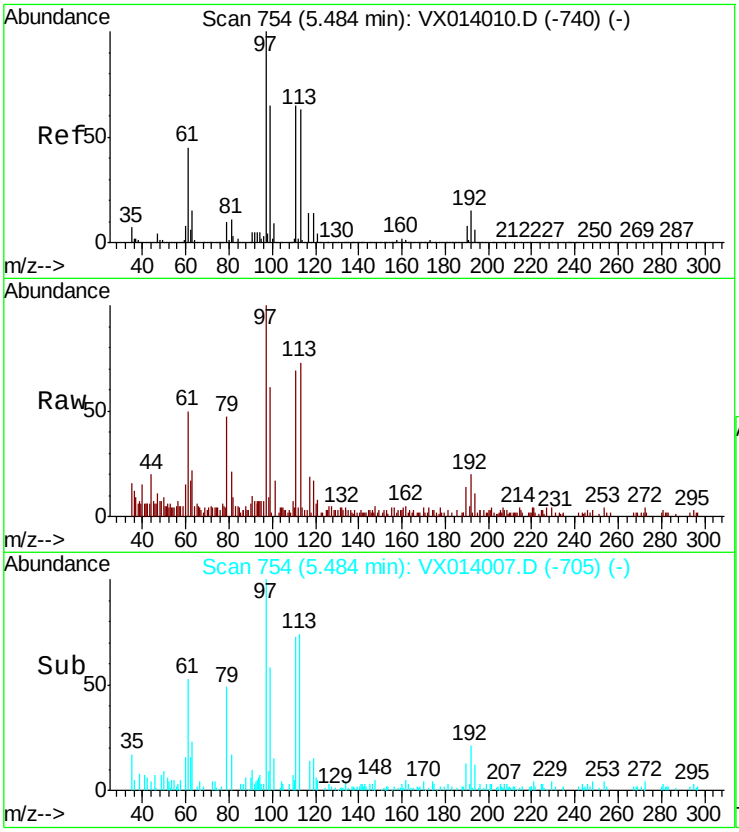
Tgt Ion: 83 Resp: 15604

Ion	Ratio	Lower	Upper
83	100		
85	67.9	50.8	76.2



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC001

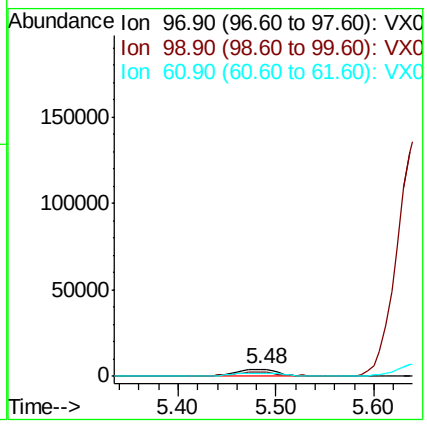
Manual Integrations APPROVED
apatel
12/17/2019 2:48:42 PM



#32
1,1,1-Trichloroethane
Concen: 1.096 ug/l
RT: 5.48 min Scan# 754
Delta R.T. 0.00 min
Lab File: VX014007.D
Acq: 13 Dec 2019 14:49

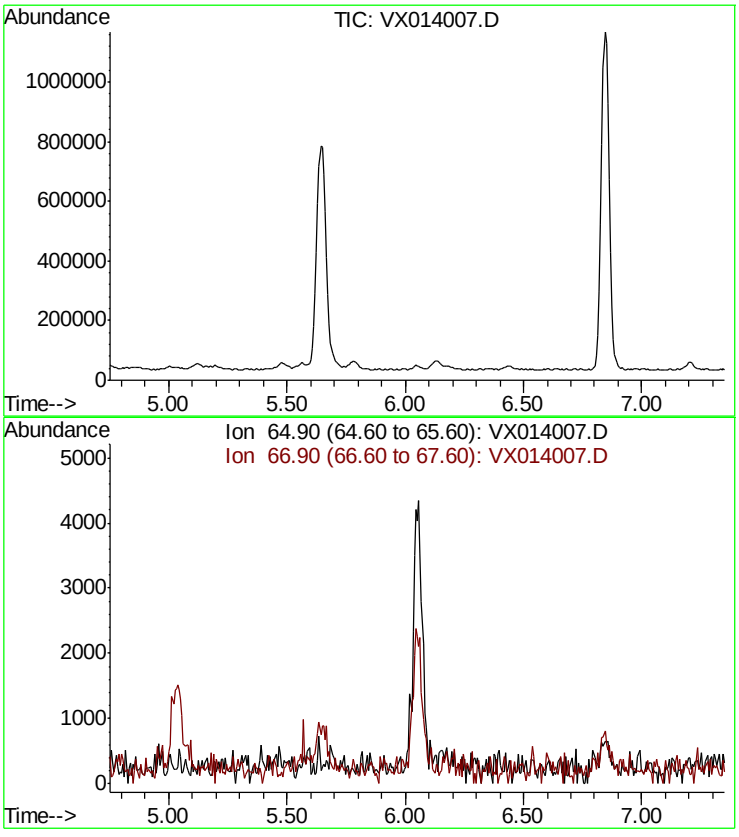
Tgt Ion: 97 Resp: 13317

Ion	Ratio	Lower	Upper
97	100		
99	0.0	52.0	78.0#
61	43.6	36.7	55.1



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC001

Manual Integrations APPROVED
apatel
12/17/2019 2:48:42 PM

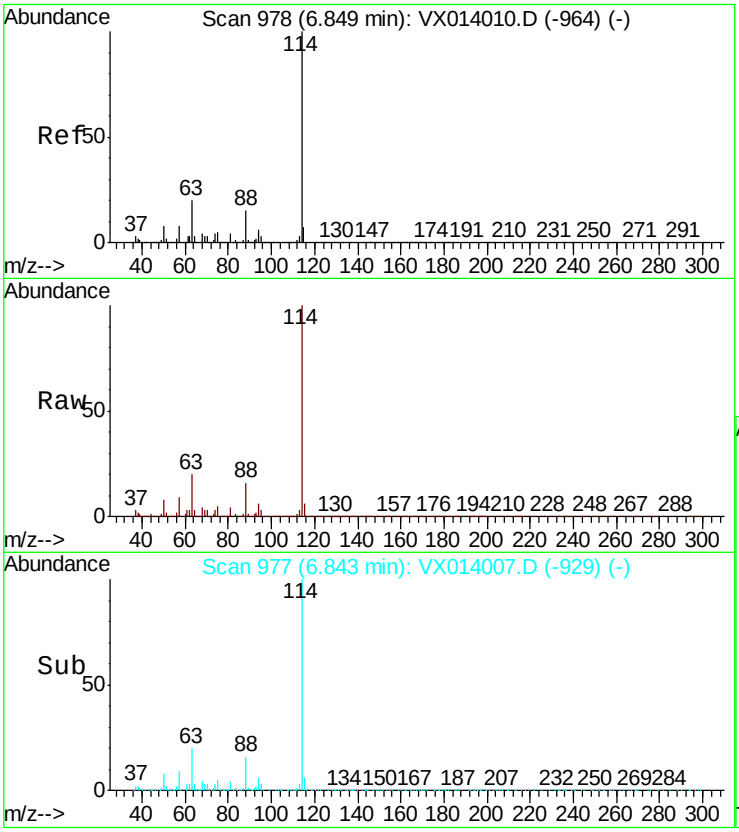


#33
1,2-Dichloroethane-d4
Concen: 0.000 ug/l
Expected RT: 6.05 min

Lab File: VX014007.D
Acq: 13 Dec 2019 14:49

Tgt Ion: 65

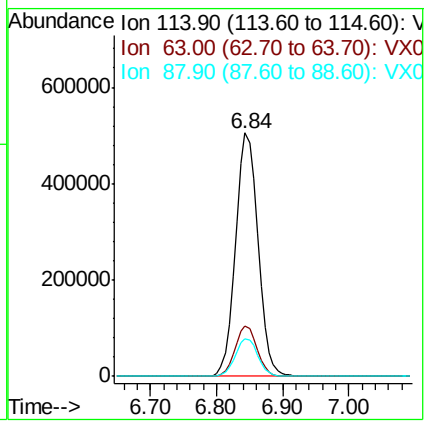
Sig	Exp Ratio
65	100
67	53.2



#34
1,4-Difluorobenzene
Concen: 50.000 ug/l
RT: 6.84 min Scan# 977
Delta R.T. -0.01 min
Lab File: VX014007.D
Acq: 13 Dec 2019 14:49

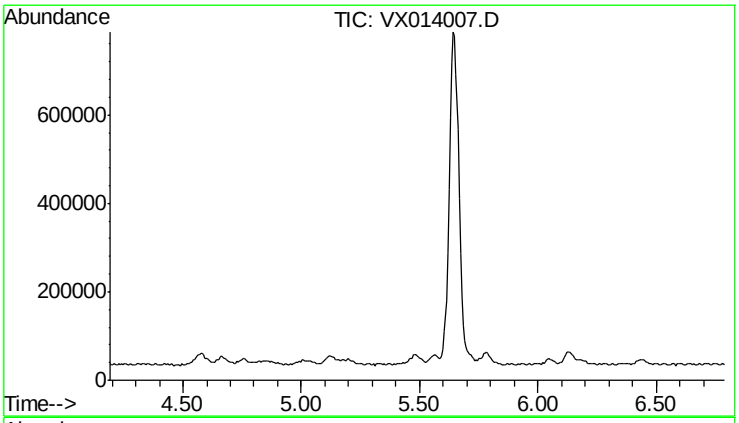
Tgt Ion:114 Resp: 1189953

Ion	Ratio	Lower	Upper
114	100		
63	20.4	0.0	40.8
88	15.5	0.0	30.4



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC001

Manual Integrations APPROVED
apatel
12/17/2019 2:48:42 PM

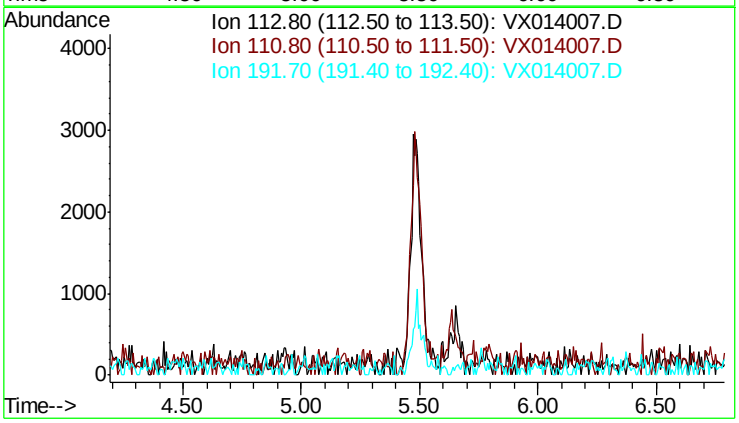


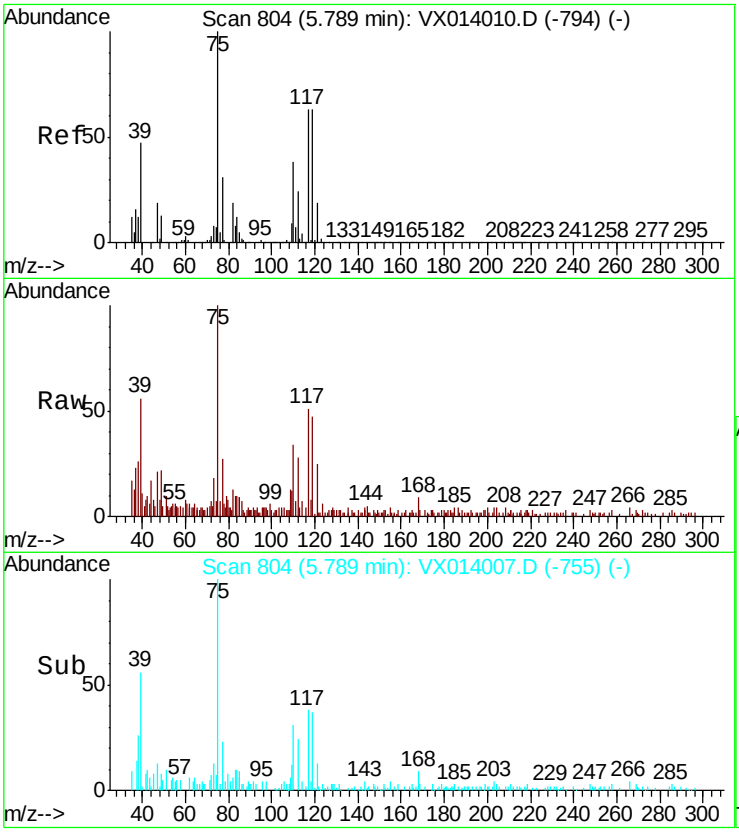
#35
Dibromofluoromethane
Concen: 0.000 ug/l
Expected RT: 5.49 min

Lab File: VX014007.D
Acq: 13 Dec 2019 14:49

Tgt Ion: 113

Sig	Exp Ratio
113	100
111	102.5
192	24.1

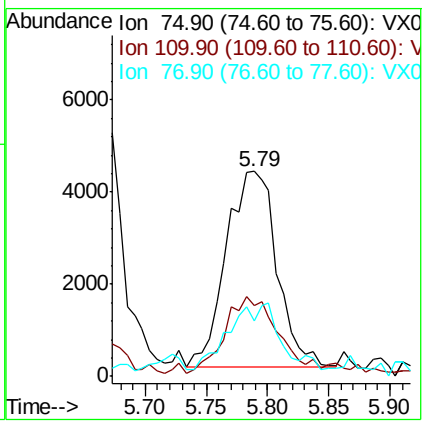




#36
1,1-Dichloropropene
Concen: 1.141 ug/l
RT: 5.79 min Scan# 804
Delta R.T. 0.00 min
Lab File: VX014007.D
Acq: 13 Dec 2019 14:49

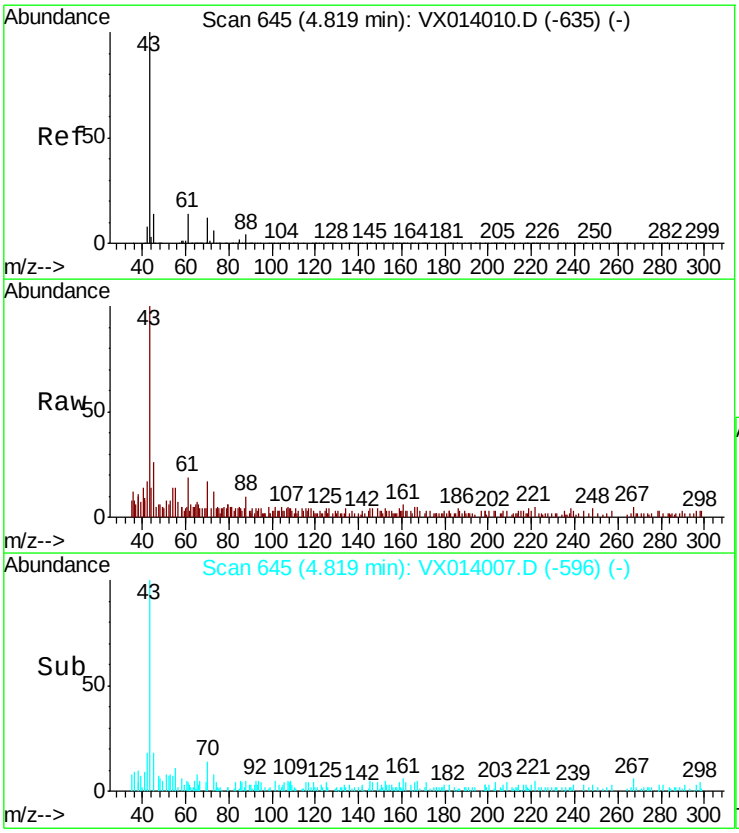
Tgt Ion: 75 Resp: 12335

Ion	Ratio	Lower	Upper
75	100		
110	42.4	18.3	54.9
77	18.4	24.8	37.2#



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC001

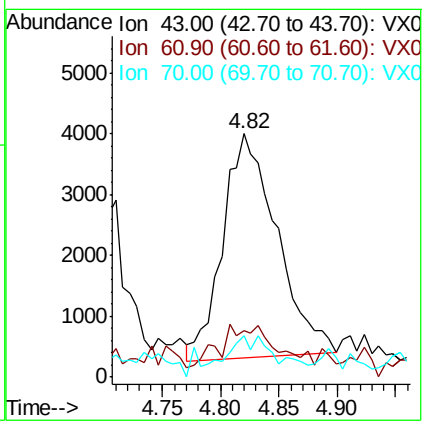
Manual Integrations APPROVED
apatel
12/17/2019 2:48:42 PM



#37
Ethyl Acetate
Concen: 0.986 ug/l
RT: 4.82 min Scan# 645
Delta R.T. 0.00 min
Lab File: VX014007.D
Acq: 13 Dec 2019 14:49

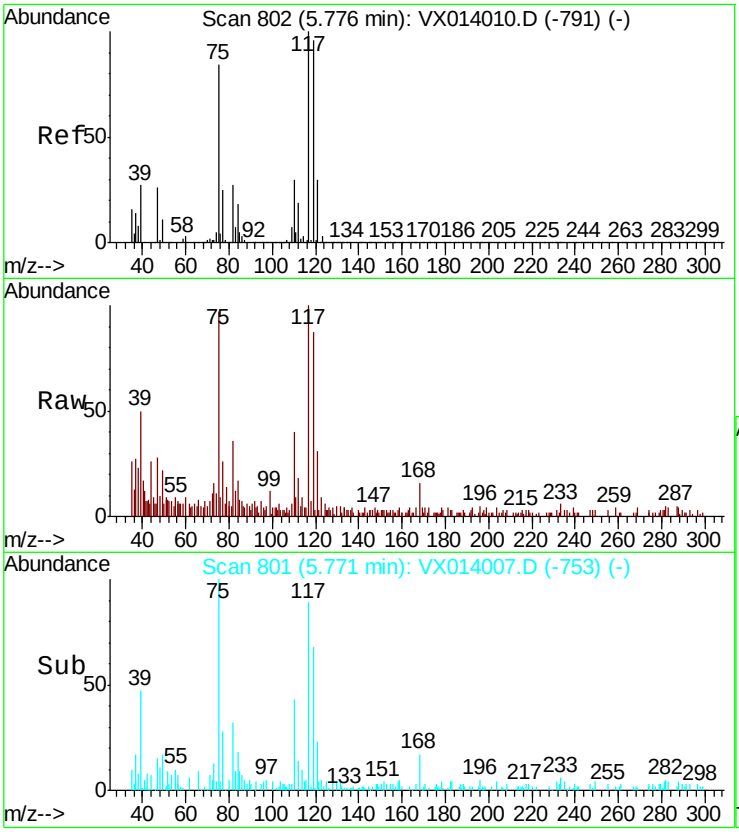
Tgt Ion: 43 Resp: 11886

Ion	Ratio	Lower	Upper
43	100		
61	18.3	10.8	16.2#
70	4.2	8.6	12.8#



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC001

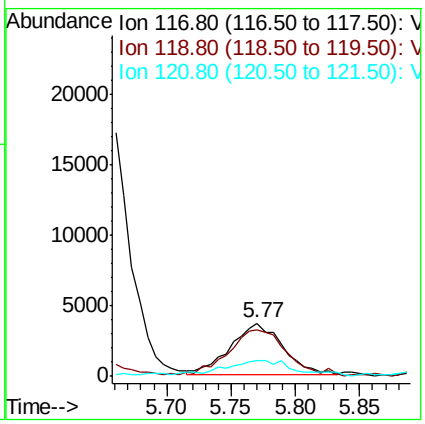
Manual Integrations APPROVED
apatel
12/17/2019 2:48:42 PM

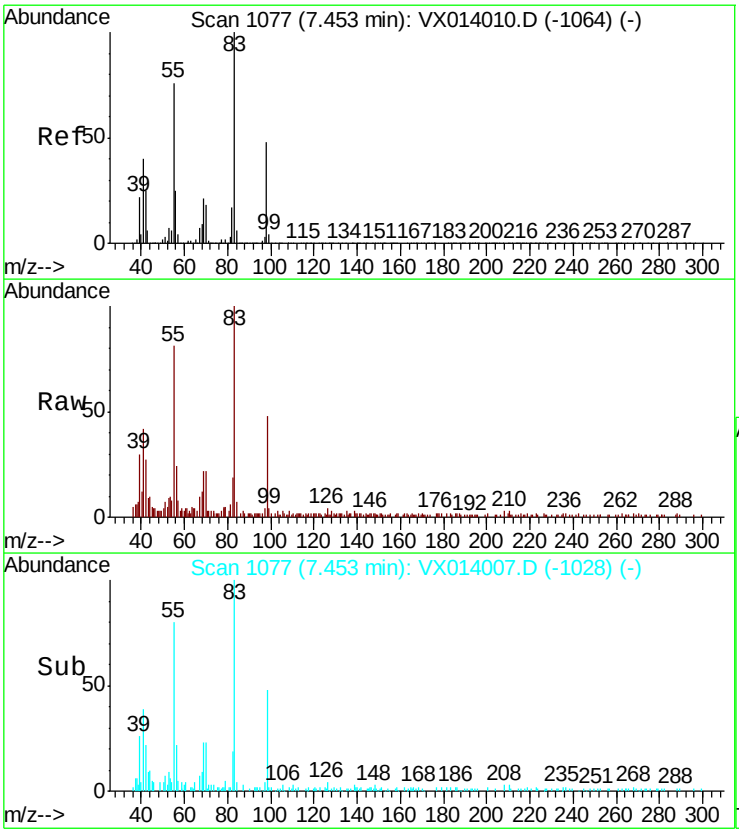


#38
Carbon Tetrachloride
Concen: 1.023 ug/l
RT: 5.77 min Scan# 801
Delta R.T. -0.01 min
Lab File: VX014007.D
Acq: 13 Dec 2019 14:49

Tgt Ion:117 Resp: 10200

Ion	Ratio	Lower	Upper
117	100		
119	84.3	76.2	114.4
121	24.7	23.6	35.4

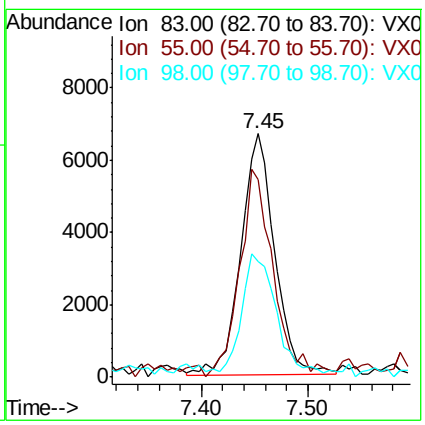


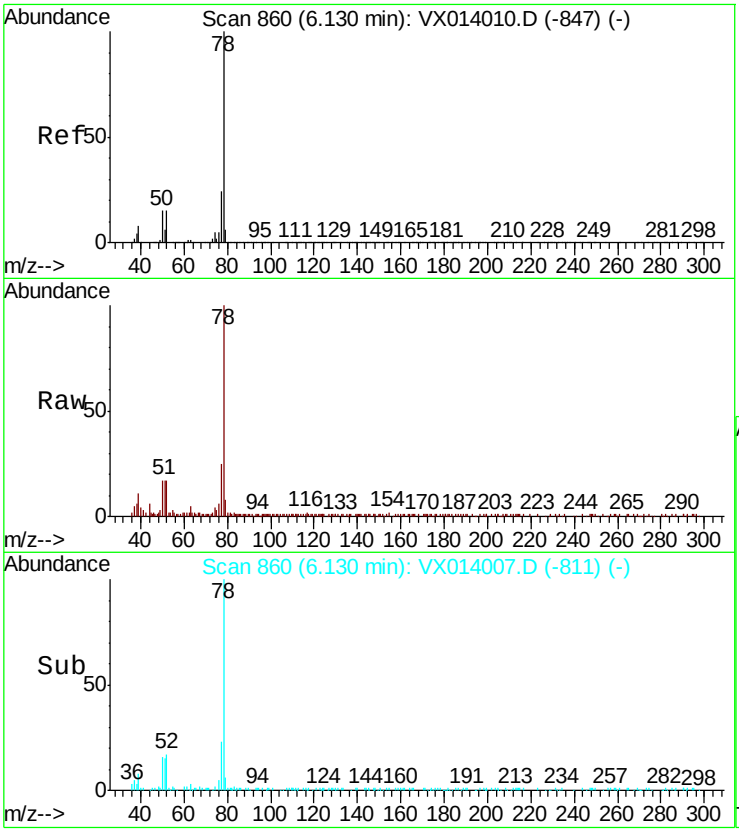


#39
Methylcyclohexane
Concen: 1.116 ug/l
RT: 7.45 min Scan# 1077
Delta R.T. 0.00 min
Lab File: VX014007.D
Acq: 13 Dec 2019 14:49

Tgt Ion: 83 Resp: 14939

Ion	Ratio	Lower	Upper
83	100		
55	78.8	61.0	91.6
98	46.2	38.6	57.8

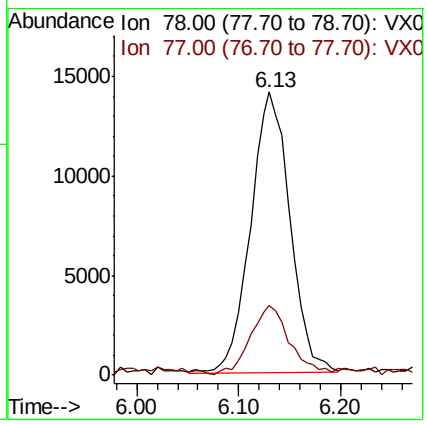




#40
Benzene
Concen: 1.145 ug/l
RT: 6.13 min Scan# 860
Delta R.T. 0.00 min
Lab File: VX014007.D
Acq: 13 Dec 2019 14:49

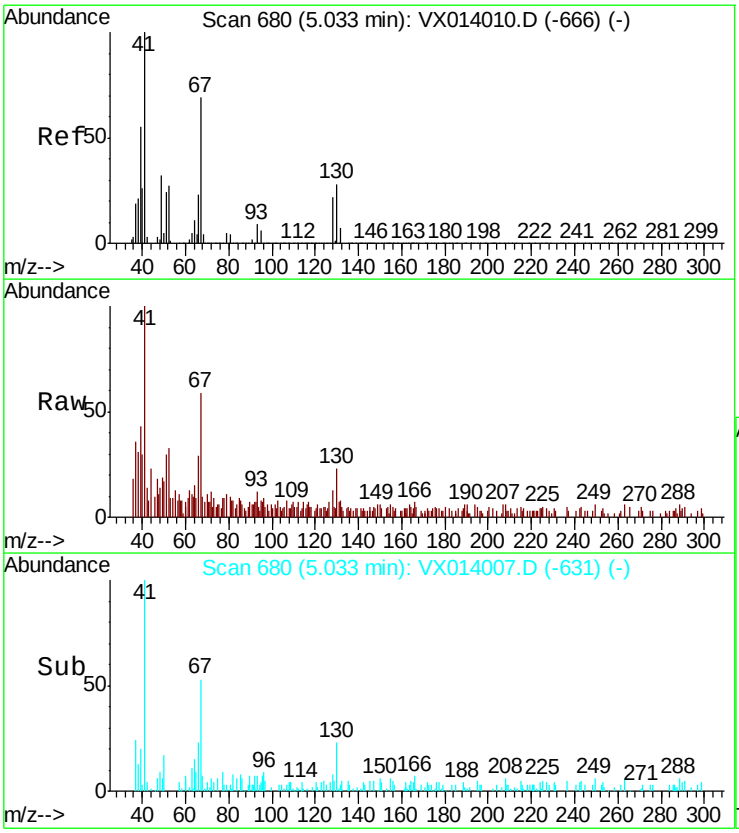
Tgt Ion: 78 Resp: 37774

Ion	Ratio	Lower	Upper
78	100		
77	23.6	18.8	28.2



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC001

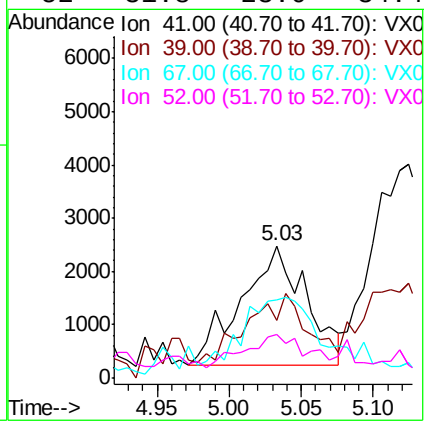
Manual Integrations APPROVED
apatel
12/17/2019 2:48:42 PM

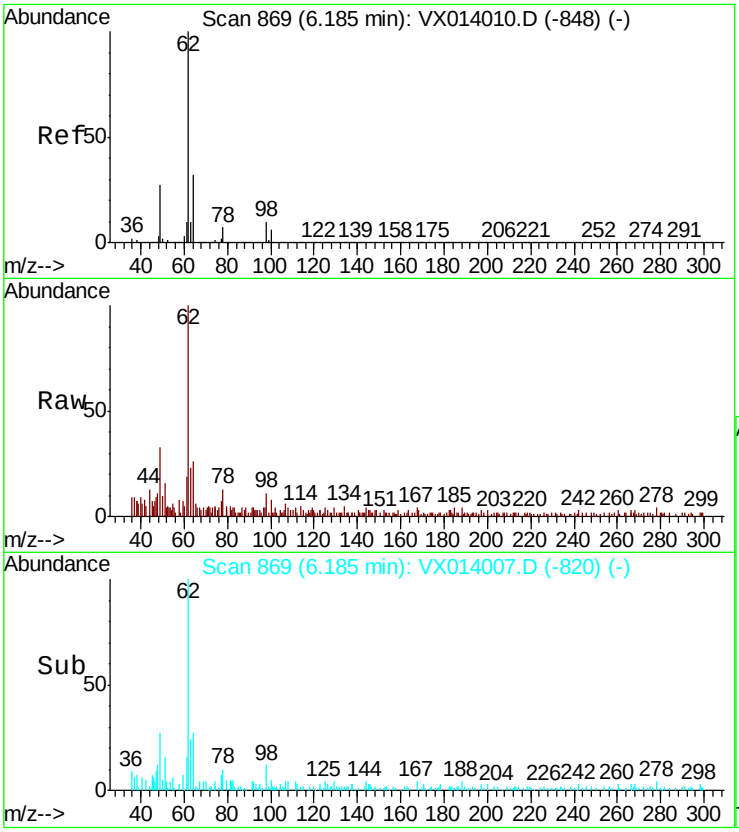


#41
Methacrylonitrile
Concen: 1.070 ug/l
RT: 5.03 min Scan# 680
Delta R.T. 0.00 min
Lab File: VX014007.D
Acq: 13 Dec 2019 14:49

Tgt Ion: 41 Resp: 7044

Ion	Ratio	Lower	Upper
41	100		
39	70.5	44.5	66.7#
67	92.9	57.4	86.0#
52	31.8	23.0	34.4

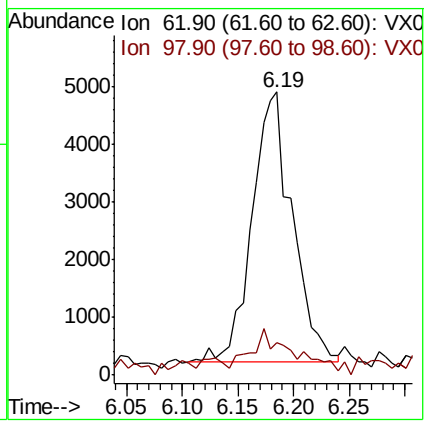




#42
1,2-Dichloroethane
Concen: 1.040 ug/l
RT: 6.19 min Scan# 869
Delta R.T. 0.00 min
Lab File: VX014007.D
Acq: 13 Dec 2019 14:49

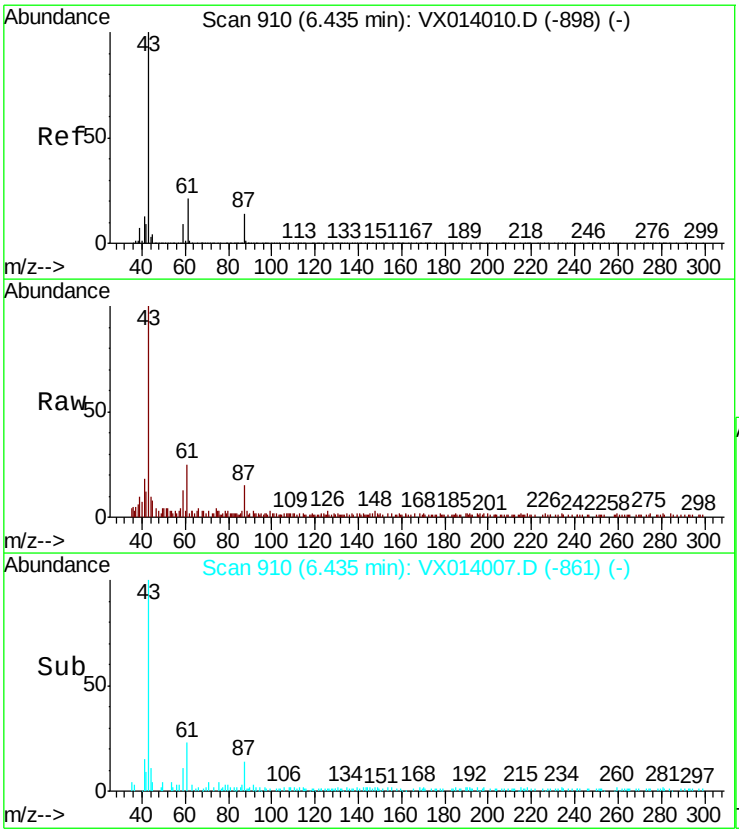
Tgt Ion: 62 Resp: 11688

Ion	Ratio	Lower	Upper
62	100		
98	15.0	0.0	21.0



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC001

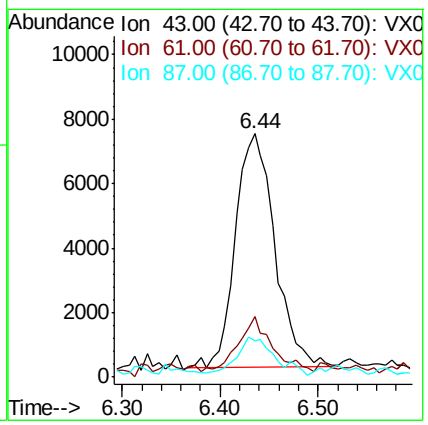
Manual Integrations APPROVED
apatel
12/17/2019 2:48:42 PM

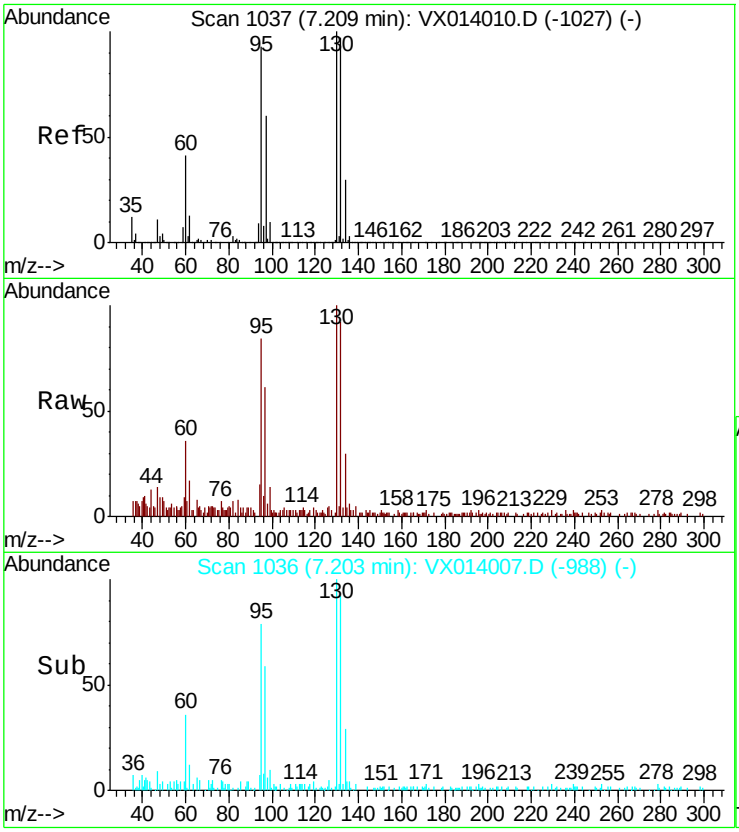


#43
Isopropyl Acetate
Concen: 1.015 ug/l
RT: 6.44 min Scan# 910
Delta R.T. 0.00 min
Lab File: VX014007.D
Acq: 13 Dec 2019 14:49

Tgt Ion: 43 Resp: 20213

Ion	Ratio	Lower	Upper
43	100		
61	19.4	16.4	24.6
87	13.7	10.7	16.1

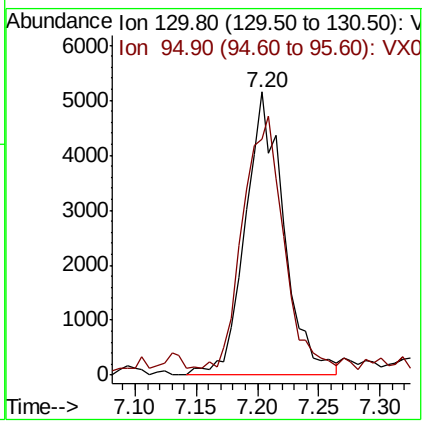




#44
Trichloroethene
Concen: 1.259 ug/l
RT: 7.20 min Scan# 1036
Delta R.T. -0.01 min
Lab File: VX014007.D
Acq: 13 Dec 2019 14:49

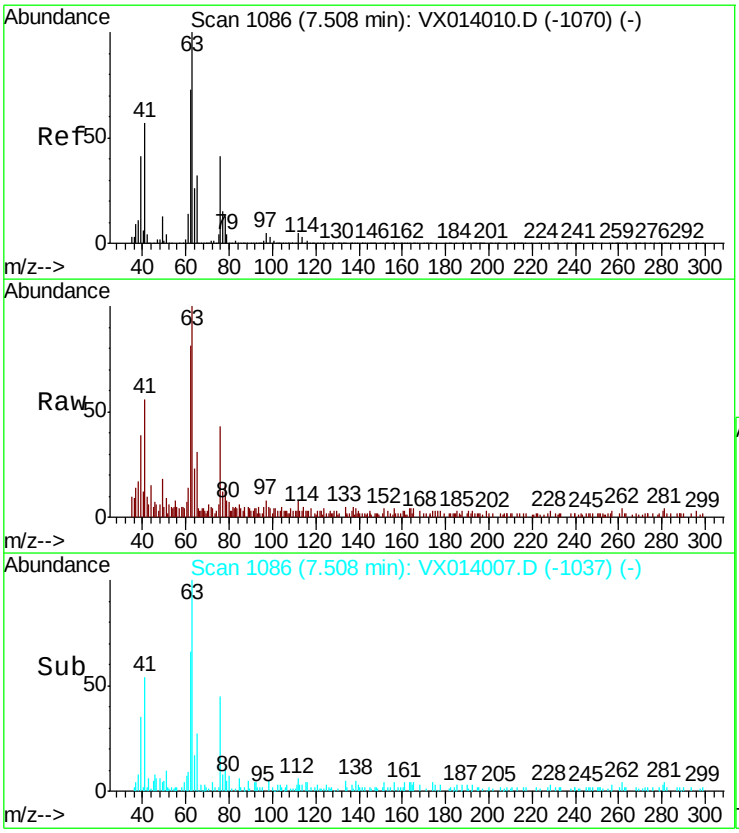
Tgt Ion:130 Resp: 11355

Ion	Ratio	Lower	Upper
130	100		
95	81.1	0.0	185.6



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC001

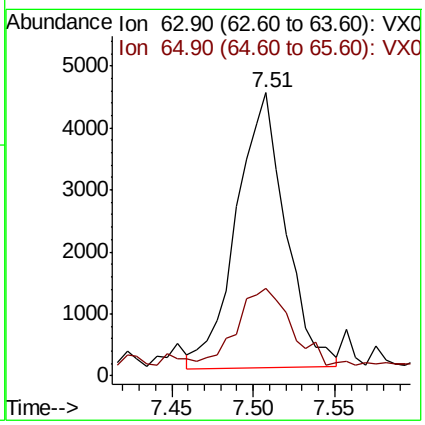
Manual Integrations APPROVED
apatel
12/17/2019 2:48:42 PM

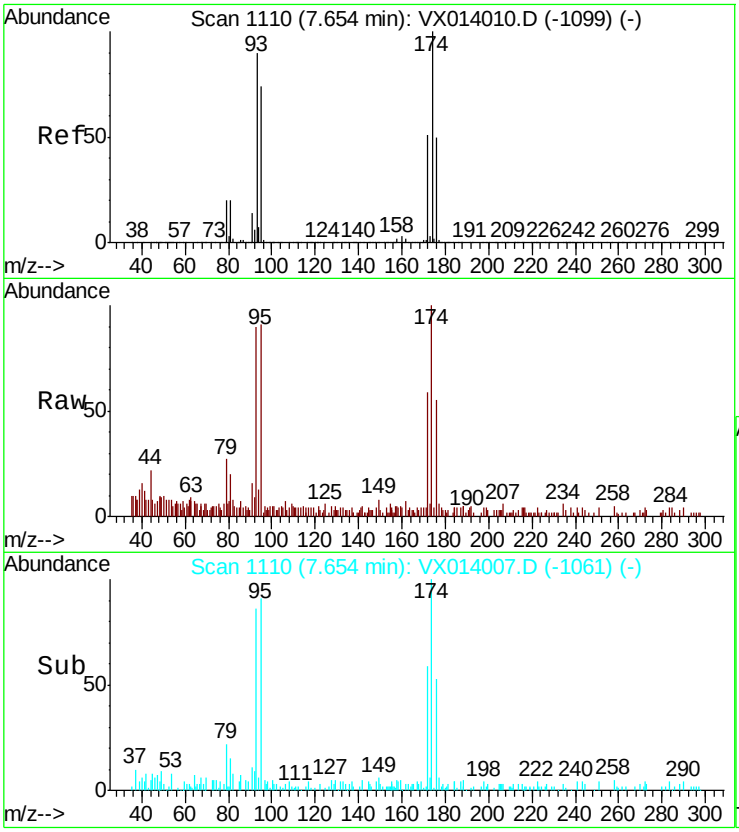


#45
1,2-Dichloropropane
Concen: 1.125 ug/l
RT: 7.51 min Scan# 1086
Delta R.T. 0.00 min
Lab File: VX014007.D
Acq: 13 Dec 2019 14:49

Tgt Ion: 63 Resp: 9301

Ion	Ratio	Lower	Upper
63	100		
65	28.7	25.8	38.8

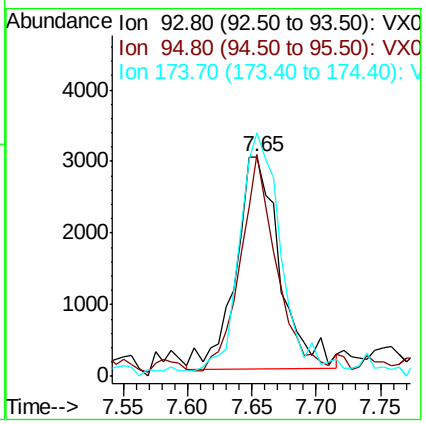




#46
Dibromomethane
Concen: 1.263 ug/l
RT: 7.65 min Scan# 1110
Delta R.T. 0.00 min
Lab File: VX014007.D
Acq: 13 Dec 2019 14:49

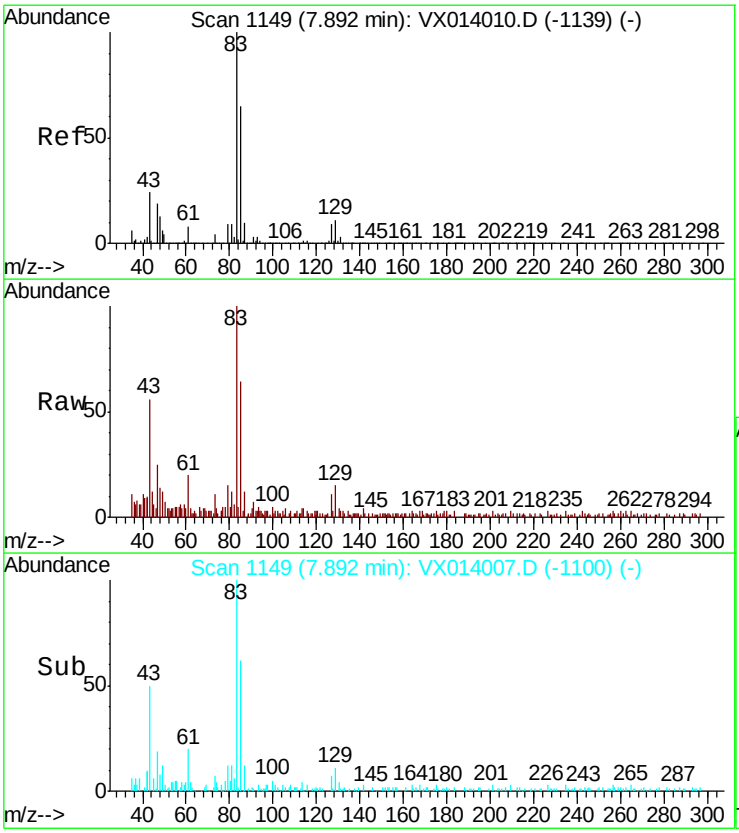
Tgt Ion: 93 Resp: 7070

Ion	Ratio	Lower	Upper
93	100		
95	82.7	67.3	100.9
174	106.1	91.6	137.4



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC001

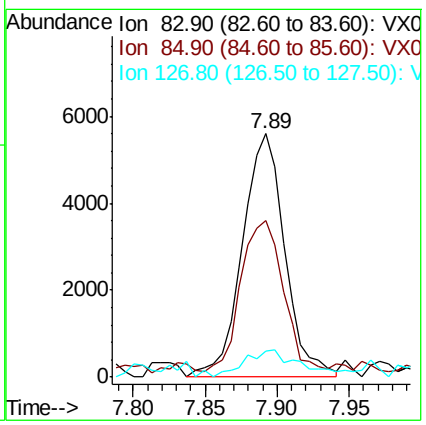
Manual Integrations APPROVED
apatel
12/17/2019 2:48:42 PM

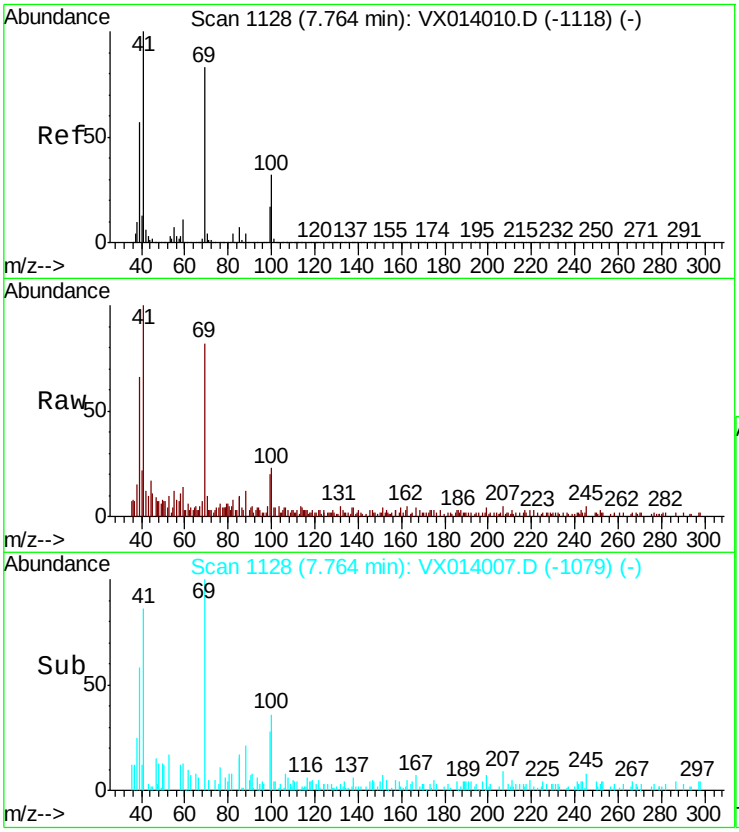


#47
Bromodichloromethane
Concen: 1.079 ug/l
RT: 7.89 min Scan# 1149
Delta R.T. 0.00 min
Lab File: VX014007.D
Acq: 13 Dec 2019 14:49

Tgt Ion: 83 Resp: 11412

Ion	Ratio	Lower	Upper
83	100		
85	59.0	51.8	77.8
127	8.4	7.0	10.4

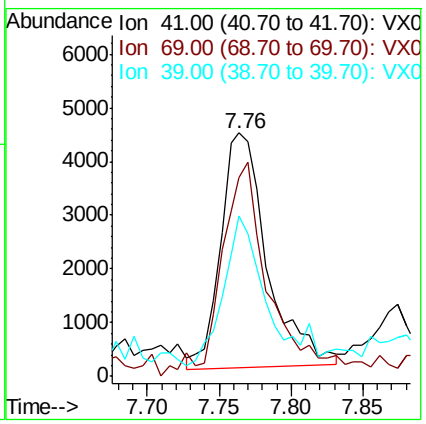




#48
Methyl methacrylate
Concen: 1.028 ug/l
RT: 7.76 min Scan# 1128
Delta R.T. 0.00 min
Lab File: VX014007.D
Acq: 13 Dec 2019 14:49

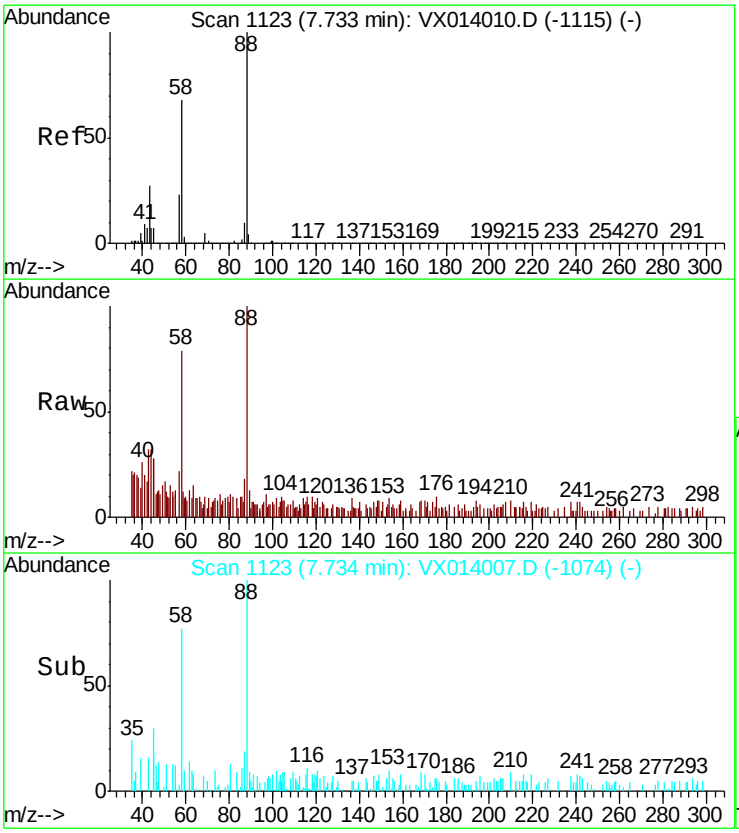
Tgt Ion: 41 Resp: 9926

Ion	Ratio	Lower	Upper
41	100		
69	93.5	65.8	98.6
39	59.2	44.6	67.0



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC001

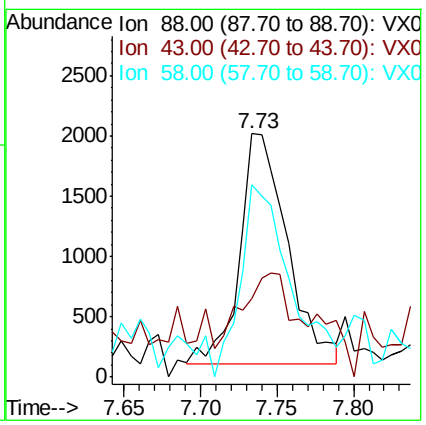
Manual Integrations APPROVED
apatel
12/17/2019 2:48:42 PM



#49
1,4-Dioxane
Concen: 19.503 ug/l
RT: 7.73 min Scan# 1123
Delta R.T. 0.00 min
Lab File: VX014007.D
Acq: 13 Dec 2019 14:49

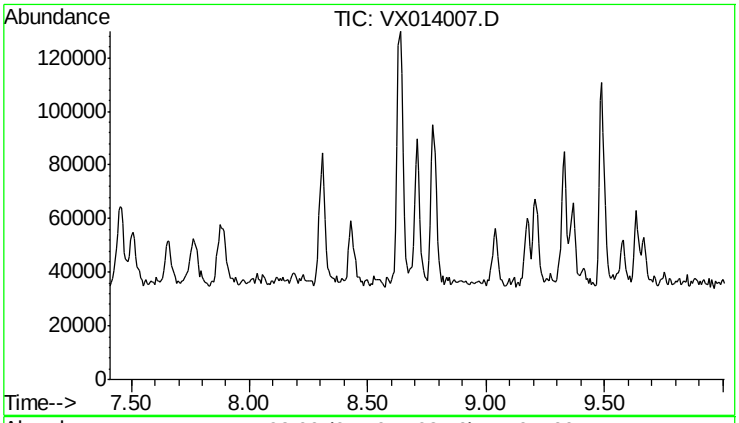
Tgt Ion: 88 Resp: 4148

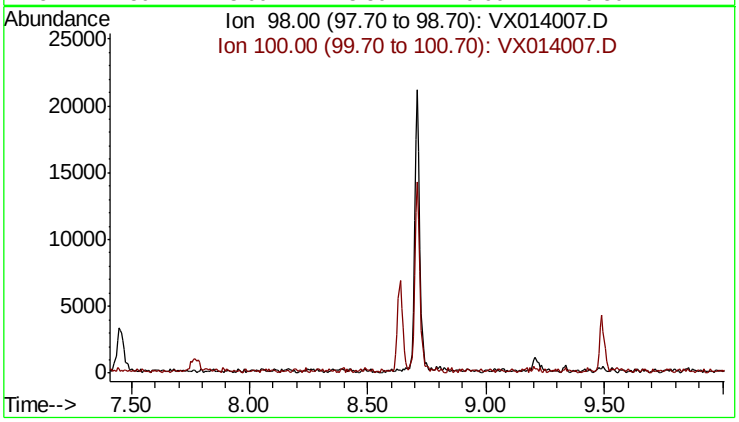
Ion	Ratio	Lower	Upper
88	100		
43	32.6	26.5	39.7
58	88.6	56.8	85.2#



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC001

Manual Integrations APPROVED
apatel
12/17/2019 2:48:42 PM



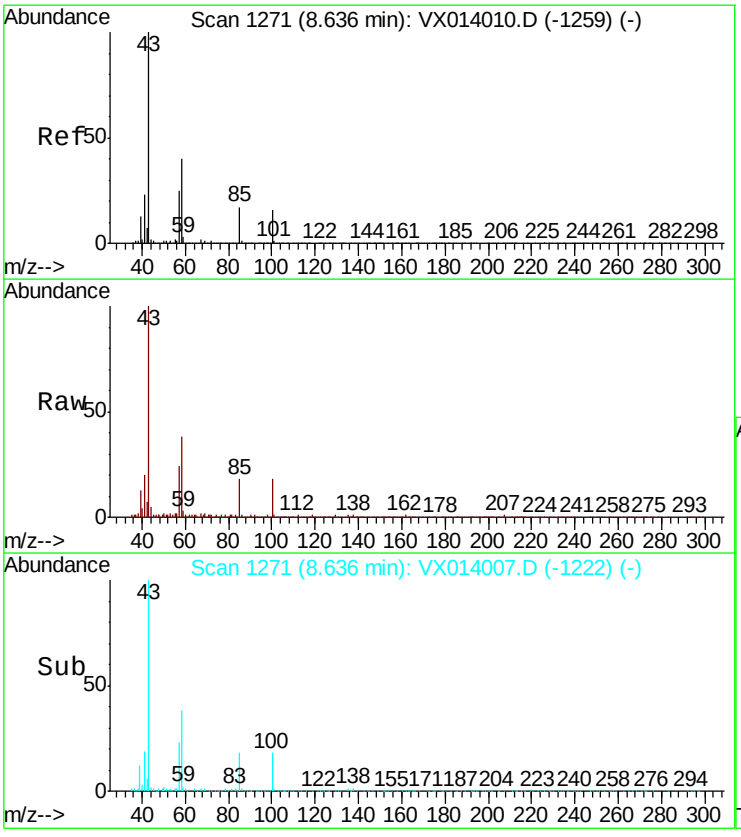


#50
Toluene-d8
Concen: 0.000 ug/l
Expected RT: 8.71 min

Lab File: VX014007.D
Acq: 13 Dec 2019 14:49

Tgt Ion: 98

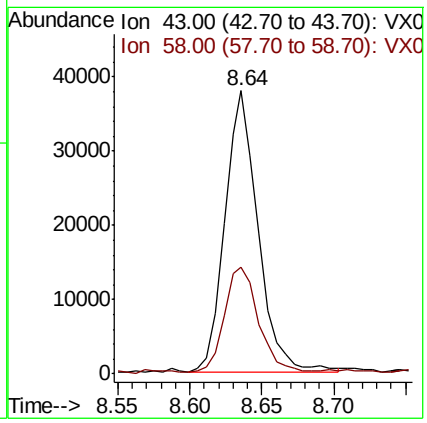
Sig	Exp Ratio
98	100
100	66.1



#51
4-Methyl-2-Pentanone
Concen: 4.856 ug/l
RT: 8.64 min Scan# 1271
Delta R.T. 0.00 min
Lab File: VX014007.D
Acq: 13 Dec 2019 14:49

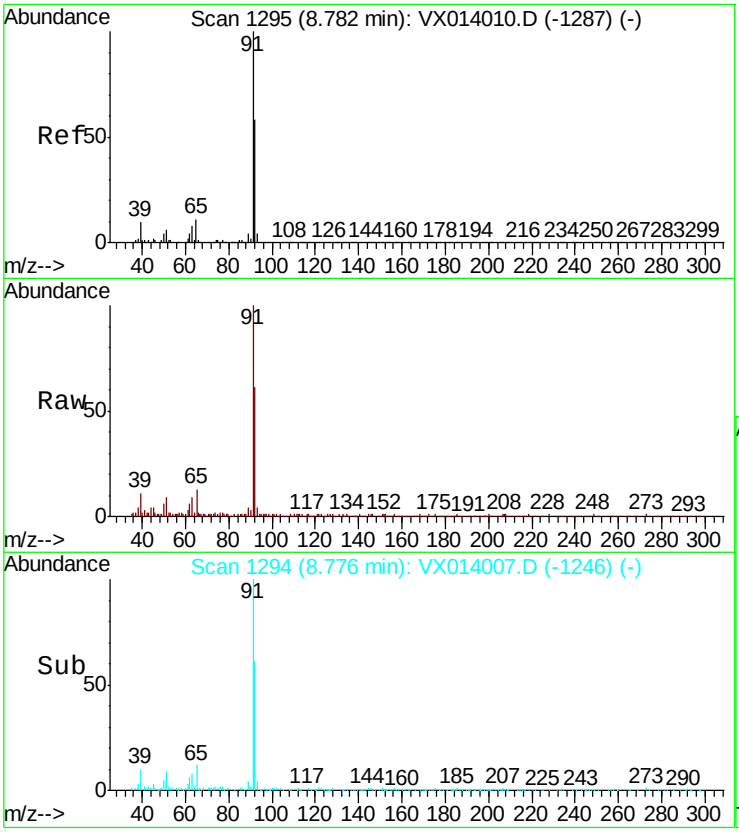
Tgt Ion: 43 Resp: 60739

Ion	Ratio	Lower	Upper
43	100		
58	39.1	32.2	48.2



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC001

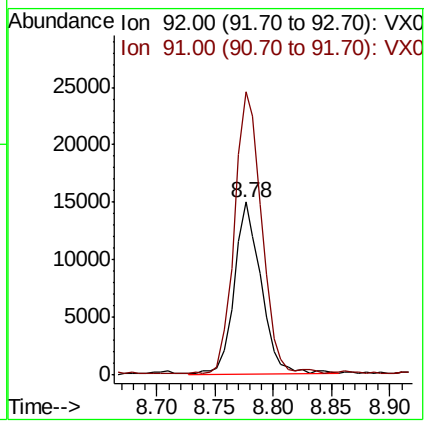
Manual Integrations APPROVED
apatel
12/17/2019 2:48:42 PM

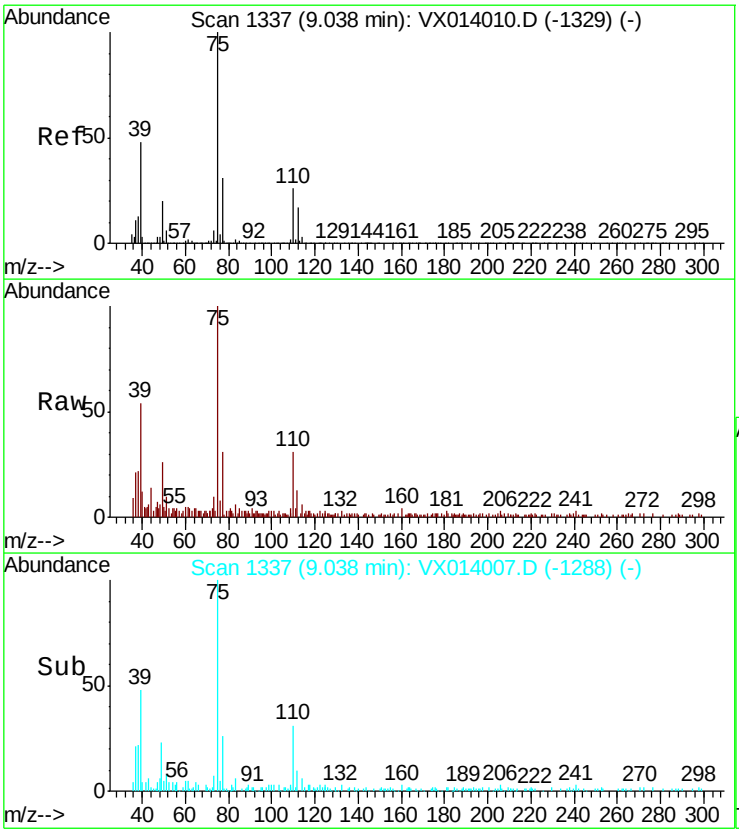


#52
Toluene
Concen: 1.172 ug/l
RT: 8.78 min Scan# 1294
Delta R.T. -0.01 min
Lab File: VX014007.D
Acq: 13 Dec 2019 14:49

Tgt Ion: 92 Resp: 24050

Ion	Ratio	Lower	Upper
92	100		
91	164.0	136.2	204.4

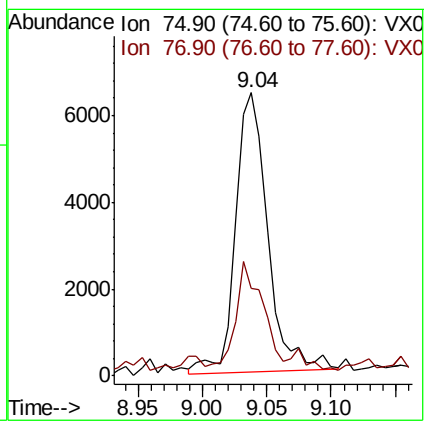


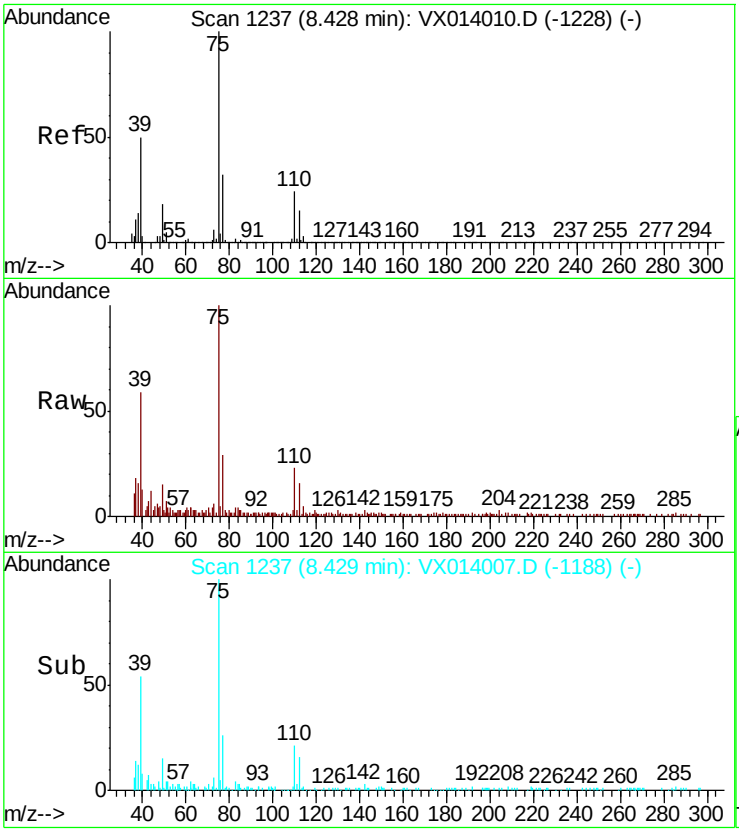


#53
t-1,3-Dichloropropene
Concen: 0.922 ug/l
RT: 9.04 min Scan# 1337
Delta R.T. 0.00 min
Lab File: VX014007.D
Acq: 13 Dec 2019 14:49

Tgt Ion: 75 Resp: 11090

Ion	Ratio	Lower	Upper
75	100		
77	26.2	25.1	37.7

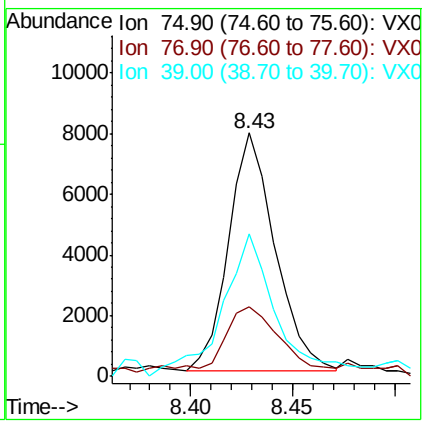


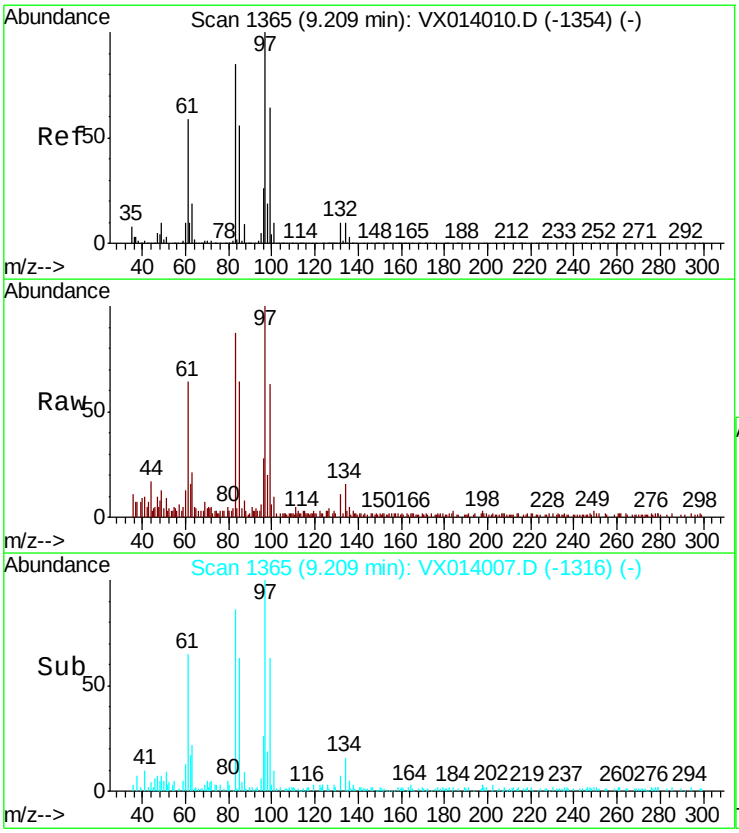


#54
cis-1,3-Dichloropropene
Concen: 0.940 ug/l
RT: 8.43 min Scan# 1237
Delta R.T. 0.00 min
Lab File: VX014007.D
Acq: 13 Dec 2019 14:49

Tgt Ion: 75 Resp: 12372

Ion	Ratio	Lower	Upper
75	100		
77	26.1	25.3	37.9
39	54.0	39.9	59.9

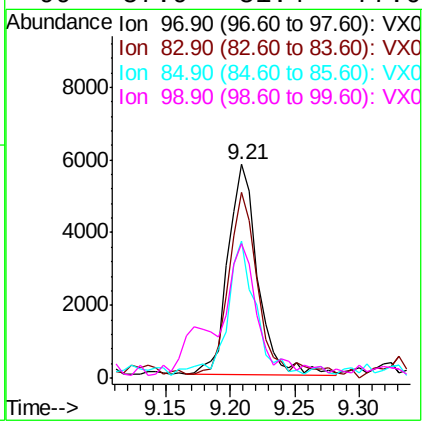




#55
1,1,2-Trichloroethane
Concen: 1.148 ug/l
RT: 9.21 min Scan# 1365
Delta R.T. 0.00 min
Lab File: VX014007.D
Acq: 13 Dec 2019 14:49

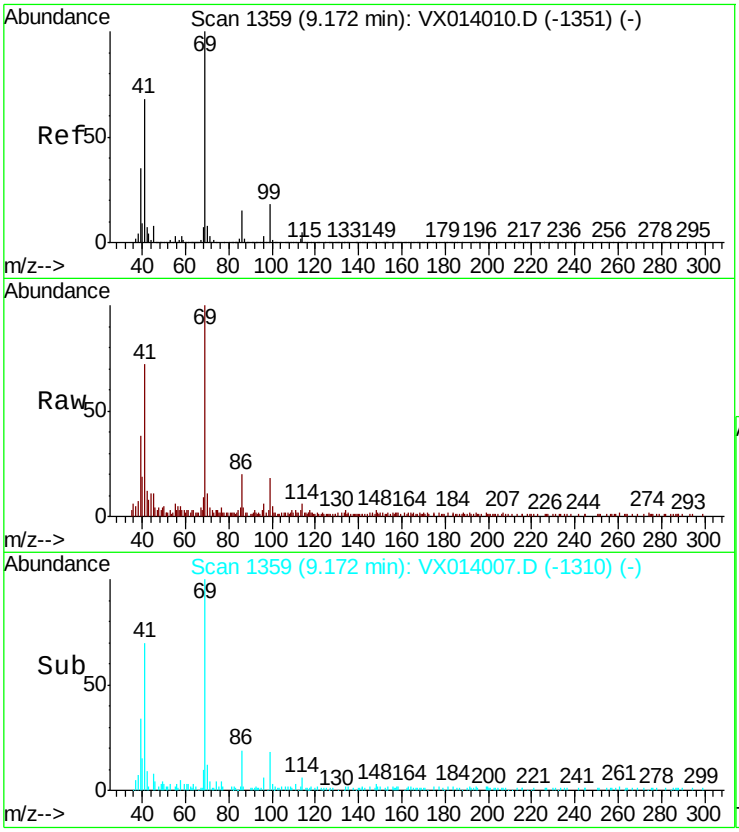
Tgt Ion: 97 Resp: 9482

Ion	Ratio	Lower	Upper
97	100		
83	86.1	68.2	102.4
85	63.4	44.6	66.8
99	57.9	51.4	77.0



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC001

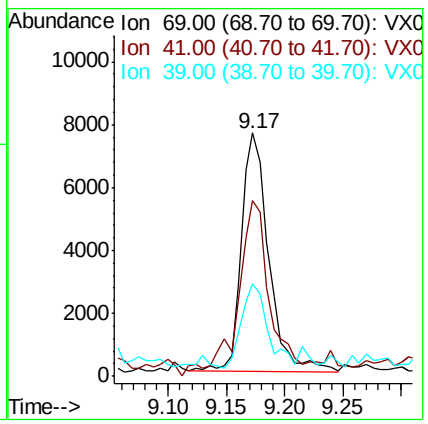
Manual Integrations APPROVED
apatel
12/17/2019 2:48:42 PM

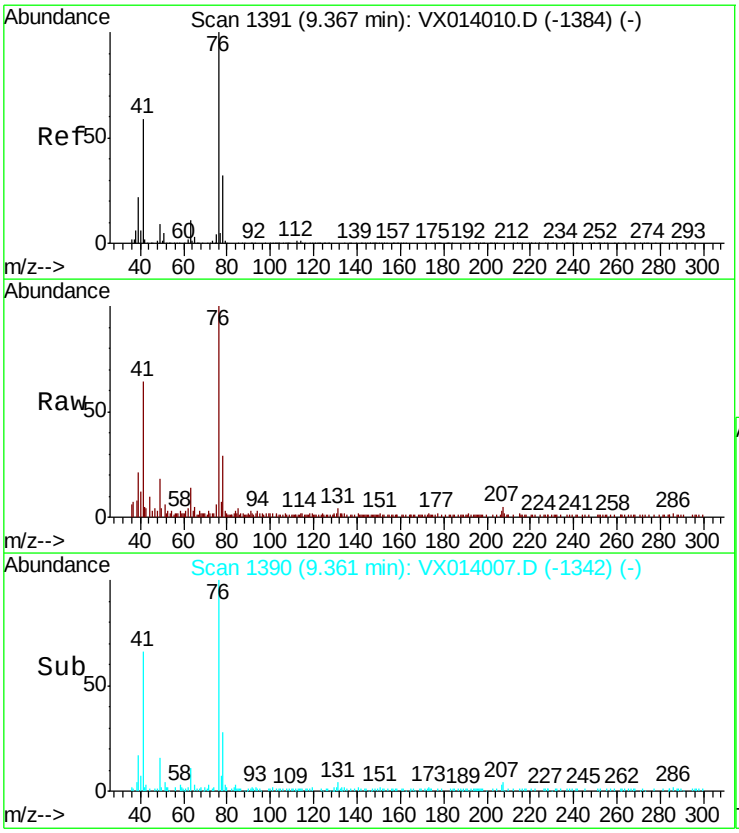


#56
Ethyl methacrylate
Concen: 0.929 ug/l
RT: 9.17 min Scan# 1359
Delta R.T. 0.00 min
Lab File: VX014007.D
Acq: 13 Dec 2019 14:49

Tgt Ion: 69 Resp: 12354

Ion	Ratio	Lower	Upper
69	100		
41	88.9	54.8	82.2#
39	34.5	28.3	42.5

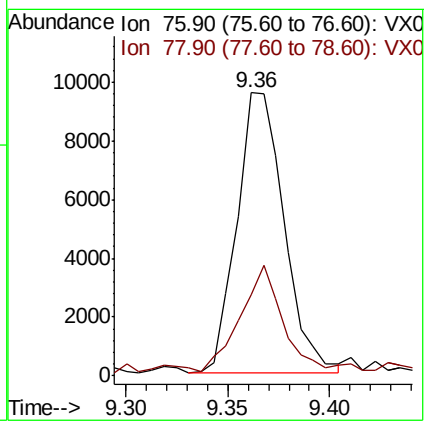




#57
1,3-Dichloropropane
Concen: 1.077 ug/l
RT: 9.36 min Scan# 1390
Delta R.T. -0.01 min
Lab File: VX014007.D
Acq: 13 Dec 2019 14:49

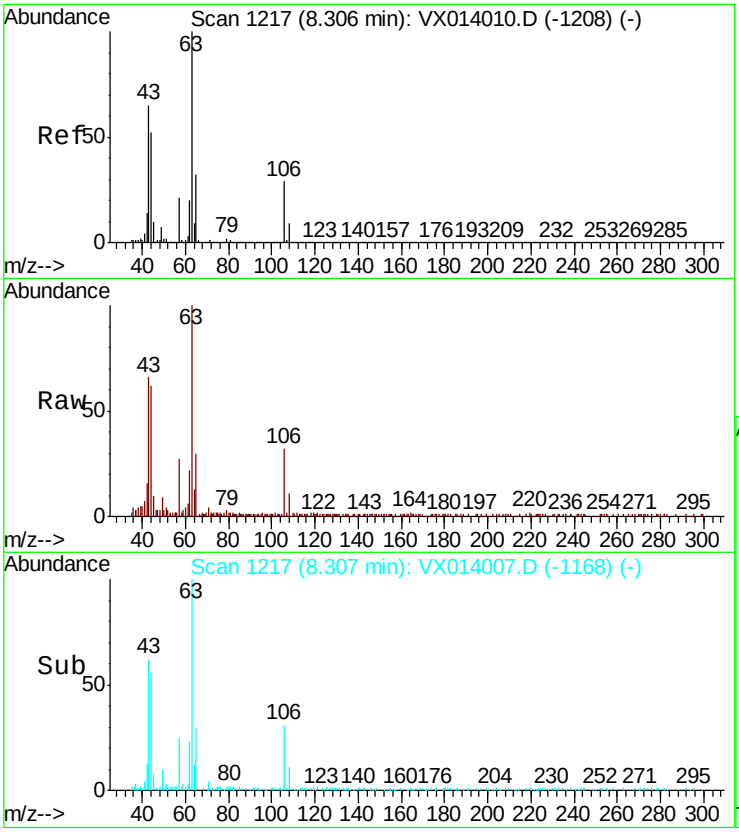
Tgt Ion: 76 Resp: 15349

Ion	Ratio	Lower	Upper
76	100		
78	35.2	25.8	38.6



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC001

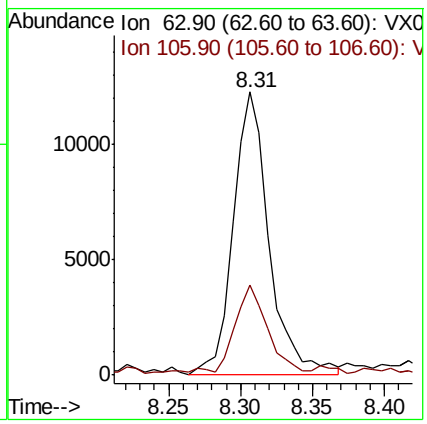
Manual Integrations APPROVED
apatel
12/17/2019 2:48:42 PM



#58
2-Chloroethyl Vinyl ether
Concen: 4.098 ug/l
RT: 8.31 min Scan# 1217
Delta R.T. 0.00 min
Lab File: VX014007.D
Acq: 13 Dec 2019 14:49

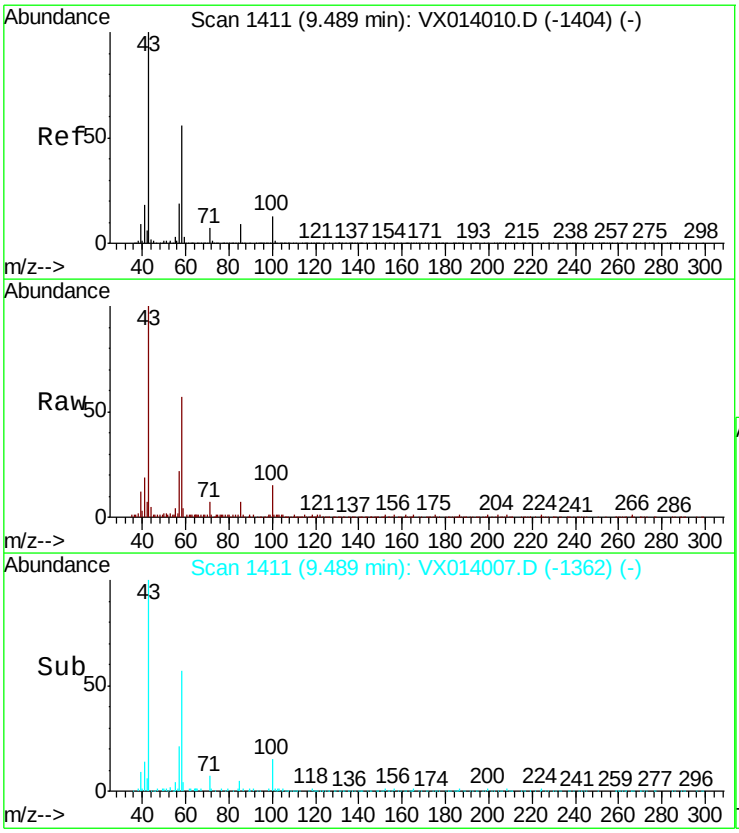
Tgt Ion: 63 Resp: 21365

Ion	Ratio	Lower	Upper
63	100		
106	28.1	23.0	34.6



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC001

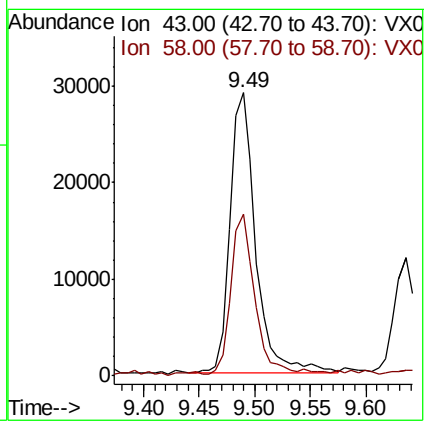
Manual Integrations APPROVED
apatel
12/17/2019 2:48:42 PM



#59
2-Hexanone
Concen: 4.655 ug/l
RT: 9.49 min Scan# 1411
Delta R.T. 0.00 min
Lab File: VX014007.D
Acq: 13 Dec 2019 14:49

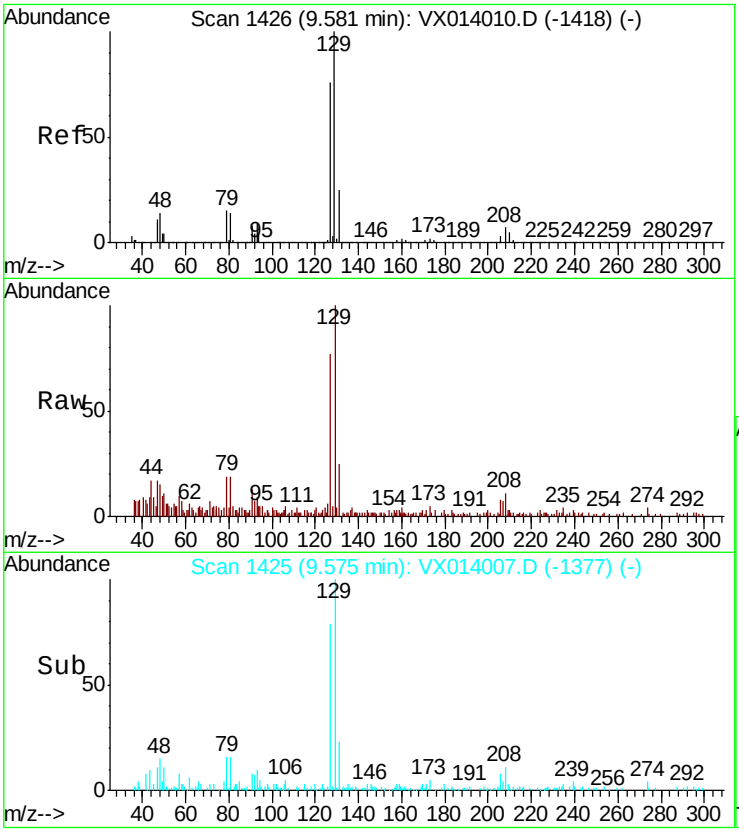
Tgt Ion: 43 Resp: 45812

Ion	Ratio	Lower	Upper
43	100		
58	52.8	28.0	84.0



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC001

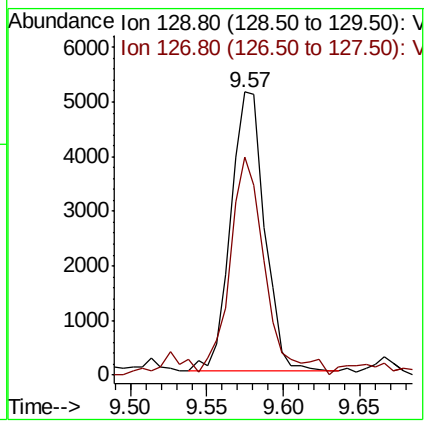
Manual Integrations APPROVED
apatel
12/17/2019 2:48:42 PM

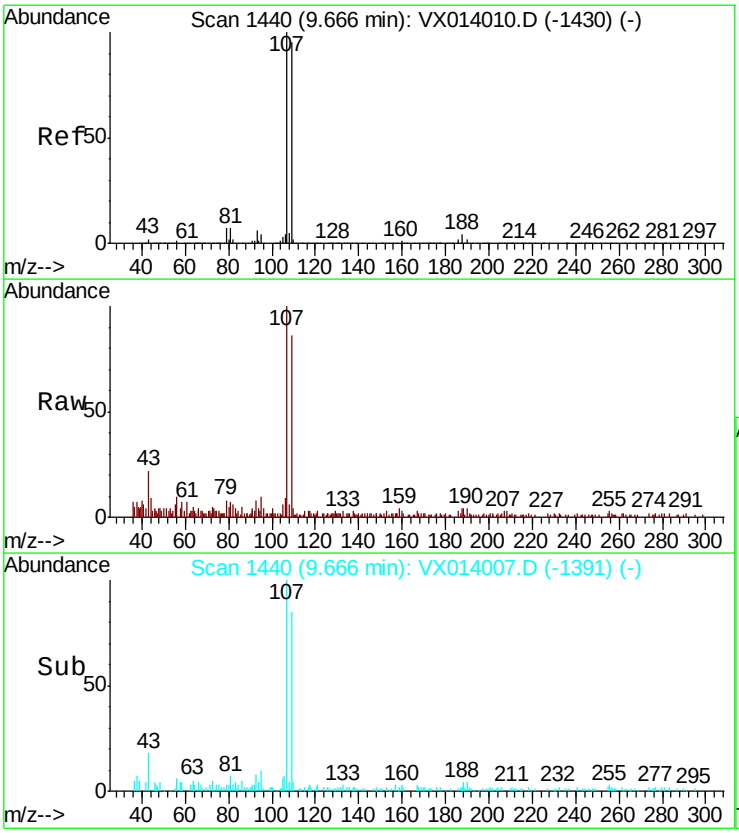


#60
Dibromochloromethane
Concen: 0.921 ug/l
RT: 9.57 min Scan# 1425
Delta R.T. -0.01 min
Lab File: VX014007.D
Acq: 13 Dec 2019 14:49

Tgt Ion:129 Resp: 7865

Ion	Ratio	Lower	Upper
129	100		
127	80.8	38.4	115.2

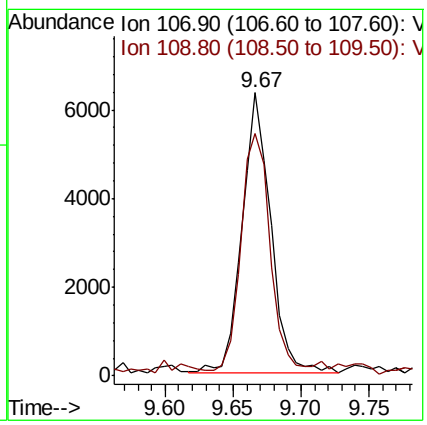




#61
1,2-Dibromoethane
Concen: 1.048 ug/l
RT: 9.67 min Scan# 1440
Delta R.T. 0.00 min
Lab File: VX014007.D
Acq: 13 Dec 2019 14:49

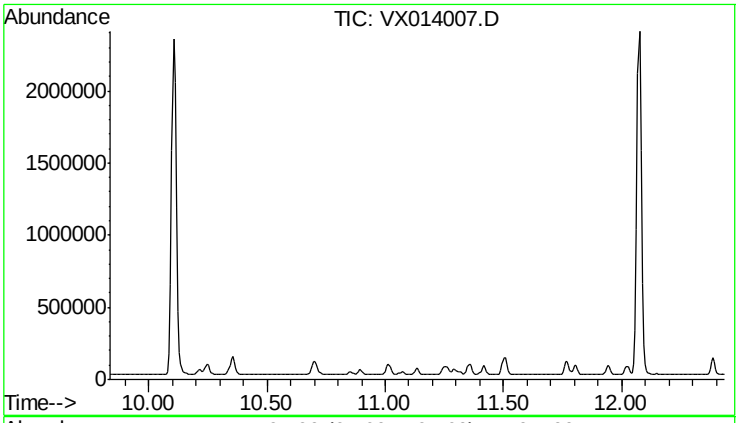
Tgt Ion:107 Resp: 9234

Ion	Ratio	Lower	Upper
107	100		
109	85.5	75.7	113.5



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC001

Manual Integrations APPROVED
apatel
12/17/2019 2:48:42 PM

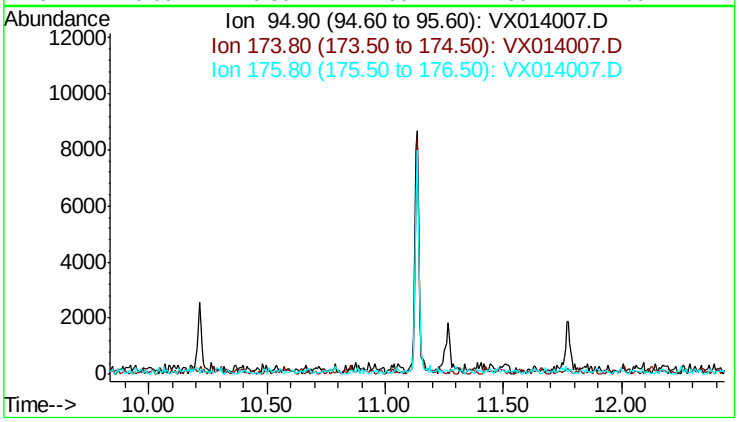


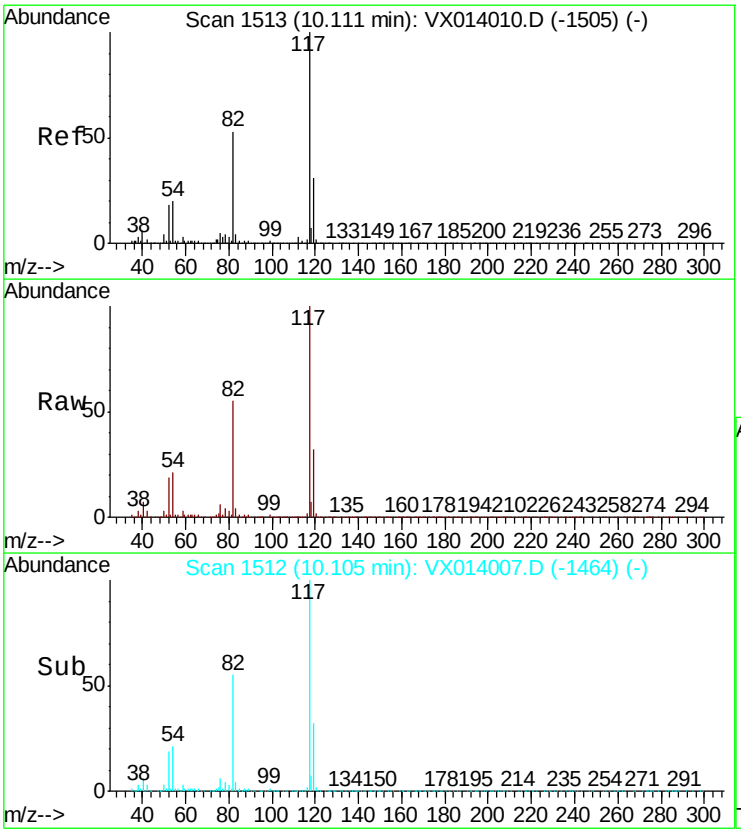
#62
4-Bromofluorobenzene
Concen: 0.000 ug/l
Expected RT: 11.14 min

Lab File: VX014007.D
Acq: 13 Dec 2019 14:49

Tgt Ion: 95

Sig	Exp Ratio
95	100
174	87.9
176	86.5

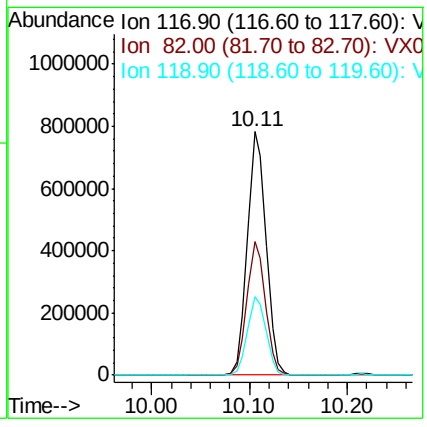


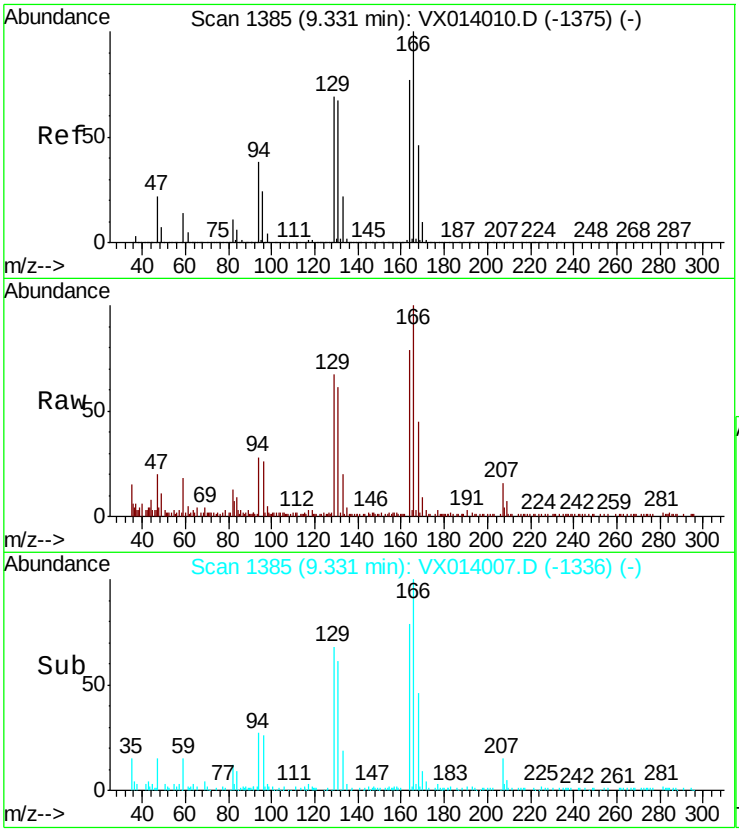


#63
Chlorobenzene-d5
Concen: 50.000 ug/l
RT: 10.11 min Scan# 1512
Delta R.T. -0.01 min
Lab File: VX014007.D
Acq: 13 Dec 2019 14:49

Tgt Ion:117 Resp: 1042212

Ion	Ratio	Lower	Upper
117	100		
82	55.1	42.2	63.4
119	32.4	25.1	37.7

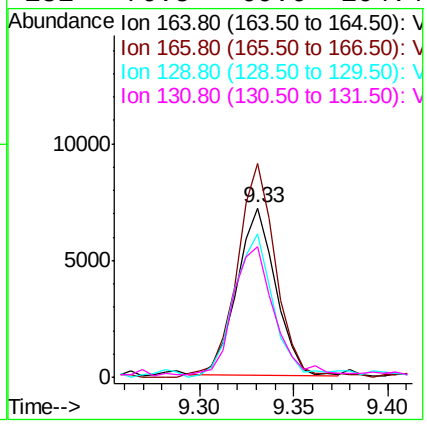


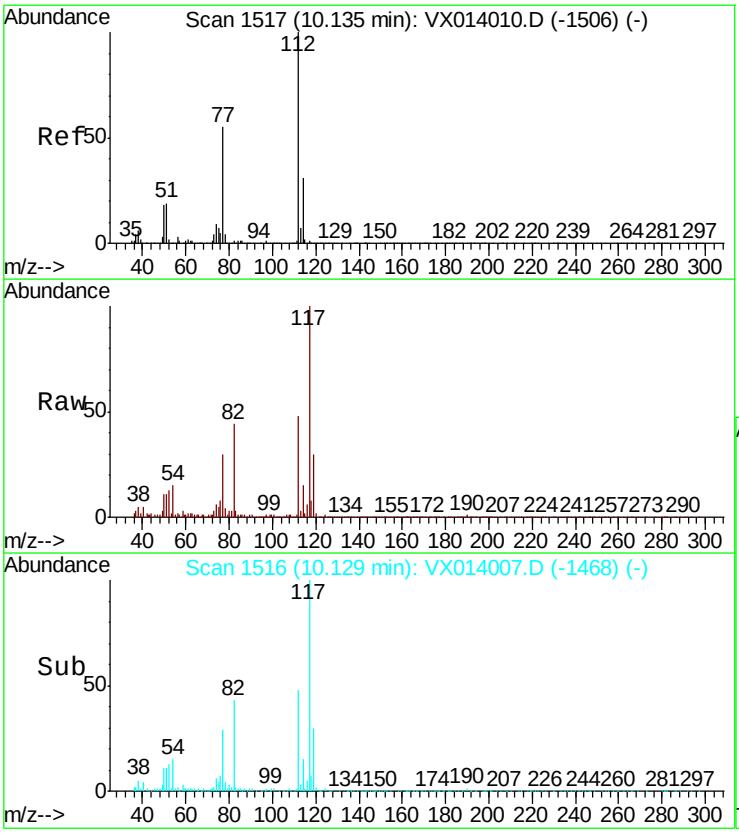


#64
Tetrachloroethene
Concen: 1.268 ug/l
RT: 9.33 min Scan# 1385
Delta R.T. 0.00 min
Lab File: VX014007.D
Acq: 13 Dec 2019 14:49

Tgt Ion:164 Resp: 10196

Ion	Ratio	Lower	Upper
164	100		
166	125.6	104.0	156.0
129	86.0	72.2	108.4
131	76.5	69.6	104.4

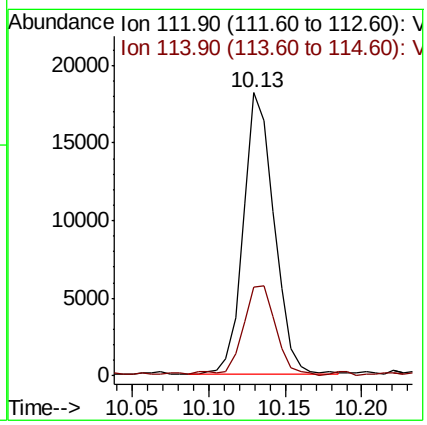




#65
Chlorobenzene
Concen: 1.163 ug/l
RT: 10.13 min Scan# 1516
Delta R.T. -0.01 min
Lab File: VX014007.D
Acq: 13 Dec 2019 14:49

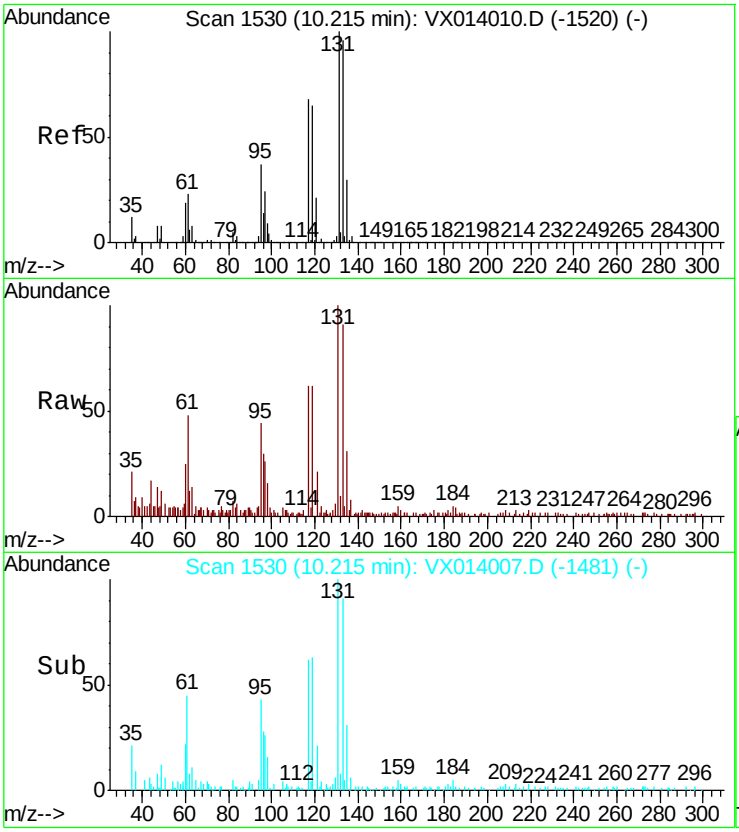
Tgt Ion:112 Resp: 25303

Ion	Ratio	Lower	Upper
112	100		
114	31.0	24.9	37.3



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC001

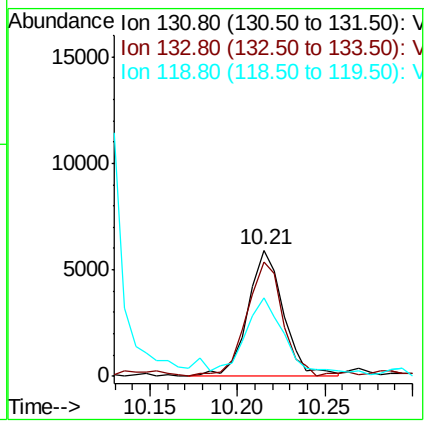
Manual Integrations APPROVED
apatel
12/17/2019 2:48:42 PM



#66
1,1,1,2-Tetrachloroethane
Concen: 1.081 ug/l
RT: 10.21 min Scan# 1530
Delta R.T. 0.00 min
Lab File: VX014007.D
Acq: 13 Dec 2019 14:49

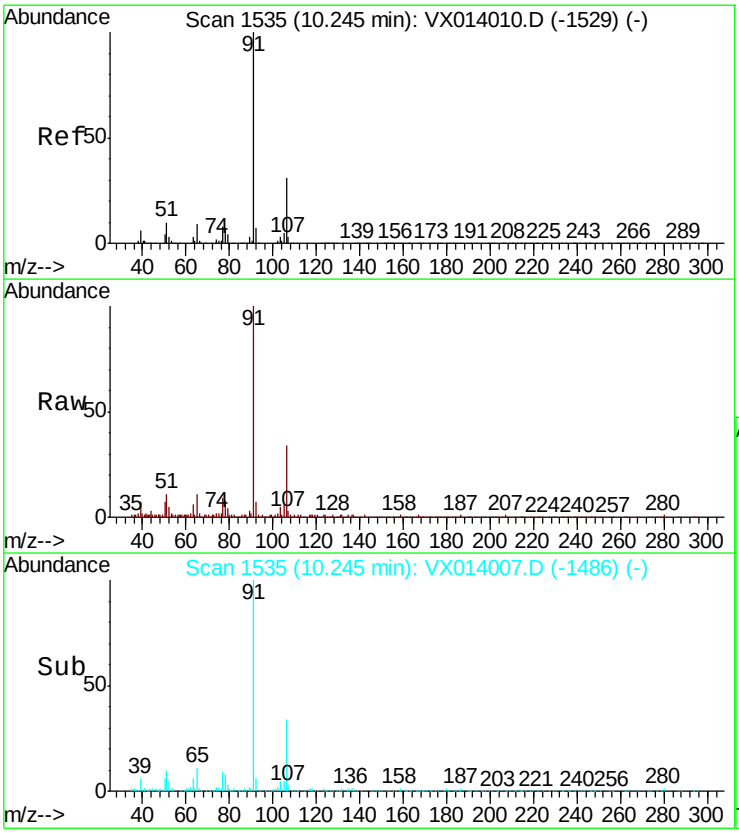
Tgt Ion:131 Resp: 8426

Ion	Ratio	Lower	Upper
131	100		
133	91.9	48.0	144.0
119	0.0	33.4	100.2#



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC001

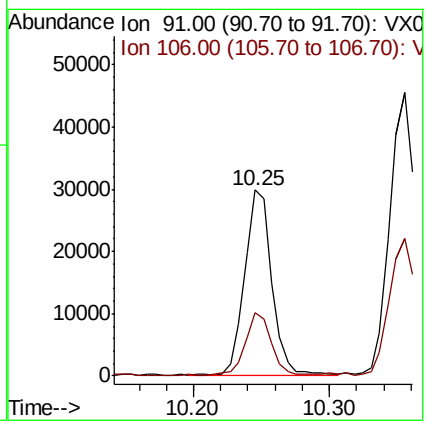
Manual Integrations APPROVED
apatel
12/17/2019 2:48:42 PM

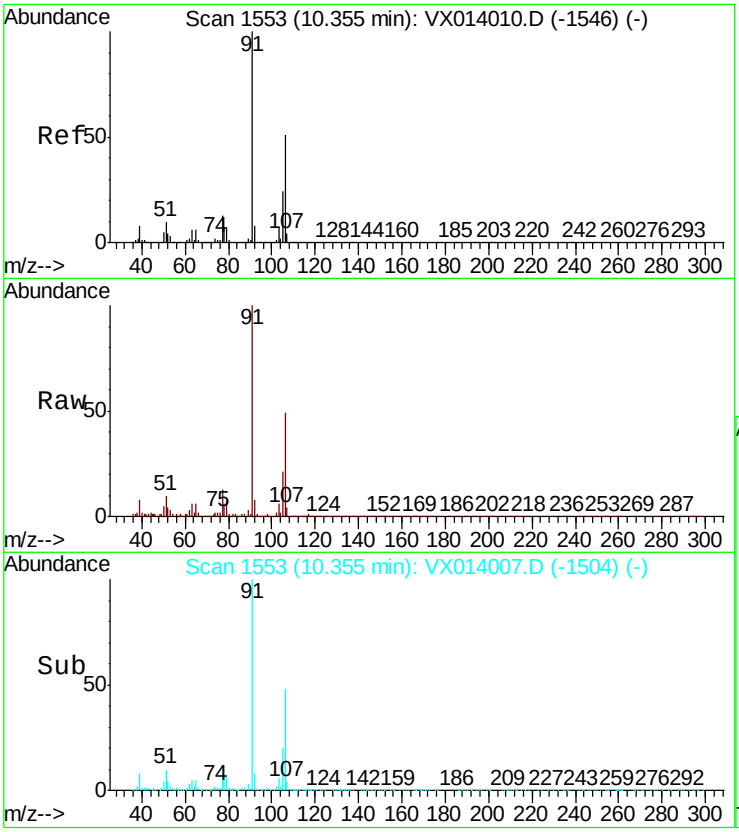


#67
Ethyl Benzene
Concen: 1.108 ug/l
RT: 10.25 min Scan# 1535
Delta R.T. 0.00 min
Lab File: VX014007.D
Acq: 13 Dec 2019 14:49

Tgt Ion: 91 Resp: 41396

Ion	Ratio	Lower	Upper
91	100		
106	33.5	25.0	37.6

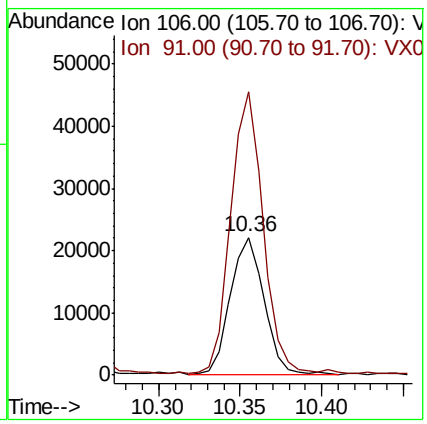




#68
m/p-Xylenes
Concen: 2.223 ug/l
RT: 10.36 min Scan# 1553
Delta R.T. 0.00 min
Lab File: VX014007.D
Acq: 13 Dec 2019 14:49

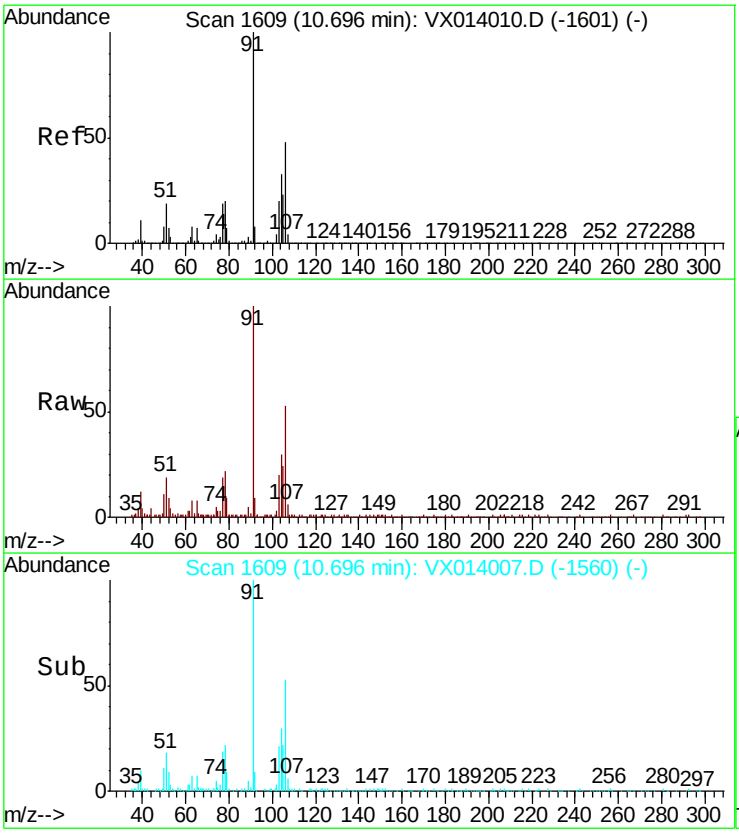
Tgt Ion:106 Resp: 31836

Ion	Ratio	Lower	Upper
106	100		
91	194.0	158.6	238.0



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC001

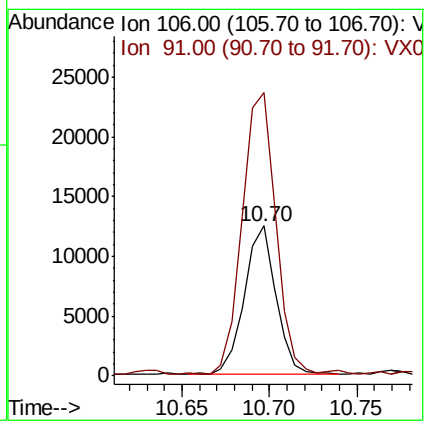
Manual Integrations APPROVED
apatel
12/17/2019 2:48:42 PM

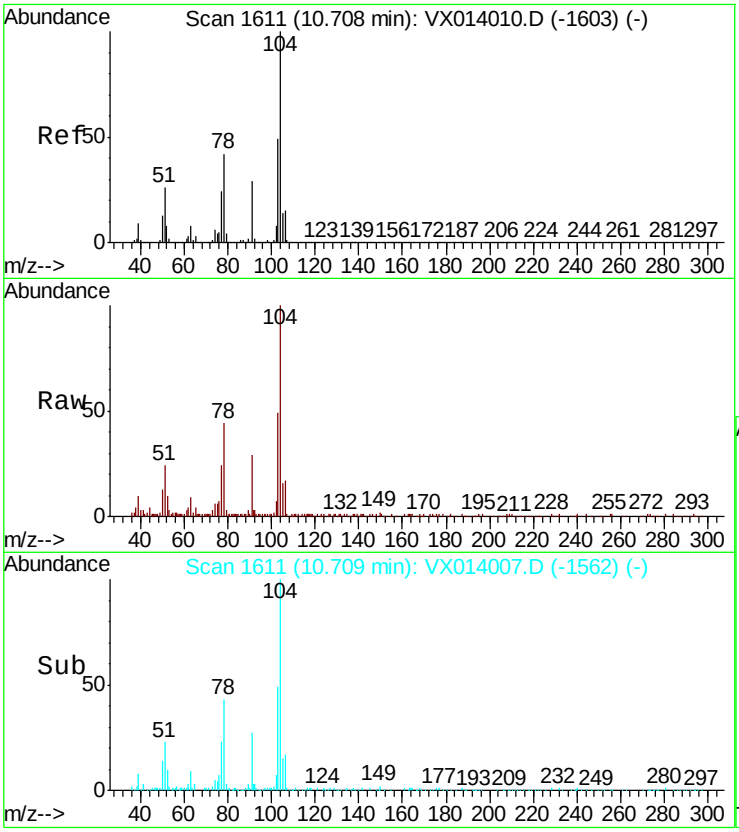


#69
o-Xylene
Concen: 1.108 ug/l
RT: 10.70 min Scan# 1609
Delta R.T. 0.00 min
Lab File: VX014007.D
Acq: 13 Dec 2019 14:49

Tgt Ion:106 Resp: 15471

Ion	Ratio	Lower	Upper
106	100		
91	203.5	104.2	312.6

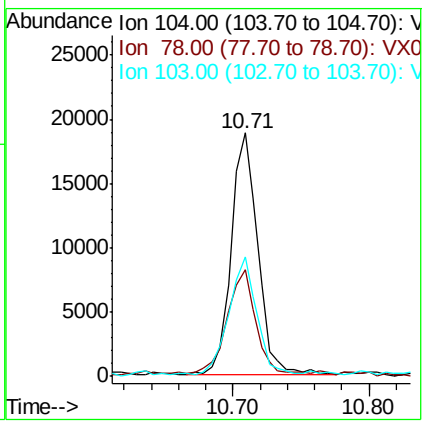




#70
Stvrene
Concen: 1.081 ug/l
RT: 10.71 min Scan# 1611
Delta R.T. 0.00 min
Lab File: VX014007.D
Acq: 13 Dec 2019 14:49

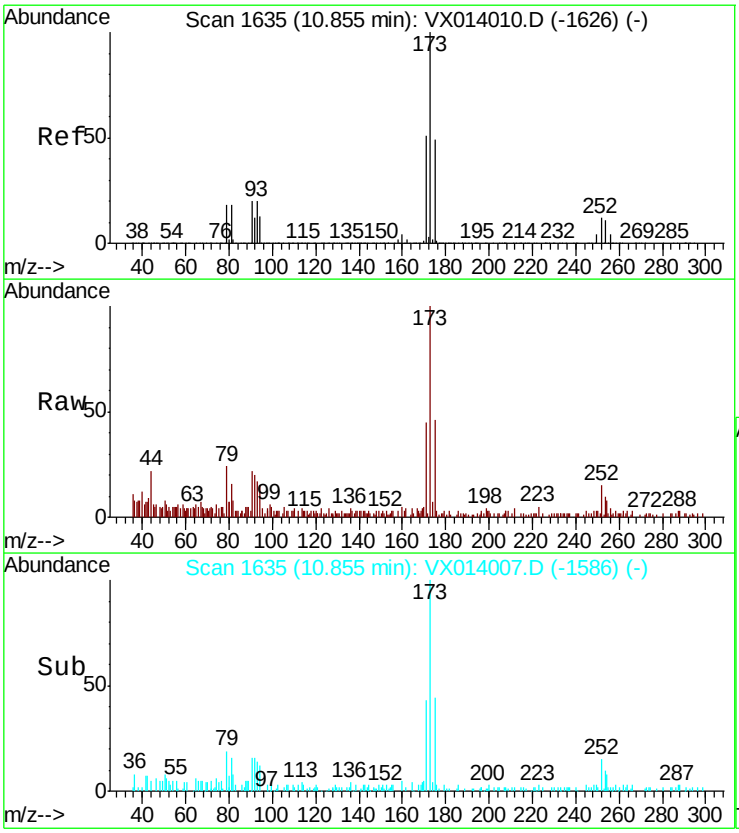
Tgt Ion:104 Resp: 25473

Ion	Ratio	Lower	Upper
104	100		
78	49.6	38.5	57.7
103	51.7	42.9	64.3



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC001

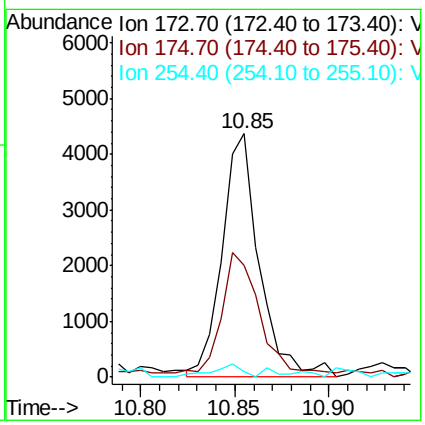
Manual Integrations APPROVED
apatel
12/17/2019 2:48:42 PM

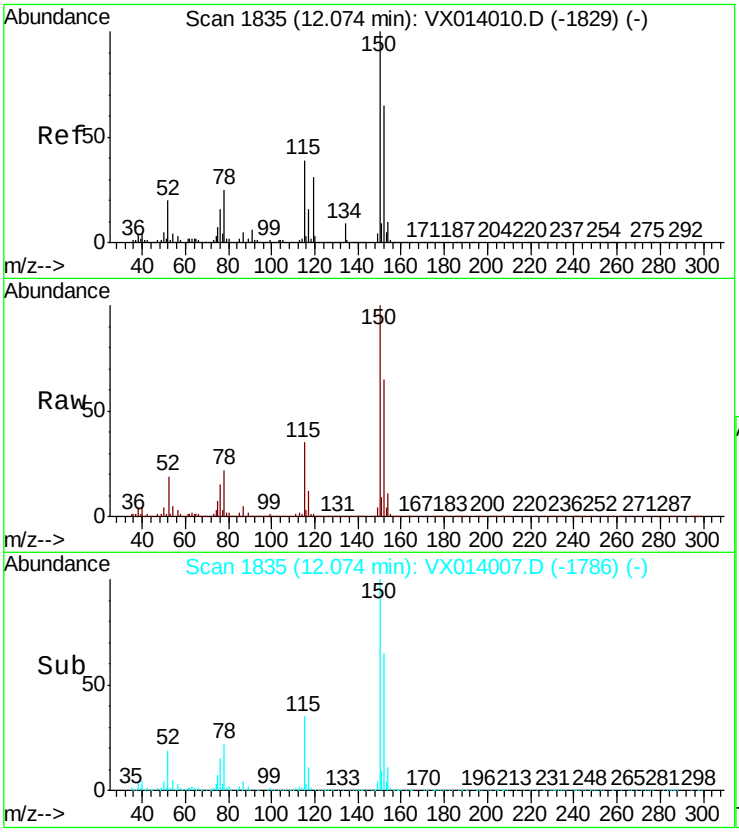


#71
Bromoform
Concen: 0.932 ug/l
RT: 10.85 min Scan# 1635
Delta R.T. 0.00 min
Lab File: VX014007.D
Acq: 13 Dec 2019 14:49

Tgt Ion:173 Resp: 5988

Ion	Ratio	Lower	Upper
173	100		
175	49.3	24.4	73.4
254	4.3	0.2	0.2#

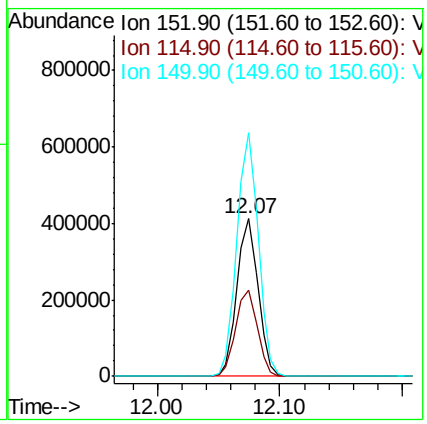




#72
1,4-Dichlorobenzene-d4
Concen: 50.000 ug/l
RT: 12.07 min Scan# 1835
Delta R.T. 0.00 min
Lab File: VX014007.D
Acq: 13 Dec 2019 14:49

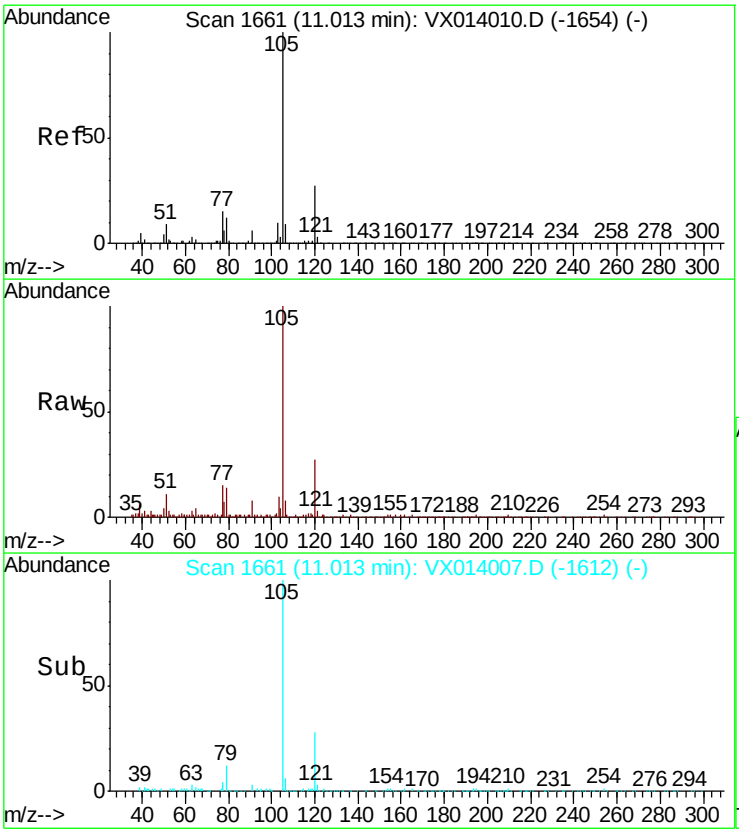
Tgt Ion:152 Resp: 492183

Ion	Ratio	Lower	Upper
152	100		
115	56.3	38.3	114.9
150	155.9	0.0	345.4



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC001

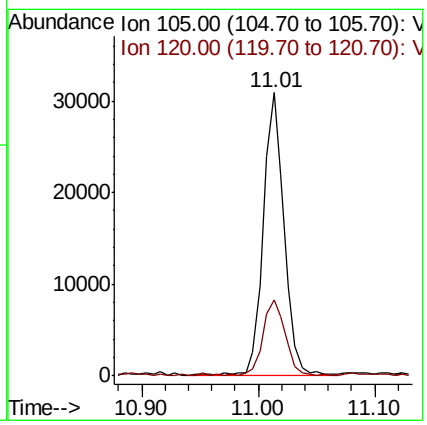
Manual Integrations APPROVED
apatel
12/17/2019 2:48:42 PM

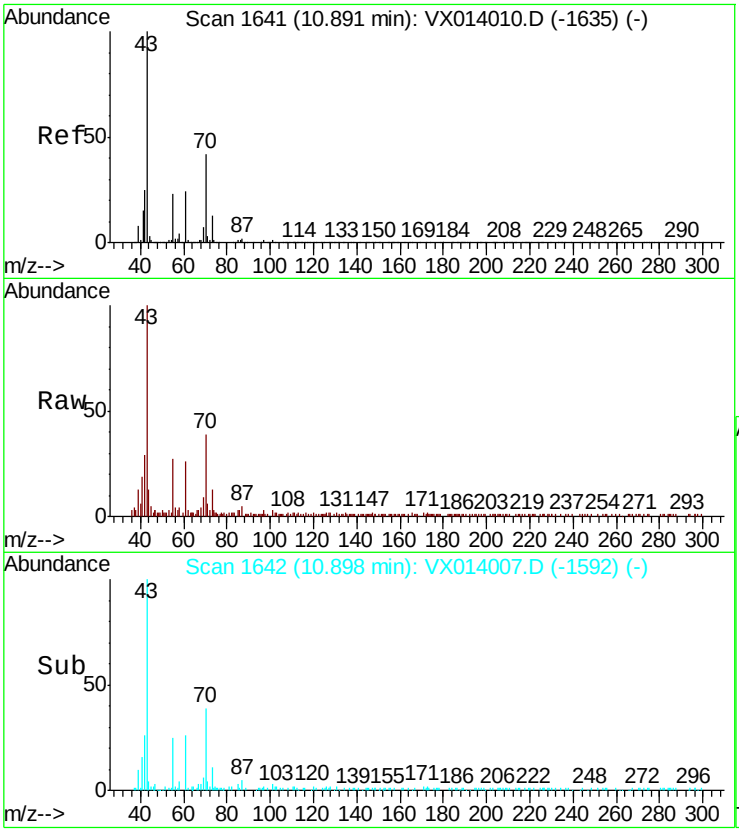


#73
Isopropylbenzene
Concen: 1.101 ug/l
RT: 11.01 min Scan# 1661
Delta R.T. 0.00 min
Lab File: VX014007.D
Acq: 13 Dec 2019 14:49

Tgt Ion:105 Resp: 38061

Ion	Ratio	Lower	Upper
105	100		
120	29.1	13.5	40.4

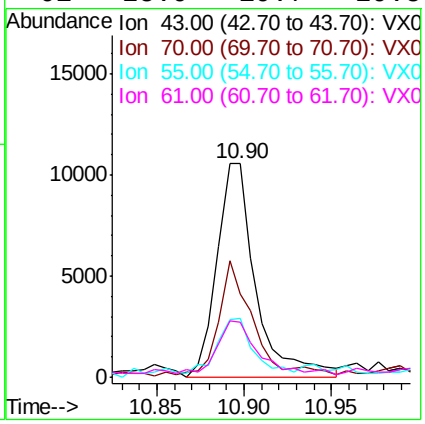




#74
N-amyl acetate
Concen: 1.038 ug/l
RT: 10.90 min Scan# 1642
Delta R.T. 0.01 min
Lab File: VX014007.D
Acq: 13 Dec 2019 14:49

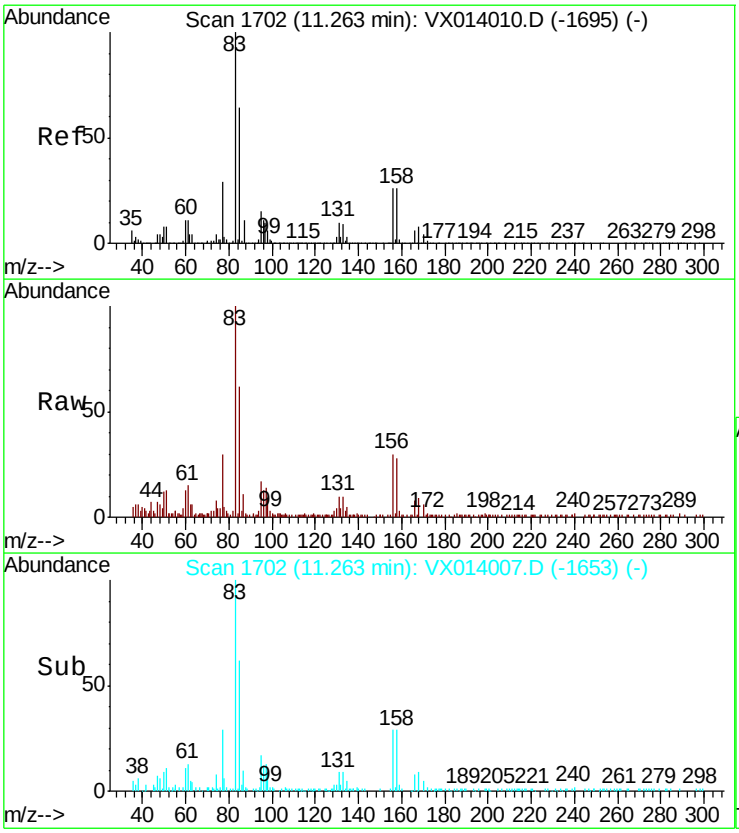
Tgt Ion: 43 Resp: 16431

Ion	Ratio	Lower	Upper
43	100		
70	43.8	34.4	51.6
55	23.4	19.1	28.7
61	25.9	19.7	29.5



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC001

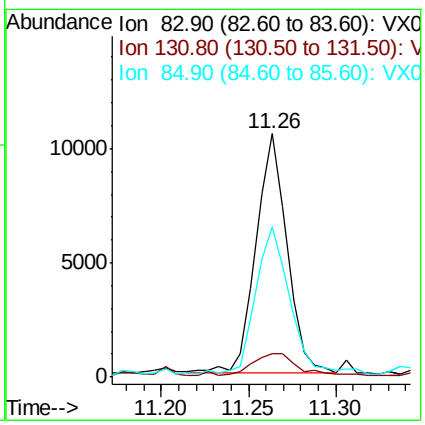
Manual Integrations APPROVED
apatel
12/17/2019 2:48:42 PM

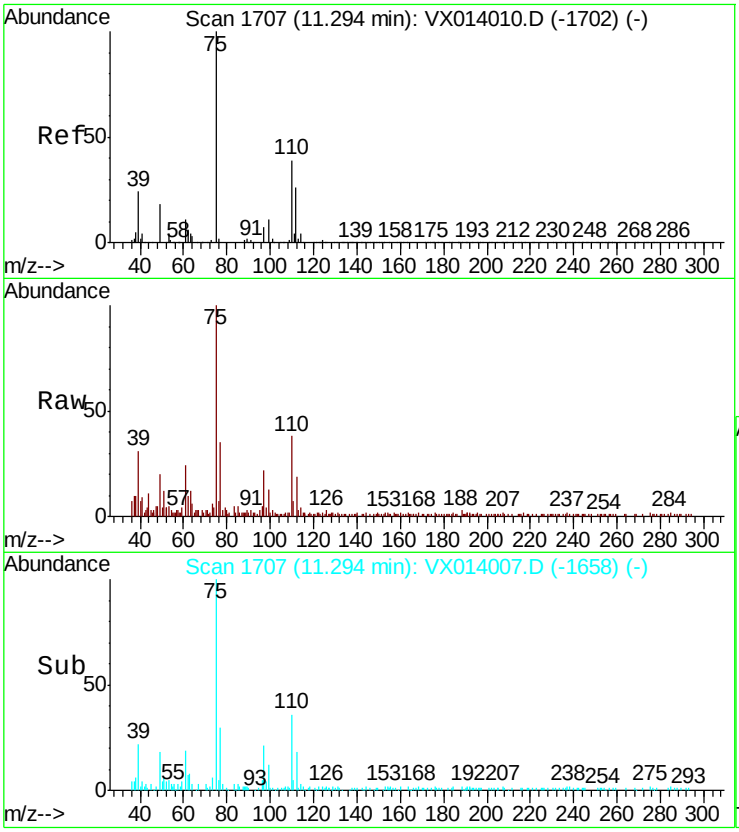


#75
1,1,2,2-Tetrachloroethane
Concen: 1.074 ug/l
RT: 11.26 min Scan# 1702
Delta R.T. 0.00 min
Lab File: VX014007.D
Acq: 13 Dec 2019 14:49

Tgt Ion: 83 Resp: 12856

Ion	Ratio	Lower	Upper
83	100		
131	13.4	5.1	15.2
85	68.7	31.9	95.7

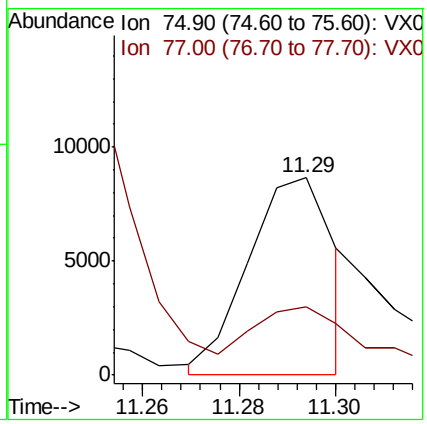




#76
1,2,3-Trichloropropane
Concen: 0.961 ug/l m
RT: 11.29 min Scan# 1707
Delta R.T. 0.00 min
Lab File: VX014007.D
Acq: 13 Dec 2019 14:49

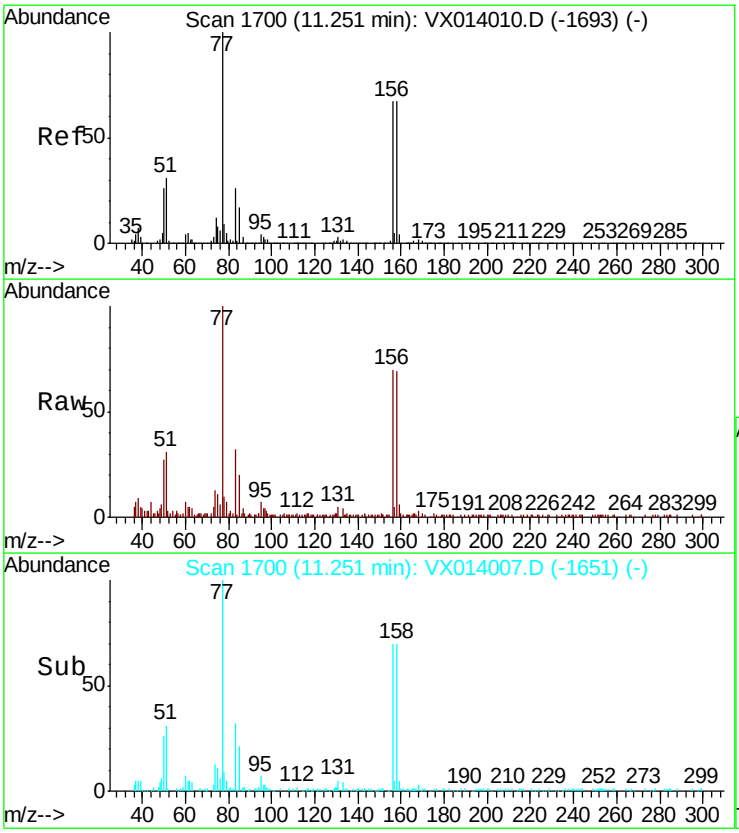
Tgt Ion: 75 Resp: 10589

Ion	Ratio	Lower	Upper
75	100		
77	46.0	19.3	57.8



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC001

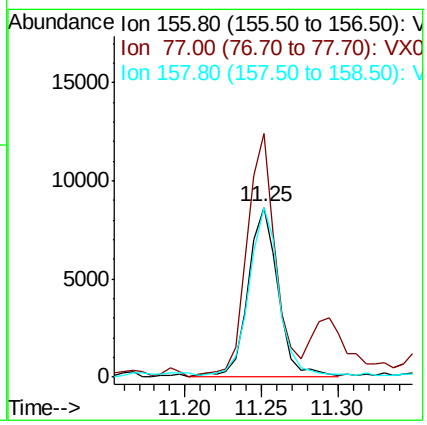
Manual Integrations APPROVED
apatel
12/17/2019 2:48:42 PM

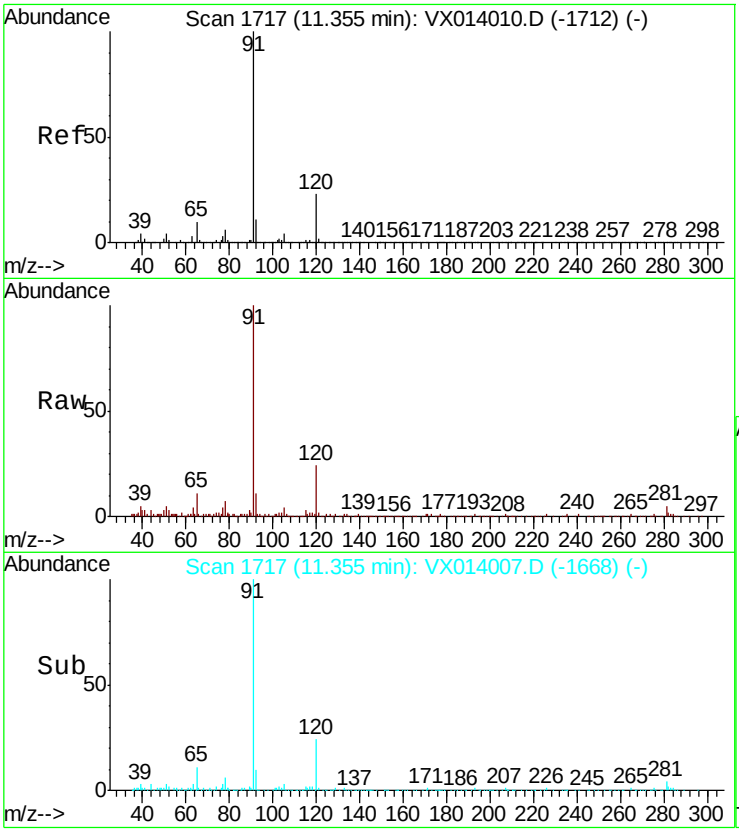


#77
Bromobenzene
Concen: 1.273 ug/l
RT: 11.25 min Scan# 1700
Delta R.T. 0.00 min
Lab File: VX014007.D
Acq: 13 Dec 2019 14:49

Tgt Ion:156 Resp: 11866

Ion	Ratio	Lower	Upper
156	100		
77	136.1	76.5	229.5
158	102.8	49.3	147.9

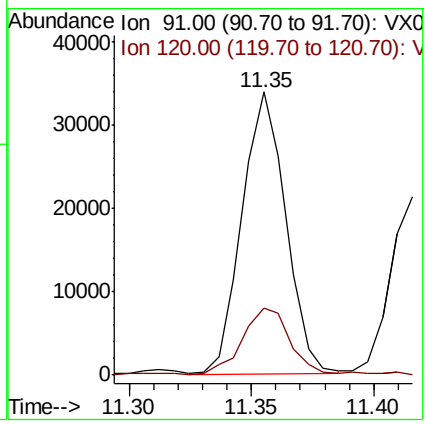




#78
n-propylbenzene
Concen: 1.091 ug/l
RT: 11.35 min Scan# 1717
Delta R.T. 0.00 min
Lab File: VX014007.D
Acq: 13 Dec 2019 14:49

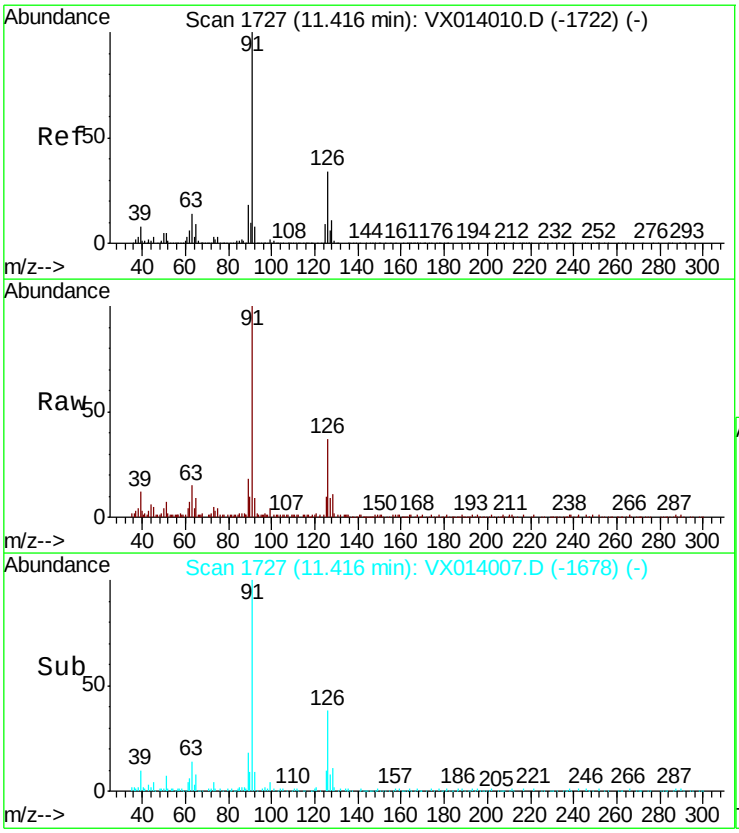
Tgt Ion: 91 Resp: 42164

Ion	Ratio	Lower	Upper
91	100		
120	25.2	11.7	35.0



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC001

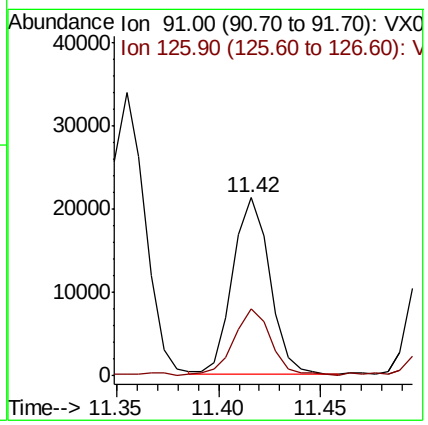
Manual Integrations APPROVED
apatel
12/17/2019 2:48:42 PM

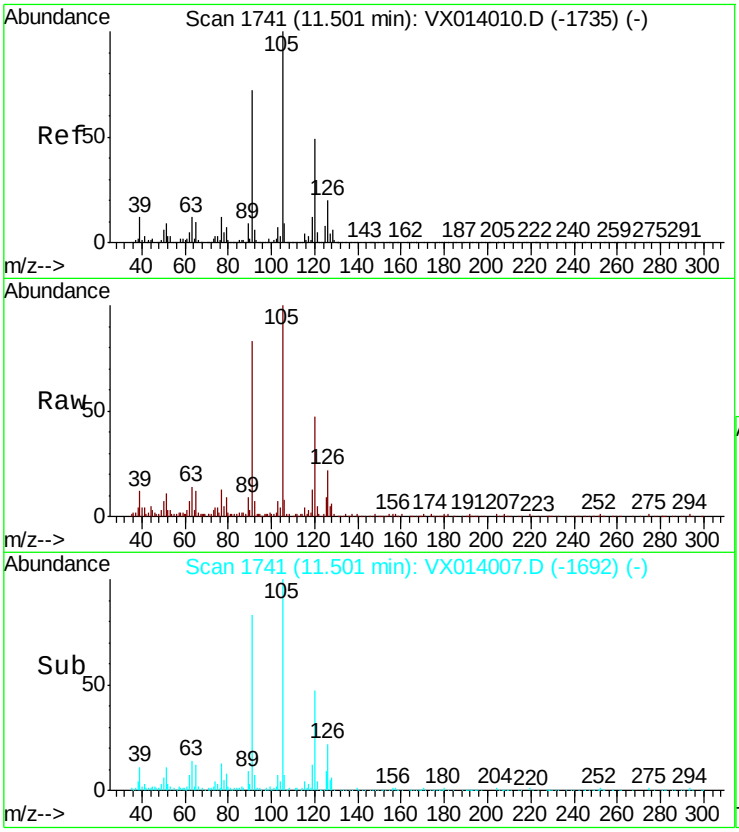


#79
2-Chlorotoluene
Concen: 1.154 ug/l
RT: 11.42 min Scan# 1727
Delta R.T. 0.00 min
Lab File: VX014007.D
Acq: 13 Dec 2019 14:49

Tgt Ion: 91 Resp: 26847

Ion	Ratio	Lower	Upper
91	100		
126	36.8	17.2	51.6

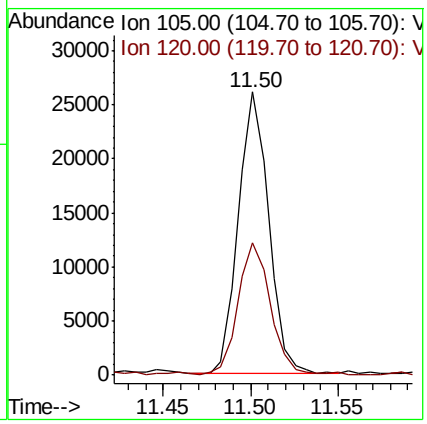




#80
1,3,5-Trimethylbenzene
Concen: 1.109 ug/l
RT: 11.50 min Scan# 1741
Delta R.T. 0.00 min
Lab File: VX014007.D
Acq: 13 Dec 2019 14:49

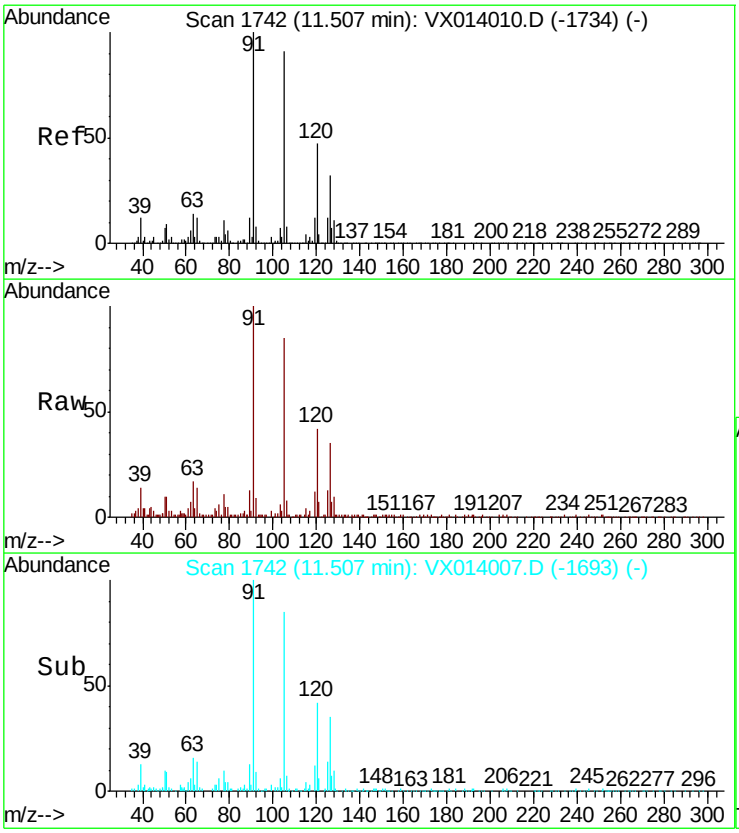
Tgt Ion:105 Resp: 31510

Ion	Ratio	Lower	Upper
105	100		
120	50.9	25.3	75.8



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC001

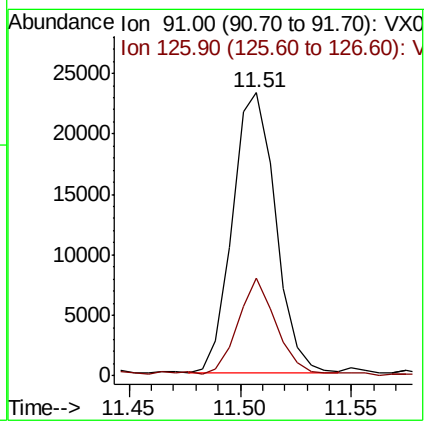
Manual Integrations APPROVED
apatel
12/17/2019 2:48:42 PM

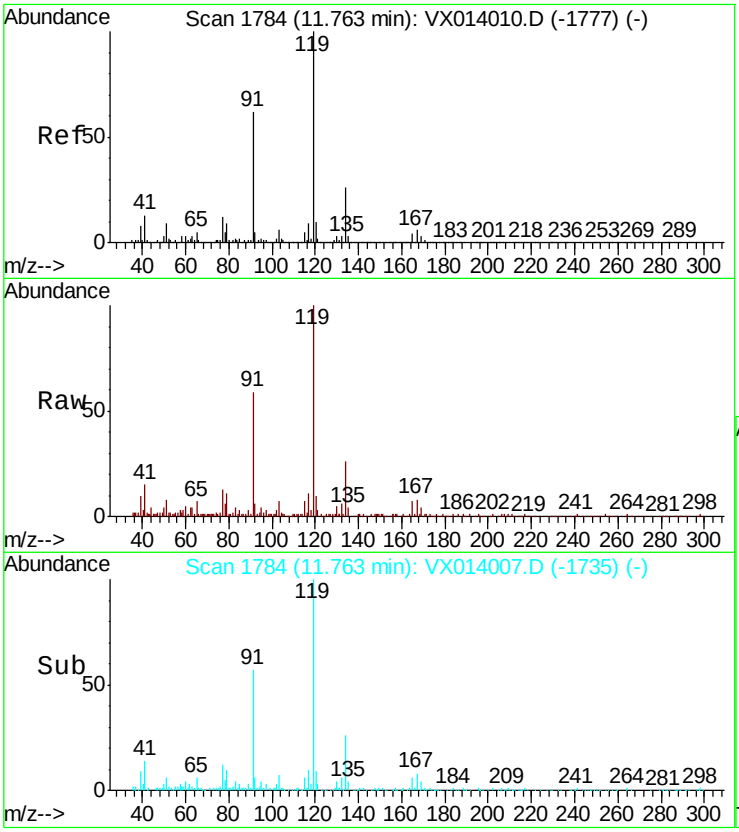


#82
4-Chlorotoluene
Concen: 1.168 ug/l
RT: 11.51 min Scan# 1742
Delta R.T. 0.00 min
Lab File: VX014007.D
Acq: 13 Dec 2019 14:49

Tgt Ion: 91 Resp: 31365

Ion	Ratio	Lower	Upper
91	100		
126	32.5	15.6	46.8

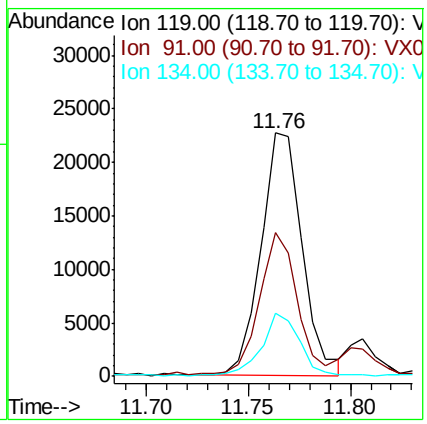




#83
tert-Butylbenzene
Concen: 1.119 ug/l
RT: 11.76 min Scan# 1784
Delta R.T. 0.00 min
Lab File: VX014007.D
Acq: 13 Dec 2019 14:49

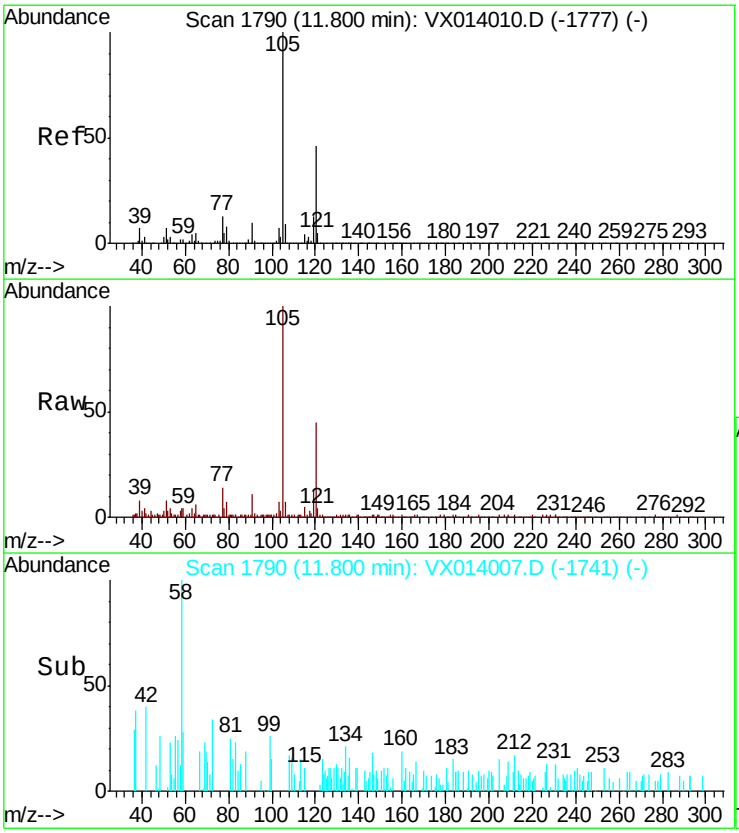
Tgt Ion:119 Resp: 32037

Ion	Ratio	Lower	Upper
119	100		
91	53.2	28.5	85.6
134	24.0	12.2	36.6



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC001

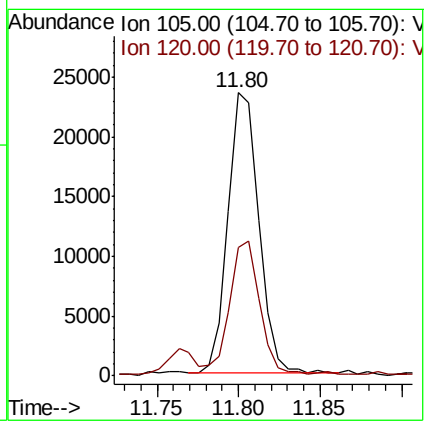
Manual Integrations APPROVED
apatel
12/17/2019 2:48:42 PM

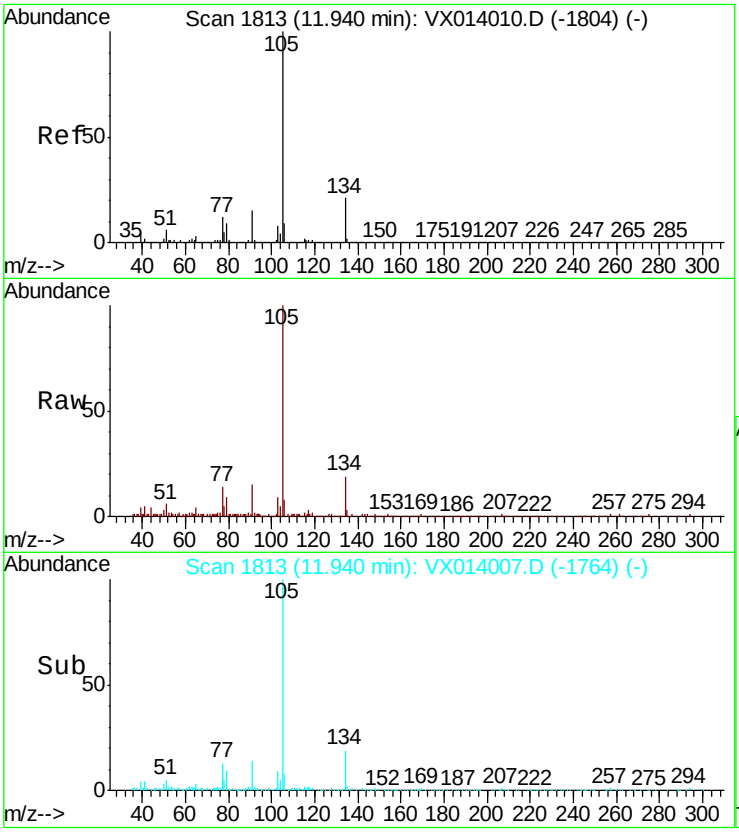


#84
1,2,4-Trimethylbenzene
Concen: 1.075 ug/l
RT: 11.80 min Scan# 1790
Delta R.T. 0.00 min
Lab File: VX014007.D
Acq: 13 Dec 2019 14:49

Tgt Ion:105 Resp: 30986

Ion	Ratio	Lower	Upper
105	100		
120	45.7	23.1	69.2

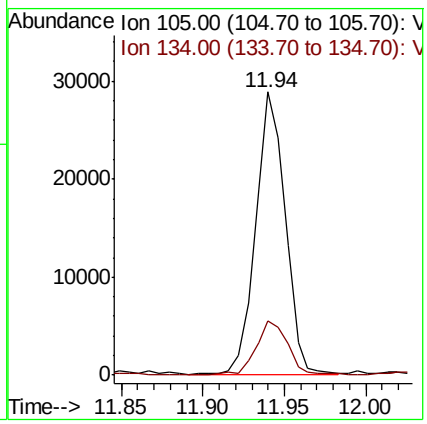




#85
sec-Butylbenzene
Concen: 1.107 ug/l
RT: 11.94 min Scan# 1813
Delta R.T. 0.00 min
Lab File: VX014007.D
Acq: 13 Dec 2019 14:49

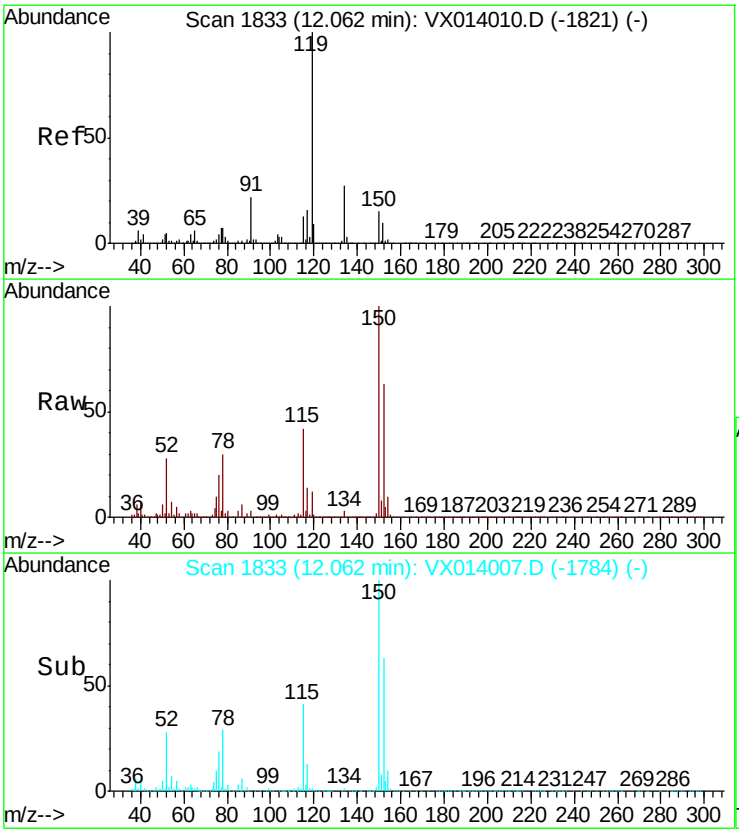
Tgt Ion:105 Resp: 36468

Ion	Ratio	Lower	Upper
105	100		
134	21.0	10.4	31.1



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC001

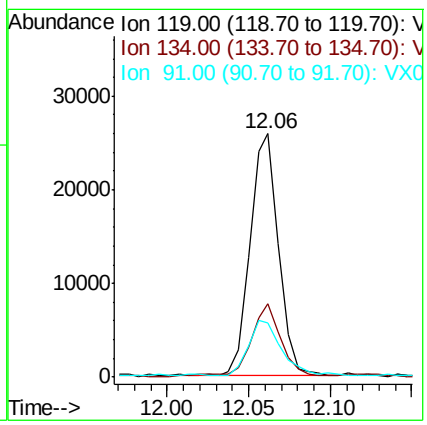
Manual Integrations APPROVED
apatel
12/17/2019 2:48:42 PM

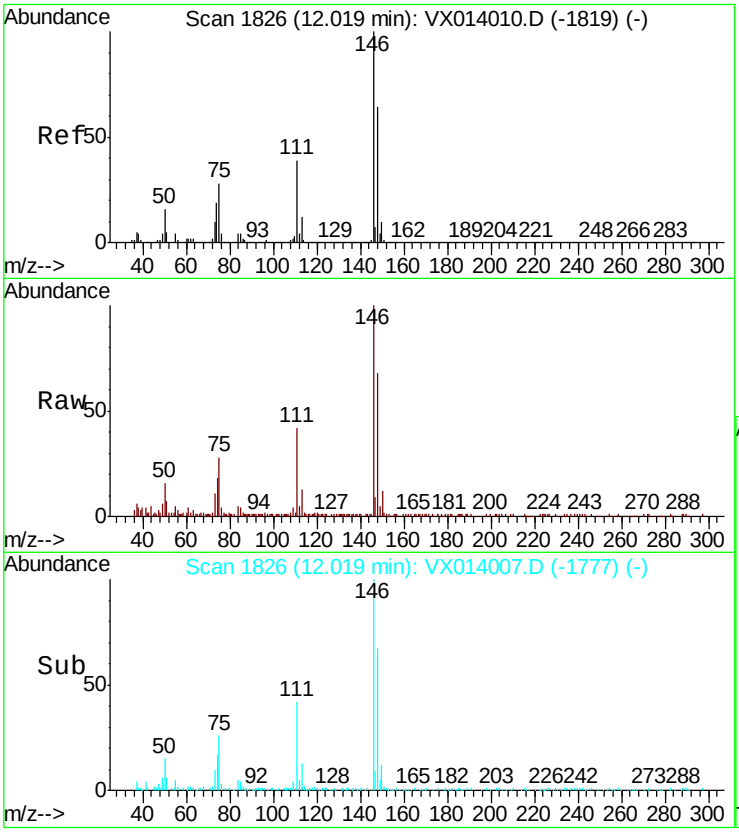


#86
p-Isopropyltoluene
Concen: 1.029 ug/l
RT: 12.06 min Scan# 1833
Delta R.T. 0.00 min
Lab File: VX014007.D
Acq: 13 Dec 2019 14:49

Tgt Ion:119 Resp: 31503

Ion	Ratio	Lower	Upper
119	100		
134	32.8	13.4	40.1
91	26.9	11.4	34.1

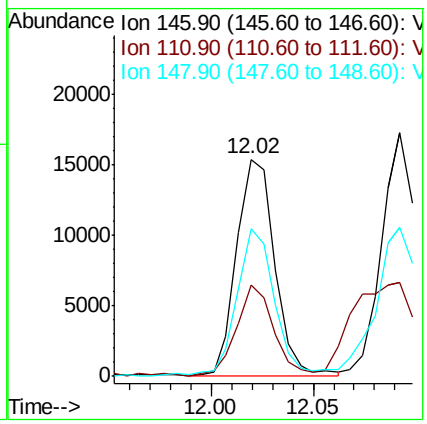




#87
1,3-Dichlorobenzene
Concen: 1.235 ug/l
RT: 12.02 min Scan# 1826
Delta R.T. 0.00 min
Lab File: VX014007.D
Acq: 13 Dec 2019 14:49

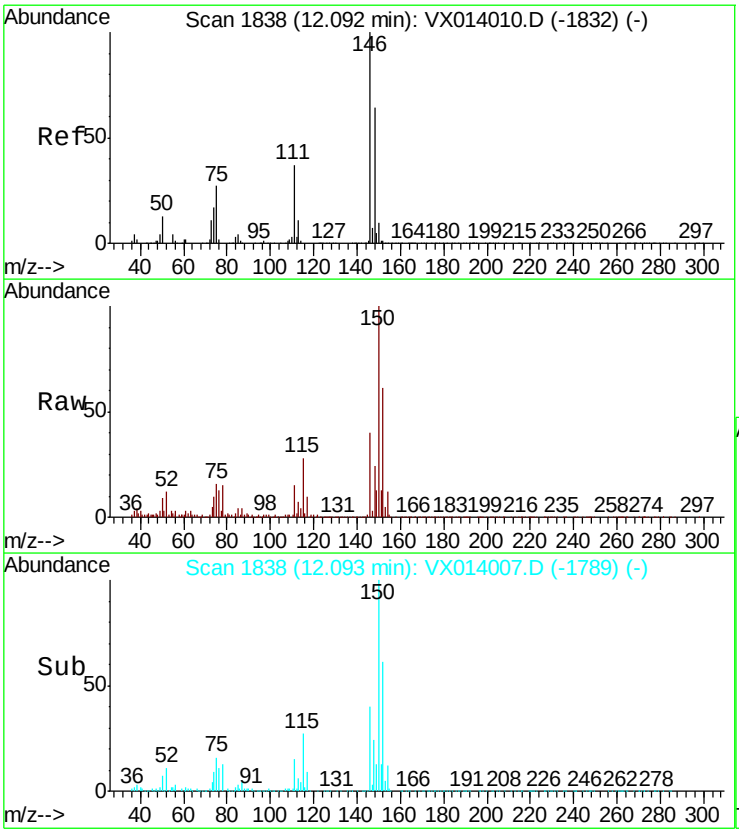
Tgt Ion:146 Resp: 20106

Ion	Ratio	Lower	Upper
146	100		
111	41.2	19.1	57.1
148	67.2	32.3	96.9



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC001

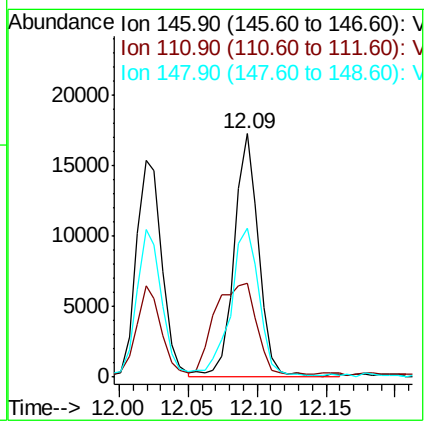
Manual Integrations APPROVED
apatel
12/17/2019 2:48:42 PM

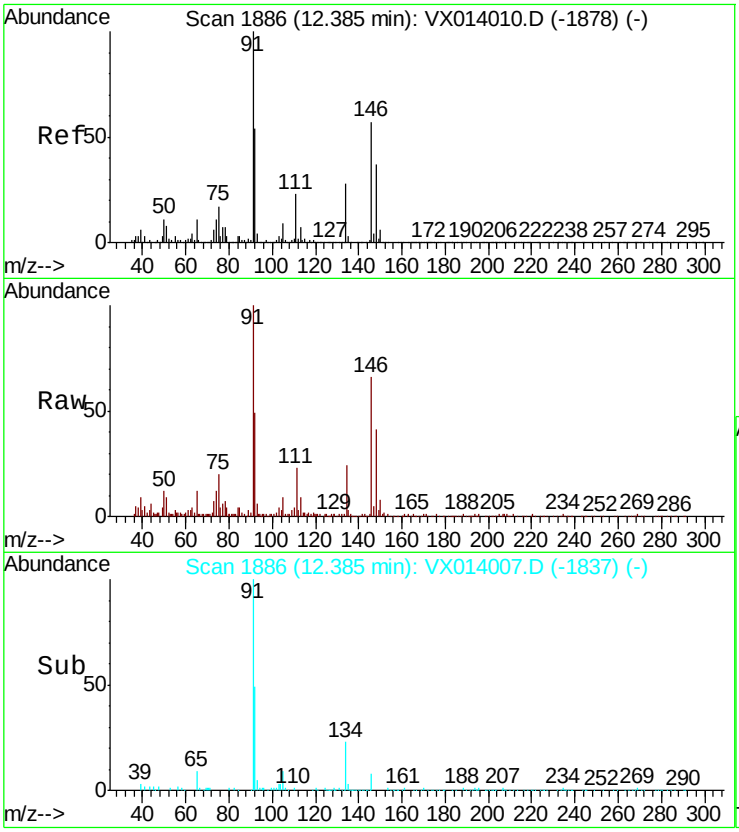


#88
1,4-Dichlorobenzene
Concen: 1.305 ug/l m
RT: 12.09 min Scan# 1838
Delta R.T. 0.00 min
Lab File: VX014007.D
Acq: 13 Dec 2019 14:49

Tgt Ion:146 Resp: 21665

Ion	Ratio	Lower	Upper
146	100		
111	38.2	18.7	56.1
148	62.4	31.9	95.9

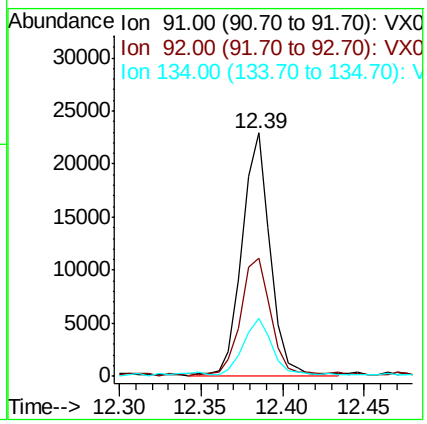




#89
n-Butylbenzene
Concen: 1.042 ug/l
RT: 12.39 min Scan# 1886
Delta R.T. 0.00 min
Lab File: VX014007.D
Acq: 13 Dec 2019 14:49

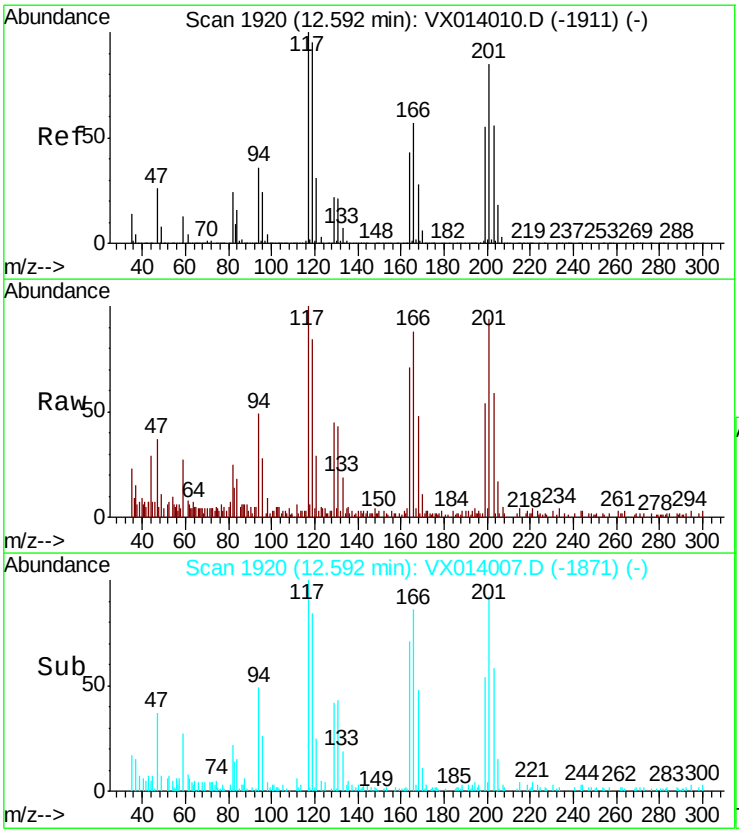
Tgt Ion: 91 Resp: 27243

Ion	Ratio	Lower	Upper
91	100		
92	52.3	27.2	81.6
134	23.9	13.4	40.1



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC001

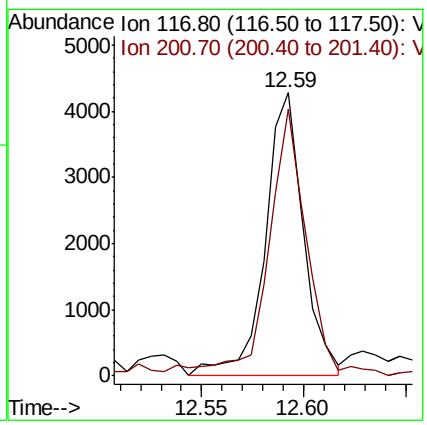
Manual Integrations APPROVED
apatel
12/17/2019 2:48:42 PM

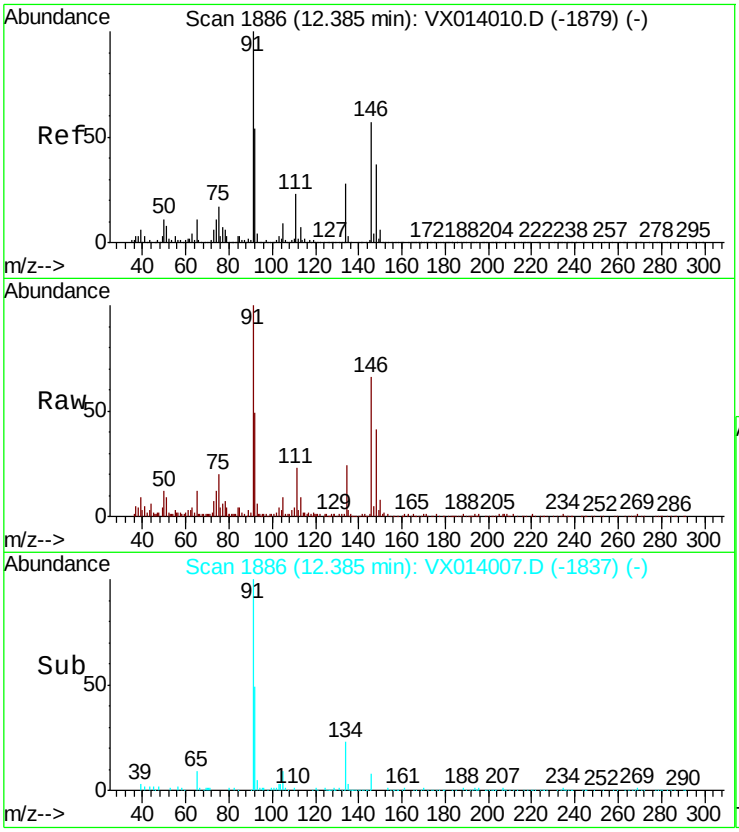


#90
Hexachloroethane
Concen: 1.009 ug/l
RT: 12.59 min Scan# 1920
Delta R.T. 0.00 min
Lab File: VX014007.D
Acq: 13 Dec 2019 14:49

Tgt Ion:117 Resp: 5598

Ion	Ratio	Lower	Upper
117	100		
201	95.1	43.1	129.3

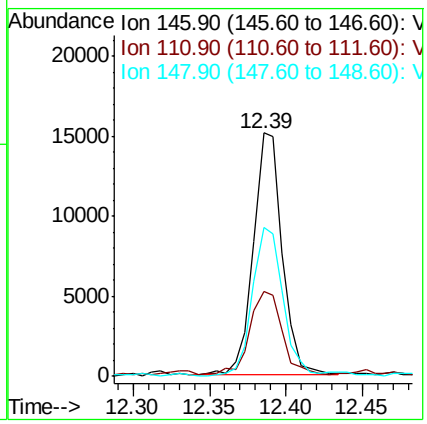




#91
1,2-Dichlorobenzene
Concen: 1.244 ug/l
RT: 12.39 min Scan# 1886
Delta R.T. 0.00 min
Lab File: VX014007.D
Acq: 13 Dec 2019 14:49

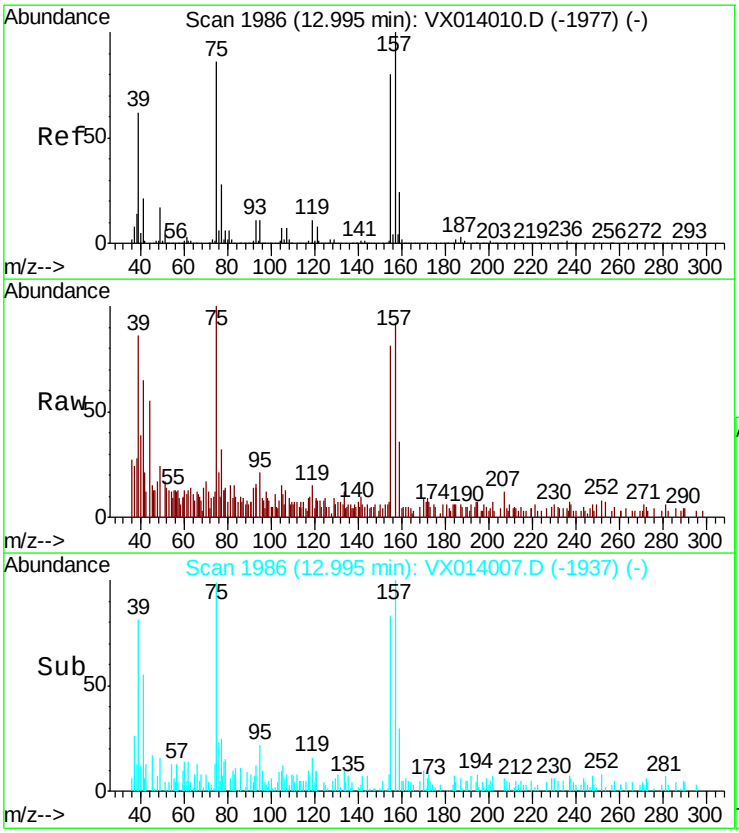
Tgt Ion:146 Resp: 20057

Ion	Ratio	Lower	Upper
146	100		
111	38.9	19.7	59.1
148	64.8	32.1	96.5



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC001

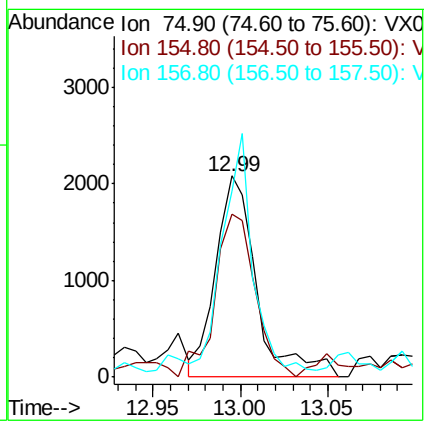
Manual Integrations APPROVED
apatel
12/17/2019 2:48:42 PM

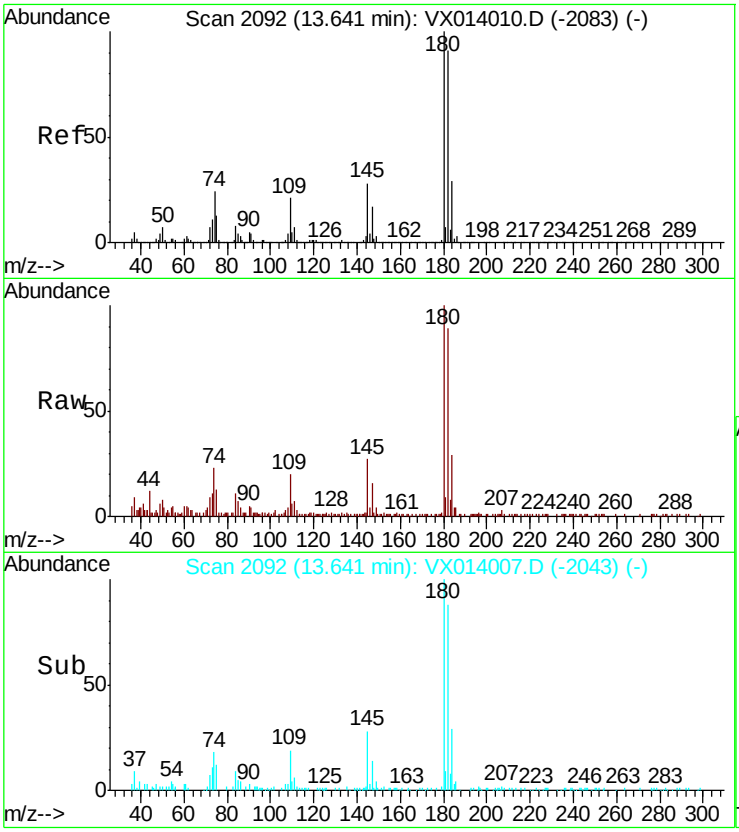


#92
1,2-Dibromo-3-Chloropropane
Concen: 1.319 ug/l
RT: 12.99 min Scan# 1986
Delta R.T. 0.00 min
Lab File: VX014007.D
Acq: 13 Dec 2019 14:49

Tgt Ion: 75 Resp: 3404

Ion	Ratio	Lower	Upper
75	100		
155	79.1	46.9	140.6
157	91.3	60.8	182.4

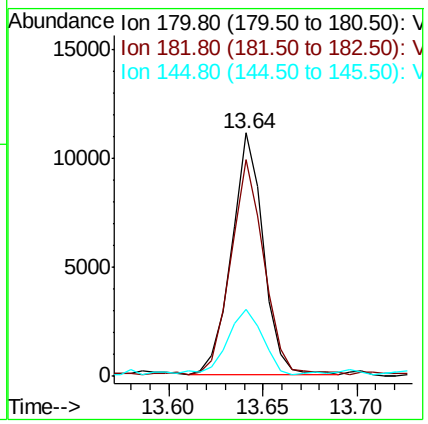




#93
1,2,4-Trichlorobenzene
Concen: 1.157 ug/l
RT: 13.64 min Scan# 2092
Delta R.T. 0.00 min
Lab File: VX014007.D
Acq: 13 Dec 2019 14:49

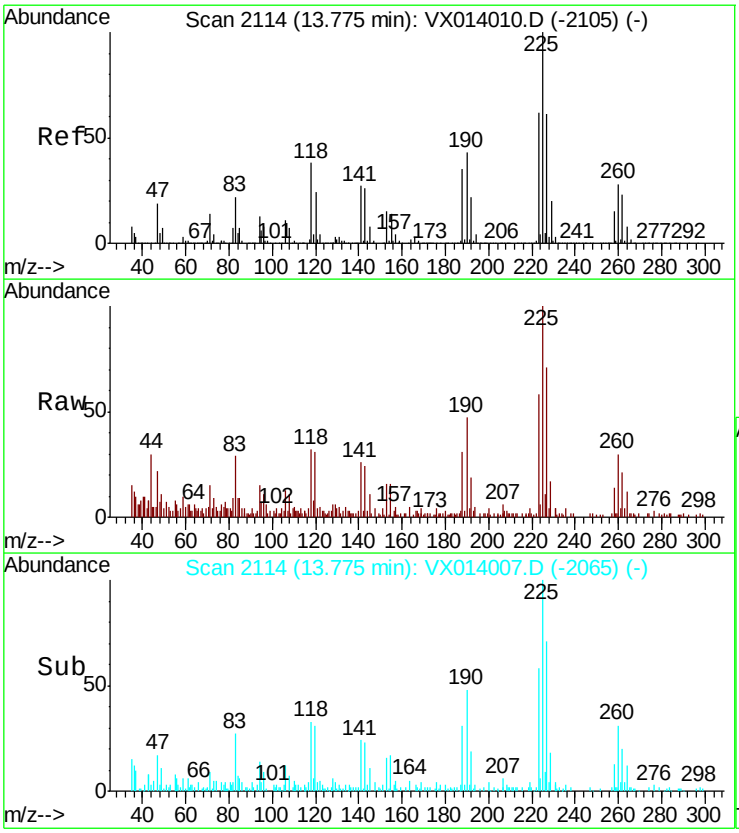
Tgt Ion:180 Resp: 12885

Ion	Ratio	Lower	Upper
180	100		
182	94.5	46.6	139.8
145	30.1	14.2	42.6



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC001

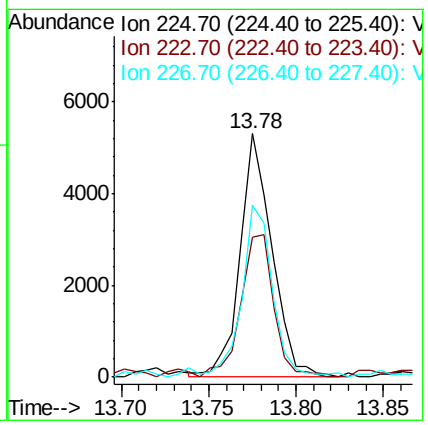
Manual Integrations APPROVED
apatel
12/17/2019 2:48:42 PM

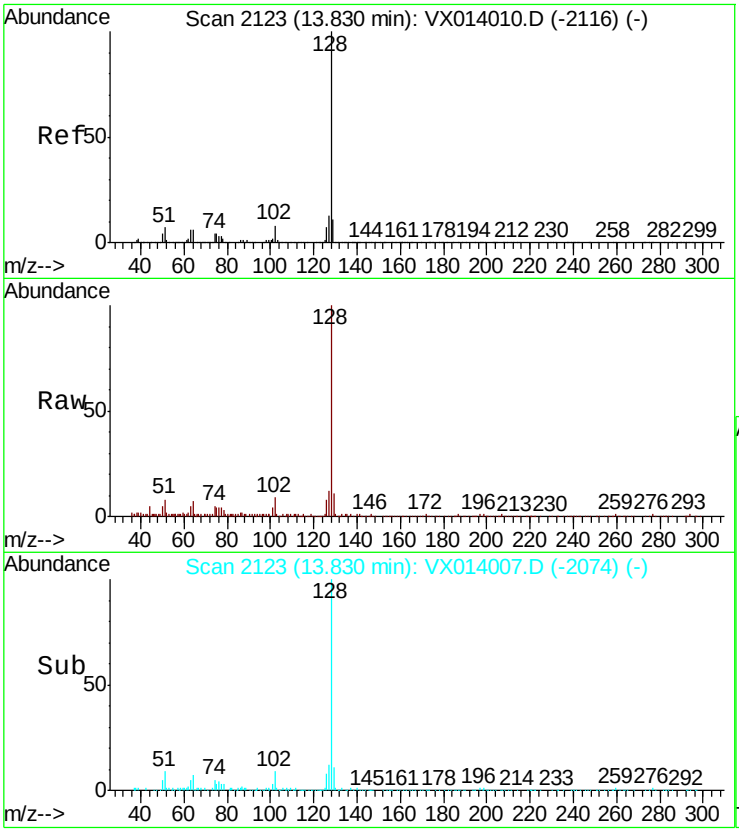


#94
Hexachlorobutadiene
Concen: 1.251 ug/l
RT: 13.78 min Scan# 2114
Delta R.T. 0.00 min
Lab File: VX014007.D
Acq: 13 Dec 2019 14:49

Tgt Ion:225 Resp: 6745

Ion	Ratio	Lower	Upper
225	100		
223	60.5	30.9	92.5
227	69.8	30.9	92.7

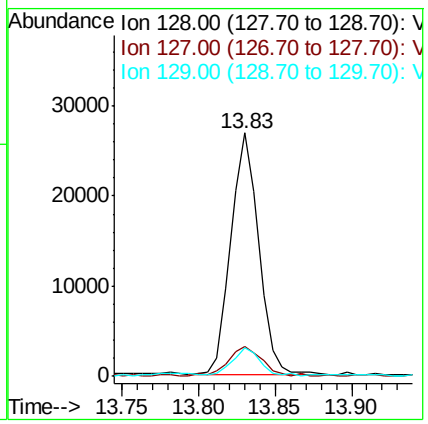




#95
Naphthalene
Concen: 1.032 ug/l
RT: 13.83 min Scan# 2123
Delta R.T. 0.00 min
Lab File: VX014007.D
Acq: 13 Dec 2019 14:49

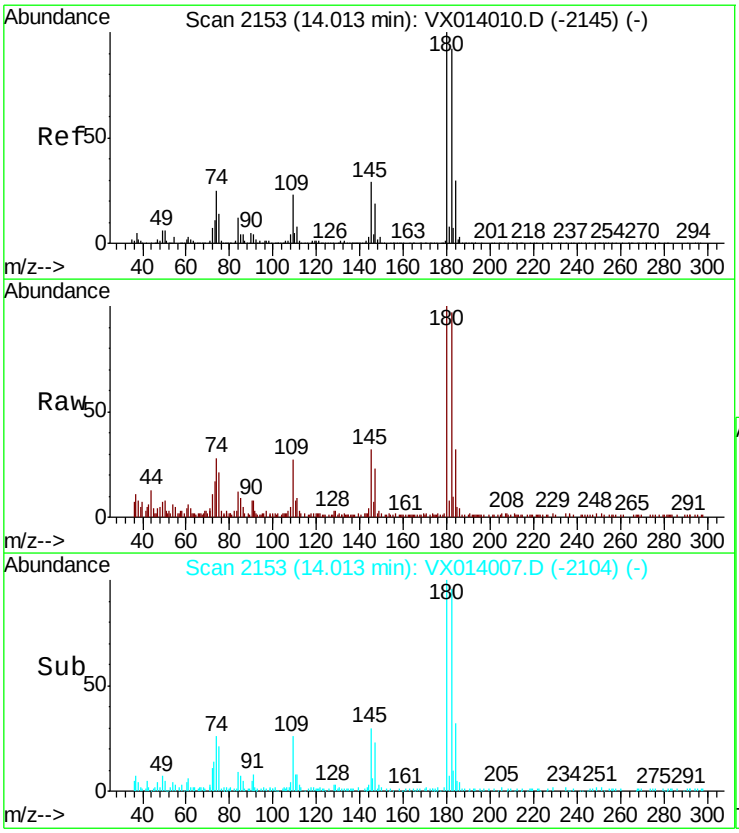
Tgt Ion:128 Resp: 34162

Ion	Ratio	Lower	Upper
128	100		
127	15.3	10.2	15.4
129	10.9	8.7	13.1



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC001

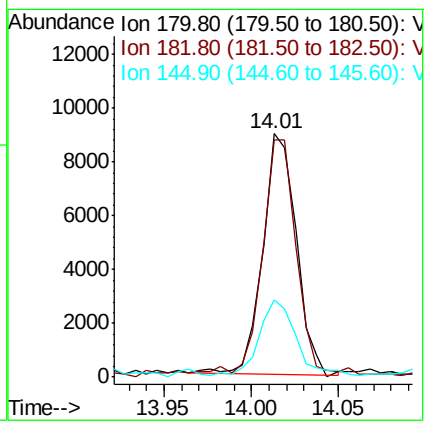
Manual Integrations APPROVED
apatel
12/17/2019 2:48:42 PM



#96
1,2,3-Trichlorobenzene
Concen: 1.082 ug/l
RT: 14.01 min Scan# 2153
Delta R.T. 0.00 min
Lab File: VX014007.D
Acq: 13 Dec 2019 14:49

Tgt Ion:180 Resp: 11992

Ion	Ratio	Lower	Upper
180	100		
182	101.4	46.8	140.3
145	34.1	14.8	44.4



Quantitation Report (QT Reviewed)

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX121319\
Data File : VX014008.D
Acq On : 13 Dec 2019 15:12
Operator : JC/SP
Sample : VSTDICC005
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 4 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
VSTDICC005

Manual Integrations APPROVED
apatel
12/16/2019 12:45:57 PM

Quant Time: Dec 13 16:52:32 2019
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121319W.M
Quant Title : SW846 8260
QLast Update : Fri Dec 13 16:34:01 2019
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Pentafluorobenzene	5.65	168	545654	50.00	ug/l		0.00
34) 1,4-Difluorobenzene	6.85	114	828804	50.00	ug/l		0.00
63) Chlorobenzene-d5	10.11	117	741012	50.00	ug/l		0.00
72) 1,4-Dichlorobenzene-d4	12.07	152	367559	50.00	ug/l		0.00
System Monitoring Compounds							
33) 1,2-Dichloroethane-d4	6.06	65	33805	5.33	ug/l		0.00
Spiked Amount 50.000			Recovery = 10.66%				
35) Dibromofluoromethane	5.49	113	26664	5.18	ug/l		0.00
Spiked Amount 50.000			Recovery = 10.36%				
50) Toluene-d8	8.71	98	102565	5.09	ug/l		0.00
Spiked Amount 50.000			Recovery = 10.18%				
62) 4-Bromofluorobenzene	11.14	95	36096	4.96	ug/l		0.00
Spiked Amount 50.000			Recovery = 9.92%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.19	85	24364	4.177	ug/l		95
3) Chloromethane	1.32	50	32958	4.882	ug/l		98
4) Vinyl Chloride	1.40	62	33048	4.426	ug/l		96
5) Bromomethane	1.62	94	28015	5.484	ug/l		98
6) Chloroethane	1.70	64	22012	5.056	ug/l		90
7) Trichlorofluoromethane	1.91	101	41691	4.878	ug/l		97
8) Diethyl Ether	2.18	74	20281	5.251	ug/l		95
9) 1,1,2-Trichlorotrifluoroet	2.37	101	26670	5.131	ug/l		99
10) Methyl Iodide	2.50	142	23278	3.687	ug/l	#	93
11) Tert butyl alcohol	3.06	59	40816	26.858	ug/l		95
12) 1,1-Dichloroethene	2.36	96	26582	5.128	ug/l		97
13) Acrolein	2.28	56	18499	20.678	ug/l		97
14) Allyl chloride	2.72	41	44423	4.726	ug/l		92
15) Acrylonitrile	3.13	53	80244	25.111	ug/l		98
16) Acetone	2.44	43	90499	27.556	ug/l		99
17) Carbon Disulfide	2.56	76	73698	4.977	ug/l		100
18) Methyl Acetate	2.76	43	38611	4.546	ug/l		94
19) Methyl tert-butyl Ether	3.19	73	85734	4.983	ug/l		99
20) Methylene Chloride	2.84	84	32935	5.469	ug/l		99
21) trans-1,2-Dichloroethene	3.15	96	29051	5.135	ug/l		98
22) Diisopropyl ether	3.84	45	94564	5.200	ug/l		93
23) Vinyl Acetate	3.80	43	382949	25.363	ug/l		99
24) 1,1-Dichloroethane	3.69	63	51625	5.193	ug/l		98
25) 2-Butanone	4.67	43	122725	26.185	ug/l		99
26) 2,2-Dichloropropane	4.57	77	37559	4.585	ug/l		97
27) cis-1,2-Dichloroethene	4.59	96	31265	4.815	ug/l		93
28) Bromochloromethane	5.01	49	12112	3.451	ug/l		92
29) Tetrahydrofuran	5.12	42	67887	24.029	ug/l		95
30) Chloroform	5.20	83	48299	4.800	ug/l		95
31) Cyclohexane	5.56	56	46374	4.935	ug/l		96
32) 1,1,1-Trichloroethane	5.48	97	40943	4.872	ug/l		99
36) 1,1-Dichloropropene	5.79	75	37031	4.919	ug/l		98
37) Ethyl Acetate	4.83	43	41790	4.976	ug/l		99
38) Carbon Tetrachloride	5.77	117	32620	4.697	ug/l		97

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX121319\
Data File : VX014008.D
Acq On : 13 Dec 2019 15:12
Operator : JC/SP
Sample : VSTDICC005
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 4 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
VSTDICC005

Manual Integrations APPROVED
apatel
12/16/2019 12:45:57 PM

Quant Time: Dec 13 16:52:32 2019
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121319W.M
Quant Title : SW846 8260
QLast Update : Fri Dec 13 16:34:01 2019
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
39) Methylcyclohexane	7.45	83	44709	4.796	ug/l		98
40) Benzene	6.13	78	117634	5.119	ug/l		98
41) Methacrylonitrile	5.04	41	21299	4.646	ug/l	#	58
42) 1,2-Dichloroethane	6.19	62	41725	5.333	ug/l		97
43) Isopropyl Acetate	6.43	43	68104	4.909	ug/l		97
44) Trichloroethene	7.20	130	32022	5.096	ug/l		93
45) 1,2-Dichloropropane	7.51	63	30292	5.259	ug/l		100
46) Dibromomethane	7.65	93	18520	4.751	ug/l		95
47) Bromodichloromethane	7.89	83	34707	4.711	ug/l		96
48) Methyl methacrylate	7.76	41	31789	4.726	ug/l		95
49) 1,4-Dioxane	7.74	88	15607	105.356	ug/l	#	88
51) 4-Methyl-2-Pentanone	8.64	43	225793	25.920	ug/l		97
52) Toluene	8.78	92	73375	5.133	ug/l		99
53) t-1,3-Dichloropropene	9.04	75	35229	4.203	ug/l		98
54) cis-1,3-Dichloropropene	8.43	75	41221	4.498	ug/l		98
55) 1,1,2-Trichloroethane	9.21	97	28600	4.972	ug/l		97
56) Ethyl methacrylate	9.17	69	43557	4.702	ug/l		99
57) 1,3-Dichloropropane	9.37	76	49837	5.020	ug/l		97
58) 2-Chloroethyl Vinyl ether	8.31	63	86243	23.748	ug/l		99
59) 2-Hexanone	9.49	43	174409	25.443	ug/l		98
60) Dibromochloromethane	9.57	129	26591	4.470	ug/l		99
61) 1,2-Dibromoethane	9.67	107	28498	4.644	ug/l		92
64) Tetrachloroethene	9.33	164	30947	5.412	ug/l		98
65) Chlorobenzene	10.14	112	79345	5.128	ug/l		97
66) 1,1,1,2-Tetrachloroethane	10.21	131	26889	4.854	ug/l		98
67) Ethyl Benzene	10.25	91	133408	5.024	ug/l		97
68) m/p-Xylenes	10.36	106	102703	10.088	ug/l		98
69) o-Xylene	10.70	106	51045	5.141	ug/l		99
70) Styrene	10.71	104	79726	4.760	ug/l		95
71) Bromoform	10.85	173	19246	4.212	ug/l	#	100
73) Isopropylbenzene	11.01	105	131468	5.092	ug/l		99
74) N-amyl acetate	10.89	43	58191	4.920	ug/l		99
75) 1,1,2,2-Tetrachloroethane	11.26	83	46256	5.175	ug/l		99
76) 1,2,3-Trichloropropane	11.29	75	41405m	5.030	ug/l		
77) Bromobenzene	11.25	156	35322	5.076	ug/l		98
78) n-propylbenzene	11.35	91	138951	4.813	ug/l		100
79) 2-Chlorotoluene	11.42	91	87285	5.026	ug/l		97
80) 1,3,5-Trimethylbenzene	11.50	105	107560	5.069	ug/l		99
81) trans-1,4-Dichloro-2-buten	11.07	75	11240	3.743	ug/l	#	80
82) 4-Chlorotoluene	11.51	91	100237	4.999	ug/l		99
83) tert-Butylbenzene	11.77	119	107592	5.033	ug/l		98
84) 1,2,4-Trimethylbenzene	11.80	105	107624	5.001	ug/l		100
85) sec-Butylbenzene	11.94	105	121785	4.950	ug/l		99
86) p-Isopropyltoluene	12.06	119	112360	4.916	ug/l		99
87) 1,3-Dichlorobenzene	12.02	146	61034	5.022	ug/l		100
88) 1,4-Dichlorobenzene	12.09	146	62413	5.035	ug/l		95
89) n-Butylbenzene	12.39	91	87635	4.490	ug/l		99
90) Hexachloroethane	12.59	117	18579	4.485	ug/l		97
91) 1,2-Dichlorobenzene	12.39	146	63473	5.270	ug/l		98
92) 1,2-Dibromo-3-Chloropropan	12.99	75	9746	5.056	ug/l		93

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX121319\
Data File : VX014008.D
Acq On : 13 Dec 2019 15:12
Operator : JC/SP
Sample : VSTDICC005
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 4 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
VSTDICC005

Manual Integrations APPROVED
apatel
12/16/2019 12:45:57 PM

Quant Time: Dec 13 16:52:32 2019
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121319W.M
Quant Title : SW846 8260
QLast Update : Fri Dec 13 16:34:01 2019
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
93) 1,2,4-Trichlorobenzene	13.64	180	36670	4.408	ug/l	97
94) Hexachlorobutadiene	13.78	225	18145	4.507	ug/l	96
95) Naphthalene	13.83	128	104752	4.239	ug/l	99
96) 1,2,3-Trichlorobenzene	14.02	180	37168	4.492	ug/l	98

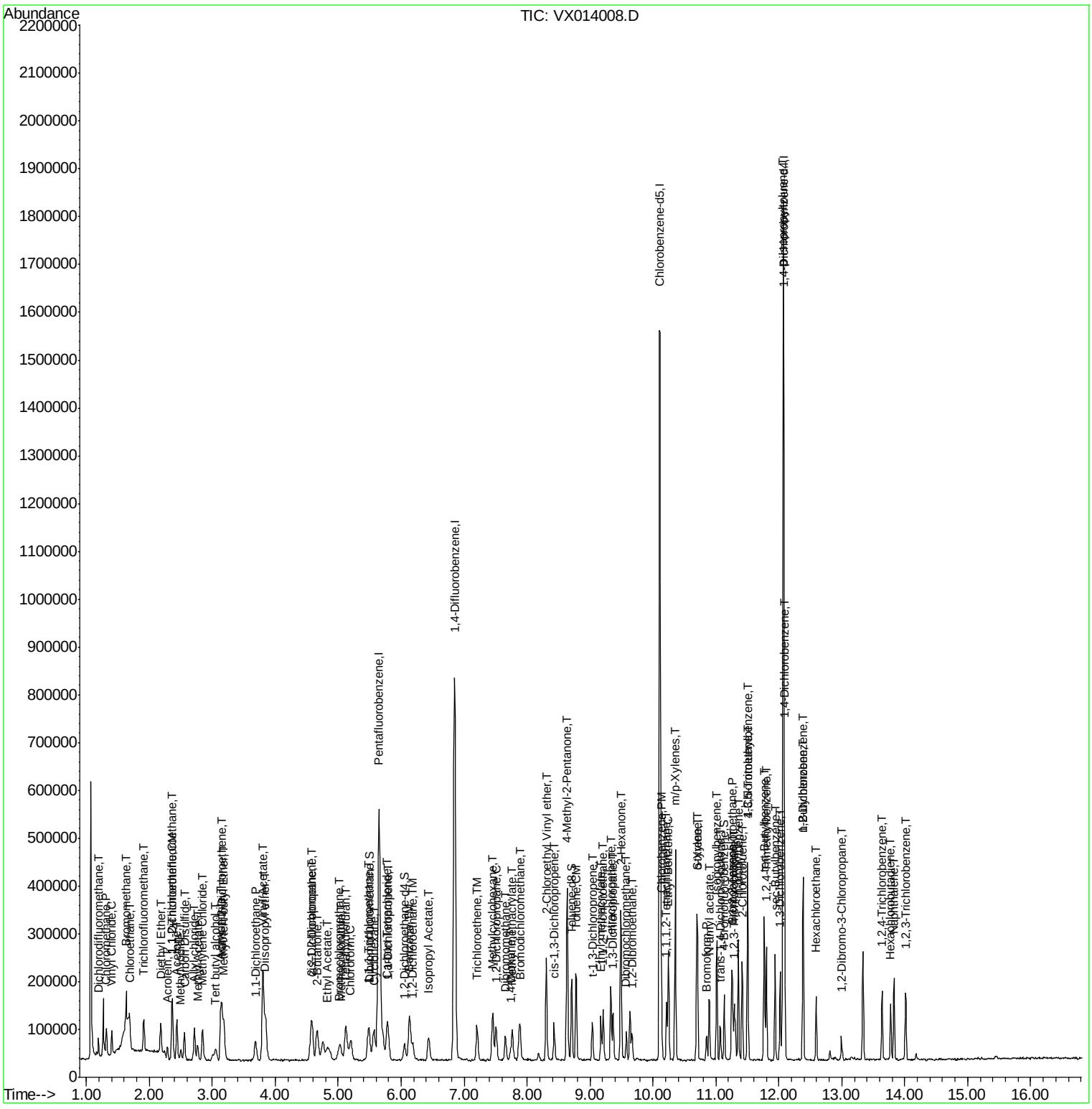
(#) = qualifier out of range (m) = manual integration (+) = signals summed

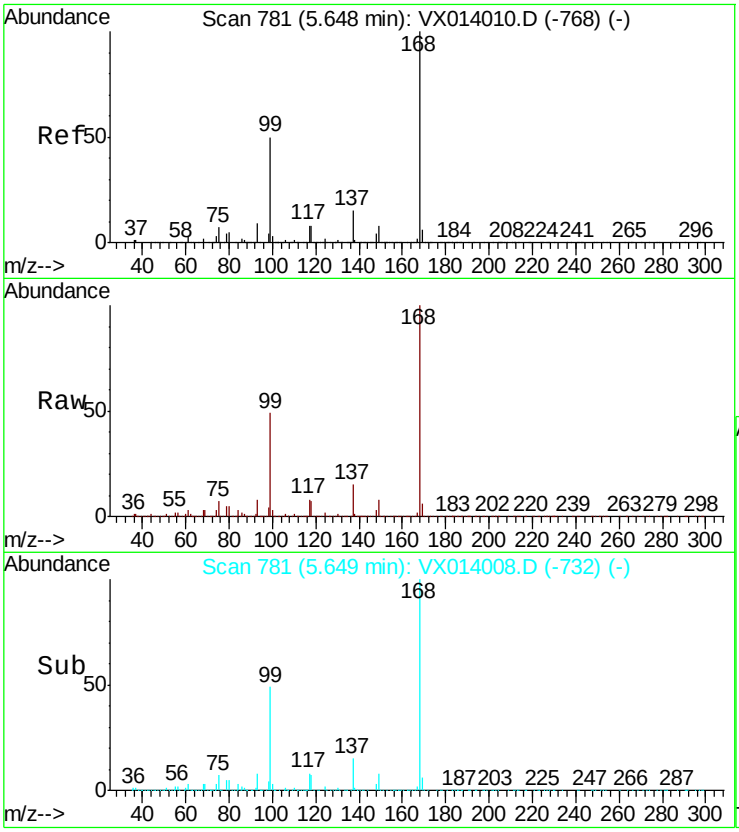
Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX121319\
Data File : VX014008.D
Acq On : 13 Dec 2019 15:12
Operator : JC/SP
Sample : VSTDICC005
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Dec 13 16:52:32 2019
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121319W.M
Quant Title : SW846 8260
QLast Update : Fri Dec 13 16:34:01 2019
Response via : Initial Calibration

Instrument :
MSVOA_X
ClientSampleId :
VSTDICC005

Manual Integrations APPROVED
apatel
12/16/2019 12:45:57 PM

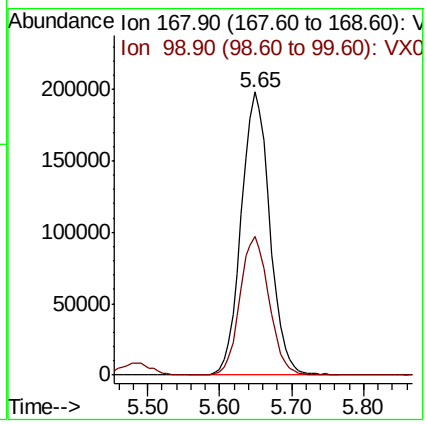




#1
Pentafluorobenzene
Concen: 50.000 ug/l
RT: 5.65 min Scan# 781
Delta R.T. 0.00 min
Lab File: VX014008.D
Acq: 13 Dec 2019 15:12

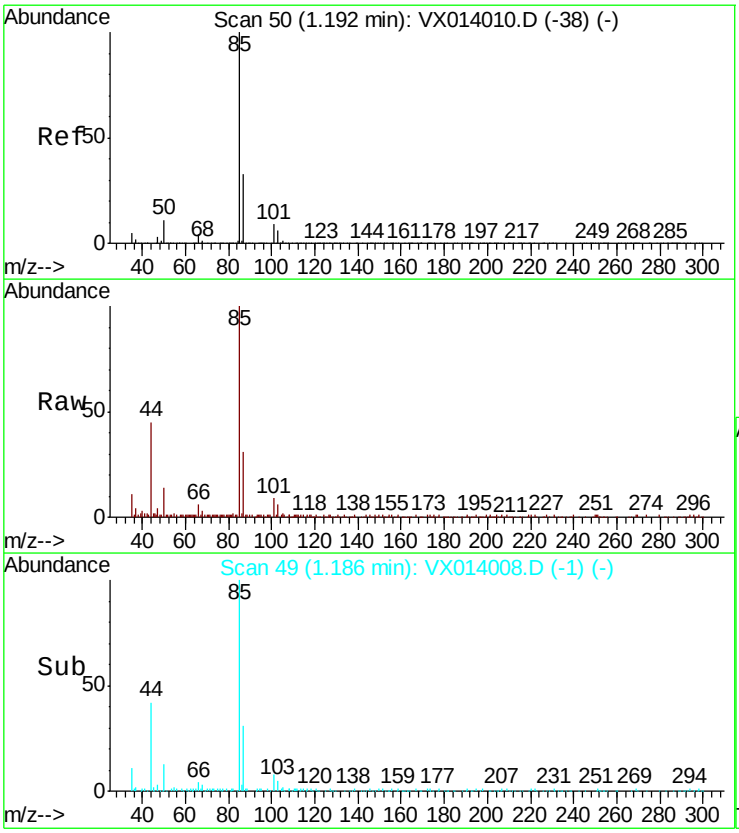
Tgt Ion:168 Resp: 545654

Ion	Ratio	Lower	Upper
168	100		
99	49.1	40.3	60.5



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC005

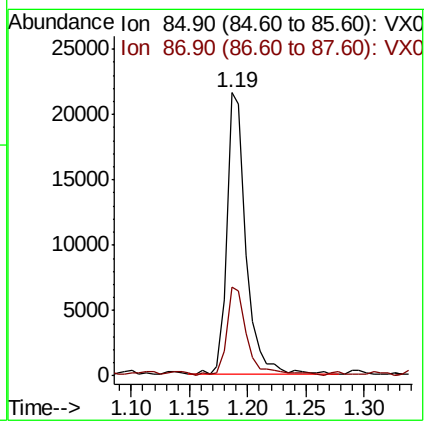
Manual Integrations APPROVED
apatel
12/16/2019 12:45:57 PM



#2
Dichlorodifluoromethane
Concen: 4.177 ug/l
RT: 1.19 min Scan# 49
Delta R.T. -0.01 min
Lab File: VX014008.D
Acq: 13 Dec 2019 15:12

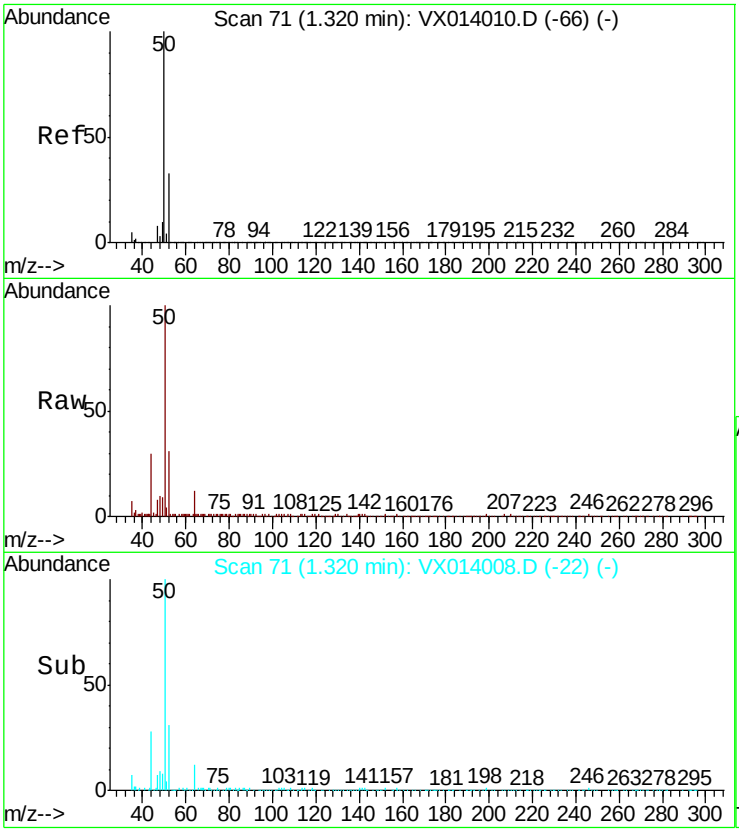
Tgt Ion: 85 Resp: 24364

Ion	Ratio	Lower	Upper
85	100		
87	30.2	16.4	49.2



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC005

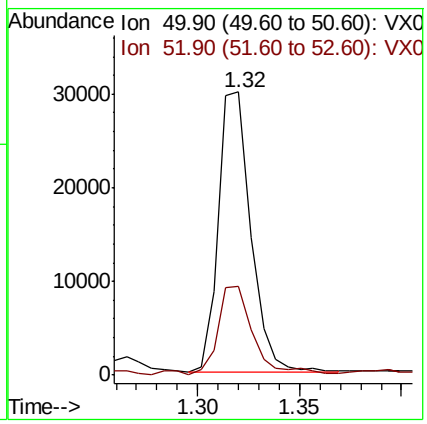
Manual Integrations APPROVED
apatel
12/16/2019 12:45:57 PM

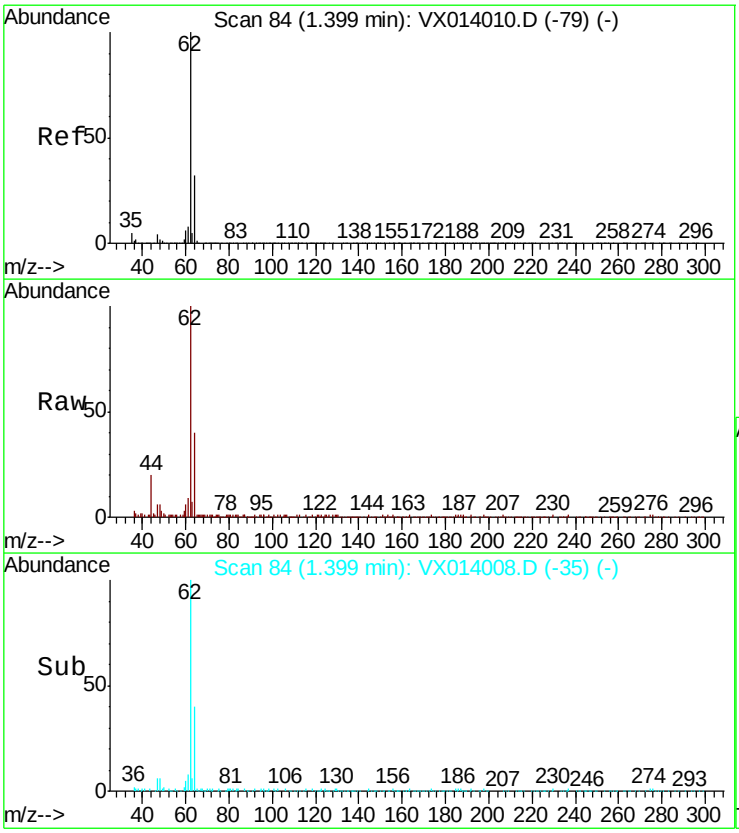


#3
Chloromethane
Concen: 4.882 ug/l
RT: 1.32 min Scan# 71
Delta R.T. 0.00 min
Lab File: VX014008.D
Acq: 13 Dec 2019 15:12

Tgt Ion: 50 Resp: 32958

Ion	Ratio	Lower	Upper
50	100		
52	31.7	26.2	39.4

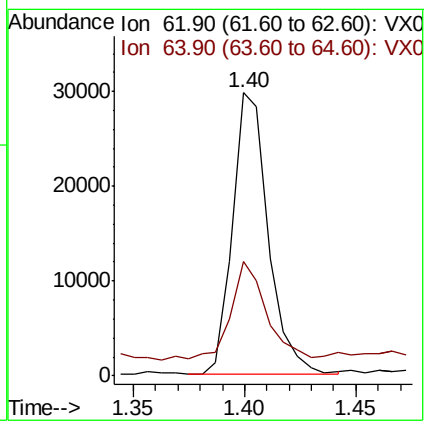


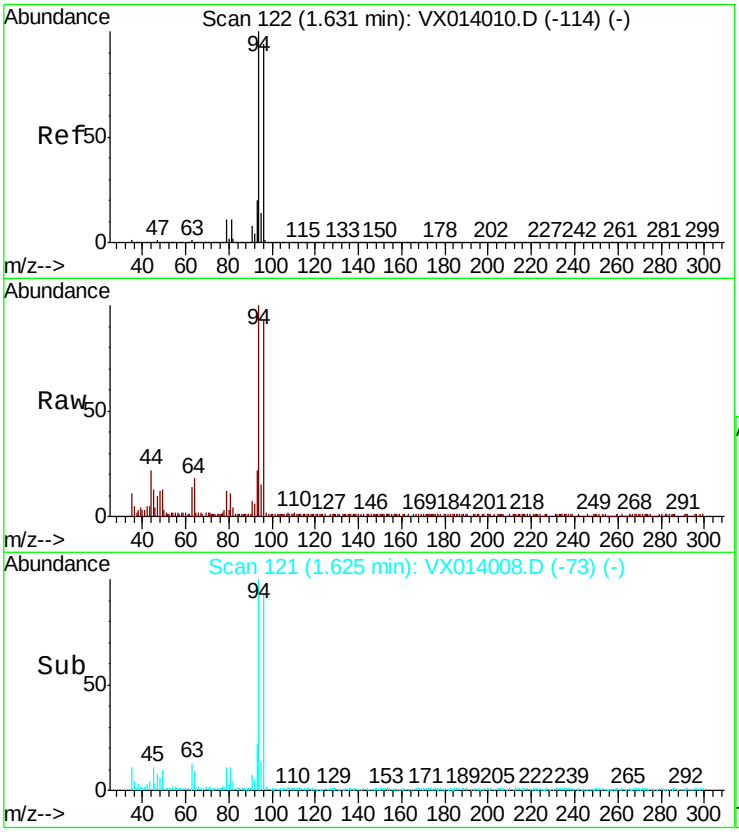


#4
Vinyl Chloride
Concen: 4.426 ug/l
RT: 1.40 min Scan# 84
Delta R.T. 0.00 min
Lab File: VX014008.D
Acq: 13 Dec 2019 15:12

Tgt Ion: 62 Resp: 33048

Ion	Ratio	Lower	Upper
62	100		
64	34.4	25.7	38.5

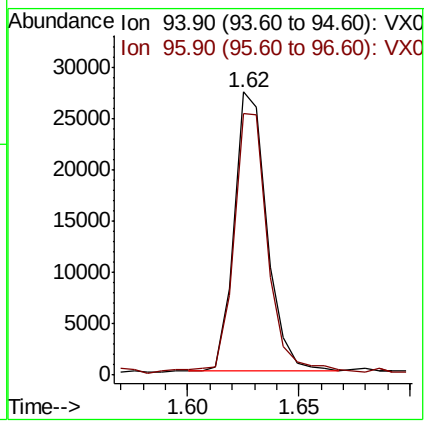




#5
Bromomethane
Concen: 5.484 ug/l
RT: 1.62 min Scan# 121
Delta R.T. -0.01 min
Lab File: VX014008.D
Acq: 13 Dec 2019 15:12

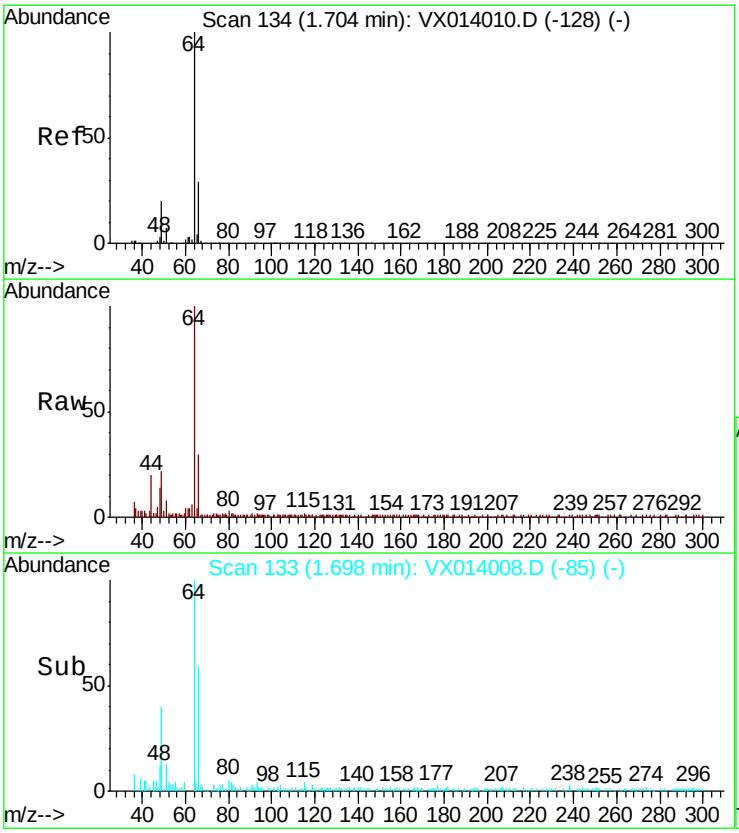
Tgt Ion: 94 Resp: 28015

Ion	Ratio	Lower	Upper
94	100		
96	91.9	75.2	112.8



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC005

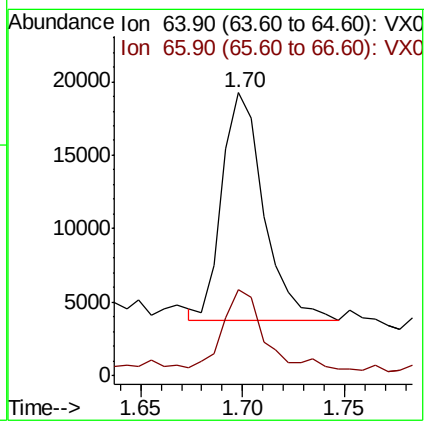
Manual Integrations APPROVED
apatel
12/16/2019 12:45:57 PM

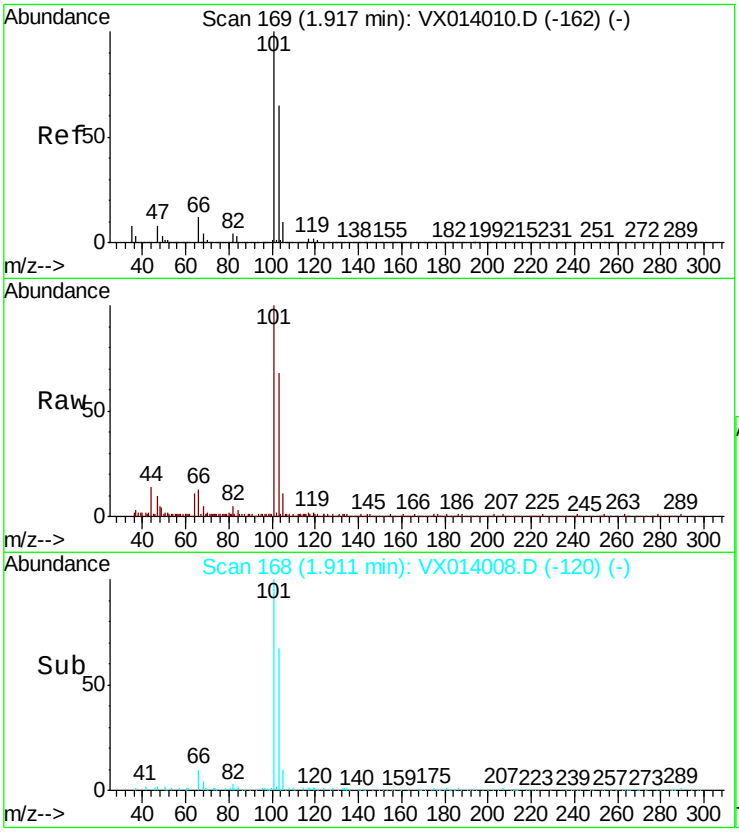


#6
Chloroethane
Concen: 5.056 ug/l
RT: 1.70 min Scan# 133
Delta R.T. -0.01 min
Lab File: VX014008.D
Acq: 13 Dec 2019 15:12

Tgt Ion: 64 Resp: 22012

Ion	Ratio	Lower	Upper
64	100		
66	34.5	23.4	35.2

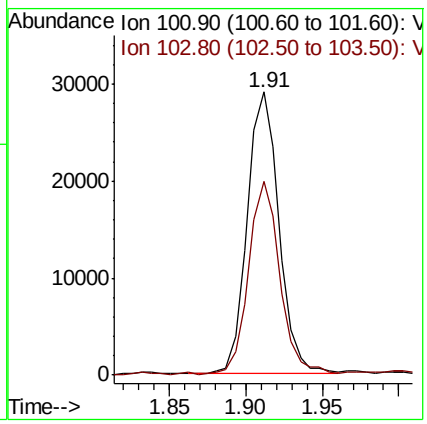




#7
Trichlorofluoromethane
Concen: 4.878 ug/l
RT: 1.91 min Scan# 168
Delta R.T. -0.01 min
Lab File: VX014008.D
Acq: 13 Dec 2019 15:12

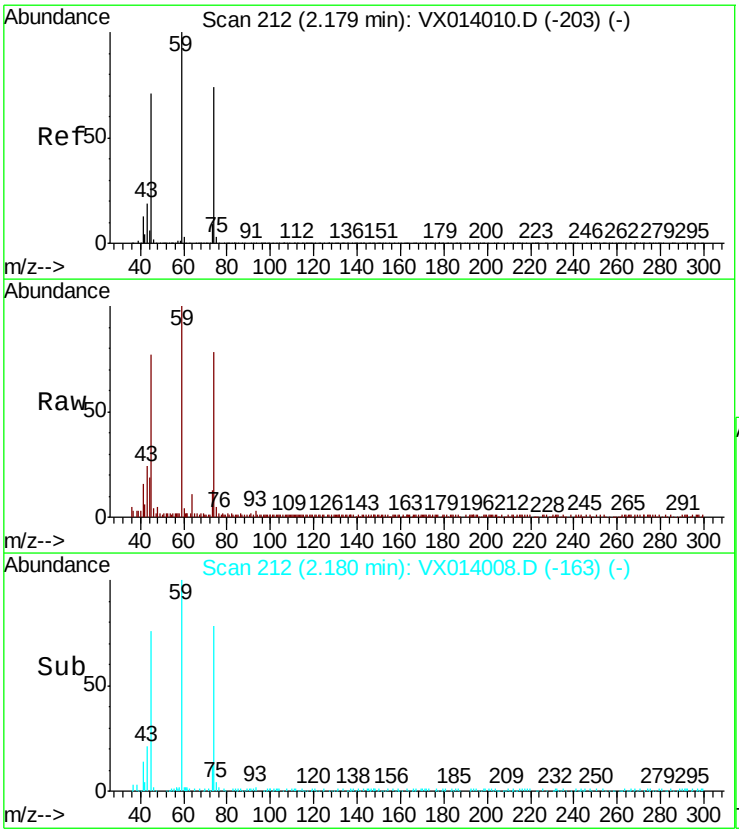
Tgt Ion:101 Resp: 41691

Ion	Ratio	Lower	Upper
101	100		
103	67.8	52.2	78.4



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC005

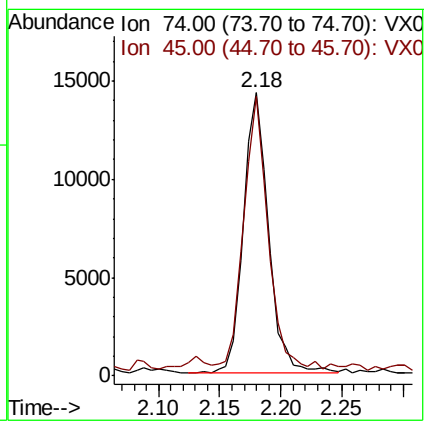
Manual Integrations APPROVED
apatel
12/16/2019 12:45:57 PM

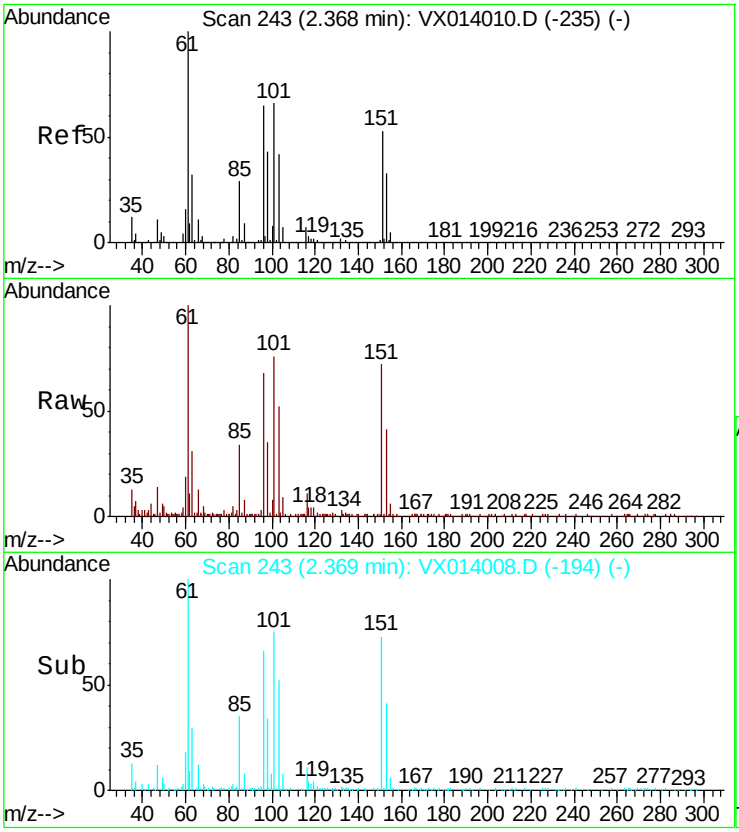


#8
Diethyl Ether
Concen: 5.251 ug/l
RT: 2.18 min Scan# 212
Delta R.T. 0.00 min
Lab File: VX014008.D
Acq: 13 Dec 2019 15:12

Tgt Ion: 74 Resp: 20281

Ion	Ratio	Lower	Upper
74	100		
45	91.2	48.1	144.3

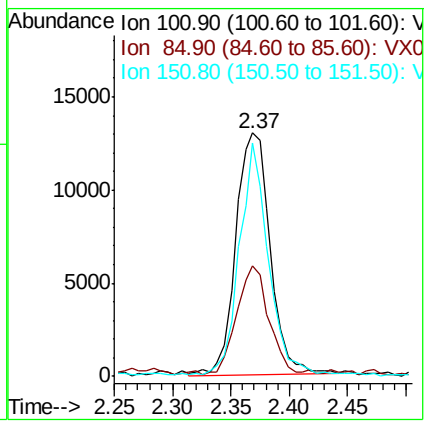




#9
1,1,2-Trichlorotrifluoroethane
Concen: 5.131 ug/l
RT: 2.37 min Scan# 243
Delta R.T. 0.00 min
Lab File: VX014008.D
Acq: 13 Dec 2019 15:12

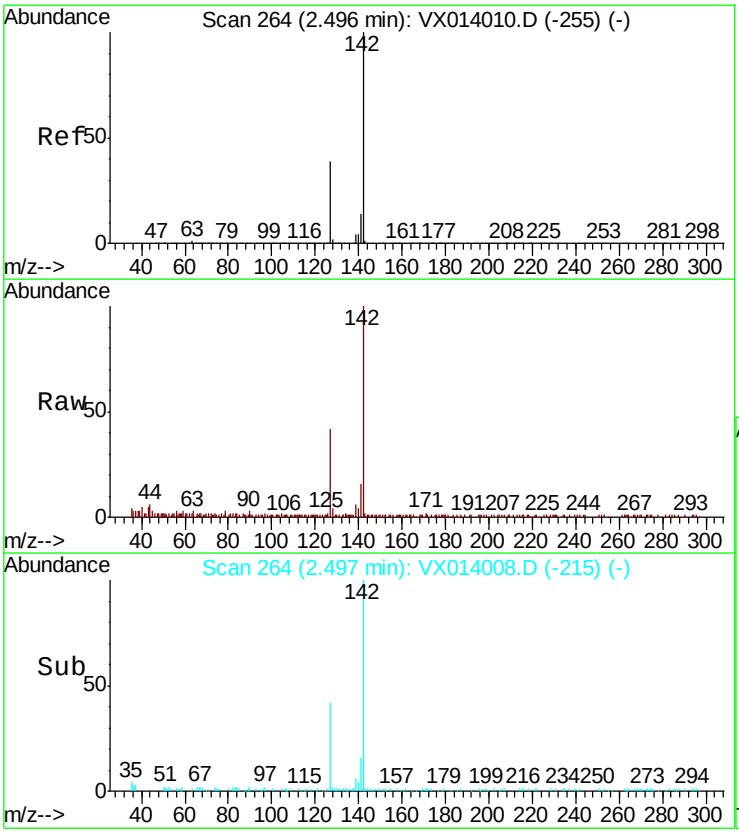
Tgt Ion:101 Resp: 26670

Ion	Ratio	Lower	Upper
101	100		
85	41.8	33.7	50.5
151	82.3	64.5	96.7



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC005

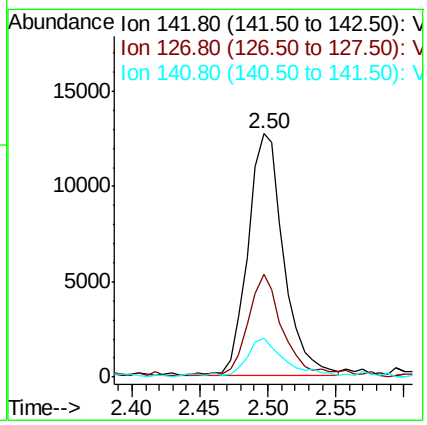
Manual Integrations APPROVED
apatel
12/16/2019 12:45:57 PM

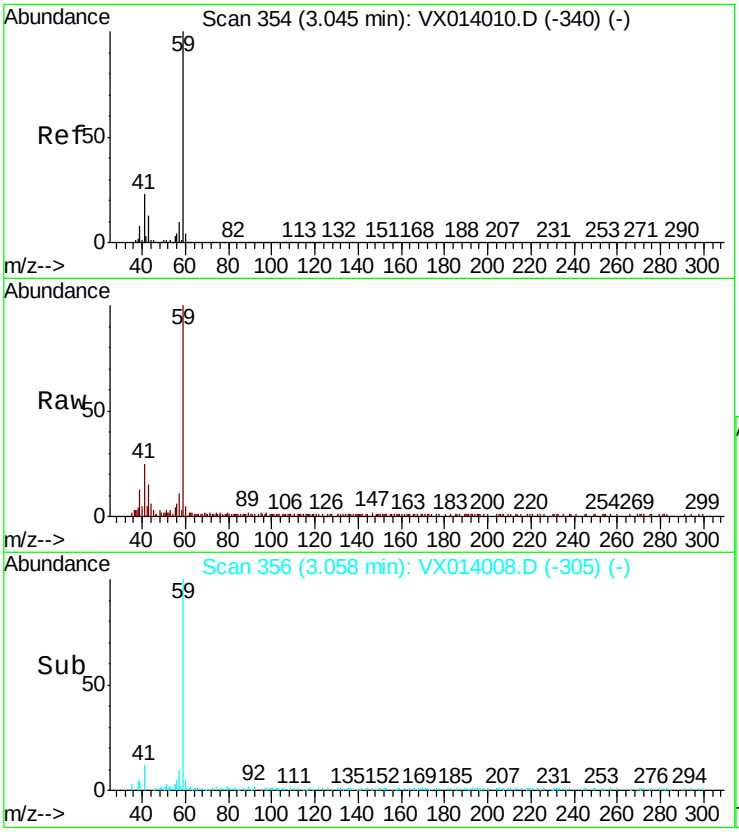


#10
Methyl Iodide
Concen: 3.687 ug/l
RT: 2.50 min Scan# 264
Delta R.T. 0.00 min
Lab File: VX014008.D
Acq: 13 Dec 2019 15:12

Tgt Ion:142 Resp: 23278

Ion	Ratio	Lower	Upper
142	100		
127	42.8	31.6	47.4
141	18.8	11.6	17.4#

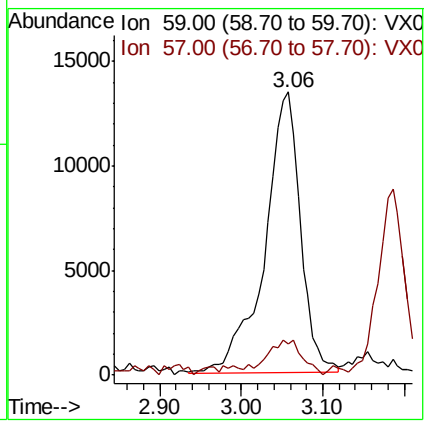




#11
Tert butyl alcohol
Concen: 26.858 ug/l
RT: 3.06 min Scan# 356
Delta R.T. 0.01 min
Lab File: VX014008.D
Acq: 13 Dec 2019 15:12

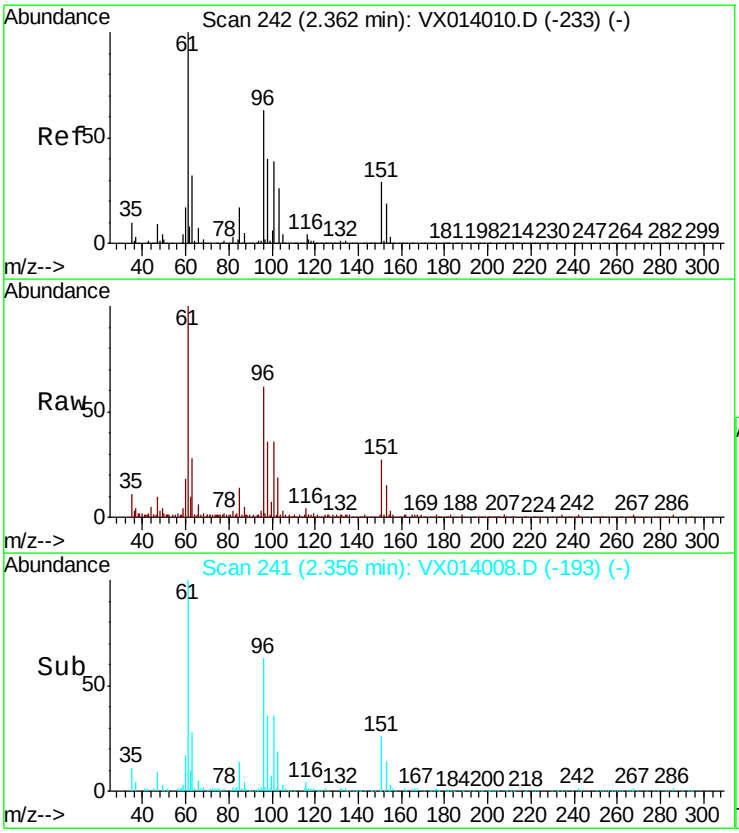
Tgt Ion: 59 Resp: 40816

Ion	Ratio	Lower	Upper
59	100		
57	12.5	8.4	12.6



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC005

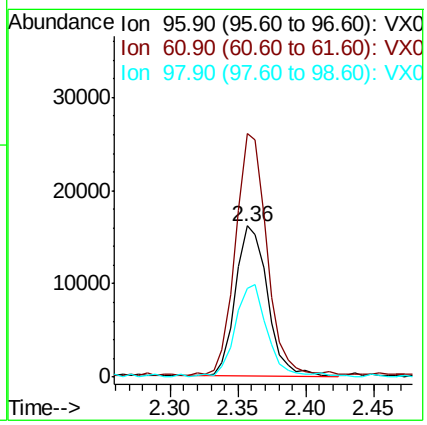
Manual Integrations APPROVED
apatel
12/16/2019 12:45:57 PM



#12
1,1-Dichloroethene
Concen: 5.128 ug/l
RT: 2.36 min Scan# 241
Delta R.T. -0.01 min
Lab File: VX014008.D
Acq: 13 Dec 2019 15:12

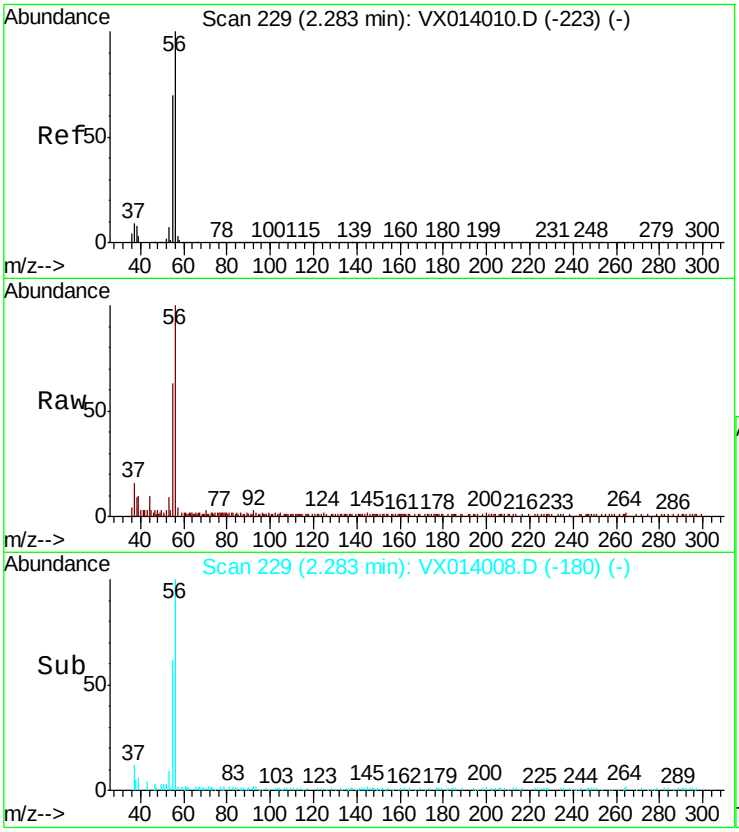
Tgt Ion: 96 Resp: 26582

Ion	Ratio	Lower	Upper
96	100		
61	161.5	127.9	191.9
98	58.4	50.5	75.7



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC005

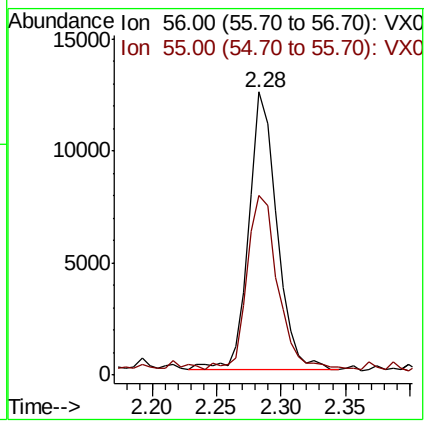
Manual Integrations APPROVED
apatel
12/16/2019 12:45:57 PM

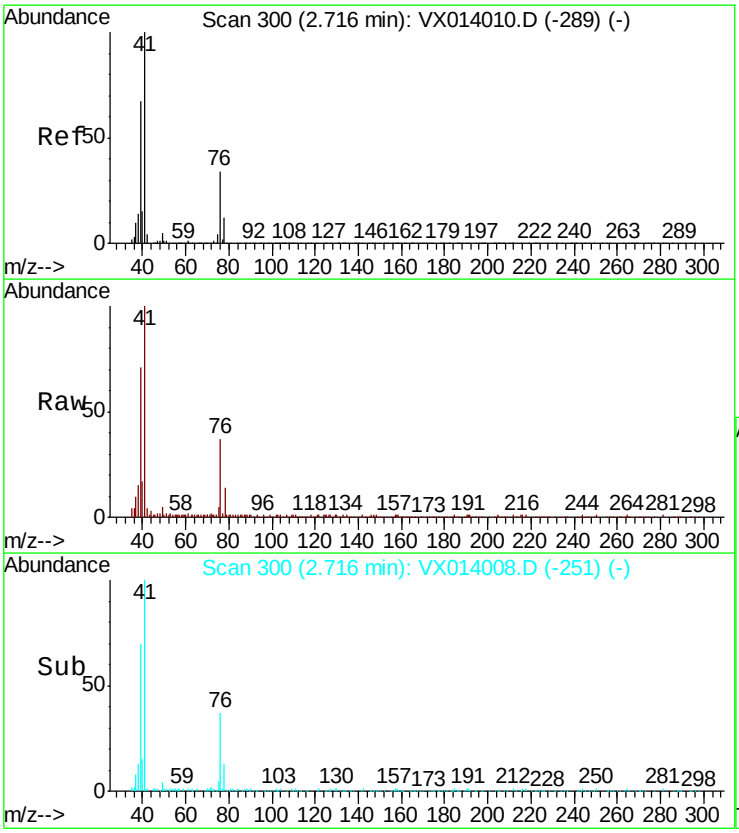


#13
Acrolein
Concen: 20.678 ug/l
RT: 2.28 min Scan# 229
Delta R.T. 0.00 min
Lab File: VX014008.D
Acq: 13 Dec 2019 15:12

Tgt Ion: 56 Resp: 18499

Ion	Ratio	Lower	Upper
56	100		
55	68.6	56.9	85.3

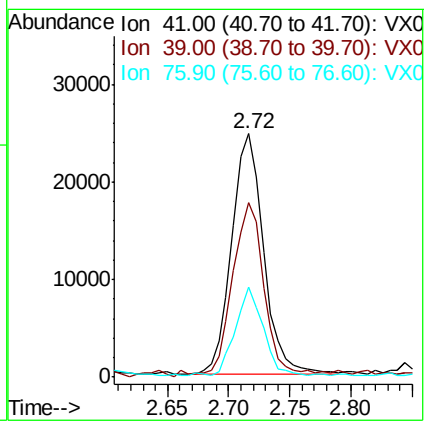


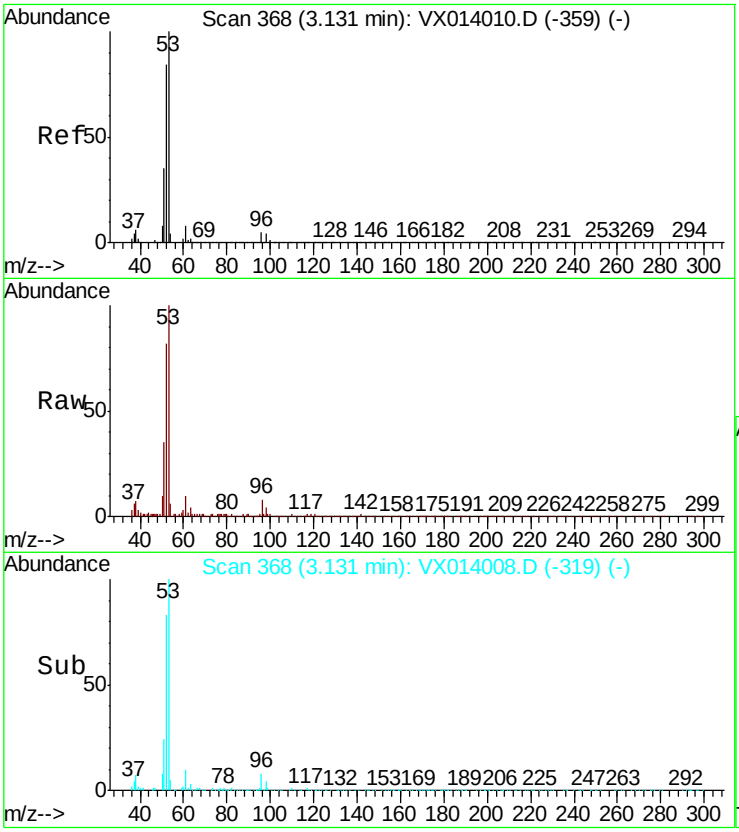


#14
Allyl chloride
Concen: 4.726 ug/l
RT: 2.72 min Scan# 300
Delta R.T. 0.00 min
Lab File: VX014008.D
Acq: 13 Dec 2019 15:12

Tgt Ion: 41 Resp: 44423

Ion	Ratio	Lower	Upper
41	100		
39	74.3	51.8	77.8
76	31.8	25.9	38.9

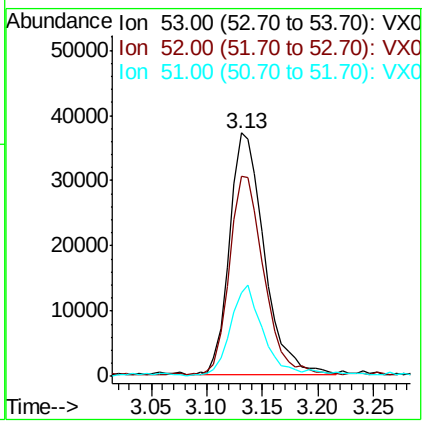




#15
Acrylonitrile
Concen: 25.111 ug/l
RT: 3.13 min Scan# 368
Delta R.T. 0.00 min
Lab File: VX014008.D
Acq: 13 Dec 2019 15:12

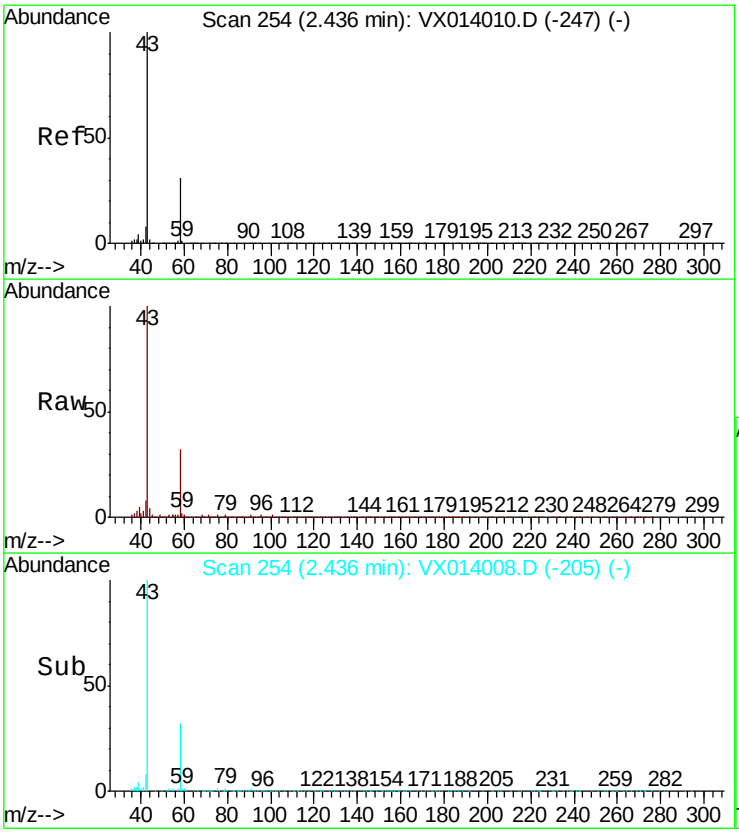
Tgt Ion: 53 Resp: 80244

Ion	Ratio	Lower	Upper
53	100		
52	80.8	66.5	99.7
51	35.0	28.1	42.1



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC005

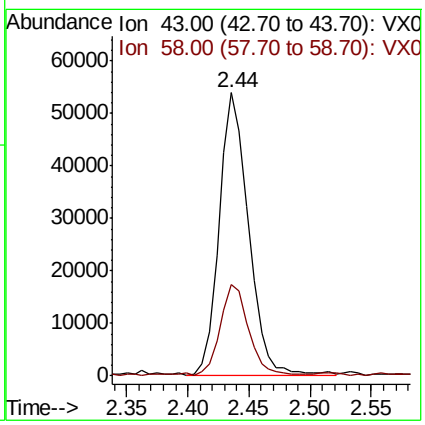
Manual Integrations APPROVED
apatel
12/16/2019 12:45:57 PM

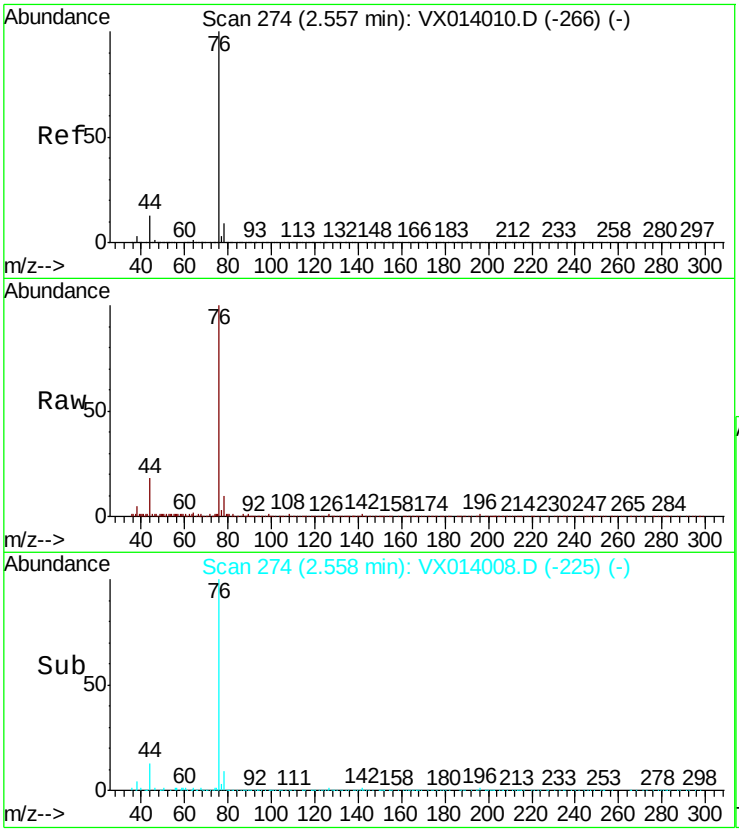


#16
Acetone
Concen: 27.556 ug/l
RT: 2.44 min Scan# 254
Delta R.T. 0.00 min
Lab File: VX014008.D
Acq: 13 Dec 2019 15:12

Tgt Ion: 43 Resp: 90499

Ion	Ratio	Lower	Upper
43	100		
58	31.4	24.9	37.3

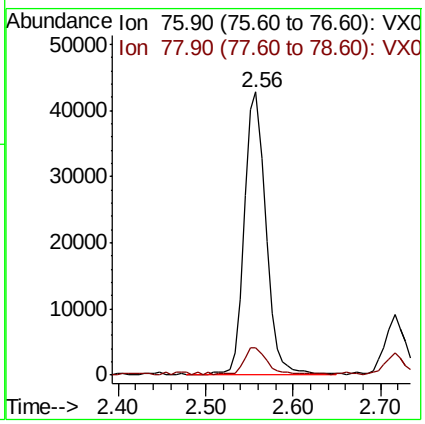




#17
Carbon Disulfide
Concen: 4.977 ug/l
RT: 2.56 min Scan# 274
Delta R.T. 0.00 min
Lab File: VX014008.D
Acq: 13 Dec 2019 15:12

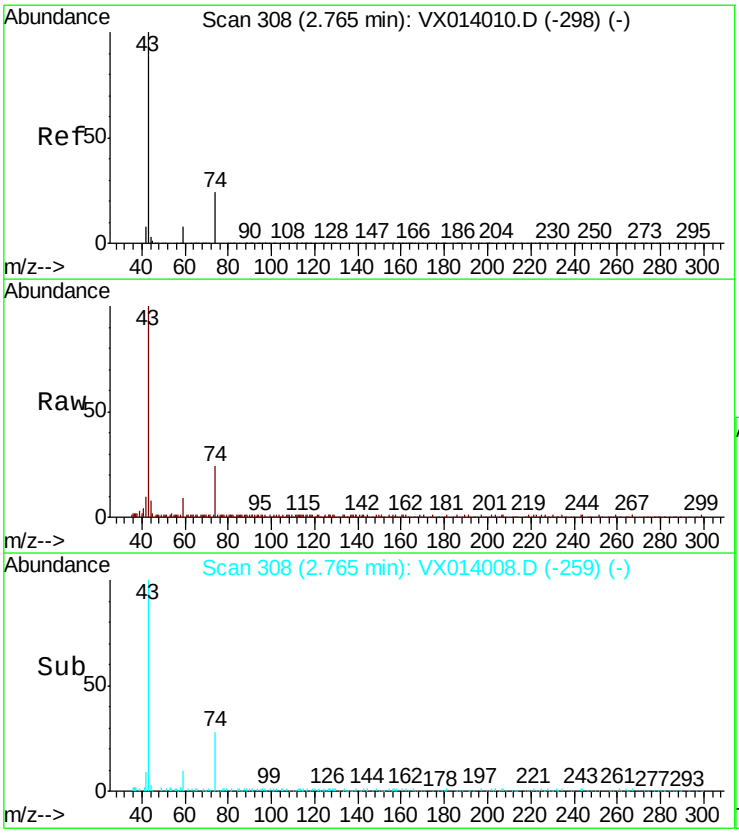
Tgt Ion: 76 Resp: 73698

Ion	Ratio	Lower	Upper
76	100		
78	9.1	7.2	10.8



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC005

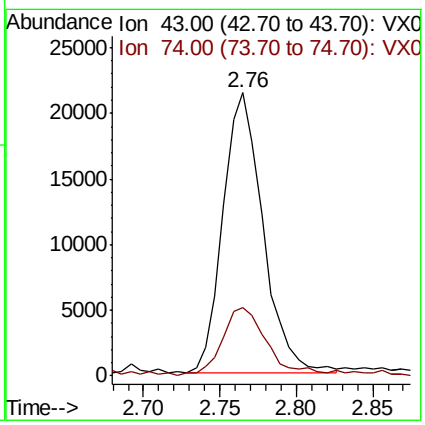
Manual Integrations APPROVED
apatel
12/16/2019 12:45:57 PM

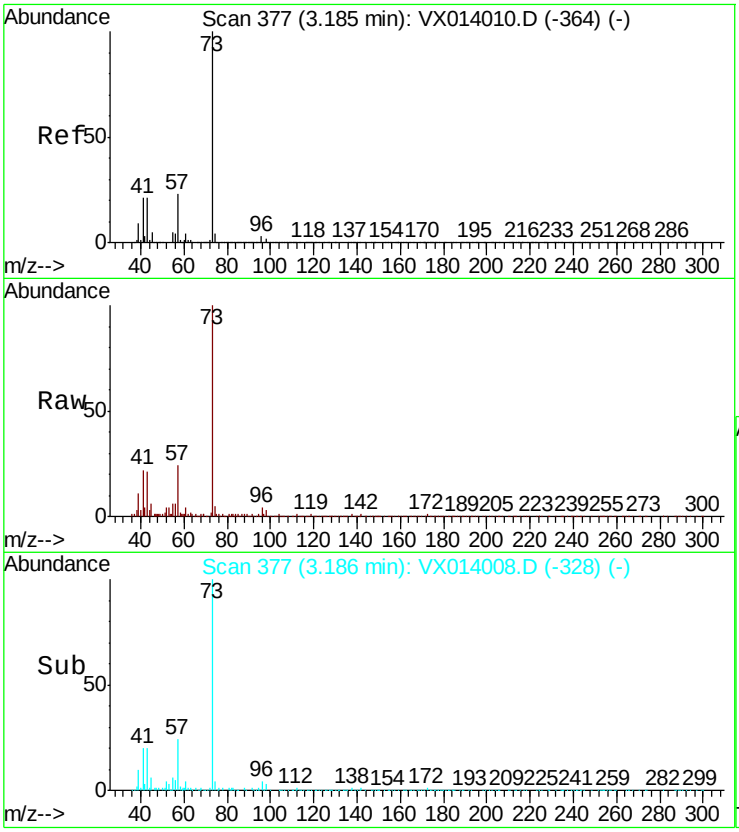


#18
Methyl Acetate
Concen: 4.546 ug/l
RT: 2.76 min Scan# 308
Delta R.T. 0.00 min
Lab File: VX014008.D
Acq: 13 Dec 2019 15:12

Tgt Ion: 43 Resp: 38611

Ion	Ratio	Lower	Upper
43	100		
74	27.5	19.5	29.3

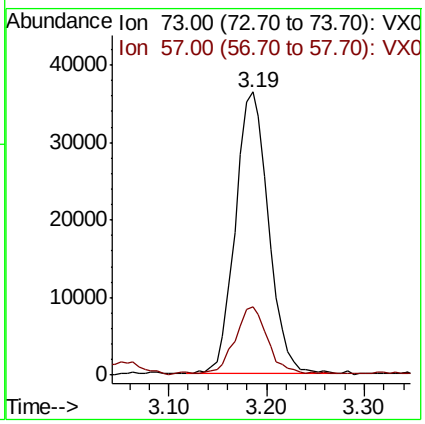




#19
Methyl tert-butyl Ether
Concen: 4.983 ug/l
RT: 3.19 min Scan# 377
Delta R.T. 0.00 min
Lab File: VX014008.D
Acq: 13 Dec 2019 15:12

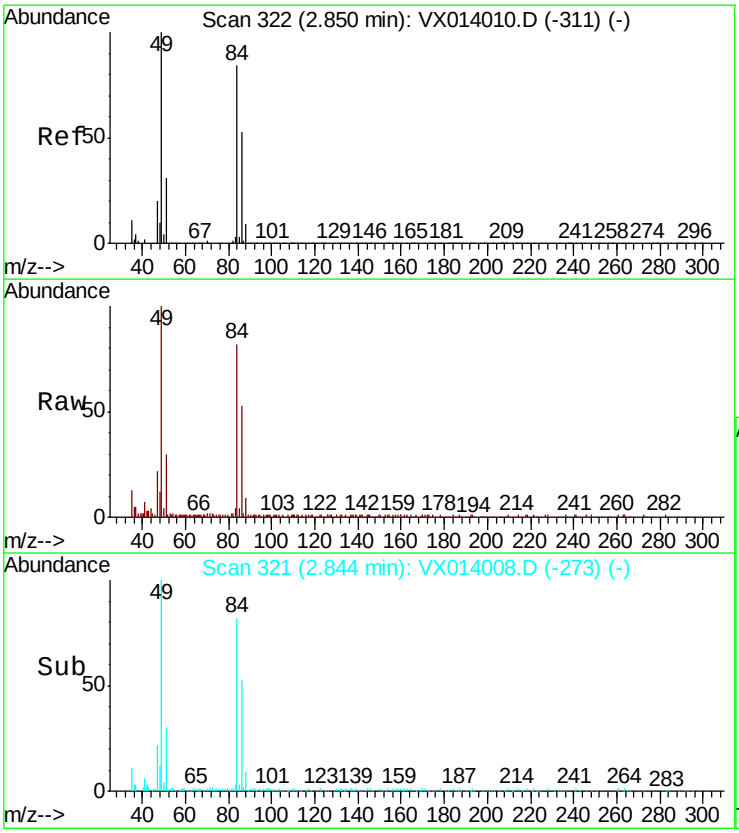
Tgt Ion: 73 Resp: 85734

Ion	Ratio	Lower	Upper
73	100		
57	23.9	18.8	28.2



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC005

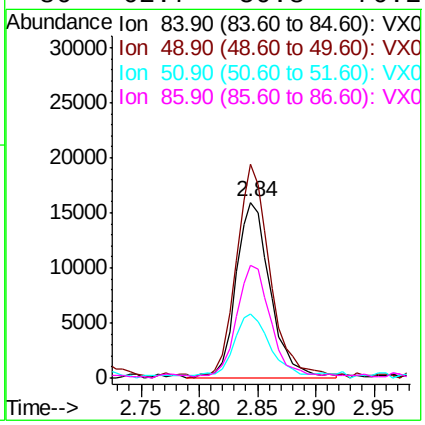
Manual Integrations APPROVED
apatel
12/16/2019 12:45:57 PM



#20
Methylene Chloride
Concen: 5.469 ug/l
RT: 2.84 min Scan# 321
Delta R.T. -0.01 min
Lab File: VX014008.D
Acq: 13 Dec 2019 15:12

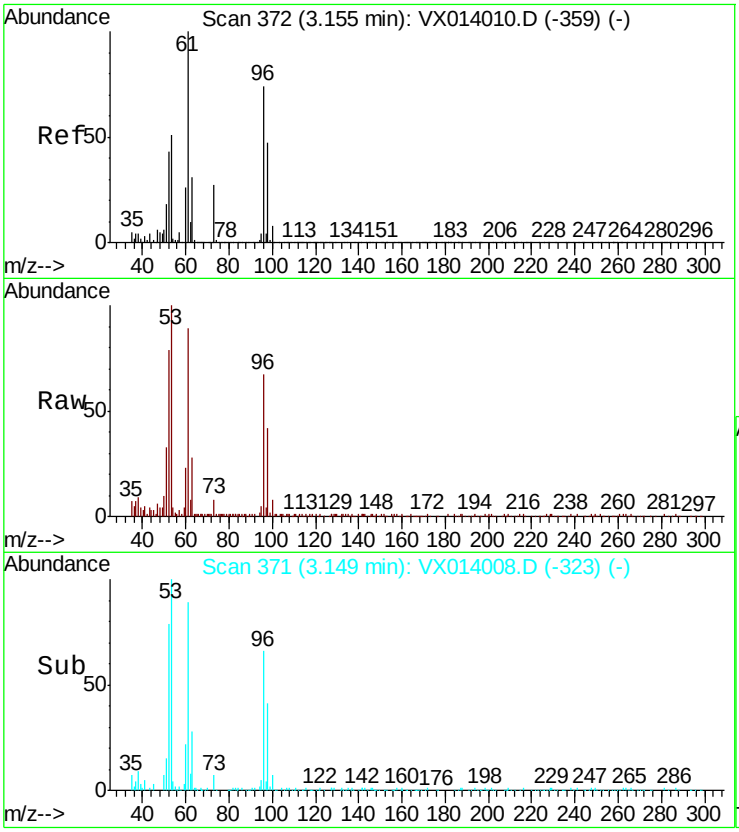
Tgt Ion: 84 Resp: 32935

Ion	Ratio	Lower	Upper
84	100		
49	119.8	95.8	143.6
51	35.6	29.8	44.8
86	62.7	50.8	76.2



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC005

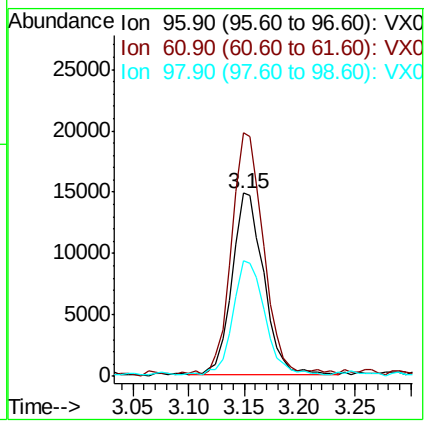
Manual Integrations APPROVED
apatel
12/16/2019 12:45:57 PM

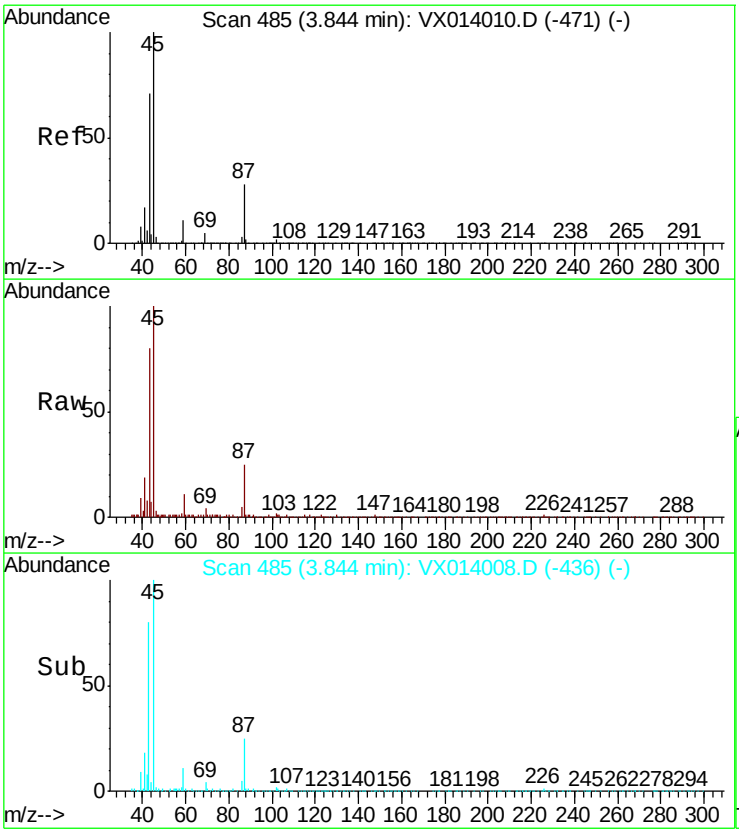


#21
trans-1,2-Dichloroethene
Concen: 5.135 ug/l
RT: 3.15 min Scan# 371
Delta R.T. -0.01 min
Lab File: VX014008.D
Acq: 13 Dec 2019 15:12

Tgt Ion: 96 Resp: 29051

Ion	Ratio	Lower	Upper
96	100		
61	133.0	108.3	162.5
98	61.9	50.8	76.2

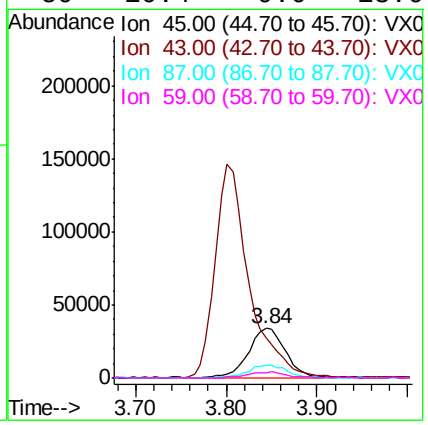


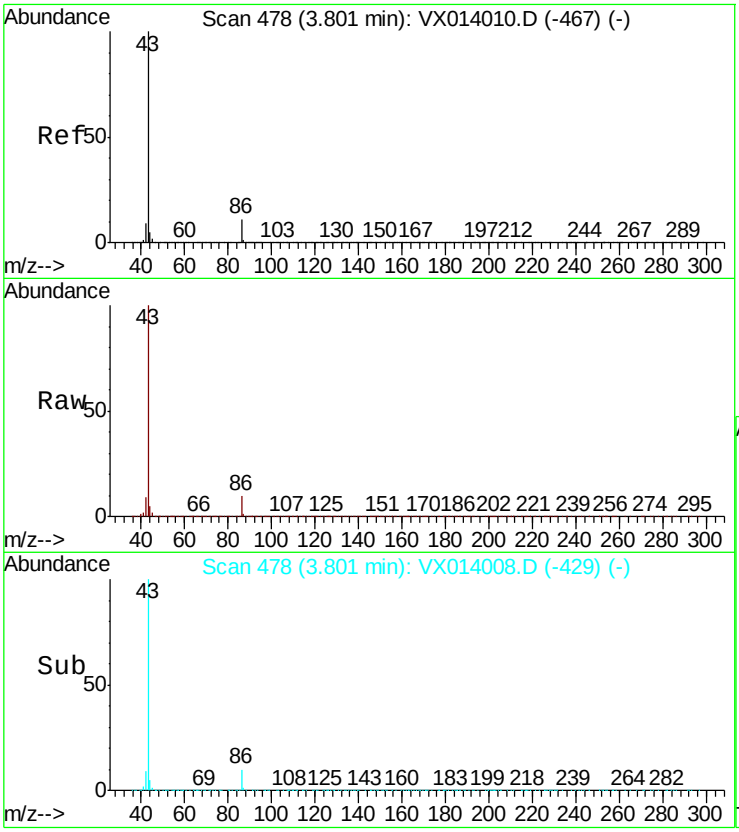


#22
Diisopropyl ether
Concen: 5.200 ug/l
RT: 3.84 min Scan# 485
Delta R.T. 0.00 min
Lab File: VX014008.D
Acq: 13 Dec 2019 15:12

Tgt Ion: 45 Resp: 94564

Ion	Ratio	Lower	Upper
45	100		
43	78.6	57.4	86.0
87	25.1	21.9	32.9
59	10.4	9.0	13.6

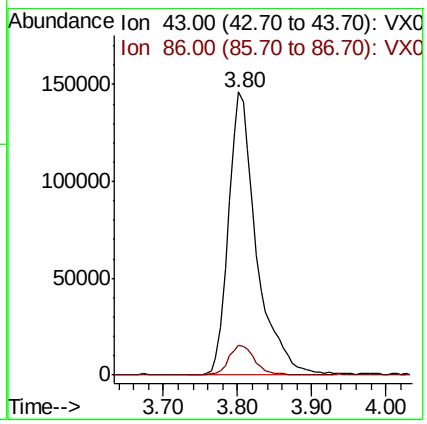




#23
Vinyl Acetate
Concen: 25.363 ug/l
RT: 3.80 min Scan# 478
Delta R.T. 0.00 min
Lab File: VX014008.D
Acq: 13 Dec 2019 15:12

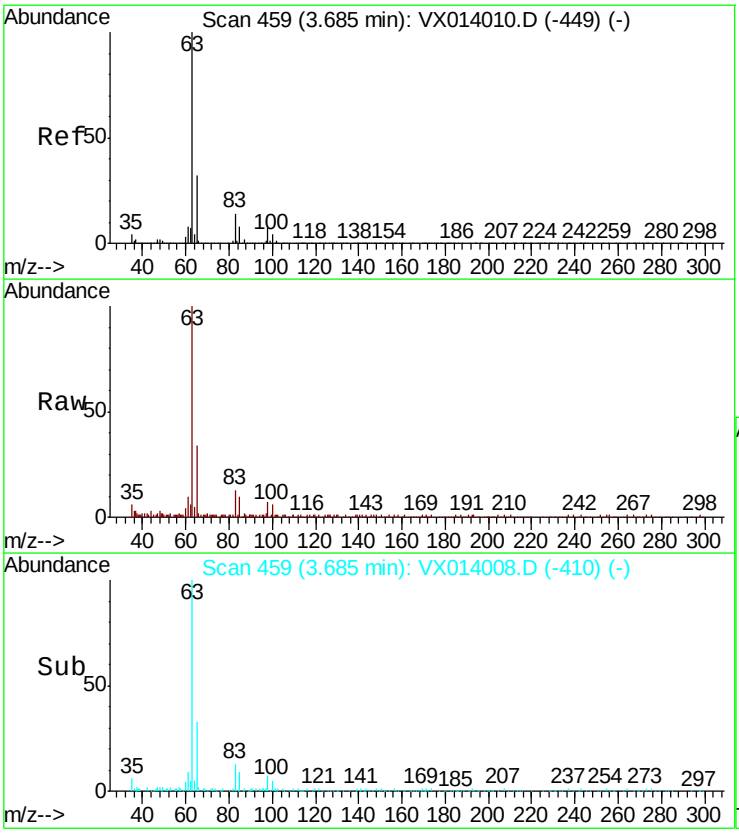
Tgt Ion: 43 Resp: 382949

Ion	Ratio	Lower	Upper
43	100		
86	10.4	8.6	12.8



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC005

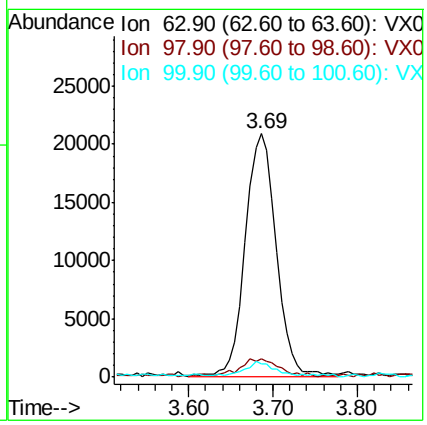
Manual Integrations APPROVED
apatel
12/16/2019 12:45:57 PM

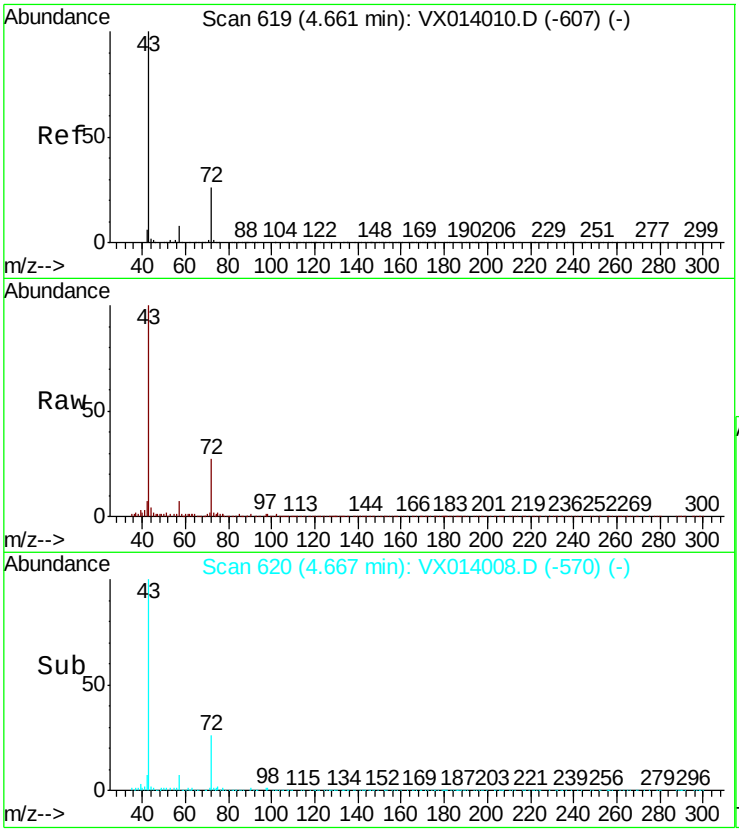


#24
1,1-Dichloroethane
Concen: 5.193 ug/l
RT: 3.69 min Scan# 459
Delta R.T. 0.00 min
Lab File: VX014008.D
Acq: 13 Dec 2019 15:12

Tgt Ion: 63 Resp: 51625

Ion	Ratio	Lower	Upper
63	100		
98	6.9	3.6	10.8
100	5.4	2.3	6.8

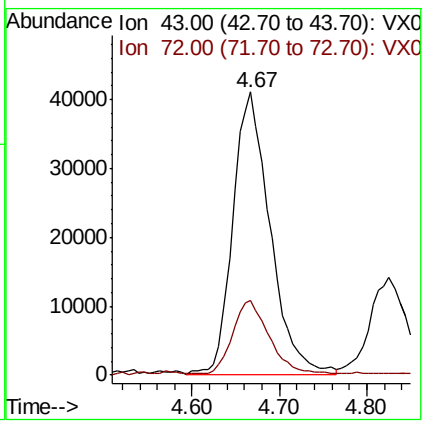




#25
2-Butanone
Concen: 26.185 ug/l
RT: 4.67 min Scan# 620
Delta R.T. 0.01 min
Lab File: VX014008.D
Acq: 13 Dec 2019 15:12

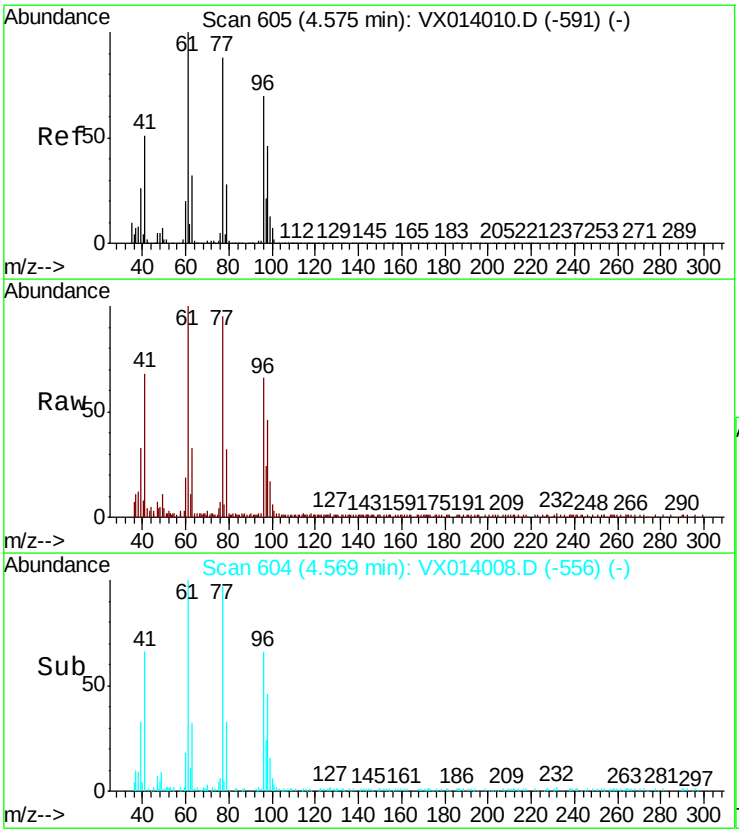
Tgt Ion: 43 Resp: 122725

Ion	Ratio	Lower	Upper
43	100		
72	25.9	21.0	31.4



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC005

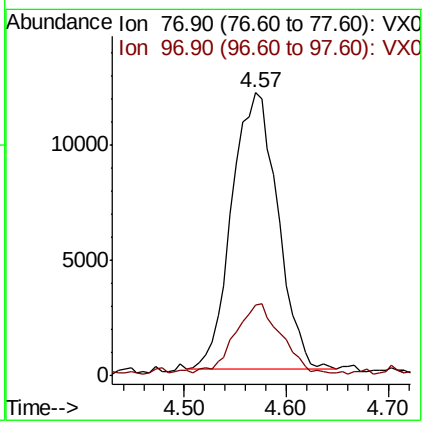
Manual Integrations APPROVED
apatel
12/16/2019 12:45:57 PM



#26
2,2-Dichloropropane
Concen: 4.585 ug/l
RT: 4.57 min Scan# 604
Delta R.T. -0.01 min
Lab File: VX014008.D
Acq: 13 Dec 2019 15:12

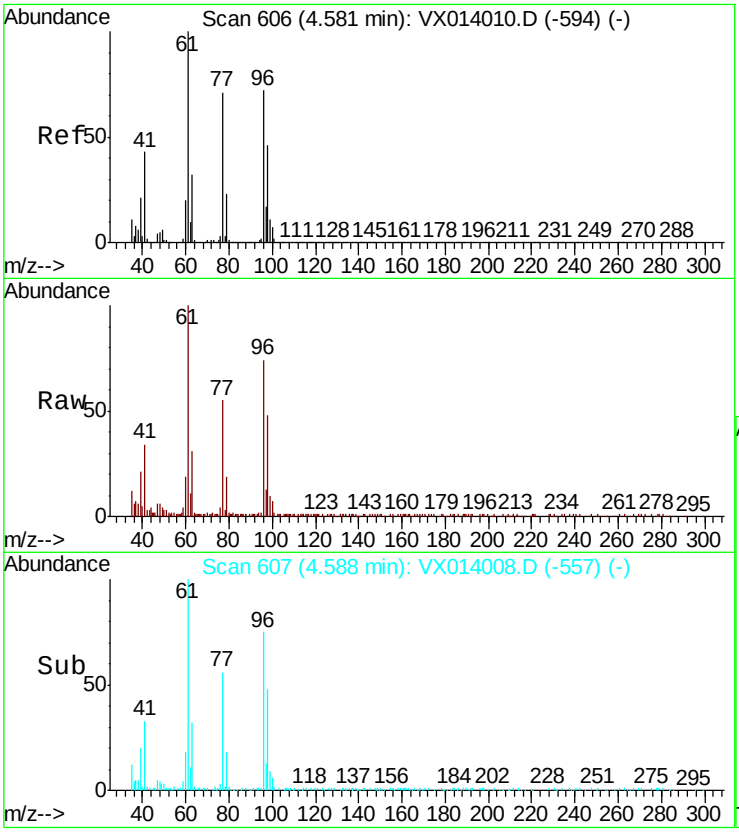
Tgt Ion: 77 Resp: 37559

Ion	Ratio	Lower	Upper
77	100		
97	25.4	11.9	35.9



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC005

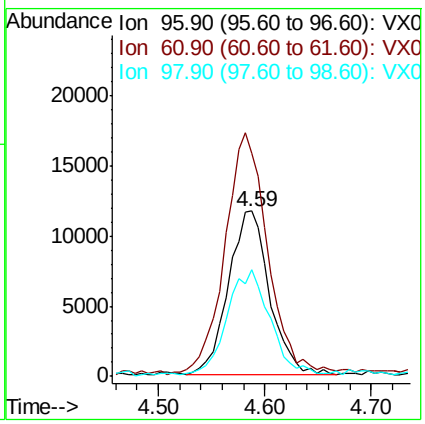
Manual Integrations APPROVED
apatel
12/16/2019 12:45:57 PM

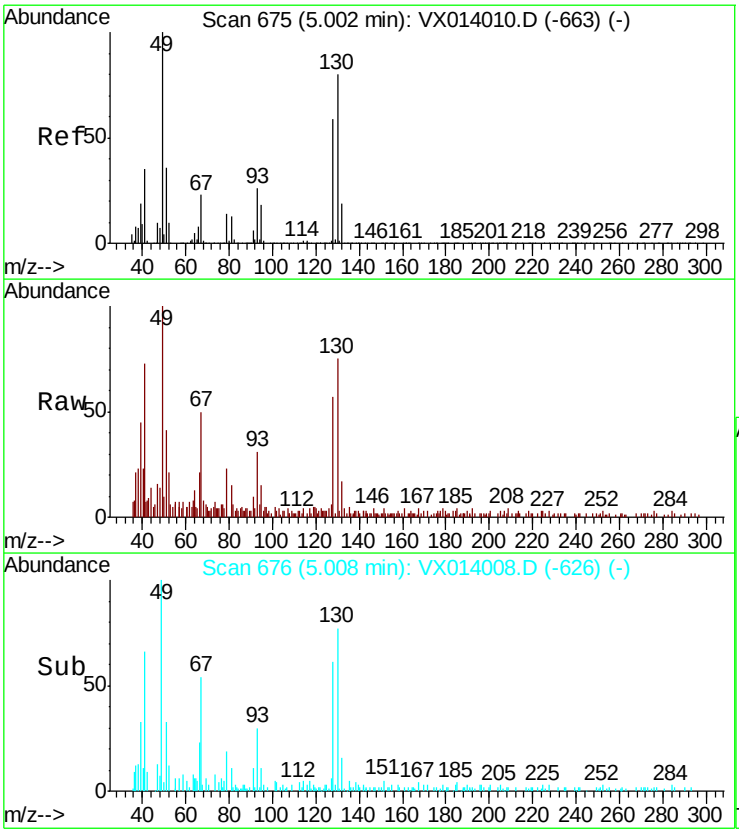


#27
cis-1,2-Dichloroethene
Concen: 4.815 ug/l
RT: 4.59 min Scan# 607
Delta R.T. 0.01 min
Lab File: VX014008.D
Acq: 13 Dec 2019 15:12

Tgt Ion: 96 Resp: 31265

Ion	Ratio	Lower	Upper
96	100		
61	155.6	0.0	288.4
98	67.0	0.0	129.6

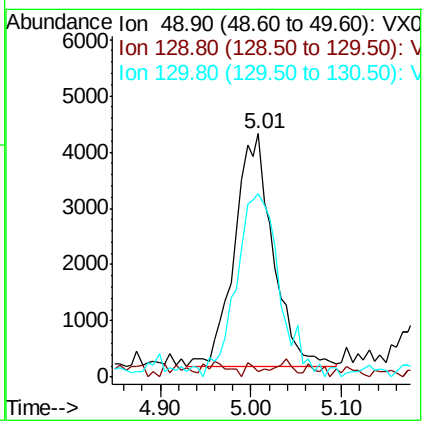


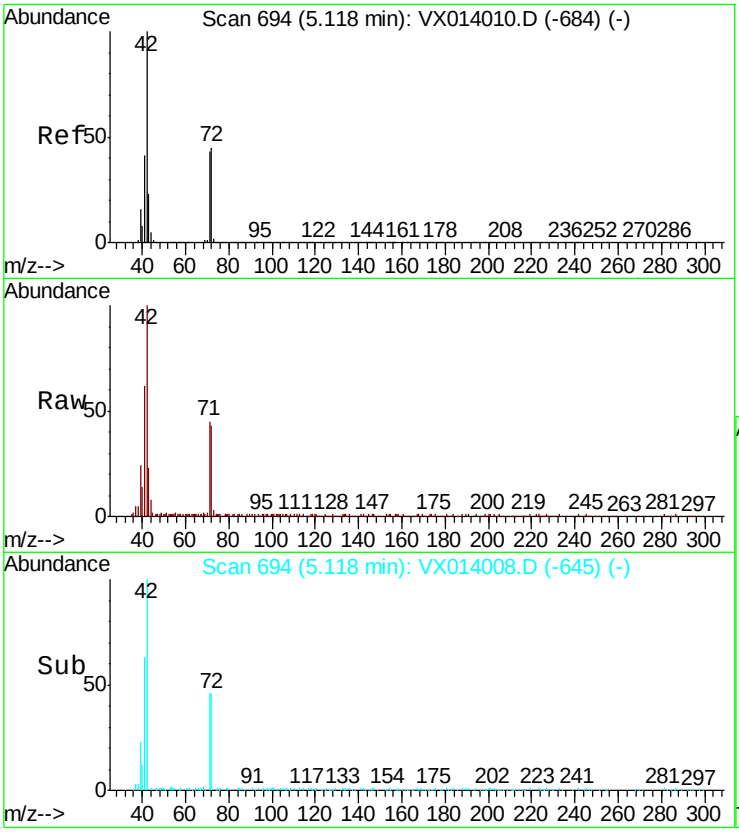


#28
Bromochloromethane
Concen: 3.451 ug/l
RT: 5.01 min Scan# 676
Delta R.T. 0.01 min
Lab File: VX014008.D
Acq: 13 Dec 2019 15:12

Tgt Ion: 49 Resp: 12112

Ion	Ratio	Lower	Upper
49	100		
129	2.4	0.0	5.0
130	88.4	64.6	97.0

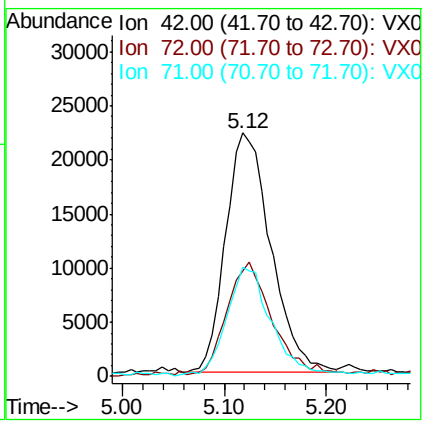




#29
Tetrahydrofuran
Concen: 24.029 ug/l
RT: 5.12 min Scan# 694
Delta R.T. 0.00 min
Lab File: VX014008.D
Acq: 13 Dec 2019 15:12

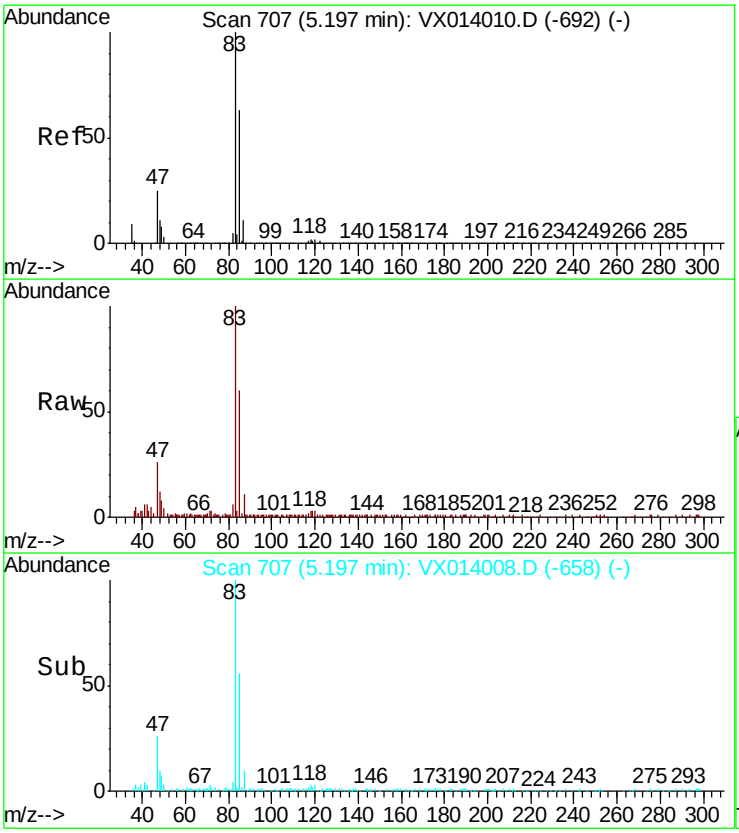
Tgt Ion: 42 Resp: 67887

Ion	Ratio	Lower	Upper
42	100		
72	47.0	35.8	53.8
71	46.1	33.6	50.4



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC005

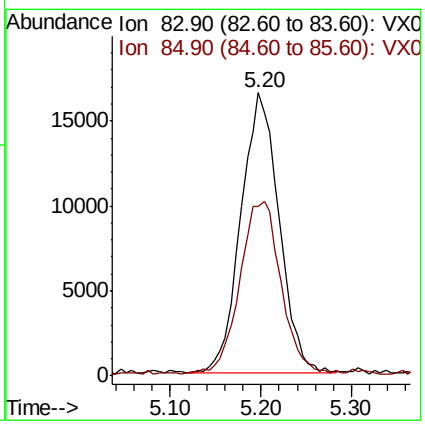
Manual Integrations APPROVED
apatel
12/16/2019 12:45:57 PM



#30
Chloroform
Concen: 4.800 ug/l
RT: 5.20 min Scan# 707
Delta R.T. 0.00 min
Lab File: VX014008.D
Acq: 13 Dec 2019 15:12

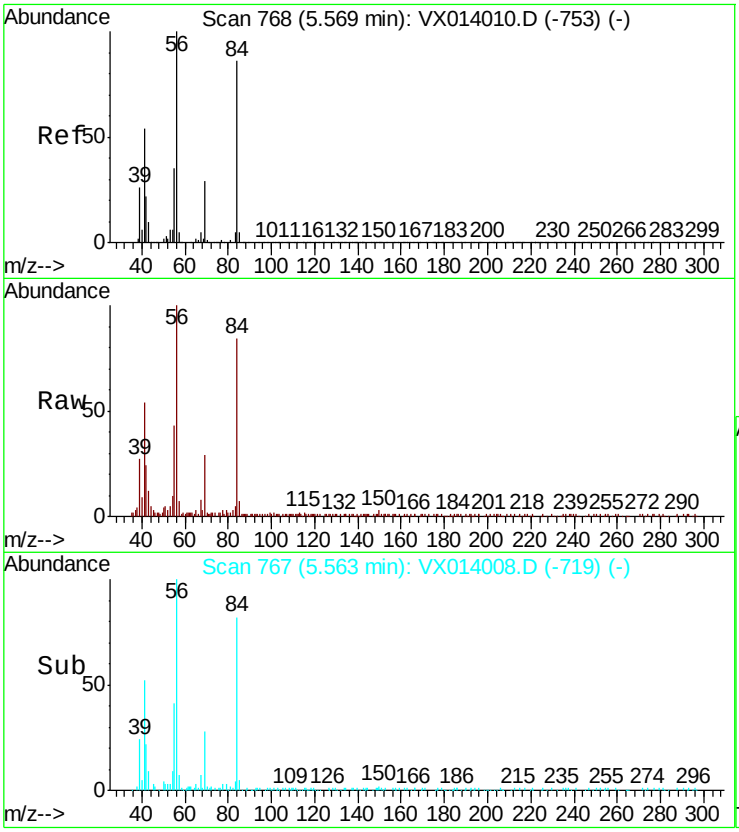
Tgt Ion: 83 Resp: 48299

Ion	Ratio	Lower	Upper
83	100		
85	59.3	50.8	76.2



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC005

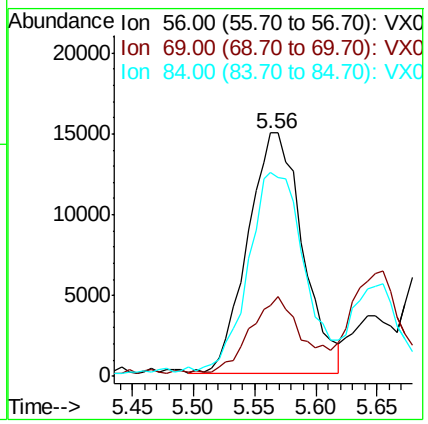
Manual Integrations APPROVED
apatel
12/16/2019 12:45:57 PM

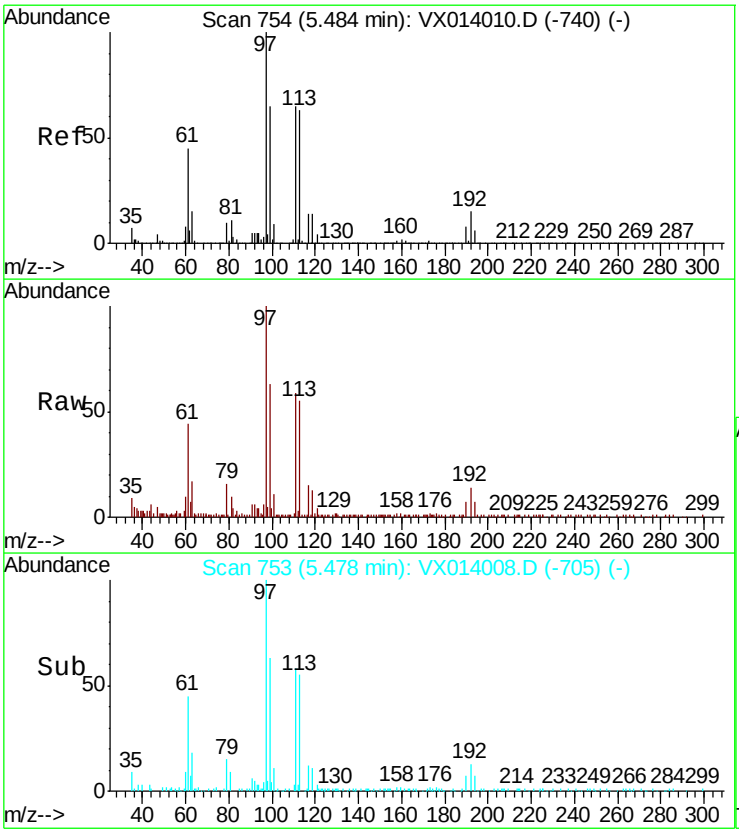


#31
Cyclohexane
Concen: 4.935 ug/l
RT: 5.56 min Scan# 767
Delta R.T. -0.01 min
Lab File: VX014008.D
Acq: 13 Dec 2019 15:12

Tgt Ion: 56 Resp: 46374

Ion	Ratio	Lower	Upper
56	100		
69	28.4	23.2	34.8
84	82.4	69.2	103.8

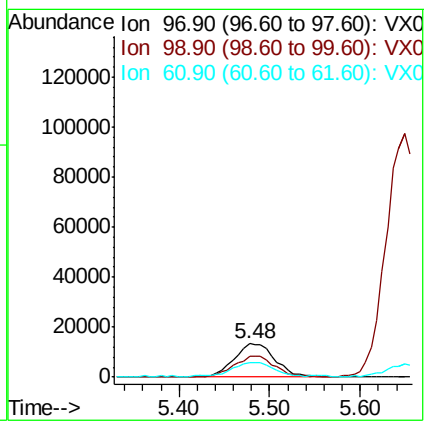


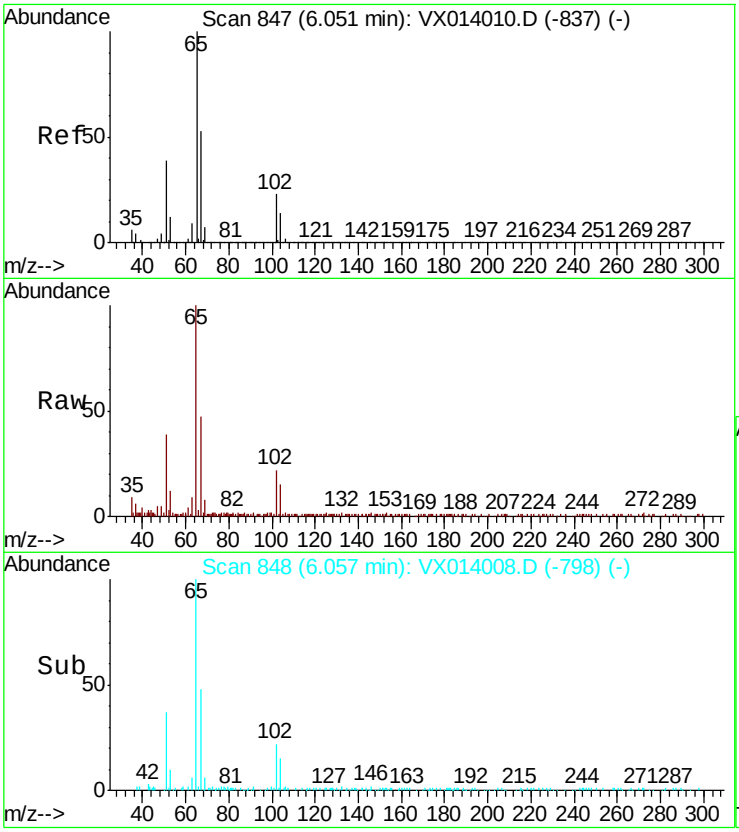


#32
1,1,1-Trichloroethane
Concen: 4.872 ug/l
RT: 5.48 min Scan# 753
Delta R.T. -0.01 min
Lab File: VX014008.D
Acq: 13 Dec 2019 15:12

Tgt Ion: 97 Resp: 40943

Ion	Ratio	Lower	Upper
97	100		
99	64.9	52.0	78.0
61	44.9	36.7	55.1

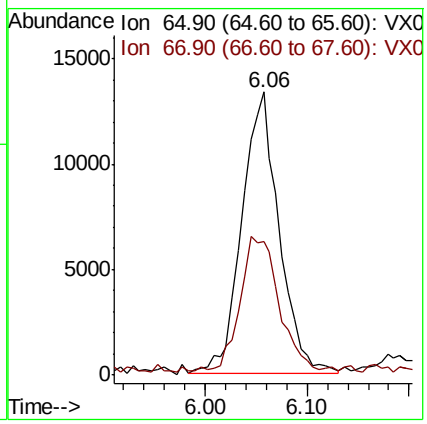




#33
1,2-Dichloroethane-d4
Concen: 5.329 ug/l
RT: 6.06 min Scan# 848
Delta R.T. 0.01 min
Lab File: VX014008.D
Acq: 13 Dec 2019 15:12

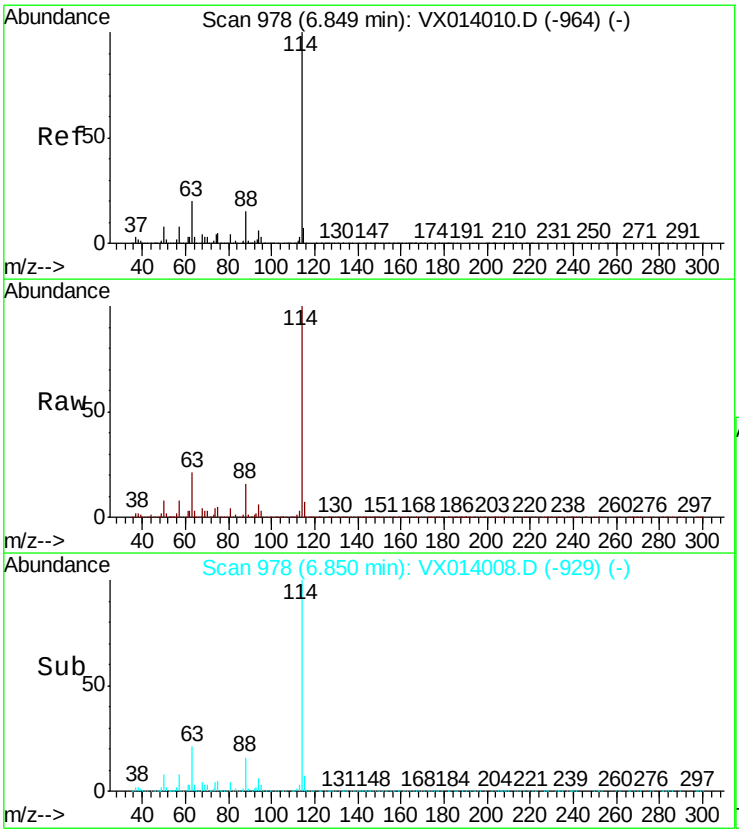
Tgt Ion: 65 Resp: 33805

Ion	Ratio	Lower	Upper
65	100		
67	49.8	0.0	106.4



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC005

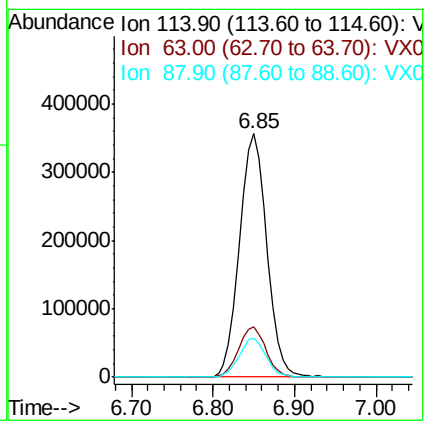
Manual Integrations APPROVED
apatel
12/16/2019 12:45:57 PM

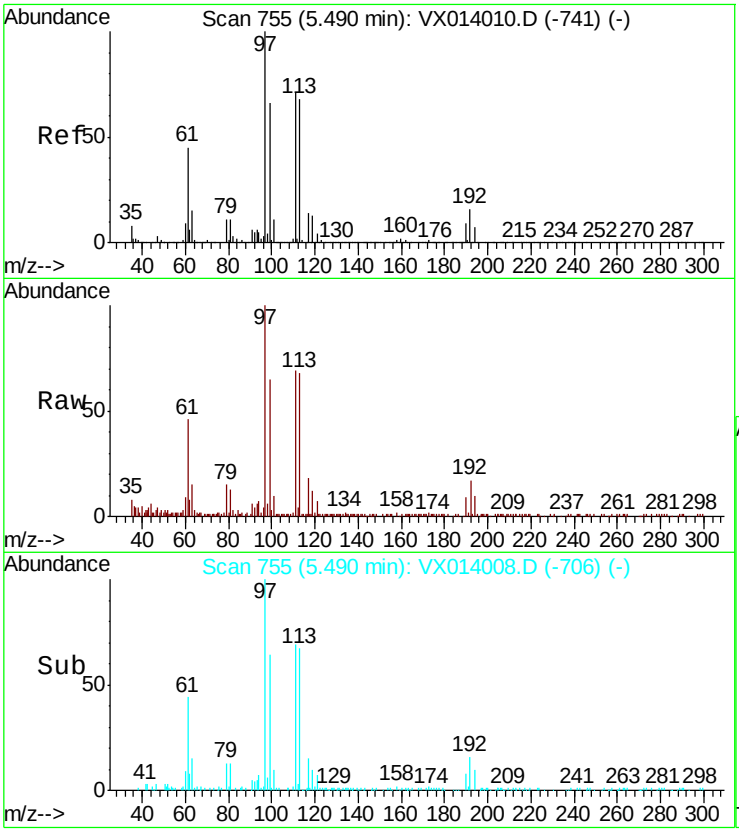


#34
1,4-Difluorobenzene
Concen: 50.000 ug/l
RT: 6.85 min Scan# 978
Delta R.T. 0.00 min
Lab File: VX014008.D
Acq: 13 Dec 2019 15:12

Tgt Ion:114 Resp: 828804

Ion	Ratio	Lower	Upper
114	100		
63	20.6	0.0	40.8
88	15.7	0.0	30.4

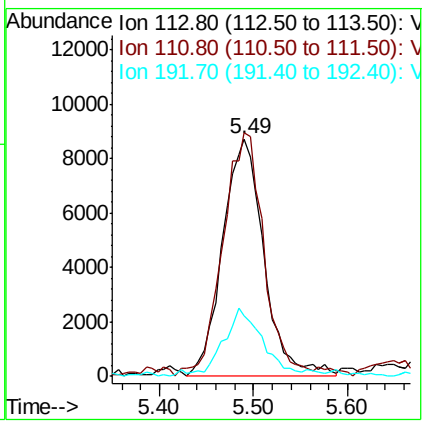


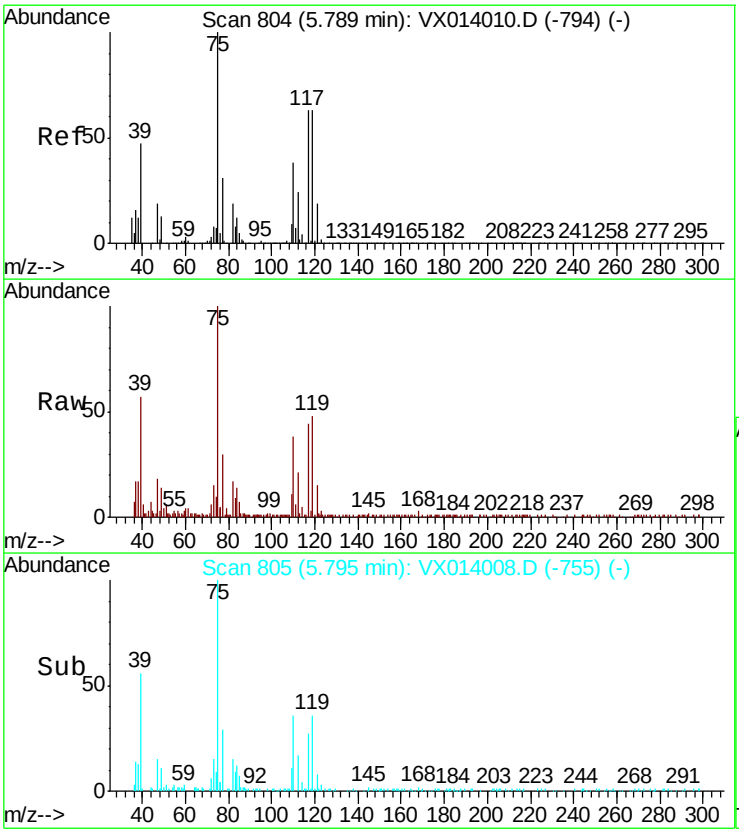


#35
Dibromofluoromethane
Concen: 5.176 ug/l
RT: 5.49 min Scan# 755
Delta R.T. 0.00 min
Lab File: VX014008.D
Acq: 13 Dec 2019 15:12

Tgt Ion:113 Resp: 26664

Ion	Ratio	Lower	Upper
113	100		
111	101.2	82.0	123.0
192	25.7	19.3	28.9

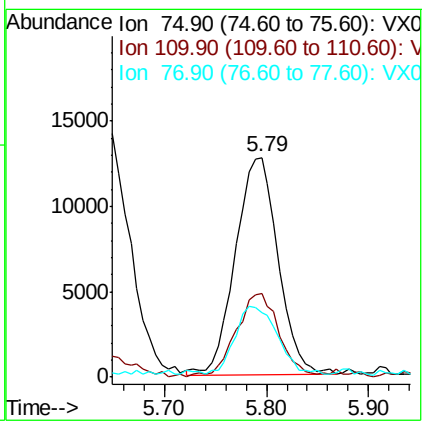




#36
1,1-Dichloropropene
Concen: 4.919 ug/l
RT: 5.79 min Scan# 805
Delta R.T. 0.01 min
Lab File: VX014008.D
Acq: 13 Dec 2019 15:12

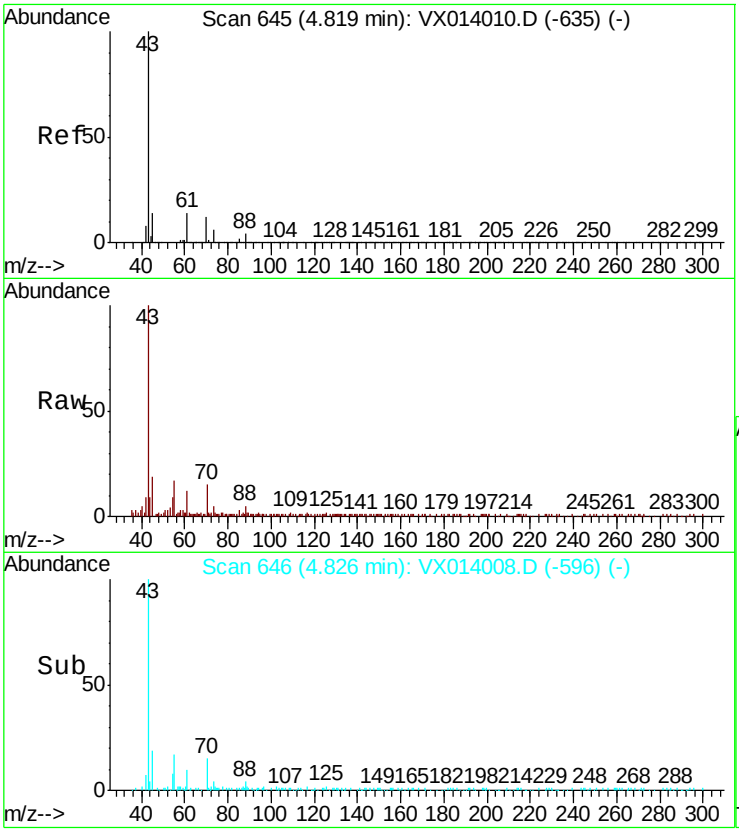
Tgt Ion: 75 Resp: 37031

Ion	Ratio	Lower	Upper
75	100		
110	39.0	18.3	54.9
77	30.8	24.8	37.2



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC005

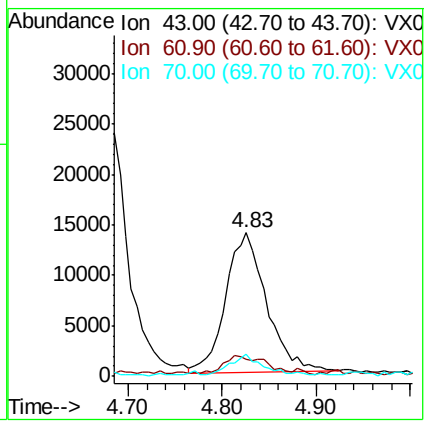
Manual Integrations APPROVED
apatel
12/16/2019 12:45:57 PM



#37
Ethyl Acetate
Concen: 4.976 ug/l
RT: 4.83 min Scan# 646
Delta R.T. 0.01 min
Lab File: VX014008.D
Acq: 13 Dec 2019 15:12

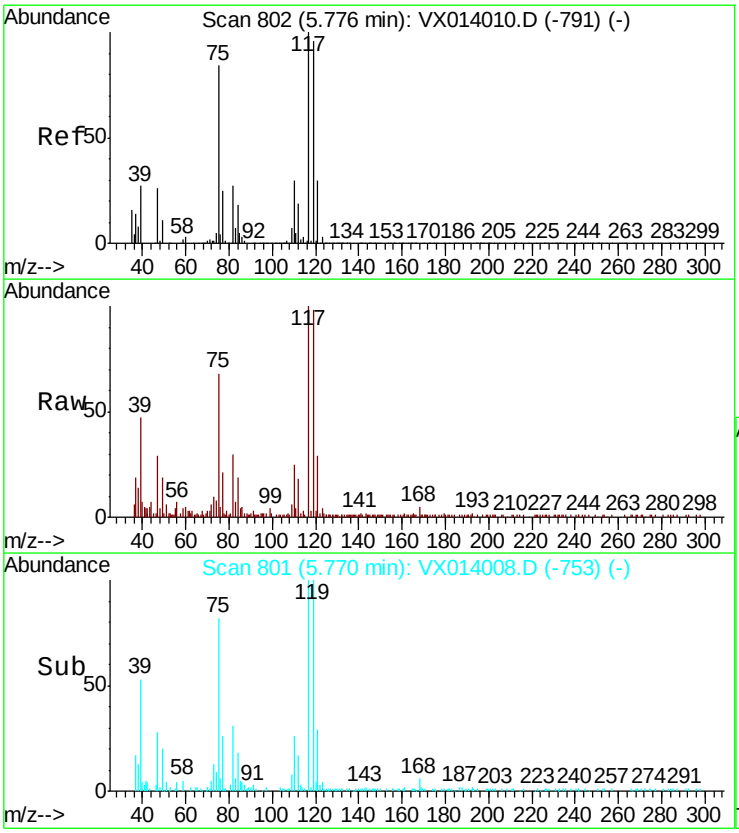
Tgt Ion: 43 Resp: 41790

Ion	Ratio	Lower	Upper
43	100		
61	13.2	10.8	16.2
70	10.4	8.6	12.8



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC005

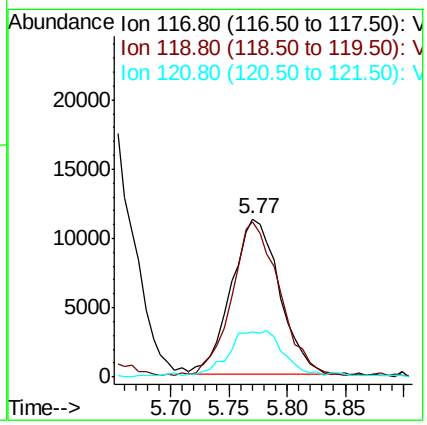
Manual Integrations APPROVED
apatel
12/16/2019 12:45:57 PM

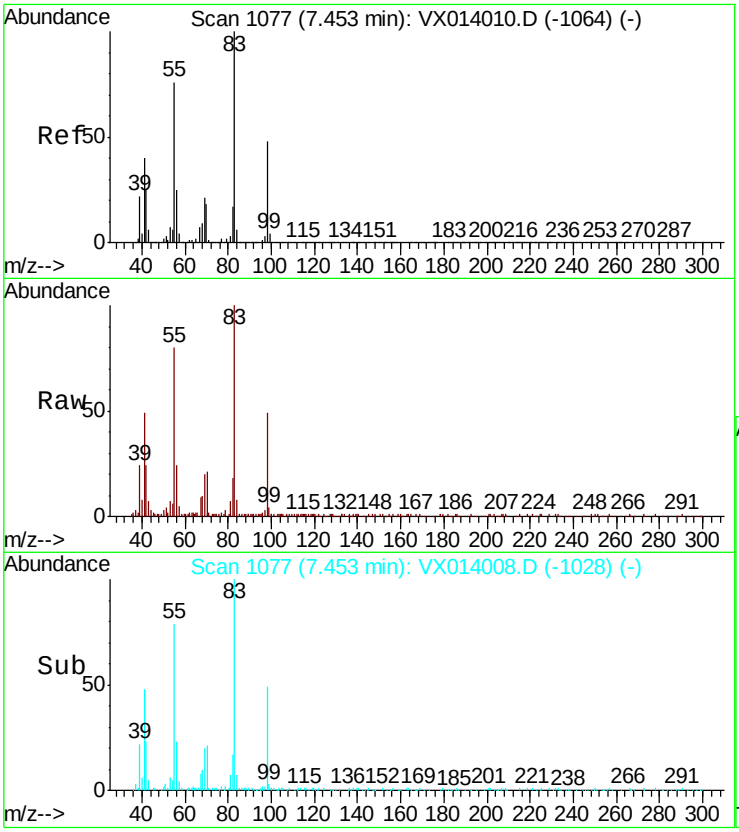


#38
Carbon Tetrachloride
Concen: 4.697 ug/l
RT: 5.77 min Scan# 801
Delta R.T. -0.01 min
Lab File: VX014008.D
Acq: 13 Dec 2019 15:12

Tgt Ion:117 Resp: 32620

Ion	Ratio	Lower	Upper
117	100		
119	98.4	76.2	114.4
121	27.8	23.6	35.4

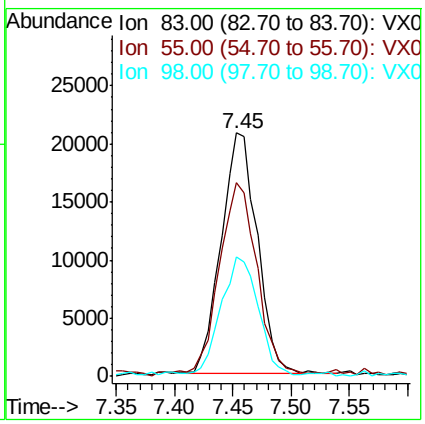


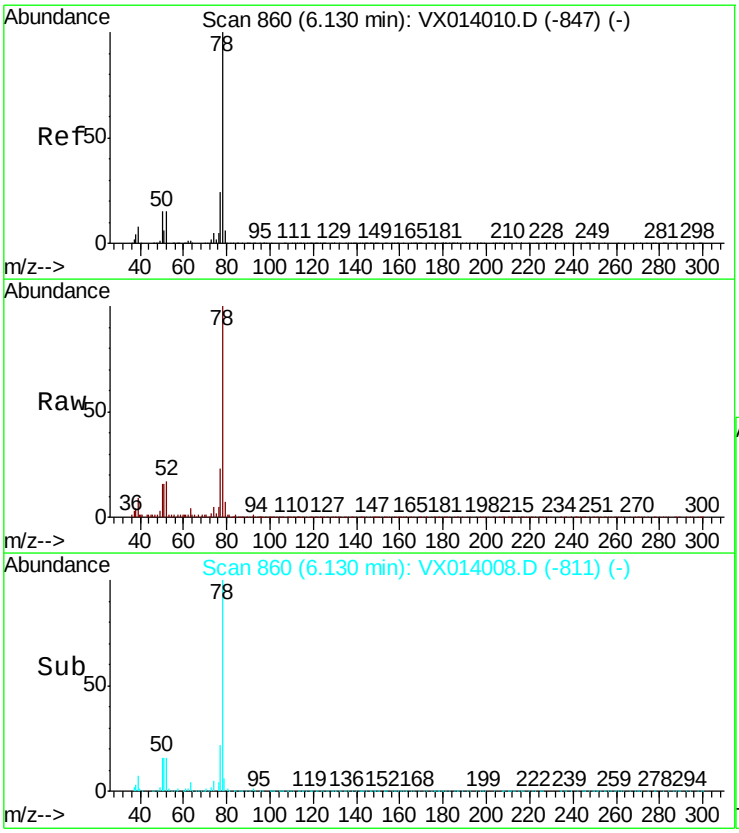


#39
Methylcyclohexane
Concen: 4.796 ug/l
RT: 7.45 min Scan# 1077
Delta R.T. 0.00 min
Lab File: VX014008.D
Acq: 13 Dec 2019 15:12

Tgt Ion: 83 Resp: 44709

Ion	Ratio	Lower	Upper
83	100		
55	78.8	61.0	91.6
98	49.2	38.6	57.8

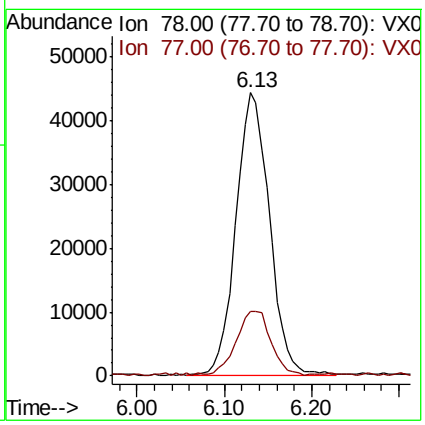




#40
Benzene
Concen: 5.119 ug/l
RT: 6.13 min Scan# 860
Delta R.T. 0.00 min
Lab File: VX014008.D
Acq: 13 Dec 2019 15:12

Tgt Ion: 78 Resp: 117634

Ion	Ratio	Lower	Upper
78	100		
77	22.6	18.8	28.2

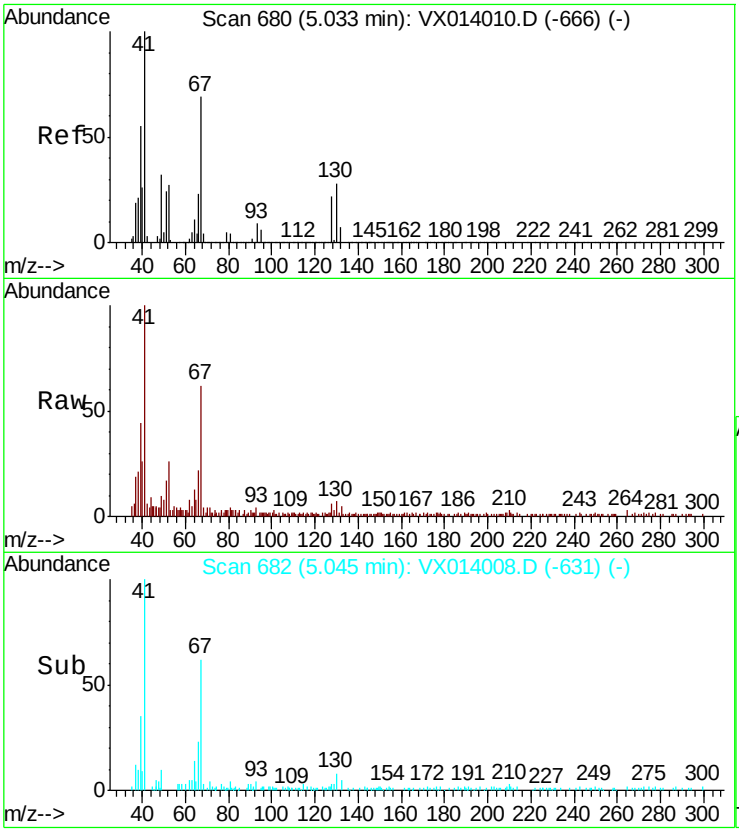


Instrument :
MSVOA_X
ClientSampleId :
VSTDICC005

Manual Integrations APPROVED
apatel
12/16/2019 12:45:57 PM

Instrument :
MSVOA_X
ClientSampleId :
VSTDICC005

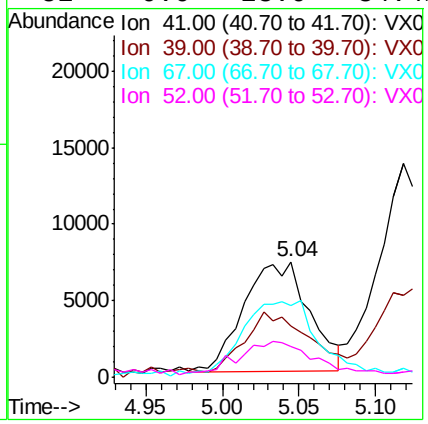
Manual Integrations APPROVED
apatel
12/16/2019 12:45:57 PM

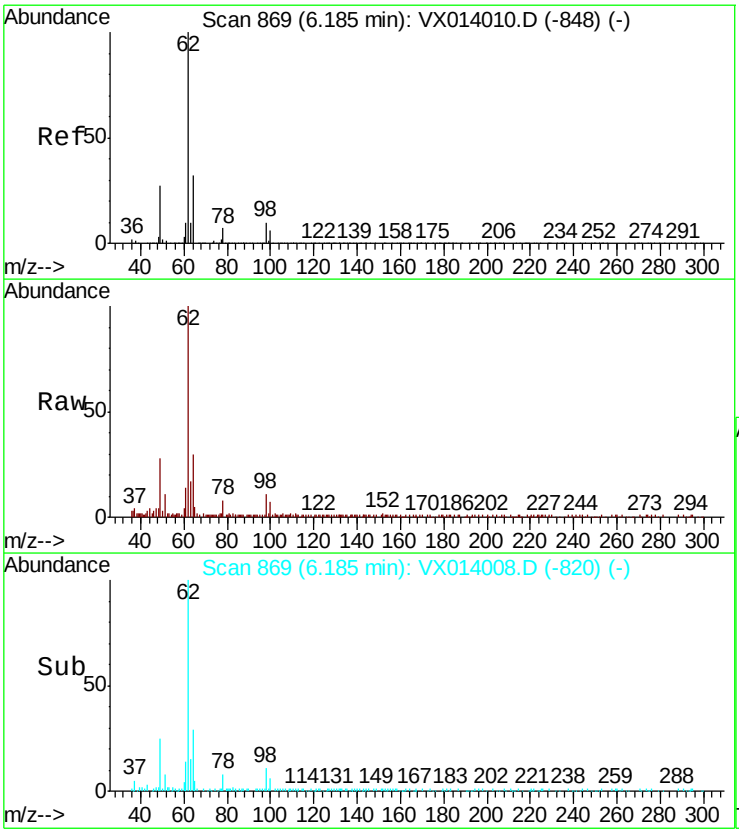


#41
Methacrylonitrile
Concen: 4.646 ug/l
RT: 5.04 min Scan# 682
Delta R.T. 0.01 min
Lab File: VX014008.D
Acq: 13 Dec 2019 15:12

Tgt Ion: 41 Resp: 21299

Ion	Ratio	Lower	Upper
41	100		
39	0.0	44.5	66.7#
67	80.3	57.4	86.0
52	0.0	23.0	34.4#

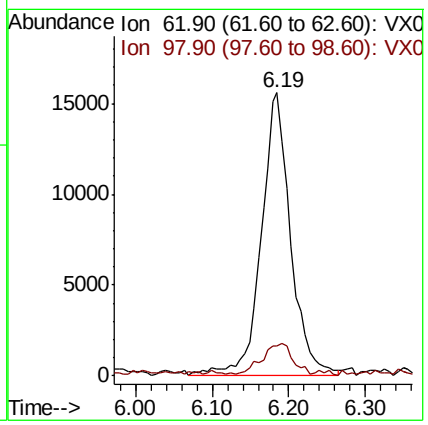


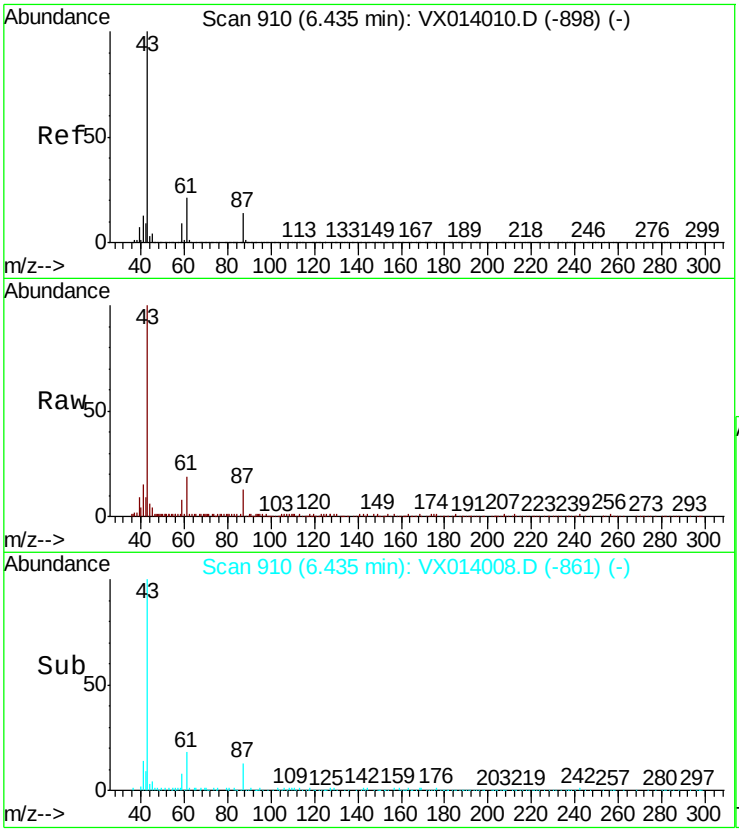


#42
1,2-Dichloroethane
Concen: 5.333 ug/l
RT: 6.19 min Scan# 869
Delta R.T. 0.00 min
Lab File: VX014008.D
Acq: 13 Dec 2019 15:12

Tgt Ion: 62 Resp: 41725

Ion	Ratio	Lower	Upper
62	100		
98	11.8	0.0	21.0

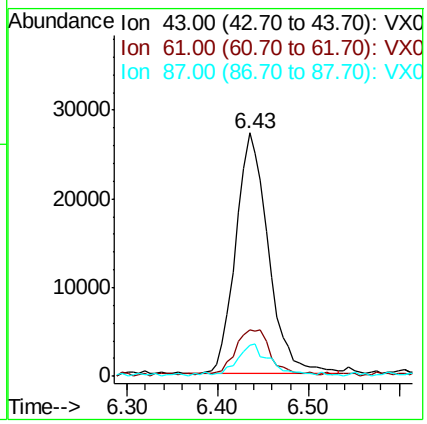




#43
Isopropyl Acetate
Concen: 4.909 ug/l
RT: 6.43 min Scan# 910
Delta R.T. 0.00 min
Lab File: VX014008.D
Acq: 13 Dec 2019 15:12

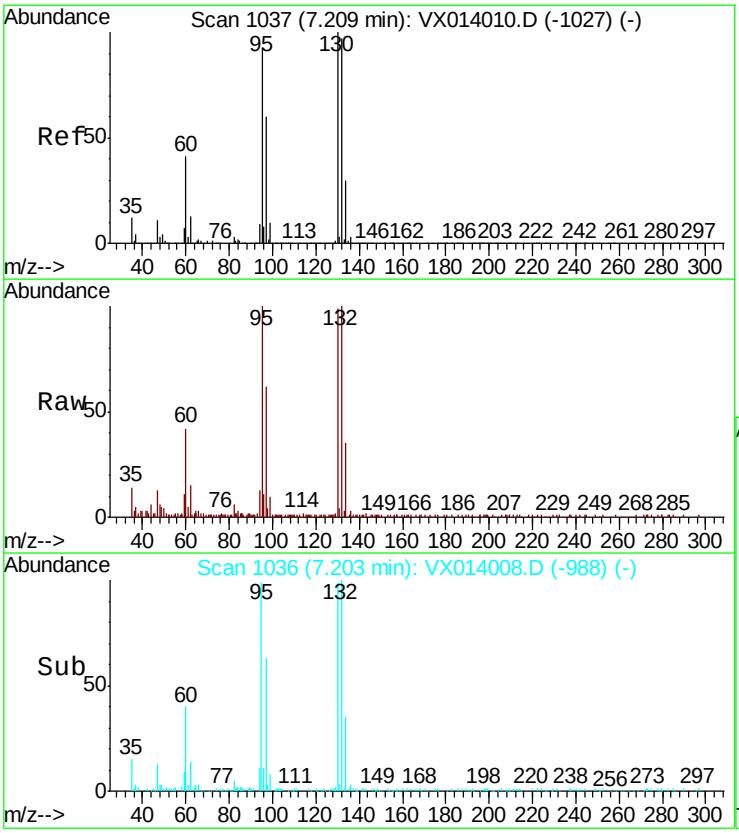
Tgt Ion: 43 Resp: 68104

Ion	Ratio	Lower	Upper
43	100		
61	19.4	16.4	24.6
87	12.1	10.7	16.1



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC005

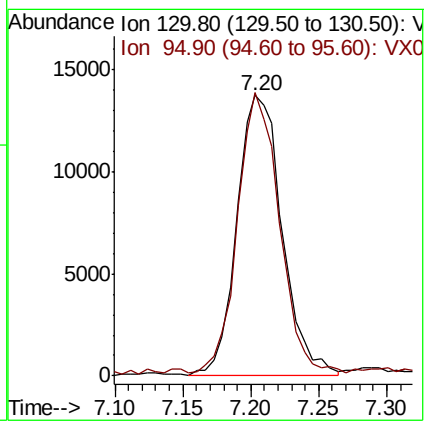
Manual Integrations APPROVED
apatel
12/16/2019 12:45:57 PM

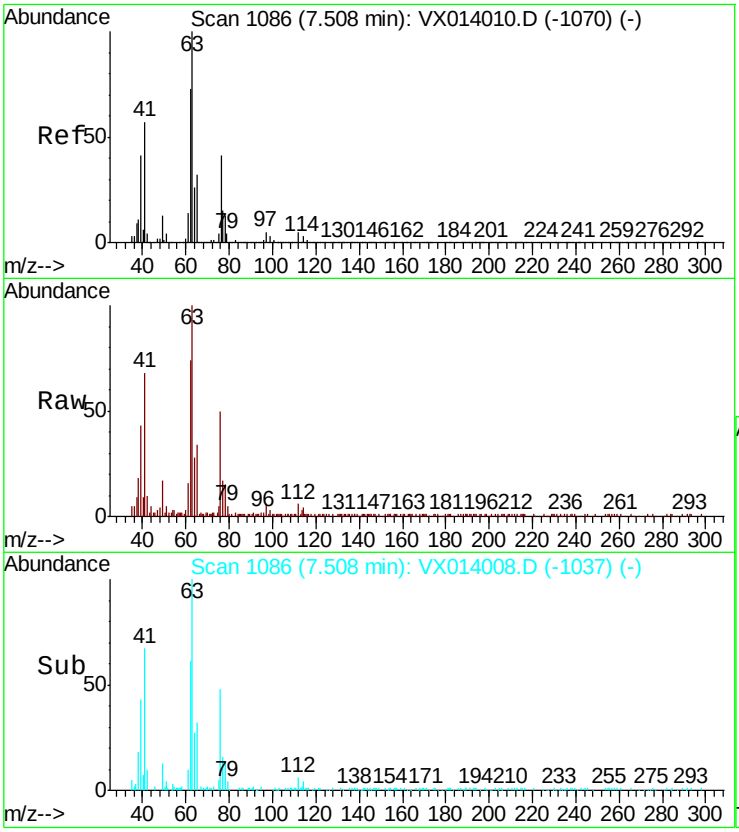


#44
Trichloroethene
Concen: 5.096 ug/l
RT: 7.20 min Scan# 1036
Delta R.T. -0.01 min
Lab File: VX014008.D
Acq: 13 Dec 2019 15:12

Tgt Ion:130 Resp: 32022

Ion	Ratio	Lower	Upper
130	100		
95	99.7	0.0	185.6

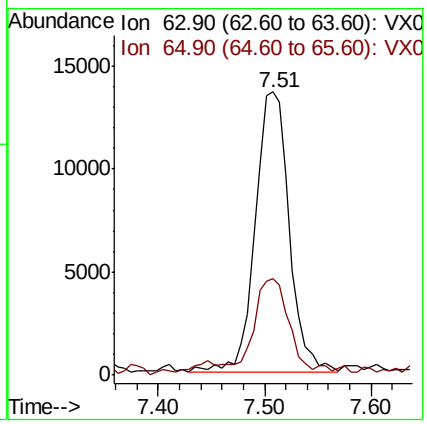




#45
1,2-Dichloropropane
Concen: 5.259 ug/l
RT: 7.51 min Scan# 1086
Delta R.T. 0.00 min
Lab File: VX014008.D
Acq: 13 Dec 2019 15:12

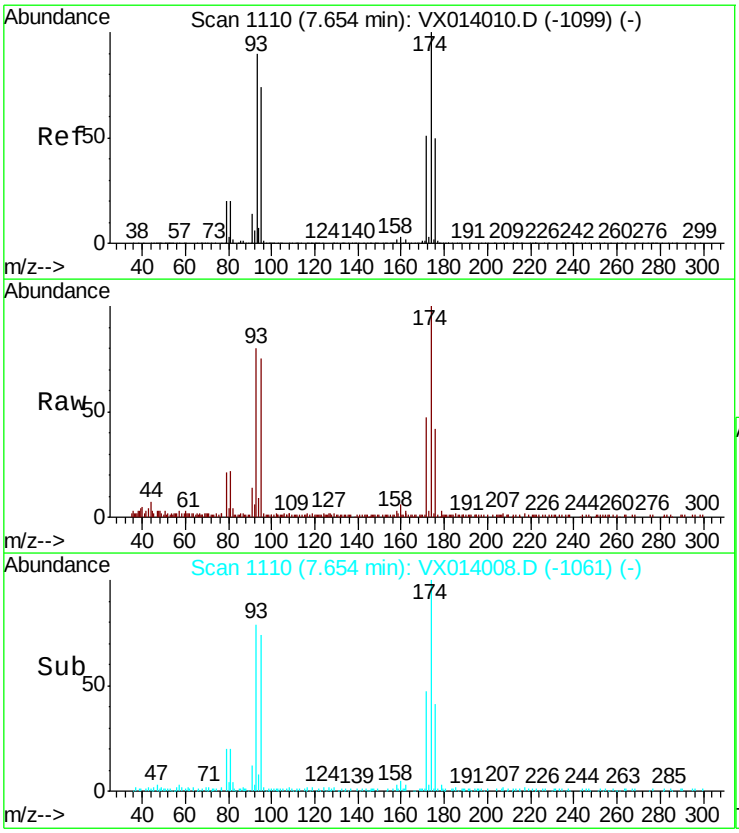
Tgt Ion: 63 Resp: 30292

Ion	Ratio	Lower	Upper
63	100		
65	32.2	25.8	38.8



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC005

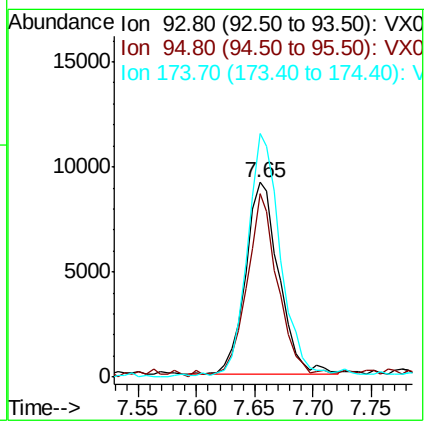
Manual Integrations APPROVED
apatel
12/16/2019 12:45:57 PM

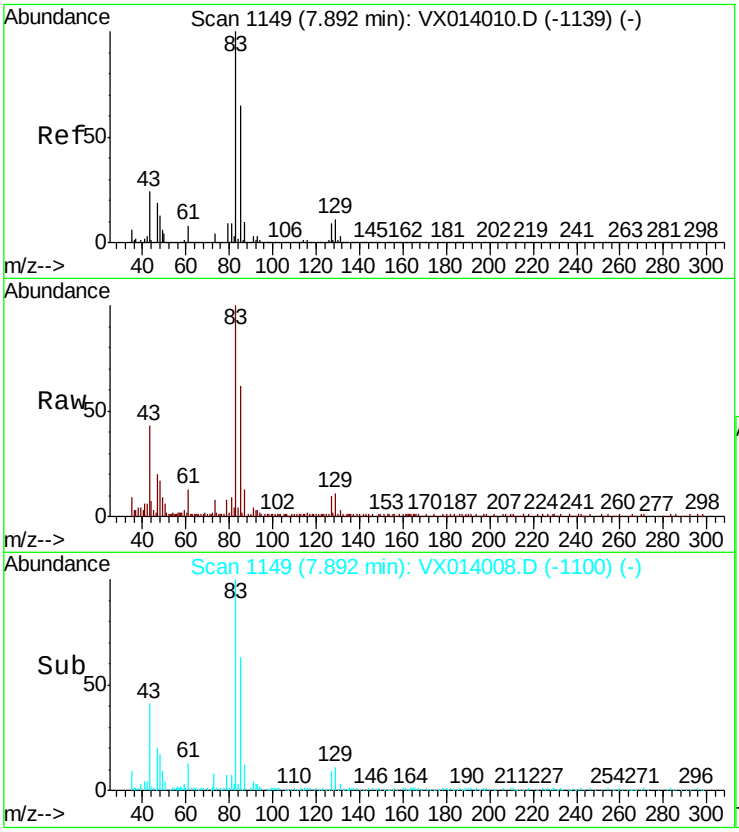


#46
Dibromomethane
Concen: 4.751 ug/l
RT: 7.65 min Scan# 1110
Delta R.T. 0.00 min
Lab File: VX014008.D
Acq: 13 Dec 2019 15:12

Tgt Ion: 93 Resp: 18520

Ion	Ratio	Lower	Upper
93	100		
95	82.2	67.3	100.9
174	121.4	91.6	137.4

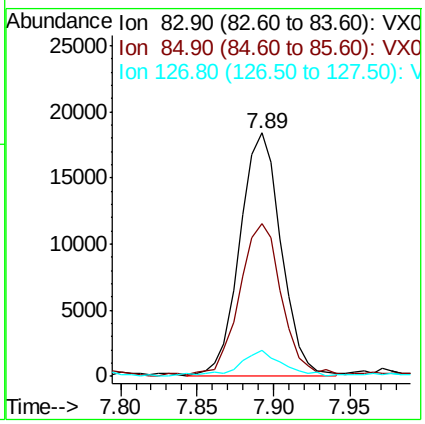


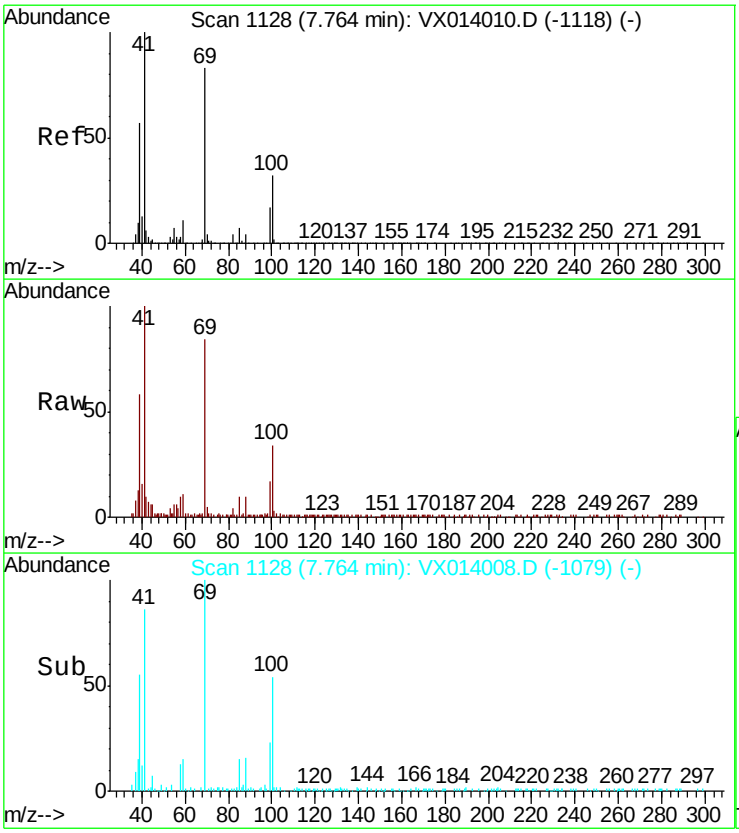


#47
Bromodichloromethane
Concen: 4.711 ug/l
RT: 7.89 min Scan# 1149
Delta R.T. 0.00 min
Lab File: VX014008.D
Acq: 13 Dec 2019 15:12

Tgt Ion: 83 Resp: 34707

Ion	Ratio	Lower	Upper
83	100		
85	61.9	51.8	77.8
127	9.5	7.0	10.4

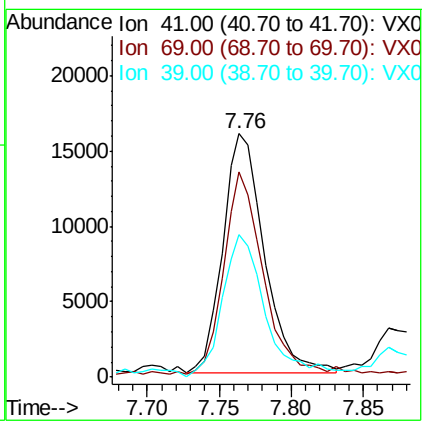




#48
Methyl methacrylate
Concen: 4.726 ug/l
RT: 7.76 min Scan# 1128
Delta R.T. 0.00 min
Lab File: VX014008.D
Acq: 13 Dec 2019 15:12

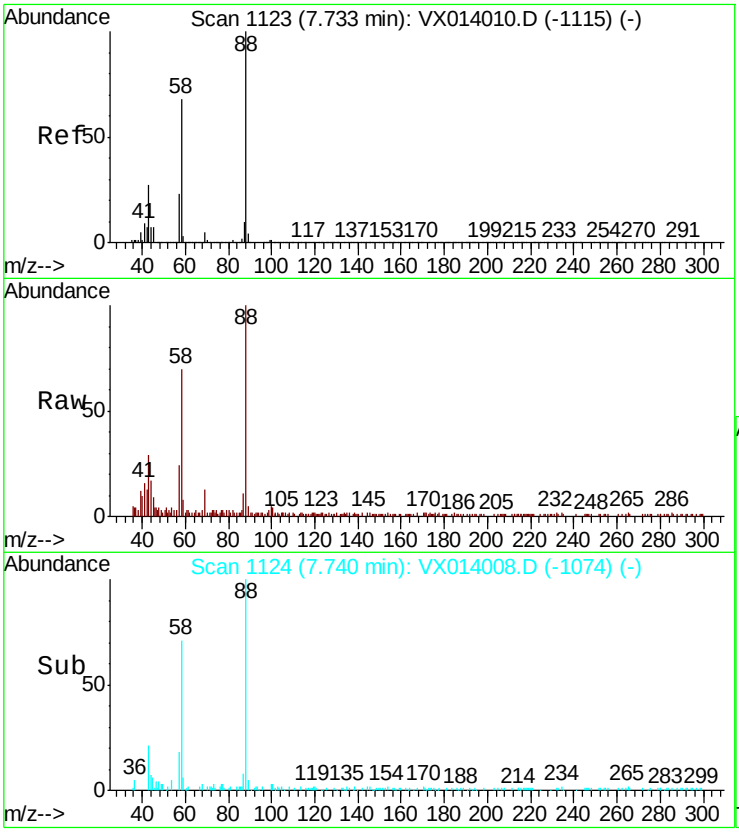
Tgt Ion: 41 Resp: 31789

Ion	Ratio	Lower	Upper
41	100		
69	80.1	65.8	98.6
39	62.6	44.6	67.0



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC005

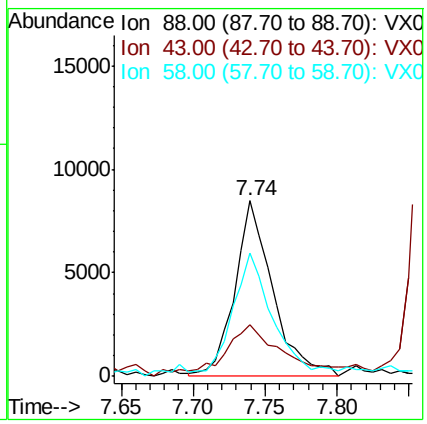
Manual Integrations APPROVED
apatel
12/16/2019 12:45:57 PM



#49
1,4-Dioxane
Concen: 105.356 ug/l
RT: 7.74 min Scan# 1124
Delta R.T. 0.01 min
Lab File: VX014008.D
Acq: 13 Dec 2019 15:12

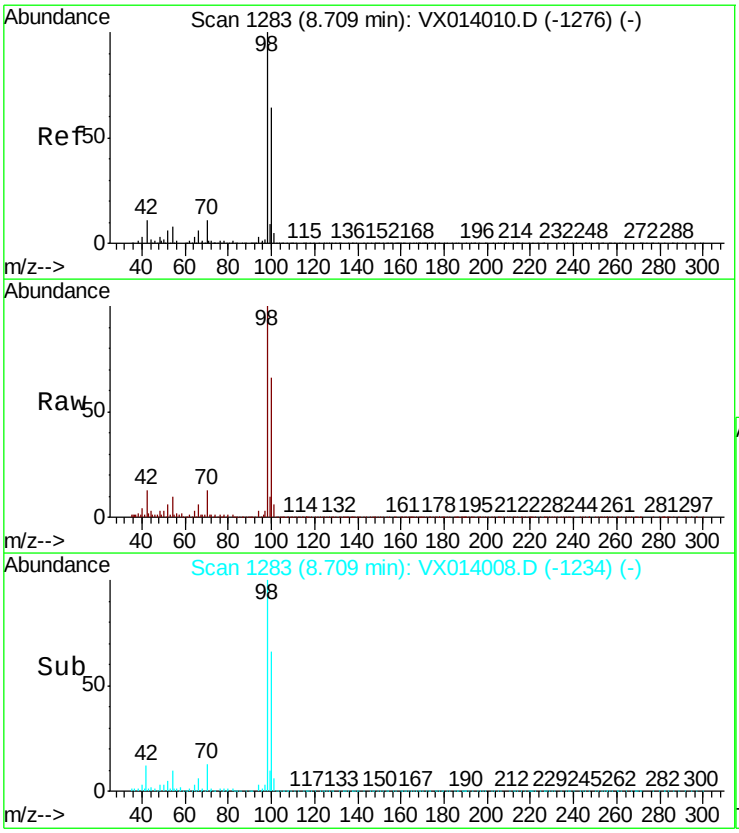
Tgt Ion: 88 Resp: 15607

Ion	Ratio	Lower	Upper
88	100		
43	50.4	26.5	39.7#
58	68.8	56.8	85.2



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC005

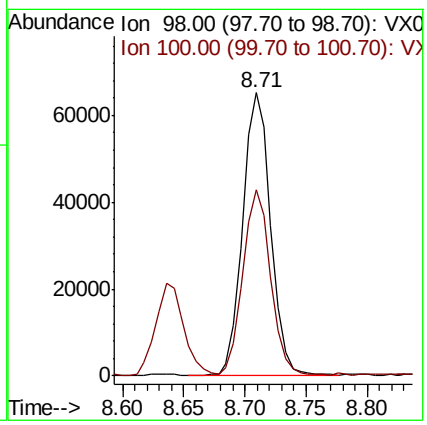
Manual Integrations APPROVED
apatel
12/16/2019 12:45:57 PM

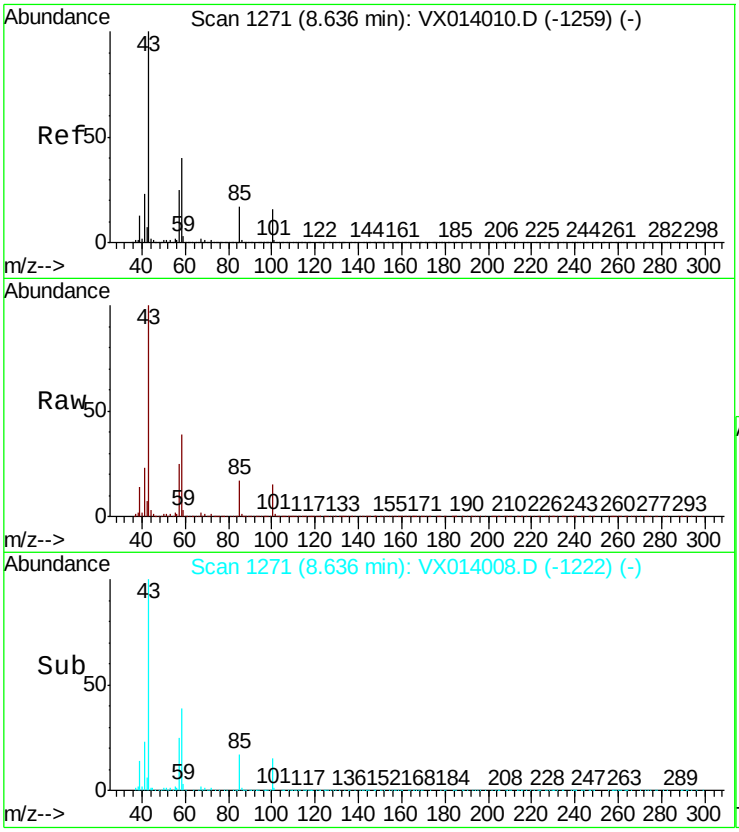


#50
Toluene-d8
Concen: 5.092 ug/l
RT: 8.71 min Scan# 1283
Delta R.T. 0.00 min
Lab File: VX014008.D
Acq: 13 Dec 2019 15:12

Tgt Ion: 98 Resp: 102565

Ion	Ratio	Lower	Upper
98	100		
100	65.6	52.9	79.3

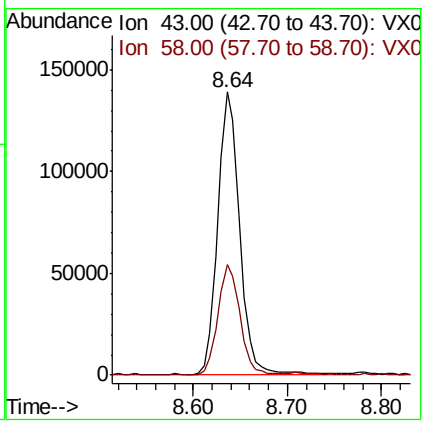




#51
4-Methyl-2-Pentanone
Concen: 25.920 ug/l
RT: 8.64 min Scan# 1271
Delta R.T. 0.00 min
Lab File: VX014008.D
Acq: 13 Dec 2019 15:12

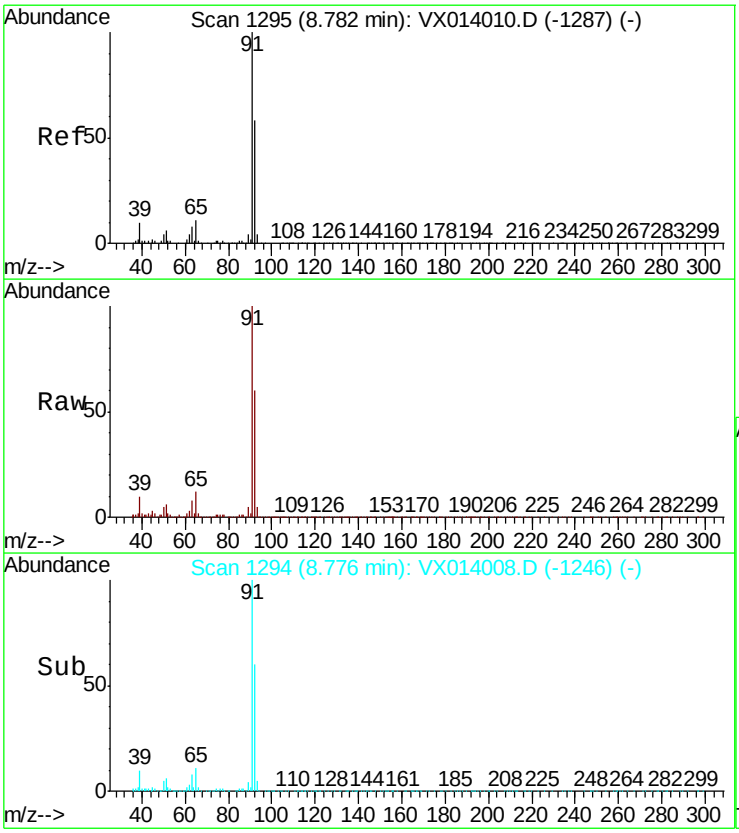
Tgt Ion: 43 Resp: 225793

Ion	Ratio	Lower	Upper
43	100		
58	38.3	32.2	48.2



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC005

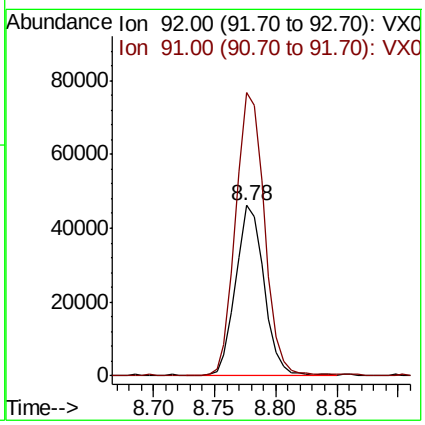
Manual Integrations APPROVED
apatel
12/16/2019 12:45:57 PM

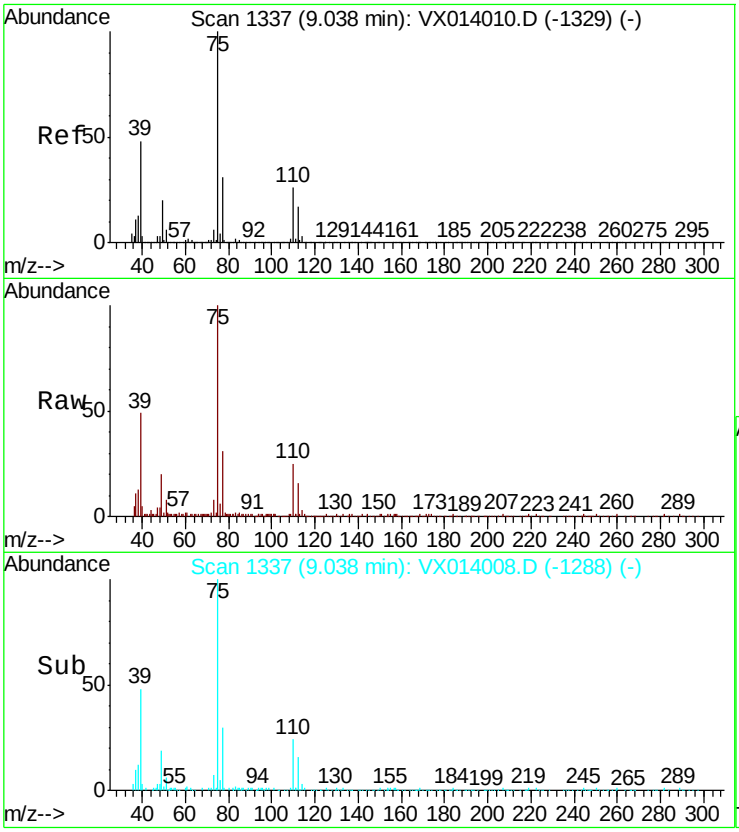


#52
Toluene
Concen: 5.133 ug/l
RT: 8.78 min Scan# 1294
Delta R.T. -0.01 min
Lab File: VX014008.D
Acq: 13 Dec 2019 15:12

Tgt Ion: 92 Resp: 73375

Ion	Ratio	Lower	Upper
92	100		
91	169.5	136.2	204.4

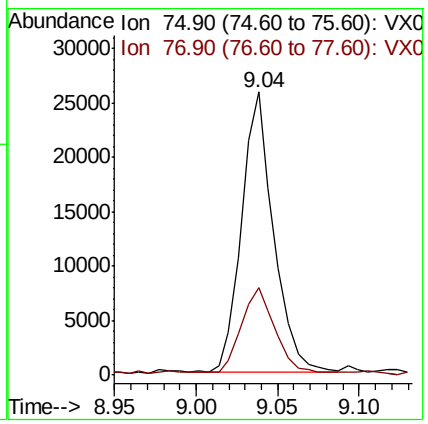




#53
t-1,3-Dichloropropene
Concen: 4.203 ug/l
RT: 9.04 min Scan# 1337
Delta R.T. 0.00 min
Lab File: VX014008.D
Acq: 13 Dec 2019 15:12

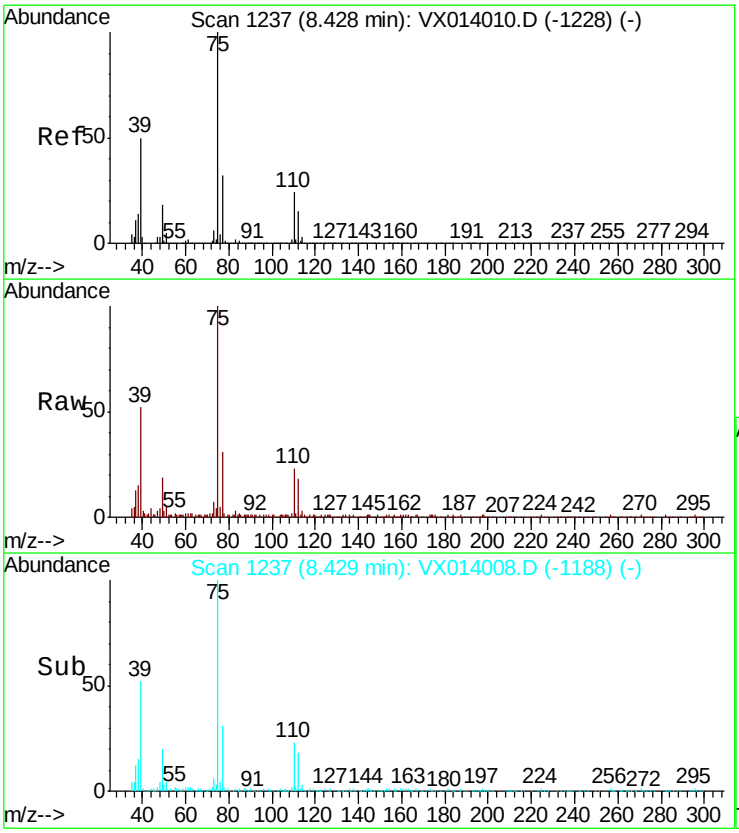
Tgt Ion: 75 Resp: 35229

Ion	Ratio	Lower	Upper
75	100		
77	30.4	25.1	37.7



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC005

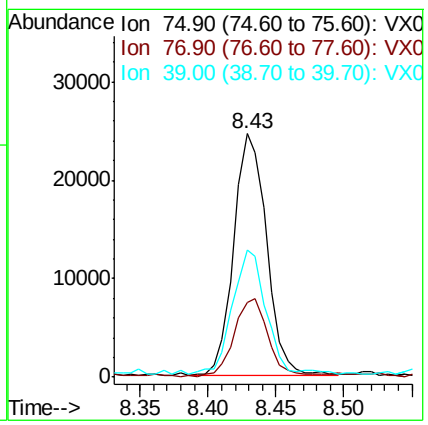
Manual Integrations APPROVED
apatel
12/16/2019 12:45:57 PM

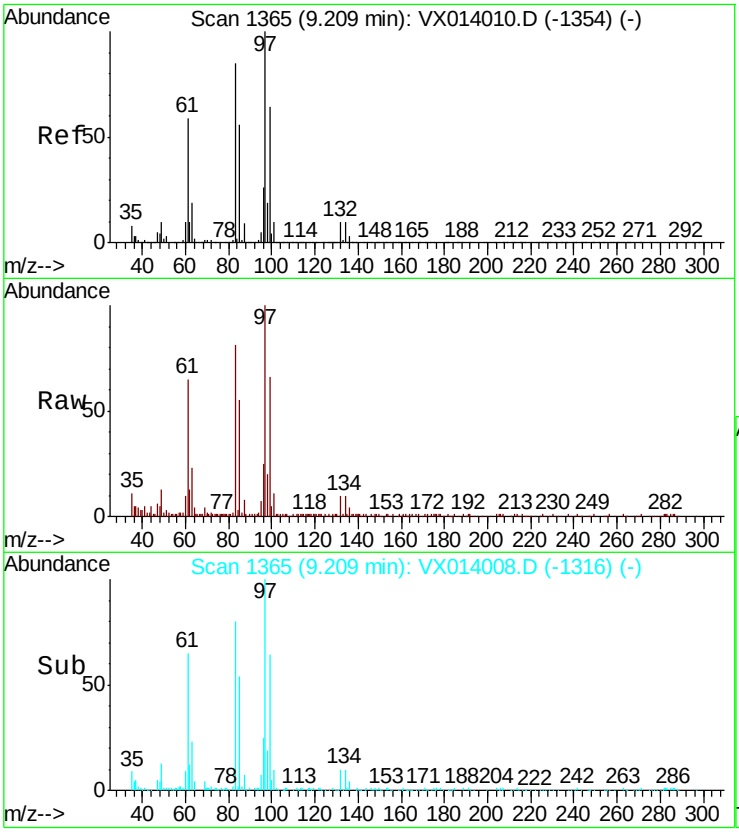


#54
cis-1,3-Dichloropropene
Concen: 4.498 ug/l
RT: 8.43 min Scan# 1237
Delta R.T. 0.00 min
Lab File: VX014008.D
Acq: 13 Dec 2019 15:12

Tgt Ion: 75 Resp: 41221

Ion	Ratio	Lower	Upper
75	100		
77	30.2	25.3	37.9
39	51.5	39.9	59.9

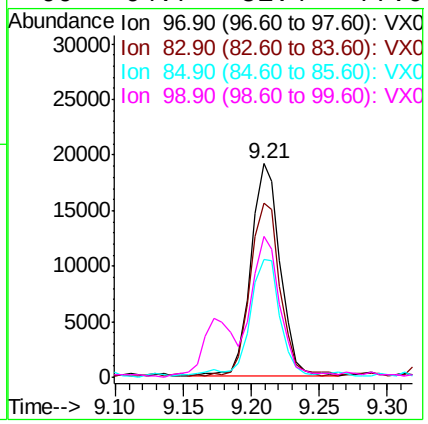




#55
1,1,2-Trichloroethane
Concen: 4.972 ug/l
RT: 9.21 min Scan# 1365
Delta R.T. 0.00 min
Lab File: VX014008.D
Acq: 13 Dec 2019 15:12

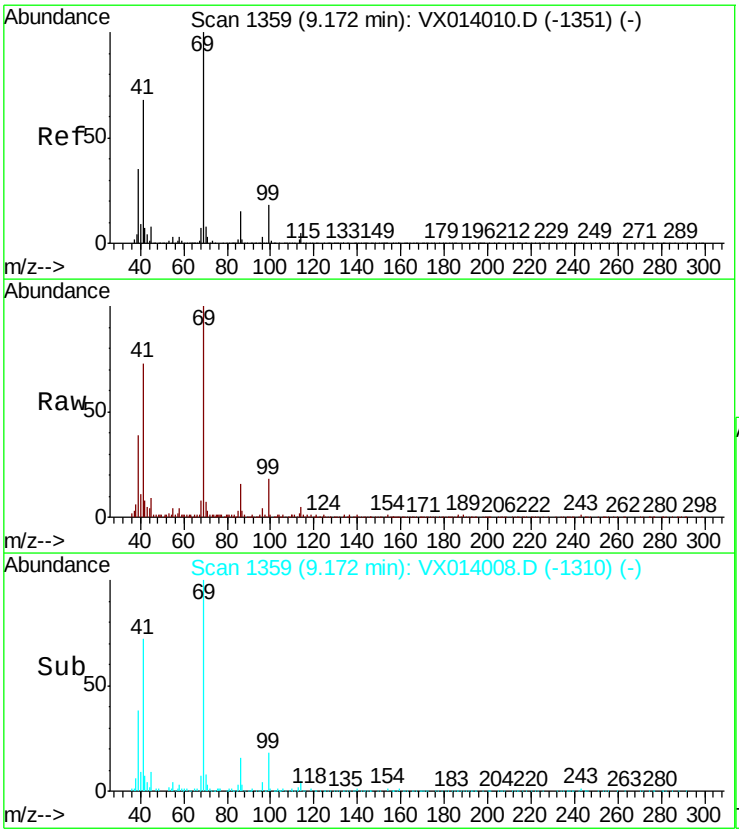
Tgt Ion: 97 Resp: 28600

Ion	Ratio	Lower	Upper
97	100		
83	80.6	68.2	102.4
85	54.1	44.6	66.8
99	64.7	51.4	77.0



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC005

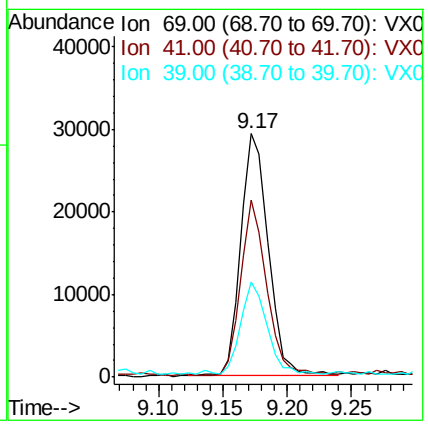
Manual Integrations APPROVED
apatel
12/16/2019 12:45:57 PM

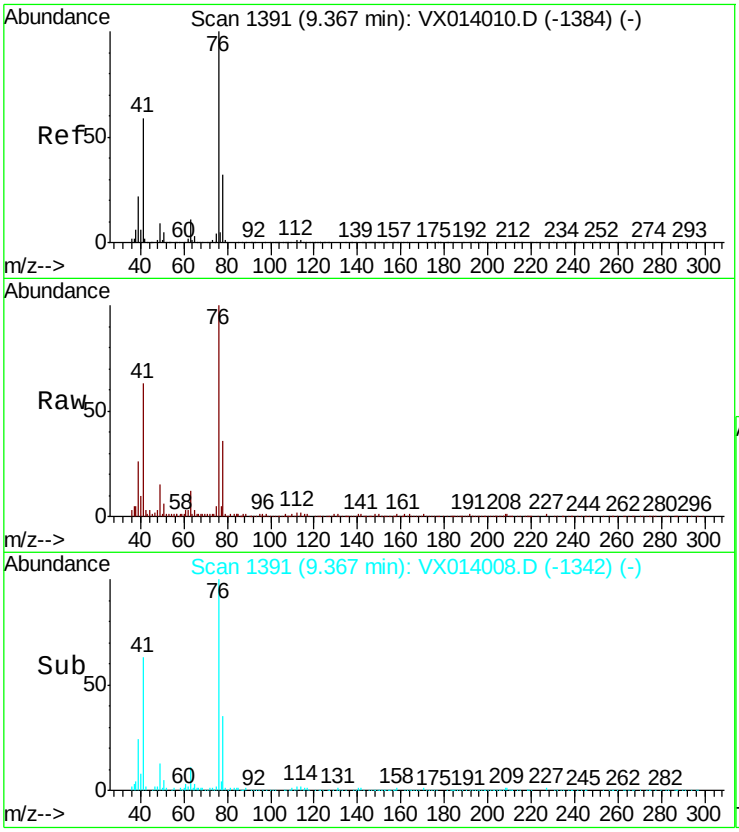


#56
Ethyl methacrylate
Concen: 4.702 ug/l
RT: 9.17 min Scan# 1359
Delta R.T. 0.00 min
Lab File: VX014008.D
Acq: 13 Dec 2019 15:12

Tgt Ion: 69 Resp: 43557

Ion	Ratio	Lower	Upper
69	100		
41	67.9	54.8	82.2
39	37.0	28.3	42.5

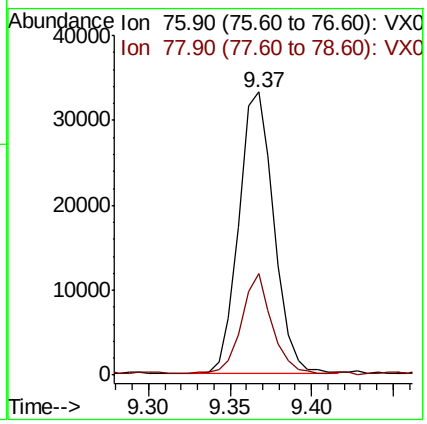




#57
1,3-Dichloropropane
Concen: 5.020 ug/l
RT: 9.37 min Scan# 1391
Delta R.T. 0.00 min
Lab File: VX014008.D
Acq: 13 Dec 2019 15:12

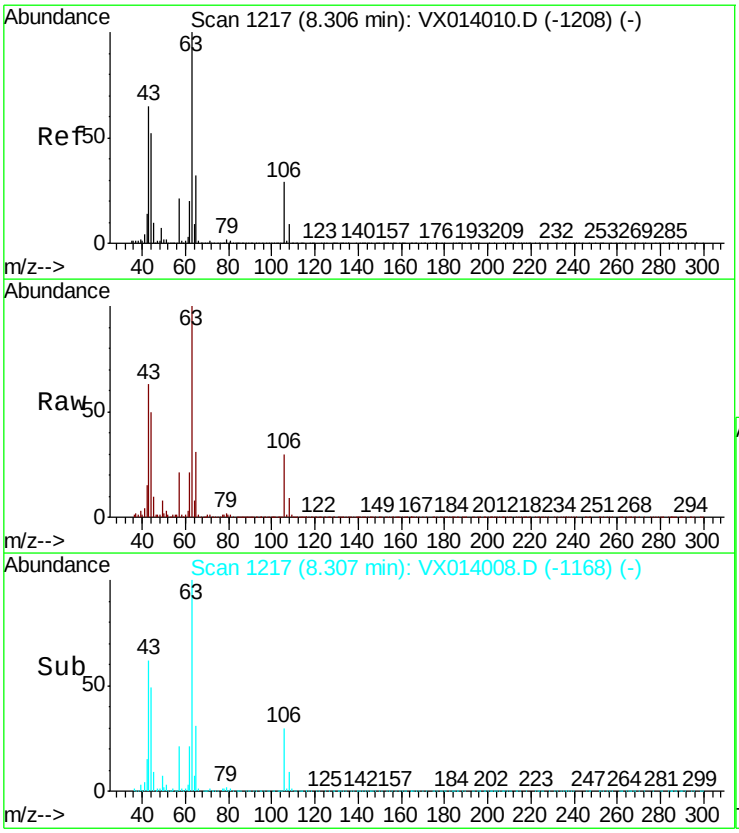
Tgt Ion: 76 Resp: 49837

Ion	Ratio	Lower	Upper
76	100		
78	30.6	25.8	38.6



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC005

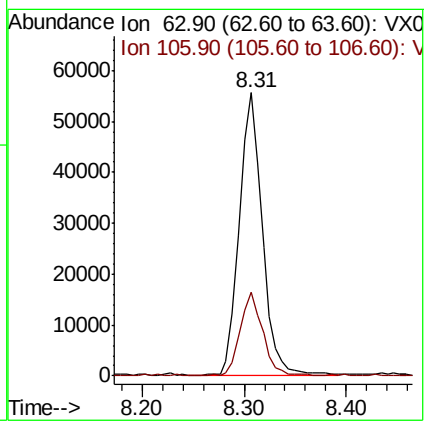
Manual Integrations APPROVED
apatel
12/16/2019 12:45:57 PM

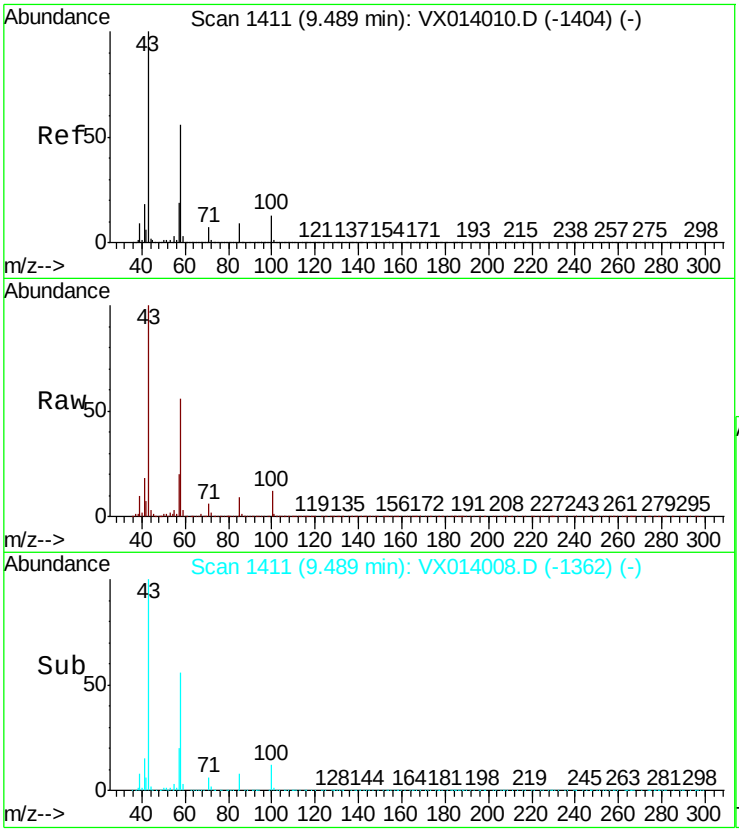


#58
2-Chloroethyl Vinyl ether
Concen: 23.748 ug/l
RT: 8.31 min Scan# 1217
Delta R.T. 0.00 min
Lab File: VX014008.D
Acq: 13 Dec 2019 15:12

Tgt Ion: 63 Resp: 86243

Ion	Ratio	Lower	Upper
63	100		
106	29.5	23.0	34.6

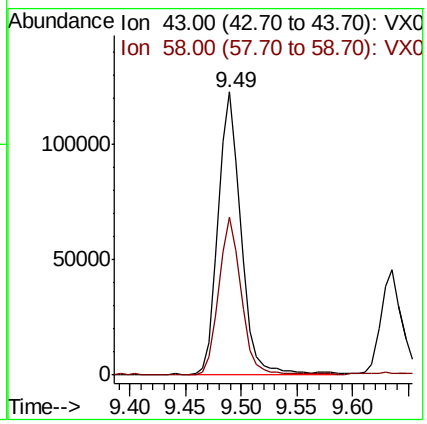




#59
2-Hexanone
Concen: 25.443 ug/l
RT: 9.49 min Scan# 1411
Delta R.T. 0.00 min
Lab File: VX014008.D
Acq: 13 Dec 2019 15:12

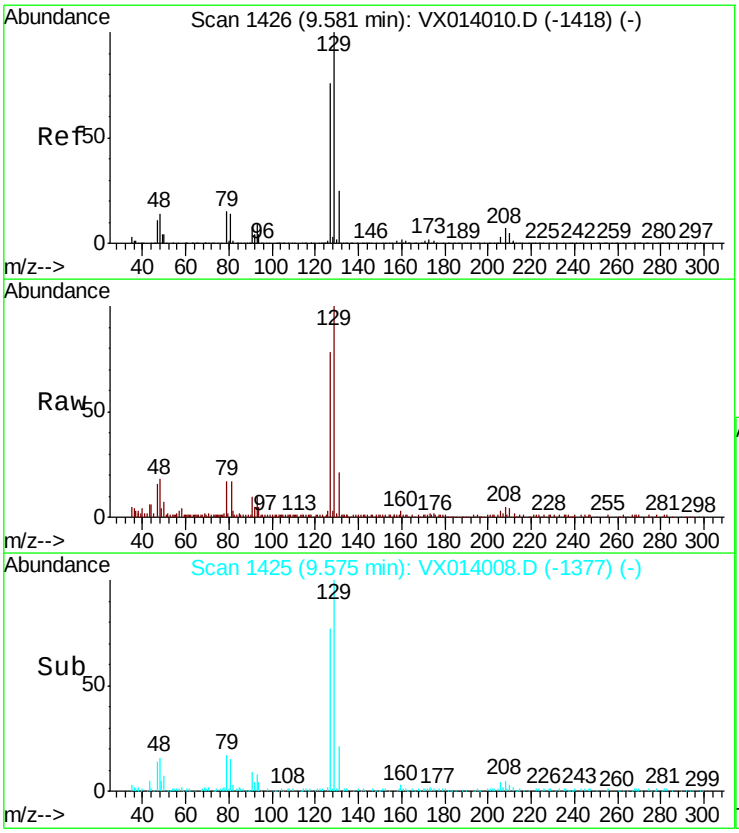
Tgt Ion: 43 Resp: 174409

Ion	Ratio	Lower	Upper
43	100		
58	54.7	28.0	84.0



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC005

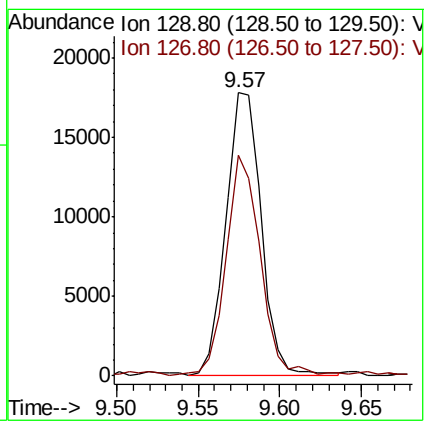
Manual Integrations APPROVED
apatel
12/16/2019 12:45:57 PM

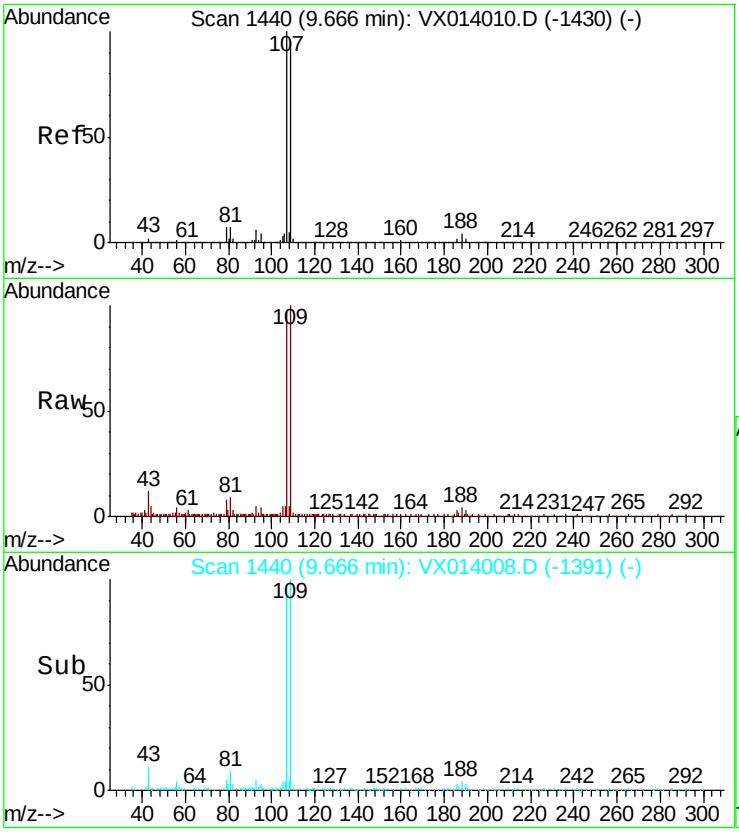


#60
Dibromochloromethane
Concen: 4.470 ug/l
RT: 9.57 min Scan# 1425
Delta R.T. -0.01 min
Lab File: VX014008.D
Acq: 13 Dec 2019 15:12

Tgt Ion:129 Resp: 26591

Ion	Ratio	Lower	Upper
129	100		
127	75.5	38.4	115.2

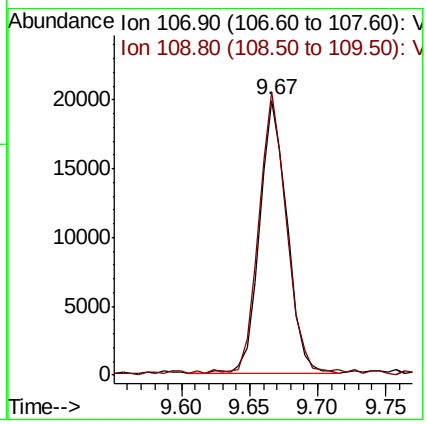




#61
1,2-Dibromoethane
Concen: 4.644 ug/l
RT: 9.67 min Scan# 1440
Delta R.T. 0.00 min
Lab File: VX014008.D
Acq: 13 Dec 2019 15:12

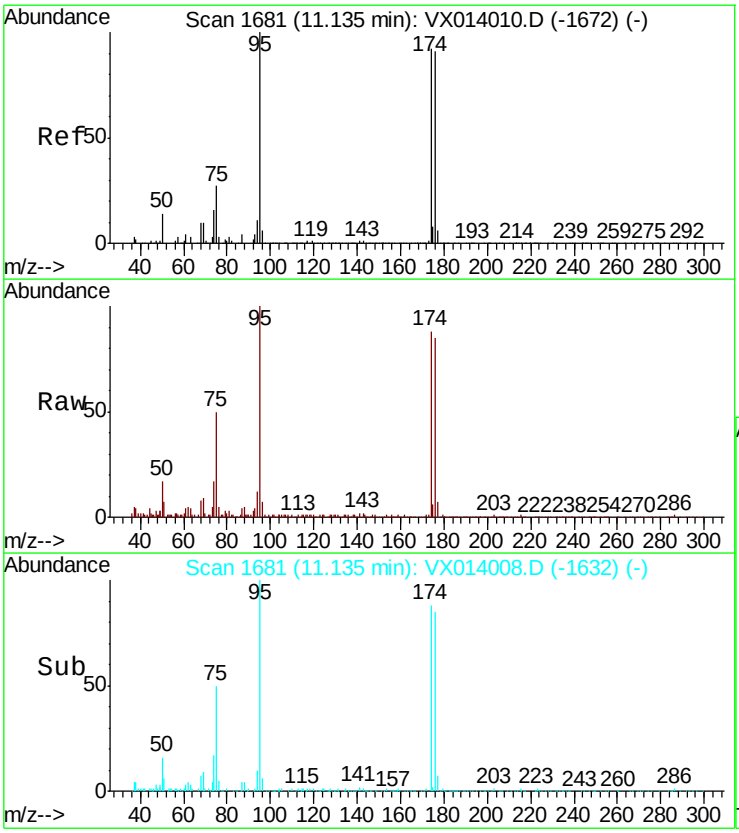
Tgt Ion:107 Resp: 28498

Ion	Ratio	Lower	Upper
107	100		
109	102.4	75.7	113.5



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC005

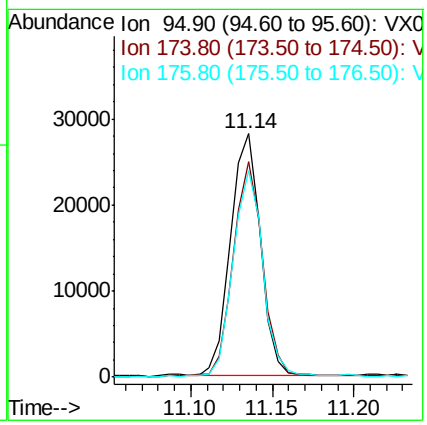
Manual Integrations APPROVED
apatel
12/16/2019 12:45:57 PM

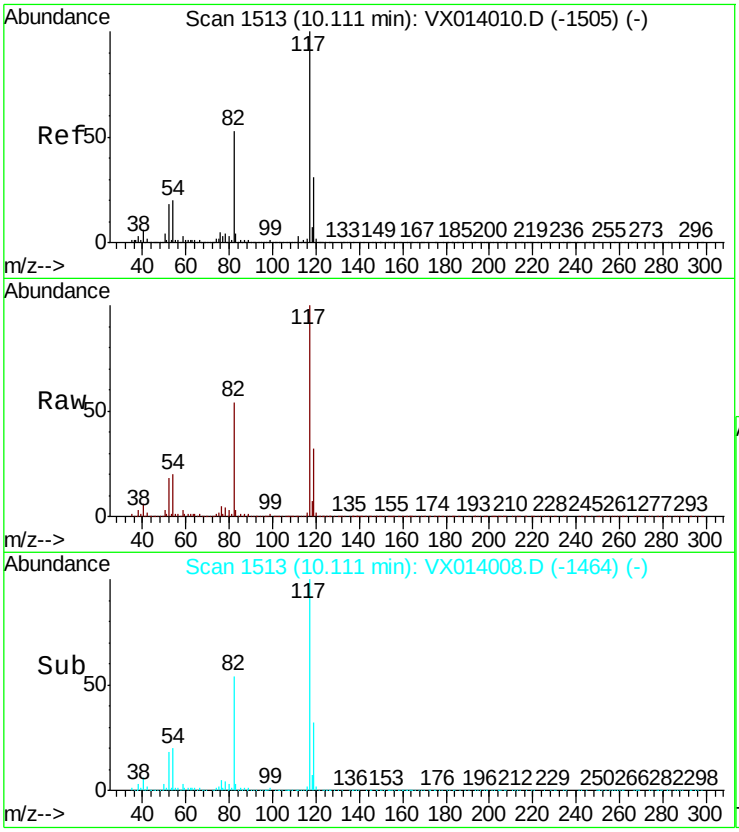


#62
4-Bromofluorobenzene
Concen: 4.956 ug/l
RT: 11.14 min Scan# 1681
Delta R.T. 0.00 min
Lab File: VX014008.D
Acq: 13 Dec 2019 15:12

Tgt Ion: 95 Resp: 36096

Ion	Ratio	Lower	Upper
95	100		
174	88.0	0.0	175.8
176	85.6	0.0	173.0

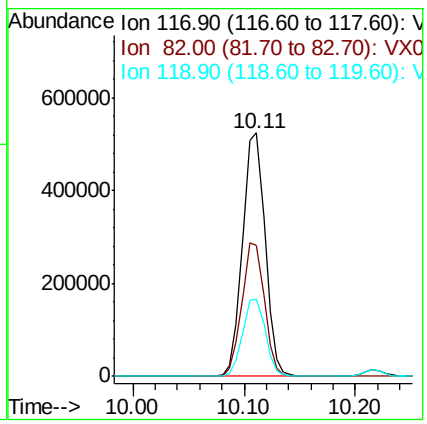




#63
Chlorobenzene-d5
Concen: 50.000 ug/l
RT: 10.11 min Scan# 1513
Delta R.T. 0.00 min
Lab File: VX014008.D
Acq: 13 Dec 2019 15:12

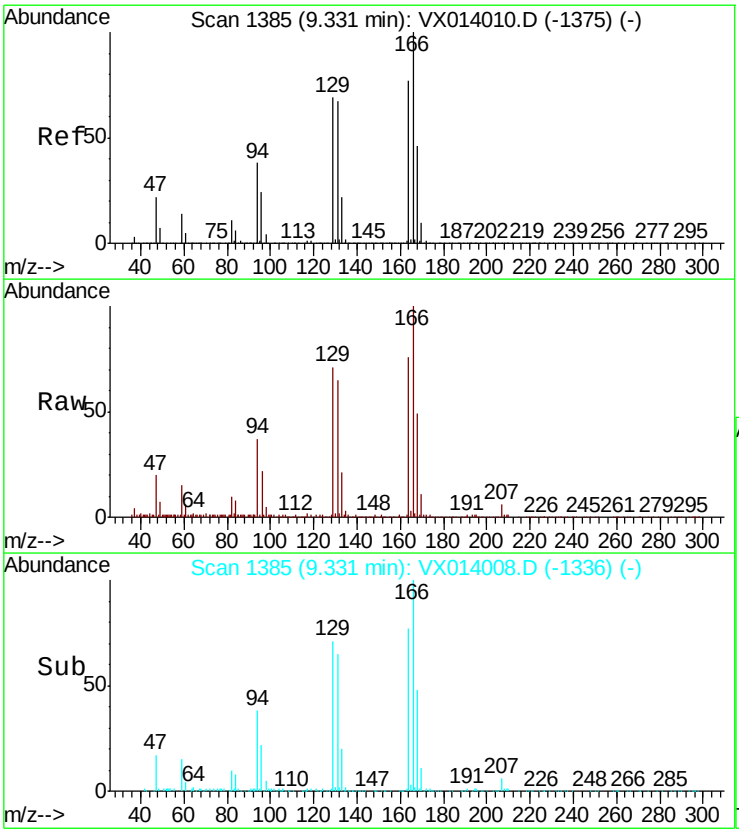
Tgt Ion:117 Resp: 741012

Ion	Ratio	Lower	Upper
117	100		
82	53.6	42.2	63.4
119	31.9	25.1	37.7



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC005

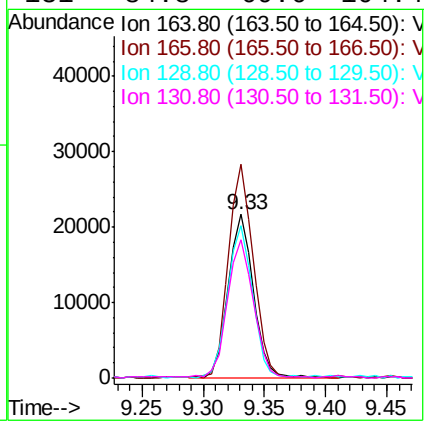
Manual Integrations APPROVED
apatel
12/16/2019 12:45:57 PM

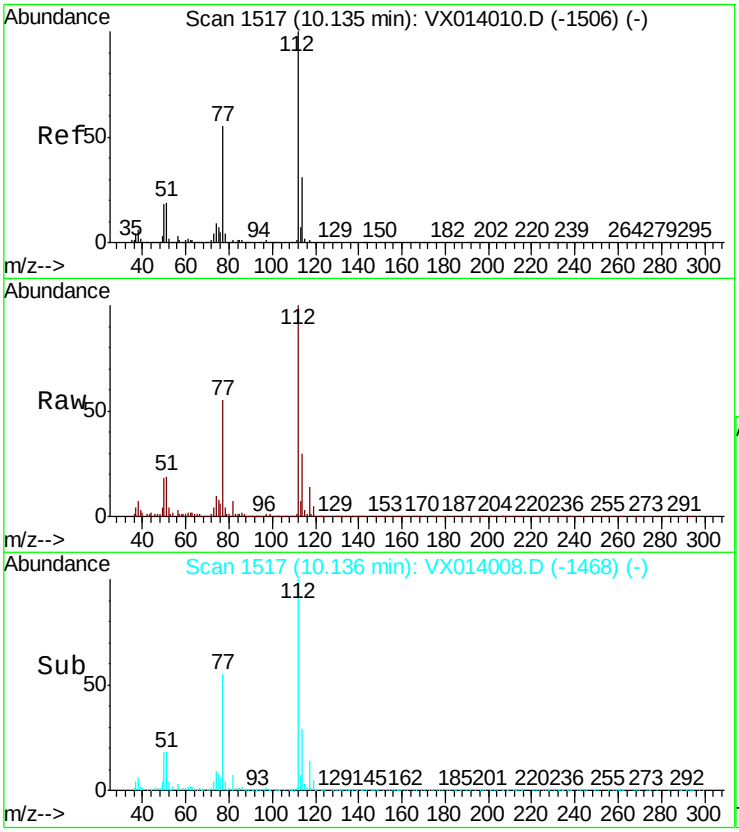


#64
Tetrachloroethene
Concen: 5.412 ug/l
RT: 9.33 min Scan# 1385
Delta R.T. 0.00 min
Lab File: VX014008.D
Acq: 13 Dec 2019 15:12

Tgt Ion:164 Resp: 30947

Ion	Ratio	Lower	Upper
164	100		
166	130.2	104.0	156.0
129	93.3	72.2	108.4
131	84.8	69.6	104.4

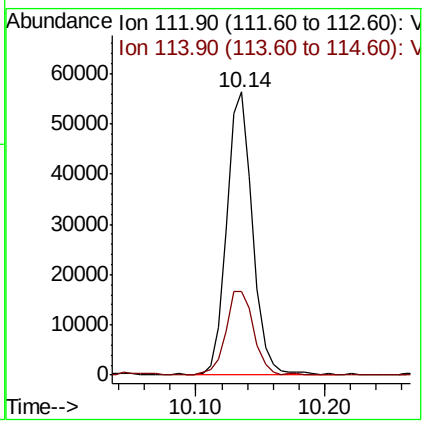




#65
Chlorobenzene
Concen: 5.128 ug/l
RT: 10.14 min Scan# 1517
Delta R.T. 0.00 min
Lab File: VX014008.D
Acq: 13 Dec 2019 15:12

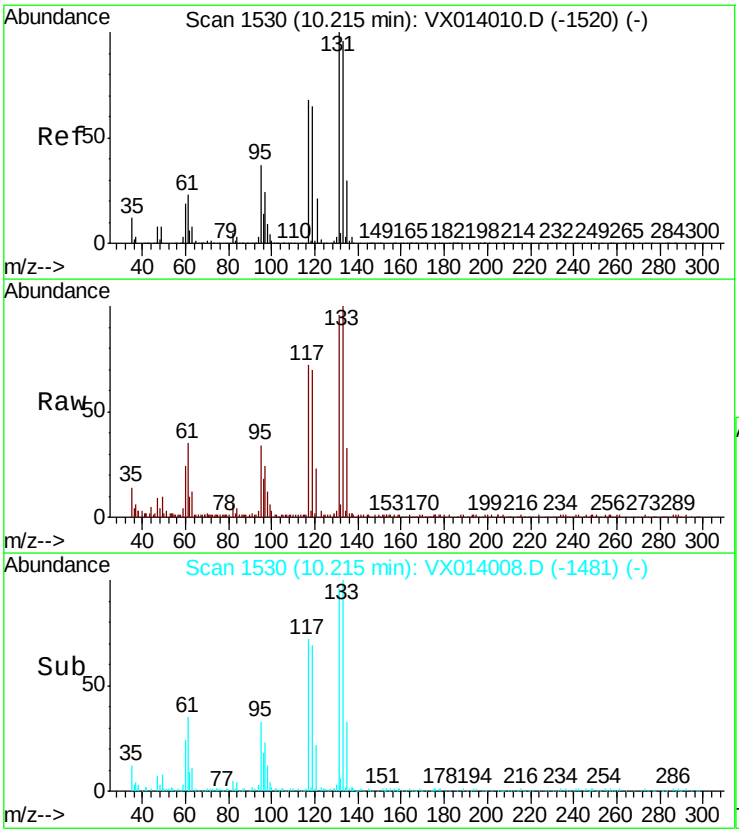
Tgt Ion:112 Resp: 79345

Ion	Ratio	Lower	Upper
112	100		
114	29.4	24.9	37.3



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC005

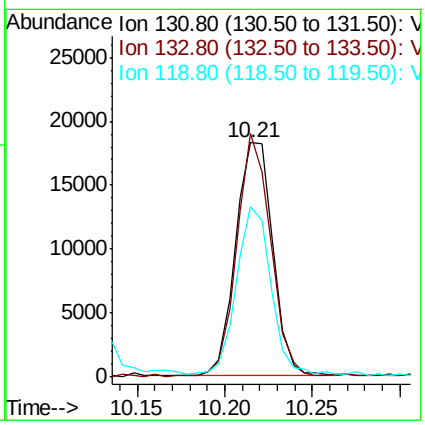
Manual Integrations APPROVED
apatel
12/16/2019 12:45:57 PM

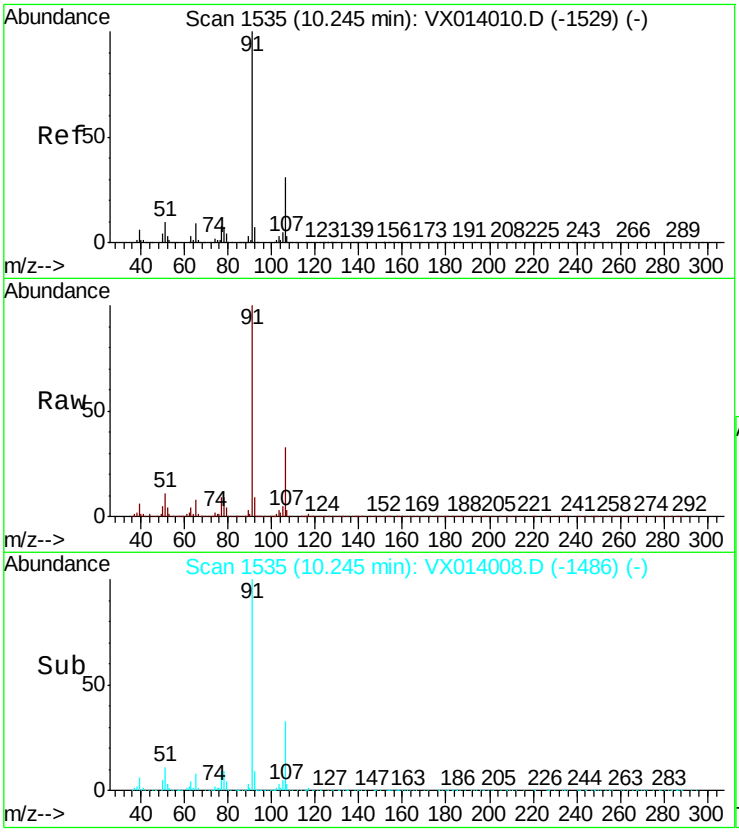


#66
1,1,1,2-Tetrachloroethane
Concen: 4.854 ug/l
RT: 10.21 min Scan# 1530
Delta R.T. 0.00 min
Lab File: VX014008.D
Acq: 13 Dec 2019 15:12

Tgt Ion:131 Resp: 26889

Ion	Ratio	Lower	Upper
131	100		
133	93.5	48.0	144.0
119	66.7	33.4	100.2

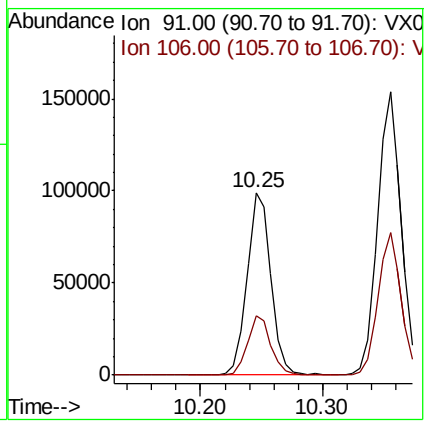




#67
Ethyl Benzene
Concen: 5.024 ug/l
RT: 10.25 min Scan# 1535
Delta R.T. 0.00 min
Lab File: VX014008.D
Acq: 13 Dec 2019 15:12

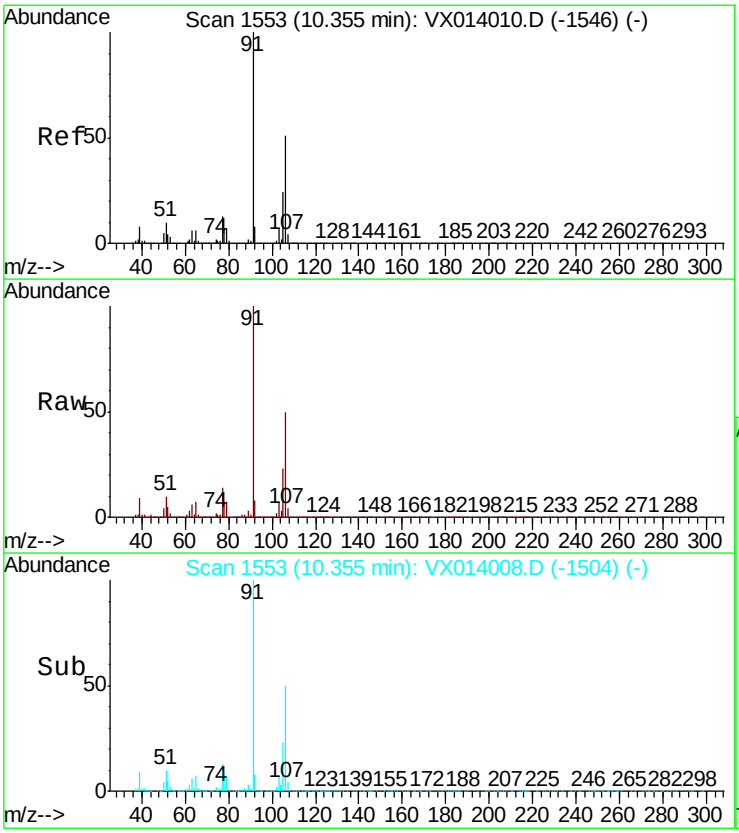
Tgt Ion: 91 Resp: 133408

Ion	Ratio	Lower	Upper
91	100		
106	32.8	25.0	37.6



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC005

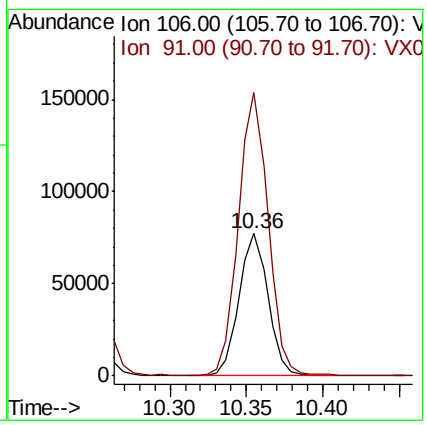
Manual Integrations APPROVED
apatel
12/16/2019 12:45:57 PM

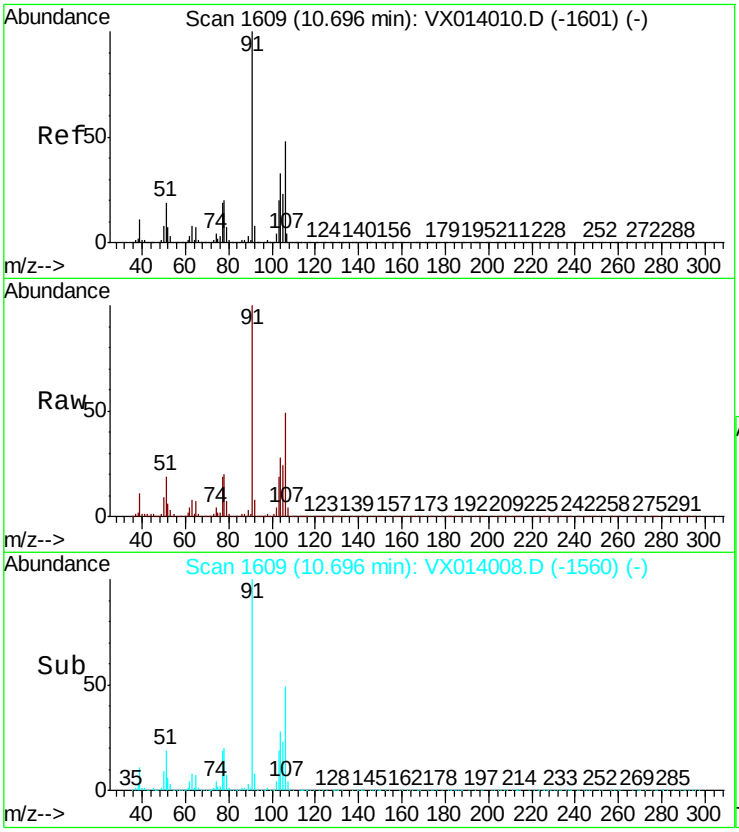


#68
m/p-Xylenes
Concen: 10.088 ug/l
RT: 10.36 min Scan# 1553
Delta R.T. 0.00 min
Lab File: VX014008.D
Acq: 13 Dec 2019 15:12

Tgt Ion:106 Resp: 102703

Ion	Ratio	Lower	Upper
106	100		
91	200.9	158.6	238.0

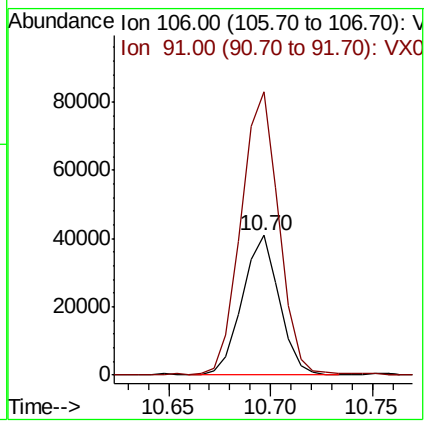




#69
o-Xylene
Concen: 5.141 ug/l
RT: 10.70 min Scan# 1609
Delta R.T. 0.00 min
Lab File: VX014008.D
Acq: 13 Dec 2019 15:12

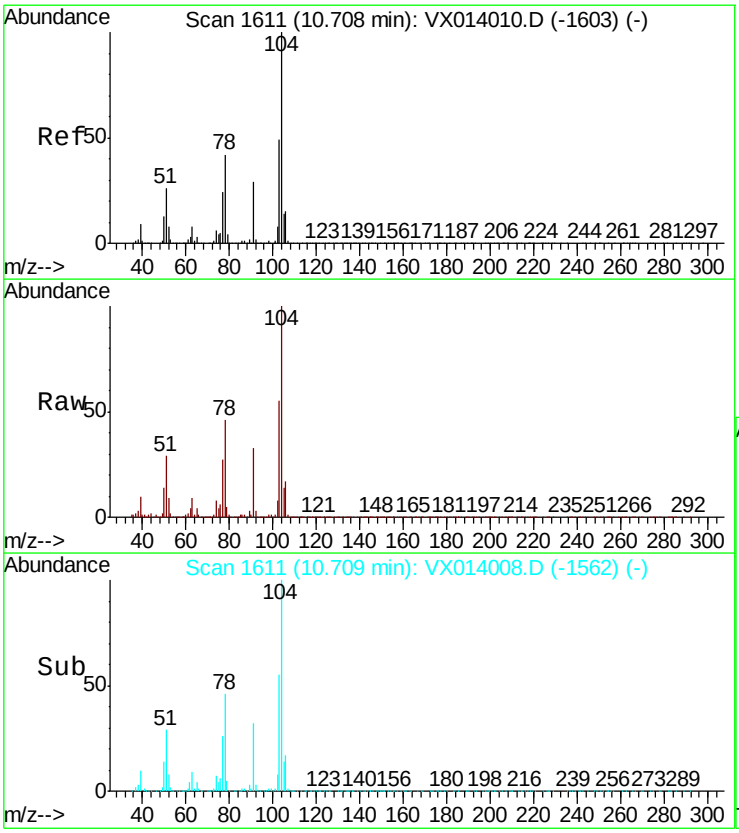
Tgt Ion:106 Resp: 51045

Ion	Ratio	Lower	Upper
106	100		
91	209.6	104.2	312.6



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC005

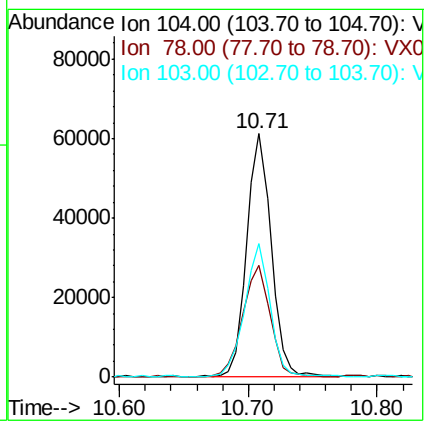
Manual Integrations APPROVED
apatel
12/16/2019 12:45:57 PM

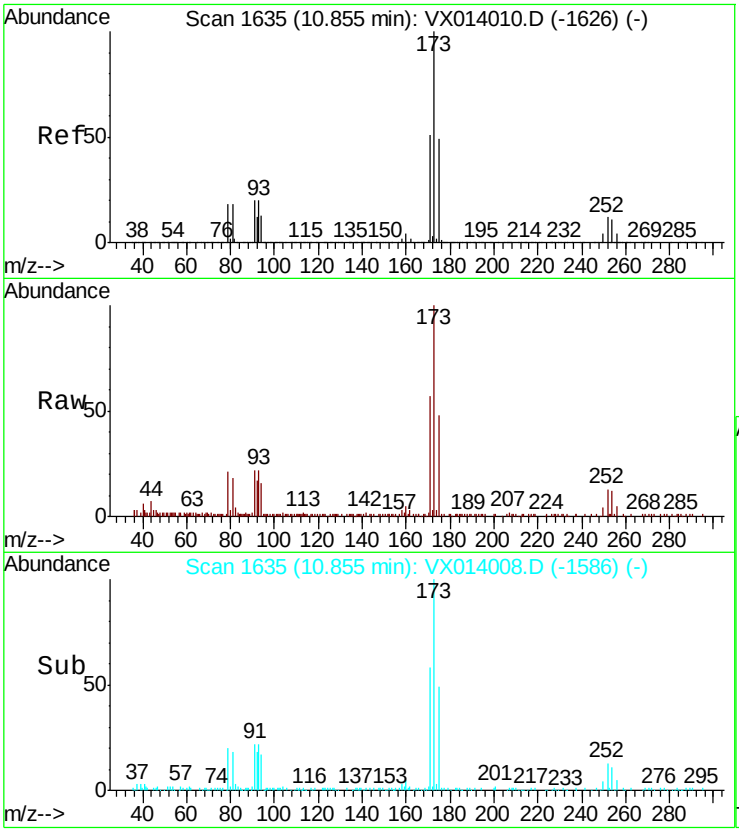


#70
Styrene
Concen: 4.760 ug/l
RT: 10.71 min Scan# 1611
Delta R.T. 0.00 min
Lab File: VX014008.D
Acq: 13 Dec 2019 15:12

Tgt Ion:104 Resp: 79726

Ion	Ratio	Lower	Upper
104	100		
78	51.5	38.5	57.7
103	57.1	42.9	64.3

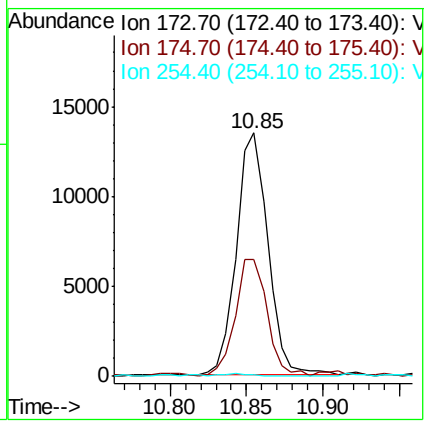




#71
Bromoform
Concen: 4.212 ug/l
RT: 10.85 min Scan# 1635
Delta R.T. 0.00 min
Lab File: VX014008.D
Acq: 13 Dec 2019 15:12

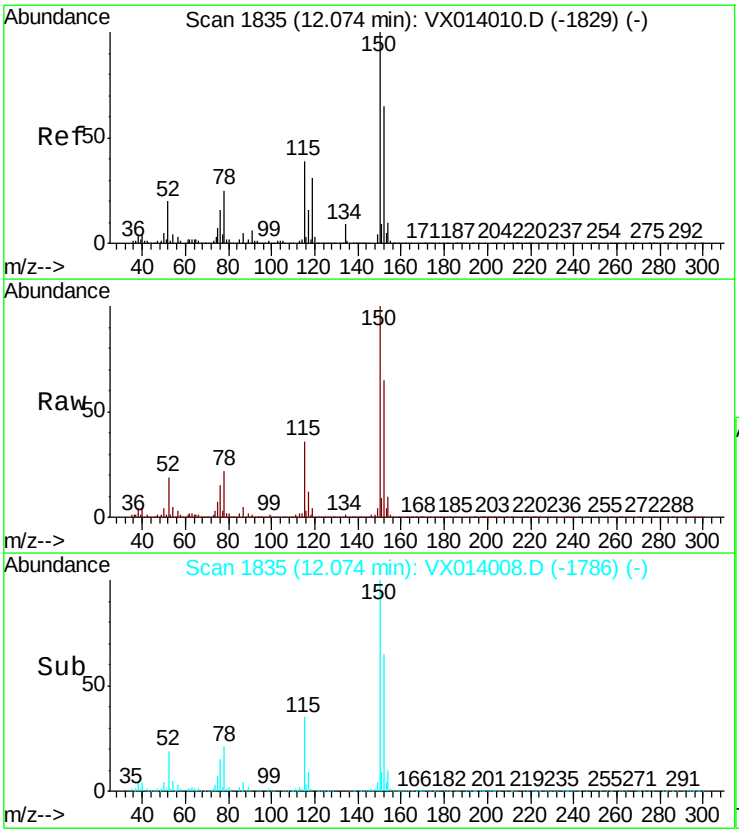
Tgt Ion:173 Resp: 19246

Ion	Ratio	Lower	Upper
173	100		
175	49.2	24.4	73.4
254	1.0	0.2	0.2#



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC005

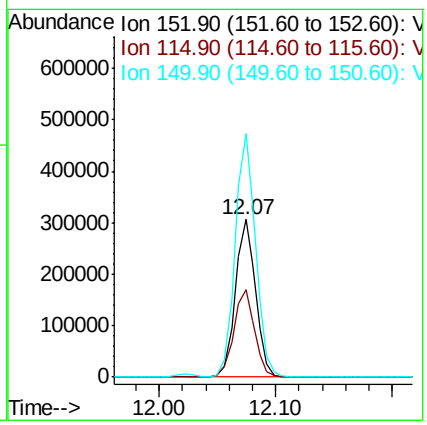
Manual Integrations APPROVED
apatel
12/16/2019 12:45:57 PM

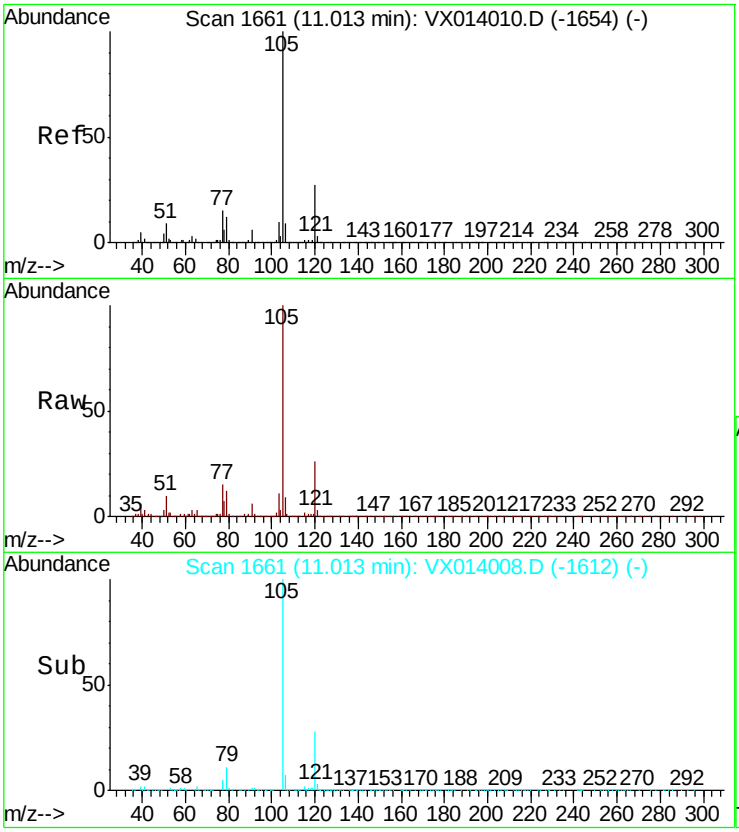


#72
1,4-Dichlorobenzene-d4
Concen: 50.000 ug/l
RT: 12.07 min Scan# 1835
Delta R.T. 0.00 min
Lab File: VX014008.D
Acq: 13 Dec 2019 15:12

Tgt Ion:152 Resp: 367559

Ion	Ratio	Lower	Upper
152	100		
115	56.9	38.3	114.9
150	157.0	0.0	345.4

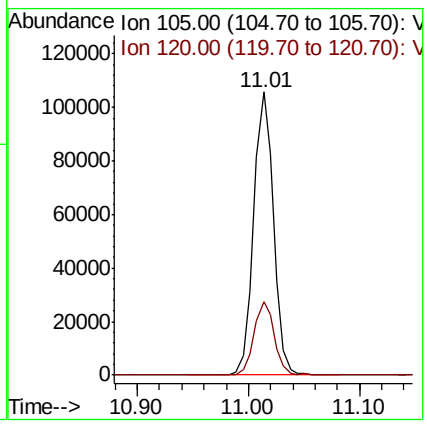




#73
Isopropylbenzene
Concen: 5.092 ug/l
RT: 11.01 min Scan# 1661
Delta R.T. 0.00 min
Lab File: VX014008.D
Acq: 13 Dec 2019 15:12

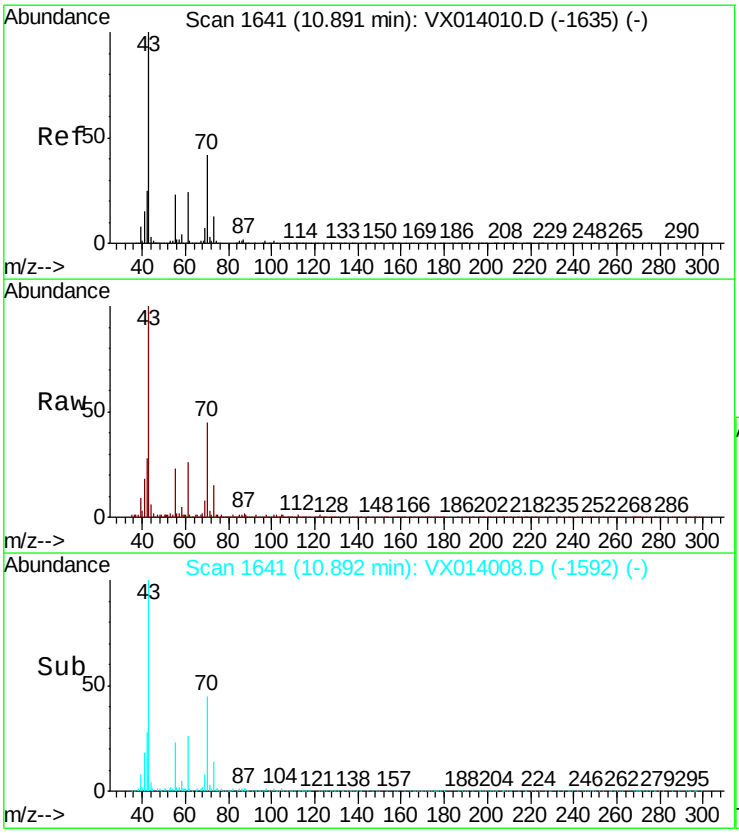
Tgt Ion:105 Resp: 131468

Ion	Ratio	Lower	Upper
105	100		
120	26.3	13.5	40.4



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC005

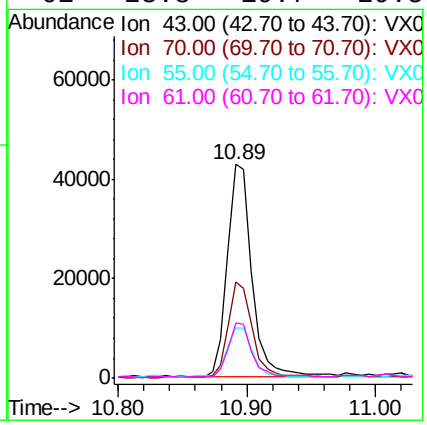
Manual Integrations APPROVED
apatel
12/16/2019 12:45:57 PM

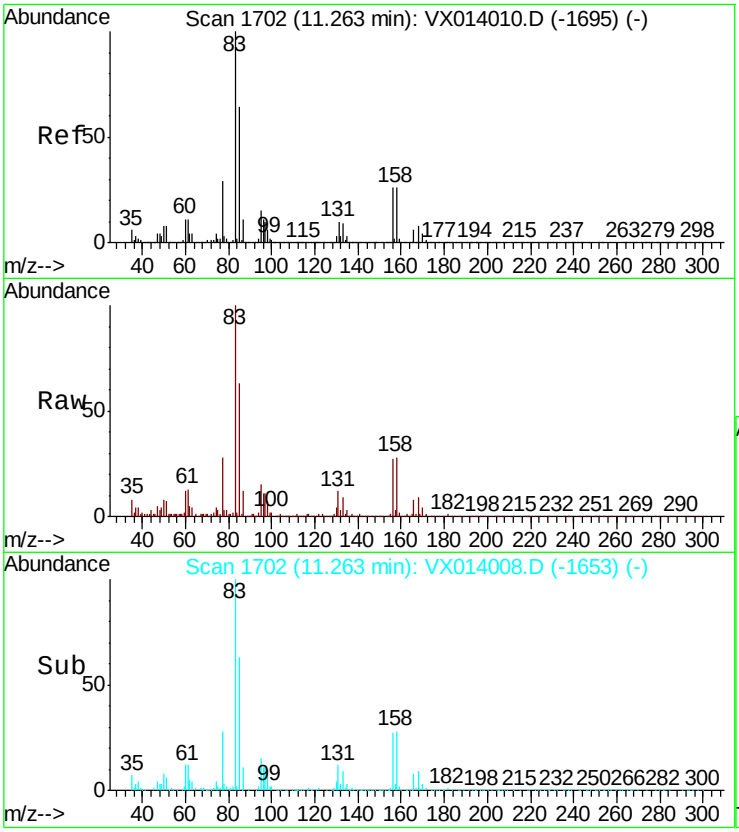


#74
N-amyl acetate
Concen: 4.920 ug/l
RT: 10.89 min Scan# 1641
Delta R.T. 0.00 min
Lab File: VX014008.D
Acq: 13 Dec 2019 15:12

Tgt Ion: 43 Resp: 58191

Ion	Ratio	Lower	Upper
43	100		
70	43.5	34.4	51.6
55	23.8	19.1	28.7
61	23.8	19.7	29.5

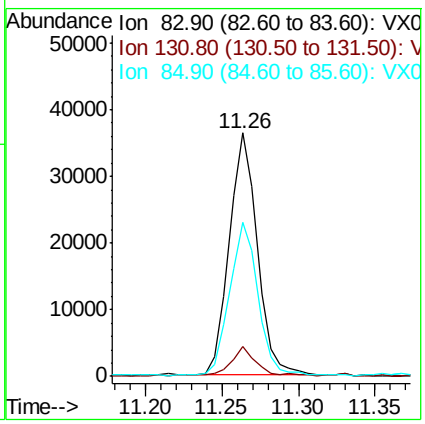




#75
1,1,2,2-Tetrachloroethane
Concen: 5.175 ug/l
RT: 11.26 min Scan# 1702
Delta R.T. 0.00 min
Lab File: VX014008.D
Acq: 13 Dec 2019 15:12

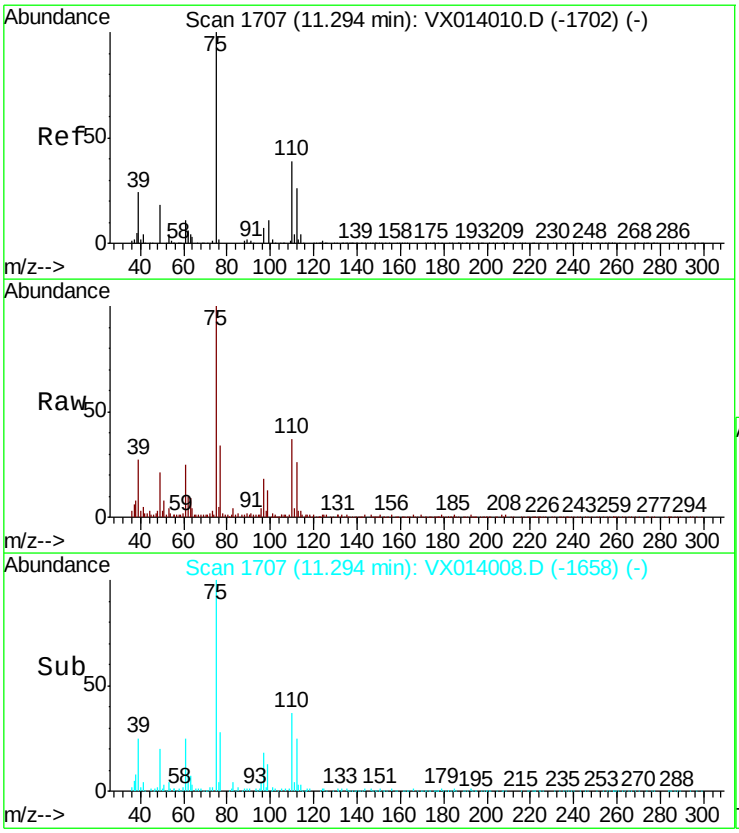
Tgt Ion: 83 Resp: 46256

Ion	Ratio	Lower	Upper
83	100		
131	10.7	5.1	15.2
85	64.6	31.9	95.7



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC005

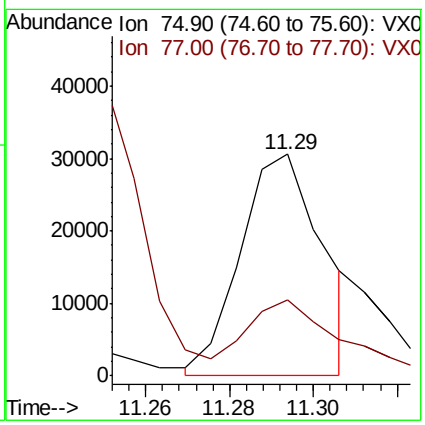
Manual Integrations APPROVED
apatel
12/16/2019 12:45:57 PM

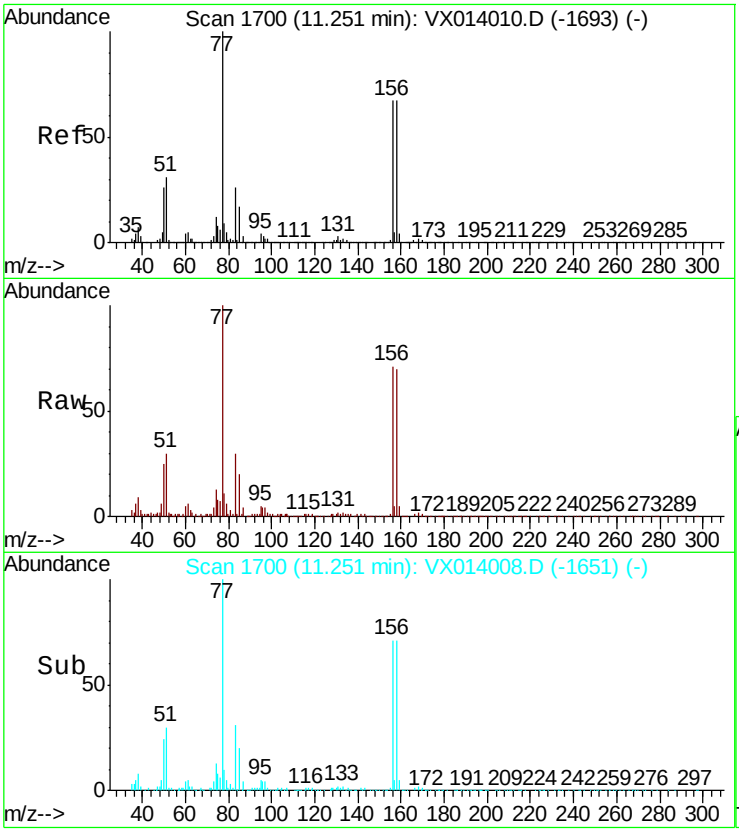


#76
1,2,3-Trichloropropane
Concen: 5.030 ug/l m
RT: 11.29 min Scan# 1707
Delta R.T. 0.00 min
Lab File: VX014008.D
Acq: 13 Dec 2019 15:12

Tgt Ion: 75 Resp: 41405

Ion	Ratio	Lower	Upper
75	100		
77	38.6	19.3	57.8

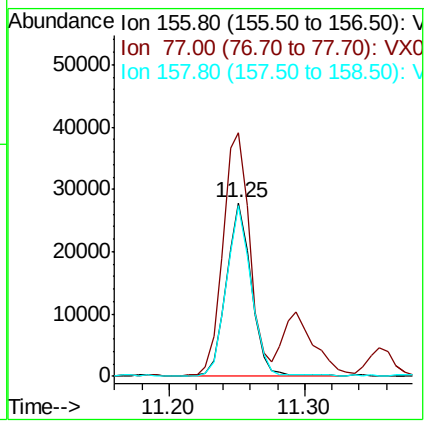




#77
Bromobenzene
Concen: 5.076 ug/l
RT: 11.25 min Scan# 1700
Delta R.T. 0.00 min
Lab File: VX014008.D
Acq: 13 Dec 2019 15:12

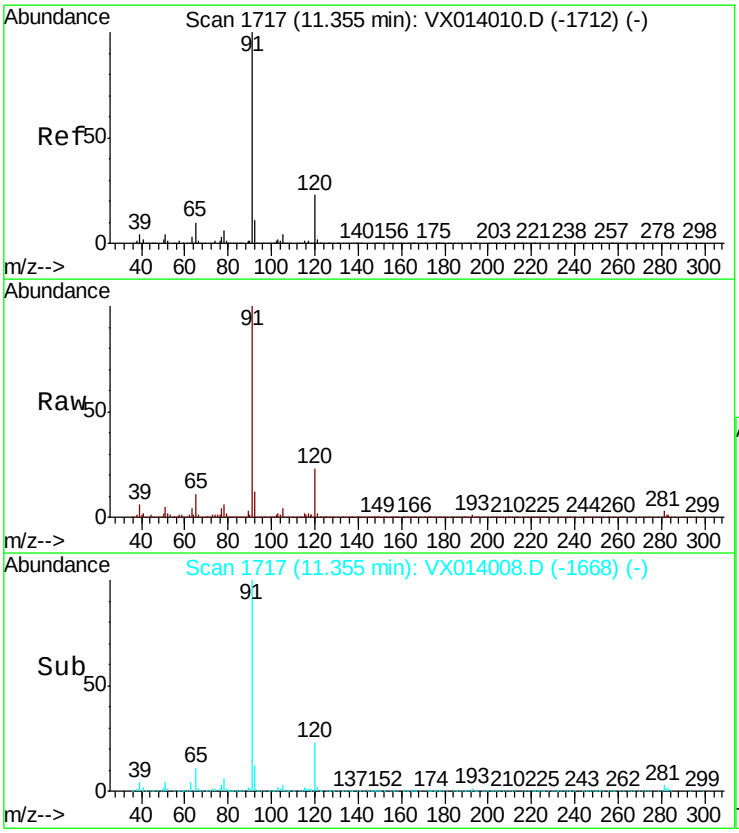
Tgt Ion:156 Resp: 35322

Ion	Ratio	Lower	Upper
156	100		
77	150.3	76.5	229.5
158	97.7	49.3	147.9



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC005

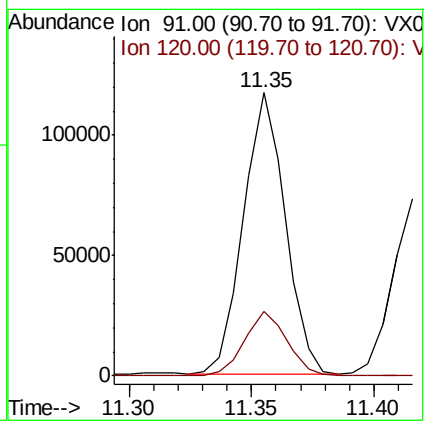
Manual Integrations APPROVED
apatel
12/16/2019 12:45:57 PM

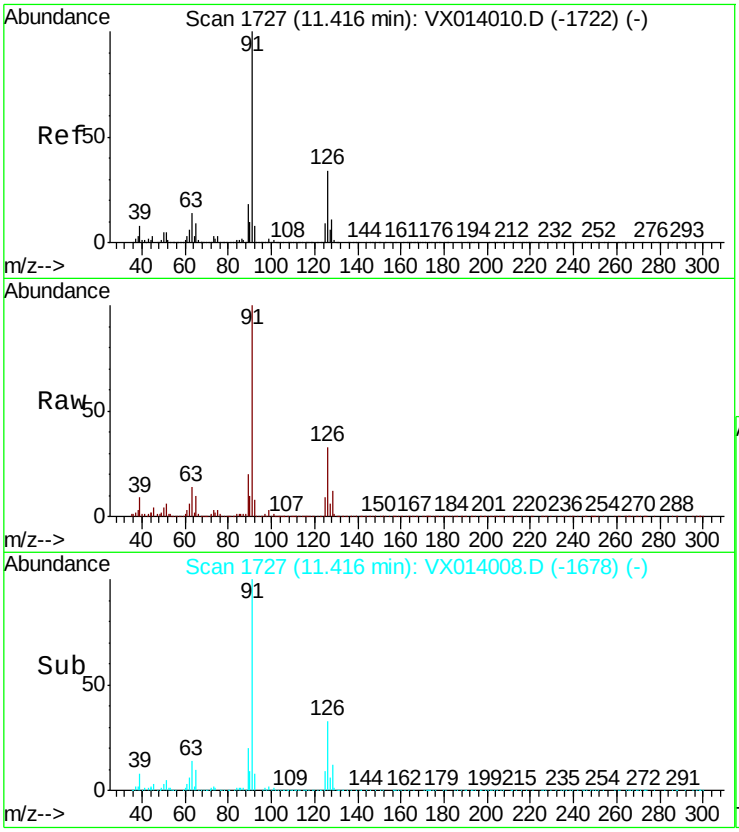


#78
n-propylbenzene
Concen: 4.813 ug/l
RT: 11.35 min Scan# 1717
Delta R.T. 0.00 min
Lab File: VX014008.D
Acq: 13 Dec 2019 15:12

Tgt Ion: 91 Resp: 138951

Ion	Ratio	Lower	Upper
91	100		
120	23.1	11.7	35.0

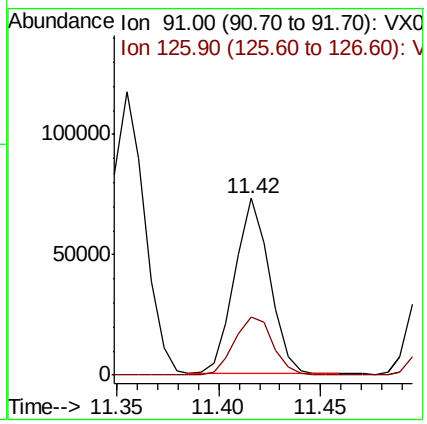




#79
2-Chlorotoluene
Concen: 5.026 ug/l
RT: 11.42 min Scan# 1727
Delta R.T. 0.00 min
Lab File: VX014008.D
Acq: 13 Dec 2019 15:12

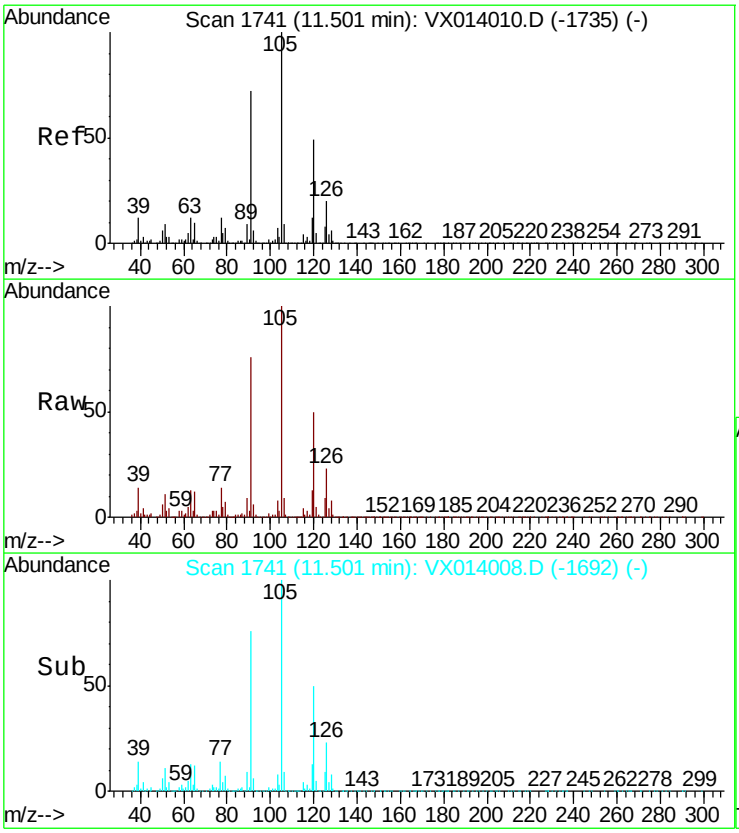
Tgt Ion: 91 Resp: 87285

Ion	Ratio	Lower	Upper
91	100		
126	36.2	17.2	51.6



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC005

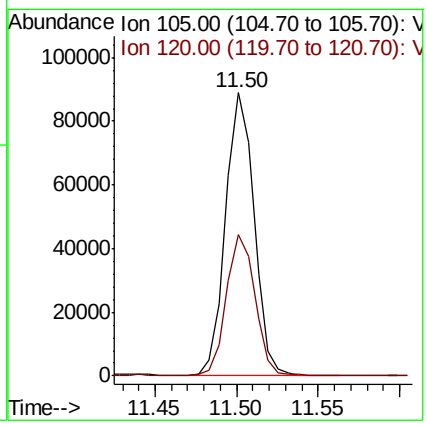
Manual Integrations APPROVED
apatel
12/16/2019 12:45:57 PM

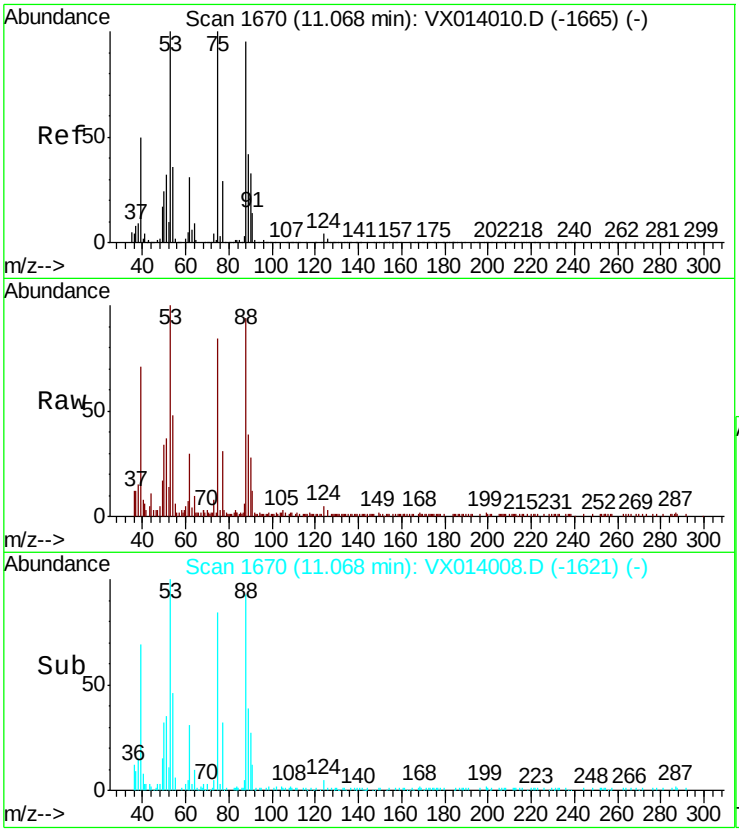


#80
1,3,5-Trimethylbenzene
Concen: 5.069 ug/l
RT: 11.50 min Scan# 1741
Delta R.T. 0.00 min
Lab File: VX014008.D
Acq: 13 Dec 2019 15:12

Tgt Ion:105 Resp: 107560

Ion	Ratio	Lower	Upper
105	100		
120	50.1	25.3	75.8





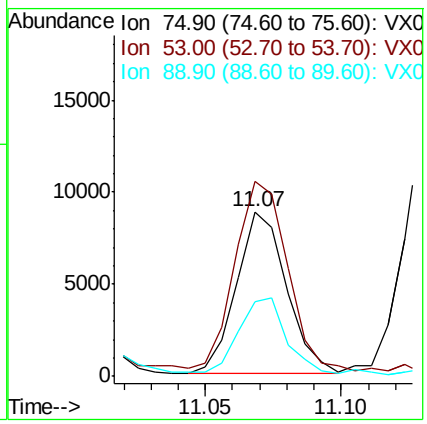
#81
trans-1,4-Dichloro-2-butene
Concen: 3.743 ug/l
RT: 11.07 min Scan# 1670
Delta R.T. 0.00 min
Lab File: VX014008.D
Acq: 13 Dec 2019 15:12

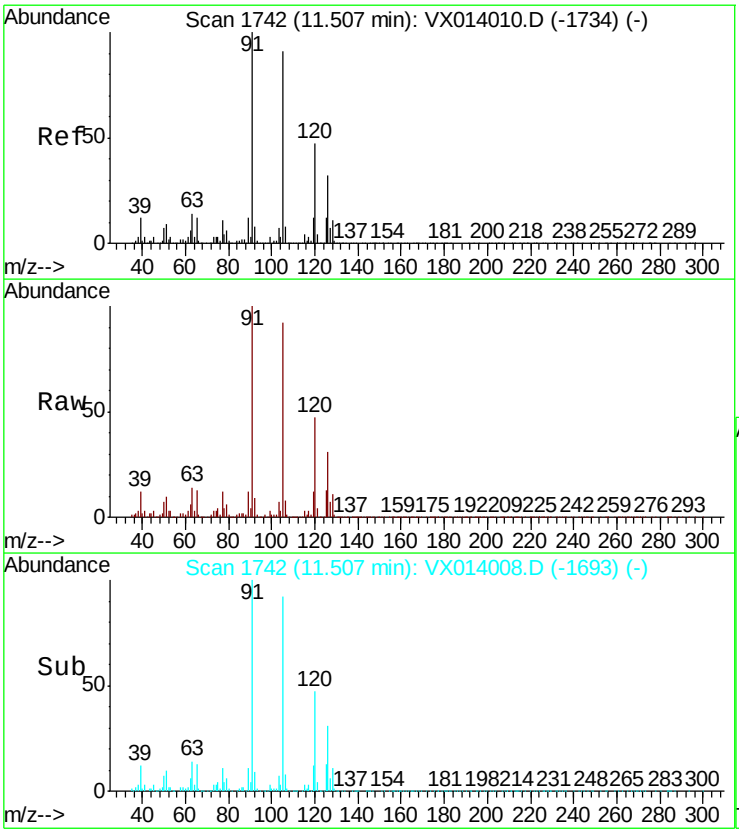
Tgt Ion: 75 Resp: 11240

Ion	Ratio	Lower	Upper
75	100		
53	123.9	76.7	115.1#
89	43.0	34.6	51.8

Instrument :
MSVOA_X
ClientSampleId :
VSTDICC005

Manual Integrations APPROVED
apatel
12/16/2019 12:45:57 PM

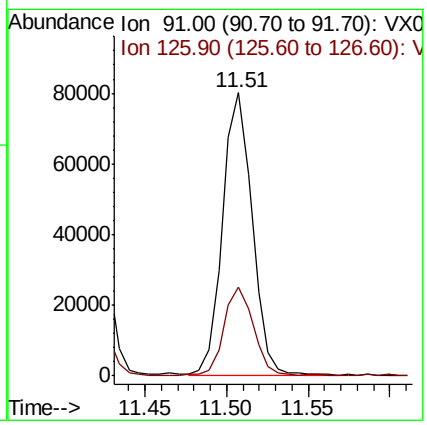


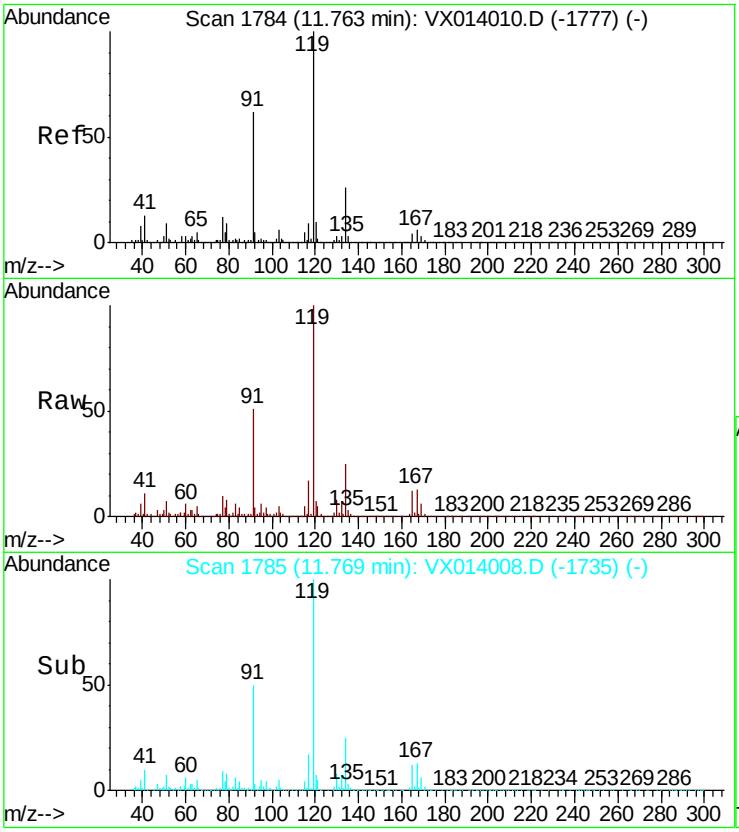


#82
4-Chlorotoluene
Concen: 4.999 ug/l
RT: 11.51 min Scan# 1742
Delta R.T. 0.00 min
Lab File: VX014008.D
Acq: 13 Dec 2019 15:12

Tgt Ion: 91 Resp: 100237

Ion	Ratio	Lower	Upper
91	100		
126	30.9	15.6	46.8

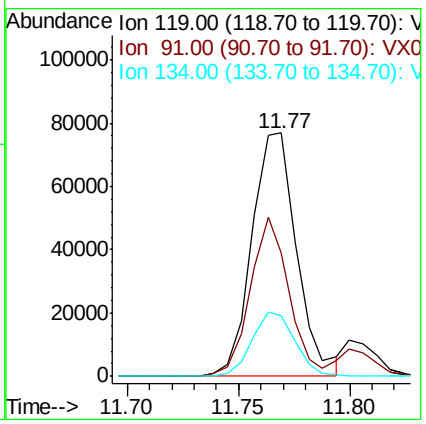


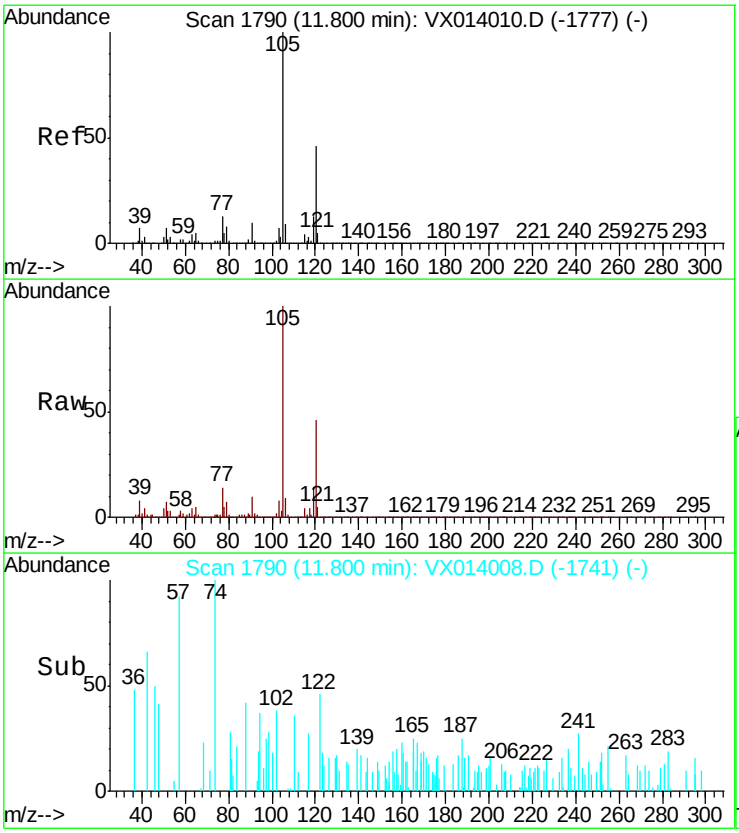


#83
tert-Butylbenzene
Concen: 5.033 ug/l
RT: 11.77 min Scan# 1785
Delta R.T. 0.01 min
Lab File: VX014008.D
Acq: 13 Dec 2019 15:12

Tgt Ion:119 Resp: 107592

Ion	Ratio	Lower	Upper
119	100		
91	56.1	28.5	85.6
134	25.4	12.2	36.6

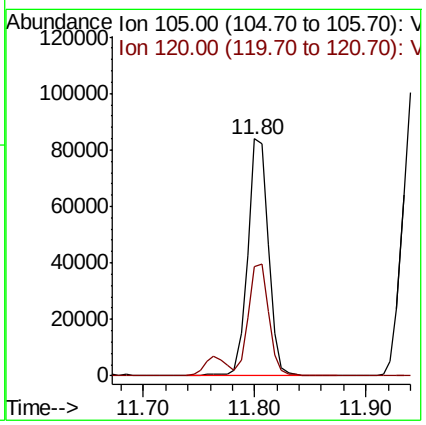




#84
1,2,4-Trimethylbenzene
Concen: 5.001 ug/l
RT: 11.80 min Scan# 1790
Delta R.T. 0.00 min
Lab File: VX014008.D
Acq: 13 Dec 2019 15:12

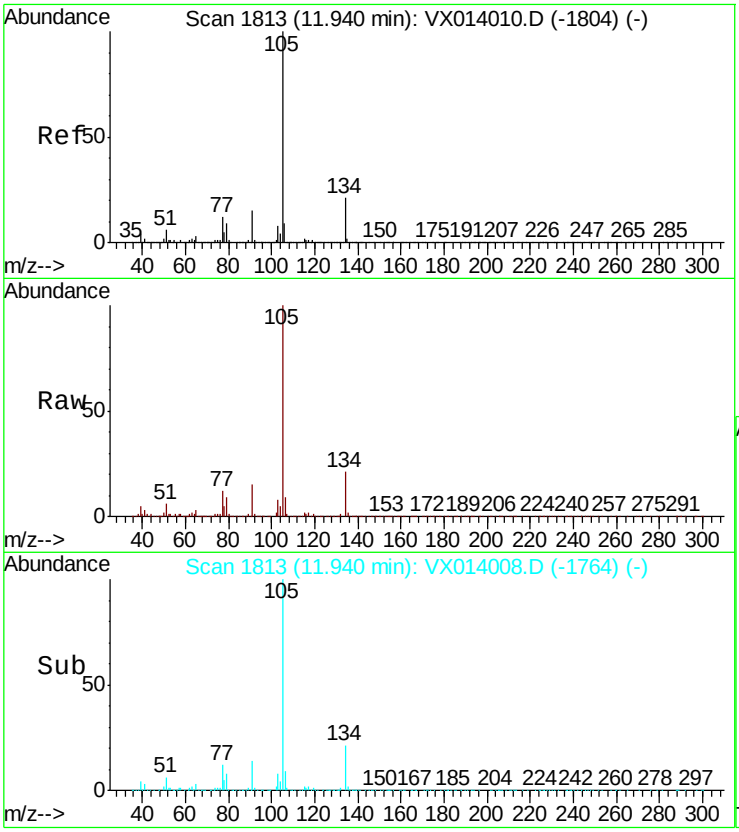
Tgt Ion:105 Resp: 107624

Ion	Ratio	Lower	Upper
105	100		
120	46.2	23.1	69.2



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC005

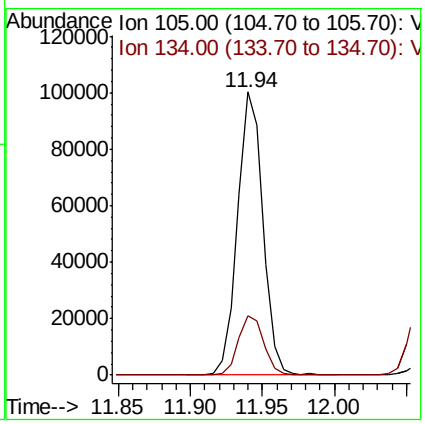
Manual Integrations APPROVED
apatel
12/16/2019 12:45:57 PM



#85
sec-Butylbenzene
Concen: 4.950 ug/l
RT: 11.94 min Scan# 1813
Delta R.T. 0.00 min
Lab File: VX014008.D
Acq: 13 Dec 2019 15:12

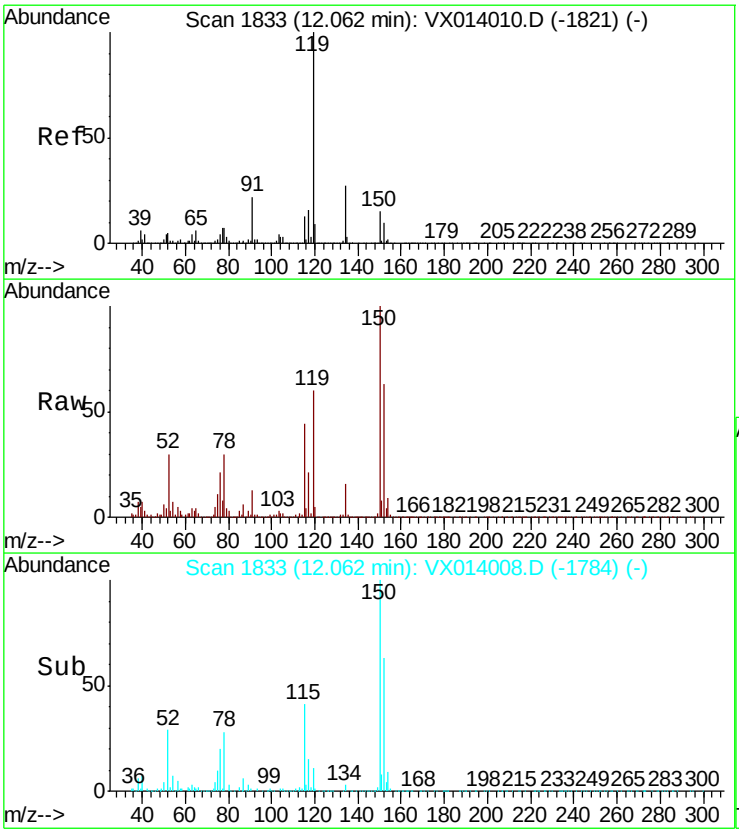
Tgt Ion:105 Resp: 121785

Ion	Ratio	Lower	Upper
105	100		
134	21.4	10.4	31.1



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC005

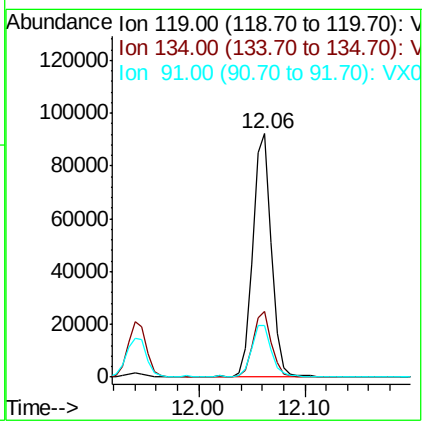
Manual Integrations APPROVED
apatel
12/16/2019 12:45:57 PM

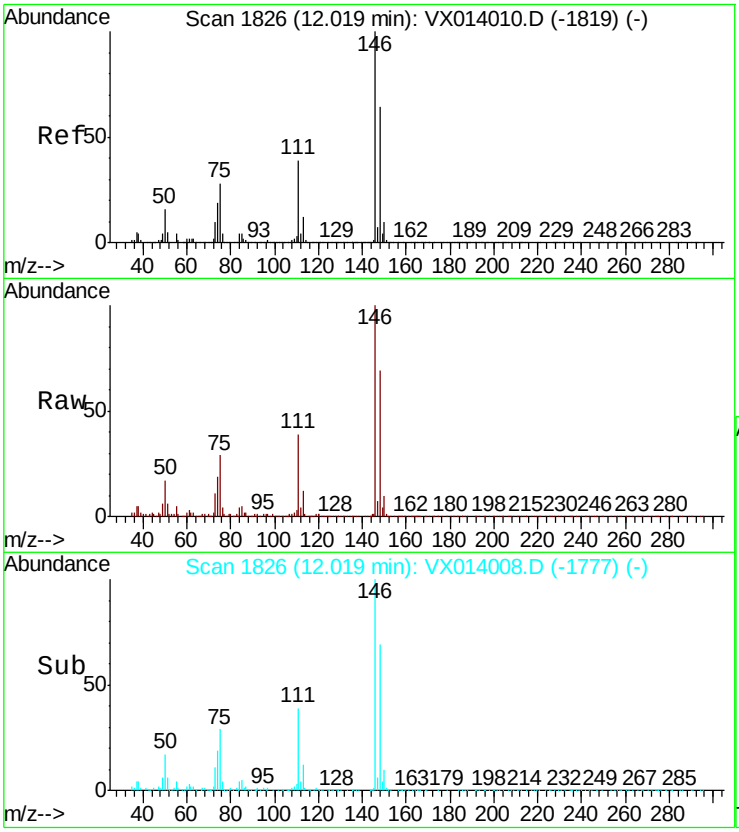


#86
p-Isopropyltoluene
Concen: 4.916 ug/l
RT: 12.06 min Scan# 1833
Delta R.T. 0.00 min
Lab File: VX014008.D
Acq: 13 Dec 2019 15:12

Tgt Ion:119 Resp: 112360

Ion	Ratio	Lower	Upper
119	100		
134	26.8	13.4	40.1
91	22.2	11.4	34.1

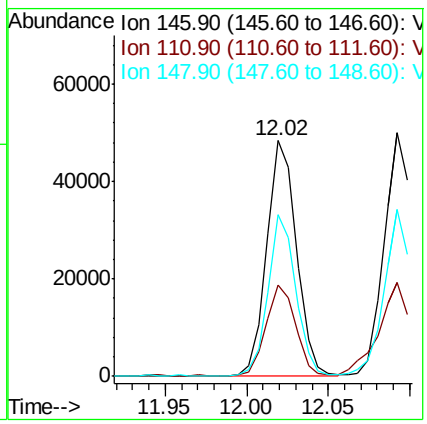




#87
1,3-Dichlorobenzene
Concen: 5.022 ug/l
RT: 12.02 min Scan# 1826
Delta R.T. 0.00 min
Lab File: VX014008.D
Acq: 13 Dec 2019 15:12

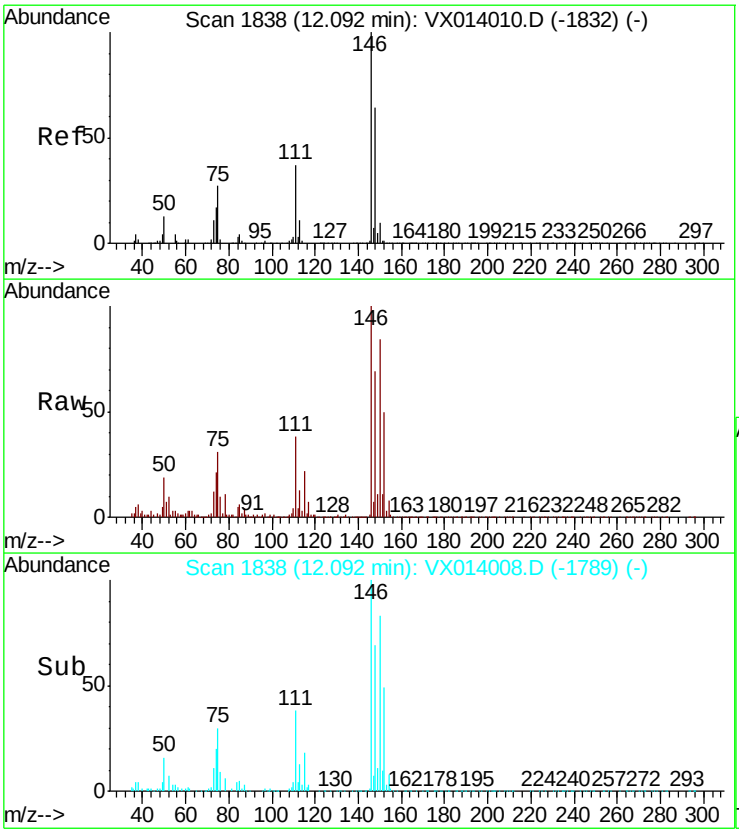
Tgt Ion:146 Resp: 61034

Ion	Ratio	Lower	Upper
146	100		
111	38.0	19.1	57.1
148	64.2	32.3	96.9



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC005

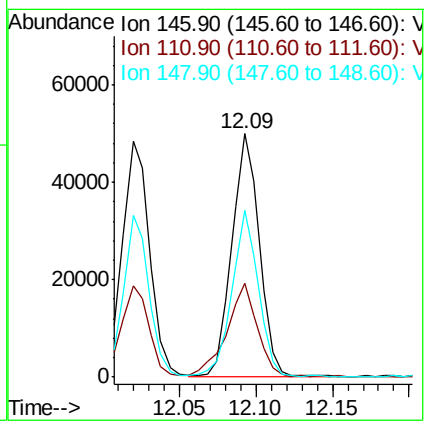
Manual Integrations APPROVED
apatel
12/16/2019 12:45:57 PM

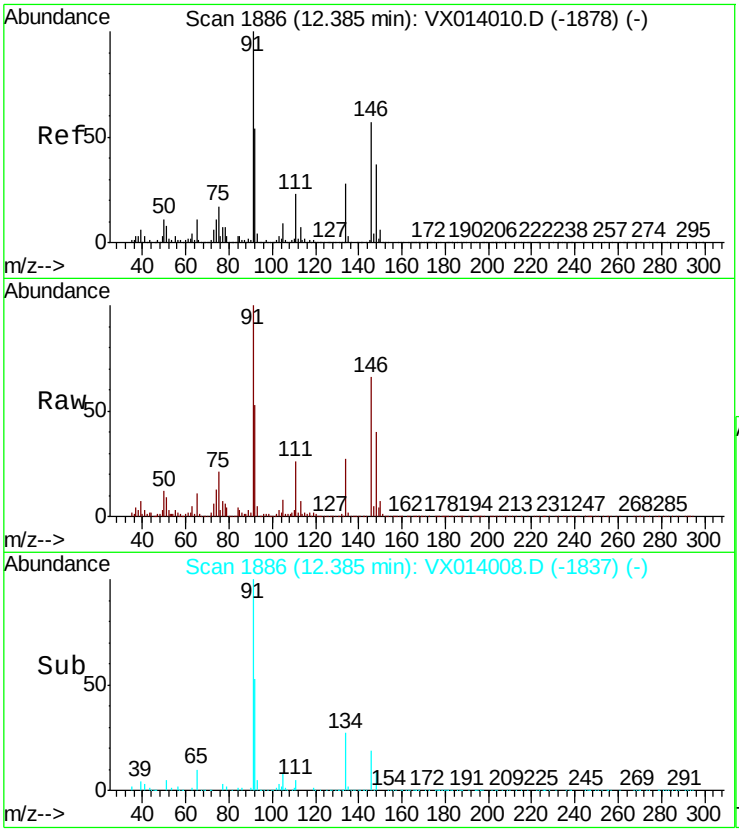


#88
1,4-Dichlorobenzene
Concen: 5.035 ug/l
RT: 12.09 min Scan# 1838
Delta R.T. 0.00 min
Lab File: VX014008.D
Acq: 13 Dec 2019 15:12

Tgt Ion:146 Resp: 62413

Ion	Ratio	Lower	Upper
146	100		
111	42.3	18.7	56.1
148	65.8	31.9	95.9

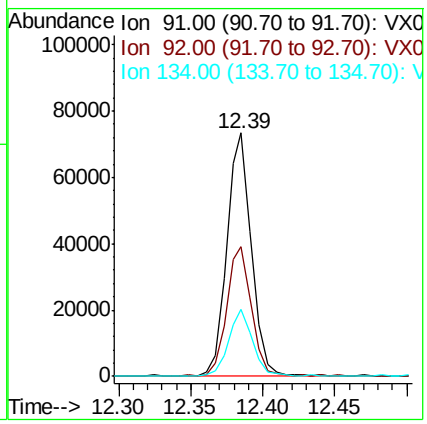




#89
n-Butylbenzene
Concen: 4.490 ug/l
RT: 12.39 min Scan# 1886
Delta R.T. 0.00 min
Lab File: VX014008.D
Acq: 13 Dec 2019 15:12

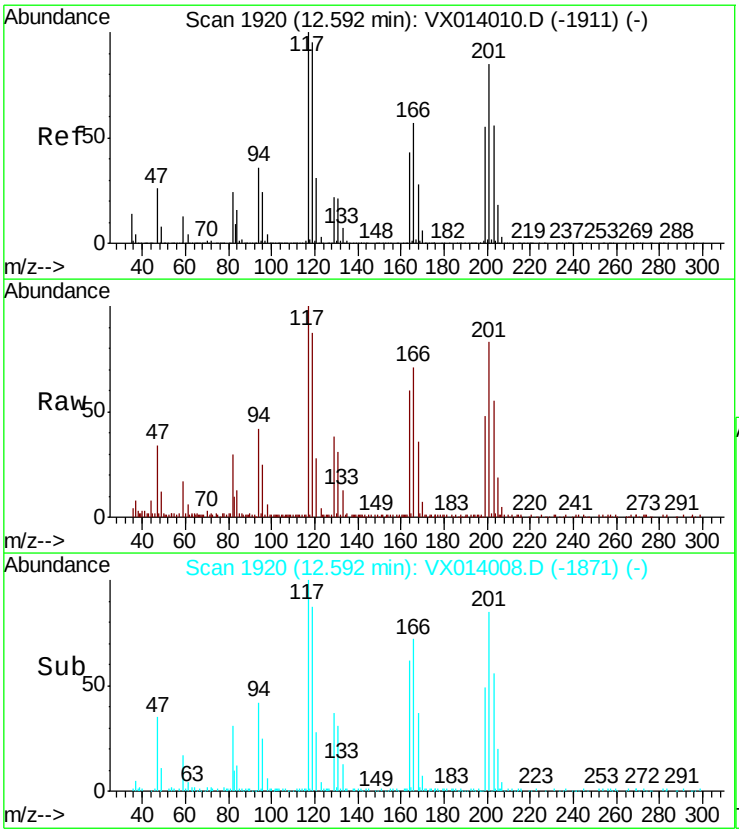
Tgt Ion: 91 Resp: 87635

Ion	Ratio	Lower	Upper
91	100		
92	53.2	27.2	81.6
134	26.6	13.4	40.1



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC005

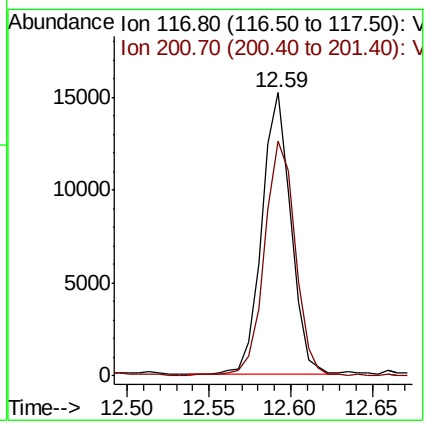
Manual Integrations APPROVED
apatel
12/16/2019 12:45:57 PM

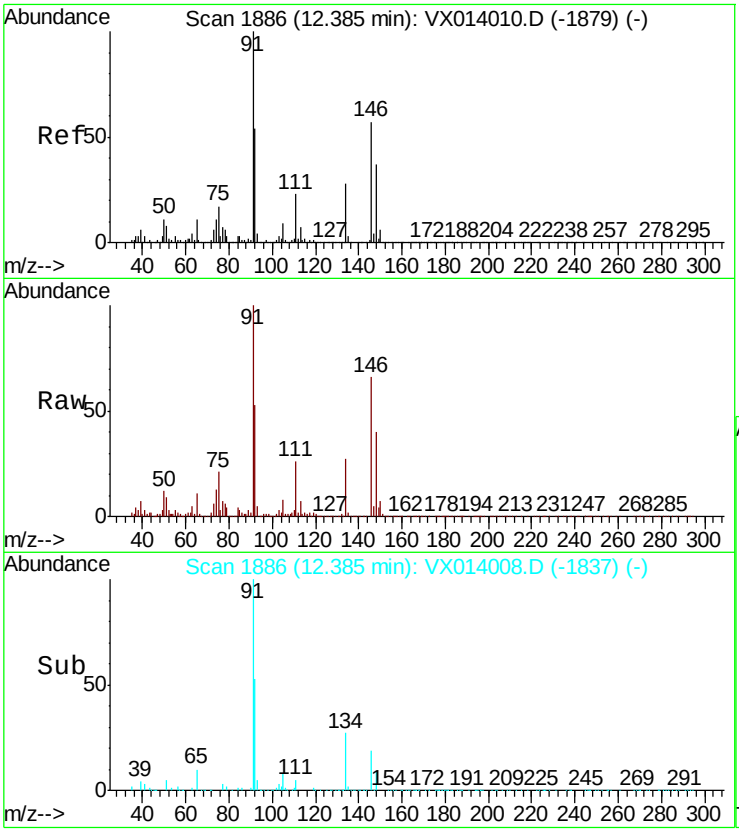


#90
Hexachloroethane
Concen: 4.485 ug/l
RT: 12.59 min Scan# 1920
Delta R.T. 0.00 min
Lab File: VX014008.D
Acq: 13 Dec 2019 15:12

Tgt Ion:117 Resp: 18579

Ion	Ratio	Lower	Upper
117	100		
201	89.0	43.1	129.3

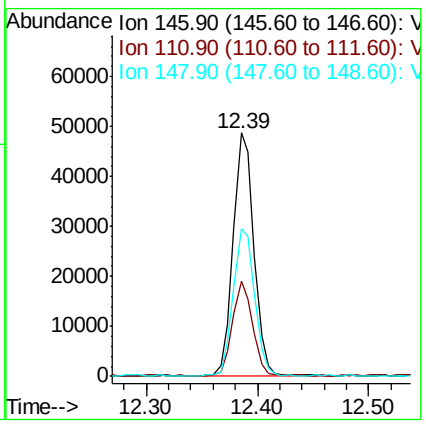




#91
1,2-Dichlorobenzene
Concen: 5.270 ug/l
RT: 12.39 min Scan# 1886
Delta R.T. 0.00 min
Lab File: VX014008.D
Acq: 13 Dec 2019 15:12

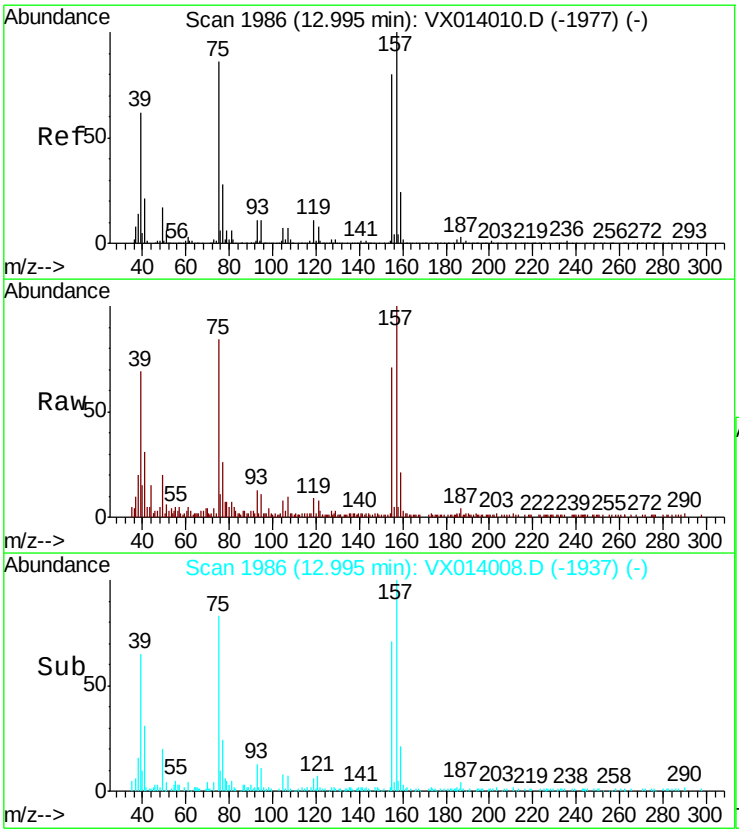
Tgt Ion:146 Resp: 63473

Ion	Ratio	Lower	Upper
146	100		
111	38.1	19.7	59.1
148	62.9	32.1	96.5



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC005

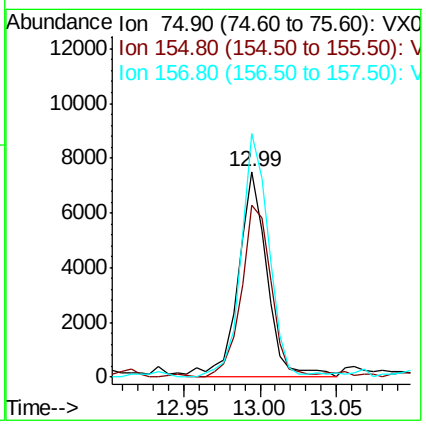
Manual Integrations APPROVED
apatel
12/16/2019 12:45:57 PM

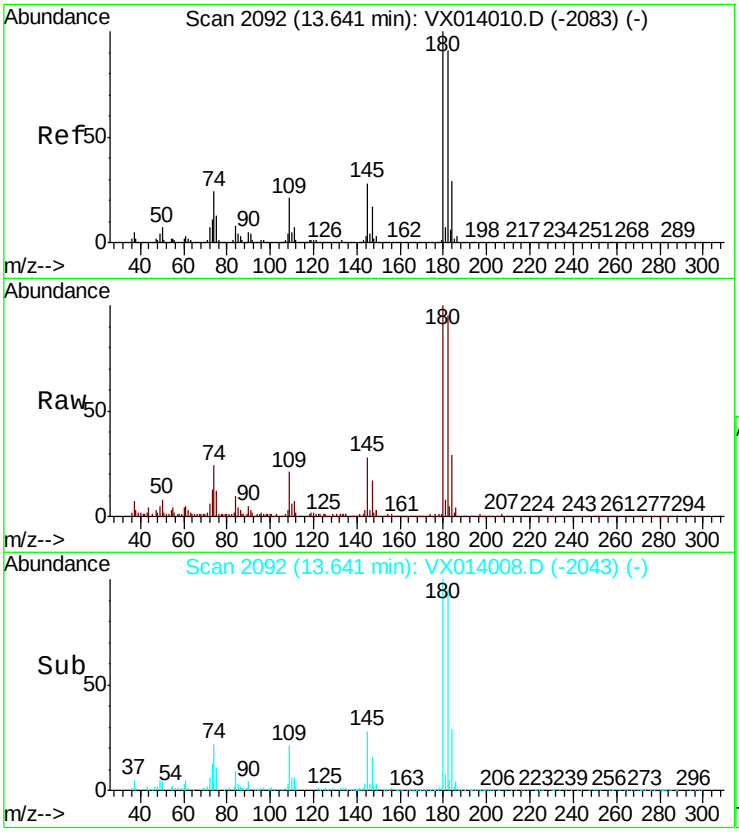


#92
1,2-Dibromo-3-Chloropropane
Concen: 5.056 ug/l
RT: 12.99 min Scan# 1986
Delta R.T. 0.00 min
Lab File: VX014008.D
Acq: 13 Dec 2019 15:12

Tgt Ion: 75 Resp: 9746

Ion	Ratio	Lower	Upper
75	100		
155	86.8	46.9	140.6
157	114.8	60.8	182.4

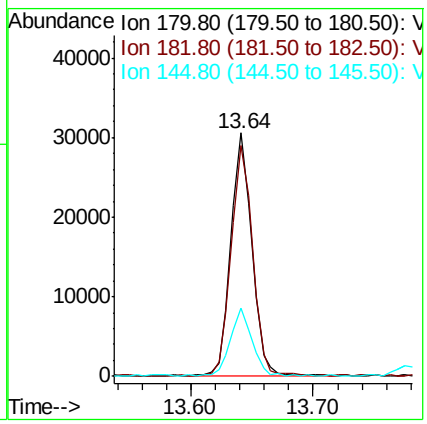




#93
1,2,4-Trichlorobenzene
Concen: 4.408 ug/l
RT: 13.64 min Scan# 2092
Delta R.T. 0.00 min
Lab File: VX014008.D
Acq: 13 Dec 2019 15:12

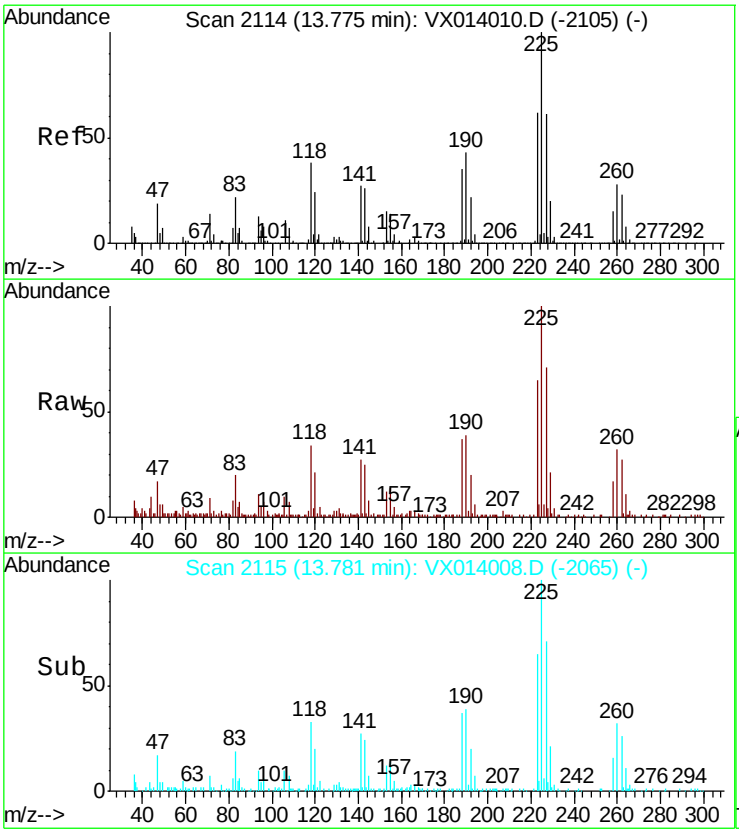
Tgt Ion:180 Resp: 36670

Ion	Ratio	Lower	Upper
180	100		
182	96.8	46.6	139.8
145	28.6	14.2	42.6



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC005

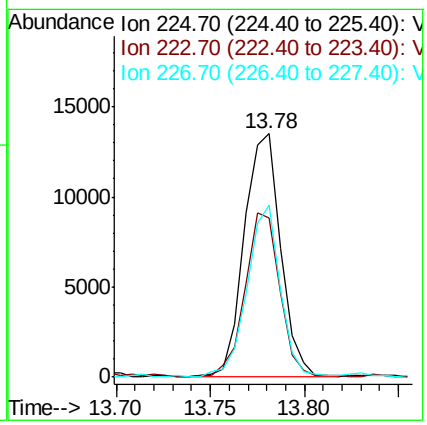
Manual Integrations APPROVED
apatel
12/16/2019 12:45:57 PM

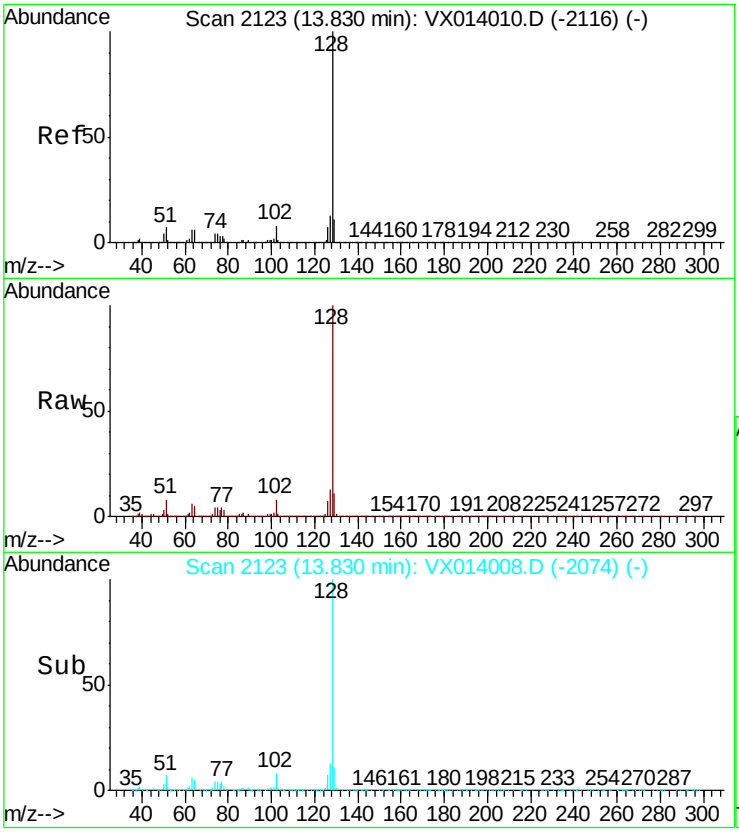


#94
Hexachlorobutadiene
Concen: 4.507 ug/l
RT: 13.78 min Scan# 2115
Delta R.T. 0.01 min
Lab File: VX014008.D
Acq: 13 Dec 2019 15:12

Tgt Ion:225 Resp: 18145

Ion	Ratio	Lower	Upper
225	100		
223	64.8	30.9	92.5
227	64.7	30.9	92.7

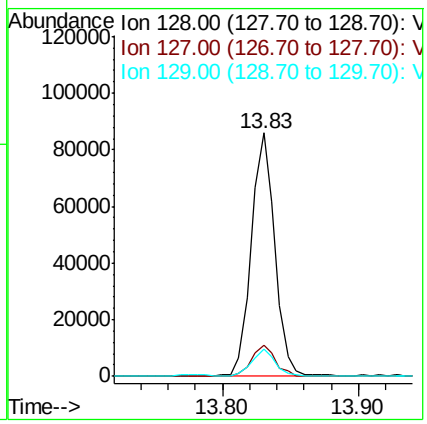




#95
Naphthalene
Concen: 4.239 ug/l
RT: 13.83 min Scan# 2123
Delta R.T. 0.00 min
Lab File: VX014008.D
Acq: 13 Dec 2019 15:12

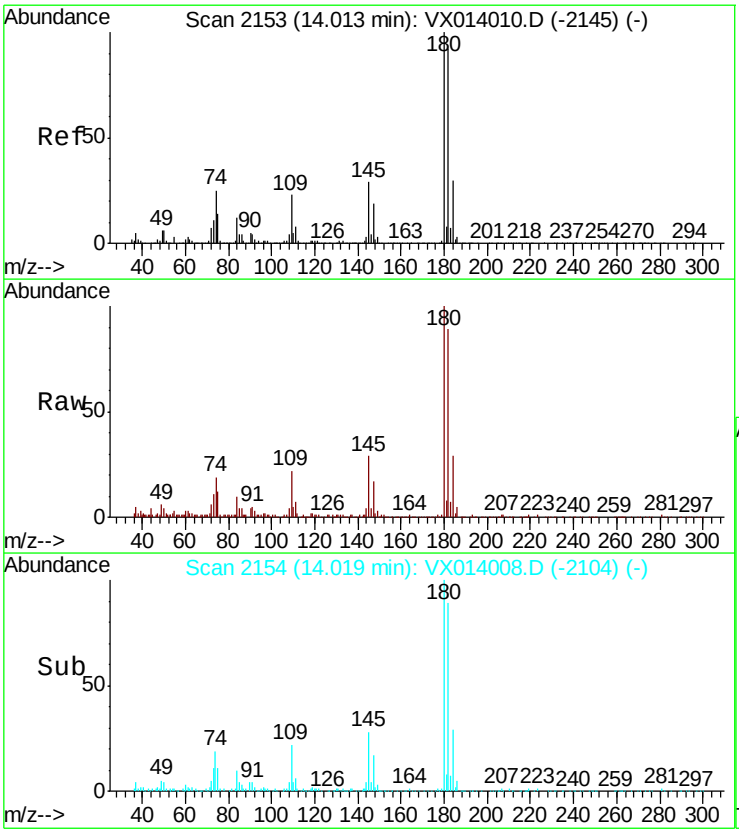
Tgt Ion:128 Resp: 104752

Ion	Ratio	Lower	Upper
128	100		
127	13.1	10.2	15.4
129	11.3	8.7	13.1



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC005

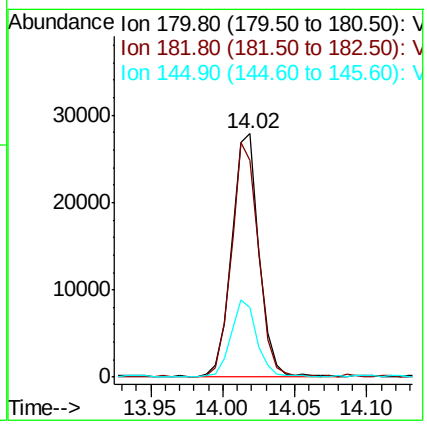
Manual Integrations APPROVED
apatel
12/16/2019 12:45:57 PM



#96
1,2,3-Trichlorobenzene
Concen: 4.492 ug/l
RT: 14.02 min Scan# 2154
Delta R.T. 0.01 min
Lab File: VX014008.D
Acq: 13 Dec 2019 15:12

Tgt Ion:180 Resp: 37168

Ion	Ratio	Lower	Upper
180	100		
182	94.9	46.8	140.3
145	30.9	14.8	44.4



Quantitation Report (QT Reviewed)

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX121319\
Data File : VX014009.D
Acq On : 13 Dec 2019 15:36
Operator : JC/SP
Sample : VSTDICC020
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 5 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
VSTDICC020

Manual Integrations APPROVED
apatel
12/16/2019 12:46:00 PM

Quant Time: Dec 13 16:53:47 2019
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121319W.M
Quant Title : SW846 8260
QLast Update : Fri Dec 13 16:34:01 2019
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	5.65	168	561172	50.00	ug/l	0.00
34) 1,4-Difluorobenzene	6.85	114	855896	50.00	ug/l	0.00
63) Chlorobenzene-d5	10.11	117	774441	50.00	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	12.07	152	385975	50.00	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	6.05	65	116759	17.90	ug/l	0.00
Spiked Amount 50.000			Recovery = 35.80%			
35) Dibromofluoromethane	5.49	113	94491	17.76	ug/l	0.00
Spiked Amount 50.000			Recovery = 35.52%			
50) Toluene-d8	8.71	98	377231	18.14	ug/l	0.00
Spiked Amount 50.000			Recovery = 36.28%			
62) 4-Bromofluorobenzene	11.13	95	132465	17.61	ug/l	0.00
Spiked Amount 50.000			Recovery = 35.22%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.19	85	100145	16.693	ug/l	99
3) Chloromethane	1.32	50	134379	19.355	ug/l	100
4) Vinyl Chloride	1.40	62	138115	17.985	ug/l	99
5) Bromomethane	1.63	94	97452	18.548	ug/l	98
6) Chloroethane	1.70	64	84586	18.891	ug/l	90
7) Trichlorofluoromethane	1.92	101	171935	19.562	ug/l	98
8) Diethyl Ether	2.18	74	78262	19.701	ug/l	100
9) 1,1,2-Trichlorotrifluoroet	2.37	101	103036	19.274	ug/l	98
10) Methyl Iodide	2.50	142	121438	18.704	ug/l	98
11) Tert butyl alcohol	3.04	59	130340	83.396	ug/l	99
12) 1,1-Dichloroethene	2.36	96	103108	19.340	ug/l	95
13) Acrolein	2.28	56	69453	75.486	ug/l	100
14) Allyl chloride	2.72	41	188334	19.482	ug/l	99
15) Acrylonitrile	3.13	53	314077	95.565	ug/l	99
16) Acetone	2.44	43	442352	130.969	ug/l	99
17) Carbon Disulfide	2.56	76	289015	18.978	ug/l	99
18) Methyl Acetate	2.76	43	157554	18.036	ug/l	97
19) Methyl tert-butyl Ether	3.19	73	347847	19.657	ug/l	97
20) Methylene Chloride	2.85	84	122540	19.786	ug/l	97
21) trans-1,2-Dichloroethene	3.15	96	112594	19.351	ug/l	98
22) Diisopropyl ether	3.84	45	379412	20.286	ug/l	98
23) Vinyl Acetate	3.80	43	1591288	102.476	ug/l	100
24) 1,1-Dichloroethane	3.69	63	202585	19.815	ug/l	98
25) 2-Butanone	4.66	43	531013	110.165	ug/l	100
26) 2,2-Dichloropropane	4.57	77	159499	18.932	ug/l	99
27) cis-1,2-Dichloroethene	4.58	96	129255	19.357	ug/l	98
28) Bromochloromethane	5.00	49	83871	23.237	ug/l	99
29) Tetrahydrofuran	5.12	42	278007	95.681	ug/l	98
30) Chloroform	5.20	83	198154	19.149	ug/l	100
31) Cyclohexane	5.57	56	188485	19.501	ug/l	99
32) 1,1,1-Trichloroethane	5.48	97	165760	19.179	ug/l	100
36) 1,1-Dichloropropene	5.79	75	150043	19.299	ug/l	99
37) Ethyl Acetate	4.82	43	176262	20.322	ug/l	100
38) Carbon Tetrachloride	5.78	117	137619	19.190	ug/l	98

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX121319\
Data File : VX014009.D
Acq On : 13 Dec 2019 15:36
Operator : JC/SP
Sample : VSTDICC020
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 5 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
VSTDICC020

Manual Integrations APPROVED
apatel
12/16/2019 12:46:00 PM

Quant Time: Dec 13 16:53:47 2019
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121319W.M
Quant Title : SW846 8260
QLast Update : Fri Dec 13 16:34:01 2019
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
39) Methylcyclohexane	7.46	83	188922	19.624	ug/l		99
40) Benzene	6.14	78	467882	19.717	ug/l		99
41) Methacrylonitrile	5.03	41	98272	20.757	ug/l		97
42) 1,2-Dichloroethane	6.18	62	164380	20.343	ug/l		98
43) Isopropyl Acetate	6.43	43	278854	19.464	ug/l		99
44) Trichloroethene	7.20	130	123460	19.026	ug/l		97
45) 1,2-Dichloropropane	7.51	63	121446	20.417	ug/l		98
46) Dibromomethane	7.65	93	77866	19.342	ug/l		99
47) Bromodichloromethane	7.89	83	146845	19.300	ug/l		98
48) Methyl methacrylate	7.76	41	138872	19.994	ug/l		99
49) 1,4-Dioxane	7.74	88	57224	374.066	ug/l		99
51) 4-Methyl-2-Pentanone	8.64	43	901825	100.248	ug/l		99
52) Toluene	8.78	92	297851	20.179	ug/l		100
53) t-1,3-Dichloropropene	9.04	75	163783	18.924	ug/l		99
54) cis-1,3-Dichloropropene	8.43	75	186886	19.745	ug/l		98
55) 1,1,2-Trichloroethane	9.21	97	122064	20.547	ug/l		97
56) Ethyl methacrylate	9.17	69	190229	19.884	ug/l		99
57) 1,3-Dichloropropane	9.37	76	201576	19.662	ug/l		99
58) 2-Chloroethyl Vinyl ether	8.31	63	369372	98.492	ug/l		99
59) 2-Hexanone	9.49	43	751678	106.184	ug/l		98
60) Dibromochloromethane	9.58	129	118485	19.287	ug/l		98
61) 1,2-Dibromoethane	9.67	107	123768	19.532	ug/l		100
64) Tetrachloroethene	9.33	164	124901	20.900	ug/l		98
65) Chlorobenzene	10.14	112	318103	19.673	ug/l		98
66) 1,1,1,2-Tetrachloroethane	10.21	131	114466	19.771	ug/l		98
67) Ethyl Benzene	10.24	91	554140	19.966	ug/l		99
68) m/p-Xylenes	10.35	106	423145	39.768	ug/l		99
69) o-Xylene	10.70	106	206600	19.910	ug/l		99
70) Styrene	10.71	104	348489	19.907	ug/l		99
71) Bromoform	10.85	173	86794	18.175	ug/l	#	100
73) Isopropylbenzene	11.01	105	544940	20.101	ug/l		100
74) N-amyl acetate	10.89	43	252737	20.351	ug/l		99
75) 1,1,2,2-Tetrachloroethane	11.26	83	188950	20.130	ug/l		100
76) 1,2,3-Trichloropropane	11.29	75	171818m	19.876	ug/l		
77) Bromobenzene	11.25	156	143527	19.642	ug/l		97
78) n-propylbenzene	11.35	91	609085	20.092	ug/l		100
79) 2-Chlorotoluene	11.42	91	367875	20.172	ug/l		100
80) 1,3,5-Trimethylbenzene	11.50	105	457399	20.527	ug/l		99
81) trans-1,4-Dichloro-2-buten	11.07	75	55573	17.623	ug/l		92
82) 4-Chlorotoluene	11.51	91	420244	19.957	ug/l		99
83) tert-Butylbenzene	11.76	119	442556	19.713	ug/l		99
84) 1,2,4-Trimethylbenzene	11.81	105	457262	20.233	ug/l		100
85) sec-Butylbenzene	11.94	105	513400	19.872	ug/l		100
86) p-Isopropyltoluene	12.06	119	475332	19.806	ug/l		99
87) 1,3-Dichlorobenzene	12.02	146	249596	19.556	ug/l		98
88) 1,4-Dichlorobenzene	12.09	146	246732	18.953	ug/l		99
89) n-Butylbenzene	12.38	91	390195	19.038	ug/l		99
90) Hexachloroethane	12.59	117	82875	19.051	ug/l		99
91) 1,2-Dichlorobenzene	12.38	146	251890	19.914	ug/l		99
92) 1,2-Dibromo-3-Chloropropan	12.99	75	37989	18.769	ug/l		100

ICAL Form

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX121319\
Data File : VX014009.D
Acq On : 13 Dec 2019 15:36
Operator : JC/SP
Sample : VSTDICC020
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 5 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
VSTDICC020

Manual Integrations APPROVED
apatel
12/16/2019 12:46:00 PM

Quant Time: Dec 13 16:53:47 2019
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121319W.M
Quant Title : SW846 8260
QLast Update : Fri Dec 13 16:34:01 2019
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
93) 1,2,4-Trichlorobenzene	13.64	180	156382	17.900 ug/l	98
94) Hexachlorobutadiene	13.78	225	74336	17.583 ug/l	97
95) Naphthalene	13.83	128	485683	18.715 ug/l	99
96) 1,2,3-Trichlorobenzene	14.01	180	159787	18.389 ug/l	99

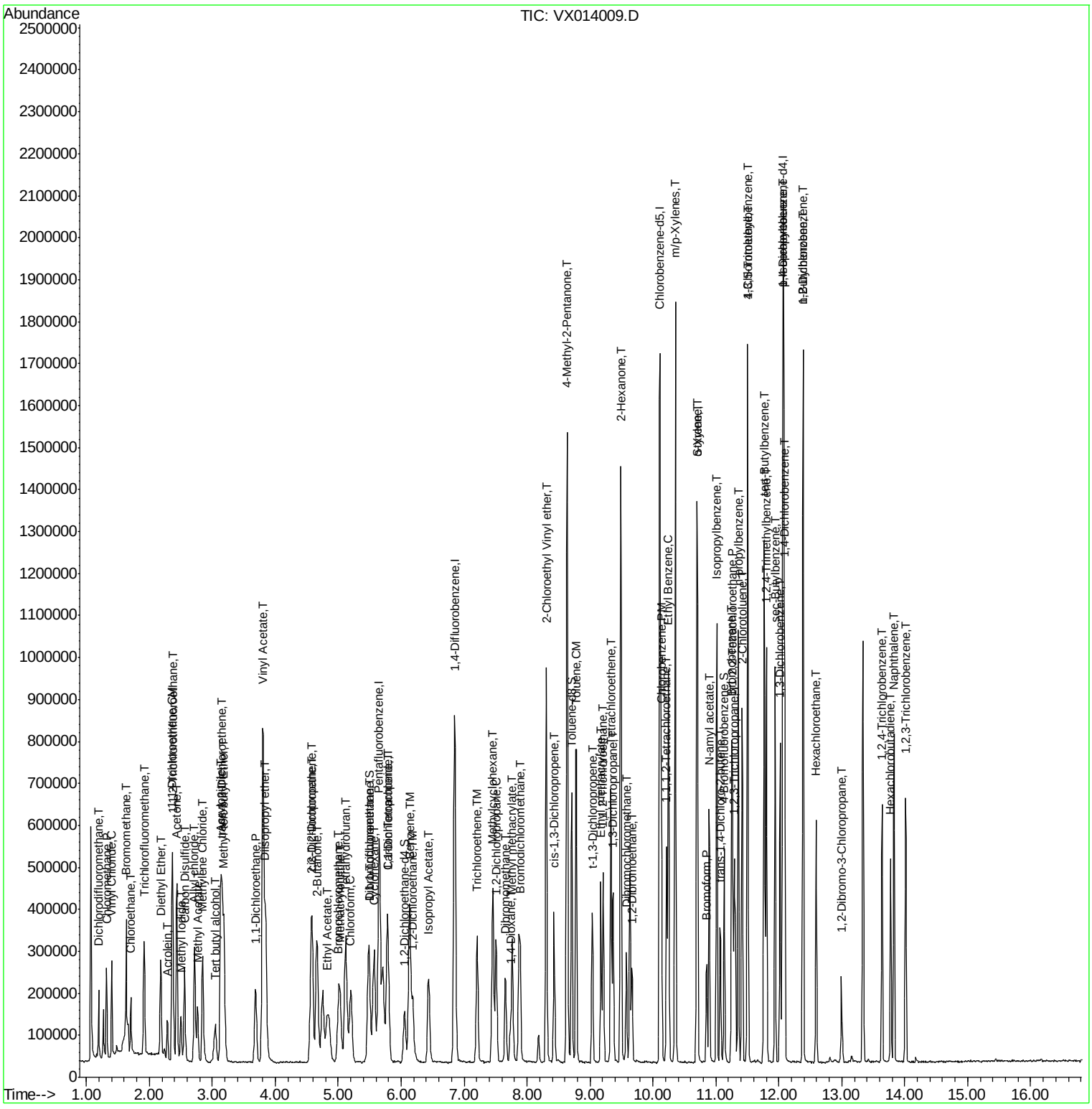
(#) = qualifier out of range (m) = manual integration (+) = signals summed

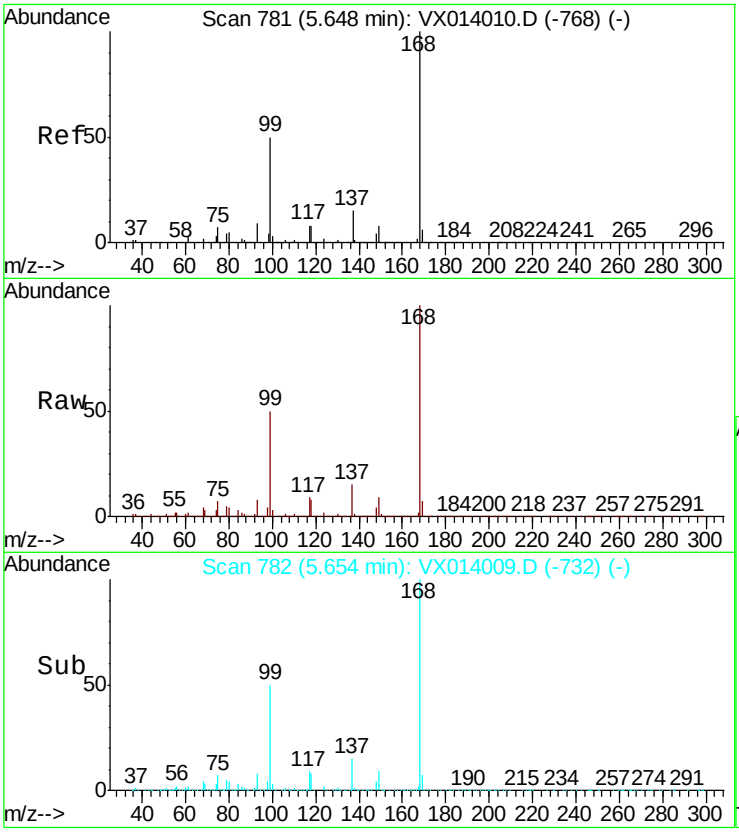
Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX121319\
Data File : VX014009.D
Acq On : 13 Dec 2019 15:36
Operator : JC/SP
Sample : VSTDICC020
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Dec 13 16:53:47 2019
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121319W.M
Quant Title : SW846 8260
QLast Update : Fri Dec 13 16:34:01 2019
Response via : Initial Calibration

Instrument :
MSVOA_X
ClientSampleId :
VSTDICC020

Manual Integrations APPROVED
apatel
12/16/2019 12:46:00 PM

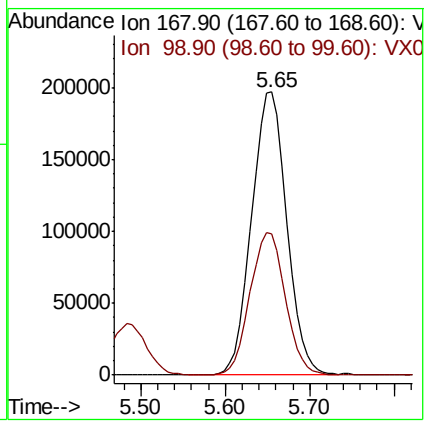


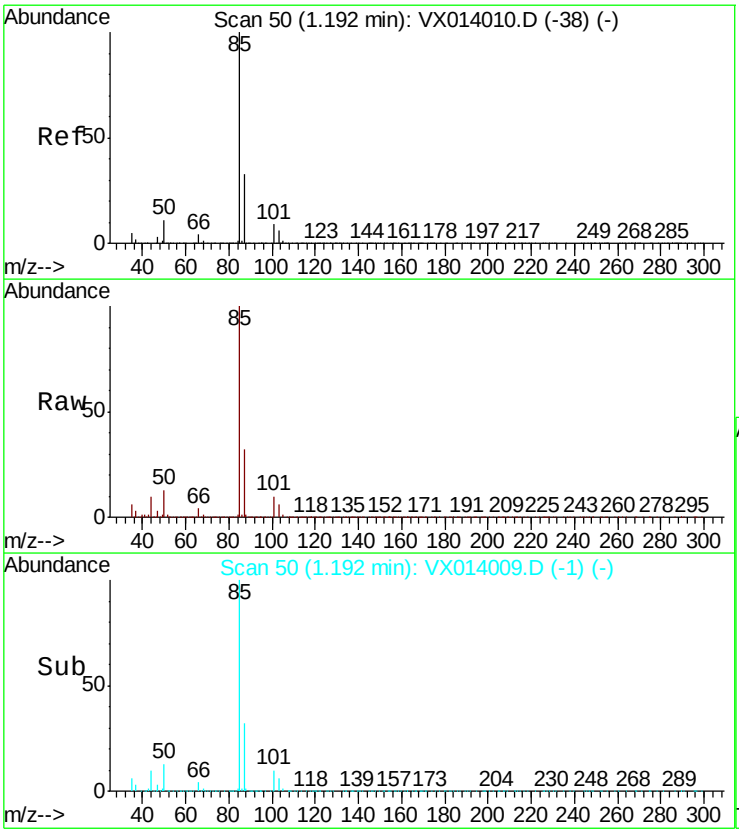


#1
Pentafluorobenzene
Concen: 50.000 ug/l
RT: 5.65 min Scan# 782
Delta R.T. 0.01 min
Lab File: VX014009.D
Acq: 13 Dec 2019 15:36

Tgt Ion:168 Resp: 561172

Ion	Ratio	Lower	Upper
168	100		
99	49.8	40.3	60.5

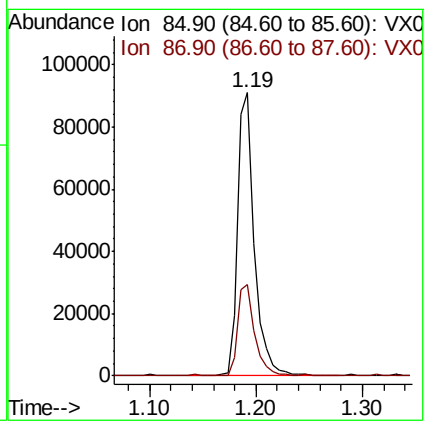




#2
Dichlorodifluoromethane
Concen: 16.693 ug/l
RT: 1.19 min Scan# 50
Delta R.T. -0.00 min
Lab File: VX014009.D
Acq: 13 Dec 2019 15:36

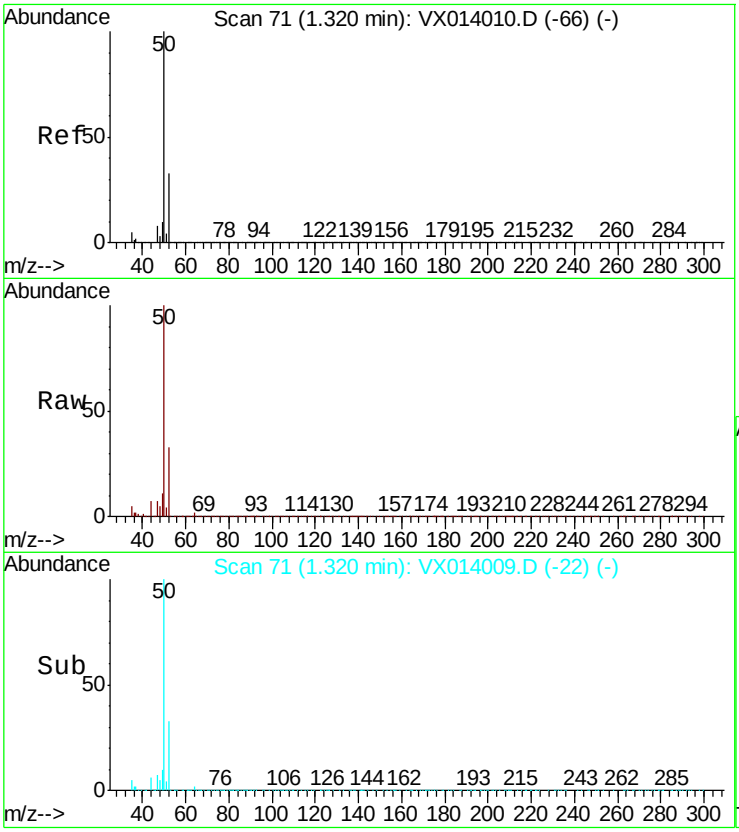
Tgt Ion: 85 Resp: 100145

Ion	Ratio	Lower	Upper
85	100		
87	32.2	16.4	49.2



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC020

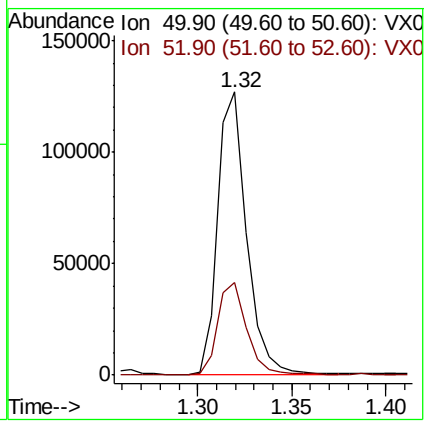
Manual Integrations APPROVED
apatel
12/16/2019 12:46:00 PM



#3
Chloromethane
Concen: 19.355 ug/l
RT: 1.32 min Scan# 71
Delta R.T. -0.00 min
Lab File: VX014009.D
Acq: 13 Dec 2019 15:36

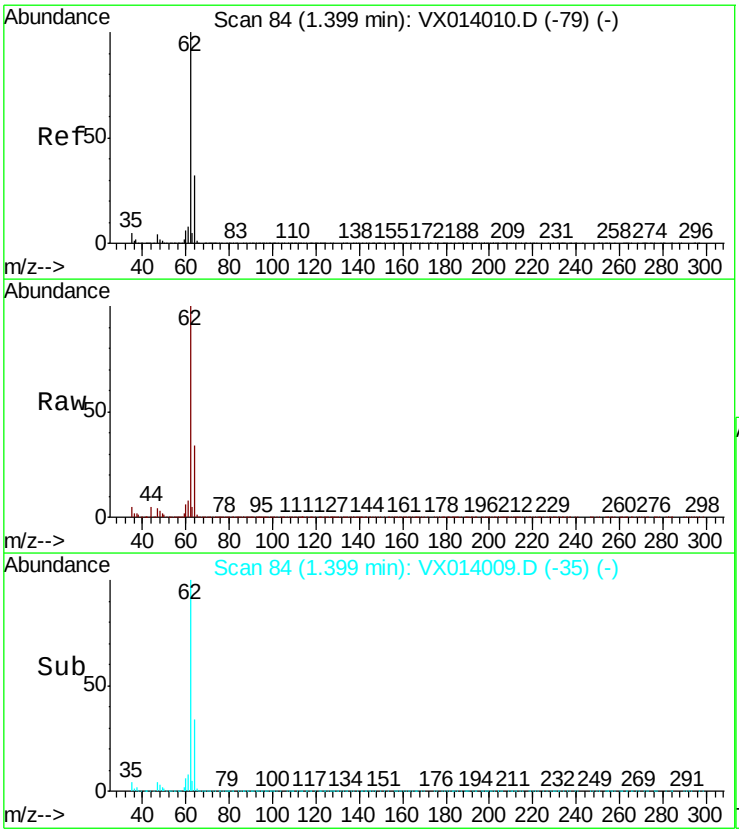
Tgt Ion: 50 Resp: 134379

Ion	Ratio	Lower	Upper
50	100		
52	32.7	26.2	39.4



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC020

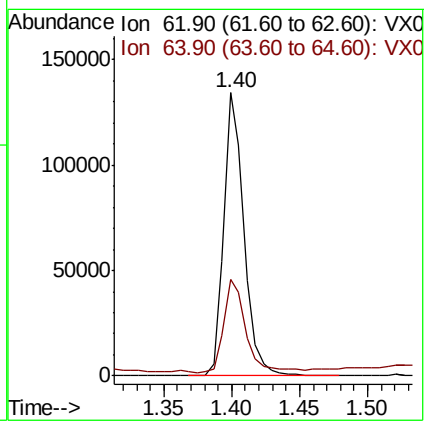
Manual Integrations APPROVED
apatel
12/16/2019 12:46:00 PM

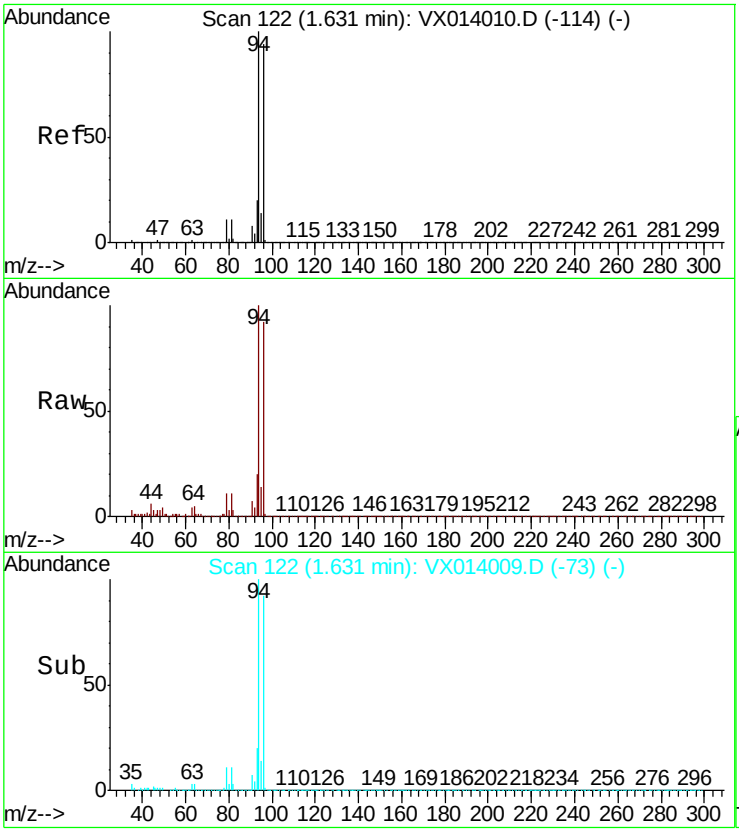


#4
Vinyl Chloride
Concen: 17.985 ug/l
RT: 1.40 min Scan# 84
Delta R.T. -0.00 min
Lab File: VX014009.D
Acq: 13 Dec 2019 15:36

Tgt Ion: 62 Resp: 138115

Ion	Ratio	Lower	Upper
62	100		
64	32.4	25.7	38.5

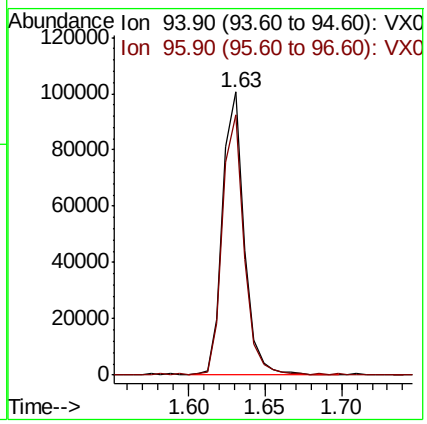




#5
Bromomethane
Concen: 18.548 ug/l
RT: 1.63 min Scan# 122
Delta R.T. -0.00 min
Lab File: VX014009.D
Acq: 13 Dec 2019 15:36

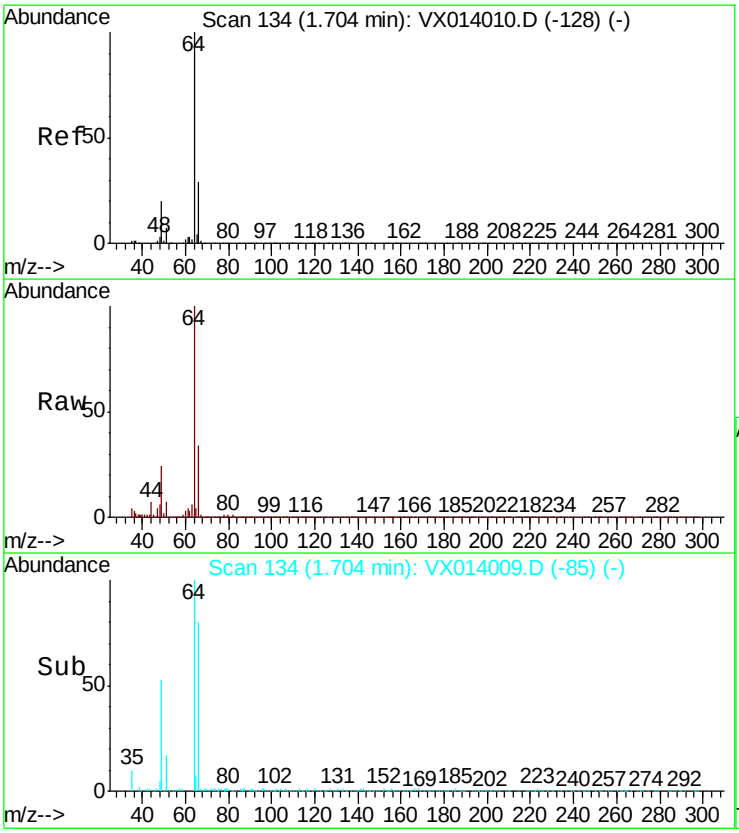
Tgt Ion: 94 Resp: 97452

Ion	Ratio	Lower	Upper
94	100		
96	91.8	75.2	112.8



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC020

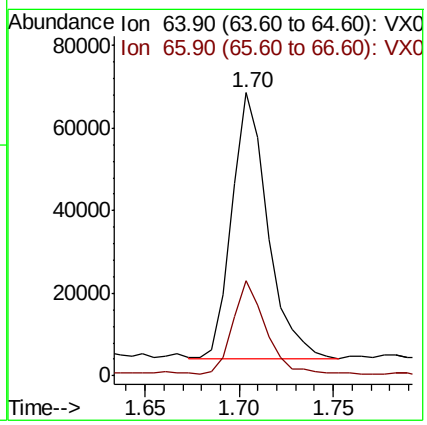
Manual Integrations APPROVED
apatel
12/16/2019 12:46:00 PM



#6
Chloroethane
Concen: 18.891 ug/l
RT: 1.70 min Scan# 134
Delta R.T. -0.00 min
Lab File: VX014009.D
Acq: 13 Dec 2019 15:36

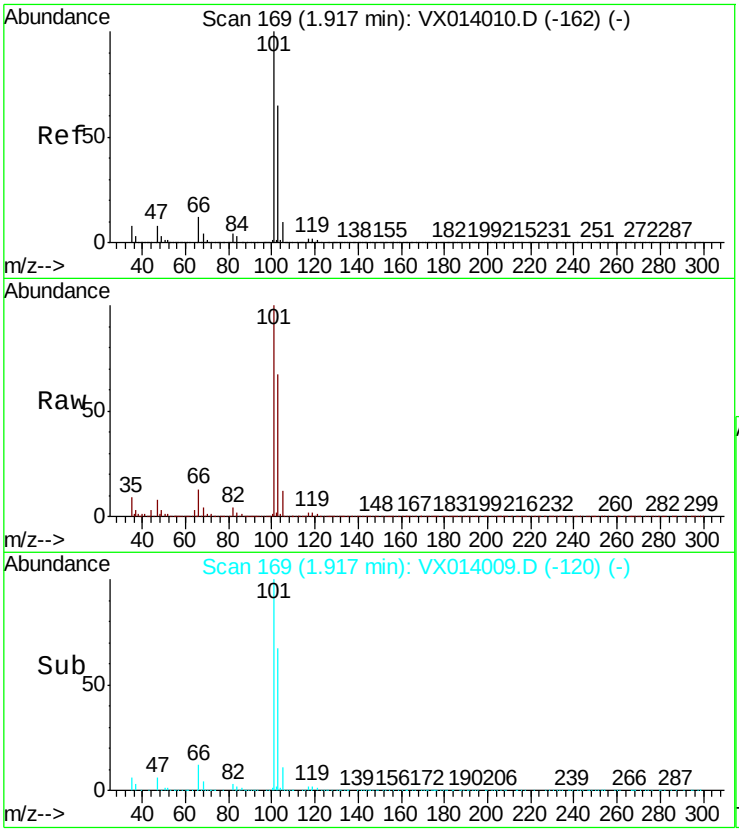
Tgt Ion: 64 Resp: 84586

Ion	Ratio	Lower	Upper
64	100		
66	34.8	23.4	35.2



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC020

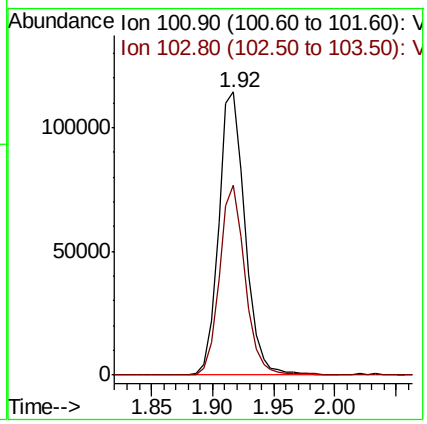
Manual Integrations APPROVED
apatel
12/16/2019 12:46:00 PM

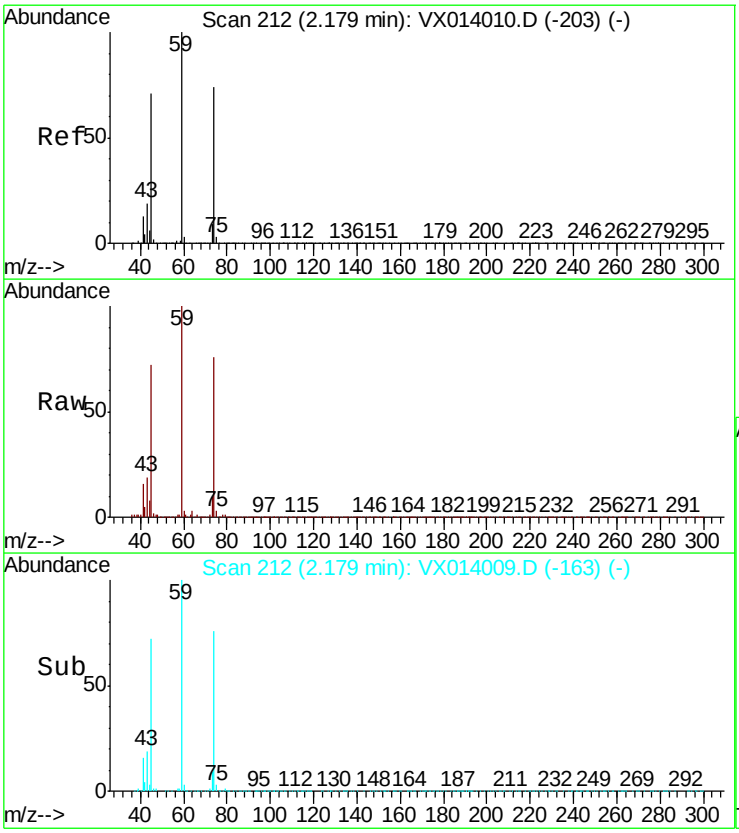


#7
Trichlorofluoromethane
Concen: 19.562 ug/l
RT: 1.92 min Scan# 169
Delta R.T. -0.00 min
Lab File: VX014009.D
Acq: 13 Dec 2019 15:36

Tgt Ion:101 Resp: 171935

Ion	Ratio	Lower	Upper
101	100		
103	67.0	52.2	78.4

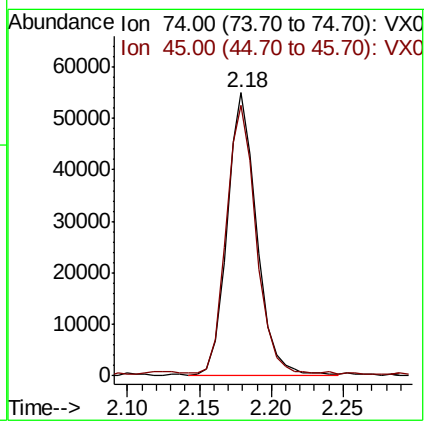


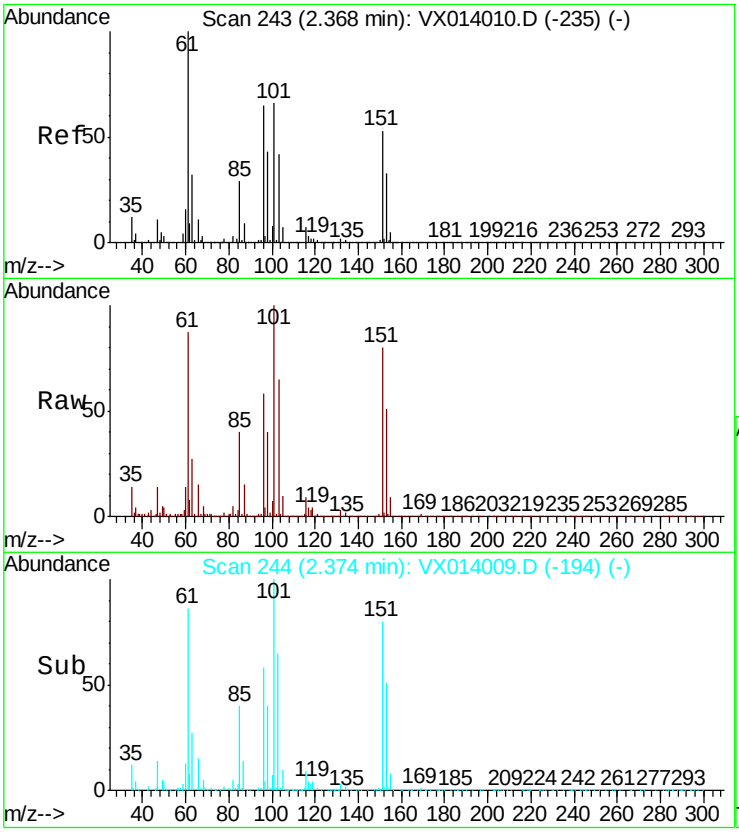


#8
Diethyl Ether
Concen: 19.701 ug/l
RT: 2.18 min Scan# 212
Delta R.T. -0.00 min
Lab File: VX014009.D
Acq: 13 Dec 2019 15:36

Tgt Ion: 74 Resp: 78262

Ion	Ratio	Lower	Upper
74	100		
45	96.6	48.1	144.3

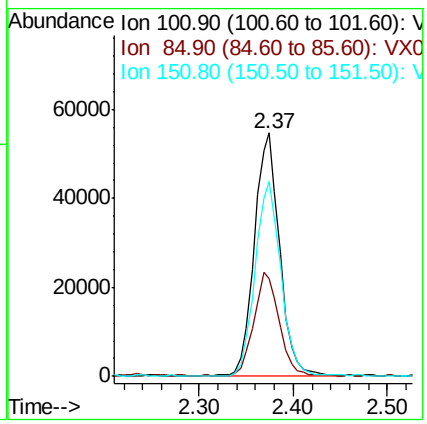




#9
1,1,2-Trichlorotrifluoroethane
Concen: 19.274 ug/l
RT: 2.37 min Scan# 244
Delta R.T. 0.01 min
Lab File: VX014009.D
Acq: 13 Dec 2019 15:36

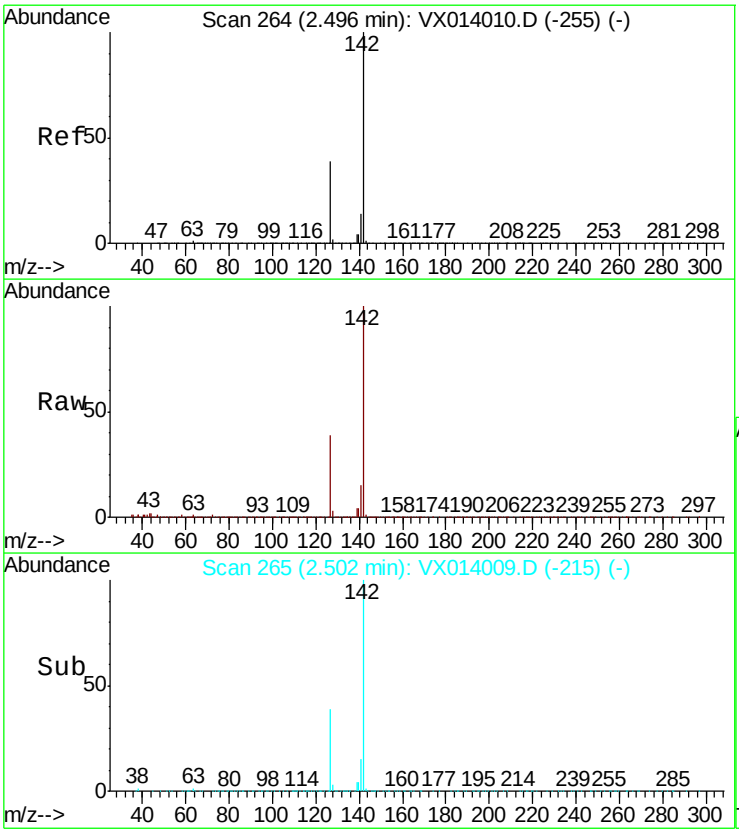
Tgt Ion:101 Resp: 103036

Ion	Ratio	Lower	Upper
101	100		
85	42.6	33.7	50.5
151	82.8	64.5	96.7



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC020

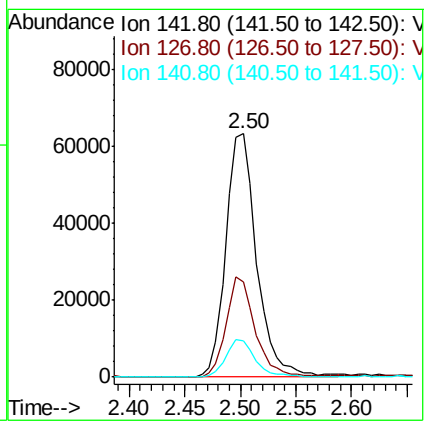
Manual Integrations APPROVED
apatel
12/16/2019 12:46:00 PM



#10
Methyl Iodide
Concen: 18.704 ug/l
RT: 2.50 min Scan# 265
Delta R.T. 0.01 min
Lab File: VX014009.D
Acq: 13 Dec 2019 15:36

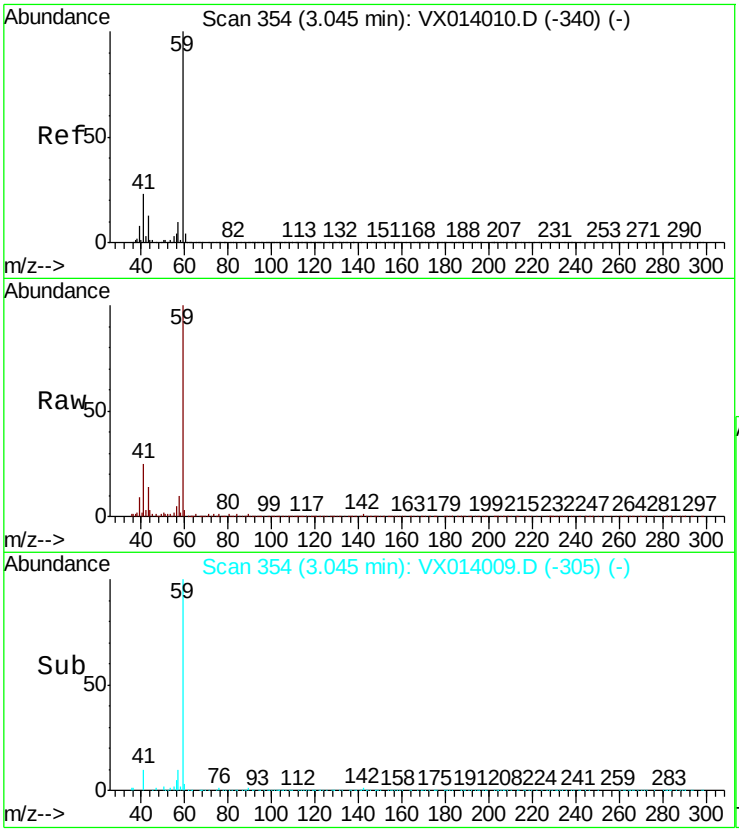
Tgt Ion:142 Resp: 121438

Ion	Ratio	Lower	Upper
142	100		
127	38.5	31.6	47.4
141	14.1	11.6	17.4



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC020

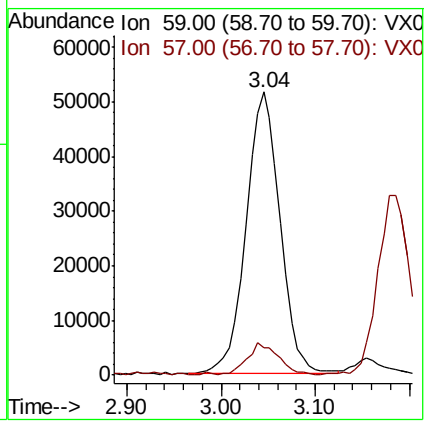
Manual Integrations APPROVED
apatel
12/16/2019 12:46:00 PM

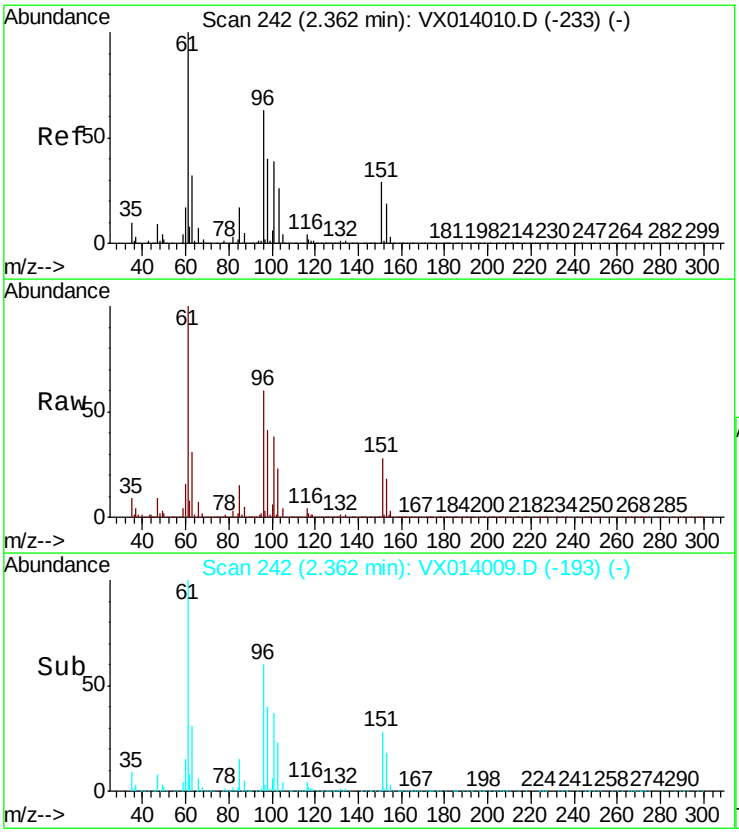


#11
Tert butyl alcohol
Concen: 83.396 ug/l
RT: 3.04 min Scan# 354
Delta R.T. -0.00 min
Lab File: VX014009.D
Acq: 13 Dec 2019 15:36

Tgt Ion: 59 Resp: 130340

Ion	Ratio	Lower	Upper
59	100		
57	10.0	8.4	12.6

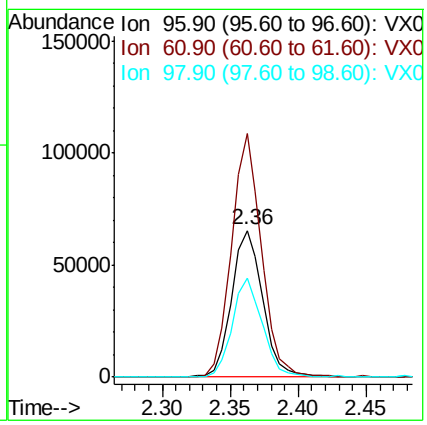




#12
1,1-Dichloroethene
Concen: 19.340 ug/l
RT: 2.36 min Scan# 242
Delta R.T. -0.00 min
Lab File: VX014009.D
Acq: 13 Dec 2019 15:36

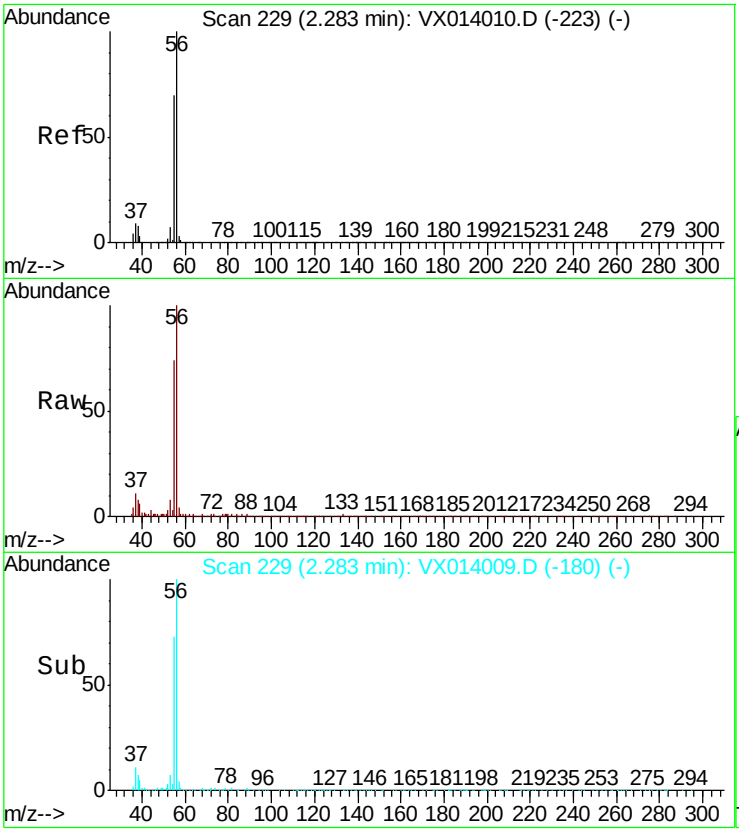
Tgt Ion: 96 Resp: 103108

Ion	Ratio	Lower	Upper
96	100		
61	165.7	127.9	191.9
98	67.2	50.5	75.7



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC020

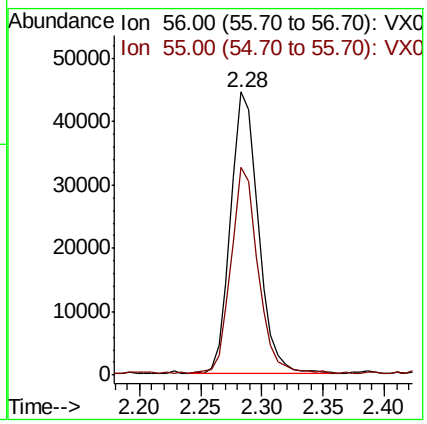
Manual Integrations APPROVED
apatel
12/16/2019 12:46:00 PM

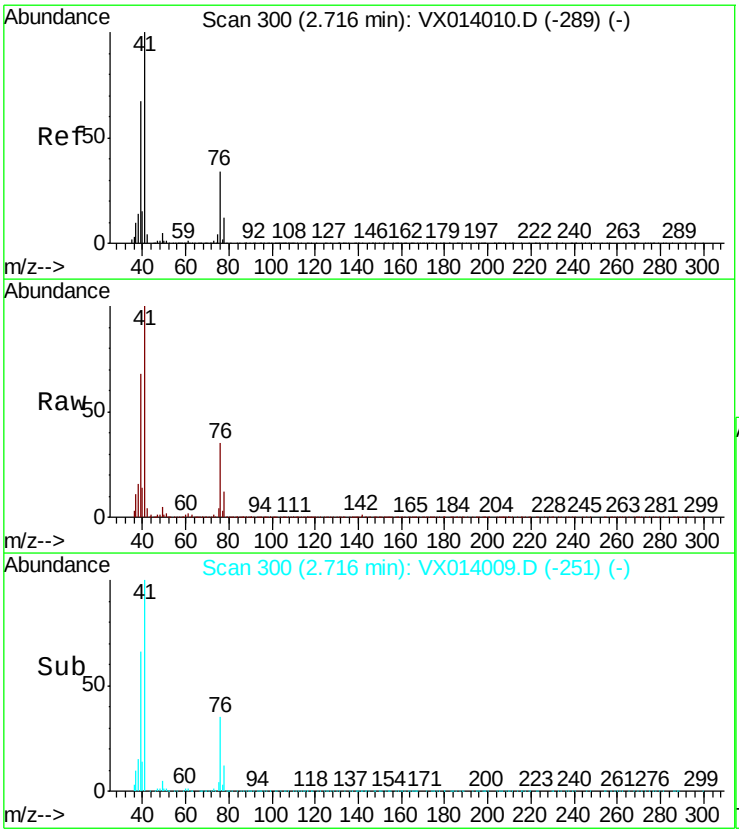


#13
Acrolein
Concen: 75.486 ug/l
RT: 2.28 min Scan# 229
Delta R.T. -0.00 min
Lab File: VX014009.D
Acq: 13 Dec 2019 15:36

Tgt Ion: 56 Resp: 69453

Ion	Ratio	Lower	Upper
56	100		
55	71.2	56.9	85.3

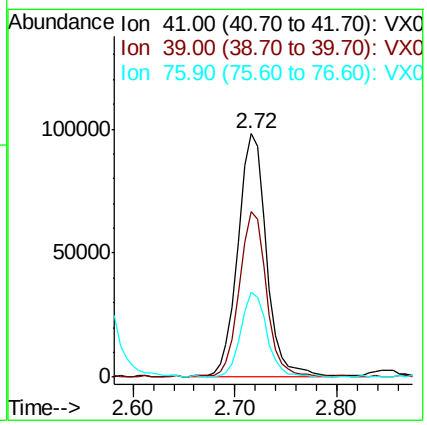


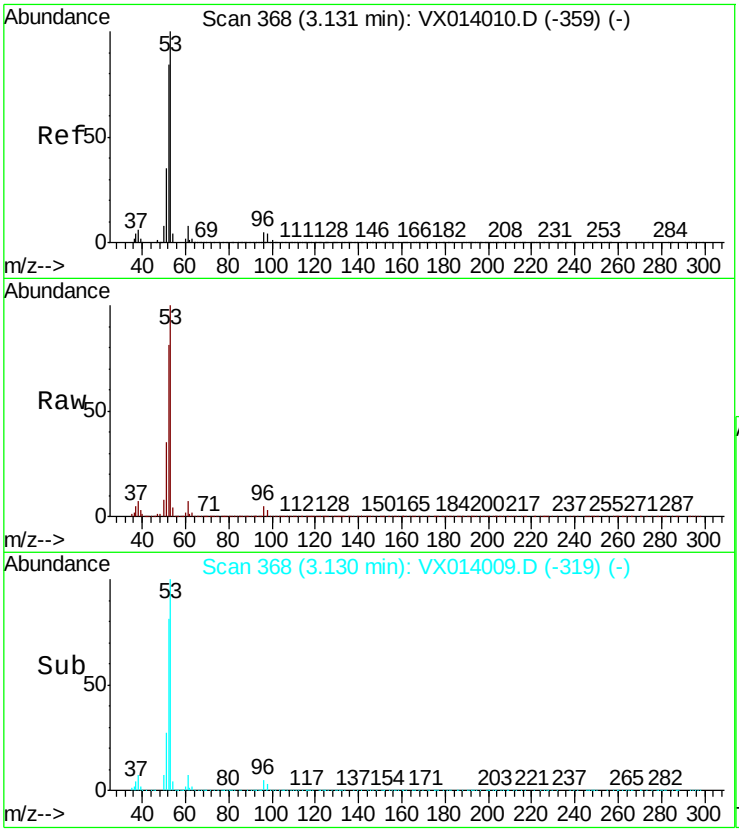


#14
Allyl chloride
Concen: 19.482 ug/l
RT: 2.72 min Scan# 300
Delta R.T. -0.00 min
Lab File: VX014009.D
Acq: 13 Dec 2019 15:36

Tgt Ion: 41 Resp: 188334

Ion	Ratio	Lower	Upper
41	100		
39	64.5	51.8	77.8
76	31.5	25.9	38.9

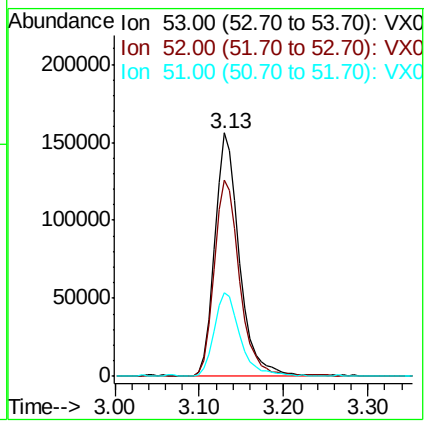




#15
Acrylonitrile
Concen: 95.565 ug/l
RT: 3.13 min Scan# 368
Delta R.T. -0.00 min
Lab File: VX014009.D
Acq: 13 Dec 2019 15:36

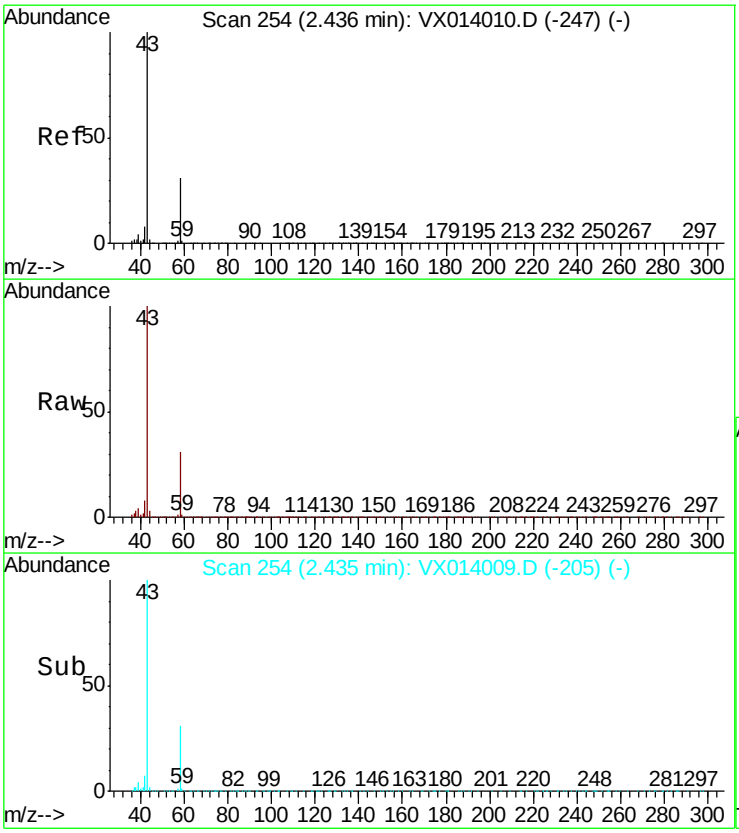
Tgt Ion: 53 Resp: 314077

Ion	Ratio	Lower	Upper
53	100		
52	82.8	66.5	99.7
51	35.7	28.1	42.1



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC020

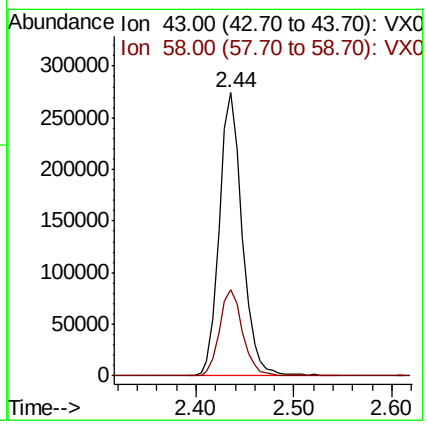
Manual Integrations APPROVED
apatel
12/16/2019 12:46:00 PM

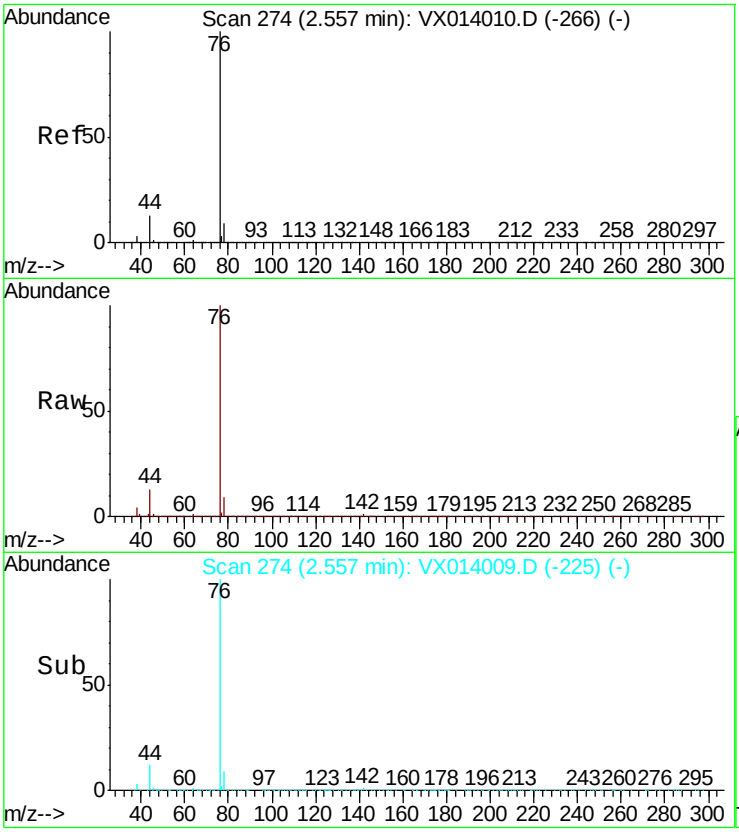


#16
Acetone
Concen: 130.969 ug/l
RT: 2.44 min Scan# 254
Delta R.T. -0.00 min
Lab File: VX014009.D
Acq: 13 Dec 2019 15:36

Tgt Ion: 43 Resp: 442352

Ion	Ratio	Lower	Upper
43	100		
58	30.6	24.9	37.3

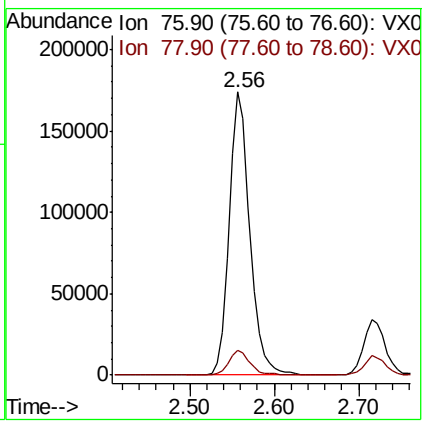


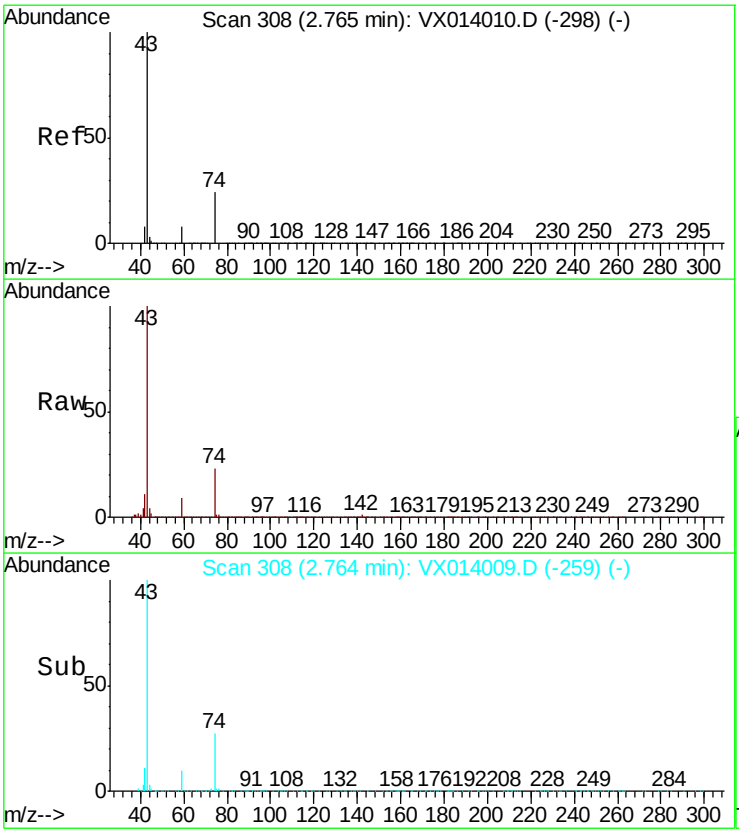


#17
Carbon Disulfide
Concen: 18.978 ug/l
RT: 2.56 min Scan# 274
Delta R.T. -0.00 min
Lab File: VX014009.D
Acq: 13 Dec 2019 15:36

Tgt Ion: 76 Resp: 289015

Ion	Ratio	Lower	Upper
76	100		
78	8.5	7.2	10.8

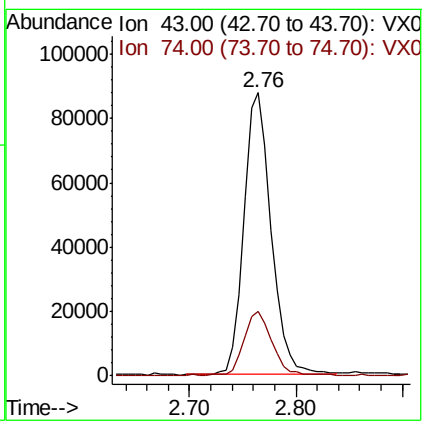




#18
Methyl Acetate
Concen: 18.036 ug/l
RT: 2.76 min Scan# 308
Delta R.T. -0.00 min
Lab File: VX014009.D
Acq: 13 Dec 2019 15:36

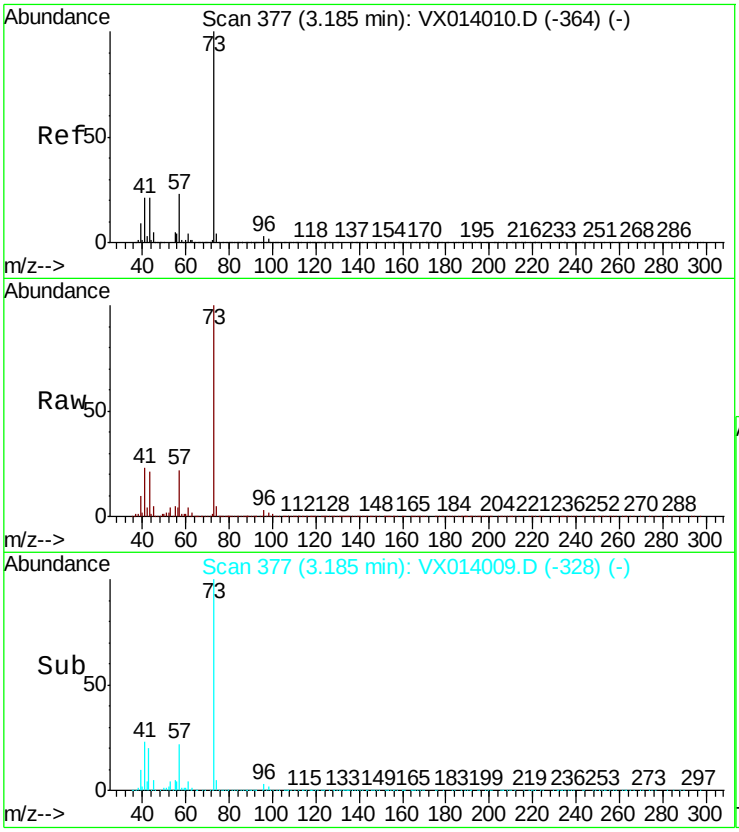
Tgt Ion: 43 Resp: 157554

Ion	Ratio	Lower	Upper
43	100		
74	23.1	19.5	29.3



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC020

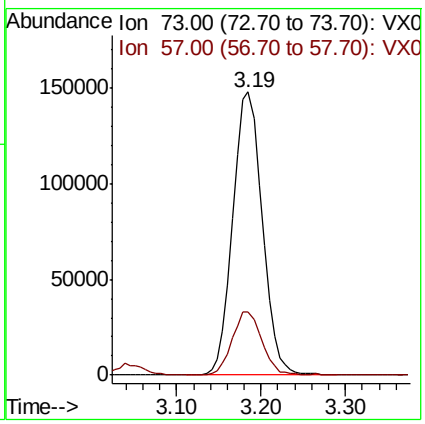
Manual Integrations APPROVED
apatel
12/16/2019 12:46:00 PM



#19
Methyl tert-butyl Ether
Concen: 19.657 ug/l
RT: 3.19 min Scan# 377
Delta R.T. -0.00 min
Lab File: VX014009.D
Acq: 13 Dec 2019 15:36

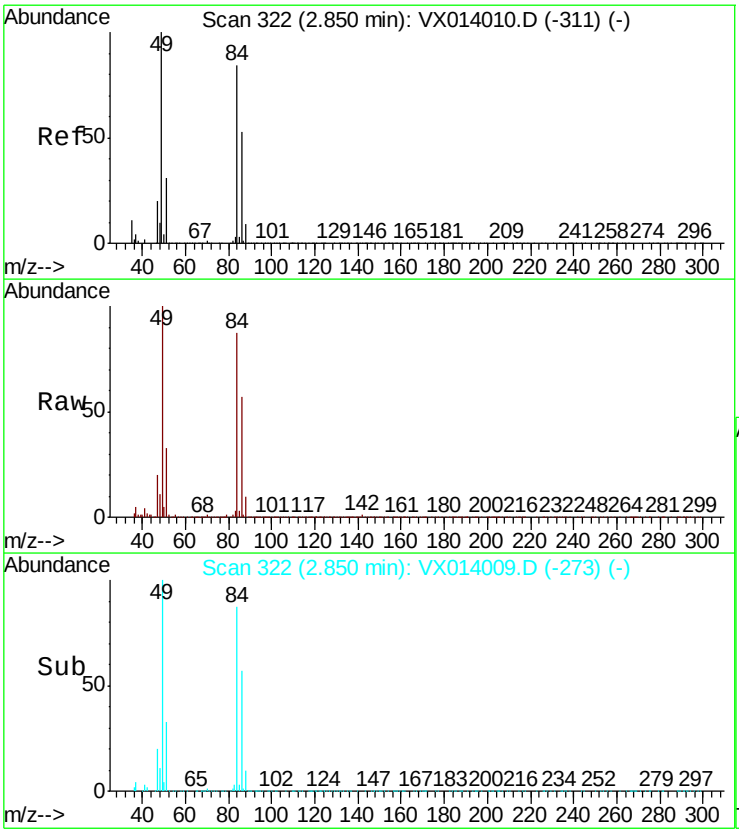
Tgt Ion: 73 Resp: 347847

Ion	Ratio	Lower	Upper
73	100		
57	22.0	18.8	28.2



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC020

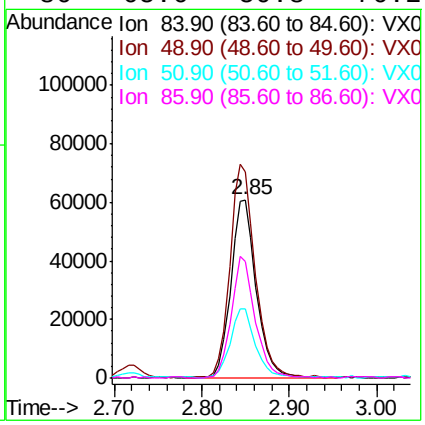
Manual Integrations APPROVED
apatel
12/16/2019 12:46:00 PM



#20
Methylene Chloride
Concen: 19.786 ug/l
RT: 2.85 min Scan# 322
Delta R.T. -0.00 min
Lab File: VX014009.D
Acq: 13 Dec 2019 15:36

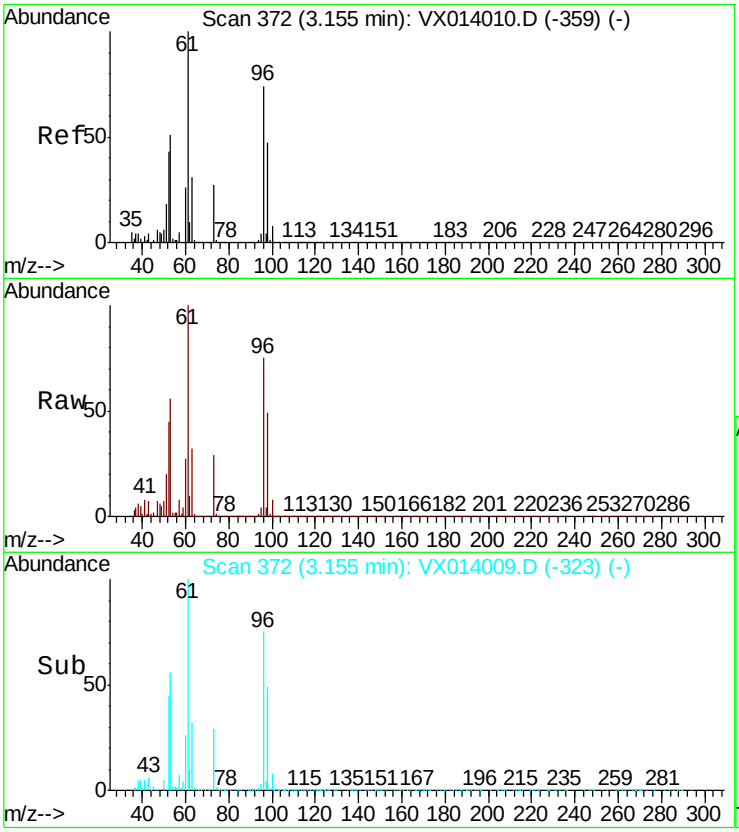
Tgt Ion: 84 Resp: 122540

Ion	Ratio	Lower	Upper
84	100		
49	115.3	95.8	143.6
51	38.2	29.8	44.8
86	65.6	50.8	76.2



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC020

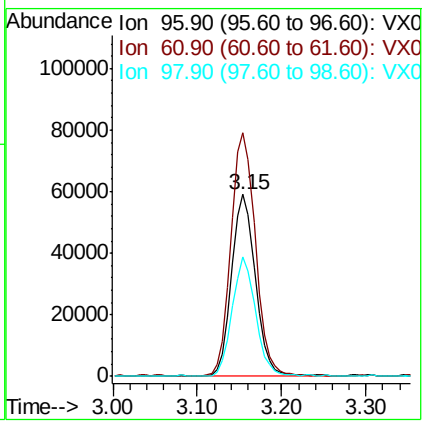
Manual Integrations APPROVED
apatel
12/16/2019 12:46:00 PM

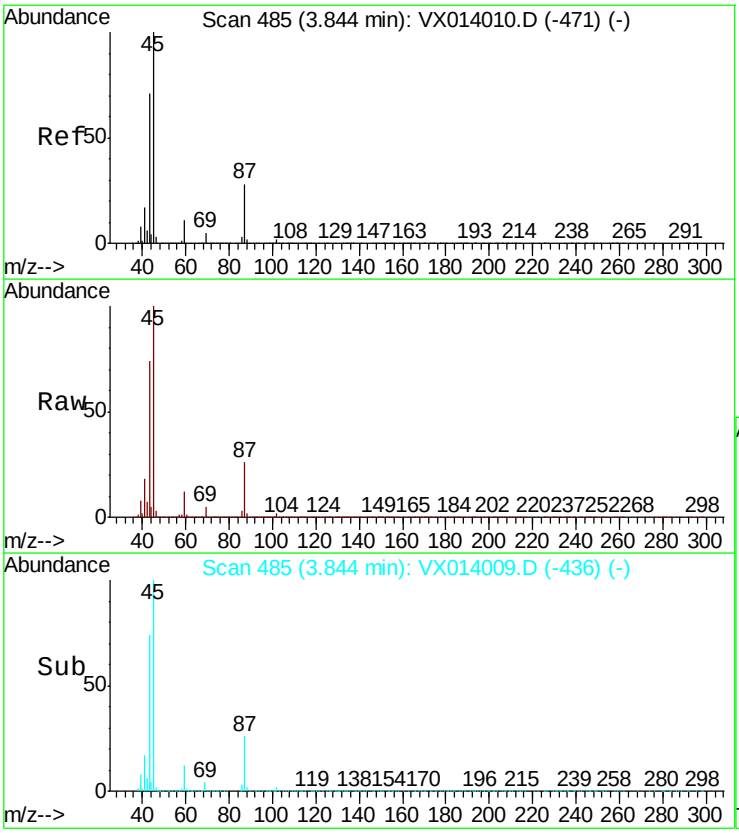


#21
trans-1,2-Dichloroethene
Concen: 19.351 ug/l
RT: 3.15 min Scan# 372
Delta R.T. -0.00 min
Lab File: VX014009.D
Acq: 13 Dec 2019 15:36

Tgt Ion: 96 Resp: 112594

Ion	Ratio	Lower	Upper
96	100		
61	134.0	108.3	162.5
98	65.7	50.8	76.2

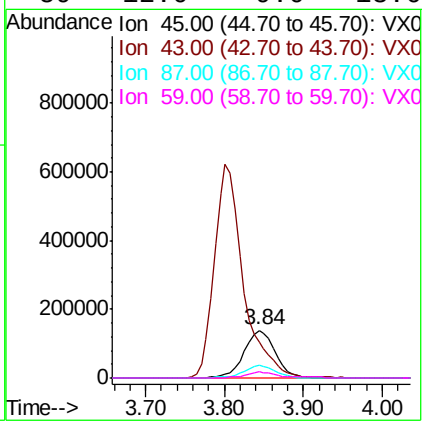


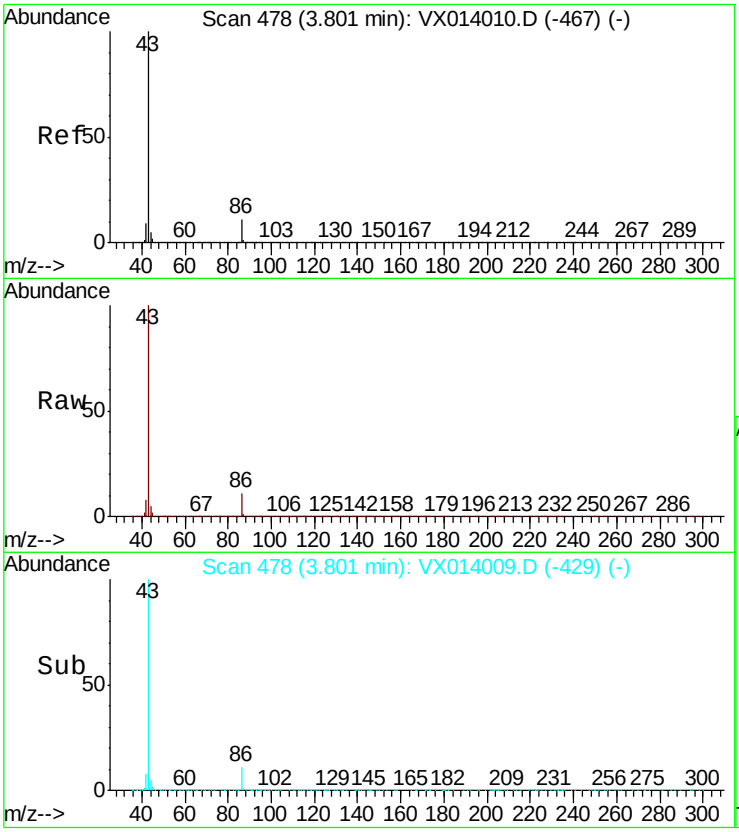


#22
Diisopropyl ether
Concen: 20.286 ug/l
RT: 3.84 min Scan# 485
Delta R.T. -0.00 min
Lab File: VX014009.D
Acq: 13 Dec 2019 15:36

Tgt Ion: 45 Resp: 379412

Ion	Ratio	Lower	Upper
45	100		
43	73.6	57.4	86.0
87	26.2	21.9	32.9
59	12.0	9.0	13.6

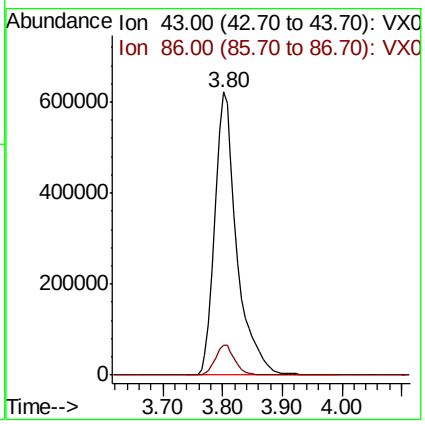




#23
Vinyl Acetate
Concen: 102.476 ug/l
RT: 3.80 min Scan# 478
Delta R.T. -0.00 min
Lab File: VX014009.D
Acq: 13 Dec 2019 15:36

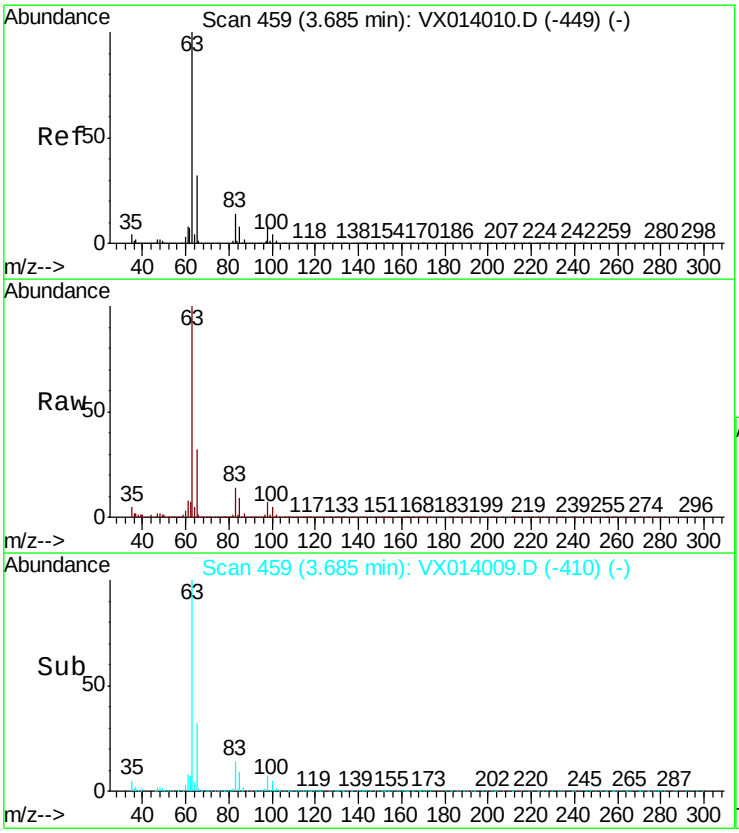
Tgt Ion: 43 Resp: 1591288

Ion	Ratio	Lower	Upper
43	100		
86	10.7	8.6	12.8



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC020

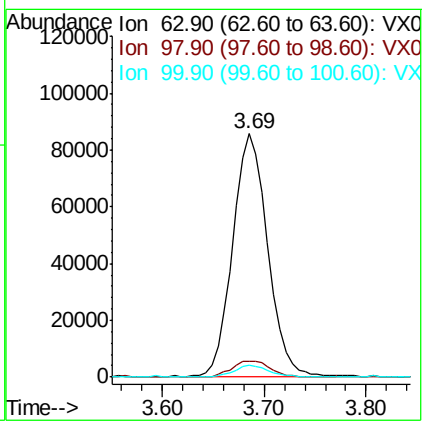
Manual Integrations APPROVED
apatel
12/16/2019 12:46:00 PM

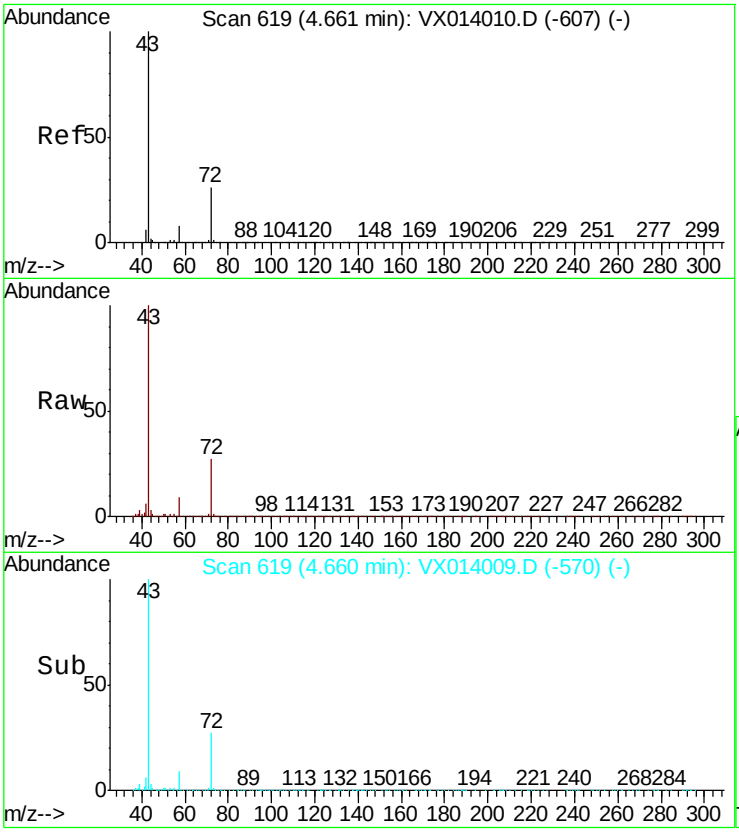


#24
1,1-Dichloroethane
Concen: 19.815 ug/l
RT: 3.69 min Scan# 459
Delta R.T. -0.00 min
Lab File: VX014009.D
Acq: 13 Dec 2019 15:36

Tgt Ion: 63 Resp: 202585

Ion	Ratio	Lower	Upper
63	100		
98	6.3	3.6	10.8
100	4.6	2.3	6.8

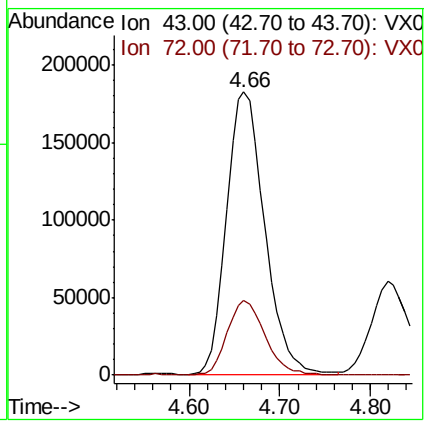




#25
2-Butanone
Concen: 110.165 ug/l
RT: 4.66 min Scan# 619
Delta R.T. -0.00 min
Lab File: VX014009.D
Acq: 13 Dec 2019 15:36

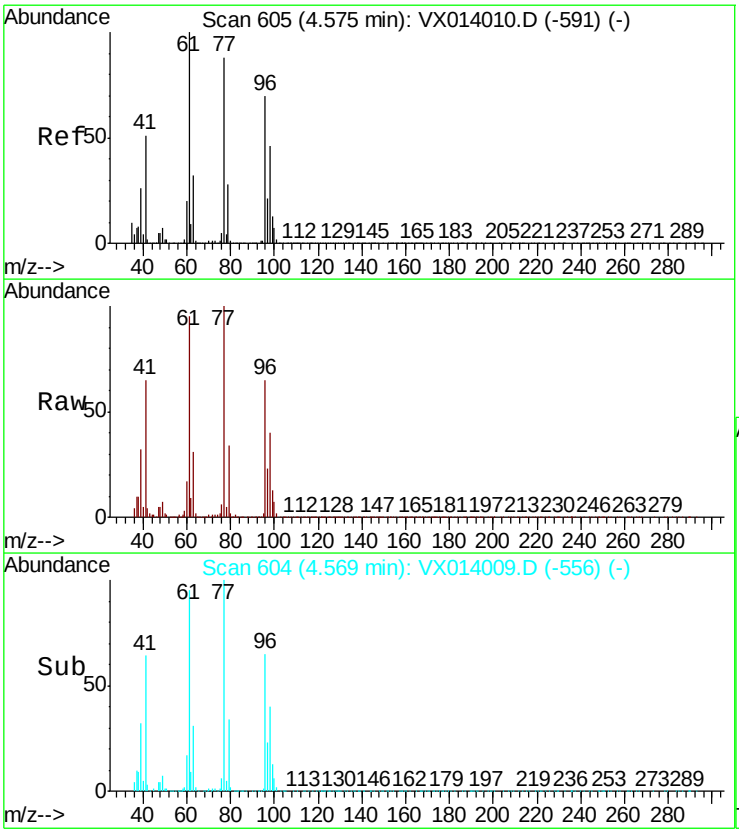
Tgt Ion: 43 Resp: 531013

Ion	Ratio	Lower	Upper
43	100		
72	26.3	21.0	31.4



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC020

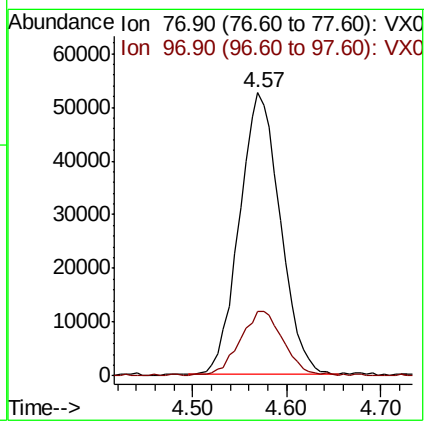
Manual Integrations APPROVED
apatel
12/16/2019 12:46:00 PM

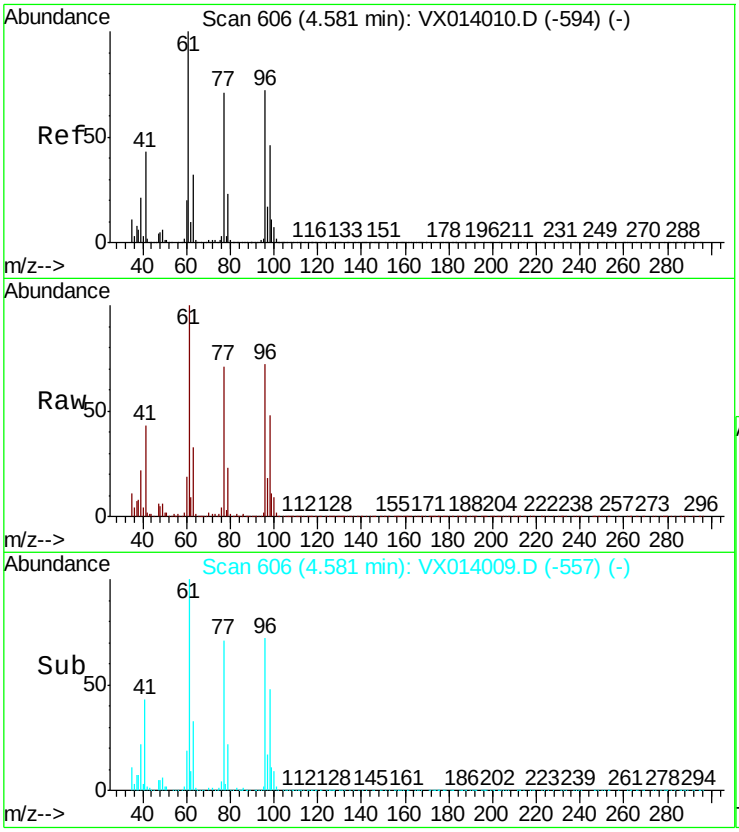


#26
2,2-Dichloropropane
Concen: 18.932 ug/l
RT: 4.57 min Scan# 604
Delta R.T. -0.01 min
Lab File: VX014009.D
Acq: 13 Dec 2019 15:36

Tgt Ion: 77 Resp: 159499

Ion	Ratio	Lower	Upper
77	100		
97	23.6	11.9	35.9

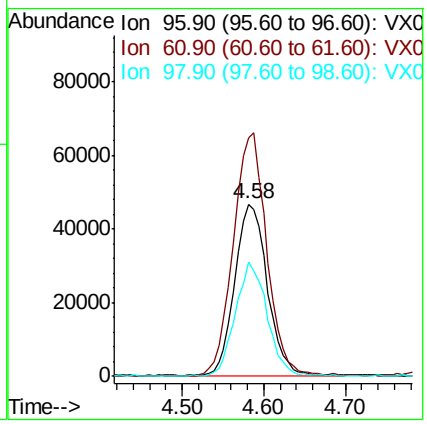




#27
cis-1,2-Dichloroethene
Concen: 19.357 ug/l
RT: 4.58 min Scan# 606
Delta R.T. -0.00 min
Lab File: VX014009.D
Acq: 13 Dec 2019 15:36

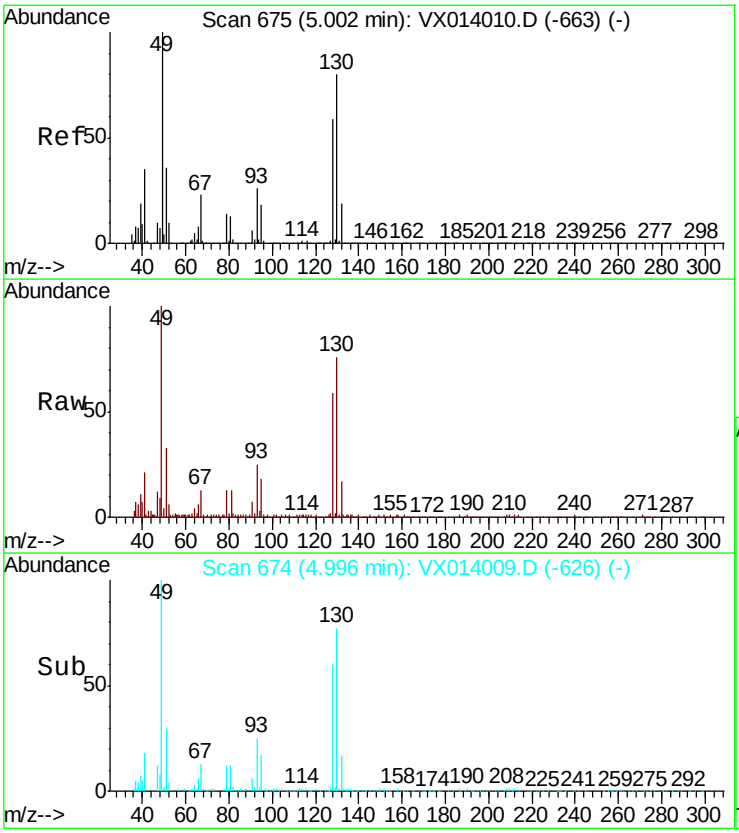
Tgt Ion: 96 Resp: 129255

Ion	Ratio	Lower	Upper
96	100		
61	146.6	0.0	288.4
98	63.6	0.0	129.6



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC020

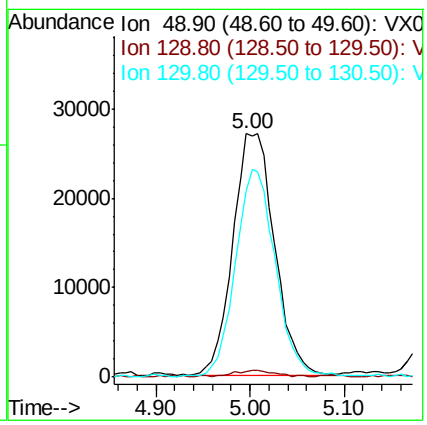
Manual Integrations APPROVED
apatel
12/16/2019 12:46:00 PM

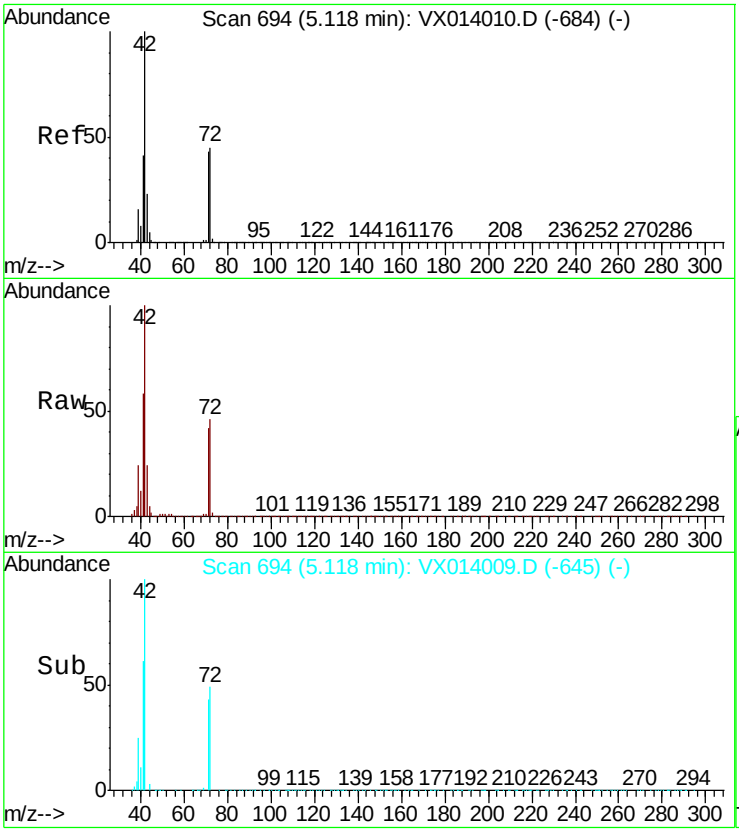


#28
Bromochloromethane
Concen: 23.237 ug/l
RT: 5.00 min Scan# 674
Delta R.T. -0.01 min
Lab File: VX014009.D
Acq: 13 Dec 2019 15:36

Tgt Ion: 49 Resp: 83871

Ion	Ratio	Lower	Upper
49	100		
129	2.9	0.0	5.0
130	81.3	64.6	97.0

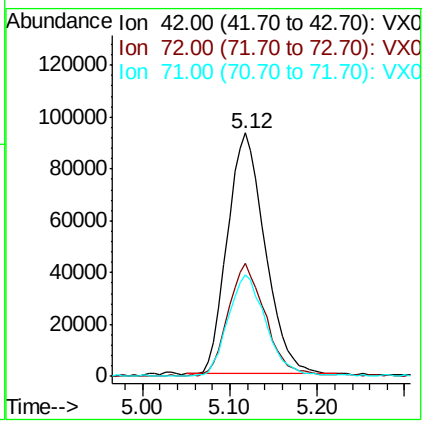




#29
Tetrahydrofuran
Concen: 95.681 ug/l
RT: 5.12 min Scan# 694
Delta R.T. -0.00 min
Lab File: VX014009.D
Acq: 13 Dec 2019 15:36

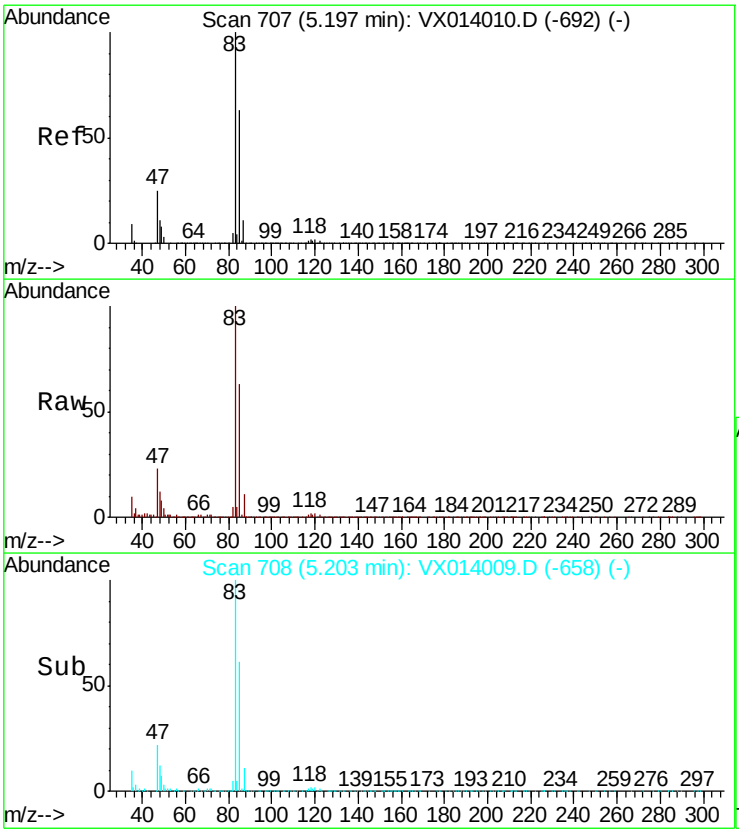
Tgt Ion: 42 Resp: 278007

Ion	Ratio	Lower	Upper
42	100		
72	46.2	35.8	53.8
71	42.7	33.6	50.4



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC020

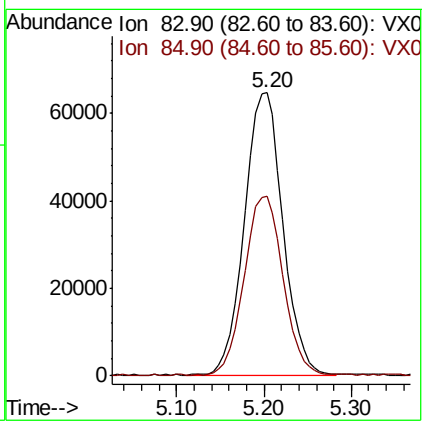
Manual Integrations APPROVED
apatel
12/16/2019 12:46:00 PM



#30
Chloroform
Concen: 19.149 ug/l
RT: 5.20 min Scan# 708
Delta R.T. 0.01 min
Lab File: VX014009.D
Acq: 13 Dec 2019 15:36

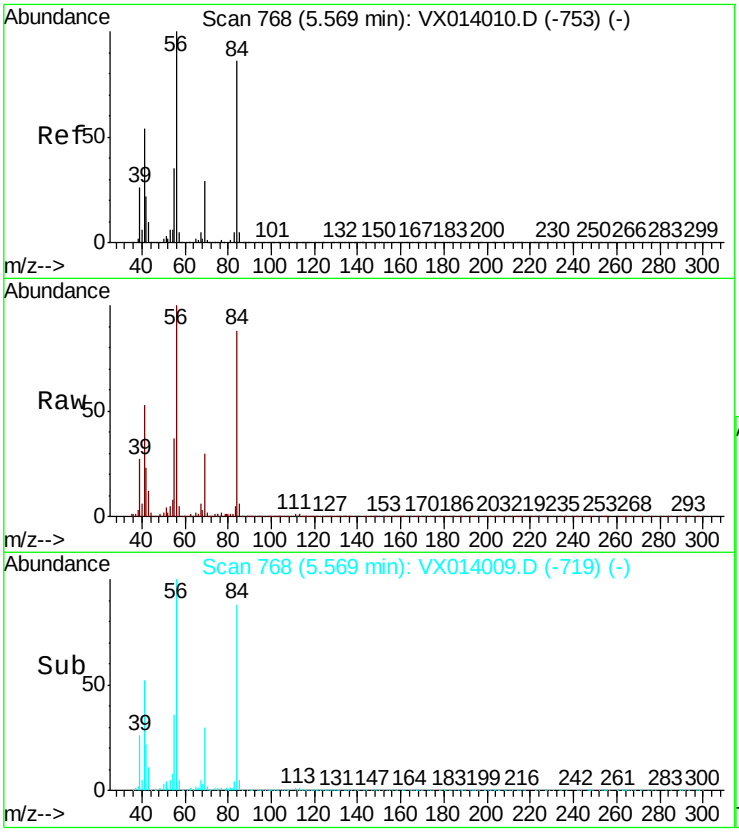
Tgt Ion: 83 Resp: 198154

Ion	Ratio	Lower	Upper
83	100		
85	63.1	50.8	76.2



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC020

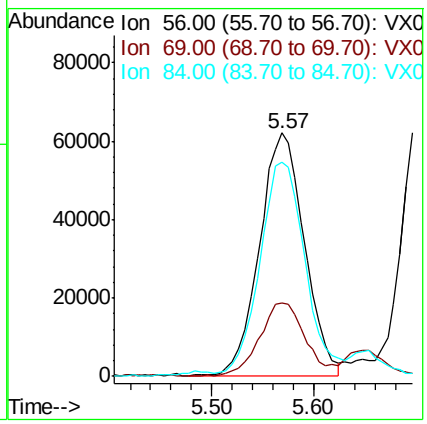
Manual Integrations APPROVED
apatel
12/16/2019 12:46:00 PM

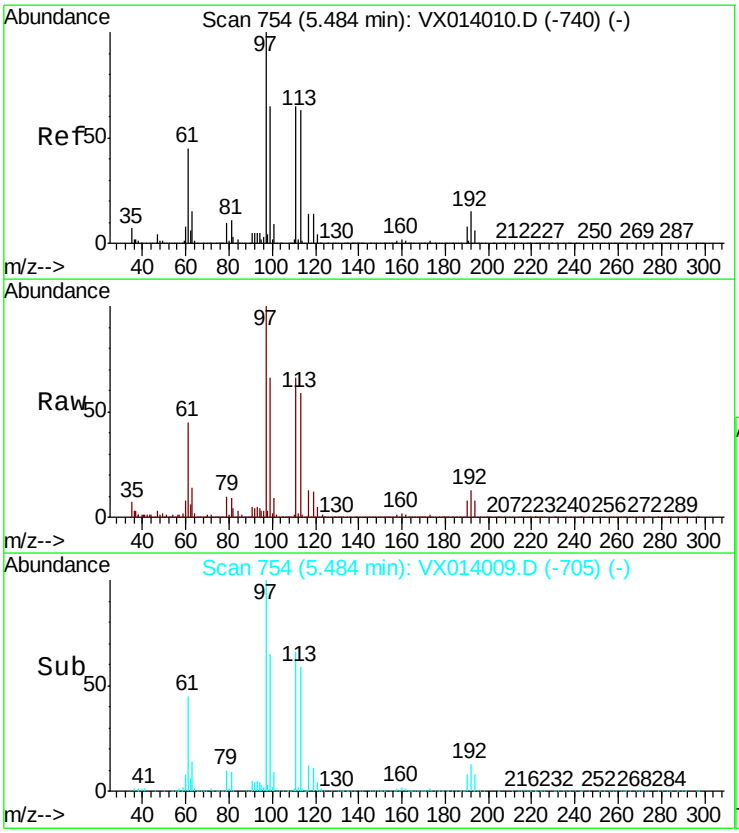


#31
Cyclohexane
Concen: 19.501 ug/l
RT: 5.57 min Scan# 768
Delta R.T. -0.00 min
Lab File: VX014009.D
Acq: 13 Dec 2019 15:36

Tgt Ion: 56 Resp: 188485

Ion	Ratio	Lower	Upper
56	100		
69	30.1	23.2	34.8
84	87.4	69.2	103.8

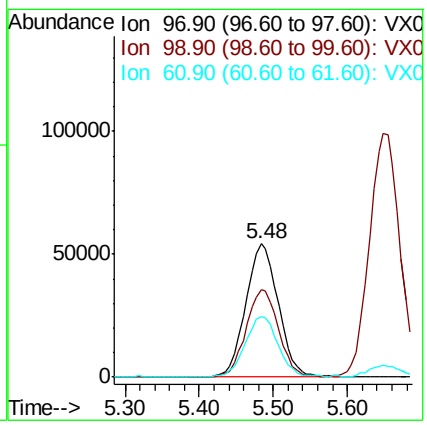


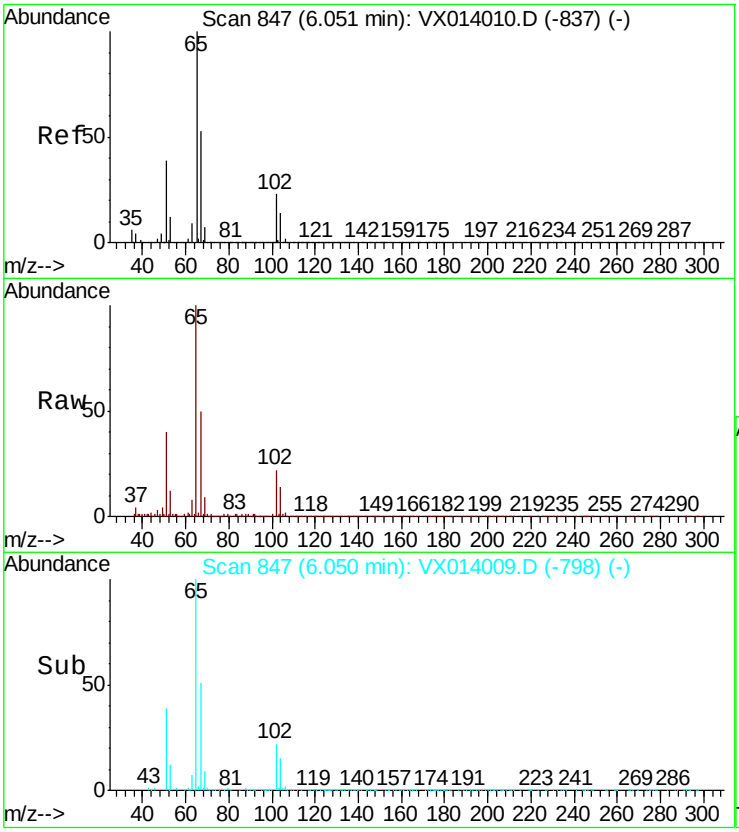


#32
1,1,1-Trichloroethane
Concen: 19.179 ug/l
RT: 5.48 min Scan# 754
Delta R.T. -0.00 min
Lab File: VX014009.D
Acq: 13 Dec 2019 15:36

Tgt Ion: 97 Resp: 165760

Ion	Ratio	Lower	Upper
97	100		
99	65.1	52.0	78.0
61	46.4	36.7	55.1

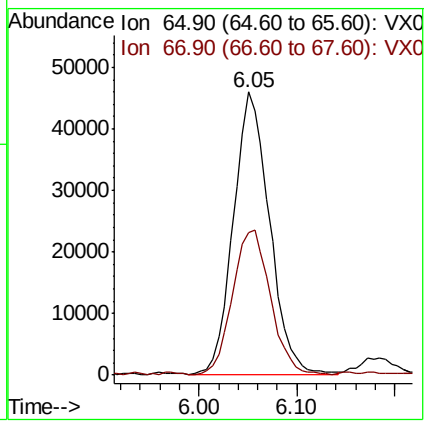




#33
1,2-Dichloroethane-d4
Concen: 17.897 ug/l
RT: 6.05 min Scan# 847
Delta R.T. -0.00 min
Lab File: VX014009.D
Acq: 13 Dec 2019 15:36

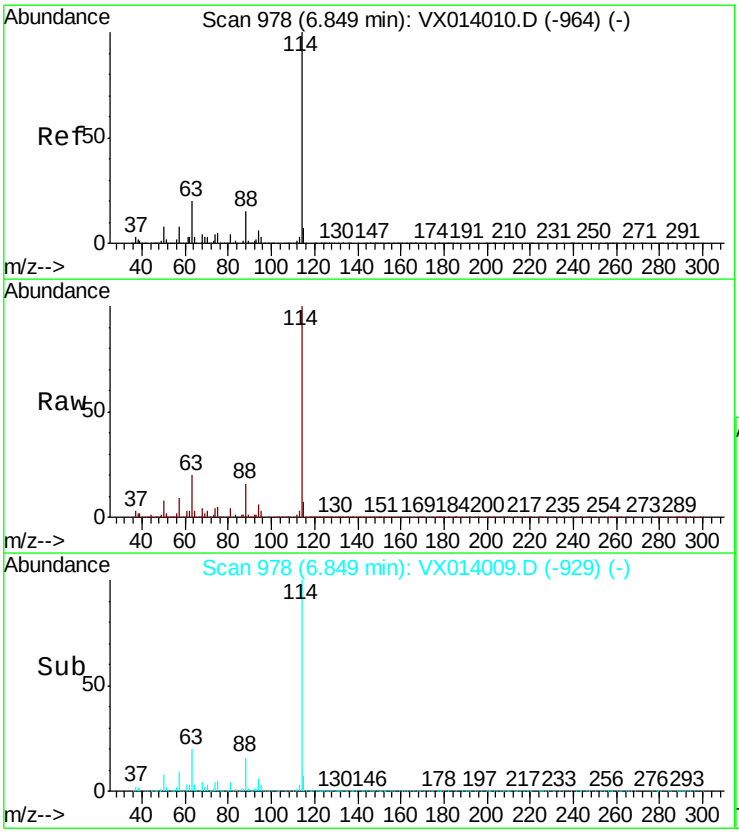
Tgt Ion: 65 Resp: 116759

Ion	Ratio	Lower	Upper
65	100		
67	53.7	0.0	106.4



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC020

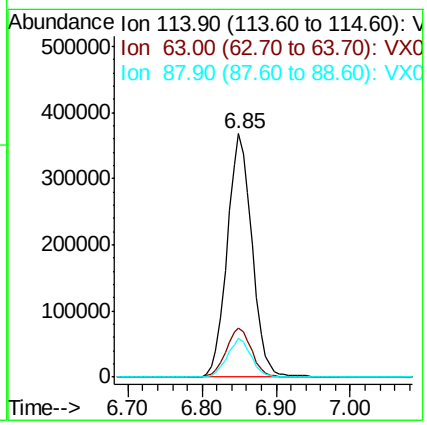
Manual Integrations APPROVED
apatel
12/16/2019 12:46:00 PM

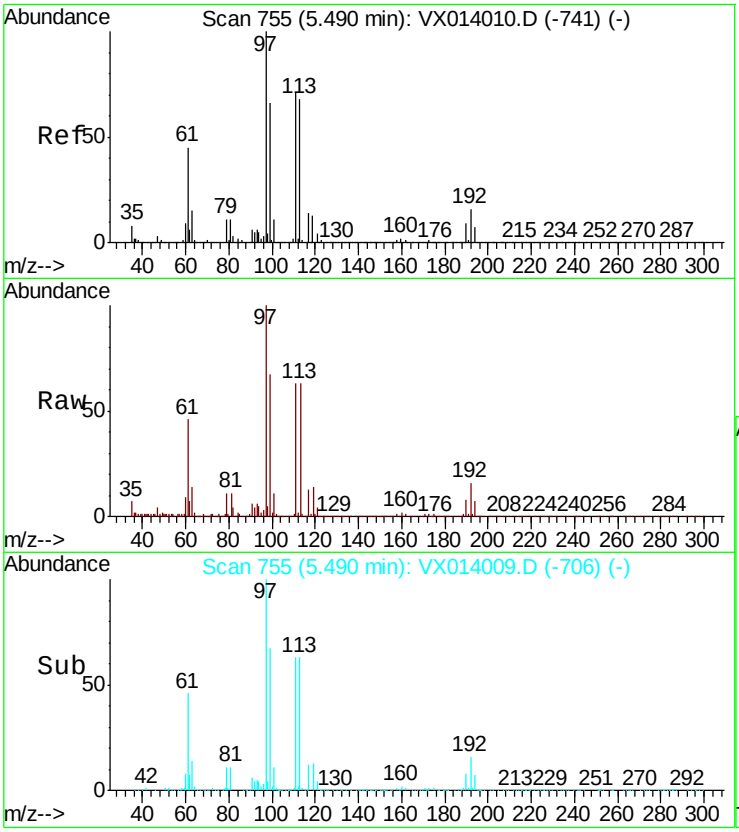


#34
1,4-Difluorobenzene
Concen: 50.000 ug/l
RT: 6.85 min Scan# 978
Delta R.T. -0.00 min
Lab File: VX014009.D
Acq: 13 Dec 2019 15:36

Tgt Ion:114 Resp: 855896

Ion	Ratio	Lower	Upper
114	100		
63	20.3	0.0	40.8
88	15.8	0.0	30.4

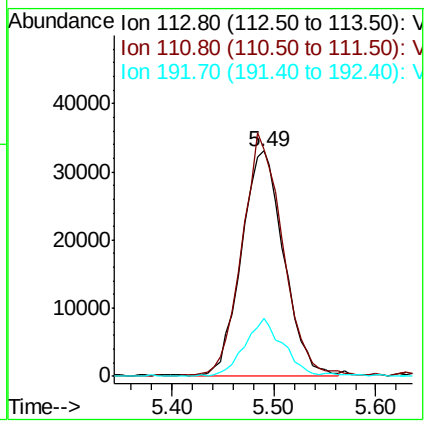




#35
Dibromofluoromethane
Concen: 17.763 ug/l
RT: 5.49 min Scan# 755
Delta R.T. -0.00 min
Lab File: VX014009.D
Acq: 13 Dec 2019 15:36

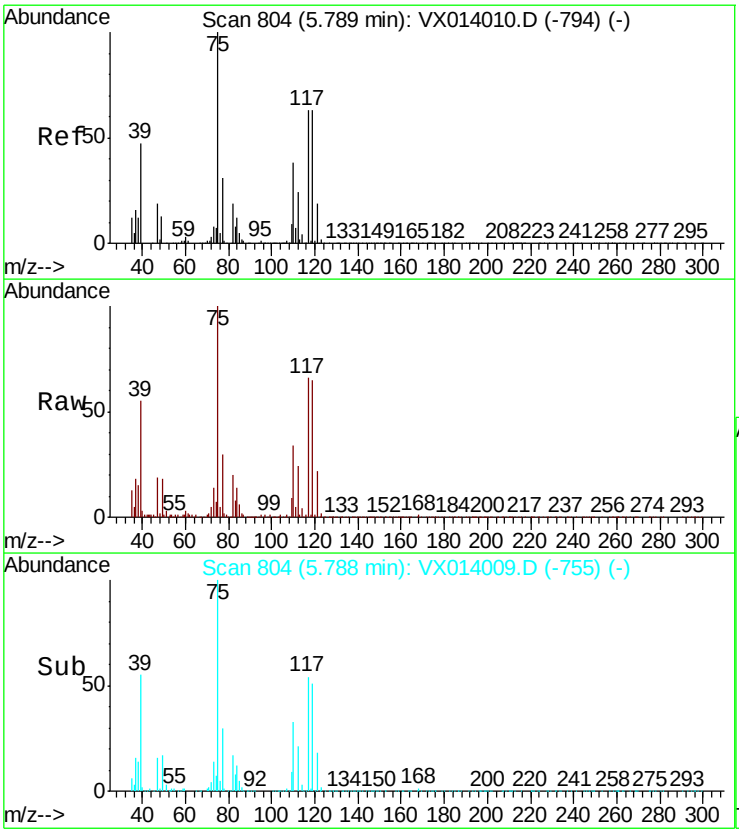
Tgt Ion:113 Resp: 94491

Ion	Ratio	Lower	Upper
113	100		
111	104.7	82.0	123.0
192	24.5	19.3	28.9



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC020

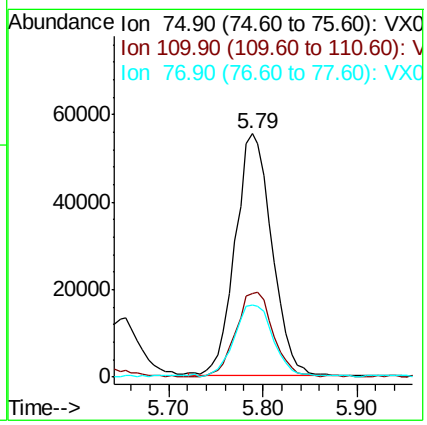
Manual Integrations APPROVED
apatel
12/16/2019 12:46:00 PM



#36
1,1-Dichloropropene
Concen: 19.299 ug/l
RT: 5.79 min Scan# 804
Delta R.T. -0.00 min
Lab File: VX014009.D
Acq: 13 Dec 2019 15:36

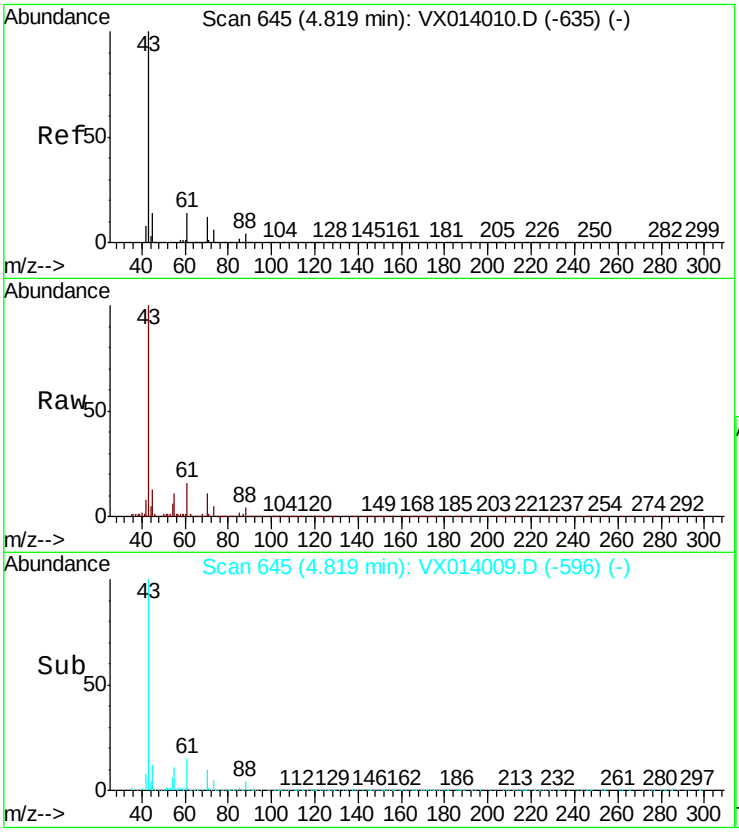
Tgt Ion: 75 Resp: 150043

Ion	Ratio	Lower	Upper
75	100		
110	35.3	18.3	54.9
77	31.2	24.8	37.2



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC020

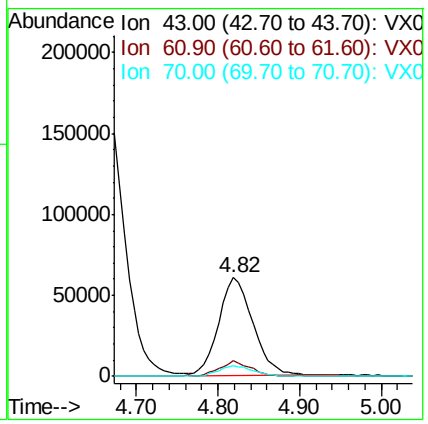
Manual Integrations APPROVED
apatel
12/16/2019 12:46:00 PM

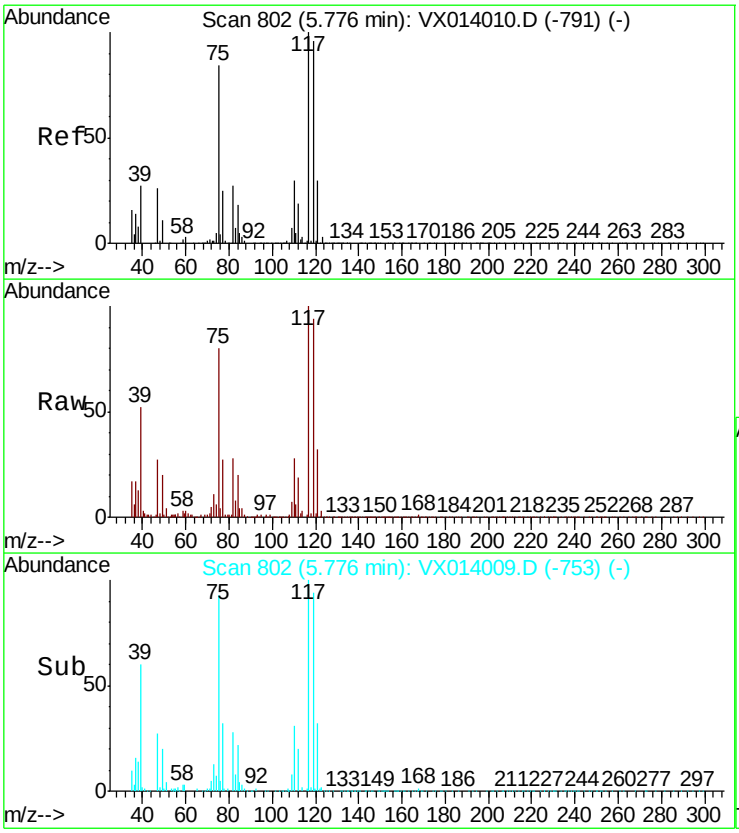


#37
Ethyl Acetate
Concen: 20.322 ug/l
RT: 4.82 min Scan# 645
Delta R.T. -0.00 min
Lab File: VX014009.D
Acq: 13 Dec 2019 15:36

Tgt Ion: 43 Resp: 176262

Ion	Ratio	Lower	Upper
43	100		
61	13.6	10.8	16.2
70	10.5	8.6	12.8

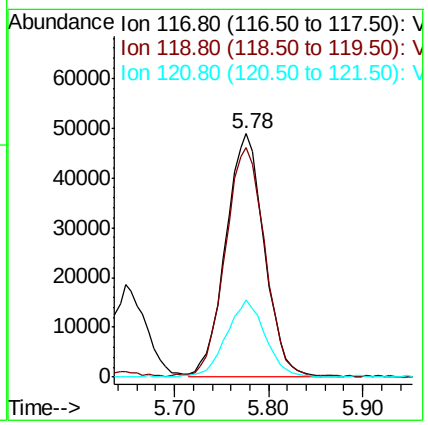


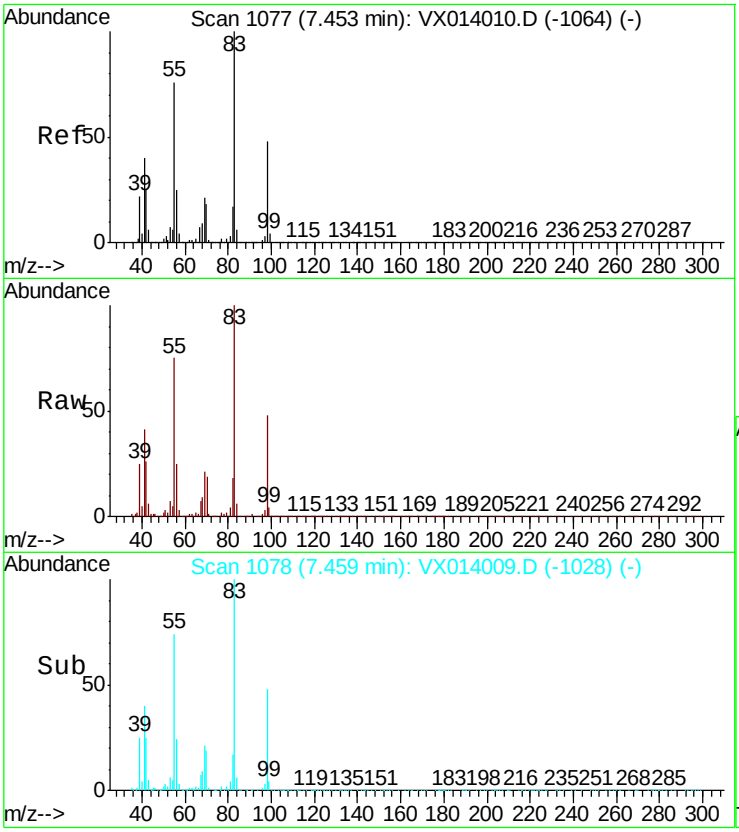


#38
Carbon Tetrachloride
Concen: 19.190 ug/l
RT: 5.78 min Scan# 802
Delta R.T. -0.00 min
Lab File: VX014009.D
Acq: 13 Dec 2019 15:36

Tgt Ion:117 Resp: 137619

Ion	Ratio	Lower	Upper
117	100		
119	94.2	76.2	114.4
121	32.0	23.6	35.4

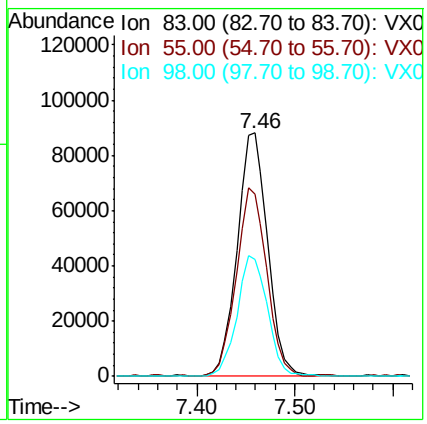


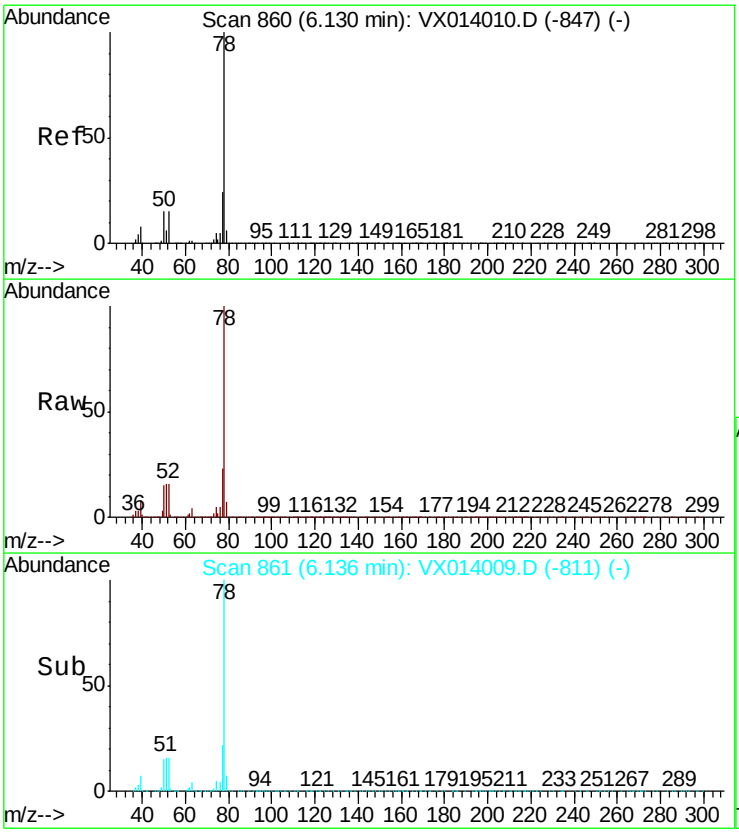


#39
Methylcyclohexane
Concen: 19.624 ug/l
RT: 7.46 min Scan# 1078
Delta R.T. 0.01 min
Lab File: VX014009.D
Acq: 13 Dec 2019 15:36

Tgt Ion: 83 Resp: 188922

Ion	Ratio	Lower	Upper
83	100		
55	74.7	61.0	91.6
98	48.0	38.6	57.8

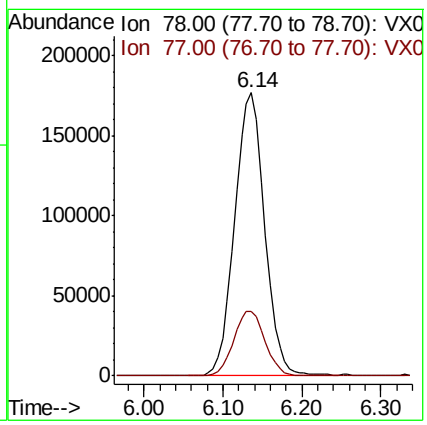




#40
Benzene
Concen: 19.717 ug/l
RT: 6.14 min Scan# 861
Delta R.T. 0.01 min
Lab File: VX014009.D
Acq: 13 Dec 2019 15:36

Tgt Ion: 78 Resp: 467882

Ion	Ratio	Lower	Upper
78	100		
77	22.8	18.8	28.2

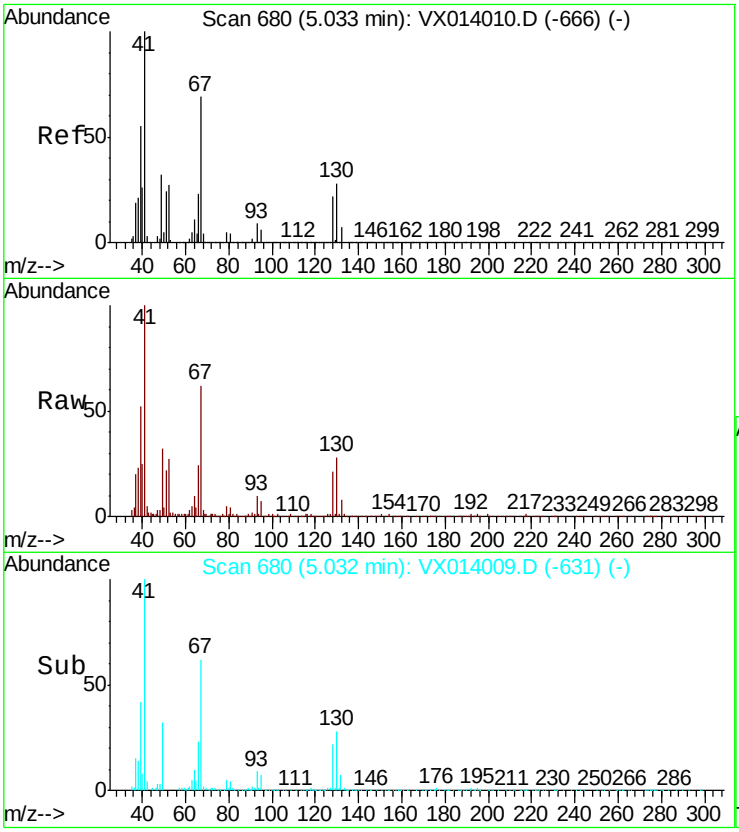


Instrument :
MSVOA_X
ClientSampleId :
VSTDICC020

Manual Integrations APPROVED
apatel
12/16/2019 12:46:00 PM

Instrument :
MSVOA_X
ClientSampleId :
VSTDICC020

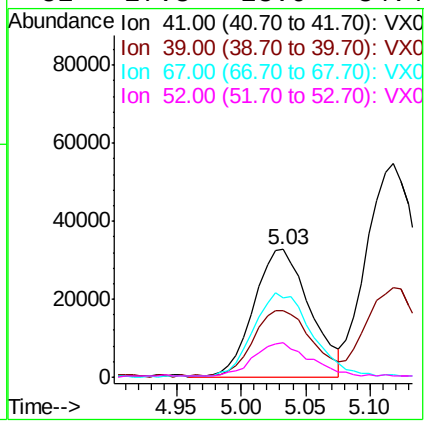
Manual Integrations APPROVED
apatel
12/16/2019 12:46:00 PM

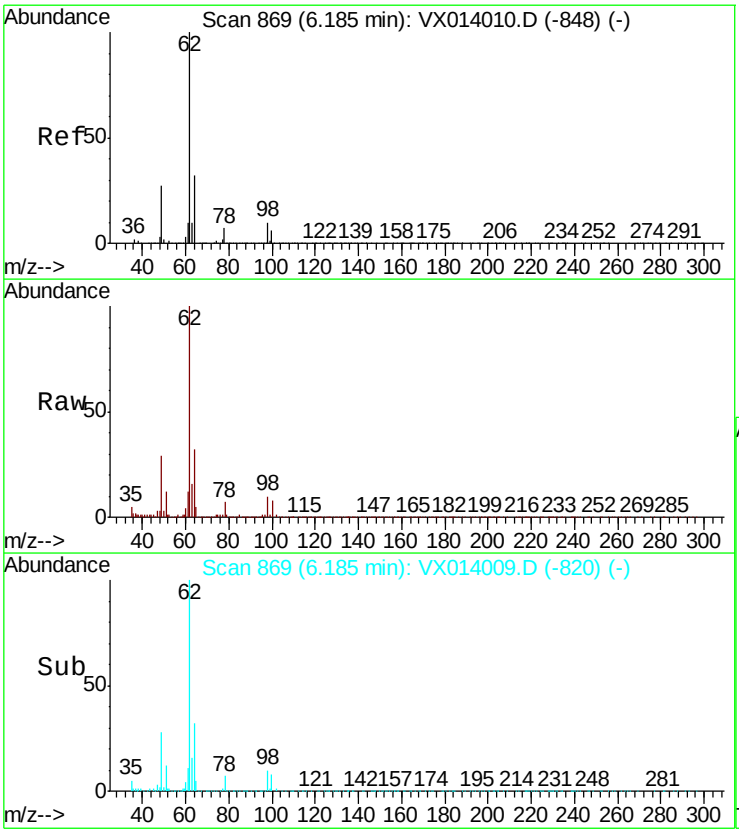


#41
Methacrylonitrile
Concen: 20.757 ug/l
RT: 5.03 min Scan# 680
Delta R.T. -0.00 min
Lab File: VX014009.D
Acq: 13 Dec 2019 15:36

Tgt Ion: 41 Resp: 98272

Ion	Ratio	Lower	Upper
41	100		
39	54.0	44.5	66.7
67	68.5	57.4	86.0
52	27.3	23.0	34.4

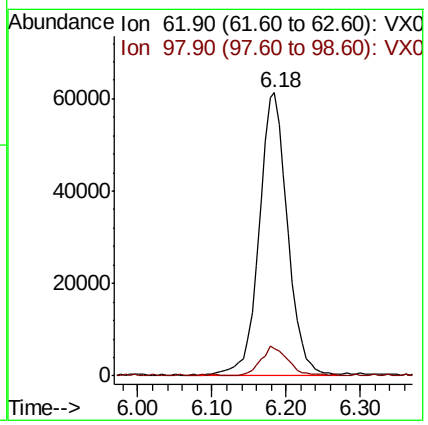


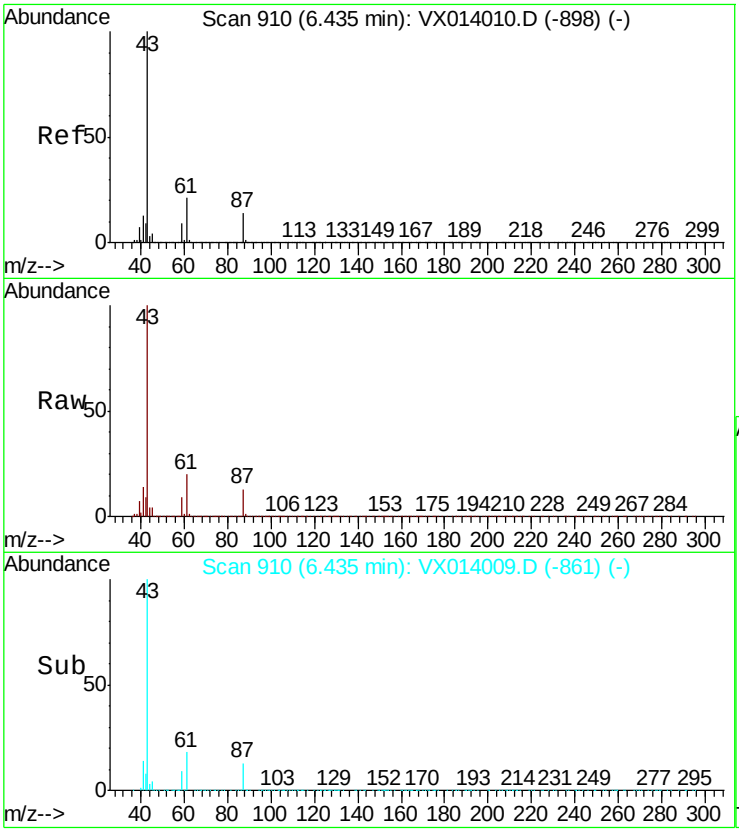


#42
1,2-Dichloroethane
Concen: 20.343 ug/l
RT: 6.18 min Scan# 869
Delta R.T. -0.00 min
Lab File: VX014009.D
Acq: 13 Dec 2019 15:36

Tgt Ion: 62 Resp: 164380

Ion	Ratio	Lower	Upper
62	100		
98	9.6	0.0	21.0

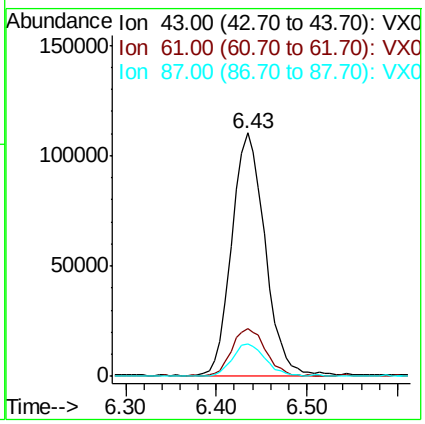




#43
Isopropyl Acetate
Concen: 19.464 ug/l
RT: 6.43 min Scan# 910
Delta R.T. -0.00 min
Lab File: VX014009.D
Acq: 13 Dec 2019 15:36

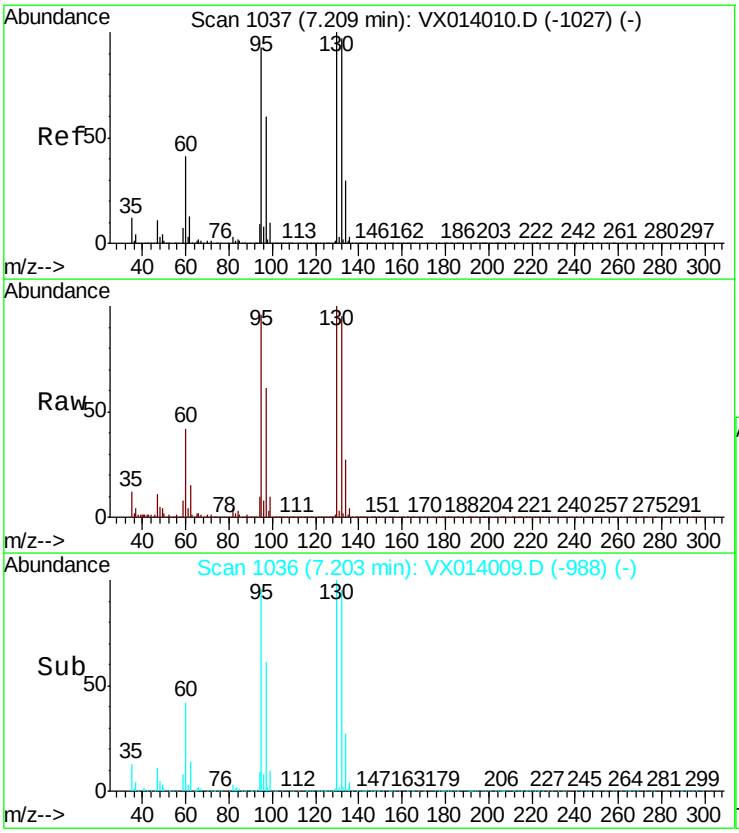
Tgt Ion: 43 Resp: 278854

Ion	Ratio	Lower	Upper
43	100		
61	19.9	16.4	24.6
87	13.1	10.7	16.1



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC020

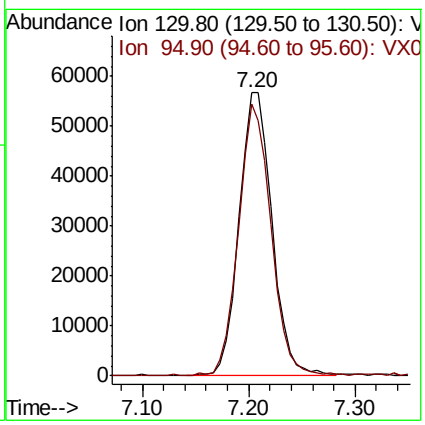
Manual Integrations APPROVED
apatel
12/16/2019 12:46:00 PM

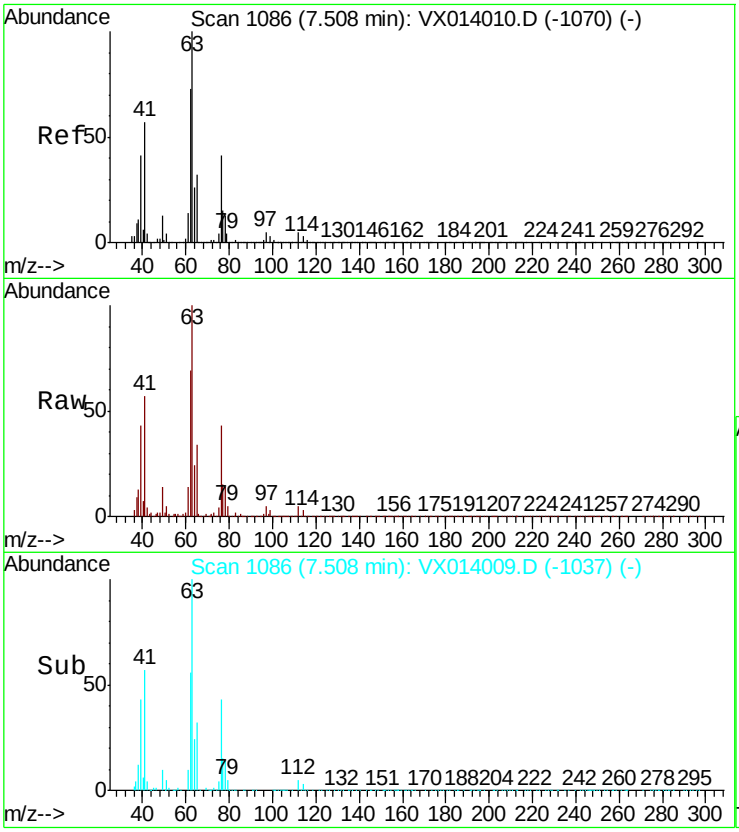


#44
Trichloroethene
Concen: 19.026 ug/l
RT: 7.20 min Scan# 1036
Delta R.T. -0.01 min
Lab File: VX014009.D
Acq: 13 Dec 2019 15:36

Tgt Ion:130 Resp: 123460

Ion	Ratio	Lower	Upper
130	100		
95	95.8	0.0	185.6

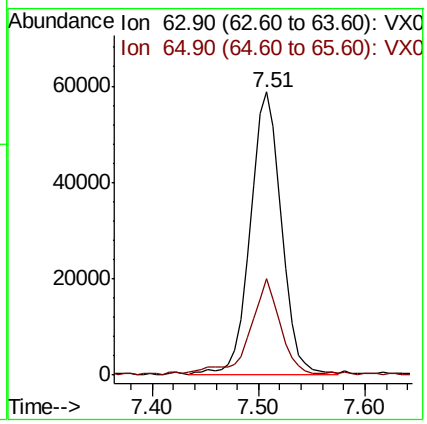




#45
1,2-Dichloropropane
Concen: 20.417 ug/l
RT: 7.51 min Scan# 1086
Delta R.T. -0.00 min
Lab File: VX014009.D
Acq: 13 Dec 2019 15:36

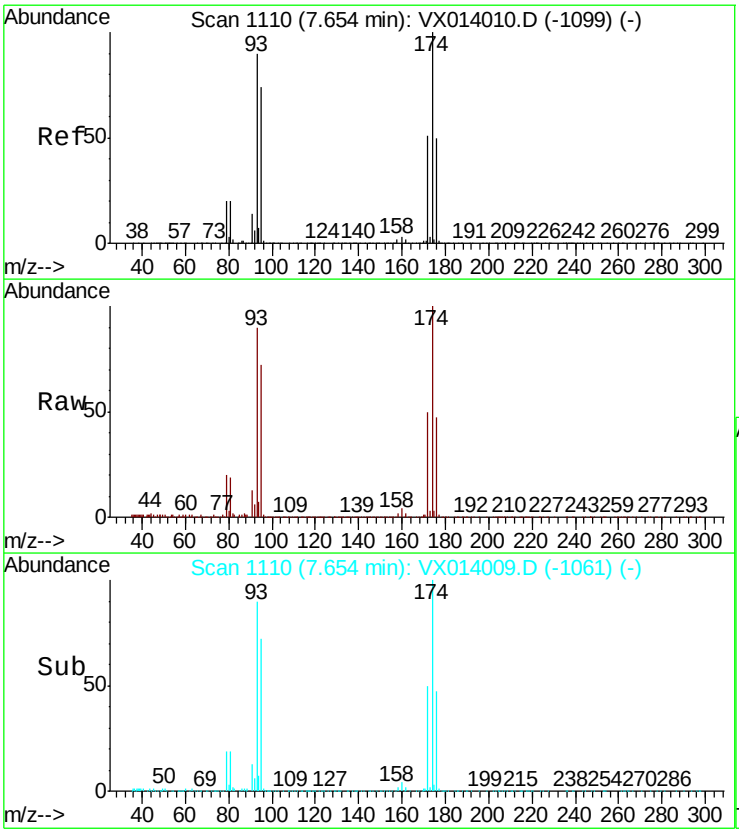
Tgt Ion: 63 Resp: 121446

Ion	Ratio	Lower	Upper
63	100		
65	33.4	25.8	38.8



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC020

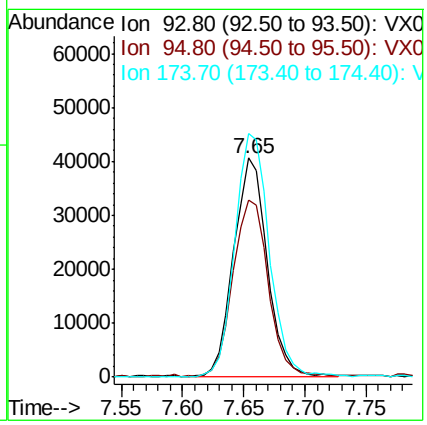
Manual Integrations APPROVED
apatel
12/16/2019 12:46:00 PM

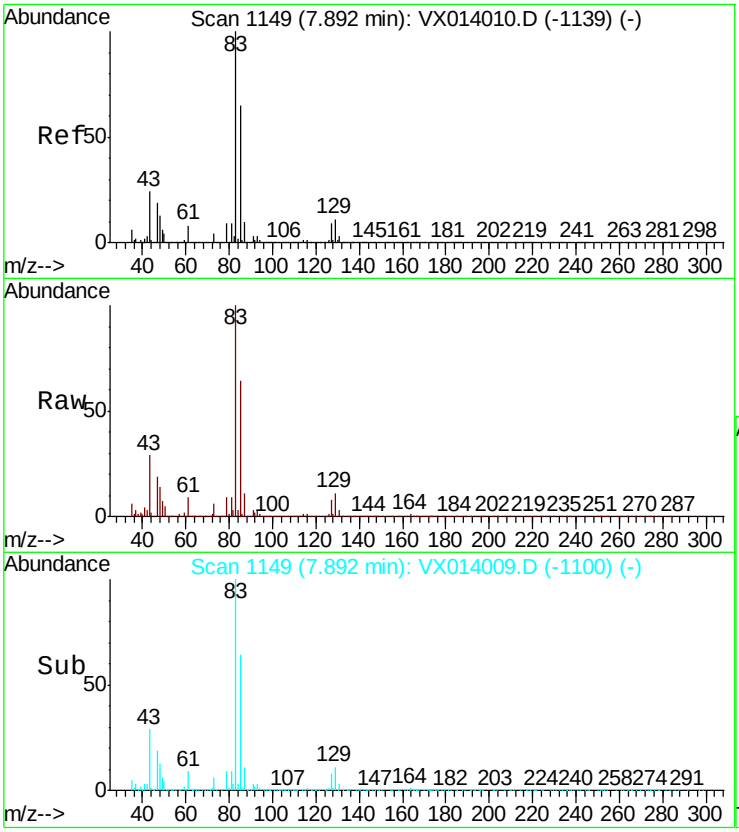


#46
Dibromomethane
Concen: 19.342 ug/l
RT: 7.65 min Scan# 1110
Delta R.T. -0.00 min
Lab File: VX014009.D
Acq: 13 Dec 2019 15:36

Tgt Ion: 93 Resp: 77866

Ion	Ratio	Lower	Upper
93	100		
95	83.5	67.3	100.9
174	113.8	91.6	137.4

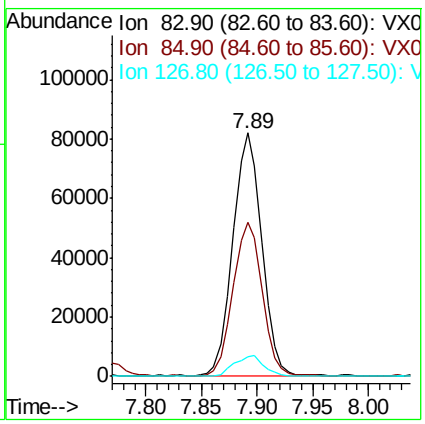


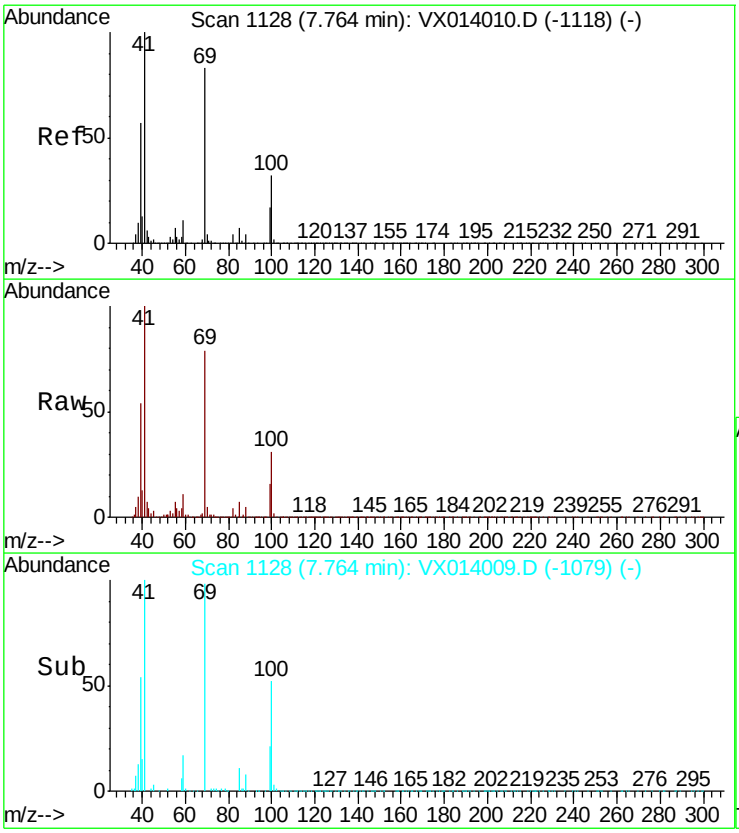


#47
Bromodichloromethane
Concen: 19.300 ug/l
RT: 7.89 min Scan# 1149
Delta R.T. -0.00 min
Lab File: VX014009.D
Acq: 13 Dec 2019 15:36

Tgt Ion: 83 Resp: 146845

Ion	Ratio	Lower	Upper
83	100		
85	63.4	51.8	77.8
127	8.0	7.0	10.4

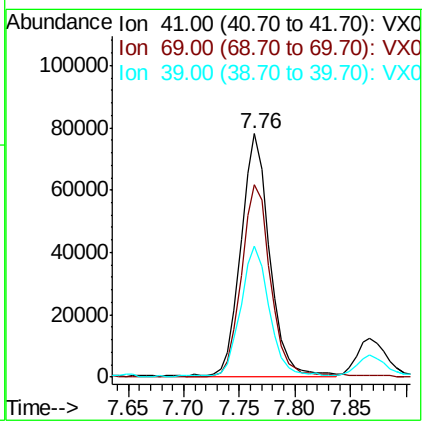




#48
Methyl methacrylate
Concen: 19.994 ug/l
RT: 7.76 min Scan# 1128
Delta R.T. -0.00 min
Lab File: VX014009.D
Acq: 13 Dec 2019 15:36

Tgt Ion: 41 Resp: 138872

Ion	Ratio	Lower	Upper
41	100		
69	80.4	65.8	98.6
39	55.8	44.6	67.0

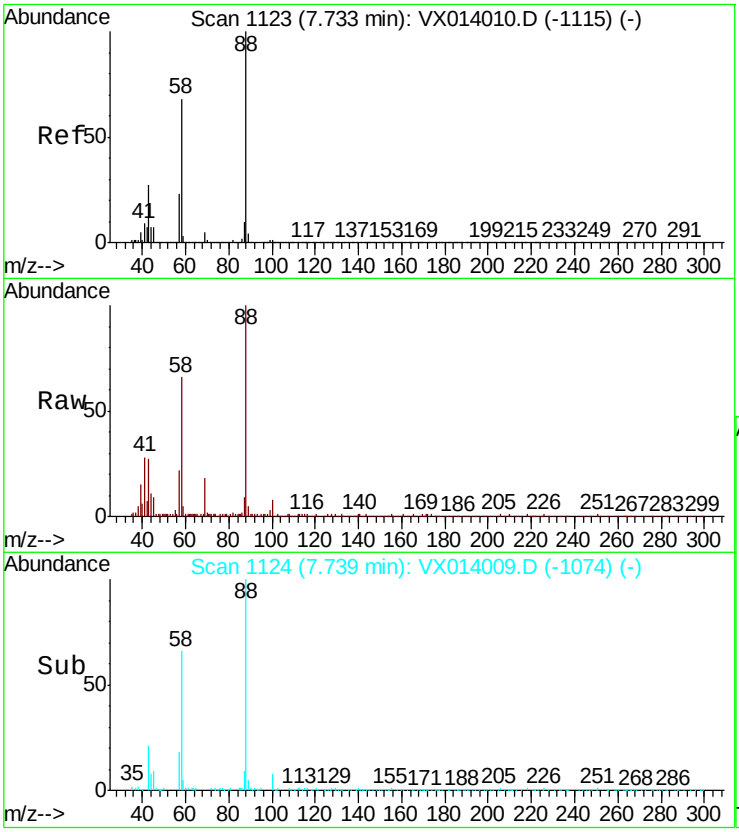


Instrument :
MSVOA_X
ClientSampleId :
VSTDICC020

Manual Integrations APPROVED
apatel
12/16/2019 12:46:00 PM

Instrument :
MSVOA_X
ClientSampleId :
VSTDICC020

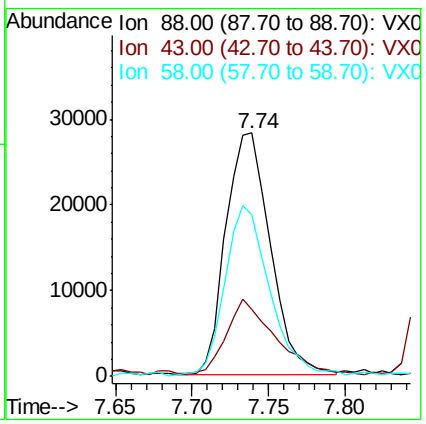
Manual Integrations APPROVED
apatel
12/16/2019 12:46:00 PM

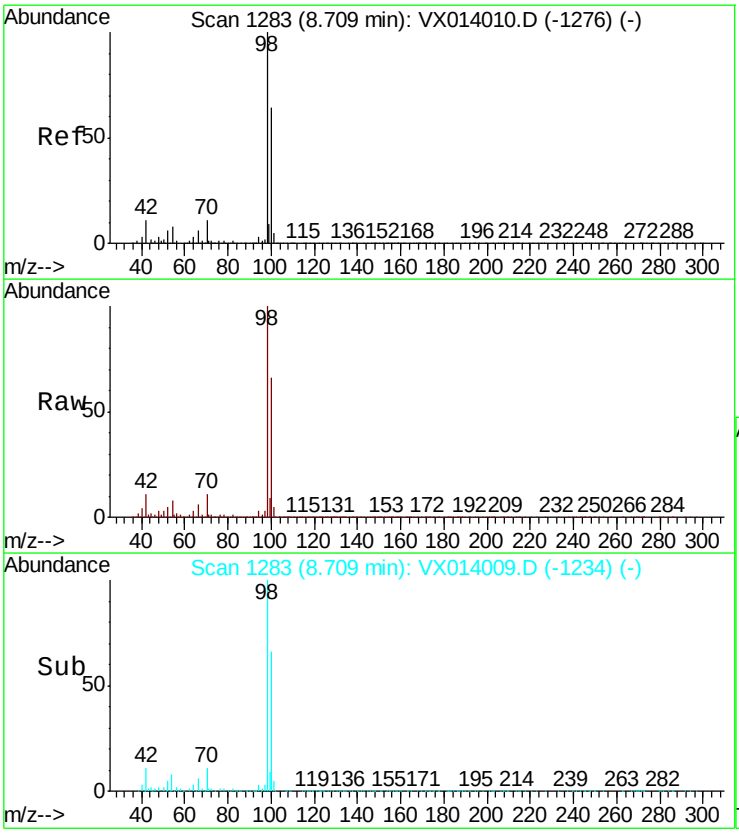


#49
1,4-Dioxane
Concen: 374.066 ug/l
RT: 7.74 min Scan# 1124
Delta R.T. 0.01 min
Lab File: VX014009.D
Acq: 13 Dec 2019 15:36

Tgt Ion: 88 Resp: 57224

Ion	Ratio	Lower	Upper
88	100		
43	33.5	26.5	39.7
58	71.6	56.8	85.2

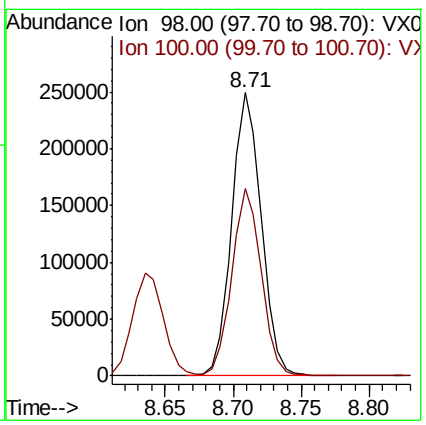


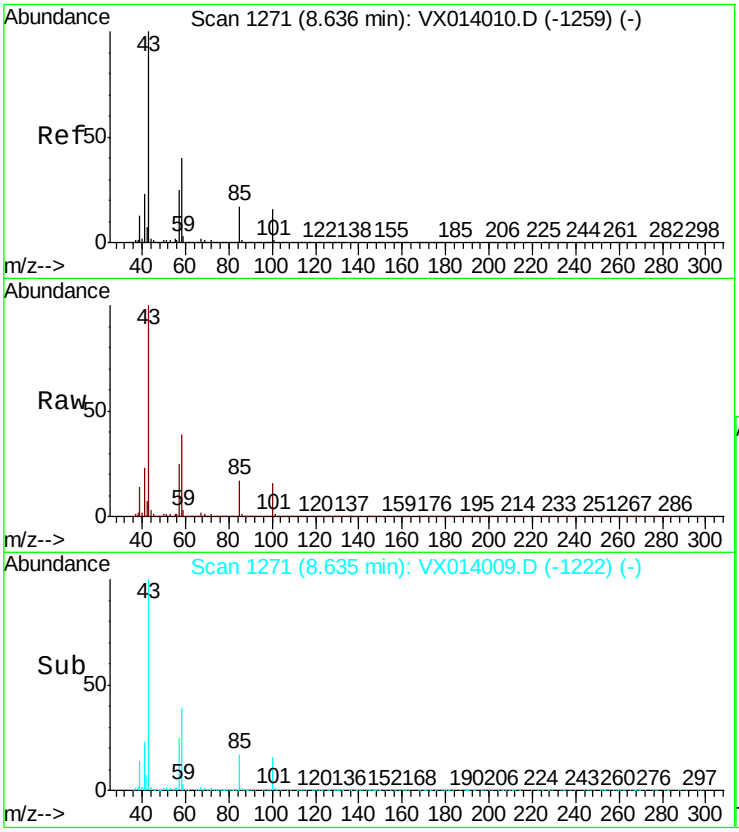


#50
Toluene-d8
Concen: 18.135 ug/l
RT: 8.71 min Scan# 1283
Delta R.T. -0.00 min
Lab File: VX014009.D
Acq: 13 Dec 2019 15:36

Tgt Ion: 98 Resp: 377231

Ion	Ratio	Lower	Upper
98	100		
100	65.6	52.9	79.3

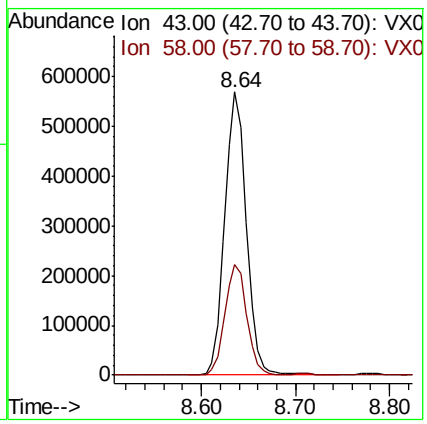




#51
4-Methyl-2-Pentanone
Concen: 100.248 ug/l
RT: 8.64 min Scan# 1271
Delta R.T. -0.00 min
Lab File: VX014009.D
Acq: 13 Dec 2019 15:36

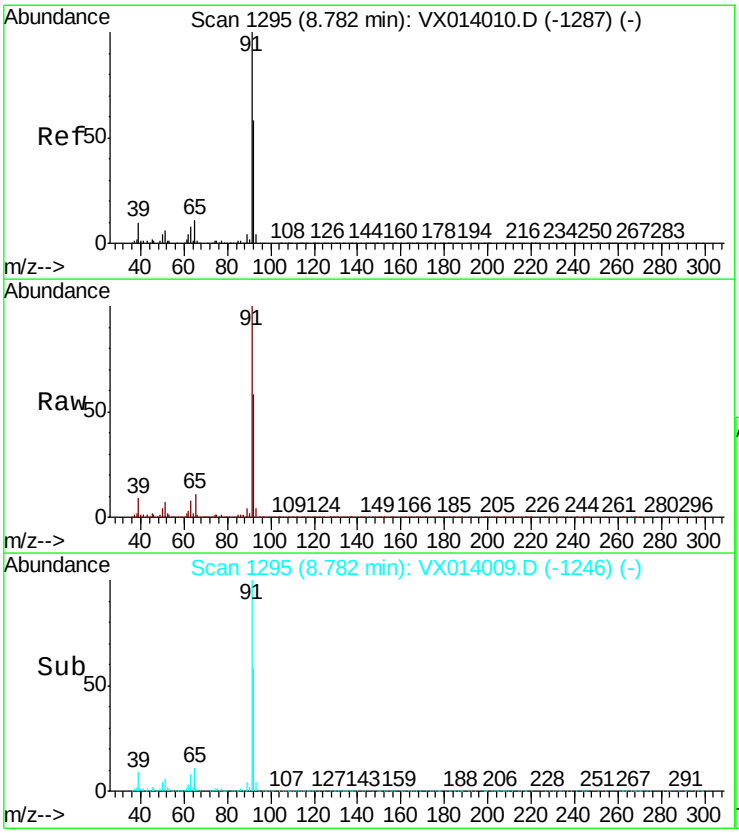
Tgt Ion: 43 Resp: 901825

Ion	Ratio	Lower	Upper
43	100		
58	39.5	32.2	48.2



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC020

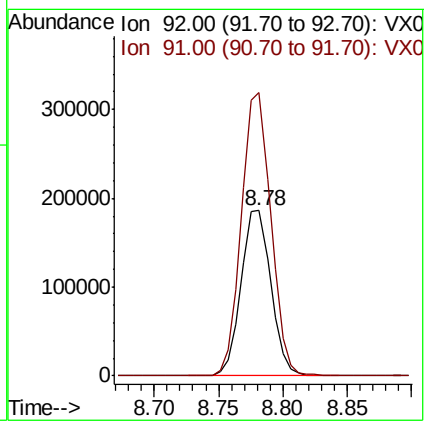
Manual Integrations APPROVED
apatel
12/16/2019 12:46:00 PM



#52
Toluene
Concen: 20.179 ug/l
RT: 8.78 min Scan# 1295
Delta R.T. -0.00 min
Lab File: VX014009.D
Acq: 13 Dec 2019 15:36

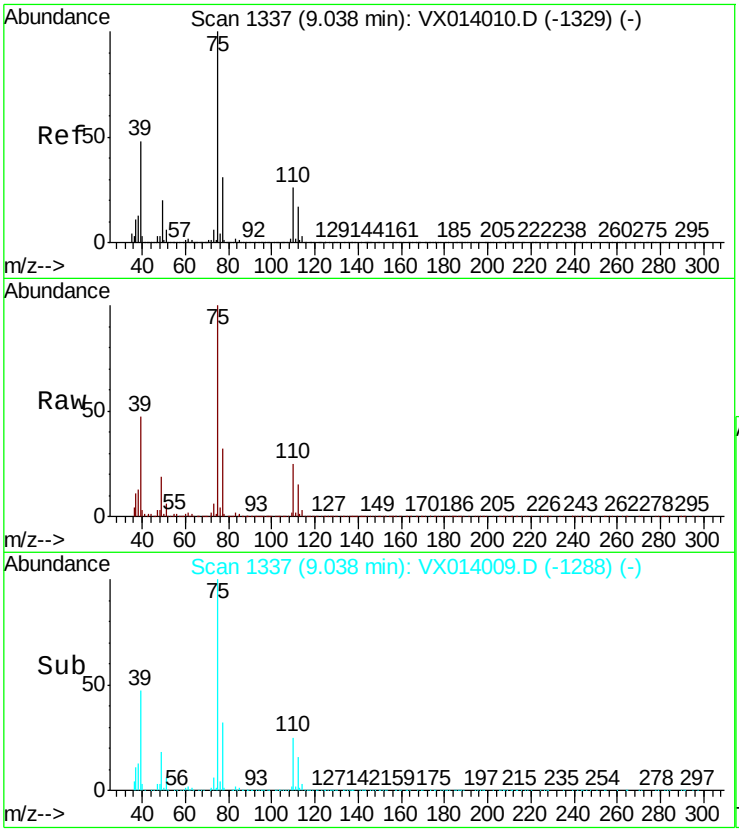
Tgt Ion: 92 Resp: 297851

Ion	Ratio	Lower	Upper
92	100		
91	169.9	136.2	204.4



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC020

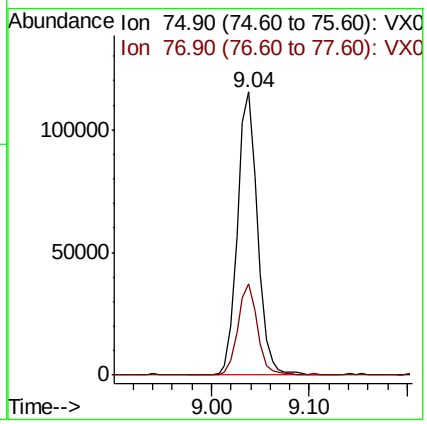
Manual Integrations APPROVED
apatel
12/16/2019 12:46:00 PM

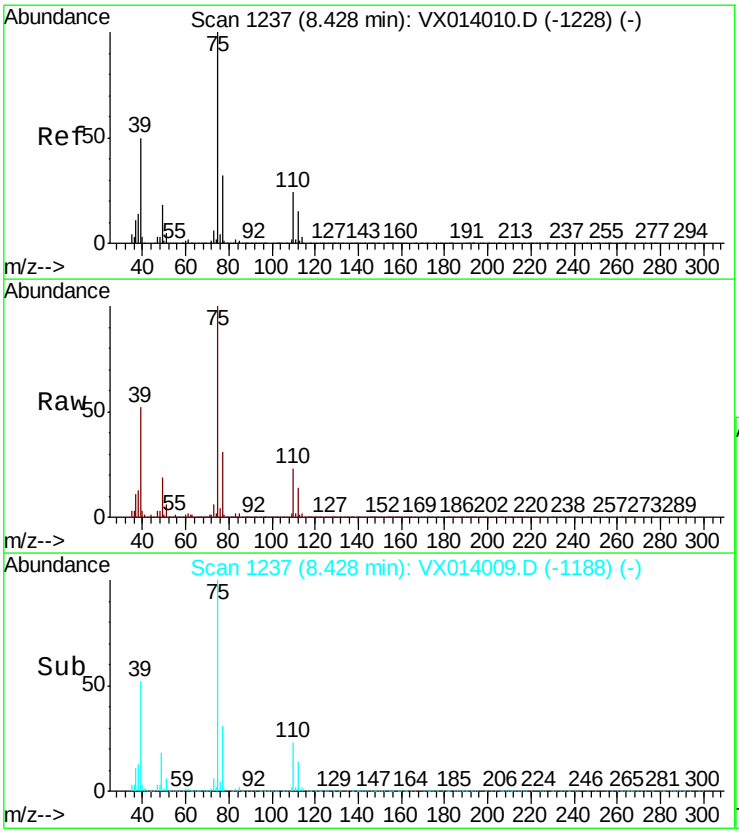


#53
t-1,3-Dichloropropene
Concen: 18.924 ug/l
RT: 9.04 min Scan# 1337
Delta R.T. -0.00 min
Lab File: VX014009.D
Acq: 13 Dec 2019 15:36

Tgt Ion: 75 Resp: 163783

Ion	Ratio	Lower	Upper
75	100		
77	32.1	25.1	37.7

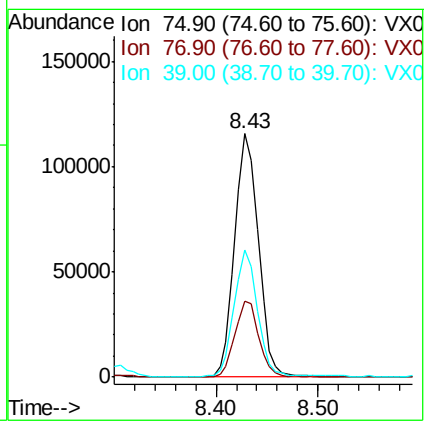


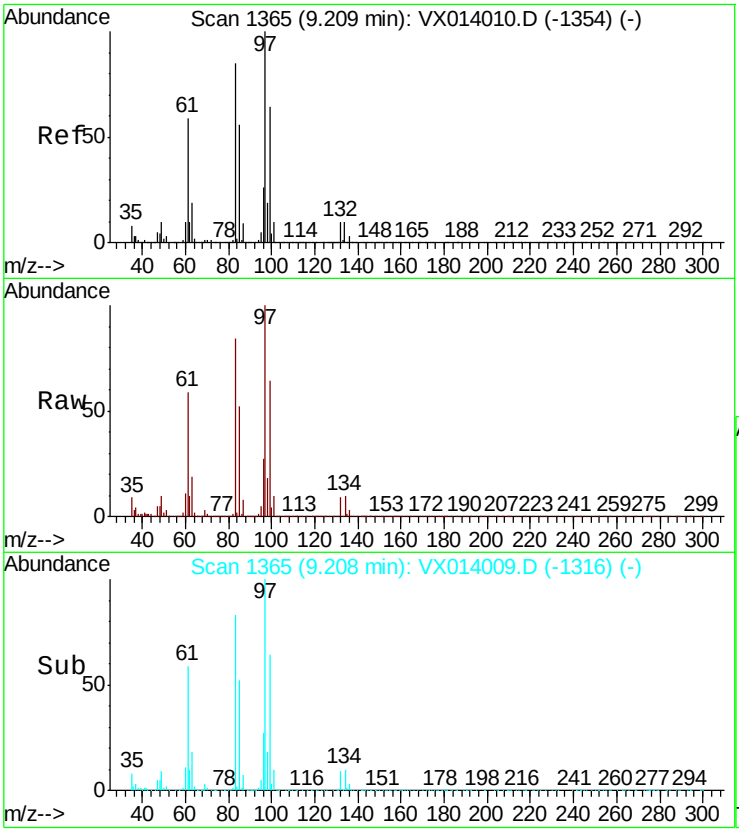


#54
cis-1,3-Dichloropropene
Concen: 19.745 ug/l
RT: 8.43 min Scan# 1237
Delta R.T. -0.00 min
Lab File: VX014009.D
Acq: 13 Dec 2019 15:36

Tgt Ion: 75 Resp: 186886

Ion	Ratio	Lower	Upper
75	100		
77	31.0	25.3	37.9
39	51.7	39.9	59.9

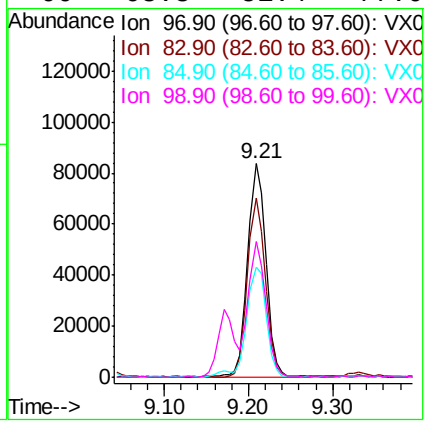


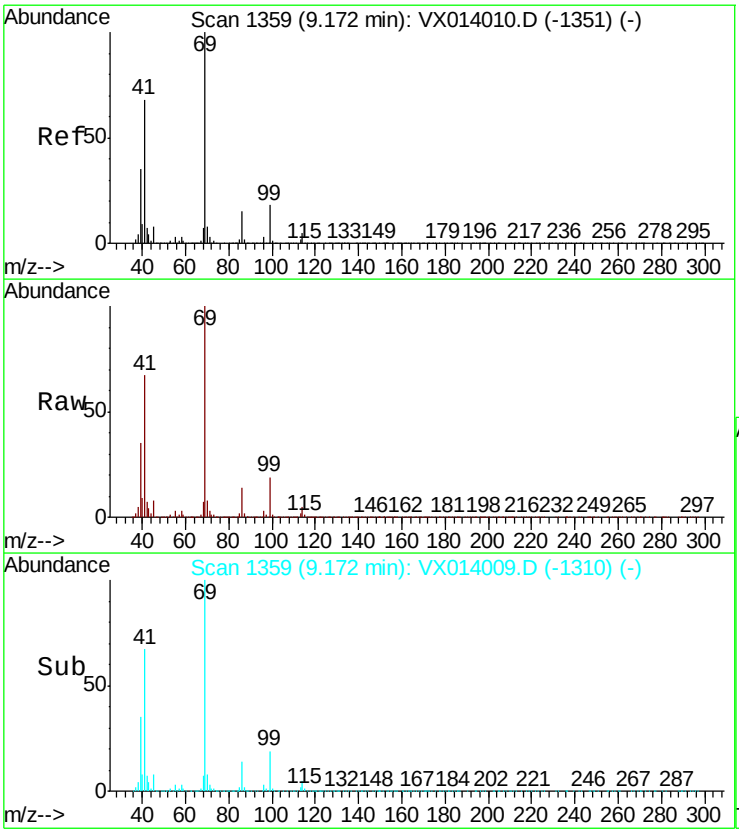


#55
1,1,2-Trichloroethane
Concen: 20.547 ug/l
RT: 9.21 min Scan# 1365
Delta R.T. -0.00 min
Lab File: VX014009.D
Acq: 13 Dec 2019 15:36

Tgt Ion: 97 Resp: 122064

Ion	Ratio	Lower	Upper
97	100		
83	83.2	68.2	102.4
85	51.7	44.6	66.8
99	63.3	51.4	77.0

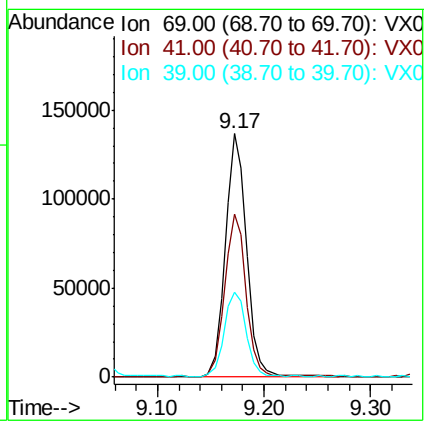




#56
Ethyl methacrylate
Concen: 19.884 ug/l
RT: 9.17 min Scan# 1359
Delta R.T. -0.00 min
Lab File: VX014009.D
Acq: 13 Dec 2019 15:36

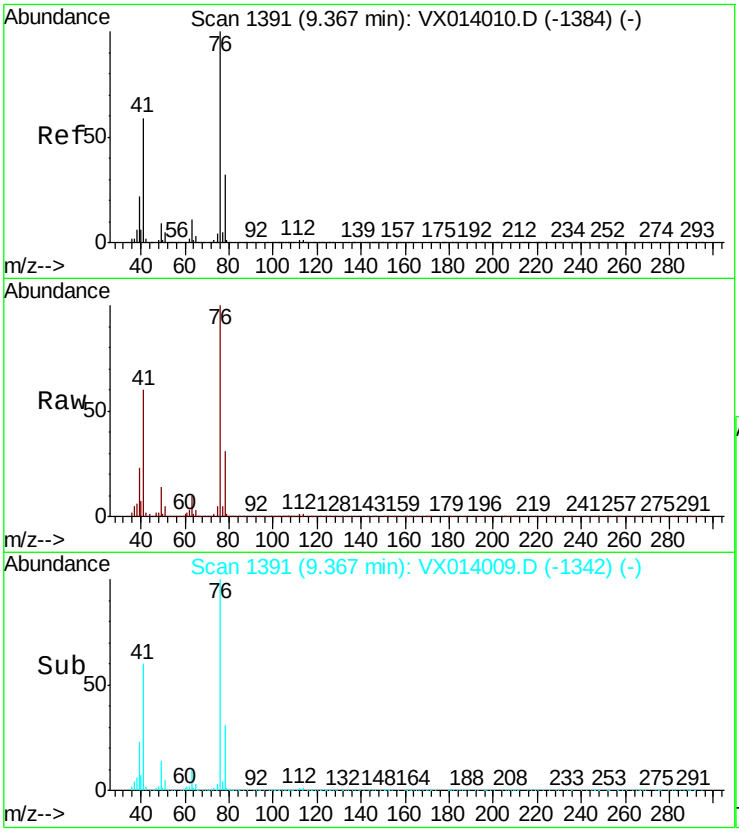
Tgt Ion: 69 Resp: 190229

Ion	Ratio	Lower	Upper
69	100		
41	68.2	54.8	82.2
39	36.0	28.3	42.5



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC020

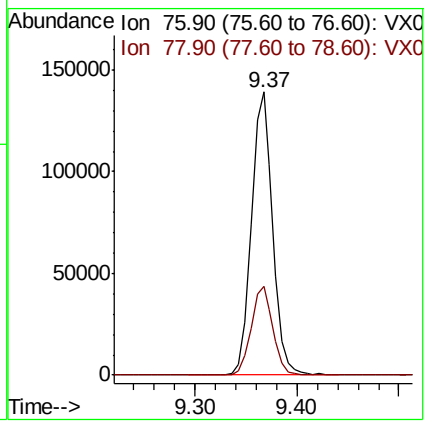
Manual Integrations APPROVED
apatel
12/16/2019 12:46:00 PM



#57
1,3-Dichloropropane
Concen: 19.662 ug/l
RT: 9.37 min Scan# 1391
Delta R.T. -0.00 min
Lab File: VX014009.D
Acq: 13 Dec 2019 15:36

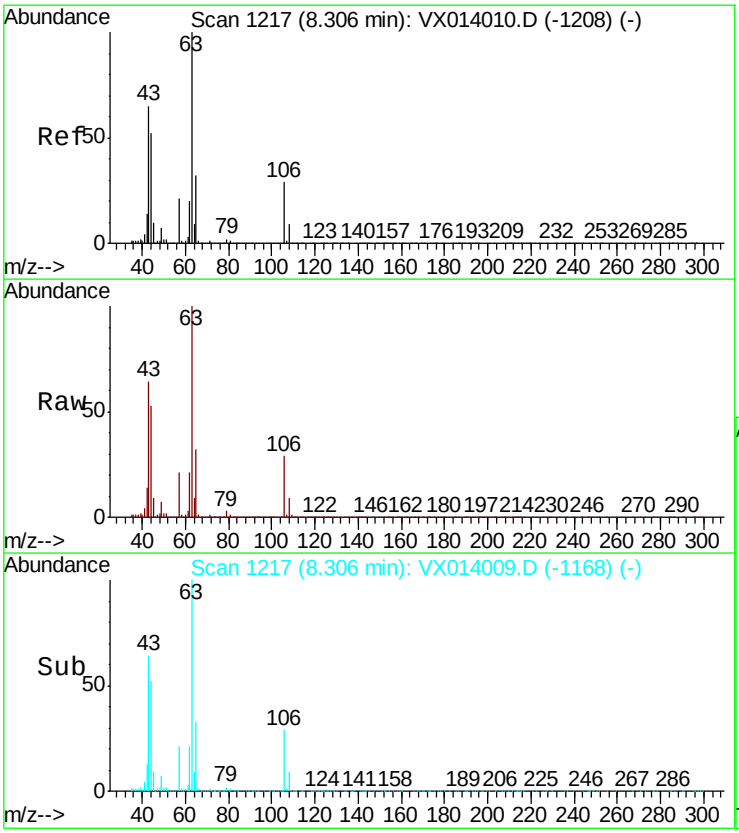
Tgt Ion: 76 Resp: 201576

Ion	Ratio	Lower	Upper
76	100		
78	31.7	25.8	38.6



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC020

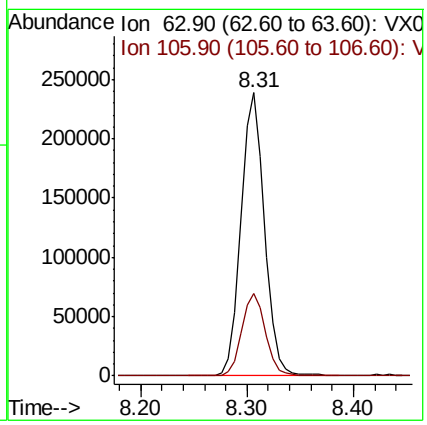
Manual Integrations APPROVED
apatel
12/16/2019 12:46:00 PM

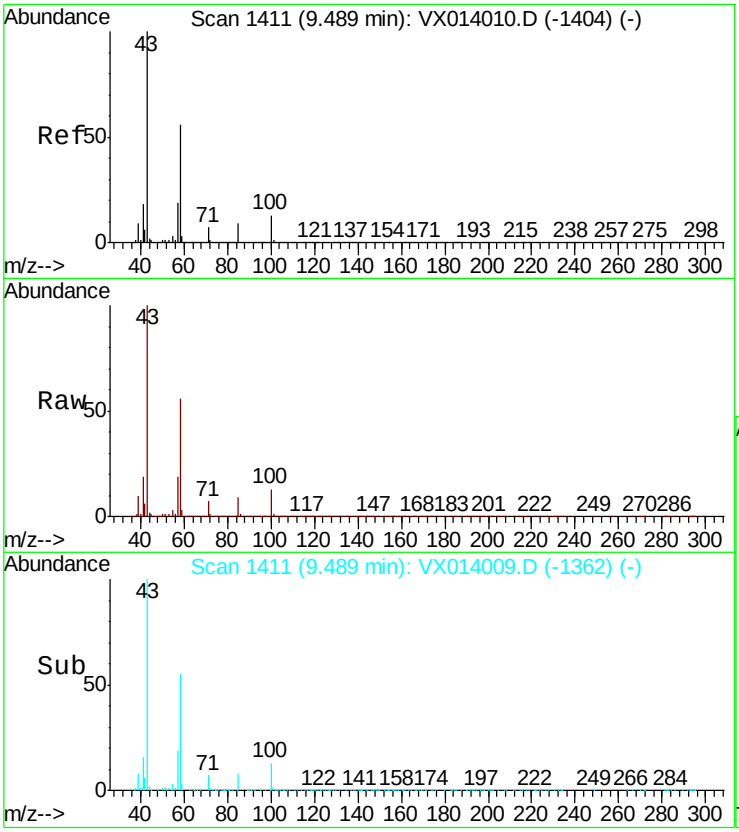


#58
2-Chloroethyl Vinyl ether
Concen: 98.492 ug/l
RT: 8.31 min Scan# 1217
Delta R.T. -0.00 min
Lab File: VX014009.D
Acq: 13 Dec 2019 15:36

Tgt Ion: 63 Resp: 369372

Ion	Ratio	Lower	Upper
63	100		
106	29.5	23.0	34.6

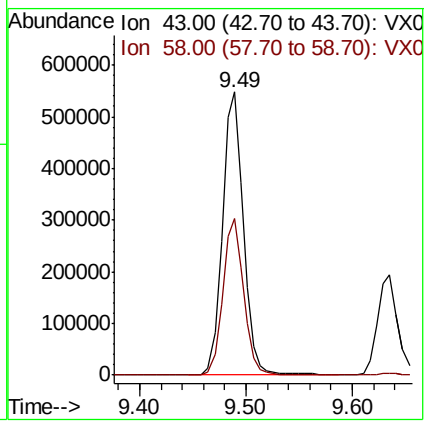




#59
2-Hexanone
Concen: 106.184 ug/l
RT: 9.49 min Scan# 1411
Delta R.T. -0.00 min
Lab File: VX014009.D
Acq: 13 Dec 2019 15:36

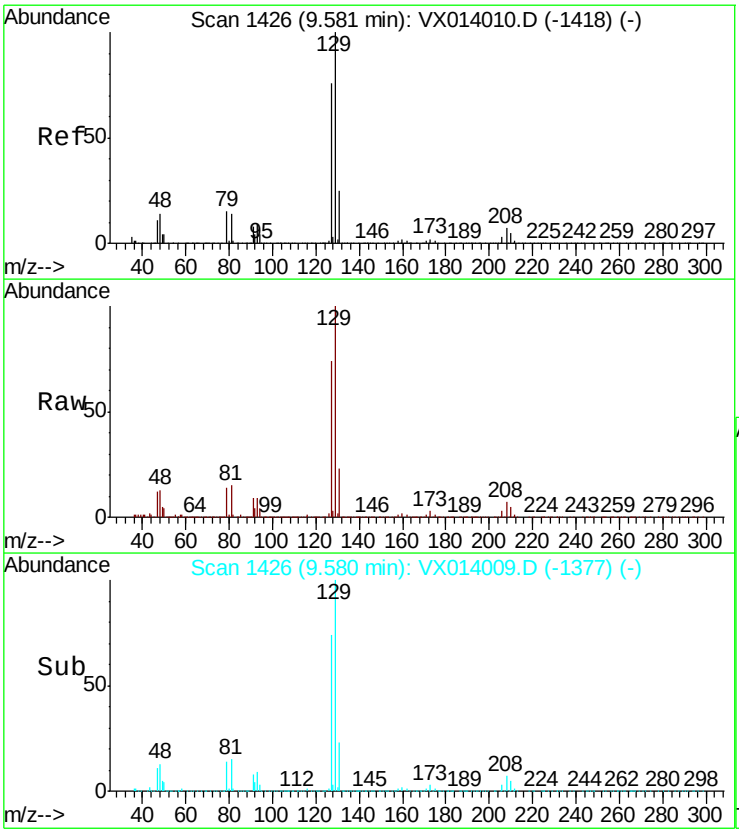
Tgt Ion: 43 Resp: 751678

Ion	Ratio	Lower	Upper
43	100		
58	54.7	28.0	84.0



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC020

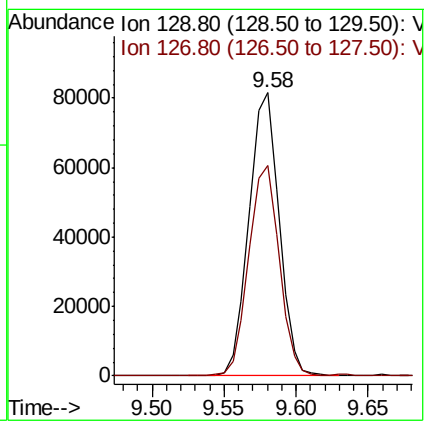
Manual Integrations APPROVED
apatel
12/16/2019 12:46:00 PM

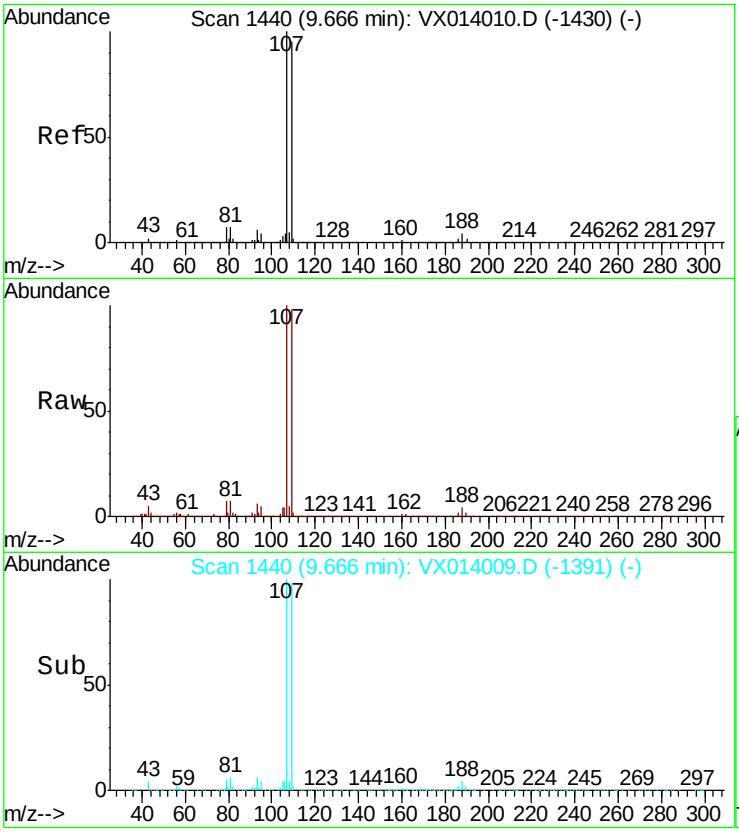


#60
Dibromochloromethane
Concen: 19.287 ug/l
RT: 9.58 min Scan# 1426
Delta R.T. -0.00 min
Lab File: VX014009.D
Acq: 13 Dec 2019 15:36

Tgt Ion:129 Resp: 118485

Ion	Ratio	Lower	Upper
129	100		
127	74.7	38.4	115.2

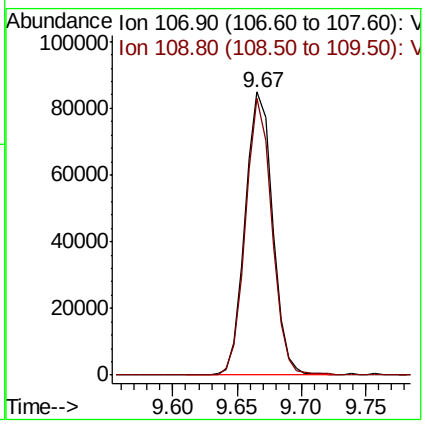




#61
1,2-Dibromoethane
Concen: 19.532 ug/l
RT: 9.67 min Scan# 1440
Delta R.T. -0.00 min
Lab File: VX014009.D
Acq: 13 Dec 2019 15:36

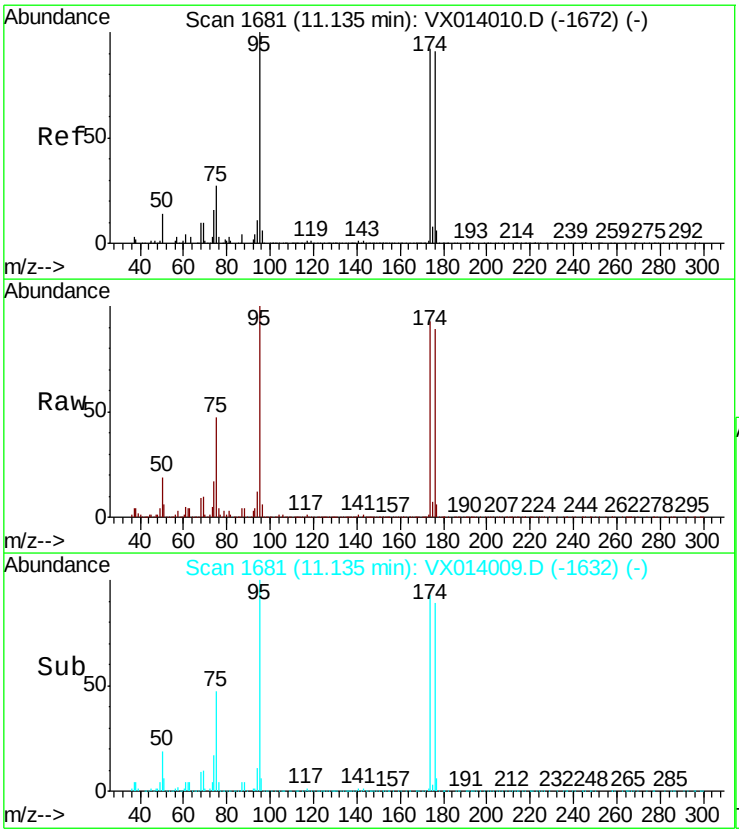
Tgt Ion:107 Resp: 123768

Ion	Ratio	Lower	Upper
107	100		
109	94.1	75.7	113.5



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC020

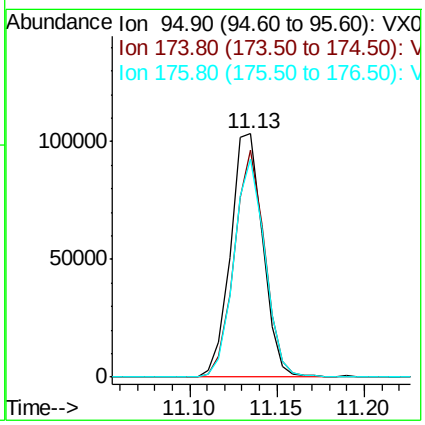
Manual Integrations APPROVED
apatel
12/16/2019 12:46:00 PM

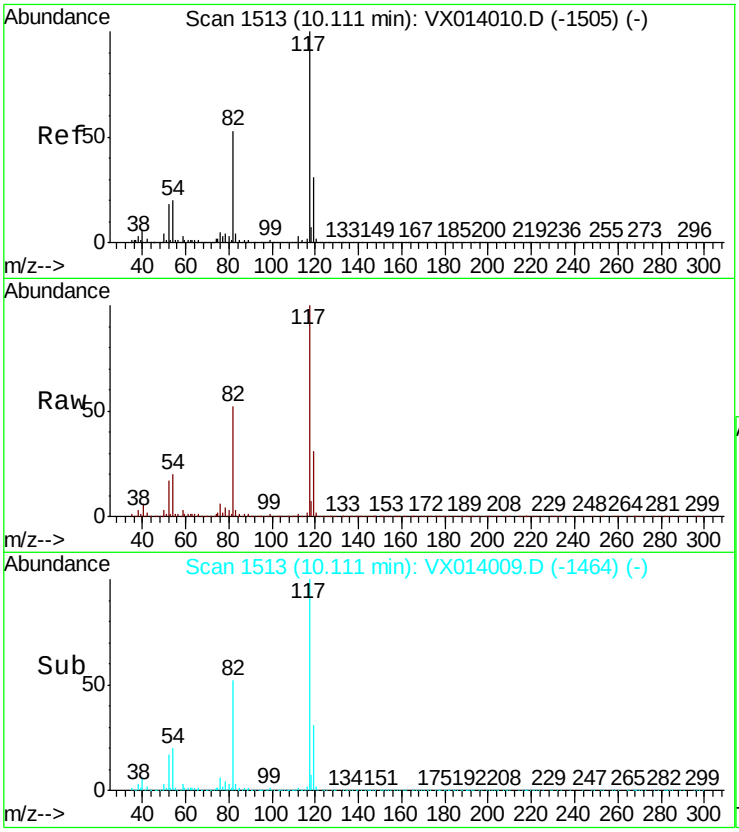


#62
4-Bromofluorobenzene
Concen: 17.613 ug/l
RT: 11.13 min Scan# 1681
Delta R.T. -0.00 min
Lab File: VX014009.D
Acq: 13 Dec 2019 15:36

Tgt Ion: 95 Resp: 132465

Ion	Ratio	Lower	Upper
95	100		
174	88.4	0.0	175.8
176	86.5	0.0	173.0

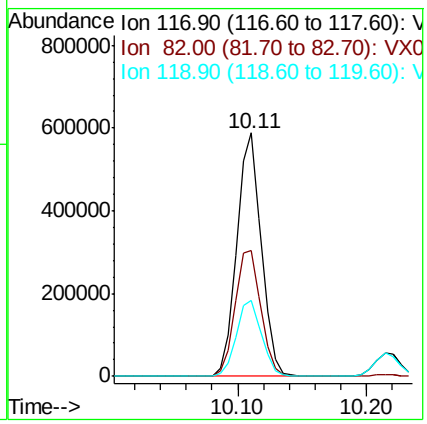




#63
Chlorobenzene-d5
Concen: 50.000 ug/l
RT: 10.11 min Scan# 1513
Delta R.T. -0.00 min
Lab File: VX014009.D
Acq: 13 Dec 2019 15:36

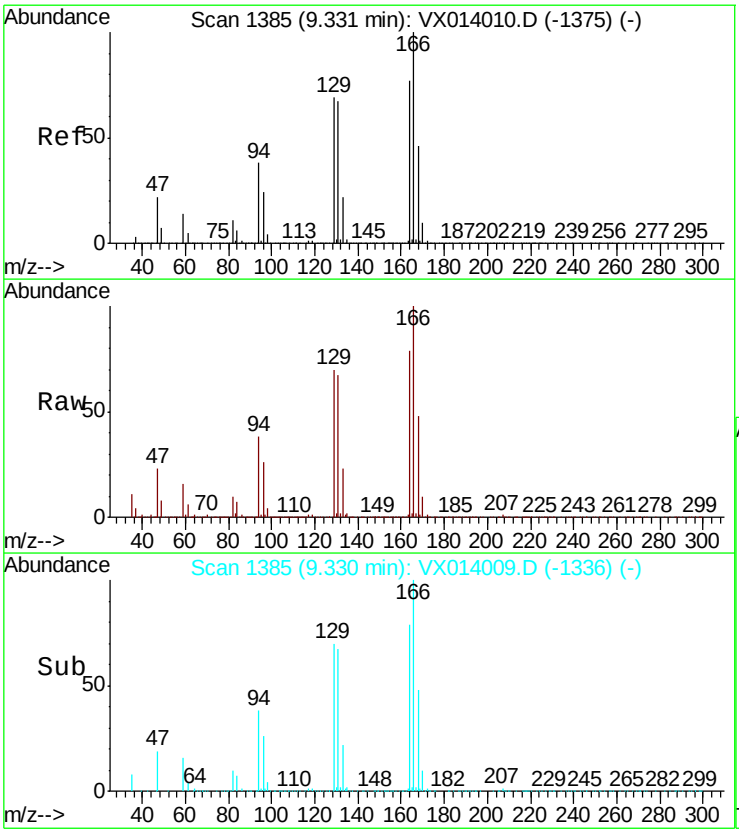
Tgt Ion:117 Resp: 774441

Ion	Ratio	Lower	Upper
117	100		
82	51.8	42.2	63.4
119	31.3	25.1	37.7



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC020

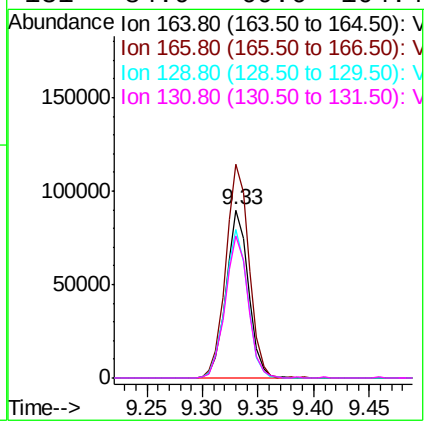
Manual Integrations APPROVED
apatel
12/16/2019 12:46:00 PM

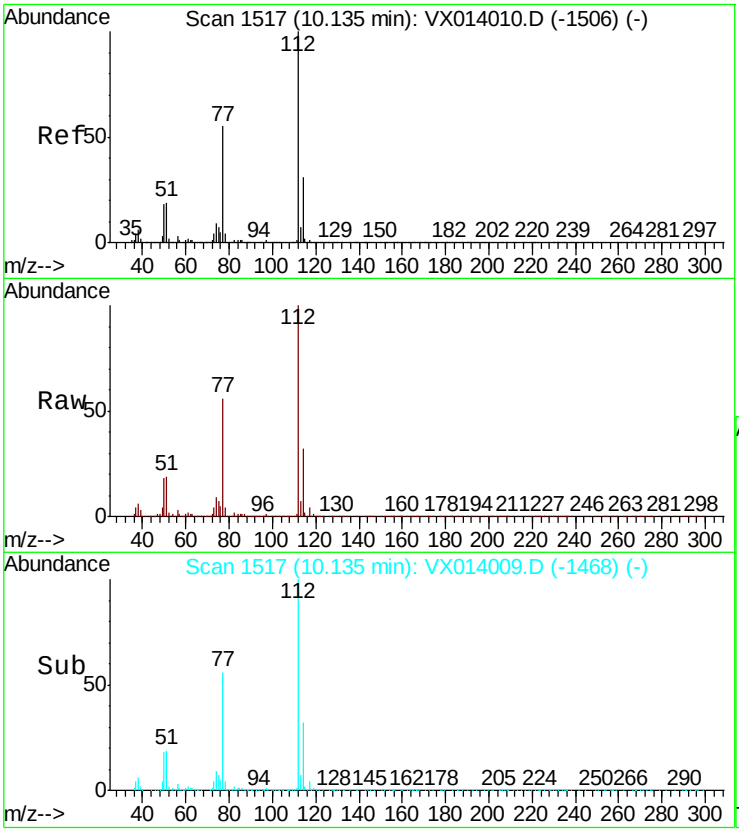


#64
Tetrachloroethene
Concen: 20.900 ug/l
RT: 9.33 min Scan# 1385
Delta R.T. -0.00 min
Lab File: VX014009.D
Acq: 13 Dec 2019 15:36

Tgt Ion:164 Resp: 124901

Ion	Ratio	Lower	Upper
164	100		
166	127.1	104.0	156.0
129	88.4	72.2	108.4
131	84.9	69.6	104.4

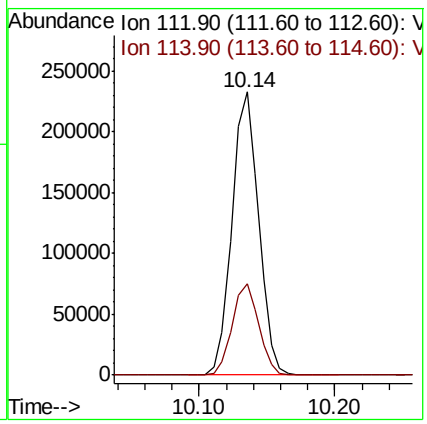




#65
Chlorobenzene
Concen: 19.673 ug/l
RT: 10.14 min Scan# 1517
Delta R.T. -0.00 min
Lab File: VX014009.D
Acq: 13 Dec 2019 15:36

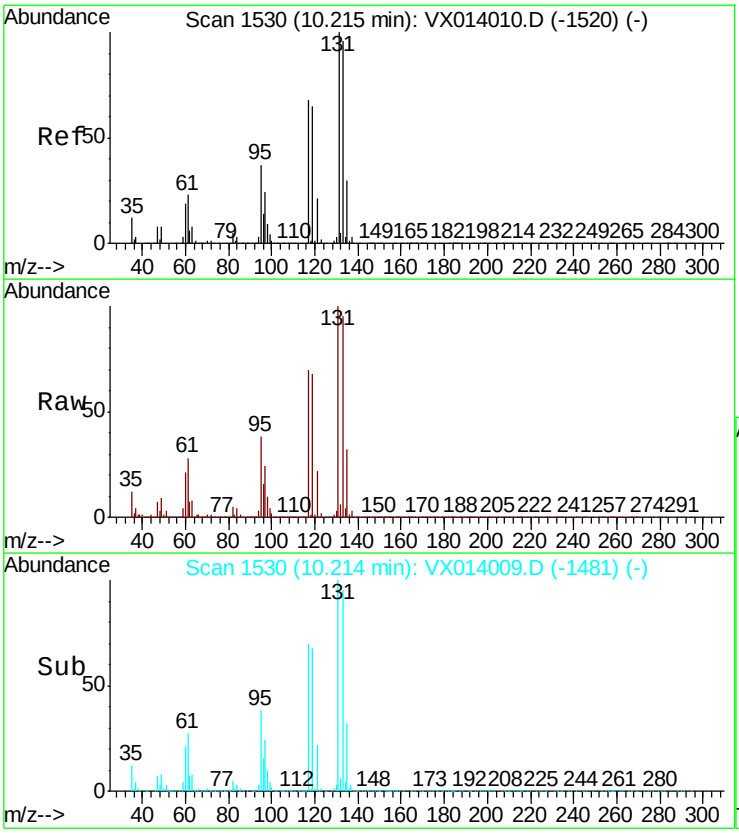
Tgt Ion:112 Resp: 318103

Ion	Ratio	Lower	Upper
112	100		
114	32.3	24.9	37.3



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC020

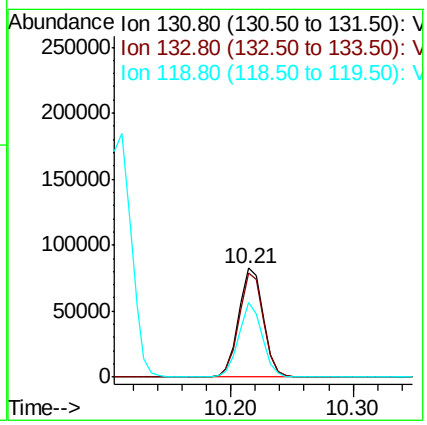
Manual Integrations APPROVED
apatel
12/16/2019 12:46:00 PM

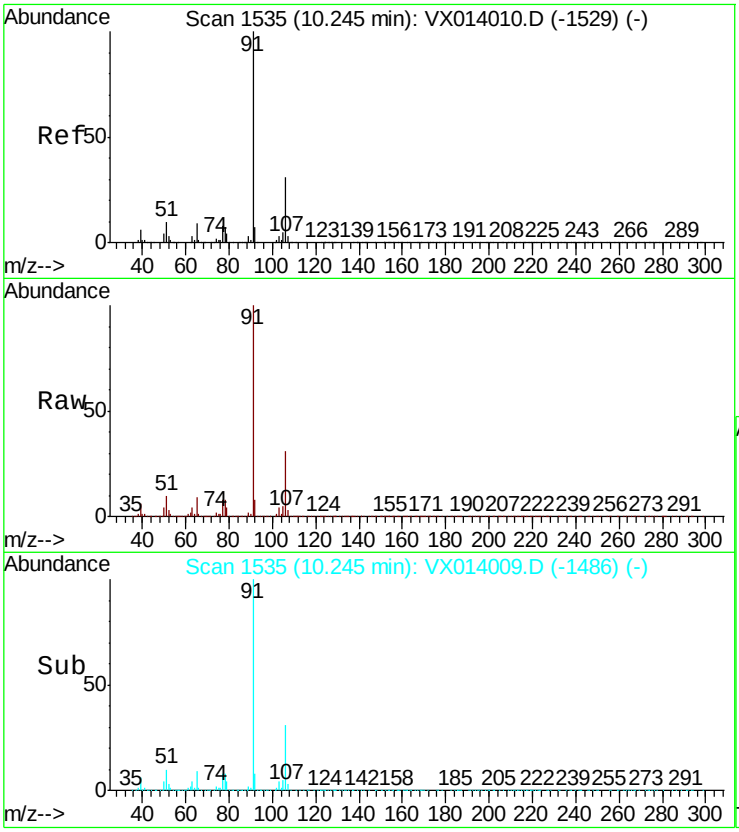


#66
1,1,1,2-Tetrachloroethane
Concen: 19.771 ug/l
RT: 10.21 min Scan# 1530
Delta R.T. -0.00 min
Lab File: VX014009.D
Acq: 13 Dec 2019 15:36

Tgt Ion:131 Resp: 114466

Ion	Ratio	Lower	Upper
131	100		
133	94.6	48.0	144.0
119	65.2	33.4	100.2

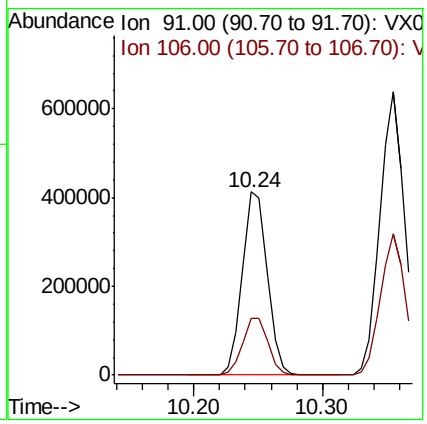




#67
Ethyl Benzene
Concen: 19.966 ug/l
RT: 10.24 min Scan# 1535
Delta R.T. -0.00 min
Lab File: VX014009.D
Acq: 13 Dec 2019 15:36

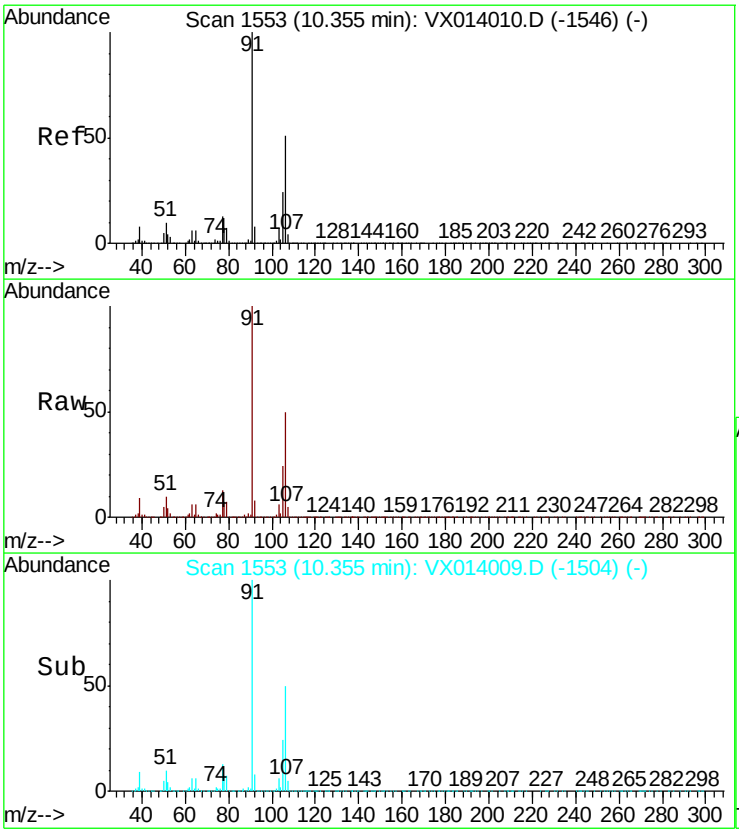
Tgt Ion: 91 Resp: 554140

Ion	Ratio	Lower	Upper
91	100		
106	31.0	25.0	37.6



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC020

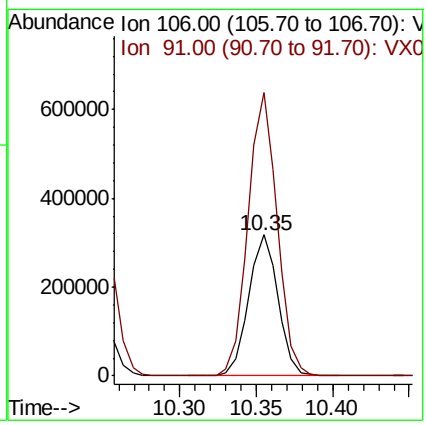
Manual Integrations APPROVED
apatel
12/16/2019 12:46:00 PM

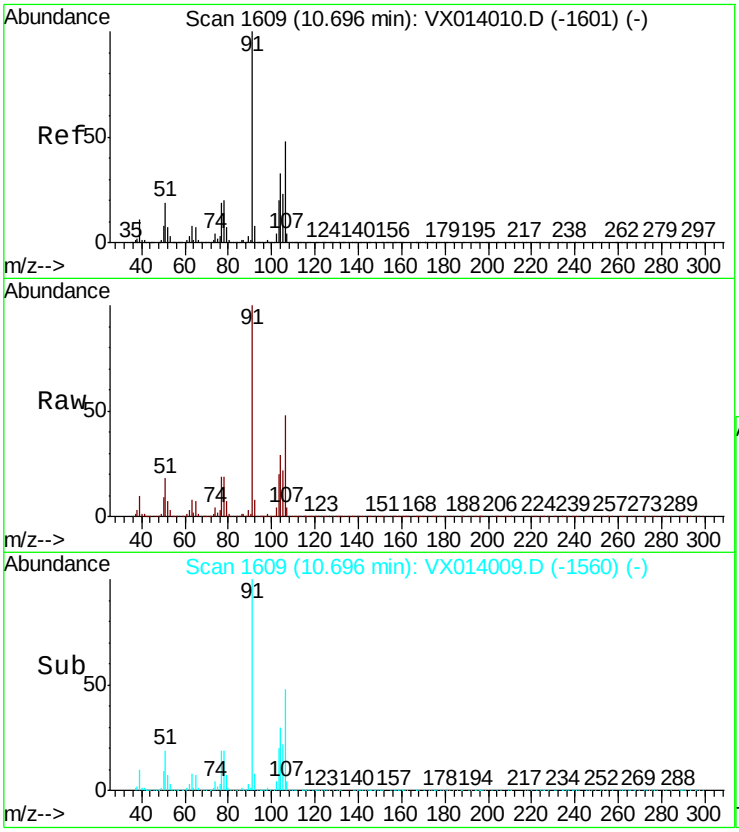


#68
m/p-Xylenes
Concen: 39.768 ug/l
RT: 10.35 min Scan# 1553
Delta R.T. -0.00 min
Lab File: VX014009.D
Acq: 13 Dec 2019 15:36

Tgt Ion:106 Resp: 423145

Ion	Ratio	Lower	Upper
106	100		
91	199.4	158.6	238.0

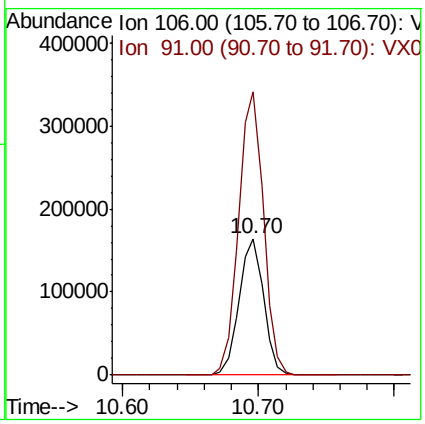




#69
o-Xylene
Concen: 19.910 ug/l
RT: 10.70 min Scan# 1609
Delta R.T. -0.00 min
Lab File: VX014009.D
Acq: 13 Dec 2019 15:36

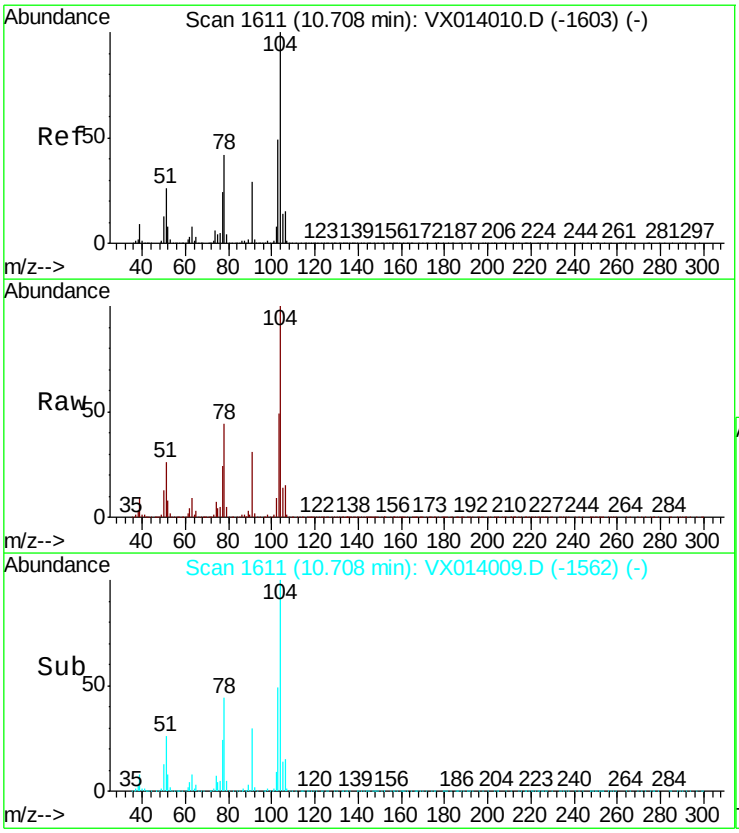
Tgt Ion:106 Resp: 206600

Ion	Ratio	Lower	Upper
106	100		
91	210.6	104.2	312.6



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC020

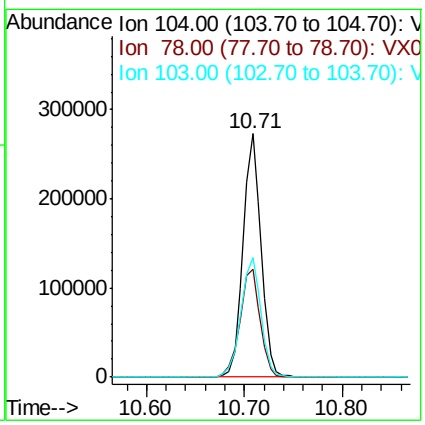
Manual Integrations APPROVED
apatel
12/16/2019 12:46:00 PM

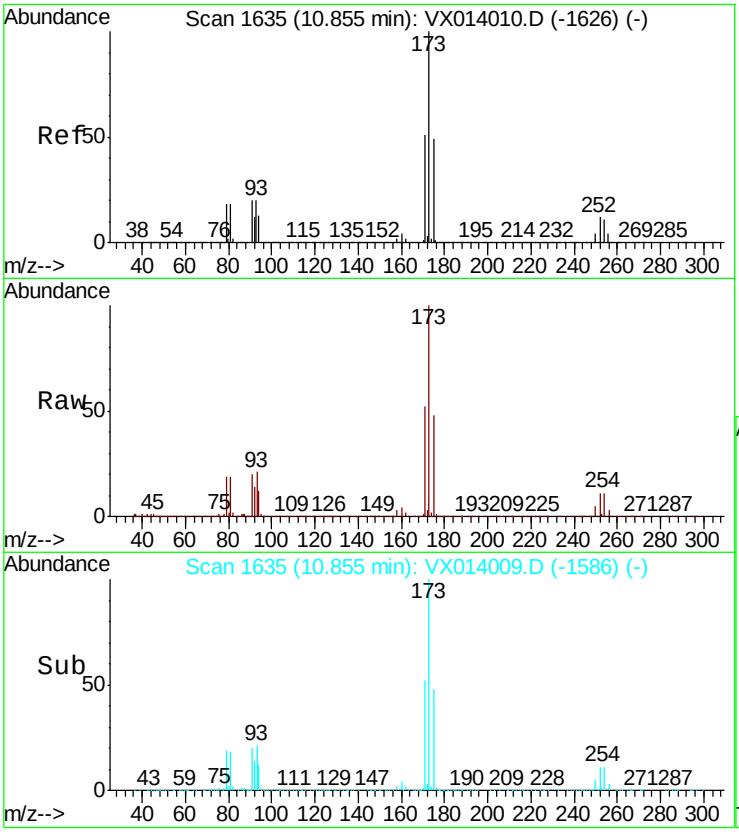


#70
Styrene
Concen: 19.907 ug/l
RT: 10.71 min Scan# 1611
Delta R.T. -0.00 min
Lab File: VX014009.D
Acq: 13 Dec 2019 15:36

Tgt Ion:104 Resp: 348489

Ion	Ratio	Lower	Upper
104	100		
78	49.7	38.5	57.7
103	53.9	42.9	64.3

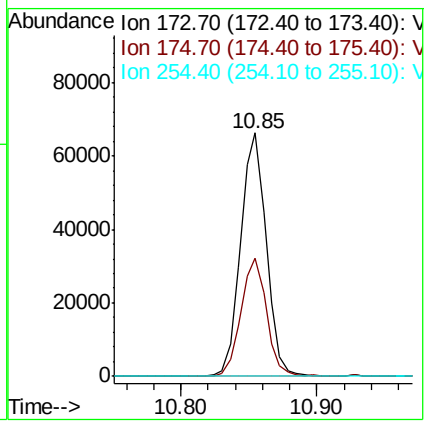


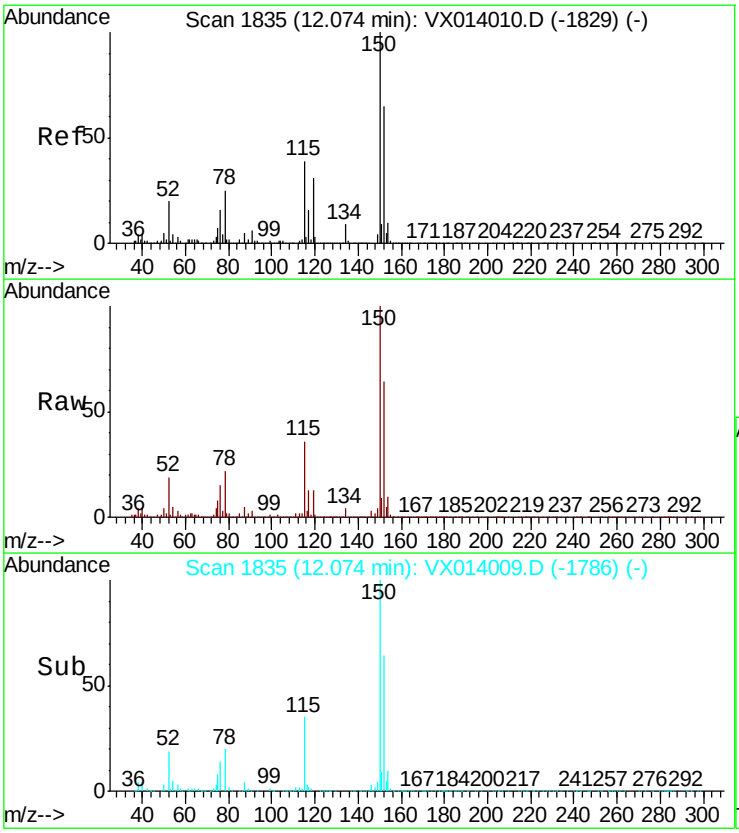


#71
Bromoform
Concen: 18.175 ug/l
RT: 10.85 min Scan# 1635
Delta R.T. -0.00 min
Lab File: VX014009.D
Acq: 13 Dec 2019 15:36

Tgt Ion:173 Resp: 86794

Ion	Ratio	Lower	Upper
173	100		
175	48.7	24.4	73.4
254	0.0	0.2	0.2#

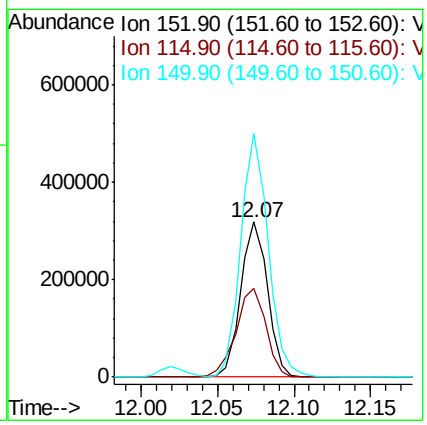




#72
1,4-Dichlorobenzene-d4
Concen: 50.000 ug/l
RT: 12.07 min Scan# 1835
Delta R.T. -0.00 min
Lab File: VX014009.D
Acq: 13 Dec 2019 15:36

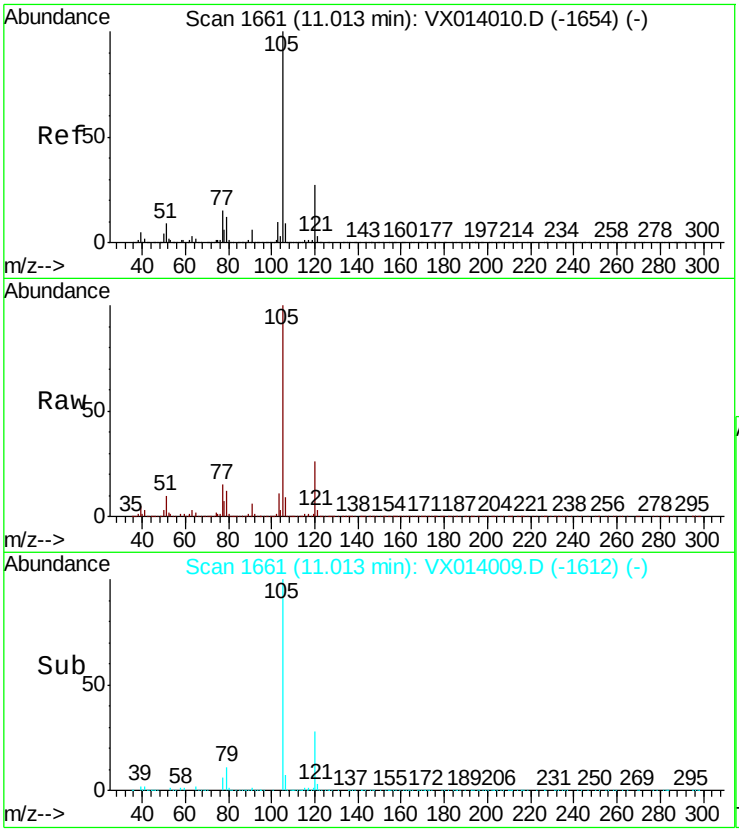
Tgt Ion:152 Resp: 385975

Ion	Ratio	Lower	Upper
152	100		
115	64.3	38.3	114.9
150	161.5	0.0	345.4



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC020

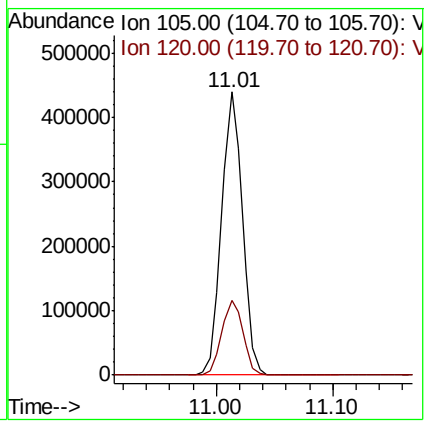
Manual Integrations APPROVED
apatel
12/16/2019 12:46:00 PM



#73
Isopropylbenzene
Concen: 20.101 ug/l
RT: 11.01 min Scan# 1661
Delta R.T. -0.00 min
Lab File: VX014009.D
Acq: 13 Dec 2019 15:36

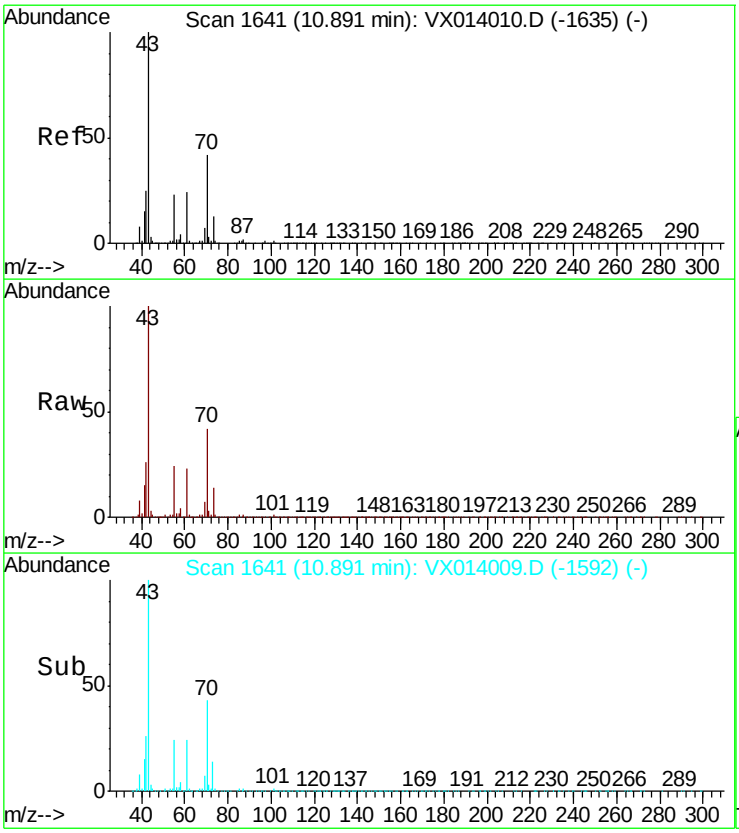
Tgt Ion:105 Resp: 544940

Ion	Ratio	Lower	Upper
105	100		
120	26.8	13.5	40.4



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC020

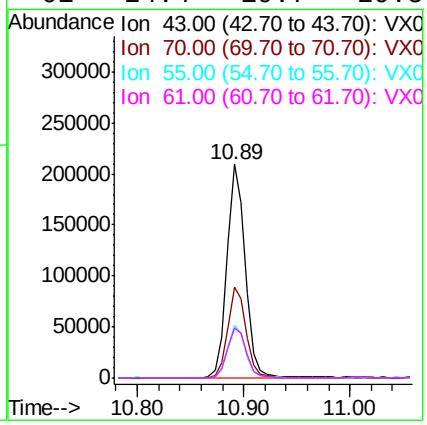
Manual Integrations APPROVED
apatel
12/16/2019 12:46:00 PM

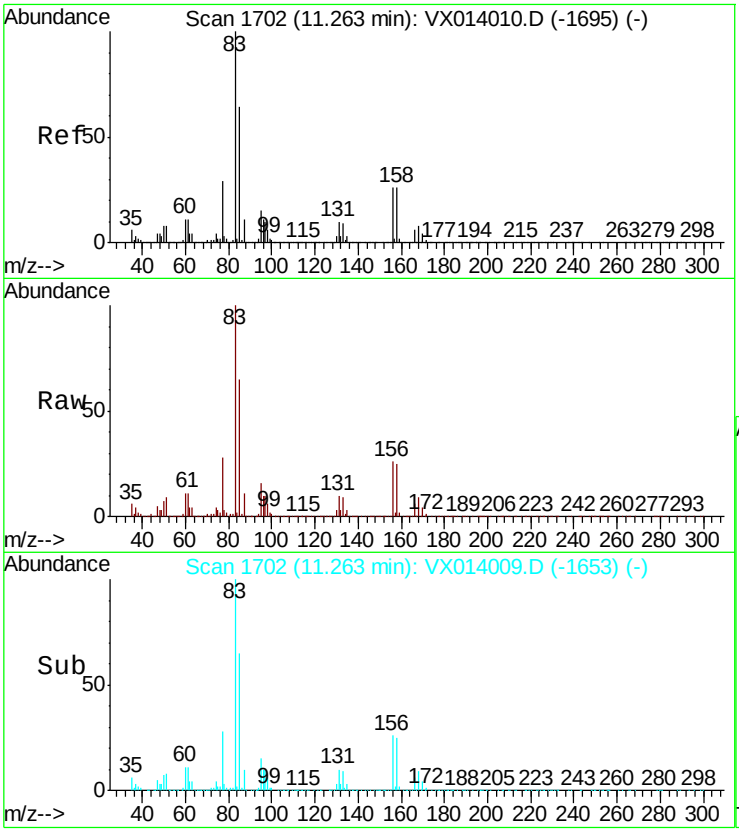


#74
N-amyl acetate
Concen: 20.351 ug/l
RT: 10.89 min Scan# 1641
Delta R.T. -0.00 min
Lab File: VX014009.D
Acq: 13 Dec 2019 15:36

Tgt Ion: 43 Resp: 252737

Ion	Ratio	Lower	Upper
43	100		
70	43.1	34.4	51.6
55	25.2	19.1	28.7
61	24.4	19.7	29.5

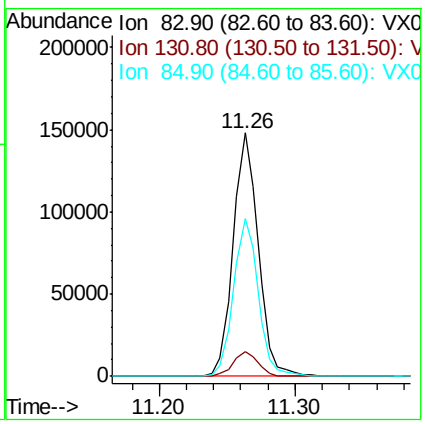




#75
1,1,2,2-Tetrachloroethane
Concen: 20.130 ug/l
RT: 11.26 min Scan# 1702
Delta R.T. -0.00 min
Lab File: VX014009.D
Acq: 13 Dec 2019 15:36

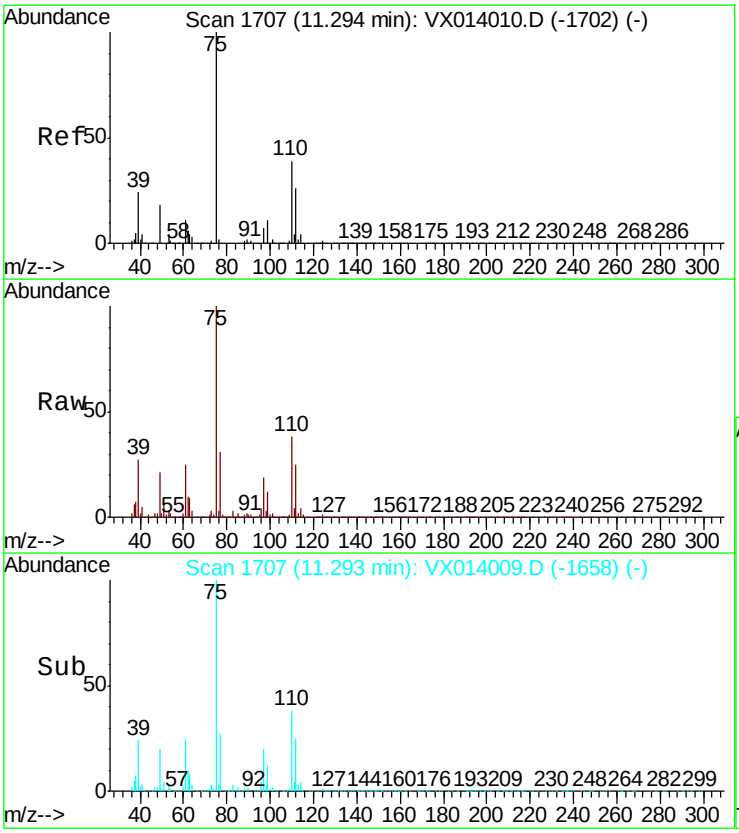
Tgt Ion: 83 Resp: 188950

Ion	Ratio	Lower	Upper
83	100		
131	10.4	5.1	15.2
85	63.9	31.9	95.7



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC020

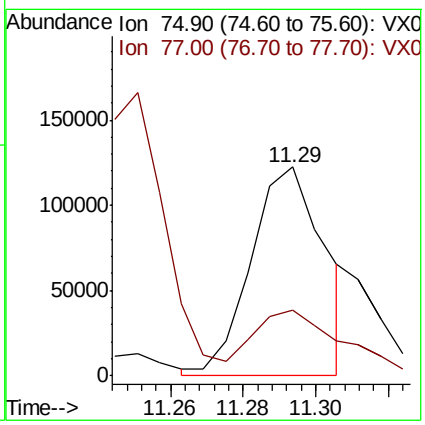
Manual Integrations APPROVED
apatel
12/16/2019 12:46:00 PM

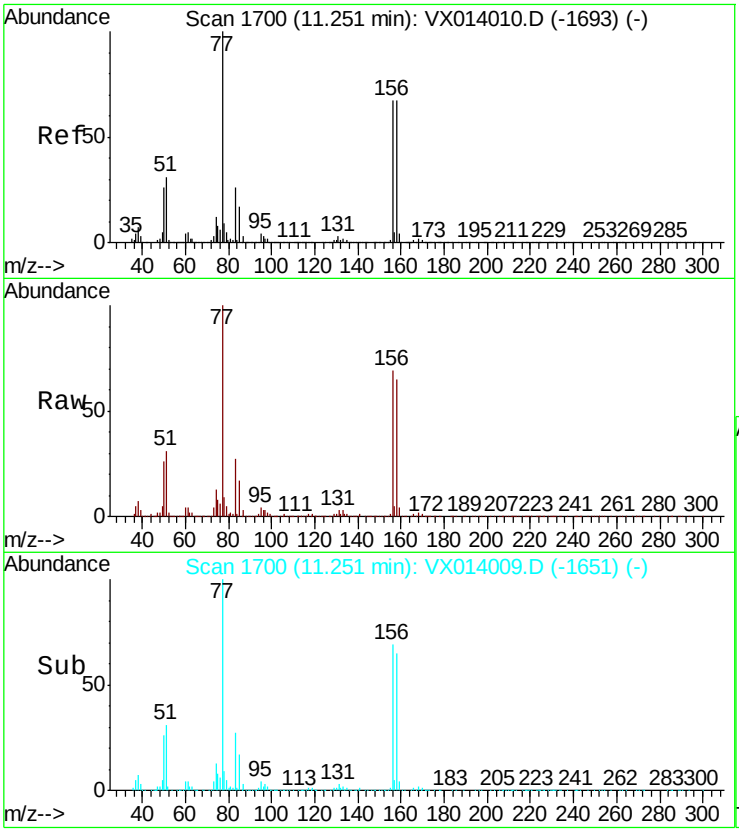


#76
1,2,3-Trichloropropane
Concen: 19.876 ug/l m
RT: 11.29 min Scan# 1707
Delta R.T. -0.00 min
Lab File: VX014009.D
Acq: 13 Dec 2019 15:36

Tgt Ion: 75 Resp: 171818

Ion	Ratio	Lower	Upper
75	100		
77	37.8	19.3	57.8

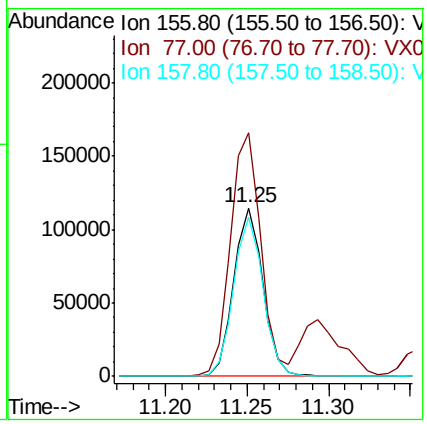




#77
Bromobenzene
Concen: 19.642 ug/l
RT: 11.25 min Scan# 1700
Delta R.T. -0.00 min
Lab File: VX014009.D
Acq: 13 Dec 2019 15:36

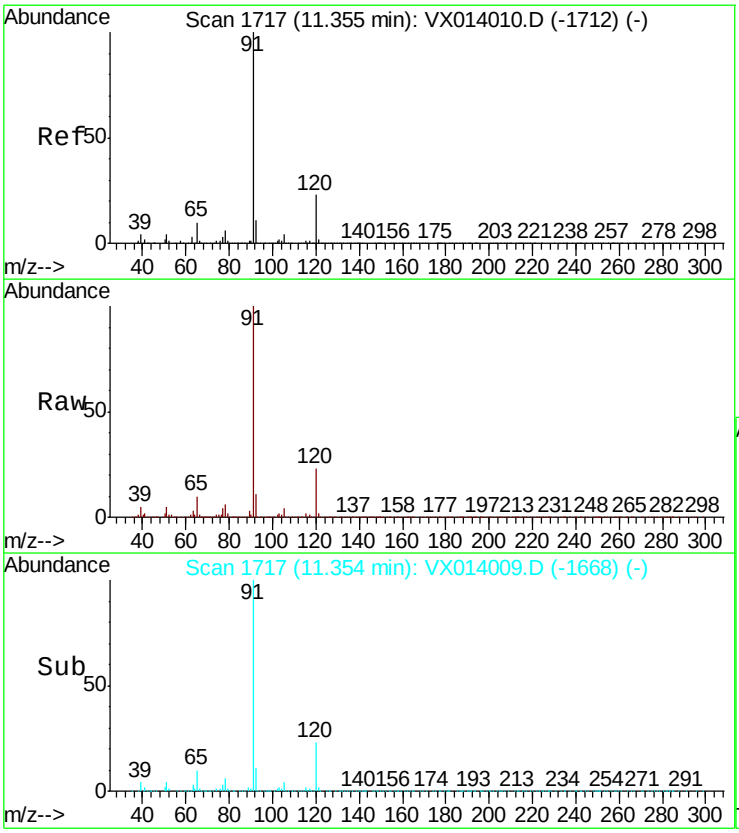
Tgt Ion:156 Resp: 143527

Ion	Ratio	Lower	Upper
156	100		
77	150.1	76.5	229.5
158	95.2	49.3	147.9



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC020

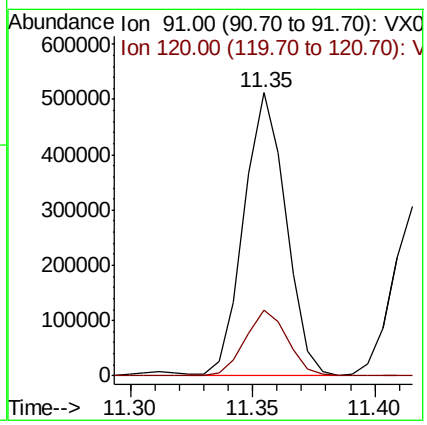
Manual Integrations APPROVED
apatel
12/16/2019 12:46:00 PM

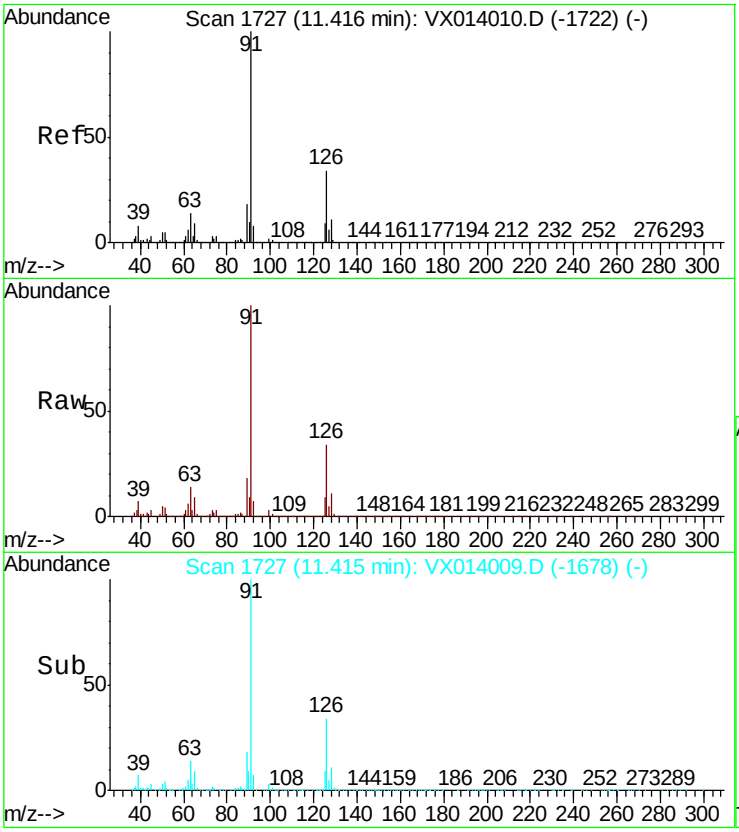


#78
n-propylbenzene
Concen: 20.092 ug/l
RT: 11.35 min Scan# 1717
Delta R.T. -0.00 min
Lab File: VX014009.D
Acq: 13 Dec 2019 15:36

Tgt Ion: 91 Resp: 609085

Ion	Ratio	Lower	Upper
91	100		
120	23.5	11.7	35.0

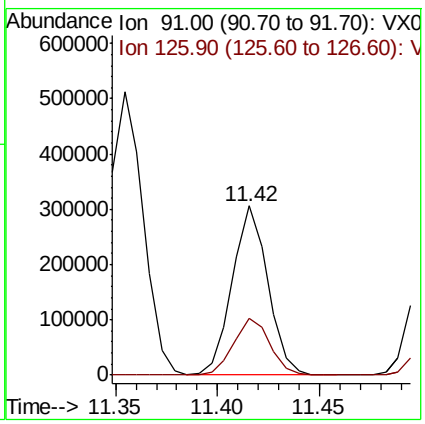




#79
2-Chlorotoluene
Concen: 20.172 ug/l
RT: 11.42 min Scan# 1727
Delta R.T. -0.00 min
Lab File: VX014009.D
Acq: 13 Dec 2019 15:36

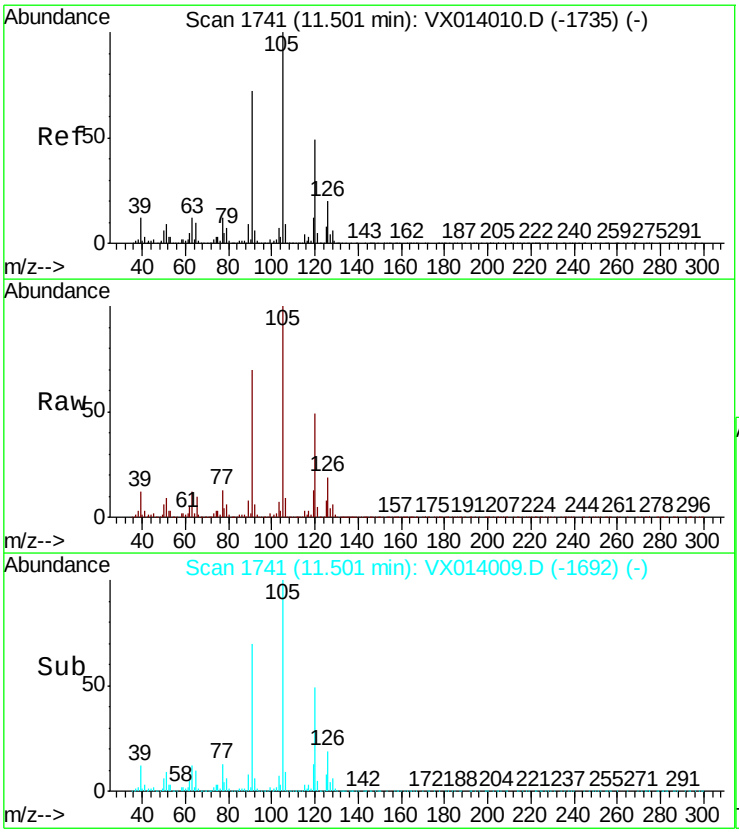
Tgt Ion: 91 Resp: 367875

Ion	Ratio	Lower	Upper
91	100		
126	34.4	17.2	51.6



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC020

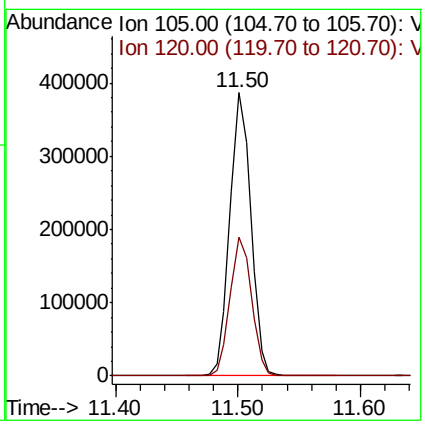
Manual Integrations APPROVED
apatel
12/16/2019 12:46:00 PM

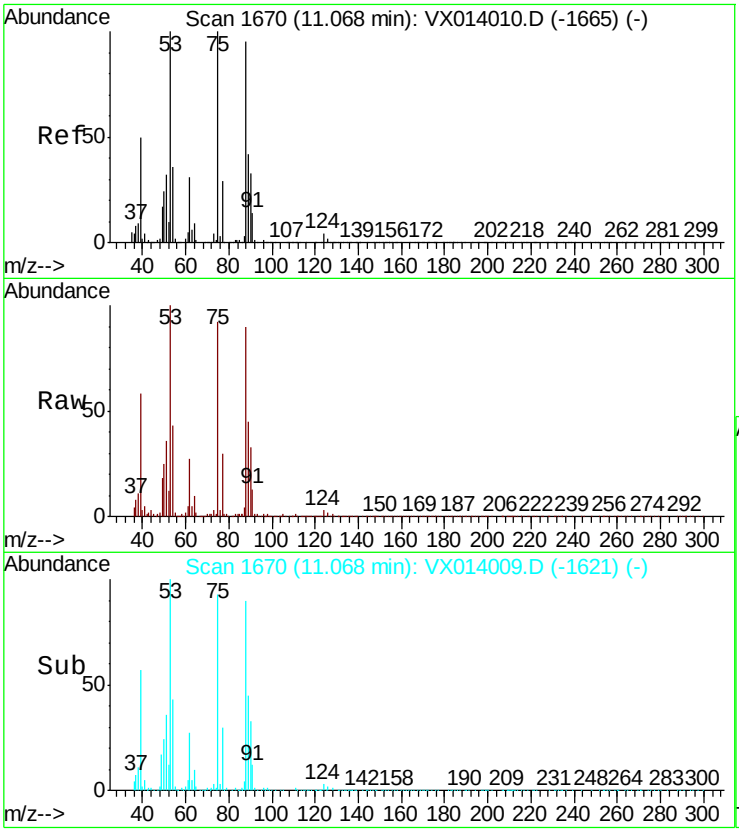


#80
1,3,5-Trimethylbenzene
Concen: 20.527 ug/l
RT: 11.50 min Scan# 1741
Delta R.T. -0.00 min
Lab File: VX014009.D
Acq: 13 Dec 2019 15:36

Tgt Ion:105 Resp: 457399

Ion	Ratio	Lower	Upper
105	100		
120	50.1	25.3	75.8

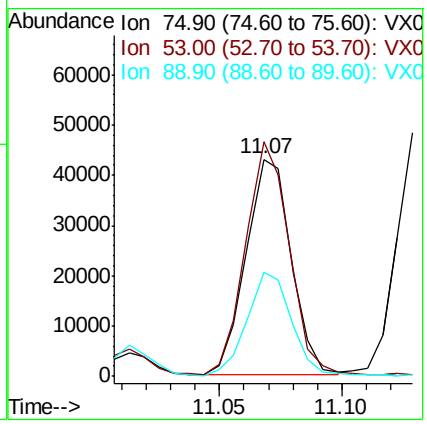




#81
trans-1,4-Dichloro-2-butene
Concen: 17.623 ug/l
RT: 11.07 min Scan# 1670
Delta R.T. -0.00 min
Lab File: VX014009.D
Acq: 13 Dec 2019 15:36

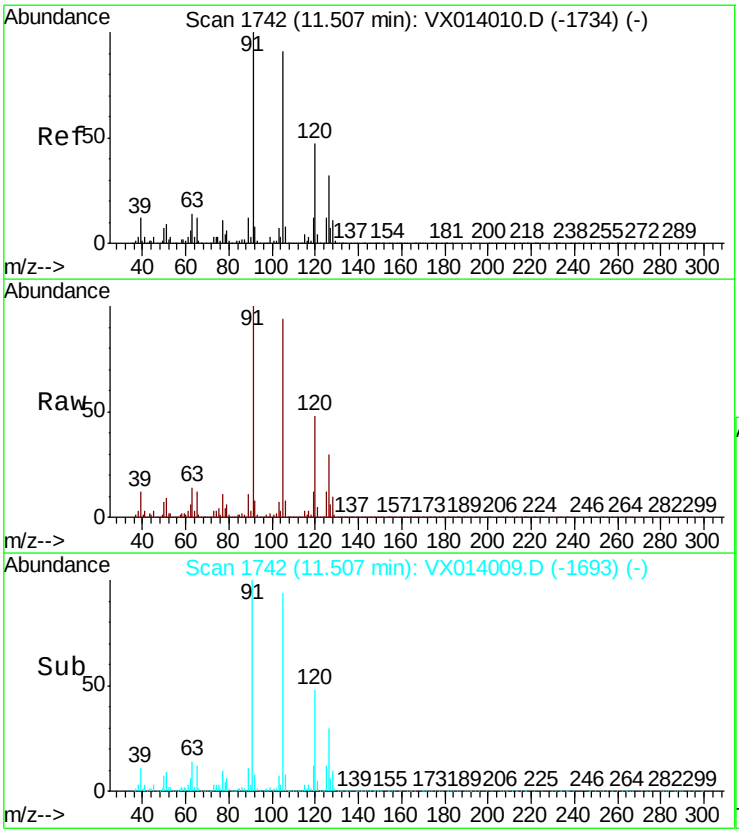
Tgt Ion: 75 Resp: 55573

Ion	Ratio	Lower	Upper
75	100		
53	103.7	76.7	115.1
89	48.3	34.6	51.8



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC020

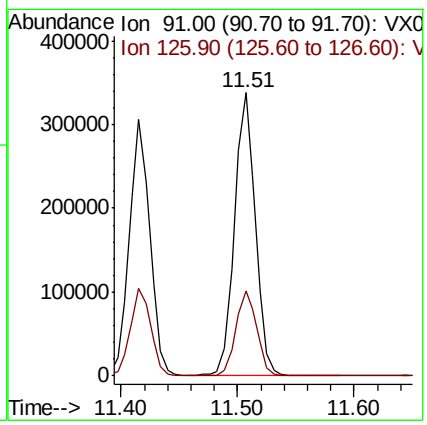
Manual Integrations APPROVED
apatel
12/16/2019 12:46:00 PM

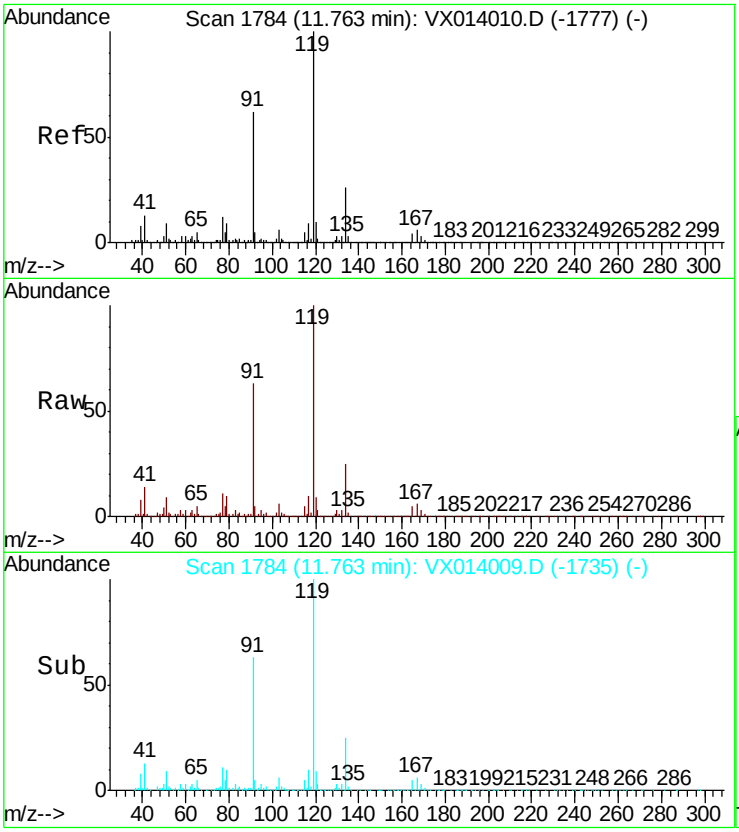


#82
4-Chlorotoluene
Concen: 19.957 ug/l
RT: 11.51 min Scan# 1742
Delta R.T. -0.00 min
Lab File: VX014009.D
Acq: 13 Dec 2019 15:36

Tgt Ion: 91 Resp: 420244

Ion	Ratio	Lower	Upper
91	100		
126	30.4	15.6	46.8

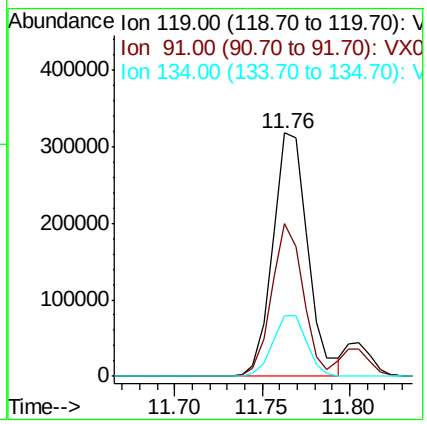




#83
tert-Butylbenzene
Concen: 19.713 ug/l
RT: 11.76 min Scan# 1784
Delta R.T. -0.00 min
Lab File: VX014009.D
Acq: 13 Dec 2019 15:36

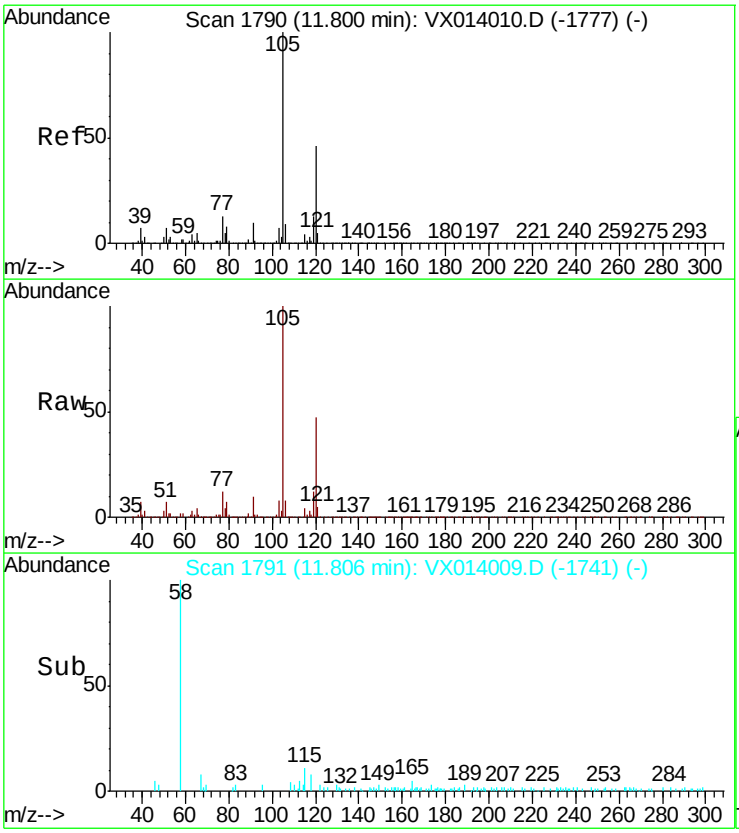
Tgt Ion:119 Resp: 442556

Ion	Ratio	Lower	Upper
119	100		
91	56.4	28.5	85.6
134	24.3	12.2	36.6



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC020

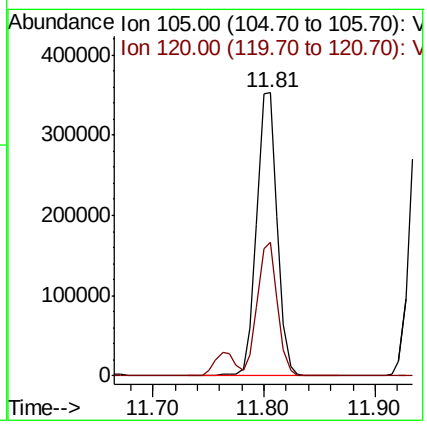
Manual Integrations APPROVED
apatel
12/16/2019 12:46:00 PM

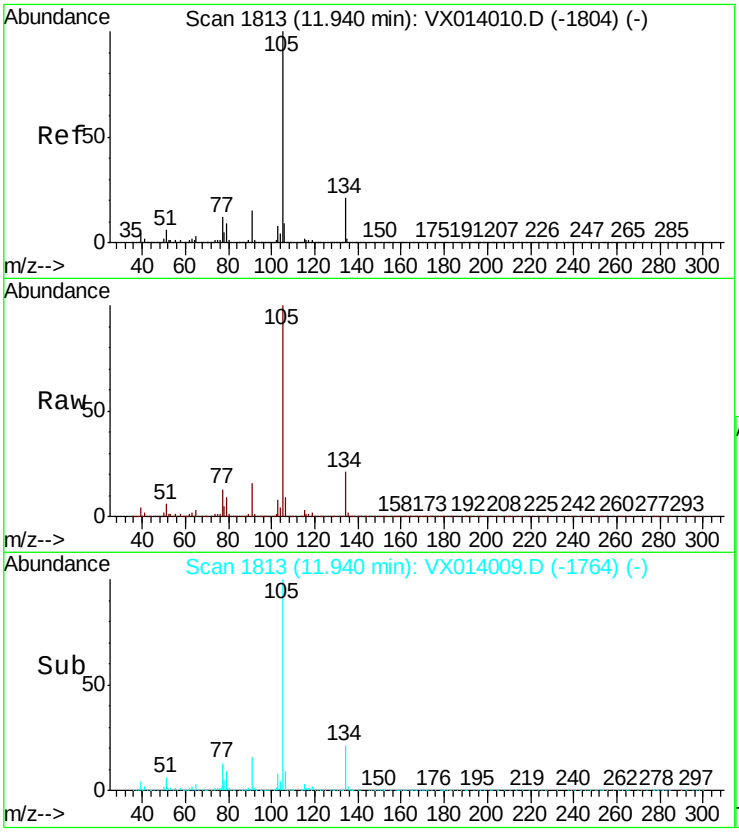


#84
1,2,4-Trimethylbenzene
Concen: 20.233 ug/l
RT: 11.81 min Scan# 1791
Delta R.T. 0.01 min
Lab File: VX014009.D
Acq: 13 Dec 2019 15:36

Tgt Ion:105 Resp: 457262

Ion	Ratio	Lower	Upper
105	100		
120	46.0	23.1	69.2

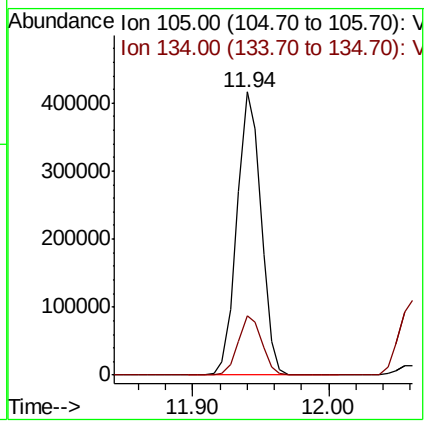




#85
sec-Butylbenzene
Concen: 19.872 ug/l
RT: 11.94 min Scan# 1813
Delta R.T. -0.00 min
Lab File: VX014009.D
Acq: 13 Dec 2019 15:36

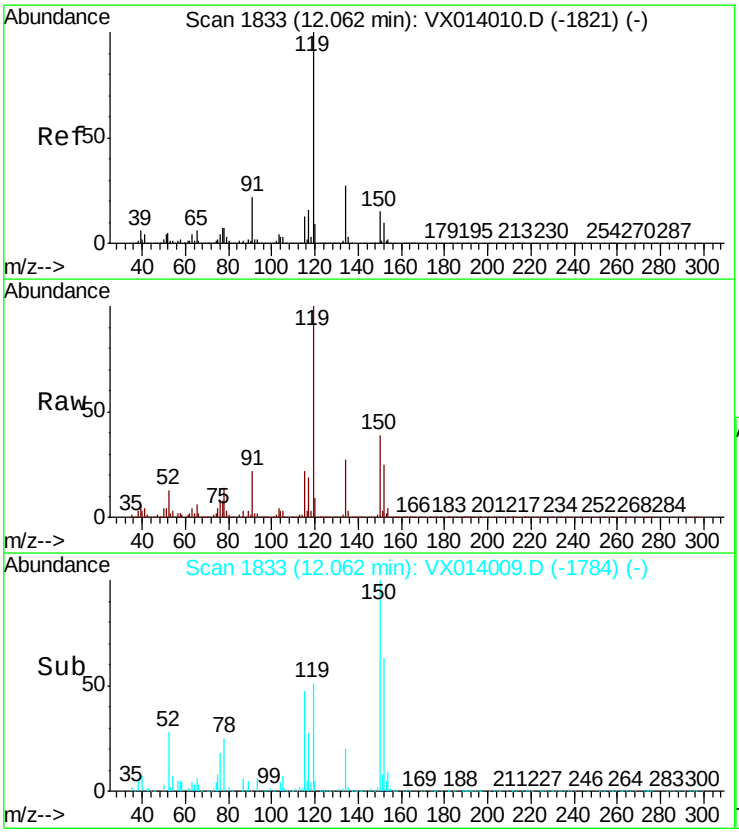
Tgt Ion:105 Resp: 513400

Ion	Ratio	Lower	Upper
105	100		
134	20.7	10.4	31.1



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC020

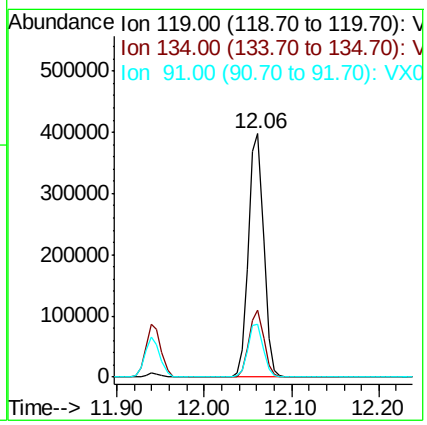
Manual Integrations APPROVED
apatel
12/16/2019 12:46:00 PM

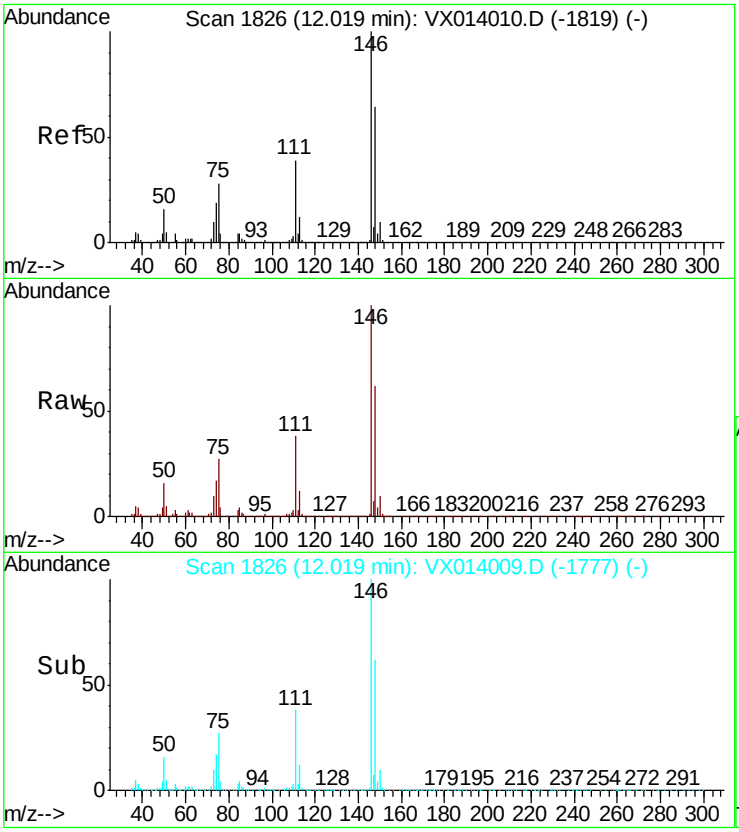


#86
p-Isopropyltoluene
Concen: 19.806 ug/l
RT: 12.06 min Scan# 1833
Delta R.T. -0.00 min
Lab File: VX014009.D
Acq: 13 Dec 2019 15:36

Tgt Ion:119 Resp: 475332

Ion	Ratio	Lower	Upper
119	100		
134	26.8	13.4	40.1
91	22.0	11.4	34.1

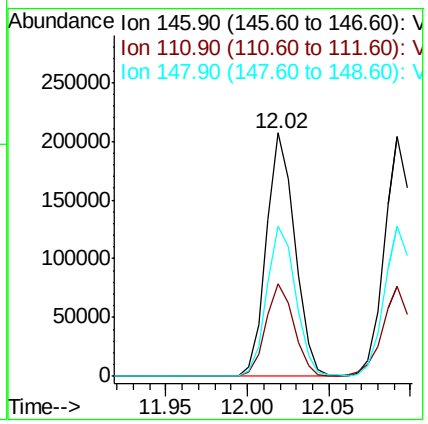




#87
1,3-Dichlorobenzene
Concen: 19.556 ug/l
RT: 12.02 min Scan# 1826
Delta R.T. -0.00 min
Lab File: VX014009.D
Acq: 13 Dec 2019 15:36

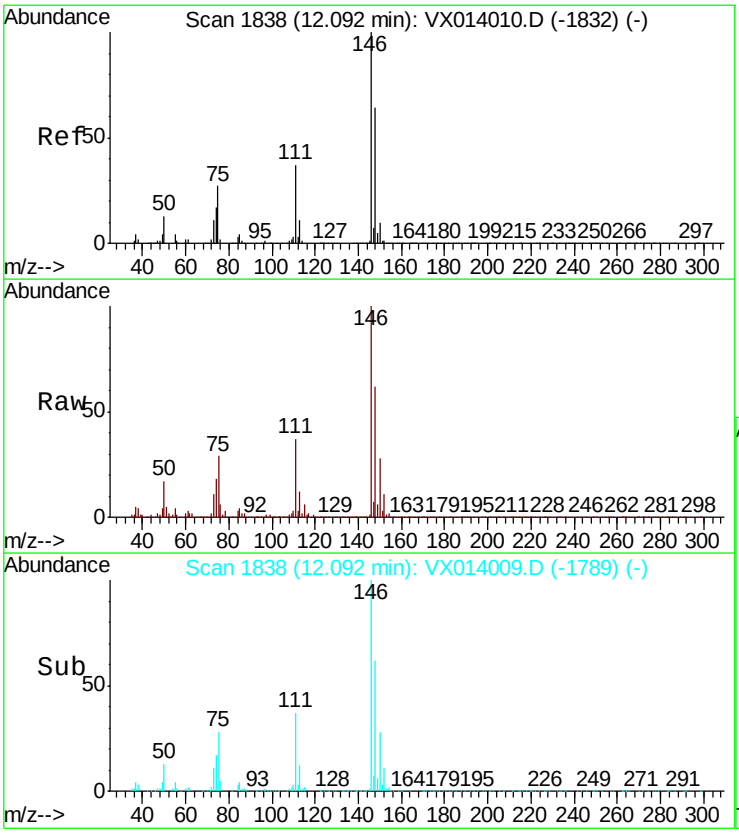
Tgt Ion:146 Resp: 249596

Ion	Ratio	Lower	Upper
146	100		
111	37.8	19.1	57.1
148	62.5	32.3	96.9



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC020

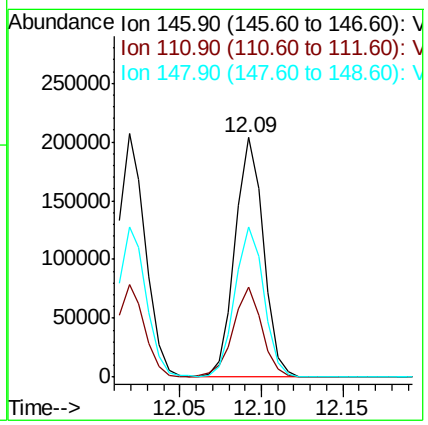
Manual Integrations APPROVED
apatel
12/16/2019 12:46:00 PM

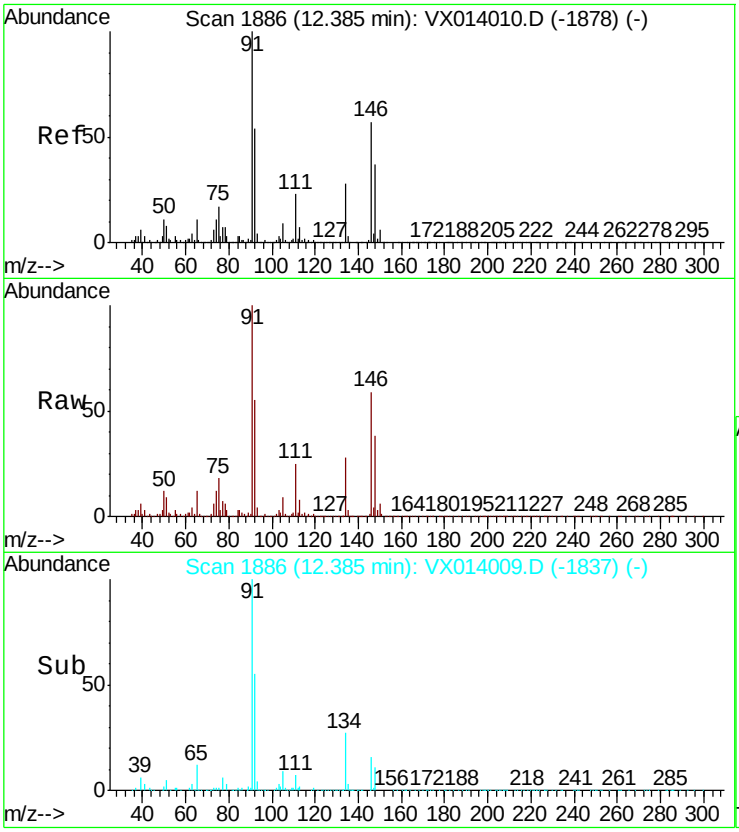


#88
1,4-Dichlorobenzene
Concen: 18.953 ug/l
RT: 12.09 min Scan# 1838
Delta R.T. -0.00 min
Lab File: VX014009.D
Acq: 13 Dec 2019 15:36

Tgt Ion:146 Resp: 246732

Ion	Ratio	Lower	Upper
146	100		
111	38.0	18.7	56.1
148	63.7	31.9	95.9

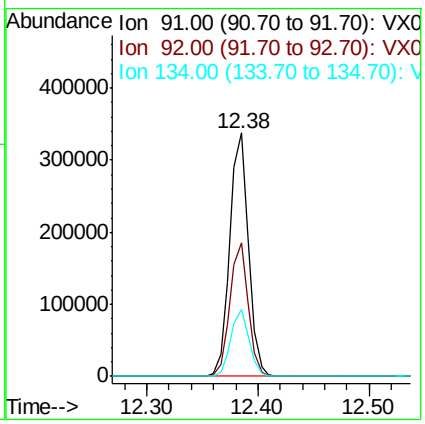




#89
n-Butylbenzene
Concen: 19.038 ug/l
RT: 12.38 min Scan# 1886
Delta R.T. -0.00 min
Lab File: VX014009.D
Acq: 13 Dec 2019 15:36

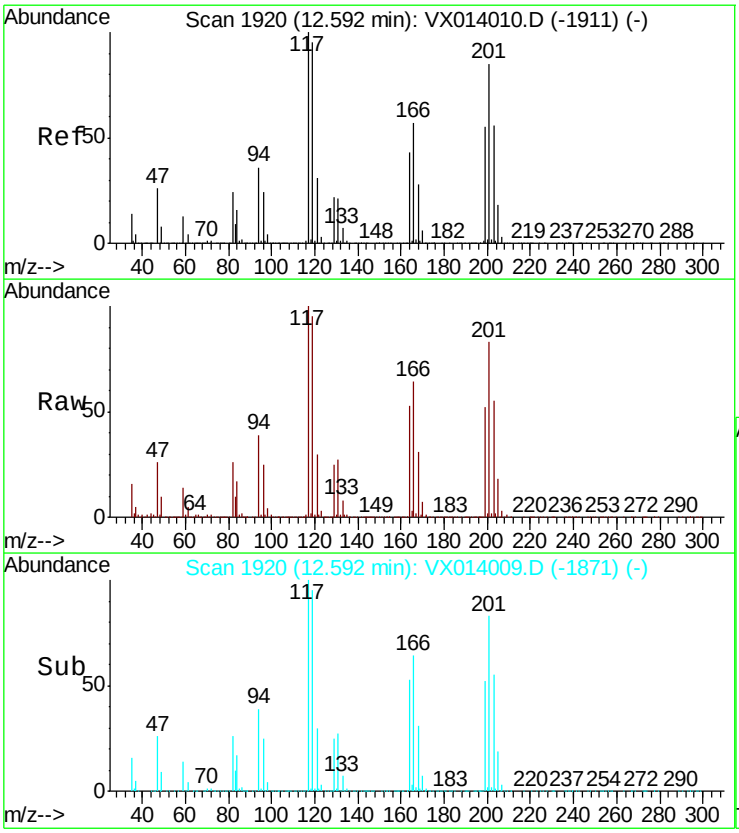
Tgt Ion: 91 Resp: 390195

Ion	Ratio	Lower	Upper
91	100		
92	54.0	27.2	81.6
134	27.1	13.4	40.1



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC020

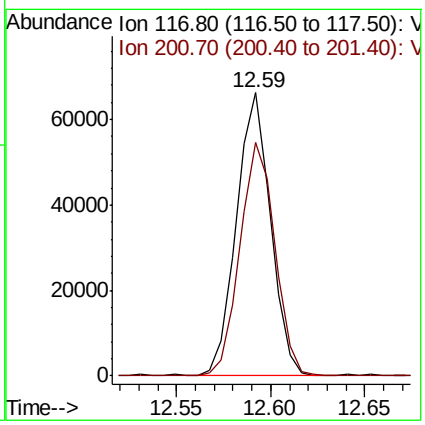
Manual Integrations APPROVED
apatel
12/16/2019 12:46:00 PM

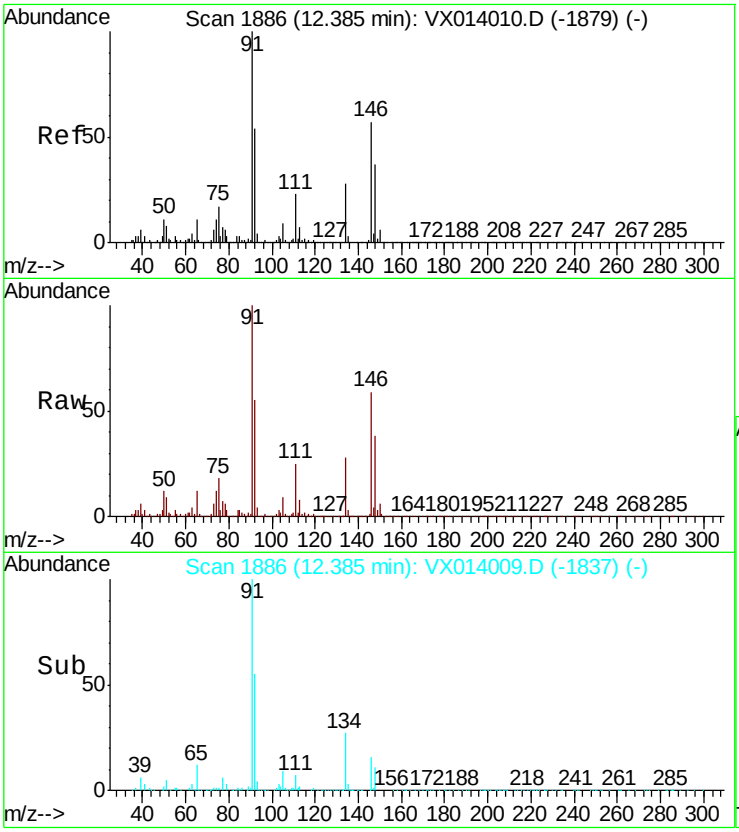


#90
Hexachloroethane
Concen: 19.051 ug/l
RT: 12.59 min Scan# 1920
Delta R.T. -0.00 min
Lab File: VX014009.D
Acq: 13 Dec 2019 15:36

Tgt Ion:117 Resp: 82875

Ion	Ratio	Lower	Upper
117	100		
201	85.0	43.1	129.3

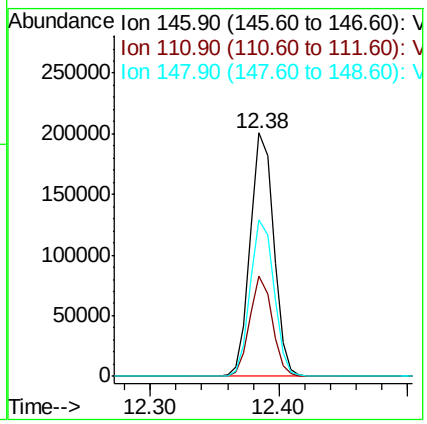




#91
1,2-Dichlorobenzene
Concen: 19.914 ug/l
RT: 12.38 min Scan# 1886
Delta R.T. -0.00 min
Lab File: VX014009.D
Acq: 13 Dec 2019 15:36

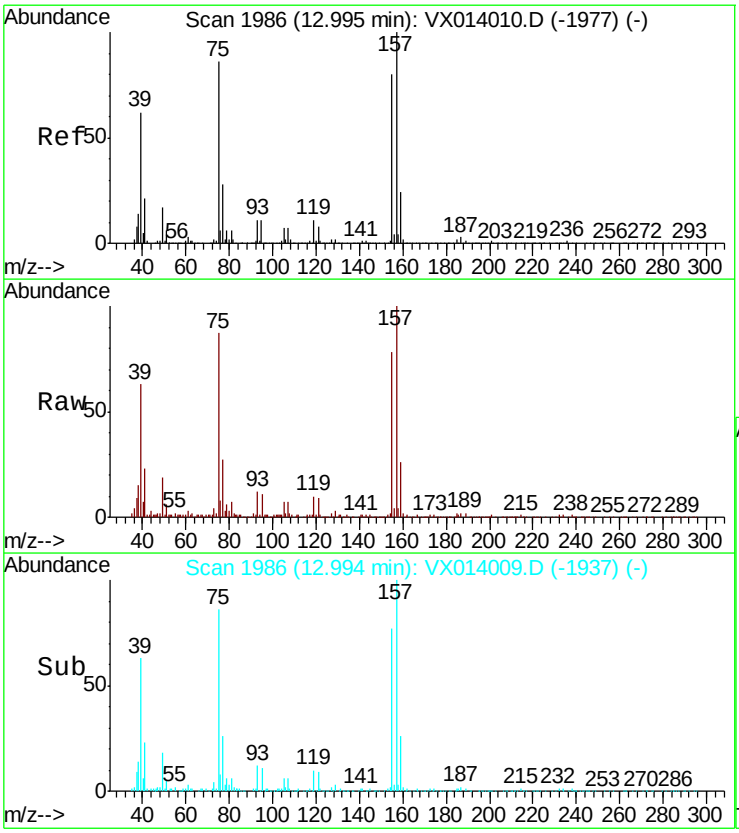
Tgt Ion:146 Resp: 251890

Ion	Ratio	Lower	Upper
146	100		
111	39.3	19.7	59.1
148	65.0	32.1	96.5



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC020

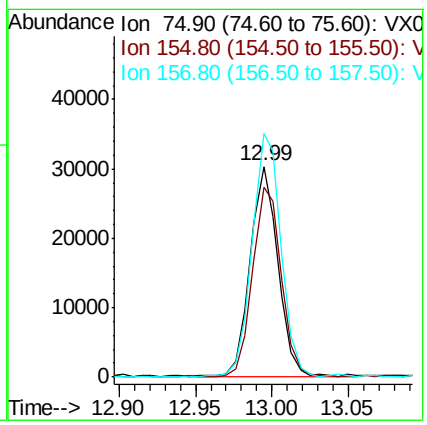
Manual Integrations APPROVED
apatel
12/16/2019 12:46:00 PM

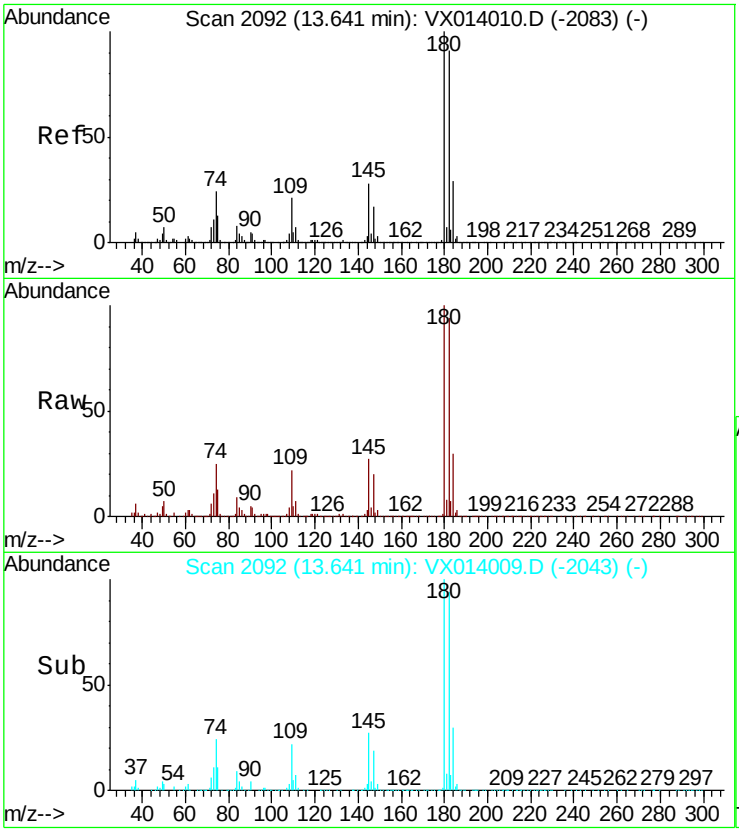


#92
1,2-Dibromo-3-Chloropropane
Concen: 18.769 ug/l
RT: 12.99 min Scan# 1986
Delta R.T. -0.00 min
Lab File: VX014009.D
Acq: 13 Dec 2019 15:36

Tgt Ion: 75 Resp: 37989

Ion	Ratio	Lower	Upper
75	100		
155	93.4	46.9	140.6
157	121.4	60.8	182.4

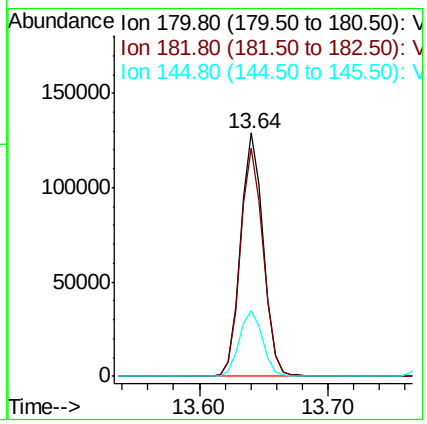




#93
1,2,4-Trichlorobenzene
Concen: 17.900 ug/l
RT: 13.64 min Scan# 2092
Delta R.T. -0.00 min
Lab File: VX014009.D
Acq: 13 Dec 2019 15:36

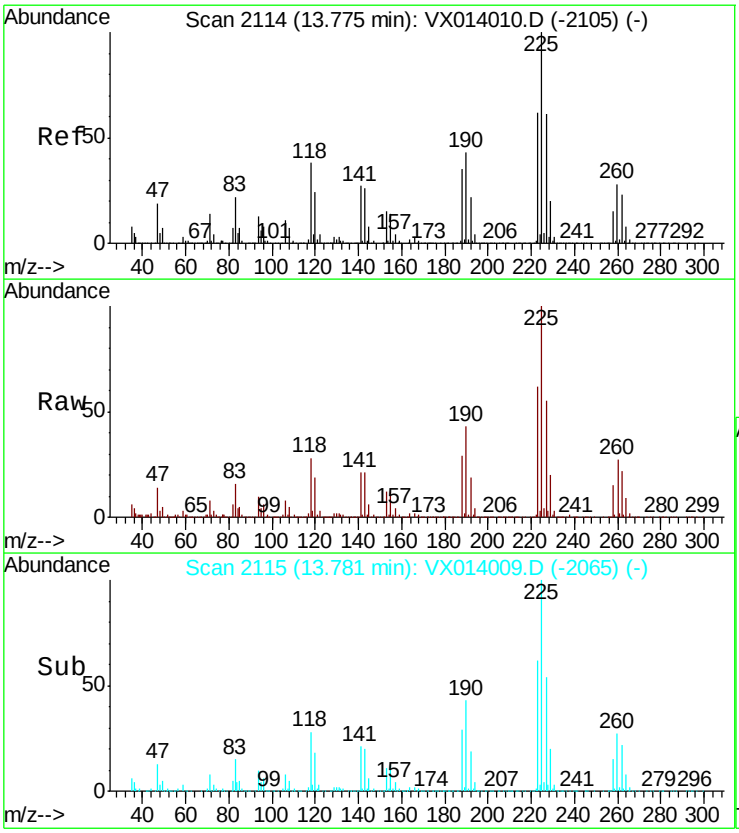
Tgt Ion:180 Resp: 156382

Ion	Ratio	Lower	Upper
180	100		
182	95.0	46.6	139.8
145	27.7	14.2	42.6



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC020

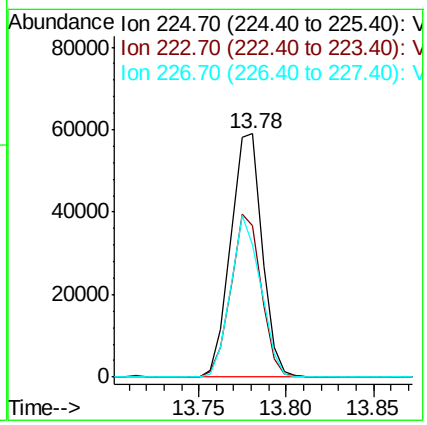
Manual Integrations APPROVED
apatel
12/16/2019 12:46:00 PM

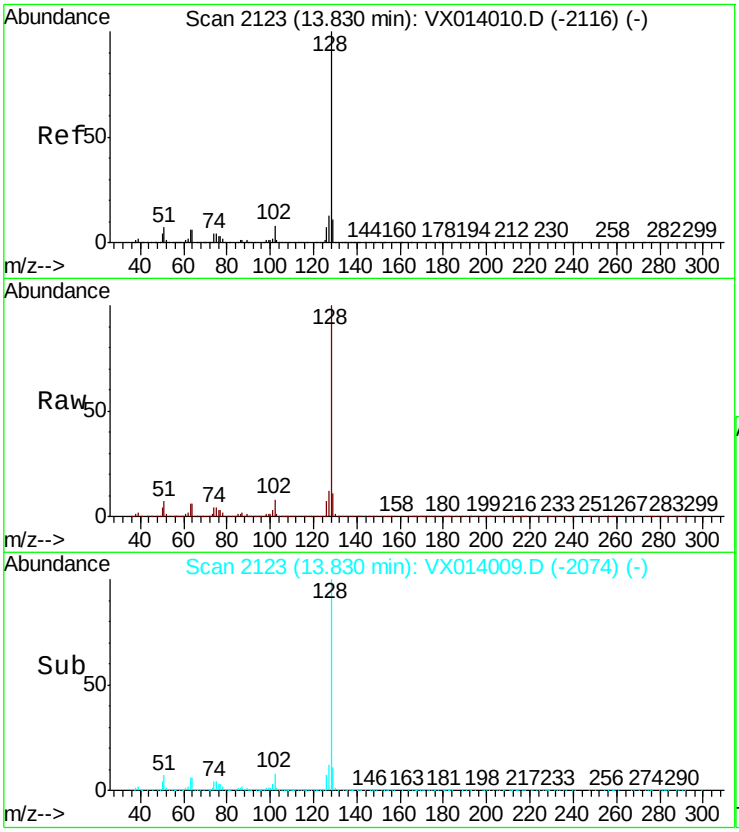


#94
Hexachlorobutadiene
Concen: 17.583 ug/l
RT: 13.78 min Scan# 2115
Delta R.T. 0.01 min
Lab File: VX014009.D
Acq: 13 Dec 2019 15:36

Tgt Ion:225 Resp: 74336

Ion	Ratio	Lower	Upper
225	100		
223	64.5	30.9	92.5
227	63.3	30.9	92.7

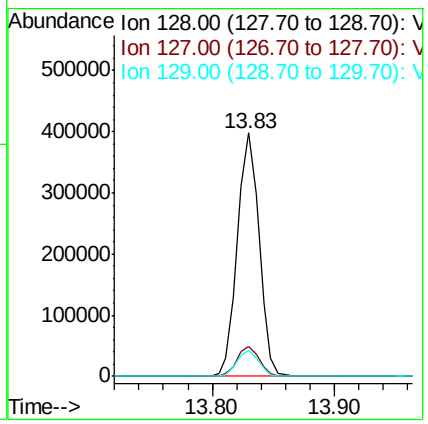




#95
Naphthalene
Concen: 18.715 ug/l
RT: 13.83 min Scan# 2123
Delta R.T. -0.00 min
Lab File: VX014009.D
Acq: 13 Dec 2019 15:36

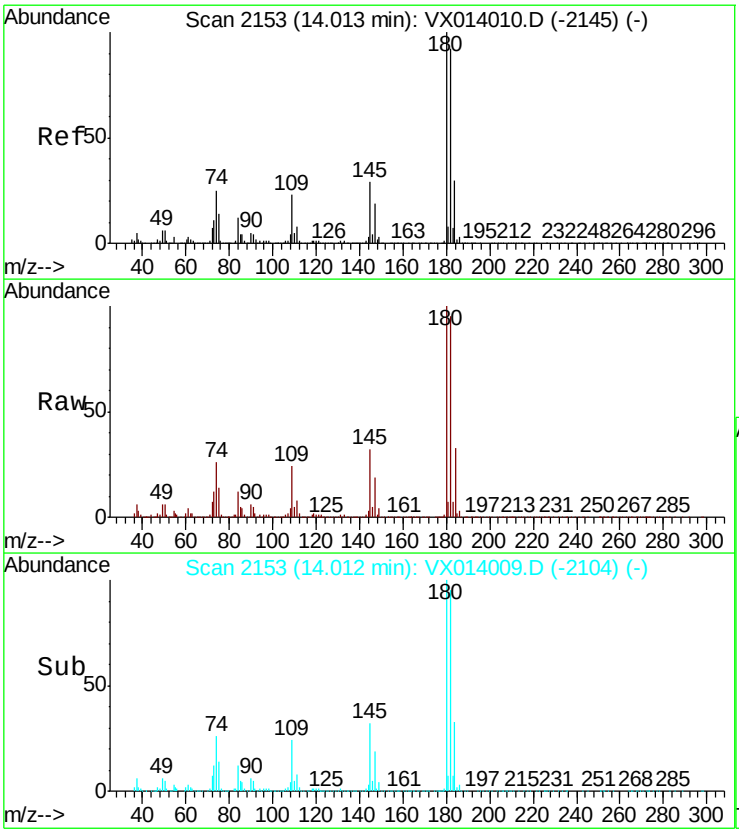
Tgt Ion:128 Resp: 485683

Ion	Ratio	Lower	Upper
128	100		
127	12.4	10.2	15.4
129	10.5	8.7	13.1



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC020

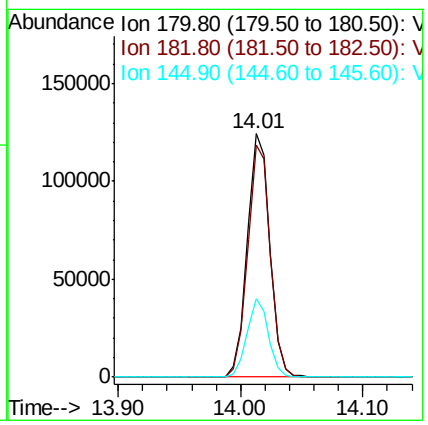
Manual Integrations APPROVED
apatel
12/16/2019 12:46:00 PM



#96
1,2,3-Trichlorobenzene
Concen: 18.389 ug/l
RT: 14.01 min Scan# 2153
Delta R.T. -0.00 min
Lab File: VX014009.D
Acq: 13 Dec 2019 15:36

Tgt Ion:180 Resp: 159787

Ion	Ratio	Lower	Upper
180	100		
182	94.7	46.8	140.3
145	30.5	14.8	44.4



Quantitation Report (QT Reviewed)

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX121319\
Data File : VX014010.D
Acq On : 13 Dec 2019 15:59
Operator : JC/SP
Sample : VSTDICCC050
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 6 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
VSTDICCC050

Manual Integrations APPROVED
apatel
12/16/2019 12:46:03 PM

Quant Time: Dec 13 17:00:34 2019
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121319W.M
Quant Title : SW846 8260
QLast Update : Fri Dec 13 16:34:01 2019
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	5.65	168	566691	50.00	ug/l	0.00
34) 1,4-Difluorobenzene	6.85	114	864628	50.00	ug/l	0.00
63) Chlorobenzene-d5	10.11	117	786472	50.00	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	12.07	152	400387	50.00	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	6.05	65	313851	47.64	ug/l	0.00
Spiked Amount 50.000			Recovery = 95.28%			
35) Dibromofluoromethane	5.49	113	260151	48.41	ug/l	0.00
Spiked Amount 50.000			Recovery = 96.82%			
50) Toluene-d8	8.71	98	1029611	49.00	ug/l	0.00
Spiked Amount 50.000			Recovery = 98.00%			
62) 4-Bromofluorobenzene	11.14	95	375236	49.39	ug/l	0.00
Spiked Amount 50.000			Recovery = 98.78%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.19	85	244238	40.315	ug/l	100
3) Chloromethane	1.32	50	330425	47.129	ug/l	100
4) Vinyl Chloride	1.40	62	341548	44.042	ug/l	100
5) Bromomethane	1.63	94	234717	44.240	ug/l	100
6) Chloroethane	1.70	64	211100	46.688	ug/l	100
7) Trichlorofluoromethane	1.92	101	426800	48.087	ug/l	100
8) Diethyl Ether	2.18	74	195761	48.800	ug/l	100
9) 1,1,2-Trichlorotrifluoroet	2.37	101	254371	47.119	ug/l	100
10) Methyl Iodide	2.50	142	347098	52.941	ug/l	100
11) Tert butyl alcohol	3.05	59	317160	200.953	ug/l	100
12) 1,1-Dichloroethene	2.36	96	259152	48.137	ug/l	100
13) Acrolein	2.28	56	182788	196.732	ug/l	100
14) Allyl chloride	2.72	41	472650	48.418	ug/l	100
15) Acrylonitrile	3.13	53	772030	232.621	ug/l	100
16) Acetone	2.44	43	1037924	304.310	ug/l	100
17) Carbon Disulfide	2.56	76	731294	47.552	ug/l	100
18) Methyl Acetate	2.76	43	390978	44.322	ug/l	100
19) Methyl tert-butyl Ether	3.19	73	875400	48.988	ug/l	100
20) Methylene Chloride	2.85	84	296619	47.427	ug/l	100
21) trans-1,2-Dichloroethene	3.15	96	281142	47.848	ug/l	100
22) Diisopropyl ether	3.84	45	941592	49.853	ug/l	100
23) Vinyl Acetate	3.80	43	3916863	249.782	ug/l	100
24) 1,1-Dichloroethane	3.69	63	509180	49.319	ug/l	100
25) 2-Butanone	4.66	43	1274783	261.894	ug/l	100
26) 2,2-Dichloropropane	4.58	77	407247	47.869	ug/l	100
27) cis-1,2-Dichloroethene	4.58	96	322146	47.773	ug/l	100
28) Bromochloromethane	5.00	49	210039	57.627	ug/l	100
29) Tetrahydrofuran	5.12	42	692327	235.957	ug/l	100
30) Chloroform	5.20	83	497443	47.603	ug/l	100
31) Cyclohexane	5.57	56	475700	48.739	ug/l	100
32) 1,1,1-Trichloroethane	5.48	97	420962	48.233	ug/l	100
36) 1,1-Dichloropropene	5.79	75	381362	48.555	ug/l	100
37) Ethyl Acetate	4.82	43	434370	49.574	ug/l	100
38) Carbon Tetrachloride	5.78	117	361490	49.898	ug/l	100

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX121319\
Data File : VX014010.D
Acq On : 13 Dec 2019 15:59
Operator : JC/SP
Sample : VSTDICCC050
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 6 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
VSTDICCC050

Manual Integrations APPROVED
apatel
12/16/2019 12:46:03 PM

Quant Time: Dec 13 17:00:34 2019
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121319W.M
Quant Title : SW846 8260
QLast Update : Fri Dec 13 16:34:01 2019
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
39) Methylcyclohexane	7.45	83	473812	48.720	ug/l	100
40) Benzene	6.13	78	1169987	48.807	ug/l	100
41) Methacrylonitrile	5.03	41	233512	48.825	ug/l	100
42) 1,2-Dichloroethane	6.18	62	397061	48.642	ug/l	100
43) Isopropyl Acetate	6.43	43	708801	48.974	ug/l	100
44) Trichloroethene	7.21	130	313311	47.797	ug/l	100
45) 1,2-Dichloropropane	7.51	63	301248	50.134	ug/l	100
46) Dibromomethane	7.65	93	194943	47.935	ug/l	100
47) Bromodichloromethane	7.89	83	384152	49.981	ug/l	100
48) Methyl methacrylate	7.76	41	351009	50.026	ug/l	100
49) 1,4-Dioxane	7.73	88	136097	880.664	ug/l	100
51) 4-Methyl-2-Pentanone	8.64	43	2227056	245.062	ug/l	100
52) Toluene	8.78	92	741464	49.725	ug/l	100
53) t-1,3-Dichloropropene	9.04	75	438995	50.210	ug/l	100
54) cis-1,3-Dichloropropene	8.43	75	485569	50.785	ug/l	100
55) 1,1,2-Trichloroethane	9.21	97	297972	49.651	ug/l	100
56) Ethyl methacrylate	9.17	69	492518	50.962	ug/l	100
57) 1,3-Dichloropropane	9.37	76	508519	49.101	ug/l	100
58) 2-Chloroethyl Vinyl ether	8.31	63	956017	252.345	ug/l	100
59) 2-Hexanone	9.49	43	1842268	257.616	ug/l	100
60) Dibromochloromethane	9.58	129	312526	50.359	ug/l	100
61) 1,2-Dibromoethane	9.67	107	312389	48.800	ug/l	100
64) Tetrachloroethene	9.33	164	333249	54.910	ug/l	100
65) Chlorobenzene	10.14	112	798960	48.656	ug/l	100
66) 1,1,1,2-Tetrachloroethane	10.21	131	292635	49.771	ug/l	100
67) Ethyl Benzene	10.25	91	1422545	50.472	ug/l	100
68) m/p-Xylenes	10.35	106	1084101	100.328	ug/l	100
69) o-Xylene	10.70	106	531881	50.474	ug/l	100
70) Styrene	10.71	104	921756	51.850	ug/l	100
71) Bromoform	10.85	173	244020	50.316	ug/l	100
73) Isopropylbenzene	11.01	105	1389605	49.413	ug/l	100
74) N-amyl acetate	10.89	43	663341	51.492	ug/l	100
75) 1,1,2,2-Tetrachloroethane	11.26	83	478051	49.097	ug/l	100
76) 1,2,3-Trichloropropane	11.29	75	439820m	49.048	ug/l	
77) Bromobenzene	11.25	156	361064	47.633	ug/l	100
78) n-propylbenzene	11.35	91	1586913	50.464	ug/l	100
79) 2-Chlorotoluene	11.42	91	944929	49.949	ug/l	100
80) 1,3,5-Trimethylbenzene	11.50	105	1172097	50.706	ug/l	100
81) trans-1,4-Dichloro-2-buten	11.07	75	160555	49.082	ug/l	100
82) 4-Chlorotoluene	11.51	91	1076188	49.267	ug/l	100
83) tert-Butylbenzene	11.76	119	1123694	48.252	ug/l	100
84) 1,2,4-Trimethylbenzene	11.80	105	1177071	50.210	ug/l	100
85) sec-Butylbenzene	11.94	105	1348388	50.312	ug/l	100
86) p-Isopropyltoluene	12.06	119	1241776	49.880	ug/l	100
87) 1,3-Dichlorobenzene	12.02	146	641266	48.436	ug/l	100
88) 1,4-Dichlorobenzene	12.09	146	638601	47.289	ug/l	100
89) n-Butylbenzene	12.38	91	1079551	50.778	ug/l	100
90) Hexachloroethane	12.59	117	224173	49.677	ug/l	100
91) 1,2-Dichlorobenzene	12.38	146	651551	49.657	ug/l	100
92) 1,2-Dibromo-3-Chloropropan	12.99	75	100882	48.047	ug/l	100

ICAL Form

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX121319\
Data File : VX014010.D
Acq On : 13 Dec 2019 15:59
Operator : JC/SP
Sample : VSTDICCC050
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 6 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
VSTDICCC050

Manual Integrations APPROVED
apatel
12/16/2019 12:46:03 PM

Quant Time: Dec 13 17:00:34 2019
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121319W.M
Quant Title : SW846 8260
QLast Update : Fri Dec 13 16:34:01 2019
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
93) 1,2,4-Trichlorobenzene	13.64	180	430836	47.539	ug/l	100
94) Hexachlorobutadiene	13.77	225	202618	46.201	ug/l	100
95) Naphthalene	13.83	128	1328512	49.348	ug/l	100
96) 1,2,3-Trichlorobenzene	14.01	180	435421	48.307	ug/l	100

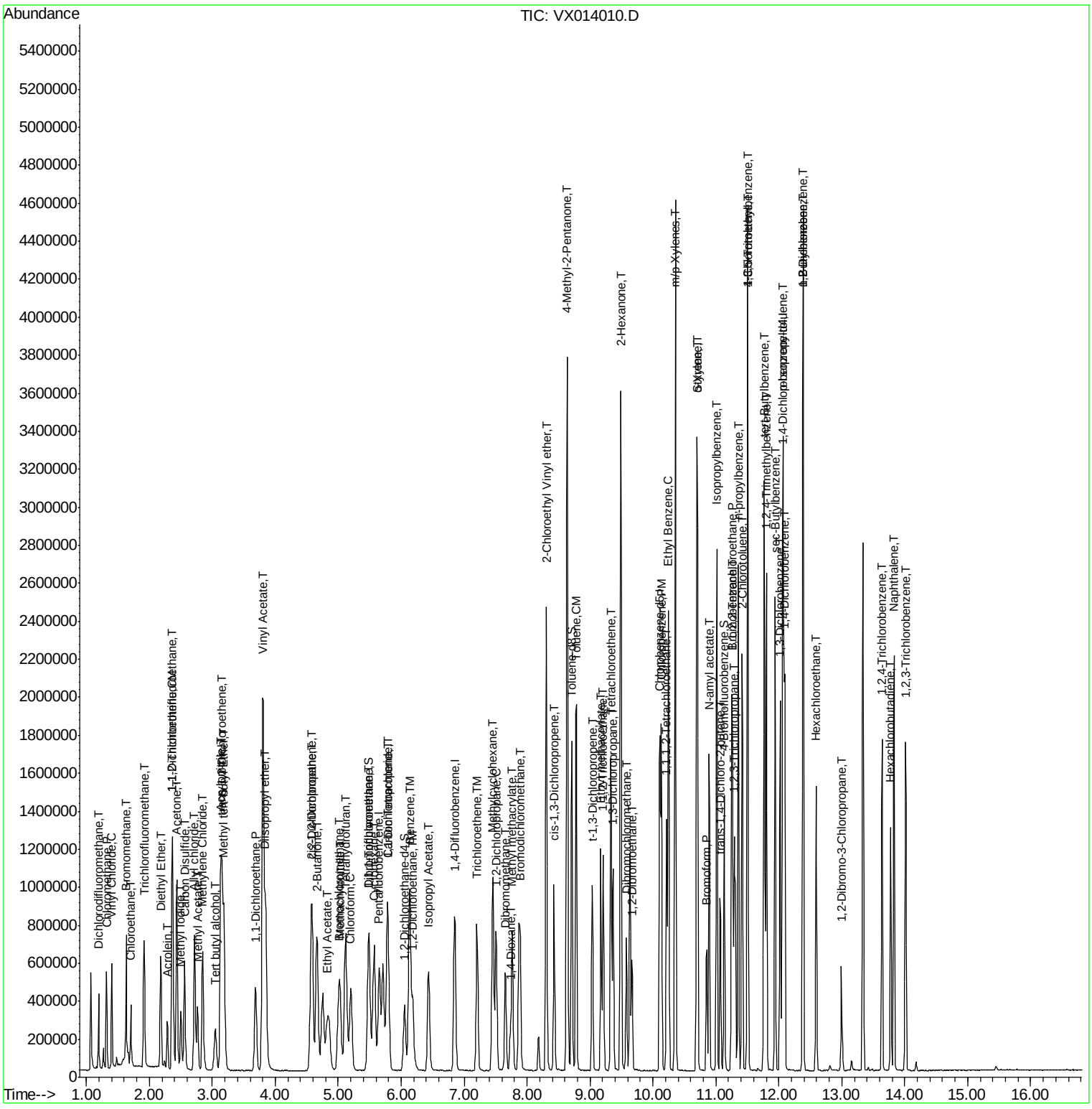
(#) = qualifier out of range (m) = manual integration (+) = signals summed

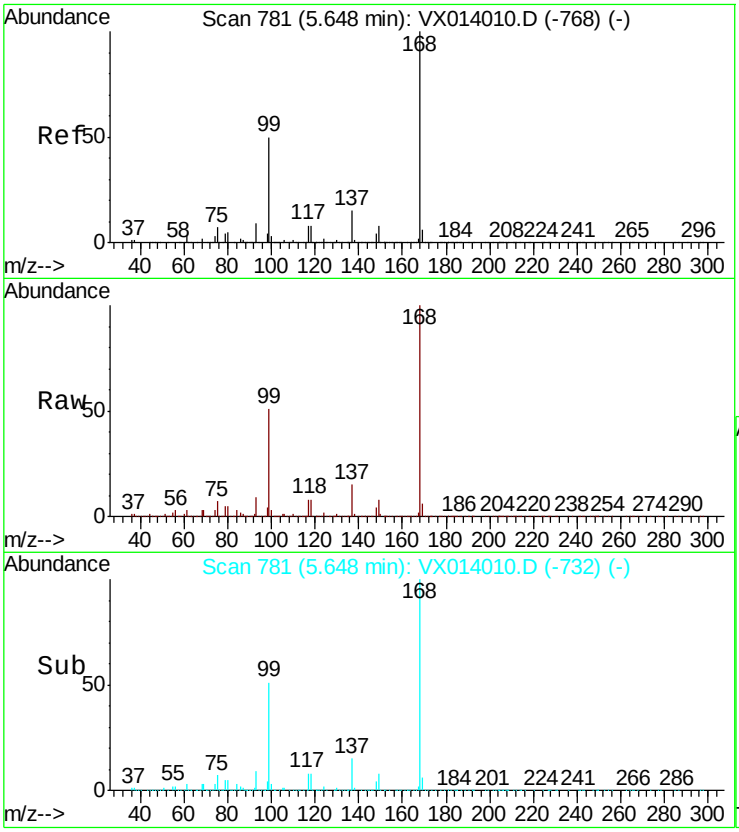
Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX121319\
Data File : VX014010.D
Acq On : 13 Dec 2019 15:59
Operator : JC/SP
Sample : VSTDICCC050
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Dec 13 17:00:34 2019
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121319W.M
Quant Title : SW846 8260
QLast Update : Fri Dec 13 16:34:01 2019
Response via : Initial Calibration

Instrument :
MSVOA_X
ClientSampleId :
VSTDICCC050

Manual Integrations APPROVED
apatel
12/16/2019 12:46:03 PM

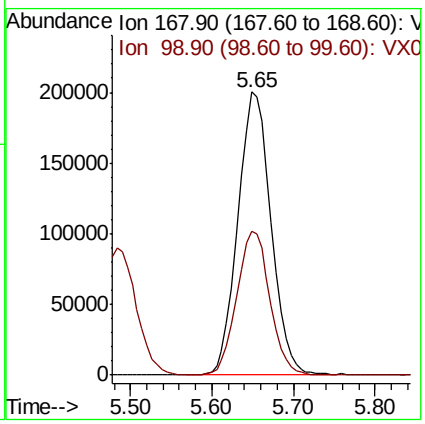


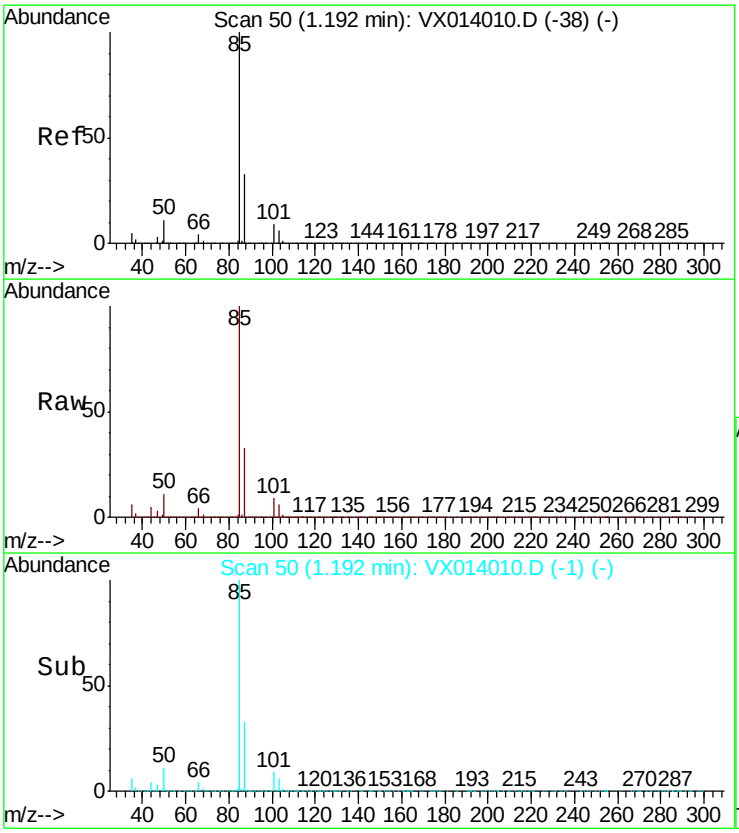


#1
Pentafluorobenzene
Concen: 50.000 ug/l
RT: 5.65 min Scan# 781
Delta R.T. 0.00 min
Lab File: VX014010.D
Acq: 13 Dec 2019 15:59

Tgt Ion:168 Resp: 566691

Ion	Ratio	Lower	Upper
168	100		
99	50.4	40.3	60.5

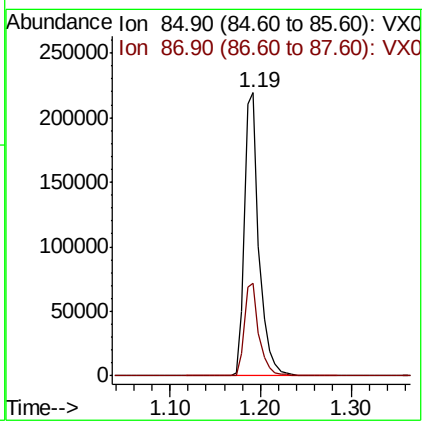




#2
Dichlorodifluoromethane
Concen: 40.315 ug/l
RT: 1.19 min Scan# 50
Delta R.T. 0.00 min
Lab File: VX014010.D
Acq: 13 Dec 2019 15:59

Tgt Ion: 85 Resp: 244238

Ion	Ratio	Lower	Upper
85	100		
87	32.8	16.4	49.2

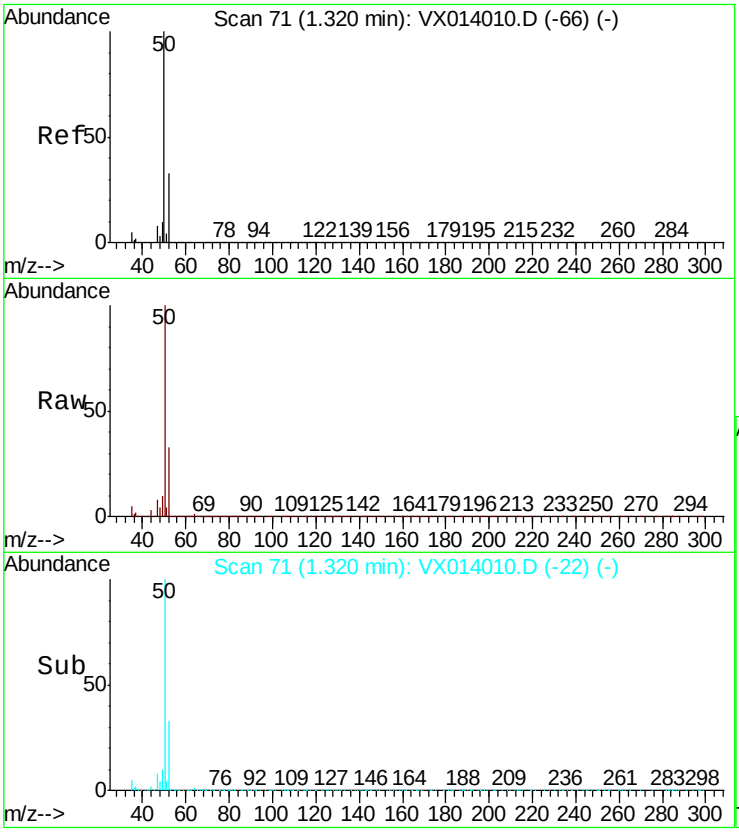


Instrument :
MSVOA_X
ClientSampleId :
VSTDICCC050

Manual Integrations APPROVED
apatel
12/16/2019 12:46:03 PM

Instrument :
MSVOA_X
ClientSampleId :
VSTDICCC050

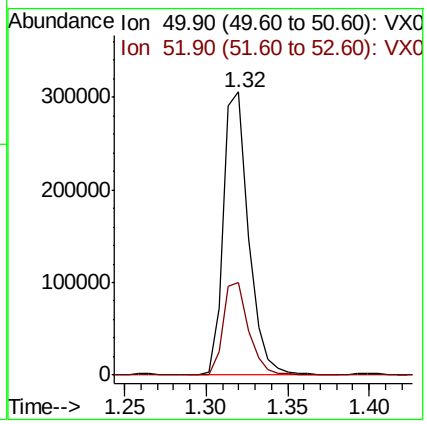
Manual Integrations APPROVED
apatel
12/16/2019 12:46:03 PM

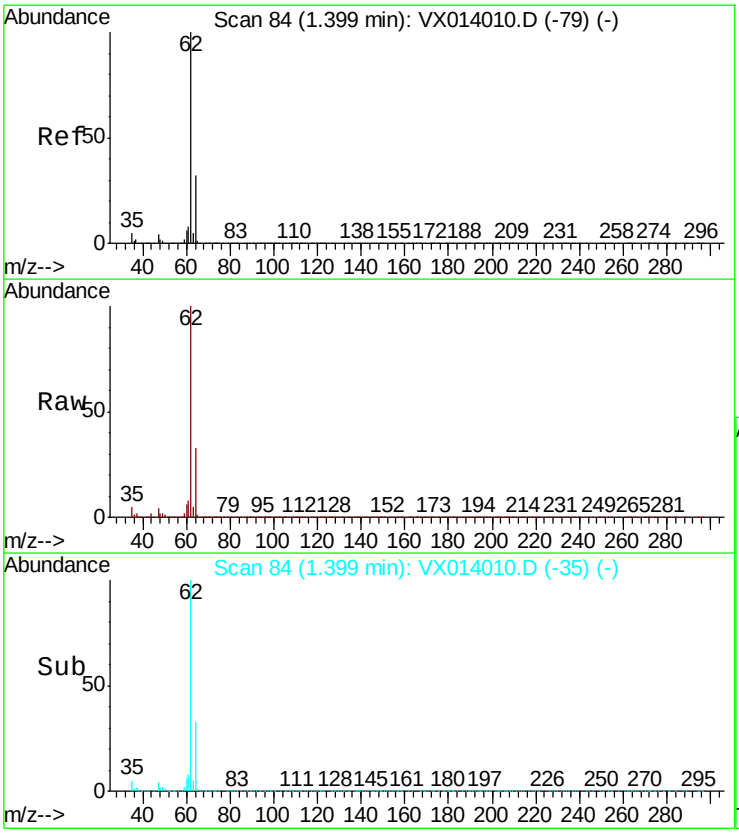


#3
Chloromethane
Concen: 47.129 ug/l
RT: 1.32 min Scan# 71
Delta R.T. 0.00 min
Lab File: VX014010.D
Acq: 13 Dec 2019 15:59

Tgt Ion: 50 Resp: 330425

Ion	Ratio	Lower	Upper
50	100		
52	32.8	26.2	39.4

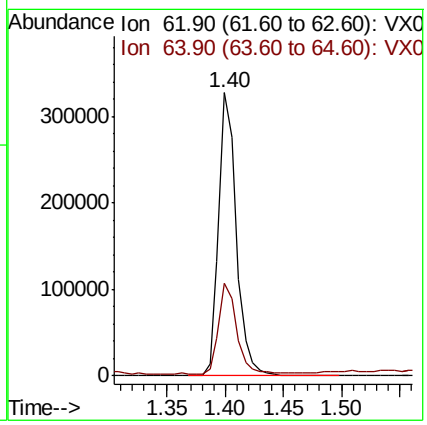


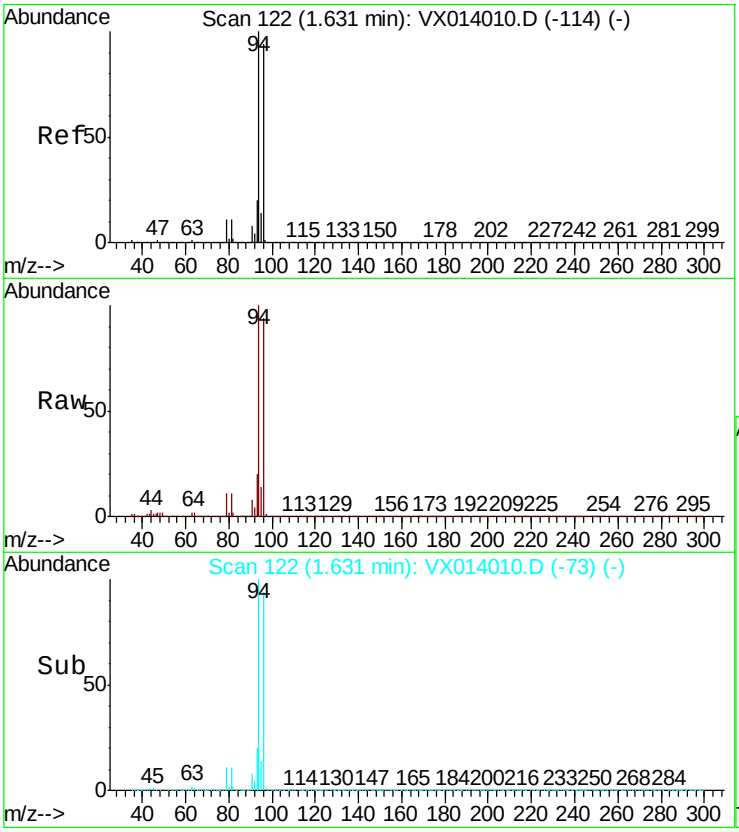


#4
Vinyl Chloride
Concen: 44.042 ug/l
RT: 1.40 min Scan# 84
Delta R.T. 0.00 min
Lab File: VX014010.D
Acq: 13 Dec 2019 15:59

Tgt Ion: 62 Resp: 341548

Ion	Ratio	Lower	Upper
62	100		
64	32.1	25.7	38.5

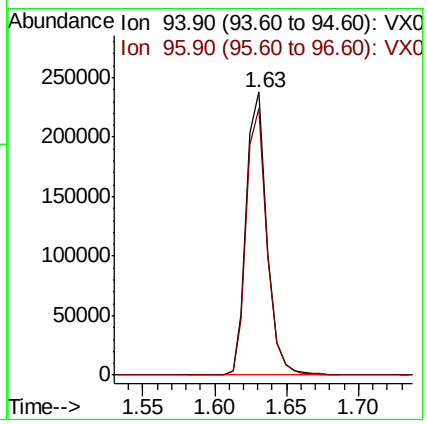




#5
Bromomethane
Concen: 44.240 ug/l
RT: 1.63 min Scan# 122
Delta R.T. 0.00 min
Lab File: VX014010.D
Acq: 13 Dec 2019 15:59

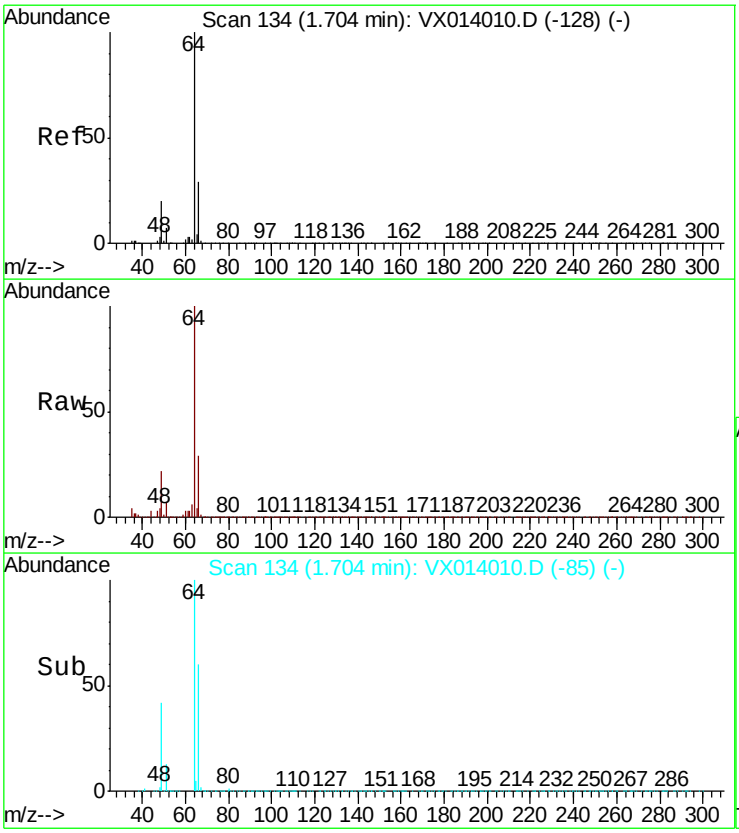
Tgt Ion: 94 Resp: 234717

Ion	Ratio	Lower	Upper
94	100		
96	94.0	75.2	112.8



Instrument :
MSVOA_X
ClientSampleId :
VSTDICCC050

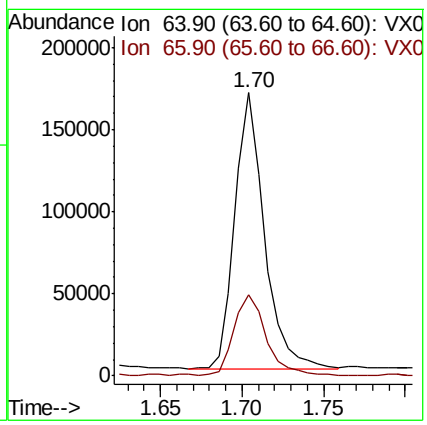
Manual Integrations APPROVED
apatel
12/16/2019 12:46:03 PM

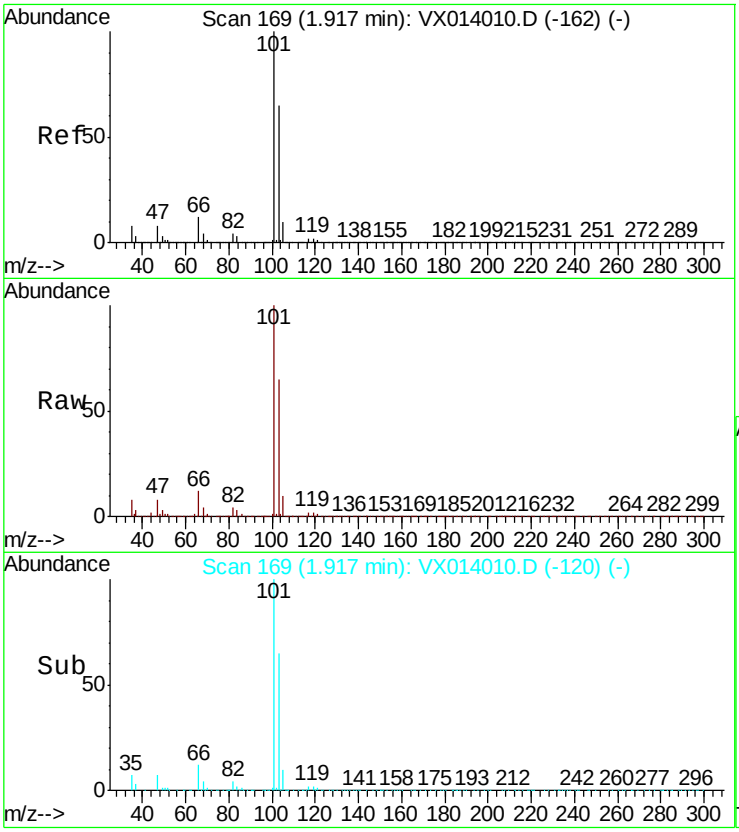


#6
Chloroethane
Concen: 46.688 ug/l
RT: 1.70 min Scan# 134
Delta R.T. 0.00 min
Lab File: VX014010.D
Acq: 13 Dec 2019 15:59

Tgt Ion: 64 Resp: 211100

Ion	Ratio	Lower	Upper
64	100		
66	29.3	23.4	35.2

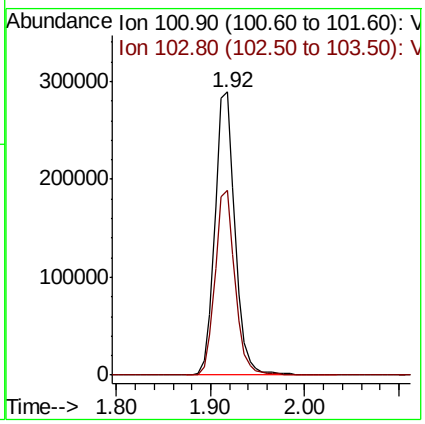




#7
Trichlorofluoromethane
Concen: 48.087 ug/l
RT: 1.92 min Scan# 169
Delta R.T. 0.00 min
Lab File: VX014010.D
Acq: 13 Dec 2019 15:59

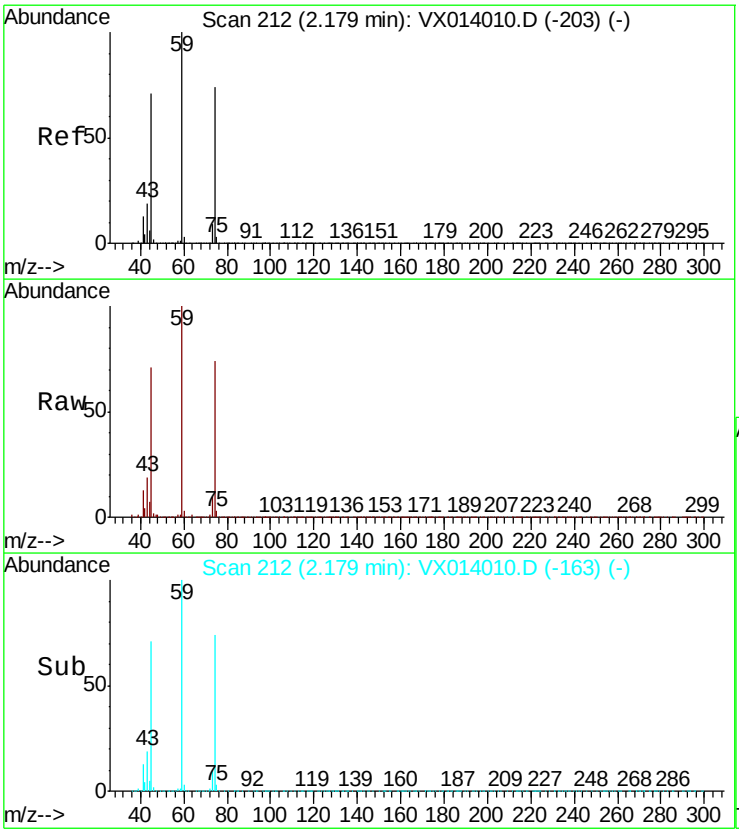
Tgt Ion:101 Resp: 426800

Ion	Ratio	Lower	Upper
101	100		
103	65.3	52.2	78.4



Instrument :
MSVOA_X
ClientSampleId :
VSTDICCC050

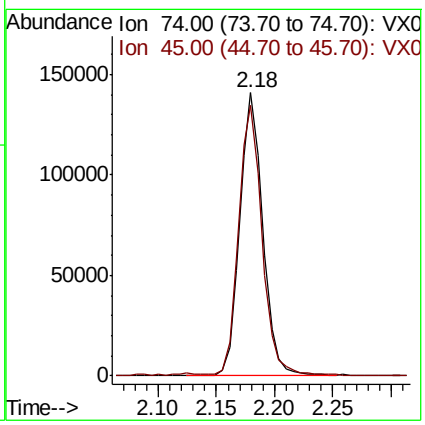
Manual Integrations APPROVED
apatel
12/16/2019 12:46:03 PM

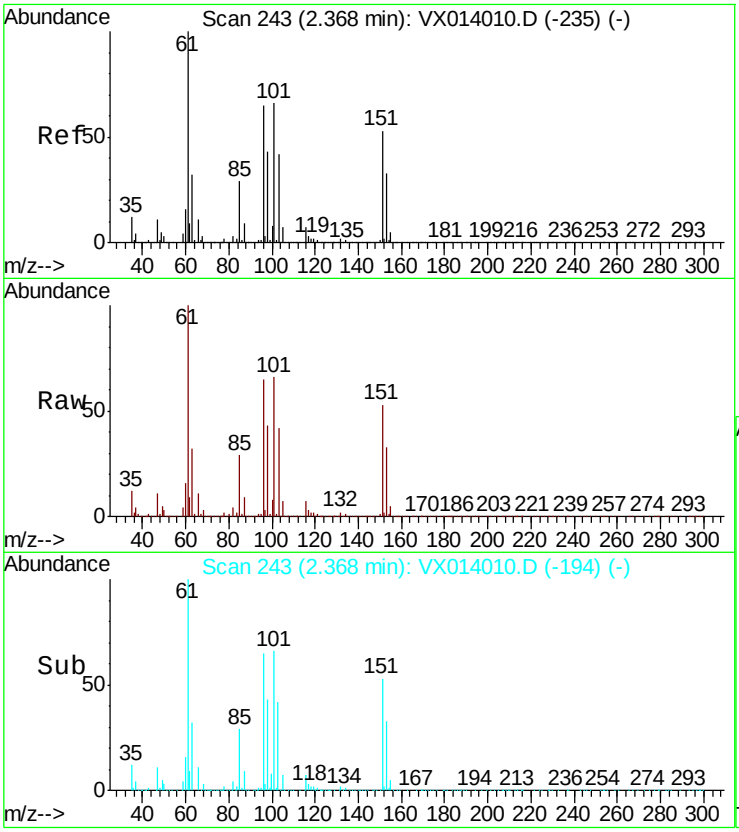


#8
Diethyl Ether
Concen: 48.800 ug/l
RT: 2.18 min Scan# 212
Delta R.T. 0.00 min
Lab File: VX014010.D
Acq: 13 Dec 2019 15:59

Tgt Ion: 74 Resp: 195761

Ion	Ratio	Lower	Upper
74	100		
45	96.2	48.1	144.3

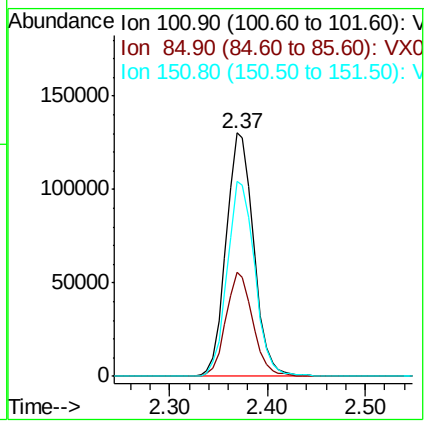




#9
1,1,2-Trichlorotrifluoroethane
Concen: 47.119 ug/l
RT: 2.37 min Scan# 243
Delta R.T. 0.00 min
Lab File: VX014010.D
Acq: 13 Dec 2019 15:59

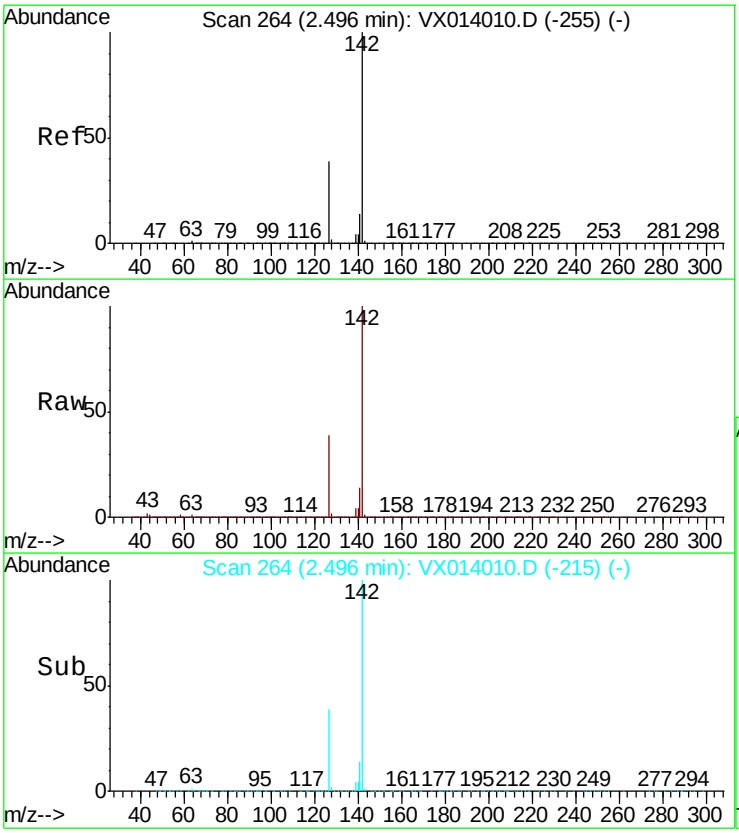
Tgt Ion:101 Resp: 254371

Ion	Ratio	Lower	Upper
101	100		
85	42.1	33.7	50.5
151	80.6	64.5	96.7



Instrument :
MSVOA_X
ClientSampleId :
VSTDICCC050

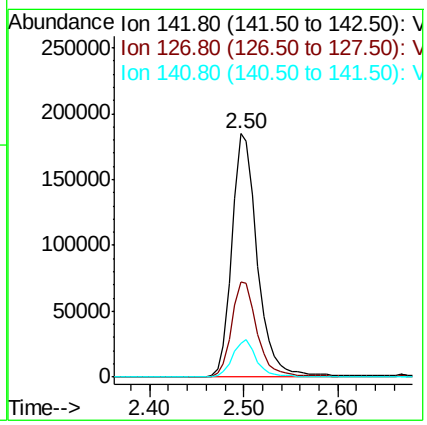
Manual Integrations APPROVED
apatel
12/16/2019 12:46:03 PM

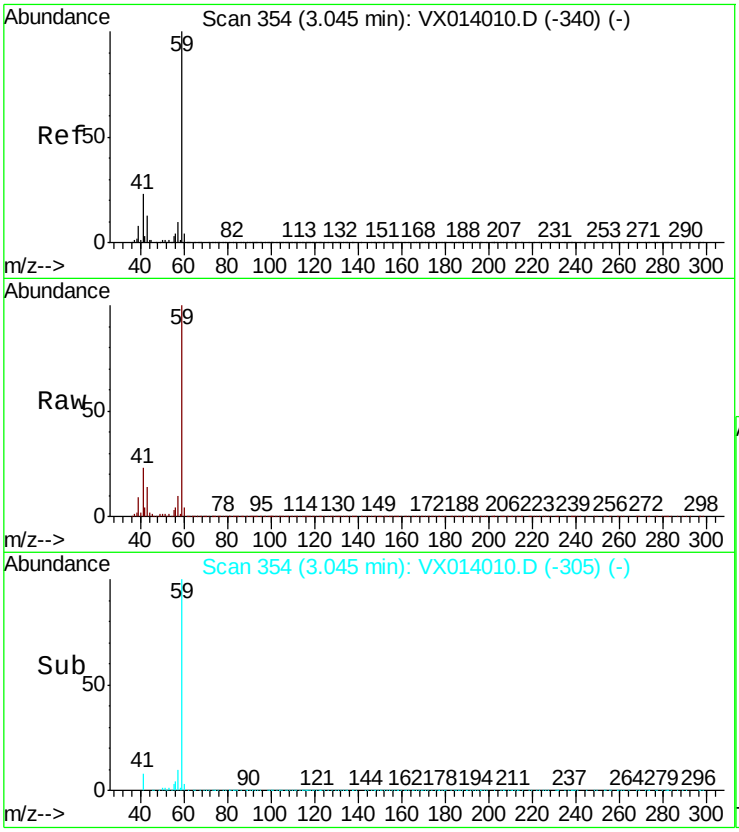


#10
Methyl Iodide
Concen: 52.941 ug/l
RT: 2.50 min Scan# 264
Delta R.T. 0.00 min
Lab File: VX014010.D
Acq: 13 Dec 2019 15:59

Tgt Ion:142 Resp: 347098

Ion	Ratio	Lower	Upper
142	100		
127	39.5	31.6	47.4
141	14.5	11.6	17.4

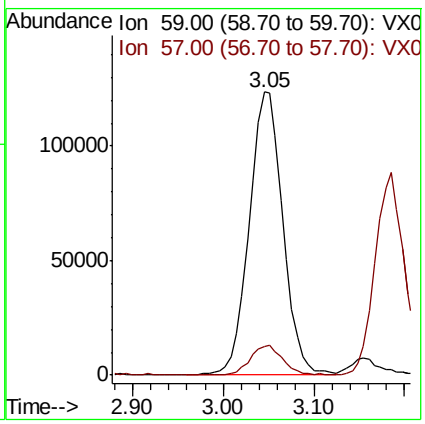




#11
Tert butyl alcohol
Concen: 200.953 ug/l
RT: 3.05 min Scan# 354
Delta R.T. 0.00 min
Lab File: VX014010.D
Acq: 13 Dec 2019 15:59

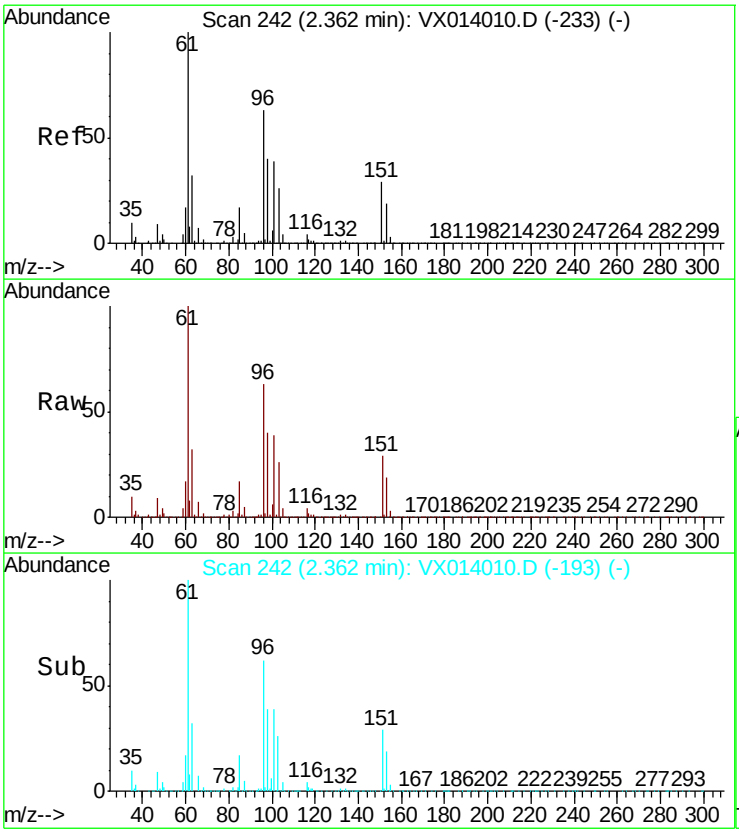
Tgt Ion: 59 Resp: 317160

Ion	Ratio	Lower	Upper
59	100		
57	10.5	8.4	12.6



Instrument :
MSVOA_X
ClientSampleId :
VSTDICCC050

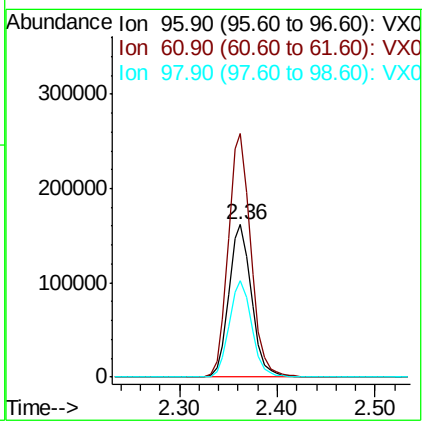
Manual Integrations APPROVED
apatel
12/16/2019 12:46:03 PM



#12
1,1-Dichloroethene
Concen: 48.137 ug/l
RT: 2.36 min Scan# 242
Delta R.T. 0.00 min
Lab File: VX014010.D
Acq: 13 Dec 2019 15:59

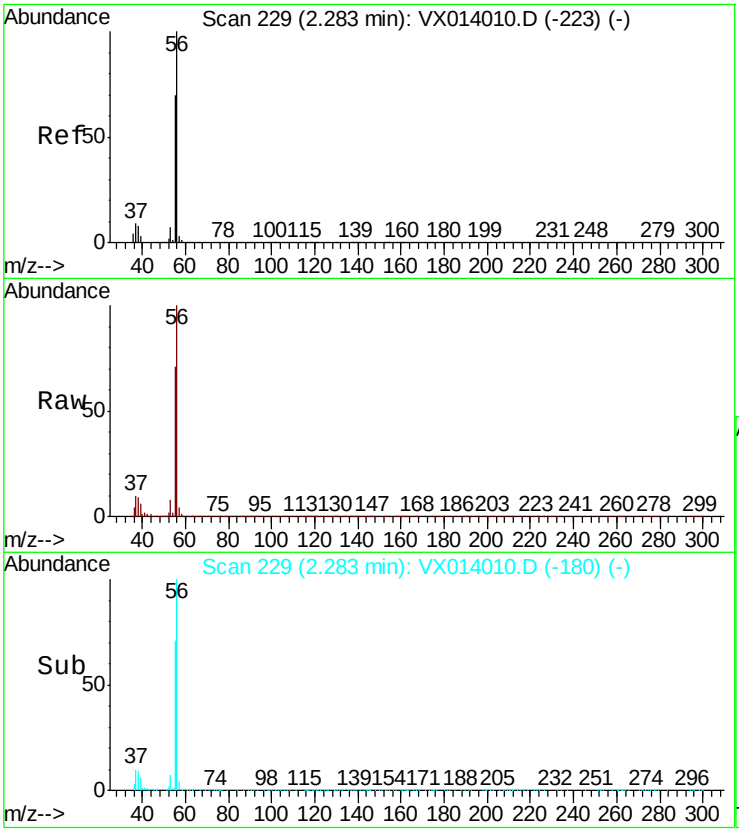
Tgt Ion: 96 Resp: 259152

Ion	Ratio	Lower	Upper
96	100		
61	159.9	127.9	191.9
98	63.1	50.5	75.7



Instrument :
MSVOA_X
ClientSampleId :
VSTDICCC050

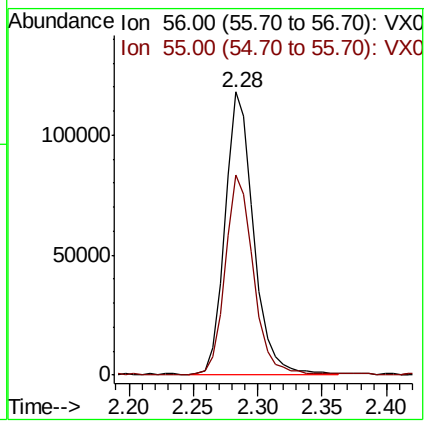
Manual Integrations APPROVED
apatel
12/16/2019 12:46:03 PM

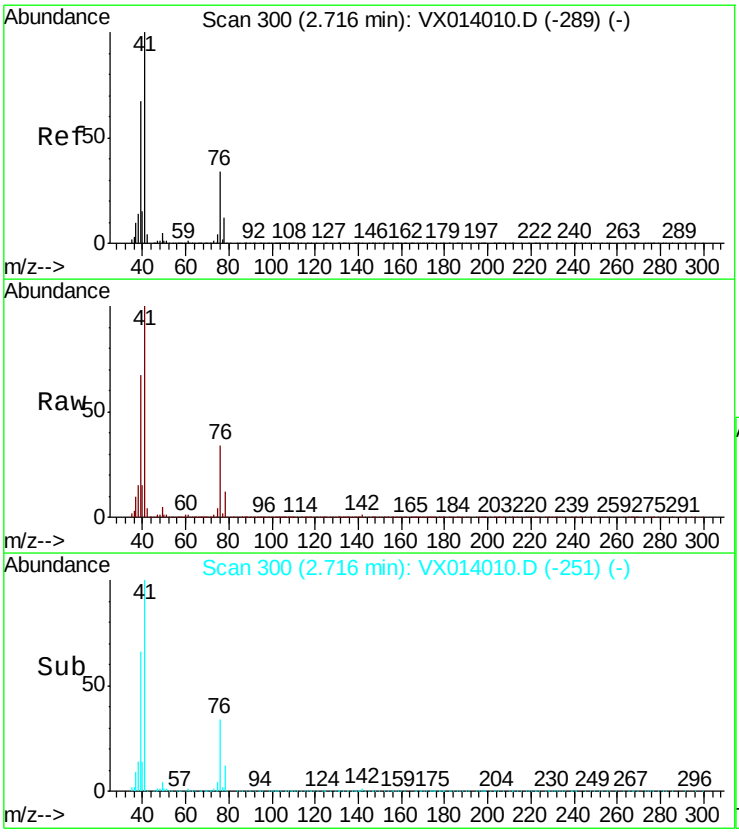


#13
Acrolein
Concen: 196.732 ug/l
RT: 2.28 min Scan# 229
Delta R.T. 0.00 min
Lab File: VX014010.D
Acq: 13 Dec 2019 15:59

Tgt Ion: 56 Resp: 182788

Ion	Ratio	Lower	Upper
56	100		
55	71.1	56.9	85.3

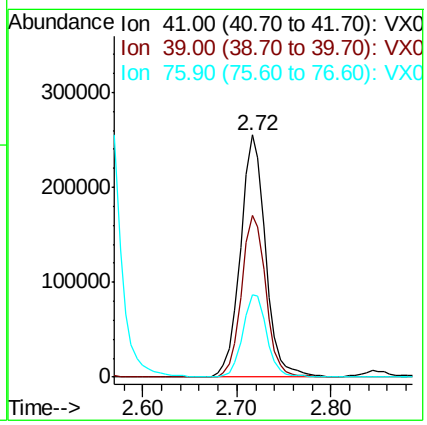


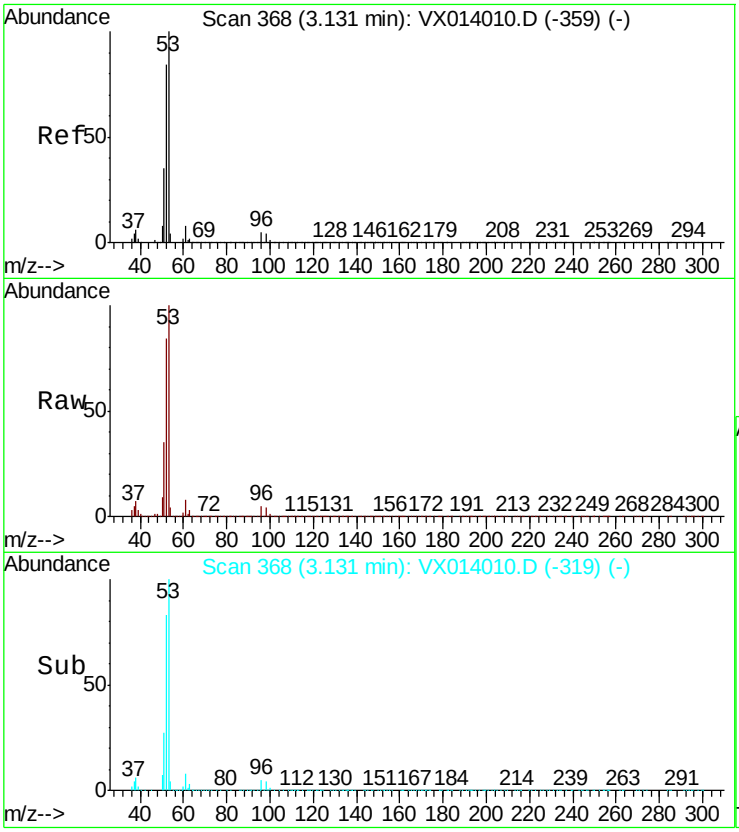


#14
Allyl chloride
Concen: 48.418 ug/l
RT: 2.72 min Scan# 300
Delta R.T. 0.00 min
Lab File: VX014010.D
Acq: 13 Dec 2019 15:59

Tgt Ion: 41 Resp: 472650

Ion	Ratio	Lower	Upper
41	100		
39	64.8	51.8	77.8
76	32.4	25.9	38.9

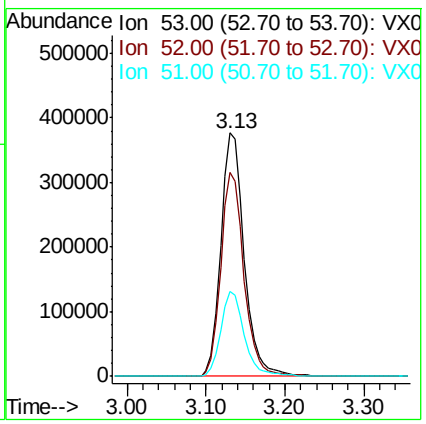




#15
Acrylonitrile
Concen: 232.621 ug/l
RT: 3.13 min Scan# 368
Delta R.T. 0.00 min
Lab File: VX014010.D
Acq: 13 Dec 2019 15:59

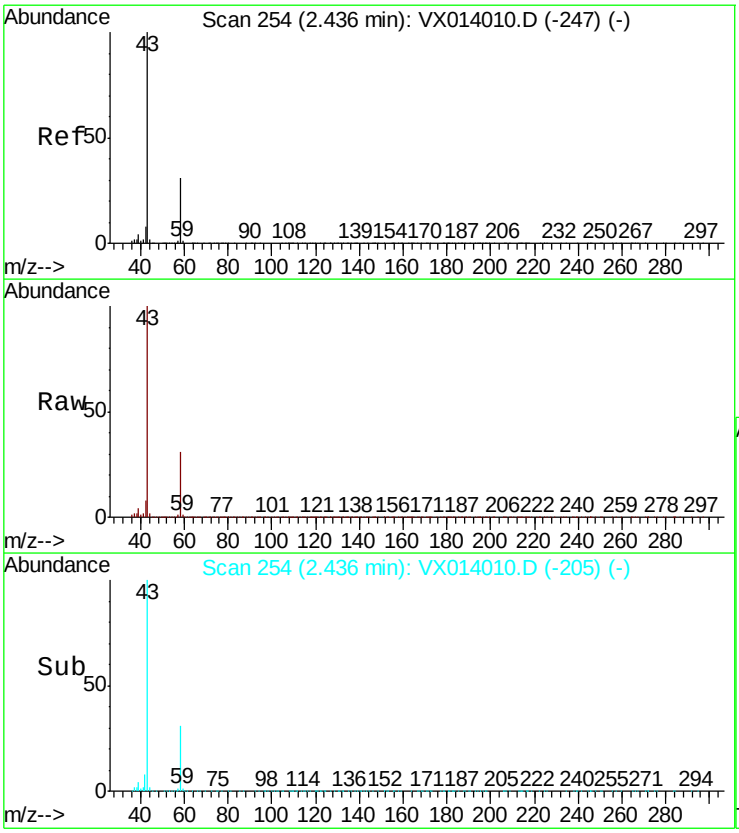
Tgt Ion: 53 Resp: 772030

Ion	Ratio	Lower	Upper
53	100		
52	83.1	66.5	99.7
51	35.1	28.1	42.1



Instrument :
MSVOA_X
ClientSampleId :
VSTDICCC050

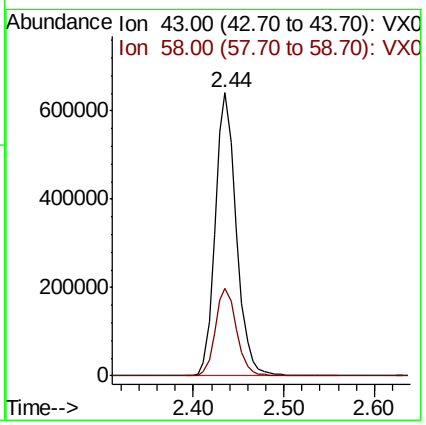
Manual Integrations APPROVED
apatel
12/16/2019 12:46:03 PM

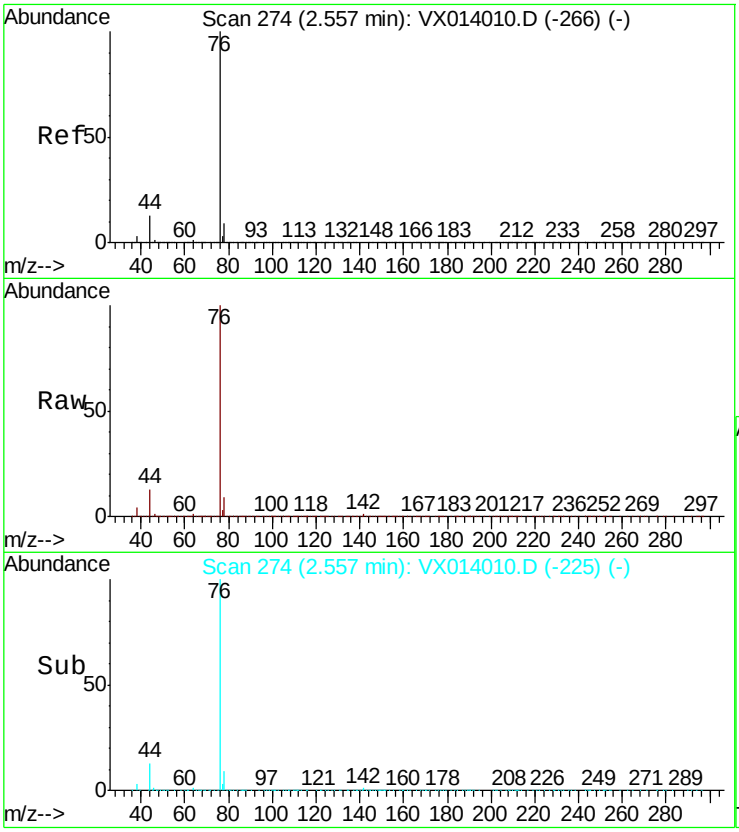


#16
Acetone
Concen: 304.310 ug/l
RT: 2.44 min Scan# 254
Delta R.T. 0.00 min
Lab File: VX014010.D
Acq: 13 Dec 2019 15:59

Tgt Ion: 43 Resp: 1037924

Ion	Ratio	Lower	Upper
43	100		
58	31.1	24.9	37.3

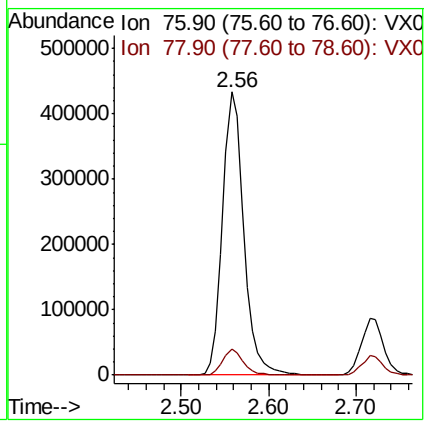


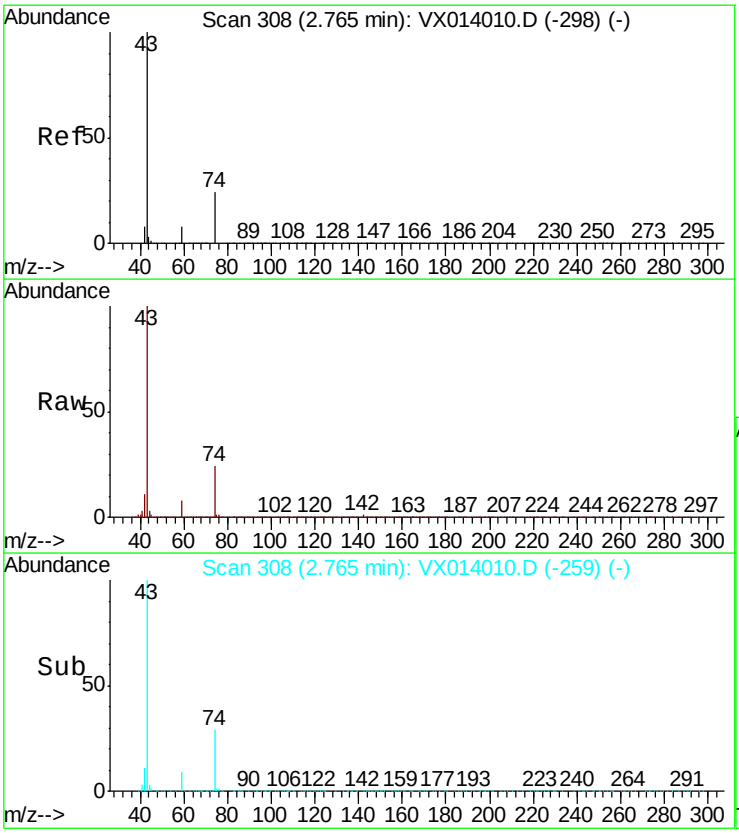


#17
Carbon Disulfide
Concen: 47.552 ug/l
RT: 2.56 min Scan# 274
Delta R.T. 0.00 min
Lab File: VX014010.D
Acq: 13 Dec 2019 15:59

Tgt Ion: 76 Resp: 731294

Ion	Ratio	Lower	Upper
76	100		
78	9.0	7.2	10.8

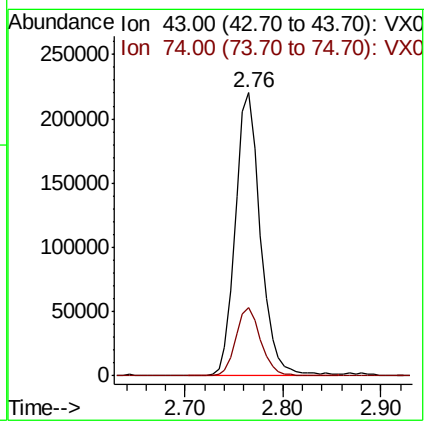




#18
Methyl Acetate
Concen: 44.322 ug/l
RT: 2.76 min Scan# 308
Delta R.T. 0.00 min
Lab File: VX014010.D
Acq: 13 Dec 2019 15:59

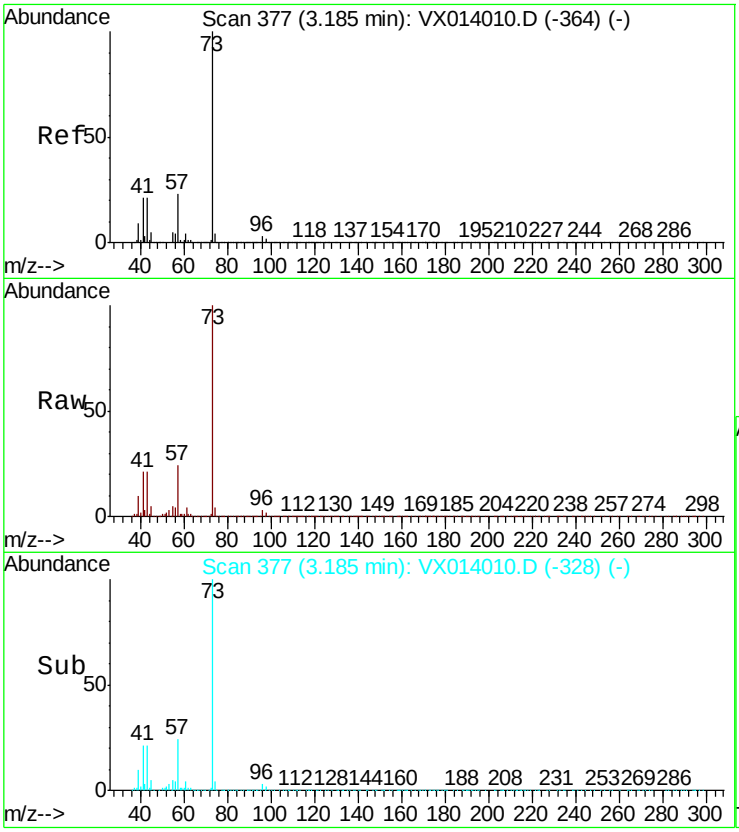
Tgt Ion: 43 Resp: 390978

Ion	Ratio	Lower	Upper
43	100		
74	24.4	19.5	29.3



Instrument :
MSVOA_X
ClientSampleId :
VSTDICCC050

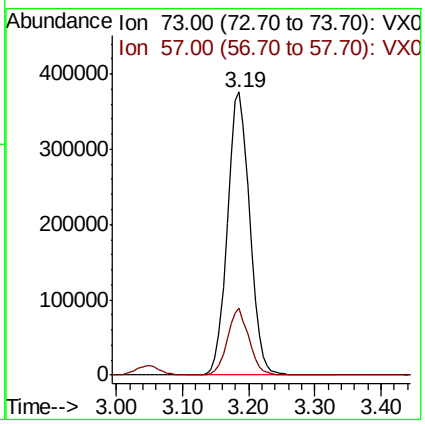
Manual Integrations APPROVED
apatel
12/16/2019 12:46:03 PM



#19
Methyl tert-butyl Ether
Concen: 48.988 ug/l
RT: 3.19 min Scan# 377
Delta R.T. 0.00 min
Lab File: VX014010.D
Acq: 13 Dec 2019 15:59

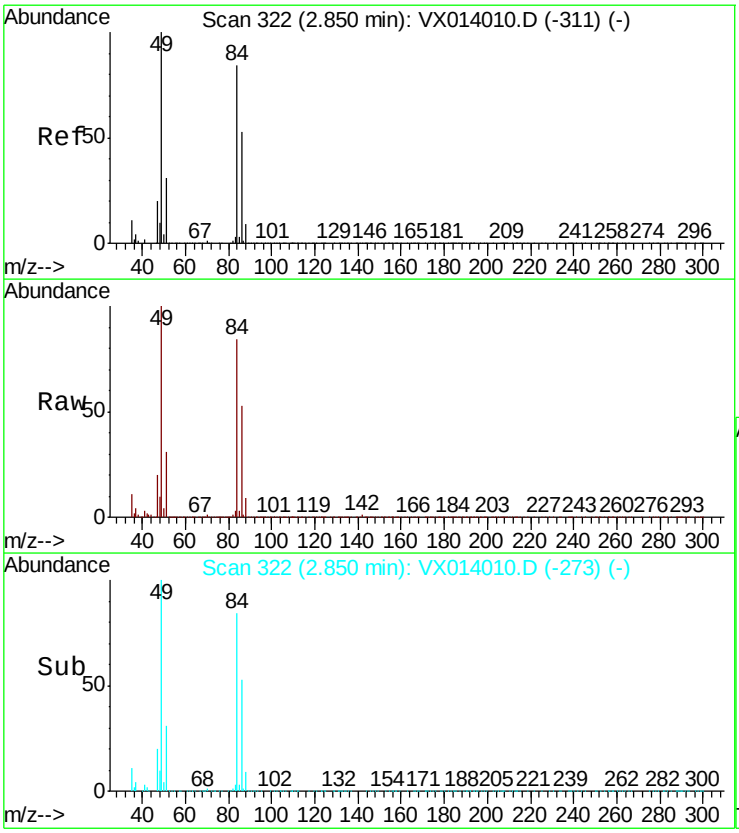
Tgt Ion: 73 Resp: 875400

Ion	Ratio	Lower	Upper
73	100		
57	23.5	18.8	28.2



Instrument :
MSVOA_X
ClientSampleId :
VSTDICCC050

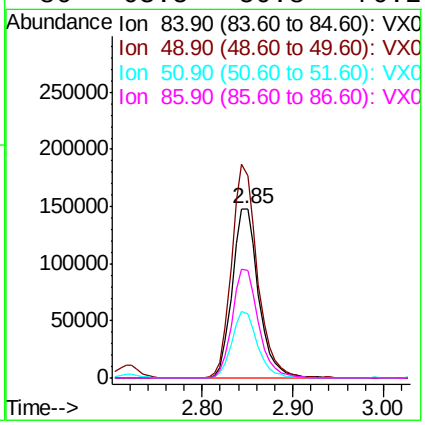
Manual Integrations APPROVED
apatel
12/16/2019 12:46:03 PM

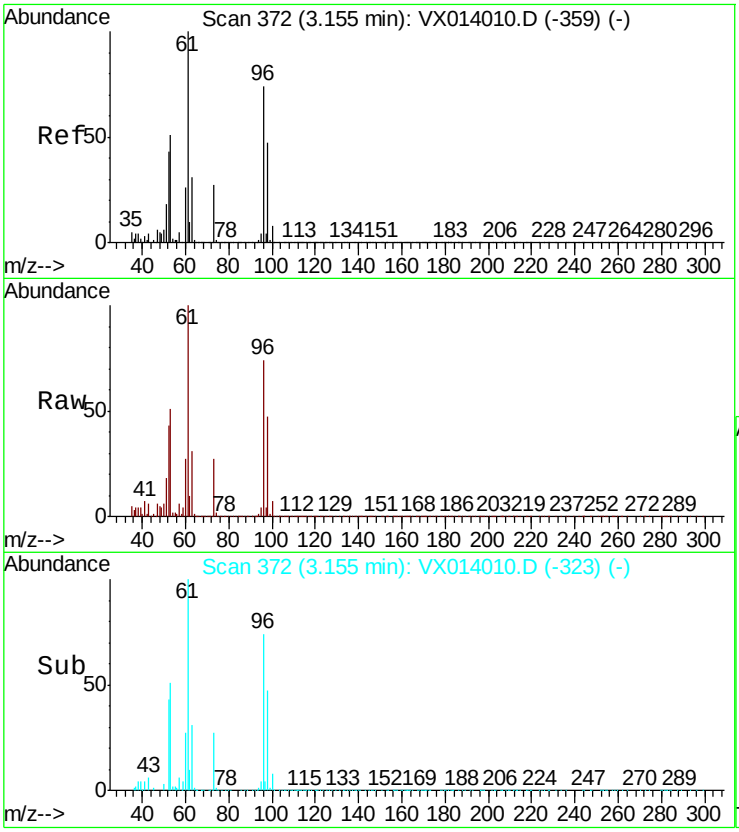


#20
Methylene Chloride
Concen: 47.427 ug/l
RT: 2.85 min Scan# 322
Delta R.T. 0.00 min
Lab File: VX014010.D
Acq: 13 Dec 2019 15:59

Tgt Ion: 84 Resp: 296619

Ion	Ratio	Lower	Upper
84	100		
49	119.7	95.8	143.6
51	37.3	29.8	44.8
86	63.5	50.8	76.2

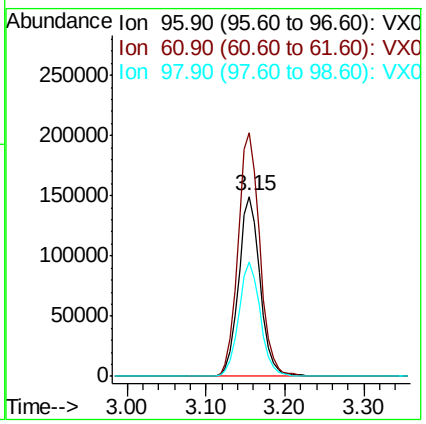




#21
trans-1,2-Dichloroethene
Concen: 47.848 ug/l
RT: 3.15 min Scan# 372
Delta R.T. 0.00 min
Lab File: VX014010.D
Acq: 13 Dec 2019 15:59

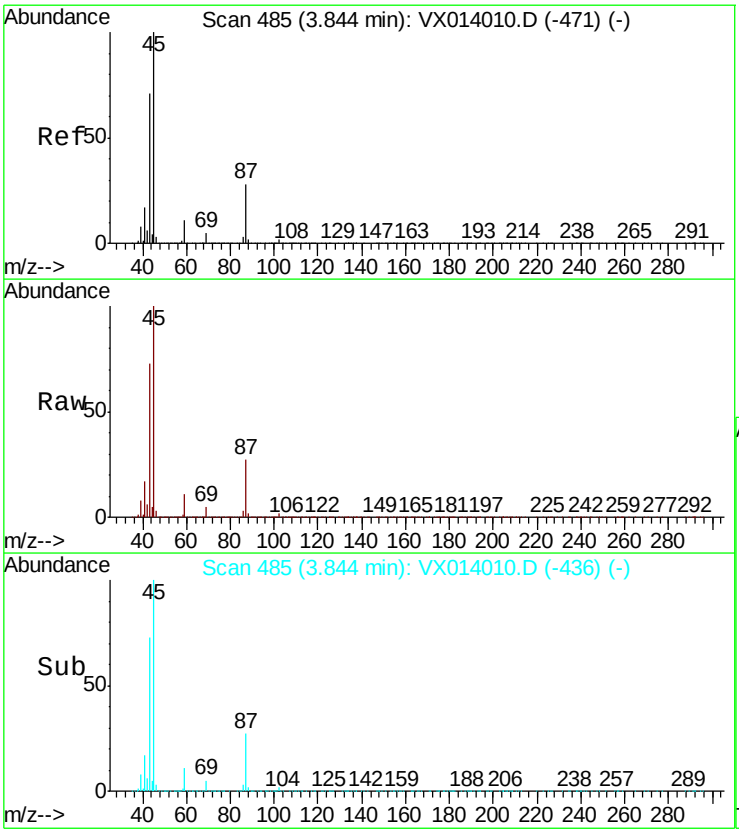
Tgt Ion: 96 Resp: 281142

Ion	Ratio	Lower	Upper
96	100		
61	135.4	108.3	162.5
98	63.5	50.8	76.2



Instrument :
MSVOA_X
ClientSampleId :
VSTDICCC050

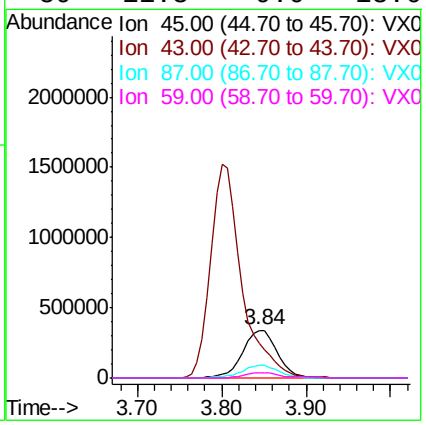
Manual Integrations APPROVED
apatel
12/16/2019 12:46:03 PM

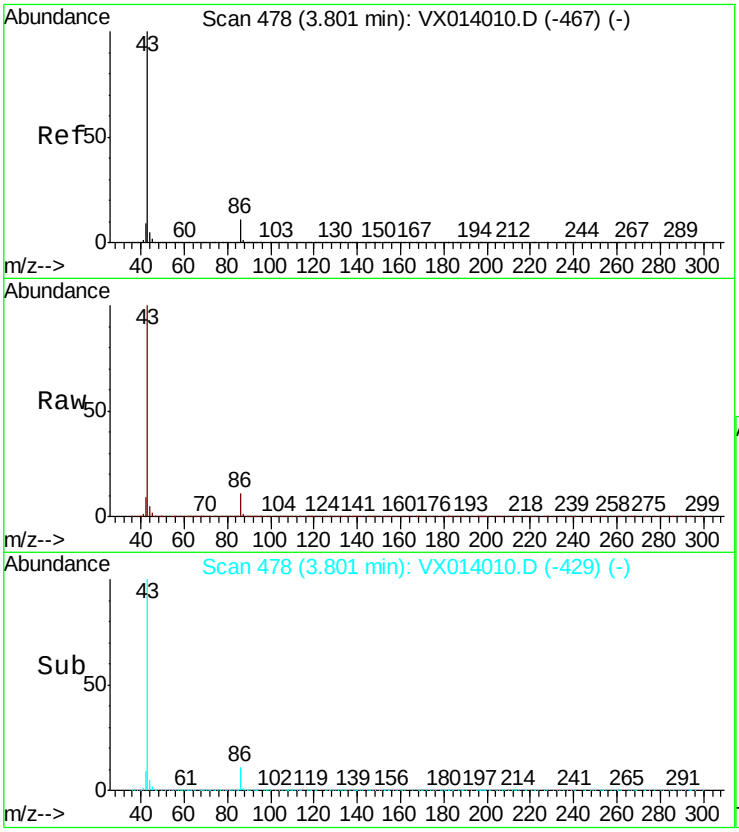


#22
Diisopropyl ether
Concen: 49.853 ug/l
RT: 3.84 min Scan# 485
Delta R.T. 0.00 min
Lab File: VX014010.D
Acq: 13 Dec 2019 15:59

Tgt Ion: 45 Resp: 941592

Ion	Ratio	Lower	Upper
45	100		
43	71.7	57.4	86.0
87	27.4	21.9	32.9
59	11.3	9.0	13.6

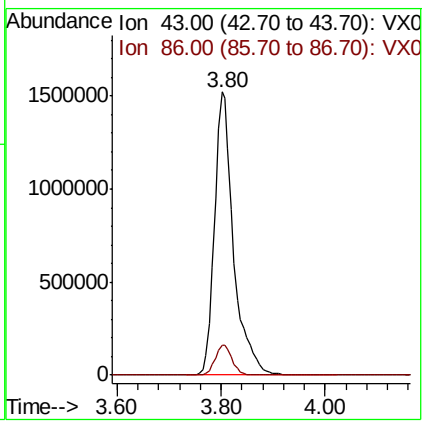




#23
Vinyl Acetate
Concen: 249.782 ug/l
RT: 3.80 min Scan# 478
Delta R.T. 0.00 min
Lab File: VX014010.D
Acq: 13 Dec 2019 15:59

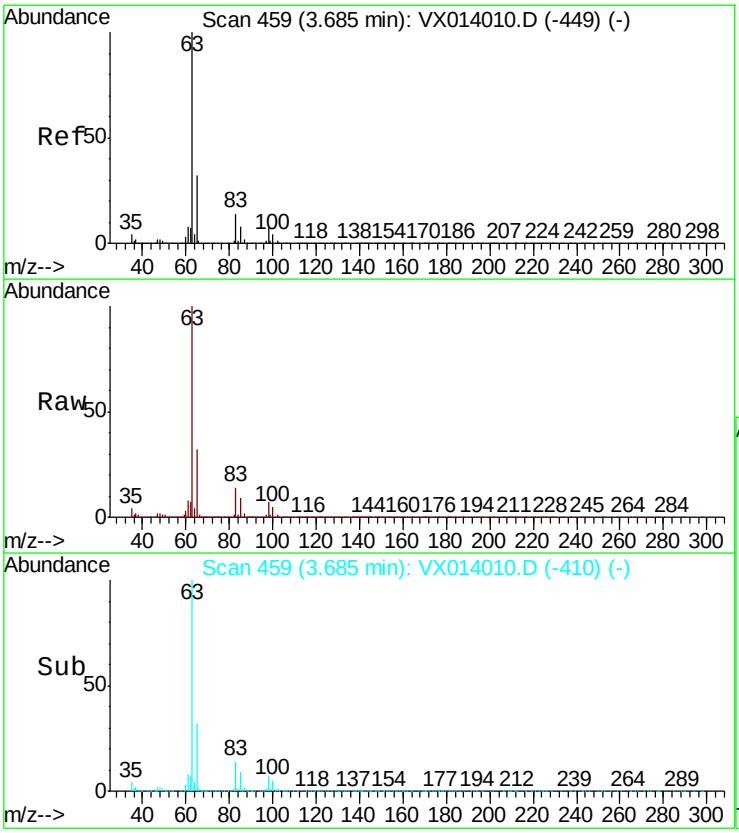
Tgt Ion: 43 Resp: 3916863

Ion	Ratio	Lower	Upper
43	100		
86	10.7	8.6	12.8



Instrument :
MSVOA_X
ClientSampleId :
VSTDICCC050

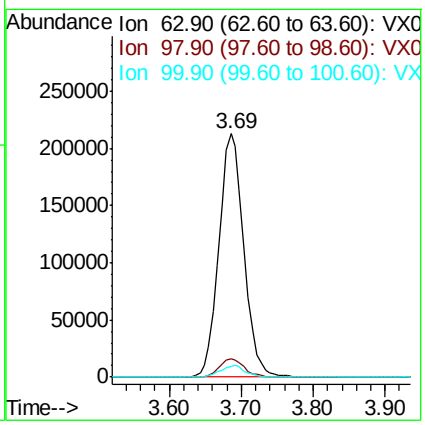
Manual Integrations APPROVED
apatel
12/16/2019 12:46:03 PM

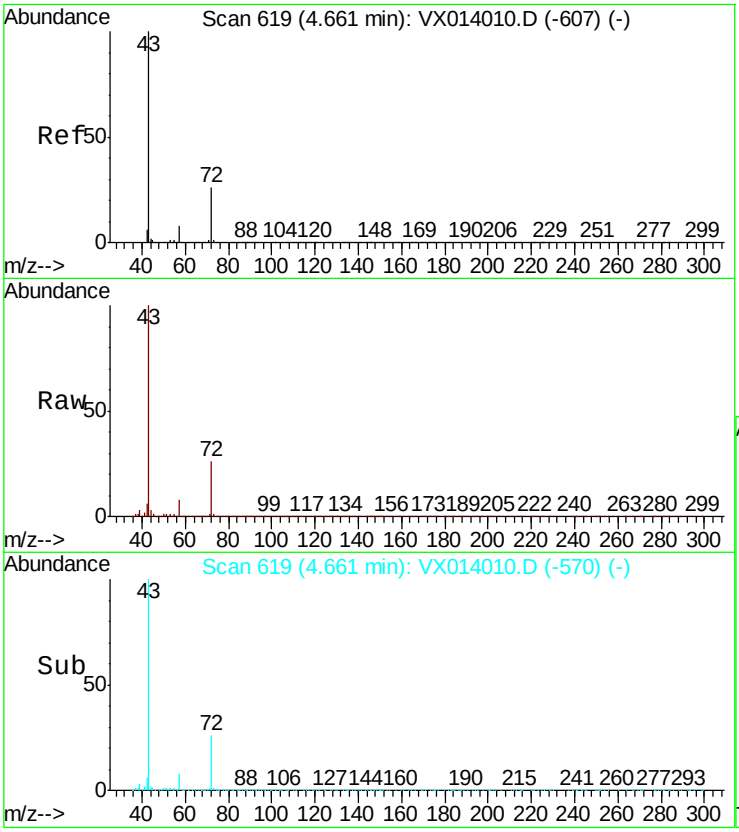


#24
1,1-Dichloroethane
Concen: 49.319 ug/l
RT: 3.69 min Scan# 459
Delta R.T. 0.00 min
Lab File: VX014010.D
Acq: 13 Dec 2019 15:59

Tgt Ion: 63 Resp: 509180

Ion	Ratio	Lower	Upper
63	100		
98	7.2	3.6	10.8
100	4.5	2.3	6.8

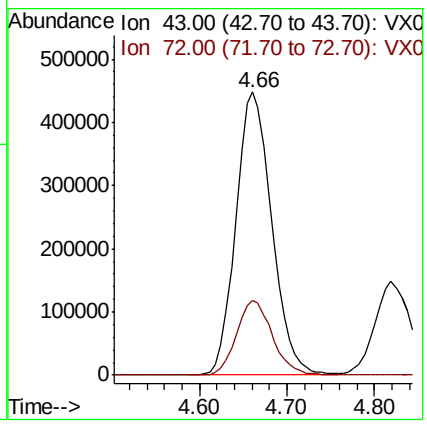




#25
2-Butanone
Concen: 261.894 ug/l
RT: 4.66 min Scan# 619
Delta R.T. 0.00 min
Lab File: VX014010.D
Acq: 13 Dec 2019 15:59

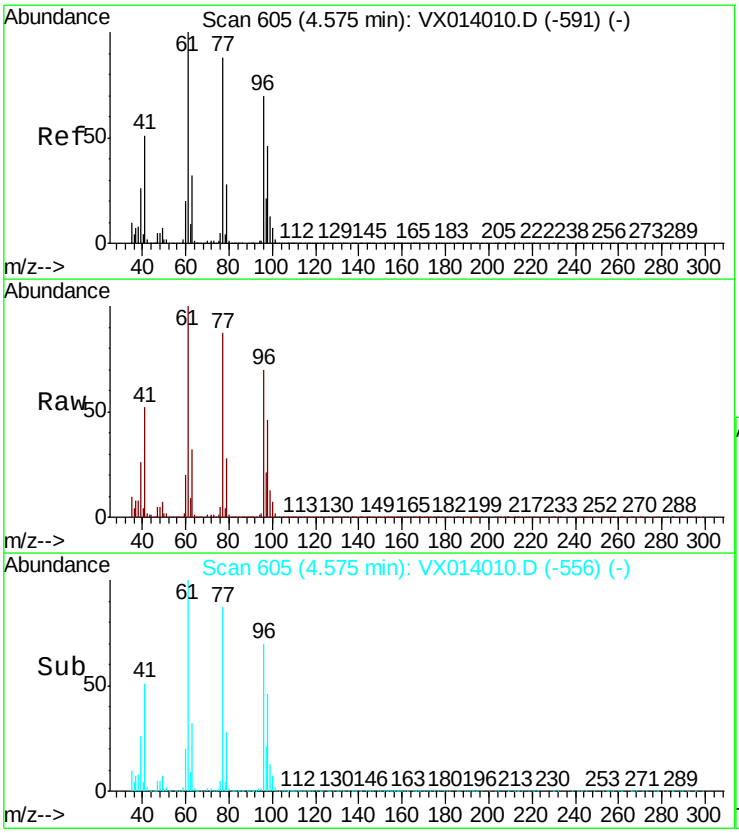
Tgt Ion: 43 Resp: 1274783

Ion	Ratio	Lower	Upper
43	100		
72	26.2	21.0	31.4



Instrument :
MSVOA_X
ClientSampleId :
VSTDICCC050

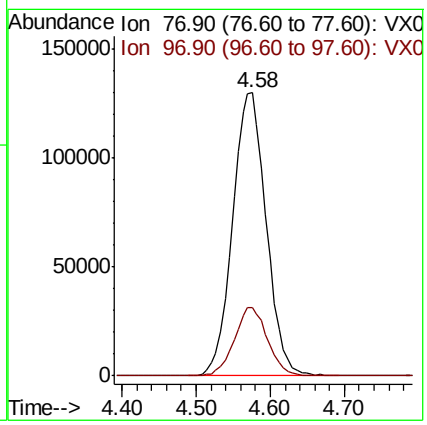
Manual Integrations APPROVED
apatel
12/16/2019 12:46:03 PM

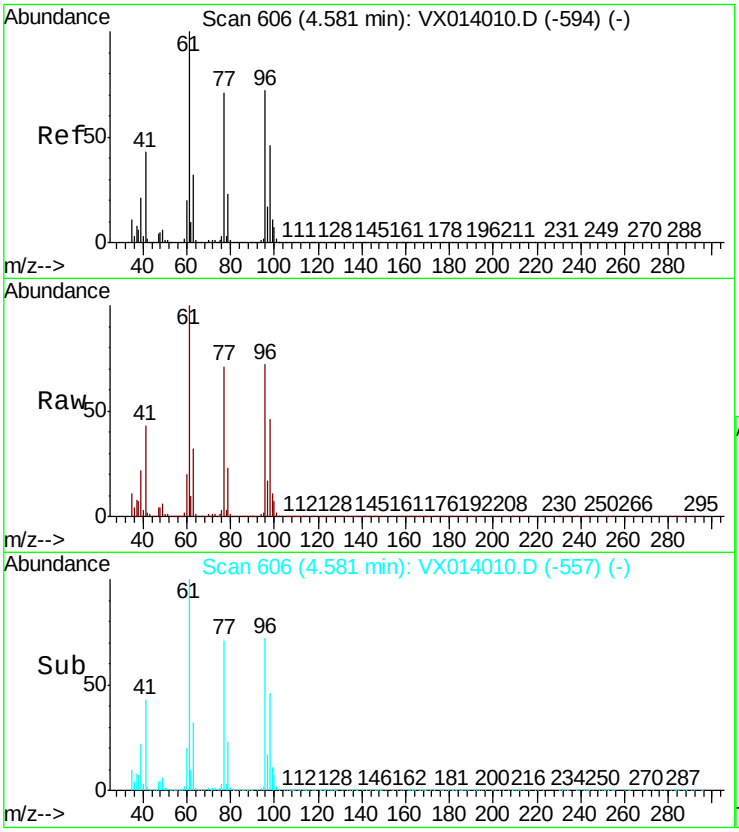


#26
2,2-Dichloropropane
Concen: 47.869 ug/l
RT: 4.58 min Scan# 605
Delta R.T. 0.00 min
Lab File: VX014010.D
Acq: 13 Dec 2019 15:59

Tgt Ion: 77 Resp: 407247

Ion	Ratio	Lower	Upper
77	100		
97	23.9	11.9	35.9

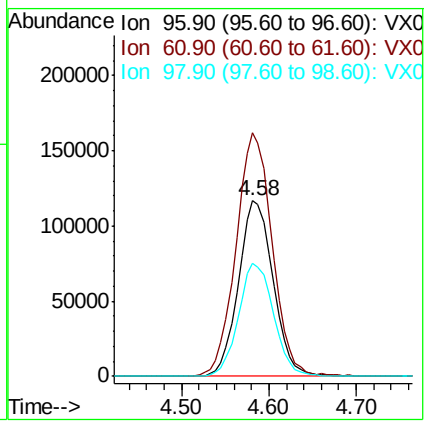




#27
cis-1,2-Dichloroethene
Concen: 47.773 ug/l
RT: 4.58 min Scan# 606
Delta R.T. 0.00 min
Lab File: VX014010.D
Acq: 13 Dec 2019 15:59

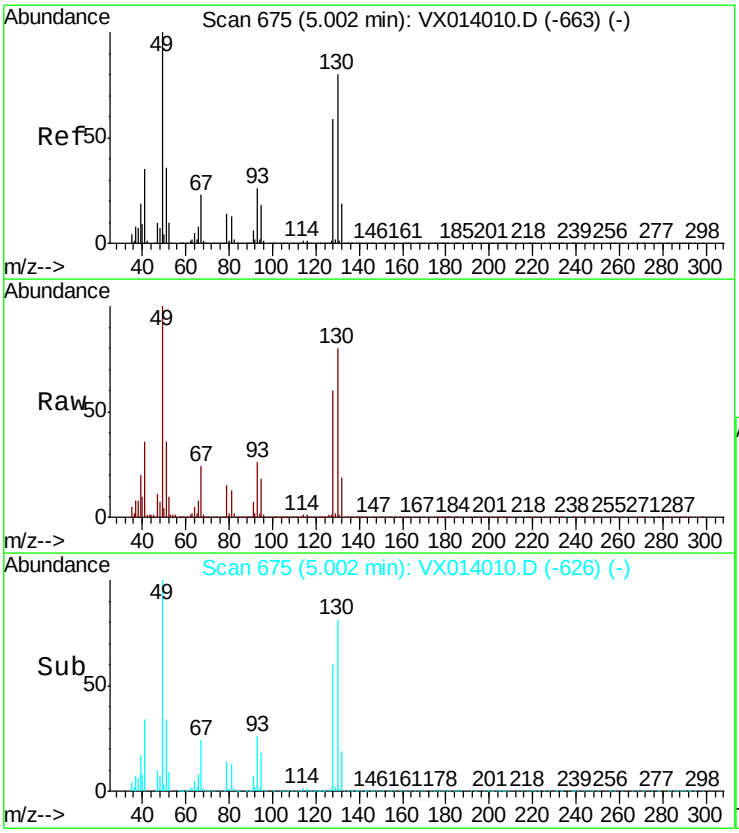
Tgt Ion: 96 Resp: 322146

Ion	Ratio	Lower	Upper
96	100		
61	144.2	0.0	288.4
98	64.8	0.0	129.6



Instrument :
MSVOA_X
ClientSampleId :
VSTDICCC050

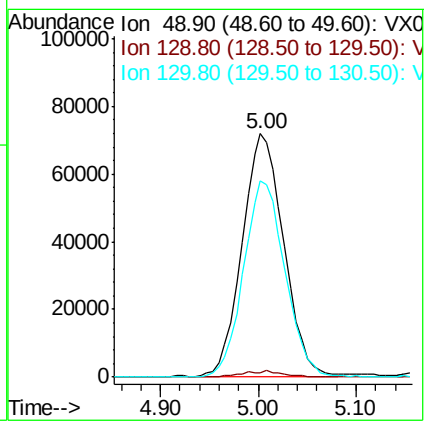
Manual Integrations APPROVED
apatel
12/16/2019 12:46:03 PM



#28
Bromochloromethane
Concen: 57.627 ug/l
RT: 5.00 min Scan# 675
Delta R.T. 0.00 min
Lab File: VX014010.D
Acq: 13 Dec 2019 15:59

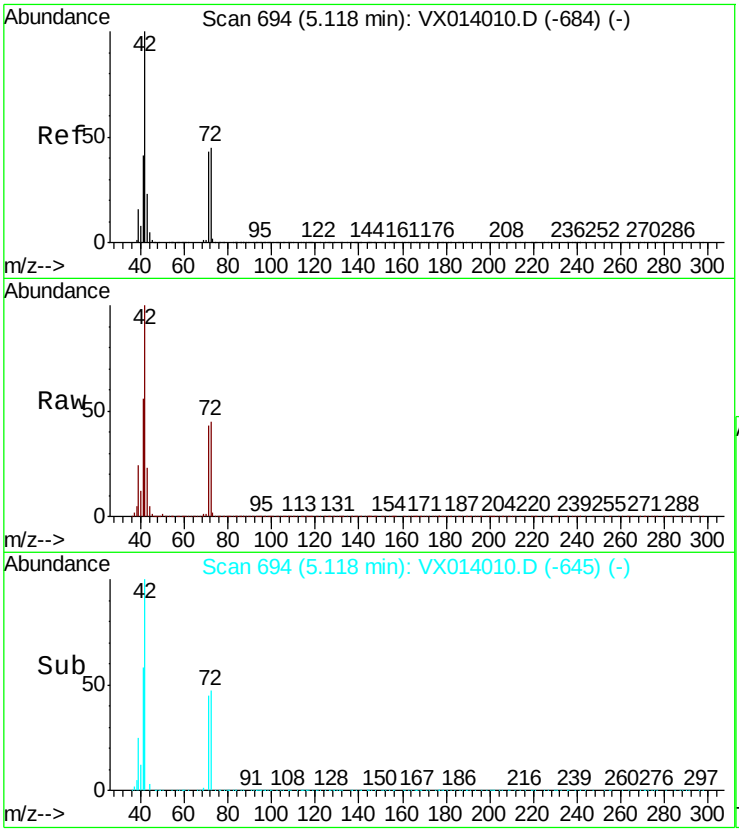
Tgt Ion: 49 Resp: 210039

Ion	Ratio	Lower	Upper
49	100		
129	2.5	0.0	5.0
130	80.8	64.6	97.0



Instrument :
MSVOA_X
ClientSampleId :
VSTDICCC050

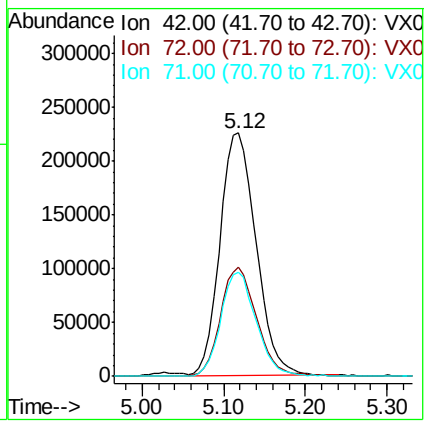
Manual Integrations APPROVED
apatel
12/16/2019 12:46:03 PM

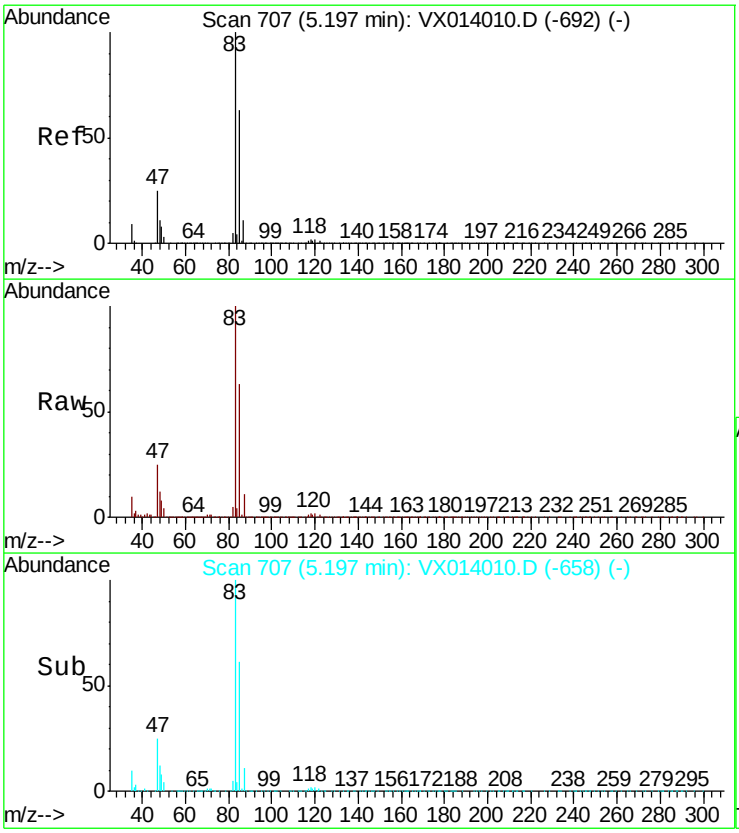


#29
Tetrahydrofuran
Concen: 235.957 ug/l
RT: 5.12 min Scan# 694
Delta R.T. 0.00 min
Lab File: VX014010.D
Acq: 13 Dec 2019 15:59

Tgt Ion: 42 Resp: 692327

Ion	Ratio	Lower	Upper
42	100		
72	44.8	35.8	53.8
71	42.0	33.6	50.4

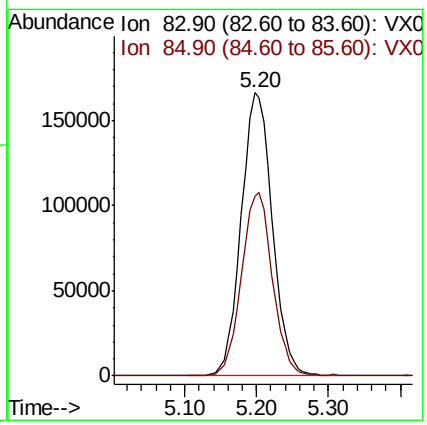




#30
Chloroform
Concen: 47.603 ug/l
RT: 5.20 min Scan# 707
Delta R.T. 0.00 min
Lab File: VX014010.D
Acq: 13 Dec 2019 15:59

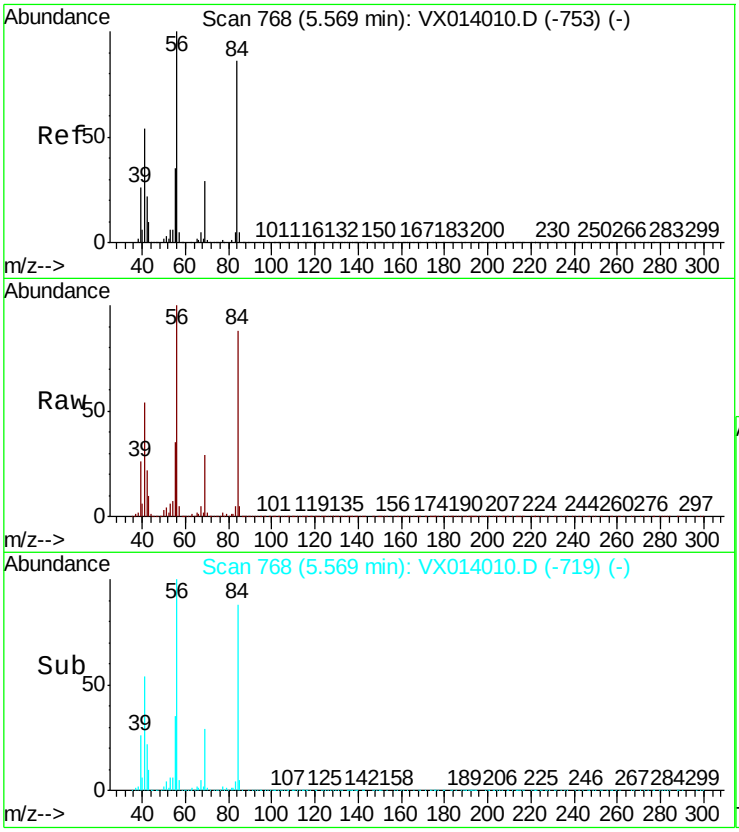
Tgt Ion: 83 Resp: 497443

Ion	Ratio	Lower	Upper
83	100		
85	63.5	50.8	76.2



Instrument :
MSVOA_X
ClientSampleId :
VSTDICCC050

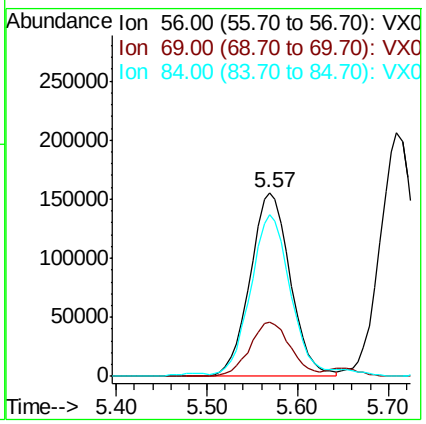
Manual Integrations APPROVED
apatel
12/16/2019 12:46:03 PM

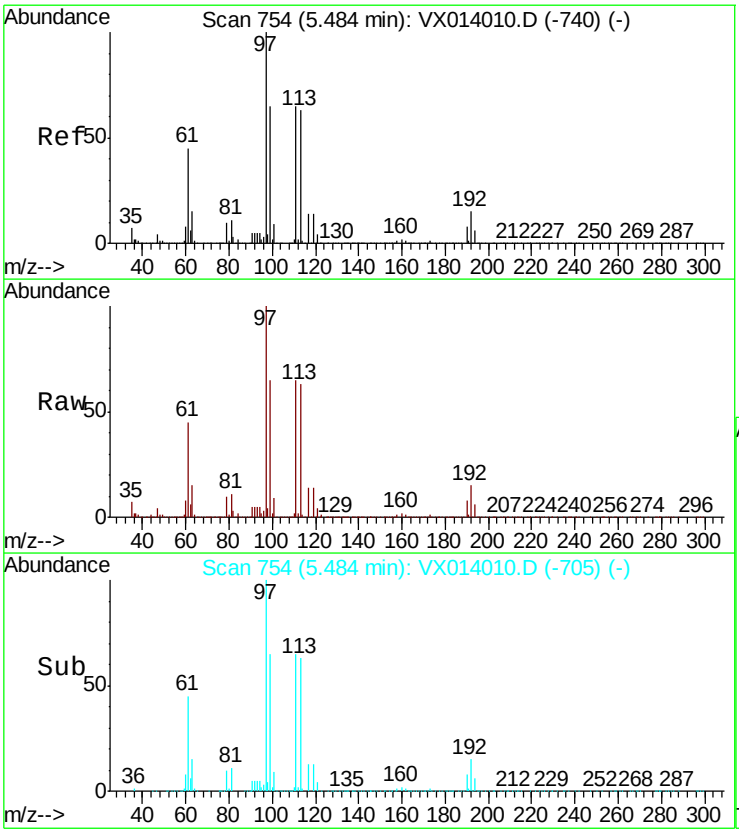


#31
Cyclohexane
Concen: 48.739 ug/l
RT: 5.57 min Scan# 768
Delta R.T. 0.00 min
Lab File: VX014010.D
Acq: 13 Dec 2019 15:59

Tgt Ion: 56 Resp: 475700

Ion	Ratio	Lower	Upper
56	100		
69	29.0	23.2	34.8
84	86.5	69.2	103.8

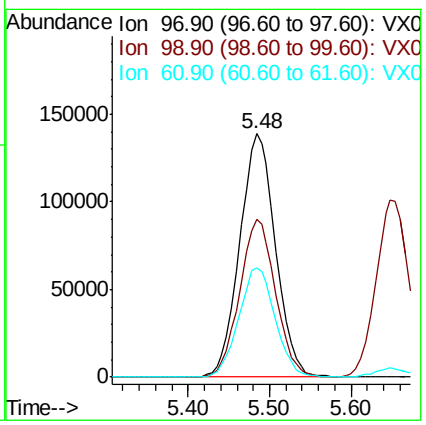


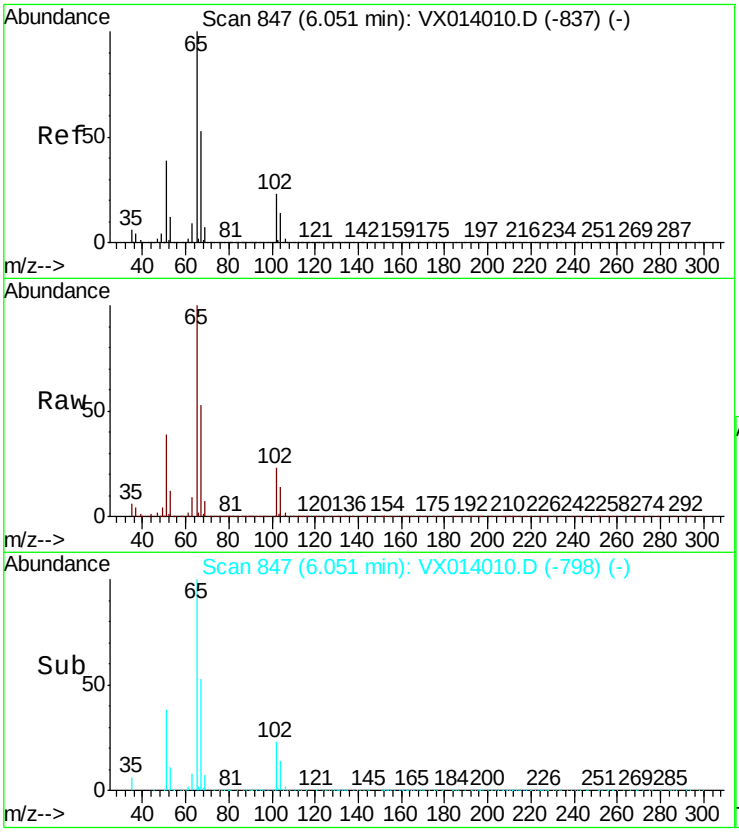


#32
1,1,1-Trichloroethane
Concen: 48.233 ug/l
RT: 5.48 min Scan# 754
Delta R.T. 0.00 min
Lab File: VX014010.D
Acq: 13 Dec 2019 15:59

Tgt Ion: 97 Resp: 420962

Ion	Ratio	Lower	Upper
97	100		
99	65.0	52.0	78.0
61	45.9	36.7	55.1

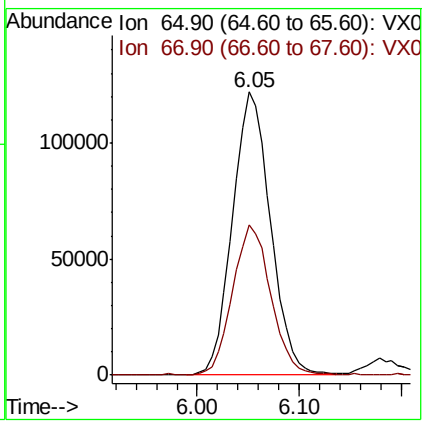




#33
1,2-Dichloroethane-d4
Concen: 47.638 ug/l
RT: 6.05 min Scan# 847
Delta R.T. 0.00 min
Lab File: VX014010.D
Acq: 13 Dec 2019 15:59

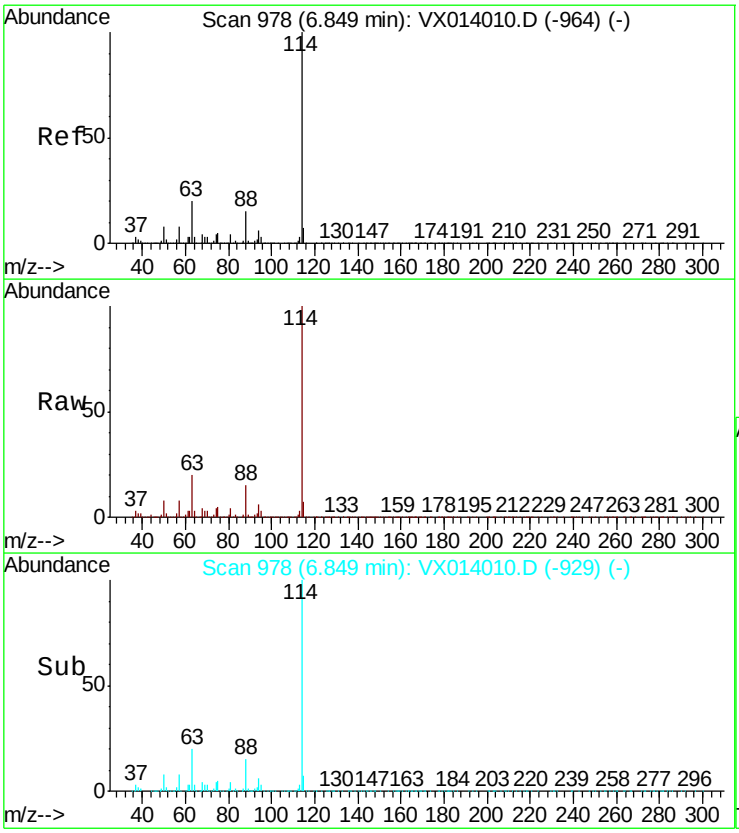
Tgt Ion: 65 Resp: 313851

Ion	Ratio	Lower	Upper
65	100		
67	53.2	0.0	106.4



Instrument :
MSVOA_X
ClientSampleId :
VSTDICCC050

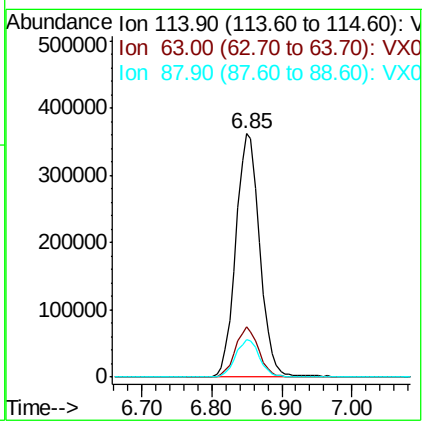
Manual Integrations APPROVED
apatel
12/16/2019 12:46:03 PM



#34
1,4-Difluorobenzene
Concen: 50.000 ug/l
RT: 6.85 min Scan# 978
Delta R.T. 0.00 min
Lab File: VX014010.D
Acq: 13 Dec 2019 15:59

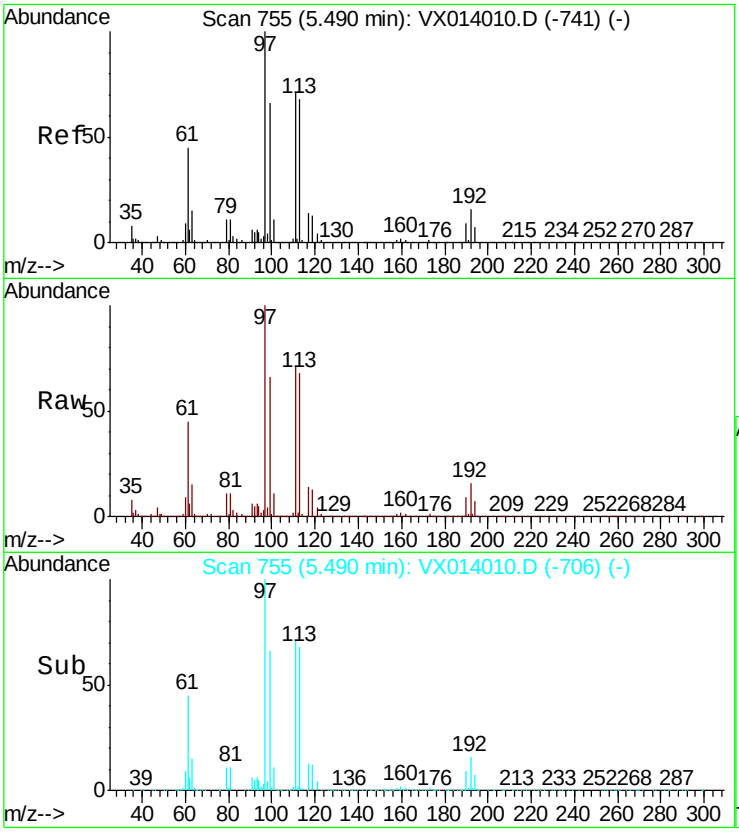
Tgt Ion:114 Resp: 864628

Ion	Ratio	Lower	Upper
114	100		
63	20.4	0.0	40.8
88	15.2	0.0	30.4



Instrument :
MSVOA_X
ClientSampleId :
VSTDICCC050

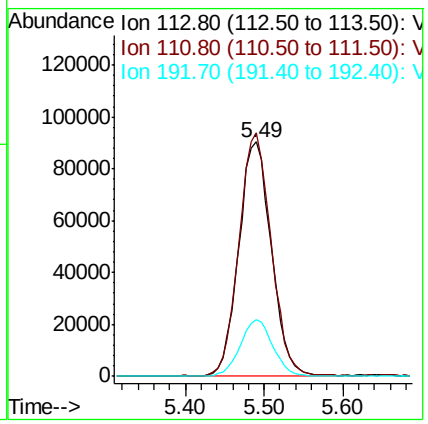
Manual Integrations APPROVED
apatel
12/16/2019 12:46:03 PM

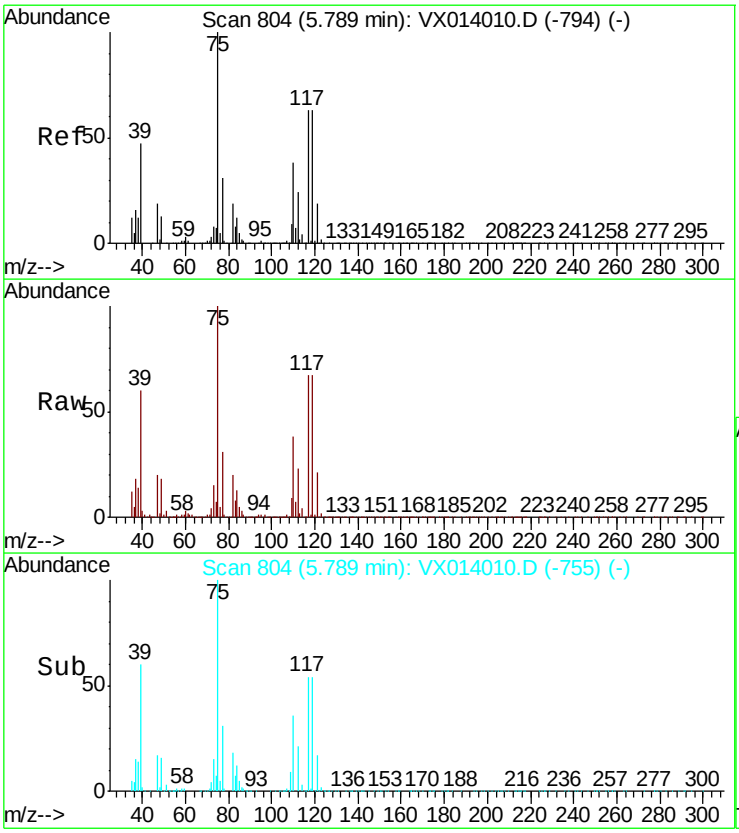


#35
Dibromofluoromethane
Concen: 48.410 ug/l
RT: 5.49 min Scan# 755
Delta R.T. 0.00 min
Lab File: VX014010.D
Acq: 13 Dec 2019 15:59

Tgt Ion:113 Resp: 260151

Ion	Ratio	Lower	Upper
113	100		
111	102.5	82.0	123.0
192	24.1	19.3	28.9

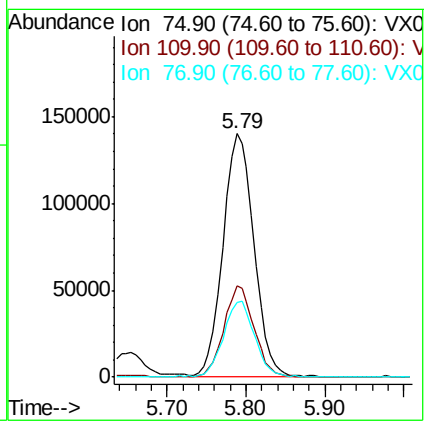




#36
1,1-Dichloropropene
Concen: 48.555 ug/l
RT: 5.79 min Scan# 804
Delta R.T. 0.00 min
Lab File: VX014010.D
Acq: 13 Dec 2019 15:59

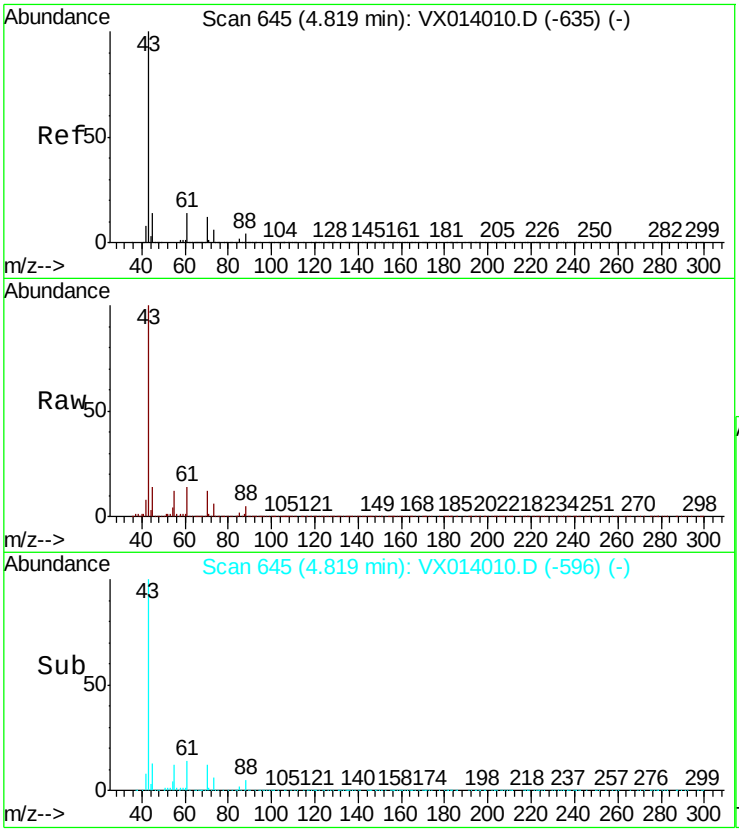
Tgt Ion: 75 Resp: 381362

Ion	Ratio	Lower	Upper
75	100		
110	36.6	18.3	54.9
77	31.0	24.8	37.2



Instrument :
MSVOA_X
ClientSampleId :
VSTDICCC050

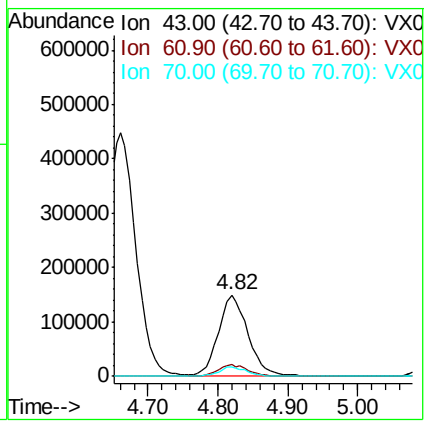
Manual Integrations APPROVED
apatel
12/16/2019 12:46:03 PM

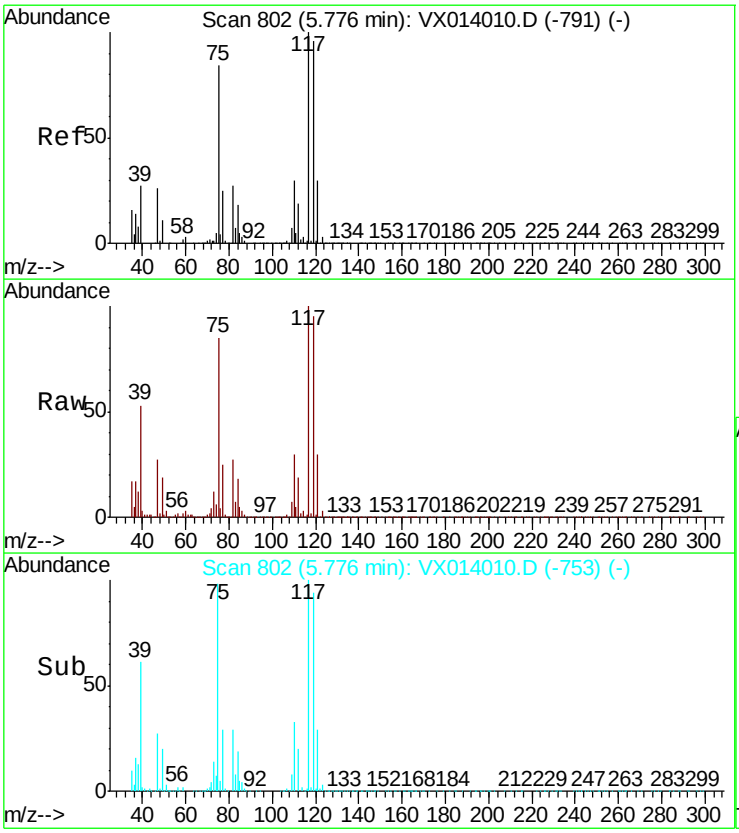


#37
Ethyl Acetate
Concen: 49.574 ug/l
RT: 4.82 min Scan# 645
Delta R.T. 0.00 min
Lab File: VX014010.D
Acq: 13 Dec 2019 15:59

Tgt Ion: 43 Resp: 434370

Ion	Ratio	Lower	Upper
43	100		
61	13.5	10.8	16.2
70	10.7	8.6	12.8

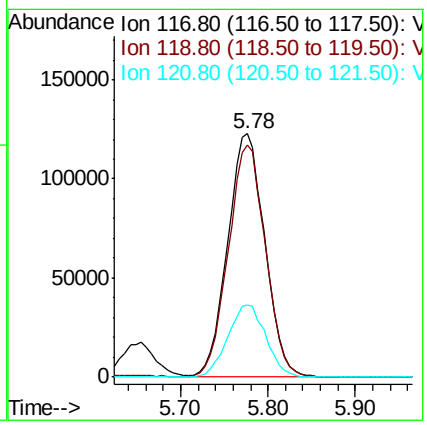


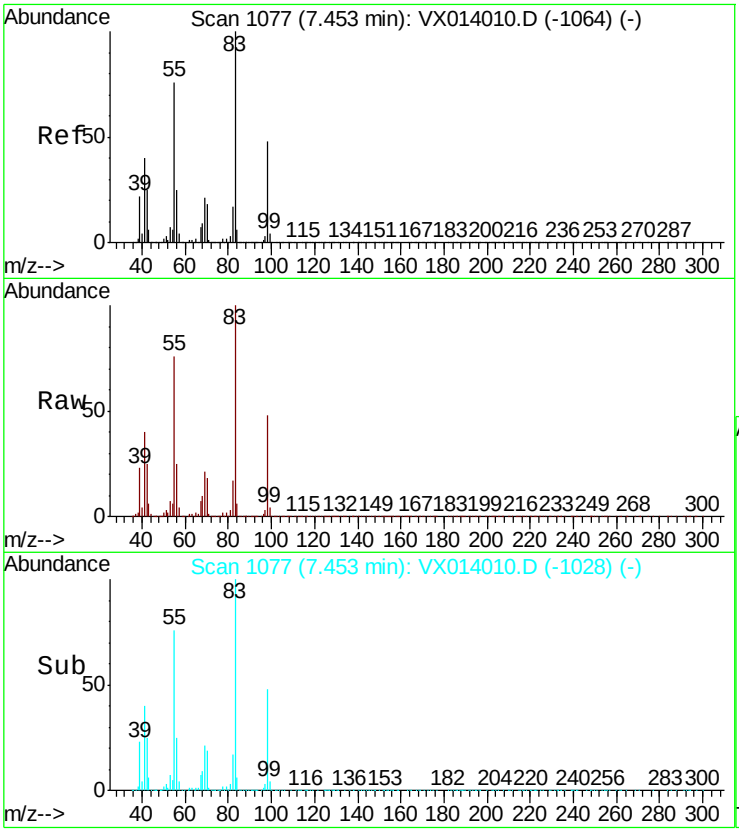


#38
Carbon Tetrachloride
Concen: 49.898 ug/l
RT: 5.78 min Scan# 802
Delta R.T. 0.00 min
Lab File: VX014010.D
Acq: 13 Dec 2019 15:59

Tgt Ion:117 Resp: 361490

Ion	Ratio	Lower	Upper
117	100		
119	95.3	76.2	114.4
121	29.5	23.6	35.4

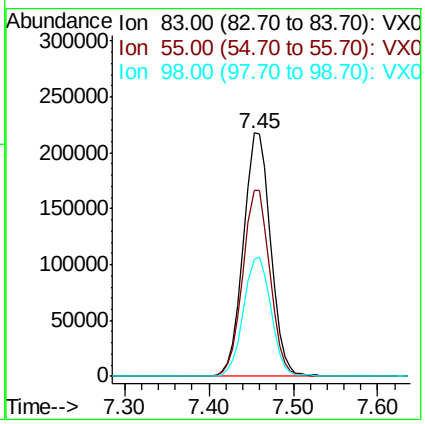


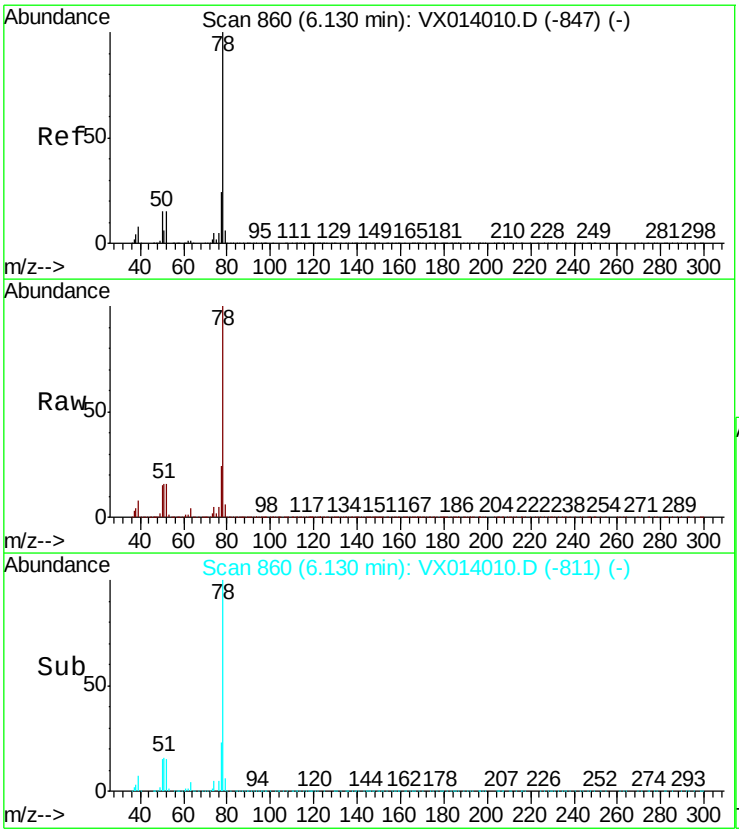


#39
Methylcyclohexane
Concen: 48.720 ug/l
RT: 7.45 min Scan# 1077
Delta R.T. 0.00 min
Lab File: VX014010.D
Acq: 13 Dec 2019 15:59

Tgt Ion: 83 Resp: 473812

Ion	Ratio	Lower	Upper
83	100		
55	76.3	61.0	91.6
98	48.2	38.6	57.8

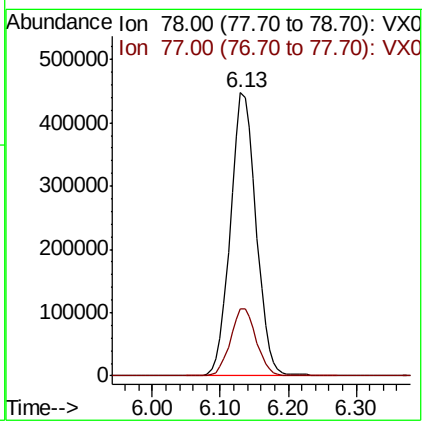




#40
Benzene
Concen: 48.807 ug/l
RT: 6.13 min Scan# 860
Delta R.T. 0.00 min
Lab File: VX014010.D
Acq: 13 Dec 2019 15:59

Tgt Ion: 78 Resp: 1169987

Ion	Ratio	Lower	Upper
78	100		
77	23.5	18.8	28.2

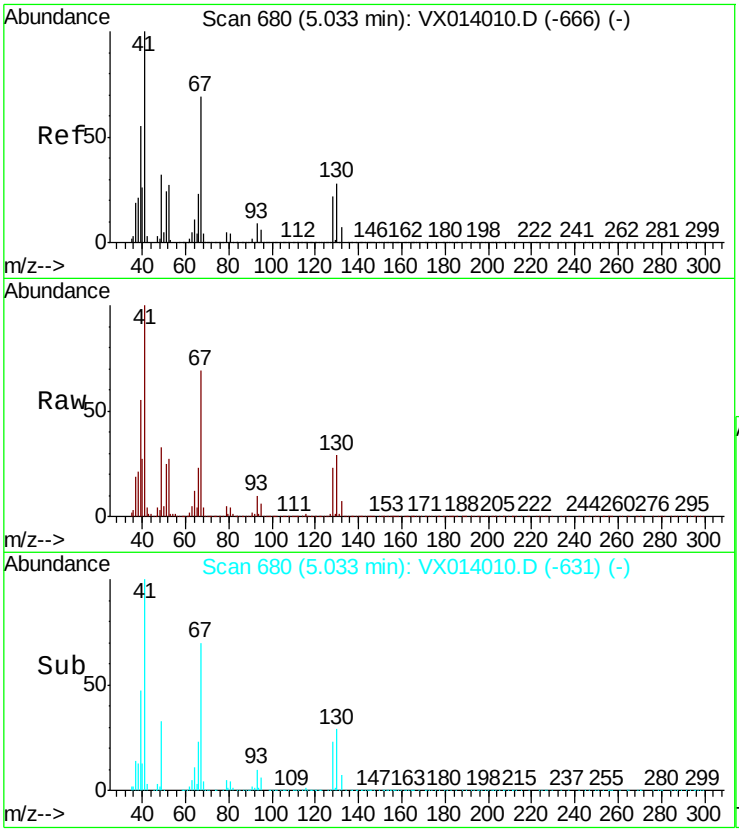


Instrument :
MSVOA_X
ClientSampleId :
VSTDICCC050

Manual Integrations APPROVED
apatel
12/16/2019 12:46:03 PM

Instrument :
MSVOA_X
ClientSampleId :
VSTDICCC050

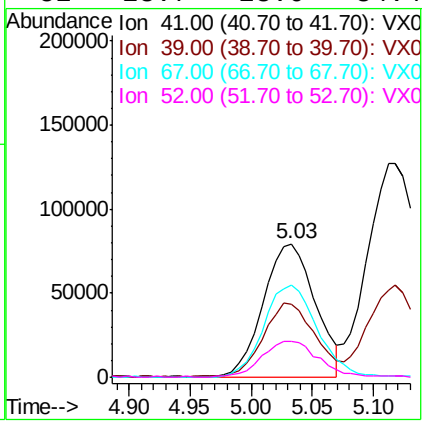
Manual Integrations APPROVED
apatel
12/16/2019 12:46:03 PM

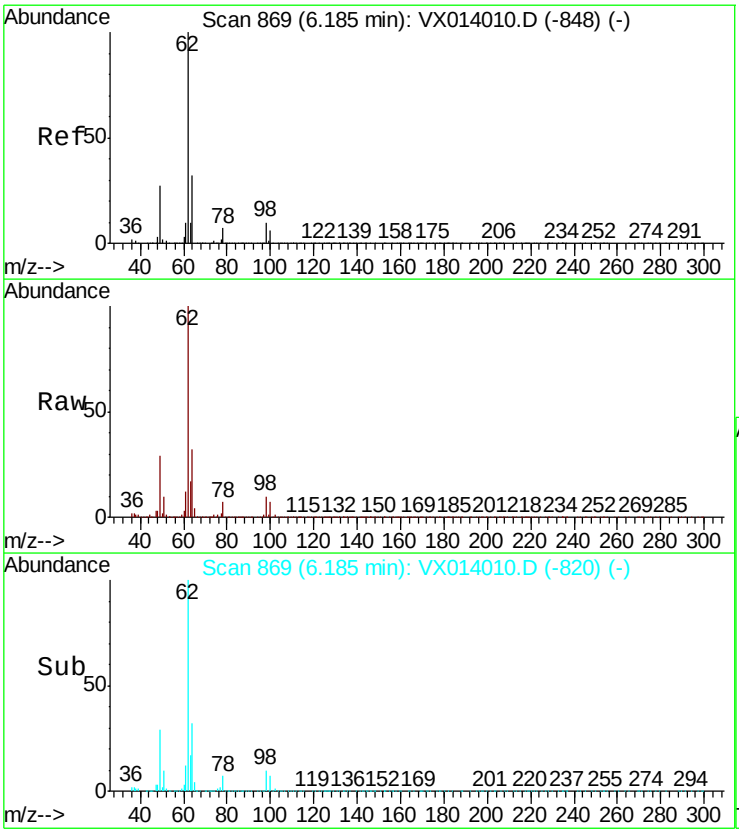


#41
Methacrylonitrile
Concen: 48.825 ug/l
RT: 5.03 min Scan# 680
Delta R.T. 0.00 min
Lab File: VX014010.D
Acq: 13 Dec 2019 15:59

Tgt Ion: 41 Resp: 233512

Ion	Ratio	Lower	Upper
41	100		
39	55.6	44.5	66.7
67	71.7	57.4	86.0
52	28.7	23.0	34.4

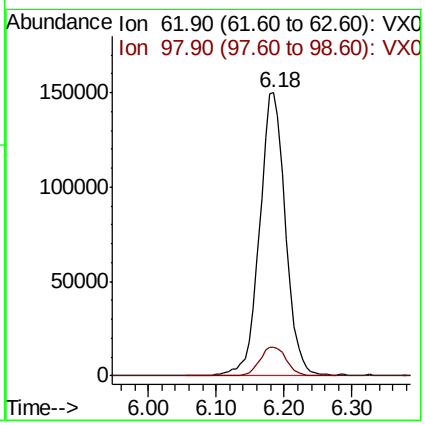




#42
1,2-Dichloroethane
Concen: 48.642 ug/l
RT: 6.18 min Scan# 869
Delta R.T. 0.00 min
Lab File: VX014010.D
Acq: 13 Dec 2019 15:59

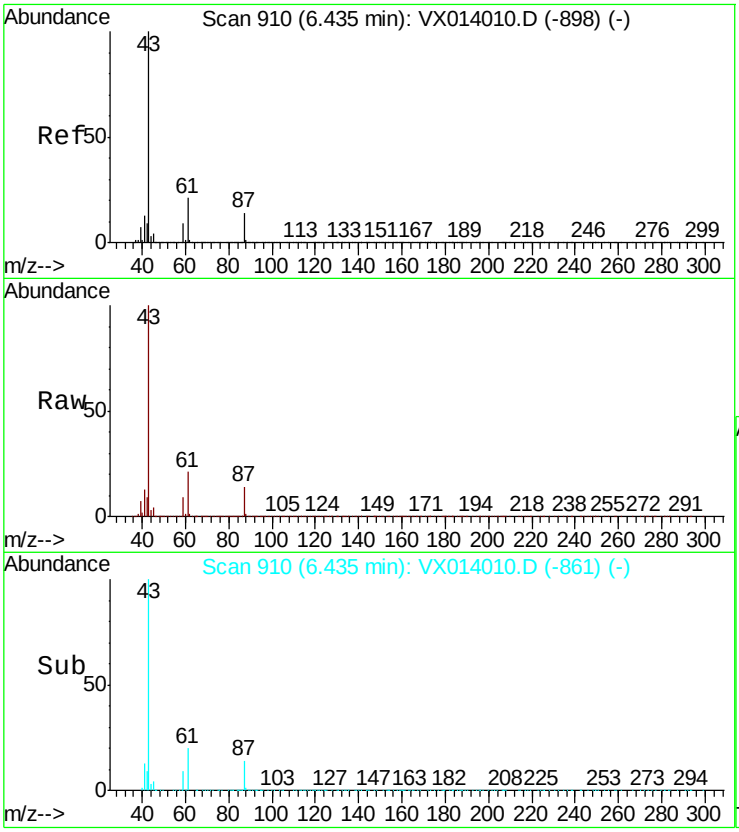
Tgt Ion: 62 Resp: 397061

Ion	Ratio	Lower	Upper
62	100		
98	10.5	0.0	21.0



Instrument :
MSVOA_X
ClientSampleId :
VSTDICCC050

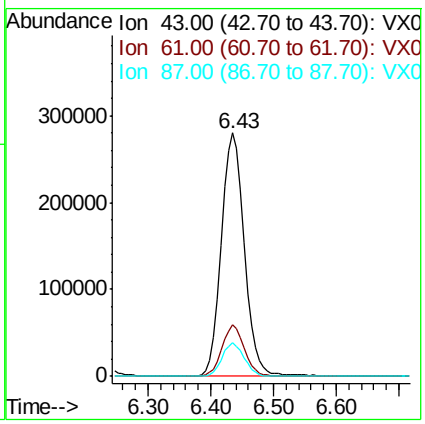
Manual Integrations APPROVED
apatel
12/16/2019 12:46:03 PM

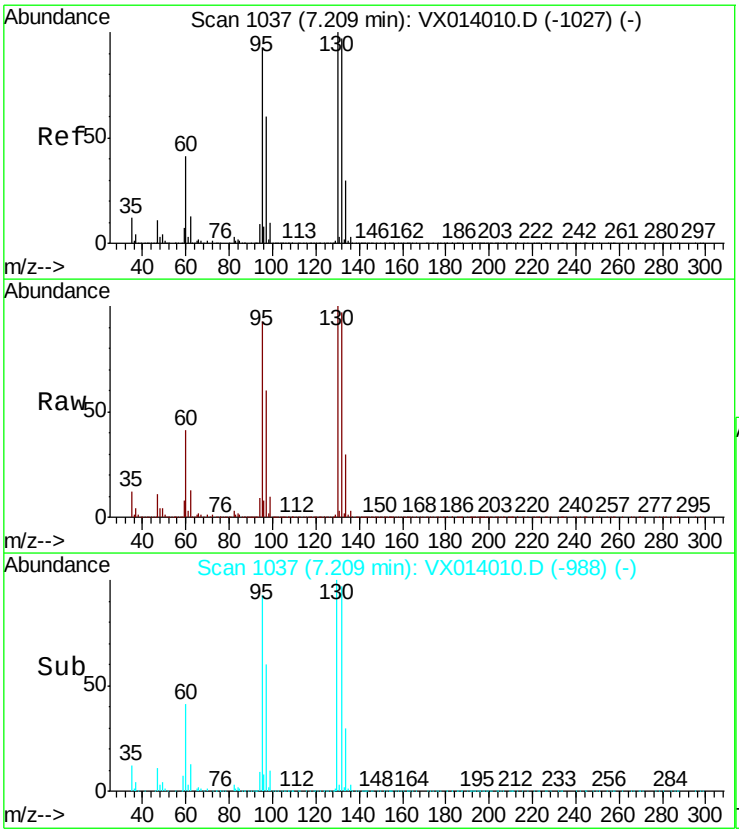


#43
Isopropyl Acetate
Concen: 48.974 ug/l
RT: 6.43 min Scan# 910
Delta R.T. 0.00 min
Lab File: VX014010.D
Acq: 13 Dec 2019 15:59

Tgt Ion: 43 Resp: 708801

Ion	Ratio	Lower	Upper
43	100		
61	20.5	16.4	24.6
87	13.4	10.7	16.1

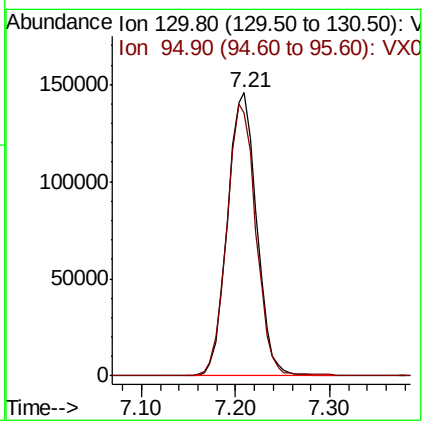


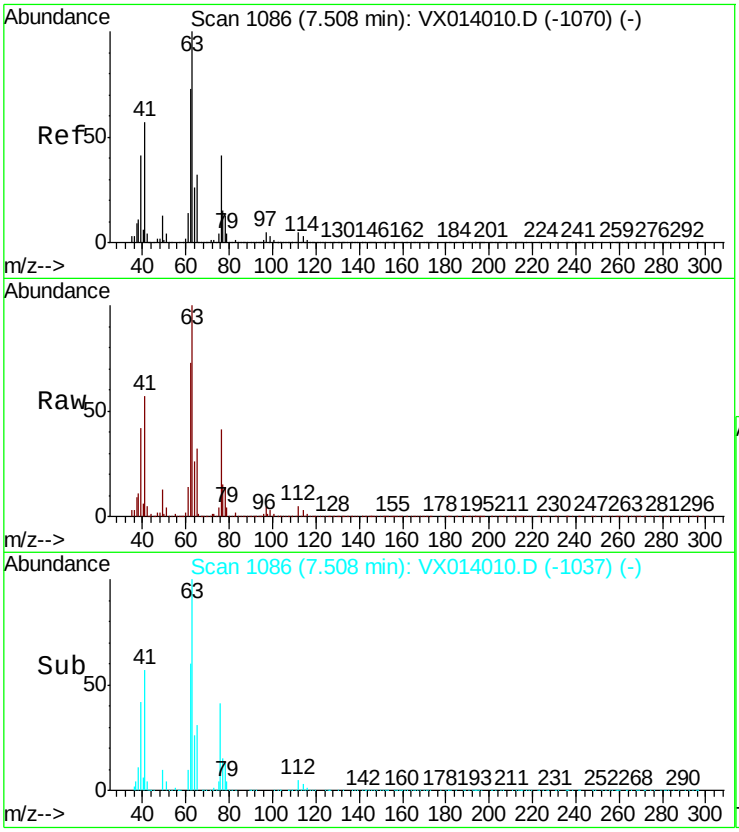


#44
Trichloroethene
Concen: 47.797 ug/l
RT: 7.21 min Scan# 1037
Delta R.T. 0.00 min
Lab File: VX014010.D
Acq: 13 Dec 2019 15:59

Tgt Ion:130 Resp: 313311

Ion	Ratio	Lower	Upper
130	100		
95	92.8	0.0	185.6

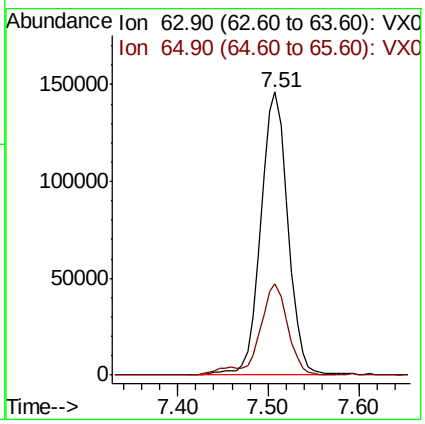




#45
1,2-Dichloropropane
Concen: 50.134 ug/l
RT: 7.51 min Scan# 1086
Delta R.T. 0.00 min
Lab File: VX014010.D
Acq: 13 Dec 2019 15:59

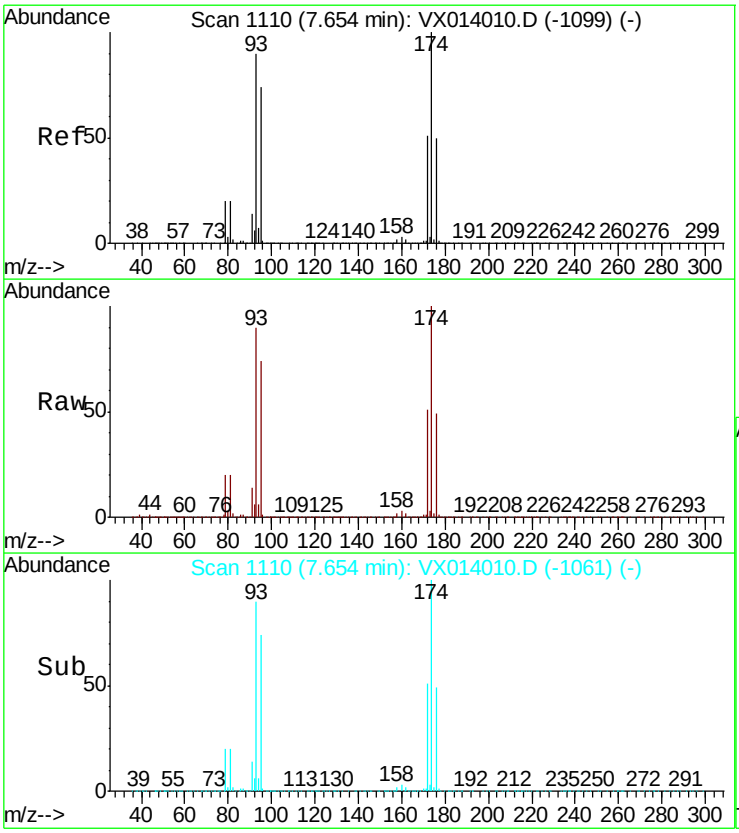
Tgt Ion: 63 Resp: 301248

Ion	Ratio	Lower	Upper
63	100		
65	32.3	25.8	38.8



Instrument :
MSVOA_X
ClientSampleId :
VSTDICCC050

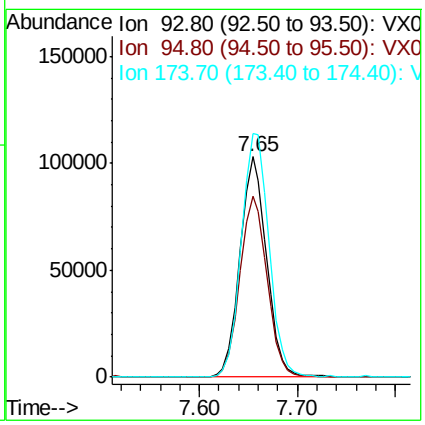
Manual Integrations APPROVED
apatel
12/16/2019 12:46:03 PM

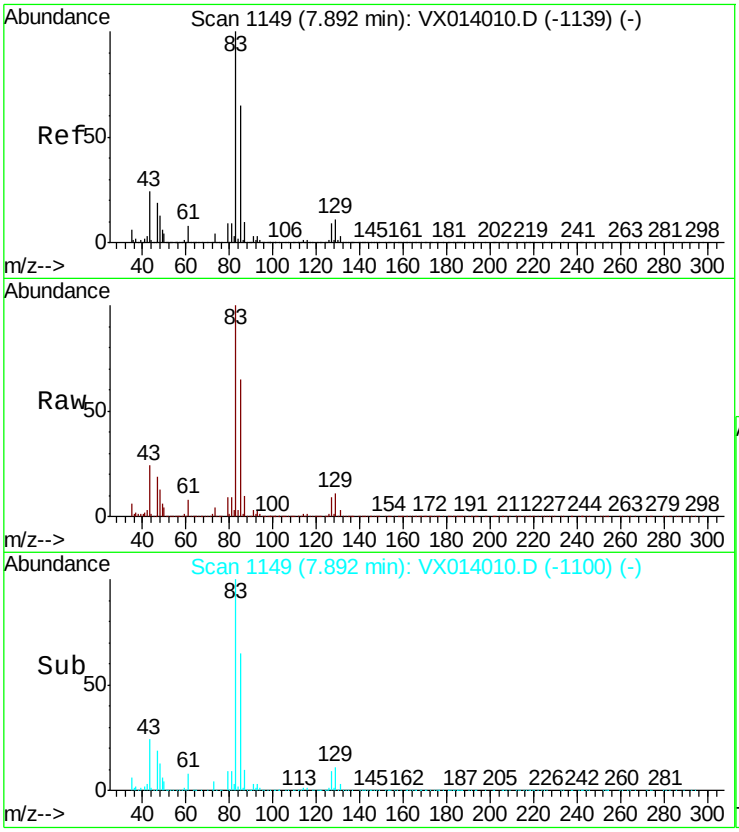


#46
Dibromomethane
Concen: 47.935 ug/l
RT: 7.65 min Scan# 1110
Delta R.T. 0.00 min
Lab File: VX014010.D
Acq: 13 Dec 2019 15:59

Tgt Ion: 93 Resp: 194943

Ion	Ratio	Lower	Upper
93	100		
95	84.1	67.3	100.9
174	114.5	91.6	137.4

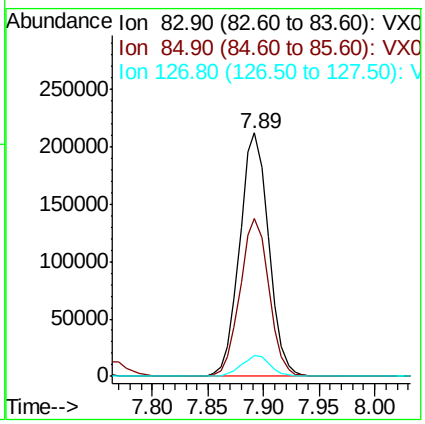




#47
Bromodichloromethane
Concen: 49.981 ug/l
RT: 7.89 min Scan# 1149
Delta R.T. 0.00 min
Lab File: VX014010.D
Acq: 13 Dec 2019 15:59

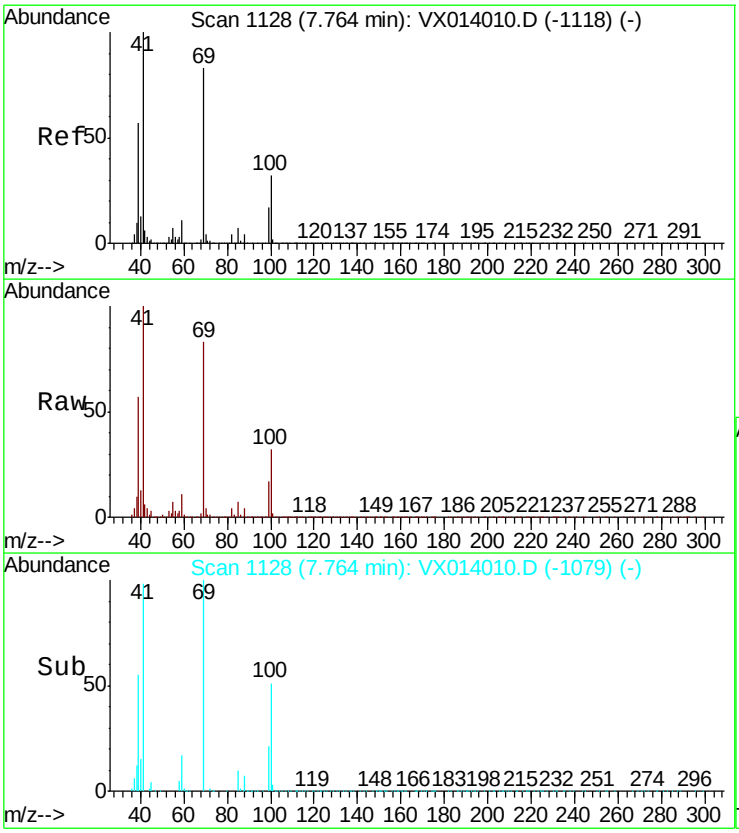
Tgt Ion: 83 Resp: 384152

Ion	Ratio	Lower	Upper
83	100		
85	64.8	51.8	77.8
127	8.7	7.0	10.4



Instrument :
MSVOA_X
ClientSampleId :
VSTDICCC050

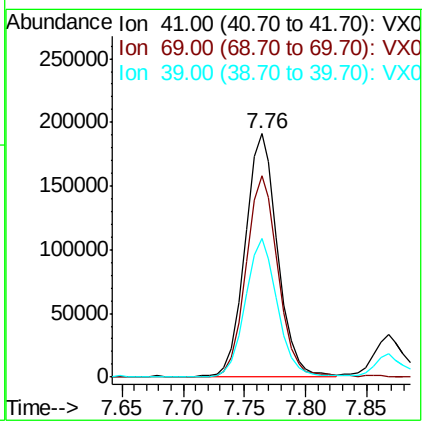
Manual Integrations APPROVED
apatel
12/16/2019 12:46:03 PM

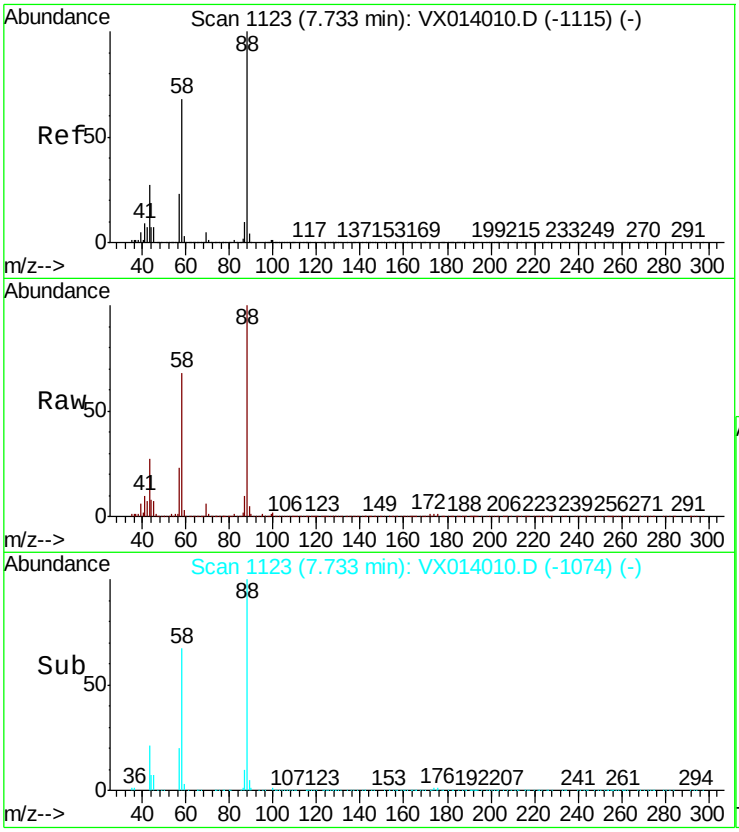


#48
Methyl methacrylate
Concen: 50.026 ug/l
RT: 7.76 min Scan# 1128
Delta R.T. 0.00 min
Lab File: VX014010.D
Acq: 13 Dec 2019 15:59

Tgt Ion: 41 Resp: 351009

Ion	Ratio	Lower	Upper
41	100		
69	82.2	65.8	98.6
39	55.8	44.6	67.0

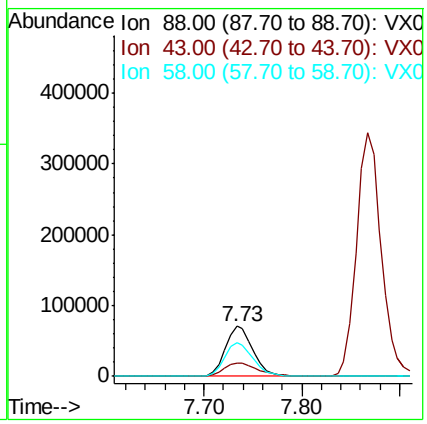




#49
1,4-Dioxane
Concen: 880.664 ug/l
RT: 7.73 min Scan# 1123
Delta R.T. 0.00 min
Lab File: VX014010.D
Acq: 13 Dec 2019 15:59

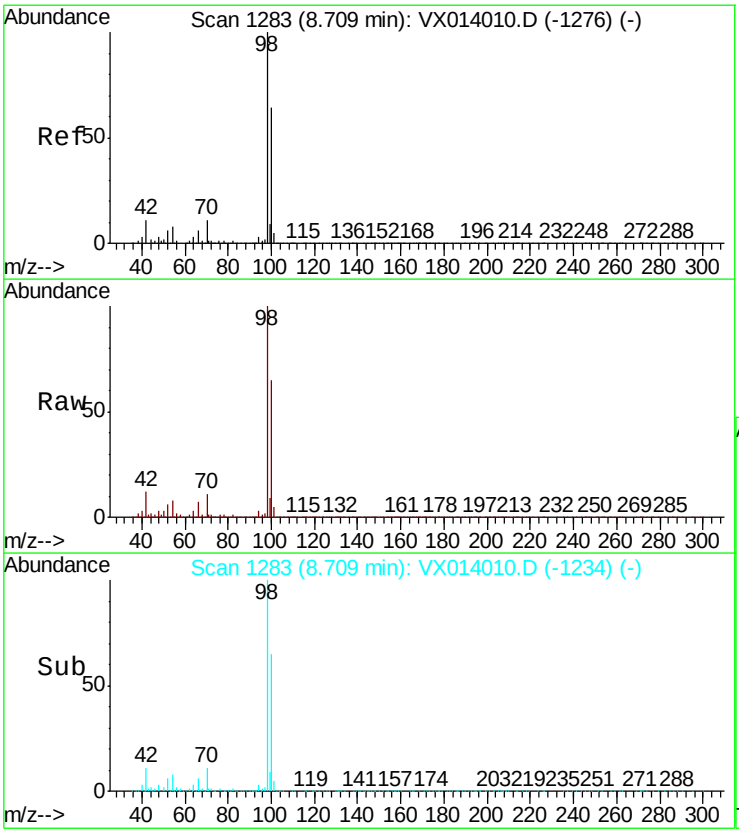
Tgt Ion: 88 Resp: 136097

Ion	Ratio	Lower	Upper
88	100		
43	33.1	26.5	39.7
58	71.0	56.8	85.2



Instrument :
MSVOA_X
ClientSampleId :
VSTDICCC050

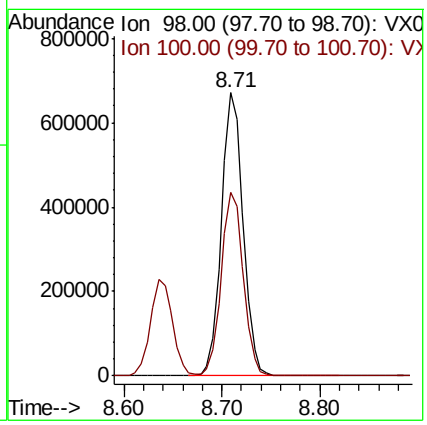
Manual Integrations APPROVED
apatel
12/16/2019 12:46:03 PM



#50
Toluene-d8
Concen: 48.998 ug/l
RT: 8.71 min Scan# 1283
Delta R.T. 0.00 min
Lab File: VX014010.D
Acq: 13 Dec 2019 15:59

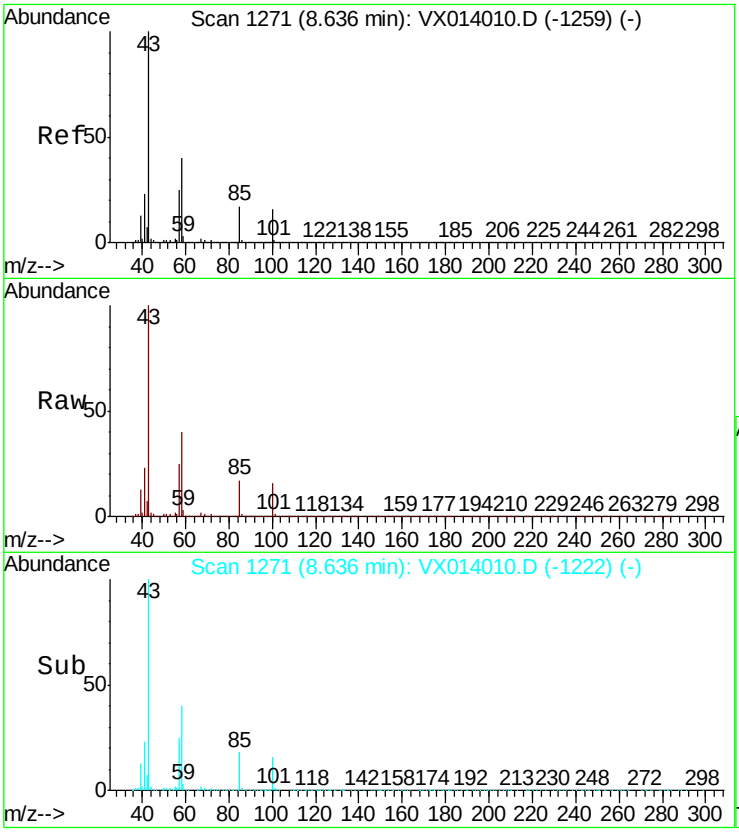
Tgt Ion: 98 Resp: 1029611

Ion	Ratio	Lower	Upper
98	100		
100	66.1	52.9	79.3



Instrument :
MSVOA_X
ClientSampleId :
VSTDICCC050

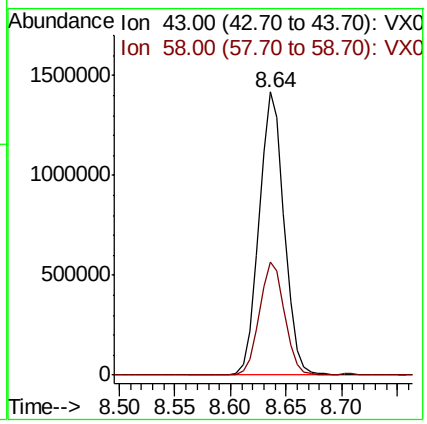
Manual Integrations APPROVED
apatel
12/16/2019 12:46:03 PM

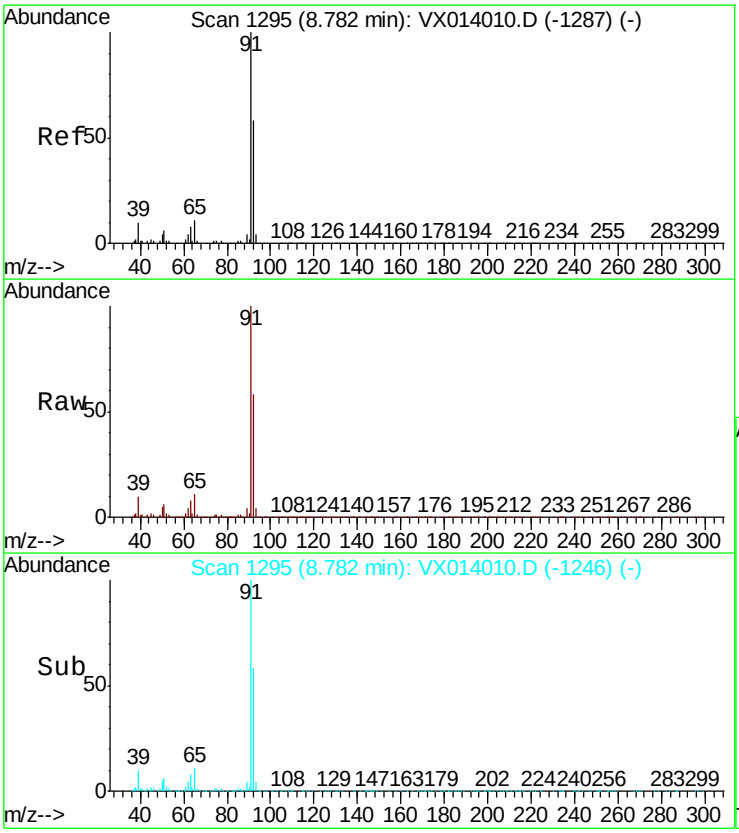


#51
4-Methyl-2-Pentanone
Concen: 245.062 ug/l
RT: 8.64 min Scan# 1271
Delta R.T. 0.00 min
Lab File: VX014010.D
Acq: 13 Dec 2019 15:59

Tgt Ion: 43 Resp: 2227056

Ion	Ratio	Lower	Upper
43	100		
58	40.2	32.2	48.2

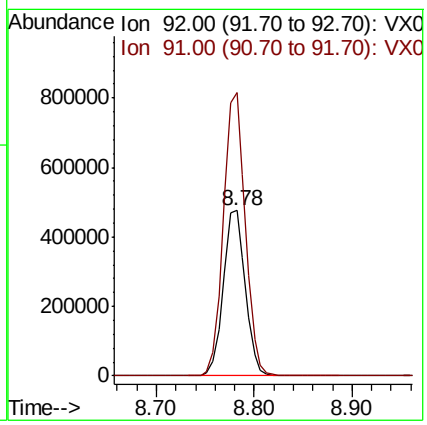


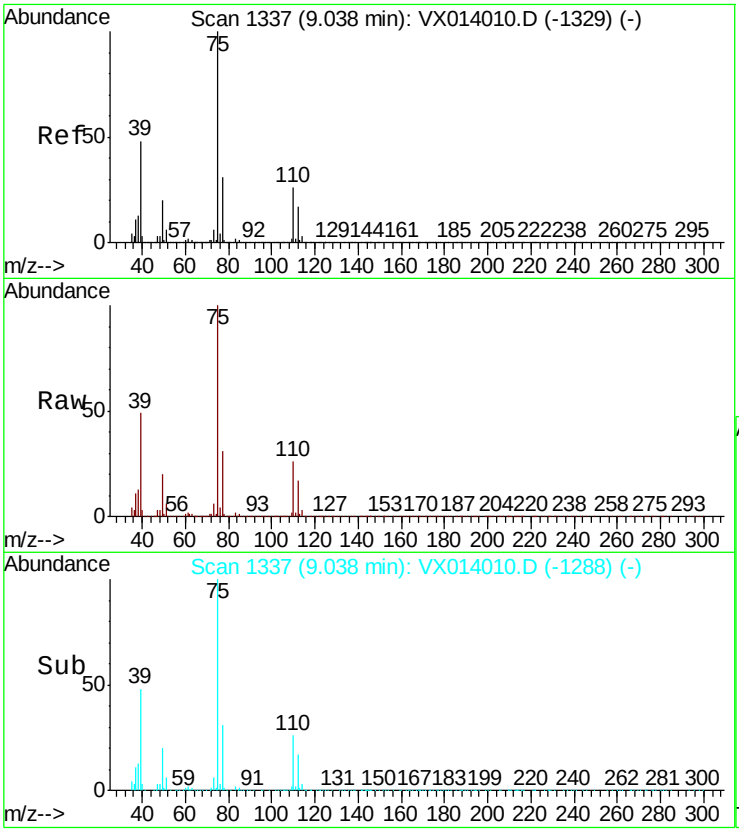


#52
Toluene
Concen: 49.725 ug/l
RT: 8.78 min Scan# 1295
Delta R.T. 0.00 min
Lab File: VX014010.D
Acq: 13 Dec 2019 15:59

Tgt Ion: 92 Resp: 741464

Ion	Ratio	Lower	Upper
92	100		
91	170.3	136.2	204.4

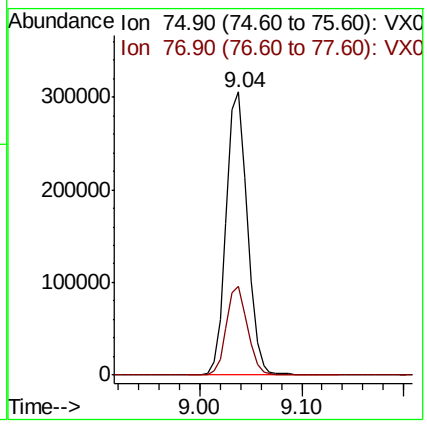


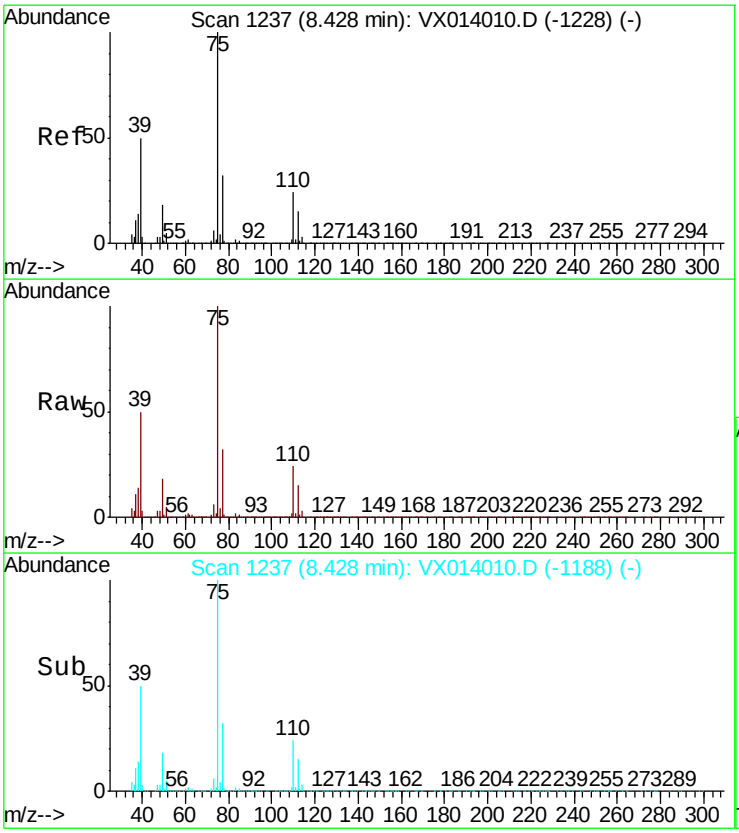


#53
t-1,3-Dichloropropene
Concen: 50.210 ug/l
RT: 9.04 min Scan# 1337
Delta R.T. 0.00 min
Lab File: VX014010.D
Acq: 13 Dec 2019 15:59

Tgt Ion: 75 Resp: 438995

Ion	Ratio	Lower	Upper
75	100		
77	31.4	25.1	37.7

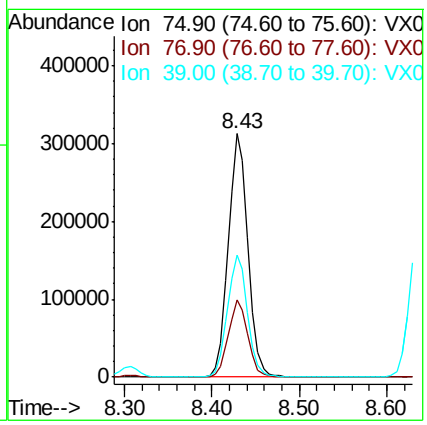




#54
cis-1,3-Dichloropropene
Concen: 50.785 ug/l
RT: 8.43 min Scan# 1237
Delta R.T. 0.00 min
Lab File: VX014010.D
Acq: 13 Dec 2019 15:59

Tgt Ion: 75 Resp: 485569

Ion	Ratio	Lower	Upper
75	100		
77	31.6	25.3	37.9
39	49.9	39.9	59.9

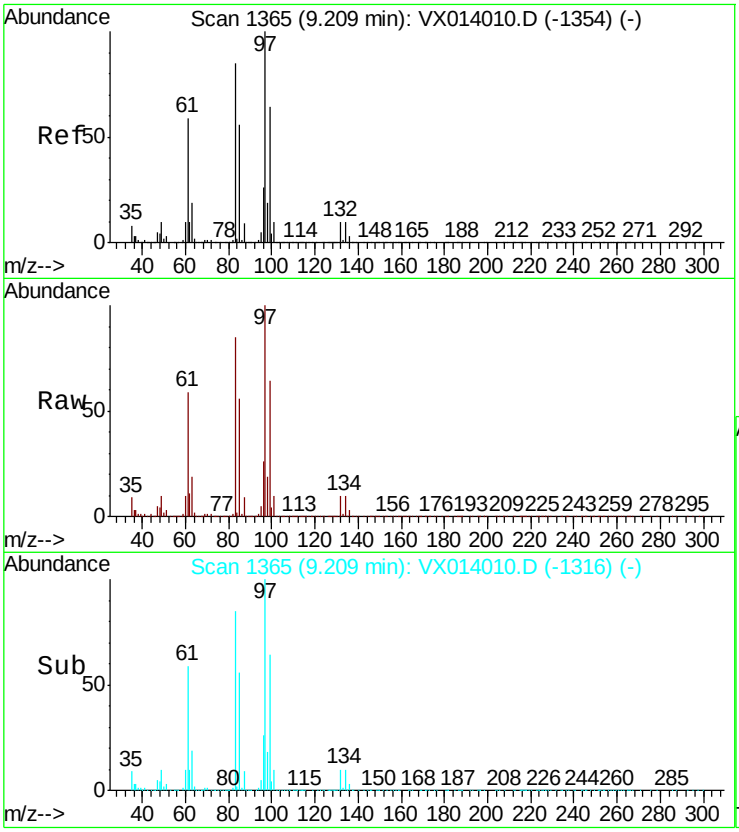


Instrument :
MSVOA_X
ClientSampleId :
VSTDICCC050

Manual Integrations APPROVED
apatel
12/16/2019 12:46:03 PM

Instrument :
MSVOA_X
ClientSampleId :
VSTDICCC050

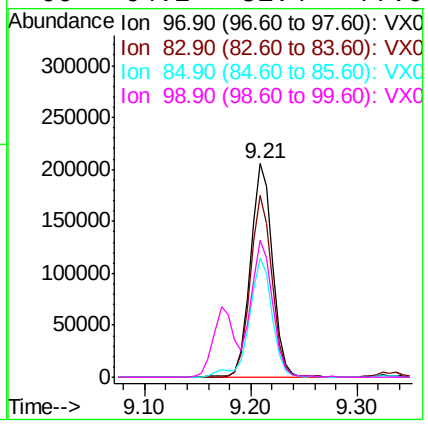
Manual Integrations APPROVED
apatel
12/16/2019 12:46:03 PM

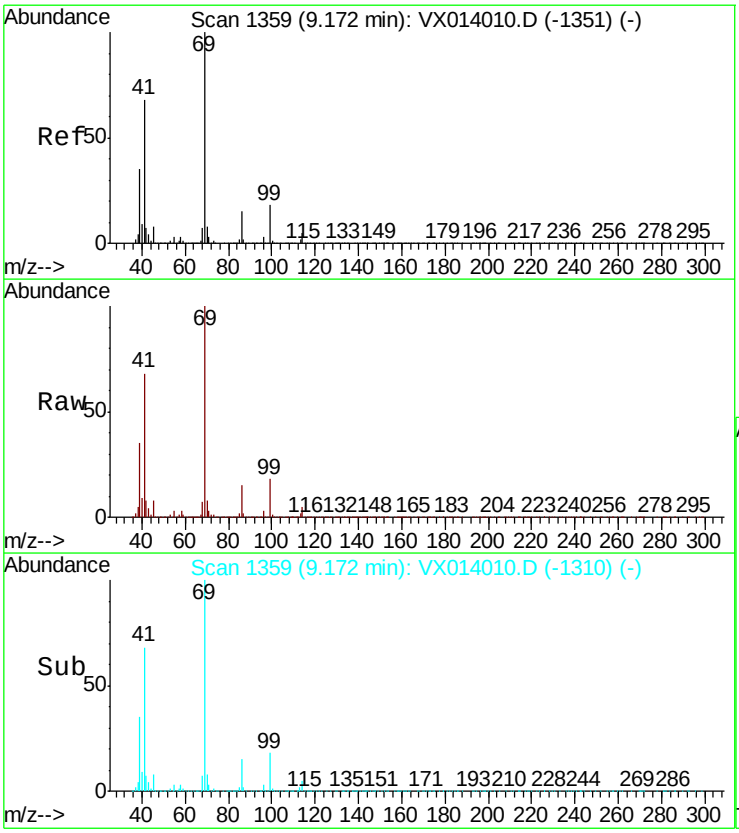


#55
1,1,2-Trichloroethane
Concen: 49.651 ug/l
RT: 9.21 min Scan# 1365
Delta R.T. 0.00 min
Lab File: VX014010.D
Acq: 13 Dec 2019 15:59

Tgt Ion: 97 Resp: 297972

Ion	Ratio	Lower	Upper
97	100		
83	85.3	68.2	102.4
85	55.7	44.6	66.8
99	64.2	51.4	77.0

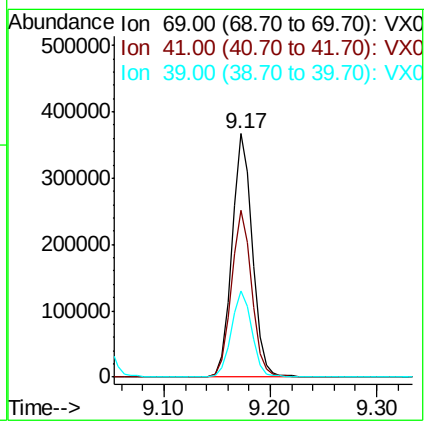


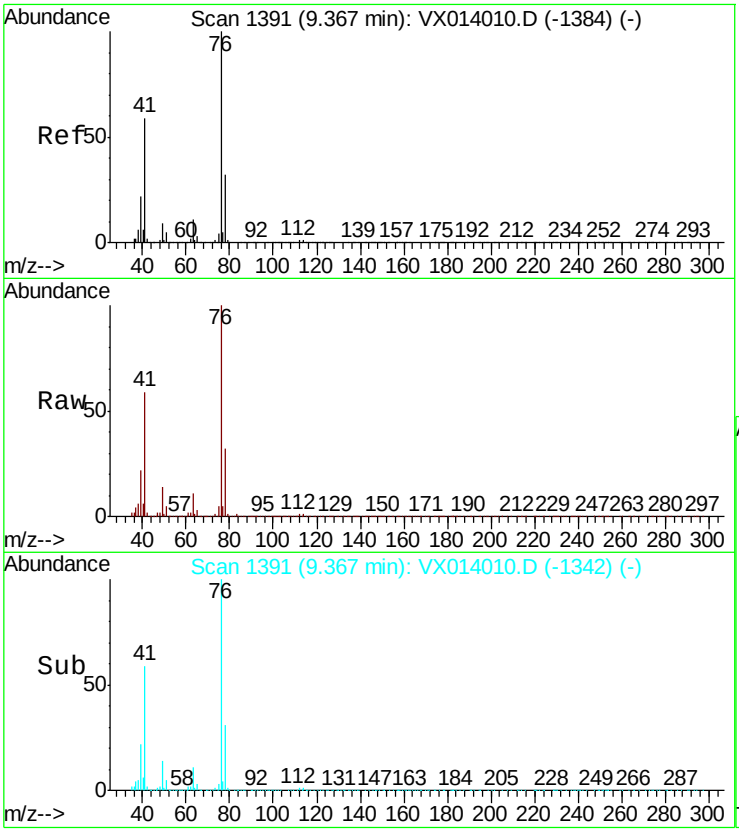


#56
Ethyl methacrylate
Concen: 50.962 ug/l
RT: 9.17 min Scan# 1359
Delta R.T. 0.00 min
Lab File: VX014010.D
Acq: 13 Dec 2019 15:59

Tgt Ion: 69 Resp: 492518

Ion	Ratio	Lower	Upper
69	100		
41	68.5	54.8	82.2
39	35.4	28.3	42.5

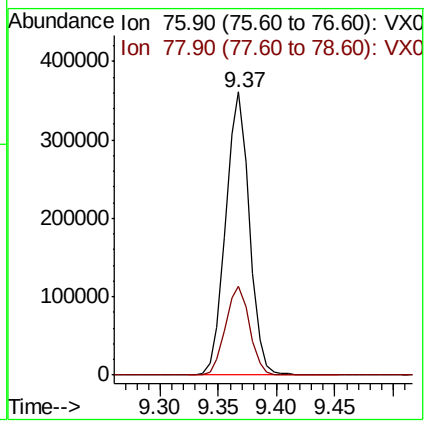


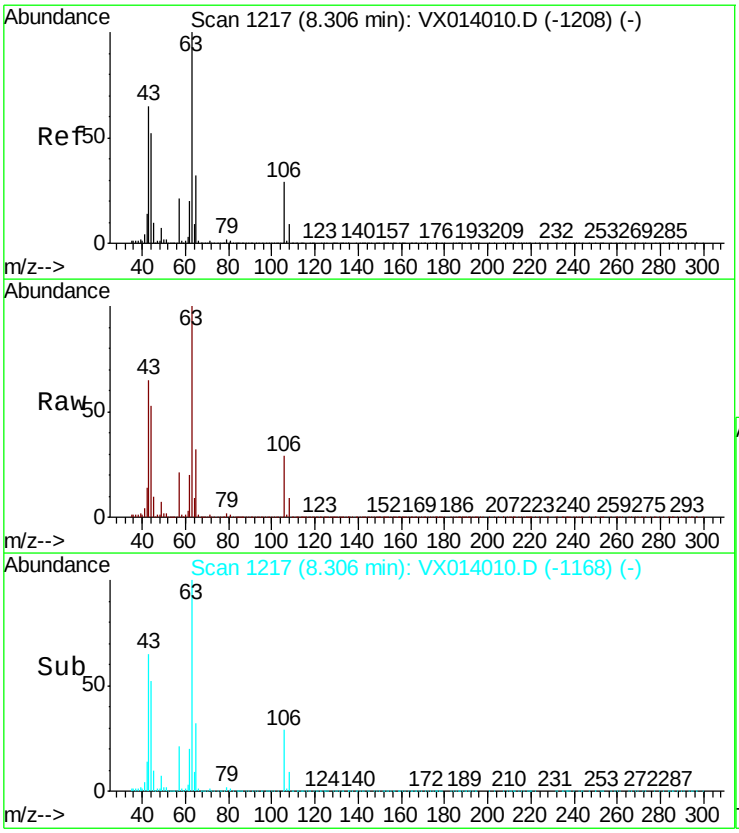


#57
1,3-Dichloropropane
Concen: 49.101 ug/l
RT: 9.37 min Scan# 1391
Delta R.T. 0.00 min
Lab File: VX014010.D
Acq: 13 Dec 2019 15:59

Tgt Ion: 76 Resp: 508519

Ion	Ratio	Lower	Upper
76	100		
78	32.2	25.8	38.6

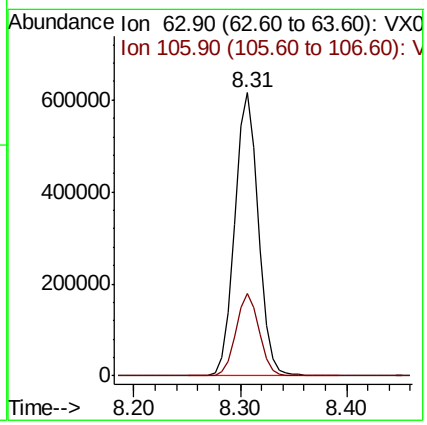




#58
2-Chloroethyl Vinyl ether
Concen: 252.345 ug/l
RT: 8.31 min Scan# 1217
Delta R.T. 0.00 min
Lab File: VX014010.D
Acq: 13 Dec 2019 15:59

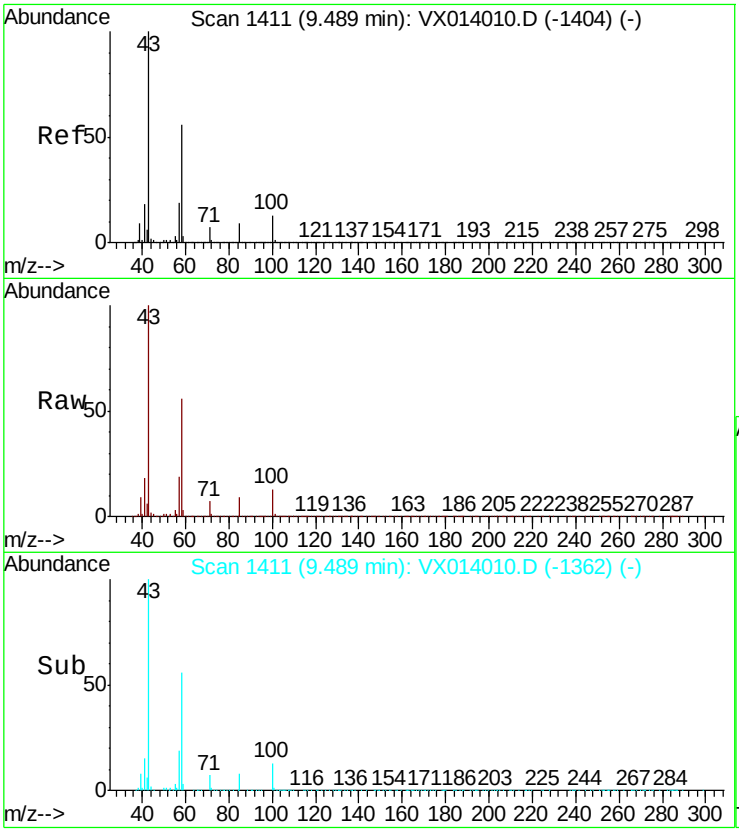
Tgt Ion: 63 Resp: 956017

Ion	Ratio	Lower	Upper
63	100		
106	28.8	23.0	34.6



Instrument :
MSVOA_X
ClientSampleId :
VSTDICCC050

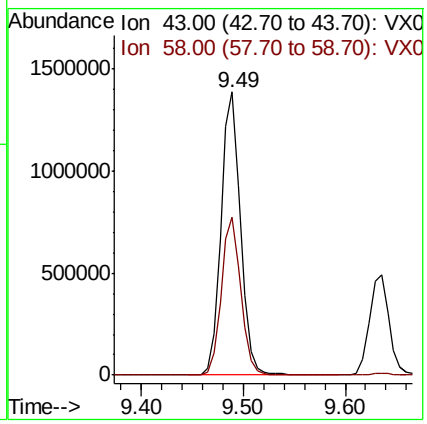
Manual Integrations APPROVED
apatel
12/16/2019 12:46:03 PM



#59
2-Hexanone
Concen: 257.616 ug/l
RT: 9.49 min Scan# 1411
Delta R.T. 0.00 min
Lab File: VX014010.D
Acq: 13 Dec 2019 15:59

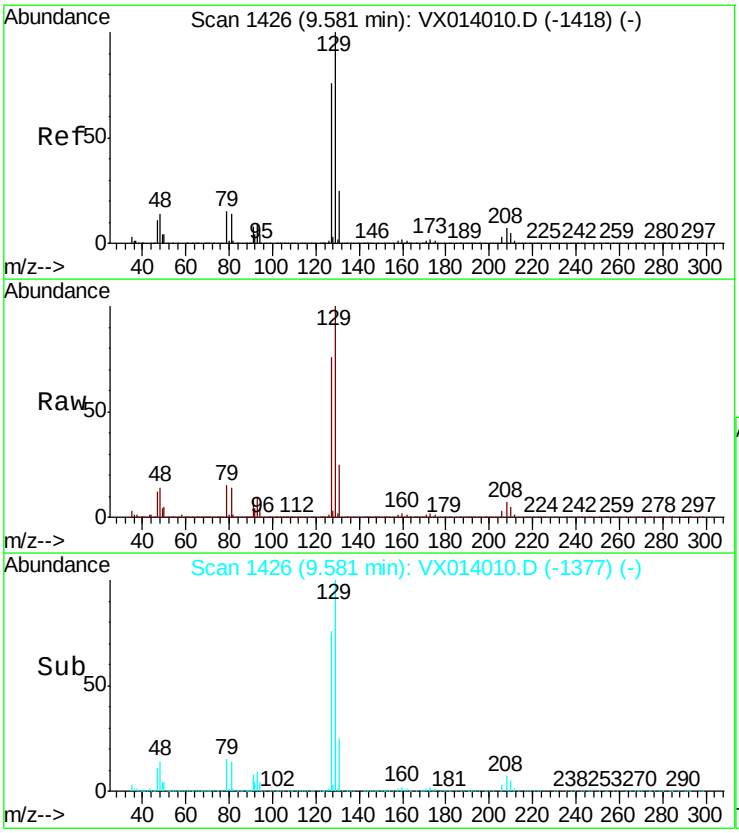
Tgt Ion: 43 Resp: 1842268

Ion	Ratio	Lower	Upper
43	100		
58	56.0	28.0	84.0



Instrument :
MSVOA_X
ClientSampleId :
VSTDICCC050

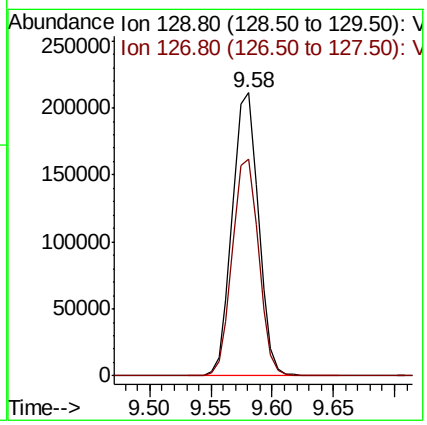
Manual Integrations APPROVED
apatel
12/16/2019 12:46:03 PM

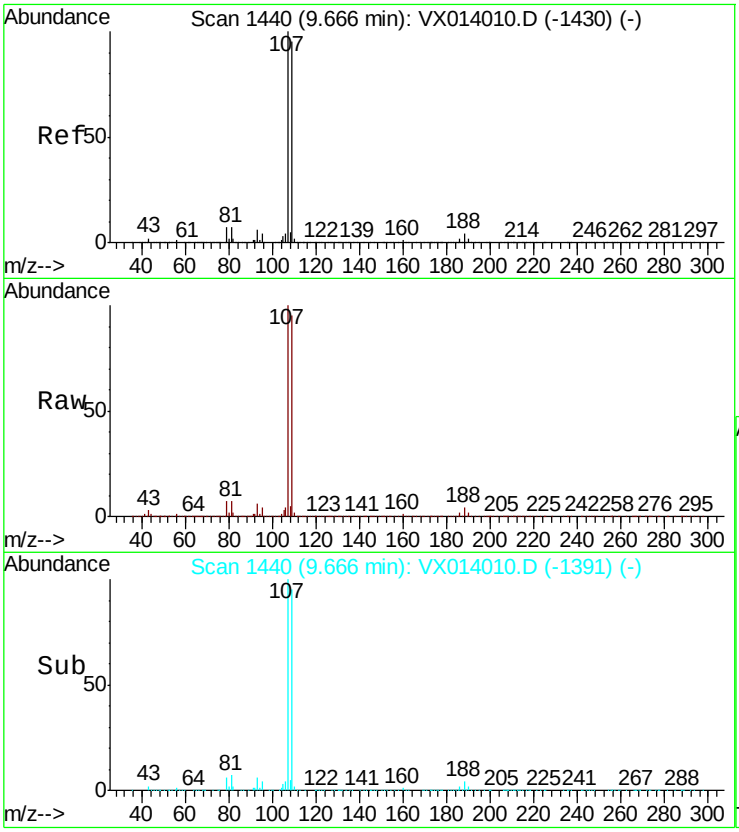


#60
Dibromochloromethane
Concen: 50.359 ug/l
RT: 9.58 min Scan# 1426
Delta R.T. 0.00 min
Lab File: VX014010.D
Acq: 13 Dec 2019 15:59

Tgt Ion:129 Resp: 312526

Ion	Ratio	Lower	Upper
129	100		
127	76.8	38.4	115.2

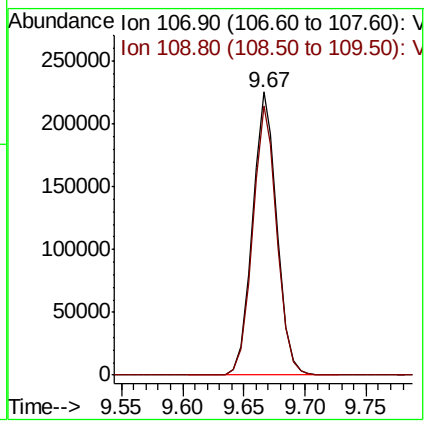




#61
1,2-Dibromoethane
Concen: 48.800 ug/l
RT: 9.67 min Scan# 1440
Delta R.T. 0.00 min
Lab File: VX014010.D
Acq: 13 Dec 2019 15:59

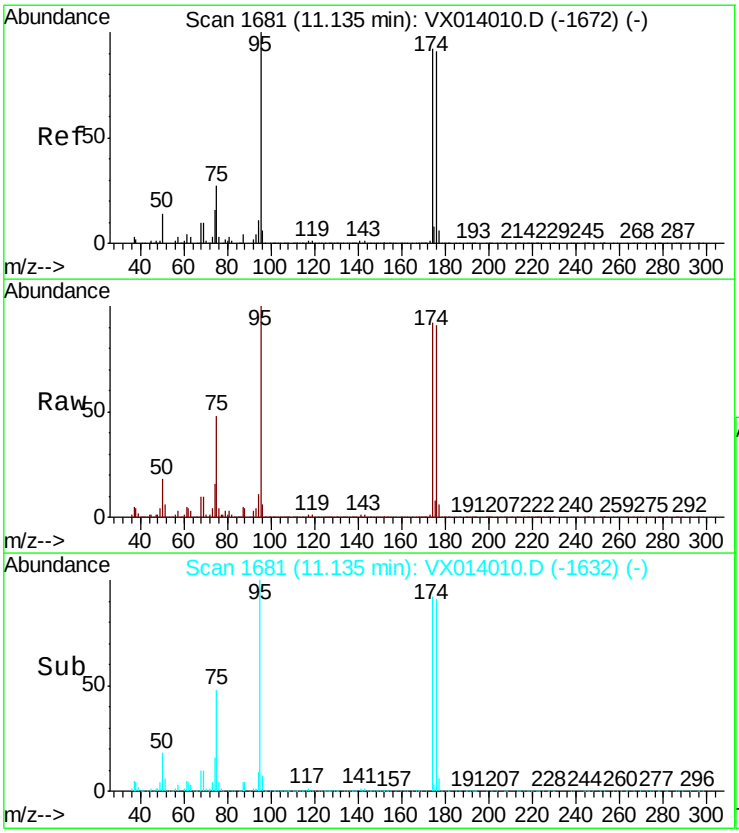
Tgt Ion:107 Resp: 312389

Ion	Ratio	Lower	Upper
107	100		
109	94.6	75.7	113.5



Instrument :
MSVOA_X
ClientSampleId :
VSTDICCC050

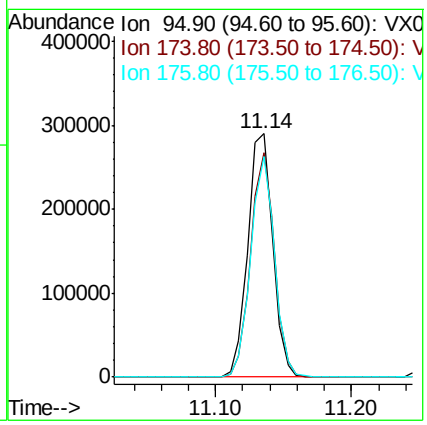
Manual Integrations APPROVED
apatel
12/16/2019 12:46:03 PM

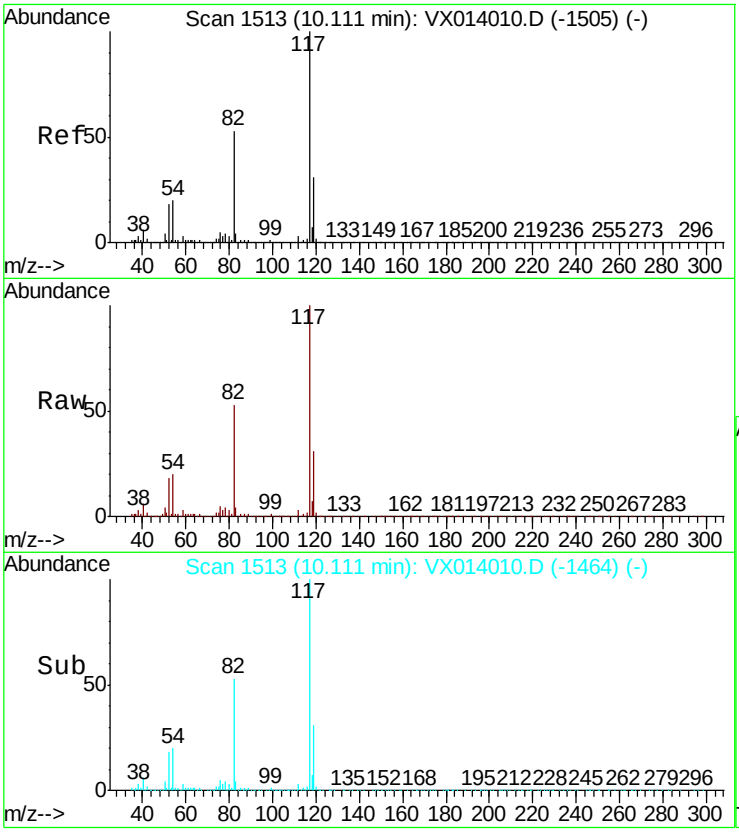


#62
4-Bromofluorobenzene
Concen: 49.388 ug/l
RT: 11.14 min Scan# 1681
Delta R.T. 0.00 min
Lab File: VX014010.D
Acq: 13 Dec 2019 15:59

Tgt Ion: 95 Resp: 375236

Ion	Ratio	Lower	Upper
95	100		
174	87.9	0.0	175.8
176	86.5	0.0	173.0

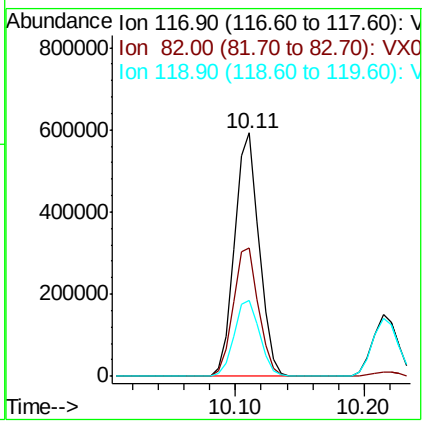


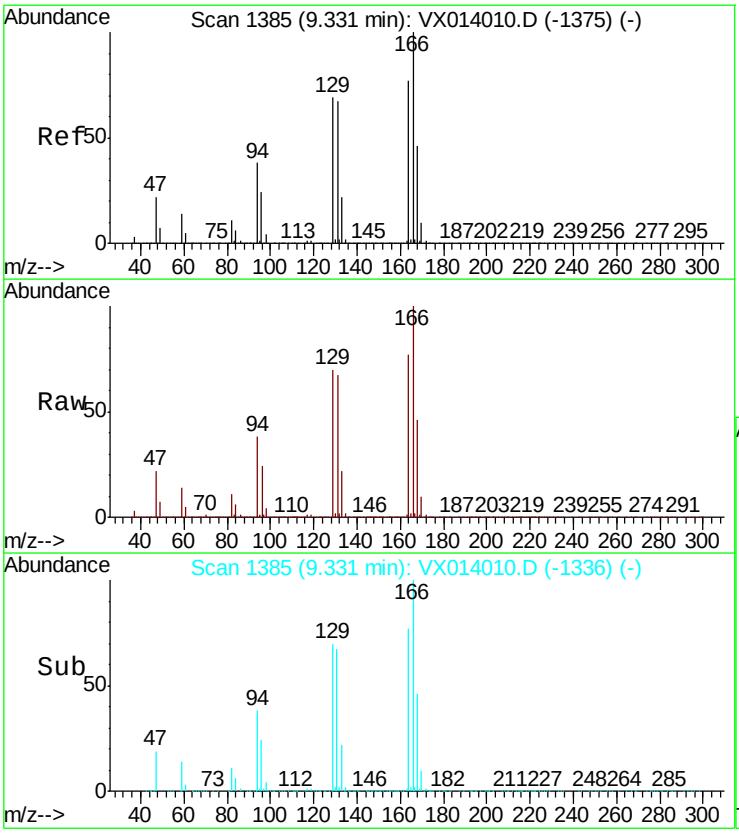


#63
Chlorobenzene-d5
Concen: 50.000 ug/l
RT: 10.11 min Scan# 1513
Delta R.T. 0.00 min
Lab File: VX014010.D
Acq: 13 Dec 2019 15:59

Tgt Ion:117 Resp: 786472

Ion	Ratio	Lower	Upper
117	100		
82	52.8	42.2	63.4
119	31.4	25.1	37.7

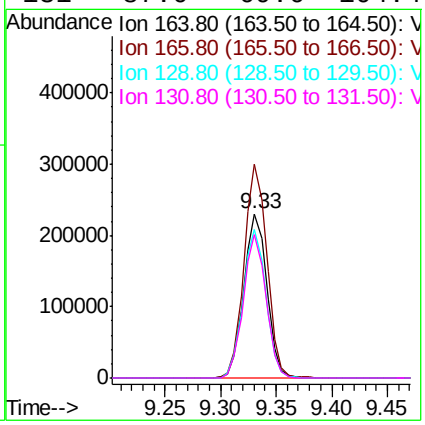




#64
Tetrachloroethene
Concen: 54.910 ug/l
RT: 9.33 min Scan# 1385
Delta R.T. 0.00 min
Lab File: VX014010.D
Acq: 13 Dec 2019 15:59

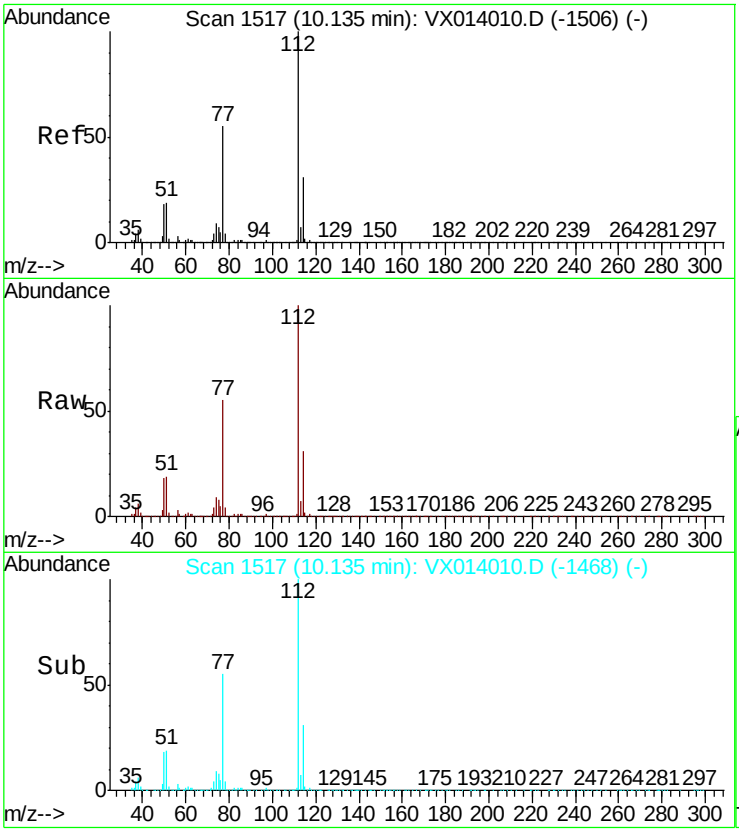
Tgt Ion:164 Resp: 333249

Ion	Ratio	Lower	Upper
164	100		
166	130.0	104.0	156.0
129	90.3	72.2	108.4
131	87.0	69.6	104.4



Instrument :
MSVOA_X
ClientSampleId :
VSTDICCC050

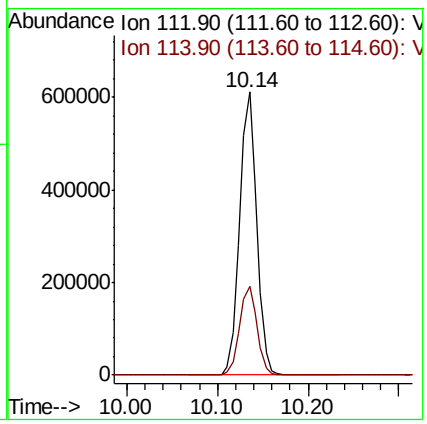
Manual Integrations APPROVED
apatel
12/16/2019 12:46:03 PM



#65
Chlorobenzene
Concen: 48.656 ug/l
RT: 10.14 min Scan# 1517
Delta R.T. 0.00 min
Lab File: VX014010.D
Acq: 13 Dec 2019 15:59

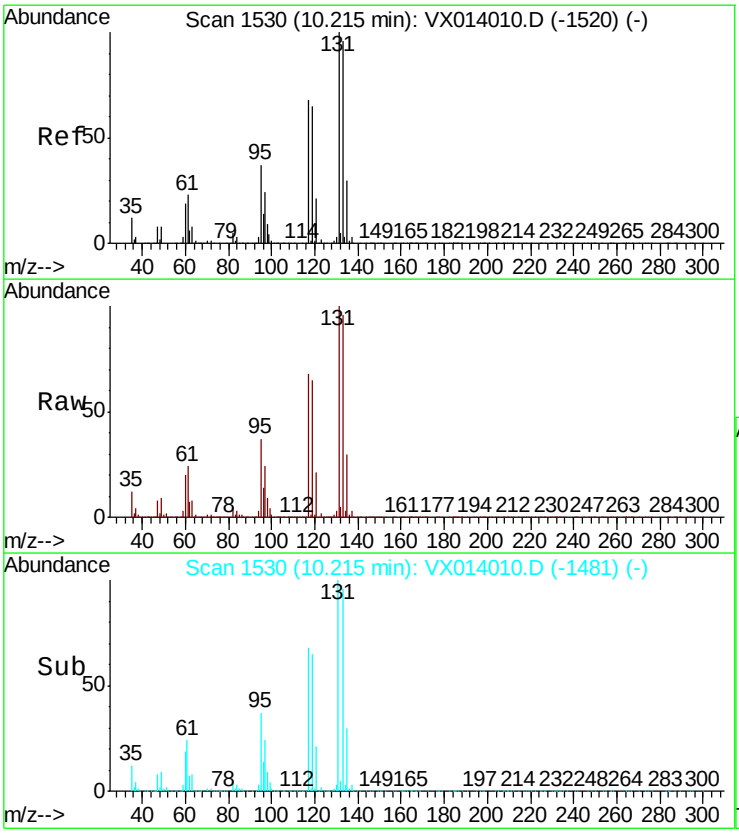
Tgt Ion:112 Resp: 798960

Ion	Ratio	Lower	Upper
112	100		
114	31.1	24.9	37.3



Instrument :
MSVOA_X
ClientSampleId :
VSTDICCC050

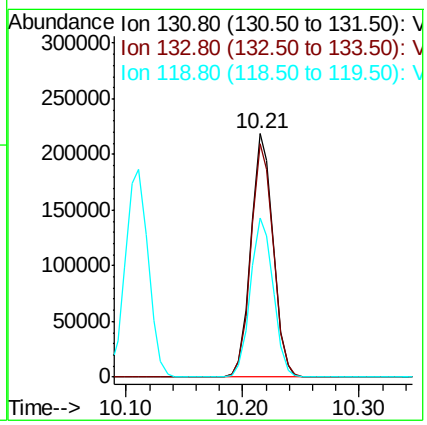
Manual Integrations APPROVED
apatel
12/16/2019 12:46:03 PM

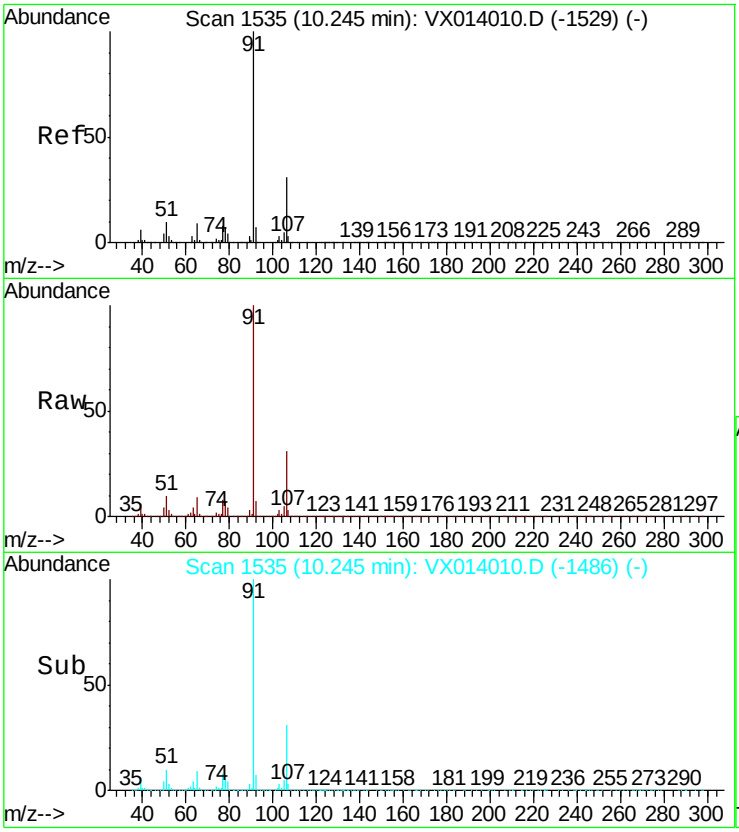


#66
1,1,1,2-Tetrachloroethane
Concen: 49.771 ug/l
RT: 10.21 min Scan# 1530
Delta R.T. 0.00 min
Lab File: VX014010.D
Acq: 13 Dec 2019 15:59

Tgt Ion:131 Resp: 292635

Ion	Ratio	Lower	Upper
131	100		
133	96.0	48.0	144.0
119	66.8	33.4	100.2

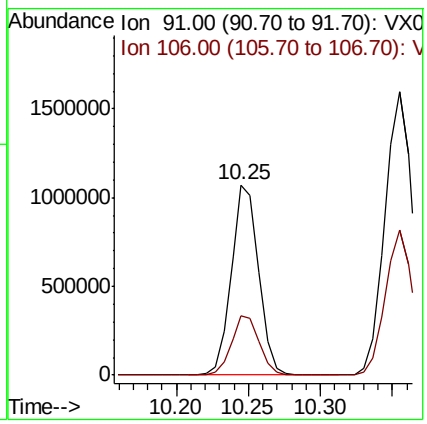


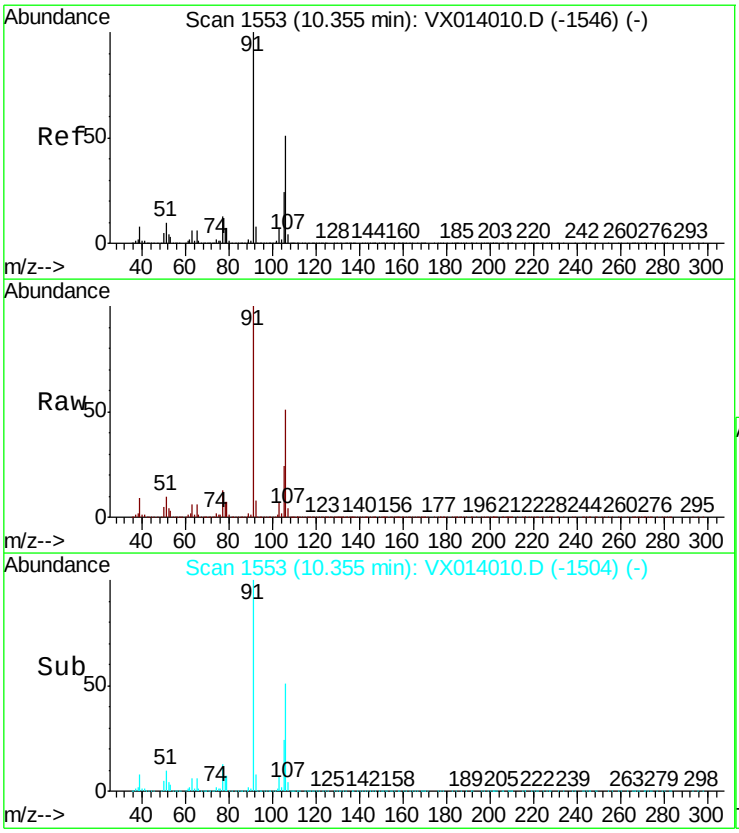


#67
Ethyl Benzene
Concen: 50.472 ug/l
RT: 10.25 min Scan# 1535
Delta R.T. 0.00 min
Lab File: VX014010.D
Acq: 13 Dec 2019 15:59

Tgt Ion: 91 Resp: 1422545

Ion	Ratio	Lower	Upper
91	100		
106	31.3	25.0	37.6

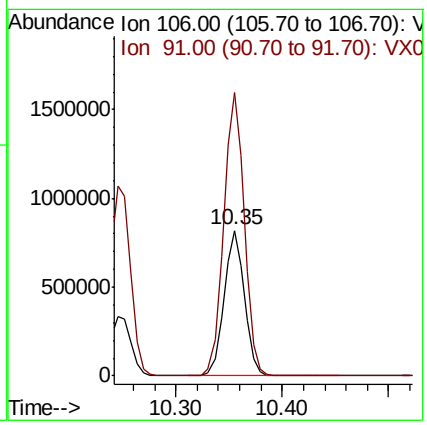




#68
m/p-Xylenes
Concen: 100.328 ug/l
RT: 10.35 min Scan# 1553
Delta R.T. 0.00 min
Lab File: VX014010.D
Acq: 13 Dec 2019 15:59

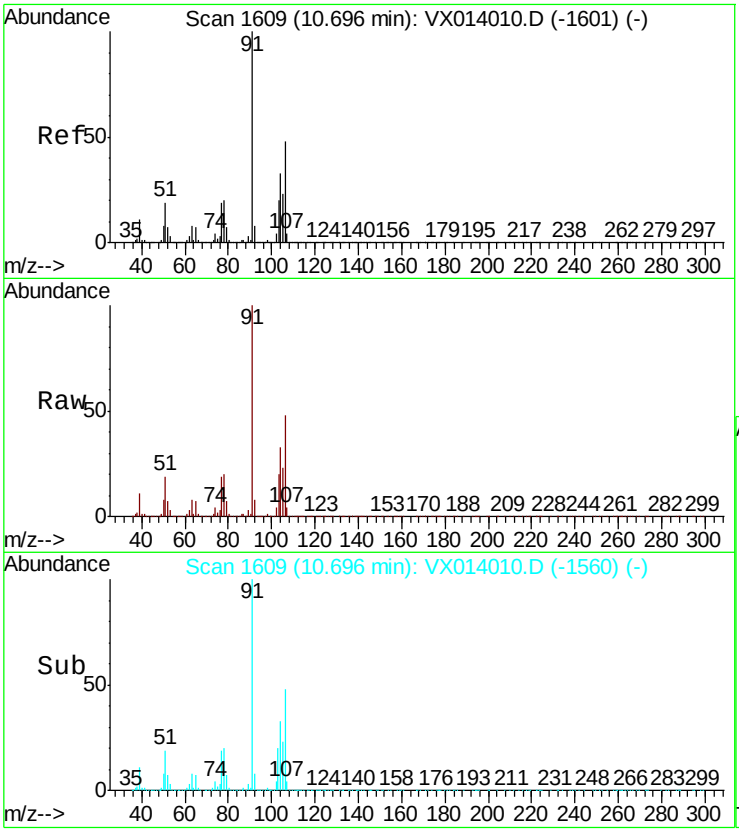
Tgt Ion:106 Resp: 1084101

Ion	Ratio	Lower	Upper
106	100		
91	198.3	158.6	238.0



Instrument :
MSVOA_X
ClientSampleId :
VSTDICCC050

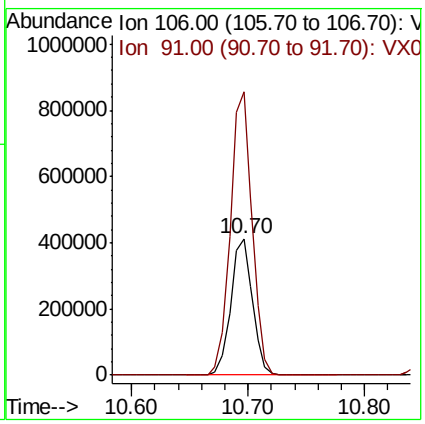
Manual Integrations APPROVED
apatel
12/16/2019 12:46:03 PM



#69
o-Xylene
Concen: 50.474 ug/l
RT: 10.70 min Scan# 1609
Delta R.T. 0.00 min
Lab File: VX014010.D
Acq: 13 Dec 2019 15:59

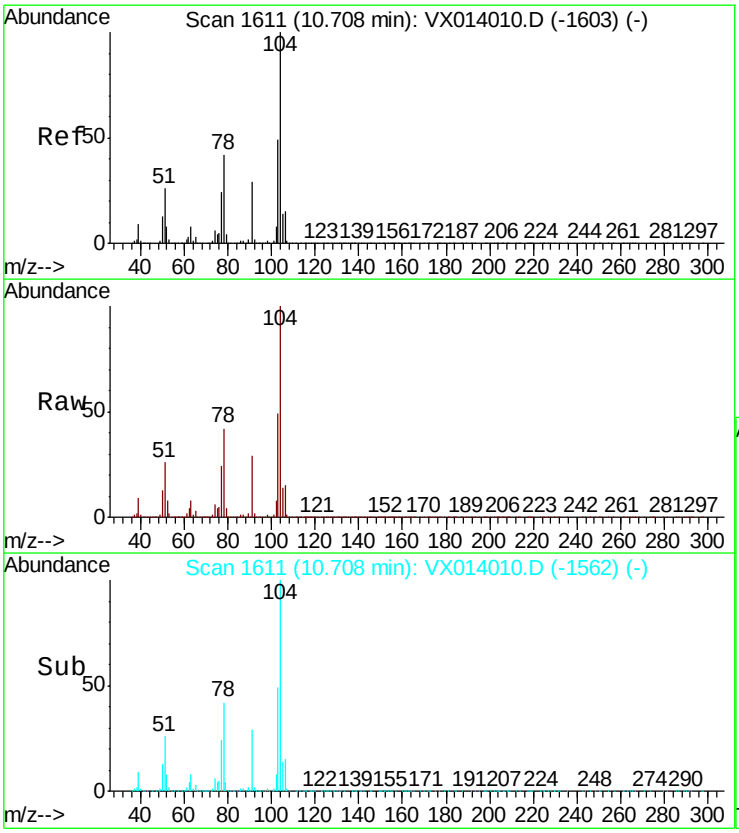
Tgt Ion:106 Resp: 531881

Ion	Ratio	Lower	Upper
106	100		
91	208.4	104.2	312.6



Instrument :
MSVOA_X
ClientSampleId :
VSTDICCC050

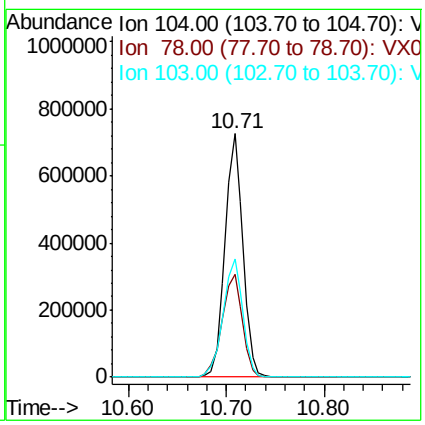
Manual Integrations APPROVED
apatel
12/16/2019 12:46:03 PM

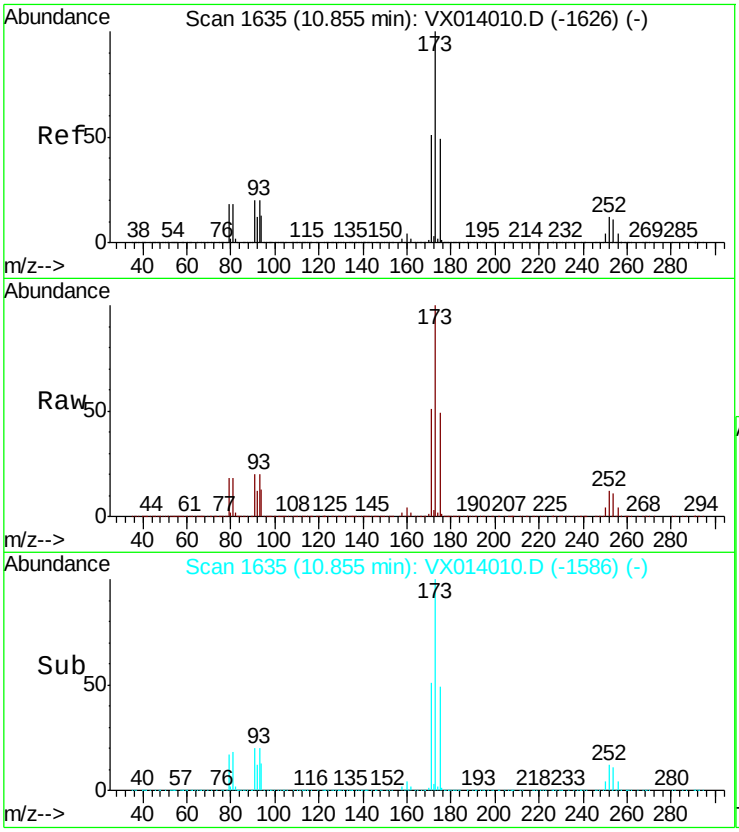


#70
Styrene
Concen: 51.850 ug/l
RT: 10.71 min Scan# 1611
Delta R.T. 0.00 min
Lab File: VX014010.D
Acq: 13 Dec 2019 15:59

Tgt Ion:104 Resp: 921756

Ion	Ratio	Lower	Upper
104	100		
78	48.1	38.5	57.7
103	53.6	42.9	64.3

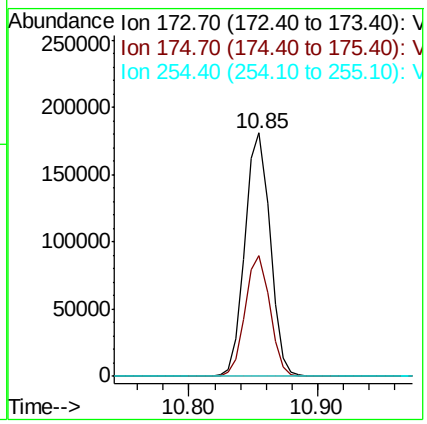




#71
Bromoform
Concen: 50.316 ug/l
RT: 10.85 min Scan# 1635
Delta R.T. 0.00 min
Lab File: VX014010.D
Acq: 13 Dec 2019 15:59

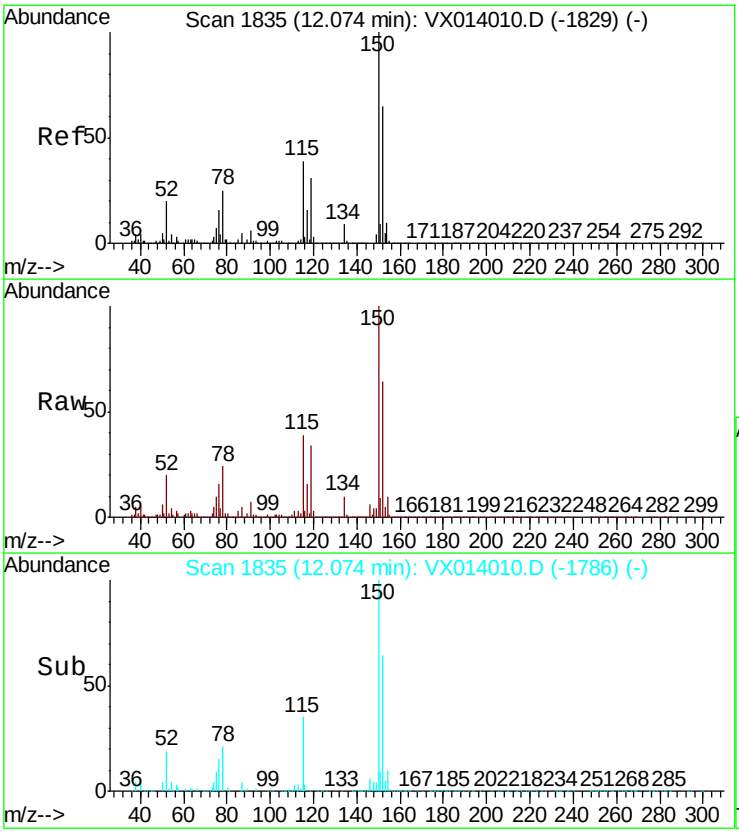
Tgt Ion:173 Resp: 244020

Ion	Ratio	Lower	Upper
173	100		
175	48.9	24.4	73.4
254	0.2	0.2	0.2



Instrument :
MSVOA_X
ClientSampleId :
VSTDICCC050

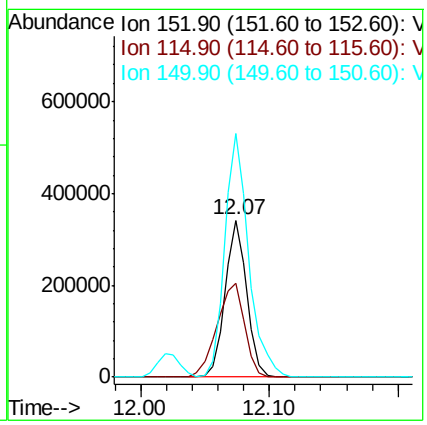
Manual Integrations APPROVED
apatel
12/16/2019 12:46:03 PM

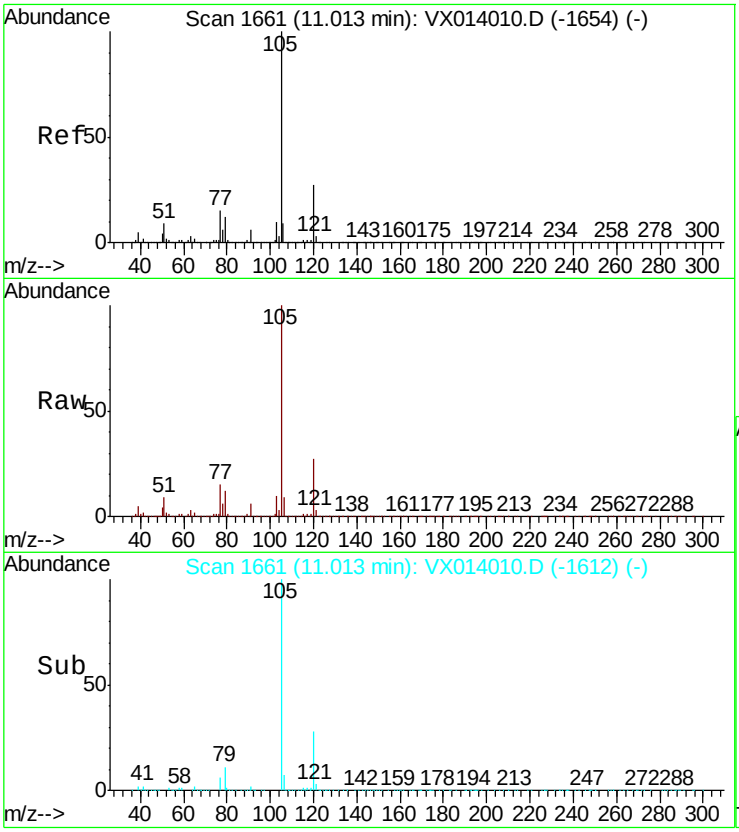


#72
1,4-Dichlorobenzene-d4
Concen: 50.000 ug/l
RT: 12.07 min Scan# 1835
Delta R.T. 0.00 min
Lab File: VX014010.D
Acq: 13 Dec 2019 15:59

Tgt Ion:152 Resp: 400387

Ion	Ratio	Lower	Upper
152	100		
115	76.6	38.3	114.9
150	172.7	0.0	345.4

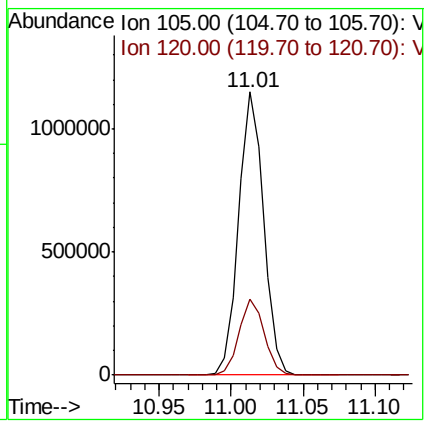




#73
Isopropylbenzene
Concen: 49.413 ug/l
RT: 11.01 min Scan# 1661
Delta R.T. 0.00 min
Lab File: VX014010.D
Acq: 13 Dec 2019 15:59

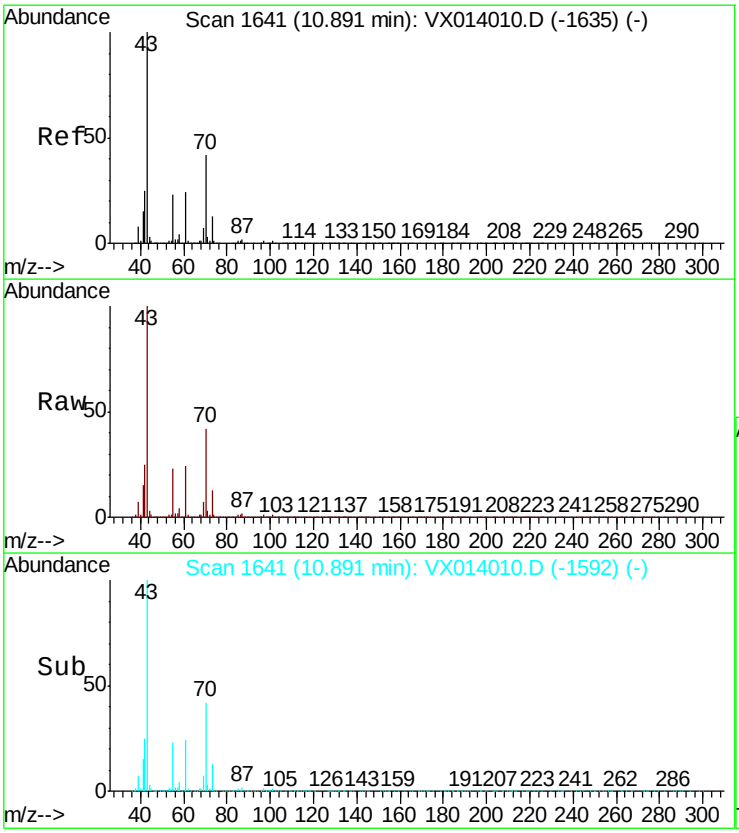
Tgt Ion:105 Resp: 1389605

Ion	Ratio	Lower	Upper
105	100		
120	26.9	13.5	40.4



Instrument :
MSVOA_X
ClientSampleId :
VSTDICCC050

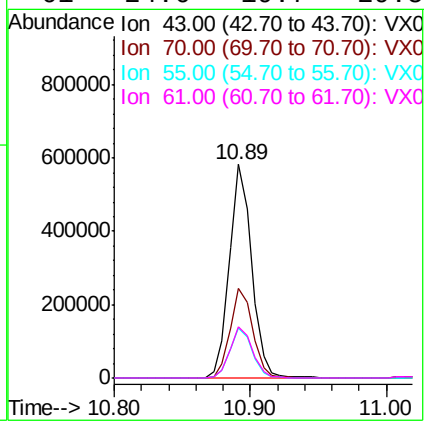
Manual Integrations APPROVED
apatel
12/16/2019 12:46:03 PM

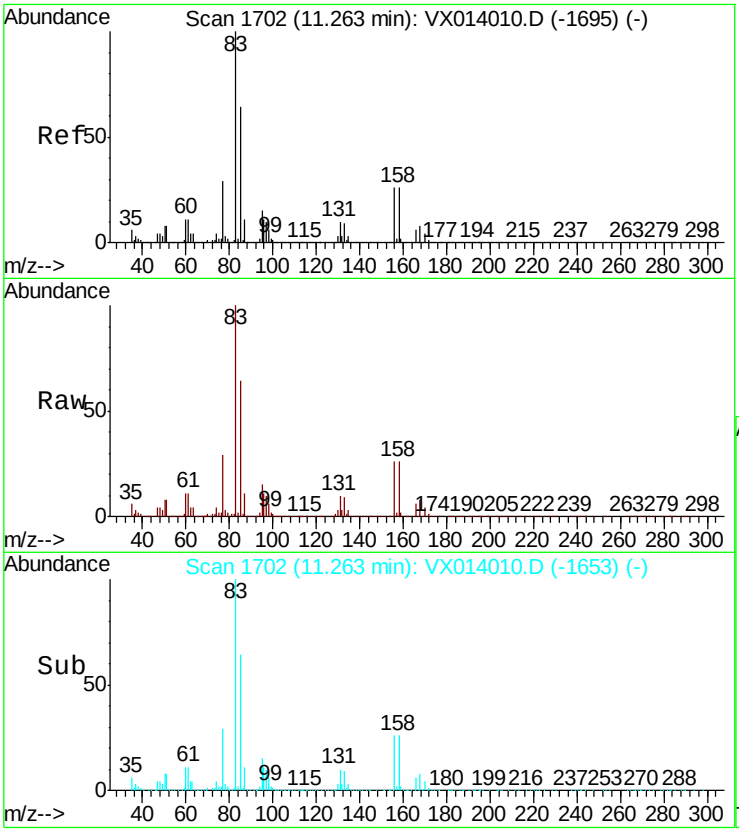


#74
N-amyl acetate
Concen: 51.492 ug/l
RT: 10.89 min Scan# 1641
Delta R.T. 0.00 min
Lab File: VX014010.D
Acq: 13 Dec 2019 15:59

Tgt Ion: 43 Resp: 663341

Ion	Ratio	Lower	Upper
43	100		
70	43.0	34.4	51.6
55	23.9	19.1	28.7
61	24.6	19.7	29.5

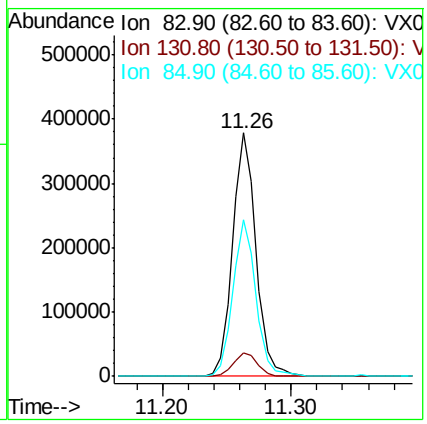




#75
1,1,2,2-Tetrachloroethane
Concen: 49.097 ug/l
RT: 11.26 min Scan# 1702
Delta R.T. 0.00 min
Lab File: VX014010.D
Acq: 13 Dec 2019 15:59

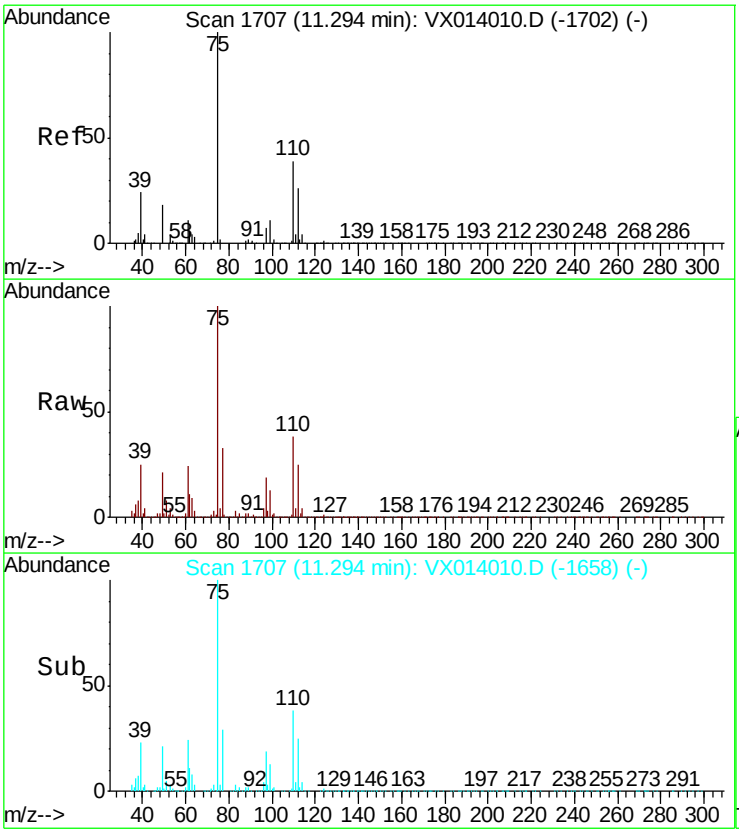
Tgt Ion: 83 Resp: 478051

Ion	Ratio	Lower	Upper
83	100		
131	10.1	5.1	15.2
85	63.8	31.9	95.7



Instrument :
MSVOA_X
ClientSampleId :
VSTDICCC050

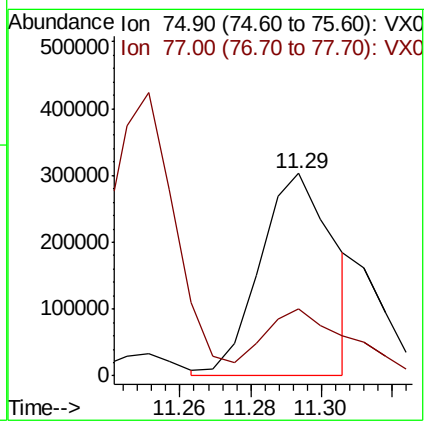
Manual Integrations APPROVED
apatel
12/16/2019 12:46:03 PM

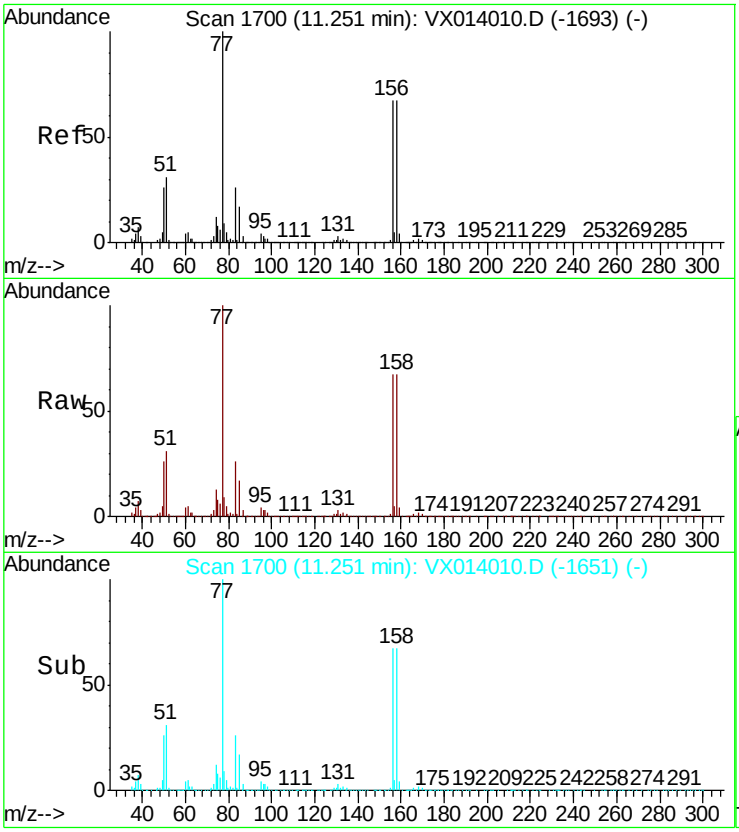


#76
1,2,3-Trichloropropane
Concen: 49.048 ug/l m
RT: 11.29 min Scan# 1707
Delta R.T. 0.00 min
Lab File: VX014010.D
Acq: 13 Dec 2019 15:59

Tgt Ion: 75 Resp: 439820

Ion	Ratio	Lower	Upper
75	100		
77	38.5	19.3	57.8

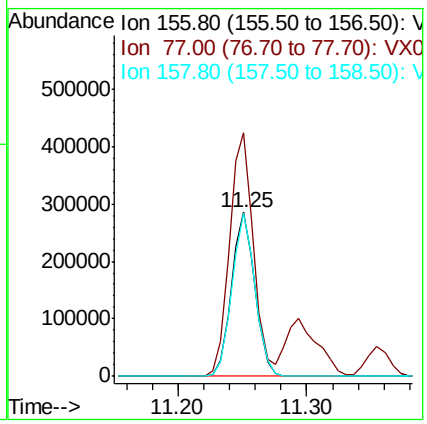




#77
Bromobenzene
Concen: 47.633 ug/l
RT: 11.25 min Scan# 1700
Delta R.T. 0.00 min
Lab File: VX014010.D
Acq: 13 Dec 2019 15:59

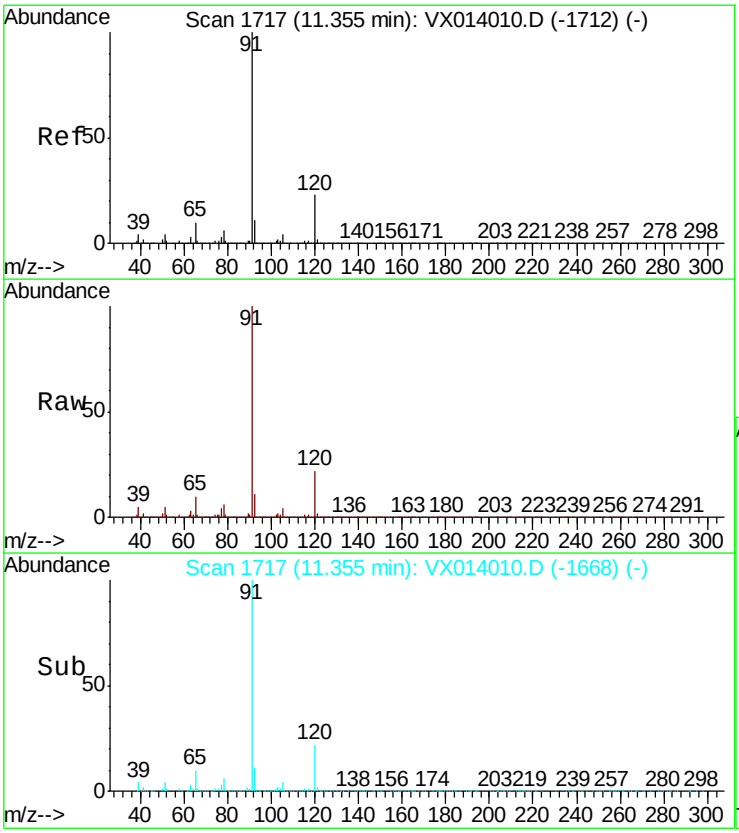
Tgt Ion:156 Resp: 361064

Ion	Ratio	Lower	Upper
156	100		
77	153.0	76.5	229.5
158	98.6	49.3	147.9



Instrument :
MSVOA_X
ClientSampleId :
VSTDICCC050

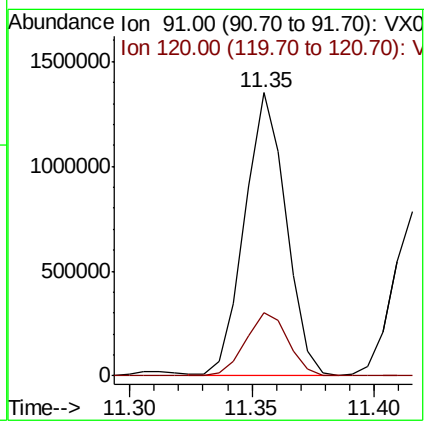
Manual Integrations APPROVED
apatel
12/16/2019 12:46:03 PM

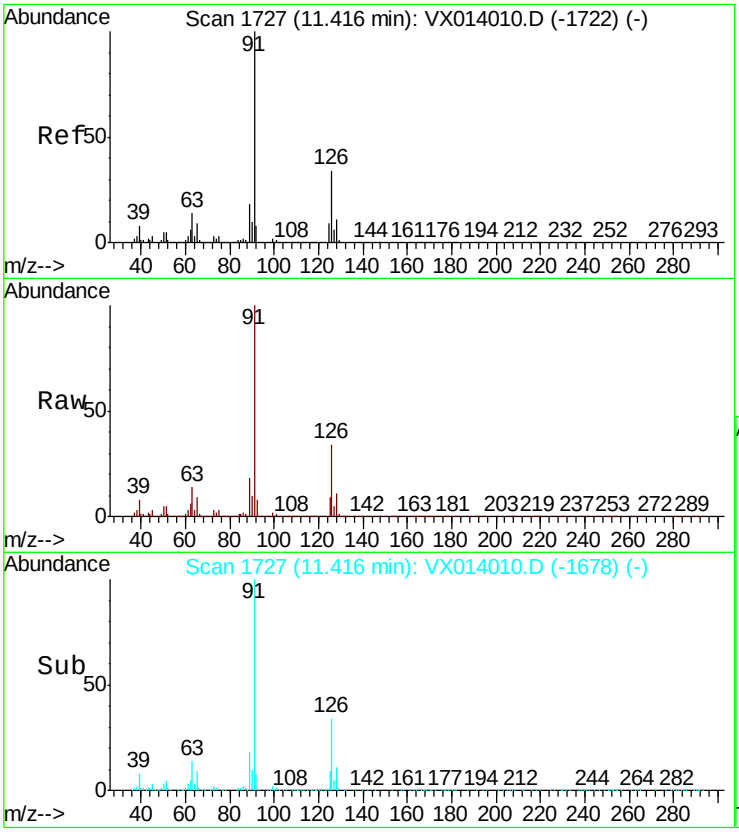


#78
n-propylbenzene
Concen: 50.464 ug/l
RT: 11.35 min Scan# 1717
Delta R.T. 0.00 min
Lab File: VX014010.D
Acq: 13 Dec 2019 15:59

Tgt Ion: 91 Resp: 1586913

Ion	Ratio	Lower	Upper
91	100		
120	23.3	11.7	35.0

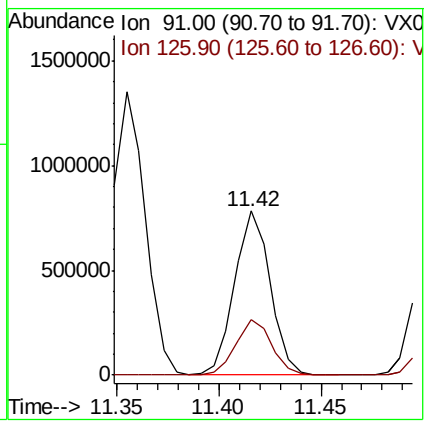




#79
2-Chlorotoluene
Concen: 49.949 ug/l
RT: 11.42 min Scan# 1727
Delta R.T. 0.00 min
Lab File: VX014010.D
Acq: 13 Dec 2019 15:59

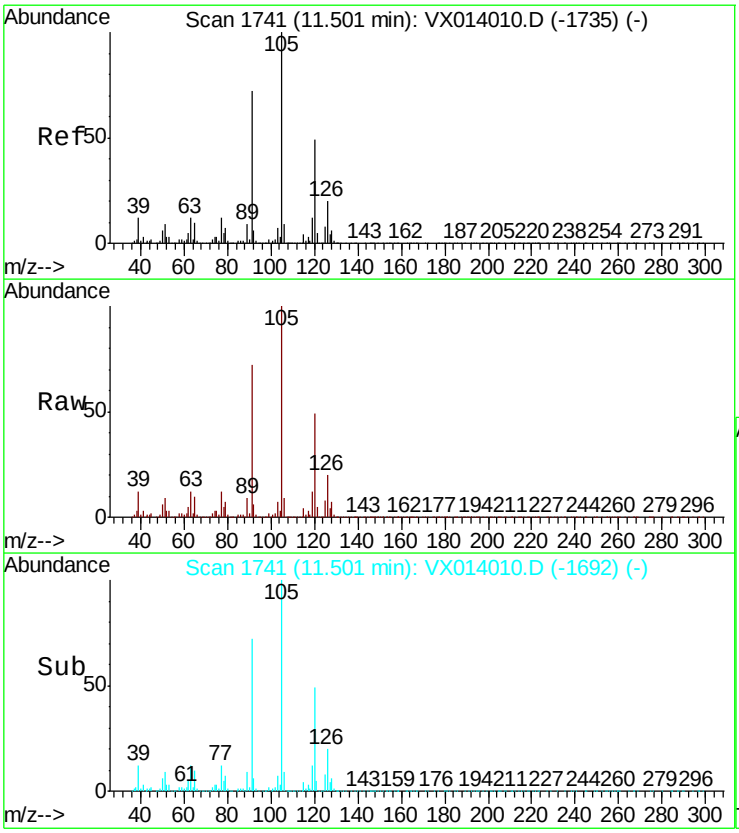
Tgt Ion: 91 Resp: 944929

Ion	Ratio	Lower	Upper
91	100		
126	34.4	17.2	51.6



Instrument :
MSVOA_X
ClientSampleId :
VSTDICCC050

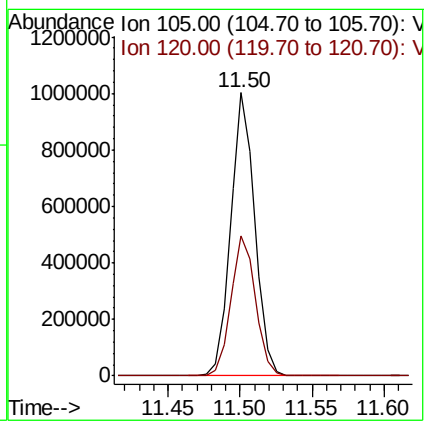
Manual Integrations APPROVED
apatel
12/16/2019 12:46:03 PM

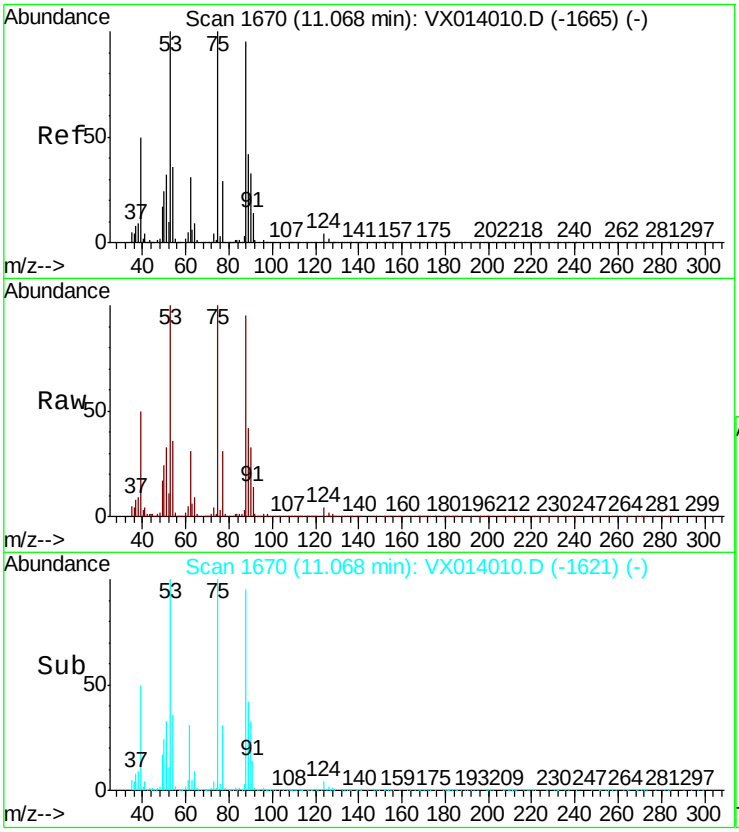


#80
1,3,5-Trimethylbenzene
Concen: 50.706 ug/l
RT: 11.50 min Scan# 1741
Delta R.T. 0.00 min
Lab File: VX014010.D
Acq: 13 Dec 2019 15:59

Tgt Ion:105 Resp: 1172097

Ion	Ratio	Lower	Upper
105	100		
120	50.5	25.3	75.8

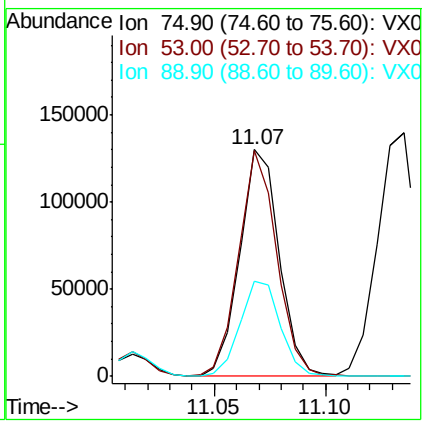




#81
trans-1,4-Dichloro-2-butene
Concen: 49.082 ug/l
RT: 11.07 min Scan# 1670
Delta R.T. 0.00 min
Lab File: VX014010.D
Acq: 13 Dec 2019 15:59

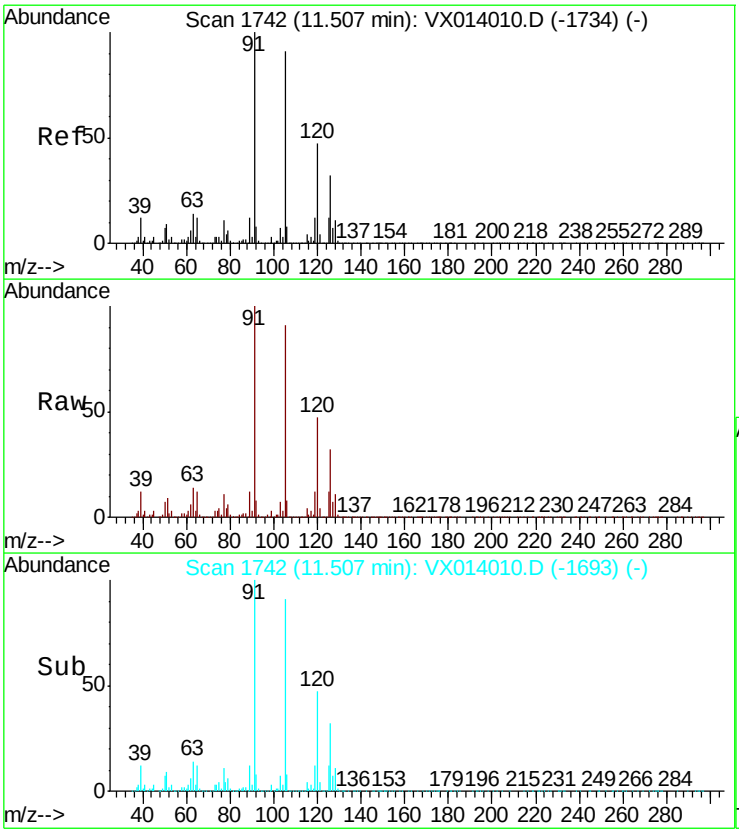
Tgt Ion: 75 Resp: 160555

Ion	Ratio	Lower	Upper
75	100		
53	95.9	76.7	115.1
89	43.2	34.6	51.8



Instrument :
MSVOA_X
ClientSampleId :
VSTDICCC050

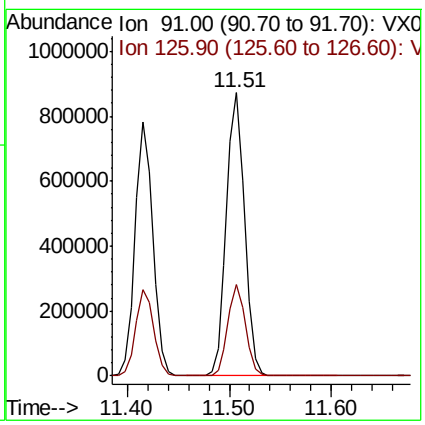
Manual Integrations APPROVED
apatel
12/16/2019 12:46:03 PM

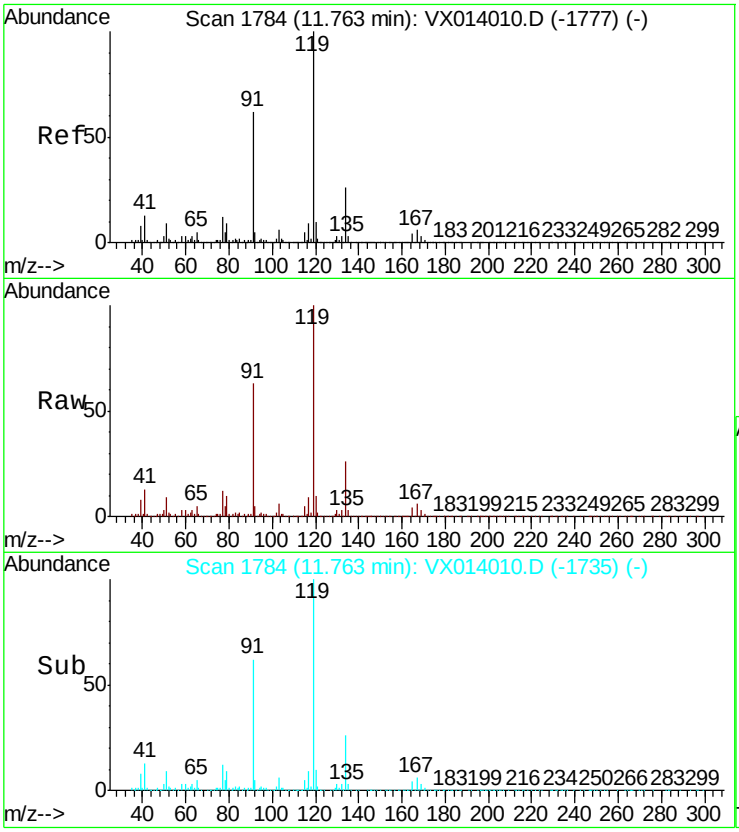


#82
4-Chlorotoluene
Concen: 49.267 ug/l
RT: 11.51 min Scan# 1742
Delta R.T. 0.00 min
Lab File: VX014010.D
Acq: 13 Dec 2019 15:59

Tgt Ion: 91 Resp: 1076188

Ion	Ratio	Lower	Upper
91	100		
126	31.2	15.6	46.8

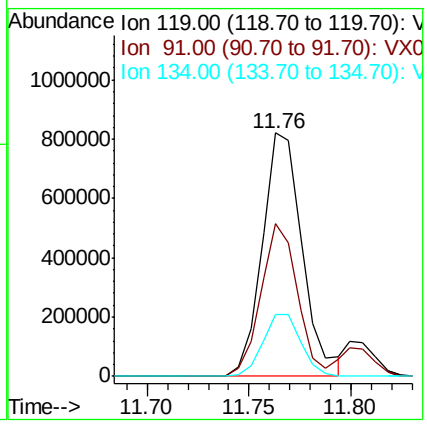


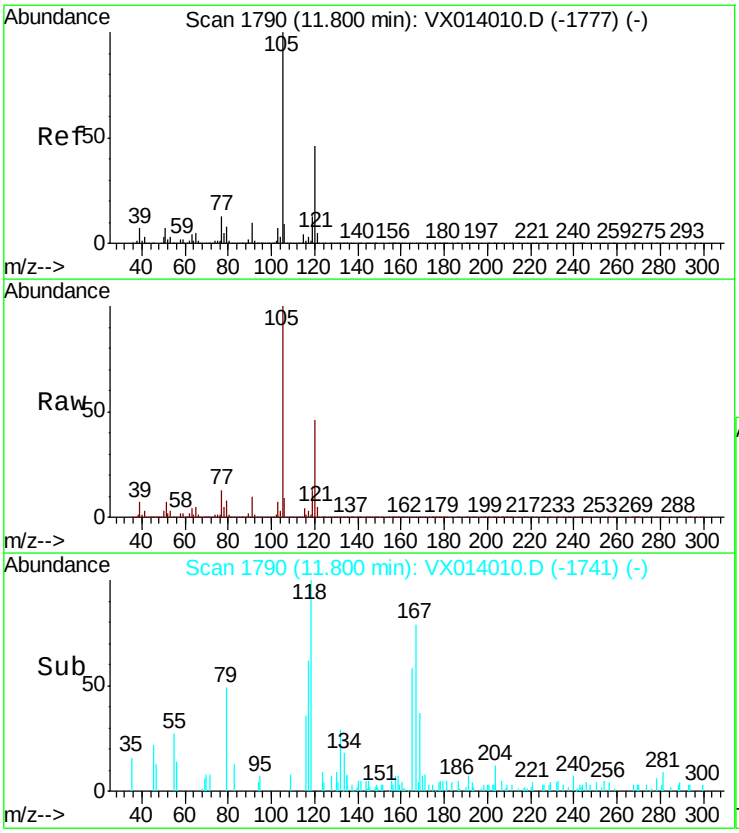


#83
tert-Butylbenzene
Concen: 48.252 ug/l
RT: 11.76 min Scan# 1784
Delta R.T. 0.00 min
Lab File: VX014010.D
Acq: 13 Dec 2019 15:59

Tgt Ion:119 Resp: 1123694

Ion	Ratio	Lower	Upper
119	100		
91	57.1	28.5	85.6
134	24.4	12.2	36.6

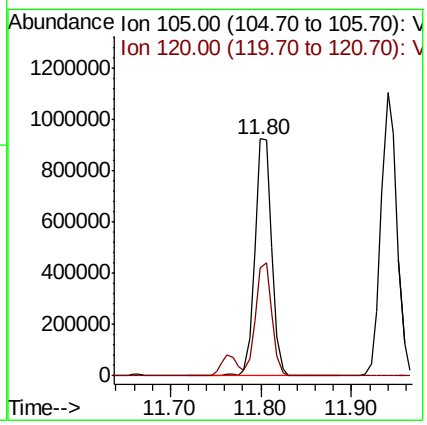




#84
1,2,4-Trimethylbenzene
Concen: 50.210 ug/l
RT: 11.80 min Scan# 1790
Delta R.T. 0.00 min
Lab File: VX014010.D
Acq: 13 Dec 2019 15:59

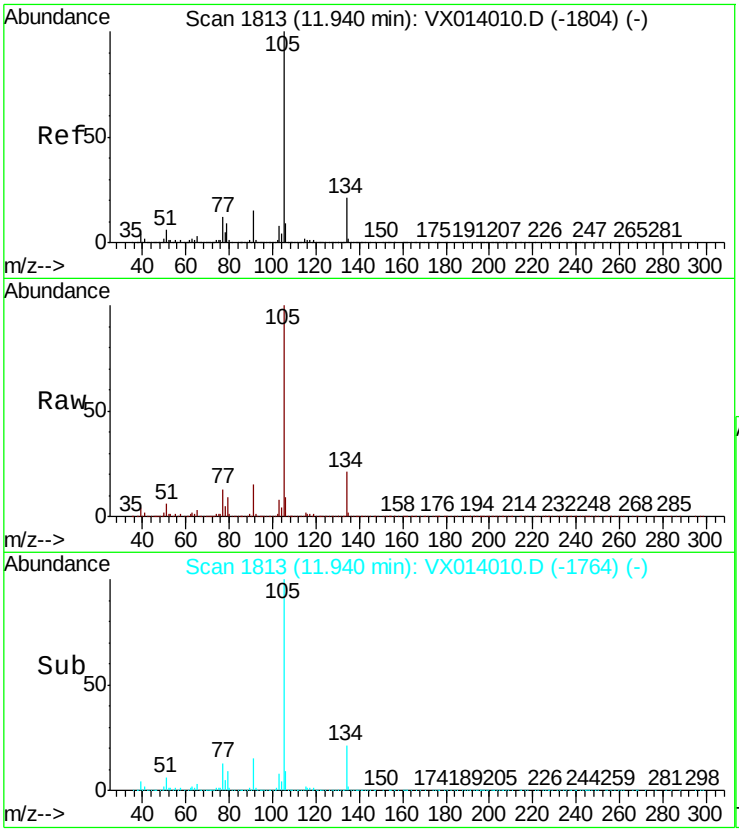
Tgt Ion:105 Resp: 1177071

Ion	Ratio	Lower	Upper
105	100		
120	46.1	23.1	69.2



Instrument :
MSVOA_X
ClientSampleId :
VSTDICCC050

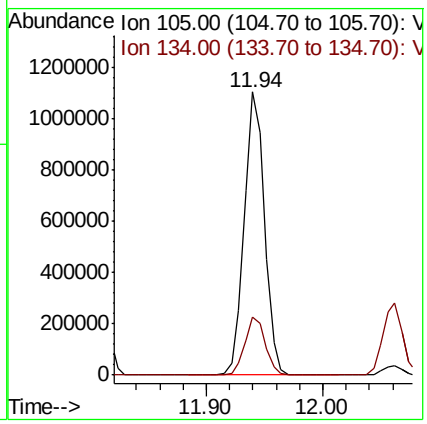
Manual Integrations APPROVED
apatel
12/16/2019 12:46:03 PM



#85
sec-Butylbenzene
Concen: 50.312 ug/l
RT: 11.94 min Scan# 1813
Delta R.T. 0.00 min
Lab File: VX014010.D
Acq: 13 Dec 2019 15:59

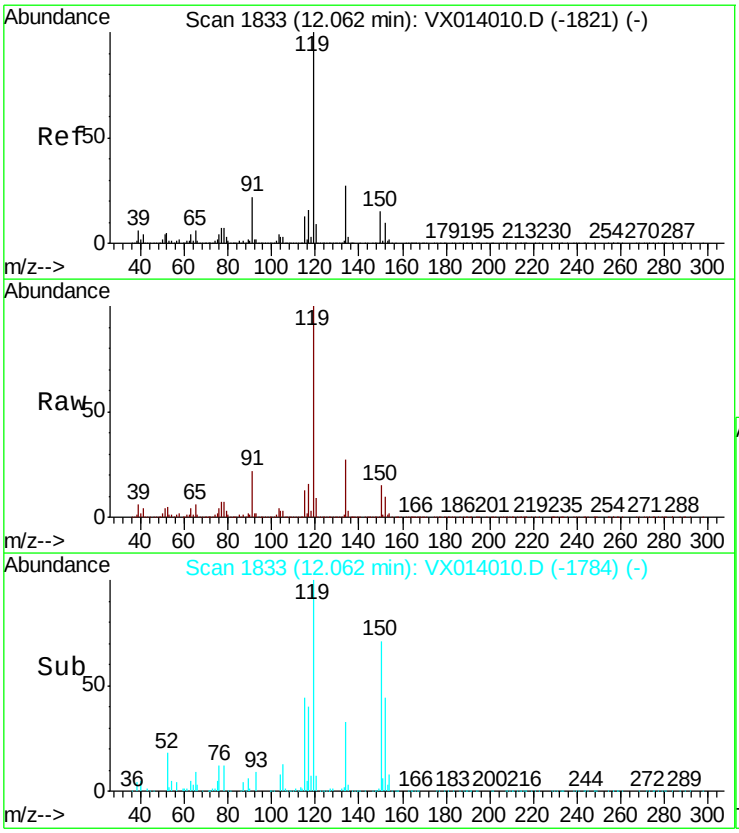
Tgt Ion:105 Resp: 1348388

Ion	Ratio	Lower	Upper
105	100		
134	20.7	10.4	31.1



Instrument :
MSVOA_X
ClientSampleId :
VSTDICCC050

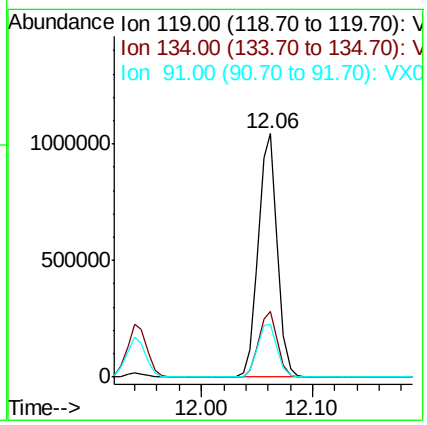
Manual Integrations APPROVED
apatel
12/16/2019 12:46:03 PM

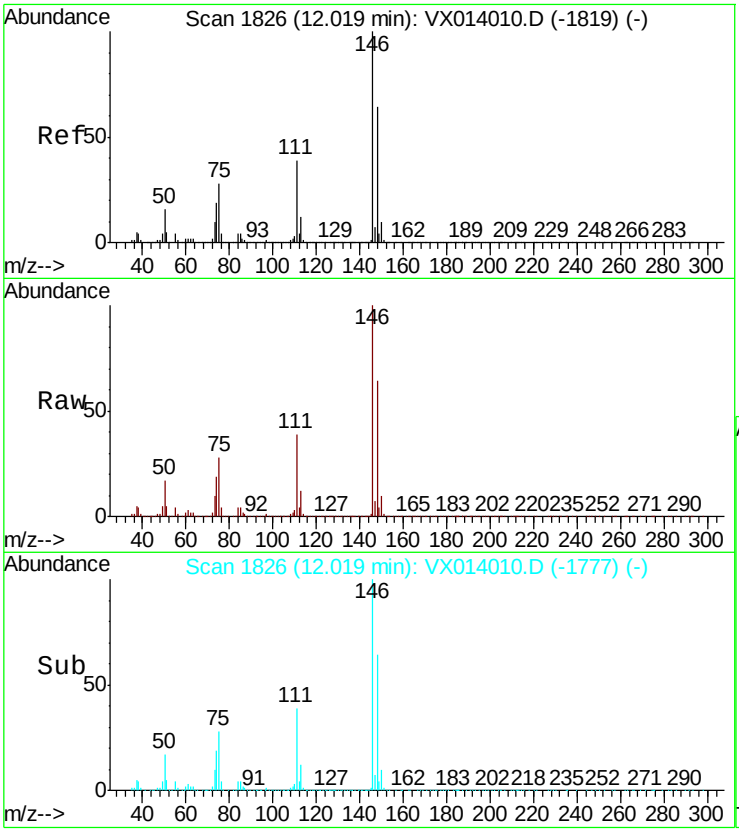


#86
p-Isopropyltoluene
Concen: 49.880 ug/l
RT: 12.06 min Scan# 1833
Delta R.T. 0.00 min
Lab File: VX014010.D
Acq: 13 Dec 2019 15:59

Tgt Ion:119 Resp: 1241776

Ion	Ratio	Lower	Upper
119	100		
134	26.7	13.4	40.1
91	22.7	11.4	34.1

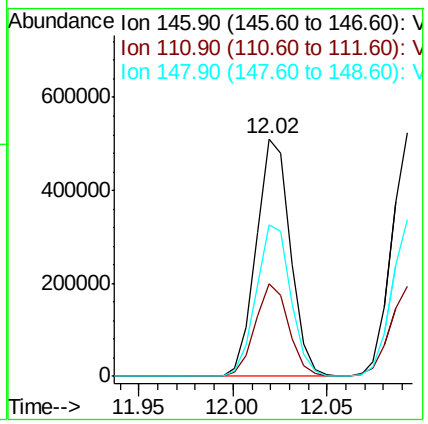




#87
1,3-Dichlorobenzene
Concen: 48.436 ug/l
RT: 12.02 min Scan# 1826
Delta R.T. 0.00 min
Lab File: VX014010.D
Acq: 13 Dec 2019 15:59

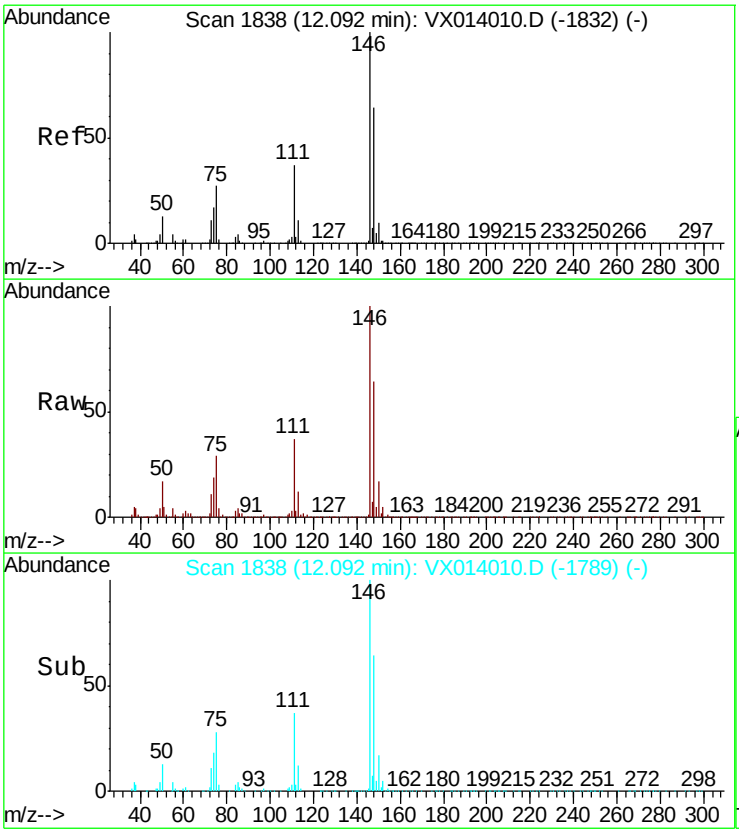
Tgt Ion:146 Resp: 641266

Ion	Ratio	Lower	Upper
146	100		
111	38.1	19.1	57.1
148	64.6	32.3	96.9



Instrument :
MSVOA_X
ClientSampleId :
VSTDICCC050

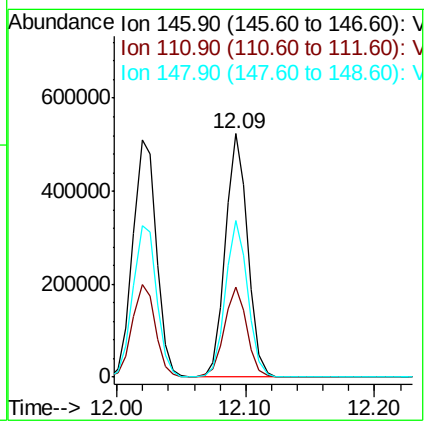
Manual Integrations APPROVED
apatel
12/16/2019 12:46:03 PM

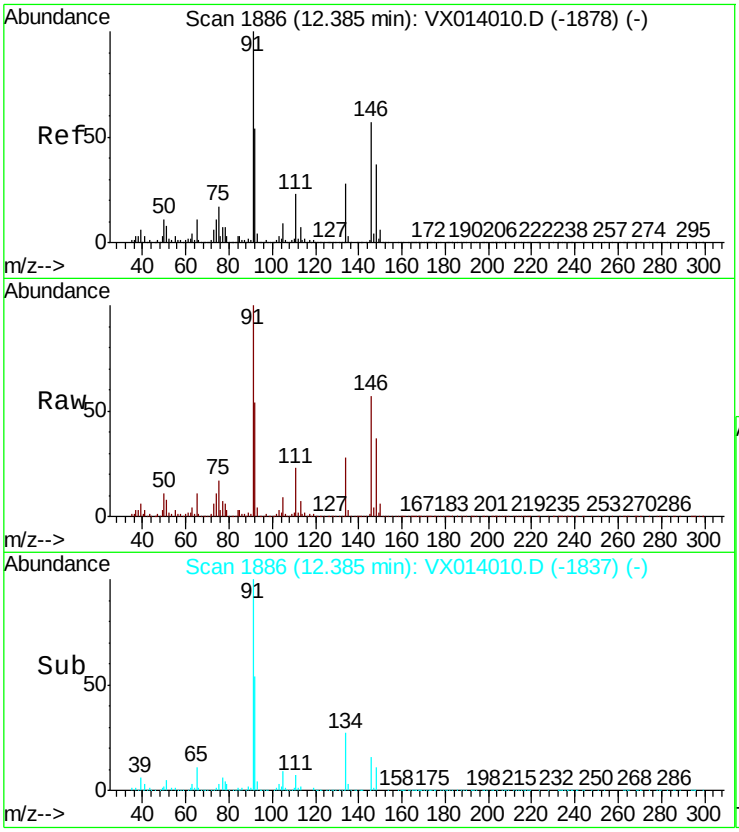


#88
1,4-Dichlorobenzene
Concen: 47.289 ug/l
RT: 12.09 min Scan# 1838
Delta R.T. 0.00 min
Lab File: VX014010.D
Acq: 13 Dec 2019 15:59

Tgt Ion:146 Resp: 638601

Ion	Ratio	Lower	Upper
146	100		
111	37.4	18.7	56.1
148	63.9	31.9	95.9

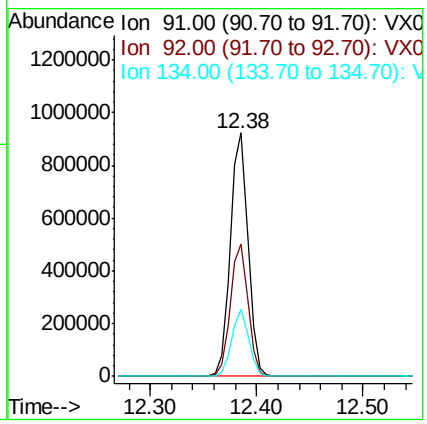




#89
n-Butylbenzene
Concen: 50.778 ug/l
RT: 12.38 min Scan# 1886
Delta R.T. 0.00 min
Lab File: VX014010.D
Acq: 13 Dec 2019 15:59

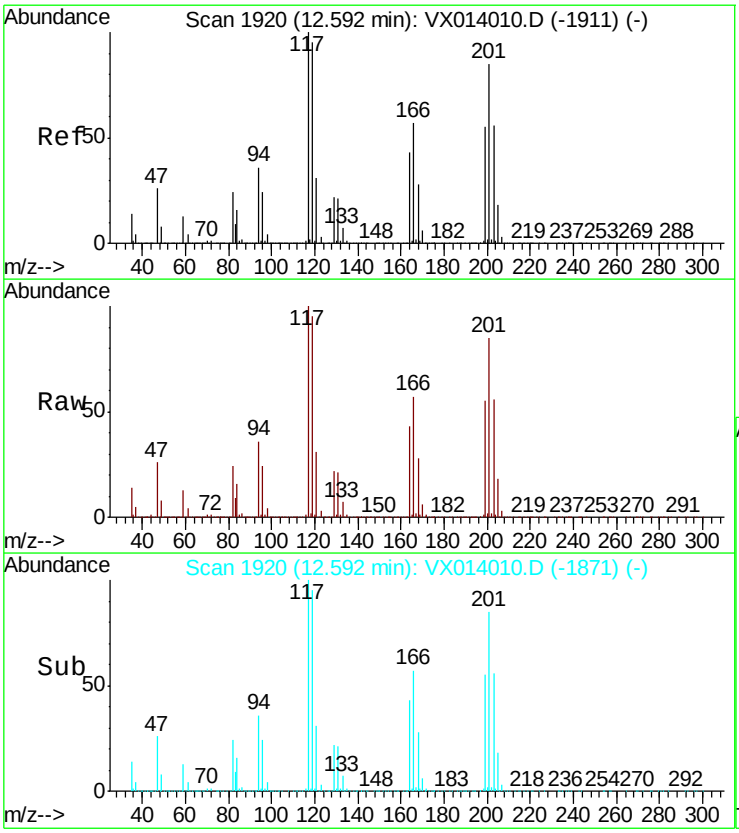
Tgt Ion: 91 Resp: 1079551

Ion	Ratio	Lower	Upper
91	100		
92	54.4	27.2	81.6
134	26.7	13.4	40.1



Instrument :
MSVOA_X
ClientSampleId :
VSTDICCC050

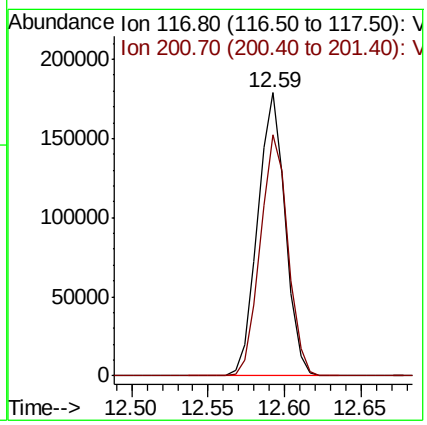
Manual Integrations APPROVED
apatel
12/16/2019 12:46:03 PM

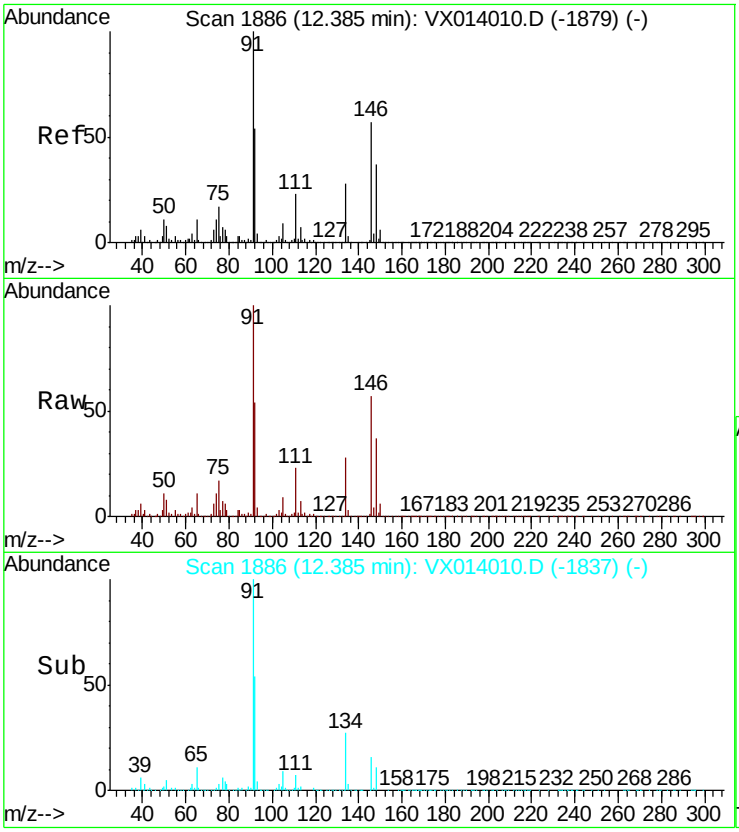


#90
Hexachloroethane
Concen: 49.677 ug/l
RT: 12.59 min Scan# 1920
Delta R.T. 0.00 min
Lab File: VX014010.D
Acq: 13 Dec 2019 15:59

Tgt Ion:117 Resp: 224173

Ion	Ratio	Lower	Upper
117	100		
201	86.2	43.1	129.3

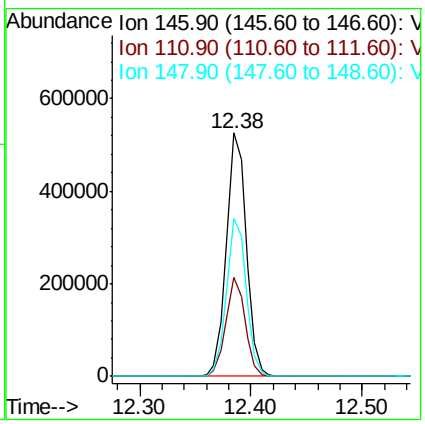




#91
1,2-Dichlorobenzene
Concen: 49.657 ug/l
RT: 12.38 min Scan# 1886
Delta R.T. 0.00 min
Lab File: VX014010.D
Acq: 13 Dec 2019 15:59

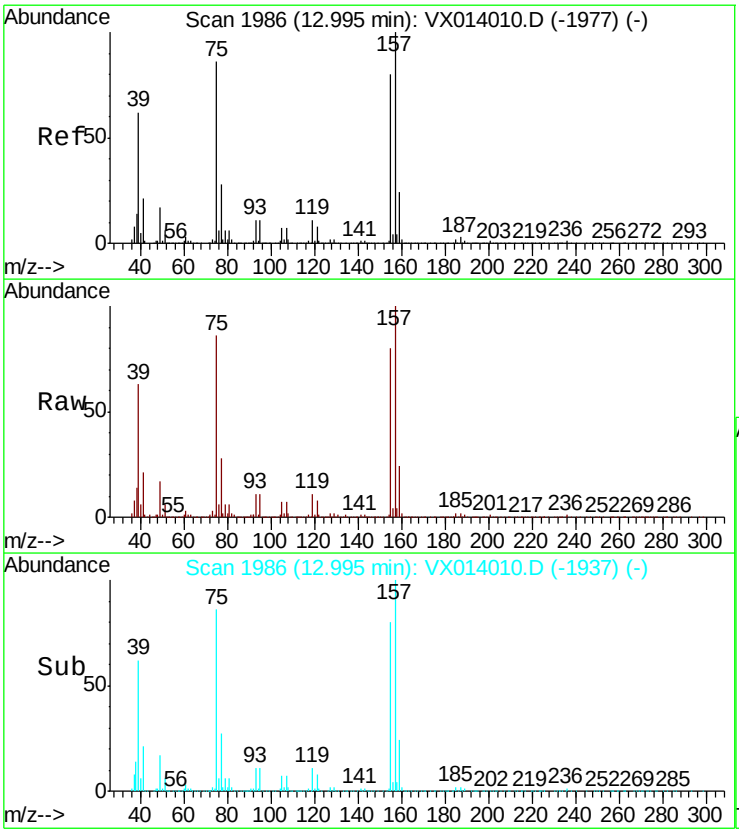
Tgt Ion:146 Resp: 651551

Ion	Ratio	Lower	Upper
146	100		
111	39.4	19.7	59.1
148	64.3	32.1	96.5



Instrument :
MSVOA_X
ClientSampleId :
VSTDICCC050

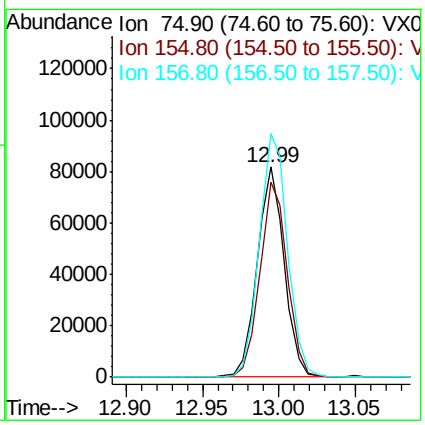
Manual Integrations APPROVED
apatel
12/16/2019 12:46:03 PM

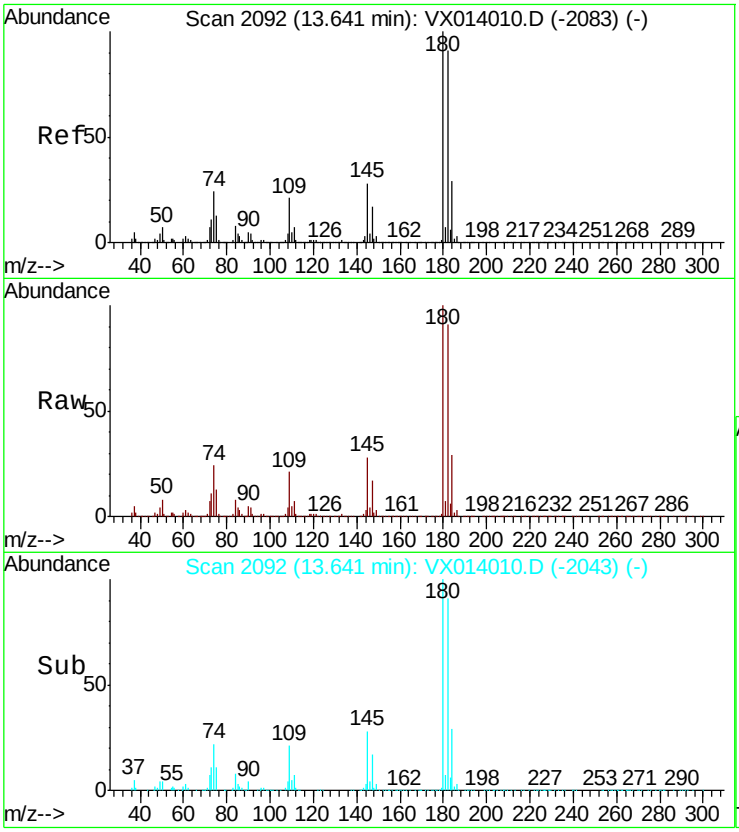


#92
1,2-Dibromo-3-Chloropropane
Concen: 48.047 ug/l
RT: 12.99 min Scan# 1986
Delta R.T. 0.00 min
Lab File: VX014010.D
Acq: 13 Dec 2019 15:59

Tgt Ion: 75 Resp: 100882

Ion	Ratio	Lower	Upper
75	100		
155	93.7	46.9	140.6
157	121.6	60.8	182.4

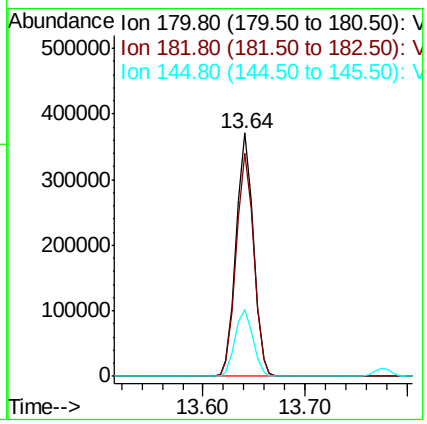




#93
1,2,4-Trichlorobenzene
Concen: 47.539 ug/l
RT: 13.64 min Scan# 2092
Delta R.T. 0.00 min
Lab File: VX014010.D
Acq: 13 Dec 2019 15:59

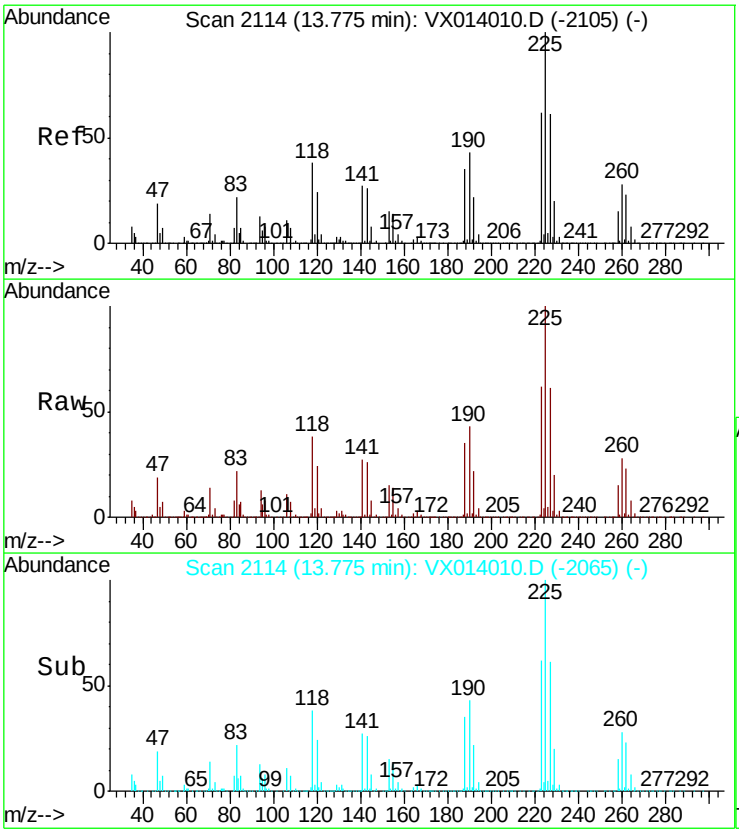
Tgt Ion:180 Resp: 430836

Ion	Ratio	Lower	Upper
180	100		
182	93.2	46.6	139.8
145	28.4	14.2	42.6



Instrument :
MSVOA_X
ClientSampleId :
VSTDICCC050

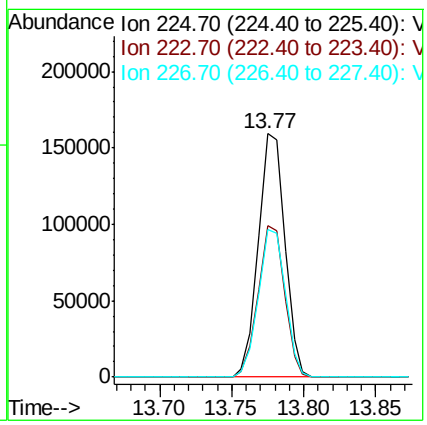
Manual Integrations APPROVED
apatel
12/16/2019 12:46:03 PM

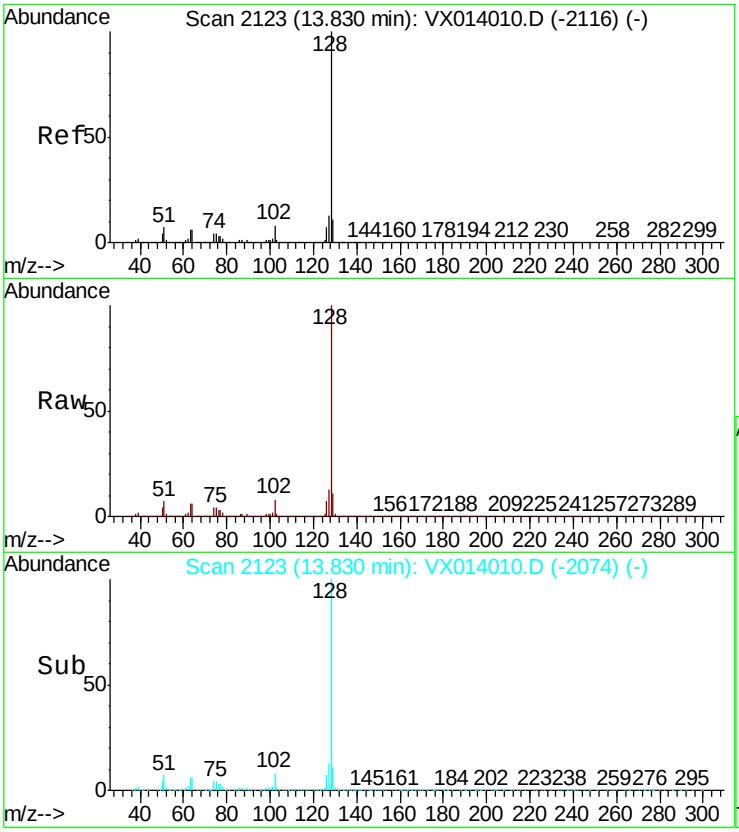


#94
Hexachlorobutadiene
Concen: 46.201 ug/l
RT: 13.77 min Scan# 2114
Delta R.T. 0.00 min
Lab File: VX014010.D
Acq: 13 Dec 2019 15:59

Tgt Ion:225 Resp: 202618

Ion	Ratio	Lower	Upper
225	100		
223	61.7	30.9	92.5
227	61.8	30.9	92.7

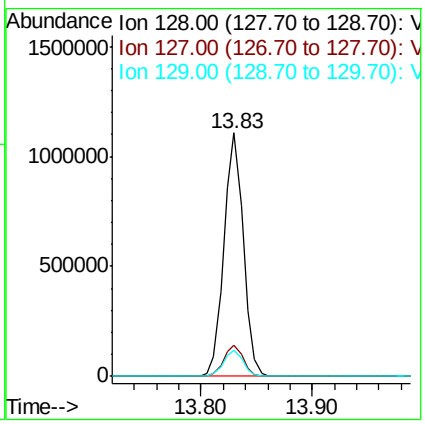




#95
Naphthalene
Concen: 49.348 ug/l
RT: 13.83 min Scan# 2123
Delta R.T. 0.00 min
Lab File: VX014010.D
Acq: 13 Dec 2019 15:59

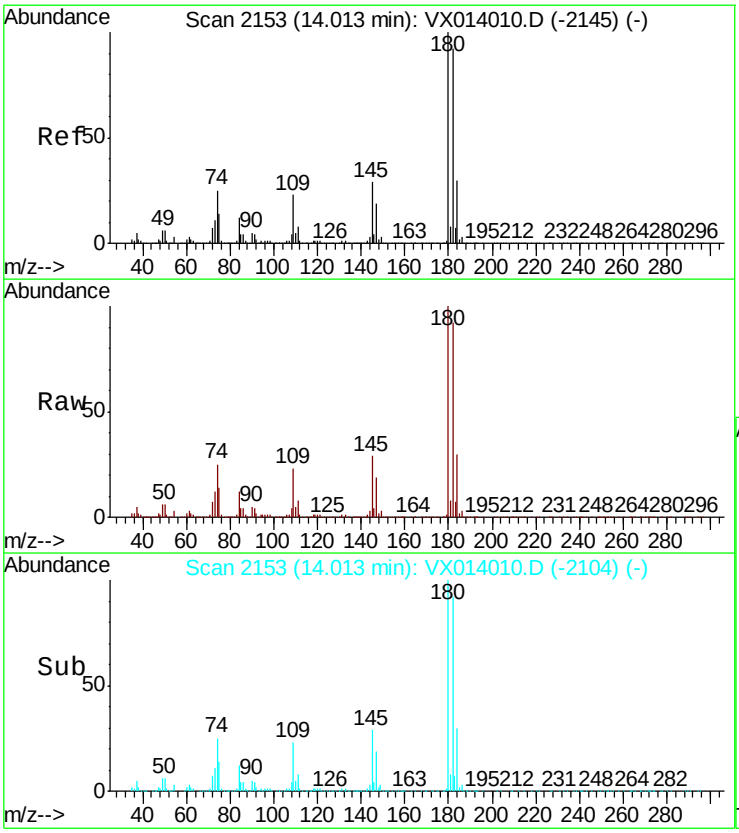
Tgt Ion:128 Resp: 1328512

Ion	Ratio	Lower	Upper
128	100		
127	12.8	10.2	15.4
129	10.9	8.7	13.1



Instrument :
MSVOA_X
ClientSampleId :
VSTDICCC050

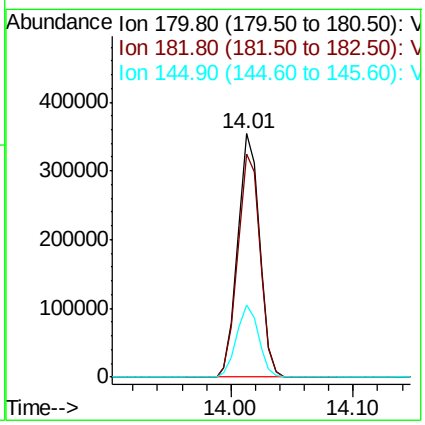
Manual Integrations APPROVED
apatel
12/16/2019 12:46:03 PM



#96
1,2,3-Trichlorobenzene
Concen: 48.307 ug/l
RT: 14.01 min Scan# 2153
Delta R.T. 0.00 min
Lab File: VX014010.D
Acq: 13 Dec 2019 15:59

Tgt Ion:180 Resp: 435421

Ion	Ratio	Lower	Upper
180	100		
182	93.5	46.8	140.3
145	29.6	14.8	44.4



Quantitation Report (QT Reviewed)

ICAL Form

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX121319\
Data File : VX014011.D
Acq On : 13 Dec 2019 16:22
Operator : JC/SP
Sample : VSTDICC100
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 7 Sample Multiplier: 1

Instrument : MSVOA_X
ClientSampleId : VSTDICC100

Manual Integrations APPROVED
apatel
12/16/2019 12:46:06 PM

Quant Time: Dec 13 17:02:28 2019
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121319W.M
Quant Title : SW846 8260
QLast Update : Fri Dec 13 16:34:01 2019
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	5.65	168	548793	50.00	ug/l	0.00
34) 1,4-Difluorobenzene	6.85	114	843362	50.00	ug/l	0.00
63) Chlorobenzene-d5	10.11	117	774520	50.00	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	12.07	152	405555	50.00	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	6.05	65	617981	96.86	ug/l	0.00
Spiked Amount 50.000			Recovery = 193.72%			
35) Dibromofluoromethane	5.49	113	516920	98.62	ug/l	0.00
Spiked Amount 50.000			Recovery = 197.24%			
50) Toluene-d8	8.71	98	2007259	97.93	ug/l	0.00
Spiked Amount 50.000			Recovery = 195.86%			
62) 4-Bromofluorobenzene	11.14	95	751769	101.44	ug/l	0.00
Spiked Amount 50.000			Recovery = 202.88%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.19	85	483811	82.465	ug/l	99
3) Chloromethane	1.31	50	626684	92.299	ug/l	99
4) Vinyl Chloride	1.40	62	666994	88.812	ug/l	100
5) Bromomethane	1.62	94	474252	92.303	ug/l	98
6) Chloroethane	1.70	64	405287	92.558	ug/l	94
7) Trichlorofluoromethane	1.91	101	836614	97.334	ug/l	98
8) Diethyl Ether	2.18	74	378389	97.403	ug/l	97
9) 1,1,2-Trichlorotrifluoroet	2.37	101	500876	95.806	ug/l	100
10) Methyl Iodide	2.50	142	714380	112.514	ug/l	98
11) Tert butyl alcohol	3.06	59	633927	414.756	ug/l	98
12) 1,1-Dichloroethene	2.36	96	516735	99.112	ug/l	98
13) Acrolein	2.28	56	401218	445.908	ug/l	98
14) Allyl chloride	2.72	41	947139	100.188	ug/l	100
15) Acrylonitrile	3.13	53	1544265	480.478	ug/l	99
16) Acetone	2.44	43	2001144	605.853	ug/l	100
17) Carbon Disulfide	2.56	76	1453335	97.584	ug/l	100
18) Methyl Acetate	2.76	43	802431	93.931	ug/l	98
19) Methyl tert-butyl Ether	3.19	73	1721707	99.489	ug/l	99
20) Methylene Chloride	2.84	84	582633	96.197	ug/l	98
21) trans-1,2-Dichloroethene	3.16	96	558801	98.204	ug/l	97
22) Diisopropyl ether	3.84	45	1844772	100.858	ug/l	97
23) Vinyl Acetate	3.80	43	7323485	482.257	ug/l	99
24) 1,1-Dichloroethane	3.69	63	1011790	101.197	ug/l	100
25) 2-Butanone	4.66	43	2502827	530.956	ug/l	99
26) 2,2-Dichloropropane	4.57	77	812194	98.580	ug/l	99
27) cis-1,2-Dichloroethene	4.58	96	639085	97.865	ug/l	100
28) Bromochloromethane	5.00	49	407067	115.327	ug/l	99
29) Tetrahydrofuran	5.12	42	1387997	488.481	ug/l	99
30) Chloroform	5.20	83	968045	95.658	ug/l	98
31) Cyclohexane	5.57	56	928998	98.286	ug/l	98
32) 1,1,1-Trichloroethane	5.48	97	838275	99.181	ug/l	99
36) 1,1-Dichloropropene	5.79	75	758845	99.053	ug/l	100
37) Ethyl Acetate	4.83	43	851531	99.635	ug/l	99
38) Carbon Tetrachloride	5.77	117	719273	101.788	ug/l	99

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX121319\
Data File : VX014011.D
Acq On : 13 Dec 2019 16:22
Operator : JC/SP
Sample : VSTDICC100
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 7 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
VSTDICC100

Manual Integrations APPROVED
apatel
12/16/2019 12:46:06 PM

Quant Time: Dec 13 17:02:28 2019
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121319W.M
Quant Title : SW846 8260
QLast Update : Fri Dec 13 16:34:01 2019
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
39) Methylcyclohexane	7.46	83	945088	99.629	ug/l	99
40) Benzene	6.13	78	2308856	98.745	ug/l	98
41) Methacrylonitrile	5.03	41	490632	105.173	ug/l	96
42) 1,2-Dichloroethane	6.18	62	786354	98.762	ug/l	99
43) Isopropyl Acetate	6.43	43	1440737	102.057	ug/l	99
44) Trichloroethene	7.20	130	631114	98.707	ug/l	100
45) 1,2-Dichloropropane	7.51	63	597656	101.971	ug/l	97
46) Dibromomethane	7.65	93	384599	96.955	ug/l	99
47) Bromodichloromethane	7.89	83	775778	103.479	ug/l	98
48) Methyl methacrylate	7.76	41	713945	104.318	ug/l	99
49) 1,4-Dioxane	7.74	88	266492	1767.914	ug/l	99
51) 4-Methyl-2-Pentanone	8.64	43	4454422	502.518	ug/l	100
52) Toluene	8.78	92	1450176	99.705	ug/l	100
53) t-1,3-Dichloropropene	9.04	75	900433	105.583	ug/l	100
54) cis-1,3-Dichloropropene	8.43	75	978680	104.939	ug/l	99
55) 1,1,2-Trichloroethane	9.21	97	585526	100.026	ug/l	99
56) Ethyl methacrylate	9.17	69	1001661	106.259	ug/l	100
57) 1,3-Dichloropropane	9.37	76	995630	98.559	ug/l	100
58) 2-Chloroethyl Vinyl ether	8.31	63	1879120	508.509	ug/l	100
59) 2-Hexanone	9.49	43	3687624	528.666	ug/l	100
60) Dibromochloromethane	9.58	129	640857	105.869	ug/l	99
61) 1,2-Dibromoethane	9.67	107	618127	98.996	ug/l	100
64) Tetrachloroethene	9.33	164	730494	122.222	ug/l	97
65) Chlorobenzene	10.14	112	1585660	98.056	ug/l	98
66) 1,1,1,2-Tetrachloroethane	10.21	131	591151	102.094	ug/l	99
67) Ethyl Benzene	10.25	91	2770473	99.813	ug/l	99
68) m/p-Xylenes	10.35	106	2149249	201.972	ug/l	99
69) o-Xylene	10.70	106	1049787	101.159	ug/l	100
70) Styrene	10.71	104	1839187	105.053	ug/l	99
71) Bromoform	10.85	173	521997	109.295	ug/l	100
73) Isopropylbenzene	11.01	105	2753143	96.652	ug/l	99
74) N-amyl acetate	10.89	43	1364487	104.568	ug/l	99
75) 1,1,2,2-Tetrachloroethane	11.26	83	956183	96.951	ug/l	99
76) 1,2,3-Trichloropropane	11.29	75	861897m	94.893	ug/l	
77) Bromobenzene	11.25	156	737773	96.089	ug/l	99
78) n-propylbenzene	11.35	91	3184476	99.977	ug/l	99
79) 2-Chlorotoluene	11.42	91	1867515	97.459	ug/l	99
80) 1,3,5-Trimethylbenzene	11.50	105	2362600	100.907	ug/l	100
81) trans-1,4-Dichloro-2-buten	11.07	75	344901	104.093	ug/l	97
82) 4-Chlorotoluene	11.51	91	2200862	99.470	ug/l	99
83) tert-Butylbenzene	11.77	119	2205438	93.495	ug/l	99
84) 1,2,4-Trimethylbenzene	11.81	105	2371228	99.859	ug/l	99
85) sec-Butylbenzene	11.94	105	2753476	101.431	ug/l	100
86) p-Isopropyltoluene	12.06	119	2532372	100.425	ug/l	99
87) 1,3-Dichlorobenzene	12.02	146	1325579	98.848	ug/l	100
88) 1,4-Dichlorobenzene	12.09	146	1321090	96.582	ug/l	99
89) n-Butylbenzene	12.39	91	2252779	104.611	ug/l	99
90) Hexachloroethane	12.59	117	475941	104.126	ug/l	98
91) 1,2-Dichlorobenzene	12.39	146	1316372	99.046	ug/l	99
92) 1,2-Dibromo-3-Chloropropan	12.99	75	209437	98.478	ug/l	96

ICAL Form

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX121319\
Data File : VX014011.D
Acq On : 13 Dec 2019 16:22
Operator : JC/SP
Sample : VSTDICC100
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 7 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
VSTDICC100

Manual Integrations APPROVED
apatel
12/16/2019 12:46:06 PM

Quant Time: Dec 13 17:02:28 2019
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121319W.M
Quant Title : SW846 8260
QLast Update : Fri Dec 13 16:34:01 2019
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
93) 1,2,4-Trichlorobenzene	13.64	180	917133	99.909 ug/l	98
94) Hexachlorobutadiene	13.78	225	425393	95.763 ug/l	98
95) Naphthalene	13.83	128	2770114	101.586 ug/l	100
96) 1,2,3-Trichlorobenzene	14.01	180	908154	99.469 ug/l	98

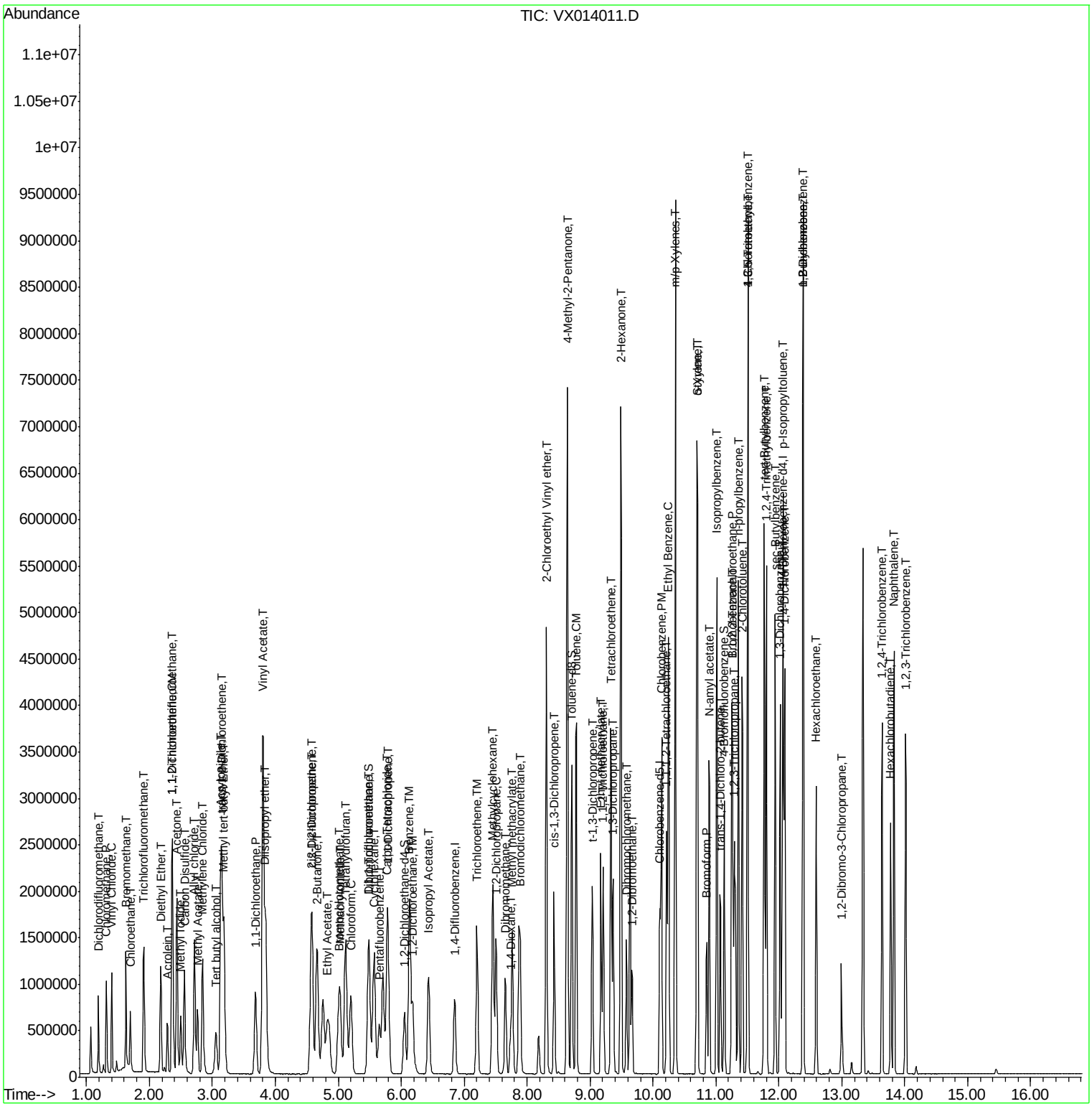
(#) = qualifier out of range (m) = manual integration (+) = signals summed

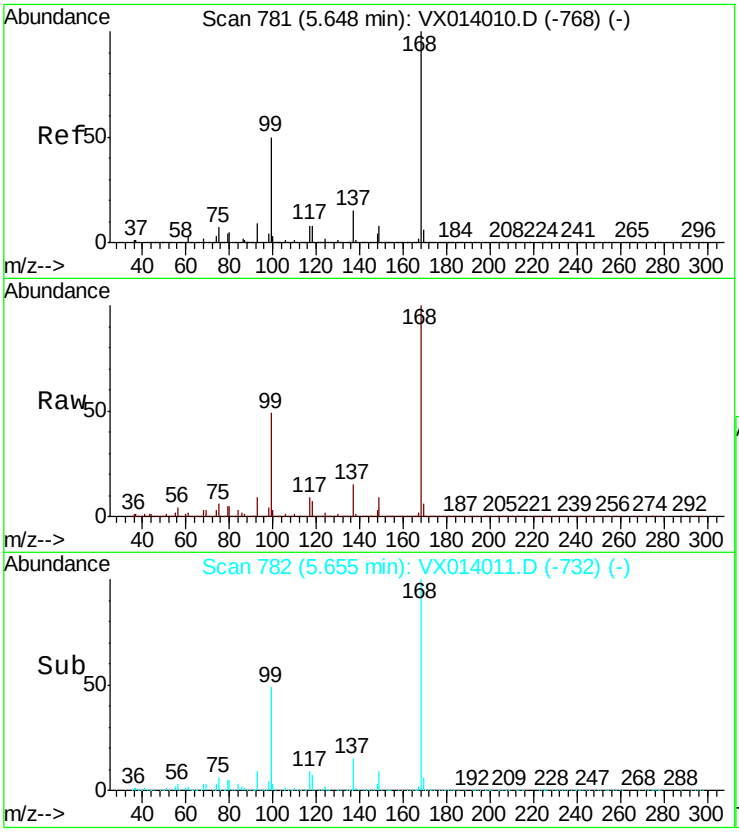
Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX121319\
Data File : VX014011.D
Acq On : 13 Dec 2019 16:22
Operator : JC/SP
Sample : VSTDICC100
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Dec 13 17:02:28 2019
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121319W.M
Quant Title : SW846 8260
QLast Update : Fri Dec 13 16:34:01 2019
Response via : Initial Calibration

Instrument :
MSVOA_X
ClientSampleId :
VSTDICC100

Manual Integrations APPROVED
apatel
12/16/2019 12:46:06 PM

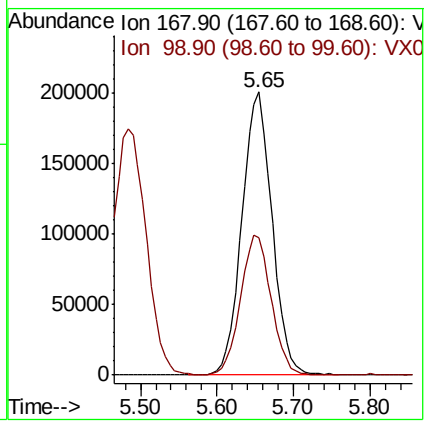




#1
Pentafluorobenzene
Concen: 50.000 ug/l
RT: 5.65 min Scan# 782
Delta R.T. 0.01 min
Lab File: VX014011.D
Acq: 13 Dec 2019 16:22

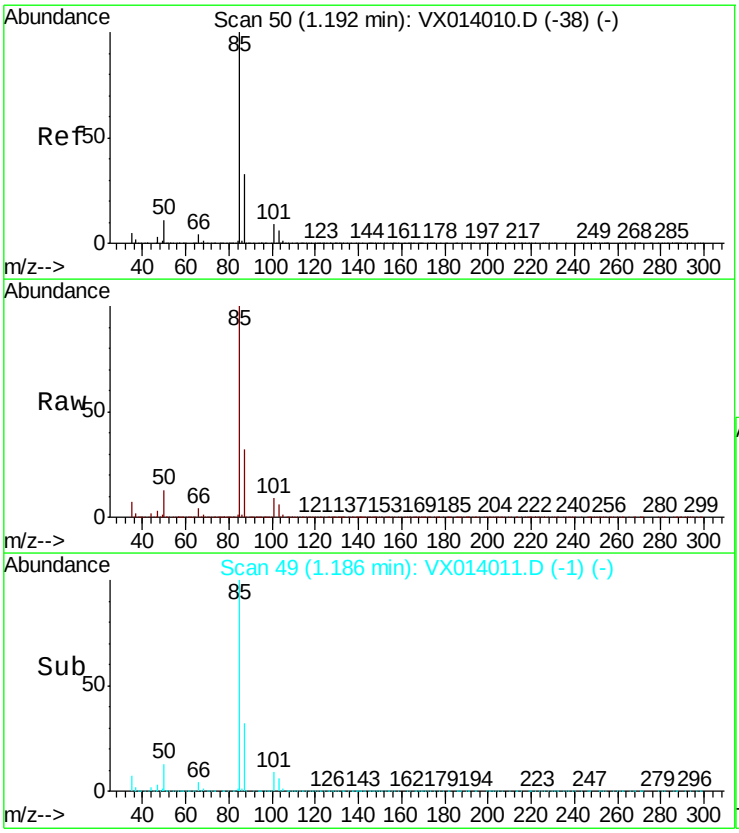
Tgt Ion:168 Resp: 548793

Ion	Ratio	Lower	Upper
168	100		
99	48.2	40.3	60.5



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC100

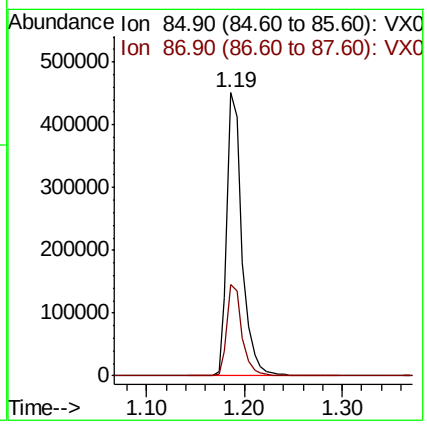
Manual Integrations APPROVED
apatel
12/16/2019 12:46:06 PM

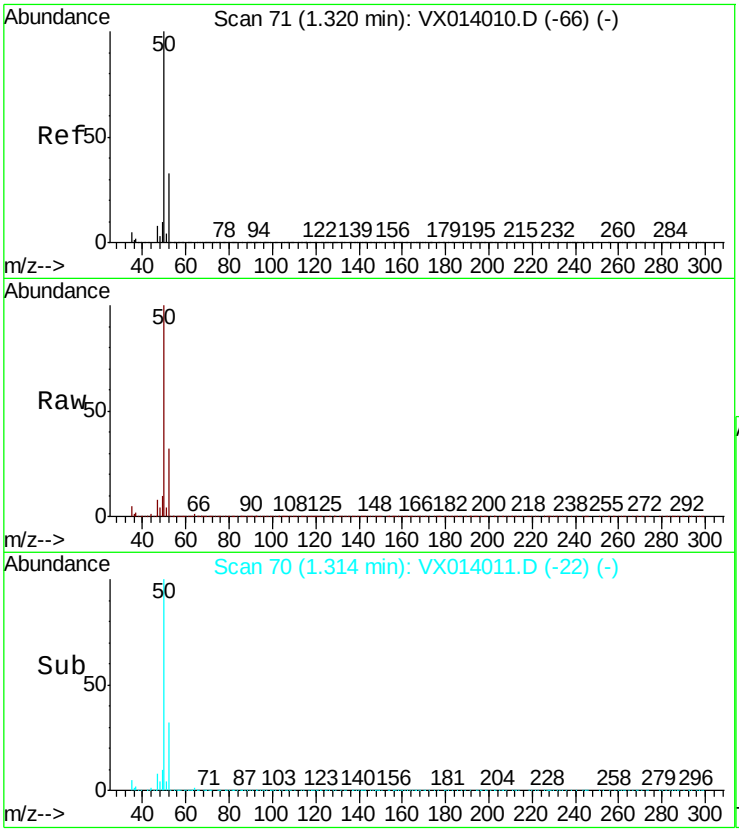


#2
Dichlorodifluoromethane
Concen: 82.465 ug/l
RT: 1.19 min Scan# 49
Delta R.T. -0.01 min
Lab File: VX014011.D
Acq: 13 Dec 2019 16:22

Tgt Ion: 85 Resp: 483811

Ion	Ratio	Lower	Upper
85	100		
87	32.1	16.4	49.2

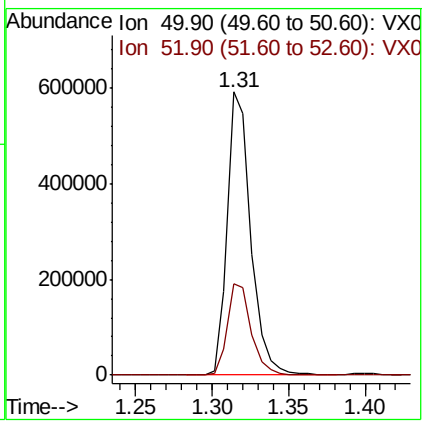




#3
Chloromethane
Concen: 92.299 ug/l
RT: 1.31 min Scan# 70
Delta R.T. -0.01 min
Lab File: VX014011.D
Acq: 13 Dec 2019 16:22

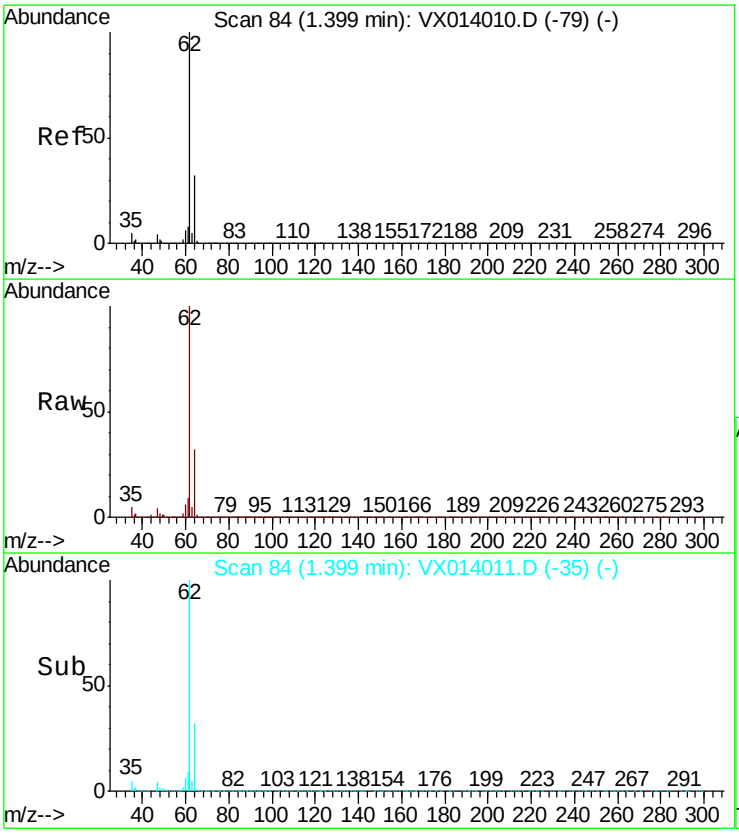
Tgt Ion: 50 Resp: 626684

Ion	Ratio	Lower	Upper
50	100		
52	32.4	26.2	39.4



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC100

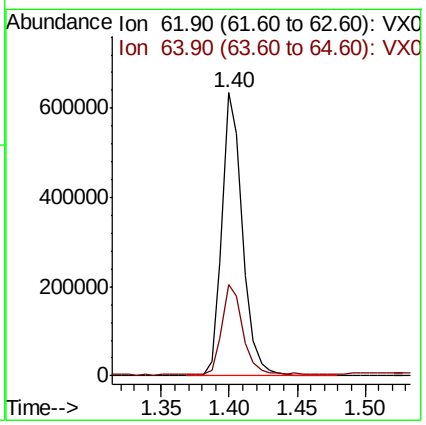
Manual Integrations APPROVED
apatel
12/16/2019 12:46:06 PM

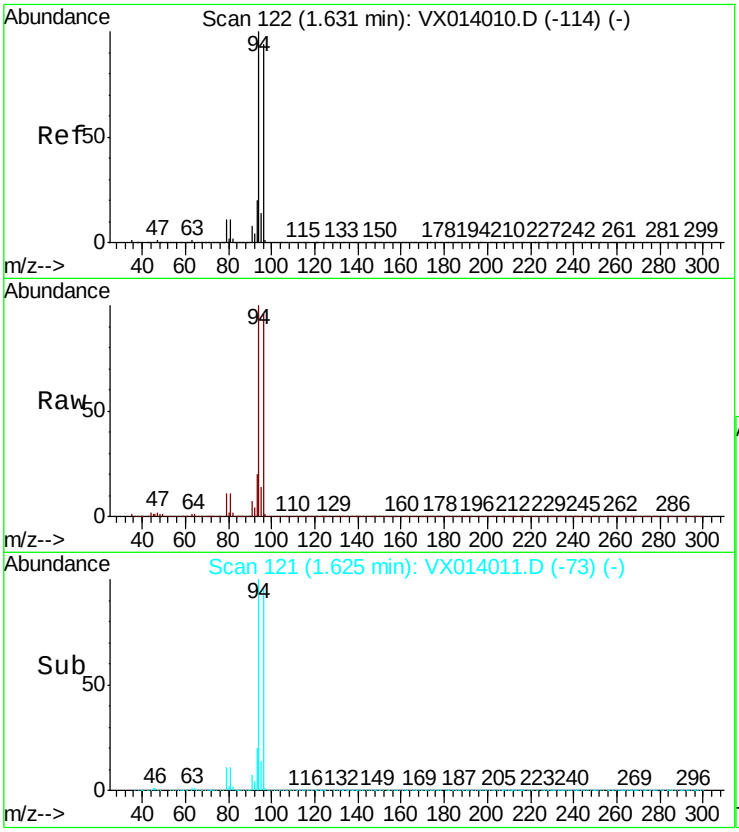


#4
Vinyl Chloride
Concen: 88.812 ug/l
RT: 1.40 min Scan# 84
Delta R.T. 0.00 min
Lab File: VX014011.D
Acq: 13 Dec 2019 16:22

Tgt Ion: 62 Resp: 666994

Ion	Ratio	Lower	Upper
62	100		
64	31.9	25.7	38.5

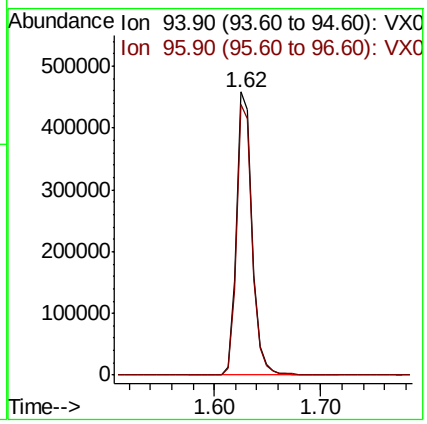




#5
Bromomethane
Concen: 92.303 ug/l
RT: 1.62 min Scan# 121
Delta R.T. -0.01 min
Lab File: VX014011.D
Acq: 13 Dec 2019 16:22

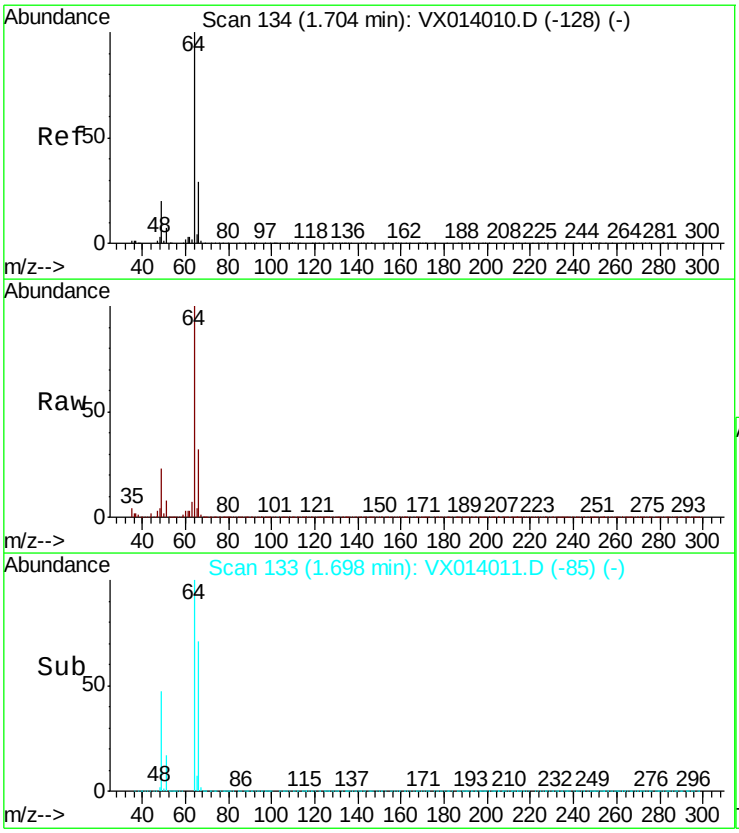
Tgt Ion: 94 Resp: 474252

Ion	Ratio	Lower	Upper
94	100		
96	95.5	75.2	112.8



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC100

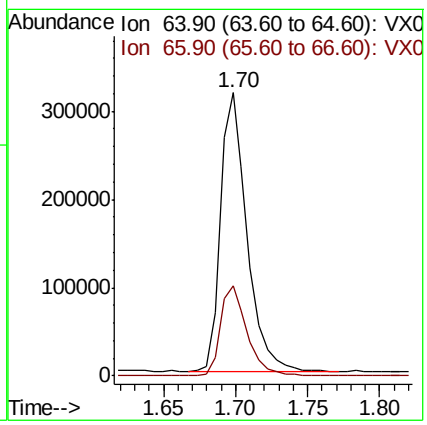
Manual Integrations APPROVED
apatel
12/16/2019 12:46:06 PM

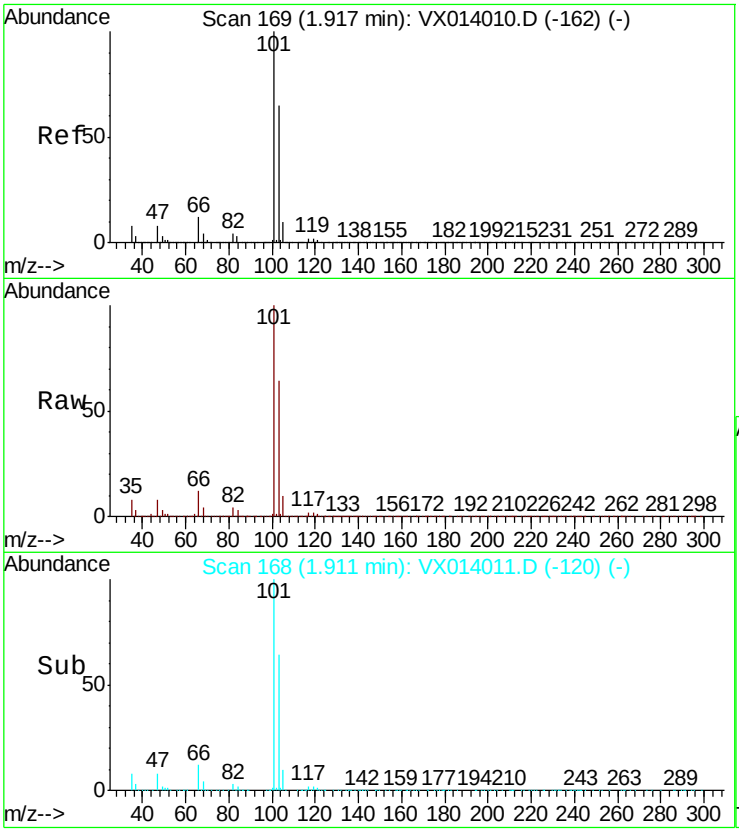


#6
Chloroethane
Concen: 92.558 ug/l
RT: 1.70 min Scan# 133
Delta R.T. -0.01 min
Lab File: VX014011.D
Acq: 13 Dec 2019 16:22

Tgt Ion: 64 Resp: 405287

Ion	Ratio	Lower	Upper
64	100		
66	32.3	23.4	35.2

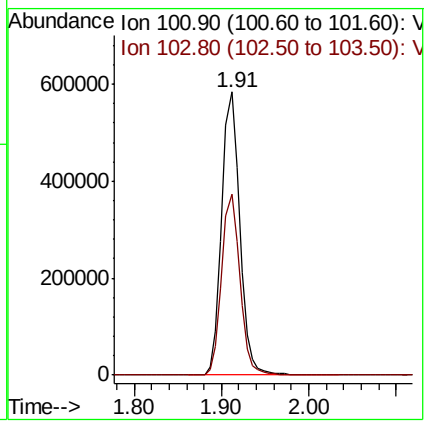




#7
Trichlorofluoromethane
Concen: 97.334 ug/l
RT: 1.91 min Scan# 168
Delta R.T. -0.01 min
Lab File: VX014011.D
Acq: 13 Dec 2019 16:22

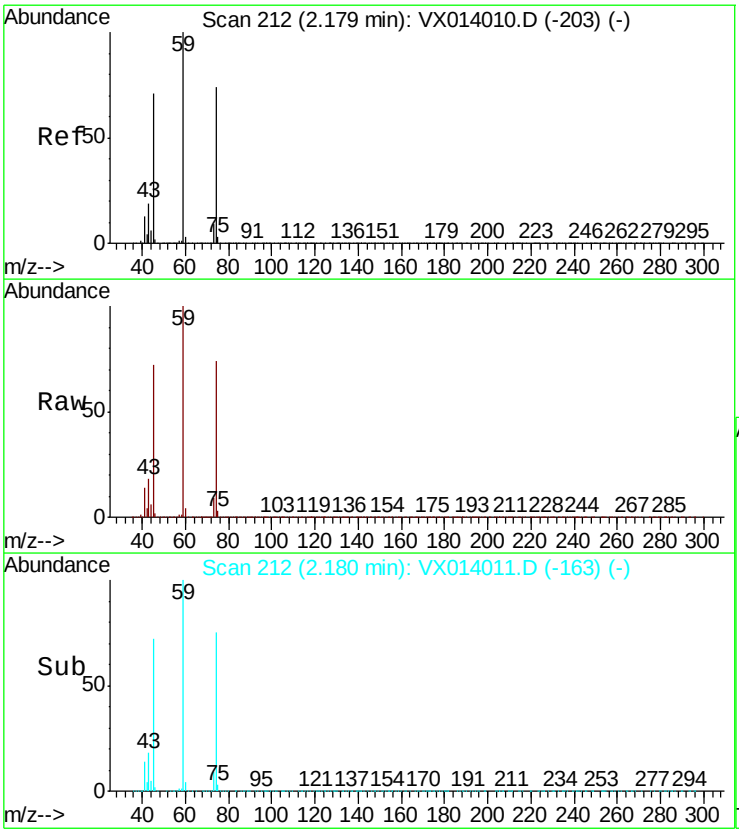
Tgt Ion:101 Resp: 836614

Ion	Ratio	Lower	Upper
101	100		
103	63.9	52.2	78.4



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC100

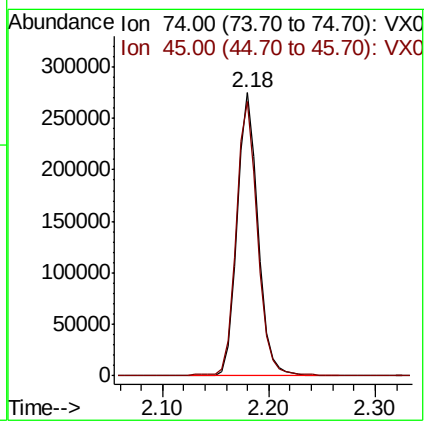
Manual Integrations APPROVED
apatel
12/16/2019 12:46:06 PM

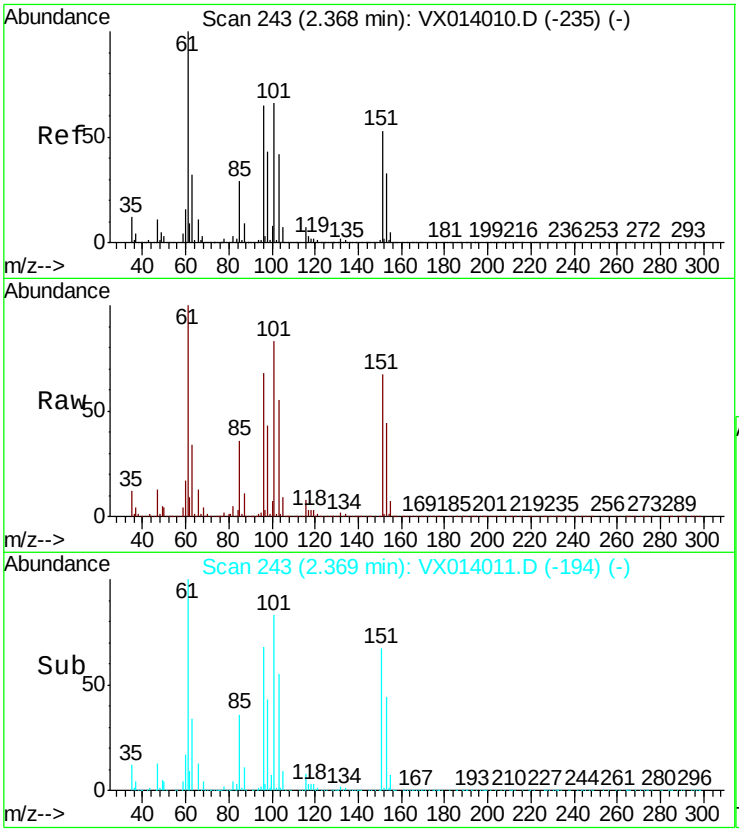


#8
Diethyl Ether
Concen: 97.403 ug/l
RT: 2.18 min Scan# 212
Delta R.T. 0.00 min
Lab File: VX014011.D
Acq: 13 Dec 2019 16:22

Tgt Ion: 74 Resp: 378389

Ion	Ratio	Lower	Upper
74	100		
45	99.1	48.1	144.3

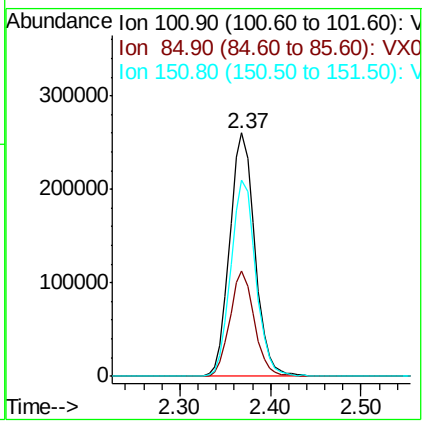




#9
1,1,2-Trichlorotrifluoroethane
Concen: 95.806 ug/l
RT: 2.37 min Scan# 243
Delta R.T. 0.00 min
Lab File: VX014011.D
Acq: 13 Dec 2019 16:22

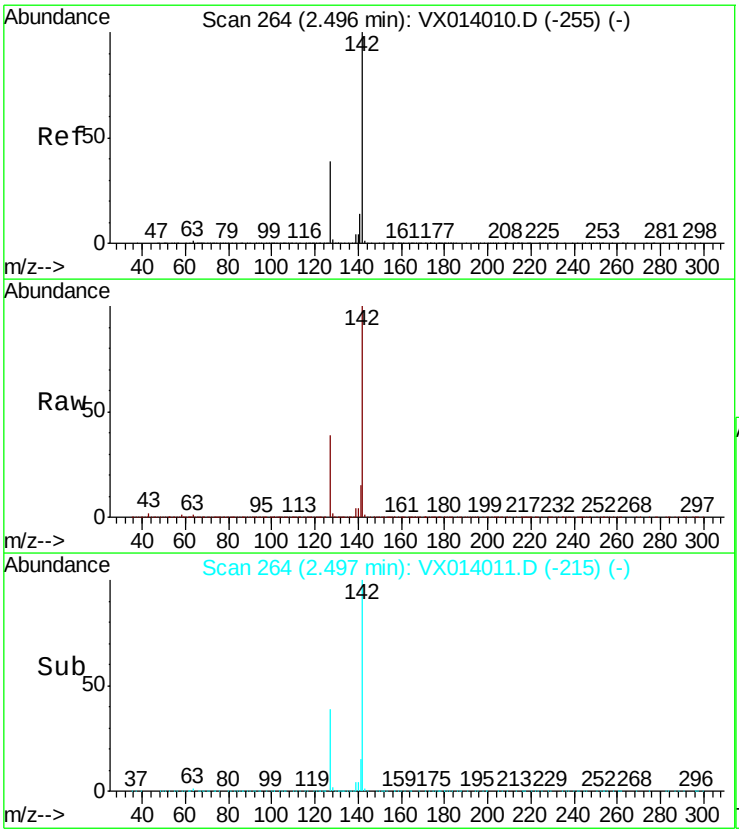
Tgt Ion:101 Resp: 500876

Ion	Ratio	Lower	Upper
101	100		
85	42.1	33.7	50.5
151	80.2	64.5	96.7



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC100

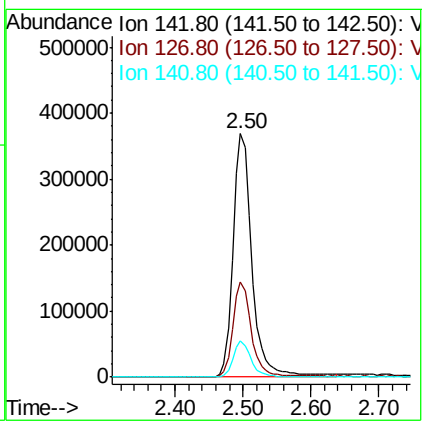
Manual Integrations APPROVED
apatel
12/16/2019 12:46:06 PM

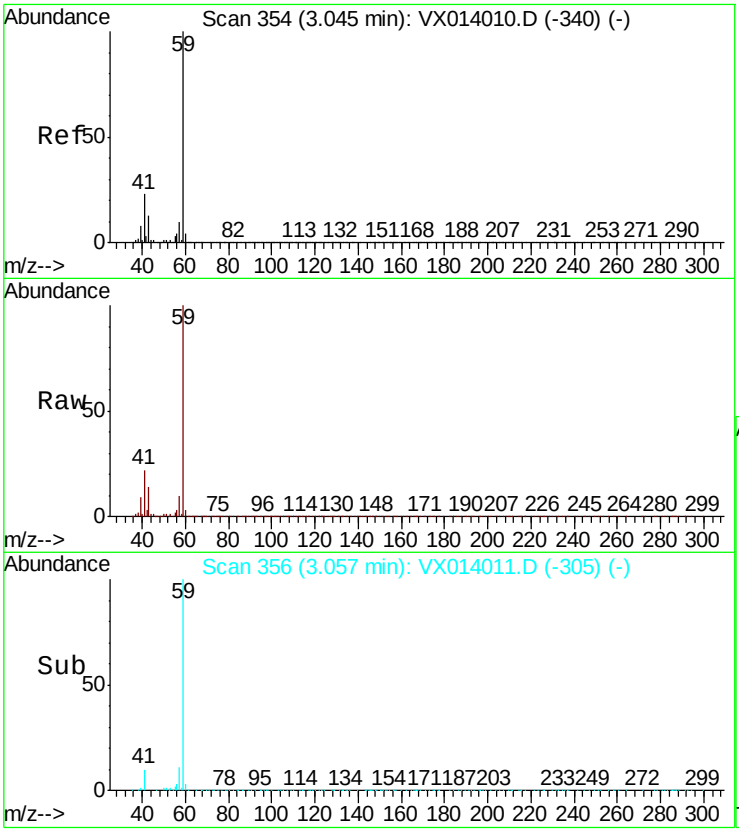


#10
Methyl Iodide
Concen: 112.514 ug/l
RT: 2.50 min Scan# 264
Delta R.T. 0.00 min
Lab File: VX014011.D
Acq: 13 Dec 2019 16:22

Tgt Ion:142 Resp: 714380

Ion	Ratio	Lower	Upper
142	100		
127	38.1	31.6	47.4
141	14.2	11.6	17.4

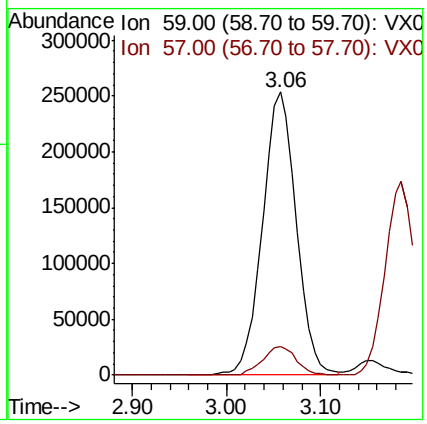




#11
Tert butyl alcohol
Concen: 414.756 ug/l
RT: 3.06 min Scan# 356
Delta R.T. 0.01 min
Lab File: VX014011.D
Acq: 13 Dec 2019 16:22

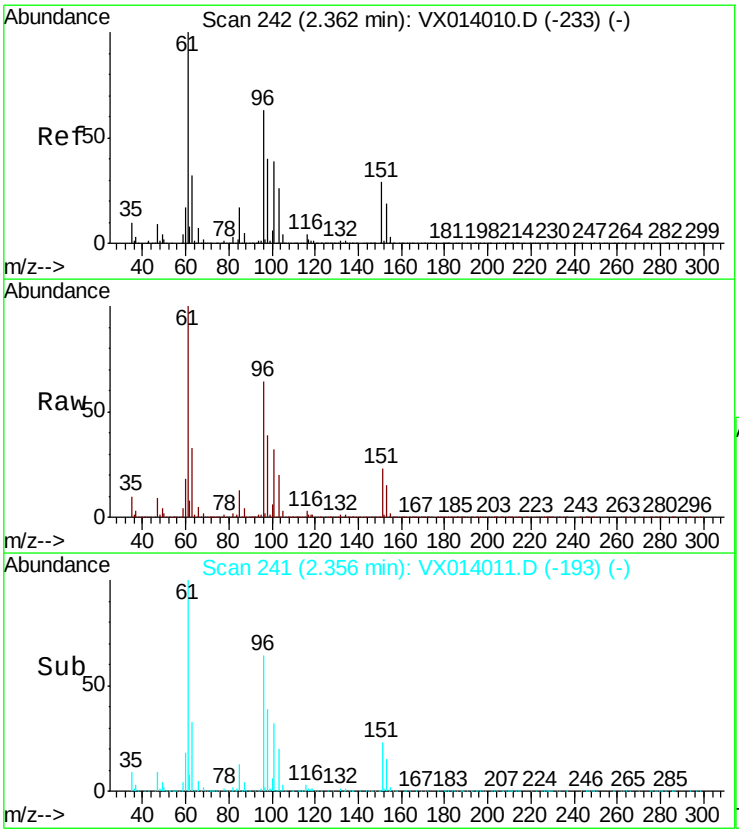
Tgt Ion: 59 Resp: 633927

Ion	Ratio	Lower	Upper
59	100		
57	9.9	8.4	12.6



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC100

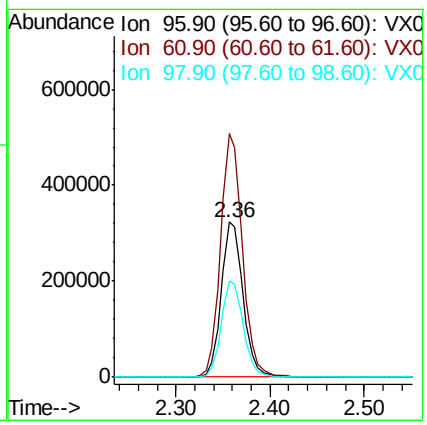
Manual Integrations APPROVED
apatel
12/16/2019 12:46:06 PM

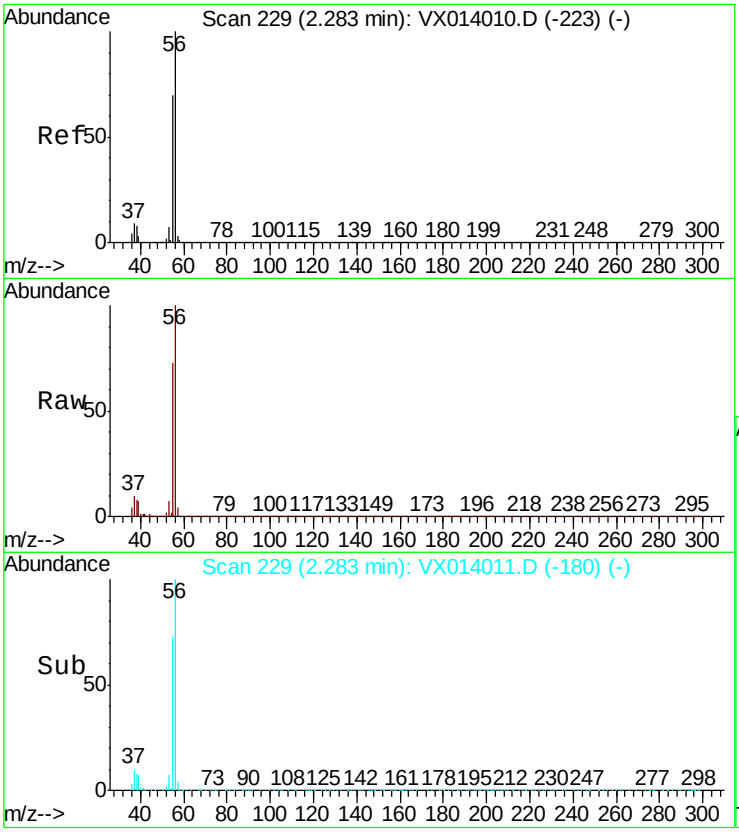


#12
1,1-Dichloroethene
Concen: 99.112 ug/l
RT: 2.36 min Scan# 241
Delta R.T. -0.01 min
Lab File: VX014011.D
Acq: 13 Dec 2019 16:22

Tgt Ion: 96 Resp: 516735

Ion	Ratio	Lower	Upper
96	100		
61	157.1	127.9	191.9
98	61.9	50.5	75.7

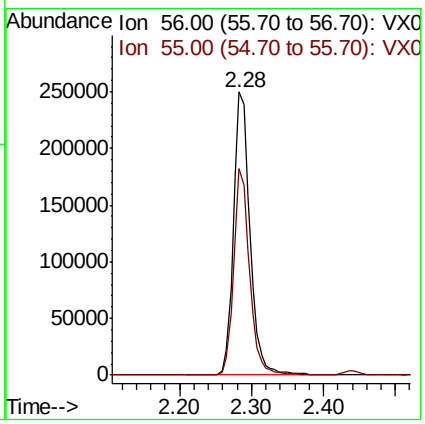




#13
Acrolein
Concen: 445.908 ug/l
RT: 2.28 min Scan# 229
Delta R.T. 0.00 min
Lab File: VX014011.D
Acq: 13 Dec 2019 16:22

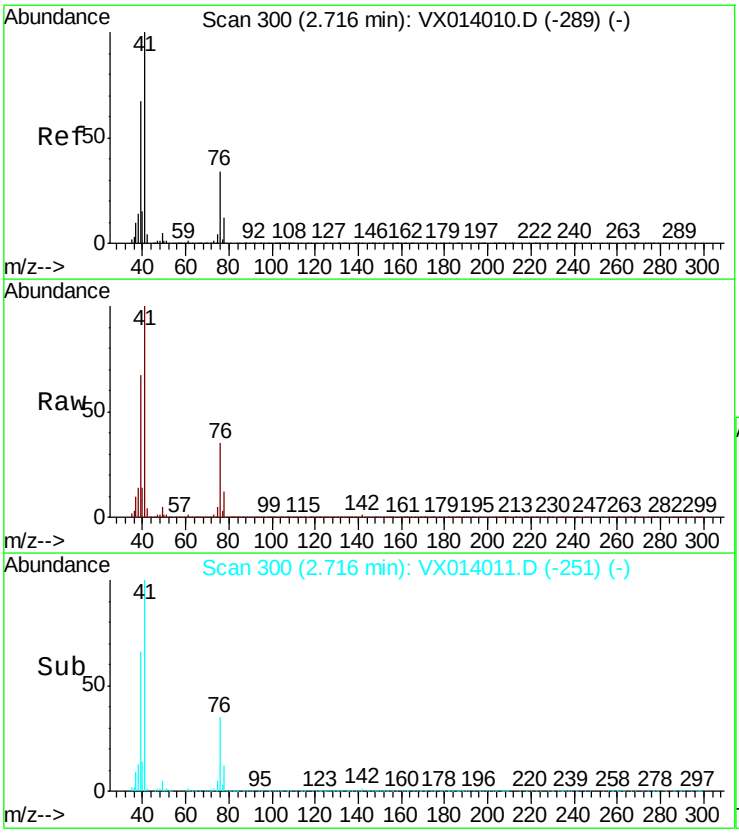
Tgt Ion: 56 Resp: 401218

Ion	Ratio	Lower	Upper
56	100		
55	69.3	56.9	85.3



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC100

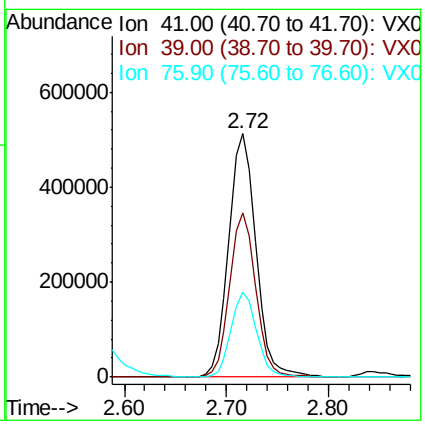
Manual Integrations APPROVED
apatel
12/16/2019 12:46:06 PM

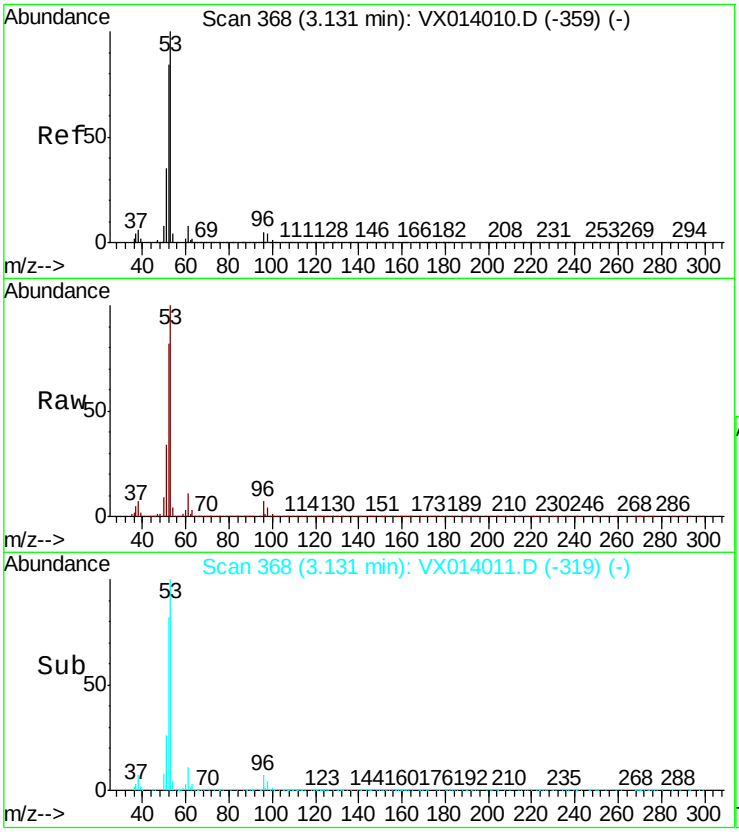


#14
Allyl chloride
Concen: 100.188 ug/l
RT: 2.72 min Scan# 300
Delta R.T. 0.00 min
Lab File: VX014011.D
Acq: 13 Dec 2019 16:22

Tgt Ion: 41 Resp: 947139

Ion	Ratio	Lower	Upper
41	100		
39	64.7	51.8	77.8
76	32.7	25.9	38.9

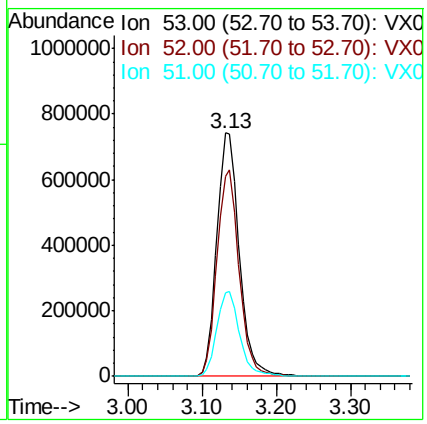




#15
Acrylonitrile
Concen: 480.478 ug/l
RT: 3.13 min Scan# 368
Delta R.T. 0.00 min
Lab File: VX014011.D
Acq: 13 Dec 2019 16:22

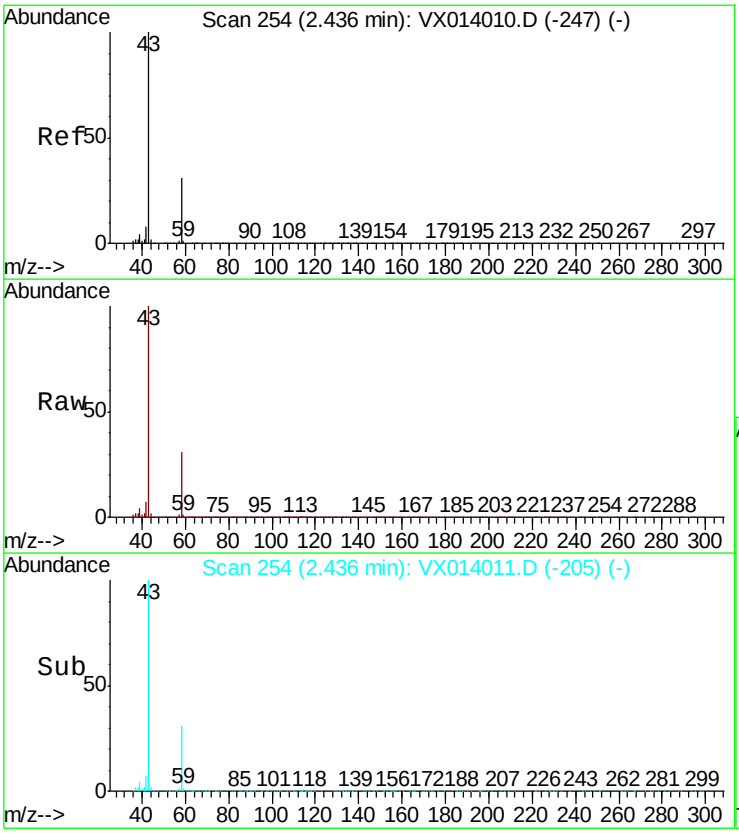
Tgt Ion: 53 Resp: 1544265

Ion	Ratio	Lower	Upper
53	100		
52	83.6	66.5	99.7
51	35.3	28.1	42.1



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC100

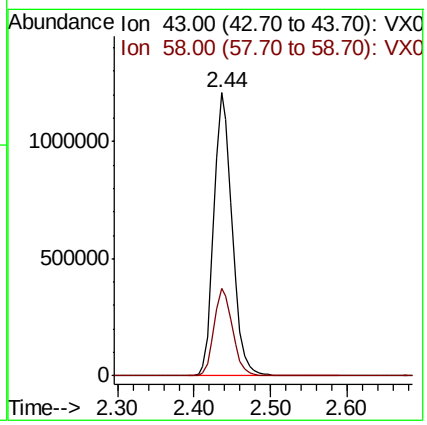
Manual Integrations APPROVED
apatel
12/16/2019 12:46:06 PM

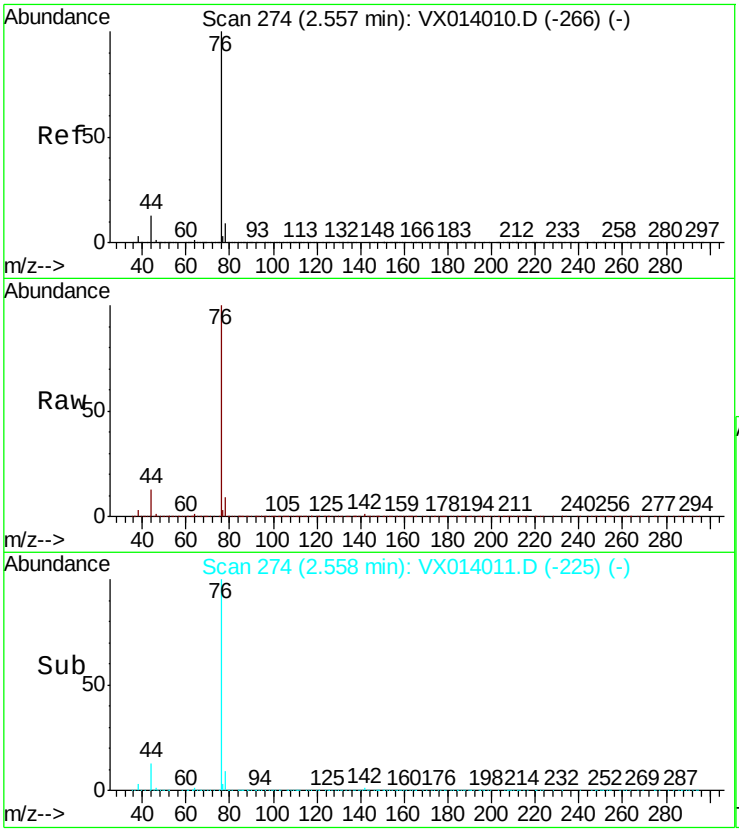


#16
Acetone
Concen: 605.853 ug/l
RT: 2.44 min Scan# 254
Delta R.T. 0.00 min
Lab File: VX014011.D
Acq: 13 Dec 2019 16:22

Tgt Ion: 43 Resp: 2001144

Ion	Ratio	Lower	Upper
43	100		
58	31.1	24.9	37.3

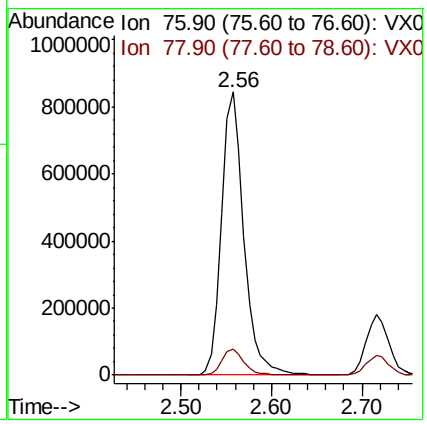


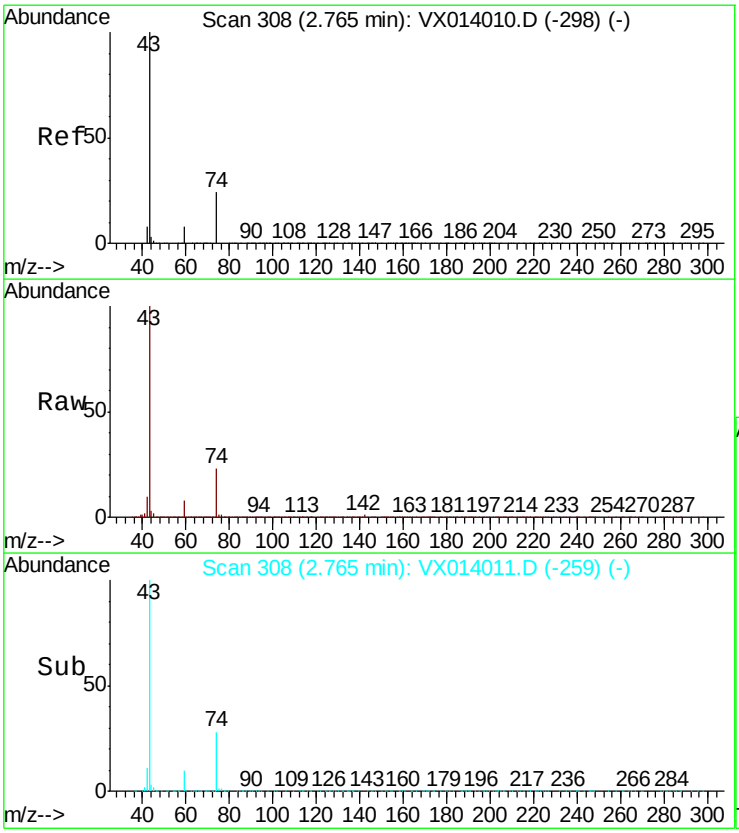


#17
Carbon Disulfide
Concen: 97.584 ug/l
RT: 2.56 min Scan# 274
Delta R.T. 0.00 min
Lab File: VX014011.D
Acq: 13 Dec 2019 16:22

Tgt Ion: 76 Resp: 1453335

Ion	Ratio	Lower	Upper
76	100		
78	9.0	7.2	10.8

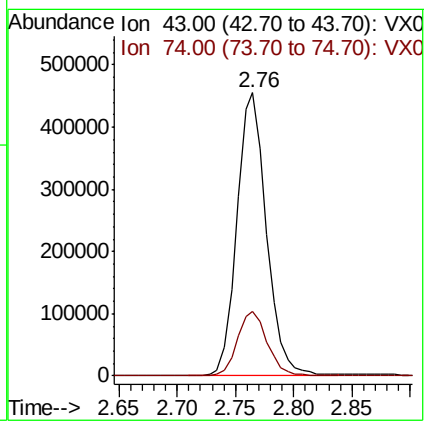




#18
Methyl Acetate
Concen: 93.931 ug/l
RT: 2.76 min Scan# 308
Delta R.T. 0.00 min
Lab File: VX014011.D
Acq: 13 Dec 2019 16:22

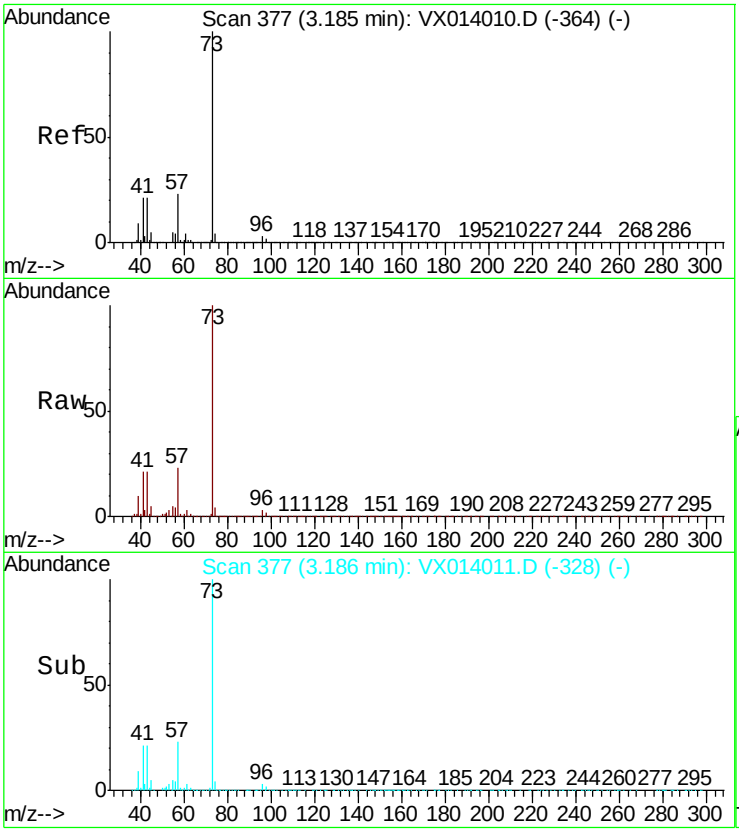
Tgt Ion: 43 Resp: 802431

Ion	Ratio	Lower	Upper
43	100		
74	23.3	19.5	29.3



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC100

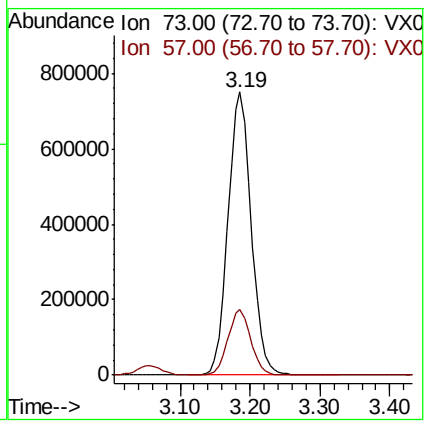
Manual Integrations APPROVED
apatel
12/16/2019 12:46:06 PM



#19
Methyl tert-butyl Ether
Concen: 99.489 ug/l
RT: 3.19 min Scan# 377
Delta R.T. 0.00 min
Lab File: VX014011.D
Acq: 13 Dec 2019 16:22

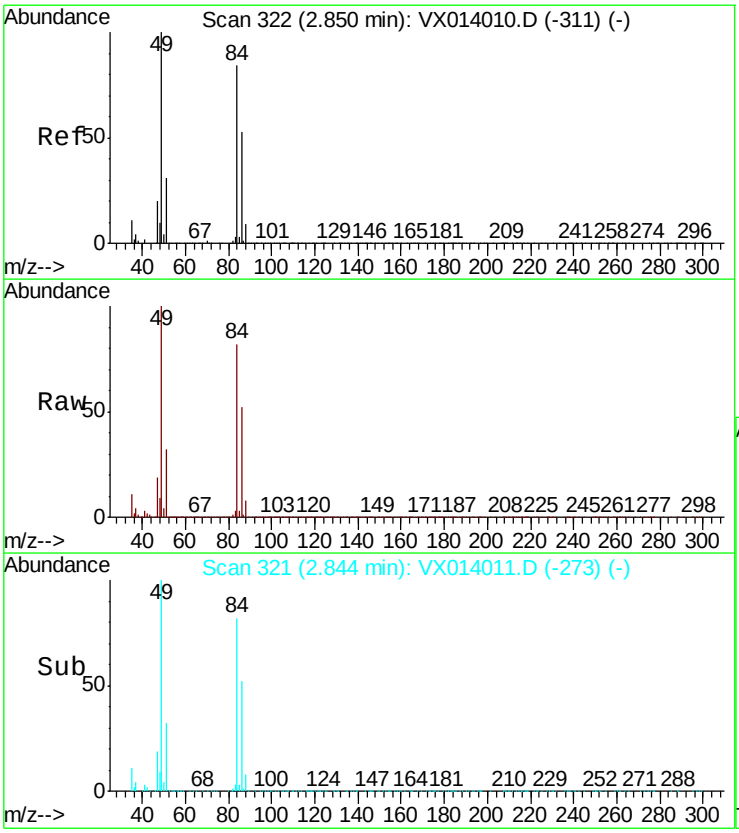
Tgt Ion: 73 Resp: 1721707

Ion	Ratio	Lower	Upper
73	100		
57	23.1	18.8	28.2



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC100

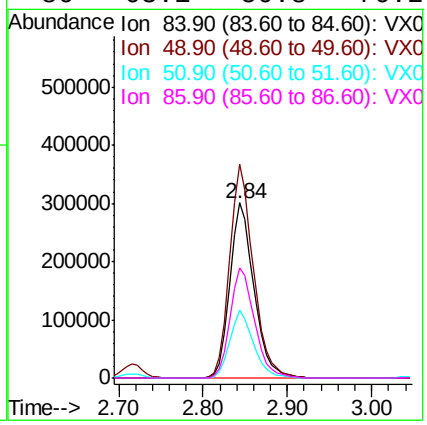
Manual Integrations APPROVED
apatel
12/16/2019 12:46:06 PM

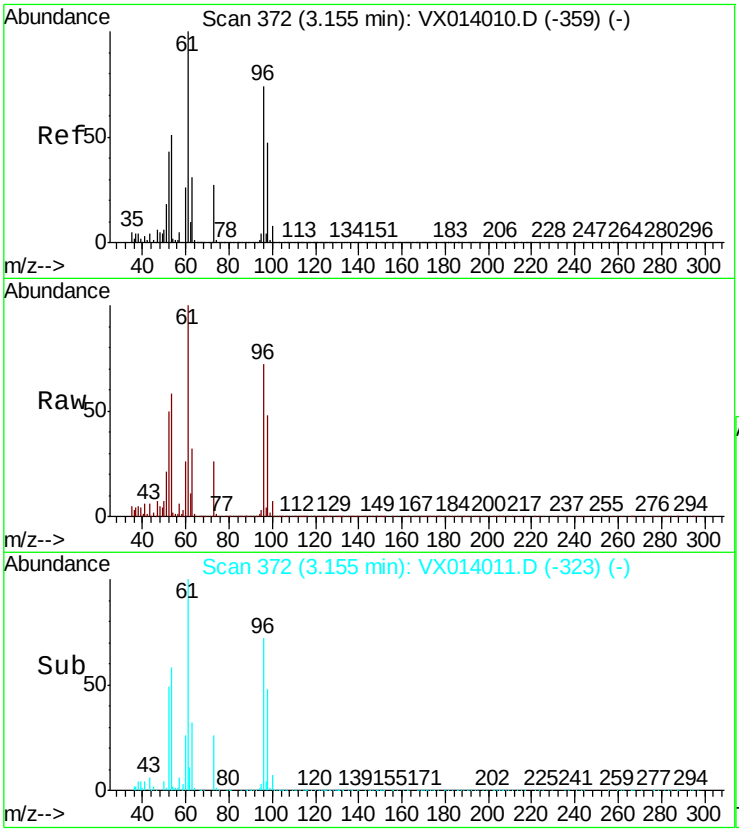


#20
Methylene Chloride
Concen: 96.197 ug/l
RT: 2.84 min Scan# 321
Delta R.T. -0.01 min
Lab File: VX014011.D
Acq: 13 Dec 2019 16:22

Tgt Ion: 84 Resp: 582633

Ion	Ratio	Lower	Upper
84	100		
49	122.1	95.8	143.6
51	38.7	29.8	44.8
86	63.1	50.8	76.2

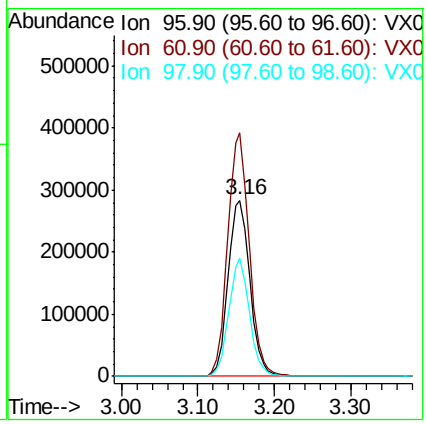




#21
trans-1,2-Dichloroethene
Concen: 98.204 ug/l
RT: 3.16 min Scan# 372
Delta R.T. 0.00 min
Lab File: VX014011.D
Acq: 13 Dec 2019 16:22

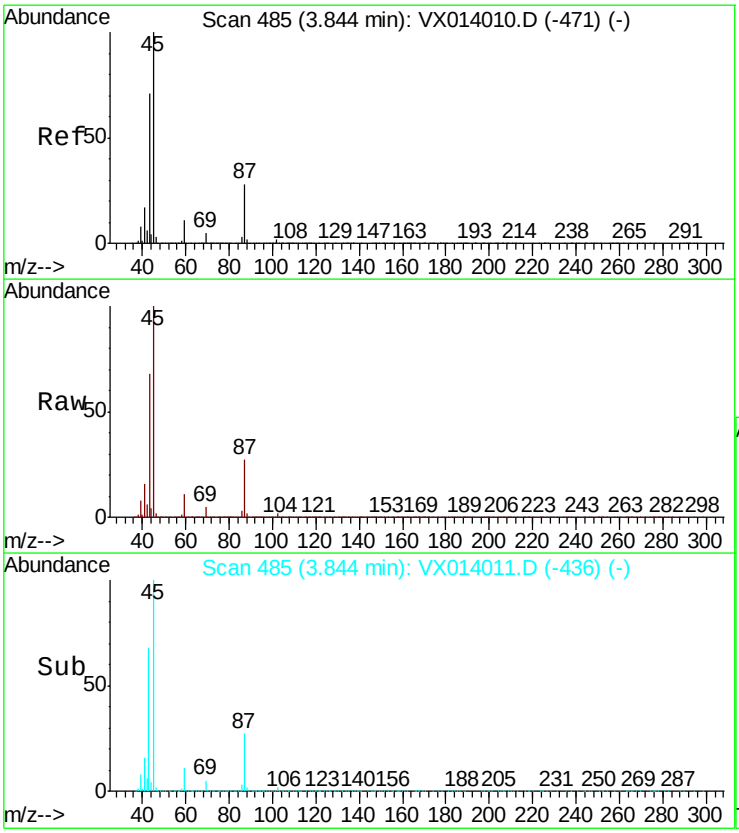
Tgt Ion: 96 Resp: 558801

Ion	Ratio	Lower	Upper
96	100		
61	138.2	108.3	162.5
98	66.8	50.8	76.2



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC100

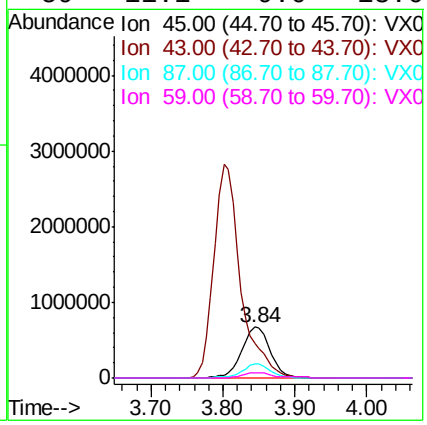
Manual Integrations APPROVED
apatel
12/16/2019 12:46:06 PM

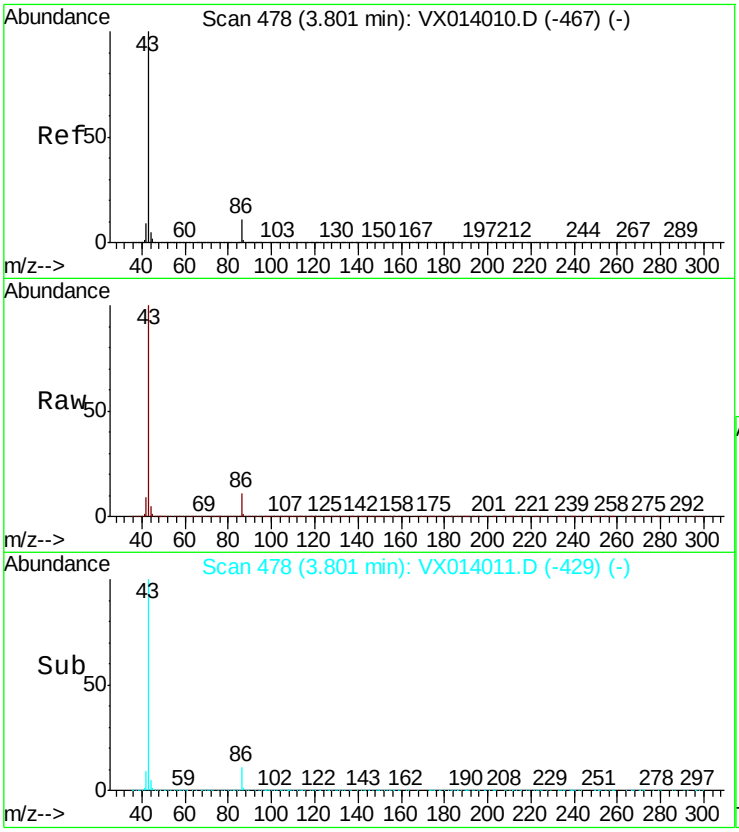


#22
Diisopropyl ether
Concen: 100.858 ug/l
RT: 3.84 min Scan# 485
Delta R.T. 0.00 min
Lab File: VX014011.D
Acq: 13 Dec 2019 16:22

Tgt Ion: 45 Resp: 1844772

Ion	Ratio	Lower	Upper
45	100		
43	67.9	57.4	86.0
87	27.3	21.9	32.9
59	11.1	9.0	13.6

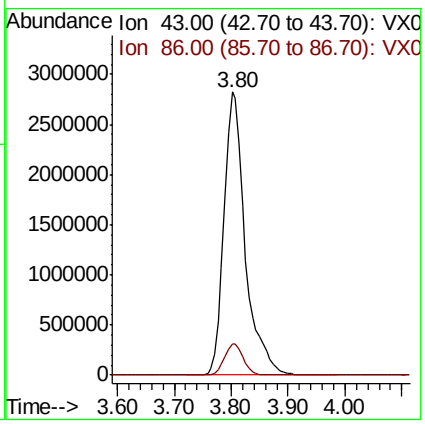




#23
Vinyl Acetate
Concen: 482.257 ug/l
RT: 3.80 min Scan# 478
Delta R.T. 0.00 min
Lab File: VX014011.D
Acq: 13 Dec 2019 16:22

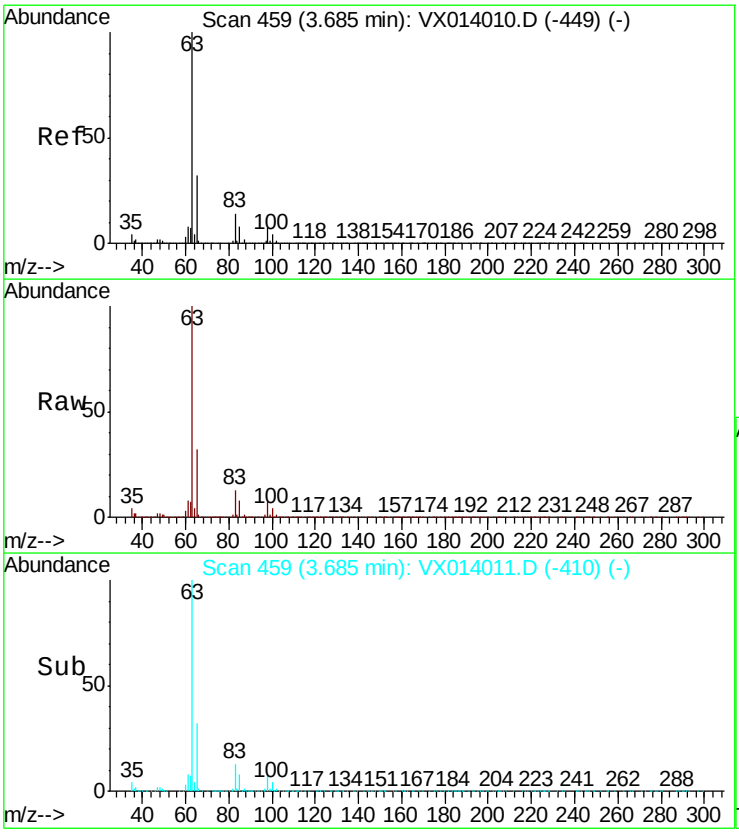
Tgt Ion: 43 Resp: 7323485

Ion	Ratio	Lower	Upper
43	100		
86	10.9	8.6	12.8



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC100

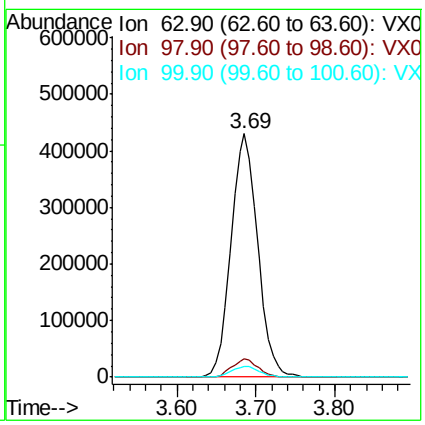
Manual Integrations APPROVED
apatel
12/16/2019 12:46:06 PM

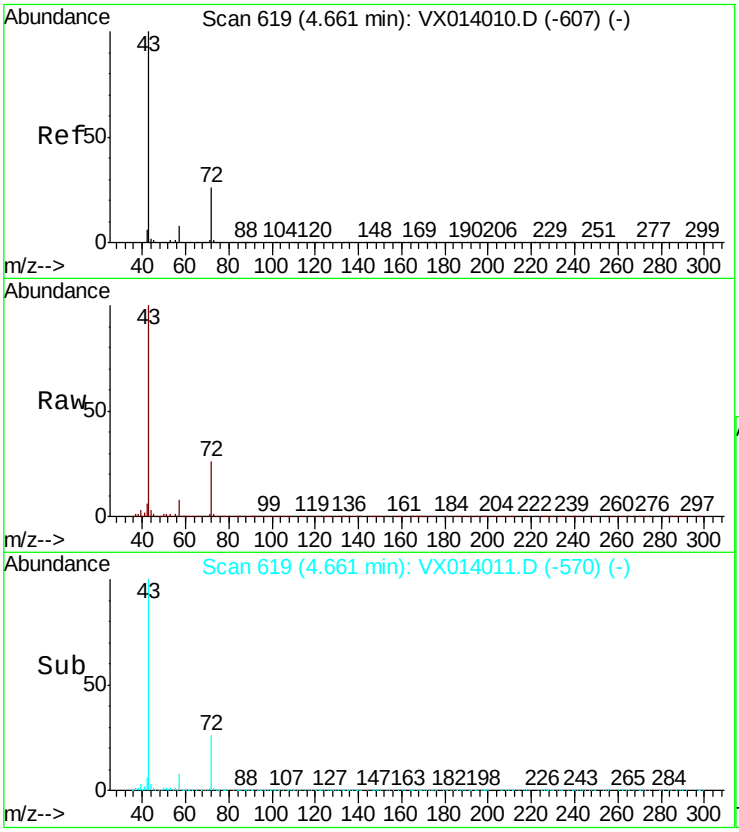


#24
1,1-Dichloroethane
Concen: 101.197 ug/l
RT: 3.69 min Scan# 459
Delta R.T. 0.00 min
Lab File: VX014011.D
Acq: 13 Dec 2019 16:22

Tgt Ion: 63 Resp: 1011790

Ion	Ratio	Lower	Upper
63	100		
98	7.4	3.6	10.8
100	4.4	2.3	6.8

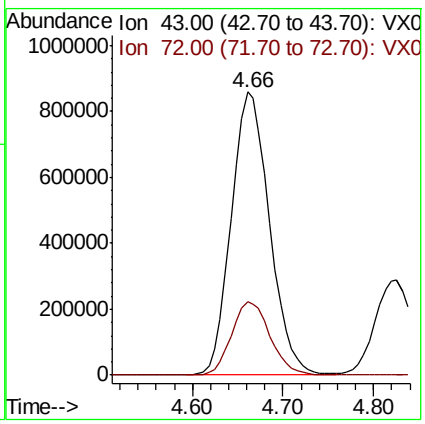




#25
2-Butanone
Concen: 530.956 ug/l
RT: 4.66 min Scan# 619
Delta R.T. 0.00 min
Lab File: VX014011.D
Acq: 13 Dec 2019 16:22

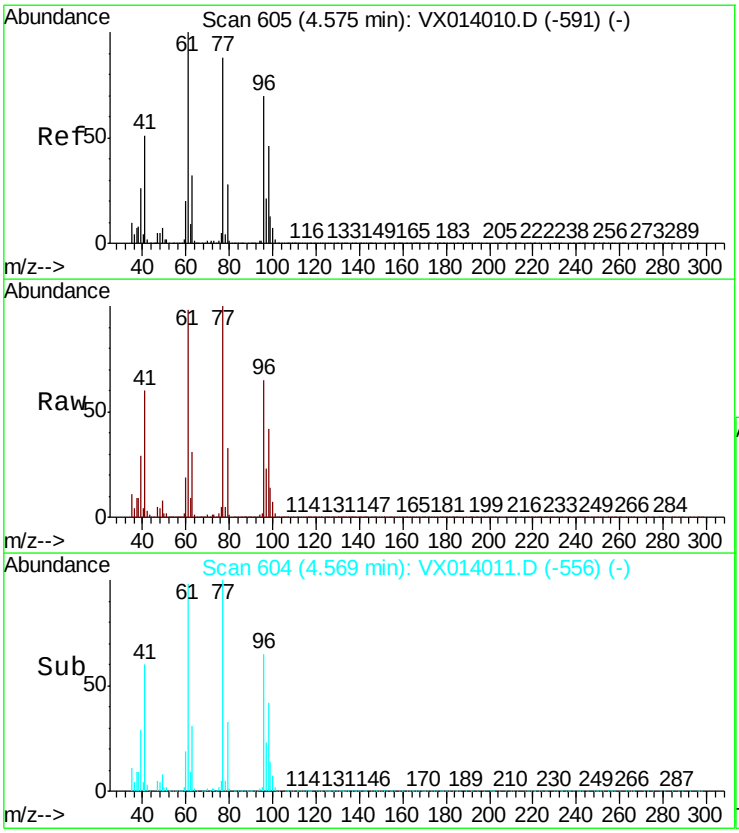
Tgt Ion: 43 Resp: 2502827

Ion	Ratio	Lower	Upper
43	100		
72	25.6	21.0	31.4



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC100

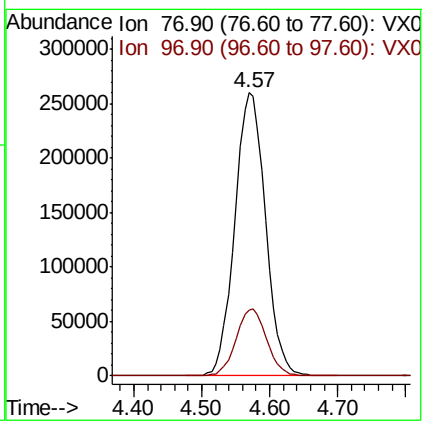
Manual Integrations APPROVED
apatel
12/16/2019 12:46:06 PM



#26
2,2-Dichloropropane
Concen: 98.580 ug/l
RT: 4.57 min Scan# 604
Delta R.T. -0.01 min
Lab File: VX014011.D
Acq: 13 Dec 2019 16:22

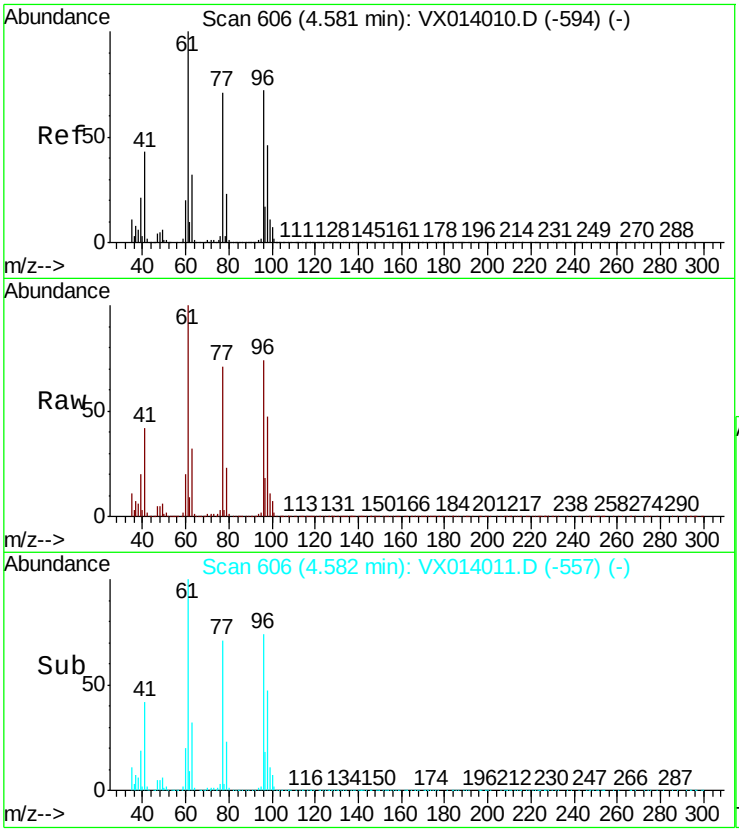
Tgt Ion: 77 Resp: 812194

Ion	Ratio	Lower	Upper
77	100		
97	23.5	11.9	35.9



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC100

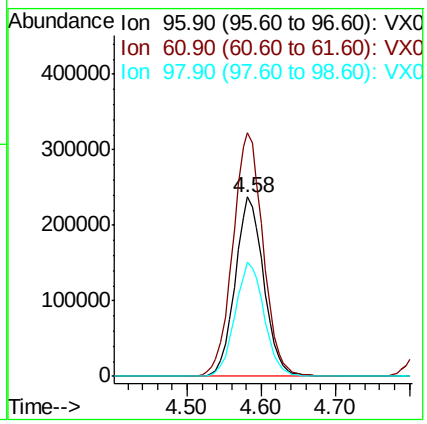
Manual Integrations APPROVED
apatel
12/16/2019 12:46:06 PM

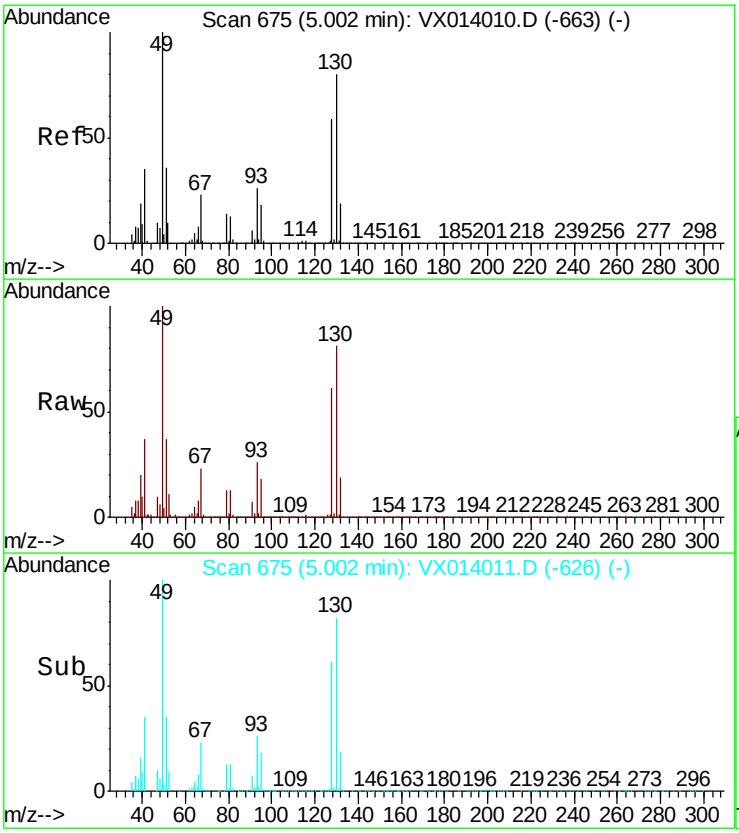


#27
cis-1,2-Dichloroethene
Concen: 97.865 ug/l
RT: 4.58 min Scan# 606
Delta R.T. 0.00 min
Lab File: VX014011.D
Acq: 13 Dec 2019 16:22

Tgt Ion: 96 Resp: 639085

Ion	Ratio	Lower	Upper
96	100		
61	143.6	0.0	288.4
98	64.6	0.0	129.6

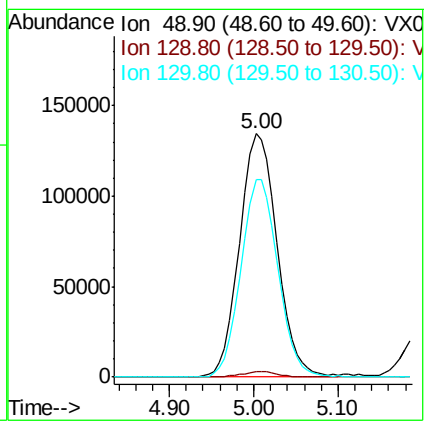


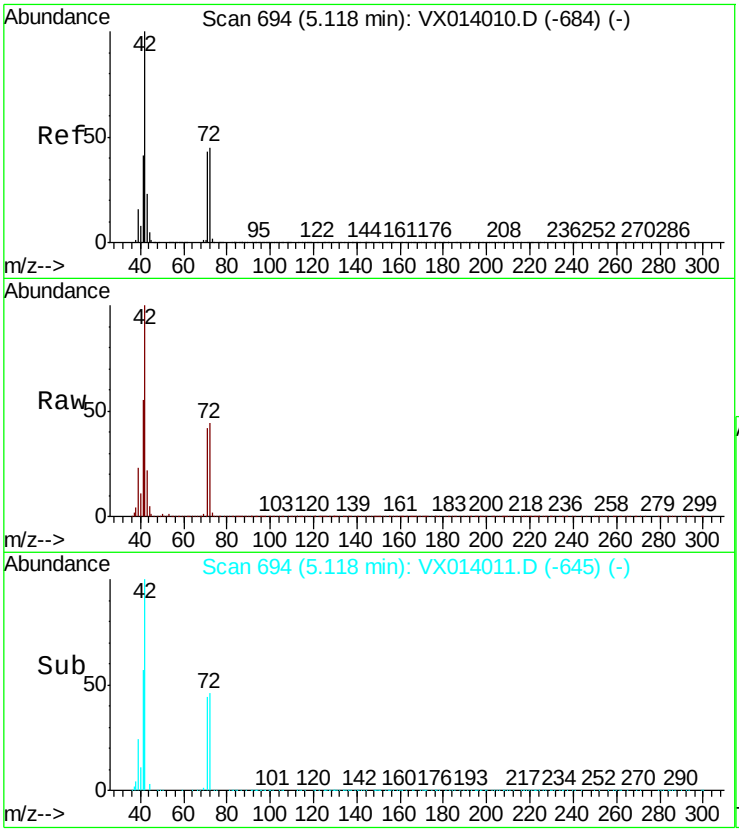


#28
Bromochloromethane
Concen: 115.327 ug/l
RT: 5.00 min Scan# 675
Delta R.T. 0.00 min
Lab File: VX014011.D
Acq: 13 Dec 2019 16:22

Tgt Ion: 49 Resp: 407067

Ion	Ratio	Lower	Upper
49	100		
129	2.2	0.0	5.0
130	80.0	64.6	97.0

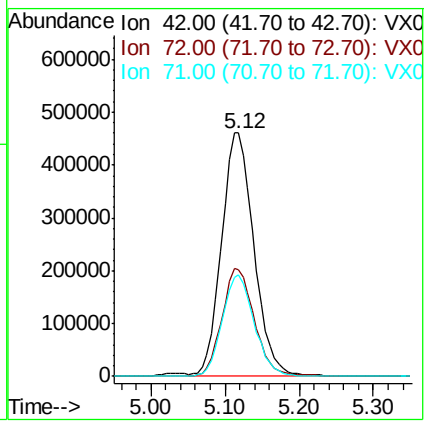




#29
Tetrahydrofuran
Concen: 488.481 ug/l
RT: 5.12 min Scan# 694
Delta R.T. 0.00 min
Lab File: VX014011.D
Acq: 13 Dec 2019 16:22

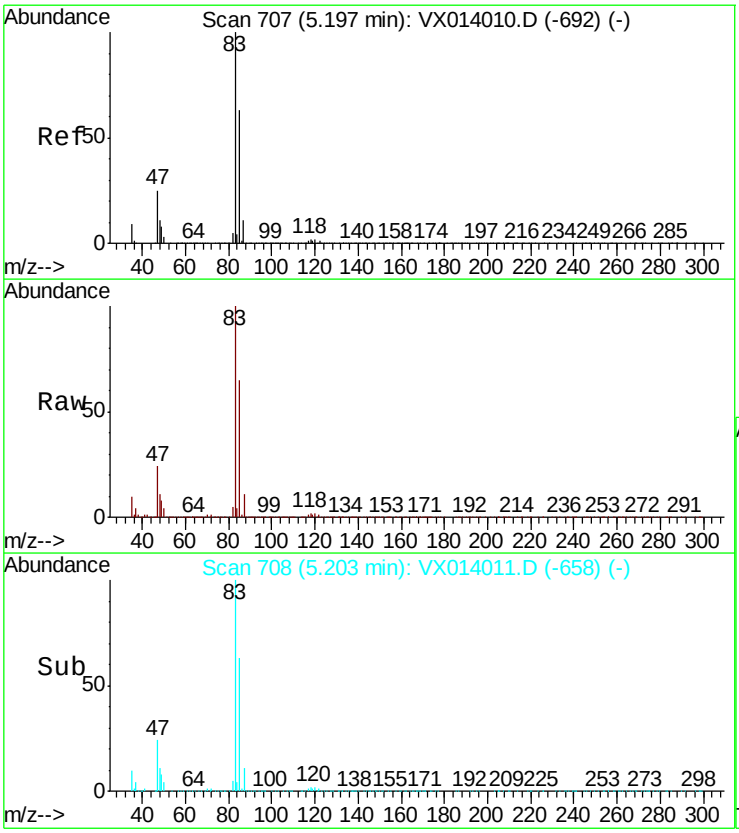
Tgt Ion: 42 Resp: 1387997

Ion	Ratio	Lower	Upper
42	100		
72	44.7	35.8	53.8
71	41.5	33.6	50.4



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC100

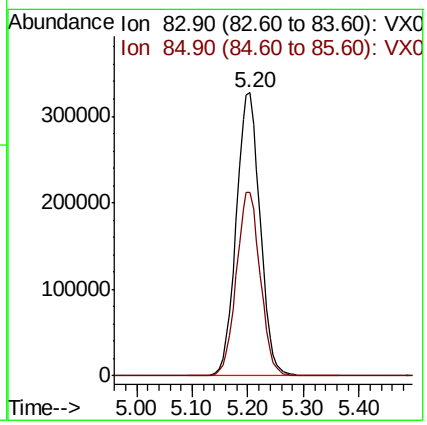
Manual Integrations APPROVED
apatel
12/16/2019 12:46:06 PM



#30
Chloroform
Concen: 95.658 ug/l
RT: 5.20 min Scan# 708
Delta R.T. 0.01 min
Lab File: VX014011.D
Acq: 13 Dec 2019 16:22

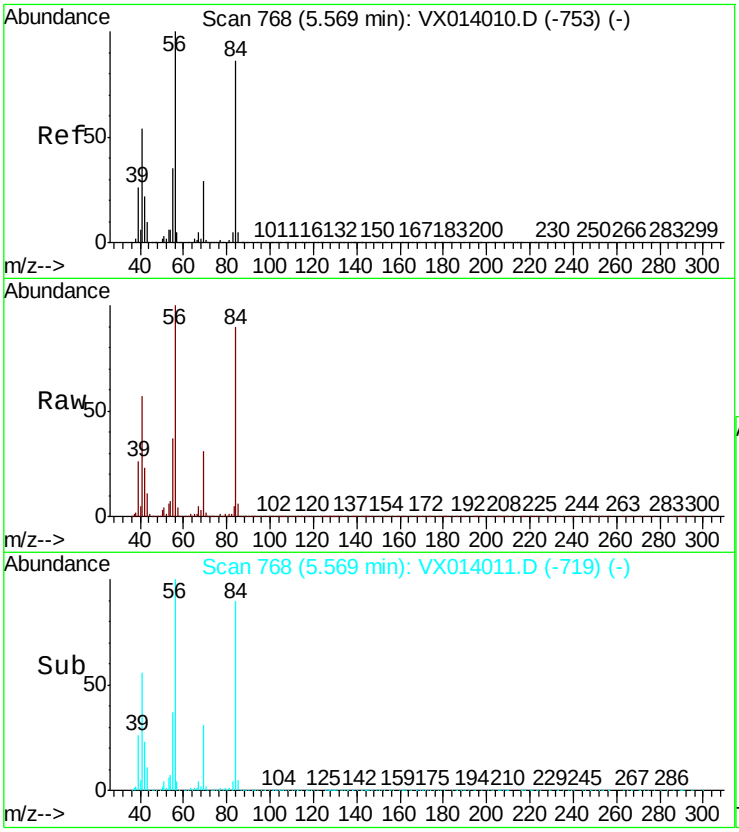
Tgt Ion: 83 Resp: 968045

Ion	Ratio	Lower	Upper
83	100		
85	65.1	50.8	76.2



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC100

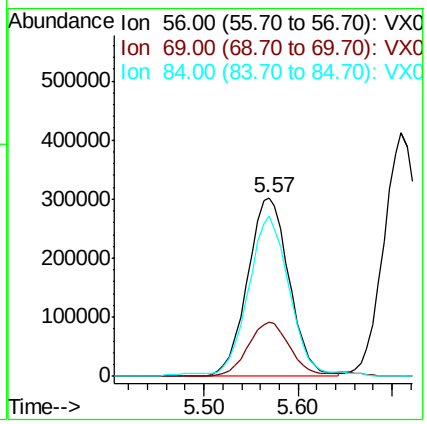
Manual Integrations APPROVED
apatel
12/16/2019 12:46:06 PM

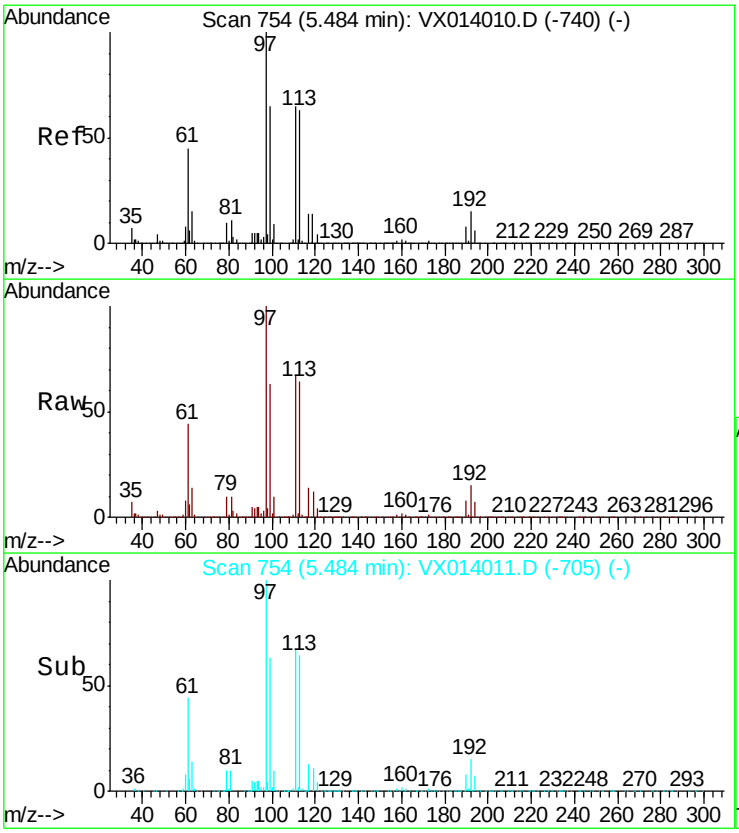


#31
Cyclohexane
Concen: 98.286 ug/l
RT: 5.57 min Scan# 768
Delta R.T. 0.00 min
Lab File: VX014011.D
Acq: 13 Dec 2019 16:22

Tgt Ion: 56 Resp: 928998

Ion	Ratio	Lower	Upper
56	100		
69	30.6	23.2	34.8
84	88.4	69.2	103.8

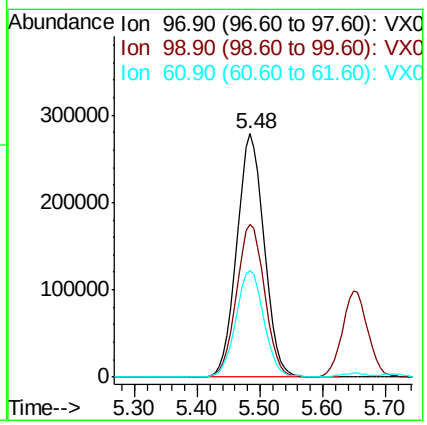


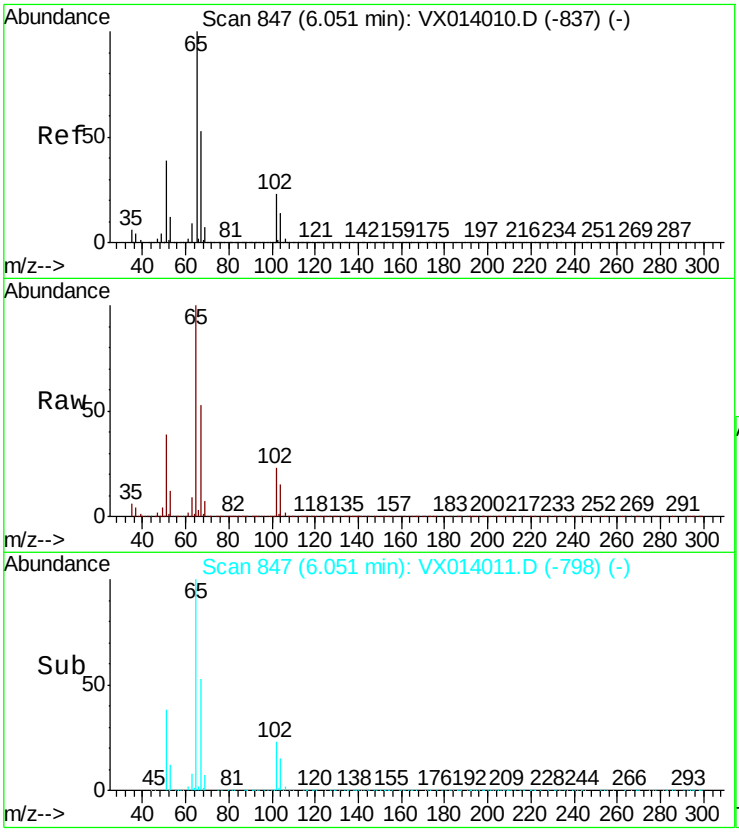


#32
1,1,1-Trichloroethane
Concen: 99.181 ug/l
RT: 5.48 min Scan# 754
Delta R.T. 0.00 min
Lab File: VX014011.D
Acq: 13 Dec 2019 16:22

Tgt Ion: 97 Resp: 838275

Ion	Ratio	Lower	Upper
97	100		
99	64.7	52.0	78.0
61	44.8	36.7	55.1

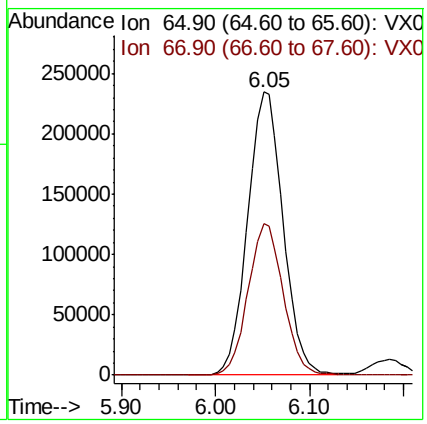




#33
1,2-Dichloroethane-d4
Concen: 96.860 ug/l
RT: 6.05 min Scan# 847
Delta R.T. 0.00 min
Lab File: VX014011.D
Acq: 13 Dec 2019 16:22

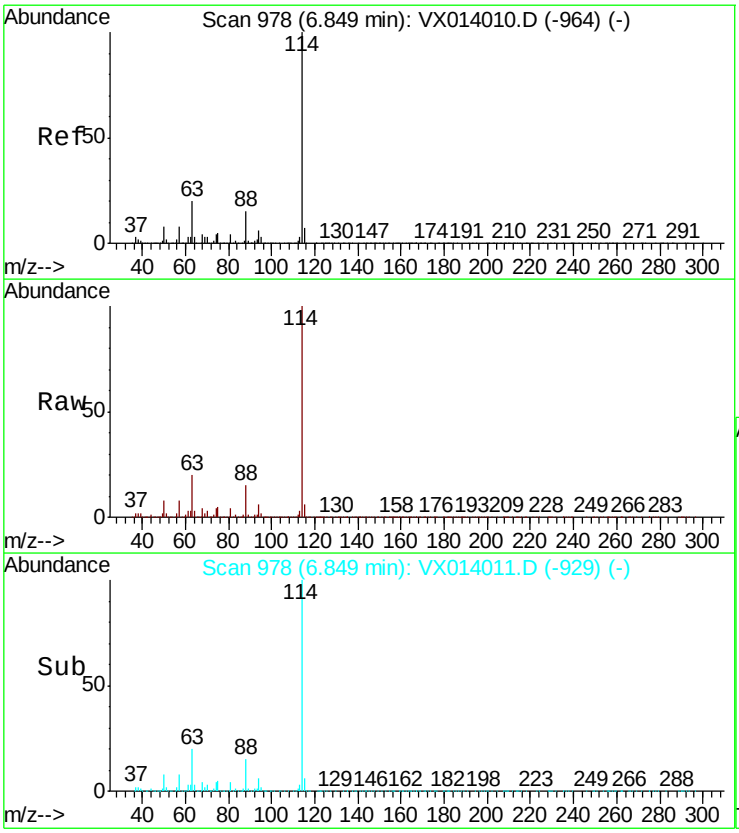
Tgt Ion: 65 Resp: 617981

Ion	Ratio	Lower	Upper
65	100		
67	53.0	0.0	106.4



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC100

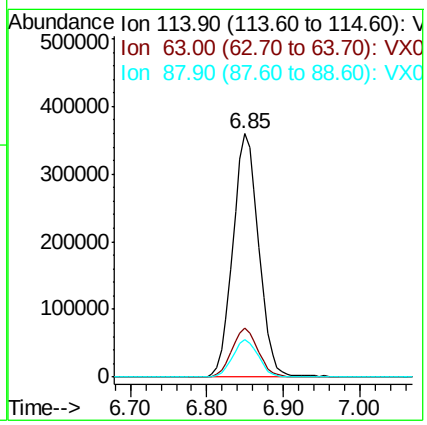
Manual Integrations APPROVED
apatel
12/16/2019 12:46:06 PM

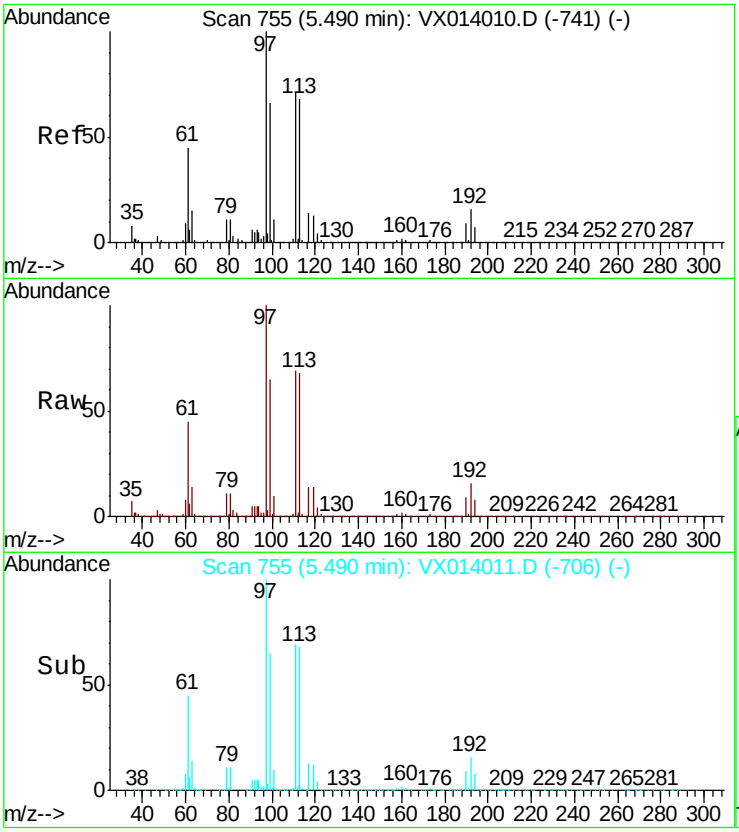


#34
1,4-Difluorobenzene
Concen: 50.000 ug/l
RT: 6.85 min Scan# 978
Delta R.T. 0.00 min
Lab File: VX014011.D
Acq: 13 Dec 2019 16:22

Tgt Ion:114 Resp: 843362

Ion	Ratio	Lower	Upper
114	100		
63	20.2	0.0	40.8
88	15.4	0.0	30.4

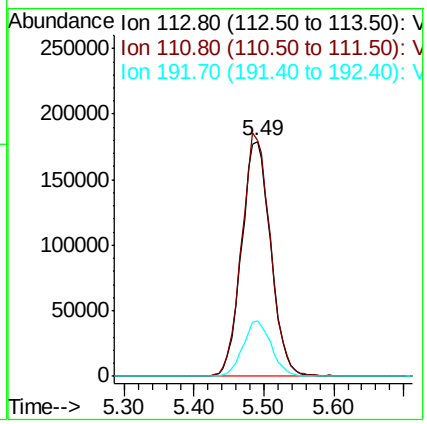




#35
Dibromofluoromethane
Concen: 98.617 ug/l
RT: 5.49 min Scan# 755
Delta R.T. 0.00 min
Lab File: VX014011.D
Acq: 13 Dec 2019 16:22

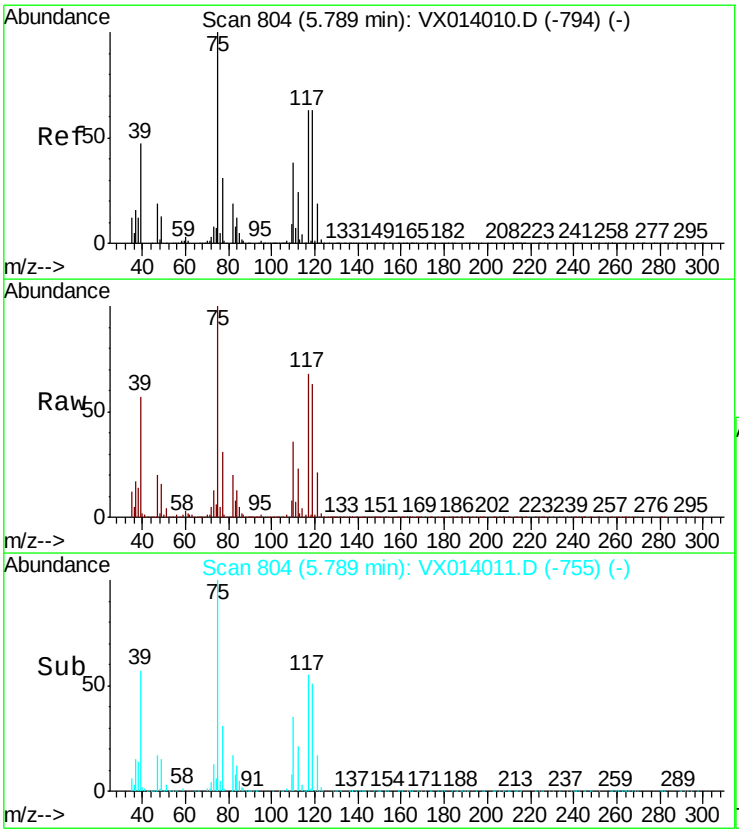
Tgt Ion:113 Resp: 516920

Ion	Ratio	Lower	Upper
113	100		
111	101.8	82.0	123.0
192	23.1	19.3	28.9



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC100

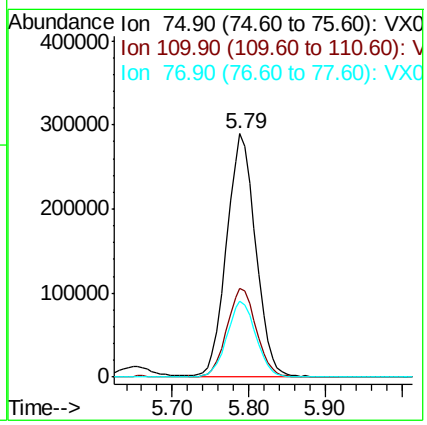
Manual Integrations APPROVED
apatel
12/16/2019 12:46:06 PM



#36
1,1-Dichloropropene
Concen: 99.053 ug/l
RT: 5.79 min Scan# 804
Delta R.T. 0.00 min
Lab File: VX014011.D
Acq: 13 Dec 2019 16:22

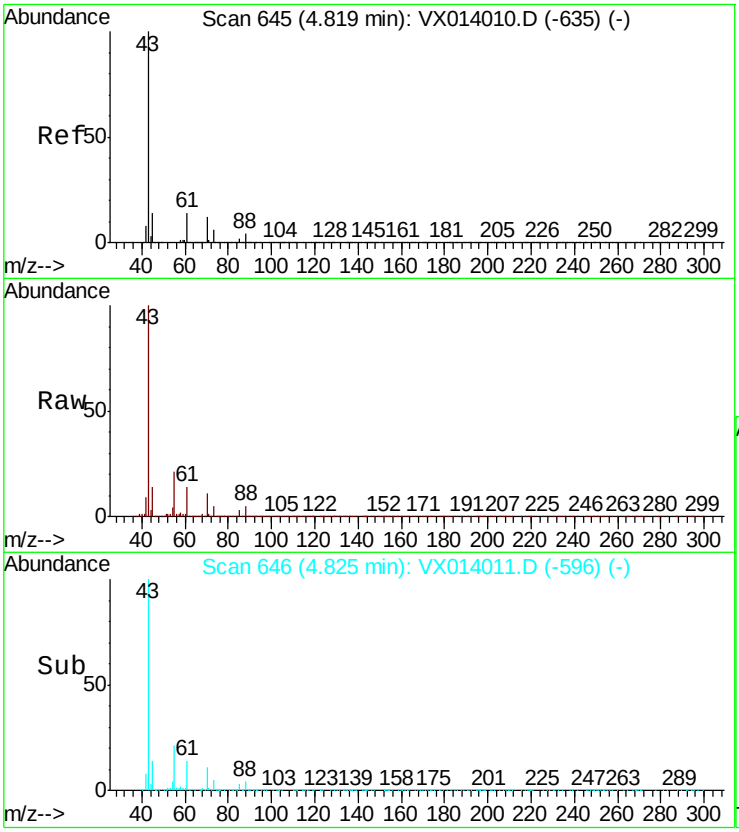
Tgt Ion: 75 Resp: 758845

Ion	Ratio	Lower	Upper
75	100		
110	37.0	18.3	54.9
77	30.9	24.8	37.2



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC100

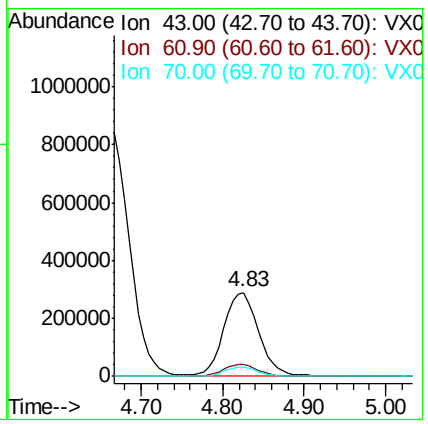
Manual Integrations APPROVED
apatel
12/16/2019 12:46:06 PM

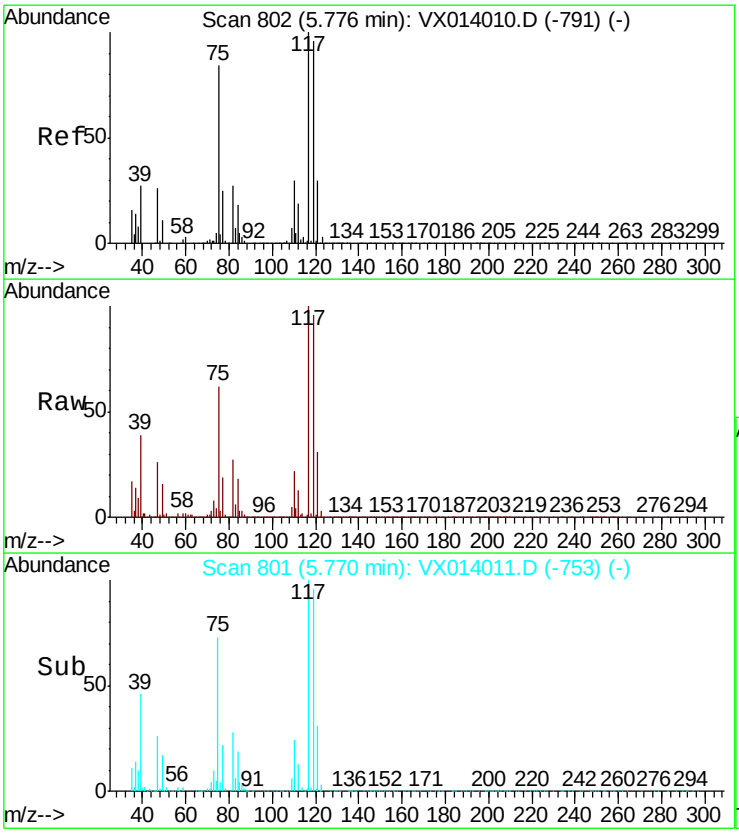


#37
Ethyl Acetate
Concen: 99.635 ug/l
RT: 4.83 min Scan# 646
Delta R.T. 0.01 min
Lab File: VX014011.D
Acq: 13 Dec 2019 16:22

Tgt Ion: 43 Resp: 851531

Ion	Ratio	Lower	Upper
43	100		
61	13.9	10.8	16.2
70	10.7	8.6	12.8

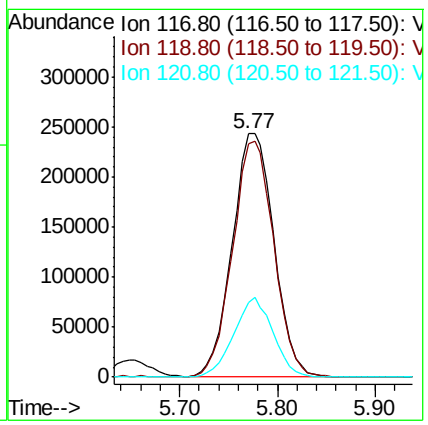


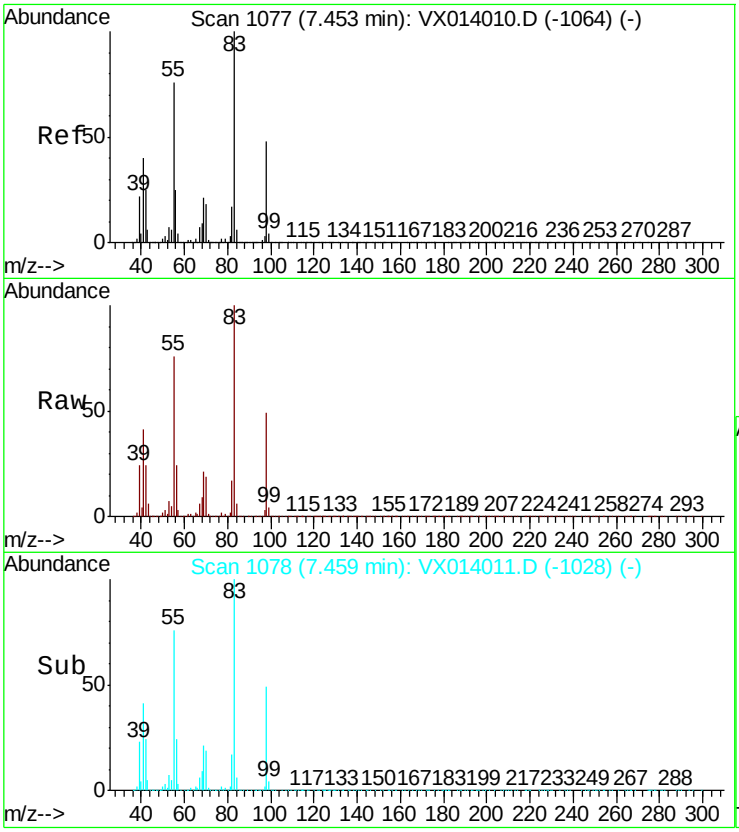


#38
Carbon Tetrachloride
Concen: 101.788 ug/l
RT: 5.77 min Scan# 801
Delta R.T. -0.01 min
Lab File: VX014011.D
Acq: 13 Dec 2019 16:22

Tgt Ion:117 Resp: 719273

Ion	Ratio	Lower	Upper
117	100		
119	95.7	76.2	114.4
121	30.5	23.6	35.4

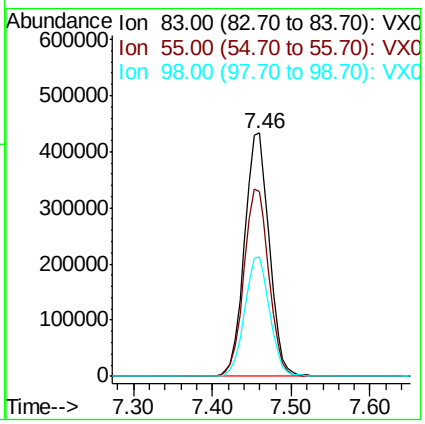




#39
Methylcyclohexane
Concen: 99.629 ug/l
RT: 7.46 min Scan# 1078
Delta R.T. 0.01 min
Lab File: VX014011.D
Acq: 13 Dec 2019 16:22

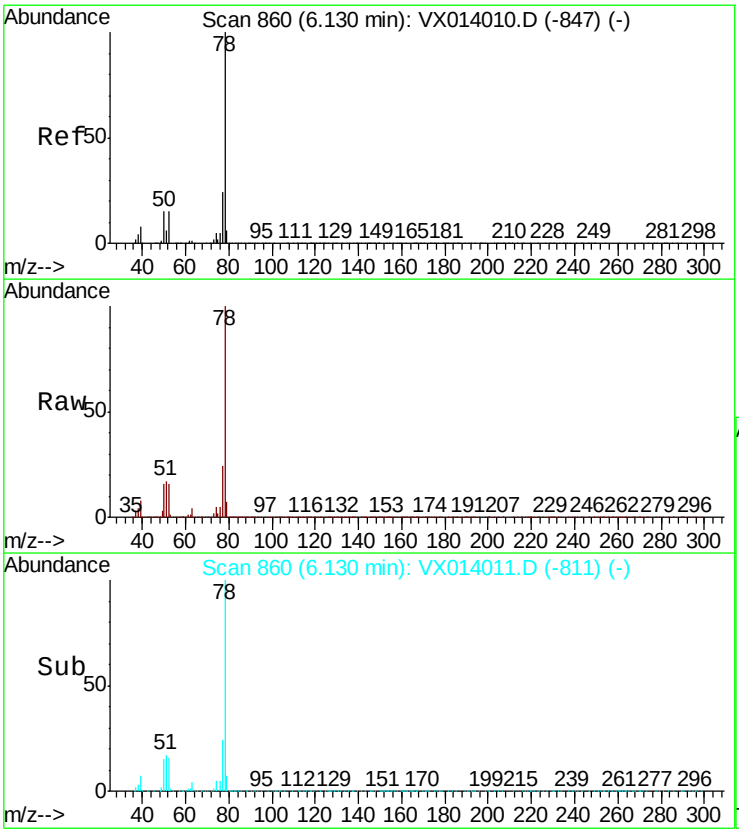
Tgt Ion: 83 Resp: 945088

Ion	Ratio	Lower	Upper
83	100		
55	75.8	61.0	91.6
98	49.1	38.6	57.8



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC100

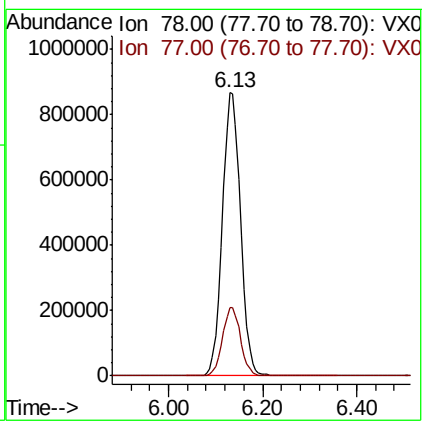
Manual Integrations APPROVED
apatel
12/16/2019 12:46:06 PM



#40
Benzene
Concen: 98.745 ug/l
RT: 6.13 min Scan# 860
Delta R.T. 0.00 min
Lab File: VX014011.D
Acq: 13 Dec 2019 16:22

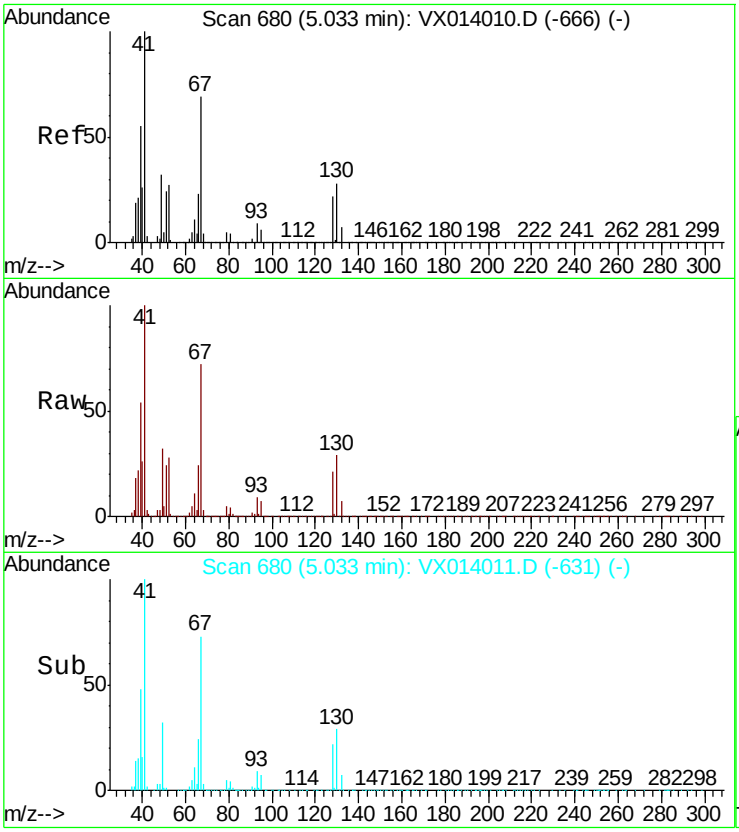
Tgt Ion: 78 Resp: 2308856

Ion	Ratio	Lower	Upper
78	100		
77	24.3	18.8	28.2



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC100

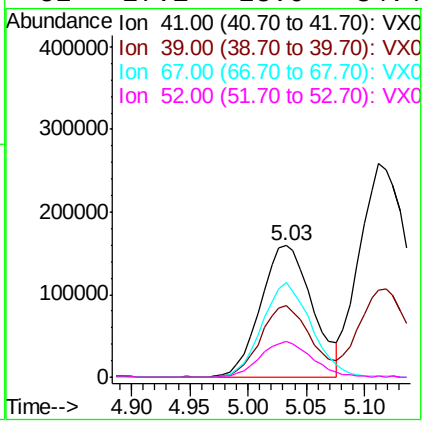
Manual Integrations APPROVED
apatel
12/16/2019 12:46:06 PM

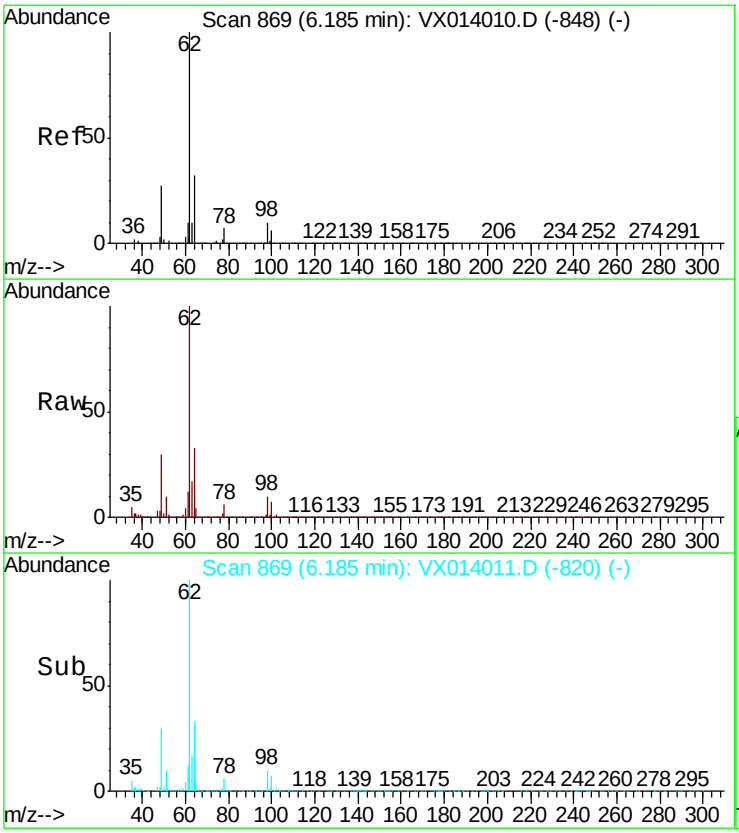


#41
Methacrylonitrile
Concen: 105.173 ug/l
RT: 5.03 min Scan# 680
Delta R.T. 0.00 min
Lab File: VX014011.D
Acq: 13 Dec 2019 16:22

Tgt Ion: 41 Resp: 490632

Ion	Ratio	Lower	Upper
41	100		
39	52.5	44.5	66.7
67	68.7	57.4	86.0
52	27.1	23.0	34.4

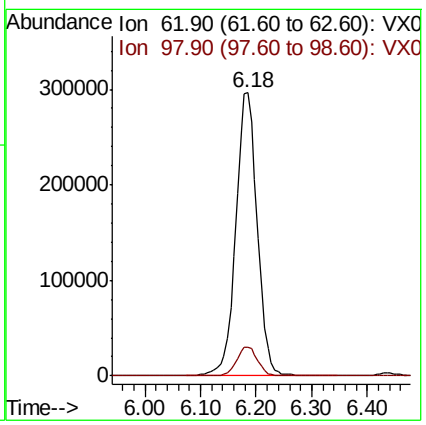




#42
1,2-Dichloroethane
Concen: 98.762 ug/l
RT: 6.18 min Scan# 869
Delta R.T. 0.00 min
Lab File: VX014011.D
Acq: 13 Dec 2019 16:22

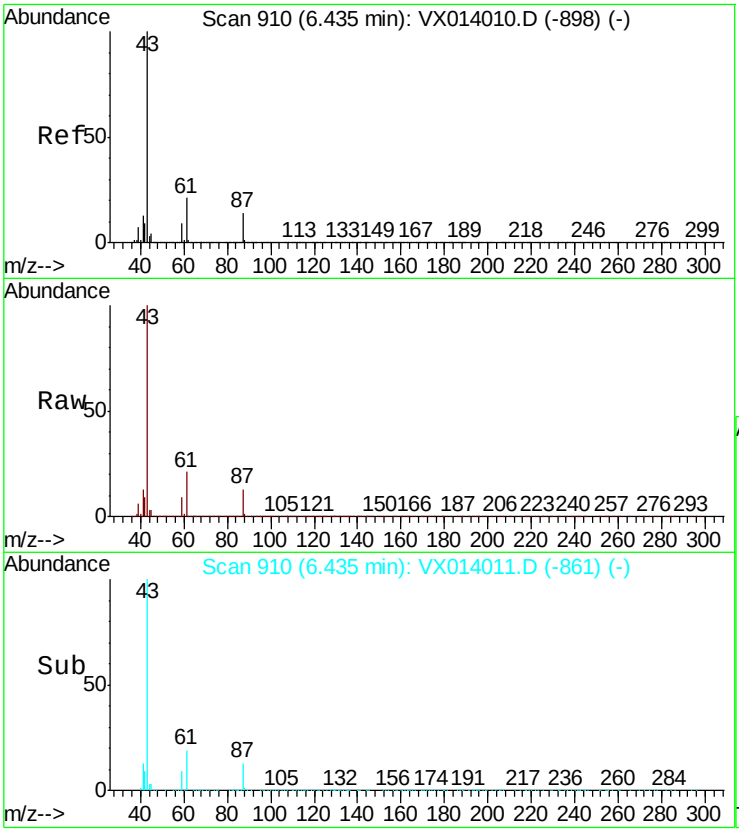
Tgt Ion: 62 Resp: 786354

Ion	Ratio	Lower	Upper
62	100		
98	10.1	0.0	21.0



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC100

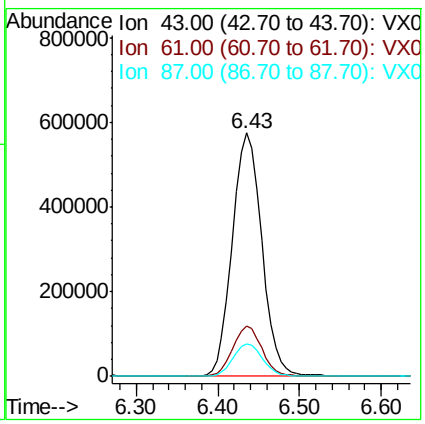
Manual Integrations APPROVED
apatel
12/16/2019 12:46:06 PM

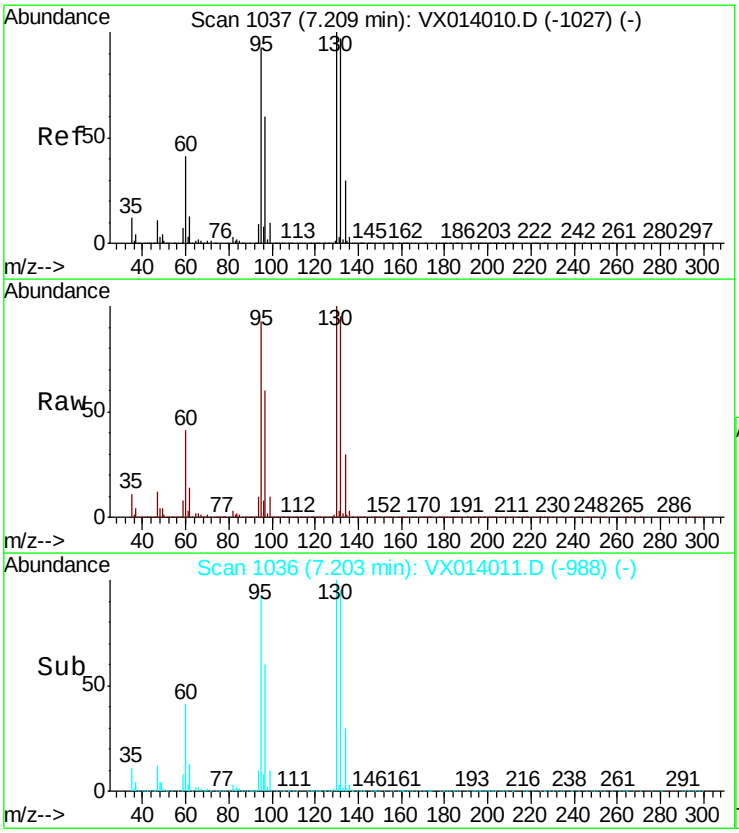


#43
Isopropyl Acetate
Concen: 102.057 ug/l
RT: 6.43 min Scan# 910
Delta R.T. 0.00 min
Lab File: VX014011.D
Acq: 13 Dec 2019 16:22

Tgt Ion: 43 Resp: 1440737

Ion	Ratio	Lower	Upper
43	100		
61	20.2	16.4	24.6
87	13.2	10.7	16.1

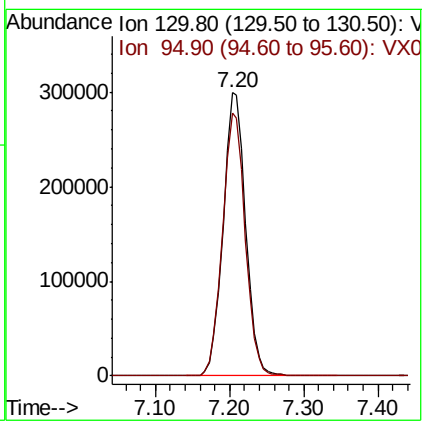


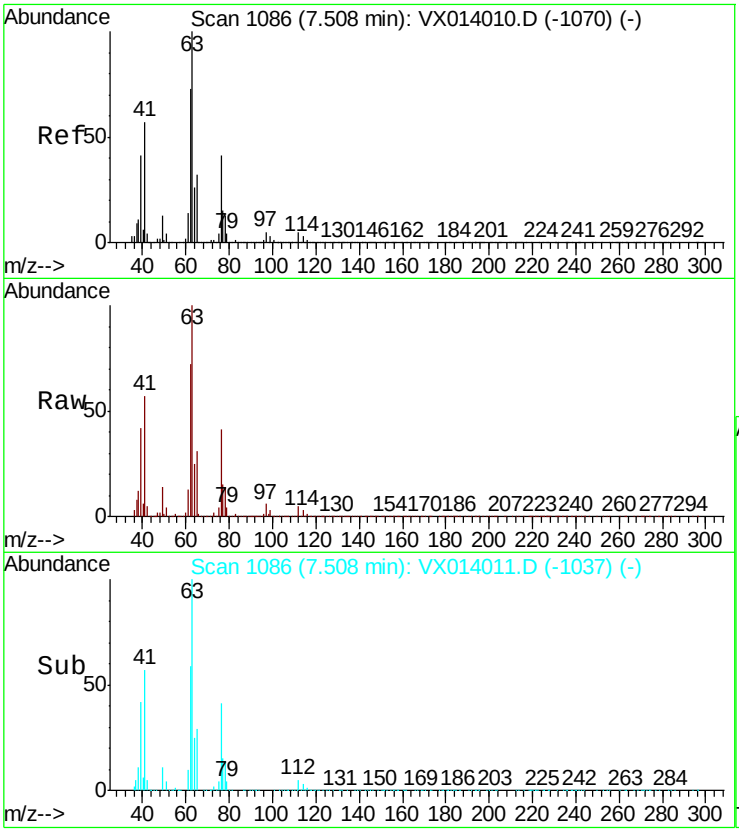


#44
Trichloroethene
Concen: 98.707 ug/l
RT: 7.20 min Scan# 1036
Delta R.T. -0.01 min
Lab File: VX014011.D
Acq: 13 Dec 2019 16:22

Tgt Ion:130 Resp: 631114

Ion	Ratio	Lower	Upper
130	100		
95	92.7	0.0	185.6

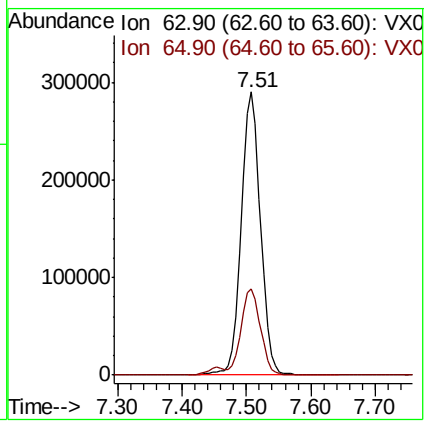




#45
1,2-Dichloropropane
Concen: 101.971 ug/l
RT: 7.51 min Scan# 1086
Delta R.T. 0.00 min
Lab File: VX014011.D
Acq: 13 Dec 2019 16:22

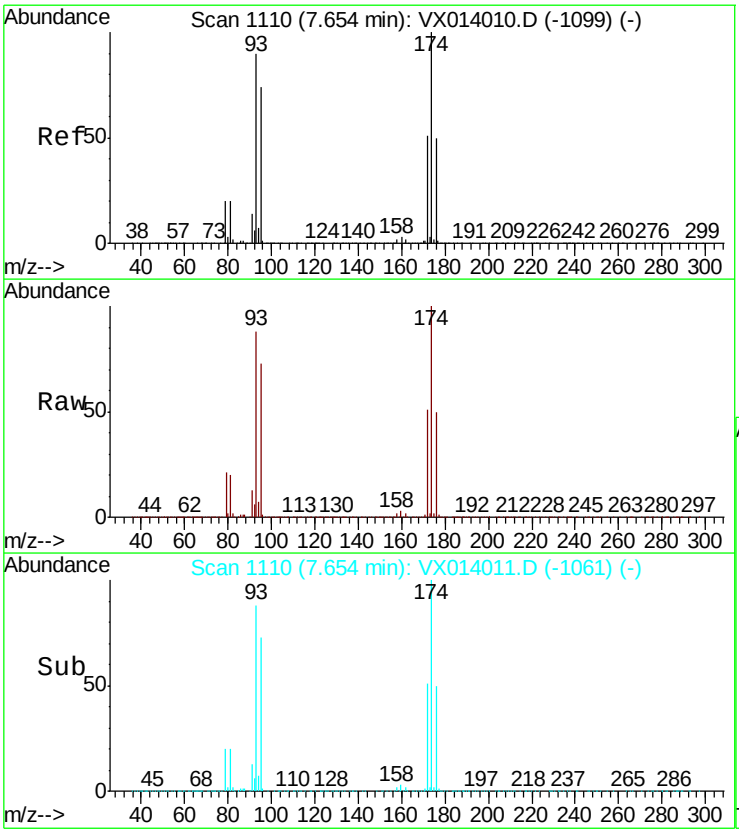
Tgt Ion: 63 Resp: 597656

Ion	Ratio	Lower	Upper
63	100		
65	30.6	25.8	38.8



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC100

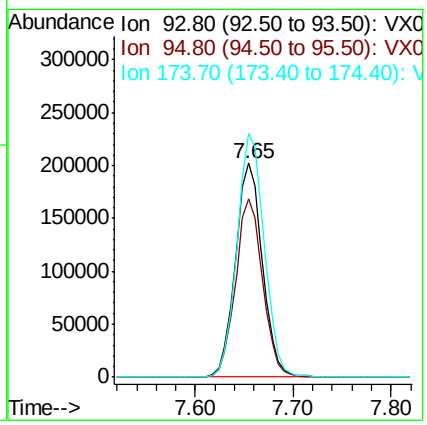
Manual Integrations APPROVED
apatel
12/16/2019 12:46:06 PM

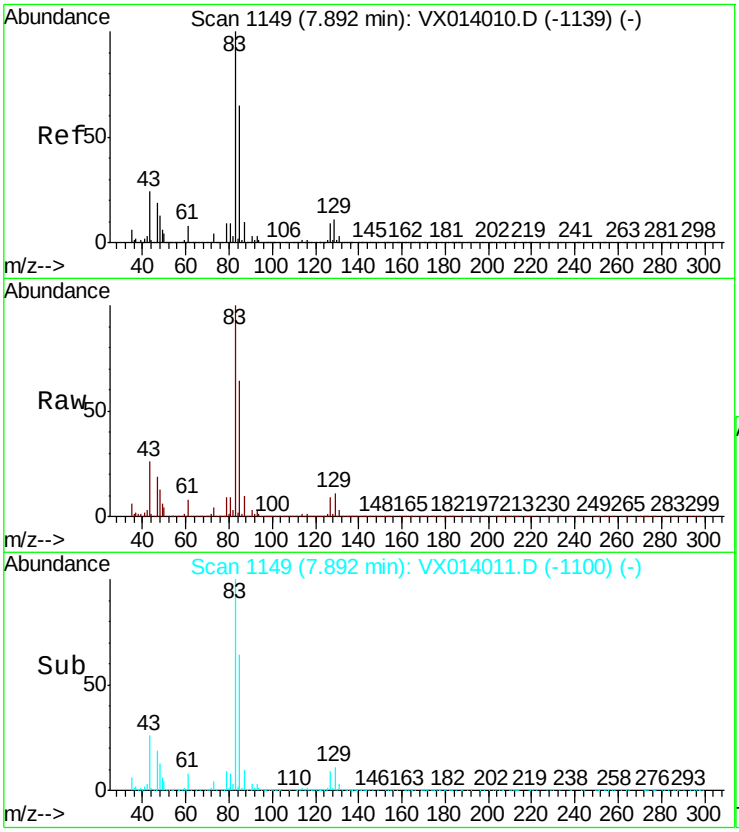


#46
Dibromomethane
Concen: 96.955 ug/l
RT: 7.65 min Scan# 1110
Delta R.T. 0.00 min
Lab File: VX014011.D
Acq: 13 Dec 2019 16:22

Tgt Ion: 93 Resp: 384599

Ion	Ratio	Lower	Upper
93	100		
95	83.8	67.3	100.9
174	116.0	91.6	137.4

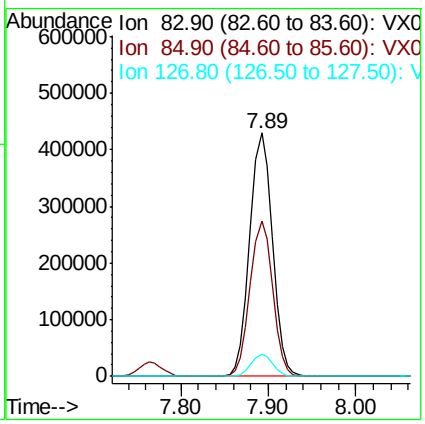




#47
Bromodichloromethane
Concen: 103.479 ug/l
RT: 7.89 min Scan# 1149
Delta R.T. 0.00 min
Lab File: VX014011.D
Acq: 13 Dec 2019 16:22

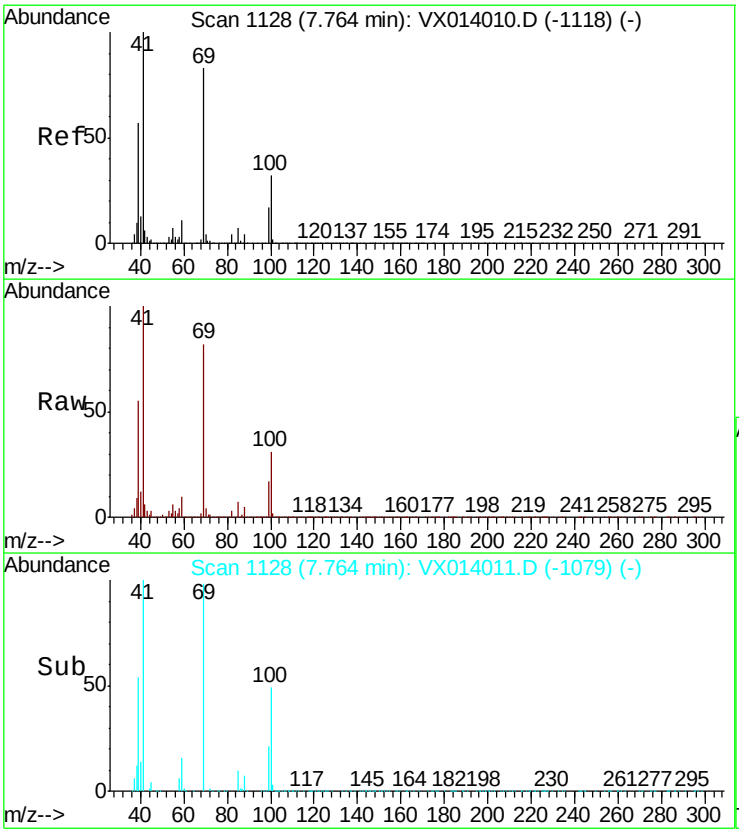
Tgt Ion: 83 Resp: 775778

Ion	Ratio	Lower	Upper
83	100		
85	63.5	51.8	77.8
127	8.9	7.0	10.4



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC100

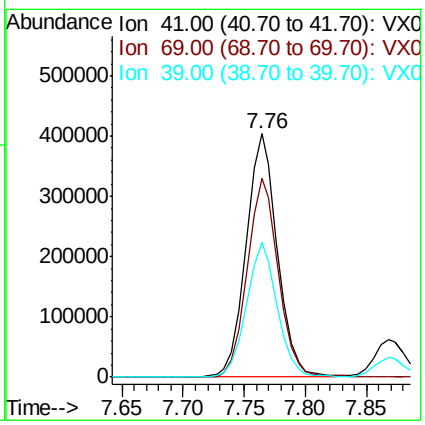
Manual Integrations APPROVED
apatel
12/16/2019 12:46:06 PM



#48
Methyl methacrylate
Concen: 104.318 ug/l
RT: 7.76 min Scan# 1128
Delta R.T. 0.00 min
Lab File: VX014011.D
Acq: 13 Dec 2019 16:22

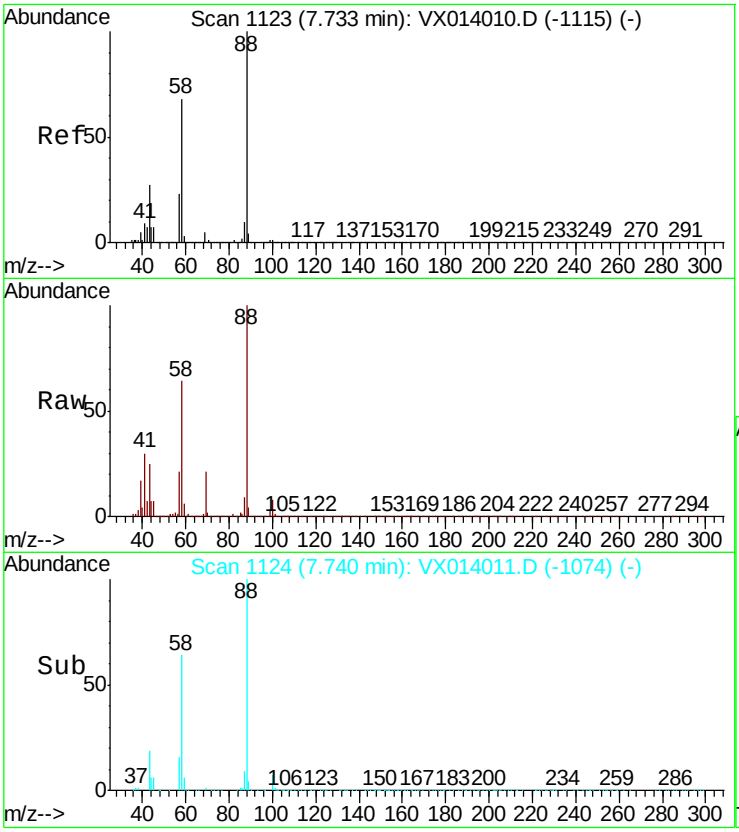
Tgt Ion: 41 Resp: 713945

Ion	Ratio	Lower	Upper
41	100		
69	81.8	65.8	98.6
39	54.4	44.6	67.0



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC100

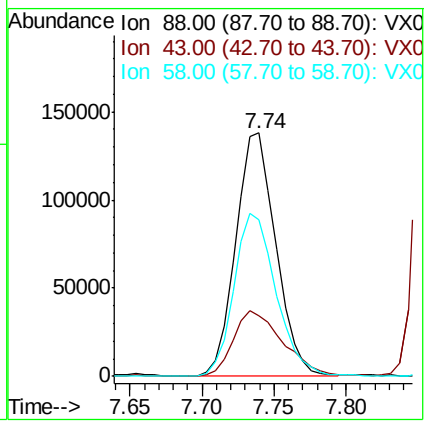
Manual Integrations APPROVED
apatel
12/16/2019 12:46:06 PM

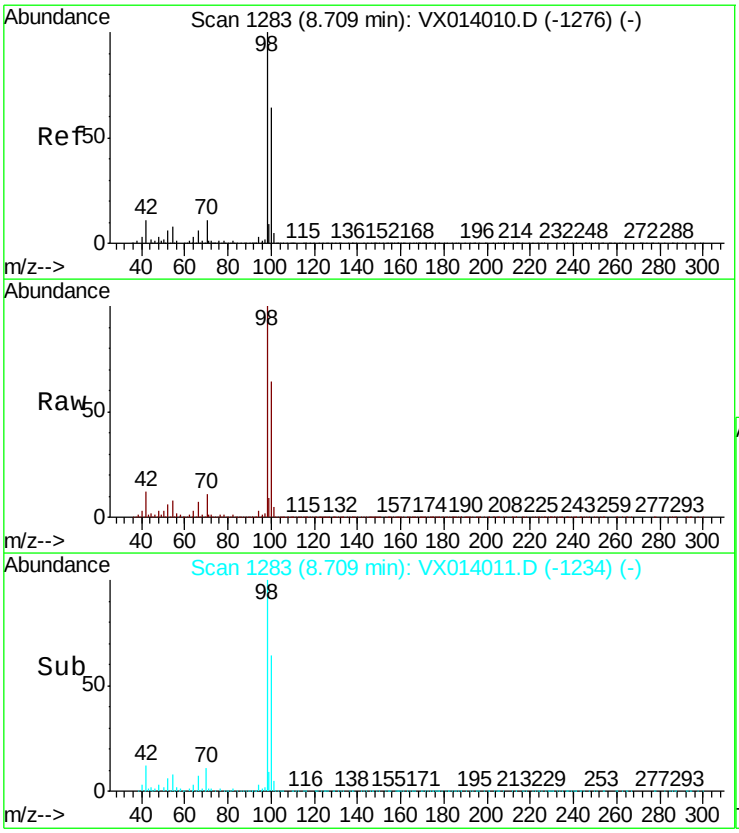


#49
1,4-Dioxane
Concen: 1767.914 ug/l
RT: 7.74 min Scan# 1124
Delta R.T. 0.01 min
Lab File: VX014011.D
Acq: 13 Dec 2019 16:22

Tgt Ion: 88 Resp: 266492

Ion	Ratio	Lower	Upper
88	100		
43	33.0	26.5	39.7
58	70.5	56.8	85.2

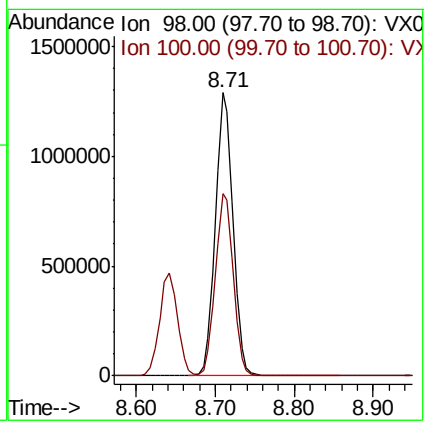


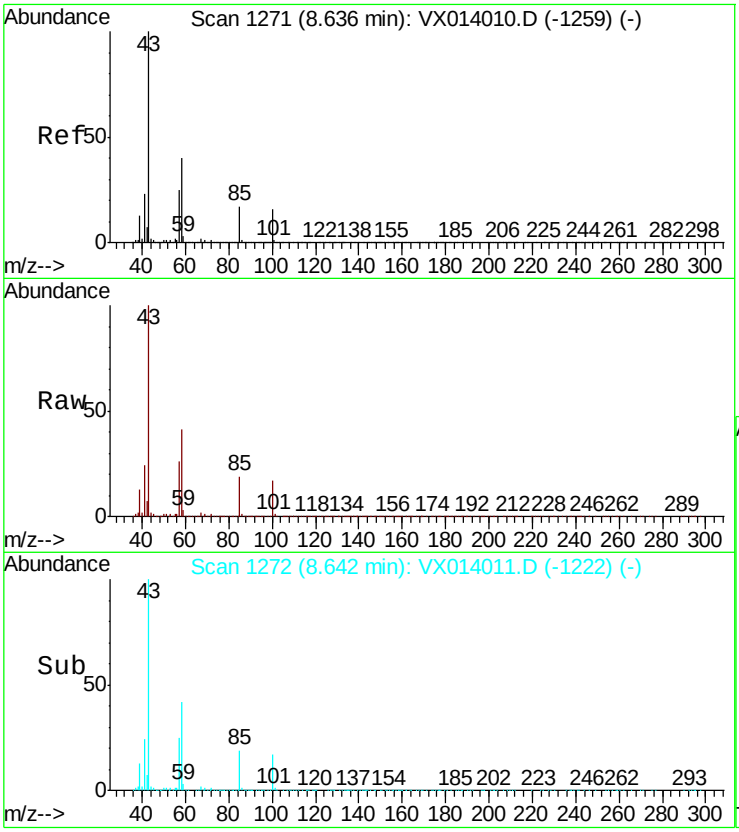


#50
Toluene-d8
Concen: 97.932 ug/l
RT: 8.71 min Scan# 1283
Delta R.T. 0.00 min
Lab File: VX014011.D
Acq: 13 Dec 2019 16:22

Tgt Ion: 98 Resp: 2007259

Ion	Ratio	Lower	Upper
98	100		
100	65.7	52.9	79.3

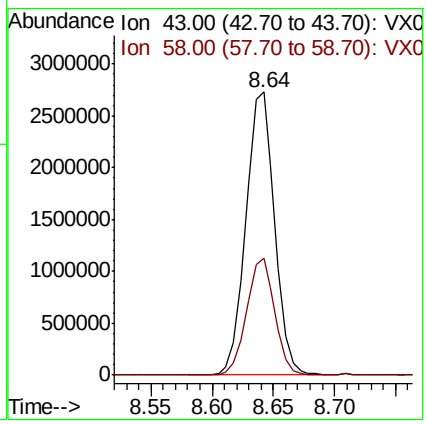




#51
4-Methyl-2-Pentanone
Concen: 502.518 ug/l
RT: 8.64 min Scan# 1272
Delta R.T. 0.01 min
Lab File: VX014011.D
Acq: 13 Dec 2019 16:22

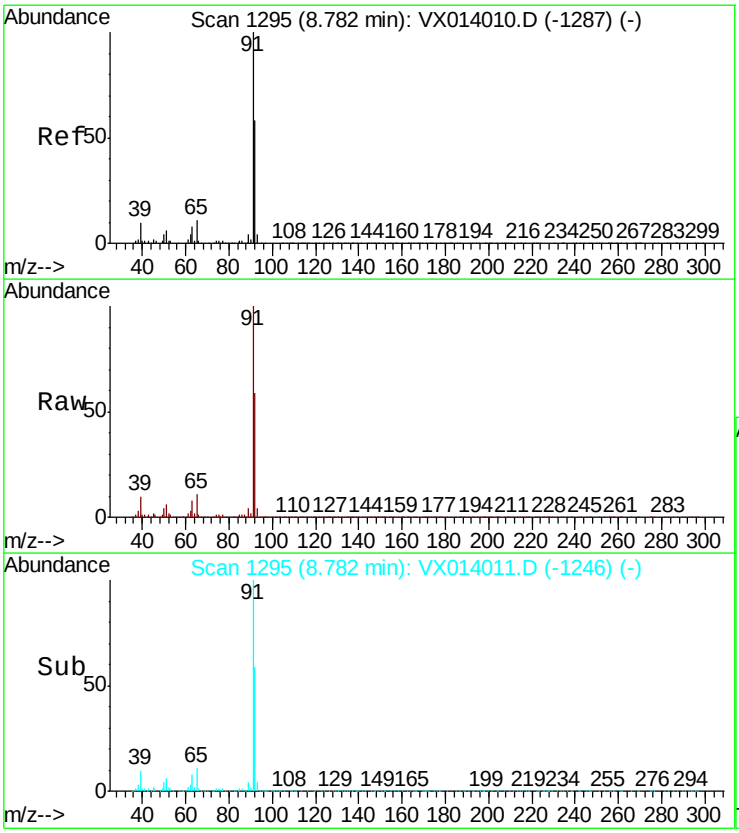
Tgt Ion: 43 Resp: 4454422

Ion	Ratio	Lower	Upper
43	100		
58	40.5	32.2	48.2



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC100

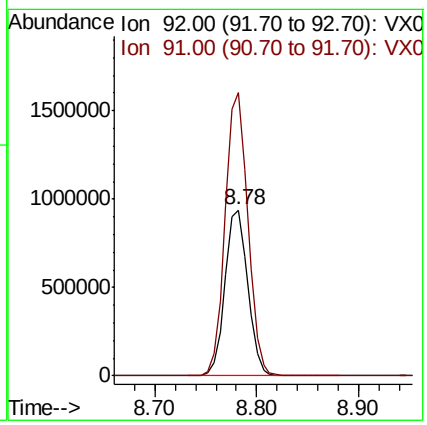
Manual Integrations APPROVED
apatel
12/16/2019 12:46:06 PM

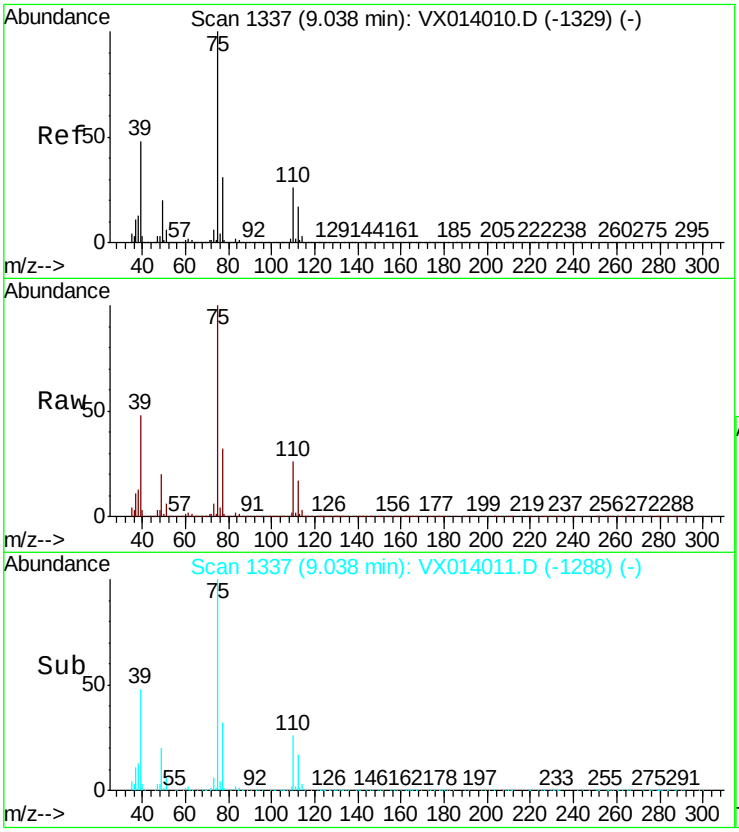


#52
Toluene
Concen: 99.705 ug/l
RT: 8.78 min Scan# 1295
Delta R.T. 0.00 min
Lab File: VX014011.D
Acq: 13 Dec 2019 16:22

Tgt Ion: 92 Resp: 1450176

Ion	Ratio	Lower	Upper
92	100		
91	170.2	136.2	204.4

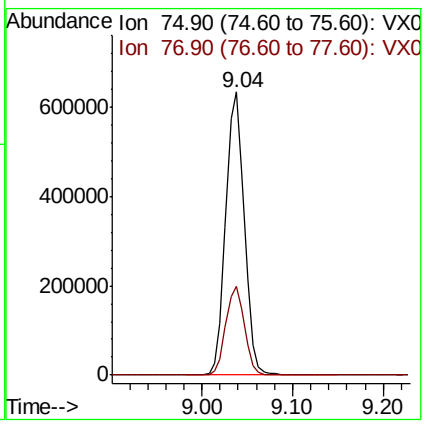




#53
t-1,3-Dichloropropene
Concen: 105.583 ug/l
RT: 9.04 min Scan# 1337
Delta R.T. 0.00 min
Lab File: VX014011.D
Acq: 13 Dec 2019 16:22

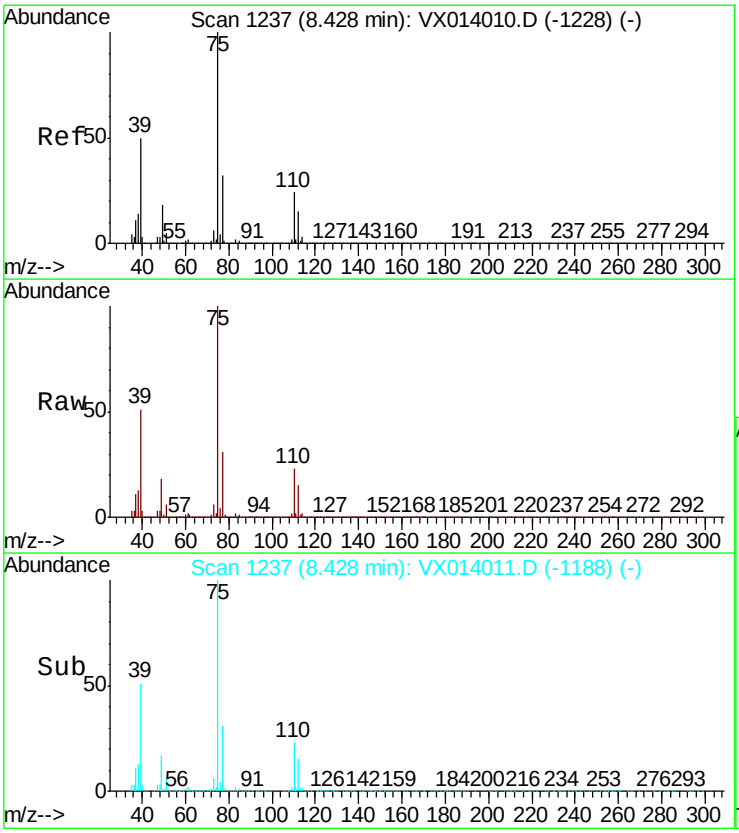
Tgt Ion: 75 Resp: 900433

Ion	Ratio	Lower	Upper
75	100		
77	31.5	25.1	37.7



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC100

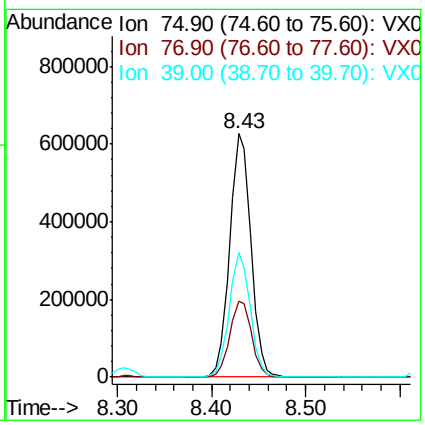
Manual Integrations APPROVED
apatel
12/16/2019 12:46:06 PM



#54
cis-1,3-Dichloropropene
Concen: 104.939 ug/l
RT: 8.43 min Scan# 1237
Delta R.T. 0.00 min
Lab File: VX014011.D
Acq: 13 Dec 2019 16:22

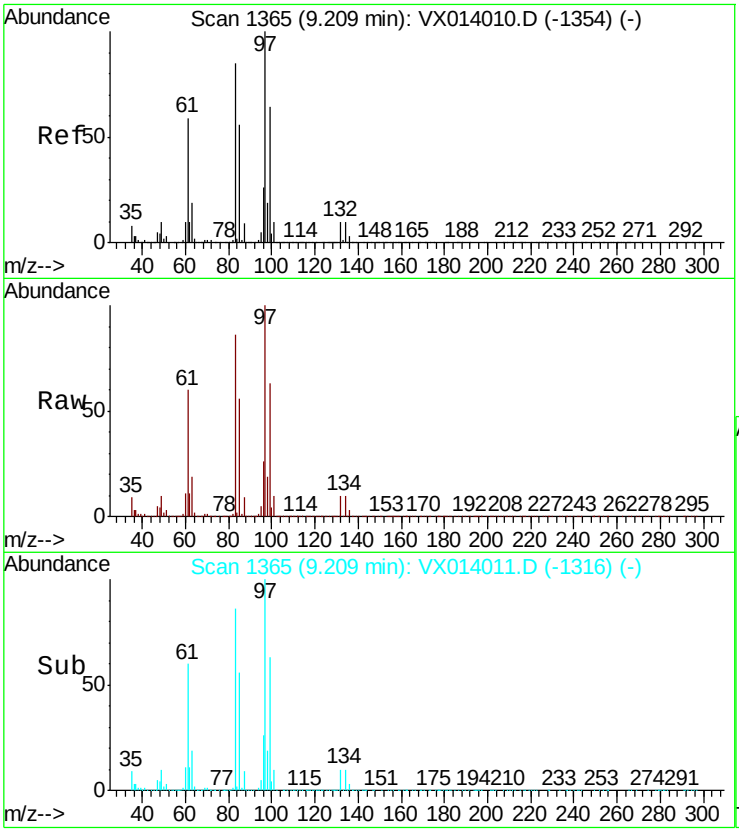
Tgt Ion: 75 Resp: 978680

Ion	Ratio	Lower	Upper
75	100		
77	31.2	25.3	37.9
39	51.0	39.9	59.9



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC100

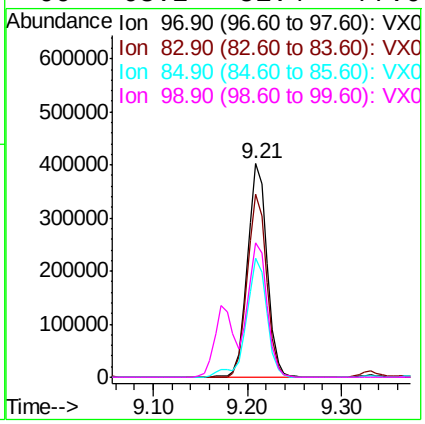
Manual Integrations APPROVED
apatel
12/16/2019 12:46:06 PM

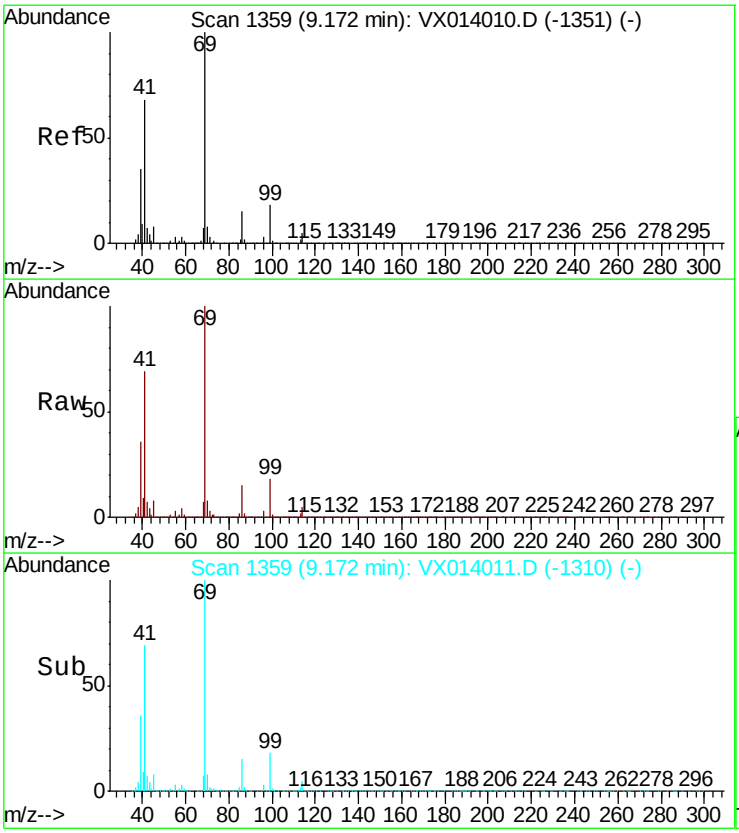


#55
1,1,2-Trichloroethane
Concen: 100.026 ug/l
RT: 9.21 min Scan# 1365
Delta R.T. 0.00 min
Lab File: VX014011.D
Acq: 13 Dec 2019 16:22

Tgt Ion: 97 Resp: 585526

Ion	Ratio	Lower	Upper
97	100		
83	85.5	68.2	102.4
85	55.8	44.6	66.8
99	63.2	51.4	77.0

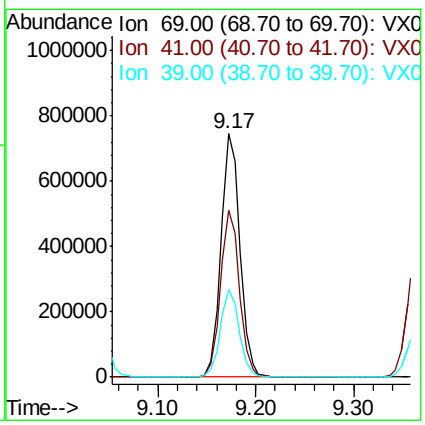


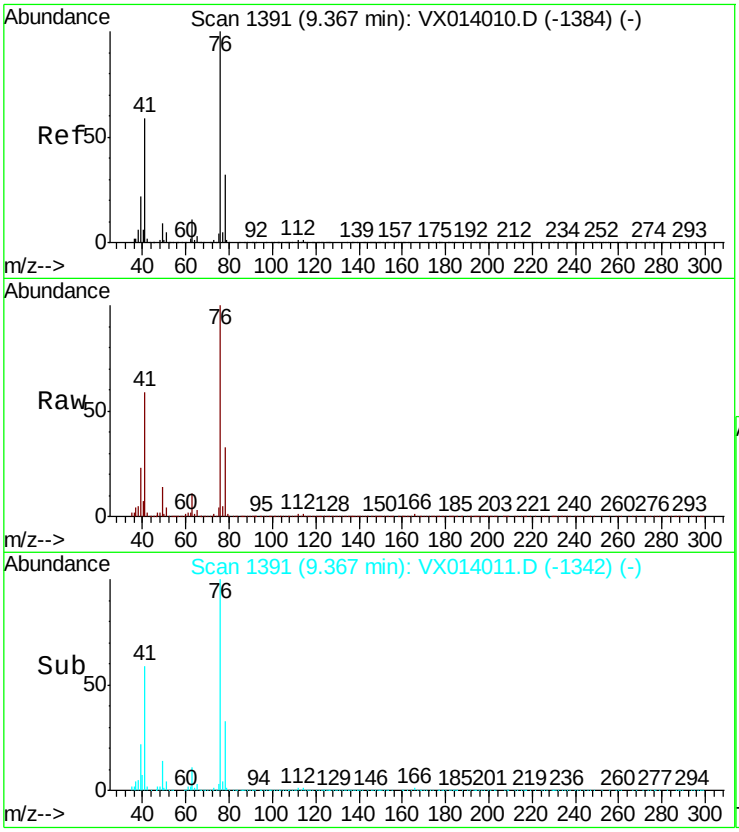


#56
Ethyl methacrylate
Concen: 106.259 ug/l
RT: 9.17 min Scan# 1359
Delta R.T. 0.00 min
Lab File: VX014011.D
Acq: 13 Dec 2019 16:22

Tgt Ion: 69 Resp: 1001661

Ion	Ratio	Lower	Upper
69	100		
41	68.2	54.8	82.2
39	35.7	28.3	42.5

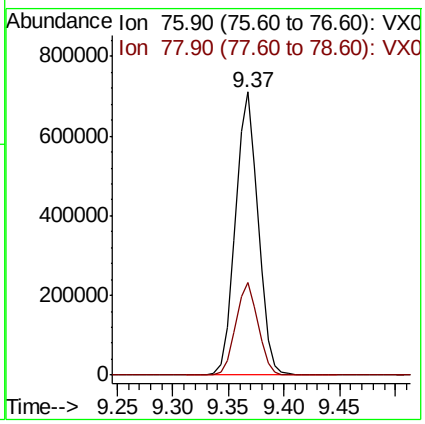




#57
1,3-Dichloropropane
Concen: 98.559 ug/l
RT: 9.37 min Scan# 1391
Delta R.T. 0.00 min
Lab File: VX014011.D
Acq: 13 Dec 2019 16:22

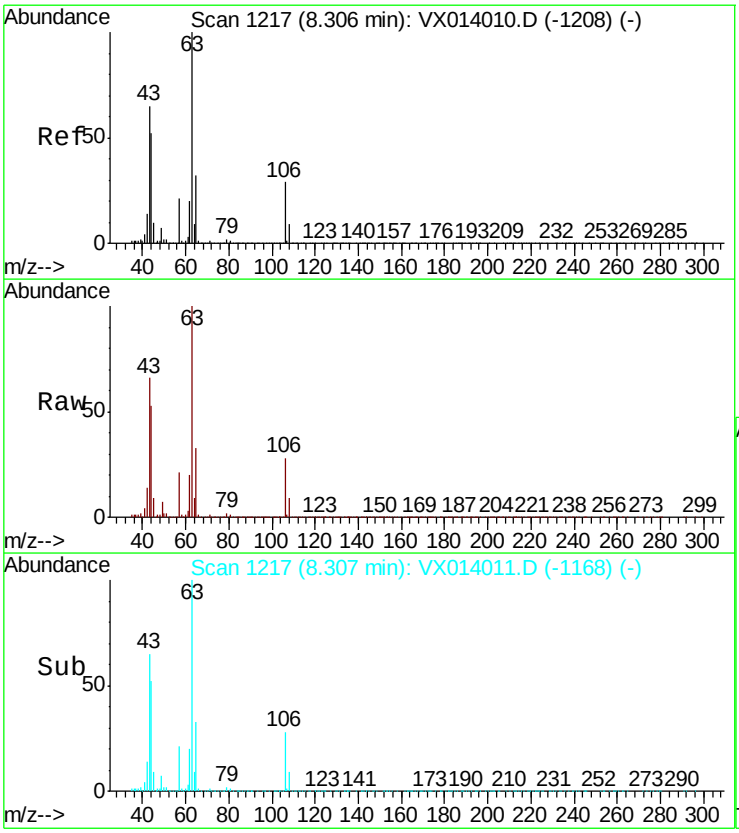
Tgt Ion: 76 Resp: 995630

Ion	Ratio	Lower	Upper
76	100		
78	32.4	25.8	38.6



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC100

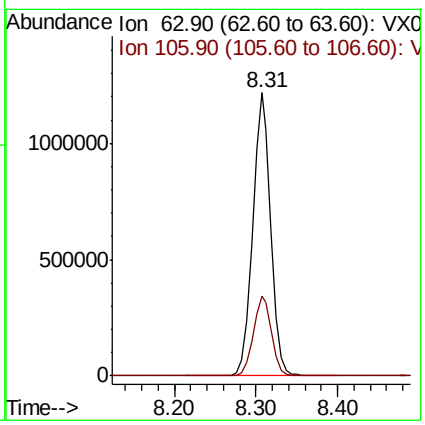
Manual Integrations APPROVED
apatel
12/16/2019 12:46:06 PM

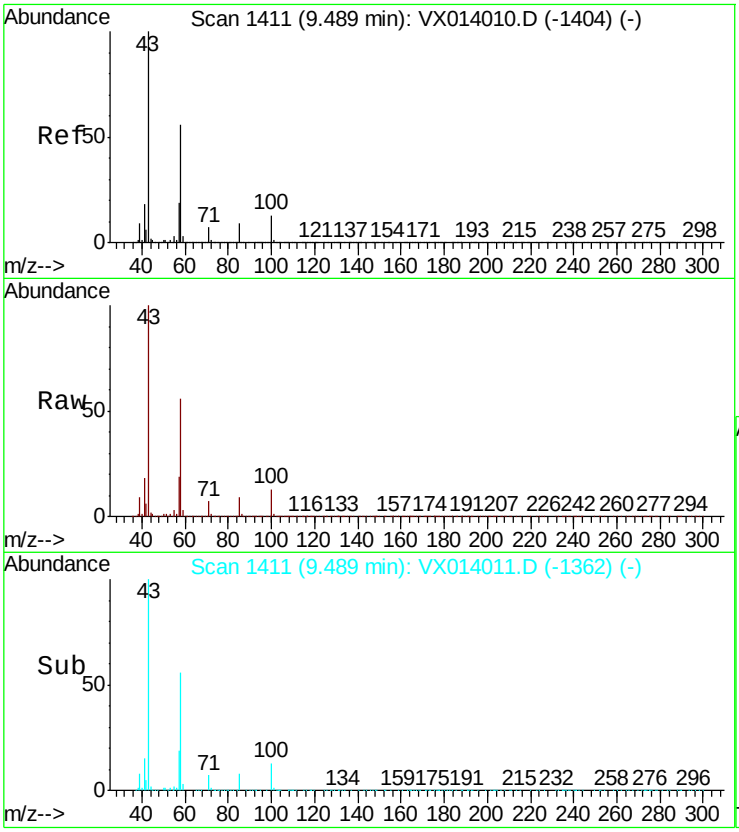


#58
2-Chloroethyl Vinyl ether
Concen: 508.509 ug/l
RT: 8.31 min Scan# 1217
Delta R.T. 0.00 min
Lab File: VX014011.D
Acq: 13 Dec 2019 16:22

Tgt Ion: 63 Resp: 1879120

Ion	Ratio	Lower	Upper
63	100		
106	28.8	23.0	34.6

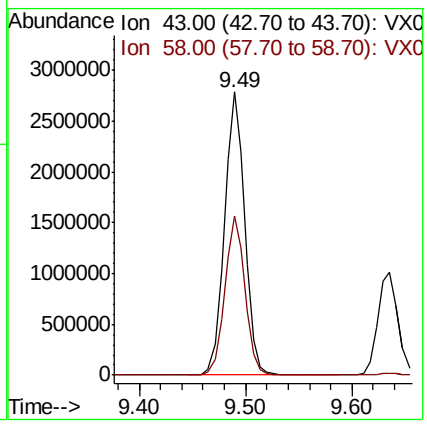




#59
2-Hexanone
Concen: 528.666 ug/l
RT: 9.49 min Scan# 1411
Delta R.T. 0.00 min
Lab File: VX014011.D
Acq: 13 Dec 2019 16:22

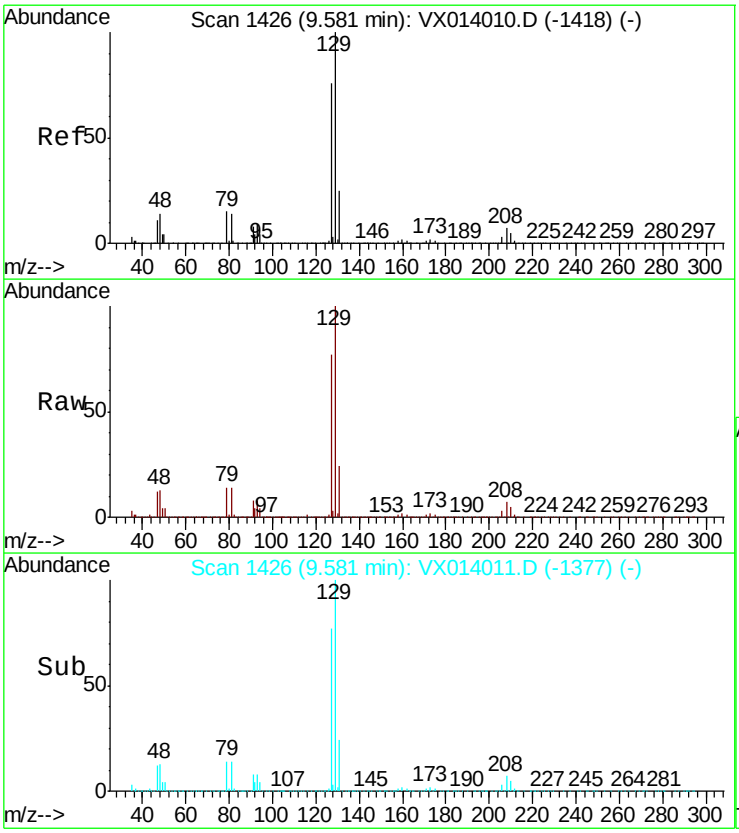
Tgt Ion: 43 Resp: 3687624

Ion	Ratio	Lower	Upper
43	100		
58	56.0	28.0	84.0



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC100

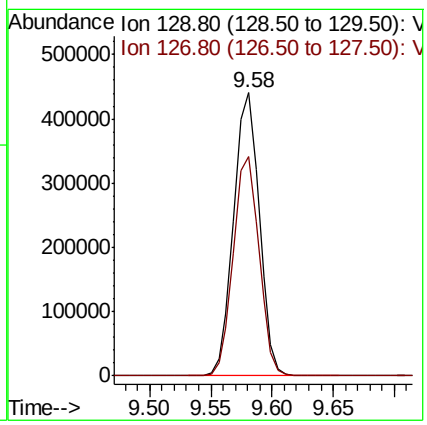
Manual Integrations APPROVED
apatel
12/16/2019 12:46:06 PM

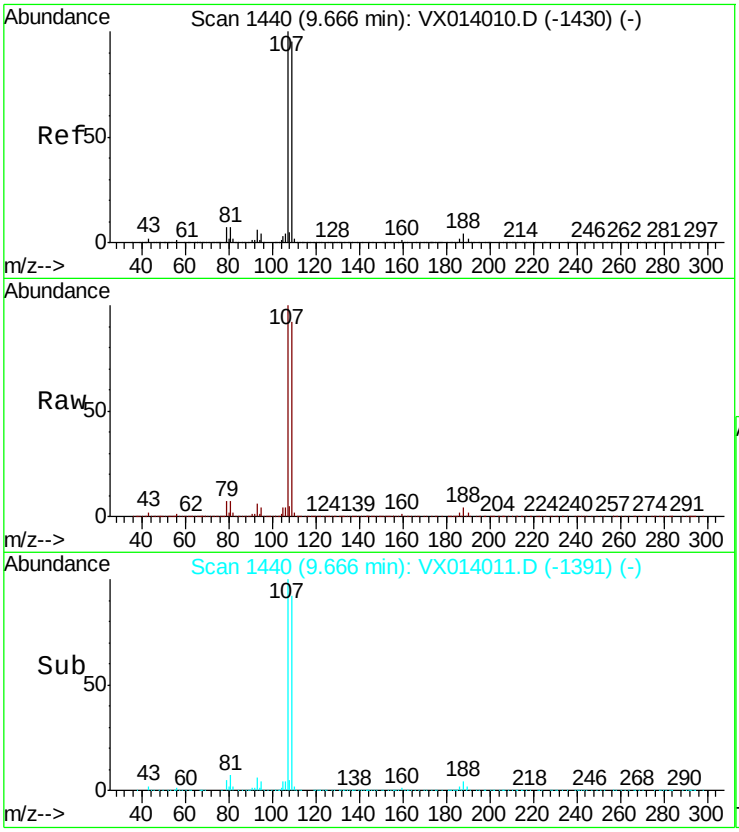


#60
Dibromochloromethane
Concen: 105.869 ug/l
RT: 9.58 min Scan# 1426
Delta R.T. 0.00 min
Lab File: VX014011.D
Acq: 13 Dec 2019 16:22

Tgt Ion:129 Resp: 640857

Ion	Ratio	Lower	Upper
129	100		
127	77.5	38.4	115.2

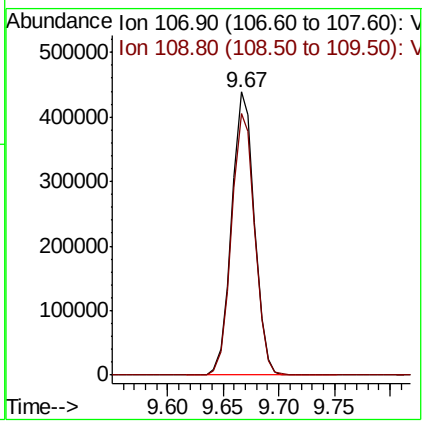




#61
1,2-Dibromoethane
Concen: 98.996 ug/l
RT: 9.67 min Scan# 1440
Delta R.T. 0.00 min
Lab File: VX014011.D
Acq: 13 Dec 2019 16:22

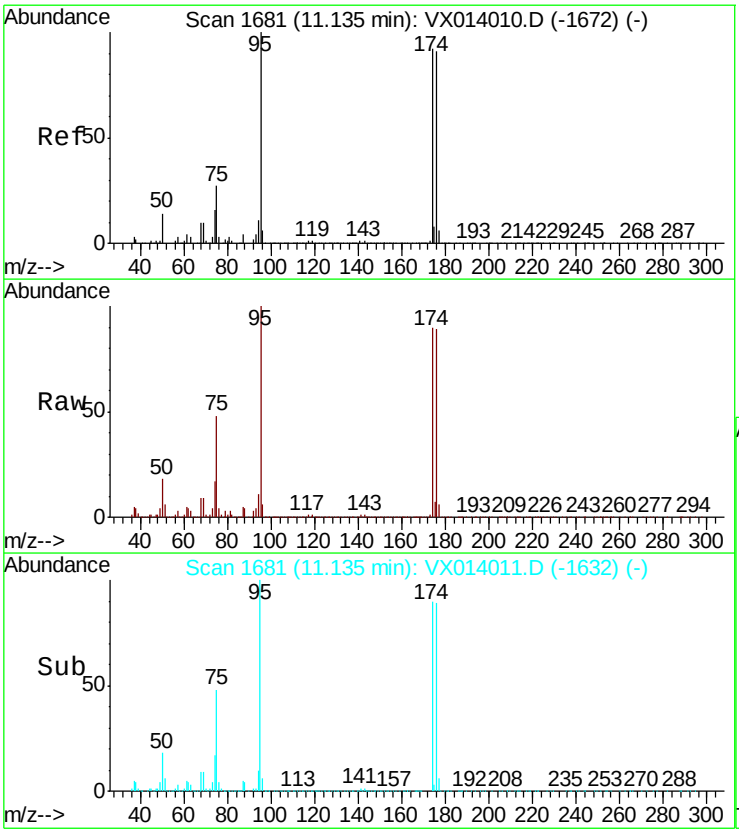
Tgt Ion:107 Resp: 618127

Ion	Ratio	Lower	Upper
107	100		
109	94.9	75.7	113.5



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC100

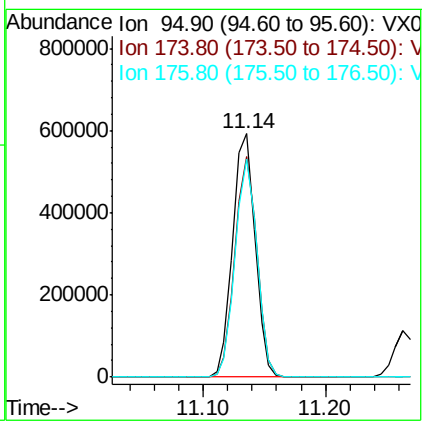
Manual Integrations APPROVED
apatel
12/16/2019 12:46:06 PM

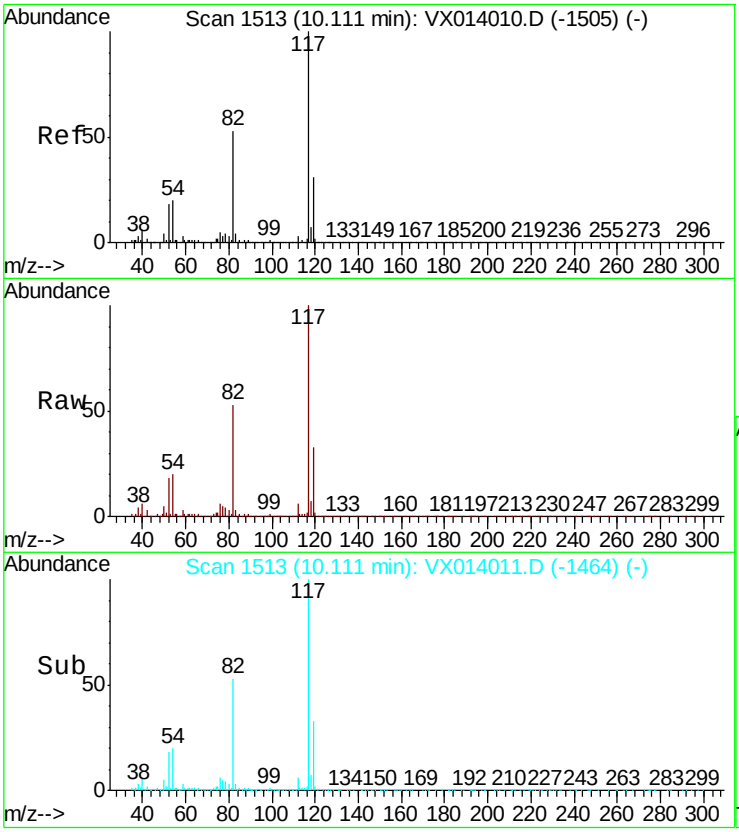


#62
4-Bromofluorobenzene
Concen: 101.442 ug/l
RT: 11.14 min Scan# 1681
Delta R.T. 0.00 min
Lab File: VX014011.D
Acq: 13 Dec 2019 16:22

Tgt Ion: 95 Resp: 751769

Ion	Ratio	Lower	Upper
95	100		
174	88.5	0.0	175.8
176	86.9	0.0	173.0

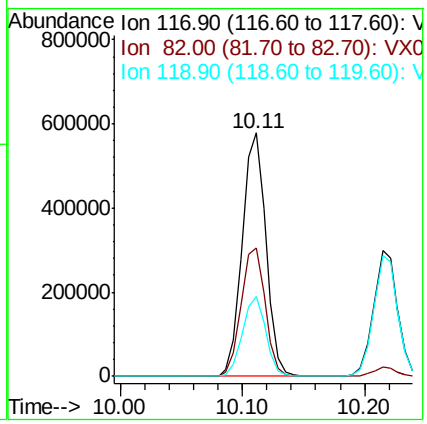




#63
Chlorobenzene-d5
Concen: 50.000 ug/l
RT: 10.11 min Scan# 1513
Delta R.T. 0.00 min
Lab File: VX014011.D
Acq: 13 Dec 2019 16:22

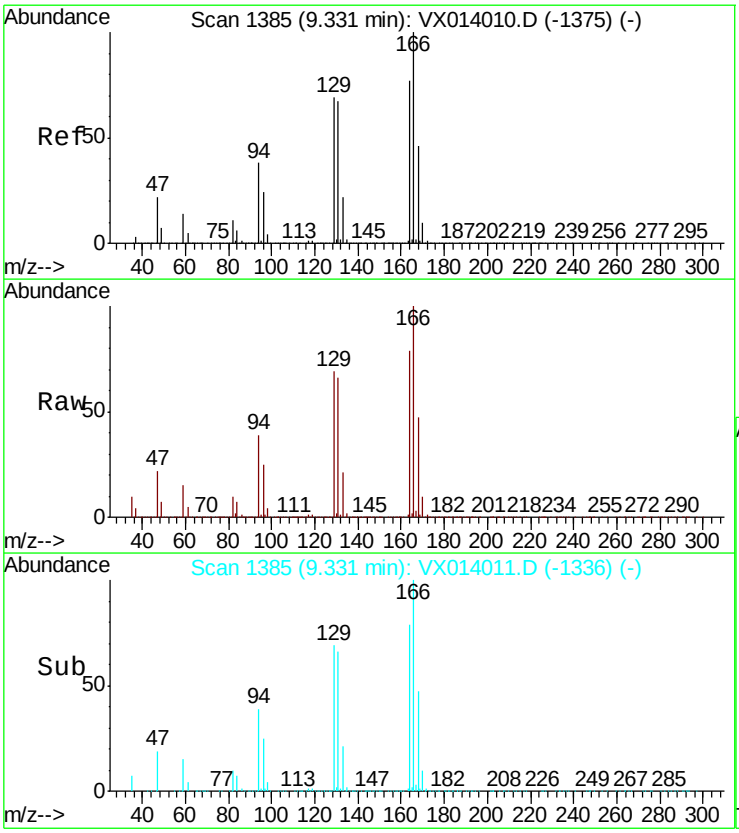
Tgt Ion:117 Resp: 774520

Ion	Ratio	Lower	Upper
117	100		
82	52.6	42.2	63.4
119	32.7	25.1	37.7



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC100

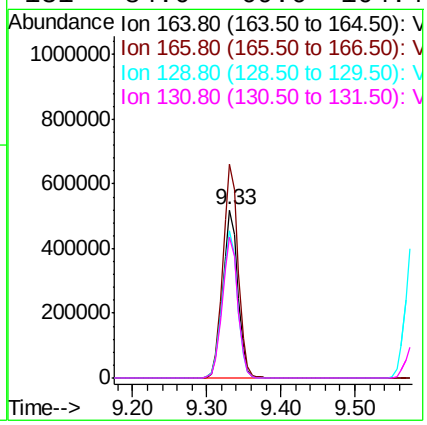
Manual Integrations APPROVED
apatel
12/16/2019 12:46:06 PM

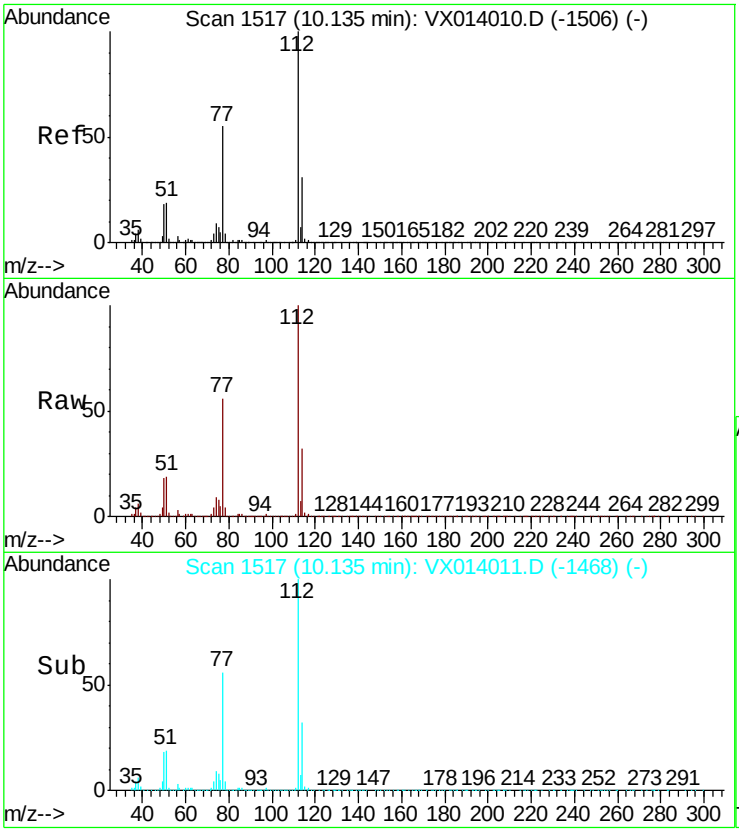


#64
Tetrachloroethene
Concen: 122.222 ug/l
RT: 9.33 min Scan# 1385
Delta R.T. 0.00 min
Lab File: VX014011.D
Acq: 13 Dec 2019 16:22

Tgt Ion:164 Resp: 730494

Ion	Ratio	Lower	Upper
164	100		
166	127.1	104.0	156.0
129	87.5	72.2	108.4
131	84.0	69.6	104.4

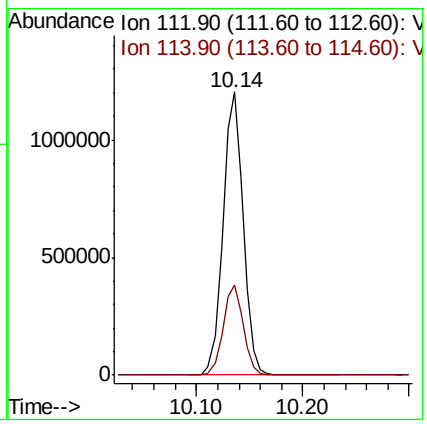




#65
Chlorobenzene
Concen: 98.056 ug/l
RT: 10.14 min Scan# 1517
Delta R.T. 0.00 min
Lab File: VX014011.D
Acq: 13 Dec 2019 16:22

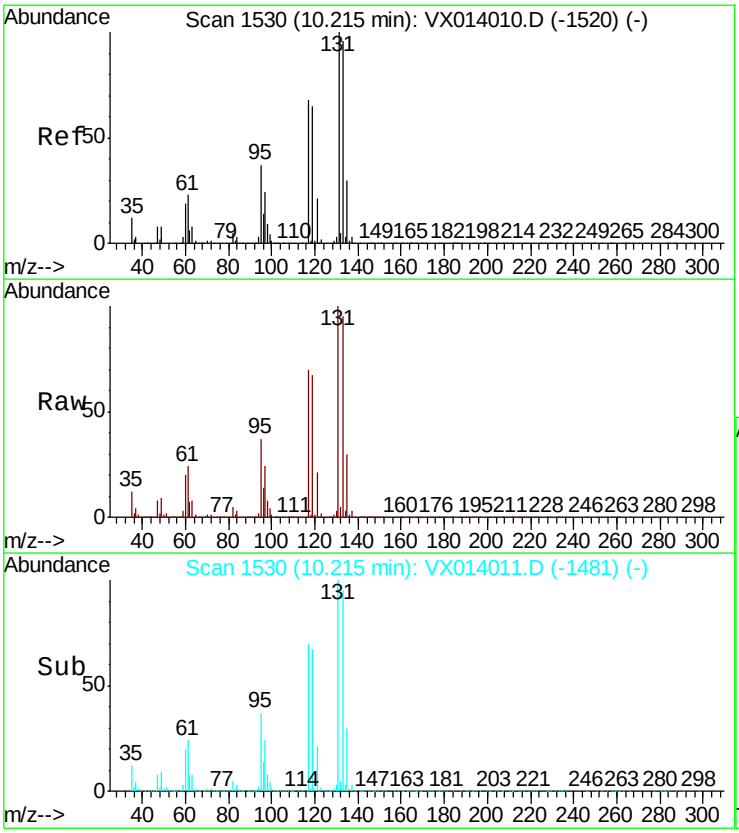
Tgt Ion:112 Resp: 1585660

Ion	Ratio	Lower	Upper
112	100		
114	31.9	24.9	37.3



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC100

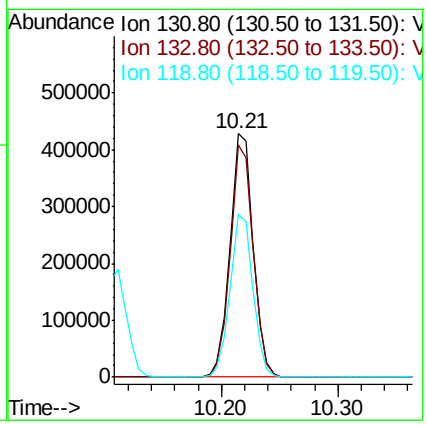
Manual Integrations APPROVED
apatel
12/16/2019 12:46:06 PM

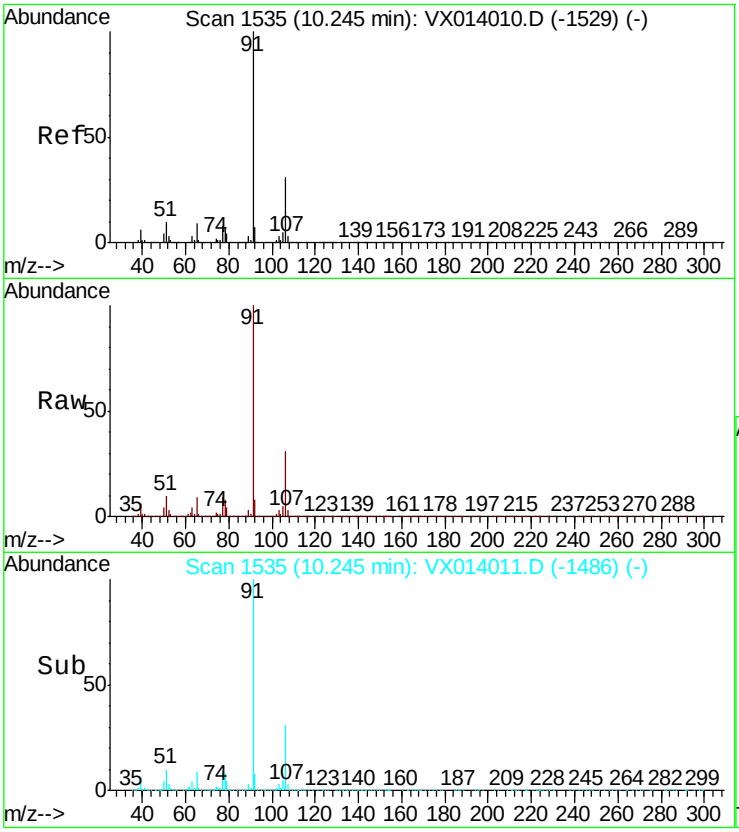


#66
1,1,1,2-Tetrachloroethane
Concen: 102.094 ug/l
RT: 10.21 min Scan# 1530
Delta R.T. 0.00 min
Lab File: VX014011.D
Acq: 13 Dec 2019 16:22

Tgt Ion:131 Resp: 591151

Ion	Ratio	Lower	Upper
131	100		
133	94.9	48.0	144.0
119	66.4	33.4	100.2

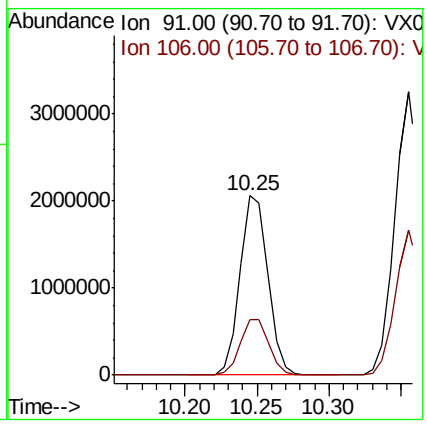




#67
Ethyl Benzene
Concen: 99.813 ug/l
RT: 10.25 min Scan# 1535
Delta R.T. 0.00 min
Lab File: VX014011.D
Acq: 13 Dec 2019 16:22

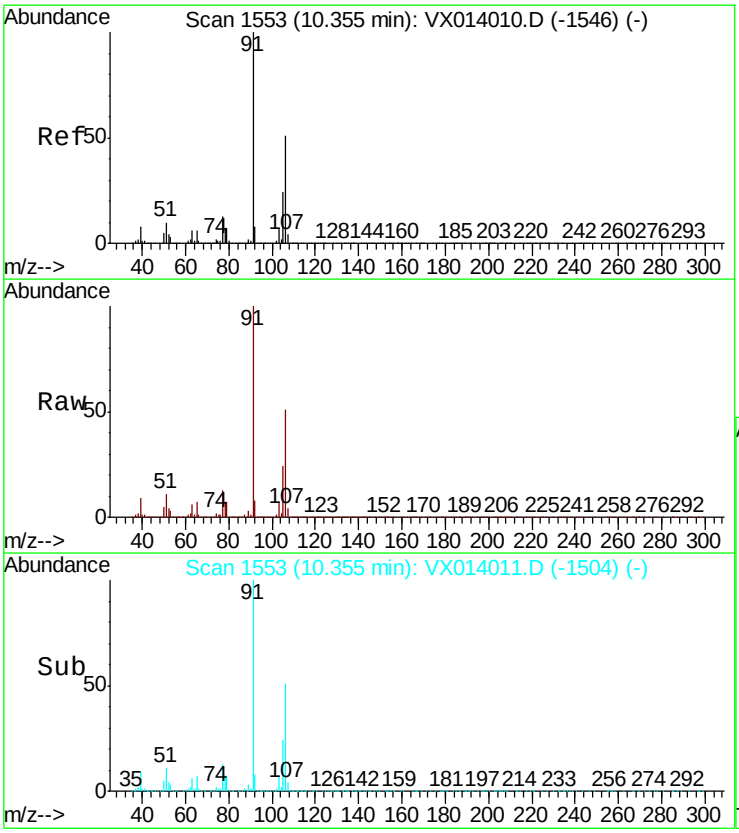
Tgt Ion: 91 Resp: 2770473

Ion	Ratio	Lower	Upper
91	100		
106	31.0	25.0	37.6



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC100

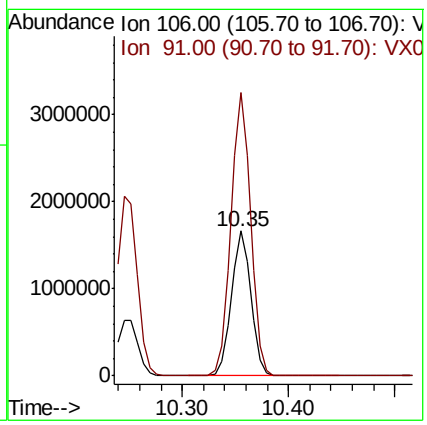
Manual Integrations APPROVED
apatel
12/16/2019 12:46:06 PM

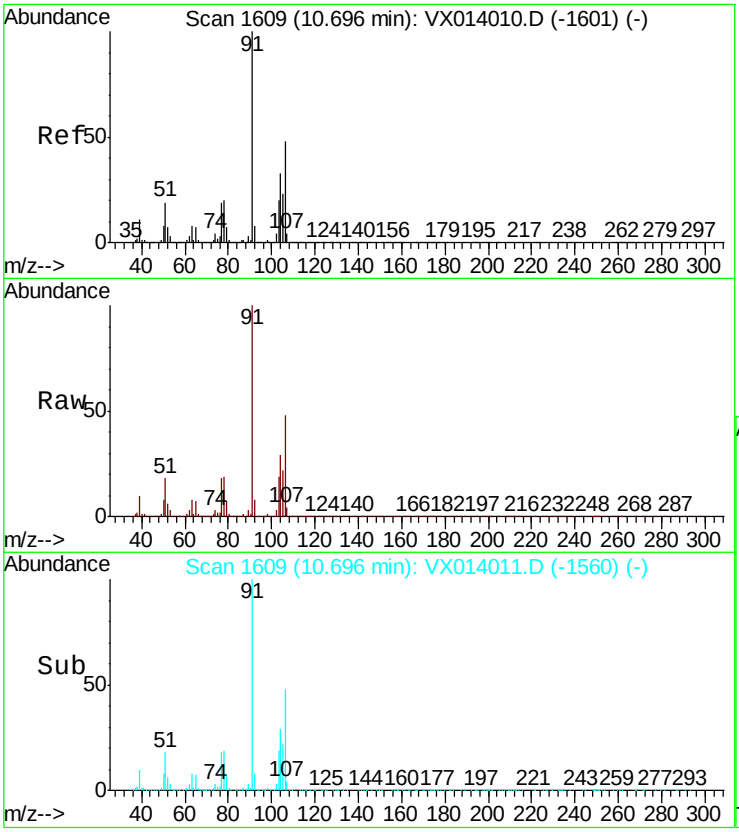


#68
m/p-Xylenes
Concen: 201.972 ug/l
RT: 10.35 min Scan# 1553
Delta R.T. 0.00 min
Lab File: VX014011.D
Acq: 13 Dec 2019 16:22

Tgt Ion:106 Resp: 2149249

Ion	Ratio	Lower	Upper
106	100		
91	197.4	158.6	238.0

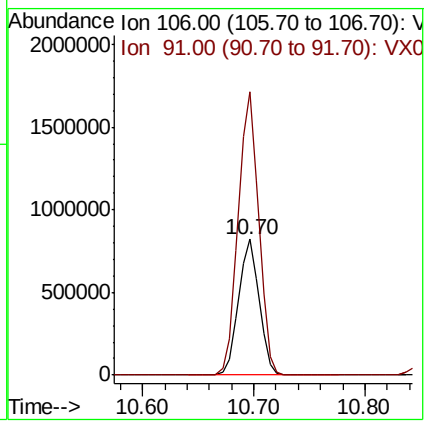




#69
o-Xylene
Concen: 101.159 ug/l
RT: 10.70 min Scan# 1609
Delta R.T. 0.00 min
Lab File: VX014011.D
Acq: 13 Dec 2019 16:22

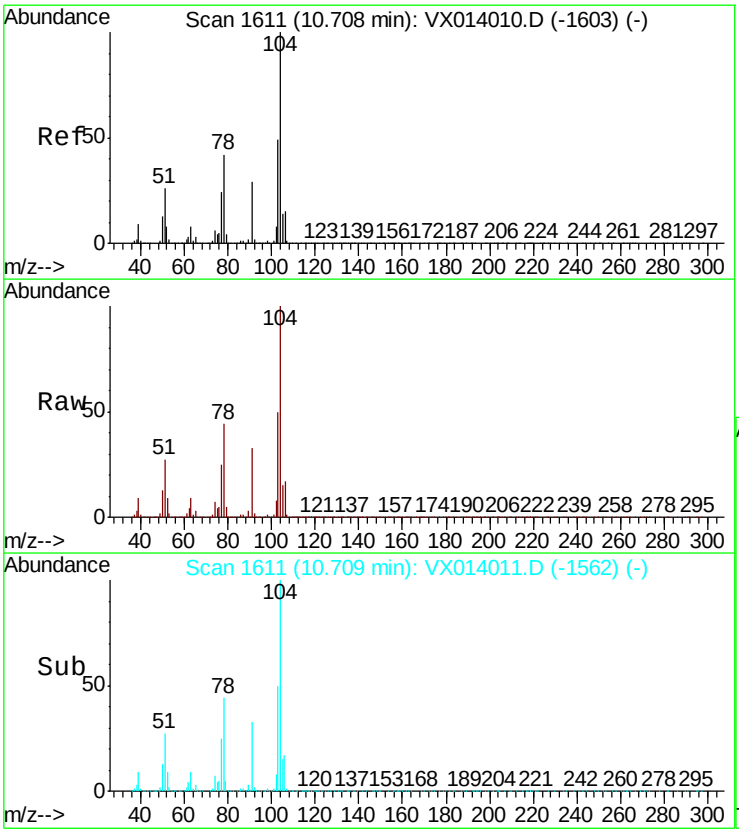
Tgt Ion:106 Resp: 1049787

Ion	Ratio	Lower	Upper
106	100		
91	208.5	104.2	312.6



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC100

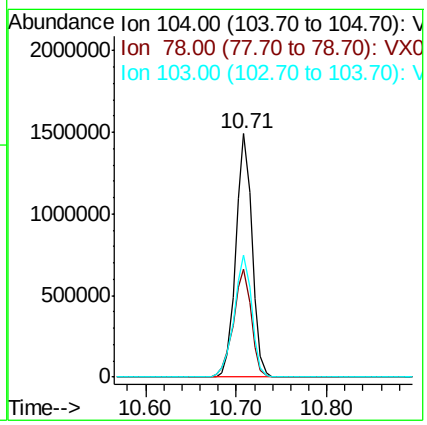
Manual Integrations APPROVED
apatel
12/16/2019 12:46:06 PM

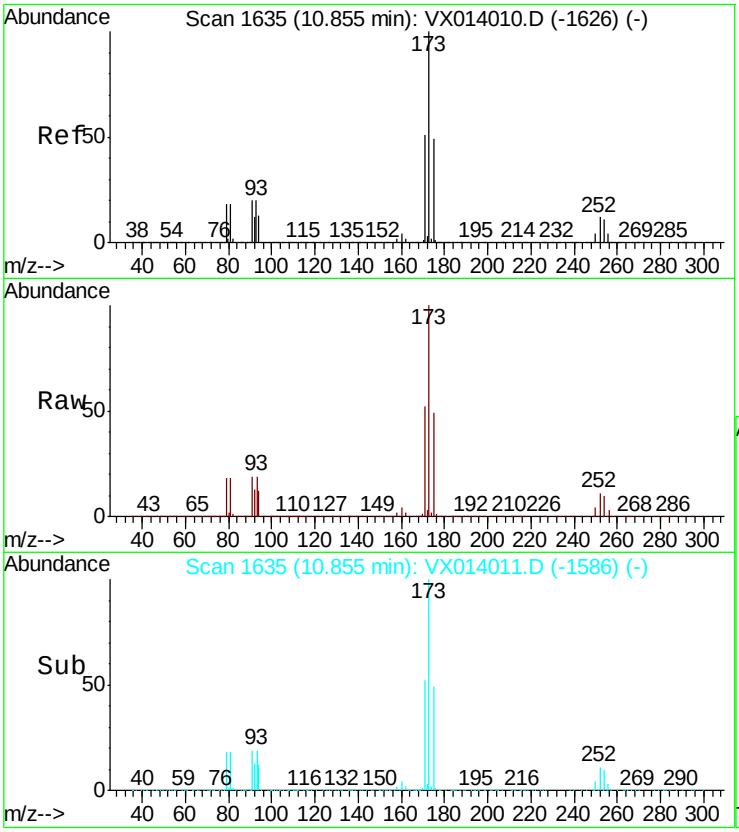


#70
Styrene
Concen: 105.053 ug/l
RT: 10.71 min Scan# 1611
Delta R.T. 0.00 min
Lab File: VX014011.D
Acq: 13 Dec 2019 16:22

Tgt Ion:104 Resp: 1839187

Ion	Ratio	Lower	Upper
104	100		
78	48.9	38.5	57.7
103	54.5	42.9	64.3

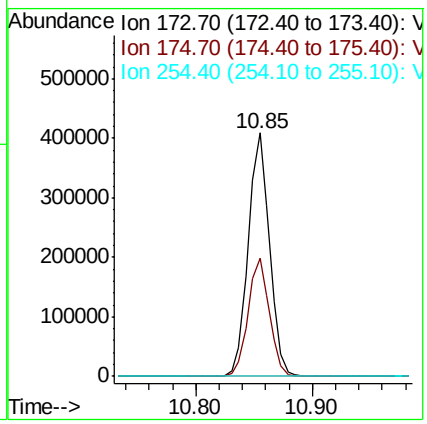




#71
Bromoform
Concen: 109.295 ug/l
RT: 10.85 min Scan# 1635
Delta R.T. 0.00 min
Lab File: VX014011.D
Acq: 13 Dec 2019 16:22

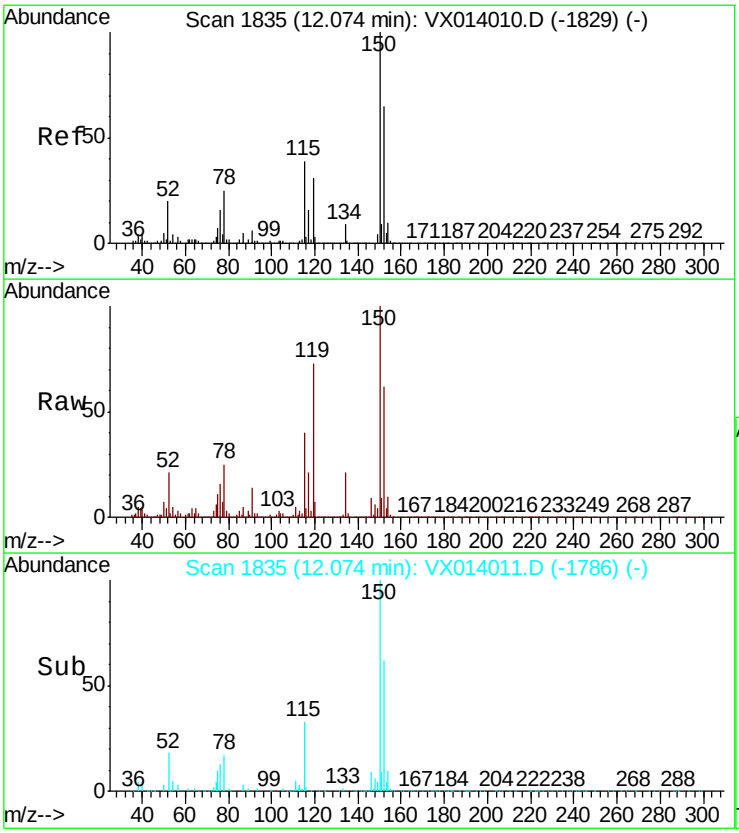
Tgt Ion:173 Resp: 521997

Ion	Ratio	Lower	Upper
173	100		
175	48.6	24.4	73.4
254	0.2	0.2	0.2



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC100

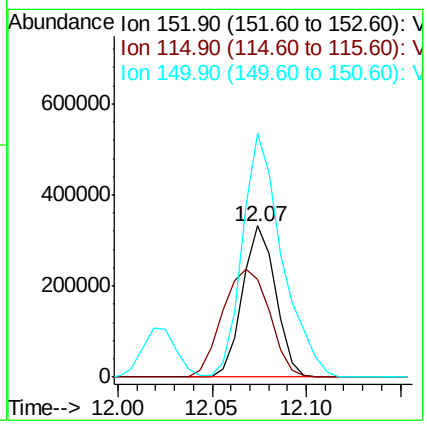
Manual Integrations APPROVED
apatel
12/16/2019 12:46:06 PM

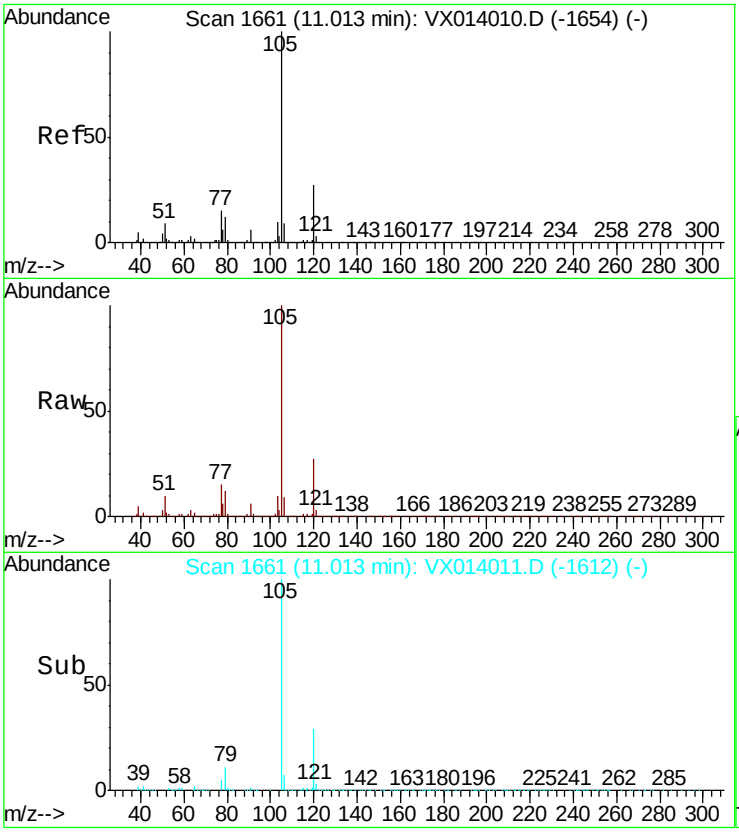


#72
1,4-Dichlorobenzene-d4
Concen: 50.000 ug/l
RT: 12.07 min Scan# 1835
Delta R.T. 0.00 min
Lab File: VX014011.D
Acq: 13 Dec 2019 16:22

Tgt Ion:152 Resp: 405555

Ion	Ratio	Lower	Upper
152	100		
115	101.1	38.3	114.9
150	192.3	0.0	345.4

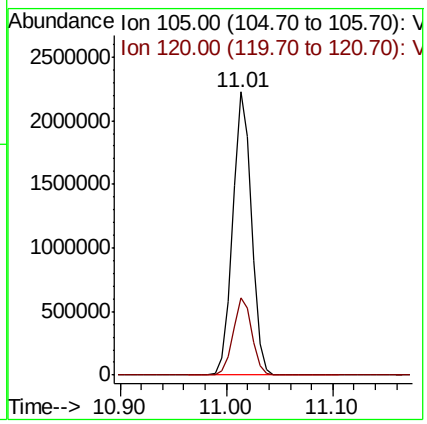




#73
Isopropylbenzene
Concen: 96.652 ug/l
RT: 11.01 min Scan# 1661
Delta R.T. 0.00 min
Lab File: VX014011.D
Acq: 13 Dec 2019 16:22

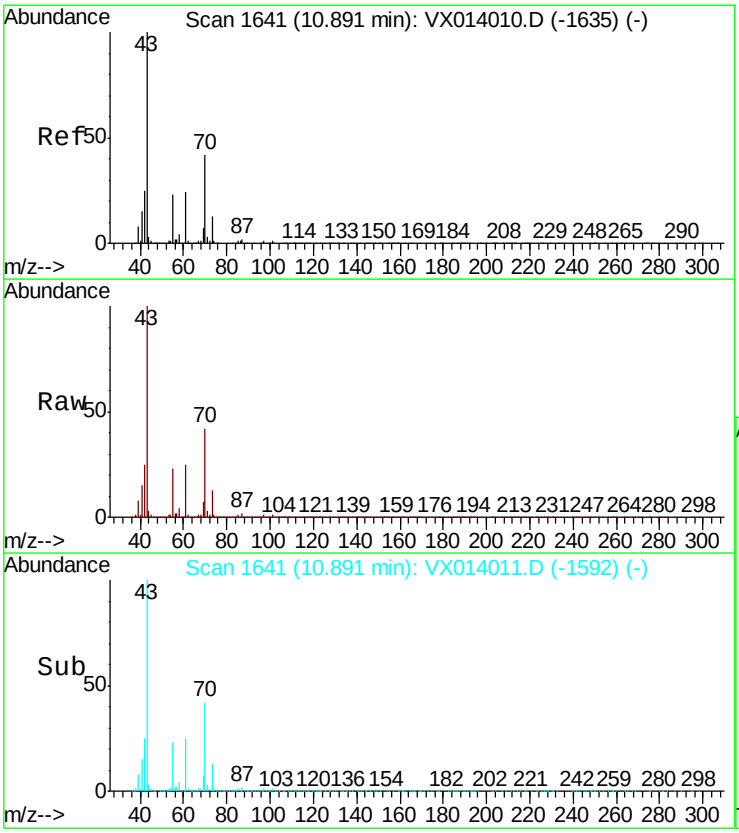
Tgt Ion:105 Resp: 2753143

Ion	Ratio	Lower	Upper
105	100		
120	27.2	13.5	40.4



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC100

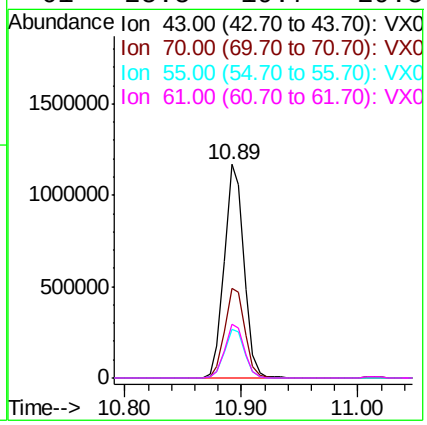
Manual Integrations APPROVED
apatel
12/16/2019 12:46:06 PM

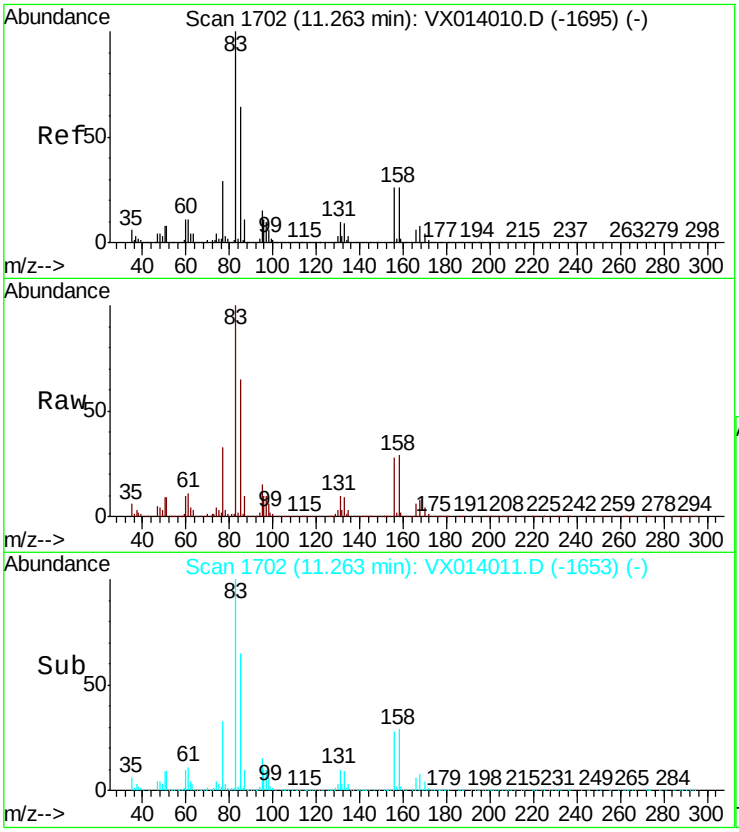


#74
N-amyl acetate
Concen: 104.568 ug/l
RT: 10.89 min Scan# 1641
Delta R.T. 0.00 min
Lab File: VX014011.D
Acq: 13 Dec 2019 16:22

Tgt Ion: 43 Resp: 1364487

Ion	Ratio	Lower	Upper
43	100		
70	43.1	34.4	51.6
55	23.4	19.1	28.7
61	25.5	19.7	29.5

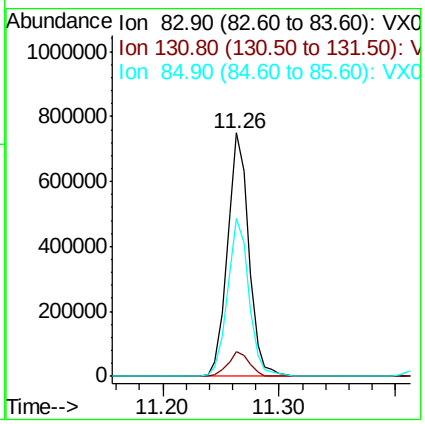




#75
1,1,2,2-Tetrachloroethane
Concen: 96.951 ug/l
RT: 11.26 min Scan# 1702
Delta R.T. 0.00 min
Lab File: VX014011.D
Acq: 13 Dec 2019 16:22

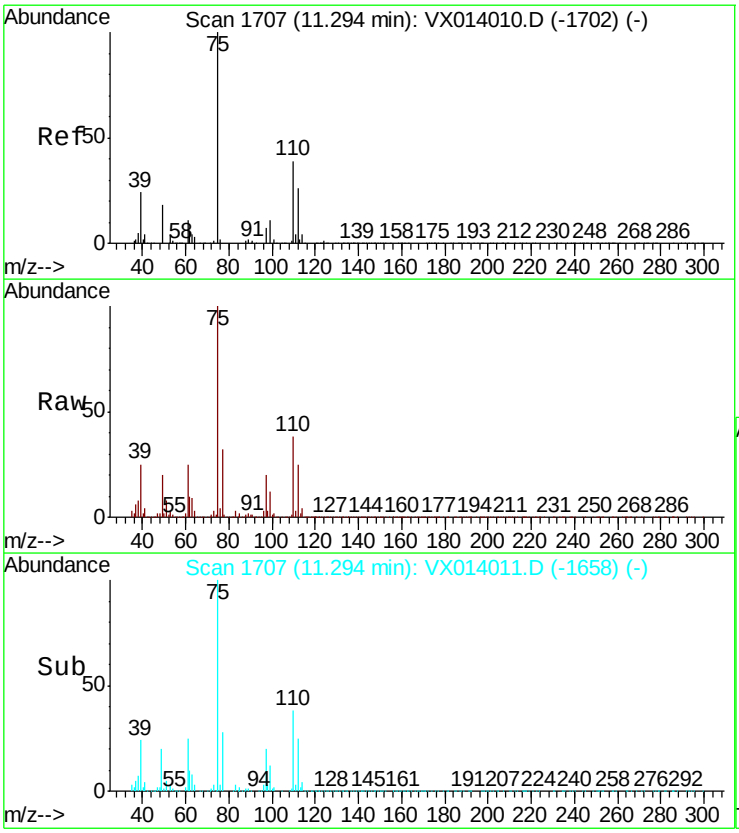
Tgt Ion: 83 Resp: 956183

Ion	Ratio	Lower	Upper
83	100		
131	10.1	5.1	15.2
85	64.4	31.9	95.7



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC100

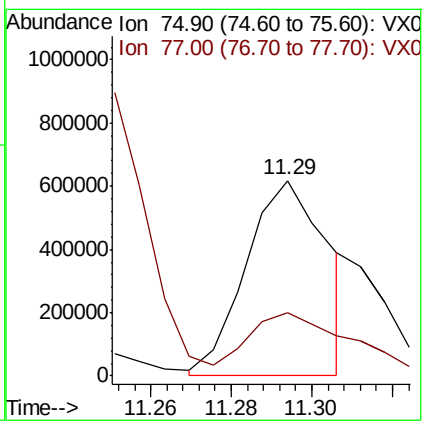
Manual Integrations APPROVED
apatel
12/16/2019 12:46:06 PM

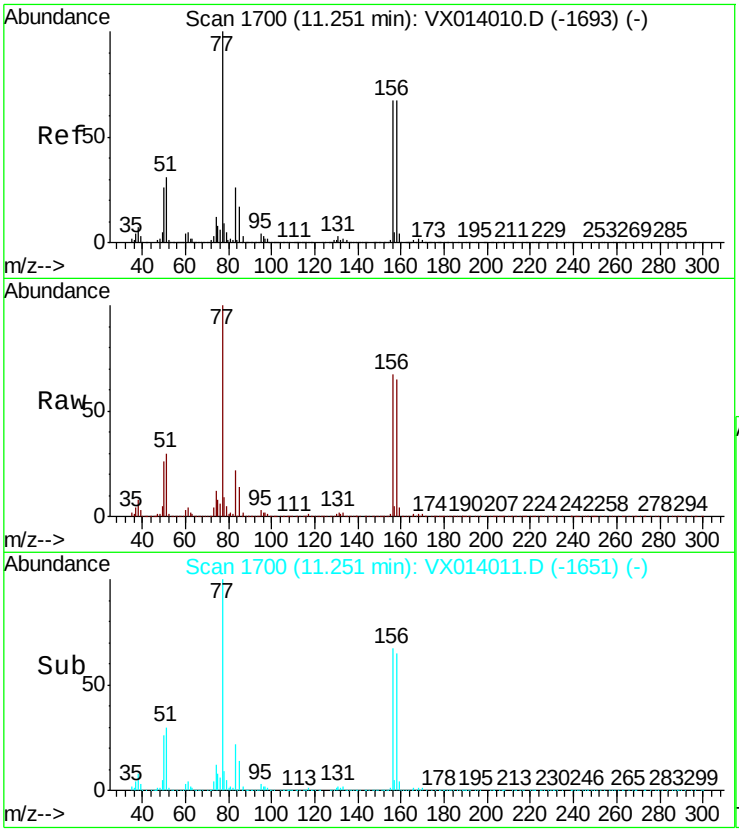


#76
1,2,3-Trichloropropane
Concen: 94.893 ug/l m
RT: 11.29 min Scan# 1707
Delta R.T. 0.00 min
Lab File: VX014011.D
Acq: 13 Dec 2019 16:22

Tgt Ion: 75 Resp: 861897

Ion	Ratio	Lower	Upper
75	100		
77	41.1	19.3	57.8

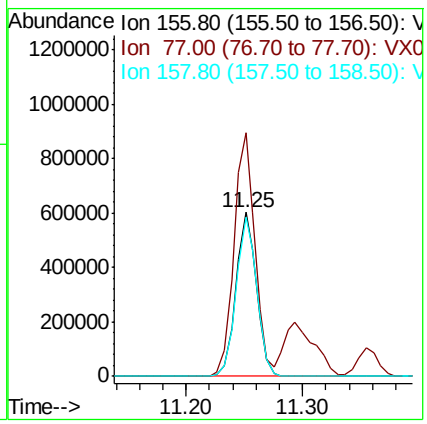




#77
Bromobenzene
Concen: 96.089 ug/l
RT: 11.25 min Scan# 1700
Delta R.T. 0.00 min
Lab File: VX014011.D
Acq: 13 Dec 2019 16:22

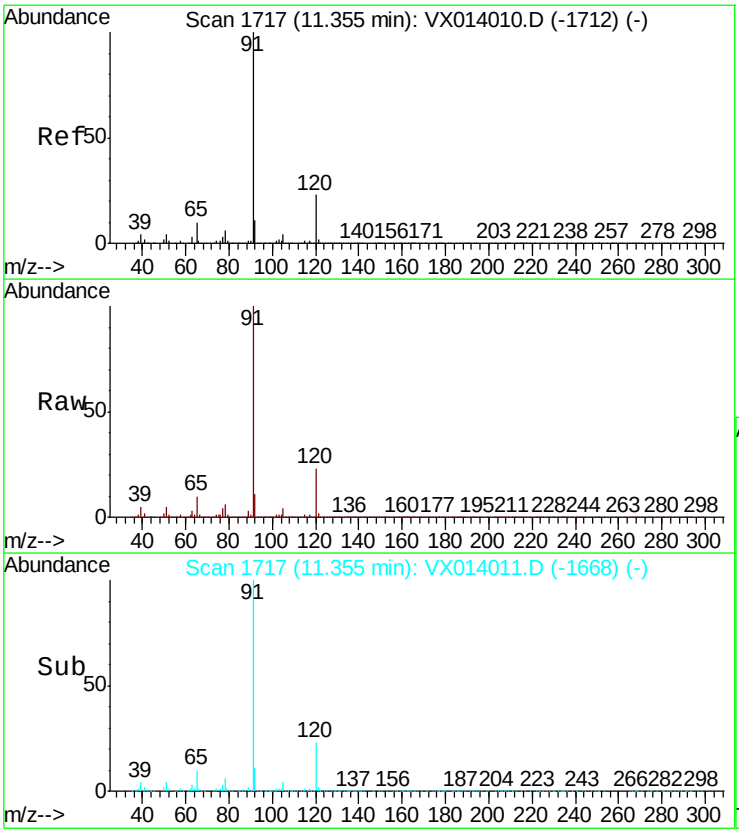
Tgt Ion:156 Resp: 737773

Ion	Ratio	Lower	Upper
156	100		
77	151.6	76.5	229.5
158	97.4	49.3	147.9



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC100

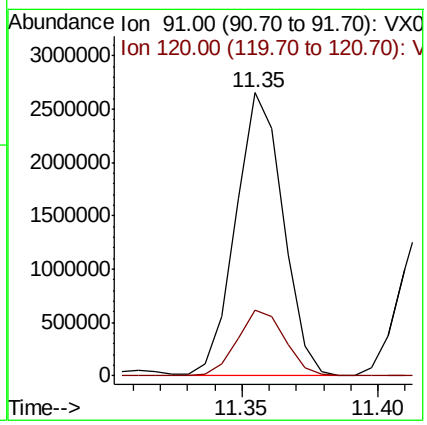
Manual Integrations APPROVED
apatel
12/16/2019 12:46:06 PM

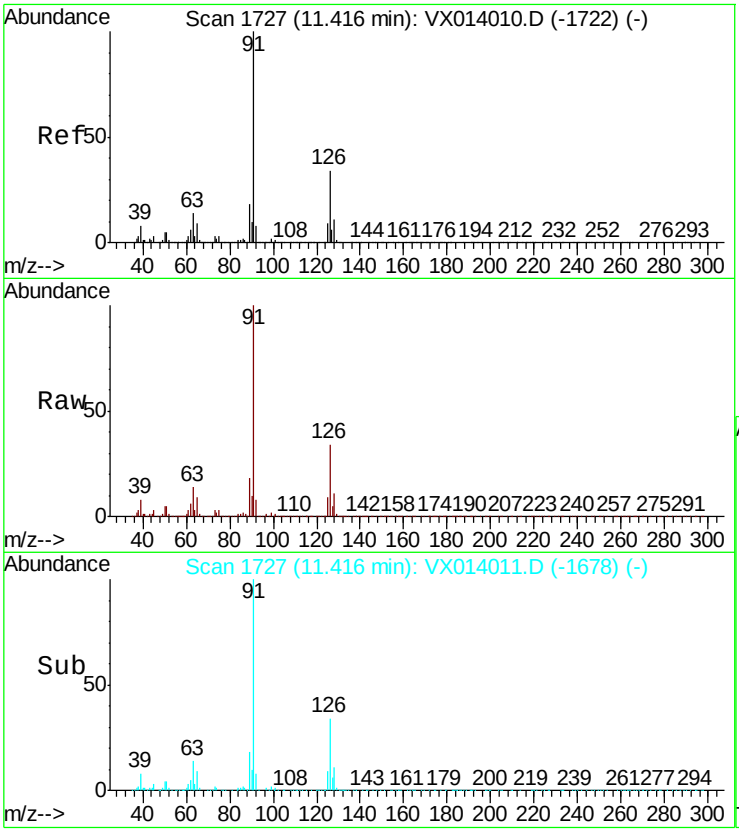


#78
n-propylbenzene
Concen: 99.977 ug/l
RT: 11.35 min Scan# 1717
Delta R.T. 0.00 min
Lab File: VX014011.D
Acq: 13 Dec 2019 16:22

Tgt Ion: 91 Resp: 3184476

Ion	Ratio	Lower	Upper
91	100		
120	23.6	11.7	35.0

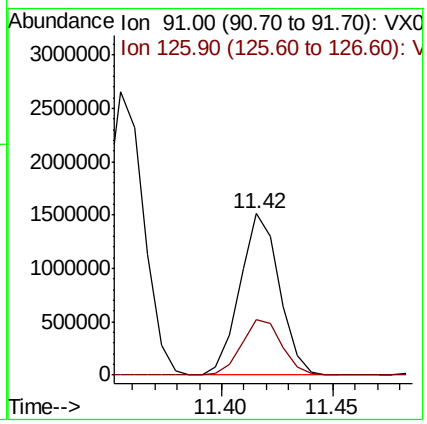


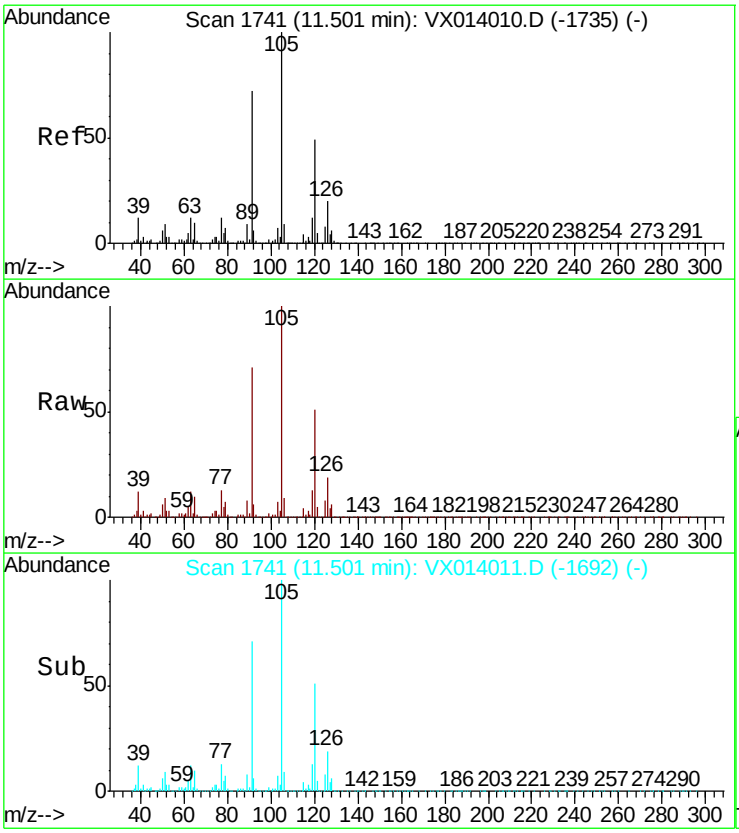


#79
2-Chlorotoluene
Concen: 97.459 ug/l
RT: 11.42 min Scan# 1727
Delta R.T. 0.00 min
Lab File: VX014011.D
Acq: 13 Dec 2019 16:22

Tgt Ion: 91 Resp: 1867515

Ion	Ratio	Lower	Upper
91	100		
126	35.3	17.2	51.6

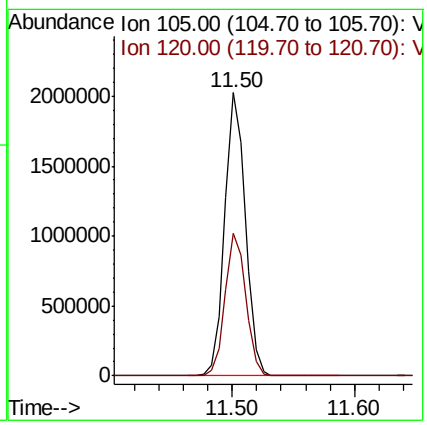




#80
1,3,5-Trimethylbenzene
Concen: 100.907 ug/l
RT: 11.50 min Scan# 1741
Delta R.T. 0.00 min
Lab File: VX014011.D
Acq: 13 Dec 2019 16:22

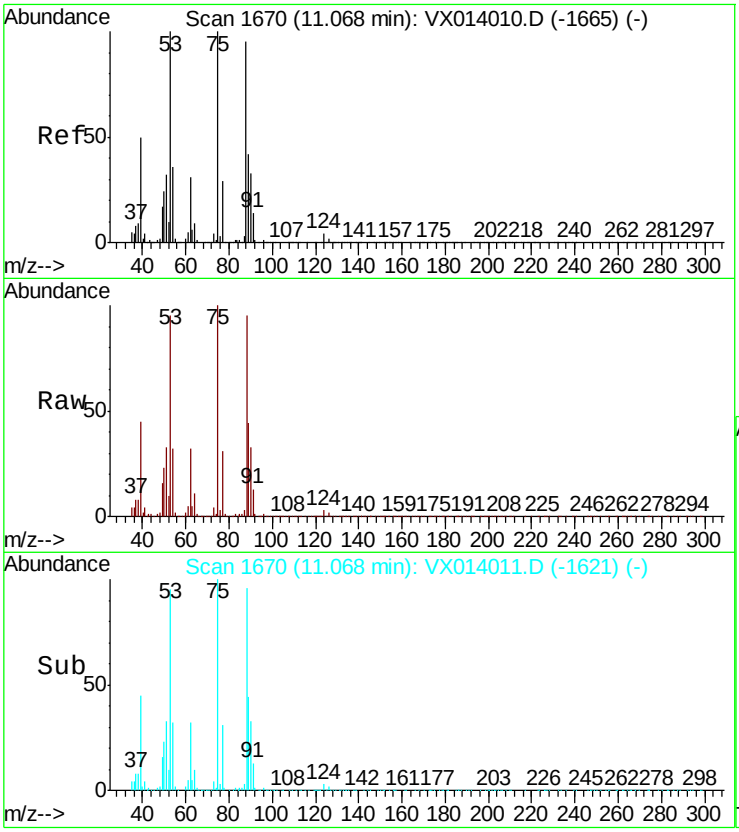
Tgt Ion:105 Resp: 2362600

Ion	Ratio	Lower	Upper
105	100		
120	50.7	25.3	75.8



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC100

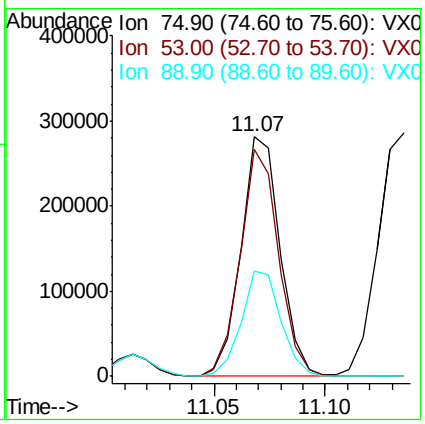
Manual Integrations APPROVED
apatel
12/16/2019 12:46:06 PM



#81
trans-1,4-Dichloro-2-butene
Concen: 104.093 ug/l
RT: 11.07 min Scan# 1670
Delta R.T. 0.00 min
Lab File: VX014011.D
Acq: 13 Dec 2019 16:22

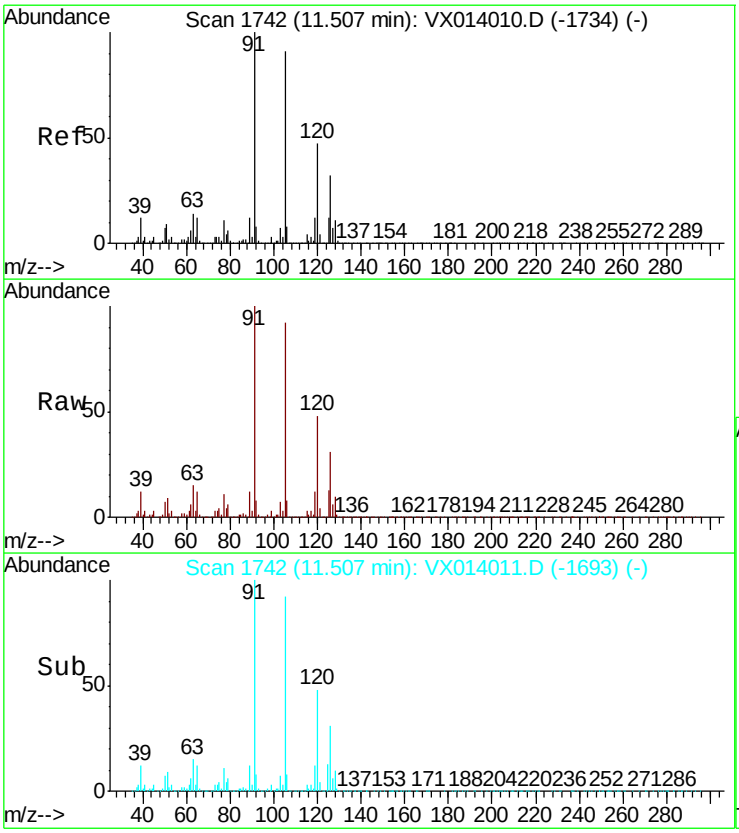
Tgt Ion: 75 Resp: 344901

Ion	Ratio	Lower	Upper
75	100		
53	93.2	76.7	115.1
89	44.9	34.6	51.8



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC100

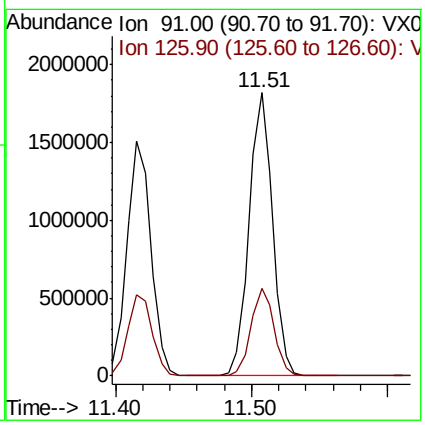
Manual Integrations APPROVED
apatel
12/16/2019 12:46:06 PM

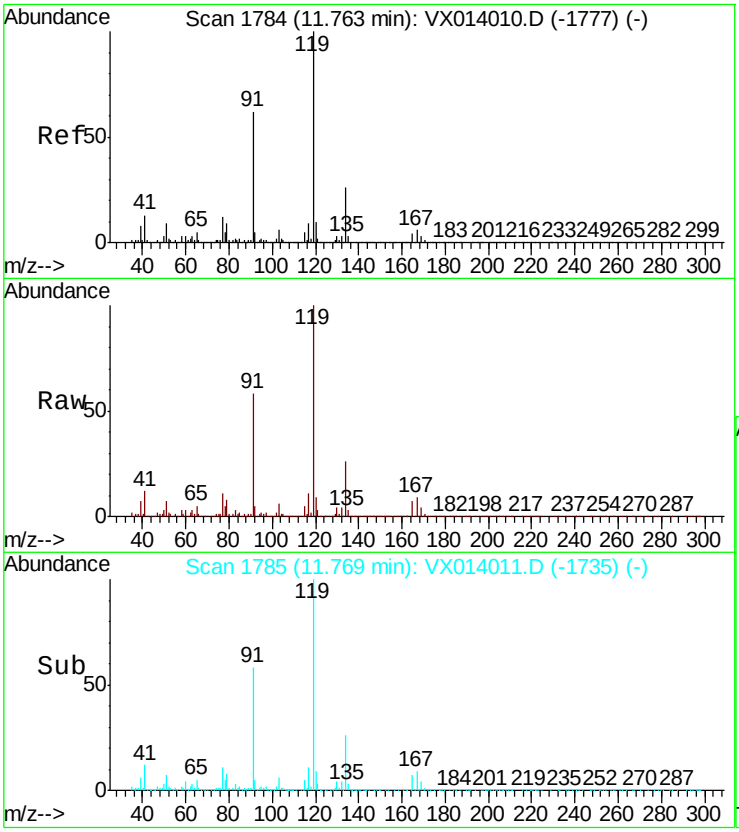


#82
4-Chlorotoluene
Concen: 99.470 ug/l
RT: 11.51 min Scan# 1742
Delta R.T. 0.00 min
Lab File: VX014011.D
Acq: 13 Dec 2019 16:22

Tgt Ion: 91 Resp: 2200862

Ion	Ratio	Lower	Upper
91	100		
126	30.6	15.6	46.8

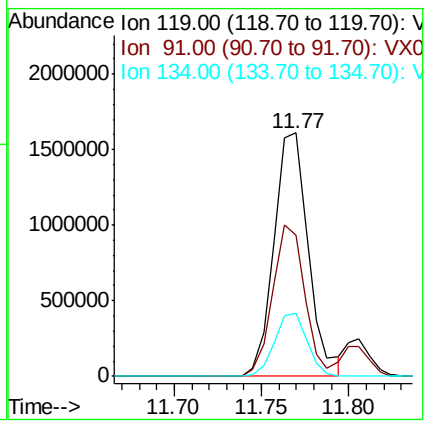


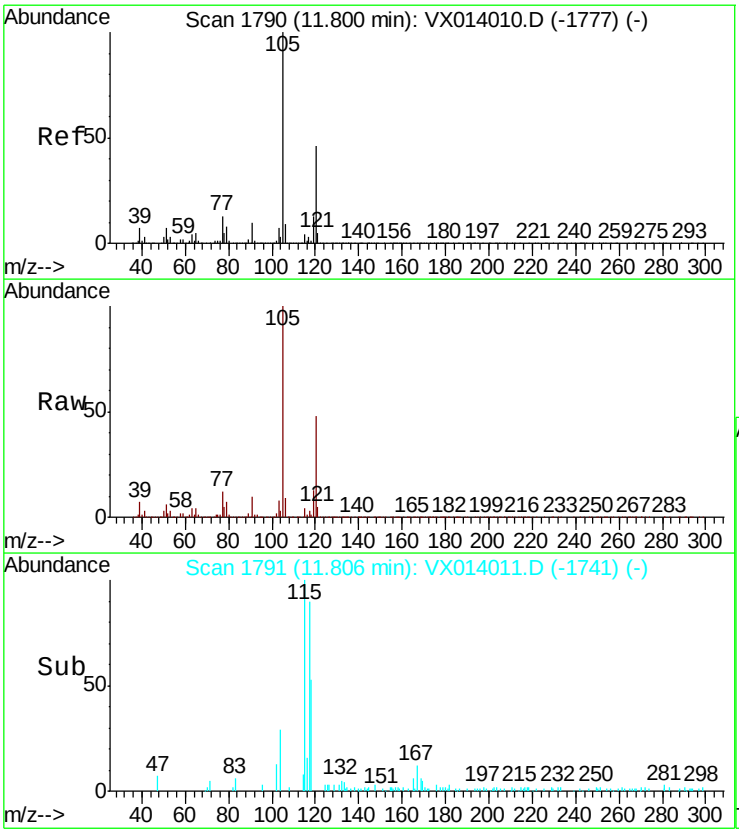


#83
tert-Butylbenzene
Concen: 93.495 ug/l
RT: 11.77 min Scan# 1785
Delta R.T. 0.01 min
Lab File: VX014011.D
Acq: 13 Dec 2019 16:22

Tgt Ion:119 Resp: 2205438

Ion	Ratio	Lower	Upper
119	100		
91	58.3	28.5	85.6
134	24.6	12.2	36.6

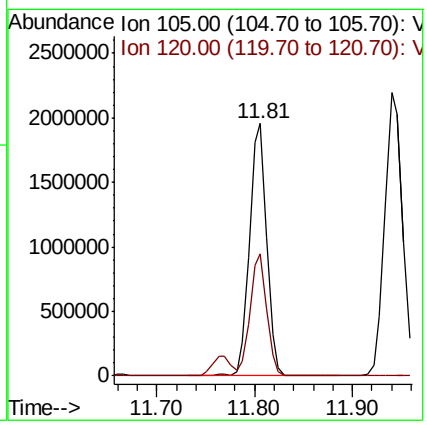




#84
1,2,4-Trimethylbenzene
Concen: 99.859 ug/l
RT: 11.81 min Scan# 1791
Delta R.T. 0.01 min
Lab File: VX014011.D
Acq: 13 Dec 2019 16:22

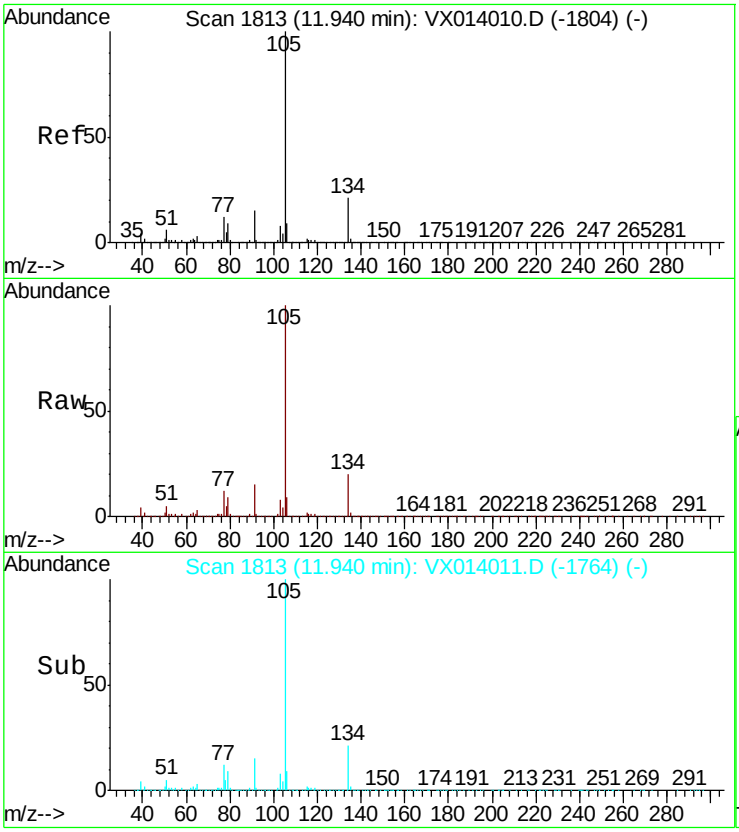
Tgt Ion:105 Resp: 2371228

Ion	Ratio	Lower	Upper
105	100		
120	46.9	23.1	69.2



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC100

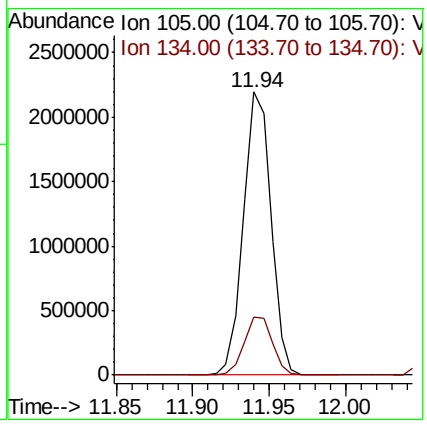
Manual Integrations APPROVED
apatel
12/16/2019 12:46:06 PM

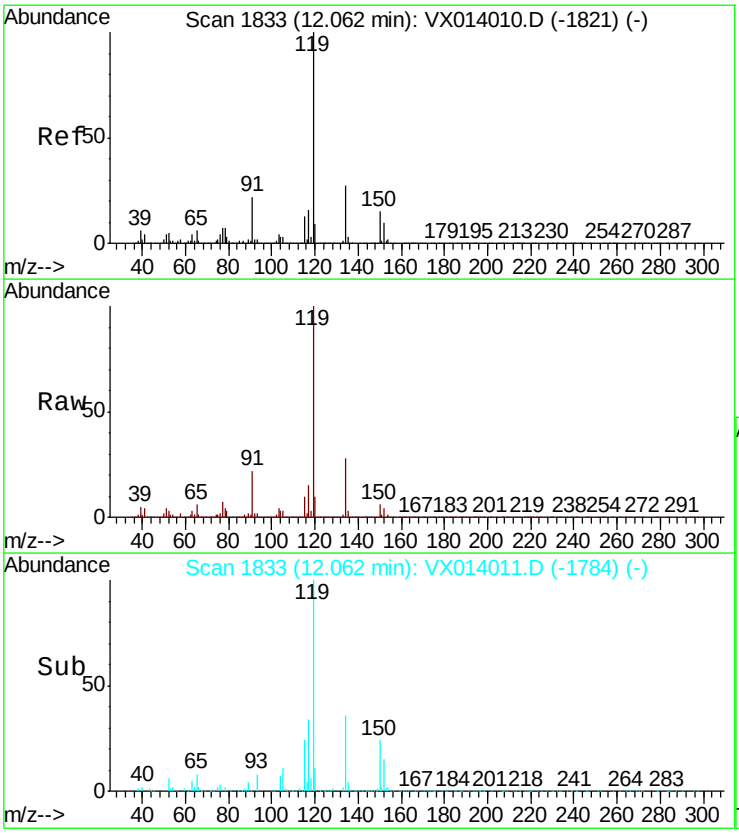


#85
sec-Butylbenzene
Concen: 101.431 ug/l
RT: 11.94 min Scan# 1813
Delta R.T. 0.00 min
Lab File: VX014011.D
Acq: 13 Dec 2019 16:22

Tgt Ion:105 Resp: 2753476

Ion	Ratio	Lower	Upper
105	100		
134	20.9	10.4	31.1

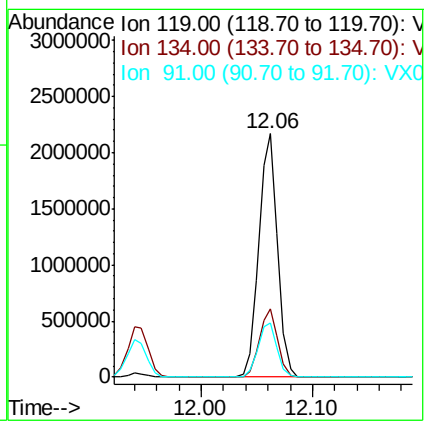




#86
p-Isopropyltoluene
Concen: 100.425 ug/l
RT: 12.06 min Scan# 1833
Delta R.T. 0.00 min
Lab File: VX014011.D
Acq: 13 Dec 2019 16:22

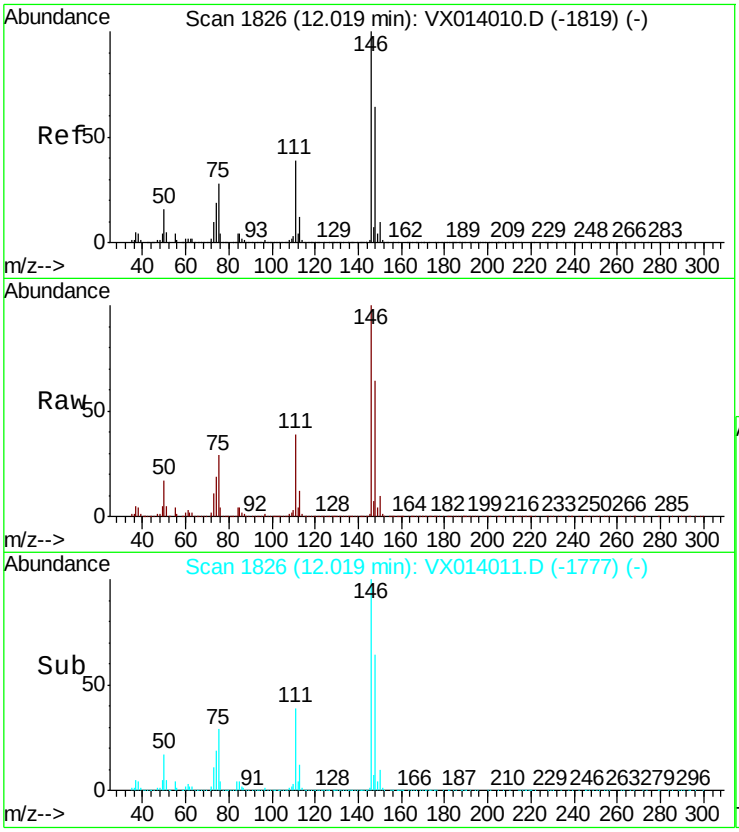
Tgt Ion:119 Resp: 2532372

Ion	Ratio	Lower	Upper
119	100		
134	27.4	13.4	40.1
91	22.6	11.4	34.1



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC100

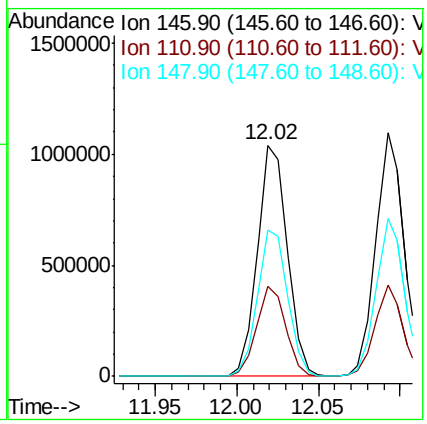
Manual Integrations APPROVED
apatel
12/16/2019 12:46:06 PM



#87
1,3-Dichlorobenzene
Concen: 98.848 ug/l
RT: 12.02 min Scan# 1826
Delta R.T. 0.00 min
Lab File: VX014011.D
Acq: 13 Dec 2019 16:22

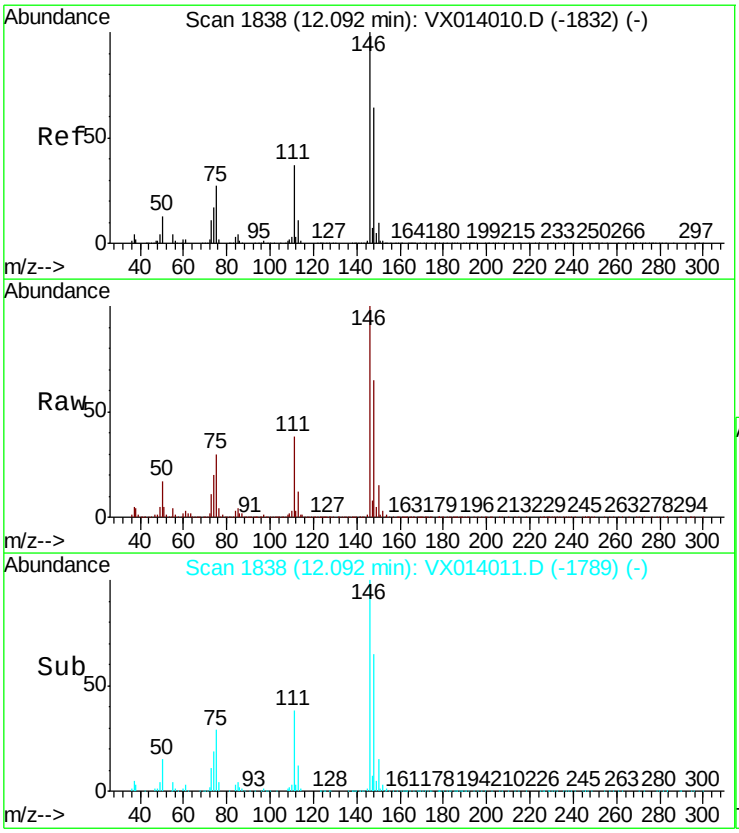
Tgt Ion:146 Resp: 1325579

Ion	Ratio	Lower	Upper
146	100		
111	38.2	19.1	57.1
148	64.1	32.3	96.9



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC100

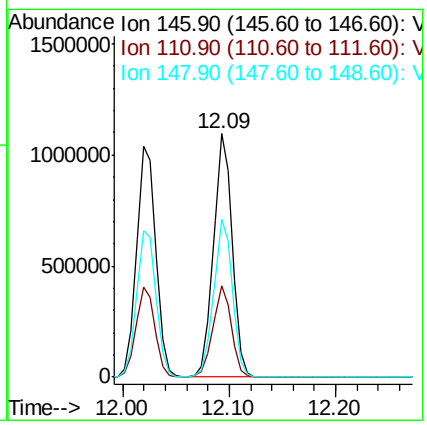
Manual Integrations APPROVED
apatel
12/16/2019 12:46:06 PM

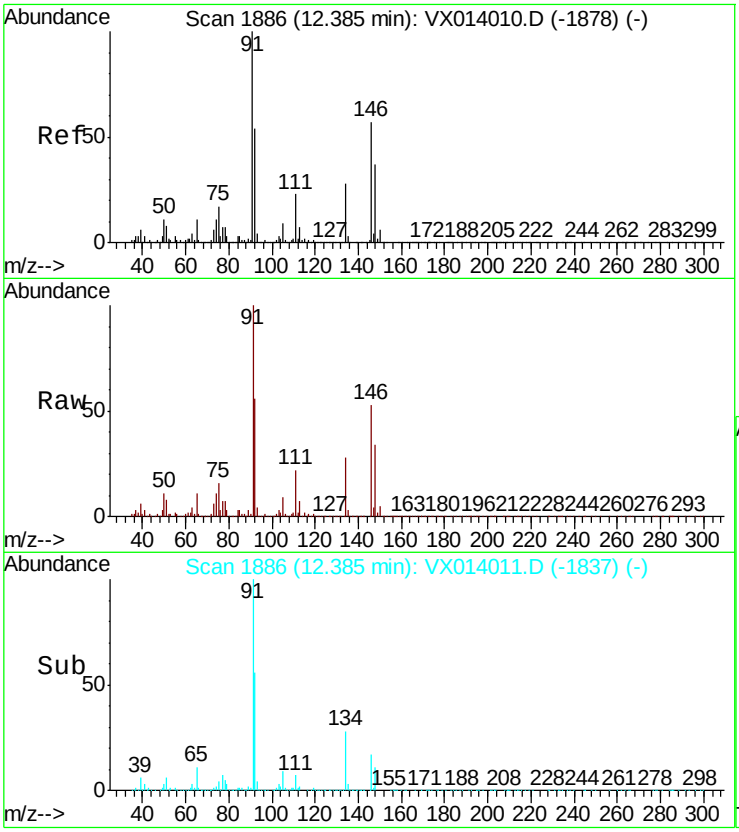


#88
1,4-Dichlorobenzene
Concen: 96.582 ug/l
RT: 12.09 min Scan# 1838
Delta R.T. 0.00 min
Lab File: VX014011.D
Acq: 13 Dec 2019 16:22

Tgt Ion:146 Resp: 1321090

Ion	Ratio	Lower	Upper
146	100		
111	36.9	18.7	56.1
148	64.8	31.9	95.9

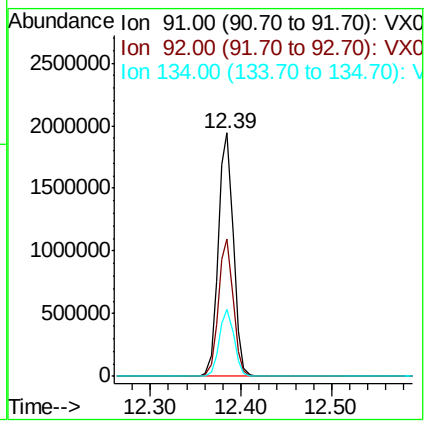


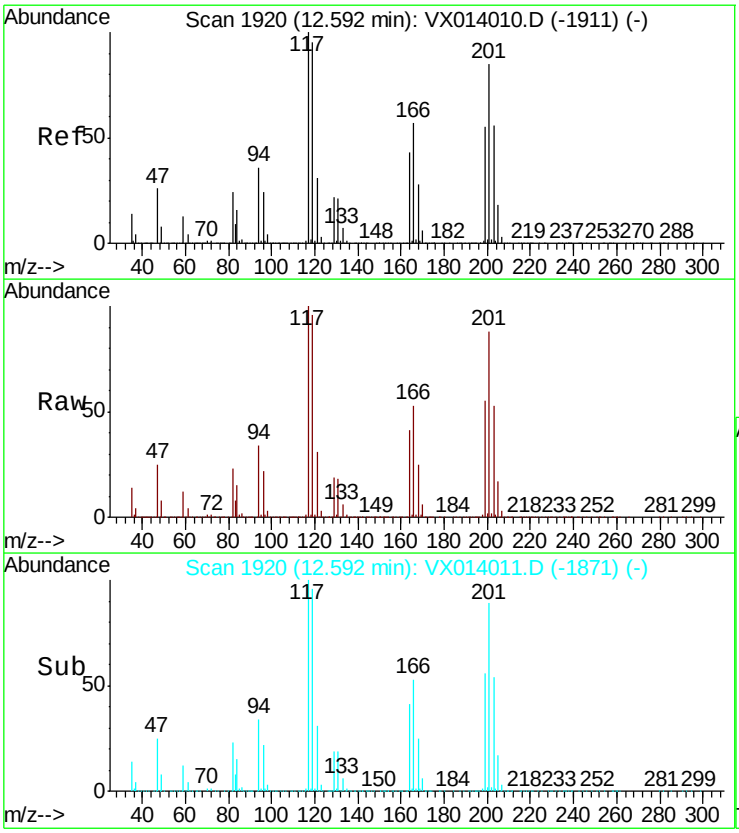


#89
n-Butylbenzene
Concen: 104.611 ug/l
RT: 12.39 min Scan# 1886
Delta R.T. 0.00 min
Lab File: VX014011.D
Acq: 13 Dec 2019 16:22

Tgt Ion: 91 Resp: 2252779

Ion	Ratio	Lower	Upper
91	100		
92	55.4	27.2	81.6
134	27.2	13.4	40.1

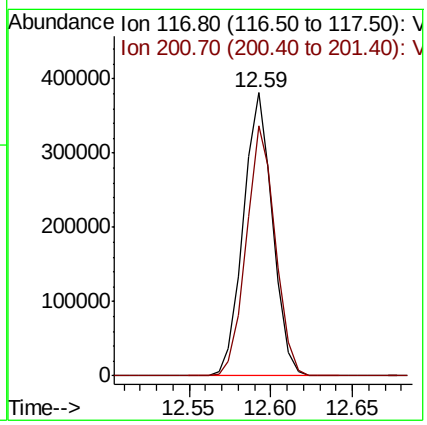




#90
Hexachloroethane
Concen: 104.126 ug/l
RT: 12.59 min Scan# 1920
Delta R.T. 0.00 min
Lab File: VX014011.D
Acq: 13 Dec 2019 16:22

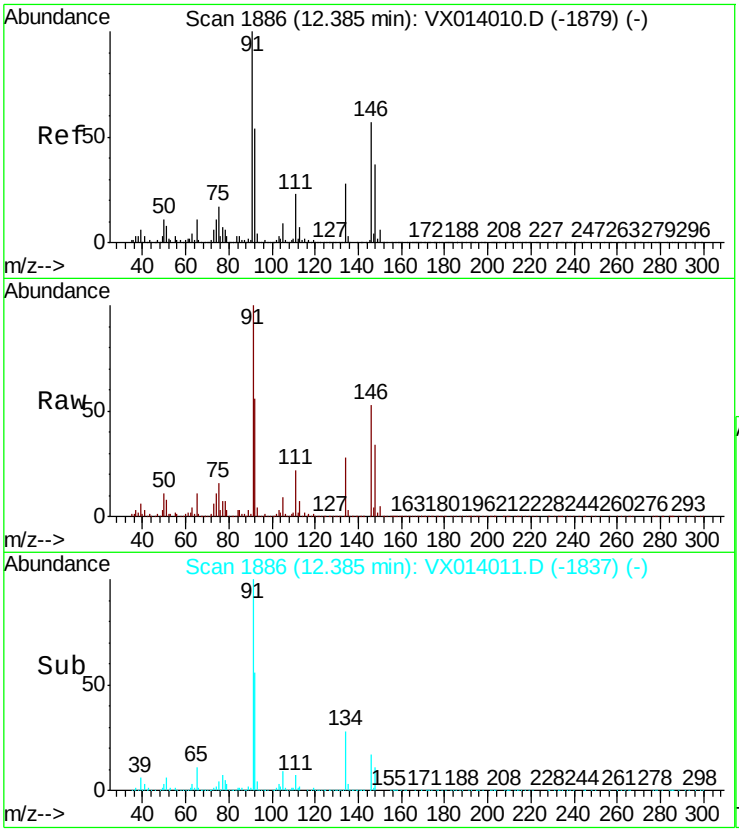
Tgt Ion:117 Resp: 475941

Ion	Ratio	Lower	Upper
117	100		
201	87.8	43.1	129.3



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC100

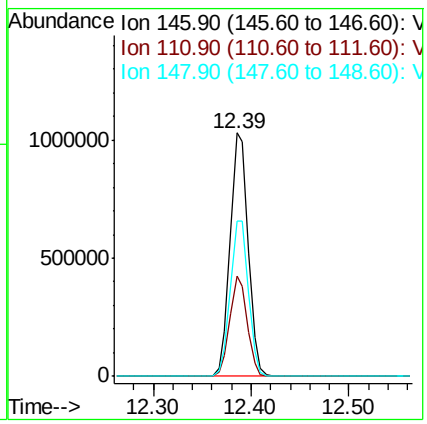
Manual Integrations APPROVED
apatel
12/16/2019 12:46:06 PM



#91
1,2-Dichlorobenzene
Concen: 99.046 ug/l
RT: 12.39 min Scan# 1886
Delta R.T. 0.00 min
Lab File: VX014011.D
Acq: 13 Dec 2019 16:22

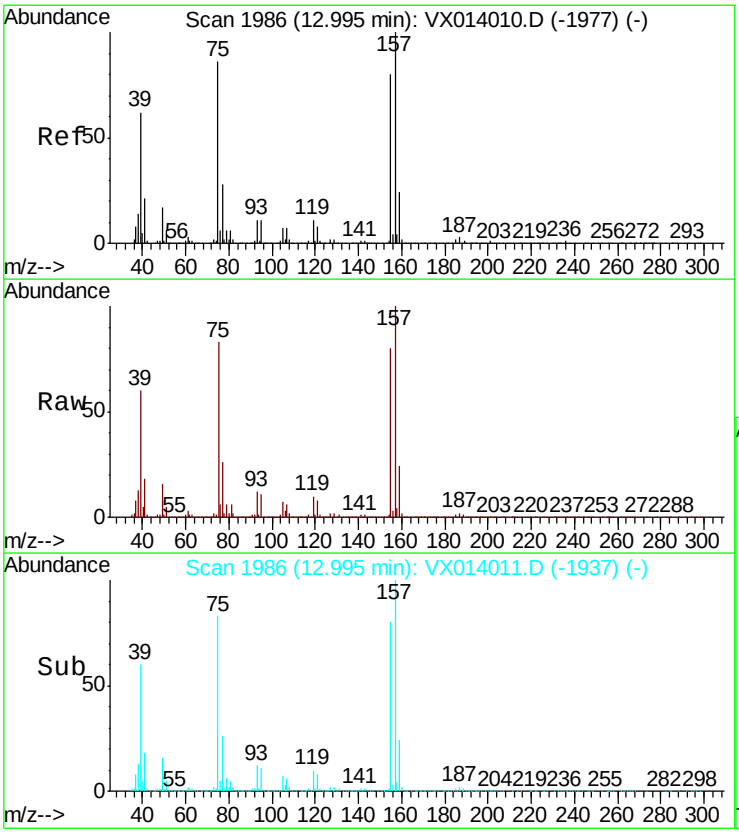
Tgt Ion:146 Resp: 1316372

Ion	Ratio	Lower	Upper
146	100		
111	40.0	19.7	59.1
148	64.5	32.1	96.5



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC100

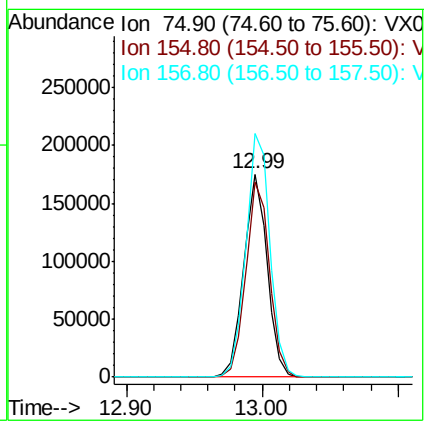
Manual Integrations APPROVED
apatel
12/16/2019 12:46:06 PM

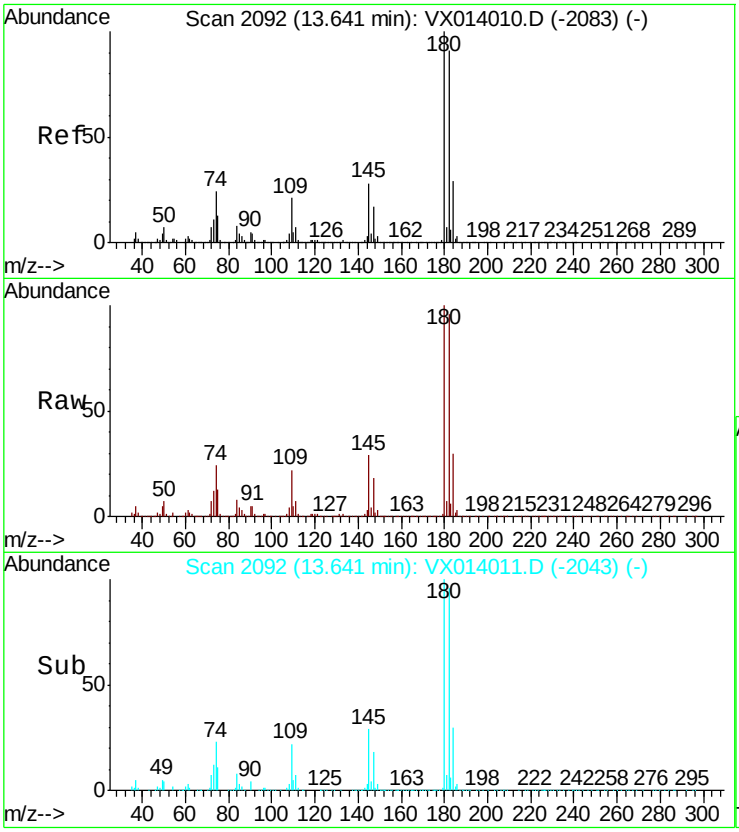


#92
1,2-Dibromo-3-Chloropropane
Concen: 98.478 ug/l
RT: 12.99 min Scan# 1986
Delta R.T. 0.00 min
Lab File: VX014011.D
Acq: 13 Dec 2019 16:22

Tgt Ion: 75 Resp: 209437

Ion	Ratio	Lower	Upper
75	100		
155	97.9	46.9	140.6
157	124.9	60.8	182.4

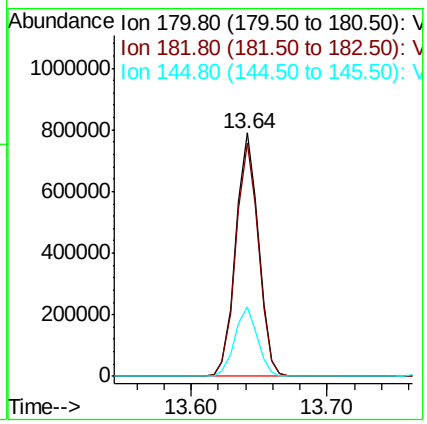




#93
1,2,4-Trichlorobenzene
Concen: 99.909 ug/l
RT: 13.64 min Scan# 2092
Delta R.T. 0.00 min
Lab File: VX014011.D
Acq: 13 Dec 2019 16:22

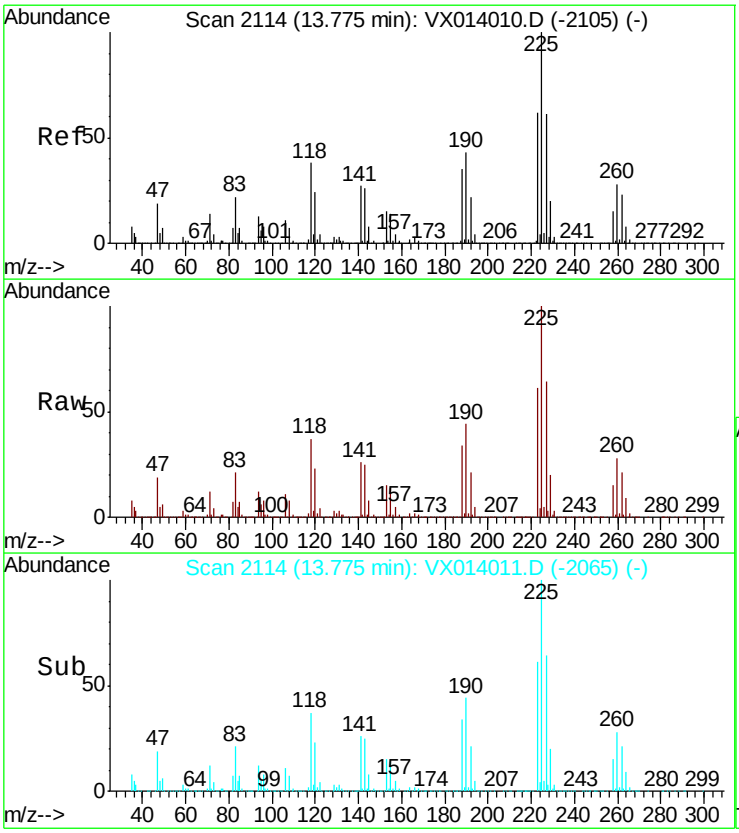
Tgt Ion:180 Resp: 917133

Ion	Ratio	Lower	Upper
180	100		
182	95.9	46.6	139.8
145	28.5	14.2	42.6



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC100

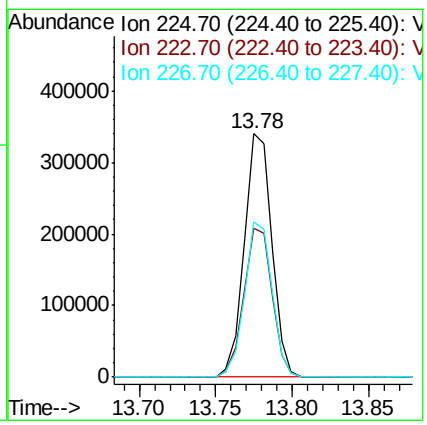
Manual Integrations APPROVED
apatel
12/16/2019 12:46:06 PM

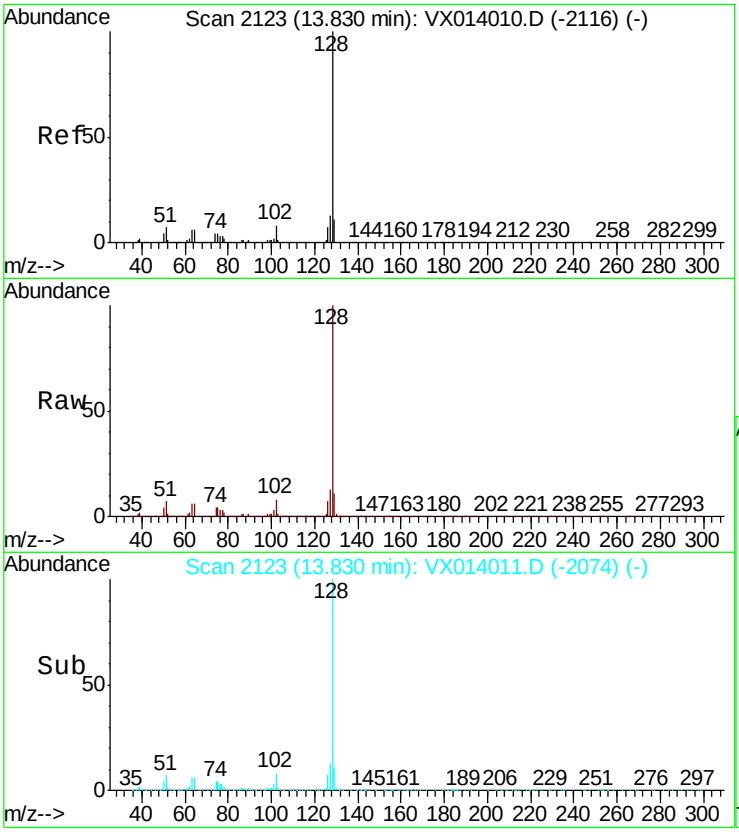


#94
Hexachlorobutadiene
Concen: 95.763 ug/l
RT: 13.78 min Scan# 2114
Delta R.T. 0.00 min
Lab File: VX014011.D
Acq: 13 Dec 2019 16:22

Tgt Ion:225 Resp: 425393

Ion	Ratio	Lower	Upper
225	100		
223	62.4	30.9	92.5
227	63.6	30.9	92.7

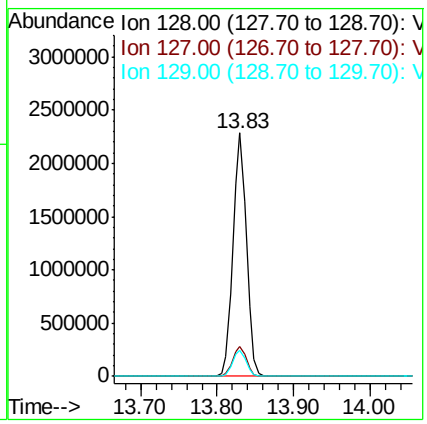




#95
Naphthalene
Concen: 101.586 ug/l
RT: 13.83 min Scan# 2123
Delta R.T. 0.00 min
Lab File: VX014011.D
Acq: 13 Dec 2019 16:22

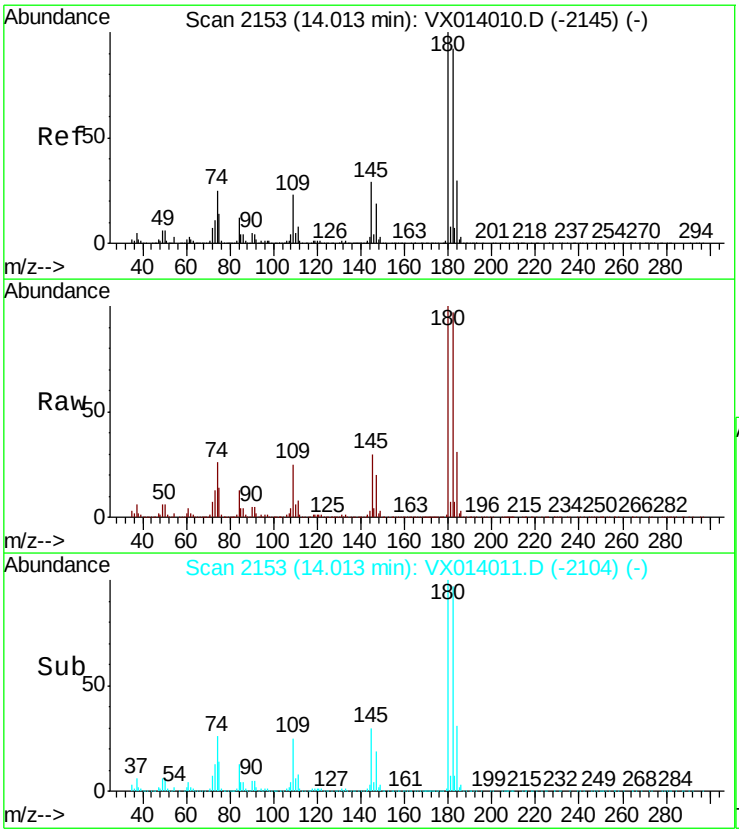
Tgt Ion:128 Resp: 2770114

Ion	Ratio	Lower	Upper
128	100		
127	12.7	10.2	15.4
129	10.9	8.7	13.1



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC100

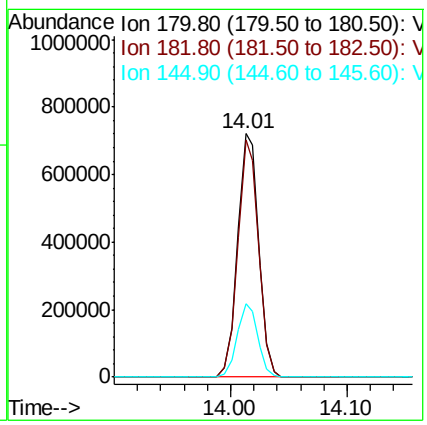
Manual Integrations APPROVED
apatel
12/16/2019 12:46:06 PM



#96
1,2,3-Trichlorobenzene
Concen: 99.469 ug/l
RT: 14.01 min Scan# 2153
Delta R.T. 0.00 min
Lab File: VX014011.D
Acq: 13 Dec 2019 16:22

Tgt Ion:180 Resp: 908154

Ion	Ratio	Lower	Upper
180	100		
182	95.5	46.8	140.3
145	29.7	14.8	44.4



Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX121319\
Data File : VX014012.D
Acq On : 13 Dec 2019 16:45
Operator : JC/SP
Sample : VSTDICC150
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 8 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
VSTDICC150

Manual Integrations APPROVED
apatel
12/16/2019 12:46:09 PM

Quant Time: Dec 13 17:08:10 2019
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121319W.M
Quant Title : SW846 8260
QLast Update : Fri Dec 13 16:34:01 2019
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	5.65	168	540958	50.00	ug/l	0.00
34) 1,4-Difluorobenzene	6.85	114	834820	50.00	ug/l	0.00
63) Chlorobenzene-d5	10.11	117	770553	50.00	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	12.07	152	416367	50.00	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	6.05	65	936152	148.85	ug/l	0.00
Spiked Amount 50.000			Recovery = 297.70%			
35) Dibromofluoromethane	5.49	113	788057	151.88	ug/l	0.00
Spiked Amount 50.000			Recovery = 303.76%			
50) Toluene-d8	8.71	98	2996447	147.69	ug/l	0.00
Spiked Amount 50.000			Recovery = 295.38%			
62) 4-Bromofluorobenzene	11.14	95	1153758	157.28	ug/l	0.00
Spiked Amount 50.000			Recovery = 314.56%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.19	85	717501	124.068	ug/l	98
3) Chloromethane	1.31	50	936620	139.945	ug/l	99
4) Vinyl Chloride	1.40	62	977207	132.003	ug/l	100
5) Bromomethane	1.62	94	736859	145.490	ug/l	100
6) Chloroethane	1.70	64	594664	137.774	ug/l	93
7) Trichlorofluoromethane	1.91	101	1250605	147.606	ug/l	99
8) Diethyl Ether	2.18	74	570113	148.881	ug/l	98
9) 1,1,2-Trichlorotrifluoroet	2.36	101	749338	145.407	ug/l	100
10) Methyl Iodide	2.50	142	1044115	166.829	ug/l	98
11) Tert butyl alcohol	3.07	59	966022	641.188	ug/l	99
12) 1,1-Dichloroethene	2.36	96	777505	151.289	ug/l	98
13) Acrolein	2.29	56	674752	760.771	ug/l	96
14) Allyl chloride	2.72	41	1424464	152.861	ug/l	99
15) Acrylonitrile	3.14	53	2328143	734.864	ug/l	100
16) Acetone	2.44	43	2873095	882.437	ug/l	99
17) Carbon Disulfide	2.55	76	2212411	150.704	ug/l	100
18) Methyl Acetate	2.76	43	1204602	143.050	ug/l	99
19) Methyl tert-butyl Ether	3.19	73	2596157	152.192	ug/l	98
20) Methylene Chloride	2.84	84	872676	146.173	ug/l	99
21) trans-1,2-Dichloroethene	3.15	96	829969	147.972	ug/l	97
22) Diisopropyl ether	3.85	45	2777400	154.046	ug/l	90
23) Vinyl Acetate	3.81	43	11159560	745.509	ug/l	98
24) 1,1-Dichloroethane	3.69	63	1512700	153.488	ug/l	99
25) 2-Butanone	4.67	43	3682621	792.556	ug/l	99
26) 2,2-Dichloropropane	4.57	77	1220310	150.261	ug/l	100
27) cis-1,2-Dichloroethene	4.58	96	961661	149.395	ug/l	100
28) Bromochloromethane	5.00	49	594697	170.925	ug/l	98
29) Tetrahydrofuran	5.12	42	2087333	745.240	ug/l	99
30) Chloroform	5.20	83	1457923	146.153	ug/l	98
31) Cyclohexane	5.57	56	1393293	149.543	ug/l	98
32) 1,1,1-Trichloroethane	5.48	97	1258831	151.096	ug/l	99
36) 1,1-Dichloropropene	5.79	75	1147913	151.372	ug/l	100
37) Ethyl Acetate	4.83	43	1287314	152.166	ug/l	99
38) Carbon Tetrachloride	5.78	117	1099440	157.180	ug/l	99

ICAL Form

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX121319\
Data File : VX014012.D
Acq On : 13 Dec 2019 16:45
Operator : JC/SP
Sample : VSTDICC150
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 8 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
VSTDICC150

Manual Integrations APPROVED
apatel
12/16/2019 12:46:09 PM

Quant Time: Dec 13 17:08:10 2019
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121319W.M
Quant Title : SW846 8260
QLast Update : Fri Dec 13 16:34:01 2019
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
39) Methylcyclohexane	7.46	83	1431530	152.452	ug/l	99
40) Benzene	6.14	78	3442287	148.726	ug/l	100
41) Methacrylonitrile	5.04	41	715360	154.915	ug/l	99
42) 1,2-Dichloroethane	6.18	62	1179327	149.634	ug/l	99
43) Isopropyl Acetate	6.43	43	2181617	156.119	ug/l	100
44) Trichloroethene	7.20	130	948580	149.877	ug/l	99
45) 1,2-Dichloropropane	7.51	63	894252	154.137	ug/l	99
46) Dibromomethane	7.65	93	585568	149.129	ug/l	99
47) Bromodichloromethane	7.89	83	1181251	159.175	ug/l	98
48) Methyl methacrylate	7.76	41	1071509	158.165	ug/l	99
49) 1,4-Dioxane	7.74	88	394321	2642.701	ug/l	100
51) 4-Methyl-2-Pentanone	8.64	43	6685070	761.881	ug/l	99
52) Toluene	8.78	92	2179460	151.380	ug/l	99
53) t-1,3-Dichloropropene	9.04	75	1384848	164.046	ug/l	98
54) cis-1,3-Dichloropropene	8.43	75	1495505	161.997	ug/l	100
55) 1,1,2-Trichloroethane	9.21	97	886074	152.917	ug/l	99
56) Ethyl methacrylate	9.17	69	1519194	162.809	ug/l	99
57) 1,3-Dichloropropane	9.37	76	1493883	149.395	ug/l	100
58) 2-Chloroethyl Vinyl ether	8.31	63	2855998	780.770	ug/l	99
59) 2-Hexanone	9.49	43	5445631	788.686	ug/l	99
60) Dibromochloromethane	9.58	129	986592	164.651	ug/l	100
61) 1,2-Dibromoethane	9.67	107	937046	151.608	ug/l	100
64) Tetrachloroethene	9.33	164	1038728	174.689	ug/l	97
65) Chlorobenzene	10.14	112	2375571	147.659	ug/l	98
66) 1,1,1,2-Tetrachloroethane	10.22	131	895181	155.397	ug/l	100
67) Ethyl Benzene	10.25	91	4147366	150.188	ug/l	97
68) m/p-Xylenes	10.35	106	3214539	303.636	ug/l	98
69) o-Xylene	10.70	106	1582818	153.308	ug/l	100
70) Styrene	10.71	104	2803610	160.964	ug/l	100
71) Bromoform	10.85	173	823754	173.364	ug/l	100
73) Isopropylbenzene	11.01	105	4102514	140.283	ug/l	99
74) N-amyl acetate	10.89	43	2089155	155.946	ug/l	99
75) 1,1,2,2-Tetrachloroethane	11.26	83	1451158	143.318	ug/l	99
76) 1,2,3-Trichloropropane	11.29	75	1295022m	138.876	ug/l	
77) Bromobenzene	11.25	156	1129271	143.259	ug/l	98
78) n-propylbenzene	11.35	91	4739102	144.921	ug/l	98
79) 2-Chlorotoluene	11.42	91	2816371	143.160	ug/l	99
80) 1,3,5-Trimethylbenzene	11.50	105	3555462	147.911	ug/l	99
81) trans-1,4-Dichloro-2-buten	11.07	75	538282	158.238	ug/l	96
82) 4-Chlorotoluene	11.51	91	3334083	146.773	ug/l	100
83) tert-Butylbenzene	11.77	119	3404783	140.591	ug/l	100
84) 1,2,4-Trimethylbenzene	11.81	105	3624117	148.658	ug/l	99
85) sec-Butylbenzene	11.94	105	4142990	148.653	ug/l	99
86) p-Isopropyltoluene	12.06	119	3899255	150.616	ug/l	99
87) 1,3-Dichlorobenzene	12.03	146	2035638	147.854	ug/l	99
88) 1,4-Dichlorobenzene	12.09	146	2043150	145.492	ug/l	99
89) n-Butylbenzene	12.39	91	3481644	157.477	ug/l	98
90) Hexachloroethane	12.59	117	746787	159.139	ug/l	98
91) 1,2-Dichlorobenzene	12.39	146	2007287	147.110	ug/l	100
92) 1,2-Dibromo-3-Chloropropan	12.99	75	316431	144.923	ug/l	96

ICAL Form

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX121319\
Data File : VX014012.D
Acq On : 13 Dec 2019 16:45
Operator : JC/SP
Sample : VSTDICC150
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 8 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
VSTDICC150

Manual Integrations APPROVED
apatel
12/16/2019 12:46:09 PM

Quant Time: Dec 13 17:08:10 2019
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121319W.M
Quant Title : SW846 8260
QLast Update : Fri Dec 13 16:34:01 2019
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
93) 1,2,4-Trichlorobenzene	13.64	180	1421239	150.803	ug/l	99
94) Hexachlorobutadiene	13.77	225	639399	140.202	ug/l	97
95) Naphthalene	13.83	128	4221939	150.807	ug/l	100
96) 1,2,3-Trichlorobenzene	14.01	180	1382616	147.504	ug/l	98

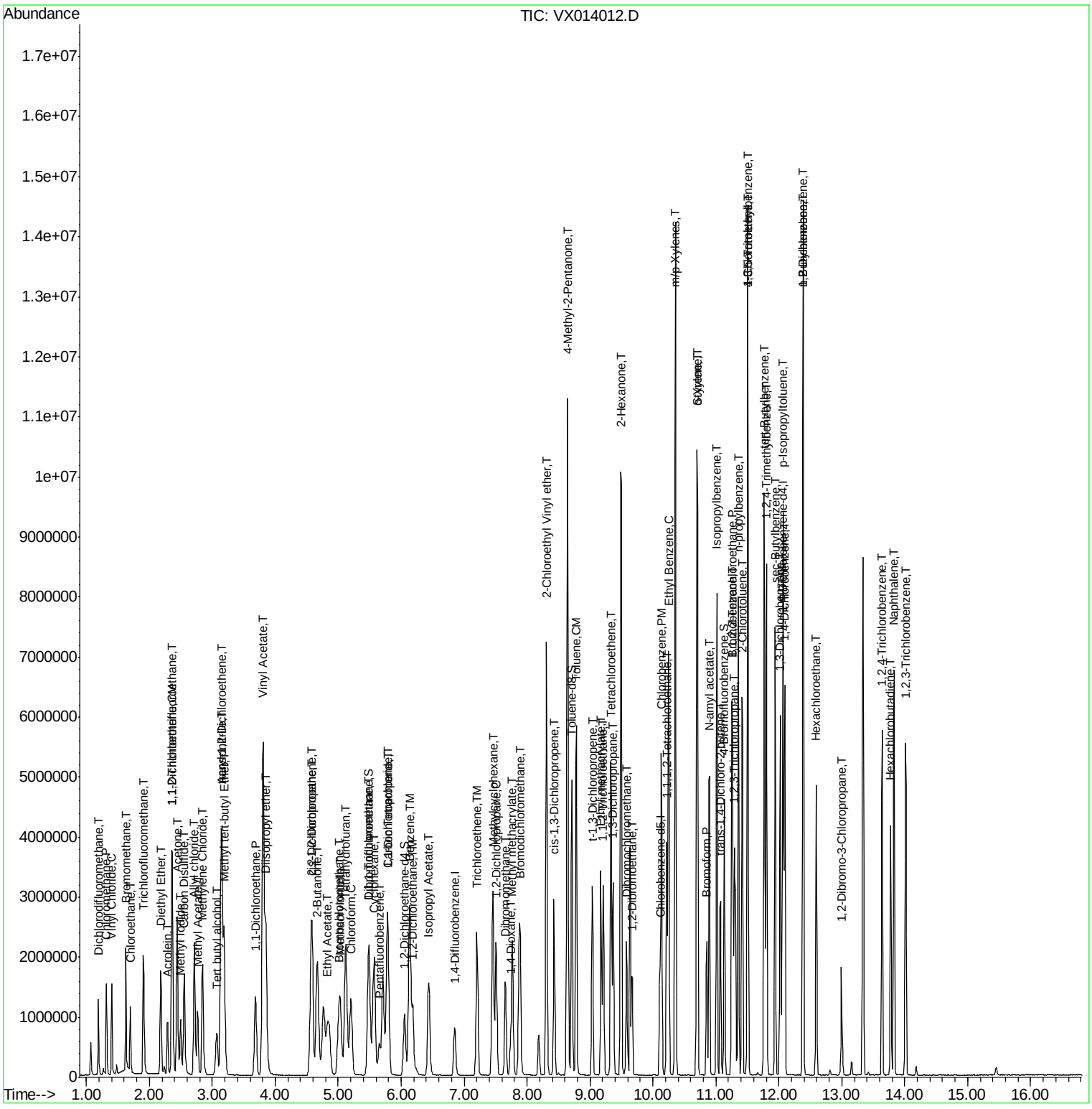
(#) = qualifier out of range (m) = manual integration (+) = signals summed

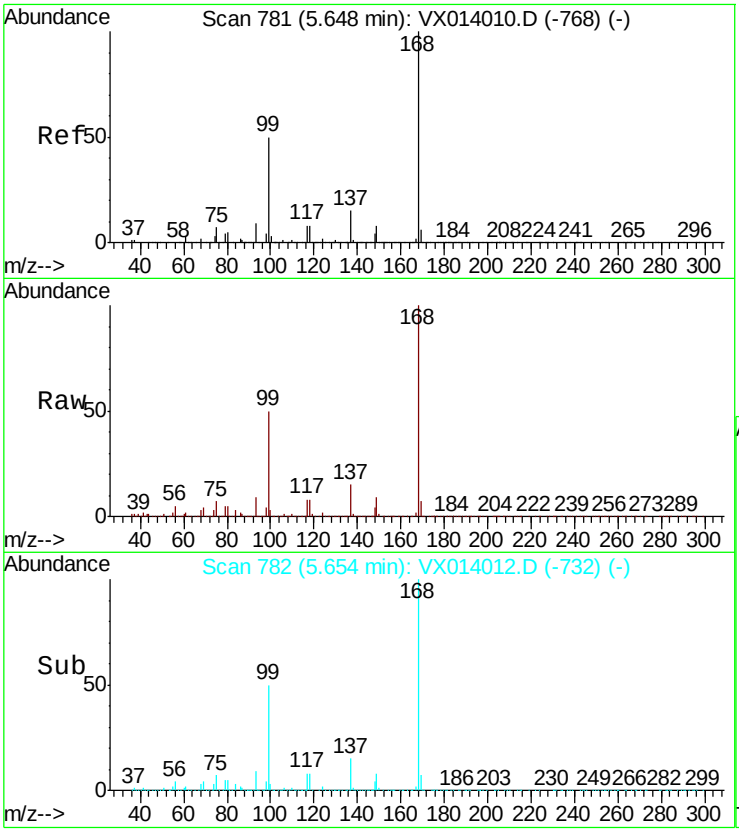
Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX121319\
Data File : VX014012.D
Acq On : 13 Dec 2019 16:45
Operator : JC/SP
Sample : VSTDICC150
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Dec 13 17:08:10 2019
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121319W.M
Quant Title : SW846 8260
QLast Update : Fri Dec 13 16:34:01 2019
Response via : Initial Calibration

Instrument :
MSVOA_X
ClientSampleId :
VSTDICC150

Manual Integrations APPROVED
apatel
12/16/2019 12:46:09 PM

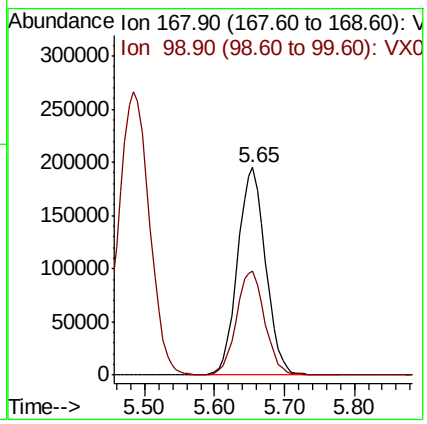




#1
Pentafluorobenzene
Concen: 50.000 ug/l
RT: 5.65 min Scan# 782
Delta R.T. 0.01 min
Lab File: VX014012.D
Acq: 13 Dec 2019 16:45

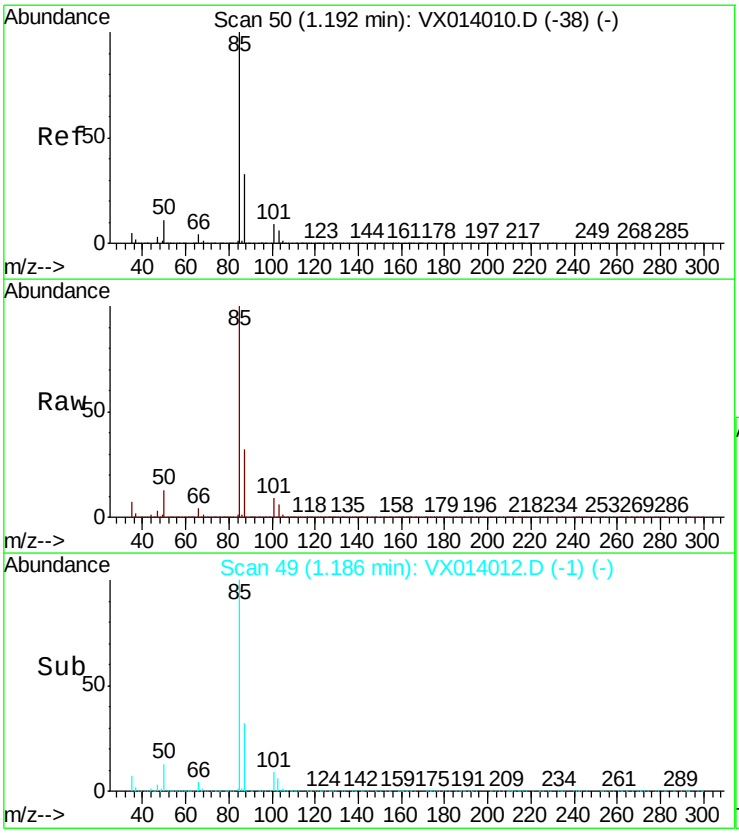
Tgt Ion:168 Resp: 540958

Ion	Ratio	Lower	Upper
168	100		
99	49.7	40.3	60.5



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC150

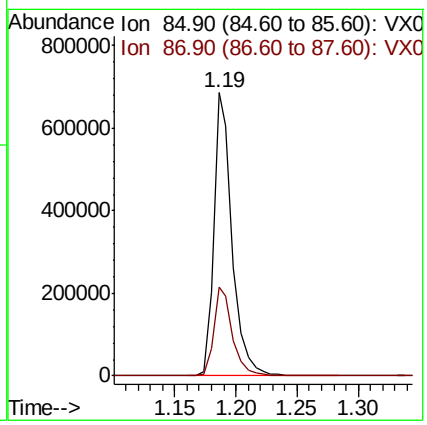
Manual Integrations APPROVED
apatel
12/16/2019 12:46:09 PM

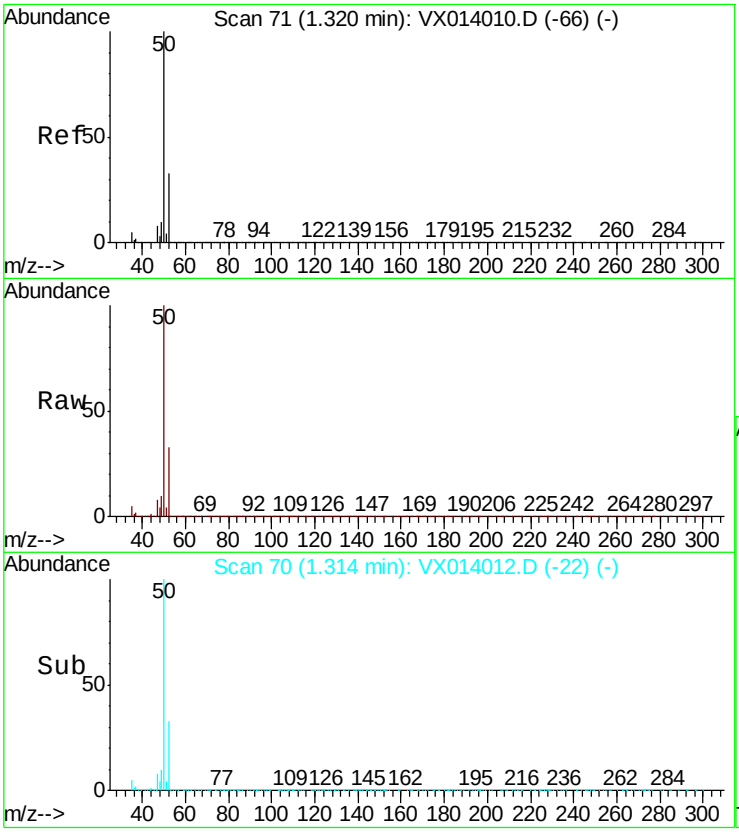


#2
Dichlorodifluoromethane
Concen: 124.068 ug/l
RT: 1.19 min Scan# 49
Delta R.T. -0.01 min
Lab File: VX014012.D
Acq: 13 Dec 2019 16:45

Tgt Ion: 85 Resp: 717501

Ion	Ratio	Lower	Upper
85	100		
87	31.6	16.4	49.2

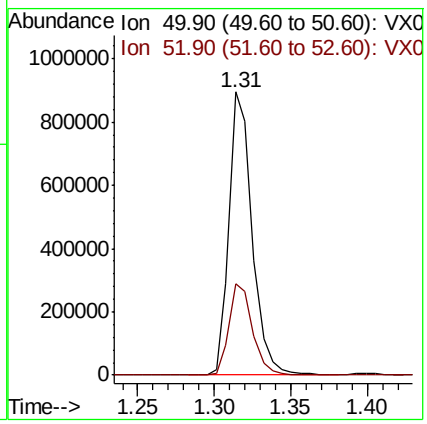




#3
Chloromethane
Concen: 139.945 ug/l
RT: 1.31 min Scan# 70
Delta R.T. -0.01 min
Lab File: VX014012.D
Acq: 13 Dec 2019 16:45

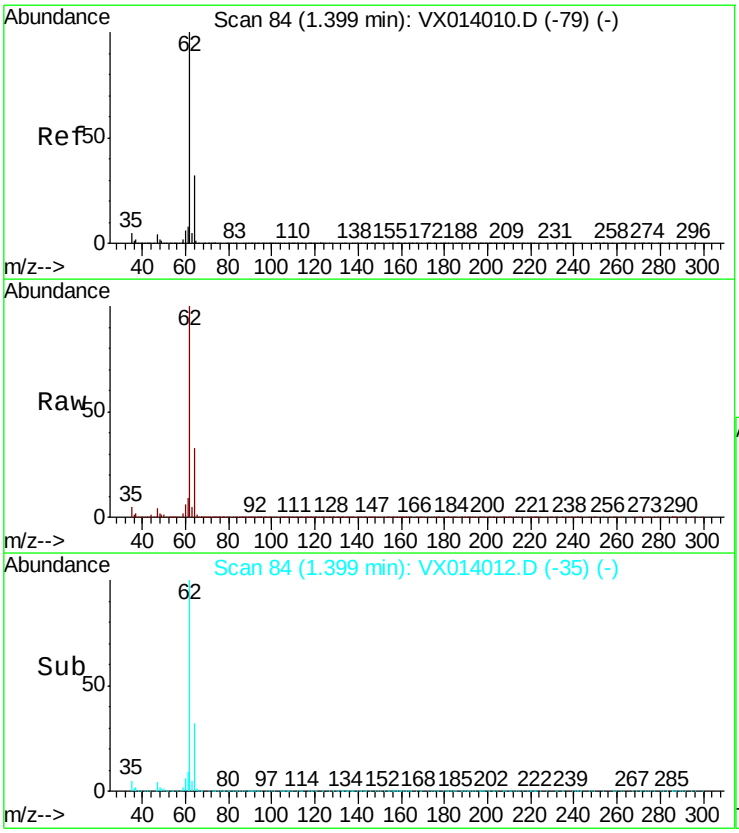
Tgt Ion: 50 Resp: 936620

Ion	Ratio	Lower	Upper
50	100		
52	32.5	26.2	39.4



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC150

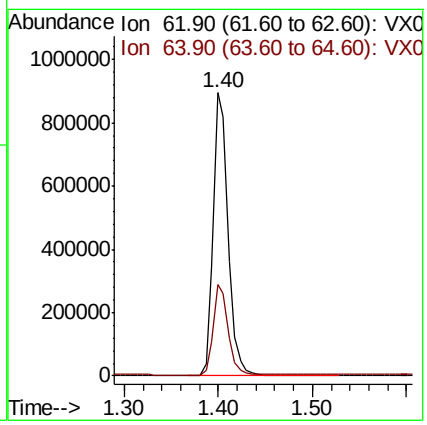
Manual Integrations APPROVED
apatel
12/16/2019 12:46:09 PM

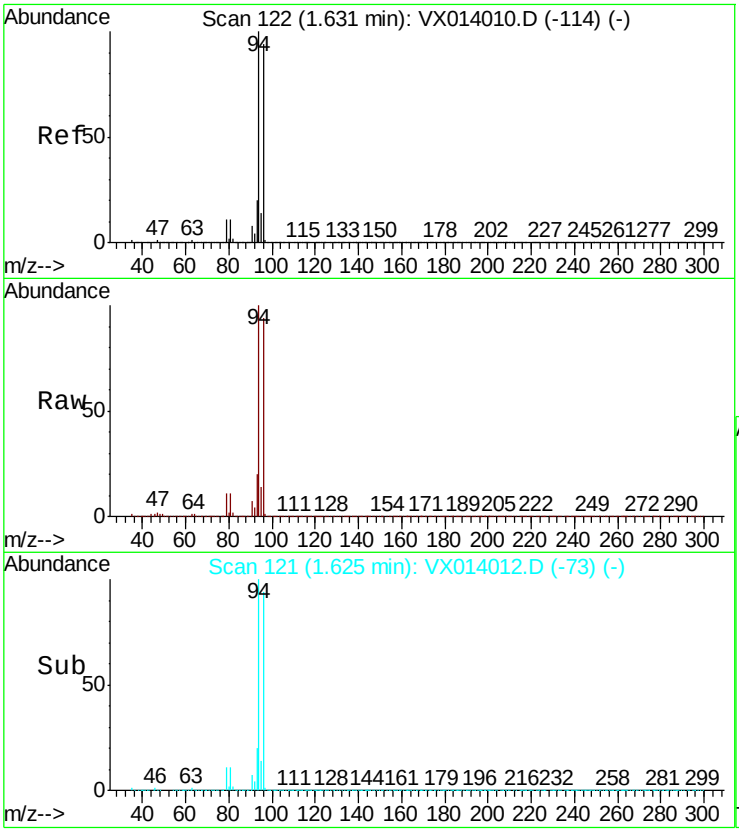


#4
Vinyl Chloride
Concen: 132.003 ug/l
RT: 1.40 min Scan# 84
Delta R.T. 0.00 min
Lab File: VX014012.D
Acq: 13 Dec 2019 16:45

Tgt Ion: 62 Resp: 977207

Ion	Ratio	Lower	Upper
62	100		
64	32.2	25.7	38.5

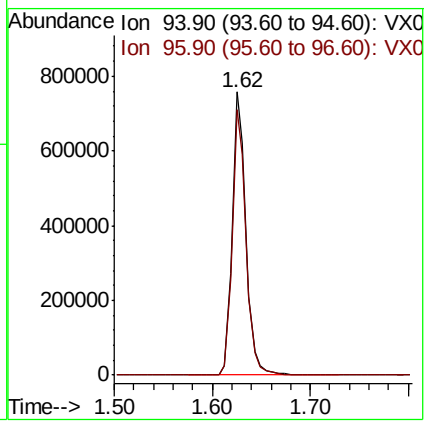




#5
Bromomethane
Concen: 145.490 ug/l
RT: 1.62 min Scan# 121
Delta R.T. -0.01 min
Lab File: VX014012.D
Acq: 13 Dec 2019 16:45

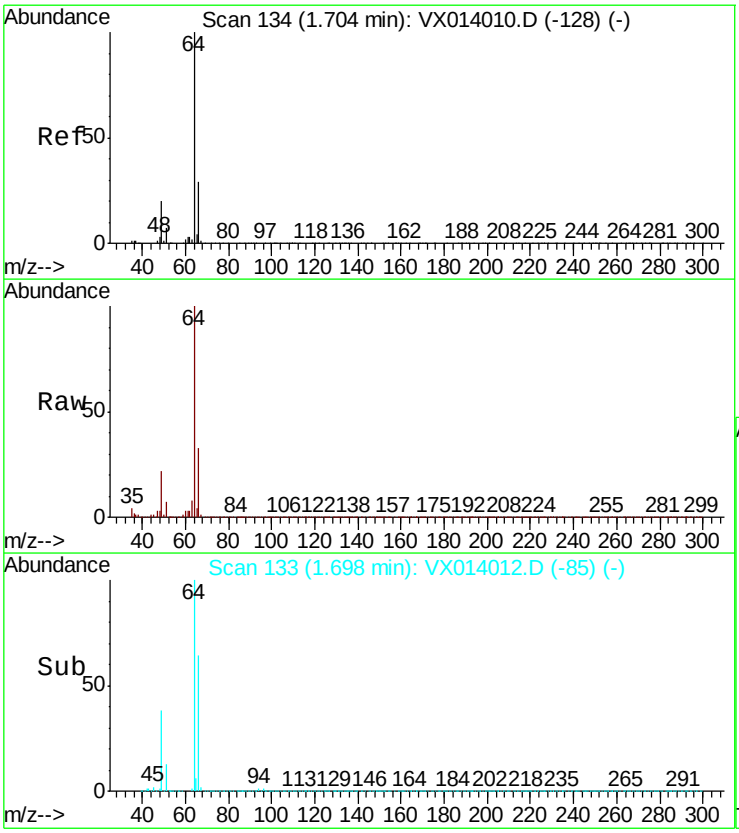
Tgt Ion: 94 Resp: 736859

Ion	Ratio	Lower	Upper
94	100		
96	93.9	75.2	112.8



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC150

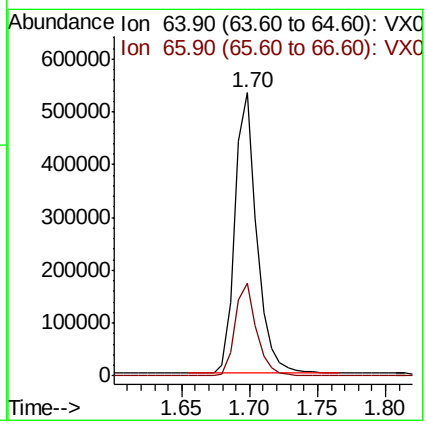
Manual Integrations APPROVED
apatel
12/16/2019 12:46:09 PM

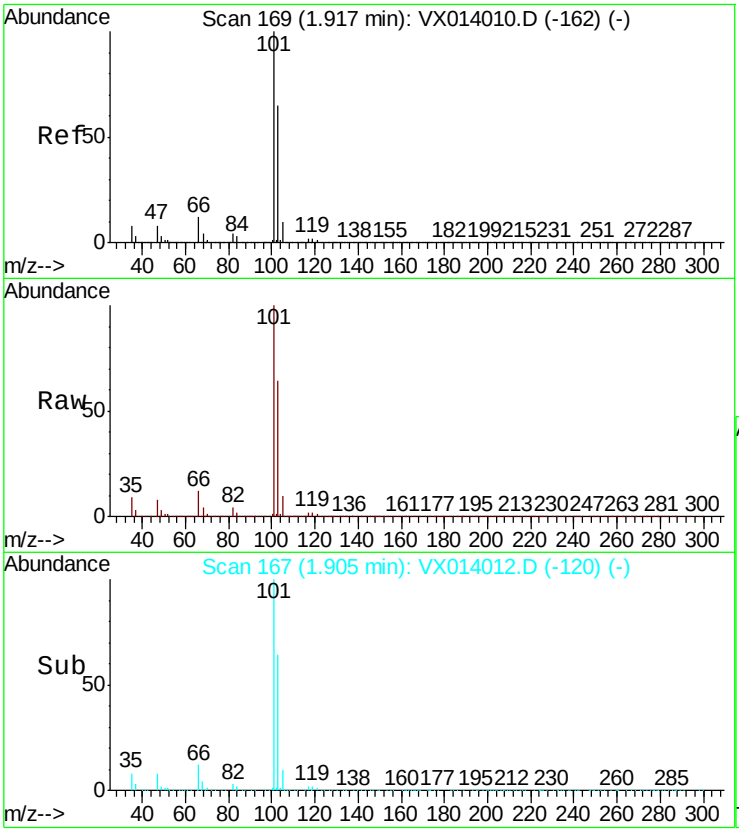


#6
Chloroethane
Concen: 137.774 ug/l
RT: 1.70 min Scan# 133
Delta R.T. -0.01 min
Lab File: VX014012.D
Acq: 13 Dec 2019 16:45

Tgt Ion: 64 Resp: 594664

Ion	Ratio	Lower	Upper
64	100		
66	32.9	23.4	35.2

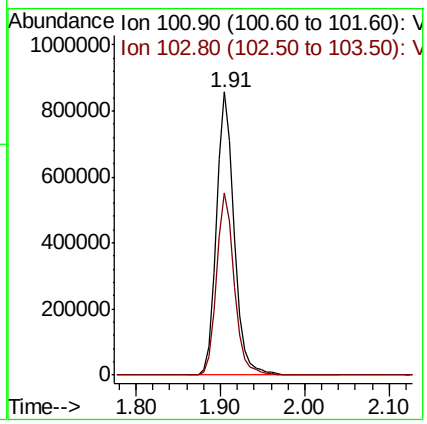




#7
Trichlorofluoromethane
Concen: 147.606 ug/l
RT: 1.91 min Scan# 167
Delta R.T. -0.01 min
Lab File: VX014012.D
Acq: 13 Dec 2019 16:45

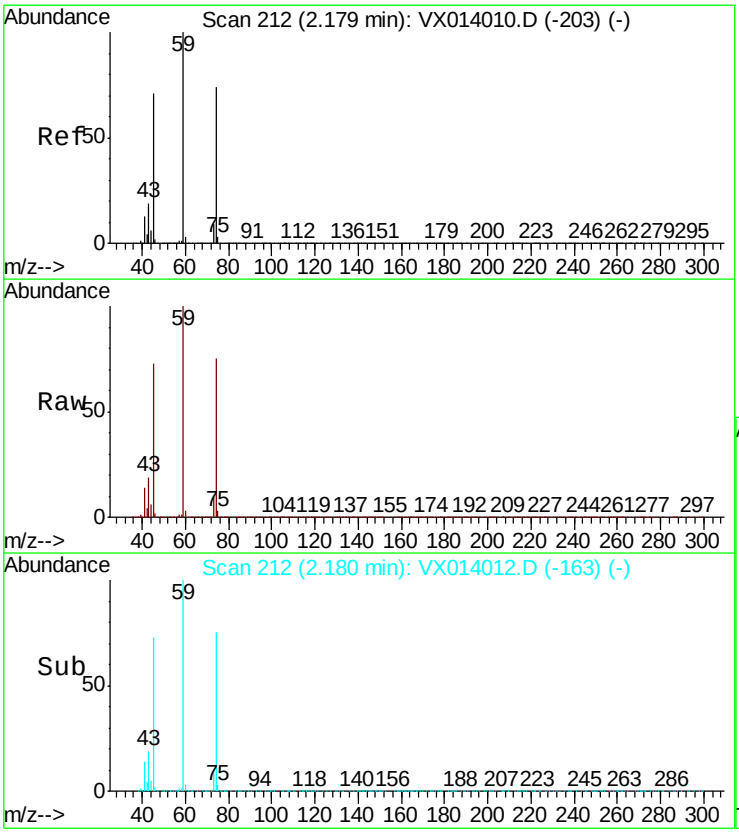
Tgt Ion:101 Resp: 1250605

Ion	Ratio	Lower	Upper
101	100		
103	64.2	52.2	78.4



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC150

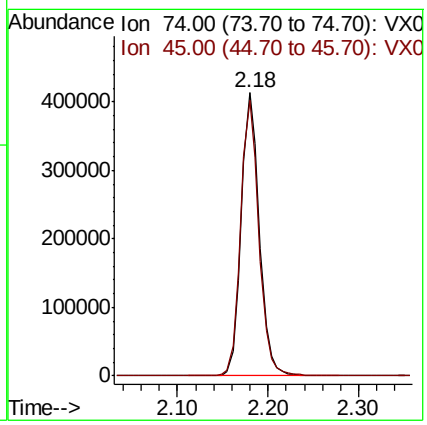
Manual Integrations APPROVED
apatel
12/16/2019 12:46:09 PM

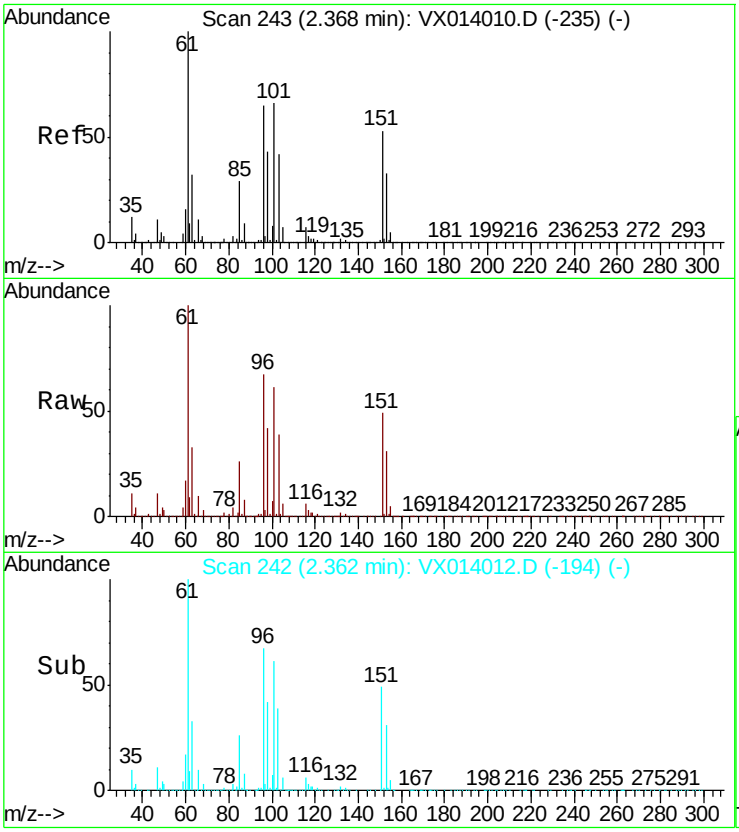


#8
Diethyl Ether
Concen: 148.881 ug/l
RT: 2.18 min Scan# 212
Delta R.T. 0.00 min
Lab File: VX014012.D
Acq: 13 Dec 2019 16:45

Tgt Ion: 74 Resp: 570113

Ion	Ratio	Lower	Upper
74	100		
45	98.4	48.1	144.3

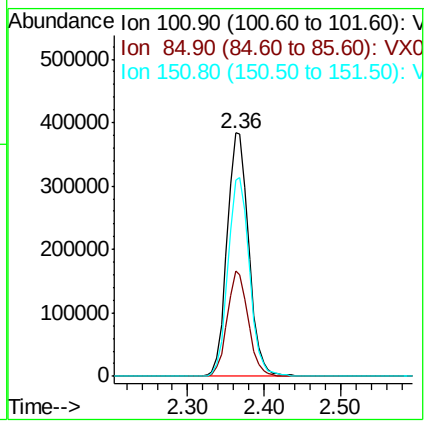




#9
1,1,2-Trichlorotrifluoroethane
Concen: 145.407 ug/l
RT: 2.36 min Scan# 242
Delta R.T. -0.01 min
Lab File: VX014012.D
Acq: 13 Dec 2019 16:45

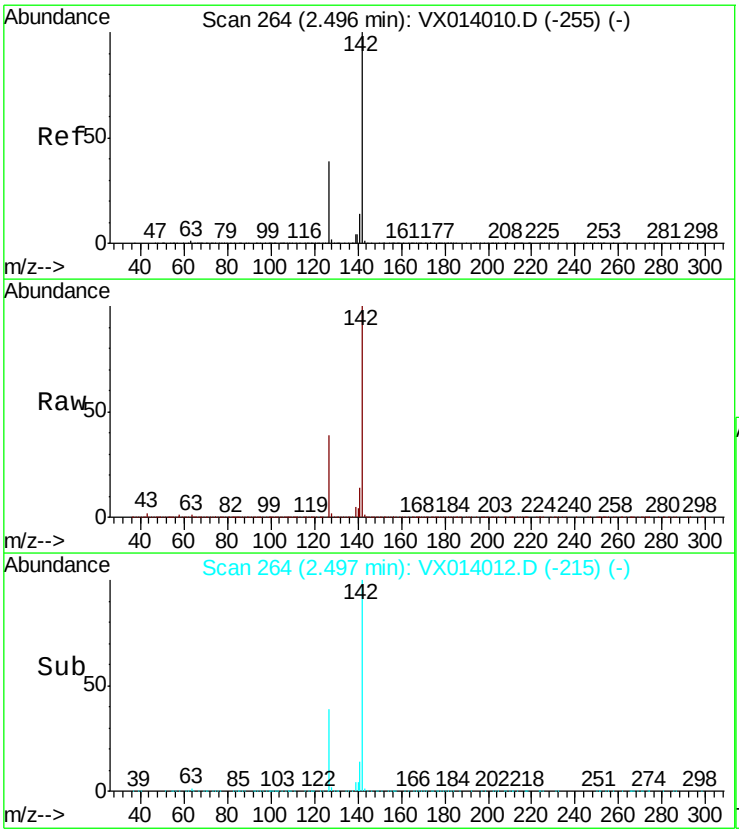
Tgt Ion:101 Resp: 749338

Ion	Ratio	Lower	Upper
101	100		
85	42.1	33.7	50.5
151	80.9	64.5	96.7



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC150

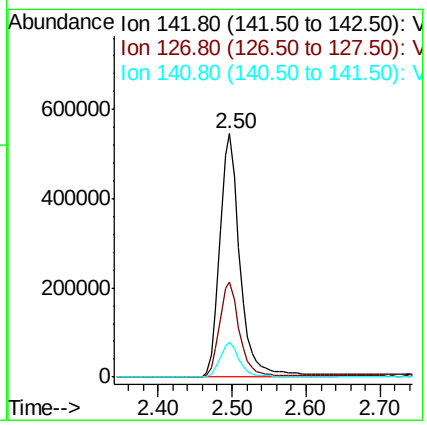
Manual Integrations APPROVED
apatel
12/16/2019 12:46:09 PM



#10
Methyl Iodide
Concen: 166.829 ug/l
RT: 2.50 min Scan# 264
Delta R.T. 0.00 min
Lab File: VX014012.D
Acq: 13 Dec 2019 16:45

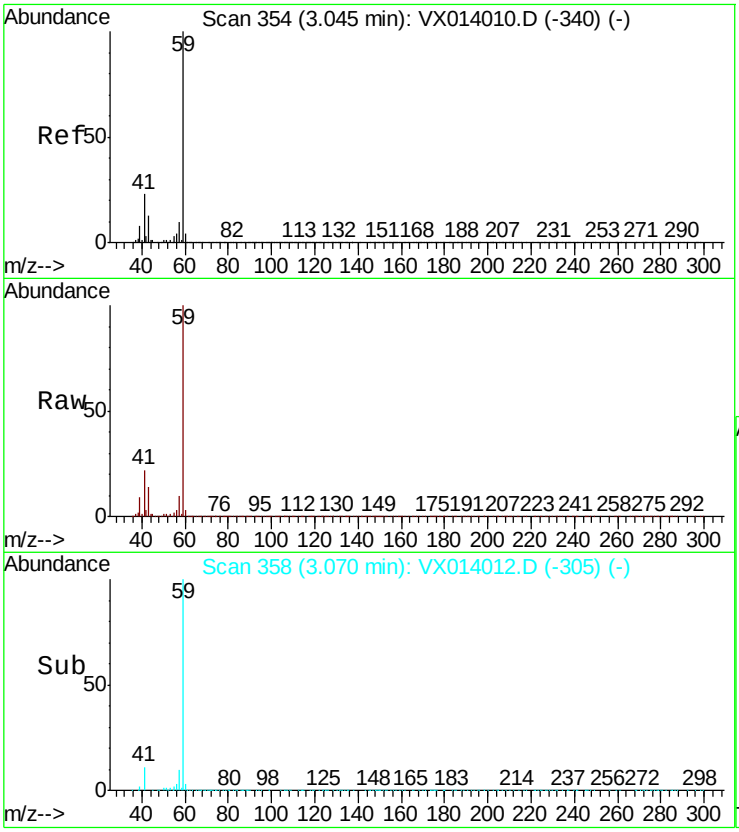
Tgt Ion:142 Resp: 1044115

Ion	Ratio	Lower	Upper
142	100		
127	38.5	31.6	47.4
141	13.8	11.6	17.4



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC150

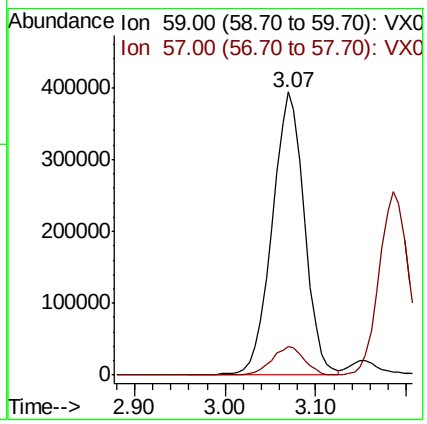
Manual Integrations APPROVED
apatel
12/16/2019 12:46:09 PM

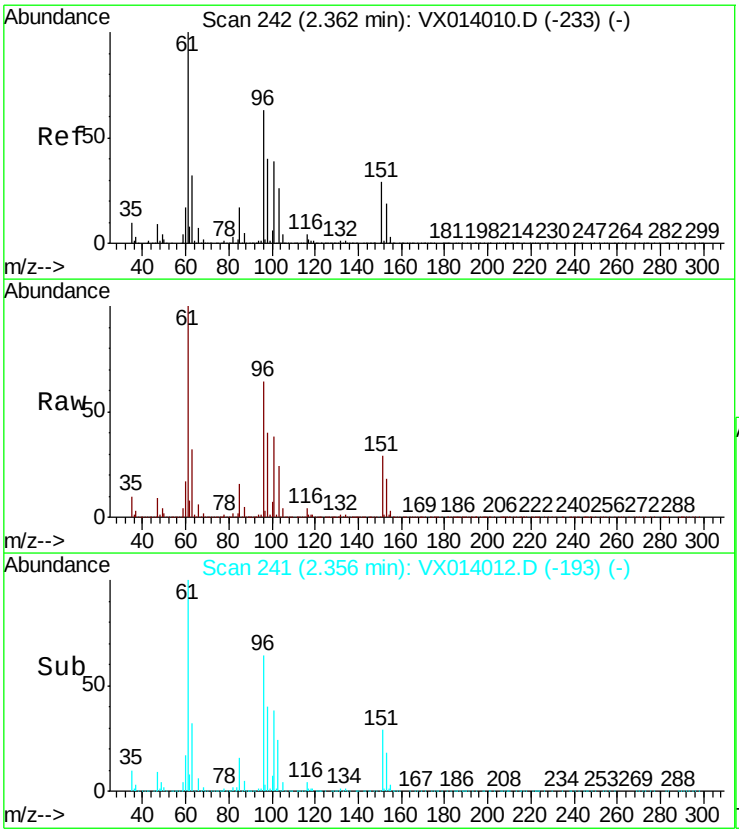


#11
Tert butyl alcohol
Concen: 641.188 ug/l
RT: 3.07 min Scan# 358
Delta R.T. 0.02 min
Lab File: VX014012.D
Acq: 13 Dec 2019 16:45

Tgt Ion: 59 Resp: 966022

Ion	Ratio	Lower	Upper
59	100		
57	10.3	8.4	12.6

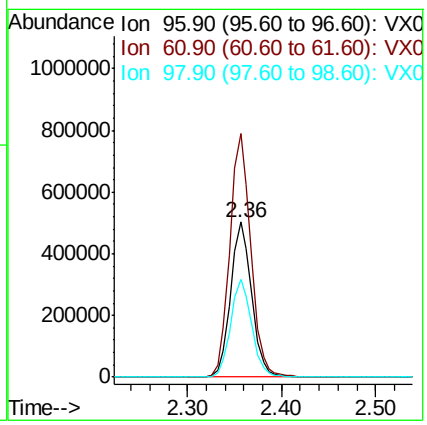


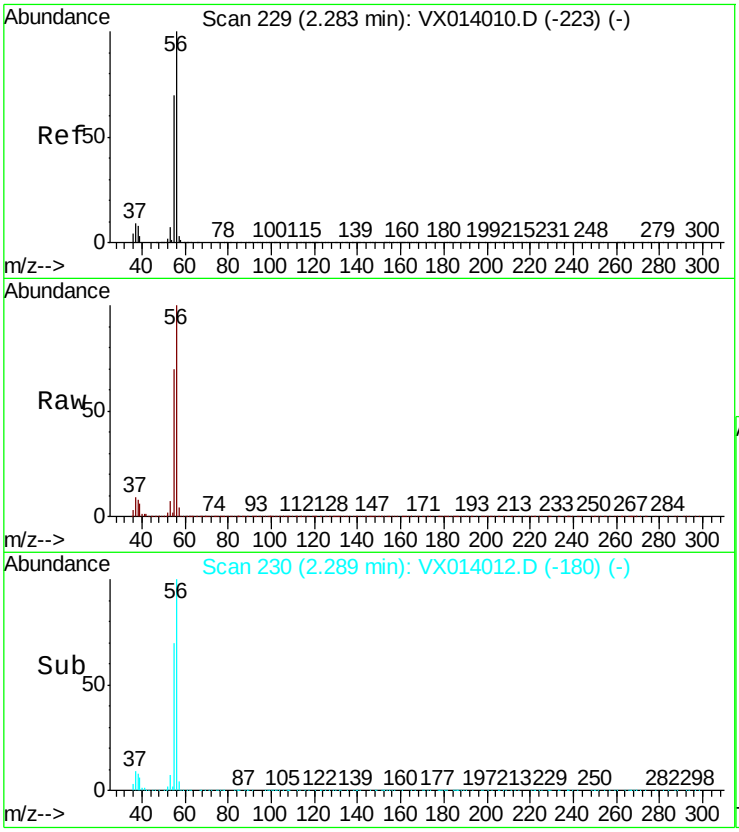


#12
1,1-Dichloroethene
Concen: 151.289 ug/l
RT: 2.36 min Scan# 241
Delta R.T. -0.01 min
Lab File: VX014012.D
Acq: 13 Dec 2019 16:45

Tgt Ion: 96 Resp: 777505

Ion	Ratio	Lower	Upper
96	100		
61	157.1	127.9	191.9
98	62.7	50.5	75.7

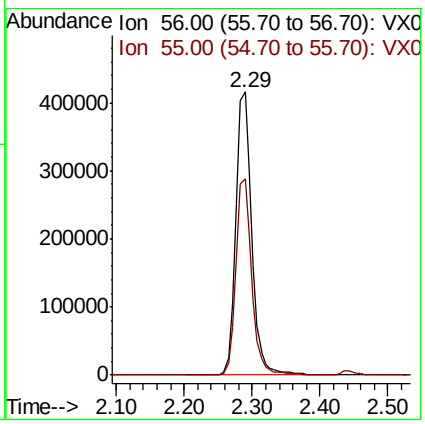




#13
Acrolein
Concen: 760.771 ug/l
RT: 2.29 min Scan# 230
Delta R.T. 0.01 min
Lab File: VX014012.D
Acq: 13 Dec 2019 16:45

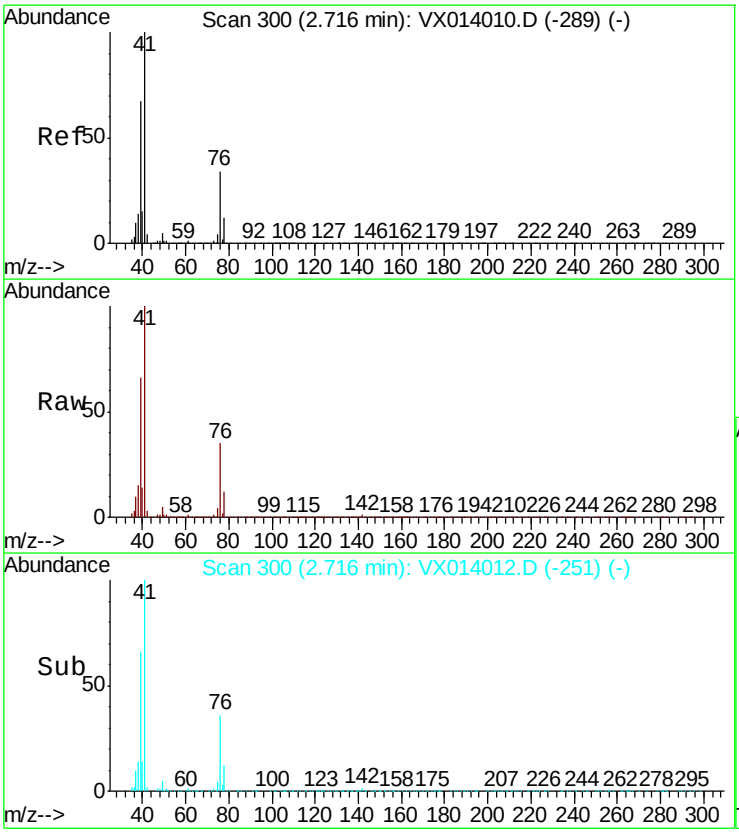
Tgt Ion: 56 Resp: 674752

Ion	Ratio	Lower	Upper
56	100		
55	68.1	56.9	85.3



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC150

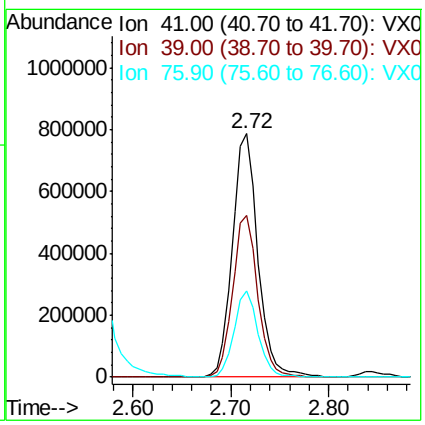
Manual Integrations APPROVED
apatel
12/16/2019 12:46:09 PM

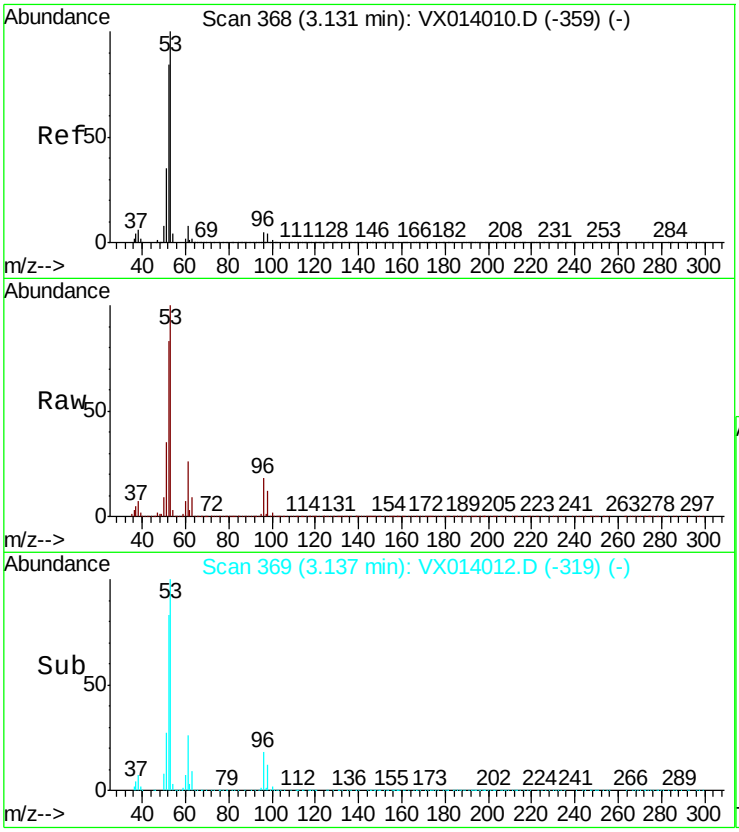


#14
Allyl chloride
Concen: 152.861 ug/l
RT: 2.72 min Scan# 300
Delta R.T. 0.00 min
Lab File: VX014012.D
Acq: 13 Dec 2019 16:45

Tgt Ion: 41 Resp: 1424464

Ion	Ratio	Lower	Upper
41	100		
39	64.9	51.8	77.8
76	33.3	25.9	38.9

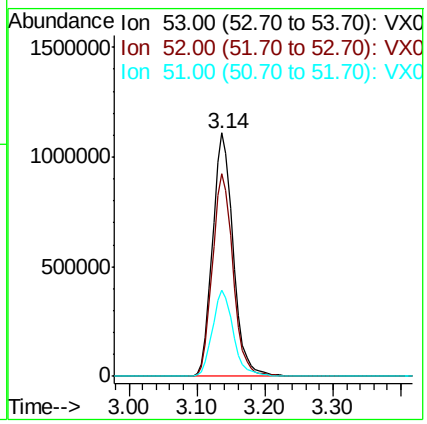


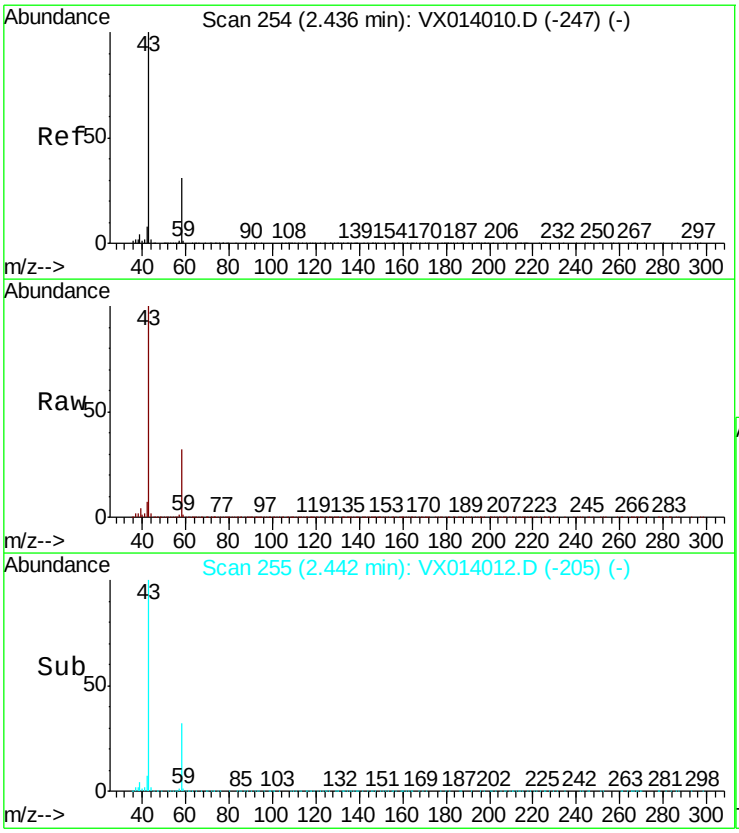


#15
Acrylonitrile
Concen: 734.864 ug/l
RT: 3.14 min Scan# 369
Delta R.T. 0.01 min
Lab File: VX014012.D
Acq: 13 Dec 2019 16:45

Tgt Ion: 53 Resp: 2328143

Ion	Ratio	Lower	Upper
53	100		
52	83.2	66.5	99.7
51	35.5	28.1	42.1

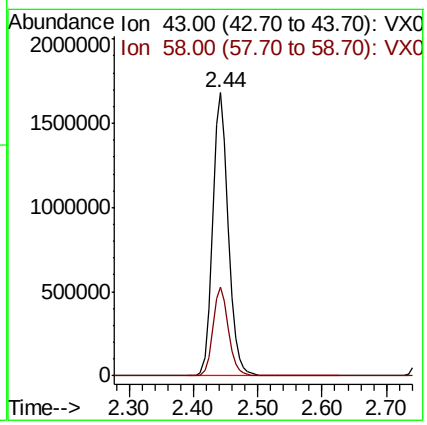




#16
Acetone
Concen: 882.437 ug/l
RT: 2.44 min Scan# 255
Delta R.T. 0.01 min
Lab File: VX014012.D
Acq: 13 Dec 2019 16:45

Tgt Ion: 43 Resp: 2873095

Ion	Ratio	Lower	Upper
43	100		
58	31.5	24.9	37.3

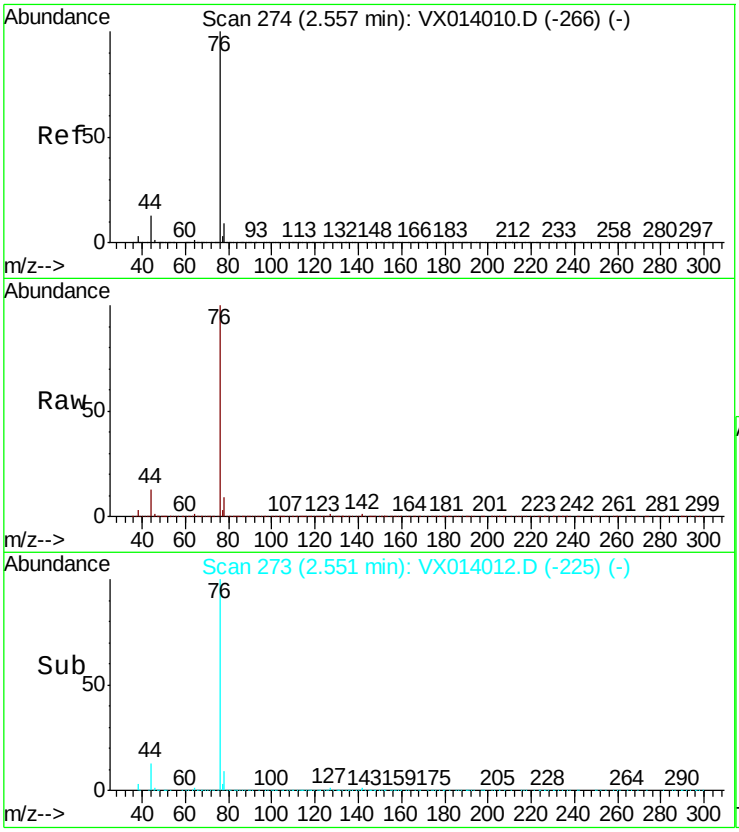


Instrument :
MSVOA_X
ClientSampleId :
VSTDICC150

Manual Integrations APPROVED
apatel
12/16/2019 12:46:09 PM

Instrument :
MSVOA_X
ClientSampleId :
VSTDICC150

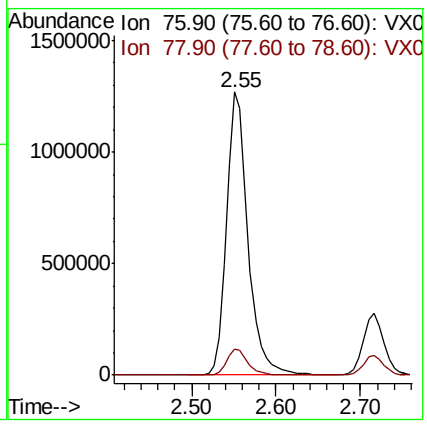
Manual Integrations APPROVED
apatel
12/16/2019 12:46:09 PM

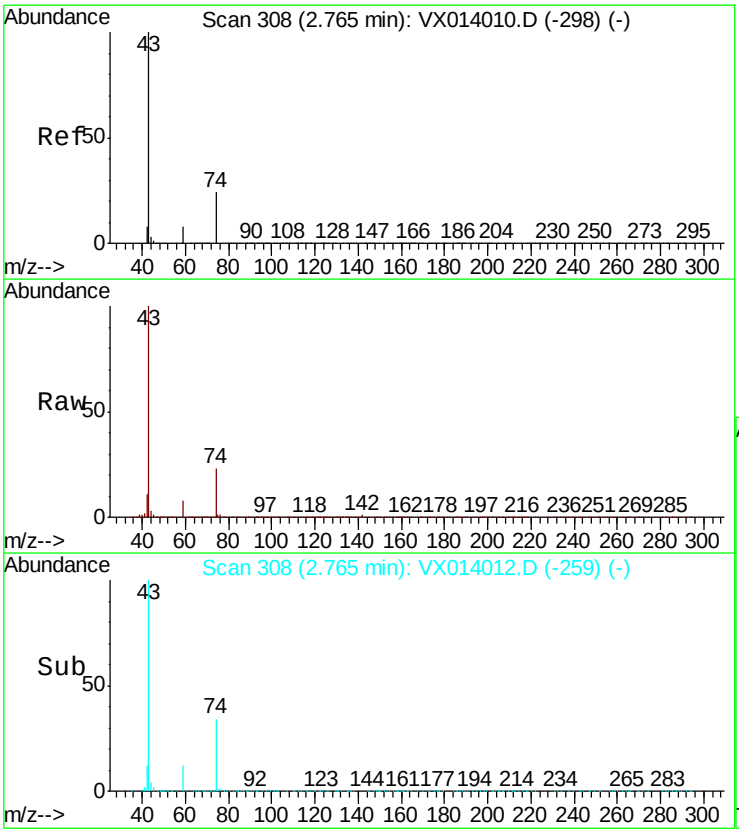


#17
Carbon Disulfide
Concen: 150.704 ug/l
RT: 2.55 min Scan# 273
Delta R.T. -0.01 min
Lab File: VX014012.D
Acq: 13 Dec 2019 16:45

Tgt Ion: 76 Resp: 2212411

Ion	Ratio	Lower	Upper
76	100		
78	9.1	7.2	10.8

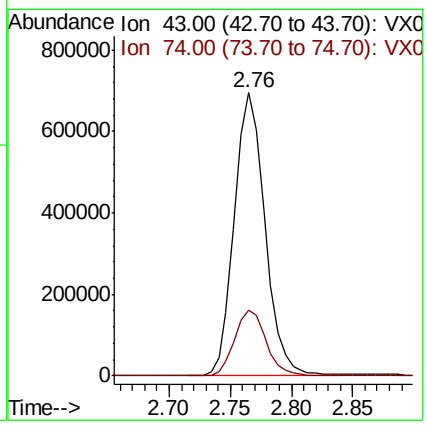


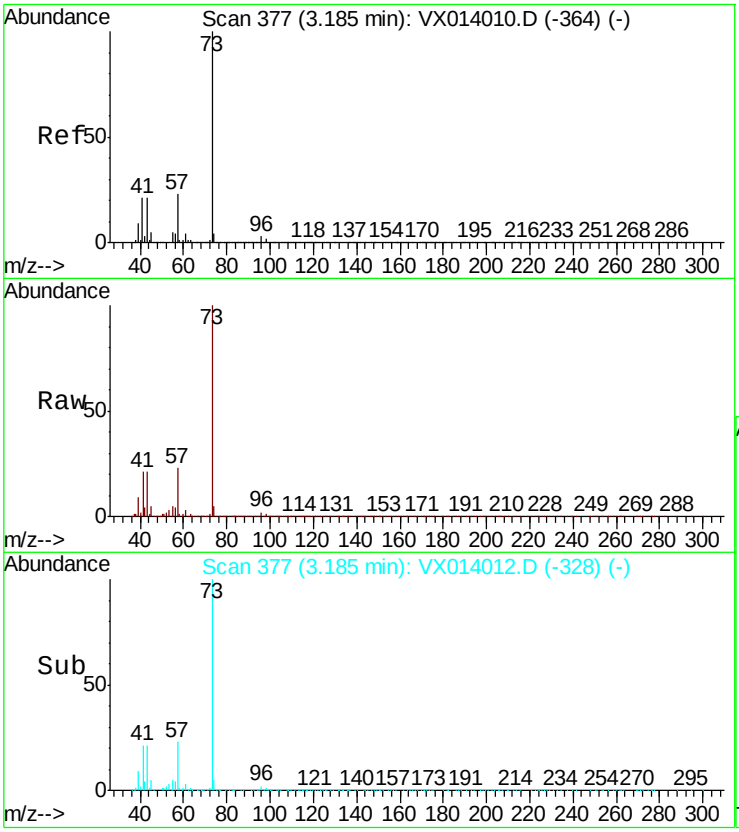


#18
Methyl Acetate
Concen: 143.050 ug/l
RT: 2.76 min Scan# 308
Delta R.T. 0.00 min
Lab File: VX014012.D
Acq: 13 Dec 2019 16:45

Tgt Ion: 43 Resp: 1204602

Ion	Ratio	Lower	Upper
43	100		
74	23.7	19.5	29.3

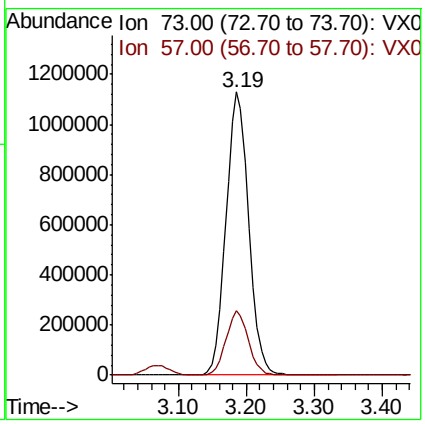




#19
Methyl tert-butyl Ether
Concen: 152.192 ug/l
RT: 3.19 min Scan# 377
Delta R.T. 0.00 min
Lab File: VX014012.D
Acq: 13 Dec 2019 16:45

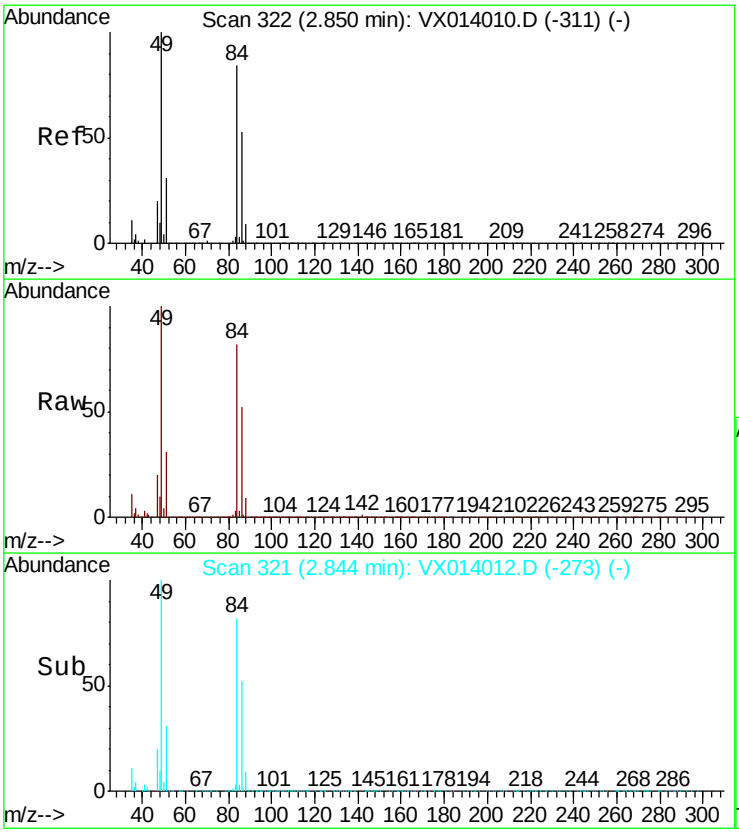
Tgt Ion: 73 Resp: 2596157

Ion	Ratio	Lower	Upper
73	100		
57	22.7	18.8	28.2



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC150

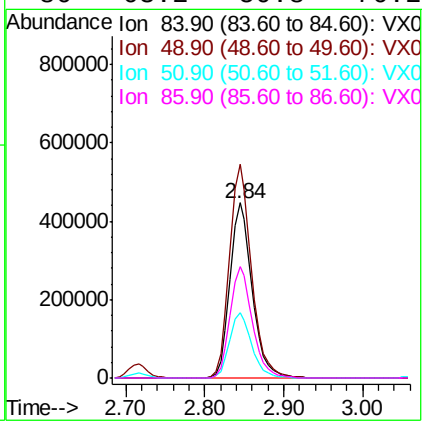
Manual Integrations APPROVED
apatel
12/16/2019 12:46:09 PM

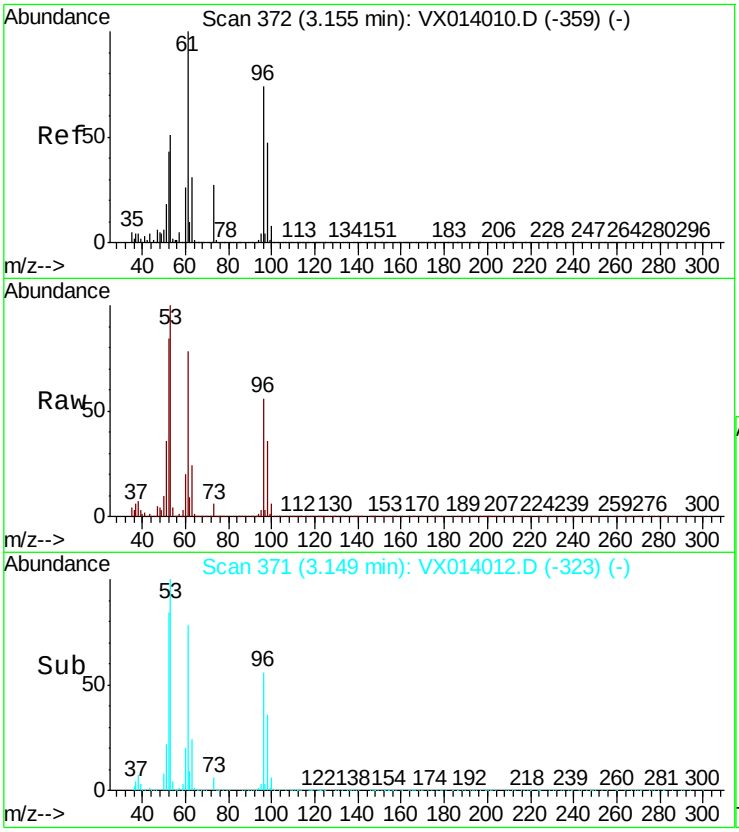


#20
Methylene Chloride
Concen: 146.173 ug/l
RT: 2.84 min Scan# 321
Delta R.T. -0.01 min
Lab File: VX014012.D
Acq: 13 Dec 2019 16:45

Tgt Ion: 84 Resp: 872676

Ion	Ratio	Lower	Upper
84	100		
49	122.0	95.8	143.6
51	37.3	29.8	44.8
86	63.2	50.8	76.2

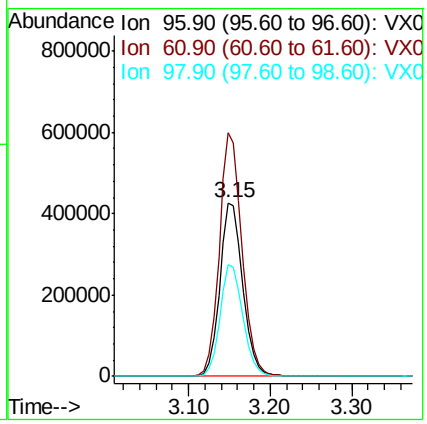




#21
trans-1,2-Dichloroethene
Concen: 147.972 ug/l
RT: 3.15 min Scan# 371
Delta R.T. -0.01 min
Lab File: VX014012.D
Acq: 13 Dec 2019 16:45

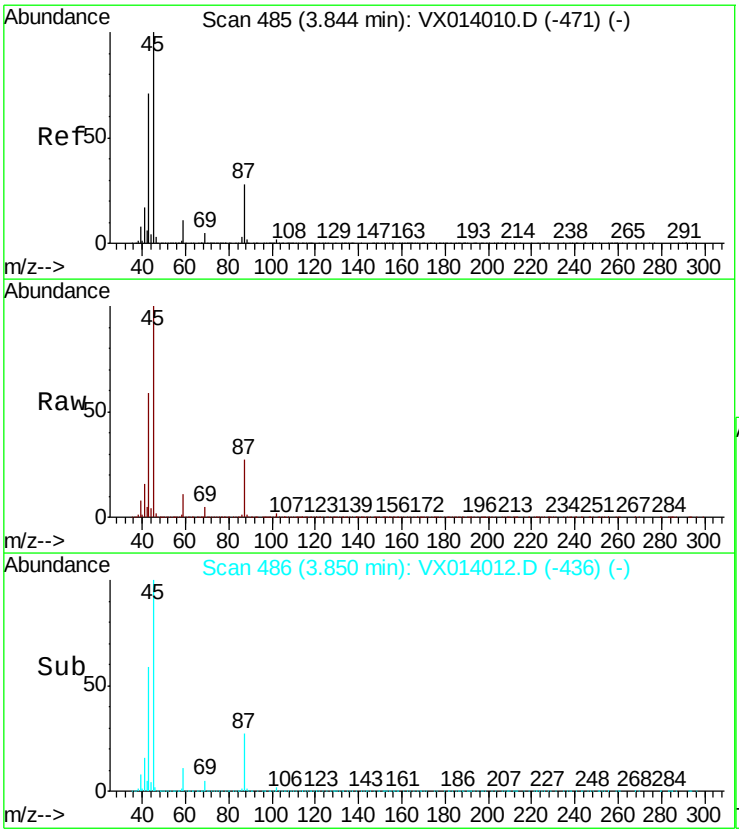
Tgt Ion: 96 Resp: 829969

Ion	Ratio	Lower	Upper
96	100		
61	140.2	108.3	162.5
98	64.0	50.8	76.2



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC150

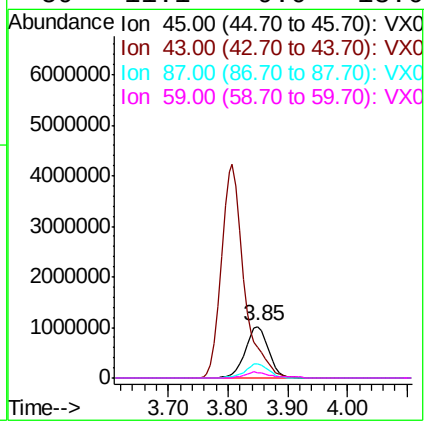
Manual Integrations APPROVED
apatel
12/16/2019 12:46:09 PM



#22
Diisopropyl ether
Concen: 154.046 ug/l
RT: 3.85 min Scan# 486
Delta R.T. 0.01 min
Lab File: VX014012.D
Acq: 13 Dec 2019 16:45

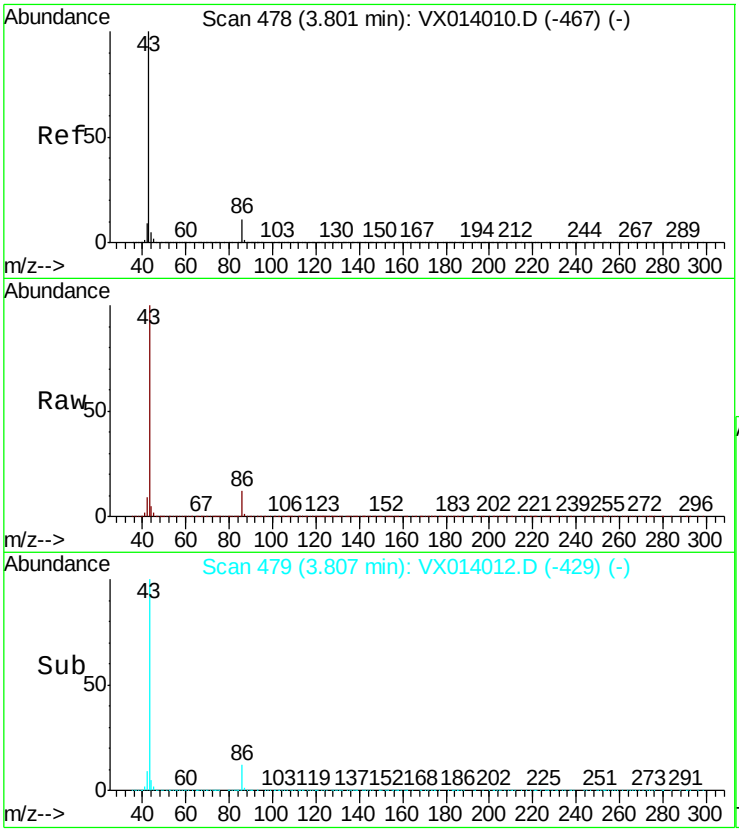
Tgt Ion: 45 Resp: 2777400

Ion	Ratio	Lower	Upper
45	100		
43	58.7	57.4	86.0
87	27.3	21.9	32.9
59	11.1	9.0	13.6



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC150

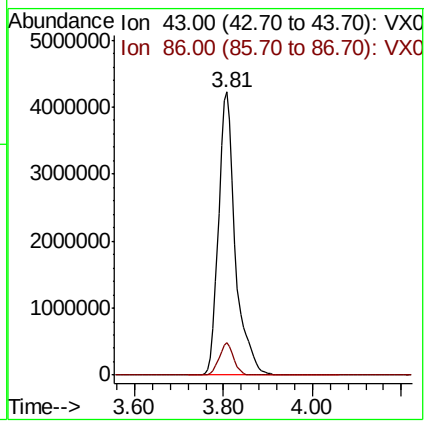
Manual Integrations APPROVED
apatel
12/16/2019 12:46:09 PM

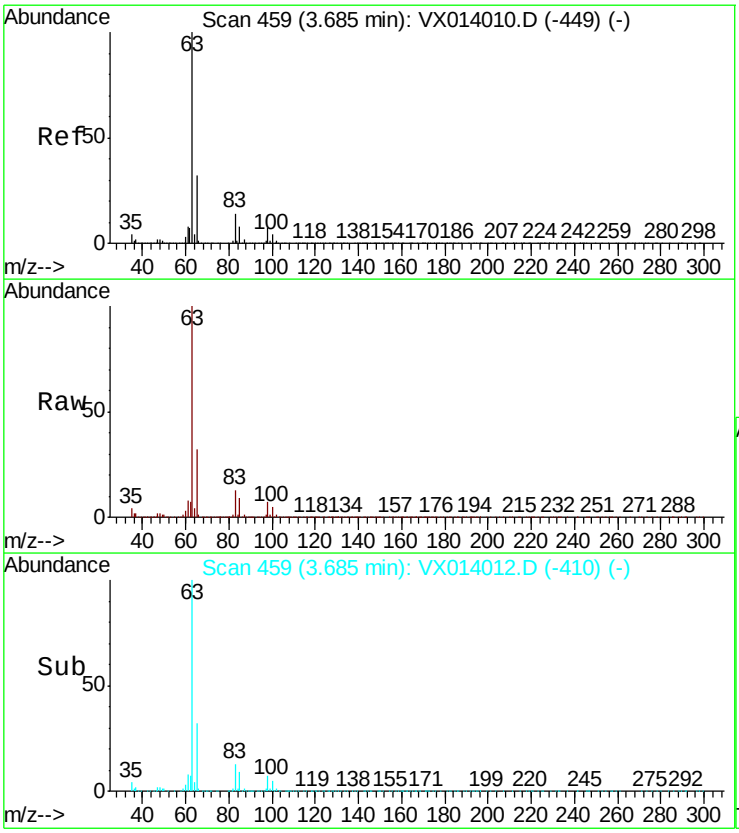


#23
Vinyl Acetate
Concen: 745.509 ug/l
RT: 3.81 min Scan# 479
Delta R.T. 0.01 min
Lab File: VX014012.D
Acq: 13 Dec 2019 16:45

Tgt Ion: 43 Resp:11159560

Ion	Ratio	Lower	Upper
43	100		
86	11.5	8.6	12.8

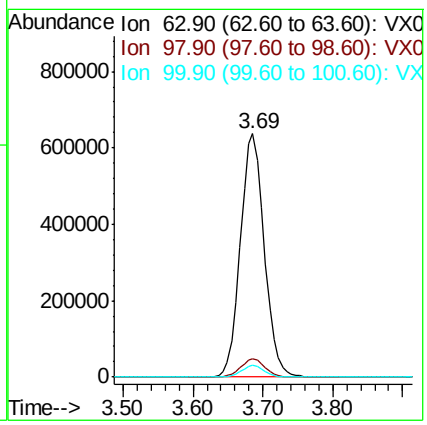


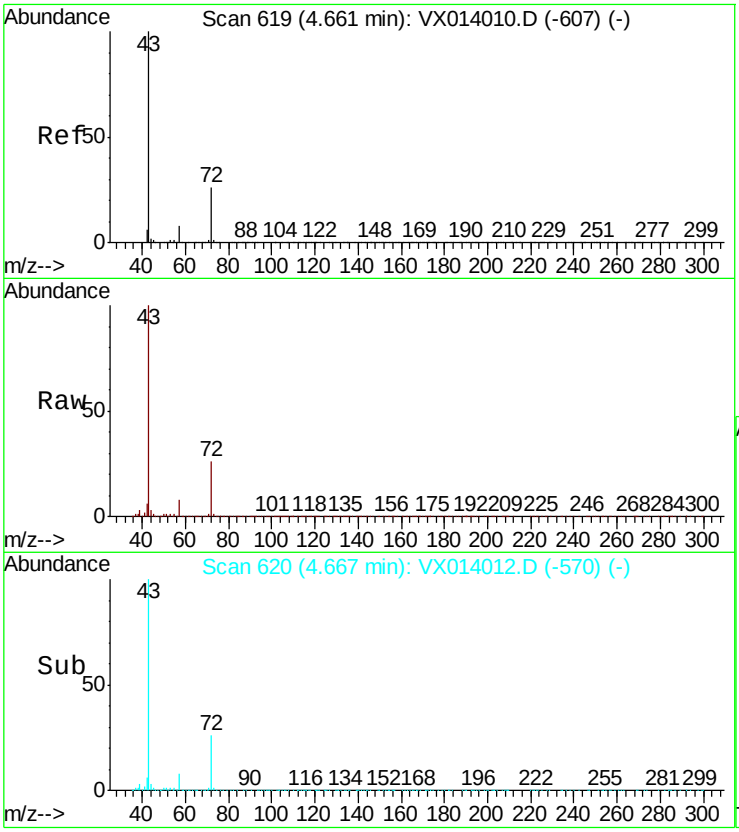


#24
1,1-Dichloroethane
Concen: 153.488 ug/l
RT: 3.69 min Scan# 459
Delta R.T. 0.00 min
Lab File: VX014012.D
Acq: 13 Dec 2019 16:45

Tgt Ion: 63 Resp: 1512700

Ion	Ratio	Lower	Upper
63	100		
98	7.4	3.6	10.8
100	4.9	2.3	6.8

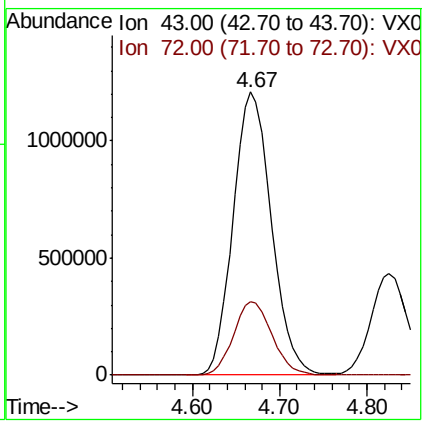




#25
2-Butanone
Concen: 792.556 ug/l
RT: 4.67 min Scan# 620
Delta R.T. 0.01 min
Lab File: VX014012.D
Acq: 13 Dec 2019 16:45

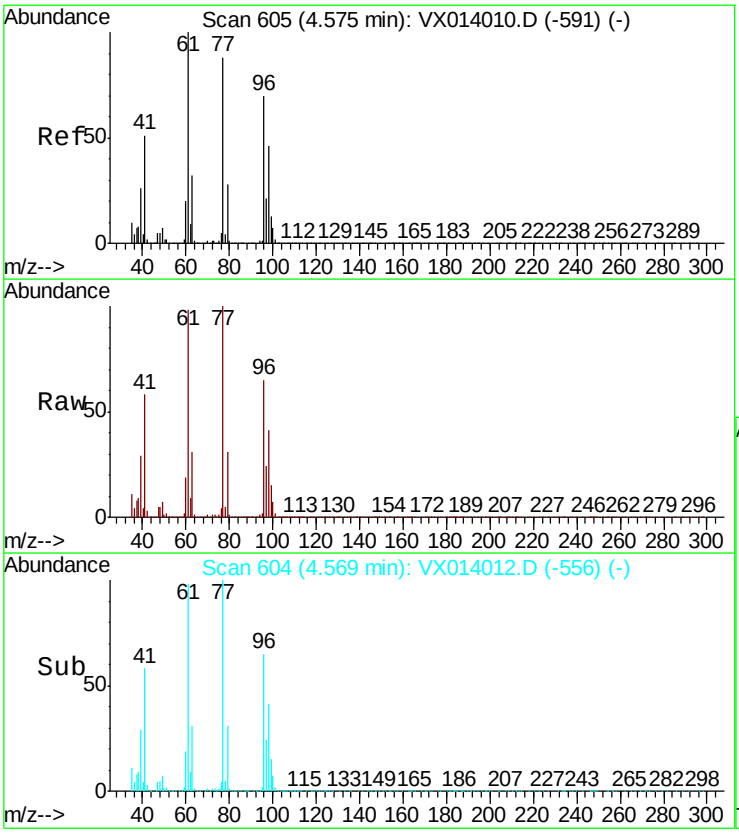
Tgt Ion: 43 Resp: 3682621

Ion	Ratio	Lower	Upper
43	100		
72	25.8	21.0	31.4



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC150

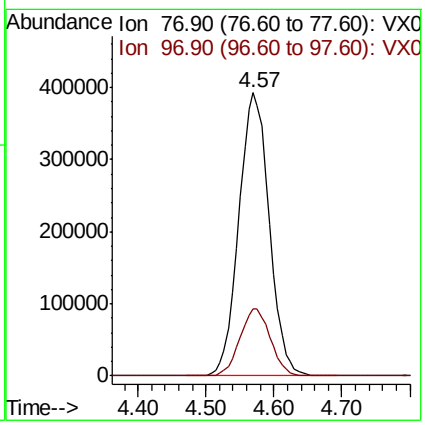
Manual Integrations APPROVED
apatel
12/16/2019 12:46:09 PM

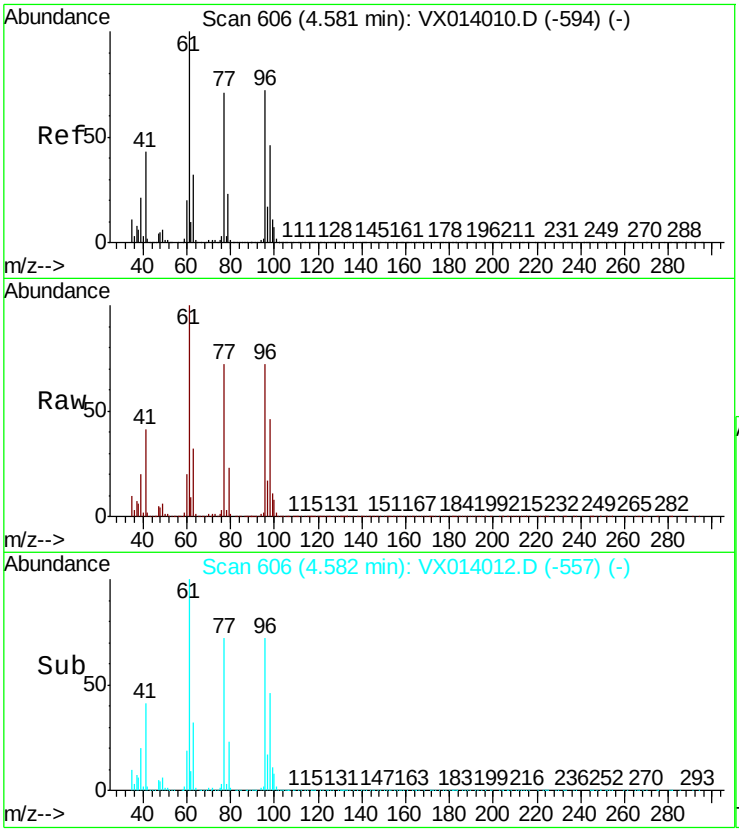


#26
2,2-Dichloropropane
Concen: 150.261 ug/l
RT: 4.57 min Scan# 604
Delta R.T. -0.01 min
Lab File: VX014012.D
Acq: 13 Dec 2019 16:45

Tgt Ion: 77 Resp: 1220310

Ion	Ratio	Lower	Upper
77	100		
97	23.8	11.9	35.9

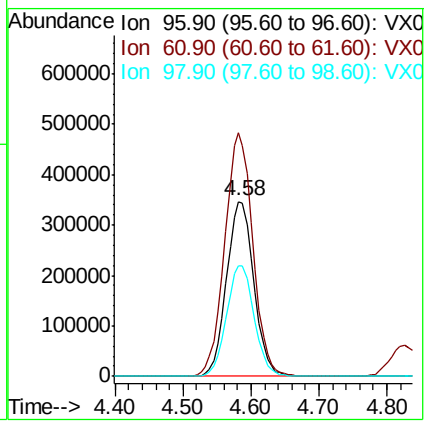




#27
cis-1,2-Dichloroethene
Concen: 149.395 ug/l
RT: 4.58 min Scan# 606
Delta R.T. 0.00 min
Lab File: VX014012.D
Acq: 13 Dec 2019 16:45

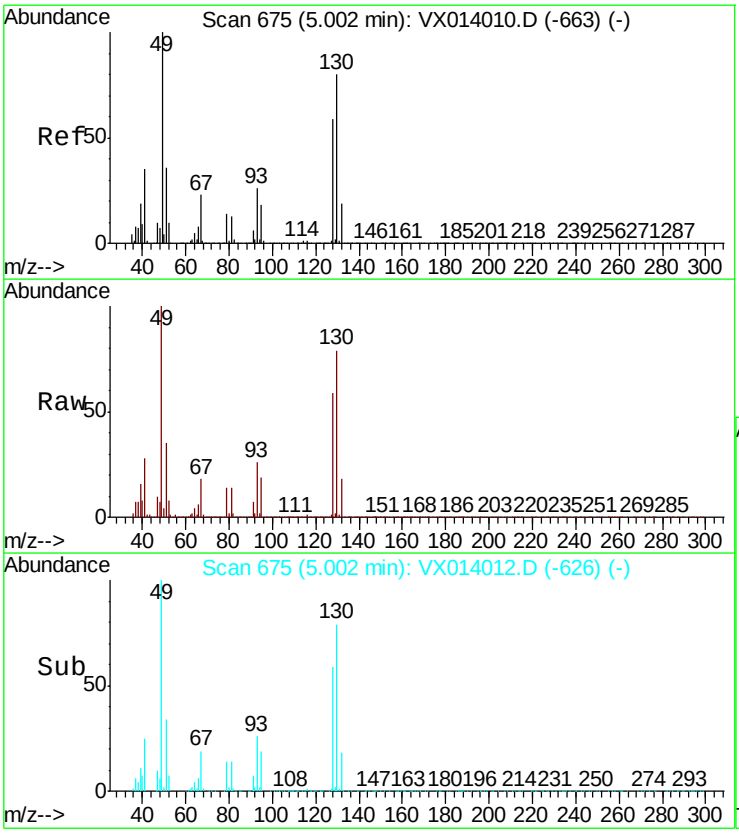
Tgt Ion: 96 Resp: 961661

Ion	Ratio	Lower	Upper
96	100		
61	143.8	0.0	288.4
98	64.2	0.0	129.6



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC150

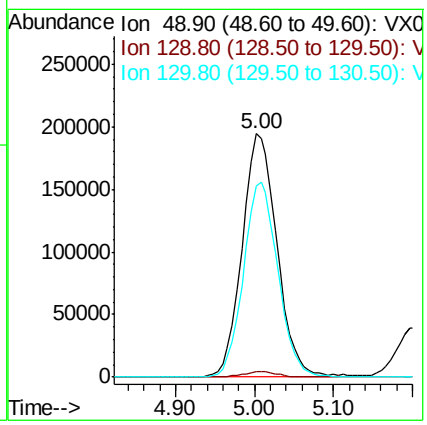
Manual Integrations APPROVED
apatel
12/16/2019 12:46:09 PM

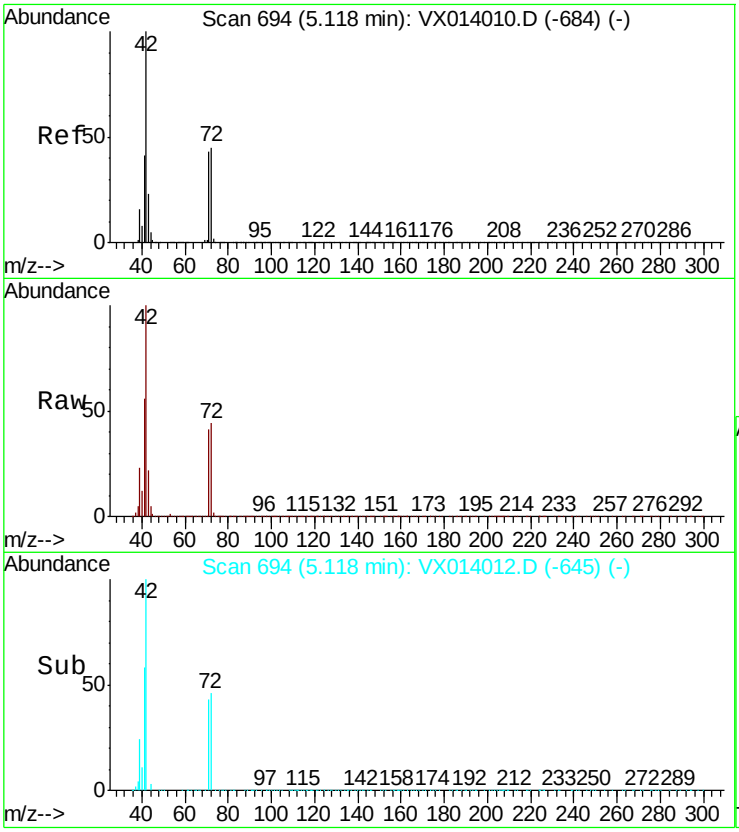


#28
Bromochloromethane
Concen: 170.925 ug/l
RT: 5.00 min Scan# 675
Delta R.T. 0.00 min
Lab File: VX014012.D
Acq: 13 Dec 2019 16:45

Tgt Ion: 49 Resp: 594697

Ion	Ratio	Lower	Upper
49	100		
129	2.2	0.0	5.0
130	79.3	64.6	97.0

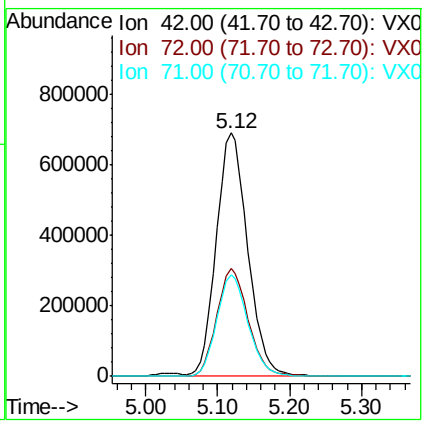




#29
Tetrahydrofuran
Concen: 745.240 ug/l
RT: 5.12 min Scan# 694
Delta R.T. 0.00 min
Lab File: VX014012.D
Acq: 13 Dec 2019 16:45

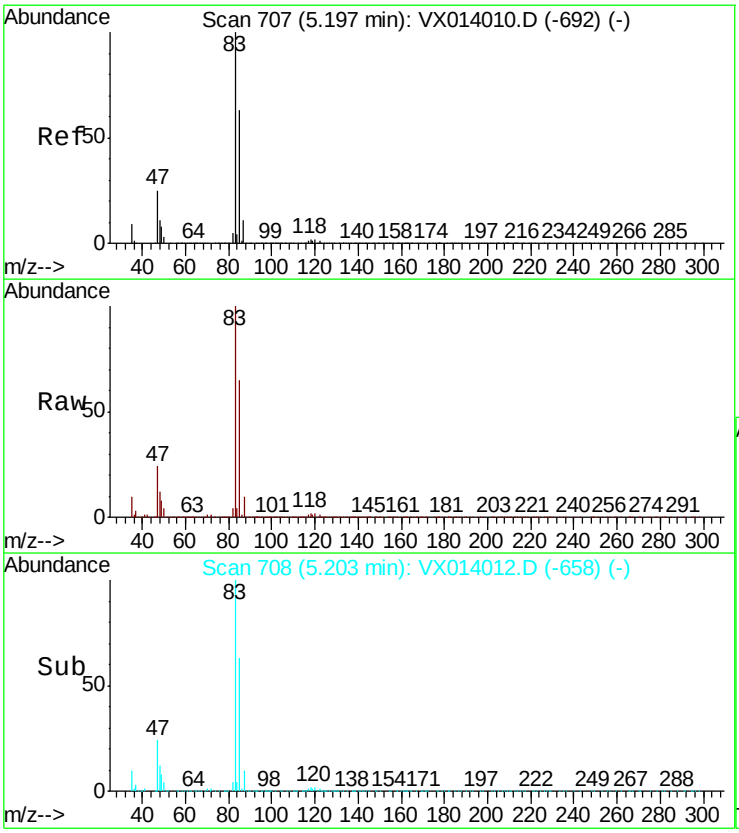
Tgt Ion: 42 Resp: 2087333

Ion	Ratio	Lower	Upper
42	100		
72	44.5	35.8	53.8
71	41.5	33.6	50.4



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC150

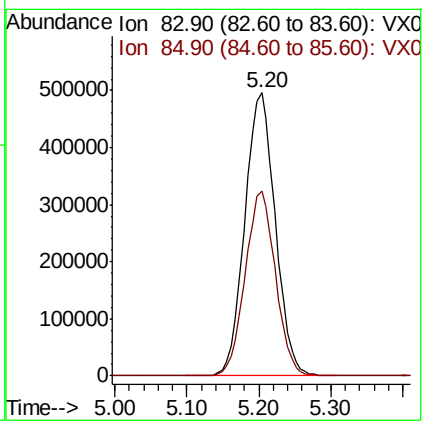
Manual Integrations APPROVED
apatel
12/16/2019 12:46:09 PM

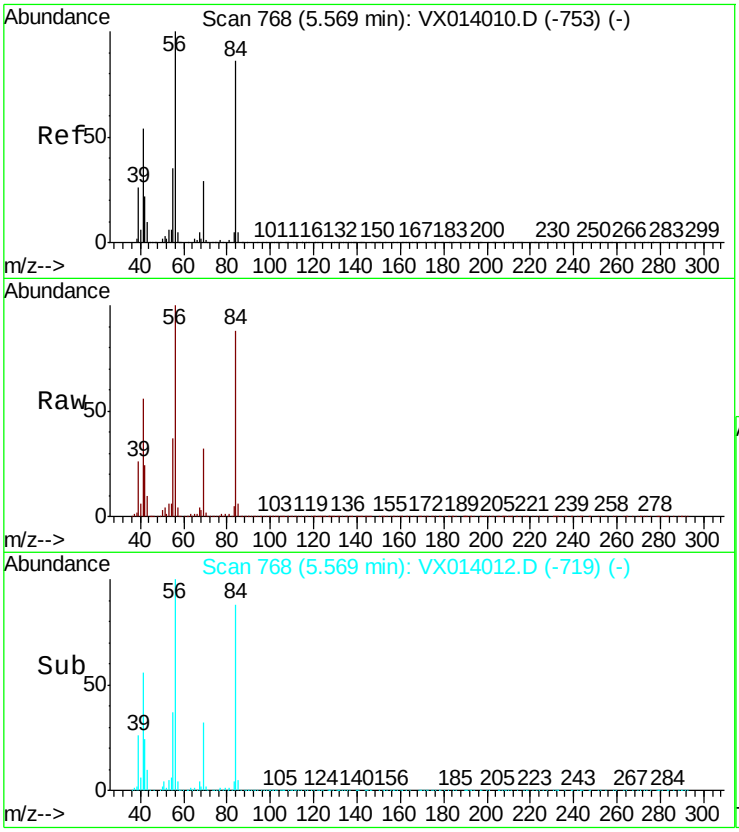


#30
Chloroform
Concen: 146.153 ug/l
RT: 5.20 min Scan# 708
Delta R.T. 0.01 min
Lab File: VX014012.D
Acq: 13 Dec 2019 16:45

Tgt Ion: 83 Resp: 1457923

Ion	Ratio	Lower	Upper
83	100		
85	65.1	50.8	76.2

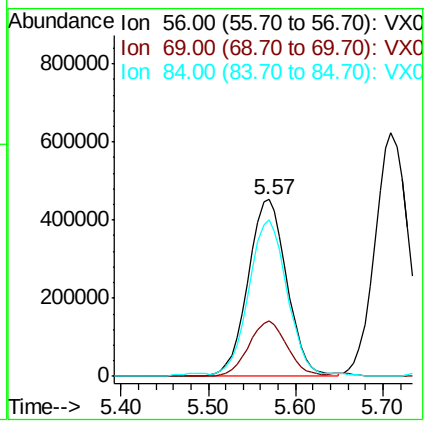




#31
Cyclohexane
Concen: 149.543 ug/l
RT: 5.57 min Scan# 768
Delta R.T. 0.00 min
Lab File: VX014012.D
Acq: 13 Dec 2019 16:45

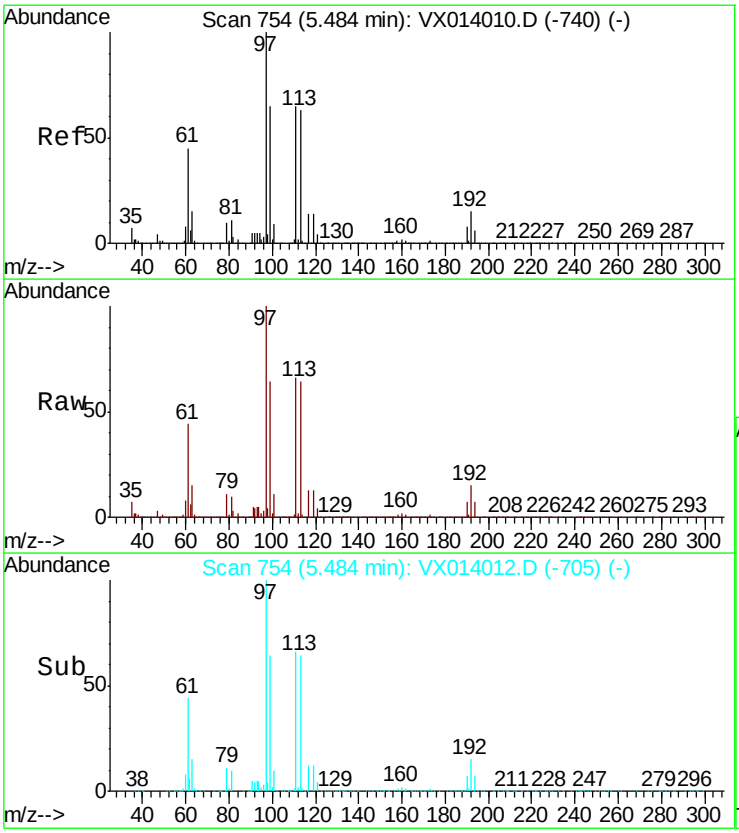
Tgt Ion: 56 Resp: 1393293

Ion	Ratio	Lower	Upper
56	100		
69	31.7	23.2	34.8
84	87.1	69.2	103.8



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC150

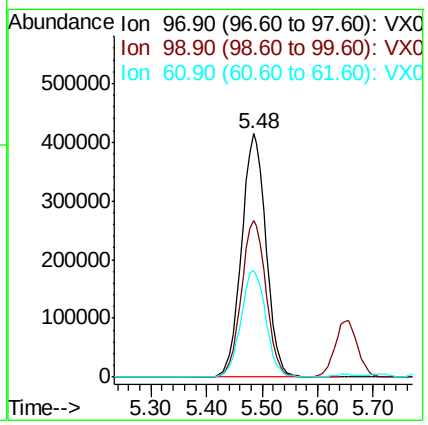
Manual Integrations APPROVED
apatel
12/16/2019 12:46:09 PM

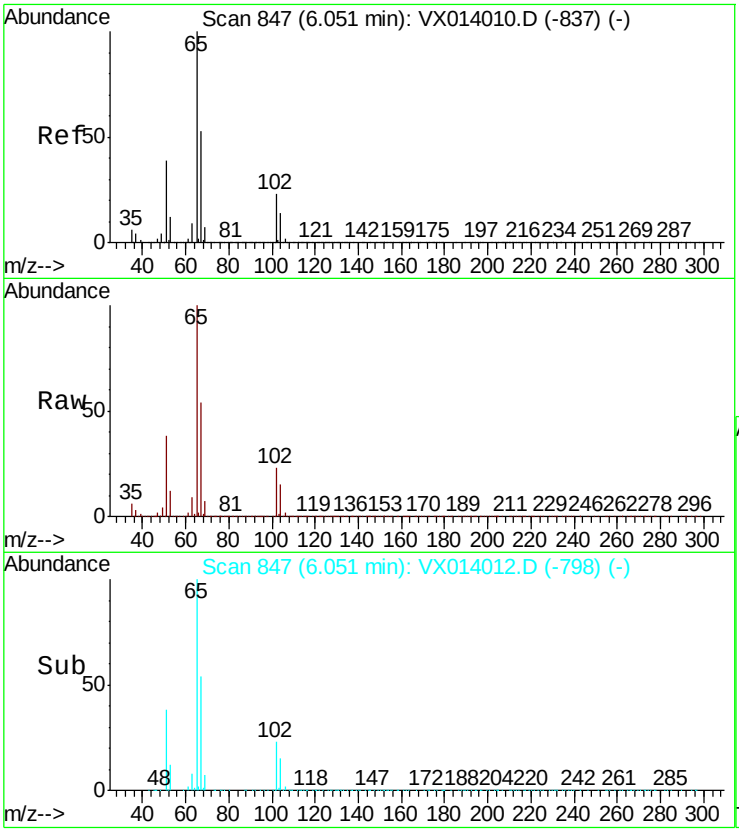


#32
1,1,1-Trichloroethane
Concen: 151.096 ug/l
RT: 5.48 min Scan# 754
Delta R.T. 0.00 min
Lab File: VX014012.D
Acq: 13 Dec 2019 16:45

Tgt Ion: 97 Resp: 1258831

Ion	Ratio	Lower	Upper
97	100		
99	64.9	52.0	78.0
61	44.3	36.7	55.1

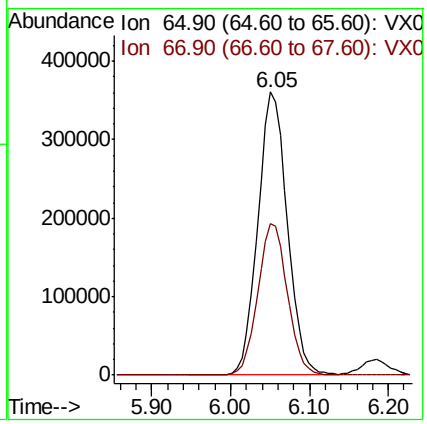




#33
1,2-Dichloroethane-d4
Concen: 148.855 ug/l
RT: 6.05 min Scan# 847
Delta R.T. 0.00 min
Lab File: VX014012.D
Acq: 13 Dec 2019 16:45

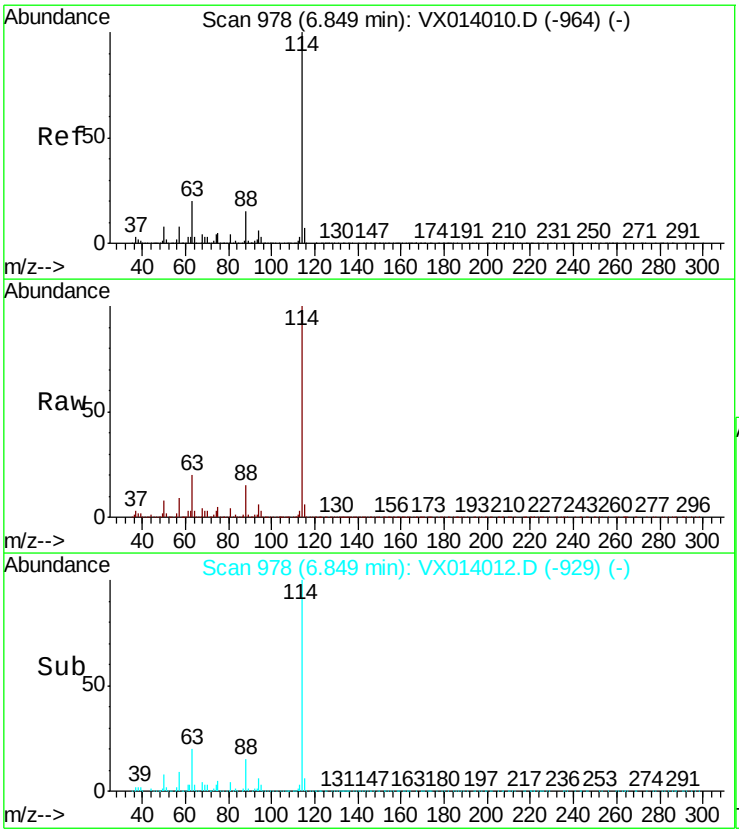
Tgt Ion: 65 Resp: 936152

Ion	Ratio	Lower	Upper
65	100		
67	53.6	0.0	106.4



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC150

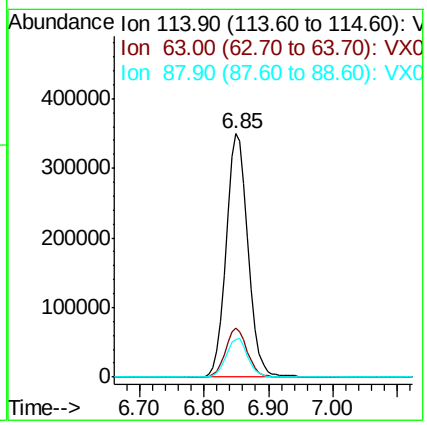
Manual Integrations APPROVED
apatel
12/16/2019 12:46:09 PM

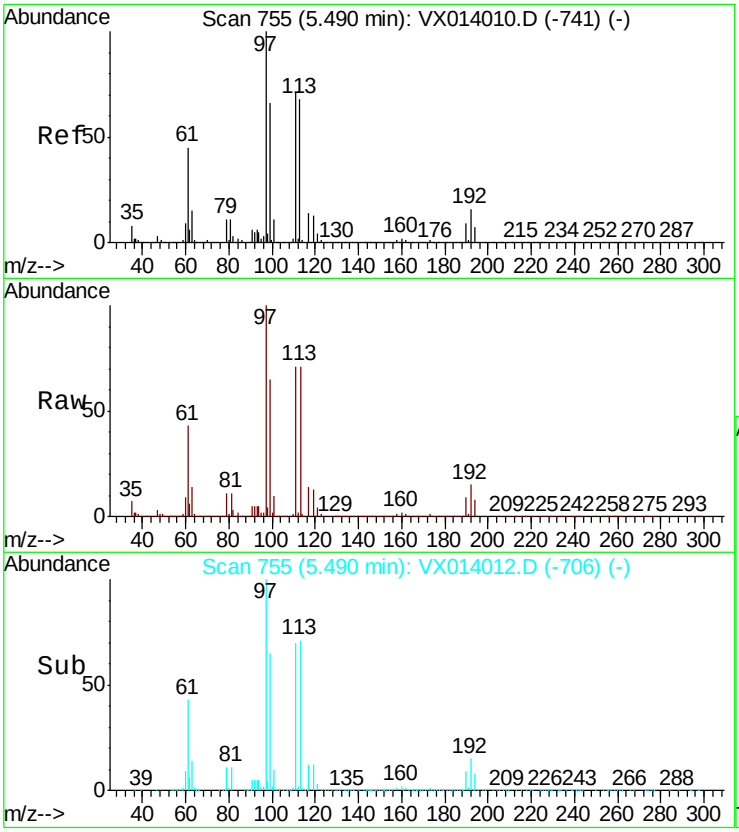


#34
1,4-Difluorobenzene
Concen: 50.000 ug/l
RT: 6.85 min Scan# 978
Delta R.T. 0.00 min
Lab File: VX014012.D
Acq: 13 Dec 2019 16:45

Tgt Ion:114 Resp: 834820

Ion	Ratio	Lower	Upper
114	100		
63	20.3	0.0	40.8
88	15.4	0.0	30.4

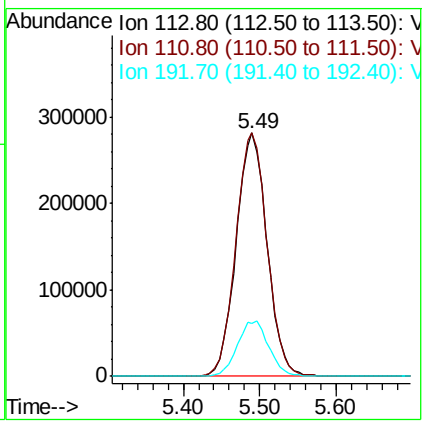


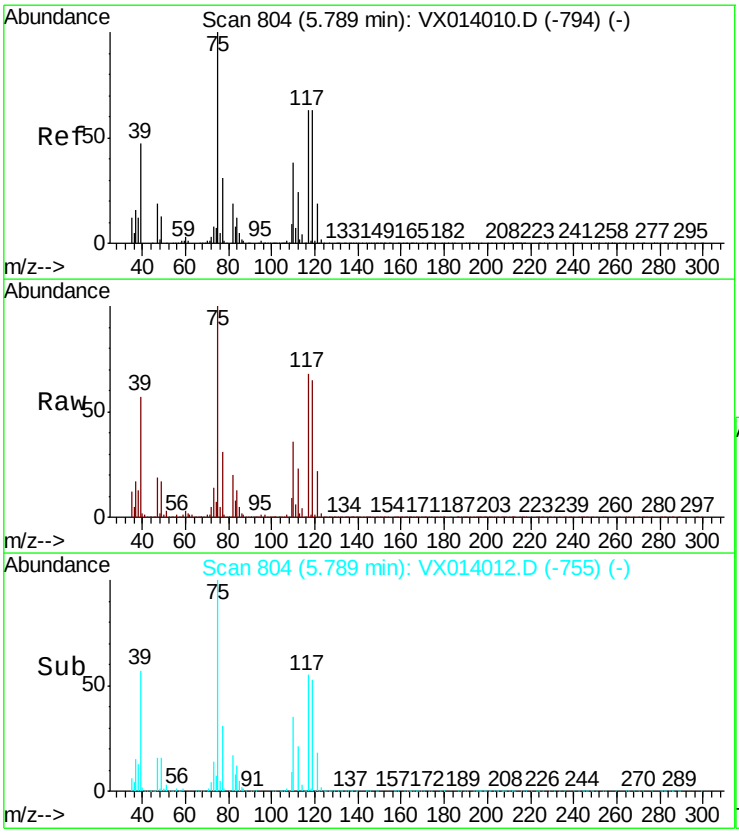


#35
Dibromofluoromethane
Concen: 151.882 ug/l
RT: 5.49 min Scan# 755
Delta R.T. 0.00 min
Lab File: VX014012.D
Acq: 13 Dec 2019 16:45

Tgt Ion:113 Resp: 788057

Ion	Ratio	Lower	Upper
113	100		
111	101.4	82.0	123.0
192	23.2	19.3	28.9

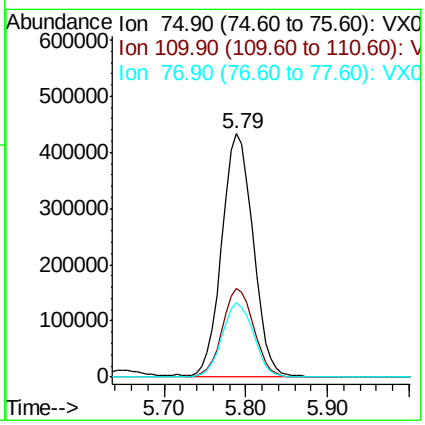




#36
1,1-Dichloropropene
Concen: 151.372 ug/l
RT: 5.79 min Scan# 804
Delta R.T. 0.00 min
Lab File: VX014012.D
Acq: 13 Dec 2019 16:45

Tgt Ion: 75 Resp: 1147913

Ion	Ratio	Lower	Upper
75	100		
110	36.4	18.3	54.9
77	30.7	24.8	37.2

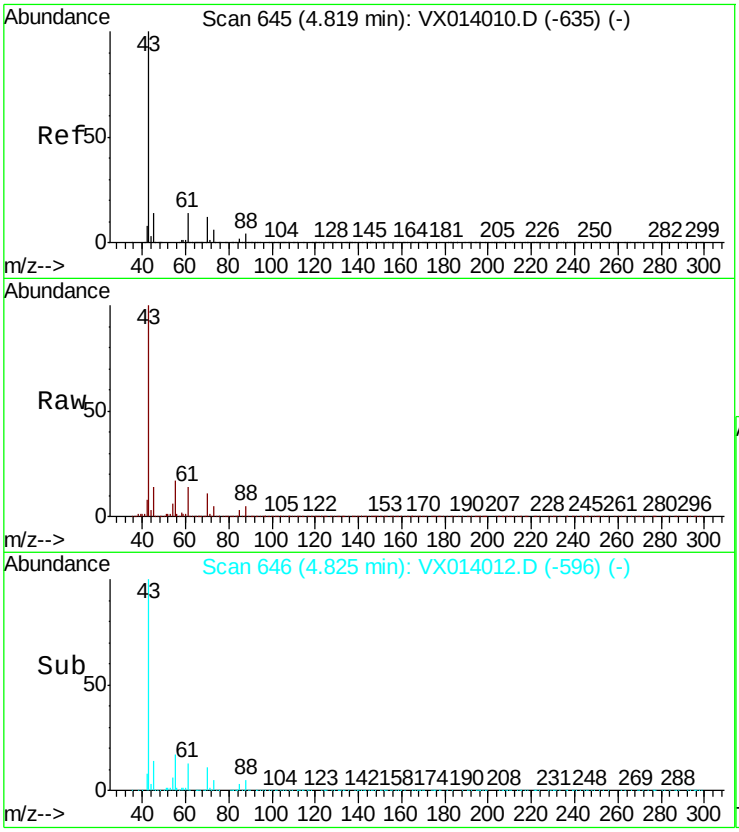


Instrument :
MSVOA_X
ClientSampleId :
VSTDICC150

Manual Integrations APPROVED
apatel
12/16/2019 12:46:09 PM

Instrument :
MSVOA_X
ClientSampleId :
VSTDICC150

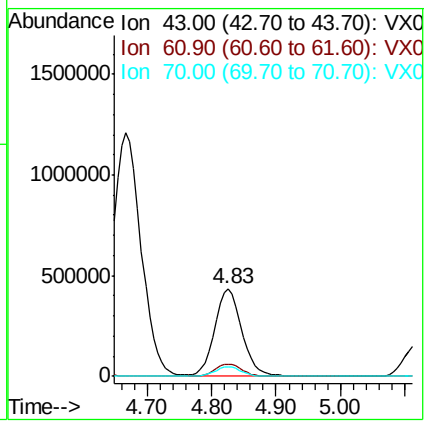
Manual Integrations APPROVED
apatel
12/16/2019 12:46:09 PM

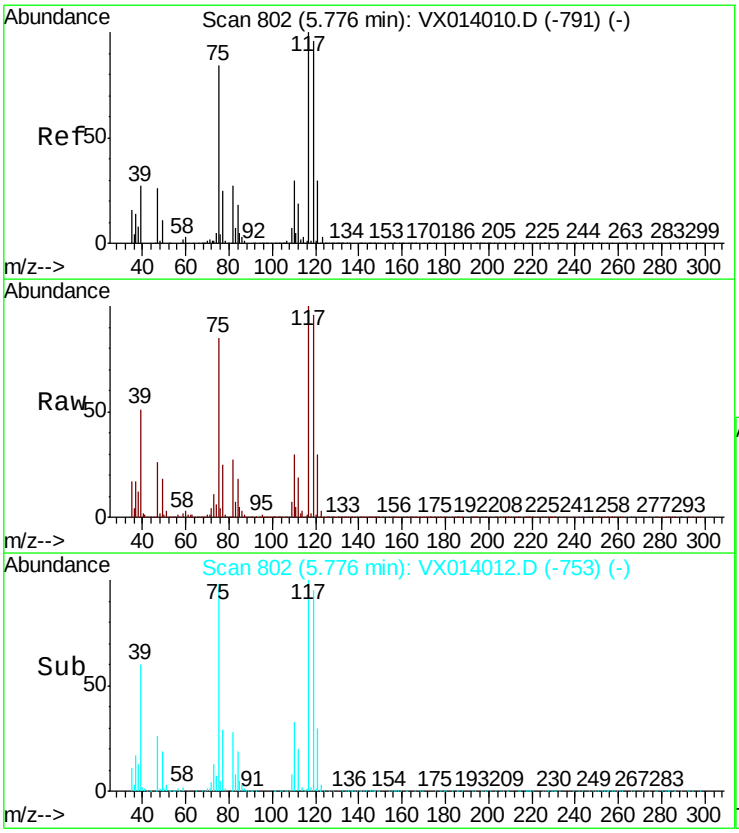


#37
Ethyl Acetate
Concen: 152.166 ug/l
RT: 4.83 min Scan# 646
Delta R.T. 0.01 min
Lab File: VX014012.D
Acq: 13 Dec 2019 16:45

Tgt Ion: 43 Resp: 1287314

Ion	Ratio	Lower	Upper
43	100		
61	13.9	10.8	16.2
70	10.6	8.6	12.8

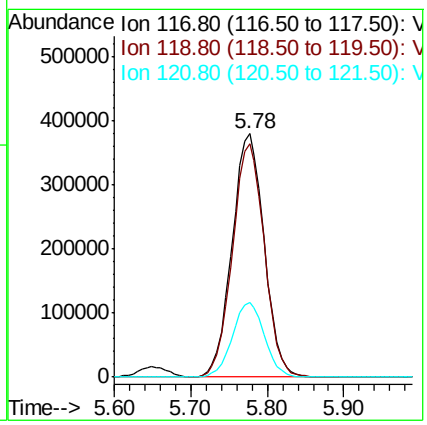


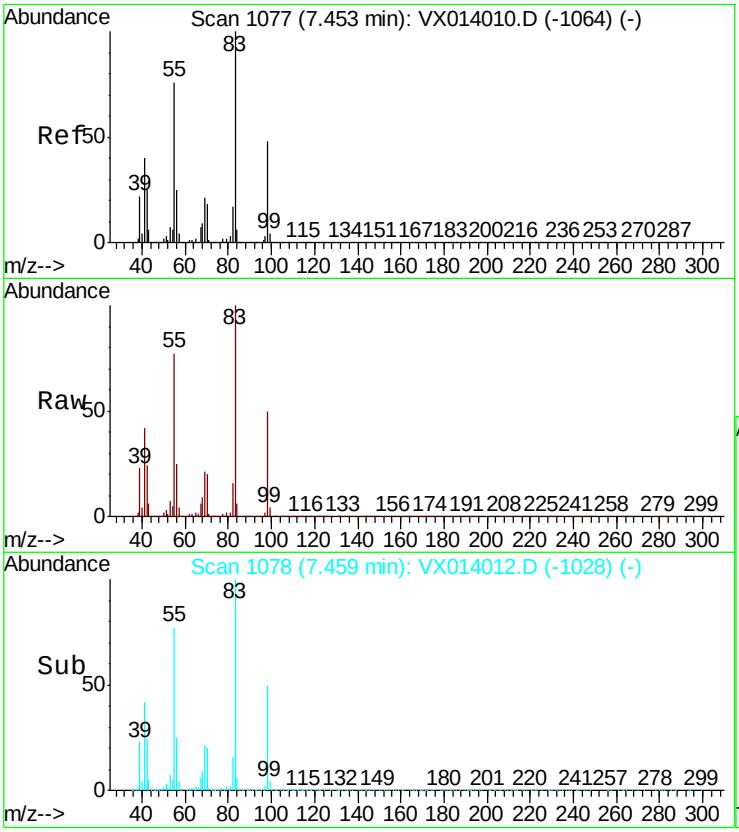


#38
Carbon Tetrachloride
Concen: 157.180 ug/l
RT: 5.78 min Scan# 802
Delta R.T. 0.00 min
Lab File: VX014012.D
Acq: 13 Dec 2019 16:45

Tgt Ion:117 Resp: 1099440

Ion	Ratio	Lower	Upper
117	100		
119	96.0	76.2	114.4
121	30.4	23.6	35.4

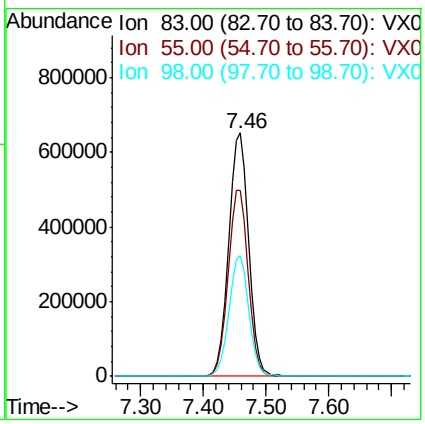


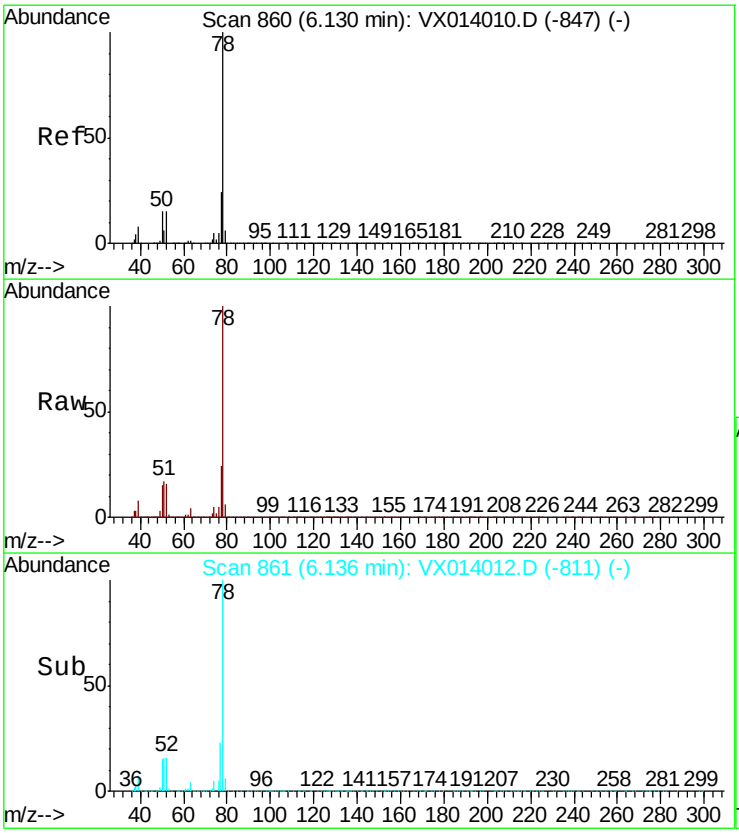


#39
Methylcyclohexane
Concen: 152.452 ug/l
RT: 7.46 min Scan# 1078
Delta R.T. 0.01 min
Lab File: VX014012.D
Acq: 13 Dec 2019 16:45

Tgt Ion: 83 Resp: 1431530

Ion	Ratio	Lower	Upper
83	100		
55	76.6	61.0	91.6
98	49.6	38.6	57.8

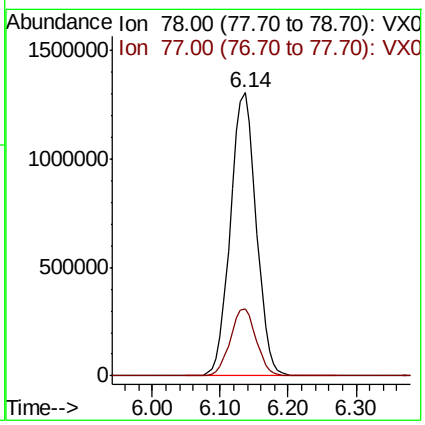




#40
Benzene
Concen: 148.726 ug/l
RT: 6.14 min Scan# 861
Delta R.T. 0.01 min
Lab File: VX014012.D
Acq: 13 Dec 2019 16:45

Tgt Ion: 78 Resp: 3442287

Ion	Ratio	Lower	Upper
78	100		
77	23.6	18.8	28.2

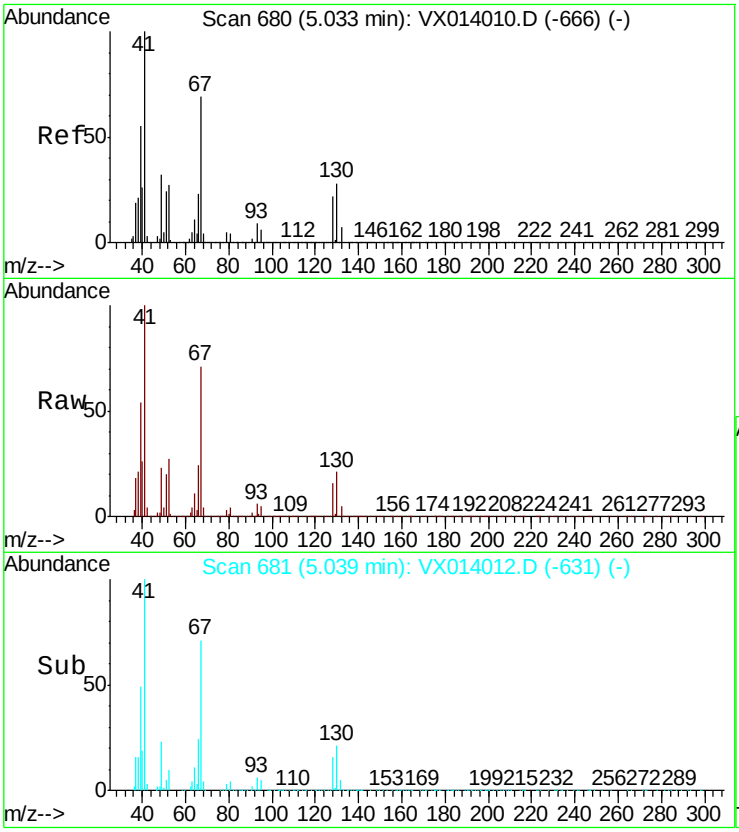


Instrument :
MSVOA_X
ClientSampleId :
VSTDICC150

Manual Integrations APPROVED
apatel
12/16/2019 12:46:09 PM

Instrument :
MSVOA_X
ClientSampleId :
VSTDICC150

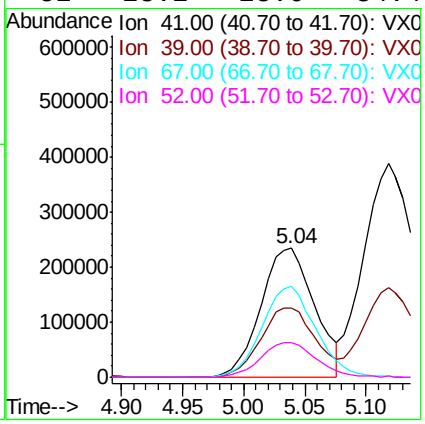
Manual Integrations APPROVED
apatel
12/16/2019 12:46:09 PM

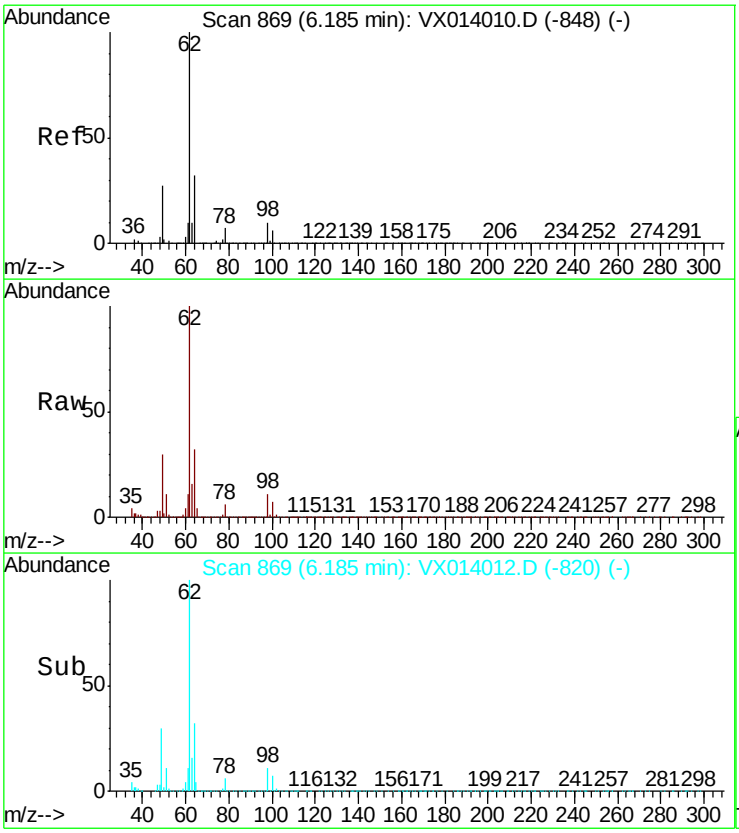


#41
Methacrylonitrile
Concen: 154.915 ug/l
RT: 5.04 min Scan# 681
Delta R.T. 0.01 min
Lab File: VX014012.D
Acq: 13 Dec 2019 16:45

Tgt Ion: 41 Resp: 715360

Ion	Ratio	Lower	Upper
41	100		
39	54.3	44.5	66.7
67	70.9	57.4	86.0
52	28.2	23.0	34.4

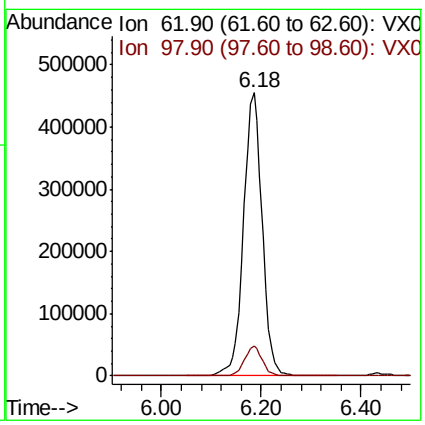




#42
1,2-Dichloroethane
Concen: 149.634 ug/l
RT: 6.18 min Scan# 869
Delta R.T. 0.00 min
Lab File: VX014012.D
Acq: 13 Dec 2019 16:45

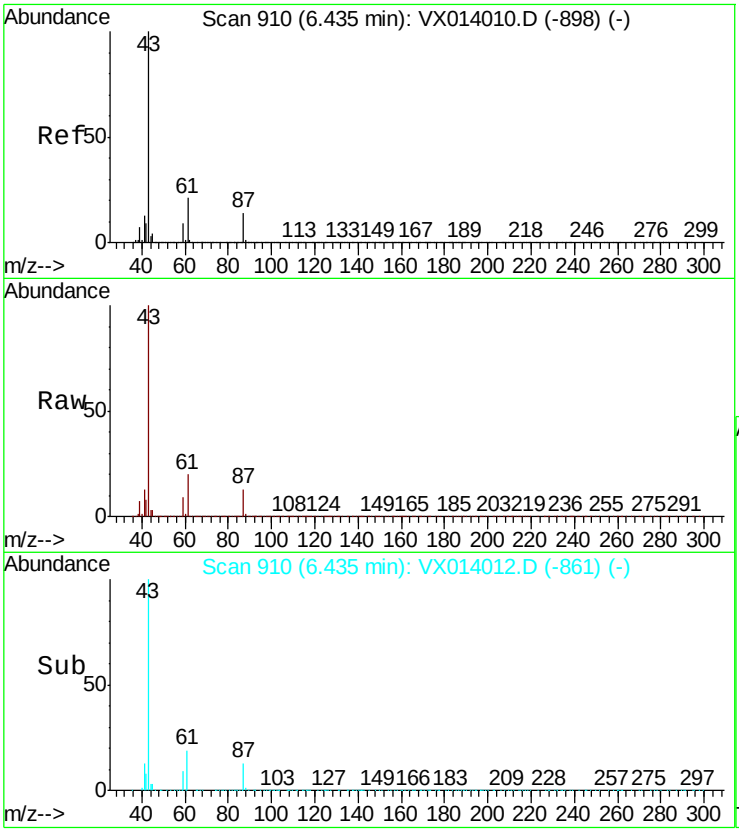
Tgt Ion: 62 Resp: 1179327

Ion	Ratio	Lower	Upper
62	100		
98	10.1	0.0	21.0



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC150

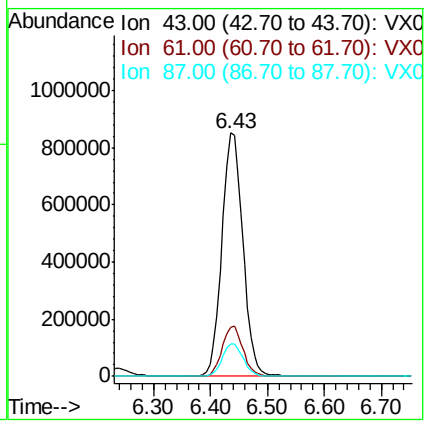
Manual Integrations APPROVED
apatel
12/16/2019 12:46:09 PM

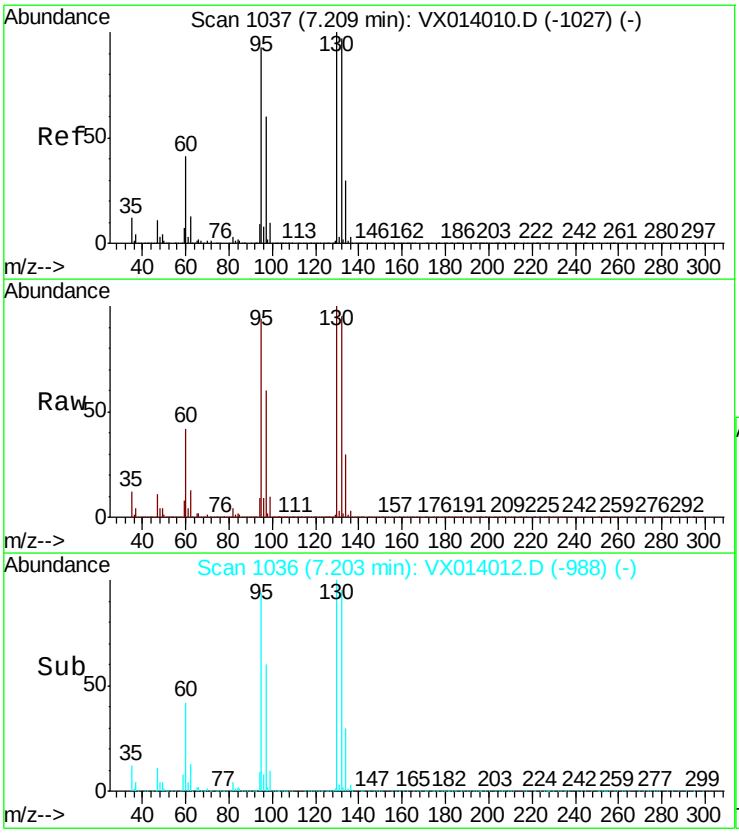


#43
Isopropyl Acetate
Concen: 156.119 ug/l
RT: 6.43 min Scan# 910
Delta R.T. 0.00 min
Lab File: VX014012.D
Acq: 13 Dec 2019 16:45

Tgt Ion: 43 Resp: 2181617

Ion	Ratio	Lower	Upper
43	100		
61	20.4	16.4	24.6
87	13.2	10.7	16.1

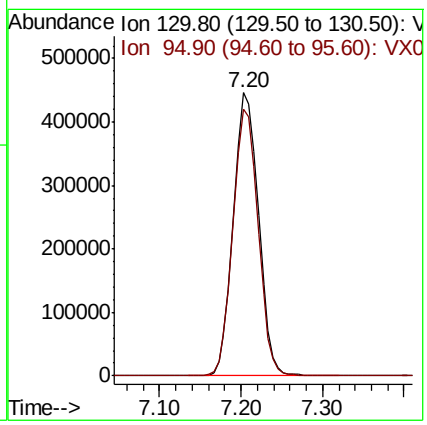


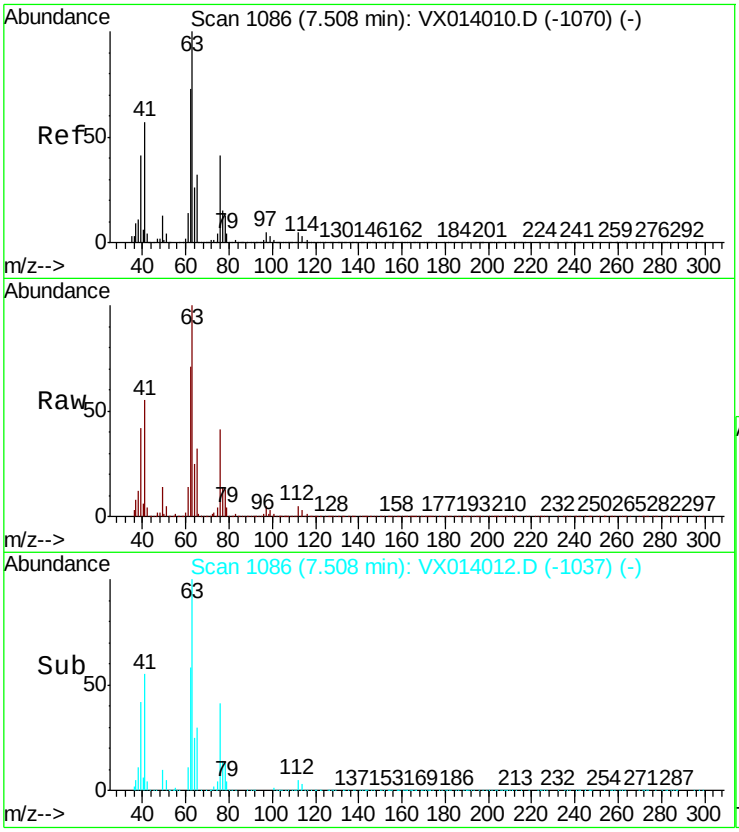


#44
Trichloroethene
Concen: 149.877 ug/l
RT: 7.20 min Scan# 1036
Delta R.T. -0.01 min
Lab File: VX014012.D
Acq: 13 Dec 2019 16:45

Tgt Ion:130 Resp: 948580

Ion	Ratio	Lower	Upper
130	100		
95	94.2	0.0	185.6

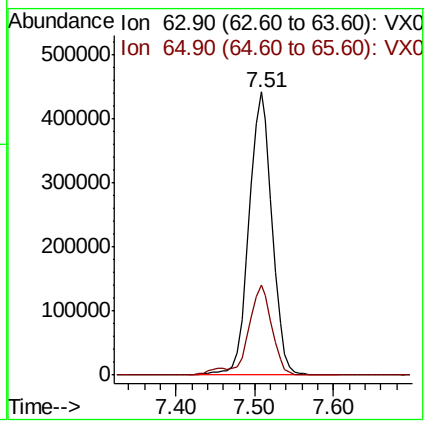




#45
1,2-Dichloropropane
Concen: 154.137 ug/l
RT: 7.51 min Scan# 1086
Delta R.T. 0.00 min
Lab File: VX014012.D
Acq: 13 Dec 2019 16:45

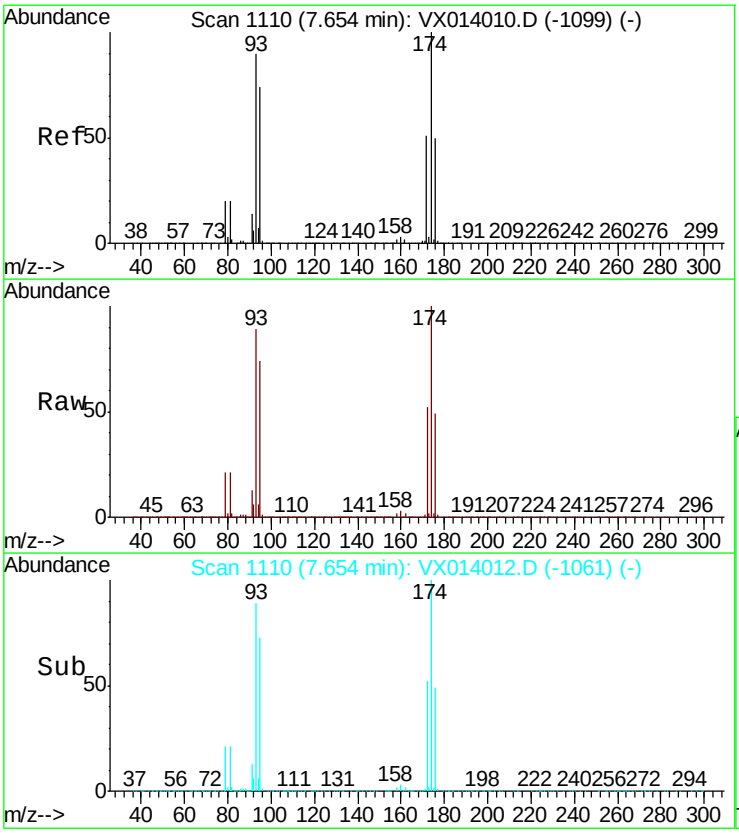
Tgt Ion: 63 Resp: 894252

Ion	Ratio	Lower	Upper
63	100		
65	31.6	25.8	38.8



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC150

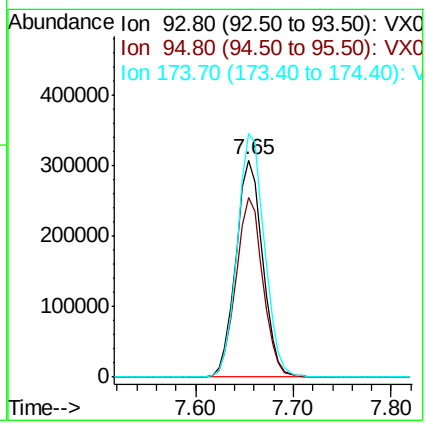
Manual Integrations APPROVED
apatel
12/16/2019 12:46:09 PM

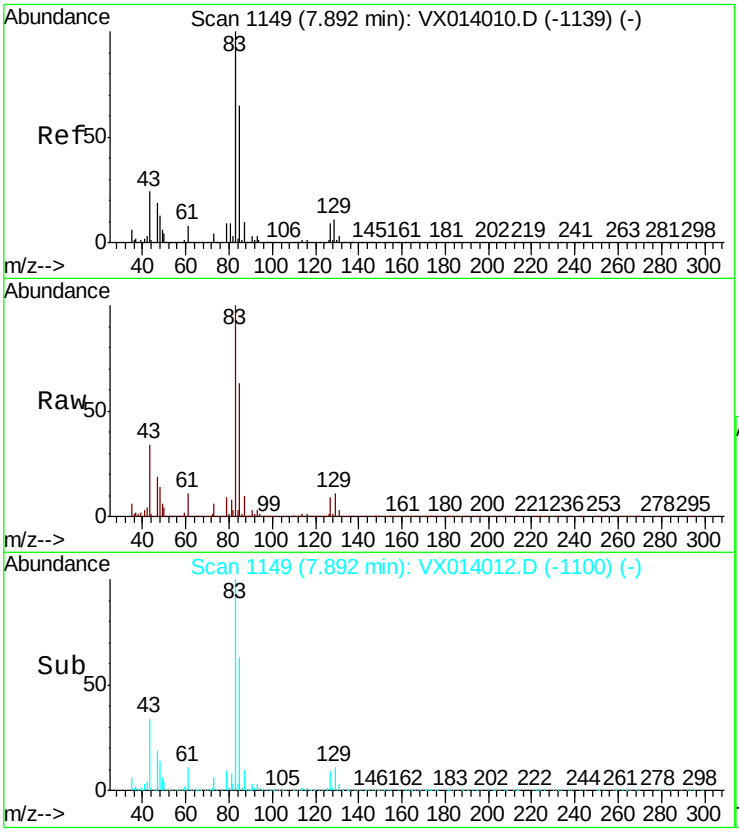


#46
Dibromomethane
Concen: 149.129 ug/l
RT: 7.65 min Scan# 1110
Delta R.T. 0.00 min
Lab File: VX014012.D
Acq: 13 Dec 2019 16:45

Tgt Ion: 93 Resp: 585568

Ion	Ratio	Lower	Upper
93	100		
95	82.7	67.3	100.9
174	113.8	91.6	137.4

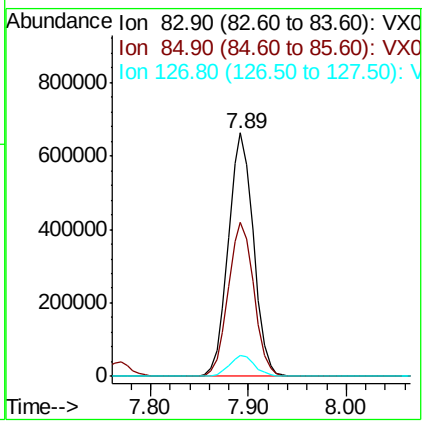


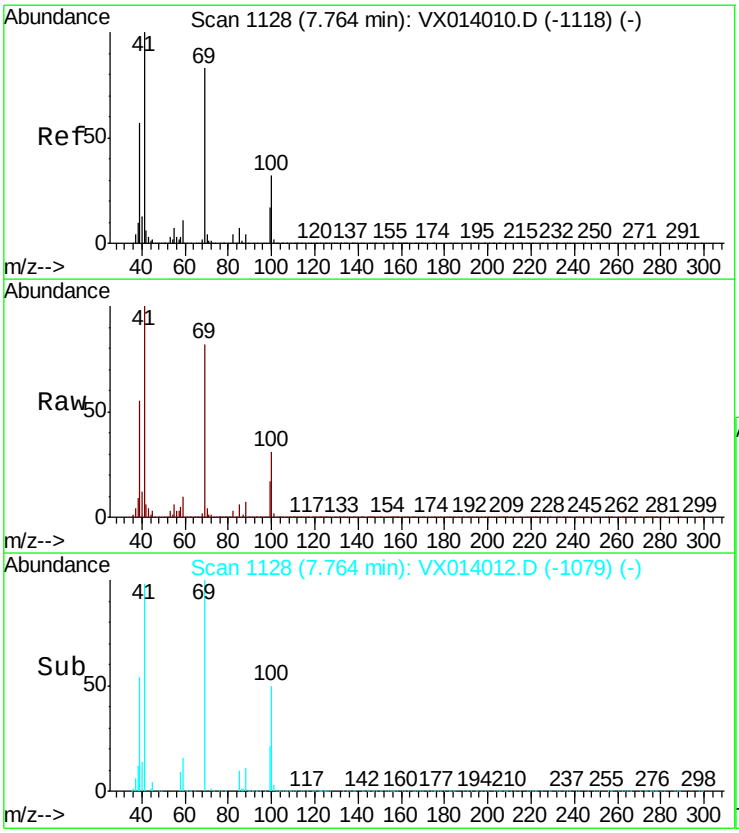


#47
Bromodichloromethane
Concen: 159.175 ug/l
RT: 7.89 min Scan# 1149
Delta R.T. 0.00 min
Lab File: VX014012.D
Acq: 13 Dec 2019 16:45

Tgt Ion: 83 Resp: 1181251

Ion	Ratio	Lower	Upper
83	100		
85	63.3	51.8	77.8
127	8.5	7.0	10.4

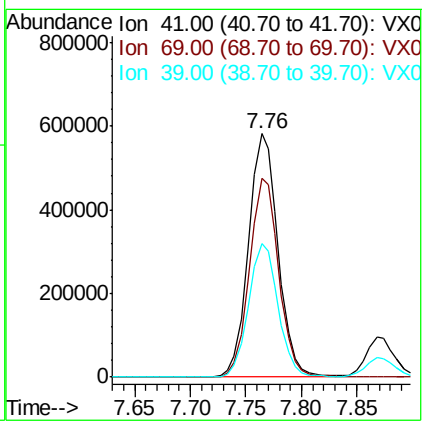




#48
Methyl methacrylate
Concen: 158.165 ug/l
RT: 7.76 min Scan# 1128
Delta R.T. 0.00 min
Lab File: VX014012.D
Acq: 13 Dec 2019 16:45

Tgt Ion: 41 Resp: 1071509

Ion	Ratio	Lower	Upper
41	100		
69	81.6	65.8	98.6
39	55.0	44.6	67.0

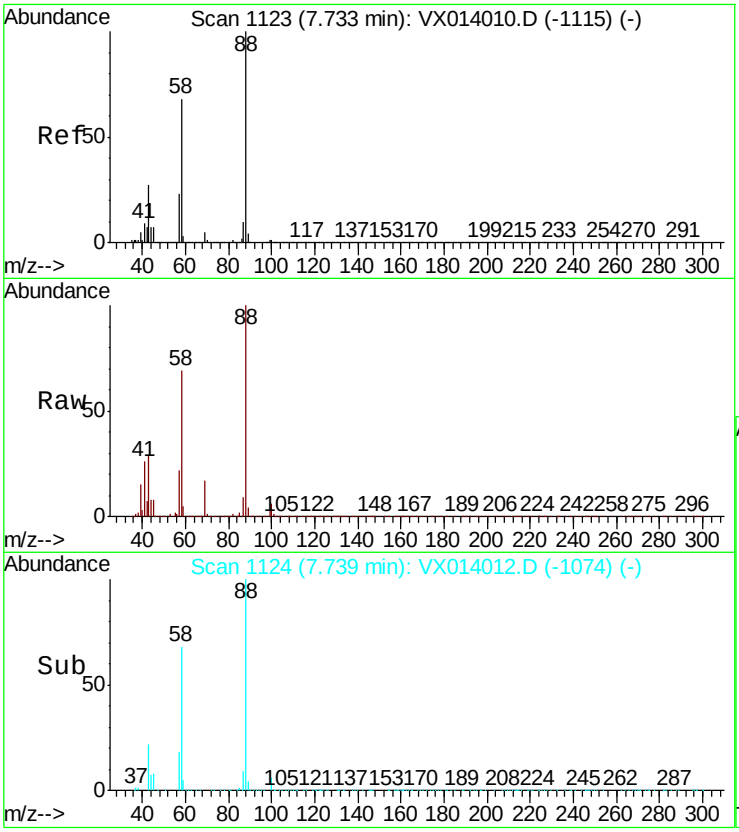


Instrument :
MSVOA_X
ClientSampleId :
VSTDICC150

Manual Integrations APPROVED
apatel
12/16/2019 12:46:09 PM

Instrument :
MSVOA_X
ClientSampleId :
VSTDICC150

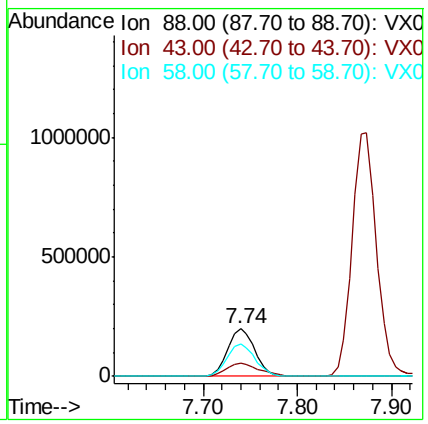
Manual Integrations APPROVED
apatel
12/16/2019 12:46:09 PM

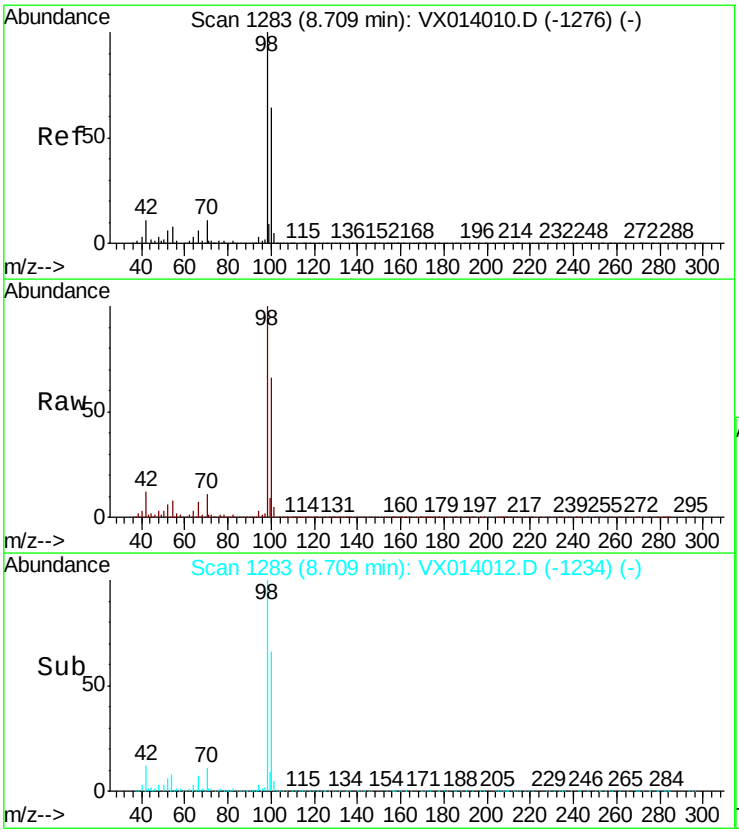


#49
1,4-Dioxane
Concen: 2642.701 ug/l
RT: 7.74 min Scan# 1124
Delta R.T. 0.01 min
Lab File: VX014012.D
Acq: 13 Dec 2019 16:45

Tgt Ion: 88 Resp: 394321

Ion	Ratio	Lower	Upper
88	100		
43	32.8	26.5	39.7
58	70.6	56.8	85.2

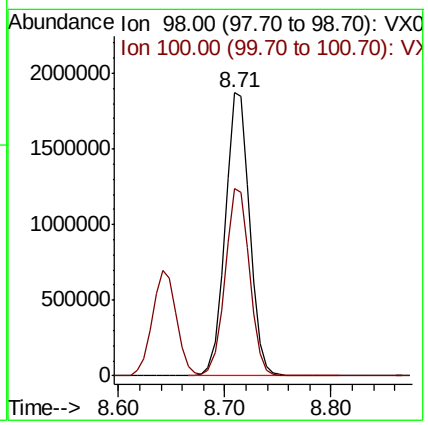




#50
Toluene-d8
Concen: 147.689 ug/l
RT: 8.71 min Scan# 1283
Delta R.T. 0.00 min
Lab File: VX014012.D
Acq: 13 Dec 2019 16:45

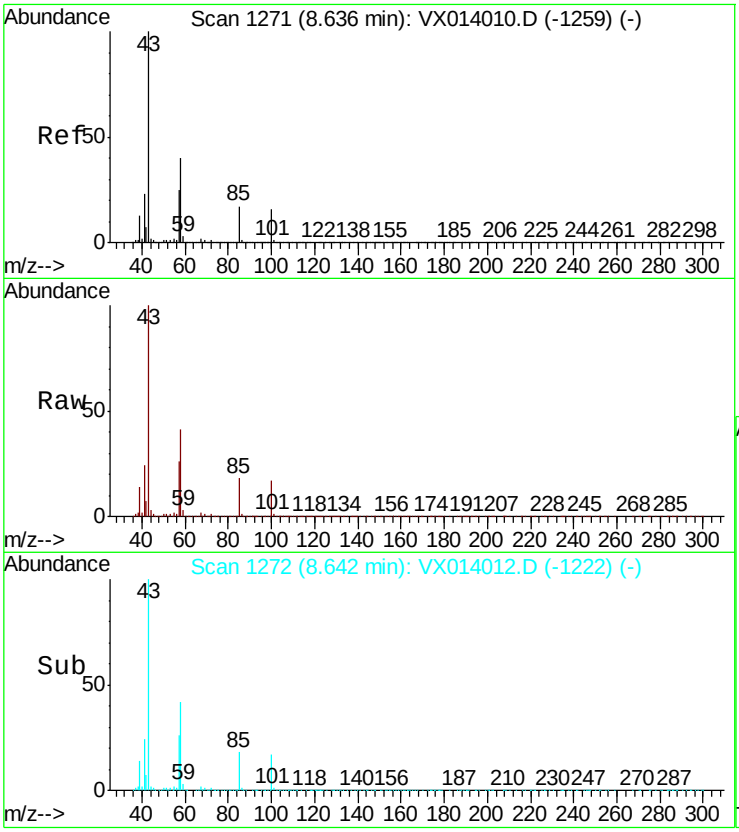
Tgt Ion: 98 Resp: 2996447

Ion	Ratio	Lower	Upper
98	100		
100	66.5	52.9	79.3



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC150

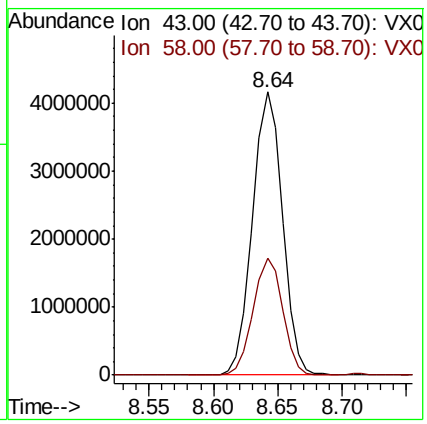
Manual Integrations APPROVED
apatel
12/16/2019 12:46:09 PM

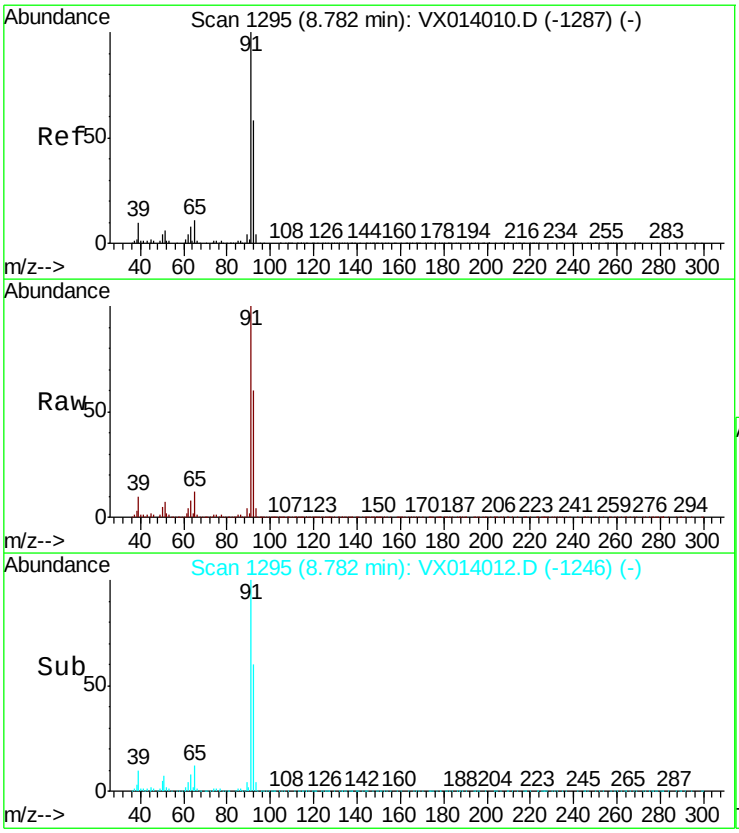


#51
4-Methyl-2-Pentanone
Concen: 761.881 ug/l
RT: 8.64 min Scan# 1272
Delta R.T. 0.01 min
Lab File: VX014012.D
Acq: 13 Dec 2019 16:45

Tgt Ion: 43 Resp: 6685070

Ion	Ratio	Lower	Upper
43	100		
58	40.8	32.2	48.2

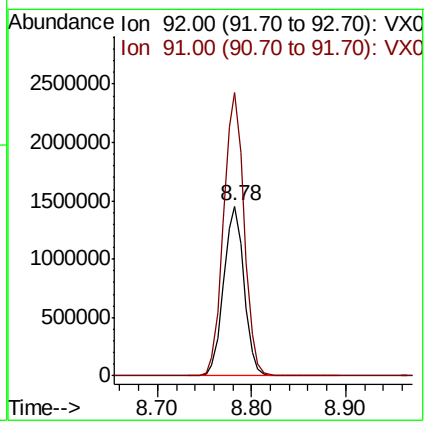


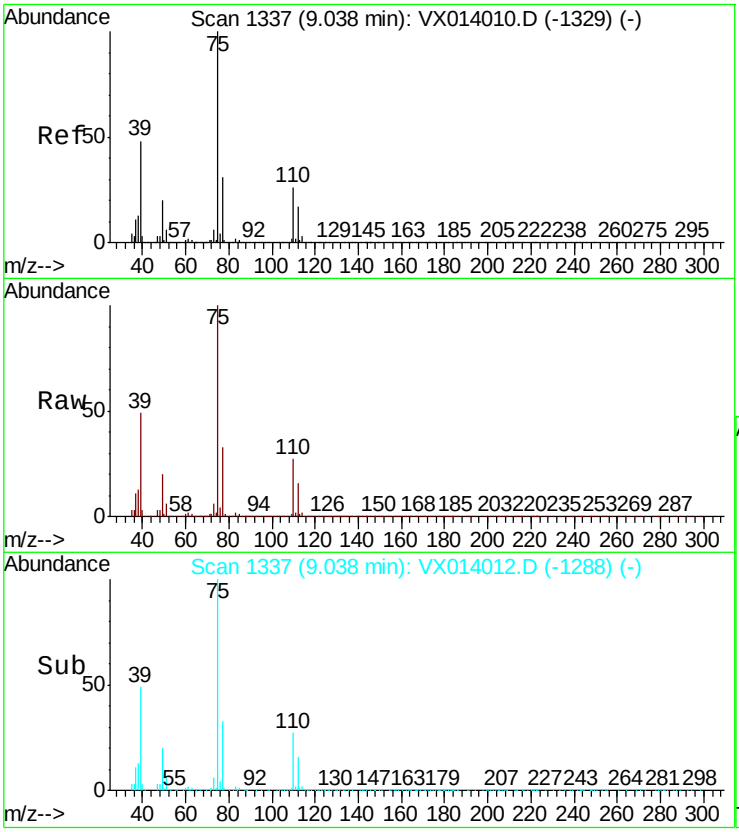


#52
Toluene
Concen: 151.380 ug/l
RT: 8.78 min Scan# 1295
Delta R.T. 0.00 min
Lab File: VX014012.D
Acq: 13 Dec 2019 16:45

Tgt Ion: 92 Resp: 2179460

Ion	Ratio	Lower	Upper
92	100		
91	168.5	136.2	204.4

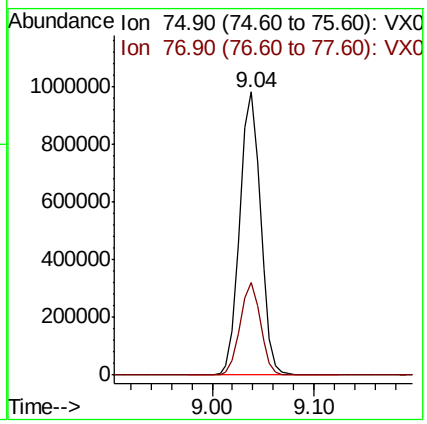


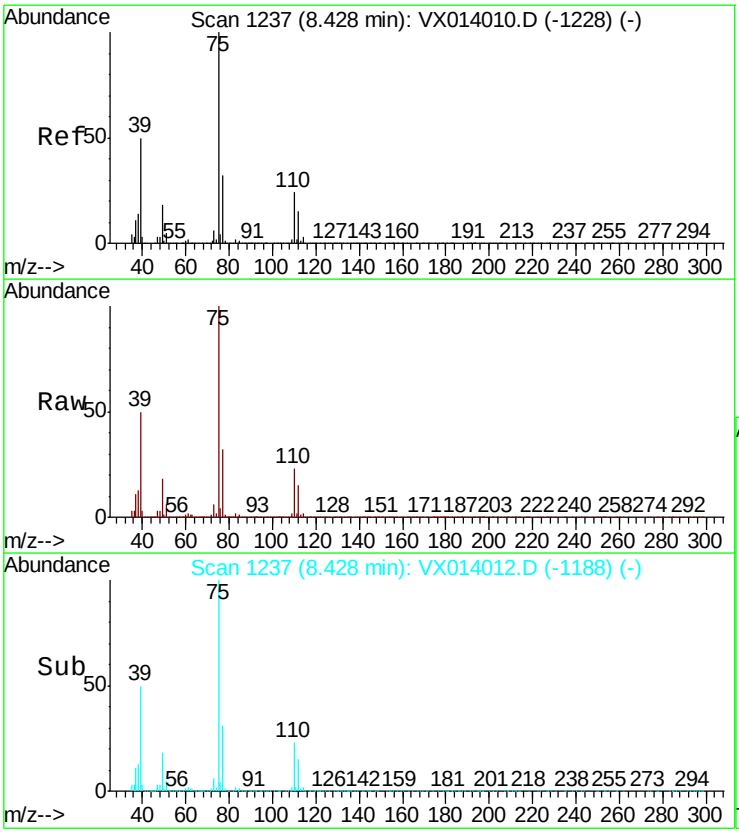


#53
t-1,3-Dichloropropene
Concen: 164.046 ug/l
RT: 9.04 min Scan# 1337
Delta R.T. 0.00 min
Lab File: VX014012.D
Acq: 13 Dec 2019 16:45

Tgt Ion: 75 Resp: 1384848

Ion	Ratio	Lower	Upper
75	100		
77	32.5	25.1	37.7

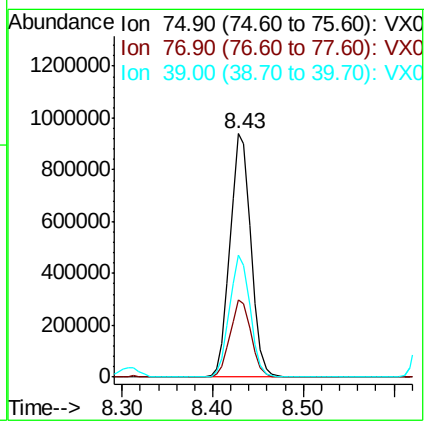




#54
cis-1,3-Dichloropropene
Concen: 161.997 ug/l
RT: 8.43 min Scan# 1237
Delta R.T. 0.00 min
Lab File: VX014012.D
Acq: 13 Dec 2019 16:45

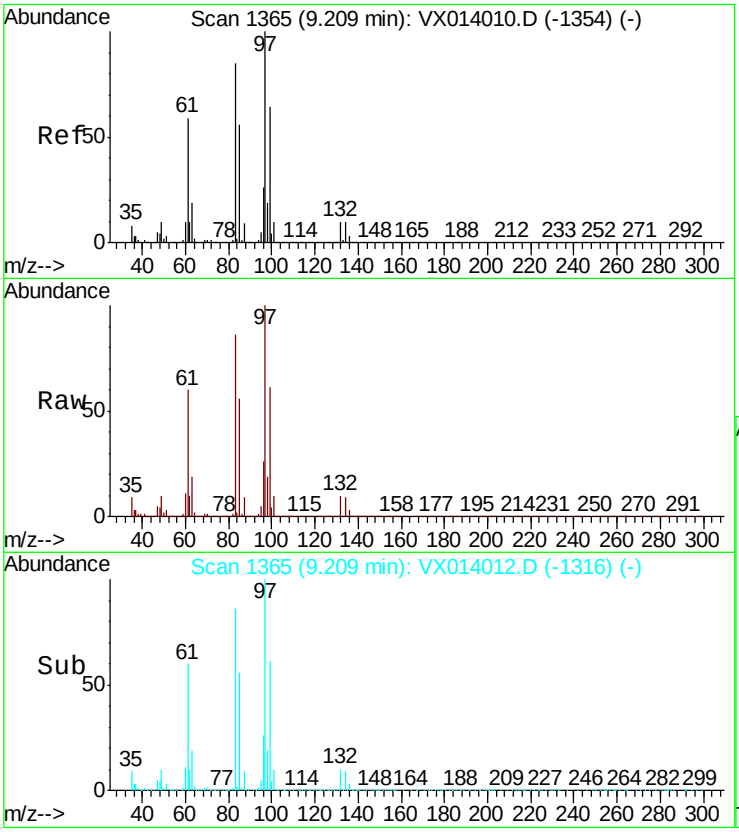
Tgt Ion: 75 Resp: 1495505

Ion	Ratio	Lower	Upper
75	100		
77	31.5	25.3	37.9
39	50.3	39.9	59.9



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC150

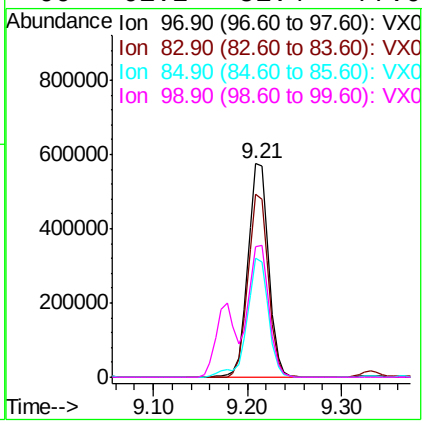
Manual Integrations APPROVED
apatel
12/16/2019 12:46:09 PM



#55
1,1,2-Trichloroethane
Concen: 152.917 ug/l
RT: 9.21 min Scan# 1365
Delta R.T. 0.00 min
Lab File: VX014012.D
Acq: 13 Dec 2019 16:45

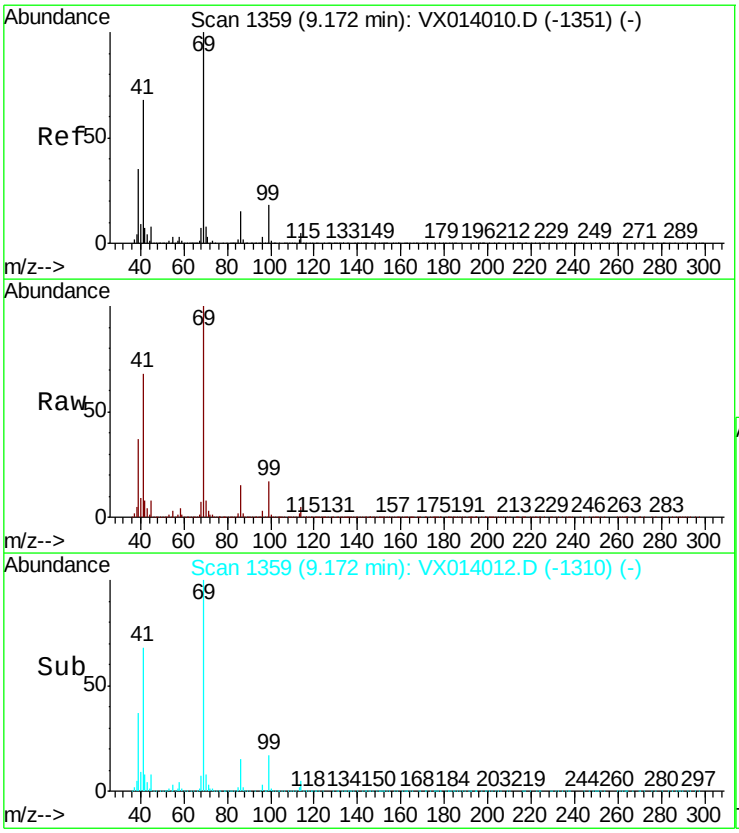
Tgt Ion: 97 Resp: 886074

Ion	Ratio	Lower	Upper
97	100		
83	85.6	68.2	102.4
85	55.5	44.6	66.8
99	61.2	51.4	77.0



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC150

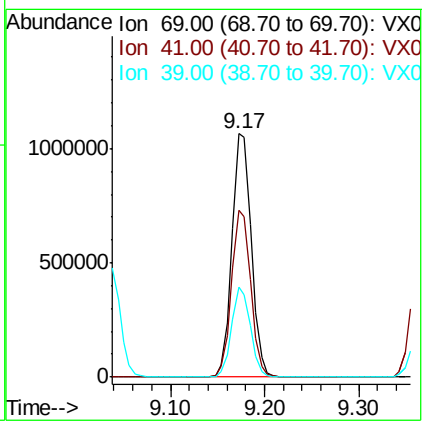
Manual Integrations APPROVED
apatel
12/16/2019 12:46:09 PM

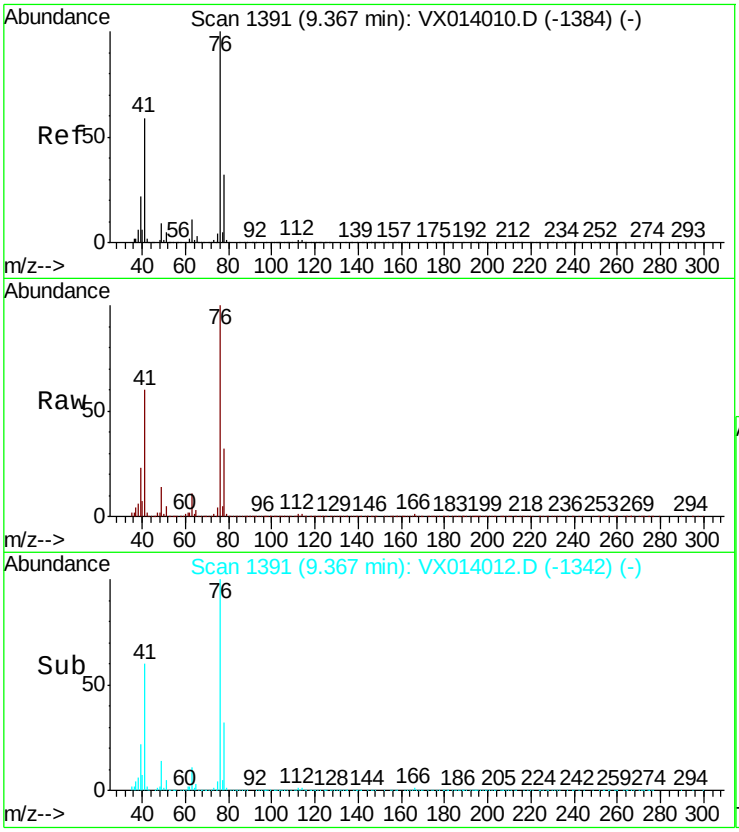


#56
Ethyl methacrylate
Concen: 162.809 ug/l
RT: 9.17 min Scan# 1359
Delta R.T. 0.00 min
Lab File: VX014012.D
Acq: 13 Dec 2019 16:45

Tgt Ion: 69 Resp: 1519194

Ion	Ratio	Lower	Upper
69	100		
41	67.7	54.8	82.2
39	35.7	28.3	42.5

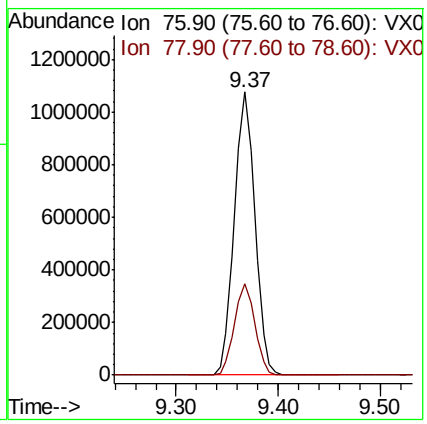




#57
1,3-Dichloropropane
Concen: 149.395 ug/l
RT: 9.37 min Scan# 1391
Delta R.T. 0.00 min
Lab File: VX014012.D
Acq: 13 Dec 2019 16:45

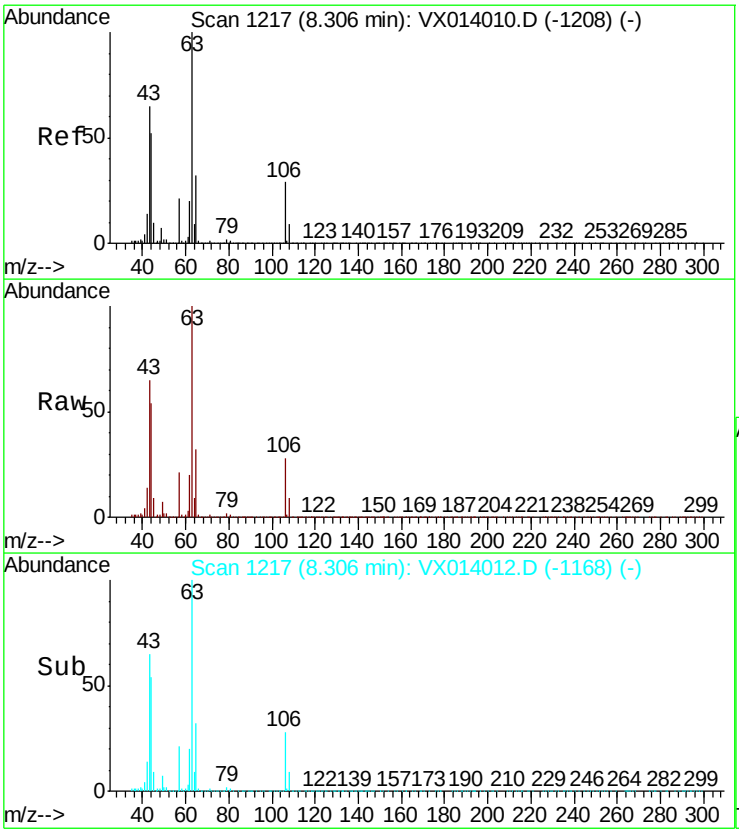
Tgt Ion: 76 Resp: 1493883

Ion	Ratio	Lower	Upper
76	100		
78	32.4	25.8	38.6



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC150

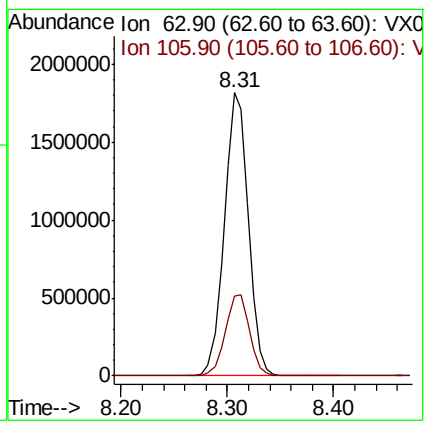
Manual Integrations APPROVED
apatel
12/16/2019 12:46:09 PM

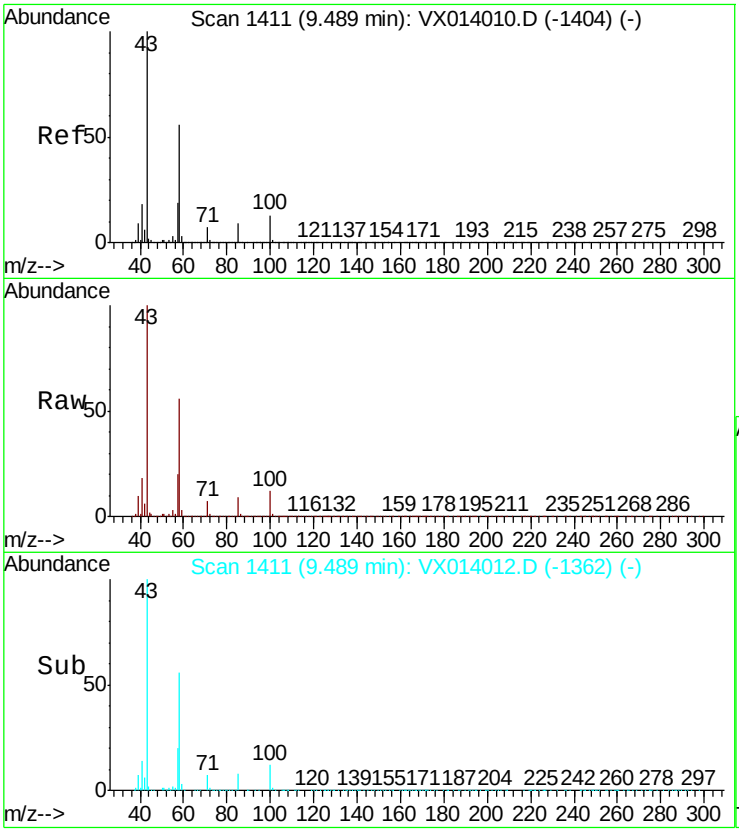


#58
2-Chloroethyl Vinyl ether
Concen: 780.770 ug/l
RT: 8.31 min Scan# 1217
Delta R.T. 0.00 min
Lab File: VX014012.D
Acq: 13 Dec 2019 16:45

Tgt Ion: 63 Resp: 2855998

Ion	Ratio	Lower	Upper
63	100		
106	29.1	23.0	34.6

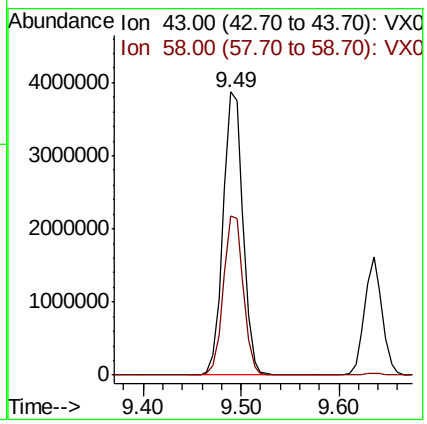




#59
2-Hexanone
Concen: 788.686 ug/l
RT: 9.49 min Scan# 1411
Delta R.T. 0.00 min
Lab File: VX014012.D
Acq: 13 Dec 2019 16:45

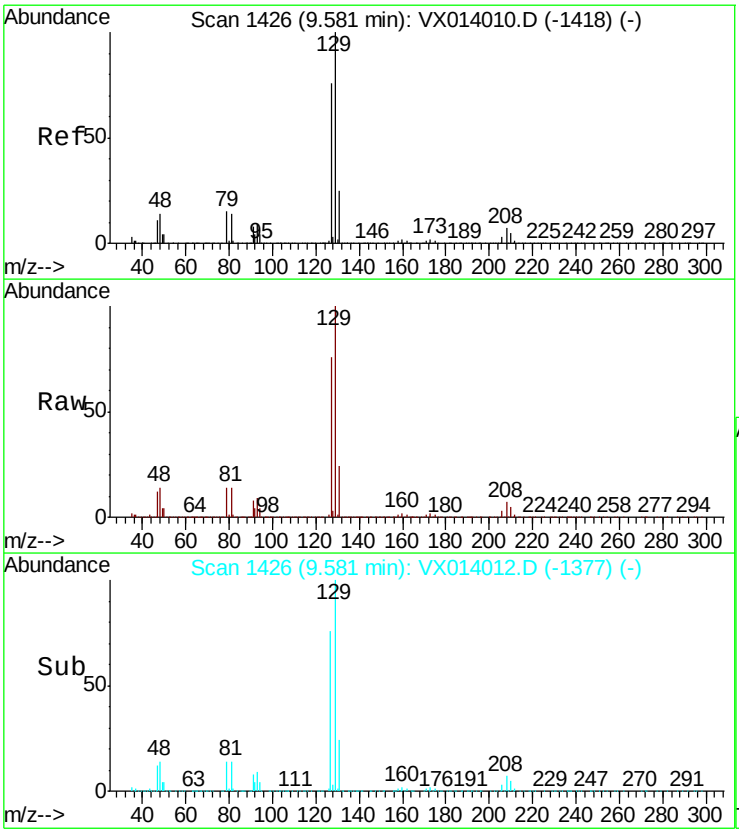
Tgt Ion: 43 Resp: 5445631

Ion	Ratio	Lower	Upper
43	100		
58	56.4	28.0	84.0



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC150

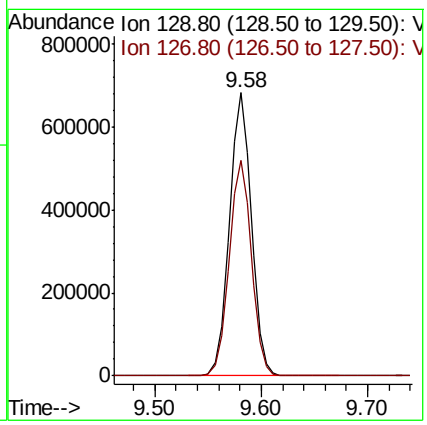
Manual Integrations APPROVED
apatel
12/16/2019 12:46:09 PM

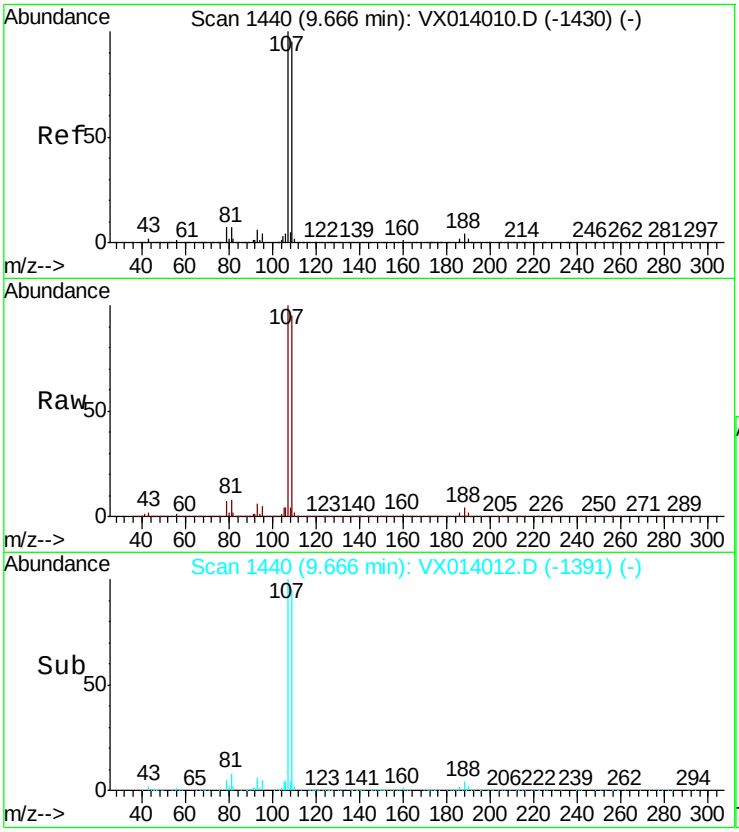


#60
Dibromochloromethane
Concen: 164.651 ug/l
RT: 9.58 min Scan# 1426
Delta R.T. 0.00 min
Lab File: VX014012.D
Acq: 13 Dec 2019 16:45

Tgt Ion:129 Resp: 986592

Ion	Ratio	Lower	Upper
129	100		
127	77.0	38.4	115.2

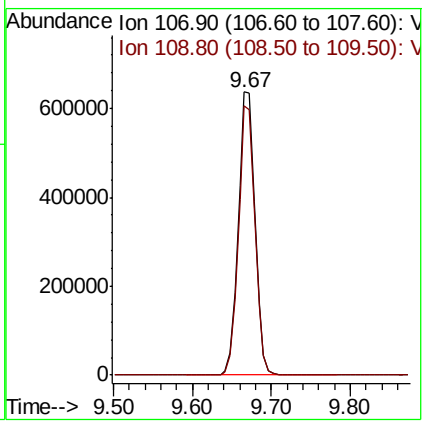




#61
1,2-Dibromoethane
Concen: 151.608 ug/l
RT: 9.67 min Scan# 1440
Delta R.T. 0.00 min
Lab File: VX014012.D
Acq: 13 Dec 2019 16:45

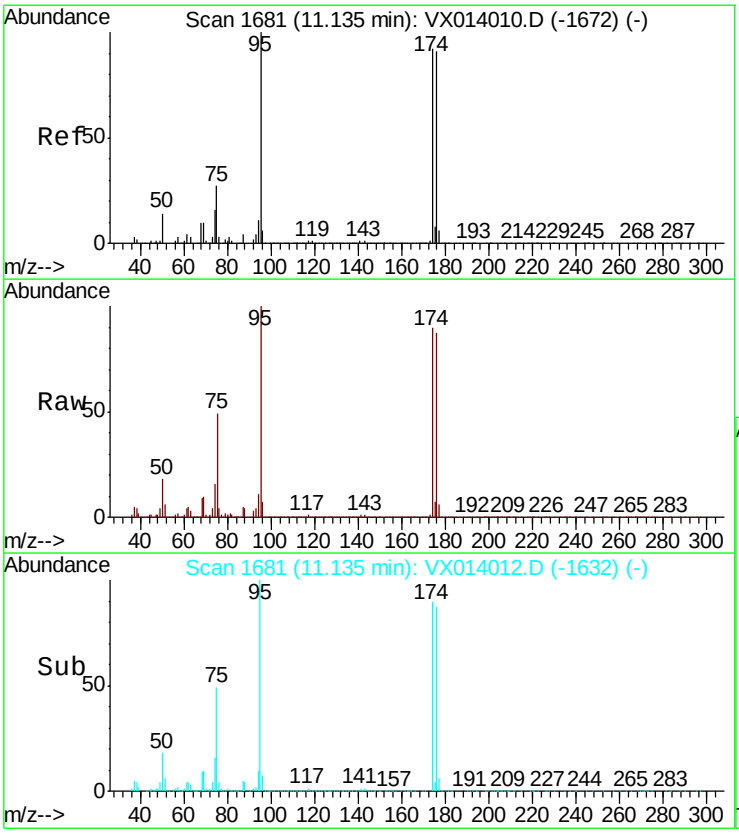
Tgt Ion:107 Resp: 937046

Ion	Ratio	Lower	Upper
107	100		
109	94.2	75.7	113.5



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC150

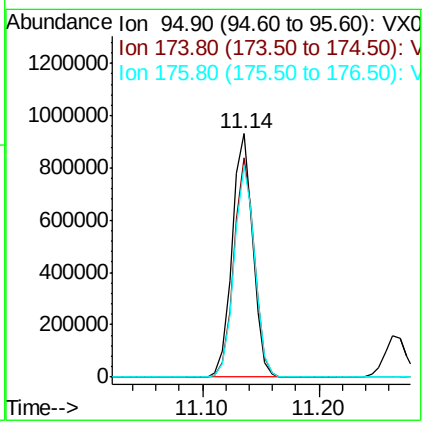
Manual Integrations APPROVED
apatel
12/16/2019 12:46:09 PM

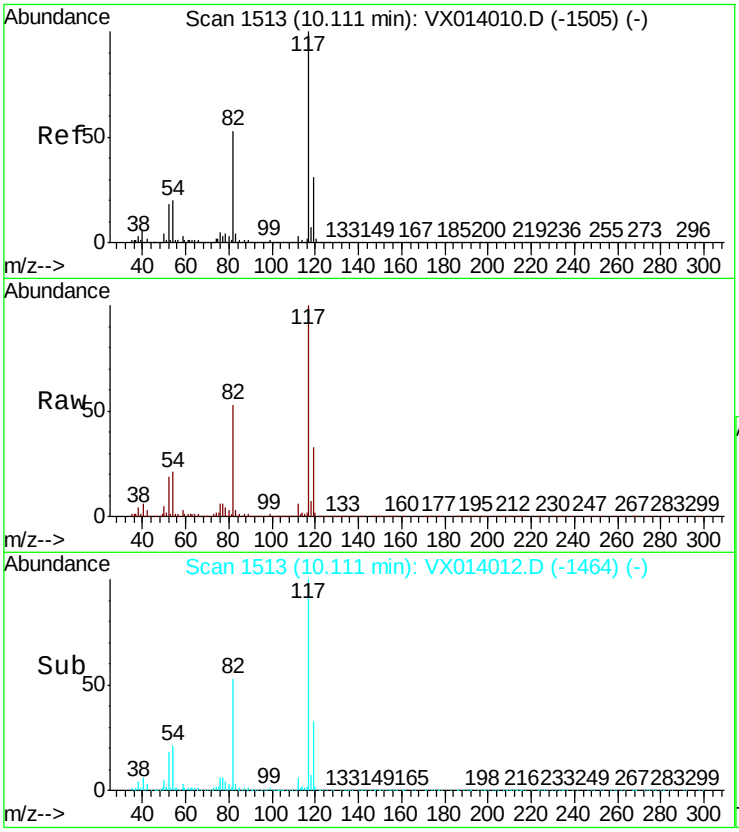


#62
4-Bromofluorobenzene
Concen: 157.278 ug/l
RT: 11.14 min Scan# 1681
Delta R.T. 0.00 min
Lab File: VX014012.D
Acq: 13 Dec 2019 16:45

Tgt Ion: 95 Resp: 1153758

Ion	Ratio	Lower	Upper
95	100		
174	89.2	0.0	175.8
176	86.6	0.0	173.0

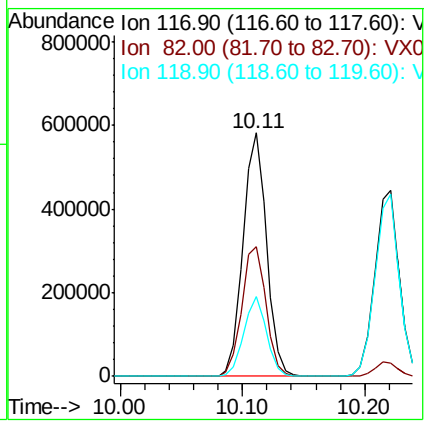




#63
Chlorobenzene-d5
Concen: 50.000 ug/l
RT: 10.11 min Scan# 1513
Delta R.T. 0.00 min
Lab File: VX014012.D
Acq: 13 Dec 2019 16:45

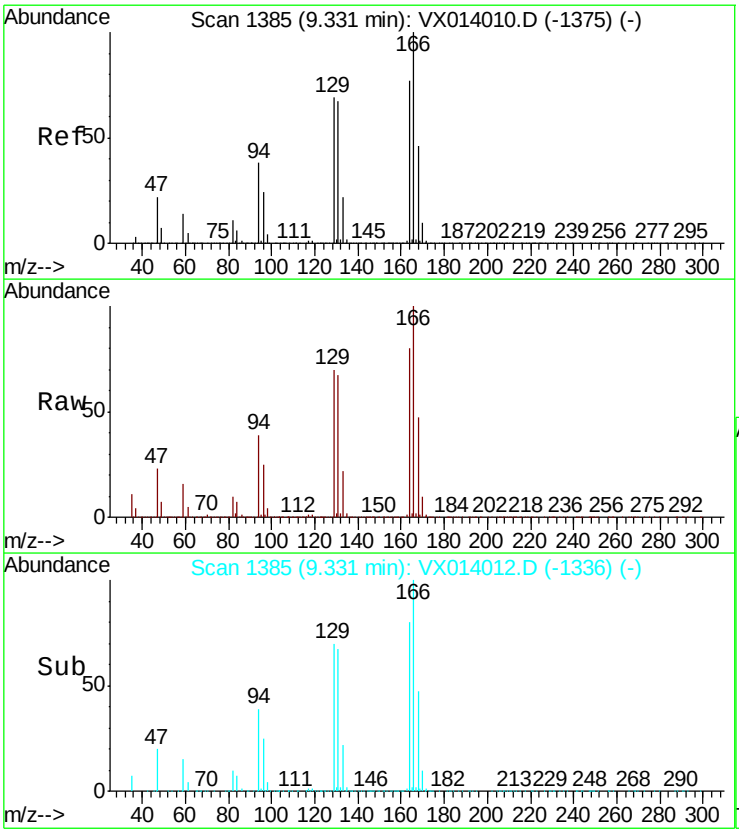
Tgt Ion:117 Resp: 770553

Ion	Ratio	Lower	Upper
117	100		
82	53.3	42.2	63.4
119	32.6	25.1	37.7



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC150

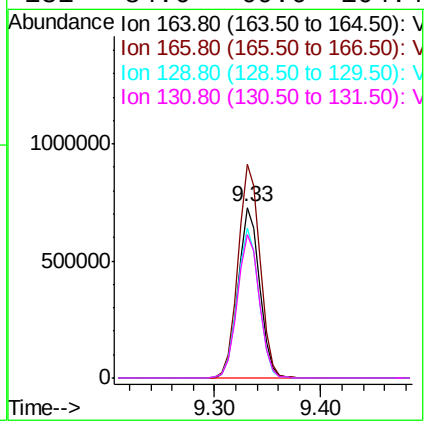
Manual Integrations APPROVED
apatel
12/16/2019 12:46:09 PM

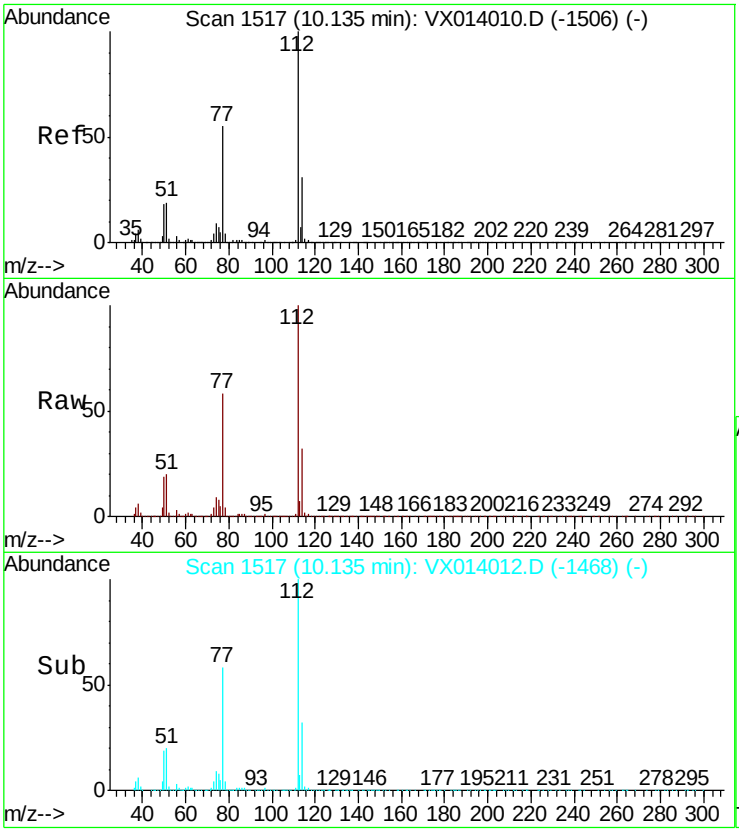


#64
Tetrachloroethene
Concen: 174.689 ug/l
RT: 9.33 min Scan# 1385
Delta R.T. 0.00 min
Lab File: VX014012.D
Acq: 13 Dec 2019 16:45

Tgt Ion:164 Resp: 1038728

Ion	Ratio	Lower	Upper
164	100		
166	125.4	104.0	156.0
129	88.0	72.2	108.4
131	84.6	69.6	104.4

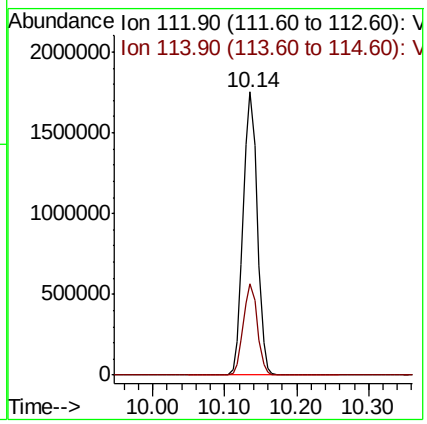




#65
Chlorobenzene
Concen: 147.659 ug/l
RT: 10.14 min Scan# 1517
Delta R.T. 0.00 min
Lab File: VX014012.D
Acq: 13 Dec 2019 16:45

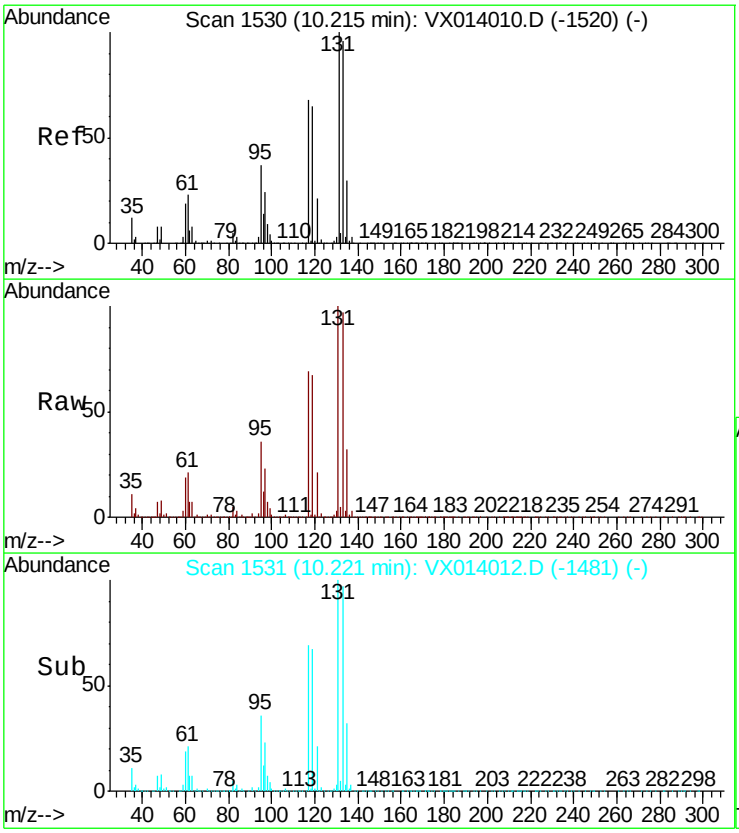
Tgt Ion:112 Resp: 2375571

Ion	Ratio	Lower	Upper
112	100		
114	32.4	24.9	37.3



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC150

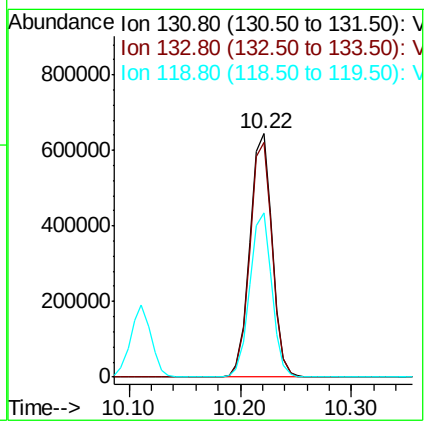
Manual Integrations APPROVED
apatel
12/16/2019 12:46:09 PM

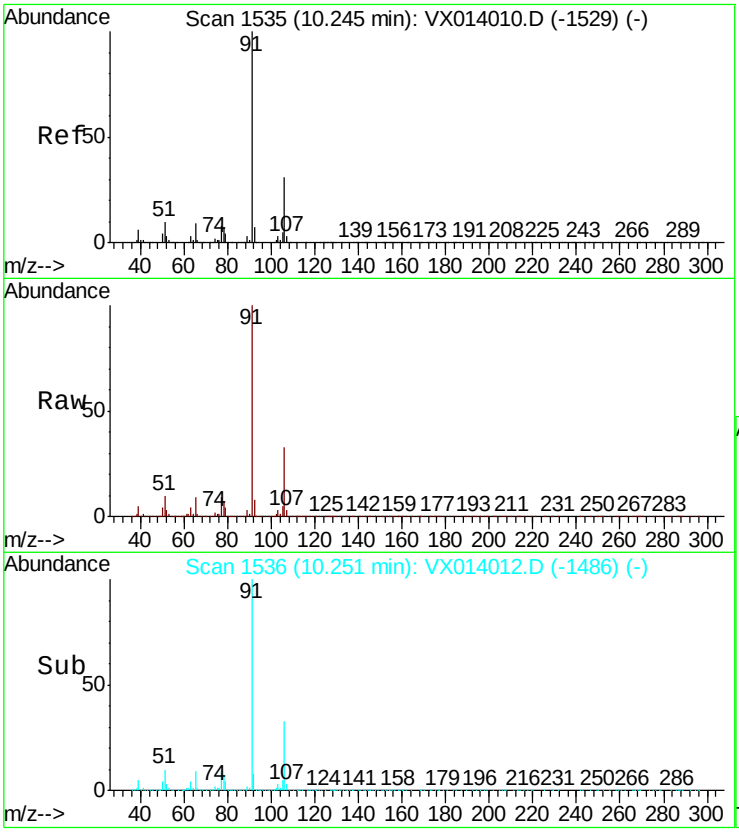


#66
1,1,1,2-Tetrachloroethane
Concen: 155.397 ug/l
RT: 10.22 min Scan# 1531
Delta R.T. 0.01 min
Lab File: VX014012.D
Acq: 13 Dec 2019 16:45

Tgt Ion:131 Resp: 895181

Ion	Ratio	Lower	Upper
131	100		
133	96.4	48.0	144.0
119	66.7	33.4	100.2

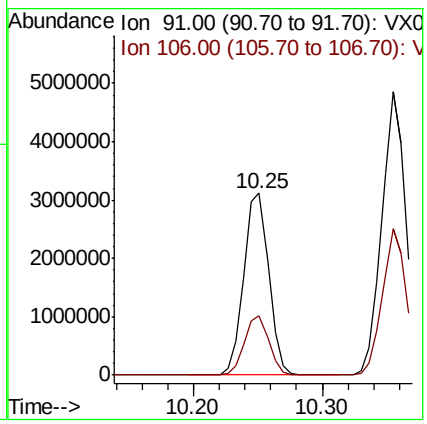


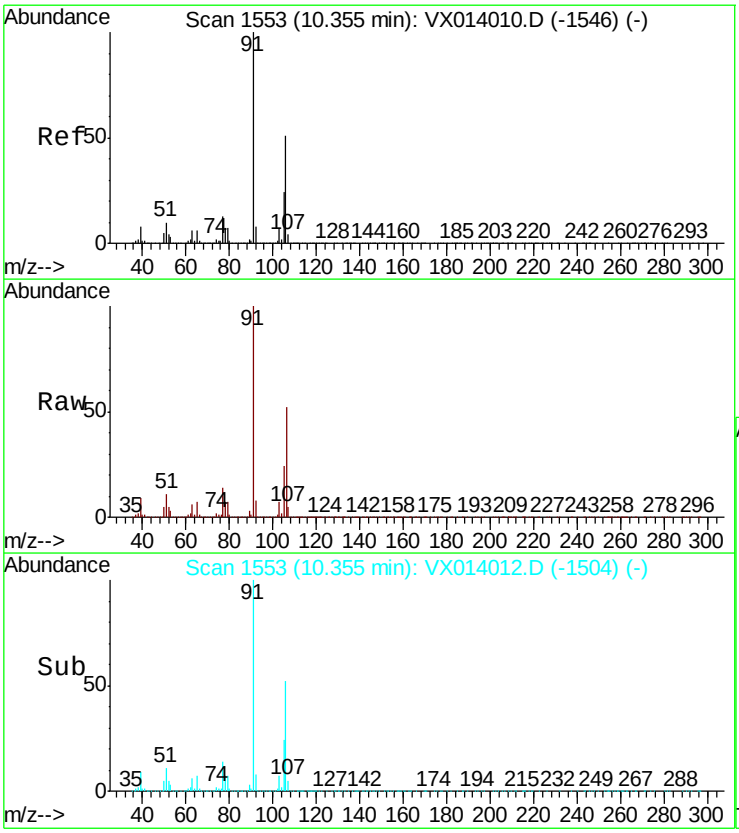


#67
Ethyl Benzene
Concen: 150.188 ug/l
RT: 10.25 min Scan# 1536
Delta R.T. 0.01 min
Lab File: VX014012.D
Acq: 13 Dec 2019 16:45

Tgt Ion: 91 Resp: 4147366

Ion	Ratio	Lower	Upper
91	100		
106	32.8	25.0	37.6

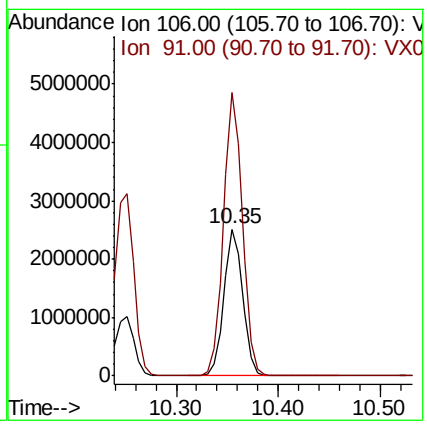




#68
m/p-Xylenes
Concen: 303.636 ug/l
RT: 10.35 min Scan# 1553
Delta R.T. 0.00 min
Lab File: VX014012.D
Acq: 13 Dec 2019 16:45

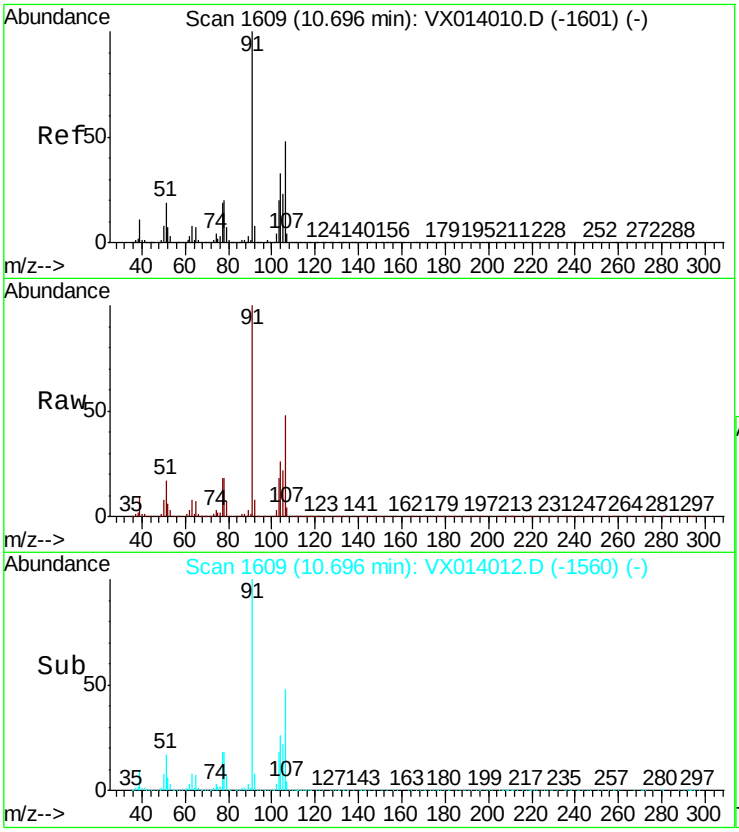
Tgt Ion:106 Resp: 3214539

Ion	Ratio	Lower	Upper
106	100		
91	195.0	158.6	238.0



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC150

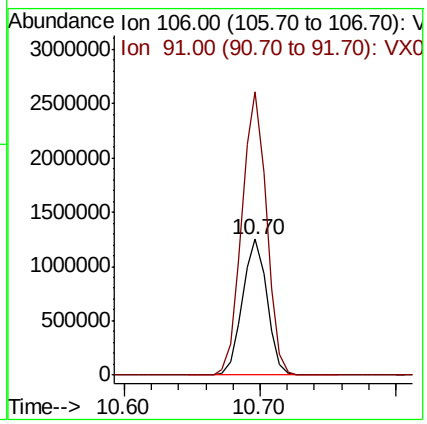
Manual Integrations APPROVED
apatel
12/16/2019 12:46:09 PM



#69
o-Xylene
Concen: 153.308 ug/l
RT: 10.70 min Scan# 1609
Delta R.T. 0.00 min
Lab File: VX014012.D
Acq: 13 Dec 2019 16:45

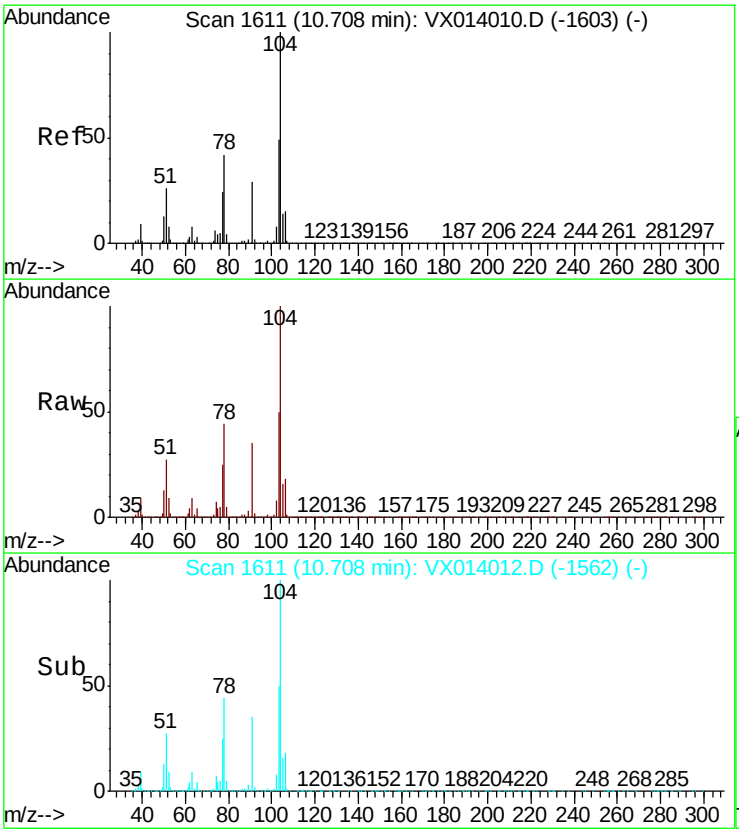
Tgt Ion:106 Resp: 1582818

Ion	Ratio	Lower	Upper
106	100		
91	208.0	104.2	312.6



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC150

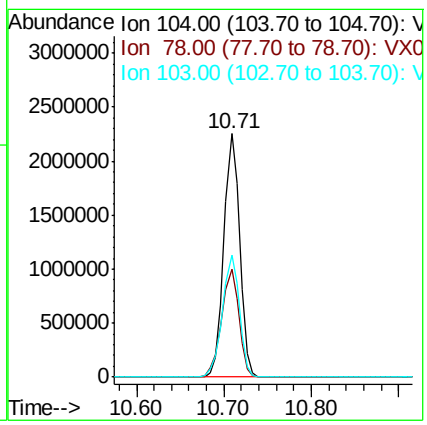
Manual Integrations APPROVED
apatel
12/16/2019 12:46:09 PM

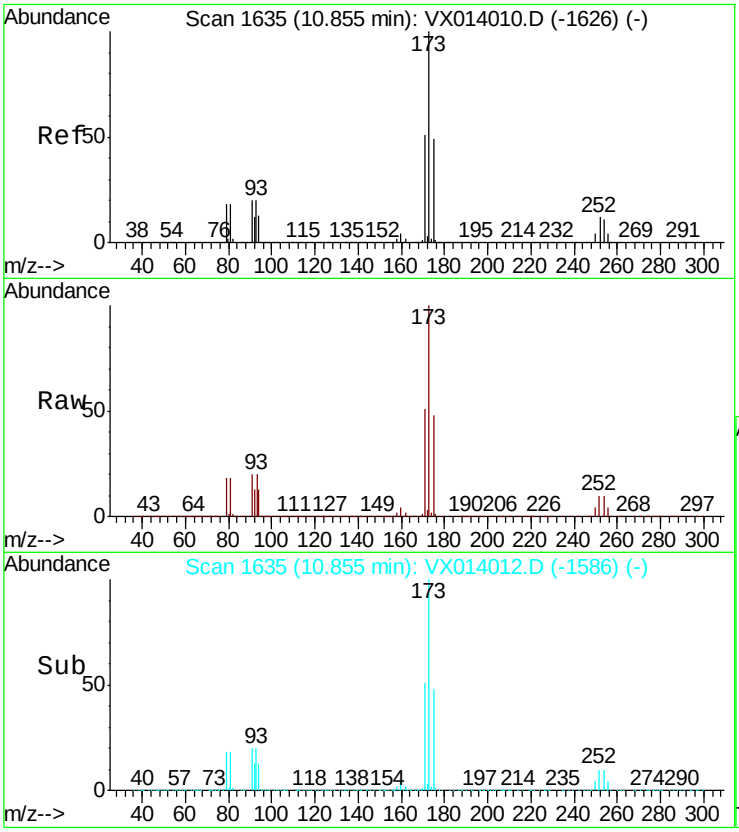


#70
Styrene
Concen: 160.964 ug/l
RT: 10.71 min Scan# 1611
Delta R.T. 0.00 min
Lab File: VX014012.D
Acq: 13 Dec 2019 16:45

Tgt Ion:104 Resp: 2803610

Ion	Ratio	Lower	Upper
104	100		
78	48.4	38.5	57.7
103	53.9	42.9	64.3

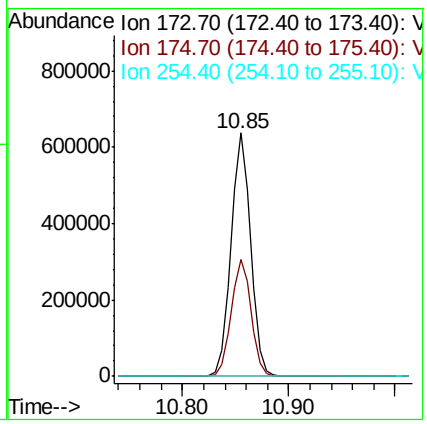




#71
Bromoform
Concen: 173.364 ug/l
RT: 10.85 min Scan# 1635
Delta R.T. 0.00 min
Lab File: VX014012.D
Acq: 13 Dec 2019 16:45

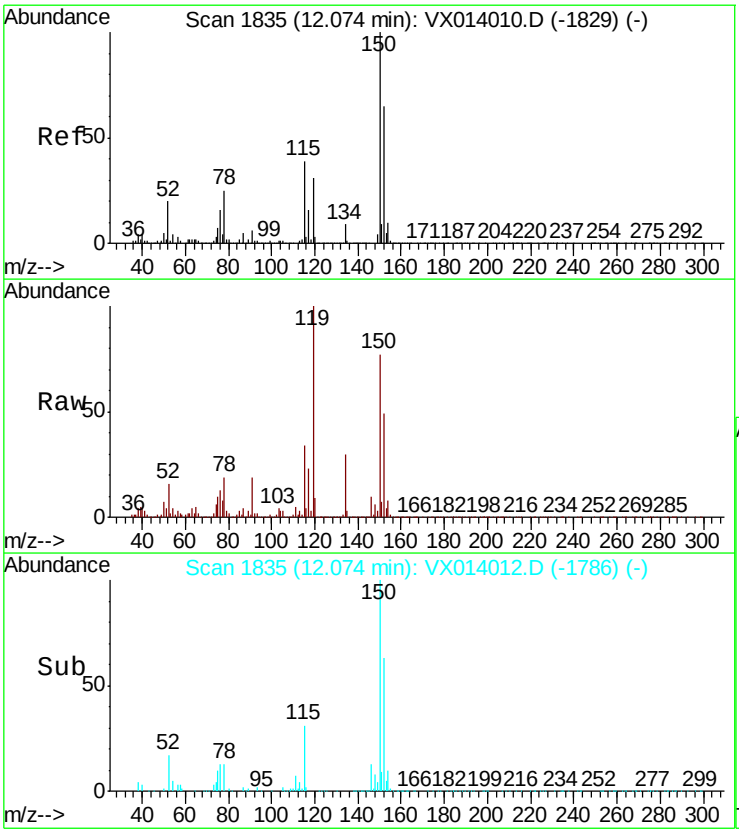
Tgt Ion:173 Resp: 823754

Ion	Ratio	Lower	Upper
173	100		
175	48.8	24.4	73.4
254	0.2	0.2	0.2



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC150

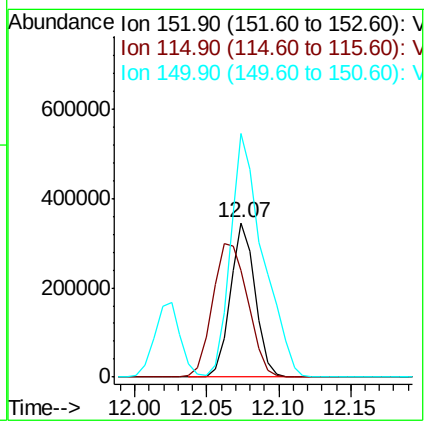
Manual Integrations APPROVED
apatel
12/16/2019 12:46:09 PM

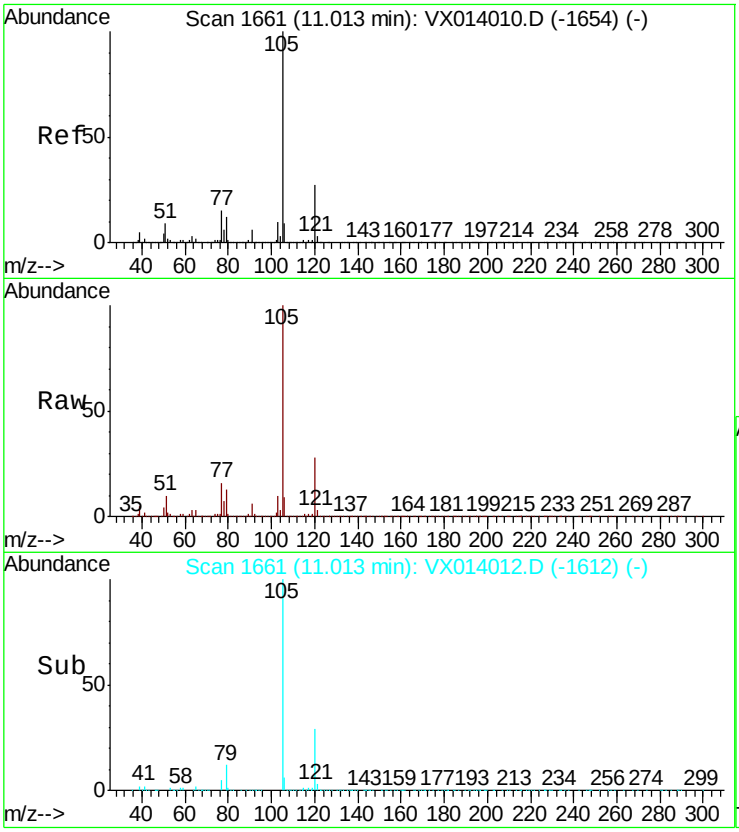


#72
1,4-Dichlorobenzene-d4
Concen: 50.000 ug/l
RT: 12.07 min Scan# 1835
Delta R.T. 0.00 min
Lab File: VX014012.D
Acq: 13 Dec 2019 16:45

Tgt Ion:152 Resp: 416367

Ion	Ratio	Lower	Upper
152	100		
115	122.1	38.3	114.9#
150	206.3	0.0	345.4

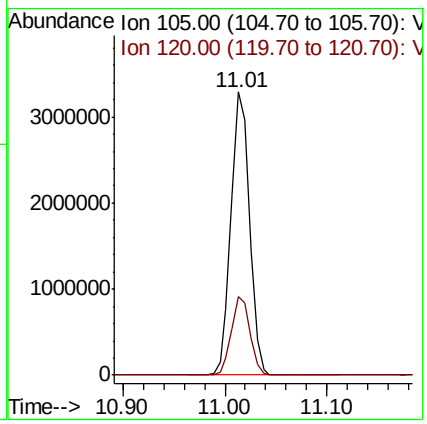




#73
Isopropylbenzene
Concen: 140.283 ug/l
RT: 11.01 min Scan# 1661
Delta R.T. 0.00 min
Lab File: VX014012.D
Acq: 13 Dec 2019 16:45

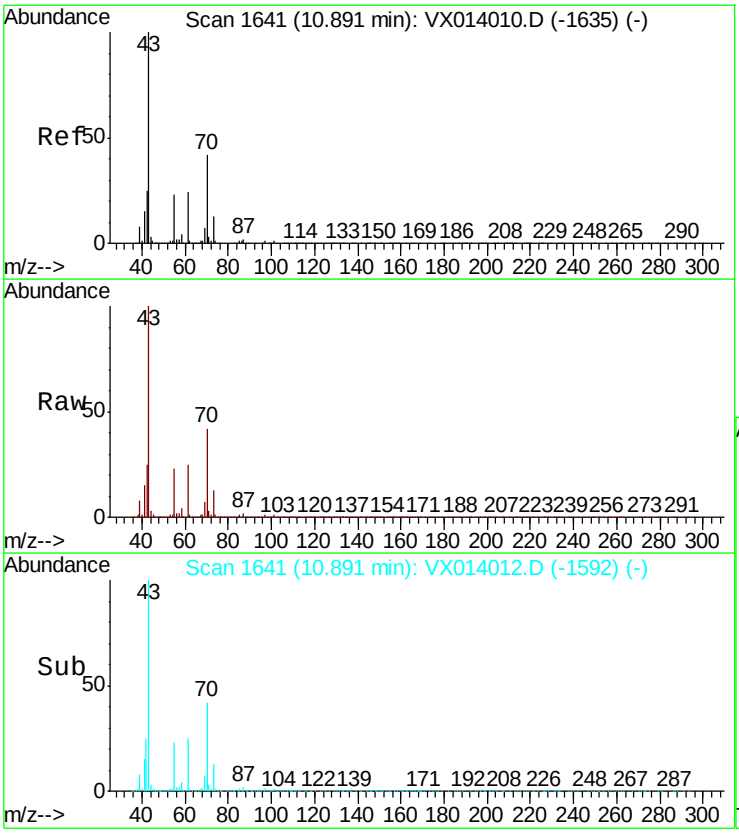
Tgt Ion:105 Resp: 4102514

Ion	Ratio	Lower	Upper
105	100		
120	27.6	13.5	40.4



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC150

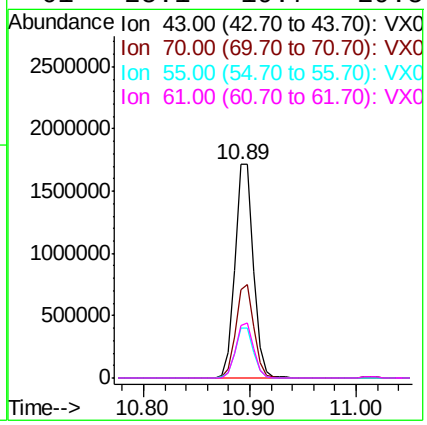
Manual Integrations APPROVED
apatel
12/16/2019 12:46:09 PM

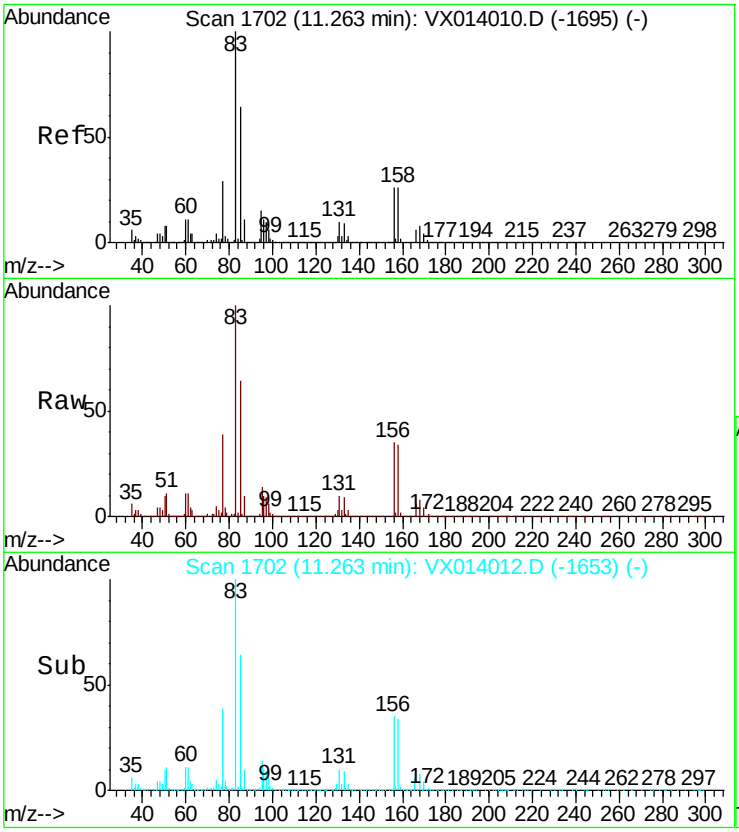


#74
N-amyl acetate
Concen: 155.946 ug/l
RT: 10.89 min Scan# 1641
Delta R.T. 0.00 min
Lab File: VX014012.D
Acq: 13 Dec 2019 16:45

Tgt Ion: 43 Resp: 2089155

Ion	Ratio	Lower	Upper
43	100		
70	43.0	34.4	51.6
55	23.3	19.1	28.7
61	25.1	19.7	29.5

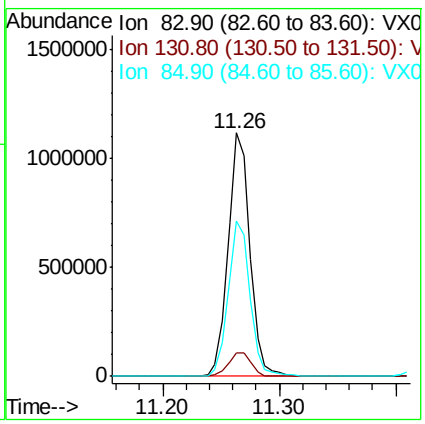




#75
1,1,2,2-Tetrachloroethane
Concen: 143.318 ug/l
RT: 11.26 min Scan# 1702
Delta R.T. 0.00 min
Lab File: VX014012.D
Acq: 13 Dec 2019 16:45

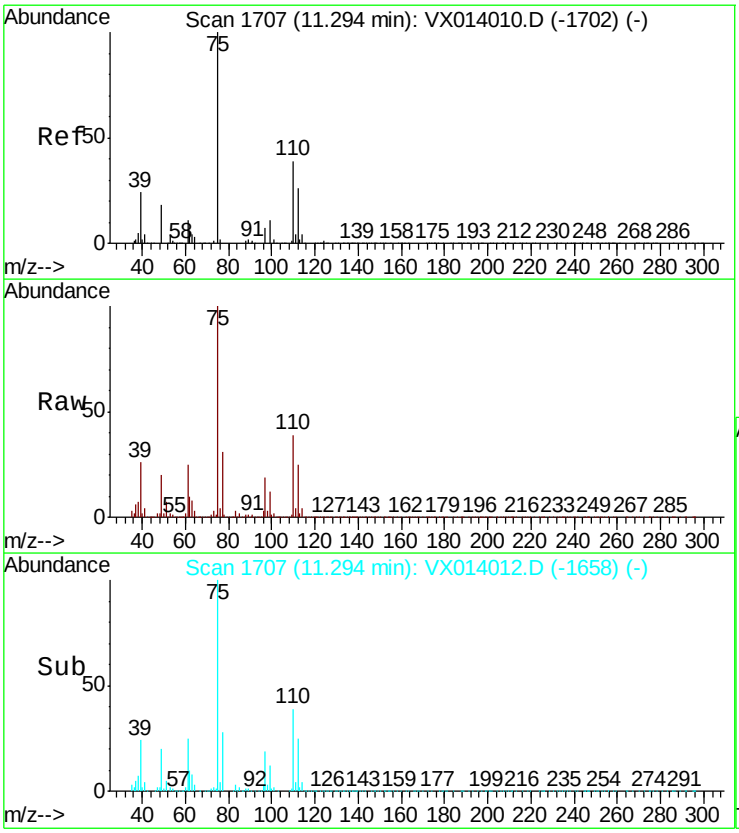
Tgt Ion: 83 Resp: 1451158

Ion	Ratio	Lower	Upper
83	100		
131	10.1	5.1	15.2
85	64.3	31.9	95.7



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC150

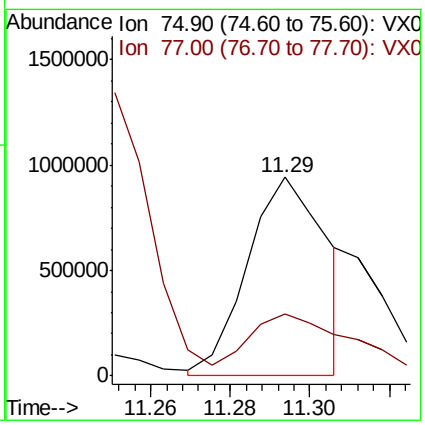
Manual Integrations APPROVED
apatel
12/16/2019 12:46:09 PM

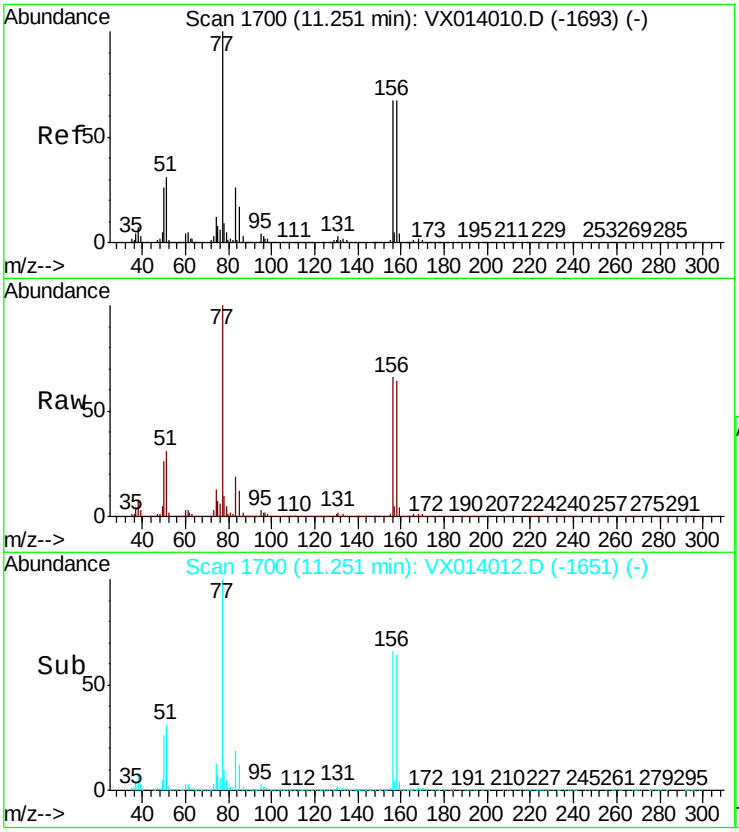


#76
1,2,3-Trichloropropane
Concen: 138.876 ug/l m
RT: 11.29 min Scan# 1707
Delta R.T. 0.00 min
Lab File: VX014012.D
Acq: 13 Dec 2019 16:45

Tgt Ion: 75 Resp: 1295022

Ion	Ratio	Lower	Upper
75	100		
77	41.6	19.3	57.8

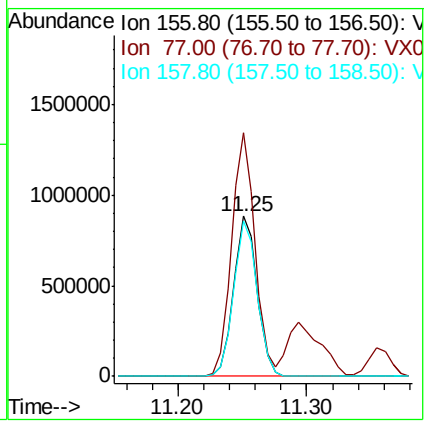




#77
Bromobenzene
Concen: 143.259 ug/l
RT: 11.25 min Scan# 1700
Delta R.T. 0.00 min
Lab File: VX014012.D
Acq: 13 Dec 2019 16:45

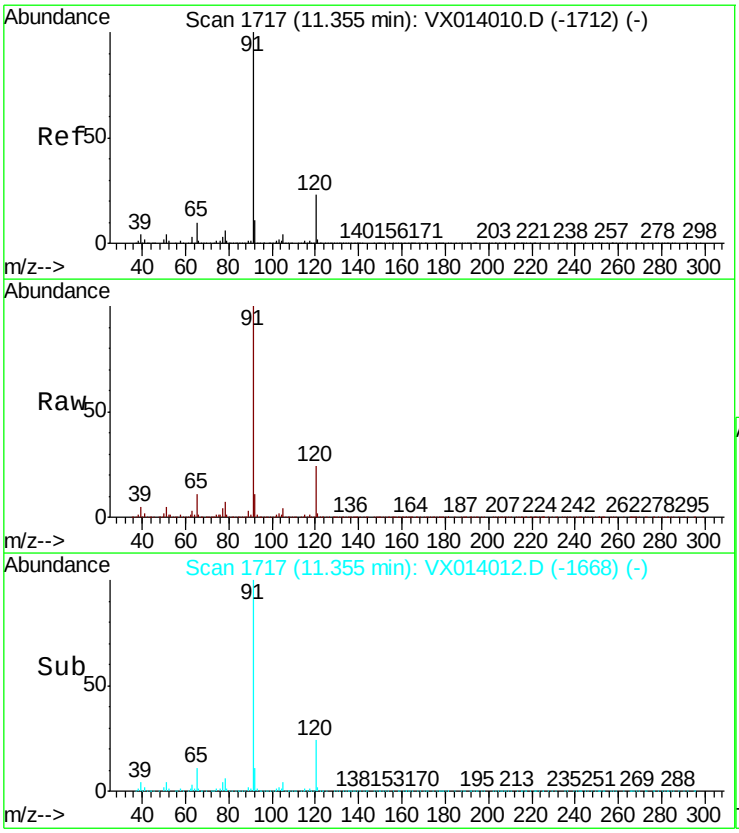
Tgt Ion:156 Resp: 1129271

Ion	Ratio	Lower	Upper
156	100		
77	151.0	76.5	229.5
158	96.9	49.3	147.9



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC150

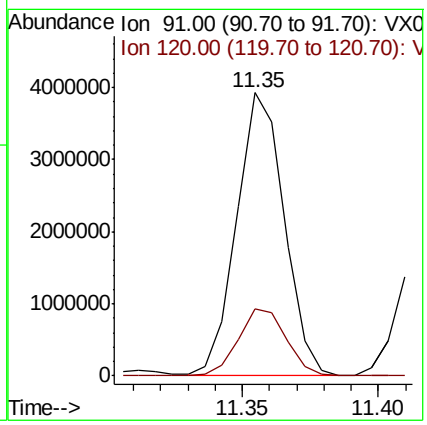
Manual Integrations APPROVED
apatel
12/16/2019 12:46:09 PM

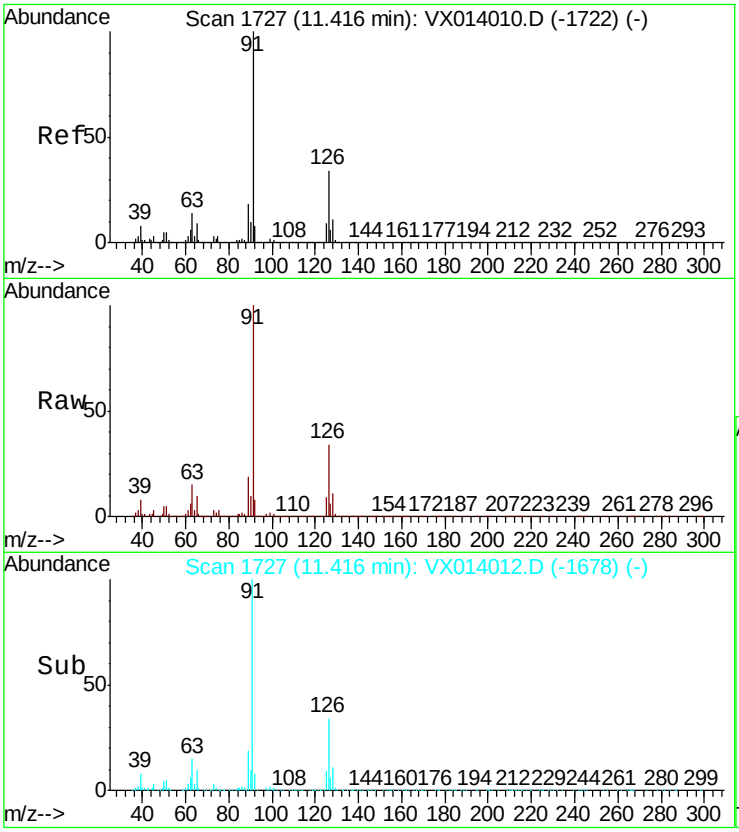


#78
n-propylbenzene
Concen: 144.921 ug/l
RT: 11.35 min Scan# 1717
Delta R.T. 0.00 min
Lab File: VX014012.D
Acq: 13 Dec 2019 16:45

Tgt Ion: 91 Resp: 4739102

Ion	Ratio	Lower	Upper
91	100		
120	24.1	11.7	35.0

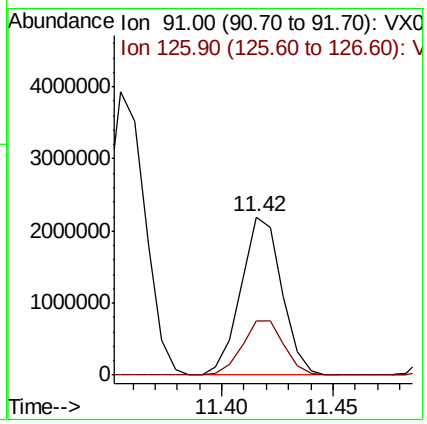




#79
2-Chlorotoluene
Concen: 143.160 ug/l
RT: 11.42 min Scan# 1727
Delta R.T. 0.00 min
Lab File: VX014012.D
Acq: 13 Dec 2019 16:45

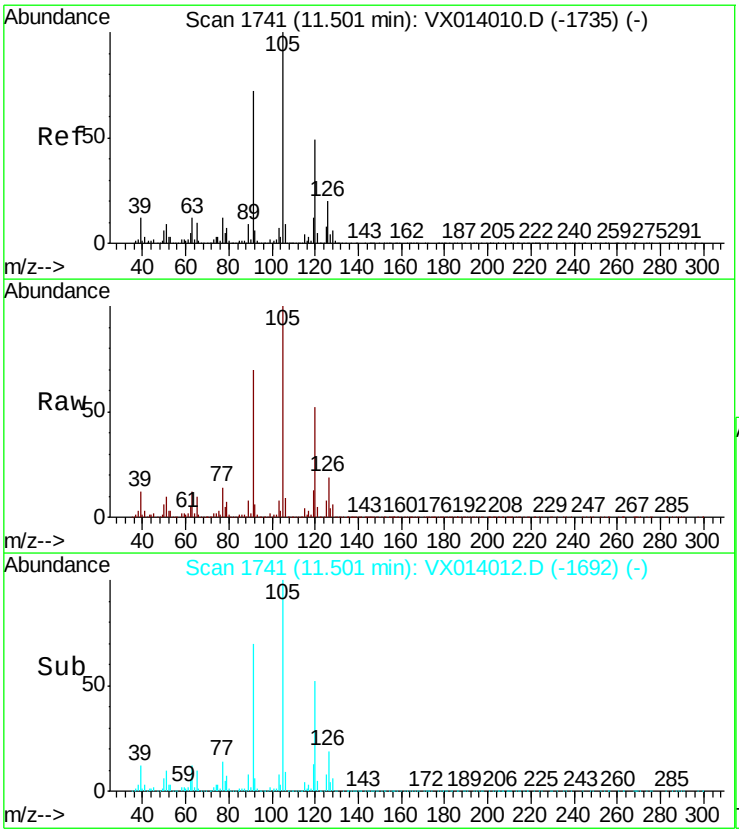
Tgt Ion: 91 Resp: 2816371

Ion	Ratio	Lower	Upper
91	100		
126	35.2	17.2	51.6



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC150

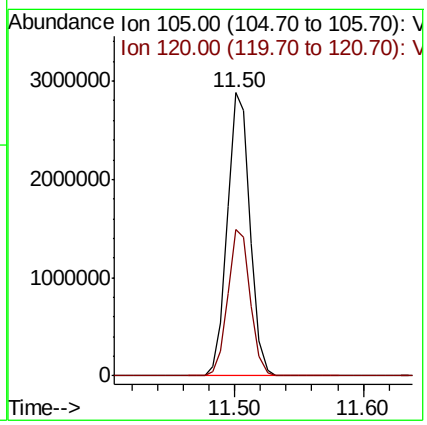
Manual Integrations APPROVED
apatel
12/16/2019 12:46:09 PM

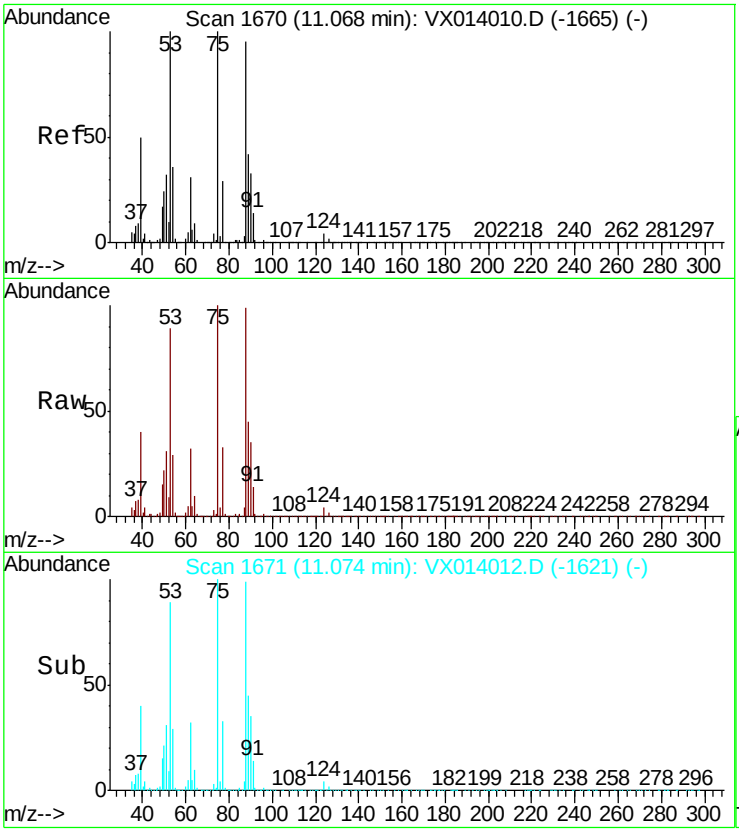


#80
1,3,5-Trimethylbenzene
Concen: 147.911 ug/l
RT: 11.50 min Scan# 1741
Delta R.T. 0.00 min
Lab File: VX014012.D
Acq: 13 Dec 2019 16:45

Tgt Ion:105 Resp: 3555462

Ion	Ratio	Lower	Upper
105	100		
120	51.2	25.3	75.8

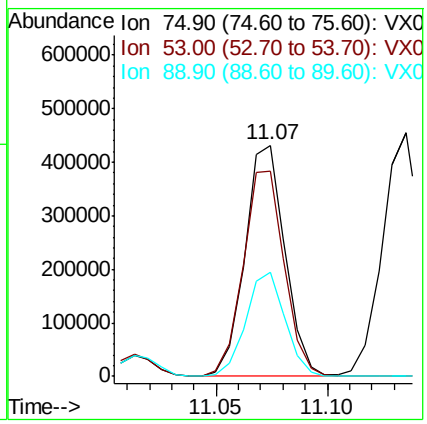




#81
trans-1,4-Dichloro-2-butene
Concen: 158.238 ug/l
RT: 11.07 min Scan# 1671
Delta R.T. 0.01 min
Lab File: VX014012.D
Acq: 13 Dec 2019 16:45

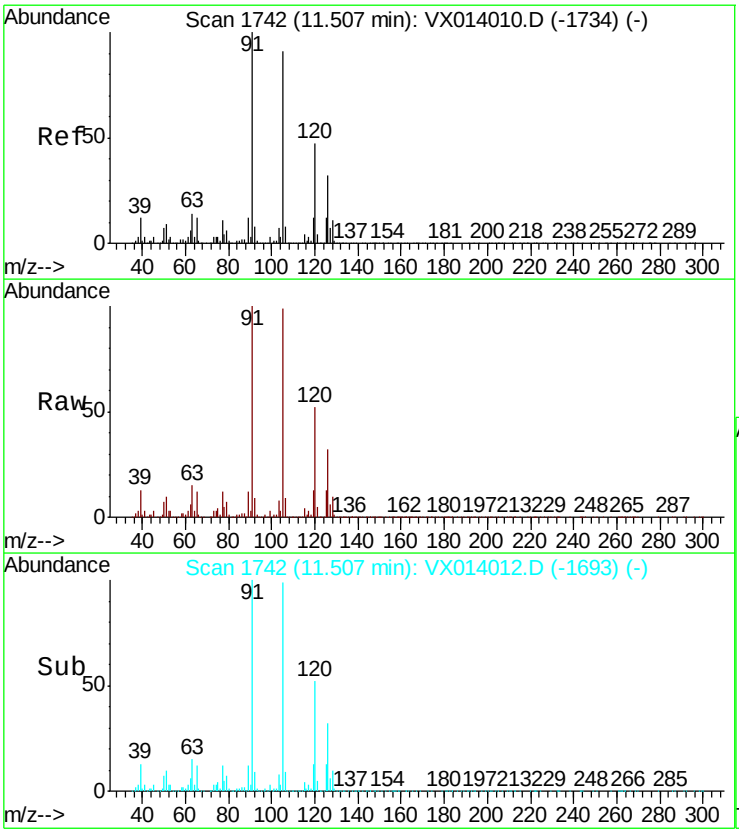
Tgt Ion: 75 Resp: 538282

Ion	Ratio	Lower	Upper
75	100		
53	91.8	76.7	115.1
89	44.8	34.6	51.8



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC150

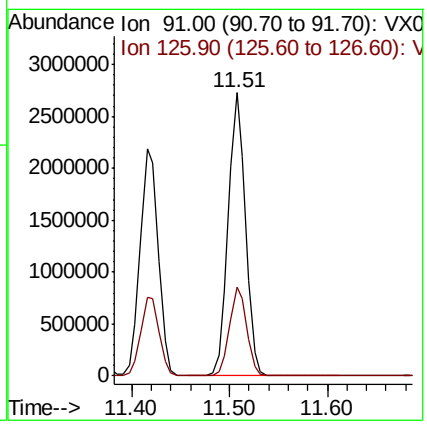
Manual Integrations APPROVED
apatel
12/16/2019 12:46:09 PM

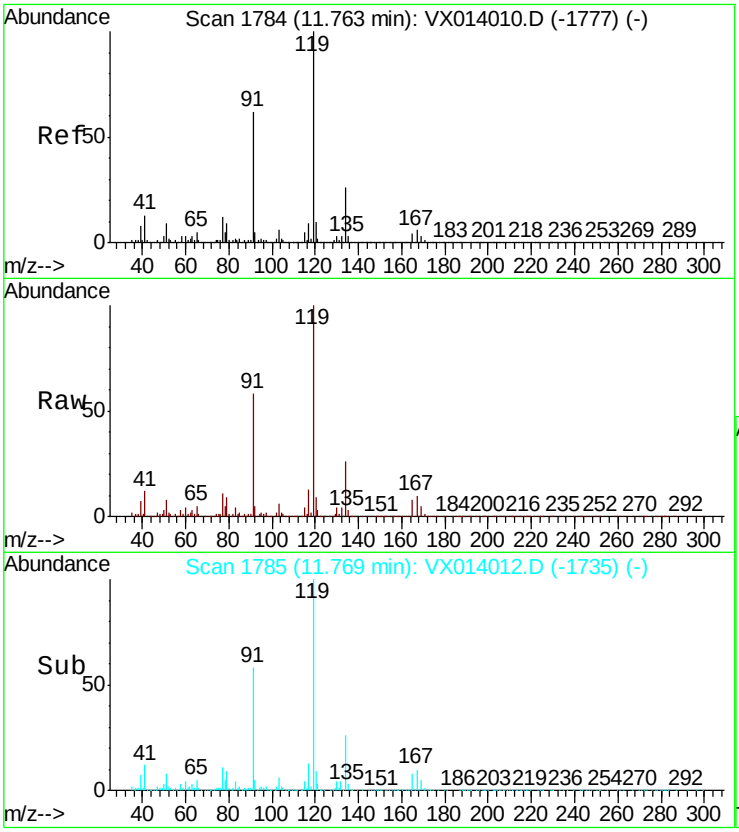


#82
4-Chlorotoluene
Concen: 146.773 ug/l
RT: 11.51 min Scan# 1742
Delta R.T. 0.00 min
Lab File: VX014012.D
Acq: 13 Dec 2019 16:45

Tgt Ion: 91 Resp: 3334083

Ion	Ratio	Lower	Upper
91	100		
126	31.3	15.6	46.8

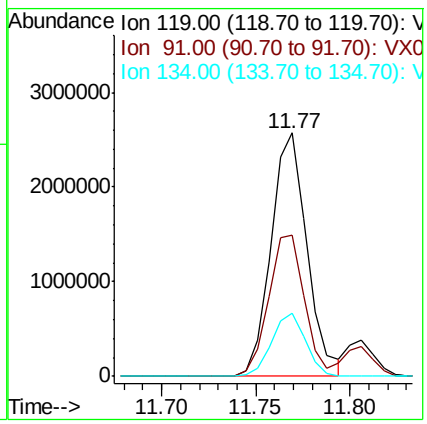




#83
tert-Butylbenzene
Concen: 140.591 ug/l
RT: 11.77 min Scan# 1785
Delta R.T. 0.01 min
Lab File: VX014012.D
Acq: 13 Dec 2019 16:45

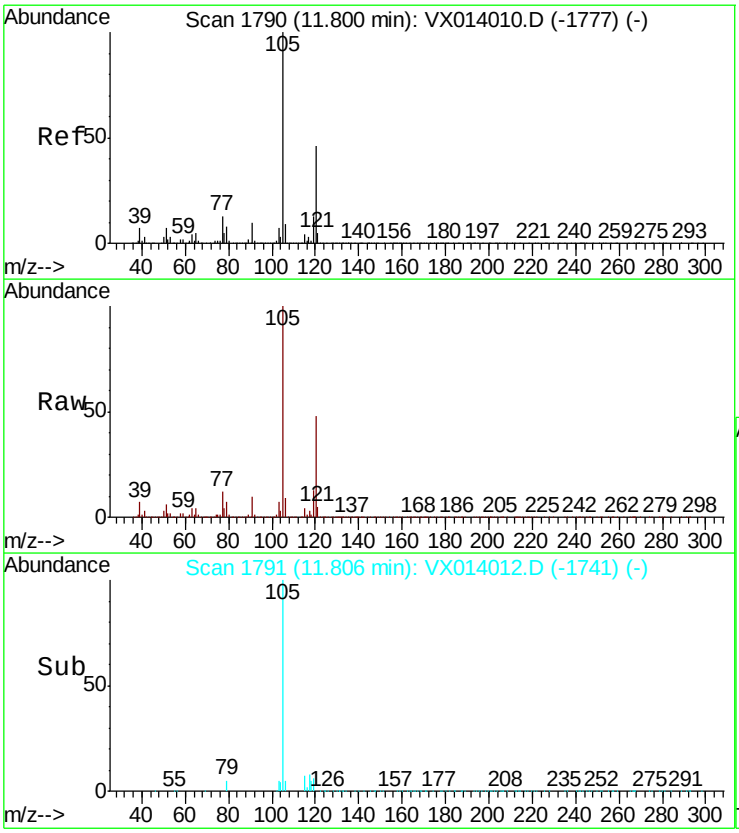
Tgt Ion:119 Resp: 3404783

Ion	Ratio	Lower	Upper
119	100		
91	57.4	28.5	85.6
134	24.6	12.2	36.6



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC150

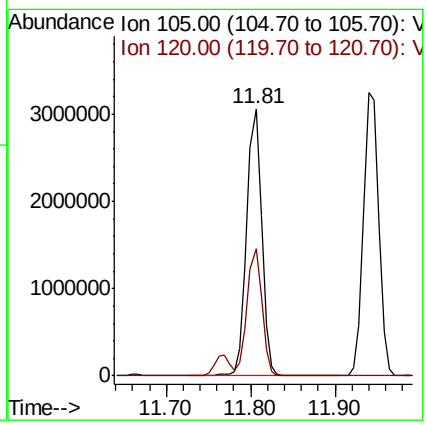
Manual Integrations APPROVED
apatel
12/16/2019 12:46:09 PM

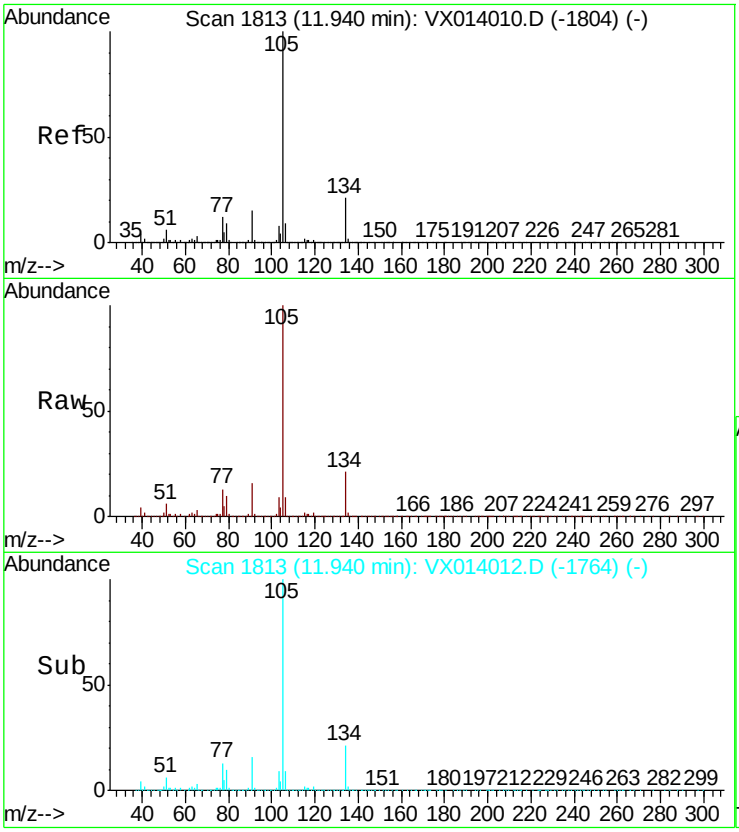


#84
1,2,4-Trimethylbenzene
Concen: 148.658 ug/l
RT: 11.81 min Scan# 1791
Delta R.T. 0.01 min
Lab File: VX014012.D
Acq: 13 Dec 2019 16:45

Tgt Ion:105 Resp: 3624117

Ion	Ratio	Lower	Upper
105	100		
120	46.8	23.1	69.2

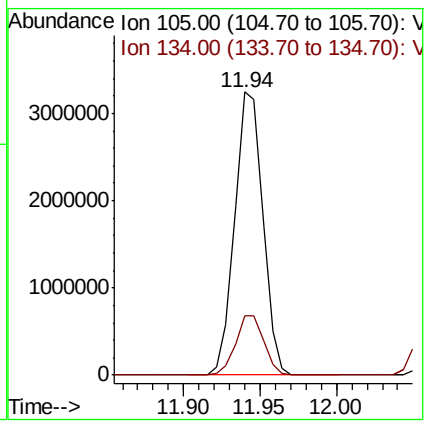




#85
sec-Butylbenzene
Concen: 148.653 ug/l
RT: 11.94 min Scan# 1813
Delta R.T. 0.00 min
Lab File: VX014012.D
Acq: 13 Dec 2019 16:45

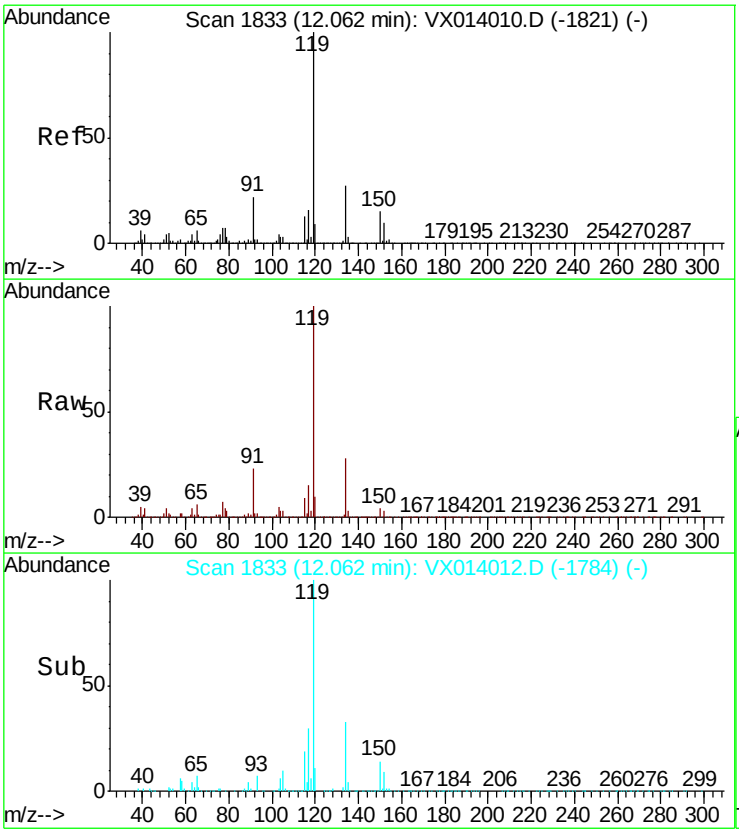
Tgt Ion:105 Resp: 4142990

Ion	Ratio	Lower	Upper
105	100		
134	21.2	10.4	31.1



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC150

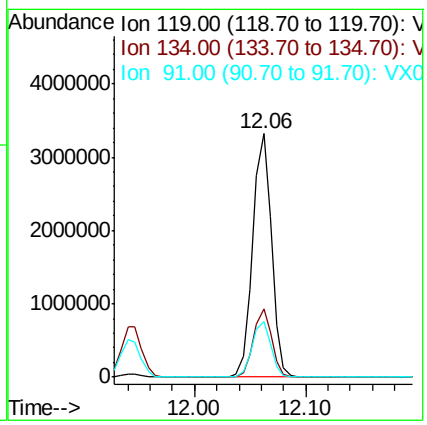
Manual Integrations APPROVED
apatel
12/16/2019 12:46:09 PM

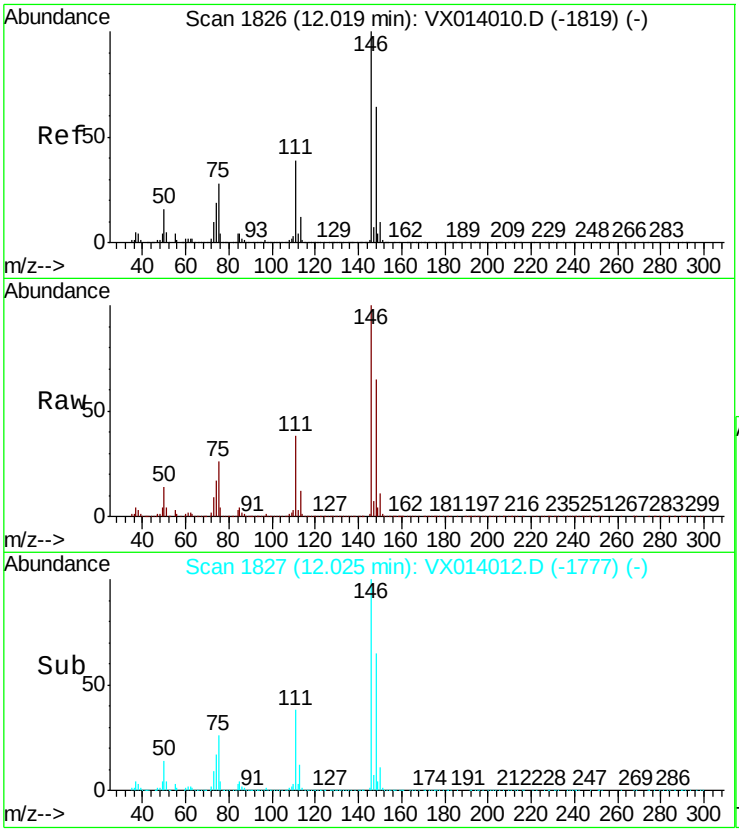


#86
p-Isopropyltoluene
Concen: 150.616 ug/l
RT: 12.06 min Scan# 1833
Delta R.T. 0.00 min
Lab File: VX014012.D
Acq: 13 Dec 2019 16:45

Tgt Ion:119 Resp: 3899255

Ion	Ratio	Lower	Upper
119	100		
134	27.1	13.4	40.1
91	22.6	11.4	34.1

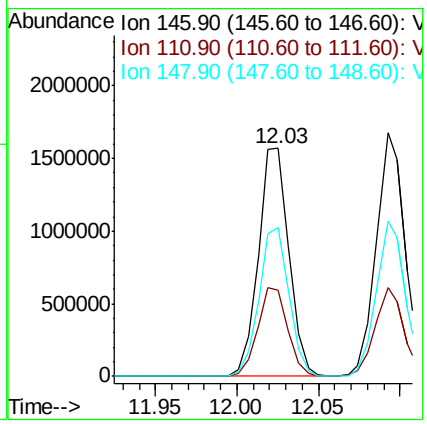




#87
1,3-Dichlorobenzene
Concen: 147.854 ug/l
RT: 12.03 min Scan# 1827
Delta R.T. 0.01 min
Lab File: VX014012.D
Acq: 13 Dec 2019 16:45

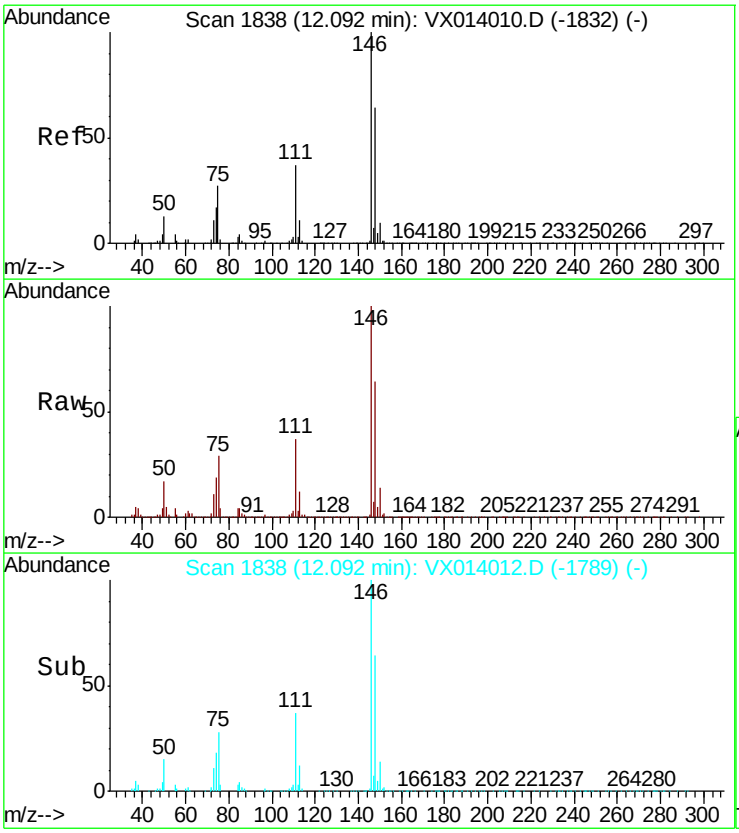
Tgt Ion:146 Resp: 2035638

Ion	Ratio	Lower	Upper
146	100		
111	38.3	19.1	57.1
148	63.9	32.3	96.9



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC150

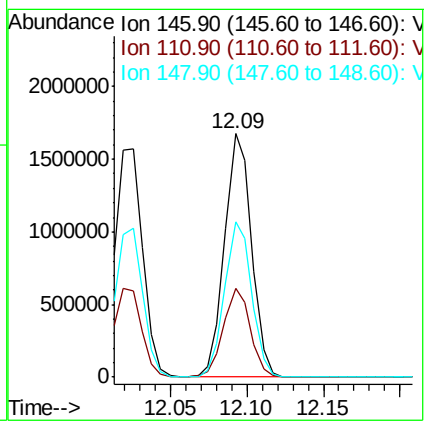
Manual Integrations APPROVED
apatel
12/16/2019 12:46:09 PM

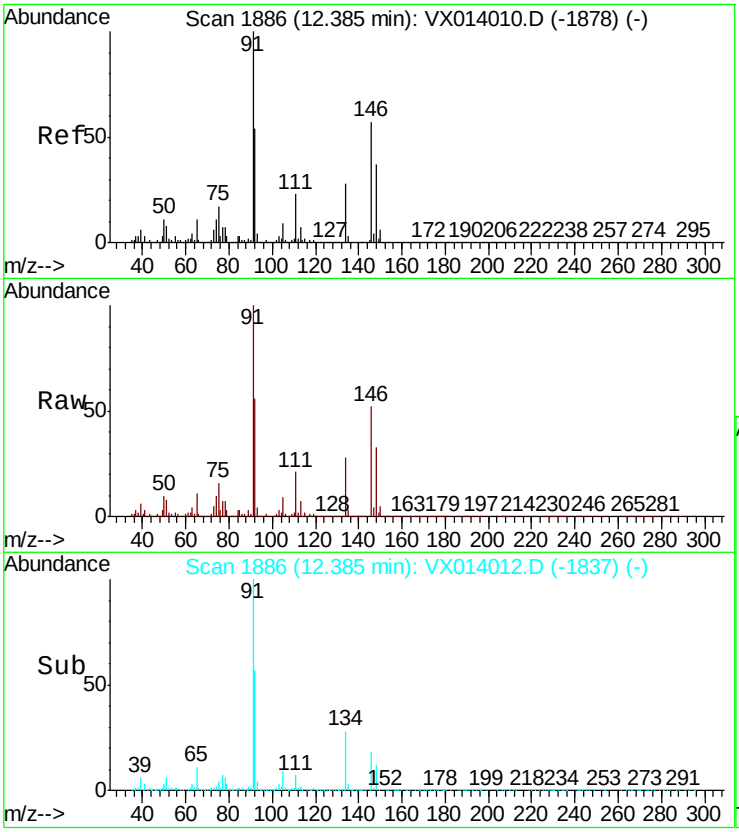


#88
1,4-Dichlorobenzene
Concen: 145.492 ug/l
RT: 12.09 min Scan# 1838
Delta R.T. 0.00 min
Lab File: VX014012.D
Acq: 13 Dec 2019 16:45

Tgt Ion:146 Resp: 2043150

Ion	Ratio	Lower	Upper
146	100		
111	36.6	18.7	56.1
148	64.1	31.9	95.9

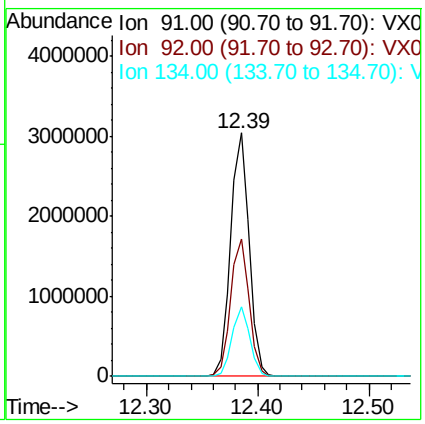




#89
n-Butylbenzene
Concen: 157.477 ug/l
RT: 12.39 min Scan# 1886
Delta R.T. 0.00 min
Lab File: VX014012.D
Acq: 13 Dec 2019 16:45

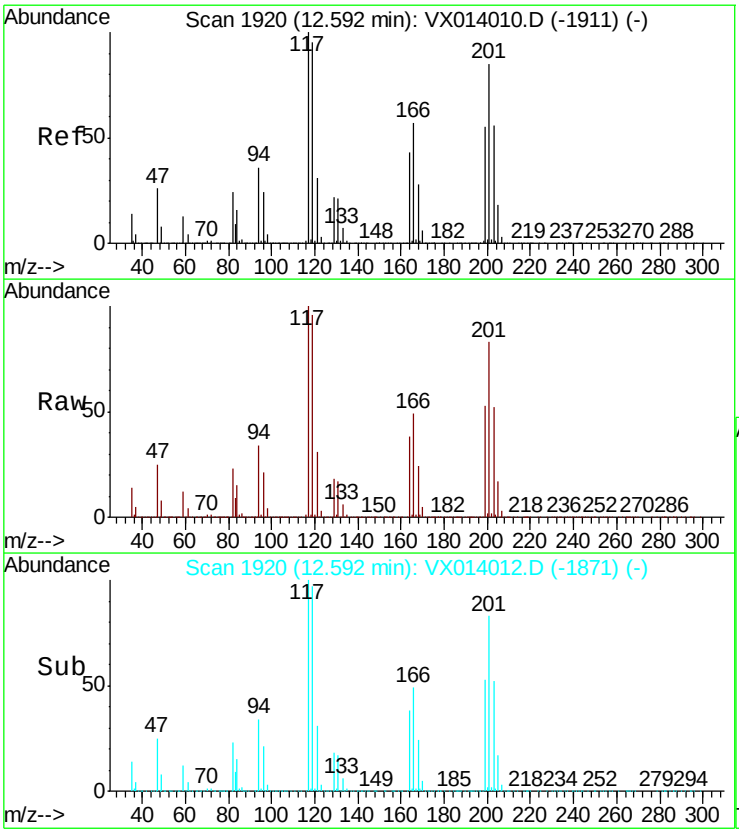
Tgt Ion: 91 Resp: 3481644

Ion	Ratio	Lower	Upper
91	100		
92	56.1	27.2	81.6
134	27.6	13.4	40.1



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC150

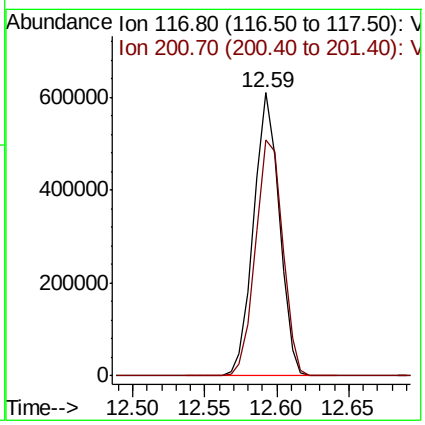
Manual Integrations APPROVED
apatel
12/16/2019 12:46:09 PM

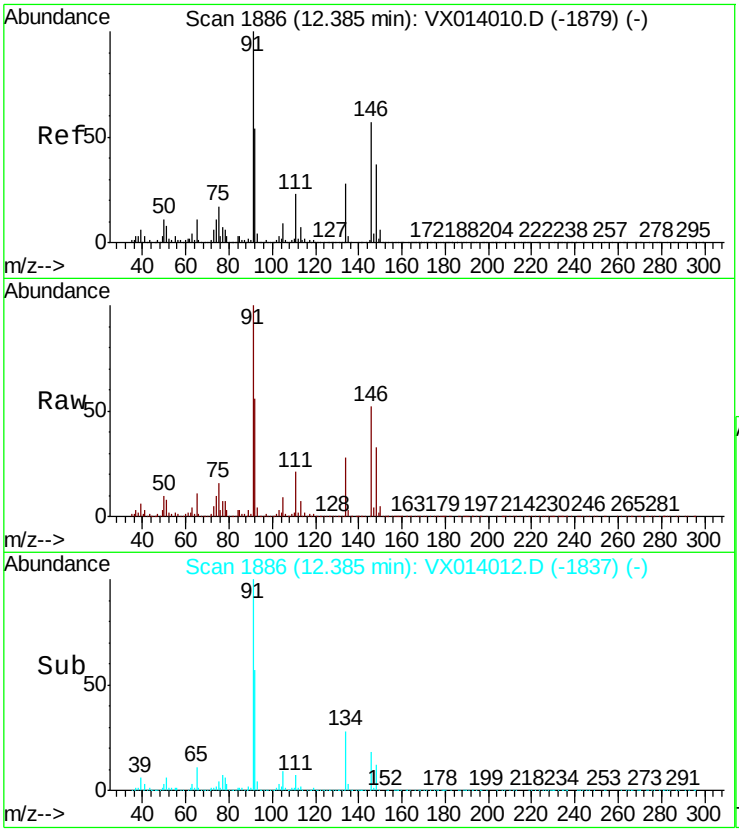


#90
Hexachloroethane
Concen: 159.139 ug/l
RT: 12.59 min Scan# 1920
Delta R.T. 0.00 min
Lab File: VX014012.D
Acq: 13 Dec 2019 16:45

Tgt Ion:117 Resp: 746787

Ion	Ratio	Lower	Upper
117	100		
201	88.2	43.1	129.3

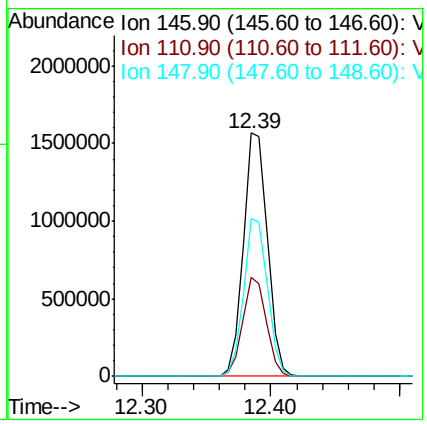




#91
1,2-Dichlorobenzene
Concen: 147.110 ug/l
RT: 12.39 min Scan# 1886
Delta R.T. 0.00 min
Lab File: VX014012.D
Acq: 13 Dec 2019 16:45

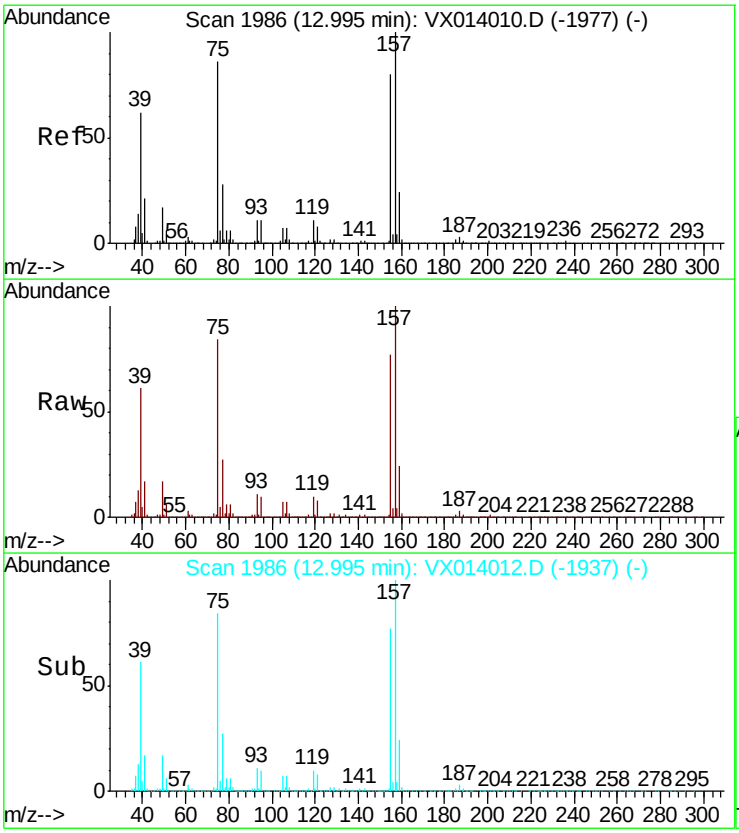
Tgt Ion:146 Resp: 2007287

Ion	Ratio	Lower	Upper
146	100		
111	39.8	19.7	59.1
148	64.2	32.1	96.5



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC150

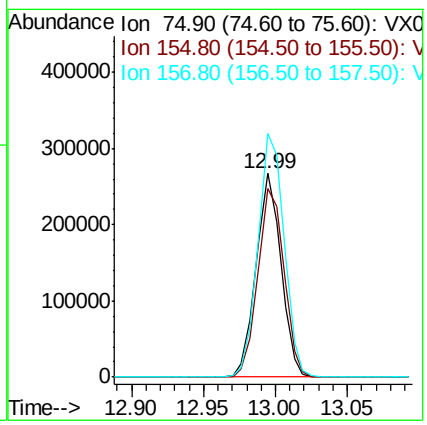
Manual Integrations APPROVED
apatel
12/16/2019 12:46:09 PM

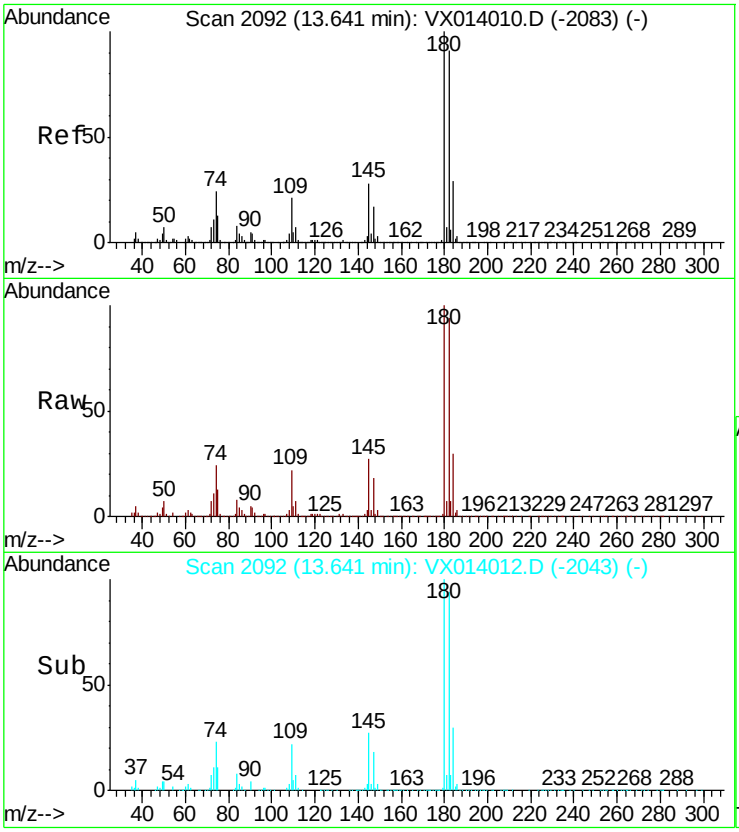


#92
1,2-Dibromo-3-Chloropropane
Concen: 144.923 ug/l
RT: 12.99 min Scan# 1986
Delta R.T. 0.00 min
Lab File: VX014012.D
Acq: 13 Dec 2019 16:45

Tgt Ion: 75 Resp: 316431

Ion	Ratio	Lower	Upper
75	100		
155	97.7	46.9	140.6
157	126.3	60.8	182.4

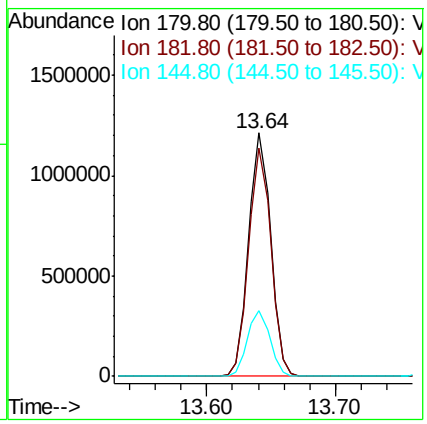


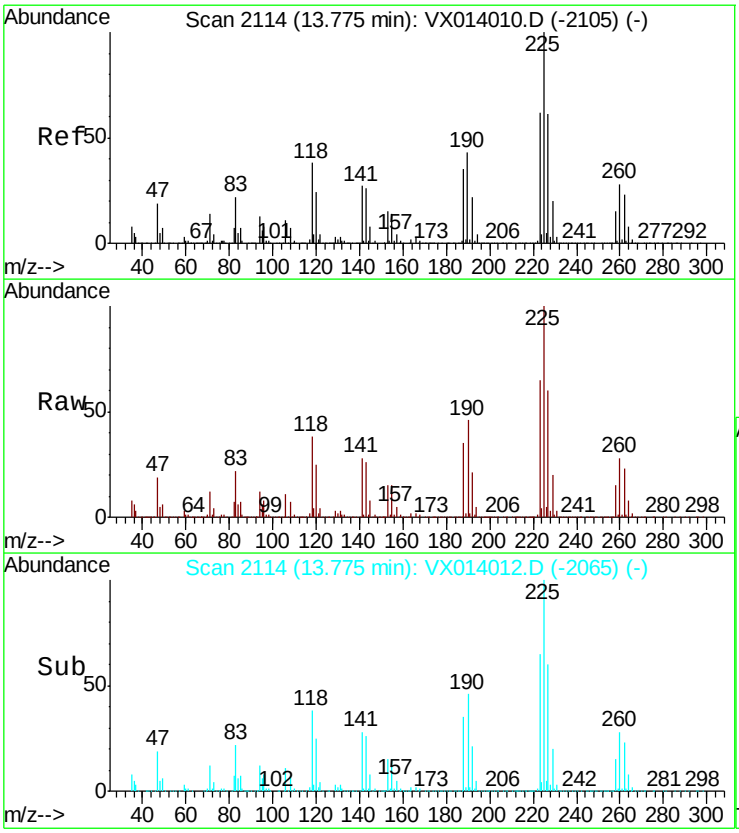


#93
1,2,4-Trichlorobenzene
Concen: 150.803 ug/l
RT: 13.64 min Scan# 2092
Delta R.T. 0.00 min
Lab File: VX014012.D
Acq: 13 Dec 2019 16:45

Tgt Ion:180 Resp: 1421239

Ion	Ratio	Lower	Upper
180	100		
182	94.7	46.6	139.8
145	27.9	14.2	42.6

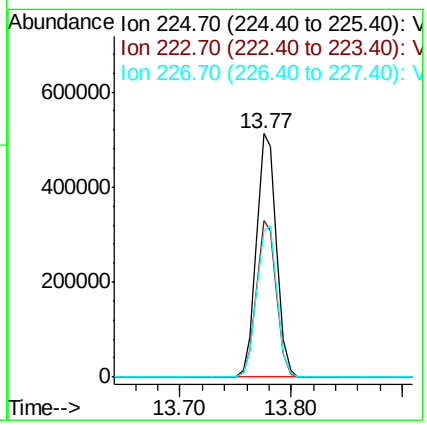




#94
Hexachlorobutadiene
Concen: 140.202 ug/l
RT: 13.77 min Scan# 2114
Delta R.T. 0.00 min
Lab File: VX014012.D
Acq: 13 Dec 2019 16:45

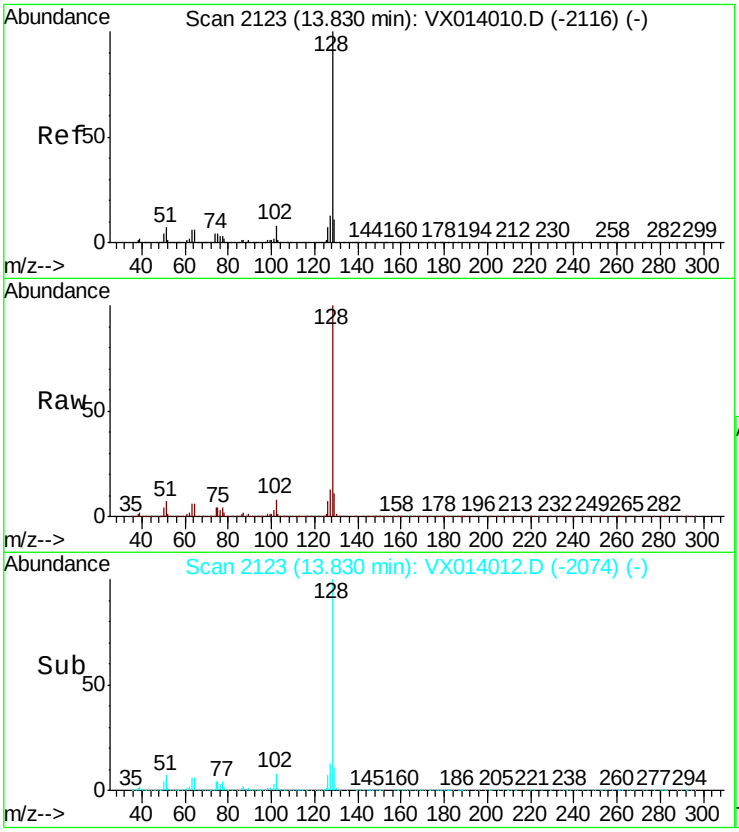
Tgt Ion:225 Resp: 639399

Ion	Ratio	Lower	Upper
225	100		
223	64.1	30.9	92.5
227	63.6	30.9	92.7



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC150

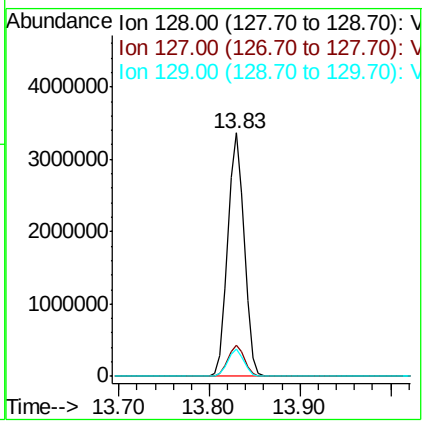
Manual Integrations APPROVED
apatel
12/16/2019 12:46:09 PM

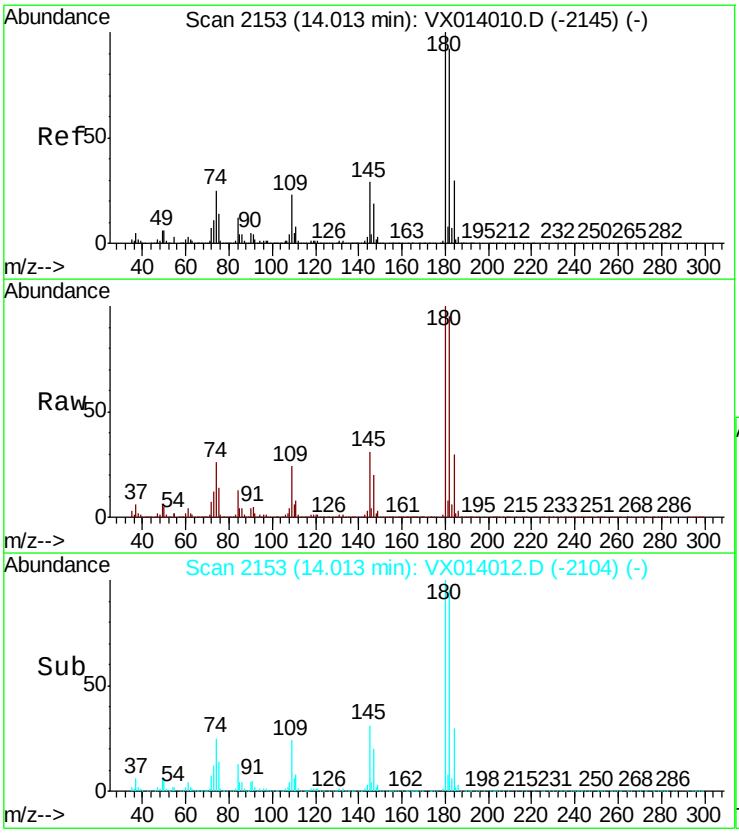


#95
Naphthalene
Concen: 150.807 ug/l
RT: 13.83 min Scan# 2123
Delta R.T. 0.00 min
Lab File: VX014012.D
Acq: 13 Dec 2019 16:45

Tgt Ion:128 Resp: 4221939

Ion	Ratio	Lower	Upper
128	100		
127	12.8	10.2	15.4
129	11.0	8.7	13.1

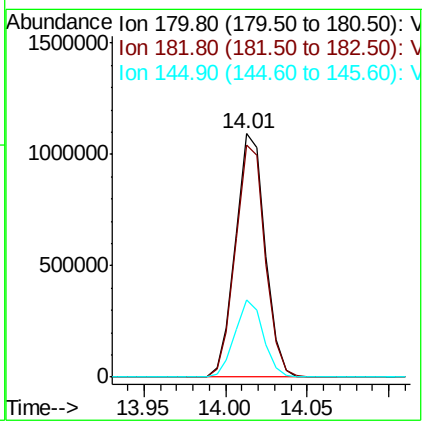




#96
1,2,3-Trichlorobenzene
Concen: 147.504 ug/l
RT: 14.01 min Scan# 2153
Delta R.T. 0.00 min
Lab File: VX014012.D
Acq: 13 Dec 2019 16:45

Tgt Ion:180 Resp: 1382616

Ion	Ratio	Lower	Upper
180	100		
182	95.6	46.8	140.3
145	30.3	14.8	44.4



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC150

Manual Integrations APPROVED
apatel
12/16/2019 12:46:09 PM

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX121319\
Data File : VX014013.D
Acq On : 13 Dec 2019 18:00
Operator : JC/SP
Sample : VSTDICV050
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 9 Sample Multiplier: 1

Instrument : MSVOA_X
ClientSampleId : ICVVX121319

Manual Integrations APPROVED
apatel
12/17/2019 2:48:46 PM

Quant Time: Dec 17 03:04:40 2019
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121319W.M
Quant Title : SW846 8260
QLast Update : Tue Dec 17 03:01:07 2019
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	5.65	168	621092	50.00	ug/l	0.00
34) 1,4-Difluorobenzene	6.85	114	932469	50.00	ug/l	0.00
63) Chlorobenzene-d5	10.11	117	835490	50.00	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	12.07	152	417707	50.00	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	6.04	65	347593	49.38	ug/l	0.00
Spiked Amount 50.000			Recovery = 98.76%			
35) Dibromofluoromethane	5.48	113	290025	51.17	ug/l	-0.01
Spiked Amount 50.000			Recovery = 102.34%			
50) Toluene-d8	8.71	98	1129204	51.17	ug/l	0.00
Spiked Amount 50.000			Recovery = 102.34%			
62) 4-Bromofluorobenzene	11.13	95	404114	50.09	ug/l	0.00
Spiked Amount 50.000			Recovery = 100.18%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.19	85	291288	52.423	ug/l	98
3) Chloromethane	1.32	50	383848	51.476	ug/l	100
4) Vinyl Chloride	1.40	62	398794	50.683	ug/l	99
5) Bromomethane	1.63	94	269636	48.282	ug/l	98
6) Chloroethane	1.71	64	249654	51.409	ug/l	97
7) Trichlorofluoromethane	1.92	101	509734	52.333	ug/l	100
8) Diethyl Ether	2.18	74	225529	49.336	ug/l	99
9) 1,1,2-Trichlorotrifluoroet	2.37	101	309754	52.756	ug/l	100
10) Methyl Iodide	2.50	142	396524	51.147	ug/l	98
11) Tert butyl alcohol	3.03	59	388856	255.656	ug/l	99
12) 1,1-Dichloroethene	2.36	96	305414	51.120	ug/l	98
13) Acrolein	2.28	56	268569	308.460	ug/l	98
14) Allyl chloride	2.72	41	559686	52.467	ug/l	99
15) Acrylonitrile	3.12	53	918662	258.767	ug/l	100
16) Acetone	2.43	43	939159	205.507	ug/l	100
17) Carbon Disulfide	2.56	76	862642	51.979	ug/l	99
18) Methyl Acetate	2.76	43	454751	50.218	ug/l	100
19) Methyl tert-butyl Ether	3.18	73	1041263	53.038	ug/l	97
20) Methylene Chloride	2.84	84	348991	48.495	ug/l	97
21) trans-1,2-Dichloroethene	3.16	96	330319	50.185	ug/l	97
22) Diisopropyl ether	3.84	45	1110273	52.230	ug/l	98
23) Vinyl Acetate	3.80	43	4842976	279.180	ug/l	99
24) 1,1-Dichloroethane	3.69	63	597995	50.563	ug/l	99
25) 2-Butanone	4.65	43	1357662	240.967	ug/l	100
26) 2,2-Dichloropropane	4.57	77	499436	54.390	ug/l	100
27) cis-1,2-Dichloroethene	4.58	96	376663	50.600	ug/l	99
28) Bromochloromethane	5.00	49	231204	50.825	ug/l	100
29) Tetrahydrofuran	5.11	42	829161	263.112	ug/l	99
30) Chloroform	5.20	83	580896	51.813	ug/l	99
31) Cyclohexane	5.56	56	559555	53.196	ug/l	99
32) 1,1,1-Trichloroethane	5.48	97	498495	52.170	ug/l	99
36) 1,1-Dichloropropene	5.79	75	454000	53.063	ug/l	99
37) Ethyl Acetate	4.81	43	509182	53.892	ug/l	99
38) Carbon Tetrachloride	5.77	117	429343	55.084	ug/l	98

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX121319\
Data File : VX014013.D
Acq On : 13 Dec 2019 18:00
Operator : JC/SP
Sample : VSTDICV050
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 9 Sample Multiplier: 1

Instrument : MSVOA_X
ClientSampleId : ICVVX121319

Manual Integrations APPROVED
apatel
12/17/2019 2:48:46 PM

Quant Time: Dec 17 03:04:40 2019
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121319W.M
Quant Title : SW846 8260
QLast Update : Tue Dec 17 03:01:07 2019
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
39) Methylcyclohexane	7.45	83	570596	54.011	ug/l		98
40) Benzene	6.13	78	1360588	51.683	ug/l		100
41) Methacrylonitrile	5.02	41	283070	53.997	ug/l		98
42) 1,2-Dichloroethane	6.18	62	469125	52.570	ug/l		99
43) Isopropyl Acetate	6.43	43	850005	54.361	ug/l		99
44) Trichloroethene	7.20	130	371092	51.035	ug/l		97
45) 1,2-Dichloropropane	7.50	63	350152	51.894	ug/l		100
46) Dibromomethane	7.65	93	229903	51.535	ug/l		99
47) Bromodichloromethane	7.89	83	452971	53.914	ug/l		98
48) Methyl methacrylate	7.76	41	414594	54.148	ug/l		99
49) 1,4-Dioxane	7.73	88	163781	1051.128	ug/l		99
51) 4-Methyl-2-Pentanone	8.64	43	2580512	262.786	ug/l		99
52) Toluene	8.78	92	857143	51.512	ug/l		99
53) t-1,3-Dichloropropene	9.03	75	516909	56.109	ug/l		99
54) cis-1,3-Dichloropropene	8.43	75	578598	56.374	ug/l		99
55) 1,1,2-Trichloroethane	9.21	97	342987	51.430	ug/l		98
56) Ethyl methacrylate	9.17	69	570730	54.481	ug/l		99
57) 1,3-Dichloropropane	9.36	76	586215	52.245	ug/l		100
58) 2-Chloroethyl Vinyl ether	8.30	63	1007644	254.171	ug/l		100
59) 2-Hexanone	9.48	43	1995401	252.423	ug/l		99
60) Dibromochloromethane	9.57	129	366389	55.271	ug/l		100
61) 1,2-Dibromoethane	9.67	107	360865	52.886	ug/l		100
64) Tetrachloroethene	9.33	164	332078	44.918	ug/l		97
65) Chlorobenzene	10.14	112	917959	51.674	ug/l		98
66) 1,1,1,2-Tetrachloroethane	10.21	131	339861	53.581	ug/l		99
67) Ethyl Benzene	10.25	91	1643804	53.822	ug/l		100
68) m/p-Xylenes	10.36	106	1253248	106.690	ug/l		100
69) o-Xylene	10.70	106	605775	52.582	ug/l		98
70) Styrene	10.71	104	1037862	53.275	ug/l		99
71) Bromoform	10.85	173	286793	56.249	ug/l	#	99
73) Isopropylbenzene	11.01	105	1615818	54.942	ug/l		100
74) N-amyl acetate	10.89	43	755178	54.780	ug/l		99
75) 1,1,2,2-Tetrachloroethane	11.26	83	539109	52.874	ug/l		99
76) 1,2,3-Trichloropropane	11.29	75	436974m	48.187	ug/l		
77) Bromobenzene	11.25	156	416657	51.492	ug/l		98
78) n-propylbenzene	11.35	91	1837796	55.711	ug/l		99
79) 2-Chlorotoluene	11.42	91	1079257	53.821	ug/l		99
80) 1,3,5-Trimethylbenzene	11.50	105	1364671	55.135	ug/l		99
81) trans-1,4-Dichloro-2-buten	11.07	75	187870	58.475	ug/l		98
82) 4-Chlorotoluene	11.51	91	1240522	53.332	ug/l		99
83) tert-Butylbenzene	11.76	119	1357085	56.340	ug/l		97
84) 1,2,4-Trimethylbenzene	11.80	105	1357384	54.762	ug/l		100
85) sec-Butylbenzene	11.94	105	1562765	54.958	ug/l		100
86) p-Isopropyltoluene	12.06	119	1449211	55.715	ug/l		100
87) 1,3-Dichlorobenzene	12.02	146	735116	51.836	ug/l		99
88) 1,4-Dichlorobenzene	12.09	146	721740	50.052	ug/l		99
89) n-Butylbenzene	12.39	91	1258596	56.708	ug/l		99
90) Hexachloroethane	12.59	117	260952	55.854	ug/l		97
91) 1,2-Dichlorobenzene	12.39	146	735232	51.501	ug/l		99
92) 1,2-Dibromo-3-Chloropropan	12.99	75	118074	52.330	ug/l		99

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX121319\
Data File : VX014013.D
Acq On : 13 Dec 2019 18:00
Operator : JC/SP
Sample : VSTDICV050
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 9 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
ICVVX121319

Manual Integrations APPROVED
apatel
12/17/2019 2:48:46 PM

Quant Time: Dec 17 03:04:40 2019
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121319W.M
Quant Title : SW846 8260
QLast Update : Tue Dec 17 03:01:07 2019
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
93) 1,2,4-Trichlorobenzene	13.64	180	501922	54.093	ug/l	98
94) Hexachlorobutadiene	13.78	225	237371	53.230	ug/l	98
95) Naphthalene	13.83	128	1501462	55.076	ug/l	100
96) 1,2,3-Trichlorobenzene	14.01	180	494527	53.990	ug/l	98

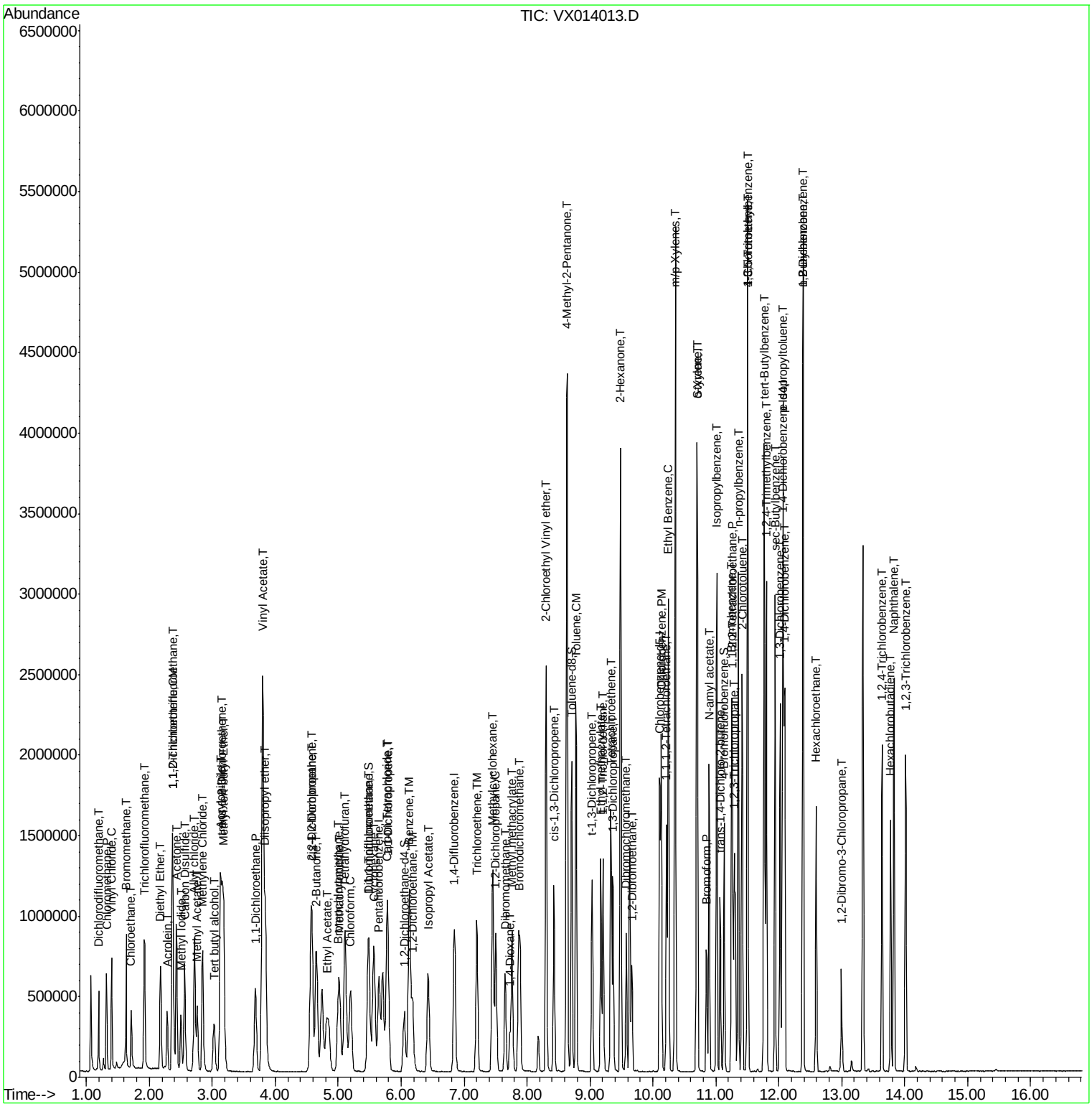
(#) = qualifier out of range (m) = manual integration (+) = signals summed

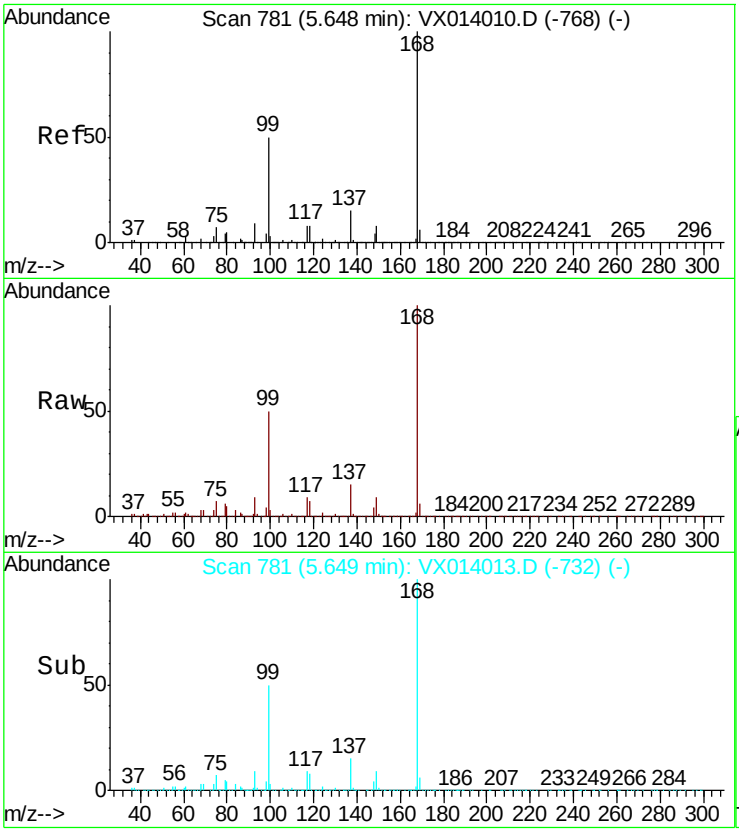
Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX121319\
Data File : VX014013.D
Acq On : 13 Dec 2019 18:00
Operator : JC/SP
Sample : VSTDICV050
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Dec 17 03:04:40 2019
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121319W.M
Quant Title : SW846 8260
QLast Update : Tue Dec 17 03:01:07 2019
Response via : Initial Calibration

Instrument :
MSVOA_X
ClientSampleId :
ICVVX121319

Manual Integrations APPROVED
apatel
12/17/2019 2:48:46 PM

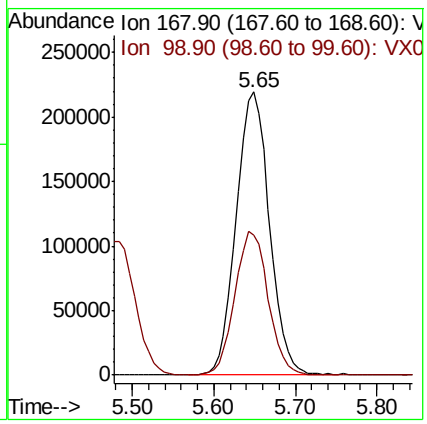




#1
Pentafluorobenzene
Concen: 50.000 ug/l
RT: 5.65 min Scan# 781
Delta R.T. 0.00 min
Lab File: VX014013.D
Acq: 13 Dec 2019 18:00

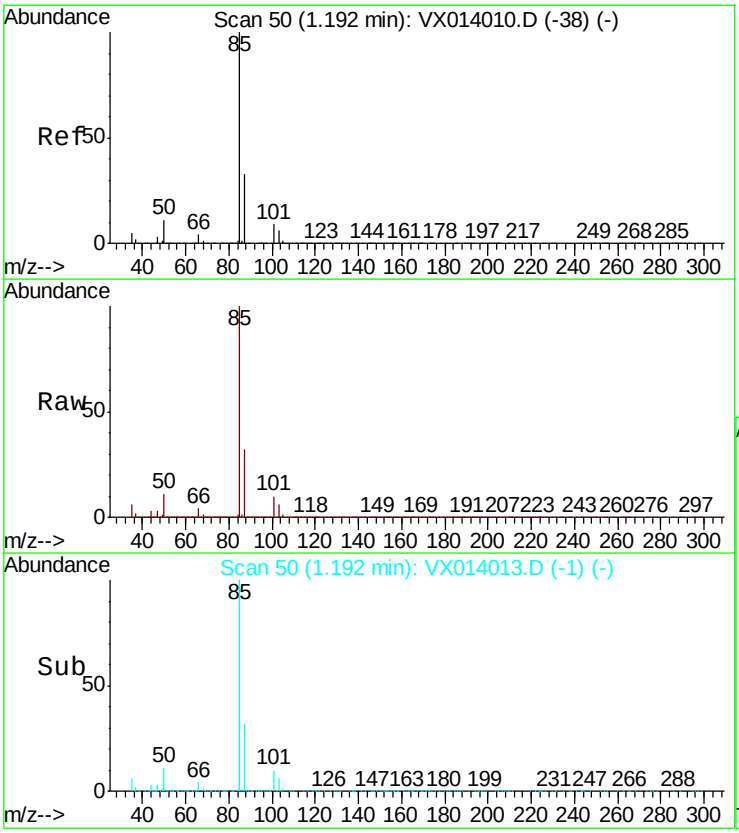
Tgt Ion:168 Resp: 621092

Ion	Ratio	Lower	Upper
168	100		
99	49.5	40.3	60.5



Instrument :
MSVOA_X
ClientSampleId :
ICVVX121319

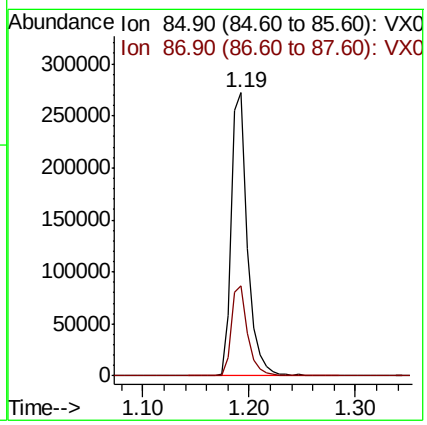
Manual Integrations APPROVED
apatel
12/17/2019 2:48:46 PM

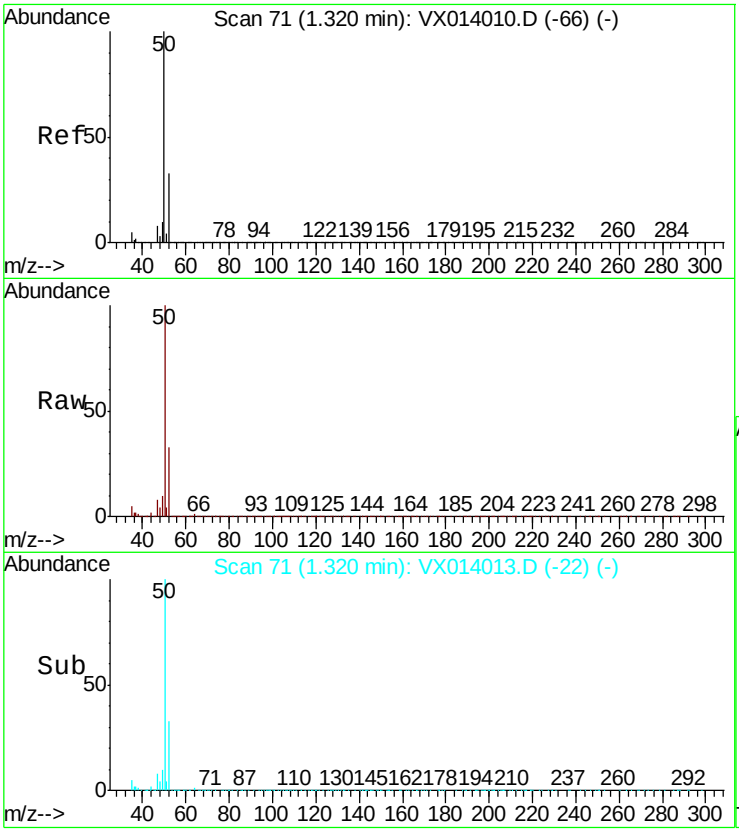


#2
Dichlorodifluoromethane
Concen: 52.423 ug/l
RT: 1.19 min Scan# 50
Delta R.T. 0.00 min
Lab File: VX014013.D
Acq: 13 Dec 2019 18:00

Tgt Ion: 85 Resp: 291288

Ion	Ratio	Lower	Upper
85	100		
87	31.9	16.4	49.2

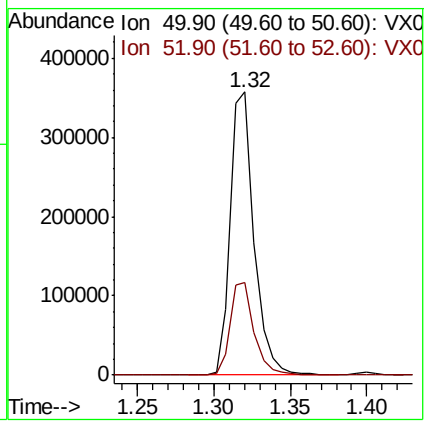




#3
Chloromethane
Concen: 51.476 ug/l
RT: 1.32 min Scan# 71
Delta R.T. 0.00 min
Lab File: VX014013.D
Acq: 13 Dec 2019 18:00

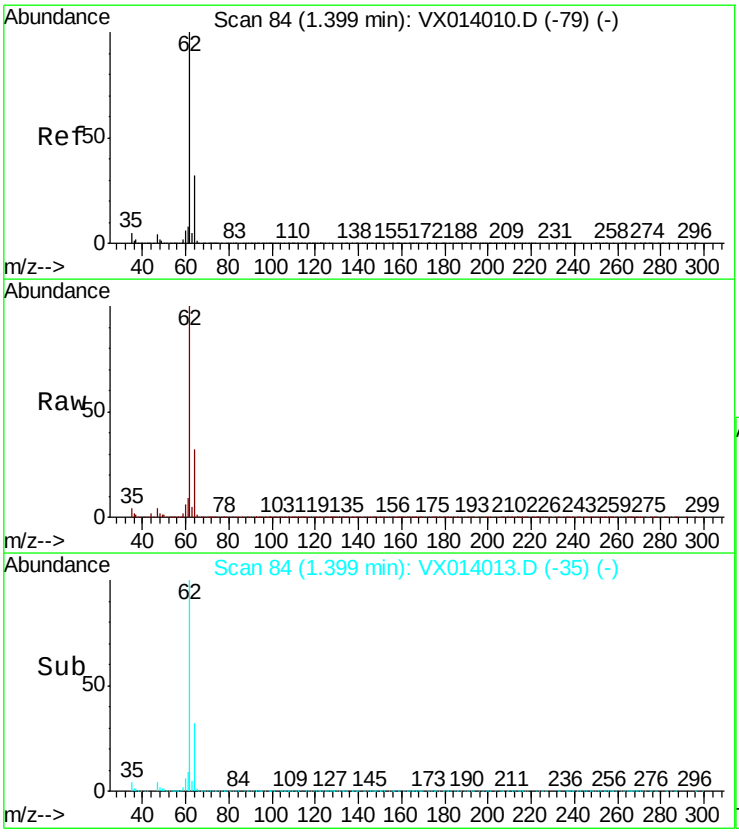
Tgt Ion: 50 Resp: 383848

Ion	Ratio	Lower	Upper
50	100		
52	32.8	26.2	39.4



Instrument :
MSVOA_X
ClientSampleId :
ICVVX121319

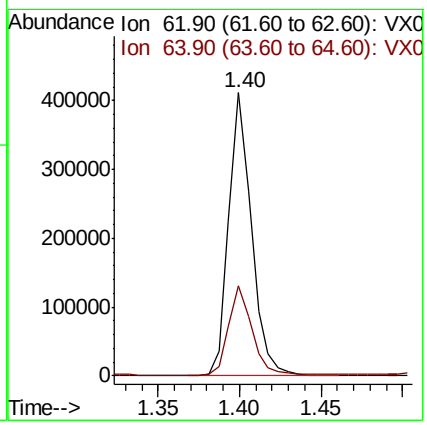
Manual Integrations APPROVED
apatel
12/17/2019 2:48:46 PM

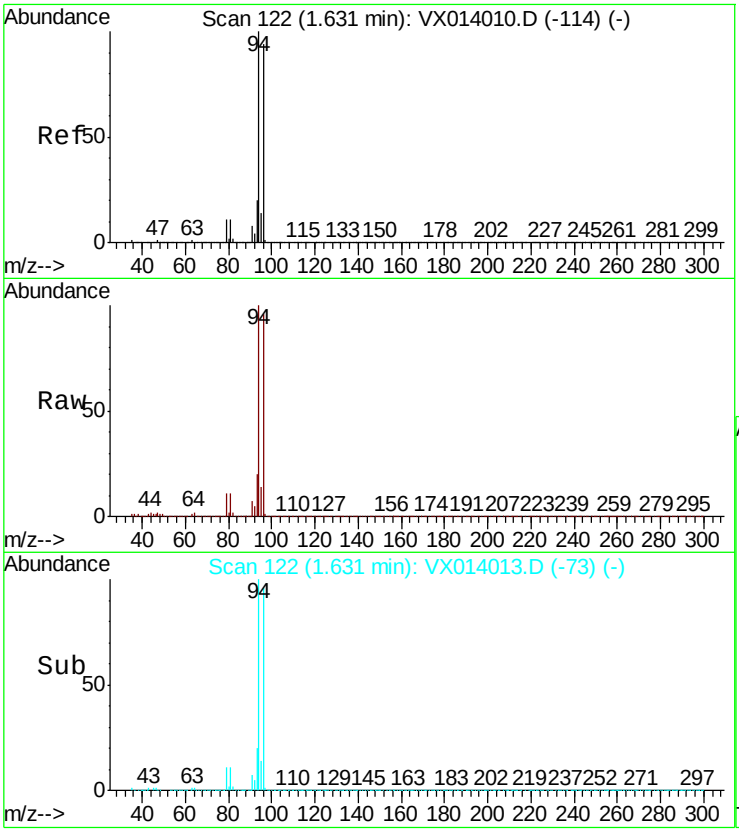


#4
Vinyl Chloride
Concen: 50.683 ug/l
RT: 1.40 min Scan# 84
Delta R.T. 0.00 min
Lab File: VX014013.D
Acq: 13 Dec 2019 18:00

Tgt Ion: 62 Resp: 398794

Ion	Ratio	Lower	Upper
62	100		
64	31.6	25.7	38.5

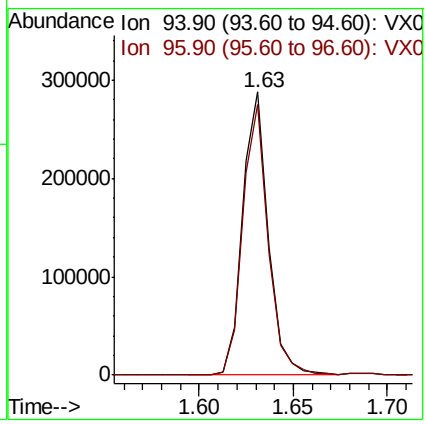




#5
Bromomethane
Concen: 48.282 ug/l
RT: 1.63 min Scan# 122
Delta R.T. 0.00 min
Lab File: VX014013.D
Acq: 13 Dec 2019 18:00

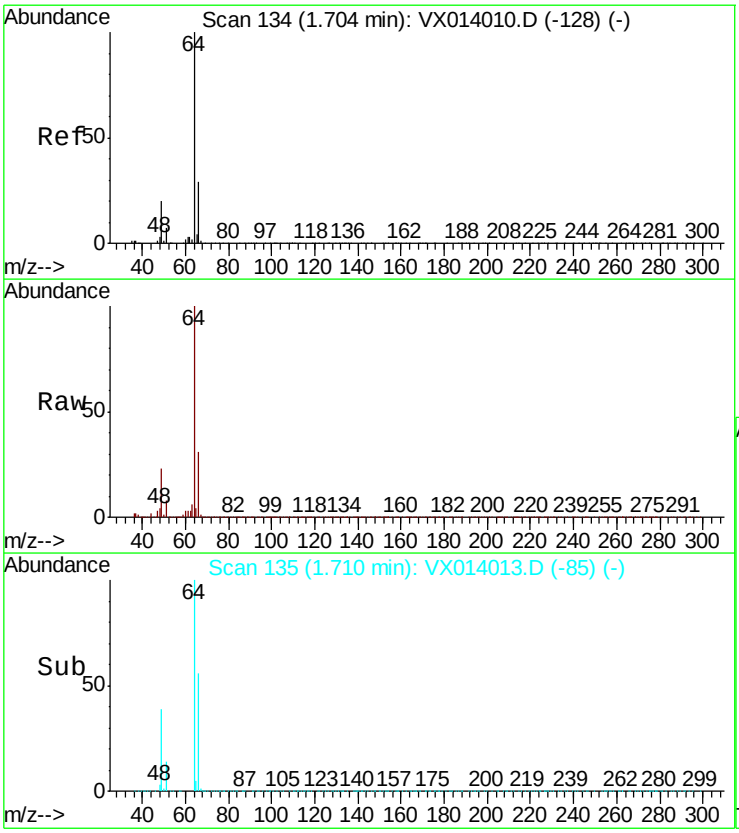
Tgt Ion: 94 Resp: 269636

Ion	Ratio	Lower	Upper
94	100		
96	95.8	75.2	112.8



Instrument :
MSVOA_X
ClientSampleId :
ICVVX121319

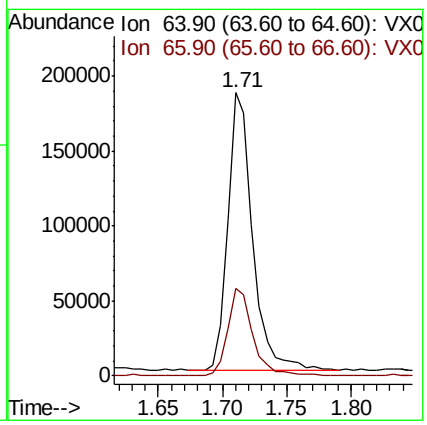
Manual Integrations APPROVED
apatel
12/17/2019 2:48:46 PM

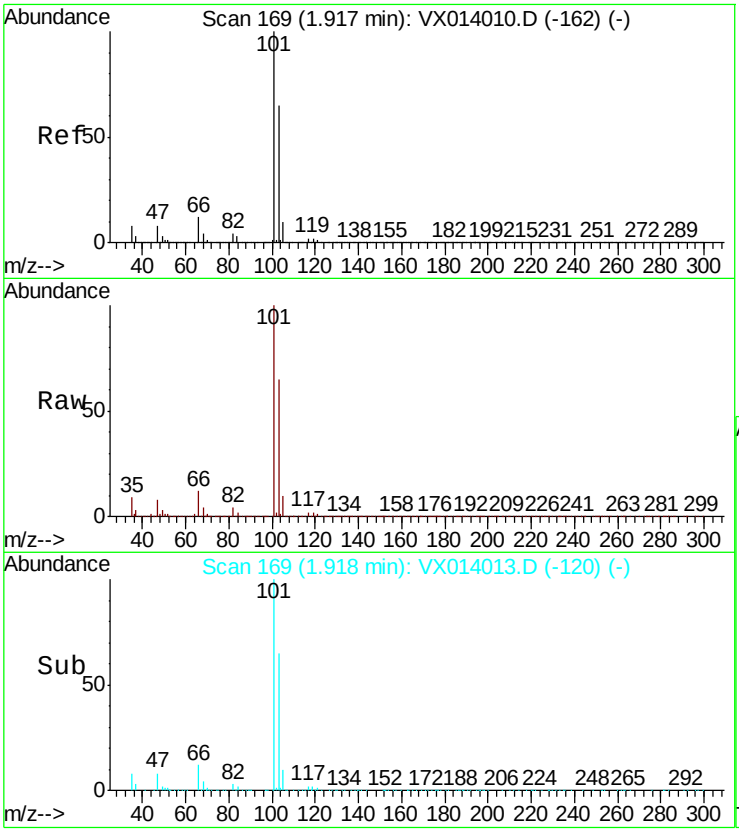


#6
Chloroethane
Concen: 51.409 ug/l
RT: 1.71 min Scan# 135
Delta R.T. 0.01 min
Lab File: VX014013.D
Acq: 13 Dec 2019 18:00

Tgt Ion: 64 Resp: 249654

Ion	Ratio	Lower	Upper
64	100		
66	31.1	23.4	35.2

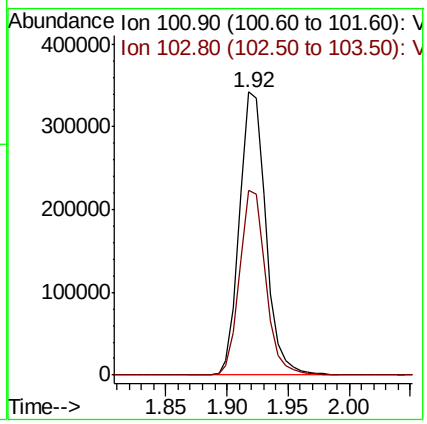




#7
Trichlorofluoromethane
Concen: 52.333 ug/l
RT: 1.92 min Scan# 169
Delta R.T. 0.00 min
Lab File: VX014013.D
Acq: 13 Dec 2019 18:00

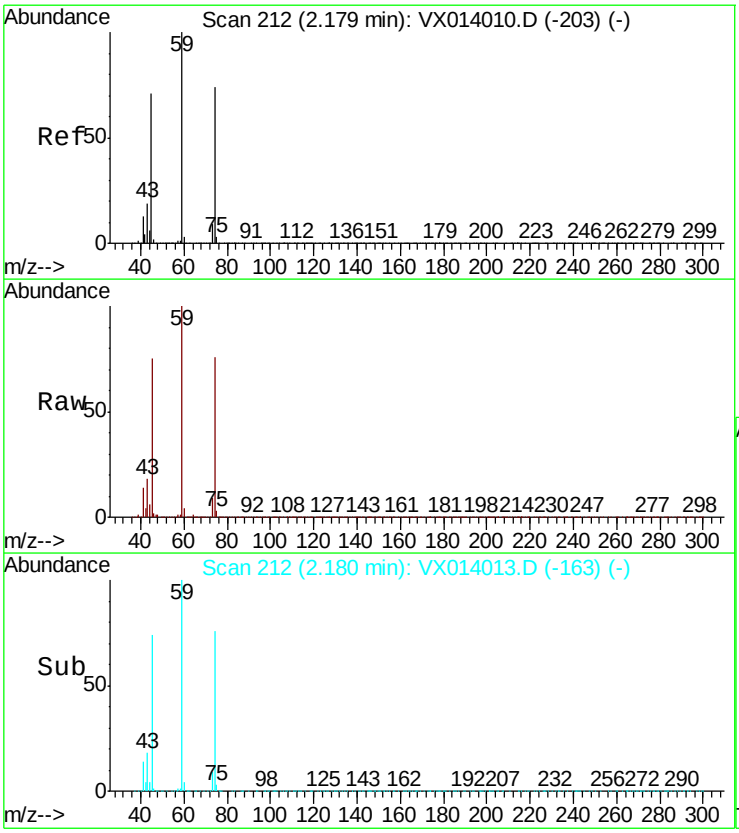
Tgt Ion:101 Resp: 509734

Ion	Ratio	Lower	Upper
101	100		
103	65.4	52.2	78.4



Instrument :
MSVOA_X
ClientSampleId :
ICVVX121319

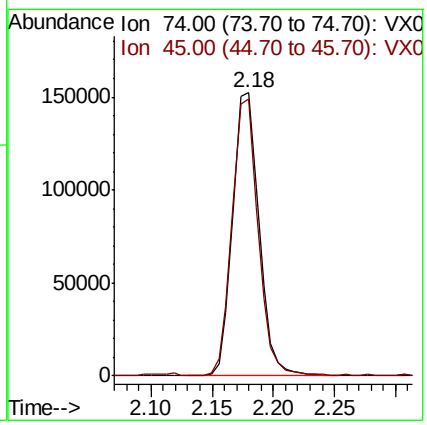
Manual Integrations APPROVED
apatel
12/17/2019 2:48:46 PM

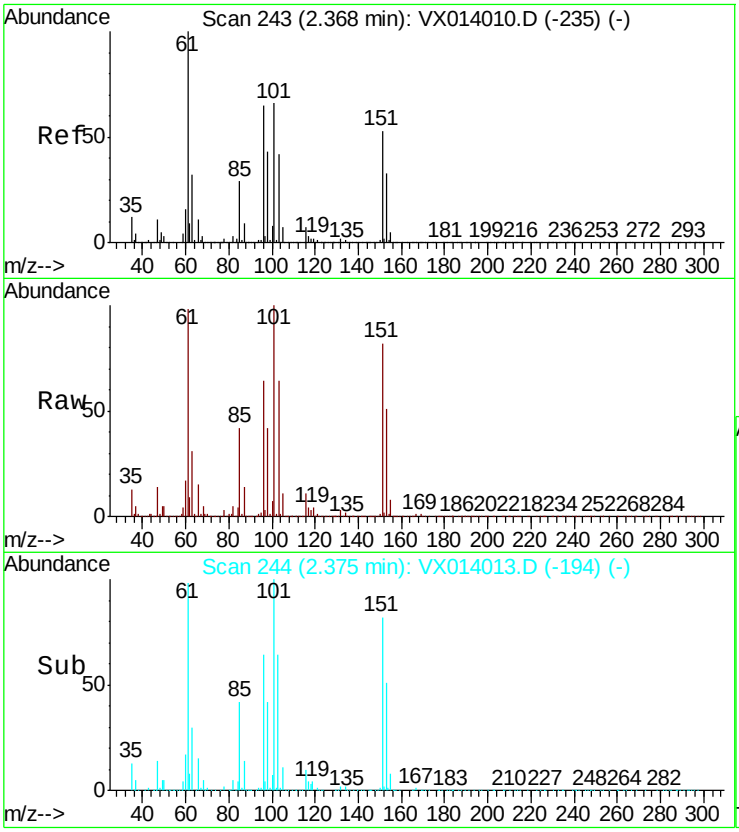


#8
Diethyl Ether
Concen: 49.336 ug/l
RT: 2.18 min Scan# 212
Delta R.T. 0.00 min
Lab File: VX014013.D
Acq: 13 Dec 2019 18:00

Tgt Ion: 74 Resp: 225529

Ion	Ratio	Lower	Upper
74	100		
45	96.8	48.1	144.3

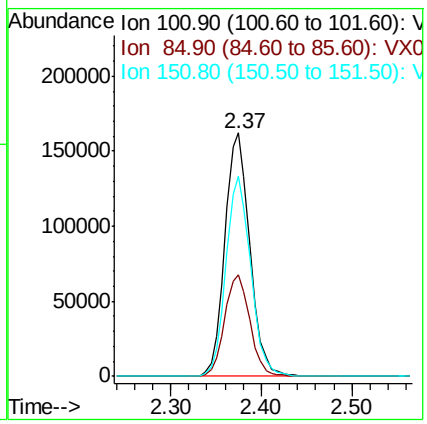




#9
1,1,2-Trichlorotrifluoroethane
Concen: 52.756 ug/l
RT: 2.37 min Scan# 244
Delta R.T. 0.01 min
Lab File: VX014013.D
Acq: 13 Dec 2019 18:00

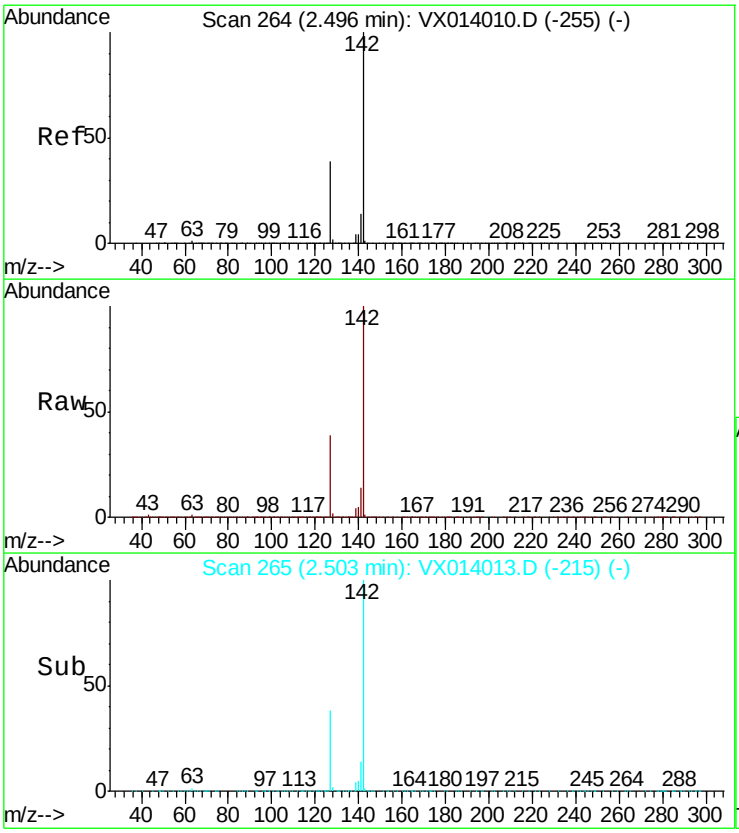
Tgt Ion:101 Resp: 309754

Ion	Ratio	Lower	Upper
101	100		
85	42.0	33.7	50.5
151	81.2	64.5	96.7



Instrument :
MSVOA_X
ClientSampleId :
ICVVX121319

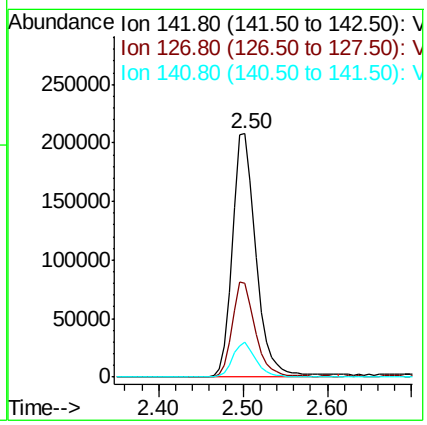
Manual Integrations APPROVED
apatel
12/17/2019 2:48:46 PM



#10
Methyl Iodide
Concen: 51.147 ug/l
RT: 2.50 min Scan# 265
Delta R.T. 0.01 min
Lab File: VX014013.D
Acq: 13 Dec 2019 18:00

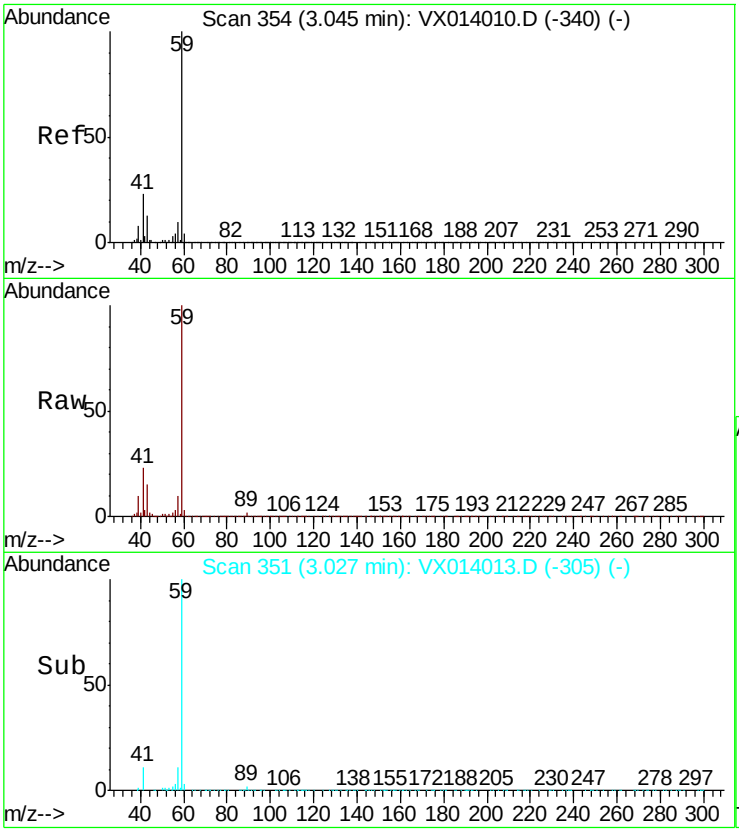
Tgt Ion:142 Resp: 396524

Ion	Ratio	Lower	Upper
142	100		
127	38.3	31.6	47.4
141	14.1	11.6	17.4



Instrument :
MSVOA_X
ClientSampleId :
ICVVX121319

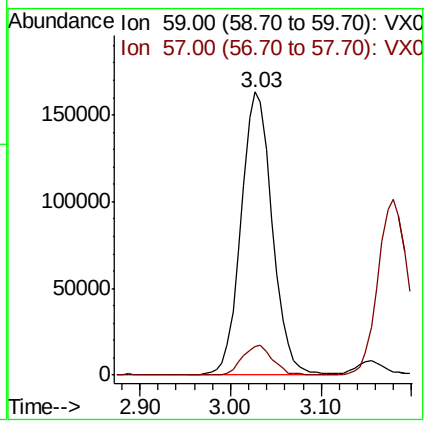
Manual Integrations APPROVED
apatel
12/17/2019 2:48:46 PM

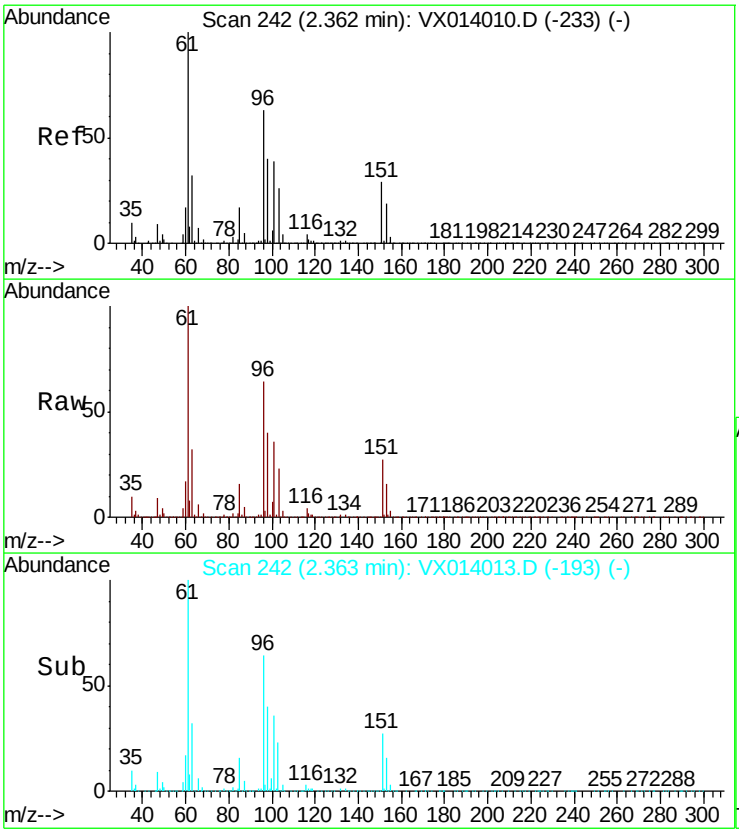


#11
Tert butyl alcohol
Concen: 255.656 ug/l
RT: 3.03 min Scan# 351
Delta R.T. -0.02 min
Lab File: VX014013.D
Acq: 13 Dec 2019 18:00

Tgt Ion: 59 Resp: 388856

Ion	Ratio	Lower	Upper
59	100		
57	10.0	8.4	12.6

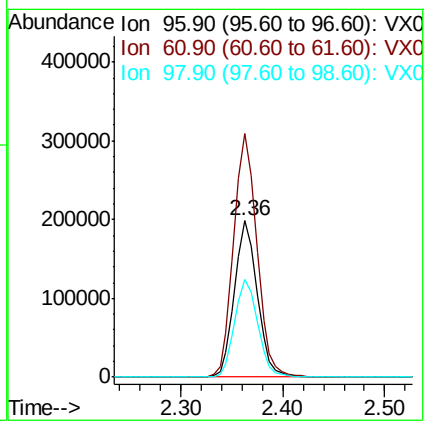


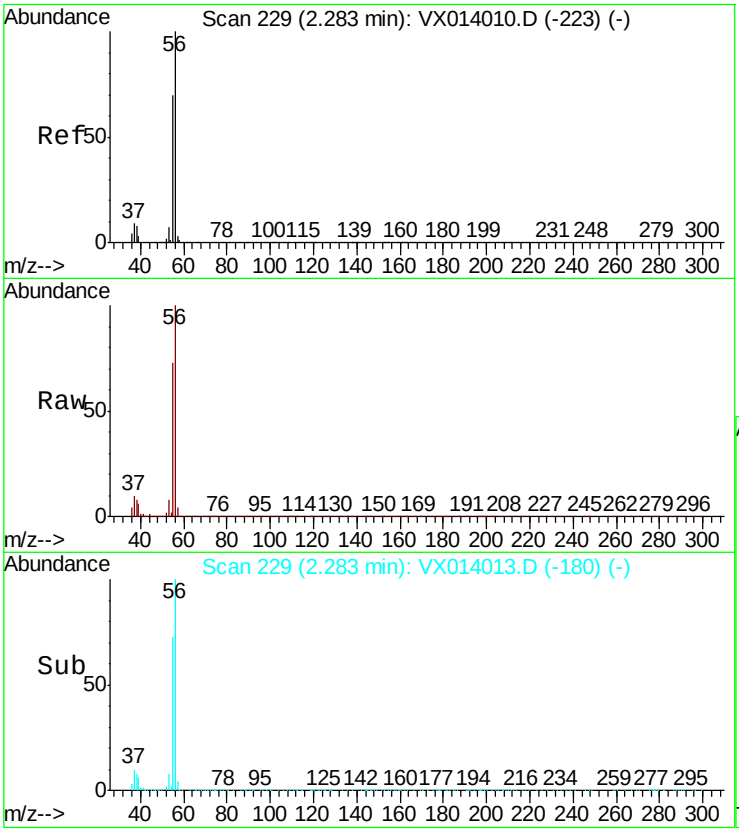


#12
1,1-Dichloroethene
Concen: 51.120 ug/l
RT: 2.36 min Scan# 242
Delta R.T. 0.00 min
Lab File: VX014013.D
Acq: 13 Dec 2019 18:00

Tgt Ion: 96 Resp: 305414

Ion	Ratio	Lower	Upper
96	100		
61	156.1	127.9	191.9
98	62.3	50.5	75.7

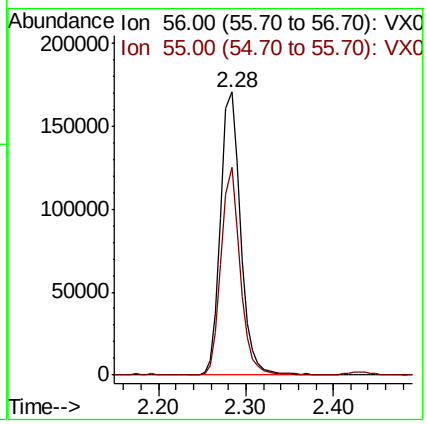




#13
Acrolein
Concen: 308.460 ug/l
RT: 2.28 min Scan# 229
Delta R.T. 0.00 min
Lab File: VX014013.D
Acq: 13 Dec 2019 18:00

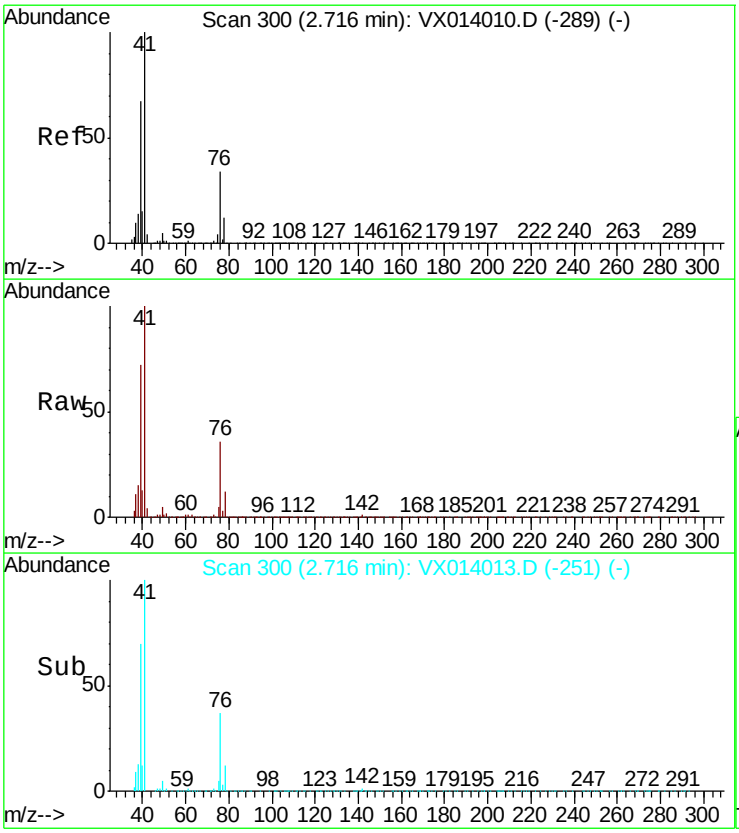
Tgt Ion: 56 Resp: 268569

Ion	Ratio	Lower	Upper
56	100		
55	69.5	56.9	85.3



Instrument :
MSVOA_X
ClientSampleId :
ICVVX121319

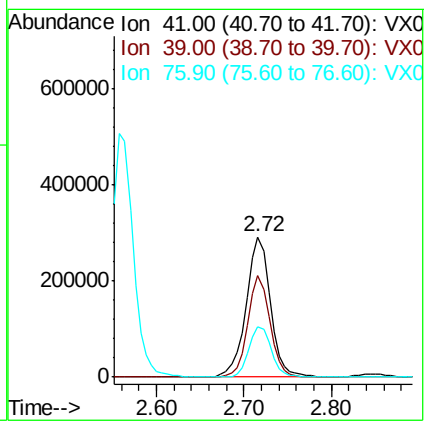
Manual Integrations APPROVED
apatel
12/17/2019 2:48:46 PM

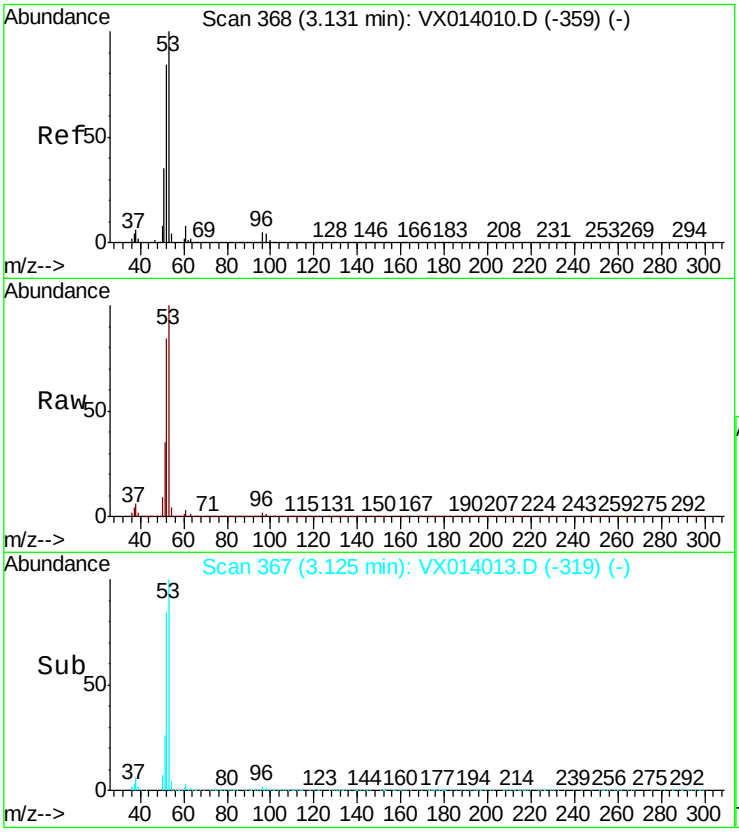


#14
Allyl chloride
Concen: 52.467 ug/l
RT: 2.72 min Scan# 300
Delta R.T. 0.00 min
Lab File: VX014013.D
Acq: 13 Dec 2019 18:00

Tgt Ion: 41 Resp: 559686

Ion	Ratio	Lower	Upper
41	100		
39	65.9	51.8	77.8
76	33.2	25.9	38.9

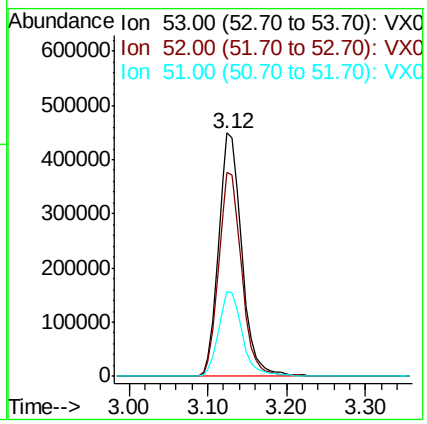




#15
Acrylonitrile
Concen: 258.767 ug/l
RT: 3.12 min Scan# 367
Delta R.T. -0.01 min
Lab File: VX014013.D
Acq: 13 Dec 2019 18:00

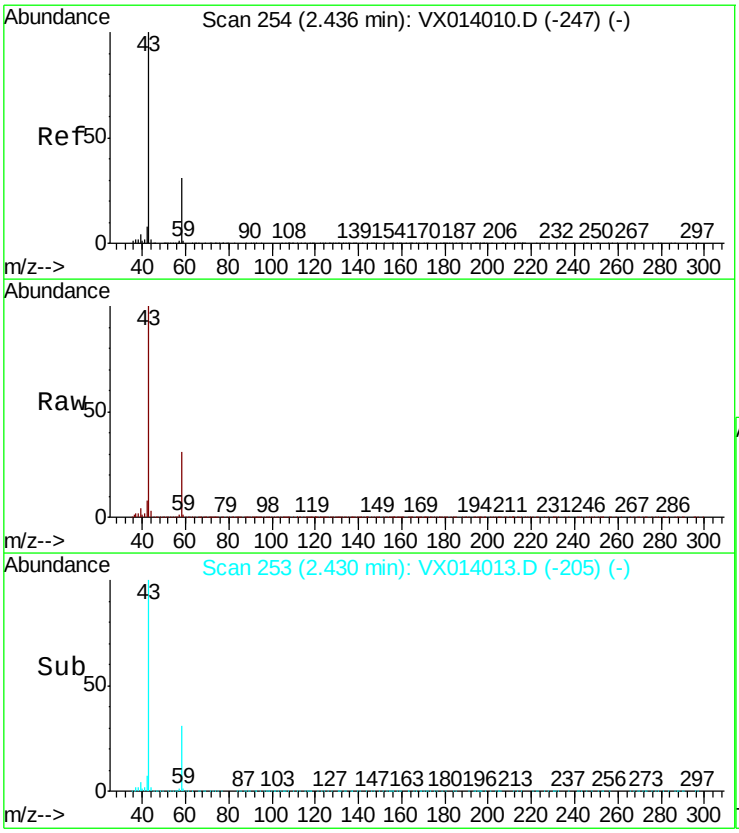
Tgt Ion: 53 Resp: 918662

Ion	Ratio	Lower	Upper
53	100		
52	82.8	66.5	99.7
51	35.4	28.1	42.1



Instrument :
MSVOA_X
ClientSampleId :
ICVVX121319

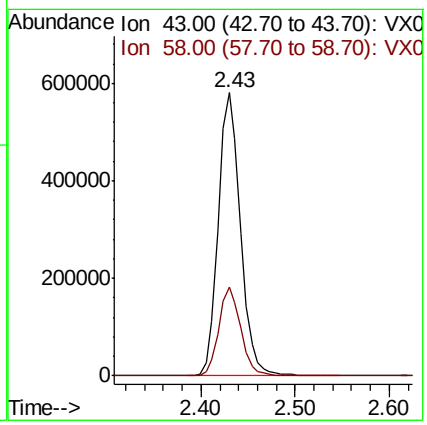
Manual Integrations APPROVED
apatel
12/17/2019 2:48:46 PM



#16
Acetone
Concen: 205.507 ug/l
RT: 2.43 min Scan# 253
Delta R.T. -0.01 min
Lab File: VX014013.D
Acq: 13 Dec 2019 18:00

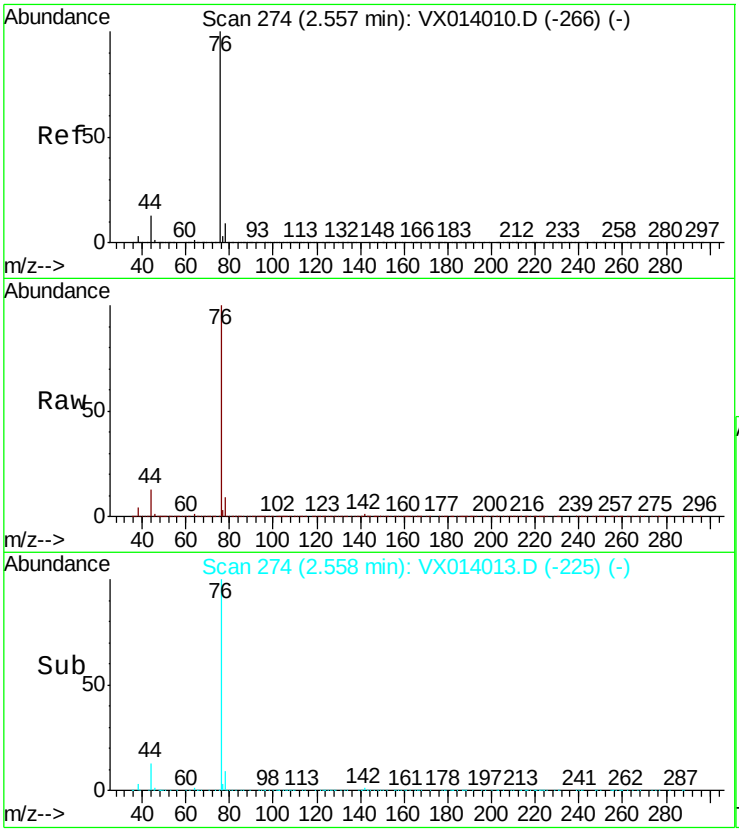
Tgt Ion: 43 Resp: 939159

Ion	Ratio	Lower	Upper
43	100		
58	31.3	24.9	37.3



Instrument :
MSVOA_X
ClientSampleId :
ICVVX121319

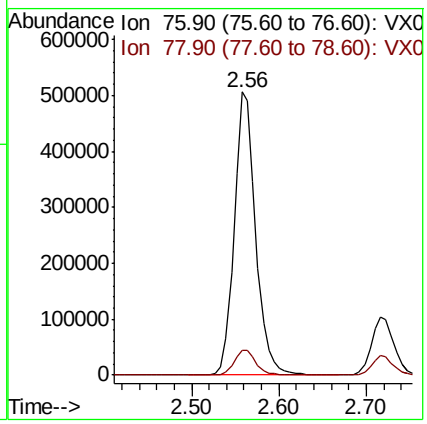
Manual Integrations APPROVED
apatel
12/17/2019 2:48:46 PM

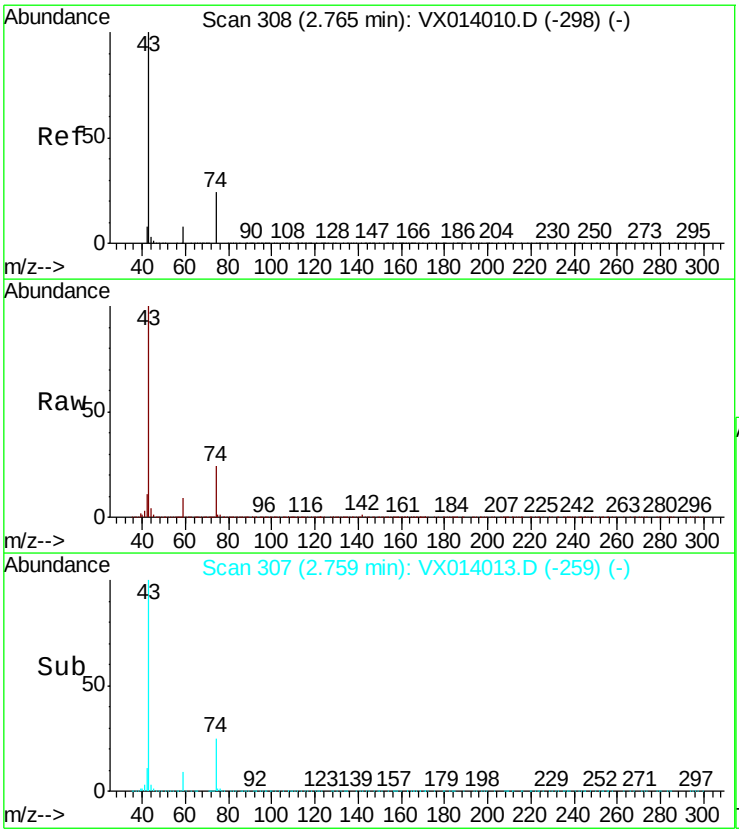


#17
Carbon Disulfide
Concen: 51.979 ug/l
RT: 2.56 min Scan# 274
Delta R.T. 0.00 min
Lab File: VX014013.D
Acq: 13 Dec 2019 18:00

Tgt Ion: 76 Resp: 862642

Ion	Ratio	Lower	Upper
76	100		
78	8.8	7.2	10.8

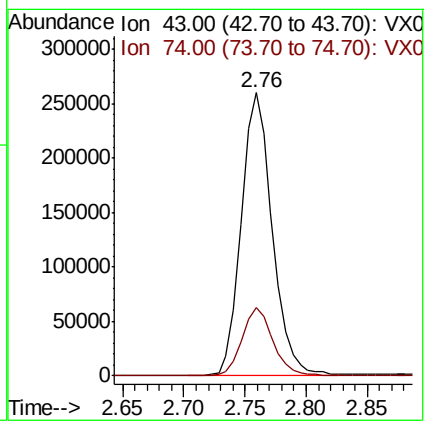




#18
Methyl Acetate
Concen: 50.218 ug/l
RT: 2.76 min Scan# 307
Delta R.T. -0.01 min
Lab File: VX014013.D
Acq: 13 Dec 2019 18:00

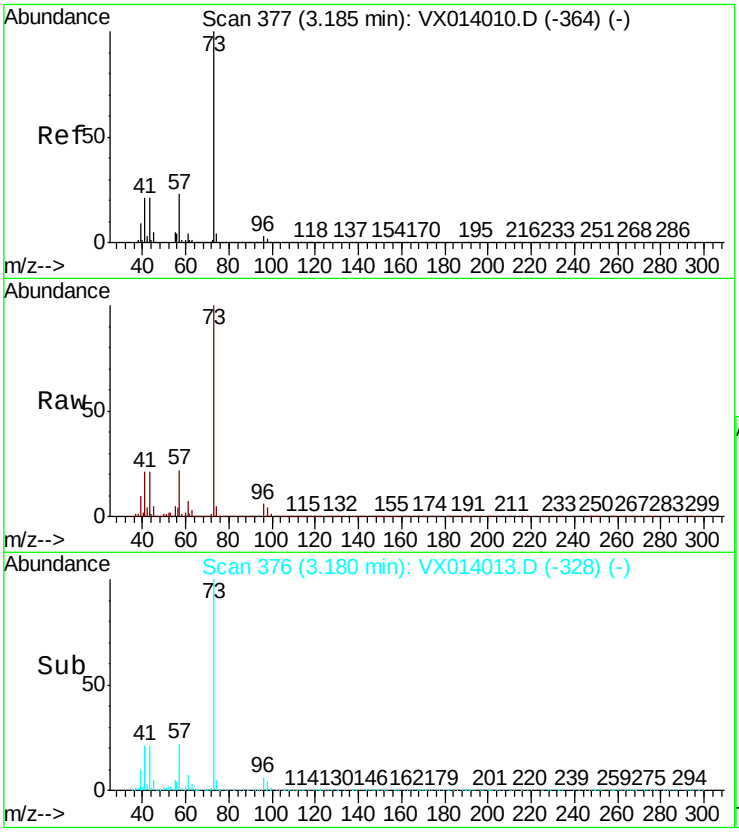
Tgt Ion: 43 Resp: 454751

Ion	Ratio	Lower	Upper
43	100		
74	24.5	19.5	29.3



Instrument :
MSVOA_X
ClientSampleId :
ICVVX121319

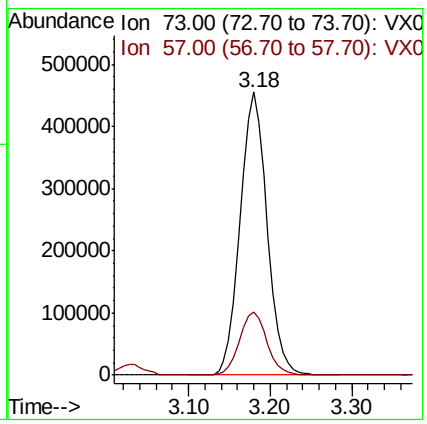
Manual Integrations APPROVED
apatel
12/17/2019 2:48:46 PM

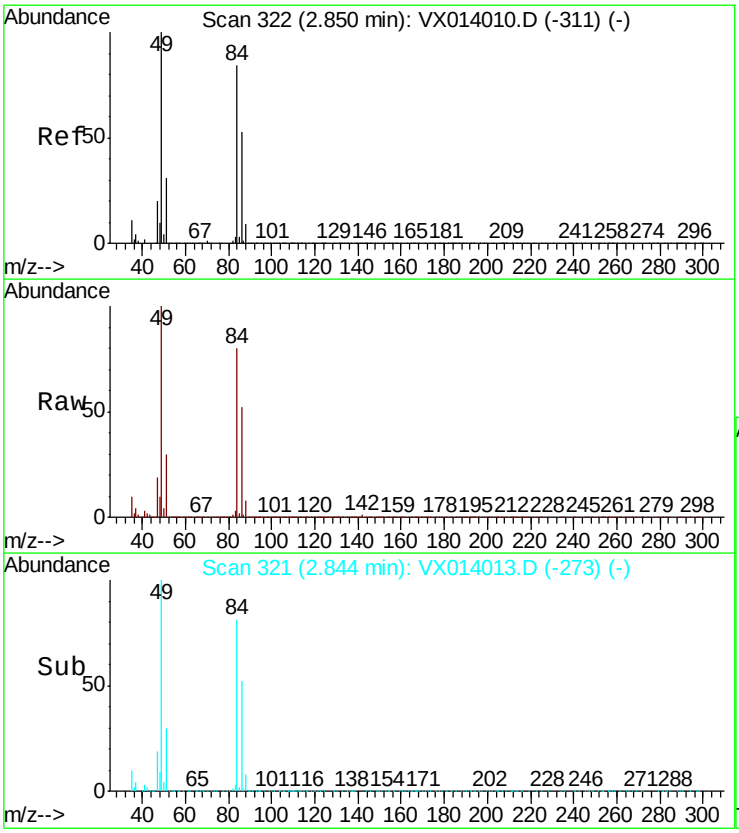


#19
Methyl tert-butyl Ether
Concen: 53.038 ug/l
RT: 3.18 min Scan# 376
Delta R.T. -0.01 min
Lab File: VX014013.D
Acq: 13 Dec 2019 18:00

Tgt Ion: 73 Resp: 1041263

Ion	Ratio	Lower	Upper
73	100		
57	22.2	18.8	28.2

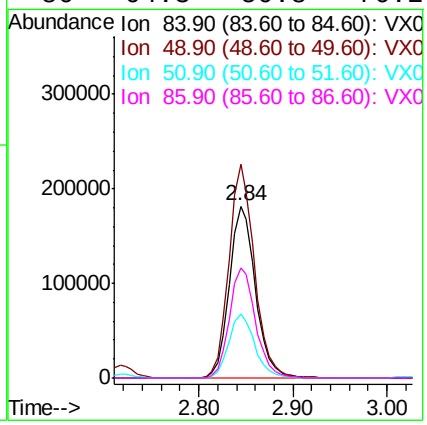




#20
Methylene Chloride
Concen: 48.495 ug/l
RT: 2.84 min Scan# 321
Delta R.T. -0.01 min
Lab File: VX014013.D
Acq: 13 Dec 2019 18:00

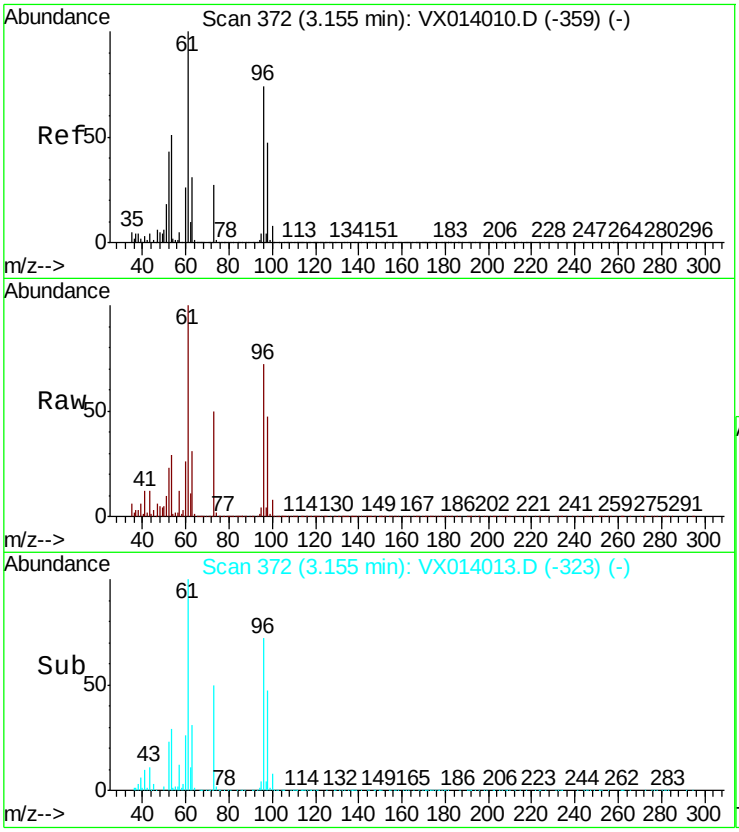
Tgt Ion: 84 Resp: 348991

Ion	Ratio	Lower	Upper
84	100		
49	124.0	95.8	143.6
51	36.9	29.8	44.8
86	64.3	50.8	76.2



Instrument :
MSVOA_X
ClientSampleId :
ICVVX121319

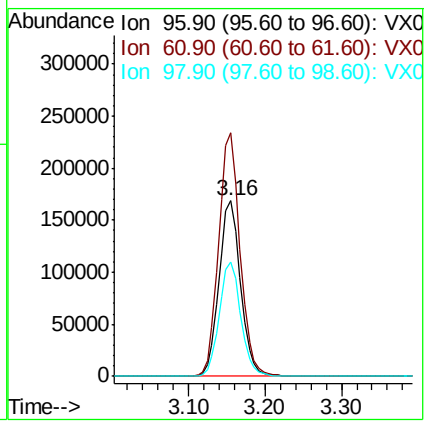
Manual Integrations APPROVED
apatel
12/17/2019 2:48:46 PM

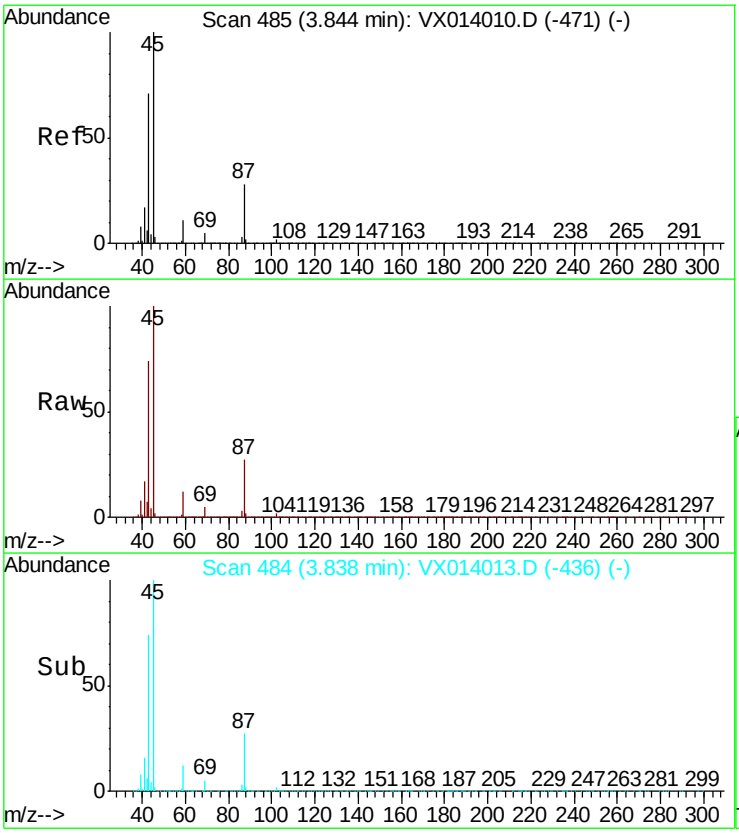


#21
trans-1,2-Dichloroethene
Concen: 50.185 ug/l
RT: 3.16 min Scan# 372
Delta R.T. 0.00 min
Lab File: VX014013.D
Acq: 13 Dec 2019 18:00

Tgt Ion: 96 Resp: 330319

Ion	Ratio	Lower	Upper
96	100		
61	138.6	108.3	162.5
98	65.4	50.8	76.2

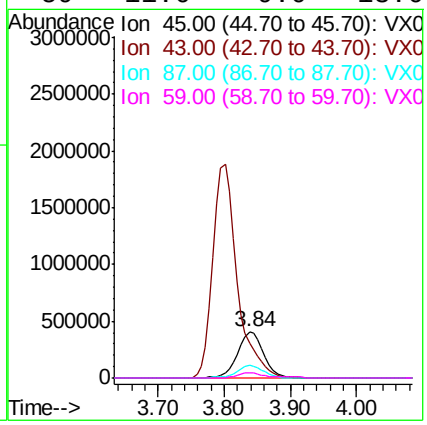


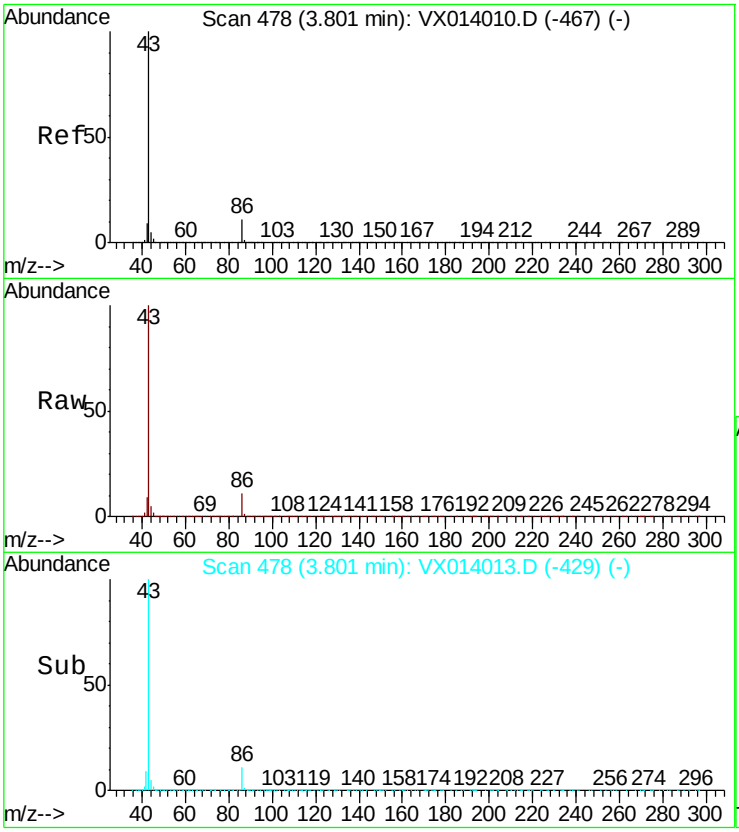


#22
Diisopropyl ether
Concen: 52.230 ug/l
RT: 3.84 min Scan# 484
Delta R.T. -0.01 min
Lab File: VX014013.D
Acq: 13 Dec 2019 18:00

Tgt Ion: 45 Resp: 1110273

Ion	Ratio	Lower	Upper
45	100		
43	74.1	57.4	86.0
87	27.0	21.9	32.9
59	11.6	9.0	13.6

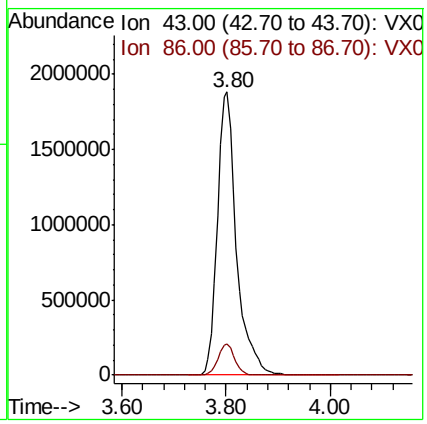




#23
Vinyl Acetate
Concen: 279.180 ug/l
RT: 3.80 min Scan# 478
Delta R.T. 0.00 min
Lab File: VX014013.D
Acq: 13 Dec 2019 18:00

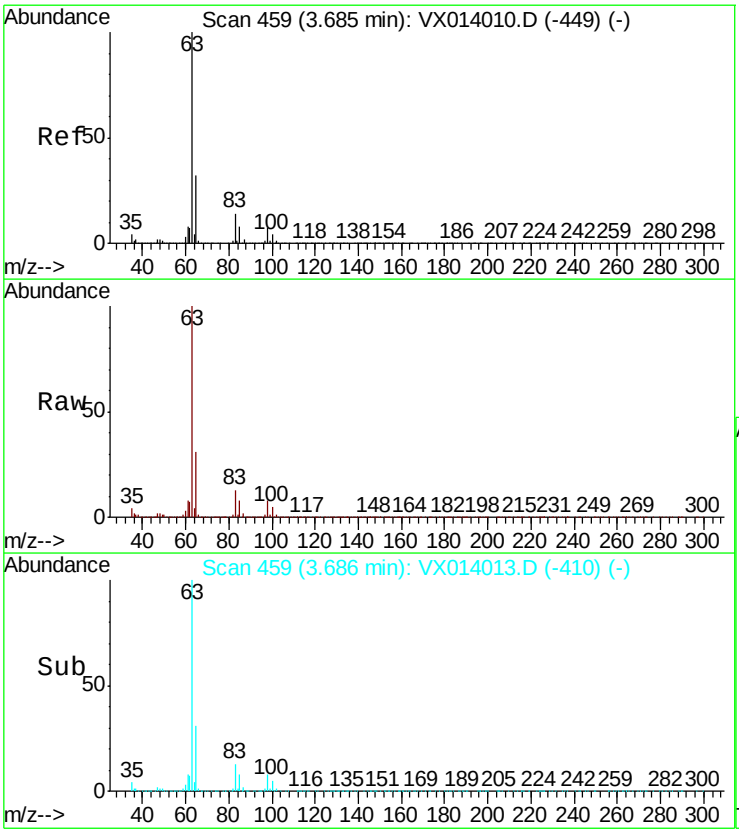
Tgt Ion: 43 Resp: 4842976

Ion	Ratio	Lower	Upper
43	100		
86	11.1	8.6	12.8



Instrument :
MSVOA_X
ClientSampleId :
ICVVX121319

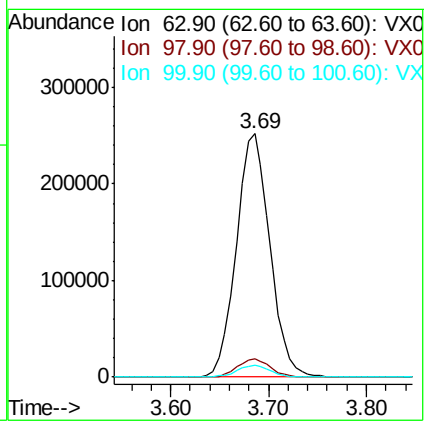
Manual Integrations APPROVED
apatel
12/17/2019 2:48:46 PM

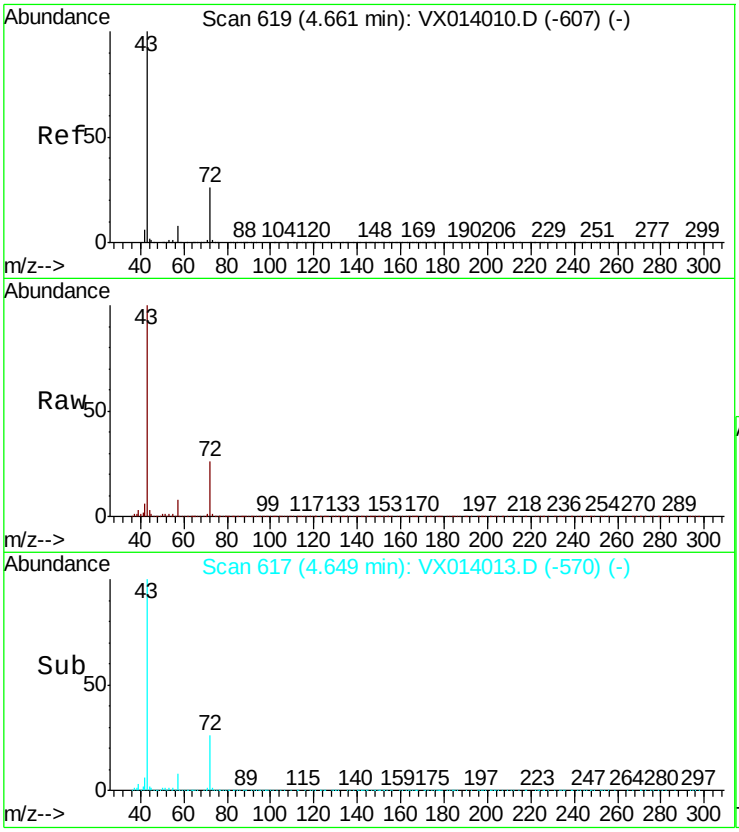


#24
1,1-Dichloroethane
Concen: 50.563 ug/l
RT: 3.69 min Scan# 459
Delta R.T. 0.00 min
Lab File: VX014013.D
Acq: 13 Dec 2019 18:00

Tgt Ion: 63 Resp: 597995

Ion	Ratio	Lower	Upper
63	100		
98	7.6	3.6	10.8
100	4.8	2.3	6.8

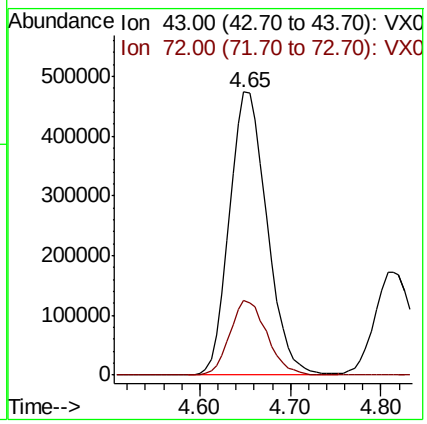




#25
2-Butanone
Concen: 240.967 ug/l
RT: 4.65 min Scan# 617
Delta R.T. -0.01 min
Lab File: VX014013.D
Acq: 13 Dec 2019 18:00

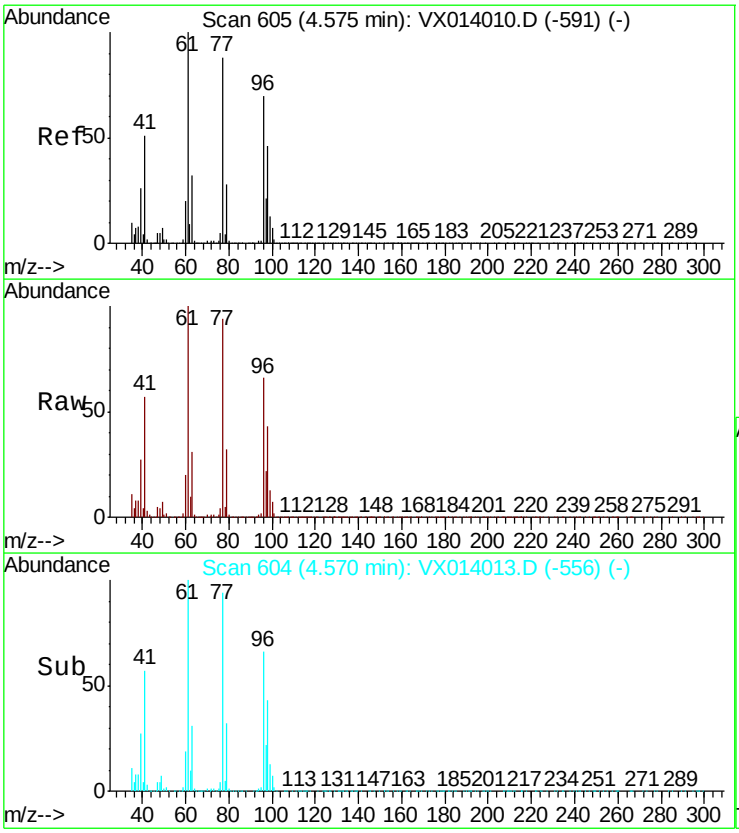
Tgt Ion: 43 Resp: 1357662

Ion	Ratio	Lower	Upper
43	100		
72	26.2	21.0	31.4



Instrument :
MSVOA_X
ClientSampleId :
ICVVX121319

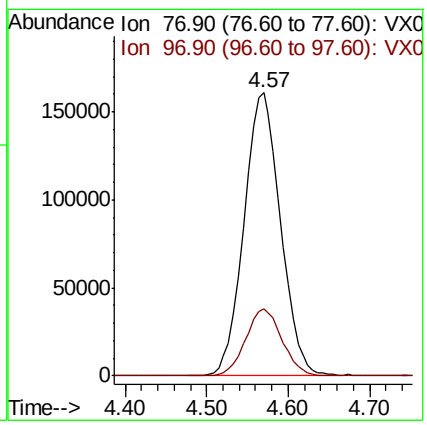
Manual Integrations APPROVED
apatel
12/17/2019 2:48:46 PM

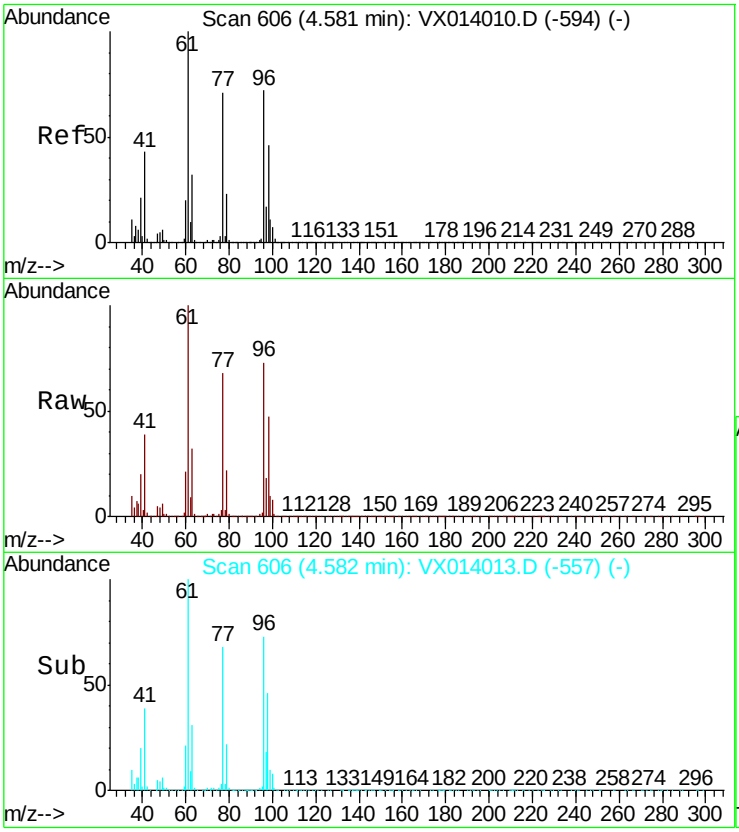


#26
2,2-Dichloropropane
Concen: 54.390 ug/l
RT: 4.57 min Scan# 604
Delta R.T. -0.01 min
Lab File: VX014013.D
Acq: 13 Dec 2019 18:00

Tgt Ion: 77 Resp: 499436

Ion	Ratio	Lower	Upper
77	100		
97	23.9	11.9	35.9

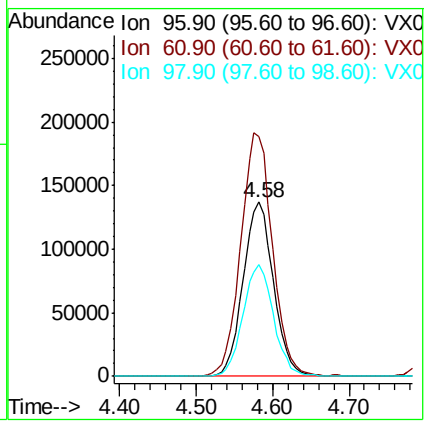


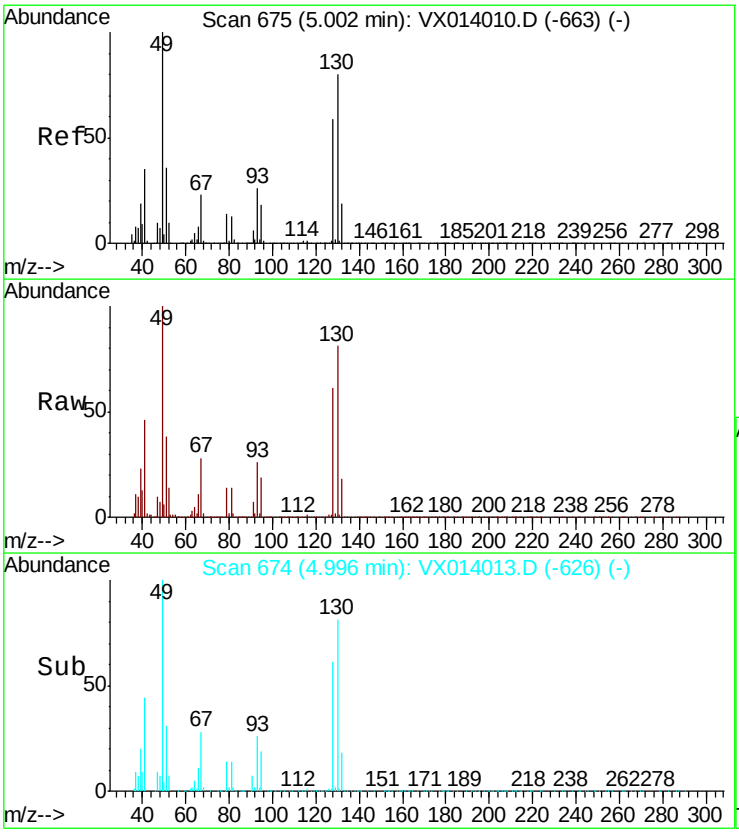


#27
cis-1,2-Dichloroethene
Concen: 50.600 ug/l
RT: 4.58 min Scan# 606
Delta R.T. 0.00 min
Lab File: VX014013.D
Acq: 13 Dec 2019 18:00

Tgt Ion: 96 Resp: 376663

Ion	Ratio	Lower	Upper
96	100		
61	145.2	0.0	288.4
98	64.5	0.0	129.6

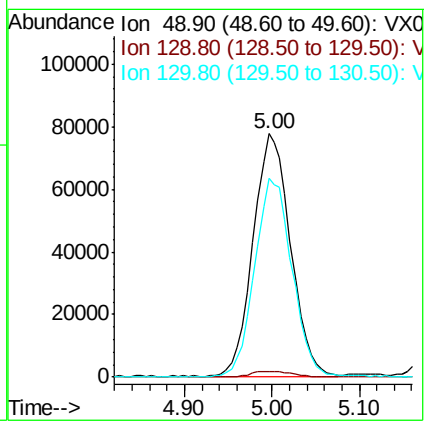




#28
Bromochloromethane
Concen: 50.825 ug/l
RT: 5.00 min Scan# 674
Delta R.T. -0.01 min
Lab File: VX014013.D
Acq: 13 Dec 2019 18:00

Tgt Ion: 49 Resp: 231204

Ion	Ratio	Lower	Upper
49	100		
129	2.6	0.0	5.0
130	81.2	64.6	97.0

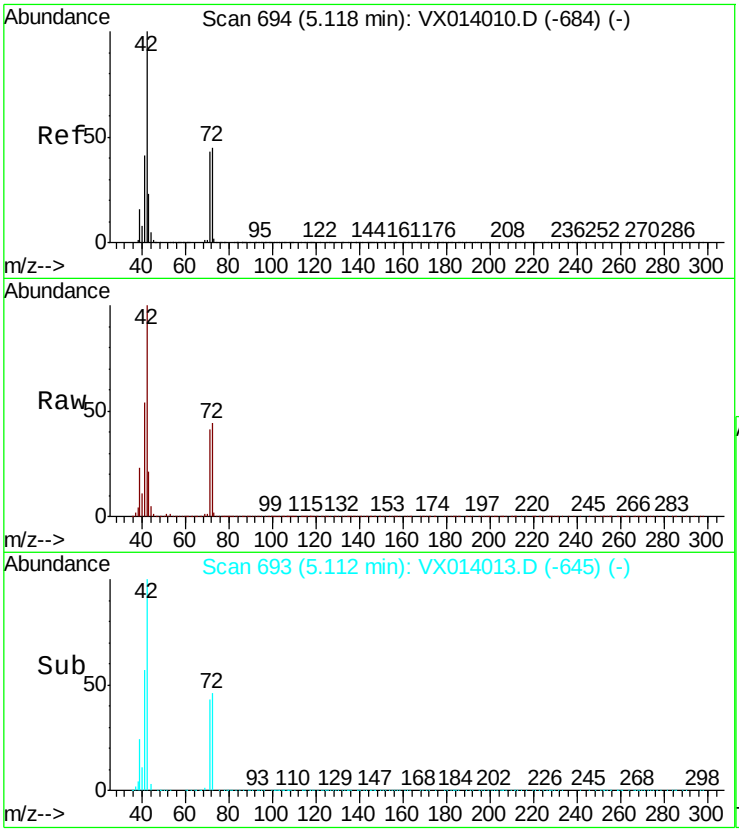


Instrument :
MSVOA_X
ClientSampleId :
ICVVX121319

Manual Integrations APPROVED
apatel
12/17/2019 2:48:46 PM

Instrument :
MSVOA_X
ClientSampleId :
ICVVX121319

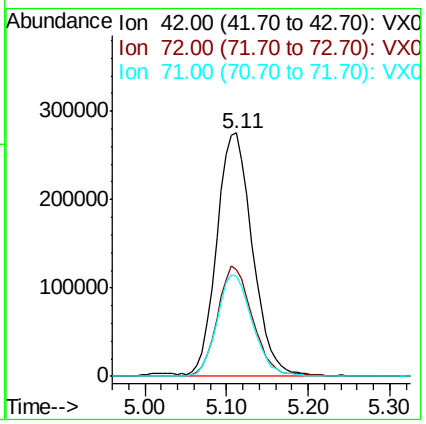
Manual Integrations APPROVED
apatel
12/17/2019 2:48:46 PM

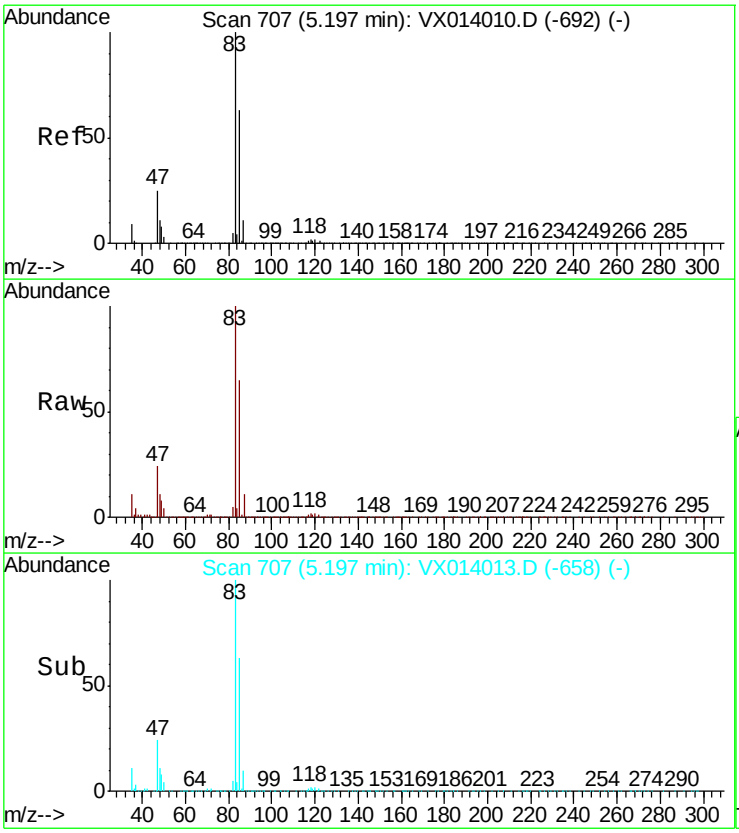


#29
Tetrahydrofuran
Concen: 263.112 ug/l
RT: 5.11 min Scan# 693
Delta R.T. -0.01 min
Lab File: VX014013.D
Acq: 13 Dec 2019 18:00

Tgt Ion: 42 Resp: 829161

Ion	Ratio	Lower	Upper
42	100		
72	45.0	35.8	53.8
71	41.4	33.6	50.4

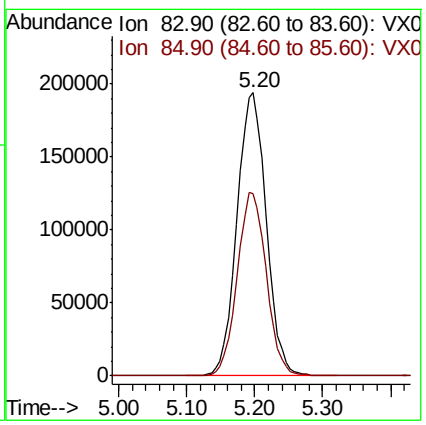




#30
Chloroform
Concen: 51.813 ug/l
RT: 5.20 min Scan# 707
Delta R.T. 0.00 min
Lab File: VX014013.D
Acq: 13 Dec 2019 18:00

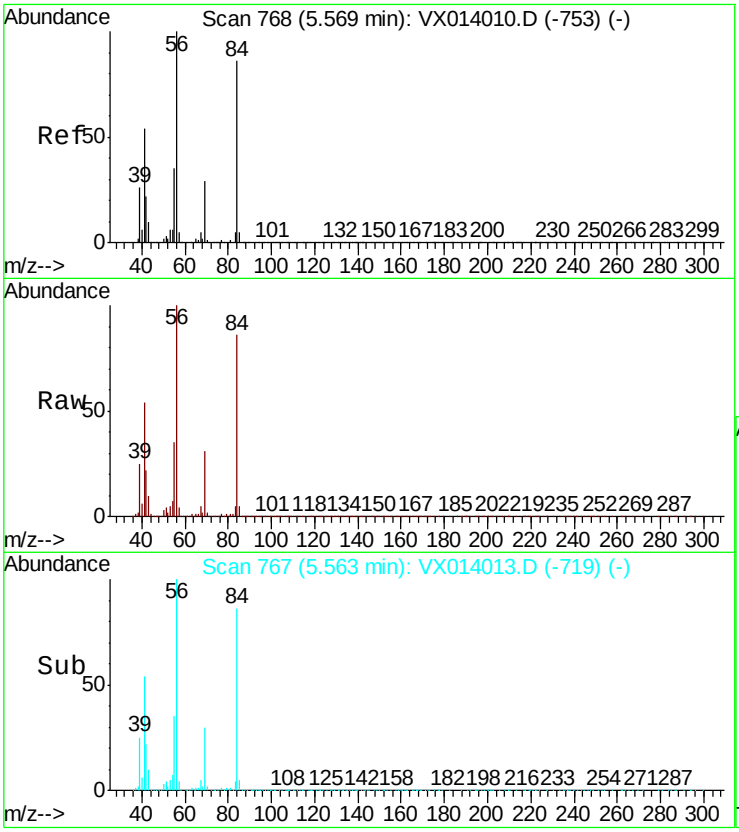
Tgt Ion: 83 Resp: 580896

Ion	Ratio	Lower	Upper
83	100		
85	64.4	50.8	76.2



Instrument :
MSVOA_X
ClientSampleId :
ICVVX121319

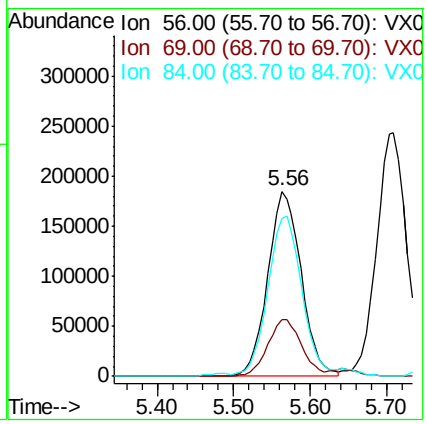
Manual Integrations APPROVED
apatel
12/17/2019 2:48:46 PM

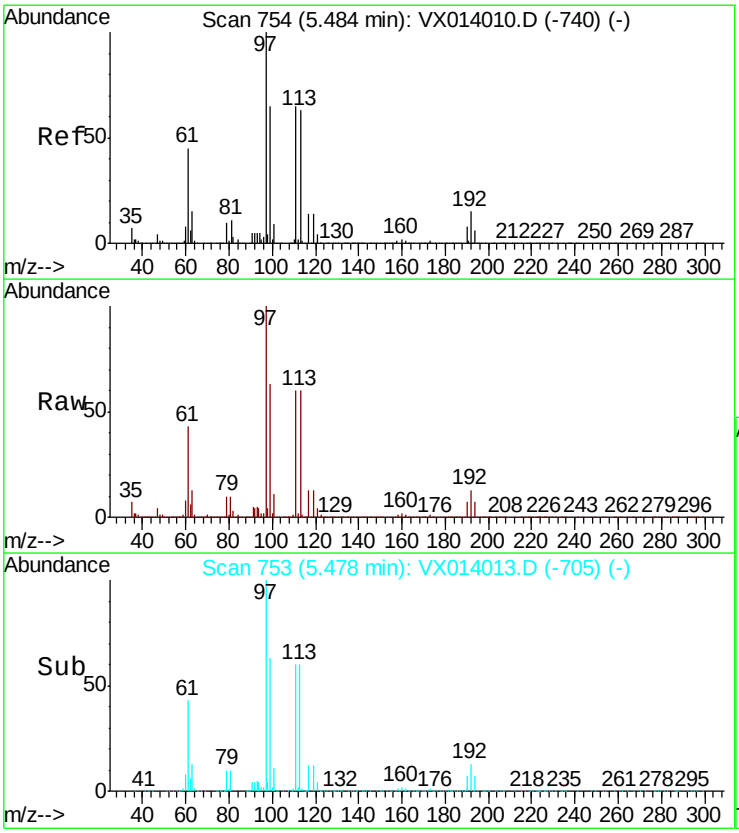


#31
Cyclohexane
Concen: 53.196 ug/l
RT: 5.56 min Scan# 767
Delta R.T. -0.01 min
Lab File: VX014013.D
Acq: 13 Dec 2019 18:00

Tgt Ion: 56 Resp: 559555

Ion	Ratio	Lower	Upper
56	100		
69	30.3	23.2	34.8
84	85.5	69.2	103.8

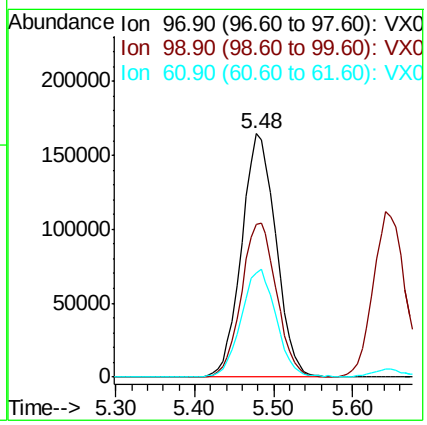


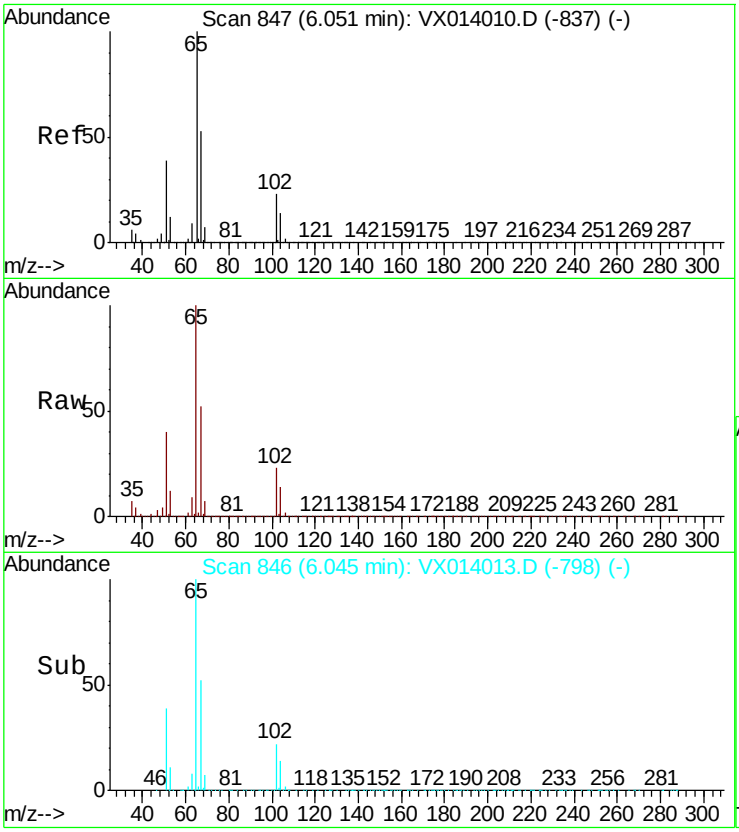


#32
1,1,1-Trichloroethane
Concen: 52.170 ug/l
RT: 5.48 min Scan# 753
Delta R.T. -0.01 min
Lab File: VX014013.D
Acq: 13 Dec 2019 18:00

Tgt Ion: 97 Resp: 498495

Ion	Ratio	Lower	Upper
97	100		
99	64.5	52.0	78.0
61	44.9	36.7	55.1

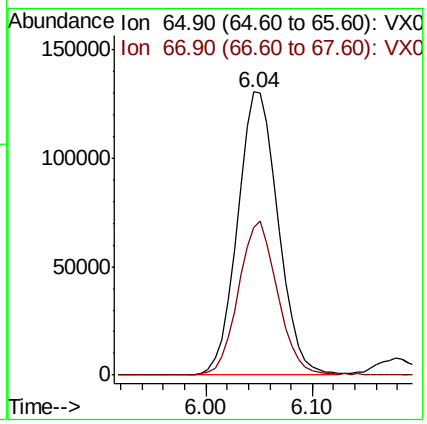




#33
1,2-Dichloroethane-d4
Concen: 49.379 ug/l
RT: 6.04 min Scan# 846
Delta R.T. -0.01 min
Lab File: VX014013.D
Acq: 13 Dec 2019 18:00

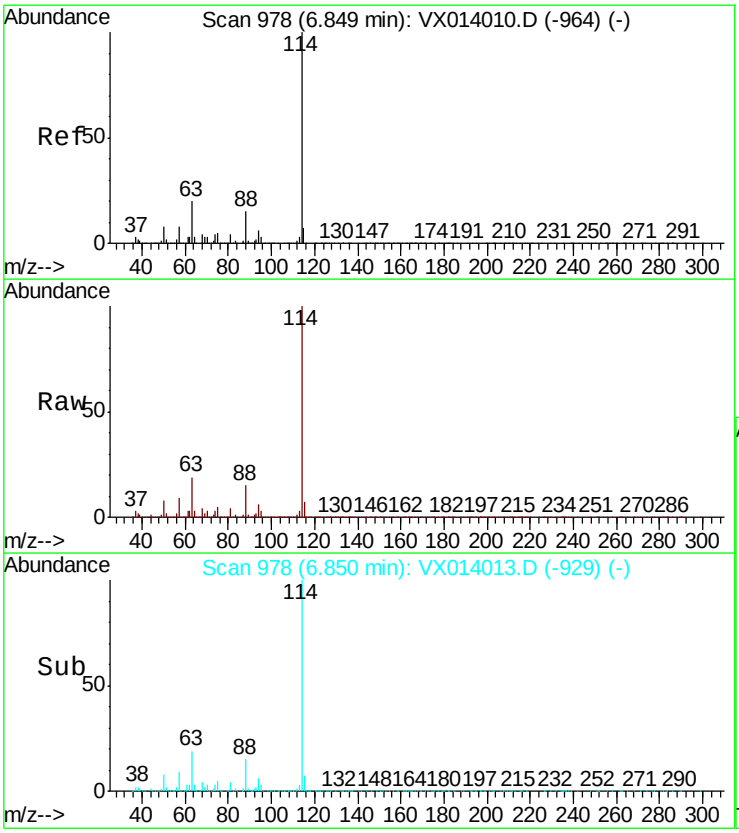
Tgt Ion: 65 Resp: 347593

Ion	Ratio	Lower	Upper
65	100		
67	52.5	0.0	106.4



Instrument :
MSVOA_X
ClientSampleId :
ICVVX121319

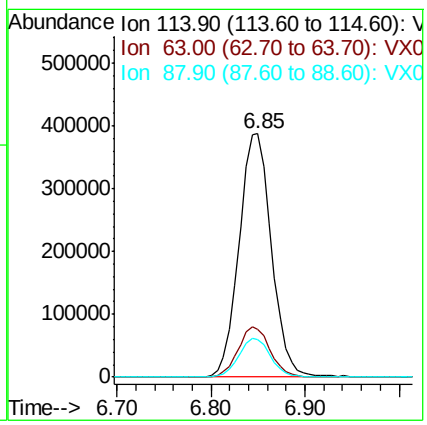
Manual Integrations APPROVED
apatel
12/17/2019 2:48:46 PM



#34
1,4-Difluorobenzene
Concen: 50.000 ug/l
RT: 6.85 min Scan# 978
Delta R.T. 0.00 min
Lab File: VX014013.D
Acq: 13 Dec 2019 18:00

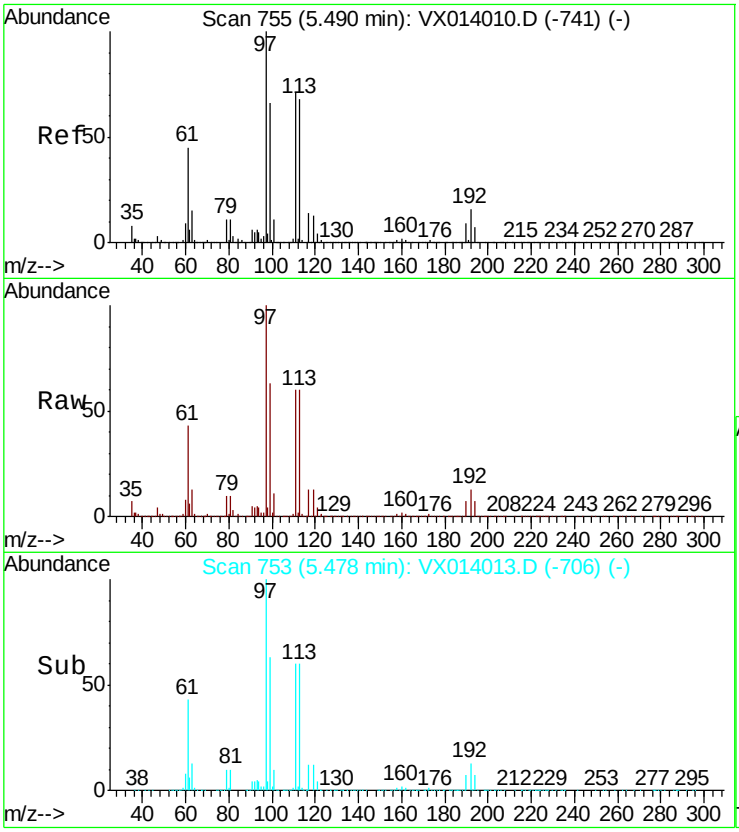
Tgt Ion:114 Resp: 932469

Ion	Ratio	Lower	Upper
114	100		
63	19.4	0.0	40.8
88	15.4	0.0	30.4



Instrument :
MSVOA_X
ClientSampleId :
ICVVX121319

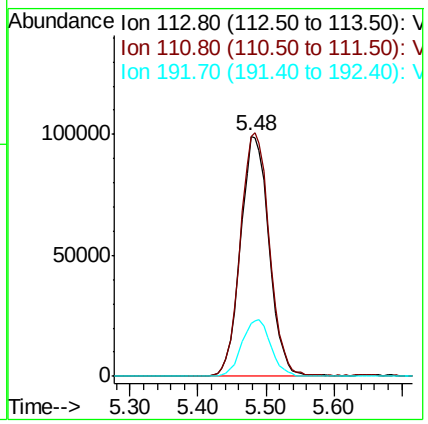
Manual Integrations APPROVED
apatel
12/17/2019 2:48:46 PM

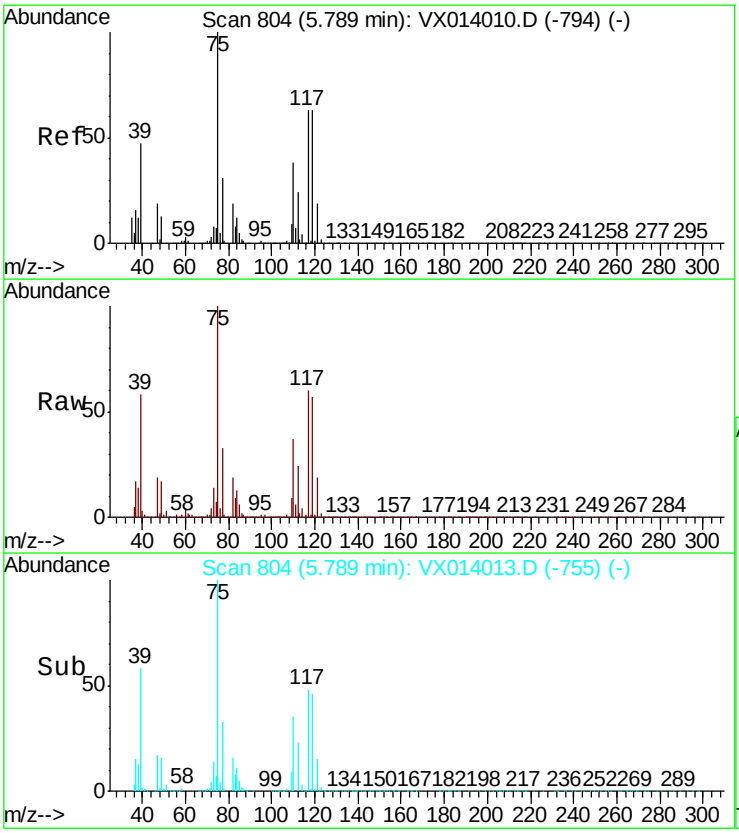


#35
Dibromofluoromethane
Concen: 51.165 ug/l
RT: 5.48 min Scan# 753
Delta R.T. -0.01 min
Lab File: VX014013.D
Acq: 13 Dec 2019 18:00

Tgt Ion:113 Resp: 290025

Ion	Ratio	Lower	Upper
113	100		
111	103.1	82.0	123.0
192	23.6	19.3	28.9

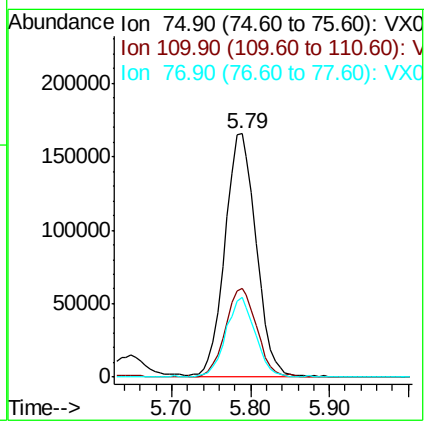




#36
1,1-Dichloropropene
Concen: 53.063 ug/l
RT: 5.79 min Scan# 804
Delta R.T. 0.00 min
Lab File: VX014013.D
Acq: 13 Dec 2019 18:00

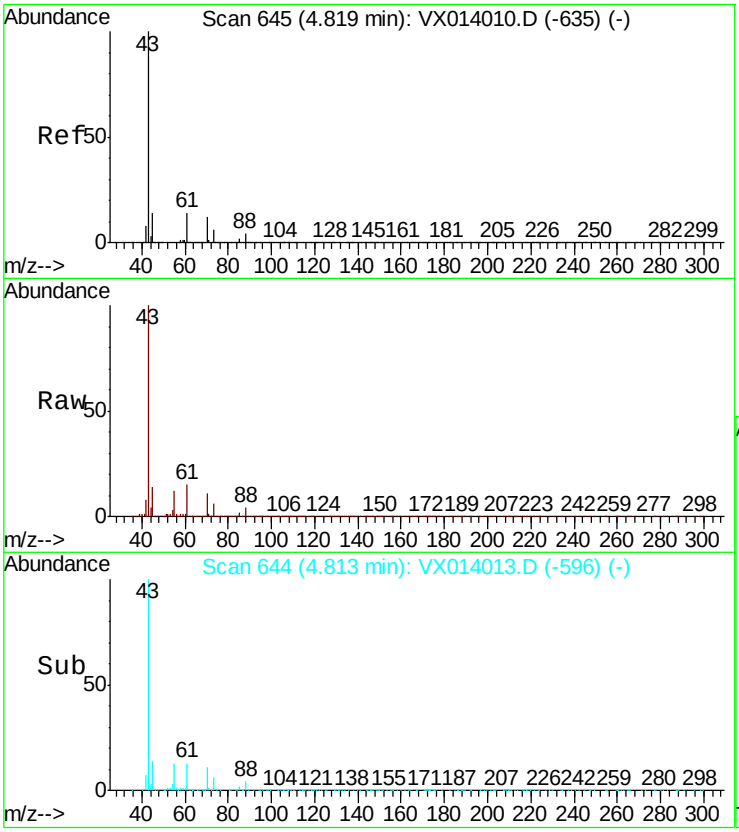
Tgt Ion: 75 Resp: 454000

Ion	Ratio	Lower	Upper
75	100		
110	36.5	18.3	54.9
77	30.4	24.8	37.2



Instrument :
MSVOA_X
ClientSampleId :
ICVVX121319

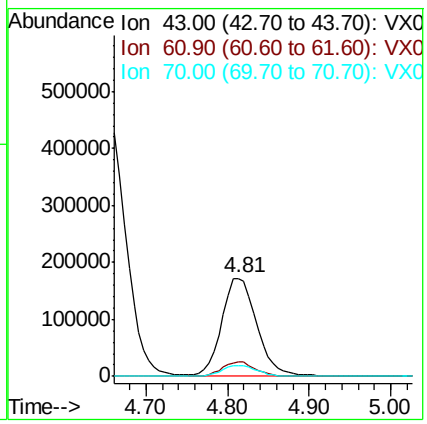
Manual Integrations APPROVED
apatel
12/17/2019 2:48:46 PM

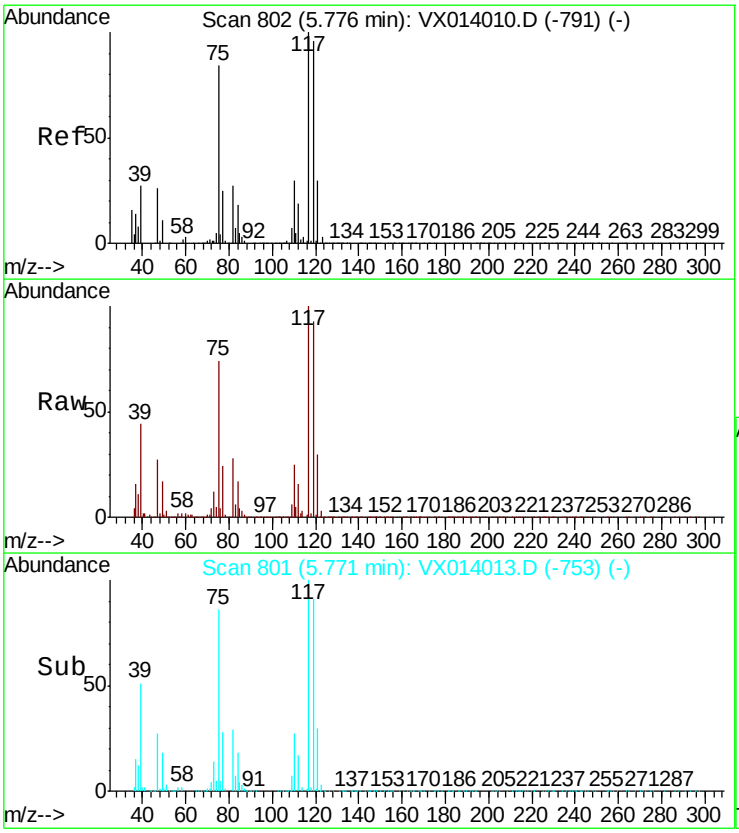


#37
Ethyl Acetate
Concen: 53.892 ug/l
RT: 4.81 min Scan# 644
Delta R.T. -0.01 min
Lab File: VX014013.D
Acq: 13 Dec 2019 18:00

Tgt Ion: 43 Resp: 509182

Ion	Ratio	Lower	Upper
43	100		
61	13.8	10.8	16.2
70	10.8	8.6	12.8

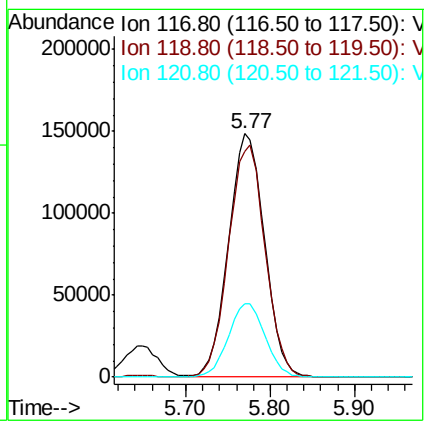


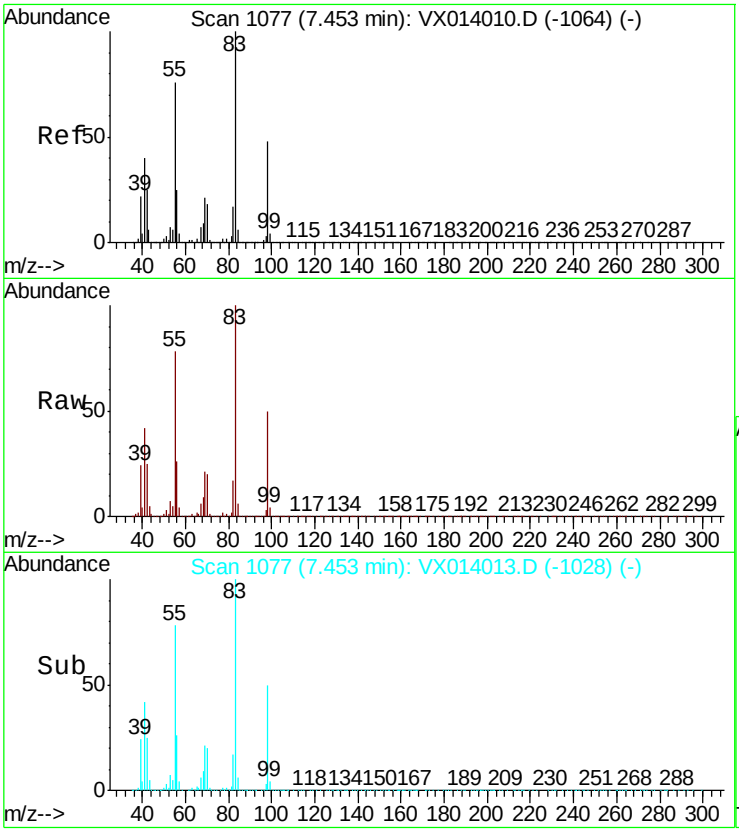


#38
Carbon Tetrachloride
Concen: 55.084 ug/l
RT: 5.77 min Scan# 801
Delta R.T. -0.01 min
Lab File: VX014013.D
Acq: 13 Dec 2019 18:00

Tgt Ion:117 Resp: 429343

Ion	Ratio	Lower	Upper
117	100		
119	92.7	76.2	114.4
121	30.4	23.6	35.4

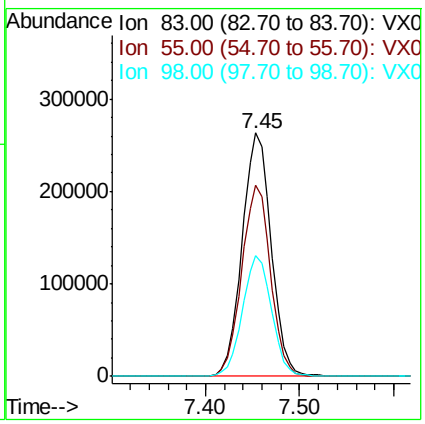


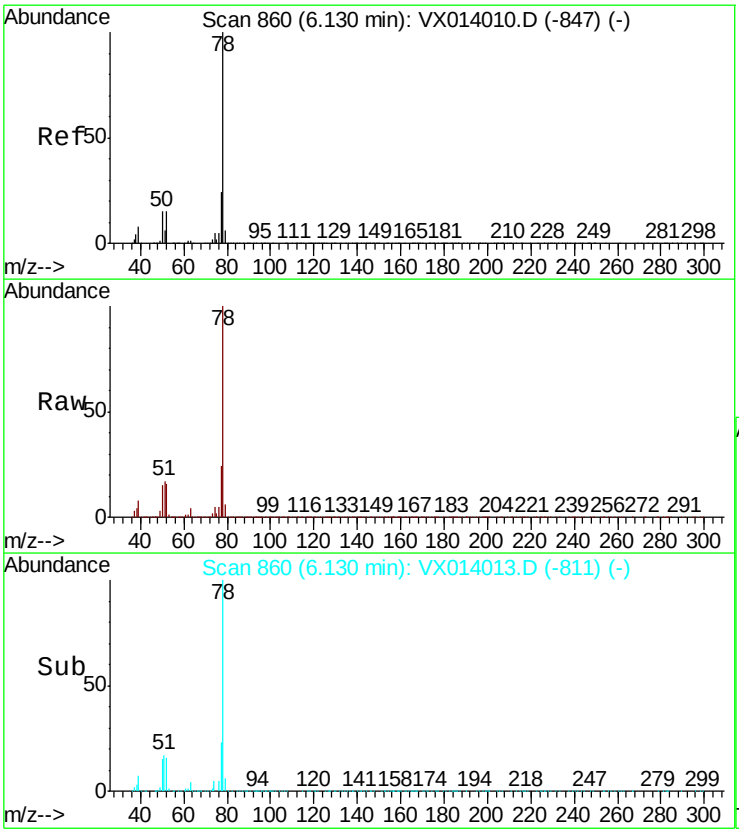


#39
Methylcyclohexane
Concen: 54.011 ug/l
RT: 7.45 min Scan# 1077
Delta R.T. 0.00 min
Lab File: VX014013.D
Acq: 13 Dec 2019 18:00

Tgt Ion: 83 Resp: 570596

Ion	Ratio	Lower	Upper
83	100		
55	78.2	61.0	91.6
98	49.6	38.6	57.8

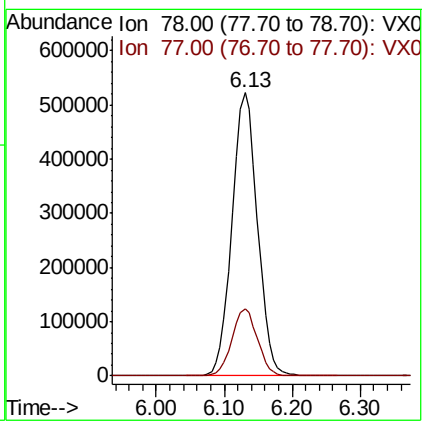




#40
Benzene
Concen: 51.683 ug/l
RT: 6.13 min Scan# 860
Delta R.T. 0.00 min
Lab File: VX014013.D
Acq: 13 Dec 2019 18:00

Tgt Ion: 78 Resp: 1360588

Ion	Ratio	Lower	Upper
78	100		
77	23.7	18.8	28.2

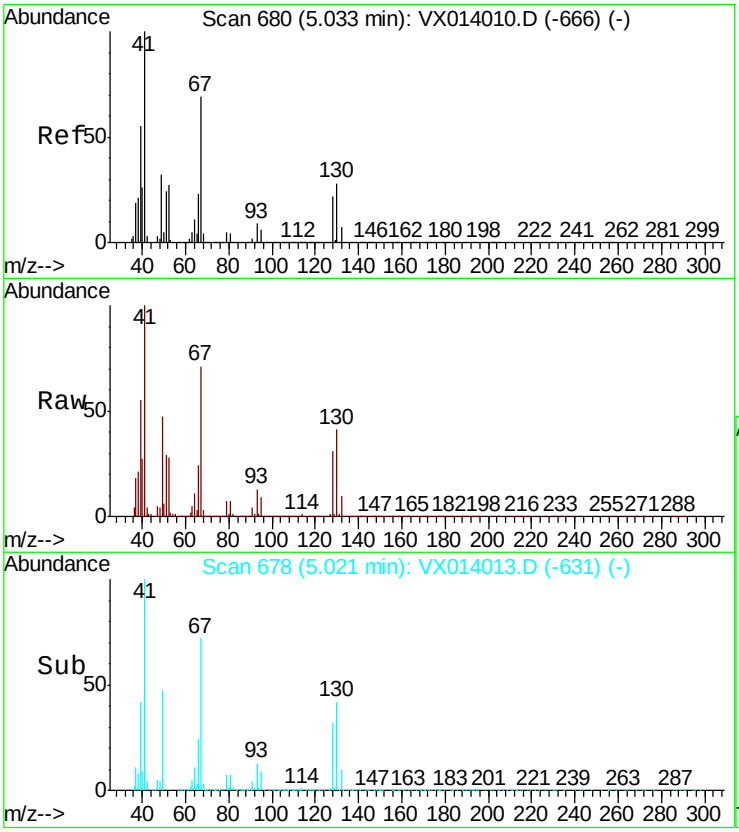


Instrument :
MSVOA_X
ClientSampleId :
ICVVX121319

Manual Integrations APPROVED
apatel
12/17/2019 2:48:46 PM

Instrument :
MSVOA_X
ClientSampleId :
ICVVX121319

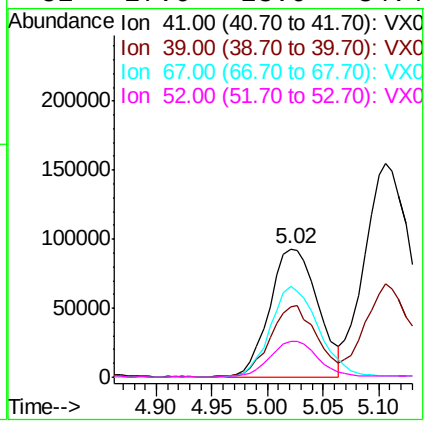
Manual Integrations APPROVED
apatel
12/17/2019 2:48:46 PM

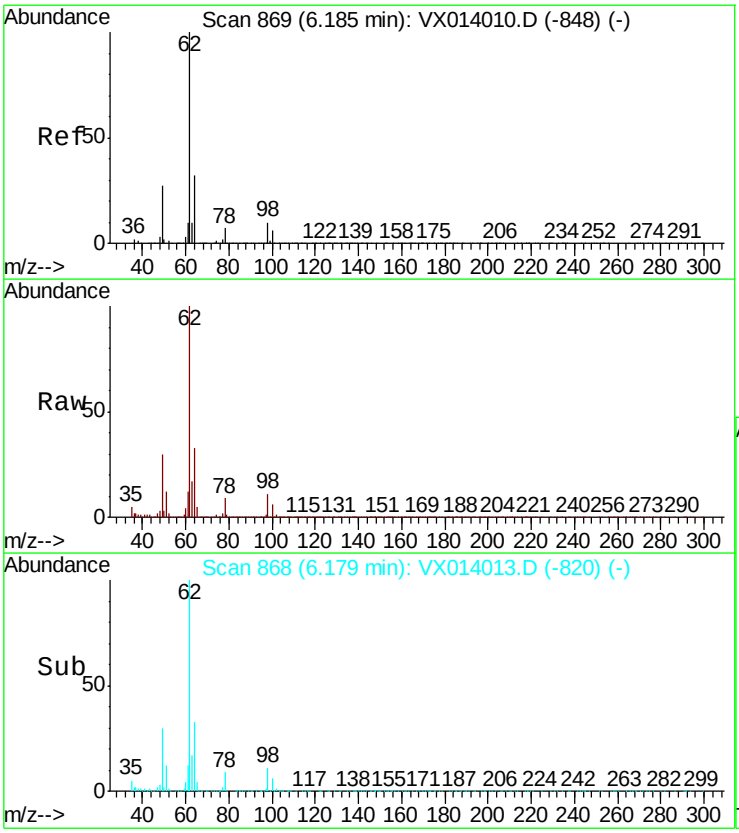


#41
Methacrylonitrile
Concen: 53.997 ug/l
RT: 5.02 min Scan# 678
Delta R.T. -0.01 min
Lab File: VX014013.D
Acq: 13 Dec 2019 18:00

Tgt Ion: 41 Resp: 283070

Ion	Ratio	Lower	Upper
41	100		
39	52.9	44.5	66.7
67	70.3	57.4	86.0
52	27.6	23.0	34.4

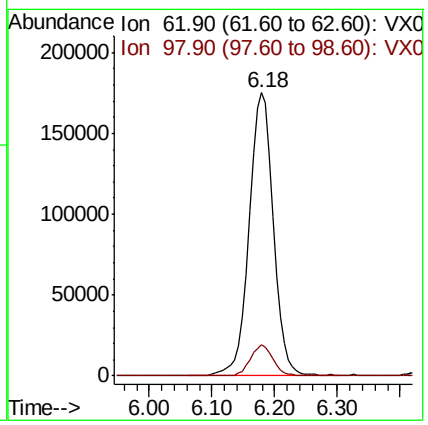




#42
1,2-Dichloroethane
Concen: 52.570 ug/l
RT: 6.18 min Scan# 868
Delta R.T. -0.01 min
Lab File: VX014013.D
Acq: 13 Dec 2019 18:00

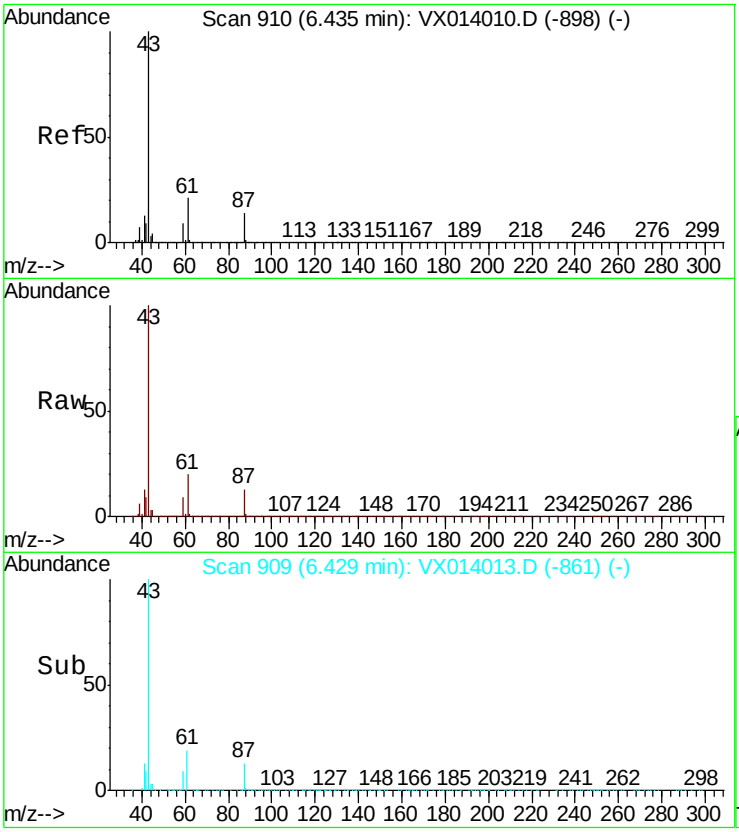
Tgt Ion: 62 Resp: 469125

Ion	Ratio	Lower	Upper
62	100		
98	10.2	0.0	21.0



Instrument :
MSVOA_X
ClientSampleId :
ICVVX121319

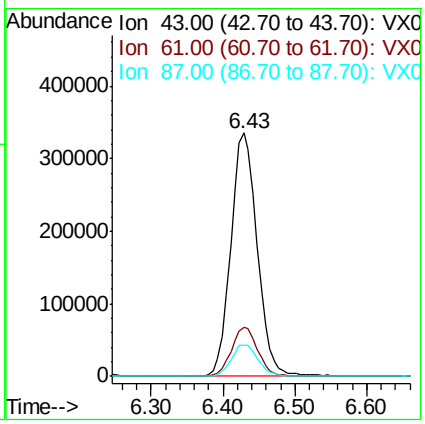
Manual Integrations APPROVED
apatel
12/17/2019 2:48:46 PM

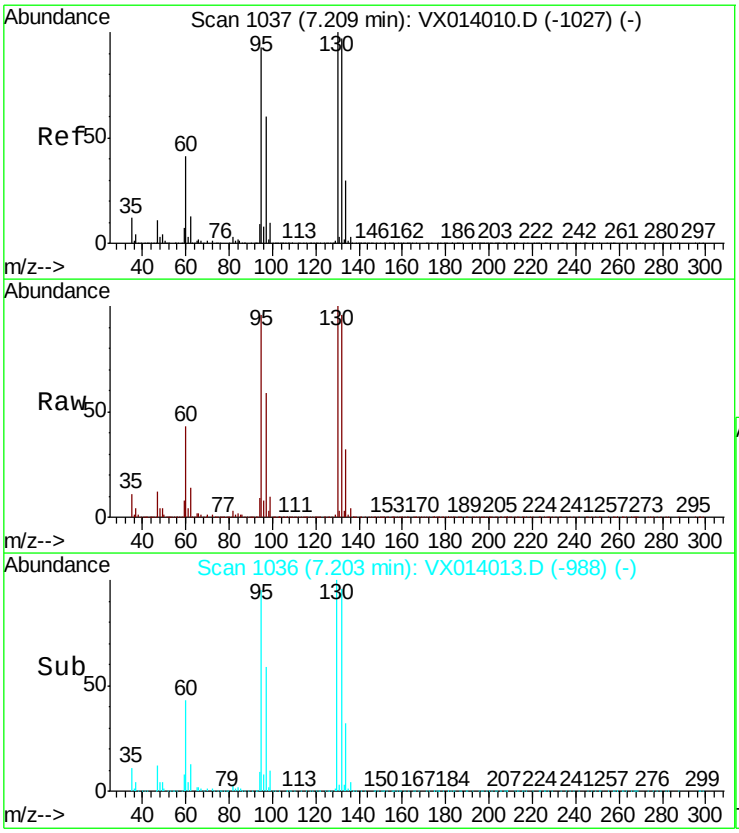


#43
Isopropyl Acetate
Concen: 54.361 ug/l
RT: 6.43 min Scan# 909
Delta R.T. -0.01 min
Lab File: VX014013.D
Acq: 13 Dec 2019 18:00

Tgt Ion: 43 Resp: 850005

Ion	Ratio	Lower	Upper
43	100		
61	20.1	16.4	24.6
87	13.2	10.7	16.1

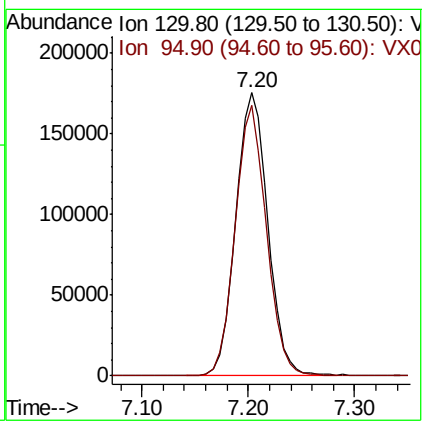


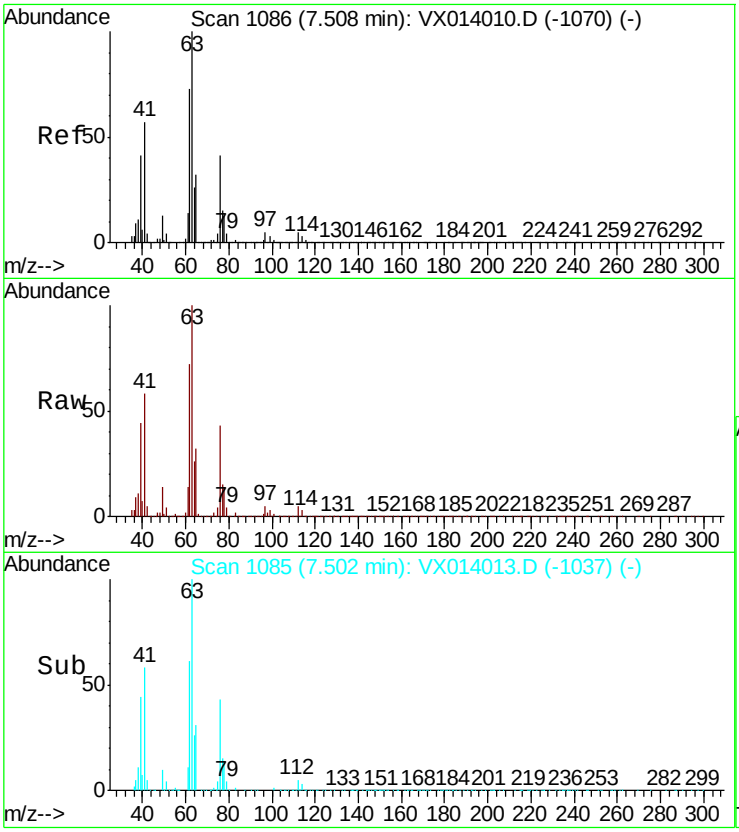


#44
Trichloroethene
Concen: 51.035 ug/l
RT: 7.20 min Scan# 1036
Delta R.T. -0.01 min
Lab File: VX014013.D
Acq: 13 Dec 2019 18:00

Tgt Ion:130 Resp: 371092

Ion	Ratio	Lower	Upper
130	100		
95	95.5	0.0	185.6

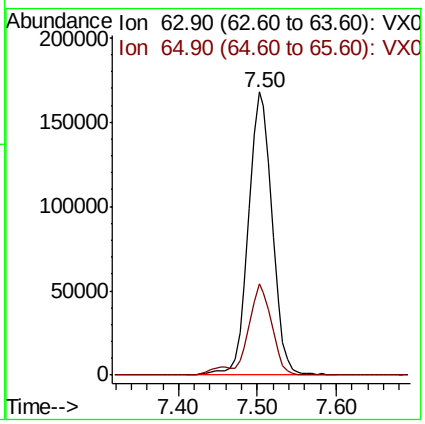




#45
1,2-Dichloropropane
Concen: 51.894 ug/l
RT: 7.50 min Scan# 1085
Delta R.T. -0.01 min
Lab File: VX014013.D
Acq: 13 Dec 2019 18:00

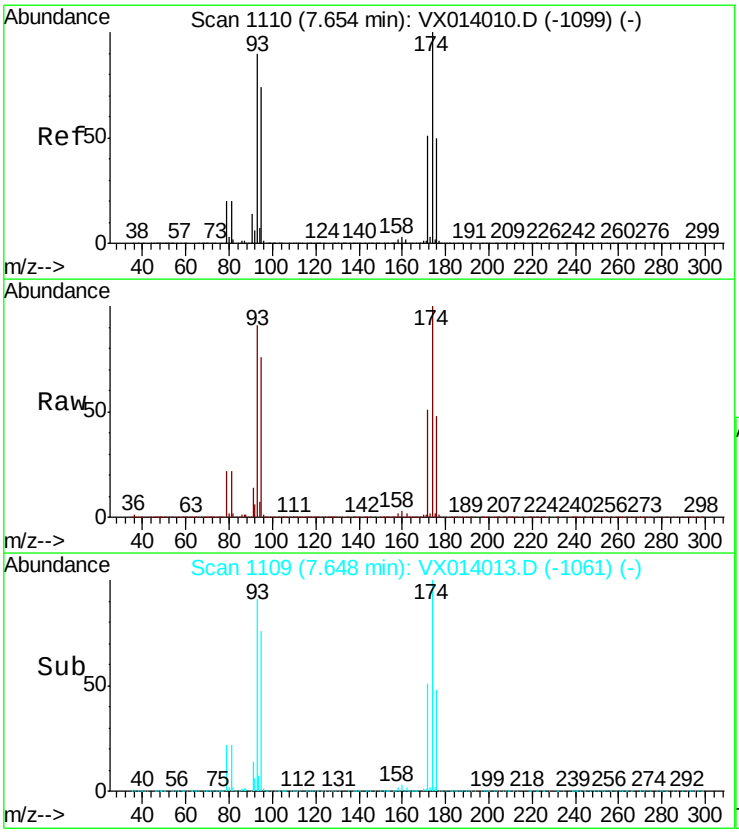
Tgt Ion: 63 Resp: 350152

Ion	Ratio	Lower	Upper
63	100		
65	32.4	25.8	38.8



Instrument :
MSVOA_X
ClientSampleId :
ICVVX121319

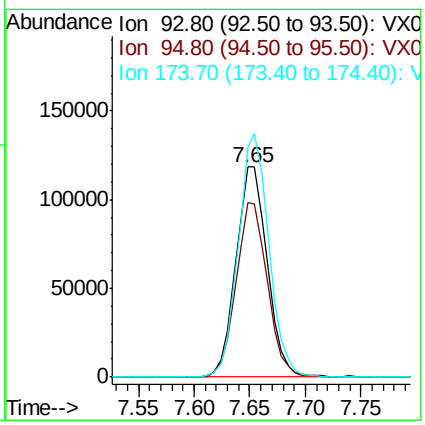
Manual Integrations APPROVED
apatel
12/17/2019 2:48:46 PM

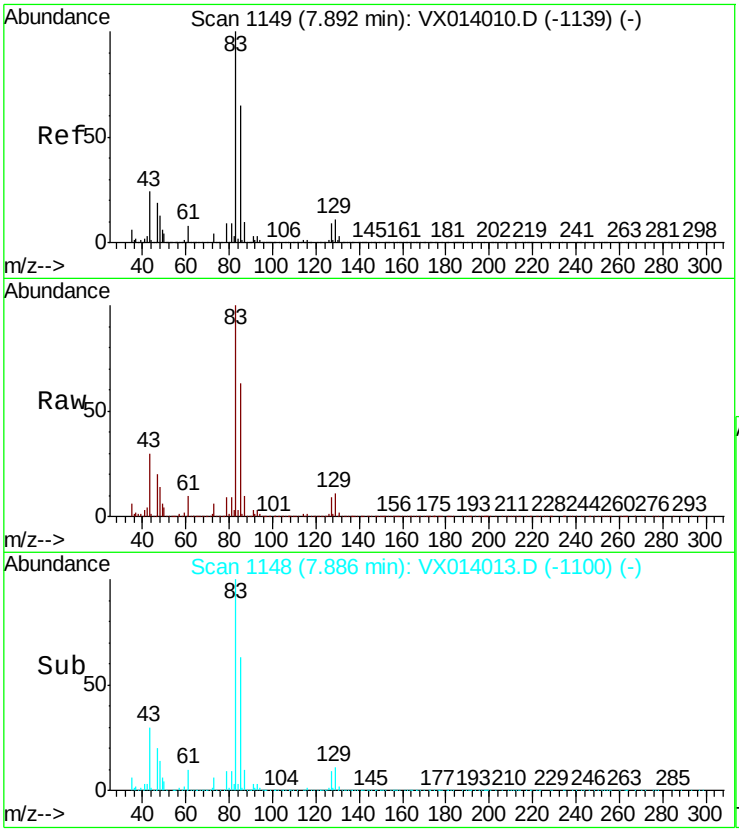


#46
Dibromomethane
Concen: 51.535 ug/l
RT: 7.65 min Scan# 1109
Delta R.T. -0.01 min
Lab File: VX014013.D
Acq: 13 Dec 2019 18:00

Tgt Ion: 93 Resp: 229903

Ion	Ratio	Lower	Upper
93	100		
95	82.7	67.3	100.9
174	114.0	91.6	137.4

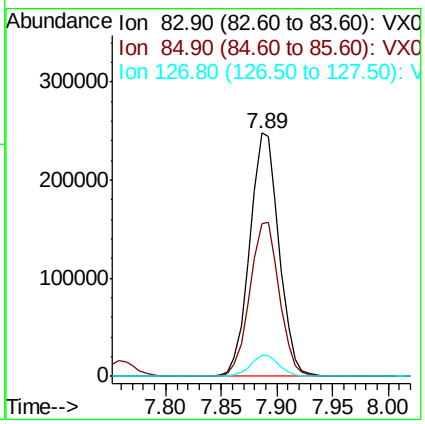




#47
Bromodichloromethane
Concen: 53.914 ug/l
RT: 7.89 min Scan# 1148
Delta R.T. -0.01 min
Lab File: VX014013.D
Acq: 13 Dec 2019 18:00

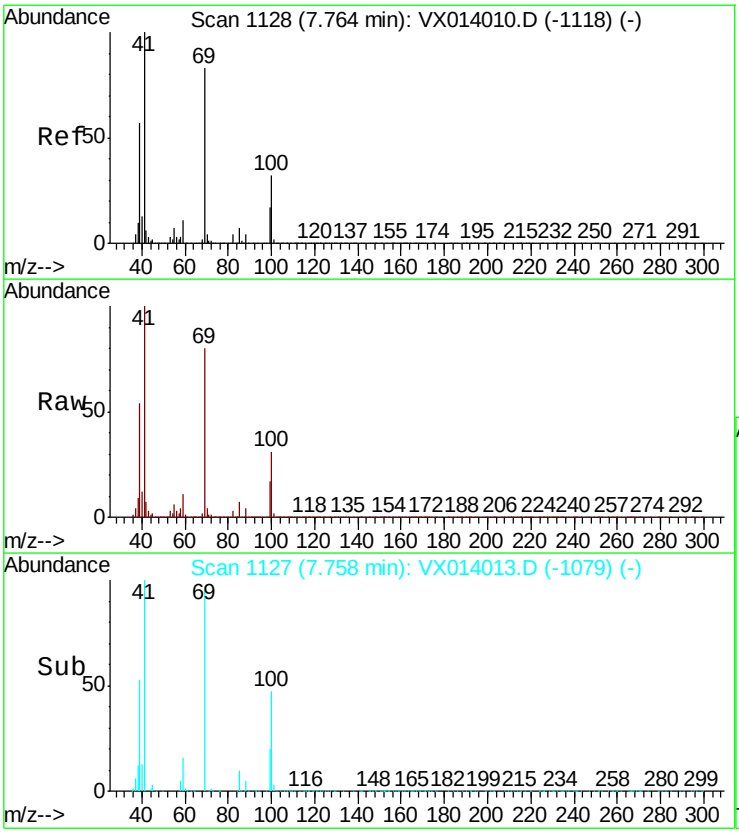
Tgt Ion: 83 Resp: 452971

Ion	Ratio	Lower	Upper
83	100		
85	62.8	51.8	77.8
127	8.4	7.0	10.4



Instrument :
MSVOA_X
ClientSampleId :
ICVVX121319

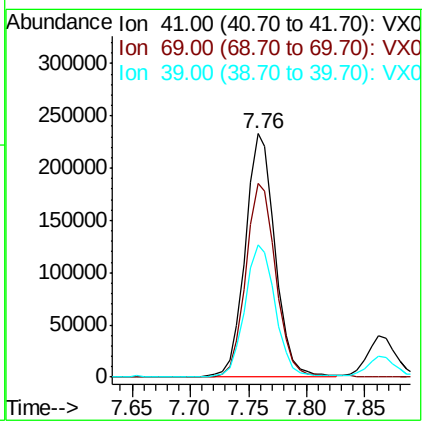
Manual Integrations APPROVED
apatel
12/17/2019 2:48:46 PM



#48
Methyl methacrylate
Concen: 54.148 ug/l
RT: 7.76 min Scan# 1127
Delta R.T. -0.01 min
Lab File: VX014013.D
Acq: 13 Dec 2019 18:00

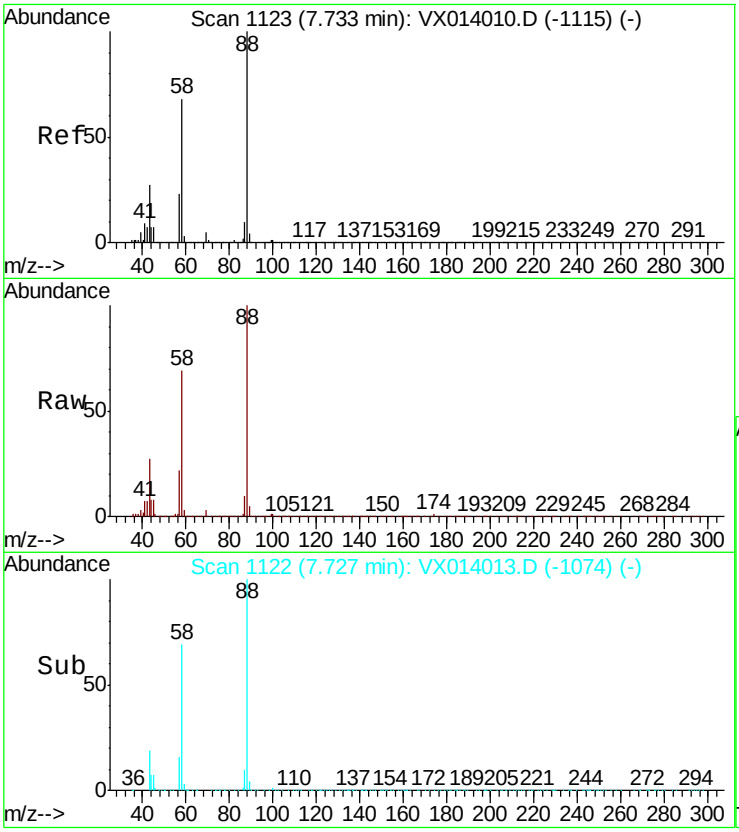
Tgt Ion: 41 Resp: 414594

Ion	Ratio	Lower	Upper
41	100		
69	80.9	65.8	98.6
39	55.6	44.6	67.0



Instrument :
MSVOA_X
ClientSampleId :
ICVVX121319

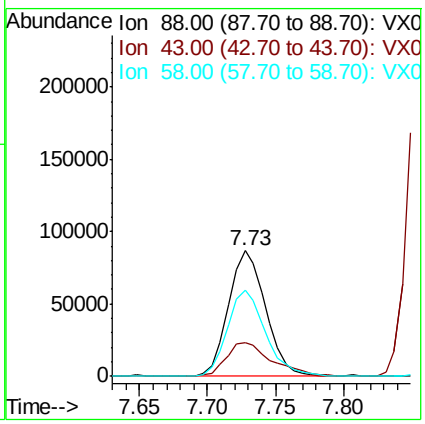
Manual Integrations APPROVED
apatel
12/17/2019 2:48:46 PM

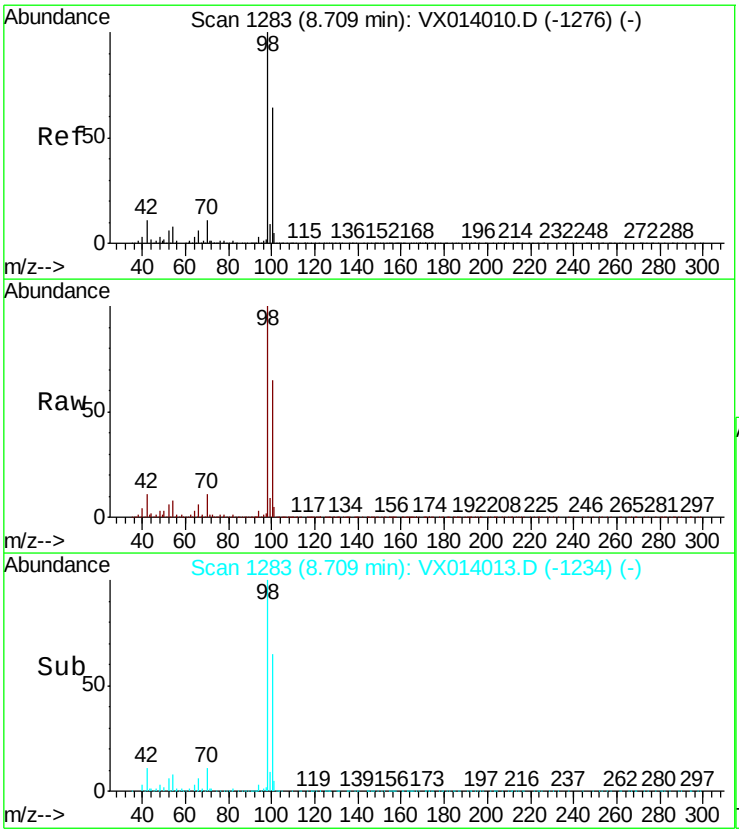


#49
1,4-Dioxane
Concen: 1051.128 ug/l
RT: 7.73 min Scan# 1122
Delta R.T. -0.01 min
Lab File: VX014013.D
Acq: 13 Dec 2019 18:00

Tgt Ion: 88 Resp: 163781

Ion	Ratio	Lower	Upper
88	100		
43	32.3	26.5	39.7
58	71.6	56.8	85.2

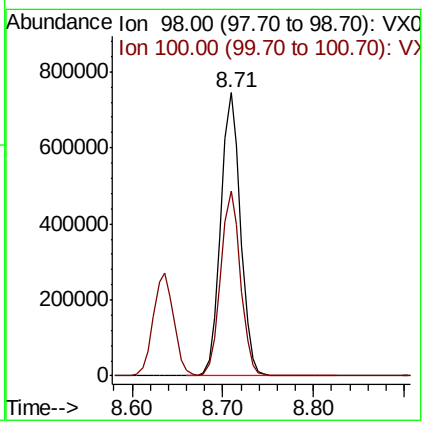


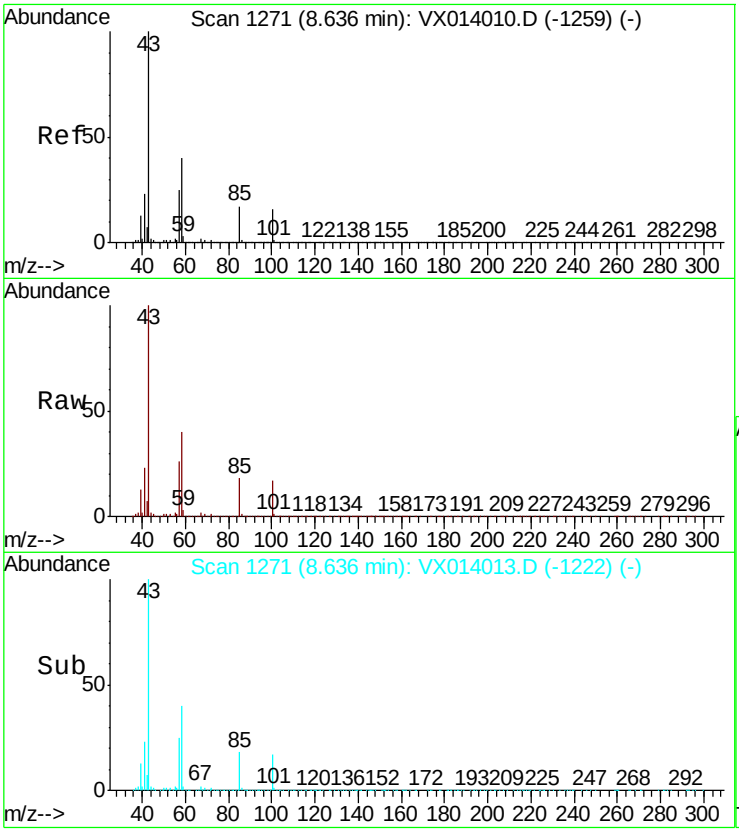


#50
Toluene-d8
Concen: 51.168 ug/l
RT: 8.71 min Scan# 1283
Delta R.T. 0.00 min
Lab File: VX014013.D
Acq: 13 Dec 2019 18:00

Tgt Ion: 98 Resp: 1129204

Ion	Ratio	Lower	Upper
98	100		
100	65.7	52.9	79.3

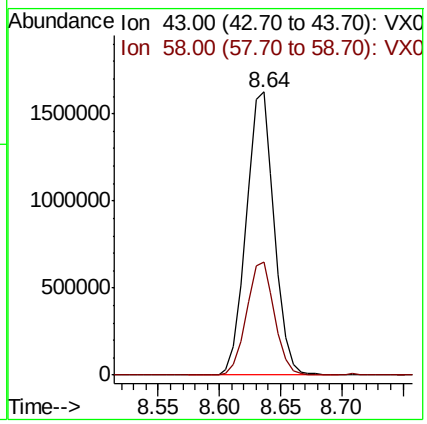




#51
4-Methyl-2-Pentanone
Concen: 262.786 ug/l
RT: 8.64 min Scan# 1271
Delta R.T. 0.00 min
Lab File: VX014013.D
Acq: 13 Dec 2019 18:00

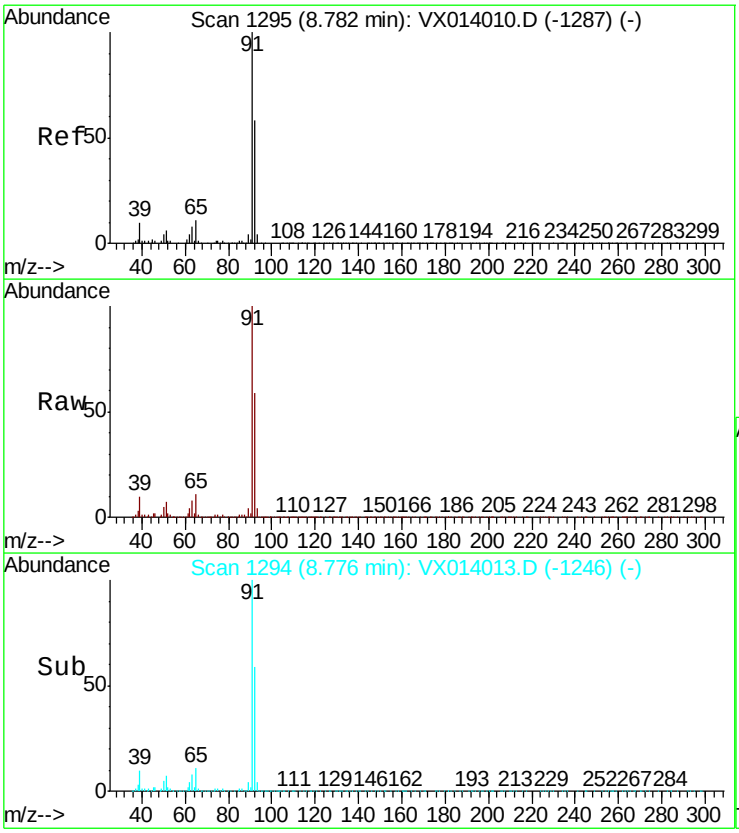
Tgt Ion: 43 Resp: 2580512

Ion	Ratio	Lower	Upper
43	100		
58	39.9	32.2	48.2



Instrument :
MSVOA_X
ClientSampleId :
ICVVX121319

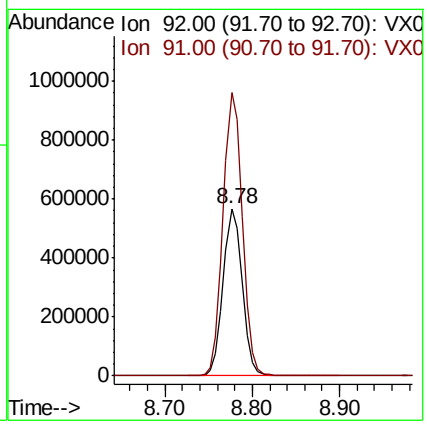
Manual Integrations APPROVED
apatel
12/17/2019 2:48:46 PM

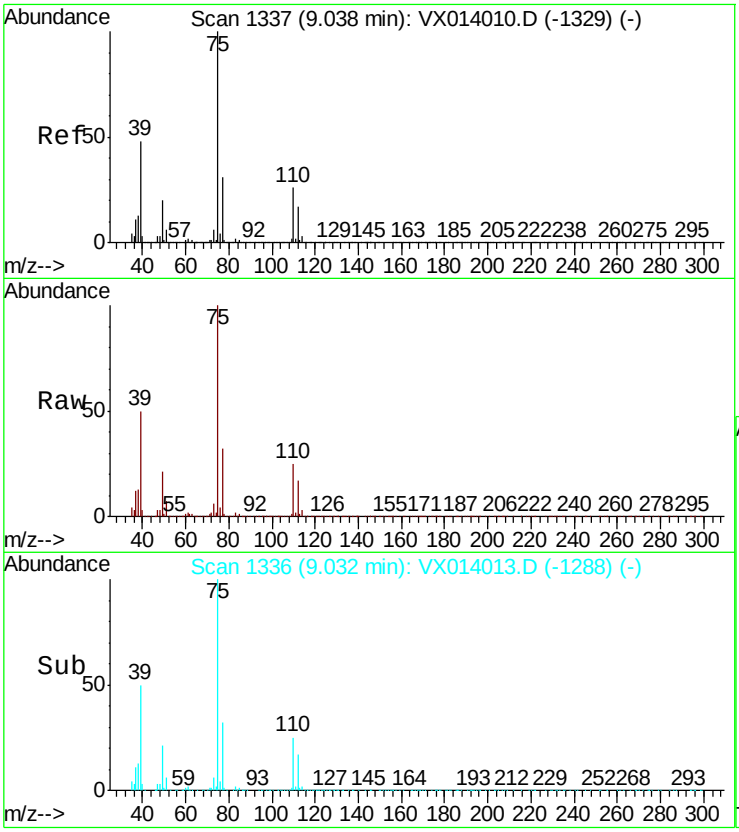


#52
Toluene
Concen: 51.512 ug/l
RT: 8.78 min Scan# 1294
Delta R.T. -0.01 min
Lab File: VX014013.D
Acq: 13 Dec 2019 18:00

Tgt Ion: 92 Resp: 857143

Ion	Ratio	Lower	Upper
92	100		
91	171.4	136.2	204.4

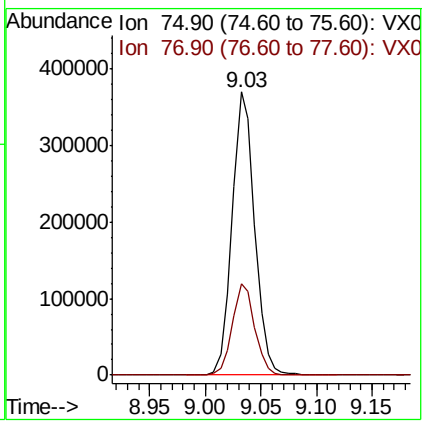




#53
t-1,3-Dichloropropene
Concen: 56.109 ug/l
RT: 9.03 min Scan# 1336
Delta R.T. -0.01 min
Lab File: VX014013.D
Acq: 13 Dec 2019 18:00

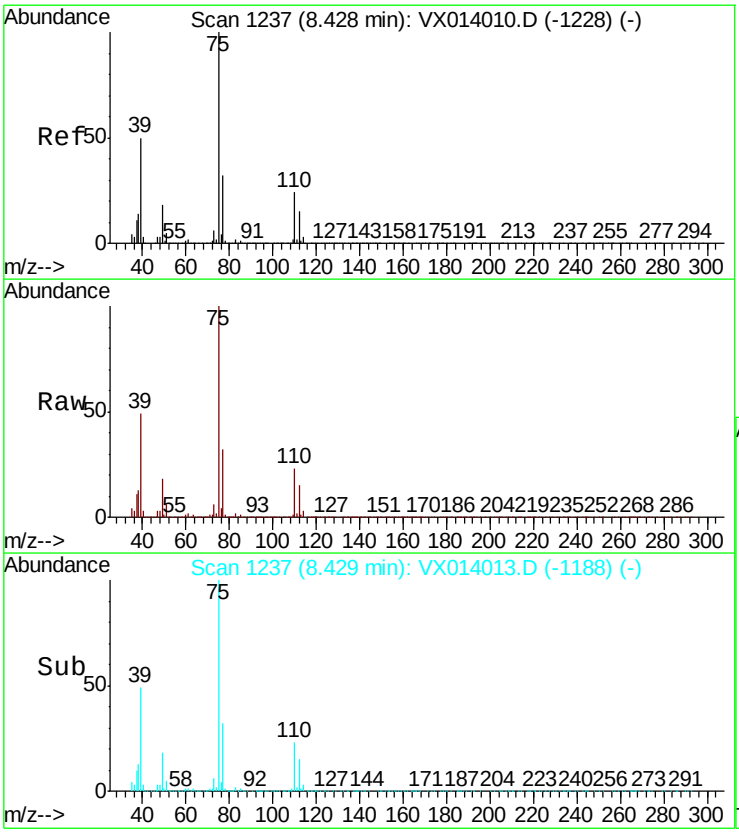
Tgt Ion: 75 Resp: 516909

Ion	Ratio	Lower	Upper
75	100		
77	32.1	25.1	37.7



Instrument :
MSVOA_X
ClientSampleId :
ICVVX121319

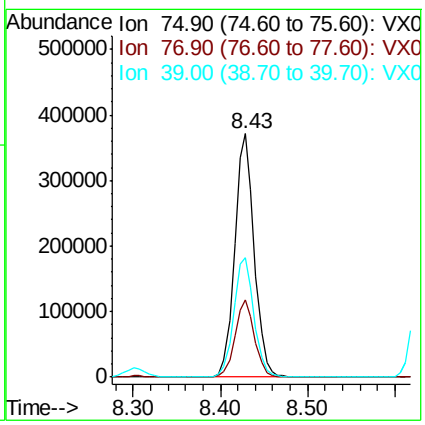
Manual Integrations APPROVED
apatel
12/17/2019 2:48:46 PM

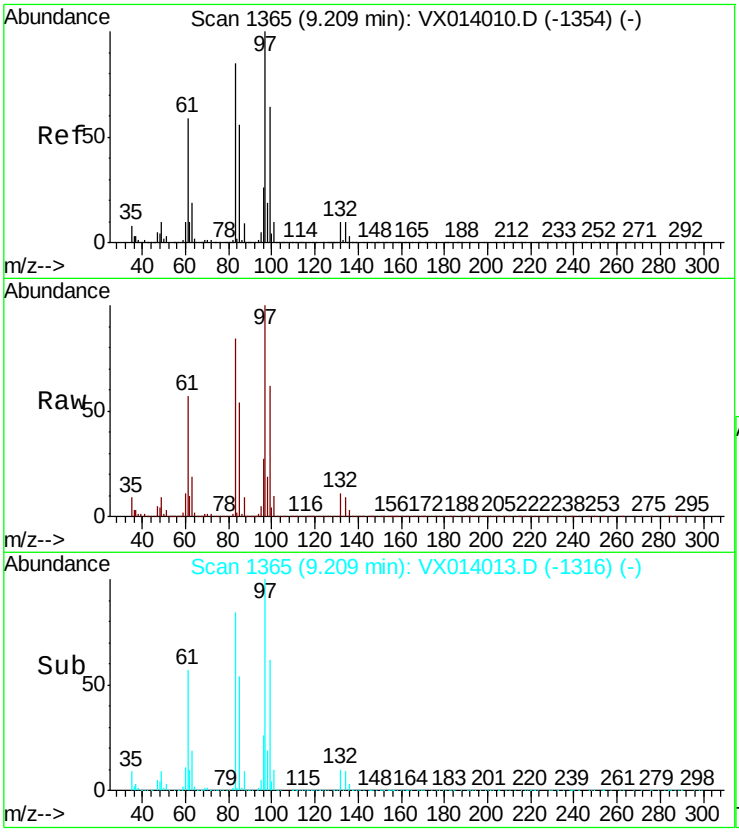


#54
cis-1,3-Dichloropropene
Concen: 56.374 ug/l
RT: 8.43 min Scan# 1237
Delta R.T. 0.00 min
Lab File: VX014013.D
Acq: 13 Dec 2019 18:00

Tgt Ion: 75 Resp: 578598

Ion	Ratio	Lower	Upper
75	100		
77	31.9	25.3	37.9
39	49.1	39.9	59.9

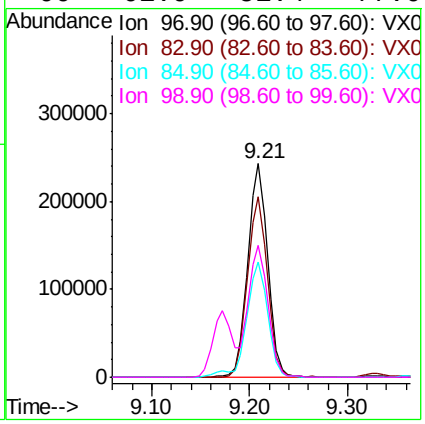




#55
1,1,2-Trichloroethane
Concen: 51.430 ug/l
RT: 9.21 min Scan# 1365
Delta R.T. 0.00 min
Lab File: VX014013.D
Acq: 13 Dec 2019 18:00

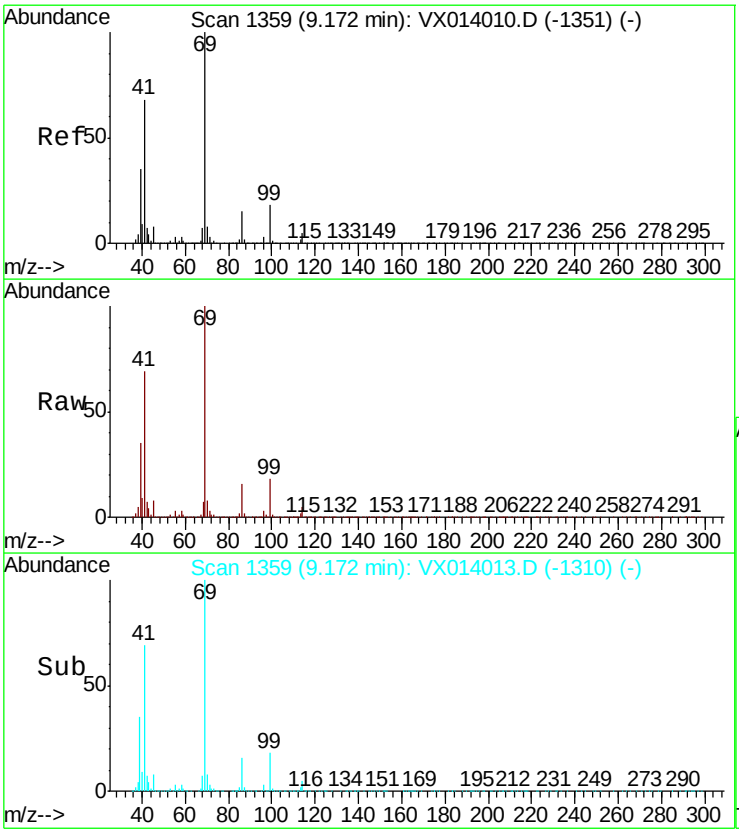
Tgt Ion: 97 Resp: 342987

Ion	Ratio	Lower	Upper
97	100		
83	84.3	68.2	102.4
85	53.8	44.6	66.8
99	61.9	51.4	77.0



Instrument :
MSVOA_X
ClientSampleId :
ICVVX121319

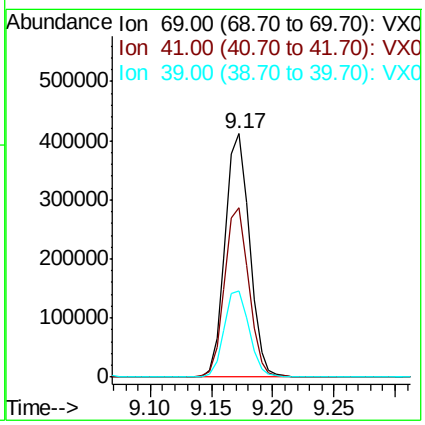
Manual Integrations APPROVED
apatel
12/17/2019 2:48:46 PM

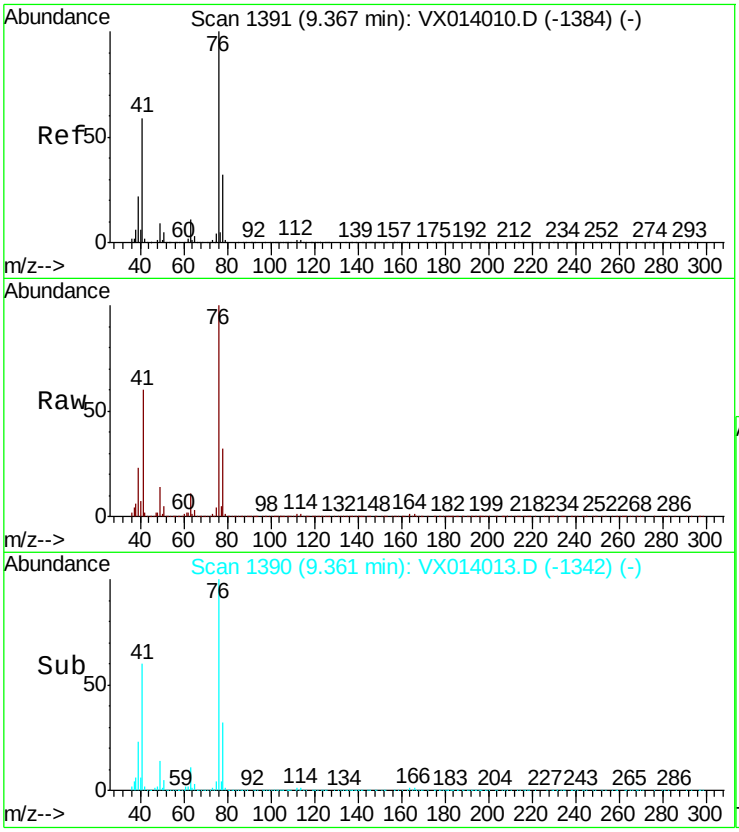


#56
Ethyl methacrylate
Concen: 54.481 ug/l
RT: 9.17 min Scan# 1359
Delta R.T. 0.00 min
Lab File: VX014013.D
Acq: 13 Dec 2019 18:00

Tgt Ion: 69 Resp: 570730

Ion	Ratio	Lower	Upper
69	100		
41	68.6	54.8	82.2
39	36.2	28.3	42.5

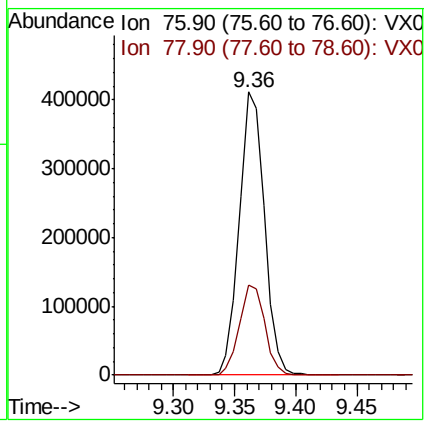




#57
1,3-Dichloropropane
Concen: 52.245 ug/l
RT: 9.36 min Scan# 1390
Delta R.T. -0.01 min
Lab File: VX014013.D
Acq: 13 Dec 2019 18:00

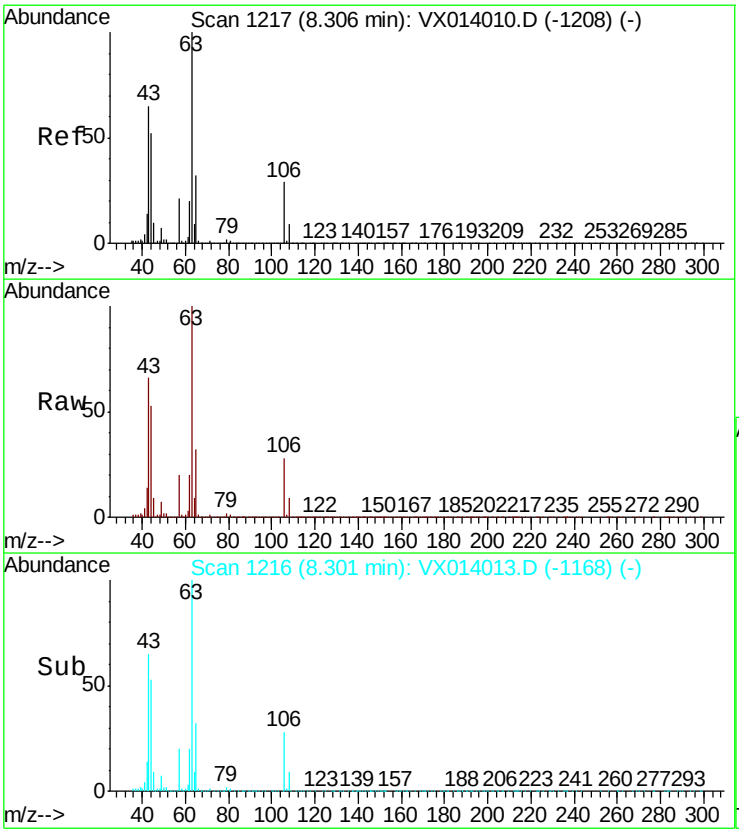
Tgt Ion: 76 Resp: 586215

Ion	Ratio	Lower	Upper
76	100		
78	32.2	25.8	38.6



Instrument :
MSVOA_X
ClientSampleId :
ICVVX121319

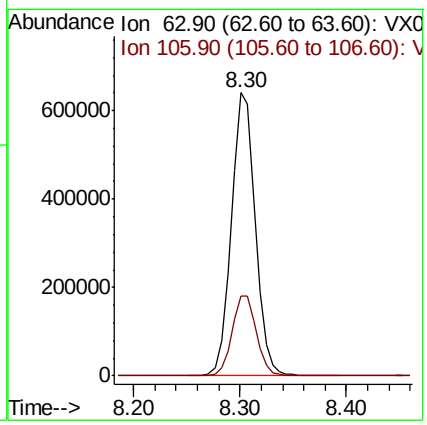
Manual Integrations APPROVED
apatel
12/17/2019 2:48:46 PM

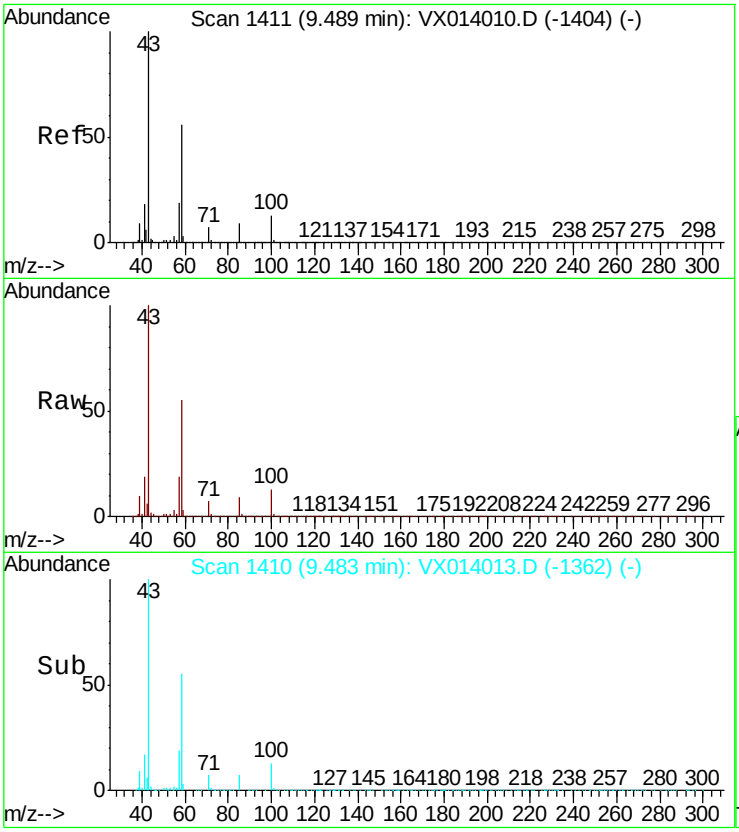


#58
2-Chloroethyl Vinyl ether
Concen: 254.171 ug/l
RT: 8.30 min Scan# 1216
Delta R.T. -0.01 min
Lab File: VX014013.D
Acq: 13 Dec 2019 18:00

Tgt Ion: 63 Resp: 1007644

Ion	Ratio	Lower	Upper
63	100		
106	28.8	23.0	34.6

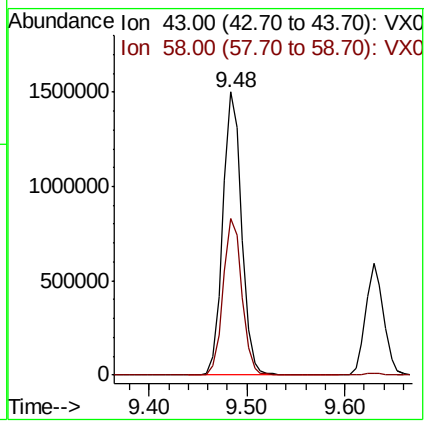




#59
2-Hexanone
Concen: 252.423 ug/l
RT: 9.48 min Scan# 1410
Delta R.T. -0.01 min
Lab File: VX014013.D
Acq: 13 Dec 2019 18:00

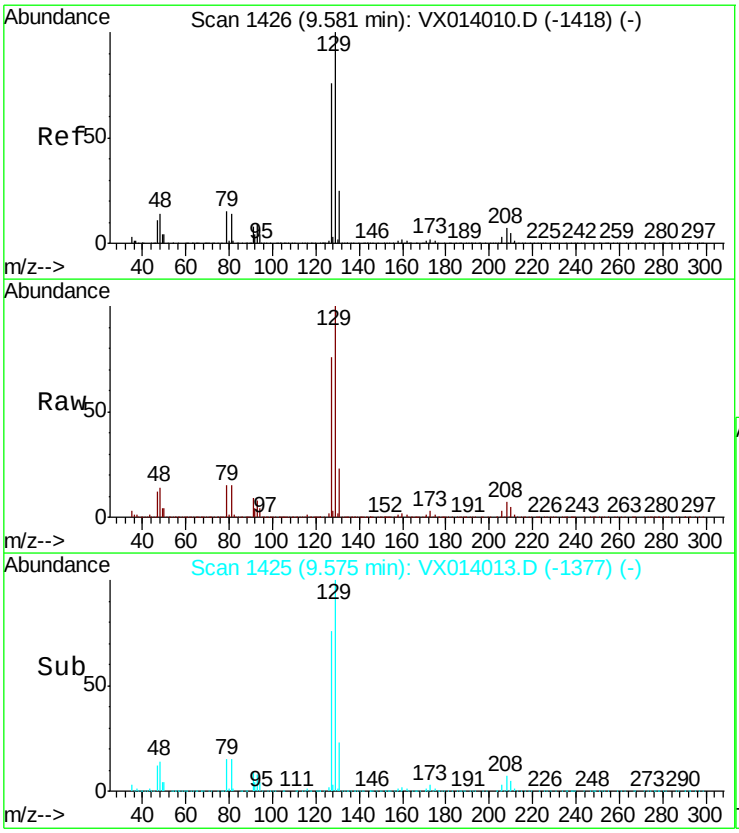
Tgt Ion: 43 Resp: 1995401

Ion	Ratio	Lower	Upper
43	100		
58	55.6	28.0	84.0



Instrument :
MSVOA_X
ClientSampleId :
ICVVX121319

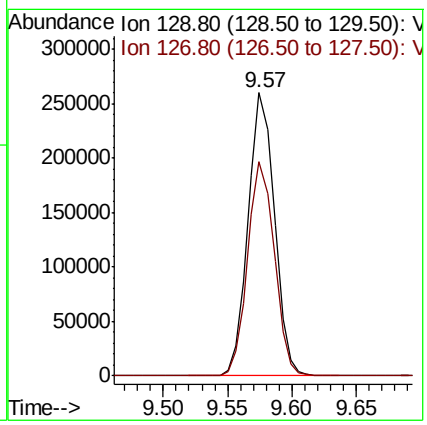
Manual Integrations APPROVED
apatel
12/17/2019 2:48:46 PM

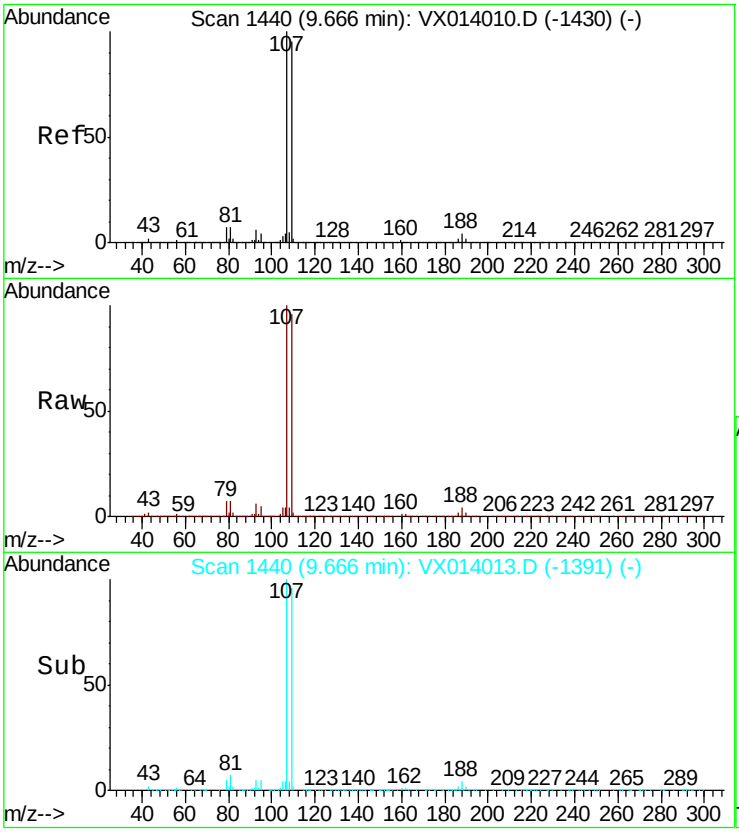


#60
Dibromochloromethane
Concen: 55.271 ug/l
RT: 9.57 min Scan# 1425
Delta R.T. -0.01 min
Lab File: VX014013.D
Acq: 13 Dec 2019 18:00

Tgt Ion:129 Resp: 366389

Ion	Ratio	Lower	Upper
129	100		
127	76.6	38.4	115.2

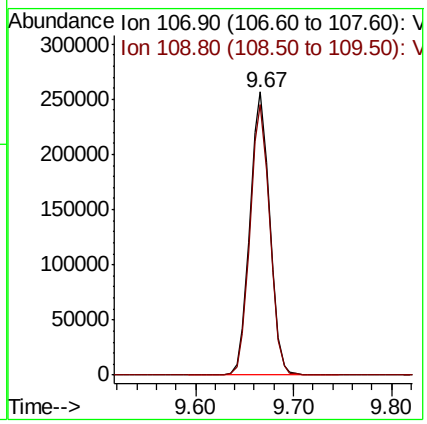




#61
1,2-Dibromoethane
Concen: 52.886 ug/l
RT: 9.67 min Scan# 1440
Delta R.T. 0.00 min
Lab File: VX014013.D
Acq: 13 Dec 2019 18:00

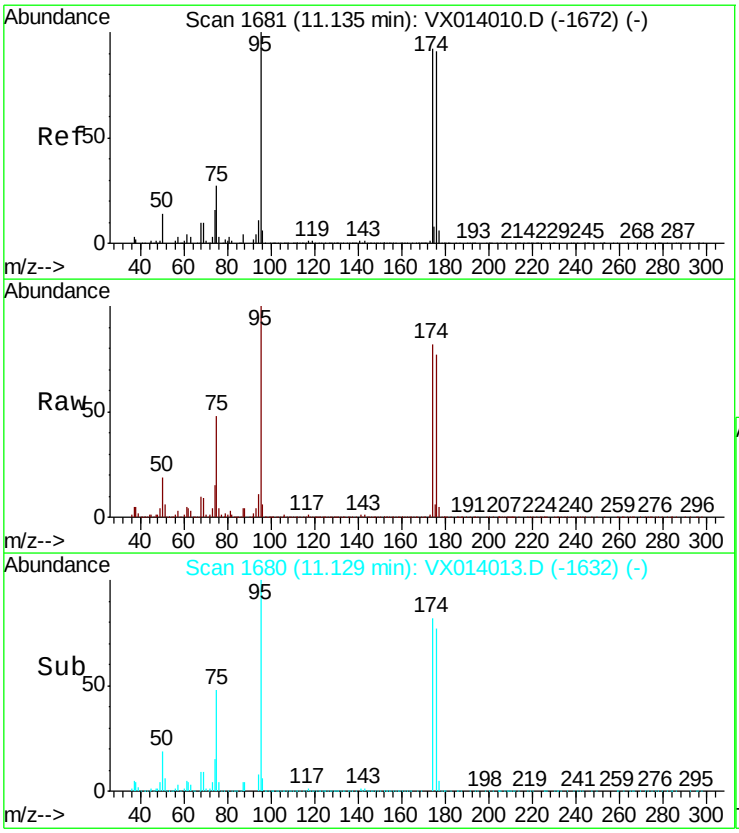
Tgt Ion:107 Resp: 360865

Ion	Ratio	Lower	Upper
107	100		
109	95.0	75.7	113.5



Instrument :
MSVOA_X
ClientSampleId :
ICVVX121319

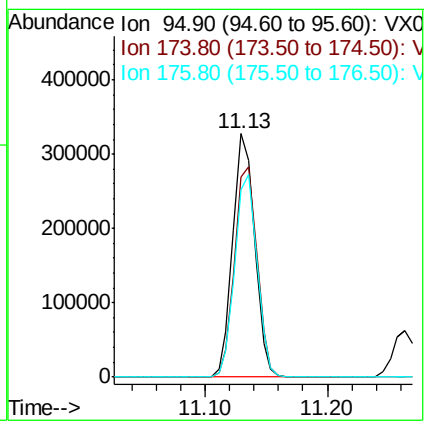
Manual Integrations APPROVED
apatel
12/17/2019 2:48:46 PM

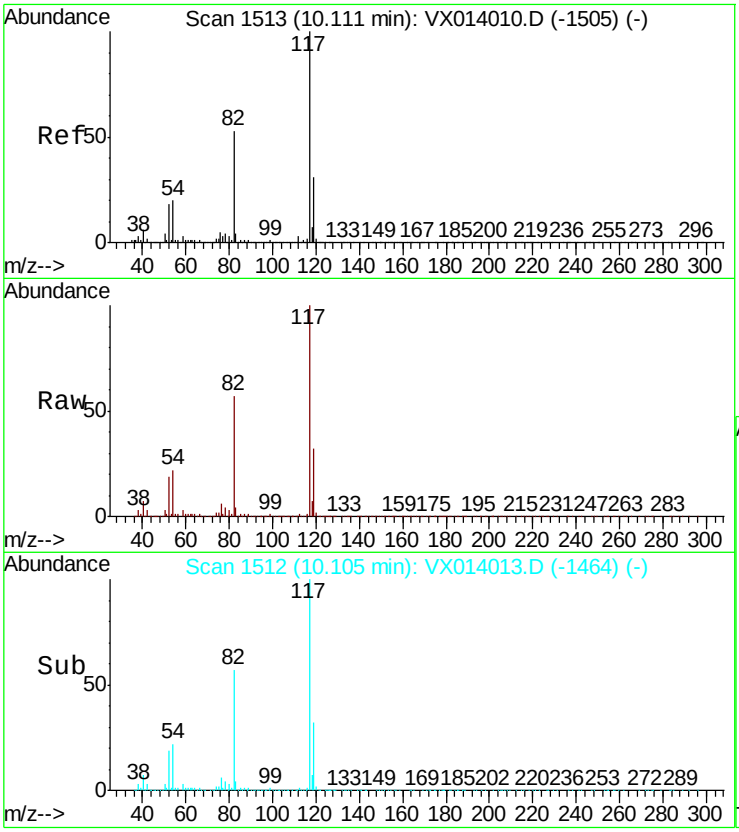


#62
4-Bromofluorobenzene
Concen: 50.095 ug/l
RT: 11.13 min Scan# 1680
Delta R.T. -0.01 min
Lab File: VX014013.D
Acq: 13 Dec 2019 18:00

Tgt Ion: 95 Resp: 404114

Ion	Ratio	Lower	Upper
95	100		
174	89.2	0.0	175.8
176	84.7	0.0	173.0

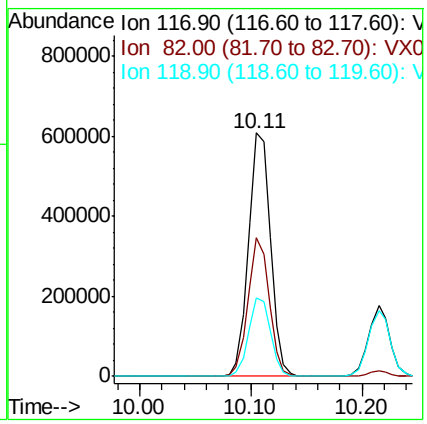




#63
Chlorobenzene-d5
Concen: 50.000 ug/l
RT: 10.11 min Scan# 1512
Delta R.T. -0.01 min
Lab File: VX014013.D
Acq: 13 Dec 2019 18:00

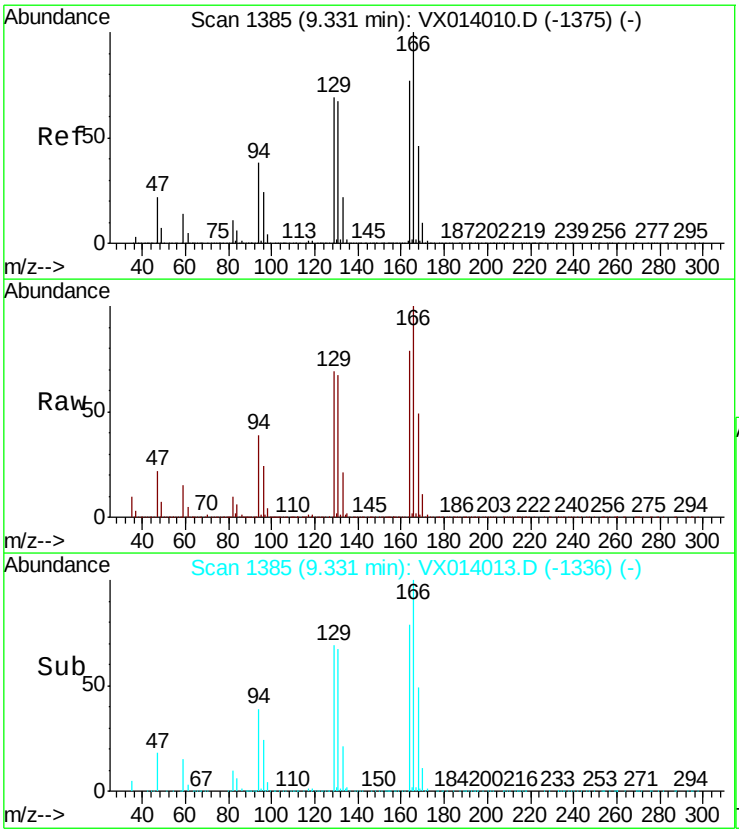
Tgt Ion:117 Resp: 835490

Ion	Ratio	Lower	Upper
117	100		
82	56.7	42.2	63.4
119	32.0	25.1	37.7



Instrument :
MSVOA_X
ClientSampleId :
ICVVX121319

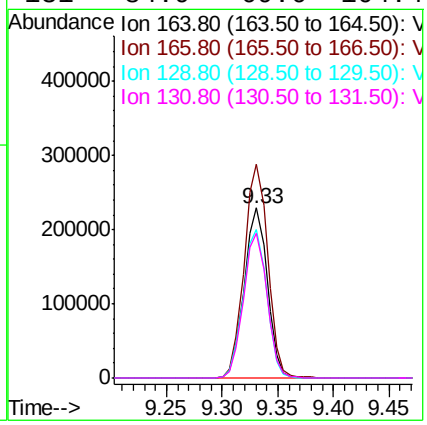
Manual Integrations APPROVED
apatel
12/17/2019 2:48:46 PM

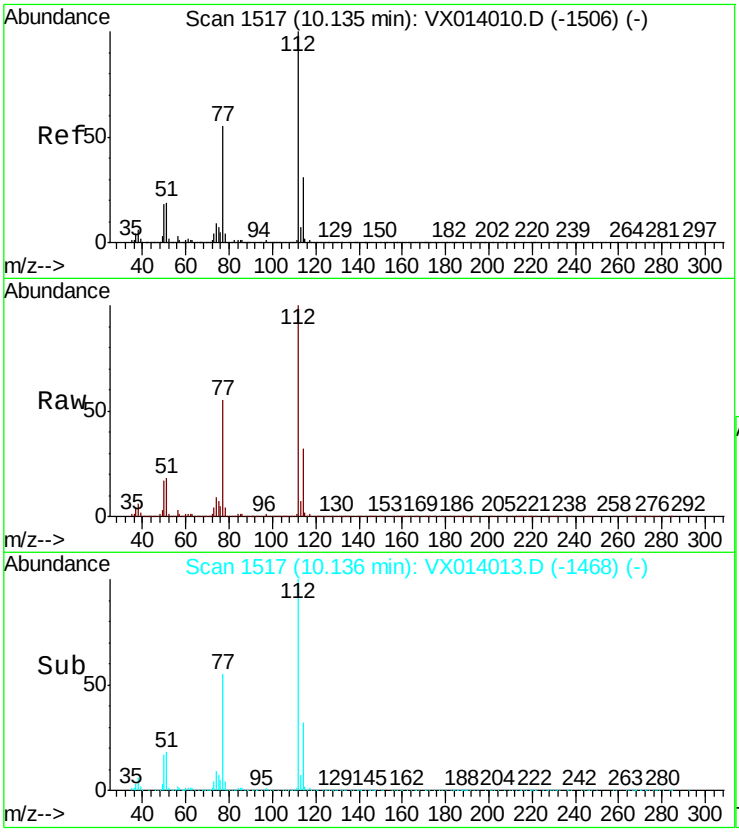


#64
Tetrachloroethene
Concen: 44.918 ug/l
RT: 9.33 min Scan# 1385
Delta R.T. 0.00 min
Lab File: VX014013.D
Acq: 13 Dec 2019 18:00

Tgt Ion:164 Resp: 332078

Ion	Ratio	Lower	Upper
164	100		
166	125.8	104.0	156.0
129	87.0	72.2	108.4
131	84.9	69.6	104.4

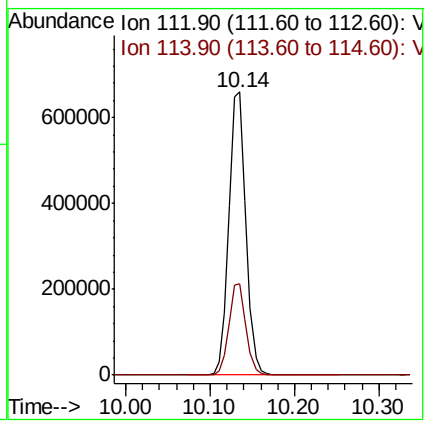




#65
Chlorobenzene
Concen: 51.674 ug/l
RT: 10.14 min Scan# 1517
Delta R.T. 0.00 min
Lab File: VX014013.D
Acq: 13 Dec 2019 18:00

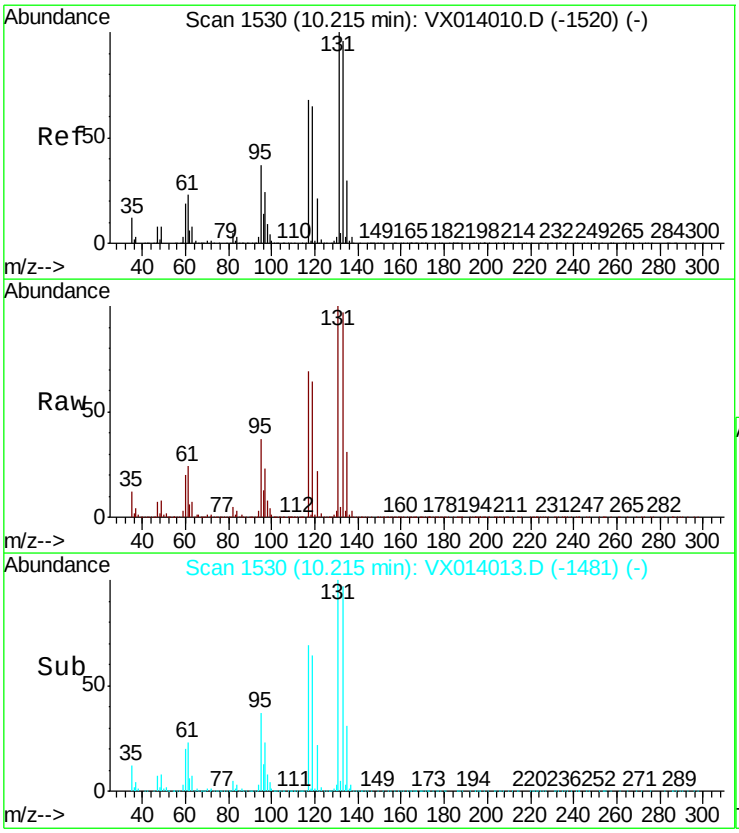
Tgt Ion:112 Resp: 917959

Ion	Ratio	Lower	Upper
112	100		
114	32.2	24.9	37.3



Instrument :
MSVOA_X
ClientSampleId :
ICVVX121319

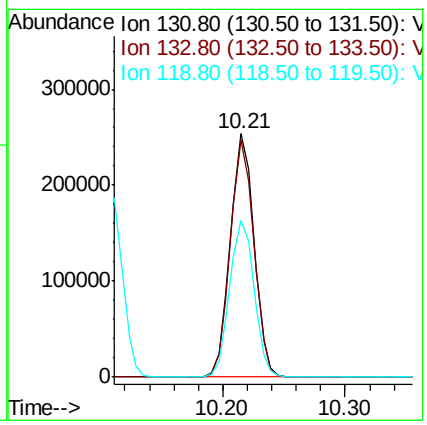
Manual Integrations APPROVED
apatel
12/17/2019 2:48:46 PM

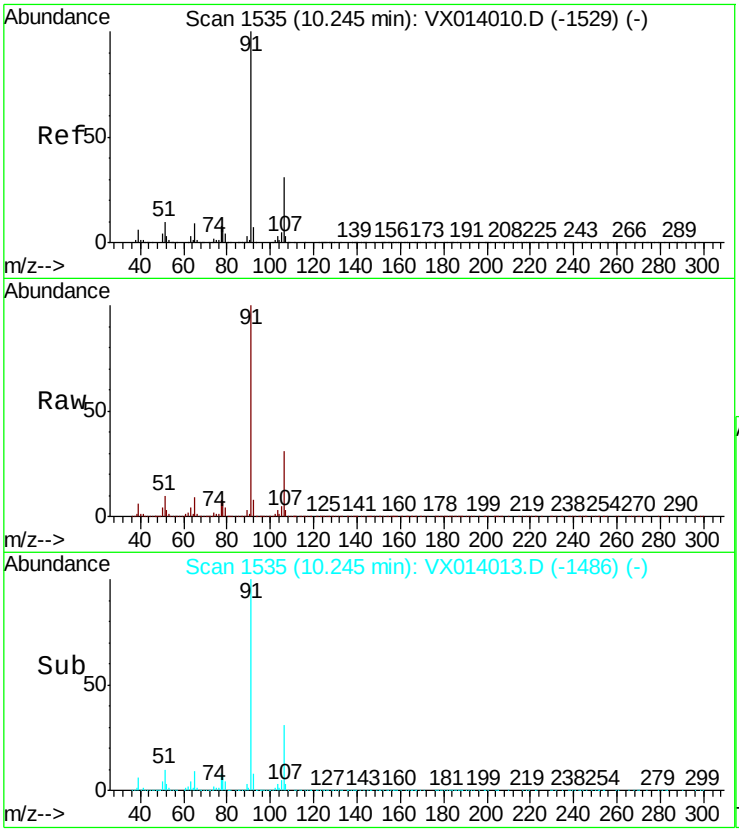


#66
1,1,1,2-Tetrachloroethane
Concen: 53.581 ug/l
RT: 10.21 min Scan# 1530
Delta R.T. 0.00 min
Lab File: VX014013.D
Acq: 13 Dec 2019 18:00

Tgt Ion:131 Resp: 339861

Ion	Ratio	Lower	Upper
131	100		
133	96.8	48.0	144.0
119	66.2	33.4	100.2

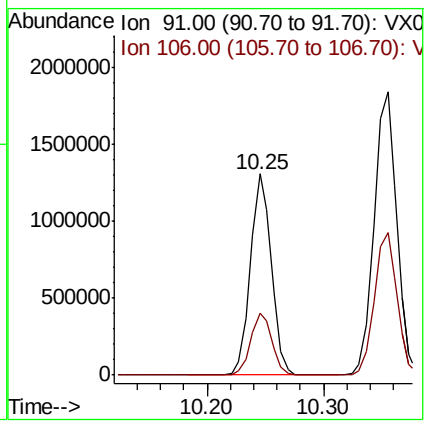




#67
Ethyl Benzene
Concen: 53.822 ug/l
RT: 10.25 min Scan# 1535
Delta R.T. 0.00 min
Lab File: VX014013.D
Acq: 13 Dec 2019 18:00

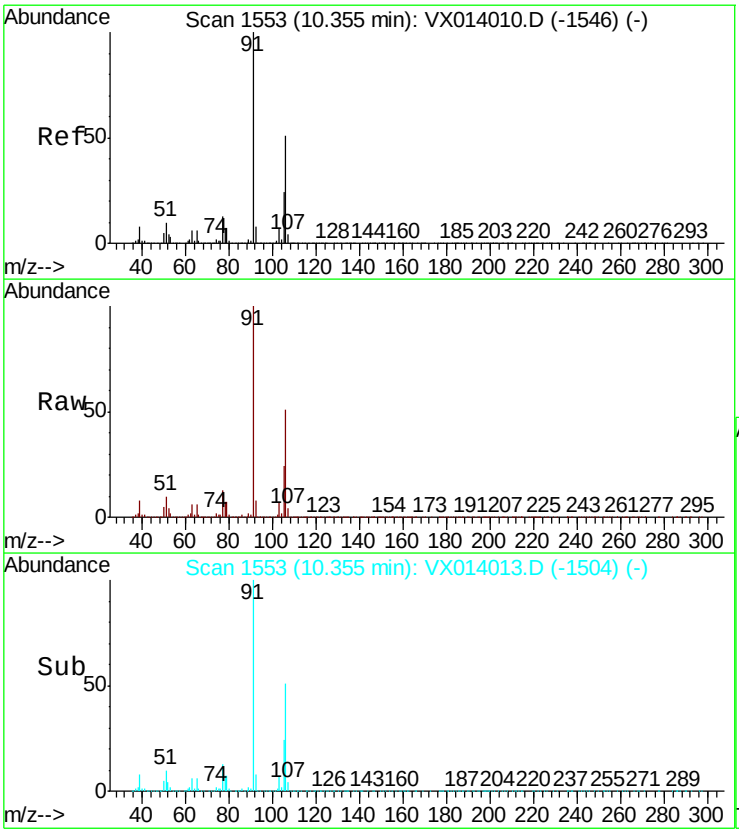
Tgt Ion: 91 Resp: 1643804

Ion	Ratio	Lower	Upper
91	100		
106	31.0	25.0	37.6



Instrument :
MSVOA_X
ClientSampleId :
ICVVX121319

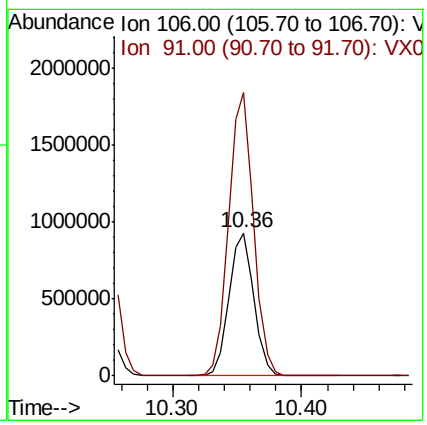
Manual Integrations APPROVED
apatel
12/17/2019 2:48:46 PM

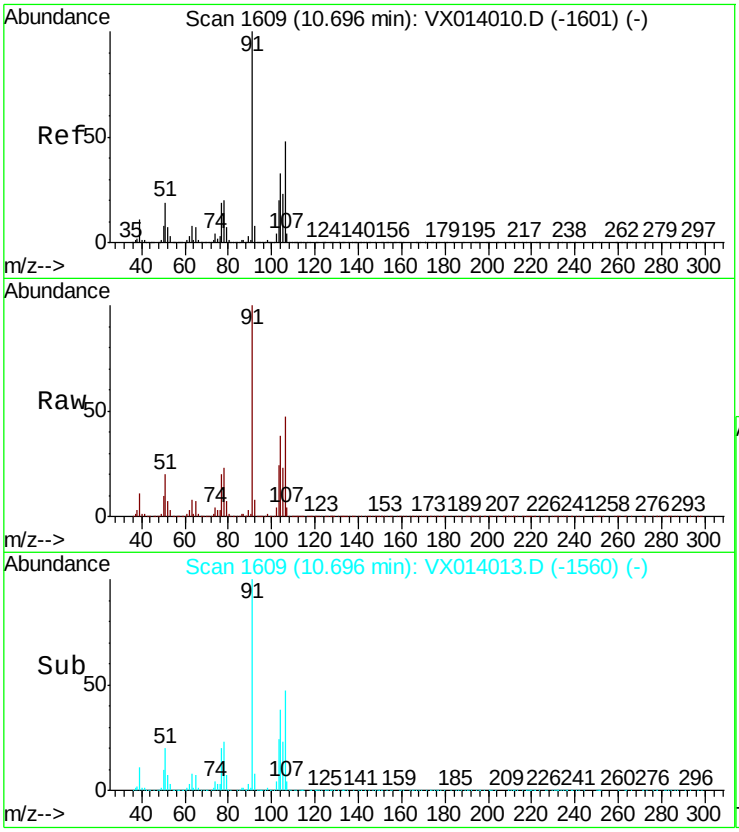


#68
m/p-Xylenes
Concen: 106.690 ug/l
RT: 10.36 min Scan# 1553
Delta R.T. 0.00 min
Lab File: VX014013.D
Acq: 13 Dec 2019 18:00

Tgt Ion:106 Resp: 1253248

Ion	Ratio	Lower	Upper
106	100		
91	198.4	158.6	238.0

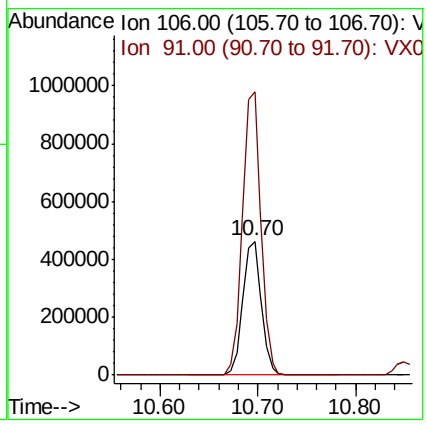




#69
o-Xylene
Concen: 52.582 ug/l
RT: 10.70 min Scan# 1609
Delta R.T. 0.00 min
Lab File: VX014013.D
Acq: 13 Dec 2019 18:00

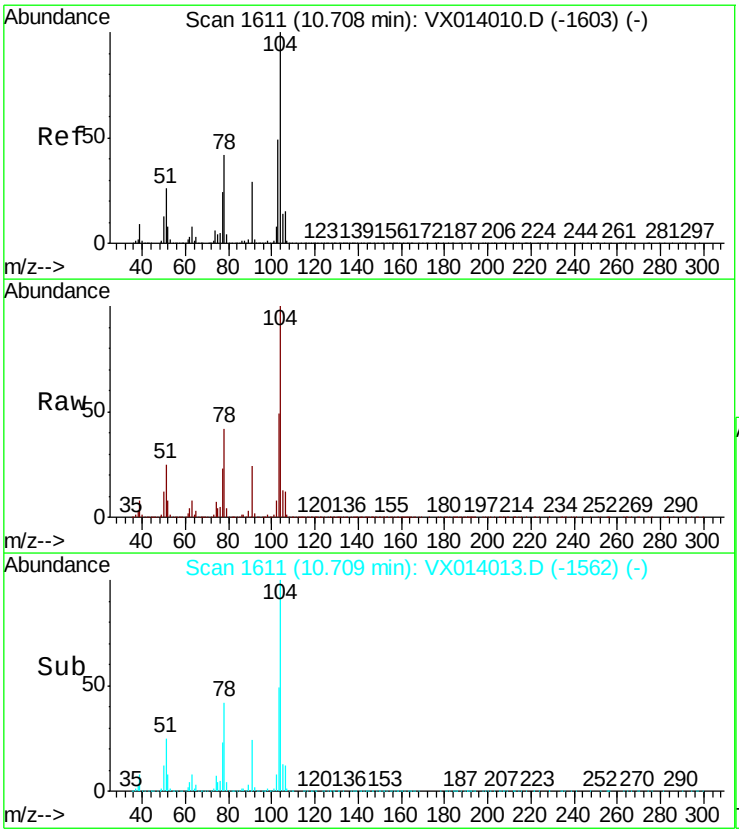
Tgt Ion:106 Resp: 605775

Ion	Ratio	Lower	Upper
106	100		
91	211.8	104.2	312.6



Instrument :
MSVOA_X
ClientSampleId :
ICVVX121319

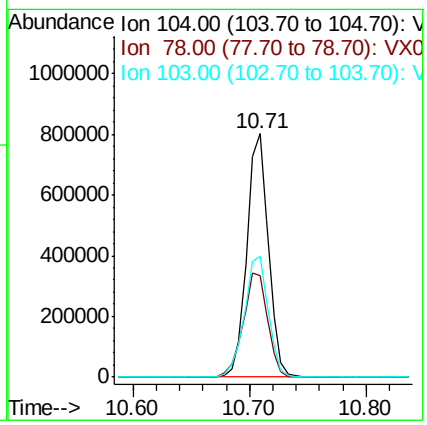
Manual Integrations APPROVED
apatel
12/17/2019 2:48:46 PM

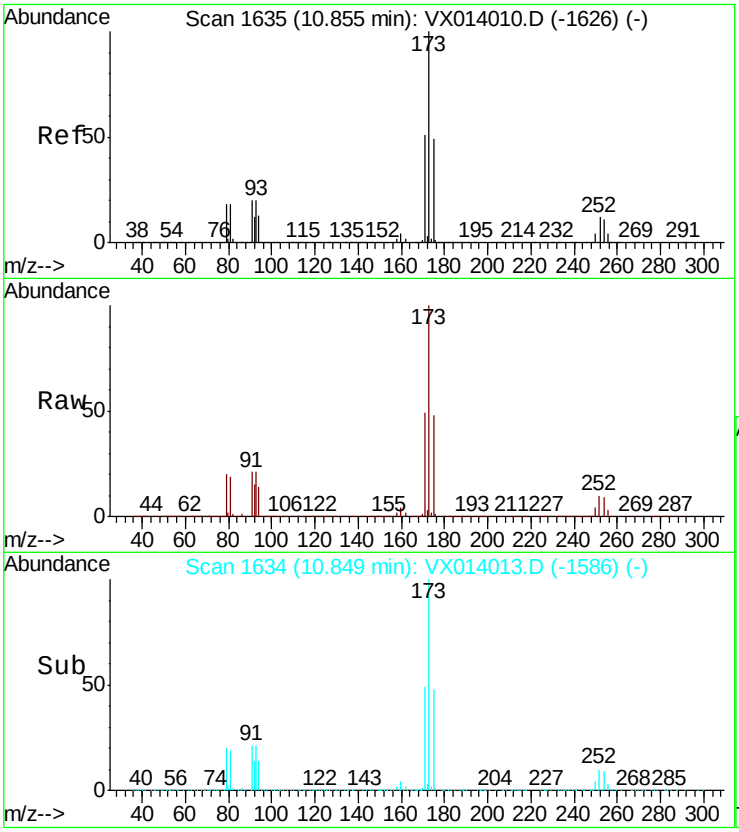


#70
Styrene
Concen: 53.275 ug/l
RT: 10.71 min Scan# 1611
Delta R.T. 0.00 min
Lab File: VX014013.D
Acq: 13 Dec 2019 18:00

Tgt Ion:104 Resp: 1037862

Ion	Ratio	Lower	Upper
104	100		
78	48.8	38.5	57.7
103	54.9	42.9	64.3

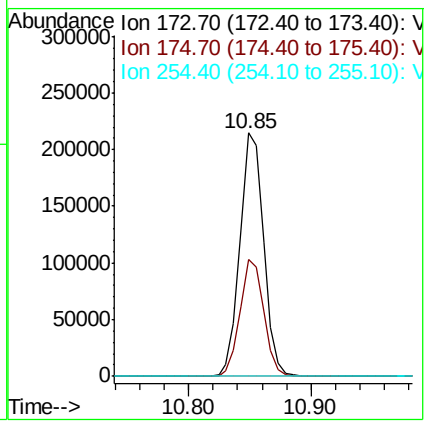




#71
Bromoform
Concen: 56.249 ug/l
RT: 10.85 min Scan# 1634
Delta R.T. -0.01 min
Lab File: VX014013.D
Acq: 13 Dec 2019 18:00

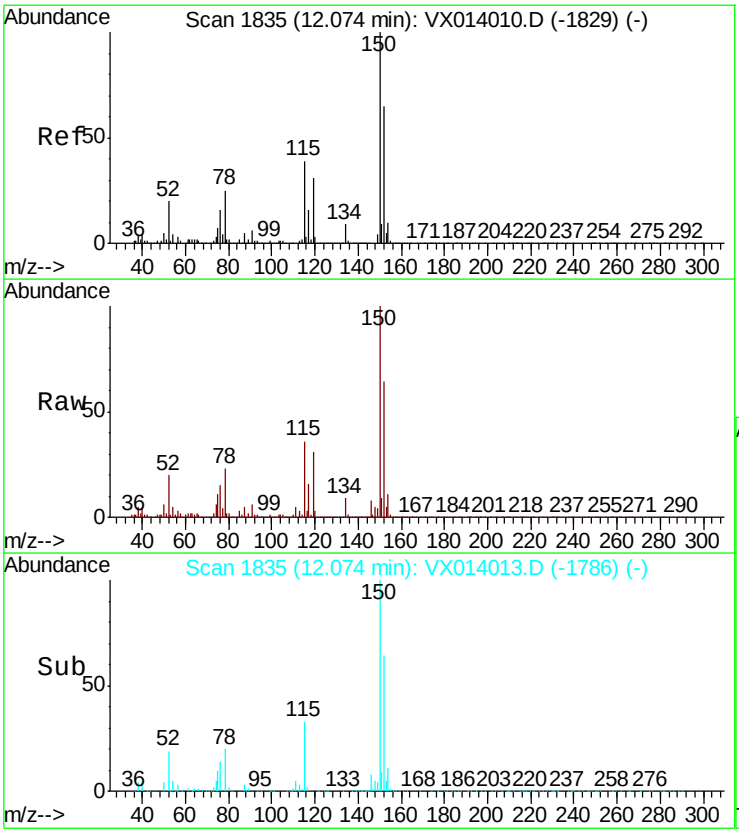
Tgt Ion:173 Resp: 286793

Ion	Ratio	Lower	Upper
173	100		
175	48.2	24.4	73.4
254	0.1	0.2	0.2#



Instrument :
MSVOA_X
ClientSampleId :
ICVVX121319

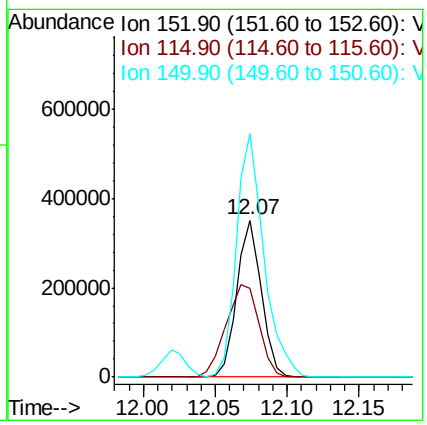
Manual Integrations APPROVED
apatel
12/17/2019 2:48:46 PM

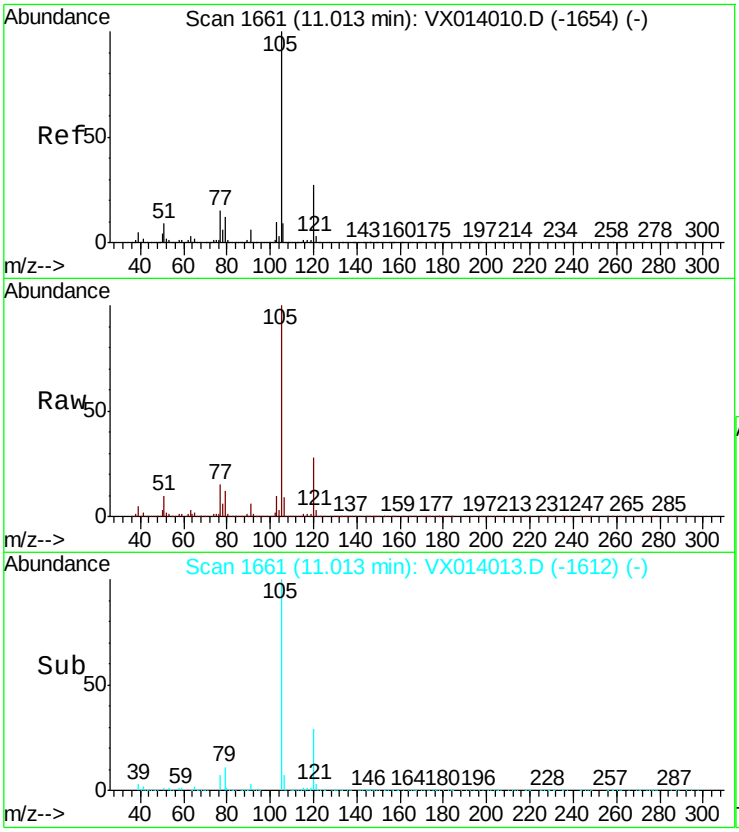


#72
1,4-Dichlorobenzene-d4
Concen: 50.000 ug/l
RT: 12.07 min Scan# 1835
Delta R.T. 0.00 min
Lab File: VX014013.D
Acq: 13 Dec 2019 18:00

Tgt Ion:152 Resp: 417707

Ion	Ratio	Lower	Upper
152	100		
115	79.6	38.3	114.9
150	173.7	0.0	345.4

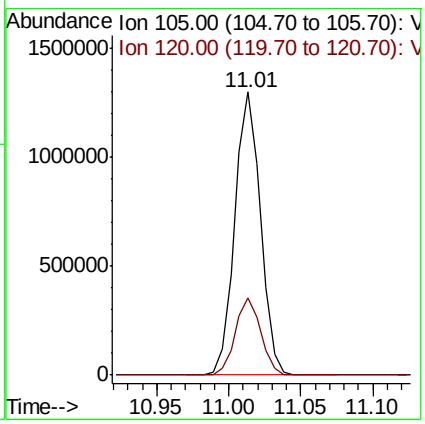




#73
Isopropylbenzene
Concen: 54.942 ug/l
RT: 11.01 min Scan# 1661
Delta R.T. 0.00 min
Lab File: VX014013.D
Acq: 13 Dec 2019 18:00

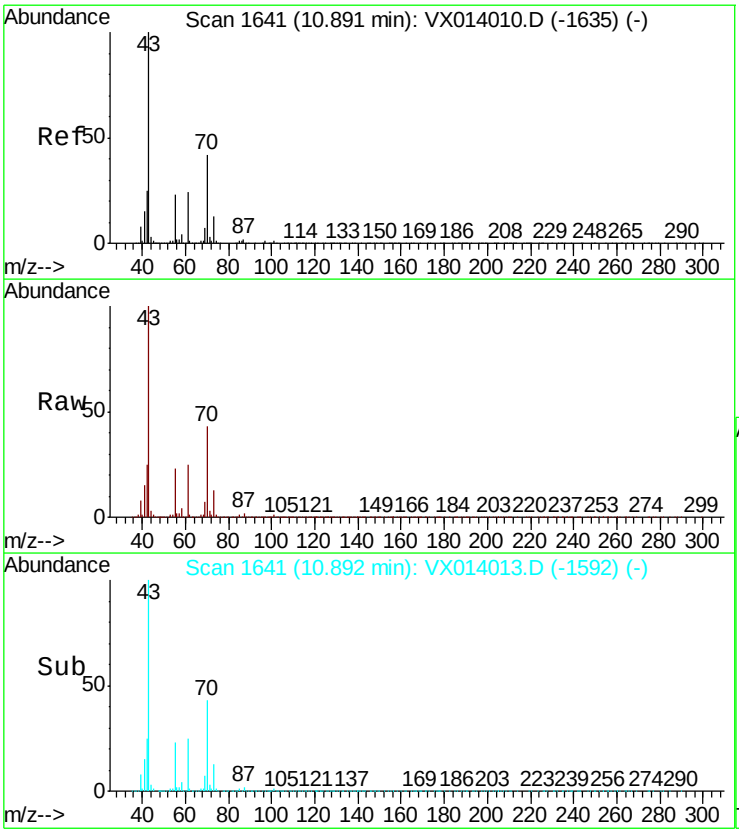
Tgt Ion:105 Resp: 1615818

Ion	Ratio	Lower	Upper
105	100		
120	27.1	13.5	40.4



Instrument :
MSVOA_X
ClientSampleId :
ICVVX121319

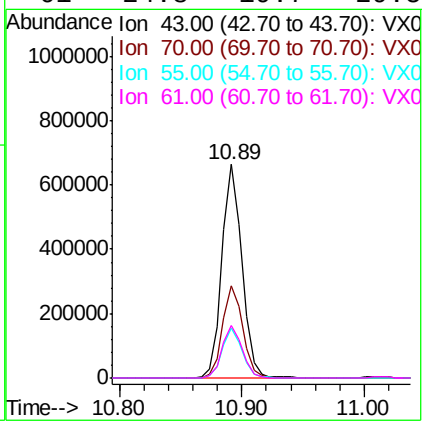
Manual Integrations APPROVED
apatel
12/17/2019 2:48:46 PM

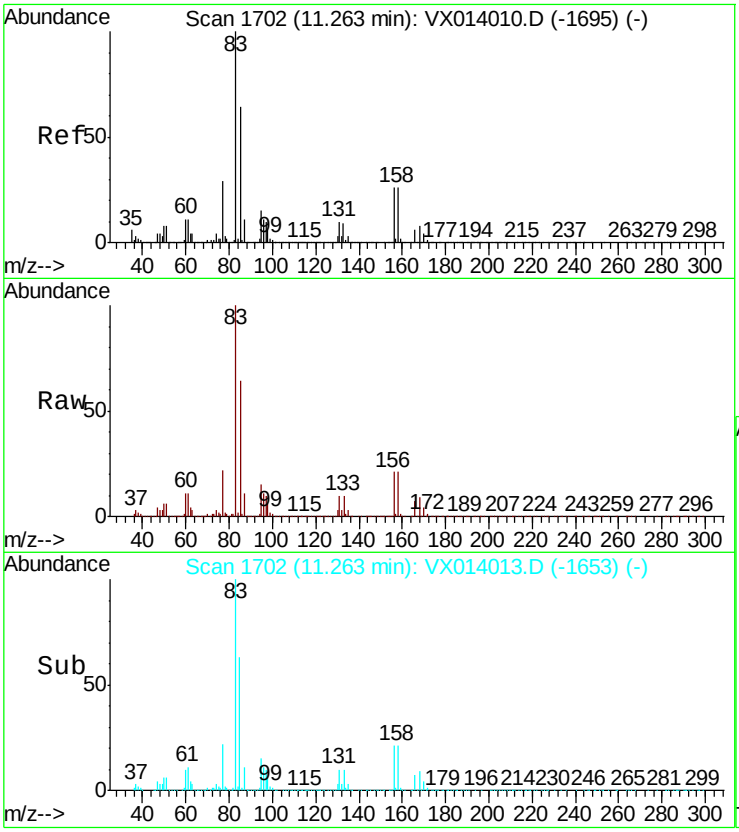


#74
N-amyl acetate
Concen: 54.780 ug/l
RT: 10.89 min Scan# 1641
Delta R.T. 0.00 min
Lab File: VX014013.D
Acq: 13 Dec 2019 18:00

Tgt Ion: 43 Resp: 755178

Ion	Ratio	Lower	Upper
43	100		
70	43.6	34.4	51.6
55	23.4	19.1	28.7
61	24.8	19.7	29.5

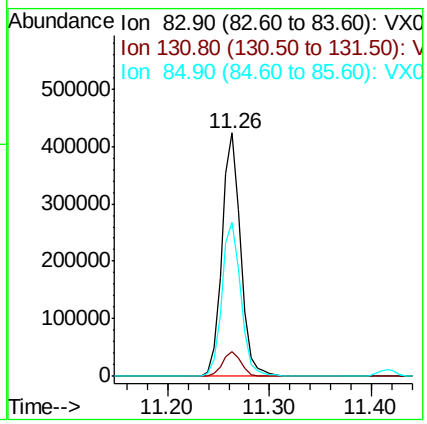




#75
1,1,2,2-Tetrachloroethane
Concen: 52.874 ug/l
RT: 11.26 min Scan# 1702
Delta R.T. 0.00 min
Lab File: VX014013.D
Acq: 13 Dec 2019 18:00

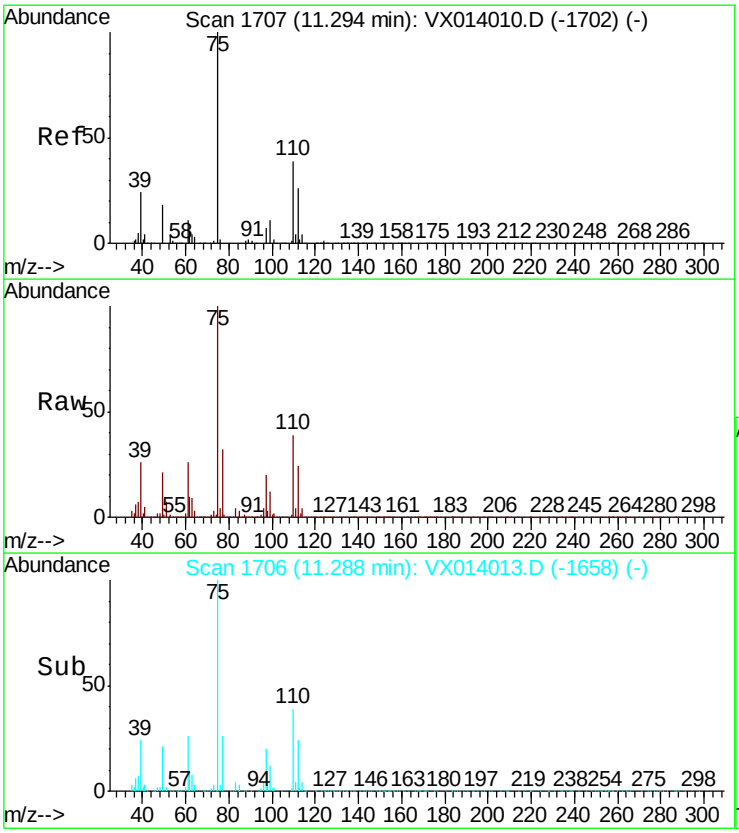
Tgt Ion: 83 Resp: 539109

Ion	Ratio	Lower	Upper
83	100		
131	10.1	5.1	15.2
85	64.4	31.9	95.7



Instrument :
MSVOA_X
ClientSampleId :
ICVVX121319

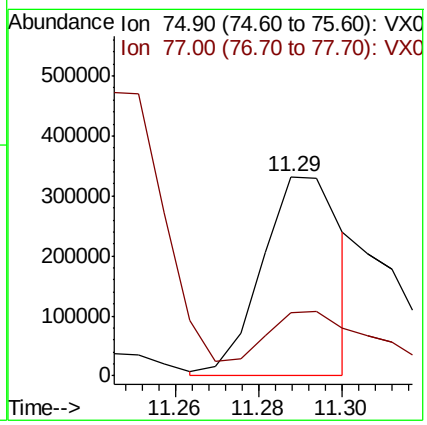
Manual Integrations APPROVED
apatel
12/17/2019 2:48:46 PM

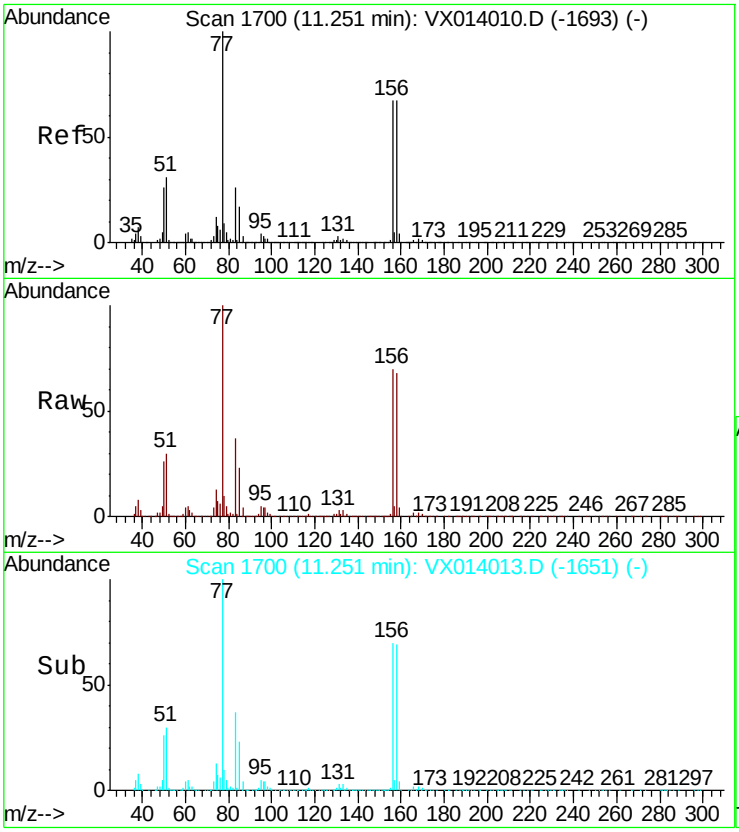


#76
1,2,3-Trichloropropane
Concen: 48.187 ug/l m
RT: 11.29 min Scan# 1706
Delta R.T. -0.01 min
Lab File: VX014013.D
Acq: 13 Dec 2019 18:00

Tgt Ion: 75 Resp: 436974

Ion	Ratio	Lower	Upper
75	100		
77	46.0	19.3	57.8

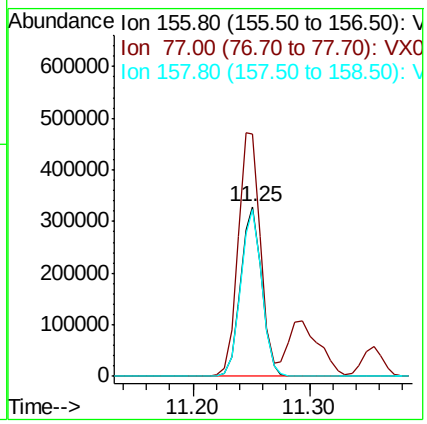




#77
Bromobenzene
Concen: 51.492 ug/l
RT: 11.25 min Scan# 1700
Delta R.T. 0.00 min
Lab File: VX014013.D
Acq: 13 Dec 2019 18:00

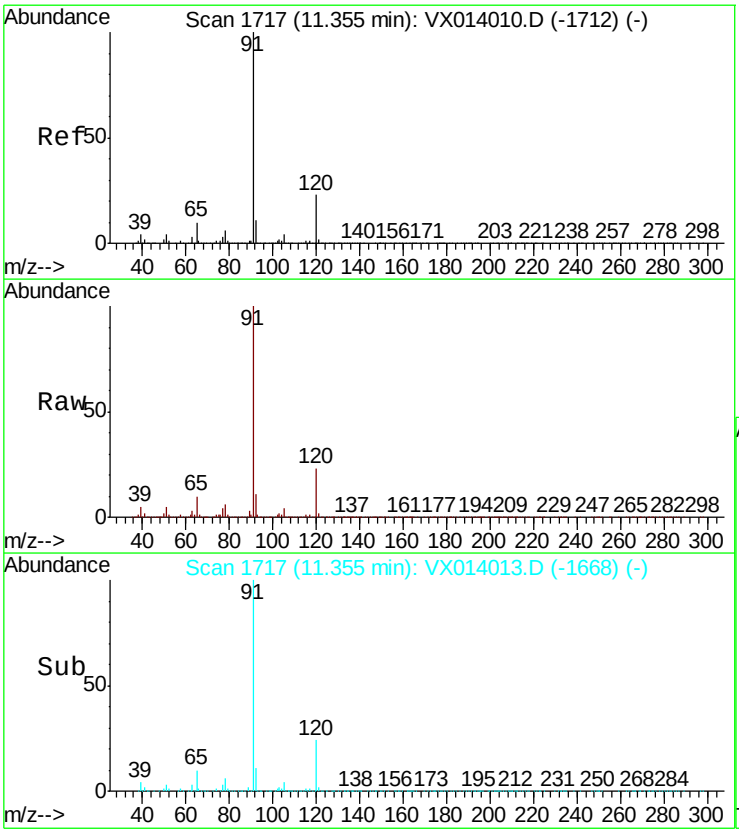
Tgt Ion:156 Resp: 416657

Ion	Ratio	Lower	Upper
156	100		
77	150.0	76.5	229.5
158	97.8	49.3	147.9



Instrument :
MSVOA_X
ClientSampleId :
ICVVX121319

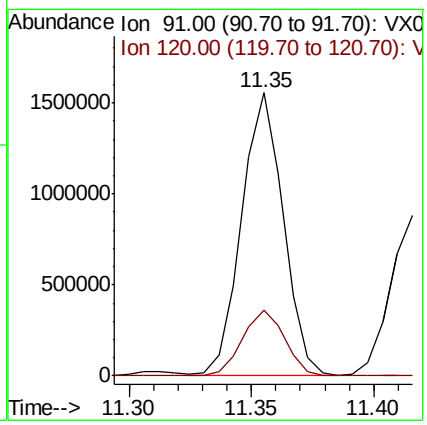
Manual Integrations APPROVED
apatel
12/17/2019 2:48:46 PM

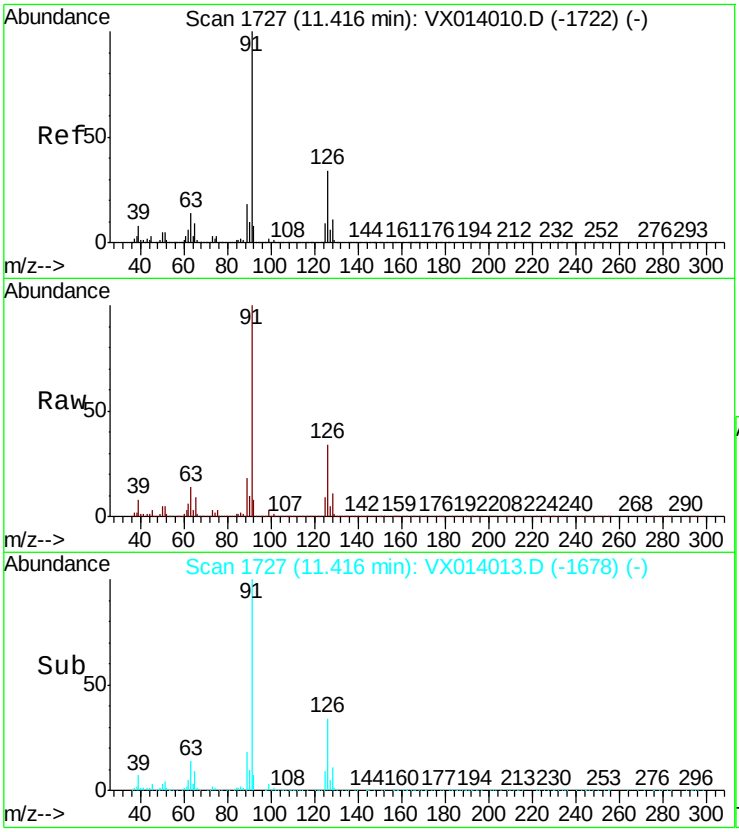


#78
n-propylbenzene
Concen: 55.711 ug/l
RT: 11.35 min Scan# 1717
Delta R.T. 0.00 min
Lab File: VX014013.D
Acq: 13 Dec 2019 18:00

Tgt Ion: 91 Resp: 1837796

Ion	Ratio	Lower	Upper
91	100		
120	23.7	11.7	35.0

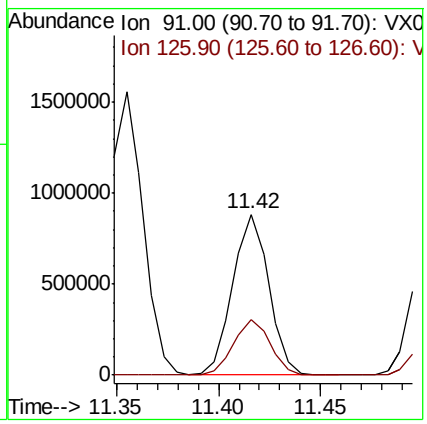


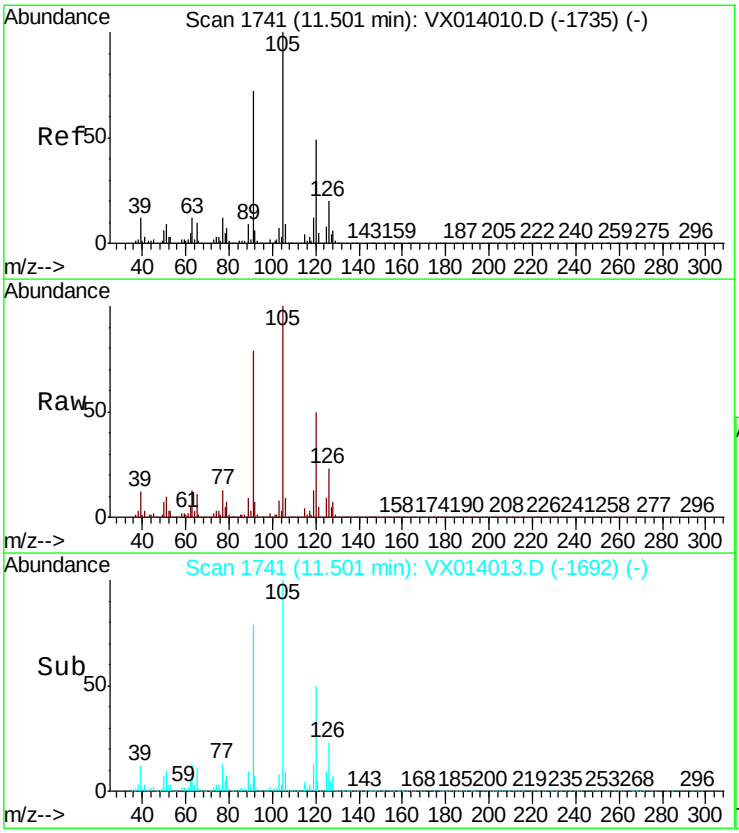


#79
2-Chlorotoluene
Concen: 53.821 ug/l
RT: 11.42 min Scan# 1727
Delta R.T. 0.00 min
Lab File: VX014013.D
Acq: 13 Dec 2019 18:00

Tgt Ion: 91 Resp: 1079257

Ion	Ratio	Lower	Upper
91	100		
126	34.7	17.2	51.6

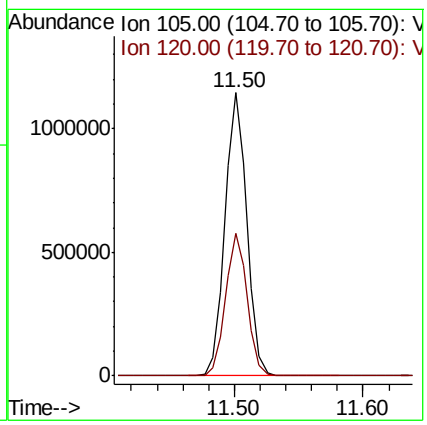




#80
1,3,5-Trimethylbenzene
Concen: 55.135 ug/l
RT: 11.50 min Scan# 1741
Delta R.T. 0.00 min
Lab File: VX014013.D
Acq: 13 Dec 2019 18:00

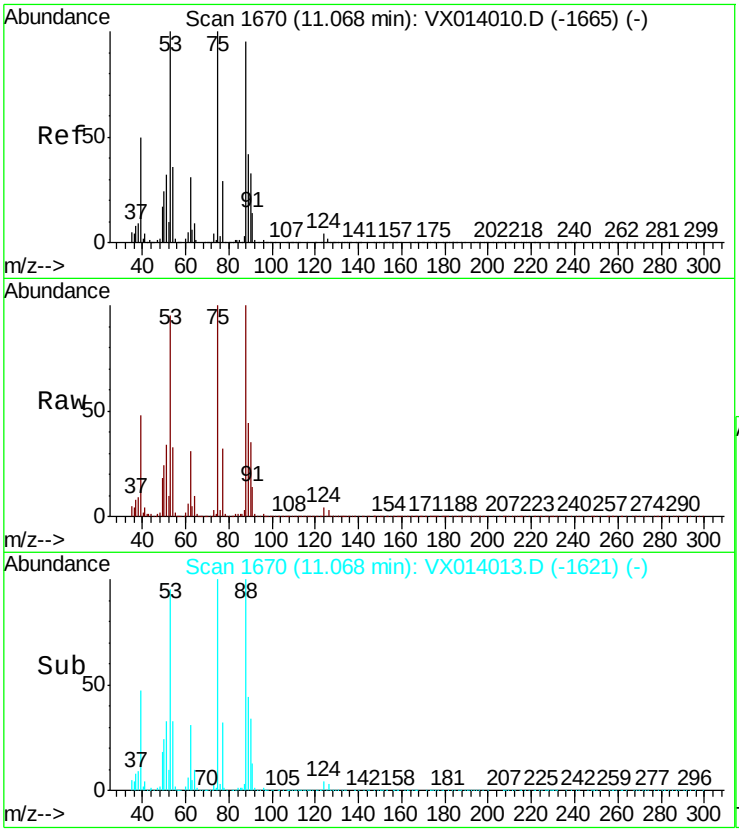
Tgt Ion:105 Resp: 1364671

Ion	Ratio	Lower	Upper
105	100		
120	49.7	25.3	75.8



Instrument :
MSVOA_X
ClientSampleId :
ICVVX121319

Manual Integrations APPROVED
apatel
12/17/2019 2:48:46 PM



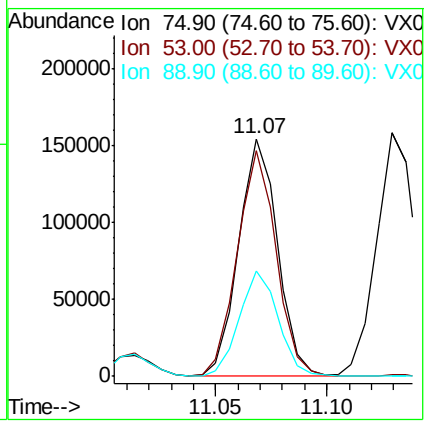
#81
trans-1,4-Dichloro-2-butene
Concen: 58.475 ug/l
RT: 11.07 min Scan# 1670
Delta R.T. 0.00 min
Lab File: VX014013.D
Acq: 13 Dec 2019 18:00

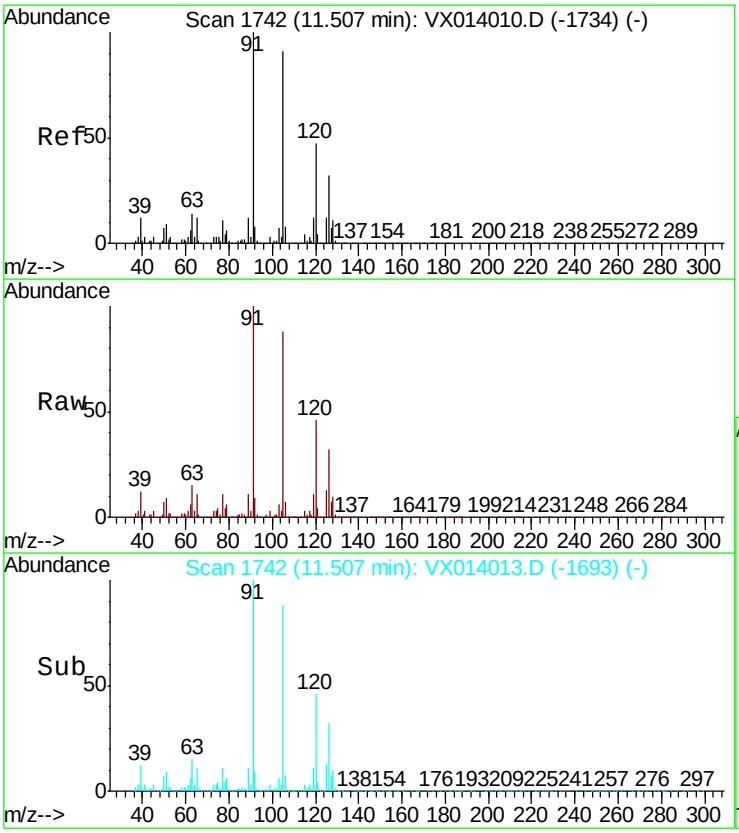
Tgt Ion: 75 Resp: 187870

Ion	Ratio	Lower	Upper
75	100		
53	94.5	76.7	115.1
89	44.5	34.6	51.8

Instrument :
MSVOA_X
ClientSampleId :
ICVVX121319

Manual Integrations APPROVED
apatel
12/17/2019 2:48:46 PM

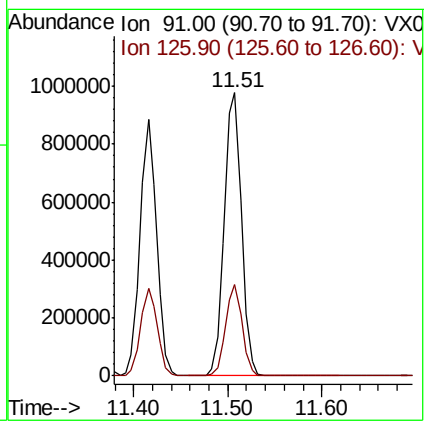


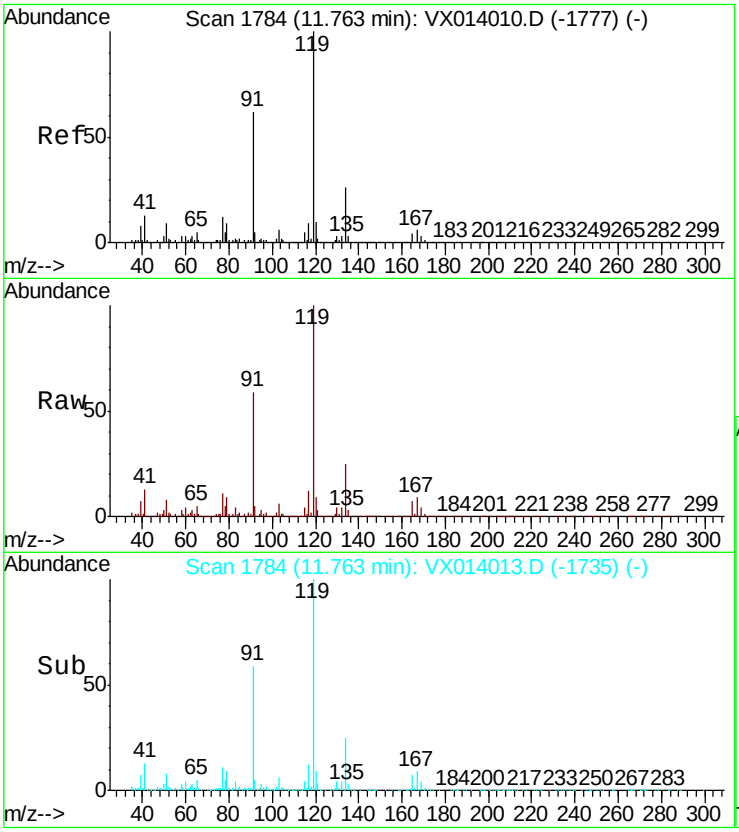


#82
4-Chlorotoluene
Concen: 53.332 ug/l
RT: 11.51 min Scan# 1742
Delta R.T. 0.00 min
Lab File: VX014013.D
Acq: 13 Dec 2019 18:00

Tgt Ion: 91 Resp: 1240522

Ion	Ratio	Lower	Upper
91	100		
126	30.9	15.6	46.8

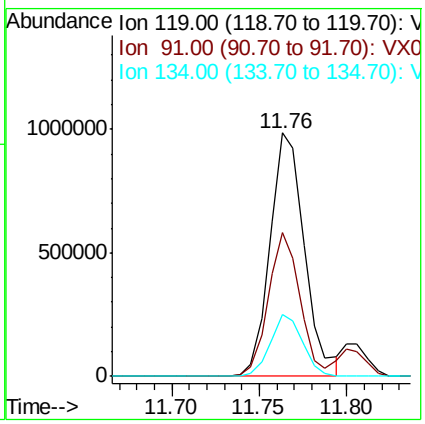




#83
tert-Butylbenzene
Concen: 56.340 ug/l
RT: 11.76 min Scan# 1784
Delta R.T. 0.00 min
Lab File: VX014013.D
Acq: 13 Dec 2019 18:00

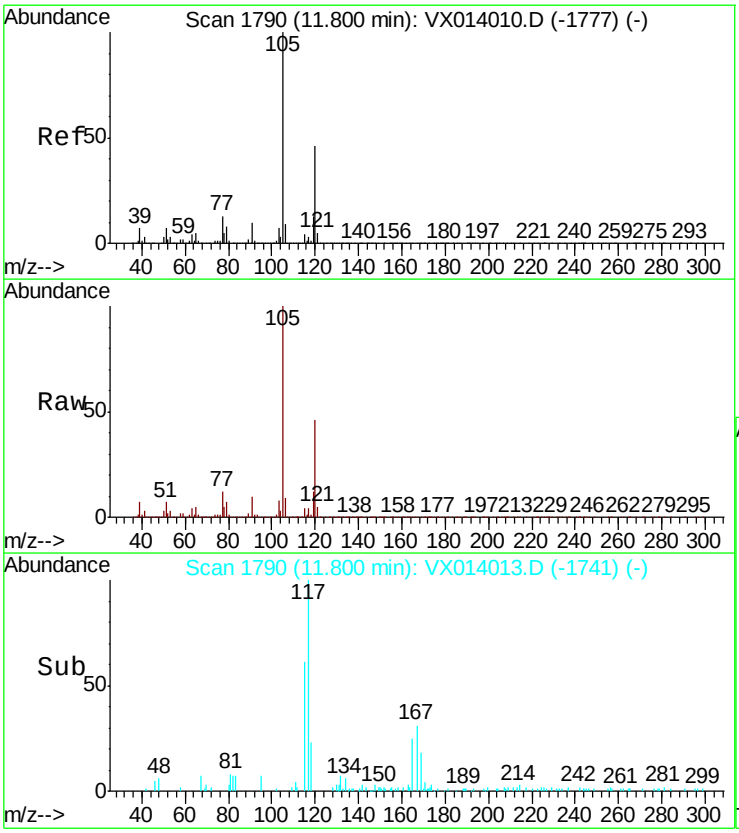
Tgt Ion:119 Resp: 1357085

Ion	Ratio	Lower	Upper
119	100		
91	54.2	28.5	85.6
134	23.7	12.2	36.6



Instrument :
MSVOA_X
ClientSampleId :
ICVVX121319

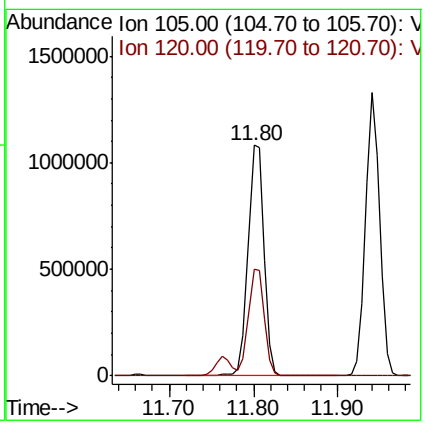
Manual Integrations APPROVED
apatel
12/17/2019 2:48:46 PM

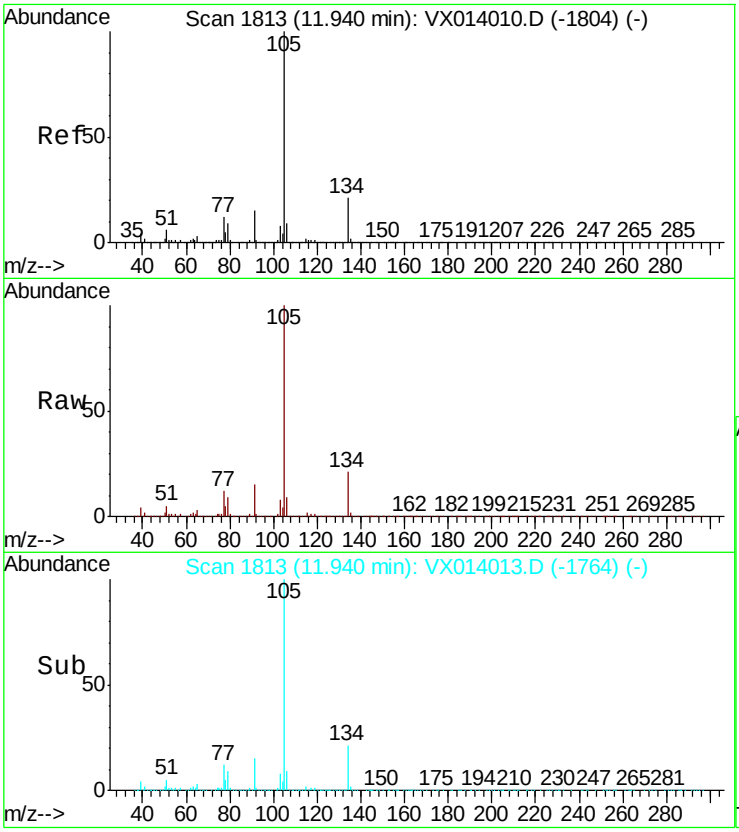


#84
1,2,4-Trimethylbenzene
Concen: 54.762 ug/l
RT: 11.80 min Scan# 1790
Delta R.T. 0.00 min
Lab File: VX014013.D
Acq: 13 Dec 2019 18:00

Tgt Ion:105 Resp: 1357384

Ion	Ratio	Lower	Upper
105	100		
120	45.9	23.1	69.2

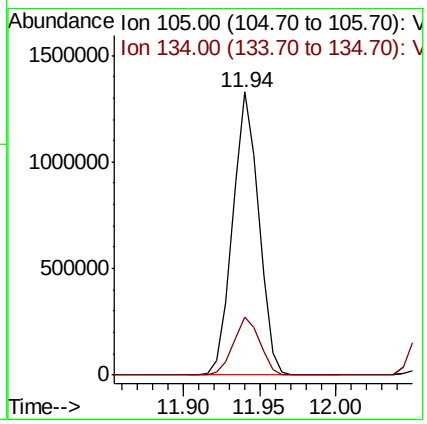




#85
sec-Butylbenzene
Concen: 54.958 ug/l
RT: 11.94 min Scan# 1813
Delta R.T. 0.00 min
Lab File: VX014013.D
Acq: 13 Dec 2019 18:00

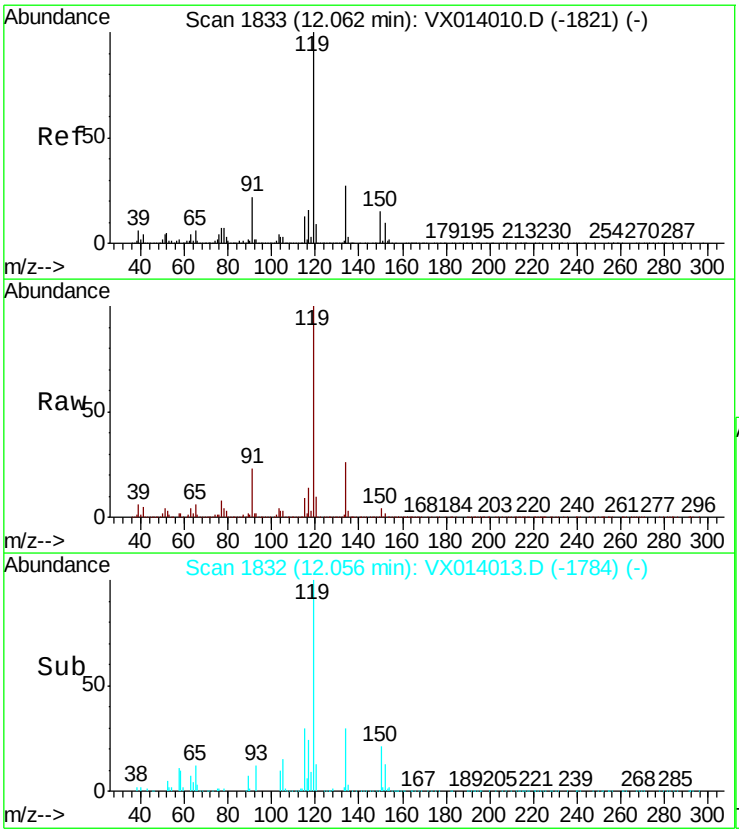
Tgt Ion:105 Resp: 1562765

Ion	Ratio	Lower	Upper
105	100		
134	20.9	10.4	31.1



Instrument :
MSVOA_X
ClientSampleId :
ICVVX121319

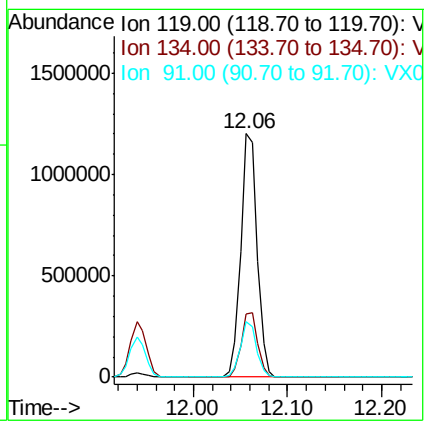
Manual Integrations APPROVED
apatel
12/17/2019 2:48:46 PM

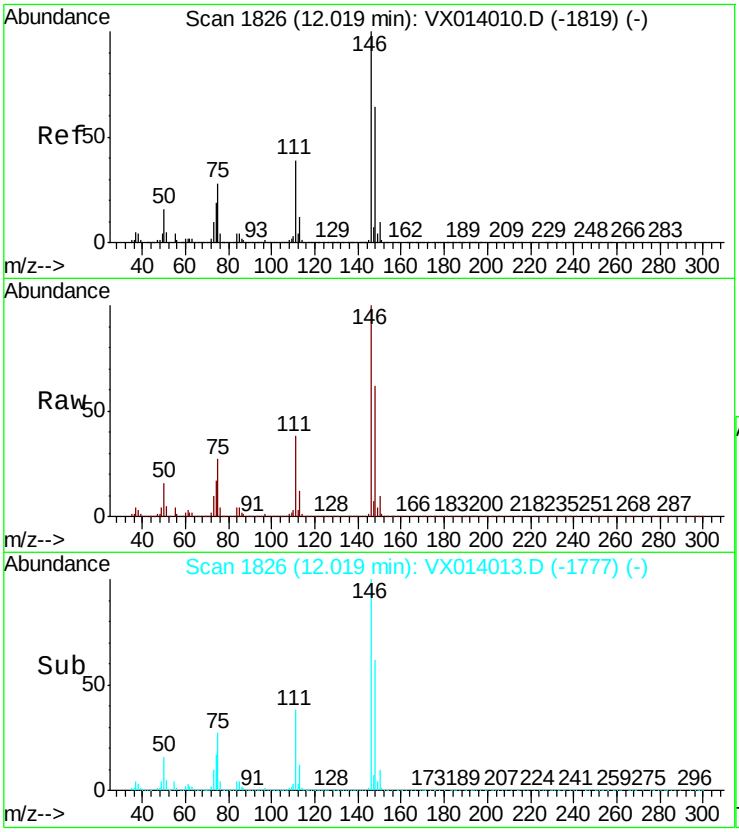


#86
p-Isopropyltoluene
Concen: 55.715 ug/l
RT: 12.06 min Scan# 1832
Delta R.T. -0.01 min
Lab File: VX014013.D
Acq: 13 Dec 2019 18:00

Tgt Ion:119 Resp: 1449211

Ion	Ratio	Lower	Upper
119	100		
134	26.6	13.4	40.1
91	22.5	11.4	34.1

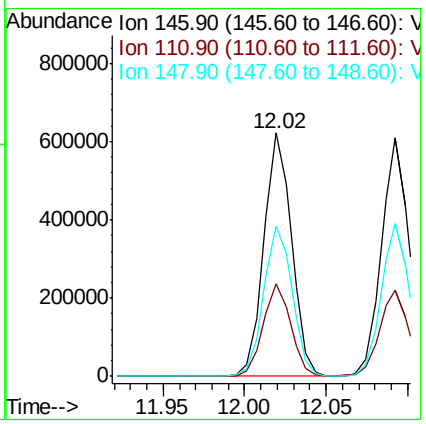




#87
1,3-Dichlorobenzene
Concen: 51.836 ug/l
RT: 12.02 min Scan# 1826
Delta R.T. 0.00 min
Lab File: VX014013.D
Acq: 13 Dec 2019 18:00

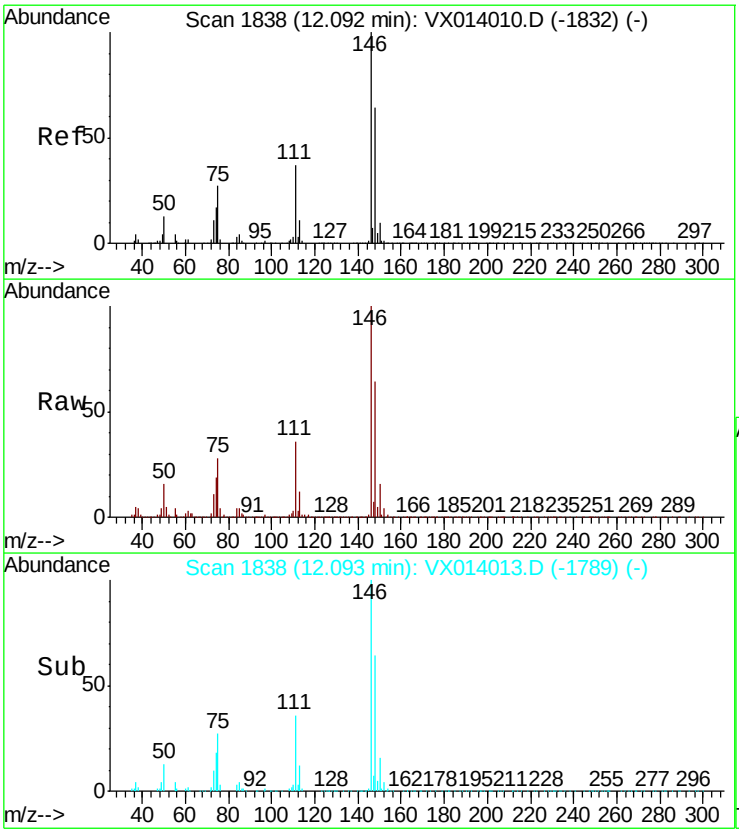
Tgt Ion:146 Resp: 735116

Ion	Ratio	Lower	Upper
146	100		
111	37.8	19.1	57.1
148	63.2	32.3	96.9



Instrument :
MSVOA_X
ClientSampleId :
ICVVX121319

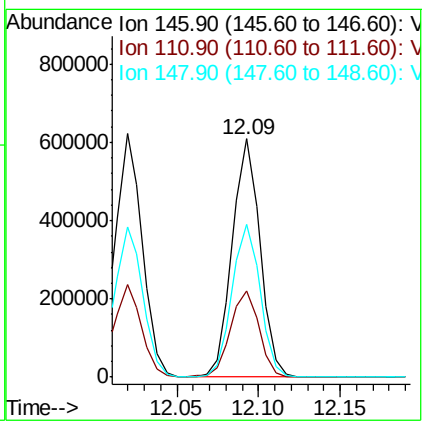
Manual Integrations APPROVED
apatel
12/17/2019 2:48:46 PM

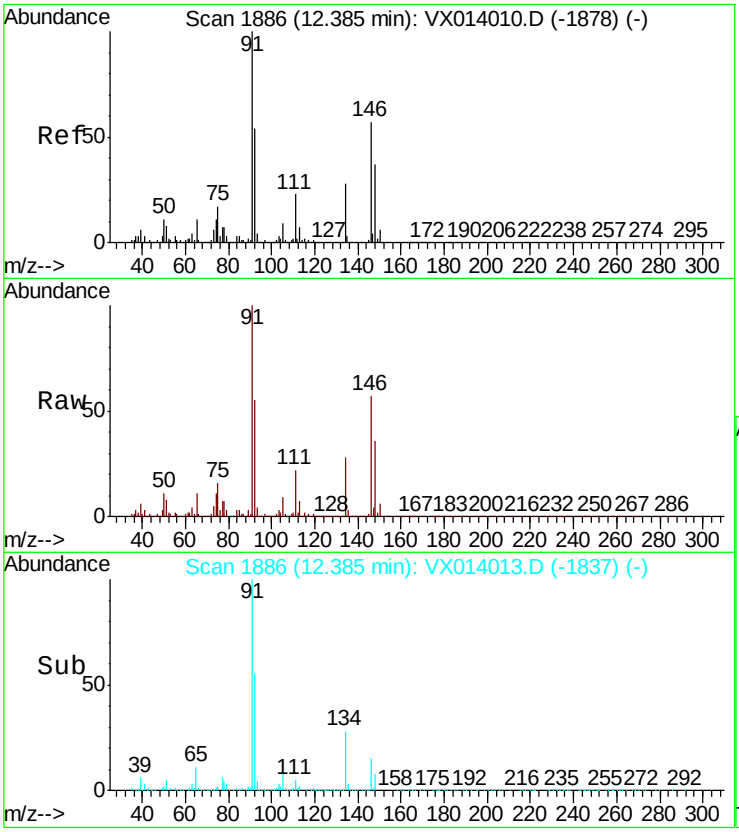


#88
1,4-Dichlorobenzene
Concen: 50.052 ug/l
RT: 12.09 min Scan# 1838
Delta R.T. 0.00 min
Lab File: VX014013.D
Acq: 13 Dec 2019 18:00

Tgt Ion:146 Resp: 721740

Ion	Ratio	Lower	Upper
146	100		
111	37.5	18.7	56.1
148	65.2	31.9	95.9

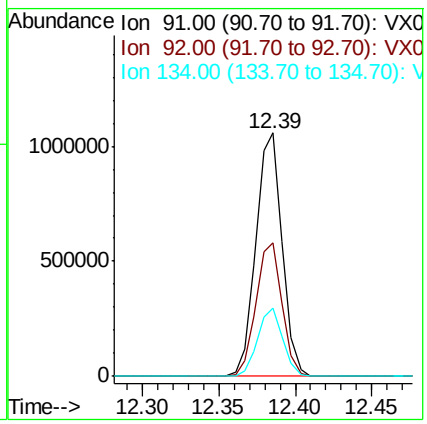


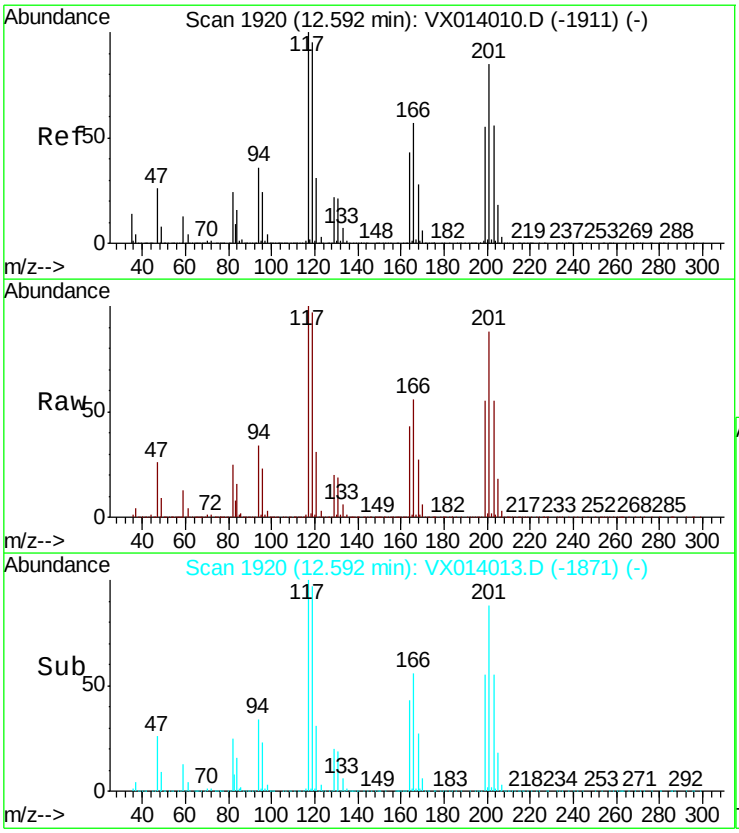


#89
n-Butylbenzene
Concen: 56.708 ug/l
RT: 12.39 min Scan# 1886
Delta R.T. 0.00 min
Lab File: VX014013.D
Acq: 13 Dec 2019 18:00

Tgt Ion: 91 Resp: 1258596

Ion	Ratio	Lower	Upper
91	100		
92	54.9	27.2	81.6
134	27.1	13.4	40.1

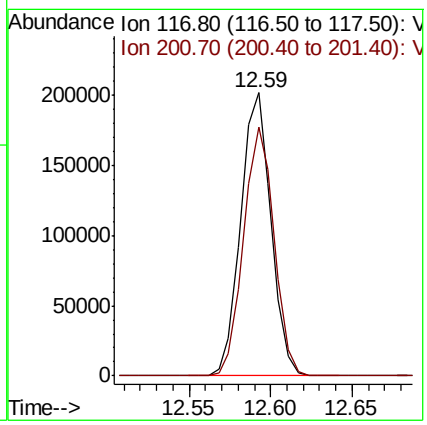




#90
Hexachloroethane
Concen: 55.854 ug/l
RT: 12.59 min Scan# 1920
Delta R.T. 0.00 min
Lab File: VX014013.D
Acq: 13 Dec 2019 18:00

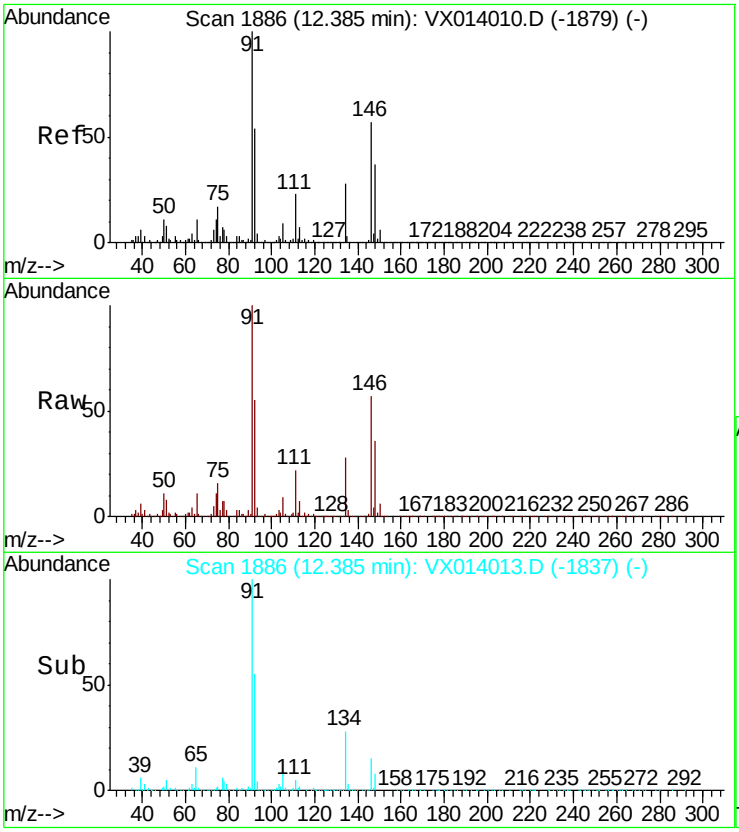
Tgt Ion:117 Resp: 260952

Ion	Ratio	Lower	Upper
117	100		
201	88.8	43.1	129.3



Instrument :
MSVOA_X
ClientSampleId :
ICVVX121319

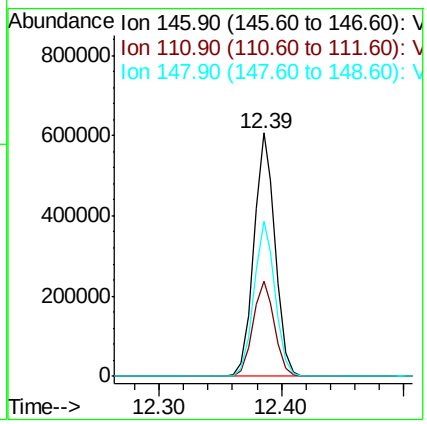
Manual Integrations APPROVED
apatel
12/17/2019 2:48:46 PM



#91
1,2-Dichlorobenzene
Concen: 51.501 ug/l
RT: 12.39 min Scan# 1886
Delta R.T. 0.00 min
Lab File: VX014013.D
Acq: 13 Dec 2019 18:00

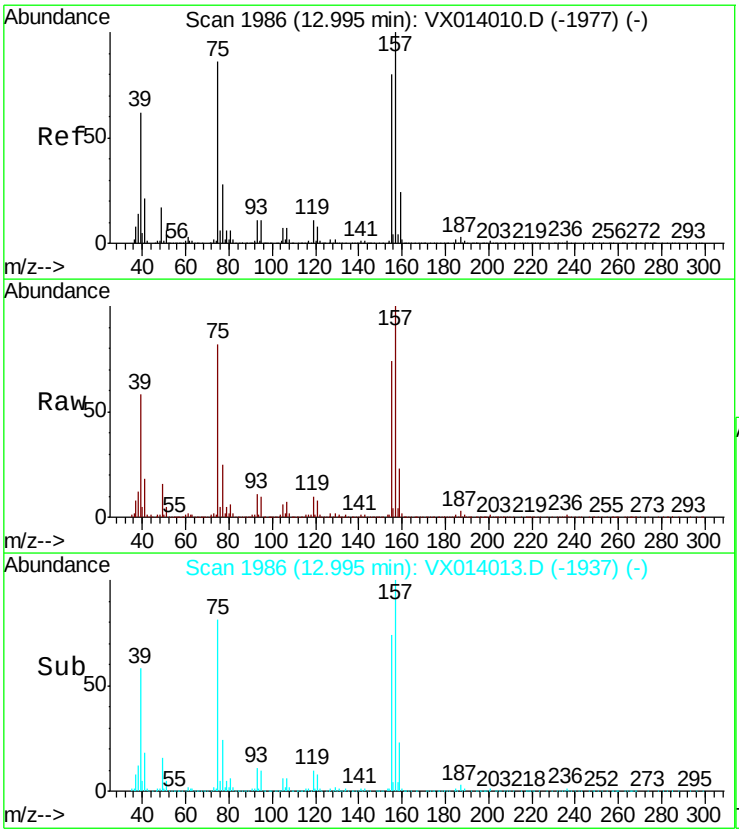
Tgt Ion:146 Resp: 735232

Ion	Ratio	Lower	Upper
146	100		
111	39.2	19.7	59.1
148	63.4	32.1	96.5



Instrument :
MSVOA_X
ClientSampleId :
ICVVX121319

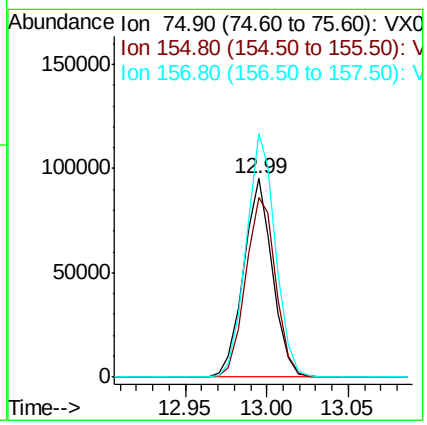
Manual Integrations APPROVED
apatel
12/17/2019 2:48:46 PM

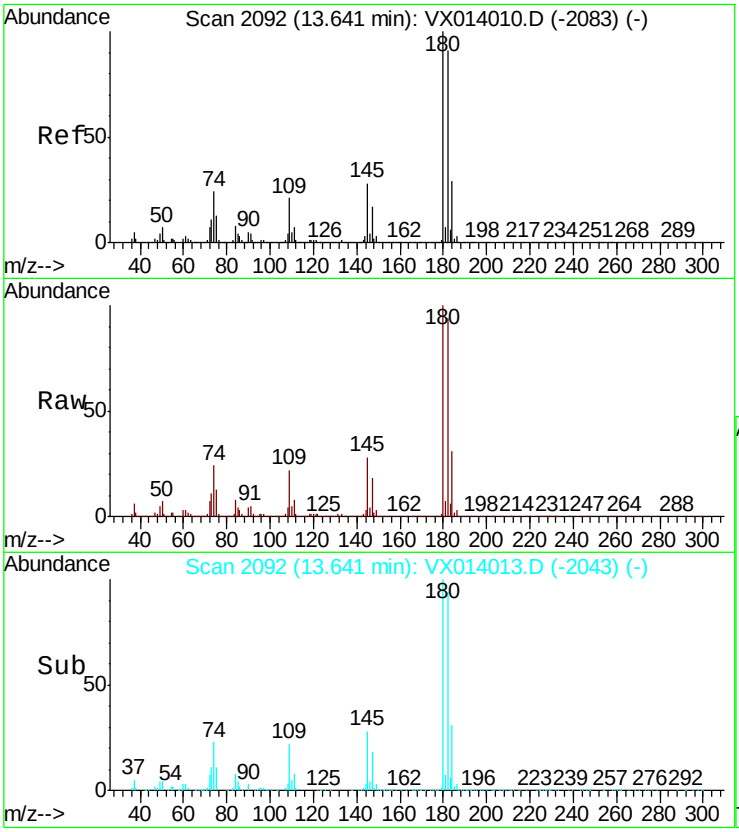


#92
1,2-Dibromo-3-Chloropropane
Concen: 52.330 ug/l
RT: 12.99 min Scan# 1986
Delta R.T. 0.00 min
Lab File: VX014013.D
Acq: 13 Dec 2019 18:00

Tgt Ion: 75 Resp: 118074

Ion	Ratio	Lower	Upper
75	100		
155	93.7	46.9	140.6
157	123.1	60.8	182.4

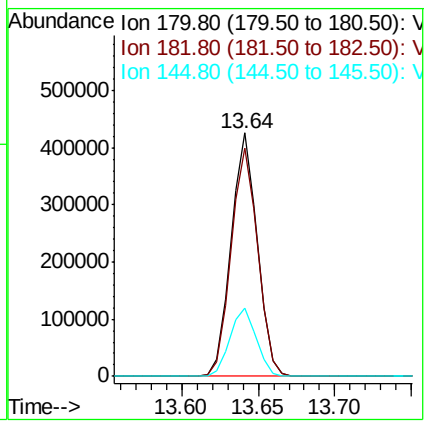




#93
1,2,4-Trichlorobenzene
Concen: 54.093 ug/l
RT: 13.64 min Scan# 2092
Delta R.T. 0.00 min
Lab File: VX014013.D
Acq: 13 Dec 2019 18:00

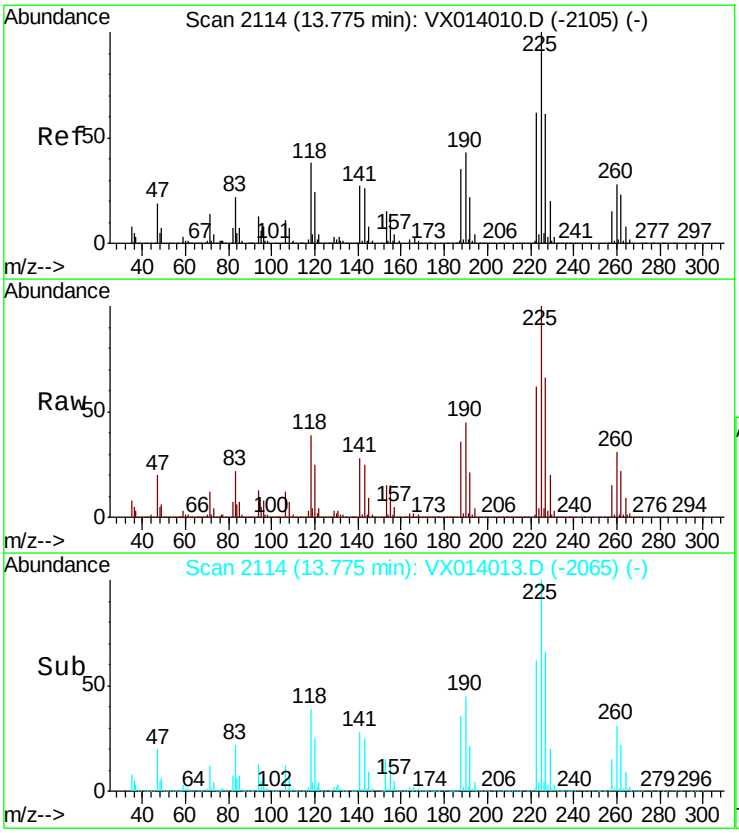
Tgt Ion:180 Resp: 501922

Ion	Ratio	Lower	Upper
180	100		
182	95.3	46.6	139.8
145	28.4	14.2	42.6



Instrument :
MSVOA_X
ClientSampleId :
ICVVX121319

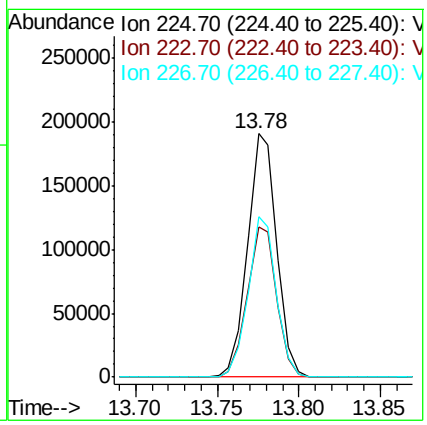
Manual Integrations APPROVED
apatel
12/17/2019 2:48:46 PM

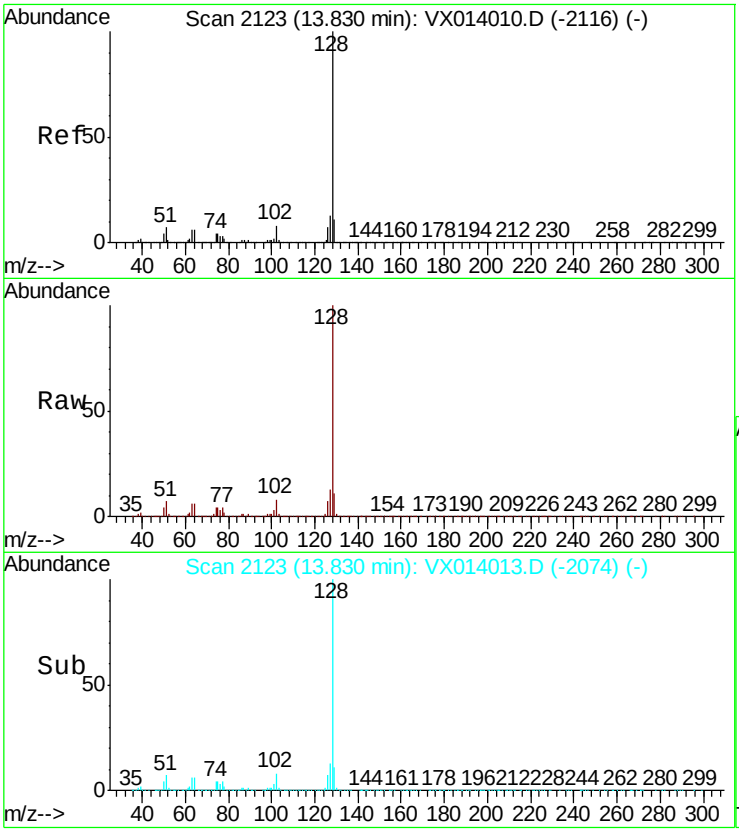


#94
Hexachlorobutadiene
Concen: 53.230 ug/l
RT: 13.78 min Scan# 2114
Delta R.T. 0.00 min
Lab File: VX014013.D
Acq: 13 Dec 2019 18:00

Tgt Ion:225 Resp: 237371

Ion	Ratio	Lower	Upper
225	100		
223	62.7	30.9	92.5
227	64.0	30.9	92.7

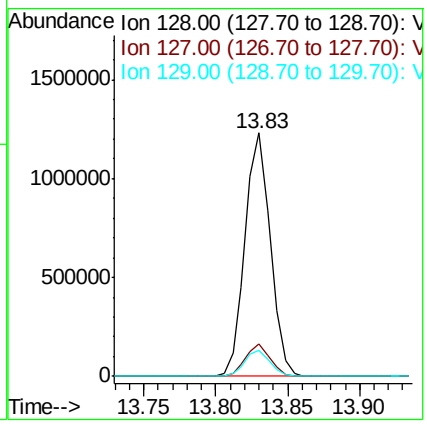




#95
Naphthalene
Concen: 55.076 ug/l
RT: 13.83 min Scan# 2123
Delta R.T. 0.00 min
Lab File: VX014013.D
Acq: 13 Dec 2019 18:00

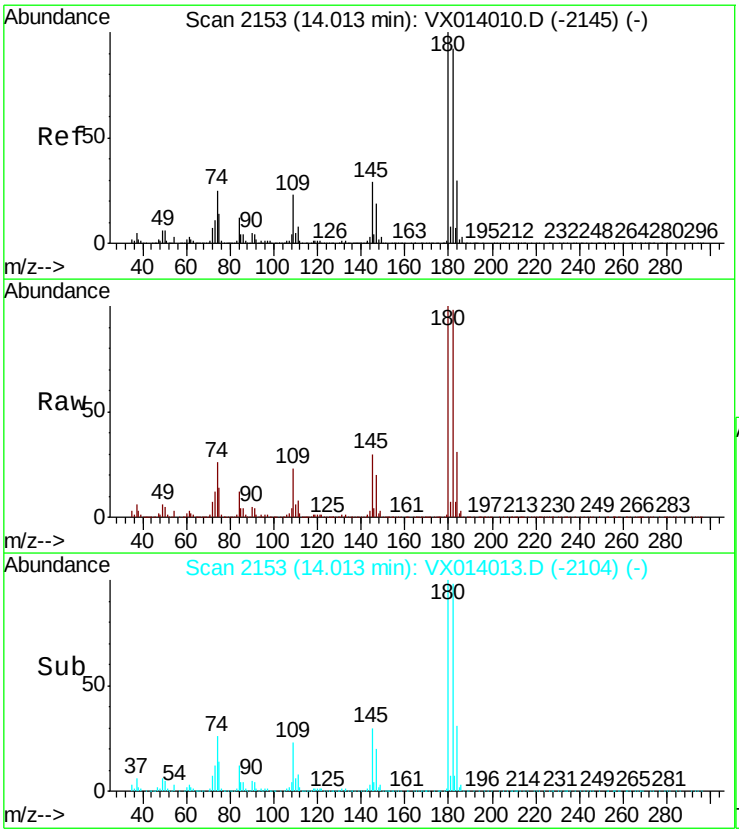
Tgt Ion:128 Resp: 1501462

Ion	Ratio	Lower	Upper
128	100		
127	13.0	10.2	15.4
129	11.0	8.7	13.1



Instrument :
MSVOA_X
ClientSampleId :
ICVVX121319

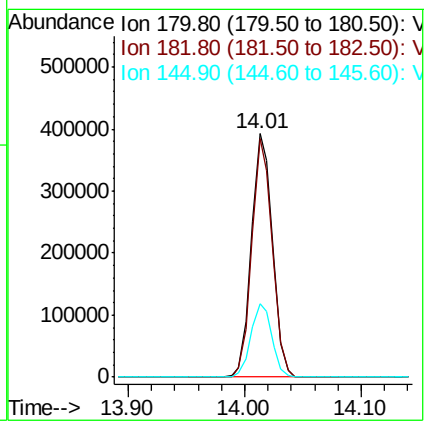
Manual Integrations APPROVED
apatel
12/17/2019 2:48:46 PM



#96
1,2,3-Trichlorobenzene
Concen: 53.990 ug/l
RT: 14.01 min Scan# 2153
Delta R.T. 0.00 min
Lab File: VX014013.D
Acq: 13 Dec 2019 18:00

Tgt Ion:180 Resp: 494527

Ion	Ratio	Lower	Upper
180	100		
182	95.3	46.8	140.3
145	29.9	14.8	44.4



Evaluate Continuing Calibration Report

Data Path : Z:\voasrv\HPCHEM1\MSVOA X\Data\VX121319\
Data File : VX014013.D
Acq On : 13 Dec 2019 18:00
Operator : JC/SP
Sample : VSTDICV050
Misc : 5.0mL/MSVOA X/WATER
ALS Vial : 9 Sample Multiplier: 1

Instrument : MSVOA_X
ClientSampleId : ICVVX121319

Quant Time: Dec 17 03:04:40 2019
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121319W.M
Quant Title : SW846 8260
QLast Update : Tue Dec 17 03:01:07 2019
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	Pentafluorobenzene	50.000	50.000	0.0	110	0.00
2	T	Dichlorodifluoromethane	50.000	52.423	-4.8	119	0.00
3	P	Chloromethane	50.000	51.476	-3.0	116	0.00
4	C	Vinyl Chloride	50.000	50.683	-1.4#	117	0.00
5	T	Bromomethane	50.000	48.282	3.4	115	0.00
6	T	Chloroethane	50.000	51.409	-2.8	118	0.00
7	T	Trichlorofluoromethane	50.000	52.333	-4.7	119	0.00
8	T	Diethyl Ether	50.000	49.336	1.3	115	0.00
9	T	1,1,2-Trichlorotrifluoroeth	50.000	52.756	-5.5	122	0.00
10	T	Methyl Iodide	50.000	51.147	-2.3	114	0.00
11	T	Tert butyl alcohol	250.000	255.656	-2.3	123	-0.02
12	CM	1,1-Dichloroethene	50.000	51.120	-2.2#	118	0.00
13	T	Acrolein	250.000	308.460	-23.4#	147	0.00
14	T	Allyl chloride	50.000	52.467	-4.9	118	0.00
15	T	Acrylonitrile	250.000	258.767	-3.5	119	0.00
16	T	Acetone	250.000	205.507	17.8	90	0.00
17	T	Carbon Disulfide	50.000	51.979	-4.0	118	0.00
18	T	Methyl Acetate	50.000	50.218	-0.4	116	0.00
19	T	Methyl tert-butyl Ether	50.000	53.038	-6.1	119	0.00
20	T	Methylene Chloride	50.000	48.495	3.0	118	0.00
21	T	trans-1,2-Dichloroethene	50.000	50.185	-0.4	117	0.00
22	T	Diisopropyl ether	50.000	52.230	-4.5	118	0.00
23	T	Vinyl Acetate	250.000	279.180	-11.7	124	0.00
24	P	1,1-Dichloroethane	50.000	50.563	-1.1	117	0.00
25	T	2-Butanone	250.000	240.967	3.6	107	-0.01
26	T	2,2-Dichloropropane	50.000	54.390	-8.8	123	0.00
27	T	cis-1,2-Dichloroethene	50.000	50.600	-1.2	117	0.00
28	T	Bromochloromethane	50.000	50.825	-1.7	110	0.00
29	T	Tetrahydrofuran	250.000	263.112	-5.2	120	0.00
30	C	Chloroform	50.000	51.813	-3.6#	117	0.00
31	T	Cyclohexane	50.000	53.196	-6.4	118	0.00
32	T	1,1,1-Trichloroethane	50.000	52.170	-4.3	118	0.00
33	S	1,2-Dichloroethane-d4	50.000	49.379	1.2	111	0.00
34	I	1,4-Difluorobenzene	50.000	50.000	0.0	108	0.00
35	S	Dibromofluoromethane	50.000	51.165	-2.3	111	-0.01
36	T	1,1-Dichloropropene	50.000	53.063	-6.1	119	0.00
37	T	Ethyl Acetate	50.000	53.892	-7.8	117	0.00
38	T	Carbon Tetrachloride	50.000	55.084	-10.2	119	0.00
39	T	Methylcyclohexane	50.000	54.011	-8.0	120	0.00
40	TM	Benzene	50.000	51.683	-3.4	116	0.00
41	T	Methacrylonitrile	50.000	53.997	-8.0	121	-0.01
42	TM	1,2-Dichloroethane	50.000	52.570	-5.1	118	0.00
43	T	Isopropyl Acetate	50.000	54.361	-8.7	120	0.00
44	TM	Trichloroethene	50.000	51.035	-2.1	118	0.00
45	C	1,2-Dichloropropane	50.000	51.894	-3.8#	116	0.00

Evaluate Continuing Calibration Report

Data Path : Z:\voasrv\HPCHEM1\MSVOA X\Data\VX121319\
Data File : VX014013.D
Acq On : 13 Dec 2019 18:00
Operator : JC/SP
Sample : VSTDICV050
Misc : 5.0mL/MSVOA X/WATER
ALS Vial : 9 Sample Multiplier: 1

Instrument : MSVOA_X
ClientSampleId : ICVVX121319

Quant Time: Dec 17 03:04:40 2019
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121319W.M
Quant Title : SW846 8260
QLast Update : Tue Dec 17 03:01:07 2019
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
46	T	Dibromomethane	50.000	51.535	-3.1	118	0.00
47	T	Bromodichloromethane	50.000	53.914	-7.8	118	0.00
48	T	Methyl methacrylate	50.000	54.148	-8.3	118	0.00
49	T	1,4-Dioxane	1000.000	1051.128	-5.1	120	0.00
50	S	Toluene-d8	50.000	51.168	-2.3	110	0.00
51	T	4-Methyl-2-Pentanone	250.000	262.786	-5.1	116	0.00
52	CM	Toluene	50.000	51.512	-3.0#	116	0.00
53	T	t-1,3-Dichloropropene	50.000	56.109	-12.2	118	0.00
54	T	cis-1,3-Dichloropropene	50.000	56.374	-12.7	119	0.00
55	T	1,1,2-Trichloroethane	50.000	51.430	-2.9	115	0.00
56	T	Ethyl methacrylate	50.000	54.481	-9.0	116	0.00
57	T	1,3-Dichloropropane	50.000	52.245	-4.5	115	0.00
58	T	2-Chloroethyl Vinyl ether	250.000	254.171	-1.7	105	0.00
59	T	2-Hexanone	250.000	252.423	-1.0	108	0.00
60	T	Dibromochloromethane	50.000	55.271	-10.5	117	0.00
61	T	1,2-Dibromoethane	50.000	52.886	-5.8	116	0.00
62	S	4-Bromofluorobenzene	50.000	50.095	-0.2	108	0.00
63	I	Chlorobenzene-d5	50.000	50.000	0.0	106	0.00
64	T	Tetrachloroethene	50.000	44.918	10.2	100	0.00
65	PM	Chlorobenzene	50.000	51.674	-3.3	115	0.00
66	T	1,1,1,2-Tetrachloroethane	50.000	53.581	-7.2	116	0.00
67	C	Ethyl Benzene	50.000	53.822	-7.6#	116	0.00
68	T	m/p-Xylenes	100.000	106.690	-6.7	116	0.00
69	T	o-Xylene	50.000	52.582	-5.2	114	0.00
70	T	Styrene	50.000	53.275	-6.5	113	0.00
71	P	Bromoform	50.000	56.249	-12.5	118	0.00
72	I	1,4-Dichlorobenzene-d4	50.000	50.000	0.0	104	0.00
73	T	Isopropylbenzene	50.000	54.942	-9.9	116	0.00
74	T	N-amyl acetate	50.000	54.780	-9.6	114	0.00
75	P	1,1,2,2-Tetrachloroethane	50.000	52.874	-5.7	113	0.00
76	T	1,2,3-Trichloropropane	50.000	48.187	3.6	99	0.00
77	T	Bromobenzene	50.000	51.492	-3.0	115	0.00
78	T	n-propylbenzene	50.000	55.711	-11.4	116	0.00
79	T	2-Chlorotoluene	50.000	53.821	-7.6	114	0.00
80	T	1,3,5-Trimethylbenzene	50.000	55.135	-10.3	116	0.00
81	T	trans-1,4-Dichloro-2-butene	50.000	58.475	-17.0	117	0.00
82	T	4-Chlorotoluene	50.000	53.332	-6.7	115	0.00
83	T	tert-Butylbenzene	50.000	56.340	-12.7	121	0.00
84	T	1,2,4-Trimethylbenzene	50.000	54.762	-9.5	115	0.00
85	T	sec-Butylbenzene	50.000	54.958	-9.9	116	0.00
86	T	p-Isopropyltoluene	50.000	55.715	-11.4	117	0.00
87	T	1,3-Dichlorobenzene	50.000	51.836	-3.7	115	0.00
88	T	1,4-Dichlorobenzene	50.000	50.052	-0.1	113	0.00
89	T	n-Butylbenzene	50.000	56.708	-13.4	117	0.00

Evaluate Continuing Calibration Report

Data Path : Z:\voasrv\HPCHEM1\MSVOA X\Data\VX121319\
Data File : VX014013.D
Acq On : 13 Dec 2019 18:00
Operator : JC/SP
Sample : VSTDICV050
Misc : 5.0mL/MSVOA X/WATER
ALS Vial : 9 Sample Multiplier: 1

Instrument : MSVOA_X
ClientSampleId : ICVVX121319

Quant Time: Dec 17 03:04:40 2019
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121319W.M
Quant Title : SW846 8260
QLast Update : Tue Dec 17 03:01:07 2019
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
90 T	Hexachloroethane	50.000	55.854	-11.7	116	0.00
91 T	1,2-Dichlorobenzene	50.000	51.501	-3.0	113	0.00
92 T	1,2-Dibromo-3-Chloropropane	50.000	52.330	-4.7	117	0.00
93 T	1,2,4-Trichlorobenzene	50.000	54.093	-8.2	116	0.00
94 T	Hexachlorobutadiene	50.000	53.230	-6.5	117	0.00
95 T	Naphthalene	50.000	55.076	-10.2	113	0.00
96 T	1,2,3-Trichlorobenzene	50.000	53.990	-8.0	114	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 6

Evaluate Continuing Calibration Report

ICAL Form

Data Path : Z:\voasrv\HPCHEM1\MSVOA X\Data\VX121319\
Data File : VX014013.D
Acq On : 13 Dec 2019 18:00
Operator : JC/SP
Sample : VSTDICV050
Misc : 5.0mL/MSVOA X/WATER
ALS Vial : 9 Sample Multiplier: 1

Instrument : MSVOA_X
ClientSampleId : ICVVX121319

Quant Time: Dec 17 03:04:40 2019
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121319W.M
Quant Title : SW846 8260
QLast Update : Tue Dec 17 03:01:07 2019
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	Pentafluorobenzene	1.000	1.000	0.0	110	0.00
2	T	Dichlorodifluoromethane	0.447	0.469	-4.9	119	0.00
3	P	Chloromethane	0.600	0.618	-3.0	116	0.00
4	C	Vinyl Chloride	0.633	0.642	-1.4#	117	0.00
5	T	Bromomethane	0.450	0.434	3.6	115	0.00
6	T	Chloroethane	0.391	0.402	-2.8	118	0.00
7	T	Trichlorofluoromethane	0.784	0.821	-4.7	119	0.00
8	T	Diethyl Ether	0.368	0.363	1.4	115	0.00
9	T	1,1,2-Trichlorotrifluoroeth	0.473	0.499	-5.5	122	0.00
10	T	Methyl Iodide	0.575	0.638	-11.0	114	0.00
11	T	Tert butyl alcohol	0.122	0.125	-2.5	123	-0.02
12	CM	1,1-Dichloroethene	0.481	0.492	-2.3#	118	0.00
13	T	Acrolein	0.070	0.086	-22.9#	147	0.00
14	T	Allyl chloride	0.859	0.901	-4.9	118	0.00
15	T	Acrylonitrile	0.286	0.296	-3.5	119	0.00
16	T	Acetone	0.368	0.302	17.9	90	0.00
17	T	Carbon Disulfide	1.418	1.389	2.0	118	0.00
18	T	Methyl Acetate	0.729	0.732	-0.4	116	0.00
19	T	Methyl tert-butyl Ether	1.580	1.677	-6.1	119	0.00
20	T	Methylene Chloride	0.579	0.562	2.9	118	0.00
21	T	trans-1,2-Dichloroethene	0.530	0.532	-0.4	117	0.00
22	T	Diisopropyl ether	1.711	1.788	-4.5	118	0.00
23	T	Vinyl Acetate	1.397	1.560	-11.7	124	0.00
24	P	1,1-Dichloroethane	0.952	0.963	-1.2	117	0.00
25	T	2-Butanone	0.454	0.437	3.7	107	-0.01
26	T	2,2-Dichloropropane	0.739	0.804	-8.8	123	0.00
27	T	cis-1,2-Dichloroethene	0.599	0.606	-1.2	117	0.00
28	T	Bromochloromethane	0.332	0.372	-12.0	110	0.00
29	T	Tetrahydrofuran	0.254	0.267	-5.1	120	0.00
30	C	Chloroform	0.903	0.935	-3.5#	117	0.00
31	T	Cyclohexane	0.847	0.901	-6.4	118	0.00
32	T	1,1,1-Trichloroethane	0.769	0.803	-4.4	118	0.00
33	S	1,2-Dichloroethane-d4	0.567	0.560	1.2	111	0.00
34	I	1,4-Difluorobenzene	1.000	1.000	0.0	108	0.00
35	S	Dibromofluoromethane	0.304	0.311	-2.3	111	-0.01
36	T	1,1-Dichloropropene	0.459	0.487	-6.1	119	0.00
37	T	Ethyl Acetate	0.507	0.546	-7.7	117	0.00
38	T	Carbon Tetrachloride	0.418	0.460	-10.0	119	0.00
39	T	Methylcyclohexane	0.566	0.612	-8.1	120	0.00
40	TM	Benzene	1.412	1.459	-3.3	116	0.00
41	T	Methacrylonitrile	0.281	0.304	-8.2	121	-0.01
42	TM	1,2-Dichloroethane	0.479	0.503	-5.0	118	0.00
43	T	Isopropyl Acetate	0.838	0.912	-8.8	120	0.00
44	TM	Trichloroethene	0.390	0.398	-2.1	118	0.00
45	C	1,2-Dichloropropane	0.362	0.376	-3.9#	116	0.00

Evaluate Continuing Calibration Report

Data Path : Z:\voasrv\HPCHEM1\MSVOA X\Data\VX121319\
Data File : VX014013.D
Acq On : 13 Dec 2019 18:00
Operator : JC/SP
Sample : VSTDICV050
Misc : 5.0mL/MSVOA X/WATER
ALS Vial : 9 Sample Multiplier: 1

Instrument : MSVOA_X
ClientSampleId : ICVVX121319

Quant Time: Dec 17 03:04:40 2019
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121319W.M
Quant Title : SW846 8260
QLast Update : Tue Dec 17 03:01:07 2019
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
46	T	Dibromomethane	0.239	0.247	-3.3	118	0.00
47	T	Bromodichloromethane	0.451	0.486	-7.8	118	0.00
48	T	Methyl methacrylate	0.411	0.445	-8.3	118	0.00
49	T	1,4-Dioxane	0.008	0.009	-12.5	120	0.00
50	S	Toluene-d8	1.183	1.211	-2.4	110	0.00
51	T	4-Methyl-2-Pentanone	0.527	0.553	-4.9	116	0.00
52	CM	Toluene	0.892	0.919	-3.0#	116	0.00
53	T	t-1,3-Dichloropropene	0.494	0.554	-12.1	118	0.00
54	T	cis-1,3-Dichloropropene	0.550	0.621	-12.9	119	0.00
55	T	1,1,2-Trichloroethane	0.358	0.368	-2.8	115	0.00
56	T	Ethyl methacrylate	0.562	0.612	-8.9	116	0.00
57	T	1,3-Dichloropropane	0.602	0.629	-4.5	115	0.00
58	T	2-Chloroethyl Vinyl ether	0.213	0.216	-1.4	105	0.00
59	T	2-Hexanone	0.424	0.428	-0.9	108	0.00
60	T	Dibromochloromethane	0.355	0.393	-10.7	117	0.00
61	T	1,2-Dibromoethane	0.366	0.387	-5.7	116	0.00
62	S	4-Bromofluorobenzene	0.433	0.433	0.0	108	0.00
63	I	Chlorobenzene-d5	1.000	1.000	0.0	106	0.00
64	T	Tetrachloroethene	0.442	0.397	10.2	100	0.00
65	PM	Chlorobenzene	1.063	1.099	-3.4	115	0.00
66	T	1,1,1,2-Tetrachloroethane	0.380	0.407	-7.1	116	0.00
67	C	Ethyl Benzene	1.828	1.967	-7.6#	116	0.00
68	T	m/p-Xylenes	0.703	0.750	-6.7	116	0.00
69	T	o-Xylene	0.689	0.725	-5.2	114	0.00
70	T	Styrene	1.166	1.242	-6.5	113	0.00
71	P	Bromoform	0.305	0.343	-12.5	118	0.00
72	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	104	0.00
73	T	Isopropylbenzene	3.520	3.868	-9.9	116	0.00
74	T	N-amyl acetate	1.650	1.808	-9.6	114	0.00
75	P	1,1,2,2-Tetrachloroethane	1.220	1.291	-5.8	113	0.00
76	T	1,2,3-Trichloropropane	1.085	1.046	3.6	99	0.00
77	T	Bromobenzene	0.969	0.997	-2.9	115	0.00
78	T	n-propylbenzene	3.949	4.400	-11.4	116	0.00
79	T	2-Chlorotoluene	2.400	2.584	-7.7	114	0.00
80	T	1,3,5-Trimethylbenzene	2.963	3.267	-10.3	116	0.00
81	T	trans-1,4-Dichloro-2-butene	0.385	0.450	-16.9	117	0.00
82	T	4-Chlorotoluene	2.784	2.970	-6.7	115	0.00
83	T	tert-Butylbenzene	2.883	3.249	-12.7	121	0.00
84	T	1,2,4-Trimethylbenzene	2.967	3.250	-9.5	115	0.00
85	T	sec-Butylbenzene	3.404	3.741	-9.9	116	0.00
86	T	p-Isopropyltoluene	3.114	3.469	-11.4	117	0.00
87	T	1,3-Dichlorobenzene	1.698	1.760	-3.7	115	0.00
88	T	1,4-Dichlorobenzene	1.726	1.728	-0.1	113	0.00
89	T	n-Butylbenzene	2.657	3.013	-13.4	117	0.00

Evaluate Continuing Calibration Report

Data Path : Z:\voasrv\HPCHEM1\MSVOA X\Data\VX121319\
Data File : VX014013.D
Acq On : 13 Dec 2019 18:00
Operator : JC/SP
Sample : VSTDICV050
Misc : 5.0mL/MSVOA X/WATER
ALS Vial : 9 Sample Multiplier: 1

Instrument : MSVOA_X
ClientSampleId : ICVVX121319

Quant Time: Dec 17 03:04:40 2019
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121319W.M
Quant Title : SW846 8260
QLast Update : Tue Dec 17 03:01:07 2019
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
90 T	Hexachloroethane	0.559	0.625	-11.8	116	0.00
91 T	1,2-Dichlorobenzene	1.709	1.760	-3.0	113	0.00
92 T	1,2-Dibromo-3-Chloropropane	0.270	0.283	-4.8	117	0.00
93 T	1,2,4-Trichlorobenzene	1.111	1.202	-8.2	116	0.00
94 T	Hexachlorobutadiene	0.534	0.568	-6.4	117	0.00
95 T	Naphthalene	3.263	3.595	-10.2	113	0.00
96 T	1,2,3-Trichlorobenzene	1.096	1.184	-8.0	114	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 6

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: DAYE01

Lab Code: CHEM Case No.: K6405 SAS No.: K6405 SDG No.: K6405

Instrument ID: MSVOA_X Calibration Date/Time: 12/24/2019 09:28

Lab File ID: VX014232.D Init. Calib. Date(s): 12/13/2019 12/13/2019

Heated Purge: (Y/N) N Init. Calib. Time(s): 14:49 16:45

GC Column: DB-624UI ID: 0.18 (mm)

COMPOUND	RRF	RRF050	MIN RRF	%D	MAX%D
Dichlorodifluoromethane	0.447	0.406		-9.17	20
Chloromethane	0.600	0.537	0.1	-10.5	20
Vinyl Chloride	0.633	0.585		-7.58	20
Bromomethane	0.450	0.367		-18.44	20
Chloroethane	0.391	0.376		-3.84	20
Trichlorofluoromethane	0.784	0.766		-2.3	20
1,1,2-Trichlorotrifluoroethane	0.473	0.472		-0.21	20
1,1-Dichloroethene	0.481	0.464		-3.53	20
Acetone	0.368	0.318		-13.59	20
Carbon Disulfide	1.418	1.196		-15.66	20
Methyl tert-butyl Ether	1.580	1.562		-1.14	20
Methyl Acetate	0.729	0.676		-7.27	20
Methylene Chloride	0.579	0.538		-7.08	20
trans-1,2-Dichloroethene	0.530	0.499		-5.85	20
1,1-Dichloroethane	0.952	0.924	0.1	-2.94	20
Cyclohexane	0.847	0.833		-1.65	20
2-Butanone	0.454	0.420		-7.49	20
Carbon Tetrachloride	0.418	0.432		3.35	20
cis-1,2-Dichloroethene	0.599	0.583		-2.67	20
Bromochloromethane	0.332	0.384		15.66	20
Chloroform	0.903	0.893		-1.11	20
1,1,1-Trichloroethane	0.769	0.759		-1.3	20
Methylcyclohexane	0.566	0.578		2.12	20
Benzene	1.412	1.415		0.21	20
1,2-Dichloroethane	0.479	0.478		-0.21	20
Trichloroethene	0.390	0.386		-1.03	20
1,2-Dichloropropane	0.362	0.373		3.04	20
Bromodichloromethane	0.451	0.473		4.88	20
4-Methyl-2-Pentanone	0.527	0.506		-3.98	20
Toluene	0.892	0.891		-0.11	20
t-1,3-Dichloropropene	0.494	0.521		5.47	20
cis-1,3-Dichloropropene	0.550	0.593		7.82	20
1,1,2-Trichloroethane	0.358	0.361		0.84	20
2-Hexanone	0.424	0.408		-3.77	20
Dibromochloromethane	0.355	0.377		6.2	20
1,2-Dibromoethane	0.366	0.370		1.09	20
Tetrachloroethene	0.442	0.452		2.26	20
Chlorobenzene	1.063	1.072	0.3	0.85	20
Ethyl Benzene	1.828	1.900		3.94	20

All other compounds must meet a minimum RRF of 0.010.
RRF of 1,4-Dioxane = Value should be divide by 1000.

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: DAYE01

Lab Code: CHEM Case No.: K6405 SAS No.: K6405 SDG No.: K6405

Instrument ID: MSVOA_X Calibration Date/Time: 12/24/2019 09:28

Lab File ID: VX014232.D Init. Calib. Date(s): 12/13/2019 12/13/2019

Heated Purge: (Y/N) N Init. Calib. Time(s): 14:49 16:45

GC Column: DB-624UI ID: 0.18 (mm)

COMPOUND	RRF	RRF050	MIN RRF	%D	MAX%D
m/p-Xylenes	0.703	0.720		2.42	20
o-Xylene	0.689	0.696		1.02	20
Styrene	1.166	1.204		3.26	20
Bromoform	0.305	0.317	0.1	3.93	20
Isopropylbenzene	3.520	3.682		4.6	20
1,1,2,2-Tetrachloroethane	1.220	1.180	0.3	-3.28	20
1,3-Dichlorobenzene	1.698	1.696		-0.12	20
1,4-Dichlorobenzene	1.726	1.698		-1.62	20
1,2-Dichlorobenzene	1.709	1.696		-0.76	20
1,2-Dibromo-3-Chloropropane	0.270	0.238		-11.85	20
1,2,4-Trichlorobenzene	1.111	1.165		4.86	20
1,2,3-Trichlorobenzene	1.096	1.145		4.47	20
1,2-Dichloroethane-d4	0.567	0.516		-8.99	20
Dibromofluoromethane	0.304	0.292		-3.95	20
Toluene-d8	1.183	1.126		-4.82	20
4-Bromofluorobenzene	0.433	0.402		-7.16	20

All other compounds must meet a minimum RRF of 0.010.
RRF of 1,4-Dioxane = Value should be divide by 1000.

Quantitation Report (QT Reviewed)

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX122419\
Data File : VX014232.D
Acq On : 24 Dec 2019 09:28
Operator : JC/SP
Sample : VSTDCCC050
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 2 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

Manual Integrations APPROVED
apatel
12/26/2019 9:24:17 AM

Quant Time: Dec 25 05:53:28 2019
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121319W.M
Quant Title : SW846 8260
QLast Update : Tue Dec 17 03:01:07 2019
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	5.65	168	538017	50.00	ug/l	0.00
34) 1,4-Difluorobenzene	6.85	114	799944	50.00	ug/l	0.00
63) Chlorobenzene-d5	10.10	117	721140	50.00	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	12.07	152	364828	50.00	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	6.04	65	277420	45.50	ug/l	0.00
Spiked Amount 50.000			Recovery = 91.00%			
35) Dibromofluoromethane	5.48	113	233691	48.06	ug/l	0.00
Spiked Amount 50.000			Recovery = 96.12%			
50) Toluene-d8	8.71	98	901106	47.60	ug/l	0.00
Spiked Amount 50.000			Recovery = 95.20%			
62) 4-Bromofluorobenzene	11.13	95	321897	46.51	ug/l	0.00
Spiked Amount 50.000			Recovery = 93.02%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.19	85	218574	45.411	ug/l	98
3) Chloromethane	1.32	50	288933	44.730	ug/l	100
4) Vinyl Chloride	1.40	62	314969	46.211	ug/l	99
5) Bromomethane	1.63	94	197578	40.842	ug/l	99
6) Chloroethane	1.72	64	202320	48.095	ug/l	96
7) Trichlorofluoromethane	1.92	101	411909	48.819	ug/l	100
8) Diethyl Ether	2.18	74	186997	47.223	ug/l	99
9) 1,1,2-Trichlorotrifluoroet	2.37	101	253752	49.892	ug/l	99
10) Methyl Iodide	2.50	142	308433	46.195	ug/l	99
11) Tert butyl alcohol	3.03	59	261209	198.251	ug/l	99
12) 1,1-Dichloroethene	2.37	96	249682	48.244	ug/l	97
13) Acrolein	2.28	56	200207	265.450	ug/l	99
14) Allyl chloride	2.72	41	451854	48.899	ug/l	99
15) Acrylonitrile	3.13	53	717807	233.411	ug/l	100
16) Acetone	2.43	43	855627	216.138	ug/l	100
17) Carbon Disulfide	2.56	76	643618	44.874	ug/l	100
18) Methyl Acetate	2.76	43	363750	46.371	ug/l	99
19) Methyl tert-butyl Ether	3.18	73	840210	49.405	ug/l	97
20) Methylene Chloride	2.85	84	289346	46.415	ug/l	99
21) trans-1,2-Dichloroethene	3.15	96	268679	47.123	ug/l	97
22) Diisopropyl ether	3.84	45	931509	50.587	ug/l	95
23) Vinyl Acetate	3.80	43	3855874	256.599	ug/l	100
24) 1,1-Dichloroethane	3.69	63	496965	48.509	ug/l	99
25) 2-Butanone	4.65	43	1130972	231.727	ug/l	99
26) 2,2-Dichloropropane	4.57	77	398373	50.083	ug/l	100
27) cis-1,2-Dichloroethene	4.58	96	313411	48.604	ug/l	99
28) Bromochloromethane	5.00	49	206498	52.389	ug/l	100
29) Tetrahydrofuran	5.11	42	631288	231.254	ug/l	100
30) Chloroform	5.19	83	480612	49.487	ug/l	99
31) Cyclohexane	5.57	56	448148	49.184	ug/l	99
32) 1,1,1-Trichloroethane	5.48	97	408230	49.320	ug/l	99
36) 1,1-Dichloropropene	5.79	75	369030	50.277	ug/l	100
37) Ethyl Acetate	4.81	43	391846	48.344	ug/l	99
38) Carbon Tetrachloride	5.78	117	345407	51.657	ug/l	98

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX122419\
Data File : VX014232.D
Acq On : 24 Dec 2019 09:28
Operator : JC/SP
Sample : VSTDCCC050
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 25 05:53:28 2019
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121319W.M
Quant Title : SW846 8260
QLast Update : Tue Dec 17 03:01:07 2019
Response via : Initial Calibration

Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

Manual Integrations APPROVED
apatel
12/26/2019 9:24:17 AM

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
39) Methylcyclohexane	7.45	83	462479	51.029	ug/l		98
40) Benzene	6.13	78	1131829	50.116	ug/l		99
41) Methacrylonitrile	5.02	41	222938	49.572	ug/l		98
42) 1,2-Dichloroethane	6.18	62	382596	49.977	ug/l		99
43) Isopropyl Acetate	6.43	43	663961	49.498	ug/l		99
44) Trichloroethene	7.20	130	309152	49.560	ug/l		99
45) 1,2-Dichloropropane	7.50	63	298522	51.571	ug/l		96
46) Dibromomethane	7.65	93	188328	49.209	ug/l		99
47) Bromodichloromethane	7.89	83	378043	52.450	ug/l		100
48) Methyl methacrylate	7.76	41	324887	49.462	ug/l		100
49) 1,4-Dioxane	7.73	88	113834	851.606	ug/l		99
51) 4-Methyl-2-Pentanone	8.63	43	2025209	240.403	ug/l		99
52) Toluene	8.78	92	712371	49.904	ug/l		100
53) t-1,3-Dichloropropene	9.03	75	416802	52.738	ug/l		100
54) cis-1,3-Dichloropropene	8.43	75	474369	53.876	ug/l		99
55) 1,1,2-Trichloroethane	9.21	97	288971	50.509	ug/l		97
56) Ethyl methacrylate	9.17	69	456119	50.753	ug/l		100
57) 1,3-Dichloropropane	9.36	76	486497	50.541	ug/l		99
58) 2-Chloroethyl Vinyl ether	8.30	63	889280	261.476	ug/l		100
59) 2-Hexanone	9.48	43	1633033	240.807	ug/l		99
60) Dibromochloromethane	9.57	129	301830	53.075	ug/l		98
61) 1,2-Dibromoethane	9.67	107	296106	50.585	ug/l		100
64) Tetrachloroethene	9.33	164	325995	51.087	ug/l		96
65) Chlorobenzene	10.13	112	773248	50.430	ug/l		98
66) 1,1,1,2-Tetrachloroethane	10.21	131	282187	51.543	ug/l		100
67) Ethyl Benzene	10.24	91	1370211	51.978	ug/l		100
68) m/p-Xylenes	10.35	106	1038568	102.434	ug/l		99
69) o-Xylene	10.69	106	501730	50.456	ug/l		99
70) Styrene	10.71	104	868432	51.647	ug/l		99
71) Bromoform	10.85	173	228665	51.959	ug/l	#	100
73) Isopropylbenzene	11.01	105	1343255	52.294	ug/l		100
74) N-amyl acetate	10.89	43	583308	48.446	ug/l		99
75) 1,1,2,2-Tetrachloroethane	11.26	83	430598	48.353	ug/l		100
76) 1,2,3-Trichloropropane	11.29	75	352974m	44.565	ug/l		
77) Bromobenzene	11.25	156	343403	48.590	ug/l		100
78) n-propylbenzene	11.35	91	1555769	53.997	ug/l		100
79) 2-Chlorotoluene	11.42	91	894742	51.087	ug/l		99
80) 1,3,5-Trimethylbenzene	11.50	105	1128209	52.188	ug/l		100
81) trans-1,4-Dichloro-2-buten	11.07	75	144690	51.562	ug/l		99
82) 4-Chlorotoluene	11.51	91	1042921	51.335	ug/l		99
83) tert-Butylbenzene	11.76	119	1099381	52.257	ug/l		98
84) 1,2,4-Trimethylbenzene	11.80	105	1133384	52.352	ug/l		99
85) sec-Butylbenzene	11.94	105	1317333	53.042	ug/l		100
86) p-Isopropyltoluene	12.06	119	1221673	53.775	ug/l		99
87) 1,3-Dichlorobenzene	12.02	146	618856	49.963	ug/l		99
88) 1,4-Dichlorobenzene	12.09	146	619591	49.196	ug/l		99
89) n-Butylbenzene	12.38	91	1075223	55.468	ug/l		100
90) Hexachloroethane	12.59	117	212847	52.161	ug/l		99
91) 1,2-Dichlorobenzene	12.38	146	618701	49.620	ug/l		99
92) 1,2-Dibromo-3-Chloropropan	12.99	75	86939	44.116	ug/l		97

Data Path : Z:\VOASRV\HPCHEM1\MSVOA X\DATA\VX122419\
Data File : VX014232.D
Acq On : 24 Dec 2019 09:28
Operator : JC/SP
Sample : VSTDCCC050
Misc : 5.0mL/MSVOA X/WATER
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 25 05:53:28 2019
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121319W.M
Quant Title : SW846 8260
QLast Update : Tue Dec 17 03:01:07 2019
Response via : Initial Calibration

Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

Manual Integrations APPROVED
apatel
12/26/2019 9:24:17 AM

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
93) 1,2,4-Trichlorobenzene	13.64	180	424939	52.435	ug/l	98
94) Hexachlorobutadiene	13.77	225	205721	52.819	ug/l	98
95) Naphthalene	13.83	128	1225726	51.478	ug/l	100
96) 1,2,3-Trichlorobenzene	14.01	180	417828	52.228	ug/l	97

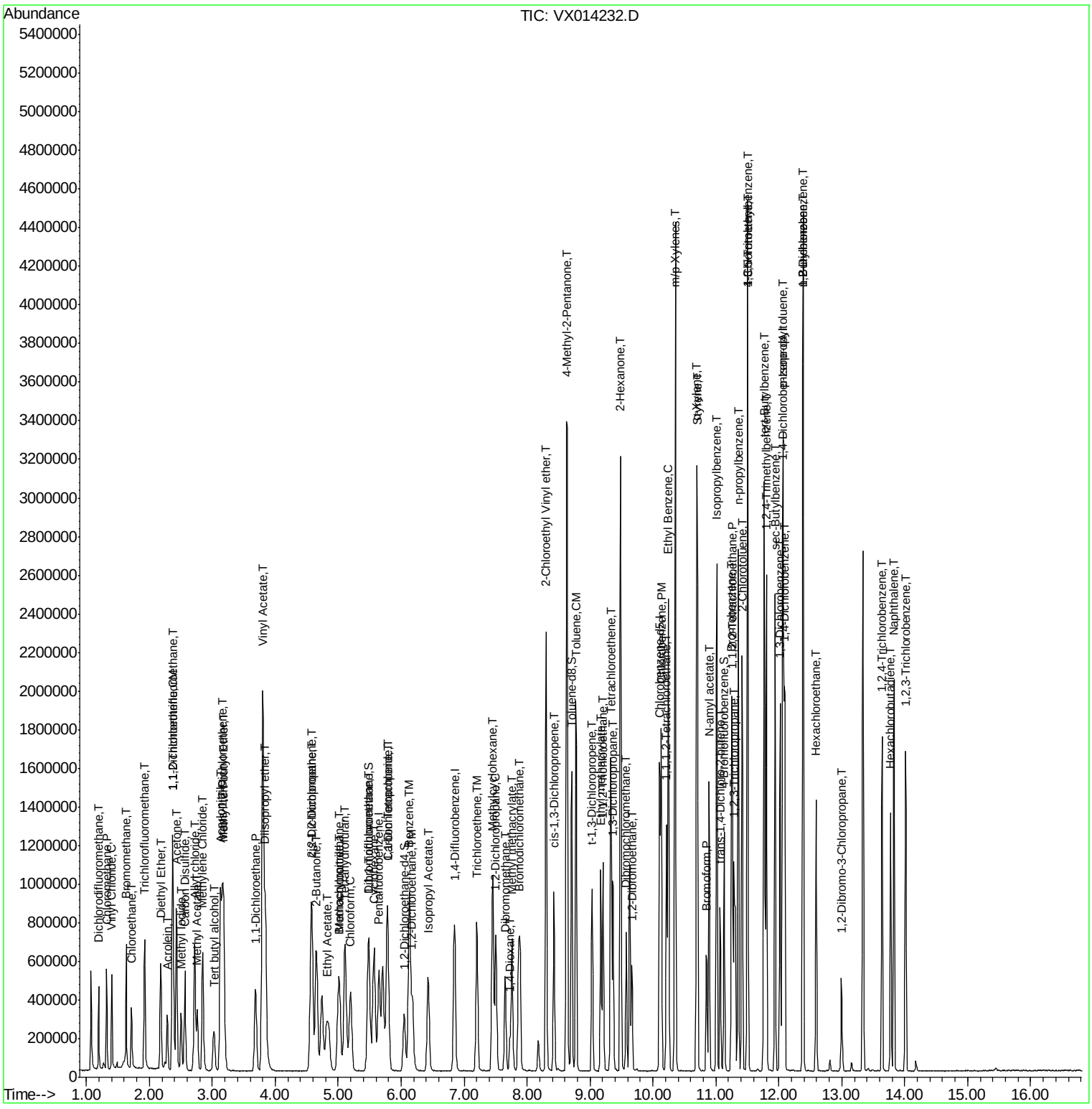
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX122419\
Data File : VX014232.D
Acq On : 24 Dec 2019 09:28
Operator : JC/SP
Sample : VSTDCCC050
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 25 05:53:28 2019
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121319W.M
Quant Title : SW846 8260
QLast Update : Tue Dec 17 03:01:07 2019
Response via : Initial Calibration

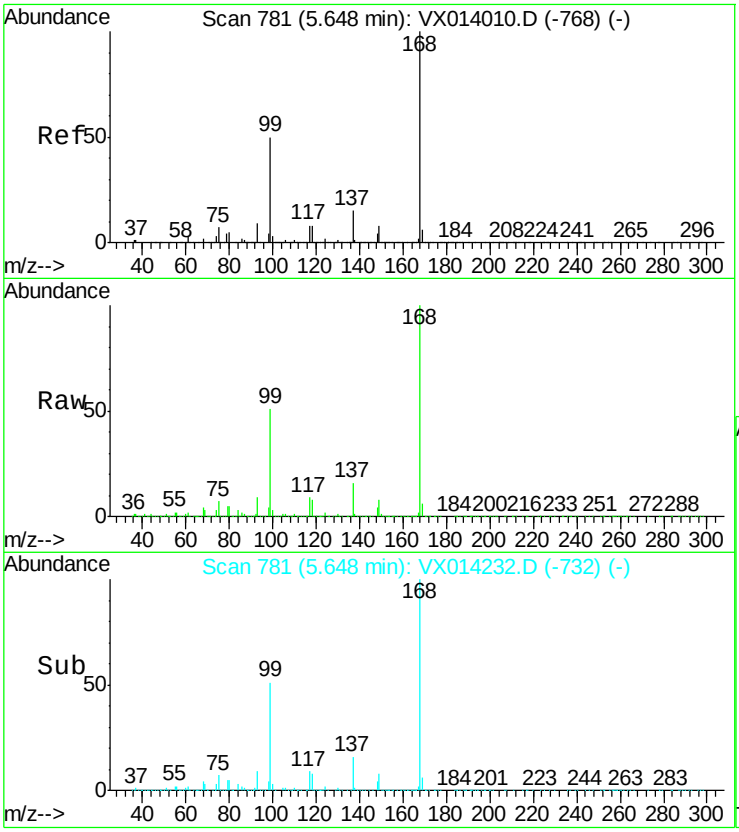
Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

Manual Integrations APPROVED
apatel
12/26/2019 9:24:17 AM



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

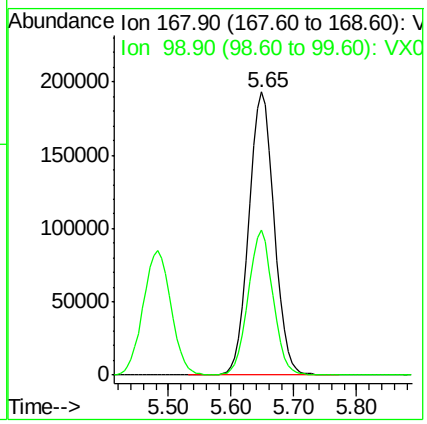
Manual Integrations APPROVED
apatel
12/26/2019 9:24:17 AM

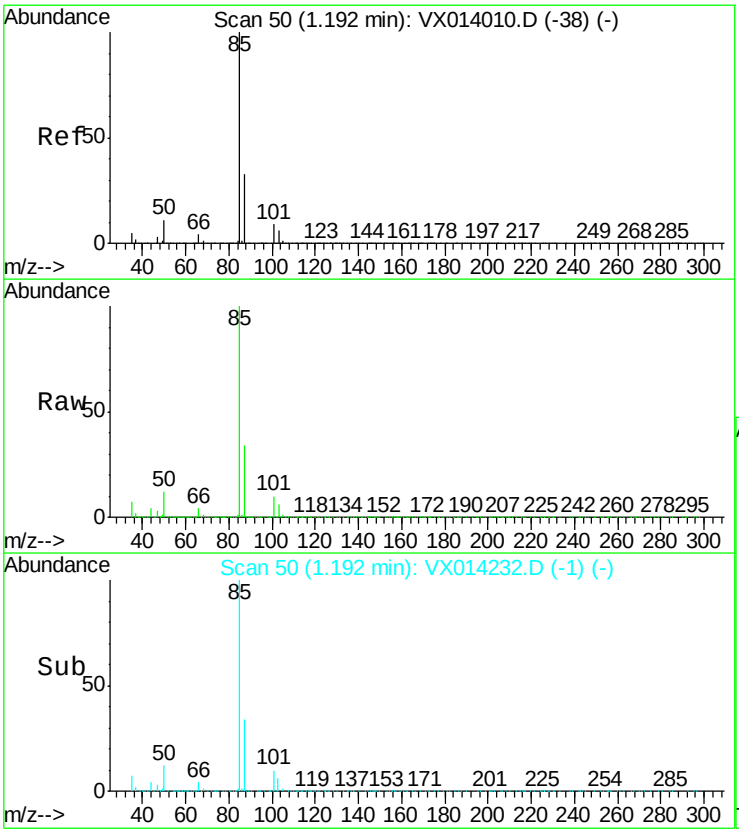


#1
Pentafluorobenzene
Concen: 50.000 ug/l
RT: 5.65 min Scan# 781
Delta R.T. -0.00 min
Lab File: VX014232.D
Acq: 24 Dec 2019 09:28

Tgt Ion:168 Resp: 538017

Ion	Ratio	Lower	Upper
168	100		
99	51.0	40.3	60.5

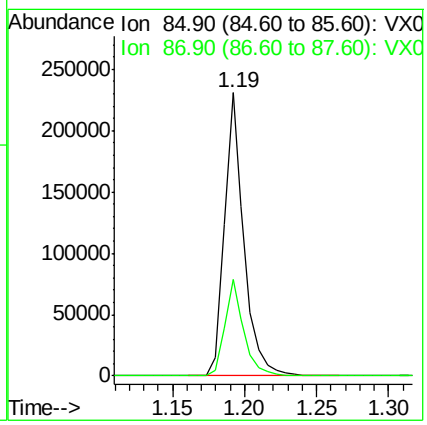




#2
Dichlorodifluoromethane
Concen: 45.411 ug/l
RT: 1.19 min Scan# 50
Delta R.T. -0.00 min
Lab File: VX014232.D
Acq: 24 Dec 2019 09:28

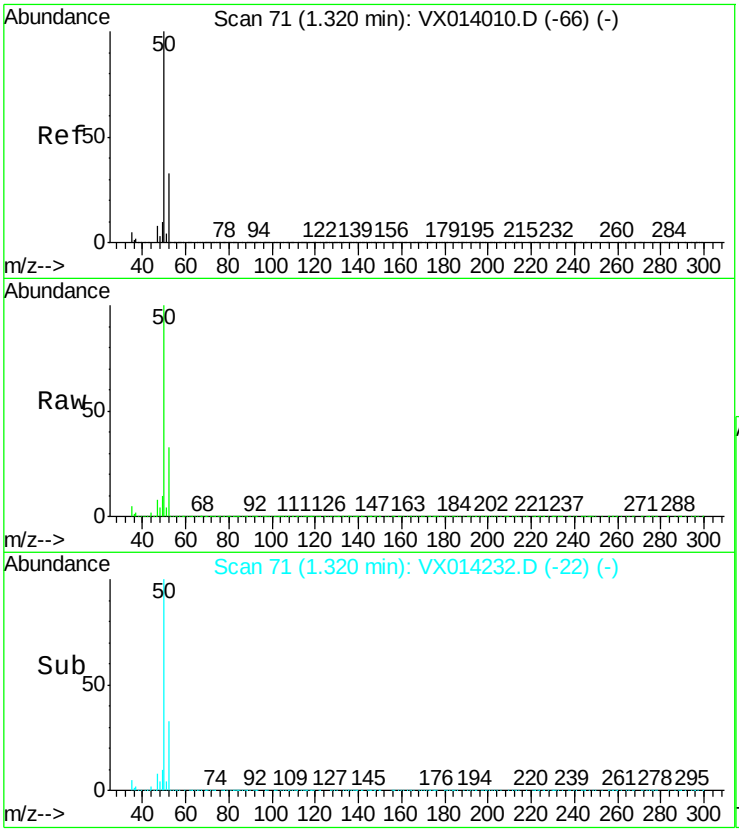
Tgt Ion: 85 Resp: 218574

Ion	Ratio	Lower	Upper
85	100		
87	34.1	16.4	49.2



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

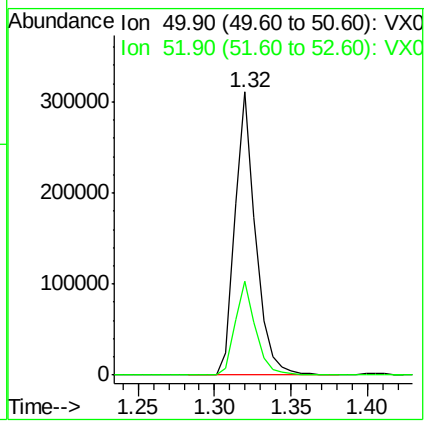
Manual Integrations APPROVED
apatel
12/26/2019 9:24:17 AM

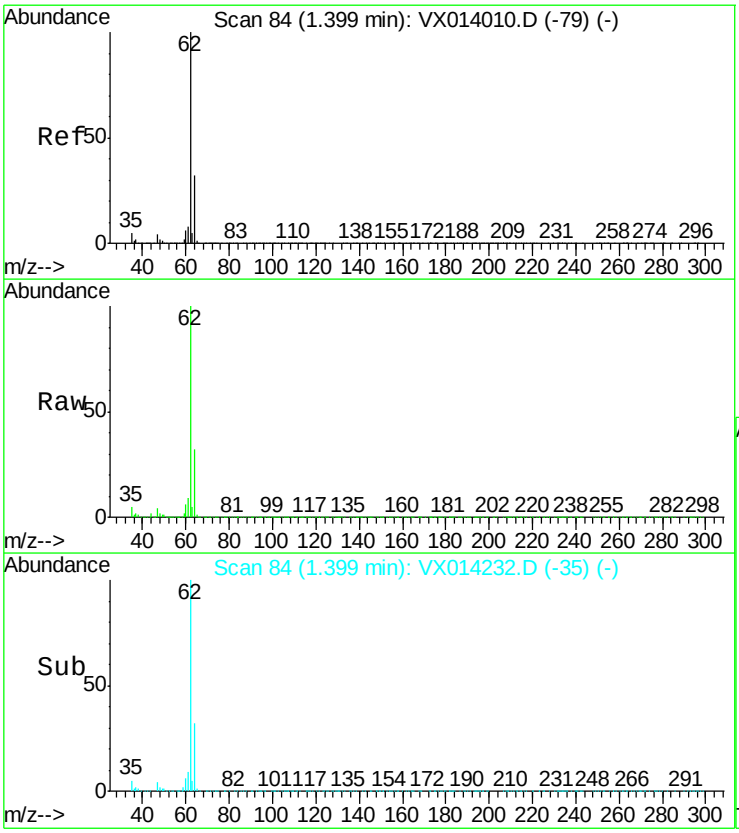


#3
Chloromethane
Concen: 44.730 ug/l
RT: 1.32 min Scan# 71
Delta R.T. -0.00 min
Lab File: VX014232.D
Acq: 24 Dec 2019 09:28

Tgt Ion: 50 Resp: 288933

Ion	Ratio	Lower	Upper
50	100		
52	33.0	26.2	39.4

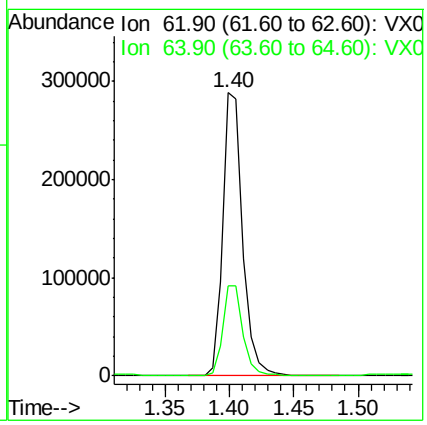




#4
Vinyl Chloride
Concen: 46.211 ug/l
RT: 1.40 min Scan# 84
Delta R.T. -0.00 min
Lab File: VX014232.D
Acq: 24 Dec 2019 09:28

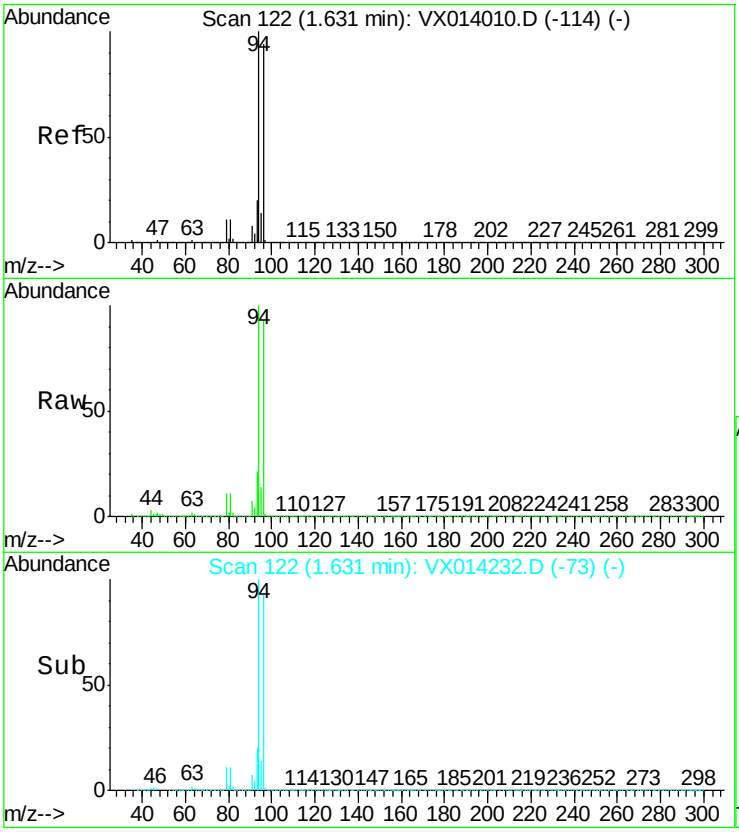
Tgt Ion: 62 Resp: 314969

Ion	Ratio	Lower	Upper
62	100		
64	31.7	25.7	38.5



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

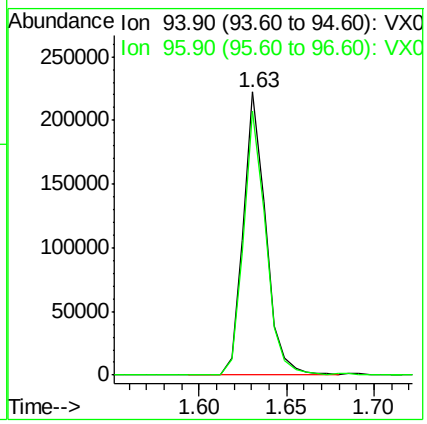
Manual Integrations APPROVED
apatel
12/26/2019 9:24:17 AM

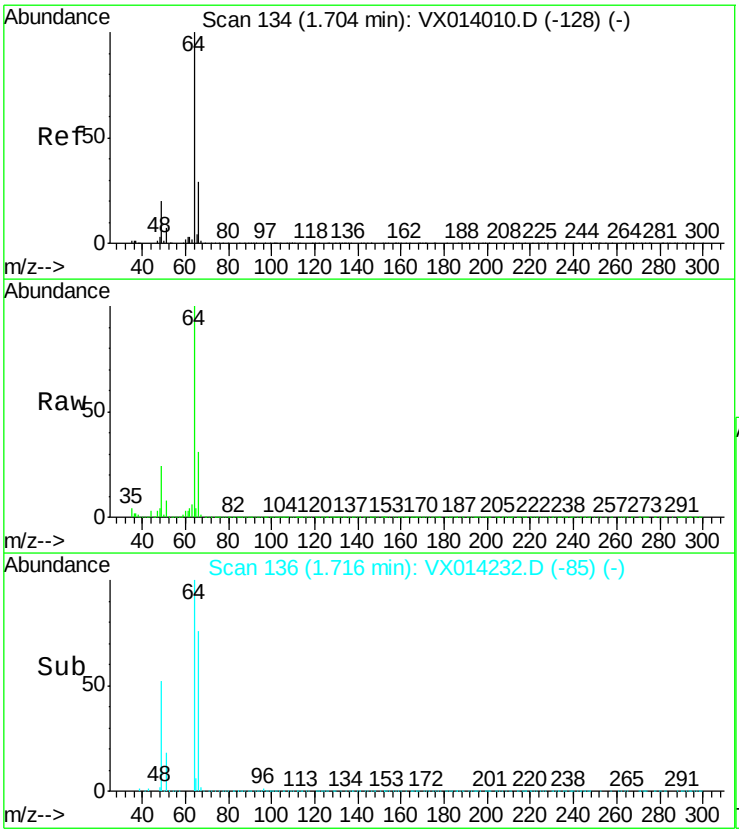


#5
Bromomethane
Concen: 40.842 ug/l
RT: 1.63 min Scan# 122
Delta R.T. -0.00 min
Lab File: VX014232.D
Acq: 24 Dec 2019 09:28

Tgt Ion: 94 Resp: 197578

Ion	Ratio	Lower	Upper
94	100		
96	93.3	75.2	112.8

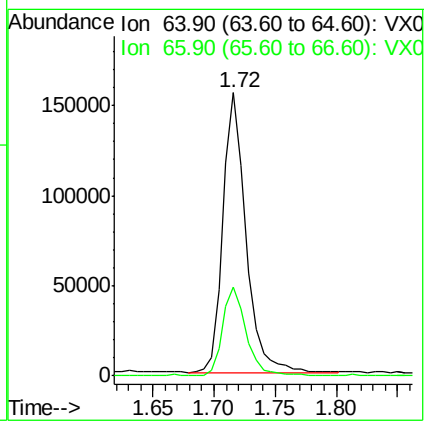




#6
Chloroethane
Concen: 48.095 ug/l
RT: 1.72 min Scan# 136
Delta R.T. 0.01 min
Lab File: VX014232.D
Acq: 24 Dec 2019 09:28

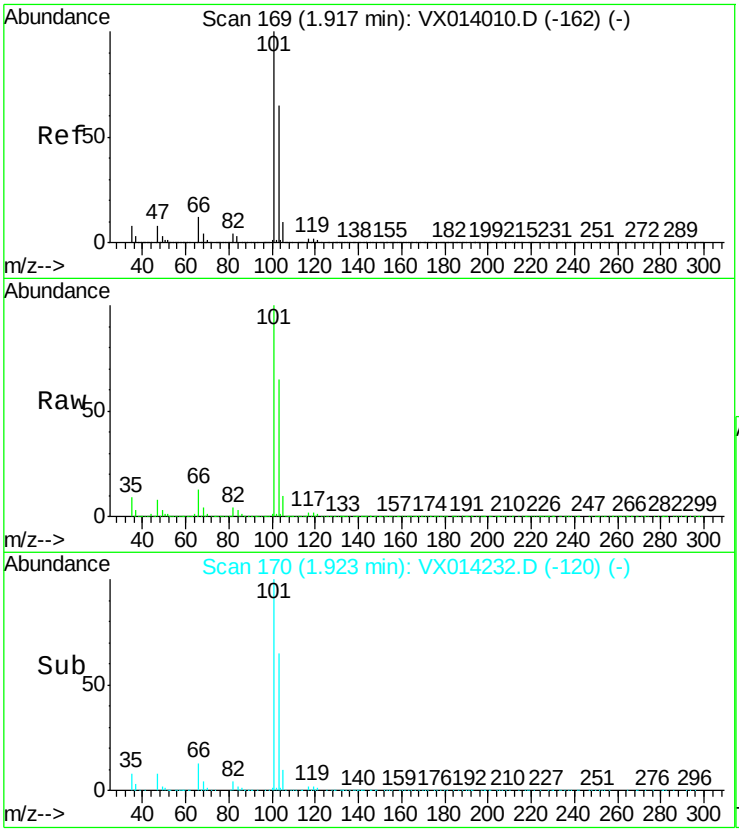
Tgt Ion: 64 Resp: 202320

Ion	Ratio	Lower	Upper
64	100		
66	31.4	23.4	35.2



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

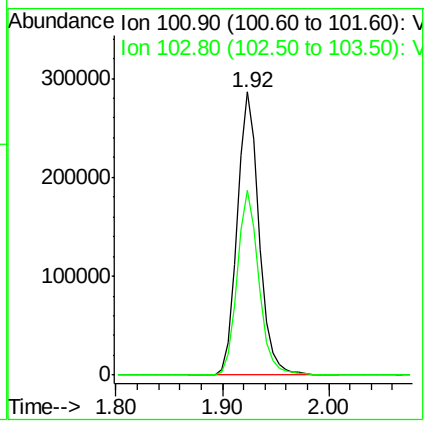
Manual Integrations APPROVED
apatel
12/26/2019 9:24:17 AM

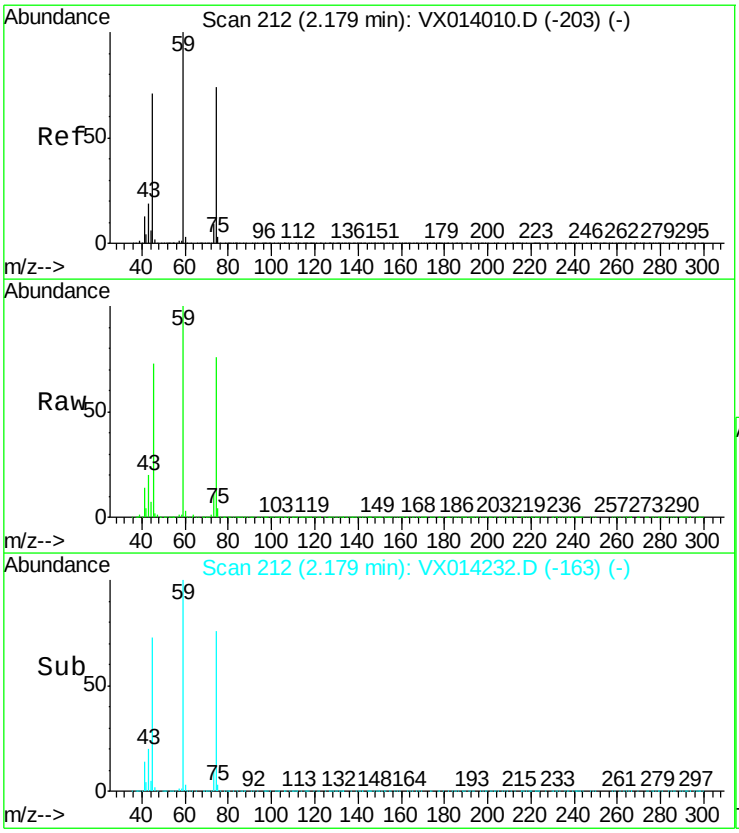


#7
Trichlorofluoromethane
Concen: 48.819 ug/l
RT: 1.92 min Scan# 170
Delta R.T. 0.01 min
Lab File: VX014232.D
Acq: 24 Dec 2019 09:28

Tgt Ion:101 Resp: 411909

Ion	Ratio	Lower	Upper
101	100		
103	65.4	52.2	78.4

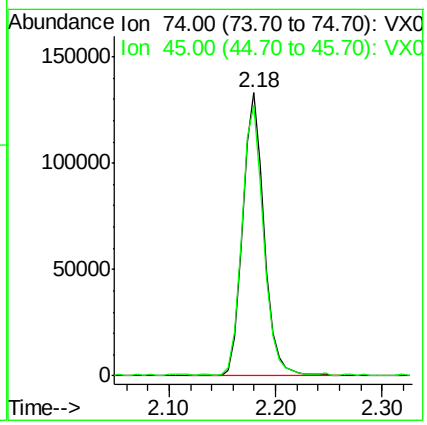




#8
Diethyl Ether
Concen: 47.223 ug/l
RT: 2.18 min Scan# 212
Delta R.T. -0.00 min
Lab File: VX014232.D
Acq: 24 Dec 2019 09:28

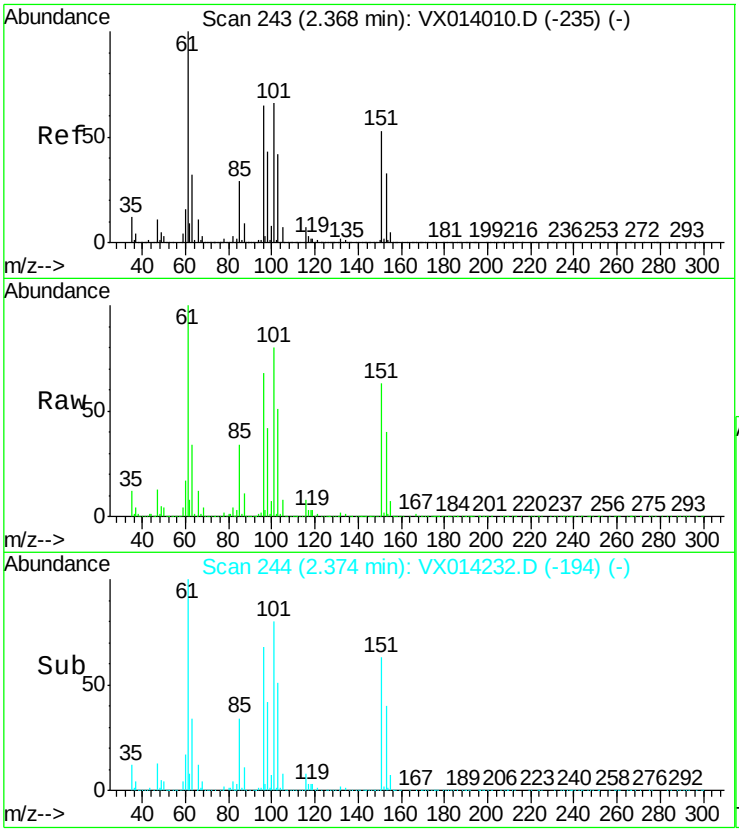
Tgt Ion: 74 Resp: 186997

Ion	Ratio	Lower	Upper
74	100		
45	96.9	48.1	144.3



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

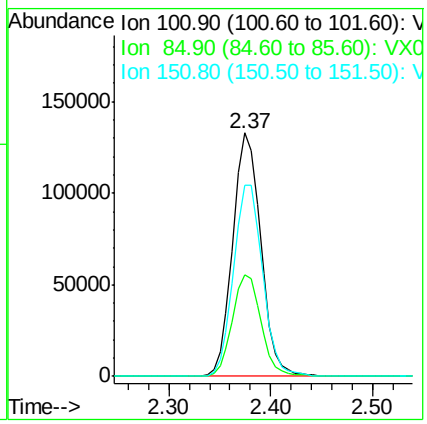
Manual Integrations APPROVED
apatel
12/26/2019 9:24:17 AM

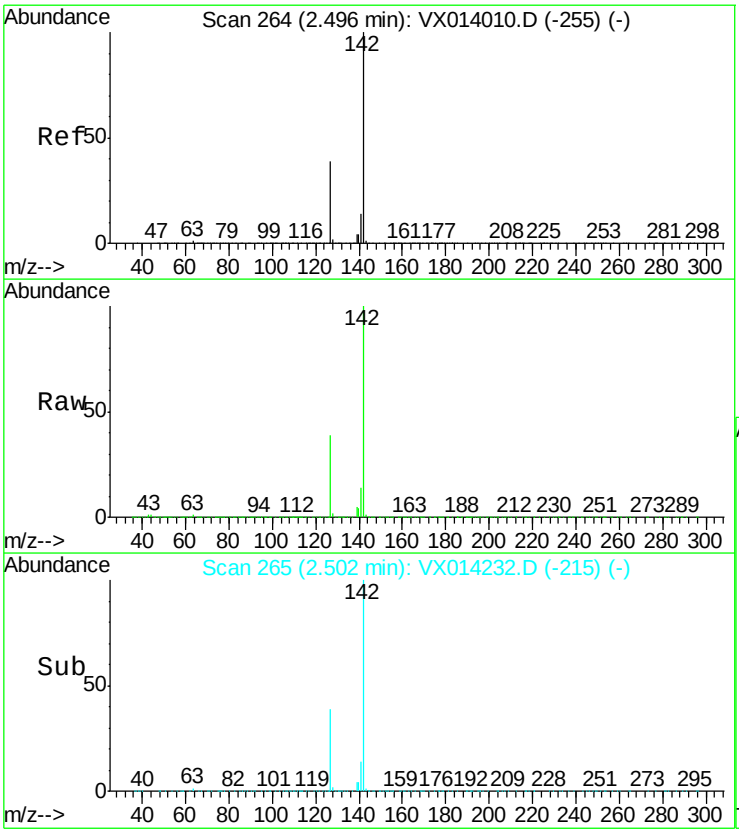


#9
1,1,2-Trichlorotrifluoroethane
Concen: 49.892 ug/l
RT: 2.37 min Scan# 244
Delta R.T. 0.01 min
Lab File: VX014232.D
Acq: 24 Dec 2019 09:28

Tgt Ion:101 Resp: 253752

Ion	Ratio	Lower	Upper
101	100		
85	42.6	33.7	50.5
151	81.4	64.5	96.7

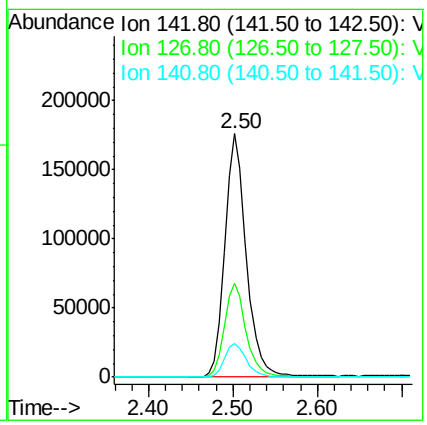




#10
Methyl Iodide
Concen: 46.195 ug/l
RT: 2.50 min Scan# 265
Delta R.T. 0.01 min
Lab File: VX014232.D
Acq: 24 Dec 2019 09:28

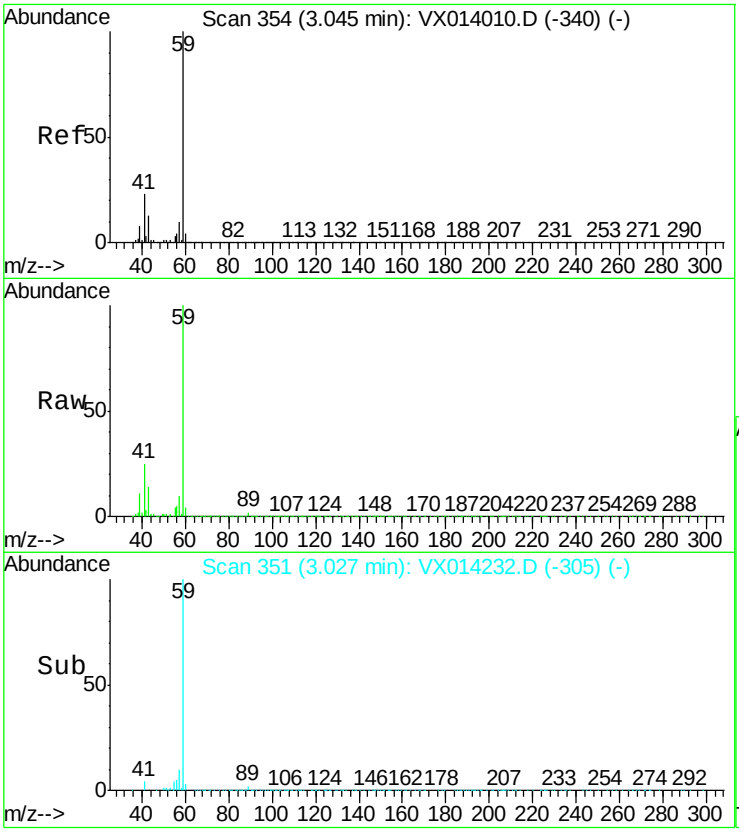
Tgt Ion:142 Resp: 308433

Ion	Ratio	Lower	Upper
142	100		
127	38.7	31.6	47.4
141	14.2	11.6	17.4



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

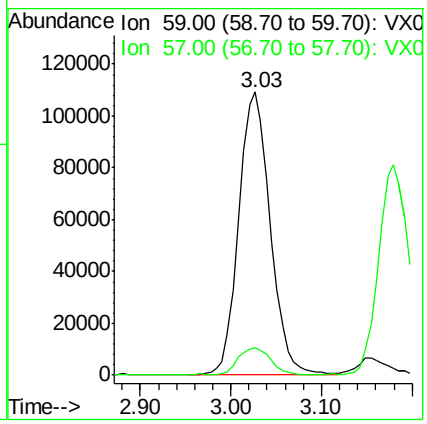
Manual Integrations APPROVED
apatel
12/26/2019 9:24:17 AM

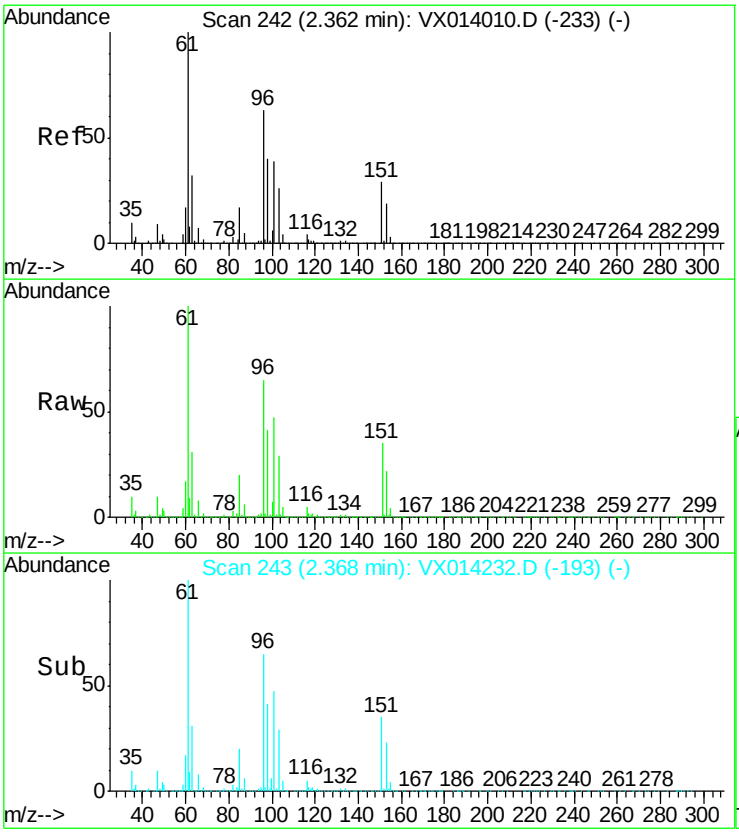


#11
Tert butyl alcohol
Concen: 198.251 ug/l
RT: 3.03 min Scan# 351
Delta R.T. -0.02 min
Lab File: VX014232.D
Acq: 24 Dec 2019 09:28

Tgt Ion: 59 Resp: 261209

Ion	Ratio	Lower	Upper
59	100		
57	10.0	8.4	12.6

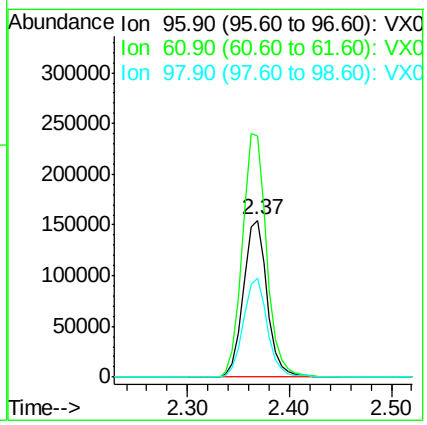




#12
1,1-Dichloroethene
Concen: 48.244 ug/l
RT: 2.37 min Scan# 243
Delta R.T. 0.01 min
Lab File: VX014232.D
Acq: 24 Dec 2019 09:28

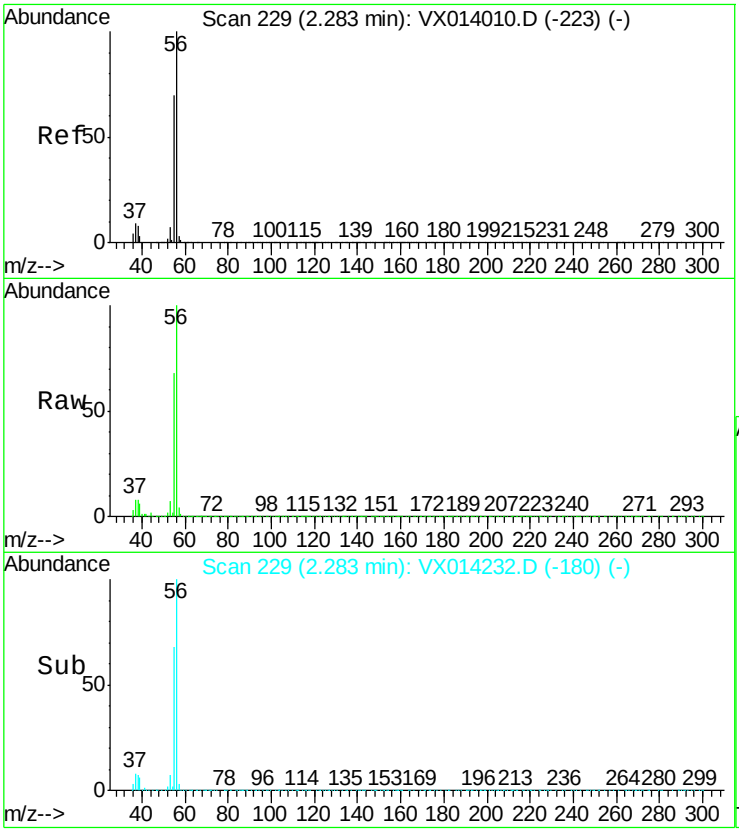
Tgt Ion: 96 Resp: 249682

Ion	Ratio	Lower	Upper
96	100		
61	153.9	127.9	191.9
98	63.4	50.5	75.7



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

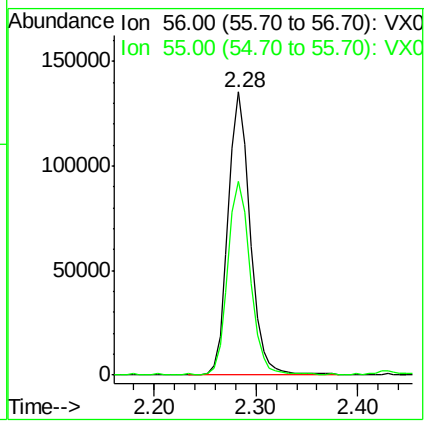
Manual Integrations APPROVED
apatel
12/26/2019 9:24:17 AM

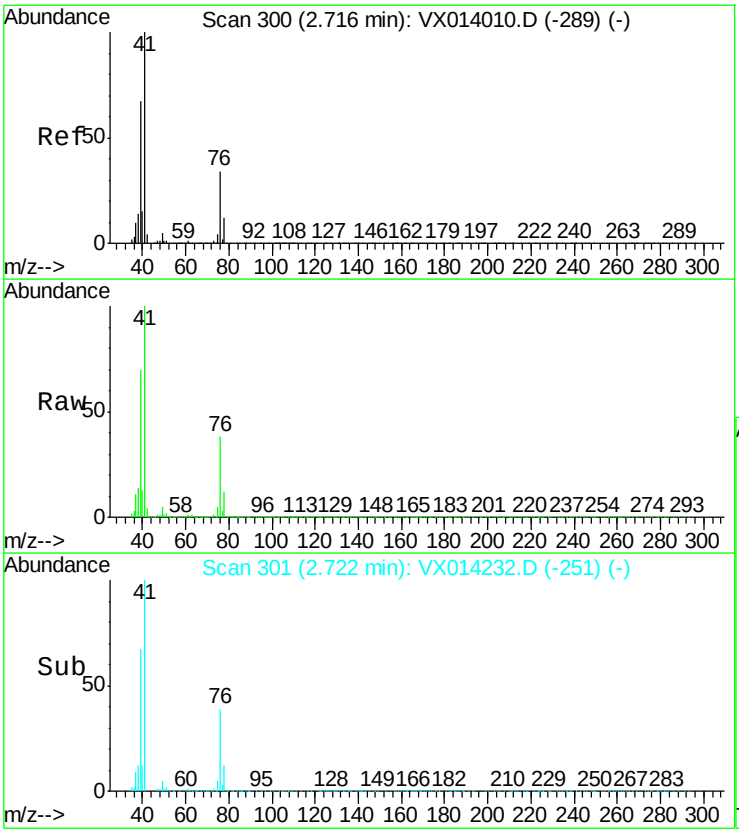


#13
Acrolein
Concen: 265.450 ug/l
RT: 2.28 min Scan# 229
Delta R.T. -0.00 min
Lab File: VX014232.D
Acq: 24 Dec 2019 09:28

Tgt Ion: 56 Resp: 200207

Ion	Ratio	Lower	Upper
56	100		
55	70.1	56.9	85.3

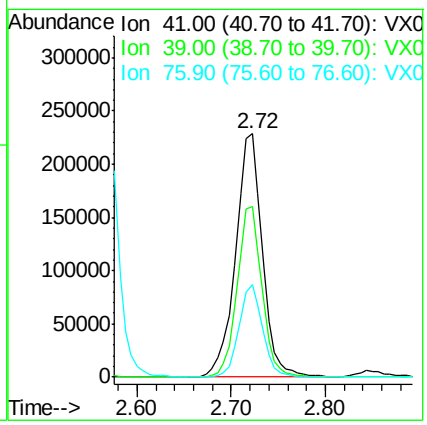




#14
Allyl chloride
Concen: 48.899 ug/l
RT: 2.72 min Scan# 301
Delta R.T. 0.01 min
Lab File: VX014232.D
Acq: 24 Dec 2019 09:28

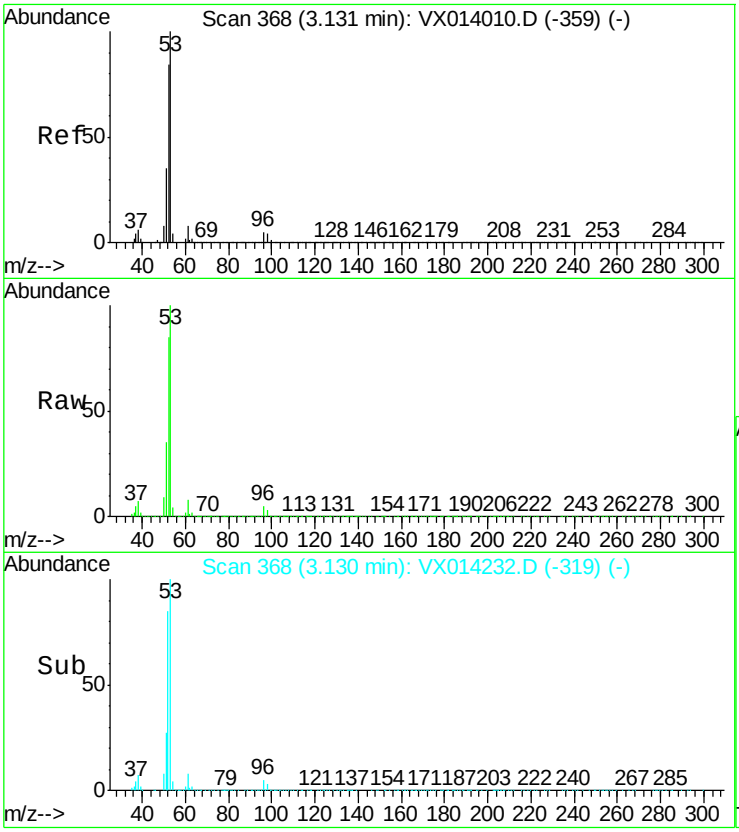
Tgt Ion: 41 Resp: 451854

Ion	Ratio	Lower	Upper
41	100		
39	65.0	51.8	77.8
76	33.1	25.9	38.9



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

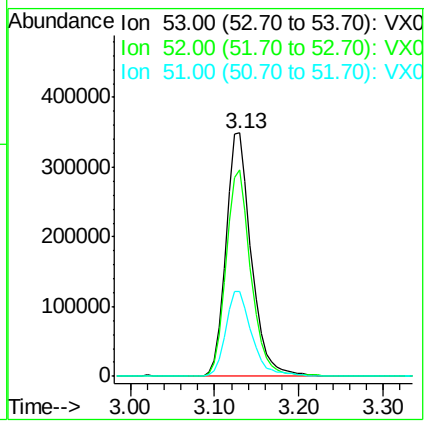
Manual Integrations APPROVED
apatel
12/26/2019 9:24:17 AM

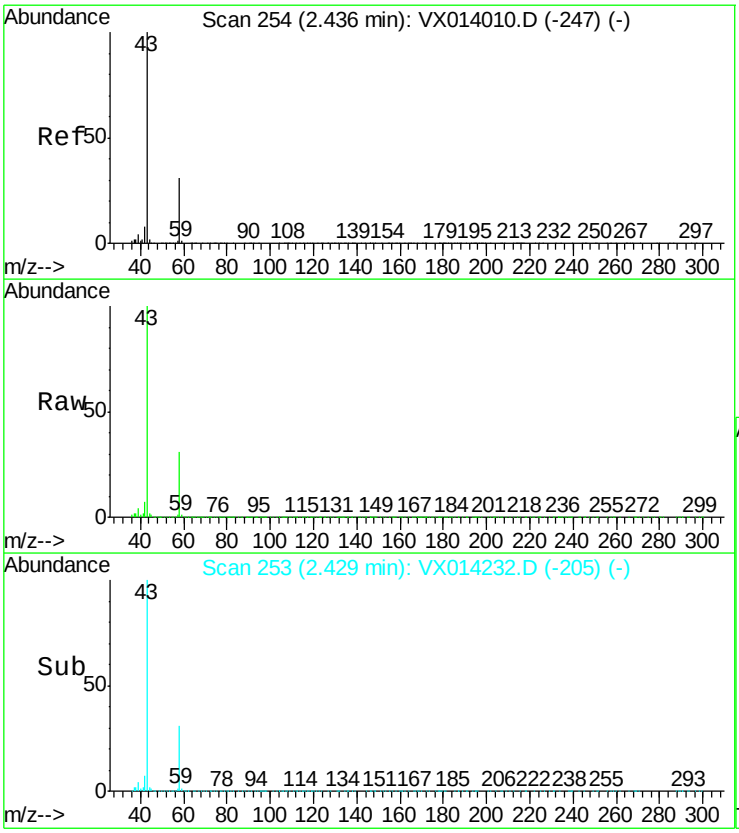


#15
Acrylonitrile
Concen: 233.411 ug/l
RT: 3.13 min Scan# 368
Delta R.T. -0.00 min
Lab File: VX014232.D
Acq: 24 Dec 2019 09:28

Tgt Ion: 53 Resp: 717807

Ion	Ratio	Lower	Upper
53	100		
52	83.2	66.5	99.7
51	35.8	28.1	42.1

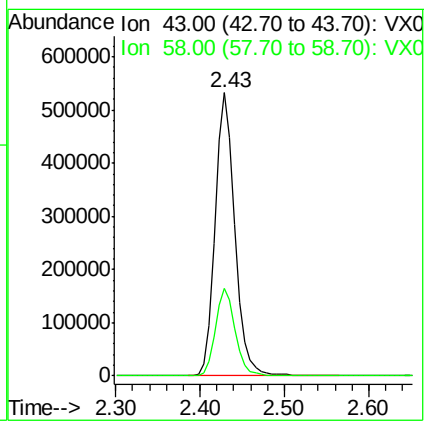




#16
Acetone
Concen: 216.138 ug/l
RT: 2.43 min Scan# 253
Delta R.T. -0.01 min
Lab File: VX014232.D
Acq: 24 Dec 2019 09:28

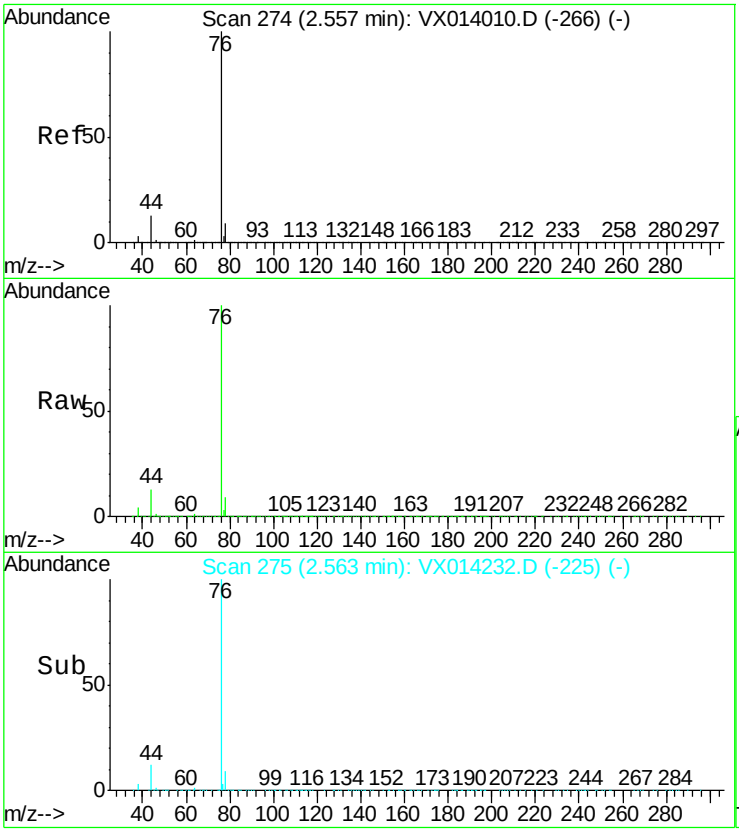
Tgt Ion: 43 Resp: 855627

Ion	Ratio	Lower	Upper
43	100		
58	31.1	24.9	37.3



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

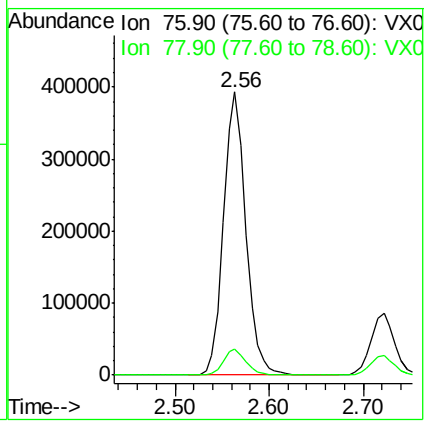
Manual Integrations APPROVED
apatel
12/26/2019 9:24:17 AM

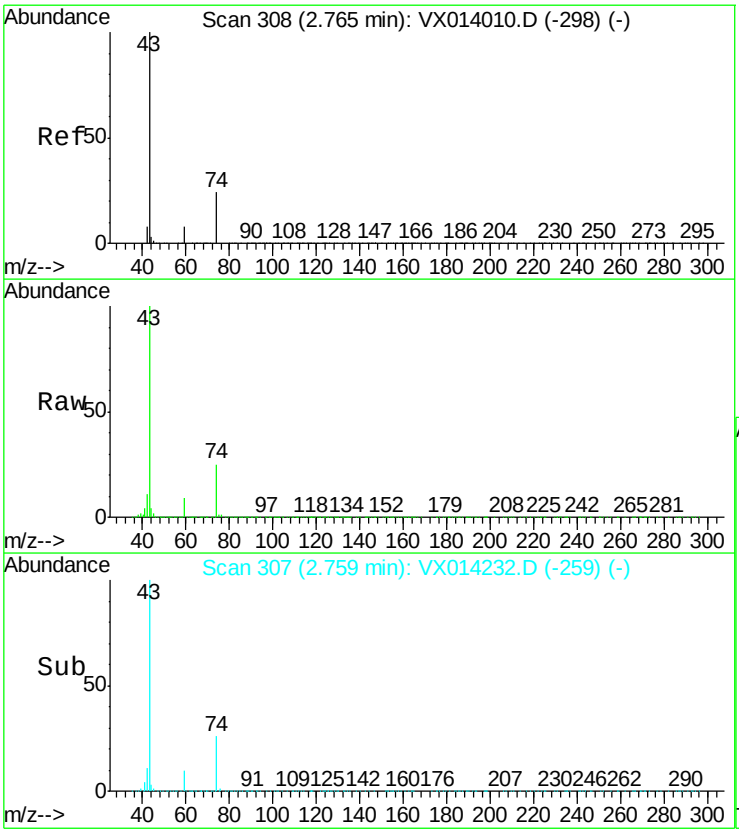


#17
Carbon Disulfide
Concen: 44.874 ug/l
RT: 2.56 min Scan# 275
Delta R.T. 0.01 min
Lab File: VX014232.D
Acq: 24 Dec 2019 09:28

Tgt Ion: 76 Resp: 643618

Ion	Ratio	Lower	Upper
76	100		
78	9.0	7.2	10.8

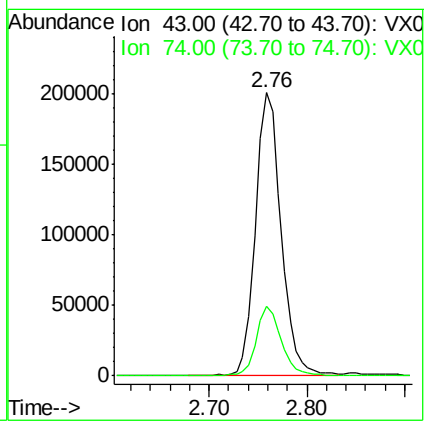




#18
Methyl Acetate
Concen: 46.371 ug/l
RT: 2.76 min Scan# 307
Delta R.T. -0.01 min
Lab File: VX014232.D
Acq: 24 Dec 2019 09:28

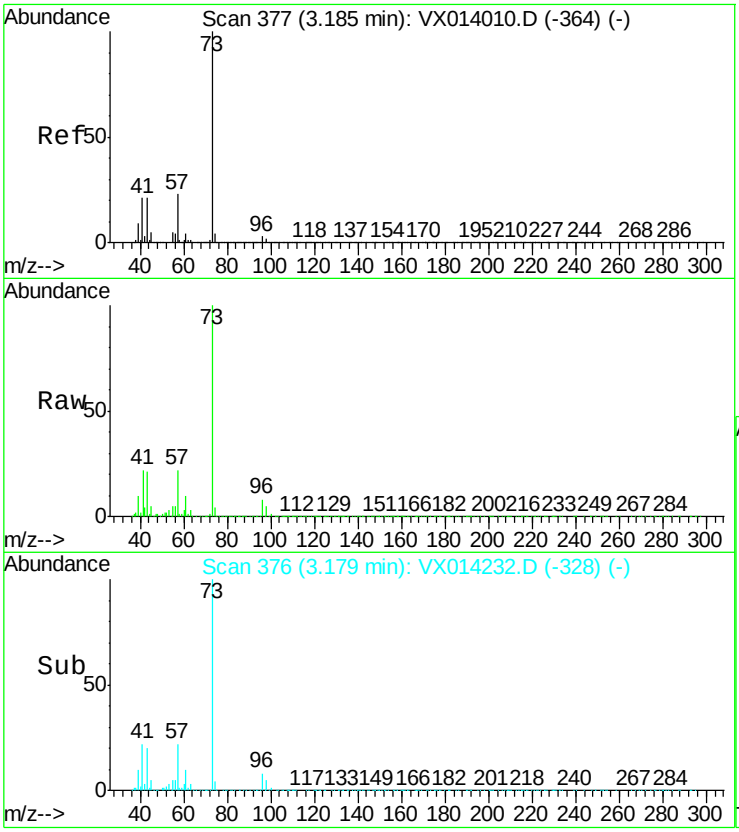
Tgt Ion: 43 Resp: 363750

Ion	Ratio	Lower	Upper
43	100		
74	23.9	19.5	29.3



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

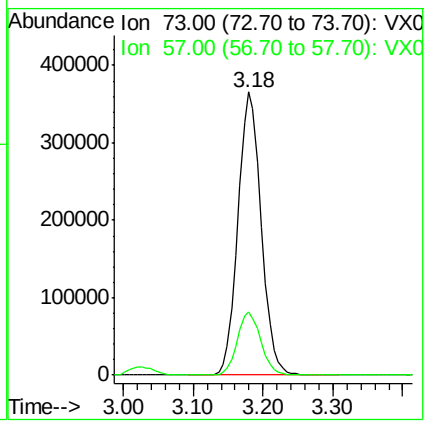
Manual Integrations APPROVED
apatel
12/26/2019 9:24:17 AM

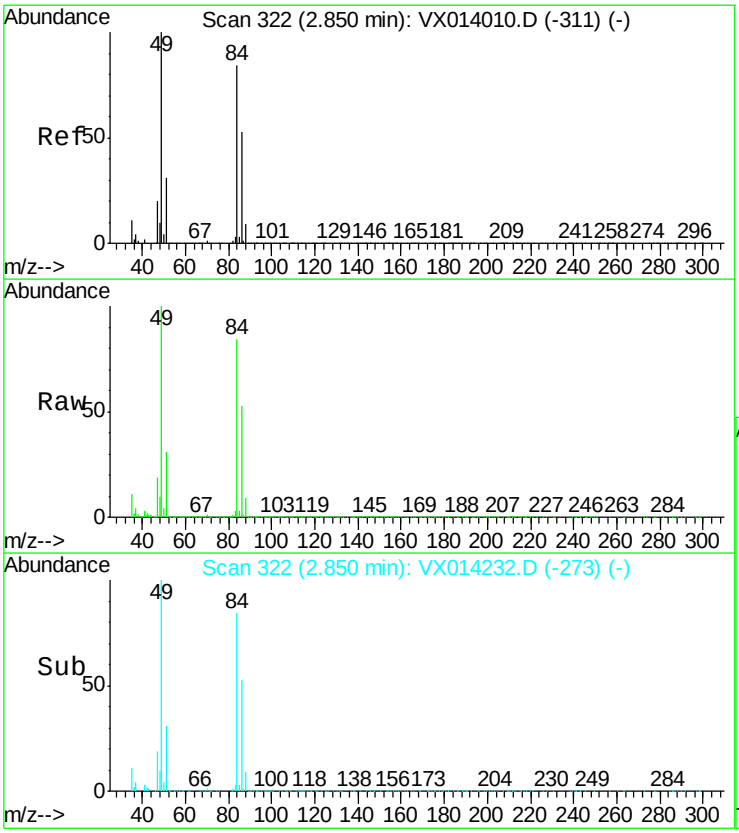


#19
Methyl tert-butyl Ether
Concen: 49.405 ug/l
RT: 3.18 min Scan# 376
Delta R.T. -0.01 min
Lab File: VX014232.D
Acq: 24 Dec 2019 09:28

Tgt Ion: 73 Resp: 840210

Ion	Ratio	Lower	Upper
73	100		
57	22.2	18.8	28.2

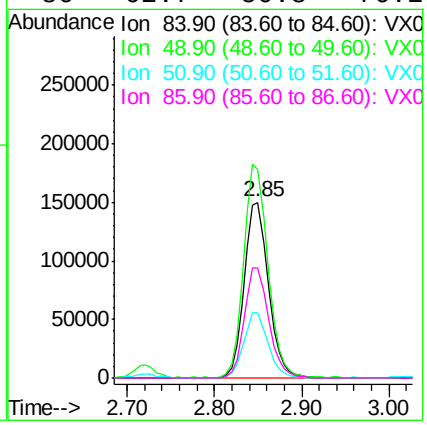




#20
Methylene Chloride
Concen: 46.415 ug/l
RT: 2.85 min Scan# 322
Delta R.T. -0.00 min
Lab File: VX014232.D
Acq: 24 Dec 2019 09:28

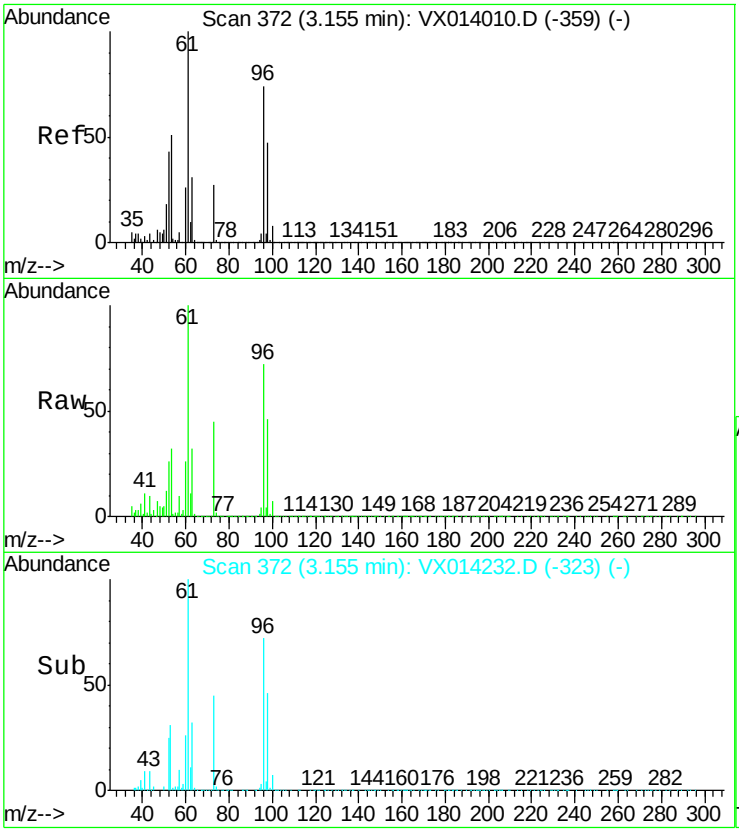
Tgt Ion: 84 Resp: 289346

Ion	Ratio	Lower	Upper
84	100		
49	118.7	95.8	143.6
51	36.7	29.8	44.8
86	62.7	50.8	76.2



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

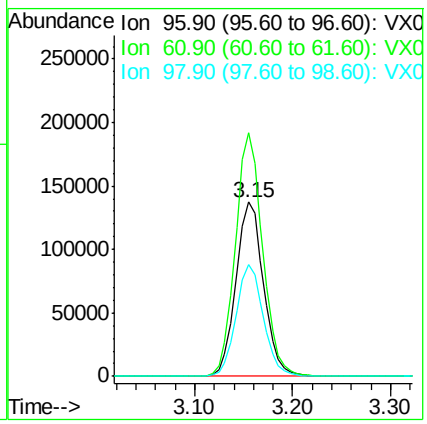
Manual Integrations APPROVED
apatel
12/26/2019 9:24:17 AM

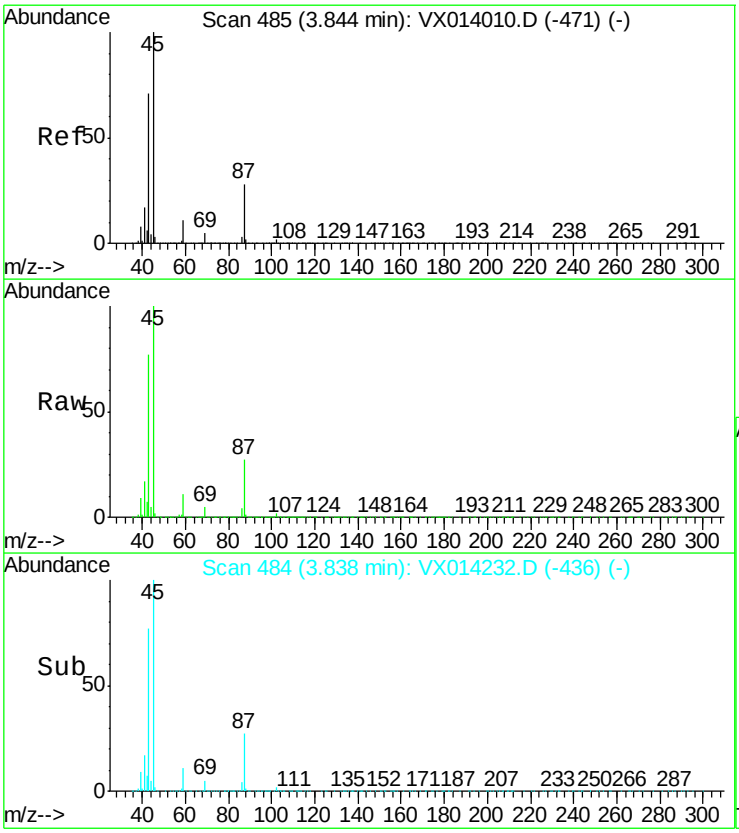


#21
trans-1,2-Dichloroethene
Concen: 47.123 ug/l
RT: 3.15 min Scan# 372
Delta R.T. -0.00 min
Lab File: VX014232.D
Acq: 24 Dec 2019 09:28

Tgt Ion: 96 Resp: 268679

Ion	Ratio	Lower	Upper
96	100		
61	139.8	108.3	162.5
98	64.3	50.8	76.2

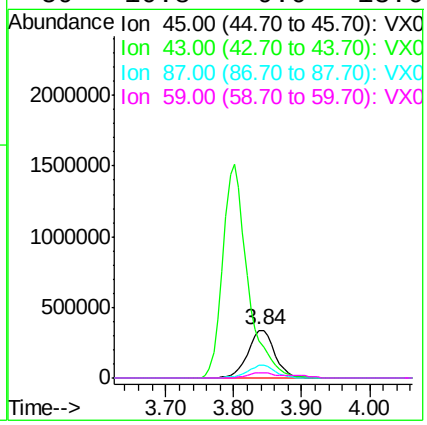




#22
Diisopropyl ether
Concen: 50.587 ug/l
RT: 3.84 min Scan# 484
Delta R.T. -0.01 min
Lab File: VX014232.D
Acq: 24 Dec 2019 09:28

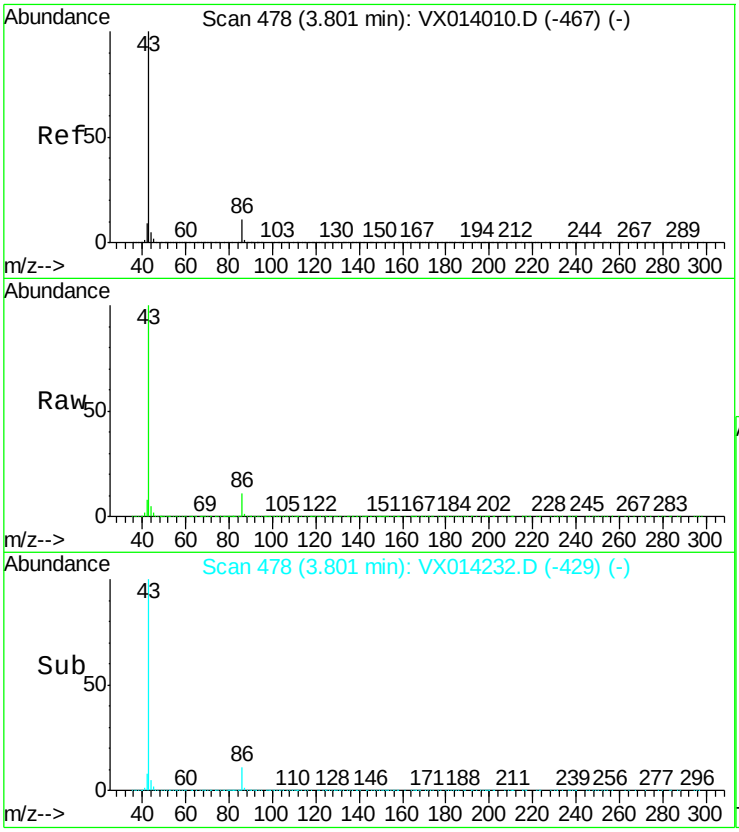
Tgt Ion: 45 Resp: 931509

Ion	Ratio	Lower	Upper
45	100		
43	77.3	57.4	86.0
87	26.6	21.9	32.9
59	10.8	9.0	13.6



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

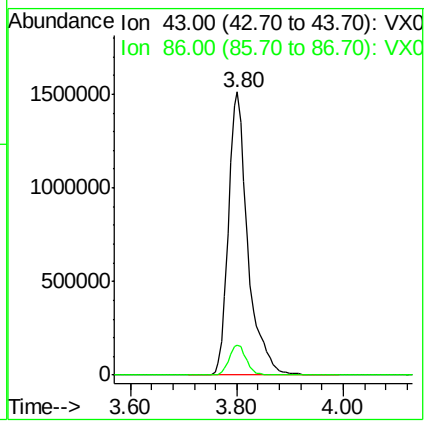
Manual Integrations APPROVED
apatel
12/26/2019 9:24:17 AM

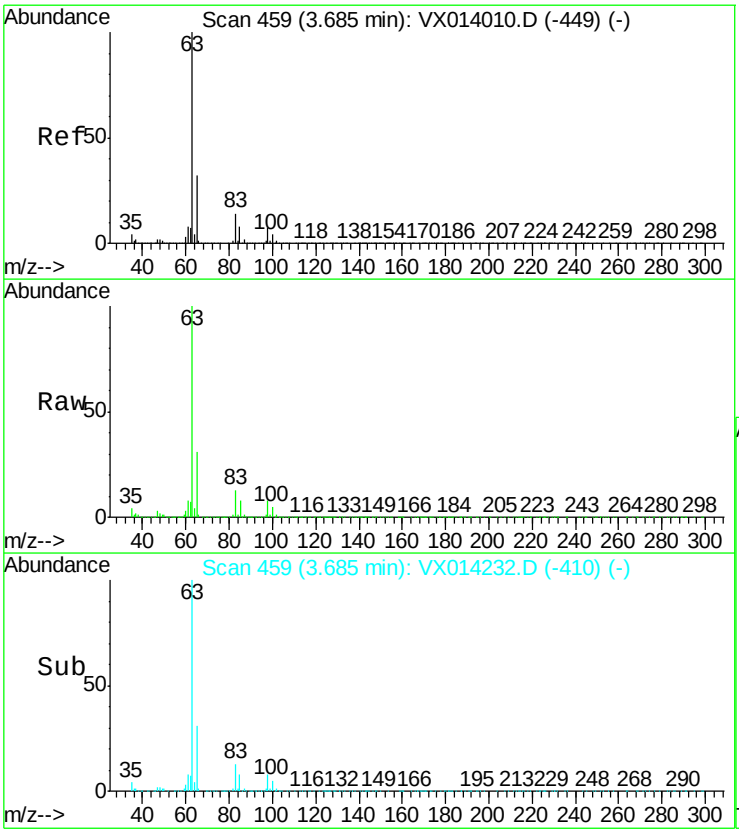


#23
Vinyl Acetate
Concen: 256.599 ug/l
RT: 3.80 min Scan# 478
Delta R.T. -0.00 min
Lab File: VX014232.D
Acq: 24 Dec 2019 09:28

Tgt Ion: 43 Resp: 3855874

Ion	Ratio	Lower	Upper
43	100		
86	10.7	8.6	12.8

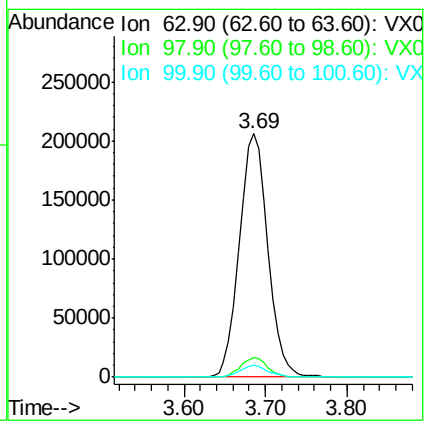




#24
1,1-Dichloroethane
Concen: 48.509 ug/l
RT: 3.69 min Scan# 459
Delta R.T. -0.00 min
Lab File: VX014232.D
Acq: 24 Dec 2019 09:28

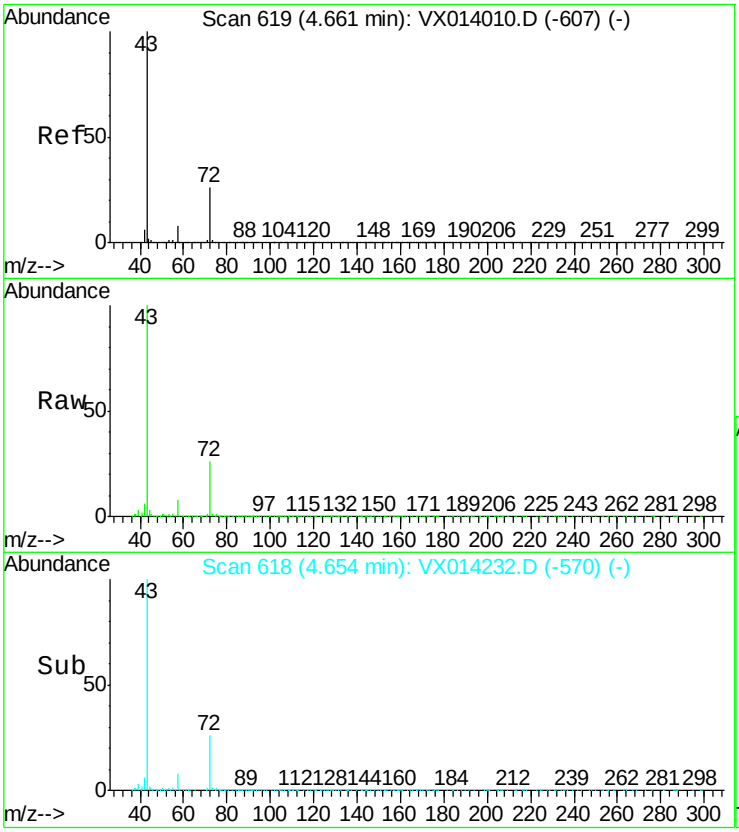
Tgt Ion: 63 Resp: 496965

Ion	Ratio	Lower	Upper
63	100		
98	7.8	3.6	10.8
100	4.7	2.3	6.8



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

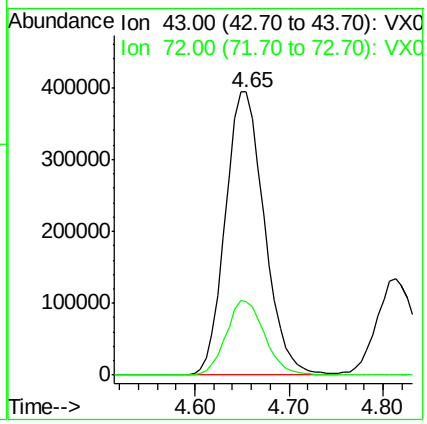
Manual Integrations APPROVED
apatel
12/26/2019 9:24:17 AM

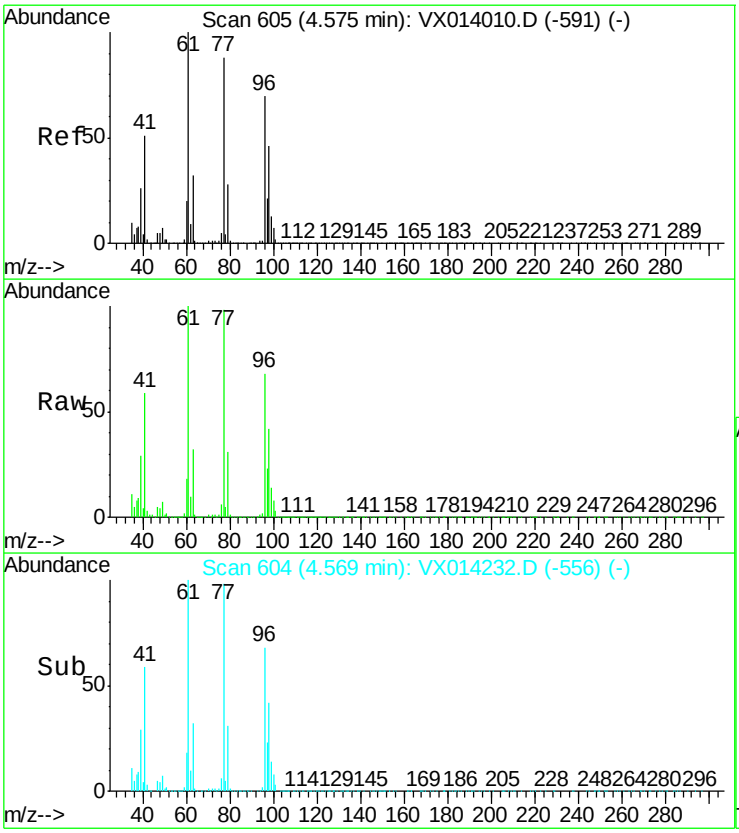


#25
2-Butanone
Concen: 231.727 ug/l
RT: 4.65 min Scan# 618
Delta R.T. -0.01 min
Lab File: VX014232.D
Acq: 24 Dec 2019 09:28

Tgt Ion: 43 Resp: 1130972

Ion	Ratio	Lower	Upper
43	100		
72	25.9	21.0	31.4

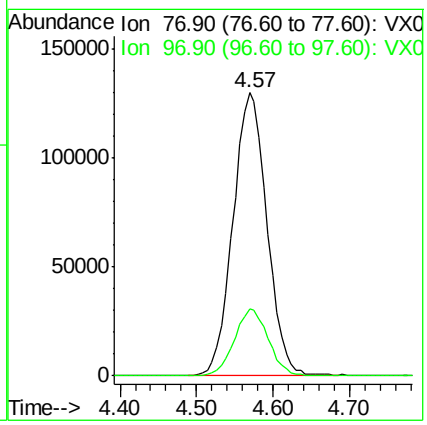




#26
2,2-Dichloropropane
Concen: 50.083 ug/l
RT: 4.57 min Scan# 604
Delta R.T. -0.01 min
Lab File: VX014232.D
Acq: 24 Dec 2019 09:28

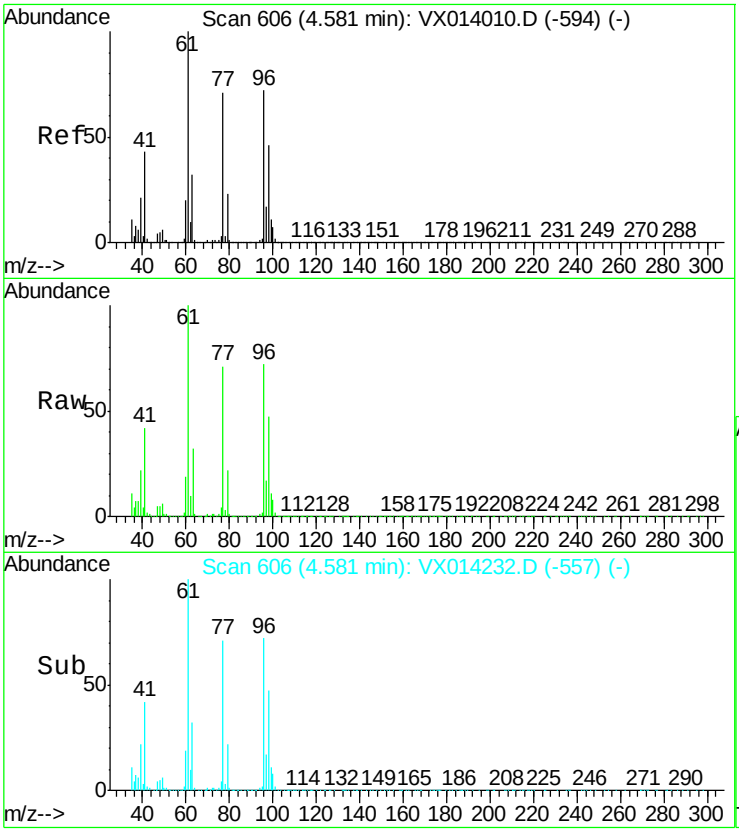
Tgt Ion: 77 Resp: 398373

Ion	Ratio	Lower	Upper
77	100		
97	23.7	11.9	35.9



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

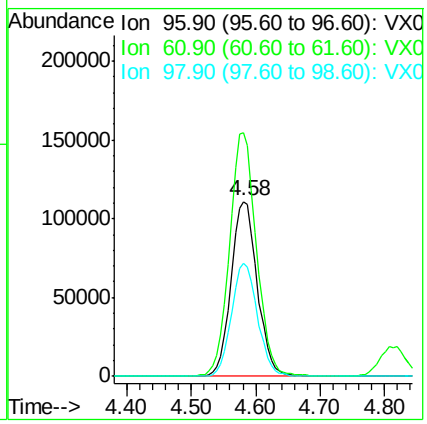
Manual Integrations APPROVED
apatel
12/26/2019 9:24:17 AM

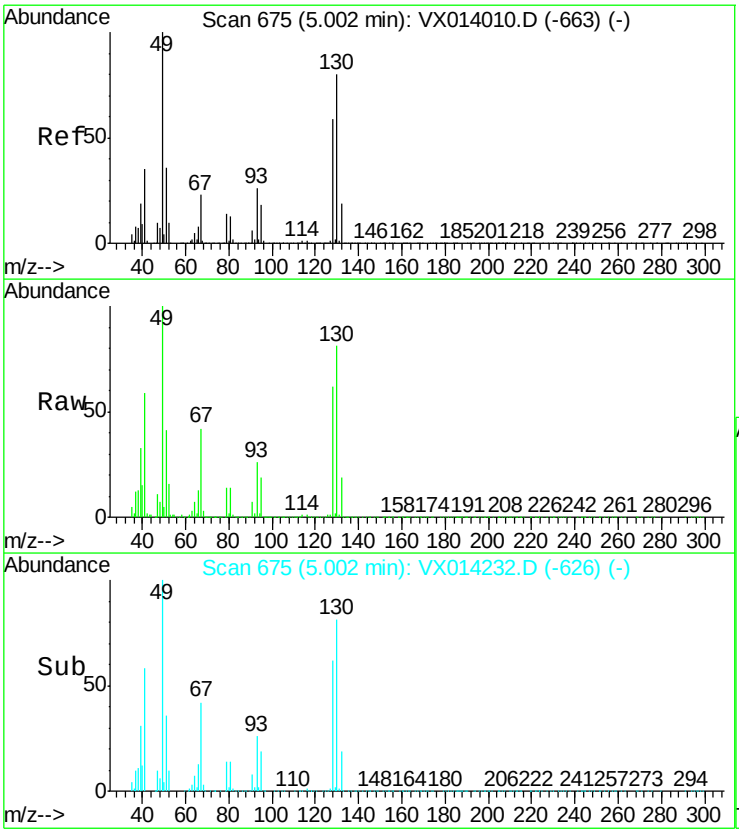


#27
cis-1,2-Dichloroethene
Concen: 48.604 ug/l
RT: 4.58 min Scan# 606
Delta R.T. -0.00 min
Lab File: VX014232.D
Acq: 24 Dec 2019 09:28

Tgt Ion: 96 Resp: 313411

Ion	Ratio	Lower	Upper
96	100		
61	143.5	0.0	288.4
98	64.3	0.0	129.6

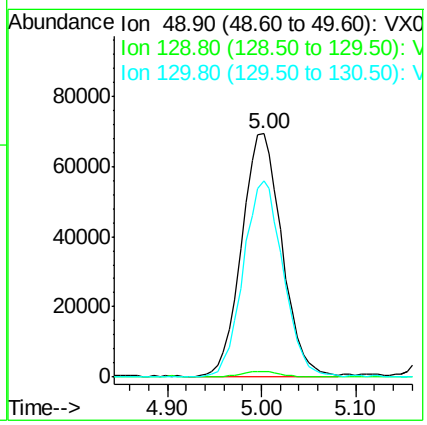




#28
Bromochloromethane
Concen: 52.389 ug/l
RT: 5.00 min Scan# 675
Delta R.T. 0.00 min
Lab File: VX014232.D
Acq: 24 Dec 2019 09:28

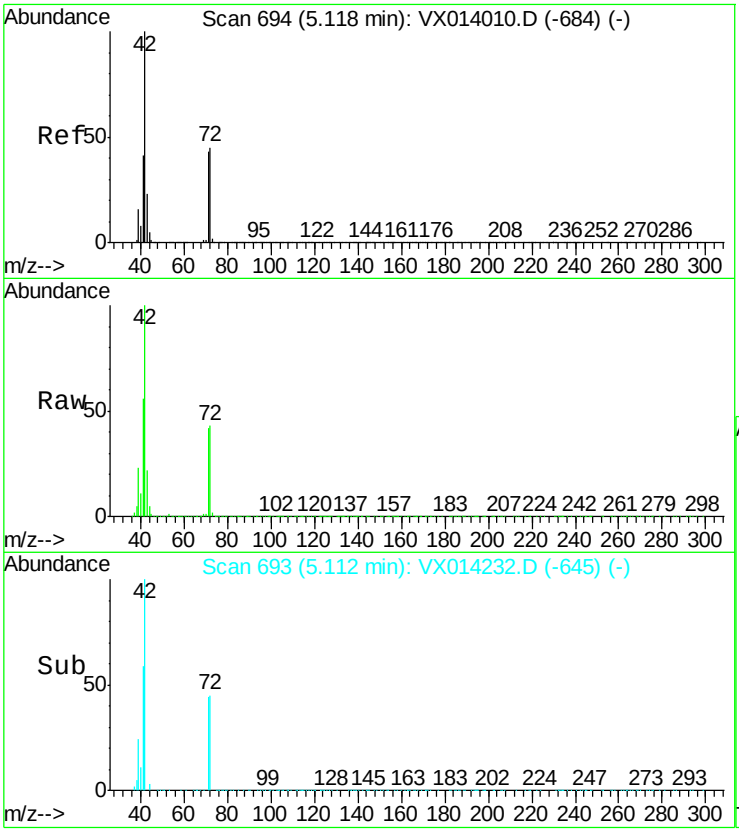
Tgt Ion: 49 Resp: 206498

Ion	Ratio	Lower	Upper
49	100		
129	2.4	0.0	5.0
130	80.4	64.6	97.0



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

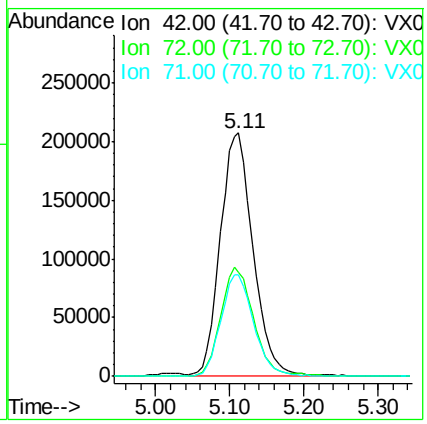
Manual Integrations APPROVED
apatel
12/26/2019 9:24:17 AM

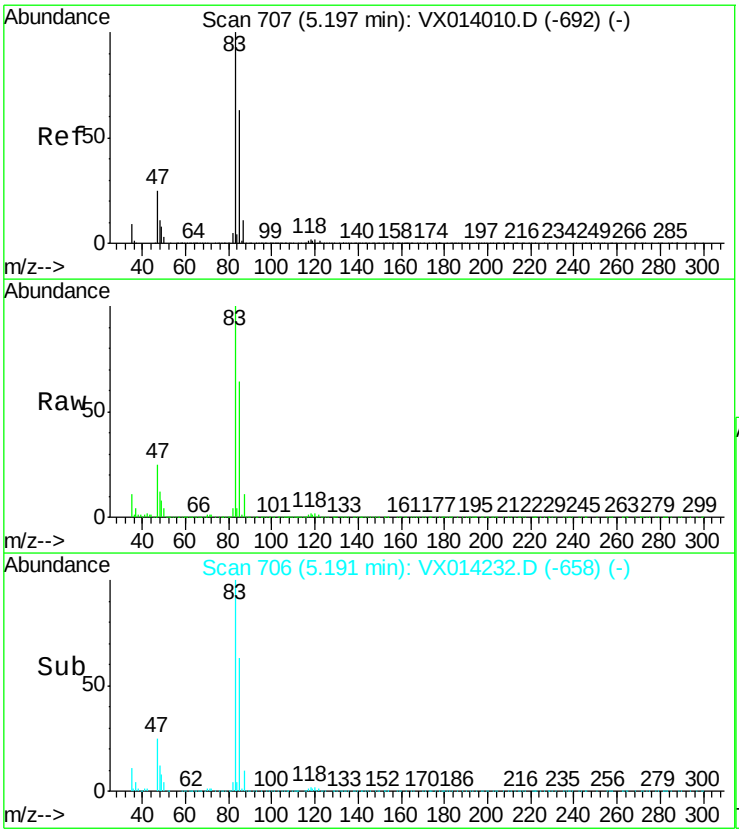


#29
Tetrahydrofuran
Concen: 231.254 ug/l
RT: 5.11 min Scan# 693
Delta R.T. -0.01 min
Lab File: VX014232.D
Acq: 24 Dec 2019 09:28

Tgt Ion: 42 Resp: 631288

Ion	Ratio	Lower	Upper
42	100		
72	45.0	35.8	53.8
71	41.9	33.6	50.4

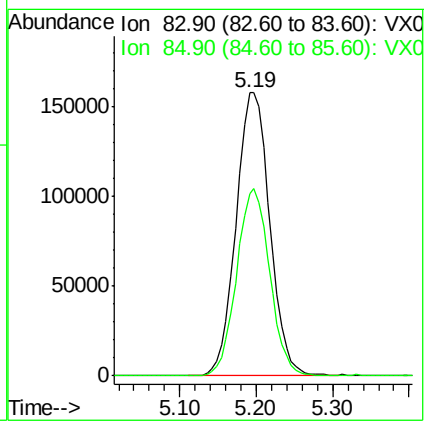




#30
Chloroform
Concen: 49.487 ug/l
RT: 5.19 min Scan# 706
Delta R.T. -0.01 min
Lab File: VX014232.D
Acq: 24 Dec 2019 09:28

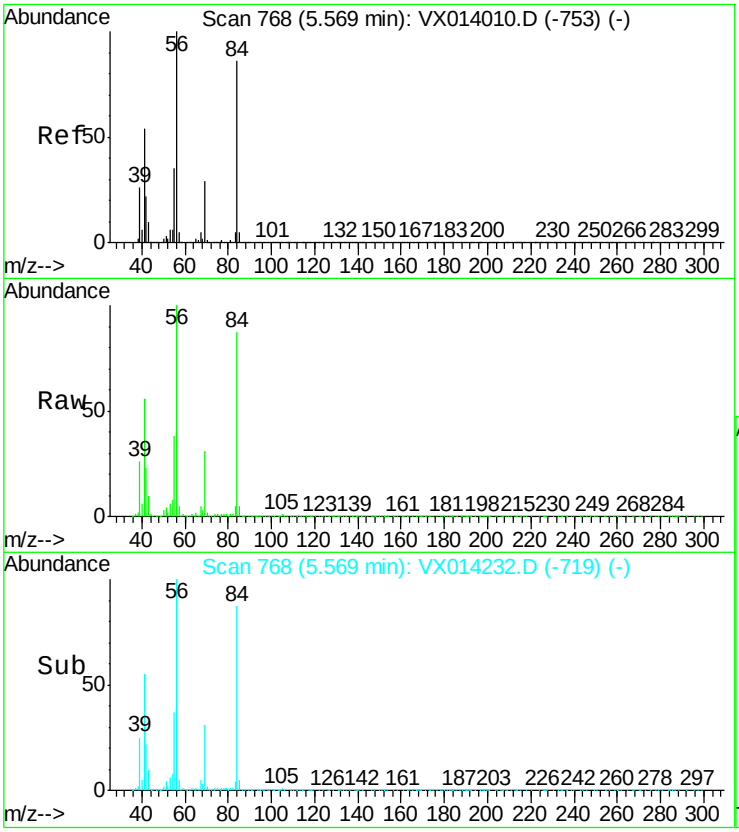
Tgt Ion: 83 Resp: 480612

Ion	Ratio	Lower	Upper
83	100		
85	64.1	50.8	76.2



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

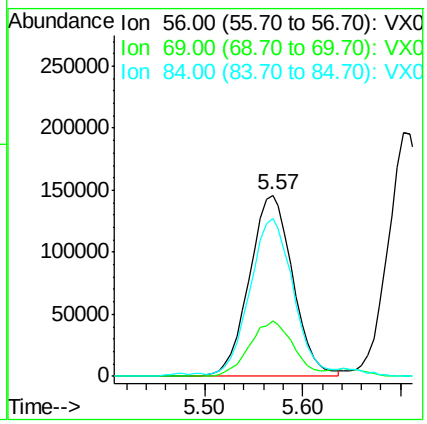
Manual Integrations APPROVED
apatel
12/26/2019 9:24:17 AM

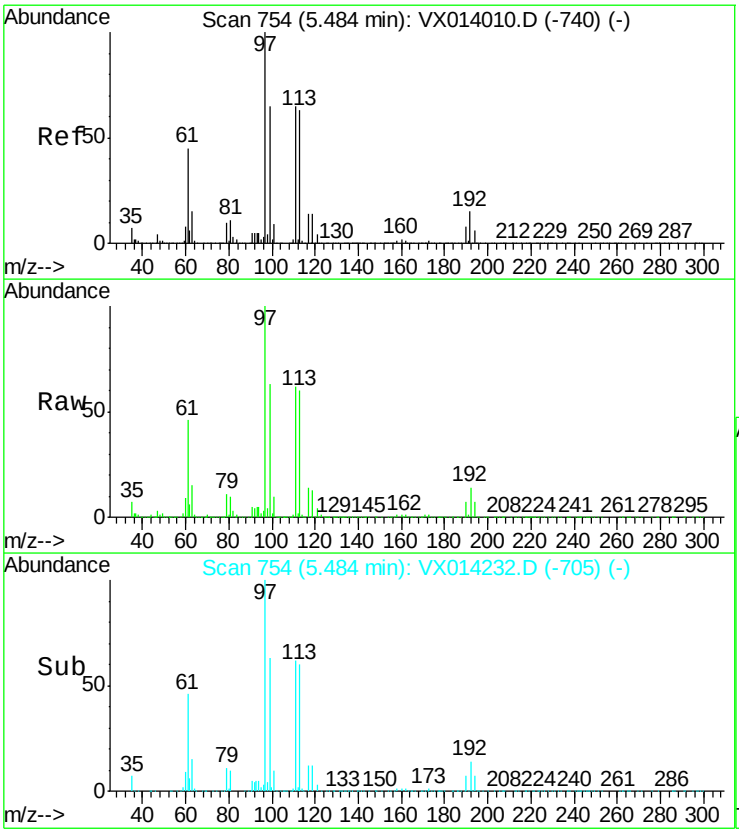


#31
Cyclohexane
Concen: 49.184 ug/l
RT: 5.57 min Scan# 768
Delta R.T. -0.00 min
Lab File: VX014232.D
Acq: 24 Dec 2019 09:28

Tgt Ion: 56 Resp: 448148

Ion	Ratio	Lower	Upper
56	100		
69	30.6	23.2	34.8
84	85.7	69.2	103.8

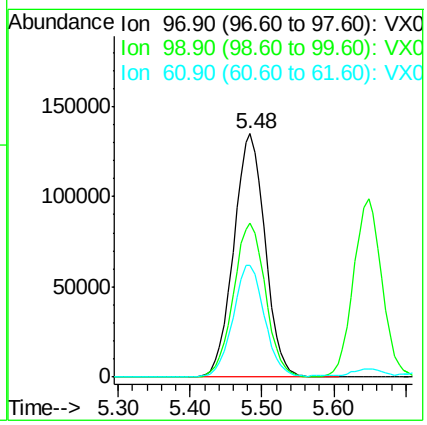




#32
1,1,1-Trichloroethane
Concen: 49.320 ug/l
RT: 5.48 min Scan# 754
Delta R.T. -0.00 min
Lab File: VX014232.D
Acq: 24 Dec 2019 09:28

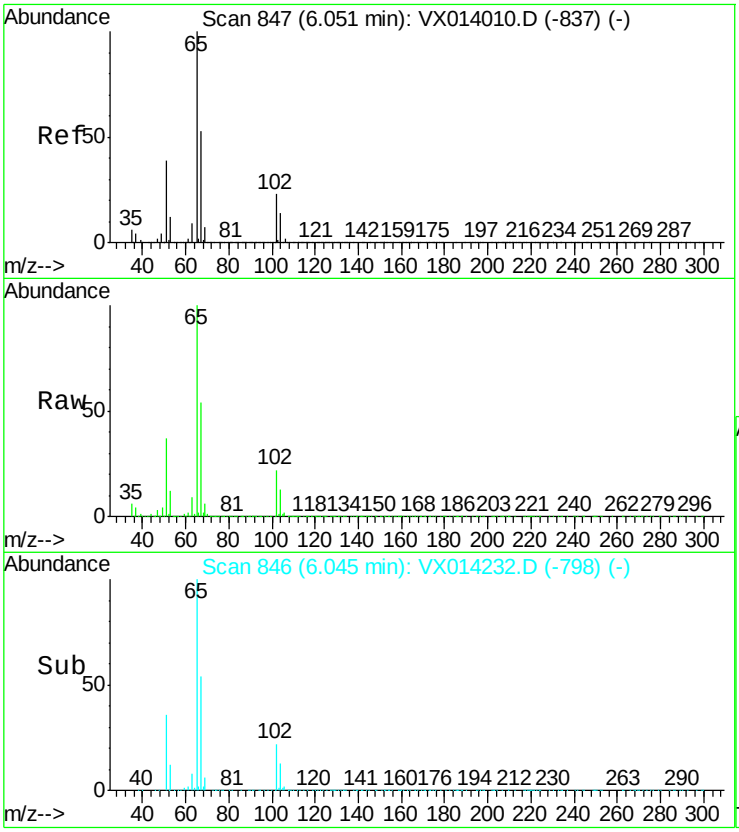
Tgt Ion: 97 Resp: 408230

Ion	Ratio	Lower	Upper
97	100		
99	64.4	52.0	78.0
61	46.0	36.7	55.1



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

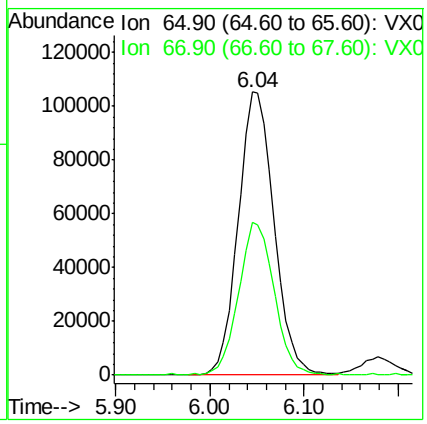
Manual Integrations APPROVED
apatel
12/26/2019 9:24:17 AM

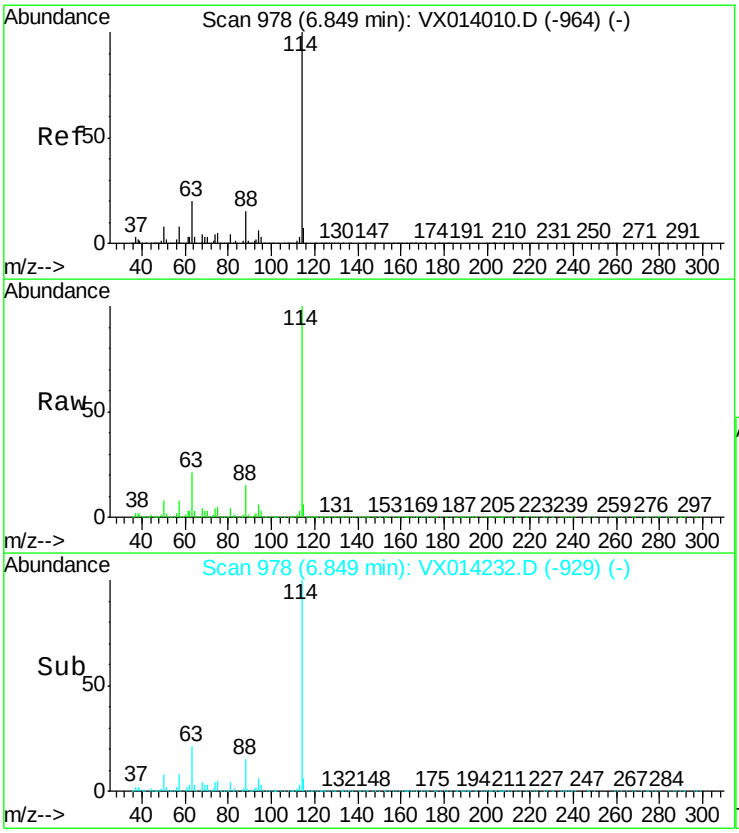


#33
1,2-Dichloroethane-d4
Concen: 45.496 ug/l
RT: 6.04 min Scan# 846
Delta R.T. -0.01 min
Lab File: VX014232.D
Acq: 24 Dec 2019 09:28

Tgt Ion: 65 Resp: 277420

Ion	Ratio	Lower	Upper
65	100		
67	53.2	0.0	106.4

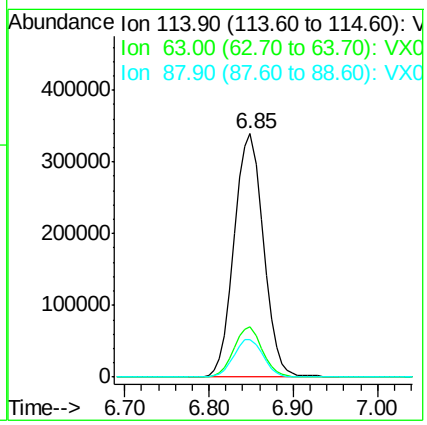




#34
1,4-Difluorobenzene
Concen: 50.000 ug/l
RT: 6.85 min Scan# 978
Delta R.T. -0.00 min
Lab File: VX014232.D
Acq: 24 Dec 2019 09:28

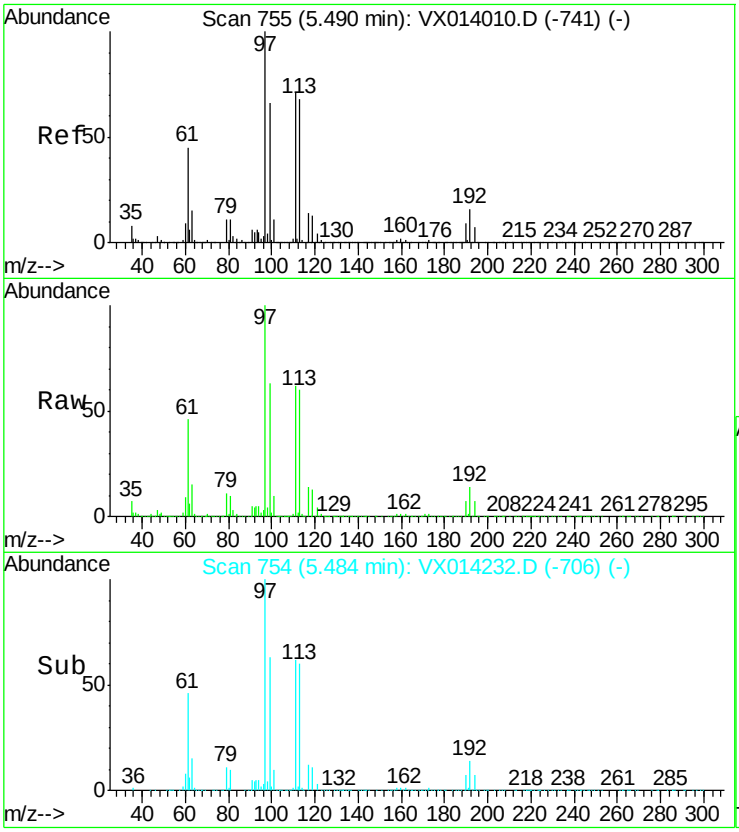
Tgt Ion:114 Resp: 799944

Ion	Ratio	Lower	Upper
114	100		
63	20.8	0.0	40.8
88	15.4	0.0	30.4



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

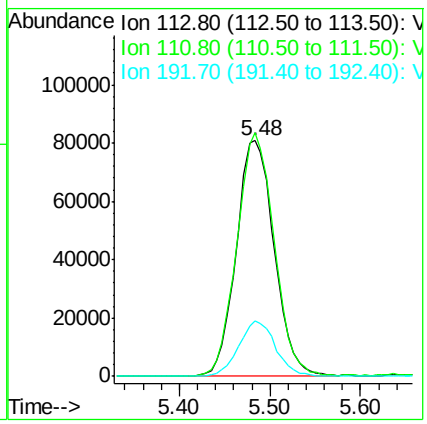
Manual Integrations APPROVED
apatel
12/26/2019 9:24:17 AM

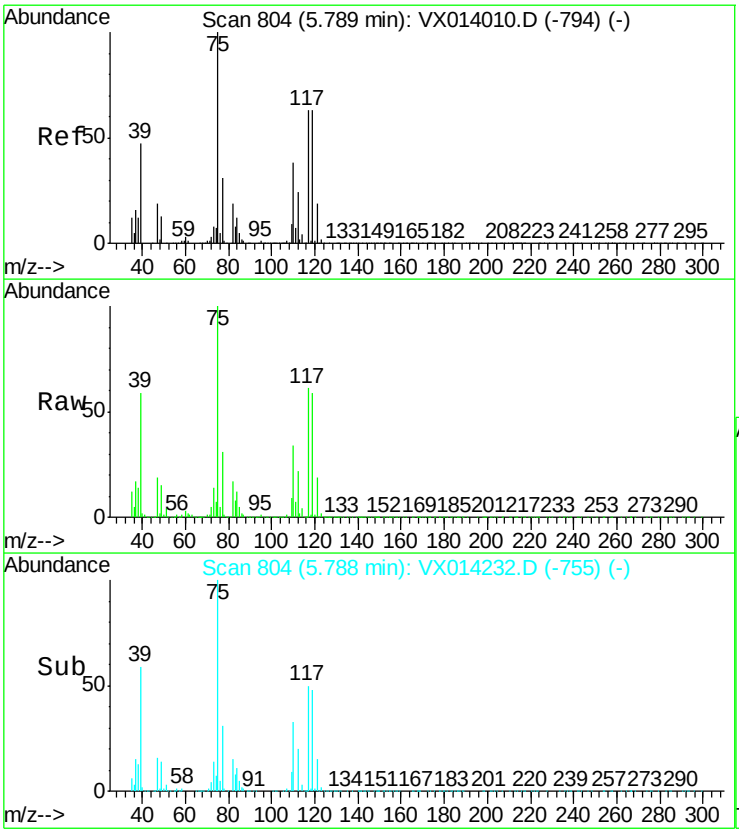


#35
Dibromofluoromethane
Concen: 48.057 ug/l
RT: 5.48 min Scan# 754
Delta R.T. -0.01 min
Lab File: VX014232.D
Acq: 24 Dec 2019 09:28

Tgt Ion:113 Resp: 233691

Ion	Ratio	Lower	Upper
113	100		
111	102.2	82.0	123.0
192	22.8	19.3	28.9

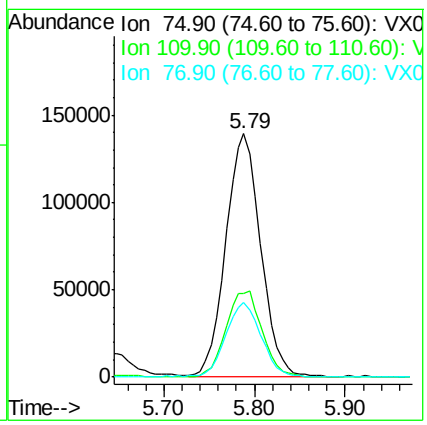




#36
1,1-Dichloropropene
Concen: 50.277 ug/l
RT: 5.79 min Scan# 804
Delta R.T. -0.00 min
Lab File: VX014232.D
Acq: 24 Dec 2019 09:28

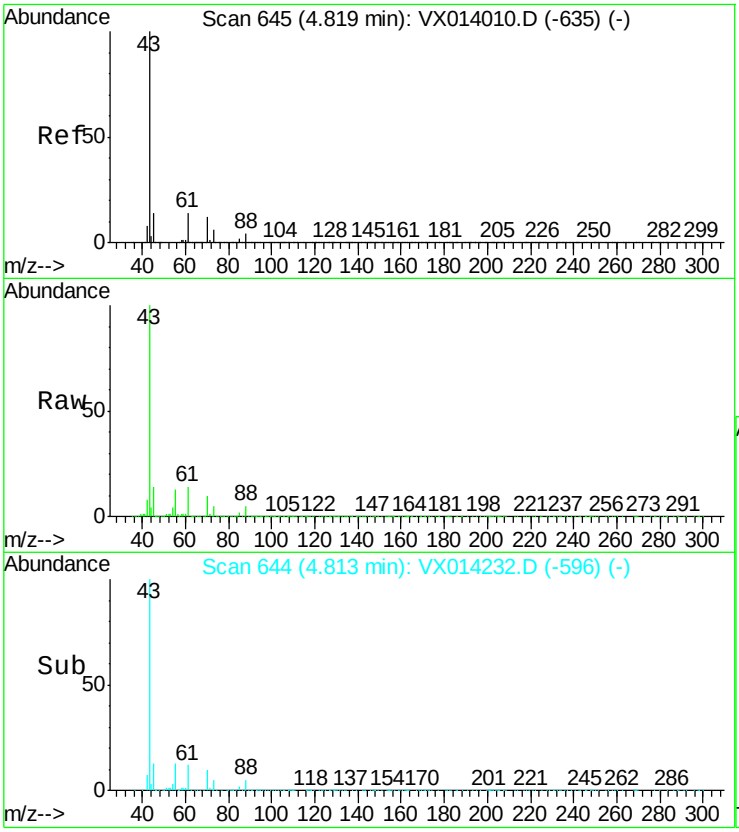
Tgt Ion: 75 Resp: 369030

Ion	Ratio	Lower	Upper
75	100		
110	36.9	18.3	54.9
77	30.8	24.8	37.2



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

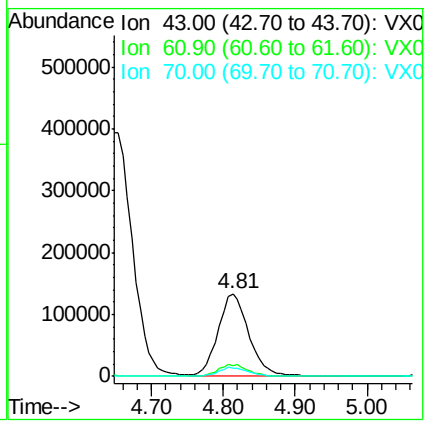
Manual Integrations APPROVED
apatel
12/26/2019 9:24:17 AM

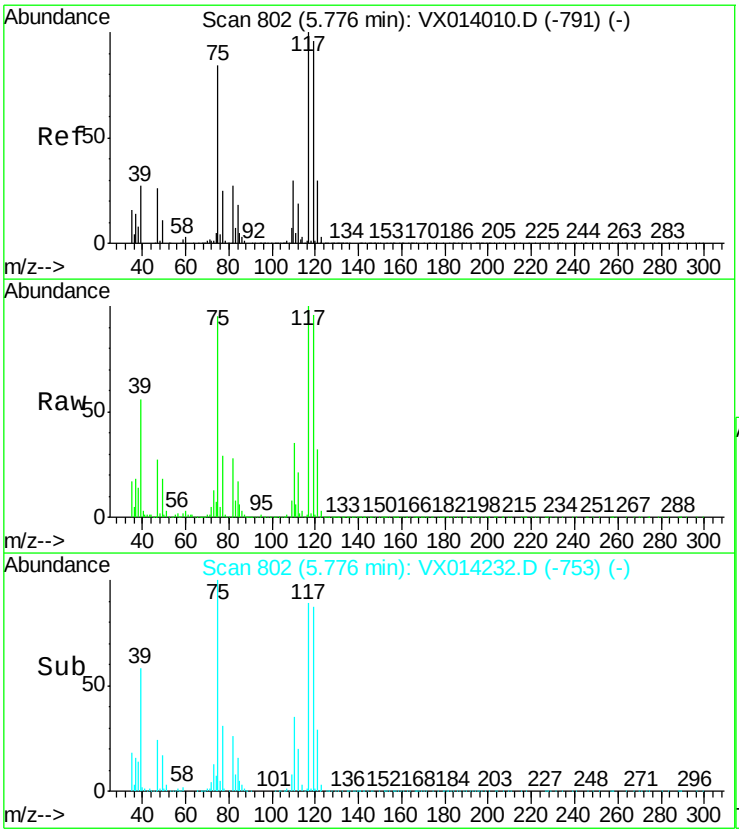


#37
Ethyl Acetate
Concen: 48.344 ug/l
RT: 4.81 min Scan# 644
Delta R.T. -0.01 min
Lab File: VX014232.D
Acq: 24 Dec 2019 09:28

Tgt Ion: 43 Resp: 391846

Ion	Ratio	Lower	Upper
43	100		
61	13.7	10.8	16.2
70	10.4	8.6	12.8

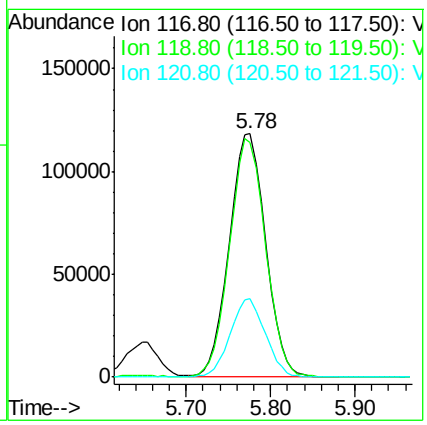




#38
Carbon Tetrachloride
Concen: 51.657 ug/l
RT: 5.78 min Scan# 802
Delta R.T. -0.00 min
Lab File: VX014232.D
Acq: 24 Dec 2019 09:28

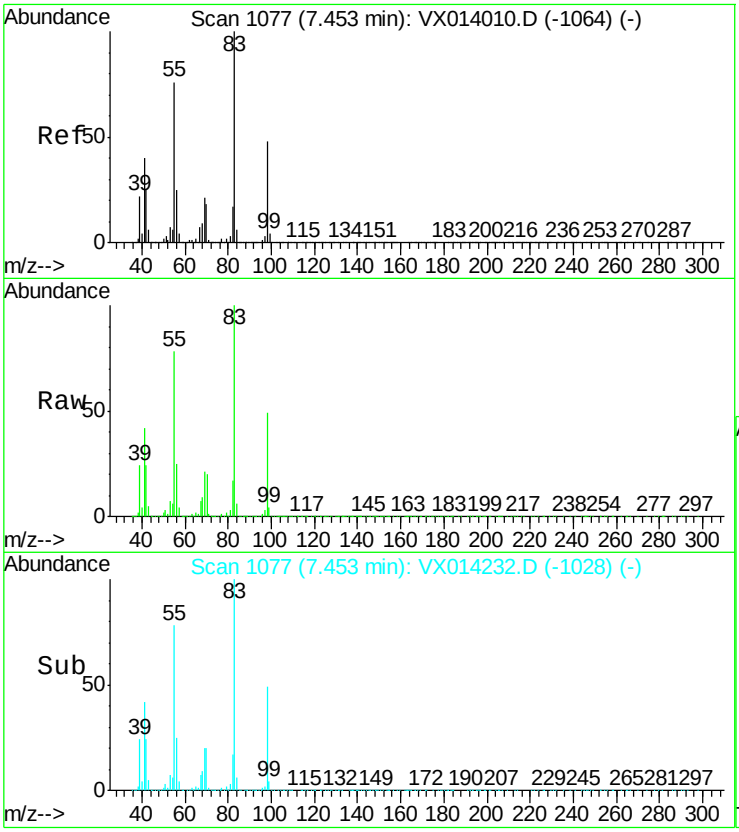
Tgt Ion:117 Resp: 345407

Ion	Ratio	Lower	Upper
117	100		
119	96.4	76.2	114.4
121	32.0	23.6	35.4



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

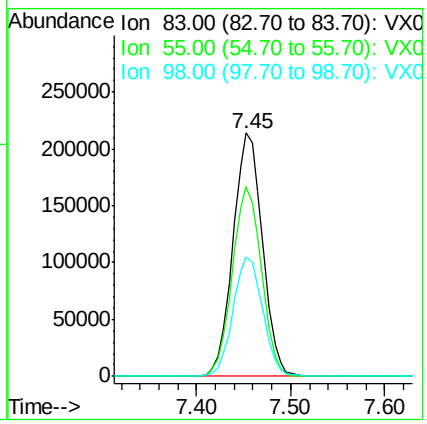
Manual Integrations APPROVED
apatel
12/26/2019 9:24:17 AM

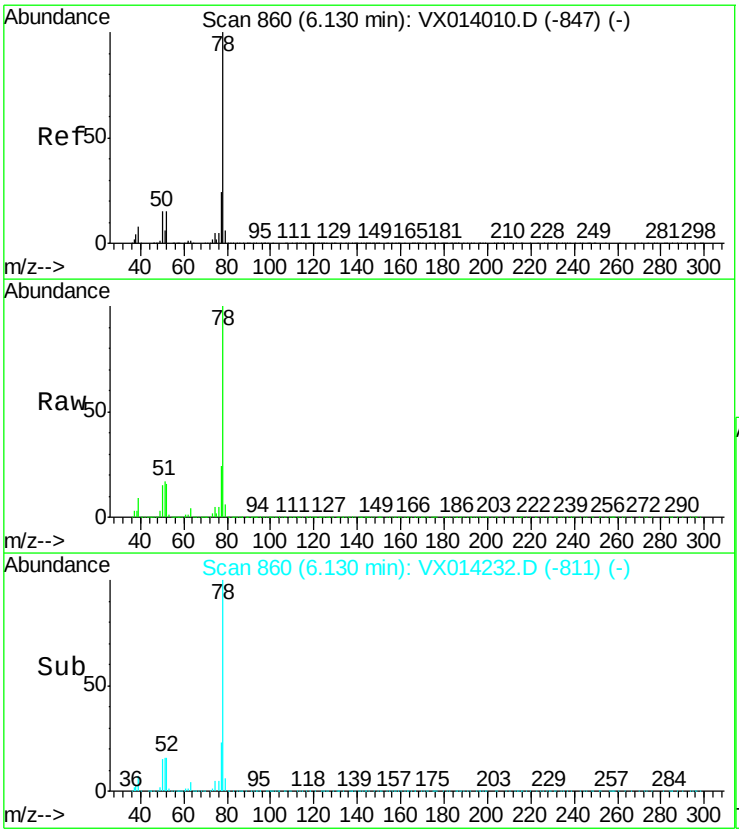


#39
Methylcyclohexane
Concen: 51.029 ug/l
RT: 7.45 min Scan# 1077
Delta R.T. -0.00 min
Lab File: VX014232.D
Acq: 24 Dec 2019 09:28

Tgt Ion: 83 Resp: 462479

Ion	Ratio	Lower	Upper
83	100		
55	78.0	61.0	91.6
98	48.8	38.6	57.8

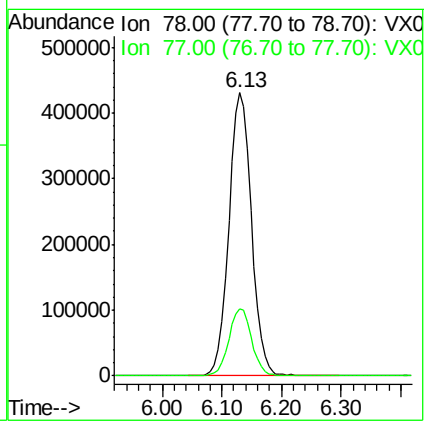




#40
Benzene
Concen: 50.116 ug/l
RT: 6.13 min Scan# 860
Delta R.T. -0.00 min
Lab File: VX014232.D
Acq: 24 Dec 2019 09:28

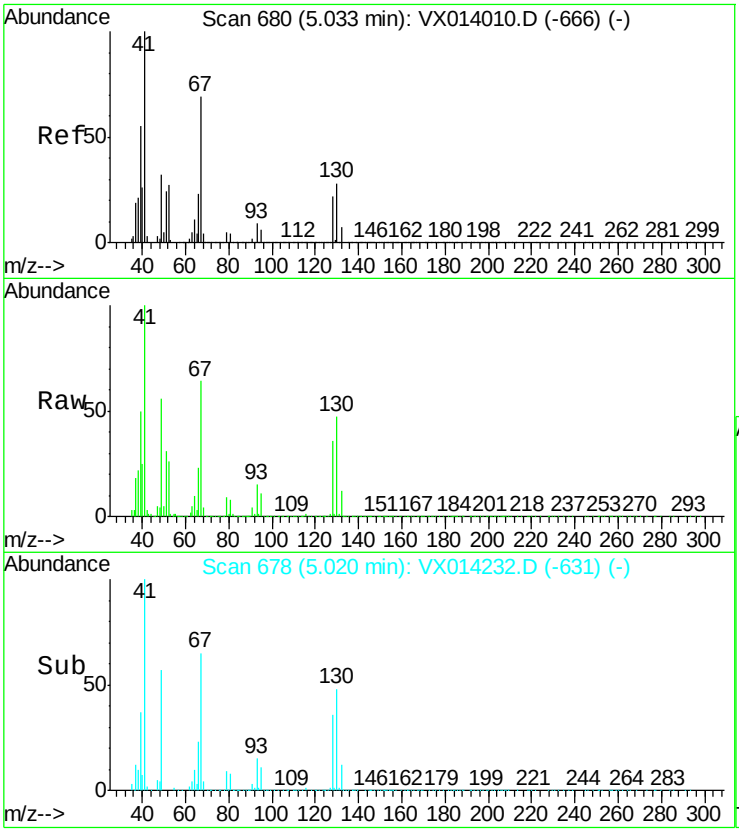
Tgt Ion: 78 Resp: 1131829

Ion	Ratio	Lower	Upper
78	100		
77	23.8	18.8	28.2



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

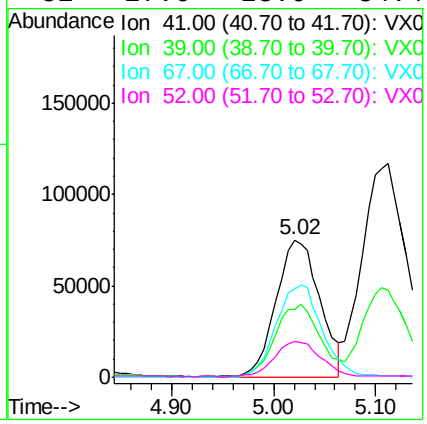
Manual Integrations APPROVED
apatel
12/26/2019 9:24:17 AM

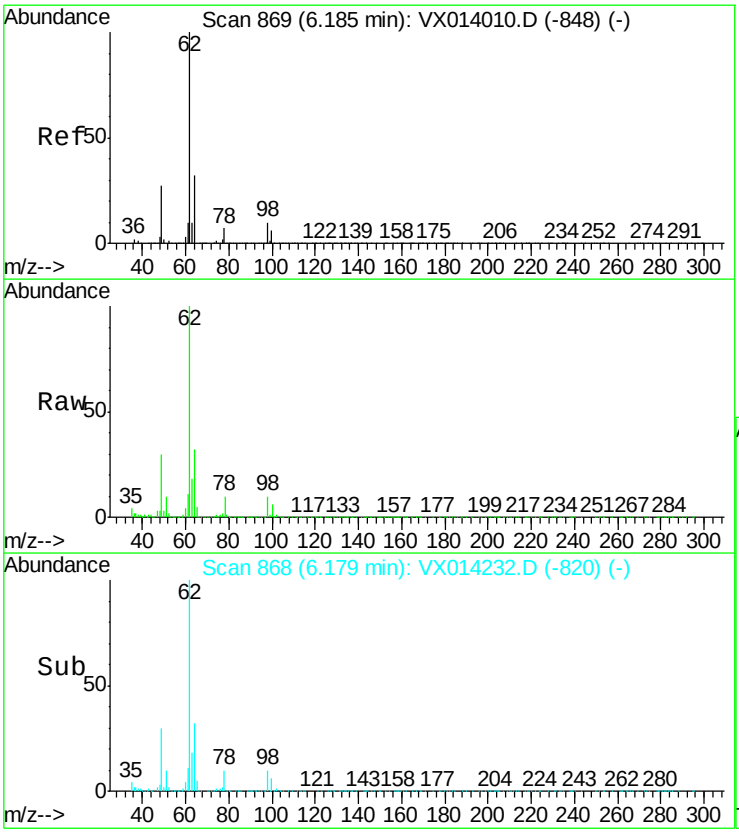


#41
Methacrylonitrile
Concen: 49.572 ug/l
RT: 5.02 min Scan# 678
Delta R.T. -0.01 min
Lab File: VX014232.D
Acq: 24 Dec 2019 09:28

Tgt Ion: 41 Resp: 222938

Ion	Ratio	Lower	Upper
41	100		
39	54.3	44.5	66.7
67	70.4	57.4	86.0
52	27.6	23.0	34.4

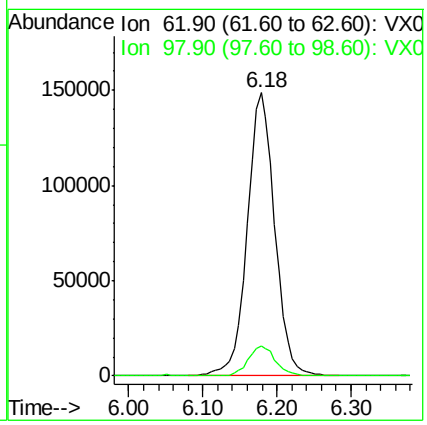




#42
1,2-Dichloroethane
Concen: 49.977 ug/l
RT: 6.18 min Scan# 868
Delta R.T. -0.01 min
Lab File: VX014232.D
Acq: 24 Dec 2019 09:28

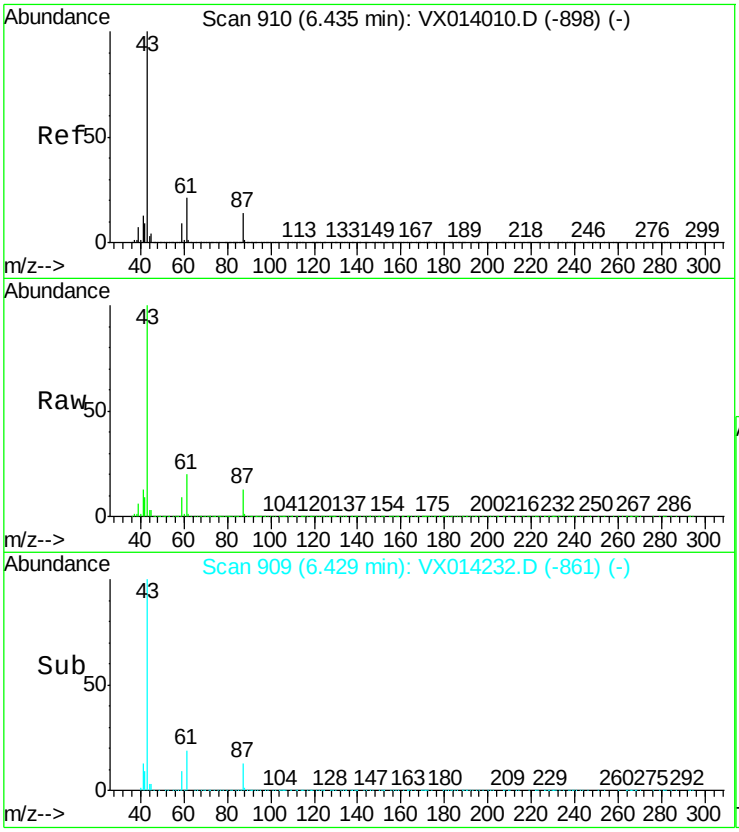
Tgt Ion: 62 Resp: 382596

Ion	Ratio	Lower	Upper
62	100		
98	10.3	0.0	21.0



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

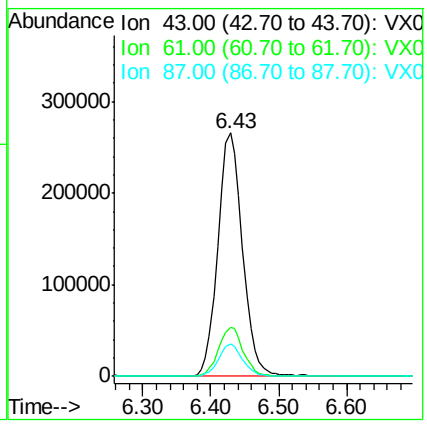
Manual Integrations APPROVED
apatel
12/26/2019 9:24:17 AM

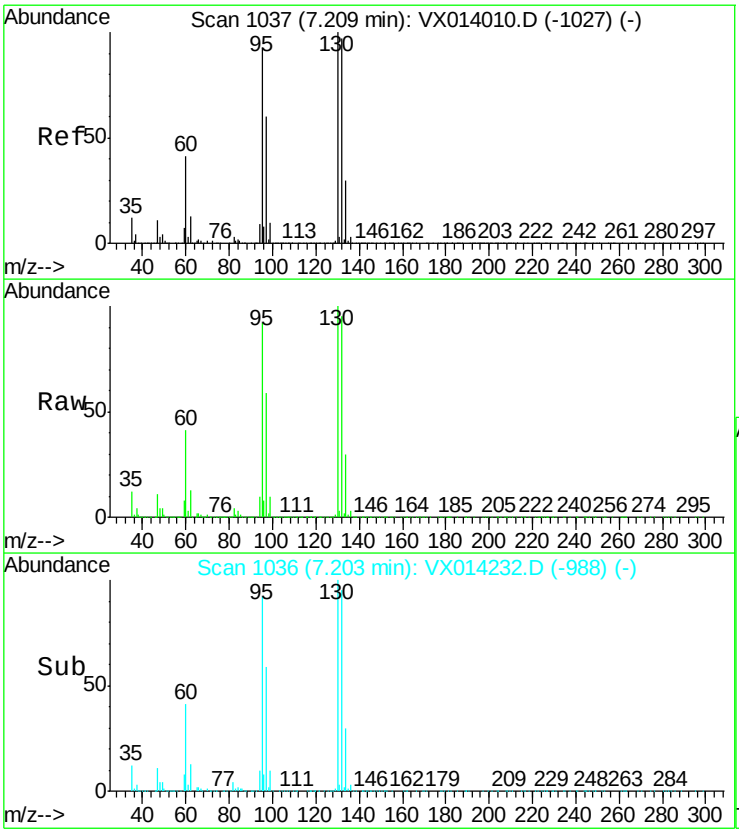


#43
Isopropyl Acetate
Concen: 49.498 ug/l
RT: 6.43 min Scan# 909
Delta R.T. -0.01 min
Lab File: VX014232.D
Acq: 24 Dec 2019 09:28

Tgt Ion: 43 Resp: 663961

Ion	Ratio	Lower	Upper
43	100		
61	20.1	16.4	24.6
87	12.9	10.7	16.1

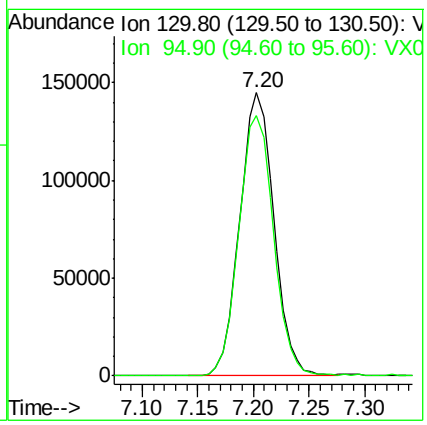




#44
Trichloroethene
Concen: 49.560 ug/l
RT: 7.20 min Scan# 1036
Delta R.T. -0.01 min
Lab File: VX014232.D
Acq: 24 Dec 2019 09:28

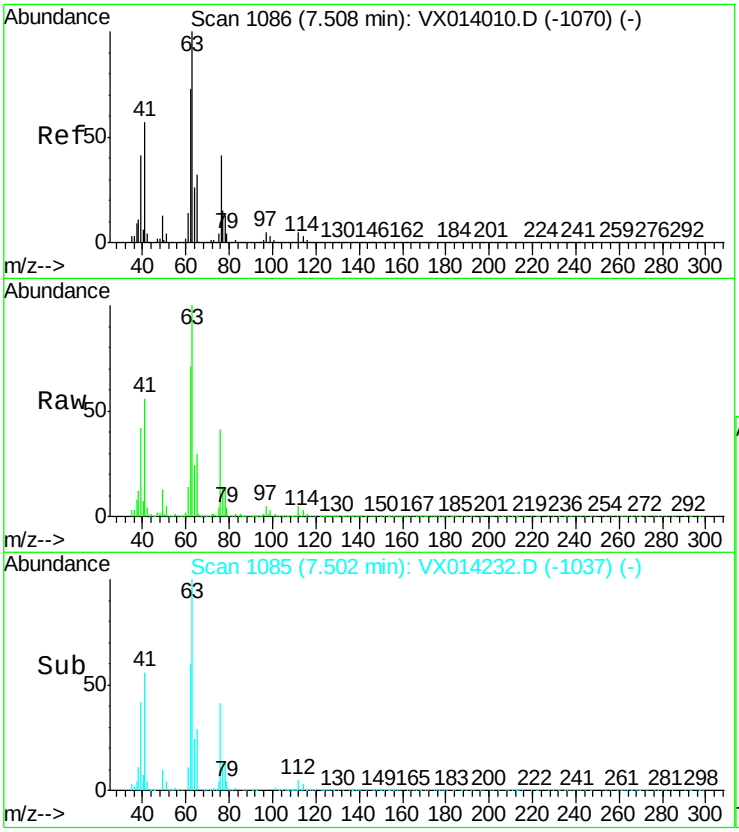
Tgt Ion:130 Resp: 309152

Ion	Ratio	Lower	Upper
130	100		
95	91.7	0.0	185.6



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

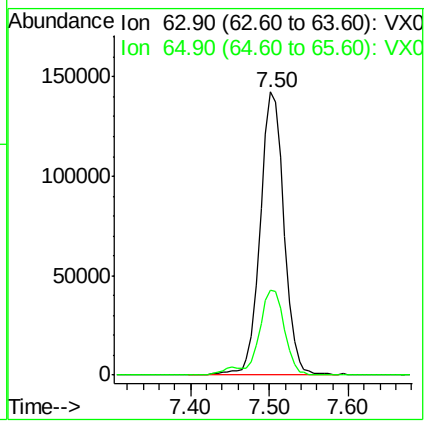
Manual Integrations APPROVED
apatel
12/26/2019 9:24:17 AM

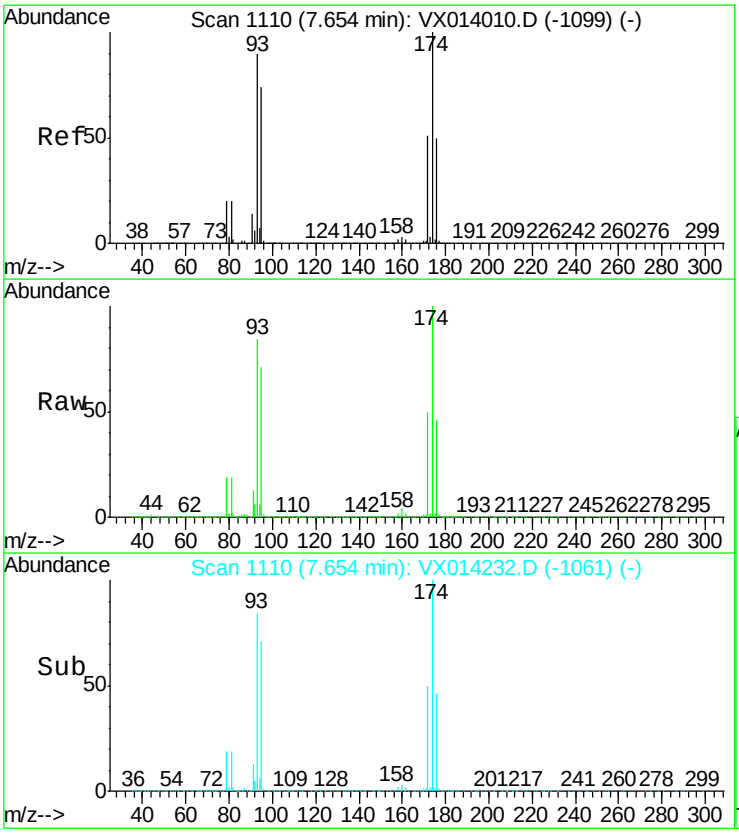


#45
1,2-Dichloropropane
Concen: 51.571 ug/l
RT: 7.50 min Scan# 1085
Delta R.T. -0.01 min
Lab File: VX014232.D
Acq: 24 Dec 2019 09:28

Tgt Ion: 63 Resp: 298522

Ion	Ratio	Lower	Upper
63	100		
65	30.0	25.8	38.8

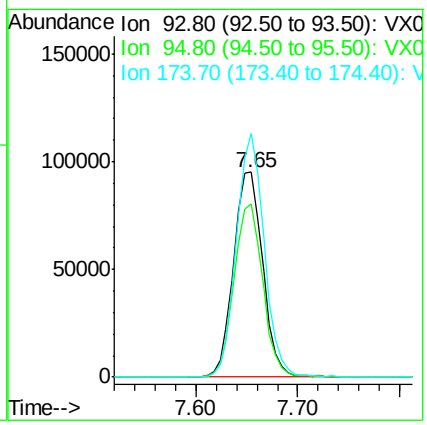




#46
Dibromomethane
Concen: 49.209 ug/l
RT: 7.65 min Scan# 1110
Delta R.T. -0.00 min
Lab File: VX014232.D
Acq: 24 Dec 2019 09:28

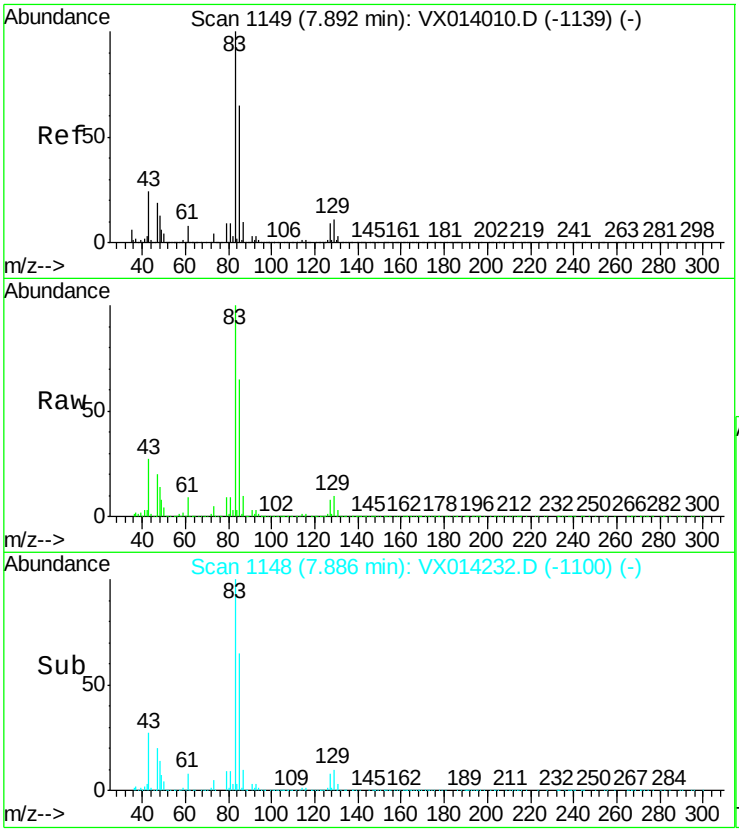
Tgt Ion: 93 Resp: 188328

Ion	Ratio	Lower	Upper
93	100		
95	82.6	67.3	100.9
174	113.7	91.6	137.4



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

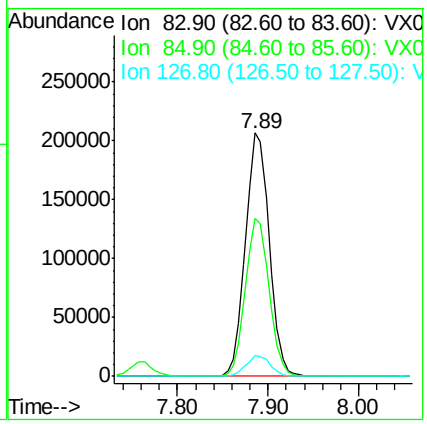
Manual Integrations APPROVED
apatel
12/26/2019 9:24:17 AM

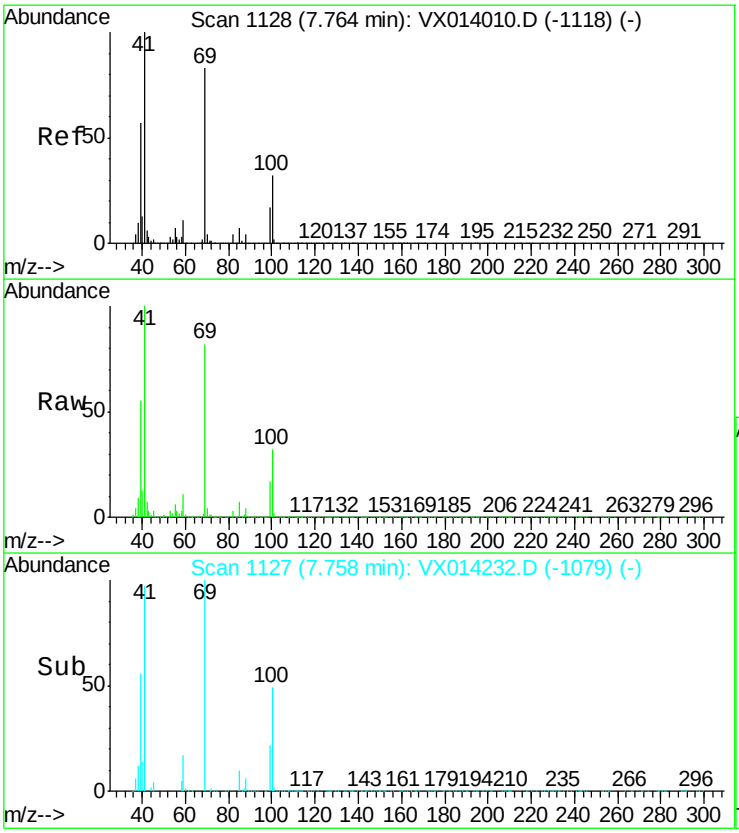


#47
Bromodichloromethane
Concen: 52.450 ug/l
RT: 7.89 min Scan# 1148
Delta R.T. -0.01 min
Lab File: VX014232.D
Acq: 24 Dec 2019 09:28

Tgt Ion: 83 Resp: 378043

Ion	Ratio	Lower	Upper
83	100		
85	64.6	51.8	77.8
127	8.3	7.0	10.4

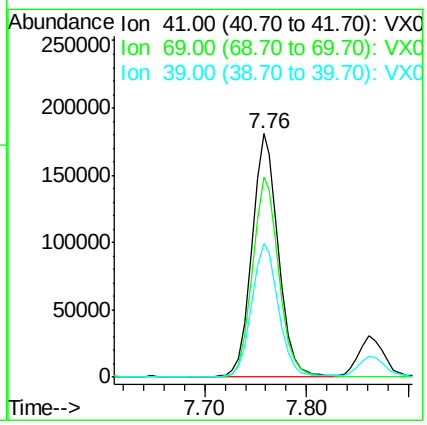




#48
Methyl methacrylate
Concen: 49.462 ug/l
RT: 7.76 min Scan# 1127
Delta R.T. -0.01 min
Lab File: VX014232.D
Acq: 24 Dec 2019 09:28

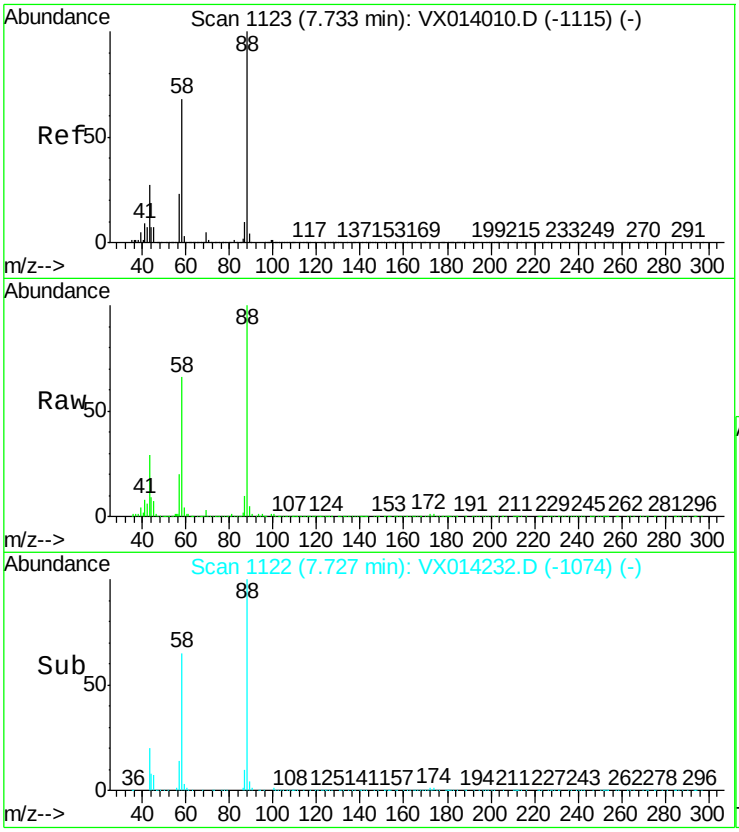
Tgt Ion: 41 Resp: 324887

Ion	Ratio	Lower	Upper
41	100		
69	82.4	65.8	98.6
39	55.5	44.6	67.0



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

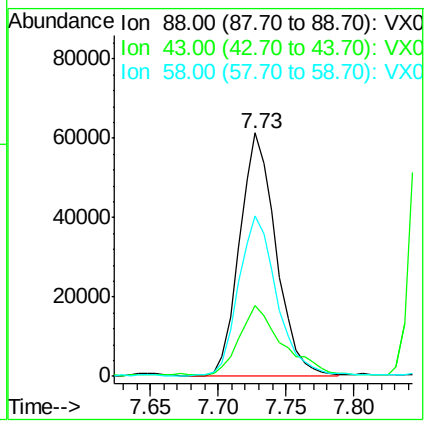
Manual Integrations APPROVED
apatel
12/26/2019 9:24:17 AM

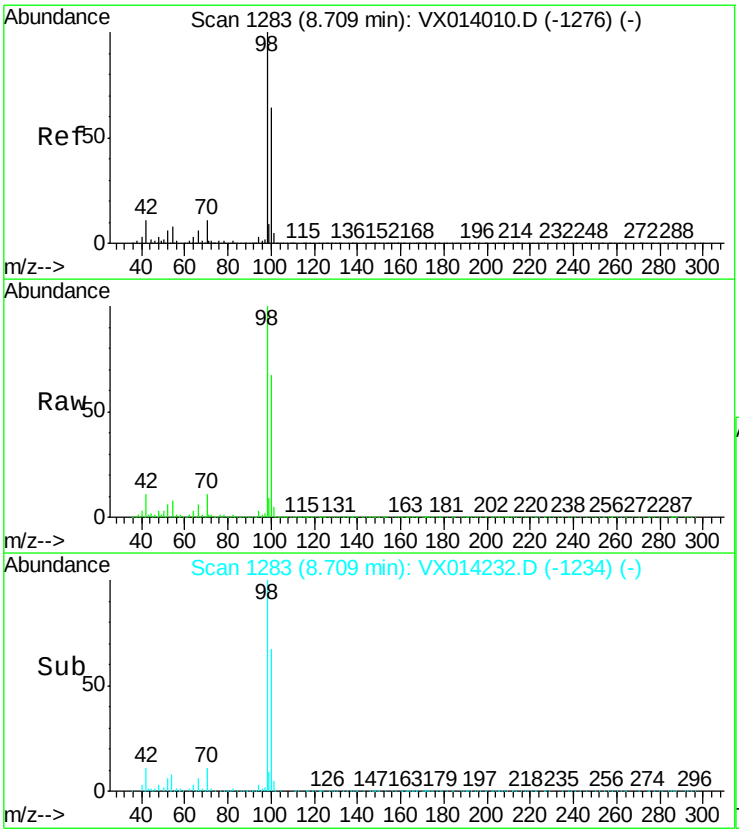


#49
1,4-Dioxane
Concen: 851.606 ug/l
RT: 7.73 min Scan# 1122
Delta R.T. -0.01 min
Lab File: VX014232.D
Acq: 24 Dec 2019 09:28

Tgt Ion: 88 Resp: 113834

Ion	Ratio	Lower	Upper
88	100		
43	34.0	26.5	39.7
58	70.6	56.8	85.2

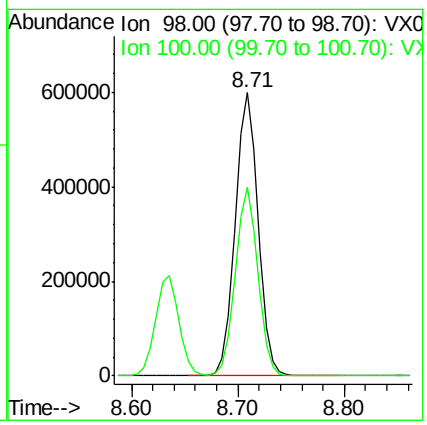




#50
Toluene-d8
Concen: 47.597 ug/l
RT: 8.71 min Scan# 1283
Delta R.T. -0.00 min
Lab File: VX014232.D
Acq: 24 Dec 2019 09:28

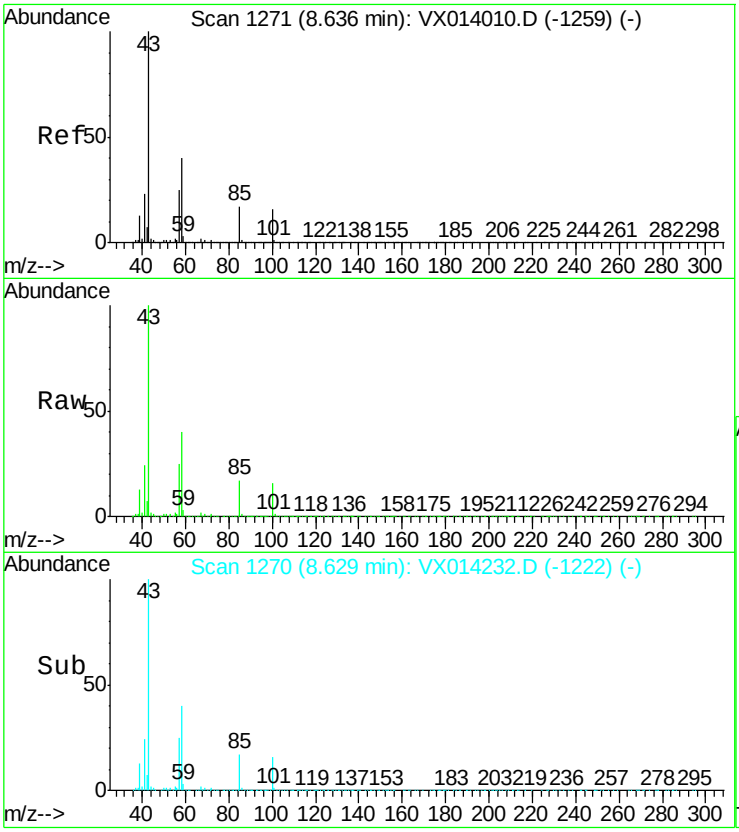
Tgt Ion: 98 Resp: 901106

Ion	Ratio	Lower	Upper
98	100		
100	65.8	52.9	79.3



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

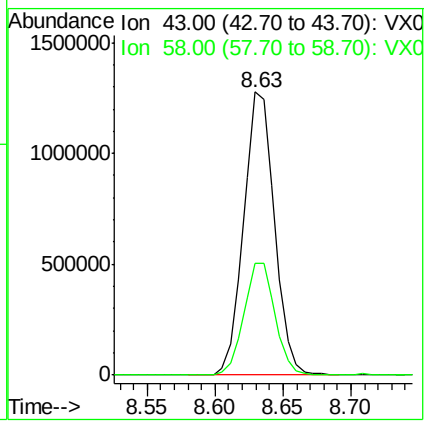
Manual Integrations APPROVED
apatel
12/26/2019 9:24:17 AM

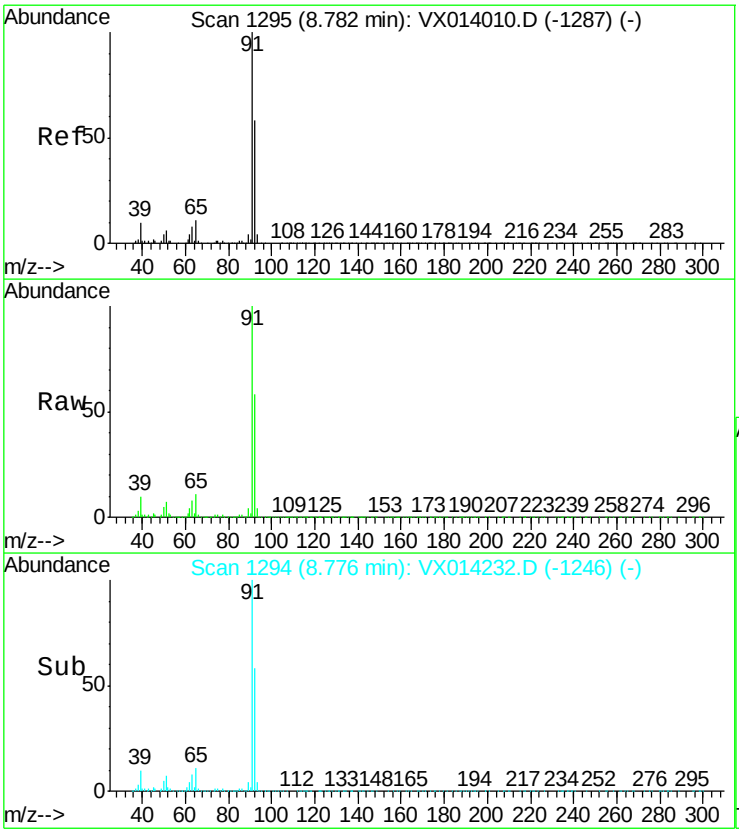


#51
4-Methyl-2-Pentanone
Concen: 240.403 ug/l
RT: 8.63 min Scan# 1270
Delta R.T. -0.01 min
Lab File: VX014232.D
Acq: 24 Dec 2019 09:28

Tgt Ion: 43 Resp: 2025209

Ion	Ratio	Lower	Upper
43	100		
58	39.7	32.2	48.2

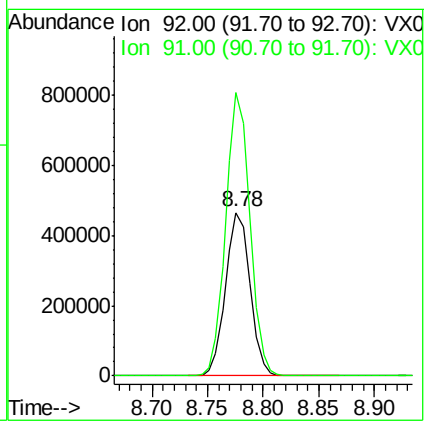




#52
Toluene
Concen: 49.904 ug/l
RT: 8.78 min Scan# 1294
Delta R.T. -0.01 min
Lab File: VX014232.D
Acq: 24 Dec 2019 09:28

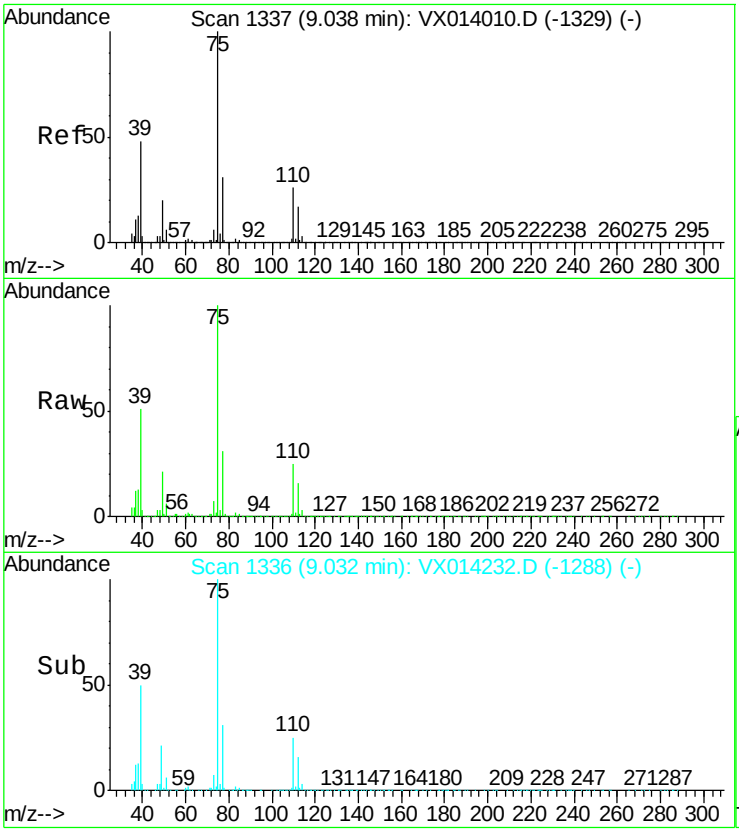
Tgt Ion: 92 Resp: 712371

Ion	Ratio	Lower	Upper
92	100		
91	170.5	136.2	204.4



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

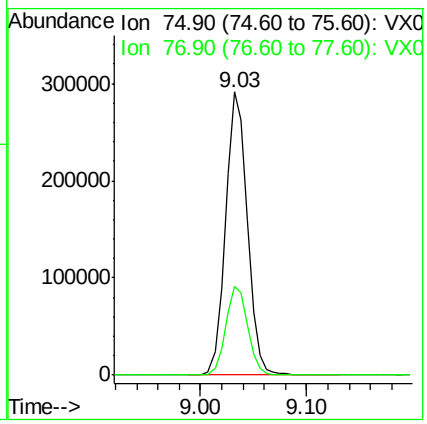
Manual Integrations APPROVED
apatel
12/26/2019 9:24:17 AM

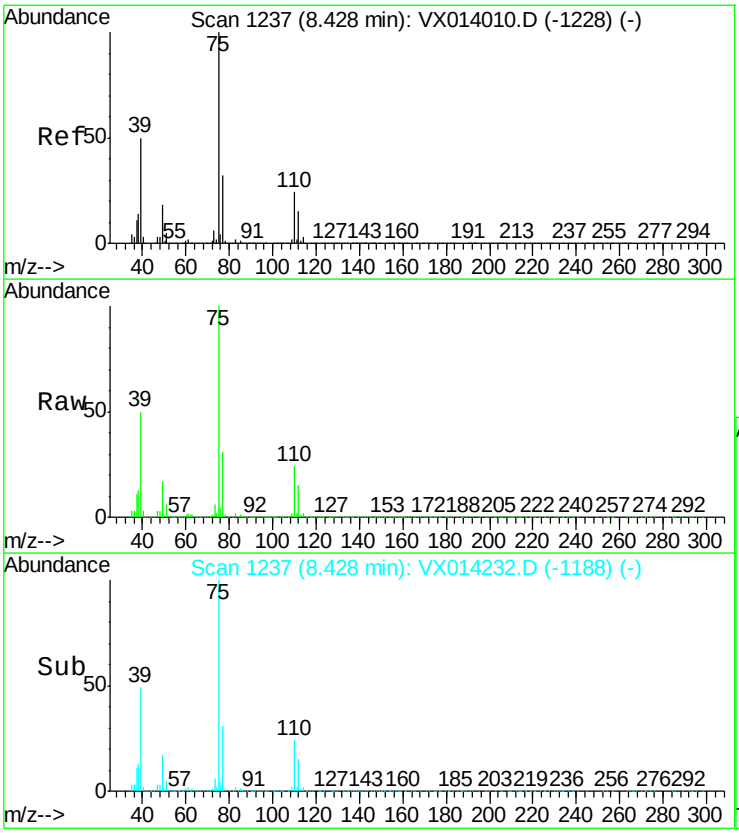


#53
t-1,3-Dichloropropene
Concen: 52.738 ug/l
RT: 9.03 min Scan# 1336
Delta R.T. -0.01 min
Lab File: VX014232.D
Acq: 24 Dec 2019 09:28

Tgt Ion: 75 Resp: 416802

Ion	Ratio	Lower	Upper
75	100		
77	31.4	25.1	37.7

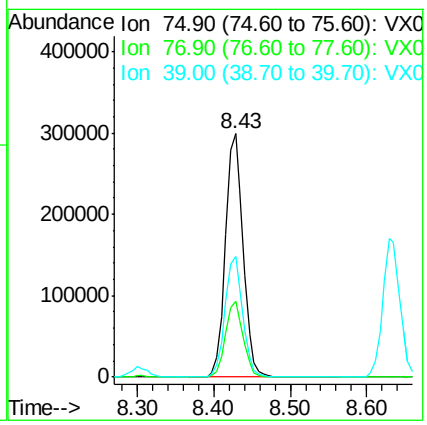




#54
cis-1,3-Dichloropropene
Concen: 53.876 ug/l
RT: 8.43 min Scan# 1237
Delta R.T. -0.00 min
Lab File: VX014232.D
Acq: 24 Dec 2019 09:28

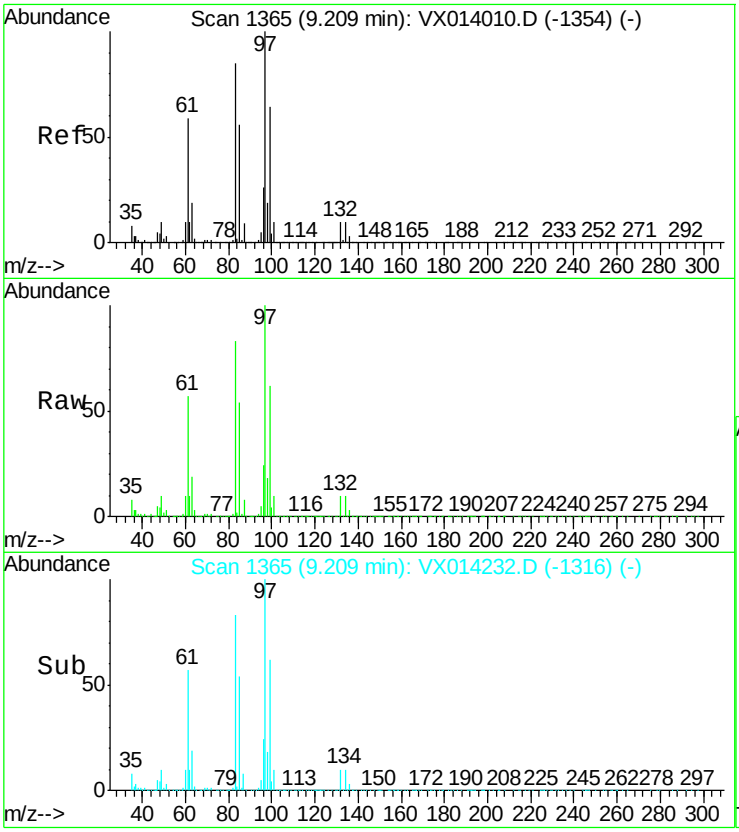
Tgt Ion: 75 Resp: 474369

Ion	Ratio	Lower	Upper
75	100		
77	31.4	25.3	37.9
39	49.5	39.9	59.9



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

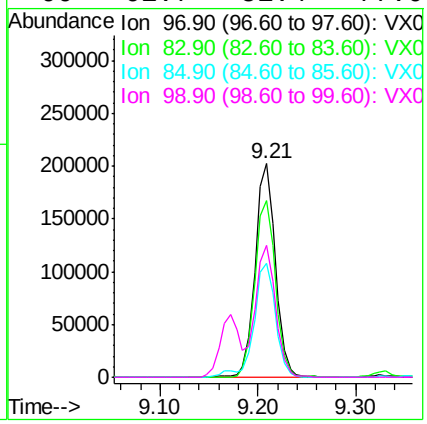
Manual Integrations APPROVED
apatel
12/26/2019 9:24:17 AM

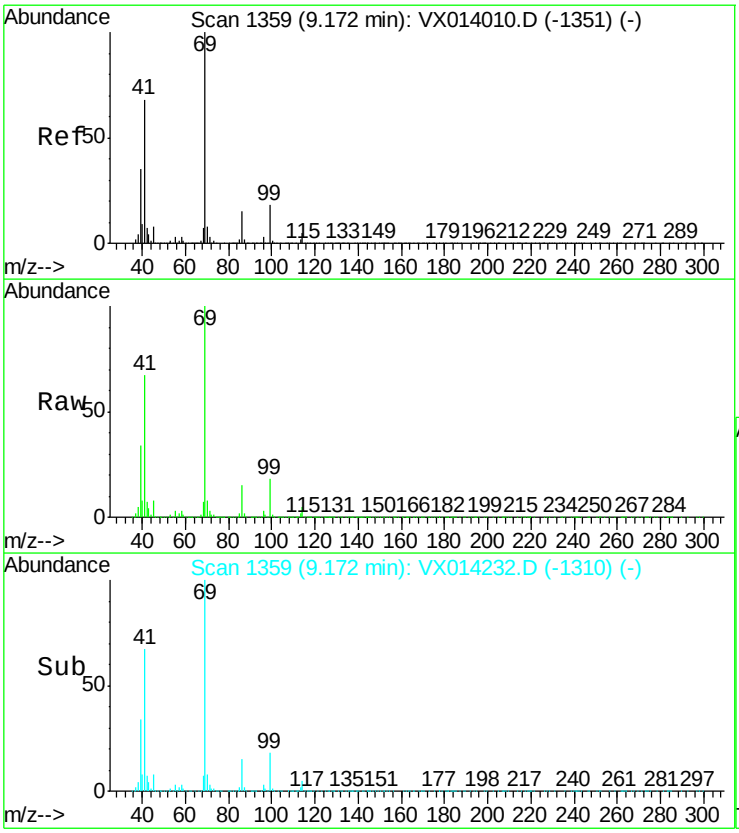


#55
1,1,2-Trichloroethane
Concen: 50.509 ug/l
RT: 9.21 min Scan# 1365
Delta R.T. -0.00 min
Lab File: VX014232.D
Acq: 24 Dec 2019 09:28

Tgt Ion: 97 Resp: 288971

Ion	Ratio	Lower	Upper
97	100		
83	82.7	68.2	102.4
85	53.5	44.6	66.8
99	61.7	51.4	77.0

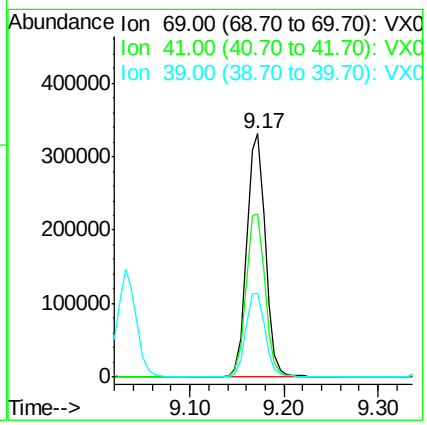




#56
Ethyl methacrylate
Concen: 50.753 ug/l
RT: 9.17 min Scan# 1359
Delta R.T. -0.00 min
Lab File: VX014232.D
Acq: 24 Dec 2019 09:28

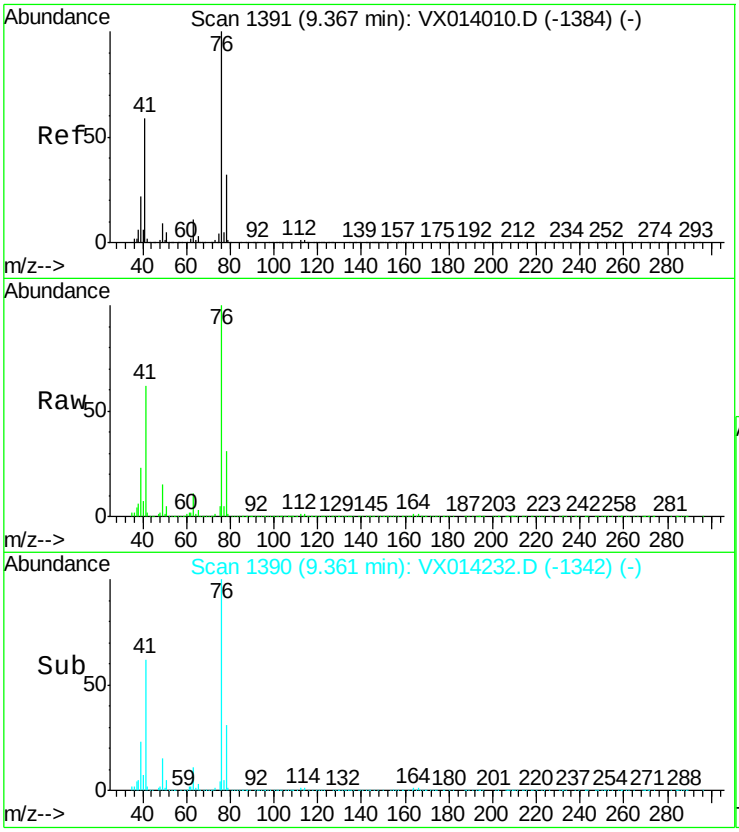
Tgt Ion: 69 Resp: 456119

Ion	Ratio	Lower	Upper
69	100		
41	68.4	54.8	82.2
39	35.7	28.3	42.5



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

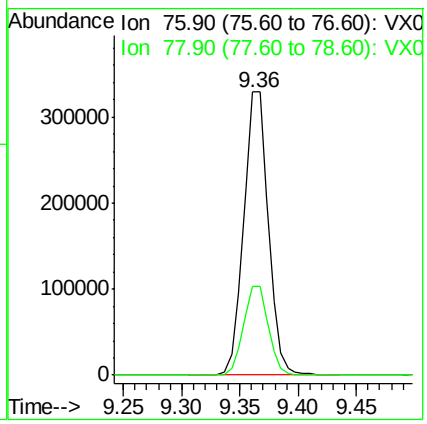
Manual Integrations APPROVED
apatel
12/26/2019 9:24:17 AM

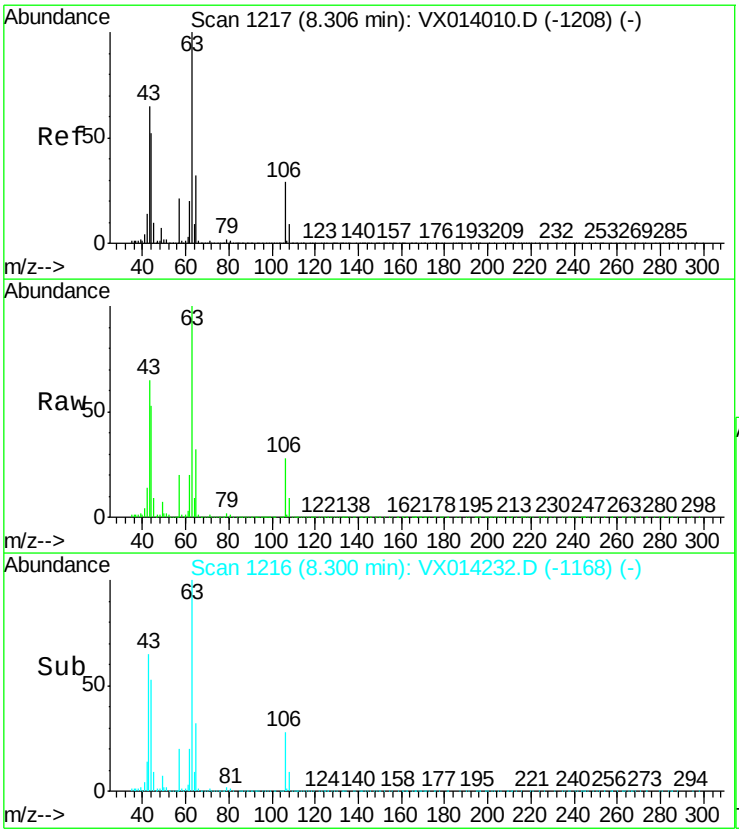


#57
1,3-Dichloropropane
Concen: 50.541 ug/l
RT: 9.36 min Scan# 1390
Delta R.T. -0.01 min
Lab File: VX014232.D
Acq: 24 Dec 2019 09:28

Tgt Ion: 76 Resp: 486497

Ion	Ratio	Lower	Upper
76	100		
78	31.9	25.8	38.6

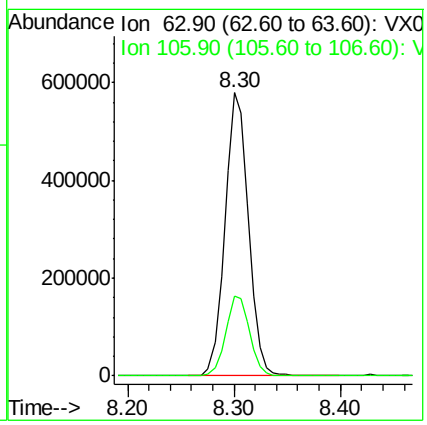




#58
2-Chloroethyl Vinyl ether
Concen: 261.476 ug/l
RT: 8.30 min Scan# 1216
Delta R.T. -0.01 min
Lab File: VX014232.D
Acq: 24 Dec 2019 09:28

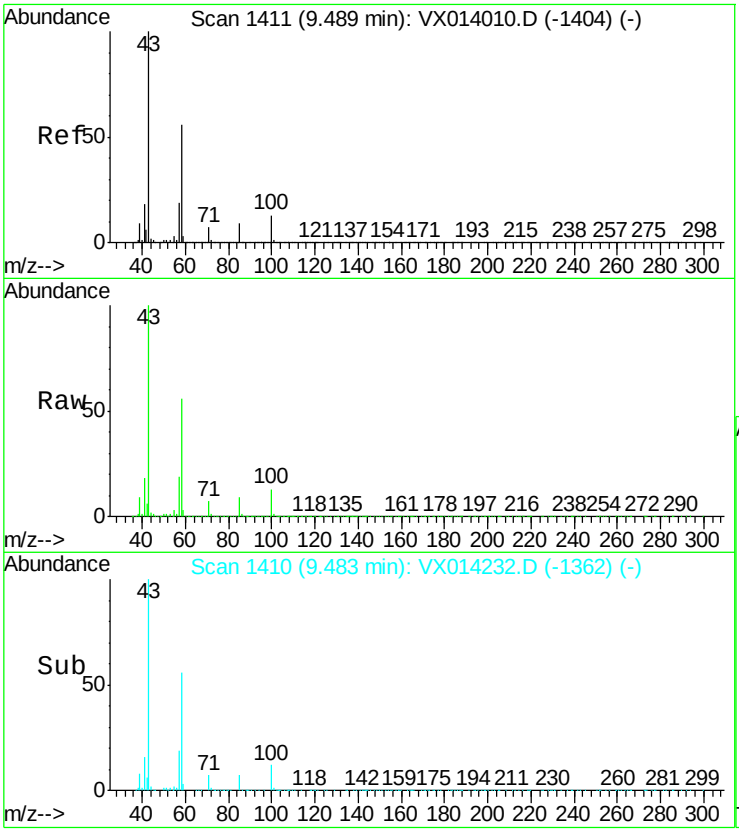
Tgt Ion: 63 Resp: 889280

Ion	Ratio	Lower	Upper
63	100		
106	28.8	23.0	34.6



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

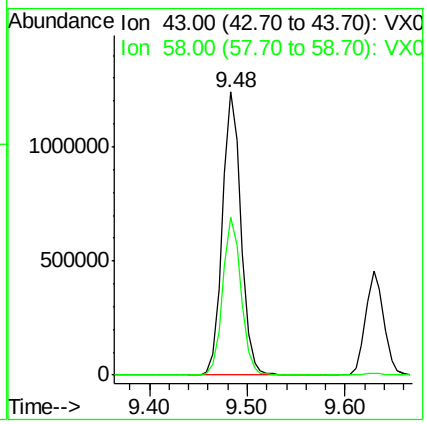
Manual Integrations APPROVED
apatel
12/26/2019 9:24:17 AM

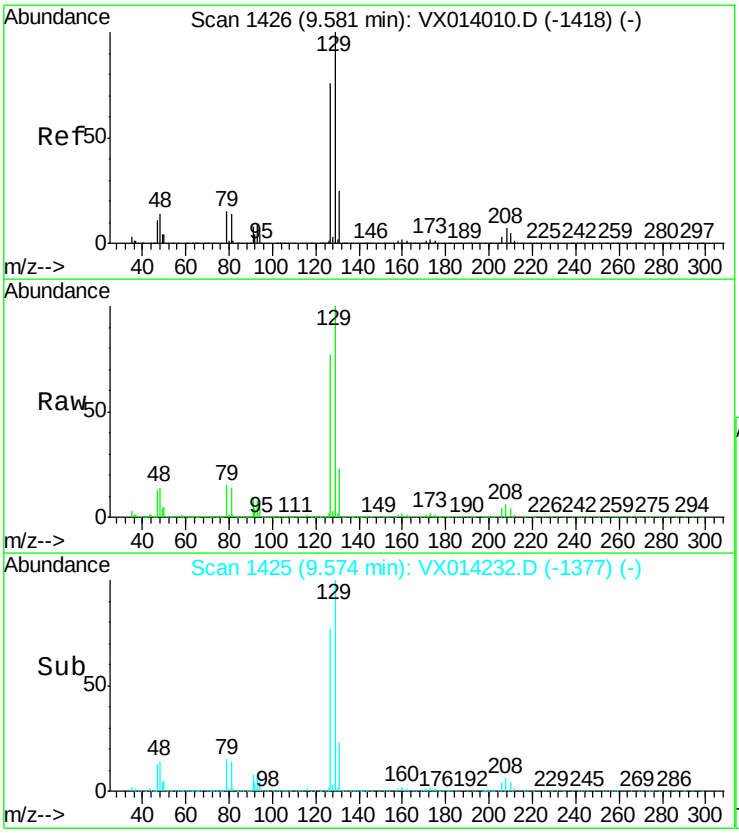


#59
2-Hexanone
Concen: 240.807 ug/l
RT: 9.48 min Scan# 1410
Delta R.T. -0.01 min
Lab File: VX014232.D
Acq: 24 Dec 2019 09:28

Tgt Ion: 43 Resp: 1633033

Ion	Ratio	Lower	Upper
43	100		
58	55.3	28.0	84.0

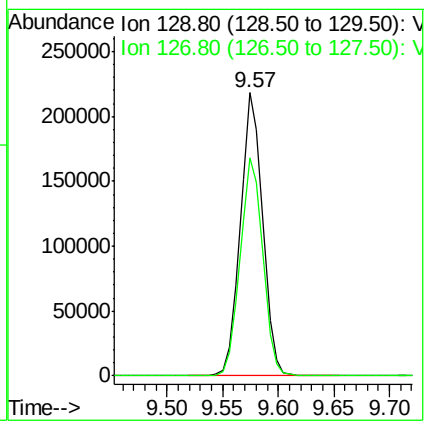




#60
Dibromochloromethane
Concen: 53.075 ug/l
RT: 9.57 min Scan# 1425
Delta R.T. -0.01 min
Lab File: VX014232.D
Acq: 24 Dec 2019 09:28

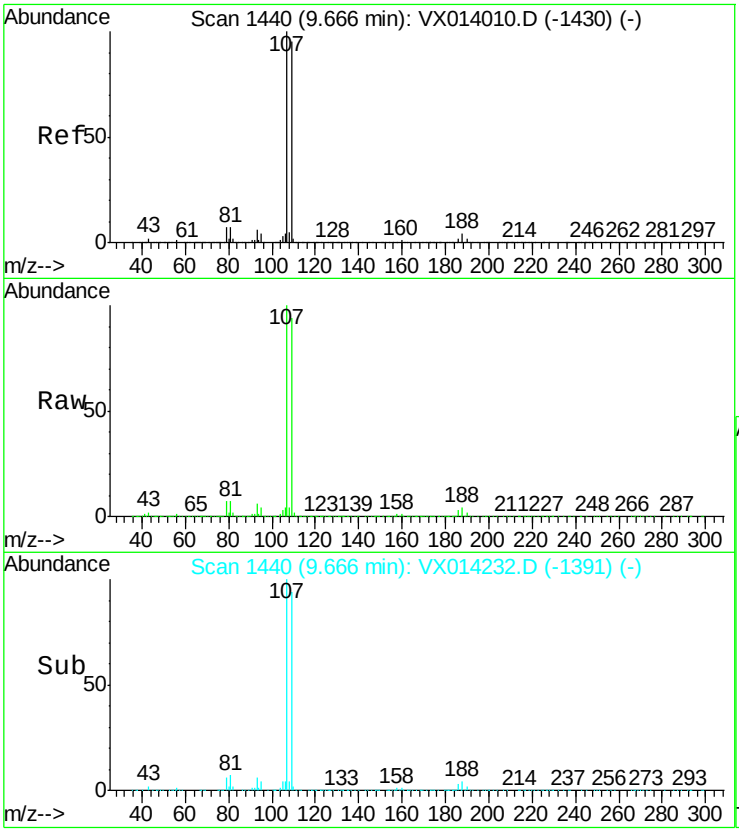
Tgt Ion:129 Resp: 301830

Ion	Ratio	Lower	Upper
129	100		
127	78.5	38.4	115.2



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

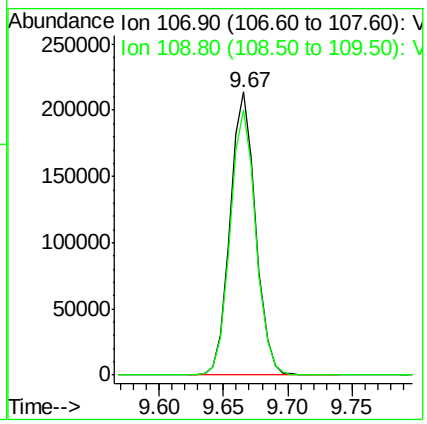
Manual Integrations APPROVED
apatel
12/26/2019 9:24:17 AM

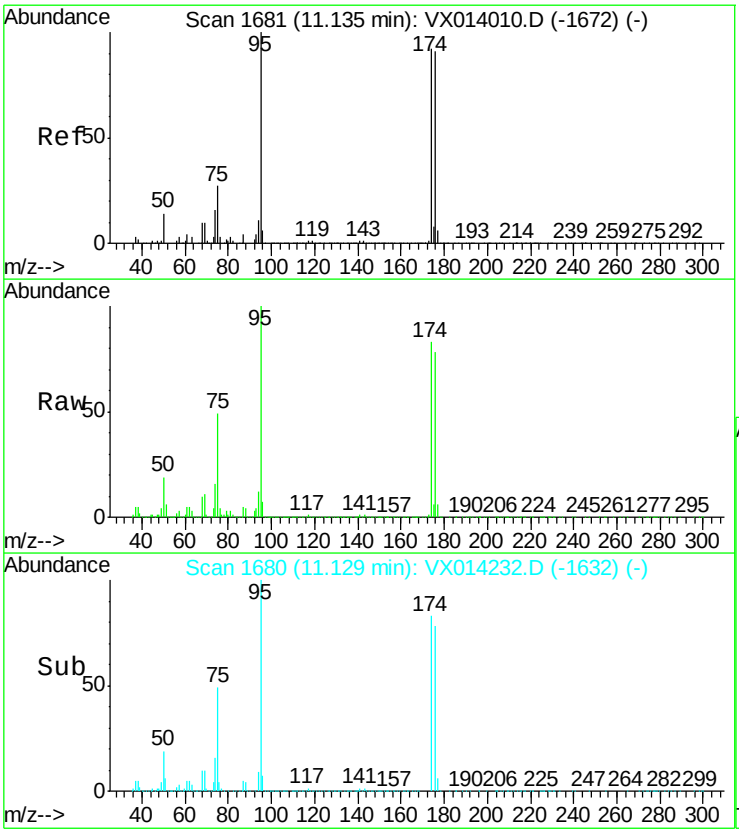


#61
1,2-Dibromoethane
Concen: 50.585 ug/l
RT: 9.67 min Scan# 1440
Delta R.T. -0.00 min
Lab File: VX014232.D
Acq: 24 Dec 2019 09:28

Tgt Ion:107 Resp: 296106

Ion	Ratio	Lower	Upper
107	100		
109	94.6	75.7	113.5

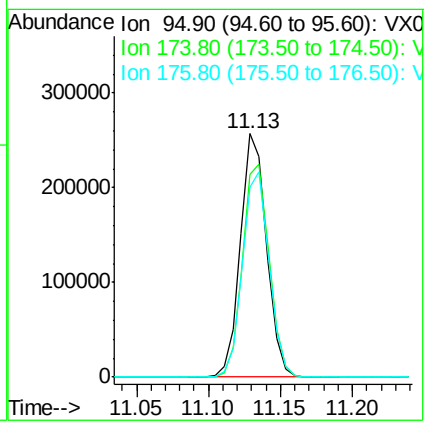




#62
4-Bromofluorobenzene
Concen: 46.514 ug/l
RT: 11.13 min Scan# 1680
Delta R.T. -0.01 min
Lab File: VX014232.D
Acq: 24 Dec 2019 09:28

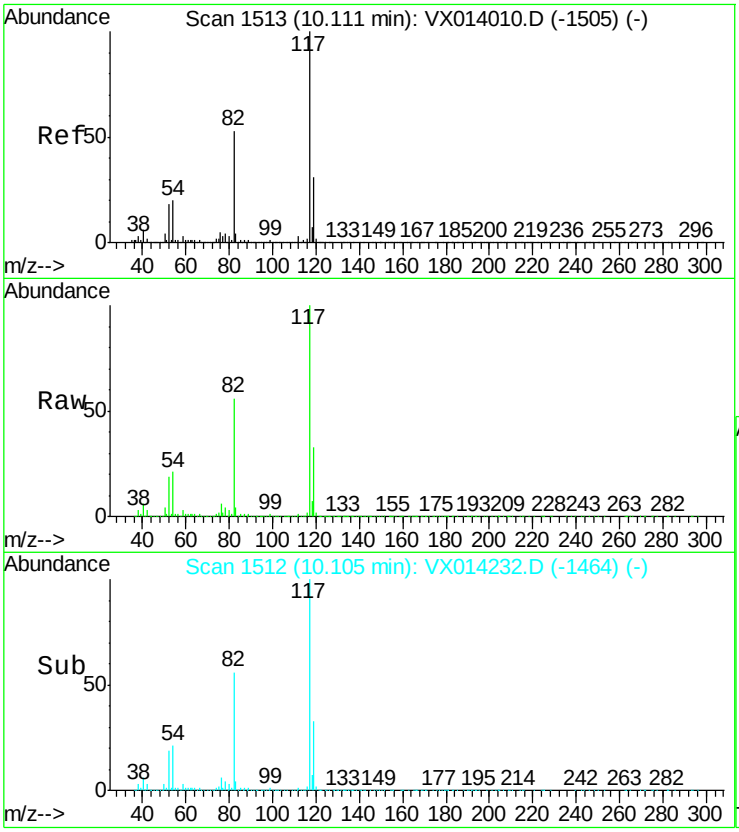
Tgt Ion: 95 Resp: 321897

Ion	Ratio	Lower	Upper
95	100		
174	89.5	0.0	175.8
176	85.6	0.0	173.0



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

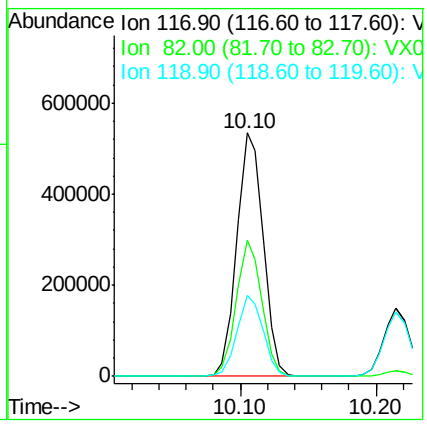
Manual Integrations APPROVED
apatel
12/26/2019 9:24:17 AM

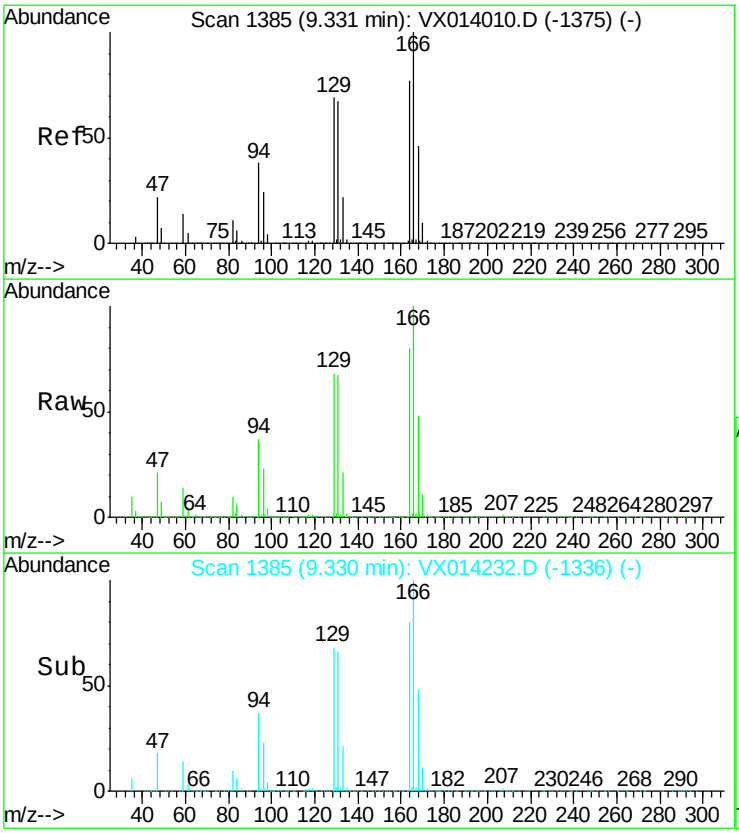


#63
Chlorobenzene-d5
Concen: 50.000 ug/l
RT: 10.10 min Scan# 1512
Delta R.T. -0.01 min
Lab File: VX014232.D
Acq: 24 Dec 2019 09:28

Tgt Ion:117 Resp: 721140

Ion	Ratio	Lower	Upper
117	100		
82	55.8	42.2	63.4
119	33.2	25.1	37.7

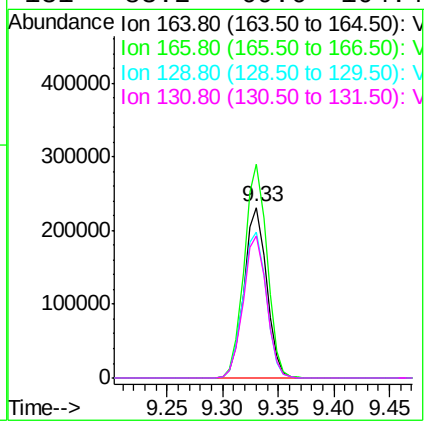




#64
Tetrachloroethene
Concen: 51.087 ug/l
RT: 9.33 min Scan# 1385
Delta R.T. -0.00 min
Lab File: VX014232.D
Acq: 24 Dec 2019 09:28

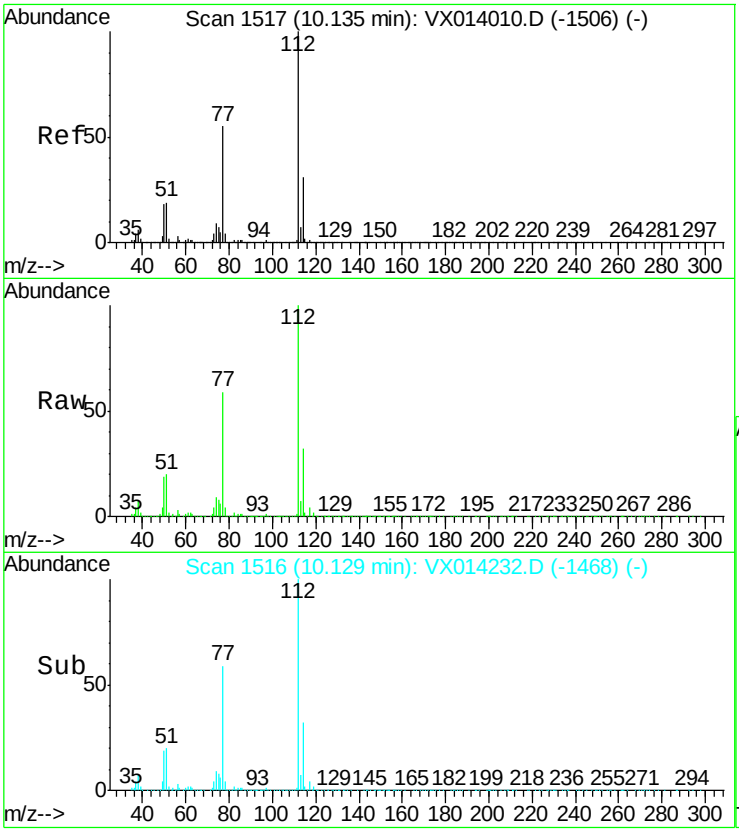
Tgt Ion:164 Resp: 325995

Ion	Ratio	Lower	Upper
164	100		
166	125.1	104.0	156.0
129	85.5	72.2	108.4
131	83.2	69.6	104.4



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

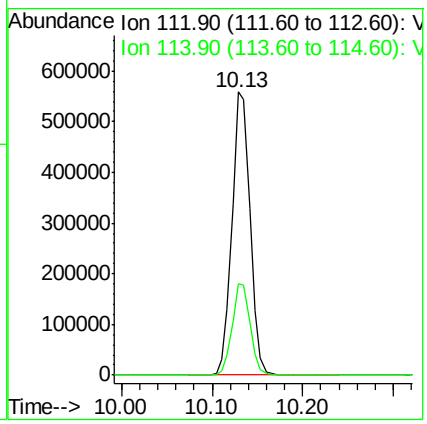
Manual Integrations APPROVED
apatel
12/26/2019 9:24:17 AM

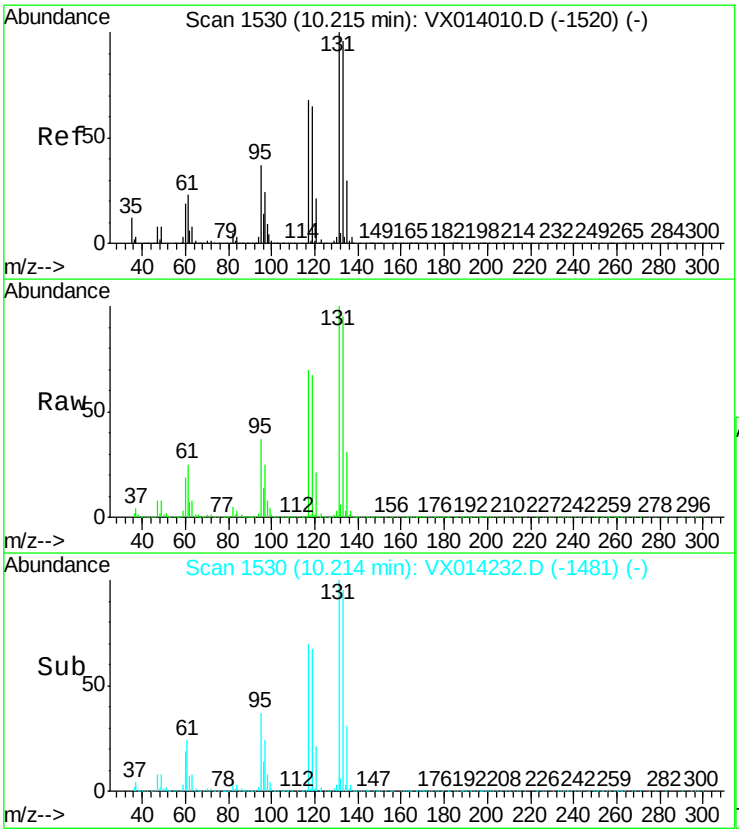


#65
Chlorobenzene
Concen: 50.430 ug/l
RT: 10.13 min Scan# 1516
Delta R.T. -0.01 min
Lab File: VX014232.D
Acq: 24 Dec 2019 09:28

Tgt Ion:112 Resp: 773248

Ion	Ratio	Lower	Upper
112	100		
114	32.2	24.9	37.3

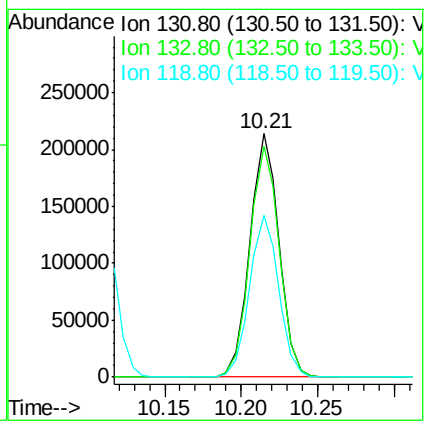




#66
1,1,1,2-Tetrachloroethane
Concen: 51.543 ug/l
RT: 10.21 min Scan# 1530
Delta R.T. -0.00 min
Lab File: VX014232.D
Acq: 24 Dec 2019 09:28

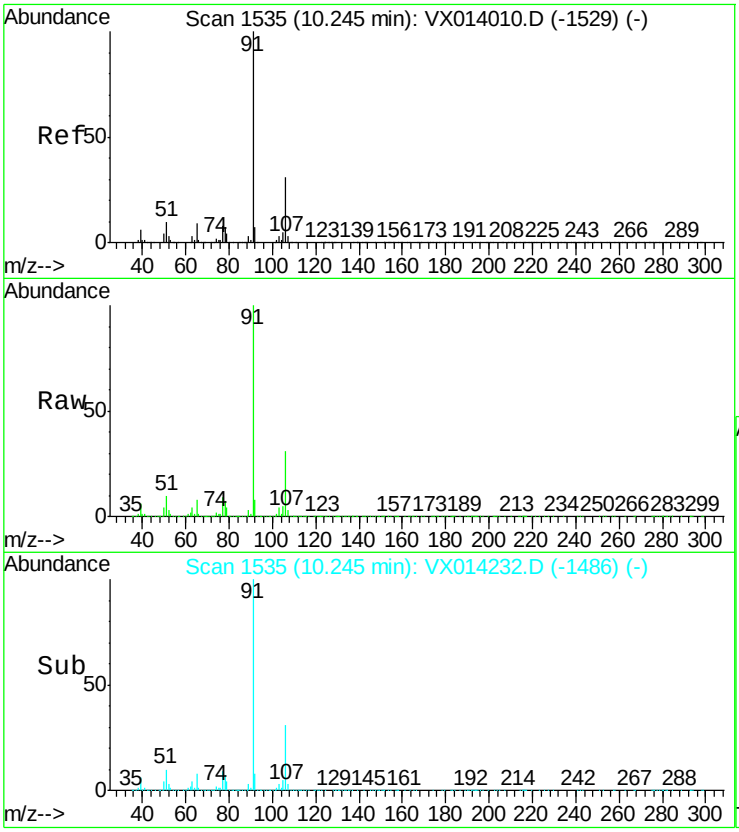
Tgt Ion:131 Resp: 282187

Ion	Ratio	Lower	Upper
131	100		
133	95.6	48.0	144.0
119	66.8	33.4	100.2



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

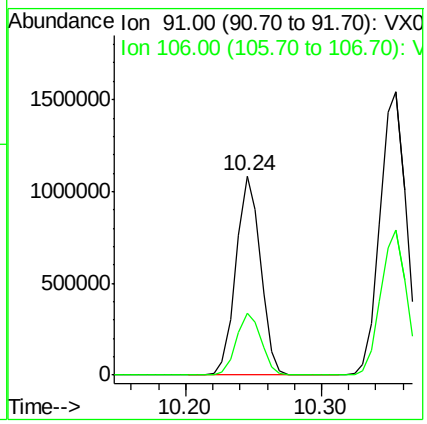
Manual Integrations APPROVED
apatel
12/26/2019 9:24:17 AM

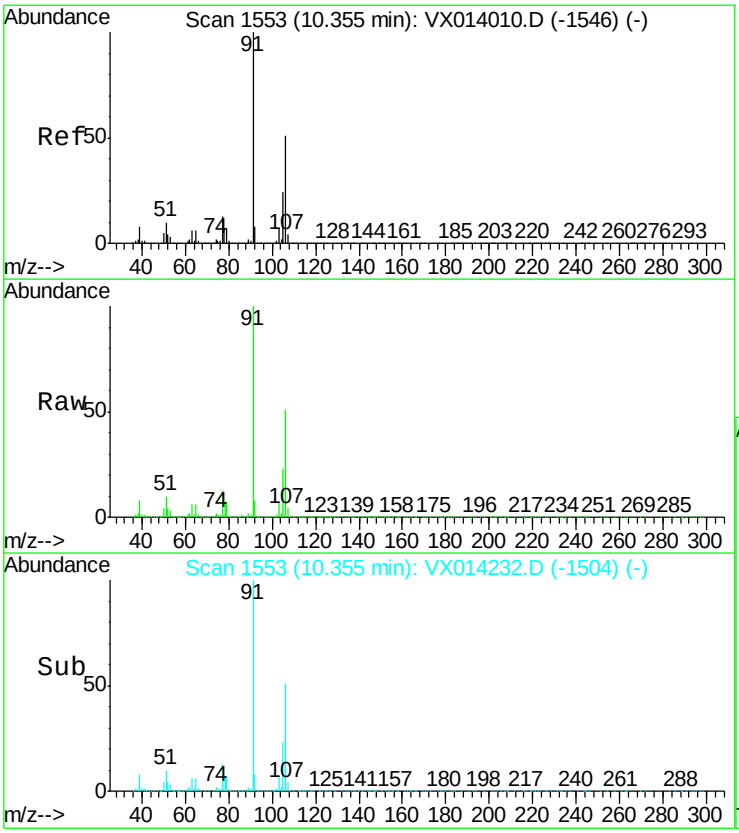


#67
Ethyl Benzene
Concen: 51.978 ug/l
RT: 10.24 min Scan# 1535
Delta R.T. -0.00 min
Lab File: VX014232.D
Acq: 24 Dec 2019 09:28

Tgt Ion: 91 Resp: 1370211

Ion	Ratio	Lower	Upper
91	100		
106	31.1	25.0	37.6

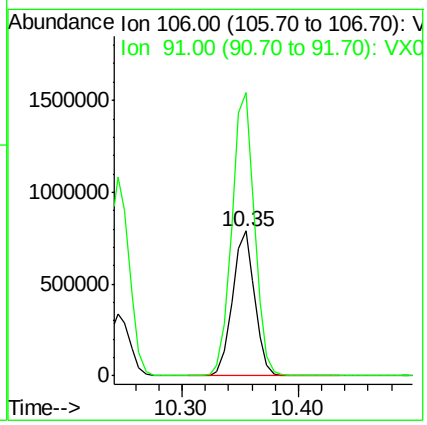




#68
m/p-Xylenes
Concen: 102.434 ug/l
RT: 10.35 min Scan# 1553
Delta R.T. -0.00 min
Lab File: VX014232.D
Acq: 24 Dec 2019 09:28

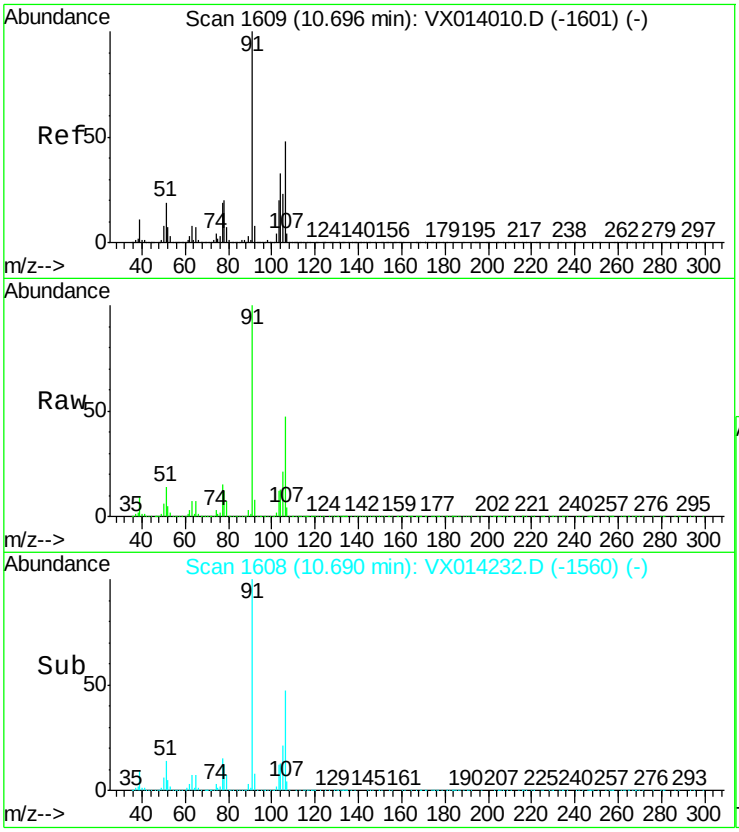
Tgt Ion:106 Resp: 1038568

Ion	Ratio	Lower	Upper
106	100		
91	200.3	158.6	238.0



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

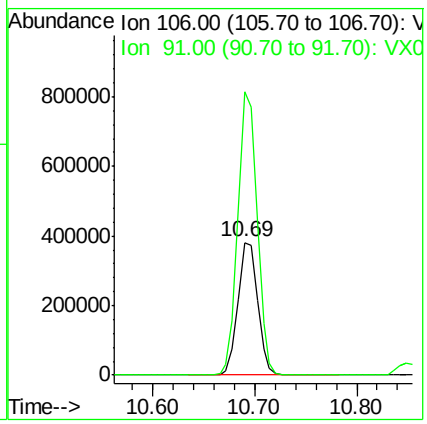
Manual Integrations APPROVED
apatel
12/26/2019 9:24:17 AM

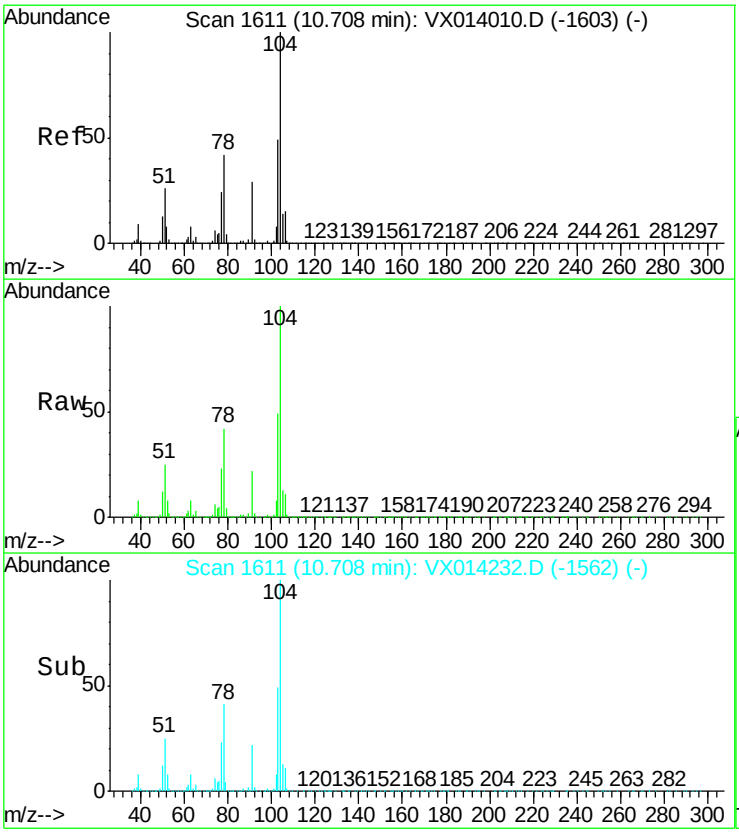


#69
o-Xylene
Concen: 50.456 ug/l
RT: 10.69 min Scan# 1608
Delta R.T. -0.01 min
Lab File: VX014232.D
Acq: 24 Dec 2019 09:28

Tgt Ion:106 Resp: 501730

Ion	Ratio	Lower	Upper
106	100		
91	210.7	104.2	312.6

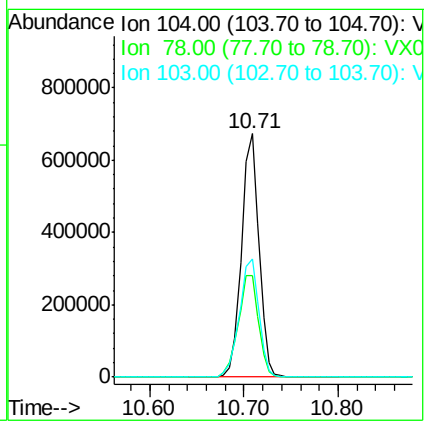




#70
Styrene
Concen: 51.647 ug/l
RT: 10.71 min Scan# 1611
Delta R.T. -0.00 min
Lab File: VX014232.D
Acq: 24 Dec 2019 09:28

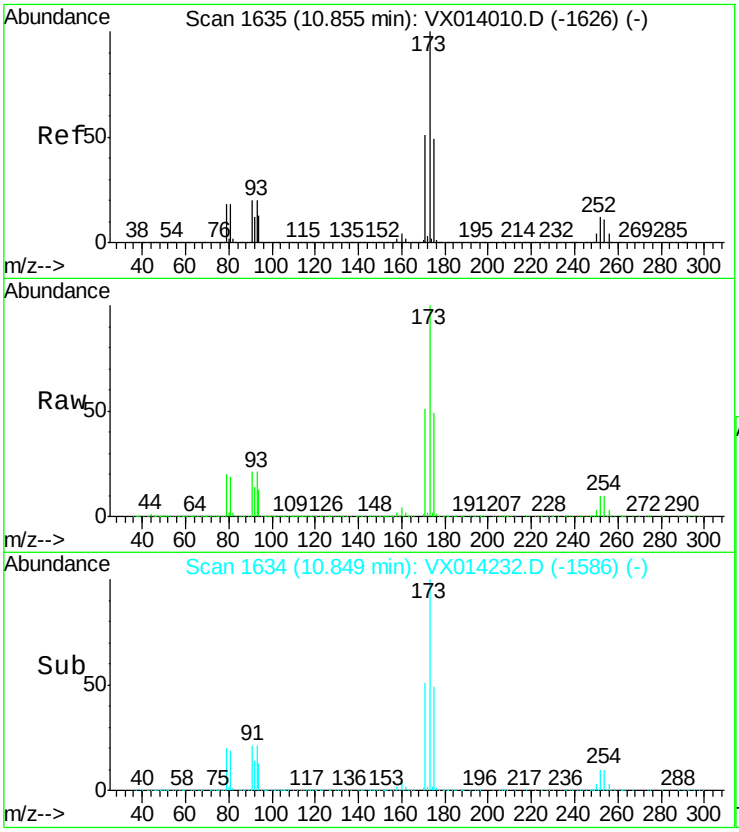
Tgt Ion:104 Resp: 868432

Ion	Ratio	Lower	Upper
104	100		
78	48.3	38.5	57.7
103	54.2	42.9	64.3



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

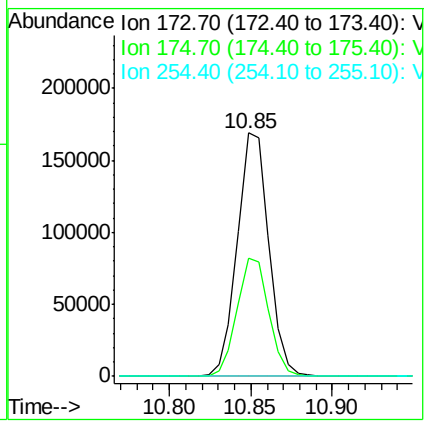
Manual Integrations APPROVED
apatel
12/26/2019 9:24:17 AM

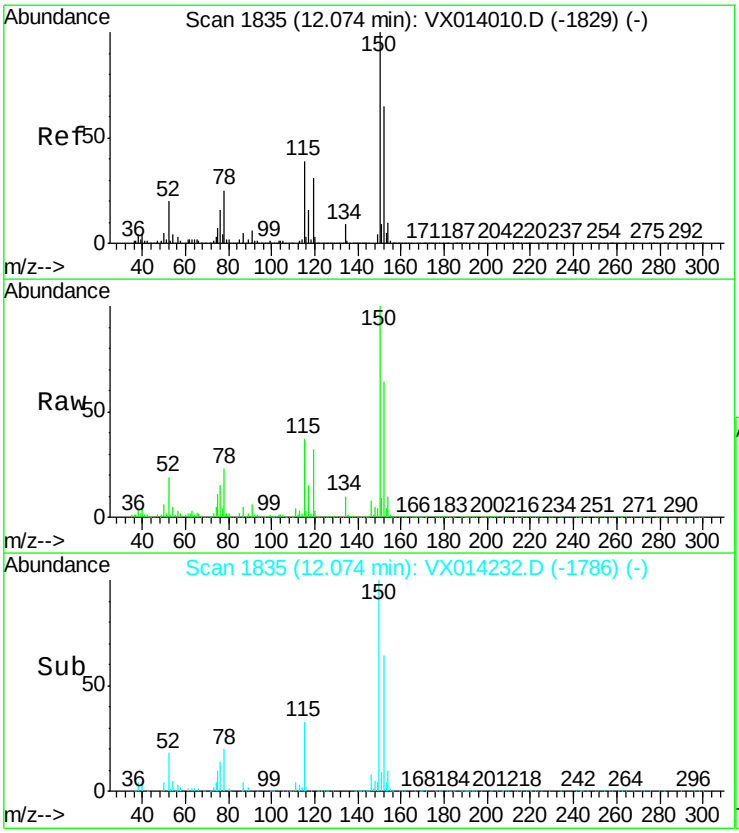


#71
Bromoform
Concen: 51.959 ug/l
RT: 10.85 min Scan# 1634
Delta R.T. -0.01 min
Lab File: VX014232.D
Acq: 24 Dec 2019 09:28

Tgt Ion:173 Resp: 228665

Ion	Ratio	Lower	Upper
173	100		
175	49.2	24.4	73.4
254	0.1	0.2	0.2#

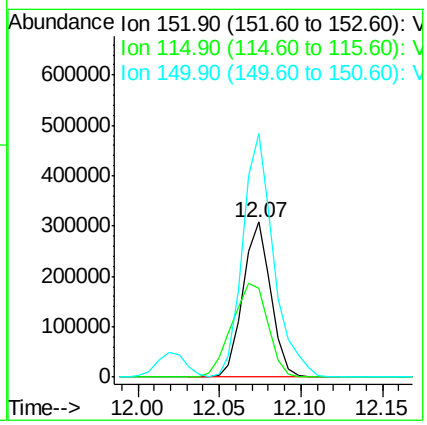




#72
1,4-Dichlorobenzene-d4
Concen: 50.000 ug/l
RT: 12.07 min Scan# 1835
Delta R.T. -0.00 min
Lab File: VX014232.D
Acq: 24 Dec 2019 09:28

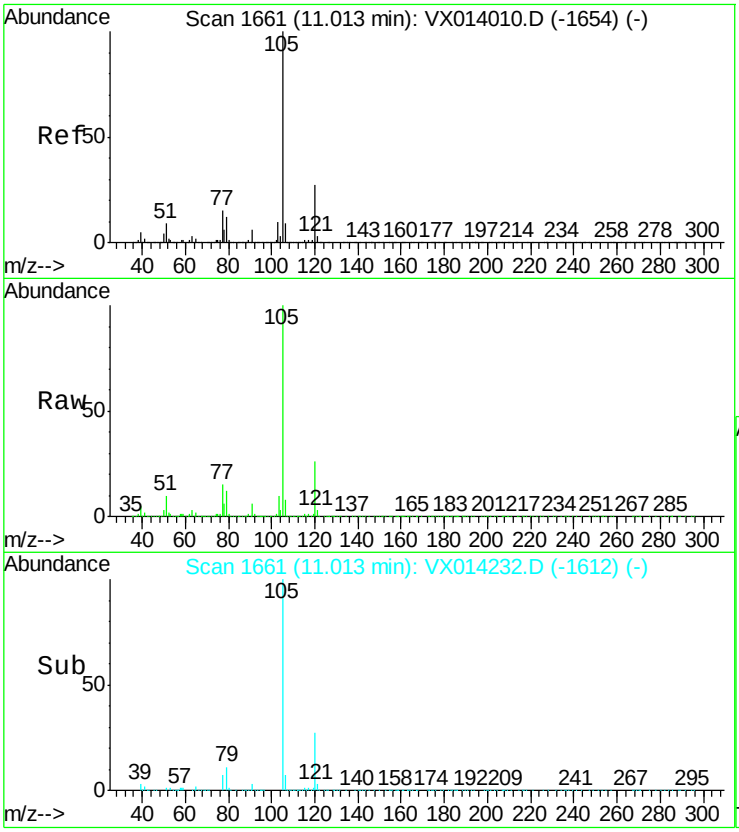
Tgt Ion:152 Resp: 364828

Ion	Ratio	Lower	Upper
152	100		
115	78.7	38.3	114.9
150	174.5	0.0	345.4



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

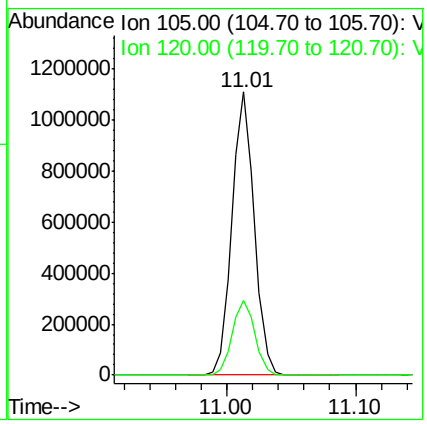
Manual Integrations APPROVED
apatel
12/26/2019 9:24:17 AM

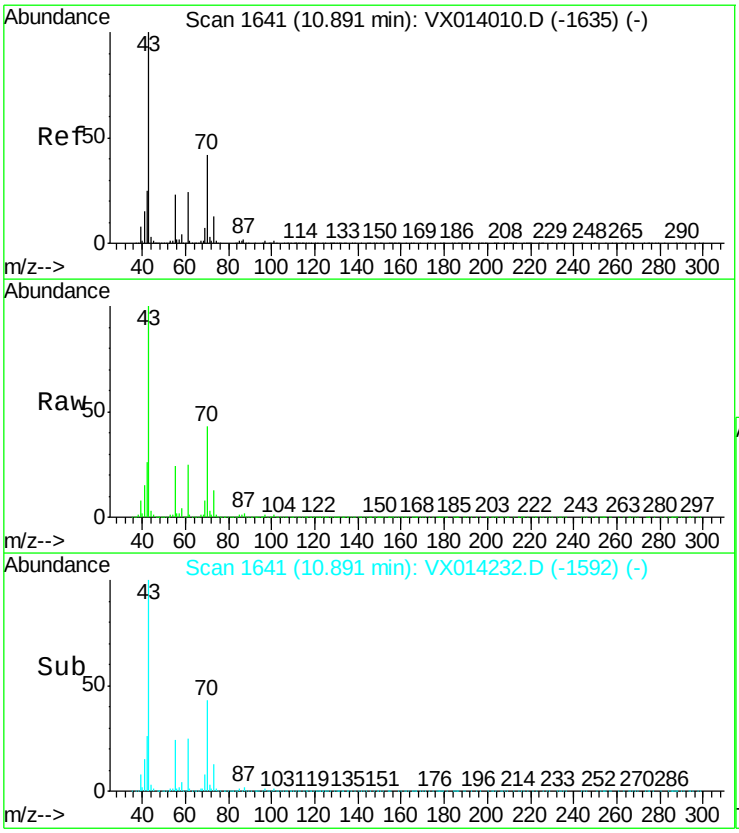


#73
Isopropylbenzene
Concen: 52.294 ug/l
RT: 11.01 min Scan# 1661
Delta R.T. -0.00 min
Lab File: VX014232.D
Acq: 24 Dec 2019 09:28

Tgt Ion:105 Resp: 1343255

Ion	Ratio	Lower	Upper
105	100		
120	26.8	13.5	40.4

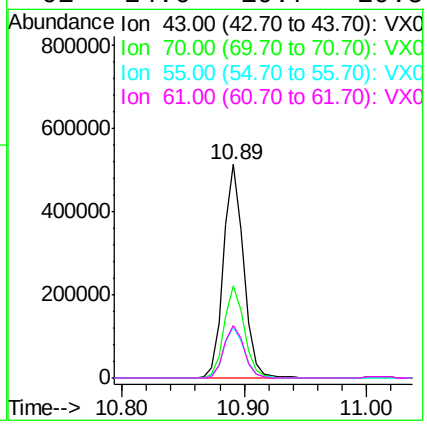


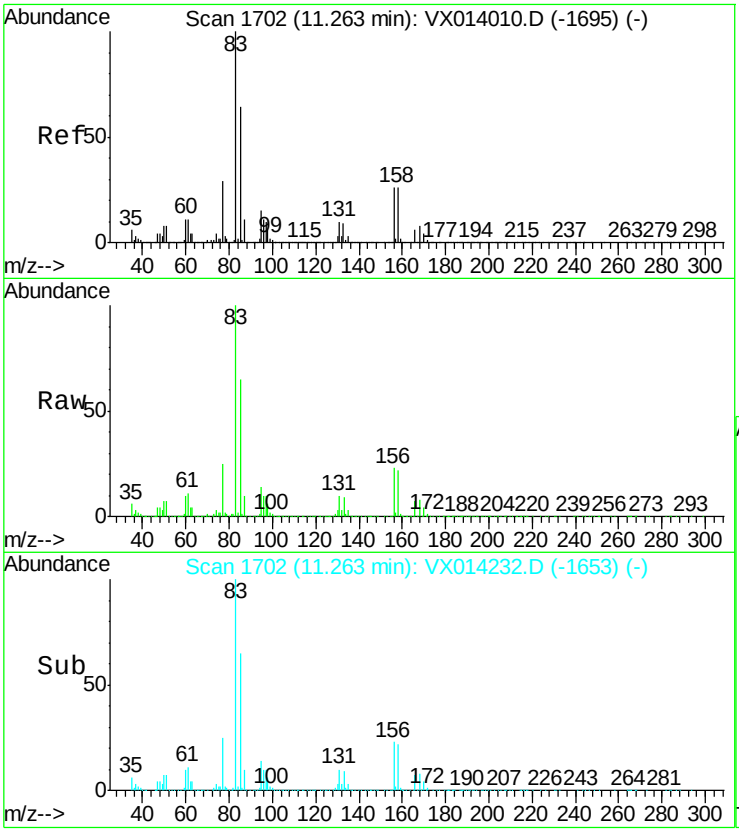


#74
N-amyl acetate
Concen: 48.446 ug/l
RT: 10.89 min Scan# 1641
Delta R.T. -0.00 min
Lab File: VX014232.D
Acq: 24 Dec 2019 09:28

Tgt Ion: 43 Resp: 583308

Ion	Ratio	Lower	Upper
43	100		
70	43.4	34.4	51.6
55	24.5	19.1	28.7
61	24.6	19.7	29.5

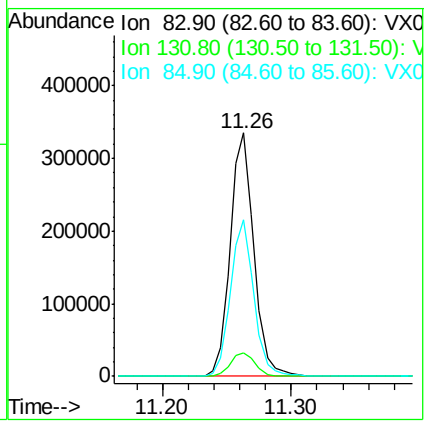




#75
1,1,2,2-Tetrachloroethane
Concen: 48.353 ug/l
RT: 11.26 min Scan# 1702
Delta R.T. -0.00 min
Lab File: VX014232.D
Acq: 24 Dec 2019 09:28

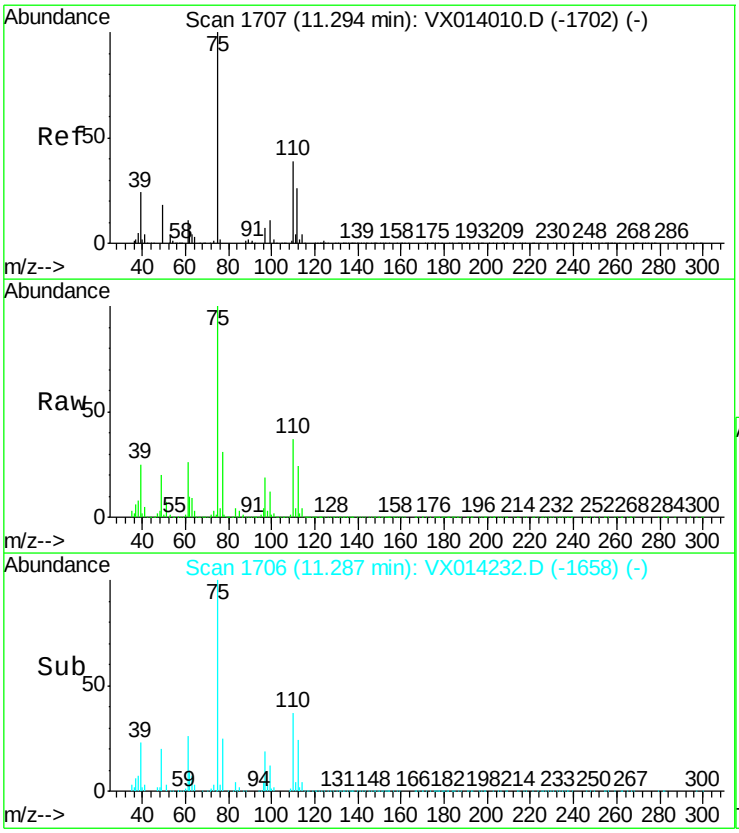
Tgt Ion: 83 Resp: 430598

Ion	Ratio	Lower	Upper
83	100		
131	10.3	5.1	15.2
85	63.9	31.9	95.7



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

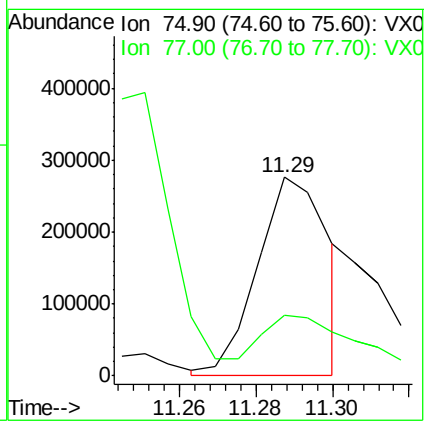
Manual Integrations APPROVED
apatel
12/26/2019 9:24:17 AM

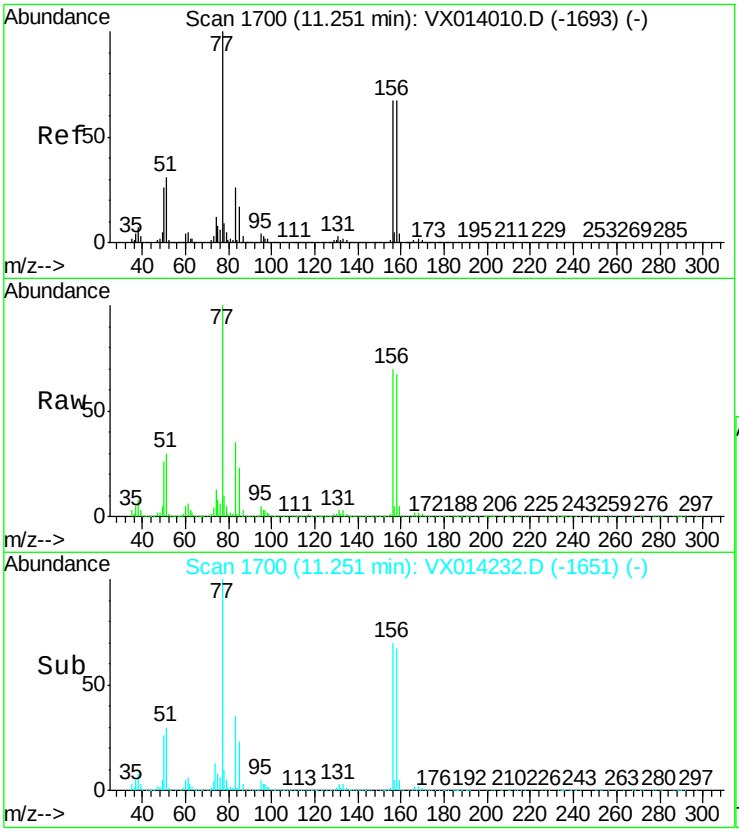


#76
1,2,3-Trichloropropane
Concen: 44.565 ug/l m
RT: 11.29 min Scan# 1706
Delta R.T. -0.01 min
Lab File: VX014232.D
Acq: 24 Dec 2019 09:28

Tgt Ion: 75 Resp: 352974

Ion	Ratio	Lower	Upper
75	100		
77	41.7	19.3	57.8

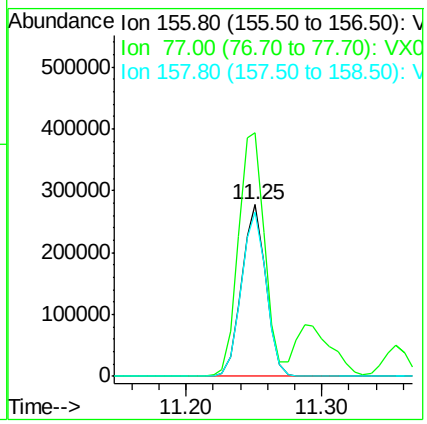




#77
Bromobenzene
Concen: 48.590 ug/l
RT: 11.25 min Scan# 1700
Delta R.T. -0.00 min
Lab File: VX014232.D
Acq: 24 Dec 2019 09:28

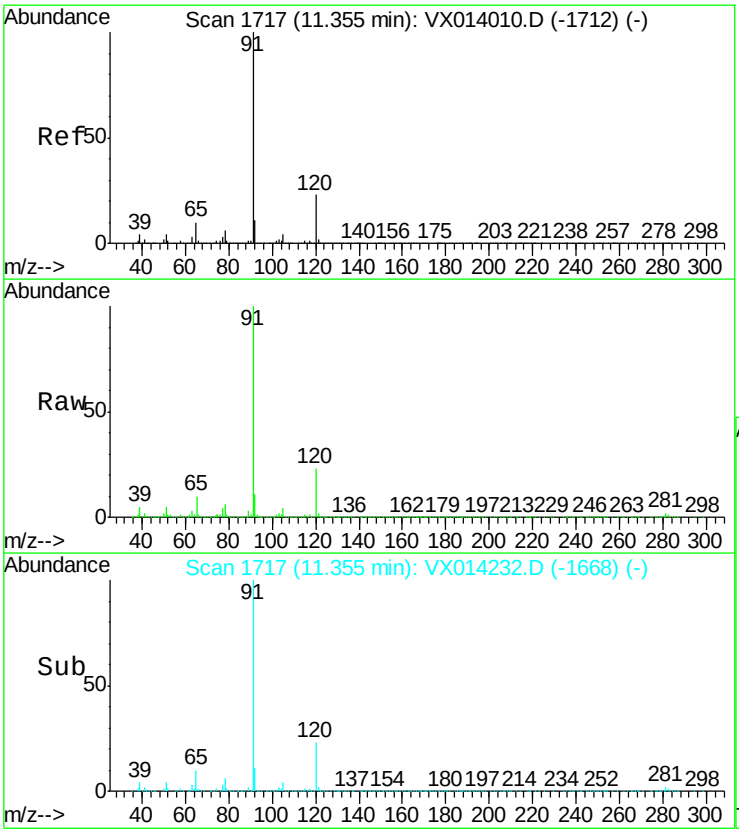
Tgt Ion:156 Resp: 343403

Ion	Ratio	Lower	Upper
156	100		
77	152.3	76.5	229.5
158	98.3	49.3	147.9



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

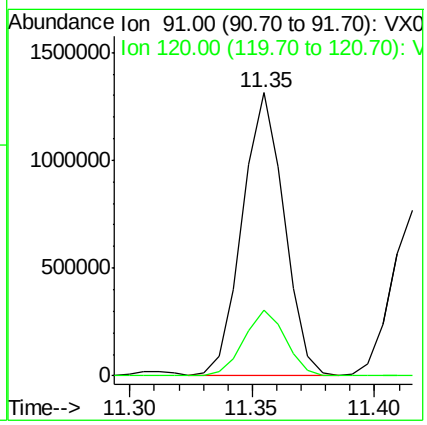
Manual Integrations APPROVED
apatel
12/26/2019 9:24:17 AM



#78
n-propylbenzene
Concen: 53.997 ug/l
RT: 11.35 min Scan# 1717
Delta R.T. -0.00 min
Lab File: VX014232.D
Acq: 24 Dec 2019 09:28

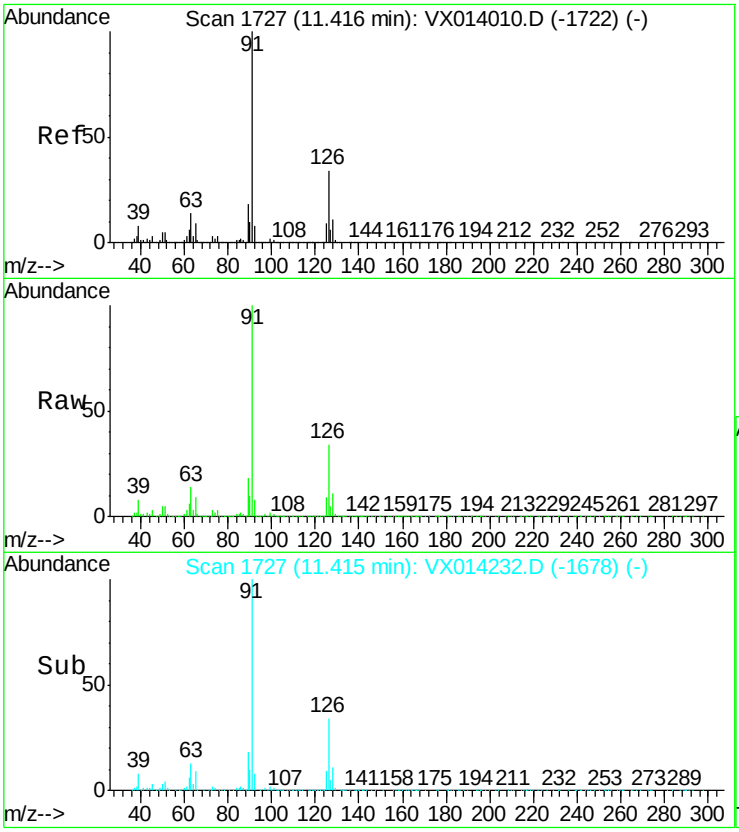
Tgt Ion: 91 Resp: 1555769

Ion	Ratio	Lower	Upper
91	100		
120	23.3	11.7	35.0



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

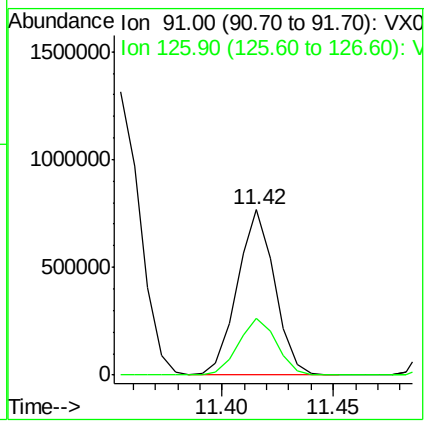
Manual Integrations APPROVED
apatel
12/26/2019 9:24:17 AM

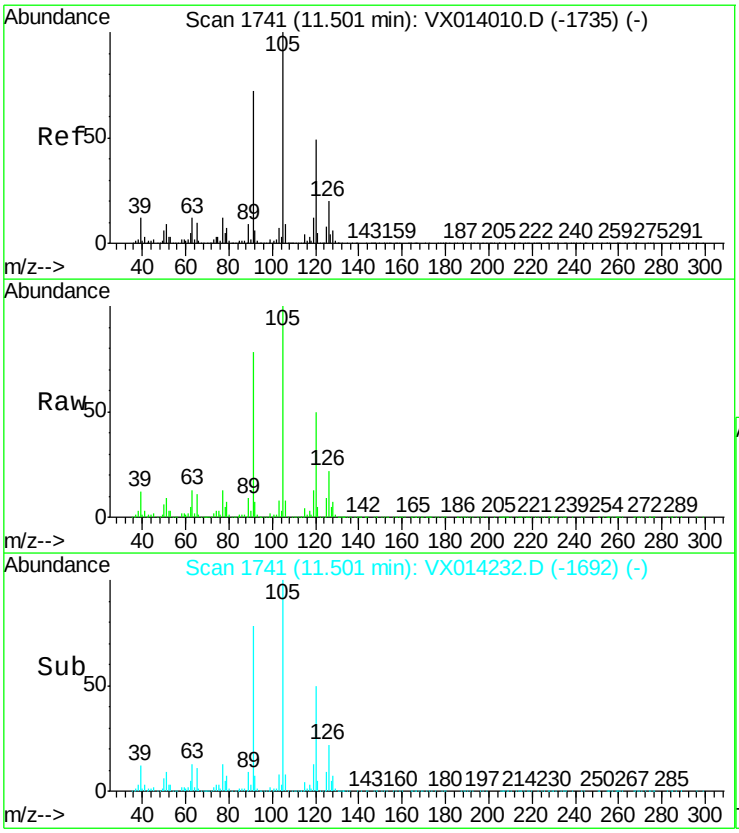


#79
2-Chlorotoluene
Concen: 51.087 ug/l
RT: 11.42 min Scan# 1727
Delta R.T. -0.00 min
Lab File: VX014232.D
Acq: 24 Dec 2019 09:28

Tgt Ion: 91 Resp: 894742

Ion	Ratio	Lower	Upper
91	100		
126	35.1	17.2	51.6

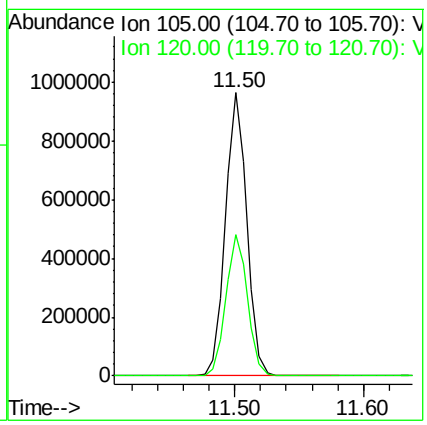


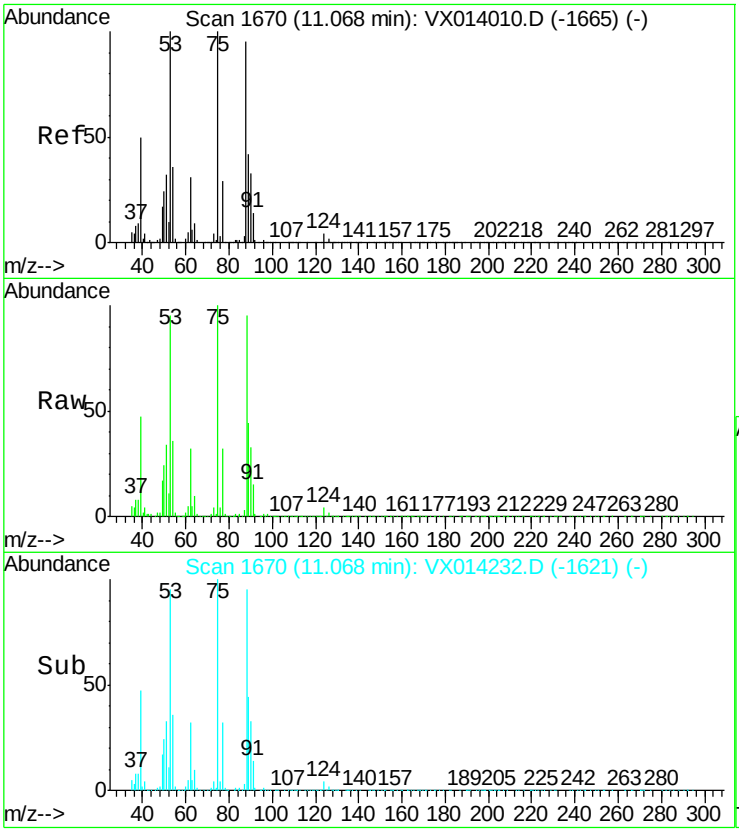


#80
1,3,5-Trimethylbenzene
Concen: 52.188 ug/l
RT: 11.50 min Scan# 1741
Delta R.T. -0.00 min
Lab File: VX014232.D
Acq: 24 Dec 2019 09:28

Tgt Ion:105 Resp: 1128209

Ion	Ratio	Lower	Upper
105	100		
120	50.2	25.3	75.8

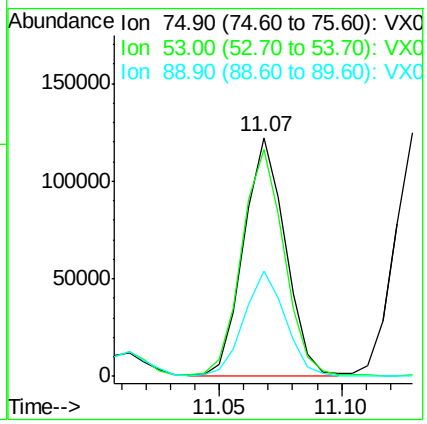




#81
trans-1,4-Dichloro-2-butene
Concen: 51.562 ug/l
RT: 11.07 min Scan# 1670
Delta R.T. -0.00 min
Lab File: VX014232.D
Acq: 24 Dec 2019 09:28

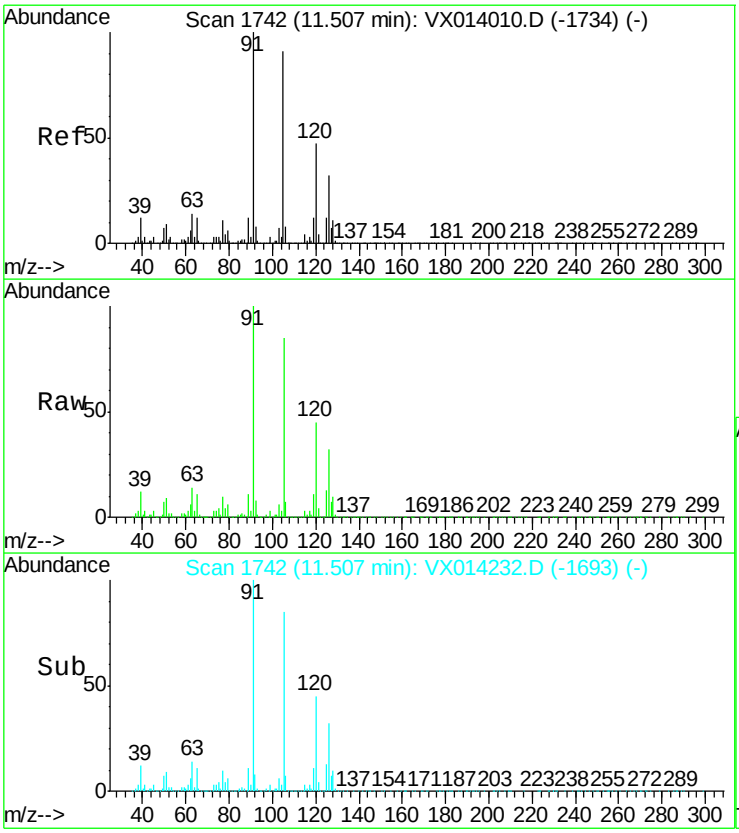
Tgt Ion: 75 Resp: 144690

Ion	Ratio	Lower	Upper
75	100		
53	96.2	76.7	115.1
89	43.9	34.6	51.8



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

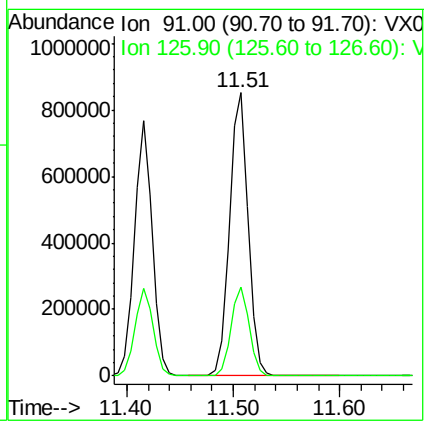
Manual Integrations APPROVED
apatel
12/26/2019 9:24:17 AM



#82
4-Chlorotoluene
Concen: 51.335 ug/l
RT: 11.51 min Scan# 1742
Delta R.T. -0.00 min
Lab File: VX014232.D
Acq: 24 Dec 2019 09:28

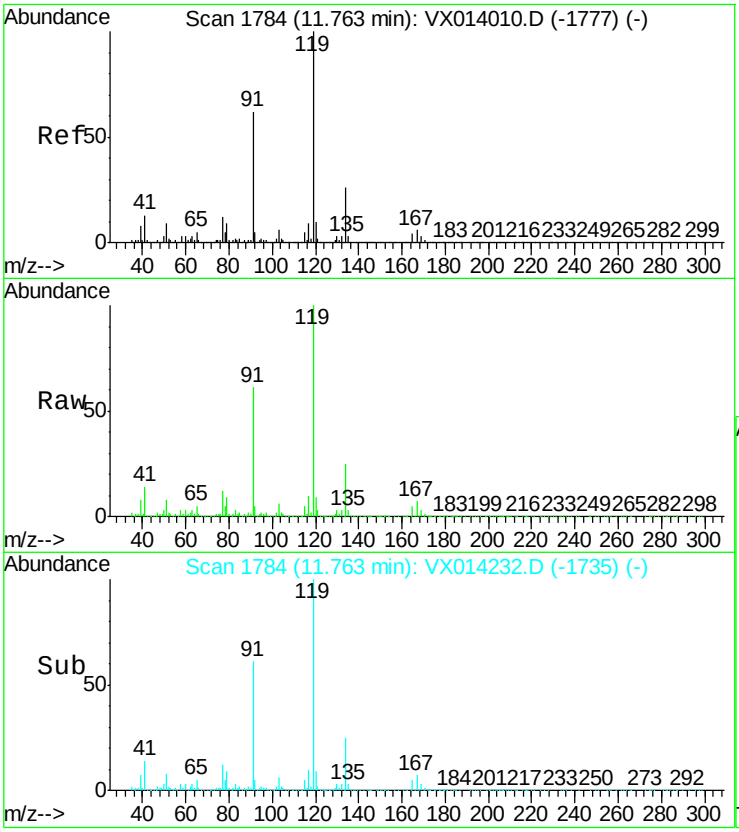
Tgt Ion: 91 Resp: 1042921

Ion	Ratio	Lower	Upper
91	100		
126	30.7	15.6	46.8



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

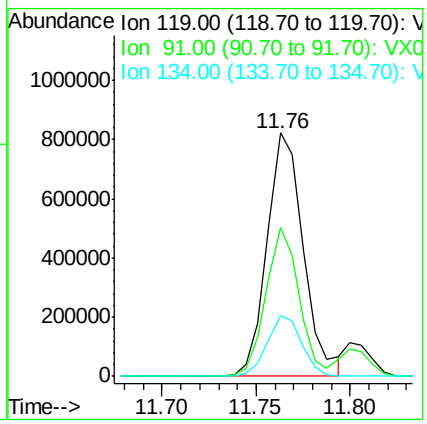
Manual Integrations APPROVED
apatel
12/26/2019 9:24:17 AM

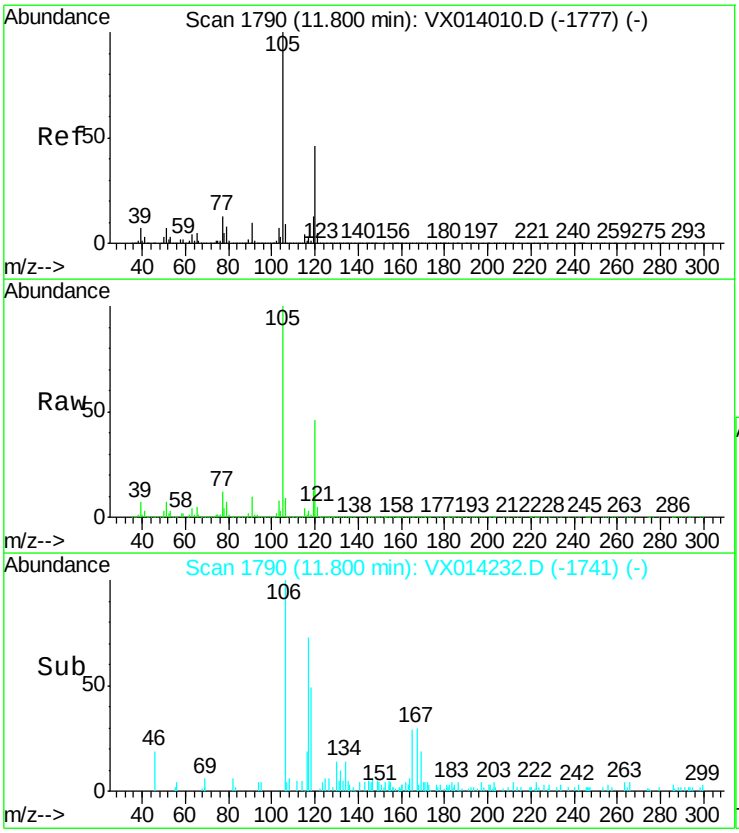


#83
tert-Butylbenzene
Concen: 52.257 ug/l
RT: 11.76 min Scan# 1784
Delta R.T. -0.00 min
Lab File: VX014232.D
Acq: 24 Dec 2019 09:28

Tgt Ion:119 Resp: 1099381

Ion	Ratio	Lower	Upper
119	100		
91	55.9	28.5	85.6
134	23.8	12.2	36.6

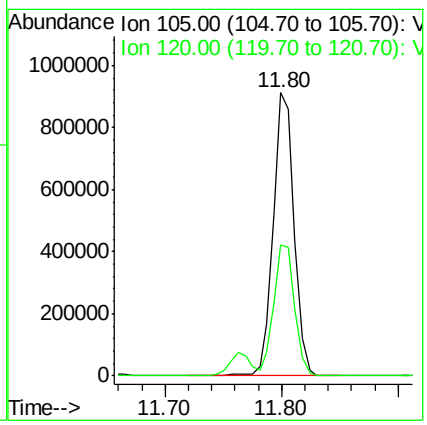




#84
1,2,4-Trimethylbenzene
Concen: 52.352 ug/l
RT: 11.80 min Scan# 1790
Delta R.T. -0.00 min
Lab File: VX014232.D
Acq: 24 Dec 2019 09:28

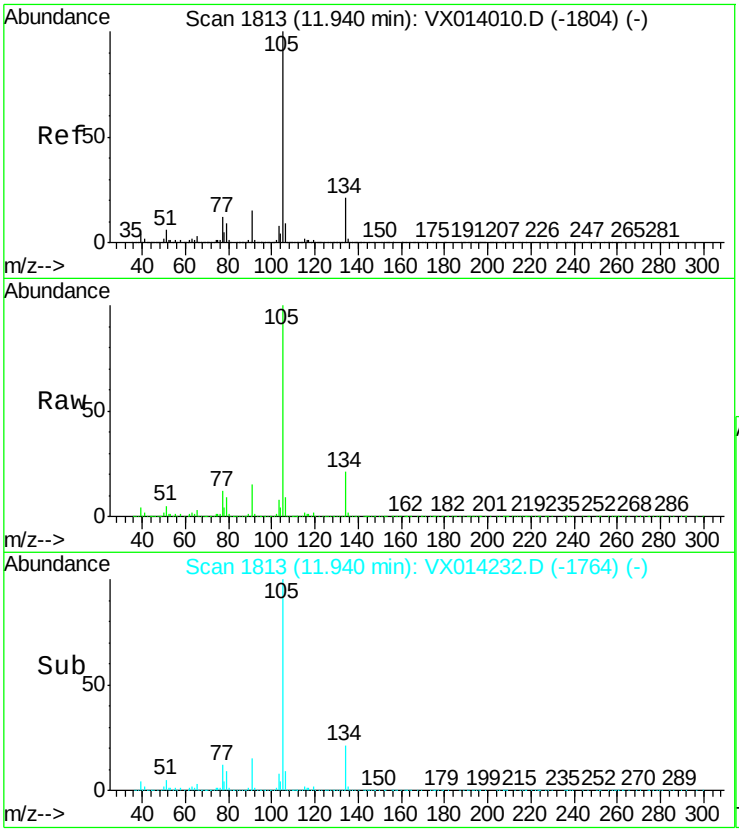
Tgt Ion:105 Resp: 1133384

Ion	Ratio	Lower	Upper
105	100		
120	46.5	23.1	69.2



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

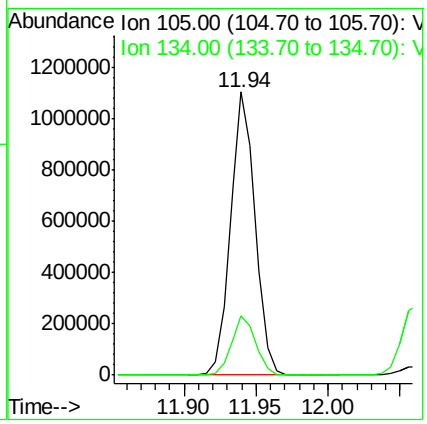
Manual Integrations APPROVED
apatel
12/26/2019 9:24:17 AM

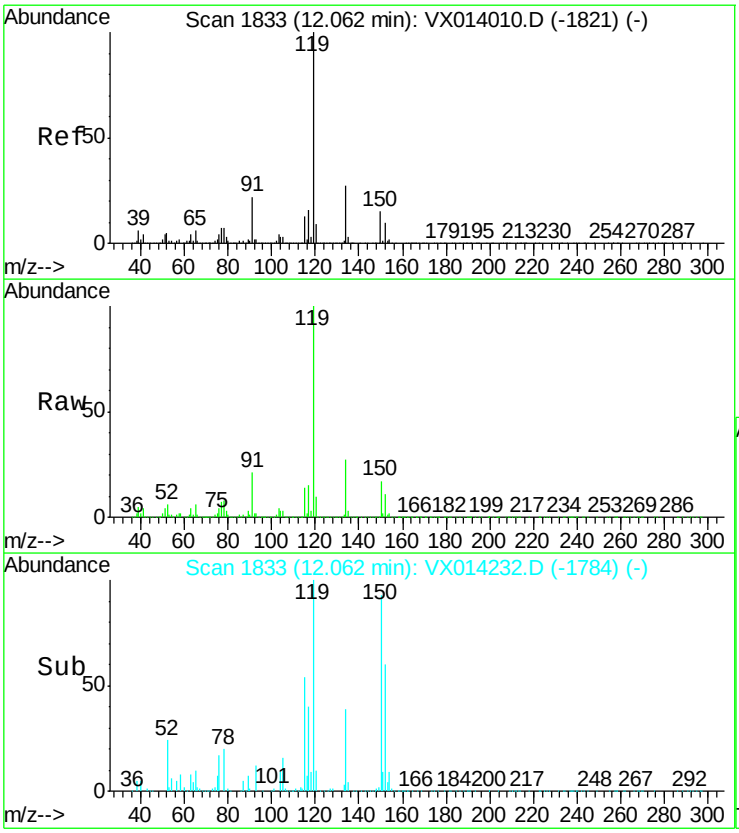


#85
sec-Butylbenzene
Concen: 53.042 ug/l
RT: 11.94 min Scan# 1813
Delta R.T. -0.00 min
Lab File: VX014232.D
Acq: 24 Dec 2019 09:28

Tgt Ion:105 Resp: 1317333

Ion	Ratio	Lower	Upper
105	100		
134	20.6	10.4	31.1

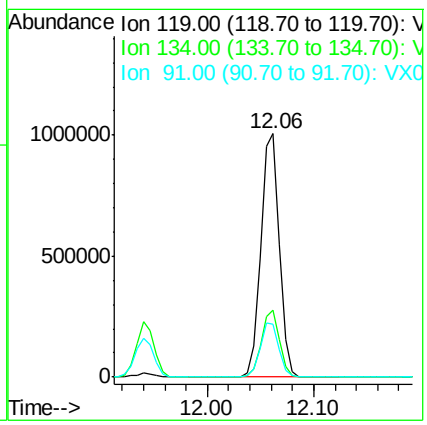




#86
p-Isopropyltoluene
Concen: 53.775 ug/l
RT: 12.06 min Scan# 1833
Delta R.T. -0.00 min
Lab File: VX014232.D
Acq: 24 Dec 2019 09:28

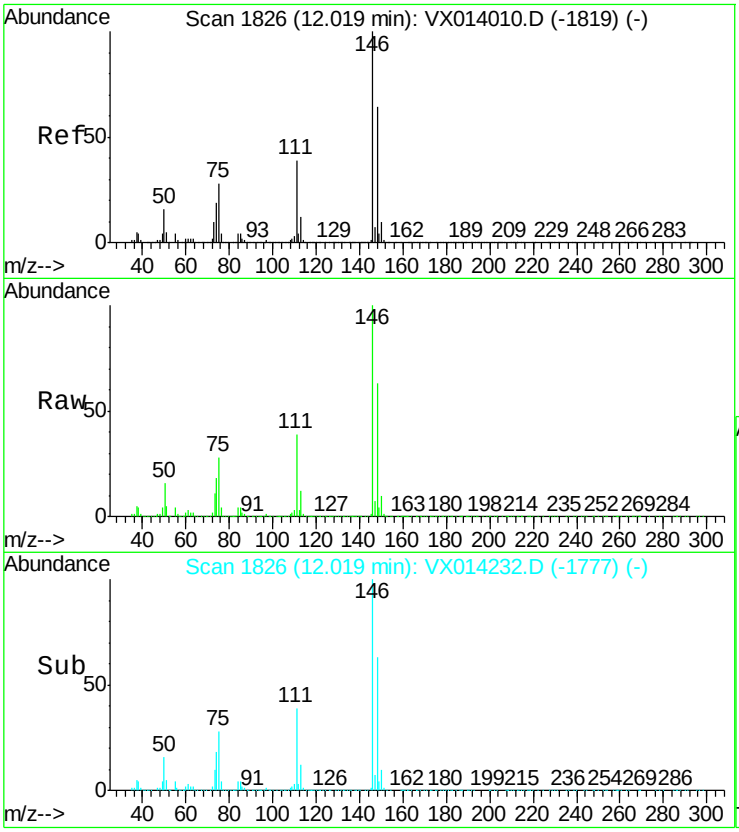
Tgt Ion:119 Resp: 1221673

Ion	Ratio	Lower	Upper
119	100		
134	26.8	13.4	40.1
91	22.3	11.4	34.1



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

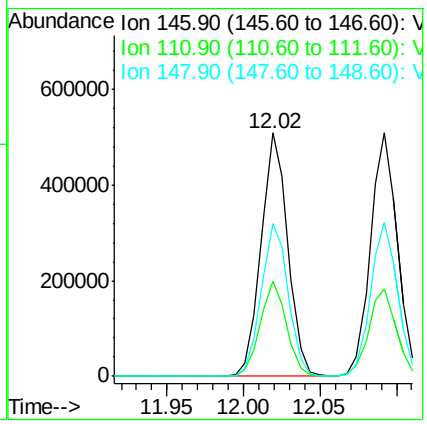
Manual Integrations APPROVED
apatel
12/26/2019 9:24:17 AM

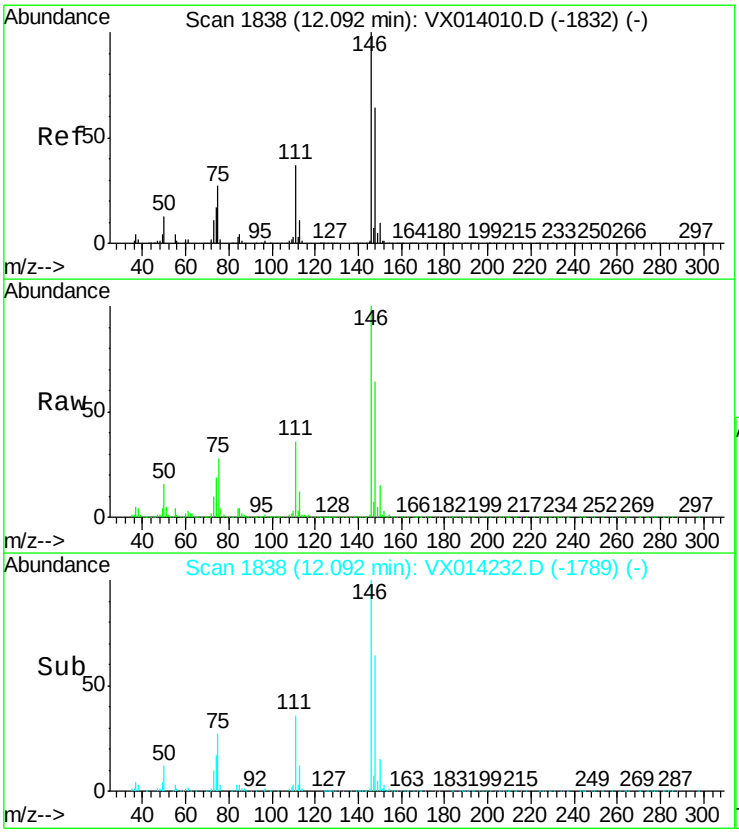


#87
1,3-Dichlorobenzene
Concen: 49.963 ug/l
RT: 12.02 min Scan# 1826
Delta R.T. -0.00 min
Lab File: VX014232.D
Acq: 24 Dec 2019 09:28

Tgt Ion:146 Resp: 618856

Ion	Ratio	Lower	Upper
146	100		
111	38.3	19.1	57.1
148	64.0	32.3	96.9

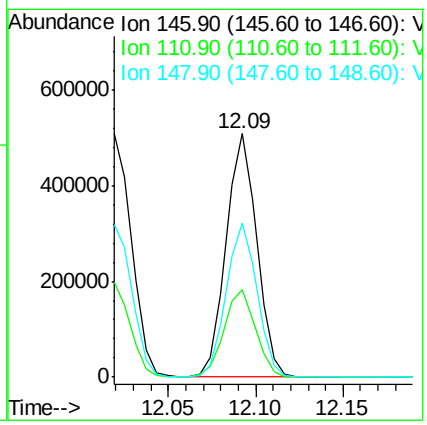




#88
1,4-Dichlorobenzene
Concen: 49.196 ug/l
RT: 12.09 min Scan# 1838
Delta R.T. -0.00 min
Lab File: VX014232.D
Acq: 24 Dec 2019 09:28

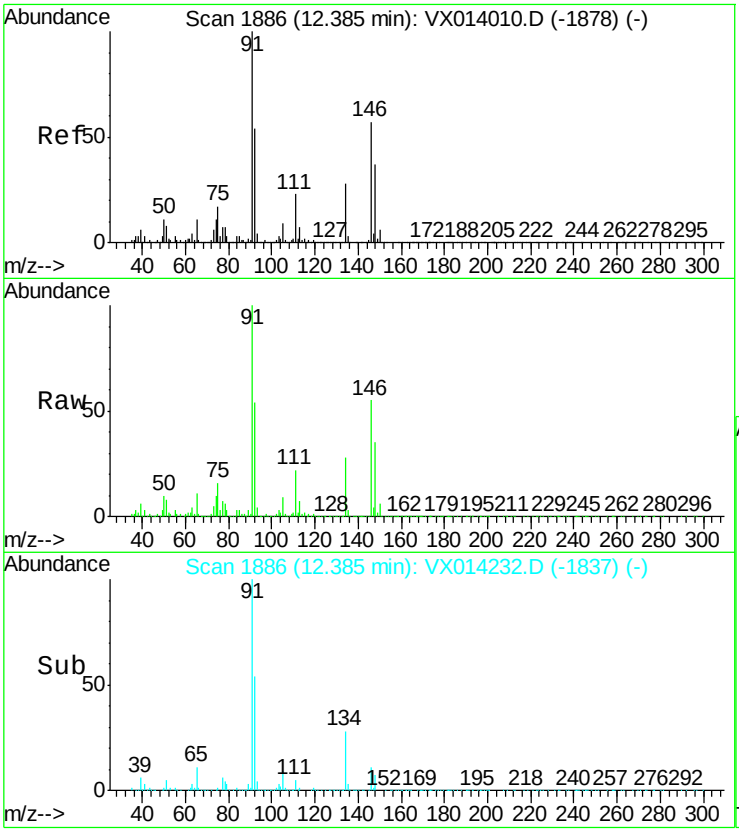
Tgt Ion:146 Resp: 619591

Ion	Ratio	Lower	Upper
146	100		
111	36.9	18.7	56.1
148	63.6	31.9	95.9



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

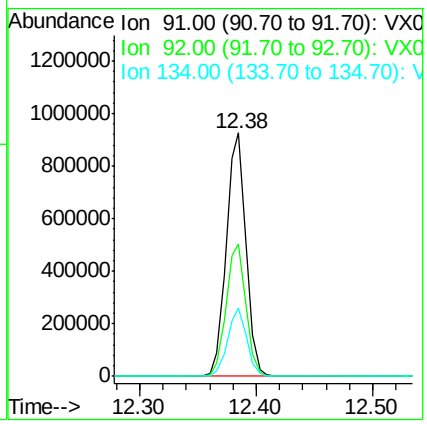
Manual Integrations APPROVED
apatel
12/26/2019 9:24:17 AM

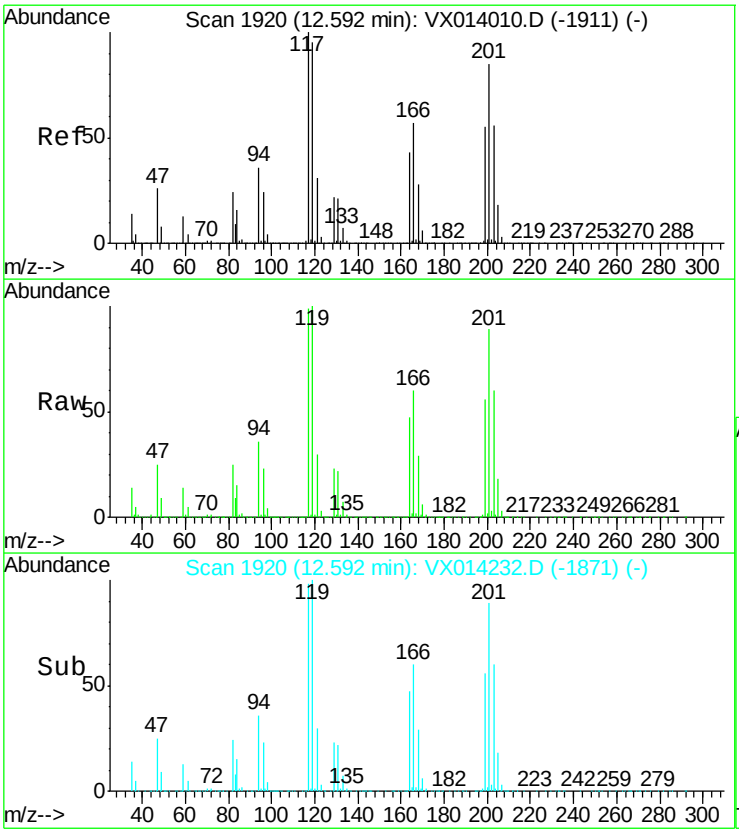


#89
n-Butylbenzene
Concen: 55.468 ug/l
RT: 12.38 min Scan# 1886
Delta R.T. -0.00 min
Lab File: VX014232.D
Acq: 24 Dec 2019 09:28

Tgt Ion: 91 Resp: 1075223

Ion	Ratio	Lower	Upper
91	100		
92	54.6	27.2	81.6
134	27.1	13.4	40.1

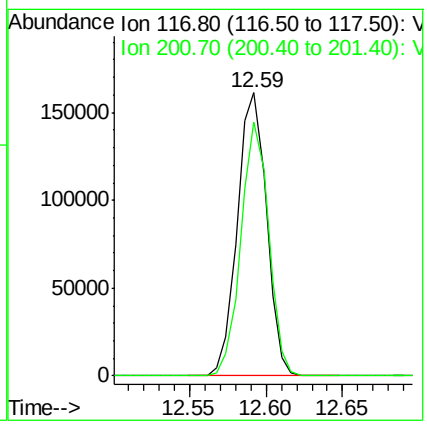




#90
Hexachloroethane
Concen: 52.161 ug/l
RT: 12.59 min Scan# 1920
Delta R.T. -0.00 min
Lab File: VX014232.D
Acq: 24 Dec 2019 09:28

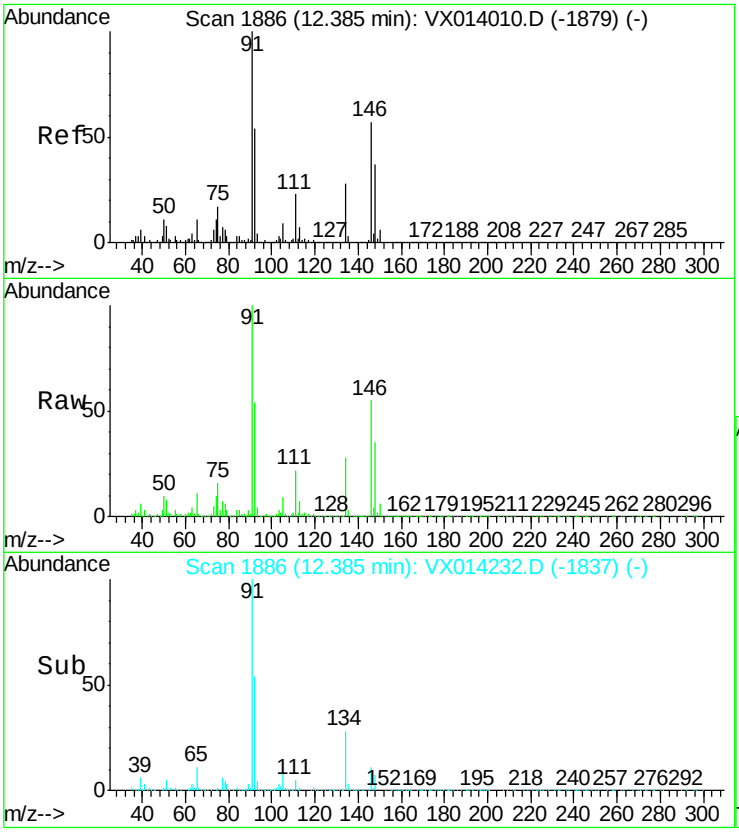
Tgt Ion:117 Resp: 212847

Ion	Ratio	Lower	Upper
117	100		
201	85.5	43.1	129.3



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

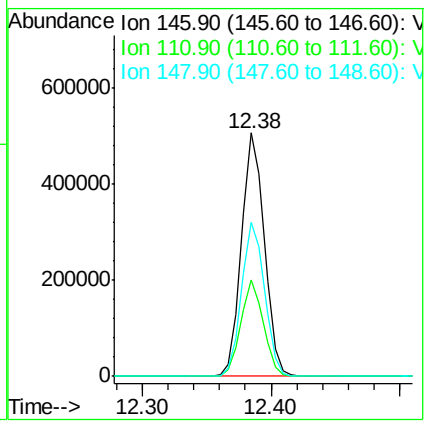
Manual Integrations APPROVED
apatel
12/26/2019 9:24:17 AM

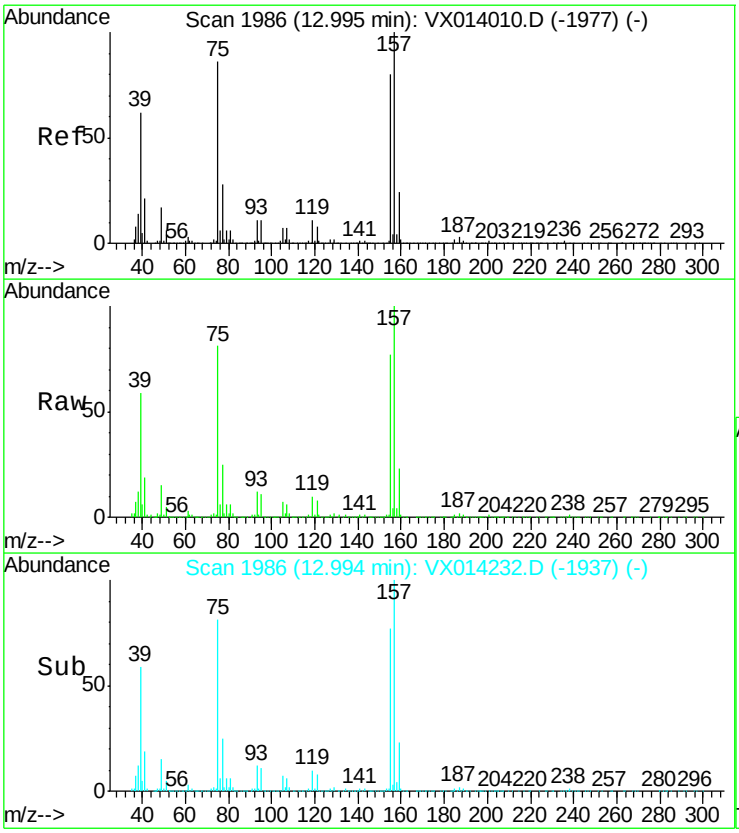


#91
1,2-Dichlorobenzene
Concen: 49.620 ug/l
RT: 12.38 min Scan# 1886
Delta R.T. -0.00 min
Lab File: VX014232.D
Acq: 24 Dec 2019 09:28

Tgt Ion:146 Resp: 618701

Ion	Ratio	Lower	Upper
146	100		
111	39.1	19.7	59.1
148	63.7	32.1	96.5

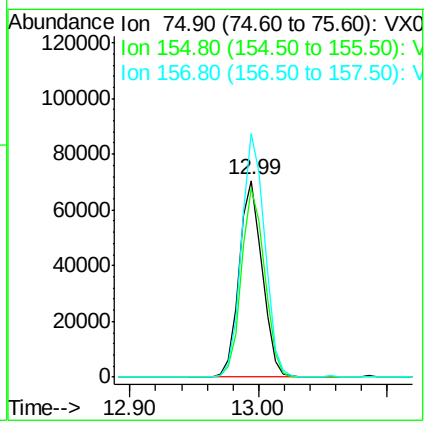


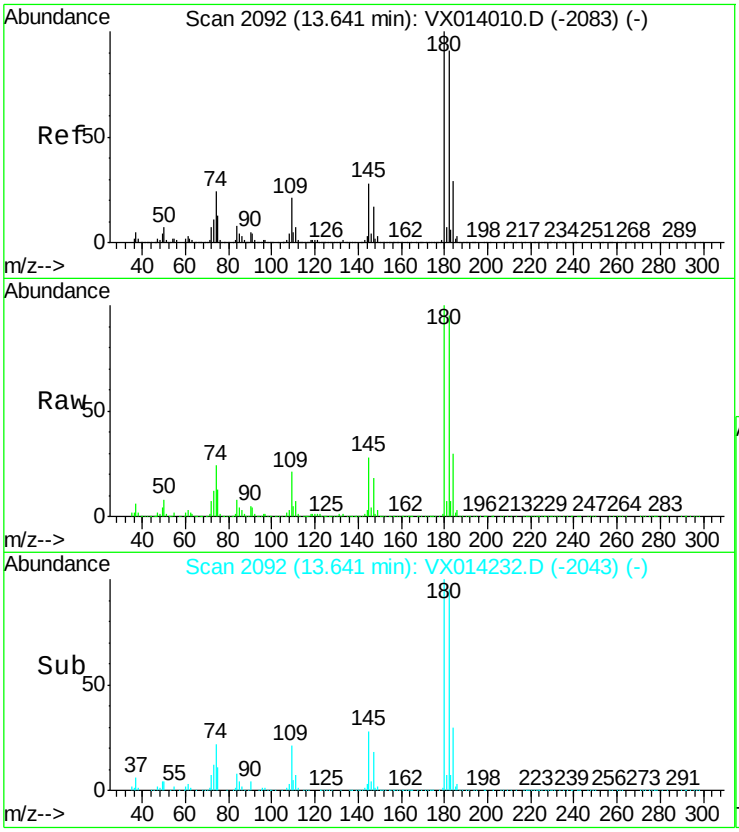


#92
1,2-Dibromo-3-Chloropropane
Concen: 44.116 ug/l
RT: 12.99 min Scan# 1986
Delta R.T. -0.00 min
Lab File: VX014232.D
Acq: 24 Dec 2019 09:28

Tgt Ion: 75 Resp: 86939

Ion	Ratio	Lower	Upper
75	100		
155	96.7	46.9	140.6
157	124.1	60.8	182.4

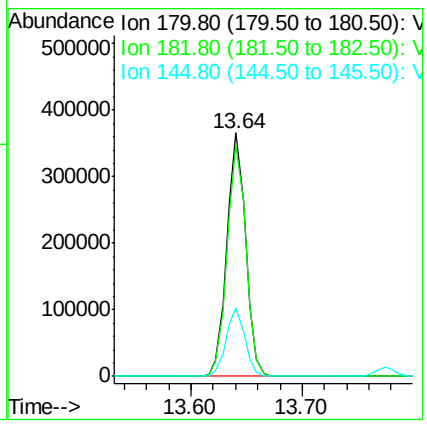




#93
1,2,4-Trichlorobenzene
Concen: 52.435 ug/l
RT: 13.64 min Scan# 2092
Delta R.T. -0.00 min
Lab File: VX014232.D
Acq: 24 Dec 2019 09:28

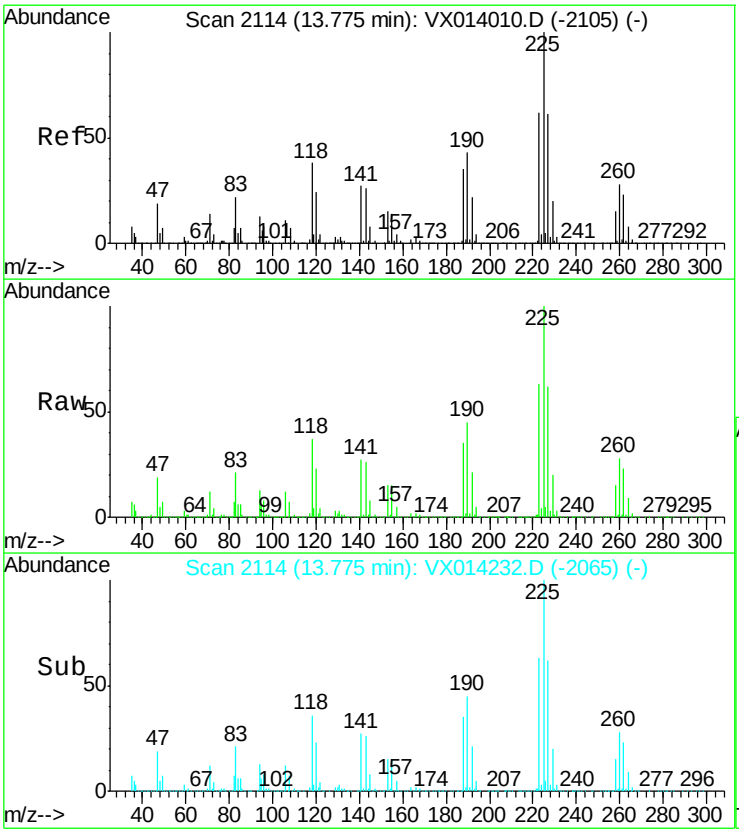
Tgt Ion:180 Resp: 424939

Ion	Ratio	Lower	Upper
180	100		
182	96.0	46.6	139.8
145	28.1	14.2	42.6



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

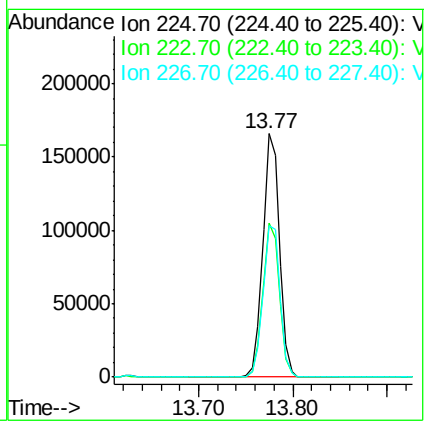
Manual Integrations APPROVED
apatel
12/26/2019 9:24:17 AM



#94
Hexachlorobutadiene
Concen: 52.819 ug/l
RT: 13.77 min Scan# 2114
Delta R.T. -0.00 min
Lab File: VX014232.D
Acq: 24 Dec 2019 09:28

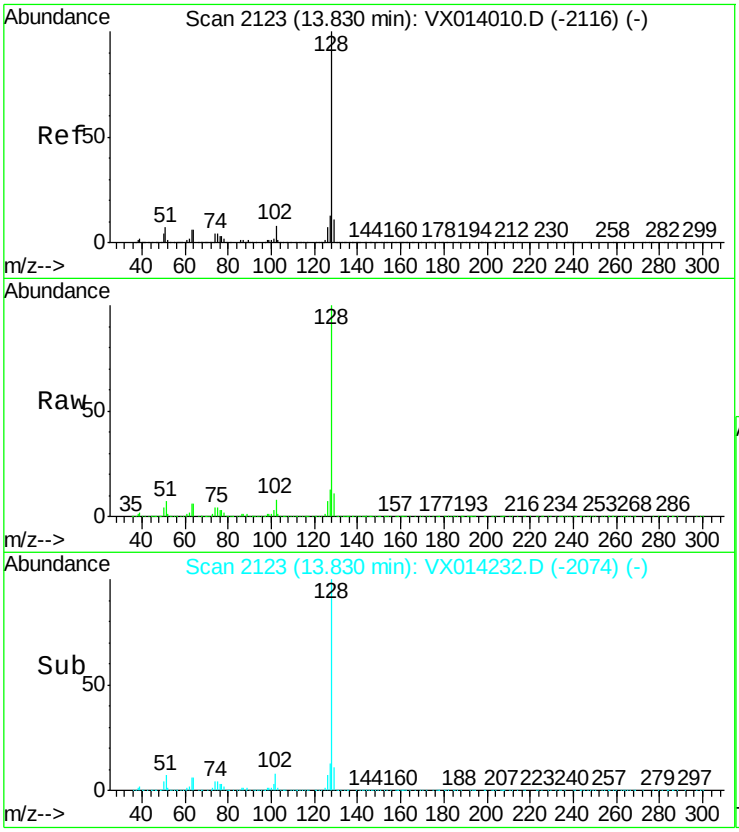
Tgt Ion:225 Resp: 205721

Ion	Ratio	Lower	Upper
225	100		
223	63.1	30.9	92.5
227	63.8	30.9	92.7



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

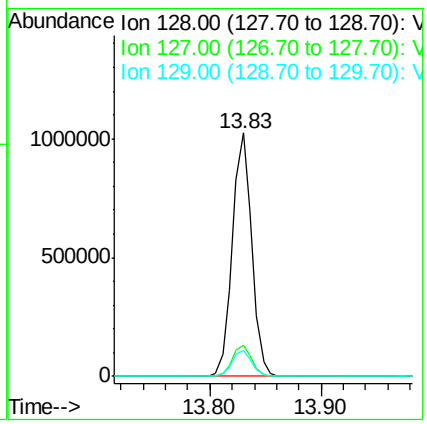
Manual Integrations APPROVED
apatel
12/26/2019 9:24:17 AM

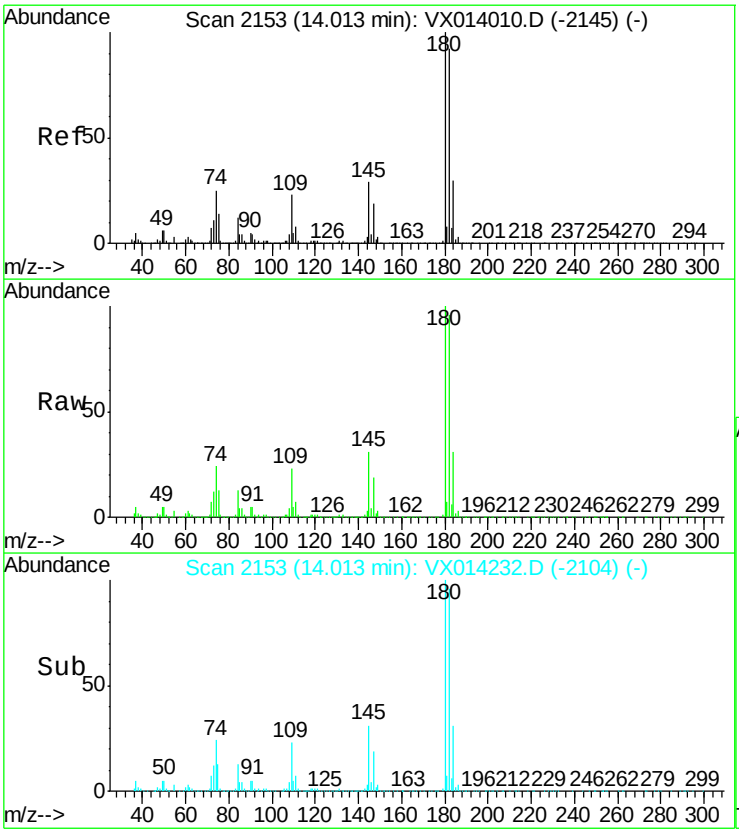


#95
Naphthalene
Concen: 51.478 ug/l
RT: 13.83 min Scan# 2123
Delta R.T. -0.00 min
Lab File: VX014232.D
Acq: 24 Dec 2019 09:28

Tgt Ion:128 Resp: 1225726

Ion	Ratio	Lower	Upper
128	100		
127	12.8	10.2	15.4
129	10.9	8.7	13.1

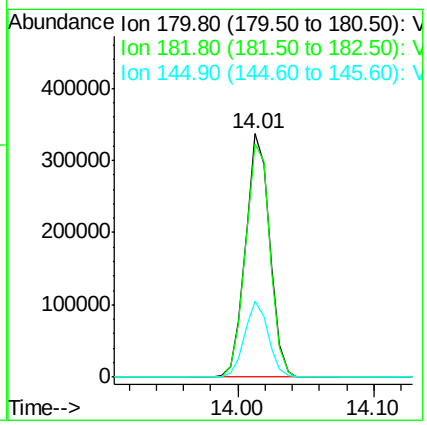




#96
1,2,3-Trichlorobenzene
Concen: 52.228 ug/l
RT: 14.01 min Scan# 2153
Delta R.T. -0.00 min
Lab File: VX014232.D
Acq: 24 Dec 2019 09:28

Tgt Ion:180 Resp: 417828

Ion	Ratio	Lower	Upper
180	100		
182	97.4	46.8	140.3
145	30.5	14.8	44.4



Evaluate Continuing Calibration Report

Data Path : Z:\voasrv\HPCHEM1\MSVOA X\Data\VX122419\
Data File : VX014232.D
Acq On : 24 Dec 2019 09:28
Operator : JC/SP
Sample : VSTDCCC050
Misc : 5.0mL/MSVOA X/WATER
ALS Vial : 2 Sample Multiplier: 1

Instrument : MSVOA_X
LabSampleId : VSTDCCC050

Quant Time: Dec 25 05:53:28 2019
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121319W.M
Quant Title : SW846 8260
QLast Update : Tue Dec 17 03:01:07 2019
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	Pentafluorobenzene	1.000	1.000	0.0	95	0.00
2	T	Dichlorodifluoromethane	0.447	0.406	9.2	89	0.00
3	P	Chloromethane	0.600	0.537	10.5	87	0.00
4	C	Vinyl Chloride	0.633	0.585	7.6#	92	0.00
5	T	Bromomethane	0.450	0.367	18.4	84	0.00
6	T	Chloroethane	0.391	0.376	3.8	96	0.01
7	T	Trichlorofluoromethane	0.784	0.766	2.3	97	0.00
8	T	Diethyl Ether	0.368	0.348	5.4	96	0.00
9	T	1,1,2-Trichlorotrifluoroeth	0.473	0.472	0.2	100	0.00
10	T	Methyl Iodide	0.575	0.573	0.3	89	0.00
11	T	Tert butyl alcohol	0.122	0.097	20.5#	82	-0.02
12	CM	1,1-Dichloroethene	0.481	0.464	3.5#	96	0.00
13	T	Acrolein	0.070	0.074	-5.7	110	0.00
14	T	Allyl chloride	0.859	0.840	2.2	96	0.00
15	T	Acrylonitrile	0.286	0.267	6.6	93	0.00
16	T	Acetone	0.368	0.318	13.6	82	0.00
17	T	Carbon Disulfide	1.418	1.196	15.7	88	0.00
18	T	Methyl Acetate	0.729	0.676	7.3	93	0.00
19	T	Methyl tert-butyl Ether	1.580	1.562	1.1	96	0.00
20	T	Methylene Chloride	0.579	0.538	7.1	98	0.00
21	T	trans-1,2-Dichloroethene	0.530	0.499	5.8	96	0.00
22	T	Diisopropyl ether	1.711	1.731	-1.2	99	0.00
23	T	Vinyl Acetate	1.397	1.433	-2.6	98	0.00
24	P	1,1-Dichloroethane	0.952	0.924	2.9	98	0.00
25	T	2-Butanone	0.454	0.420	7.5	89	0.00
26	T	2,2-Dichloropropane	0.739	0.740	-0.1	98	0.00
27	T	cis-1,2-Dichloroethene	0.599	0.583	2.7	97	0.00
28	T	Bromochloromethane	0.332	0.384	-15.7	98	0.00
29	T	Tetrahydrofuran	0.254	0.235	7.5	91	0.00
30	C	Chloroform	0.903	0.893	1.1#	97	0.00
31	T	Cyclohexane	0.847	0.833	1.7	94	0.00
32	T	1,1,1-Trichloroethane	0.769	0.759	1.3	97	0.00
33	S	1,2-Dichloroethane-d4	0.567	0.516	9.0	88	0.00
34	I	1,4-Difluorobenzene	1.000	1.000	0.0	93	0.00
35	S	Dibromofluoromethane	0.304	0.292	3.9	90	0.00
36	T	1,1-Dichloropropene	0.459	0.461	-0.4	97	0.00
37	T	Ethyl Acetate	0.507	0.490	3.4	90	0.00
38	T	Carbon Tetrachloride	0.418	0.432	-3.3	96	0.00
39	T	Methylcyclohexane	0.566	0.578	-2.1	98	0.00
40	TM	Benzene	1.412	1.415	-0.2	97	0.00
41	T	Methacrylonitrile	0.281	0.279	0.7	95	-0.01
42	TM	1,2-Dichloroethane	0.479	0.478	0.2	96	0.00
43	T	Isopropyl Acetate	0.838	0.830	1.0	94	0.00
44	TM	Trichloroethene	0.390	0.386	1.0	99	0.00
45	C	1,2-Dichloropropane	0.362	0.373	-3.0#	99	0.00

Data Path : Z:\voasrv\HPCHEM1\MSVOA X\Data\VX122419\
Data File : VX014232.D
Acq On : 24 Dec 2019 09:28
Operator : JC/SP
Sample : VSTDCCC050
Misc : 5.0mL/MSVOA X/WATER
ALS Vial : 2 Sample Multiplier: 1

Instrument :
MSVOA_X
LabSampleId :
VSTDCCC050

Quant Time: Dec 25 05:53:28 2019
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121319W.M
Quant Title : SW846 8260
QLast Update : Tue Dec 17 03:01:07 2019
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
46	T	Dibromomethane	0.239	0.235	1.7	97	0.00
47	T	Bromodichloromethane	0.451	0.473	-4.9	98	0.00
48	T	Methyl methacrylate	0.411	0.406	1.2	93	0.00
49	T	1,4-Dioxane	0.008	0.007	12.5	84	0.00
50	S	Toluene-d8	1.183	1.126	4.8	88	0.00
51	T	4-Methyl-2-Pentanone	0.527	0.506	4.0	91	0.00
52	CM	Toluene	0.892	0.891	0.1#	96	0.00
53	T	t-1,3-Dichloropropene	0.494	0.521	-5.5	95	0.00
54	T	cis-1,3-Dichloropropene	0.550	0.593	-7.8	98	0.00
55	T	1,1,2-Trichloroethane	0.358	0.361	-0.8	97	0.00
56	T	Ethyl methacrylate	0.562	0.570	-1.4	93	0.00
57	T	1,3-Dichloropropane	0.602	0.608	-1.0	96	0.00
58	T	2-Chloroethyl Vinyl ether	0.213	0.222	-4.2	93	0.00
59	T	2-Hexanone	0.424	0.408	3.8	89	0.00
60	T	Dibromochloromethane	0.355	0.377	-6.2	97	0.00
61	T	1,2-Dibromoethane	0.366	0.370	-1.1	95	0.00
62	S	4-Bromofluorobenzene	0.433	0.402	7.2	86	0.00
63	I	Chlorobenzene-d5	1.000	1.000	0.0	92	0.00
64	T	Tetrachloroethene	0.442	0.452	-2.3	98	0.00
65	PM	Chlorobenzene	1.063	1.072	-0.8	97	0.00
66	T	1,1,1,2-Tetrachloroethane	0.380	0.391	-2.9	96	0.00
67	C	Ethyl Benzene	1.828	1.900	-3.9#	96	0.00
68	T	m/p-Xylenes	0.703	0.720	-2.4	96	0.00
69	T	o-Xylene	0.689	0.696	-1.0	94	0.00
70	T	Styrene	1.166	1.204	-3.3	94	0.00
71	P	Bromoform	0.305	0.317	-3.9	94	0.00
72	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	91	0.00
73	T	Isopropylbenzene	3.520	3.682	-4.6	97	0.00
74	T	N-amyl acetate	1.650	1.599	3.1	88	0.00
75	P	1,1,2,2-Tetrachloroethane	1.220	1.180	3.3	90	0.00
76	T	1,2,3-Trichloropropane	1.085	0.968	10.8	80	0.00
77	T	Bromobenzene	0.969	0.941	2.9	95	0.00
78	T	n-propylbenzene	3.949	4.264	-8.0	98	0.00
79	T	2-Chlorotoluene	2.400	2.453	-2.2	95	0.00
80	T	1,3,5-Trimethylbenzene	2.963	3.092	-4.4	96	0.00
81	T	trans-1,4-Dichloro-2-butene	0.385	0.397	-3.1	90	0.00
82	T	4-Chlorotoluene	2.784	2.859	-2.7	97	0.00
83	T	tert-Butylbenzene	2.883	3.013	-4.5	98	0.00
84	T	1,2,4-Trimethylbenzene	2.967	3.107	-4.7	96	0.00
85	T	sec-Butylbenzene	3.404	3.611	-6.1	98	0.00
86	T	p-Isopropyltoluene	3.114	3.349	-7.5	98	0.00
87	T	1,3-Dichlorobenzene	1.698	1.696	0.1	97	0.00
88	T	1,4-Dichlorobenzene	1.726	1.698	1.6	97	0.00
89	T	n-Butylbenzene	2.657	2.947	-10.9	100	0.00

Evaluate Continuing Calibration Report

Data Path : Z:\voasrv\HPCHEM1\MSVOA X\Data\VX122419\
Data File : VX014232.D
Acq On : 24 Dec 2019 09:28
Operator : JC/SP
Sample : VSTDCCC050
Misc : 5.0mL/MSVOA X/WATER
ALS Vial : 2 Sample Multiplier: 1

Instrument : MSVOA_X
LabSampleId : VSTDCCC050

Quant Time: Dec 25 05:53:28 2019
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121319W.M
Quant Title : SW846 8260
QLast Update : Tue Dec 17 03:01:07 2019
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
90 T	Hexachloroethane	0.559	0.583	-4.3	95	0.00
91 T	1,2-Dichlorobenzene	1.709	1.696	0.8	95	0.00
92 T	1,2-Dibromo-3-Chloropropane	0.270	0.238	11.9	86	0.00
93 T	1,2,4-Trichlorobenzene	1.111	1.165	-4.9	99	0.00
94 T	Hexachlorobutadiene	0.534	0.564	-5.6	102	0.00
95 T	Naphthalene	3.263	3.360	-3.0	92	0.00
96 T	1,2,3-Trichlorobenzene	1.096	1.145	-4.5	96	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 6

Evaluate Continuing Calibration Report

Data Path : Z:\voasrv\HPCHEM1\MSVOA X\Data\VX122419\
Data File : VX014232.D
Acq On : 24 Dec 2019 09:28
Operator : JC/SP
Sample : VSTDCCC050
Misc : 5.0mL/MSVOA X/WATER
ALS Vial : 2 Sample Multiplier: 1

Instrument : MSVOA_X
LabSampleId : VSTDCCC050

Quant Time: Dec 25 05:53:28 2019
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121319W.M
Quant Title : SW846 8260
QLast Update : Tue Dec 17 03:01:07 2019
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	Pentafluorobenzene	50.000	50.000	0.0	95	0.00
2	T	Dichlorodifluoromethane	50.000	45.411	9.2	89	0.00
3	P	Chloromethane	50.000	44.730	10.5	87	0.00
4	C	Vinyl Chloride	50.000	46.211	7.6#	92	0.00
5	T	Bromomethane	50.000	40.842	18.3	84	0.00
6	T	Chloroethane	50.000	48.095	3.8	96	0.01
7	T	Trichlorofluoromethane	50.000	48.819	2.4	97	0.00
8	T	Diethyl Ether	50.000	47.223	5.6	96	0.00
9	T	1,1,2-Trichlorotrifluoroeth	50.000	49.892	0.2	100	0.00
10	T	Methyl Iodide	50.000	46.195	7.6	89	0.00
11	T	Tert butyl alcohol	250.000	198.251	20.7#	82	-0.02
12	CM	1,1-Dichloroethene	50.000	48.244	3.5#	96	0.00
13	T	Acrolein	250.000	265.450	-6.2	110	0.00
14	T	Allyl chloride	50.000	48.899	2.2	96	0.00
15	T	Acrylonitrile	250.000	233.411	6.6	93	0.00
16	T	Acetone	250.000	216.138	13.5	82	0.00
17	T	Carbon Disulfide	50.000	44.874	10.3	88	0.00
18	T	Methyl Acetate	50.000	46.371	7.3	93	0.00
19	T	Methyl tert-butyl Ether	50.000	49.405	1.2	96	0.00
20	T	Methylene Chloride	50.000	46.415	7.2	98	0.00
21	T	trans-1,2-Dichloroethene	50.000	47.123	5.8	96	0.00
22	T	Diisopropyl ether	50.000	50.587	-1.2	99	0.00
23	T	Vinyl Acetate	250.000	256.599	-2.6	98	0.00
24	P	1,1-Dichloroethane	50.000	48.509	3.0	98	0.00
25	T	2-Butanone	250.000	231.727	7.3	89	0.00
26	T	2,2-Dichloropropane	50.000	50.083	-0.2	98	0.00
27	T	cis-1,2-Dichloroethene	50.000	48.604	2.8	97	0.00
28	T	Bromochloromethane	50.000	52.389	-4.8	98	0.00
29	T	Tetrahydrofuran	250.000	231.254	7.5	91	0.00
30	C	Chloroform	50.000	49.487	1.0#	97	0.00
31	T	Cyclohexane	50.000	49.184	1.6	94	0.00
32	T	1,1,1-Trichloroethane	50.000	49.320	1.4	97	0.00
33	S	1,2-Dichloroethane-d4	50.000	45.496	9.0	88	0.00
34	I	1,4-Difluorobenzene	50.000	50.000	0.0	93	0.00
35	S	Dibromofluoromethane	50.000	48.057	3.9	90	0.00
36	T	1,1-Dichloropropene	50.000	50.277	-0.6	97	0.00
37	T	Ethyl Acetate	50.000	48.344	3.3	90	0.00
38	T	Carbon Tetrachloride	50.000	51.657	-3.3	96	0.00
39	T	Methylcyclohexane	50.000	51.029	-2.1	98	0.00
40	TM	Benzene	50.000	50.116	-0.2	97	0.00
41	T	Methacrylonitrile	50.000	49.572	0.9	95	-0.01
42	TM	1,2-Dichloroethane	50.000	49.977	0.0	96	0.00
43	T	Isopropyl Acetate	50.000	49.498	1.0	94	0.00
44	TM	Trichloroethene	50.000	49.560	0.9	99	0.00
45	C	1,2-Dichloropropane	50.000	51.571	-3.1#	99	0.00

Evaluate Continuing Calibration Report

Data Path : Z:\voasrv\HPCHEM1\MSVOA X\Data\VX122419\
Data File : VX014232.D
Acq On : 24 Dec 2019 09:28
Operator : JC/SP
Sample : VSTDCCC050
Misc : 5.0mL/MSVOA X/WATER
ALS Vial : 2 Sample Multiplier: 1

Instrument : MSVOA_X
LabSampleId : VSTDCCC050

Quant Time: Dec 25 05:53:28 2019
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121319W.M
Quant Title : SW846 8260
QLast Update : Tue Dec 17 03:01:07 2019
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
46	T	Dibromomethane	50.000	49.209	1.6	97	0.00
47	T	Bromodichloromethane	50.000	52.450	-4.9	98	0.00
48	T	Methyl methacrylate	50.000	49.462	1.1	93	0.00
49	T	1,4-Dioxane	1000.000	851.606	14.8	84	0.00
50	S	Toluene-d8	50.000	47.597	4.8	88	0.00
51	T	4-Methyl-2-Pentanone	250.000	240.403	3.8	91	0.00
52	CM	Toluene	50.000	49.904	0.2#	96	0.00
53	T	t-1,3-Dichloropropene	50.000	52.738	-5.5	95	0.00
54	T	cis-1,3-Dichloropropene	50.000	53.876	-7.8	98	0.00
55	T	1,1,2-Trichloroethane	50.000	50.509	-1.0	97	0.00
56	T	Ethyl methacrylate	50.000	50.753	-1.5	93	0.00
57	T	1,3-Dichloropropane	50.000	50.541	-1.1	96	0.00
58	T	2-Chloroethyl Vinyl ether	250.000	261.476	-4.6	93	0.00
59	T	2-Hexanone	250.000	240.807	3.7	89	0.00
60	T	Dibromochloromethane	50.000	53.075	-6.2	97	0.00
61	T	1,2-Dibromoethane	50.000	50.585	-1.2	95	0.00
62	S	4-Bromofluorobenzene	50.000	46.514	7.0	86	0.00
63	I	Chlorobenzene-d5	50.000	50.000	0.0	92	0.00
64	T	Tetrachloroethene	50.000	51.087	-2.2	98	0.00
65	PM	Chlorobenzene	50.000	50.430	-0.9	97	0.00
66	T	1,1,1,2-Tetrachloroethane	50.000	51.543	-3.1	96	0.00
67	C	Ethyl Benzene	50.000	51.978	-4.0#	96	0.00
68	T	m/p-Xylenes	100.000	102.434	-2.4	96	0.00
69	T	o-Xylene	50.000	50.456	-0.9	94	0.00
70	T	Styrene	50.000	51.647	-3.3	94	0.00
71	P	Bromoform	50.000	51.959	-3.9	94	0.00
72	I	1,4-Dichlorobenzene-d4	50.000	50.000	0.0	91	0.00
73	T	Isopropylbenzene	50.000	52.294	-4.6	97	0.00
74	T	N-amyl acetate	50.000	48.446	3.1	88	0.00
75	P	1,1,2,2-Tetrachloroethane	50.000	48.353	3.3	90	0.00
76	T	1,2,3-Trichloropropane	50.000	44.565	10.9	80	0.00
77	T	Bromobenzene	50.000	48.590	2.8	95	0.00
78	T	n-propylbenzene	50.000	53.997	-8.0	98	0.00
79	T	2-Chlorotoluene	50.000	51.087	-2.2	95	0.00
80	T	1,3,5-Trimethylbenzene	50.000	52.188	-4.4	96	0.00
81	T	trans-1,4-Dichloro-2-butene	50.000	51.562	-3.1	90	0.00
82	T	4-Chlorotoluene	50.000	51.335	-2.7	97	0.00
83	T	tert-Butylbenzene	50.000	52.257	-4.5	98	0.00
84	T	1,2,4-Trimethylbenzene	50.000	52.352	-4.7	96	0.00
85	T	sec-Butylbenzene	50.000	53.042	-6.1	98	0.00
86	T	p-Isopropyltoluene	50.000	53.775	-7.5	98	0.00
87	T	1,3-Dichlorobenzene	50.000	49.963	0.1	97	0.00
88	T	1,4-Dichlorobenzene	50.000	49.196	1.6	97	0.00
89	T	n-Butylbenzene	50.000	55.468	-10.9	100	0.00

Evaluate Continuing Calibration Report

Data Path : Z:\voasrv\HPCHEM1\MSVOA X\Data\VX122419\
Data File : VX014232.D
Acq On : 24 Dec 2019 09:28
Operator : JC/SP
Sample : VSTDCCC050
Misc : 5.0mL/MSVOA X/WATER
ALS Vial : 2 Sample Multiplier: 1

Instrument : MSVOA_X
LabSampleId : VSTDCCC050

Quant Time: Dec 25 05:53:28 2019
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121319W.M
Quant Title : SW846 8260
QLast Update : Tue Dec 17 03:01:07 2019
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
90 T	Hexachloroethane	50.000	52.161	-4.3	95	0.00
91 T	1,2-Dichlorobenzene	50.000	49.620	0.8	95	0.00
92 T	1,2-Dibromo-3-Chloropropane	50.000	44.116	11.8	86	0.00
93 T	1,2,4-Trichlorobenzene	50.000	52.435	-4.9	99	0.00
94 T	Hexachlorobutadiene	50.000	52.819	-5.6	102	0.00
95 T	Naphthalene	50.000	51.478	-3.0	92	0.00
96 T	1,2,3-Trichlorobenzene	50.000	52.228	-4.5	96	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 6

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: DAYE01

Lab Code: CHEM Case No.: K6405 SAS No.: K6405 SDG No.: K6405

Instrument ID: MSVOA_X Calibration Date/Time: 12/26/2019 10:46

Lab File ID: VX014259.D Init. Calib. Date(s): 12/13/2019 12/13/2019

Heated Purge: (Y/N) N Init. Calib. Time(s): 14:49 16:45

GC Column: DB-624UI ID: 0.18 (mm)

COMPOUND	RRF	RRF050	MIN RRF	%D	MAX%D
Dichlorodifluoromethane	0.447	0.402		-10.07	20
Chloromethane	0.600	0.545	0.1	-9.17	20
Vinyl Chloride	0.633	0.581		-8.22	20
Bromomethane	0.450	0.379		-15.78	20
Chloroethane	0.391	0.376		-3.84	20
Trichlorofluoromethane	0.784	0.755		-3.7	20
1,1,2-Trichlorotrifluoroethane	0.473	0.468		-1.06	20
1,1-Dichloroethene	0.481	0.449		-6.65	20
Acetone	0.368	0.310		-15.76	20
Carbon Disulfide	1.418	1.168		-17.63	20
Methyl tert-butyl Ether	1.580	1.552		-1.77	20
Methyl Acetate	0.729	0.712		-2.33	20
Methylene Chloride	0.579	0.531		-8.29	20
trans-1,2-Dichloroethene	0.530	0.491		-7.36	20
1,1-Dichloroethane	0.952	0.916	0.1	-3.78	20
Cyclohexane	0.847	0.829		-2.13	20
2-Butanone	0.454	0.420		-7.49	20
Carbon Tetrachloride	0.418	0.420		0.48	20
cis-1,2-Dichloroethene	0.599	0.573		-4.34	20
Bromochloromethane	0.332	0.403		21.39	20
Chloroform	0.903	0.891		-1.33	20
1,1,1-Trichloroethane	0.769	0.744		-3.25	20
Methylcyclohexane	0.566	0.563		-0.53	20
Benzene	1.412	1.385		-1.91	20
1,2-Dichloroethane	0.479	0.475		-0.83	20
Trichloroethene	0.390	0.375		-3.85	20
1,2-Dichloropropane	0.362	0.365		0.83	20
Bromodichloromethane	0.451	0.465		3.1	20
4-Methyl-2-Pentanone	0.527	0.519		-1.52	20
Toluene	0.892	0.872		-2.24	20
t-1,3-Dichloropropene	0.494	0.511		3.44	20
cis-1,3-Dichloropropene	0.550	0.577		4.91	20
1,1,2-Trichloroethane	0.358	0.357		-0.28	20
2-Hexanone	0.424	0.406		-4.24	20
Dibromochloromethane	0.355	0.373		5.07	20
1,2-Dibromoethane	0.366	0.362		-1.09	20
Tetrachloroethene	0.442	0.436		-1.36	20
Chlorobenzene	1.063	1.042	0.3	-1.98	20
Ethyl Benzene	1.828	1.845		0.93	20

All other compounds must meet a minimum RRF of 0.010.
RRF of 1,4-Dioxane = Value should be divide by 1000.

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: DAYE01

Lab Code: CHEM Case No.: K6405 SAS No.: K6405 SDG No.: K6405

Instrument ID: MSVOA_X Calibration Date/Time: 12/26/2019 10:46

Lab File ID: VX014259.D Init. Calib. Date(s): 12/13/2019 12/13/2019

Heated Purge: (Y/N) N Init. Calib. Time(s): 14:49 16:45

GC Column: DB-624UI ID: 0.18 (mm)

COMPOUND	RRF	RRF050	MIN RRF	%D	MAX%D
m/p-Xylenes	0.703	0.704		0.14	20
o-Xylene	0.689	0.678		-1.6	20
Styrene	1.166	1.175		0.77	20
Bromoform	0.305	0.313	0.1	2.62	20
Isopropylbenzene	3.520	3.588		1.93	20
1,1,2,2-Tetrachloroethane	1.220	1.180	0.3	-3.28	20
1,3-Dichlorobenzene	1.698	1.657		-2.41	20
1,4-Dichlorobenzene	1.726	1.652		-4.29	20
1,2-Dichlorobenzene	1.709	1.643		-3.86	20
1,2-Dibromo-3-Chloropropane	0.270	0.241		-10.74	20
1,2,4-Trichlorobenzene	1.111	1.120		0.81	20
1,2,3-Trichlorobenzene	1.096	1.121		2.28	20
1,2-Dichloroethane-d4	0.567	0.497		-12.35	20
Dibromofluoromethane	0.304	0.277		-8.88	20
Toluene-d8	1.183	1.075		-9.13	20
4-Bromofluorobenzene	0.433	0.385		-11.09	20

All other compounds must meet a minimum RRF of 0.010.
RRF of 1,4-Dioxane = Value should be divide by 1000.

Quantitation Report (QT Reviewed)

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX122619\
Data File : VX014259.D
Acq On : 26 Dec 2019 10:46
Operator : JC/SP
Sample : VSTDCCC050
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 27 06:27:53 2019
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121319W.M
Quant Title : SW846 8260
QLast Update : Tue Dec 17 03:01:07 2019
Response via : Initial Calibration

Instrument : MSVOA_X
ClientSampleId : VSTDCCC050

Manual Integrations APPROVED
apatel
12/27/2019 12:03:02 PM

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	5.65	168	521803	50.00	ug/l	0.00
34) 1,4-Difluorobenzene	6.85	114	782219	50.00	ug/l	0.00
63) Chlorobenzene-d5	10.10	117	705002	50.00	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	12.07	152	355197	50.00	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	6.05	65	259082	43.81	ug/l	0.00
Spiked Amount 50.000			Recovery = 87.62%			
35) Dibromofluoromethane	5.49	113	216529	45.54	ug/l	0.00
Spiked Amount 50.000			Recovery = 91.08%			
50) Toluene-d8	8.71	98	840577	45.41	ug/l	0.00
Spiked Amount 50.000			Recovery = 90.82%			
62) 4-Bromofluorobenzene	11.13	95	300923	44.47	ug/l	0.00
Spiked Amount 50.000			Recovery = 88.94%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.19	85	210019	44.989	ug/l	97
3) Chloromethane	1.32	50	284141	45.355	ug/l	99
4) Vinyl Chloride	1.41	62	302912	45.823	ug/l	99
5) Bromomethane	1.63	94	197660	42.129	ug/l	100
6) Chloroethane	1.72	64	196400	48.138	ug/l	96
7) Trichlorofluoromethane	1.92	101	394071	48.156	ug/l	99
8) Diethyl Ether	2.18	74	180546	47.011	ug/l	100
9) 1,1,2-Trichlorotrifluoroet	2.37	101	244319	49.529	ug/l	99
10) Methyl Iodide	2.50	142	303008	46.759	ug/l	100
11) Tert butyl alcohol	3.03	59	269198	210.663	ug/l	99
12) 1,1-Dichloroethene	2.36	96	234284	46.676	ug/l	97
13) Acrolein	2.28	56	192018	262.503	ug/l	98
14) Allyl chloride	2.72	41	438317	48.908	ug/l	99
15) Acrylonitrile	3.13	53	726753	243.663	ug/l	100
16) Acetone	2.43	43	808312	210.531	ug/l	99
17) Carbon Disulfide	2.56	76	609486	43.833	ug/l	99
18) Methyl Acetate	2.76	43	371535	48.835	ug/l	99
19) Methyl tert-butyl Ether	3.18	73	809651	49.088	ug/l	97
20) Methylene Chloride	2.84	84	276870	45.794	ug/l	96
21) trans-1,2-Dichloroethene	3.15	96	256214	46.333	ug/l	99
22) Diisopropyl ether	3.84	45	913361	51.143	ug/l	95
23) Vinyl Acetate	3.80	43	3796315	260.485	ug/l	99
24) 1,1-Dichloroethane	3.69	63	477977	48.105	ug/l	99
25) 2-Butanone	4.65	43	1094858	231.299	ug/l	100
26) 2,2-Dichloropropane	4.57	77	380633	49.340	ug/l	99
27) cis-1,2-Dichloroethene	4.58	96	298775	47.774	ug/l	100
28) Bromochloromethane	5.00	49	210143	54.948	ug/l	95
29) Tetrahydrofuran	5.11	42	641920	242.455	ug/l	99
30) Chloroform	5.20	83	464958	49.363	ug/l	99
31) Cyclohexane	5.57	56	432498	48.941	ug/l	97
32) 1,1,1-Trichloroethane	5.48	97	388124	48.348	ug/l	99
36) 1,1-Dichloropropene	5.79	75	354153	49.343	ug/l	99
37) Ethyl Acetate	4.81	43	397687	50.176	ug/l	99
38) Carbon Tetrachloride	5.77	117	328543	50.248	ug/l	99

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX122619\
Data File : VX014259.D
Acq On : 26 Dec 2019 10:46
Operator : JC/SP
Sample : VSTDCCC050
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 2 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

Manual Integrations APPROVED
apatel
12/27/2019 12:03:02 PM

Quant Time: Dec 27 06:27:53 2019
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121319W.M
Quant Title : SW846 8260
QLast Update : Tue Dec 17 03:01:07 2019
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
39) Methylcyclohexane	7.45	83	440255	49.678	ug/l		99
40) Benzene	6.13	78	1083466	49.062	ug/l		99
41) Methacrylonitrile	5.03	41	225862	51.360	ug/l		96
42) 1,2-Dichloroethane	6.18	62	371865	49.676	ug/l		99
43) Isopropyl Acetate	6.43	43	655502	49.975	ug/l		99
44) Trichloroethene	7.20	130	293470	48.112	ug/l		97
45) 1,2-Dichloropropane	7.50	63	285686	50.472	ug/l		96
46) Dibromomethane	7.65	93	179851	48.059	ug/l		99
47) Bromodichloromethane	7.89	83	363672	51.599	ug/l		100
48) Methyl methacrylate	7.76	41	324109	50.461	ug/l		98
49) 1,4-Dioxane	7.73	88	115267	881.867	ug/l		98
51) 4-Methyl-2-Pentanone	8.64	43	2029374	246.356	ug/l		99
52) Toluene	8.78	92	681847	48.848	ug/l		99
53) t-1,3-Dichloropropene	9.03	75	400041	51.764	ug/l		98
54) cis-1,3-Dichloropropene	8.43	75	451295	52.417	ug/l		99
55) 1,1,2-Trichloroethane	9.21	97	279367	49.937	ug/l		99
56) Ethyl methacrylate	9.17	69	445582	50.704	ug/l		100
57) 1,3-Dichloropropane	9.37	76	471296	50.071	ug/l		100
58) 2-Chloroethyl Vinyl ether	8.30	63	882962	265.501	ug/l		100
59) 2-Hexanone	9.48	43	1589832	239.748	ug/l		99
60) Dibromochloromethane	9.57	129	291594	52.437	ug/l		100
61) 1,2-Dibromoethane	9.67	107	283394	49.510	ug/l		100
64) Tetrachloroethene	9.33	164	307554	49.300	ug/l		99
65) Chlorobenzene	10.14	112	734892	49.025	ug/l		98
66) 1,1,1,2-Tetrachloroethane	10.21	131	274806	51.343	ug/l		98
67) Ethyl Benzene	10.25	91	1300524	50.464	ug/l		99
68) m/p-Xylenes	10.35	106	992859	100.167	ug/l		99
69) o-Xylene	10.70	106	478141	49.185	ug/l		98
70) Styrene	10.71	104	828428	50.396	ug/l		99
71) Bromoform	10.85	173	220952	51.356	ug/l	#	100
73) Isopropylbenzene	11.01	105	1274321	50.955	ug/l		100
74) N-amyl acetate	10.89	43	577066	49.227	ug/l		100
75) 1,1,2,2-Tetrachloroethane	11.26	83	419205	48.350	ug/l		99
76) 1,2,3-Trichloropropane	11.29	75	342799m	44.454	ug/l		
77) Bromobenzene	11.25	156	326886	47.507	ug/l		99
78) n-propylbenzene	11.35	91	1463218	52.162	ug/l		100
79) 2-Chlorotoluene	11.42	91	855297	50.159	ug/l		99
80) 1,3,5-Trimethylbenzene	11.50	105	1077153	51.178	ug/l		100
81) trans-1,4-Dichloro-2-buten	11.07	75	143487	52.520	ug/l		99
82) 4-Chlorotoluene	11.51	91	991948	50.150	ug/l		99
83) tert-Butylbenzene	11.76	119	1037239	50.640	ug/l		99
84) 1,2,4-Trimethylbenzene	11.80	105	1081260	51.299	ug/l		100
85) sec-Butylbenzene	11.94	105	1255213	51.911	ug/l		100
86) p-Isopropyltoluene	12.06	119	1154822	52.211	ug/l		99
87) 1,3-Dichlorobenzene	12.02	146	588617	48.810	ug/l		99
88) 1,4-Dichlorobenzene	12.09	146	586811	47.856	ug/l		100
89) n-Butylbenzene	12.39	91	1007020	53.358	ug/l		99
90) Hexachloroethane	12.59	117	203845	51.309	ug/l		99
91) 1,2-Dichlorobenzene	12.39	146	583672	48.080	ug/l		99
92) 1,2-Dibromo-3-Chloropropan	12.99	75	85696	44.664	ug/l		98

Data Path : Z:\VOASRV\HPCHEM1\MSVOA X\DATA\VX122619\
Data File : VX014259.D
Acq On : 26 Dec 2019 10:46
Operator : JC/SP
Sample : VSTDCCC050
Misc : 5.0mL/MSVOA X/WATER
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 27 06:27:53 2019
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121319W.M
Quant Title : SW846 8260
QLast Update : Tue Dec 17 03:01:07 2019
Response via : Initial Calibration

Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

Manual Integrations APPROVED
apatel
12/27/2019 12:03:02 PM

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
93) 1,2,4-Trichlorobenzene	13.64	180	397932	50.434	ug/l	98
94) Hexachlorobutadiene	13.78	225	192573	50.784	ug/l	97
95) Naphthalene	13.83	128	1170572	50.495	ug/l	100
96) 1,2,3-Trichlorobenzene	14.01	180	398049	51.105	ug/l	99

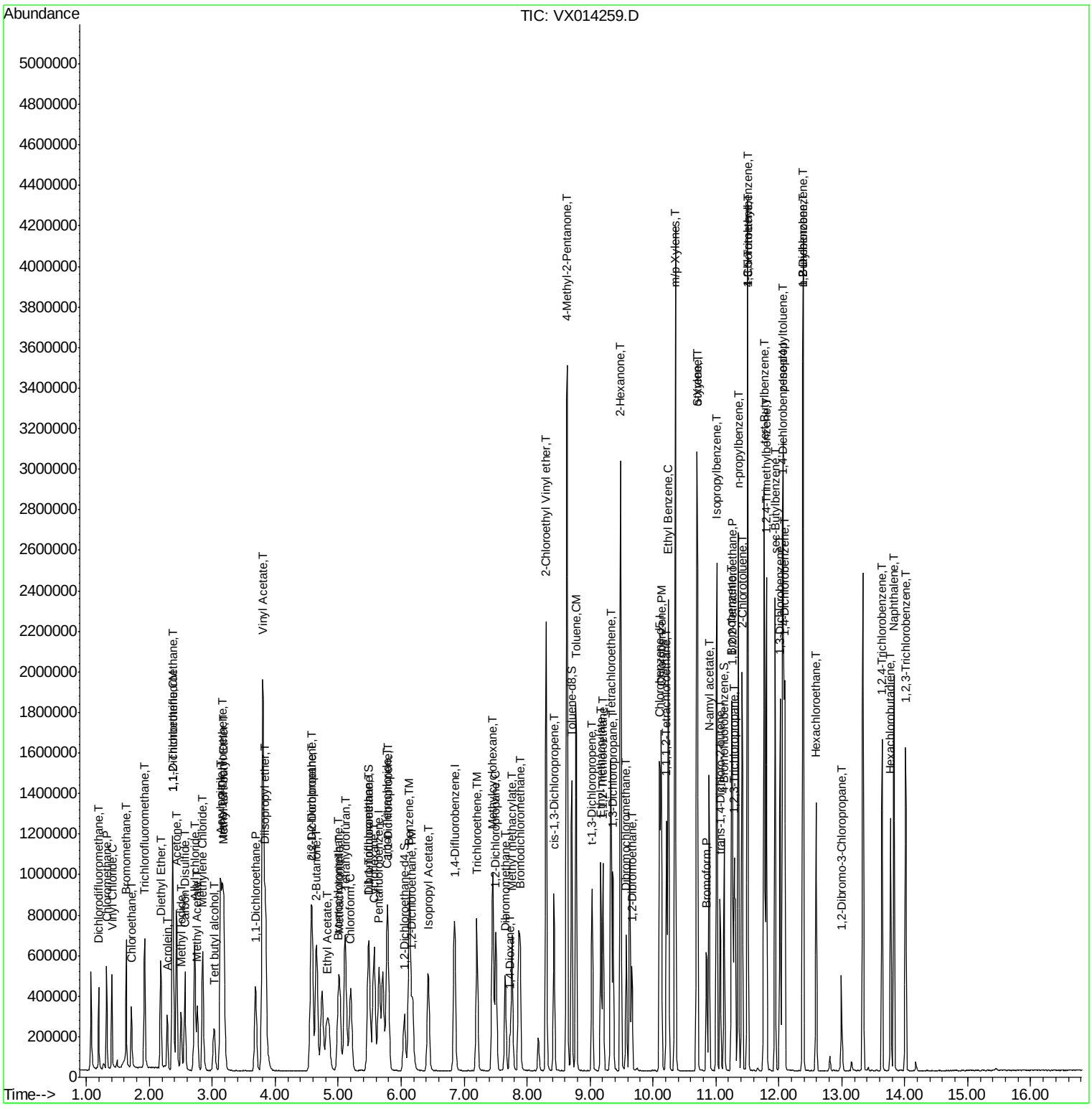
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX122619\
Data File : VX014259.D
Acq On : 26 Dec 2019 10:46
Operator : JC/SP
Sample : VSTDCCC050
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 27 06:27:53 2019
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121319W.M
Quant Title : SW846 8260
QLast Update : Tue Dec 17 03:01:07 2019
Response via : Initial Calibration

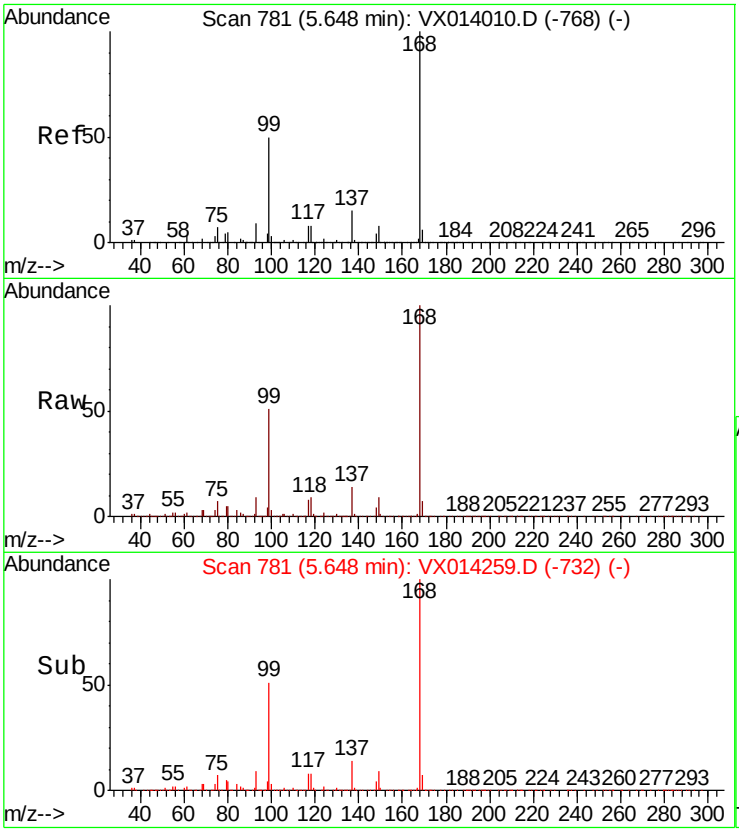
Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

Manual Integrations APPROVED
apatel
12/27/2019 12:03:02 PM



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

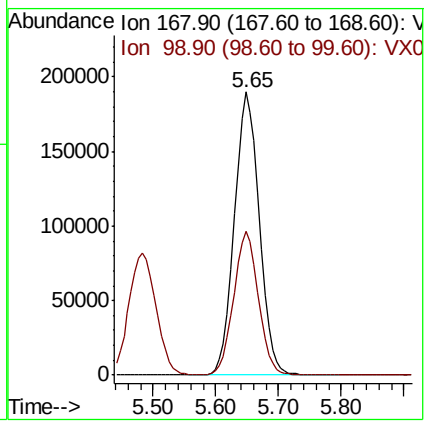
Manual Integrations APPROVED
apatel
12/27/2019 12:03:02 PM

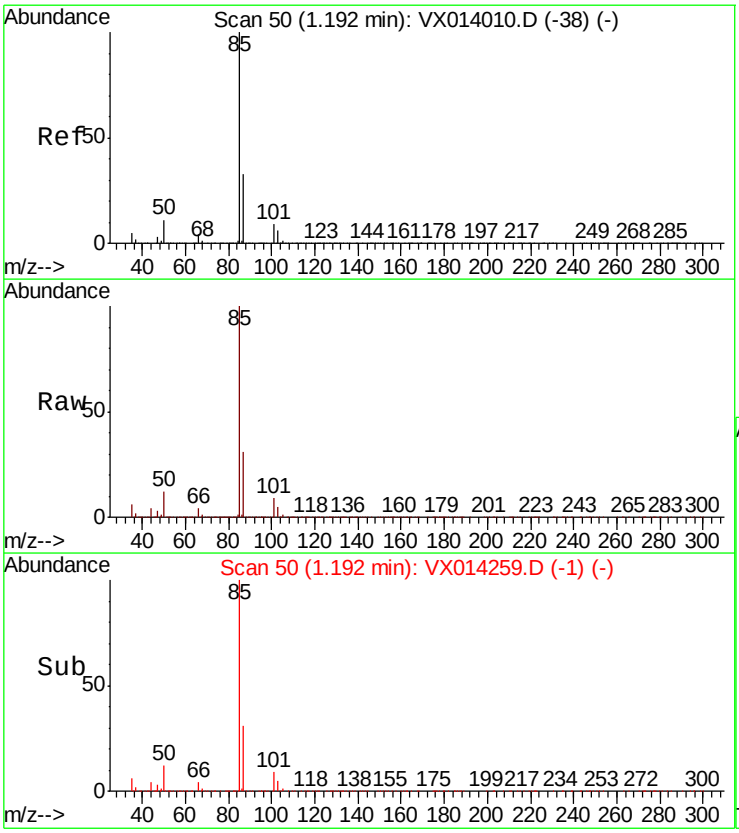


#1
Pentafluorobenzene
Concen: 50.000 ug/l
RT: 5.65 min Scan# 781
Delta R.T. 0.00 min
Lab File: VX014259.D
Acq: 26 Dec 2019 10:46

Tgt Ion:168 Resp: 521803

Ion	Ratio	Lower	Upper
168	100		
99	50.9	40.3	60.5

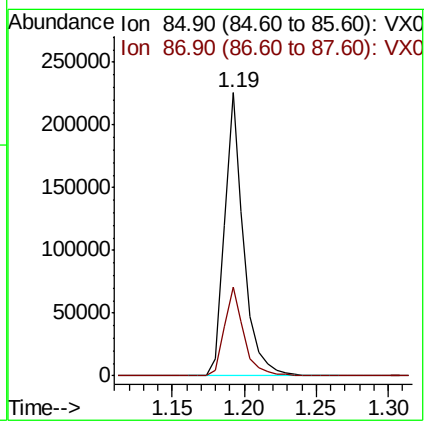




#2
Dichlorodifluoromethane
Concen: 44.989 ug/l
RT: 1.19 min Scan# 50
Delta R.T. 0.00 min
Lab File: VX014259.D
Acq: 26 Dec 2019 10:46

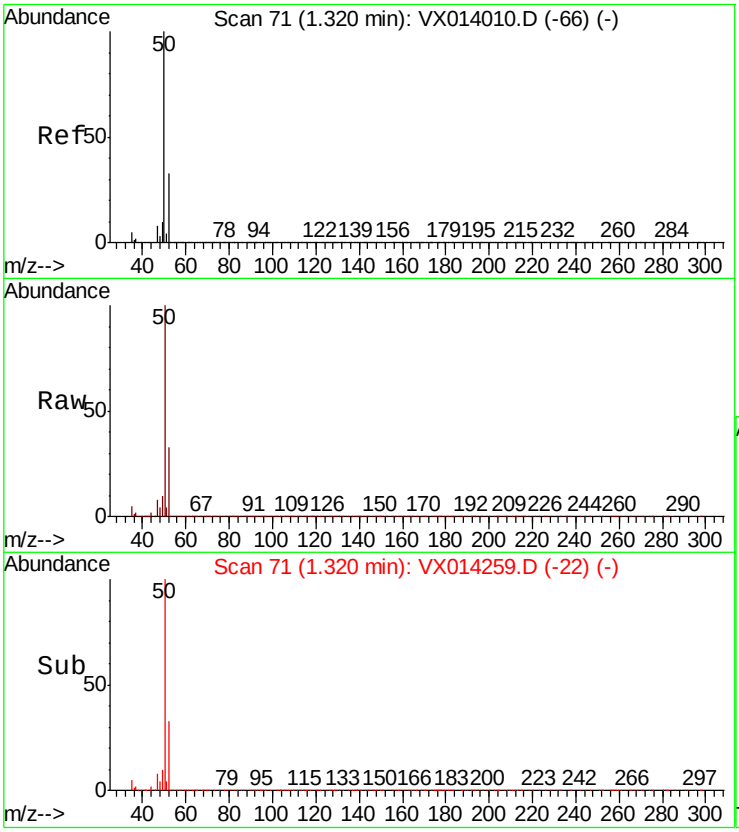
Tgt Ion: 85 Resp: 210019

Ion	Ratio	Lower	Upper
85	100		
87	31.2	16.4	49.2



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

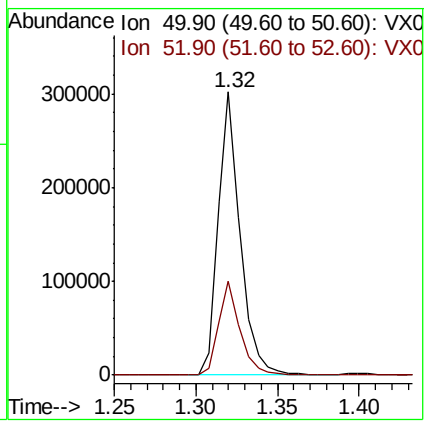
Manual Integrations APPROVED
apatel
12/27/2019 12:03:02 PM

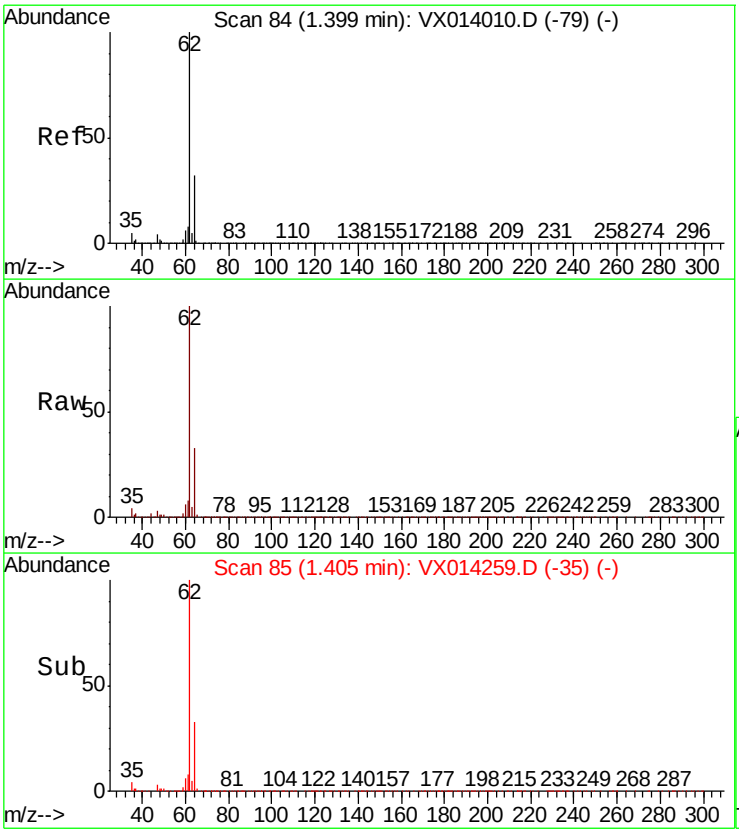


#3
Chloromethane
Concen: 45.355 ug/l
RT: 1.32 min Scan# 71
Delta R.T. 0.00 min
Lab File: VX014259.D
Acq: 26 Dec 2019 10:46

Tgt Ion: 50 Resp: 284141

Ion	Ratio	Lower	Upper
50	100		
52	33.3	26.2	39.4

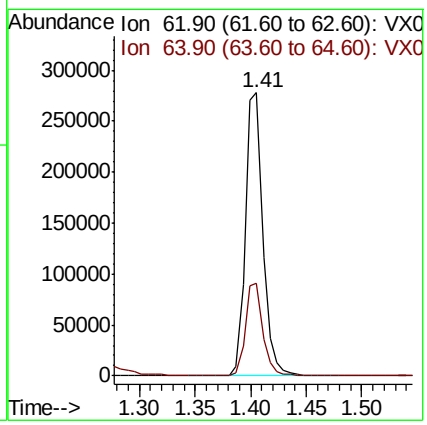




#4
Vinyl Chloride
Concen: 45.823 ug/l
RT: 1.41 min Scan# 85
Delta R.T. 0.01 min
Lab File: VX014259.D
Acq: 26 Dec 2019 10:46

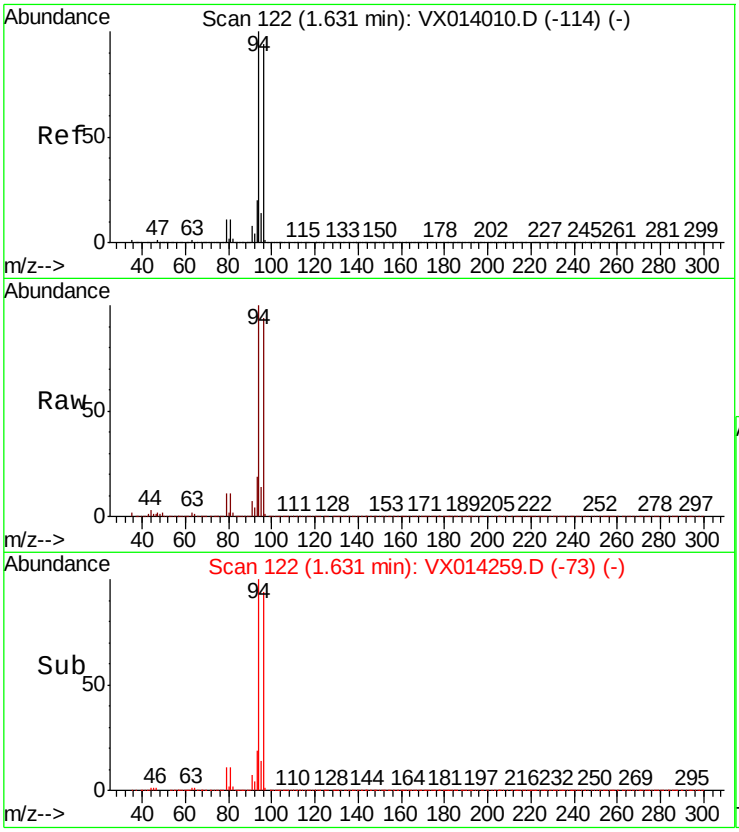
Tgt Ion: 62 Resp: 302912

Ion	Ratio	Lower	Upper
62	100		
64	32.6	25.7	38.5



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

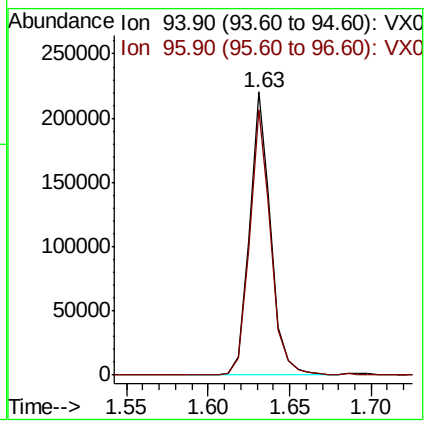
Manual Integrations APPROVED
apatel
12/27/2019 12:03:02 PM

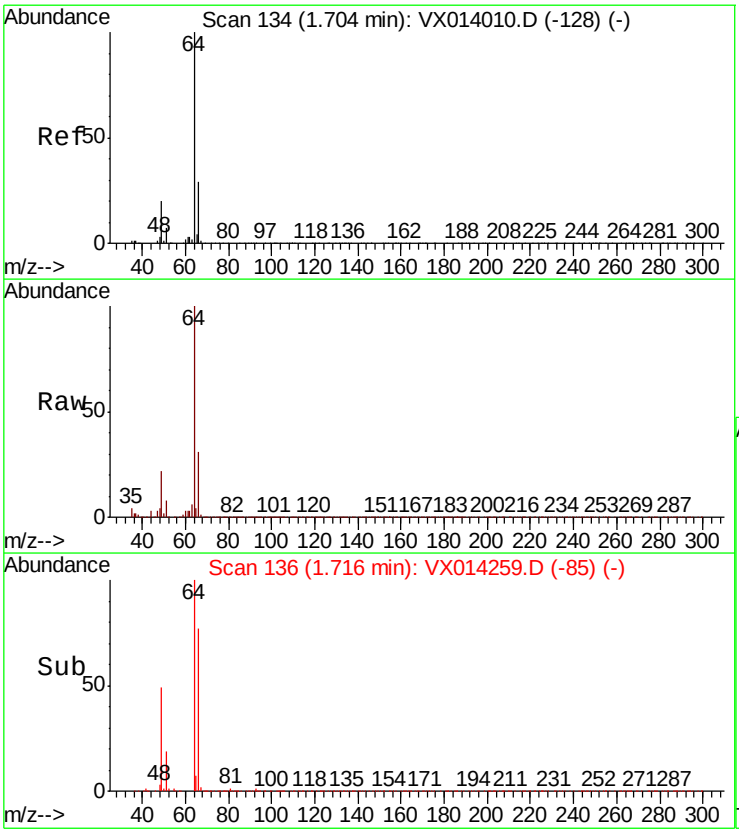


#5
Bromomethane
Concen: 42.129 ug/l
RT: 1.63 min Scan# 122
Delta R.T. 0.00 min
Lab File: VX014259.D
Acq: 26 Dec 2019 10:46

Tgt Ion: 94 Resp: 197660

Ion	Ratio	Lower	Upper
94	100		
96	93.6	75.2	112.8

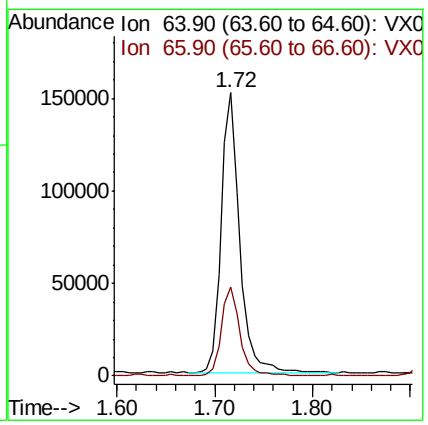




#6
Chloroethane
Concen: 48.138 ug/l
RT: 1.72 min Scan# 136
Delta R.T. 0.01 min
Lab File: VX014259.D
Acq: 26 Dec 2019 10:46

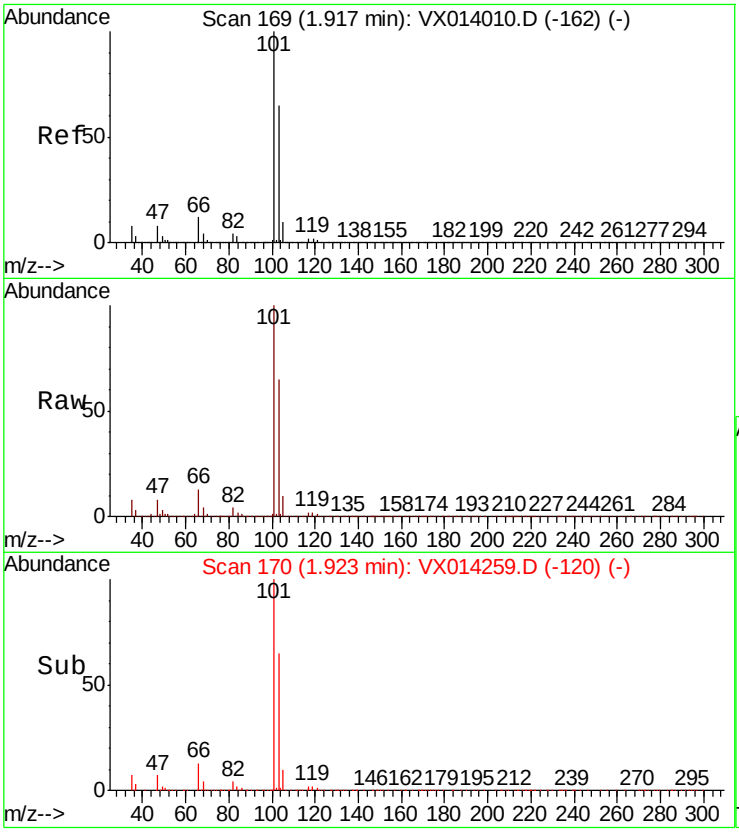
Tgt Ion: 64 Resp: 196400

Ion	Ratio	Lower	Upper
64	100		
66	31.4	23.4	35.2



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

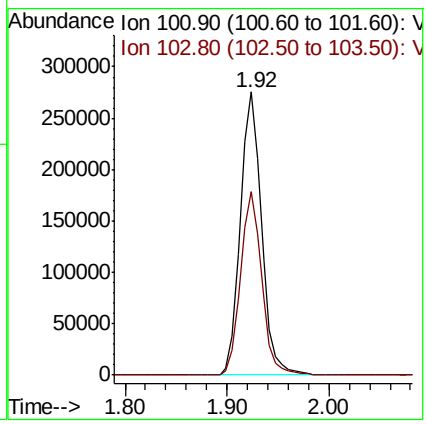
Manual Integrations APPROVED
apatel
12/27/2019 12:03:02 PM

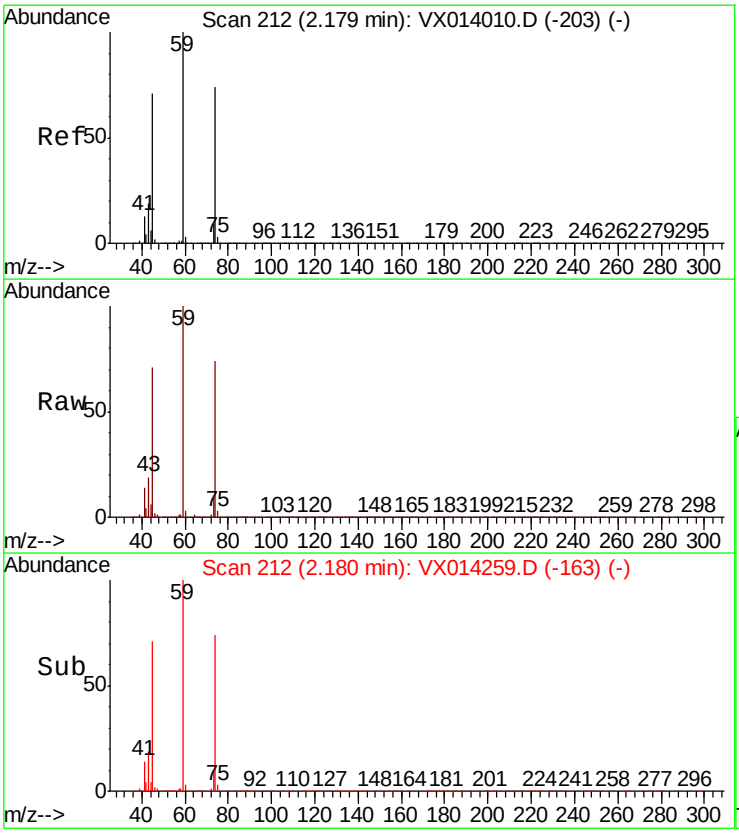


#7
Trichlorofluoromethane
Concen: 48.156 ug/l
RT: 1.92 min Scan# 170
Delta R.T. 0.01 min
Lab File: VX014259.D
Acq: 26 Dec 2019 10:46

Tgt Ion:101 Resp: 394071

Ion	Ratio	Lower	Upper
101	100		
103	64.7	52.2	78.4

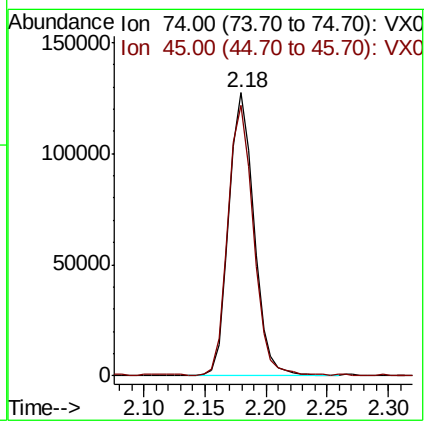


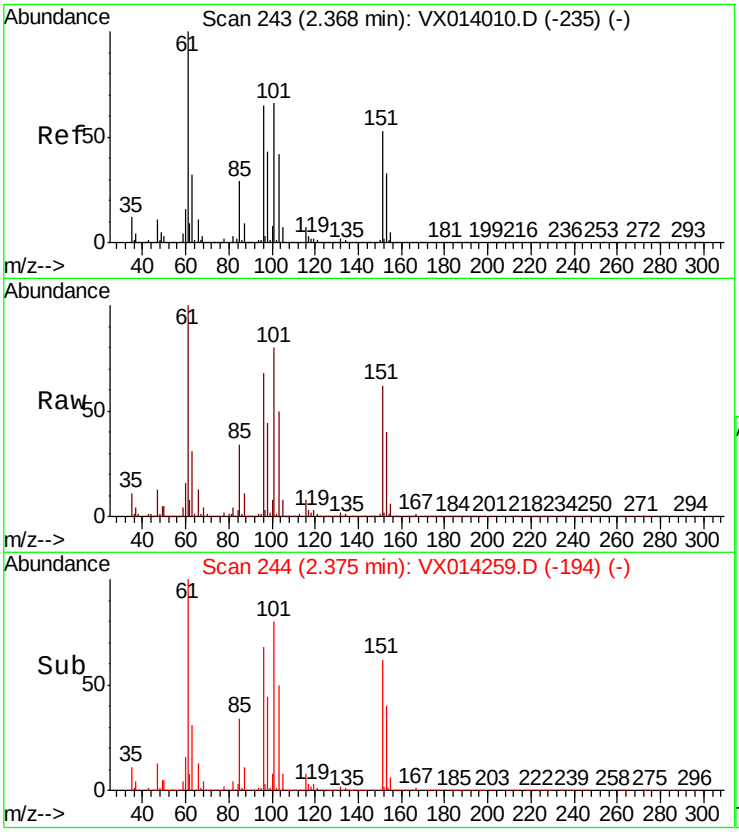


#8
Diethyl Ether
Concen: 47.011 ug/l
RT: 2.18 min Scan# 212
Delta R.T. 0.00 min
Lab File: VX014259.D
Acq: 26 Dec 2019 10:46

Tgt Ion: 74 Resp: 180546

Ion	Ratio	Lower	Upper
74	100		
45	96.4	48.1	144.3

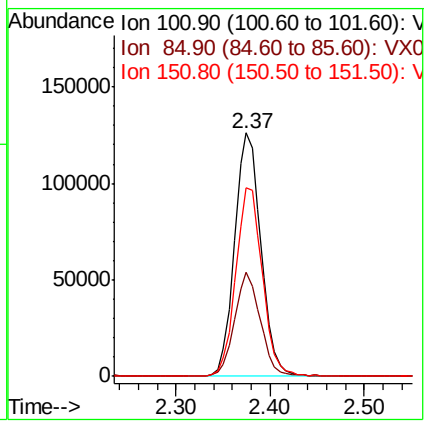




#9
1,1,2-Trichlorotrifluoroethane
Concen: 49.529 ug/l
RT: 2.37 min Scan# 244
Delta R.T. 0.01 min
Lab File: VX014259.D
Acq: 26 Dec 2019 10:46

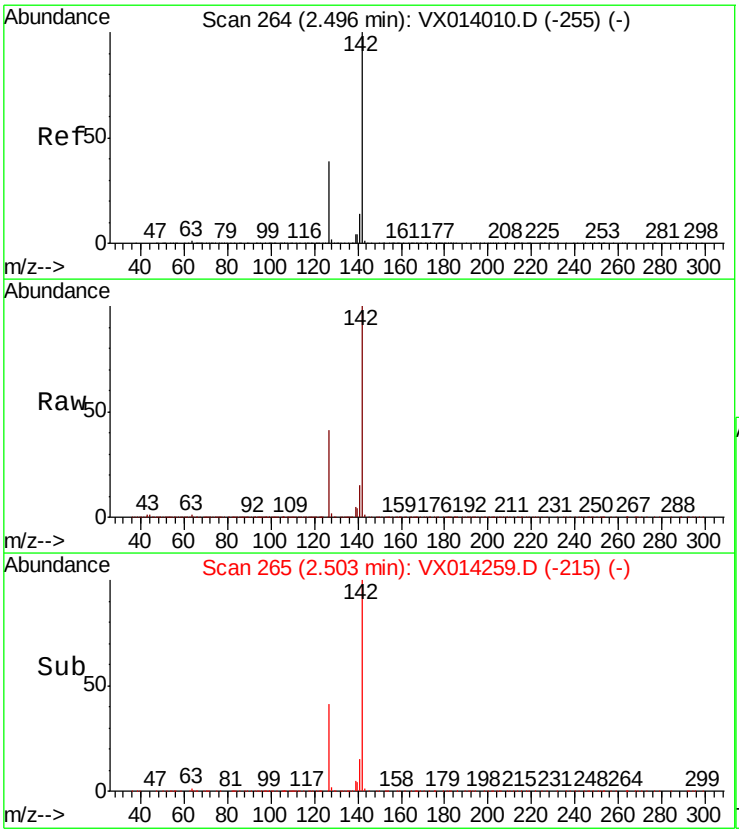
Tgt Ion:101 Resp: 244319

Ion	Ratio	Lower	Upper
101	100		
85	42.1	33.7	50.5
151	79.0	64.5	96.7



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

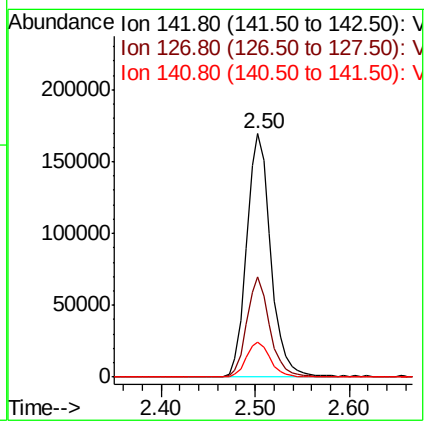
Manual Integrations APPROVED
apatel
12/27/2019 12:03:02 PM



#10
Methyl Iodide
Concen: 46.759 ug/l
RT: 2.50 min Scan# 265
Delta R.T. 0.01 min
Lab File: VX014259.D
Acq: 26 Dec 2019 10:46

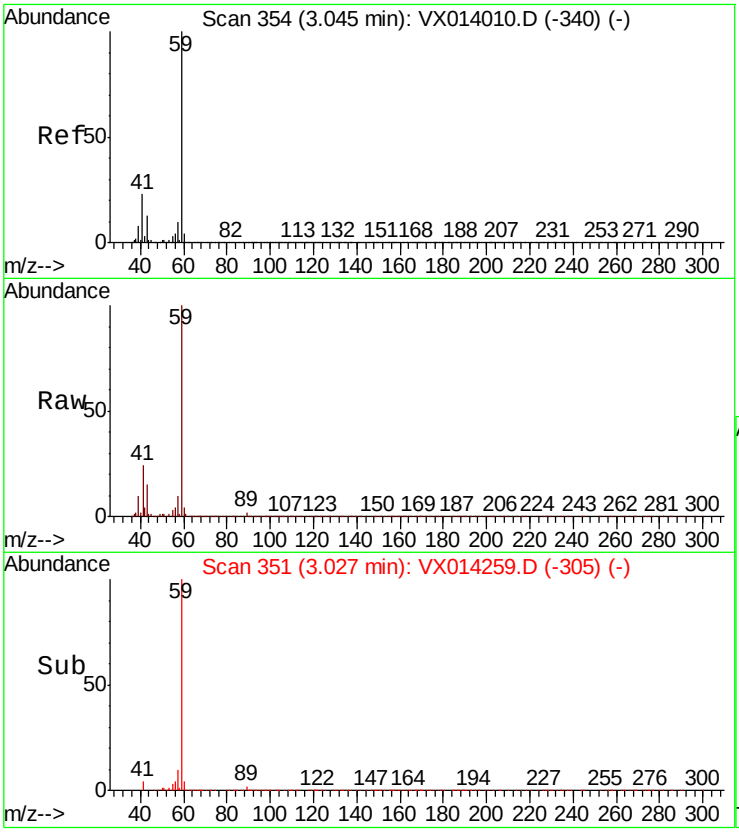
Tgt Ion:142 Resp: 303008

Ion	Ratio	Lower	Upper
142	100		
127	39.2	31.6	47.4
141	14.3	11.6	17.4



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

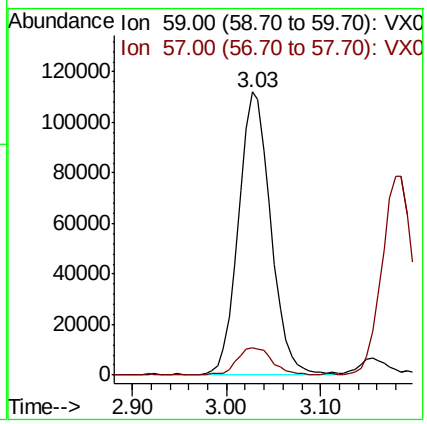
Manual Integrations APPROVED
apatel
12/27/2019 12:03:02 PM

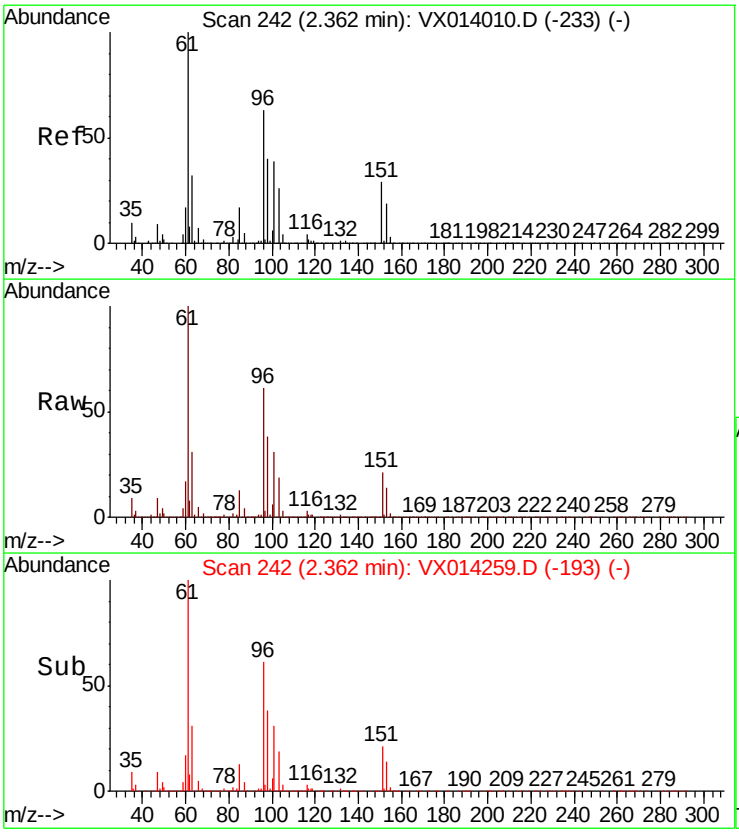


#11
Tert butyl alcohol
Concen: 210.663 ug/l
RT: 3.03 min Scan# 351
Delta R.T. -0.02 min
Lab File: VX014259.D
Acq: 26 Dec 2019 10:46

Tgt Ion: 59 Resp: 269198

Ion	Ratio	Lower	Upper
59	100		
57	9.9	8.4	12.6

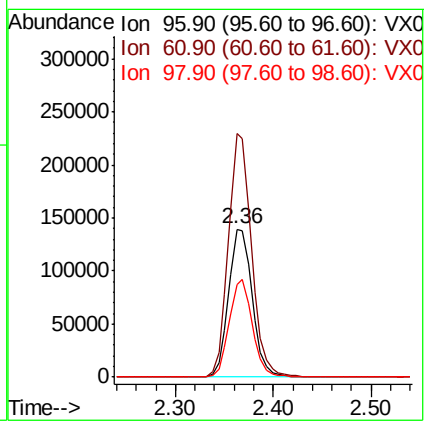




#12
1,1-Dichloroethene
Concen: 46.676 ug/l
RT: 2.36 min Scan# 242
Delta R.T. 0.00 min
Lab File: VX014259.D
Acq: 26 Dec 2019 10:46

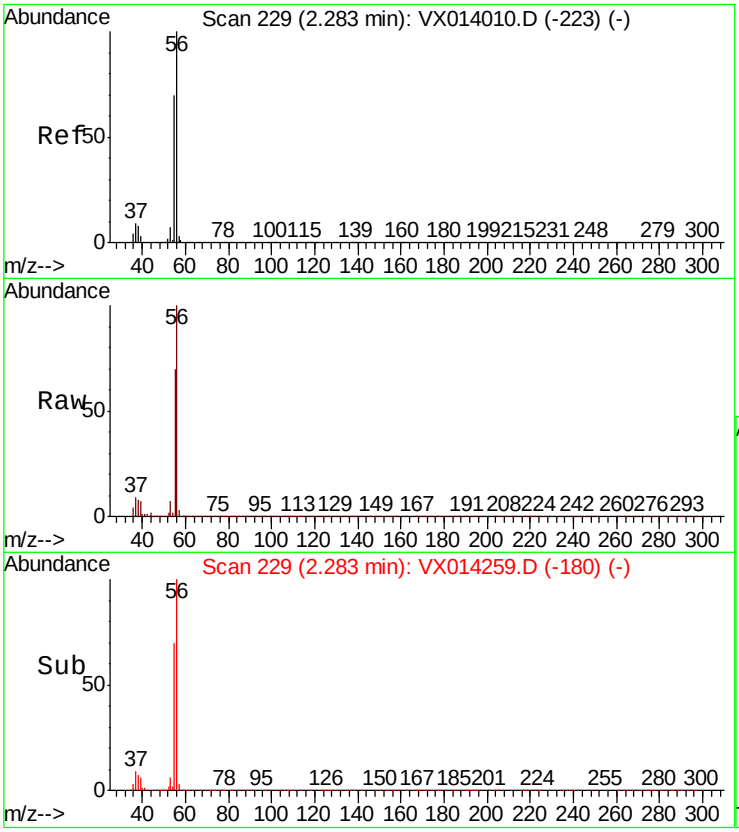
Tgt Ion: 96 Resp: 234284

Ion	Ratio	Lower	Upper
96	100		
61	164.6	127.9	191.9
98	62.9	50.5	75.7



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

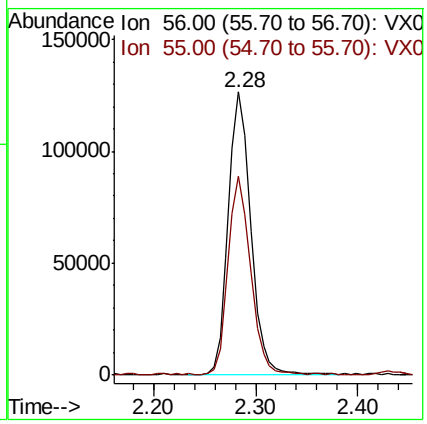
Manual Integrations APPROVED
apatel
12/27/2019 12:03:02 PM

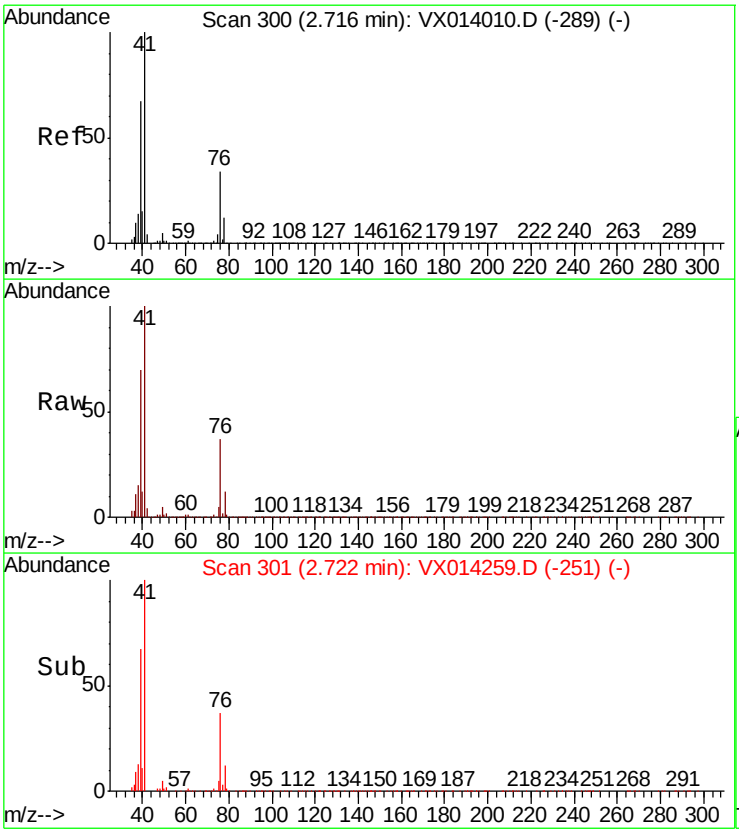


#13
Acrolein
Concen: 262.503 ug/l
RT: 2.28 min Scan# 229
Delta R.T. 0.00 min
Lab File: VX014259.D
Acq: 26 Dec 2019 10:46

Tgt Ion: 56 Resp: 192018

Ion	Ratio	Lower	Upper
56	100		
55	69.8	56.9	85.3

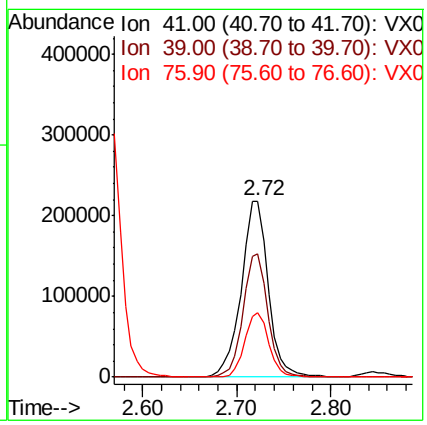




#14
Allyl chloride
Concen: 48.908 ug/l
RT: 2.72 min Scan# 301
Delta R.T. 0.01 min
Lab File: VX014259.D
Acq: 26 Dec 2019 10:46

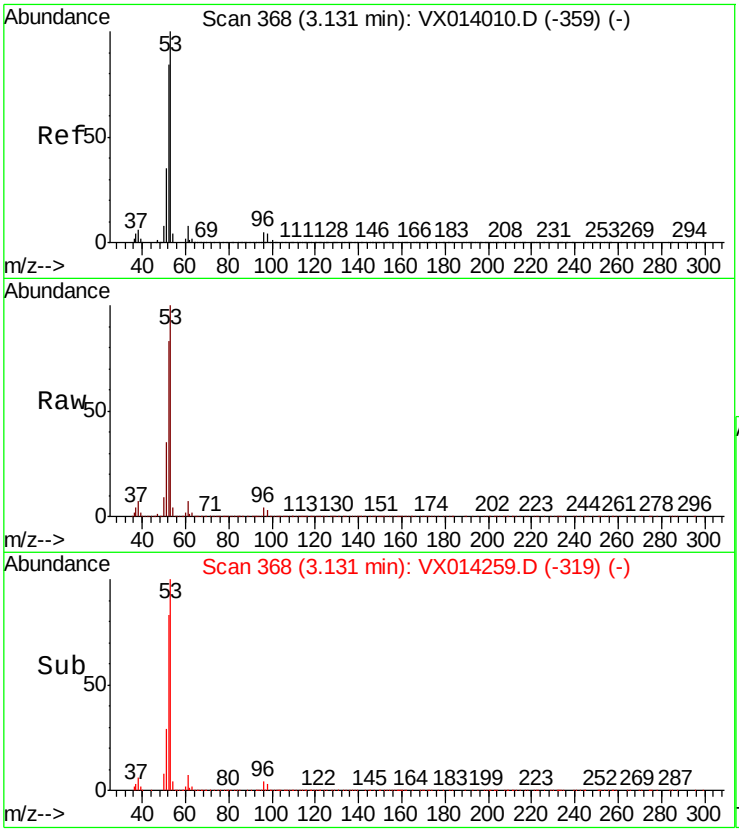
Tgt Ion: 41 Resp: 438317

Ion	Ratio	Lower	Upper
41	100		
39	64.0	51.8	77.8
76	32.5	25.9	38.9



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

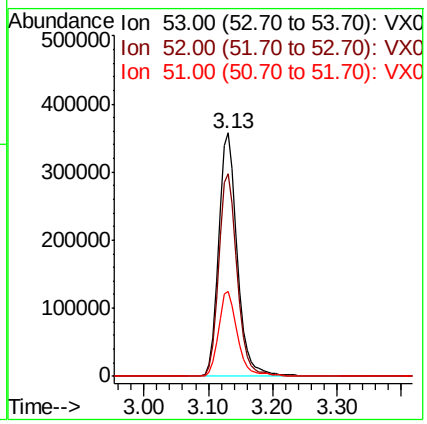
Manual Integrations APPROVED
apatel
12/27/2019 12:03:02 PM

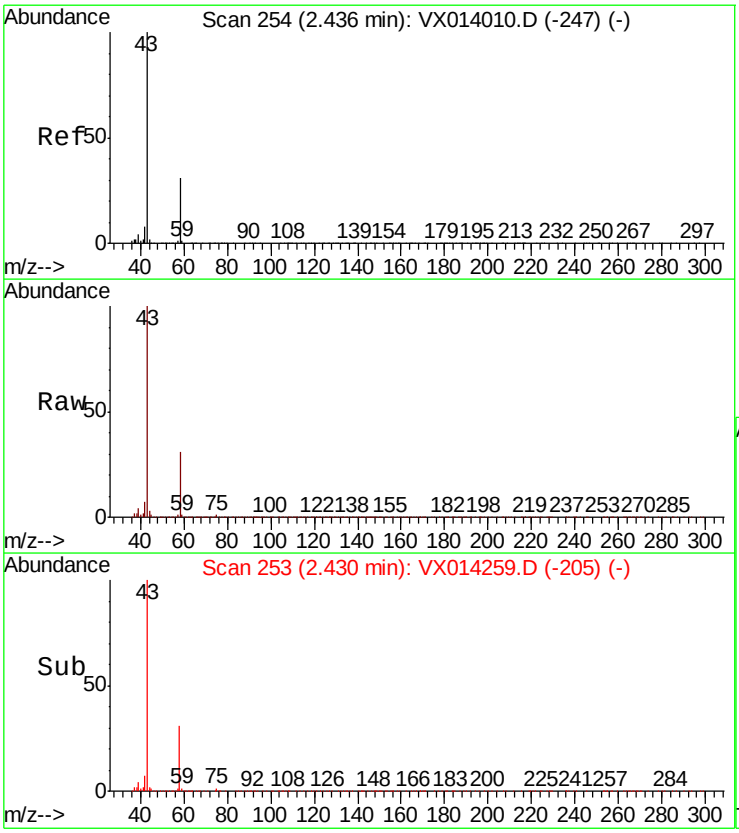


#15
Acrylonitrile
Concen: 243.663 ug/l
RT: 3.13 min Scan# 368
Delta R.T. 0.00 min
Lab File: VX014259.D
Acq: 26 Dec 2019 10:46

Tgt Ion: 53 Resp: 726753

Ion	Ratio	Lower	Upper
53	100		
52	82.8	66.5	99.7
51	35.5	28.1	42.1

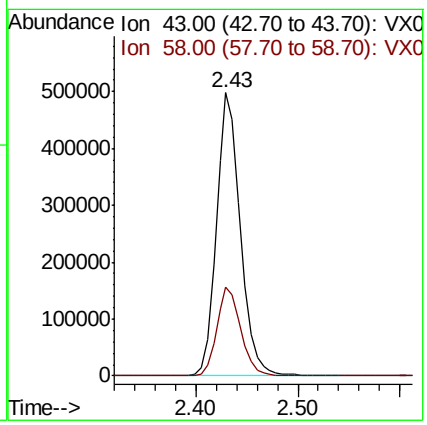




#16
Acetone
Concen: 210.531 ug/l
RT: 2.43 min Scan# 253
Delta R.T. -0.01 min
Lab File: VX014259.D
Acq: 26 Dec 2019 10:46

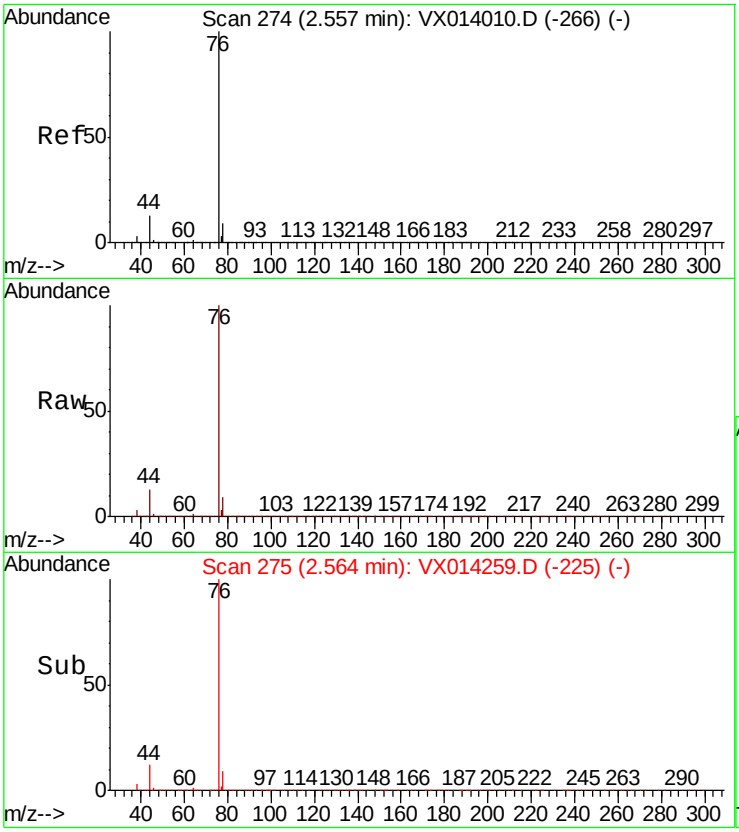
Tgt Ion: 43 Resp: 808312

Ion	Ratio	Lower	Upper
43	100		
58	31.5	24.9	37.3



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

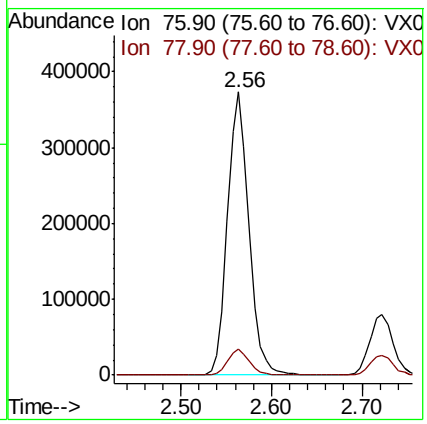
Manual Integrations APPROVED
apatel
12/27/2019 12:03:02 PM

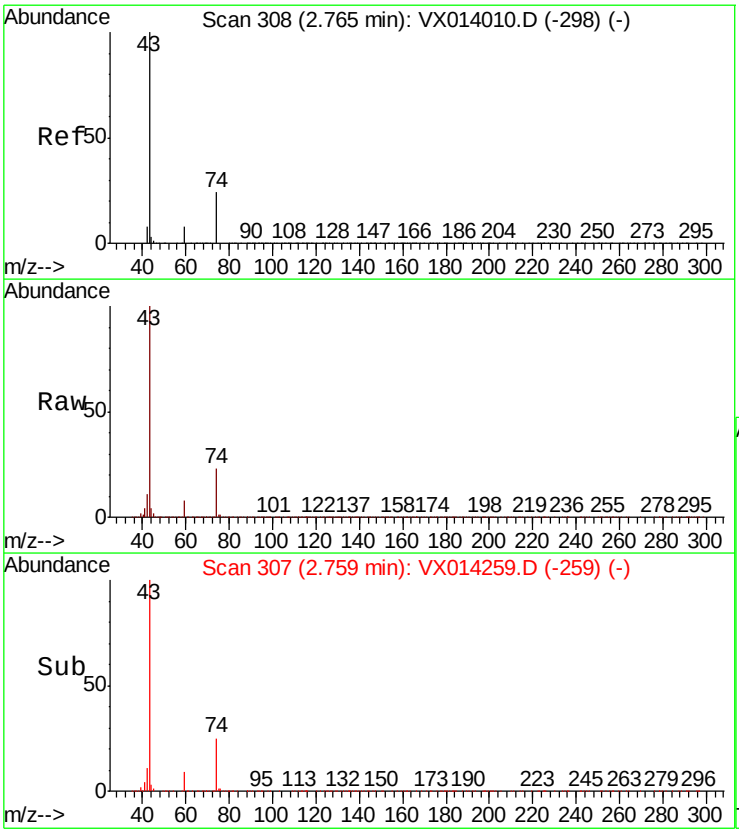


#17
Carbon Disulfide
Concen: 43.833 ug/l
RT: 2.56 min Scan# 275
Delta R.T. 0.01 min
Lab File: VX014259.D
Acq: 26 Dec 2019 10:46

Tgt Ion: 76 Resp: 609486

Ion	Ratio	Lower	Upper
76	100		
78	9.2	7.2	10.8

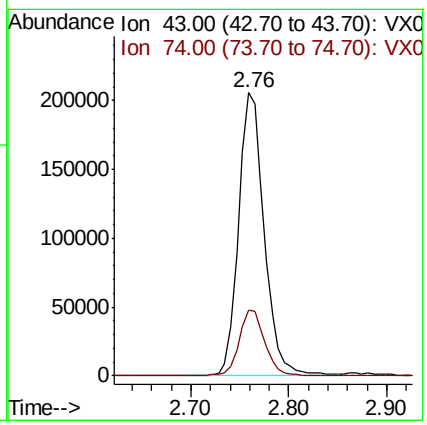




#18
Methyl Acetate
Concen: 48.835 ug/l
RT: 2.76 min Scan# 307
Delta R.T. -0.01 min
Lab File: VX014259.D
Acq: 26 Dec 2019 10:46

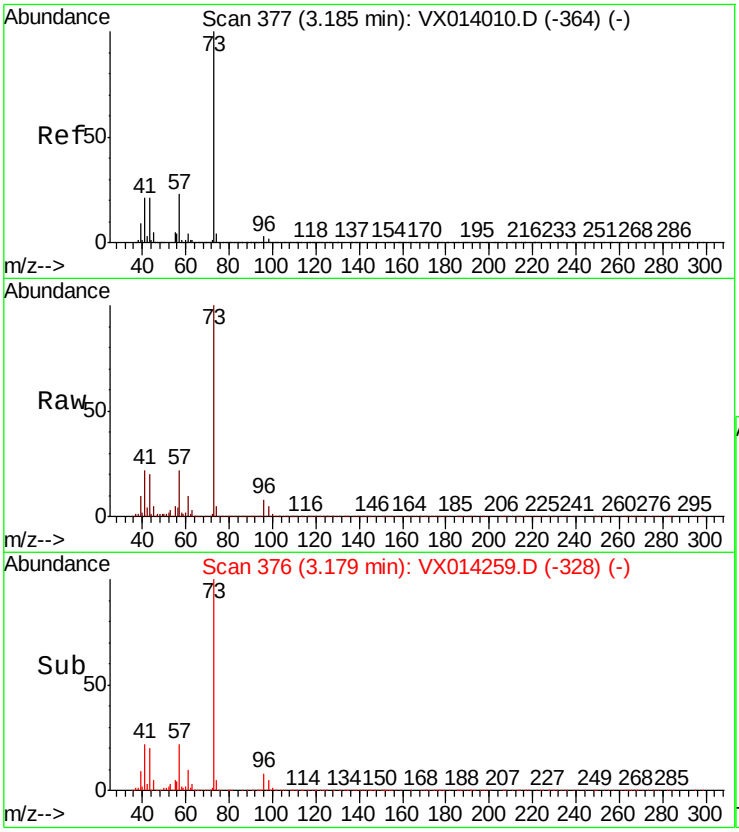
Tgt Ion: 43 Resp: 371535

Ion	Ratio	Lower	Upper
43	100		
74	23.9	19.5	29.3



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

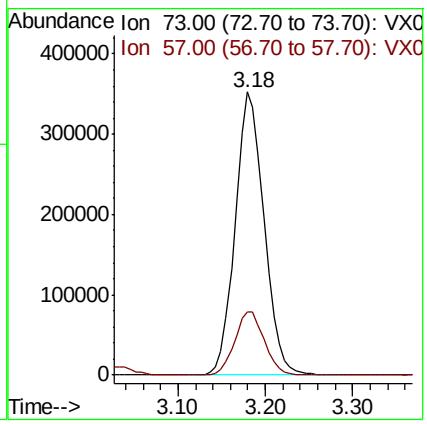
Manual Integrations APPROVED
apatel
12/27/2019 12:03:02 PM

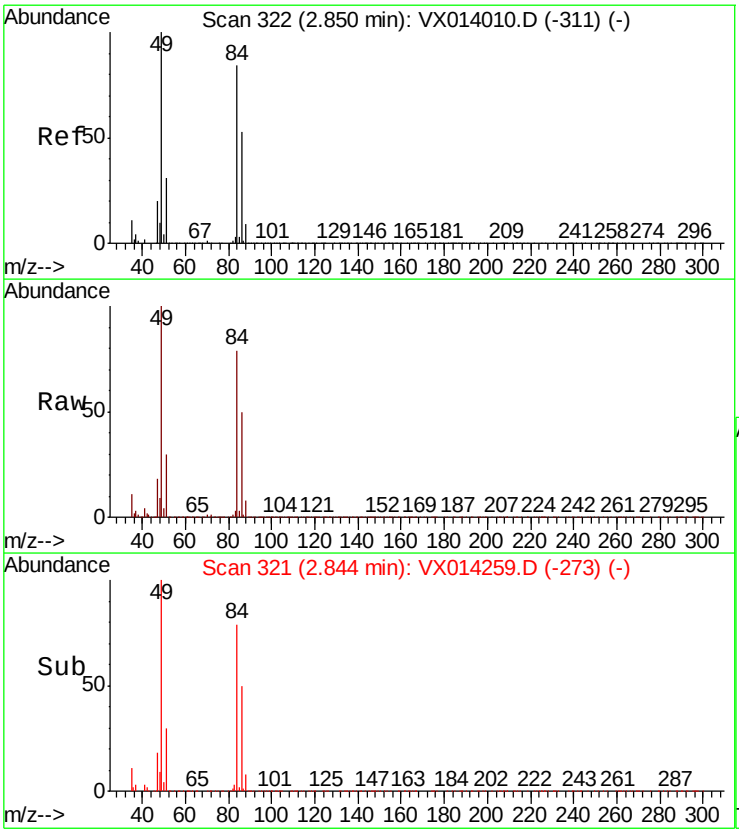


#19
Methyl tert-butyl Ether
Concen: 49.088 ug/l
RT: 3.18 min Scan# 376
Delta R.T. -0.01 min
Lab File: VX014259.D
Acq: 26 Dec 2019 10:46

Tgt Ion: 73 Resp: 809651

Ion	Ratio	Lower	Upper
73	100		
57	22.2	18.8	28.2

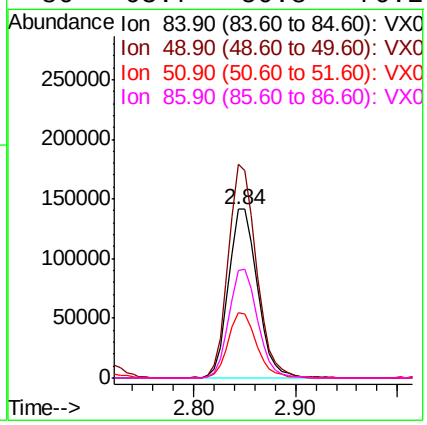




#20
Methylene Chloride
Concen: 45.794 ug/l
RT: 2.84 min Scan# 321
Delta R.T. -0.01 min
Lab File: VX014259.D
Acq: 26 Dec 2019 10:46

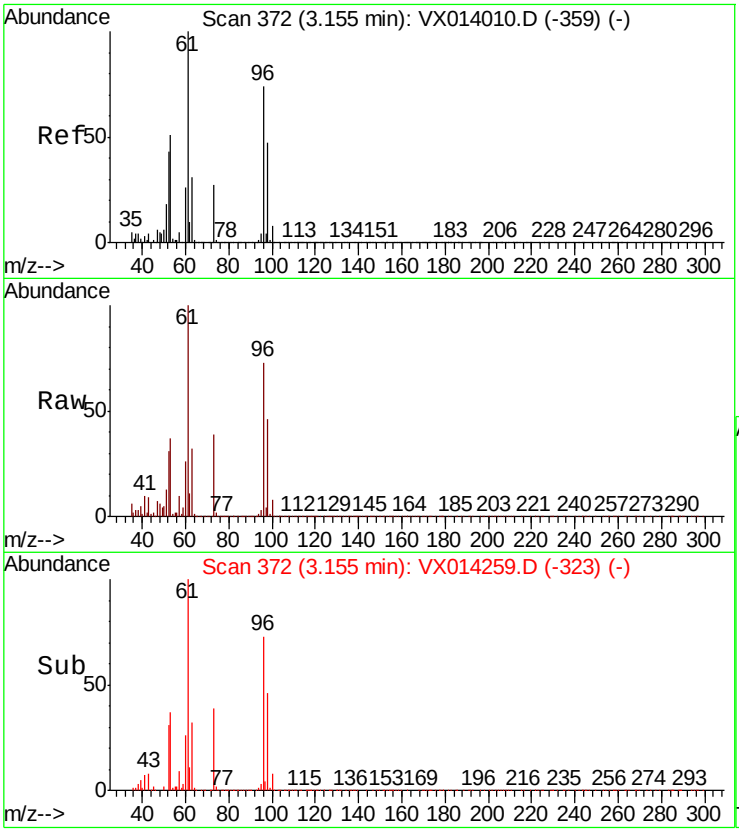
Tgt Ion: 84 Resp: 276870

Ion	Ratio	Lower	Upper
84	100		
49	126.6	95.8	143.6
51	38.4	29.8	44.8
86	63.7	50.8	76.2



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

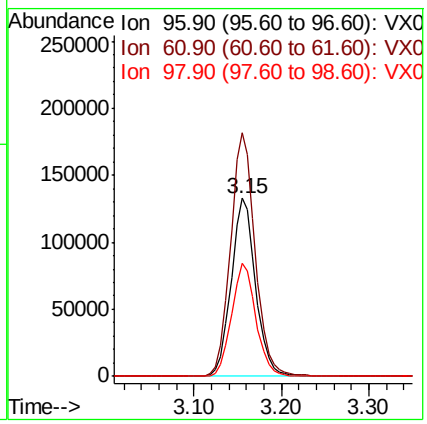
Manual Integrations APPROVED
apatel
12/27/2019 12:03:02 PM

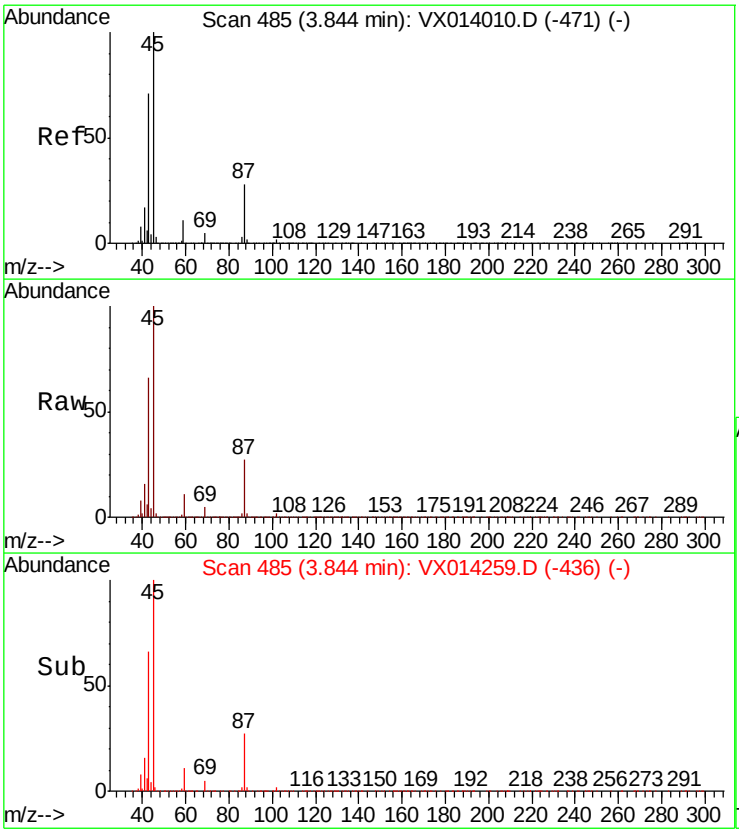


#21
trans-1,2-Dichloroethene
Concen: 46.333 ug/l
RT: 3.15 min Scan# 372
Delta R.T. 0.00 min
Lab File: VX014259.D
Acq: 26 Dec 2019 10:46

Tgt Ion: 96 Resp: 256214

Ion	Ratio	Lower	Upper
96	100		
61	137.0	108.3	162.5
98	63.5	50.8	76.2

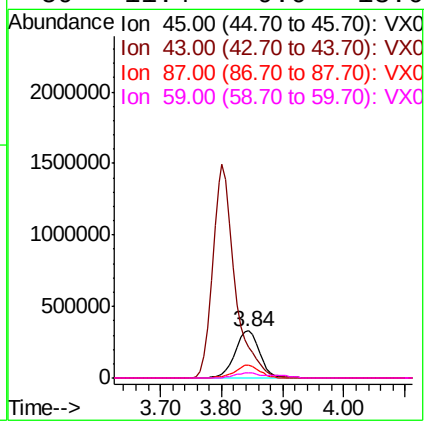




#22
Diisopropyl ether
Concen: 51.143 ug/l
RT: 3.84 min Scan# 485
Delta R.T. 0.00 min
Lab File: VX014259.D
Acq: 26 Dec 2019 10:46

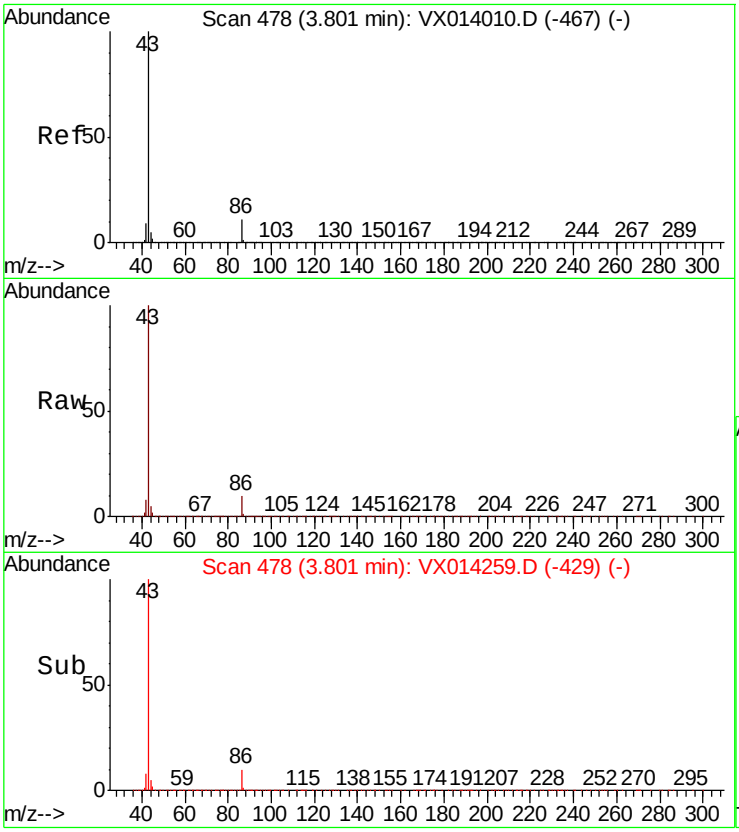
Tgt Ion: 45 Resp: 913361

Ion	Ratio	Lower	Upper
45	100		
43	65.5	57.4	86.0
87	26.6	21.9	32.9
59	11.4	9.0	13.6



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

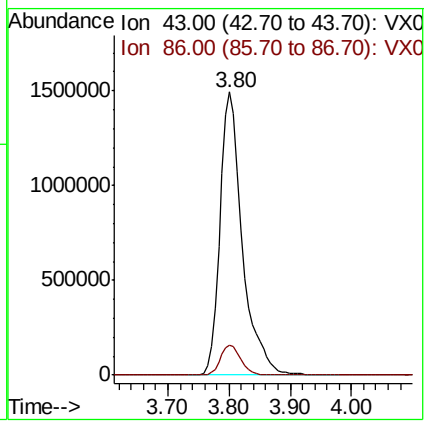
Manual Integrations APPROVED
apatel
12/27/2019 12:03:02 PM

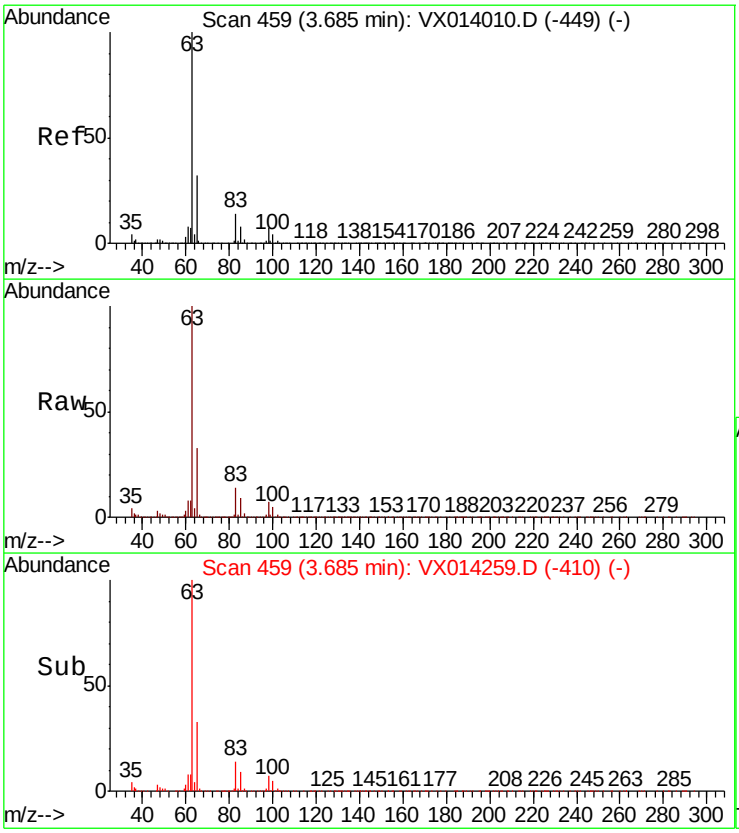


#23
Vinyl Acetate
Concen: 260.485 ug/l
RT: 3.80 min Scan# 478
Delta R.T. 0.00 min
Lab File: VX014259.D
Acq: 26 Dec 2019 10:46

Tgt Ion: 43 Resp: 3796315

Ion	Ratio	Lower	Upper
43	100		
86	10.5	8.6	12.8

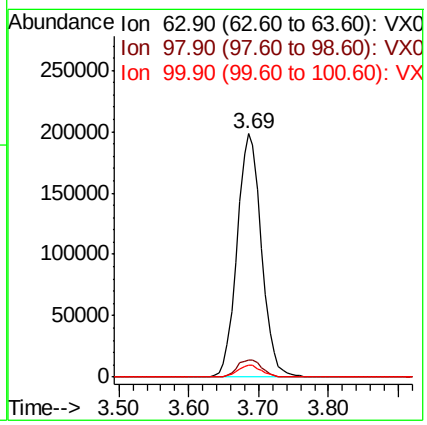




#24
1,1-Dichloroethane
Concen: 48.105 ug/l
RT: 3.69 min Scan# 459
Delta R.T. 0.00 min
Lab File: VX014259.D
Acq: 26 Dec 2019 10:46

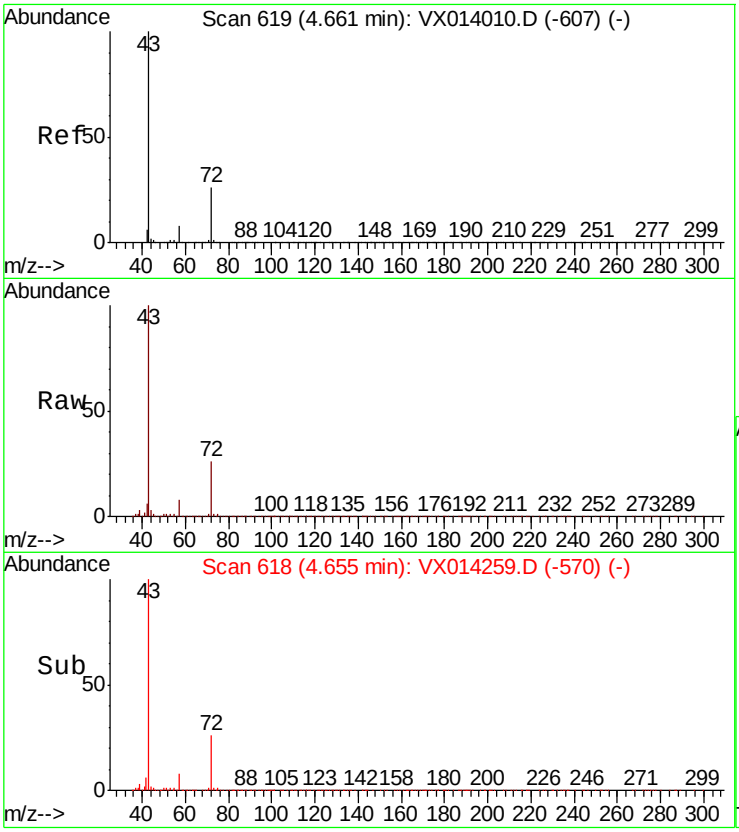
Tgt Ion: 63 Resp: 477977

Ion	Ratio	Lower	Upper
63	100		
98	7.0	3.6	10.8
100	4.9	2.3	6.8



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

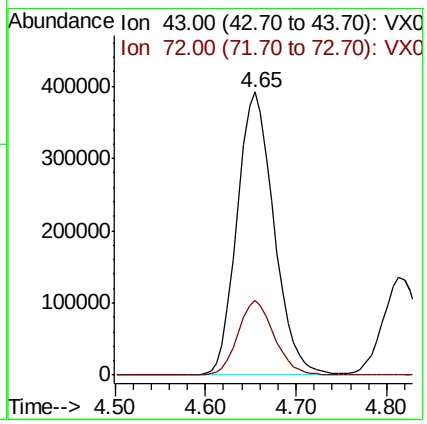
Manual Integrations APPROVED
apatel
12/27/2019 12:03:02 PM

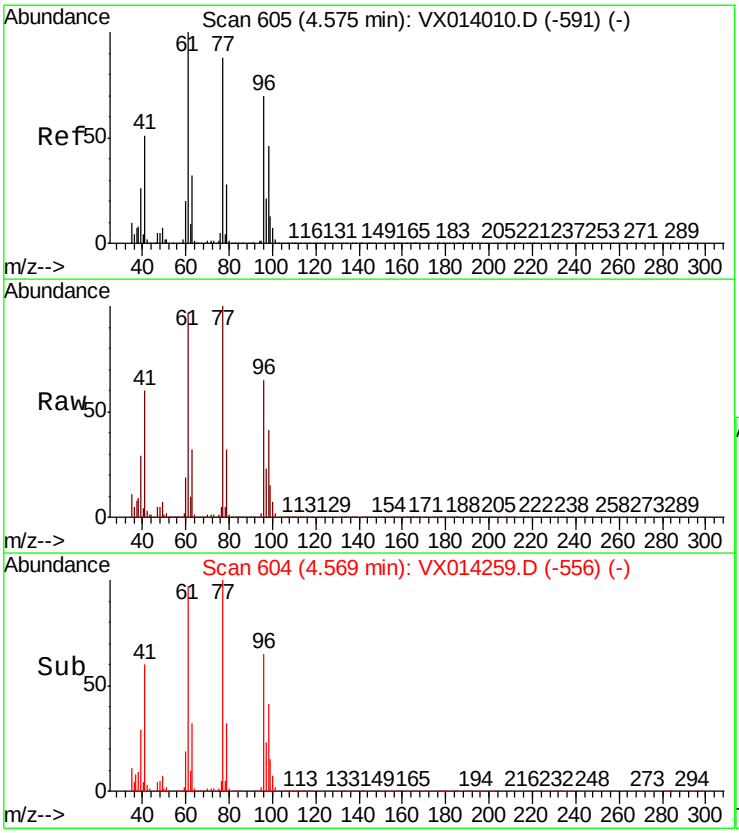


#25
2-Butanone
Concen: 231.299 ug/l
RT: 4.65 min Scan# 618
Delta R.T. -0.01 min
Lab File: VX014259.D
Acq: 26 Dec 2019 10:46

Tgt Ion: 43 Resp: 1094858

Ion	Ratio	Lower	Upper
43	100		
72	26.3	21.0	31.4

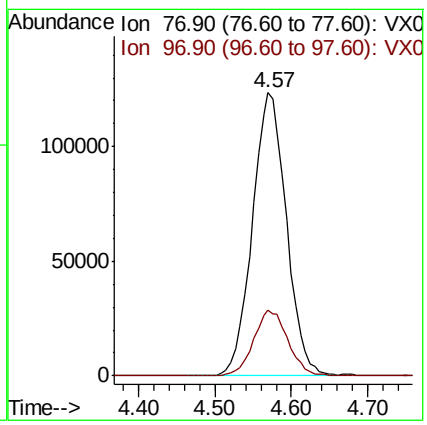




#26
2,2-Dichloropropane
Concen: 49.340 ug/l
RT: 4.57 min Scan# 604
Delta R.T. -0.01 min
Lab File: VX014259.D
Acq: 26 Dec 2019 10:46

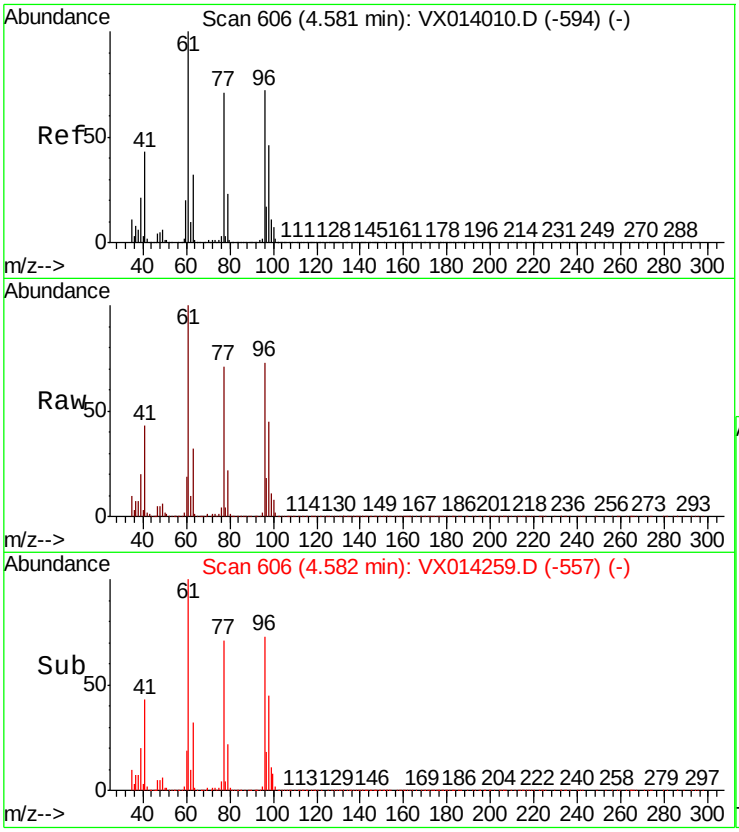
Tgt Ion: 77 Resp: 380633

Ion	Ratio	Lower	Upper
77	100		
97	23.3	11.9	35.9



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

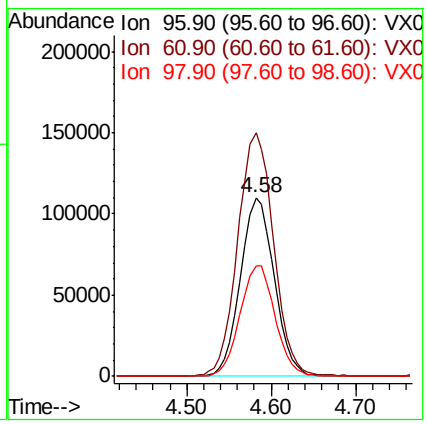
Manual Integrations APPROVED
apatel
12/27/2019 12:03:02 PM

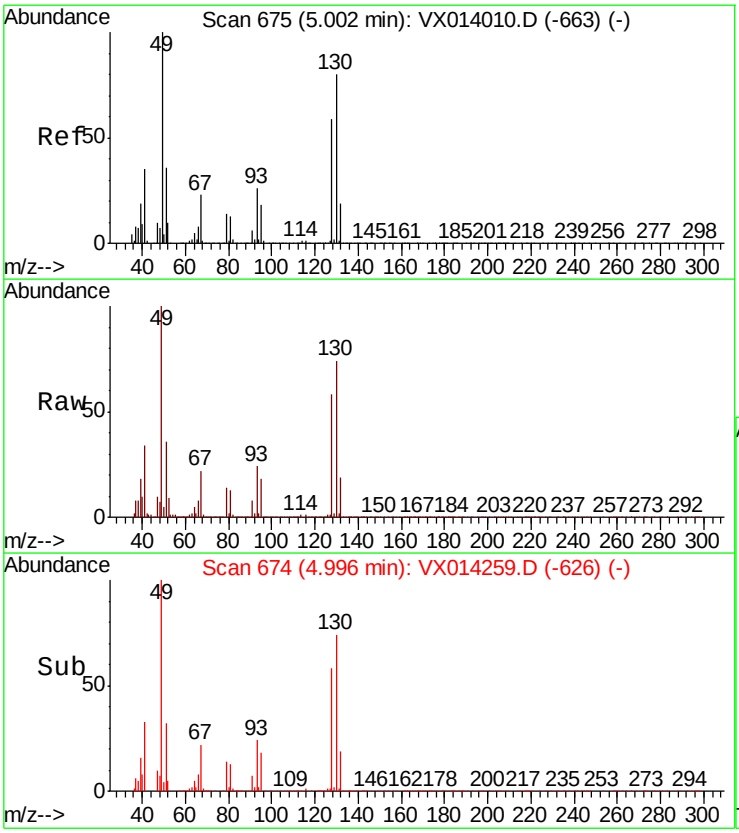


#27
cis-1,2-Dichloroethene
Concen: 47.774 ug/l
RT: 4.58 min Scan# 606
Delta R.T. 0.00 min
Lab File: VX014259.D
Acq: 26 Dec 2019 10:46

Tgt Ion: 96 Resp: 298775

Ion	Ratio	Lower	Upper
96	100		
61	144.6	0.0	288.4
98	64.2	0.0	129.6

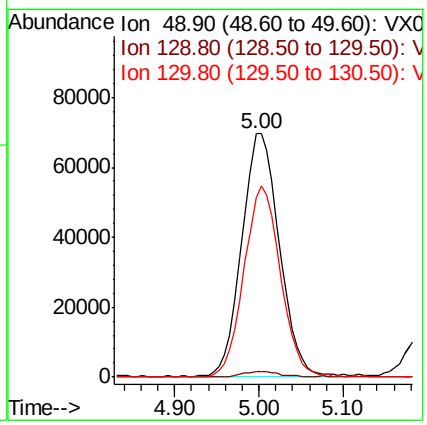




#28
Bromochloromethane
Concen: 54.948 ug/l
RT: 5.00 min Scan# 674
Delta R.T. -0.01 min
Lab File: VX014259.D
Acq: 26 Dec 2019 10:46

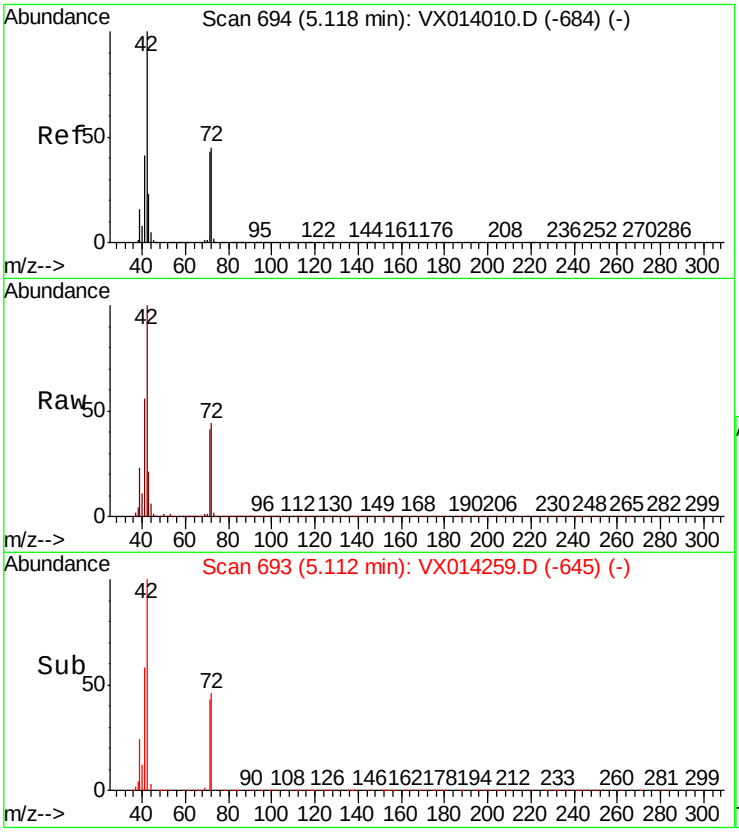
Tgt Ion: 49 Resp: 210143

Ion	Ratio	Lower	Upper
49	100		
129	2.3	0.0	5.0
130	76.3	64.6	97.0



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

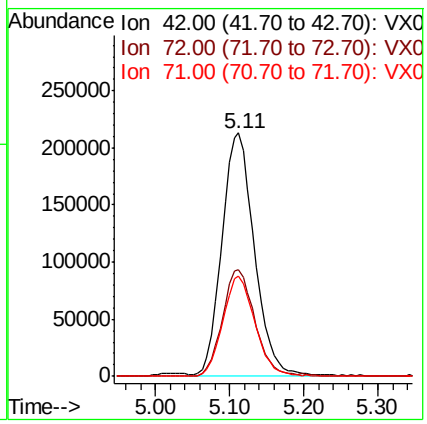
Manual Integrations APPROVED
apatel
12/27/2019 12:03:02 PM

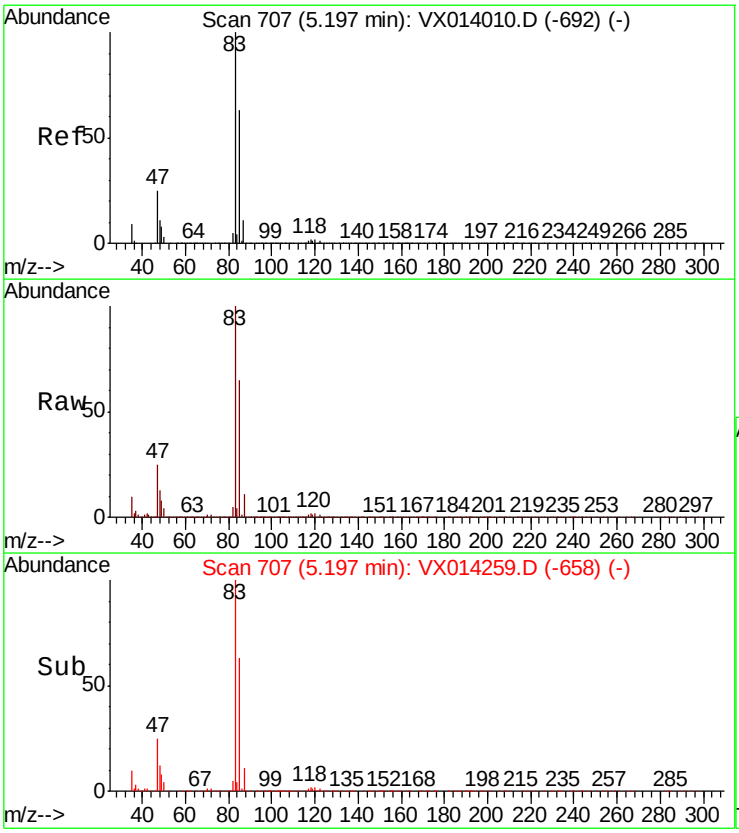


#29
Tetrahydrofuran
Concen: 242.455 ug/l
RT: 5.11 min Scan# 693
Delta R.T. -0.01 min
Lab File: VX014259.D
Acq: 26 Dec 2019 10:46

Tgt Ion: 42 Resp: 641920

Ion	Ratio	Lower	Upper
42	100		
72	44.2	35.8	53.8
71	40.9	33.6	50.4

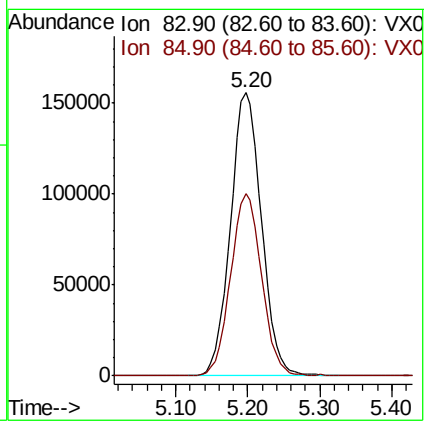




#30
Chloroform
Concen: 49.363 ug/l
RT: 5.20 min Scan# 707
Delta R.T. 0.00 min
Lab File: VX014259.D
Acq: 26 Dec 2019 10:46

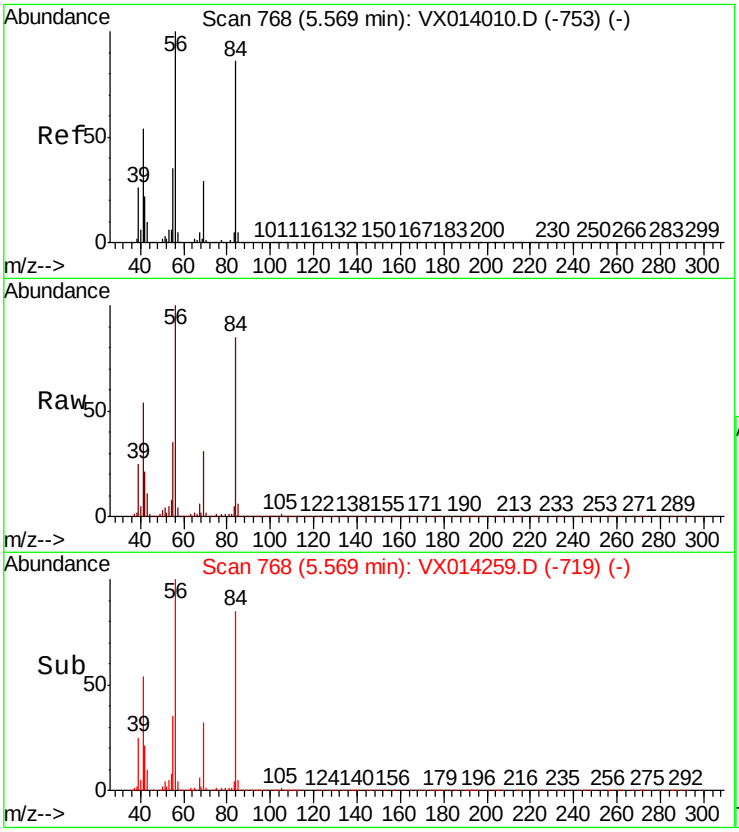
Tgt Ion: 83 Resp: 464958

Ion	Ratio	Lower	Upper
83	100		
85	64.6	50.8	76.2



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

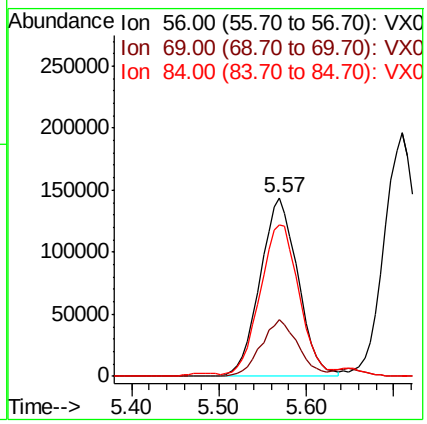
Manual Integrations APPROVED
apatel
12/27/2019 12:03:02 PM

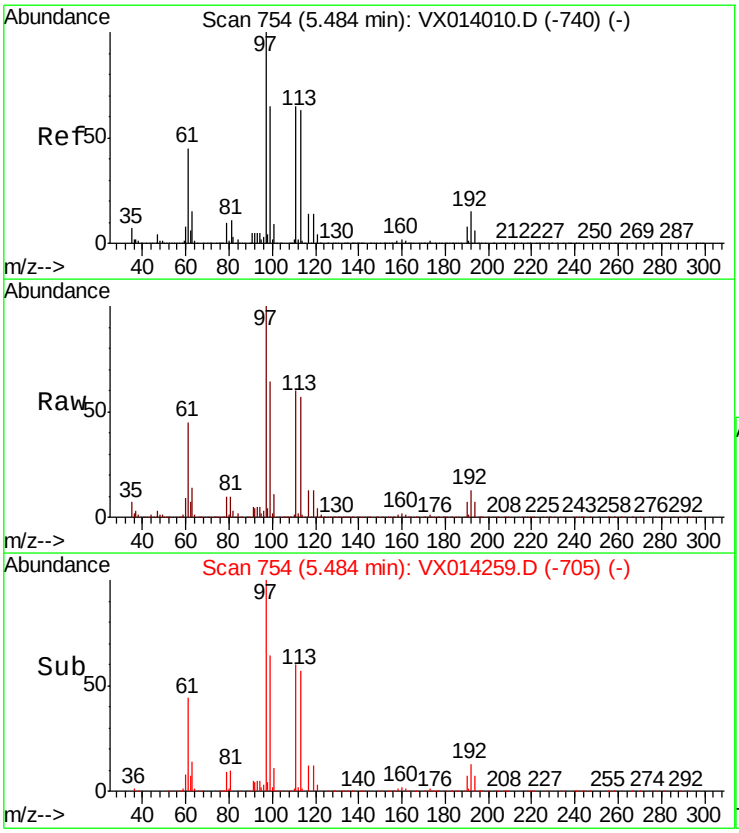


#31
Cyclohexane
Concen: 48.941 ug/l
RT: 5.57 min Scan# 768
Delta R.T. 0.00 min
Lab File: VX014259.D
Acq: 26 Dec 2019 10:46

Tgt Ion: 56 Resp: 432498

Ion	Ratio	Lower	Upper
56	100		
69	31.4	23.2	34.8
84	83.8	69.2	103.8

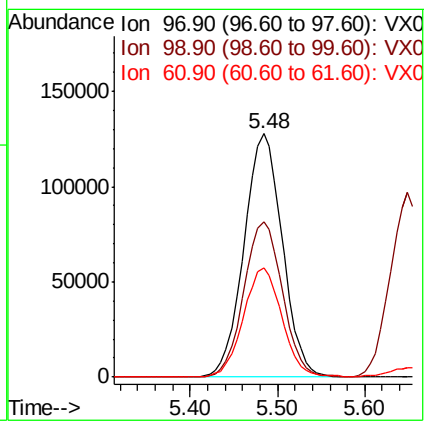




#32
1,1,1-Trichloroethane
Concen: 48.348 ug/l
RT: 5.48 min Scan# 754
Delta R.T. 0.00 min
Lab File: VX014259.D
Acq: 26 Dec 2019 10:46

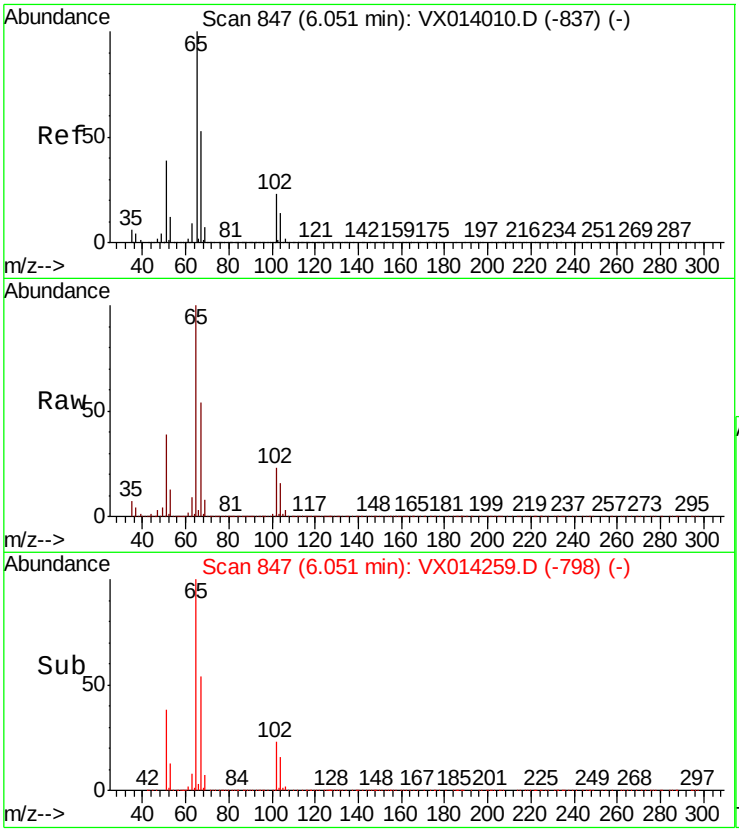
Tgt Ion: 97 Resp: 388124

Ion	Ratio	Lower	Upper
97	100		
99	64.6	52.0	78.0
61	45.0	36.7	55.1



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

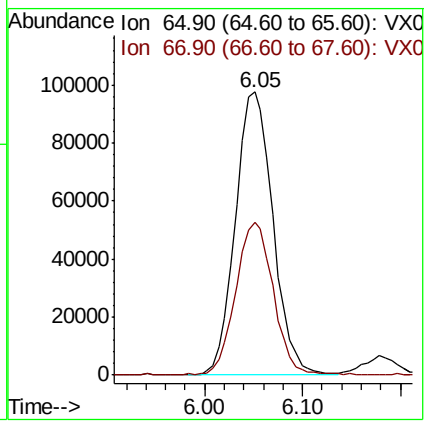
Manual Integrations APPROVED
apatel
12/27/2019 12:03:02 PM

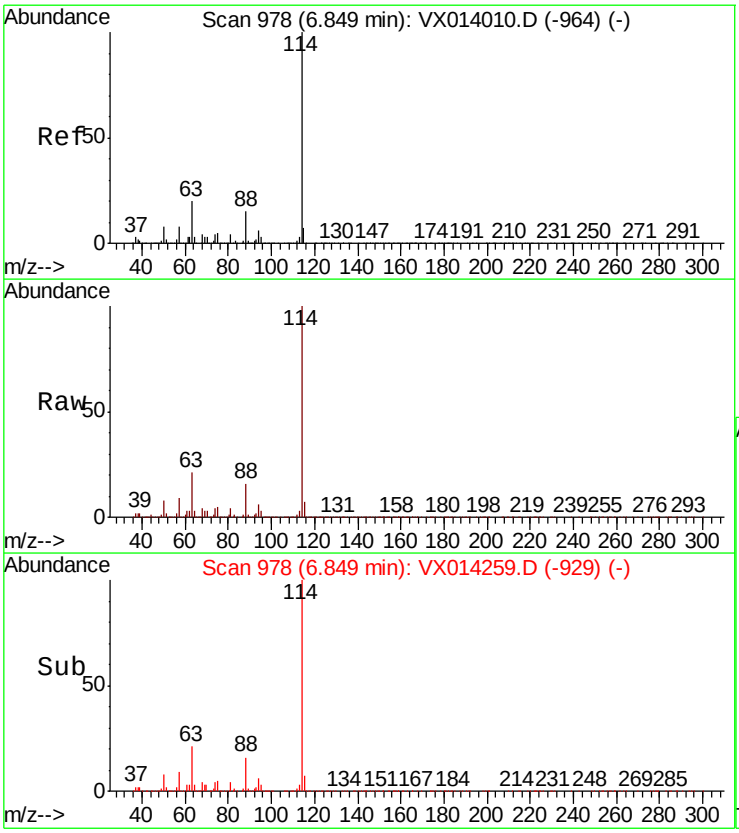


#33
1,2-Dichloroethane-d4
Concen: 43.809 ug/l
RT: 6.05 min Scan# 847
Delta R.T. 0.00 min
Lab File: VX014259.D
Acq: 26 Dec 2019 10:46

Tgt Ion: 65 Resp: 259082

Ion	Ratio	Lower	Upper
65	100		
67	53.9	0.0	106.4

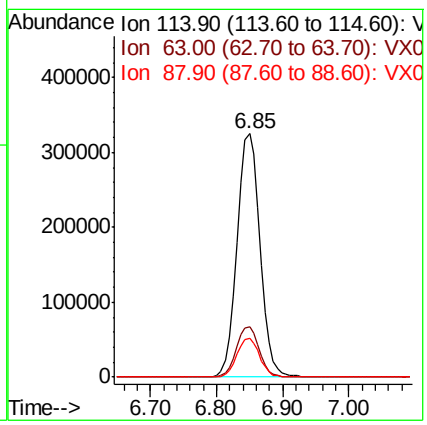




#34
1,4-Difluorobenzene
Concen: 50.000 ug/l
RT: 6.85 min Scan# 978
Delta R.T. 0.00 min
Lab File: VX014259.D
Acq: 26 Dec 2019 10:46

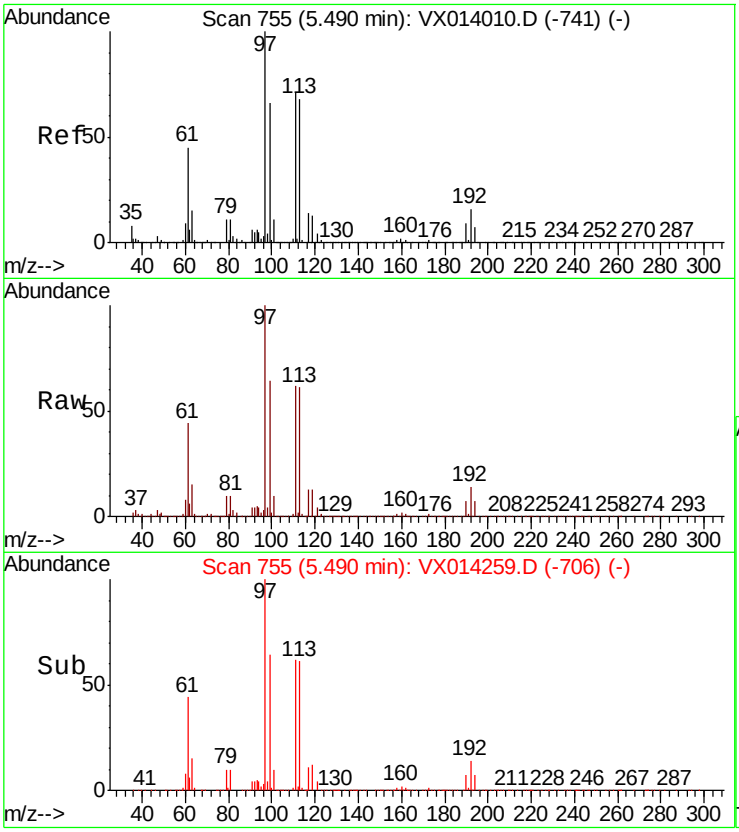
Tgt Ion:114 Resp: 782219

Ion	Ratio	Lower	Upper
114	100		
63	20.6	0.0	40.8
88	15.7	0.0	30.4



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

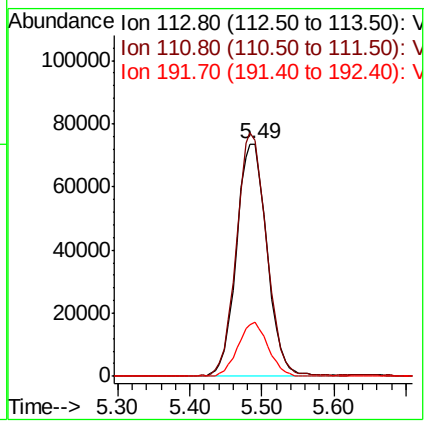
Manual Integrations APPROVED
apatel
12/27/2019 12:03:02 PM

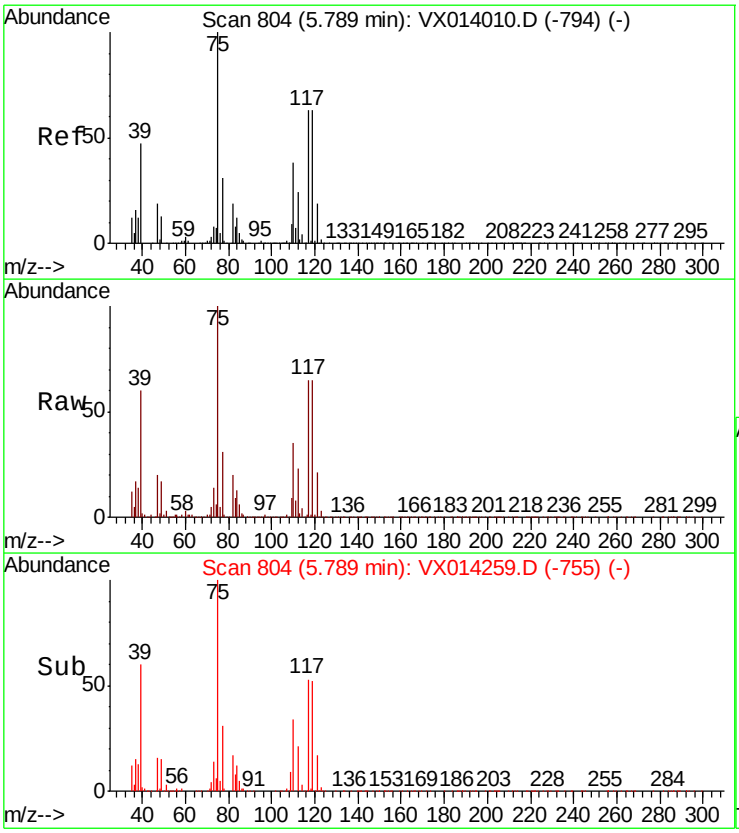


#35
Dibromofluoromethane
Concen: 45.537 ug/l
RT: 5.49 min Scan# 755
Delta R.T. 0.00 min
Lab File: VX014259.D
Acq: 26 Dec 2019 10:46

Tgt Ion:113 Resp: 216529

Ion	Ratio	Lower	Upper
113	100		
111	103.4	82.0	123.0
192	22.8	19.3	28.9

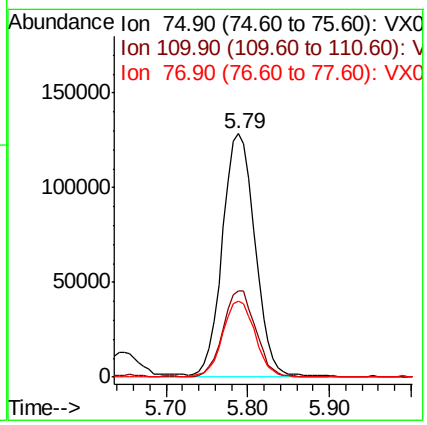




#36
1,1-Dichloropropene
Concen: 49.343 ug/l
RT: 5.79 min Scan# 804
Delta R.T. 0.00 min
Lab File: VX014259.D
Acq: 26 Dec 2019 10:46

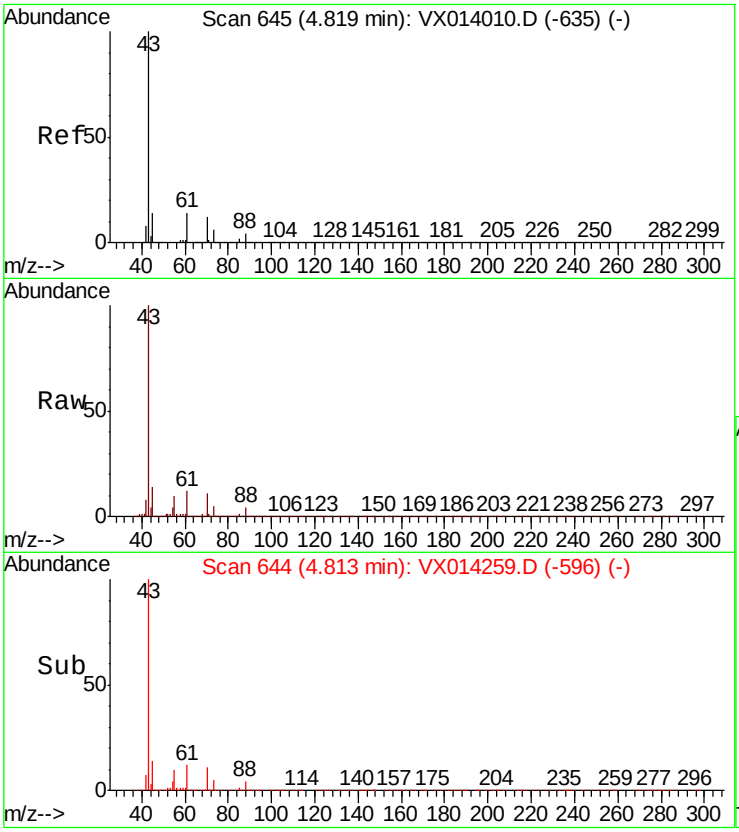
Tgt Ion: 75 Resp: 354153

Ion	Ratio	Lower	Upper
75	100		
110	35.8	18.3	54.9
77	30.8	24.8	37.2



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

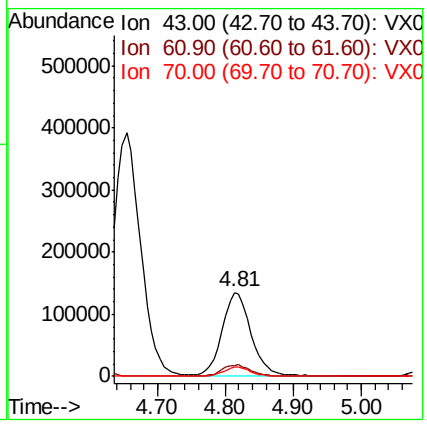
Manual Integrations APPROVED
apatel
12/27/2019 12:03:02 PM

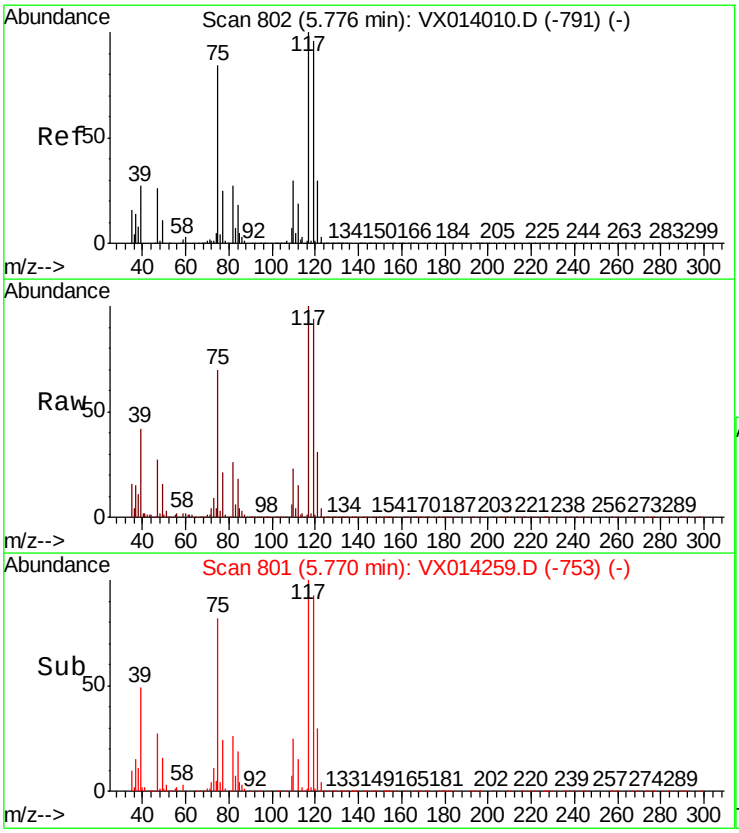


#37
Ethyl Acetate
Concen: 50.176 ug/l
RT: 4.81 min Scan# 644
Delta R.T. -0.01 min
Lab File: VX014259.D
Acq: 26 Dec 2019 10:46

Tgt Ion: 43 Resp: 397687

Ion	Ratio	Lower	Upper
43	100		
61	13.2	10.8	16.2
70	10.2	8.6	12.8

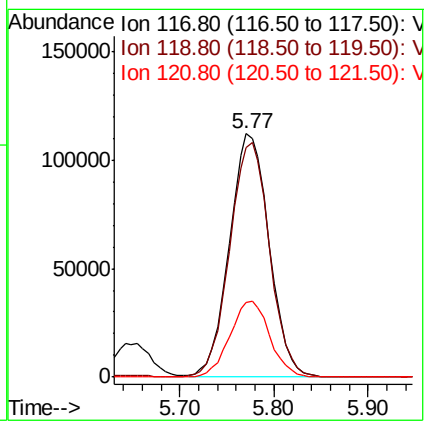




#38
Carbon Tetrachloride
Concen: 50.248 ug/l
RT: 5.77 min Scan# 801
Delta R.T. -0.01 min
Lab File: VX014259.D
Acq: 26 Dec 2019 10:46

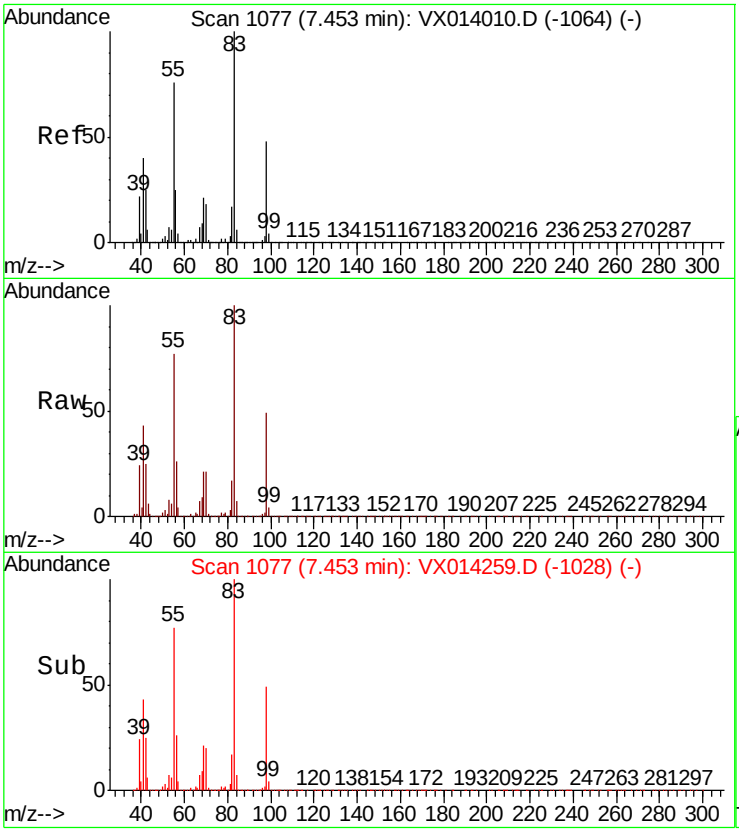
Tgt Ion:117 Resp: 328543

Ion	Ratio	Lower	Upper
117	100		
119	94.3	76.2	114.4
121	30.8	23.6	35.4



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

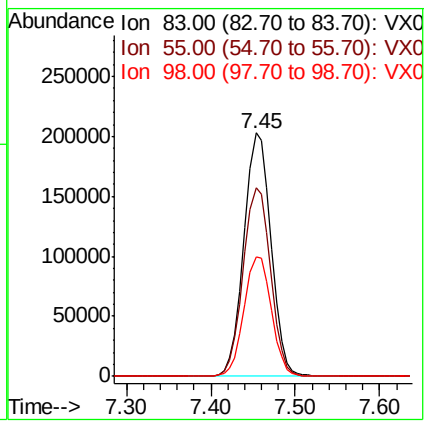
Manual Integrations APPROVED
apatel
12/27/2019 12:03:02 PM

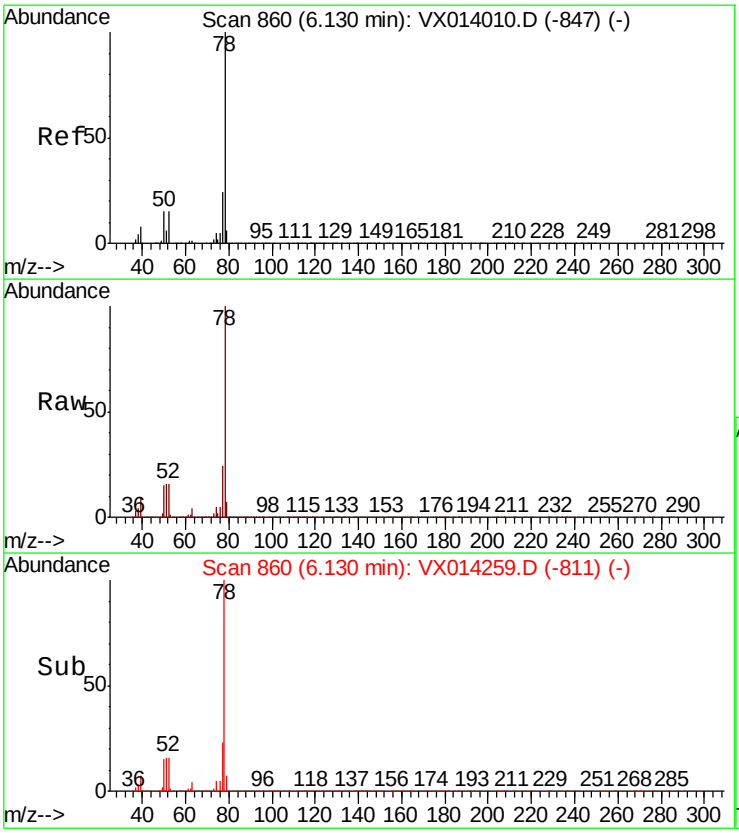


#39
Methylcyclohexane
Concen: 49.678 ug/l
RT: 7.45 min Scan# 1077
Delta R.T. 0.00 min
Lab File: VX014259.D
Acq: 26 Dec 2019 10:46

Tgt Ion: 83 Resp: 440255

Ion	Ratio	Lower	Upper
83	100		
55	77.3	61.0	91.6
98	49.0	38.6	57.8

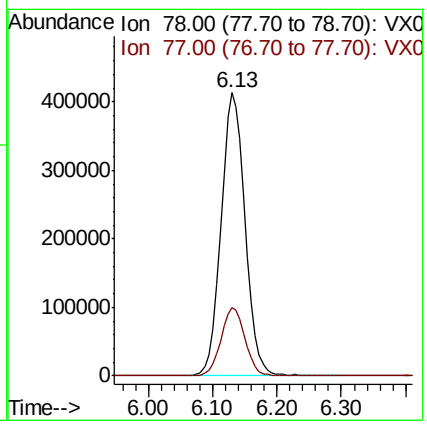




#40
Benzene
Concen: 49.062 ug/l
RT: 6.13 min Scan# 860
Delta R.T. 0.00 min
Lab File: VX014259.D
Acq: 26 Dec 2019 10:46

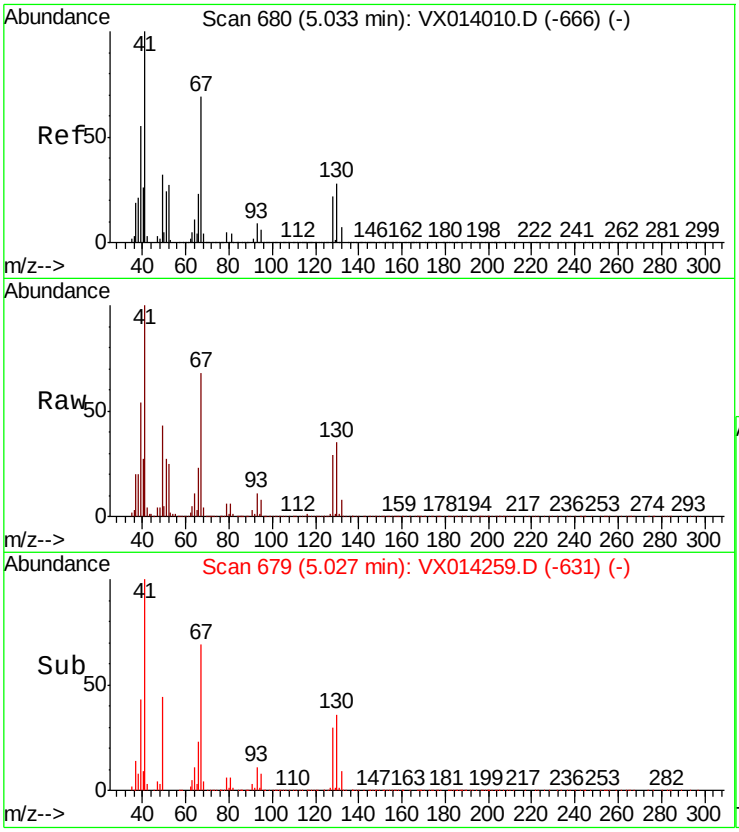
Tgt Ion: 78 Resp: 1083466

Ion	Ratio	Lower	Upper
78	100		
77	23.9	18.8	28.2



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

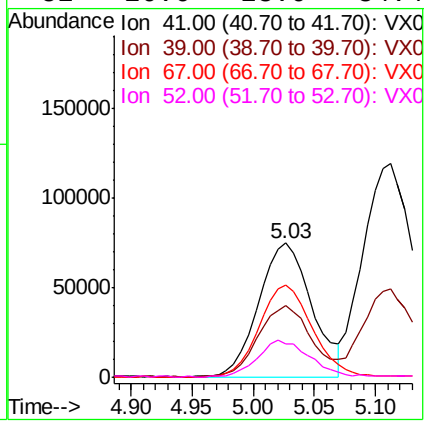
Manual Integrations APPROVED
apatel
12/27/2019 12:03:02 PM

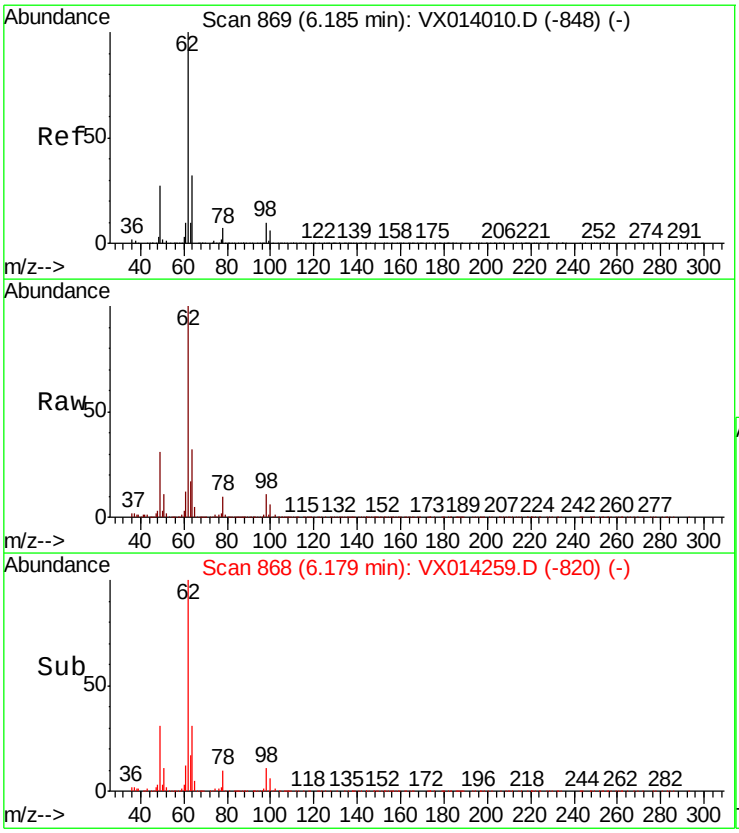


#41
Methacrylonitrile
Concen: 51.360 ug/l
RT: 5.03 min Scan# 679
Delta R.T. -0.01 min
Lab File: VX014259.D
Acq: 26 Dec 2019 10:46

Tgt Ion: 41 Resp: 225862

Ion	Ratio	Lower	Upper
41	100		
39	51.9	44.5	66.7
67	68.5	57.4	86.0
52	26.6	23.0	34.4

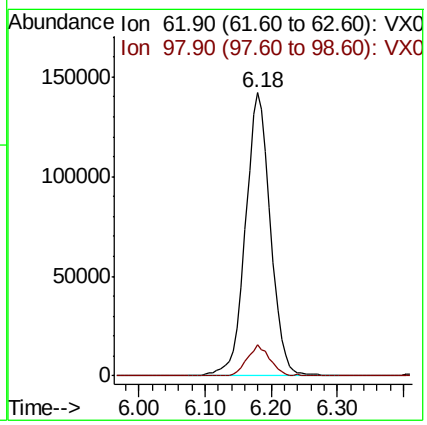




#42
1,2-Dichloroethane
Concen: 49.676 ug/l
RT: 6.18 min Scan# 868
Delta R.T. -0.01 min
Lab File: VX014259.D
Acq: 26 Dec 2019 10:46

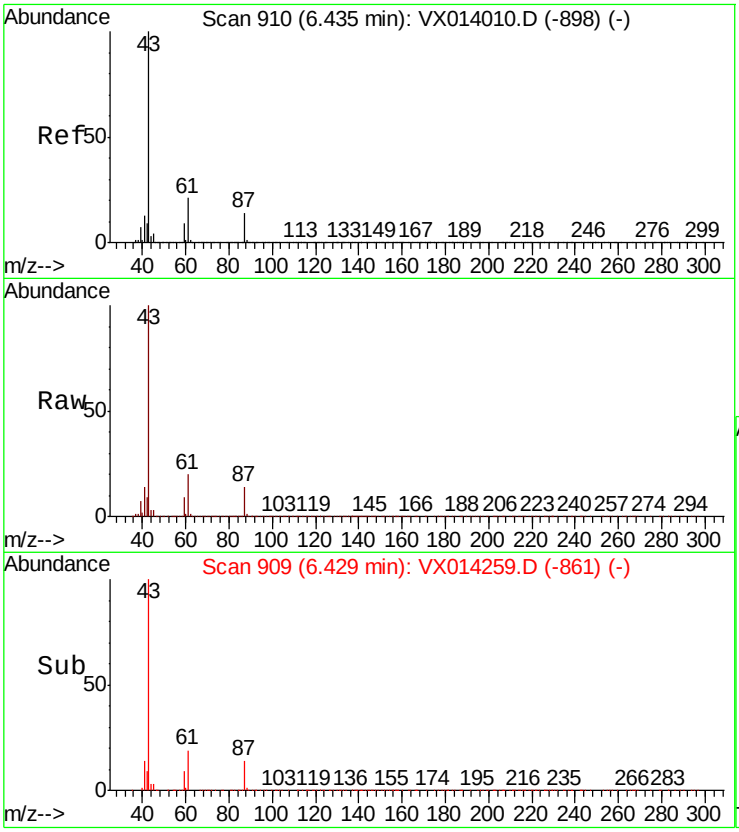
Tgt Ion: 62 Resp: 371865

Ion	Ratio	Lower	Upper
62	100		
98	10.2	0.0	21.0



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

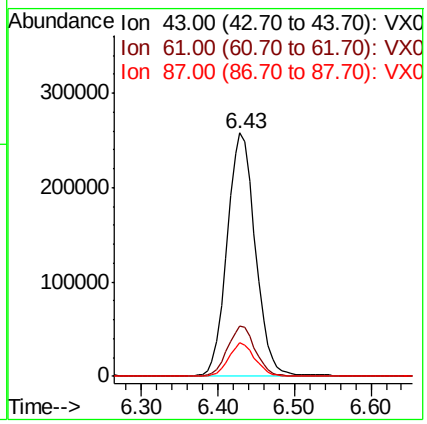
Manual Integrations APPROVED
apatel
12/27/2019 12:03:02 PM

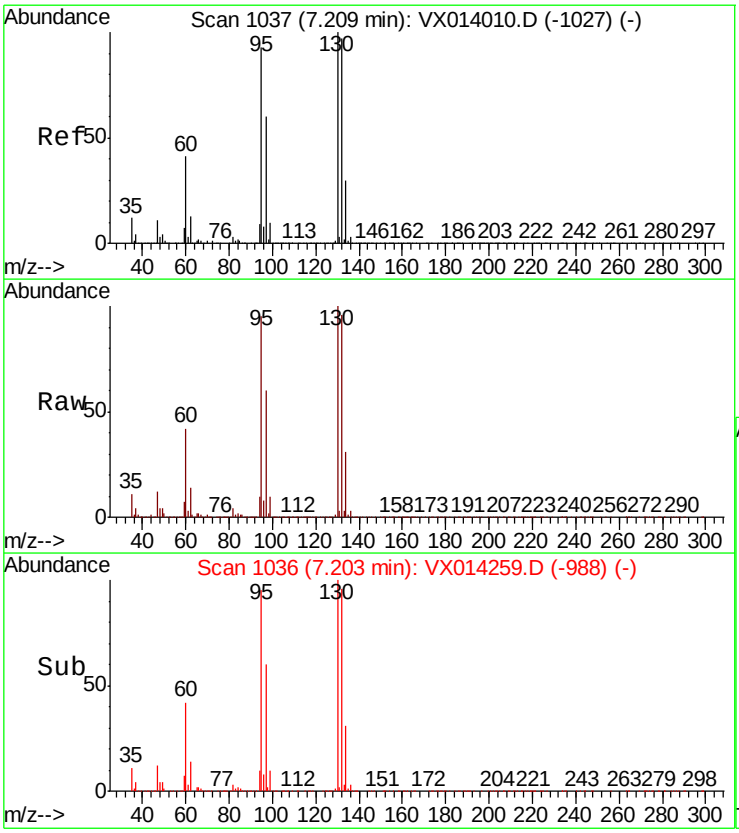


#43
Isopropyl Acetate
Concen: 49.975 ug/l
RT: 6.43 min Scan# 909
Delta R.T. -0.01 min
Lab File: VX014259.D
Acq: 26 Dec 2019 10:46

Tgt Ion: 43 Resp: 655502

Ion	Ratio	Lower	Upper
43	100		
61	20.1	16.4	24.6
87	13.0	10.7	16.1

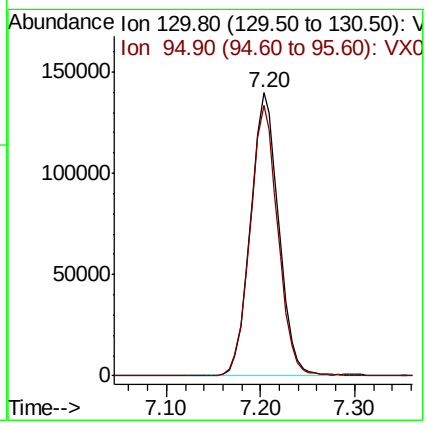




#44
Trichloroethene
Concen: 48.112 ug/l
RT: 7.20 min Scan# 1036
Delta R.T. -0.01 min
Lab File: VX014259.D
Acq: 26 Dec 2019 10:46

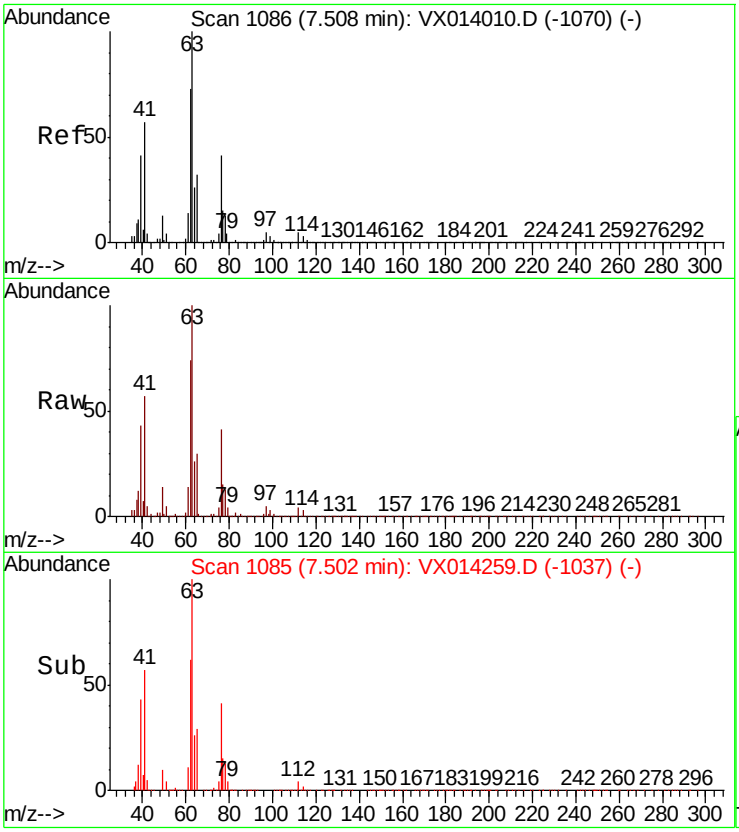
Tgt Ion:130 Resp: 293470

Ion	Ratio	Lower	Upper
130	100		
95	95.3	0.0	185.6



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

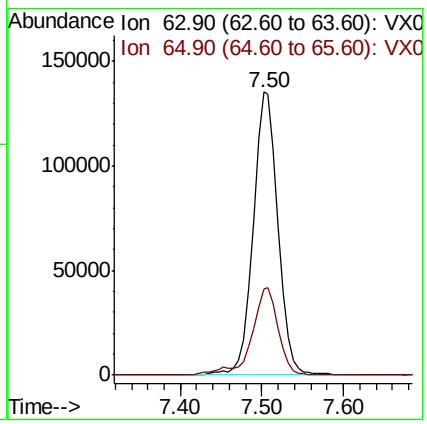
Manual Integrations APPROVED
apatel
12/27/2019 12:03:02 PM

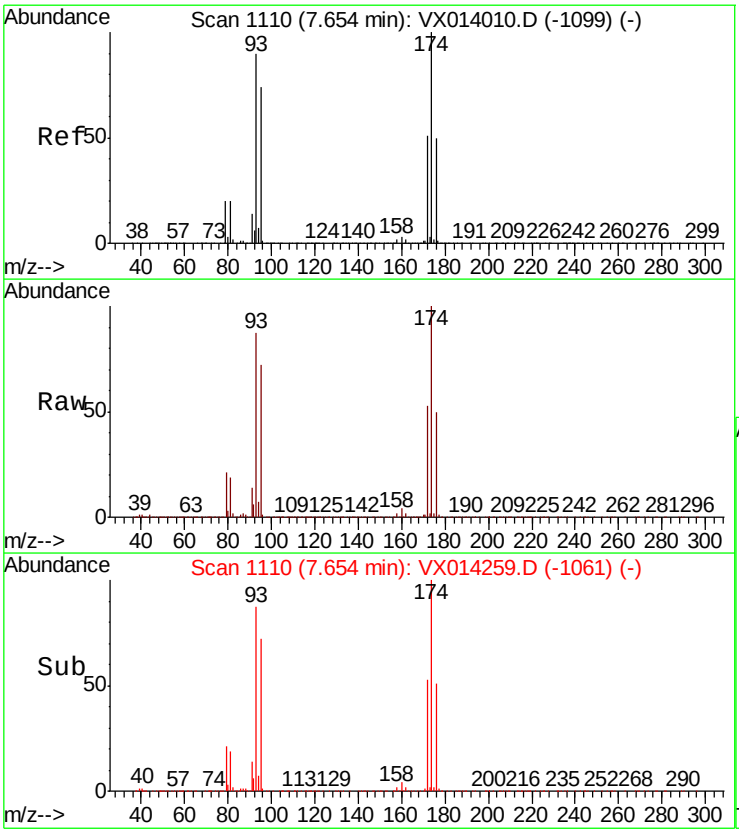


#45
1,2-Dichloropropane
Concen: 50.472 ug/l
RT: 7.50 min Scan# 1085
Delta R.T. -0.01 min
Lab File: VX014259.D
Acq: 26 Dec 2019 10:46

Tgt Ion: 63 Resp: 285686

Ion	Ratio	Lower	Upper
63	100		
65	30.2	25.8	38.8

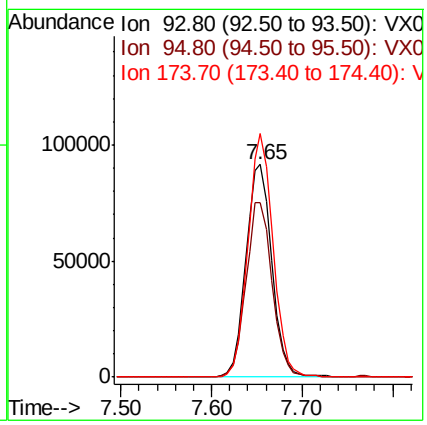




#46
Dibromomethane
Concen: 48.059 ug/l
RT: 7.65 min Scan# 1110
Delta R.T. 0.00 min
Lab File: VX014259.D
Acq: 26 Dec 2019 10:46

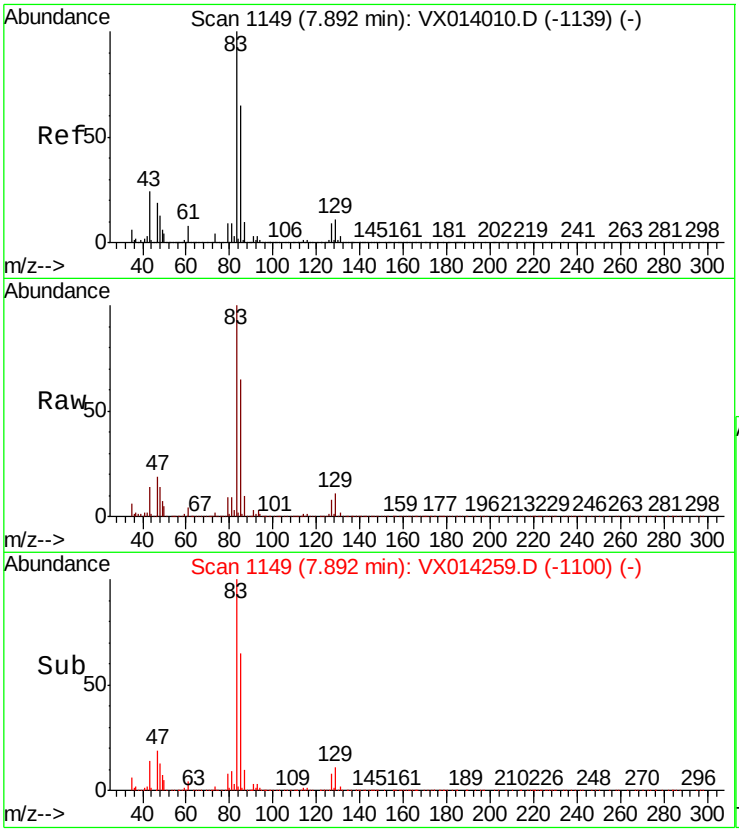
Tgt Ion: 93 Resp: 179851

Ion	Ratio	Lower	Upper
93	100		
95	83.9	67.3	100.9
174	112.1	91.6	137.4



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

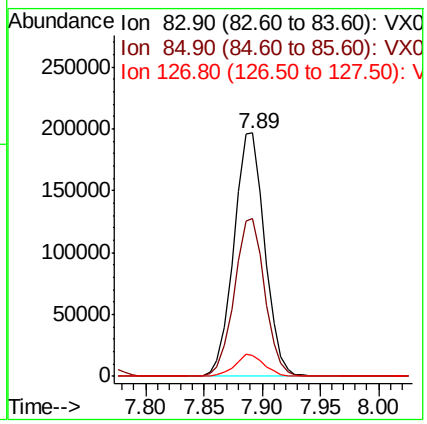
Manual Integrations APPROVED
apatel
12/27/2019 12:03:02 PM

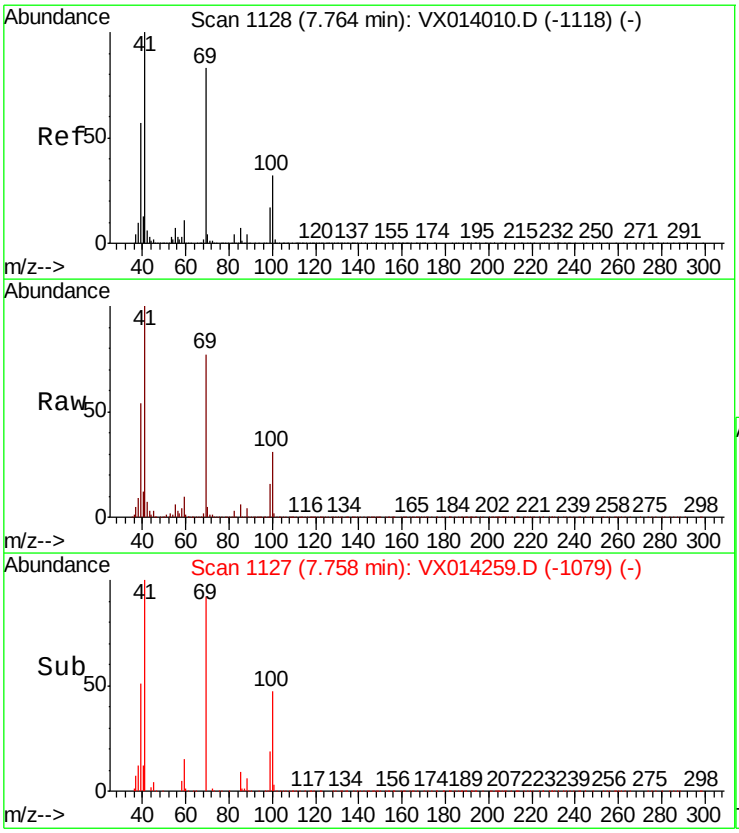


#47
Bromodichloromethane
Concen: 51.599 ug/l
RT: 7.89 min Scan# 1149
Delta R.T. 0.00 min
Lab File: VX014259.D
Acq: 26 Dec 2019 10:46

Tgt Ion: 83 Resp: 363672

Ion	Ratio	Lower	Upper
83	100		
85	64.6	51.8	77.8
127	8.3	7.0	10.4

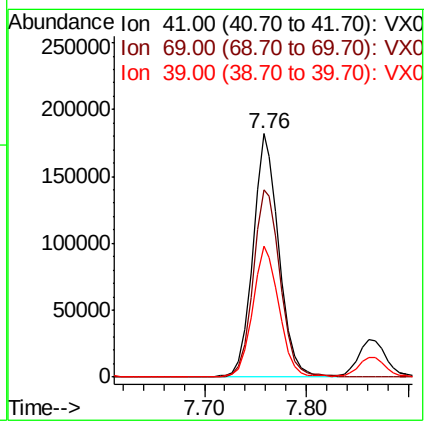




#48
Methyl methacrylate
Concen: 50.461 ug/l
RT: 7.76 min Scan# 1127
Delta R.T. -0.01 min
Lab File: VX014259.D
Acq: 26 Dec 2019 10:46

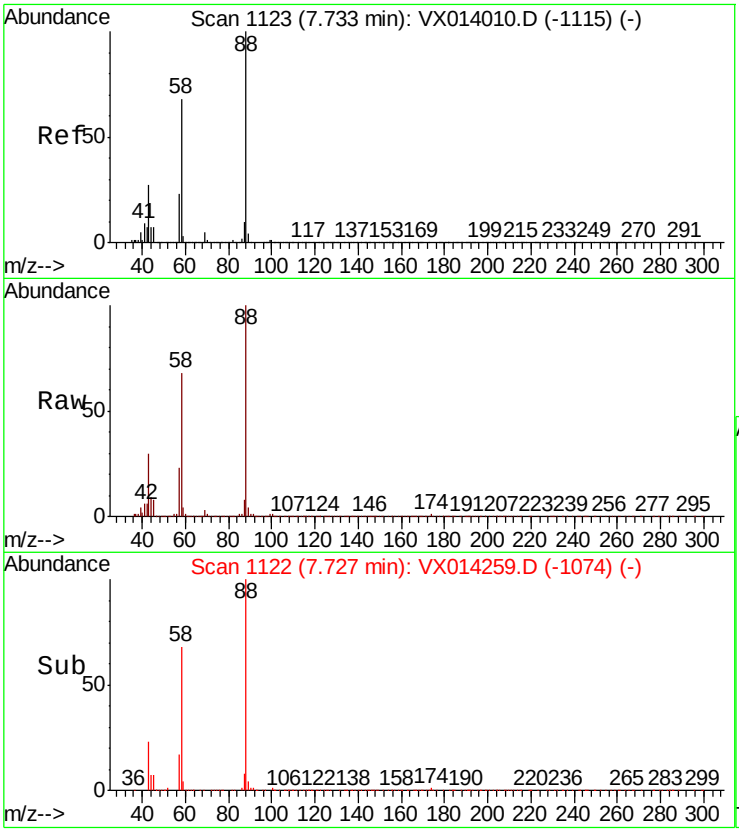
Tgt Ion: 41 Resp: 324109

Ion	Ratio	Lower	Upper
41	100		
69	80.3	65.8	98.6
39	53.6	44.6	67.0



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

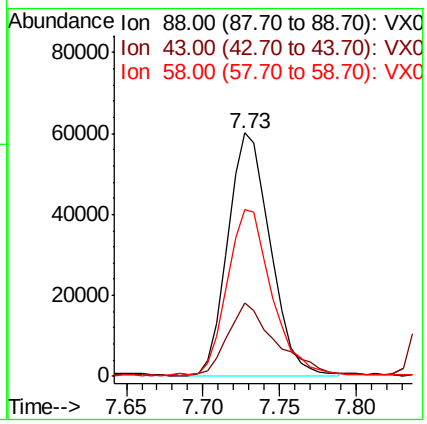
Manual Integrations APPROVED
apatel
12/27/2019 12:03:02 PM

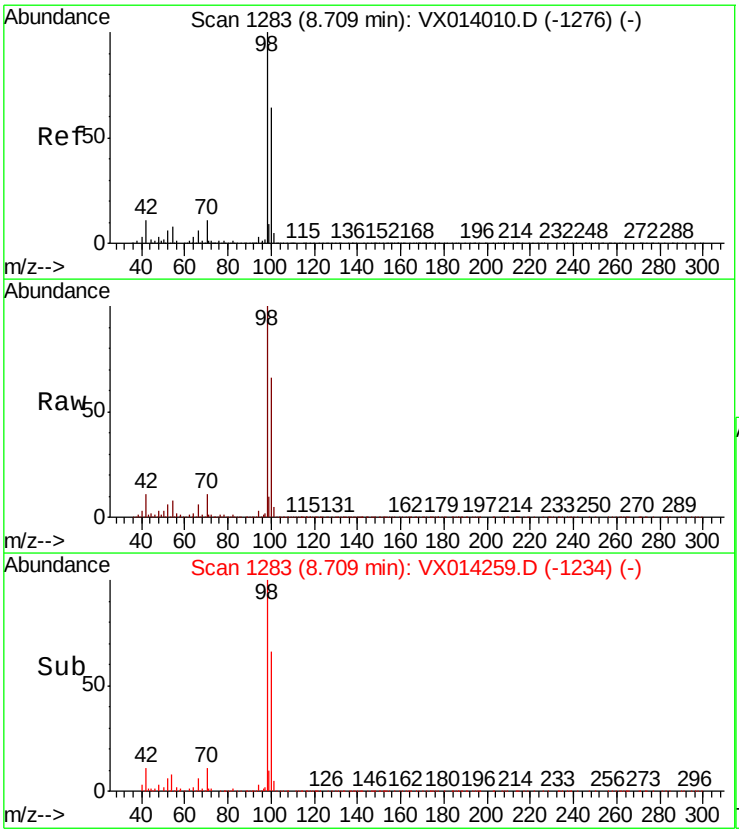


#49
1,4-Dioxane
Concen: 881.867 ug/l
RT: 7.73 min Scan# 1122
Delta R.T. -0.01 min
Lab File: VX014259.D
Acq: 26 Dec 2019 10:46

Tgt Ion: 88 Resp: 115267

Ion	Ratio	Lower	Upper
88	100		
43	36.0	26.5	39.7
58	71.6	56.8	85.2

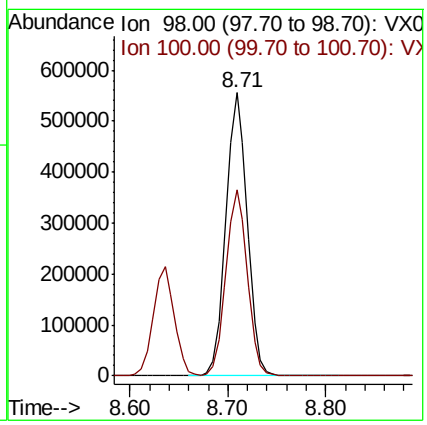




#50
Toluene-d8
Concen: 45.406 ug/l
RT: 8.71 min Scan# 1283
Delta R.T. 0.00 min
Lab File: VX014259.D
Acq: 26 Dec 2019 10:46

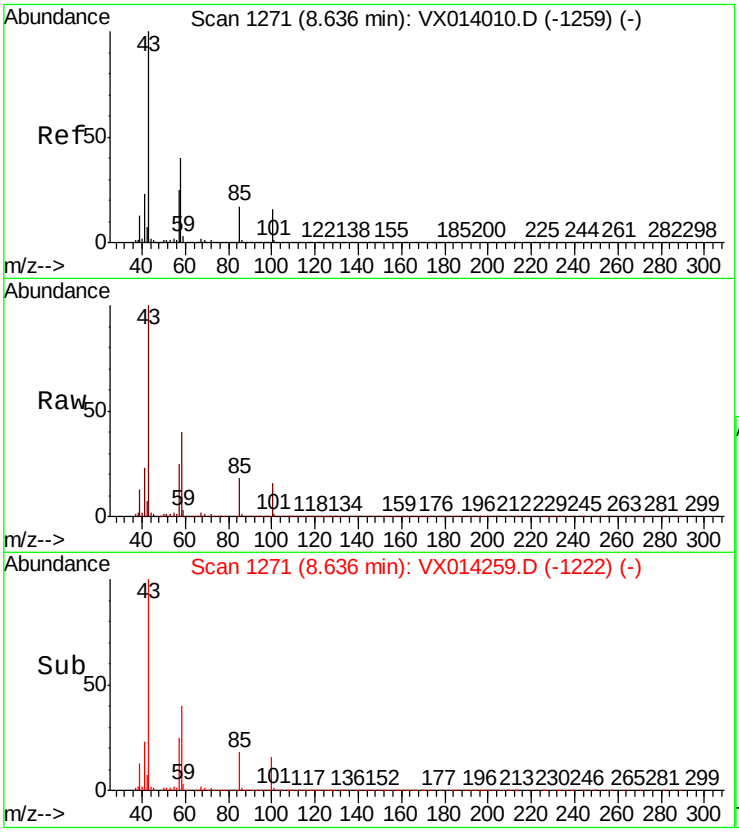
Tgt Ion: 98 Resp: 840577

Ion	Ratio	Lower	Upper
98	100		
100	66.0	52.9	79.3



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

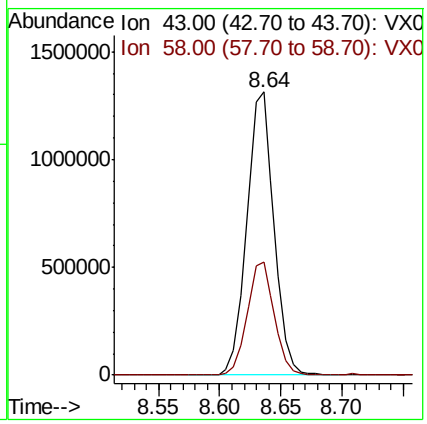
Manual Integrations APPROVED
apatel
12/27/2019 12:03:02 PM

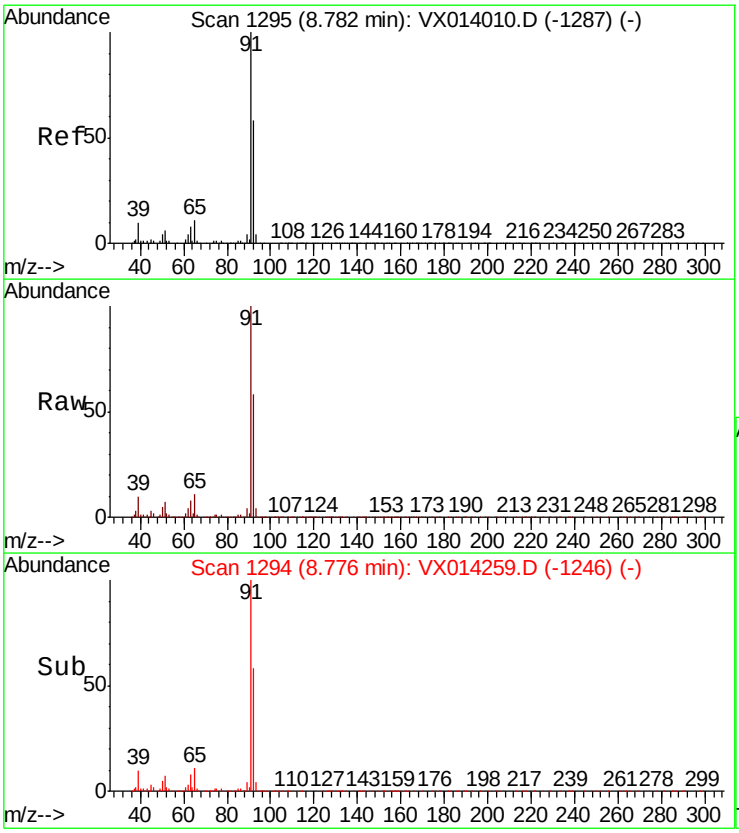


#51
4-Methyl-2-Pentanone
Concen: 246.356 ug/l
RT: 8.64 min Scan# 1271
Delta R.T. 0.00 min
Lab File: VX014259.D
Acq: 26 Dec 2019 10:46

Tgt Ion: 43 Resp: 2029374

Ion	Ratio	Lower	Upper
43	100		
58	39.8	32.2	48.2

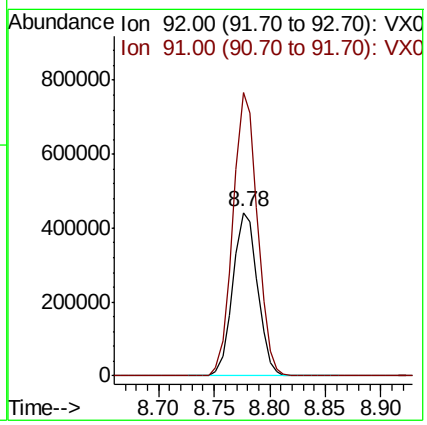




#52
Toluene
Concen: 48.848 ug/l
RT: 8.78 min Scan# 1294
Delta R.T. -0.01 min
Lab File: VX014259.D
Acq: 26 Dec 2019 10:46

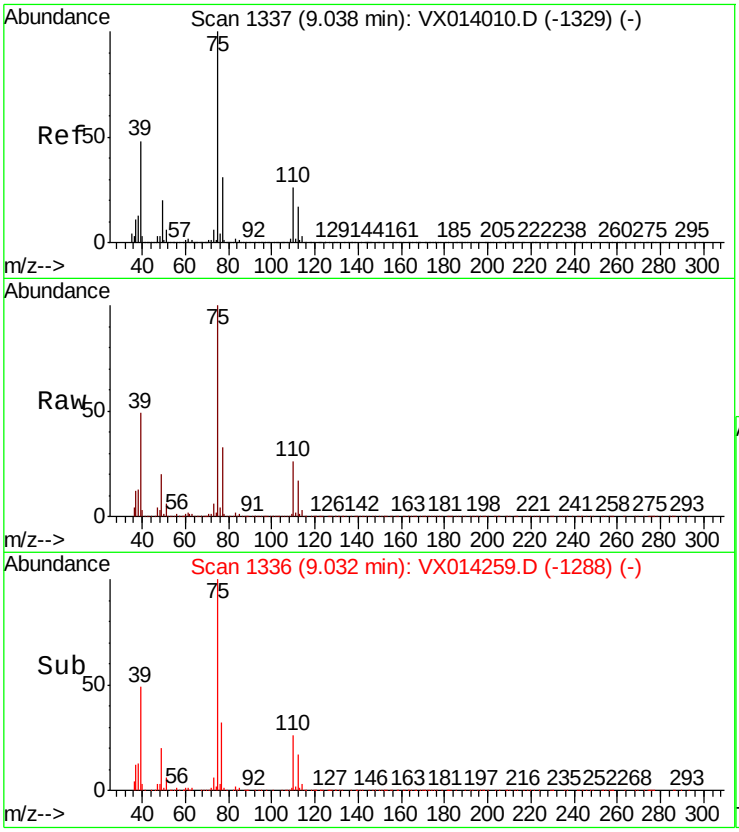
Tgt Ion: 92 Resp: 681847

Ion	Ratio	Lower	Upper
92	100		
91	171.2	136.2	204.4



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

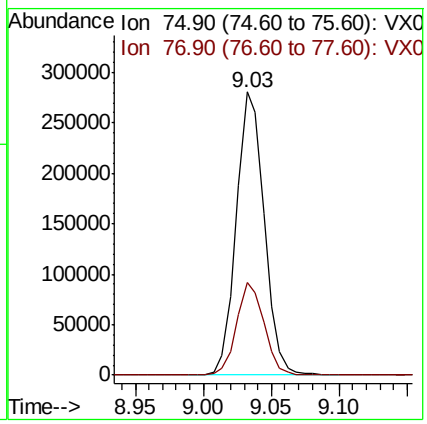
Manual Integrations APPROVED
apatel
12/27/2019 12:03:02 PM

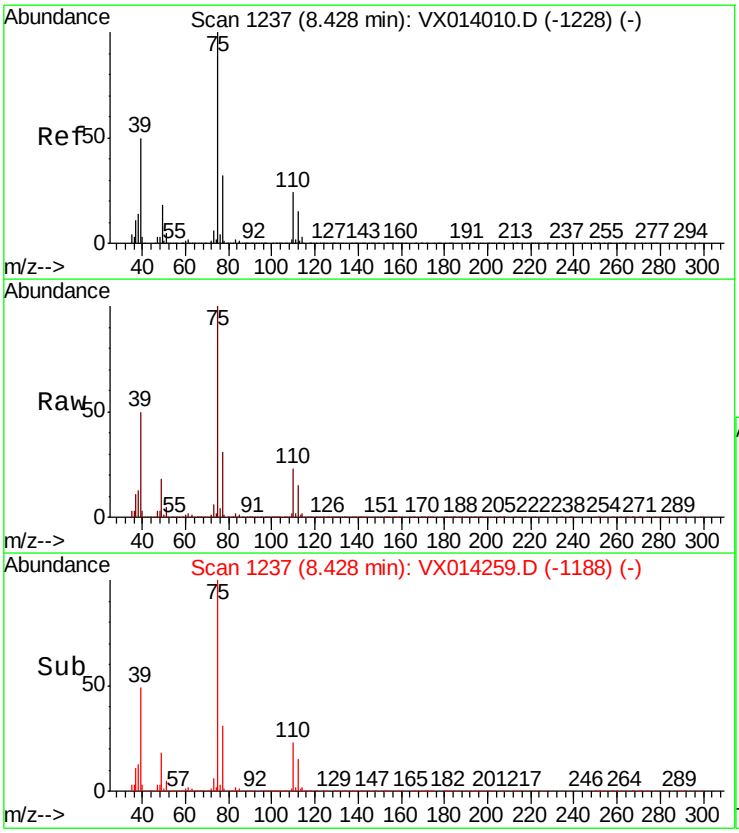


#53
t-1,3-Dichloropropene
Concen: 51.764 ug/l
RT: 9.03 min Scan# 1336
Delta R.T. -0.01 min
Lab File: VX014259.D
Acq: 26 Dec 2019 10:46

Tgt Ion: 75 Resp: 400041

Ion	Ratio	Lower	Upper
75	100		
77	32.5	25.1	37.7

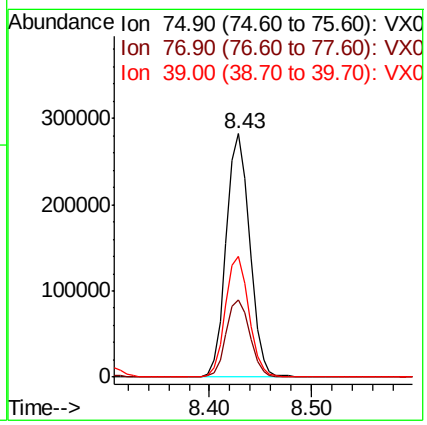




#54
cis-1,3-Dichloropropene
Concen: 52.417 ug/l
RT: 8.43 min Scan# 1237
Delta R.T. 0.00 min
Lab File: VX014259.D
Acq: 26 Dec 2019 10:46

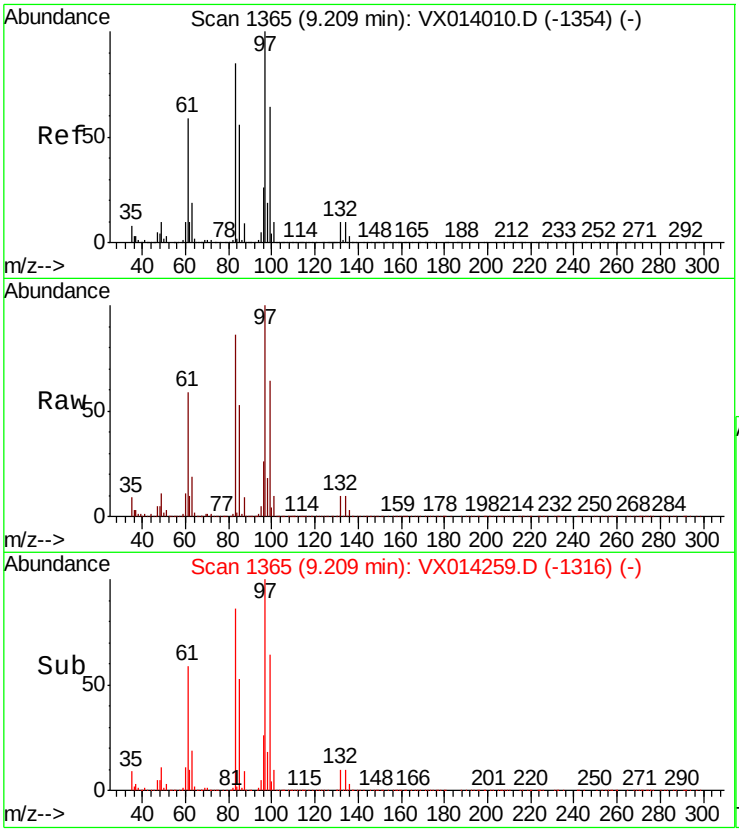
Tgt Ion: 75 Resp: 451295

Ion	Ratio	Lower	Upper
75	100		
77	31.4	25.3	37.9
39	49.4	39.9	59.9



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

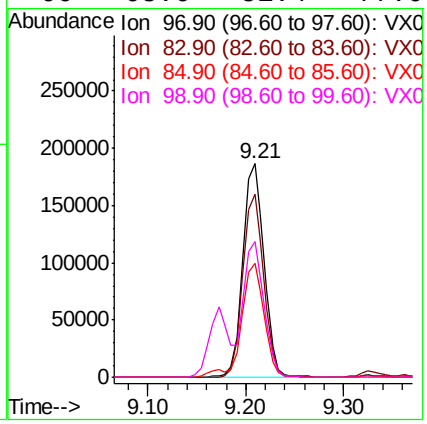
Manual Integrations APPROVED
apatel
12/27/2019 12:03:02 PM

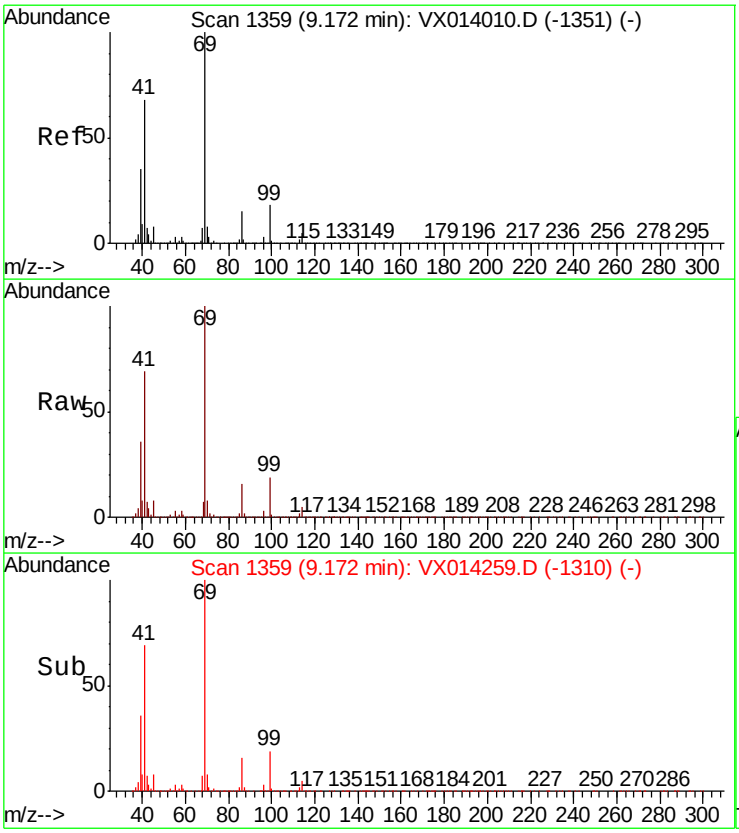


#55
1,1,2-Trichloroethane
Concen: 49.937 ug/l
RT: 9.21 min Scan# 1365
Delta R.T. 0.00 min
Lab File: VX014259.D
Acq: 26 Dec 2019 10:46

Tgt Ion: 97 Resp: 279367

Ion	Ratio	Lower	Upper
97	100		
83	85.8	68.2	102.4
85	53.1	44.6	66.8
99	63.6	51.4	77.0

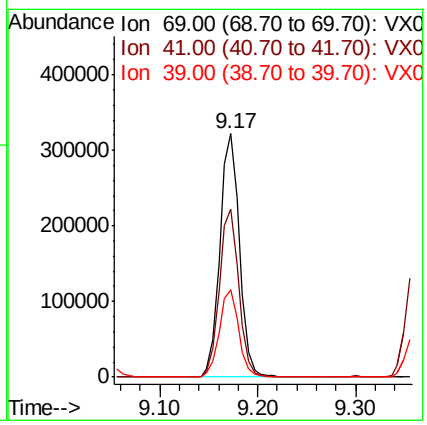




#56
Ethyl methacrylate
Concen: 50.704 ug/l
RT: 9.17 min Scan# 1359
Delta R.T. 0.00 min
Lab File: VX014259.D
Acq: 26 Dec 2019 10:46

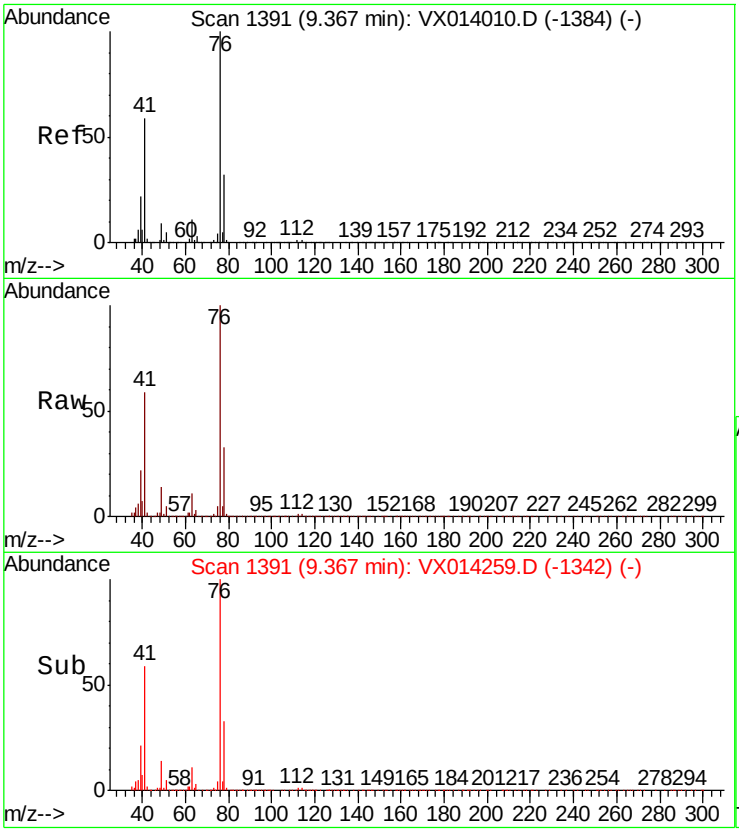
Tgt Ion: 69 Resp: 445582

Ion	Ratio	Lower	Upper
69	100		
41	68.3	54.8	82.2
39	35.6	28.3	42.5



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

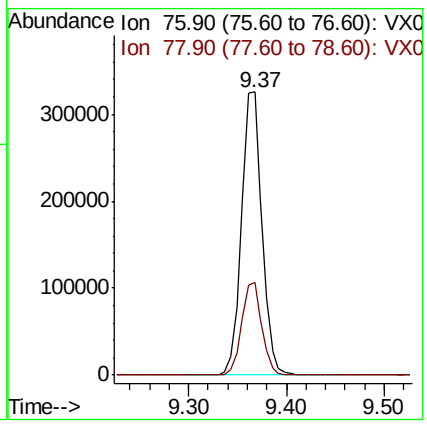
Manual Integrations APPROVED
apatel
12/27/2019 12:03:02 PM

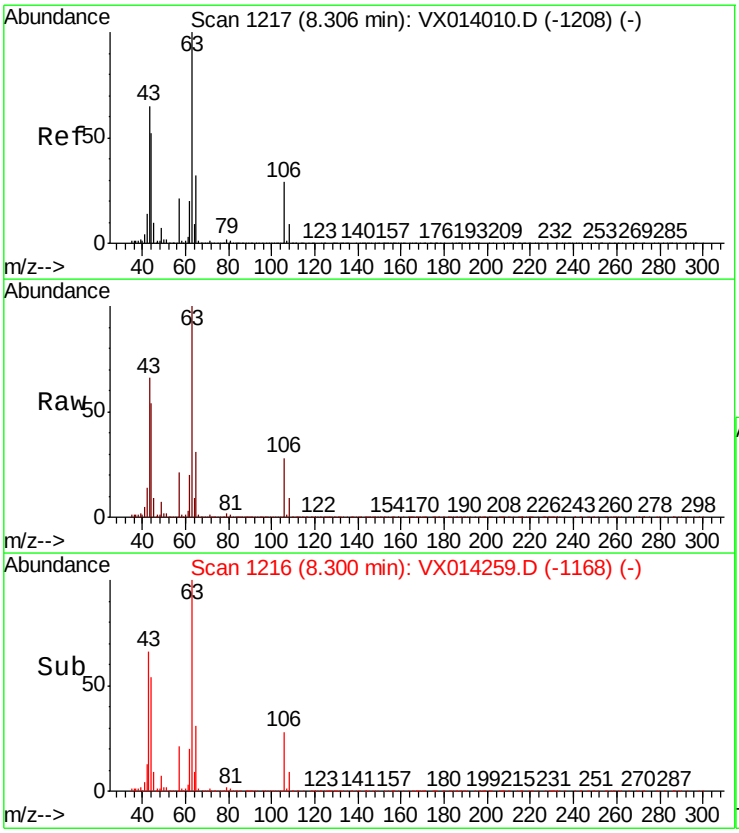


#57
1,3-Dichloropropane
Concen: 50.071 ug/l
RT: 9.37 min Scan# 1391
Delta R.T. 0.00 min
Lab File: VX014259.D
Acq: 26 Dec 2019 10:46

Tgt Ion: 76 Resp: 471296

Ion	Ratio	Lower	Upper
76	100		
78	32.3	25.8	38.6

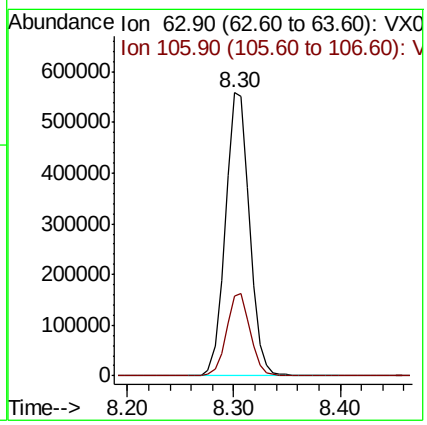




#58
2-Chloroethyl Vinyl ether
Concen: 265.501 ug/l
RT: 8.30 min Scan# 1216
Delta R.T. -0.01 min
Lab File: VX014259.D
Acq: 26 Dec 2019 10:46

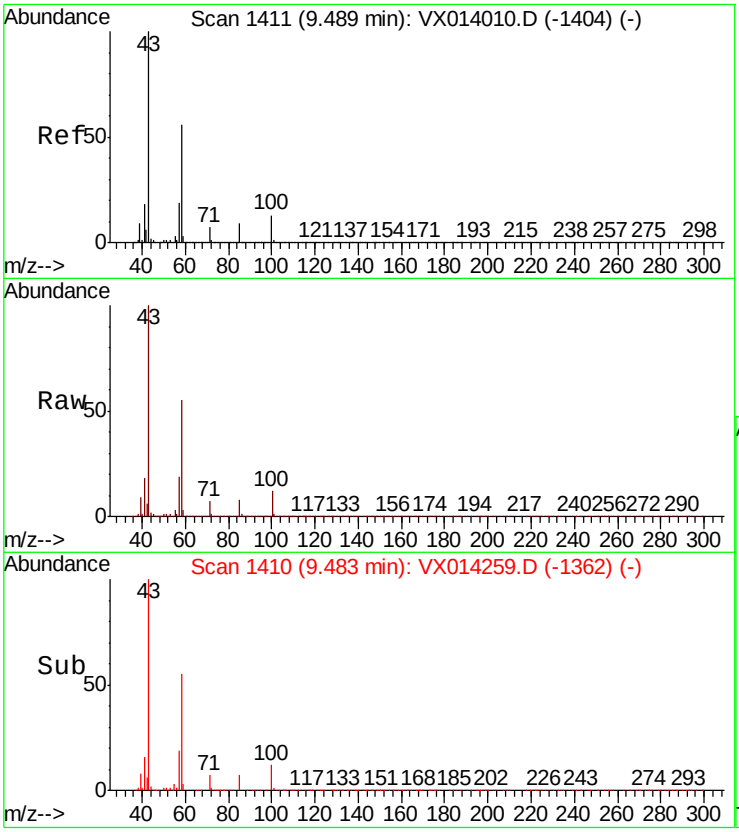
Tgt Ion: 63 Resp: 882962

Ion	Ratio	Lower	Upper
63	100		
106	28.6	23.0	34.6



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

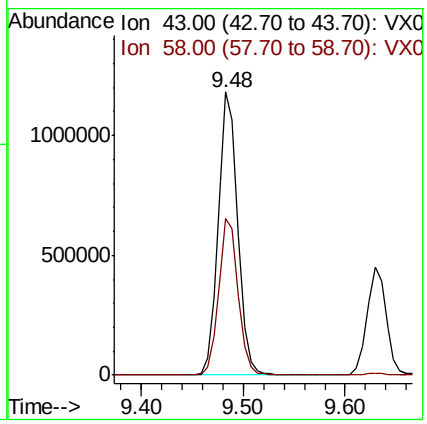
Manual Integrations APPROVED
apatel
12/27/2019 12:03:02 PM

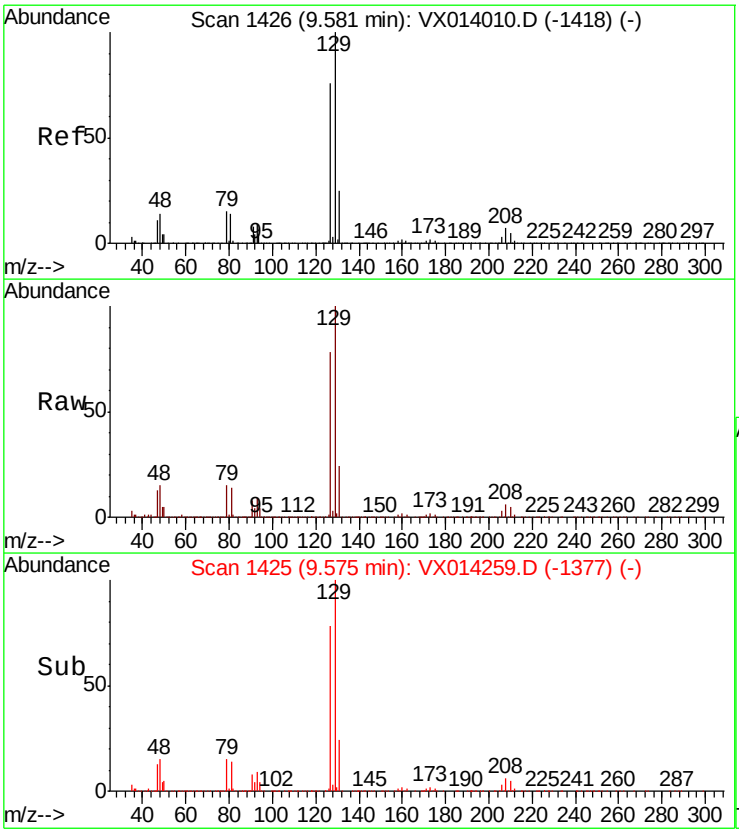


#59
2-Hexanone
Concen: 239.748 ug/l
RT: 9.48 min Scan# 1410
Delta R.T. -0.01 min
Lab File: VX014259.D
Acq: 26 Dec 2019 10:46

Tgt Ion: 43 Resp: 1589832

Ion	Ratio	Lower	Upper
43	100		
58	55.3	28.0	84.0

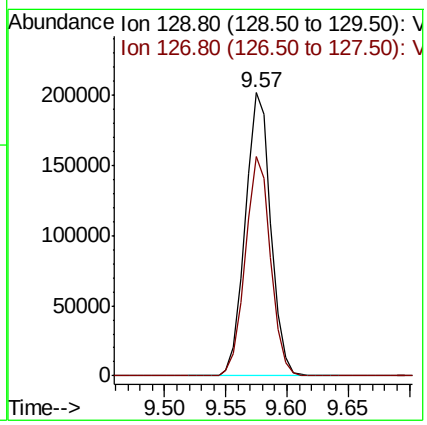




#60
Dibromochloromethane
Concen: 52.437 ug/l
RT: 9.57 min Scan# 1425
Delta R.T. -0.01 min
Lab File: VX014259.D
Acq: 26 Dec 2019 10:46

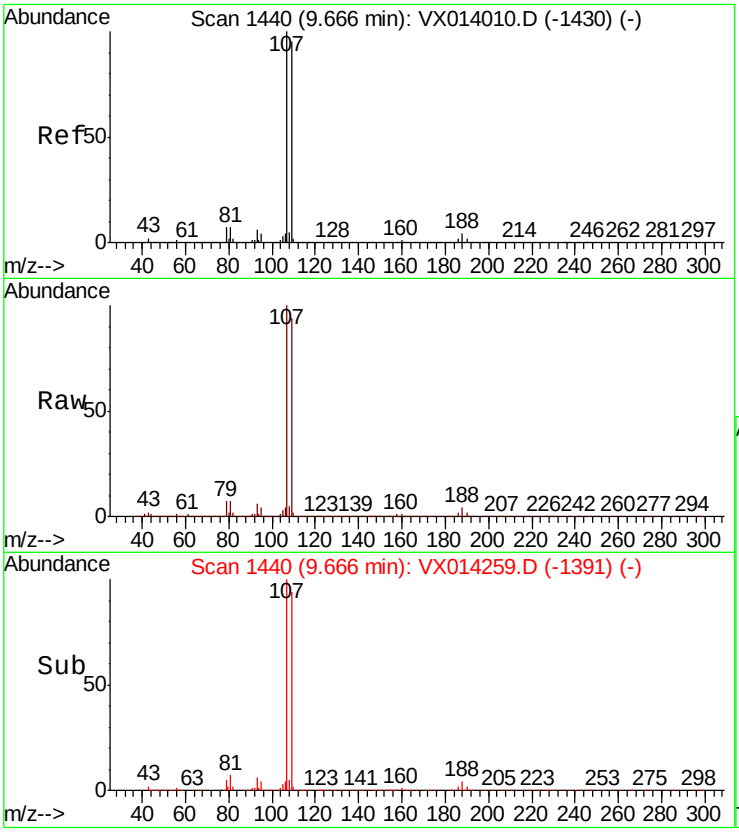
Tgt Ion:129 Resp: 291594

Ion	Ratio	Lower	Upper
129	100		
127	76.9	38.4	115.2



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

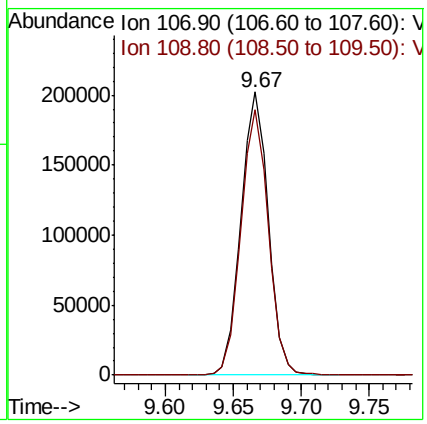
Manual Integrations APPROVED
apatel
12/27/2019 12:03:02 PM

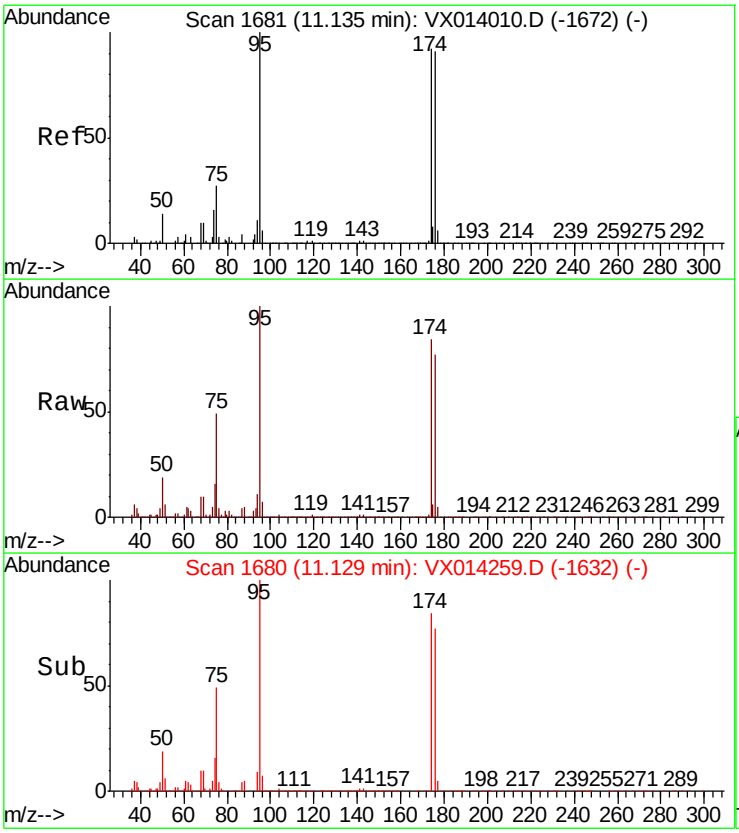


#61
1,2-Dibromoethane
Concen: 49.510 ug/l
RT: 9.67 min Scan# 1440
Delta R.T. 0.00 min
Lab File: VX014259.D
Acq: 26 Dec 2019 10:46

Tgt Ion:107 Resp: 283394

Ion	Ratio	Lower	Upper
107	100		
109	94.2	75.7	113.5

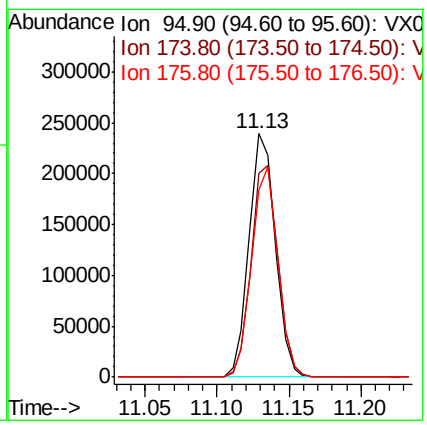




#62
4-Bromofluorobenzene
Concen: 44.468 ug/l
RT: 11.13 min Scan# 1680
Delta R.T. -0.01 min
Lab File: VX014259.D
Acq: 26 Dec 2019 10:46

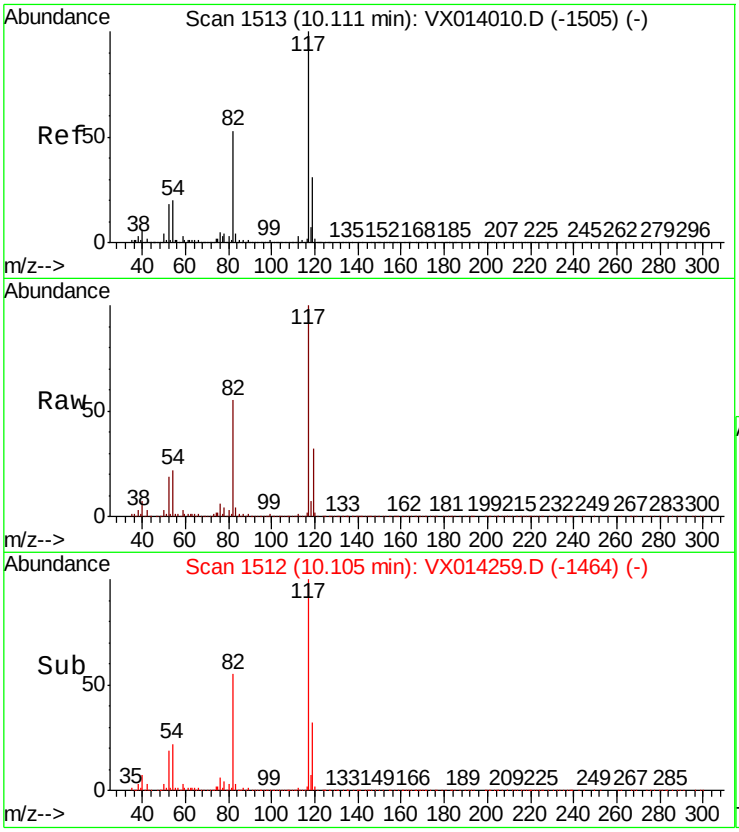
Tgt Ion: 95 Resp: 300923

Ion	Ratio	Lower	Upper
95	100		
174	88.6	0.0	175.8
176	86.0	0.0	173.0



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

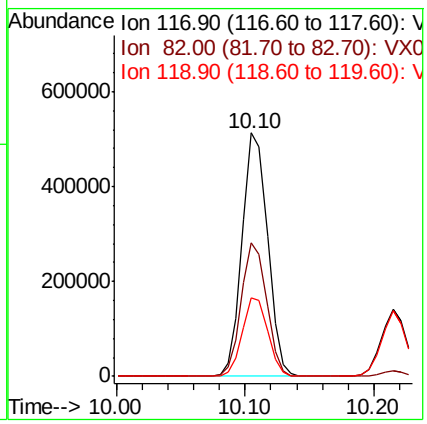
Manual Integrations APPROVED
apatel
12/27/2019 12:03:02 PM

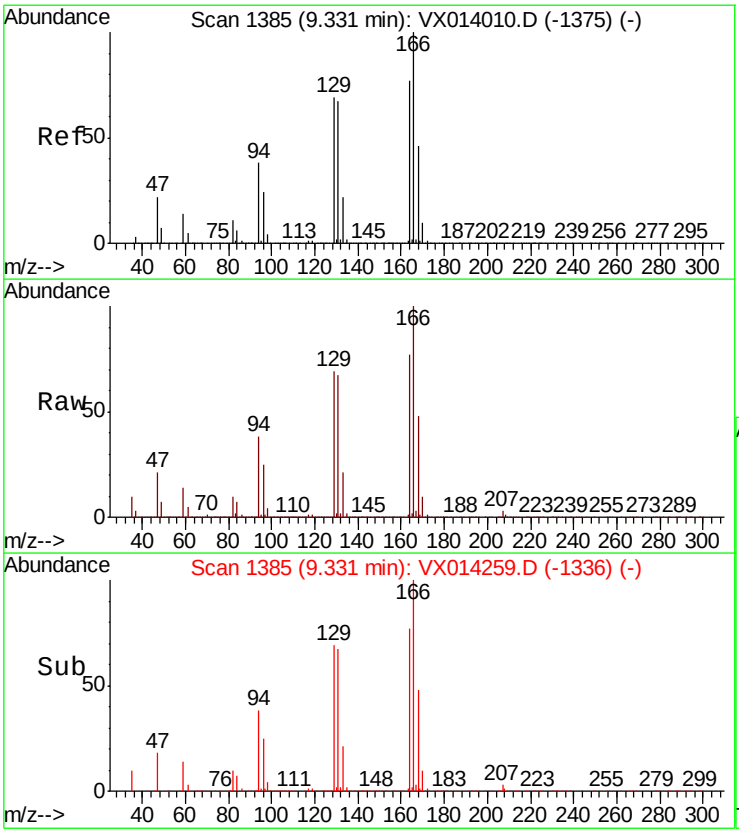


#63
Chlorobenzene-d5
Concen: 50.000 ug/l
RT: 10.10 min Scan# 1512
Delta R.T. -0.01 min
Lab File: VX014259.D
Acq: 26 Dec 2019 10:46

Tgt Ion:117 Resp: 705002

Ion	Ratio	Lower	Upper
117	100		
82	54.6	42.2	63.4
119	32.3	25.1	37.7

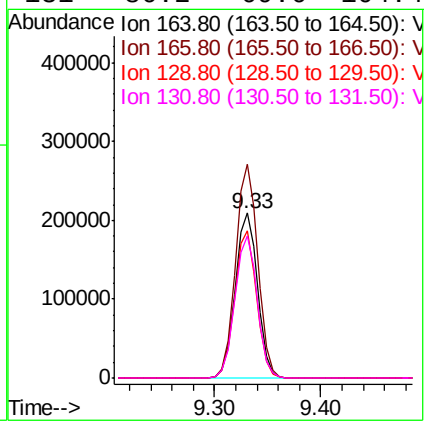




#64
Tetrachloroethene
Concen: 49.300 ug/l
RT: 9.33 min Scan# 1385
Delta R.T. 0.00 min
Lab File: VX014259.D
Acq: 26 Dec 2019 10:46

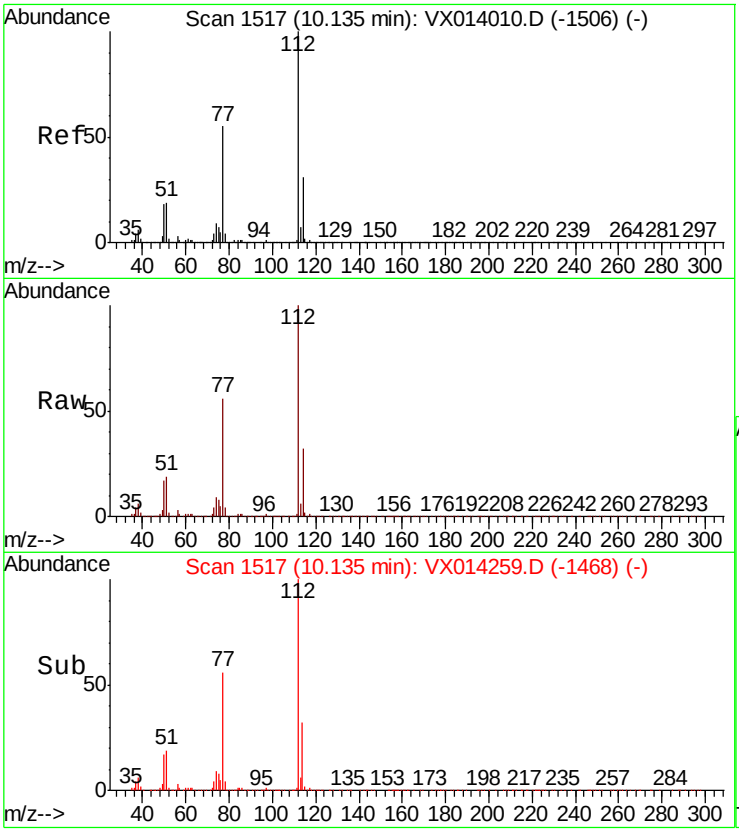
Tgt Ion:164 Resp: 307554

Ion	Ratio	Lower	Upper
164	100		
166	129.4	104.0	156.0
129	89.5	72.2	108.4
131	86.2	69.6	104.4



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

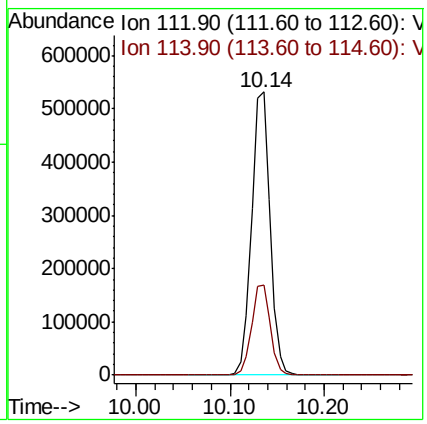
Manual Integrations APPROVED
apatel
12/27/2019 12:03:02 PM

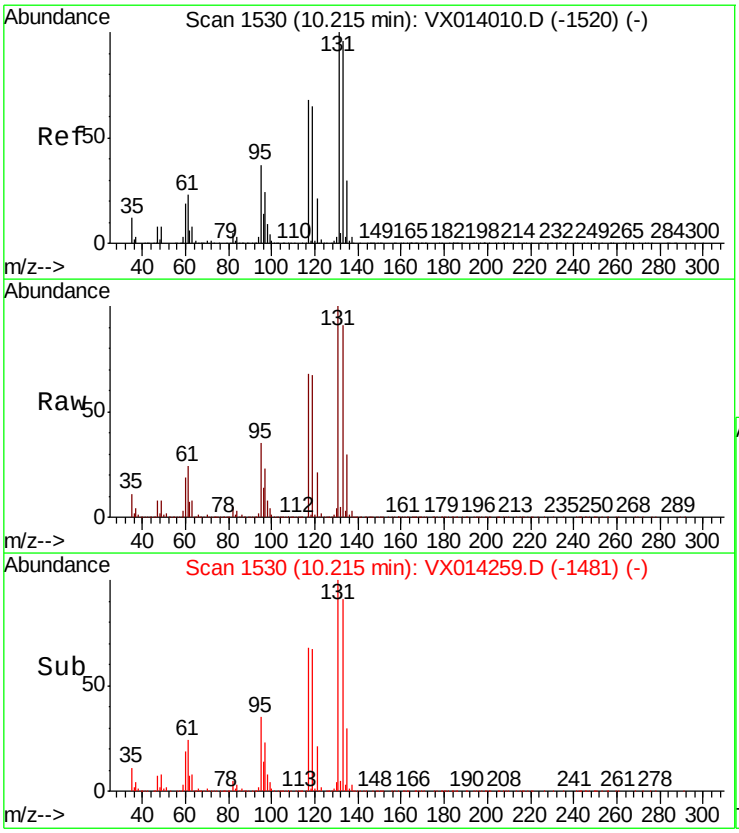


#65
Chlorobenzene
Concen: 49.025 ug/l
RT: 10.14 min Scan# 1517
Delta R.T. 0.00 min
Lab File: VX014259.D
Acq: 26 Dec 2019 10:46

Tgt Ion:112 Resp: 734892

Ion	Ratio	Lower	Upper
112	100		
114	32.0	24.9	37.3

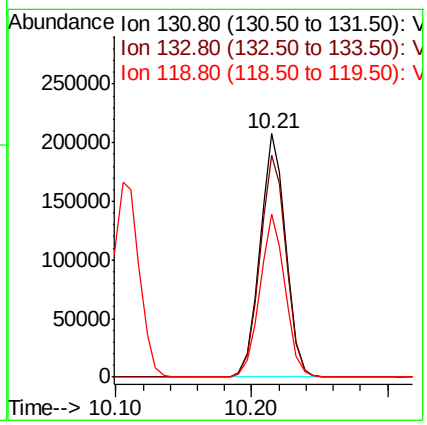




#66
1,1,1,2-Tetrachloroethane
Concen: 51.343 ug/l
RT: 10.21 min Scan# 1530
Delta R.T. 0.00 min
Lab File: VX014259.D
Acq: 26 Dec 2019 10:46

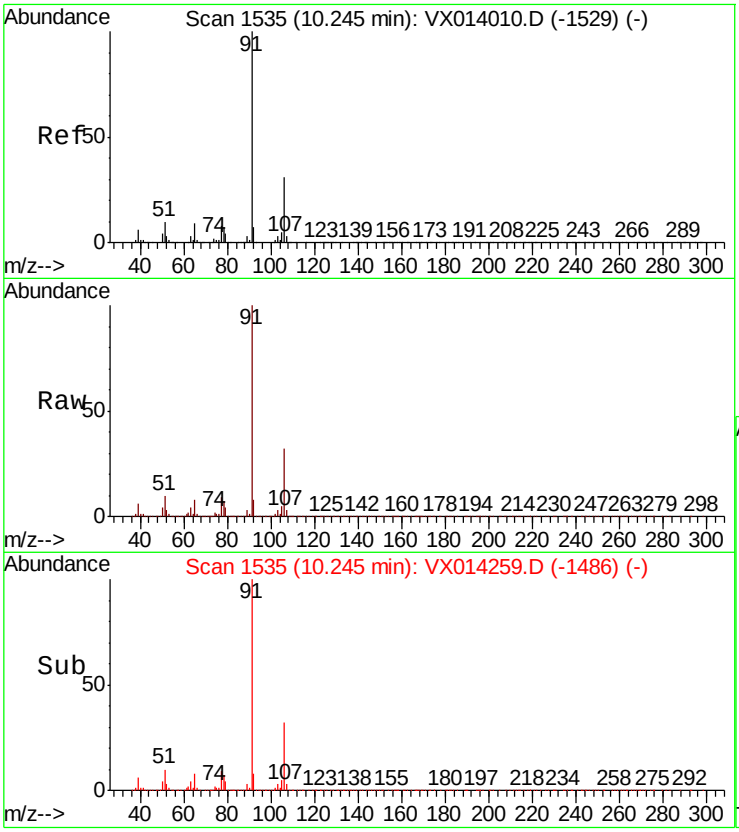
Tgt Ion:131 Resp: 274806

Ion	Ratio	Lower	Upper
131	100		
133	93.3	48.0	144.0
119	66.2	33.4	100.2



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

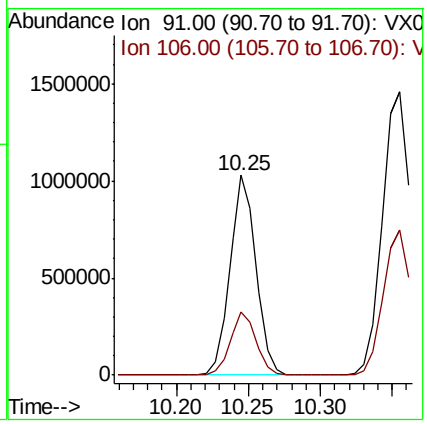
Manual Integrations APPROVED
apatel
12/27/2019 12:03:02 PM

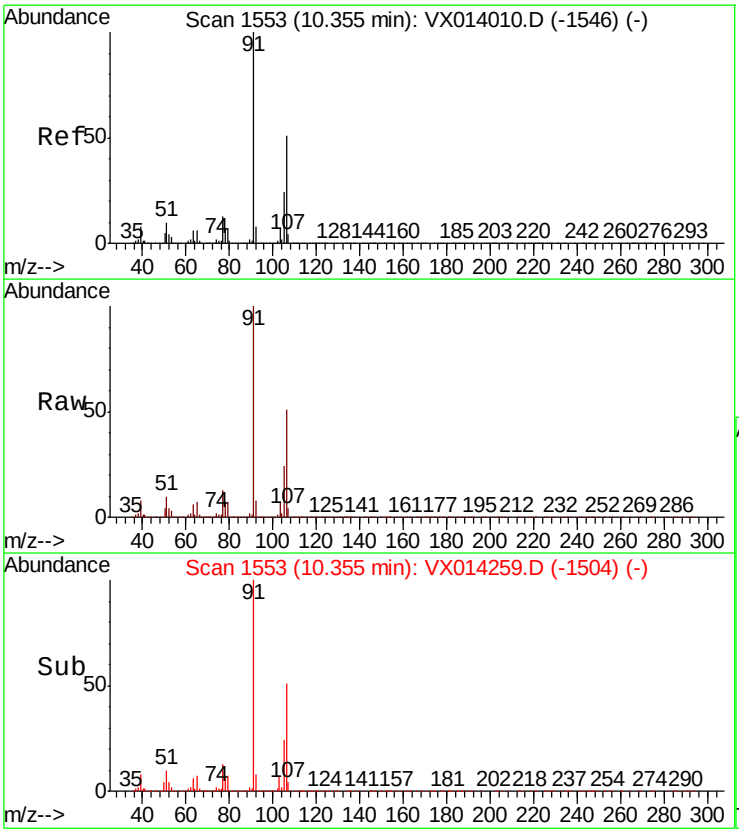


#67
Ethyl Benzene
Concen: 50.464 ug/l
RT: 10.25 min Scan# 1535
Delta R.T. 0.00 min
Lab File: VX014259.D
Acq: 26 Dec 2019 10:46

Tgt Ion: 91 Resp: 1300524

Ion	Ratio	Lower	Upper
91	100		
106	31.8	25.0	37.6

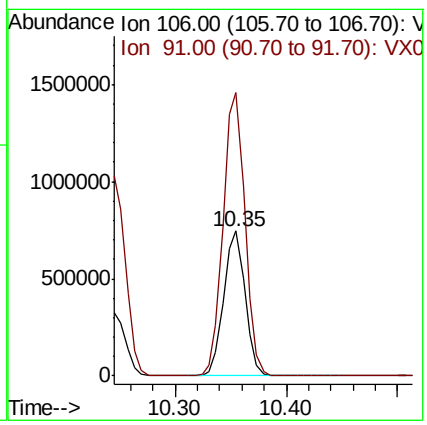


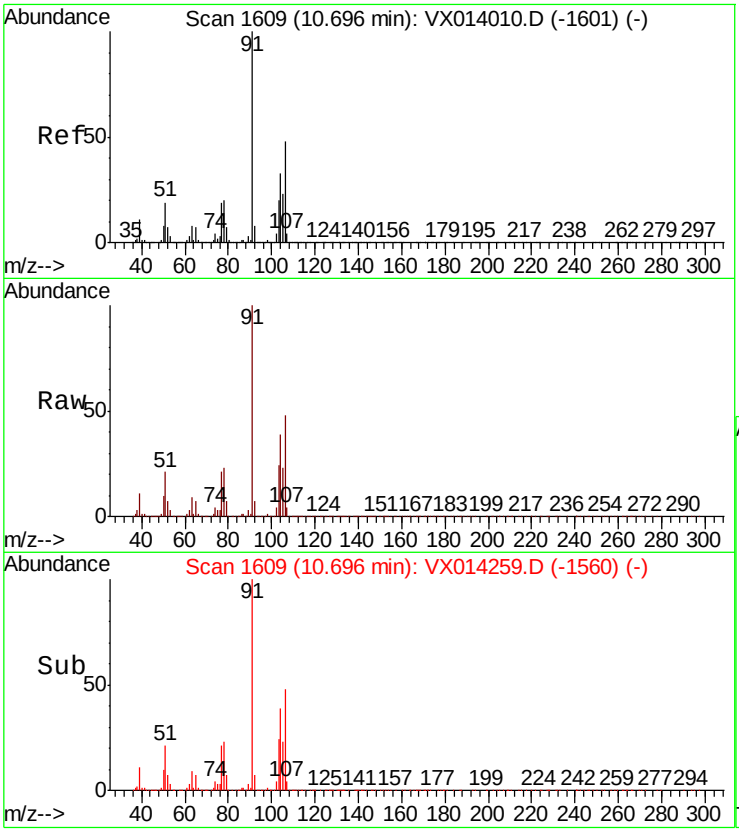


#68
m/p-Xylenes
Concen: 100.167 ug/l
RT: 10.35 min Scan# 1553
Delta R.T. 0.00 min
Lab File: VX014259.D
Acq: 26 Dec 2019 10:46

Tgt Ion:106 Resp: 992859

Ion	Ratio	Lower	Upper
106	100		
91	199.3	158.6	238.0

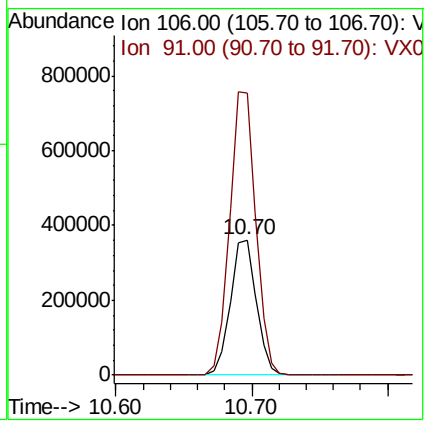




#69
o-Xylene
Concen: 49.185 ug/l
RT: 10.70 min Scan# 1609
Delta R.T. 0.00 min
Lab File: VX014259.D
Acq: 26 Dec 2019 10:46

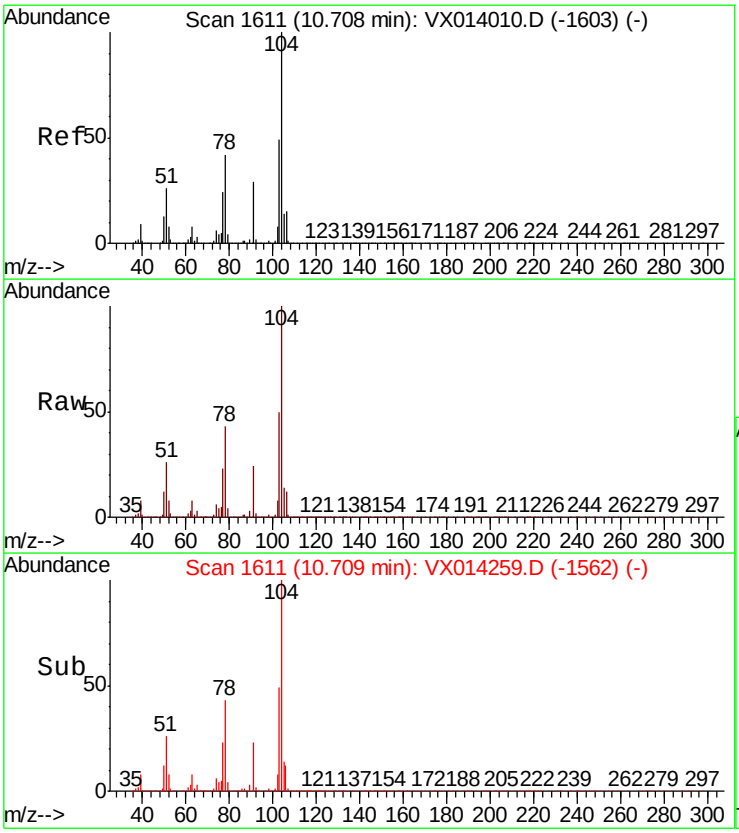
Tgt Ion:106 Resp: 478141

Ion	Ratio	Lower	Upper
106	100		
91	210.8	104.2	312.6



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

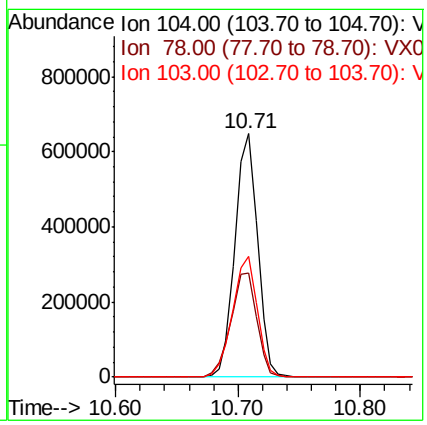
Manual Integrations APPROVED
apatel
12/27/2019 12:03:02 PM



#70
Styrene
Concen: 50.396 ug/l
RT: 10.71 min Scan# 1611
Delta R.T. 0.00 min
Lab File: VX014259.D
Acq: 26 Dec 2019 10:46

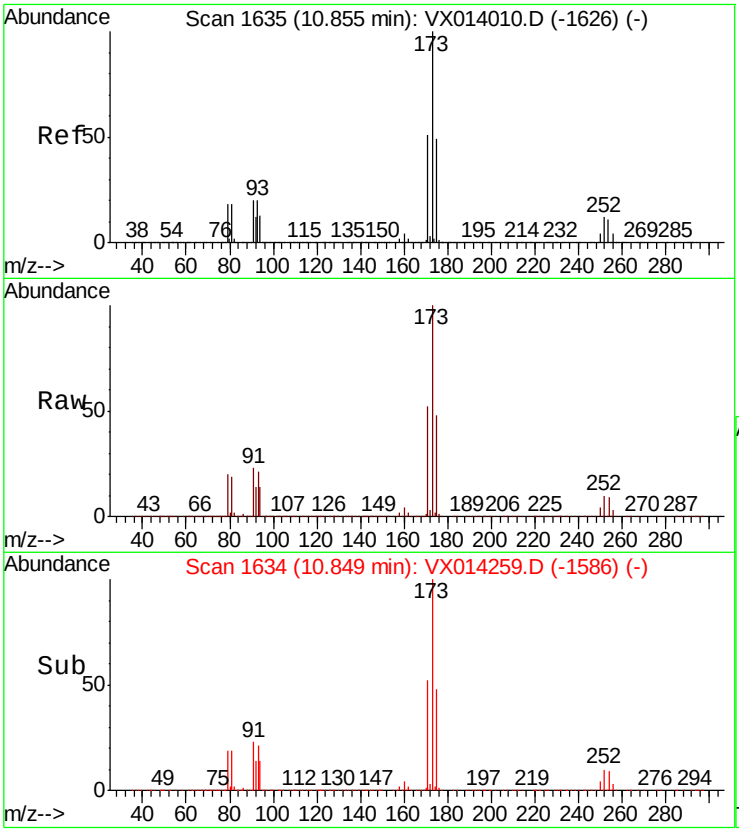
Tgt Ion:104 Resp: 828428

Ion	Ratio	Lower	Upper
104	100		
78	48.7	38.5	57.7
103	53.8	42.9	64.3



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

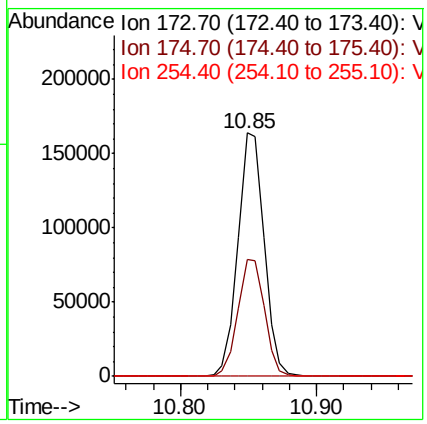
Manual Integrations APPROVED
apatel
12/27/2019 12:03:02 PM

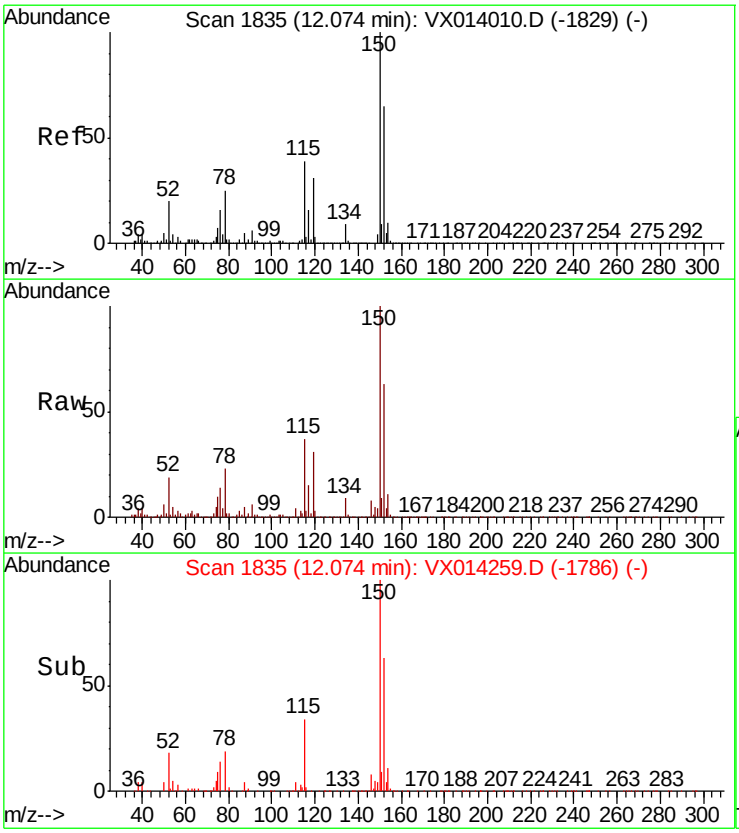


#71
Bromoform
Concen: 51.356 ug/l
RT: 10.85 min Scan# 1634
Delta R.T. -0.01 min
Lab File: VX014259.D
Acq: 26 Dec 2019 10:46

Tgt Ion:173 Resp: 220952

Ion	Ratio	Lower	Upper
173	100		
175	48.9	24.4	73.4
254	0.2	0.2	0.2#

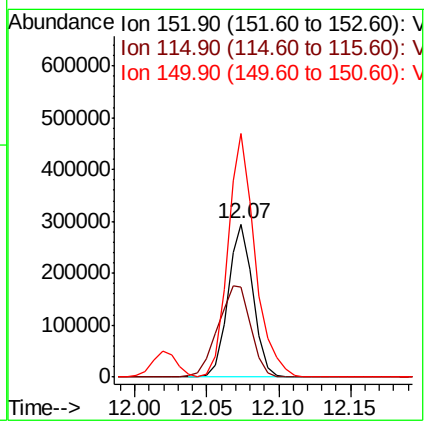




#72
1,4-Dichlorobenzene-d4
Concen: 50.000 ug/l
RT: 12.07 min Scan# 1835
Delta R.T. 0.00 min
Lab File: VX014259.D
Acq: 26 Dec 2019 10:46

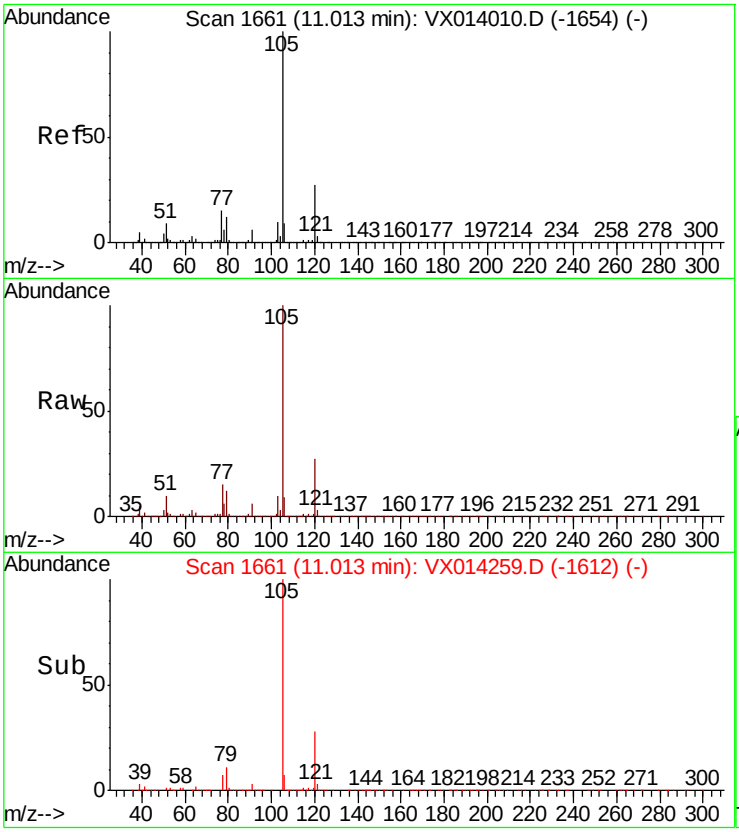
Tgt Ion:152 Resp: 355197

Ion	Ratio	Lower	Upper
152	100		
115	78.6	38.3	114.9
150	174.3	0.0	345.4



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

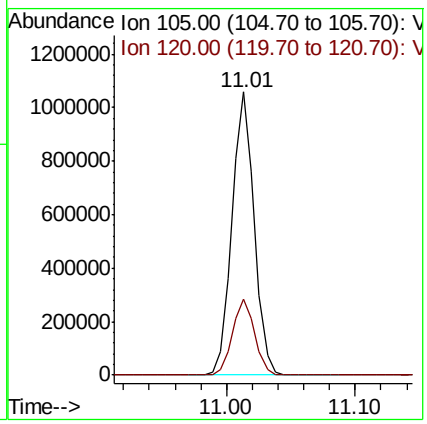
Manual Integrations APPROVED
apatel
12/27/2019 12:03:02 PM

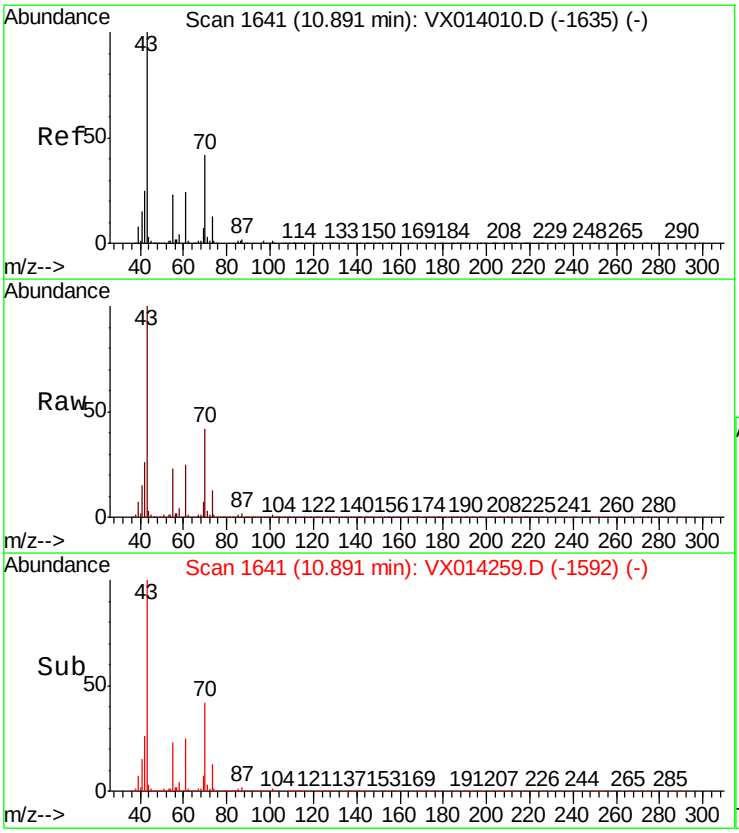


#73
Isopropylbenzene
Concen: 50.955 ug/l
RT: 11.01 min Scan# 1661
Delta R.T. 0.00 min
Lab File: VX014259.D
Acq: 26 Dec 2019 10:46

Tgt Ion:105 Resp: 1274321

Ion	Ratio	Lower	Upper
105	100		
120	27.0	13.5	40.4

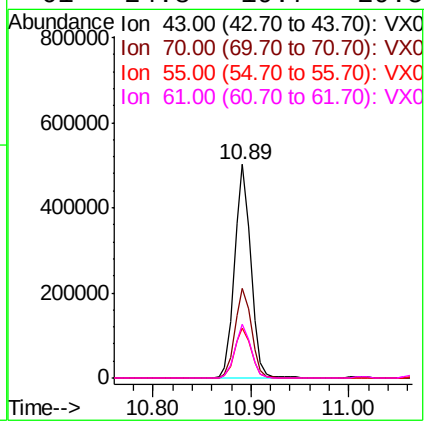




#74
N-amyl acetate
Concen: 49.227 ug/l
RT: 10.89 min Scan# 1641
Delta R.T. 0.00 min
Lab File: VX014259.D
Acq: 26 Dec 2019 10:46

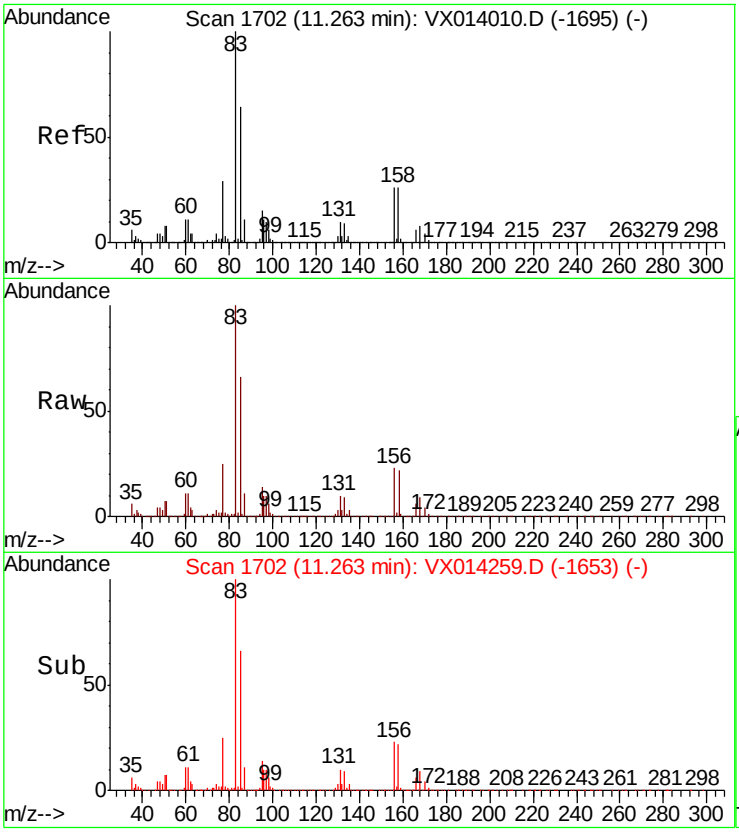
Tgt Ion: 43 Resp: 577066

Ion	Ratio	Lower	Upper
43	100		
70	42.8	34.4	51.6
55	24.1	19.1	28.7
61	24.8	19.7	29.5



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

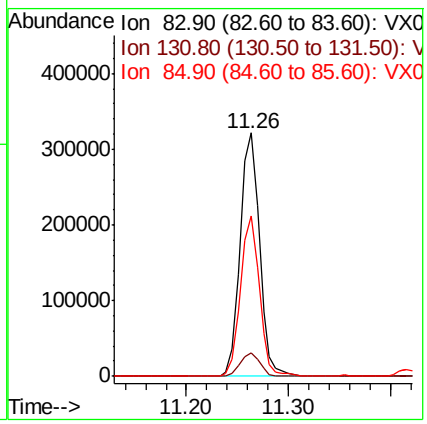
Manual Integrations APPROVED
apatel
12/27/2019 12:03:02 PM

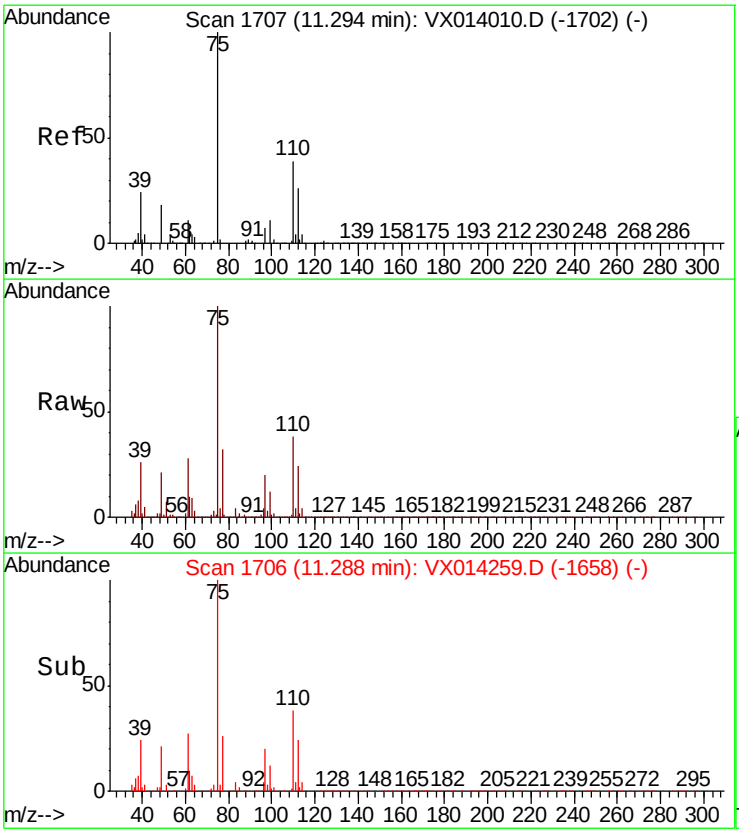


#75
1,1,2,2-Tetrachloroethane
Concen: 48.350 ug/l
RT: 11.26 min Scan# 1702
Delta R.T. 0.00 min
Lab File: VX014259.D
Acq: 26 Dec 2019 10:46

Tgt Ion: 83 Resp: 419205

Ion	Ratio	Lower	Upper
83	100		
131	9.9	5.1	15.2
85	64.5	31.9	95.7

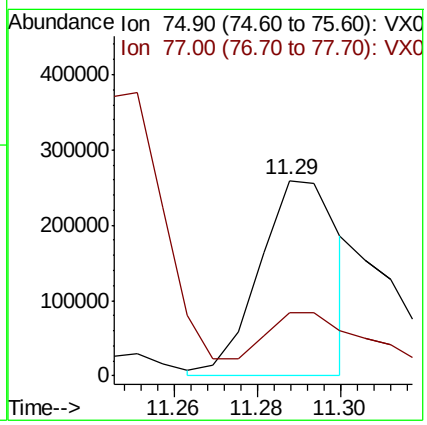




#76
1,2,3-Trichloropropane
Concen: 44.454 ug/l m
RT: 11.29 min Scan# 1706
Delta R.T. -0.01 min
Lab File: VX014259.D
Acq: 26 Dec 2019 10:46

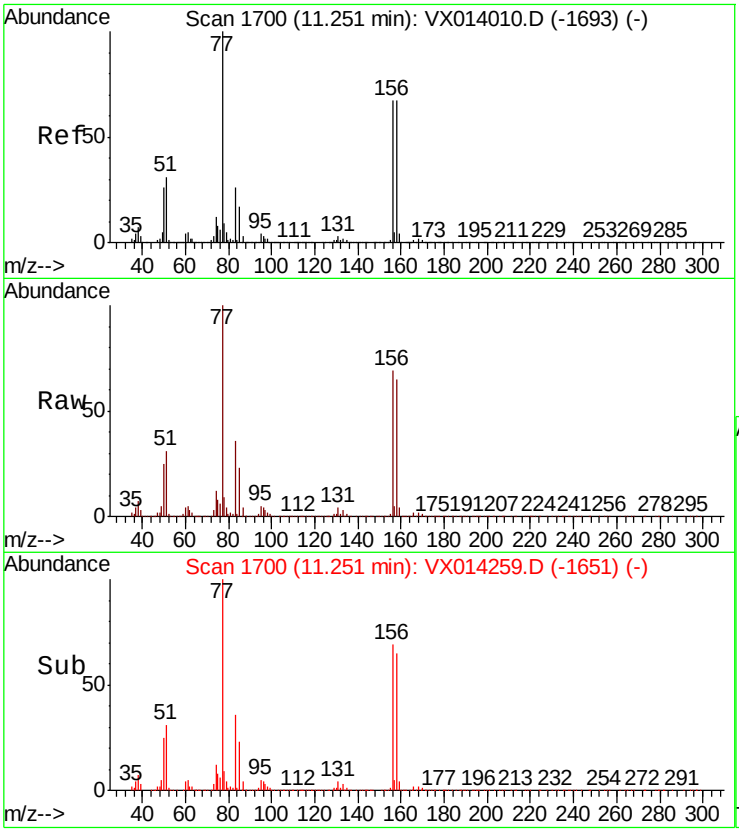
Tgt Ion: 75 Resp: 342799

Ion	Ratio	Lower	Upper
75	100		
77	42.9	19.3	57.8



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

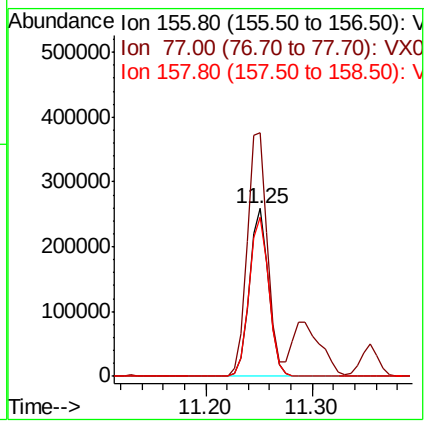
Manual Integrations APPROVED
apatel
12/27/2019 12:03:02 PM

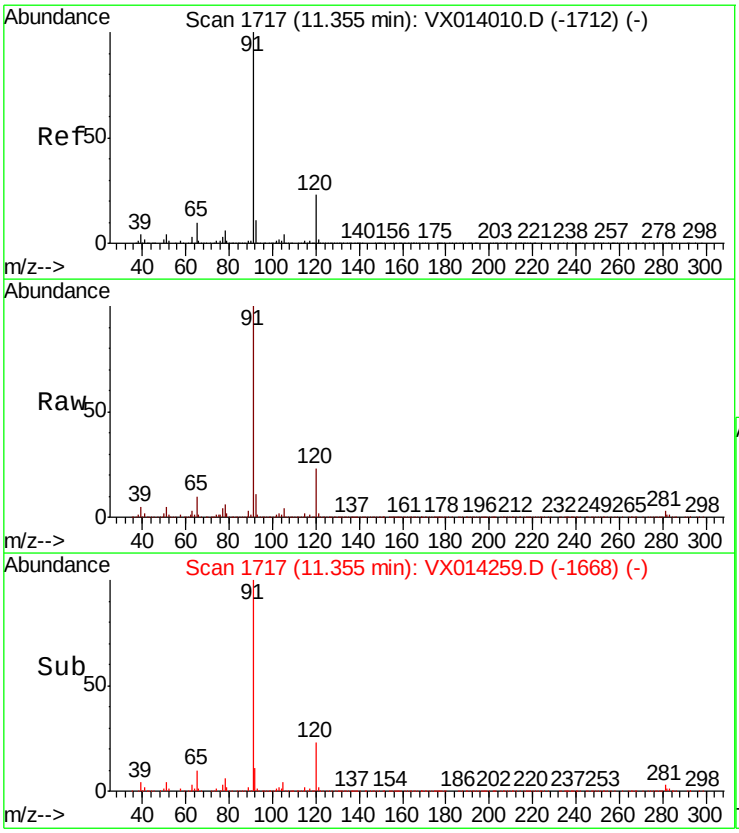


#77
Bromobenzene
Concen: 47.507 ug/l
RT: 11.25 min Scan# 1700
Delta R.T. 0.00 min
Lab File: VX014259.D
Acq: 26 Dec 2019 10:46

Tgt Ion:156 Resp: 326886

Ion	Ratio	Lower	Upper
156	100		
77	152.0	76.5	229.5
158	97.5	49.3	147.9

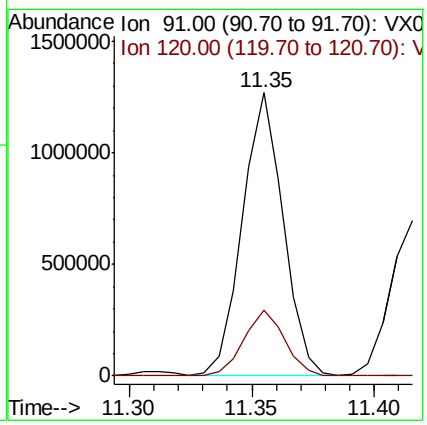




#78
n-propylbenzene
Concen: 52.162 ug/l
RT: 11.35 min Scan# 1717
Delta R.T. 0.00 min
Lab File: VX014259.D
Acq: 26 Dec 2019 10:46

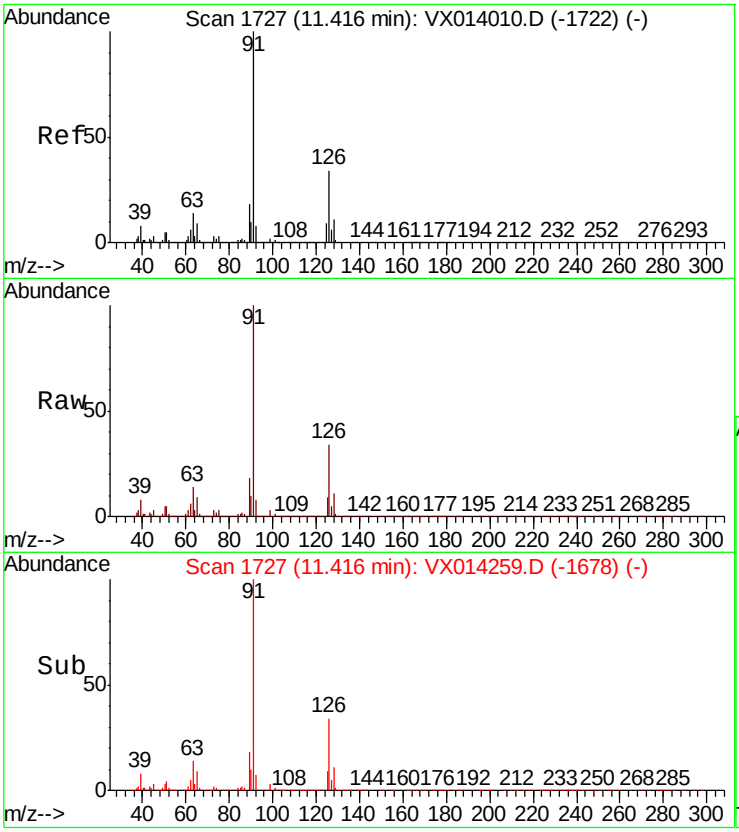
Tgt Ion: 91 Resp: 1463218

Ion	Ratio	Lower	Upper
91	100		
120	23.3	11.7	35.0



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

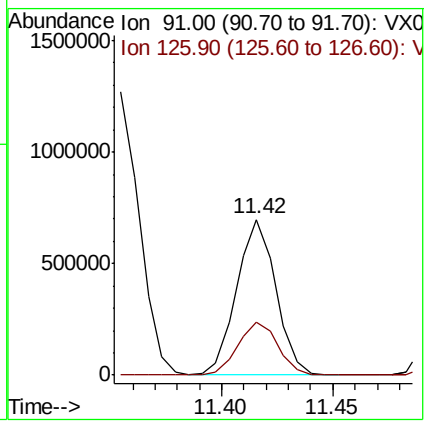
Manual Integrations APPROVED
apatel
12/27/2019 12:03:02 PM

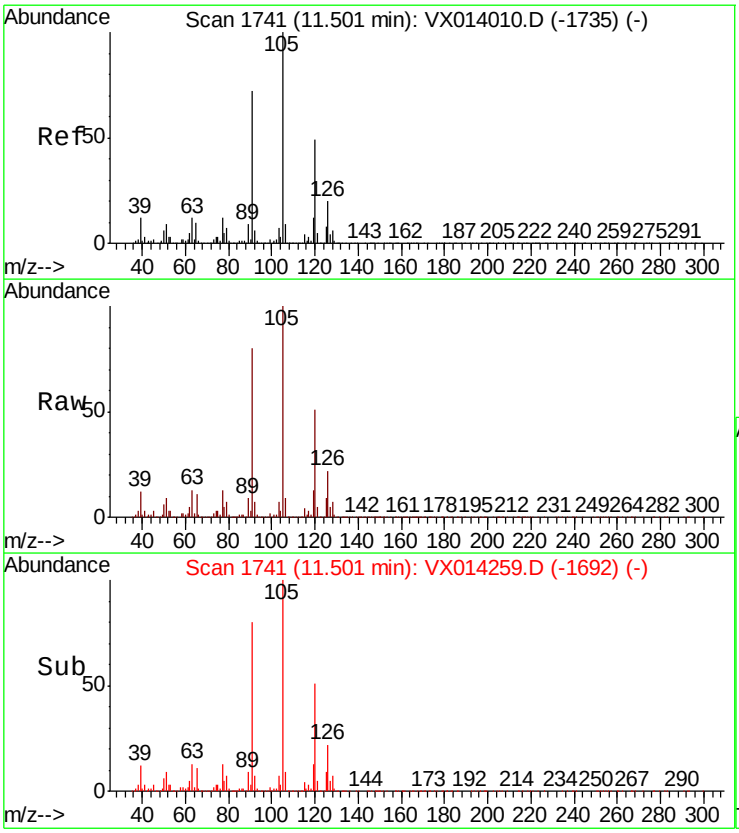


#79
2-Chlorotoluene
Concen: 50.159 ug/l
RT: 11.42 min Scan# 1727
Delta R.T. 0.00 min
Lab File: VX014259.D
Acq: 26 Dec 2019 10:46

Tgt Ion: 91 Resp: 855297

Ion	Ratio	Lower	Upper
91	100		
126	34.7	17.2	51.6

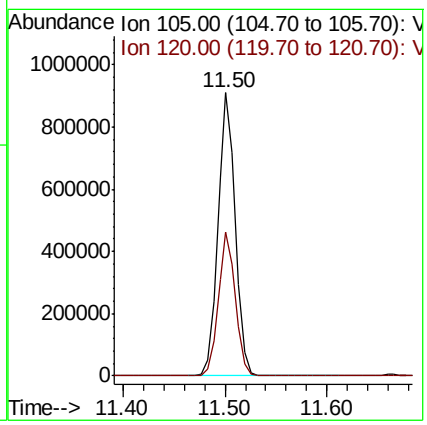


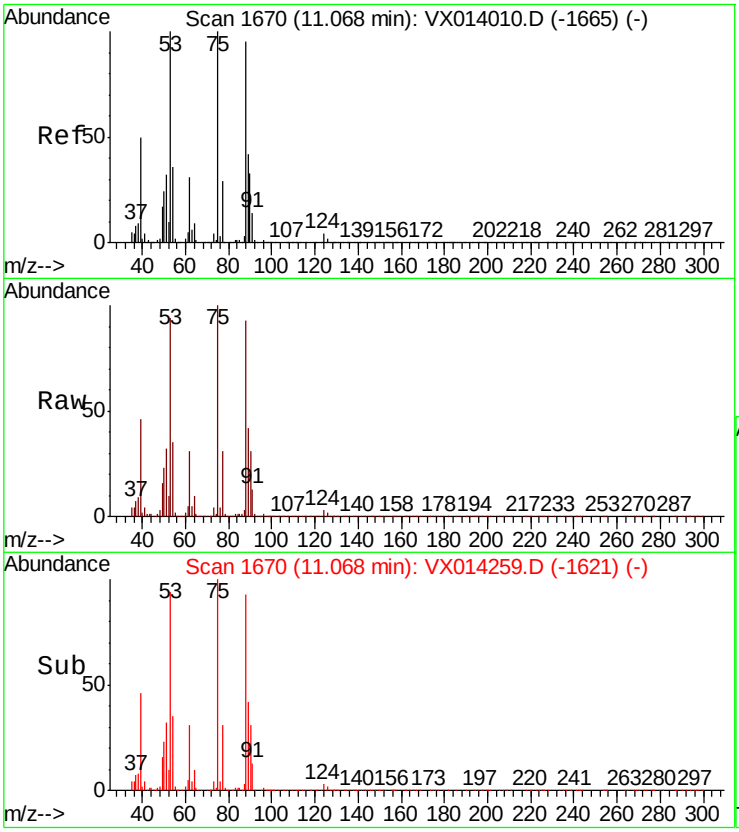


#80
1,3,5-Trimethylbenzene
Concen: 51.178 ug/l
RT: 11.50 min Scan# 1741
Delta R.T. 0.00 min
Lab File: VX014259.D
Acq: 26 Dec 2019 10:46

Tgt Ion:105 Resp: 1077153

Ion	Ratio	Lower	Upper
105	100		
120	50.3	25.3	75.8

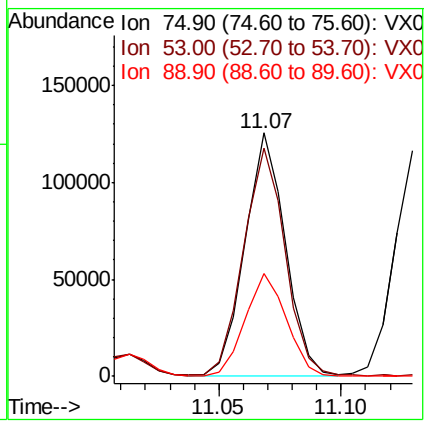




#81
trans-1,4-Dichloro-2-butene
Concen: 52.520 ug/l
RT: 11.07 min Scan# 1670
Delta R.T. 0.00 min
Lab File: VX014259.D
Acq: 26 Dec 2019 10:46

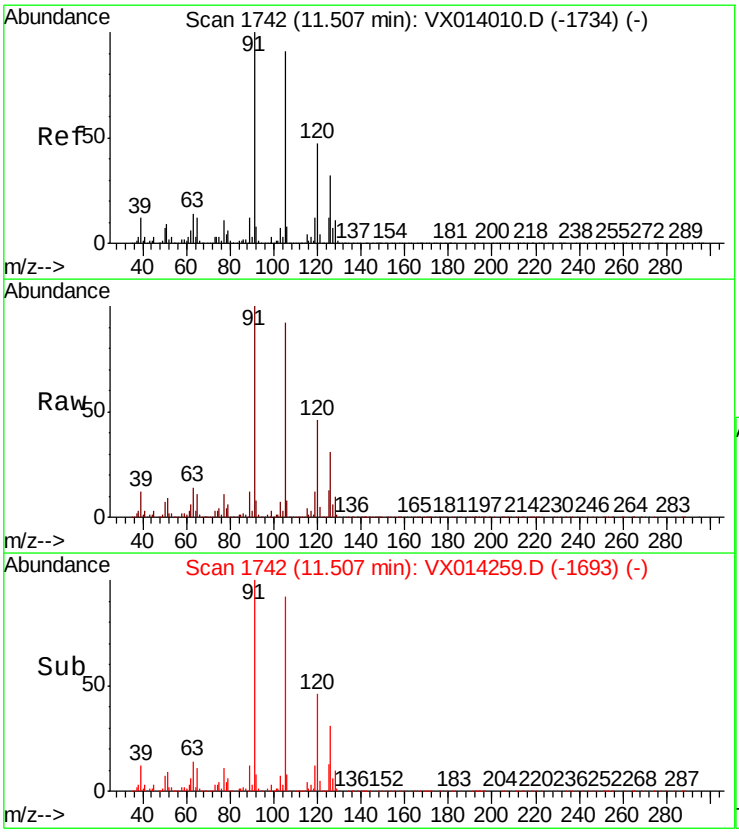
Tgt Ion: 75 Resp: 143487

Ion	Ratio	Lower	Upper
75	100		
53	96.7	76.7	115.1
89	43.7	34.6	51.8



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

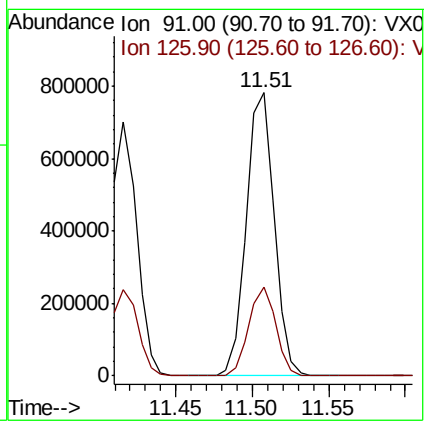
Manual Integrations APPROVED
apatel
12/27/2019 12:03:02 PM



#82
4-Chlorotoluene
Concen: 50.150 ug/l
RT: 11.51 min Scan# 1742
Delta R.T. 0.00 min
Lab File: VX014259.D
Acq: 26 Dec 2019 10:46

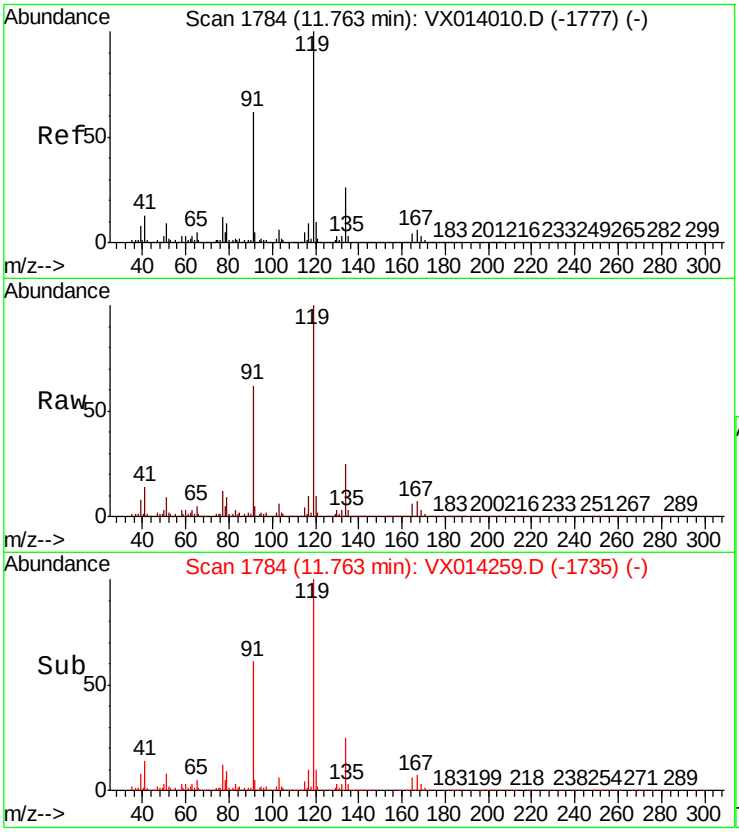
Tgt Ion: 91 Resp: 991948

Ion	Ratio	Lower	Upper
91	100		
126	30.6	15.6	46.8



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

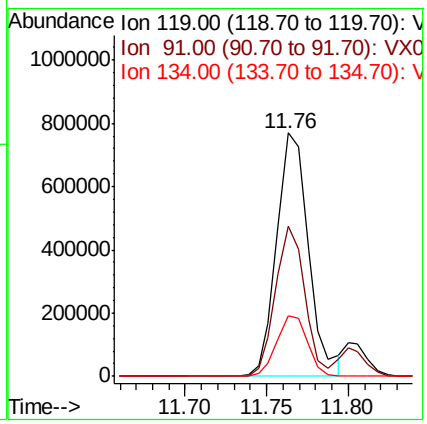
Manual Integrations APPROVED
apatel
12/27/2019 12:03:02 PM

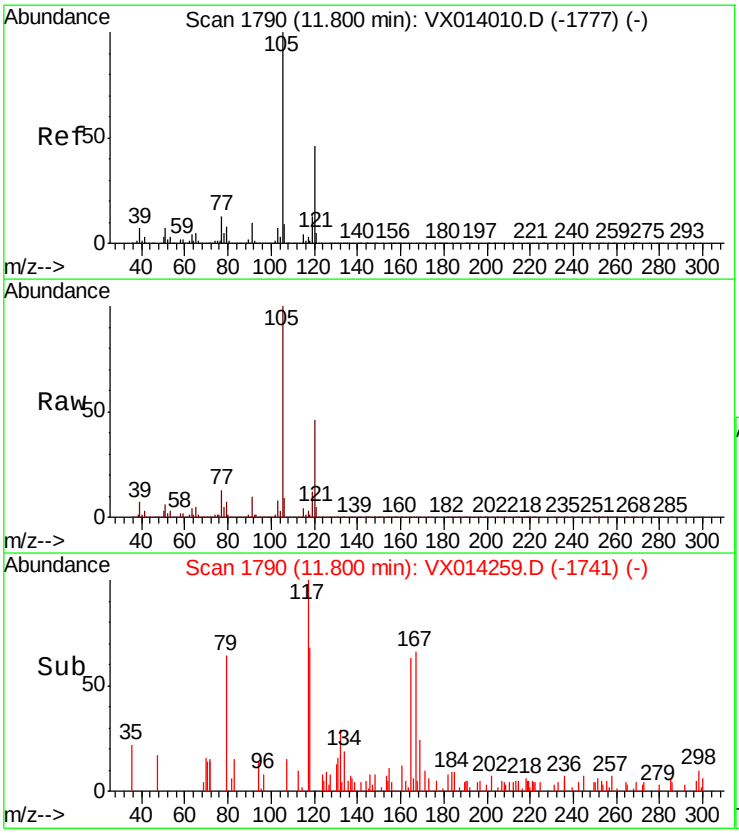


#83
tert-Butylbenzene
Concen: 50.640 ug/l
RT: 11.76 min Scan# 1784
Delta R.T. 0.00 min
Lab File: VX014259.D
Acq: 26 Dec 2019 10:46

Tgt Ion:119 Resp: 1037239

Ion	Ratio	Lower	Upper
119	100		
91	56.5	28.5	85.6
134	24.1	12.2	36.6

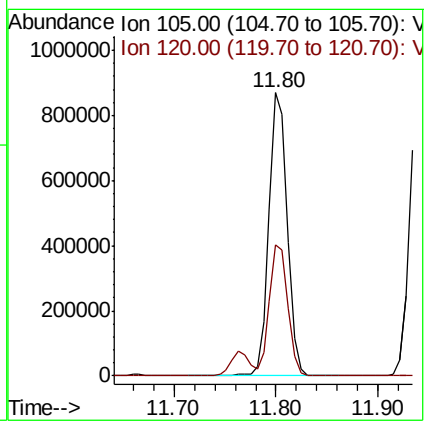




#84
1,2,4-Trimethylbenzene
Concen: 51.299 ug/l
RT: 11.80 min Scan# 1790
Delta R.T. 0.00 min
Lab File: VX014259.D
Acq: 26 Dec 2019 10:46

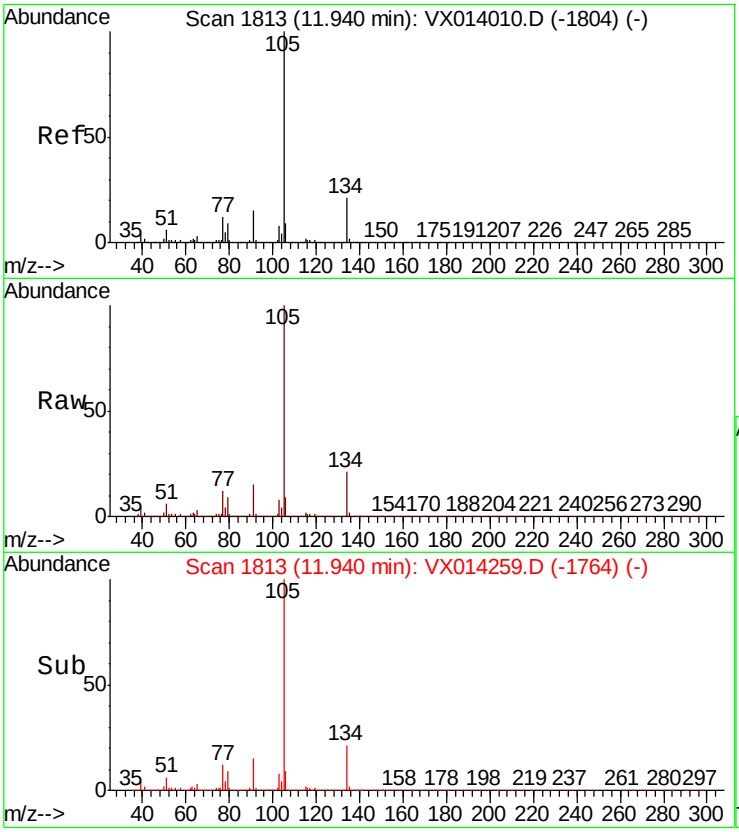
Tgt Ion:105 Resp: 1081260

Ion	Ratio	Lower	Upper
105	100		
120	46.4	23.1	69.2



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

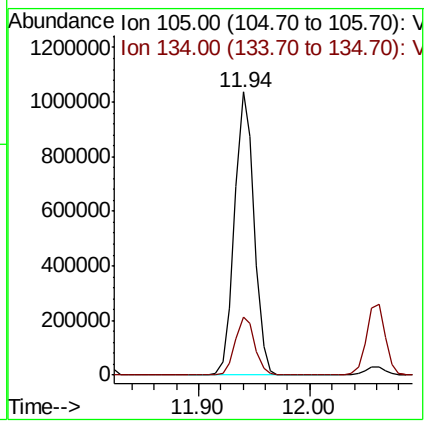
Manual Integrations APPROVED
apatel
12/27/2019 12:03:02 PM

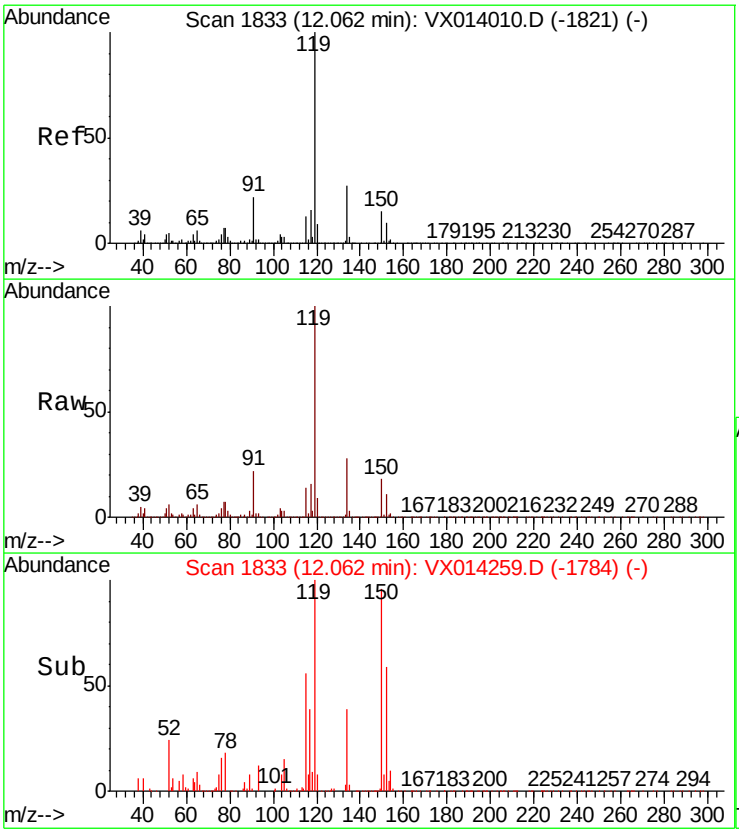


#85
sec-Butylbenzene
Concen: 51.911 ug/l
RT: 11.94 min Scan# 1813
Delta R.T. 0.00 min
Lab File: VX014259.D
Acq: 26 Dec 2019 10:46

Tgt Ion:105 Resp: 1255213

Ion	Ratio	Lower	Upper
105	100		
134	20.5	10.4	31.1

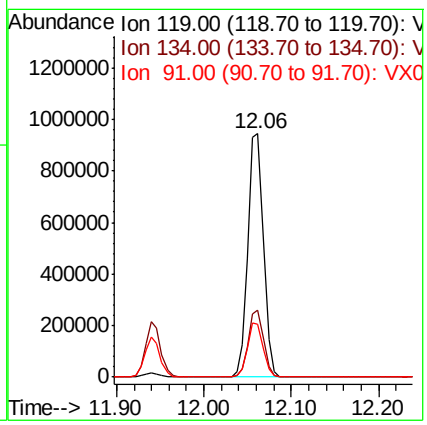




#86
p-Isopropyltoluene
Concen: 52.211 ug/l
RT: 12.06 min Scan# 1833
Delta R.T. 0.00 min
Lab File: VX014259.D
Acq: 26 Dec 2019 10:46

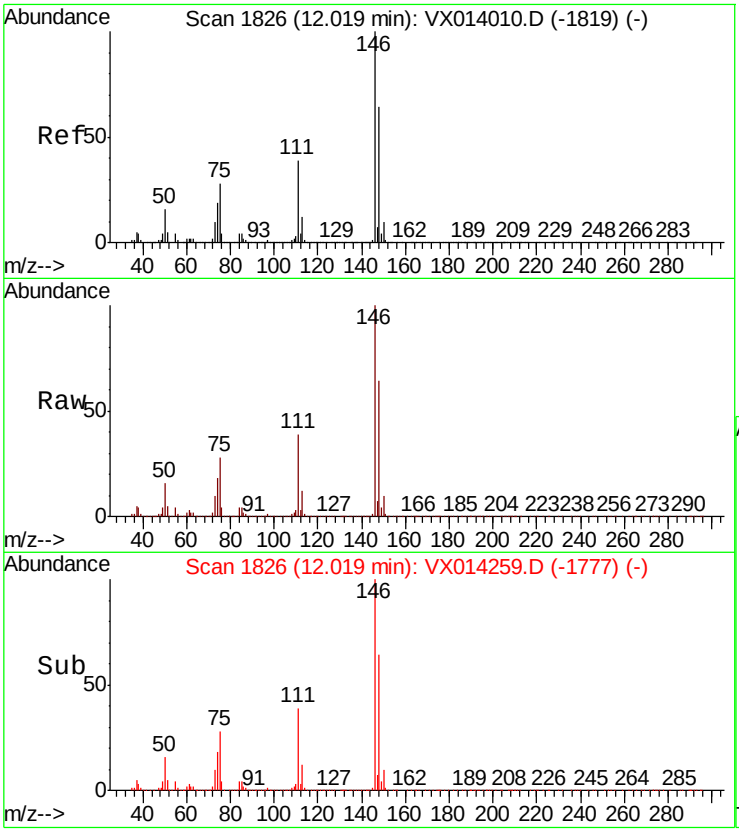
Tgt Ion:119 Resp: 1154822

Ion	Ratio	Lower	Upper
119	100		
134	26.9	13.4	40.1
91	22.2	11.4	34.1



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

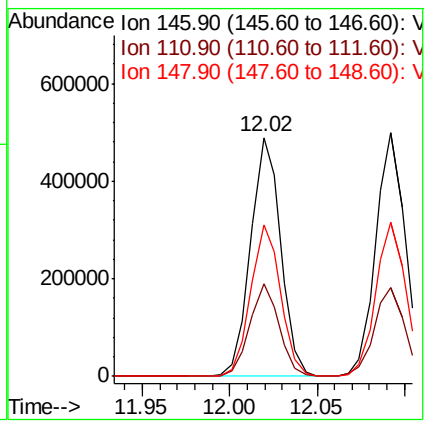
Manual Integrations APPROVED
apatel
12/27/2019 12:03:02 PM

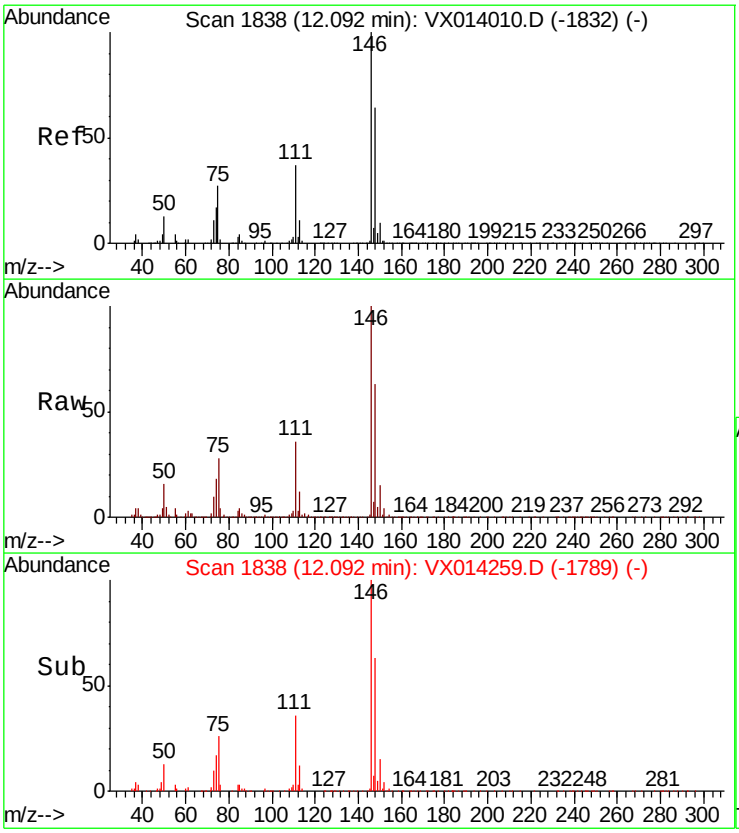


#87
1,3-Dichlorobenzene
Concen: 48.810 ug/l
RT: 12.02 min Scan# 1826
Delta R.T. 0.00 min
Lab File: VX014259.D
Acq: 26 Dec 2019 10:46

Tgt Ion:146 Resp: 588617

Ion	Ratio	Lower	Upper
146	100		
111	37.7	19.1	57.1
148	63.2	32.3	96.9

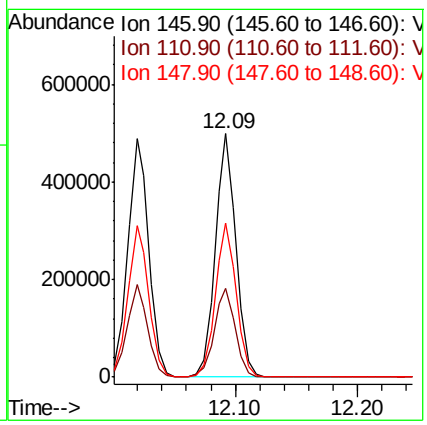




#88
1,4-Dichlorobenzene
Concen: 47.856 ug/l
RT: 12.09 min Scan# 1838
Delta R.T. 0.00 min
Lab File: VX014259.D
Acq: 26 Dec 2019 10:46

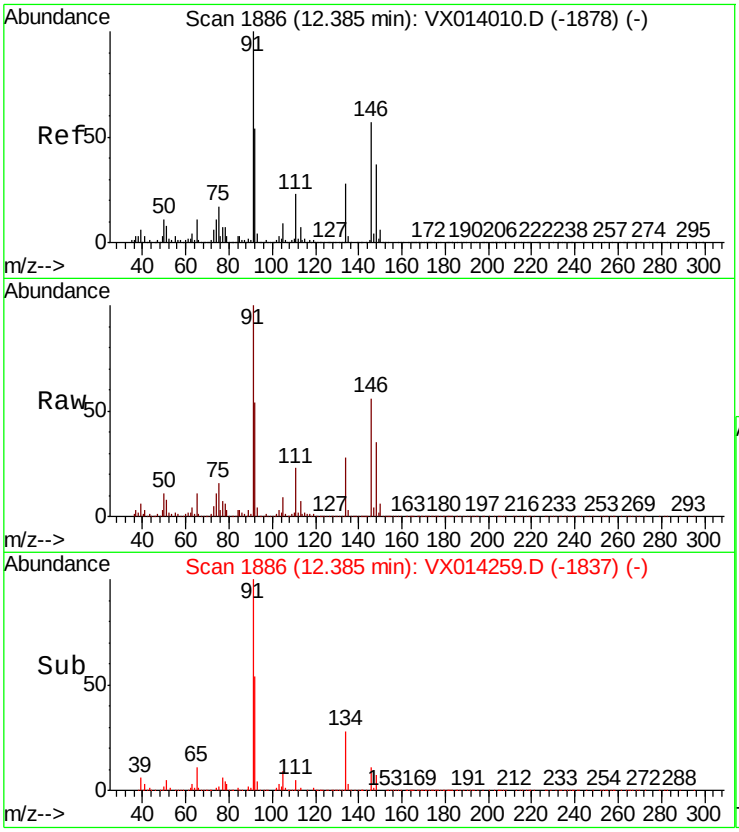
Tgt Ion:146 Resp: 586811

Ion	Ratio	Lower	Upper
146	100		
111	37.1	18.7	56.1
148	63.8	31.9	95.9



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

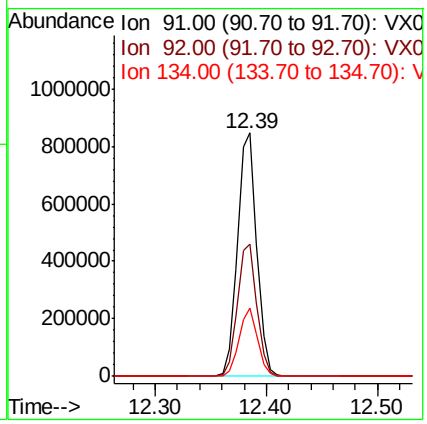
Manual Integrations APPROVED
apatel
12/27/2019 12:03:02 PM

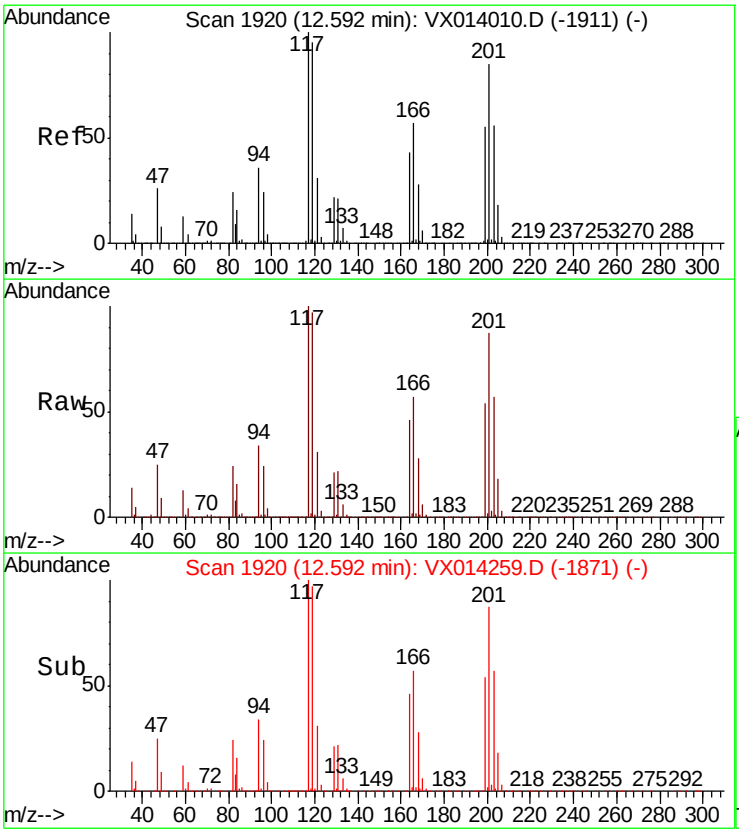


#89
n-Butylbenzene
Concen: 53.358 ug/l
RT: 12.39 min Scan# 1886
Delta R.T. 0.00 min
Lab File: VX014259.D
Acq: 26 Dec 2019 10:46

Tgt Ion: 91 Resp: 1007020

Ion	Ratio	Lower	Upper
91	100		
92	55.1	27.2	81.6
134	26.9	13.4	40.1

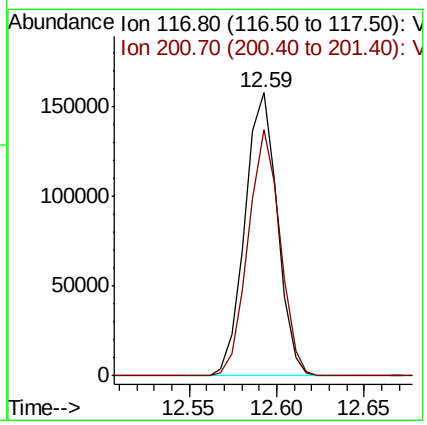




#90
Hexachloroethane
Concen: 51.309 ug/l
RT: 12.59 min Scan# 1920
Delta R.T. 0.00 min
Lab File: VX014259.D
Acq: 26 Dec 2019 10:46

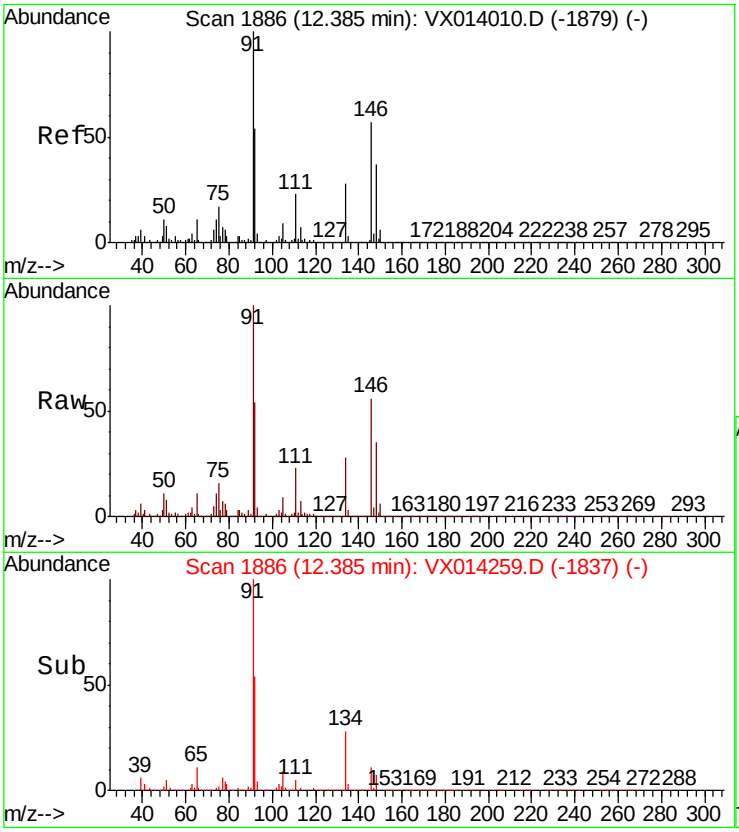
Tgt Ion:117 Resp: 203845

Ion	Ratio	Lower	Upper
117	100		
201	85.7	43.1	129.3



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

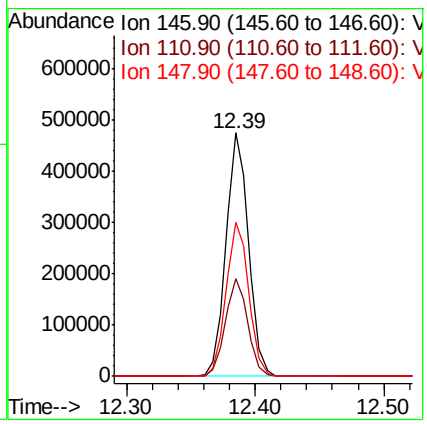
Manual Integrations APPROVED
apatel
12/27/2019 12:03:02 PM

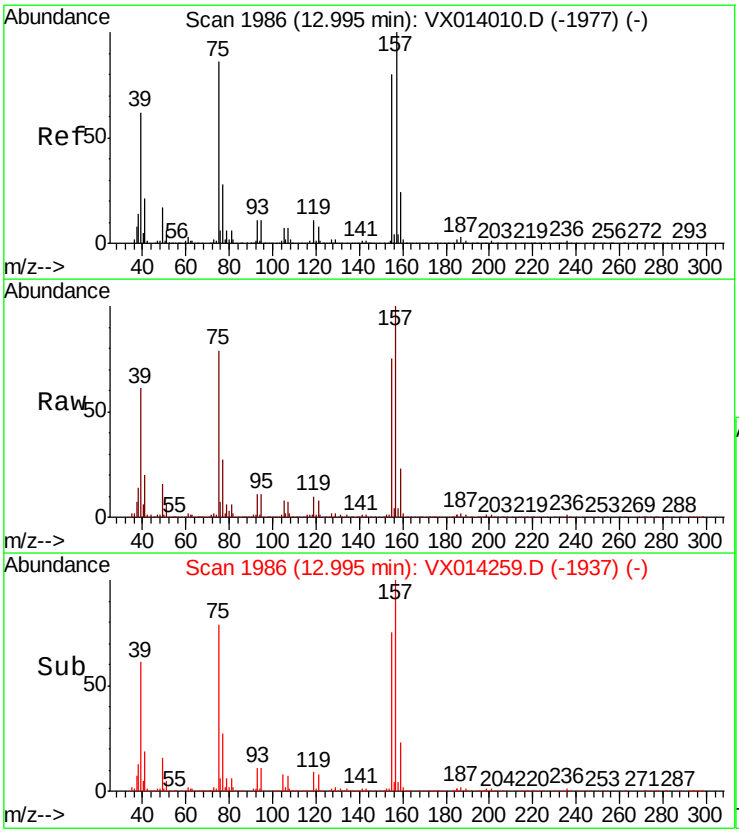


#91
1,2-Dichlorobenzene
Concen: 48.080 ug/l
RT: 12.39 min Scan# 1886
Delta R.T. 0.00 min
Lab File: VX014259.D
Acq: 26 Dec 2019 10:46

Tgt Ion:146 Resp: 583672

Ion	Ratio	Lower	Upper
146	100		
111	39.9	19.7	59.1
148	63.7	32.1	96.5

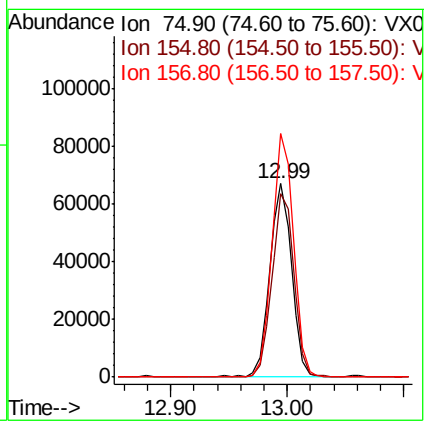




#92
1,2-Dibromo-3-Chloropropane
Concen: 44.664 ug/l
RT: 12.99 min Scan# 1986
Delta R.T. 0.00 min
Lab File: VX014259.D
Acq: 26 Dec 2019 10:46

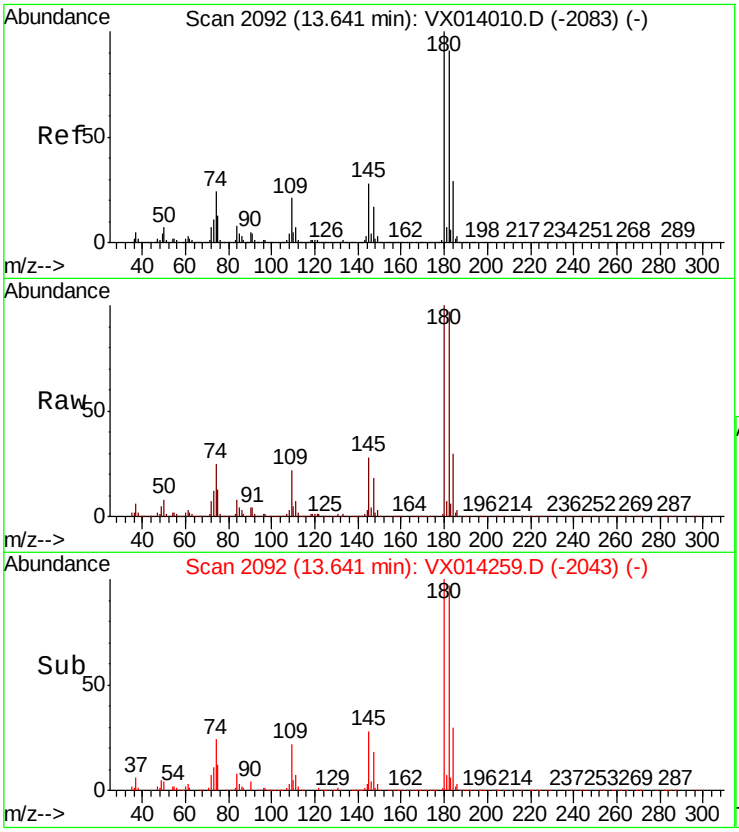
Tgt Ion: 75 Resp: 85696

Ion	Ratio	Lower	Upper
75	100		
155	95.6	46.9	140.6
157	124.3	60.8	182.4



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

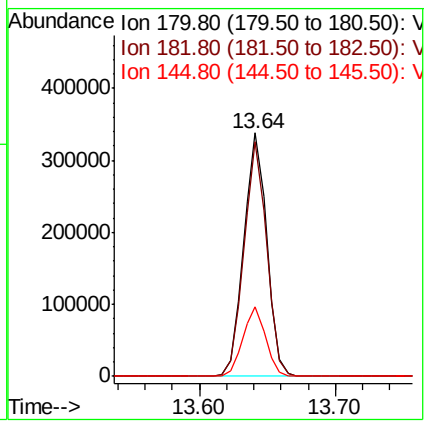
Manual Integrations APPROVED
apatel
12/27/2019 12:03:02 PM

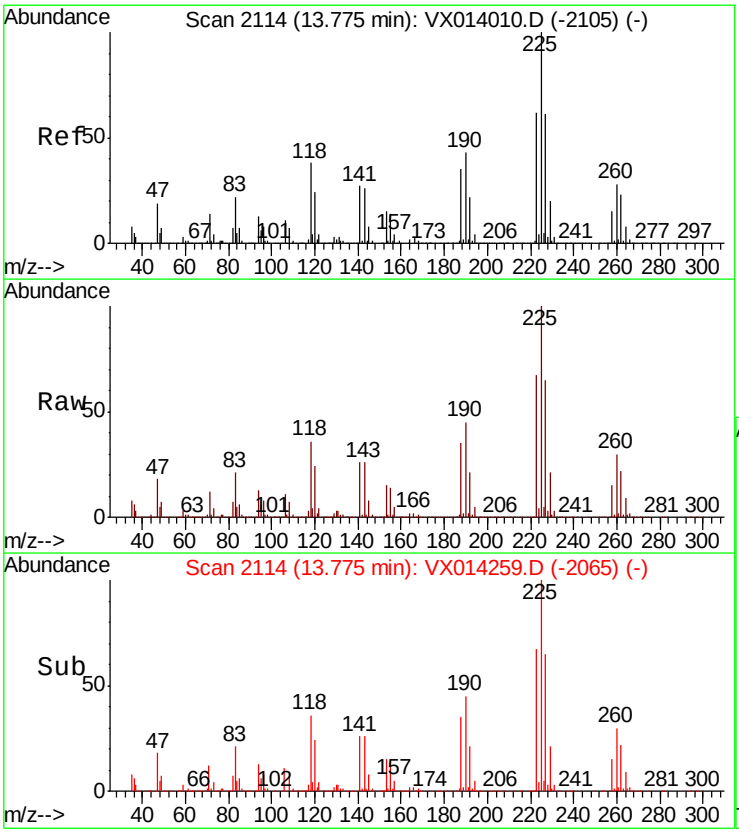


#93
1,2,4-Trichlorobenzene
Concen: 50.434 ug/l
RT: 13.64 min Scan# 2092
Delta R.T. 0.00 min
Lab File: VX014259.D
Acq: 26 Dec 2019 10:46

Tgt Ion:180 Resp: 397932

Ion	Ratio	Lower	Upper
180	100		
182	95.3	46.6	139.8
145	28.1	14.2	42.6

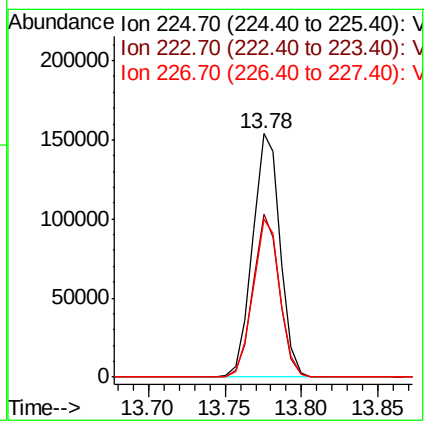




#94
Hexachlorobutadiene
Concen: 50.784 ug/l
RT: 13.78 min Scan# 2114
Delta R.T. 0.00 min
Lab File: VX014259.D
Acq: 26 Dec 2019 10:46

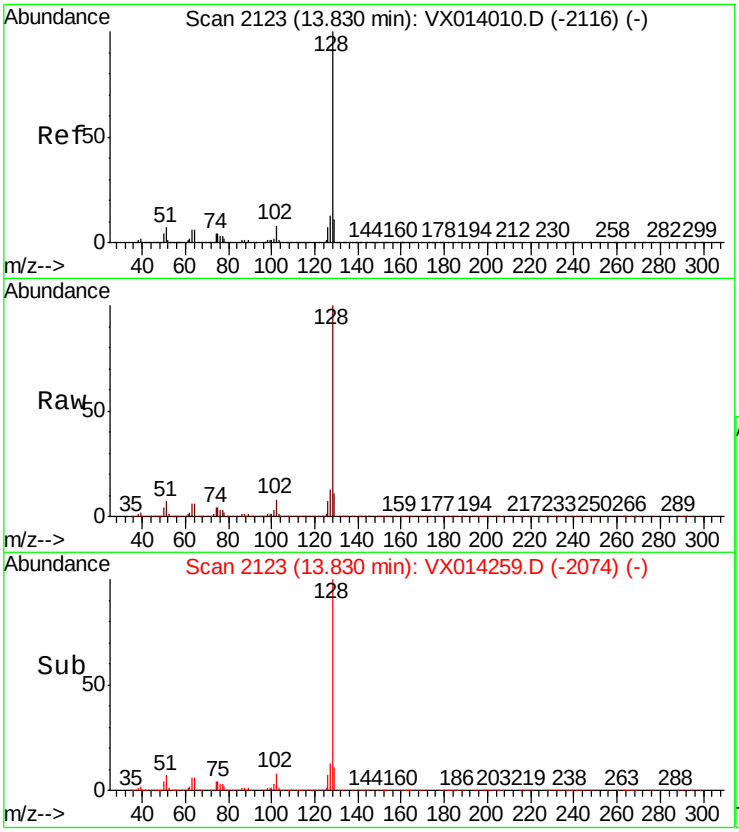
Tgt Ion:225 Resp: 192573

Ion	Ratio	Lower	Upper
225	100		
223	63.8	30.9	92.5
227	63.6	30.9	92.7



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

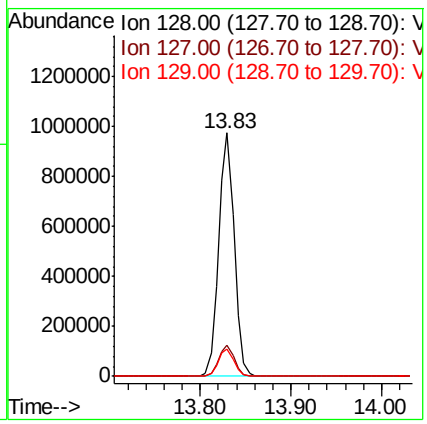
Manual Integrations APPROVED
apatel
12/27/2019 12:03:02 PM

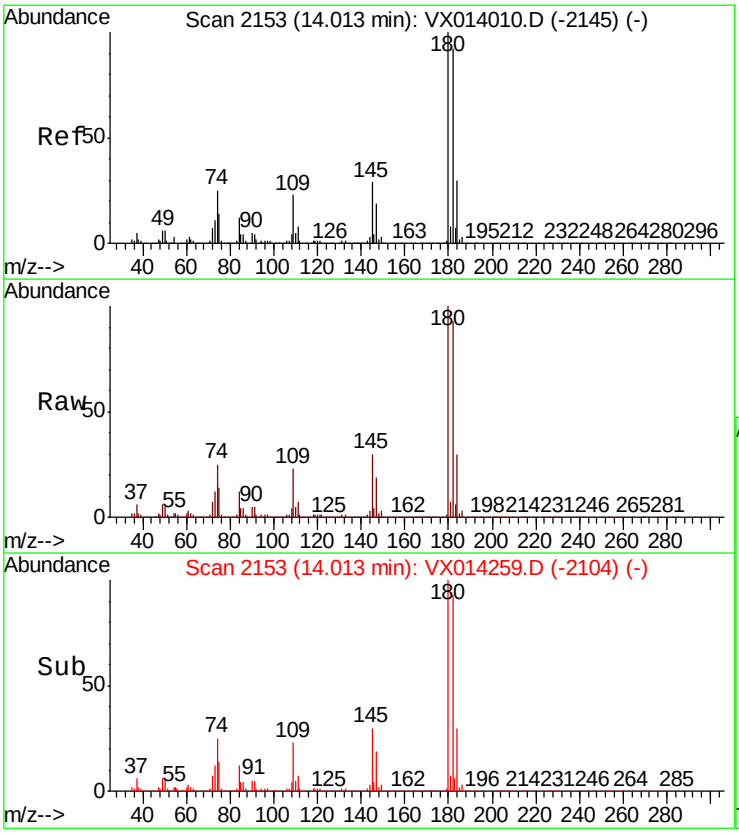


#95
Naphthalene
Concen: 50.495 ug/l
RT: 13.83 min Scan# 2123
Delta R.T. 0.00 min
Lab File: VX014259.D
Acq: 26 Dec 2019 10:46

Tgt Ion:128 Resp: 1170572

Ion	Ratio	Lower	Upper
128	100		
127	12.8	10.2	15.4
129	11.1	8.7	13.1

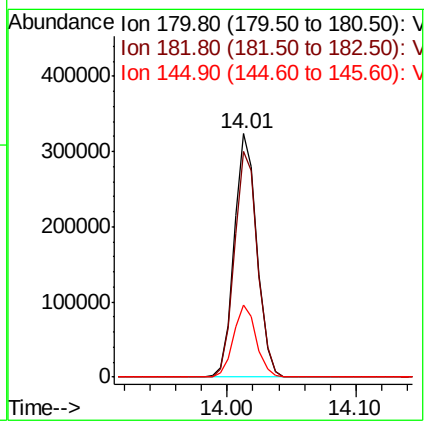




#96
1,2,3-Trichlorobenzene
Concen: 51.105 ug/l
RT: 14.01 min Scan# 2153
Delta R.T. 0.00 min
Lab File: VX014259.D
Acq: 26 Dec 2019 10:46

Tgt Ion:180 Resp: 398049

Ion	Ratio	Lower	Upper
180	100		
182	94.1	46.8	140.3
145	29.7	14.8	44.4



Evaluate Continuing Calibration Report

Data Path : Z:\voasrv\HPCHEM1\MSVOA X\Data\VX122619\
Data File : VX014259.D
Acq On : 26 Dec 2019 10:46
Operator : JC/SP
Sample : VSTDCCC050
Misc : 5.0mL/MSVOA X/WATER
ALS Vial : 2 Sample Multiplier: 1

Instrument : MSVOA_X
LabSampleId : VSTDCCC050

Quant Time: Dec 27 06:27:53 2019
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121319W.M
Quant Title : SW846 8260
QLast Update : Tue Dec 17 03:01:07 2019
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	Pentafluorobenzene	1.000	1.000	0.0	92	0.00
2	T	Dichlorodifluoromethane	0.447	0.402	10.1	86	0.00
3	P	Chloromethane	0.600	0.545	9.2	86	0.00
4	C	Vinyl Chloride	0.633	0.581	8.2#	89	0.00
5	T	Bromomethane	0.450	0.379	15.8	84	0.00
6	T	Chloroethane	0.391	0.376	3.8	93	0.01
7	T	Trichlorofluoromethane	0.784	0.755	3.7	92	0.00
8	T	Diethyl Ether	0.368	0.346	6.0	92	0.00
9	T	1,1,2-Trichlorotrifluoroeth	0.473	0.468	1.1	96	0.00
10	T	Methyl Iodide	0.575	0.581	-1.0	87	0.00
11	T	Tert butyl alcohol	0.122	0.103	15.6	85	-0.02
12	CM	1,1-Dichloroethene	0.481	0.449	6.7#	90	0.00
13	T	Acrolein	0.070	0.074	-5.7	105	0.00
14	T	Allyl chloride	0.859	0.840	2.2	93	0.00
15	T	Acrylonitrile	0.286	0.279	2.4	94	0.00
16	T	Acetone	0.368	0.310	15.8	78	0.00
17	T	Carbon Disulfide	1.418	1.168	17.6	83	0.00
18	T	Methyl Acetate	0.729	0.712	2.3	95	0.00
19	T	Methyl tert-butyl Ether	1.580	1.552	1.8	92	0.00
20	T	Methylene Chloride	0.579	0.531	8.3	93	0.00
21	T	trans-1,2-Dichloroethene	0.530	0.491	7.4	91	0.00
22	T	Diisopropyl ether	1.711	1.750	-2.3	97	0.00
23	T	Vinyl Acetate	1.397	1.455	-4.2	97	0.00
24	P	1,1-Dichloroethane	0.952	0.916	3.8	94	0.00
25	T	2-Butanone	0.454	0.420	7.5	86	0.00
26	T	2,2-Dichloropropane	0.739	0.729	1.4	93	0.00
27	T	cis-1,2-Dichloroethene	0.599	0.573	4.3	93	0.00
28	T	Bromochloromethane	0.332	0.403	-21.4#	100	0.00
29	T	Tetrahydrofuran	0.254	0.246	3.1	93	0.00
30	C	Chloroform	0.903	0.891	1.3#	93	0.00
31	T	Cyclohexane	0.847	0.829	2.1	91	0.00
32	T	1,1,1-Trichloroethane	0.769	0.744	3.3	92	0.00
33	S	1,2-Dichloroethane-d4	0.567	0.497	12.3	83	0.00
34	I	1,4-Difluorobenzene	1.000	1.000	0.0	90	0.00
35	S	Dibromofluoromethane	0.304	0.277	8.9	83	0.00
36	T	1,1-Dichloropropene	0.459	0.453	1.3	93	0.00
37	T	Ethyl Acetate	0.507	0.508	-0.2	92	0.00
38	T	Carbon Tetrachloride	0.418	0.420	-0.5	91	0.00
39	T	Methylcyclohexane	0.566	0.563	0.5	93	0.00
40	TM	Benzene	1.412	1.385	1.9	93	0.00
41	T	Methacrylonitrile	0.281	0.289	-2.8	97	0.00
42	TM	1,2-Dichloroethane	0.479	0.475	0.8	94	0.00
43	T	Isopropyl Acetate	0.838	0.838	0.0	92	0.00
44	TM	Trichloroethene	0.390	0.375	3.8	94	0.00
45	C	1,2-Dichloropropane	0.362	0.365	-0.8#	95	0.00

Evaluate Continuing Calibration Report

Data Path : Z:\voasrv\HPCHEM1\MSVOA X\Data\VX122619\
Data File : VX014259.D
Acq On : 26 Dec 2019 10:46
Operator : JC/SP
Sample : VSTDCCC050
Misc : 5.0mL/MSVOA X/WATER
ALS Vial : 2 Sample Multiplier: 1

Instrument : MSVOA_X
LabSampleId : VSTDCCC050

Quant Time: Dec 27 06:27:53 2019
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121319W.M
Quant Title : SW846 8260
QLast Update : Tue Dec 17 03:01:07 2019
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
46	T	Dibromomethane	0.239	0.230	3.8	92	0.00
47	T	Bromodichloromethane	0.451	0.465	-3.1	95	0.00
48	T	Methyl methacrylate	0.411	0.414	-0.7	92	0.00
49	T	1,4-Dioxane	0.008	0.007	12.5	85	0.00
50	S	Toluene-d8	1.183	1.075	9.1	82	0.00
51	T	4-Methyl-2-Pentanone	0.527	0.519	1.5	91	0.00
52	CM	Toluene	0.892	0.872	2.2#	92	0.00
53	T	t-1,3-Dichloropropene	0.494	0.511	-3.4	91	0.00
54	T	cis-1,3-Dichloropropene	0.550	0.577	-4.9	93	0.00
55	T	1,1,2-Trichloroethane	0.358	0.357	0.3	94	0.00
56	T	Ethyl methacrylate	0.562	0.570	-1.4	90	0.00
57	T	1,3-Dichloropropane	0.602	0.603	-0.2	93	0.00
58	T	2-Chloroethyl Vinyl ether	0.213	0.226	-6.1	92	0.00
59	T	2-Hexanone	0.424	0.406	4.2	86	0.00
60	T	Dibromochloromethane	0.355	0.373	-5.1	93	0.00
61	T	1,2-Dibromoethane	0.366	0.362	1.1	91	0.00
62	S	4-Bromofluorobenzene	0.433	0.385	11.1	80	0.00
63	I	Chlorobenzene-d5	1.000	1.000	0.0	90	0.00
64	T	Tetrachloroethene	0.442	0.436	1.4	92	0.00
65	PM	Chlorobenzene	1.063	1.042	2.0	92	0.00
66	T	1,1,1,2-Tetrachloroethane	0.380	0.390	-2.6	94	0.00
67	C	Ethyl Benzene	1.828	1.845	-0.9#	91	0.00
68	T	m/p-Xylenes	0.703	0.704	-0.1	92	0.00
69	T	o-Xylene	0.689	0.678	1.6	90	0.00
70	T	Styrene	1.166	1.175	-0.8	90	0.00
71	P	Bromoform	0.305	0.313	-2.6	91	0.00
72	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	89	0.00
73	T	Isopropylbenzene	3.520	3.588	-1.9	92	0.00
74	T	N-amyl acetate	1.650	1.625	1.5	87	0.00
75	P	1,1,2,2-Tetrachloroethane	1.220	1.180	3.3	88	0.00
76	T	1,2,3-Trichloropropane	1.085	0.965	11.1	78	0.00
77	T	Bromobenzene	0.969	0.920	5.1	91	0.00
78	T	n-propylbenzene	3.949	4.119	-4.3	92	0.00
79	T	2-Chlorotoluene	2.400	2.408	-0.3	91	0.00
80	T	1,3,5-Trimethylbenzene	2.963	3.033	-2.4	92	0.00
81	T	trans-1,4-Dichloro-2-butene	0.385	0.404	-4.9	89	0.00
82	T	4-Chlorotoluene	2.784	2.793	-0.3	92	0.00
83	T	tert-Butylbenzene	2.883	2.920	-1.3	92	0.00
84	T	1,2,4-Trimethylbenzene	2.967	3.044	-2.6	92	0.00
85	T	sec-Butylbenzene	3.404	3.534	-3.8	93	0.00
86	T	p-Isopropyltoluene	3.114	3.251	-4.4	93	0.00
87	T	1,3-Dichlorobenzene	1.698	1.657	2.4	92	0.00
88	T	1,4-Dichlorobenzene	1.726	1.652	4.3	92	0.00
89	T	n-Butylbenzene	2.657	2.835	-6.7	93	0.00

Evaluate Continuing Calibration Report

Data Path : Z:\voasrv\HPCHEM1\MSVOA X\Data\VX122619\
Data File : VX014259.D
Acq On : 26 Dec 2019 10:46
Operator : JC/SP
Sample : VSTDCCC050
Misc : 5.0mL/MSVOA X/WATER
ALS Vial : 2 Sample Multiplier: 1

Instrument : MSVOA_X
LabSampleId : VSTDCCC050

Quant Time: Dec 27 06:27:53 2019
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121319W.M
Quant Title : SW846 8260
QLast Update : Tue Dec 17 03:01:07 2019
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
90 T	Hexachloroethane	0.559	0.574	-2.7	91	0.00
91 T	1,2-Dichlorobenzene	1.709	1.643	3.9	90	0.00
92 T	1,2-Dibromo-3-Chloropropane	0.270	0.241	10.7	85	0.00
93 T	1,2,4-Trichlorobenzene	1.111	1.120	-0.8	92	0.00
94 T	Hexachlorobutadiene	0.534	0.542	-1.5	95	0.00
95 T	Naphthalene	3.263	3.296	-1.0	88	0.00
96 T	1,2,3-Trichlorobenzene	1.096	1.121	-2.3	91	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 6

Evaluate Continuing Calibration Report

Data Path : Z:\voasrv\HPCHEM1\MSVOA X\Data\VX122619\
Data File : VX014259.D
Acq On : 26 Dec 2019 10:46
Operator : JC/SP
Sample : VSTDCCC050
Misc : 5.0mL/MSVOA X/WATER
ALS Vial : 2 Sample Multiplier: 1

Instrument : MSVOA_X
LabSampleId : VSTDCCC050

Quant Time: Dec 27 06:27:53 2019
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121319W.M
Quant Title : SW846 8260
QLast Update : Tue Dec 17 03:01:07 2019
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	Pentafluorobenzene	50.000	50.000	0.0	92	0.00
2	T	Dichlorodifluoromethane	50.000	44.989	10.0	86	0.00
3	P	Chloromethane	50.000	45.355	9.3	86	0.00
4	C	Vinyl Chloride	50.000	45.823	8.4#	89	0.00
5	T	Bromomethane	50.000	42.129	15.7	84	0.00
6	T	Chloroethane	50.000	48.138	3.7	93	0.01
7	T	Trichlorofluoromethane	50.000	48.156	3.7	92	0.00
8	T	Diethyl Ether	50.000	47.011	6.0	92	0.00
9	T	1,1,2-Trichlorotrifluoroeth	50.000	49.529	0.9	96	0.00
10	T	Methyl Iodide	50.000	46.759	6.5	87	0.00
11	T	Tert butyl alcohol	250.000	210.663	15.7	85	-0.02
12	CM	1,1-Dichloroethene	50.000	46.676	6.6#	90	0.00
13	T	Acrolein	250.000	262.503	-5.0	105	0.00
14	T	Allyl chloride	50.000	48.908	2.2	93	0.00
15	T	Acrylonitrile	250.000	243.663	2.5	94	0.00
16	T	Acetone	250.000	210.531	15.8	78	0.00
17	T	Carbon Disulfide	50.000	43.833	12.3	83	0.00
18	T	Methyl Acetate	50.000	48.835	2.3	95	0.00
19	T	Methyl tert-butyl Ether	50.000	49.088	1.8	92	0.00
20	T	Methylene Chloride	50.000	45.794	8.4	93	0.00
21	T	trans-1,2-Dichloroethene	50.000	46.333	7.3	91	0.00
22	T	Diisopropyl ether	50.000	51.143	-2.3	97	0.00
23	T	Vinyl Acetate	250.000	260.485	-4.2	97	0.00
24	P	1,1-Dichloroethane	50.000	48.105	3.8	94	0.00
25	T	2-Butanone	250.000	231.299	7.5	86	0.00
26	T	2,2-Dichloropropane	50.000	49.340	1.3	93	0.00
27	T	cis-1,2-Dichloroethene	50.000	47.774	4.5	93	0.00
28	T	Bromochloromethane	50.000	54.948	-9.9	100	0.00
29	T	Tetrahydrofuran	250.000	242.455	3.0	93	0.00
30	C	Chloroform	50.000	49.363	1.3#	93	0.00
31	T	Cyclohexane	50.000	48.941	2.1	91	0.00
32	T	1,1,1-Trichloroethane	50.000	48.348	3.3	92	0.00
33	S	1,2-Dichloroethane-d4	50.000	43.809	12.4	83	0.00
34	I	1,4-Difluorobenzene	50.000	50.000	0.0	90	0.00
35	S	Dibromofluoromethane	50.000	45.537	8.9	83	0.00
36	T	1,1-Dichloropropene	50.000	49.343	1.3	93	0.00
37	T	Ethyl Acetate	50.000	50.176	-0.4	92	0.00
38	T	Carbon Tetrachloride	50.000	50.248	-0.5	91	0.00
39	T	Methylcyclohexane	50.000	49.678	0.6	93	0.00
40	TM	Benzene	50.000	49.062	1.9	93	0.00
41	T	Methacrylonitrile	50.000	51.360	-2.7	97	0.00
42	TM	1,2-Dichloroethane	50.000	49.676	0.6	94	0.00
43	T	Isopropyl Acetate	50.000	49.975	0.0	92	0.00
44	TM	Trichloroethene	50.000	48.112	3.8	94	0.00
45	C	1,2-Dichloropropane	50.000	50.472	-0.9#	95	0.00

Evaluate Continuing Calibration Report

Data Path : Z:\voasrv\HPCHEM1\MSVOA X\Data\VX122619\
Data File : VX014259.D
Acq On : 26 Dec 2019 10:46
Operator : JC/SP
Sample : VSTDCCC050
Misc : 5.0mL/MSVOA X/WATER
ALS Vial : 2 Sample Multiplier: 1

Instrument : MSVOA_X
LabSampleId : VSTDCCC050

Quant Time: Dec 27 06:27:53 2019
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121319W.M
Quant Title : SW846 8260
QLast Update : Tue Dec 17 03:01:07 2019
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
46	T	Dibromomethane	50.000	48.059	3.9	92	0.00
47	T	Bromodichloromethane	50.000	51.599	-3.2	95	0.00
48	T	Methyl methacrylate	50.000	50.461	-0.9	92	0.00
49	T	1,4-Dioxane	1000.000	881.867	11.8	85	0.00
50	S	Toluene-d8	50.000	45.406	9.2	82	0.00
51	T	4-Methyl-2-Pentanone	250.000	246.356	1.5	91	0.00
52	CM	Toluene	50.000	48.848	2.3#	92	0.00
53	T	t-1,3-Dichloropropene	50.000	51.764	-3.5	91	0.00
54	T	cis-1,3-Dichloropropene	50.000	52.417	-4.8	93	0.00
55	T	1,1,2-Trichloroethane	50.000	49.937	0.1	94	0.00
56	T	Ethyl methacrylate	50.000	50.704	-1.4	90	0.00
57	T	1,3-Dichloropropane	50.000	50.071	-0.1	93	0.00
58	T	2-Chloroethyl Vinyl ether	250.000	265.501	-6.2	92	0.00
59	T	2-Hexanone	250.000	239.748	4.1	86	0.00
60	T	Dibromochloromethane	50.000	52.437	-4.9	93	0.00
61	T	1,2-Dibromoethane	50.000	49.510	1.0	91	0.00
62	S	4-Bromofluorobenzene	50.000	44.468	11.1	80	0.00
63	I	Chlorobenzene-d5	50.000	50.000	0.0	90	0.00
64	T	Tetrachloroethene	50.000	49.300	1.4	92	0.00
65	PM	Chlorobenzene	50.000	49.025	2.0	92	0.00
66	T	1,1,1,2-Tetrachloroethane	50.000	51.343	-2.7	94	0.00
67	C	Ethyl Benzene	50.000	50.464	-0.9#	91	0.00
68	T	m/p-Xylenes	100.000	100.167	-0.2	92	0.00
69	T	o-Xylene	50.000	49.185	1.6	90	0.00
70	T	Styrene	50.000	50.396	-0.8	90	0.00
71	P	Bromoform	50.000	51.356	-2.7	91	0.00
72	I	1,4-Dichlorobenzene-d4	50.000	50.000	0.0	89	0.00
73	T	Isopropylbenzene	50.000	50.955	-1.9	92	0.00
74	T	N-amyl acetate	50.000	49.227	1.5	87	0.00
75	P	1,1,2,2-Tetrachloroethane	50.000	48.350	3.3	88	0.00
76	T	1,2,3-Trichloropropane	50.000	44.454	11.1	78	0.00
77	T	Bromobenzene	50.000	47.507	5.0	91	0.00
78	T	n-propylbenzene	50.000	52.162	-4.3	92	0.00
79	T	2-Chlorotoluene	50.000	50.159	-0.3	91	0.00
80	T	1,3,5-Trimethylbenzene	50.000	51.178	-2.4	92	0.00
81	T	trans-1,4-Dichloro-2-butene	50.000	52.520	-5.0	89	0.00
82	T	4-Chlorotoluene	50.000	50.150	-0.3	92	0.00
83	T	tert-Butylbenzene	50.000	50.640	-1.3	92	0.00
84	T	1,2,4-Trimethylbenzene	50.000	51.299	-2.6	92	0.00
85	T	sec-Butylbenzene	50.000	51.911	-3.8	93	0.00
86	T	p-Isopropyltoluene	50.000	52.211	-4.4	93	0.00
87	T	1,3-Dichlorobenzene	50.000	48.810	2.4	92	0.00
88	T	1,4-Dichlorobenzene	50.000	47.856	4.3	92	0.00
89	T	n-Butylbenzene	50.000	53.358	-6.7	93	0.00

Evaluate Continuing Calibration Report

Data Path : Z:\voasrv\HPCHEM1\MSVOA X\Data\VX122619\
Data File : VX014259.D
Acq On : 26 Dec 2019 10:46
Operator : JC/SP
Sample : VSTDCCC050
Misc : 5.0mL/MSVOA X/WATER
ALS Vial : 2 Sample Multiplier: 1

Instrument : MSVOA_X
LabSampleId : VSTDCCC050

Quant Time: Dec 27 06:27:53 2019
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121319W.M
Quant Title : SW846 8260
QLast Update : Tue Dec 17 03:01:07 2019
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
90 T	Hexachloroethane	50.000	51.309	-2.6	91	0.00
91 T	1,2-Dichlorobenzene	50.000	48.080	3.8	90	0.00
92 T	1,2-Dibromo-3-Chloropropane	50.000	44.664	10.7	85	0.00
93 T	1,2,4-Trichlorobenzene	50.000	50.434	-0.9	92	0.00
94 T	Hexachlorobutadiene	50.000	50.784	-1.6	95	0.00
95 T	Naphthalene	50.000	50.495	-1.0	88	0.00
96 T	1,2,3-Trichlorobenzene	50.000	51.105	-2.2	91	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 6

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: DAYE01

Lab Code: CHEM Case No.: K6405 SAS No.: K6405 SDG No.: K6405

Instrument ID: MSVOA_X Calibration Date/Time: 12/27/2019 12:03

Lab File ID: VX014302.D Init. Calib. Date(s): 12/13/2019 12/13/2019

Heated Purge: (Y/N) N Init. Calib. Time(s): 14:49 16:45

GC Column: DB-624UI ID: 0.18 (mm)

COMPOUND	RRF	RRF050	MIN RRF	%D	MAX%D
Dichlorodifluoromethane	0.447	0.397		-11.19	20
Chloromethane	0.600	0.535	0.1	-10.83	20
Vinyl Chloride	0.633	0.579		-8.53	20
Bromomethane	0.450	0.398		-11.56	20
Chloroethane	0.391	0.369		-5.63	20
Trichlorofluoromethane	0.784	0.749		-4.46	20
1,1,2-Trichlorotrifluoroethane	0.473	0.464		-1.9	20
1,1-Dichloroethene	0.481	0.454		-5.61	20
Acetone	0.368	0.300		-18.48	20
Carbon Disulfide	1.418	1.161		-18.12	20
Methyl tert-butyl Ether	1.580	1.556		-1.52	20
Methyl Acetate	0.729	0.718		-1.51	20
Methylene Chloride	0.579	0.531		-8.29	20
trans-1,2-Dichloroethene	0.530	0.495		-6.6	20
1,1-Dichloroethane	0.952	0.917	0.1	-3.68	20
Cyclohexane	0.847	0.840		-0.83	20
2-Butanone	0.454	0.427		-5.95	20
Carbon Tetrachloride	0.418	0.420		0.48	20
cis-1,2-Dichloroethene	0.599	0.575		-4.01	20
Bromochloromethane	0.332	0.385		15.96	20
Chloroform	0.903	0.897		-0.66	20
1,1,1-Trichloroethane	0.769	0.747		-2.86	20
Methylcyclohexane	0.566	0.568		0.35	20
Benzene	1.412	1.380		-2.27	20
1,2-Dichloroethane	0.479	0.471		-1.67	20
Trichloroethene	0.390	0.380		-2.56	20
1,2-Dichloropropane	0.362	0.367		1.38	20
Bromodichloromethane	0.451	0.464		2.88	20
4-Methyl-2-Pentanone	0.527	0.521		-1.14	20
Toluene	0.892	0.865		-3.03	20
t-1,3-Dichloropropene	0.494	0.515		4.25	20
cis-1,3-Dichloropropene	0.550	0.575		4.55	20
1,1,2-Trichloroethane	0.358	0.356		-0.56	20
2-Hexanone	0.424	0.413		-2.59	20
Dibromochloromethane	0.355	0.368		3.66	20
1,2-Dibromoethane	0.366	0.367		0.27	20
Tetrachloroethene	0.442	0.433		-2.04	20
Chlorobenzene	1.063	1.039	0.3	-2.26	20
Ethyl Benzene	1.828	1.839		0.6	20

All other compounds must meet a minimum RRF of 0.010.
RRF of 1,4-Dioxane = Value should be divide by 1000.

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: DAYE01

Lab Code: CHEM Case No.: K6405 SAS No.: K6405 SDG No.: K6405

Instrument ID: MSVOA_X Calibration Date/Time: 12/27/2019 12:03

Lab File ID: VX014302.D Init. Calib. Date(s): 12/13/2019 12/13/2019

Heated Purge: (Y/N) N Init. Calib. Time(s): 14:49 16:45

GC Column: DB-624UI ID: 0.18 (mm)

COMPOUND	RRF	RRF050	MIN RRF	%D	MAX%D
m/p-Xylenes	0.703	0.708		0.71	20
o-Xylene	0.689	0.676		-1.89	20
Styrene	1.166	1.172		0.51	20
Bromoform	0.305	0.315	0.1	3.28	20
Isopropylbenzene	3.520	3.491		-0.82	20
1,1,2,2-Tetrachloroethane	1.220	1.142	0.3	-6.39	20
1,3-Dichlorobenzene	1.698	1.597		-5.95	20
1,4-Dichlorobenzene	1.726	1.612		-6.61	20
1,2-Dichlorobenzene	1.709	1.602		-6.26	20
1,2-Dibromo-3-Chloropropane	0.270	0.234		-13.33	20
1,2,4-Trichlorobenzene	1.111	1.121		0.9	20
1,2,3-Trichlorobenzene	1.096	1.094		-0.18	20
1,2-Dichloroethane-d4	0.567	0.545		-3.88	20
Dibromofluoromethane	0.304	0.307		0.99	20
Toluene-d8	1.183	1.182		-0.09	20
4-Bromofluorobenzene	0.433	0.425		-1.85	20

All other compounds must meet a minimum RRF of 0.010.
RRF of 1,4-Dioxane = Value should be divide by 1000.

Quantitation Report (QT Reviewed)

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX122719\
Data File : VX014302.D
Acq On : 27 Dec 2019 12:03
Operator : JC/SP
Sample : VSTDCCC050
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 30 05:52:21 2019
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121319W.M
Quant Title : SW846 8260
QLast Update : Tue Dec 17 03:01:07 2019
Response via : Initial Calibration

Instrument : MSVOA_X
ClientSampleId : VSTDCCC050

Manual Integrations APPROVED
apatel
12/30/2019 11:04:07 AM

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	5.65	168	510192	50.00	ug/l	0.00
34) 1,4-Difluorobenzene	6.85	114	769144	50.00	ug/l	0.00
63) Chlorobenzene-d5	10.10	117	696368	50.00	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	12.07	152	361319	50.00	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	6.05	65	278215	48.11	ug/l	0.00
Spiked Amount 50.000			Recovery = 96.22%			
35) Dibromofluoromethane	5.48	113	235748	50.42	ug/l	0.00
Spiked Amount 50.000			Recovery = 100.84%			
50) Toluene-d8	8.71	98	909303	49.95	ug/l	0.00
Spiked Amount 50.000			Recovery = 99.90%			
62) 4-Bromofluorobenzene	11.13	95	326756	49.11	ug/l	0.00
Spiked Amount 50.000			Recovery = 98.22%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.19	85	202483	44.362	ug/l	100
3) Chloromethane	1.32	50	273142	44.592	ug/l	100
4) Vinyl Chloride	1.40	62	295345	45.695	ug/l	99
5) Bromomethane	1.63	94	202838	44.216	ug/l	100
6) Chloroethane	1.72	64	188310	47.206	ug/l	97
7) Trichlorofluoromethane	1.92	101	382126	47.759	ug/l	100
8) Diethyl Ether	2.18	74	173047	46.084	ug/l	97
9) 1,1,2-Trichlorotrifluoroet	2.37	101	236741	49.085	ug/l	100
10) Methyl Iodide	2.50	142	290424	45.888	ug/l	99
11) Tert butyl alcohol	3.03	59	261977	209.678	ug/l	100
12) 1,1-Dichloroethene	2.37	96	231823	47.236	ug/l	96
13) Acrolein	2.28	56	201883	282.270	ug/l	99
14) Allyl chloride	2.72	41	432818	49.394	ug/l	99
15) Acrylonitrile	3.13	53	715826	245.461	ug/l	99
16) Acetone	2.43	43	764744	203.716	ug/l	98
17) Carbon Disulfide	2.56	76	592351	43.574	ug/l	100
18) Methyl Acetate	2.76	43	366392	49.255	ug/l	99
19) Methyl tert-butyl Ether	3.18	73	793977	49.233	ug/l	97
20) Methylene Chloride	2.85	84	270724	45.796	ug/l	99
21) trans-1,2-Dichloroethene	3.15	96	252512	46.703	ug/l	99
22) Diisopropyl ether	3.84	45	894400	51.221	ug/l	94
23) Vinyl Acetate	3.80	43	3757693	263.703	ug/l	100
24) 1,1-Dichloroethane	3.69	63	467771	48.150	ug/l	99
25) 2-Butanone	4.65	43	1089009	235.299	ug/l	99
26) 2,2-Dichloropropane	4.57	77	377452	50.041	ug/l	99
27) cis-1,2-Dichloroethene	4.58	96	293117	47.936	ug/l	99
28) Bromochloromethane	5.00	49	196351	52.530	ug/l	94
29) Tetrahydrofuran	5.11	42	639059	246.868	ug/l	98
30) Chloroform	5.20	83	457822	49.712	ug/l	100
31) Cyclohexane	5.57	56	428807	49.628	ug/l	97
32) 1,1,1-Trichloroethane	5.48	97	380981	48.538	ug/l	99
36) 1,1-Dichloropropene	5.79	75	344263	48.781	ug/l	99
37) Ethyl Acetate	4.81	43	387439	49.714	ug/l	99
38) Carbon Tetrachloride	5.78	117	323039	50.246	ug/l	99

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX122719\
Data File : VX014302.D
Acq On : 27 Dec 2019 12:03
Operator : JC/SP
Sample : VSTDCCC050
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 30 05:52:21 2019
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121319W.M
Quant Title : SW846 8260
QLast Update : Tue Dec 17 03:01:07 2019
Response via : Initial Calibration

Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

Manual Integrations APPROVED
apatel
12/30/2019 11:04:07 AM

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
39) Methylcyclohexane	7.45	83	436509	50.092	ug/l		98
40) Benzene	6.13	78	1061404	48.880	ug/l		99
41) Methacrylonitrile	5.02	41	215057	49.734	ug/l		99
42) 1,2-Dichloroethane	6.18	62	362562	49.256	ug/l		99
43) Isopropyl Acetate	6.43	43	646037	50.090	ug/l		99
44) Trichloroethene	7.20	130	291949	48.676	ug/l		98
45) 1,2-Dichloropropane	7.51	63	282569	50.770	ug/l		98
46) Dibromomethane	7.65	93	176019	47.835	ug/l		99
47) Bromodichloromethane	7.89	83	356751	51.478	ug/l		98
48) Methyl methacrylate	7.76	41	318511	50.433	ug/l		98
49) 1,4-Dioxane	7.73	88	113638	884.184	ug/l		98
51) 4-Methyl-2-Pentanone	8.64	43	2003693	247.374	ug/l		99
52) Toluene	8.78	92	665377	48.479	ug/l		98
53) t-1,3-Dichloropropene	9.03	75	396477	52.175	ug/l		98
54) cis-1,3-Dichloropropene	8.43	75	442272	52.242	ug/l		98
55) 1,1,2-Trichloroethane	9.21	97	273574	49.733	ug/l		98
56) Ethyl methacrylate	9.17	69	436608	50.528	ug/l		100
57) 1,3-Dichloropropane	9.36	76	462008	49.919	ug/l		100
58) 2-Chloroethyl Vinyl ether	8.30	63	899003	274.920	ug/l		99
59) 2-Hexanone	9.48	43	1587018	243.392	ug/l		100
60) Dibromochloromethane	9.57	129	283107	51.776	ug/l		99
61) 1,2-Dibromoethane	9.67	107	282109	50.124	ug/l		99
64) Tetrachloroethene	9.33	164	301519	48.932	ug/l		98
65) Chlorobenzene	10.14	112	723465	48.861	ug/l		97
66) 1,1,1,2-Tetrachloroethane	10.21	131	266696	50.446	ug/l		99
67) Ethyl Benzene	10.25	91	1280881	50.318	ug/l		98
68) m/p-Xylenes	10.35	106	986317	100.741	ug/l		100
69) o-Xylene	10.70	106	470550	49.004	ug/l		98
70) Styrene	10.71	104	815836	50.245	ug/l		99
71) Bromoform	10.85	173	219667	51.690	ug/l	#	99
73) Isopropylbenzene	11.01	105	1261263	49.579	ug/l		100
74) N-amyl acetate	10.89	43	577863	48.460	ug/l		100
75) 1,1,2,2-Tetrachloroethane	11.26	83	412518	46.772	ug/l		100
76) 1,2,3-Trichloropropane	11.29	75	339009m	43.218	ug/l		
77) Bromobenzene	11.25	156	322167	46.028	ug/l		98
78) n-propylbenzene	11.35	91	1465712	51.365	ug/l		100
79) 2-Chlorotoluene	11.42	91	849140	48.954	ug/l		100
80) 1,3,5-Trimethylbenzene	11.50	105	1060635	49.539	ug/l		100
81) trans-1,4-Dichloro-2-buten	11.07	75	138352	49.782	ug/l		98
82) 4-Chlorotoluene	11.51	91	983077	48.860	ug/l		99
83) tert-Butylbenzene	11.76	119	1029302	49.401	ug/l		99
84) 1,2,4-Trimethylbenzene	11.80	105	1071108	49.956	ug/l		100
85) sec-Butylbenzene	11.94	105	1245994	50.657	ug/l		100
86) p-Isopropyltoluene	12.06	119	1151562	51.181	ug/l		99
87) 1,3-Dichlorobenzene	12.02	146	576954	47.033	ug/l		100
88) 1,4-Dichlorobenzene	12.09	146	582380	46.690	ug/l		99
89) n-Butylbenzene	12.39	91	1015702	52.906	ug/l		99
90) Hexachloroethane	12.59	117	200969	49.728	ug/l		99
91) 1,2-Dichlorobenzene	12.39	146	578948	46.883	ug/l		100
92) 1,2-Dibromo-3-Chloropropan	12.99	75	84504	43.297	ug/l		96

Data Path : Z:\VOASRV\HPCHEM1\MSVOA X\DATA\VX122719\
Data File : VX014302.D
Acq On : 27 Dec 2019 12:03
Operator : JC/SP
Sample : VSTDCCC050
Misc : 5.0mL/MSVOA X/WATER
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 30 05:52:21 2019
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121319W.M
Quant Title : SW846 8260
QLast Update : Tue Dec 17 03:01:07 2019
Response via : Initial Calibration

Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

Manual Integrations APPROVED
apatel
12/30/2019 11:04:07 AM

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
93) 1,2,4-Trichlorobenzene	13.64	180	404910	50.448	ug/l	98
94) Hexachlorobutadiene	13.77	225	193859	50.257	ug/l	96
95) Naphthalene	13.83	128	1186498	50.315	ug/l	100
96) 1,2,3-Trichlorobenzene	14.01	180	395211	49.881	ug/l	98

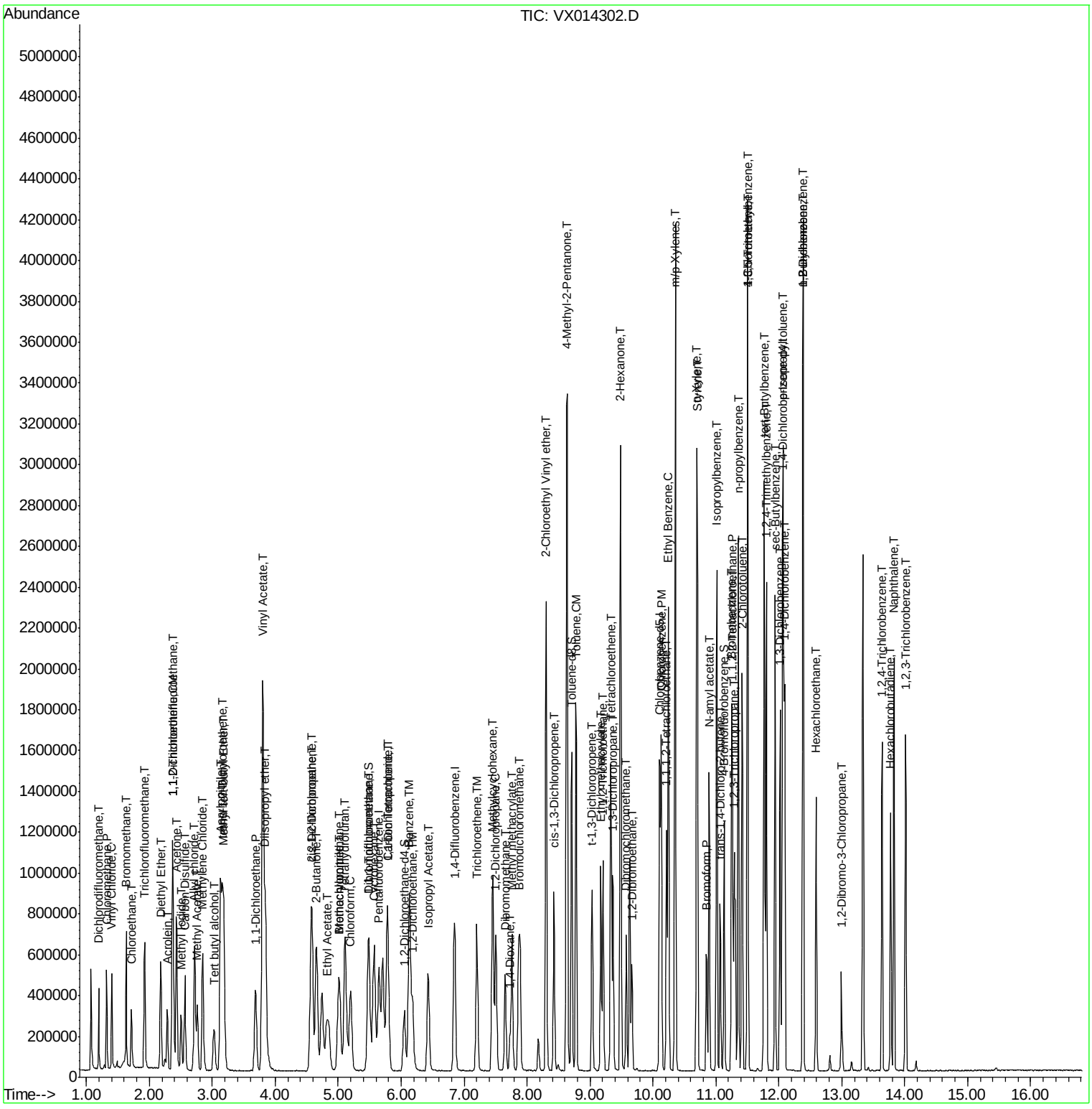
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX122719\
Data File : VX014302.D
Acq On : 27 Dec 2019 12:03
Operator : JC/SP
Sample : VSTDCCC050
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 30 05:52:21 2019
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121319W.M
Quant Title : SW846 8260
QLast Update : Tue Dec 17 03:01:07 2019
Response via : Initial Calibration

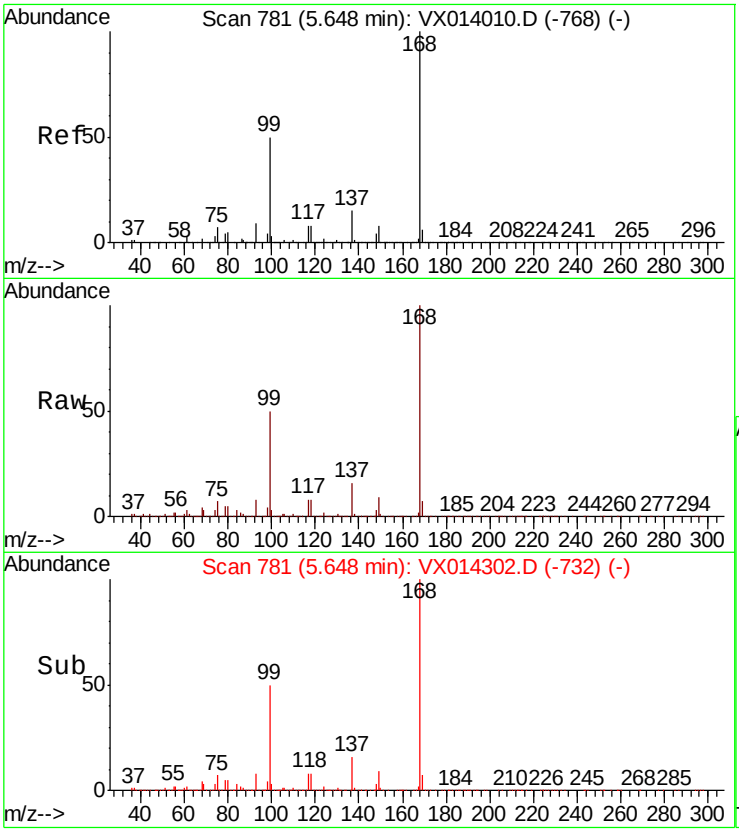
Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

Manual Integrations APPROVED
apatel
12/30/2019 11:04:07 AM



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

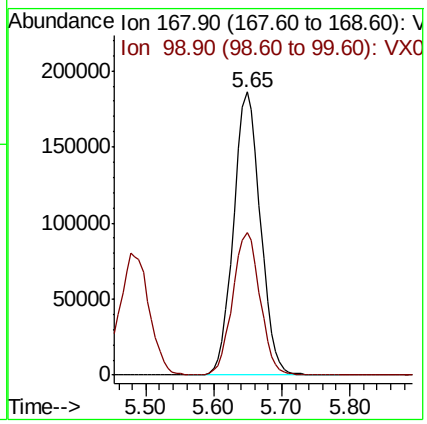
Manual Integrations APPROVED
apatel
12/30/2019 11:04:07 AM

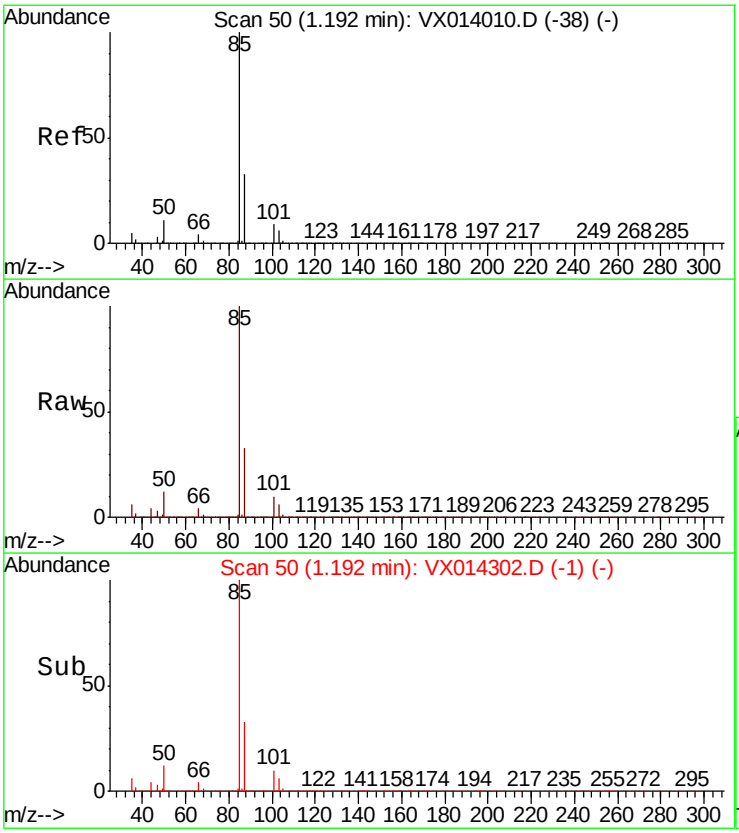


#1
Pentafluorobenzene
Concen: 50.000 ug/l
RT: 5.65 min Scan# 781
Delta R.T. 0.00 min
Lab File: VX014302.D
Acq: 27 Dec 2019 12:03

Tgt Ion:168 Resp: 510192

Ion	Ratio	Lower	Upper
168	100		
99	50.1	40.3	60.5

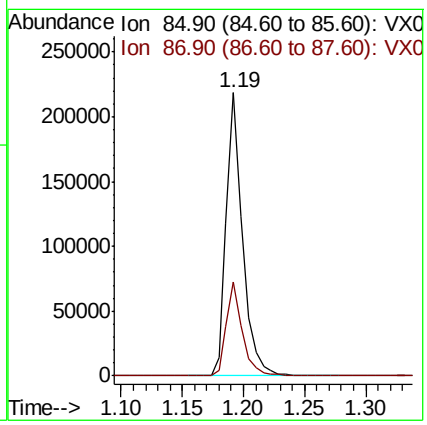




#2
Dichlorodifluoromethane
Concen: 44.362 ug/l
RT: 1.19 min Scan# 50
Delta R.T. 0.00 min
Lab File: VX014302.D
Acq: 27 Dec 2019 12:03

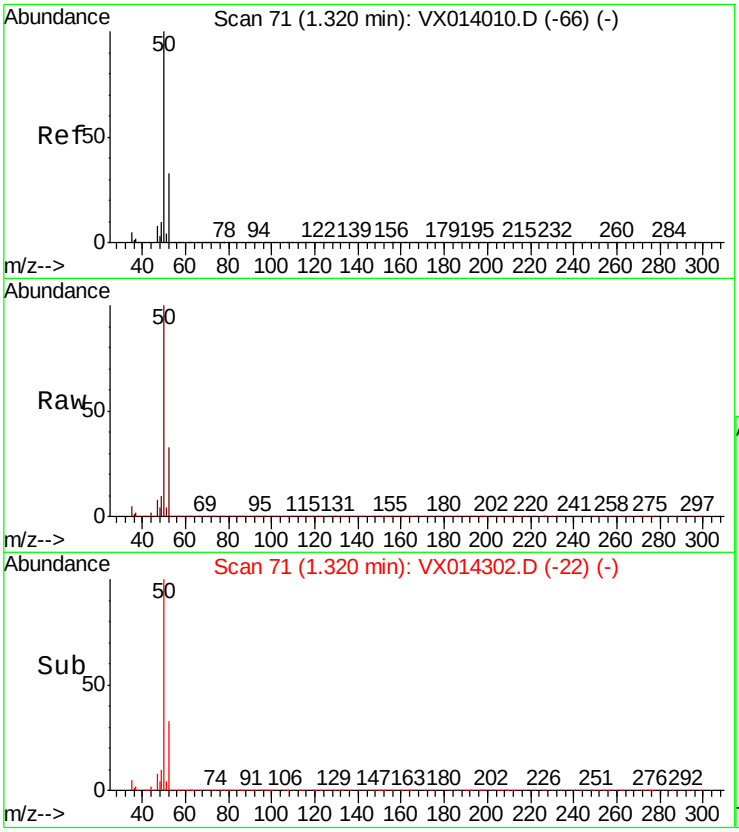
Tgt Ion: 85 Resp: 202483

Ion	Ratio	Lower	Upper
85	100		
87	33.0	16.4	49.2



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

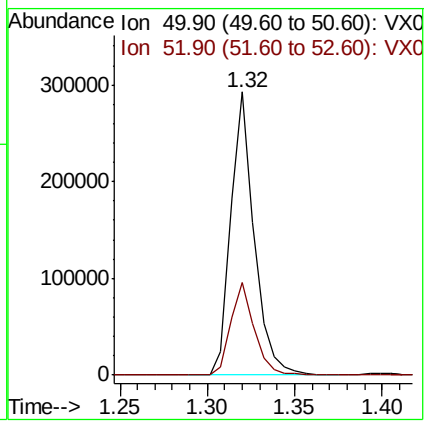
Manual Integrations APPROVED
apatel
12/30/2019 11:04:07 AM

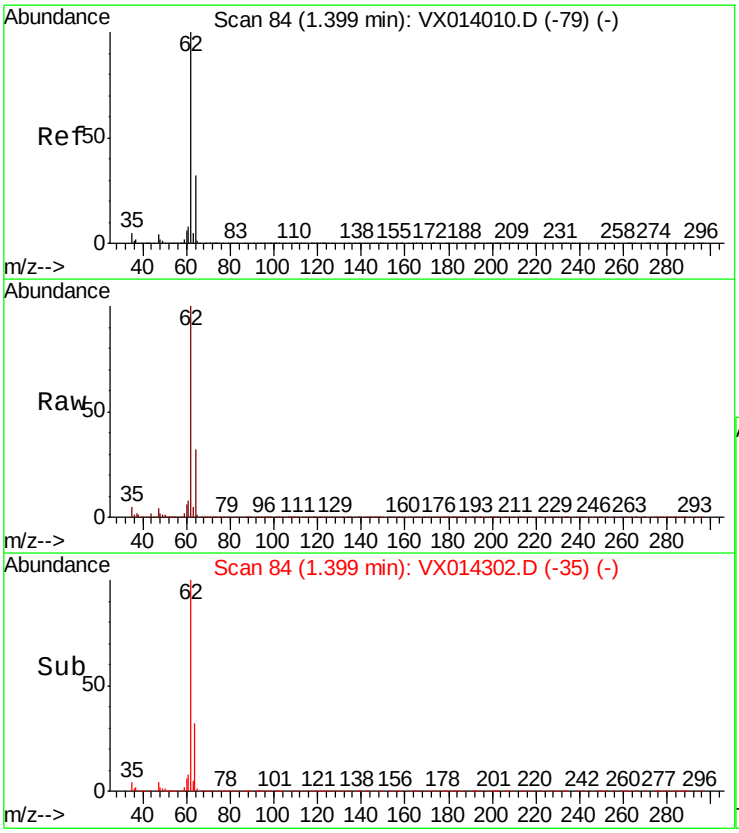


#3
Chloromethane
Concen: 44.592 ug/l
RT: 1.32 min Scan# 71
Delta R.T. 0.00 min
Lab File: VX014302.D
Acq: 27 Dec 2019 12:03

Tgt Ion: 50 Resp: 273142

Ion	Ratio	Lower	Upper
50	100		
52	32.5	26.2	39.4

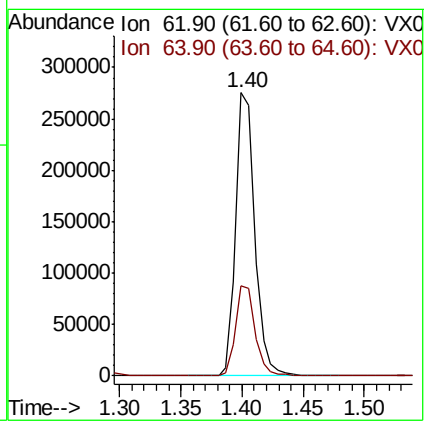




#4
Vinyl Chloride
Concen: 45.695 ug/l
RT: 1.40 min Scan# 84
Delta R.T. 0.00 min
Lab File: VX014302.D
Acq: 27 Dec 2019 12:03

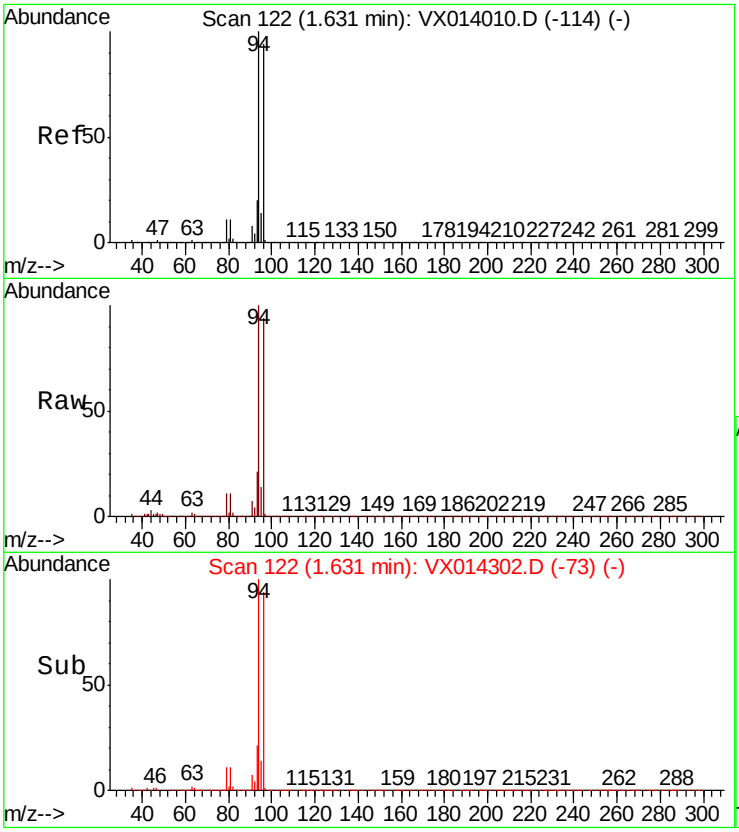
Tgt Ion: 62 Resp: 295345

Ion	Ratio	Lower	Upper
62	100		
64	31.6	25.7	38.5



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

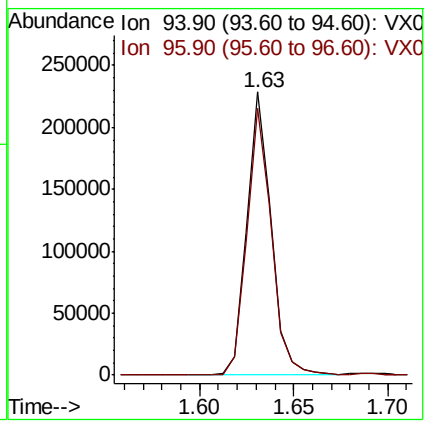
Manual Integrations APPROVED
apatel
12/30/2019 11:04:07 AM

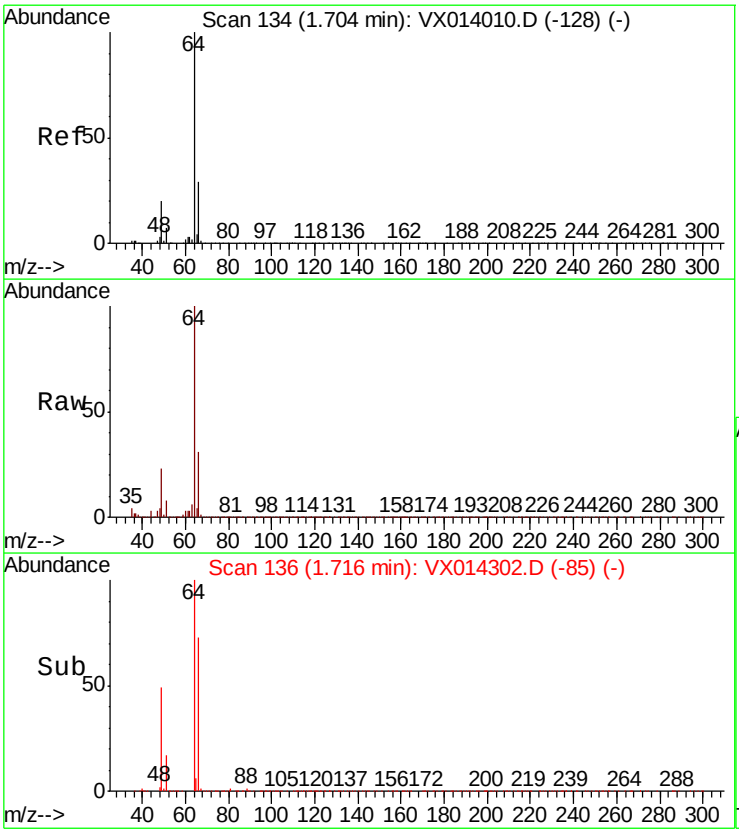


#5
Bromomethane
Concen: 44.216 ug/l
RT: 1.63 min Scan# 122
Delta R.T. 0.00 min
Lab File: VX014302.D
Acq: 27 Dec 2019 12:03

Tgt Ion: 94 Resp: 202838

Ion	Ratio	Lower	Upper
94	100		
96	94.3	75.2	112.8

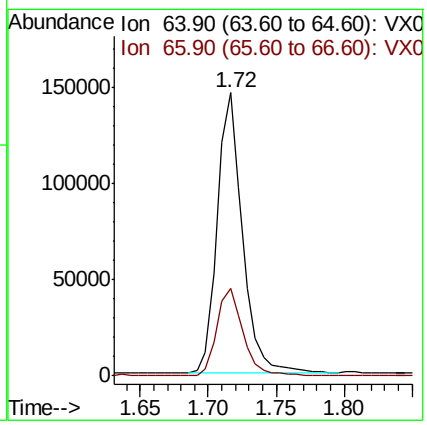




#6
Chloroethane
Concen: 47.206 ug/l
RT: 1.72 min Scan# 136
Delta R.T. 0.01 min
Lab File: VX014302.D
Acq: 27 Dec 2019 12:03

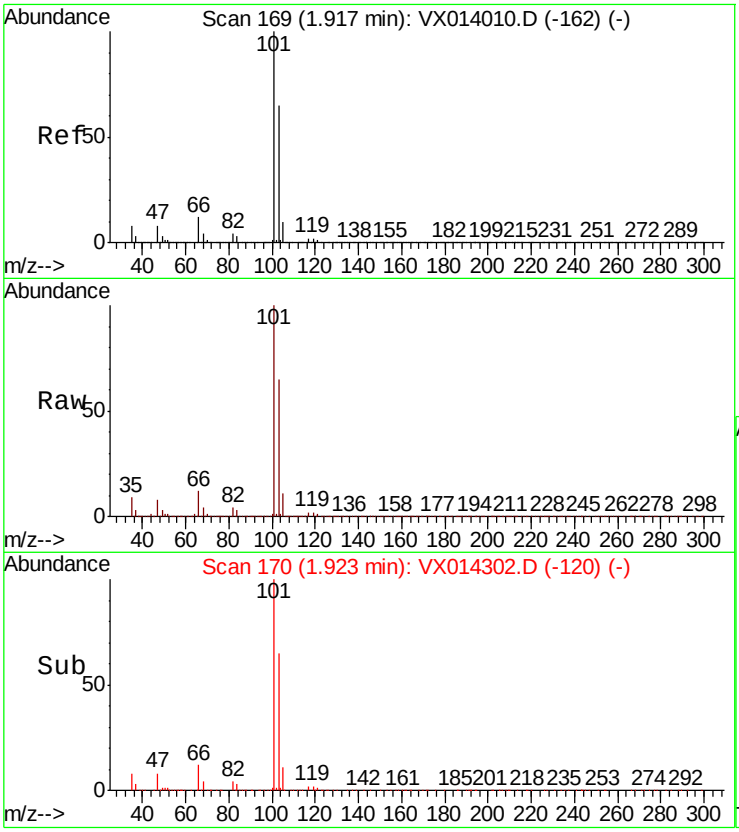
Tgt Ion: 64 Resp: 188310

Ion	Ratio	Lower	Upper
64	100		
66	31.1	23.4	35.2



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

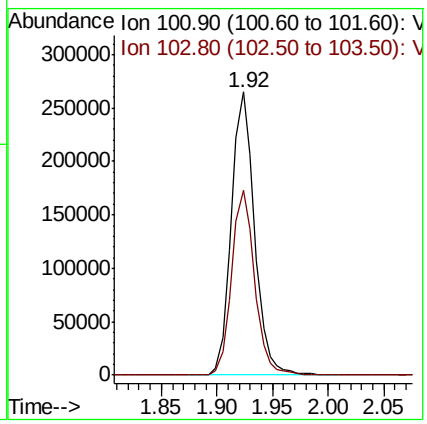
Manual Integrations APPROVED
apatel
12/30/2019 11:04:07 AM

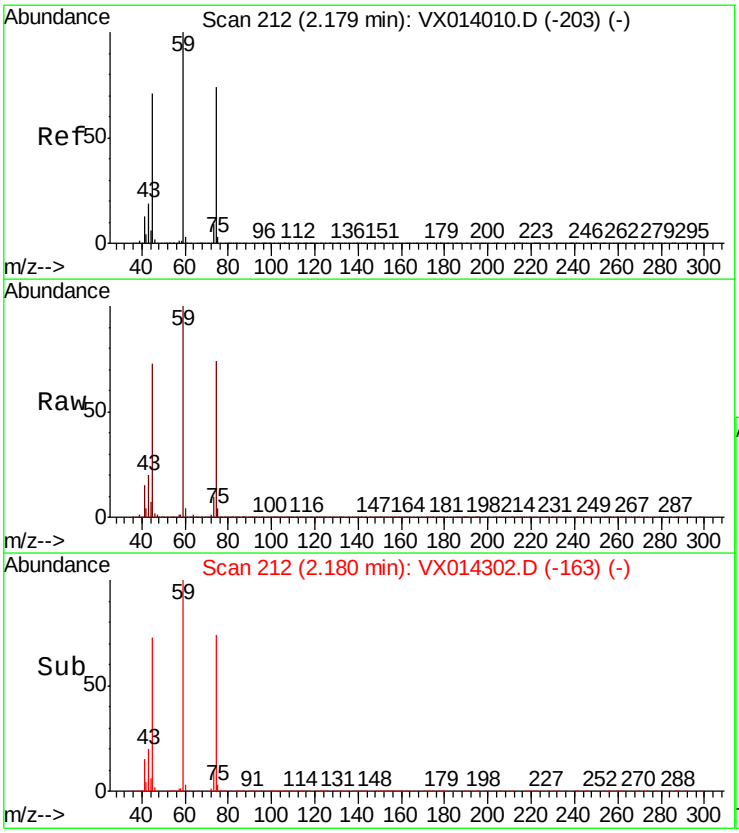


#7
Trichlorofluoromethane
Concen: 47.759 ug/l
RT: 1.92 min Scan# 170
Delta R.T. 0.01 min
Lab File: VX014302.D
Acq: 27 Dec 2019 12:03

Tgt Ion:101 Resp: 382126

Ion	Ratio	Lower	Upper
101	100		
103	65.1	52.2	78.4

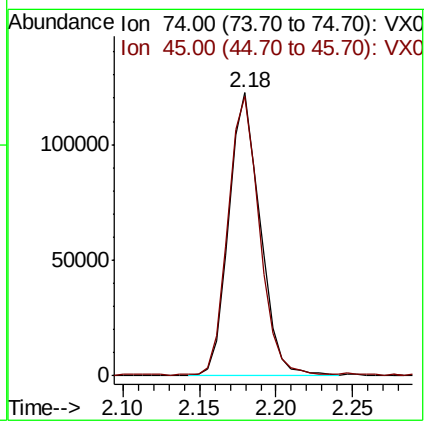


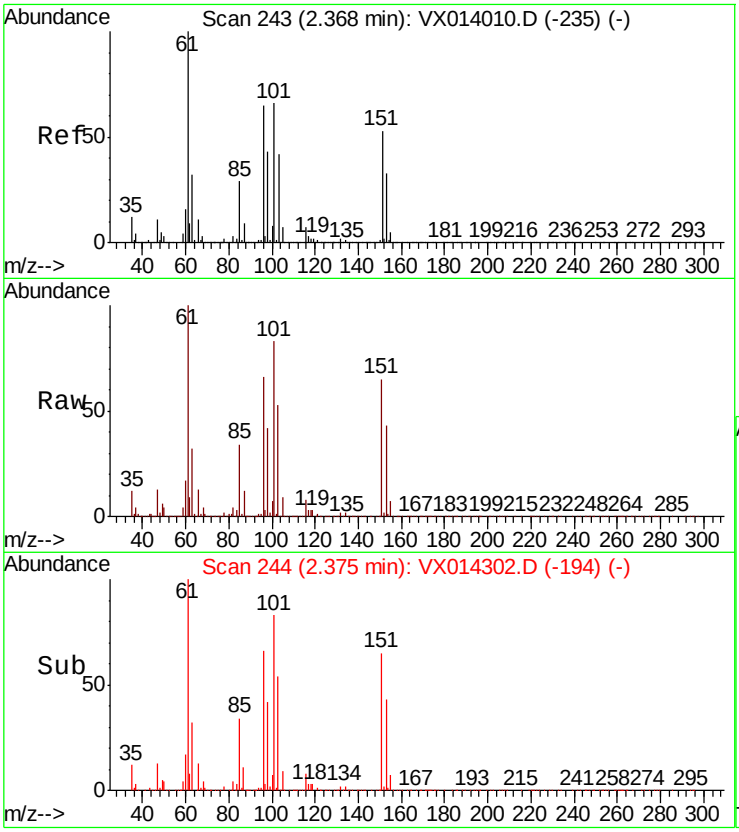


#8
Diethyl Ether
Concen: 46.084 ug/l
RT: 2.18 min Scan# 212
Delta R.T. 0.00 min
Lab File: VX014302.D
Acq: 27 Dec 2019 12:03

Tgt Ion: 74 Resp: 173047

Ion	Ratio	Lower	Upper
74	100		
45	99.2	48.1	144.3

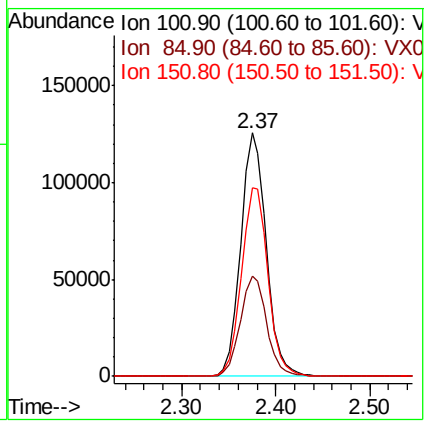




#9
1,1,2-Trichlorotrifluoroethane
Concen: 49.085 ug/l
RT: 2.37 min Scan# 244
Delta R.T. 0.01 min
Lab File: VX014302.D
Acq: 27 Dec 2019 12:03

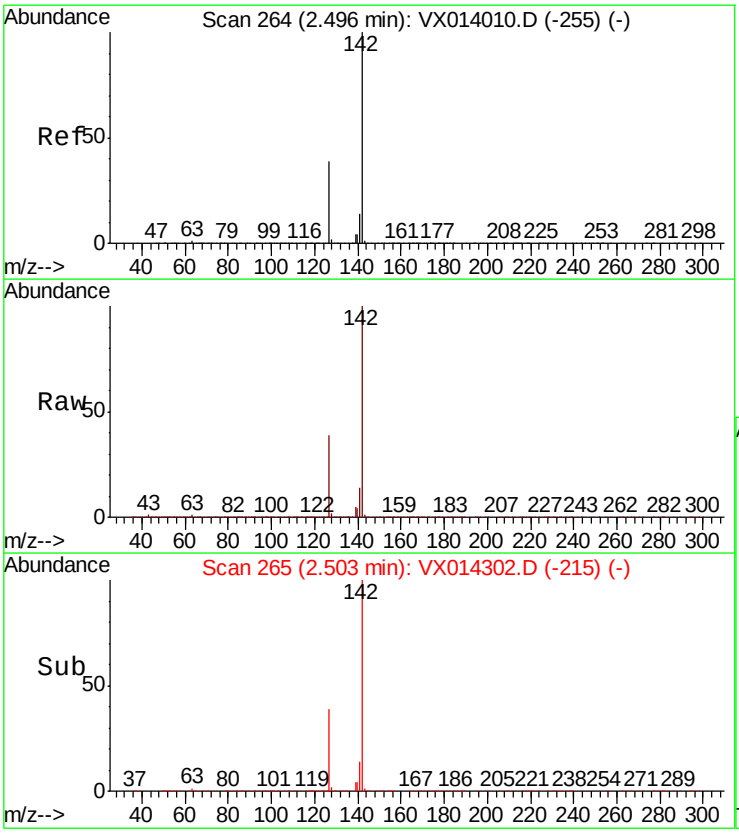
Tgt Ion:101 Resp: 236741

Ion	Ratio	Lower	Upper
101	100		
85	42.6	33.7	50.5
151	80.4	64.5	96.7



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

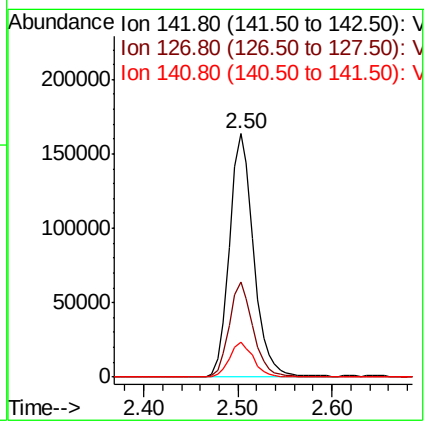
Manual Integrations APPROVED
apatel
12/30/2019 11:04:07 AM



#10
Methyl Iodide
Concen: 45.888 ug/l
RT: 2.50 min Scan# 265
Delta R.T. 0.01 min
Lab File: VX014302.D
Acq: 27 Dec 2019 12:03

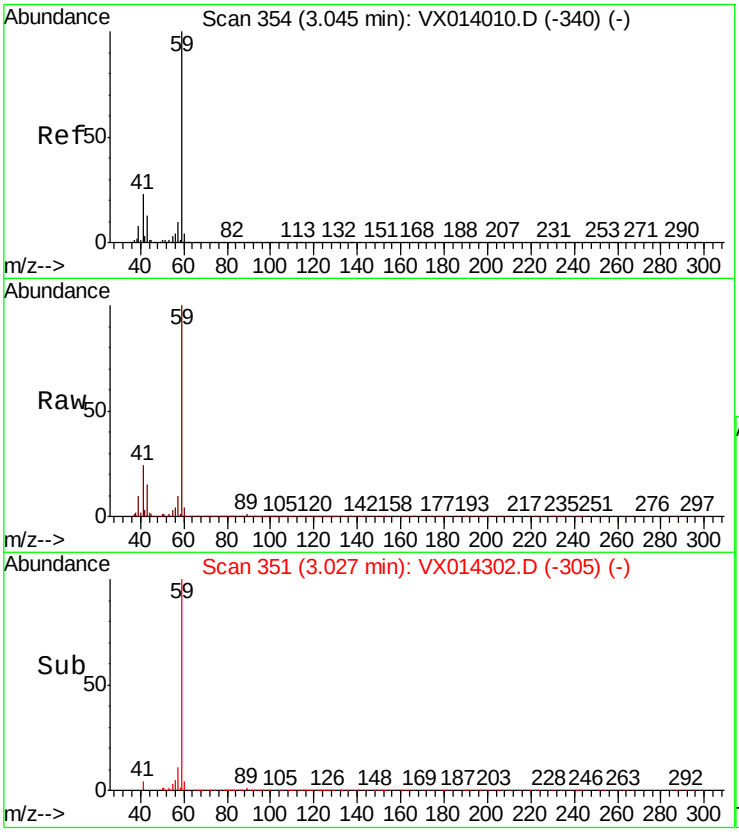
Tgt Ion:142 Resp: 290424

Ion	Ratio	Lower	Upper
142	100		
127	38.6	31.6	47.4
141	14.4	11.6	17.4



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

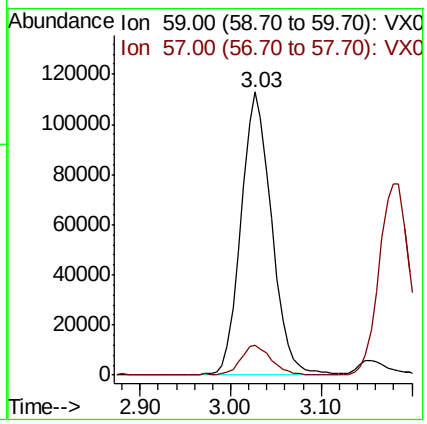
Manual Integrations APPROVED
apatel
12/30/2019 11:04:07 AM

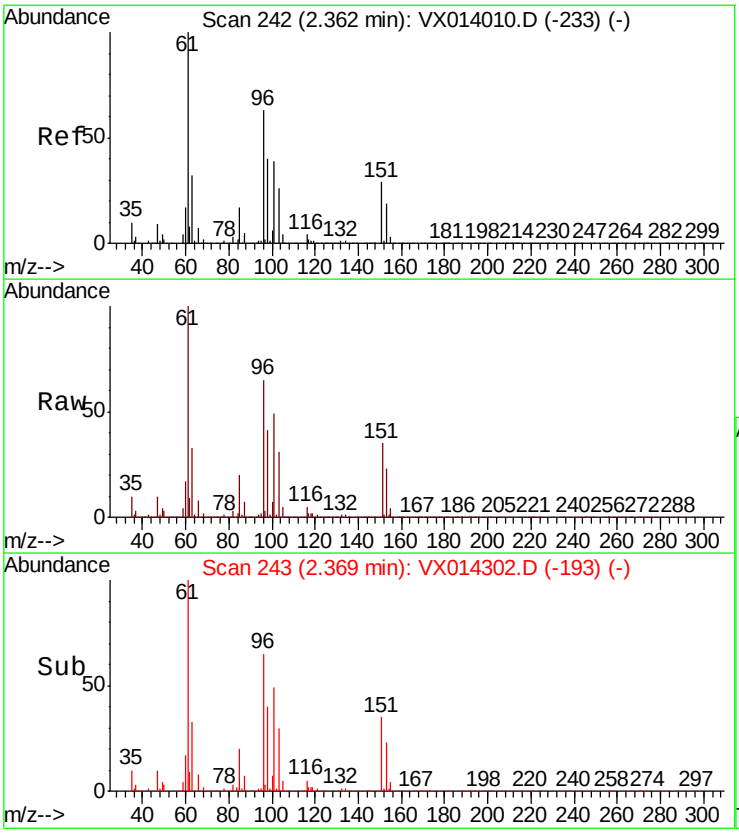


#11
Tert butyl alcohol
Concen: 209.678 ug/l
RT: 3.03 min Scan# 351
Delta R.T. -0.02 min
Lab File: VX014302.D
Acq: 27 Dec 2019 12:03

Tgt Ion: 59 Resp: 261977

Ion	Ratio	Lower	Upper
59	100		
57	10.6	8.4	12.6

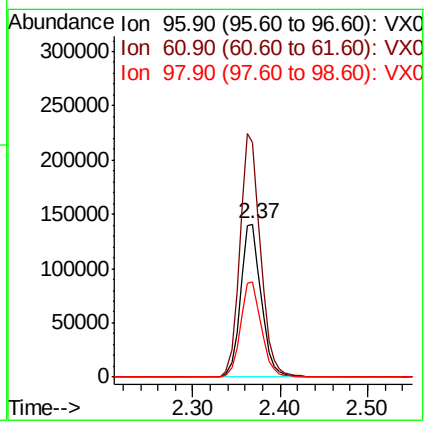




#12
1,1-Dichloroethene
Concen: 47.236 ug/l
RT: 2.37 min Scan# 243
Delta R.T. 0.01 min
Lab File: VX014302.D
Acq: 27 Dec 2019 12:03

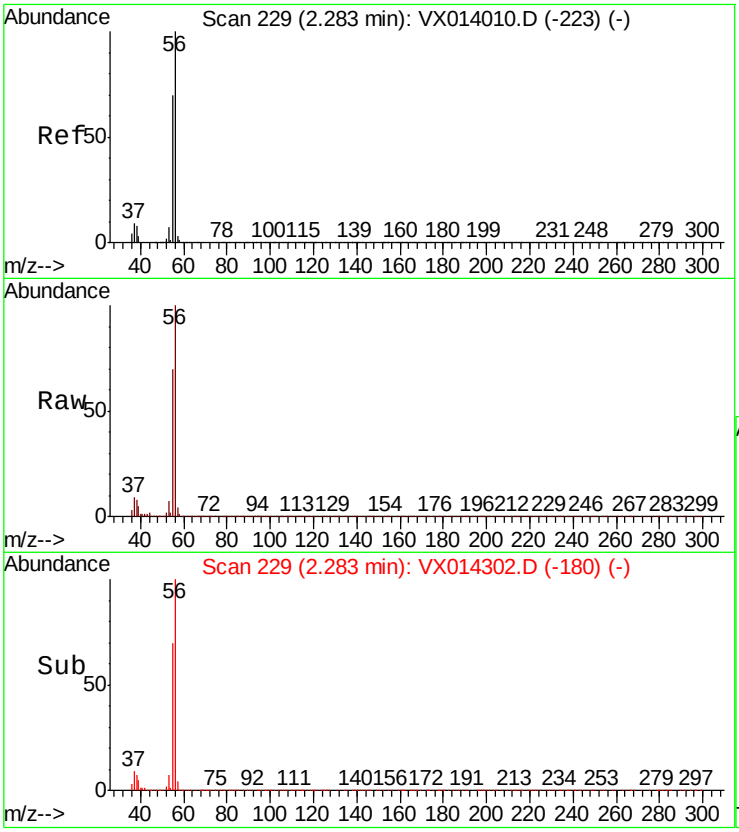
Tgt Ion: 96 Resp: 231823

Ion	Ratio	Lower	Upper
96	100		
61	153.3	127.9	191.9
98	62.1	50.5	75.7



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

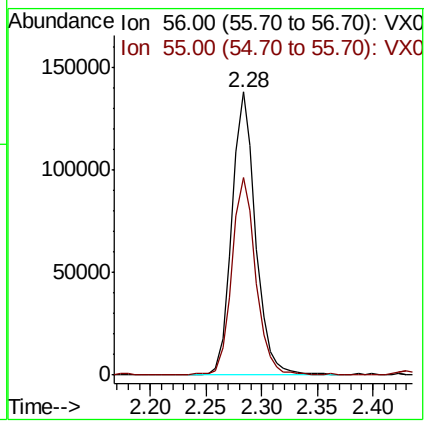
Manual Integrations APPROVED
apatel
12/30/2019 11:04:07 AM

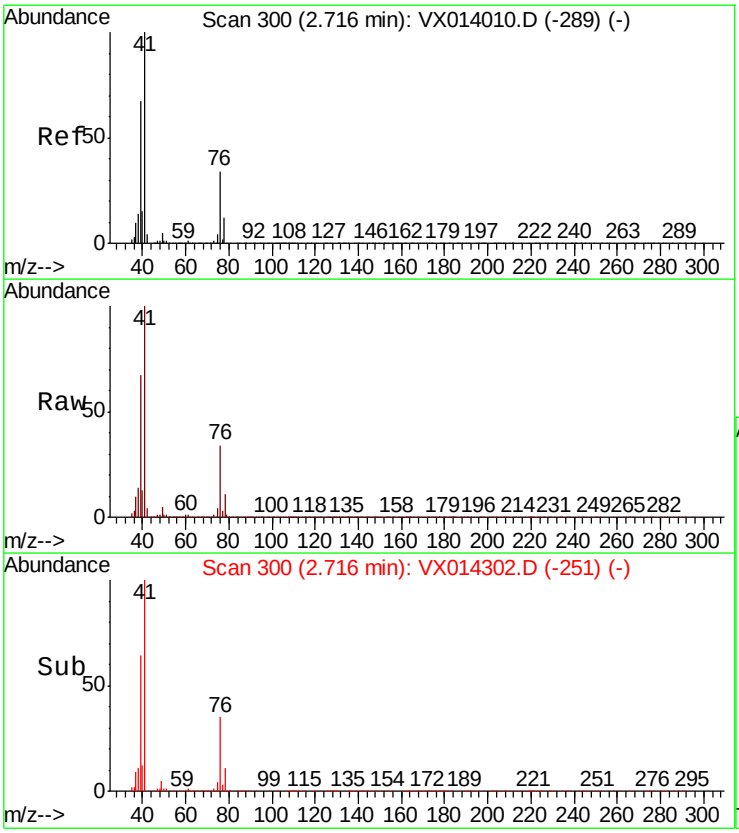


#13
Acrolein
Concen: 282.270 ug/l
RT: 2.28 min Scan# 229
Delta R.T. 0.00 min
Lab File: VX014302.D
Acq: 27 Dec 2019 12:03

Tgt Ion: 56 Resp: 201883

Ion	Ratio	Lower	Upper
56	100		
55	69.9	56.9	85.3

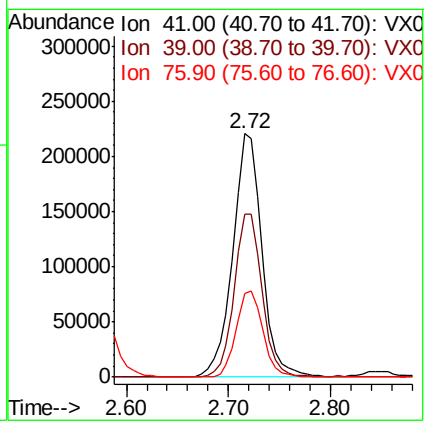




#14
Allyl chloride
Concen: 49.394 ug/l
RT: 2.72 min Scan# 300
Delta R.T. 0.00 min
Lab File: VX014302.D
Acq: 27 Dec 2019 12:03

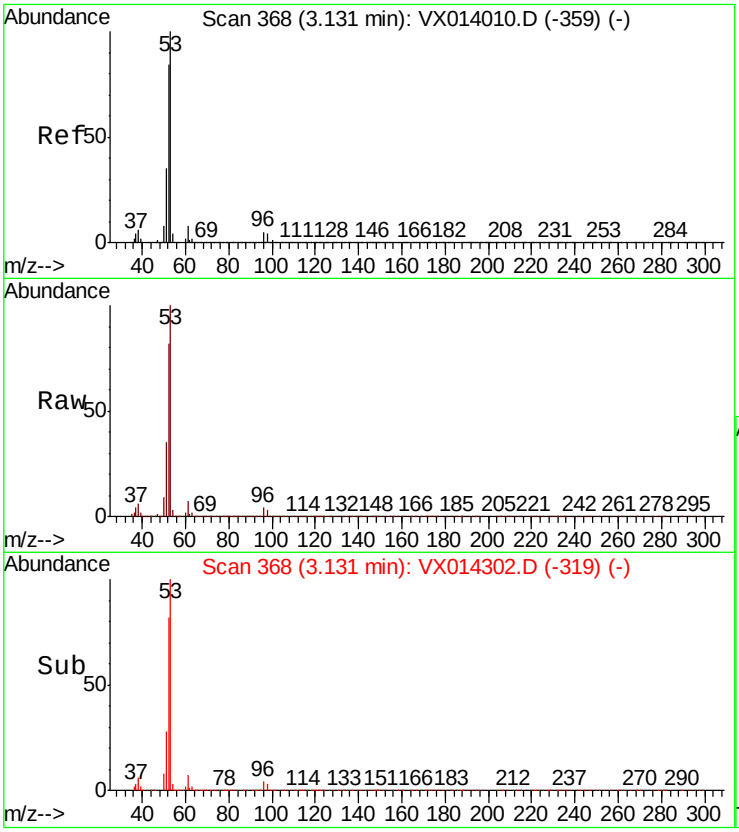
Tgt Ion: 41 Resp: 432818

Ion	Ratio	Lower	Upper
41	100		
39	63.7	51.8	77.8
76	32.6	25.9	38.9



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

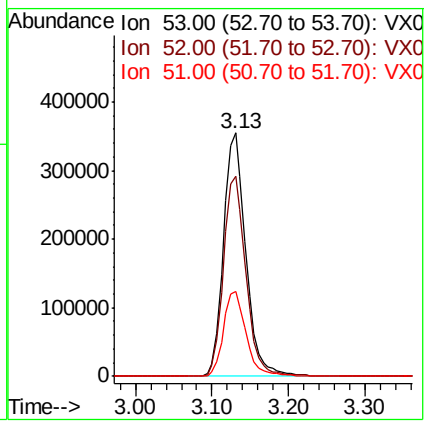
Manual Integrations APPROVED
apatel
12/30/2019 11:04:07 AM

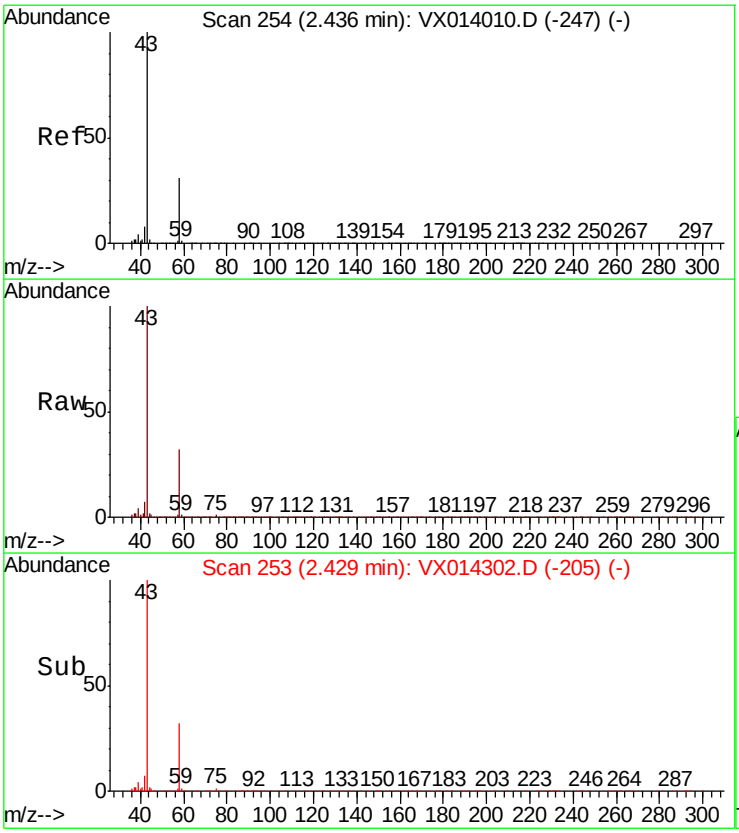


#15
Acrylonitrile
Concen: 245.461 ug/l
RT: 3.13 min Scan# 368
Delta R.T. 0.00 min
Lab File: VX014302.D
Acq: 27 Dec 2019 12:03

Tgt Ion: 53 Resp: 715826

Ion	Ratio	Lower	Upper
53	100		
52	82.3	66.5	99.7
51	35.3	28.1	42.1

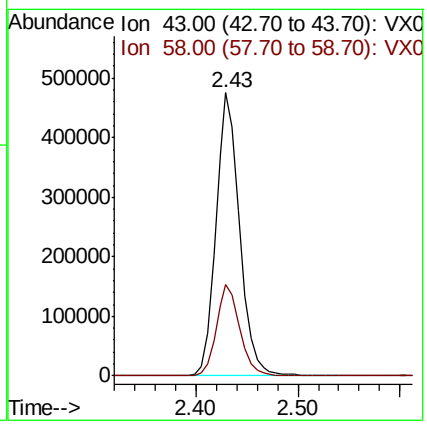




#16
Acetone
Concen: 203.716 ug/l
RT: 2.43 min Scan# 253
Delta R.T. -0.01 min
Lab File: VX014302.D
Acq: 27 Dec 2019 12:03

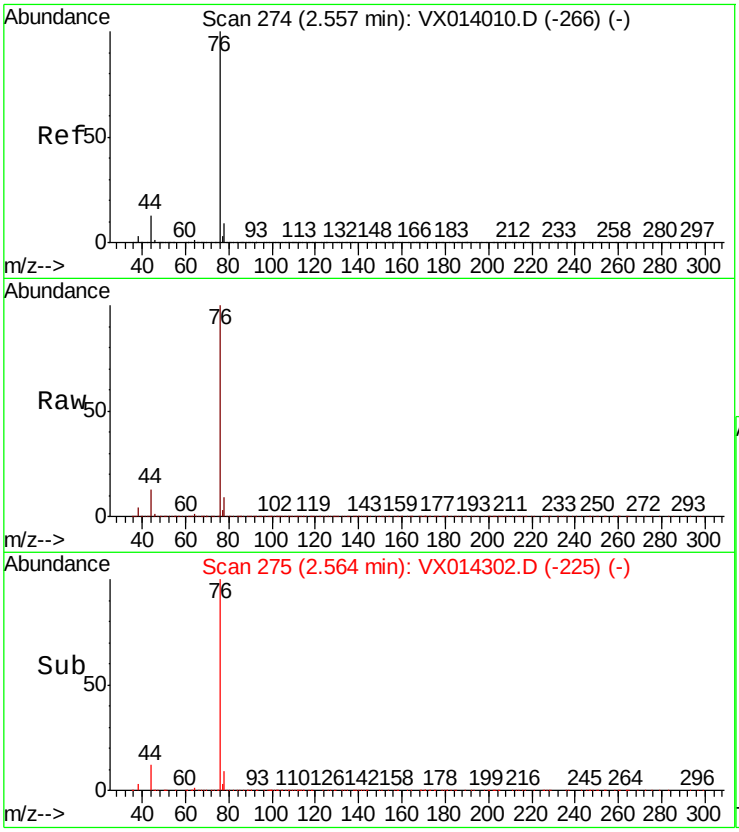
Tgt Ion: 43 Resp: 764744

Ion	Ratio	Lower	Upper
43	100		
58	32.2	24.9	37.3



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

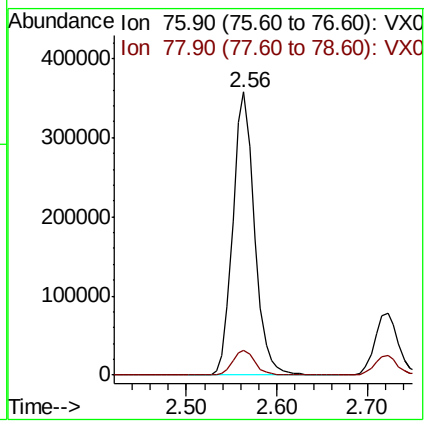
Manual Integrations APPROVED
apatel
12/30/2019 11:04:07 AM

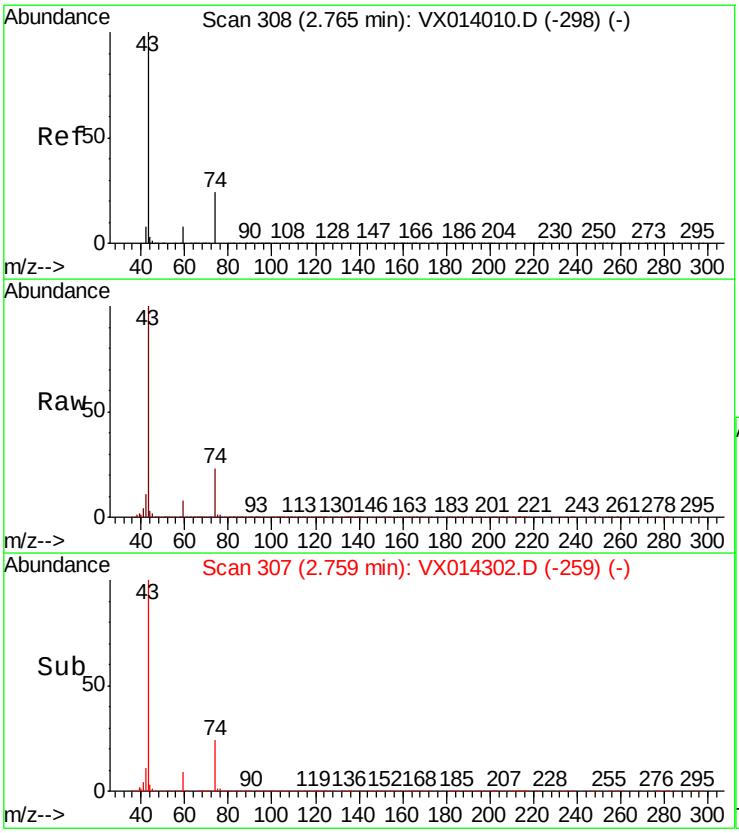


#17
Carbon Disulfide
Concen: 43.574 ug/l
RT: 2.56 min Scan# 275
Delta R.T. 0.01 min
Lab File: VX014302.D
Acq: 27 Dec 2019 12:03

Tgt Ion: 76 Resp: 592351

Ion	Ratio	Lower	Upper
76	100		
78	8.9	7.2	10.8

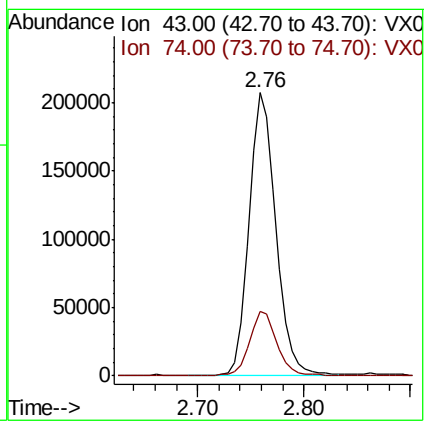




#18
Methyl Acetate
Concen: 49.255 ug/l
RT: 2.76 min Scan# 307
Delta R.T. -0.01 min
Lab File: VX014302.D
Acq: 27 Dec 2019 12:03

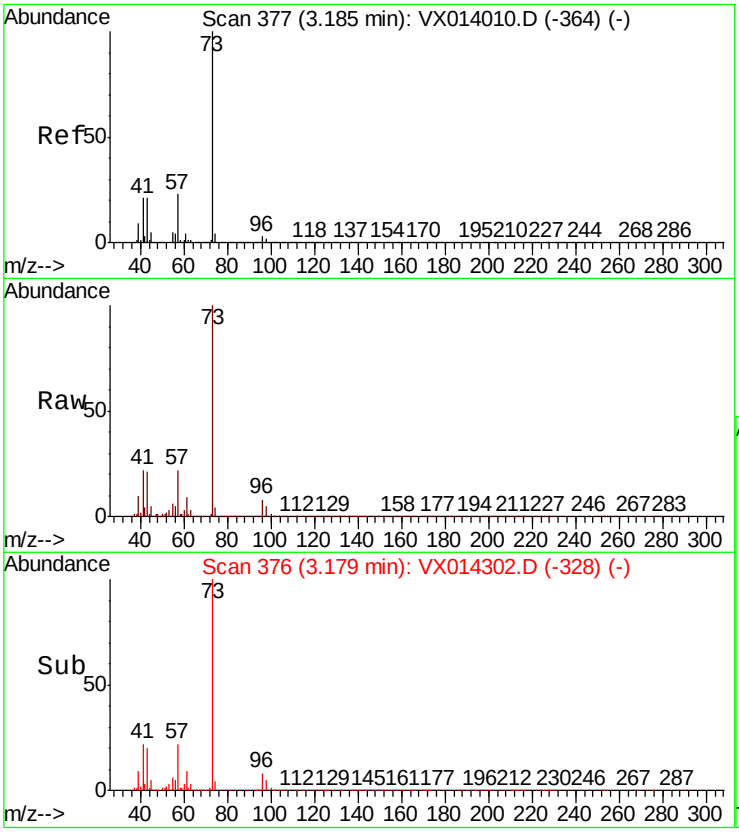
Tgt Ion: 43 Resp: 366392

Ion	Ratio	Lower	Upper
43	100		
74	23.7	19.5	29.3



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

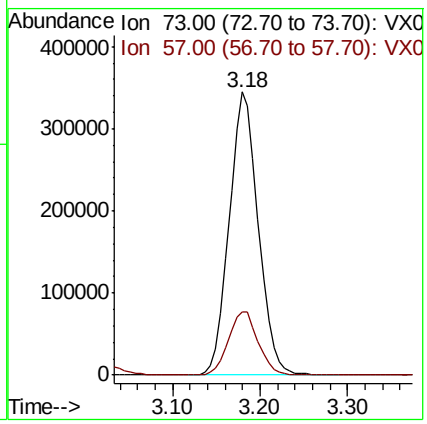
Manual Integrations APPROVED
apatel
12/30/2019 11:04:07 AM

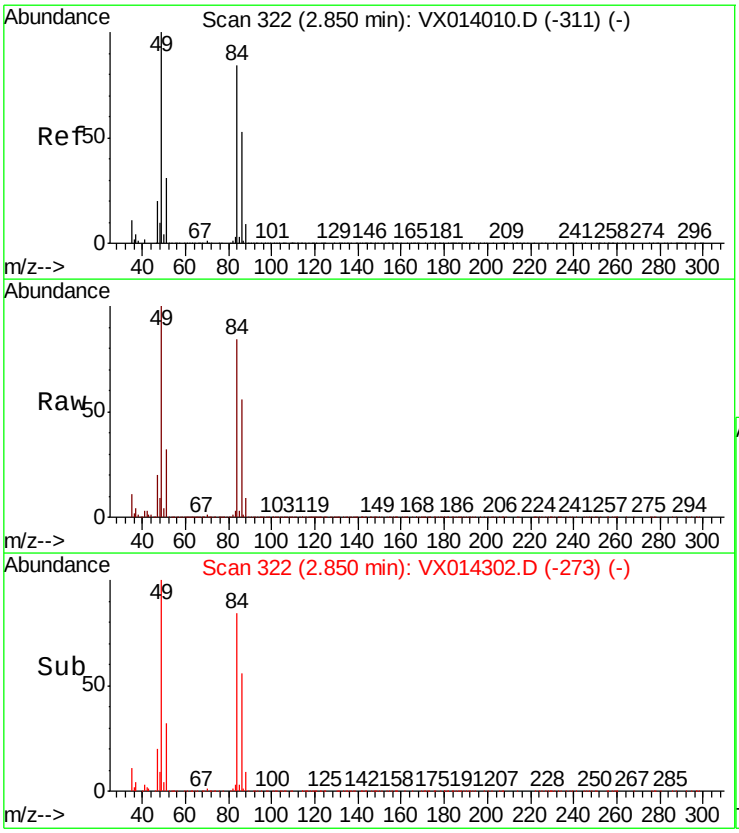


#19
Methyl tert-butyl Ether
Concen: 49.233 ug/l
RT: 3.18 min Scan# 376
Delta R.T. -0.01 min
Lab File: VX014302.D
Acq: 27 Dec 2019 12:03

Tgt Ion: 73 Resp: 793977

Ion	Ratio	Lower	Upper
73	100		
57	22.1	18.8	28.2

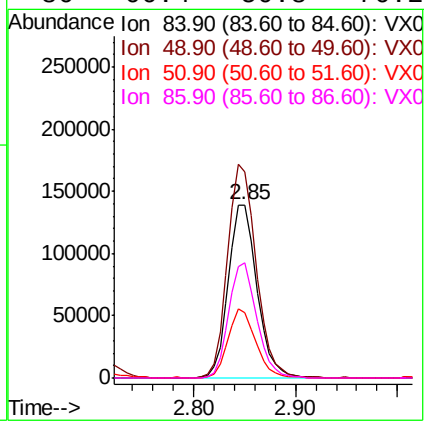




#20
Methylene Chloride
Concen: 45.796 ug/l
RT: 2.85 min Scan# 322
Delta R.T. 0.00 min
Lab File: VX014302.D
Acq: 27 Dec 2019 12:03

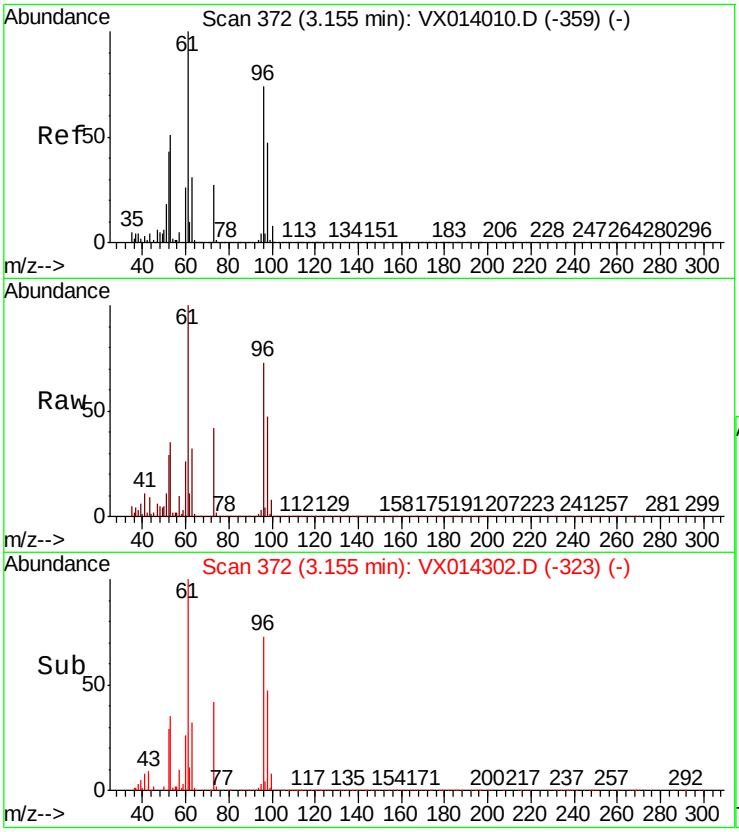
Tgt Ion: 84 Resp: 270724

Ion	Ratio	Lower	Upper
84	100		
49	119.0	95.8	143.6
51	37.5	29.8	44.8
86	66.4	50.8	76.2



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

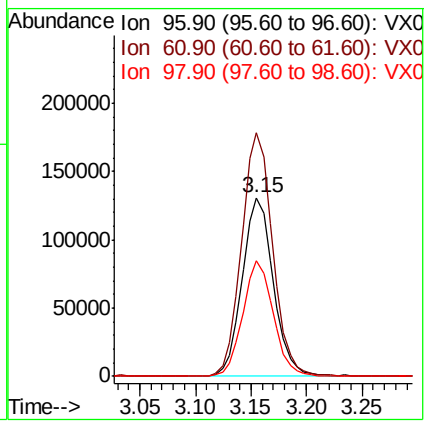
Manual Integrations APPROVED
apatel
12/30/2019 11:04:07 AM

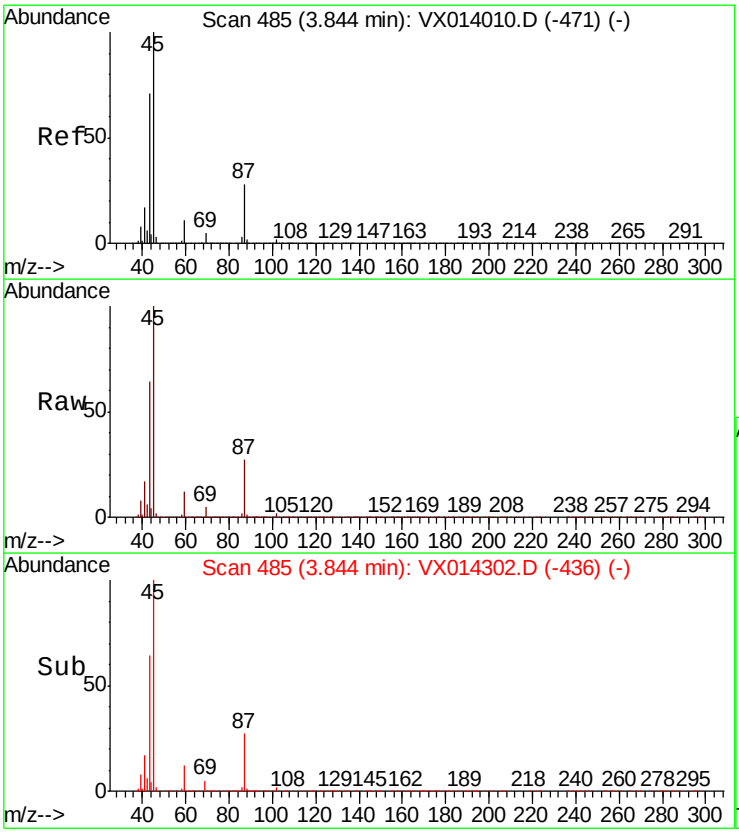


#21
trans-1,2-Dichloroethene
Concen: 46.703 ug/l
RT: 3.15 min Scan# 372
Delta R.T. 0.00 min
Lab File: VX014302.D
Acq: 27 Dec 2019 12:03

Tgt Ion: 96 Resp: 252512

Ion	Ratio	Lower	Upper
96	100		
61	136.4	108.3	162.5
98	64.4	50.8	76.2

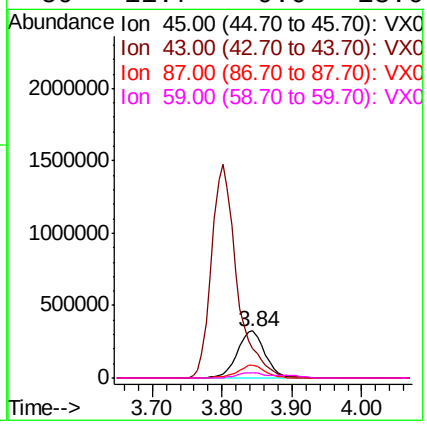




#22
Diisopropyl ether
Concen: 51.221 ug/l
RT: 3.84 min Scan# 485
Delta R.T. 0.00 min
Lab File: VX014302.D
Acq: 27 Dec 2019 12:03

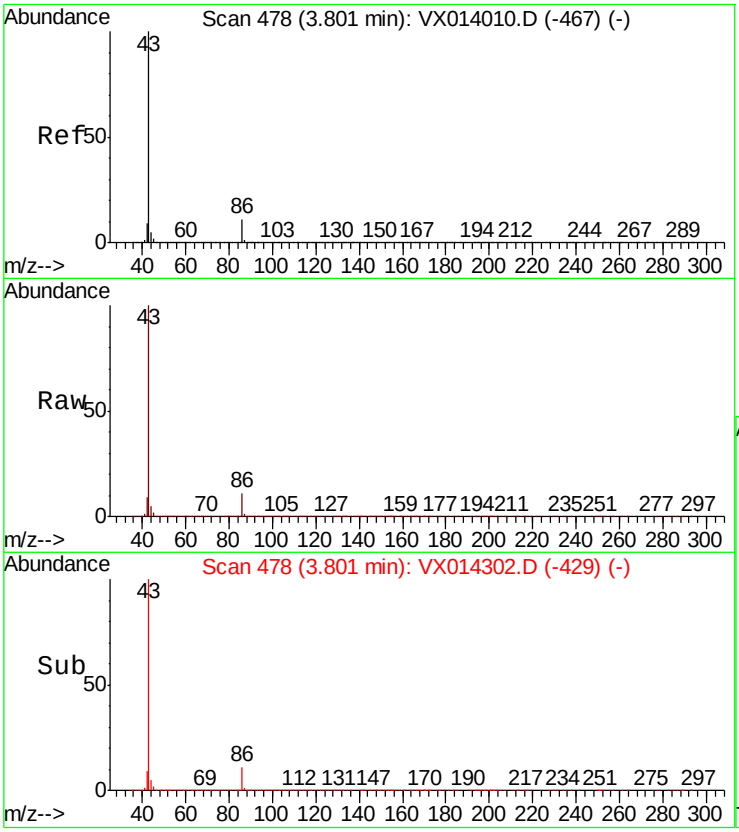
Tgt Ion: 45 Resp: 894400

Ion	Ratio	Lower	Upper
45	100		
43	63.8	57.4	86.0
87	27.0	21.9	32.9
59	11.7	9.0	13.6



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

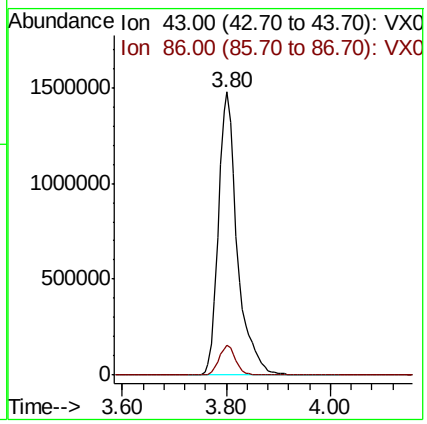
Manual Integrations APPROVED
apatel
12/30/2019 11:04:07 AM

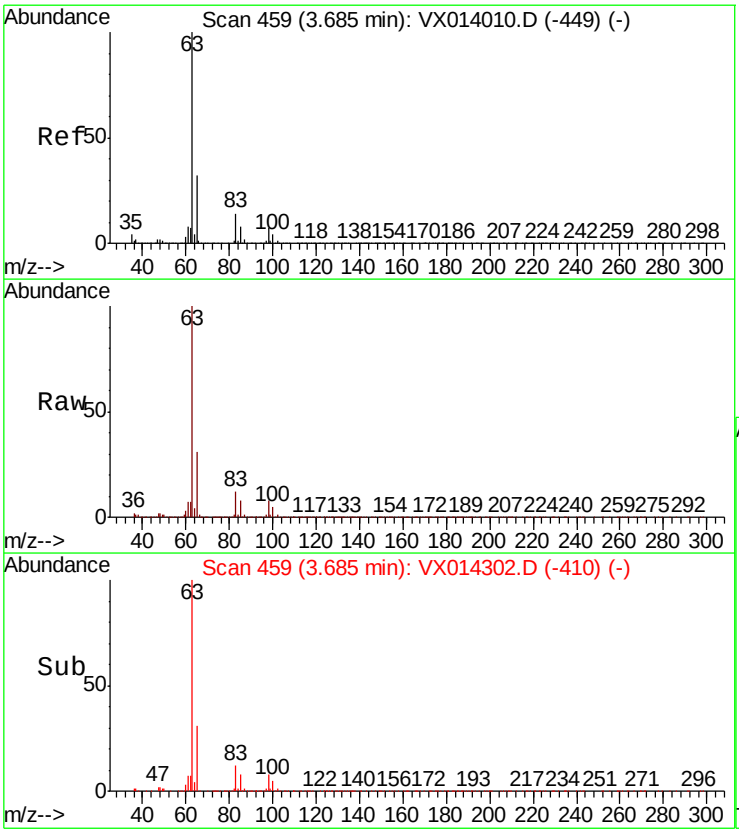


#23
Vinyl Acetate
Concen: 263.703 ug/l
RT: 3.80 min Scan# 478
Delta R.T. 0.00 min
Lab File: VX014302.D
Acq: 27 Dec 2019 12:03

Tgt Ion: 43 Resp: 3757693

Ion	Ratio	Lower	Upper
43	100		
86	10.8	8.6	12.8

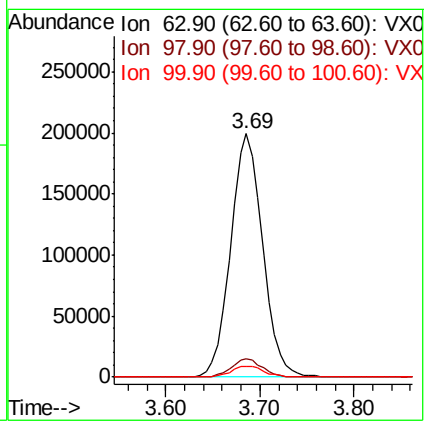




#24
1,1-Dichloroethane
Concen: 48.150 ug/l
RT: 3.69 min Scan# 459
Delta R.T. 0.00 min
Lab File: VX014302.D
Acq: 27 Dec 2019 12:03

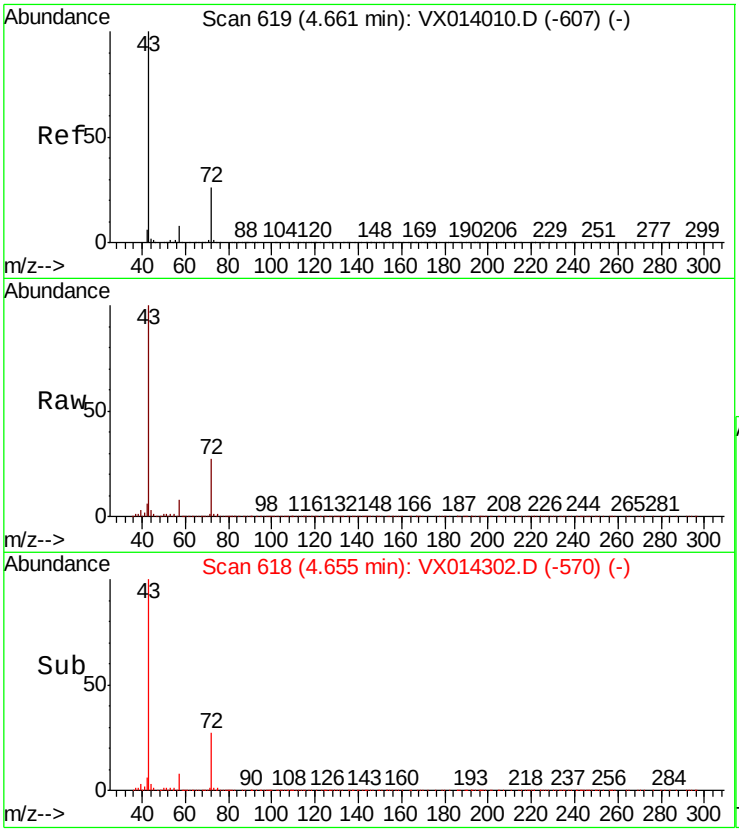
Tgt Ion: 63 Resp: 467771

Ion	Ratio	Lower	Upper
63	100		
98	7.6	3.6	10.8
100	4.5	2.3	6.8



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

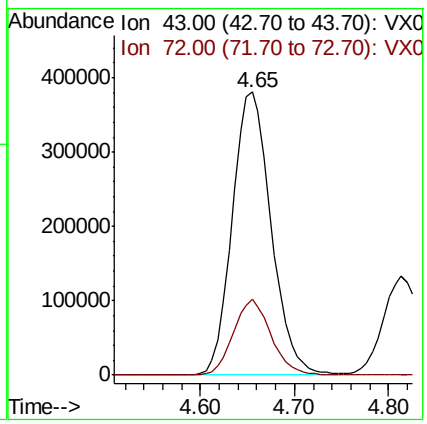
Manual Integrations APPROVED
apatel
12/30/2019 11:04:07 AM

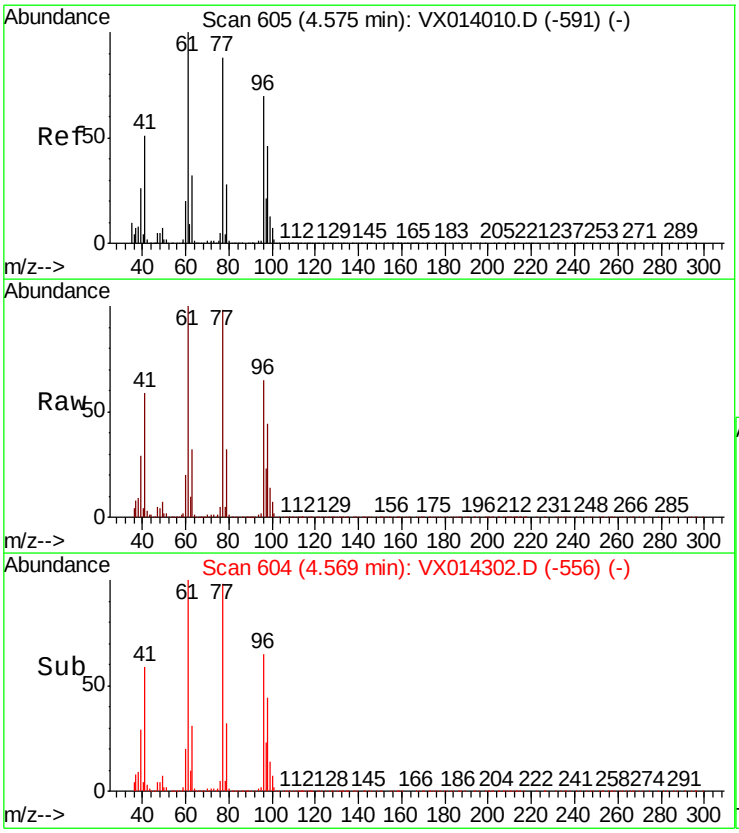


#25
2-Butanone
Concen: 235.299 ug/l
RT: 4.65 min Scan# 618
Delta R.T. -0.01 min
Lab File: VX014302.D
Acq: 27 Dec 2019 12:03

Tgt Ion: 43 Resp: 1089009

Ion	Ratio	Lower	Upper
43	100		
72	26.5	21.0	31.4

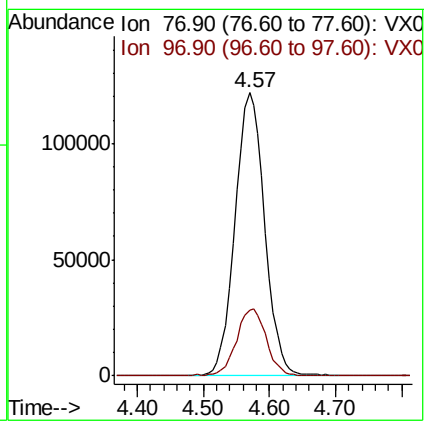




#26
2,2-Dichloropropane
Concen: 50.041 ug/l
RT: 4.57 min Scan# 604
Delta R.T. -0.01 min
Lab File: VX014302.D
Acq: 27 Dec 2019 12:03

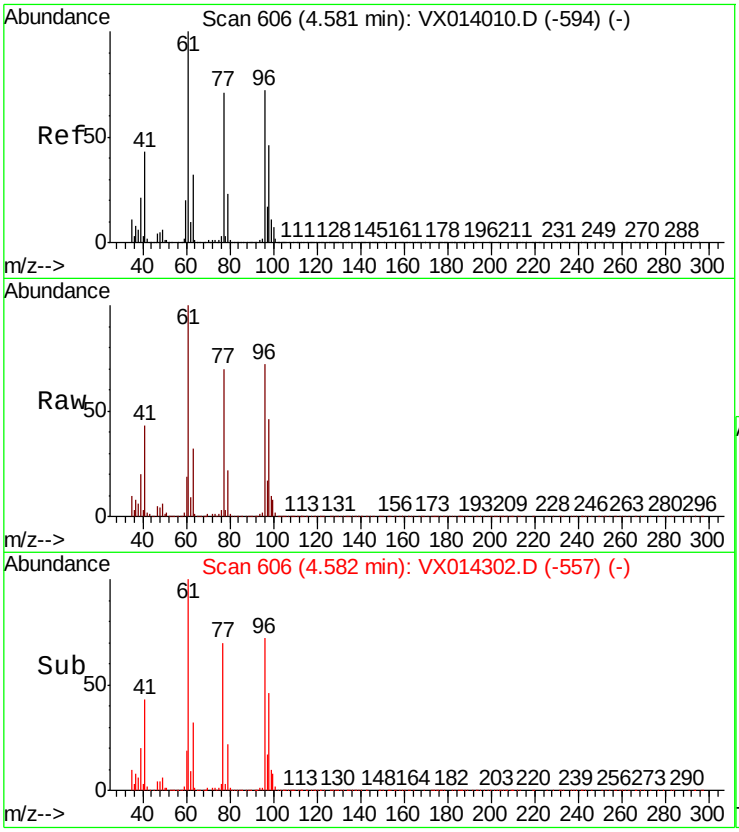
Tgt Ion: 77 Resp: 377452

Ion	Ratio	Lower	Upper
77	100		
97	23.6	11.9	35.9



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

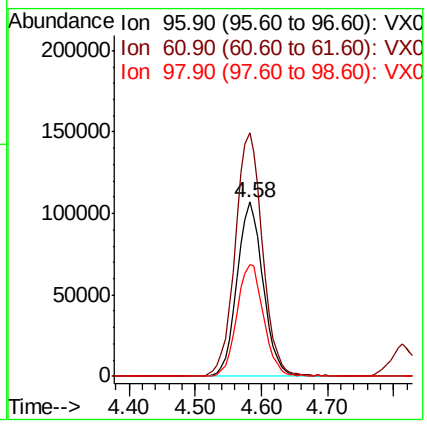
Manual Integrations APPROVED
apatel
12/30/2019 11:04:07 AM

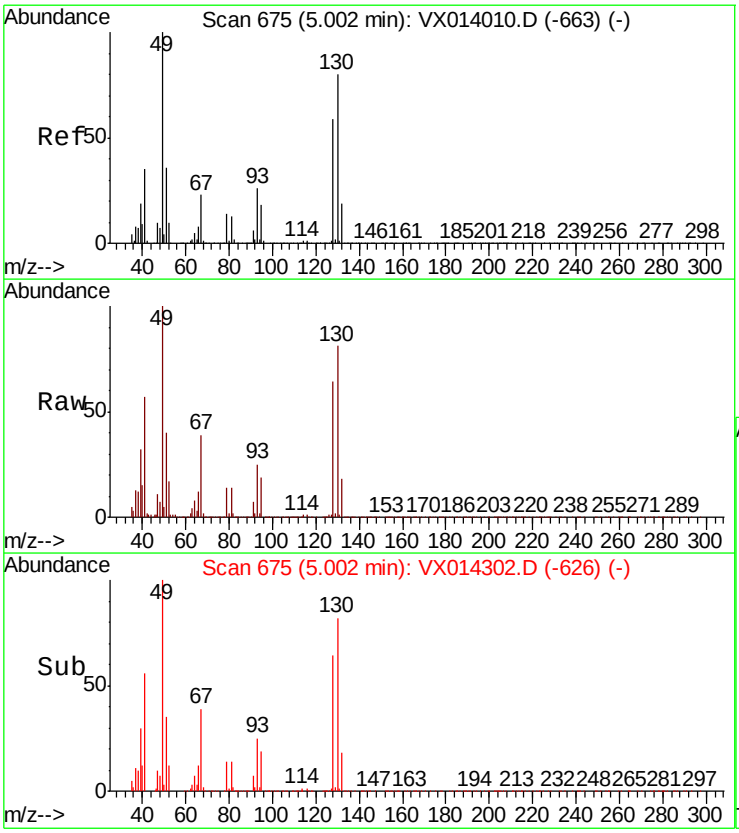


#27
cis-1,2-Dichloroethene
Concen: 47.936 ug/l
RT: 4.58 min Scan# 606
Delta R.T. 0.00 min
Lab File: VX014302.D
Acq: 27 Dec 2019 12:03

Tgt Ion: 96 Resp: 293117

Ion	Ratio	Lower	Upper
96	100		
61	145.6	0.0	288.4
98	65.5	0.0	129.6

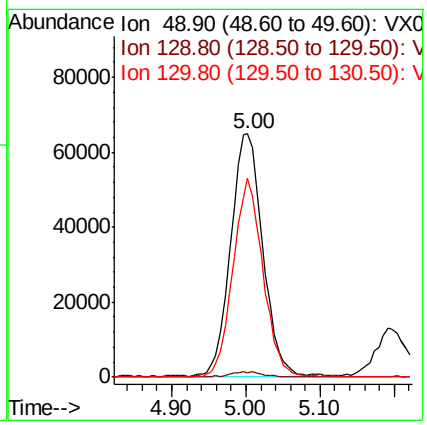




#28
Bromochloromethane
Concen: 52.530 ug/l
RT: 5.00 min Scan# 675
Delta R.T. 0.00 min
Lab File: VX014302.D
Acq: 27 Dec 2019 12:03

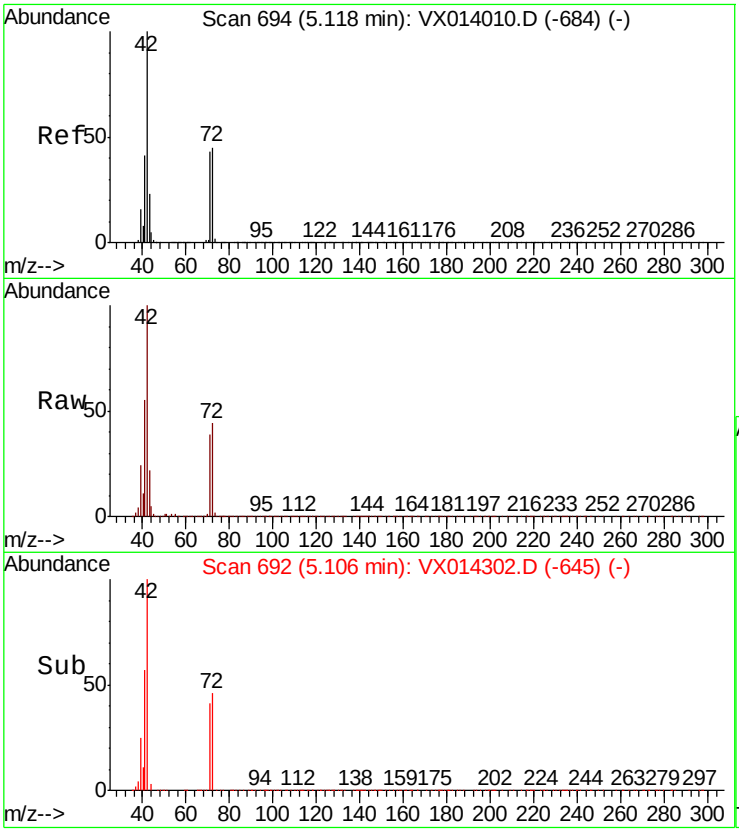
Tgt Ion: 49 Resp: 196351

Ion	Ratio	Lower	Upper
49	100		
129	2.0	0.0	5.0
130	75.7	64.6	97.0



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

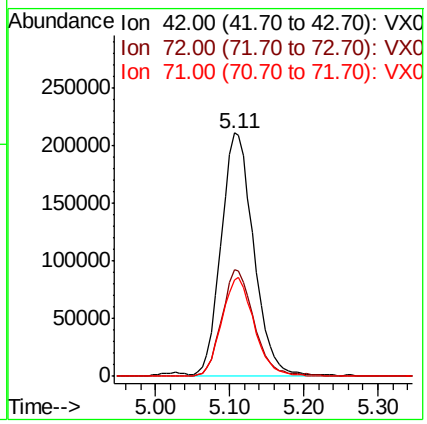
Manual Integrations APPROVED
apatel
12/30/2019 11:04:07 AM

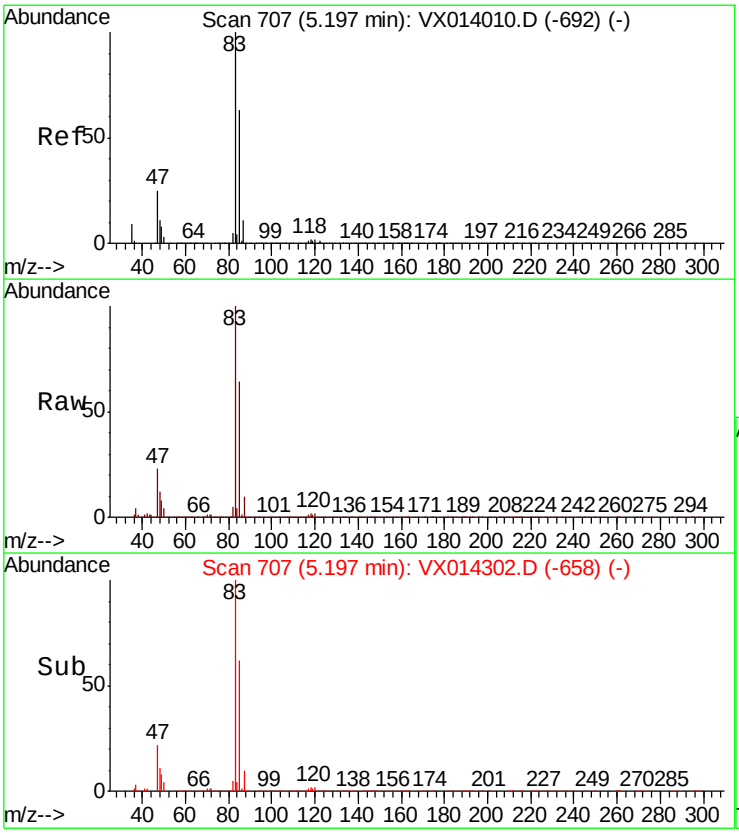


#29
Tetrahydrofuran
Concen: 246.868 ug/l
RT: 5.11 min Scan# 692
Delta R.T. -0.01 min
Lab File: VX014302.D
Acq: 27 Dec 2019 12:03

Tgt Ion: 42 Resp: 639059

Ion	Ratio	Lower	Upper
42	100		
72	43.9	35.8	53.8
71	40.7	33.6	50.4

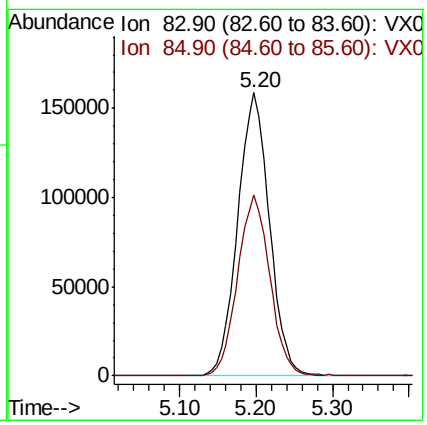




#30
Chloroform
Concen: 49.712 ug/l
RT: 5.20 min Scan# 707
Delta R.T. 0.00 min
Lab File: VX014302.D
Acq: 27 Dec 2019 12:03

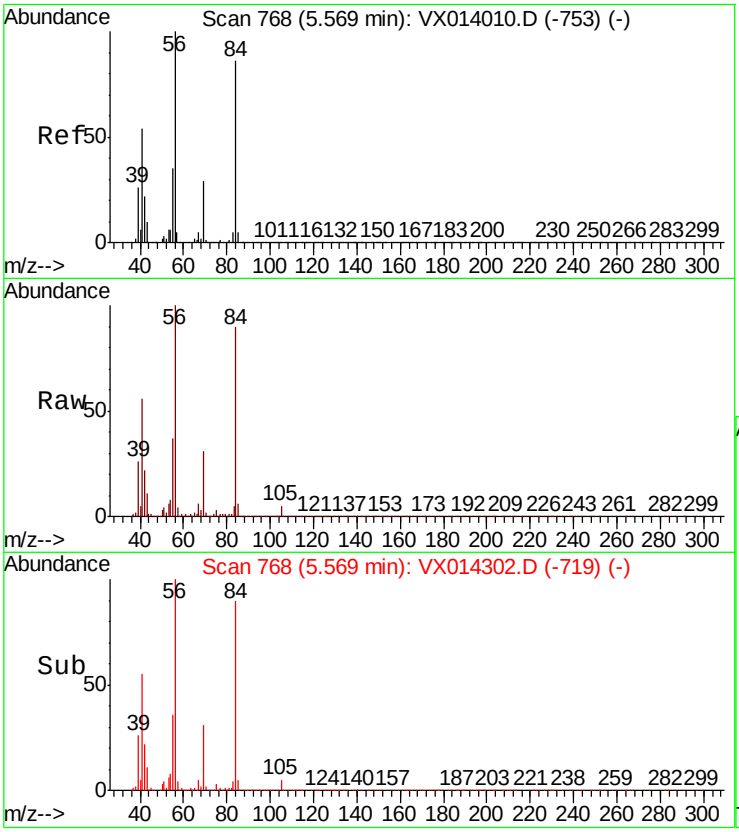
Tgt Ion: 83 Resp: 457822

Ion	Ratio	Lower	Upper
83	100		
85	63.8	50.8	76.2



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

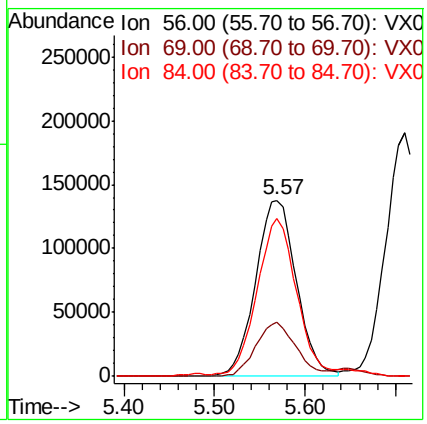
Manual Integrations APPROVED
apatel
12/30/2019 11:04:07 AM

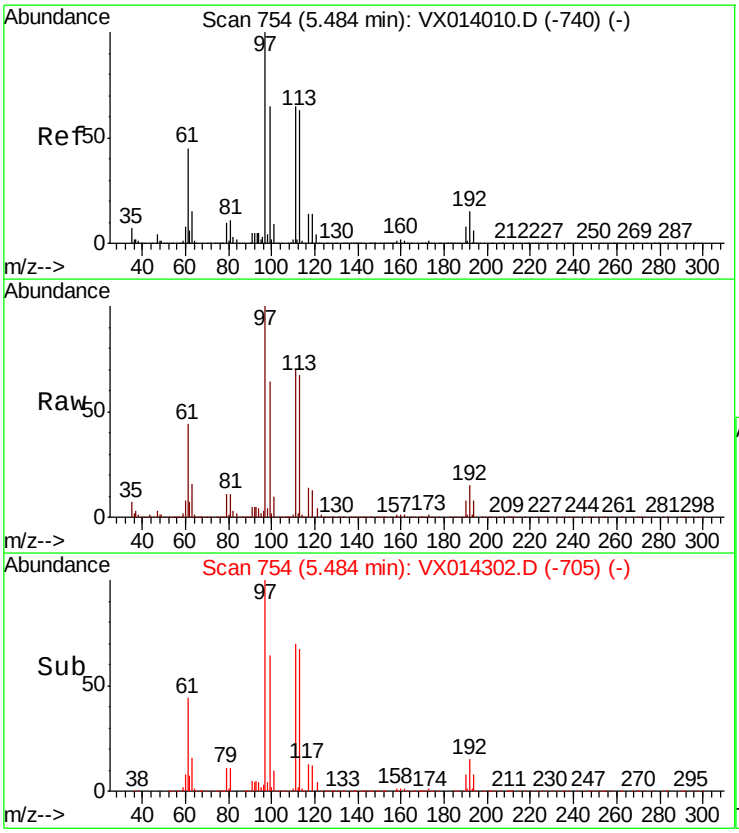


#31
Cyclohexane
Concen: 49.628 ug/l
RT: 5.57 min Scan# 768
Delta R.T. 0.00 min
Lab File: VX014302.D
Acq: 27 Dec 2019 12:03

Tgt Ion: 56 Resp: 428807

Ion	Ratio	Lower	Upper
56	100		
69	30.6	23.2	34.8
84	88.7	69.2	103.8

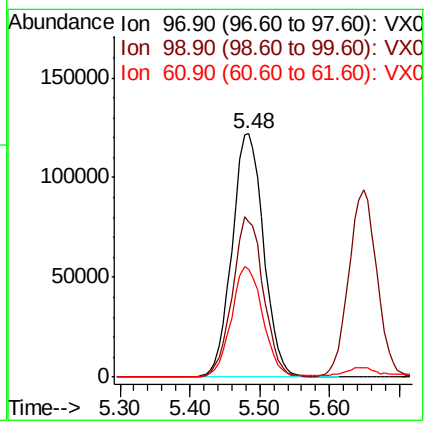




#32
1,1,1-Trichloroethane
Concen: 48.538 ug/l
RT: 5.48 min Scan# 754
Delta R.T. 0.00 min
Lab File: VX014302.D
Acq: 27 Dec 2019 12:03

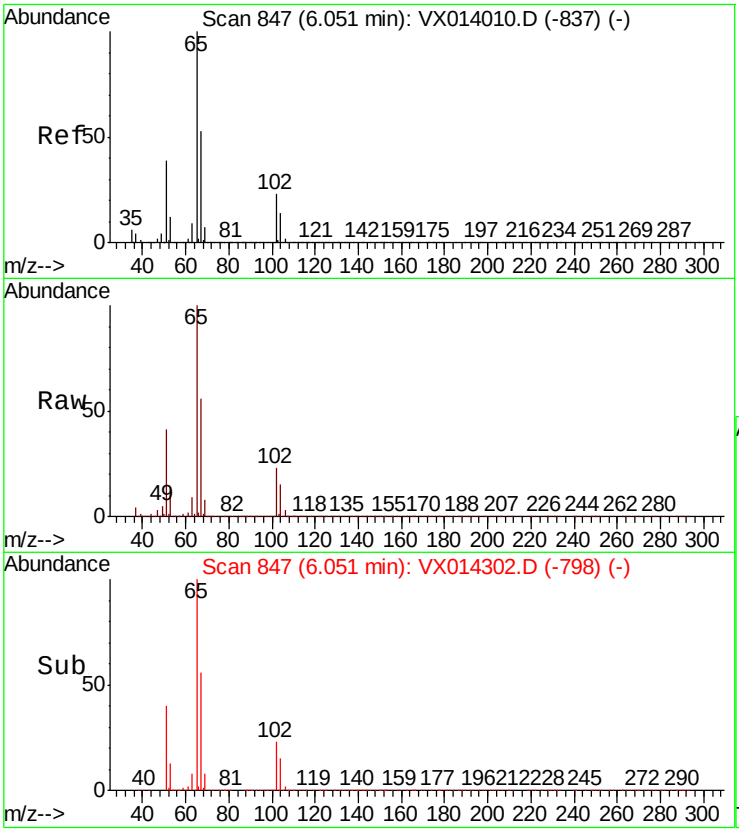
Tgt Ion: 97 Resp: 380981

Ion	Ratio	Lower	Upper
97	100		
99	64.6	52.0	78.0
61	45.1	36.7	55.1



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

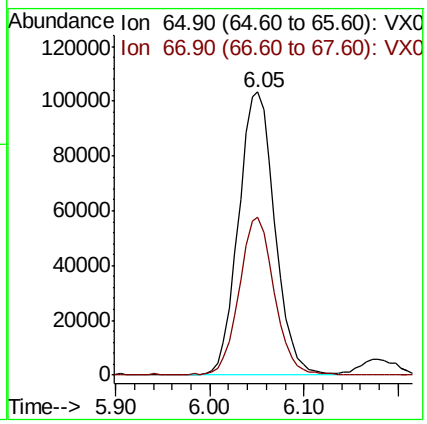
Manual Integrations APPROVED
apatel
12/30/2019 11:04:07 AM

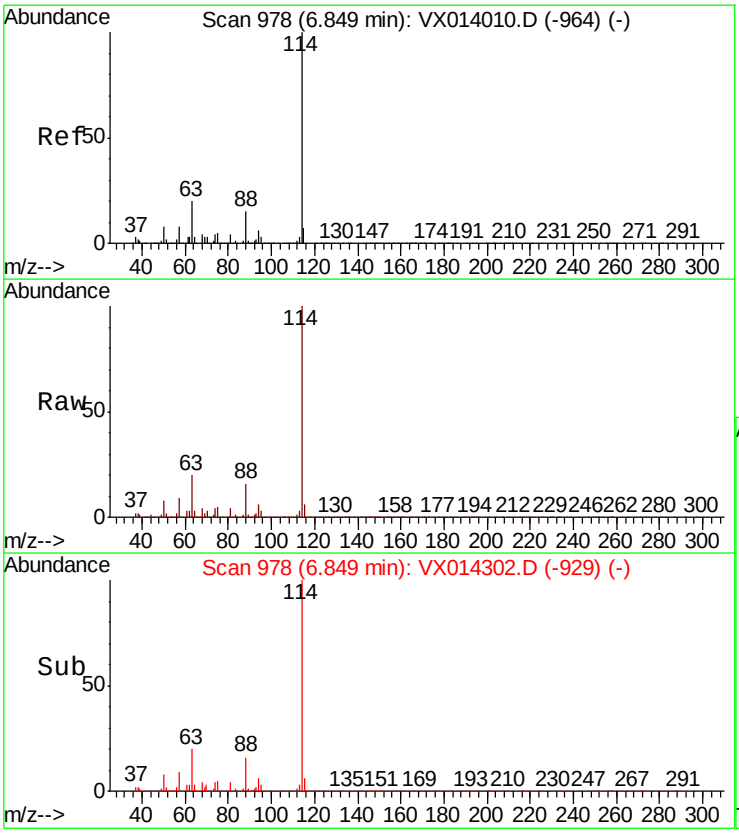


#33
1,2-Dichloroethane-d4
Concen: 48.115 ug/l
RT: 6.05 min Scan# 847
Delta R.T. 0.00 min
Lab File: VX014302.D
Acq: 27 Dec 2019 12:03

Tgt Ion: 65 Resp: 278215

Ion	Ratio	Lower	Upper
65	100		
67	53.5	0.0	106.4

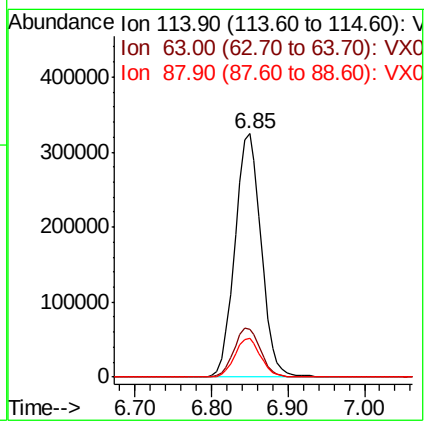




#34
1,4-Difluorobenzene
Concen: 50.000 ug/l
RT: 6.85 min Scan# 978
Delta R.T. 0.00 min
Lab File: VX014302.D
Acq: 27 Dec 2019 12:03

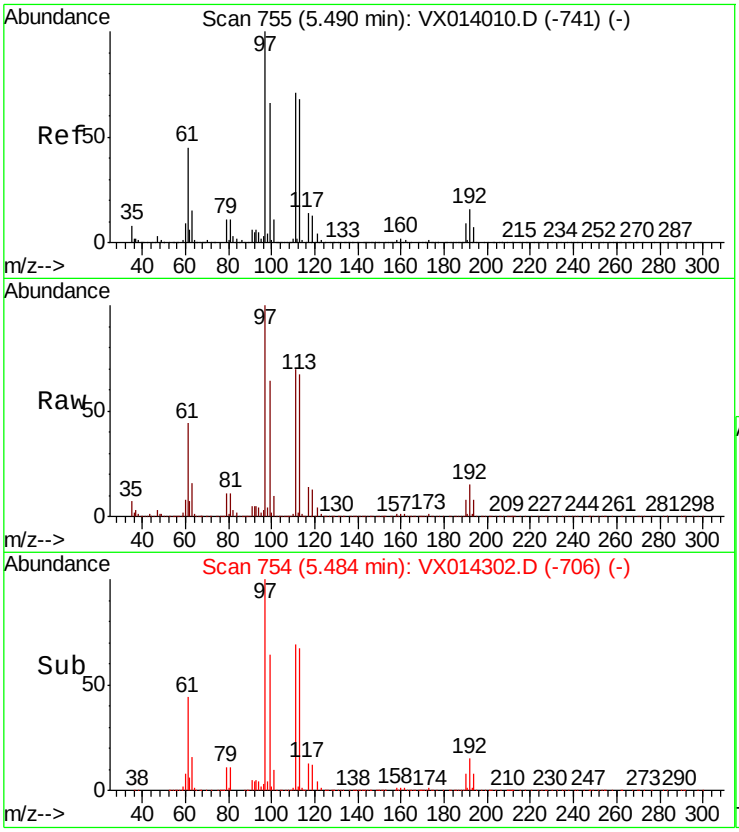
Tgt Ion:114 Resp: 769144

Ion	Ratio	Lower	Upper
114	100		
63	19.7	0.0	40.8
88	15.9	0.0	30.4



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

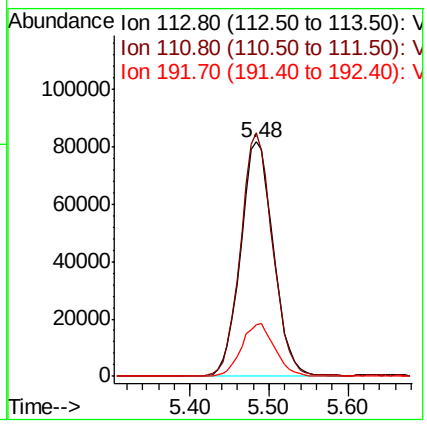
Manual Integrations APPROVED
apatel
12/30/2019 11:04:07 AM

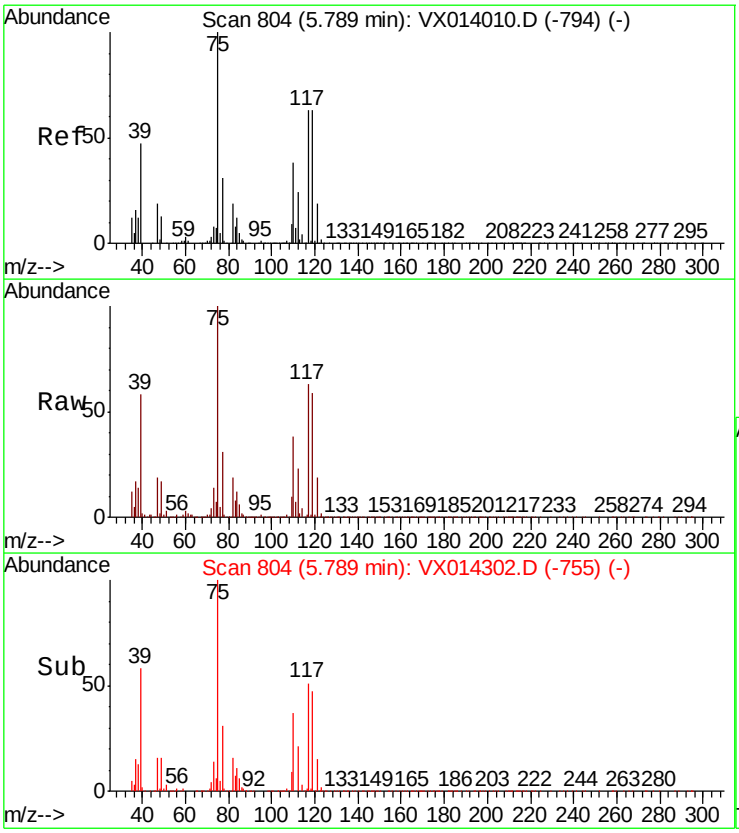


#35
Dibromofluoromethane
Concen: 50.421 ug/l
RT: 5.48 min Scan# 754
Delta R.T. -0.01 min
Lab File: VX014302.D
Acq: 27 Dec 2019 12:03

Tgt Ion:113 Resp: 235748

Ion	Ratio	Lower	Upper
113	100		
111	102.1	82.0	123.0
192	22.7	19.3	28.9

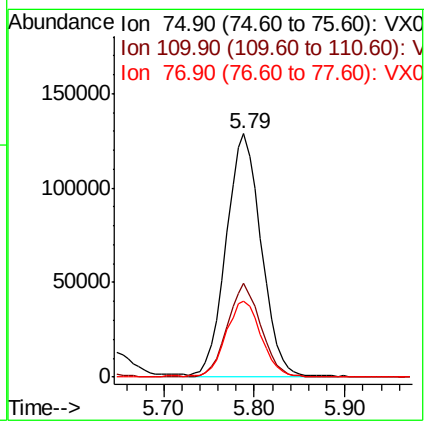




#36
1,1-Dichloropropene
Concen: 48.781 ug/l
RT: 5.79 min Scan# 804
Delta R.T. 0.00 min
Lab File: VX014302.D
Acq: 27 Dec 2019 12:03

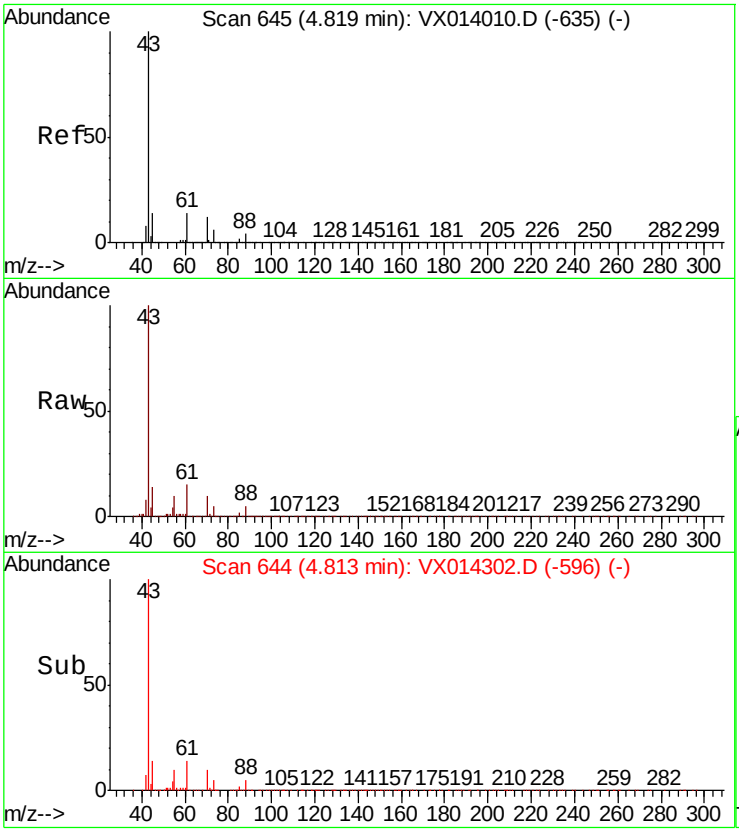
Tgt Ion: 75 Resp: 344263

Ion	Ratio	Lower	Upper
75	100		
110	37.2	18.3	54.9
77	31.3	24.8	37.2



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

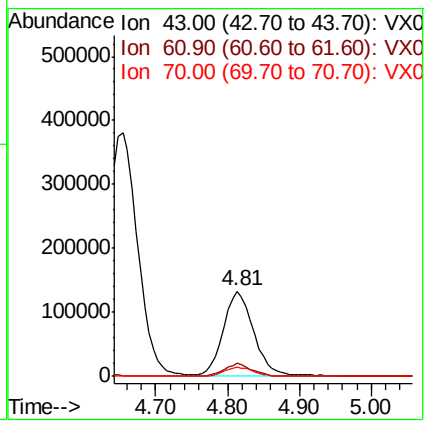
Manual Integrations APPROVED
apatel
12/30/2019 11:04:07 AM

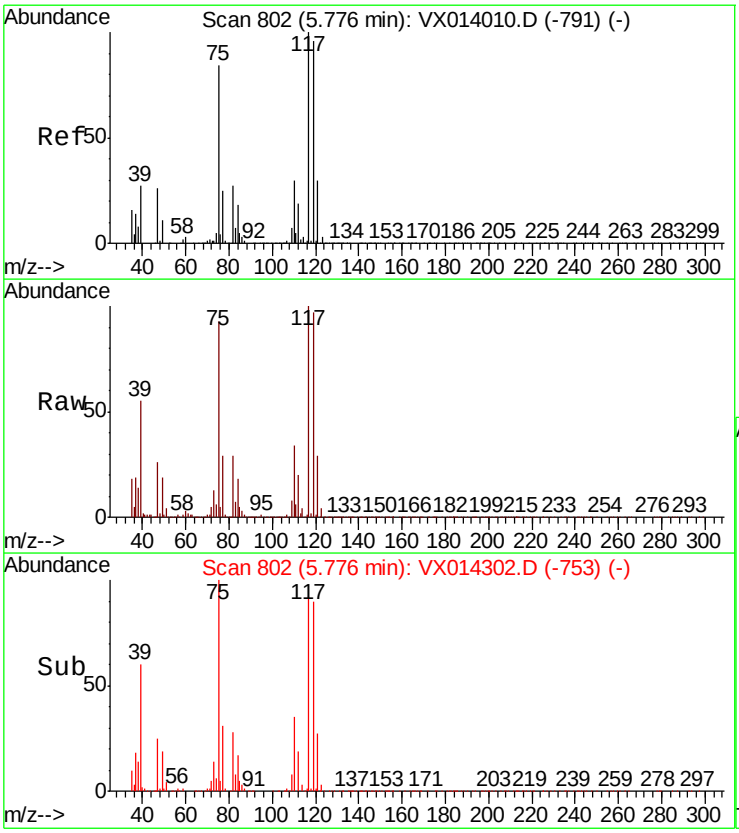


#37
Ethyl Acetate
Concen: 49.714 ug/l
RT: 4.81 min Scan# 644
Delta R.T. -0.01 min
Lab File: VX014302.D
Acq: 27 Dec 2019 12:03

Tgt Ion: 43 Resp: 387439

Ion	Ratio	Lower	Upper
43	100		
61	13.2	10.8	16.2
70	10.5	8.6	12.8

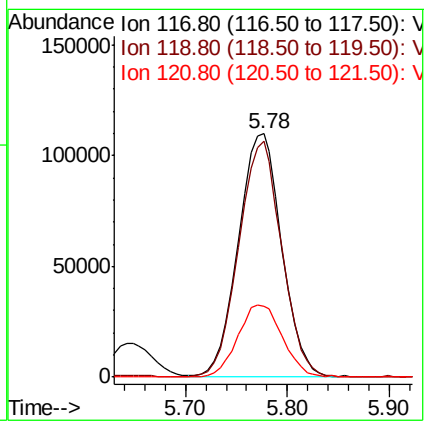




#38
Carbon Tetrachloride
Concen: 50.246 ug/l
RT: 5.78 min Scan# 802
Delta R.T. 0.00 min
Lab File: VX014302.D
Acq: 27 Dec 2019 12:03

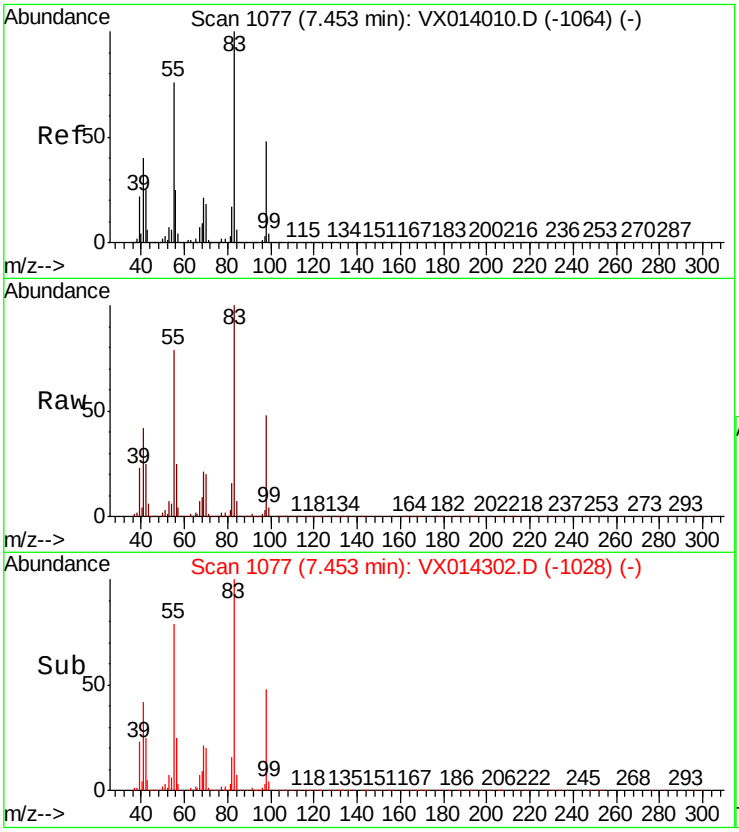
Tgt Ion:117 Resp: 323039

Ion	Ratio	Lower	Upper
117	100		
119	96.8	76.2	114.4
121	29.3	23.6	35.4



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

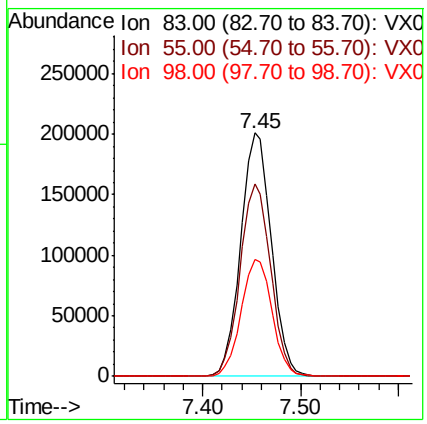
Manual Integrations APPROVED
apatel
12/30/2019 11:04:07 AM

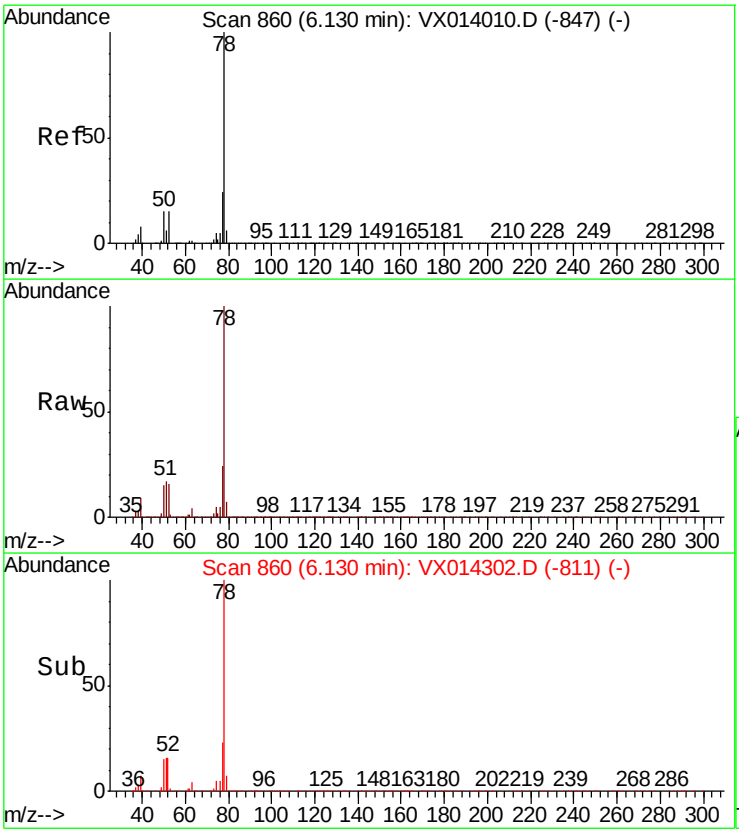


#39
Methylcyclohexane
Concen: 50.092 ug/l
RT: 7.45 min Scan# 1077
Delta R.T. 0.00 min
Lab File: VX014302.D
Acq: 27 Dec 2019 12:03

Tgt Ion: 83 Resp: 436509

Ion	Ratio	Lower	Upper
83	100		
55	79.2	61.0	91.6
98	48.1	38.6	57.8

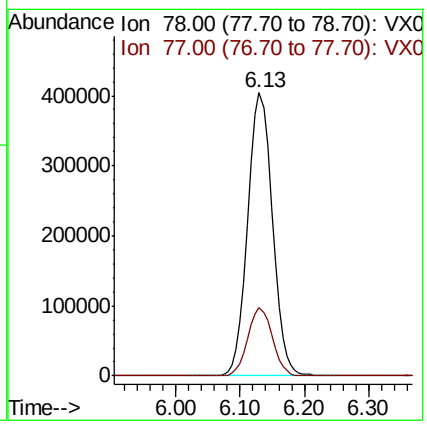




#40
Benzene
Concen: 48.880 ug/l
RT: 6.13 min Scan# 860
Delta R.T. 0.00 min
Lab File: VX014302.D
Acq: 27 Dec 2019 12:03

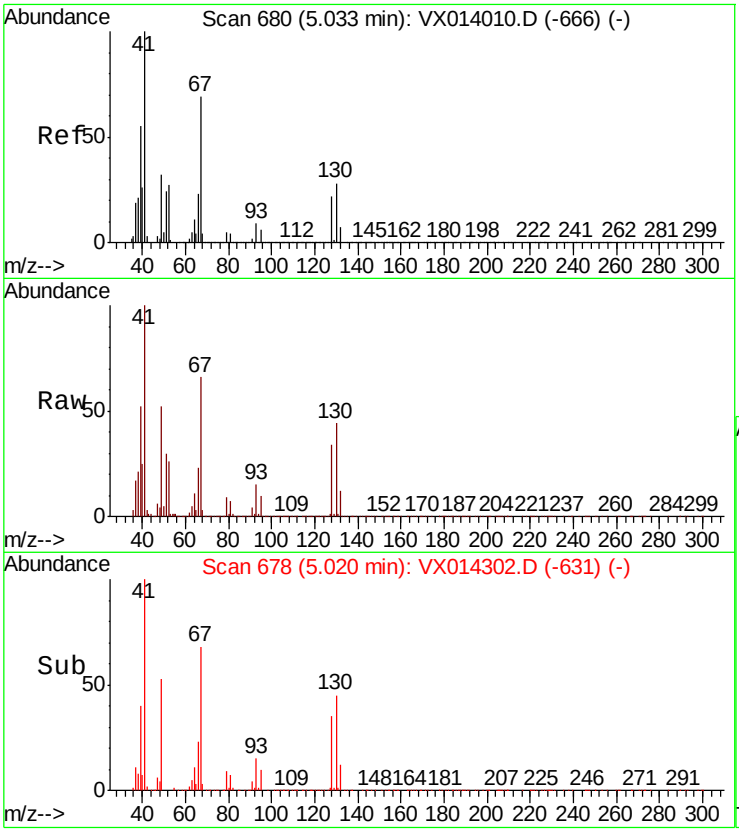
Tgt Ion: 78 Resp: 1061404

Ion	Ratio	Lower	Upper
78	100		
77	23.9	18.8	28.2



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

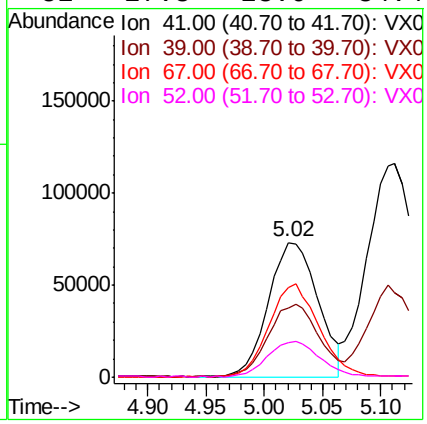
Manual Integrations APPROVED
apatel
12/30/2019 11:04:07 AM

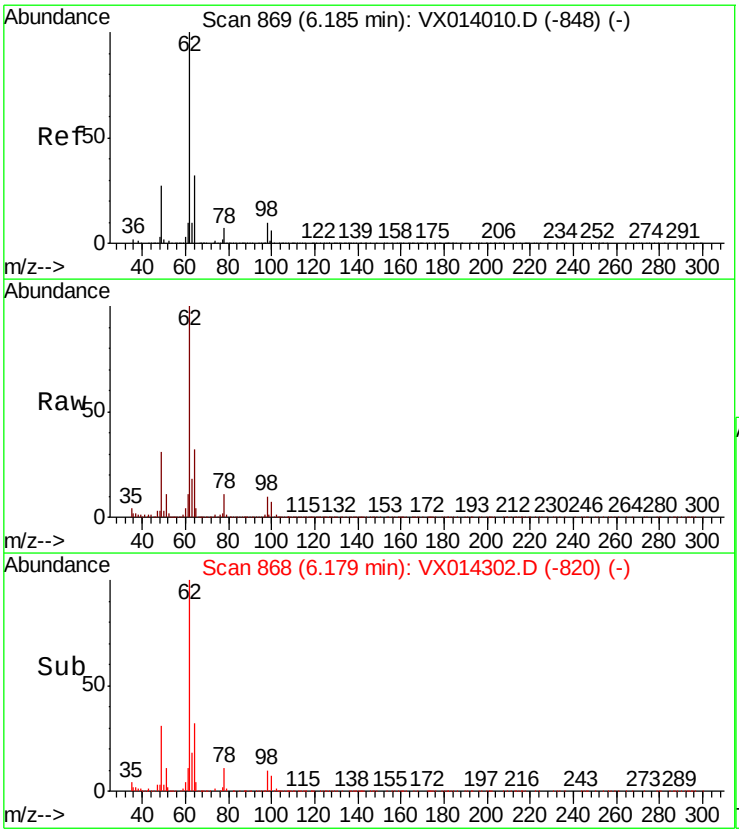


#41
Methacrylonitrile
Concen: 49.734 ug/l
RT: 5.02 min Scan# 678
Delta R.T. -0.01 min
Lab File: VX014302.D
Acq: 27 Dec 2019 12:03

Tgt Ion: 41 Resp: 215057

Ion	Ratio	Lower	Upper
41	100		
39	55.8	44.5	66.7
67	70.0	57.4	86.0
52	27.8	23.0	34.4

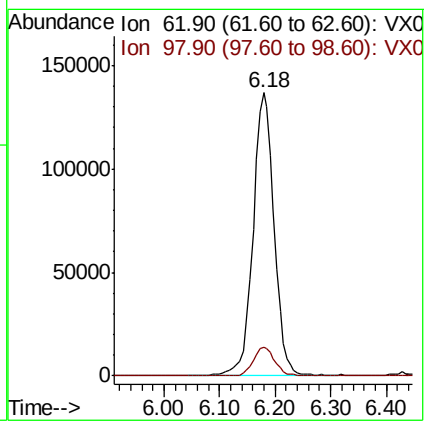




#42
1,2-Dichloroethane
Concen: 49.256 ug/l
RT: 6.18 min Scan# 868
Delta R.T. -0.01 min
Lab File: VX014302.D
Acq: 27 Dec 2019 12:03

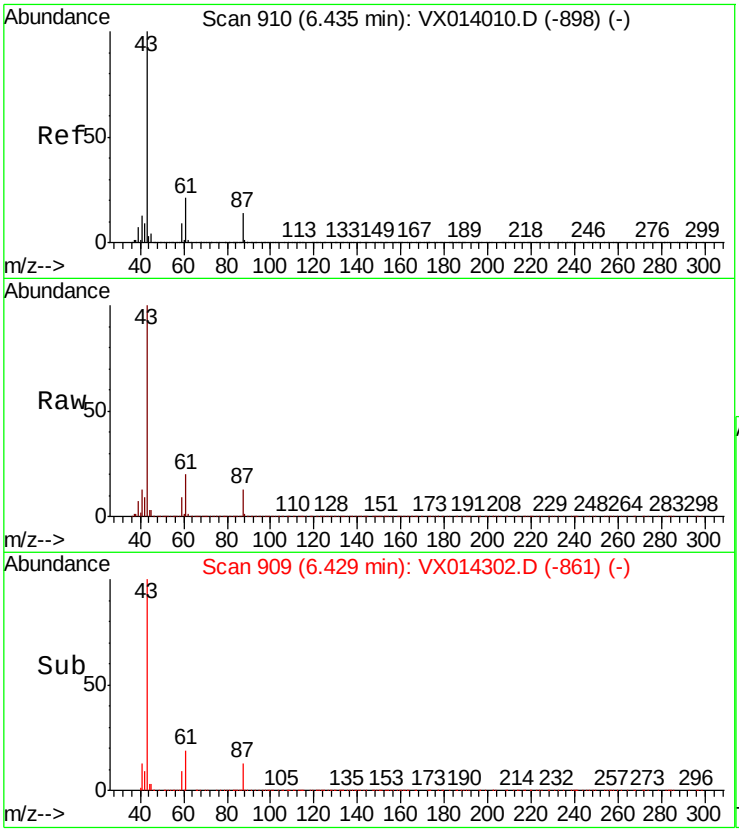
Tgt Ion: 62 Resp: 362562

Ion	Ratio	Lower	Upper
62	100		
98	10.1	0.0	21.0



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

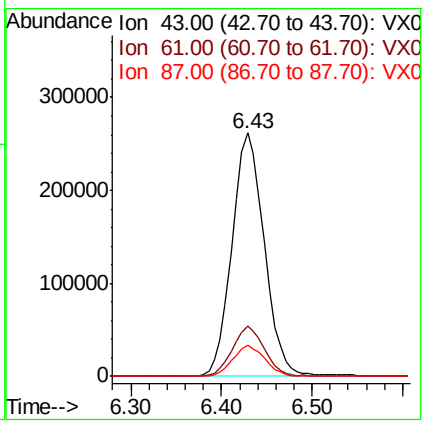
Manual Integrations APPROVED
apatel
12/30/2019 11:04:07 AM

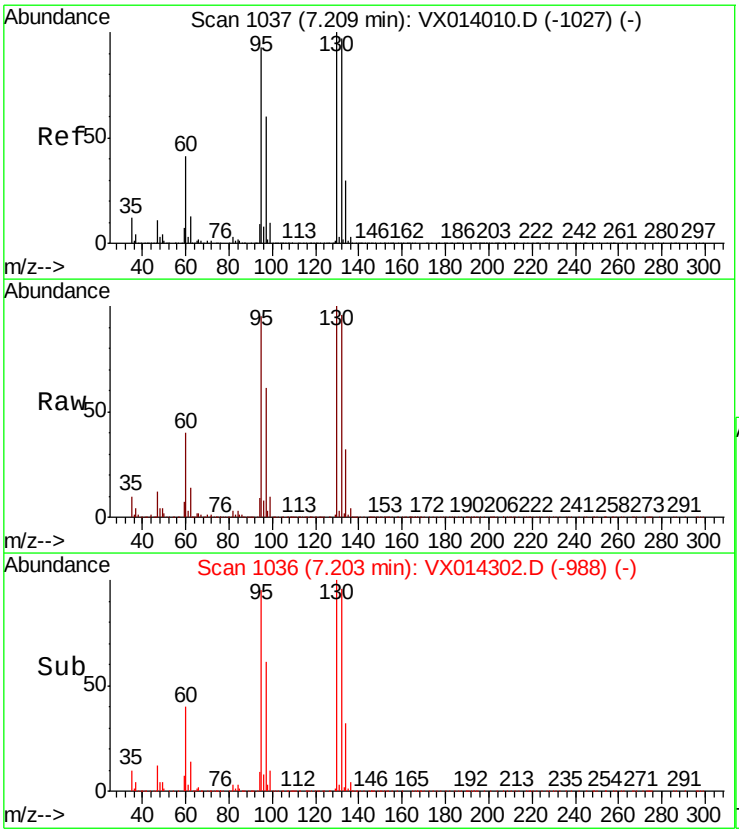


#43
Isopropyl Acetate
Concen: 50.090 ug/l
RT: 6.43 min Scan# 909
Delta R.T. -0.01 min
Lab File: VX014302.D
Acq: 27 Dec 2019 12:03

Tgt Ion: 43 Resp: 646037

Ion	Ratio	Lower	Upper
43	100		
61	20.5	16.4	24.6
87	12.6	10.7	16.1

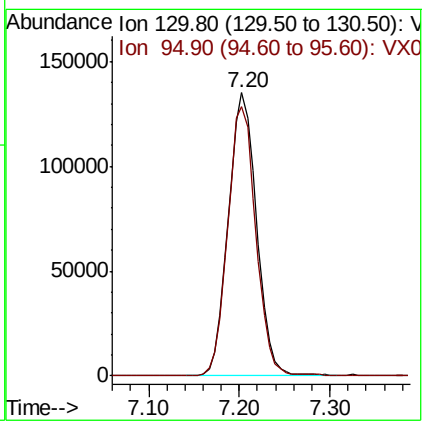




#44
Trichloroethene
Concen: 48.676 ug/l
RT: 7.20 min Scan# 1036
Delta R.T. -0.01 min
Lab File: VX014302.D
Acq: 27 Dec 2019 12:03

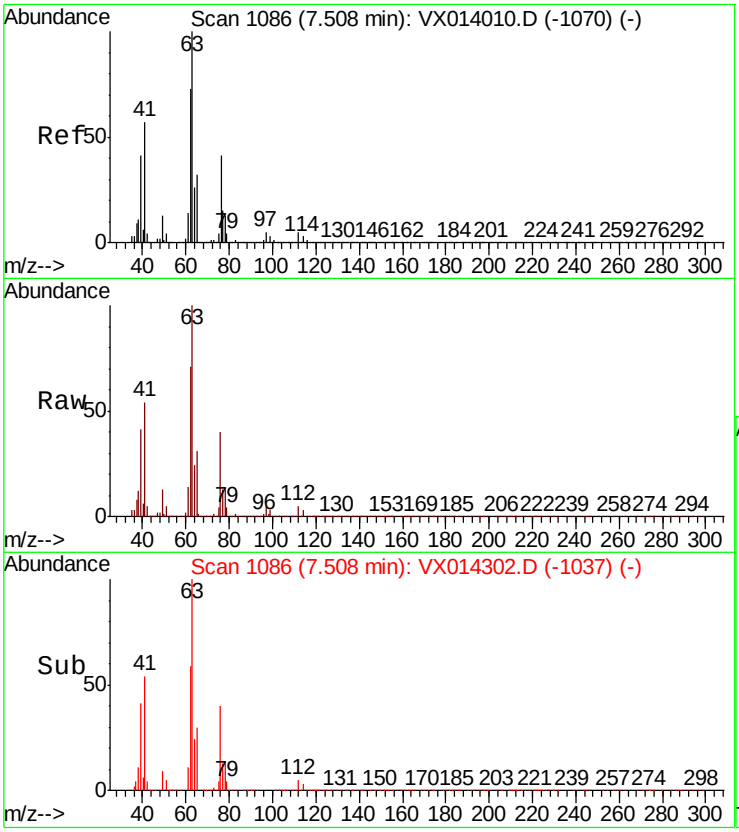
Tgt Ion:130 Resp: 291949

Ion	Ratio	Lower	Upper
130	100		
95	95.0	0.0	185.6



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

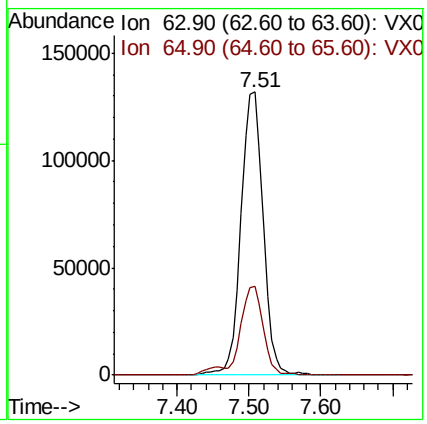
Manual Integrations APPROVED
apatel
12/30/2019 11:04:07 AM

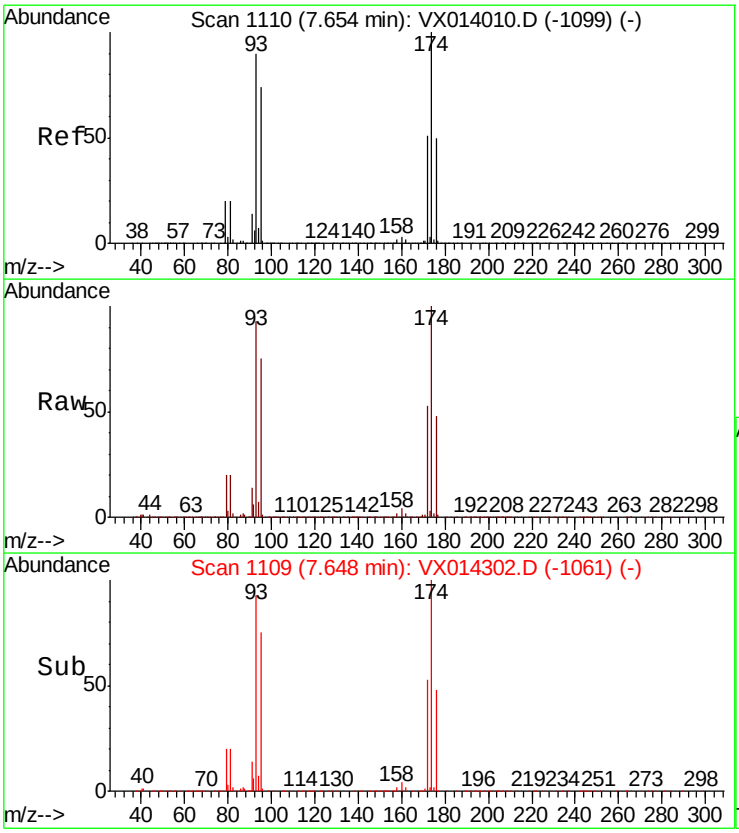


#45
1,2-Dichloropropane
Concen: 50.770 ug/l
RT: 7.51 min Scan# 1086
Delta R.T. 0.00 min
Lab File: VX014302.D
Acq: 27 Dec 2019 12:03

Tgt Ion: 63 Resp: 282569

Ion	Ratio	Lower	Upper
63	100		
65	31.1	25.8	38.8

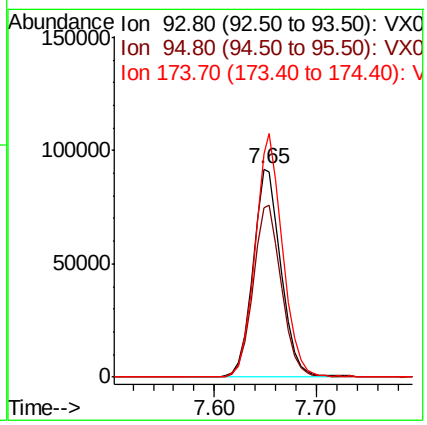




#46
Dibromomethane
Concen: 47.835 ug/l
RT: 7.65 min Scan# 1109
Delta R.T. -0.01 min
Lab File: VX014302.D
Acq: 27 Dec 2019 12:03

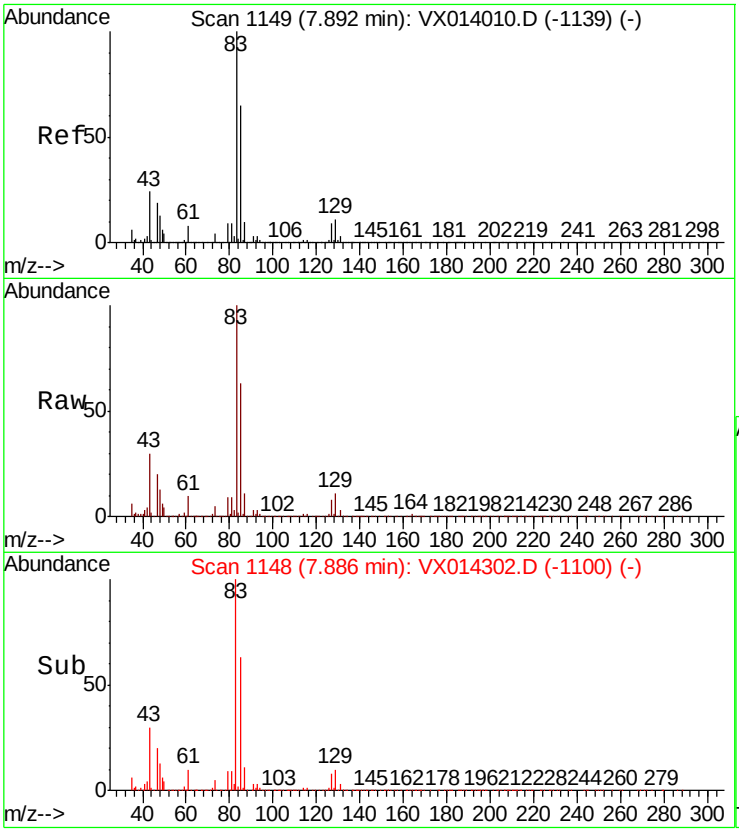
Tgt Ion: 93 Resp: 176019

Ion	Ratio	Lower	Upper
93	100		
95	82.9	67.3	100.9
174	114.1	91.6	137.4



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

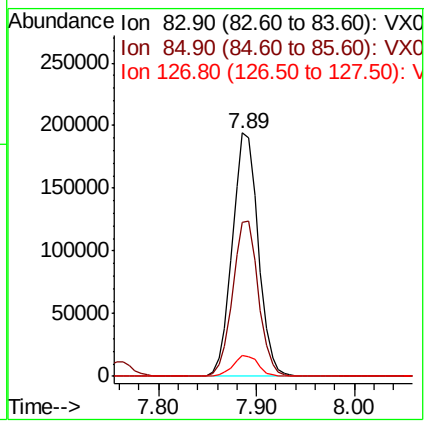
Manual Integrations APPROVED
apatel
12/30/2019 11:04:07 AM

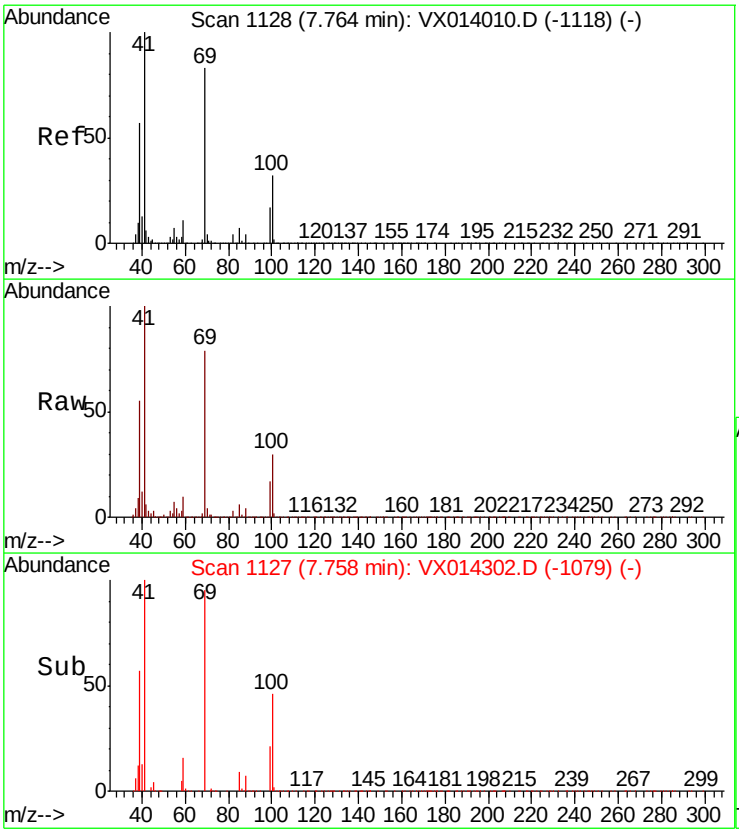


#47
Bromodichloromethane
Concen: 51.478 ug/l
RT: 7.89 min Scan# 1148
Delta R.T. -0.01 min
Lab File: VX014302.D
Acq: 27 Dec 2019 12:03

Tgt Ion: 83 Resp: 356751

Ion	Ratio	Lower	Upper
83	100		
85	63.2	51.8	77.8
127	8.5	7.0	10.4

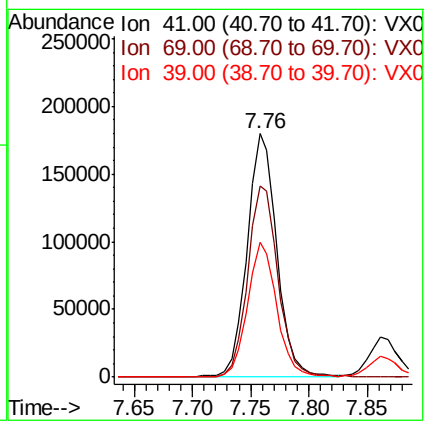




#48
Methyl methacrylate
Concen: 50.433 ug/l
RT: 7.76 min Scan# 1127
Delta R.T. -0.01 min
Lab File: VX014302.D
Acq: 27 Dec 2019 12:03

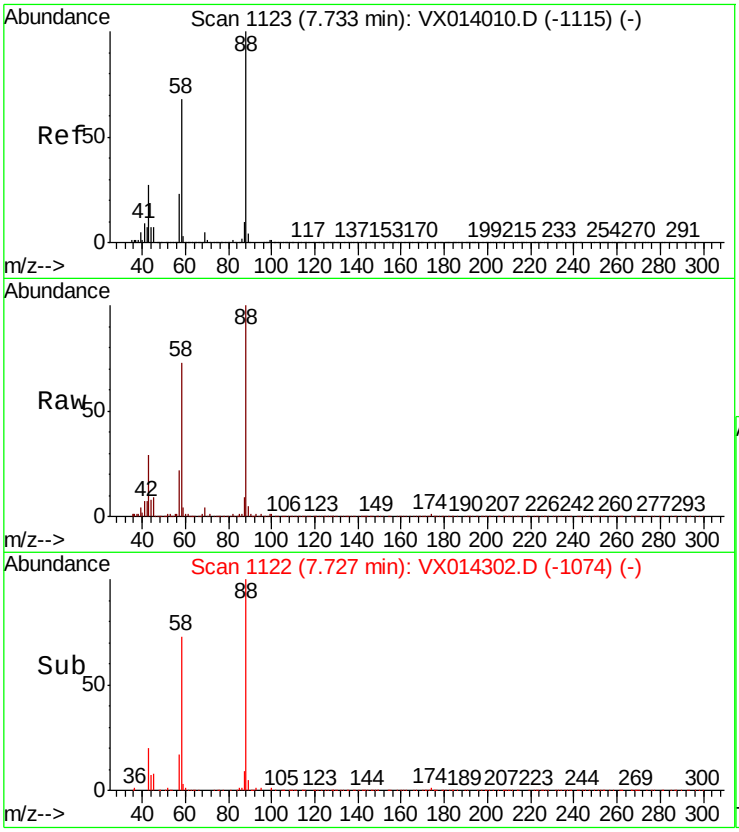
Tgt Ion: 41 Resp: 318511

Ion	Ratio	Lower	Upper
41	100		
69	80.6	65.8	98.6
39	54.1	44.6	67.0



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

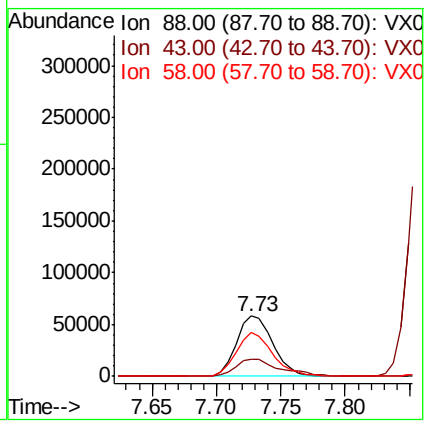
Manual Integrations APPROVED
apatel
12/30/2019 11:04:07 AM

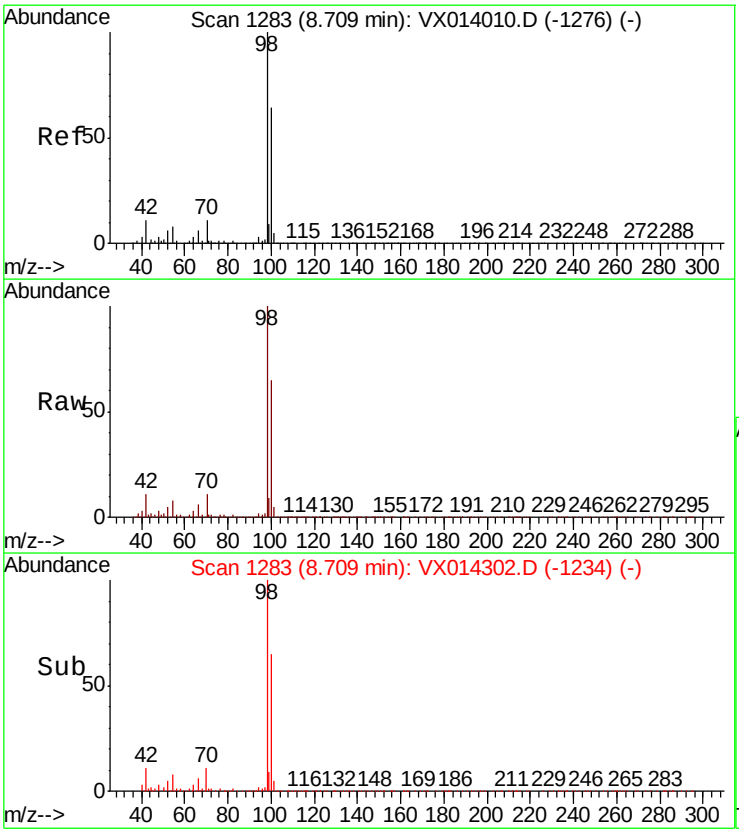


#49
1,4-Dioxane
Concen: 884.184 ug/l
RT: 7.73 min Scan# 1122
Delta R.T. -0.01 min
Lab File: VX014302.D
Acq: 27 Dec 2019 12:03

Tgt Ion: 88 Resp: 113638

Ion	Ratio	Lower	Upper
88	100		
43	34.3	26.5	39.7
58	73.1	56.8	85.2

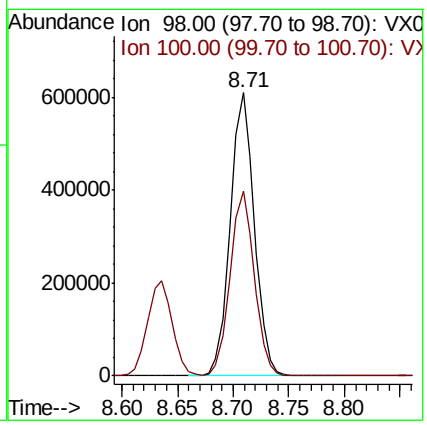




#50
Toluene-d8
Concen: 49.953 ug/l
RT: 8.71 min Scan# 1283
Delta R.T. 0.00 min
Lab File: VX014302.D
Acq: 27 Dec 2019 12:03

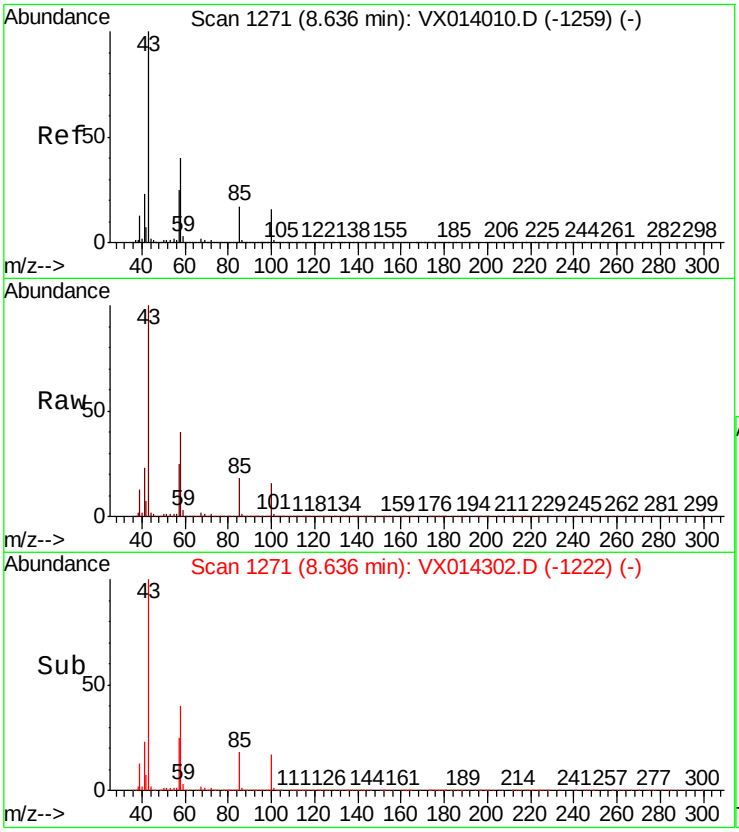
Tgt Ion: 98 Resp: 909303

Ion	Ratio	Lower	Upper
98	100		
100	65.7	52.9	79.3



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

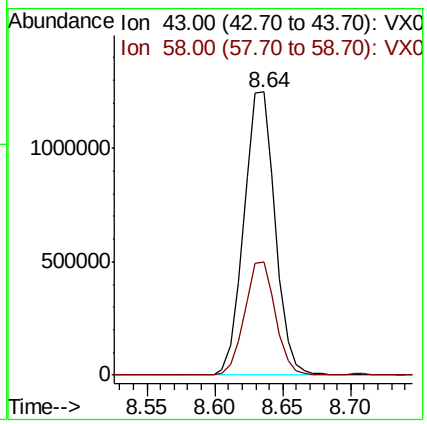
Manual Integrations APPROVED
apatel
12/30/2019 11:04:07 AM

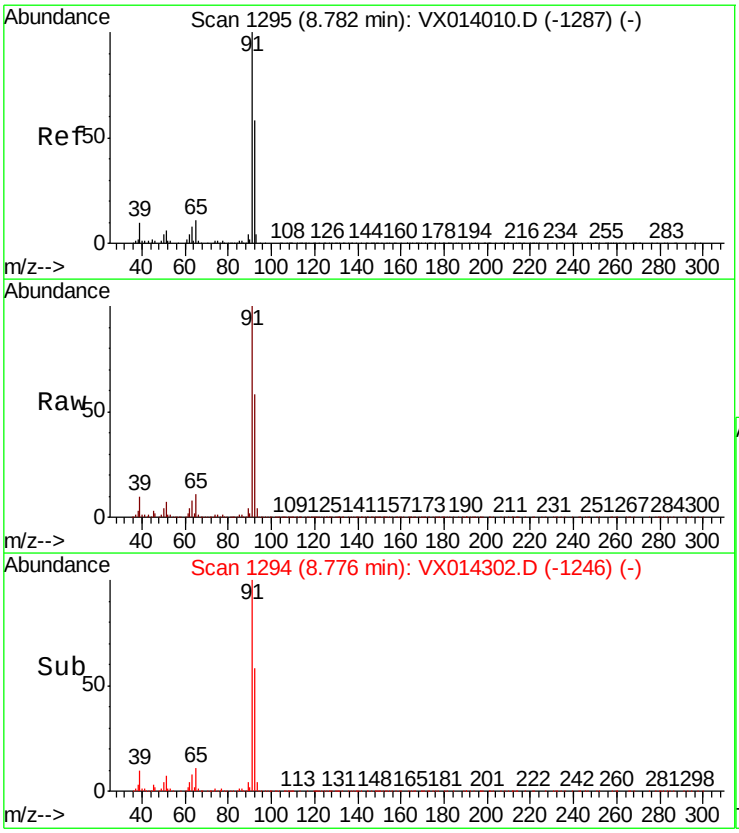


#51
4-Methyl-2-Pentanone
Concen: 247.374 ug/l
RT: 8.64 min Scan# 1271
Delta R.T. 0.00 min
Lab File: VX014302.D
Acq: 27 Dec 2019 12:03

Tgt Ion: 43 Resp: 2003693

Ion	Ratio	Lower	Upper
43	100		
58	39.5	32.2	48.2

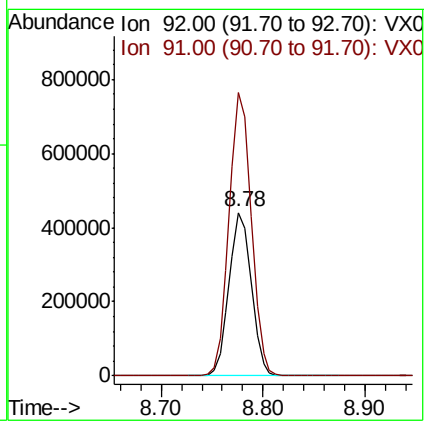




#52
Toluene
Concen: 48.479 ug/l
RT: 8.78 min Scan# 1294
Delta R.T. -0.01 min
Lab File: VX014302.D
Acq: 27 Dec 2019 12:03

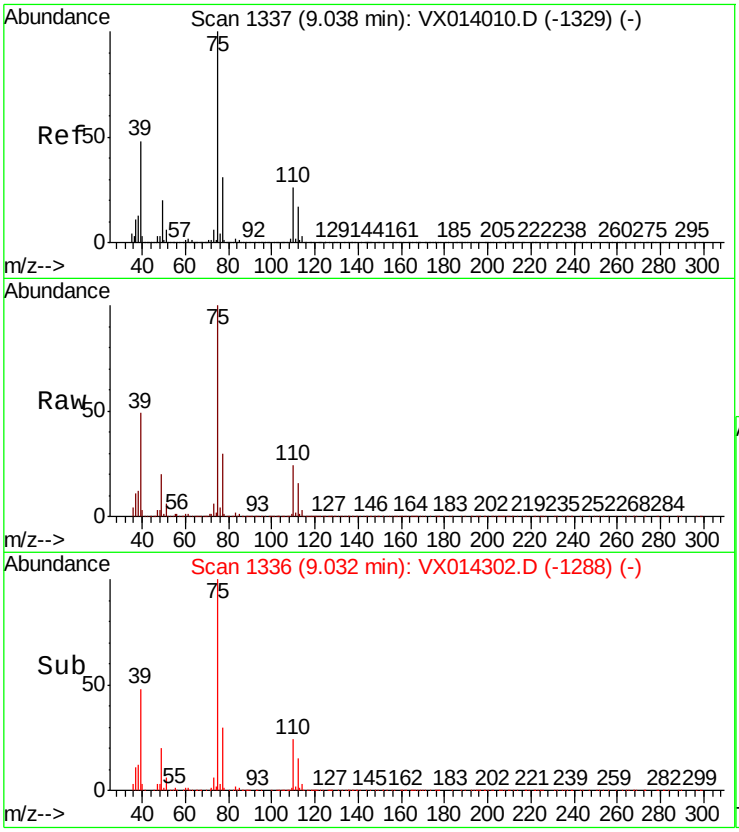
Tgt Ion: 92 Resp: 665377

Ion	Ratio	Lower	Upper
92	100		
91	173.0	136.2	204.4



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

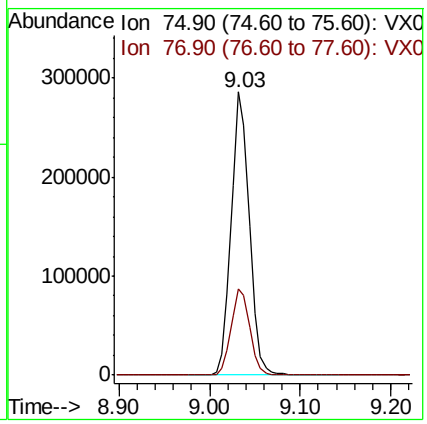
Manual Integrations APPROVED
apatel
12/30/2019 11:04:07 AM

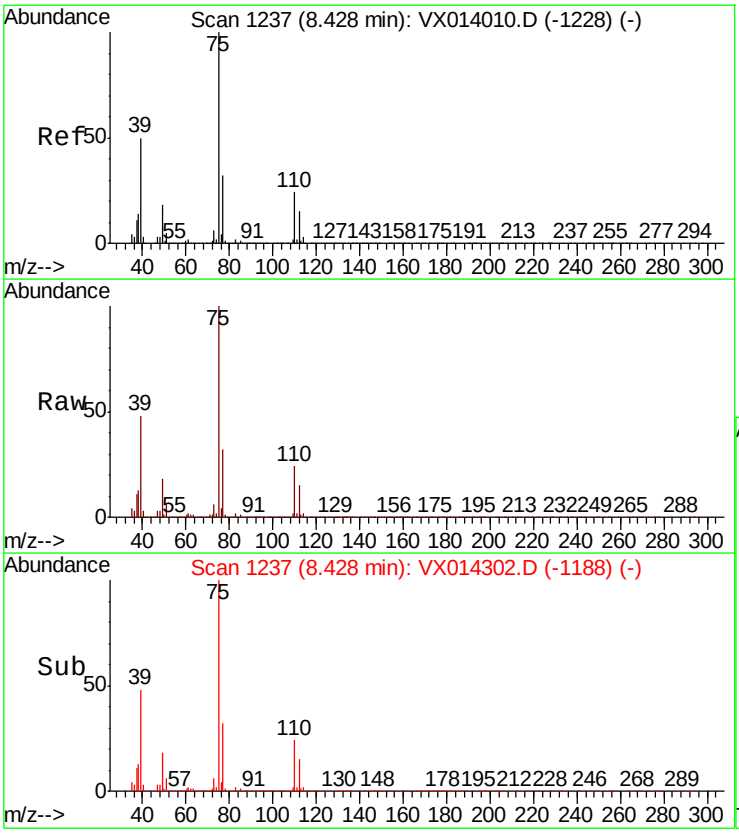


#53
t-1,3-Dichloropropene
Concen: 52.175 ug/l
RT: 9.03 min Scan# 1336
Delta R.T. -0.01 min
Lab File: VX014302.D
Acq: 27 Dec 2019 12:03

Tgt Ion: 75 Resp: 396477

Ion	Ratio	Lower	Upper
75	100		
77	30.4	25.1	37.7

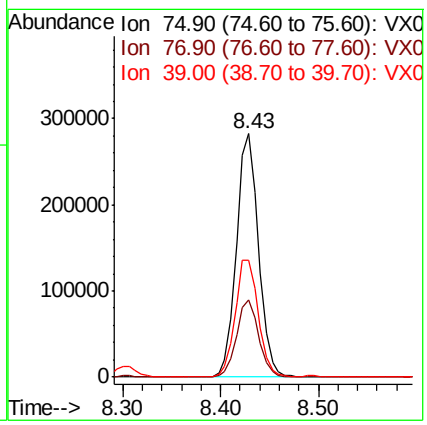




#54
cis-1,3-Dichloropropene
Concen: 52.242 ug/l
RT: 8.43 min Scan# 1237
Delta R.T. 0.00 min
Lab File: VX014302.D
Acq: 27 Dec 2019 12:03

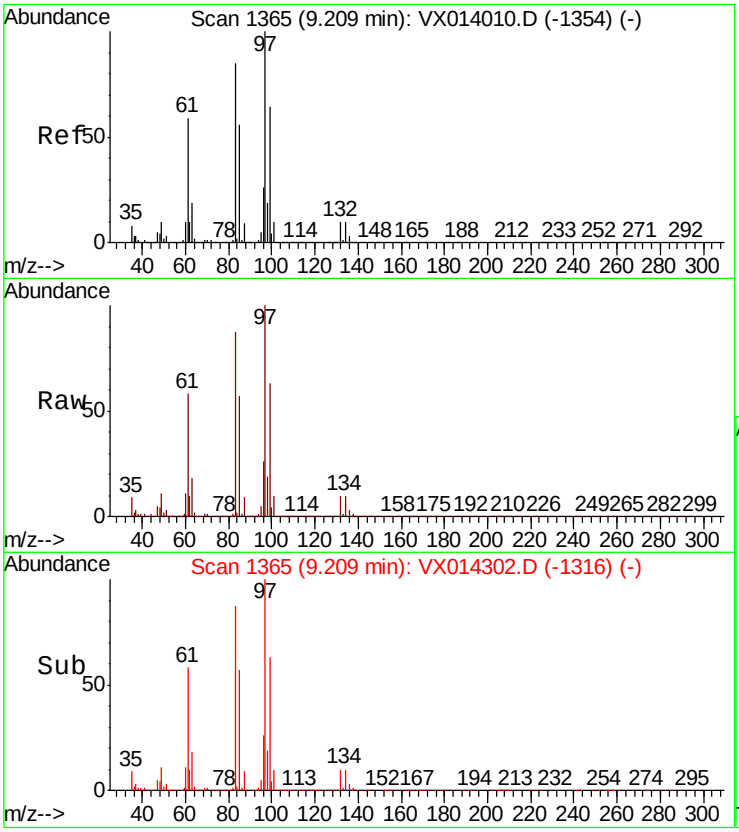
Tgt Ion: 75 Resp: 442272

Ion	Ratio	Lower	Upper
75	100		
77	31.6	25.3	37.9
39	48.1	39.9	59.9



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

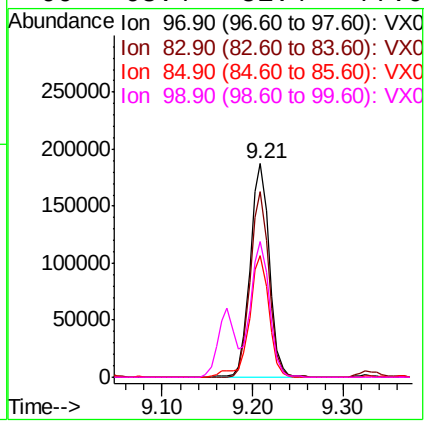
Manual Integrations APPROVED
apatel
12/30/2019 11:04:07 AM

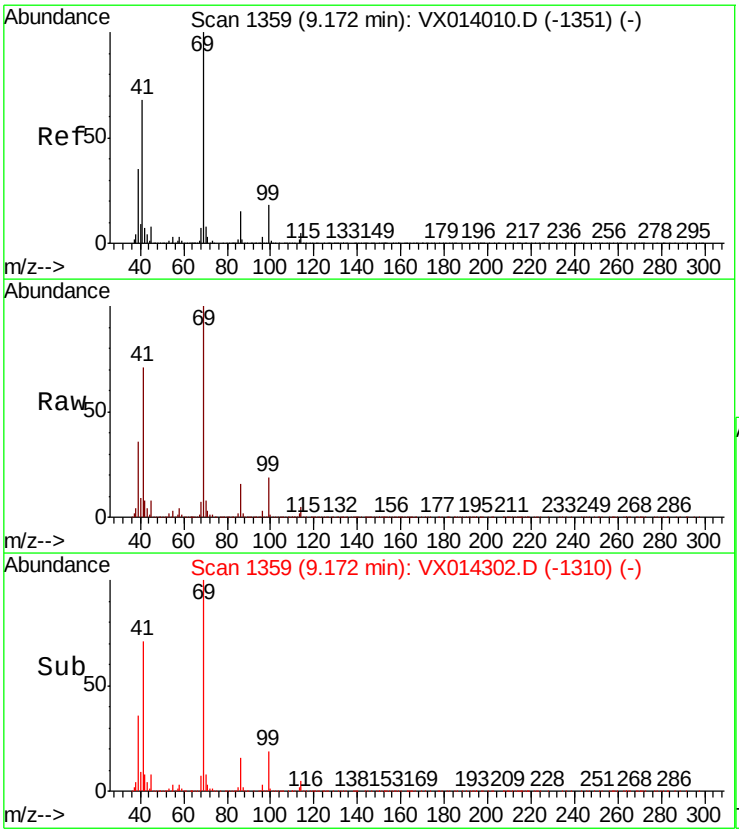


#55
1,1,2-Trichloroethane
Concen: 49.733 ug/l
RT: 9.21 min Scan# 1365
Delta R.T. 0.00 min
Lab File: VX014302.D
Acq: 27 Dec 2019 12:03

Tgt Ion: 97 Resp: 273574

Ion	Ratio	Lower	Upper
97	100		
83	87.1	68.2	102.4
85	57.1	44.6	66.8
99	63.4	51.4	77.0

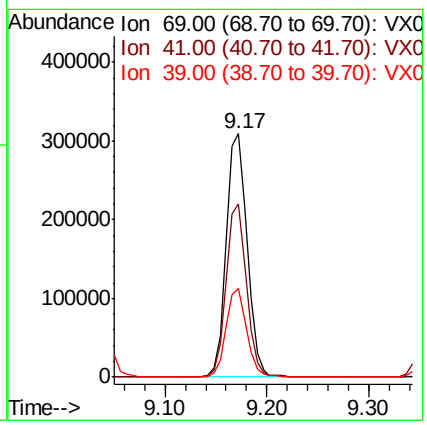




#56
Ethyl methacrylate
Concen: 50.528 ug/l
RT: 9.17 min Scan# 1359
Delta R.T. 0.00 min
Lab File: VX014302.D
Acq: 27 Dec 2019 12:03

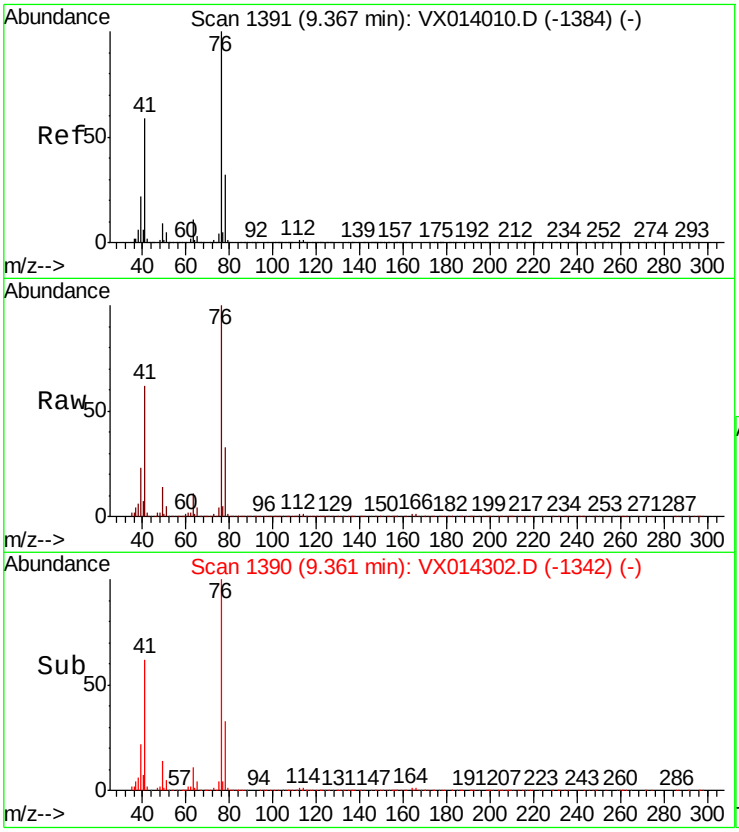
Tgt Ion: 69 Resp: 436608

Ion	Ratio	Lower	Upper
69	100		
41	68.9	54.8	82.2
39	35.4	28.3	42.5



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

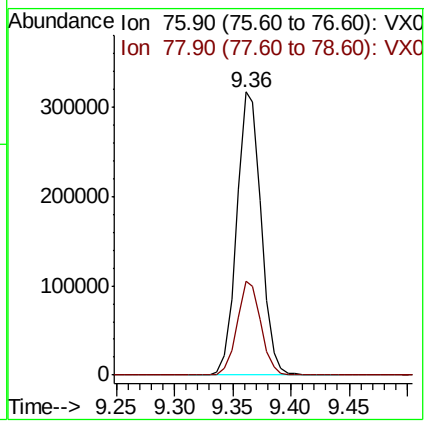
Manual Integrations APPROVED
apatel
12/30/2019 11:04:07 AM

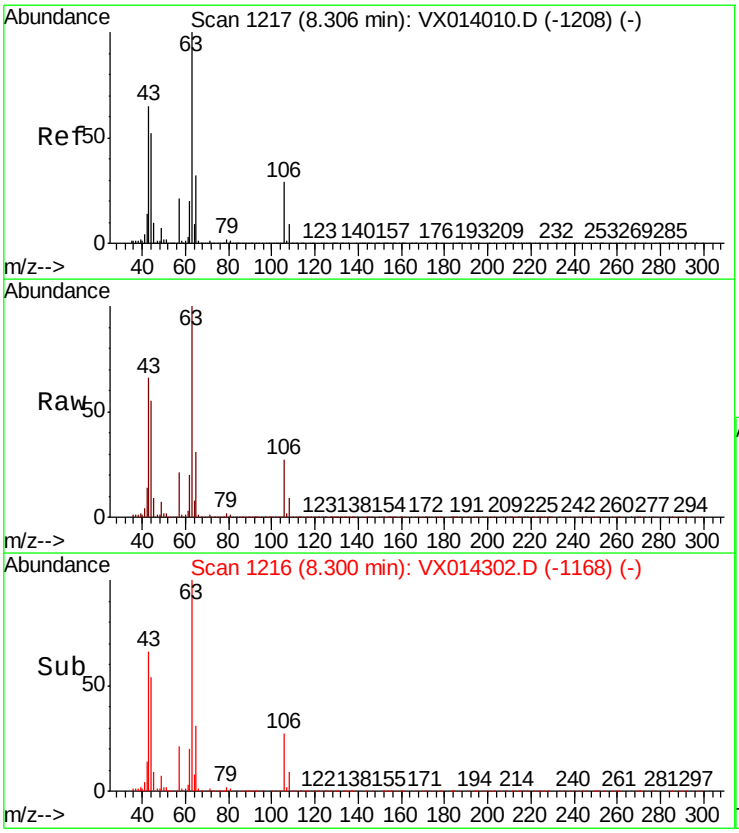


#57
1,3-Dichloropropane
Concen: 49.919 ug/l
RT: 9.36 min Scan# 1390
Delta R.T. -0.01 min
Lab File: VX014302.D
Acq: 27 Dec 2019 12:03

Tgt Ion: 76 Resp: 462008

Ion	Ratio	Lower	Upper
76	100		
78	32.2	25.8	38.6

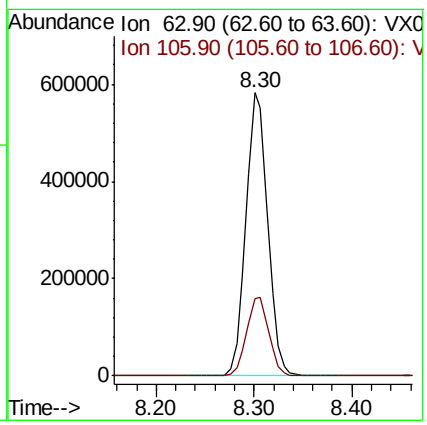




#58
2-Chloroethyl Vinyl ether
Concen: 274.920 ug/l
RT: 8.30 min Scan# 1216
Delta R.T. -0.01 min
Lab File: VX014302.D
Acq: 27 Dec 2019 12:03

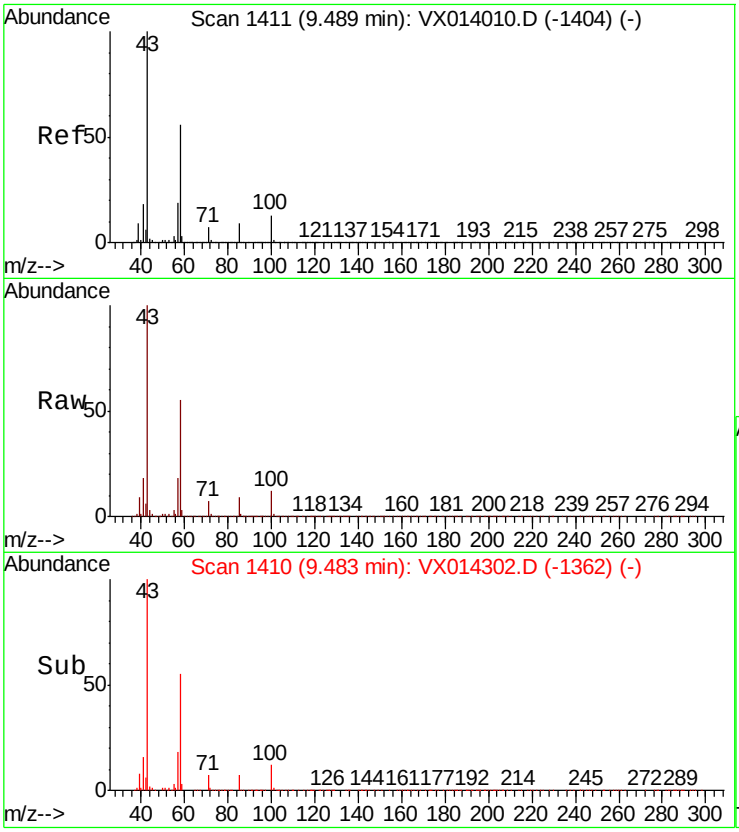
Tgt Ion: 63 Resp: 899003

Ion	Ratio	Lower	Upper
63	100		
106	28.4	23.0	34.6



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

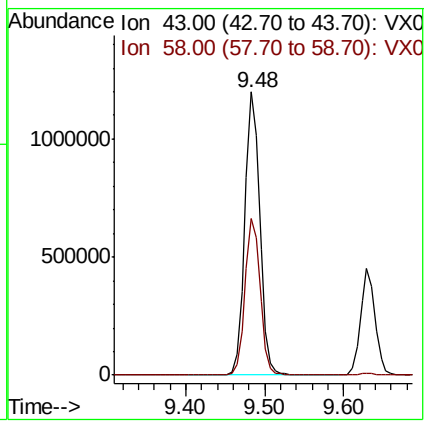
Manual Integrations APPROVED
apatel
12/30/2019 11:04:07 AM

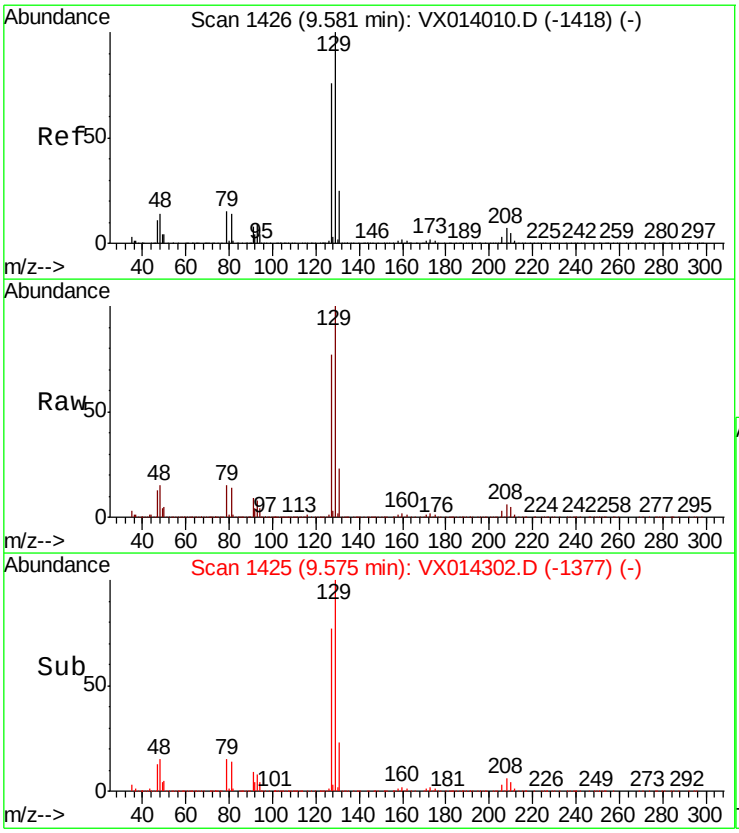


#59
2-Hexanone
Concen: 243.392 ug/l
RT: 9.48 min Scan# 1410
Delta R.T. -0.01 min
Lab File: VX014302.D
Acq: 27 Dec 2019 12:03

Tgt Ion: 43 Resp: 1587018

Ion	Ratio	Lower	Upper
43	100		
58	55.9	28.0	84.0

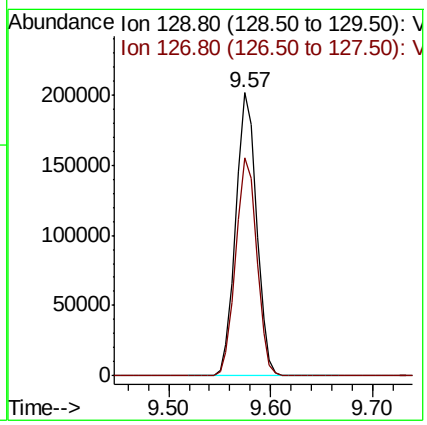




#60
Dibromochloromethane
Concen: 51.776 ug/l
RT: 9.57 min Scan# 1425
Delta R.T. -0.01 min
Lab File: VX014302.D
Acq: 27 Dec 2019 12:03

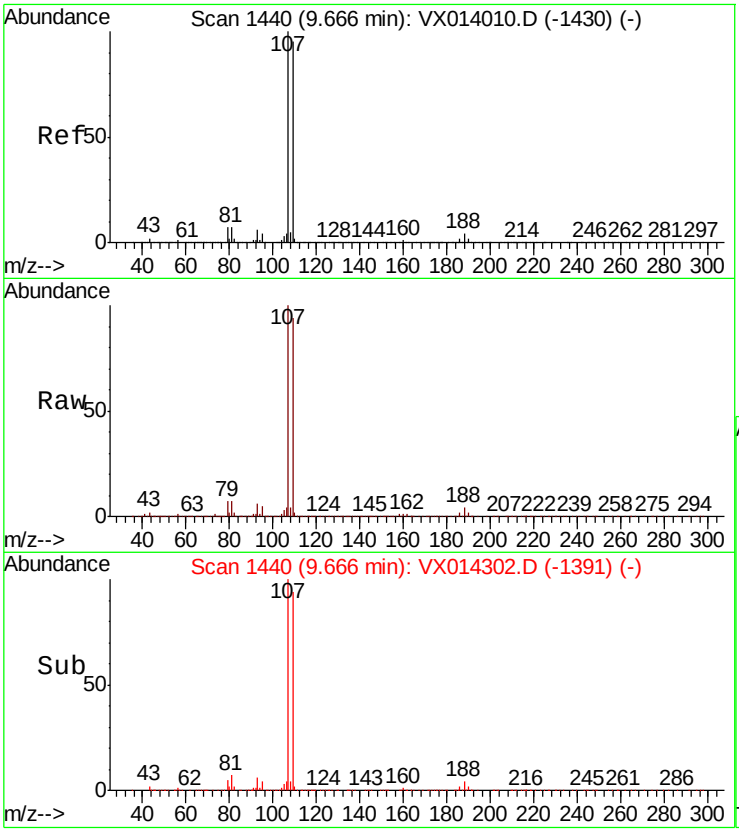
Tgt Ion:129 Resp: 283107

Ion	Ratio	Lower	Upper
129	100		
127	77.4	38.4	115.2



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

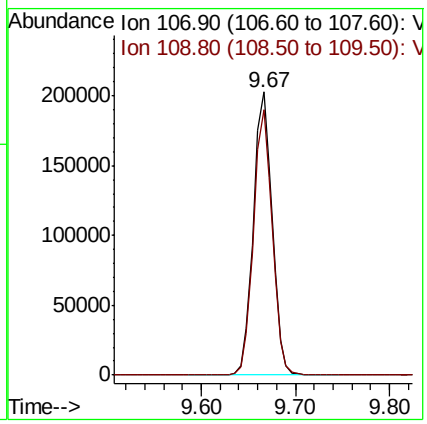
Manual Integrations APPROVED
apatel
12/30/2019 11:04:07 AM

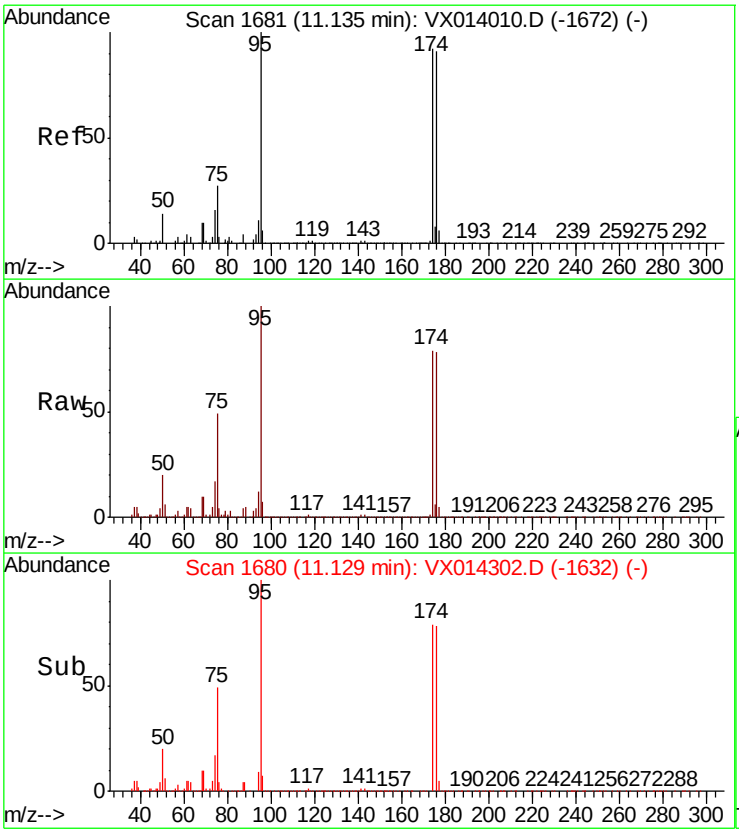


#61
1,2-Dibromoethane
Concen: 50.124 ug/l
RT: 9.67 min Scan# 1440
Delta R.T. 0.00 min
Lab File: VX014302.D
Acq: 27 Dec 2019 12:03

Tgt Ion:107 Resp: 282109

Ion	Ratio	Lower	Upper
107	100		
109	93.9	75.7	113.5

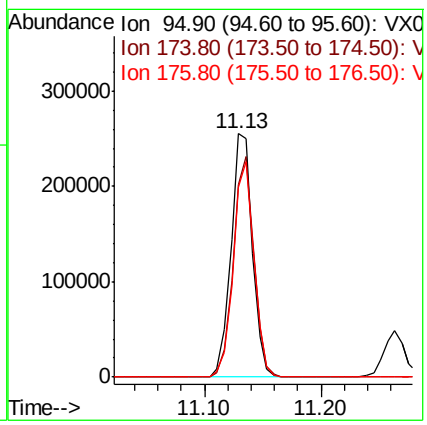




#62
4-Bromofluorobenzene
Concen: 49.107 ug/l
RT: 11.13 min Scan# 1680
Delta R.T. -0.01 min
Lab File: VX014302.D
Acq: 27 Dec 2019 12:03

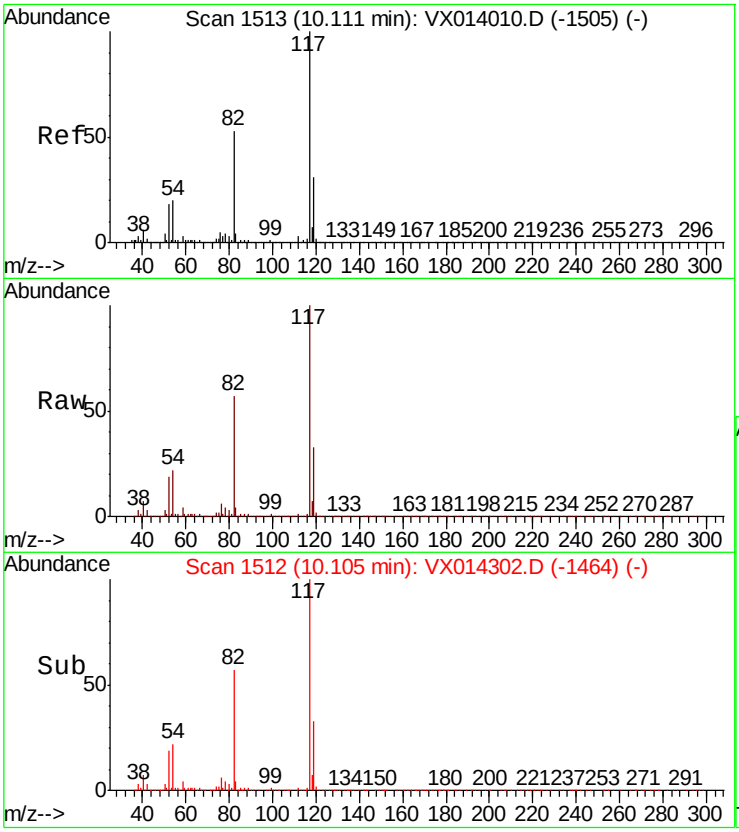
Tgt Ion: 95 Resp: 326756

Ion	Ratio	Lower	Upper
95	100		
174	87.8	0.0	175.8
176	85.4	0.0	173.0



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

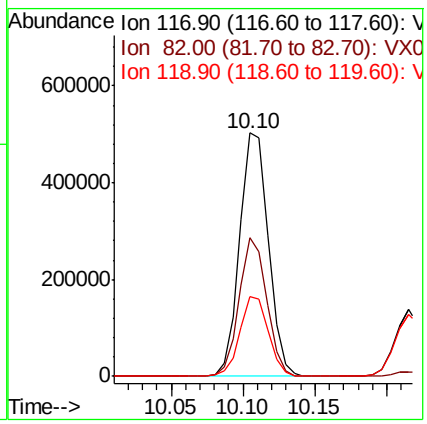
Manual Integrations APPROVED
apatel
12/30/2019 11:04:07 AM

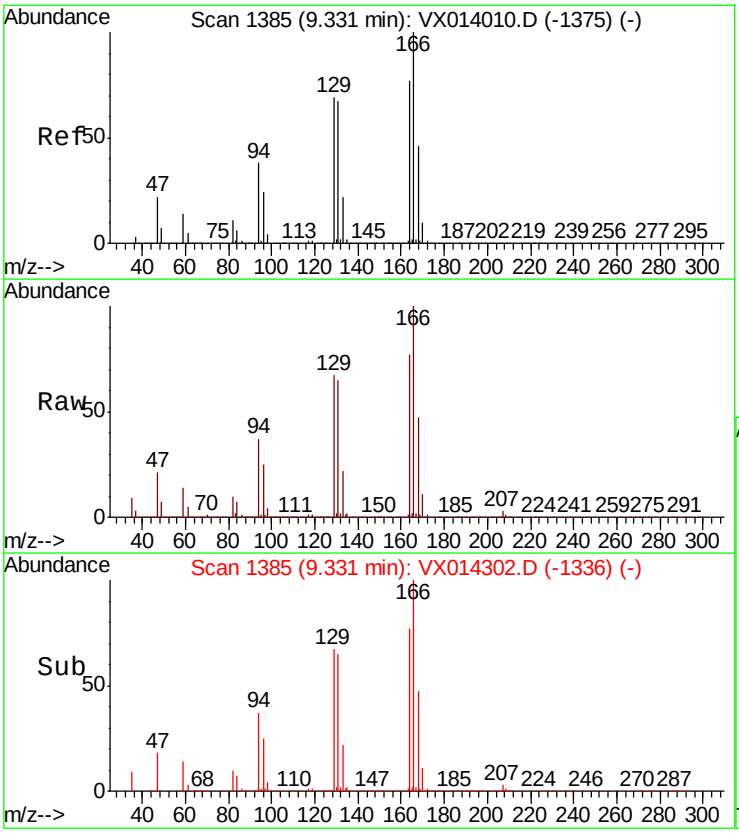


#63
Chlorobenzene-d5
Concen: 50.000 ug/l
RT: 10.10 min Scan# 1512
Delta R.T. -0.01 min
Lab File: VX014302.D
Acq: 27 Dec 2019 12:03

Tgt Ion:117 Resp: 696368

Ion	Ratio	Lower	Upper
117	100		
82	56.9	42.2	63.4
119	32.8	25.1	37.7

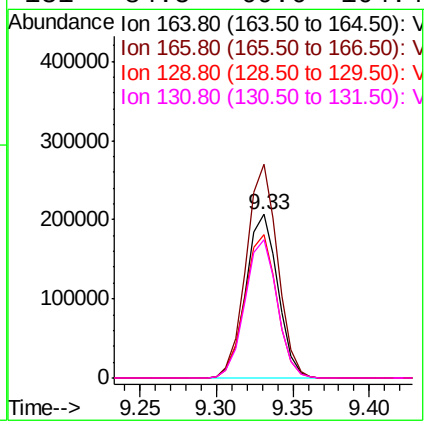




#64
Tetrachloroethene
Concen: 48.932 ug/l
RT: 9.33 min Scan# 1385
Delta R.T. 0.00 min
Lab File: VX014302.D
Acq: 27 Dec 2019 12:03

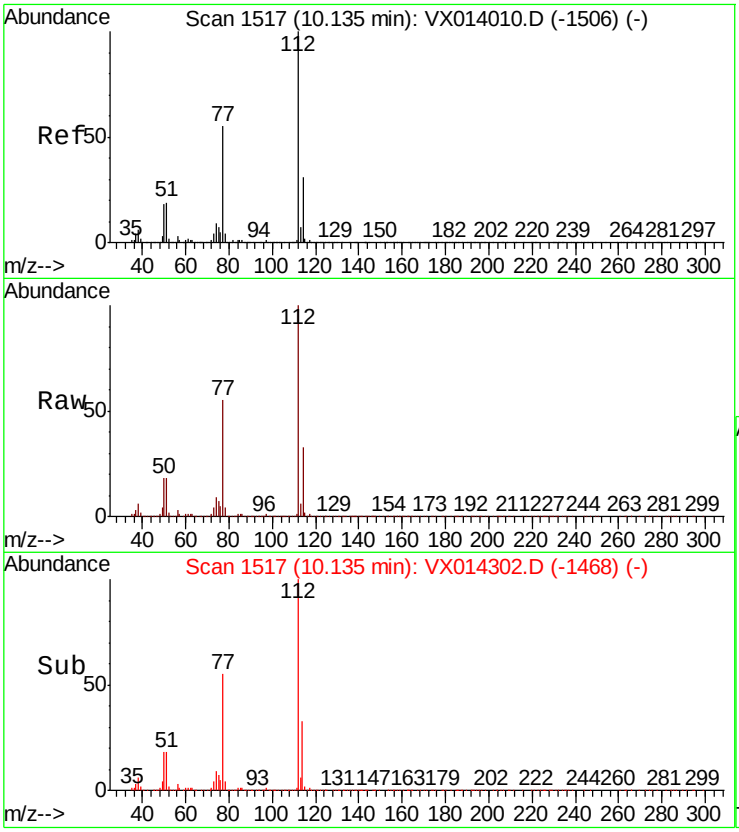
Tgt Ion:164 Resp: 301519

Ion	Ratio	Lower	Upper
164	100		
166	130.6	104.0	156.0
129	87.8	72.2	108.4
131	84.5	69.6	104.4



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

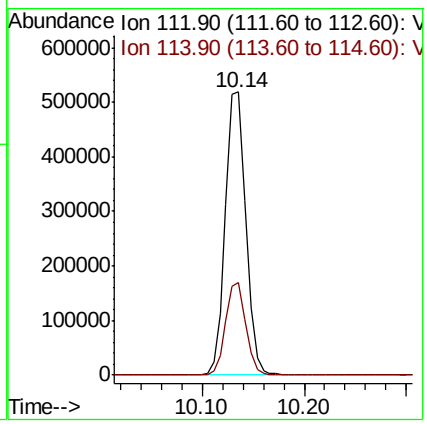
Manual Integrations APPROVED
apatel
12/30/2019 11:04:07 AM

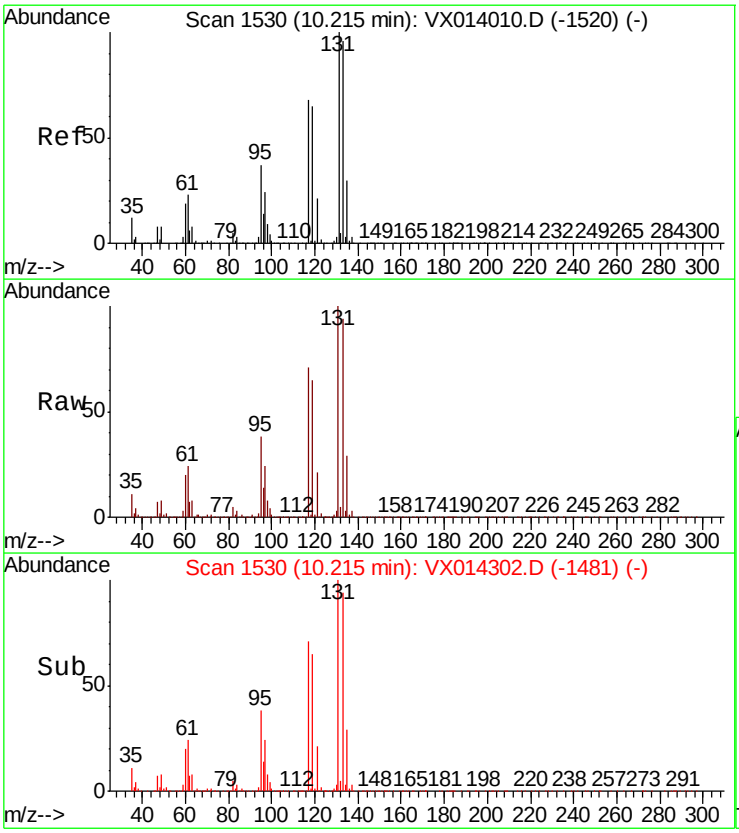


#65
Chlorobenzene
Concen: 48.861 ug/l
RT: 10.14 min Scan# 1517
Delta R.T. 0.00 min
Lab File: VX014302.D
Acq: 27 Dec 2019 12:03

Tgt Ion:112 Resp: 723465

Ion	Ratio	Lower	Upper
112	100		
114	32.7	24.9	37.3

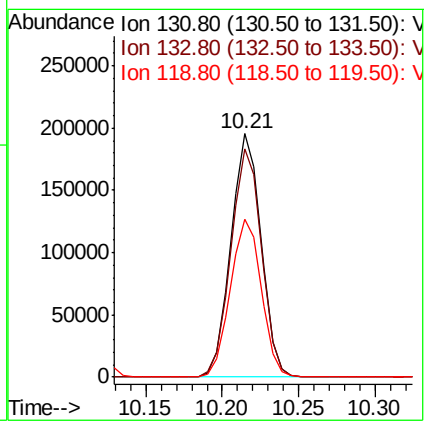




#66
1,1,1,2-Tetrachloroethane
Concen: 50.446 ug/l
RT: 10.21 min Scan# 1530
Delta R.T. 0.00 min
Lab File: VX014302.D
Acq: 27 Dec 2019 12:03

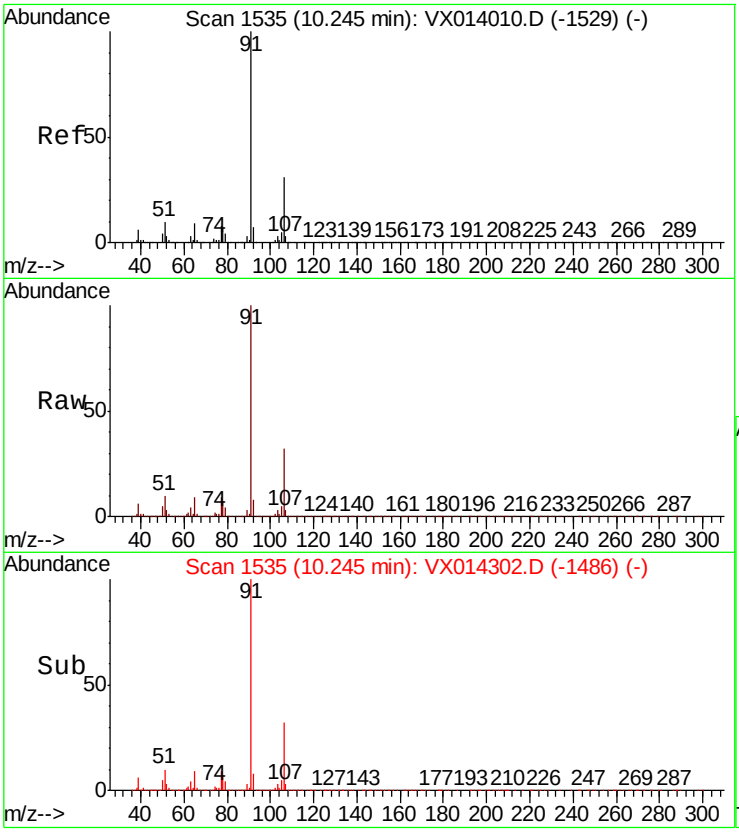
Tgt Ion:131 Resp: 266696

Ion	Ratio	Lower	Upper
131	100		
133	95.1	48.0	144.0
119	66.3	33.4	100.2



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

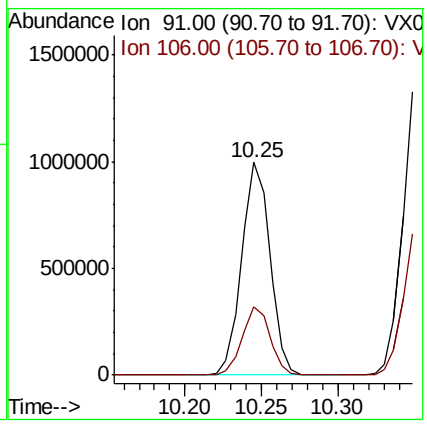
Manual Integrations APPROVED
apatel
12/30/2019 11:04:07 AM

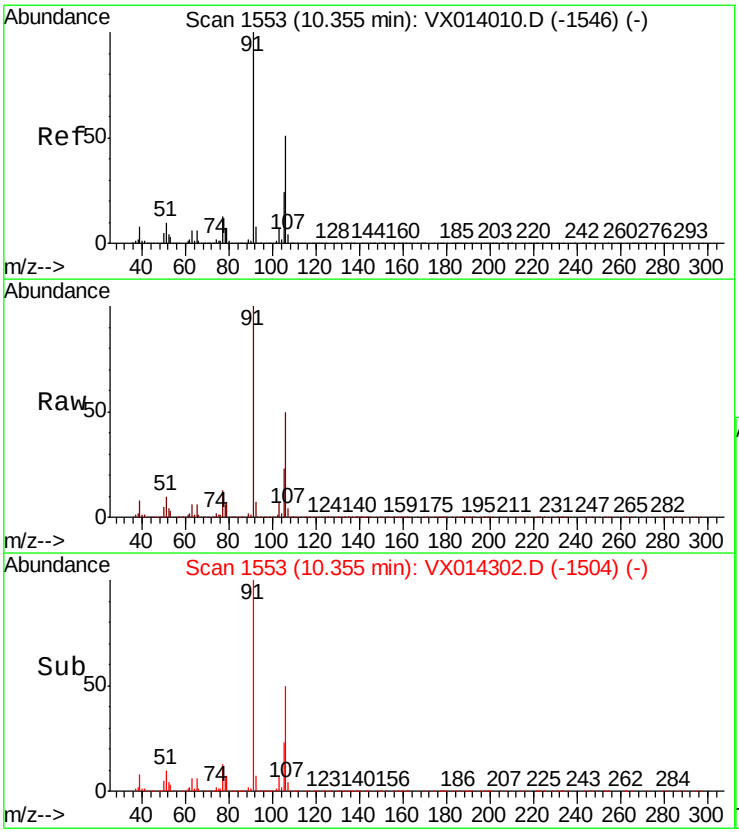


#67
Ethyl Benzene
Concen: 50.318 ug/l
RT: 10.25 min Scan# 1535
Delta R.T. 0.00 min
Lab File: VX014302.D
Acq: 27 Dec 2019 12:03

Tgt Ion: 91 Resp: 1280881

Ion	Ratio	Lower	Upper
91	100		
106	32.2	25.0	37.6

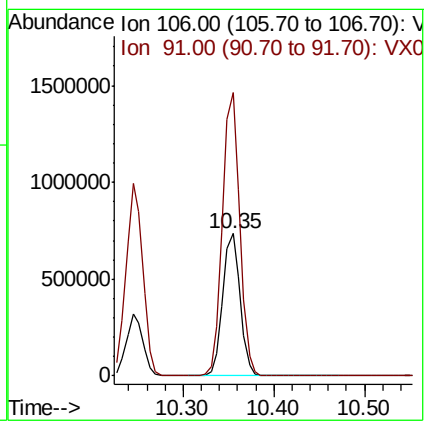




#68
m/p-Xylenes
Concen: 100.741 ug/l
RT: 10.35 min Scan# 1553
Delta R.T. 0.00 min
Lab File: VX014302.D
Acq: 27 Dec 2019 12:03

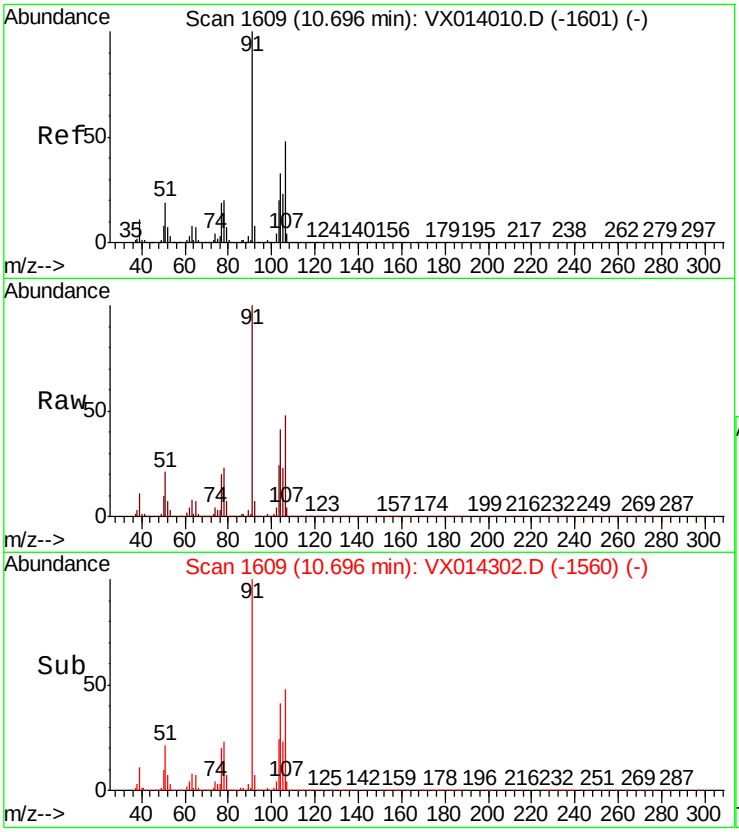
Tgt Ion:106 Resp: 986317

Ion	Ratio	Lower	Upper
106	100		
91	197.6	158.6	238.0



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

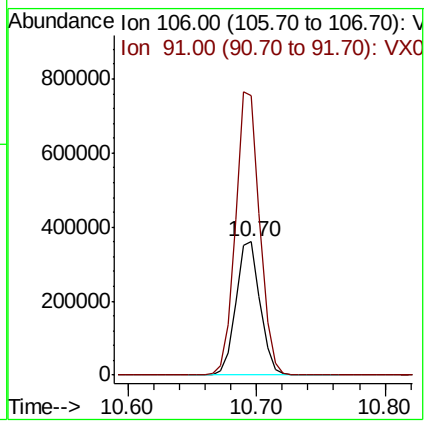
Manual Integrations APPROVED
apatel
12/30/2019 11:04:07 AM

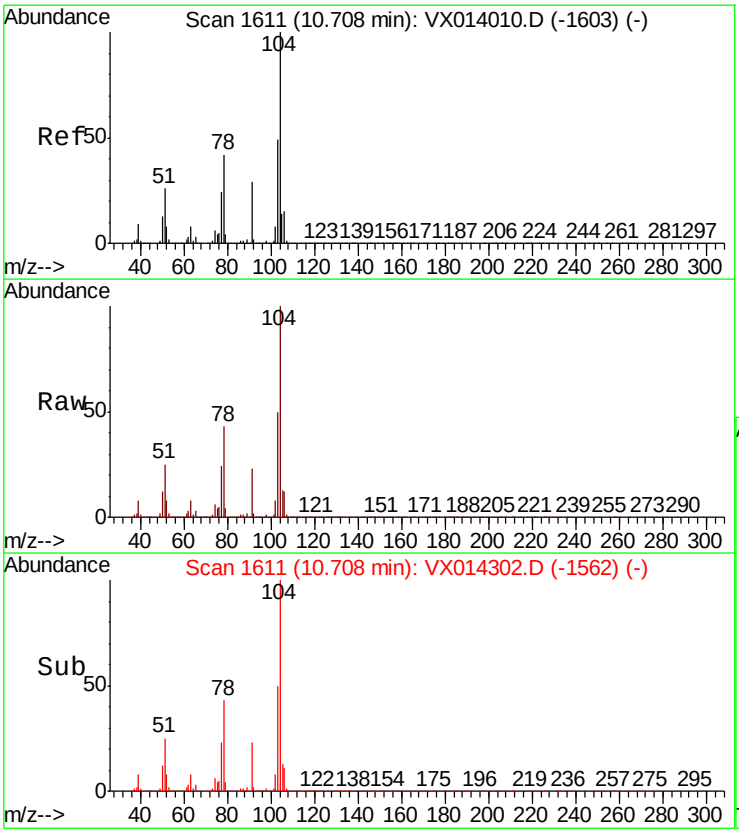


#69
o-Xylene
Concen: 49.004 ug/l
RT: 10.70 min Scan# 1609
Delta R.T. 0.00 min
Lab File: VX014302.D
Acq: 27 Dec 2019 12:03

Tgt Ion:106 Resp: 470550

Ion	Ratio	Lower	Upper
106	100		
91	211.9	104.2	312.6

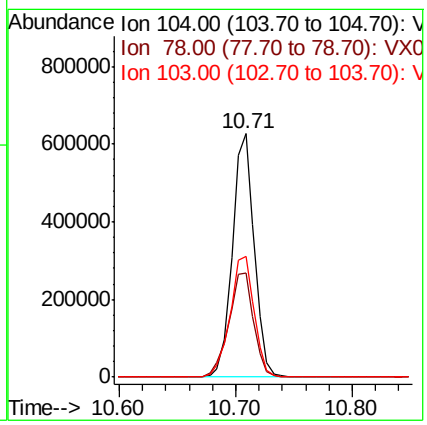




#70
Styrene
Concen: 50.245 ug/l
RT: 10.71 min Scan# 1611
Delta R.T. 0.00 min
Lab File: VX014302.D
Acq: 27 Dec 2019 12:03

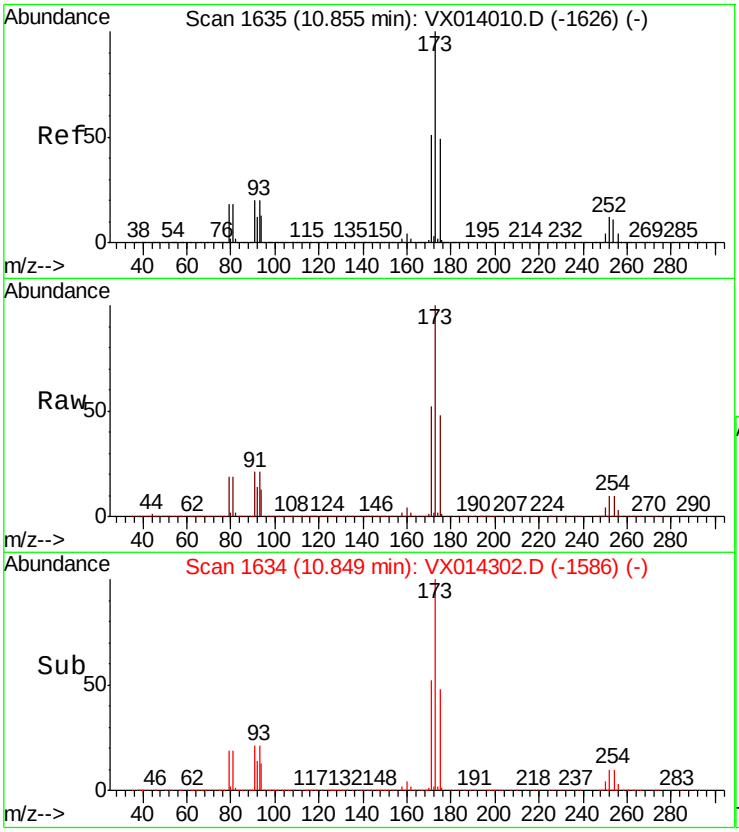
Tgt Ion:104 Resp: 815836

Ion	Ratio	Lower	Upper
104	100		
78	48.5	38.5	57.7
103	54.6	42.9	64.3



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

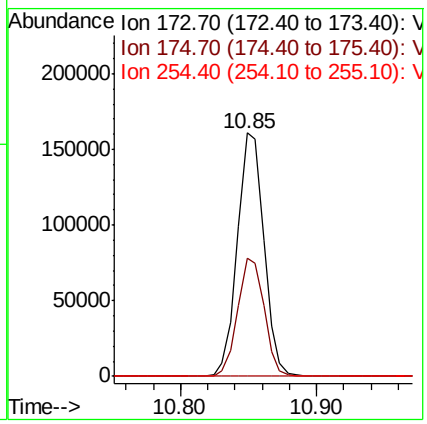
Manual Integrations APPROVED
apatel
12/30/2019 11:04:07 AM

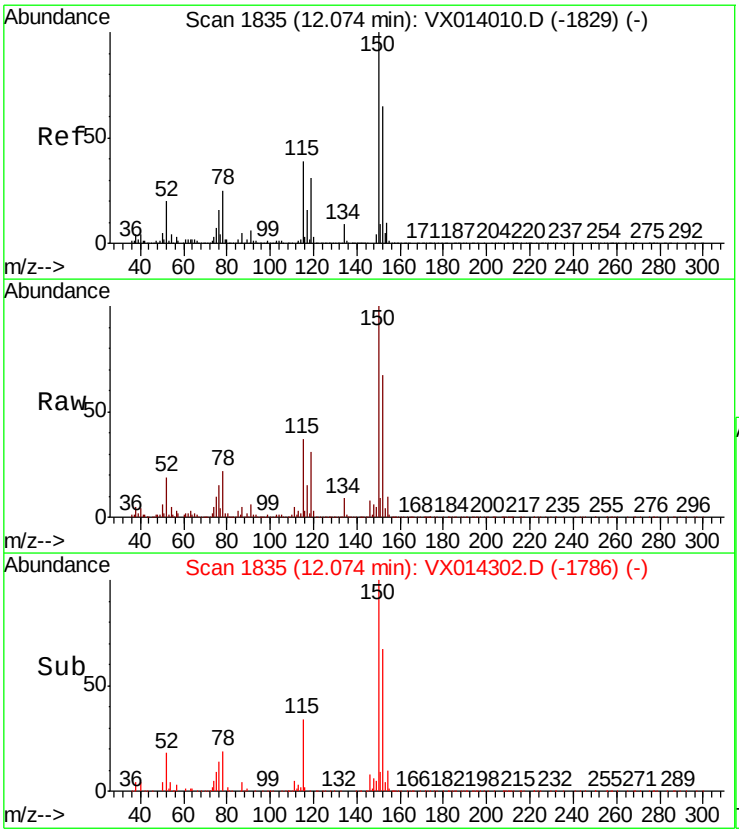


#71
Bromoform
Concen: 51.690 ug/l
RT: 10.85 min Scan# 1634
Delta R.T. -0.01 min
Lab File: VX014302.D
Acq: 27 Dec 2019 12:03

Tgt Ion:173 Resp: 219667

Ion	Ratio	Lower	Upper
173	100		
175	48.3	24.4	73.4
254	0.3	0.2	0.2#

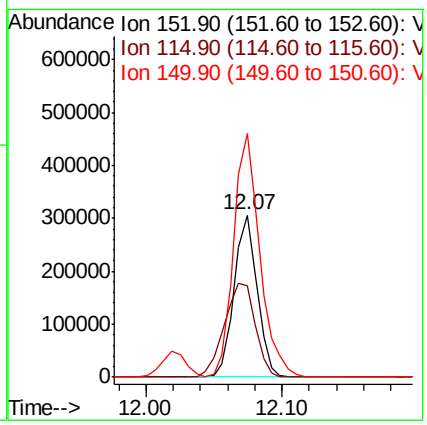




#72
1,4-Dichlorobenzene-d4
Concen: 50.000 ug/l
RT: 12.07 min Scan# 1835
Delta R.T. 0.00 min
Lab File: VX014302.D
Acq: 27 Dec 2019 12:03

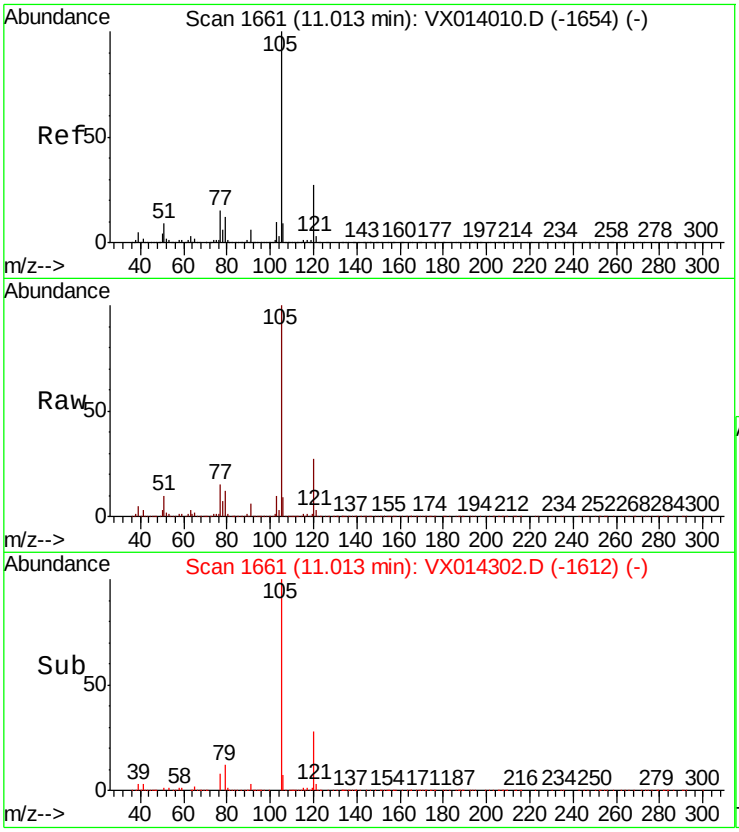
Tgt Ion:152 Resp: 361319

Ion	Ratio	Lower	Upper
152	100		
115	77.8	38.3	114.9
150	170.1	0.0	345.4



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

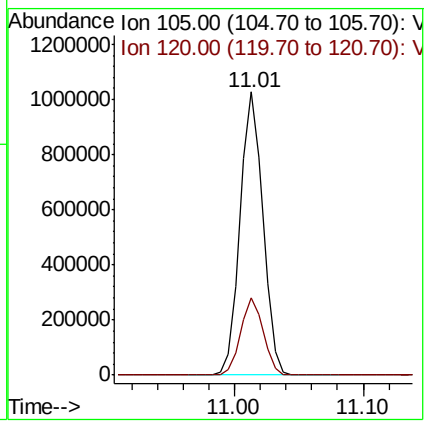
Manual Integrations APPROVED
apatel
12/30/2019 11:04:07 AM

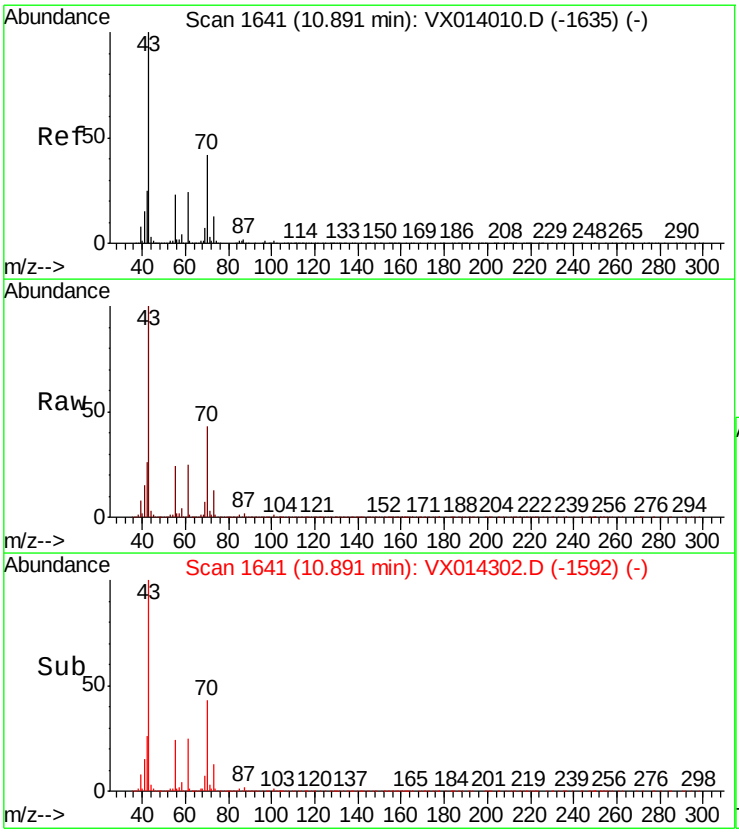


#73
Isopropylbenzene
Concen: 49.579 ug/l
RT: 11.01 min Scan# 1661
Delta R.T. 0.00 min
Lab File: VX014302.D
Acq: 27 Dec 2019 12:03

Tgt Ion:105 Resp: 1261263

Ion	Ratio	Lower	Upper
105	100		
120	26.9	13.5	40.4

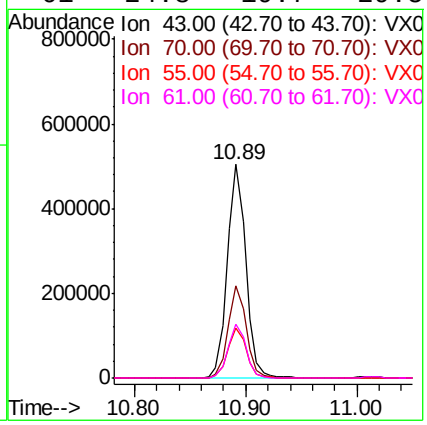




#74
N-amyl acetate
Concen: 48.460 ug/l
RT: 10.89 min Scan# 1641
Delta R.T. 0.00 min
Lab File: VX014302.D
Acq: 27 Dec 2019 12:03

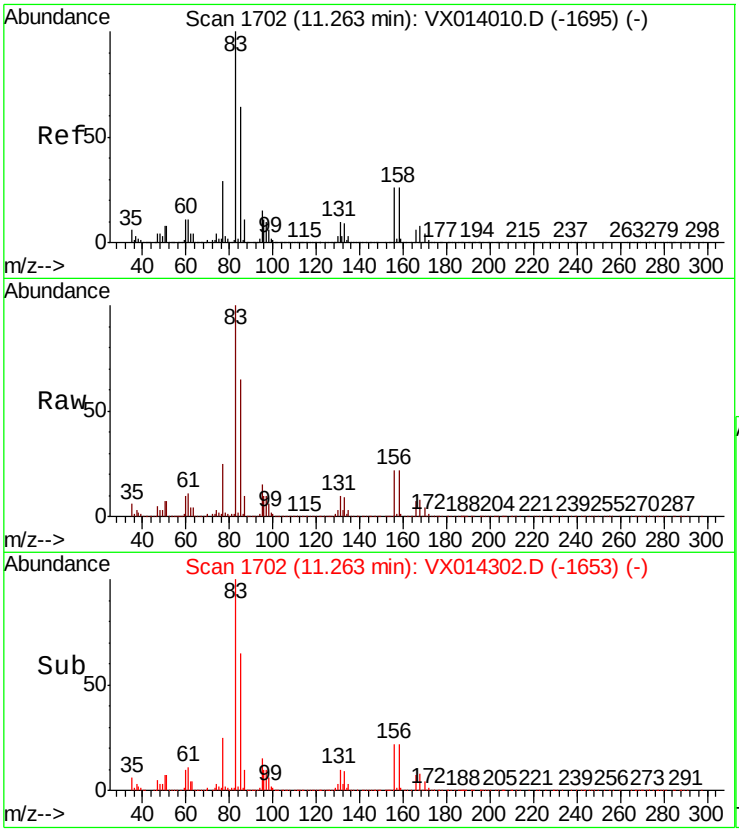
Tgt Ion: 43 Resp: 577863

Ion	Ratio	Lower	Upper
43	100		
70	42.8	34.4	51.6
55	23.9	19.1	28.7
61	24.8	19.7	29.5



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

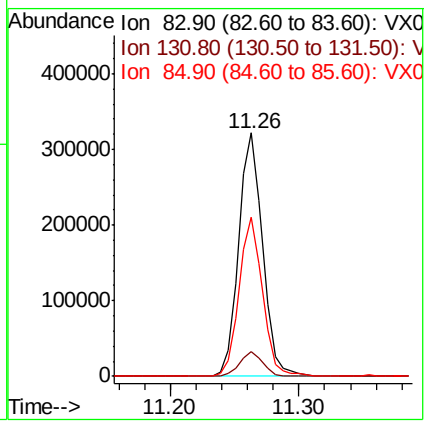
Manual Integrations APPROVED
apatel
12/30/2019 11:04:07 AM

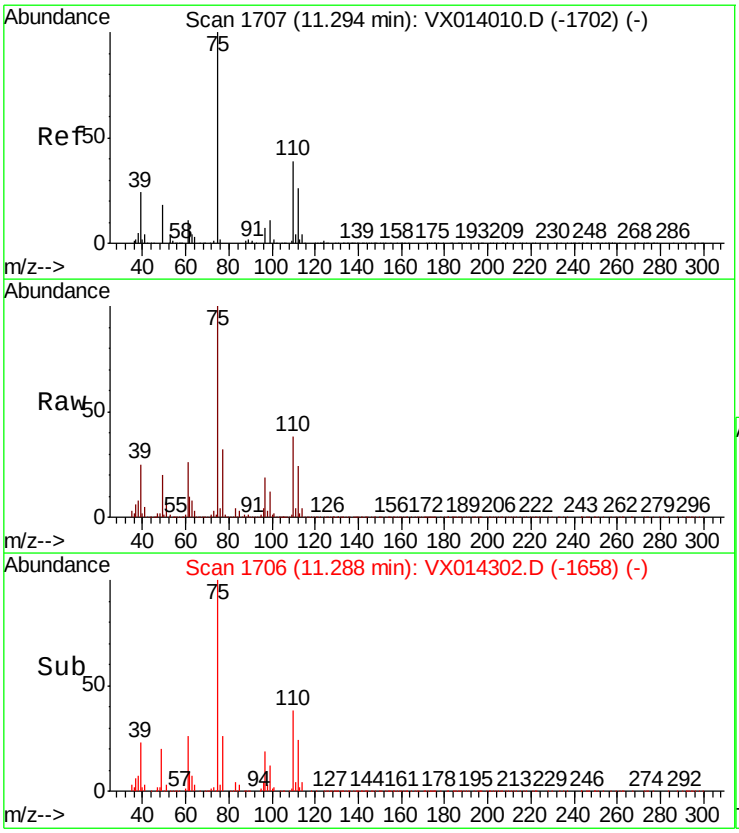


#75
1,1,2,2-Tetrachloroethane
Concen: 46.772 ug/l
RT: 11.26 min Scan# 1702
Delta R.T. 0.00 min
Lab File: VX014302.D
Acq: 27 Dec 2019 12:03

Tgt Ion: 83 Resp: 412518

Ion	Ratio	Lower	Upper
83	100		
131	10.0	5.1	15.2
85	64.2	31.9	95.7

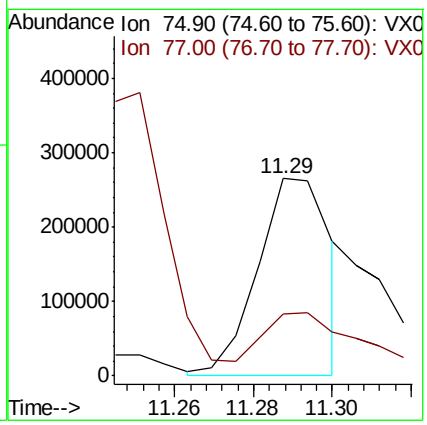


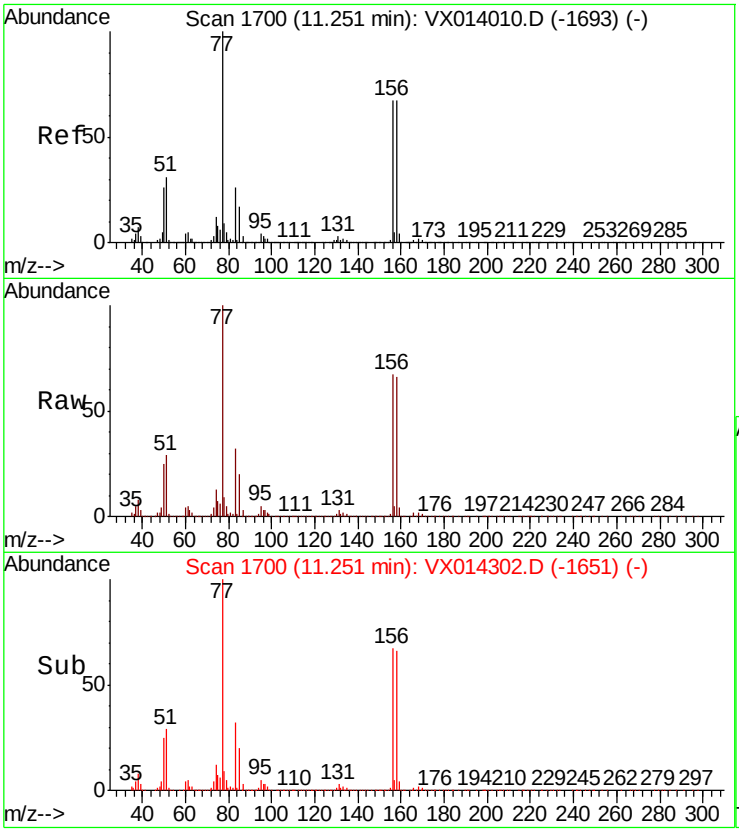


#76
1,2,3-Trichloropropane
Concen: 43.218 ug/l m
RT: 11.29 min Scan# 1706
Delta R.T. -0.01 min
Lab File: VX014302.D
Acq: 27 Dec 2019 12:03

Tgt Ion: 75 Resp: 339009

Ion	Ratio	Lower	Upper
75	100		
77	43.7	19.3	57.8

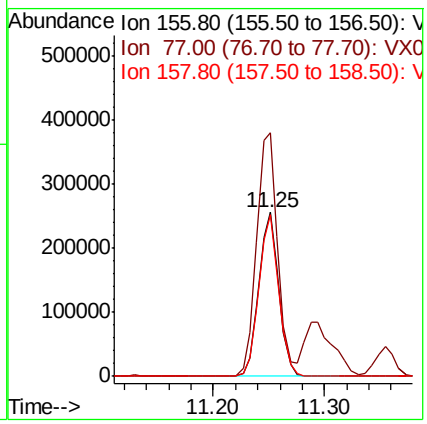




#77
Bromobenzene
Concen: 46.028 ug/l
RT: 11.25 min Scan# 1700
Delta R.T. 0.00 min
Lab File: VX014302.D
Acq: 27 Dec 2019 12:03

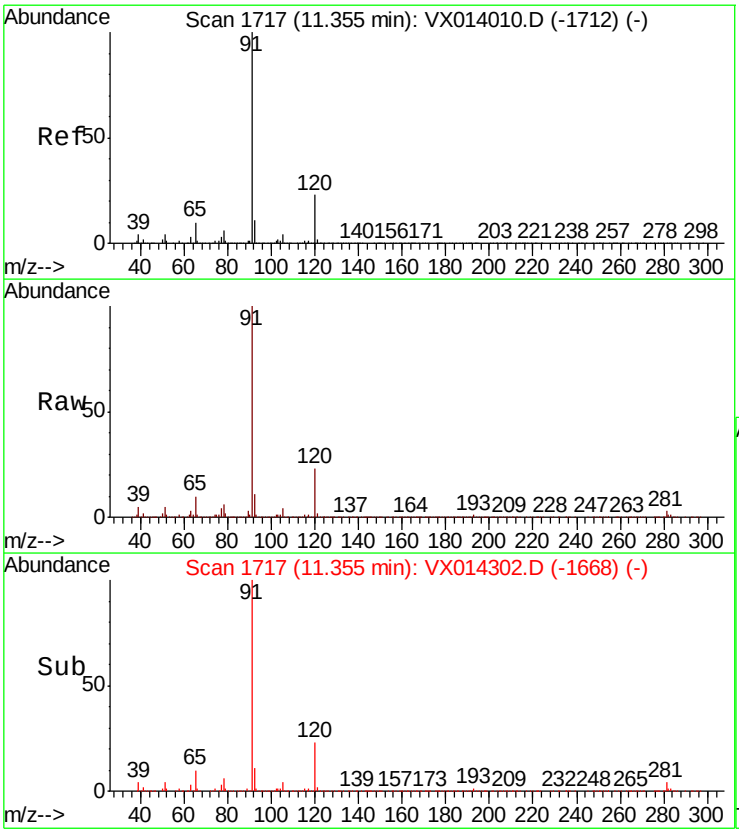
Tgt Ion:156 Resp: 322167

Ion	Ratio	Lower	Upper
156	100		
77	156.4	76.5	229.5
158	97.6	49.3	147.9



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

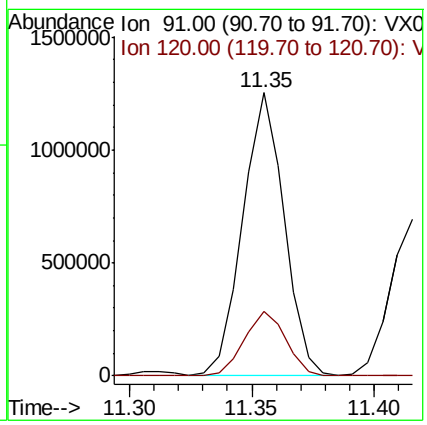
Manual Integrations APPROVED
apatel
12/30/2019 11:04:07 AM



#78
n-propylbenzene
Concen: 51.365 ug/l
RT: 11.35 min Scan# 1717
Delta R.T. 0.00 min
Lab File: VX014302.D
Acq: 27 Dec 2019 12:03

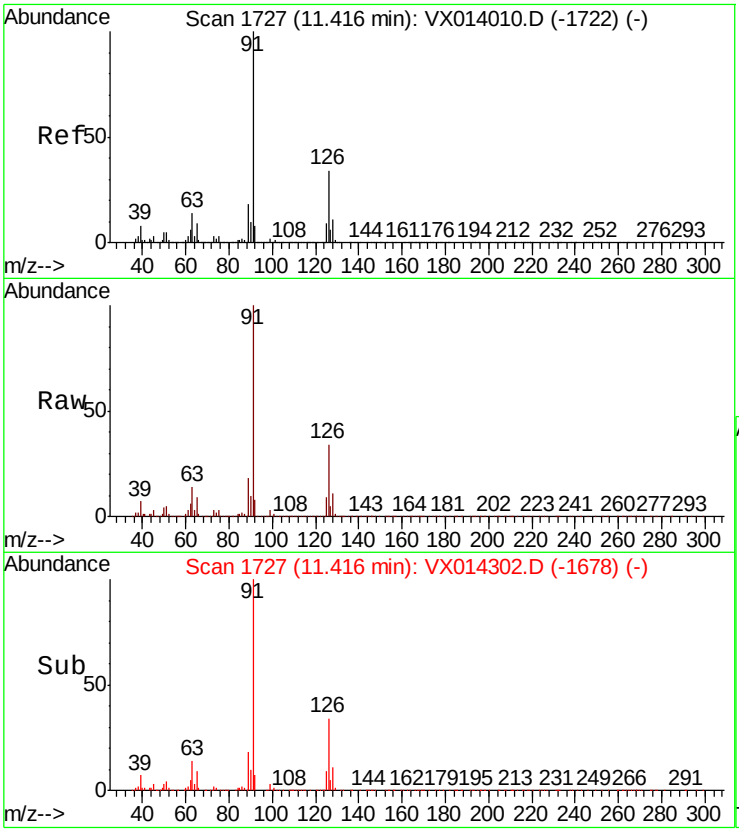
Tgt Ion: 91 Resp: 1465712

Ion	Ratio	Lower	Upper
91	100		
120	23.2	11.7	35.0



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

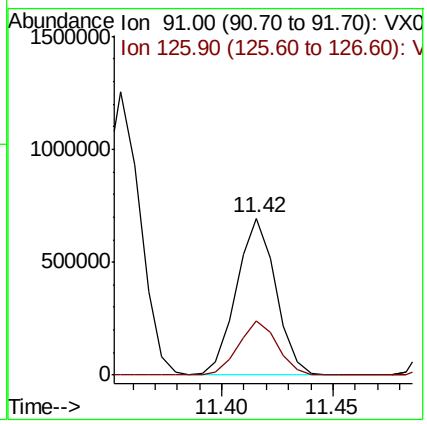
Manual Integrations APPROVED
apatel
12/30/2019 11:04:07 AM

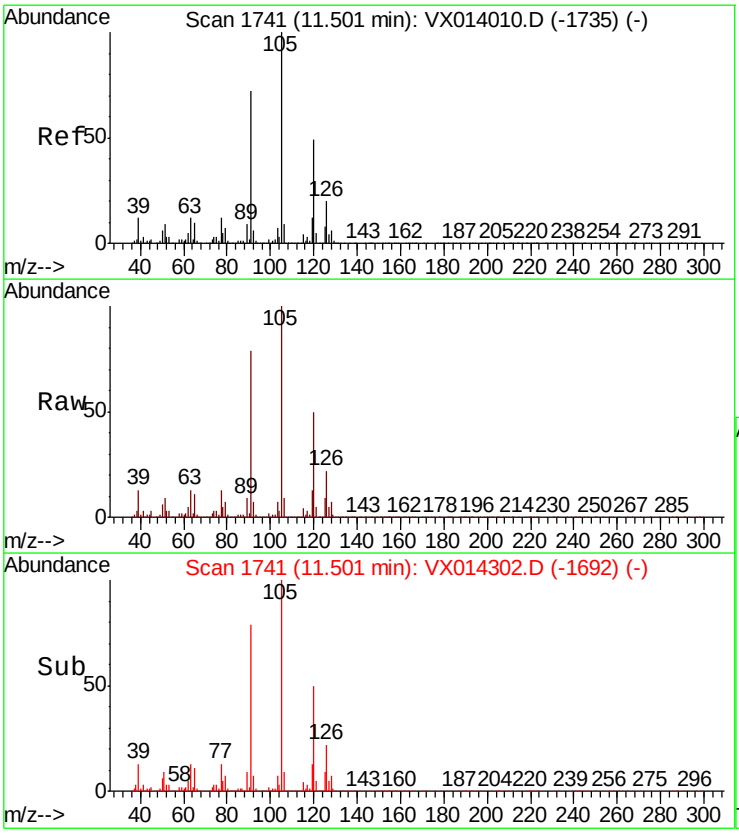


#79
2-Chlorotoluene
Concen: 48.954 ug/l
RT: 11.42 min Scan# 1727
Delta R.T. 0.00 min
Lab File: VX014302.D
Acq: 27 Dec 2019 12:03

Tgt Ion: 91 Resp: 849140

Ion	Ratio	Lower	Upper
91	100		
126	34.6	17.2	51.6

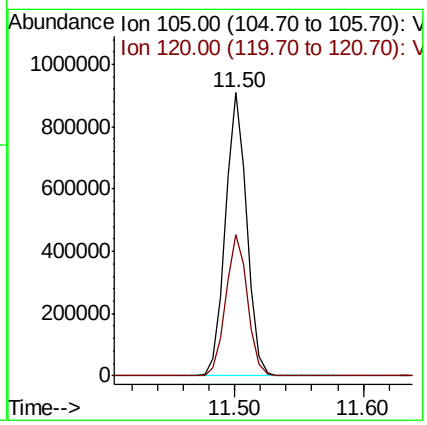


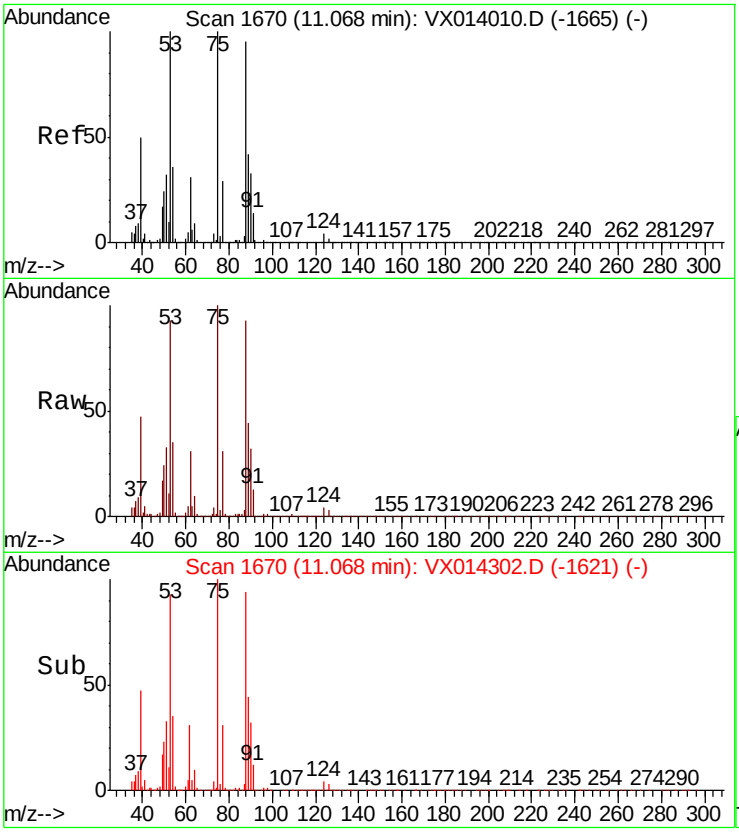


#80
1,3,5-Trimethylbenzene
Concen: 49.539 ug/l
RT: 11.50 min Scan# 1741
Delta R.T. 0.00 min
Lab File: VX014302.D
Acq: 27 Dec 2019 12:03

Tgt Ion:105 Resp: 1060635

Ion	Ratio	Lower	Upper
105	100		
120	50.6	25.3	75.8

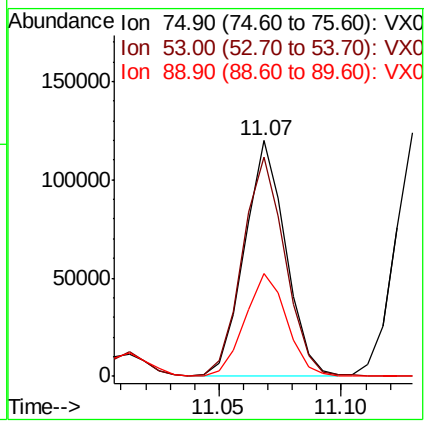




#81
trans-1,4-Dichloro-2-butene
Concen: 49.782 ug/l
RT: 11.07 min Scan# 1670
Delta R.T. 0.00 min
Lab File: VX014302.D
Acq: 27 Dec 2019 12:03

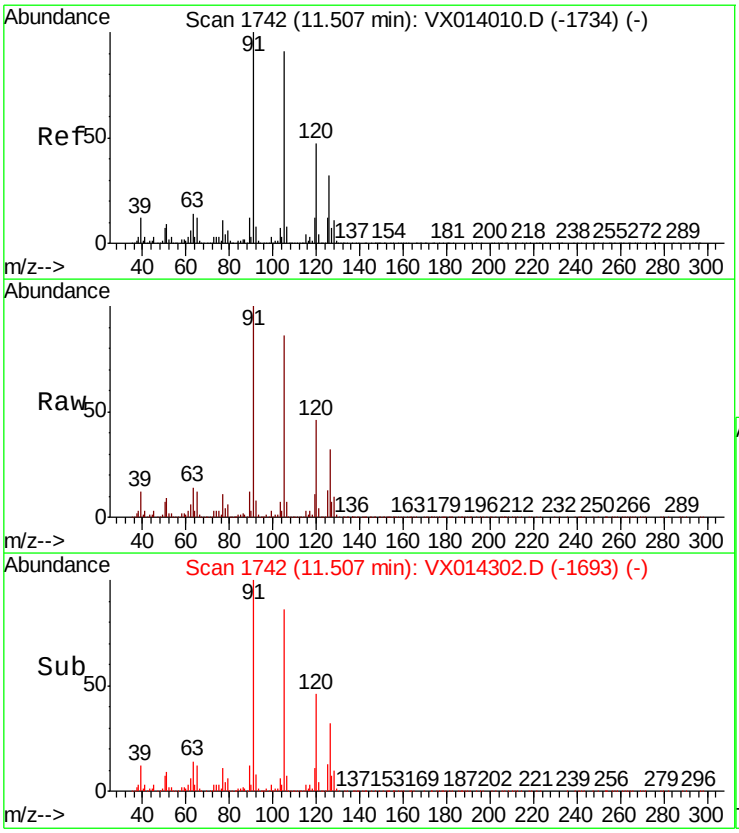
Tgt Ion: 75 Resp: 138352

Ion	Ratio	Lower	Upper
75	100		
53	97.3	76.7	115.1
89	45.5	34.6	51.8



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

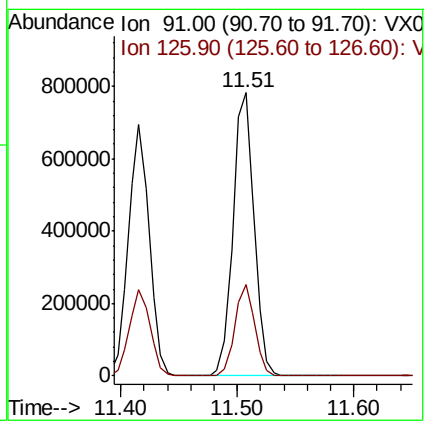
Manual Integrations APPROVED
apatel
12/30/2019 11:04:07 AM



#82
4-Chlorotoluene
Concen: 48.860 ug/l
RT: 11.51 min Scan# 1742
Delta R.T. 0.00 min
Lab File: VX014302.D
Acq: 27 Dec 2019 12:03

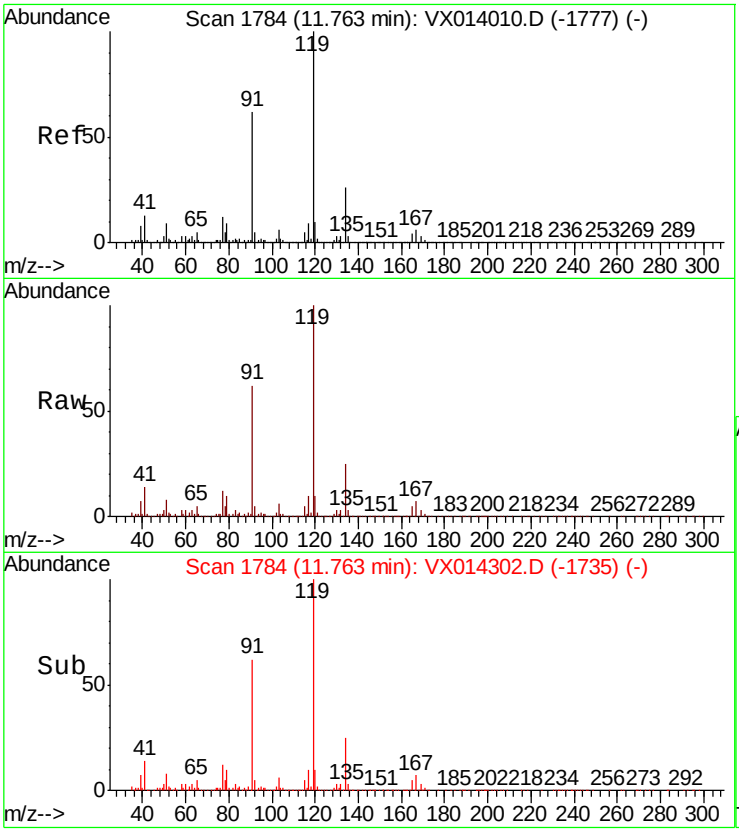
Tgt Ion: 91 Resp: 983077

Ion	Ratio	Lower	Upper
91	100		
126	30.7	15.6	46.8



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

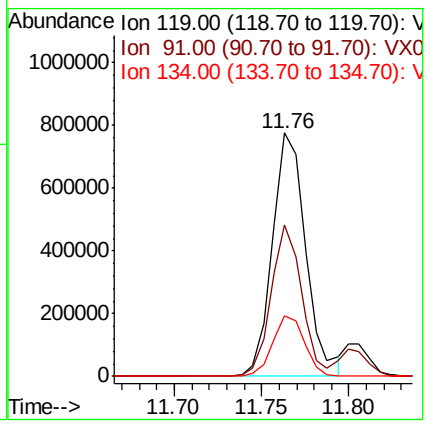
Manual Integrations APPROVED
apatel
12/30/2019 11:04:07 AM

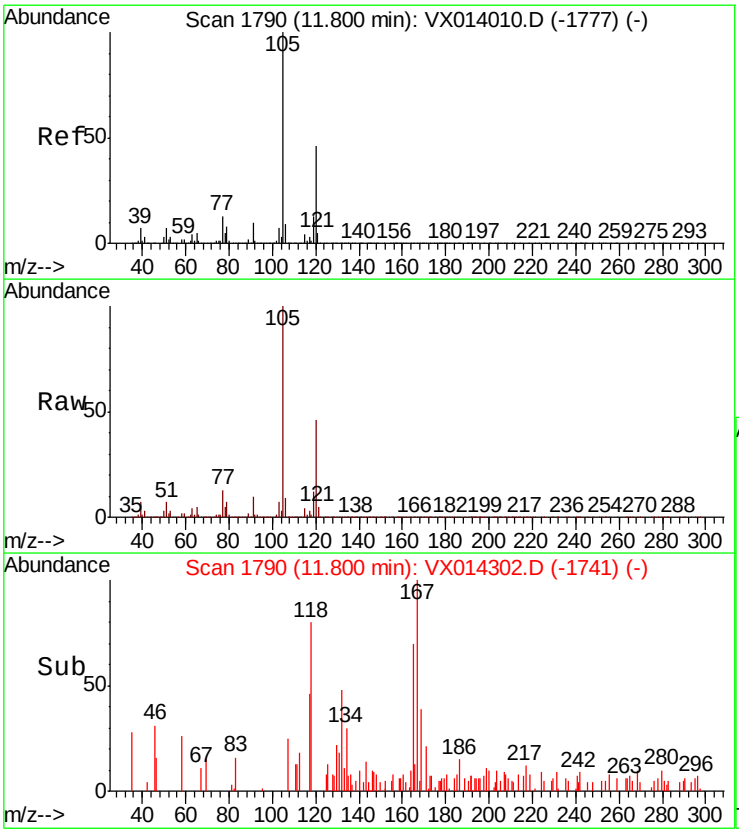


#83
tert-Butylbenzene
Concen: 49.401 ug/l
RT: 11.76 min Scan# 1784
Delta R.T. 0.00 min
Lab File: VX014302.D
Acq: 27 Dec 2019 12:03

Tgt Ion:119 Resp: 1029302

Ion	Ratio	Lower	Upper
119	100		
91	56.6	28.5	85.6
134	24.0	12.2	36.6

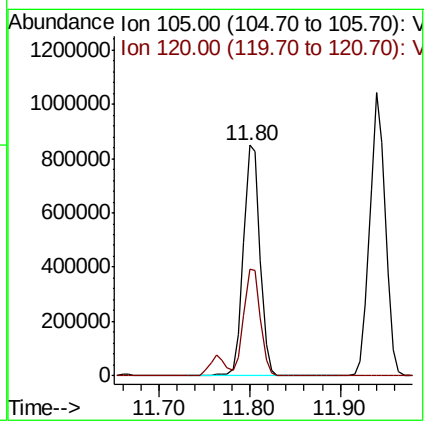




#84
1,2,4-Trimethylbenzene
Concen: 49.956 ug/l
RT: 11.80 min Scan# 1790
Delta R.T. 0.00 min
Lab File: VX014302.D
Acq: 27 Dec 2019 12:03

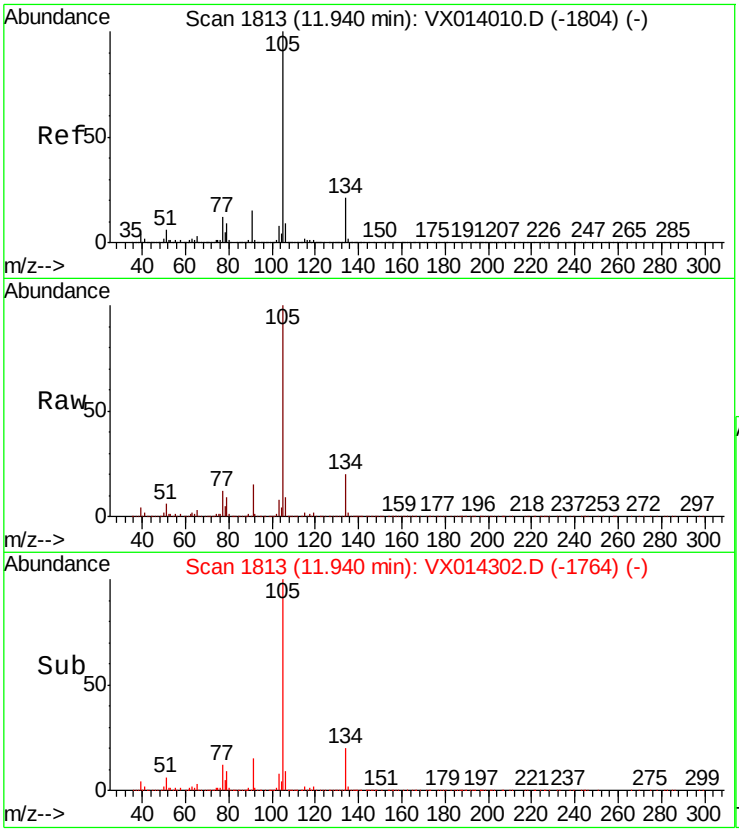
Tgt Ion:105 Resp: 1071108

Ion	Ratio	Lower	Upper
105	100		
120	46.2	23.1	69.2



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

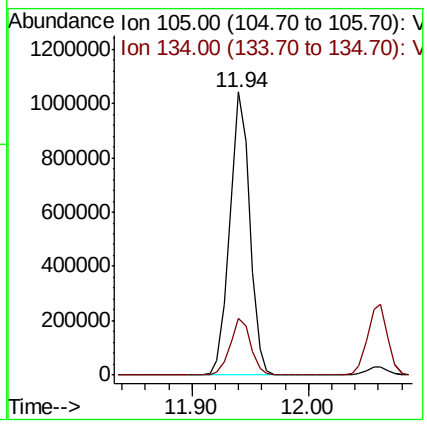
Manual Integrations APPROVED
apatel
12/30/2019 11:04:07 AM

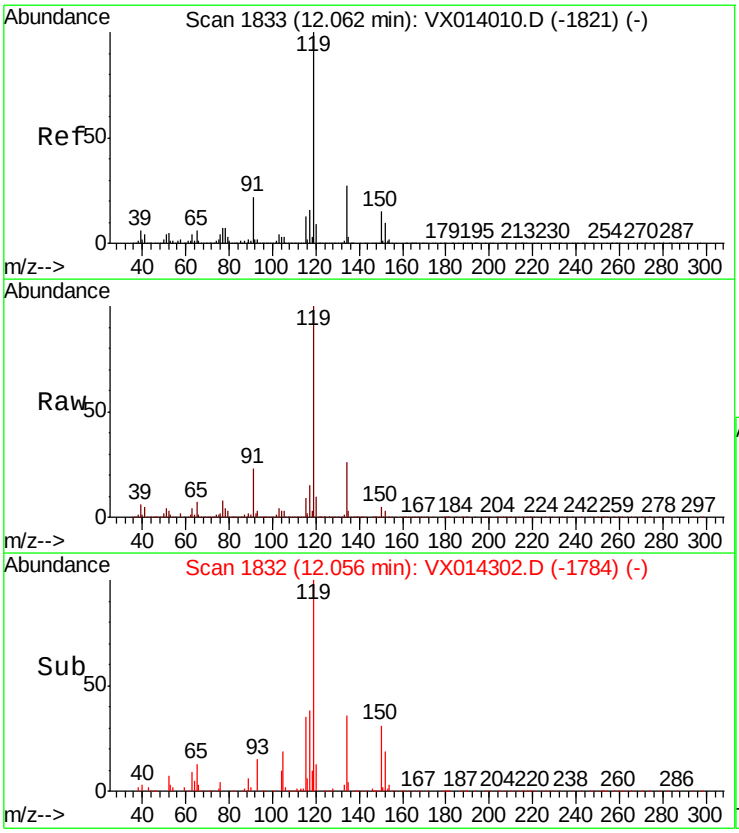


#85
sec-Butylbenzene
Concen: 50.657 ug/l
RT: 11.94 min Scan# 1813
Delta R.T. 0.00 min
Lab File: VX014302.D
Acq: 27 Dec 2019 12:03

Tgt Ion:105 Resp: 1245994

Ion	Ratio	Lower	Upper
105	100		
134	20.5	10.4	31.1

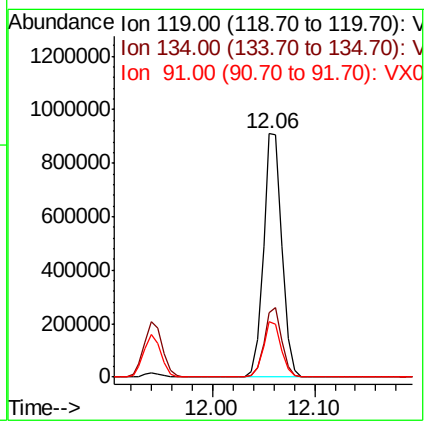


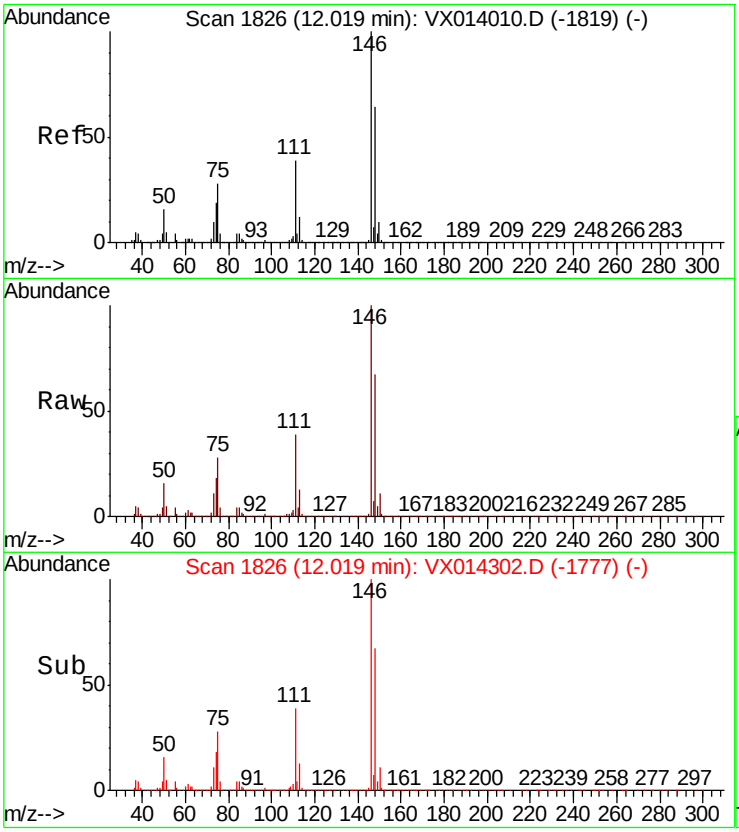


#86
p-Isopropyltoluene
Concen: 51.181 ug/l
RT: 12.06 min Scan# 1832
Delta R.T. -0.01 min
Lab File: VX014302.D
Acq: 27 Dec 2019 12:03

Tgt Ion:119 Resp: 1151562

Ion	Ratio	Lower	Upper
119	100		
134	27.0	13.4	40.1
91	22.3	11.4	34.1

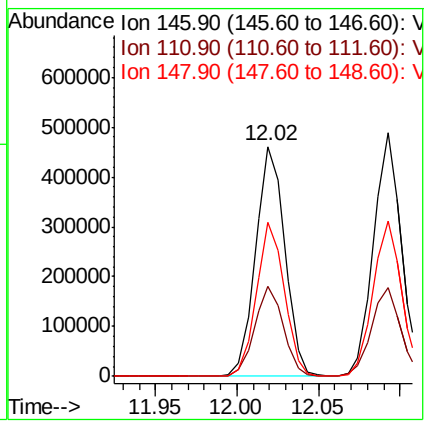




#87
1,3-Dichlorobenzene
Concen: 47.033 ug/l
RT: 12.02 min Scan# 1826
Delta R.T. 0.00 min
Lab File: VX014302.D
Acq: 27 Dec 2019 12:03

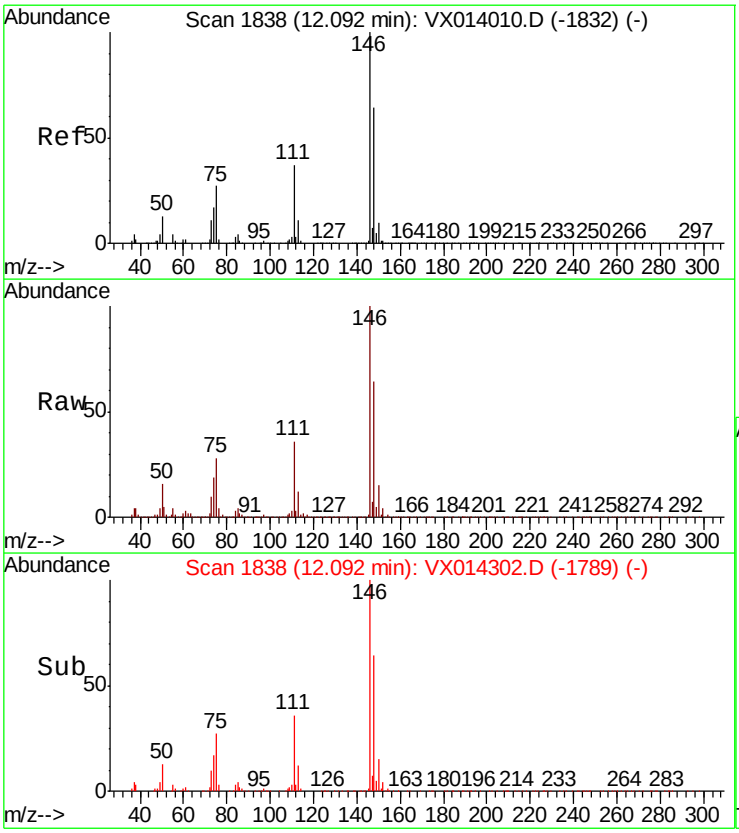
Tgt Ion:146 Resp: 576954

Ion	Ratio	Lower	Upper
146	100		
111	38.2	19.1	57.1
148	64.5	32.3	96.9



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

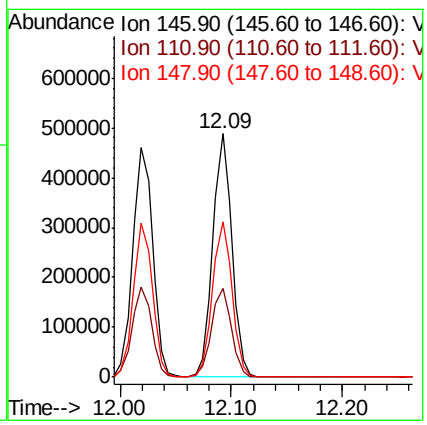
Manual Integrations APPROVED
apatel
12/30/2019 11:04:07 AM



#88
1,4-Dichlorobenzene
Concen: 46.690 ug/l
RT: 12.09 min Scan# 1838
Delta R.T. 0.00 min
Lab File: VX014302.D
Acq: 27 Dec 2019 12:03

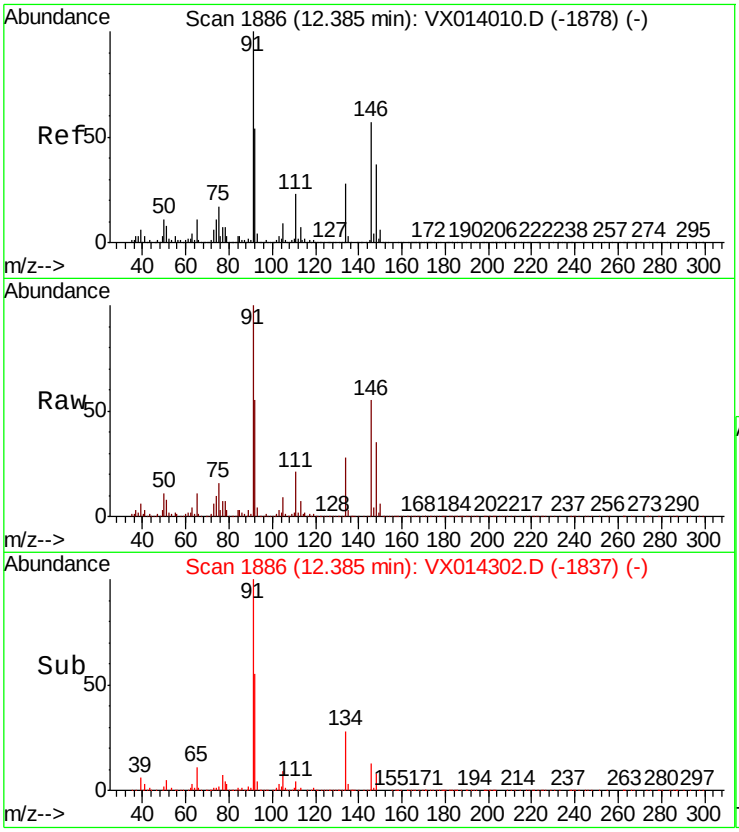
Tgt Ion:146 Resp: 582380

Ion	Ratio	Lower	Upper
146	100		
111	37.8	18.7	56.1
148	65.2	31.9	95.9



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

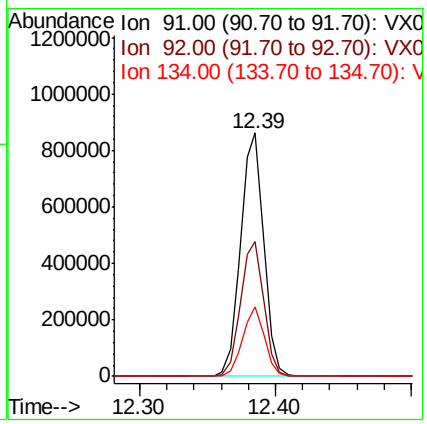
Manual Integrations APPROVED
apatel
12/30/2019 11:04:07 AM

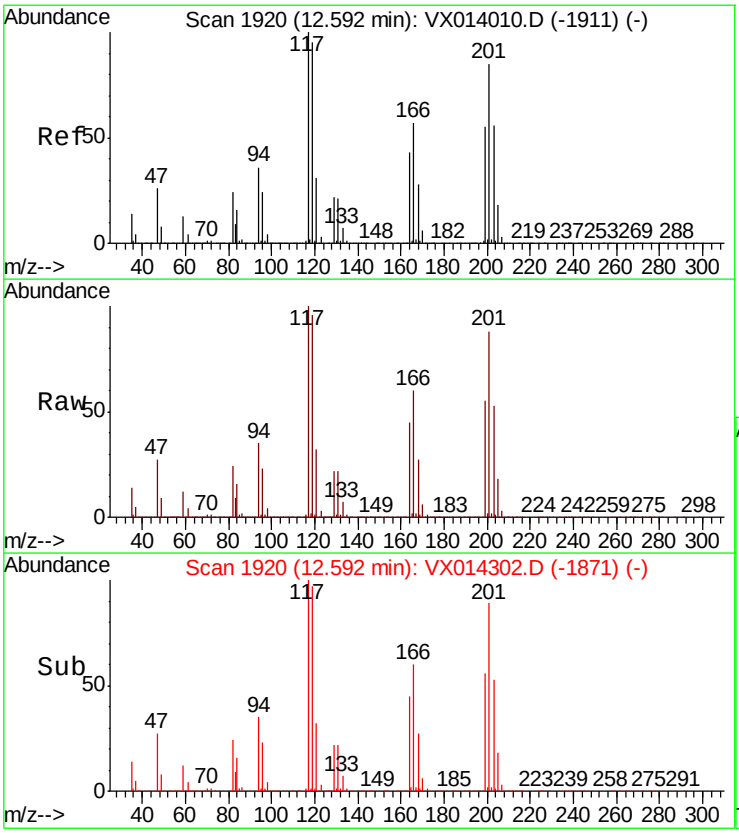


#89
n-Butylbenzene
Concen: 52.906 ug/l
RT: 12.39 min Scan# 1886
Delta R.T. 0.00 min
Lab File: VX014302.D
Acq: 27 Dec 2019 12:03

Tgt Ion: 91 Resp: 1015702

Ion	Ratio	Lower	Upper
91	100		
92	55.2	27.2	81.6
134	26.8	13.4	40.1

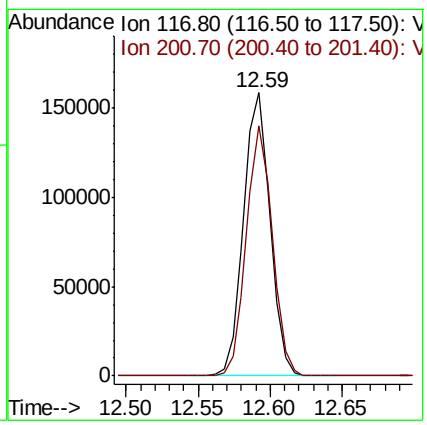




#90
Hexachloroethane
Concen: 49.728 ug/l
RT: 12.59 min Scan# 1920
Delta R.T. 0.00 min
Lab File: VX014302.D
Acq: 27 Dec 2019 12:03

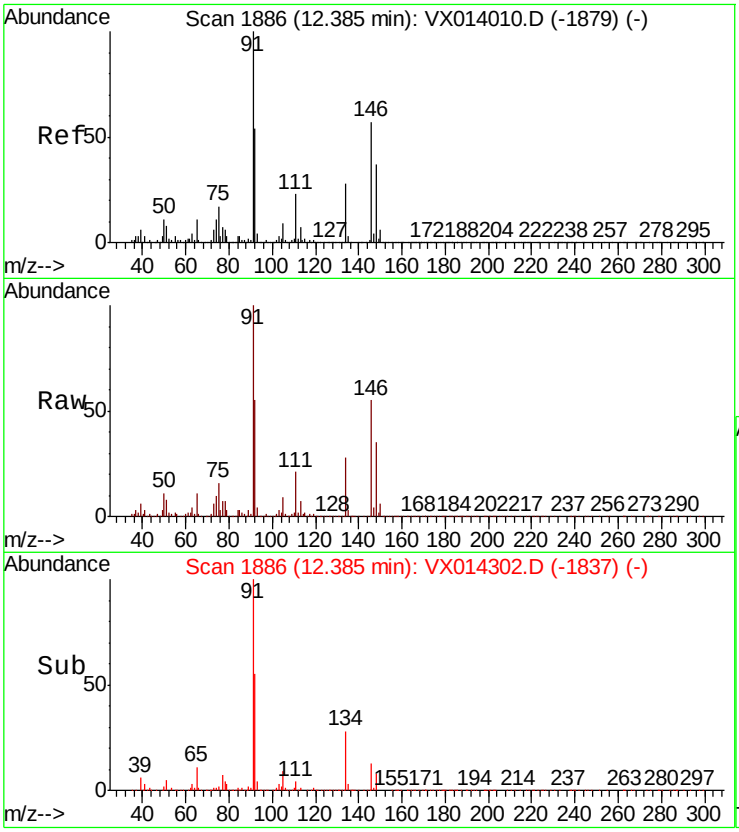
Tgt Ion:117 Resp: 200969

Ion	Ratio	Lower	Upper
117	100		
201	87.0	43.1	129.3



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

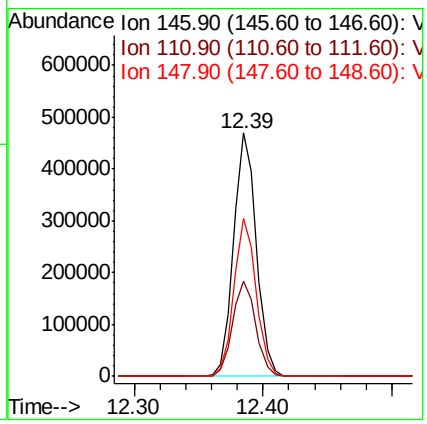
Manual Integrations APPROVED
apatel
12/30/2019 11:04:07 AM

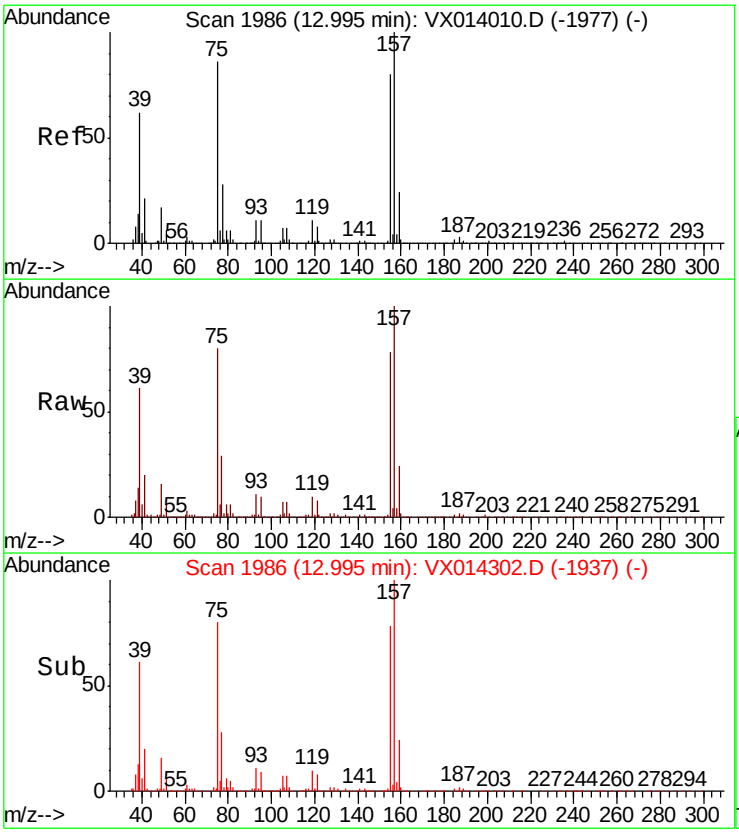


#91
1,2-Dichlorobenzene
Concen: 46.883 ug/l
RT: 12.39 min Scan# 1886
Delta R.T. 0.00 min
Lab File: VX014302.D
Acq: 27 Dec 2019 12:03

Tgt Ion:146 Resp: 578948

Ion	Ratio	Lower	Upper
146	100		
111	39.6	19.7	59.1
148	63.9	32.1	96.5

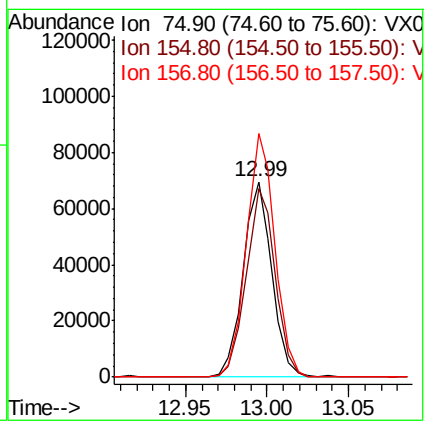




#92
1,2-Dibromo-3-Chloropropane
Concen: 43.297 ug/l
RT: 12.99 min Scan# 1986
Delta R.T. 0.00 min
Lab File: VX014302.D
Acq: 27 Dec 2019 12:03

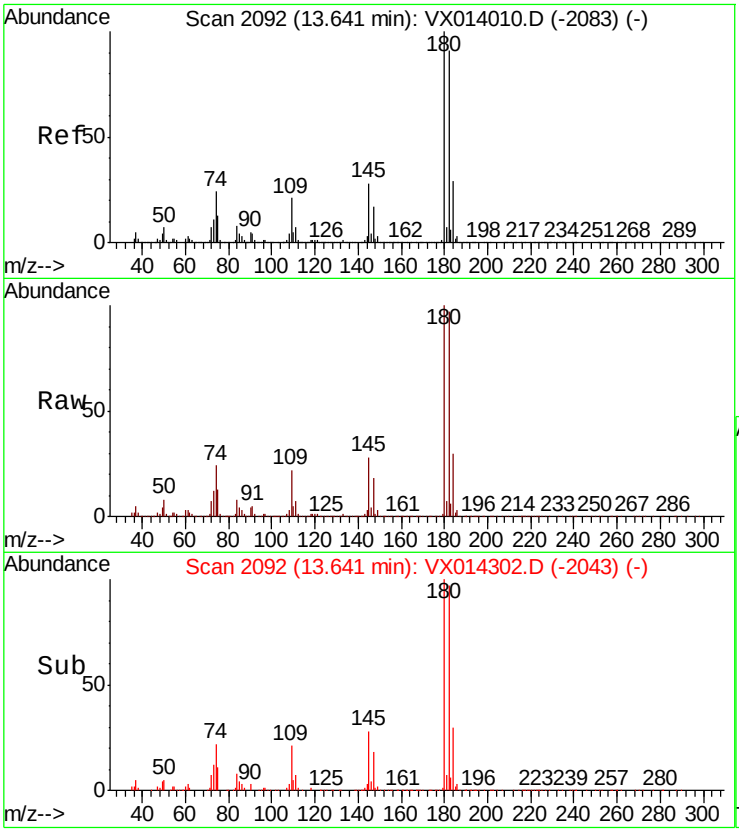
Tgt Ion: 75 Resp: 84504

Ion	Ratio	Lower	Upper
75	100		
155	98.8	46.9	140.6
157	125.7	60.8	182.4



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

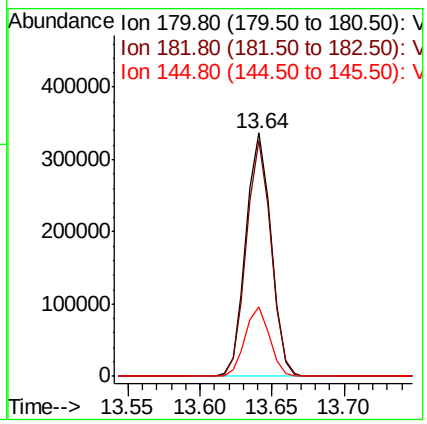
Manual Integrations APPROVED
apatel
12/30/2019 11:04:07 AM

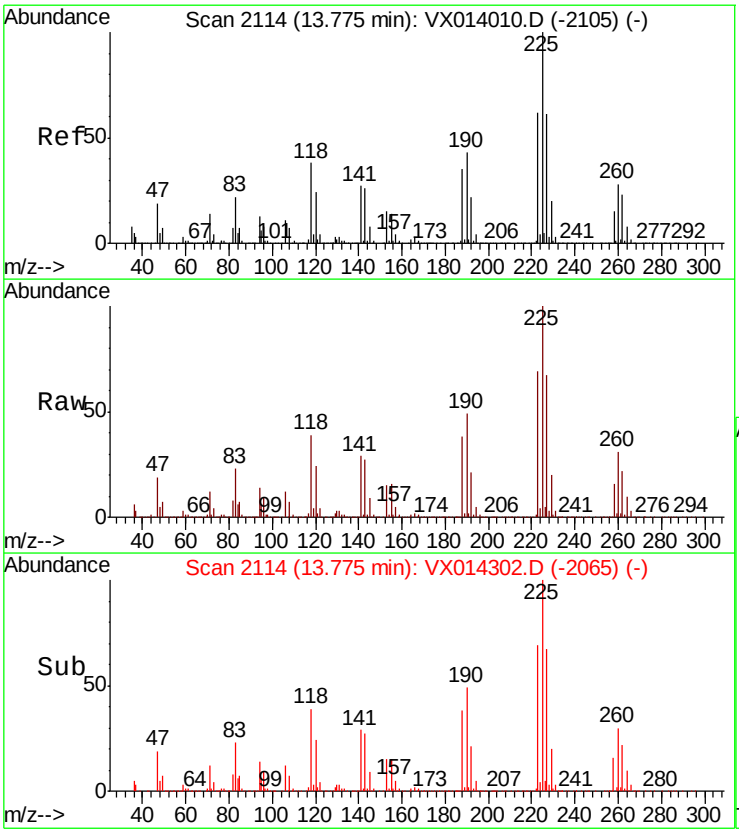


#93
1,2,4-Trichlorobenzene
Concen: 50.448 ug/l
RT: 13.64 min Scan# 2092
Delta R.T. 0.00 min
Lab File: VX014302.D
Acq: 27 Dec 2019 12:03

Tgt Ion:180 Resp: 404910

Ion	Ratio	Lower	Upper
180	100		
182	95.7	46.6	139.8
145	27.9	14.2	42.6

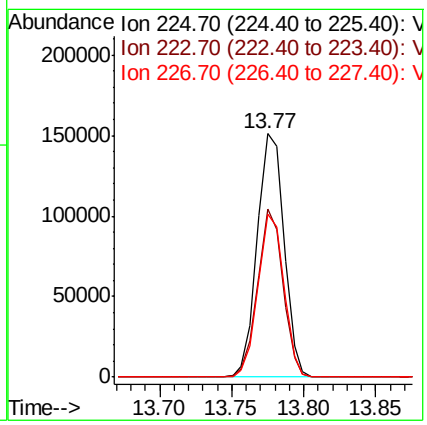




#94
Hexachlorobutadiene
Concen: 50.257 ug/l
RT: 13.77 min Scan# 2114
Delta R.T. 0.00 min
Lab File: VX014302.D
Acq: 27 Dec 2019 12:03

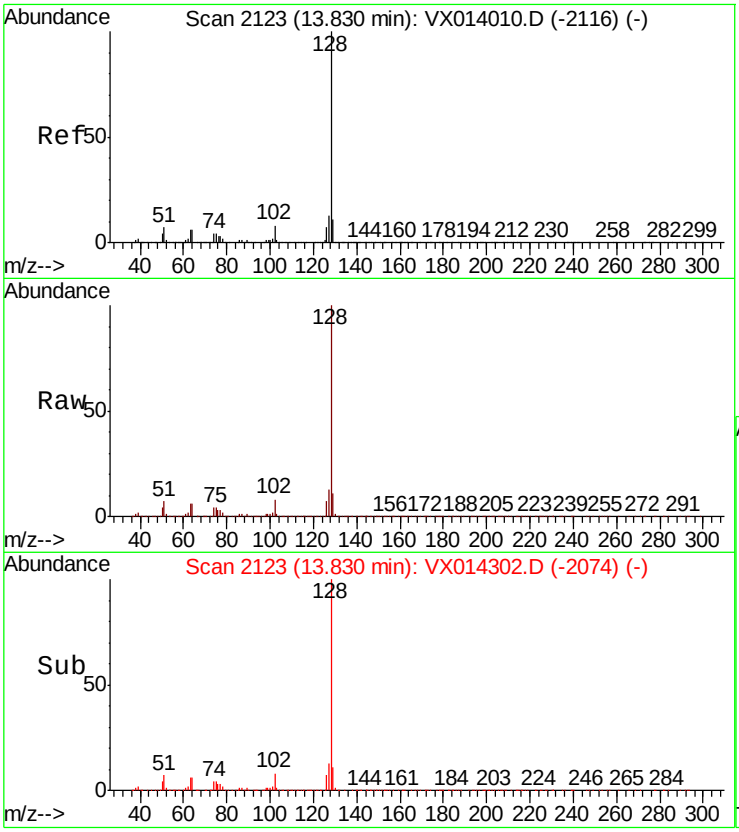
Tgt Ion:225 Resp: 193859

Ion	Ratio	Lower	Upper
225	100		
223	65.0	30.9	92.5
227	64.9	30.9	92.7



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

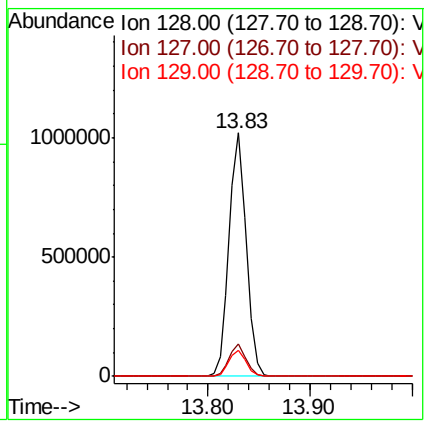
Manual Integrations APPROVED
apatel
12/30/2019 11:04:07 AM

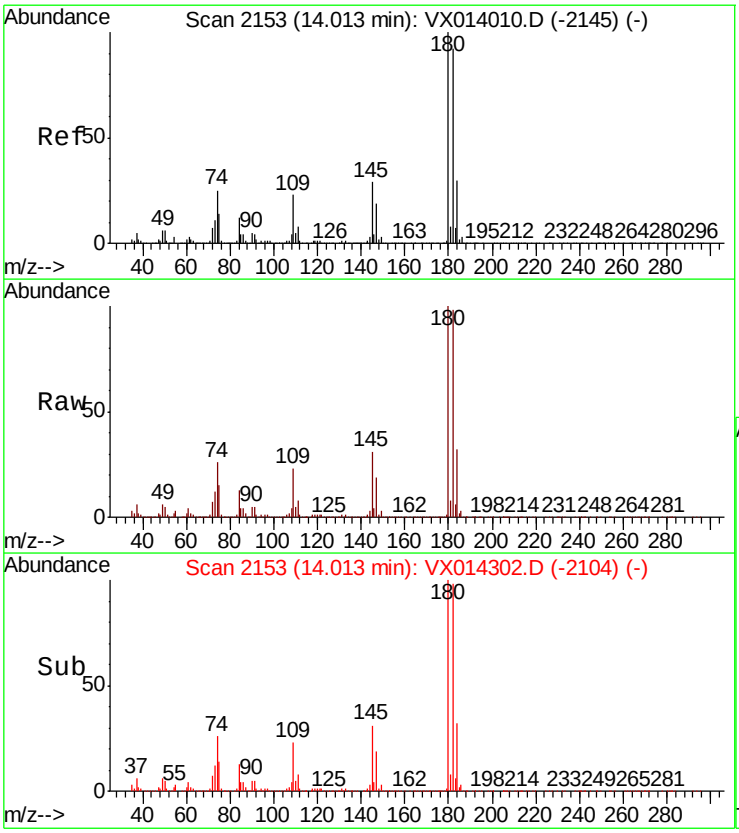


#95
Naphthalene
Concen: 50.315 ug/l
RT: 13.83 min Scan# 2123
Delta R.T. 0.00 min
Lab File: VX014302.D
Acq: 27 Dec 2019 12:03

Tgt Ion:128 Resp: 1186498

Ion	Ratio	Lower	Upper
128	100		
127	12.9	10.2	15.4
129	11.0	8.7	13.1

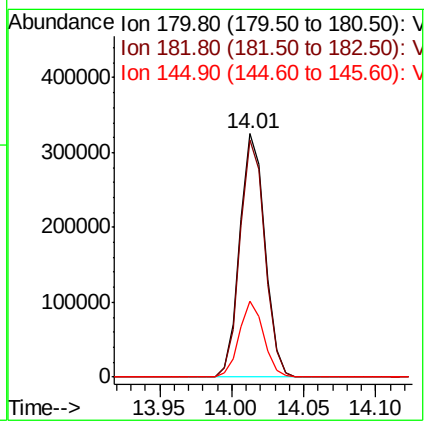




#96
1,2,3-Trichlorobenzene
Concen: 49.881 ug/l
RT: 14.01 min Scan# 2153
Delta R.T. 0.00 min
Lab File: VX014302.D
Acq: 27 Dec 2019 12:03

Tgt Ion:180 Resp: 395211

Ion	Ratio	Lower	Upper
180	100		
182	96.4	46.8	140.3
145	30.0	14.8	44.4



Evaluate Continuing Calibration Report

Data Path : Z:\voasrv\HPCHEM1\MSVOA X\Data\VX122719\
Data File : VX014302.D
Acq On : 27 Dec 2019 12:03
Operator : JC/SP
Sample : VSTDCCC050
Misc : 5.0mL/MSVOA X/WATER
ALS Vial : 2 Sample Multiplier: 1

Instrument : MSVOA_X
LabSampleId : VSTDCCC050

Quant Time: Dec 30 05:52:21 2019
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121319W.M
Quant Title : SW846 8260
QLast Update : Tue Dec 17 03:01:07 2019
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	Pentafluorobenzene	50.000	50.000	0.0	90	0.00
2	T	Dichlorodifluoromethane	50.000	44.362	11.3	83	0.00
3	P	Chloromethane	50.000	44.592	10.8	83	0.00
4	C	Vinyl Chloride	50.000	45.695	8.6#	86	0.00
5	T	Bromomethane	50.000	44.216	11.6	86	0.00
6	T	Chloroethane	50.000	47.206	5.6	89	0.01
7	T	Trichlorofluoromethane	50.000	47.759	4.5	90	0.00
8	T	Diethyl Ether	50.000	46.084	7.8	88	0.00
9	T	1,1,2-Trichlorotrifluoroeth	50.000	49.085	1.8	93	0.00
10	T	Methyl Iodide	50.000	45.888	8.2	84	0.00
11	T	Tert butyl alcohol	250.000	209.678	16.1	83	-0.02
12	CM	1,1-Dichloroethene	50.000	47.236	5.5#	89	0.00
13	T	Acrolein	250.000	282.270	-12.9	110	0.00
14	T	Allyl chloride	50.000	49.394	1.2	92	0.00
15	T	Acrylonitrile	250.000	245.461	1.8	93	0.00
16	T	Acetone	250.000	203.716	18.5	74	0.00
17	T	Carbon Disulfide	50.000	43.574	12.9	81	0.00
18	T	Methyl Acetate	50.000	49.255	1.5	94	0.00
19	T	Methyl tert-butyl Ether	50.000	49.233	1.5	91	0.00
20	T	Methylene Chloride	50.000	45.796	8.4	91	0.00
21	T	trans-1,2-Dichloroethene	50.000	46.703	6.6	90	0.00
22	T	Diisopropyl ether	50.000	51.221	-2.4	95	0.00
23	T	Vinyl Acetate	250.000	263.703	-5.5	96	0.00
24	P	1,1-Dichloroethane	50.000	48.150	3.7	92	0.00
25	T	2-Butanone	250.000	235.299	5.9	85	0.00
26	T	2,2-Dichloropropane	50.000	50.041	-0.1	93	0.00
27	T	cis-1,2-Dichloroethene	50.000	47.936	4.1	91	0.00
28	T	Bromochloromethane	50.000	52.530	-5.1	93	0.00
29	T	Tetrahydrofuran	250.000	246.868	1.3	92	-0.01
30	C	Chloroform	50.000	49.712	0.6#	92	0.00
31	T	Cyclohexane	50.000	49.628	0.7	90	0.00
32	T	1,1,1-Trichloroethane	50.000	48.538	2.9	91	0.00
33	S	1,2-Dichloroethane-d4	50.000	48.115	3.8	89	0.00
34	I	1,4-Difluorobenzene	50.000	50.000	0.0	89	0.00
35	S	Dibromofluoromethane	50.000	50.421	-0.8	91	0.00
36	T	1,1-Dichloropropene	50.000	48.781	2.4	90	0.00
37	T	Ethyl Acetate	50.000	49.714	0.6	89	0.00
38	T	Carbon Tetrachloride	50.000	50.246	-0.5	89	0.00
39	T	Methylcyclohexane	50.000	50.092	-0.2	92	0.00
40	TM	Benzene	50.000	48.880	2.2	91	0.00
41	T	Methacrylonitrile	50.000	49.734	0.5	92	-0.01
42	TM	1,2-Dichloroethane	50.000	49.256	1.5	91	0.00
43	T	Isopropyl Acetate	50.000	50.090	-0.2	91	0.00
44	TM	Trichloroethene	50.000	48.676	2.6	93	0.00
45	C	1,2-Dichloropropane	50.000	50.770	-1.5#	94	0.00

Evaluate Continuing Calibration Report

Data Path : Z:\voasrv\HPCHEM1\MSVOA X\Data\VX122719\
Data File : VX014302.D
Acq On : 27 Dec 2019 12:03
Operator : JC/SP
Sample : VSTDCCC050
Misc : 5.0mL/MSVOA X/WATER
ALS Vial : 2 Sample Multiplier: 1

Instrument : MSVOA_X
LabSampleId : VSTDCCC050

Quant Time: Dec 30 05:52:21 2019
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121319W.M
Quant Title : SW846 8260
QLast Update : Tue Dec 17 03:01:07 2019
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
46	T	Dibromomethane	50.000	47.835	4.3	90	0.00
47	T	Bromodichloromethane	50.000	51.478	-3.0	93	0.00
48	T	Methyl methacrylate	50.000	50.433	-0.9	91	0.00
49	T	1,4-Dioxane	1000.000	884.184	11.6	83	0.00
50	S	Toluene-d8	50.000	49.953	0.1	88	0.00
51	T	4-Methyl-2-Pentanone	250.000	247.374	1.1	90	0.00
52	CM	Toluene	50.000	48.479	3.0#	90	0.00
53	T	t-1,3-Dichloropropene	50.000	52.175	-4.3	90	0.00
54	T	cis-1,3-Dichloropropene	50.000	52.242	-4.5	91	0.00
55	T	1,1,2-Trichloroethane	50.000	49.733	0.5	92	0.00
56	T	Ethyl methacrylate	50.000	50.528	-1.1	89	0.00
57	T	1,3-Dichloropropane	50.000	49.919	0.2	91	0.00
58	T	2-Chloroethyl Vinyl ether	250.000	274.920	-10.0	94	0.00
59	T	2-Hexanone	250.000	243.392	2.6	86	0.00
60	T	Dibromochloromethane	50.000	51.776	-3.6	91	0.00
61	T	1,2-Dibromoethane	50.000	50.124	-0.2	90	0.00
62	S	4-Bromofluorobenzene	50.000	49.107	1.8	87	0.00
63	I	Chlorobenzene-d5	50.000	50.000	0.0	89	0.00
64	T	Tetrachloroethene	50.000	48.932	2.1	90	0.00
65	PM	Chlorobenzene	50.000	48.861	2.3	91	0.00
66	T	1,1,1,2-Tetrachloroethane	50.000	50.446	-0.9	91	0.00
67	C	Ethyl Benzene	50.000	50.318	-0.6#	90	0.00
68	T	m/p-Xylenes	100.000	100.741	-0.7	91	0.00
69	T	o-Xylene	50.000	49.004	2.0	88	0.00
70	T	Styrene	50.000	50.245	-0.5	89	0.00
71	P	Bromoform	50.000	51.690	-3.4	90	0.00
72	I	1,4-Dichlorobenzene-d4	50.000	50.000	0.0	90	0.00
73	T	Isopropylbenzene	50.000	49.579	0.8	91	0.00
74	T	N-amyl acetate	50.000	48.460	3.1	87	0.00
75	P	1,1,2,2-Tetrachloroethane	50.000	46.772	6.5	86	0.00
76	T	1,2,3-Trichloropropane	50.000	43.218	13.6	77	0.00
77	T	Bromobenzene	50.000	46.028	7.9	89	0.00
78	T	n-propylbenzene	50.000	51.365	-2.7	92	0.00
79	T	2-Chlorotoluene	50.000	48.954	2.1	90	0.00
80	T	1,3,5-Trimethylbenzene	50.000	49.539	0.9	90	0.00
81	T	trans-1,4-Dichloro-2-butene	50.000	49.782	0.4	86	0.00
82	T	4-Chlorotoluene	50.000	48.860	2.3	91	0.00
83	T	tert-Butylbenzene	50.000	49.401	1.2	92	0.00
84	T	1,2,4-Trimethylbenzene	50.000	49.956	0.1	91	0.00
85	T	sec-Butylbenzene	50.000	50.657	-1.3	92	0.00
86	T	p-Isopropyltoluene	50.000	51.181	-2.4	93	0.00
87	T	1,3-Dichlorobenzene	50.000	47.033	5.9	90	0.00
88	T	1,4-Dichlorobenzene	50.000	46.690	6.6	91	0.00
89	T	n-Butylbenzene	50.000	52.906	-5.8	94	0.00

Evaluate Continuing Calibration Report

Data Path : Z:\voasrv\HPCHEM1\MSVOA X\Data\VX122719\
Data File : VX014302.D
Acq On : 27 Dec 2019 12:03
Operator : JC/SP
Sample : VSTDCCC050
Misc : 5.0mL/MSVOA X/WATER
ALS Vial : 2 Sample Multiplier: 1

Instrument : MSVOA_X
LabSampleId : VSTDCCC050

Quant Time: Dec 30 05:52:21 2019
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121319W.M
Quant Title : SW846 8260
QLast Update : Tue Dec 17 03:01:07 2019
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
90 T	Hexachloroethane	50.000	49.728	0.5	90	0.00
91 T	1,2-Dichlorobenzene	50.000	46.883	6.2	89	0.00
92 T	1,2-Dibromo-3-Chloropropane	50.000	43.297	13.4	84	0.00
93 T	1,2,4-Trichlorobenzene	50.000	50.448	-0.9	94	0.00
94 T	Hexachlorobutadiene	50.000	50.257	-0.5	96	0.00
95 T	Naphthalene	50.000	50.315	-0.6	89	0.00
96 T	1,2,3-Trichlorobenzene	50.000	49.881	0.2	91	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 6

Evaluate Continuing Calibration Report

Data Path : Z:\voasrv\HPCHEM1\MSVOA X\Data\VX122719\
Data File : VX014302.D
Acq On : 27 Dec 2019 12:03
Operator : JC/SP
Sample : VSTDCCC050
Misc : 5.0mL/MSVOA X/WATER
ALS Vial : 2 Sample Multiplier: 1

Instrument : MSVOA_X
LabSampleId : VSTDCCC050

Quant Time: Dec 30 05:52:21 2019
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121319W.M
Quant Title : SW846 8260
QLast Update : Tue Dec 17 03:01:07 2019
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	Pentafluorobenzene	1.000	1.000	0.0	90	0.00
2	T	Dichlorodifluoromethane	0.447	0.397	11.2	83	0.00
3	P	Chloromethane	0.600	0.535	10.8	83	0.00
4	C	Vinyl Chloride	0.633	0.579	8.5#	86	0.00
5	T	Bromomethane	0.450	0.398	11.6	86	0.00
6	T	Chloroethane	0.391	0.369	5.6	89	0.01
7	T	Trichlorofluoromethane	0.784	0.749	4.5	90	0.00
8	T	Diethyl Ether	0.368	0.339	7.9	88	0.00
9	T	1,1,2-Trichlorotrifluoroeth	0.473	0.464	1.9	93	0.00
10	T	Methyl Iodide	0.575	0.569	1.0	84	0.00
11	T	Tert butyl alcohol	0.122	0.103	15.6	83	-0.02
12	CM	1,1-Dichloroethene	0.481	0.454	5.6#	89	0.00
13	T	Acrolein	0.070	0.079	-12.9	110	0.00
14	T	Allyl chloride	0.859	0.848	1.3	92	0.00
15	T	Acrylonitrile	0.286	0.281	1.7	93	0.00
16	T	Acetone	0.368	0.300	18.5	74	0.00
17	T	Carbon Disulfide	1.418	1.161	18.1	81	0.00
18	T	Methyl Acetate	0.729	0.718	1.5	94	0.00
19	T	Methyl tert-butyl Ether	1.580	1.556	1.5	91	0.00
20	T	Methylene Chloride	0.579	0.531	8.3	91	0.00
21	T	trans-1,2-Dichloroethene	0.530	0.495	6.6	90	0.00
22	T	Diisopropyl ether	1.711	1.753	-2.5	95	0.00
23	T	Vinyl Acetate	1.397	1.473	-5.4	96	0.00
24	P	1,1-Dichloroethane	0.952	0.917	3.7	92	0.00
25	T	2-Butanone	0.454	0.427	5.9	85	0.00
26	T	2,2-Dichloropropane	0.739	0.740	-0.1	93	0.00
27	T	cis-1,2-Dichloroethene	0.599	0.575	4.0	91	0.00
28	T	Bromochloromethane	0.332	0.385	-16.0	93	0.00
29	T	Tetrahydrofuran	0.254	0.251	1.2	92	-0.01
30	C	Chloroform	0.903	0.897	0.7#	92	0.00
31	T	Cyclohexane	0.847	0.840	0.8	90	0.00
32	T	1,1,1-Trichloroethane	0.769	0.747	2.9	91	0.00
33	S	1,2-Dichloroethane-d4	0.567	0.545	3.9	89	0.00
34	I	1,4-Difluorobenzene	1.000	1.000	0.0	89	0.00
35	S	Dibromofluoromethane	0.304	0.307	-1.0	91	0.00
36	T	1,1-Dichloropropene	0.459	0.448	2.4	90	0.00
37	T	Ethyl Acetate	0.507	0.504	0.6	89	0.00
38	T	Carbon Tetrachloride	0.418	0.420	-0.5	89	0.00
39	T	Methylcyclohexane	0.566	0.568	-0.4	92	0.00
40	TM	Benzene	1.412	1.380	2.3	91	0.00
41	T	Methacrylonitrile	0.281	0.280	0.4	92	-0.01
42	TM	1,2-Dichloroethane	0.479	0.471	1.7	91	0.00
43	T	Isopropyl Acetate	0.838	0.840	-0.2	91	0.00
44	TM	Trichloroethene	0.390	0.380	2.6	93	0.00
45	C	1,2-Dichloropropane	0.362	0.367	-1.4#	94	0.00

Evaluate Continuing Calibration Report

Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX122719\
Data File : VX014302.D
Acq On : 27 Dec 2019 12:03
Operator : JC/SP
Sample : VSTDCCC050
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 2 Sample Multiplier: 1

Instrument : MSVOA_X
LabSampleId : VSTDCCC050

Quant Time: Dec 30 05:52:21 2019
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121319W.M
Quant Title : SW846 8260
QLast Update : Tue Dec 17 03:01:07 2019
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
46	T	Dibromomethane	0.239	0.229	4.2	90	0.00
47	T	Bromodichloromethane	0.451	0.464	-2.9	93	0.00
48	T	Methyl methacrylate	0.411	0.414	-0.7	91	0.00
49	T	1,4-Dioxane	0.008	0.007	12.5	83	0.00
50	S	Toluene-d8	1.183	1.182	0.1	88	0.00
51	T	4-Methyl-2-Pentanone	0.527	0.521	1.1	90	0.00
52	CM	Toluene	0.892	0.865	3.0#	90	0.00
53	T	t-1,3-Dichloropropene	0.494	0.515	-4.3	90	0.00
54	T	cis-1,3-Dichloropropene	0.550	0.575	-4.5	91	0.00
55	T	1,1,2-Trichloroethane	0.358	0.356	0.6	92	0.00
56	T	Ethyl methacrylate	0.562	0.568	-1.1	89	0.00
57	T	1,3-Dichloropropane	0.602	0.601	0.2	91	0.00
58	T	2-Chloroethyl Vinyl ether	0.213	0.234	-9.9	94	0.00
59	T	2-Hexanone	0.424	0.413	2.6	86	0.00
60	T	Dibromochloromethane	0.355	0.368	-3.7	91	0.00
61	T	1,2-Dibromoethane	0.366	0.367	-0.3	90	0.00
62	S	4-Bromofluorobenzene	0.433	0.425	1.8	87	0.00
63	I	Chlorobenzene-d5	1.000	1.000	0.0	89	0.00
64	T	Tetrachloroethene	0.442	0.433	2.0	90	0.00
65	PM	Chlorobenzene	1.063	1.039	2.3	91	0.00
66	T	1,1,1,2-Tetrachloroethane	0.380	0.383	-0.8	91	0.00
67	C	Ethyl Benzene	1.828	1.839	-0.6#	90	0.00
68	T	m/p-Xylenes	0.703	0.708	-0.7	91	0.00
69	T	o-Xylene	0.689	0.676	1.9	88	0.00
70	T	Styrene	1.166	1.172	-0.5	89	0.00
71	P	Bromoform	0.305	0.315	-3.3	90	0.00
72	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	90	0.00
73	T	Isopropylbenzene	3.520	3.491	0.8	91	0.00
74	T	N-amyl acetate	1.650	1.599	3.1	87	0.00
75	P	1,1,2,2-Tetrachloroethane	1.220	1.142	6.4	86	0.00
76	T	1,2,3-Trichloropropane	1.085	0.938	13.5	77	0.00
77	T	Bromobenzene	0.969	0.892	7.9	89	0.00
78	T	n-propylbenzene	3.949	4.057	-2.7	92	0.00
79	T	2-Chlorotoluene	2.400	2.350	2.1	90	0.00
80	T	1,3,5-Trimethylbenzene	2.963	2.935	0.9	90	0.00
81	T	trans-1,4-Dichloro-2-butene	0.385	0.383	0.5	86	0.00
82	T	4-Chlorotoluene	2.784	2.721	2.3	91	0.00
83	T	tert-Butylbenzene	2.883	2.849	1.2	92	0.00
84	T	1,2,4-Trimethylbenzene	2.967	2.964	0.1	91	0.00
85	T	sec-Butylbenzene	3.404	3.448	-1.3	92	0.00
86	T	p-Isopropyltoluene	3.114	3.187	-2.3	93	0.00
87	T	1,3-Dichlorobenzene	1.698	1.597	5.9	90	0.00
88	T	1,4-Dichlorobenzene	1.726	1.612	6.6	91	0.00
89	T	n-Butylbenzene	2.657	2.811	-5.8	94	0.00

Evaluate Continuing Calibration Report

Data Path : Z:\voasrv\HPCHEM1\MSVOA X\Data\VX122719\
Data File : VX014302.D
Acq On : 27 Dec 2019 12:03
Operator : JC/SP
Sample : VSTDCCC050
Misc : 5.0mL/MSVOA X/WATER
ALS Vial : 2 Sample Multiplier: 1

Instrument : MSVOA_X
LabSampleId : VSTDCCC050

Quant Time: Dec 30 05:52:21 2019
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121319W.M
Quant Title : SW846 8260
QLast Update : Tue Dec 17 03:01:07 2019
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
90 T	Hexachloroethane	0.559	0.556	0.5	90	0.00
91 T	1,2-Dichlorobenzene	1.709	1.602	6.3	89	0.00
92 T	1,2-Dibromo-3-Chloropropane	0.270	0.234	13.3	84	0.00
93 T	1,2,4-Trichlorobenzene	1.111	1.121	-0.9	94	0.00
94 T	Hexachlorobutadiene	0.534	0.537	-0.6	96	0.00
95 T	Naphthalene	3.263	3.284	-0.6	89	0.00
96 T	1,2,3-Trichlorobenzene	1.096	1.094	0.2	91	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 6

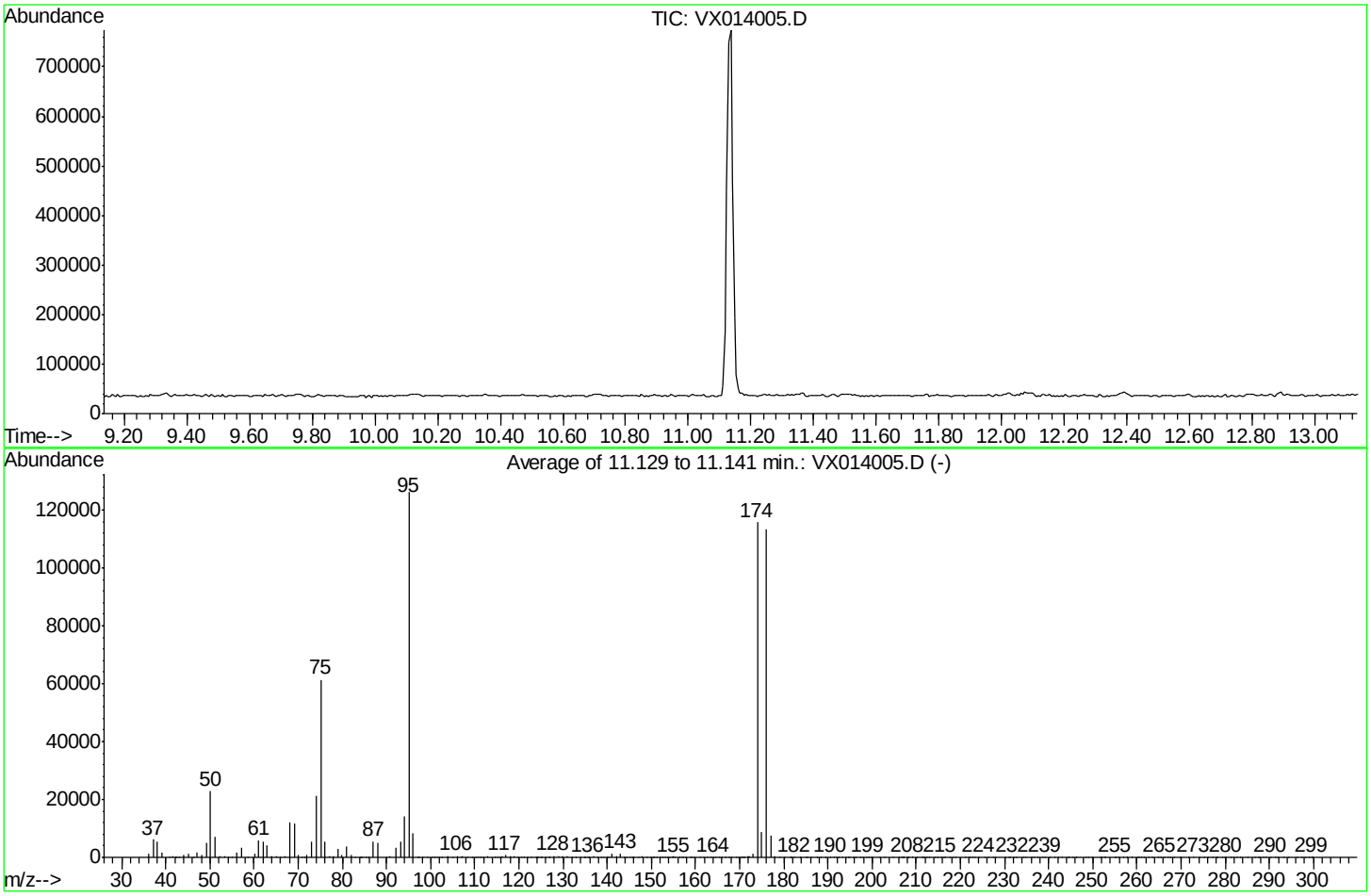
QC SAMPLE DATA

Data Path : Z:\voasrv\HPCHEM1\MSVOA X\Data\VX121319\
Data File : VX014005.D
Acq On : 13 Dec 2019 12:35
Operator : JC/SP
Sample : BFB
Misc : 5.0mL/MSVOA X/WATER
ALS Vial : 1 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
BFB

Integration File: RTEINT.P

Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121319W.M
Title : SW846 8260
Last Update : Tue Dec 17 03:01:07 2019



AutoFind: Scans 1680, 1681, 1682; Background Corrected with Scan 1670

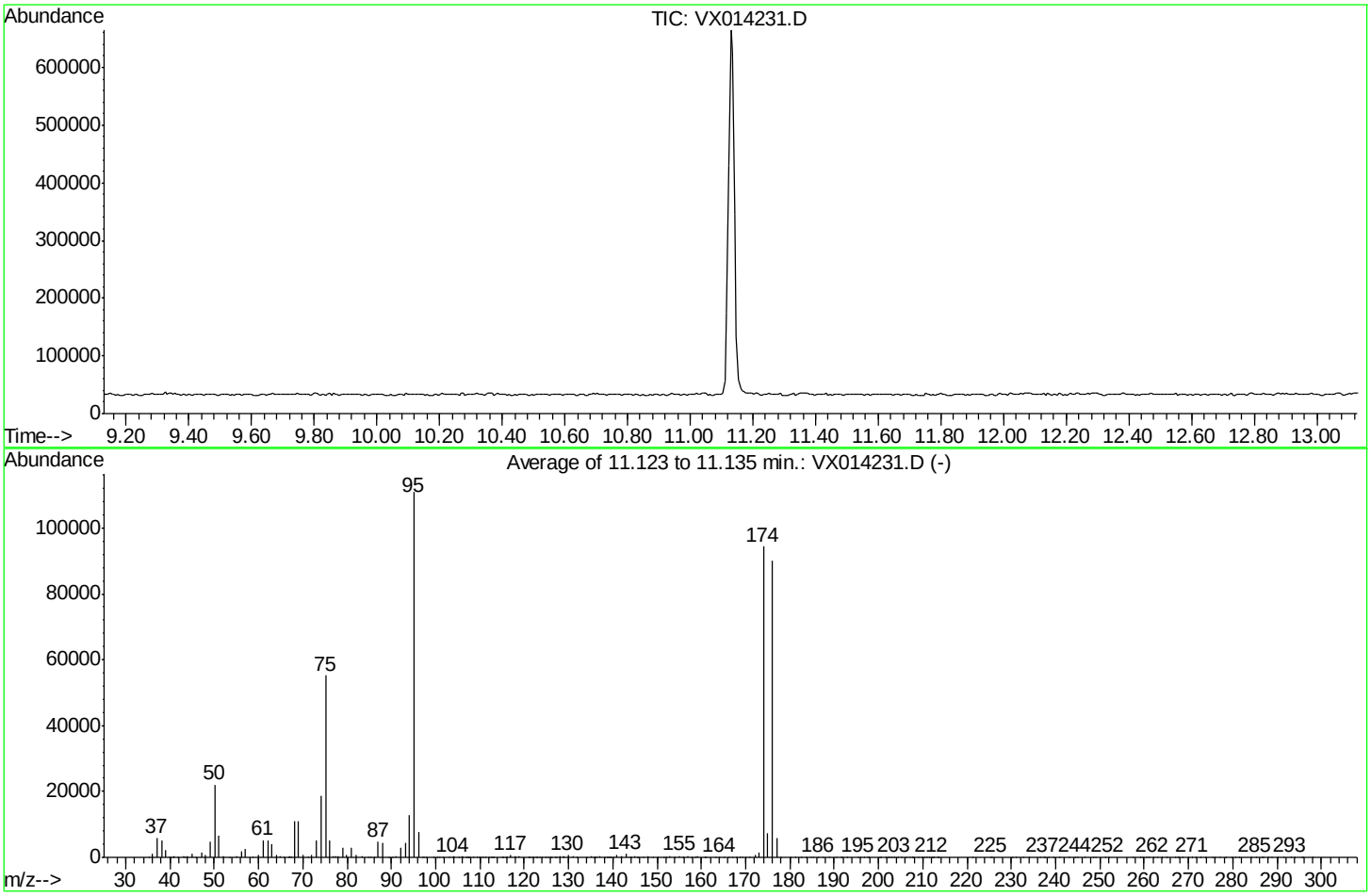
Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	18.1	22875	PASS
75	95	30	60	48.7	61429	PASS
95	95	100	100	100.0	126223	PASS
96	95	5	9	6.5	8227	PASS
173	174	0.00	2	1.1	1287	PASS
174	95	50	100	91.7	115781	PASS
175	174	5	9	7.4	8574	PASS
176	174	95	101	97.9	113312	PASS
177	176	5	9	6.5	7381	PASS

Data Path : Z:\voasrv\HPCHEM1\MSVOA X\Data\VX122419\
Data File : VX014231.D
Acq On : 24 Dec 2019 08:54
Operator : JC/SP
Sample : BFB
Misc : 5.0mL/MSVOA X/WATER
ALS Vial : 1 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
BFB

Integration File: RTEINT.P

Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121319W.M
Title : SW846 8260
Last Update : Tue Dec 17 03:01:07 2019



AutoFind: Scans 1679, 1680, 1681; Background Corrected with Scan 1671

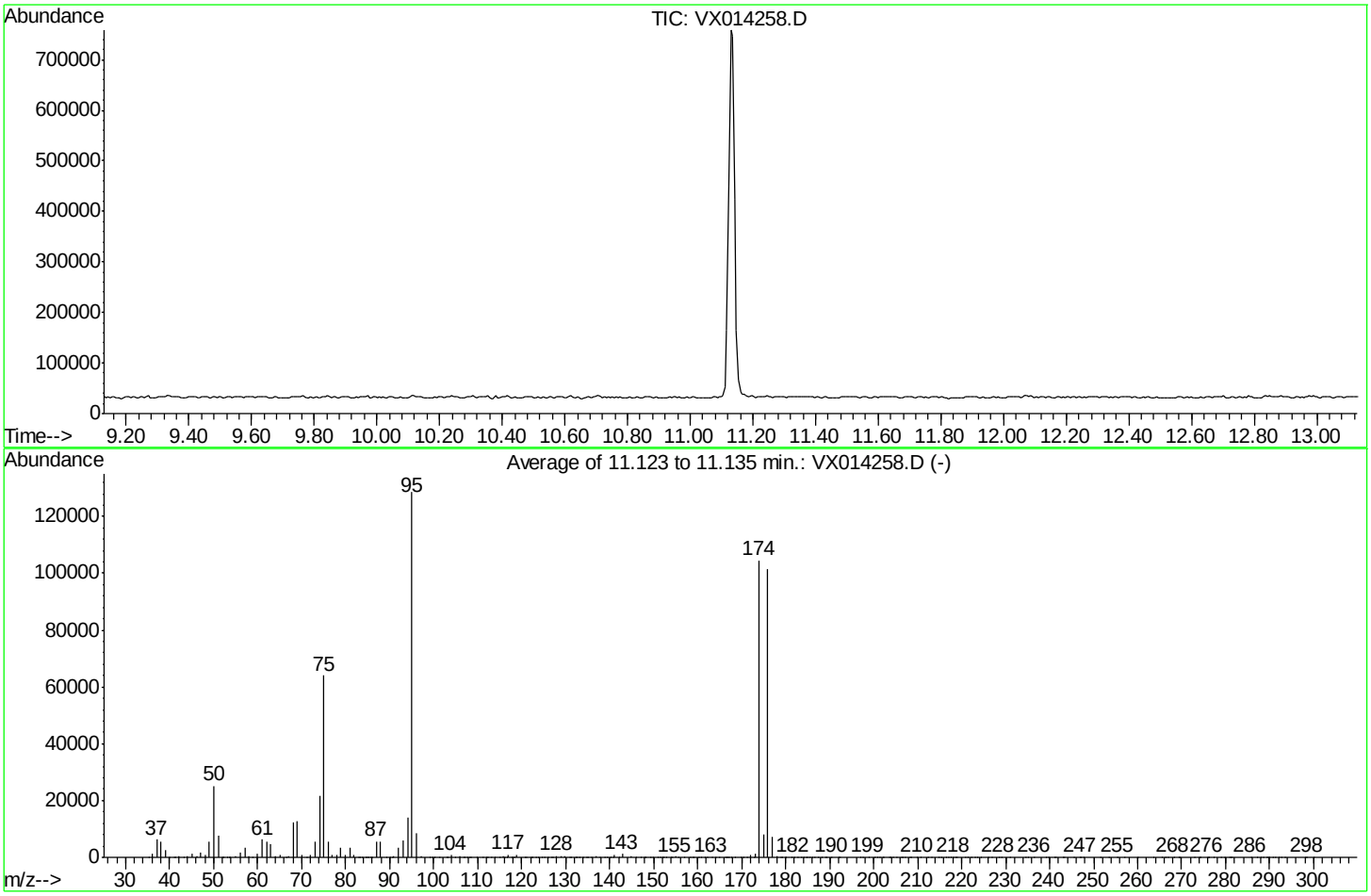
Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	20.0	22157	PASS
75	95	30	60	49.7	55156	PASS
95	95	100	100	100.0	110873	PASS
96	95	5	9	6.9	7689	PASS
173	174	0.00	2	1.6	1492	PASS
174	95	50	100	85.1	94386	PASS
175	174	5	9	7.7	7293	PASS
176	174	95	101	95.5	90128	PASS
177	176	5	9	6.5	5824	PASS

Data Path : Z:\voasrv\HPCHEM1\MSVOA X\Data\VX122619\
Data File : VX014258.D
Acq On : 26 Dec 2019 10:14
Operator : JC/SP
Sample : BFB
Misc : 5.0mL/MSVOA X/WATER
ALS Vial : 1 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
BFB

Integration File: RTEINT.P

Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121319W.M
Title : SW846 8260
Last Update : Tue Dec 17 03:01:07 2019



AutoFind: Scans 1679, 1680, 1681; Background Corrected with Scan 1673

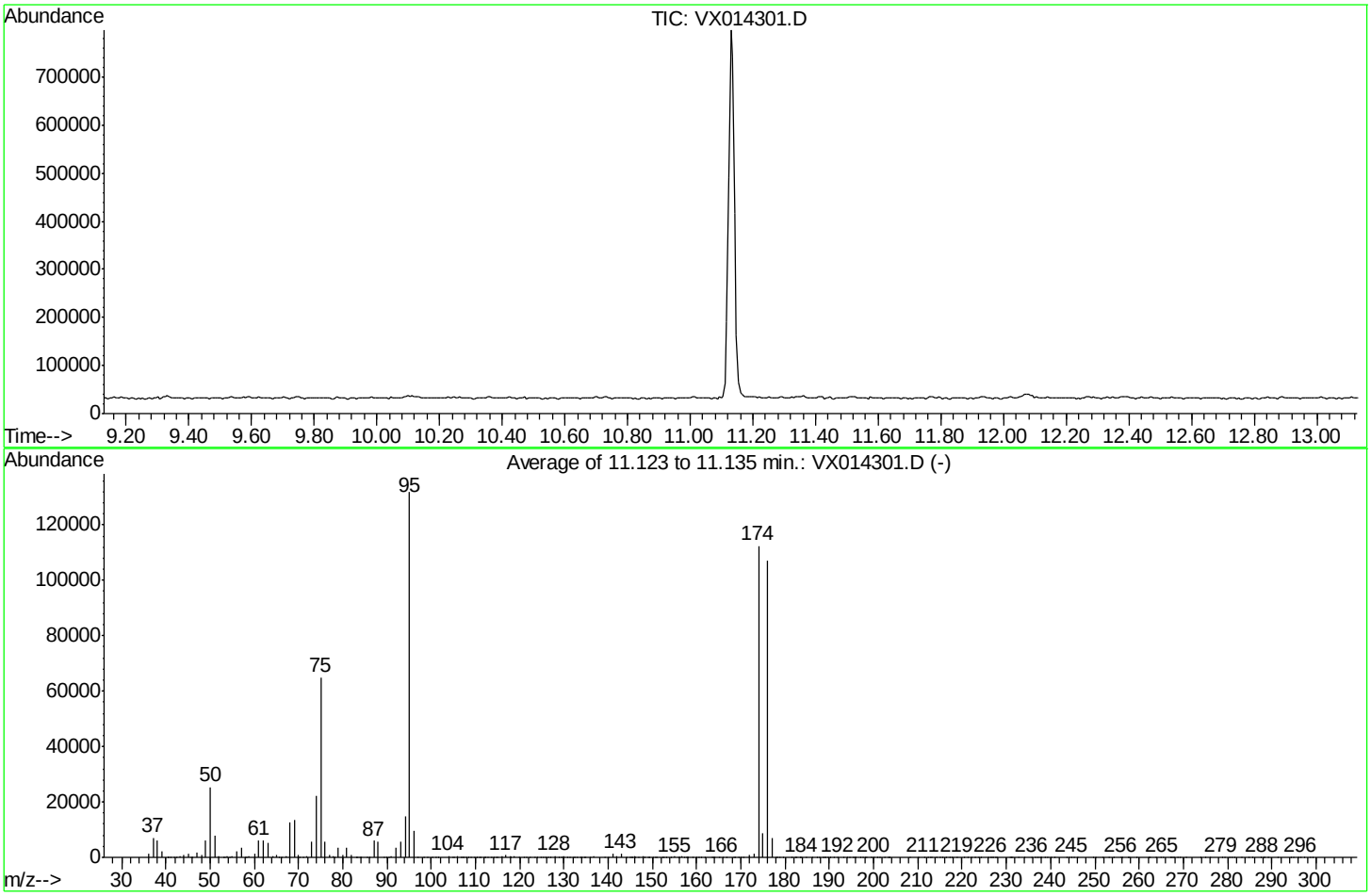
Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	19.6	25141	PASS
75	95	30	60	49.8	63998	PASS
95	95	100	100	100.0	128576	PASS
96	95	5	9	6.6	8542	PASS
173	174	0.00	2	1.1	1117	PASS
174	95	50	100	81.4	104637	PASS
175	174	5	9	7.5	7878	PASS
176	174	95	101	96.9	101362	PASS
177	176	5	9	7.1	7246	PASS

Data Path : Z:\voasrv\HPCHEM1\MSVOA X\Data\VX122719\
Data File : VX014301.D
Acq On : 27 Dec 2019 11:31
Operator : JC/SP
Sample : BFB
Misc : 5.0mL/MSVOA X/WATER
ALS Vial : 1 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
BFB

Integration File: RTEINT.P

Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121319W.M
Title : SW846 8260
Last Update : Tue Dec 17 03:01:07 2019



AutoFind: Scans 1679, 1680, 1681; Background Corrected with Scan 1671

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	19.2	25313	PASS
75	95	30	60	49.3	65025	PASS
95	95	100	100	100.0	131828	PASS
96	95	5	9	7.1	9385	PASS
173	174	0.00	2	1.3	1513	PASS
174	95	50	100	85.3	112496	PASS
175	174	5	9	7.6	8575	PASS
176	174	95	101	95.2	107116	PASS
177	176	5	9	6.5	6928	PASS

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Day Environmental, Inc.	Date Collected:	
Project:	Andrew St. RI	Date Received:	
Client Sample ID:	VX1224WBL01	SDG No.:	K6405
Lab Sample ID:	VX1224WBL01	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	DB-624UI ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX014234.D	1		12/24/19 10:32	VX122419

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
75-71-8	Dichlorodifluoromethane	1.00	U	0.22	1.00	ug/L
74-87-3	Chloromethane	1.00	U	0.30	1.00	ug/L
75-01-4	Vinyl Chloride	1.00	U	0.16	1.00	ug/L
74-83-9	Bromomethane	5.00	U	2.10	5.00	ug/L
75-00-3	Chloroethane	1.00	U	0.34	1.00	ug/L
75-69-4	Trichlorofluoromethane	1.00	U	0.16	1.00	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	1.00	U	0.21	1.00	ug/L
75-35-4	1,1-Dichloroethene	1.00	U	0.18	1.00	ug/L
67-64-1	Acetone	5.00	U	0.90	5.00	ug/L
75-15-0	Carbon Disulfide	1.00	U	0.23	1.00	ug/L
1634-04-4	Methyl tert-butyl Ether	1.00	U	0.070	1.00	ug/L
79-20-9	Methyl Acetate	1.00	U	0.65	1.00	ug/L
75-09-2	Methylene Chloride	1.00	U	0.33	1.00	ug/L
156-60-5	trans-1,2-Dichloroethene	1.00	U	0.24	1.00	ug/L
75-34-3	1,1-Dichloroethane	1.00	U	0.17	1.00	ug/L
110-82-7	Cyclohexane	5.00	U	1.20	5.00	ug/L
78-93-3	2-Butanone	5.00	U	0.71	5.00	ug/L
56-23-5	Carbon Tetrachloride	1.00	U	0.22	1.00	ug/L
156-59-2	cis-1,2-Dichloroethene	1.00	U	0.30	1.00	ug/L
74-97-5	Bromochloromethane	1.00	U	0.31	1.00	ug/L
67-66-3	Chloroform	1.00	U	0.14	1.00	ug/L
71-55-6	1,1,1-Trichloroethane	1.00	U	0.12	1.00	ug/L
108-87-2	Methylcyclohexane	1.00	U	0.17	1.00	ug/L
71-43-2	Benzene	1.00	U	0.10	1.00	ug/L
107-06-2	1,2-Dichloroethane	1.00	U	0.13	1.00	ug/L
79-01-6	Trichloroethene	1.00	U	0.27	1.00	ug/L
78-87-5	1,2-Dichloropropane	1.00	U	0.14	1.00	ug/L
75-27-4	Bromodichloromethane	1.00	U	0.10	1.00	ug/L
108-10-1	4-Methyl-2-Pentanone	5.00	U	0.85	5.00	ug/L
108-88-3	Toluene	1.00	U	0.12	1.00	ug/L
10061-02-6	t-1,3-Dichloropropene	1.00	U	0.19	1.00	ug/L
10061-01-5	cis-1,3-Dichloropropene	1.00	U	0.16	1.00	ug/L

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Day Environmental, Inc.	Date Collected:	
Project:	Andrew St. RI	Date Received:	
Client Sample ID:	VX1224WBL01	SDG No.:	K6405
Lab Sample ID:	VX1224WBL01	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	DB-624UI ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX014234.D	1		12/24/19 10:32	VX122419

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
79-00-5	1,1,2-Trichloroethane	1.00	U	0.12	1.00	ug/L
591-78-6	2-Hexanone	5.00	U	1.40	5.00	ug/L
124-48-1	Dibromochloromethane	1.00	U	0.16	1.00	ug/L
106-93-4	1,2-Dibromoethane	1.00	U	0.14	1.00	ug/L
127-18-4	Tetrachloroethene	1.00	U	0.15	1.00	ug/L
108-90-7	Chlorobenzene	1.00	U	0.080	1.00	ug/L
100-41-4	Ethyl Benzene	1.00	U	0.080	1.00	ug/L
179601-23-1	m/p-Xylenes	2.00	U	0.20	2.00	ug/L
95-47-6	o-Xylene	1.00	U	0.13	1.00	ug/L
100-42-5	Styrene	1.00	U	0.11	1.00	ug/L
75-25-2	Bromoform	1.00	U	0.15	1.00	ug/L
98-82-8	Isopropylbenzene	1.00	U	0.13	1.00	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	1.00	U	0.15	1.00	ug/L
541-73-1	1,3-Dichlorobenzene	1.00	U	0.14	1.00	ug/L
106-46-7	1,4-Dichlorobenzene	1.00	U	0.20	1.00	ug/L
95-50-1	1,2-Dichlorobenzene	1.00	U	0.12	1.00	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	1.00	U	0.54	1.00	ug/L
120-82-1	1,2,4-Trichlorobenzene	1.00	U	0.24	1.00	ug/L
87-61-6	1,2,3-Trichlorobenzene	1.00	U	0.26	1.00	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	49.4		61 - 141	99%	SPK: 50
1868-53-7	Dibromofluoromethane	49.2		69 - 133	98%	SPK: 50
2037-26-5	Toluene-d8	50.4		65 - 126	101%	SPK: 50
460-00-4	4-Bromofluorobenzene	46.9		58 - 135	94%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	561000	5.65			
540-36-3	1,4-Difluorobenzene	856000	6.85			
3114-55-4	Chlorobenzene-d5	774000	10.11			
3855-82-1	1,4-Dichlorobenzene-d4	345000	12.07			

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Day Environmental, Inc.	Date Collected:	
Project:	Andrew St. RI	Date Received:	
Client Sample ID:	VX1224WBL01	SDG No.:	K6405
Lab Sample ID:	VX1224WBL01	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	DB-624UI ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX014234.D	1		12/24/19 10:32	VX122419

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit
A = Aldol-Condensation Reaction Products

Quantitation Report (LSC Reviewed)

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX122419\
Data File : VX014234.D
Acq On : 24 Dec 2019 10:32
Operator : JC/SP
Sample : VX1224WBL01
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 4 Sample Multiplier: 1

Instrument : MSVOA_X
ClientSampleId : VX1224WBL01

Quant Time: Dec 25 06:07:56 2019
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121319W.M
Quant Title : SW846 8260
QLast Update : Tue Dec 17 03:01:07 2019
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	5.65	168	561321	50.00	ug/l	0.00
34) 1,4-Difluorobenzene	6.85	114	856402	50.00	ug/l	0.00
63) Chlorobenzene-d5	10.11	117	773822	50.00	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	12.07	152	345231	50.00	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	6.05	65	314547	49.44	ug/l	0.00
Spiked Amount 50.000			Recovery =	98.88%		
35) Dibromofluoromethane	5.49	113	256240	49.22	ug/l	0.00
Spiked Amount 50.000			Recovery =	98.44%		
50) Toluene-d8	8.71	98	1022478	50.45	ug/l	0.00
Spiked Amount 50.000			Recovery =	100.90%		
62) 4-Bromofluorobenzene	11.13	95	347235	46.87	ug/l	0.00
Spiked Amount 50.000			Recovery =	93.74%		

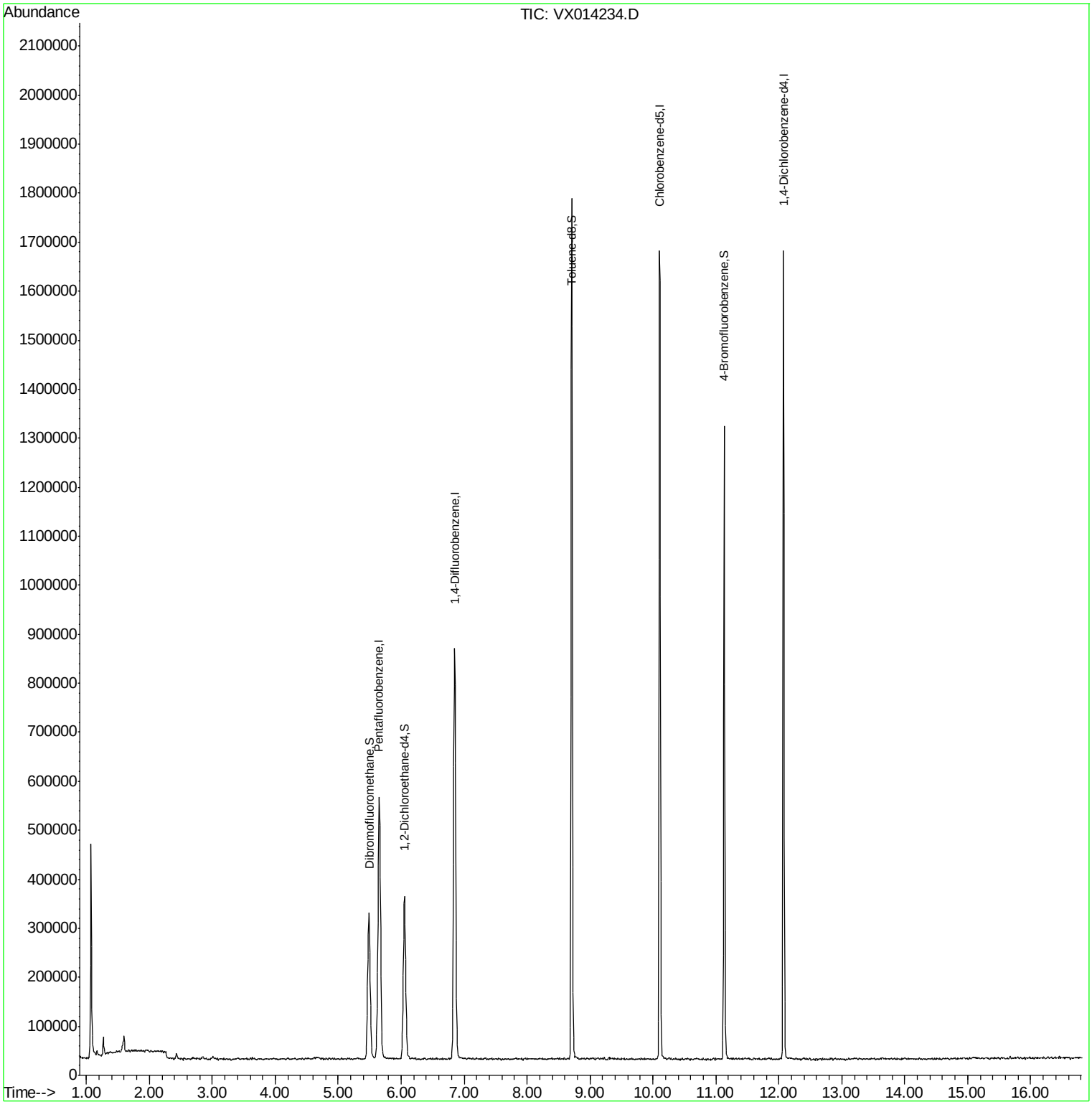
Target Compounds	Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

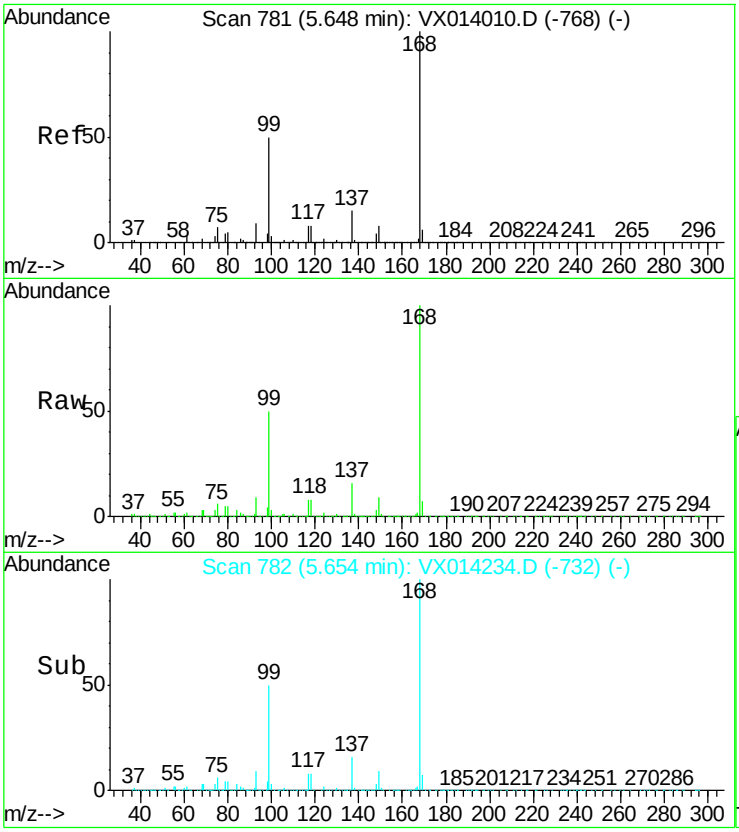
Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX122419\
Data File : VX014234.D
Acq On : 24 Dec 2019 10:32
Operator : JC/SP
Sample : VX1224WBL01
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 4 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
VX1224WBL01

Quant Time: Dec 25 06:07:56 2019
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121319W.M
Quant Title : SW846 8260
QLast Update : Tue Dec 17 03:01:07 2019
Response via : Initial Calibration



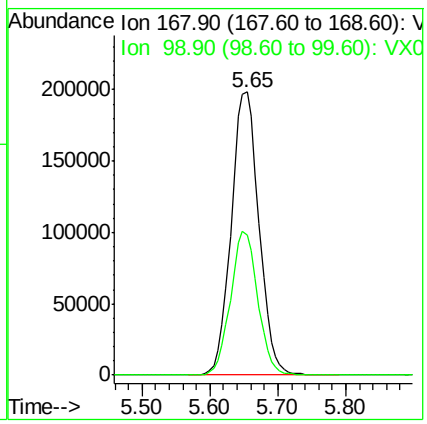
Instrument :
MSVOA_X
ClientSampleId :
VX1224WBL01

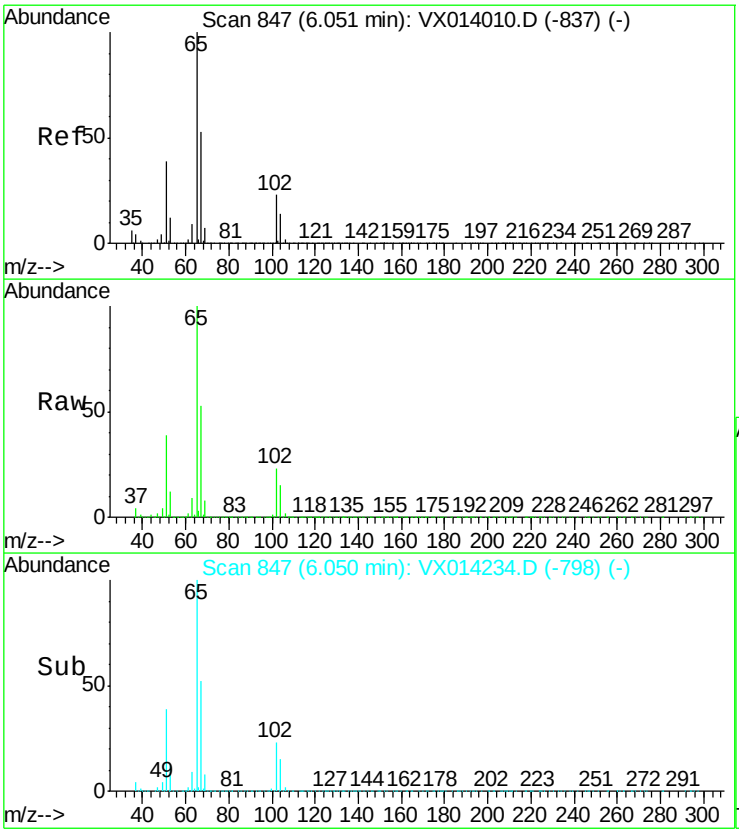


#1
Pentafluorobenzene
Concen: 50.000 ug/l
RT: 5.65 min Scan# 782
Delta R.T. 0.01 min
Lab File: VX014234.D
Acq: 24 Dec 2019 10:32

Tgt Ion:168 Resp: 561321

Ion	Ratio	Lower	Upper
168	100		
99	49.6	40.3	60.5

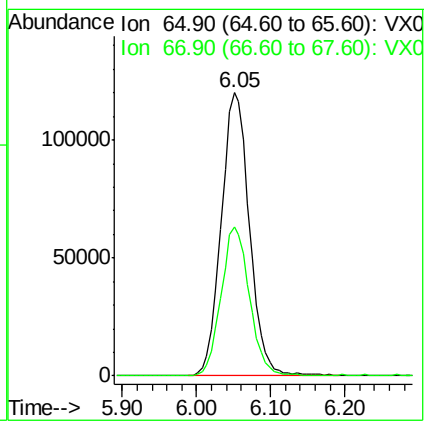




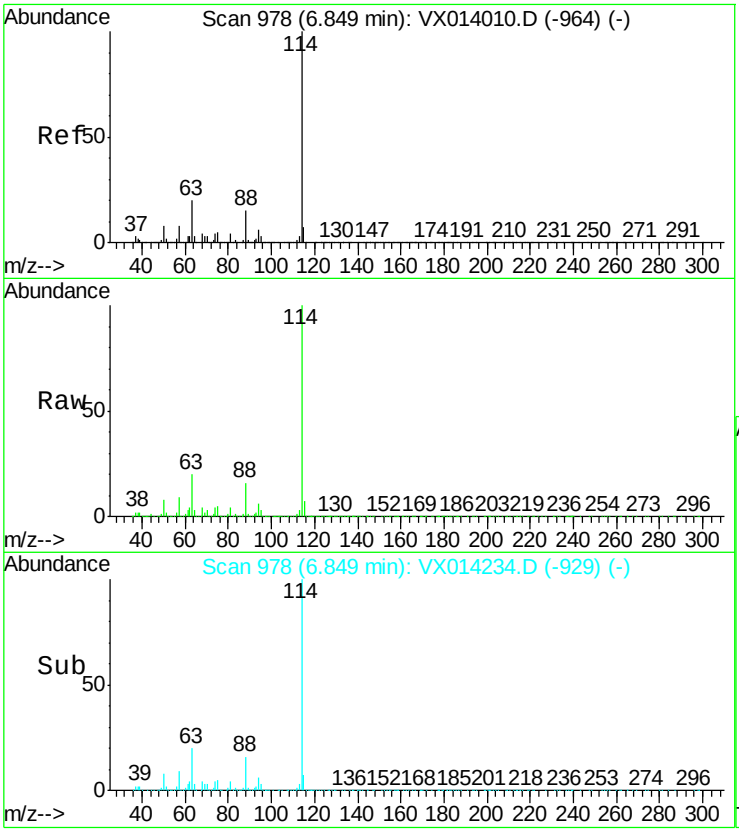
#33
1,2-Dichloroethane-d4
Concen: 49.443 ug/l
RT: 6.05 min Scan# 847
Delta R.T. -0.00 min
Lab File: VX014234.D
Acq: 24 Dec 2019 10:32

Tgt Ion: 65 Resp: 314547

Ion	Ratio	Lower	Upper
65	100		
67	53.1	0.0	106.4



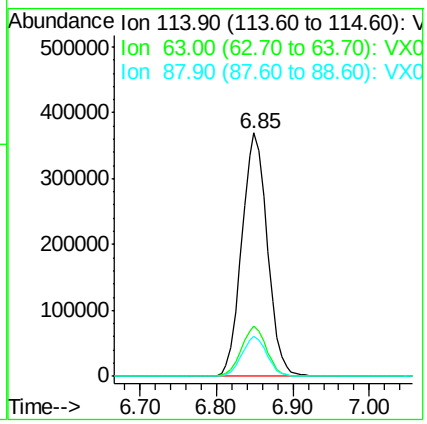
Instrument :
MSVOA_X
ClientSampleId :
VX1224WBL01

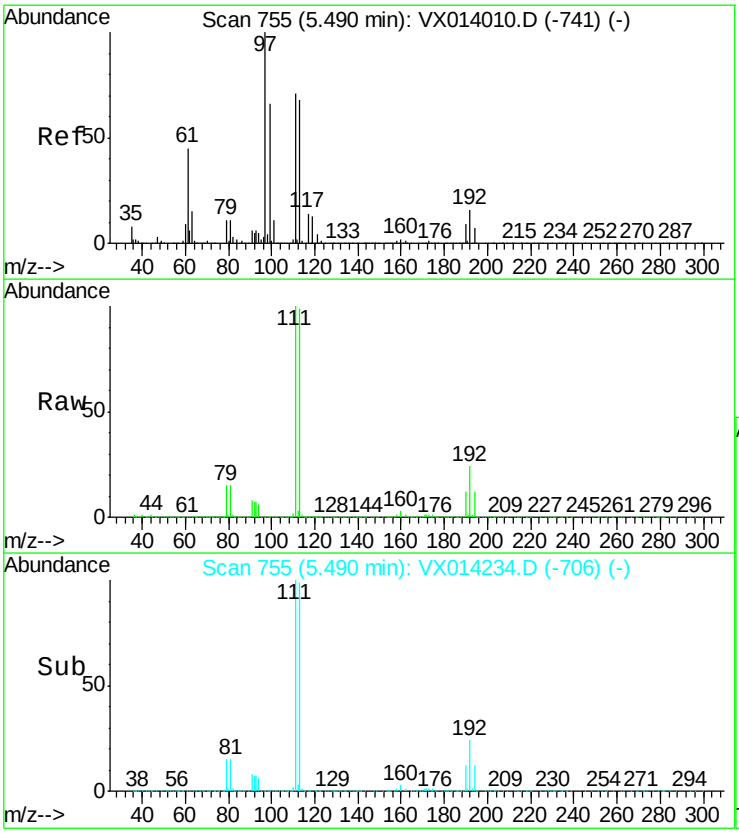


#34
1,4-Difluorobenzene
Concen: 50.000 ug/l
RT: 6.85 min Scan# 978
Delta R.T. -0.00 min
Lab File: VX014234.D
Acq: 24 Dec 2019 10:32

Tgt Ion:114 Resp: 856402

Ion	Ratio	Lower	Upper
114	100		
63	20.4	0.0	40.8
88	16.3	0.0	30.4

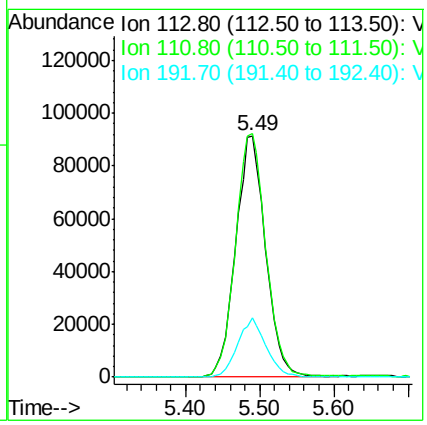




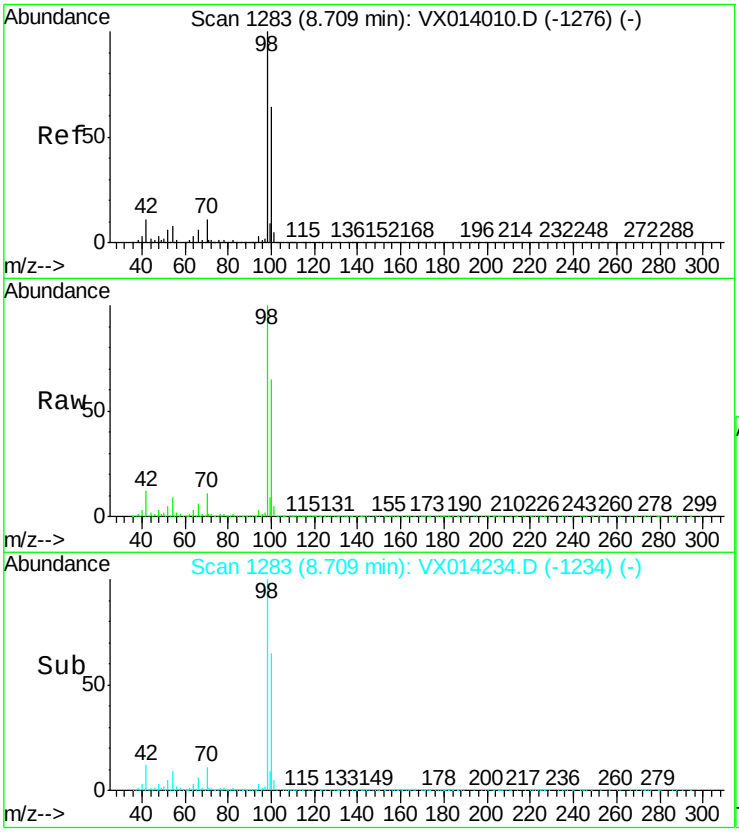
#35
Dibromofluoromethane
Concen: 49.220 ug/l
RT: 5.49 min Scan# 755
Delta R.T. -0.00 min
Lab File: VX014234.D
Acq: 24 Dec 2019 10:32

Tgt Ion:113 Resp: 256240

Ion	Ratio	Lower	Upper
113	100		
111	102.6	82.0	123.0
192	23.0	19.3	28.9



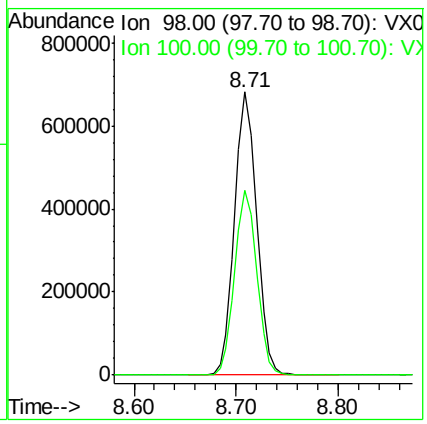
Instrument :
MSVOA_X
ClientSampleId :
VX1224WBL01

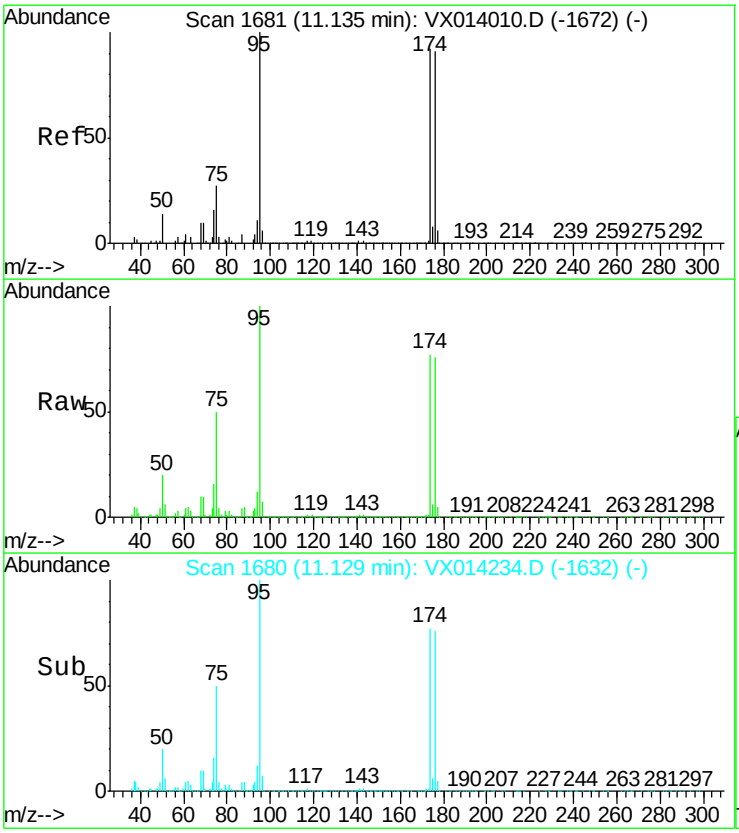


#50
Toluene-d8
Concen: 50.448 ug/l
RT: 8.71 min Scan# 1283
Delta R.T. -0.00 min
Lab File: VX014234.D
Acq: 24 Dec 2019 10:32

Tgt Ion: 98 Resp: 1022478

Ion	Ratio	Lower	Upper
98	100		
100	65.3	52.9	79.3

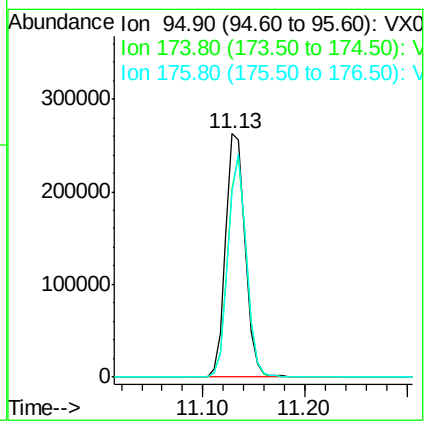




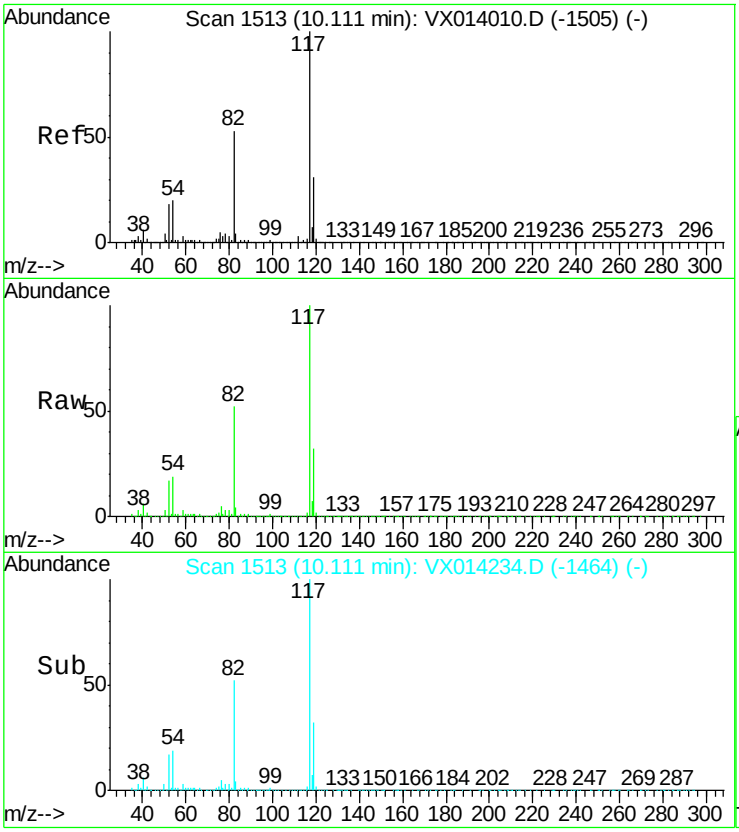
#62
4-Bromofluorobenzene
Concen: 46.867 ug/l
RT: 11.13 min Scan# 1680
Delta R.T. -0.01 min
Lab File: VX014234.D
Acq: 24 Dec 2019 10:32

Tgt Ion: 95 Resp: 347235

Ion	Ratio	Lower	Upper
95	100		
174	85.9	0.0	175.8
176	85.4	0.0	173.0



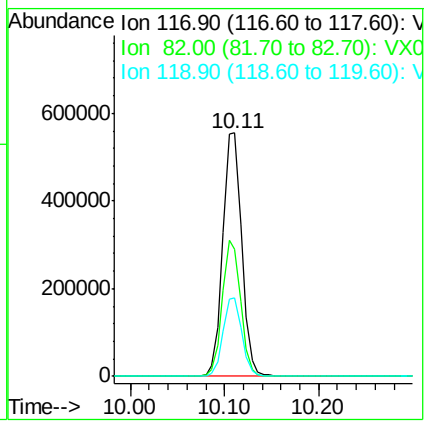
Instrument :
MSVOA_X
ClientSampleId :
VX1224WBL01

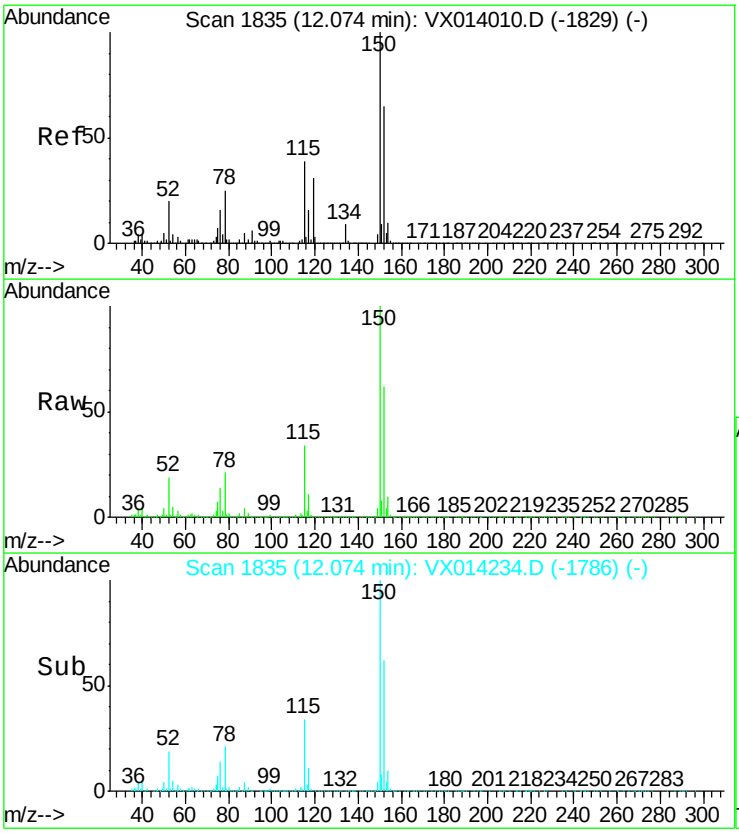


#63
Chlorobenzene-d5
Concen: 50.000 ug/l
RT: 10.11 min Scan# 1513
Delta R.T. -0.00 min
Lab File: VX014234.D
Acq: 24 Dec 2019 10:32

Tgt Ion:117 Resp: 773822

Ion	Ratio	Lower	Upper
117	100		
82	52.3	42.2	63.4
119	32.2	25.1	37.7

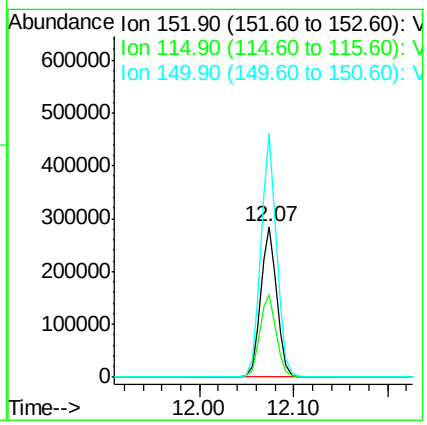




#72
1,4-Dichlorobenzene-d4
Concen: 50.000 ug/l
RT: 12.07 min Scan# 1835
Delta R.T. -0.00 min
Lab File: VX014234.D
Acq: 24 Dec 2019 10:32

Tgt Ion:152 Resp: 345231

Ion	Ratio	Lower	Upper
152	100		
115	55.9	38.3	114.9
150	158.4	0.0	345.4



LSC Area Percent Report

Data Path : Z:\voasrv\HPCHEM1\MSVOA X\Data\VX122419\
Data File : VX014234.D
Acq On : 24 Dec 2019 10:32
Operator : JC/SP
Sample : VX1224WBL01
Misc : 5.0mL/MSVOA X/WATER
ALS Vial : 4 Sample Multiplier: 1

Instrument : MSVOA_X
ClientSampleId : VX1224WBL01

Integration Parameters: RTEINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 3 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121319W.M
Title : SW846 8260

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	1.070	26	30	38	rBV	437024	551390	20.81%	3.840%
2	1.265	57	62	67	rBV	39953	53759	2.03%	0.374%
3	1.600	107	117	121	rBV	32600	63069	2.38%	0.439%
4	5.490	745	755	768	rBV	296704	830084	31.33%	5.781%
5	5.648	770	781	793	rBV	532918	1485872	56.09%	10.348%
6	6.050	838	847	862	rBV	332904	874792	33.02%	6.092%
7	6.849	967	978	990	rBV	837295	1914420	72.26%	13.333%
8	8.709	1277	1283	1291	rBV	1757090	2649280	100.00%	18.451%
9	10.105	1507	1512	1521	rVB	1646773	2237623	84.46%	15.584%
10	11.135	1675	1681	1689	rBV	1292127	1685975	63.64%	11.742%
11	12.074	1830	1835	1844	rBV	1648509	2012476	75.96%	14.016%

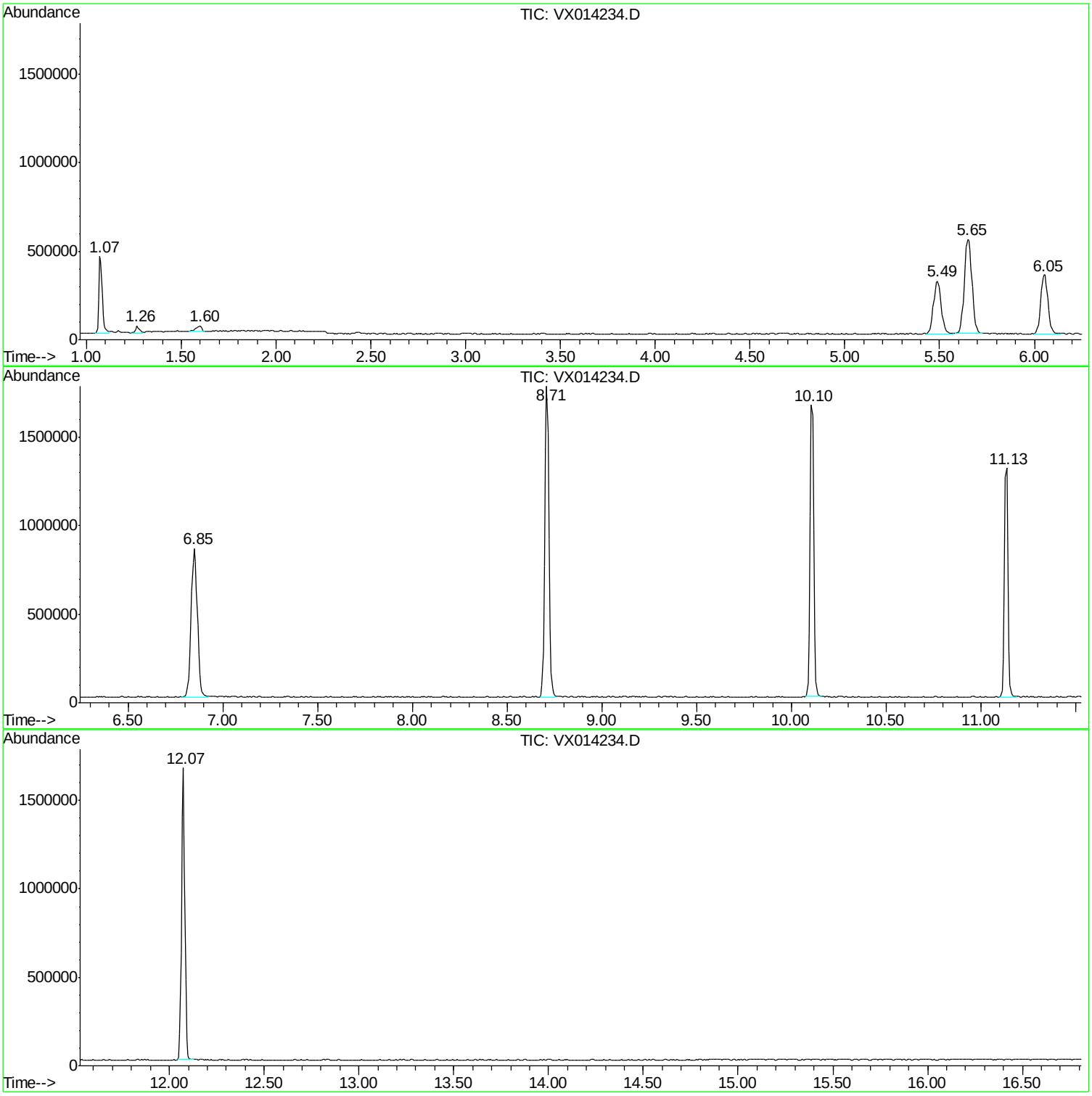
Sum of corrected areas: 14358740

Data Path : Z:\voasrv\HPCHEM1\MSVOA X\Data\VX122419\
Data File : VX014234.D
Acq On : 24 Dec 2019 10:32
Operator : JC/SP
Sample : VX1224WBL01
Misc : 5.0mL/MSVOA X/WATER
ALS Vial : 4 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
VX1224WBL01

Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121319W.M
Quant Title : SW846 8260

TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P



Library Search Compound Report

Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX122419\
Data File : VX014234.D
Acq On : 24 Dec 2019 10:32
Operator : JC/SP
Sample : VX1224WBL01
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 4 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
VX1224WBL01

Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121319W.M
Quant Title : SW846 8260

TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

No Library Search Compounds Detected

****

Tentatively Identified Compound (LSC) summary

Data Path : Z:\voasrv\HPCHEM1\MSVOA_X\Data\VX122419\
Data File : VX014234.D
Acq On : 24 Dec 2019 10:32
Operator : JC/SP
Sample : VX1224WBL01
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 4 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
VX1224WBL01

Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121319W.M
Quant Title : SW846 8260

TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

					Internal Standard		
TIC Top Hit name	RT	EstConc	Units	Response	#	RT	Resp	Conc

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Day Environmental, Inc.	Date Collected:	
Project:	Andrew St. RI	Date Received:	
Client Sample ID:	VX1226WBL01	SDG No.:	K6405
Lab Sample ID:	VX1226WBL01	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	DB-624UI ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX014261.D	1		12/26/19 11:45	VX122619

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
75-71-8	Dichlorodifluoromethane	1.00	U	0.22	1.00	ug/L
74-87-3	Chloromethane	1.00	U	0.30	1.00	ug/L
75-01-4	Vinyl Chloride	1.00	U	0.16	1.00	ug/L
74-83-9	Bromomethane	5.00	U	2.10	5.00	ug/L
75-00-3	Chloroethane	1.00	U	0.34	1.00	ug/L
75-69-4	Trichlorofluoromethane	1.00	U	0.16	1.00	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	1.00	U	0.21	1.00	ug/L
75-35-4	1,1-Dichloroethene	1.00	U	0.18	1.00	ug/L
67-64-1	Acetone	5.00	U	0.90	5.00	ug/L
75-15-0	Carbon Disulfide	1.00	U	0.23	1.00	ug/L
1634-04-4	Methyl tert-butyl Ether	1.00	U	0.070	1.00	ug/L
79-20-9	Methyl Acetate	1.00	U	0.65	1.00	ug/L
75-09-2	Methylene Chloride	1.00	U	0.33	1.00	ug/L
156-60-5	trans-1,2-Dichloroethene	1.00	U	0.24	1.00	ug/L
75-34-3	1,1-Dichloroethane	1.00	U	0.17	1.00	ug/L
110-82-7	Cyclohexane	5.00	U	1.20	5.00	ug/L
78-93-3	2-Butanone	5.00	U	0.71	5.00	ug/L
56-23-5	Carbon Tetrachloride	1.00	U	0.22	1.00	ug/L
156-59-2	cis-1,2-Dichloroethene	1.00	U	0.30	1.00	ug/L
74-97-5	Bromochloromethane	1.00	U	0.31	1.00	ug/L
67-66-3	Chloroform	1.00	U	0.14	1.00	ug/L
71-55-6	1,1,1-Trichloroethane	1.00	U	0.12	1.00	ug/L
108-87-2	Methylcyclohexane	1.00	U	0.17	1.00	ug/L
71-43-2	Benzene	1.00	U	0.10	1.00	ug/L
107-06-2	1,2-Dichloroethane	1.00	U	0.13	1.00	ug/L
79-01-6	Trichloroethene	1.00	U	0.27	1.00	ug/L
78-87-5	1,2-Dichloropropane	1.00	U	0.14	1.00	ug/L
75-27-4	Bromodichloromethane	1.00	U	0.10	1.00	ug/L
108-10-1	4-Methyl-2-Pentanone	5.00	U	0.85	5.00	ug/L
108-88-3	Toluene	1.00	U	0.12	1.00	ug/L
10061-02-6	t-1,3-Dichloropropene	1.00	U	0.19	1.00	ug/L
10061-01-5	cis-1,3-Dichloropropene	1.00	U	0.16	1.00	ug/L

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Day Environmental, Inc.	Date Collected:	
Project:	Andrew St. RI	Date Received:	
Client Sample ID:	VX1226WBL01	SDG No.:	K6405
Lab Sample ID:	VX1226WBL01	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	DB-624UI ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX014261.D	1		12/26/19 11:45	VX122619

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
79-00-5	1,1,2-Trichloroethane	1.00	U	0.12	1.00	ug/L
591-78-6	2-Hexanone	5.00	U	1.40	5.00	ug/L
124-48-1	Dibromochloromethane	1.00	U	0.16	1.00	ug/L
106-93-4	1,2-Dibromoethane	1.00	U	0.14	1.00	ug/L
127-18-4	Tetrachloroethene	1.00	U	0.15	1.00	ug/L
108-90-7	Chlorobenzene	1.00	U	0.080	1.00	ug/L
100-41-4	Ethyl Benzene	1.00	U	0.080	1.00	ug/L
179601-23-1	m/p-Xylenes	2.00	U	0.20	2.00	ug/L
95-47-6	o-Xylene	1.00	U	0.13	1.00	ug/L
100-42-5	Styrene	1.00	U	0.11	1.00	ug/L
75-25-2	Bromoform	1.00	U	0.15	1.00	ug/L
98-82-8	Isopropylbenzene	1.00	U	0.13	1.00	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	1.00	U	0.15	1.00	ug/L
541-73-1	1,3-Dichlorobenzene	1.00	U	0.14	1.00	ug/L
106-46-7	1,4-Dichlorobenzene	1.00	U	0.20	1.00	ug/L
95-50-1	1,2-Dichlorobenzene	1.00	U	0.12	1.00	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	1.00	U	0.54	1.00	ug/L
120-82-1	1,2,4-Trichlorobenzene	1.00	U	0.24	1.00	ug/L
87-61-6	1,2,3-Trichlorobenzene	1.00	U	0.26	1.00	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	49.1		61 - 141	98%	SPK: 50
1868-53-7	Dibromofluoromethane	49.4		69 - 133	99%	SPK: 50
2037-26-5	Toluene-d8	50.4		65 - 126	101%	SPK: 50
460-00-4	4-Bromofluorobenzene	46.4		58 - 135	93%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	554000	5.65			
540-36-3	1,4-Difluorobenzene	848000	6.85			
3114-55-4	Chlorobenzene-d5	768000	10.1			
3855-82-1	1,4-Dichlorobenzene-d4	338000	12.07			

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Day Environmental, Inc.	Date Collected:	
Project:	Andrew St. RI	Date Received:	
Client Sample ID:	VX1226WBL01	SDG No.:	K6405
Lab Sample ID:	VX1226WBL01	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	DB-624UI ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX014261.D	1		12/26/19 11:45	VX122619

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit
A = Aldol-Condensation Reaction Products

Quantitation Report (LSC Reviewed)

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX122619\
Data File : VX014261.D
Acq On : 26 Dec 2019 11:45
Operator : JC/SP
Sample : VX1226WBL01
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 4 Sample Multiplier: 1

Instrument : MSVOA_X
ClientSampleId : VX1226WBL01

Quant Time: Dec 27 06:39:25 2019
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121319W.M
Quant Title : SW846 8260
QLast Update : Tue Dec 17 03:01:07 2019
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	5.65	168	553692	50.00	ug/l	0.00
34) 1,4-Difluorobenzene	6.85	114	848003	50.00	ug/l	0.00
63) Chlorobenzene-d5	10.10	117	767663	50.00	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	12.07	152	338103	50.00	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	6.05	65	307917	49.07	ug/l	0.00
Spiked Amount 50.000			Recovery =	98.14%		
35) Dibromofluoromethane	5.49	113	254903	49.45	ug/l	0.00
Spiked Amount 50.000			Recovery =	98.90%		
50) Toluene-d8	8.71	98	1012464	50.45	ug/l	0.00
Spiked Amount 50.000			Recovery =	100.90%		
62) 4-Bromofluorobenzene	11.13	95	340626	46.43	ug/l	0.00
Spiked Amount 50.000			Recovery =	92.86%		

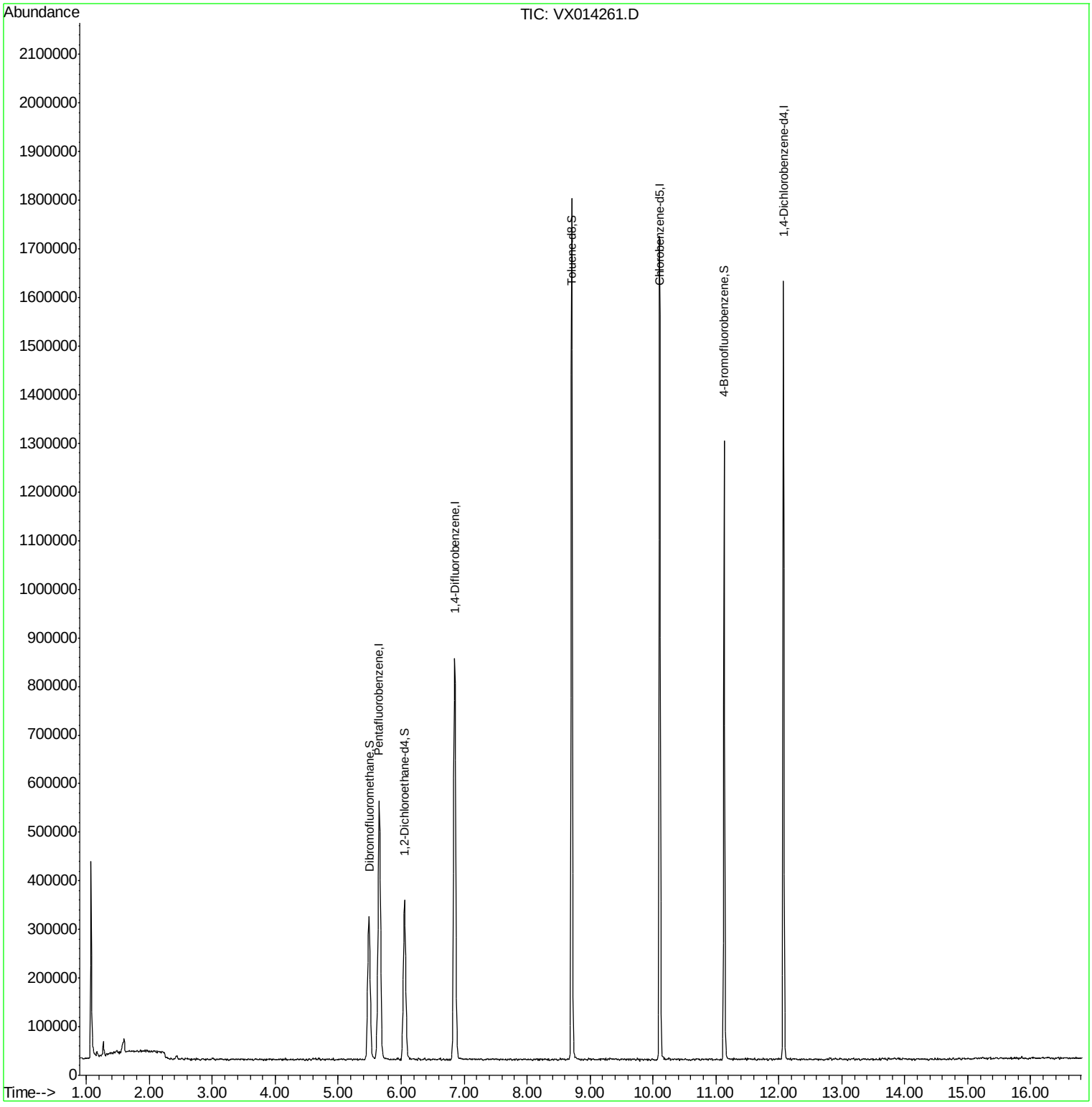
Target Compounds	Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

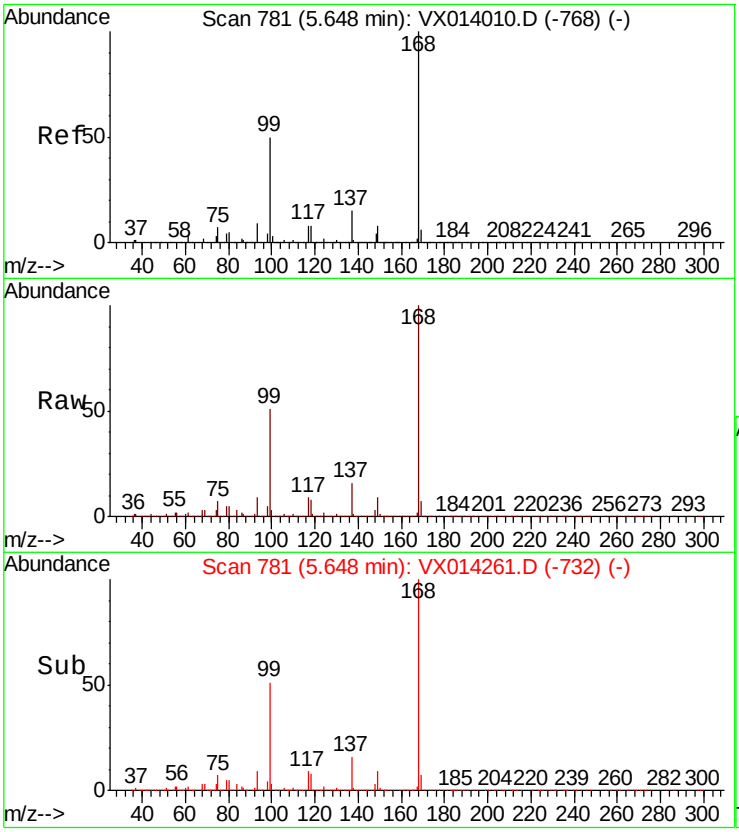
Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX122619\
Data File : VX014261.D
Acq On : 26 Dec 2019 11:45
Operator : JC/SP
Sample : VX1226WBL01
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 4 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
VX1226WBL01

Quant Time: Dec 27 06:39:25 2019
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121319W.M
Quant Title : SW846 8260
QLast Update : Tue Dec 17 03:01:07 2019
Response via : Initial Calibration



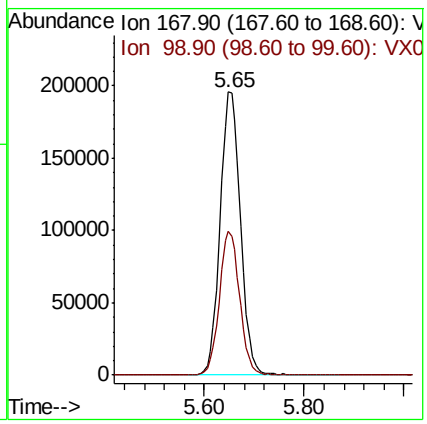
Instrument :
MSVOA_X
ClientSampleId :
VX1226WBL01

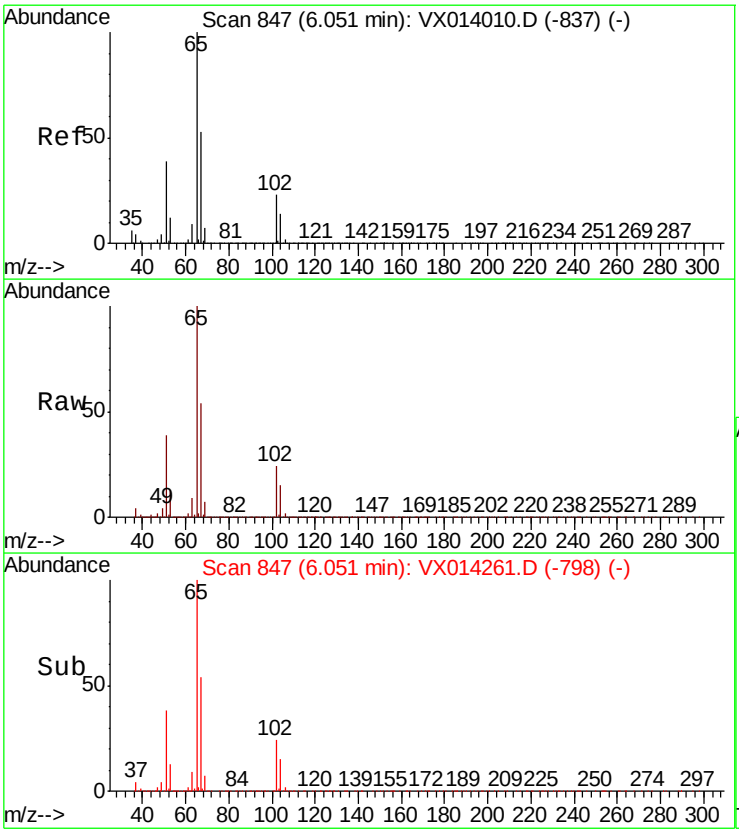


#1
Pentafluorobenzene
Concen: 50.000 ug/l
RT: 5.65 min Scan# 781
Delta R.T. 0.00 min
Lab File: VX014261.D
Acq: 26 Dec 2019 11:45

Tgt Ion:168 Resp: 553692

Ion	Ratio	Lower	Upper
168	100		
99	50.9	40.3	60.5

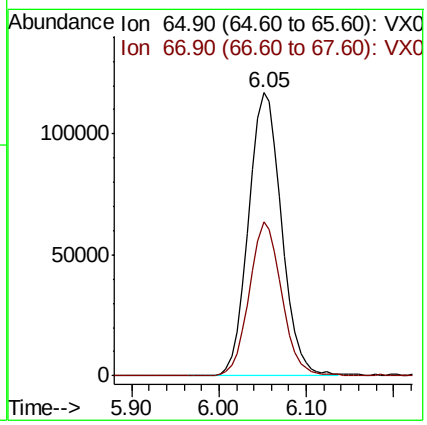




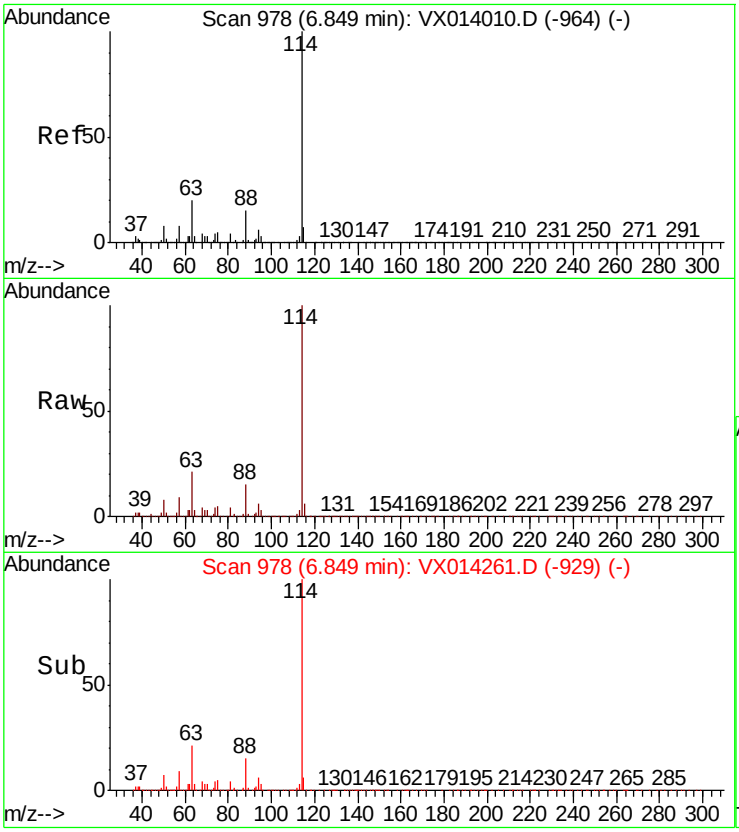
#33
1,2-Dichloroethane-d4
Concen: 49.068 ug/l
RT: 6.05 min Scan# 847
Delta R.T. 0.00 min
Lab File: VX014261.D
Acq: 26 Dec 2019 11:45

Tgt Ion: 65 Resp: 307917

Ion	Ratio	Lower	Upper
65	100		
67	52.9	0.0	106.4



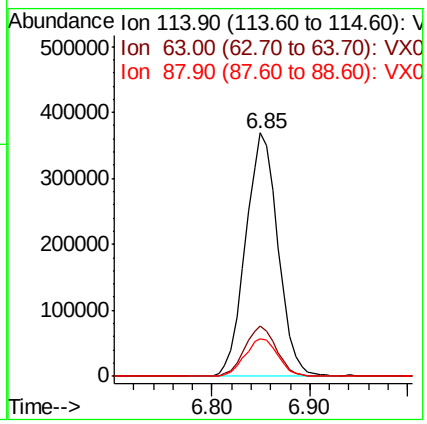
Instrument :
MSVOA_X
ClientSampleId :
VX1226WBL01

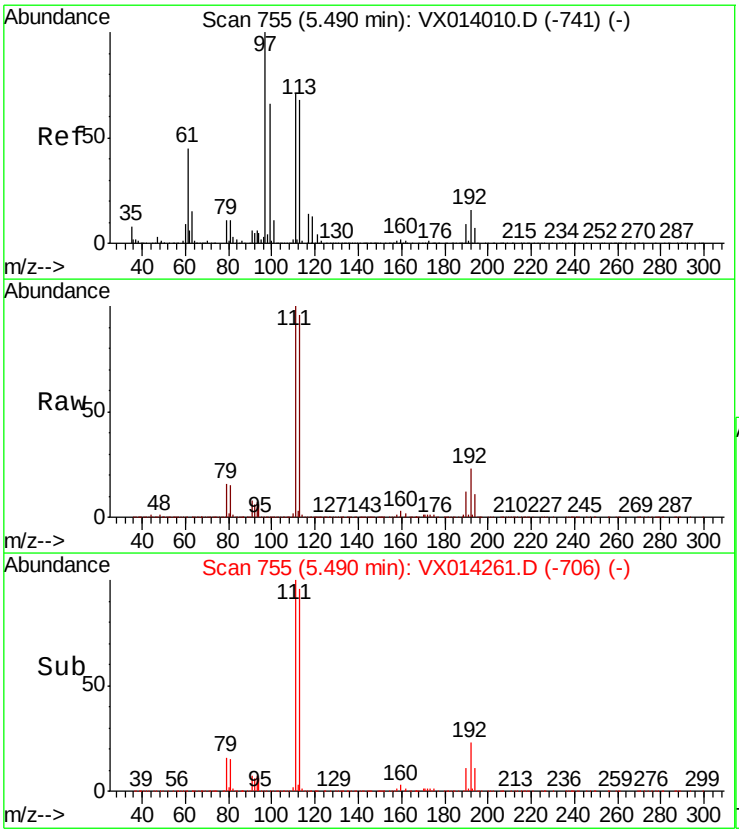


#34
1,4-Difluorobenzene
Concen: 50.000 ug/l
RT: 6.85 min Scan# 978
Delta R.T. 0.00 min
Lab File: VX014261.D
Acq: 26 Dec 2019 11:45

Tgt Ion:114 Resp: 848003

Ion	Ratio	Lower	Upper
114	100		
63	20.6	0.0	40.8
88	15.1	0.0	30.4

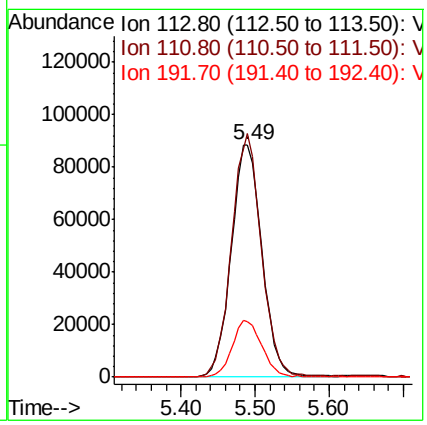




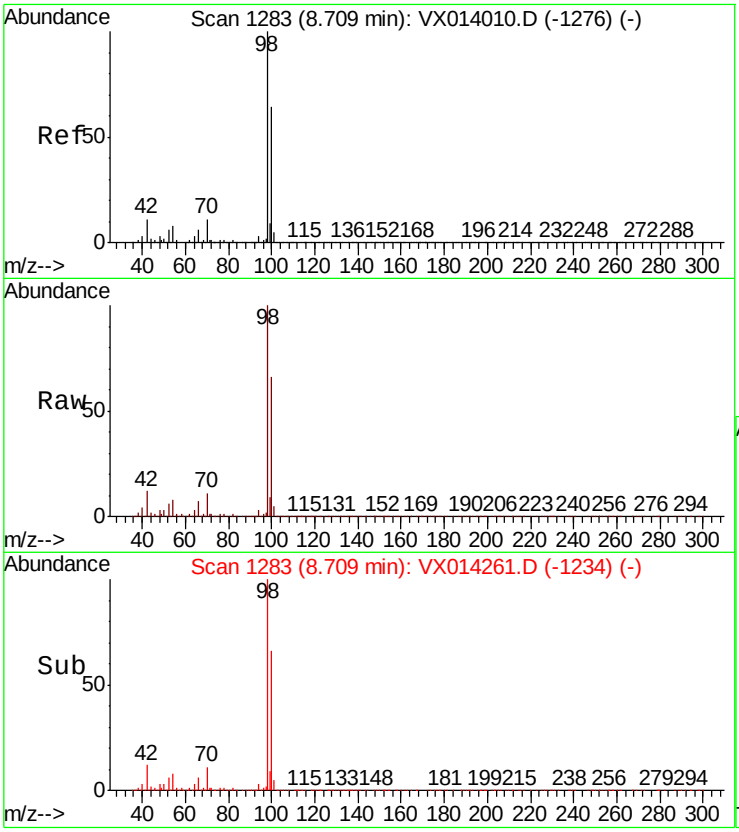
#35
Dibromofluoromethane
Concen: 49.448 ug/l
RT: 5.49 min Scan# 755
Delta R.T. 0.00 min
Lab File: VX014261.D
Acq: 26 Dec 2019 11:45

Tgt Ion:113 Resp: 254903

Ion	Ratio	Lower	Upper
113	100		
111	101.8	82.0	123.0
192	23.8	19.3	28.9



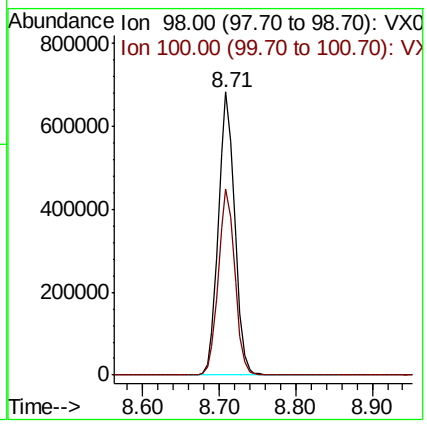
Instrument :
MSVOA_X
ClientSampleId :
VX1226WBL01

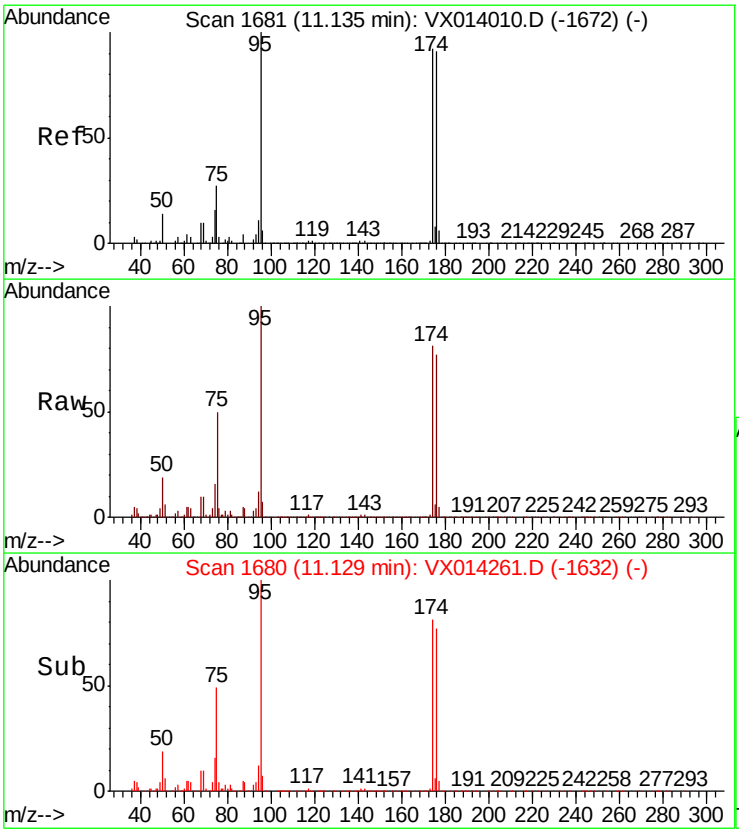


#50
Toluene-d8
Concen: 50.448 ug/l
RT: 8.71 min Scan# 1283
Delta R.T. 0.00 min
Lab File: VX014261.D
Acq: 26 Dec 2019 11:45

Tgt Ion: 98 Resp: 1012464

Ion	Ratio	Lower	Upper
98	100		
100	66.2	52.9	79.3

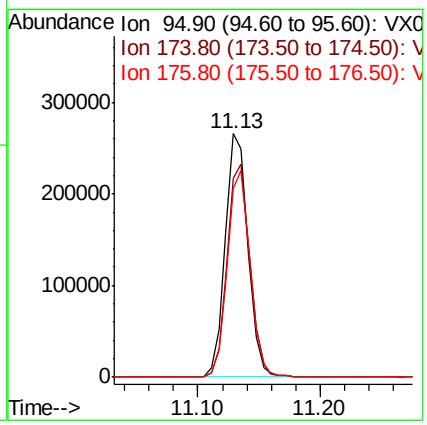




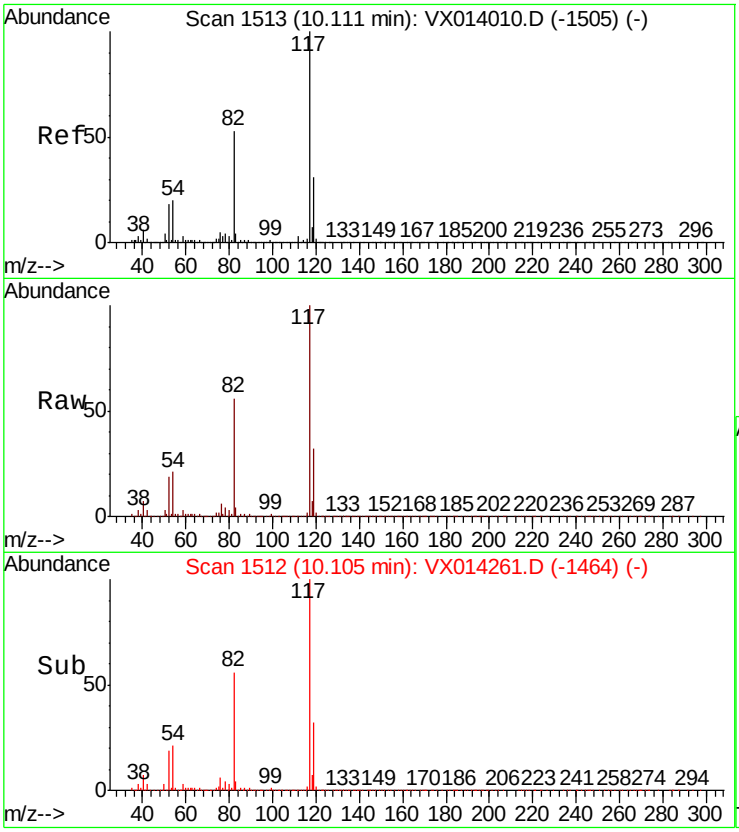
#62
4-Bromofluorobenzene
Concen: 46.431 ug/l
RT: 11.13 min Scan# 1680
Delta R.T. -0.01 min
Lab File: VX014261.D
Acq: 26 Dec 2019 11:45

Tgt Ion: 95 Resp: 340626

Ion	Ratio	Lower	Upper
95	100		
174	87.7	0.0	175.8
176	84.2	0.0	173.0



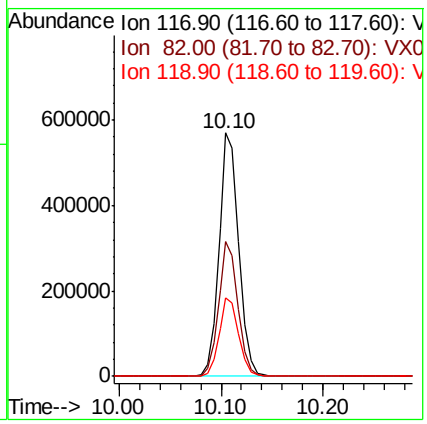
Instrument :
MSVOA_X
ClientSampleId :
VX1226WBL01

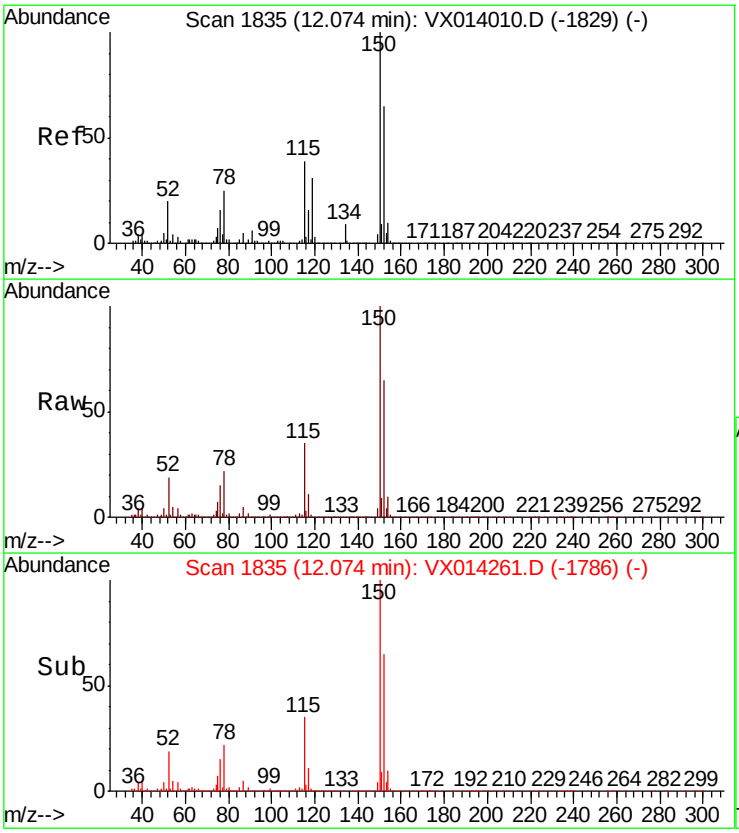


#63
Chlorobenzene-d5
Concen: 50.000 ug/l
RT: 10.10 min Scan# 1512
Delta R.T. -0.01 min
Lab File: VX014261.D
Acq: 26 Dec 2019 11:45

Tgt Ion:117 Resp: 767663

Ion	Ratio	Lower	Upper
117	100		
82	55.6	42.2	63.4
119	32.1	25.1	37.7

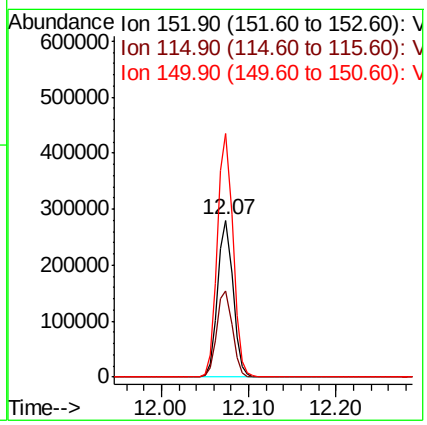




#72
1,4-Dichlorobenzene-d4
Concen: 50.000 ug/l
RT: 12.07 min Scan# 1835
Delta R.T. 0.00 min
Lab File: VX014261.D
Acq: 26 Dec 2019 11:45

Tgt Ion:152 Resp: 338103

Ion	Ratio	Lower	Upper
152	100		
115	56.1	38.3	114.9
150	157.8	0.0	345.4



LSC Area Percent Report

Data Path : Z:\VOASRV\HPCHEM1\MSVOA X\DATA\VX122619\
Data File : VX014261.D
Acq On : 26 Dec 2019 11:45
Operator : JC/SP
Sample : VX1226WBL01
Misc : 5.0mL/MSVOA X/WATER
ALS Vial : 4 Sample Multiplier: 1

Instrument : MSVOA_X
ClientSampleId : VX1226WBL01

Integration Parameters: RTEINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 3 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121319W.M
Title : SW846 8260

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	1.070	27	30	43	rBV	404119	526717	20.04%	3.691%
2	1.265	59	62	69	rVB	29943	40337	1.53%	0.283%
3	1.594	107	116	121	rBV	30582	74849	2.85%	0.525%
4	5.490	742	755	768	rBV	296153	847512	32.24%	5.939%
5	5.648	770	781	793	rVV	531496	1469990	55.92%	10.301%
6	6.051	838	847	858	rBV	329723	874714	33.27%	6.130%
7	6.849	968	978	989	rBV	825950	1902385	72.36%	13.331%
8	8.709	1276	1283	1292	rBV	1771318	2628910	100.00%	18.422%
9	10.105	1507	1512	1521	rBV	1693311	2242261	85.29%	15.713%
10	11.129	1674	1680	1690	rBV	1274656	1675762	63.74%	11.743%
11	12.074	1830	1835	1845	rVB	1600265	1987022	75.58%	13.924%

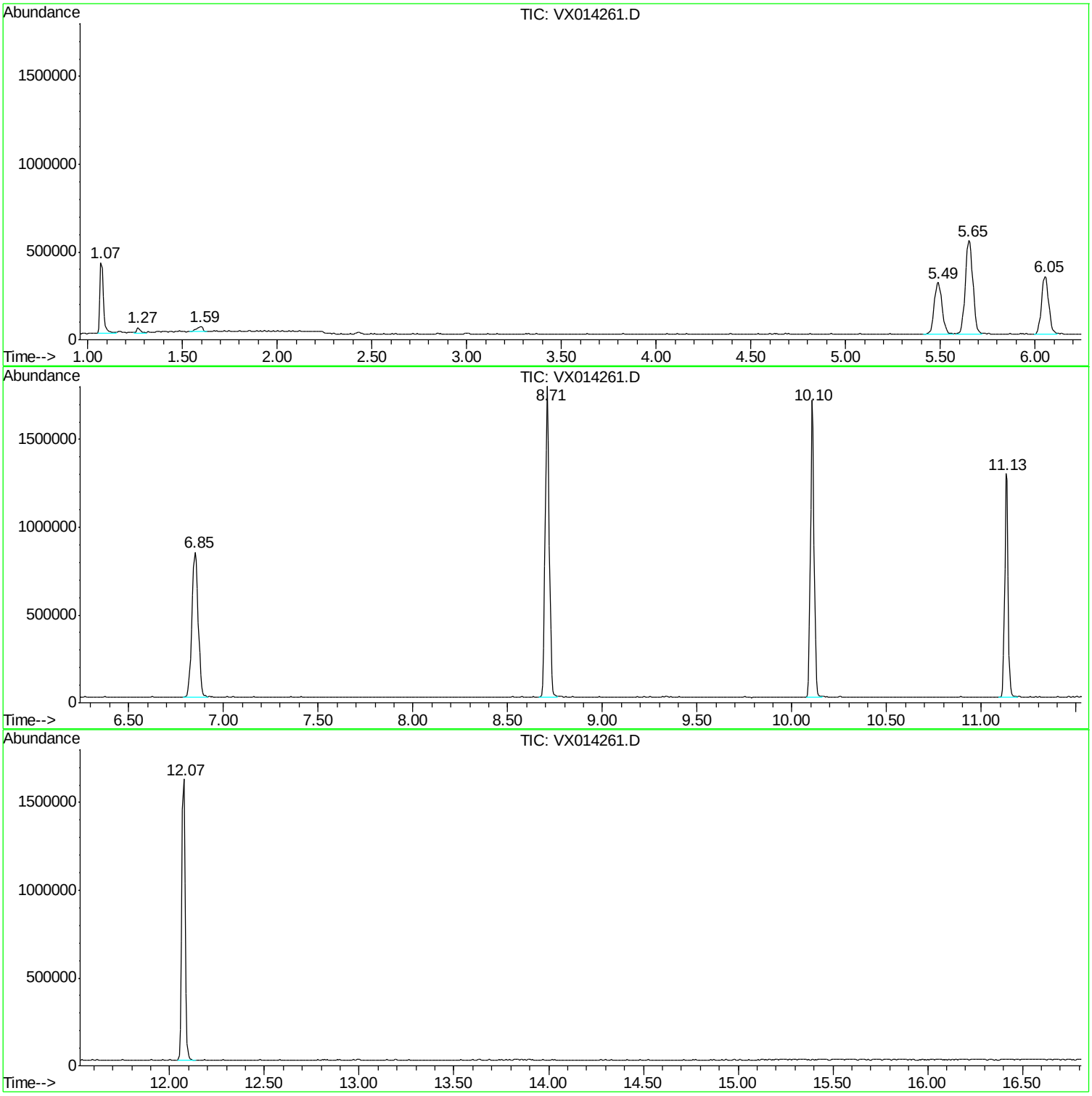
Sum of corrected areas: 14270459

Data Path : Z:\VOASRV\HPCHEM1\MSVOA X\DATA\VX122619\
Data File : VX014261.D
Acq On : 26 Dec 2019 11:45
Operator : JC/SP
Sample : VX1226WBL01
Misc : 5.0mL/MSVOA X/WATER
ALS Vial : 4 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
VX1226WBL01

Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121319W.M
Quant Title : SW846 8260

TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P



Library Search Compound Report

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX122619\
Data File : VX014261.D
Acq On : 26 Dec 2019 11:45
Operator : JC/SP
Sample : VX1226WBL01
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 4 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
VX1226WBL01

Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121319W.M
Quant Title : SW846 8260

TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

No Library Search Compounds Detected

****

Tentatively Identified Compound (LSC) summary

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX122619\
Data File : VX014261.D
Acq On : 26 Dec 2019 11:45
Operator : JC/SP
Sample : VX1226WBL01
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 4 Sample Multiplier: 1

Instrument : MSVOA_X
ClientSampleId : VX1226WBL01

Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121319W.M
Quant Title : SW846 8260

TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

					Internal Standard			
TIC Top Hit name	RT	EstConc	Units	Response	#	RT	Resp	Conc

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Day Environmental, Inc.	Date Collected:	
Project:	Andrew St. RI	Date Received:	
Client Sample ID:	VX1227WBL01	SDG No.:	K6405
Lab Sample ID:	VX1227WBL01	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	DB-624UI ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX014303.D	1		12/27/19 12:41	VX122719

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
75-71-8	Dichlorodifluoromethane	1.00	U	0.22	1.00	ug/L
74-87-3	Chloromethane	1.00	U	0.30	1.00	ug/L
75-01-4	Vinyl Chloride	1.00	U	0.16	1.00	ug/L
74-83-9	Bromomethane	5.00	U	2.10	5.00	ug/L
75-00-3	Chloroethane	1.00	U	0.34	1.00	ug/L
75-69-4	Trichlorofluoromethane	1.00	U	0.16	1.00	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	1.00	U	0.21	1.00	ug/L
75-35-4	1,1-Dichloroethene	1.00	U	0.18	1.00	ug/L
67-64-1	Acetone	5.00	U	0.90	5.00	ug/L
75-15-0	Carbon Disulfide	1.00	U	0.23	1.00	ug/L
1634-04-4	Methyl tert-butyl Ether	1.00	U	0.070	1.00	ug/L
79-20-9	Methyl Acetate	1.00	U	0.65	1.00	ug/L
75-09-2	Methylene Chloride	1.00	U	0.33	1.00	ug/L
156-60-5	trans-1,2-Dichloroethene	1.00	U	0.24	1.00	ug/L
75-34-3	1,1-Dichloroethane	1.00	U	0.17	1.00	ug/L
110-82-7	Cyclohexane	5.00	U	1.20	5.00	ug/L
78-93-3	2-Butanone	5.00	U	0.71	5.00	ug/L
56-23-5	Carbon Tetrachloride	1.00	U	0.22	1.00	ug/L
156-59-2	cis-1,2-Dichloroethene	1.00	U	0.30	1.00	ug/L
74-97-5	Bromochloromethane	1.00	U	0.31	1.00	ug/L
67-66-3	Chloroform	1.00	U	0.14	1.00	ug/L
71-55-6	1,1,1-Trichloroethane	1.00	U	0.12	1.00	ug/L
108-87-2	Methylcyclohexane	1.00	U	0.17	1.00	ug/L
71-43-2	Benzene	1.00	U	0.10	1.00	ug/L
107-06-2	1,2-Dichloroethane	1.00	U	0.13	1.00	ug/L
79-01-6	Trichloroethene	1.00	U	0.27	1.00	ug/L
78-87-5	1,2-Dichloropropane	1.00	U	0.14	1.00	ug/L
75-27-4	Bromodichloromethane	1.00	U	0.10	1.00	ug/L
108-10-1	4-Methyl-2-Pentanone	5.00	U	0.85	5.00	ug/L
108-88-3	Toluene	1.00	U	0.12	1.00	ug/L
10061-02-6	t-1,3-Dichloropropene	1.00	U	0.19	1.00	ug/L
10061-01-5	cis-1,3-Dichloropropene	1.00	U	0.16	1.00	ug/L

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Day Environmental, Inc.	Date Collected:	
Project:	Andrew St. RI	Date Received:	
Client Sample ID:	VX1227WBL01	SDG No.:	K6405
Lab Sample ID:	VX1227WBL01	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	DB-624UI ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX014303.D	1		12/27/19 12:41	VX122719

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
79-00-5	1,1,2-Trichloroethane	1.00	U	0.12	1.00	ug/L
591-78-6	2-Hexanone	5.00	U	1.40	5.00	ug/L
124-48-1	Dibromochloromethane	1.00	U	0.16	1.00	ug/L
106-93-4	1,2-Dibromoethane	1.00	U	0.14	1.00	ug/L
127-18-4	Tetrachloroethene	1.00	U	0.15	1.00	ug/L
108-90-7	Chlorobenzene	1.00	U	0.080	1.00	ug/L
100-41-4	Ethyl Benzene	1.00	U	0.080	1.00	ug/L
179601-23-1	m/p-Xylenes	2.00	U	0.20	2.00	ug/L
95-47-6	o-Xylene	1.00	U	0.13	1.00	ug/L
100-42-5	Styrene	1.00	U	0.11	1.00	ug/L
75-25-2	Bromoform	1.00	U	0.15	1.00	ug/L
98-82-8	Isopropylbenzene	1.00	U	0.13	1.00	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	1.00	U	0.15	1.00	ug/L
541-73-1	1,3-Dichlorobenzene	1.00	U	0.14	1.00	ug/L
106-46-7	1,4-Dichlorobenzene	1.00	U	0.20	1.00	ug/L
95-50-1	1,2-Dichlorobenzene	1.00	U	0.12	1.00	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	1.00	U	0.54	1.00	ug/L
120-82-1	1,2,4-Trichlorobenzene	1.00	U	0.24	1.00	ug/L
87-61-6	1,2,3-Trichlorobenzene	1.00	U	0.26	1.00	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	49.1		61 - 141	98%	SPK: 50
1868-53-7	Dibromofluoromethane	49.5		69 - 133	99%	SPK: 50
2037-26-5	Toluene-d8	50.6		65 - 126	101%	SPK: 50
460-00-4	4-Bromofluorobenzene	45.4		58 - 135	91%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	545000	5.65			
540-36-3	1,4-Difluorobenzene	840000	6.84			
3114-55-4	Chlorobenzene-d5	753000	10.1			
3855-82-1	1,4-Dichlorobenzene-d4	322000	12.07			

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Day Environmental, Inc.	Date Collected:	
Project:	Andrew St. RI	Date Received:	
Client Sample ID:	VX1227WBL01	SDG No.:	K6405
Lab Sample ID:	VX1227WBL01	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	DB-624UI ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX014303.D	1		12/27/19 12:41	VX122719

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit
A = Aldol-Condensation Reaction Products

Quantitation Report (LSC Reviewed)

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX122719\
Data File : VX014303.D
Acq On : 27 Dec 2019 12:41
Operator : JC/SP
Sample : VX1227WBL01
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 3 Sample Multiplier: 1

Instrument : MSVOA_X
ClientSampleId : VX1227WBL01

Quant Time: Dec 30 05:54:19 2019
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121319W.M
Quant Title : SW846 8260
QLast Update : Tue Dec 17 03:01:07 2019
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	5.65	168	544872	50.00	ug/l	0.00
34) 1,4-Difluorobenzene	6.84	114	840483	50.00	ug/l	0.00
63) Chlorobenzene-d5	10.10	117	752515	50.00	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	12.07	152	322319	50.00	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	6.04	65	302923	49.05	ug/l	0.00
Spiked Amount 50.000			Recovery =	98.10%		
35) Dibromofluoromethane	5.48	113	252804	49.48	ug/l	0.00
Spiked Amount 50.000			Recovery =	98.96%		
50) Toluene-d8	8.71	98	1006962	50.62	ug/l	0.00
Spiked Amount 50.000			Recovery =	101.24%		
62) 4-Bromofluorobenzene	11.13	95	330357	45.43	ug/l	0.00
Spiked Amount 50.000			Recovery =	90.86%		

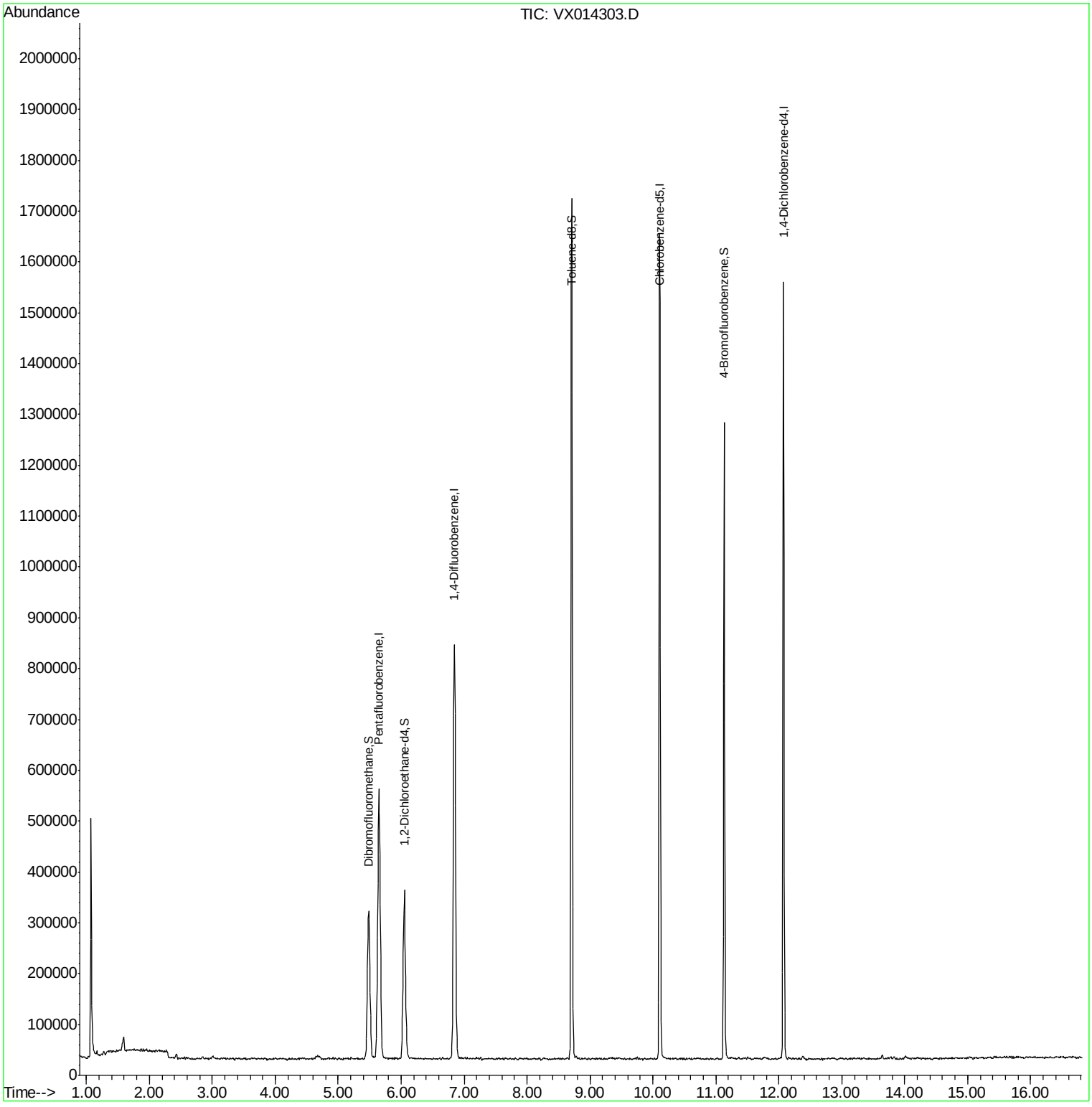
Target Compounds	Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

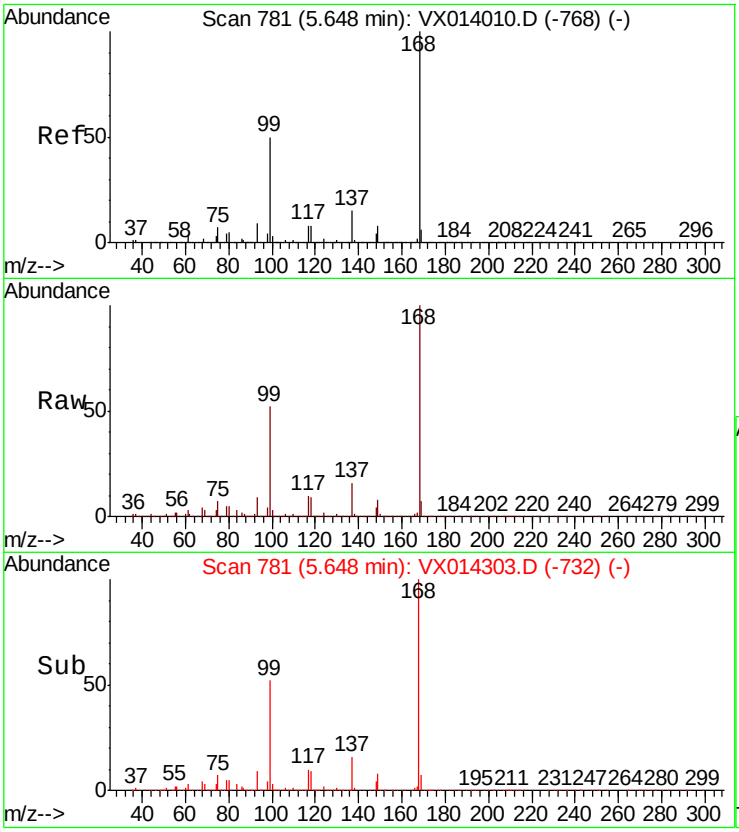
Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX122719\
Data File : VX014303.D
Acq On : 27 Dec 2019 12:41
Operator : JC/SP
Sample : VX1227WBL01
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 3 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
VX1227WBL01

Quant Time: Dec 30 05:54:19 2019
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121319W.M
Quant Title : SW846 8260
QLast Update : Tue Dec 17 03:01:07 2019
Response via : Initial Calibration



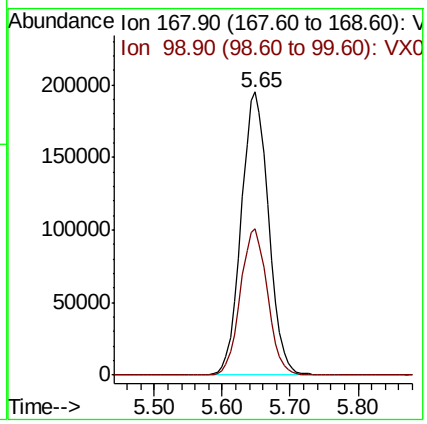
Instrument :
MSVOA_X
ClientSampleId :
VX1227WBL01

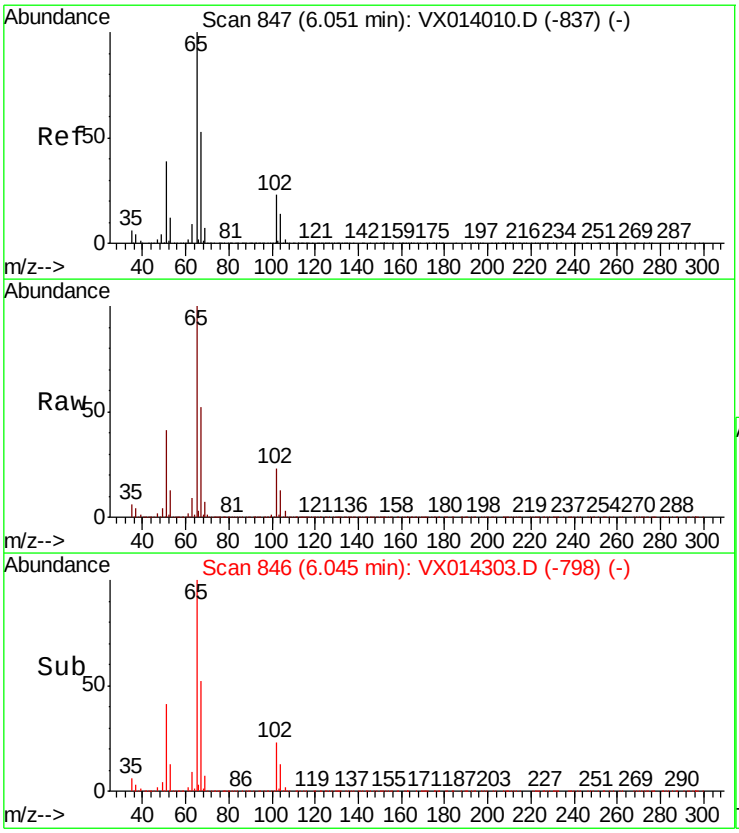


#1
Pentafluorobenzene
Concen: 50.000 ug/l
RT: 5.65 min Scan# 781
Delta R.T. 0.00 min
Lab File: VX014303.D
Acq: 27 Dec 2019 12:41

Tgt Ion:168 Resp: 544872

Ion	Ratio	Lower	Upper
168	100		
99	51.8	40.3	60.5

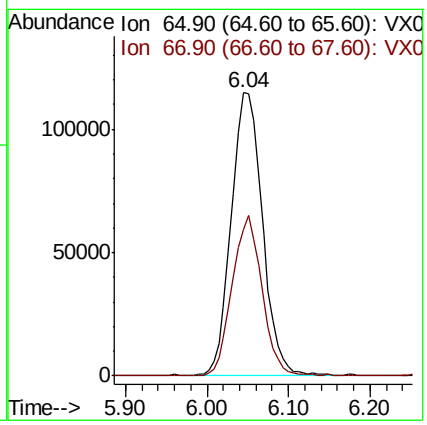




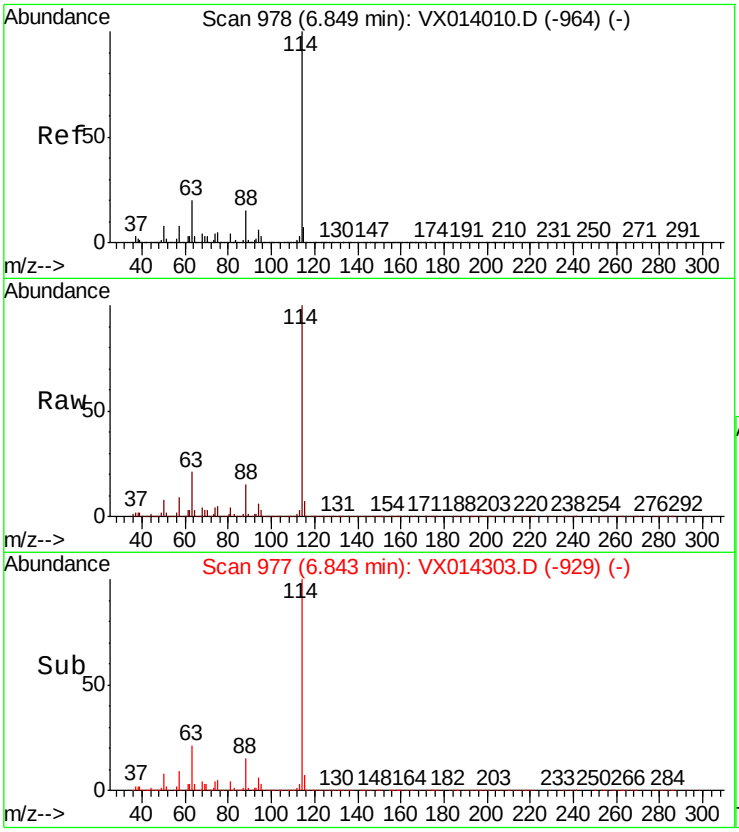
#33
1,2-Dichloroethane-d4
Concen: 49.053 ug/l
RT: 6.04 min Scan# 846
Delta R.T. -0.01 min
Lab File: VX014303.D
Acq: 27 Dec 2019 12:41

Tgt Ion: 65 Resp: 302923

Ion	Ratio	Lower	Upper
65	100		
67	54.3	0.0	106.4



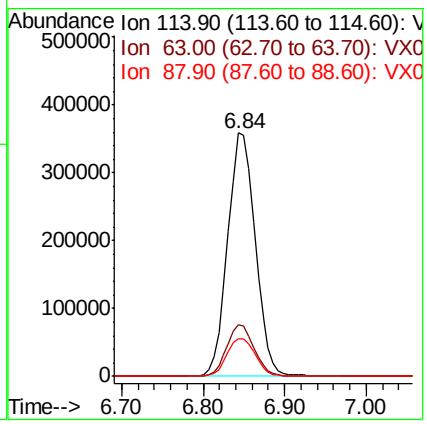
Instrument :
MSVOA_X
ClientSampleId :
VX1227WBL01

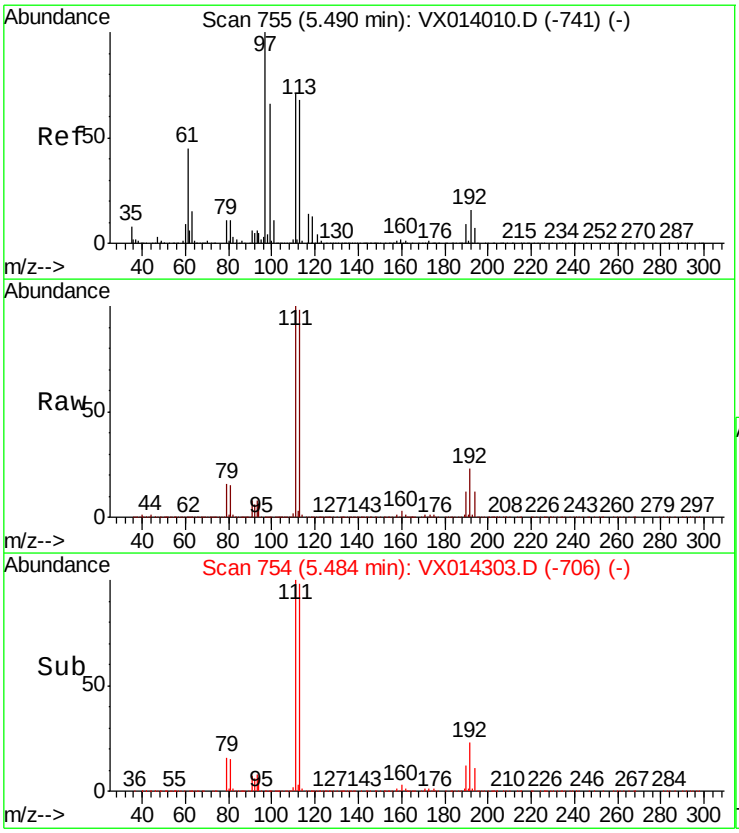


#34
1,4-Difluorobenzene
Concen: 50.000 ug/l
RT: 6.84 min Scan# 977
Delta R.T. -0.01 min
Lab File: VX014303.D
Acq: 27 Dec 2019 12:41

Tgt Ion:114 Resp: 840483

Ion	Ratio	Lower	Upper
114	100		
63	21.2	0.0	40.8
88	15.2	0.0	30.4

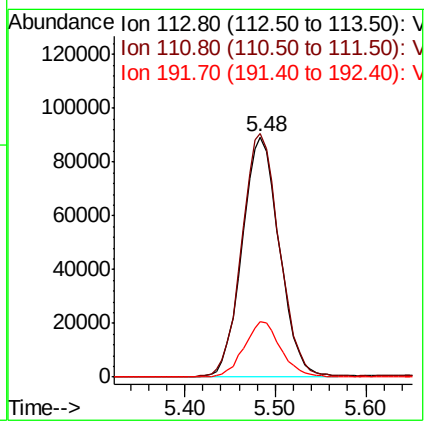




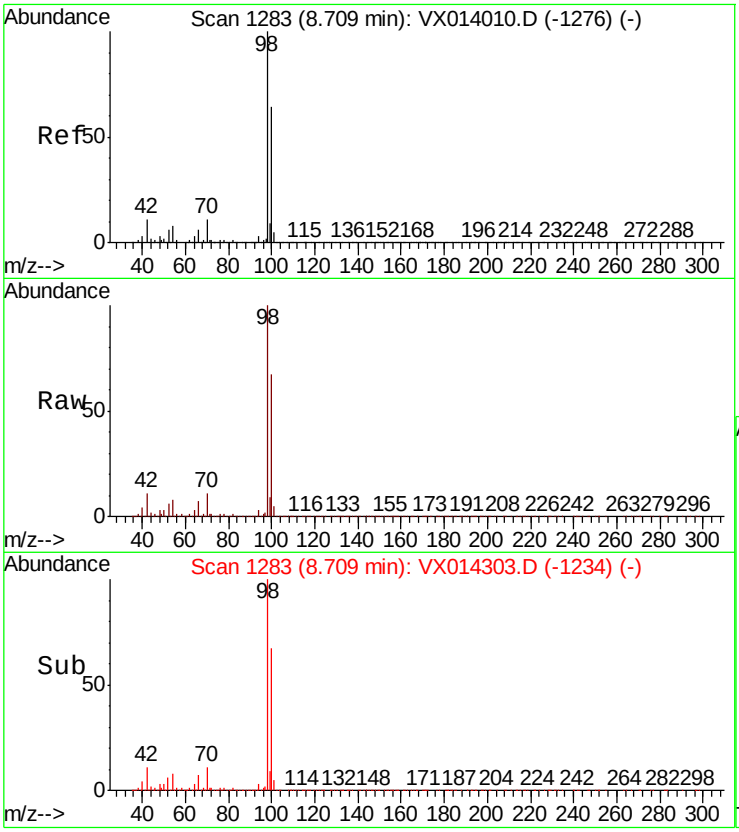
#35
Dibromofluoromethane
Concen: 49.480 ug/l
RT: 5.48 min Scan# 754
Delta R.T. -0.01 min
Lab File: VX014303.D
Acq: 27 Dec 2019 12:41

Tgt Ion:113 Resp: 252804

Ion	Ratio	Lower	Upper
113	100		
111	103.4	82.0	123.0
192	22.9	19.3	28.9



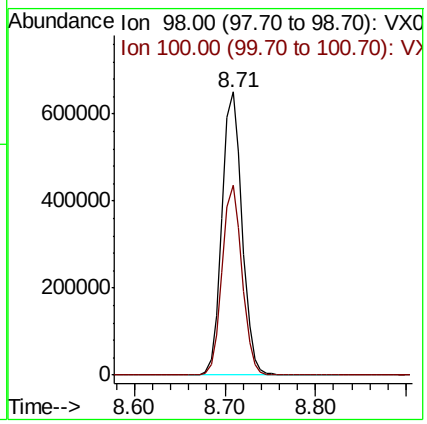
Instrument :
MSVOA_X
ClientSampleId :
VX1227WBL01

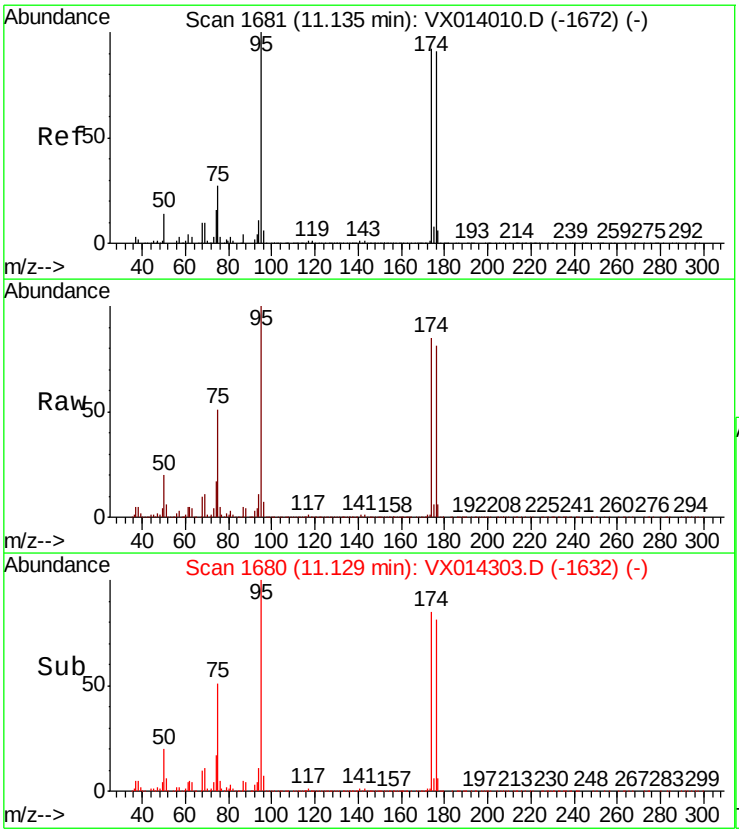


#50
Toluene-d8
Concen: 50.623 ug/l
RT: 8.71 min Scan# 1283
Delta R.T. 0.00 min
Lab File: VX014303.D
Acq: 27 Dec 2019 12:41

Tgt Ion: 98 Resp: 1006962

Ion	Ratio	Lower	Upper
98	100		
100	66.3	52.9	79.3

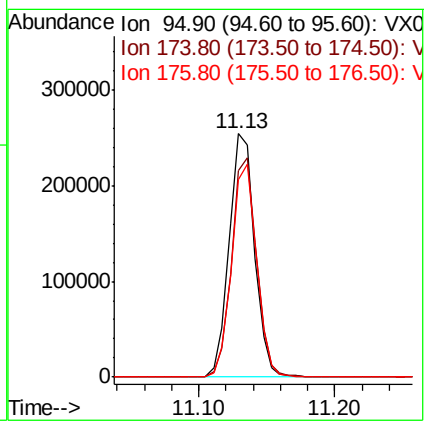




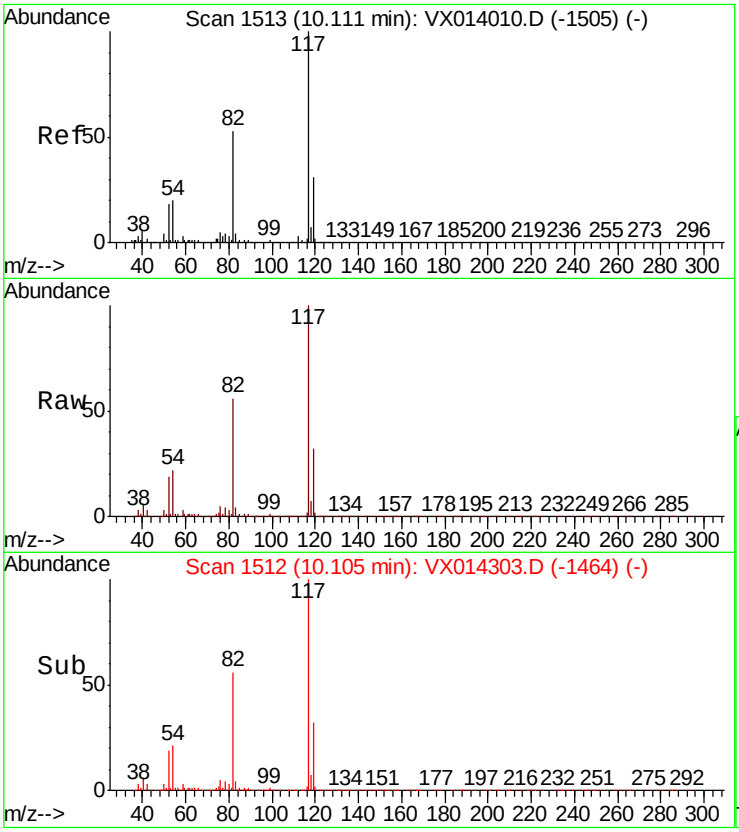
#62
4-Bromofluorobenzene
Concen: 45.434 ug/l
RT: 11.13 min Scan# 1680
Delta R.T. -0.01 min
Lab File: VX014303.D
Acq: 27 Dec 2019 12:41

Tgt Ion: 95 Resp: 330357

Ion	Ratio	Lower	Upper
95	100		
174	89.0	0.0	175.8
176	86.4	0.0	173.0



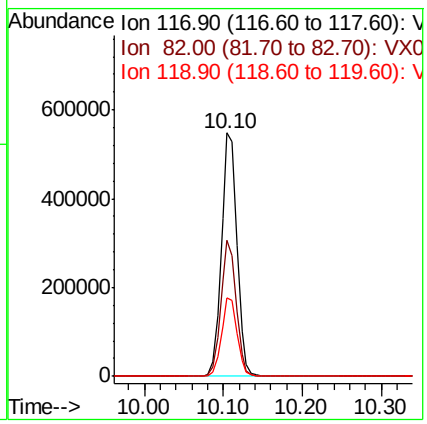
Instrument :
MSVOA_X
ClientSampleId :
VX1227WBL01

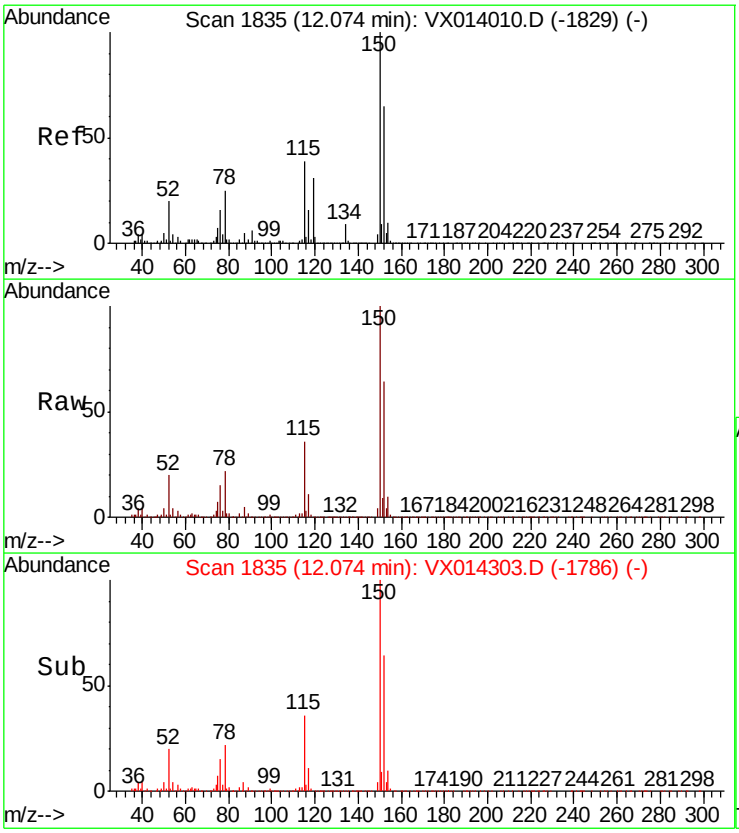


#63
Chlorobenzene-d5
Concen: 50.000 ug/l
RT: 10.10 min Scan# 1512
Delta R.T. -0.01 min
Lab File: VX014303.D
Acq: 27 Dec 2019 12:41

Tgt Ion:117 Resp: 752515

Ion	Ratio	Lower	Upper
117	100		
82	55.8	42.2	63.4
119	32.2	25.1	37.7

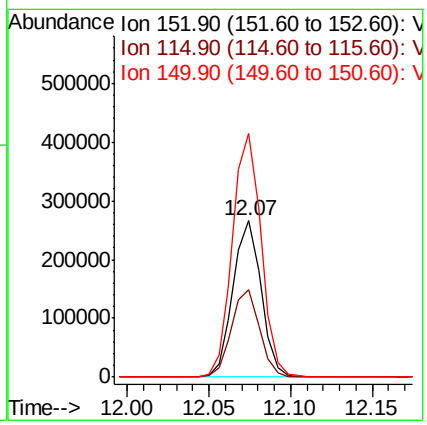




#72
1,4-Dichlorobenzene-d4
Concen: 50.000 ug/l
RT: 12.07 min Scan# 1835
Delta R.T. 0.00 min
Lab File: VX014303.D
Acq: 27 Dec 2019 12:41

Tgt Ion:152 Resp: 322319

Ion	Ratio	Lower	Upper
152	100		
115	55.8	38.3	114.9
150	157.7	0.0	345.4



LSC Area Percent Report

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX122719\
Data File : VX014303.D
Acq On : 27 Dec 2019 12:41
Operator : JC/SP
Sample : VX1227WBL01
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 3 Sample Multiplier: 1

Instrument : MSVOA_X
ClientSampleId : VX1227WBL01

Integration Parameters: RTEINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 3 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121319W.M
Title : SW846 8260

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	1.070	26	30	43	rBV	469297	601812	22.83%	4.289%
2	1.588	109	115	119	rVB9	26807	46971	1.78%	0.335%
3	5.484	742	754	764	rBV	290952	830820	31.52%	5.920%
4	5.648	770	781	792	rVB	528610	1462246	55.48%	10.420%
5	6.051	837	847	861	rVB2	331775	854894	32.44%	6.092%
6	6.843	968	977	990	rVB	814209	1892120	71.79%	13.483%
7	8.709	1276	1283	1292	rBV	1694431	2635672	100.00%	18.782%
8	10.105	1507	1512	1524	rBV	1623721	2192666	83.19%	15.625%
9	11.129	1675	1680	1687	rBV	1250882	1617132	61.36%	11.524%
10	12.074	1829	1835	1843	rVB	1528654	1898811	72.04%	13.531%

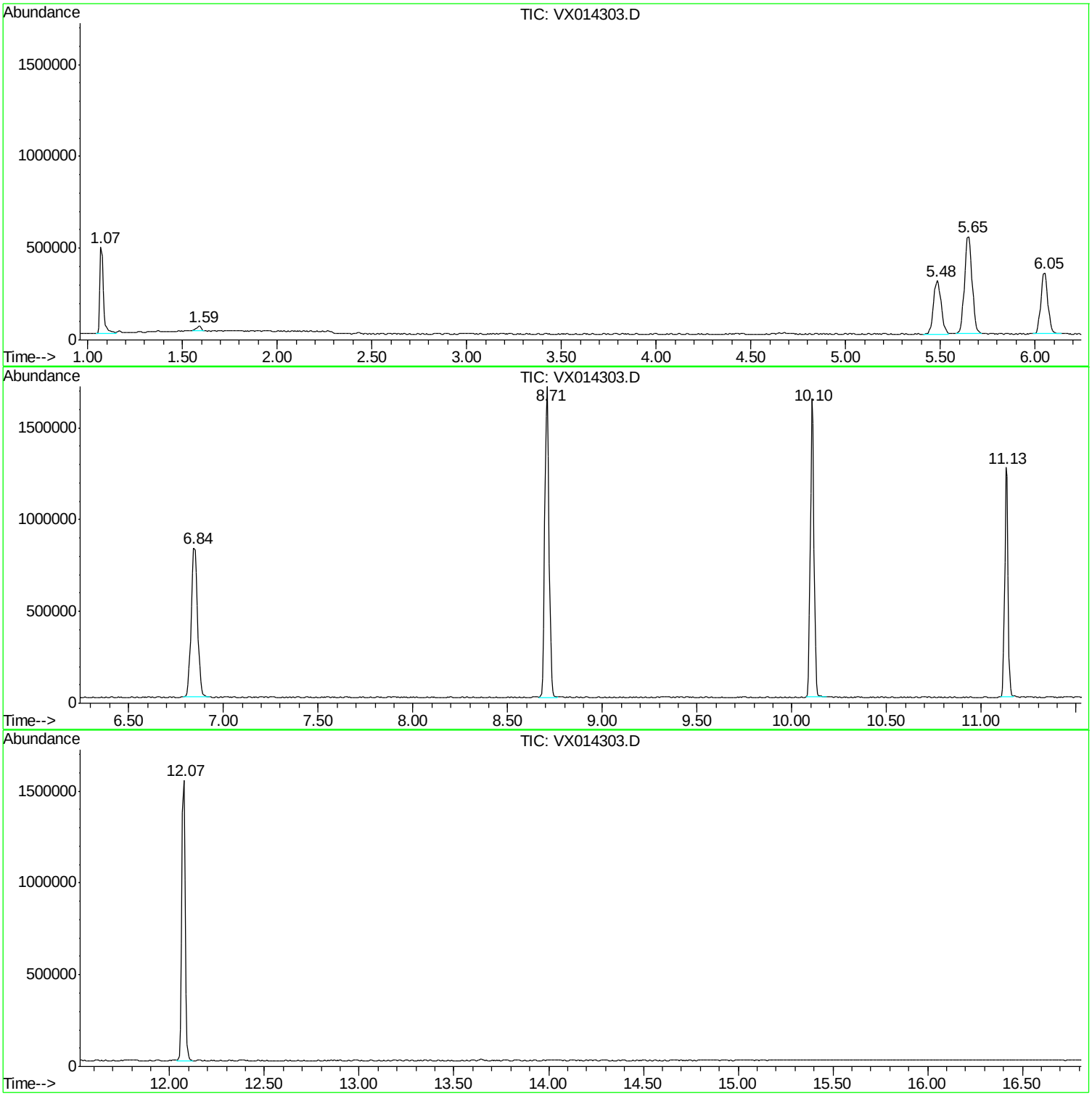
Sum of corrected areas: 14033144

Data Path : Z:\VOASRV\HPCHEM1\MSVOA X\DATA\VX122719\
Data File : VX014303.D
Acq On : 27 Dec 2019 12:41
Operator : JC/SP
Sample : VX1227WBL01
Misc : 5.0mL/MSVOA X/WATER
ALS Vial : 3 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
VX1227WBL01

Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121319W.M
Quant Title : SW846 8260

TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P



Library Search Compound Report

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX122719\
Data File : VX014303.D
Acq On : 27 Dec 2019 12:41
Operator : JC/SP
Sample : VX1227WBL01
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 3 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
VX1227WBL01

Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121319W.M
Quant Title : SW846 8260

TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

No Library Search Compounds Detected

****

Tentatively Identified Compound (LSC) summary

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX122719\
Data File : VX014303.D
Acq On : 27 Dec 2019 12:41
Operator : JC/SP
Sample : VX1227WBL01
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 3 Sample Multiplier: 1

Instrument : MSVOA_X
ClientSampleId : VX1227WBL01

Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121319W.M
Quant Title : SW846 8260

TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

					Internal Standard		
TIC Top Hit name	RT	EstConc	Units	Response	#	RT	Resp	Conc

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Day Environmental, Inc.	Date Collected:	
Project:	Andrew St. RI	Date Received:	
Client Sample ID:	VX1224WBS01	SDG No.:	K6405
Lab Sample ID:	VX1224WBS01	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	DB-624UI ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX014235.D	1		12/24/19 11:09	VX122419

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
75-71-8	Dichlorodifluoromethane	17.3		0.22	1.00	ug/L
74-87-3	Chloromethane	17.6		0.30	1.00	ug/L
75-01-4	Vinyl Chloride	17.5		0.16	1.00	ug/L
74-83-9	Bromomethane	15.1		2.10	5.00	ug/L
75-00-3	Chloroethane	18.6		0.34	1.00	ug/L
75-69-4	Trichlorofluoromethane	18.5		0.16	1.00	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	19.0		0.21	1.00	ug/L
75-35-4	1,1-Dichloroethene	18.1		0.18	1.00	ug/L
67-64-1	Acetone	87.1		0.90	5.00	ug/L
75-15-0	Carbon Disulfide	16.9		0.23	1.00	ug/L
1634-04-4	Methyl tert-butyl Ether	18.8		0.070	1.00	ug/L
79-20-9	Methyl Acetate	19.2		0.65	1.00	ug/L
75-09-2	Methylene Chloride	18.6		0.33	1.00	ug/L
156-60-5	trans-1,2-Dichloroethene	18.4		0.24	1.00	ug/L
75-34-3	1,1-Dichloroethane	18.5		0.17	1.00	ug/L
110-82-7	Cyclohexane	18.7		1.20	5.00	ug/L
78-93-3	2-Butanone	92.5		0.71	5.00	ug/L
56-23-5	Carbon Tetrachloride	19.3		0.22	1.00	ug/L
156-59-2	cis-1,2-Dichloroethene	18.4		0.30	1.00	ug/L
74-97-5	Bromochloromethane	21.3		0.31	1.00	ug/L
67-66-3	Chloroform	18.8		0.14	1.00	ug/L
71-55-6	1,1,1-Trichloroethane	18.1		0.12	1.00	ug/L
108-87-2	Methylcyclohexane	19.0		0.17	1.00	ug/L
71-43-2	Benzene	18.9		0.10	1.00	ug/L
107-06-2	1,2-Dichloroethane	19.2		0.13	1.00	ug/L
79-01-6	Trichloroethene	18.3		0.27	1.00	ug/L
78-87-5	1,2-Dichloropropane	19.2		0.14	1.00	ug/L
75-27-4	Bromodichloromethane	19.0		0.10	1.00	ug/L
108-10-1	4-Methyl-2-Pentanone	95.2		0.85	5.00	ug/L
108-88-3	Toluene	18.7		0.12	1.00	ug/L
10061-02-6	t-1,3-Dichloropropene	18.8		0.19	1.00	ug/L
10061-01-5	cis-1,3-Dichloropropene	19.1		0.16	1.00	ug/L

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Day Environmental, Inc.	Date Collected:	
Project:	Andrew St. RI	Date Received:	
Client Sample ID:	VX1224WBS01	SDG No.:	K6405
Lab Sample ID:	VX1224WBS01	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	DB-624UI ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX014235.D	1		12/24/19 11:09	VX122419

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
79-00-5	1,1,2-Trichloroethane	19.2		0.12	1.00	ug/L
591-78-6	2-Hexanone	93.8		1.40	5.00	ug/L
124-48-1	Dibromochloromethane	19.1		0.16	1.00	ug/L
106-93-4	1,2-Dibromoethane	19.6		0.14	1.00	ug/L
127-18-4	Tetrachloroethene	20.3		0.15	1.00	ug/L
108-90-7	Chlorobenzene	18.9		0.080	1.00	ug/L
100-41-4	Ethyl Benzene	18.9		0.080	1.00	ug/L
179601-23-1	m/p-Xylenes	37.1		0.20	2.00	ug/L
95-47-6	o-Xylene	18.4		0.13	1.00	ug/L
100-42-5	Styrene	18.6		0.11	1.00	ug/L
75-25-2	Bromoform	17.9		0.15	1.00	ug/L
98-82-8	Isopropylbenzene	19.6		0.13	1.00	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	18.7		0.15	1.00	ug/L
541-73-1	1,3-Dichlorobenzene	18.3		0.14	1.00	ug/L
106-46-7	1,4-Dichlorobenzene	18.3		0.20	1.00	ug/L
95-50-1	1,2-Dichlorobenzene	18.3		0.12	1.00	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	17.3		0.54	1.00	ug/L
120-82-1	1,2,4-Trichlorobenzene	18.5		0.24	1.00	ug/L
87-61-6	1,2,3-Trichlorobenzene	18.7		0.26	1.00	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	47.9		61 - 141	96%	SPK: 50
1868-53-7	Dibromofluoromethane	49.6		69 - 133	99%	SPK: 50
2037-26-5	Toluene-d8	49.5		65 - 126	99%	SPK: 50
460-00-4	4-Bromofluorobenzene	48.2		58 - 135	96%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	525000	5.65			
540-36-3	1,4-Difluorobenzene	787000	6.84			
3114-55-4	Chlorobenzene-d5	709000	10.1			
3855-82-1	1,4-Dichlorobenzene-d4	349000	12.07			

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Day Environmental, Inc.	Date Collected:	
Project:	Andrew St. RI	Date Received:	
Client Sample ID:	VX1224WBS01	SDG No.:	K6405
Lab Sample ID:	VX1224WBS01	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	DB-624UI ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX014235.D	1		12/24/19 11:09	VX122419

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit
A = Aldol-Condensation Reaction Products

Quantitation Report (QT Reviewed)

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX122419\
Data File : VX014235.D
Acq On : 24 Dec 2019 11:09
Operator : JC/SP
Sample : VX1224WBS01
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Dec 25 06:10:30 2019
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121319W.M
Quant Title : SW846 8260
QLast Update : Tue Dec 17 03:01:07 2019
Response via : Initial Calibration

Instrument :
MSVOA_X
ClientSampleId :
VX1224WBS01

Manual Integrations APPROVED
apatel
12/26/2019 9:24:21 AM

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	5.65	168	525210	50.00	ug/l	0.00
34) 1,4-Difluorobenzene	6.84	114	786891	50.00	ug/l	0.00
63) Chlorobenzene-d5	10.10	117	709008	50.00	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	12.07	152	349083	50.00	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	6.05	65	284946	47.87	ug/l	0.00
Spiked Amount 50.000			Recovery = 95.74%			
35) Dibromofluoromethane	5.48	113	237472	49.64	ug/l	0.00
Spiked Amount 50.000			Recovery = 99.28%			
50) Toluene-d8	8.71	98	921932	49.50	ug/l	0.00
Spiked Amount 50.000			Recovery = 99.00%			
62) 4-Bromofluorobenzene	11.13	95	328151	48.20	ug/l	0.00
Spiked Amount 50.000			Recovery = 96.40%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.19	85	81215	17.285	ug/l	98
3) Chloromethane	1.32	50	111162	17.629	ug/l	98
4) Vinyl Chloride	1.40	62	116539	17.515	ug/l	99
5) Bromomethane	1.63	94	71297	15.097	ug/l	99
6) Chloroethane	1.72	64	76304	18.581	ug/l	93
7) Trichlorofluoromethane	1.92	101	152453	18.509	ug/l	97
8) Diethyl Ether	2.18	74	70567	18.255	ug/l	99
9) 1,1,2-Trichlorotrifluoroet	2.37	101	94377	19.008	ug/l	99
10) Methyl Iodide	2.50	142	98567	16.886	ug/l	99
11) Tert butyl alcohol	3.02	59	111495	86.685	ug/l	99
12) 1,1-Dichloroethene	2.36	96	91492	18.109	ug/l	99
13) Acrolein	2.28	56	66581	90.431	ug/l	97
14) Allyl chloride	2.72	41	164916	18.282	ug/l	99
15) Acrylonitrile	3.12	53	289672	96.490	ug/l	98
16) Acetone	2.43	43	336447	87.062	ug/l	99
17) Carbon Disulfide	2.56	76	229277	16.852	ug/l	99
18) Methyl Acetate	2.76	43	147237	19.228	ug/l	96
19) Methyl tert-butyl Ether	3.18	73	312139	18.802	ug/l	96
20) Methylene Chloride	2.84	84	113086	18.583	ug/l	97
21) trans-1,2-Dichloroethene	3.15	96	102677	18.447	ug/l	99
22) Diisopropyl ether	3.84	45	344894	19.187	ug/l	99
23) Vinyl Acetate	3.80	43	1403080	95.648	ug/l	100
24) 1,1-Dichloroethane	3.69	63	185495	18.548	ug/l	100
25) 2-Butanone	4.65	43	440906	92.541	ug/l	97
26) 2,2-Dichloropropane	4.57	77	141814	18.264	ug/l	99
27) cis-1,2-Dichloroethene	4.58	96	115776	18.392	ug/l	98
28) Bromochloromethane	5.00	49	81075	21.342	ug/l	96
29) Tetrahydrofuran	5.11	42	251284	94.295	ug/l	99
30) Chloroform	5.20	83	177909	18.765	ug/l	99
31) Cyclohexane	5.56	56	166017	18.664	ug/l	98
32) 1,1,1-Trichloroethane	5.48	97	146215	18.096	ug/l	99
36) 1,1-Dichloropropene	5.79	75	133736	18.523	ug/l	99
37) Ethyl Acetate	4.81	43	151529	19.005	ug/l	99
38) Carbon Tetrachloride	5.77	117	126920	19.296	ug/l	99

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX122419\
Data File : VX014235.D
Acq On : 24 Dec 2019 11:09
Operator : JC/SP
Sample : VX1224WBS01
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Dec 25 06:10:30 2019
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121319W.M
Quant Title : SW846 8260
QLast Update : Tue Dec 17 03:01:07 2019
Response via : Initial Calibration

Instrument :
MSVOA_X
ClientSampleId :
VX1224WBS01

Manual Integrations APPROVED
apatel
12/26/2019 9:24:21 AM

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
39) Methylcyclohexane	7.45	83	169548	19.018	ug/l		97
40) Benzene	6.13	78	418929	18.857	ug/l		98
41) Methacrylonitrile	5.02	41	82249	18.592	ug/l		100
42) 1,2-Dichloroethane	6.18	62	144515	19.190	ug/l		98
43) Isopropyl Acetate	6.43	43	245629	18.615	ug/l		100
44) Trichloroethene	7.20	130	112185	18.283	ug/l		99
45) 1,2-Dichloropropane	7.51	63	109598	19.248	ug/l		100
46) Dibromomethane	7.65	93	70114	18.624	ug/l		99
47) Bromodichloromethane	7.89	83	134727	19.002	ug/l		98
48) Methyl methacrylate	7.76	41	120483	18.647	ug/l		99
49) 1,4-Dioxane	7.73	88	50109	381.090	ug/l		98
51) 4-Methyl-2-Pentanone	8.63	43	788743	95.181	ug/l		99
52) Toluene	8.78	92	262142	18.669	ug/l		100
53) t-1,3-Dichloropropene	9.03	75	145852	18.761	ug/l		98
54) cis-1,3-Dichloropropene	8.43	75	165666	19.127	ug/l		99
55) 1,1,2-Trichloroethane	9.21	97	108141	19.215	ug/l		99
56) Ethyl methacrylate	9.17	69	165986	18.776	ug/l		99
57) 1,3-Dichloropropane	9.36	76	182272	19.250	ug/l		100
58) 2-Chloroethyl Vinyl ether	8.30	63	333050	99.551	ug/l		99
59) 2-Hexanone	9.48	43	625992	93.840	ug/l		99
60) Dibromochloromethane	9.57	129	106882	19.106	ug/l		99
61) 1,2-Dibromoethane	9.67	107	112962	19.618	ug/l		99
64) Tetrachloroethene	9.33	164	127127	20.263	ug/l		94
65) Chlorobenzene	10.14	112	285252	18.922	ug/l		100
66) 1,1,1,2-Tetrachloroethane	10.21	131	103207	19.174	ug/l		98
67) Ethyl Benzene	10.25	91	490659	18.931	ug/l		100
68) m/p-Xylenes	10.35	106	370048	37.122	ug/l		97
69) o-Xylene	10.70	106	179860	18.397	ug/l		98
70) Styrene	10.71	104	307672	18.611	ug/l		100
71) Bromoform	10.85	173	77518	17.916	ug/l	#	100
73) Isopropylbenzene	11.01	105	482802	19.644	ug/l		99
74) N-amyl acetate	10.89	43	210744	18.293	ug/l		99
75) 1,1,2,2-Tetrachloroethane	11.26	83	159424	18.709	ug/l		100
76) 1,2,3-Trichloropropane	11.29	75	133374m	17.599	ug/l		
77) Bromobenzene	11.25	156	124482	18.408	ug/l		98
78) n-propylbenzene	11.35	91	545698	19.794	ug/l		100
79) 2-Chlorotoluene	11.42	91	320917	19.150	ug/l		98
80) 1,3,5-Trimethylbenzene	11.50	105	402700	19.468	ug/l		99
81) trans-1,4-Dichloro-2-buten	11.07	75	47972	17.867	ug/l		94
82) 4-Chlorotoluene	11.51	91	370320	19.050	ug/l		99
83) tert-Butylbenzene	11.76	119	376556	18.706	ug/l		98
84) 1,2,4-Trimethylbenzene	11.80	105	400017	19.311	ug/l		100
85) sec-Butylbenzene	11.94	105	470842	19.813	ug/l		99
86) p-Isopropyltoluene	12.06	119	423450	19.480	ug/l		100
87) 1,3-Dichlorobenzene	12.02	146	217343	18.339	ug/l		99
88) 1,4-Dichlorobenzene	12.09	146	220243	18.276	ug/l		99
89) n-Butylbenzene	12.38	91	361613	19.496	ug/l		99
90) Hexachloroethane	12.59	117	71965	18.431	ug/l		98
91) 1,2-Dichlorobenzene	12.38	146	218566	18.320	ug/l		99
92) 1,2-Dibromo-3-Chloropropan	12.99	75	32622	17.300	ug/l		100

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX122419\
Data File : VX014235.D
Acq On : 24 Dec 2019 11:09
Operator : JC/SP
Sample : VX1224WBS01
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Dec 25 06:10:30 2019
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121319W.M
Quant Title : SW846 8260
QLast Update : Tue Dec 17 03:01:07 2019
Response via : Initial Calibration

Instrument :
MSVOA_X
ClientSampleId :
VX1224WBS01

Manual Integrations APPROVED
apatel
12/26/2019 9:24:21 AM

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
93) 1,2,4-Trichlorobenzene	13.64	180	143499	18.505	ug/l	98
94) Hexachlorobutadiene	13.77	225	72712	19.511	ug/l	97
95) Naphthalene	13.83	128	423778	18.601	ug/l	100
96) 1,2,3-Trichlorobenzene	14.01	180	143098	18.694	ug/l	97

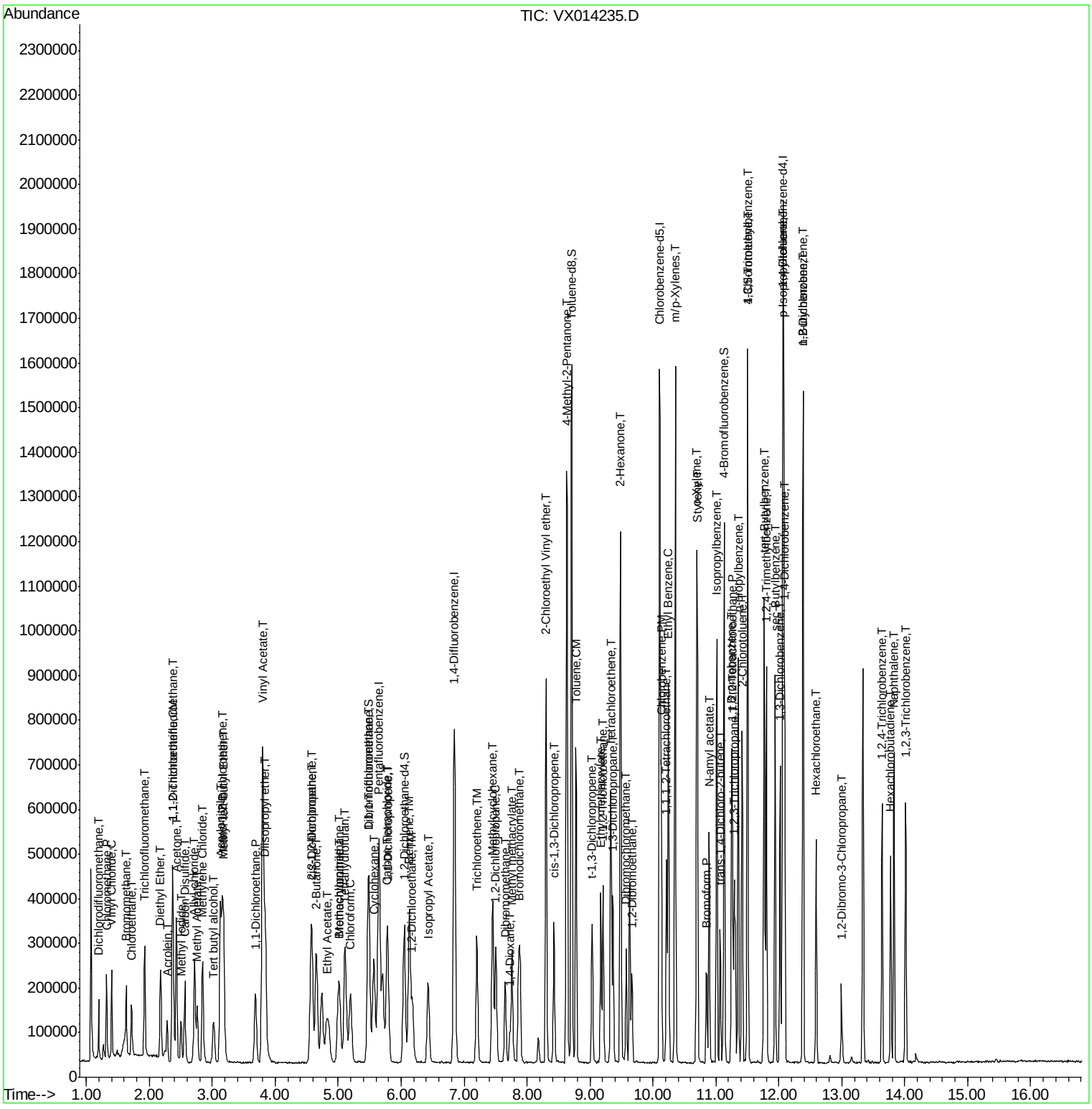
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX122419\
Data File : VX014235.D
Acq On : 24 Dec 2019 11:09
Operator : JC/SP
Sample : VX1224WBS01
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Dec 25 06:10:30 2019
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121319W.M
Quant Title : SW846 8260
QLast Update : Tue Dec 17 03:01:07 2019
Response via : Initial Calibration

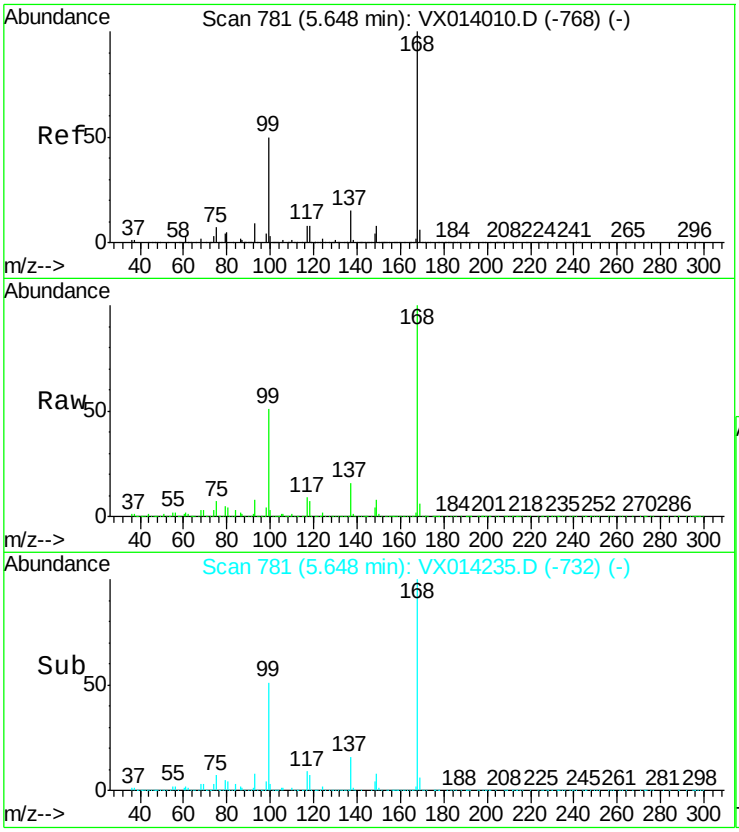
Instrument :
MSVOA_X
ClientSampleId :
VX1224WBS01

Manual Integrations APPROVED
apatel
12/26/2019 9:24:21 AM



Instrument :
MSVOA_X
ClientSampleId :
VX1224WBS01

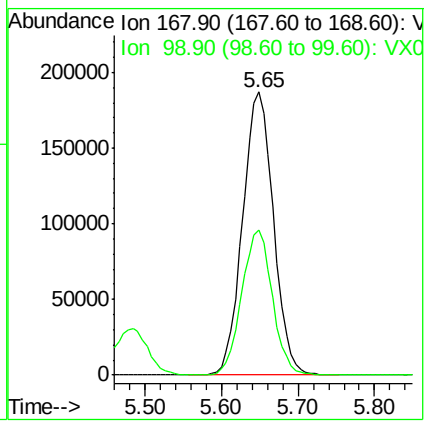
Manual Integrations APPROVED
apatel
12/26/2019 9:24:21 AM

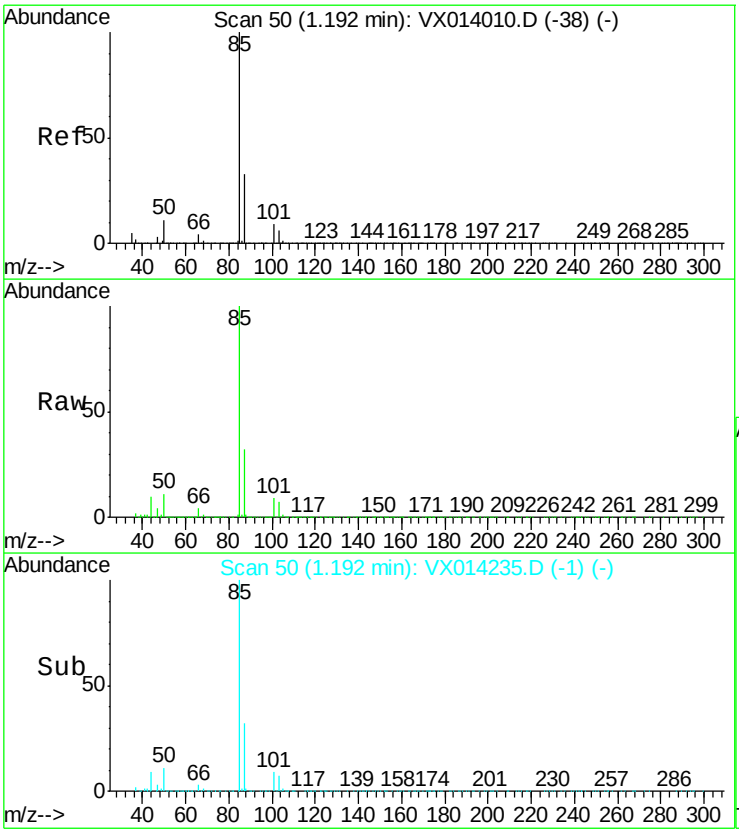


#1
Pentafluorobenzene
Concen: 50.000 ug/l
RT: 5.65 min Scan# 781
Delta R.T. 0.00 min
Lab File: VX014235.D
Acq: 24 Dec 2019 11:09

Tgt Ion:168 Resp: 525210

Ion	Ratio	Lower	Upper
168	100		
99	51.0	40.3	60.5

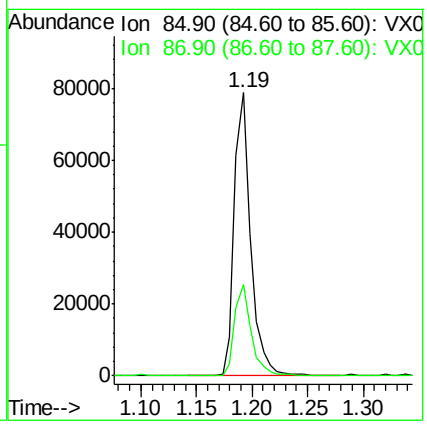




#2
Dichlorodifluoromethane
Concen: 17.285 ug/l
RT: 1.19 min Scan# 50
Delta R.T. 0.00 min
Lab File: VX014235.D
Acq: 24 Dec 2019 11:09

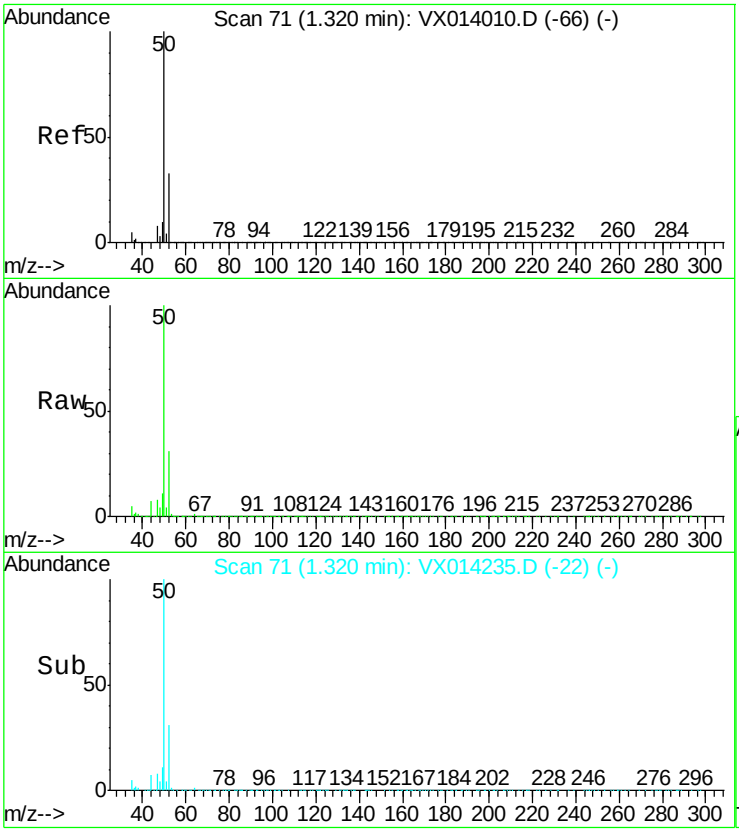
Tgt Ion: 85 Resp: 81215

Ion	Ratio	Lower	Upper
85	100		
87	31.9	16.4	49.2



Instrument :
MSVOA_X
ClientSampleId :
VX1224WBS01

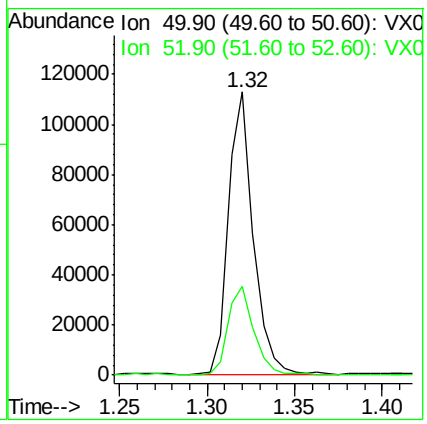
Manual Integrations APPROVED
apatel
12/26/2019 9:24:21 AM

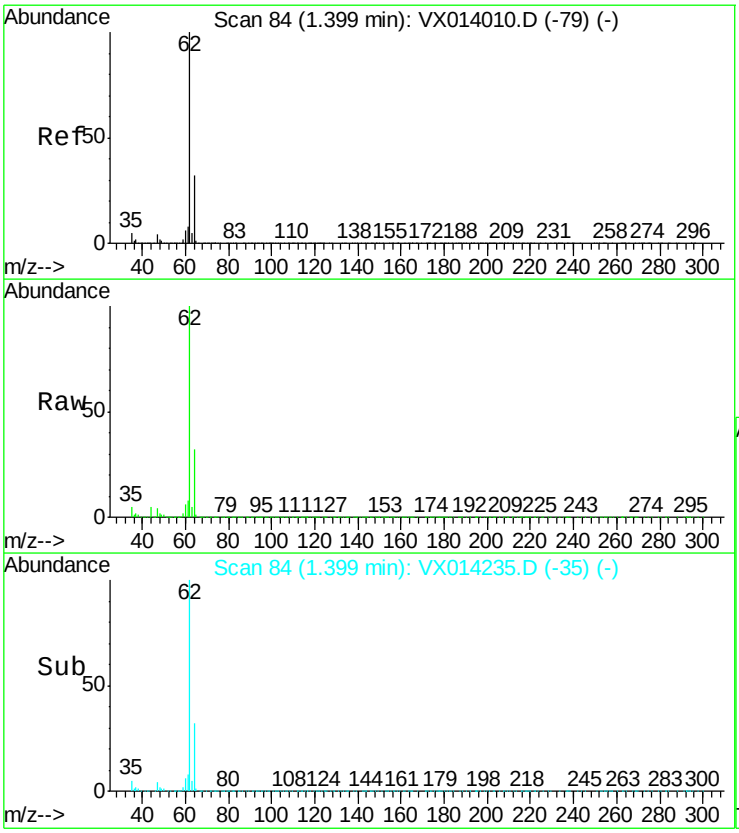


#3
Chloromethane
Concen: 17.629 ug/l
RT: 1.32 min Scan# 71
Delta R.T. 0.00 min
Lab File: VX014235.D
Acq: 24 Dec 2019 11:09

Tgt Ion: 50 Resp: 111162

Ion	Ratio	Lower	Upper
50	100		
52	31.4	26.2	39.4

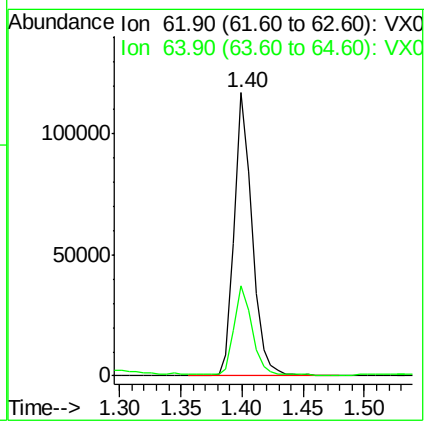




#4
Vinyl Chloride
Concen: 17.515 ug/l
RT: 1.40 min Scan# 84
Delta R.T. 0.00 min
Lab File: VX014235.D
Acq: 24 Dec 2019 11:09

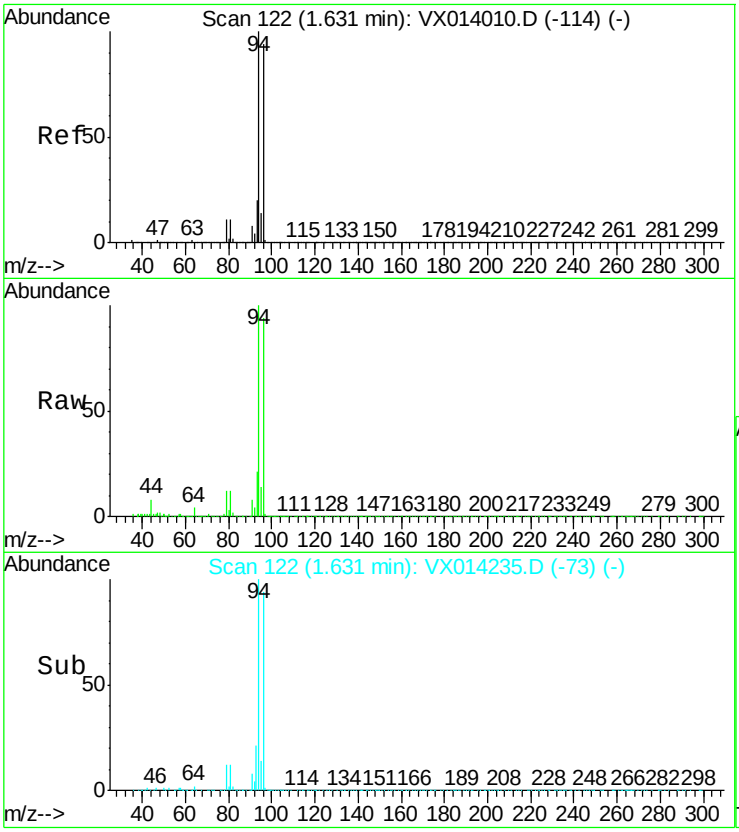
Tgt Ion: 62 Resp: 116539

Ion	Ratio	Lower	Upper
62	100		
64	31.7	25.7	38.5



Instrument :
MSVOA_X
ClientSampleId :
VX1224WBS01

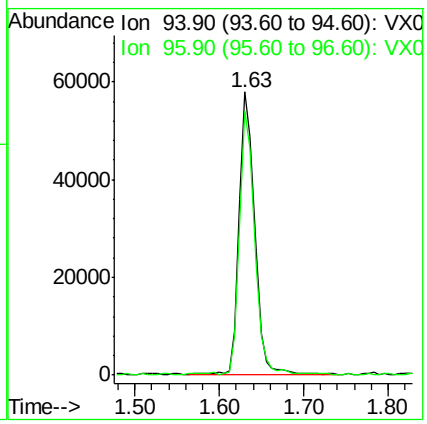
Manual Integrations APPROVED
apatel
12/26/2019 9:24:21 AM

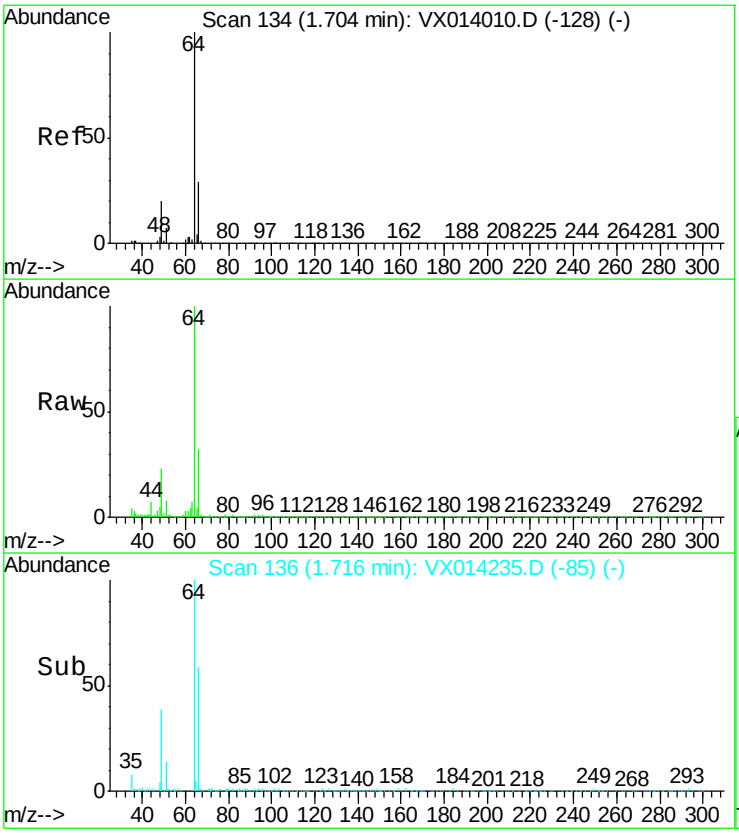


#5
Bromomethane
Concen: 15.097 ug/l
RT: 1.63 min Scan# 122
Delta R.T. 0.00 min
Lab File: VX014235.D
Acq: 24 Dec 2019 11:09

Tgt Ion: 94 Resp: 71297

Ion	Ratio	Lower	Upper
94	100		
96	93.4	75.2	112.8

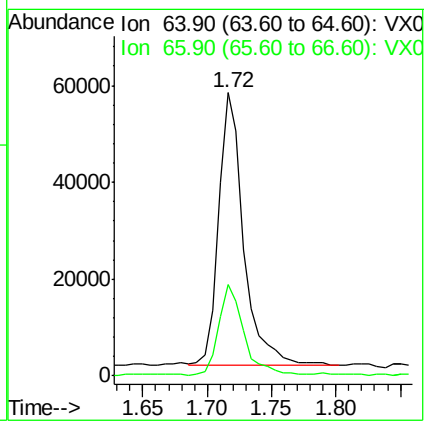




#6
Chloroethane
Concen: 18.581 ug/l
RT: 1.72 min Scan# 136
Delta R.T. 0.01 min
Lab File: VX014235.D
Acq: 24 Dec 2019 11:09

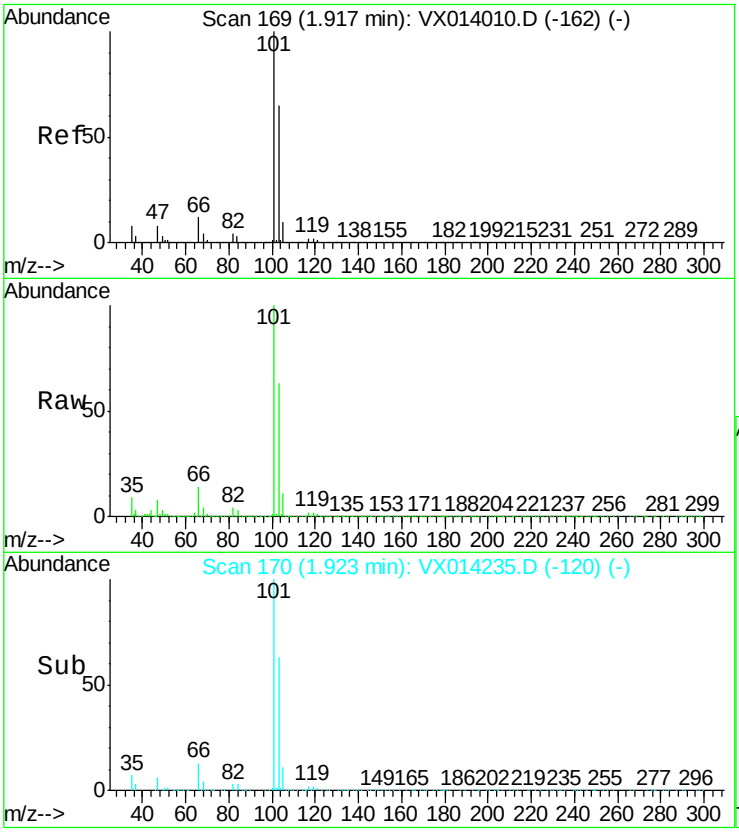
Tgt Ion: 64 Resp: 76304

Ion	Ratio	Lower	Upper
64	100		
66	33.1	23.4	35.2



Instrument :
MSVOA_X
ClientSampleId :
VX1224WBS01

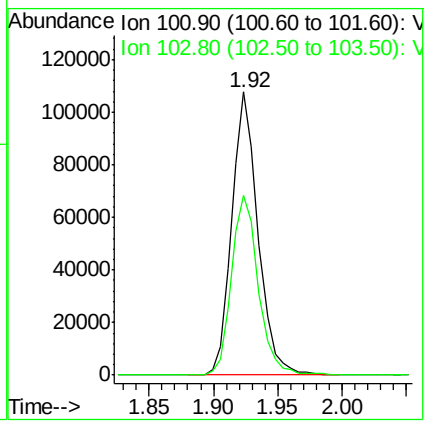
Manual Integrations APPROVED
apatel
12/26/2019 9:24:21 AM

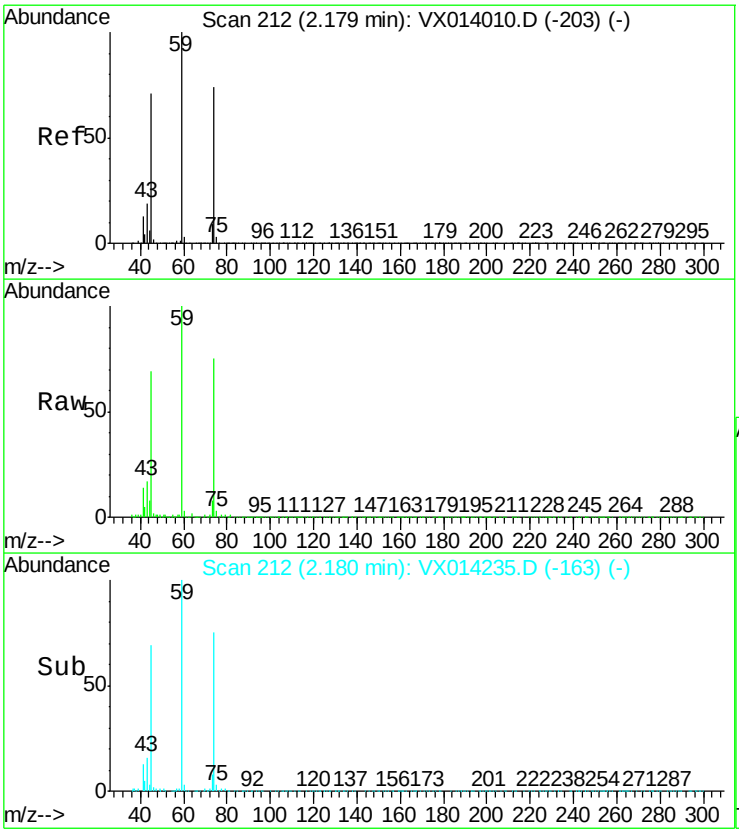


#7
Trichlorofluoromethane
Concen: 18.509 ug/l
RT: 1.92 min Scan# 170
Delta R.T. 0.01 min
Lab File: VX014235.D
Acq: 24 Dec 2019 11:09

Tgt Ion:101 Resp: 152453

Ion	Ratio	Lower	Upper
101	100		
103	63.3	52.2	78.4

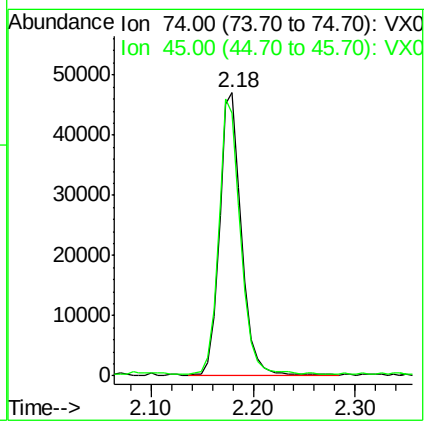


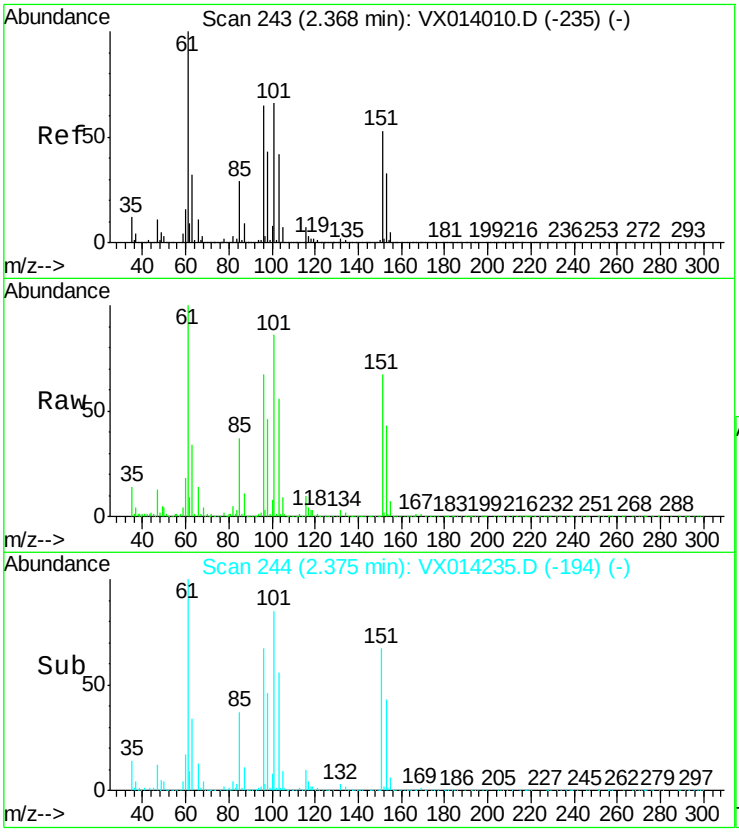


#8
Diethyl Ether
Concen: 18.255 ug/l
RT: 2.18 min Scan# 212
Delta R.T. 0.00 min
Lab File: VX014235.D
Acq: 24 Dec 2019 11:09

Tgt Ion: 74 Resp: 70567

Ion	Ratio	Lower	Upper
74	100		
45	95.0	48.1	144.3

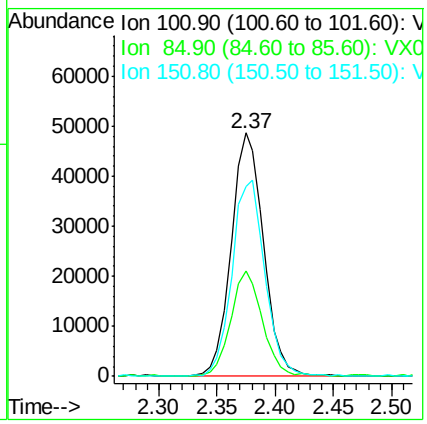




#9
1,1,2-Trichlorotrifluoroethane
Concen: 19.008 ug/l
RT: 2.37 min Scan# 244
Delta R.T. 0.01 min
Lab File: VX014235.D
Acq: 24 Dec 2019 11:09

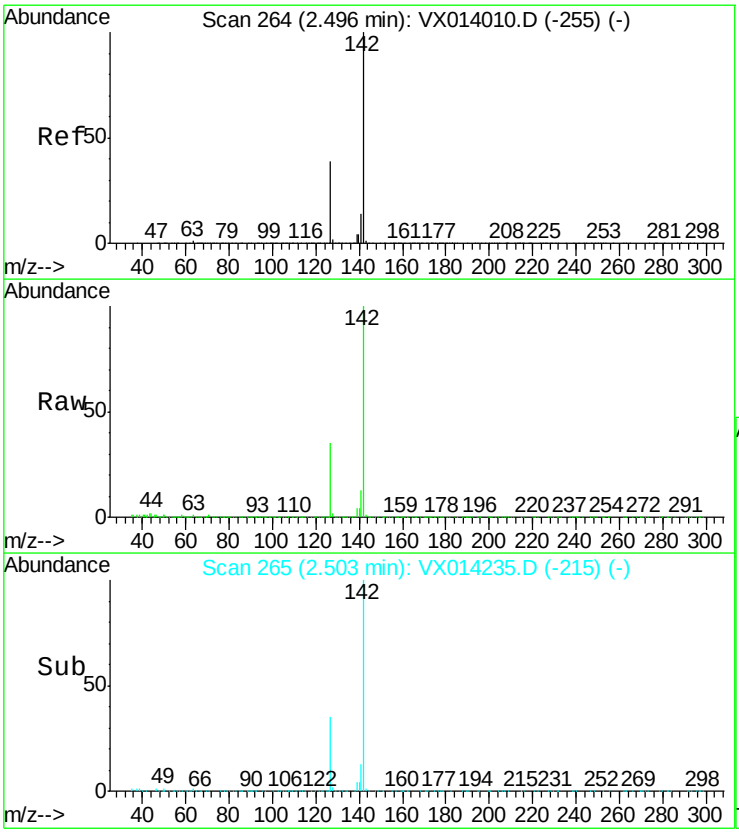
Tgt Ion:101 Resp: 94377

Ion	Ratio	Lower	Upper
101	100		
85	42.7	33.7	50.5
151	82.2	64.5	96.7



Instrument :
MSVOA_X
ClientSampleId :
VX1224WBS01

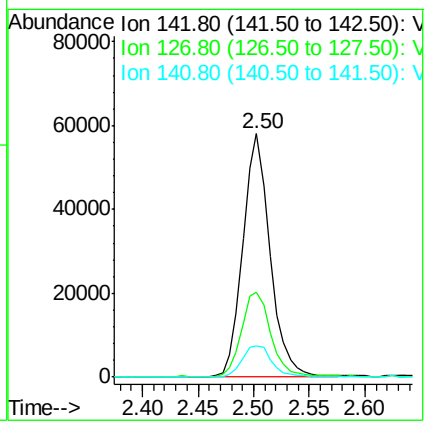
Manual Integrations APPROVED
apatel
12/26/2019 9:24:21 AM



#10
Methyl Iodide
Concen: 16.886 ug/l
RT: 2.50 min Scan# 265
Delta R.T. 0.01 min
Lab File: VX014235.D
Acq: 24 Dec 2019 11:09

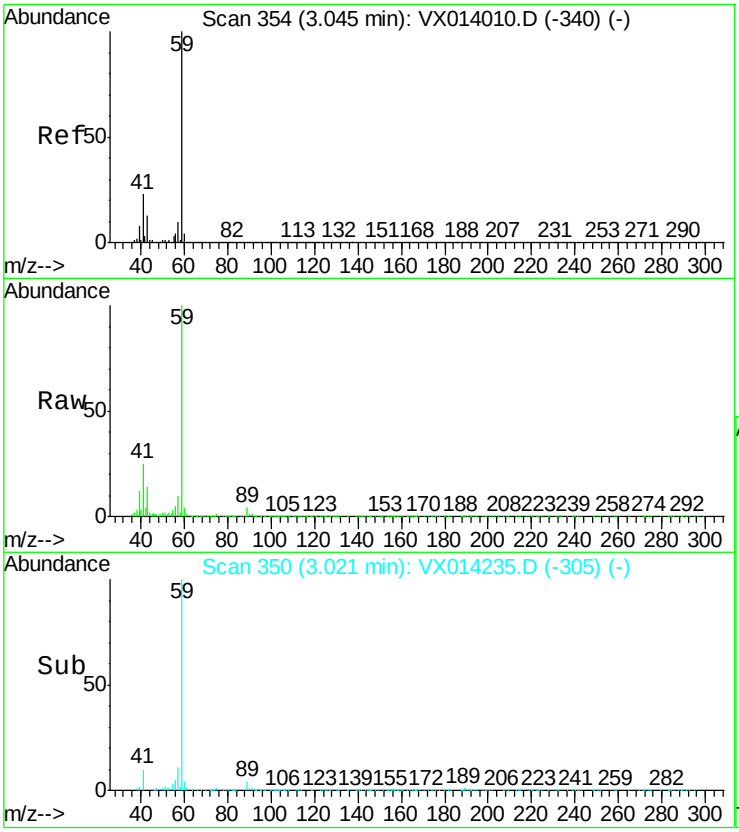
Tgt Ion:142 Resp: 98567

Ion	Ratio	Lower	Upper
142	100		
127	38.5	31.6	47.4
141	14.1	11.6	17.4



Instrument :
MSVOA_X
ClientSampleId :
VX1224WBS01

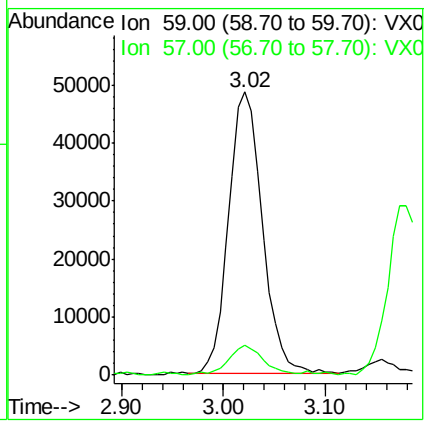
Manual Integrations APPROVED
apatel
12/26/2019 9:24:21 AM

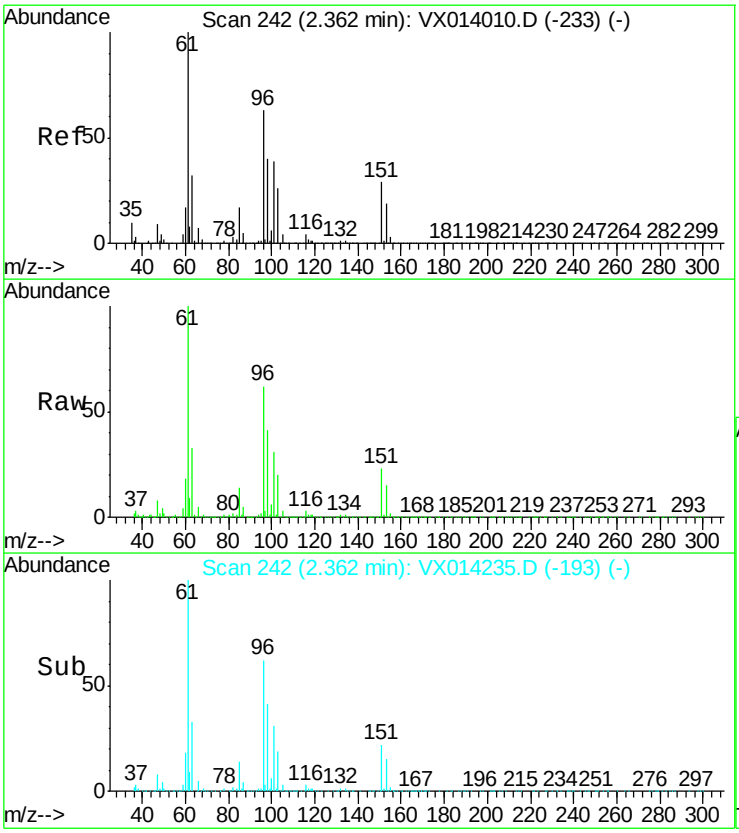


#11
Tert butyl alcohol
Concen: 86.685 ug/l
RT: 3.02 min Scan# 350
Delta R.T. -0.02 min
Lab File: VX014235.D
Acq: 24 Dec 2019 11:09

Tgt Ion: 59 Resp: 111495

Ion	Ratio	Lower	Upper
59	100		
57	10.3	8.4	12.6

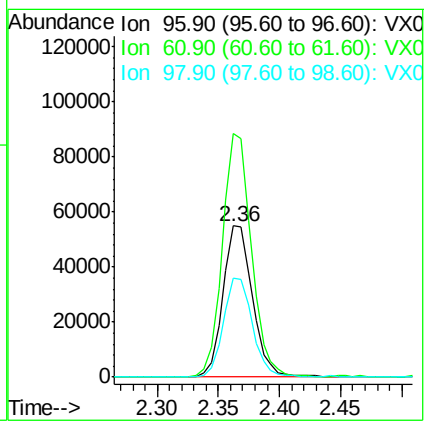




#12
1,1-Dichloroethene
Concen: 18.109 ug/l
RT: 2.36 min Scan# 242
Delta R.T. 0.00 min
Lab File: VX014235.D
Acq: 24 Dec 2019 11:09

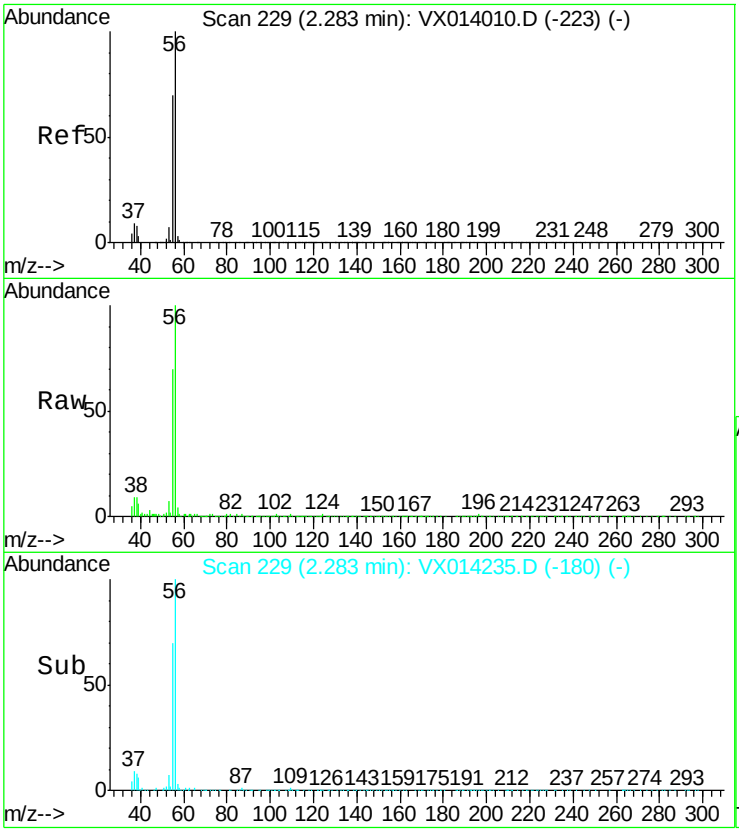
Tgt Ion: 96 Resp: 91492

Ion	Ratio	Lower	Upper
96	100		
61	160.8	127.9	191.9
98	65.5	50.5	75.7



Instrument :
MSVOA_X
ClientSampleId :
VX1224WBS01

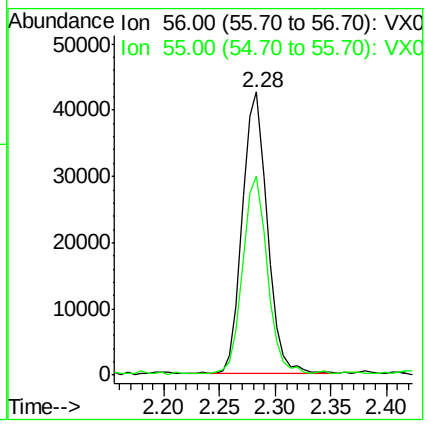
Manual Integrations APPROVED
apatel
12/26/2019 9:24:21 AM

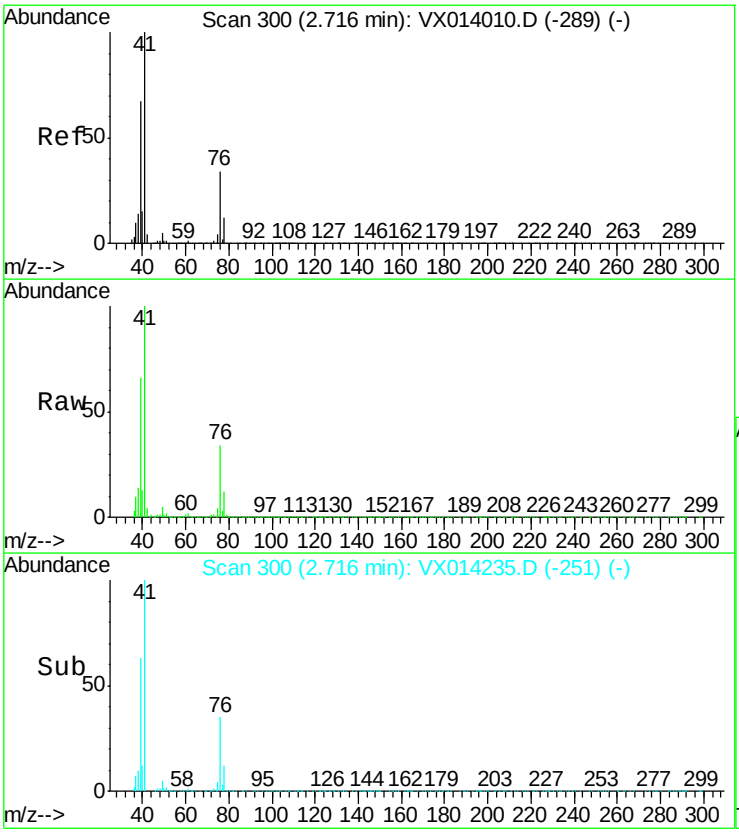


#13
Acrolein
Concen: 90.431 ug/l
RT: 2.28 min Scan# 229
Delta R.T. 0.00 min
Lab File: VX014235.D
Acq: 24 Dec 2019 11:09

Tgt Ion: 56 Resp: 66581

Ion	Ratio	Lower	Upper
56	100		
55	68.8	56.9	85.3

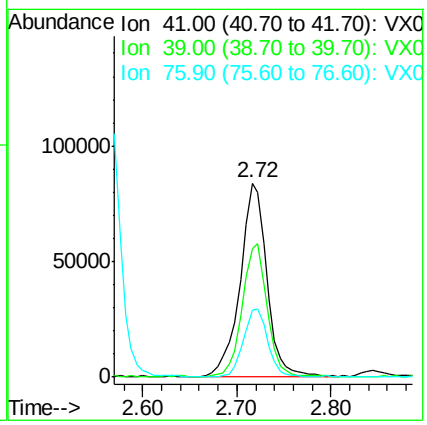




#14
Allyl chloride
Concen: 18.282 ug/l
RT: 2.72 min Scan# 300
Delta R.T. 0.00 min
Lab File: VX014235.D
Acq: 24 Dec 2019 11:09

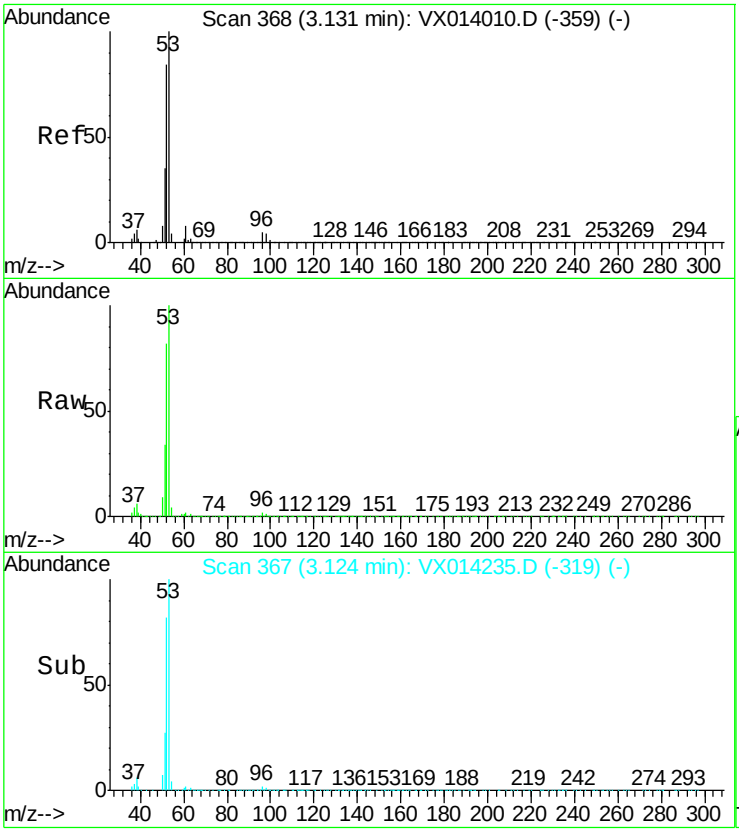
Tgt Ion: 41 Resp: 164916

Ion	Ratio	Lower	Upper
41	100		
39	64.0	51.8	77.8
76	31.8	25.9	38.9



Instrument :
MSVOA_X
ClientSampleId :
VX1224WBS01

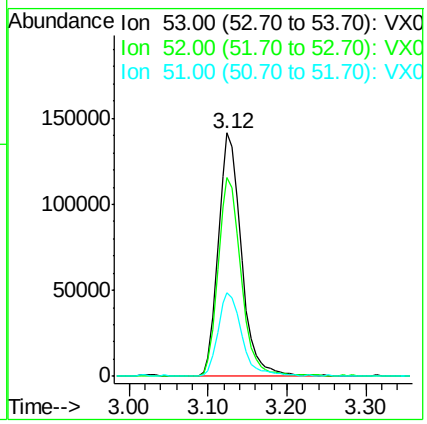
Manual Integrations APPROVED
apatel
12/26/2019 9:24:21 AM

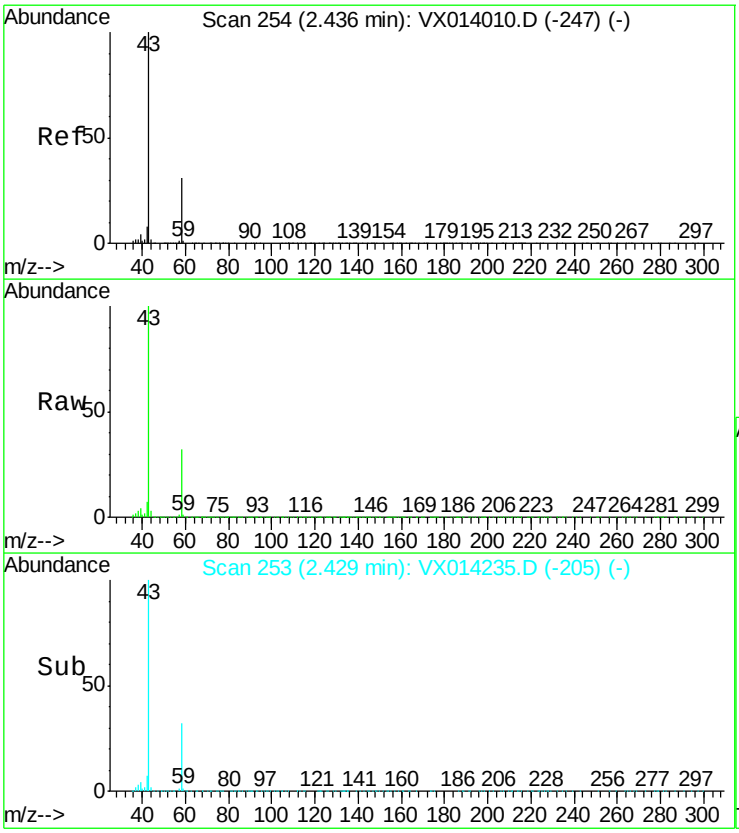


#15
Acrylonitrile
Concen: 96.490 ug/l
RT: 3.12 min Scan# 367
Delta R.T. -0.01 min
Lab File: VX014235.D
Acq: 24 Dec 2019 11:09

Tgt Ion: 53 Resp: 289672

Ion	Ratio	Lower	Upper
53	100		
52	80.8	66.5	99.7
51	35.1	28.1	42.1

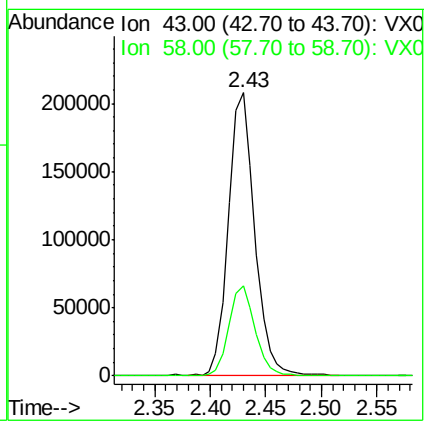




#16
Acetone
Concen: 87.062 ug/l
RT: 2.43 min Scan# 253
Delta R.T. -0.01 min
Lab File: VX014235.D
Acq: 24 Dec 2019 11:09

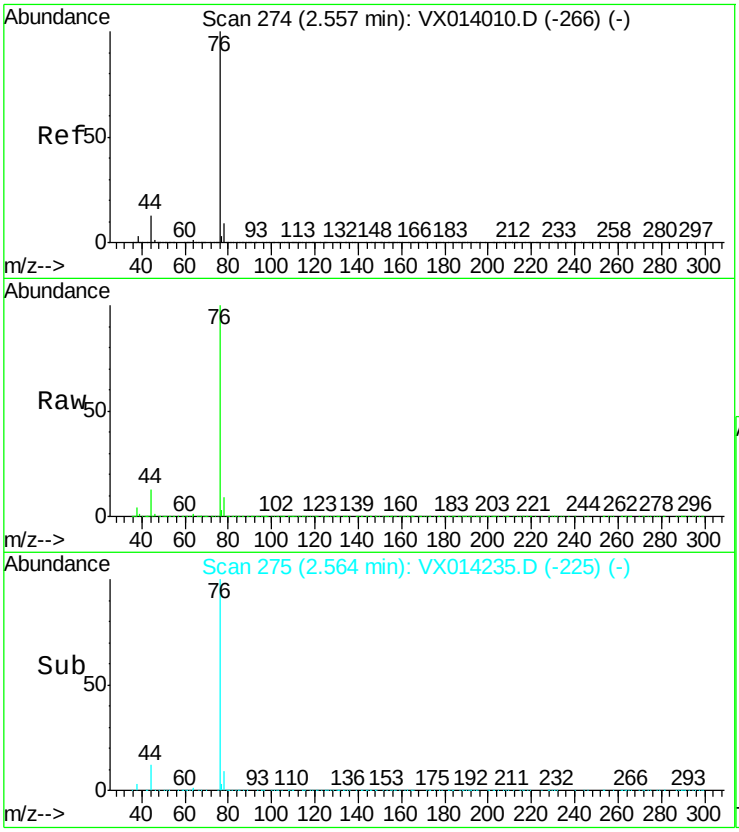
Tgt Ion: 43 Resp: 336447

Ion	Ratio	Lower	Upper
43	100		
58	31.7	24.9	37.3



Instrument :
MSVOA_X
ClientSampleId :
VX1224WBS01

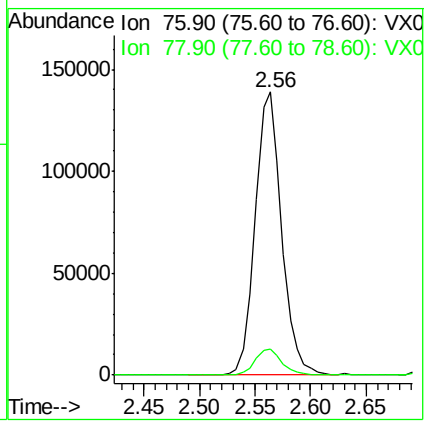
Manual Integrations APPROVED
apatel
12/26/2019 9:24:21 AM

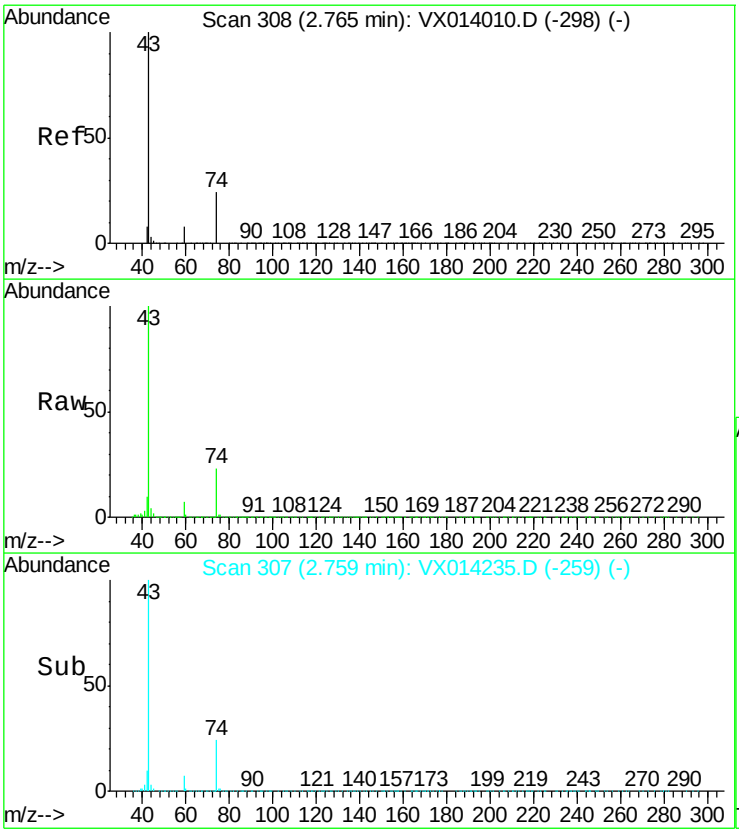


#17
Carbon Disulfide
Concen: 16.852 ug/l
RT: 2.56 min Scan# 275
Delta R.T. 0.01 min
Lab File: VX014235.D
Acq: 24 Dec 2019 11:09

Tgt Ion: 76 Resp: 229277

Ion	Ratio	Lower	Upper
76	100		
78	9.2	7.2	10.8

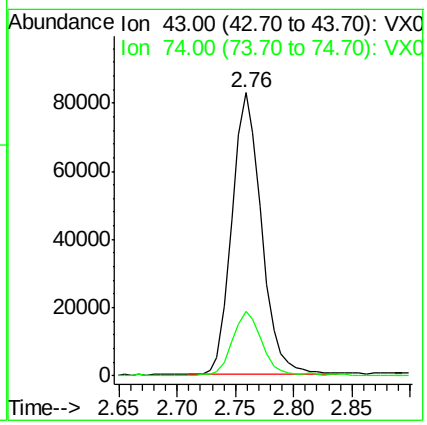




#18
Methyl Acetate
Concen: 19.228 ug/l
RT: 2.76 min Scan# 307
Delta R.T. -0.01 min
Lab File: VX014235.D
Acq: 24 Dec 2019 11:09

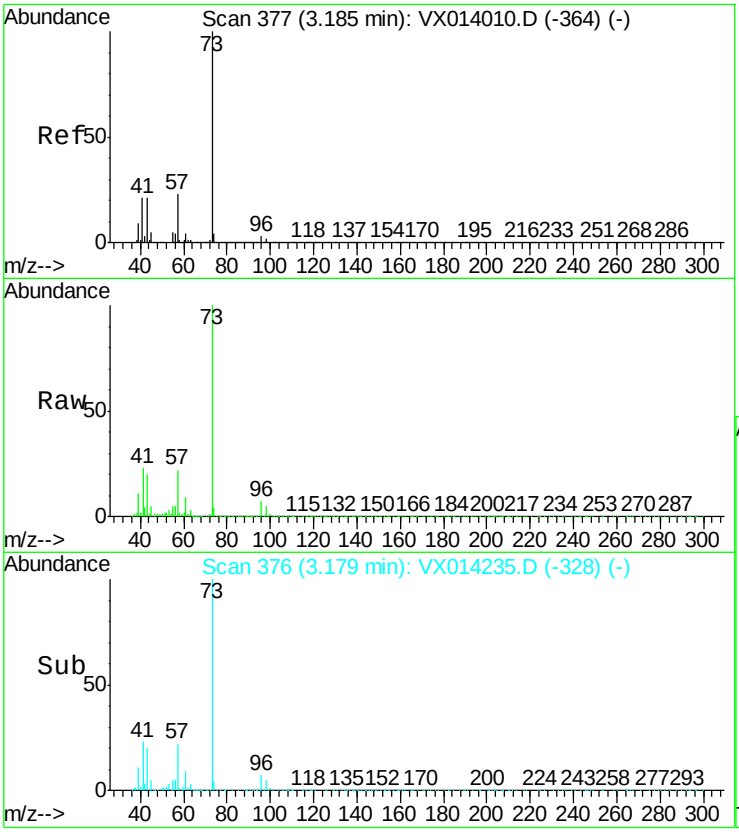
Tgt Ion: 43 Resp: 147237

Ion	Ratio	Lower	Upper
43	100		
74	22.3	19.5	29.3



Instrument :
MSVOA_X
ClientSampleId :
VX1224WBS01

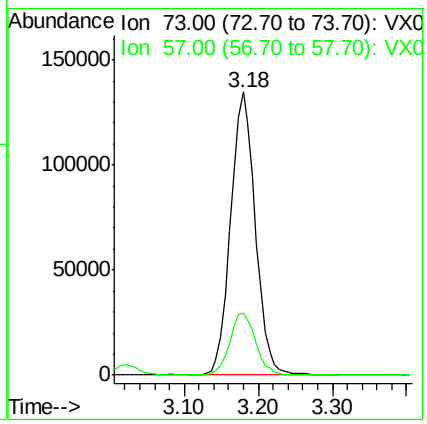
Manual Integrations APPROVED
apatel
12/26/2019 9:24:21 AM

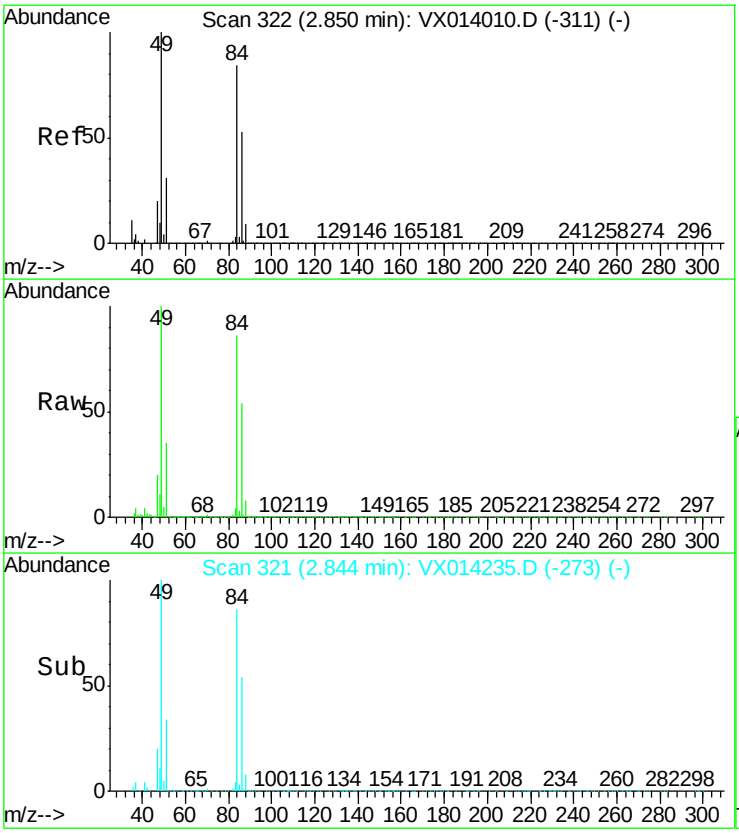


#19
Methyl tert-butyl Ether
Concen: 18.802 ug/l
RT: 3.18 min Scan# 376
Delta R.T. -0.01 min
Lab File: VX014235.D
Acq: 24 Dec 2019 11:09

Tgt Ion: 73 Resp: 312139

Ion	Ratio	Lower	Upper
73	100		
57	21.6	18.8	28.2

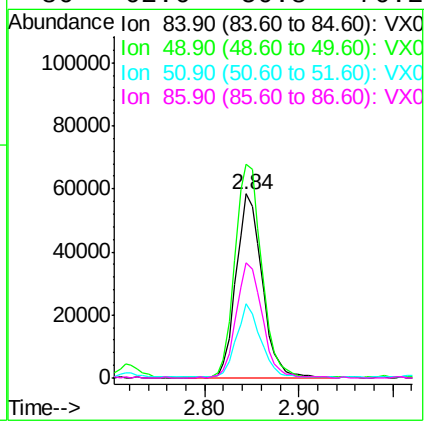




#20
Methylene Chloride
Concen: 18.583 ug/l
RT: 2.84 min Scan# 321
Delta R.T. -0.01 min
Lab File: VX014235.D
Acq: 24 Dec 2019 11:09

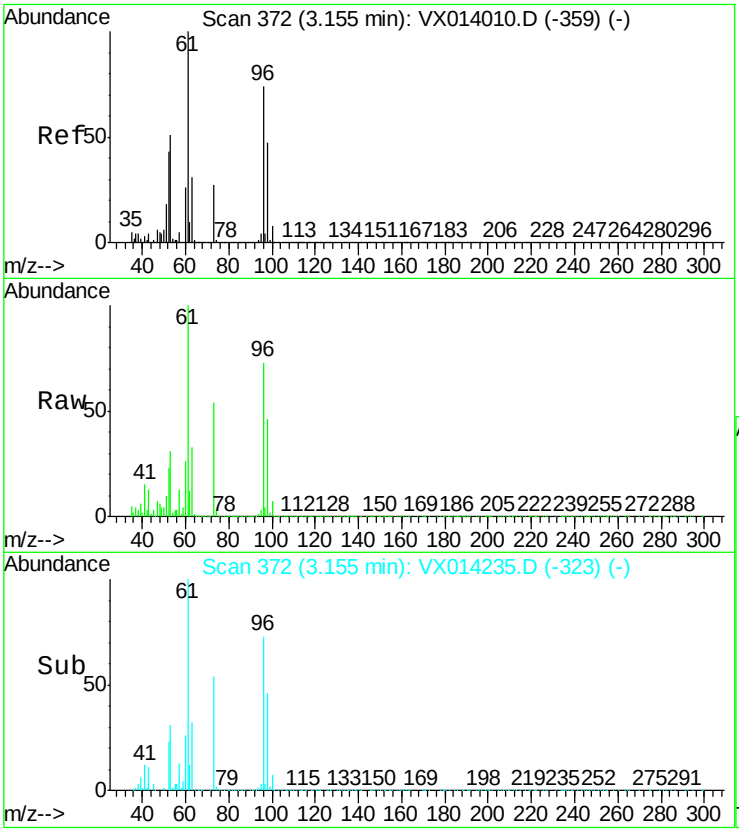
Tgt Ion: 84 Resp: 113086

Ion	Ratio	Lower	Upper
84	100		
49	115.7	95.8	143.6
51	39.8	29.8	44.8
86	62.6	50.8	76.2



Instrument :
MSVOA_X
ClientSampleId :
VX1224WBS01

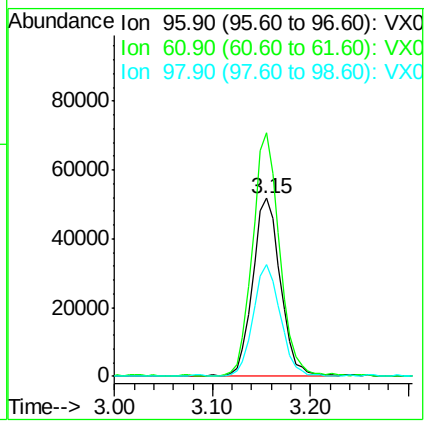
Manual Integrations APPROVED
apatel
12/26/2019 9:24:21 AM

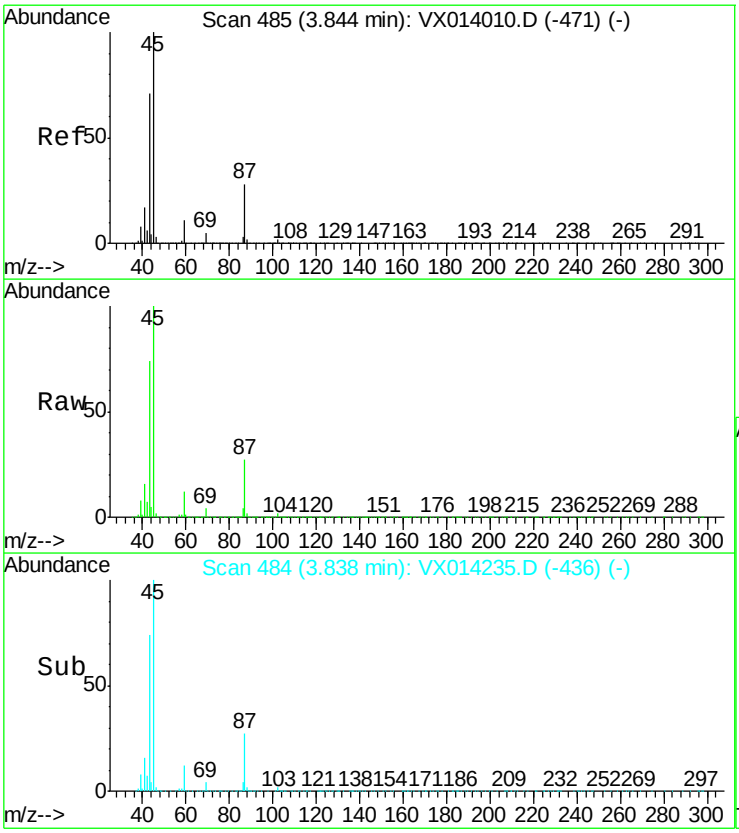


#21
trans-1,2-Dichloroethene
Concen: 18.447 ug/l
RT: 3.15 min Scan# 372
Delta R.T. 0.00 min
Lab File: VX014235.D
Acq: 24 Dec 2019 11:09

Tgt Ion: 96 Resp: 102677

Ion	Ratio	Lower	Upper
96	100		
61	136.2	108.3	162.5
98	62.5	50.8	76.2

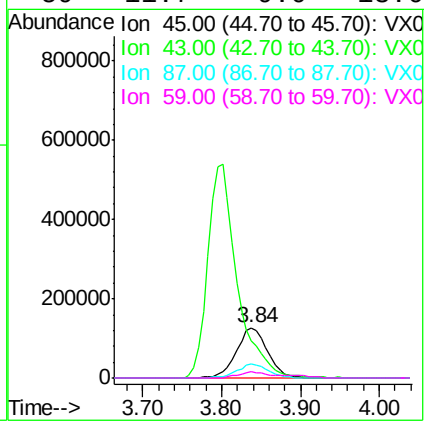




#22
Diisopropyl ether
Concen: 19.187 ug/l
RT: 3.84 min Scan# 484
Delta R.T. -0.01 min
Lab File: VX014235.D
Acq: 24 Dec 2019 11:09

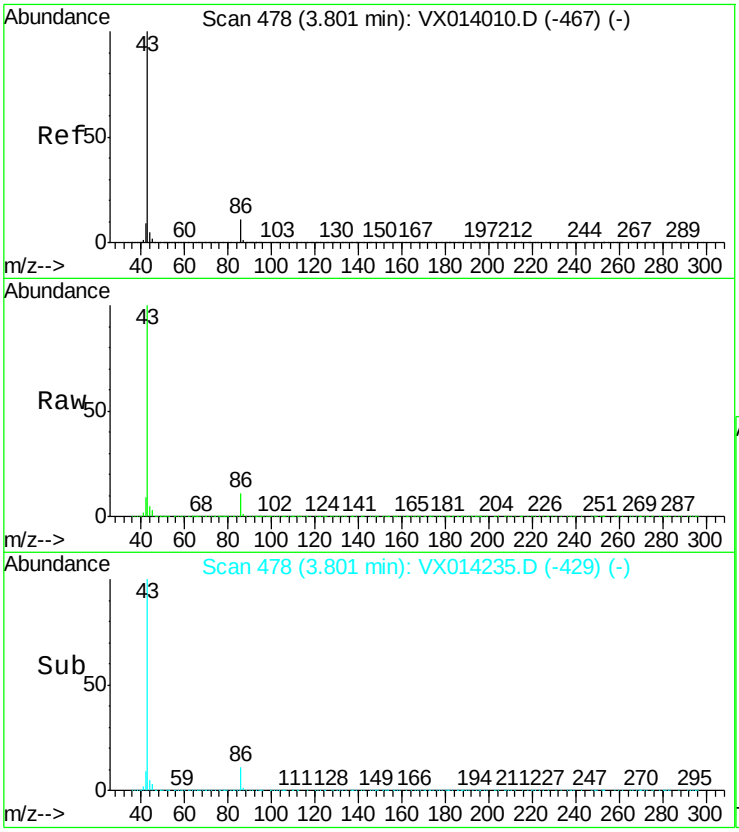
Tgt Ion: 45 Resp: 344894

Ion	Ratio	Lower	Upper
45	100		
43	72.9	57.4	86.0
87	26.8	21.9	32.9
59	11.7	9.0	13.6



Instrument :
MSVOA_X
ClientSampleId :
VX1224WBS01

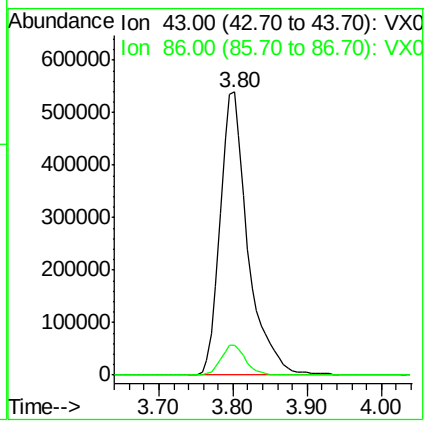
Manual Integrations APPROVED
apatel
12/26/2019 9:24:21 AM

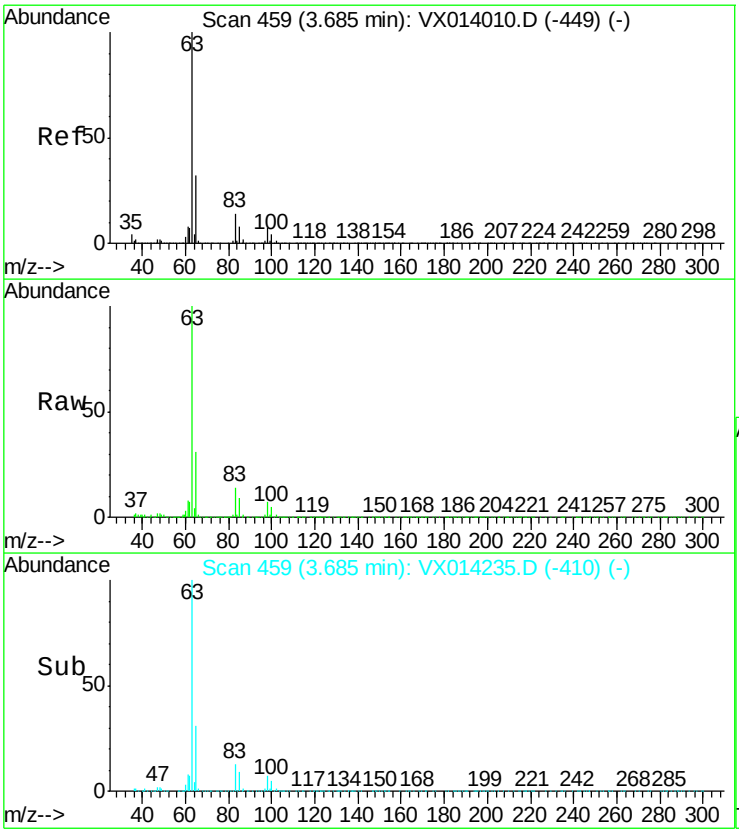


#23
Vinyl Acetate
Concen: 95.648 ug/l
RT: 3.80 min Scan# 478
Delta R.T. 0.00 min
Lab File: VX014235.D
Acq: 24 Dec 2019 11:09

Tgt Ion: 43 Resp: 1403080

Ion	Ratio	Lower	Upper
43	100		
86	10.8	8.6	12.8

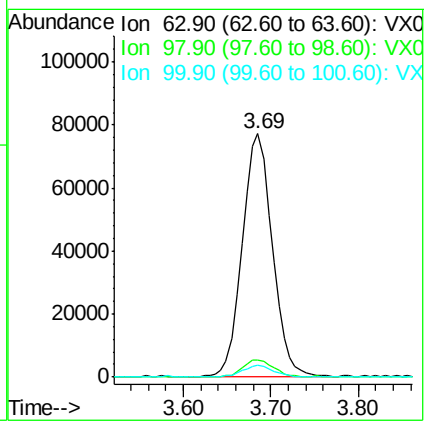




#24
1,1-Dichloroethane
Concen: 18.548 ug/l
RT: 3.69 min Scan# 459
Delta R.T. 0.00 min
Lab File: VX014235.D
Acq: 24 Dec 2019 11:09

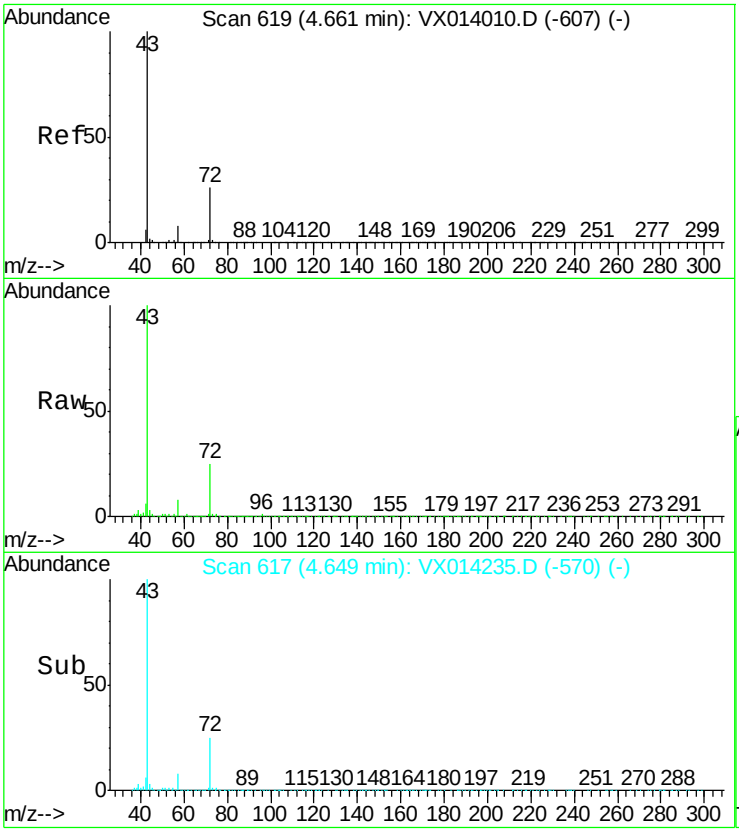
Tgt Ion: 63 Resp: 185495

Ion	Ratio	Lower	Upper
63	100		
98	7.1	3.6	10.8
100	4.6	2.3	6.8



Instrument :
MSVOA_X
ClientSampleId :
VX1224WBS01

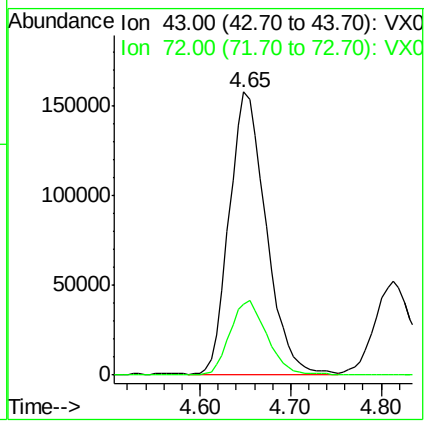
Manual Integrations APPROVED
apatel
12/26/2019 9:24:21 AM

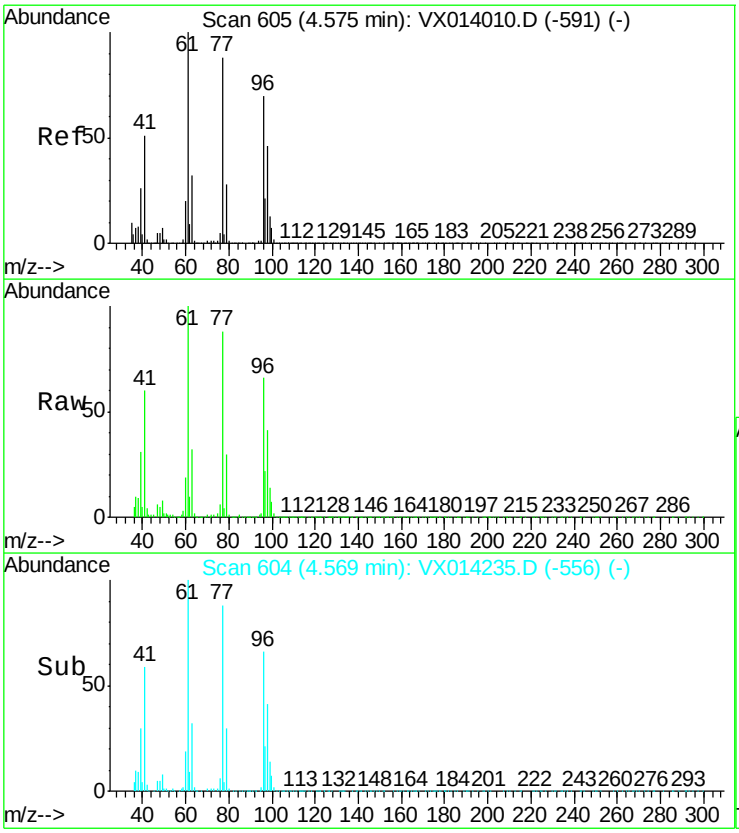


#25
2-Butanone
Concen: 92.541 ug/l
RT: 4.65 min Scan# 617
Delta R.T. -0.01 min
Lab File: VX014235.D
Acq: 24 Dec 2019 11:09

Tgt Ion: 43 Resp: 440906

Ion	Ratio	Lower	Upper
43	100		
72	24.6	21.0	31.4

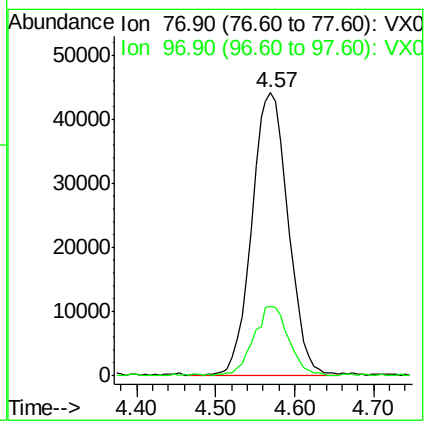




#26
2,2-Dichloropropane
Concen: 18.264 ug/l
RT: 4.57 min Scan# 604
Delta R.T. -0.01 min
Lab File: VX014235.D
Acq: 24 Dec 2019 11:09

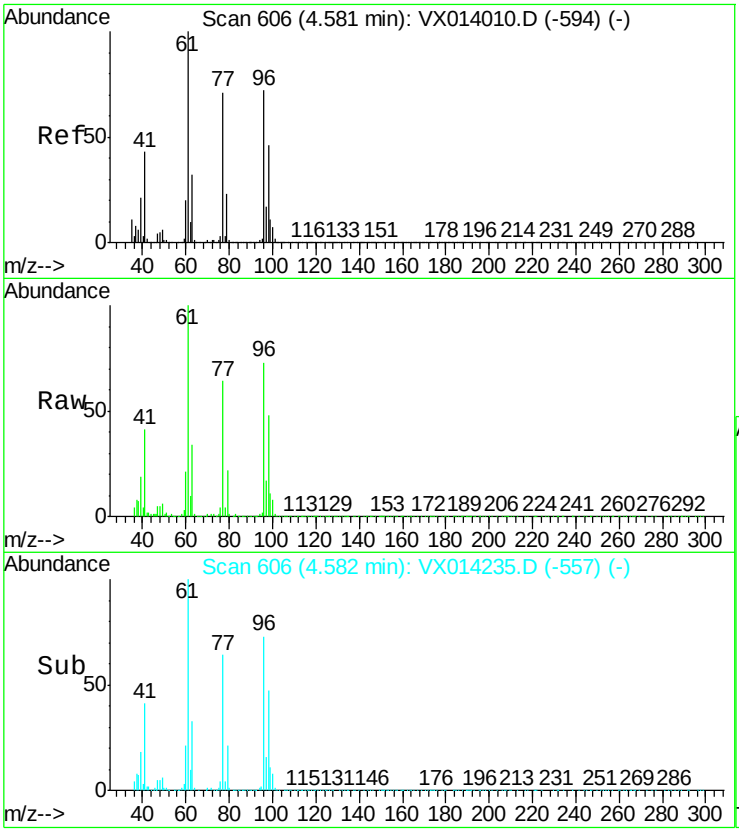
Tgt Ion: 77 Resp: 141814

Ion	Ratio	Lower	Upper
77	100		
97	23.4	11.9	35.9



Instrument :
MSVOA_X
ClientSampleId :
VX1224WBS01

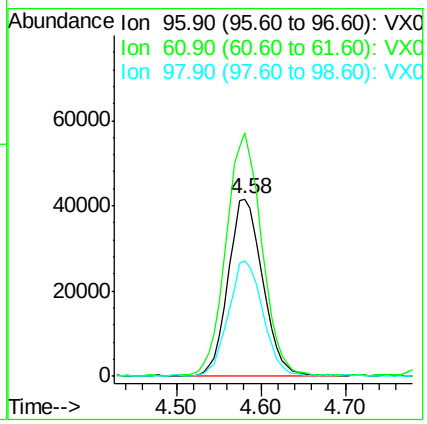
Manual Integrations APPROVED
apatel
12/26/2019 9:24:21 AM

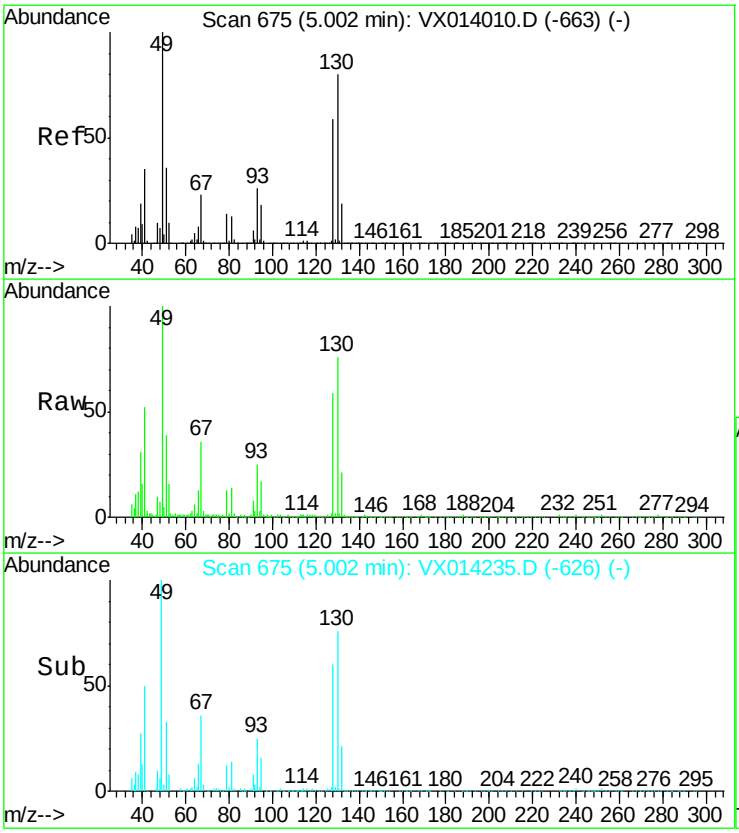


#27
cis-1,2-Dichloroethene
Concen: 18.392 ug/l
RT: 4.58 min Scan# 606
Delta R.T. 0.00 min
Lab File: VX014235.D
Acq: 24 Dec 2019 11:09

Tgt Ion: 96 Resp: 115776

Ion	Ratio	Lower	Upper
96	100		
61	141.2	0.0	288.4
98	64.0	0.0	129.6

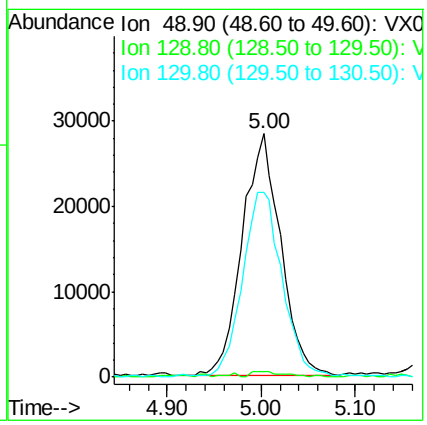




#28
Bromochloromethane
Concen: 21.342 ug/l
RT: 5.00 min Scan# 675
Delta R.T. 0.00 min
Lab File: VX014235.D
Acq: 24 Dec 2019 11:09

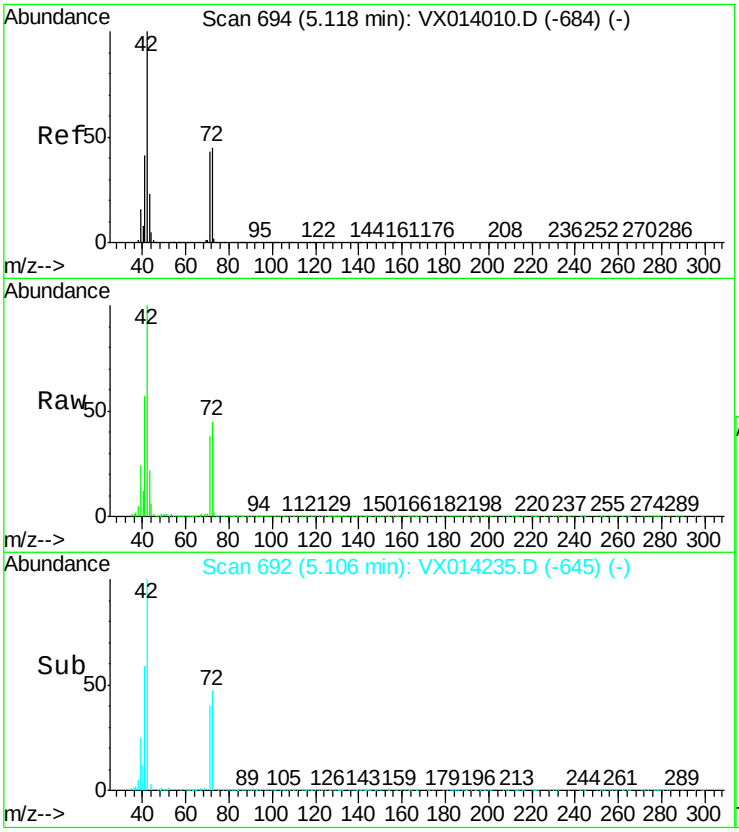
Tgt Ion: 49 Resp: 81075

Ion	Ratio	Lower	Upper
49	100		
129	2.0	0.0	5.0
130	77.2	64.6	97.0



Instrument :
MSVOA_X
ClientSampleId :
VX1224WBS01

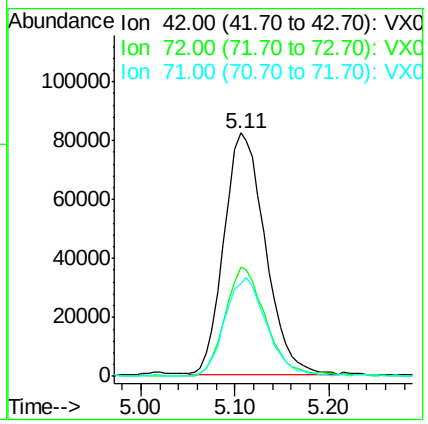
Manual Integrations APPROVED
apatel
12/26/2019 9:24:21 AM

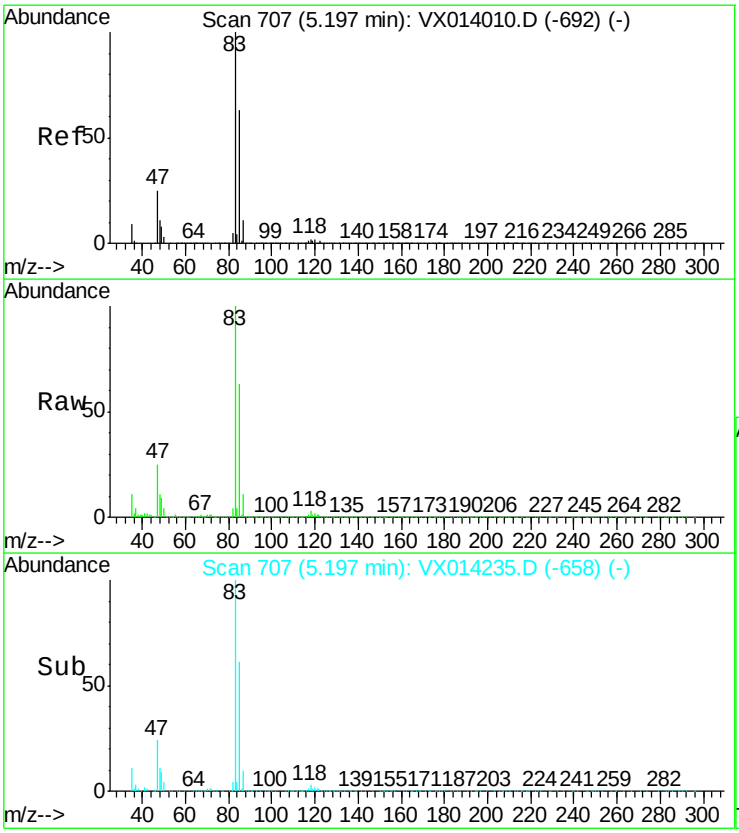


#29
Tetrahydrofuran
Concen: 94.295 ug/l
RT: 5.11 min Scan# 692
Delta R.T. -0.01 min
Lab File: VX014235.D
Acq: 24 Dec 2019 11:09

Tgt Ion: 42 Resp: 251284

Ion	Ratio	Lower	Upper
42	100		
72	44.4	35.8	53.8
71	41.0	33.6	50.4

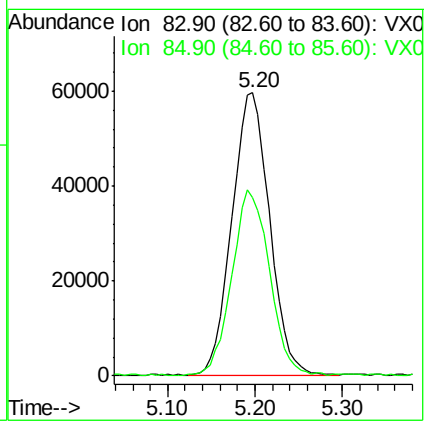




#30
Chloroform
Concen: 18.765 ug/l
RT: 5.20 min Scan# 707
Delta R.T. 0.00 min
Lab File: VX014235.D
Acq: 24 Dec 2019 11:09

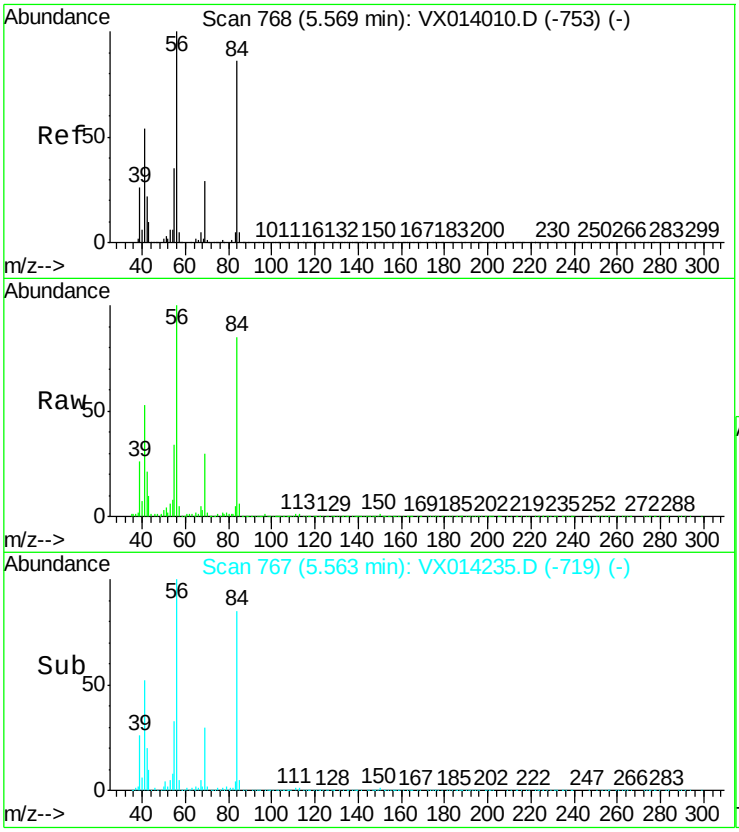
Tgt Ion: 83 Resp: 177909

Ion	Ratio	Lower	Upper
83	100		
85	62.6	50.8	76.2



Instrument :
MSVOA_X
ClientSampleId :
VX1224WBS01

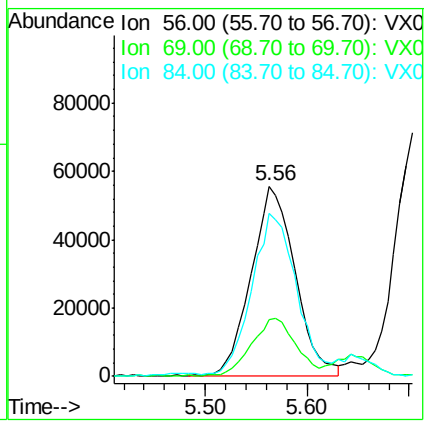
Manual Integrations APPROVED
apatel
12/26/2019 9:24:21 AM

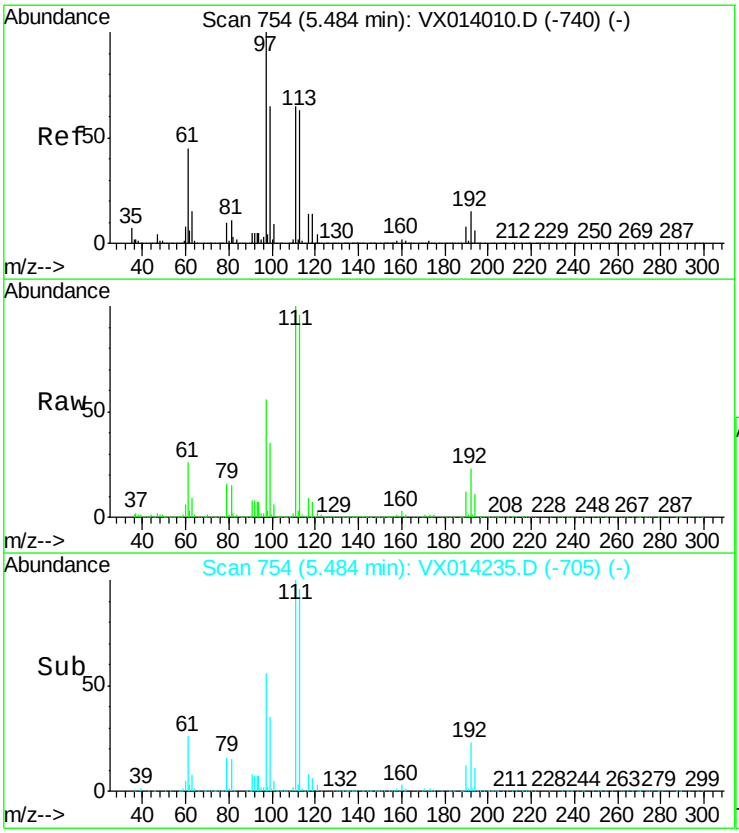


#31
Cyclohexane
Concen: 18.664 ug/l
RT: 5.56 min Scan# 767
Delta R.T. -0.01 min
Lab File: VX014235.D
Acq: 24 Dec 2019 11:09

Tgt Ion: 56 Resp: 166017

Ion	Ratio	Lower	Upper
56	100		
69	28.9	23.2	34.8
84	84.3	69.2	103.8

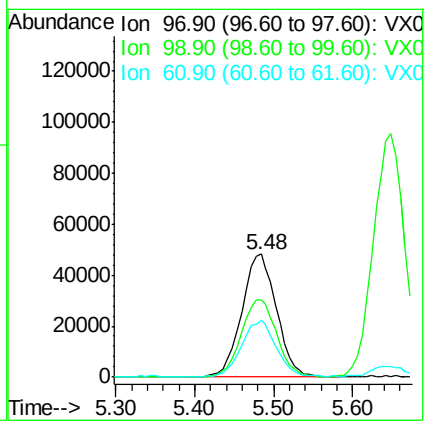




#32
1,1,1-Trichloroethane
Concen: 18.096 ug/l
RT: 5.48 min Scan# 754
Delta R.T. 0.00 min
Lab File: VX014235.D
Acq: 24 Dec 2019 11:09

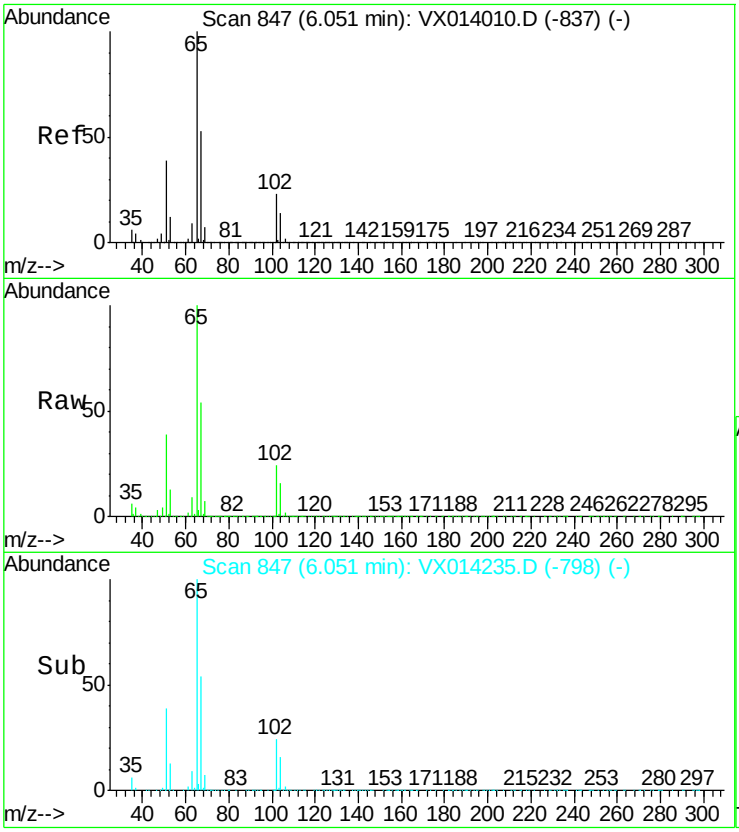
Tgt Ion: 97 Resp: 146215

Ion	Ratio	Lower	Upper
97	100		
99	64.1	52.0	78.0
61	45.2	36.7	55.1



Instrument :
MSVOA_X
ClientSampleId :
VX1224WBS01

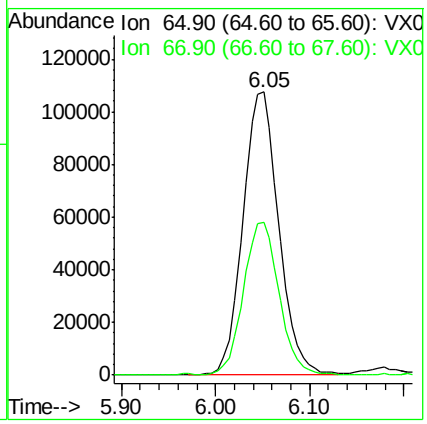
Manual Integrations APPROVED
apatel
12/26/2019 9:24:21 AM

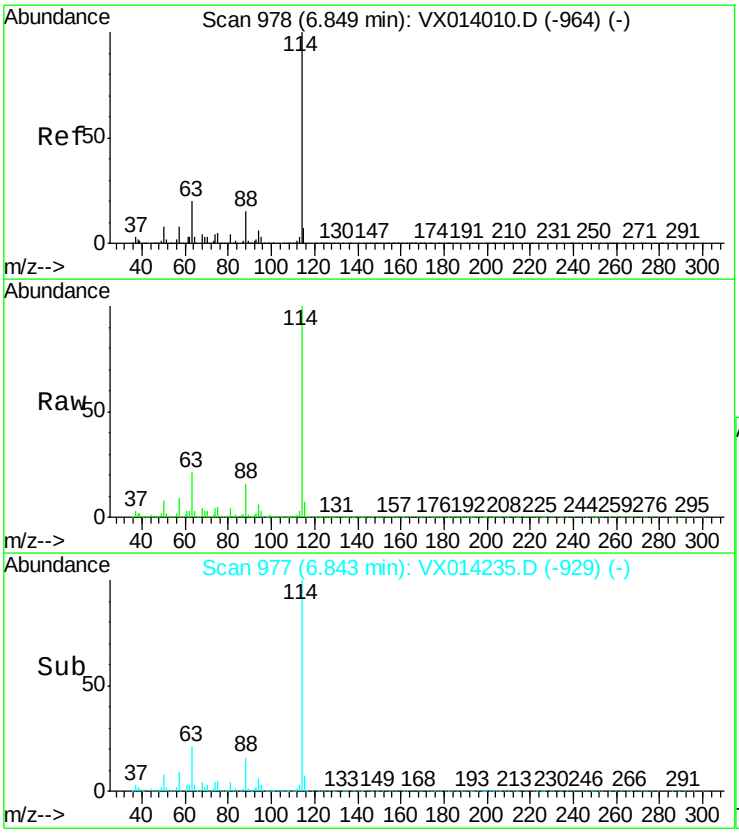


#33
1,2-Dichloroethane-d4
Concen: 47.870 ug/l
RT: 6.05 min Scan# 847
Delta R.T. 0.00 min
Lab File: VX014235.D
Acq: 24 Dec 2019 11:09

Tgt Ion: 65 Resp: 284946

Ion	Ratio	Lower	Upper
65	100		
67	53.4	0.0	106.4

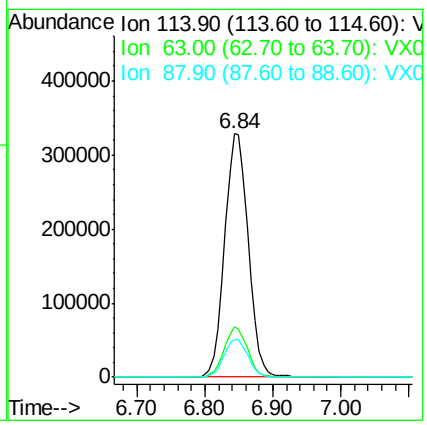




#34
1,4-Difluorobenzene
Concen: 50.000 ug/l
RT: 6.84 min Scan# 977
Delta R.T. -0.01 min
Lab File: VX014235.D
Acq: 24 Dec 2019 11:09

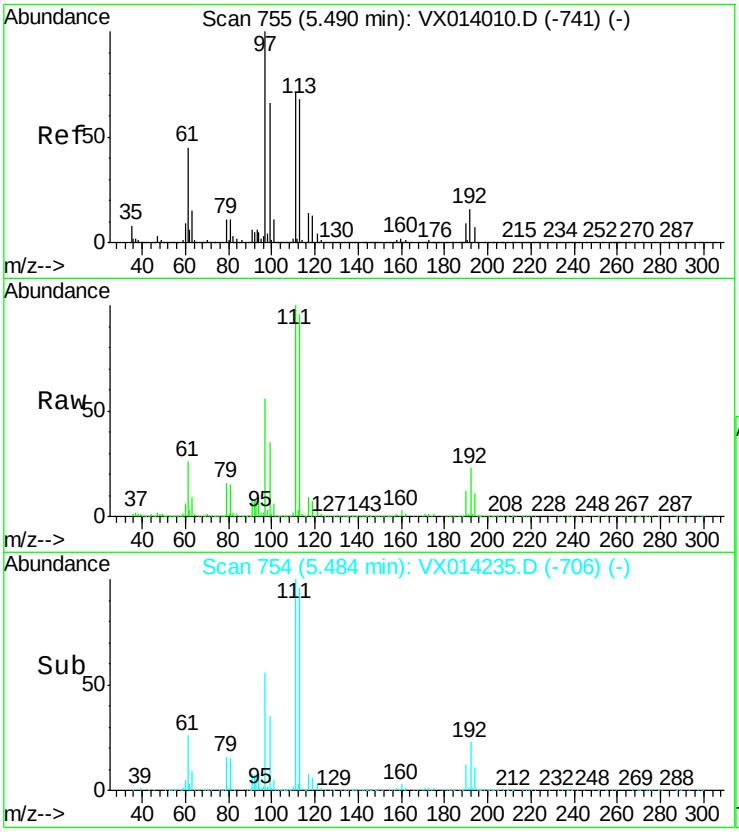
Tgt Ion:114 Resp: 786891

Ion	Ratio	Lower	Upper
114	100		
63	20.7	0.0	40.8
88	15.5	0.0	30.4



Instrument :
MSVOA_X
ClientSampleId :
VX1224WBS01

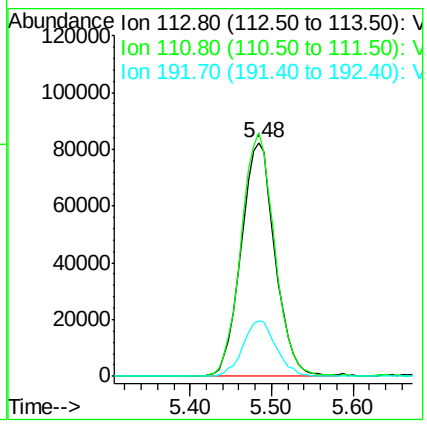
Manual Integrations APPROVED
apatel
12/26/2019 9:24:21 AM

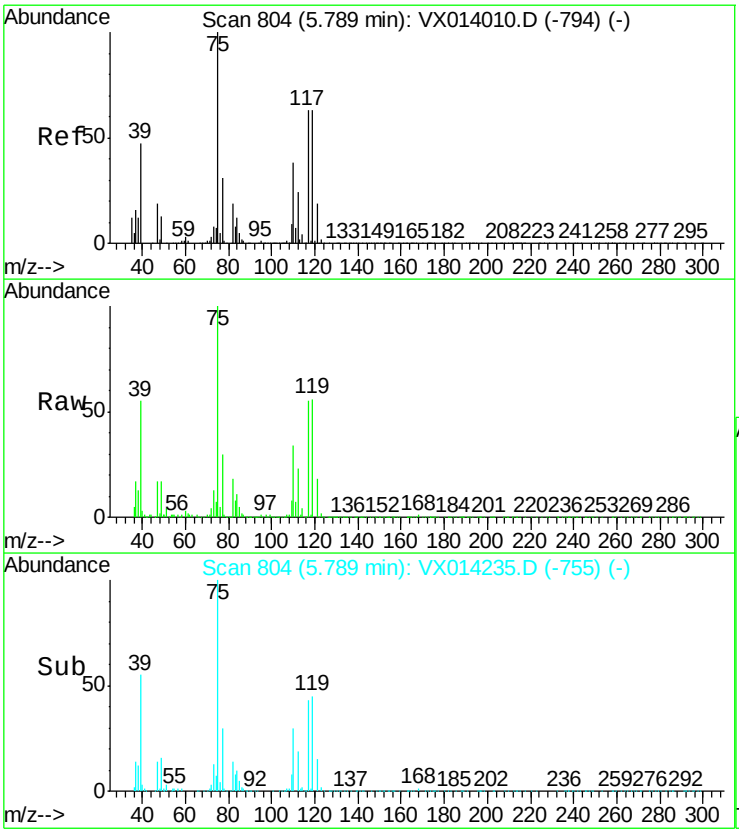


#35
Dibromofluoromethane
Concen: 49.645 ug/l
RT: 5.48 min Scan# 754
Delta R.T. -0.01 min
Lab File: VX014235.D
Acq: 24 Dec 2019 11:09

Tgt Ion:113 Resp: 237472

Ion	Ratio	Lower	Upper
113	100		
111	103.3	82.0	123.0
192	23.2	19.3	28.9

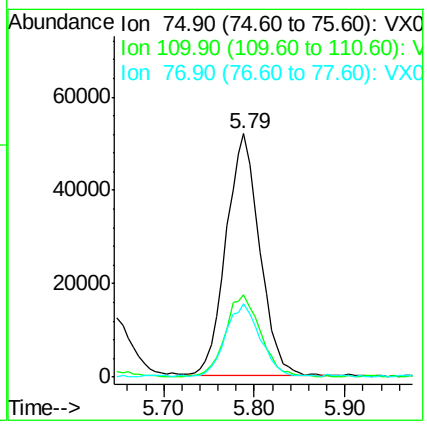




#36
1,1-Dichloropropene
Concen: 18.523 ug/l
RT: 5.79 min Scan# 804
Delta R.T. 0.00 min
Lab File: VX014235.D
Acq: 24 Dec 2019 11:09

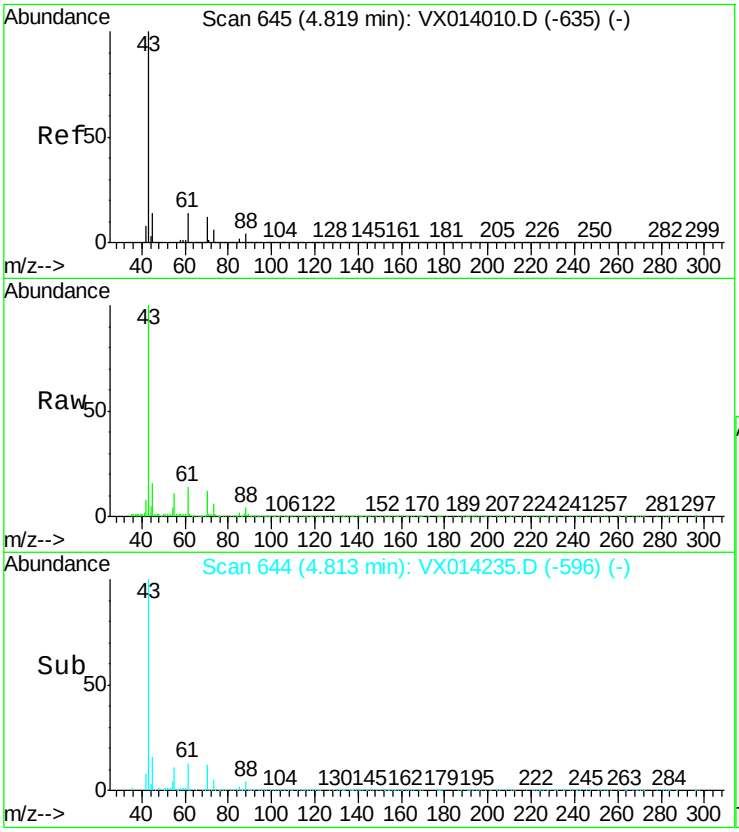
Tgt Ion: 75 Resp: 133736

Ion	Ratio	Lower	Upper
75	100		
110	36.1	18.3	54.9
77	30.3	24.8	37.2



Instrument :
MSVOA_X
ClientSampleId :
VX1224WBS01

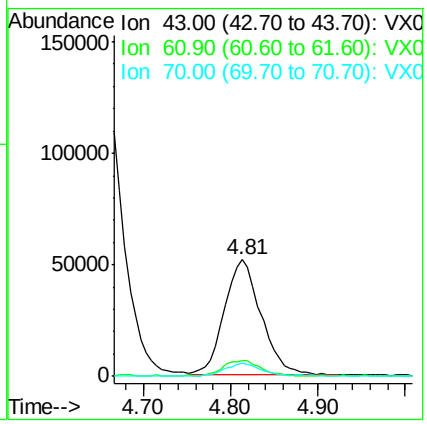
Manual Integrations APPROVED
apatel
12/26/2019 9:24:21 AM

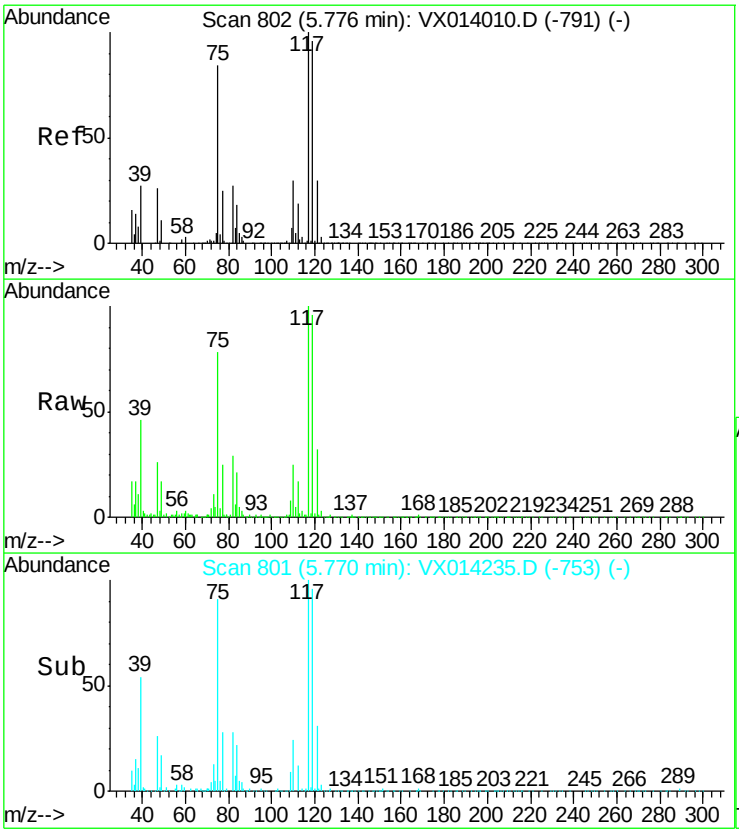


#37
Ethyl Acetate
Concen: 19.005 ug/l
RT: 4.81 min Scan# 644
Delta R.T. -0.01 min
Lab File: VX014235.D
Acq: 24 Dec 2019 11:09

Tgt Ion: 43 Resp: 151529

Ion	Ratio	Lower	Upper
43	100		
61	13.6	10.8	16.2
70	11.1	8.6	12.8

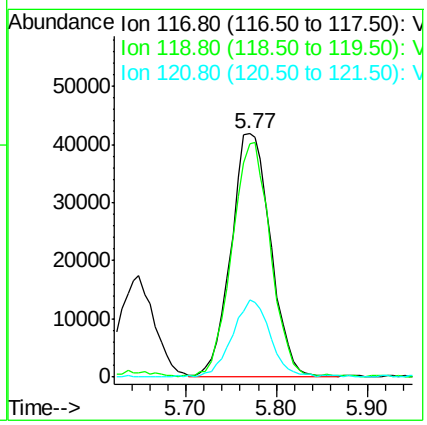




#38
Carbon Tetrachloride
Concen: 19.296 ug/l
RT: 5.77 min Scan# 801
Delta R.T. -0.01 min
Lab File: VX014235.D
Acq: 24 Dec 2019 11:09

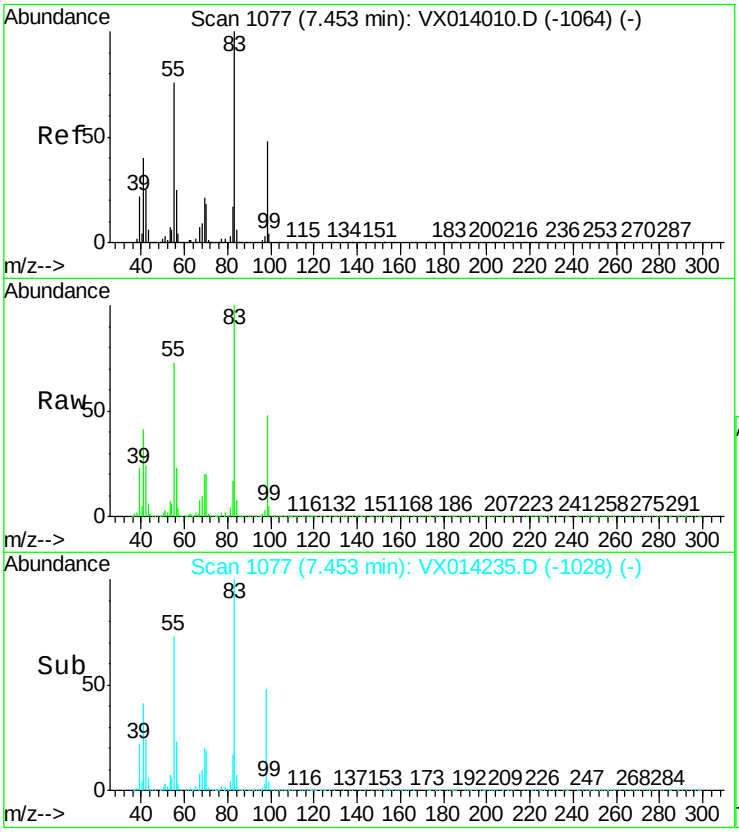
Tgt Ion:117 Resp: 126920

Ion	Ratio	Lower	Upper
117	100		
119	95.6	76.2	114.4
121	31.4	23.6	35.4



Instrument :
MSVOA_X
ClientSampleId :
VX1224WBS01

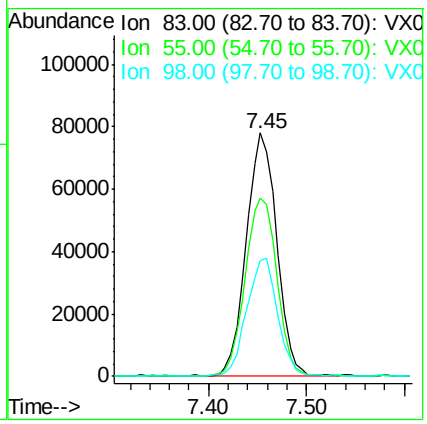
Manual Integrations APPROVED
apatel
12/26/2019 9:24:21 AM

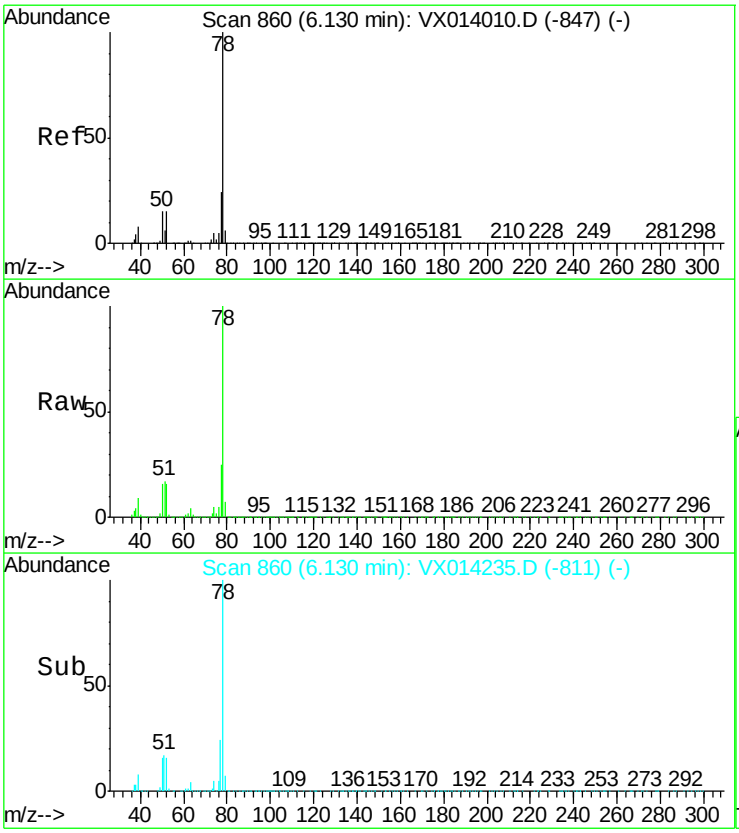


#39
Methylcyclohexane
Concen: 19.018 ug/l
RT: 7.45 min Scan# 1077
Delta R.T. 0.00 min
Lab File: VX014235.D
Acq: 24 Dec 2019 11:09

Tgt Ion: 83 Resp: 169548

Ion	Ratio	Lower	Upper
83	100		
55	73.2	61.0	91.6
98	47.3	38.6	57.8

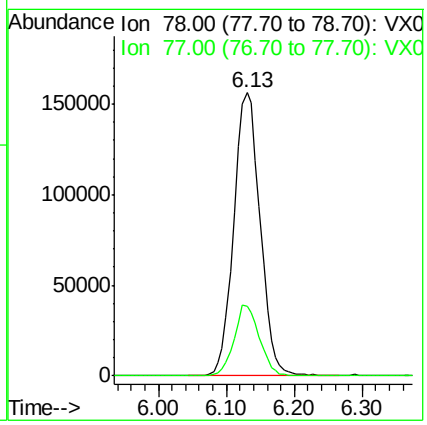




#40
Benzene
Concen: 18.857 ug/l
RT: 6.13 min Scan# 860
Delta R.T. 0.00 min
Lab File: VX014235.D
Acq: 24 Dec 2019 11:09

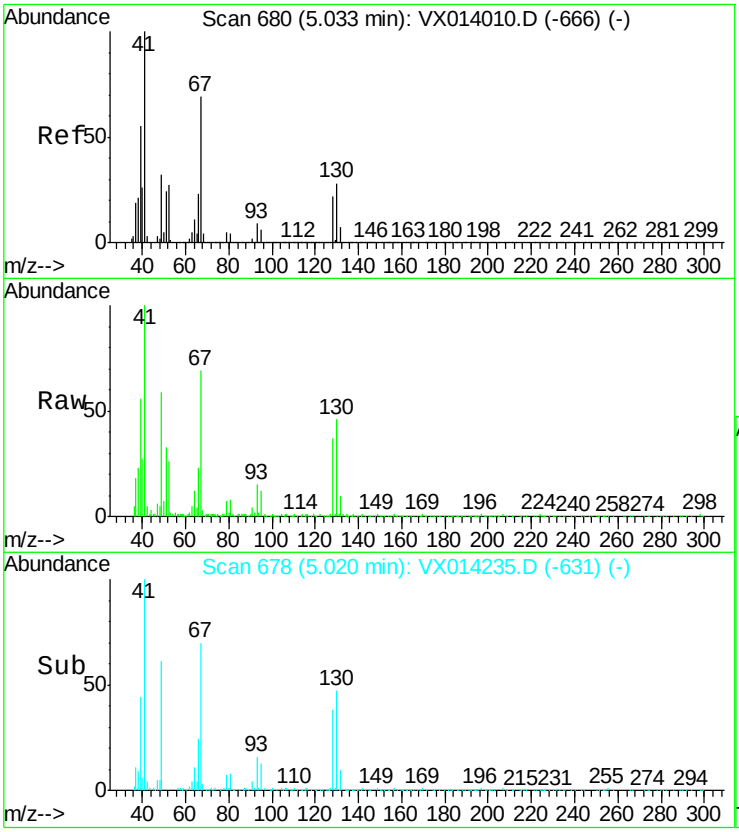
Tgt Ion: 78 Resp: 418929

Ion	Ratio	Lower	Upper
78	100		
77	24.7	18.8	28.2



Instrument :
MSVOA_X
ClientSampleId :
VX1224WBS01

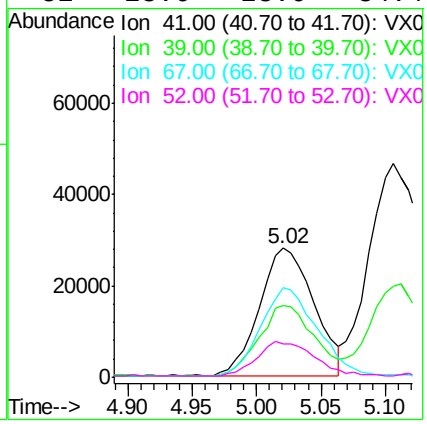
Manual Integrations APPROVED
apatel
12/26/2019 9:24:21 AM

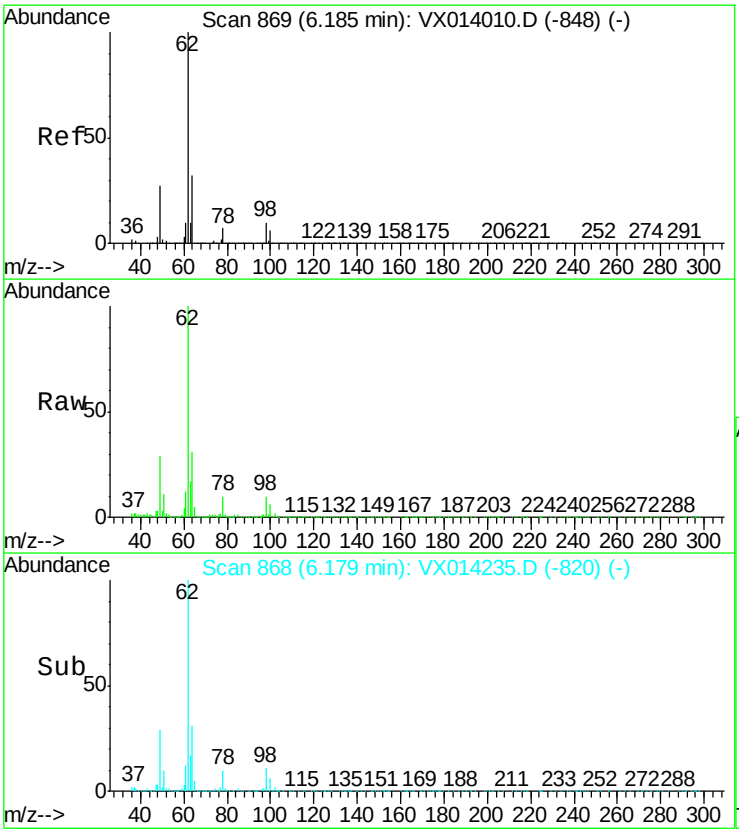


#41
Methacrylonitrile
Concen: 18.592 ug/l
RT: 5.02 min Scan# 678
Delta R.T. -0.01 min
Lab File: VX014235.D
Acq: 24 Dec 2019 11:09

Tgt Ion: 41 Resp: 82249

Ion	Ratio	Lower	Upper
41	100		
39	55.5	44.5	66.7
67	72.3	57.4	86.0
52	28.6	23.0	34.4

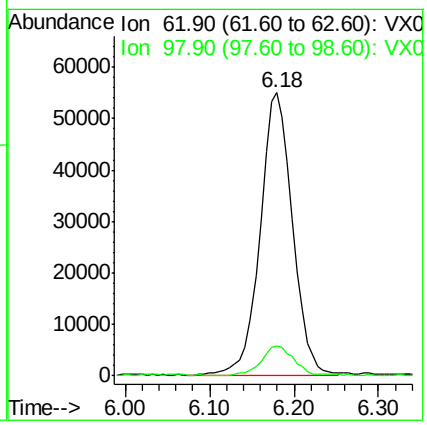




#42
1,2-Dichloroethane
Concen: 19.190 ug/l
RT: 6.18 min Scan# 868
Delta R.T. -0.01 min
Lab File: VX014235.D
Acq: 24 Dec 2019 11:09

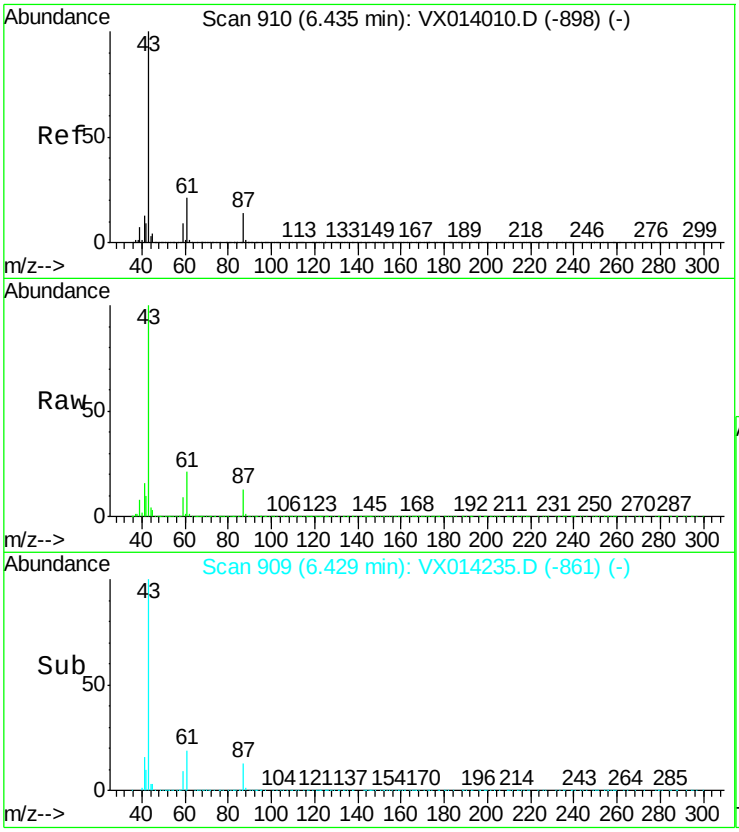
Tgt Ion: 62 Resp: 144515

Ion	Ratio	Lower	Upper
62	100		
98	11.2	0.0	21.0



Instrument :
MSVOA_X
ClientSampleId :
VX1224WBS01

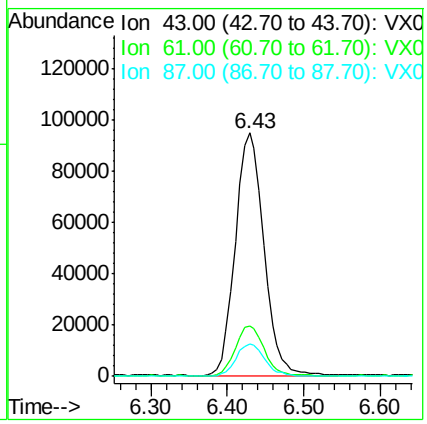
Manual Integrations APPROVED
apatel
12/26/2019 9:24:21 AM

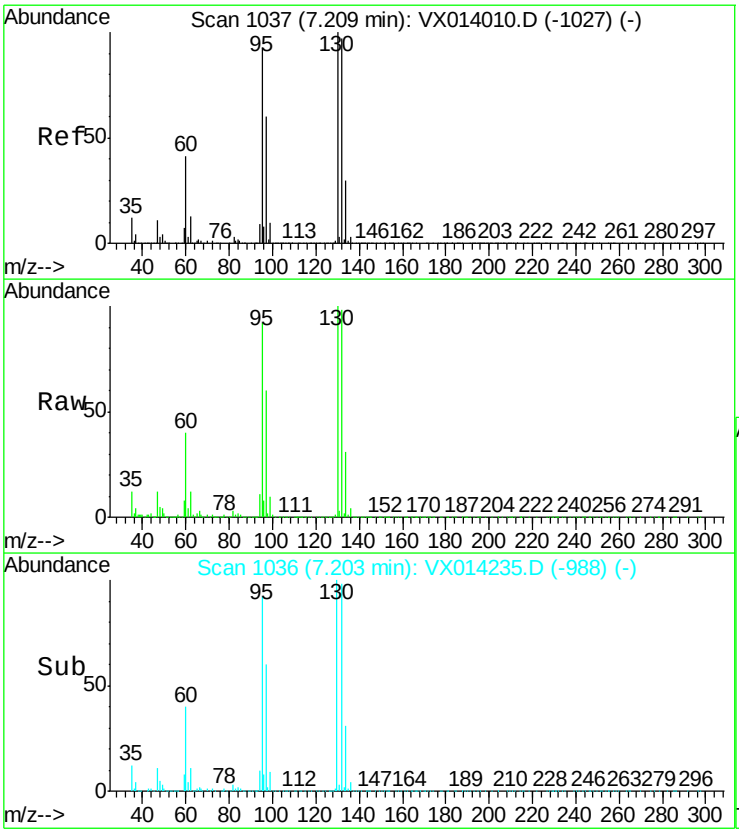


#43
Isopropyl Acetate
Concen: 18.615 ug/l
RT: 6.43 min Scan# 909
Delta R.T. -0.01 min
Lab File: VX014235.D
Acq: 24 Dec 2019 11:09

Tgt Ion: 43 Resp: 245629

Ion	Ratio	Lower	Upper
43	100		
61	20.6	16.4	24.6
87	13.5	10.7	16.1

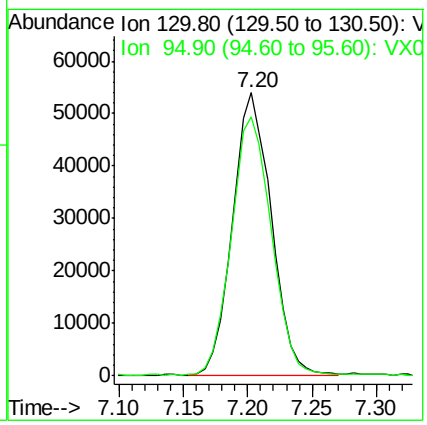




#44
Trichloroethene
Concen: 18.283 ug/l
RT: 7.20 min Scan# 1036
Delta R.T. -0.01 min
Lab File: VX014235.D
Acq: 24 Dec 2019 11:09

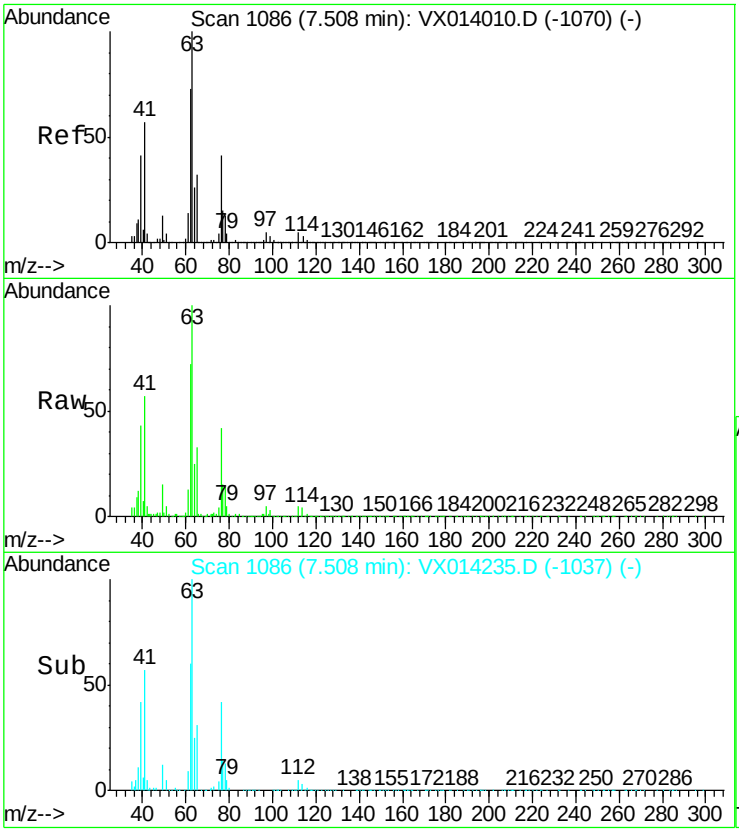
Tgt Ion:130 Resp: 112185

Ion	Ratio	Lower	Upper
130	100		
95	91.5	0.0	185.6



Instrument :
MSVOA_X
ClientSampleId :
VX1224WBS01

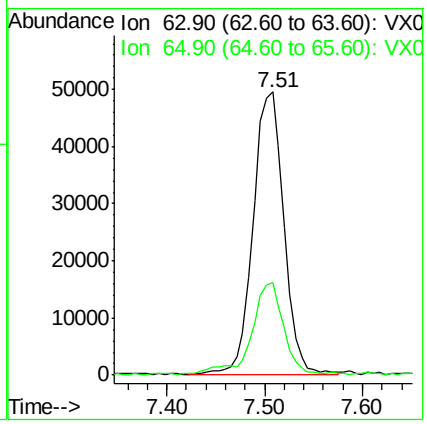
Manual Integrations APPROVED
apatel
12/26/2019 9:24:21 AM

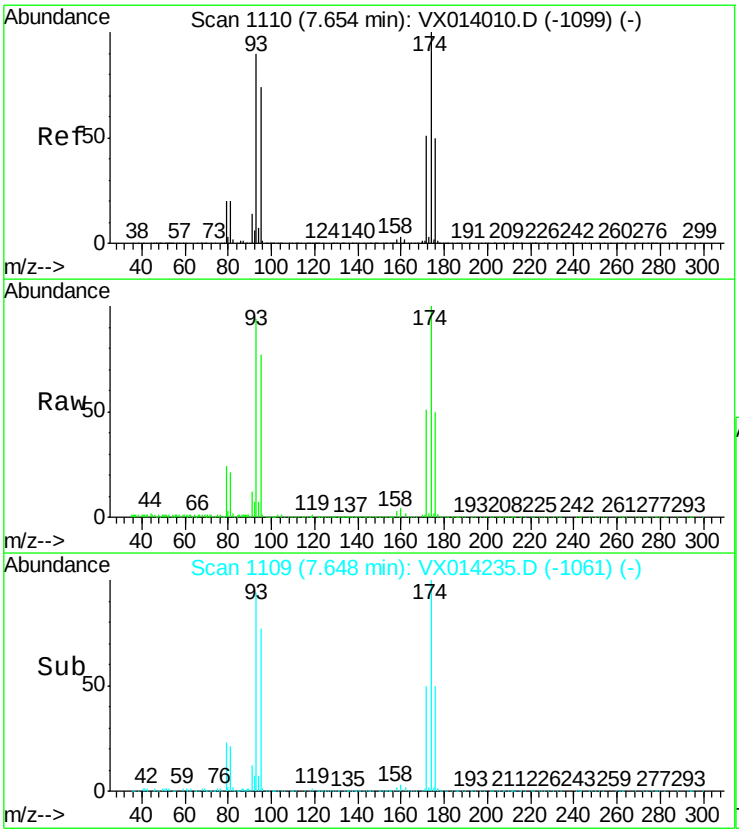


#45
1,2-Dichloropropane
Concen: 19.248 ug/l
RT: 7.51 min Scan# 1086
Delta R.T. 0.00 min
Lab File: VX014235.D
Acq: 24 Dec 2019 11:09

Tgt Ion: 63 Resp: 109598

Ion	Ratio	Lower	Upper
63	100		
65	32.2	25.8	38.8

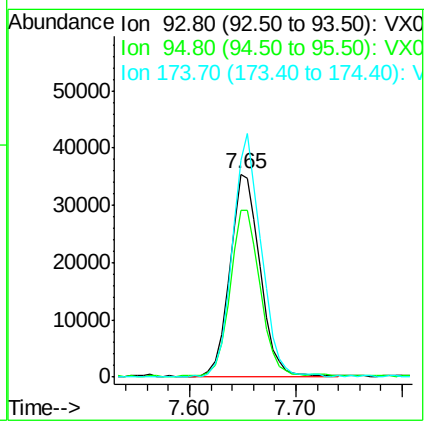




#46
Dibromomethane
Concen: 18.624 ug/l
RT: 7.65 min Scan# 1109
Delta R.T. -0.01 min
Lab File: VX014235.D
Acq: 24 Dec 2019 11:09

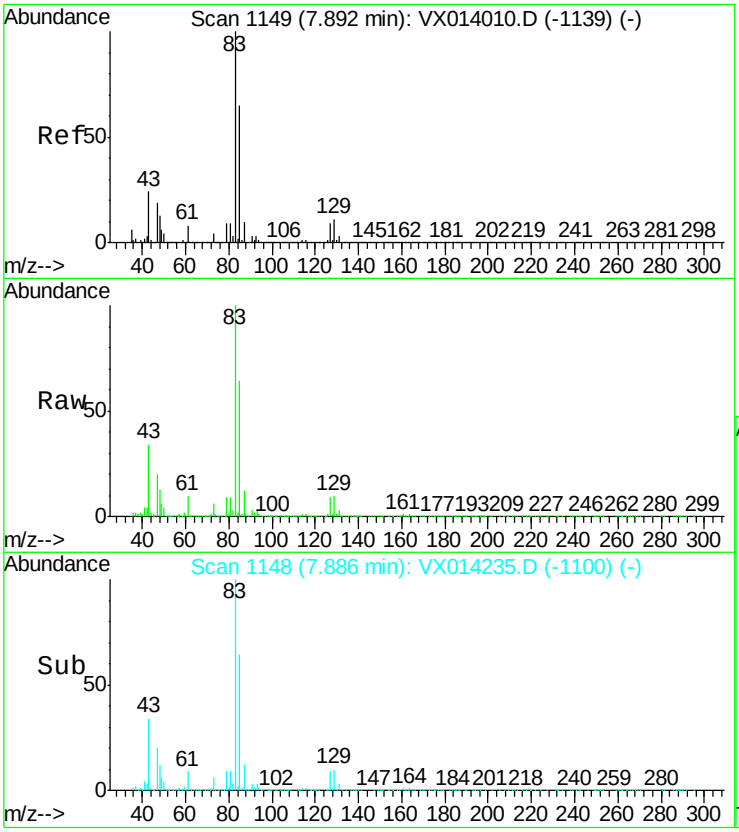
Tgt Ion: 93 Resp: 70114

Ion	Ratio	Lower	Upper
93	100		
95	81.9	67.3	100.9
174	114.6	91.6	137.4



Instrument :
MSVOA_X
ClientSampleId :
VX1224WBS01

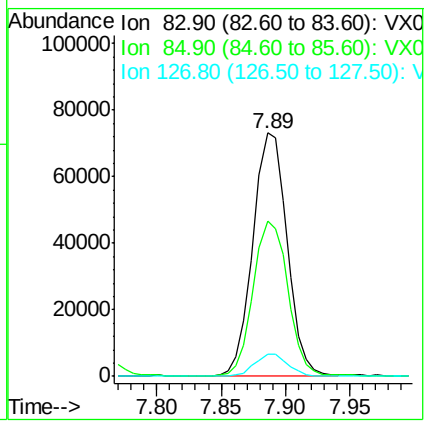
Manual Integrations APPROVED
apatel
12/26/2019 9:24:21 AM

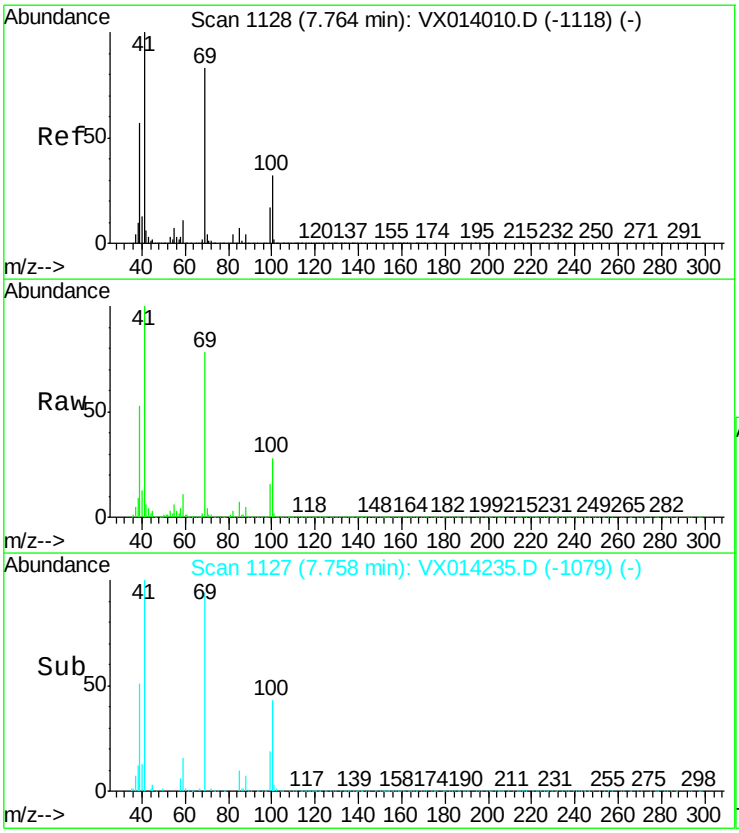


#47
Bromodichloromethane
Concen: 19.002 ug/l
RT: 7.89 min Scan# 1148
Delta R.T. -0.01 min
Lab File: VX014235.D
Acq: 24 Dec 2019 11:09

Tgt Ion: 83 Resp: 134727

Ion	Ratio	Lower	Upper
83	100		
85	63.4	51.8	77.8
127	8.9	7.0	10.4

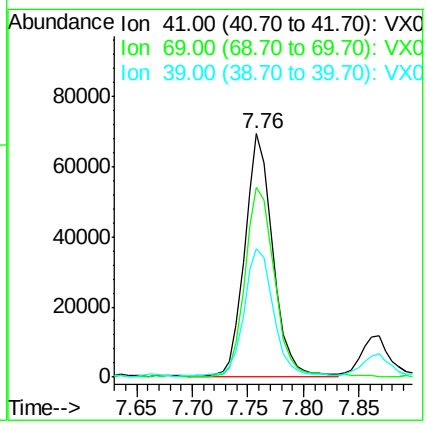




#48
Methyl methacrylate
Concen: 18.647 ug/l
RT: 7.76 min Scan# 1127
Delta R.T. -0.01 min
Lab File: VX014235.D
Acq: 24 Dec 2019 11:09

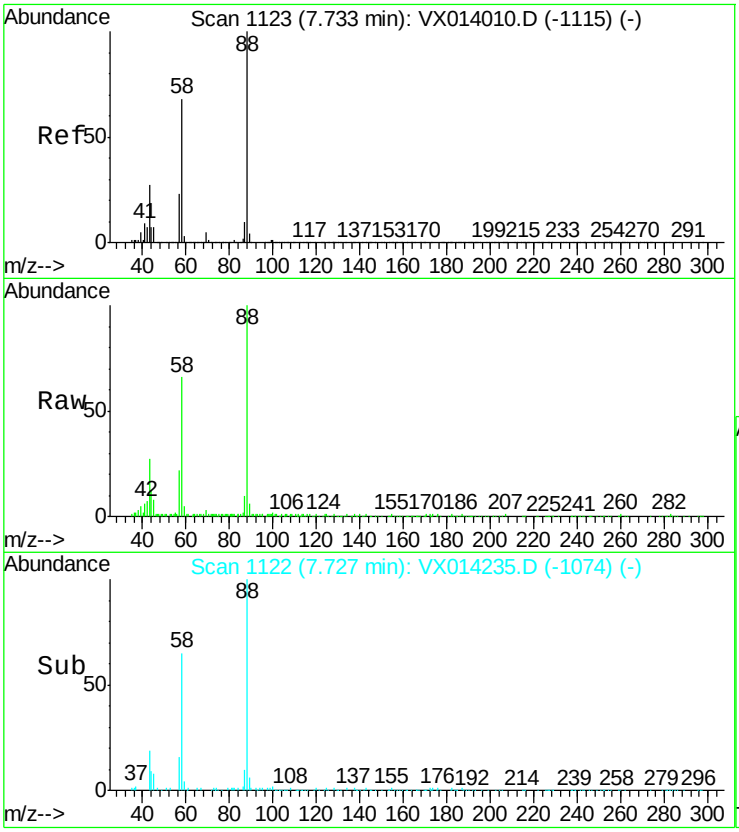
Tgt Ion: 41 Resp: 120483

Ion	Ratio	Lower	Upper
41	100		
69	81.8	65.8	98.6
39	55.2	44.6	67.0



Instrument :
MSVOA_X
ClientSampleId :
VX1224WBS01

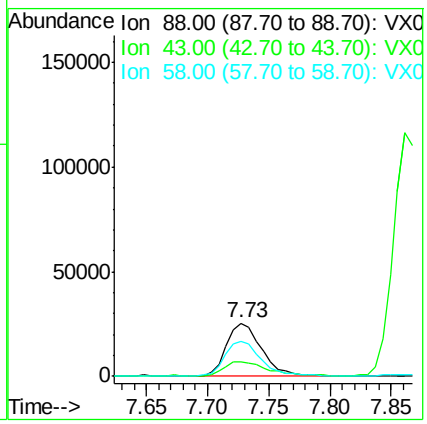
Manual Integrations APPROVED
apatel
12/26/2019 9:24:21 AM

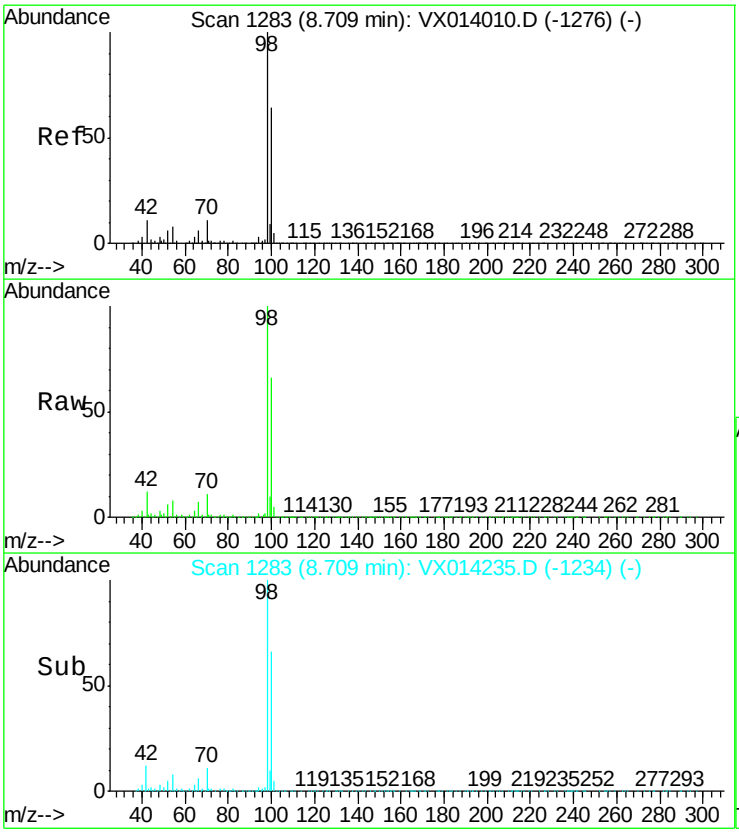


#49
1,4-Dioxane
Concen: 381.090 ug/l
RT: 7.73 min Scan# 1122
Delta R.T. -0.01 min
Lab File: VX014235.D
Acq: 24 Dec 2019 11:09

Tgt Ion: 88 Resp: 50109

Ion	Ratio	Lower	Upper
88	100		
43	33.4	26.5	39.7
58	68.2	56.8	85.2

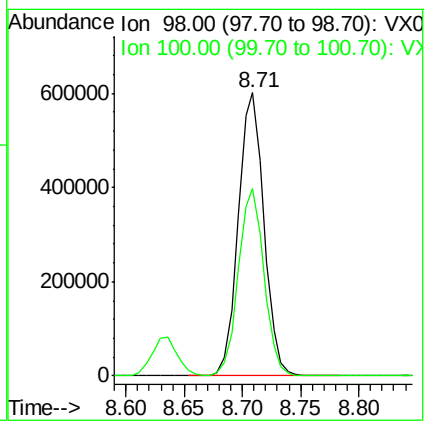




#50
Toluene-d8
Concen: 49.505 ug/l
RT: 8.71 min Scan# 1283
Delta R.T. 0.00 min
Lab File: VX014235.D
Acq: 24 Dec 2019 11:09

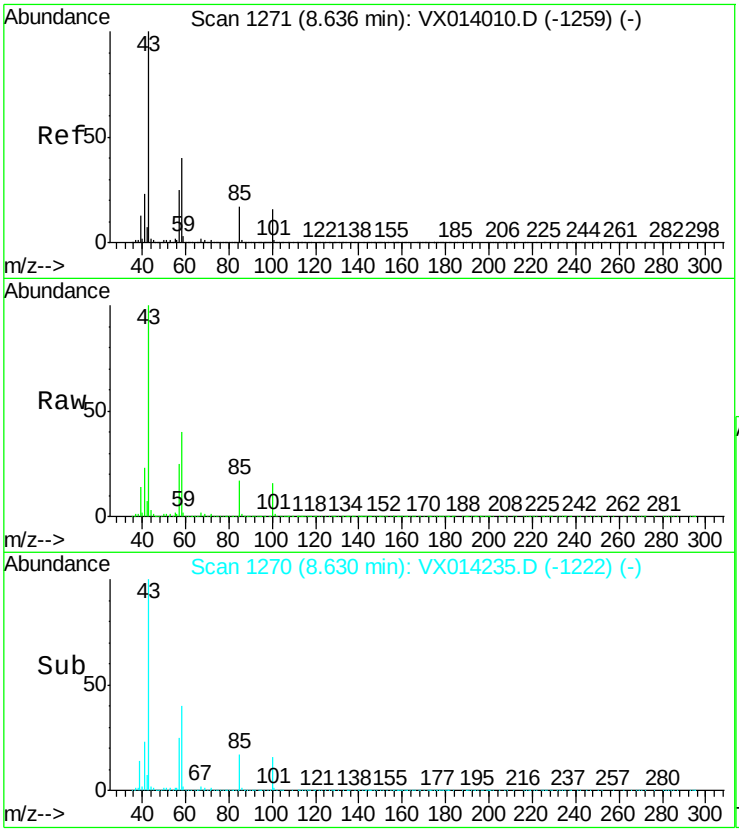
Tgt Ion: 98 Resp: 921932

Ion	Ratio	Lower	Upper
98	100		
100	66.2	52.9	79.3



Instrument :
MSVOA_X
ClientSampleId :
VX1224WBS01

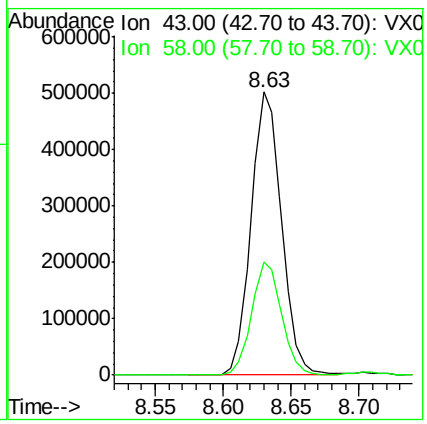
Manual Integrations APPROVED
apatel
12/26/2019 9:24:21 AM

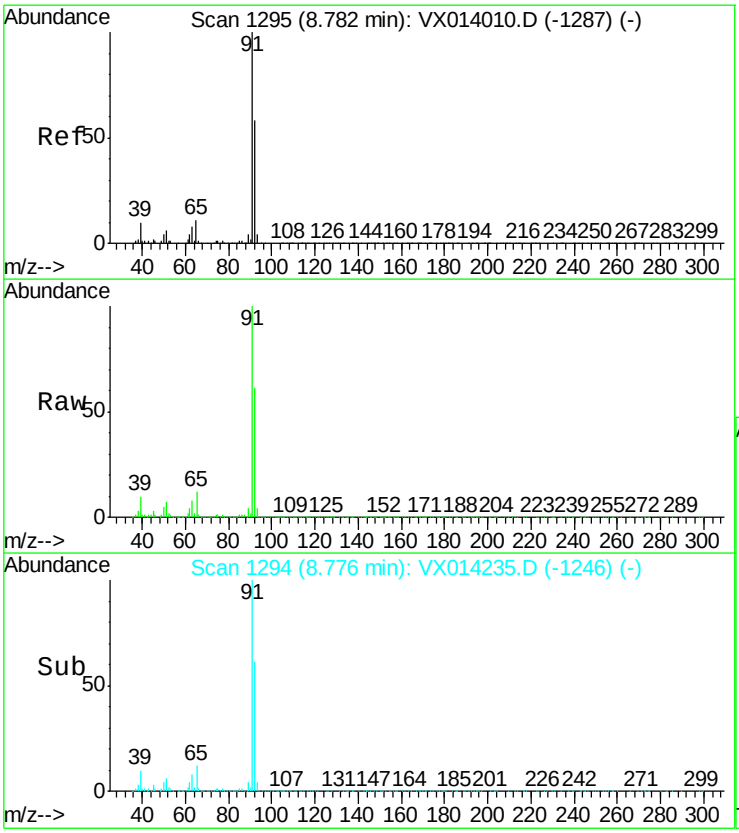


#51
4-Methyl-2-Pentanone
Concen: 95.181 ug/l
RT: 8.63 min Scan# 1270
Delta R.T. -0.01 min
Lab File: VX014235.D
Acq: 24 Dec 2019 11:09

Tgt Ion: 43 Resp: 788743

Ion	Ratio	Lower	Upper
43	100		
58	39.4	32.2	48.2

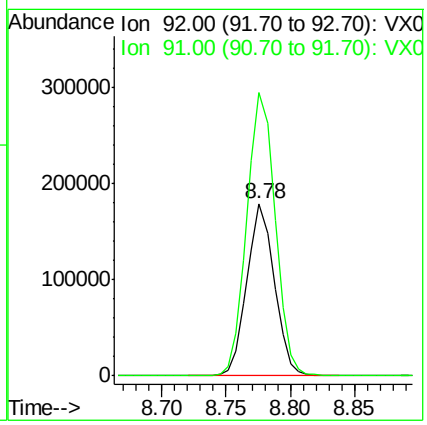




#52
Toluene
Concen: 18.669 ug/l
RT: 8.78 min Scan# 1294
Delta R.T. -0.01 min
Lab File: VX014235.D
Acq: 24 Dec 2019 11:09

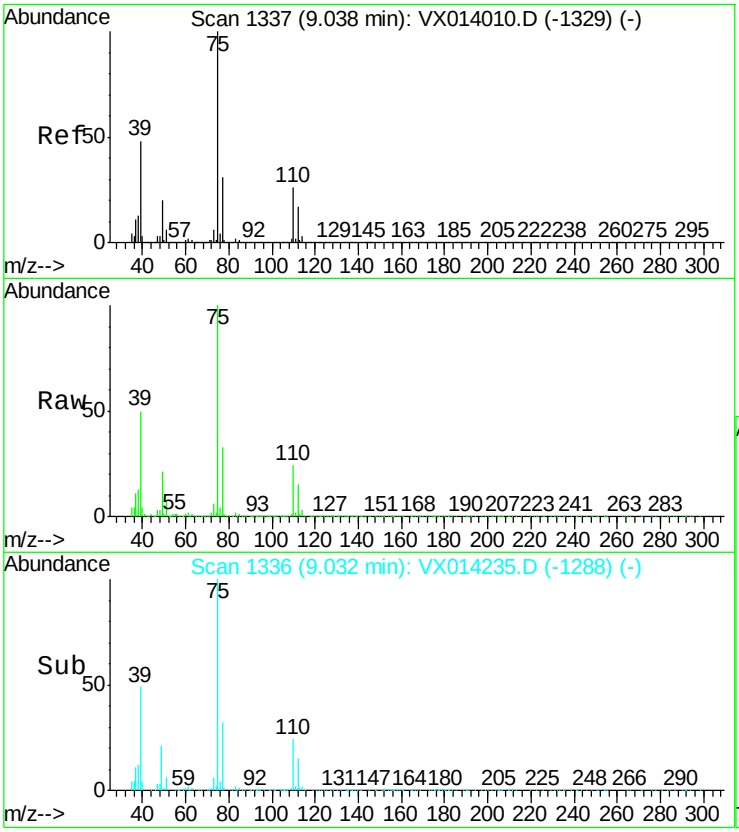
Tgt Ion: 92 Resp: 262142

Ion	Ratio	Lower	Upper
92	100		
91	170.8	136.2	204.4



Instrument :
MSVOA_X
ClientSampleId :
VX1224WBS01

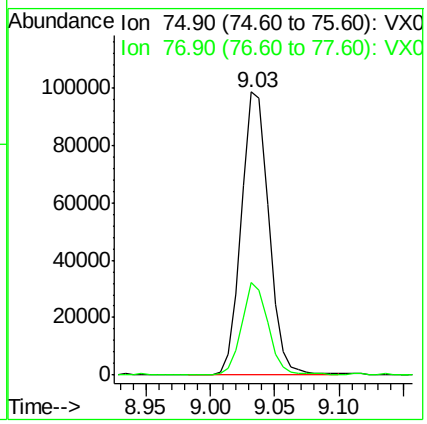
Manual Integrations APPROVED
apatel
12/26/2019 9:24:21 AM

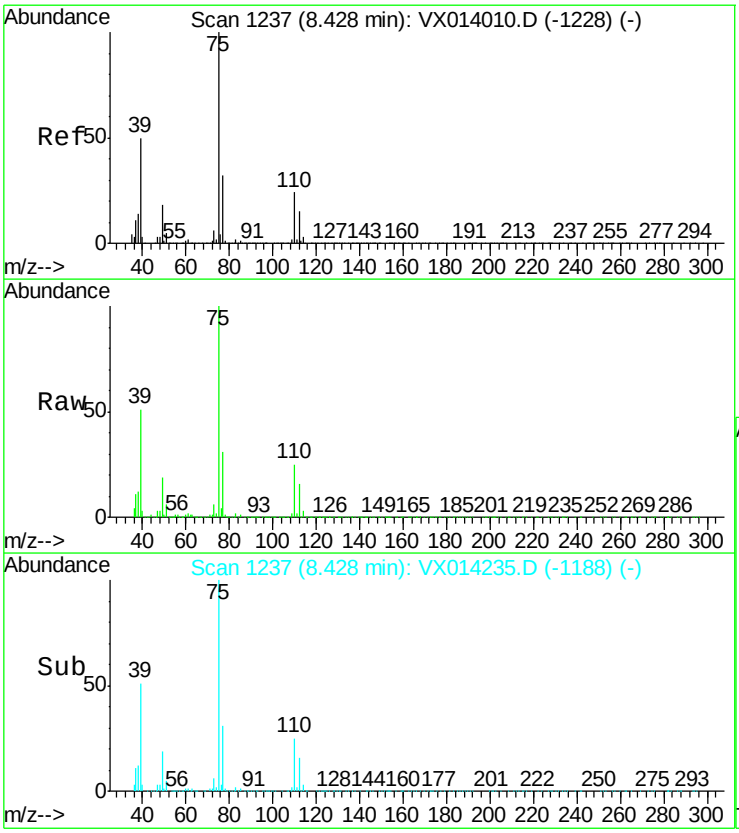


#53
t-1,3-Dichloropropene
Concen: 18.761 ug/l
RT: 9.03 min Scan# 1336
Delta R.T. -0.01 min
Lab File: VX014235.D
Acq: 24 Dec 2019 11:09

Tgt Ion: 75 Resp: 145852

Ion	Ratio	Lower	Upper
75	100		
77	32.4	25.1	37.7

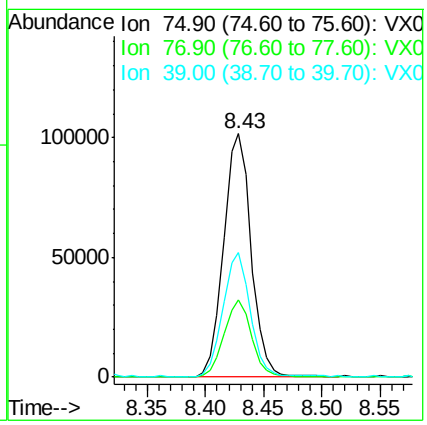




#54
cis-1,3-Dichloropropene
Concen: 19.127 ug/l
RT: 8.43 min Scan# 1237
Delta R.T. 0.00 min
Lab File: VX014235.D
Acq: 24 Dec 2019 11:09

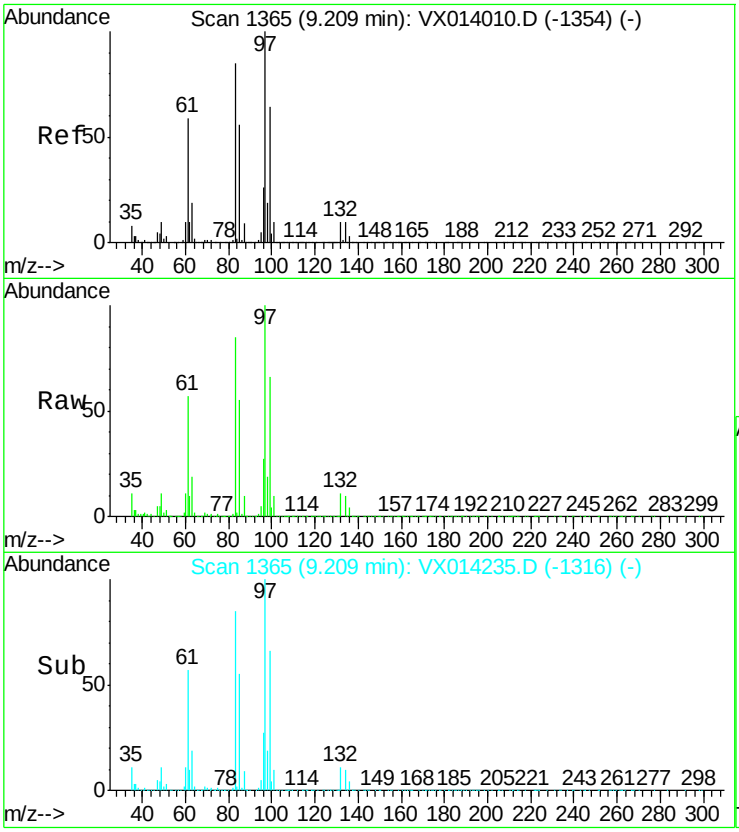
Tgt Ion: 75 Resp: 165666

Ion	Ratio	Lower	Upper
75	100		
77	31.4	25.3	37.9
39	51.0	39.9	59.9



Instrument :
MSVOA_X
ClientSampleId :
VX1224WBS01

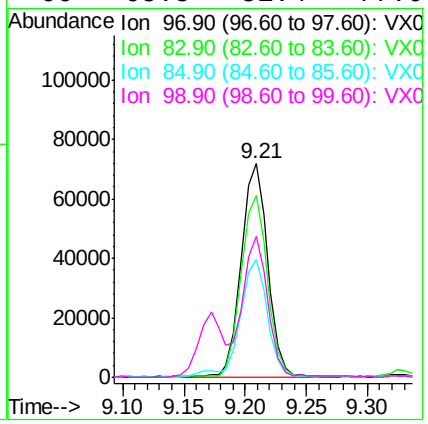
Manual Integrations APPROVED
apatel
12/26/2019 9:24:21 AM

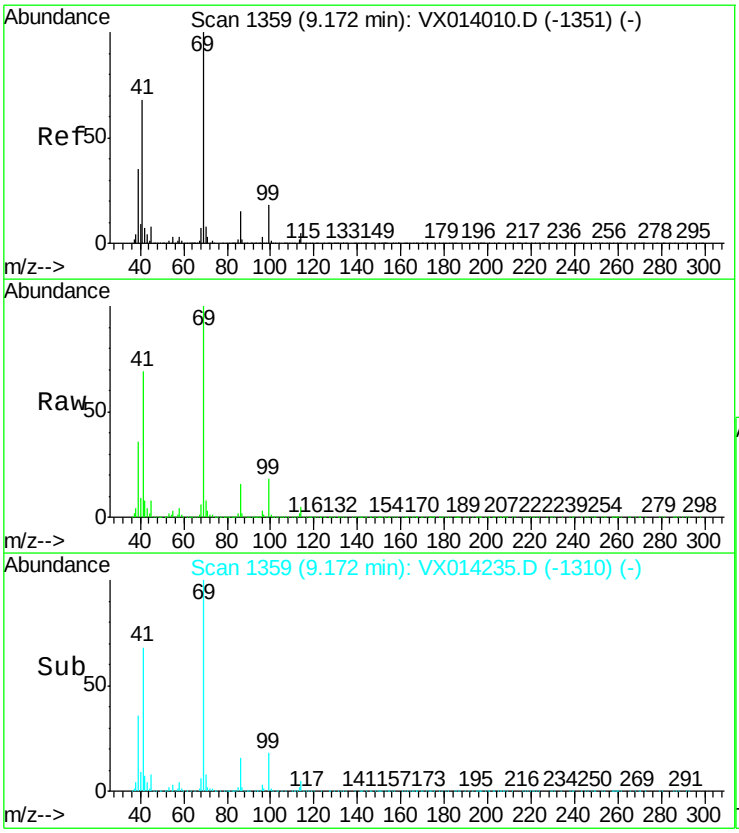


#55
1,1,2-Trichloroethane
Concen: 19.215 ug/l
RT: 9.21 min Scan# 1365
Delta R.T. 0.00 min
Lab File: VX014235.D
Acq: 24 Dec 2019 11:09

Tgt Ion: 97 Resp: 108141

Ion	Ratio	Lower	Upper
97	100		
83	84.6	68.2	102.4
85	54.9	44.6	66.8
99	65.5	51.4	77.0

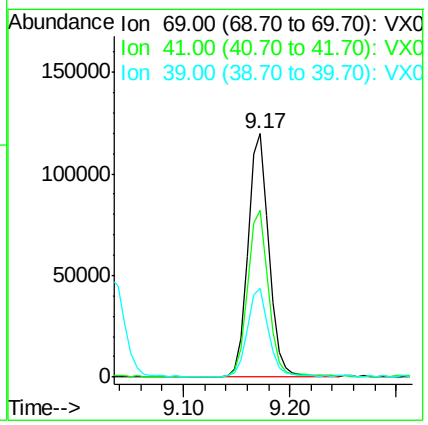




#56
Ethyl methacrylate
Concen: 18.776 ug/l
RT: 9.17 min Scan# 1359
Delta R.T. 0.00 min
Lab File: VX014235.D
Acq: 24 Dec 2019 11:09

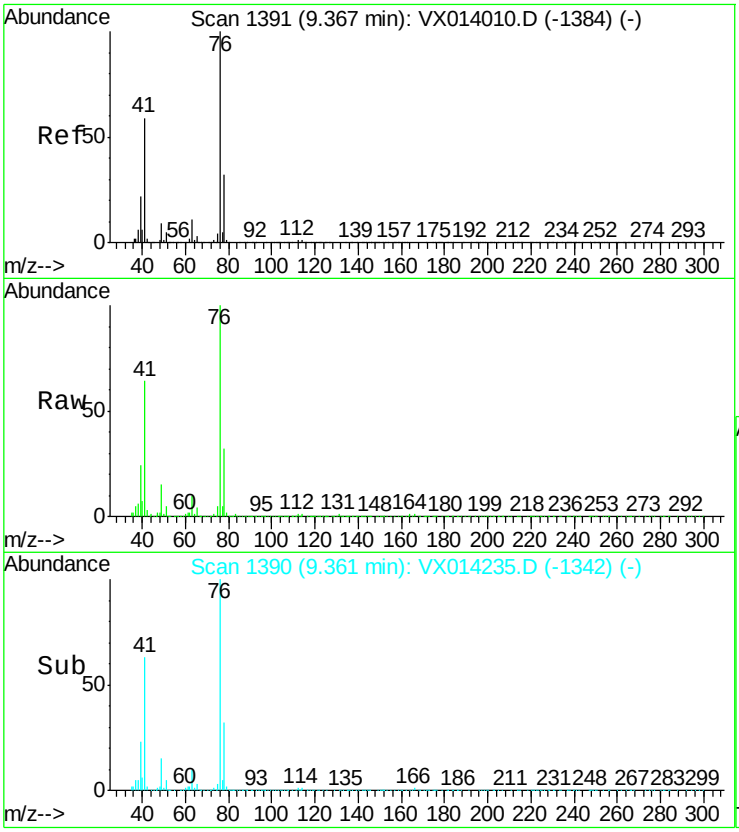
Tgt Ion: 69 Resp: 165986

Ion	Ratio	Lower	Upper
69	100		
41	67.5	54.8	82.2
39	36.5	28.3	42.5



Instrument :
MSVOA_X
ClientSampleId :
VX1224WBS01

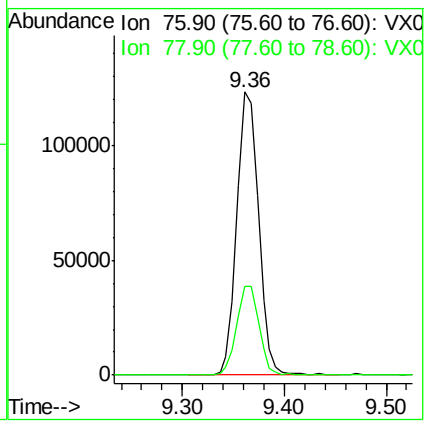
Manual Integrations APPROVED
apatel
12/26/2019 9:24:21 AM

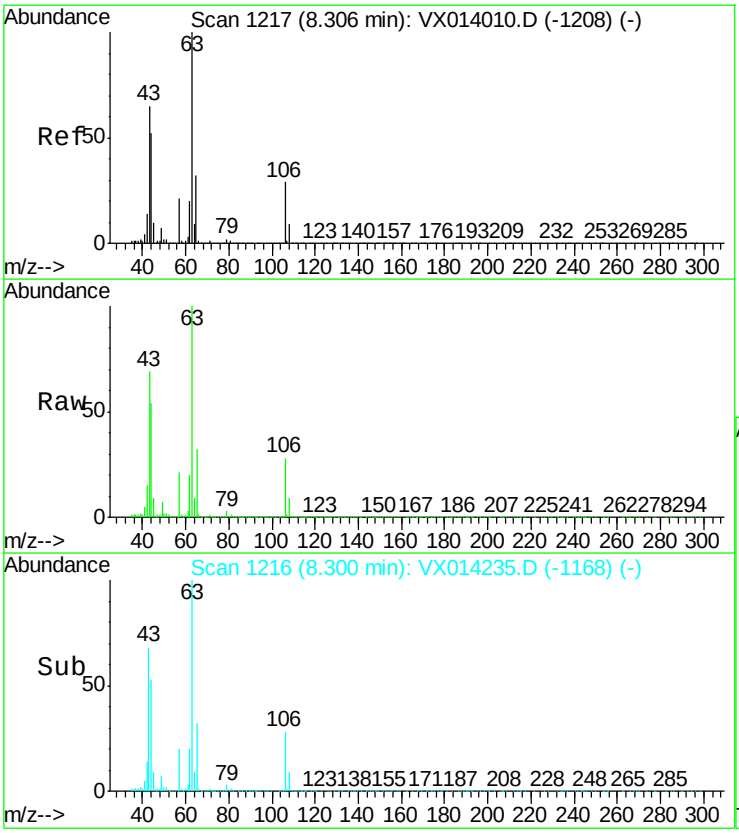


#57
1,3-Dichloropropane
Concen: 19.250 ug/l
RT: 9.36 min Scan# 1390
Delta R.T. -0.01 min
Lab File: VX014235.D
Acq: 24 Dec 2019 11:09

Tgt Ion: 76 Resp: 182272

Ion	Ratio	Lower	Upper
76	100		
78	32.0	25.8	38.6

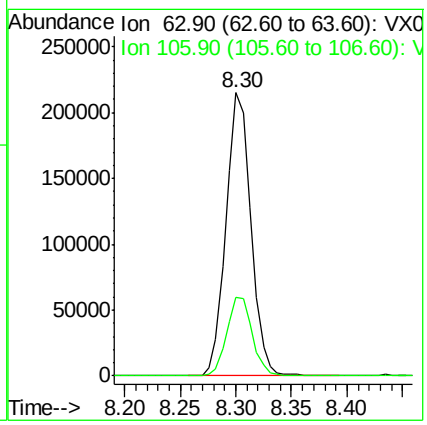




#58
2-Chloroethyl Vinyl ether
Concen: 99.551 ug/l
RT: 8.30 min Scan# 1216
Delta R.T. -0.01 min
Lab File: VX014235.D
Acq: 24 Dec 2019 11:09

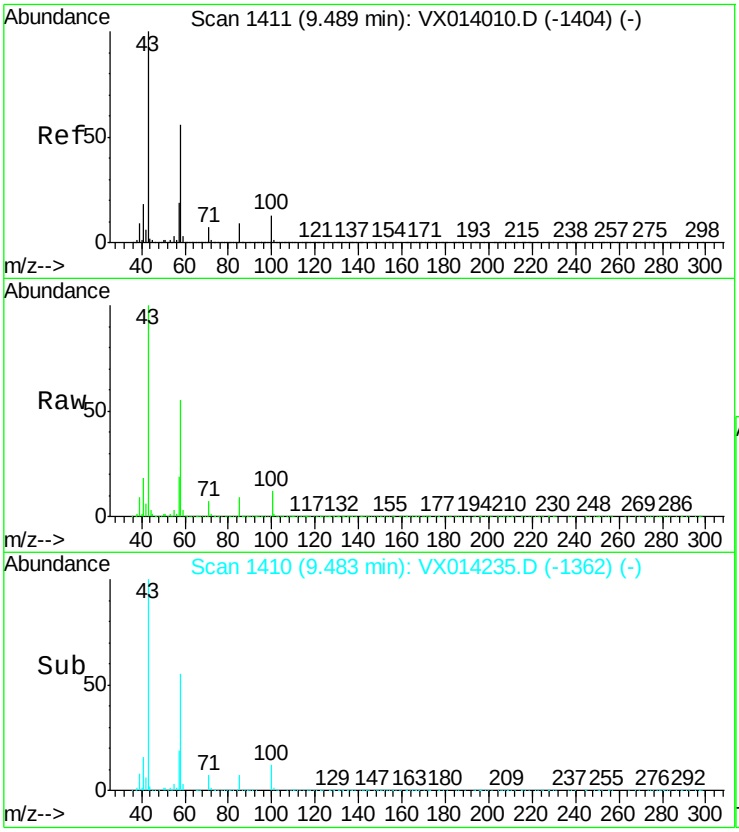
Tgt Ion: 63 Resp: 333050

Ion	Ratio	Lower	Upper
63	100		
106	28.5	23.0	34.6



Instrument :
MSVOA_X
ClientSampleId :
VX1224WBS01

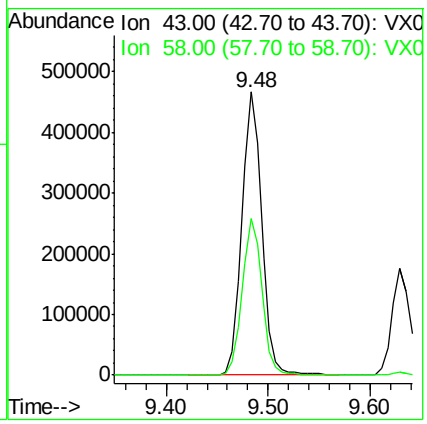
Manual Integrations APPROVED
apatel
12/26/2019 9:24:21 AM

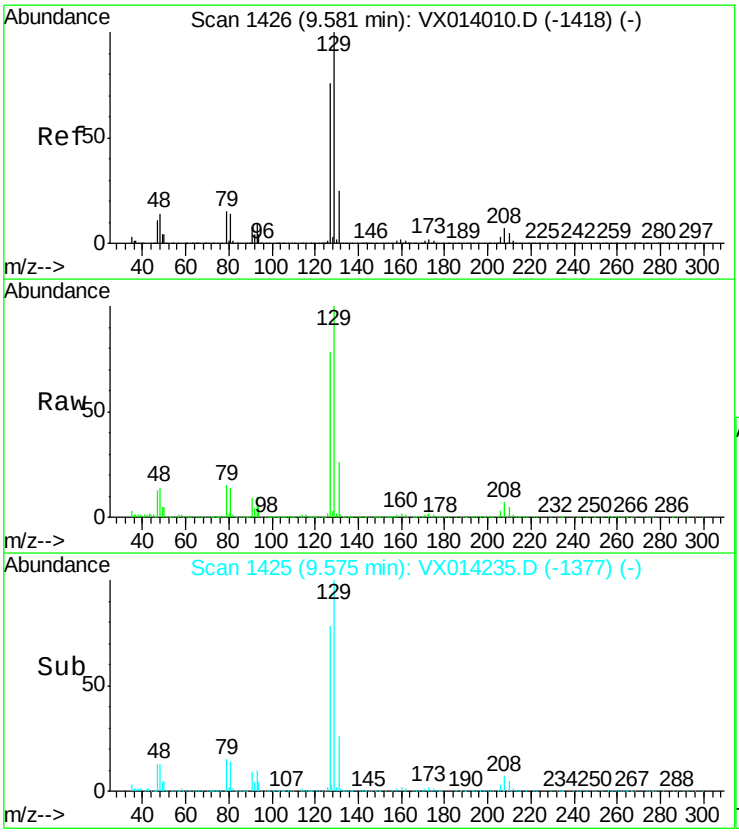


#59
2-Hexanone
Concen: 93.840 ug/l
RT: 9.48 min Scan# 1410
Delta R.T. -0.01 min
Lab File: VX014235.D
Acq: 24 Dec 2019 11:09

Tgt Ion: 43 Resp: 625992

Ion	Ratio	Lower	Upper
43	100		
58	54.9	28.0	84.0

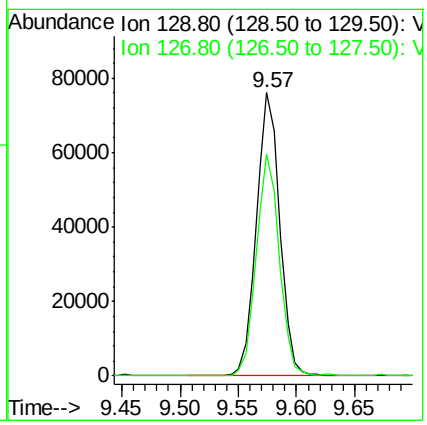




#60
Dibromochloromethane
Concen: 19.106 ug/l
RT: 9.57 min Scan# 1425
Delta R.T. -0.01 min
Lab File: VX014235.D
Acq: 24 Dec 2019 11:09

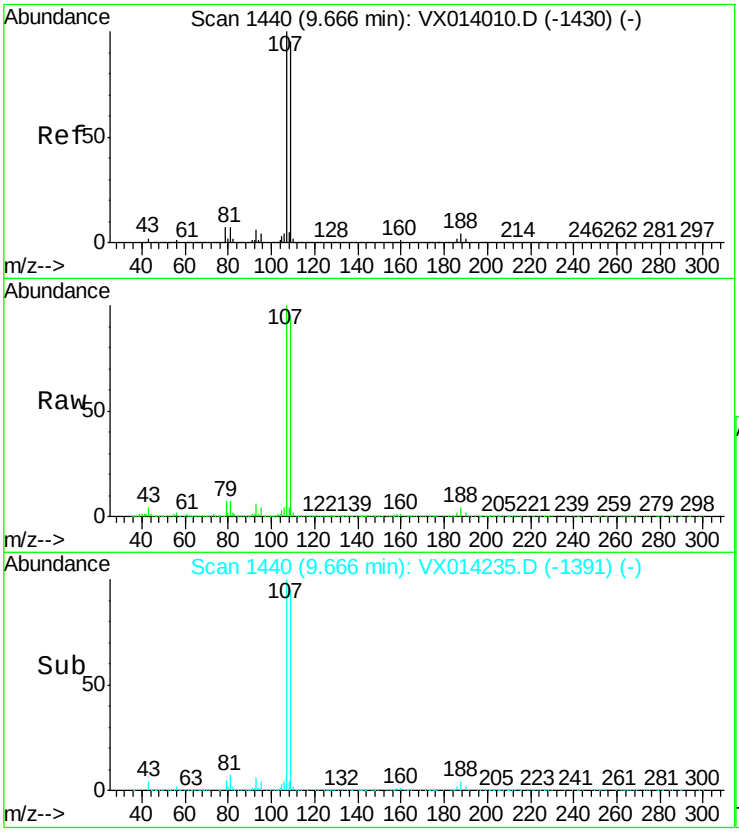
Tgt Ion:129 Resp: 106882

Ion	Ratio	Lower	Upper
129	100		
127	77.5	38.4	115.2



Instrument :
MSVOA_X
ClientSampleId :
VX1224WBS01

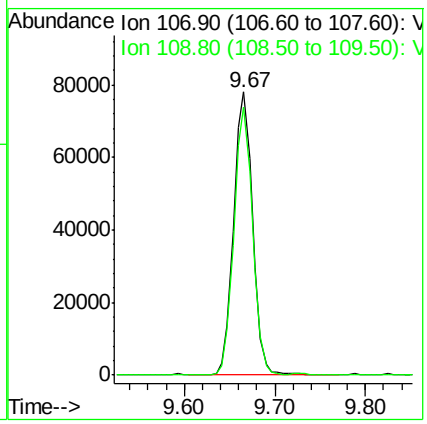
Manual Integrations APPROVED
apatel
12/26/2019 9:24:21 AM

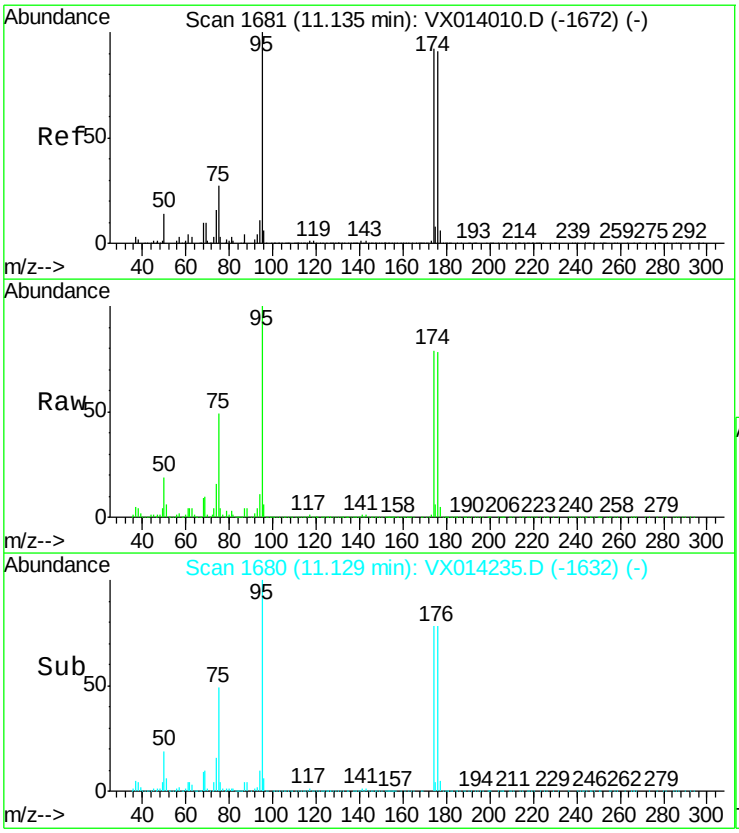


#61
1,2-Dibromoethane
Concen: 19.618 ug/l
RT: 9.67 min Scan# 1440
Delta R.T. 0.00 min
Lab File: VX014235.D
Acq: 24 Dec 2019 11:09

Tgt Ion:107 Resp: 112962

Ion	Ratio	Lower	Upper
107	100		
109	93.2	75.7	113.5

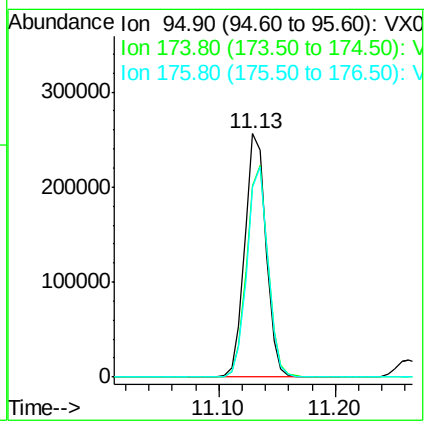




#62
4-Bromofluorobenzene
Concen: 48.204 ug/l
RT: 11.13 min Scan# 1680
Delta R.T. -0.01 min
Lab File: VX014235.D
Acq: 24 Dec 2019 11:09

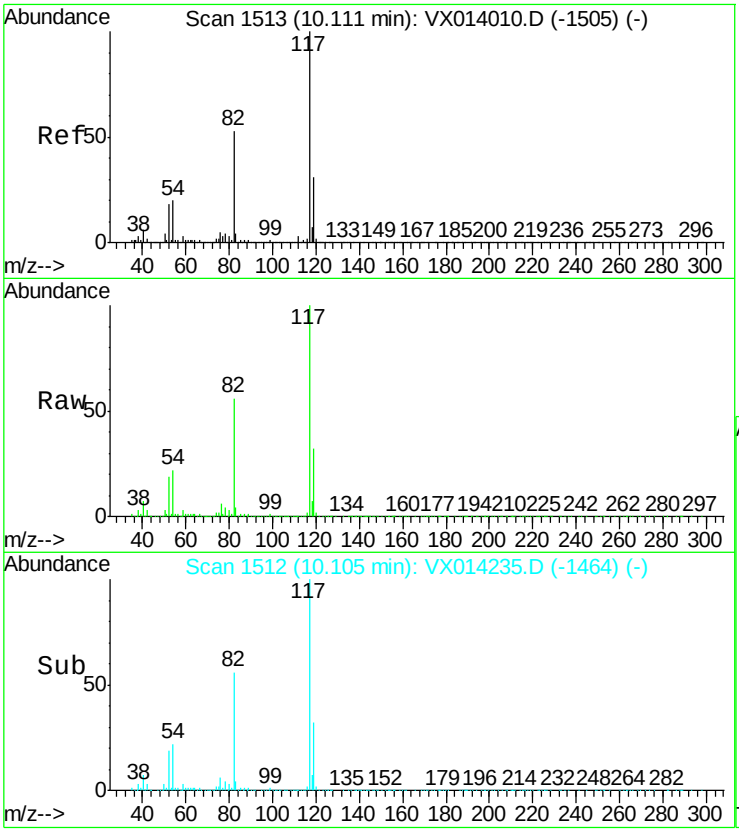
Tgt Ion: 95 Resp: 328151

Ion	Ratio	Lower	Upper
95	100		
174	86.9	0.0	175.8
176	85.6	0.0	173.0



Instrument :
MSVOA_X
ClientSampleId :
VX1224WBS01

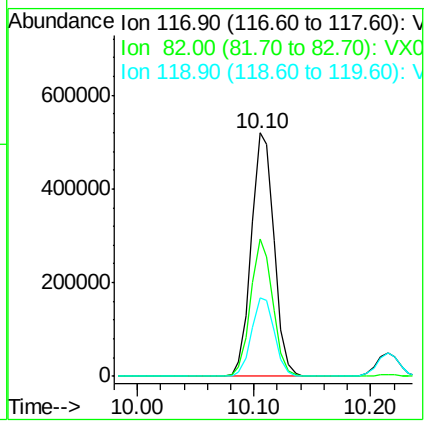
Manual Integrations APPROVED
apatel
12/26/2019 9:24:21 AM

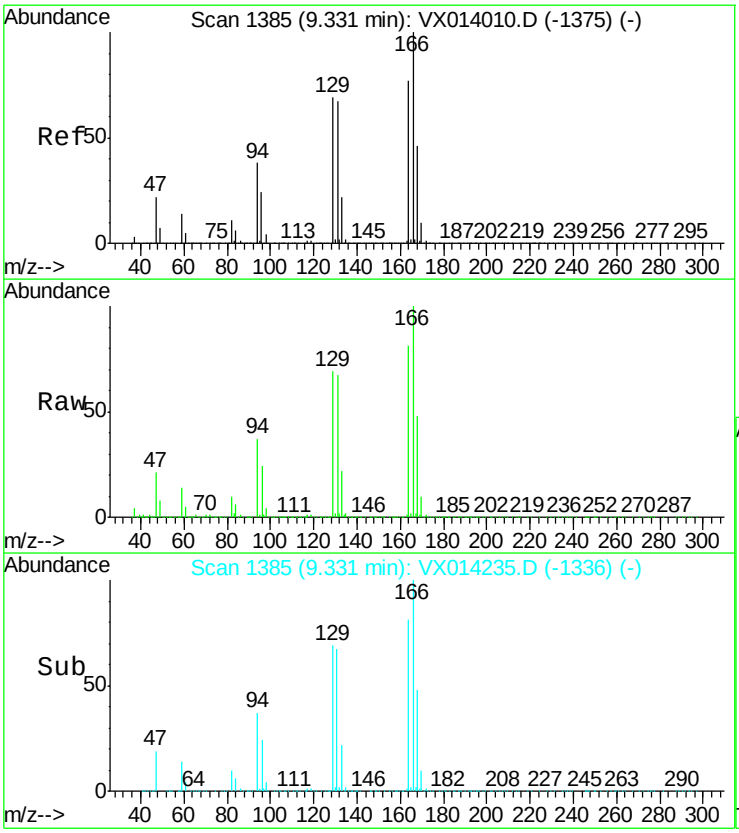


#63
Chlorobenzene-d5
Concen: 50.000 ug/l
RT: 10.10 min Scan# 1512
Delta R.T. -0.01 min
Lab File: VX014235.D
Acq: 24 Dec 2019 11:09

Tgt Ion:117 Resp: 709008

Ion	Ratio	Lower	Upper
117	100		
82	56.4	42.2	63.4
119	32.2	25.1	37.7

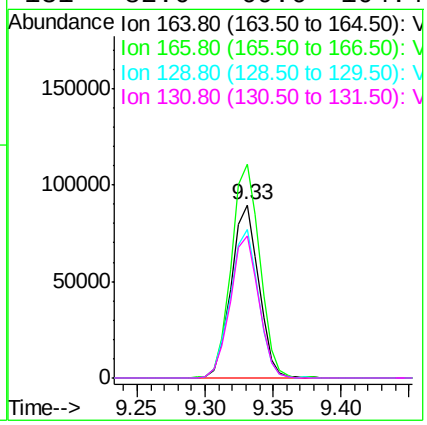




#64
Tetrachloroethene
Concen: 20.263 ug/l
RT: 9.33 min Scan# 1385
Delta R.T. 0.00 min
Lab File: VX014235.D
Acq: 24 Dec 2019 11:09

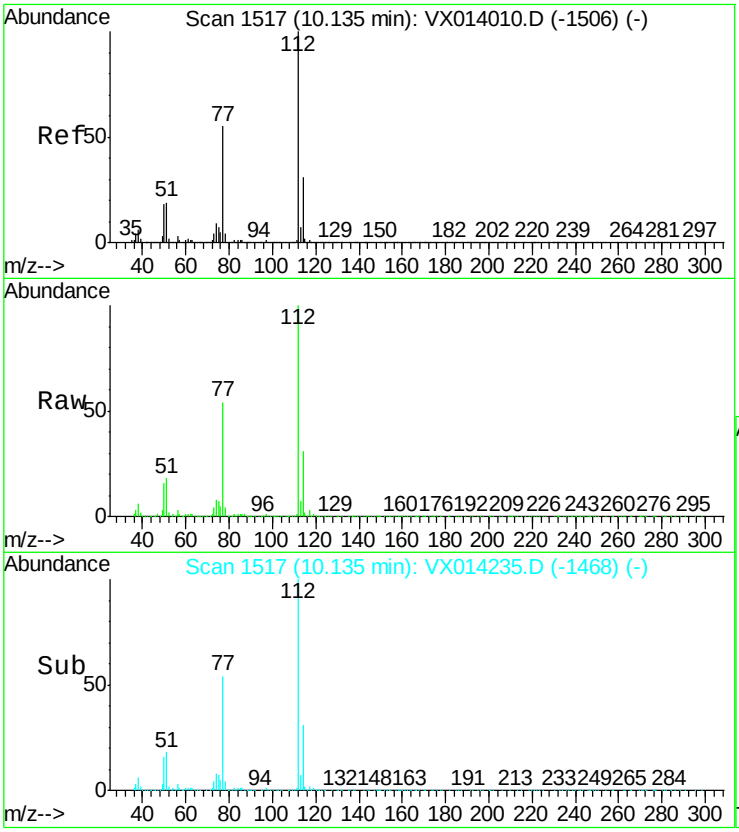
Tgt Ion:164 Resp: 127127

Ion	Ratio	Lower	Upper
164	100		
166	123.0	104.0	156.0
129	85.1	72.2	108.4
131	82.0	69.6	104.4



Instrument :
MSVOA_X
ClientSampleId :
VX1224WBS01

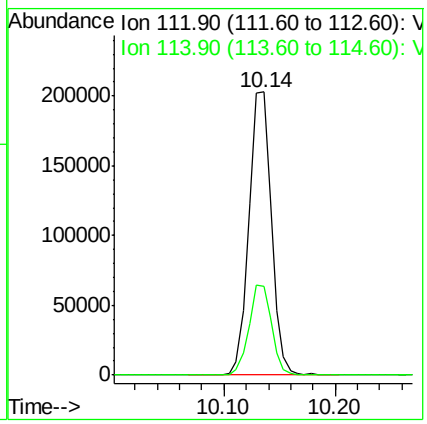
Manual Integrations APPROVED
apatel
12/26/2019 9:24:21 AM

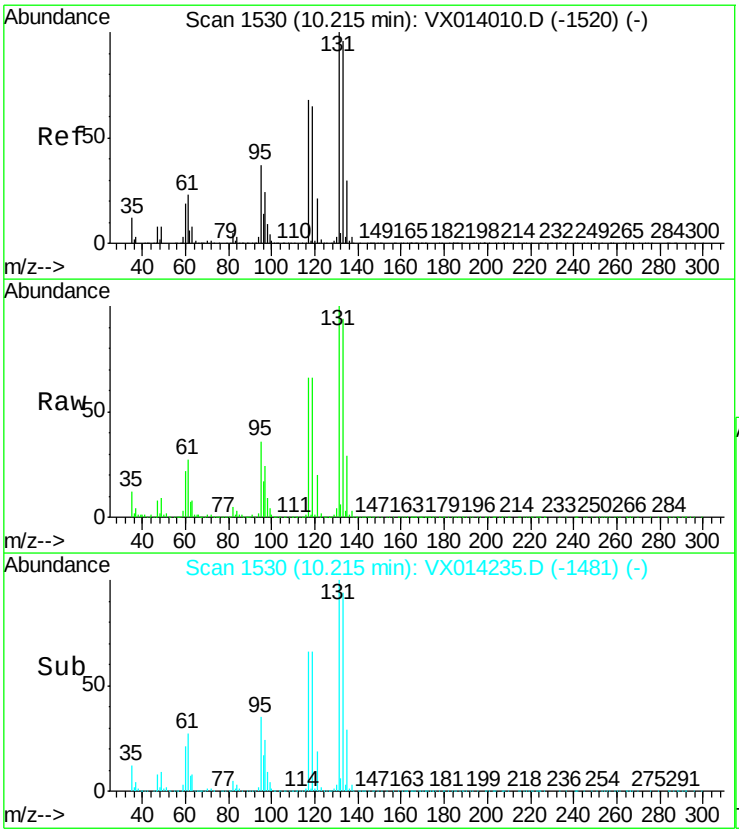


#65
Chlorobenzene
Concen: 18.922 ug/l
RT: 10.14 min Scan# 1517
Delta R.T. 0.00 min
Lab File: VX014235.D
Acq: 24 Dec 2019 11:09

Tgt Ion:112 Resp: 285252

Ion	Ratio	Lower	Upper
112	100		
114	31.2	24.9	37.3

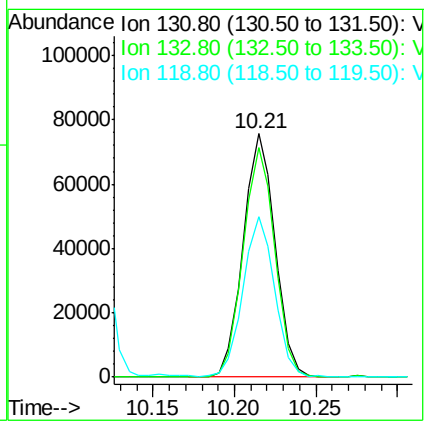




#66
1,1,1,2-Tetrachloroethane
Concen: 19.174 ug/l
RT: 10.21 min Scan# 1530
Delta R.T. 0.00 min
Lab File: VX014235.D
Acq: 24 Dec 2019 11:09

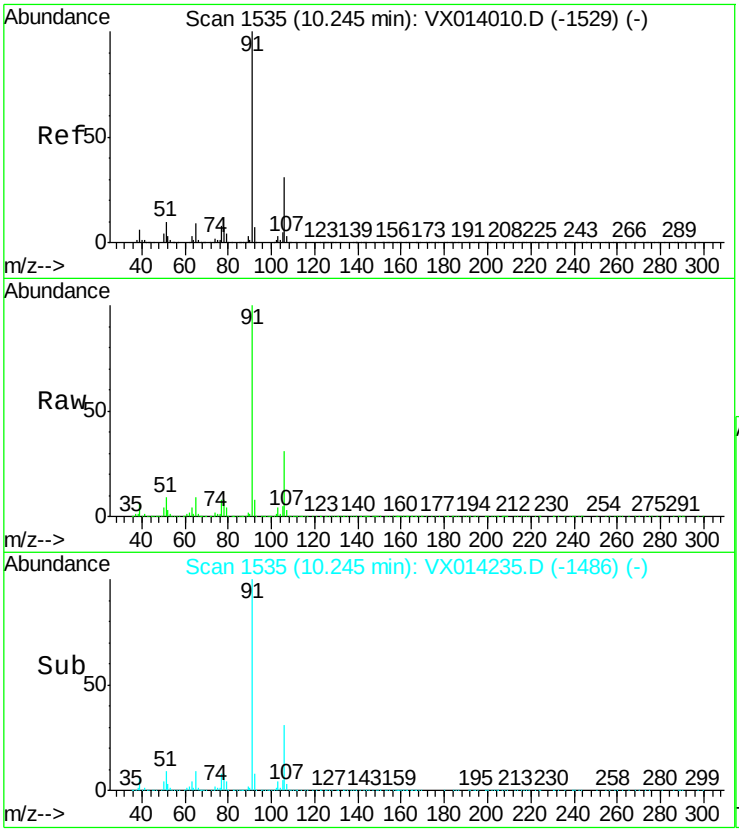
Tgt Ion:131 Resp: 103207

Ion	Ratio	Lower	Upper
131	100		
133	93.4	48.0	144.0
119	65.3	33.4	100.2



Instrument :
MSVOA_X
ClientSampleId :
VX1224WBS01

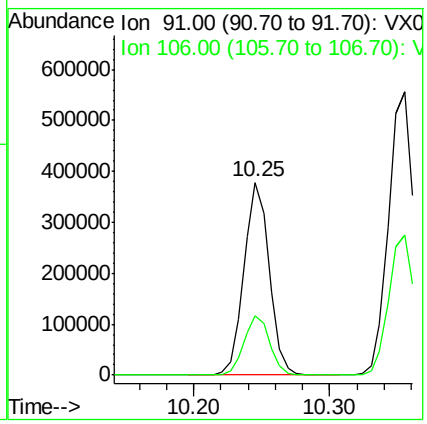
Manual Integrations APPROVED
apatel
12/26/2019 9:24:21 AM

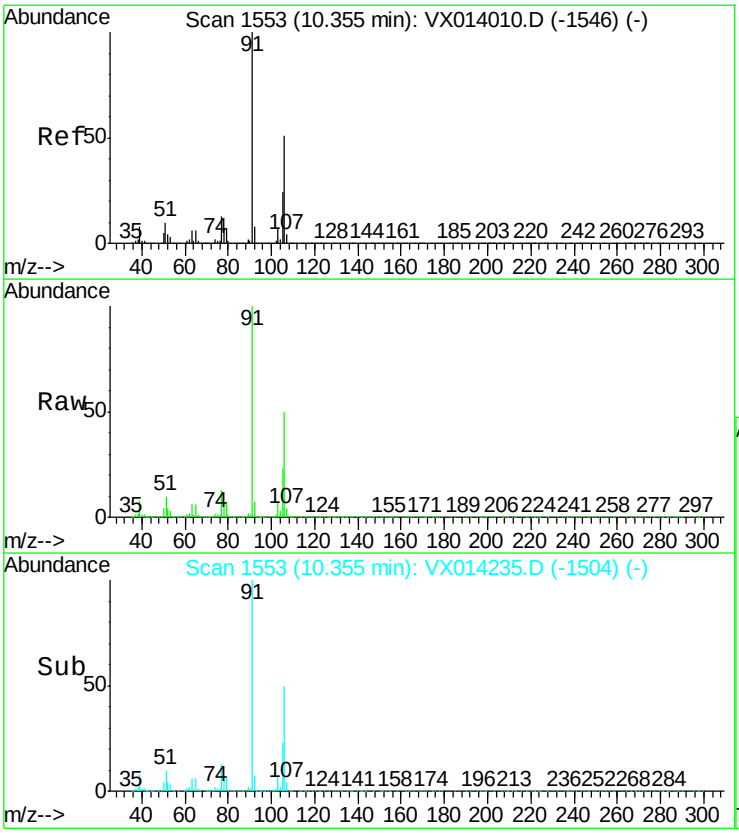


#67
Ethyl Benzene
Concen: 18.931 ug/l
RT: 10.25 min Scan# 1535
Delta R.T. 0.00 min
Lab File: VX014235.D
Acq: 24 Dec 2019 11:09

Tgt Ion: 91 Resp: 490659

Ion	Ratio	Lower	Upper
91	100		
106	31.1	25.0	37.6

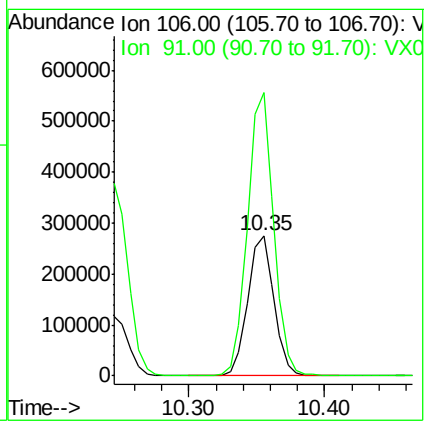




#68
m/p-Xylenes
Concen: 37.122 ug/l
RT: 10.35 min Scan# 1553
Delta R.T. 0.00 min
Lab File: VX014235.D
Acq: 24 Dec 2019 11:09

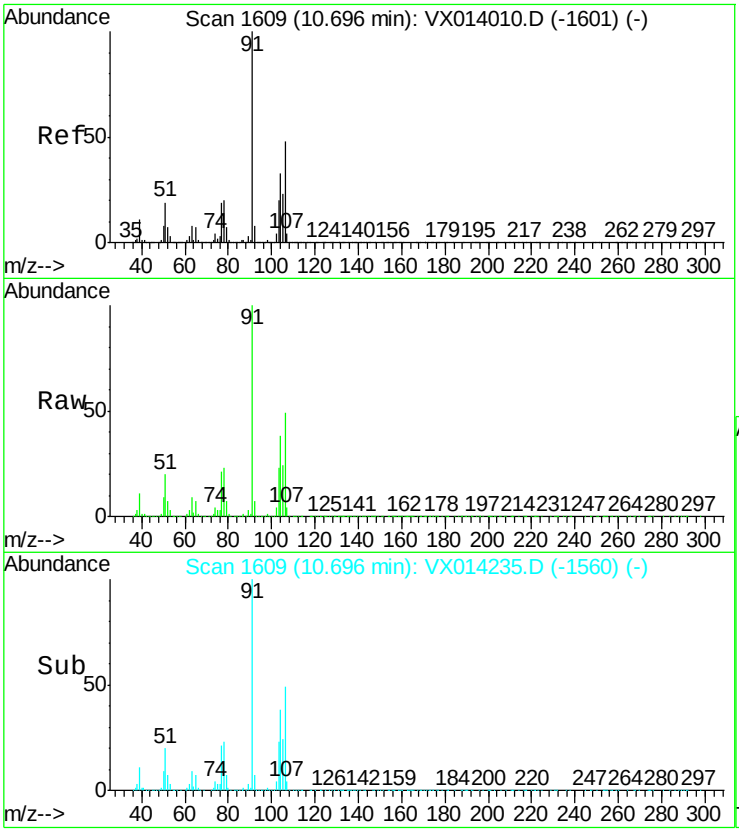
Tgt Ion:106 Resp: 370048

Ion	Ratio	Lower	Upper
106	100		
91	202.4	158.6	238.0



Instrument :
MSVOA_X
ClientSampleId :
VX1224WBS01

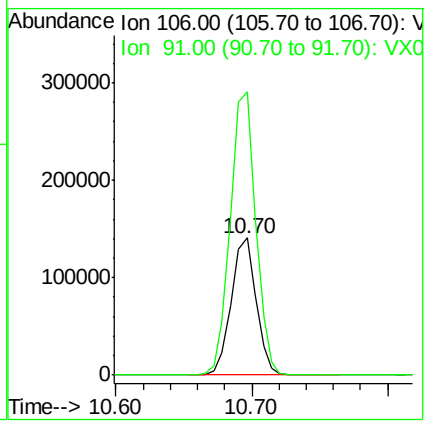
Manual Integrations APPROVED
apatel
12/26/2019 9:24:21 AM

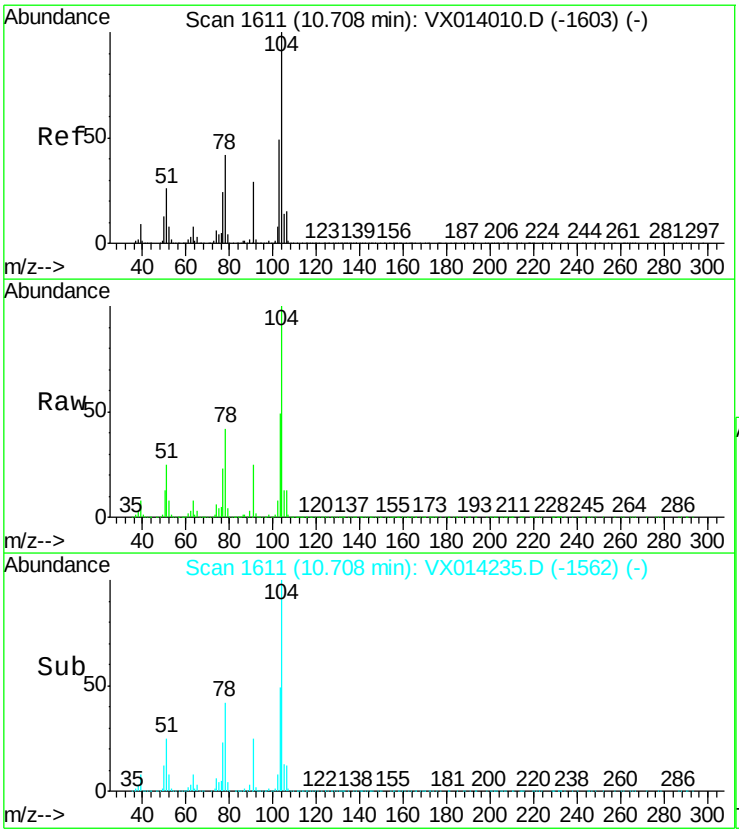


#69
o-Xylene
Concen: 18.397 ug/l
RT: 10.70 min Scan# 1609
Delta R.T. 0.00 min
Lab File: VX014235.D
Acq: 24 Dec 2019 11:09

Tgt Ion:106 Resp: 179860

Ion	Ratio	Lower	Upper
106	100		
91	211.4	104.2	312.6

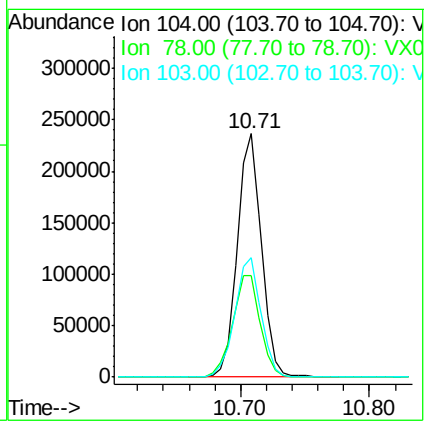




#70
Styrene
Concen: 18.611 ug/l
RT: 10.71 min Scan# 1611
Delta R.T. 0.00 min
Lab File: VX014235.D
Acq: 24 Dec 2019 11:09

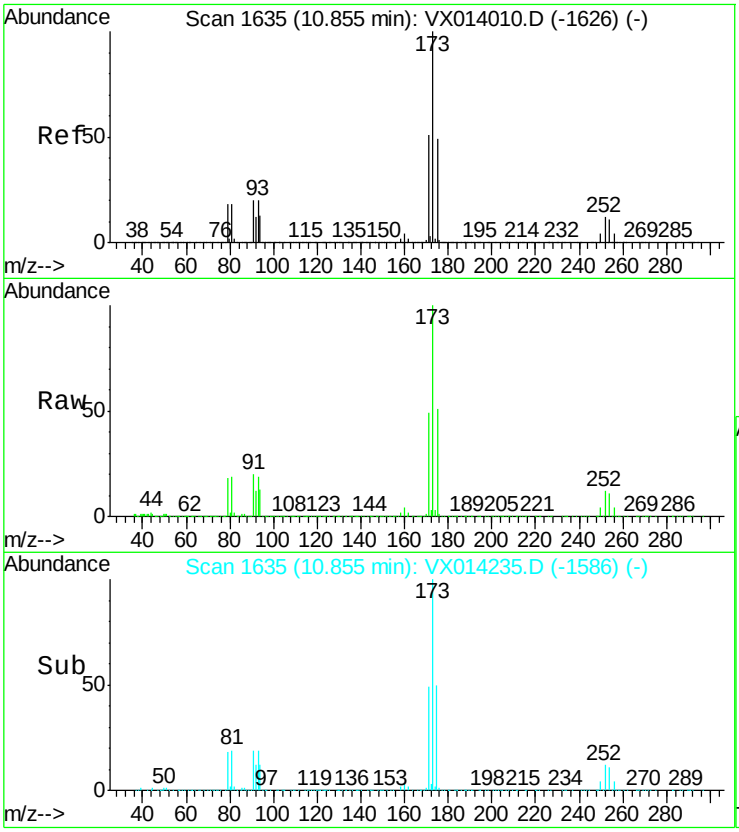
Tgt Ion:104 Resp: 307672

Ion	Ratio	Lower	Upper
104	100		
78	48.0	38.5	57.7
103	53.5	42.9	64.3



Instrument :
MSVOA_X
ClientSampleId :
VX1224WBS01

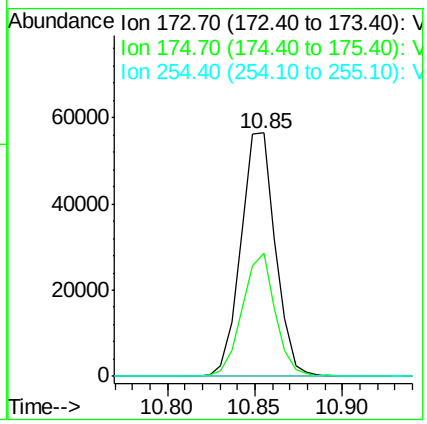
Manual Integrations APPROVED
apatel
12/26/2019 9:24:21 AM

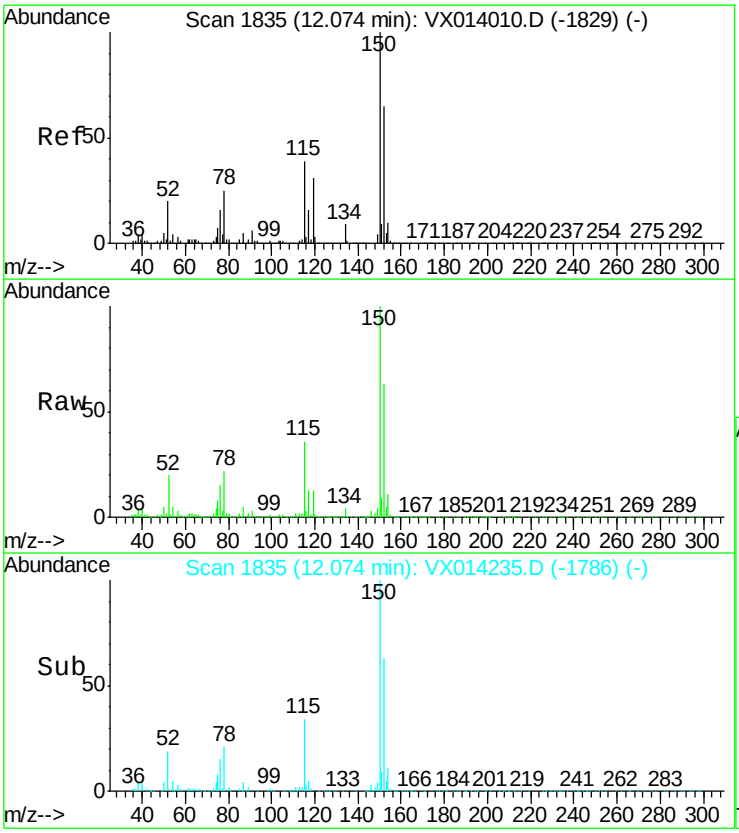


#71
Bromoform
Concen: 17.916 ug/l
RT: 10.85 min Scan# 1635
Delta R.T. 0.00 min
Lab File: VX014235.D
Acq: 24 Dec 2019 11:09

Tgt Ion:173 Resp: 77518

Ion	Ratio	Lower	Upper
173	100		
175	48.8	24.4	73.4
254	0.3	0.2	0.2#

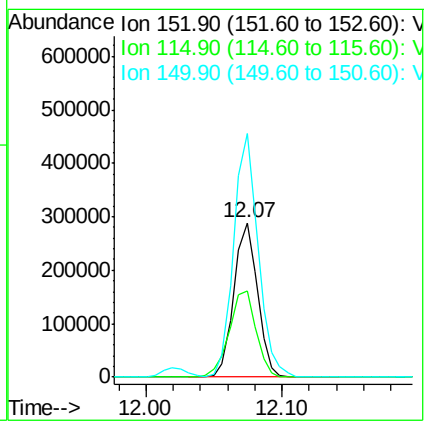




#72
1,4-Dichlorobenzene-d4
Concen: 50.000 ug/l
RT: 12.07 min Scan# 1835
Delta R.T. 0.00 min
Lab File: VX014235.D
Acq: 24 Dec 2019 11:09

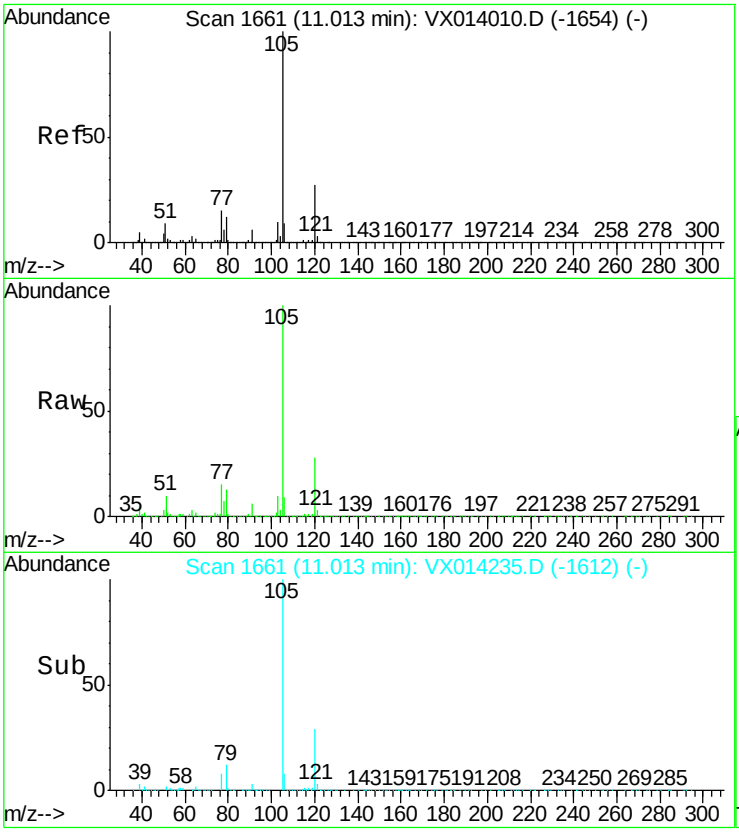
Tgt Ion:152 Resp: 349083

Ion	Ratio	Lower	Upper
152	100		
115	63.4	38.3	114.9
150	162.9	0.0	345.4



Instrument :
MSVOA_X
ClientSampleId :
VX1224WBS01

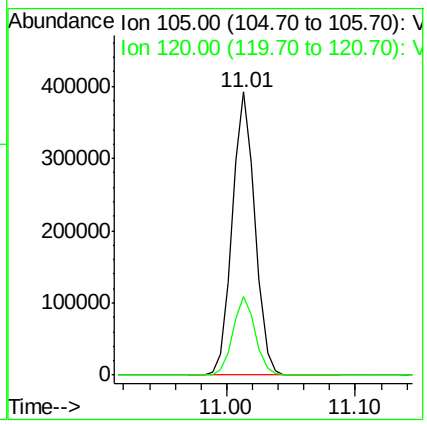
Manual Integrations APPROVED
apatel
12/26/2019 9:24:21 AM

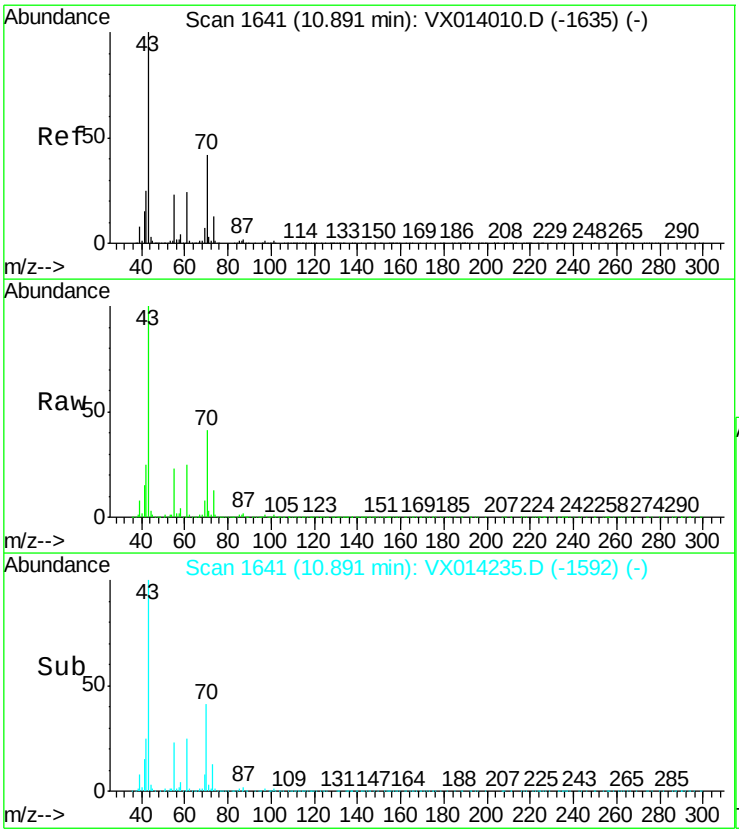


#73
Isopropylbenzene
Concen: 19.644 ug/l
RT: 11.01 min Scan# 1661
Delta R.T. 0.00 min
Lab File: VX014235.D
Acq: 24 Dec 2019 11:09

Tgt Ion:105 Resp: 482802

Ion	Ratio	Lower	Upper
105	100		
120	27.2	13.5	40.4

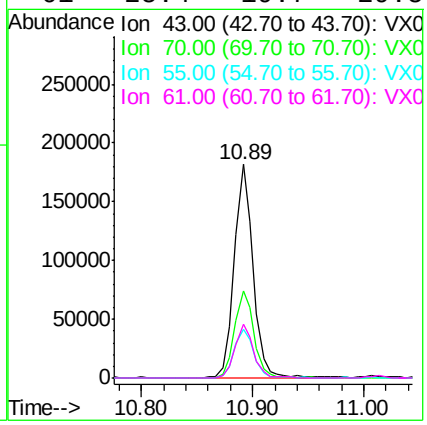




#74
N-amyl acetate
Concen: 18.293 ug/l
RT: 10.89 min Scan# 1641
Delta R.T. 0.00 min
Lab File: VX014235.D
Acq: 24 Dec 2019 11:09

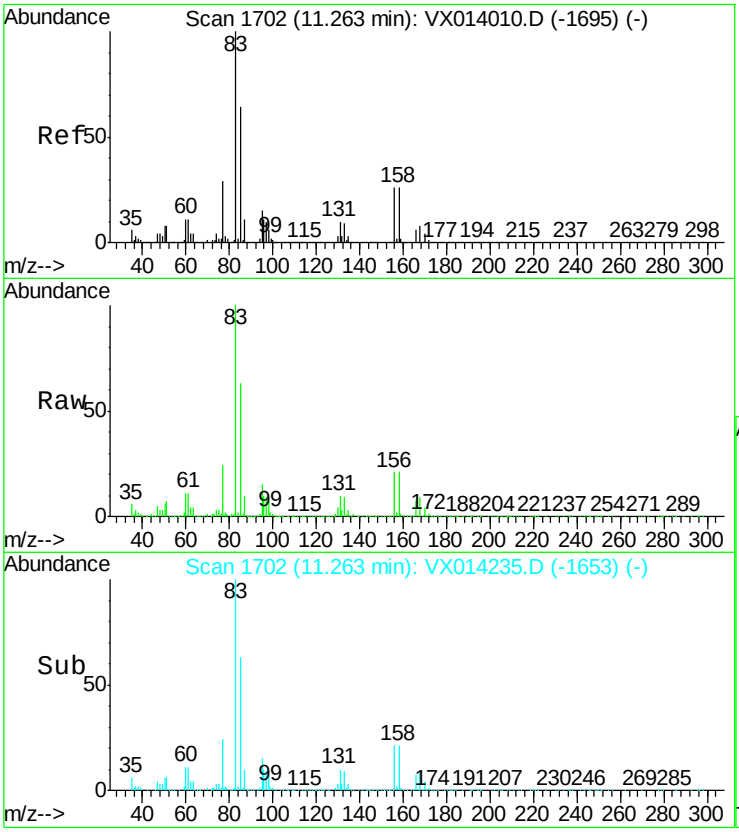
Tgt Ion: 43 Resp: 210744

Ion	Ratio	Lower	Upper
43	100		
70	42.2	34.4	51.6
55	24.1	19.1	28.7
61	25.4	19.7	29.5



Instrument :
MSVOA_X
ClientSampleId :
VX1224WBS01

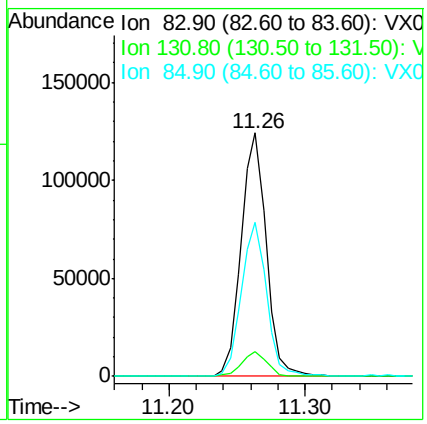
Manual Integrations APPROVED
apatel
12/26/2019 9:24:21 AM

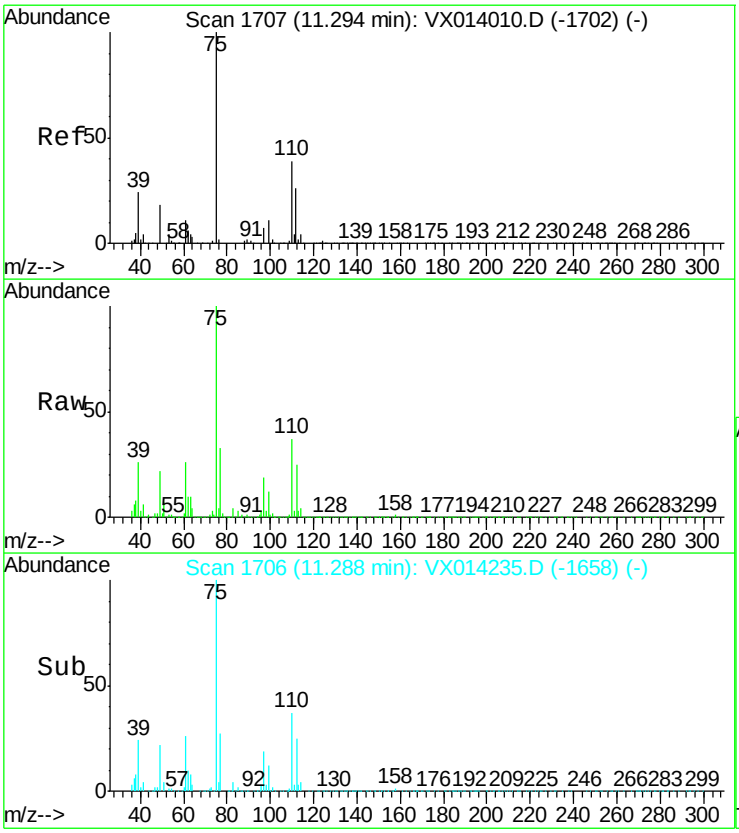


#75
1,1,2,2-Tetrachloroethane
Concen: 18.709 ug/l
RT: 11.26 min Scan# 1702
Delta R.T. 0.00 min
Lab File: VX014235.D
Acq: 24 Dec 2019 11:09

Tgt Ion: 83 Resp: 159424

Ion	Ratio	Lower	Upper
83	100		
131	10.1	5.1	15.2
85	64.2	31.9	95.7

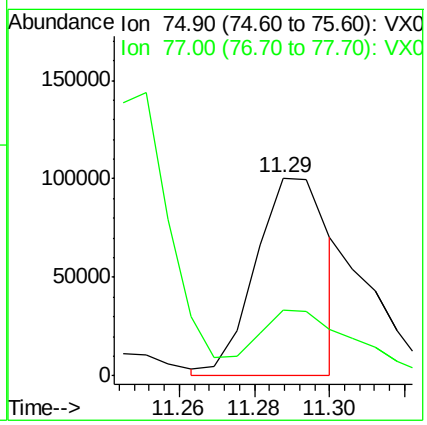




#76
1,2,3-Trichloropropane
Concen: 17.599 ug/l m
RT: 11.29 min Scan# 1706
Delta R.T. -0.01 min
Lab File: VX014235.D
Acq: 24 Dec 2019 11:09

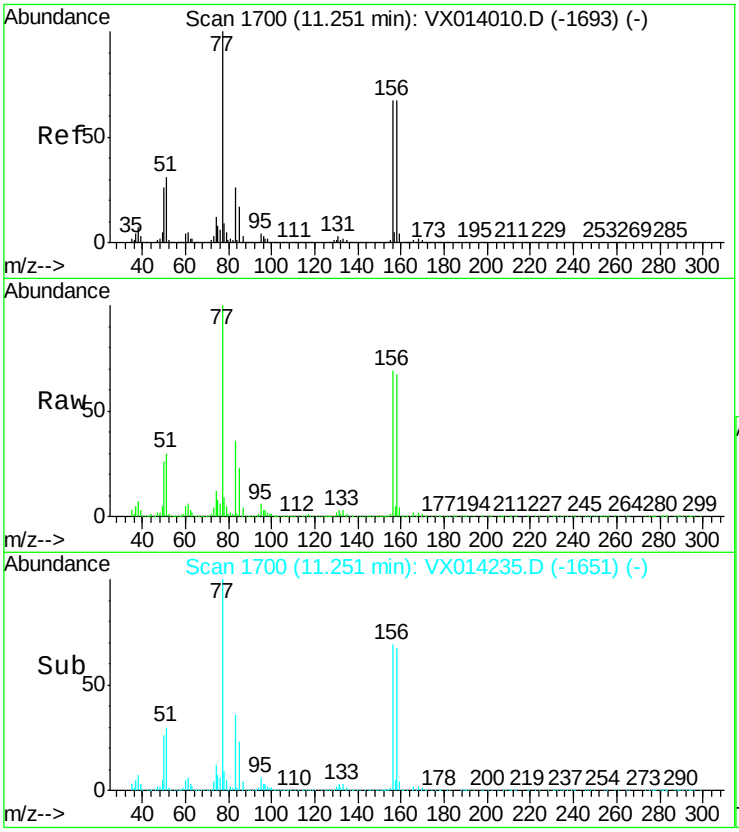
Tgt Ion: 75 Resp: 133374

Ion	Ratio	Lower	Upper
75	100		
77	44.9	19.3	57.8



Instrument :
MSVOA_X
ClientSampleId :
VX1224WBS01

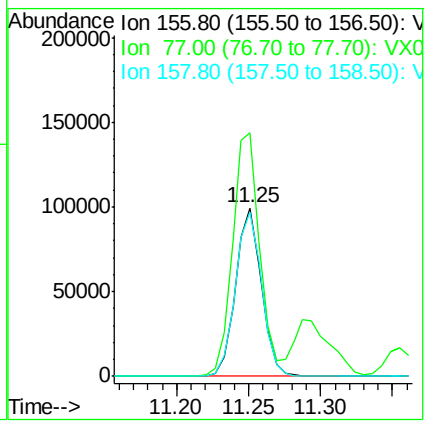
Manual Integrations APPROVED
apatel
12/26/2019 9:24:21 AM

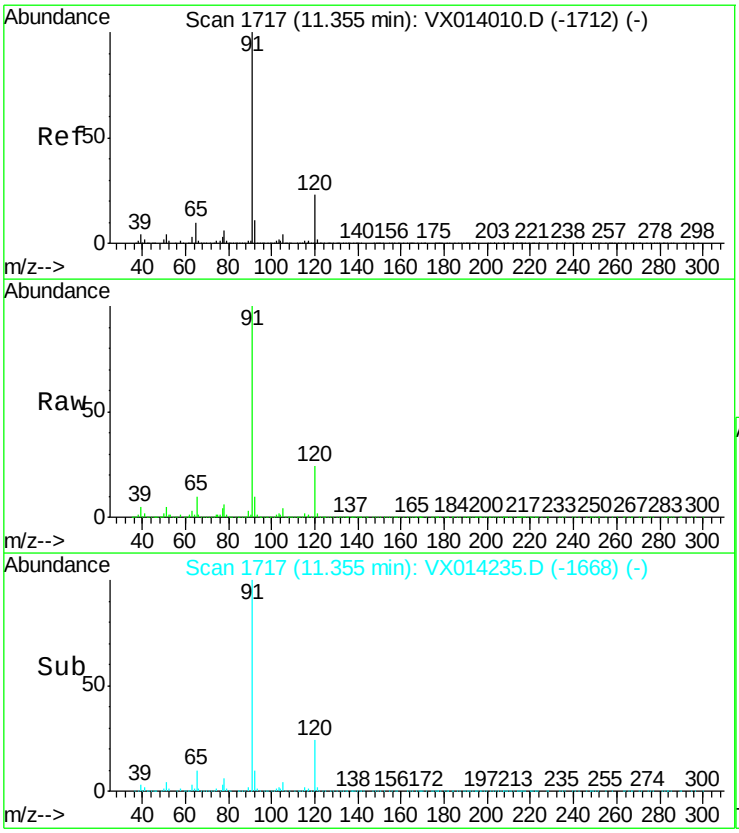


#77
Bromobenzene
Concen: 18.408 ug/l
RT: 11.25 min Scan# 1700
Delta R.T. 0.00 min
Lab File: VX014235.D
Acq: 24 Dec 2019 11:09

Tgt Ion:156 Resp: 124482

Ion	Ratio	Lower	Upper
156	100		
77	150.3	76.5	229.5
158	99.5	49.3	147.9

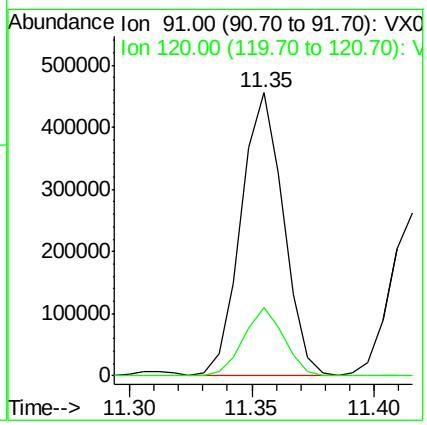




#78
n-propylbenzene
Concen: 19.794 ug/l
RT: 11.35 min Scan# 1717
Delta R.T. 0.00 min
Lab File: VX014235.D
Acq: 24 Dec 2019 11:09

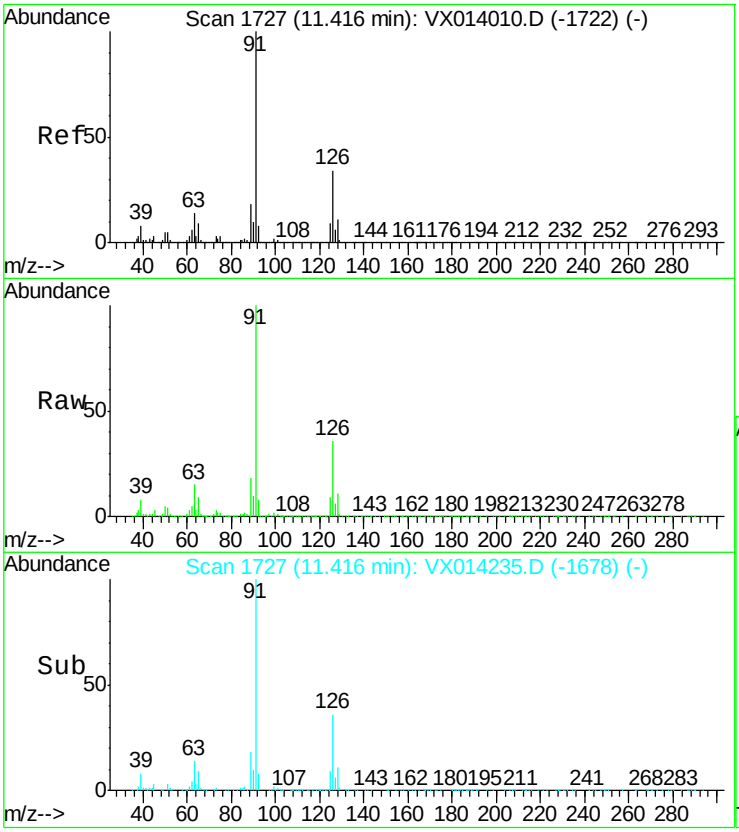
Tgt Ion: 91 Resp: 545698

Ion	Ratio	Lower	Upper
91	100		
120	23.4	11.7	35.0



Instrument :
MSVOA_X
ClientSampleId :
VX1224WBS01

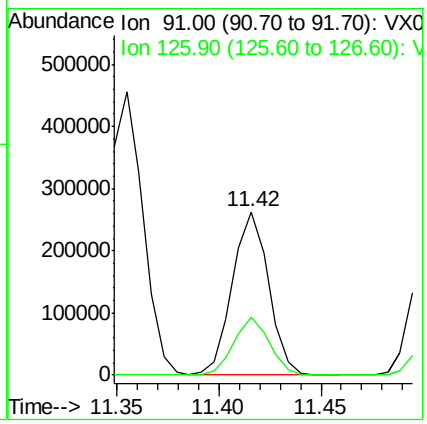
Manual Integrations APPROVED
apatel
12/26/2019 9:24:21 AM

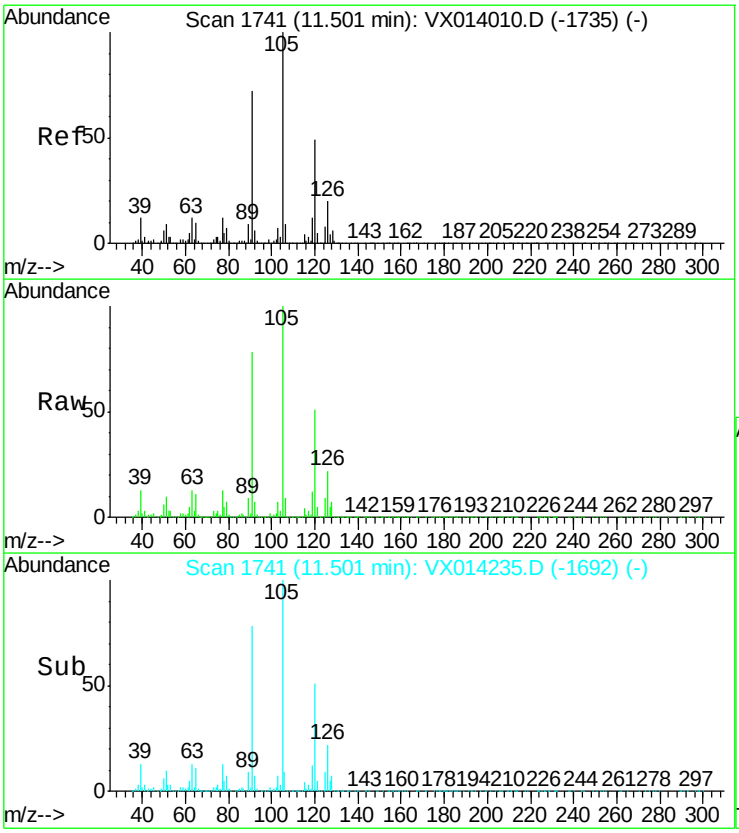


#79
2-Chlorotoluene
Concen: 19.150 ug/l
RT: 11.42 min Scan# 1727
Delta R.T. 0.00 min
Lab File: VX014235.D
Acq: 24 Dec 2019 11:09

Tgt Ion: 91 Resp: 320917

Ion	Ratio	Lower	Upper
91	100		
126	35.4	17.2	51.6

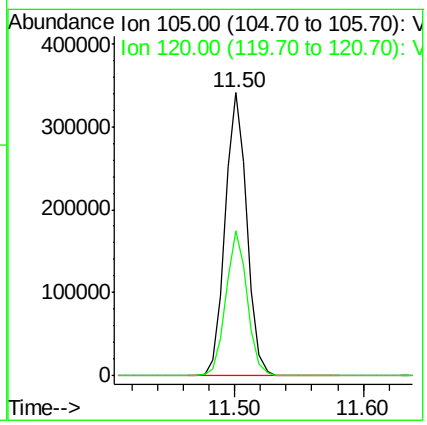


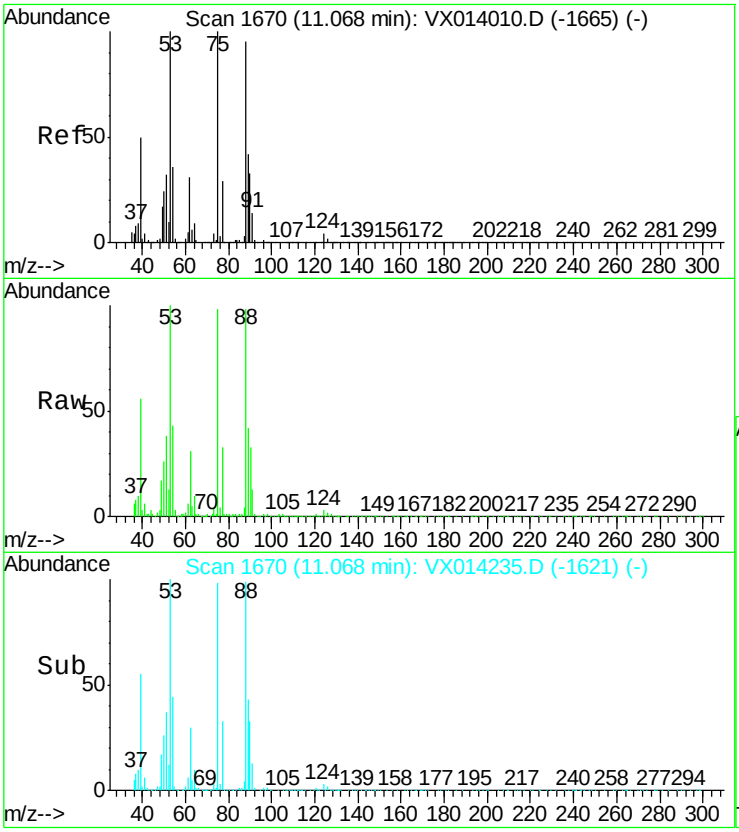


#80
1,3,5-Trimethylbenzene
Concen: 19.468 ug/l
RT: 11.50 min Scan# 1741
Delta R.T. 0.00 min
Lab File: VX014235.D
Acq: 24 Dec 2019 11:09

Tgt Ion:105 Resp: 402700

Ion	Ratio	Lower	Upper
105	100		
120	50.1	25.3	75.8

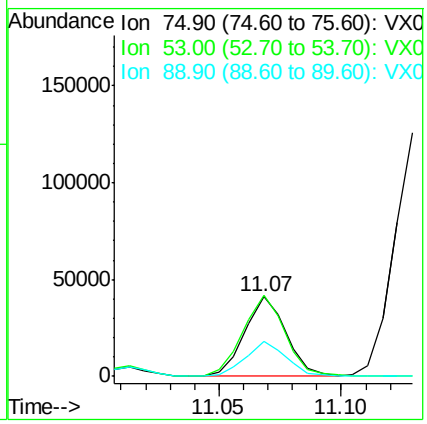




#81
trans-1,4-Dichloro-2-butene
Concen: 17.867 ug/l
RT: 11.07 min Scan# 1670
Delta R.T. 0.00 min
Lab File: VX014235.D
Acq: 24 Dec 2019 11:09

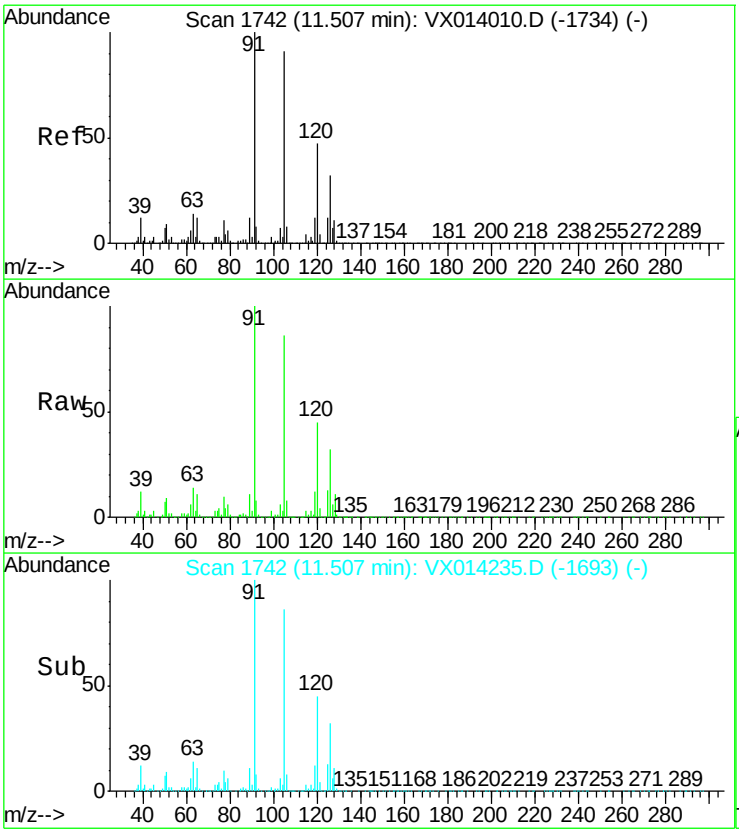
Tgt Ion: 75 Resp: 47972

Ion	Ratio	Lower	Upper
75	100		
53	103.3	76.7	115.1
89	44.5	34.6	51.8



Instrument :
MSVOA_X
ClientSampleId :
VX1224WBS01

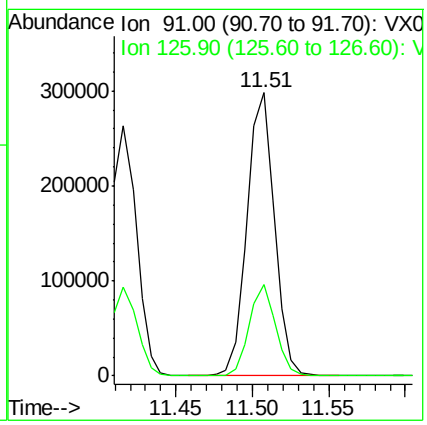
Manual Integrations APPROVED
apatel
12/26/2019 9:24:21 AM



#82
4-Chlorotoluene
Concen: 19.050 ug/l
RT: 11.51 min Scan# 1742
Delta R.T. 0.00 min
Lab File: VX014235.D
Acq: 24 Dec 2019 11:09

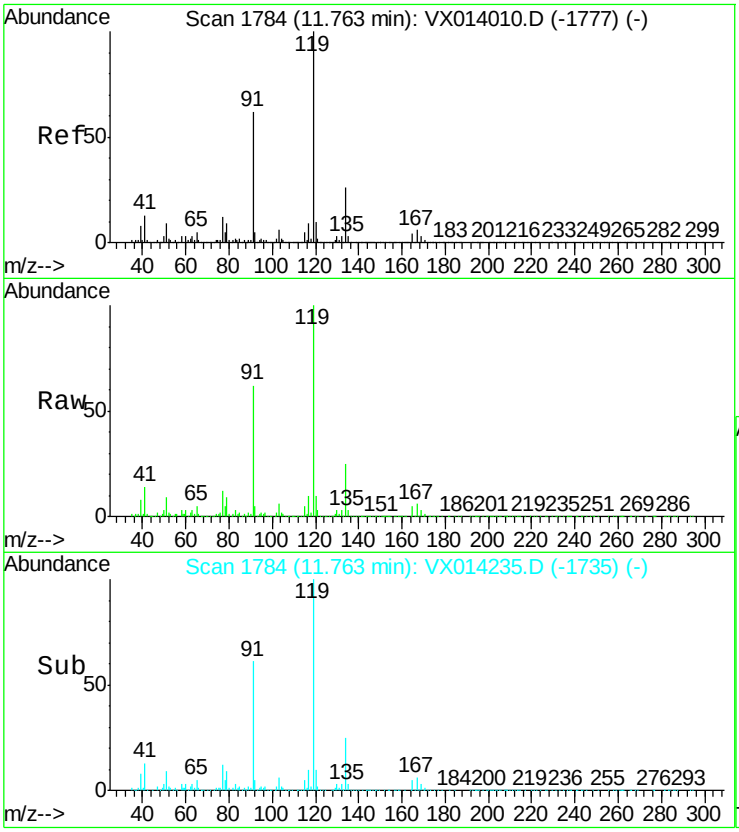
Tgt Ion: 91 Resp: 370320

Ion	Ratio	Lower	Upper
91	100		
126	30.8	15.6	46.8



Instrument :
MSVOA_X
ClientSampleId :
VX1224WBS01

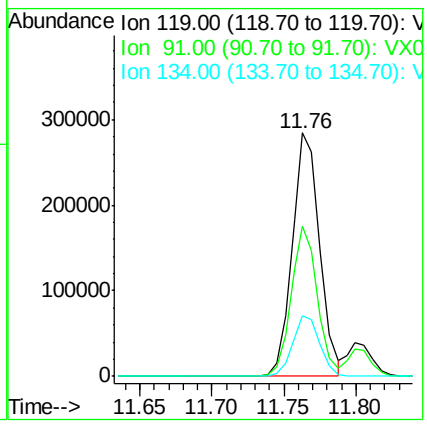
Manual Integrations APPROVED
apatel
12/26/2019 9:24:21 AM

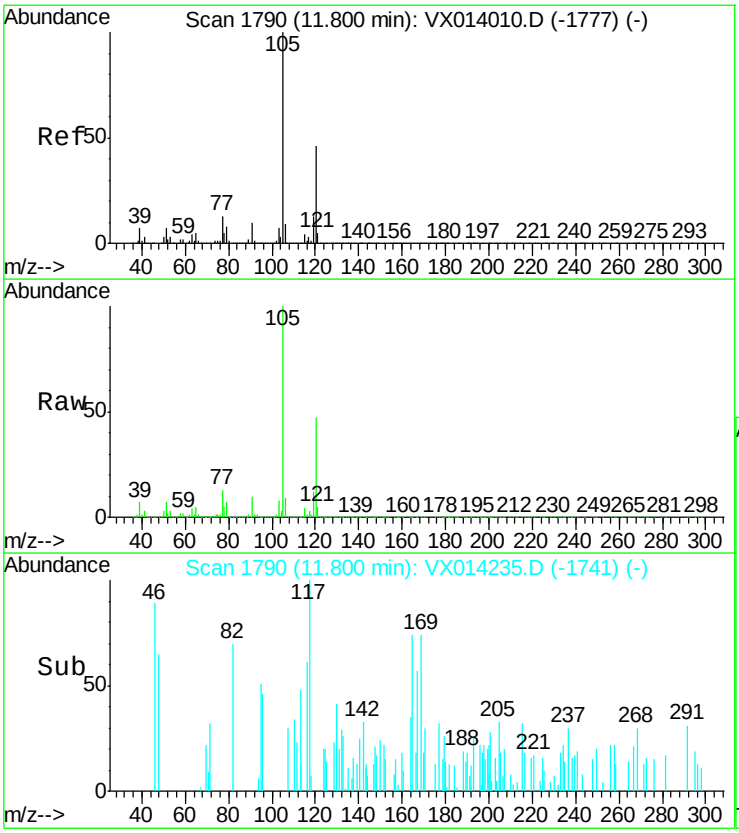


#83
tert-Butylbenzene
Concen: 18.706 ug/l
RT: 11.76 min Scan# 1784
Delta R.T. 0.00 min
Lab File: VX014235.D
Acq: 24 Dec 2019 11:09

Tgt Ion:119 Resp: 376556

Ion	Ratio	Lower	Upper
119	100		
91	59.0	28.5	85.6
134	24.6	12.2	36.6

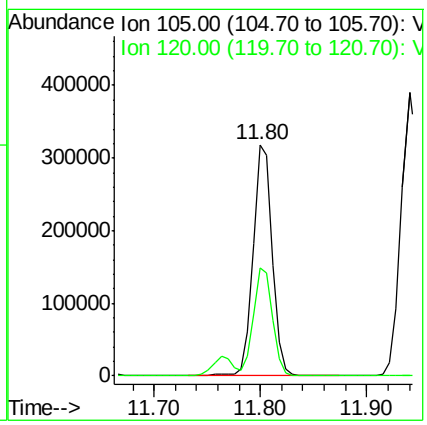


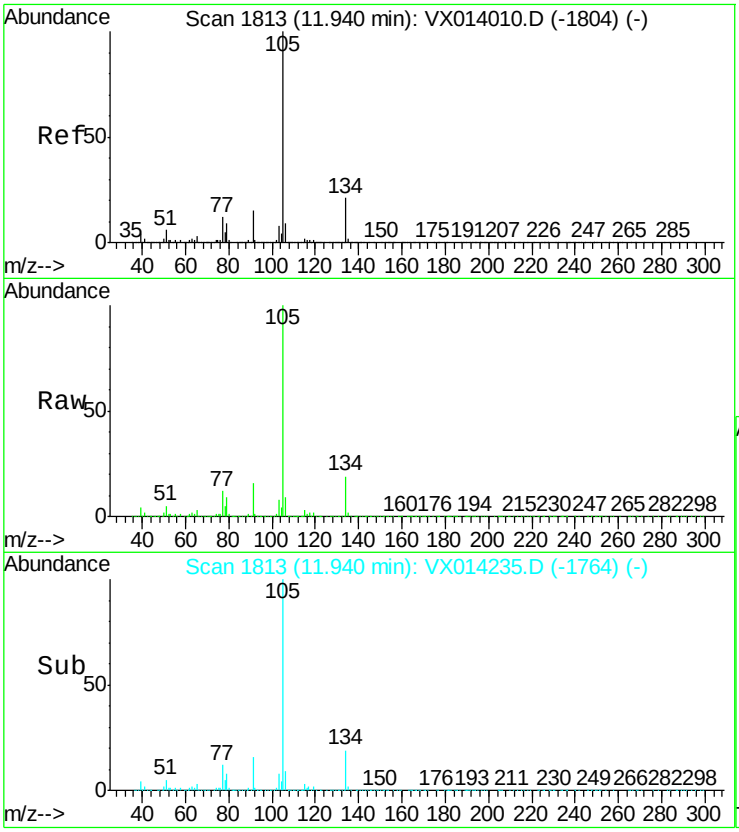


#84
1,2,4-Trimethylbenzene
Concen: 19.311 ug/l
RT: 11.80 min Scan# 1790
Delta R.T. 0.00 min
Lab File: VX014235.D
Acq: 24 Dec 2019 11:09

Tgt Ion:105 Resp: 400017

Ion	Ratio	Lower	Upper
105	100		
120	46.3	23.1	69.2

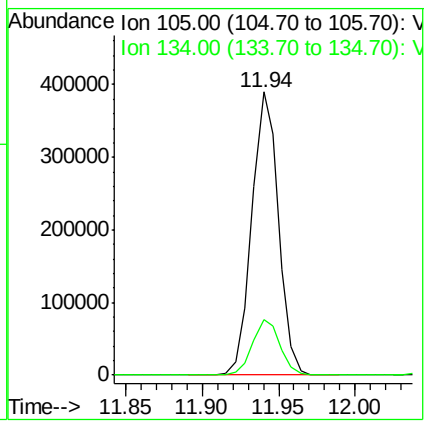




#85
sec-Butylbenzene
Concen: 19.813 ug/l
RT: 11.94 min Scan# 1813
Delta R.T. 0.00 min
Lab File: VX014235.D
Acq: 24 Dec 2019 11:09

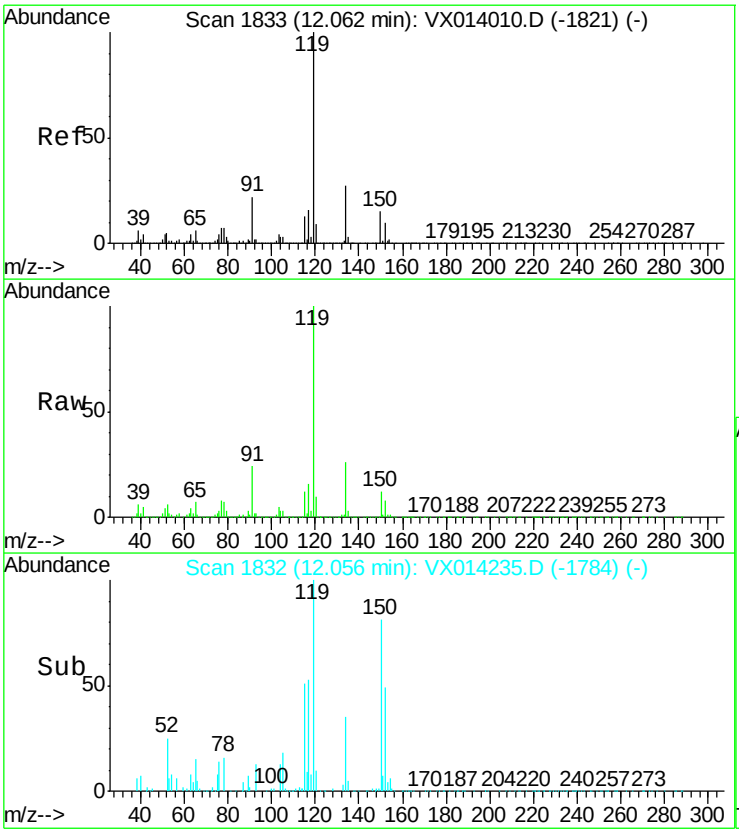
Tgt Ion:105 Resp: 470842

Ion	Ratio	Lower	Upper
105	100		
134	20.3	10.4	31.1



Instrument :
MSVOA_X
ClientSampleId :
VX1224WBS01

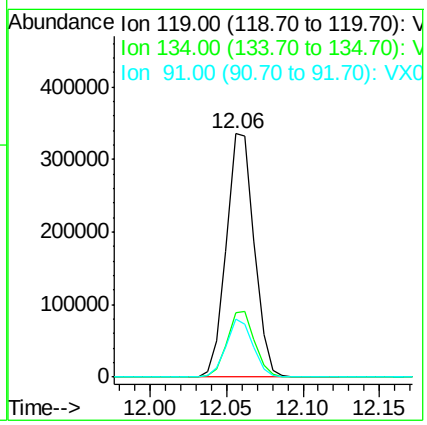
Manual Integrations APPROVED
apatel
12/26/2019 9:24:21 AM



#86
p-Isopropyltoluene
Concen: 19.480 ug/l
RT: 12.06 min Scan# 1832
Delta R.T. -0.01 min
Lab File: VX014235.D
Acq: 24 Dec 2019 11:09

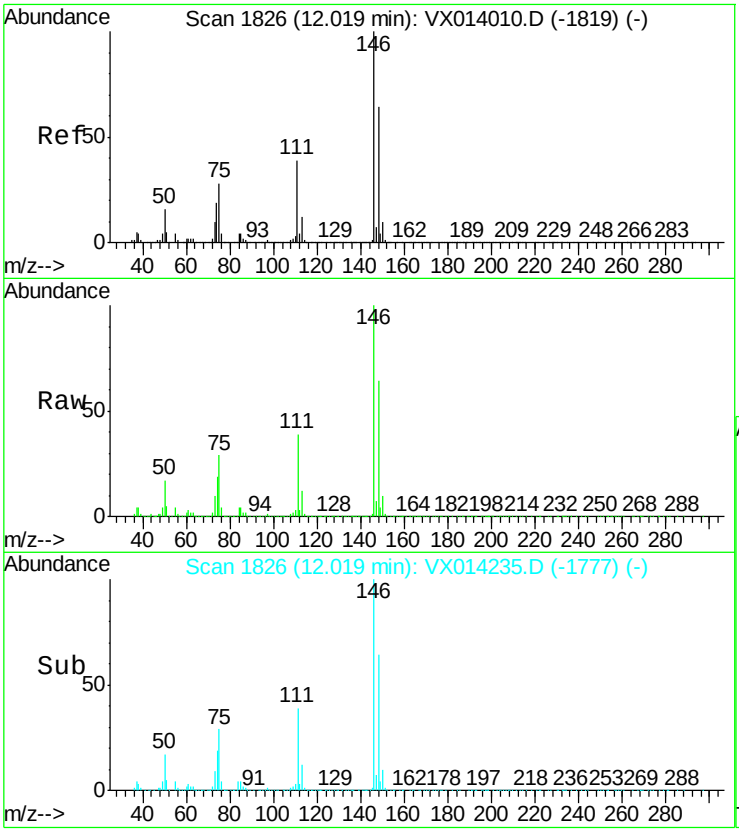
Tgt Ion:119 Resp: 423450

Ion	Ratio	Lower	Upper
119	100		
134	26.7	13.4	40.1
91	22.9	11.4	34.1



Instrument :
MSVOA_X
ClientSampleId :
VX1224WBS01

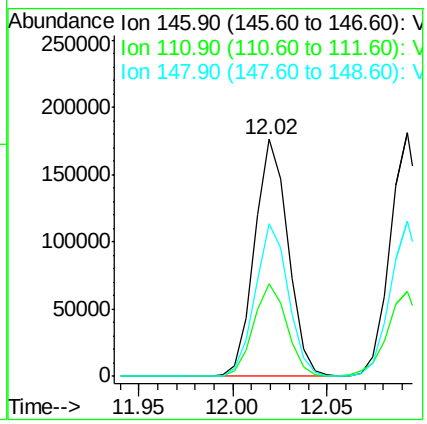
Manual Integrations APPROVED
apatel
12/26/2019 9:24:21 AM

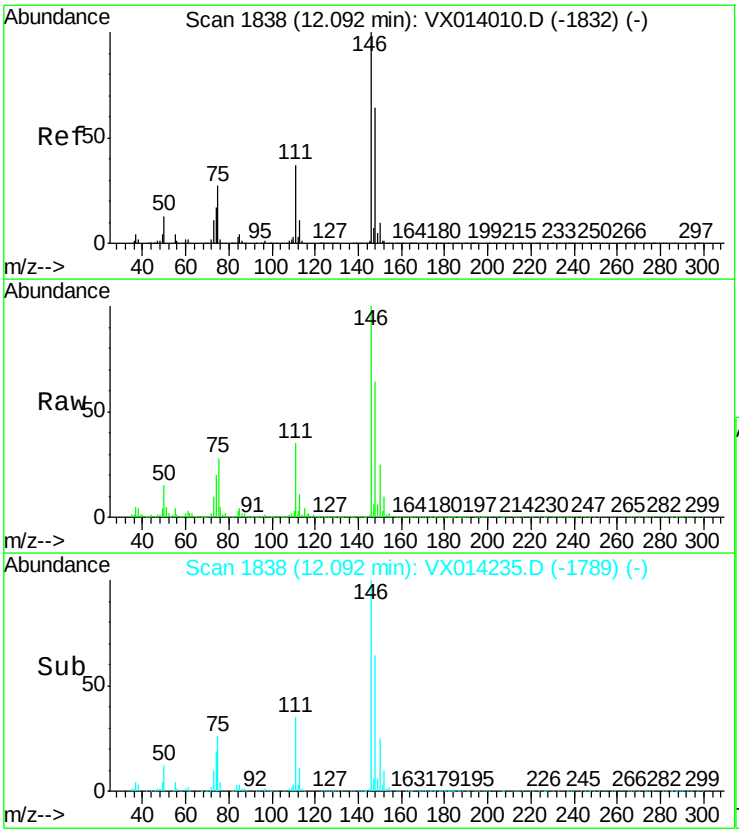


#87
1,3-Dichlorobenzene
Concen: 18.339 ug/l
RT: 12.02 min Scan# 1826
Delta R.T. 0.00 min
Lab File: VX014235.D
Acq: 24 Dec 2019 11:09

Tgt Ion:146 Resp: 217343

Ion	Ratio	Lower	Upper
146	100		
111	38.7	19.1	57.1
148	63.5	32.3	96.9

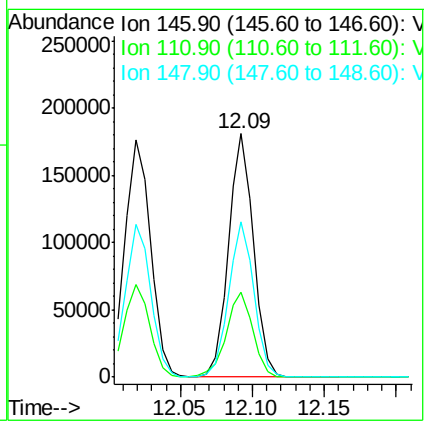




#88
1,4-Dichlorobenzene
Concen: 18.276 ug/l
RT: 12.09 min Scan# 1838
Delta R.T. 0.00 min
Lab File: VX014235.D
Acq: 24 Dec 2019 11:09

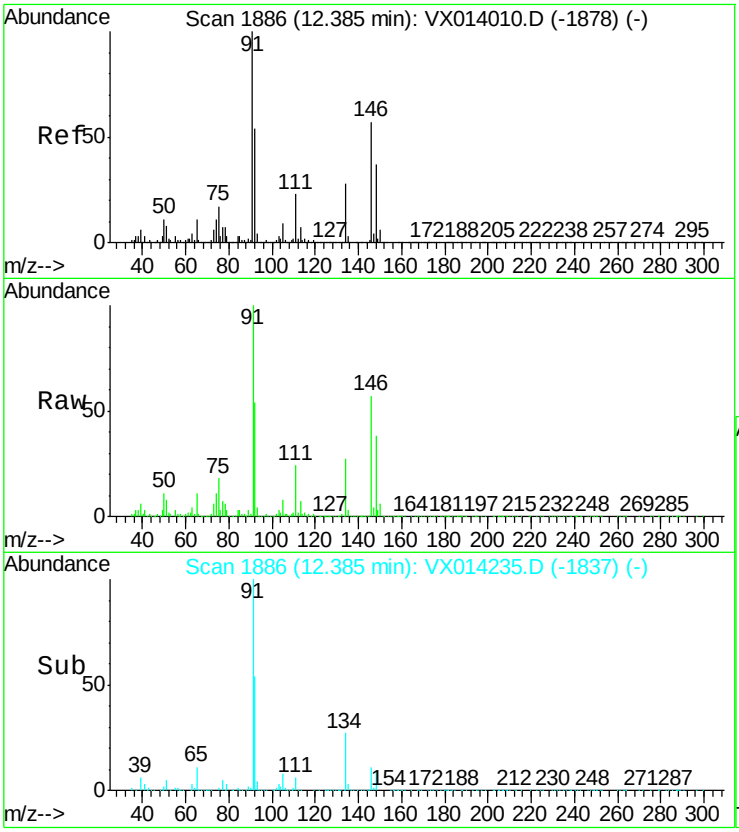
Tgt Ion:146 Resp: 220243

Ion	Ratio	Lower	Upper
146	100		
111	37.0	18.7	56.1
148	64.2	31.9	95.9



Instrument :
MSVOA_X
ClientSampleId :
VX1224WBS01

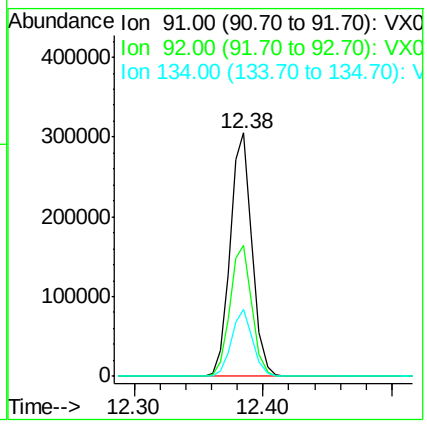
Manual Integrations APPROVED
apatel
12/26/2019 9:24:21 AM

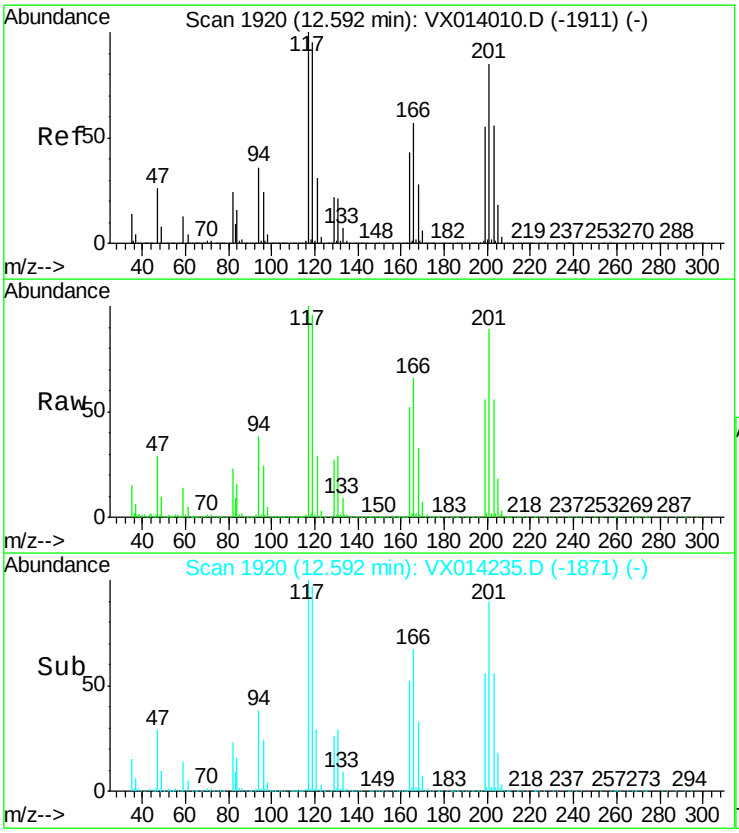


#89
n-Butylbenzene
Concen: 19.496 ug/l
RT: 12.38 min Scan# 1886
Delta R.T. 0.00 min
Lab File: VX014235.D
Acq: 24 Dec 2019 11:09

Tgt Ion: 91 Resp: 361613

Ion	Ratio	Lower	Upper
91	100		
92	53.9	27.2	81.6
134	26.6	13.4	40.1

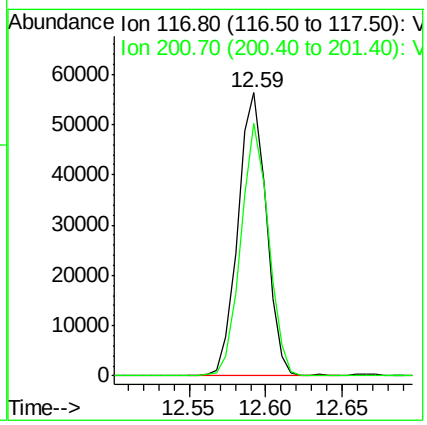




#90
Hexachloroethane
Concen: 18.431 ug/l
RT: 12.59 min Scan# 1920
Delta R.T. 0.00 min
Lab File: VX014235.D
Acq: 24 Dec 2019 11:09

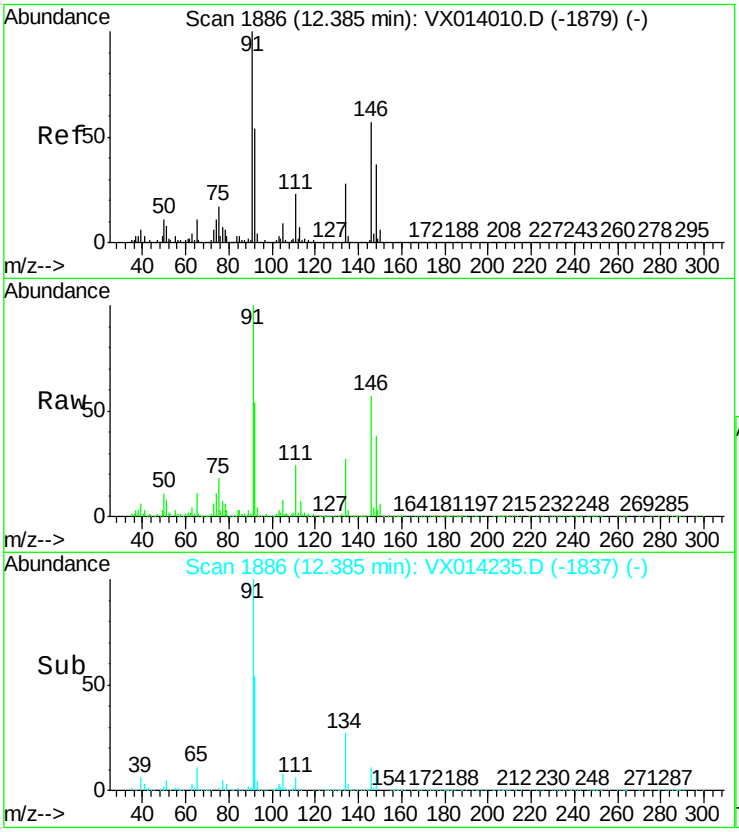
Tgt Ion:117 Resp: 71965

Ion	Ratio	Lower	Upper
117	100		
201	87.6	43.1	129.3



Instrument :
MSVOA_X
ClientSampleId :
VX1224WBS01

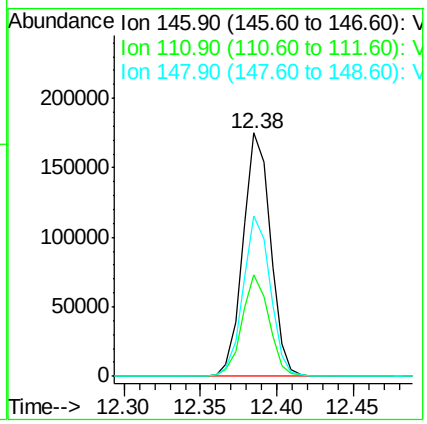
Manual Integrations APPROVED
apatel
12/26/2019 9:24:21 AM

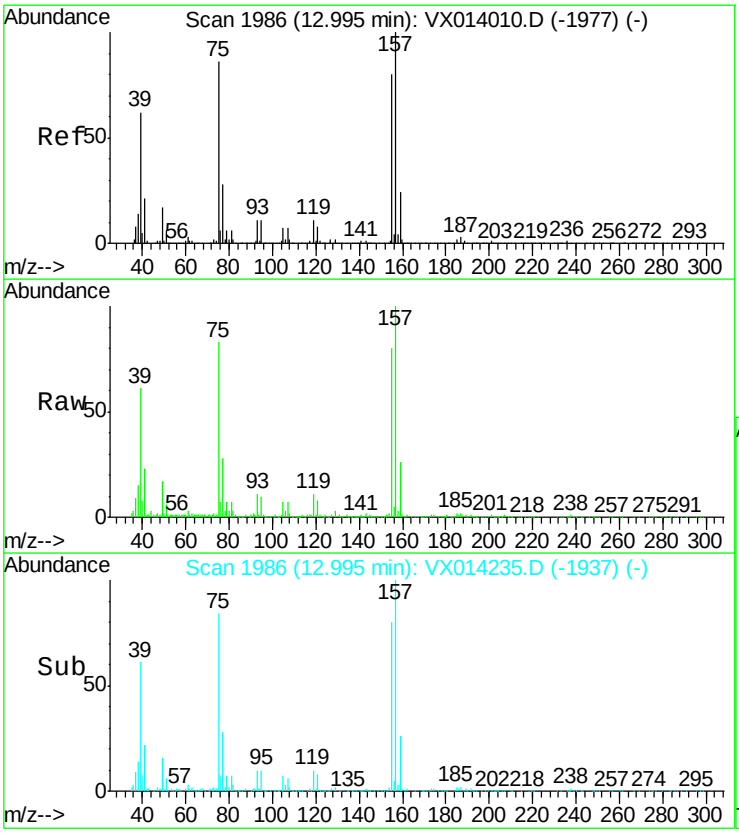


#91
1,2-Dichlorobenzene
Concen: 18.320 ug/l
RT: 12.38 min Scan# 1886
Delta R.T. 0.00 min
Lab File: VX014235.D
Acq: 24 Dec 2019 11:09

Tgt Ion:146 Resp: 218566

Ion	Ratio	Lower	Upper
146	100		
111	40.5	19.7	59.1
148	64.8	32.1	96.5

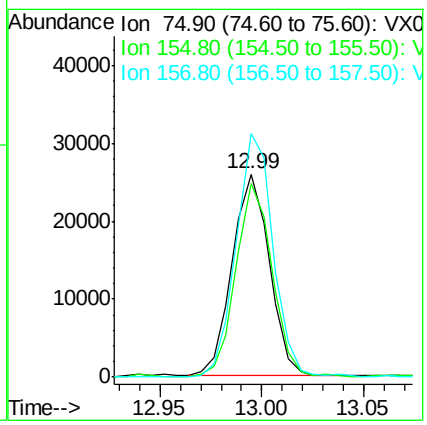




#92
1,2-Dibromo-3-Chloropropane
Concen: 17.300 ug/l
RT: 12.99 min Scan# 1986
Delta R.T. 0.00 min
Lab File: VX014235.D
Acq: 24 Dec 2019 11:09

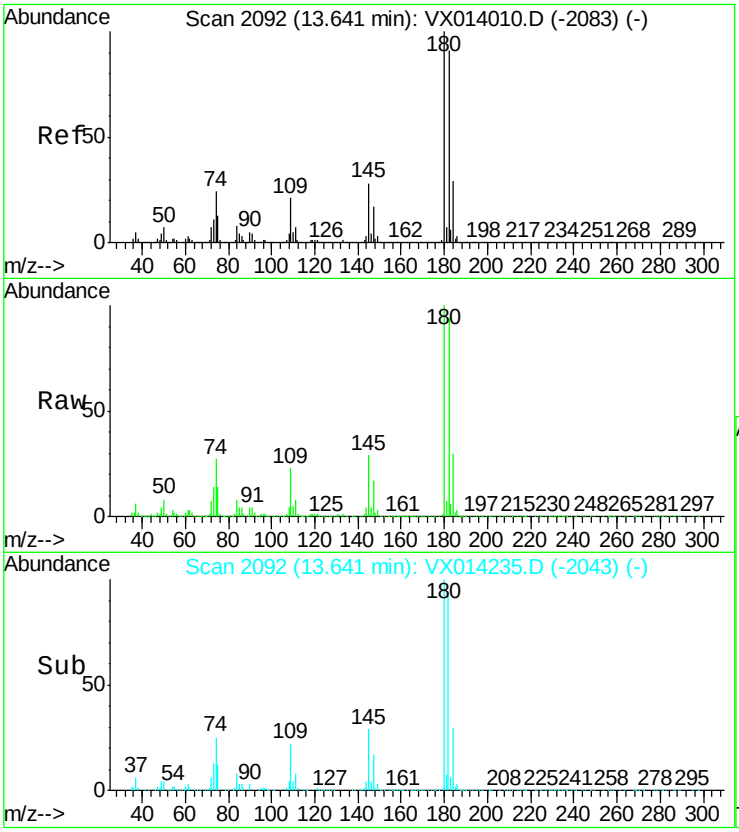
Tgt Ion: 75 Resp: 32622

Ion	Ratio	Lower	Upper
75	100		
155	93.4	46.9	140.6
157	121.3	60.8	182.4



Instrument :
MSVOA_X
ClientSampleId :
VX1224WBS01

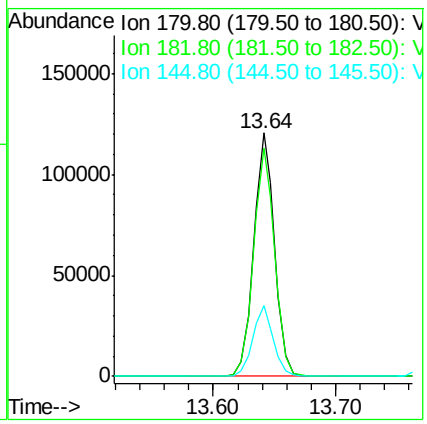
Manual Integrations APPROVED
apatel
12/26/2019 9:24:21 AM

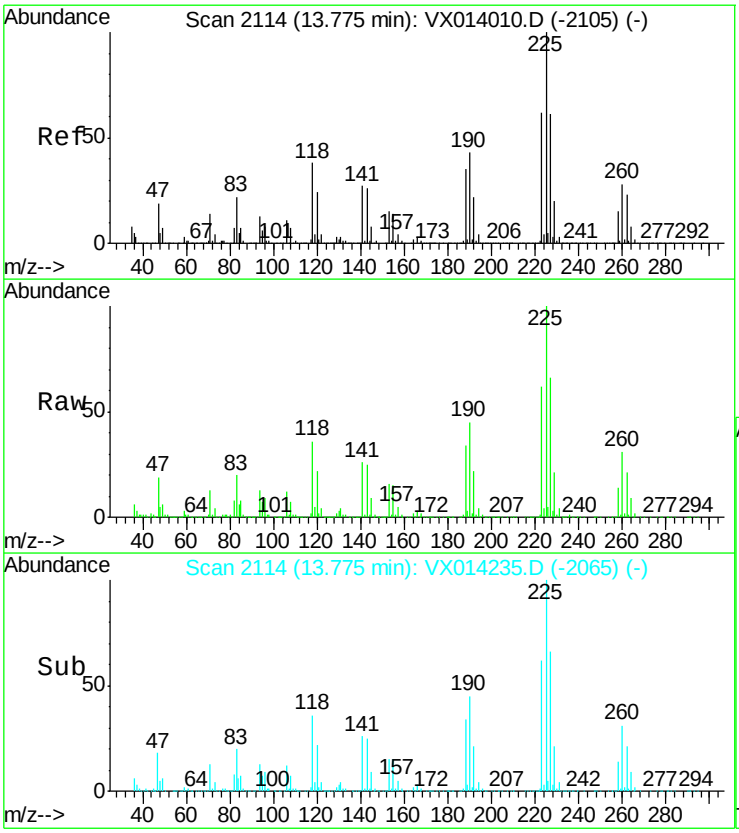


#93
1,2,4-Trichlorobenzene
Concen: 18.505 ug/l
RT: 13.64 min Scan# 2092
Delta R.T. 0.00 min
Lab File: VX014235.D
Acq: 24 Dec 2019 11:09

Tgt Ion:180 Resp: 143499

Ion	Ratio	Lower	Upper
180	100		
182	95.6	46.6	139.8
145	28.5	14.2	42.6

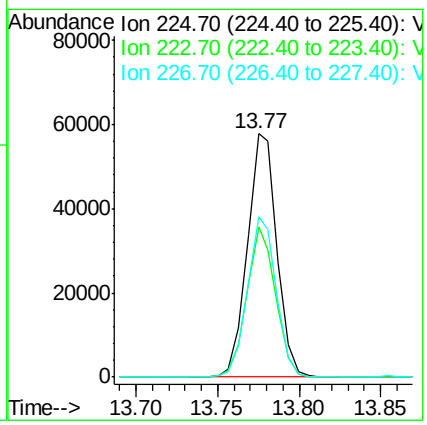




#94
Hexachlorobutadiene
Concen: 19.511 ug/l
RT: 13.77 min Scan# 2114
Delta R.T. 0.00 min
Lab File: VX014235.D
Acq: 24 Dec 2019 11:09

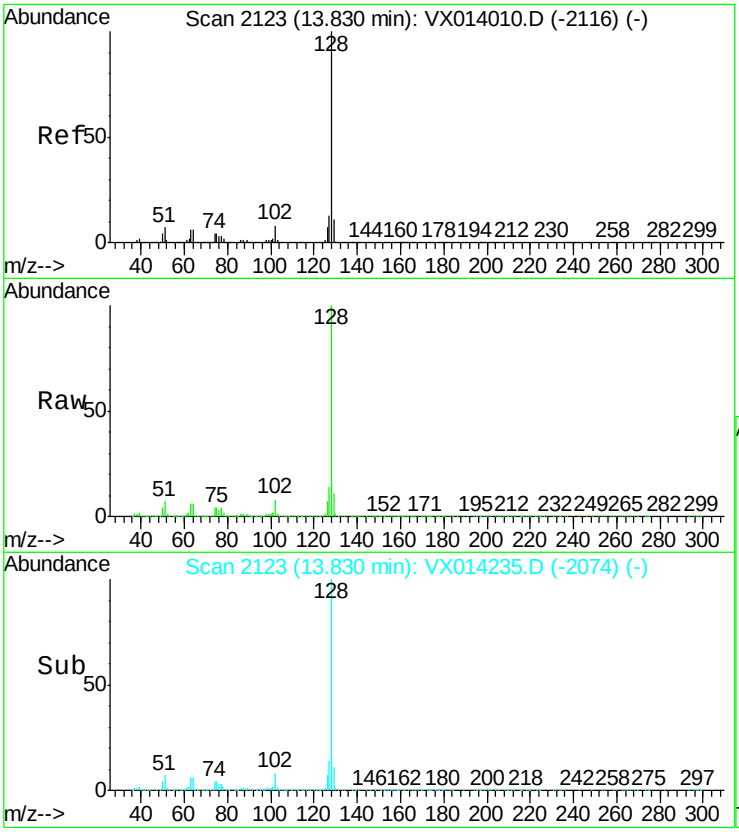
Tgt Ion:225 Resp: 72712

Ion	Ratio	Lower	Upper
225	100		
223	60.4	30.9	92.5
227	64.5	30.9	92.7



Instrument :
MSVOA_X
ClientSampleId :
VX1224WBS01

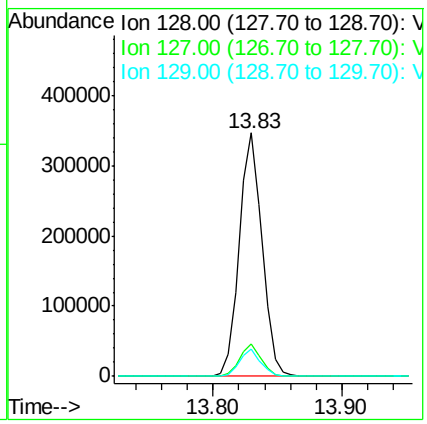
Manual Integrations APPROVED
apatel
12/26/2019 9:24:21 AM

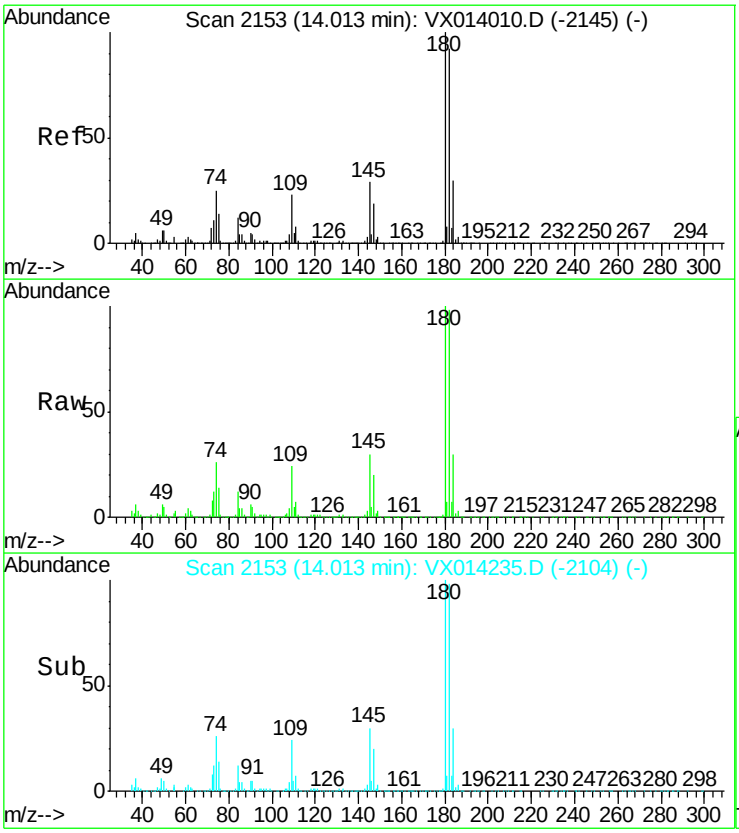


#95
Naphthalene
Concen: 18.601 ug/l
RT: 13.83 min Scan# 2123
Delta R.T. 0.00 min
Lab File: VX014235.D
Acq: 24 Dec 2019 11:09

Tgt Ion:128 Resp: 423778

Ion	Ratio	Lower	Upper
128	100		
127	12.8	10.2	15.4
129	10.7	8.7	13.1

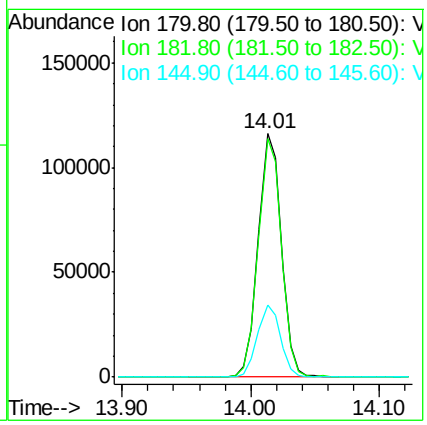




#96
1,2,3-Trichlorobenzene
Concen: 18.694 ug/l
RT: 14.01 min Scan# 2153
Delta R.T. 0.00 min
Lab File: VX014235.D
Acq: 24 Dec 2019 11:09

Tgt Ion:180 Resp: 143098

Ion	Ratio	Lower	Upper
180	100		
182	97.5	46.8	140.3
145	30.2	14.8	44.4



CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Day Environmental, Inc.	Date Collected:	
Project:	Andrew St. RI	Date Received:	
Client Sample ID:	VX1226WBS01	SDG No.:	K6405
Lab Sample ID:	VX1226WBS01	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	DB-624UI ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX014262.D	1		12/26/19 12:18	VX122619

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
75-71-8	Dichlorodifluoromethane	17.8		0.22	1.00	ug/L
74-87-3	Chloromethane	18.5		0.30	1.00	ug/L
75-01-4	Vinyl Chloride	18.3		0.16	1.00	ug/L
74-83-9	Bromomethane	15.7		2.10	5.00	ug/L
75-00-3	Chloroethane	20.2		0.34	1.00	ug/L
75-69-4	Trichlorofluoromethane	19.6		0.16	1.00	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	20.0		0.21	1.00	ug/L
75-35-4	1,1-Dichloroethene	19.2		0.18	1.00	ug/L
67-64-1	Acetone	75.3		0.90	5.00	ug/L
75-15-0	Carbon Disulfide	17.9		0.23	1.00	ug/L
1634-04-4	Methyl tert-butyl Ether	19.7		0.070	1.00	ug/L
79-20-9	Methyl Acetate	20.6		0.65	1.00	ug/L
75-09-2	Methylene Chloride	18.8		0.33	1.00	ug/L
156-60-5	trans-1,2-Dichloroethene	18.9		0.24	1.00	ug/L
75-34-3	1,1-Dichloroethane	19.3		0.17	1.00	ug/L
110-82-7	Cyclohexane	19.3		1.20	5.00	ug/L
78-93-3	2-Butanone	91.3		0.71	5.00	ug/L
56-23-5	Carbon Tetrachloride	19.9		0.22	1.00	ug/L
156-59-2	cis-1,2-Dichloroethene	19.2		0.30	1.00	ug/L
74-97-5	Bromochloromethane	22.7		0.31	1.00	ug/L
67-66-3	Chloroform	20.1		0.14	1.00	ug/L
71-55-6	1,1,1-Trichloroethane	19.2		0.12	1.00	ug/L
108-87-2	Methylcyclohexane	19.0		0.17	1.00	ug/L
71-43-2	Benzene	19.7		0.10	1.00	ug/L
107-06-2	1,2-Dichloroethane	19.9		0.13	1.00	ug/L
79-01-6	Trichloroethene	19.3		0.27	1.00	ug/L
78-87-5	1,2-Dichloropropane	20.0		0.14	1.00	ug/L
75-27-4	Bromodichloromethane	19.9		0.10	1.00	ug/L
108-10-1	4-Methyl-2-Pentanone	100		0.85	5.00	ug/L
108-88-3	Toluene	19.3		0.12	1.00	ug/L
10061-02-6	t-1,3-Dichloropropene	19.6		0.19	1.00	ug/L
10061-01-5	cis-1,3-Dichloropropene	19.9		0.16	1.00	ug/L

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Day Environmental, Inc.	Date Collected:	
Project:	Andrew St. RI	Date Received:	
Client Sample ID:	VX1226WBS01	SDG No.:	K6405
Lab Sample ID:	VX1226WBS01	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	DB-624UI ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX014262.D	1		12/26/19 12:18	VX122619

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
79-00-5	1,1,2-Trichloroethane	20.1		0.12	1.00	ug/L
591-78-6	2-Hexanone	94.1		1.40	5.00	ug/L
124-48-1	Dibromochloromethane	19.7		0.16	1.00	ug/L
106-93-4	1,2-Dibromoethane	20.1		0.14	1.00	ug/L
127-18-4	Tetrachloroethene	20.0		0.15	1.00	ug/L
108-90-7	Chlorobenzene	19.3		0.080	1.00	ug/L
100-41-4	Ethyl Benzene	19.8		0.080	1.00	ug/L
179601-23-1	m/p-Xylenes	39.5		0.20	2.00	ug/L
95-47-6	o-Xylene	19.4		0.13	1.00	ug/L
100-42-5	Styrene	19.3		0.11	1.00	ug/L
75-25-2	Bromoform	19.1		0.15	1.00	ug/L
98-82-8	Isopropylbenzene	20.7		0.13	1.00	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	20.1		0.15	1.00	ug/L
541-73-1	1,3-Dichlorobenzene	19.3		0.14	1.00	ug/L
106-46-7	1,4-Dichlorobenzene	18.8		0.20	1.00	ug/L
95-50-1	1,2-Dichlorobenzene	19.0		0.12	1.00	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	17.7		0.54	1.00	ug/L
120-82-1	1,2,4-Trichlorobenzene	19.1		0.24	1.00	ug/L
87-61-6	1,2,3-Trichlorobenzene	19.5		0.26	1.00	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	50.8		61 - 141	102%	SPK: 50
1868-53-7	Dibromofluoromethane	51.9		69 - 133	104%	SPK: 50
2037-26-5	Toluene-d8	52.2		65 - 126	104%	SPK: 50
460-00-4	4-Bromofluorobenzene	49.3		58 - 135	99%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	496000	5.65			
540-36-3	1,4-Difluorobenzene	753000	6.85			
3114-55-4	Chlorobenzene-d5	673000	10.1			
3855-82-1	1,4-Dichlorobenzene-d4	331000	12.07			

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Day Environmental, Inc.	Date Collected:	
Project:	Andrew St. RI	Date Received:	
Client Sample ID:	VX1226WBS01	SDG No.:	K6405
Lab Sample ID:	VX1226WBS01	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	DB-624UI ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX014262.D	1		12/26/19 12:18	VX122619

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit
A = Aldol-Condensation Reaction Products

Quantitation Report (QT Reviewed)

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX122619\
Data File : VX014262.D
Acq On : 26 Dec 2019 12:18
Operator : JC/SP
Sample : VX1226WBS01
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 5 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
VX1226WBS01

Manual Integrations APPROVED
apatel
12/27/2019 12:03:06 PM

Quant Time: Dec 27 06:42:01 2019
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121319W.M
Quant Title : SW846 8260
QLast Update : Tue Dec 17 03:01:07 2019
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	5.65	168	495545	50.00	ug/l	0.00
34) 1,4-Difluorobenzene	6.85	114	752803	50.00	ug/l	0.00
63) Chlorobenzene-d5	10.10	117	673248	50.00	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	12.07	152	331077	50.00	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	6.05	65	285175	50.78	ug/l	0.00
Spiked Amount 50.000			Recovery = 101.56%			
35) Dibromofluoromethane	5.49	113	237507	51.90	ug/l	0.00
Spiked Amount 50.000			Recovery = 103.80%			
50) Toluene-d8	8.71	98	929682	52.18	ug/l	0.00
Spiked Amount 50.000			Recovery = 104.36%			
62) 4-Bromofluorobenzene	11.13	95	320922	49.28	ug/l	0.00
Spiked Amount 50.000			Recovery = 98.56%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.19	85	78897	17.796	ug/l	95
3) Chloromethane	1.32	50	110357	18.549	ug/l	97
4) Vinyl Chloride	1.40	62	114932	18.308	ug/l	100
5) Bromomethane	1.63	94	69935	15.696	ug/l	98
6) Chloroethane	1.72	64	78249	20.195	ug/l	96
7) Trichlorofluoromethane	1.92	101	152352	19.604	ug/l	99
8) Diethyl Ether	2.18	74	68140	18.682	ug/l	98
9) 1,1,2-Trichlorotrifluoroet	2.37	101	93777	20.018	ug/l	99
10) Methyl Iodide	2.50	142	100292	18.004	ug/l	98
11) Tert butyl alcohol	3.02	59	113121	93.214	ug/l	98
12) 1,1-Dichloroethene	2.36	96	91332	19.160	ug/l	100
13) Acrolein	2.28	56	63080	90.805	ug/l	98
14) Allyl chloride	2.72	41	170294	20.009	ug/l	98
15) Acrylonitrile	3.12	53	286560	101.168	ug/l	100
16) Acetone	2.43	43	274439	75.267	ug/l	98
17) Carbon Disulfide	2.56	76	229753	17.851	ug/l	99
18) Methyl Acetate	2.76	43	148843	20.601	ug/l	96
19) Methyl tert-butyl Ether	3.18	73	308955	19.724	ug/l	95
20) Methylene Chloride	2.84	84	107929	18.797	ug/l	98
21) trans-1,2-Dichloroethene	3.16	96	99139	18.878	ug/l	94
22) Diisopropyl ether	3.84	45	352345	20.775	ug/l	94
23) Vinyl Acetate	3.80	43	1460293	105.508	ug/l	98
24) 1,1-Dichloroethane	3.69	63	182560	19.347	ug/l	99
25) 2-Butanone	4.65	43	410217	91.254	ug/l	100
26) 2,2-Dichloropropane	4.57	77	143568	19.596	ug/l	98
27) cis-1,2-Dichloroethene	4.58	96	114154	19.220	ug/l	99
28) Bromochloromethane	5.00	49	81569	22.727	ug/l	97
29) Tetrahydrofuran	5.11	42	259164	103.074	ug/l	98
30) Chloroform	5.20	83	179570	20.075	ug/l	98
31) Cyclohexane	5.57	56	161618	19.258	ug/l	97
32) 1,1,1-Trichloroethane	5.48	97	146443	19.209	ug/l	99
36) 1,1-Dichloropropene	5.79	75	135199	19.573	ug/l	99
37) Ethyl Acetate	4.81	43	152478	19.990	ug/l	98
38) Carbon Tetrachloride	5.77	117	125107	19.882	ug/l	99

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX122619\
Data File : VX014262.D
Acq On : 26 Dec 2019 12:18
Operator : JC/SP
Sample : VX1226WBS01
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Dec 27 06:42:01 2019
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121319W.M
Quant Title : SW846 8260
QLast Update : Tue Dec 17 03:01:07 2019
Response via : Initial Calibration

Instrument :
MSVOA_X
ClientSampleId :
VX1226WBS01

Manual Integrations APPROVED
apatel
12/27/2019 12:03:06 PM

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
39) Methylcyclohexane	7.45	83	162007	18.995	ug/l	94
40) Benzene	6.13	78	418830	19.707	ug/l	99
41) Methacrylonitrile	5.02	41	83879	19.819	ug/l	98
42) 1,2-Dichloroethane	6.18	62	143192	19.876	ug/l	100
43) Isopropyl Acetate	6.43	43	250063	19.809	ug/l	99
44) Trichloroethene	7.20	130	113489	19.333	ug/l	98
45) 1,2-Dichloropropane	7.50	63	109123	20.032	ug/l	98
46) Dibromomethane	7.65	93	66872	18.568	ug/l	99
47) Bromodichloromethane	7.89	83	134942	19.894	ug/l	99
48) Methyl methacrylate	7.76	41	123608	19.997	ug/l	99
49) 1,4-Dioxane	7.73	88	51185	406.900	ug/l	98
51) 4-Methyl-2-Pentanone	8.63	43	794829	100.259	ug/l	99
52) Toluene	8.78	92	259406	19.310	ug/l	99
53) t-1,3-Dichloropropene	9.03	75	145607	19.577	ug/l	97
54) cis-1,3-Dichloropropene	8.43	75	164674	19.874	ug/l	97
55) 1,1,2-Trichloroethane	9.21	97	108475	20.148	ug/l	99
56) Ethyl methacrylate	9.17	69	162666	19.234	ug/l	99
57) 1,3-Dichloropropane	9.37	76	181131	19.996	ug/l	98
58) 2-Chloroethyl Vinyl ether	8.30	63	329092	102.823	ug/l	98
59) 2-Hexanone	9.48	43	600449	94.087	ug/l	98
60) Dibromochloromethane	9.57	129	105650	19.741	ug/l	100
61) 1,2-Dibromoethane	9.67	107	110604	20.078	ug/l	99
64) Tetrachloroethene	9.33	164	118884	19.956	ug/l	97
65) Chlorobenzene	10.13	112	276575	19.321	ug/l	98
66) 1,1,1,2-Tetrachloroethane	10.21	131	101780	19.913	ug/l	100
67) Ethyl Benzene	10.25	91	487987	19.828	ug/l	99
68) m/p-Xylenes	10.35	106	373462	39.455	ug/l	100
69) o-Xylene	10.69	106	179744	19.362	ug/l	99
70) Styrene	10.71	104	303329	19.323	ug/l	99
71) Bromoform	10.85	173	78308	19.060	ug/l	100
73) Isopropylbenzene	11.01	105	481488	20.656	ug/l	99
74) N-amyl acetate	10.89	43	206789	18.925	ug/l	98
75) 1,1,2,2-Tetrachloroethane	11.26	83	162121	20.061	ug/l	99
76) 1,2,3-Trichloropropane	11.29	75	153254m	21.322	ug/l	
77) Bromobenzene	11.25	156	123012	19.180	ug/l	100
78) n-propylbenzene	11.35	91	544178	20.813	ug/l	100
79) 2-Chlorotoluene	11.42	91	321338	20.218	ug/l	99
80) 1,3,5-Trimethylbenzene	11.50	105	401471	20.464	ug/l	99
81) trans-1,4-Dichloro-2-buten	11.07	75	48864	19.189	ug/l	95
82) 4-Chlorotoluene	11.51	91	369231	20.027	ug/l	99
83) tert-Butylbenzene	11.76	119	376568	19.724	ug/l	99
84) 1,2,4-Trimethylbenzene	11.80	105	400980	20.410	ug/l	99
85) sec-Butylbenzene	11.94	105	464690	20.618	ug/l	100
86) p-Isopropyltoluene	12.06	119	423489	20.541	ug/l	100
87) 1,3-Dichlorobenzene	12.02	146	217313	19.333	ug/l	99
88) 1,4-Dichlorobenzene	12.09	146	214734	18.788	ug/l	98
89) n-Butylbenzene	12.39	91	356805	20.283	ug/l	99
90) Hexachloroethane	12.59	117	73315	19.798	ug/l	100
91) 1,2-Dichlorobenzene	12.39	146	214772	18.981	ug/l	99
92) 1,2-Dibromo-3-Chloropropan	12.99	75	31705	17.728	ug/l	99

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX122619\
Data File : VX014262.D
Acq On : 26 Dec 2019 12:18
Operator : JC/SP
Sample : VX1226WBS01
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 5 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
VX1226WBS01

Manual Integrations APPROVED
apatel
12/27/2019 12:03:06 PM

Quant Time: Dec 27 06:42:01 2019
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121319W.M
Quant Title : SW846 8260
QLast Update : Tue Dec 17 03:01:07 2019
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
93) 1,2,4-Trichlorobenzene	13.64	180	140822	19.148	ug/l	99
94) Hexachlorobutadiene	13.78	225	70656	19.990	ug/l	96
95) Naphthalene	13.83	128	411043	19.023	ug/l	100
96) 1,2,3-Trichlorobenzene	14.01	180	141224	19.453	ug/l	98

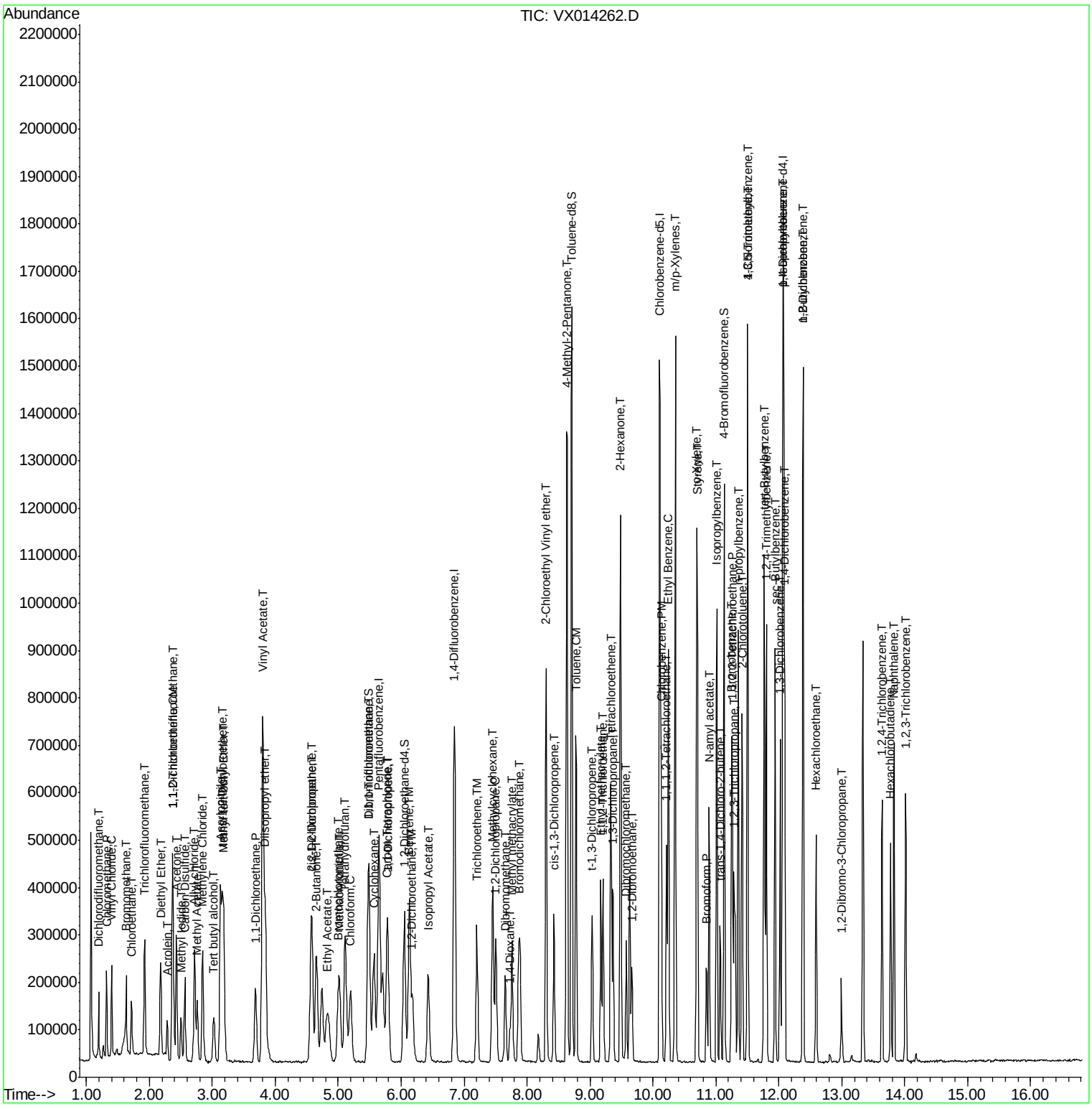
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX122619\
Data File : VX014262.D
Acq On : 26 Dec 2019 12:18
Operator : JC/SP
Sample : VX1226WBS01
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Dec 27 06:42:01 2019
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121319W.M
Quant Title : SW846 8260
QLast Update : Tue Dec 17 03:01:07 2019
Response via : Initial Calibration

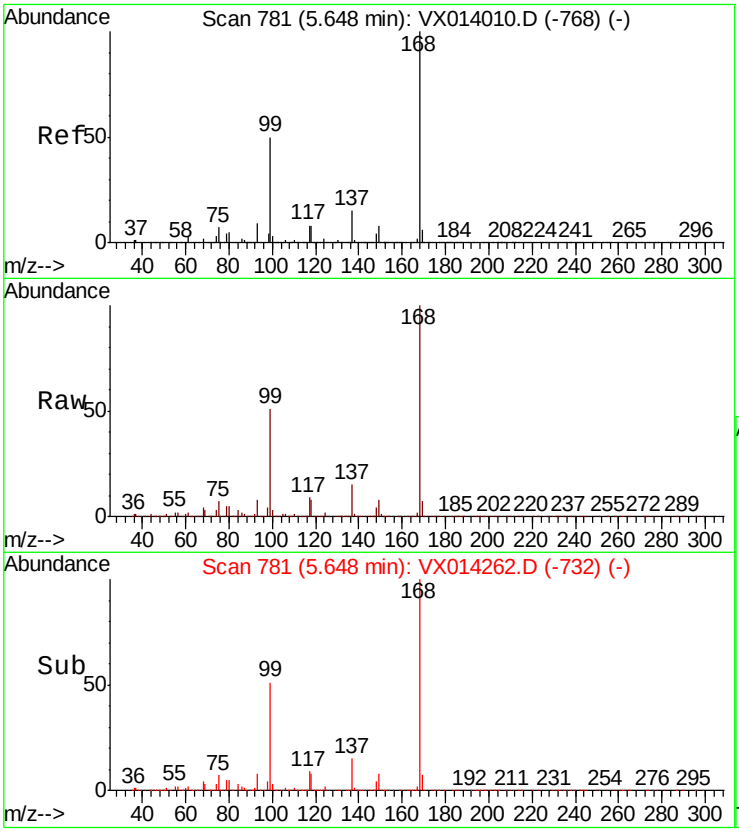
Instrument :
MSVOA_X
ClientSampleId :
VX1226WBS01

Manual Integrations APPROVED
apatel
12/27/2019 12:03:06 PM



Instrument :
MSVOA_X
ClientSampleId :
VX1226WBS01

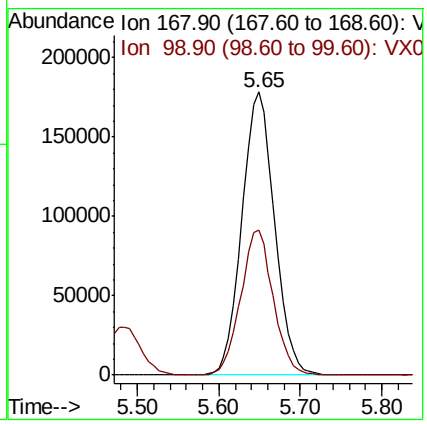
Manual Integrations APPROVED
apatel
12/27/2019 12:03:06 PM

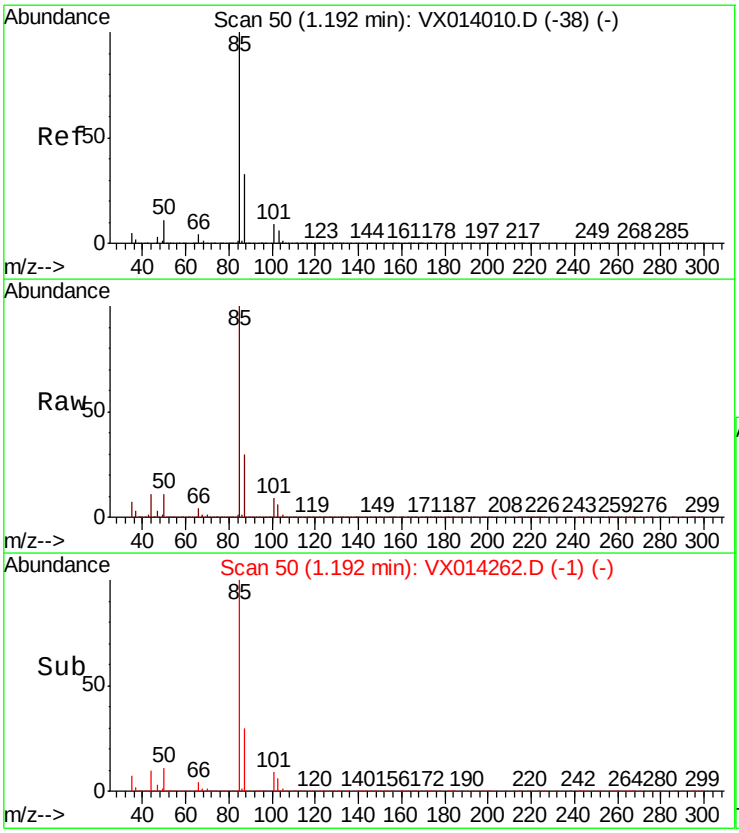


#1
Pentafluorobenzene
Concen: 50.000 ug/l
RT: 5.65 min Scan# 781
Delta R.T. 0.00 min
Lab File: VX014262.D
Acq: 26 Dec 2019 12:18

Tgt Ion:168 Resp: 495545

Ion	Ratio	Lower	Upper
168	100		
99	51.2	40.3	60.5

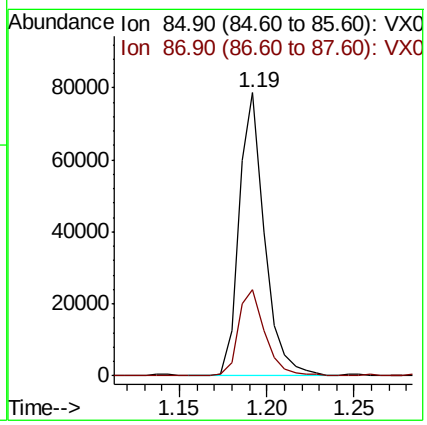




#2
Dichlorodifluoromethane
Concen: 17.796 ug/l
RT: 1.19 min Scan# 50
Delta R.T. 0.00 min
Lab File: VX014262.D
Acq: 26 Dec 2019 12:18

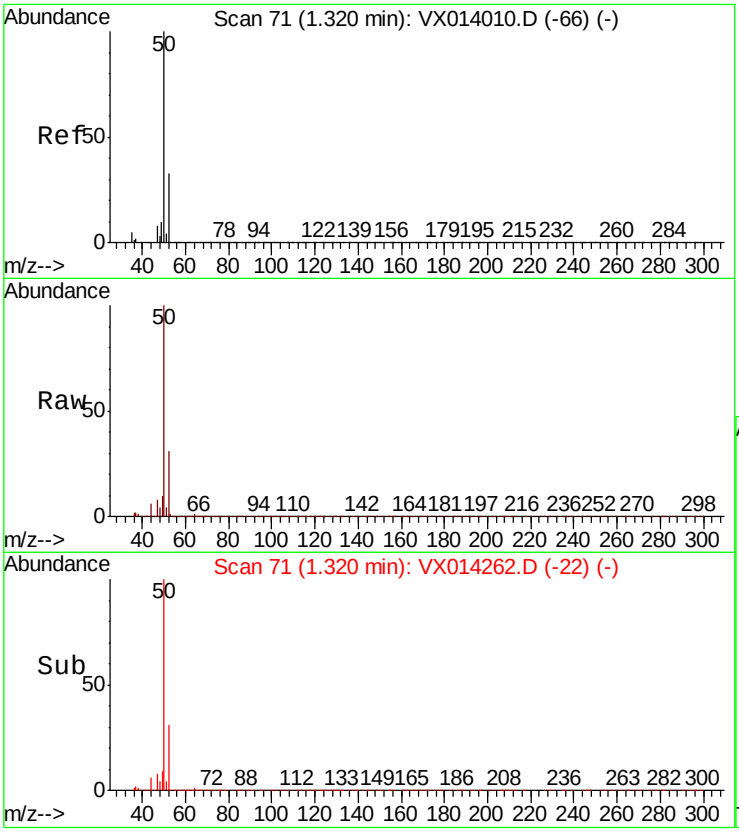
Tgt Ion: 85 Resp: 78897

Ion	Ratio	Lower	Upper
85	100		
87	30.2	16.4	49.2



Instrument :
MSVOA_X
ClientSampleId :
VX1226WBS01

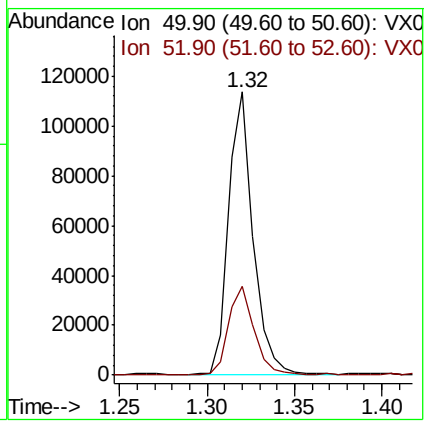
Manual Integrations APPROVED
apatel
12/27/2019 12:03:06 PM

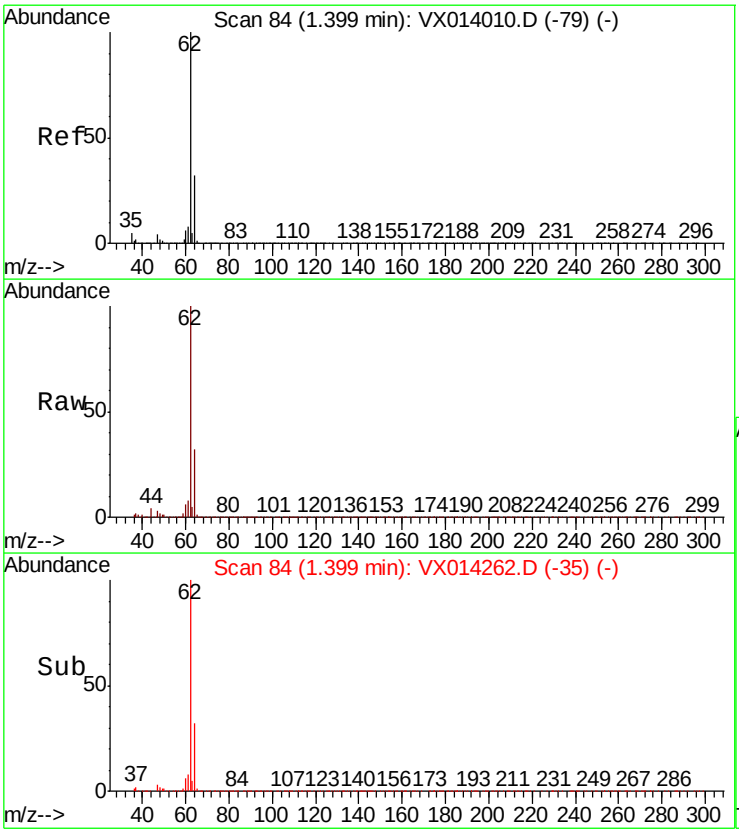


#3
Chloromethane
Concen: 18.549 ug/l
RT: 1.32 min Scan# 71
Delta R.T. 0.00 min
Lab File: VX014262.D
Acq: 26 Dec 2019 12:18

Tgt Ion: 50 Resp: 110357

Ion	Ratio	Lower	Upper
50	100		
52	30.9	26.2	39.4

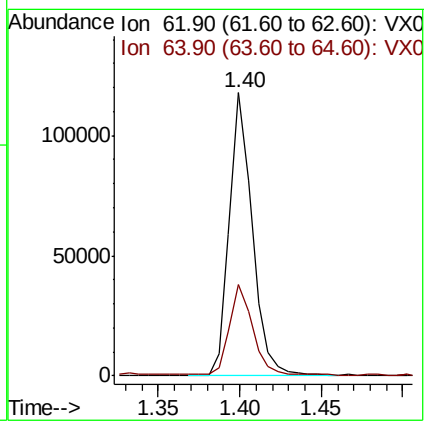




#4
Vinyl Chloride
Concen: 18.308 ug/l
RT: 1.40 min Scan# 84
Delta R.T. 0.00 min
Lab File: VX014262.D
Acq: 26 Dec 2019 12:18

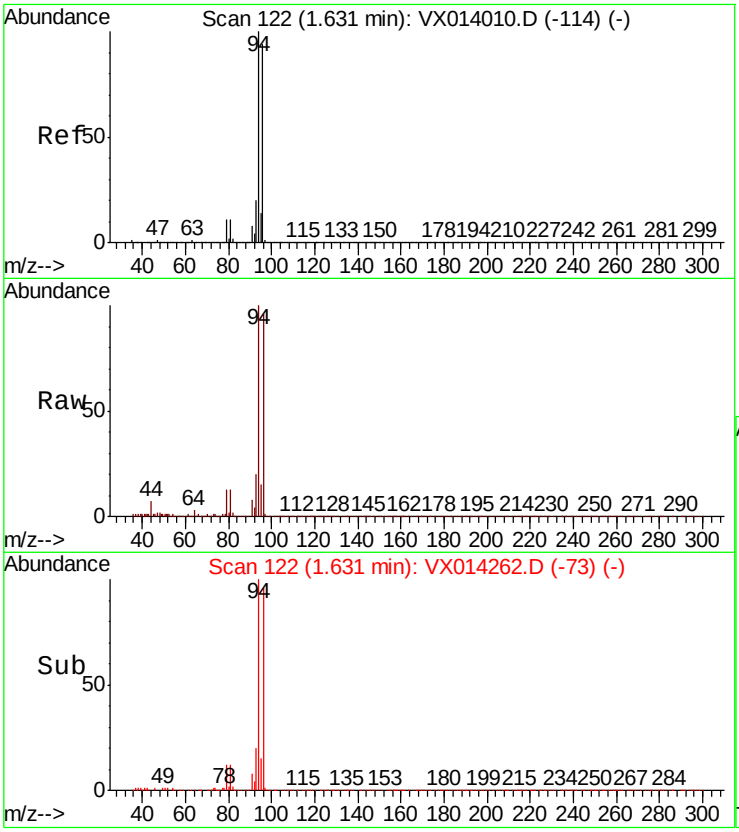
Tgt Ion: 62 Resp: 114932

Ion	Ratio	Lower	Upper
62	100		
64	32.2	25.7	38.5



Instrument :
MSVOA_X
ClientSampleId :
VX1226WBS01

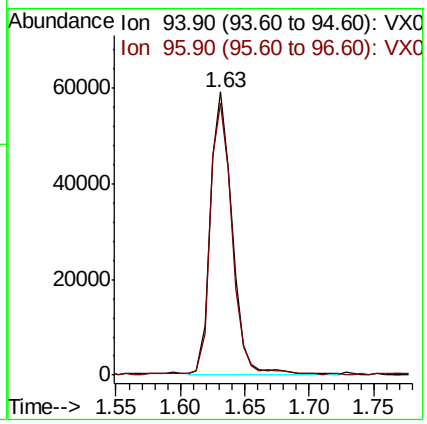
Manual Integrations APPROVED
apatel
12/27/2019 12:03:06 PM

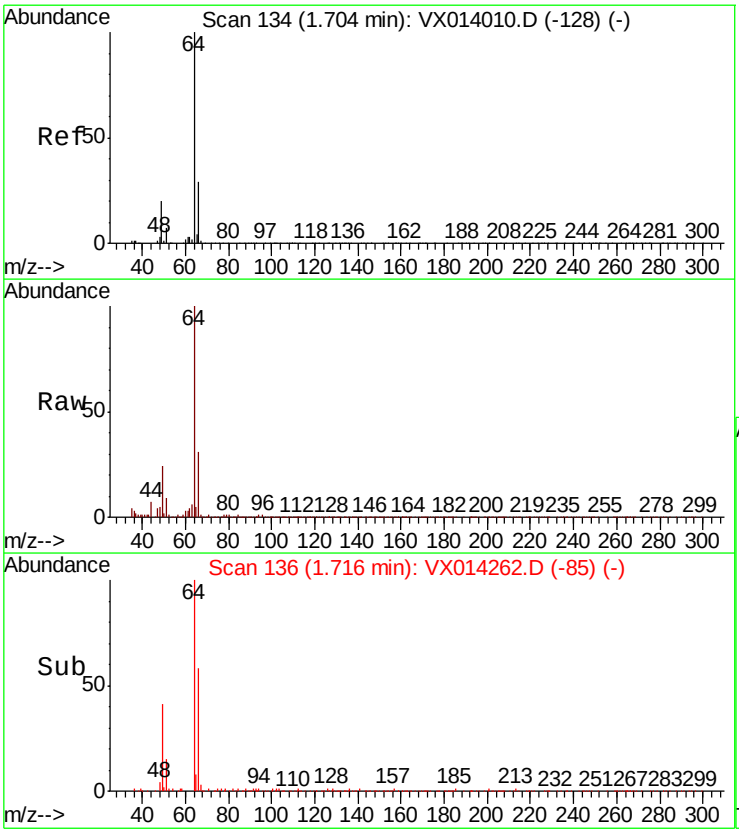


#5
Bromomethane
Concen: 15.696 ug/l
RT: 1.63 min Scan# 122
Delta R.T. 0.00 min
Lab File: VX014262.D
Acq: 26 Dec 2019 12:18

Tgt Ion: 94 Resp: 69935

Ion	Ratio	Lower	Upper
94	100		
96	95.6	75.2	112.8

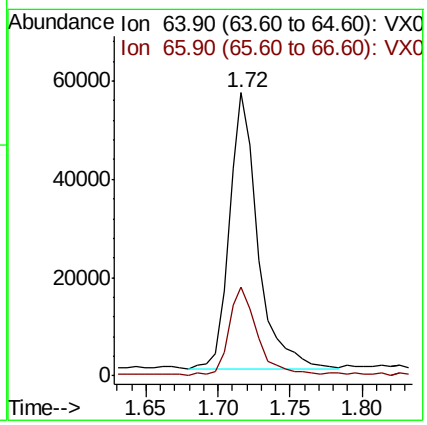




#6
Chloroethane
Concen: 20.195 ug/l
RT: 1.72 min Scan# 136
Delta R.T. 0.01 min
Lab File: VX014262.D
Acq: 26 Dec 2019 12:18

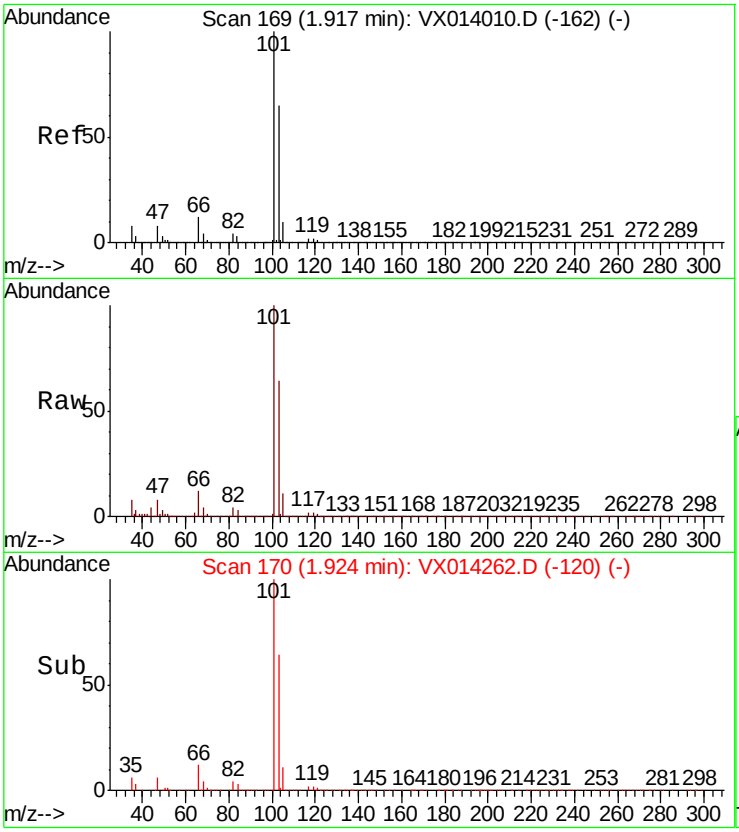
Tgt Ion: 64 Resp: 78249

Ion	Ratio	Lower	Upper
64	100		
66	31.4	23.4	35.2



Instrument :
MSVOA_X
ClientSampleId :
VX1226WBS01

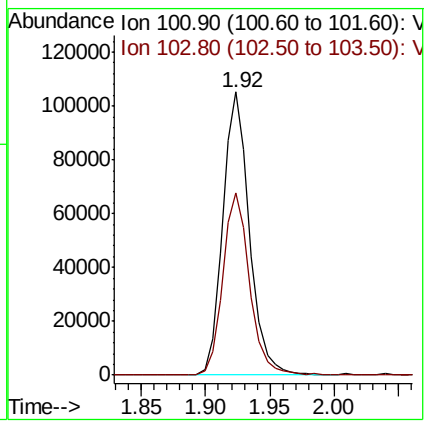
Manual Integrations APPROVED
apatel
12/27/2019 12:03:06 PM

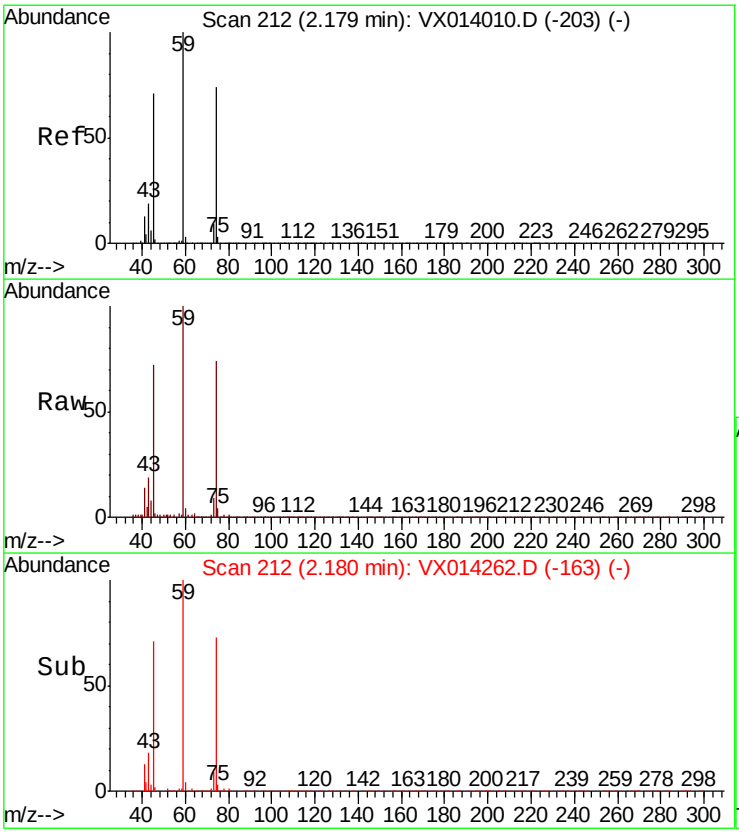


#7
Trichlorofluoromethane
Concen: 19.604 ug/l
RT: 1.92 min Scan# 170
Delta R.T. 0.01 min
Lab File: VX014262.D
Acq: 26 Dec 2019 12:18

Tgt Ion:101 Resp: 152352

Ion	Ratio	Lower	Upper
101	100		
103	64.3	52.2	78.4

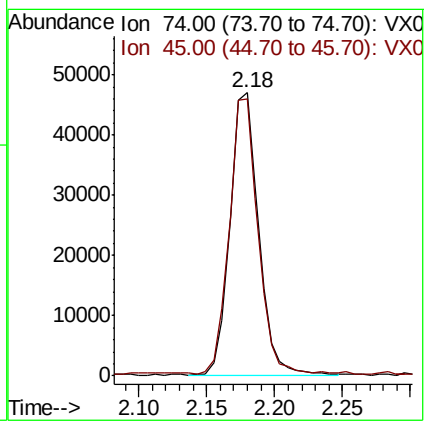


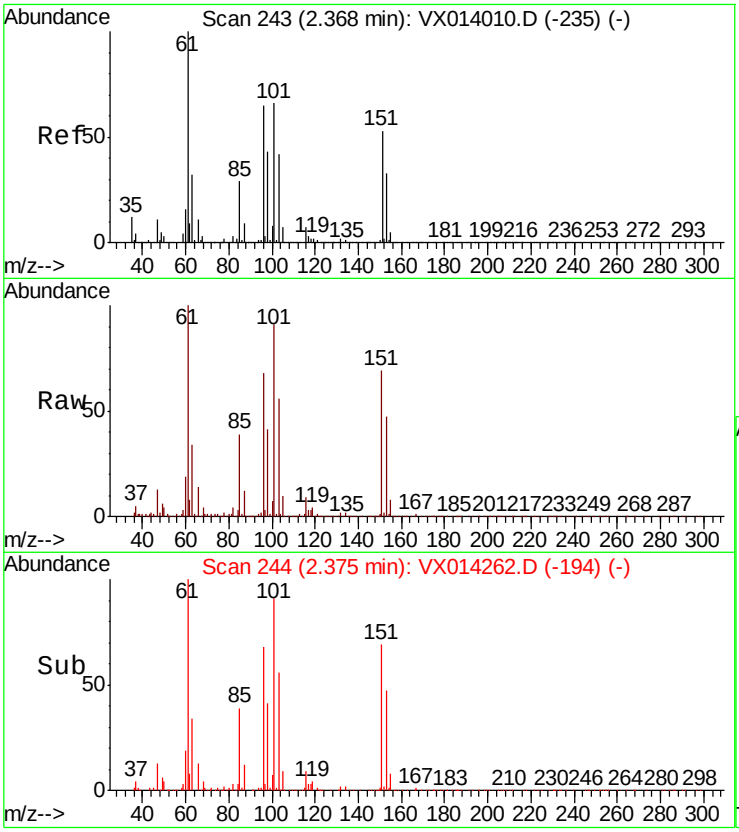


#8
Diethyl Ether
Concen: 18.682 ug/l
RT: 2.18 min Scan# 212
Delta R.T. 0.00 min
Lab File: VX014262.D
Acq: 26 Dec 2019 12:18

Tgt Ion: 74 Resp: 68140

Ion	Ratio	Lower	Upper
74	100		
45	98.0	48.1	144.3

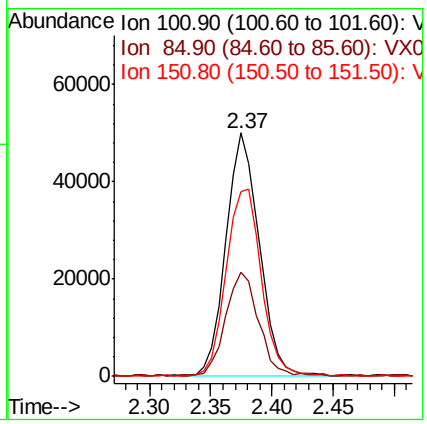




#9
1,1,2-Trichlorotrifluoroethane
Concen: 20.018 ug/l
RT: 2.37 min Scan# 244
Delta R.T. 0.01 min
Lab File: VX014262.D
Acq: 26 Dec 2019 12:18

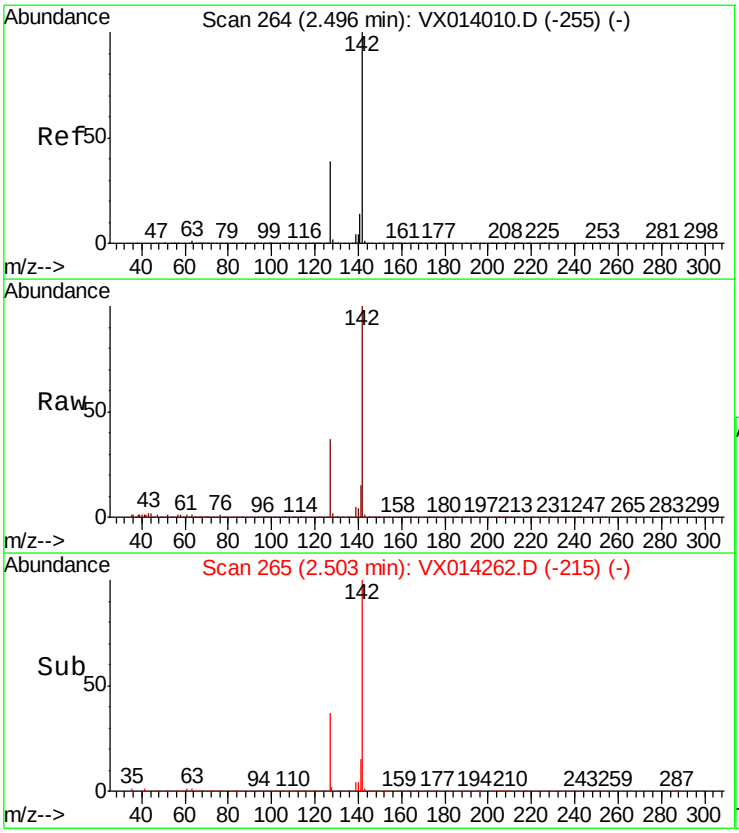
Tgt Ion:101 Resp: 93777

Ion	Ratio	Lower	Upper
101	100		
85	42.6	33.7	50.5
151	82.2	64.5	96.7



Instrument :
MSVOA_X
ClientSampleId :
VX1226WBS01

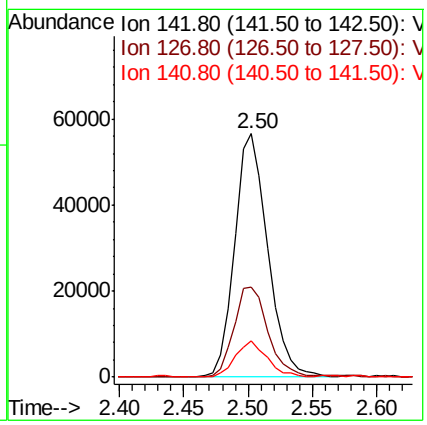
Manual Integrations APPROVED
apatel
12/27/2019 12:03:06 PM



#10
Methyl Iodide
Concen: 18.004 ug/l
RT: 2.50 min Scan# 265
Delta R.T. 0.01 min
Lab File: VX014262.D
Acq: 26 Dec 2019 12:18

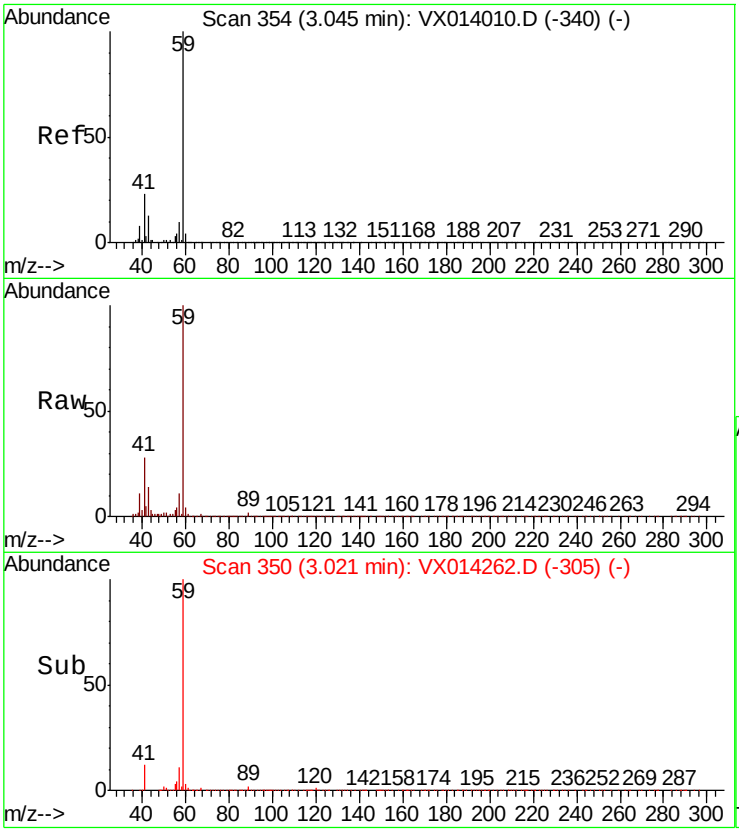
Tgt Ion:142 Resp: 100292

Ion	Ratio	Lower	Upper
142	100		
127	38.0	31.6	47.4
141	14.6	11.6	17.4



Instrument :
MSVOA_X
ClientSampleId :
VX1226WBS01

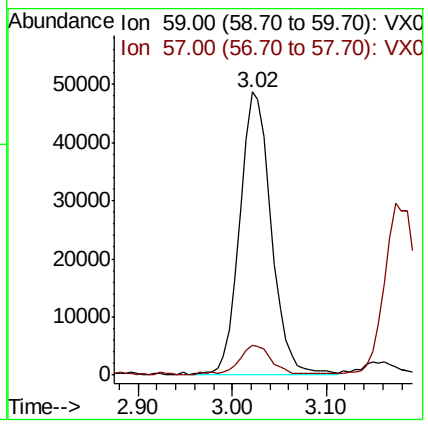
Manual Integrations APPROVED
apatel
12/27/2019 12:03:06 PM

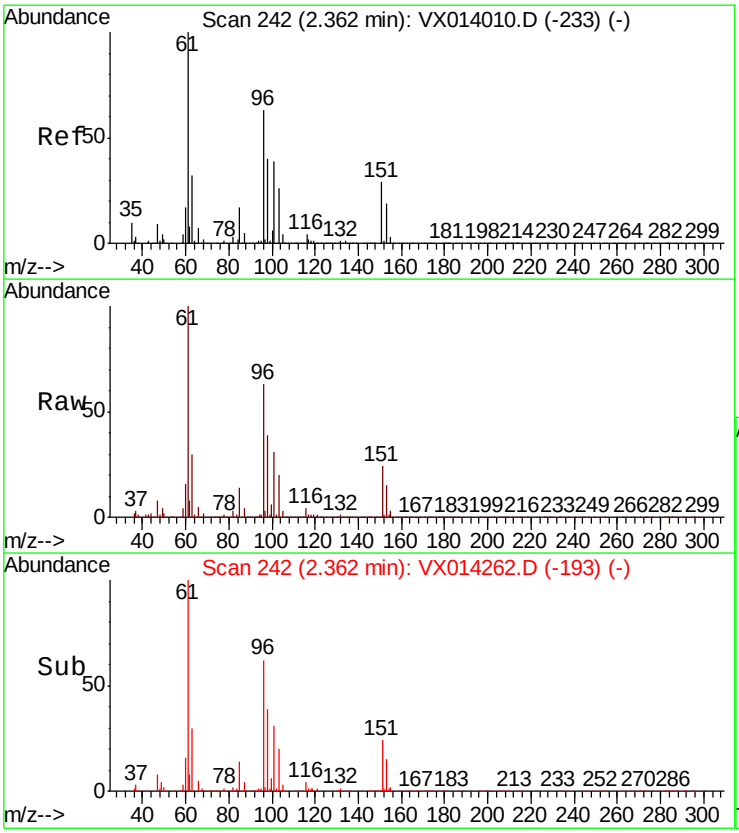


#11
Tert butyl alcohol
Concen: 93.214 ug/l
RT: 3.02 min Scan# 350
Delta R.T. -0.02 min
Lab File: VX014262.D
Acq: 26 Dec 2019 12:18

Tgt Ion: 59 Resp: 113121

Ion	Ratio	Lower	Upper
59	100		
57	9.8	8.4	12.6

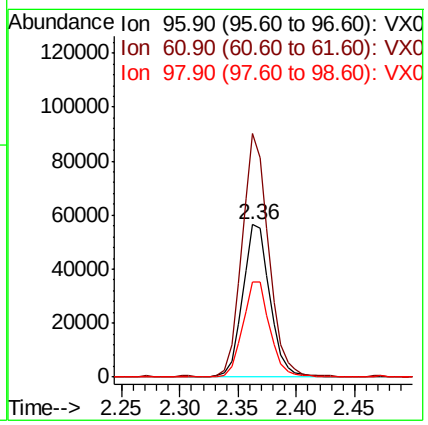




#12
1,1-Dichloroethene
Concen: 19.160 ug/l
RT: 2.36 min Scan# 242
Delta R.T. 0.00 min
Lab File: VX014262.D
Acq: 26 Dec 2019 12:18

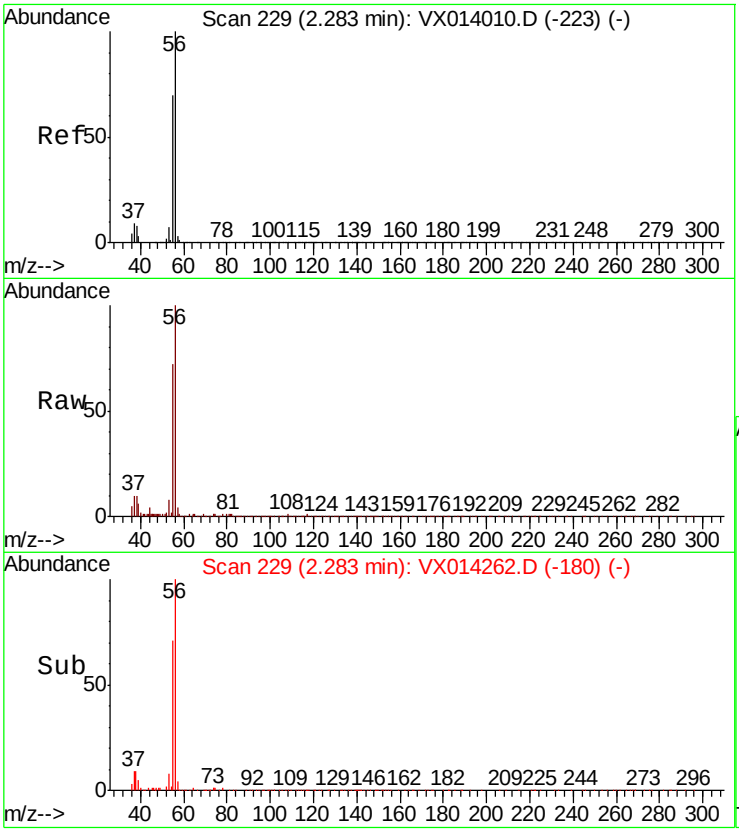
Tgt Ion: 96 Resp: 91332

Ion	Ratio	Lower	Upper
96	100		
61	159.6	127.9	191.9
98	62.2	50.5	75.7



Instrument :
MSVOA_X
ClientSampleId :
VX1226WBS01

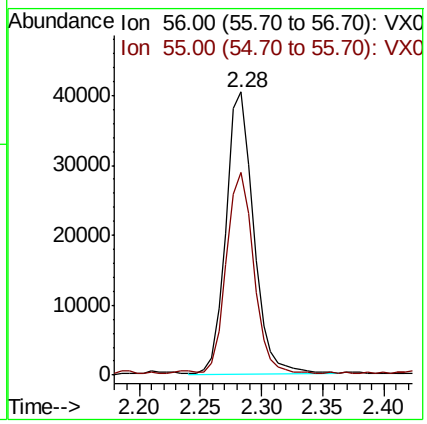
Manual Integrations APPROVED
apatel
12/27/2019 12:03:06 PM

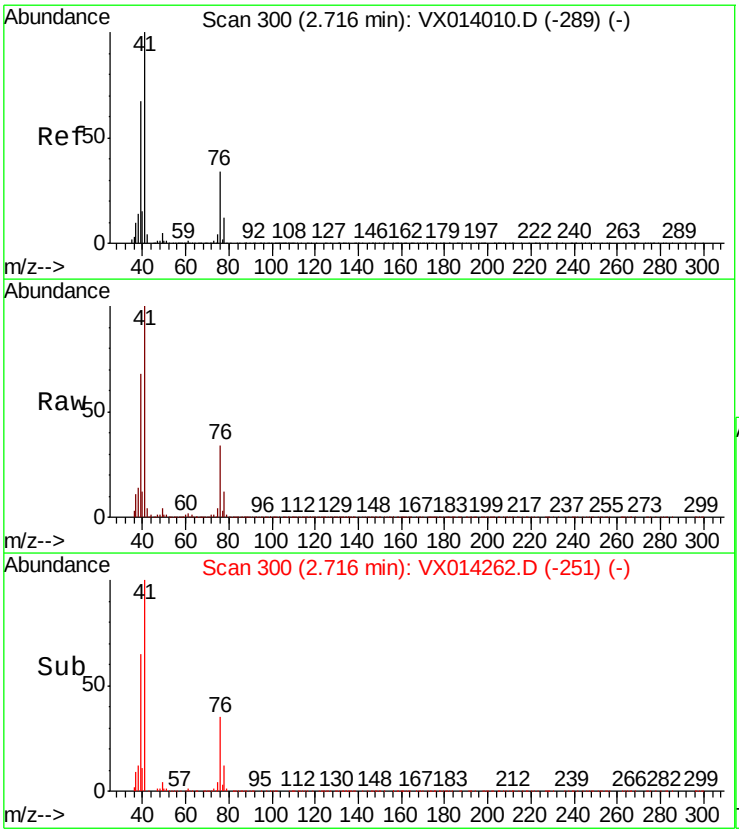


#13
Acrolein
Concen: 90.805 ug/l
RT: 2.28 min Scan# 229
Delta R.T. 0.00 min
Lab File: VX014262.D
Acq: 26 Dec 2019 12:18

Tgt Ion: 56 Resp: 63080

Ion	Ratio	Lower	Upper
56	100		
55	69.4	56.9	85.3

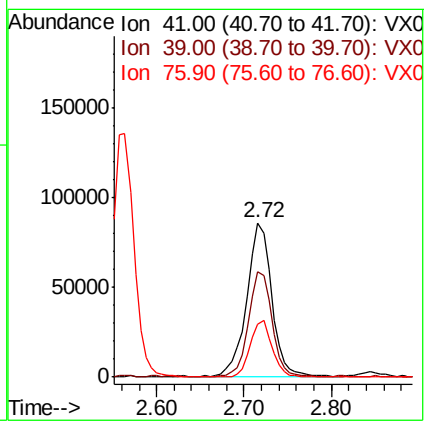




#14
Allyl chloride
Concen: 20.009 ug/l
RT: 2.72 min Scan# 300
Delta R.T. 0.00 min
Lab File: VX014262.D
Acq: 26 Dec 2019 12:18

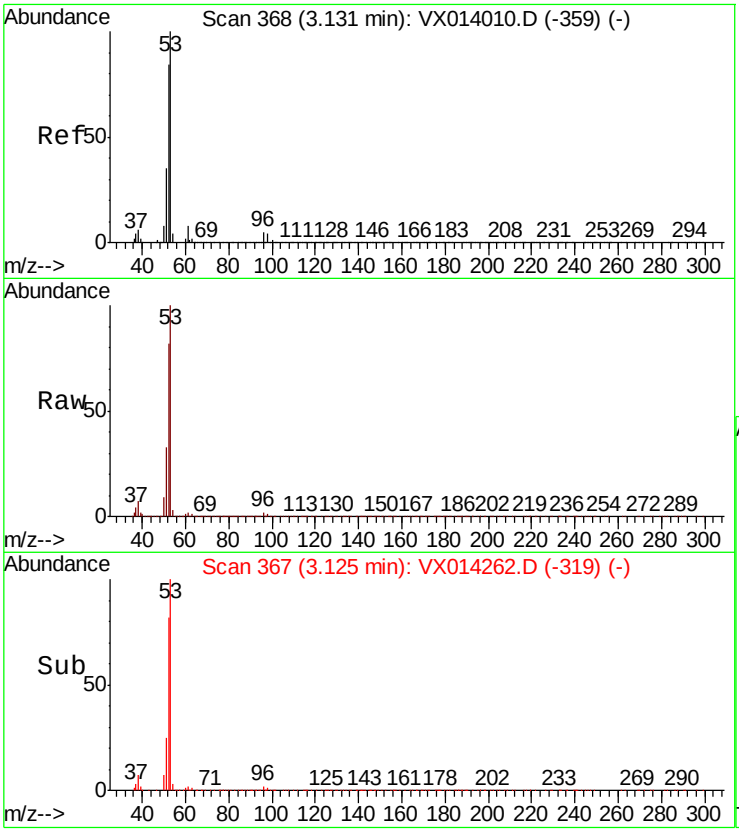
Tgt Ion: 41 Resp: 170294

Ion	Ratio	Lower	Upper
41	100		
39	63.3	51.8	77.8
76	31.8	25.9	38.9



Instrument :
MSVOA_X
ClientSampleId :
VX1226WBS01

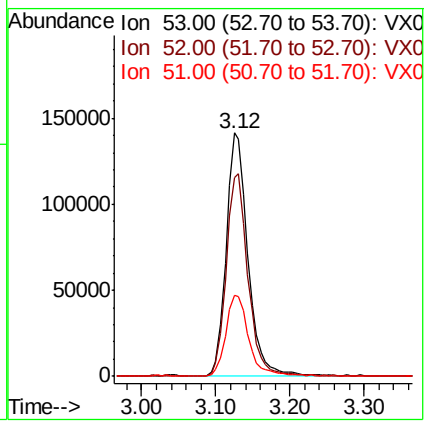
Manual Integrations APPROVED
apatel
12/27/2019 12:03:06 PM

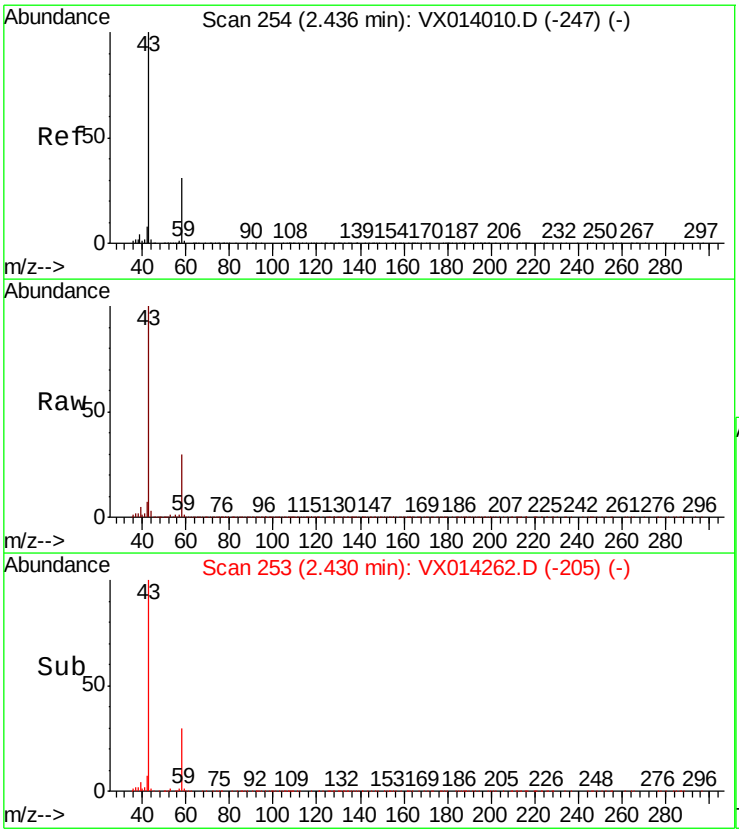


#15
Acrylonitrile
Concen: 101.168 ug/l
RT: 3.12 min Scan# 367
Delta R.T. -0.01 min
Lab File: VX014262.D
Acq: 26 Dec 2019 12:18

Tgt Ion: 53 Resp: 286560

Ion	Ratio	Lower	Upper
53	100		
52	83.5	66.5	99.7
51	35.1	28.1	42.1

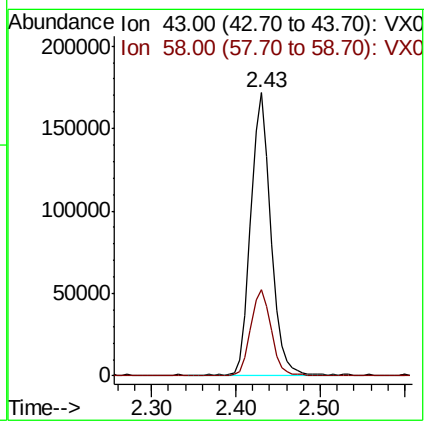




#16
Acetone
Concen: 75.267 ug/l
RT: 2.43 min Scan# 253
Delta R.T. -0.01 min
Lab File: VX014262.D
Acq: 26 Dec 2019 12:18

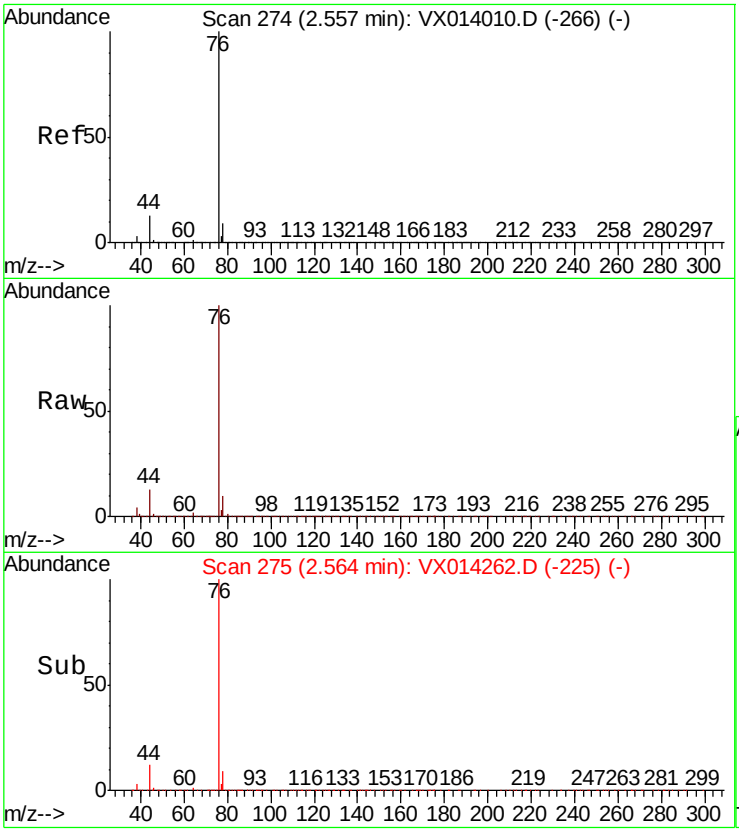
Tgt Ion: 43 Resp: 274439

Ion	Ratio	Lower	Upper
43	100		
58	30.2	24.9	37.3



Instrument :
MSVOA_X
ClientSampleId :
VX1226WBS01

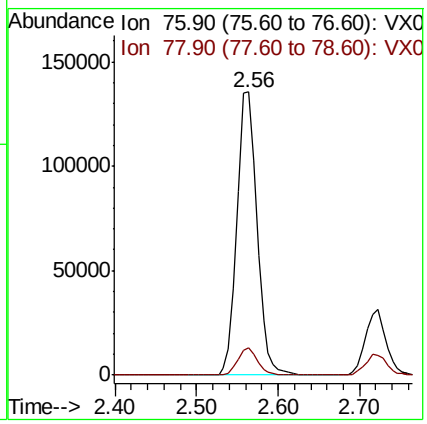
Manual Integrations APPROVED
apatel
12/27/2019 12:03:06 PM

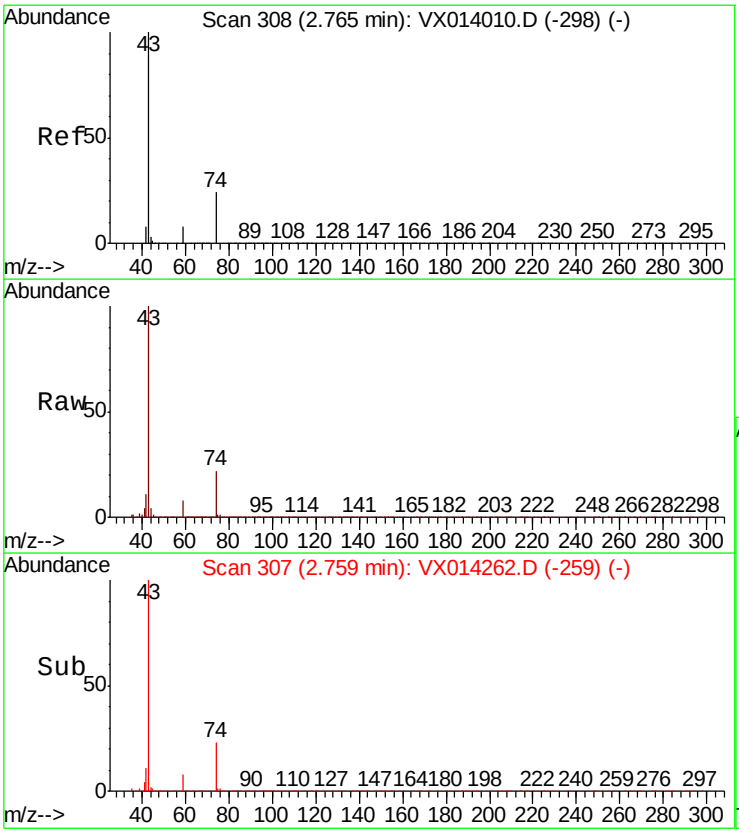


#17
Carbon Disulfide
Concen: 17.851 ug/l
RT: 2.56 min Scan# 275
Delta R.T. 0.01 min
Lab File: VX014262.D
Acq: 26 Dec 2019 12:18

Tgt Ion: 76 Resp: 229753

Ion	Ratio	Lower	Upper
76	100		
78	9.4	7.2	10.8

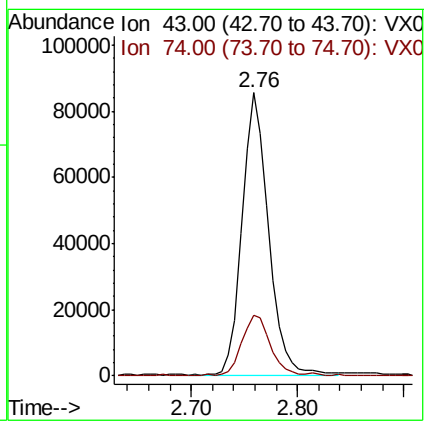




#18
Methyl Acetate
Concen: 20.601 ug/l
RT: 2.76 min Scan# 307
Delta R.T. -0.01 min
Lab File: VX014262.D
Acq: 26 Dec 2019 12:18

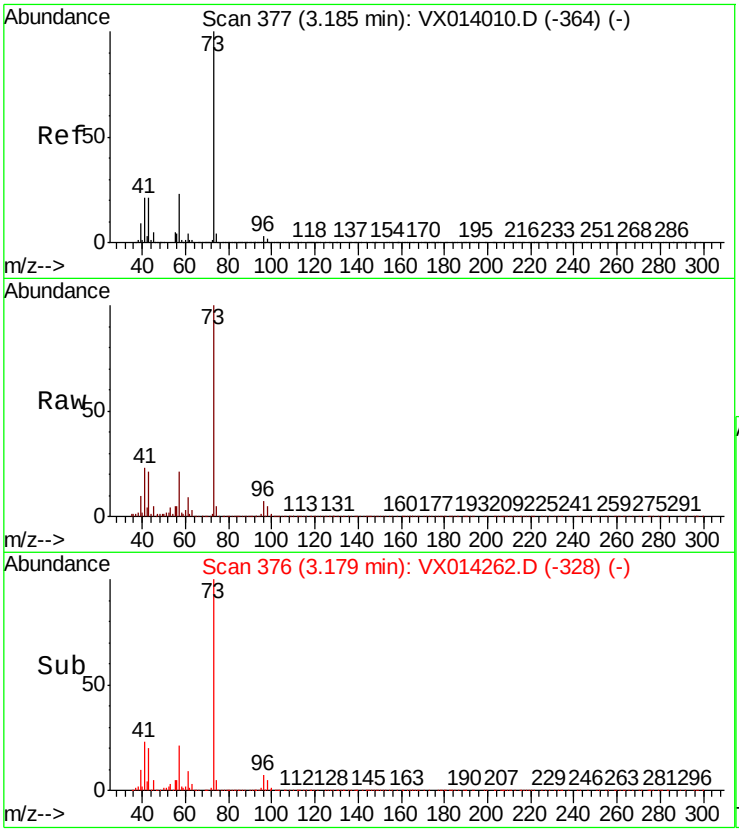
Tgt Ion: 43 Resp: 148843

Ion	Ratio	Lower	Upper
43	100		
74	22.4	19.5	29.3



Instrument :
MSVOA_X
ClientSampleId :
VX1226WBS01

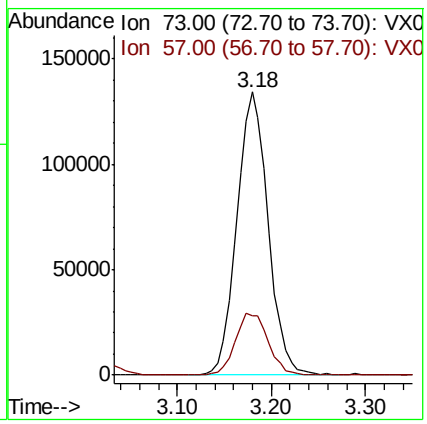
Manual Integrations APPROVED
apatel
12/27/2019 12:03:06 PM

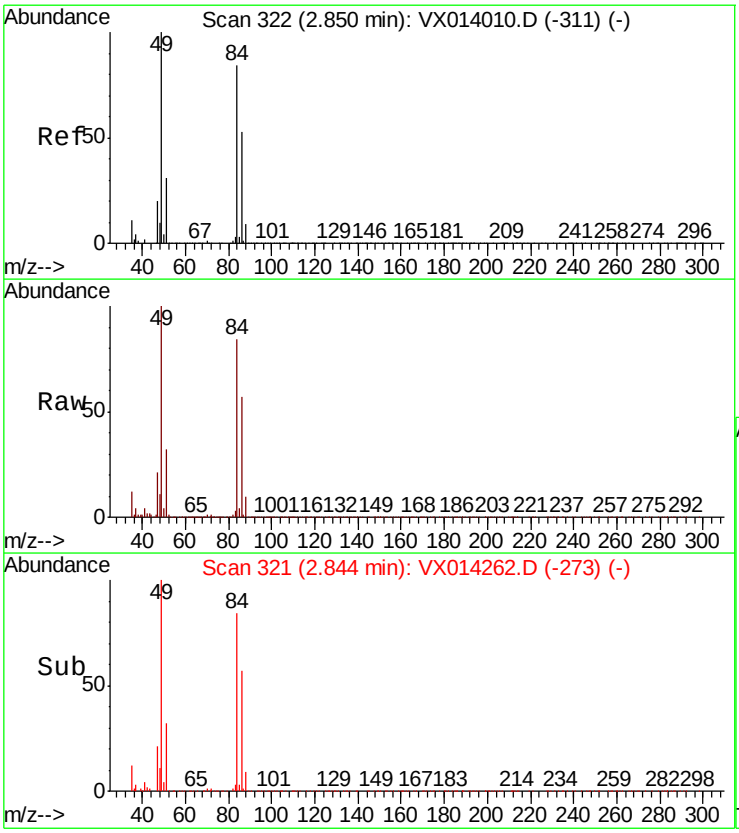


#19
Methyl tert-butyl Ether
Concen: 19.724 ug/l
RT: 3.18 min Scan# 376
Delta R.T. -0.01 min
Lab File: VX014262.D
Acq: 26 Dec 2019 12:18

Tgt Ion: 73 Resp: 308955

Ion	Ratio	Lower	Upper
73	100		
57	21.0	18.8	28.2

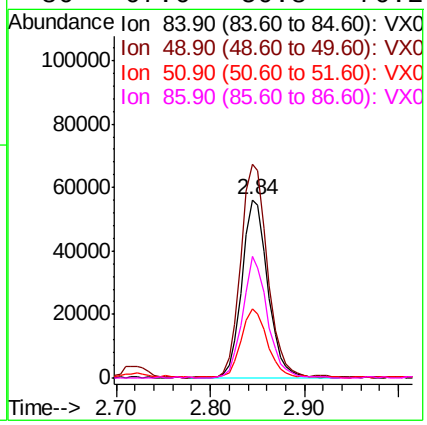




#20
Methylene Chloride
Concen: 18.797 ug/l
RT: 2.84 min Scan# 321
Delta R.T. -0.01 min
Lab File: VX014262.D
Acq: 26 Dec 2019 12:18

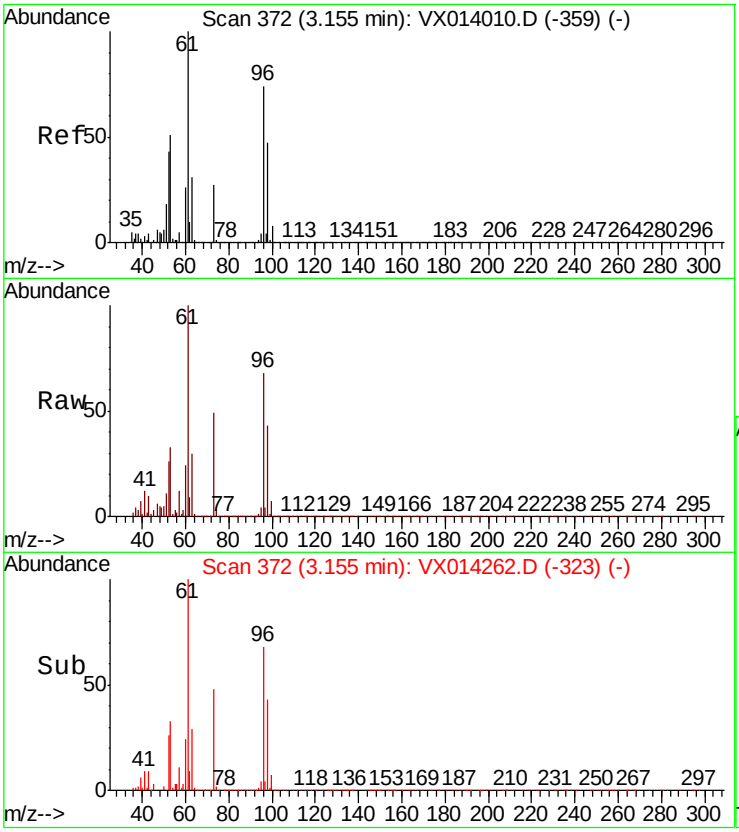
Tgt Ion: 84 Resp: 107929

Ion	Ratio	Lower	Upper
84	100		
49	119.5	95.8	143.6
51	38.0	29.8	44.8
86	67.6	50.8	76.2



Instrument :
MSVOA_X
ClientSampleId :
VX1226WBS01

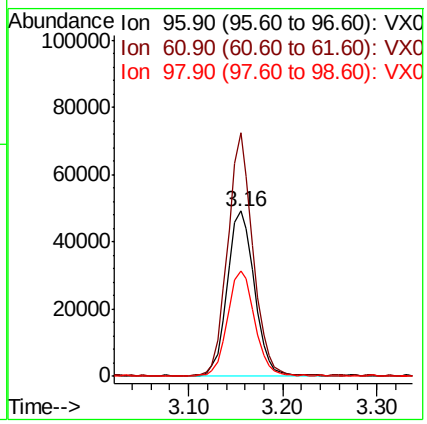
Manual Integrations APPROVED
apatel
12/27/2019 12:03:06 PM

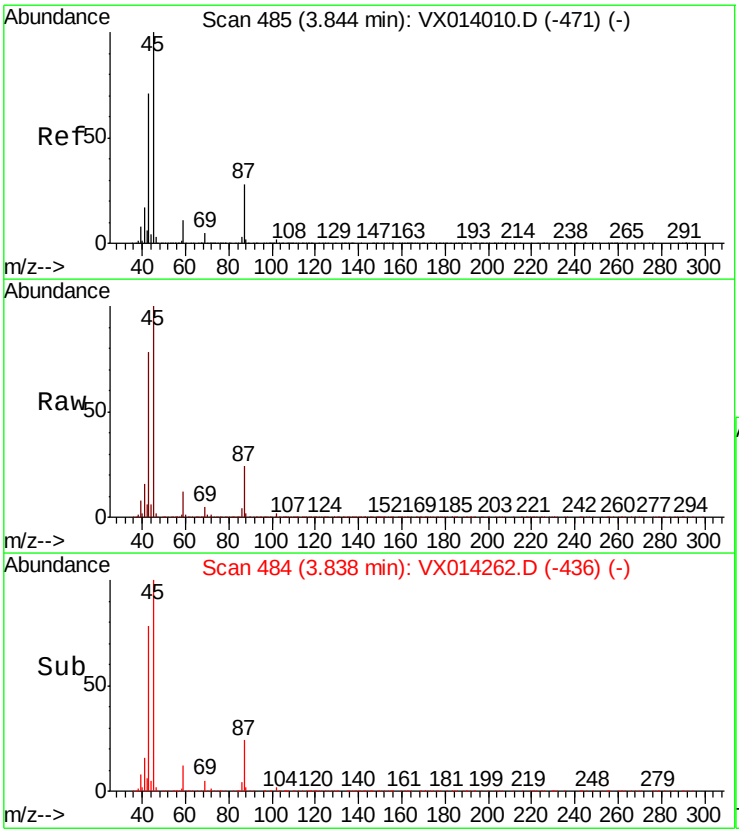


#21
trans-1,2-Dichloroethene
Concen: 18.878 ug/l
RT: 3.16 min Scan# 372
Delta R.T. 0.00 min
Lab File: VX014262.D
Acq: 26 Dec 2019 12:18

Tgt Ion: 96 Resp: 99139

Ion	Ratio	Lower	Upper
96	100		
61	146.3	108.3	162.5
98	63.3	50.8	76.2

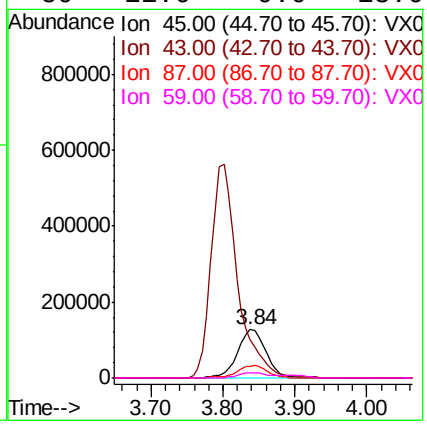




#22
Diisopropyl ether
Concen: 20.775 ug/l
RT: 3.84 min Scan# 484
Delta R.T. -0.01 min
Lab File: VX014262.D
Acq: 26 Dec 2019 12:18

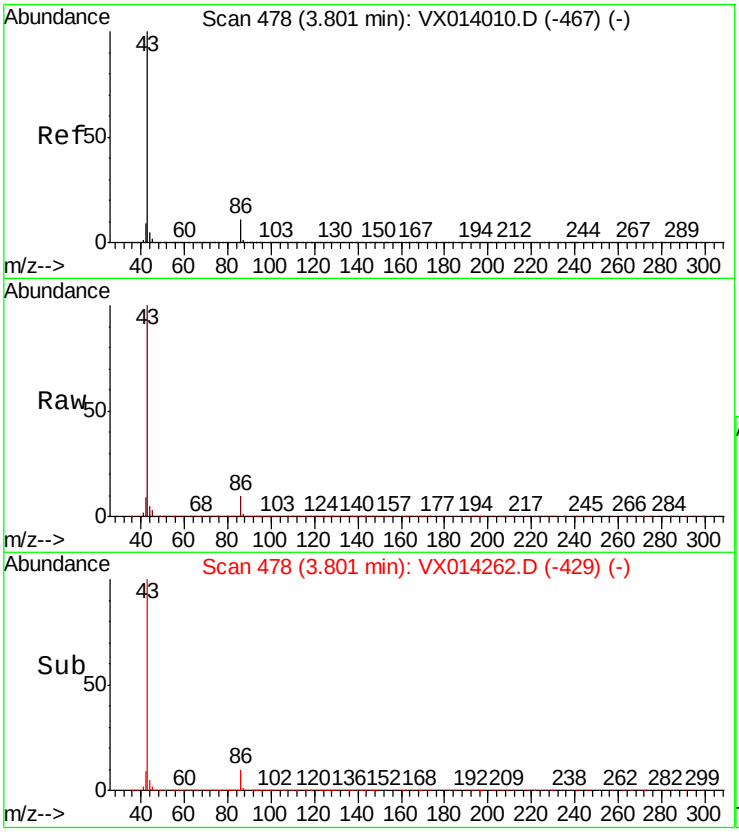
Tgt Ion: 45 Resp: 352345

Ion	Ratio	Lower	Upper
45	100		
43	77.0	57.4	86.0
87	23.8	21.9	32.9
59	11.6	9.0	13.6



Instrument :
MSVOA_X
ClientSampleId :
VX1226WBS01

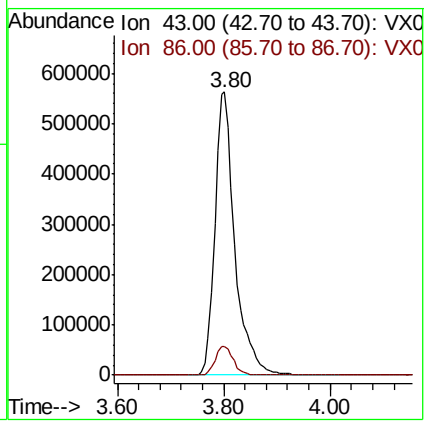
Manual Integrations APPROVED
apatel
12/27/2019 12:03:06 PM

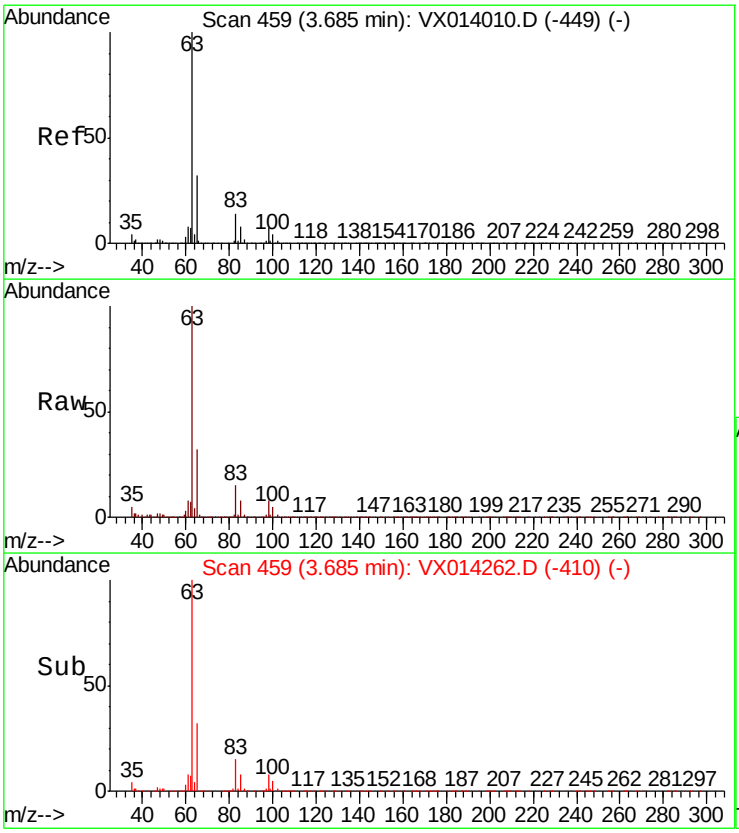


#23
Vinyl Acetate
Concen: 105.508 ug/l
RT: 3.80 min Scan# 478
Delta R.T. 0.00 min
Lab File: VX014262.D
Acq: 26 Dec 2019 12:18

Tgt Ion: 43 Resp: 1460293

Ion	Ratio	Lower	Upper
43	100		
86	10.1	8.6	12.8

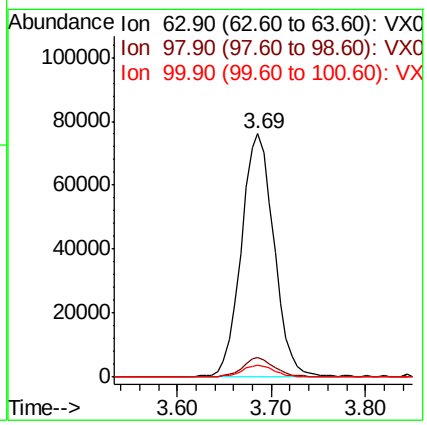




#24
1,1-Dichloroethane
Concen: 19.347 ug/l
RT: 3.69 min Scan# 459
Delta R.T. 0.00 min
Lab File: VX014262.D
Acq: 26 Dec 2019 12:18

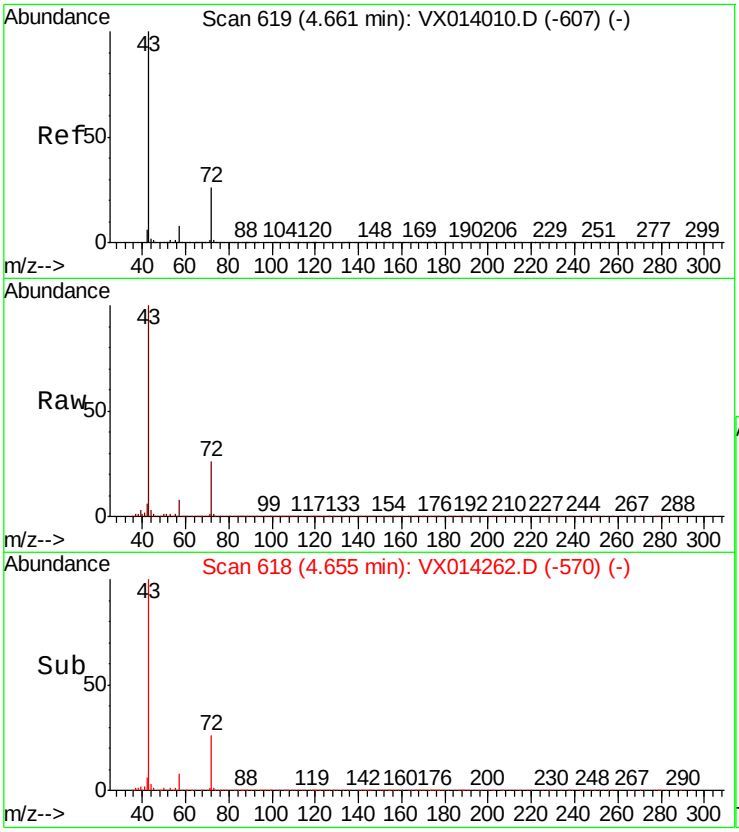
Tgt Ion: 63 Resp: 182560

Ion	Ratio	Lower	Upper
63	100		
98	7.7	3.6	10.8
100	4.8	2.3	6.8



Instrument :
MSVOA_X
ClientSampleId :
VX1226WBS01

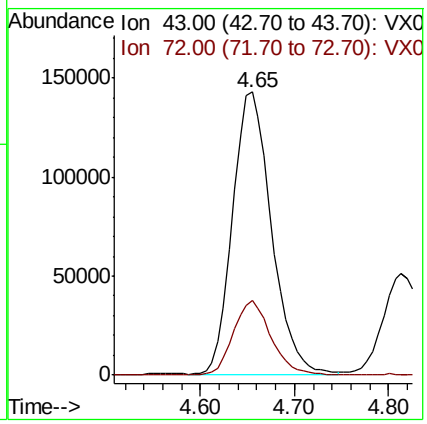
Manual Integrations APPROVED
apatel
12/27/2019 12:03:06 PM

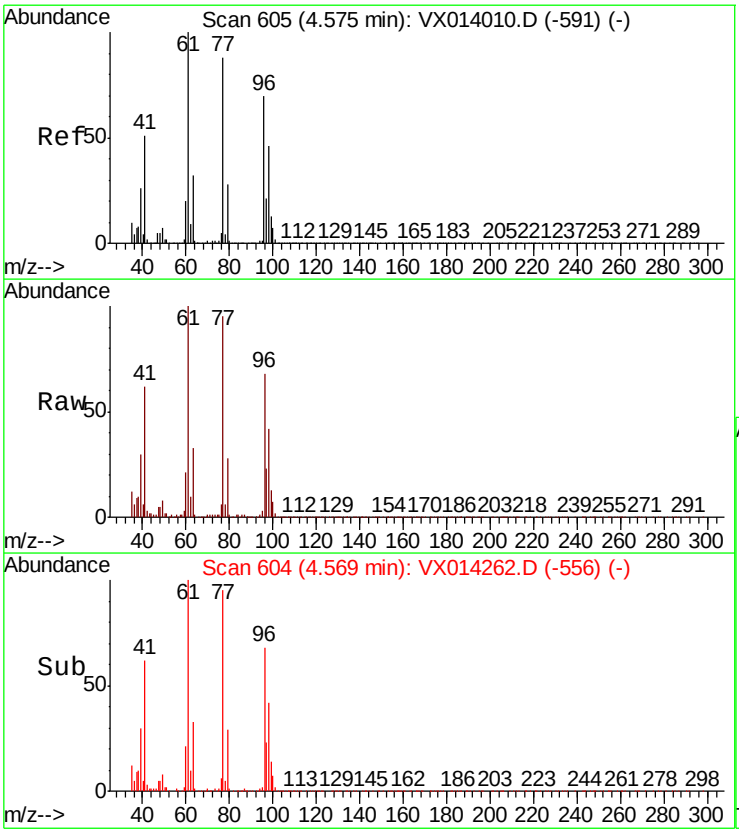


#25
2-Butanone
Concen: 91.254 ug/l
RT: 4.65 min Scan# 618
Delta R.T. -0.01 min
Lab File: VX014262.D
Acq: 26 Dec 2019 12:18

Tgt Ion: 43 Resp: 410217

Ion	Ratio	Lower	Upper
43	100		
72	26.1	21.0	31.4

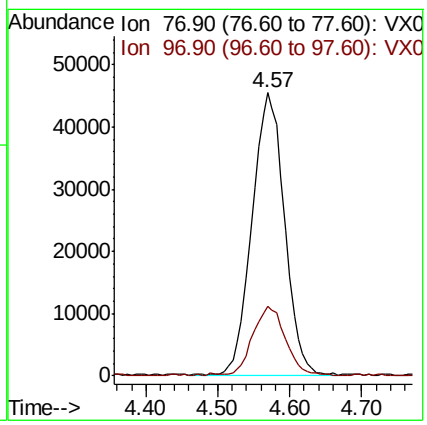




#26
2,2-Dichloropropane
Concen: 19.596 ug/l
RT: 4.57 min Scan# 604
Delta R.T. -0.01 min
Lab File: VX014262.D
Acq: 26 Dec 2019 12:18

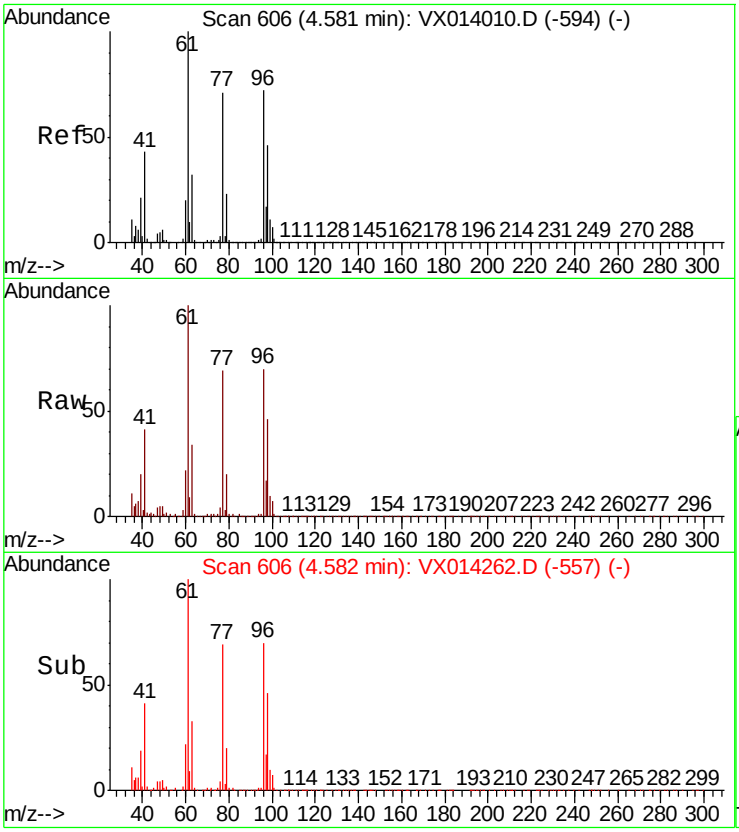
Tgt Ion: 77 Resp: 143568

Ion	Ratio	Lower	Upper
77	100		
97	24.7	11.9	35.9



Instrument :
MSVOA_X
ClientSampleId :
VX1226WBS01

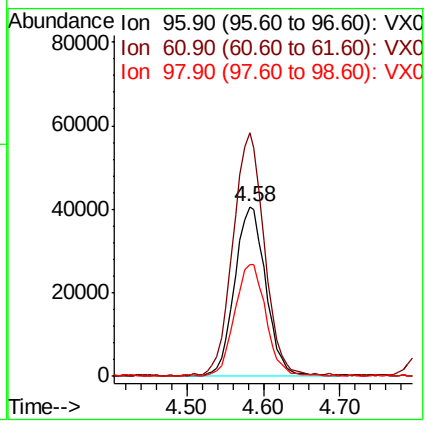
Manual Integrations APPROVED
apatel
12/27/2019 12:03:06 PM

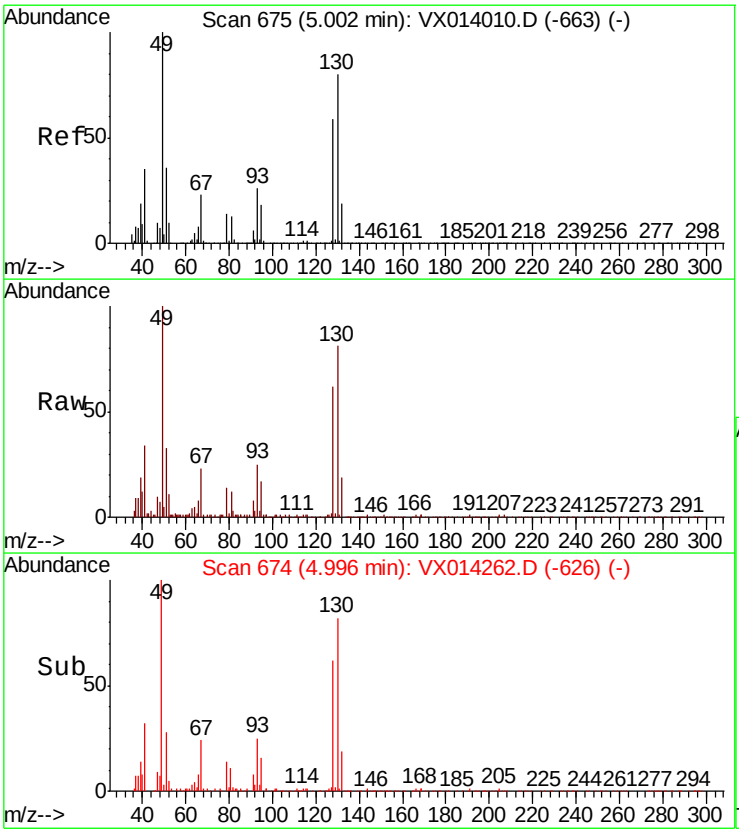


#27
cis-1,2-Dichloroethene
Concen: 19.220 ug/l
RT: 4.58 min Scan# 606
Delta R.T. 0.00 min
Lab File: VX014262.D
Acq: 26 Dec 2019 12:18

Tgt Ion: 96 Resp: 114154

Ion	Ratio	Lower	Upper
96	100		
61	143.8	0.0	288.4
98	66.1	0.0	129.6

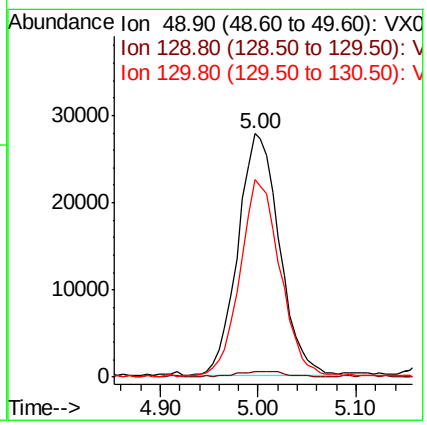




#28
Bromochloromethane
Concen: 22.727 ug/l
RT: 5.00 min Scan# 674
Delta R.T. -0.01 min
Lab File: VX014262.D
Acq: 26 Dec 2019 12:18

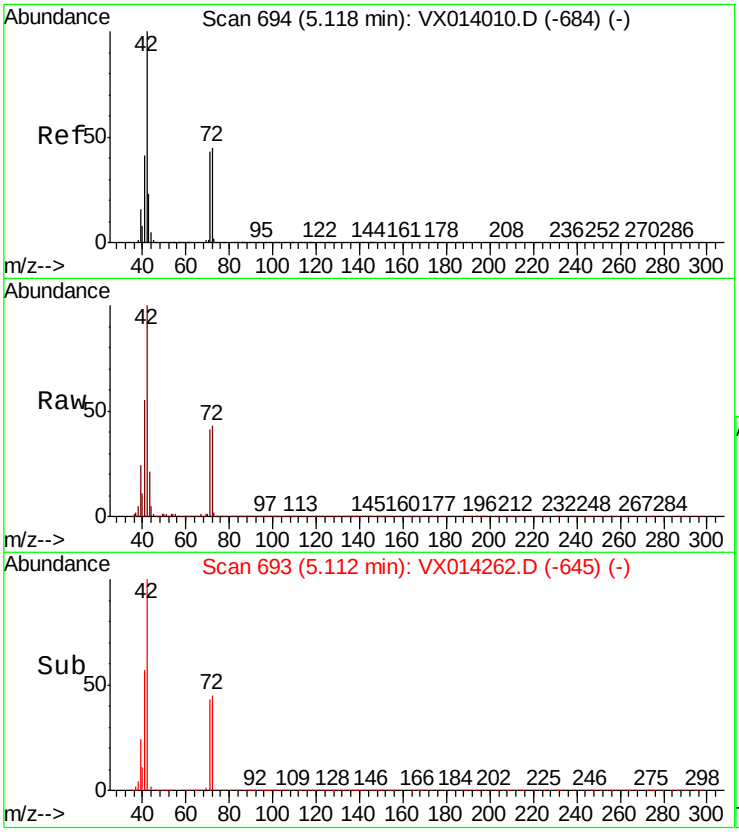
Tgt Ion: 49 Resp: 81569

Ion	Ratio	Lower	Upper
49	100		
129	3.0	0.0	5.0
130	78.4	64.6	97.0



Instrument :
MSVOA_X
ClientSampleId :
VX1226WBS01

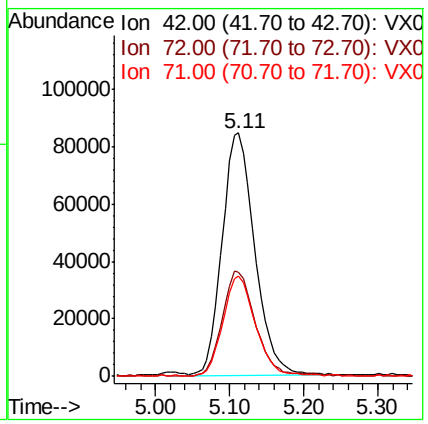
Manual Integrations APPROVED
apatel
12/27/2019 12:03:06 PM

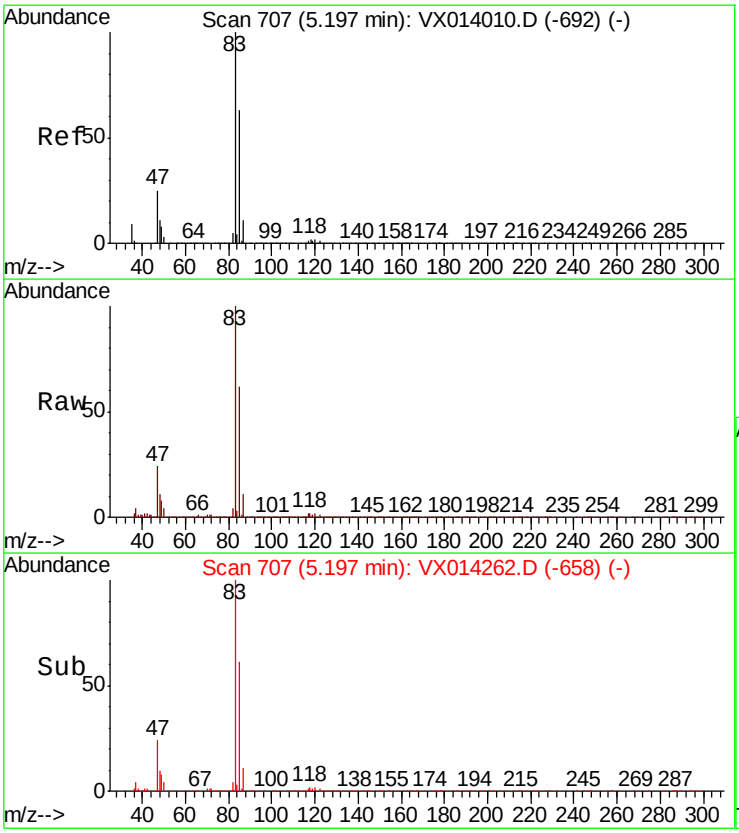


#29
Tetrahydrofuran
Concen: 103.074 ug/l
RT: 5.11 min Scan# 693
Delta R.T. -0.01 min
Lab File: VX014262.D
Acq: 26 Dec 2019 12:18

Tgt Ion: 42 Resp: 259164

Ion	Ratio	Lower	Upper
42	100		
72	43.2	35.8	53.8
71	40.8	33.6	50.4

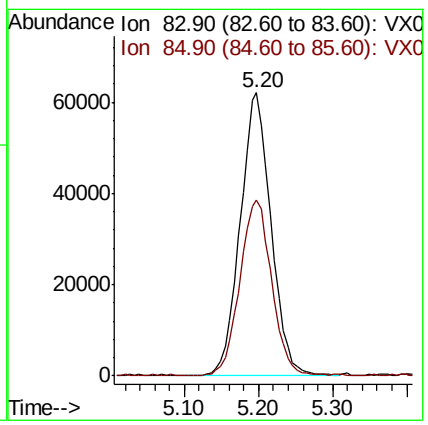




#30
Chloroform
Concen: 20.075 ug/l
RT: 5.20 min Scan# 707
Delta R.T. 0.00 min
Lab File: VX014262.D
Acq: 26 Dec 2019 12:18

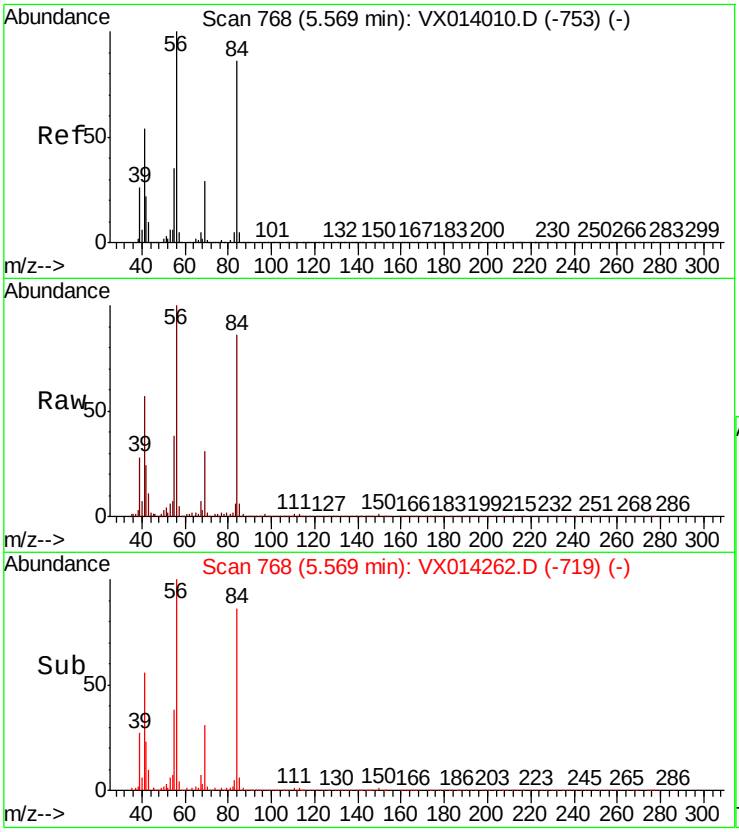
Tgt Ion: 83 Resp: 179570

Ion	Ratio	Lower	Upper
83	100		
85	62.2	50.8	76.2



Instrument :
MSVOA_X
ClientSampleId :
VX1226WBS01

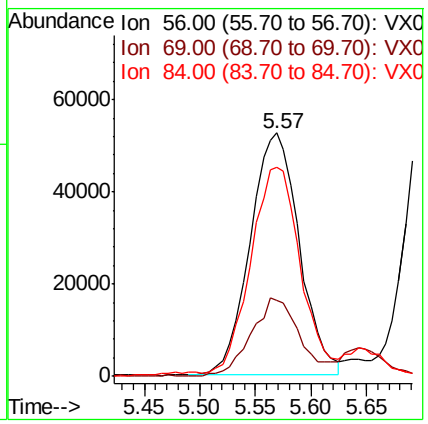
Manual Integrations APPROVED
apatel
12/27/2019 12:03:06 PM

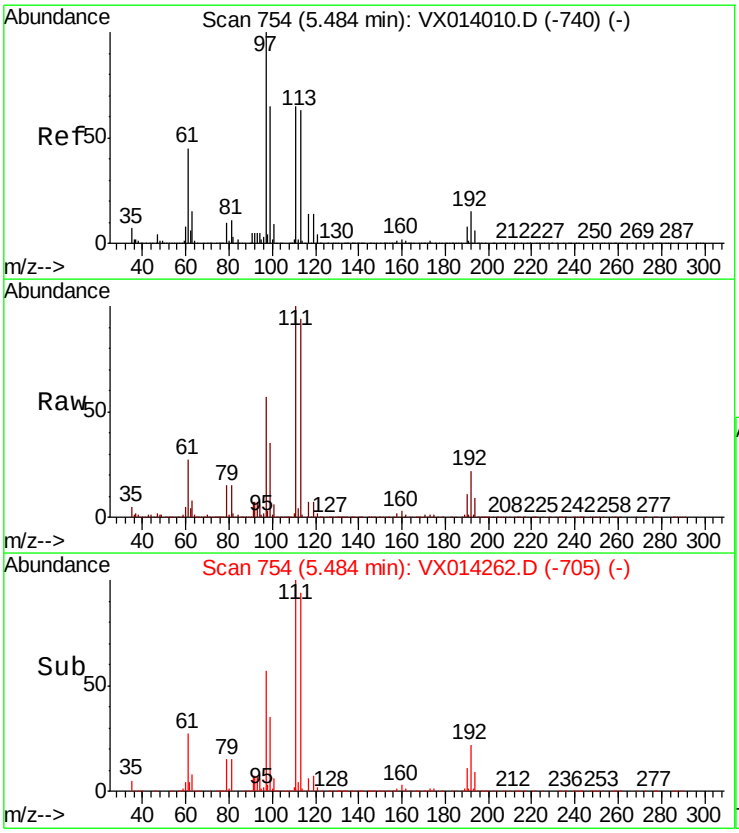


#31
Cyclohexane
Concen: 19.258 ug/l
RT: 5.57 min Scan# 768
Delta R.T. 0.00 min
Lab File: VX014262.D
Acq: 26 Dec 2019 12:18

Tgt Ion: 56 Resp: 161618

Ion	Ratio	Lower	Upper
56	100		
69	31.0	23.2	34.8
84	84.5	69.2	103.8

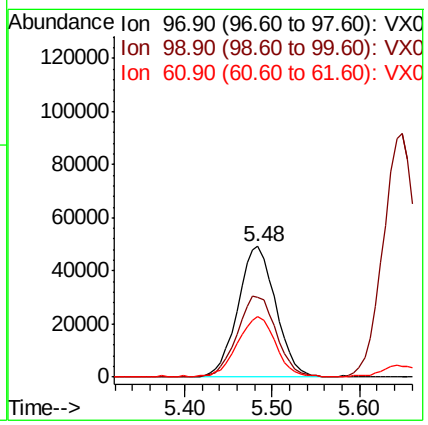




#32
1,1,1-Trichloroethane
Concen: 19.209 ug/l
RT: 5.48 min Scan# 754
Delta R.T. 0.00 min
Lab File: VX014262.D
Acq: 26 Dec 2019 12:18

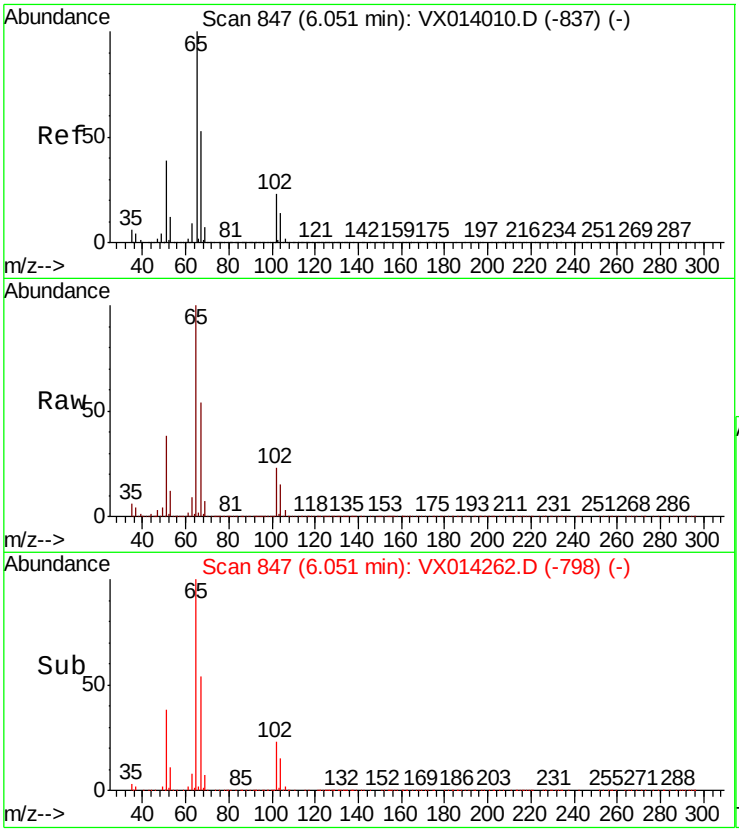
Tgt Ion: 97 Resp: 146443

Ion	Ratio	Lower	Upper
97	100		
99	64.1	52.0	78.0
61	46.6	36.7	55.1



Instrument :
MSVOA_X
ClientSampleId :
VX1226WBS01

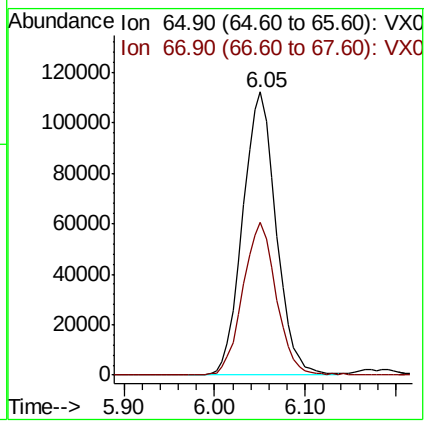
Manual Integrations APPROVED
apatel
12/27/2019 12:03:06 PM

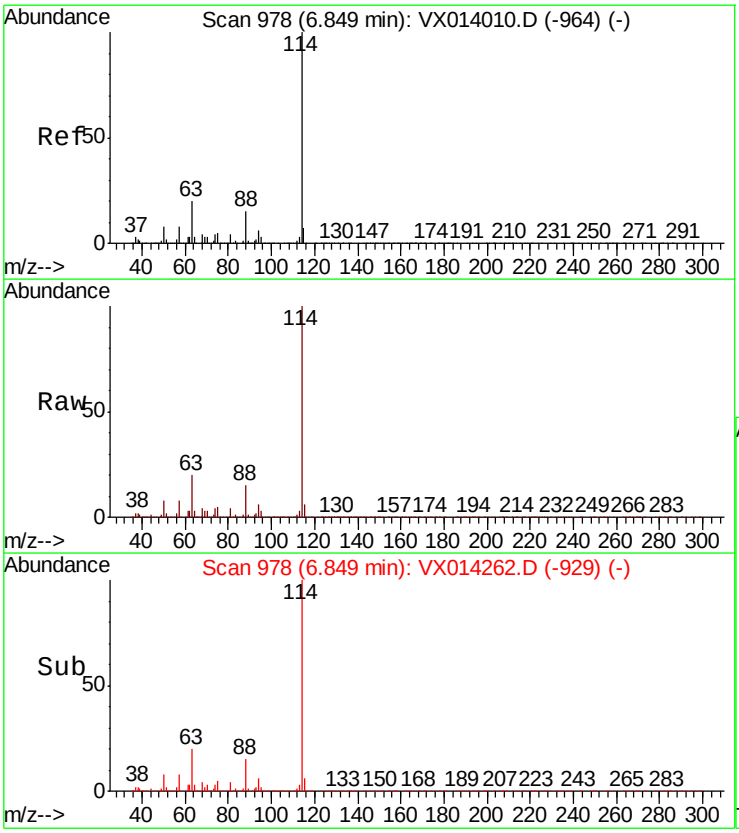


#33
1,2-Dichloroethane-d4
Concen: 50.776 ug/l
RT: 6.05 min Scan# 847
Delta R.T. 0.00 min
Lab File: VX014262.D
Acq: 26 Dec 2019 12:18

Tgt Ion: 65 Resp: 285175

Ion	Ratio	Lower	Upper
65	100		
67	53.7	0.0	106.4

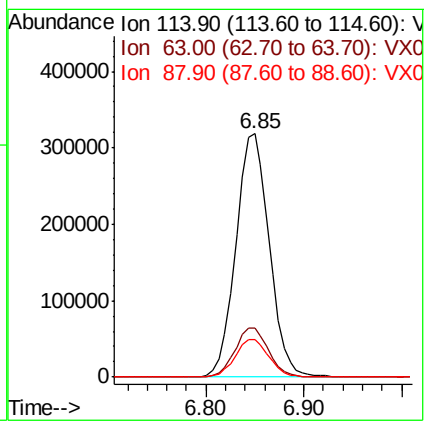




#34
1,4-Difluorobenzene
Concen: 50.000 ug/l
RT: 6.85 min Scan# 978
Delta R.T. 0.00 min
Lab File: VX014262.D
Acq: 26 Dec 2019 12:18

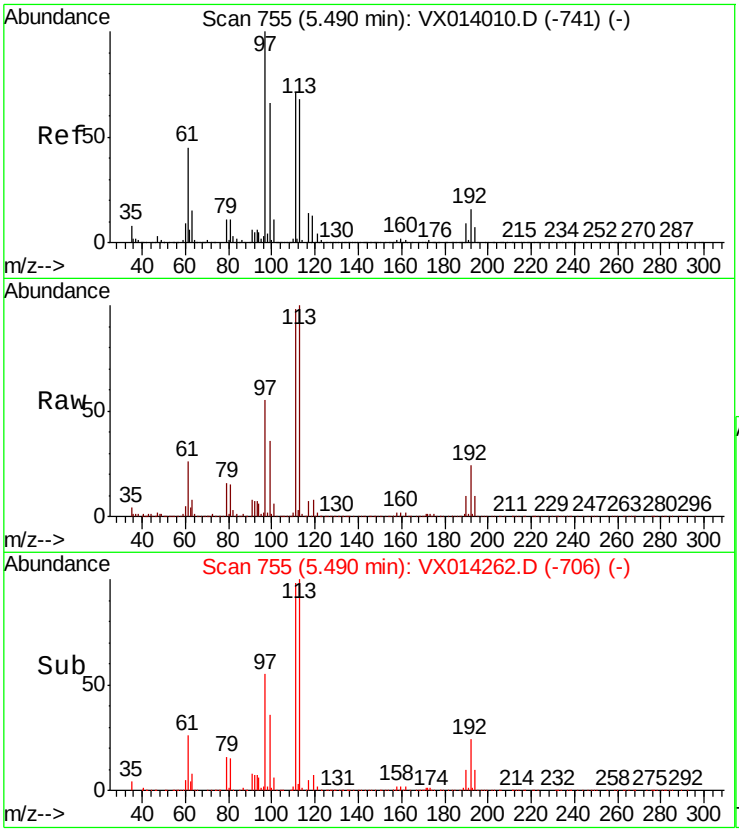
Tgt Ion:114 Resp: 752803

Ion	Ratio	Lower	Upper
114	100		
63	20.1	0.0	40.8
88	15.2	0.0	30.4



Instrument :
MSVOA_X
ClientSampleId :
VX1226WBS01

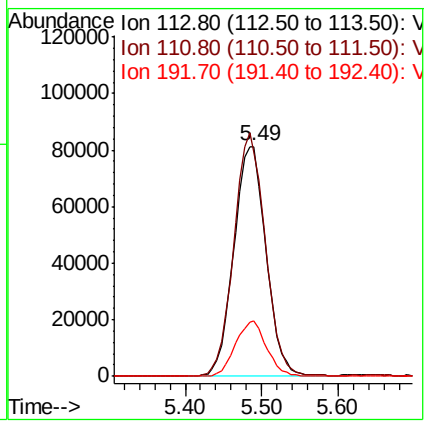
Manual Integrations APPROVED
apatel
12/27/2019 12:03:06 PM

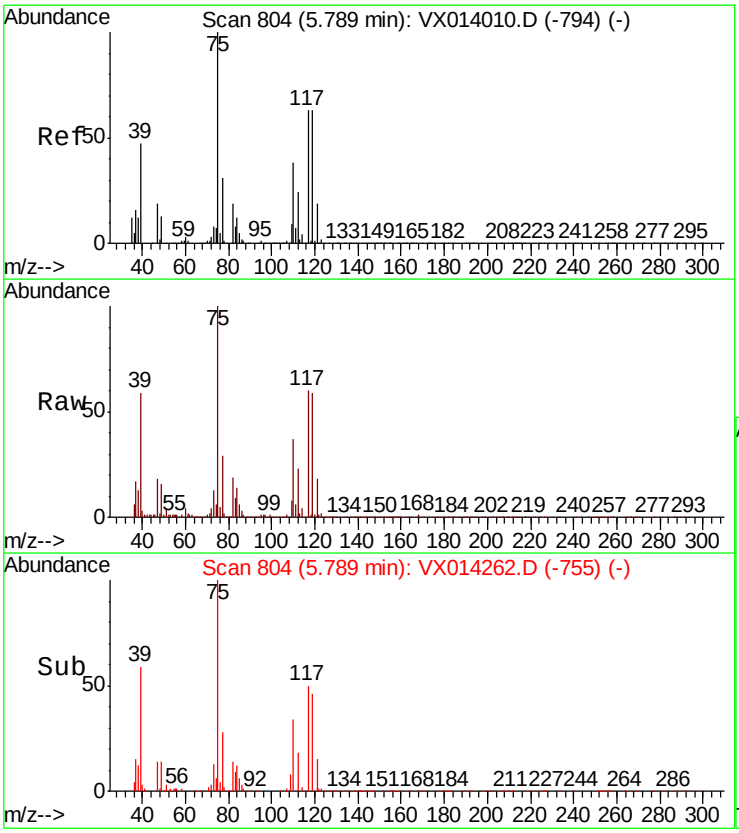


#35
Dibromofluoromethane
Concen: 51.900 ug/l
RT: 5.49 min Scan# 755
Delta R.T. 0.00 min
Lab File: VX014262.D
Acq: 26 Dec 2019 12:18

Tgt Ion:113 Resp: 237507

Ion	Ratio	Lower	Upper
113	100		
111	102.7	82.0	123.0
192	23.3	19.3	28.9

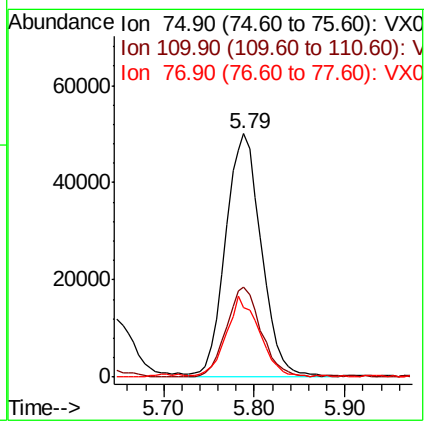




#36
1,1-Dichloropropene
Concen: 19.573 ug/l
RT: 5.79 min Scan# 804
Delta R.T. 0.00 min
Lab File: VX014262.D
Acq: 26 Dec 2019 12:18

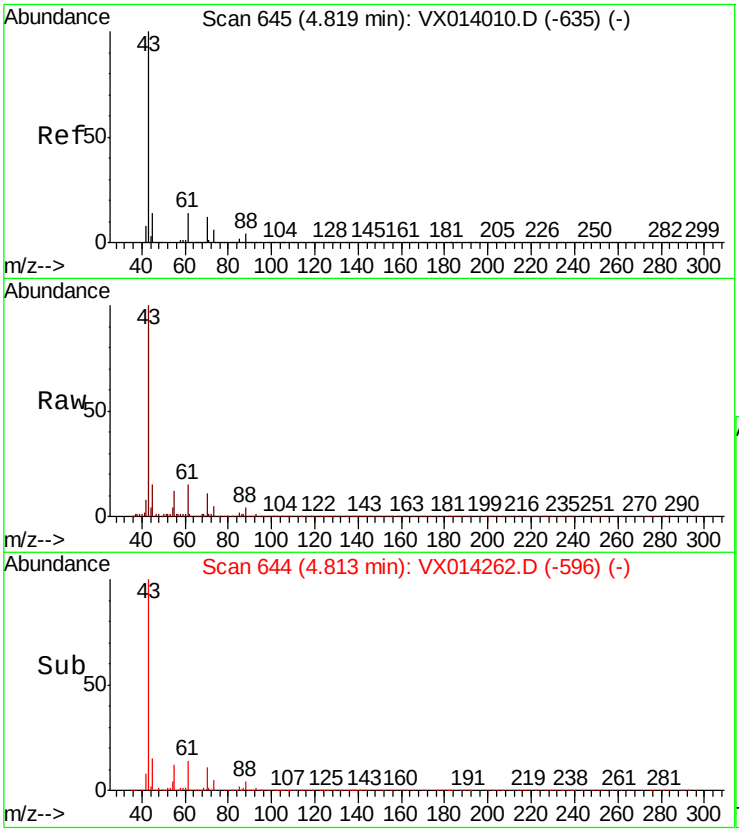
Tgt Ion: 75 Resp: 135199

Ion	Ratio	Lower	Upper
75	100		
110	36.0	18.3	54.9
77	30.5	24.8	37.2



Instrument :
MSVOA_X
ClientSampleId :
VX1226WBS01

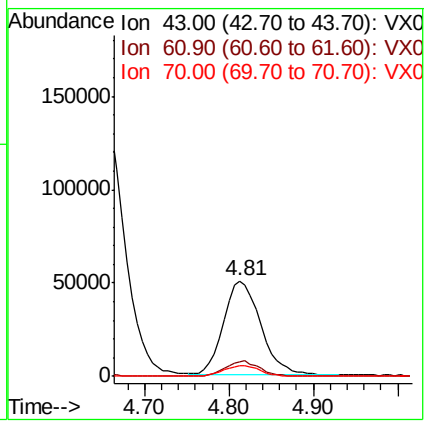
Manual Integrations APPROVED
apatel
12/27/2019 12:03:06 PM

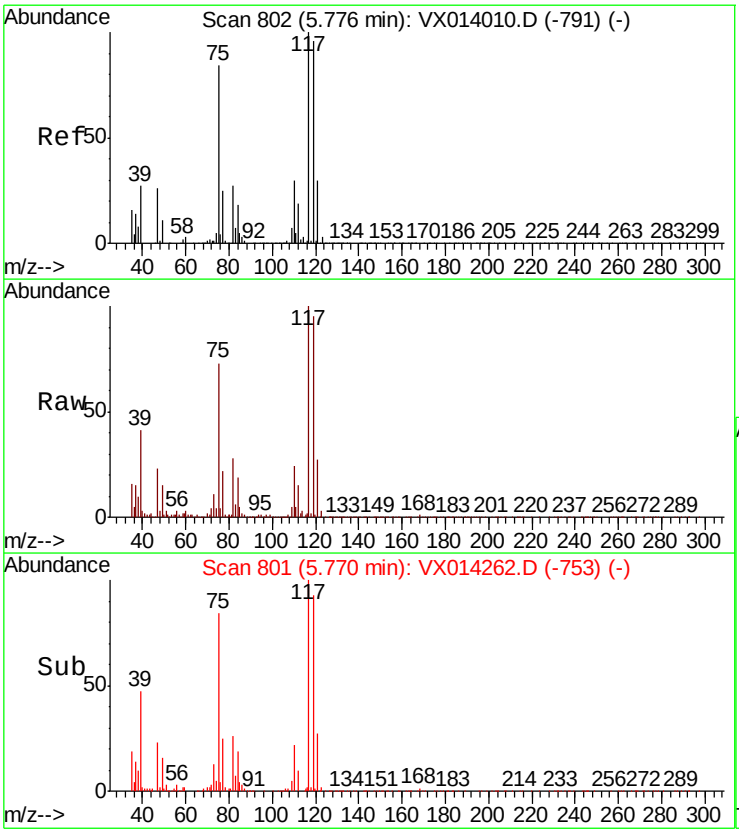


#37
Ethyl Acetate
Concen: 19.990 ug/l
RT: 4.81 min Scan# 644
Delta R.T. -0.01 min
Lab File: VX014262.D
Acq: 26 Dec 2019 12:18

Tgt Ion: 43 Resp: 152478

Ion	Ratio	Lower	Upper
43	100		
61	14.1	10.8	16.2
70	11.4	8.6	12.8

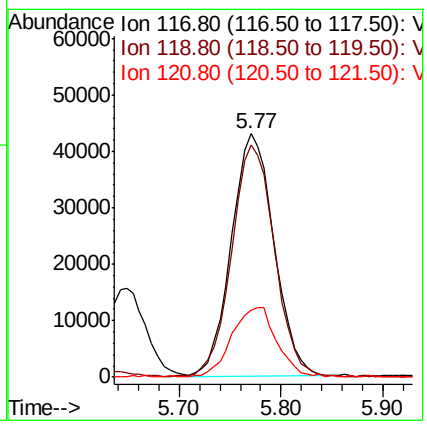




#38
Carbon Tetrachloride
Concen: 19.882 ug/l
RT: 5.77 min Scan# 801
Delta R.T. -0.01 min
Lab File: VX014262.D
Acq: 26 Dec 2019 12:18

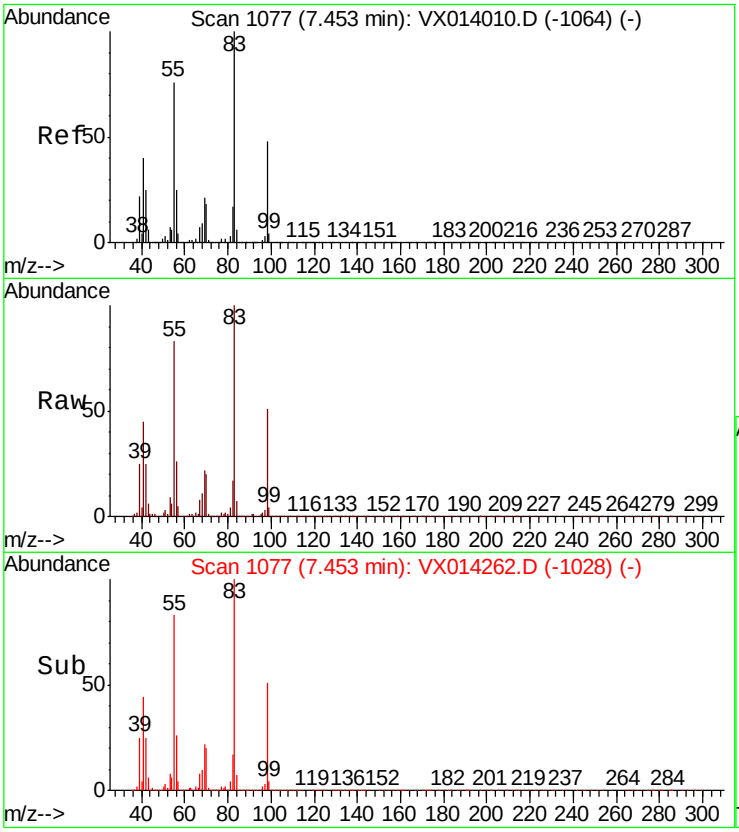
Tgt Ion:117 Resp: 125107

Ion	Ratio	Lower	Upper
117	100		
119	95.1	76.2	114.4
121	27.3	23.6	35.4



Instrument :
MSVOA_X
ClientSampleId :
VX1226WBS01

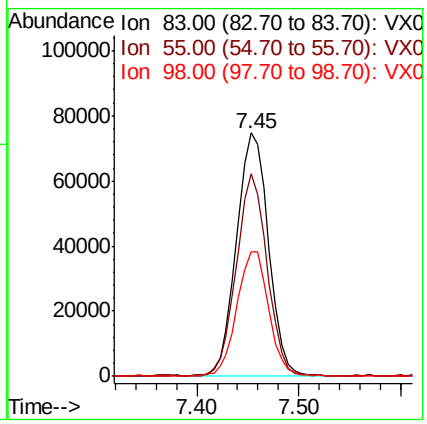
Manual Integrations APPROVED
apatel
12/27/2019 12:03:06 PM

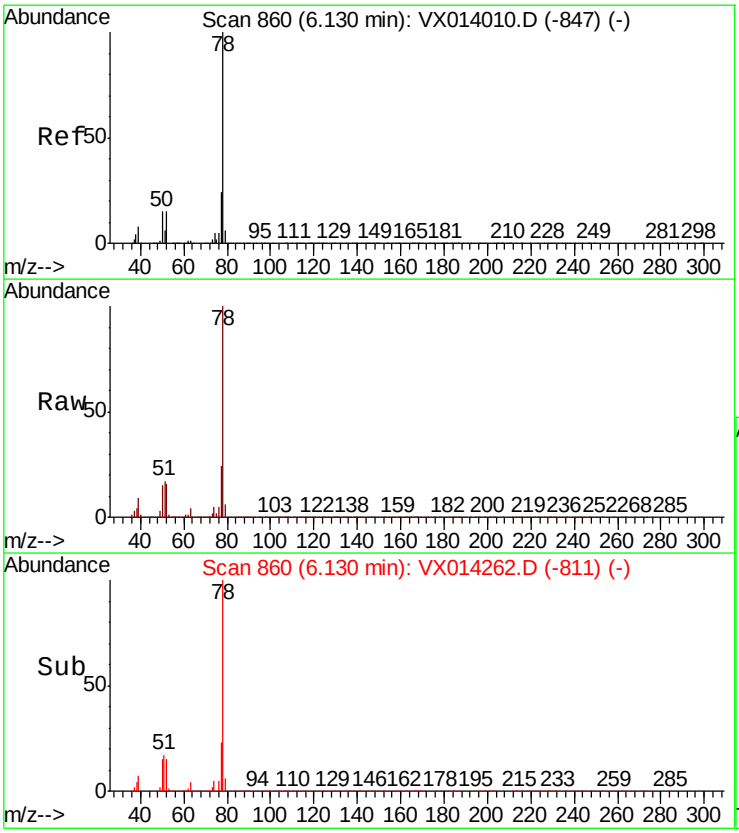


#39
Methylcyclohexane
Concen: 18.995 ug/l
RT: 7.45 min Scan# 1077
Delta R.T. 0.00 min
Lab File: VX014262.D
Acq: 26 Dec 2019 12:18

Tgt Ion: 83 Resp: 162007

Ion	Ratio	Lower	Upper
83	100		
55	83.1	61.0	91.6
98	50.9	38.6	57.8

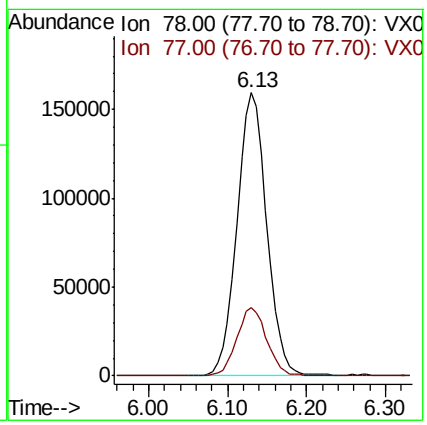




#40
Benzene
Concen: 19.707 ug/l
RT: 6.13 min Scan# 860
Delta R.T. 0.00 min
Lab File: VX014262.D
Acq: 26 Dec 2019 12:18

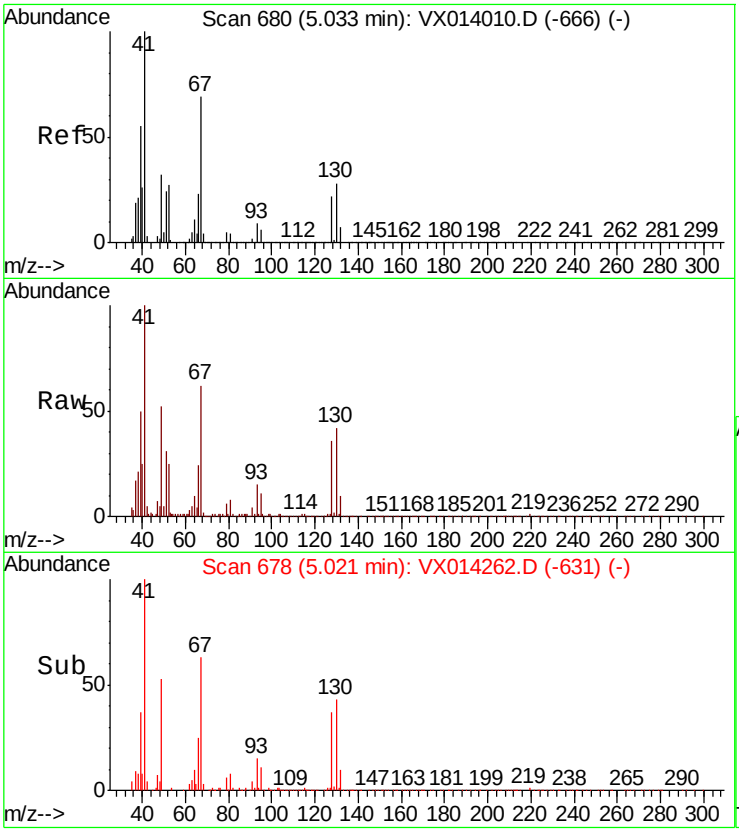
Tgt Ion: 78 Resp: 418830

Ion	Ratio	Lower	Upper
78	100		
77	24.0	18.8	28.2



Instrument :
MSVOA_X
ClientSampleId :
VX1226WBS01

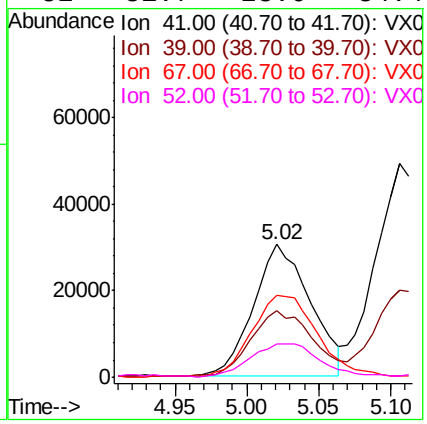
Manual Integrations APPROVED
apatel
12/27/2019 12:03:06 PM

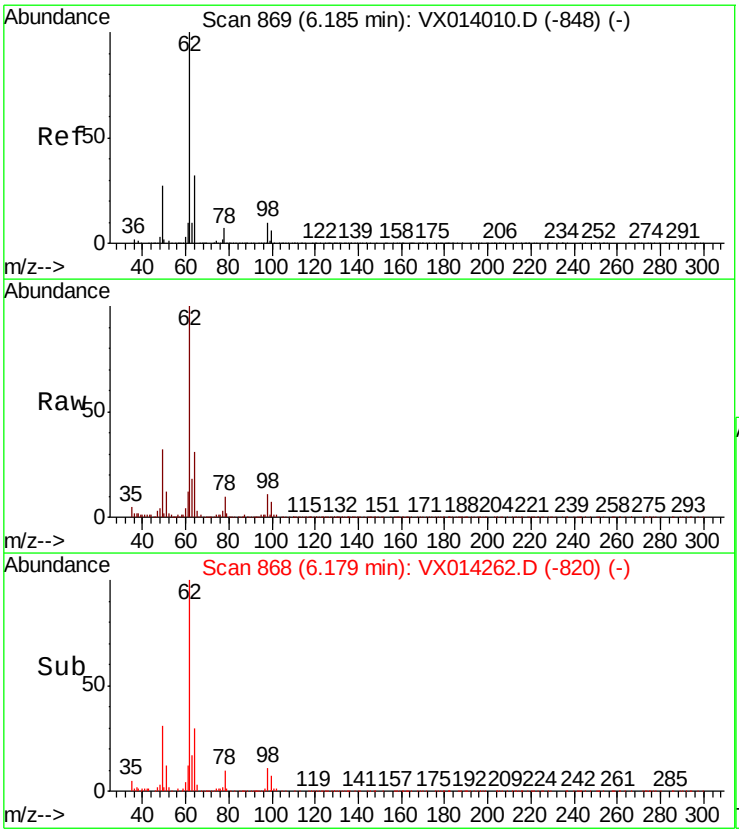


#41
Methacrylonitrile
Concen: 19.819 ug/l
RT: 5.02 min Scan# 678
Delta R.T. -0.01 min
Lab File: VX014262.D
Acq: 26 Dec 2019 12:18

Tgt Ion: 41 Resp: 83879

Ion	Ratio	Lower	Upper
41	100		
39	54.4	44.5	66.7
67	71.4	57.4	86.0
52	31.7	23.0	34.4

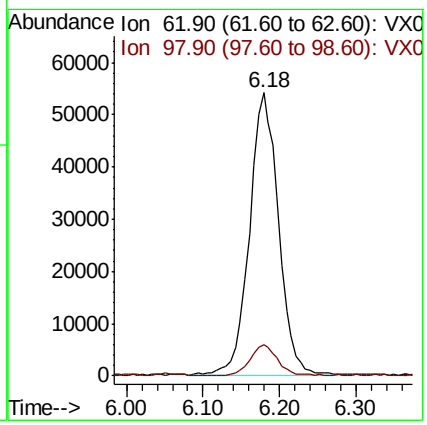




#42
1,2-Dichloroethane
Concen: 19.876 ug/l
RT: 6.18 min Scan# 868
Delta R.T. -0.01 min
Lab File: VX014262.D
Acq: 26 Dec 2019 12:18

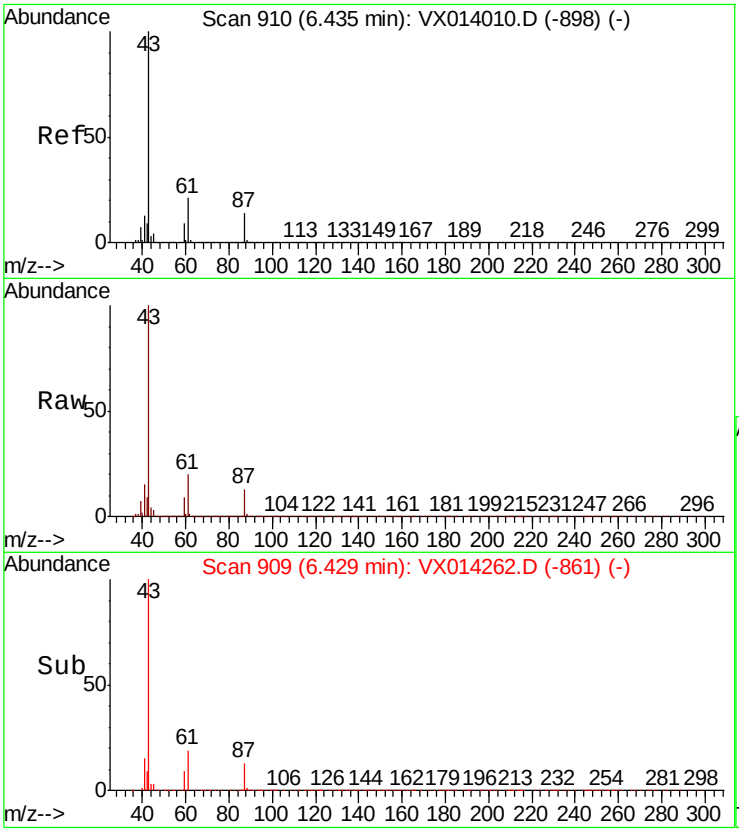
Tgt Ion: 62 Resp: 143192

Ion	Ratio	Lower	Upper
62	100		
98	10.3	0.0	21.0



Instrument :
MSVOA_X
ClientSampleId :
VX1226WBS01

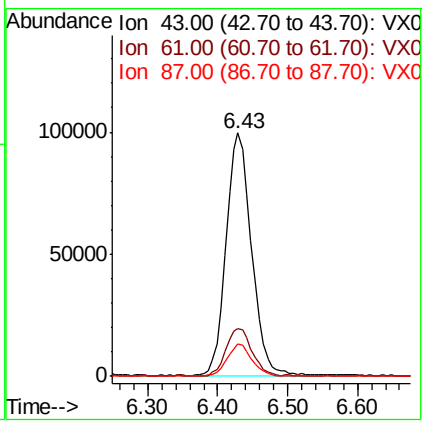
Manual Integrations APPROVED
apatel
12/27/2019 12:03:06 PM

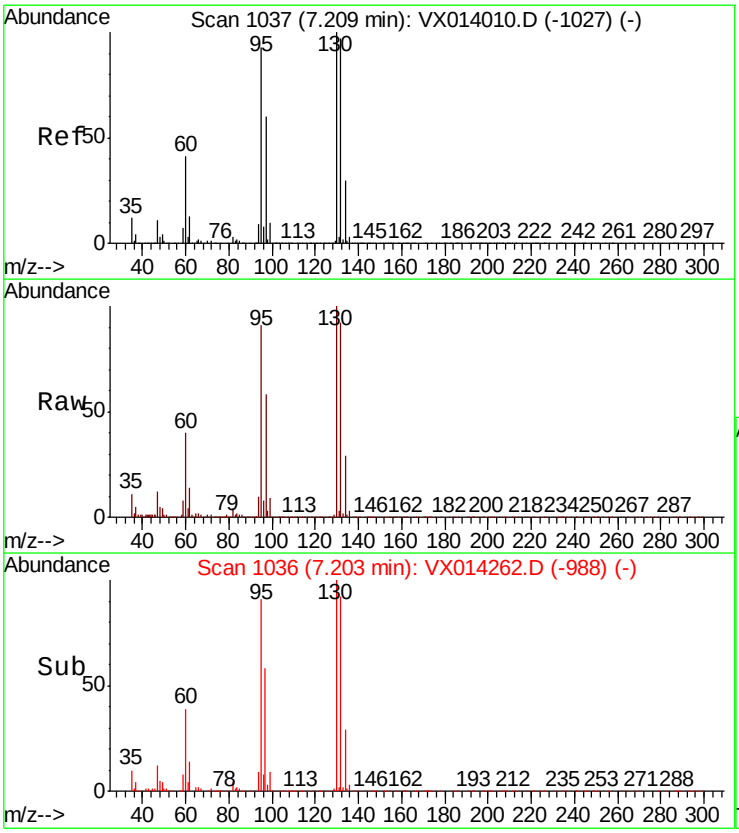


#43
Isopropyl Acetate
Concen: 19.809 ug/l
RT: 6.43 min Scan# 909
Delta R.T. -0.01 min
Lab File: VX014262.D
Acq: 26 Dec 2019 12:18

Tgt Ion: 43 Resp: 250063

Ion	Ratio	Lower	Upper
43	100		
61	20.6	16.4	24.6
87	12.8	10.7	16.1

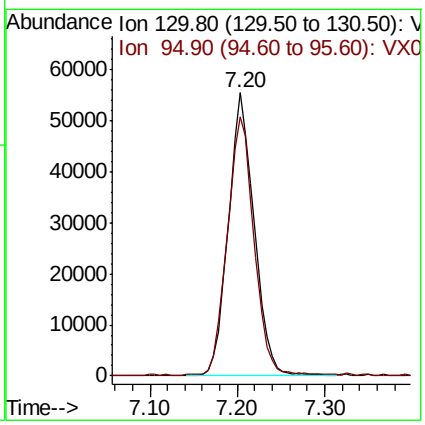




#44
Trichloroethene
Concen: 19.333 ug/l
RT: 7.20 min Scan# 1036
Delta R.T. -0.01 min
Lab File: VX014262.D
Acq: 26 Dec 2019 12:18

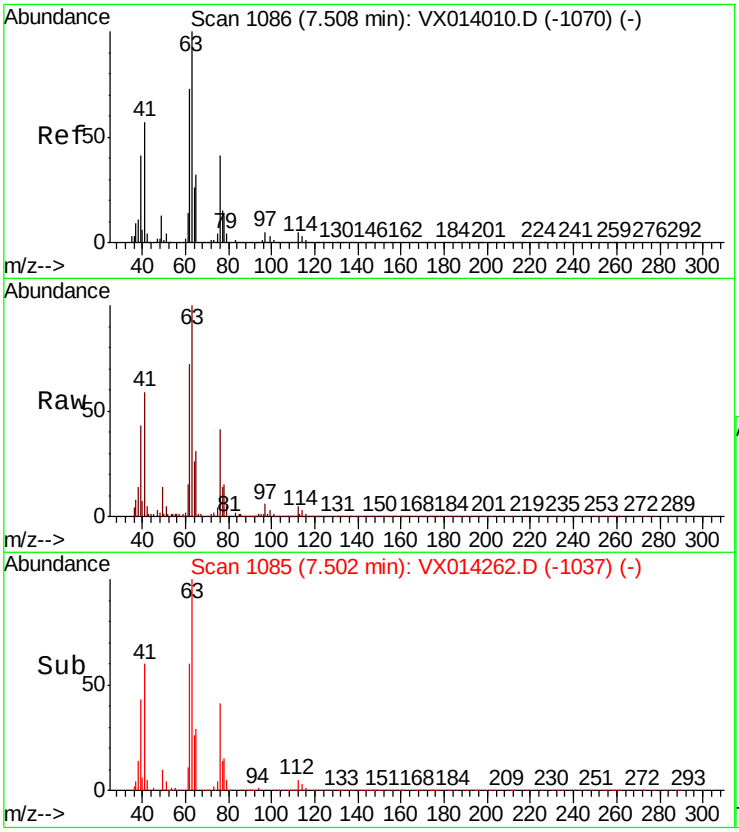
Tgt Ion:130 Resp: 113489

Ion	Ratio	Lower	Upper
130	100		
95	91.1	0.0	185.6



Instrument :
MSVOA_X
ClientSampleId :
VX1226WBS01

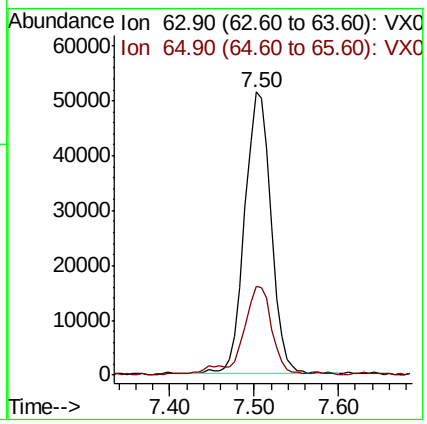
Manual Integrations APPROVED
apatel
12/27/2019 12:03:06 PM

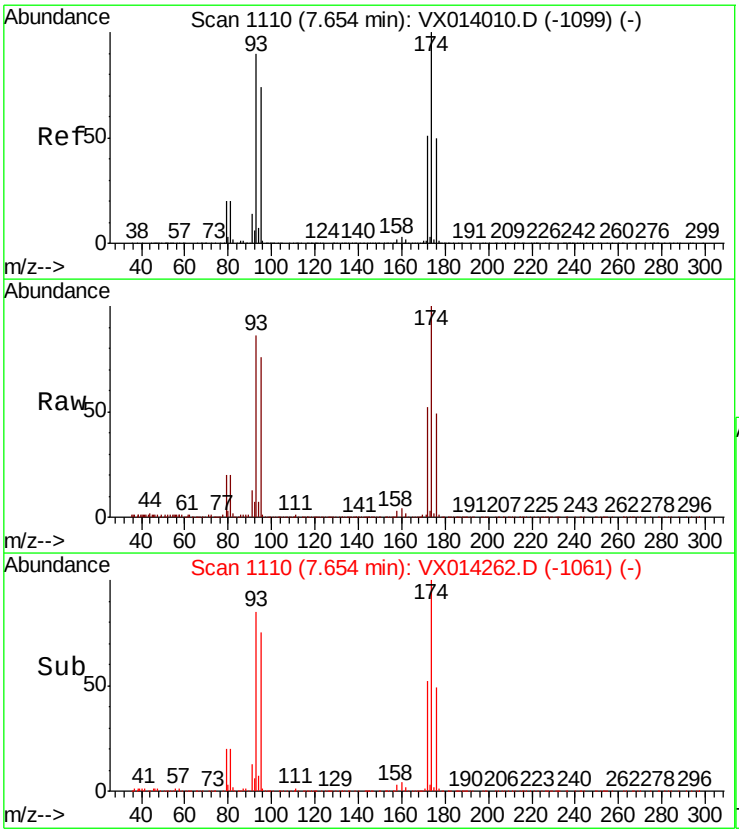


#45
1,2-Dichloropropane
Concen: 20.032 ug/l
RT: 7.50 min Scan# 1085
Delta R.T. -0.01 min
Lab File: VX014262.D
Acq: 26 Dec 2019 12:18

Tgt Ion: 63 Resp: 109123

Ion	Ratio	Lower	Upper
63	100		
65	31.0	25.8	38.8

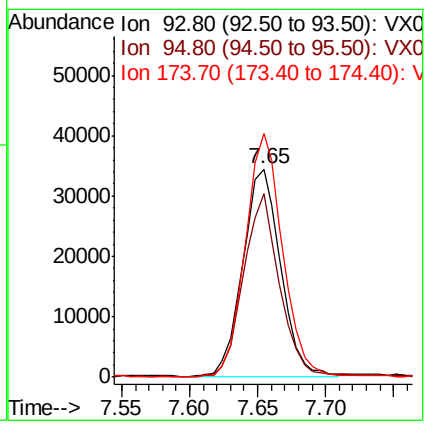




#46
Dibromomethane
Concen: 18.568 ug/l
RT: 7.65 min Scan# 1110
Delta R.T. 0.00 min
Lab File: VX014262.D
Acq: 26 Dec 2019 12:18

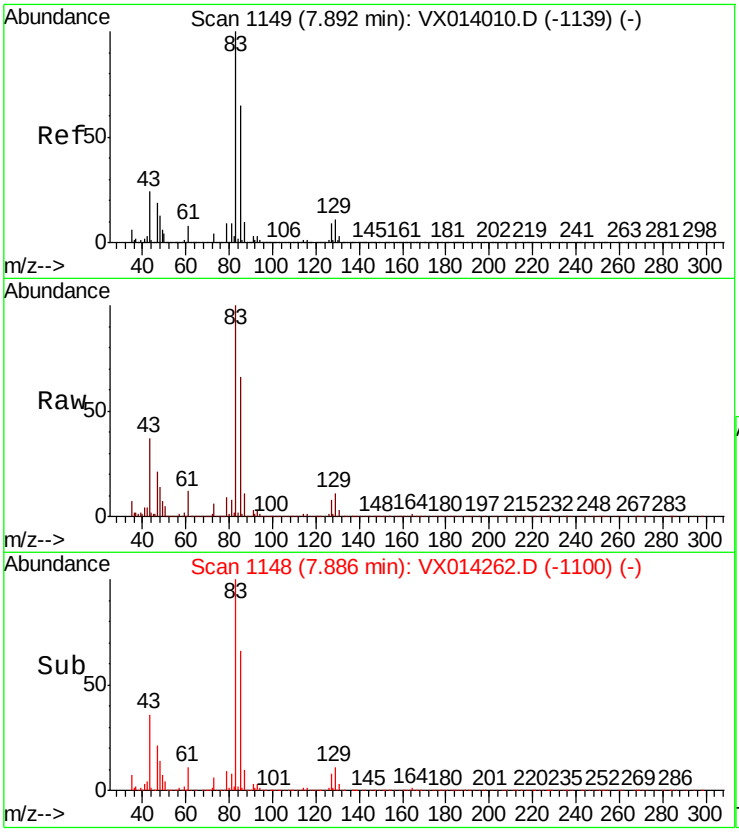
Tgt Ion: 93 Resp: 66872

Ion	Ratio	Lower	Upper
93	100		
95	83.4	67.3	100.9
174	115.9	91.6	137.4



Instrument :
MSVOA_X
ClientSampleId :
VX1226WBS01

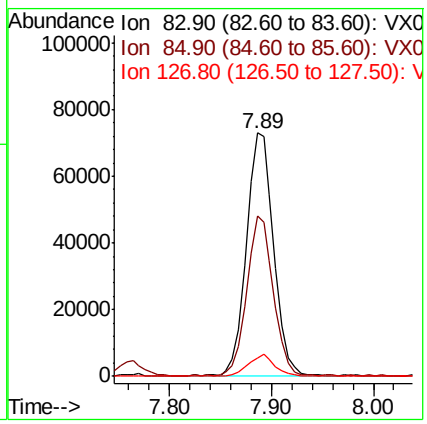
Manual Integrations APPROVED
apatel
12/27/2019 12:03:06 PM

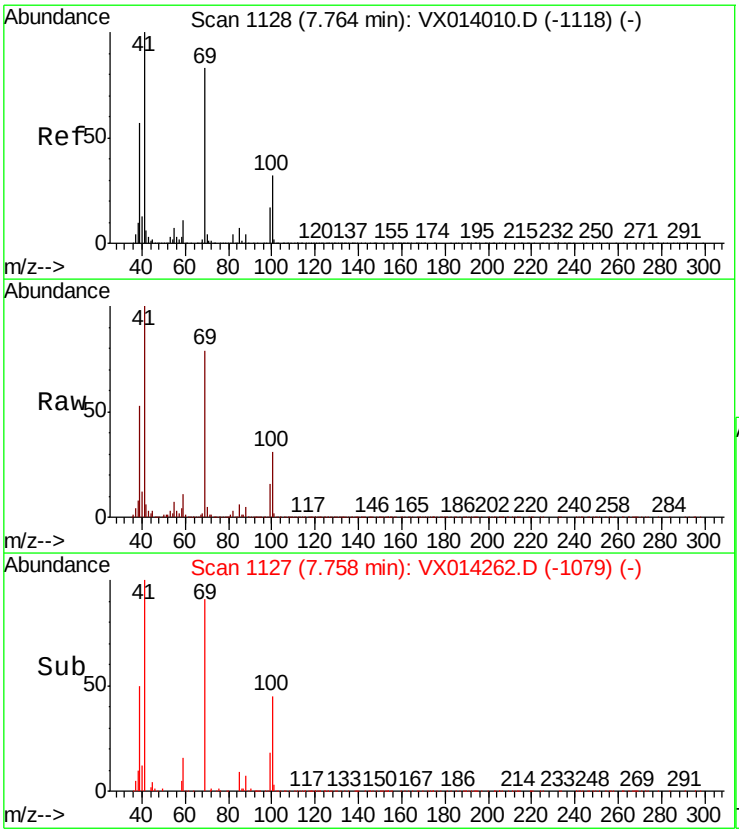


#47
Bromodichloromethane
Concen: 19.894 ug/l
RT: 7.89 min Scan# 1148
Delta R.T. -0.01 min
Lab File: VX014262.D
Acq: 26 Dec 2019 12:18

Tgt Ion: 83 Resp: 134942

Ion	Ratio	Lower	Upper
83	100		
85	65.7	51.8	77.8
127	7.7	7.0	10.4

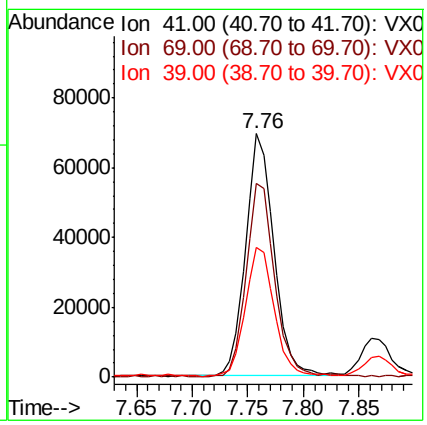




#48
Methyl methacrylate
Concen: 19.997 ug/l
RT: 7.76 min Scan# 1127
Delta R.T. -0.01 min
Lab File: VX014262.D
Acq: 26 Dec 2019 12:18

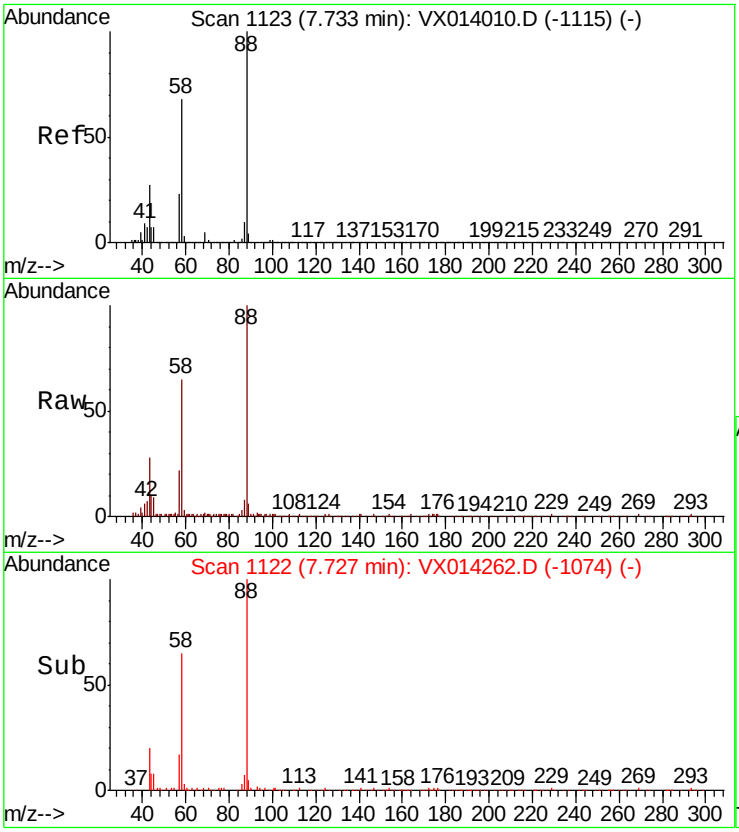
Tgt Ion: 41 Resp: 123608

Ion	Ratio	Lower	Upper
41	100		
69	80.5	65.8	98.6
39	55.8	44.6	67.0



Instrument :
MSVOA_X
ClientSampleId :
VX1226WBS01

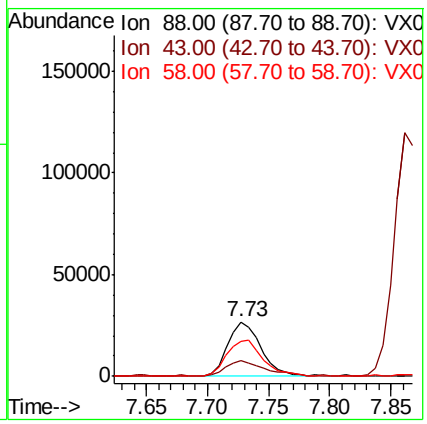
Manual Integrations APPROVED
apatel
12/27/2019 12:03:06 PM

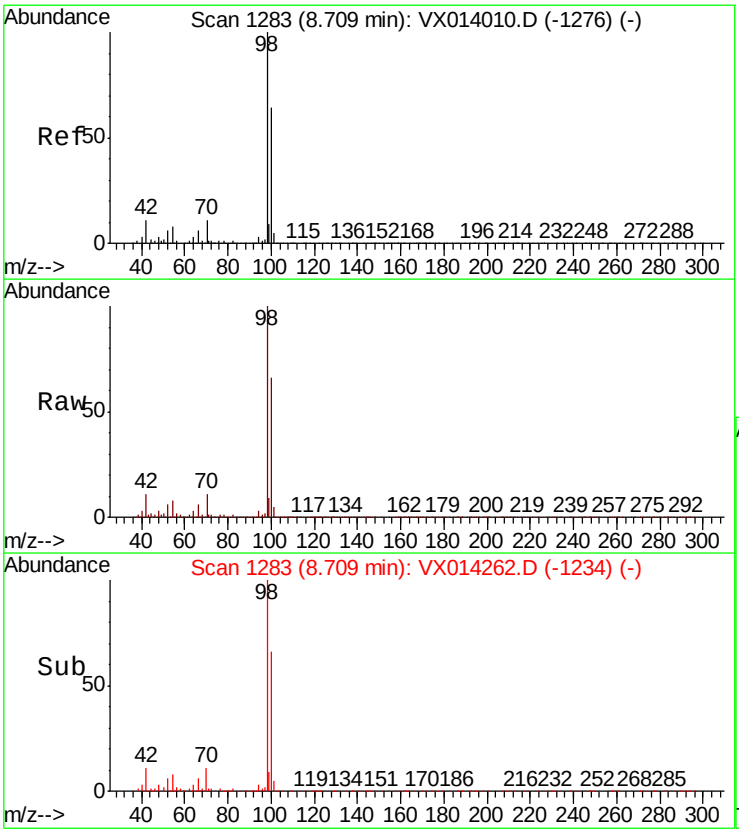


#49
1,4-Dioxane
Concen: 406.900 ug/l
RT: 7.73 min Scan# 1122
Delta R.T. -0.01 min
Lab File: VX014262.D
Acq: 26 Dec 2019 12:18

Tgt Ion: 88 Resp: 51185

Ion	Ratio	Lower	Upper
88	100		
43	32.2	26.5	39.7
58	69.2	56.8	85.2

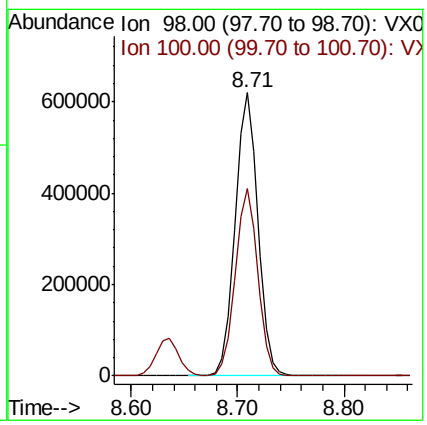




#50
Toluene-d8
Concen: 52.182 ug/l
RT: 8.71 min Scan# 1283
Delta R.T. 0.00 min
Lab File: VX014262.D
Acq: 26 Dec 2019 12:18

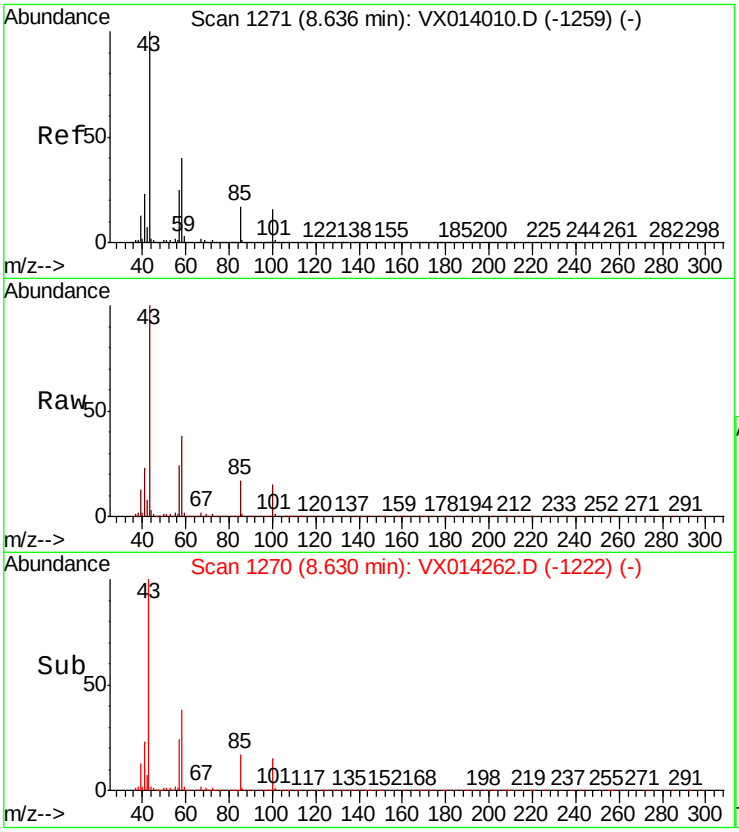
Tgt Ion: 98 Resp: 929682

Ion	Ratio	Lower	Upper
98	100		
100	65.7	52.9	79.3



Instrument :
MSVOA_X
ClientSampleId :
VX1226WBS01

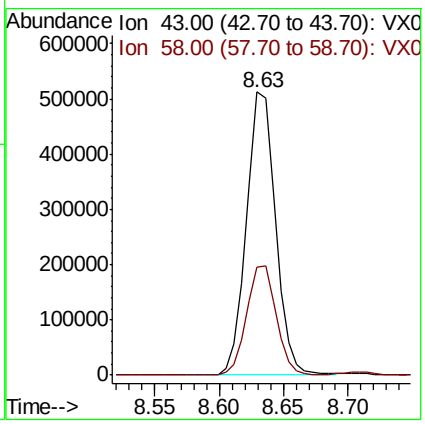
Manual Integrations APPROVED
apatel
12/27/2019 12:03:06 PM

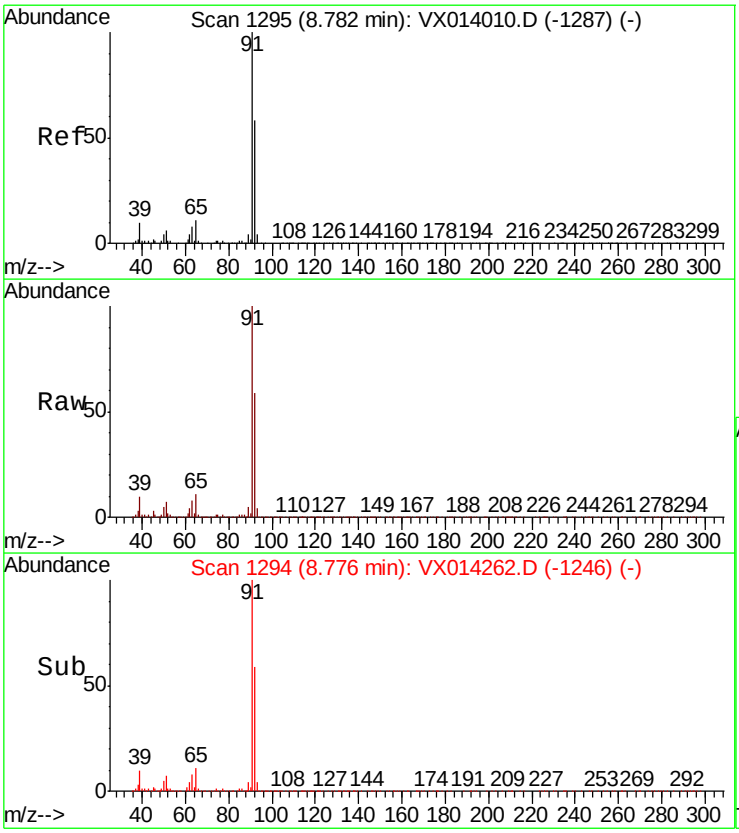


#51
4-Methyl-2-Pentanone
Concen: 100.259 ug/l
RT: 8.63 min Scan# 1270
Delta R.T. -0.01 min
Lab File: VX014262.D
Acq: 26 Dec 2019 12:18

Tgt Ion: 43 Resp: 794829

Ion	Ratio	Lower	Upper
43	100		
58	39.3	32.2	48.2

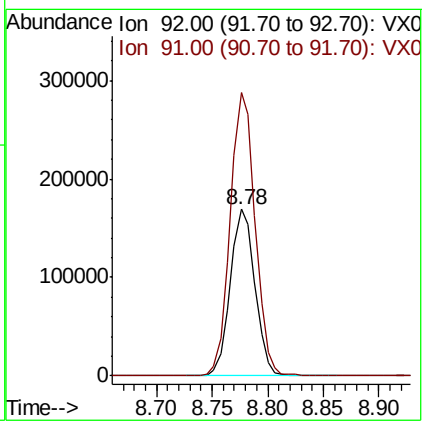




#52
Toluene
Concen: 19.310 ug/l
RT: 8.78 min Scan# 1294
Delta R.T. -0.01 min
Lab File: VX014262.D
Acq: 26 Dec 2019 12:18

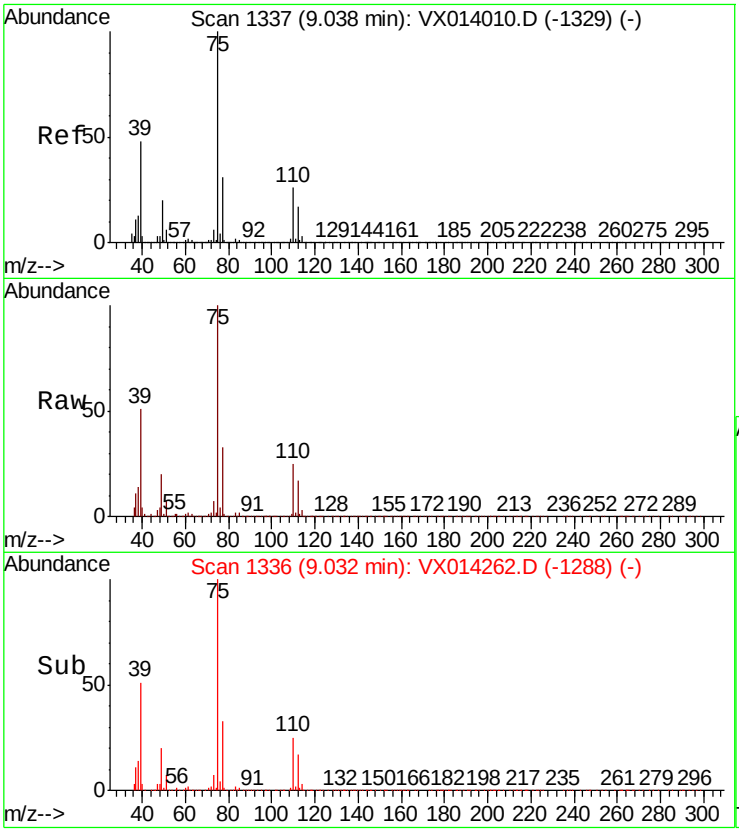
Tgt Ion: 92 Resp: 259406

Ion	Ratio	Lower	Upper
92	100		
91	171.9	136.2	204.4



Instrument :
MSVOA_X
ClientSampleId :
VX1226WBS01

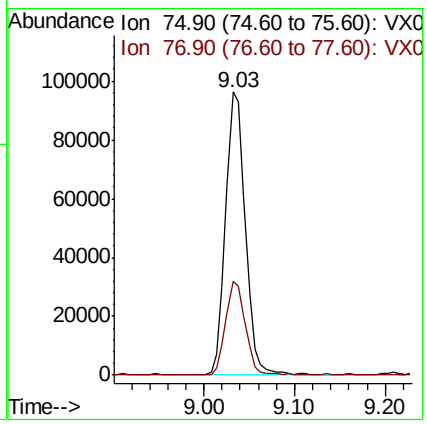
Manual Integrations APPROVED
apatel
12/27/2019 12:03:06 PM

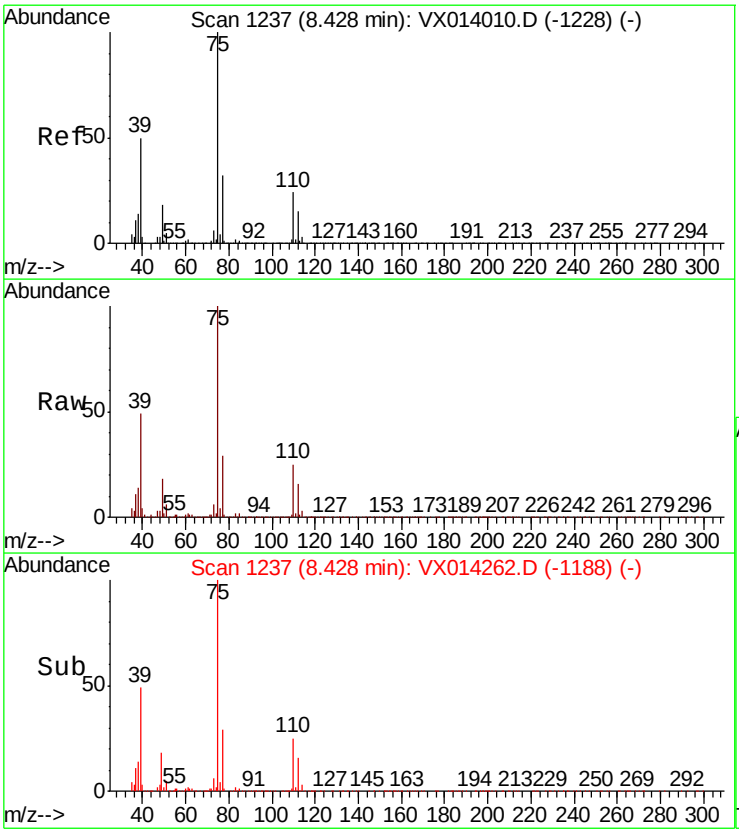


#53
t-1,3-Dichloropropene
Concen: 19.577 ug/l
RT: 9.03 min Scan# 1336
Delta R.T. -0.01 min
Lab File: VX014262.D
Acq: 26 Dec 2019 12:18

Tgt Ion: 75 Resp: 145607

Ion	Ratio	Lower	Upper
75	100		
77	33.2	25.1	37.7

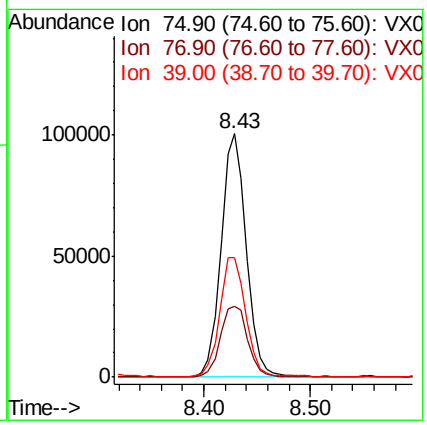




#54
cis-1,3-Dichloropropene
Concen: 19.874 ug/l
RT: 8.43 min Scan# 1237
Delta R.T. 0.00 min
Lab File: VX014262.D
Acq: 26 Dec 2019 12:18

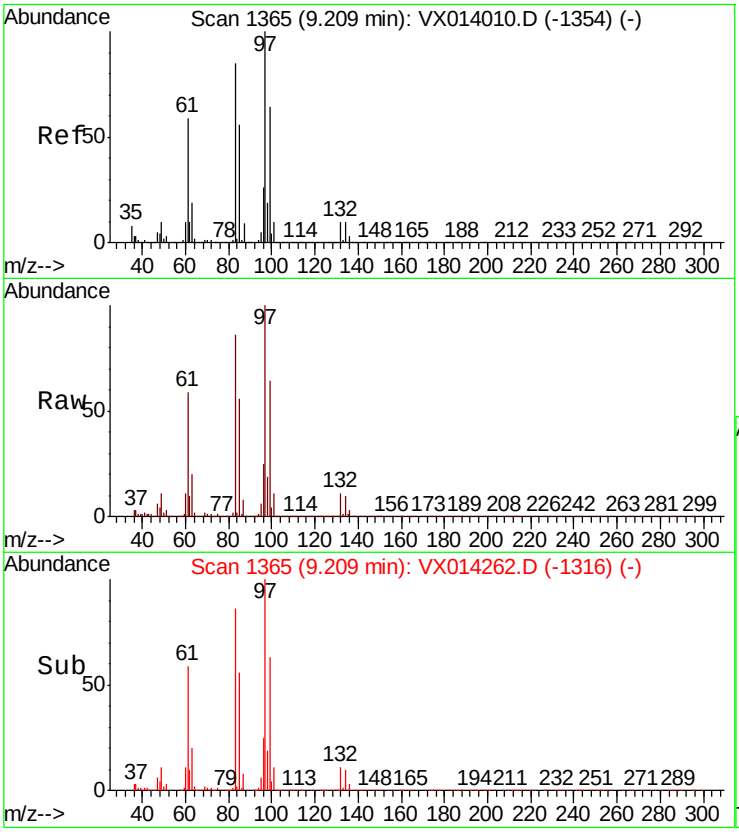
Tgt Ion: 75 Resp: 164674

Ion	Ratio	Lower	Upper
75	100		
77	29.2	25.3	37.9
39	49.0	39.9	59.9



Instrument :
MSVOA_X
ClientSampleId :
VX1226WBS01

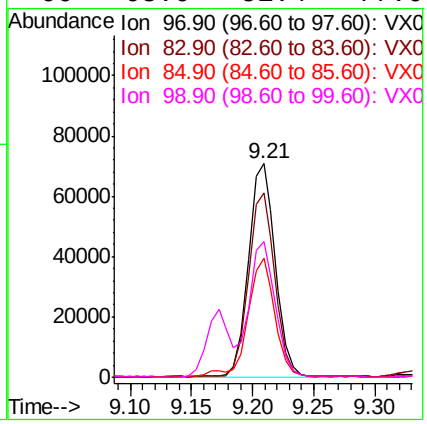
Manual Integrations APPROVED
apatel
12/27/2019 12:03:06 PM

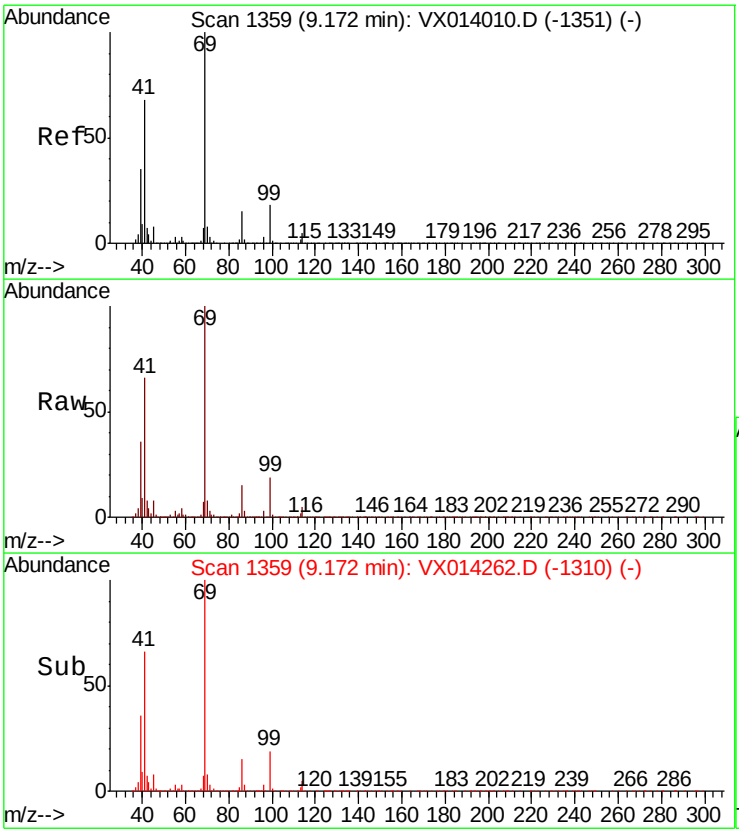


#55
1,1,2-Trichloroethane
Concen: 20.148 ug/l
RT: 9.21 min Scan# 1365
Delta R.T. 0.00 min
Lab File: VX014262.D
Acq: 26 Dec 2019 12:18

Tgt Ion: 97 Resp: 108475

Ion	Ratio	Lower	Upper
97	100		
83	86.2	68.2	102.4
85	55.7	44.6	66.8
99	63.0	51.4	77.0

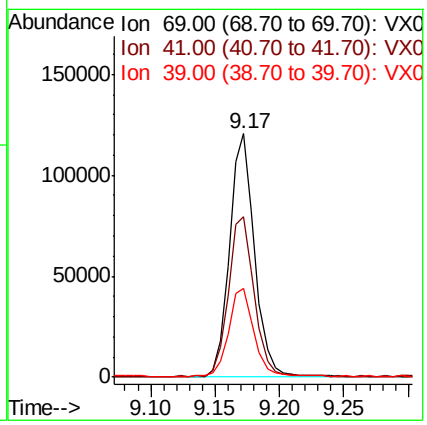




#56
Ethyl methacrylate
Concen: 19.234 ug/l
RT: 9.17 min Scan# 1359
Delta R.T. 0.00 min
Lab File: VX014262.D
Acq: 26 Dec 2019 12:18

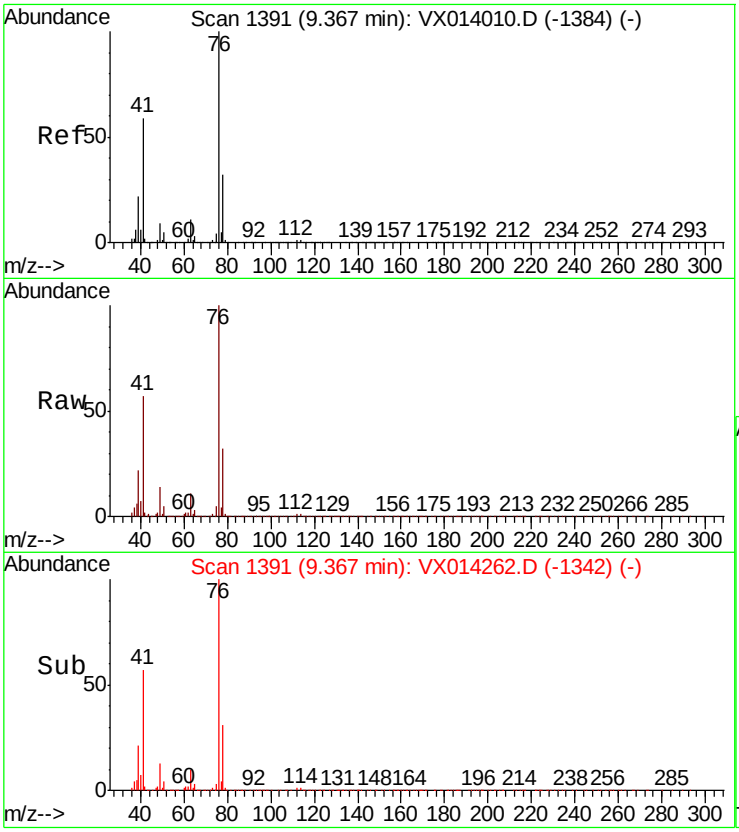
Tgt Ion: 69 Resp: 162666

Ion	Ratio	Lower	Upper
69	100		
41	68.5	54.8	82.2
39	37.3	28.3	42.5



Instrument :
MSVOA_X
ClientSampleId :
VX1226WBS01

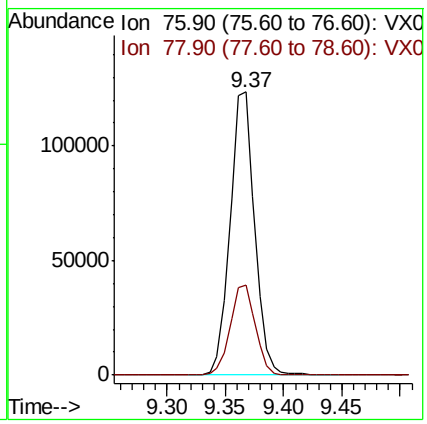
Manual Integrations APPROVED
apatel
12/27/2019 12:03:06 PM

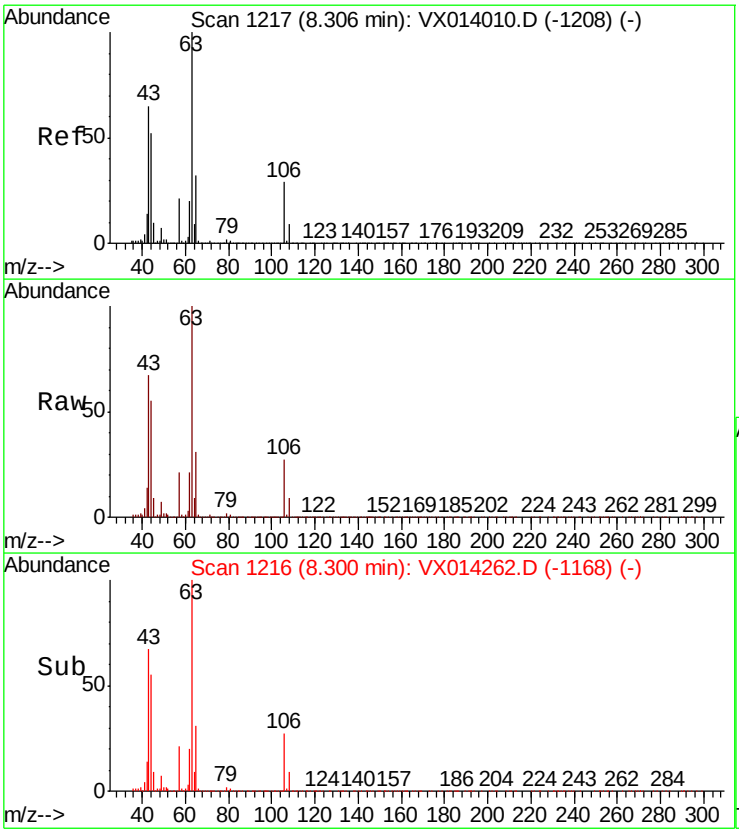


#57
1,3-Dichloropropane
Concen: 19.996 ug/l
RT: 9.37 min Scan# 1391
Delta R.T. 0.00 min
Lab File: VX014262.D
Acq: 26 Dec 2019 12:18

Tgt Ion: 76 Resp: 181131

Ion	Ratio	Lower	Upper
76	100		
78	33.0	25.8	38.6

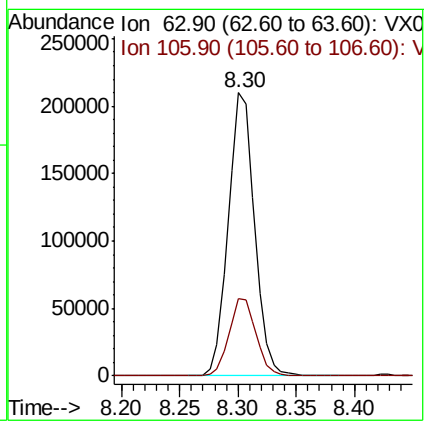




#58
2-Chloroethyl Vinyl ether
Concen: 102.823 ug/l
RT: 8.30 min Scan# 1216
Delta R.T. -0.01 min
Lab File: VX014262.D
Acq: 26 Dec 2019 12:18

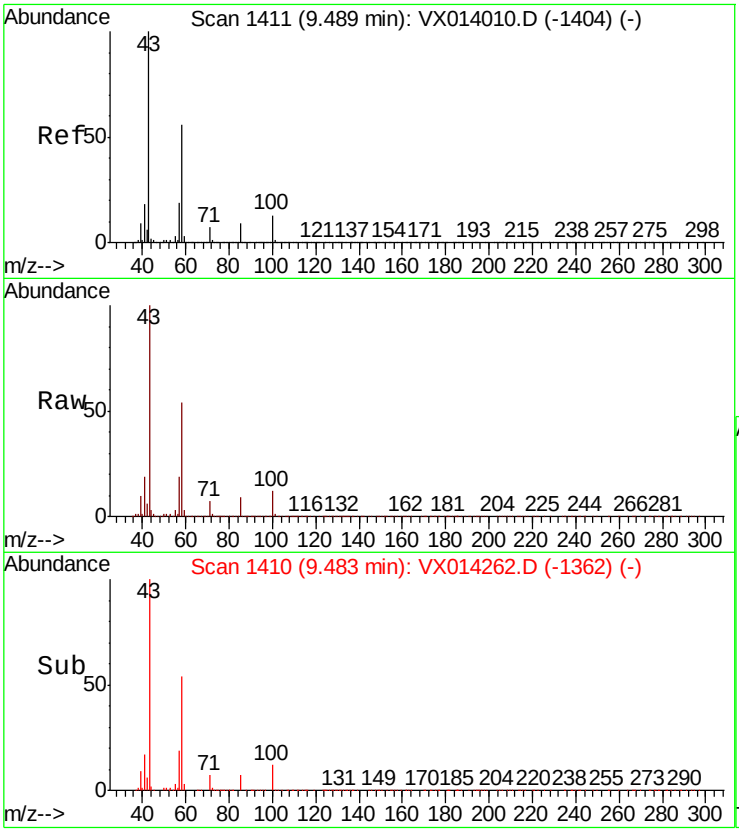
Tgt Ion: 63 Resp: 329092

Ion	Ratio	Lower	Upper
63	100		
106	28.0	23.0	34.6



Instrument :
MSVOA_X
ClientSampleId :
VX1226WBS01

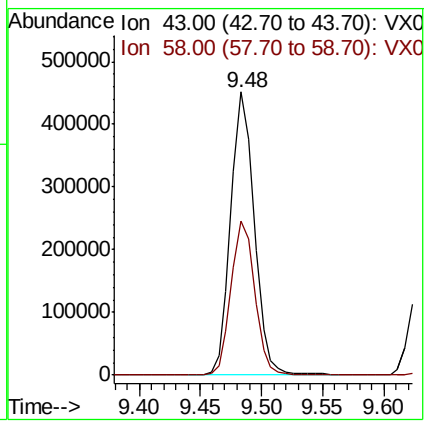
Manual Integrations APPROVED
apatel
12/27/2019 12:03:06 PM

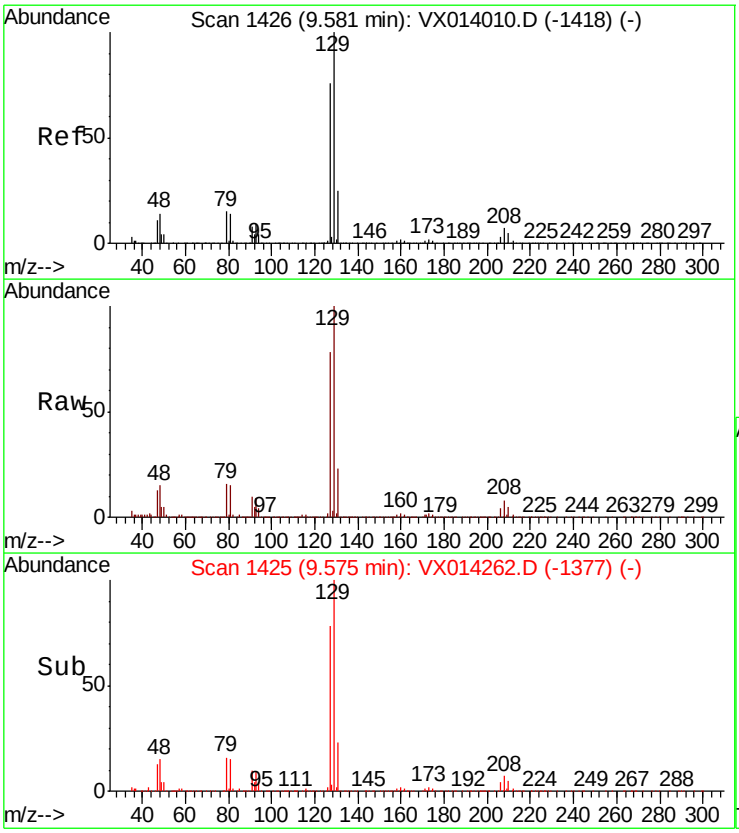


#59
2-Hexanone
Concen: 94.087 ug/l
RT: 9.48 min Scan# 1410
Delta R.T. -0.01 min
Lab File: VX014262.D
Acq: 26 Dec 2019 12:18

Tgt Ion: 43 Resp: 600449

Ion	Ratio	Lower	Upper
43	100		
58	54.8	28.0	84.0

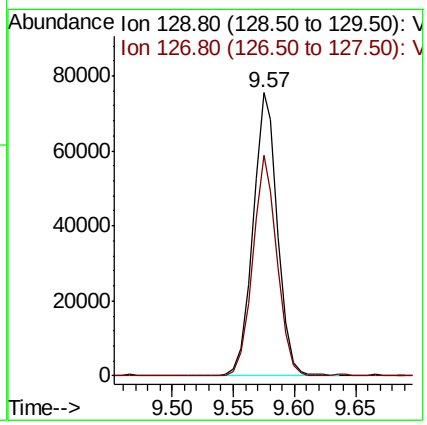




#60
Dibromochloromethane
Concen: 19.741 ug/l
RT: 9.57 min Scan# 1425
Delta R.T. -0.01 min
Lab File: VX014262.D
Acq: 26 Dec 2019 12:18

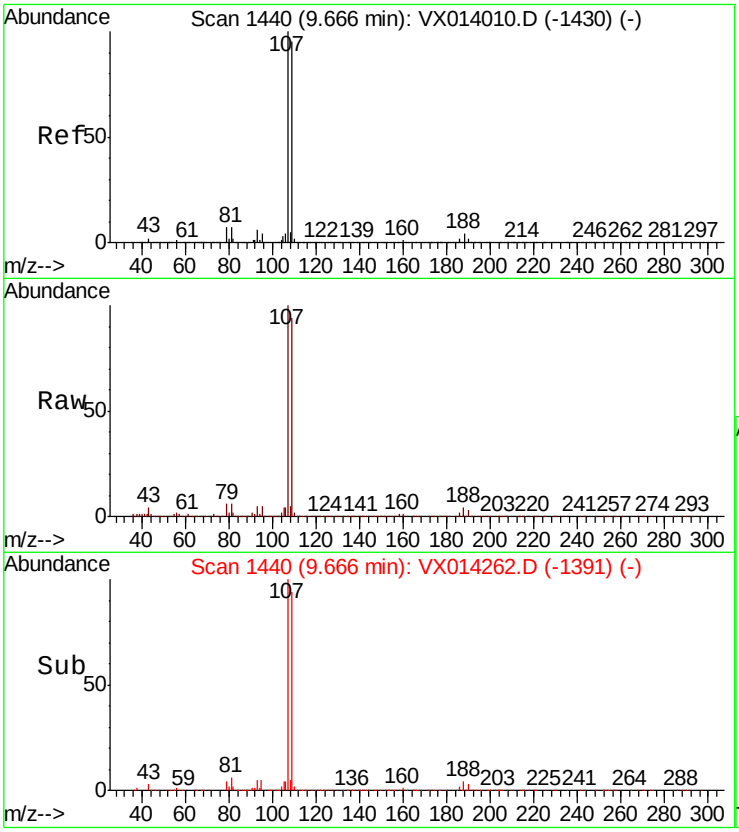
Tgt Ion:129 Resp: 105650

Ion	Ratio	Lower	Upper
129	100		
127	76.5	38.4	115.2



Instrument :
MSVOA_X
ClientSampleId :
VX1226WBS01

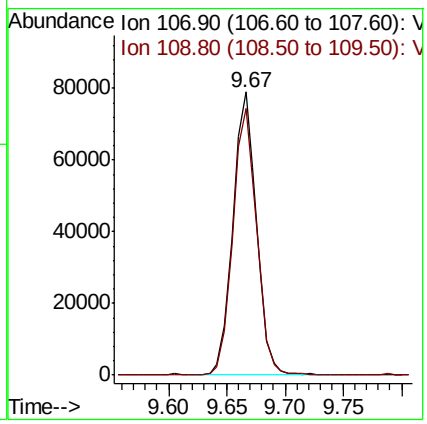
Manual Integrations APPROVED
apatel
12/27/2019 12:03:06 PM

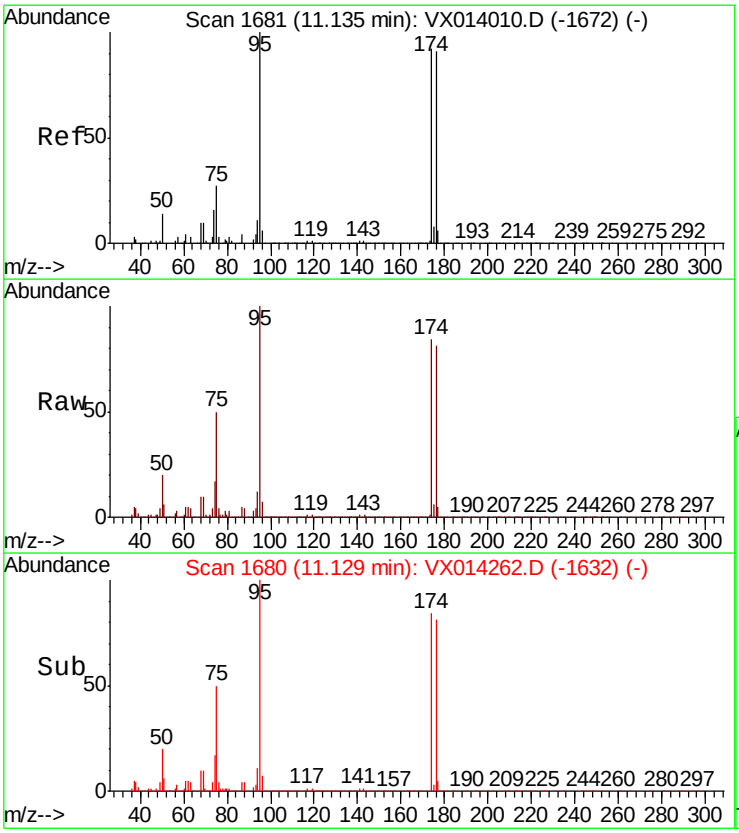


#61
1,2-Dibromoethane
Concen: 20.078 ug/l
RT: 9.67 min Scan# 1440
Delta R.T. 0.00 min
Lab File: VX014262.D
Acq: 26 Dec 2019 12:18

Tgt Ion:107 Resp: 110604

Ion	Ratio	Lower	Upper
107	100		
109	96.0	75.7	113.5

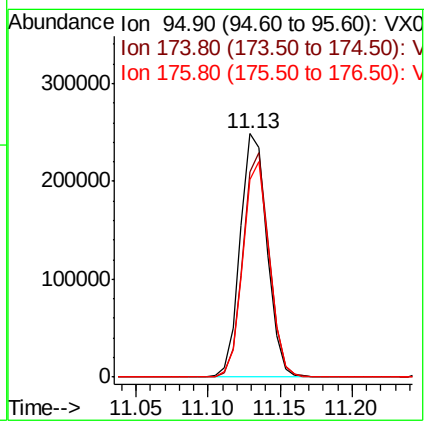




#62
4-Bromofluorobenzene
Concen: 49.277 ug/l
RT: 11.13 min Scan# 1680
Delta R.T. -0.01 min
Lab File: VX014262.D
Acq: 26 Dec 2019 12:18

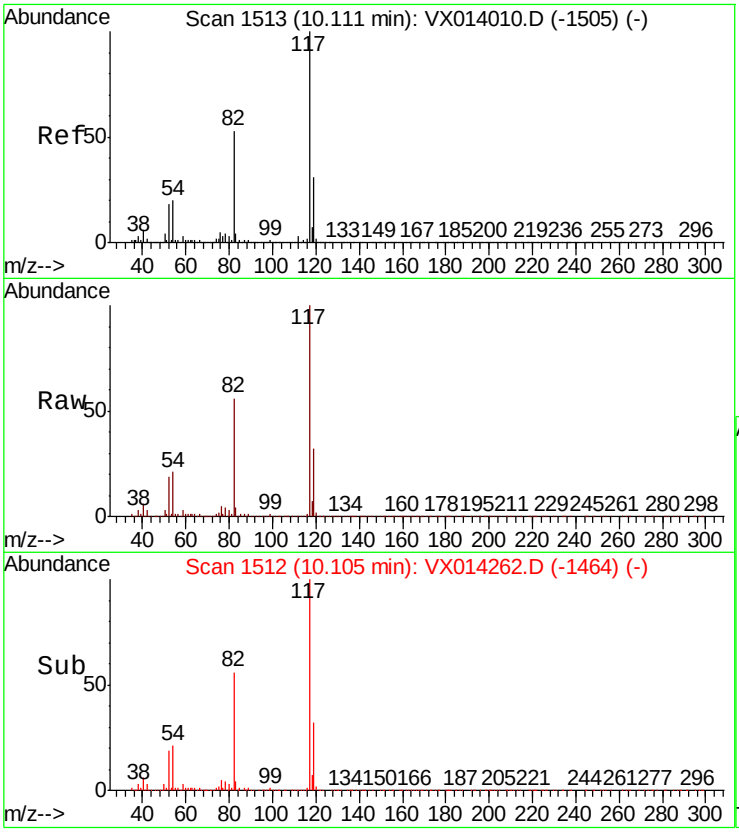
Tgt Ion: 95 Resp: 320922

Ion	Ratio	Lower	Upper
95	100		
174	89.5	0.0	175.8
176	86.9	0.0	173.0



Instrument :
MSVOA_X
ClientSampleId :
VX1226WBS01

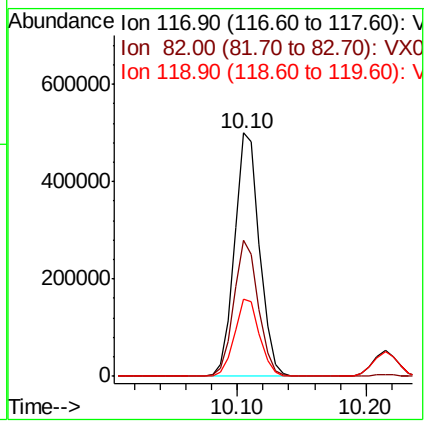
Manual Integrations APPROVED
apatel
12/27/2019 12:03:06 PM

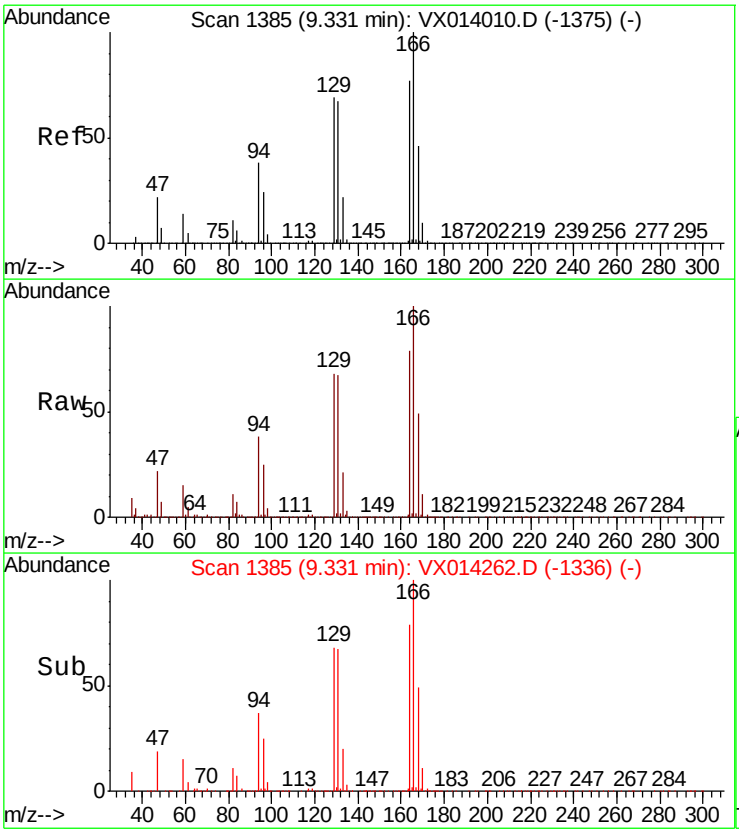


#63
Chlorobenzene-d5
Concen: 50.000 ug/l
RT: 10.10 min Scan# 1512
Delta R.T. -0.01 min
Lab File: VX014262.D
Acq: 26 Dec 2019 12:18

Tgt Ion:117 Resp: 673248

Ion	Ratio	Lower	Upper
117	100		
82	55.7	42.2	63.4
119	31.9	25.1	37.7

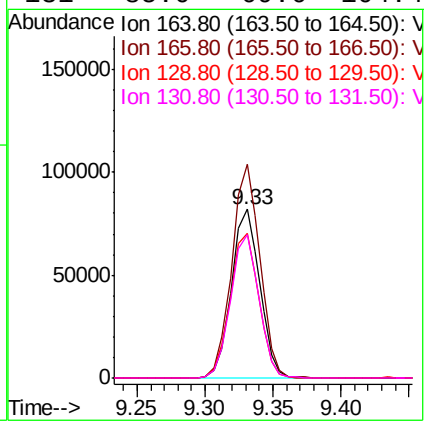




#64
Tetrachloroethene
Concen: 19.956 ug/l
RT: 9.33 min Scan# 1385
Delta R.T. 0.00 min
Lab File: VX014262.D
Acq: 26 Dec 2019 12:18

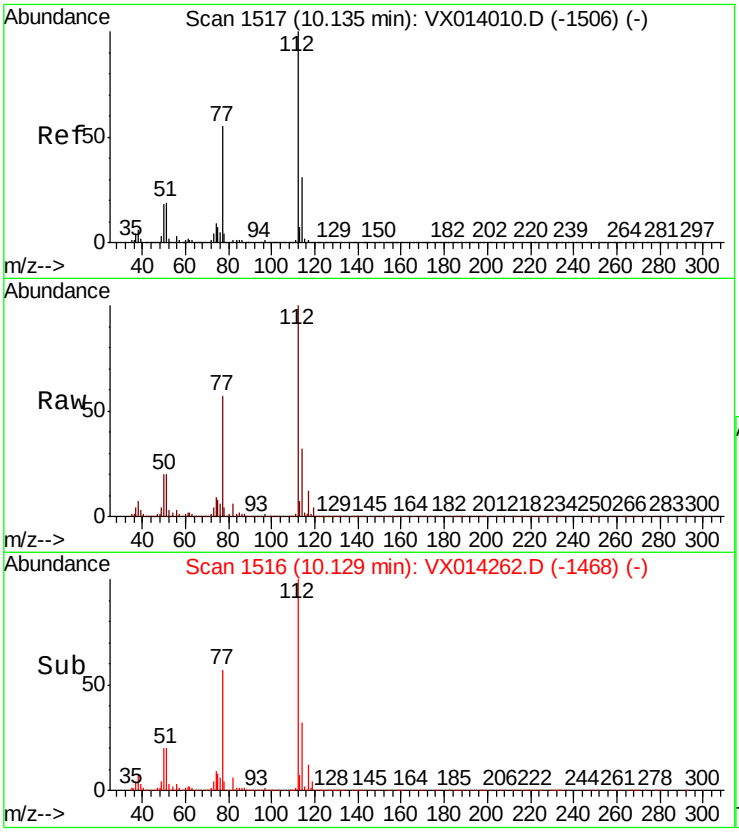
Tgt Ion:164 Resp: 118884

Ion	Ratio	Lower	Upper
164	100		
166	126.6	104.0	156.0
129	85.8	72.2	108.4
131	85.0	69.6	104.4



Instrument :
MSVOA_X
ClientSampleId :
VX1226WBS01

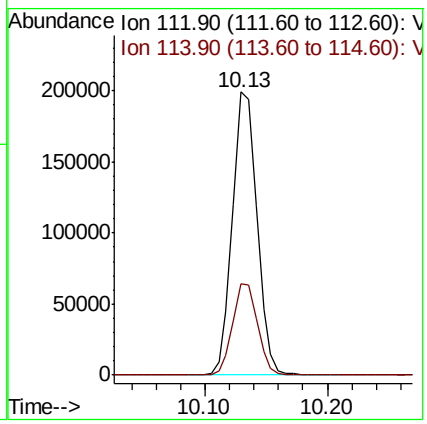
Manual Integrations APPROVED
apatel
12/27/2019 12:03:06 PM

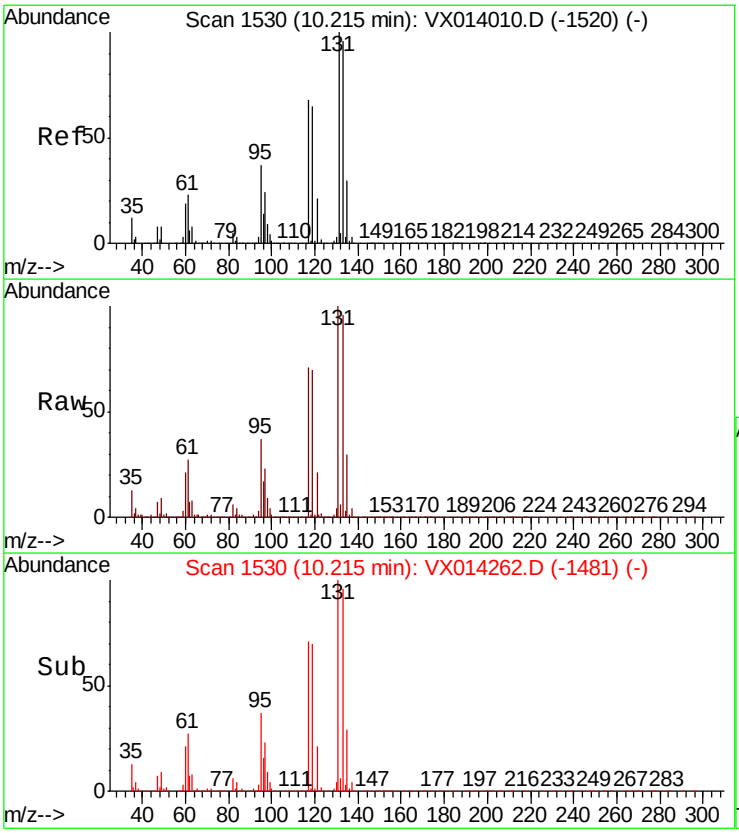


#65
Chlorobenzene
Concen: 19.321 ug/l
RT: 10.13 min Scan# 1516
Delta R.T. -0.01 min
Lab File: VX014262.D
Acq: 26 Dec 2019 12:18

Tgt Ion:112 Resp: 276575

Ion	Ratio	Lower	Upper
112	100		
114	32.4	24.9	37.3

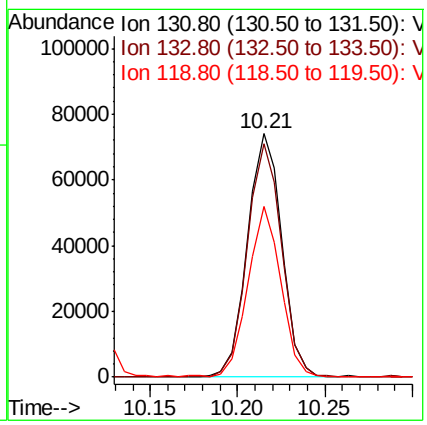




#66
1,1,1,2-Tetrachloroethane
Concen: 19.913 ug/l
RT: 10.21 min Scan# 1530
Delta R.T. 0.00 min
Lab File: VX014262.D
Acq: 26 Dec 2019 12:18

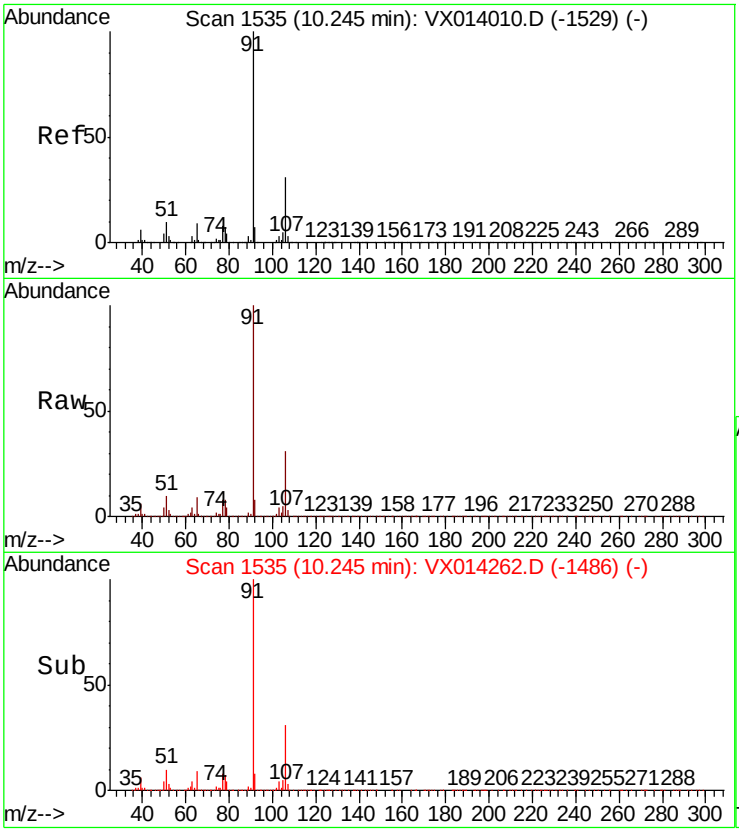
Tgt Ion:131 Resp: 101780

Ion	Ratio	Lower	Upper
131	100		
133	96.1	48.0	144.0
119	66.5	33.4	100.2



Instrument :
MSVOA_X
ClientSampleId :
VX1226WBS01

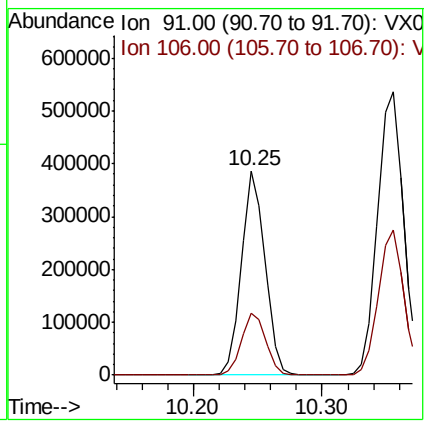
Manual Integrations APPROVED
apatel
12/27/2019 12:03:06 PM

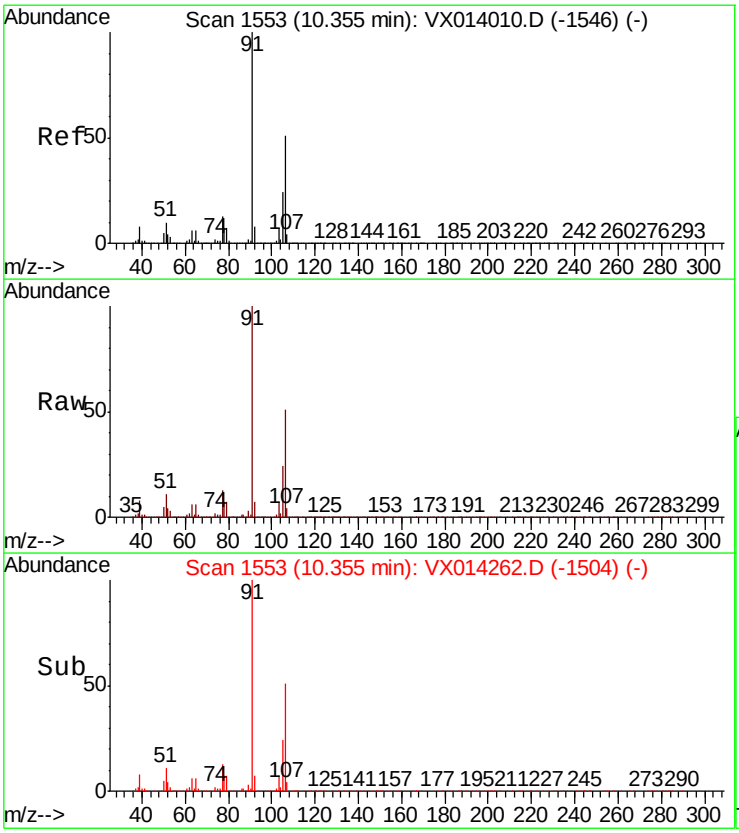


#67
Ethyl Benzene
Concen: 19.828 ug/l
RT: 10.25 min Scan# 1535
Delta R.T. 0.00 min
Lab File: VX014262.D
Acq: 26 Dec 2019 12:18

Tgt Ion: 91 Resp: 487987

Ion	Ratio	Lower	Upper
91	100		
106	30.5	25.0	37.6

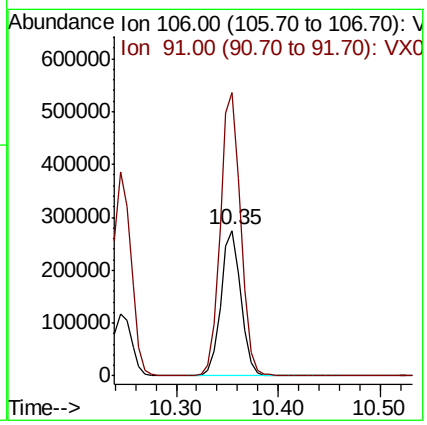




#68
m/p-Xylenes
Concen: 39.455 ug/l
RT: 10.35 min Scan# 1553
Delta R.T. 0.00 min
Lab File: VX014262.D
Acq: 26 Dec 2019 12:18

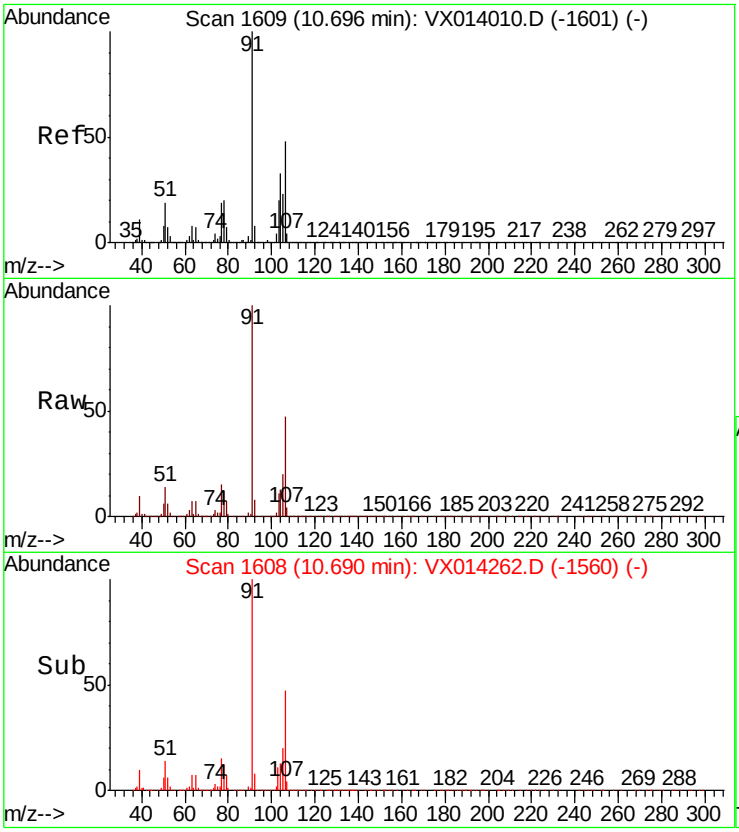
Tgt Ion:106 Resp: 373462

Ion	Ratio	Lower	Upper
106	100		
91	198.8	158.6	238.0



Instrument :
MSVOA_X
ClientSampleId :
VX1226WBS01

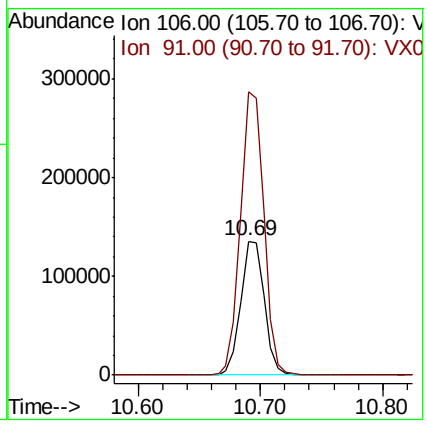
Manual Integrations APPROVED
apatel
12/27/2019 12:03:06 PM

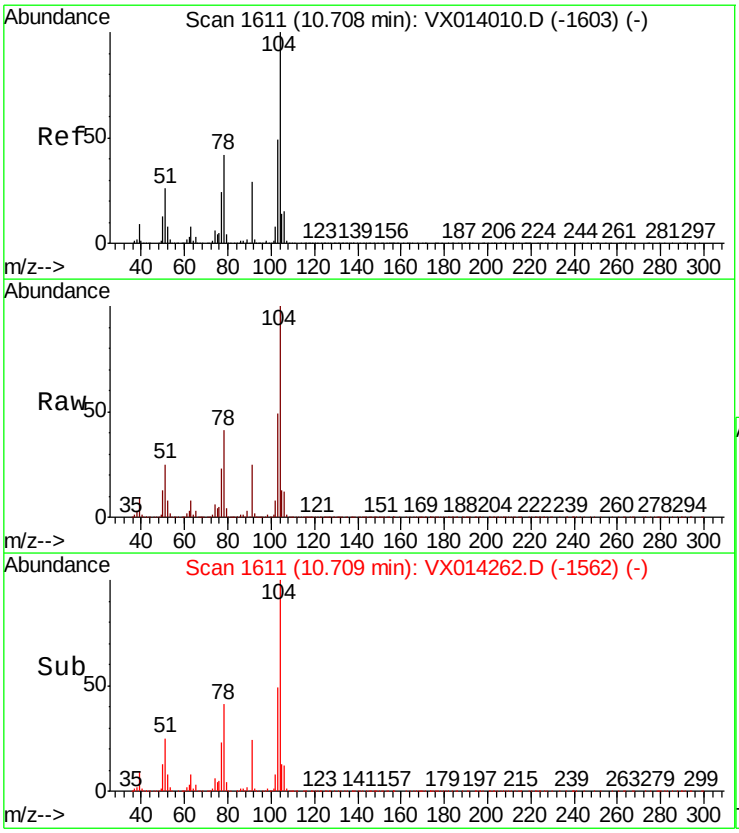


#69
o-Xylene
Concen: 19.362 ug/l
RT: 10.69 min Scan# 1608
Delta R.T. -0.01 min
Lab File: VX014262.D
Acq: 26 Dec 2019 12:18

Tgt Ion:106 Resp: 179744

Ion	Ratio	Lower	Upper
106	100		
91	210.7	104.2	312.6

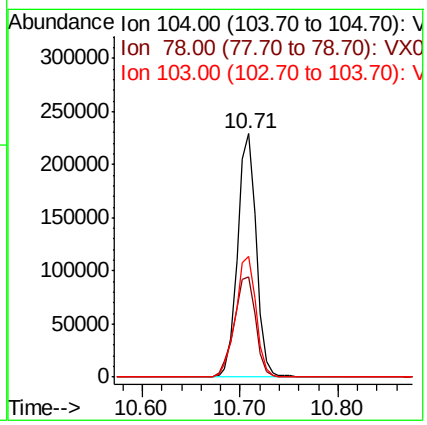


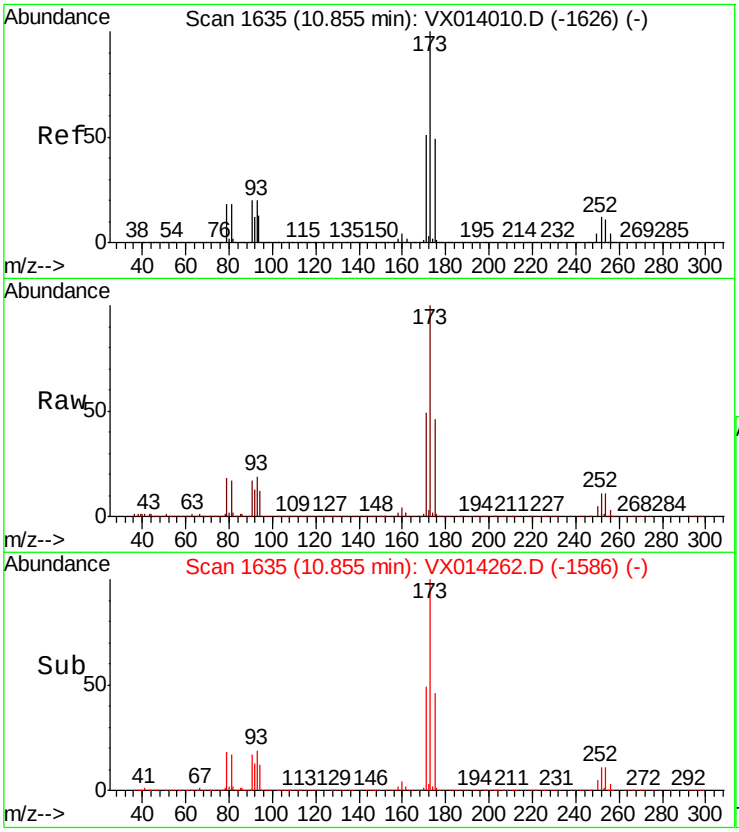


#70
Styrene
Concen: 19.323 ug/l
RT: 10.71 min Scan# 1611
Delta R.T. 0.00 min
Lab File: VX014262.D
Acq: 26 Dec 2019 12:18

Tgt Ion:104 Resp: 303329

Ion	Ratio	Lower	Upper
104	100		
78	47.8	38.5	57.7
103	54.3	42.9	64.3

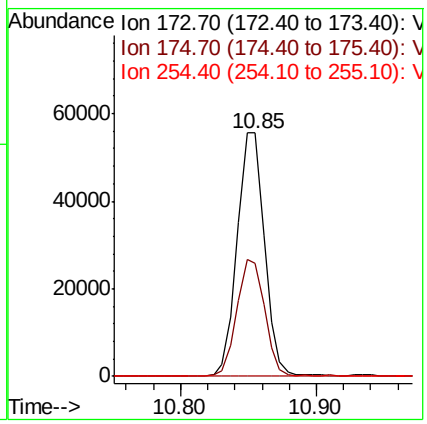




#71
Bromoform
Concen: 19.060 ug/l
RT: 10.85 min Scan# 1635
Delta R.T. 0.00 min
Lab File: VX014262.D
Acq: 26 Dec 2019 12:18

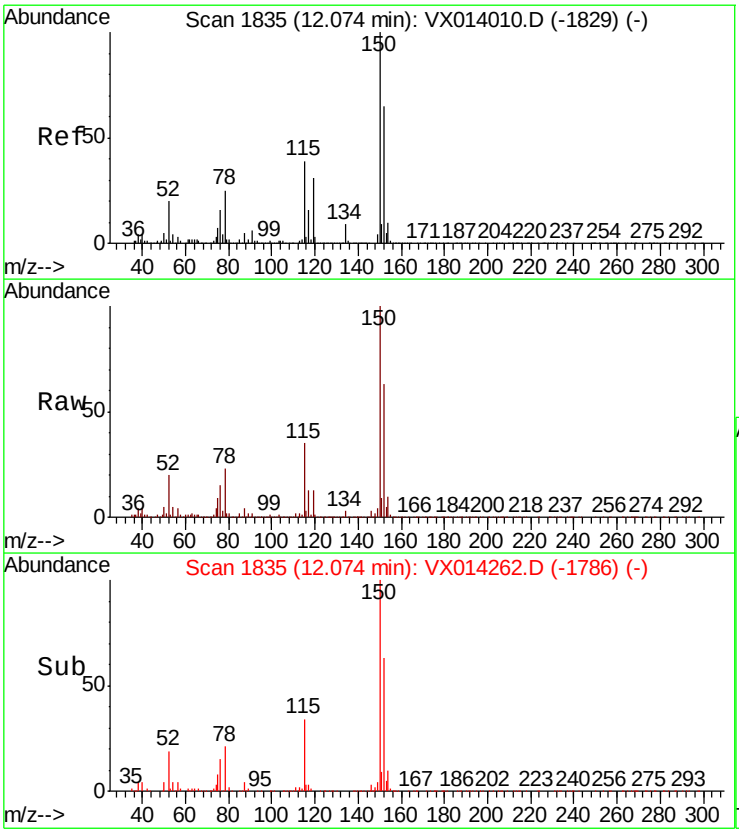
Tgt Ion:173 Resp: 78308

Ion	Ratio	Lower	Upper
173	100		
175	48.9	24.4	73.4
254	0.2	0.2	0.2



Instrument :
MSVOA_X
ClientSampleId :
VX1226WBS01

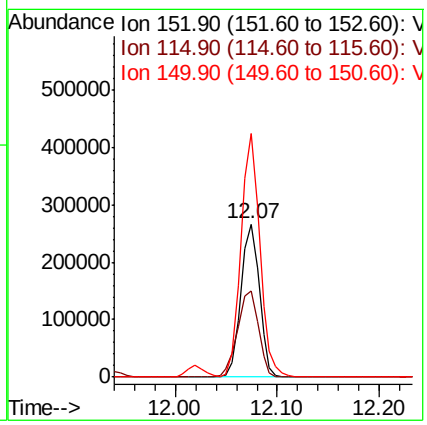
Manual Integrations APPROVED
apatel
12/27/2019 12:03:06 PM

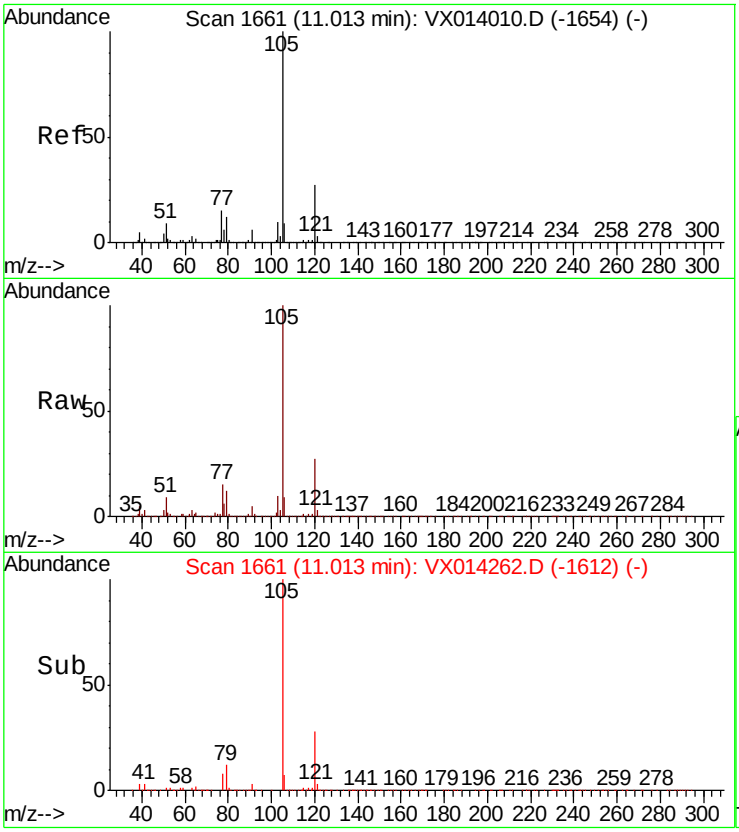


#72
1,4-Dichlorobenzene-d4
Concen: 50.000 ug/l
RT: 12.07 min Scan# 1835
Delta R.T. 0.00 min
Lab File: VX014262.D
Acq: 26 Dec 2019 12:18

Tgt Ion:152 Resp: 331077

Ion	Ratio	Lower	Upper
152	100		
115	64.1	38.3	114.9
150	162.2	0.0	345.4

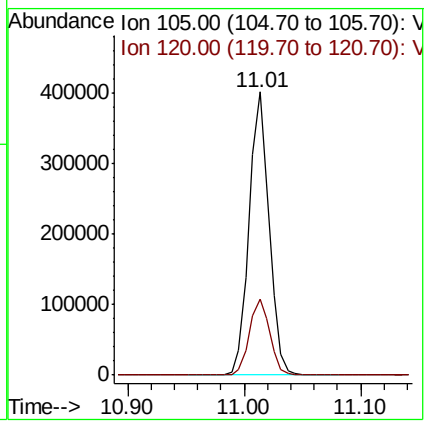




#73
Isopropylbenzene
Concen: 20.656 ug/l
RT: 11.01 min Scan# 1661
Delta R.T. 0.00 min
Lab File: VX014262.D
Acq: 26 Dec 2019 12:18

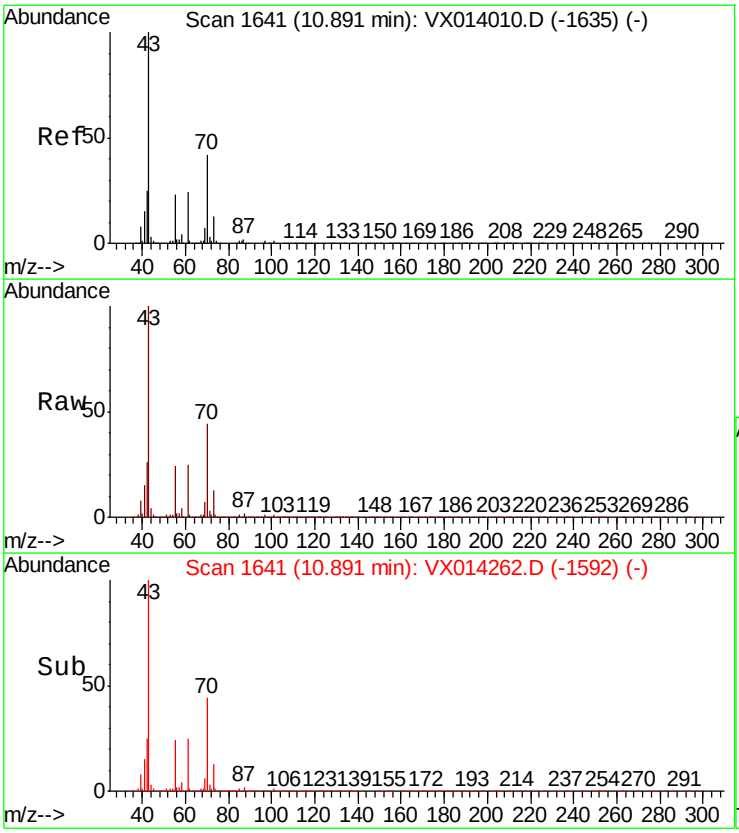
Tgt Ion:105 Resp: 481488

Ion	Ratio	Lower	Upper
105	100		
120	27.6	13.5	40.4



Instrument :
MSVOA_X
ClientSampleId :
VX1226WBS01

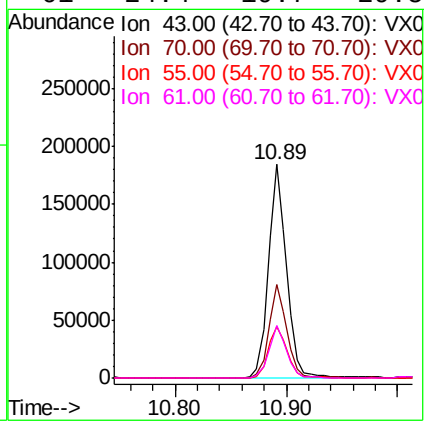
Manual Integrations APPROVED
apatel
12/27/2019 12:03:06 PM



#74
N-amyl acetate
Concen: 18.925 ug/l
RT: 10.89 min Scan# 1641
Delta R.T. 0.00 min
Lab File: VX014262.D
Acq: 26 Dec 2019 12:18

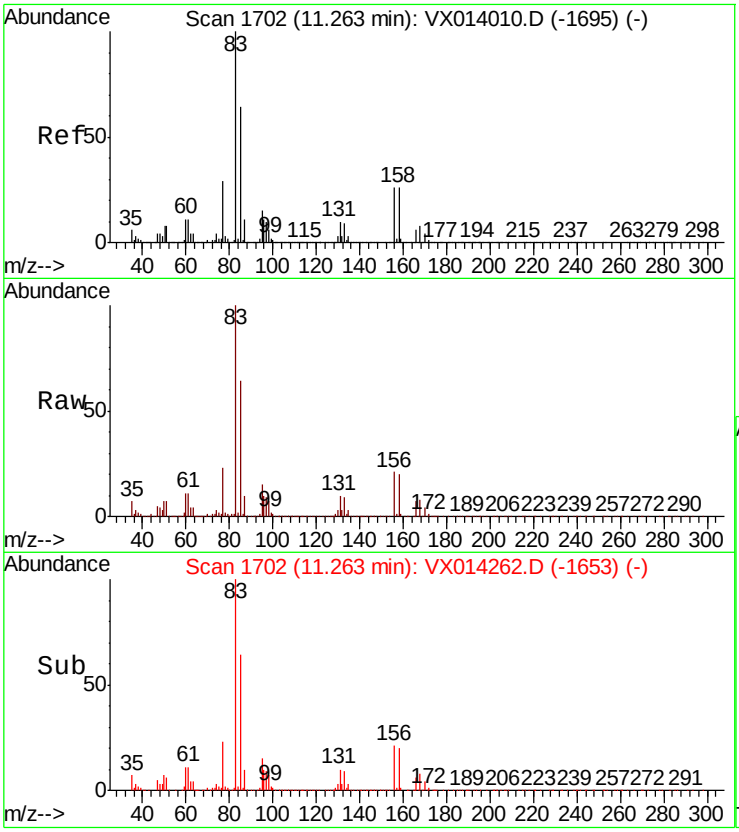
Tgt Ion: 43 Resp: 206789

Ion	Ratio	Lower	Upper
43	100		
70	43.6	34.4	51.6
55	26.0	19.1	28.7
61	24.4	19.7	29.5



Instrument :
MSVOA_X
ClientSampleId :
VX1226WBS01

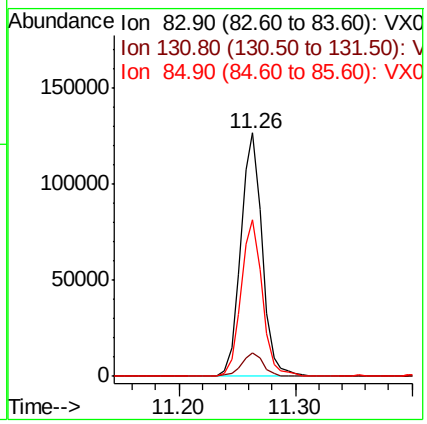
Manual Integrations APPROVED
apatel
12/27/2019 12:03:06 PM

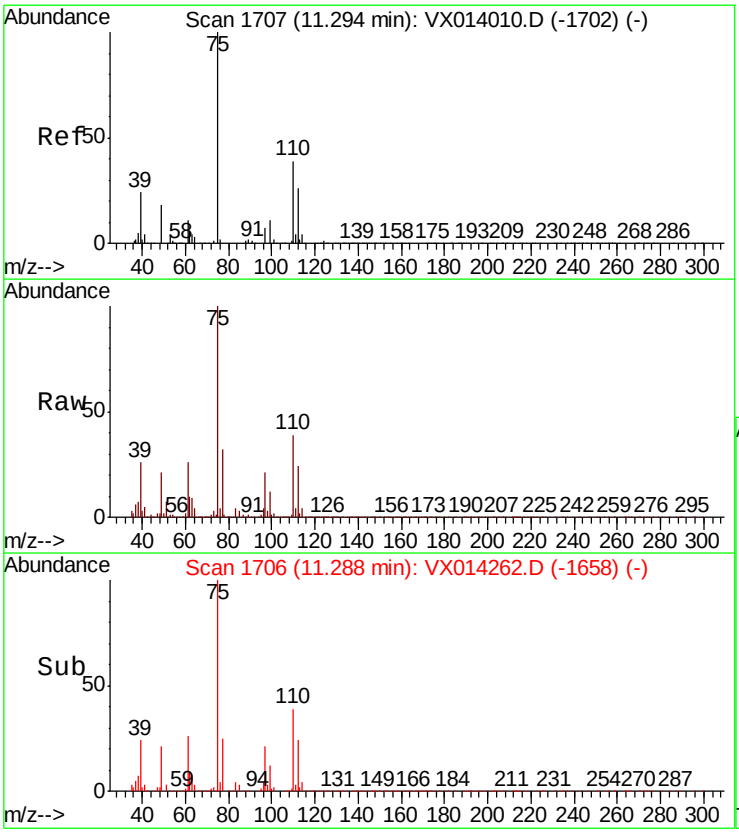


#75
1,1,2,2-Tetrachloroethane
Concen: 20.061 ug/l
RT: 11.26 min Scan# 1702
Delta R.T. 0.00 min
Lab File: VX014262.D
Acq: 26 Dec 2019 12:18

Tgt Ion: 83 Resp: 162121

Ion	Ratio	Lower	Upper
83	100		
131	9.9	5.1	15.2
85	64.5	31.9	95.7

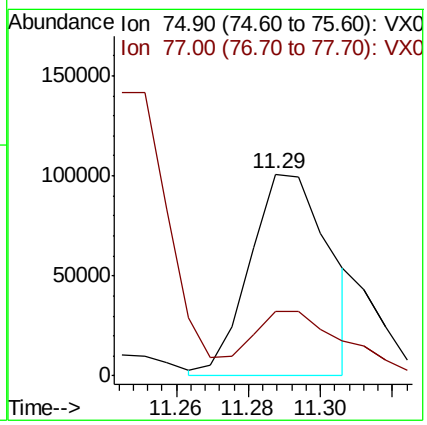




#76
1,2,3-Trichloropropane
Concen: 21.322 ug/l m
RT: 11.29 min Scan# 1706
Delta R.T. -0.01 min
Lab File: VX014262.D
Acq: 26 Dec 2019 12:18

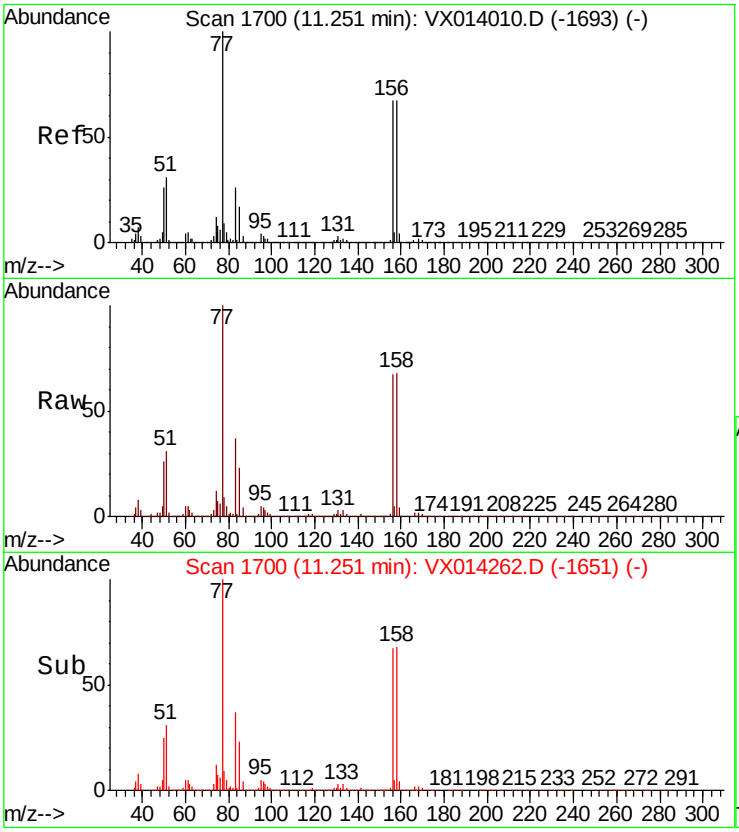
Tgt Ion: 75 Resp: 153254

Ion	Ratio	Lower	Upper
75	100		
77	35.9	19.3	57.8



Instrument :
MSVOA_X
ClientSampleId :
VX1226WBS01

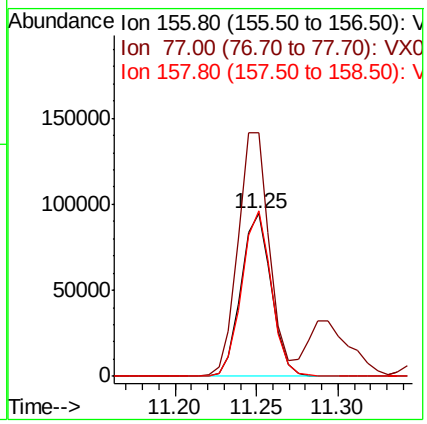
Manual Integrations APPROVED
apatel
12/27/2019 12:03:06 PM

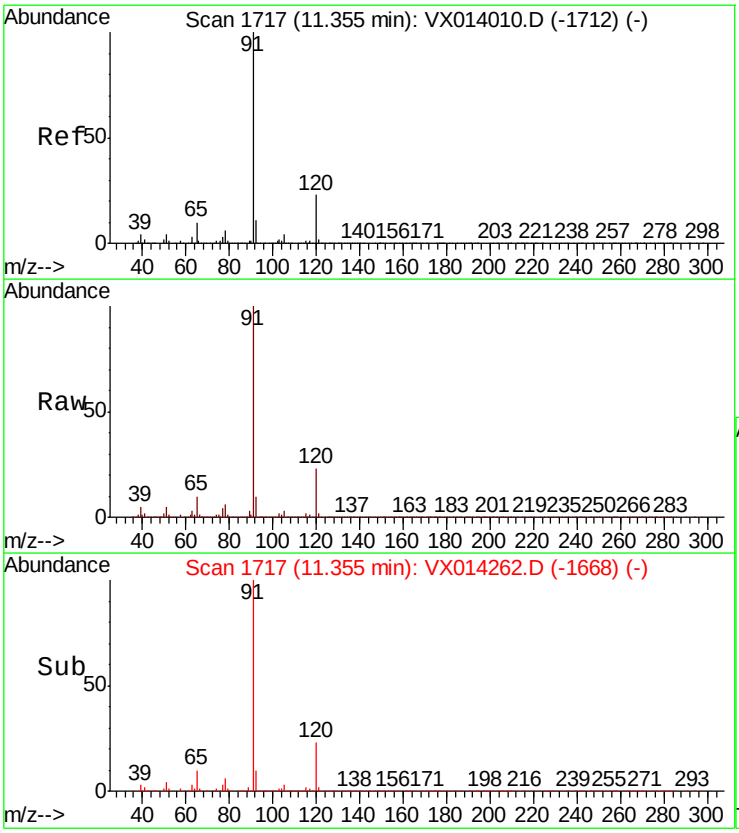


#77
Bromobenzene
Concen: 19.180 ug/l
RT: 11.25 min Scan# 1700
Delta R.T. 0.00 min
Lab File: VX014262.D
Acq: 26 Dec 2019 12:18

Tgt Ion:156 Resp: 123012

Ion	Ratio	Lower	Upper
156	100		
77	153.4	76.5	229.5
158	98.9	49.3	147.9

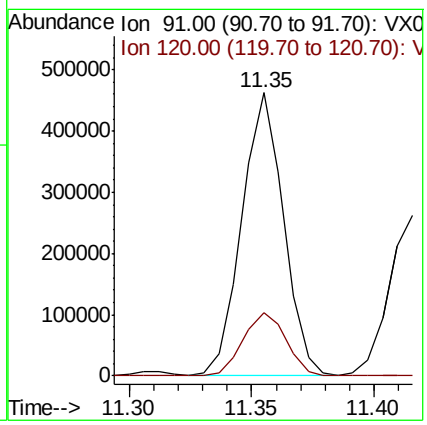




#78
n-propylbenzene
Concen: 20.813 ug/l
RT: 11.35 min Scan# 1717
Delta R.T. 0.00 min
Lab File: VX014262.D
Acq: 26 Dec 2019 12:18

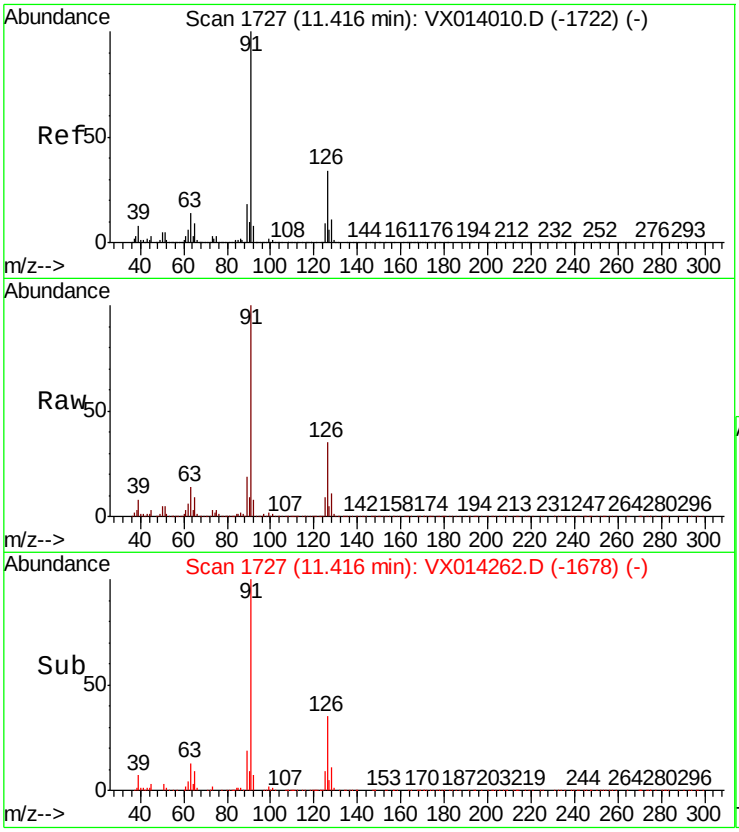
Tgt Ion: 91 Resp: 544178

Ion	Ratio	Lower	Upper
91	100		
120	23.3	11.7	35.0



Instrument :
MSVOA_X
ClientSampleId :
VX1226WBS01

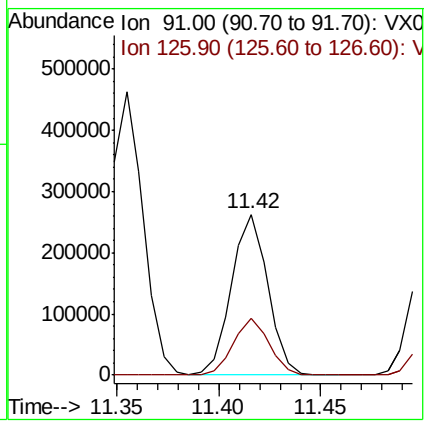
Manual Integrations APPROVED
apatel
12/27/2019 12:03:06 PM

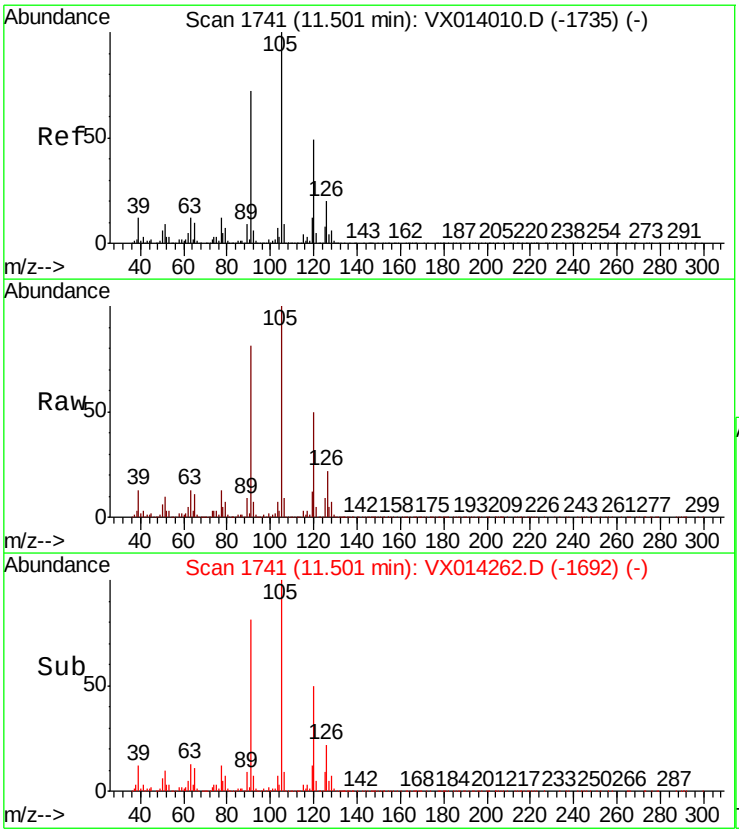


#79
2-Chlorotoluene
Concen: 20.218 ug/l
RT: 11.42 min Scan# 1727
Delta R.T. 0.00 min
Lab File: VX014262.D
Acq: 26 Dec 2019 12:18

Tgt Ion: 91 Resp: 321338

Ion	Ratio	Lower	Upper
91	100		
126	34.9	17.2	51.6

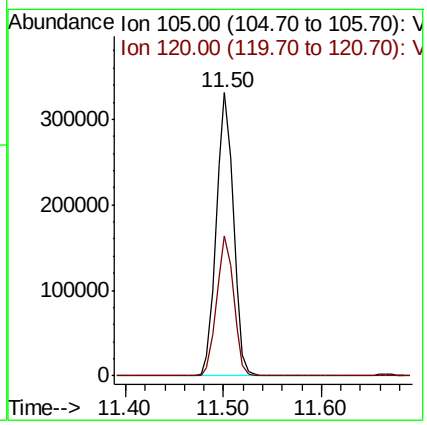


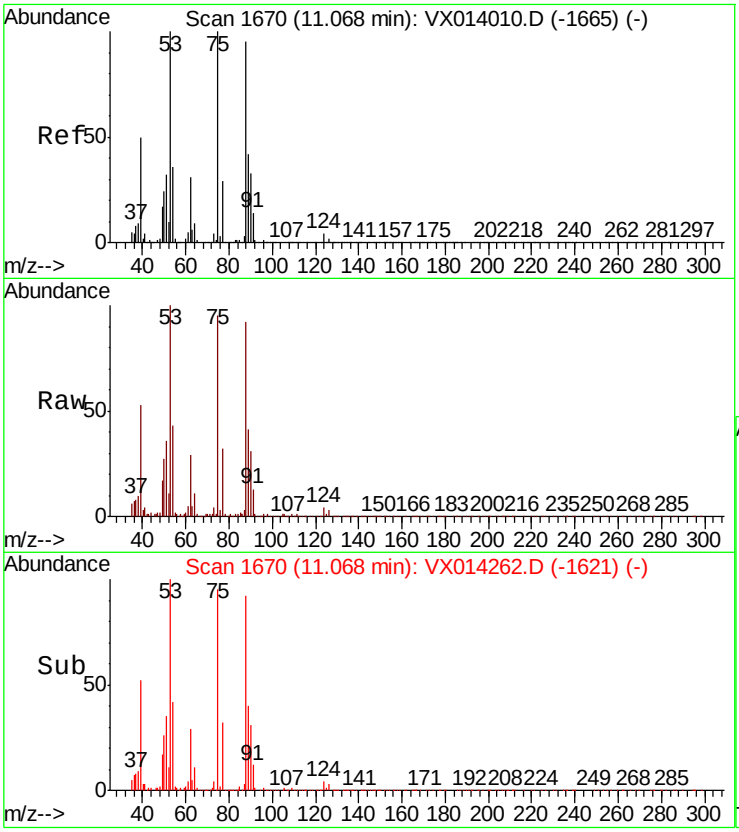


#80
1,3,5-Trimethylbenzene
Concen: 20.464 ug/l
RT: 11.50 min Scan# 1741
Delta R.T. 0.00 min
Lab File: VX014262.D
Acq: 26 Dec 2019 12:18

Tgt Ion:105 Resp: 401471

Ion	Ratio	Lower	Upper
105	100		
120	49.5	25.3	75.8

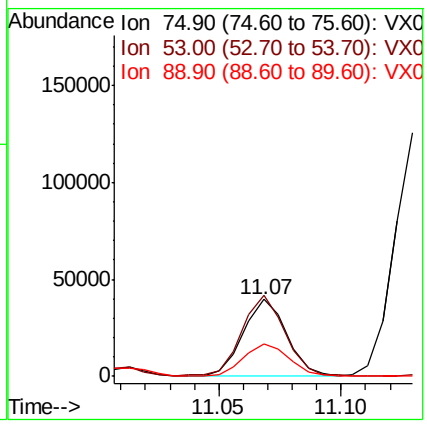




#81
trans-1,4-Dichloro-2-butene
Concen: 19.189 ug/l
RT: 11.07 min Scan# 1670
Delta R.T. 0.00 min
Lab File: VX014262.D
Acq: 26 Dec 2019 12:18

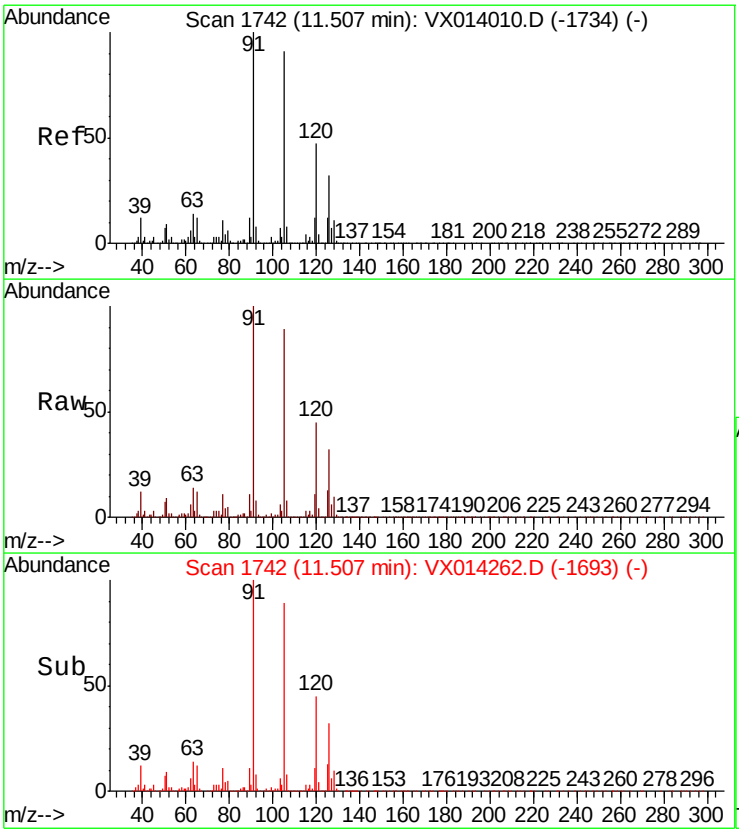
Tgt Ion: 75 Resp: 48864

Ion	Ratio	Lower	Upper
75	100		
53	102.8	76.7	115.1
89	44.2	34.6	51.8



Instrument :
MSVOA_X
ClientSampleId :
VX1226WBS01

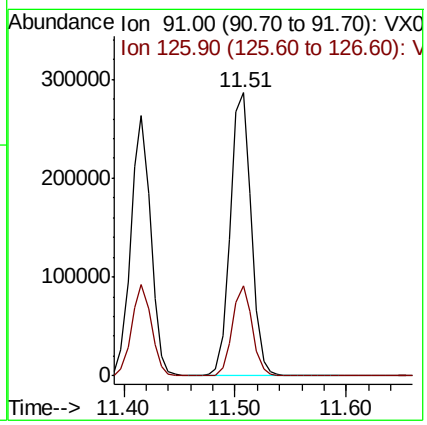
Manual Integrations APPROVED
apatel
12/27/2019 12:03:06 PM



#82
4-Chlorotoluene
Concen: 20.027 ug/l
RT: 11.51 min Scan# 1742
Delta R.T. 0.00 min
Lab File: VX014262.D
Acq: 26 Dec 2019 12:18

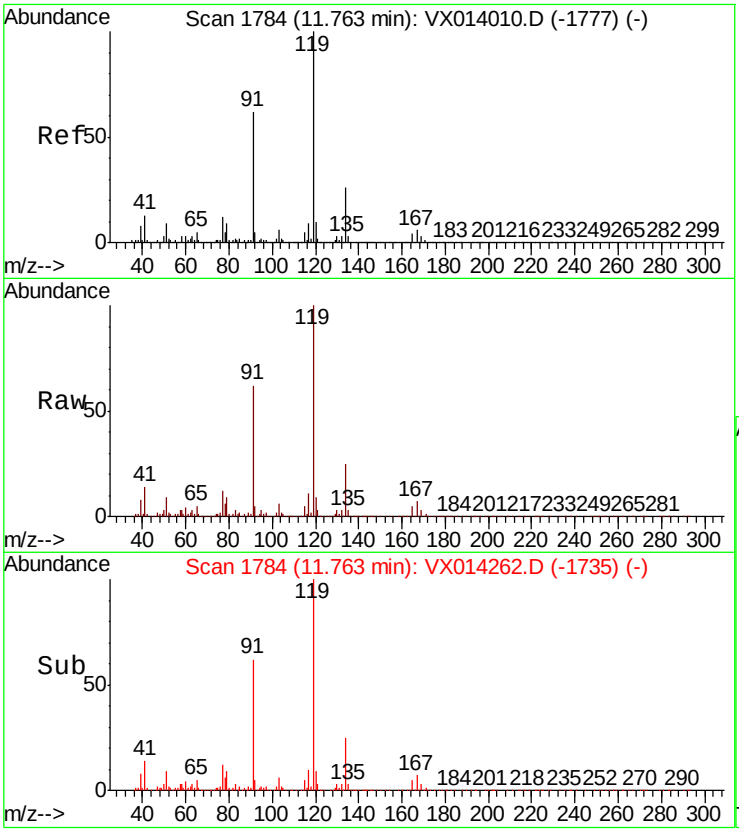
Tgt Ion: 91 Resp: 369231

Ion	Ratio	Lower	Upper
91	100		
126	30.5	15.6	46.8



Instrument :
MSVOA_X
ClientSampleId :
VX1226WBS01

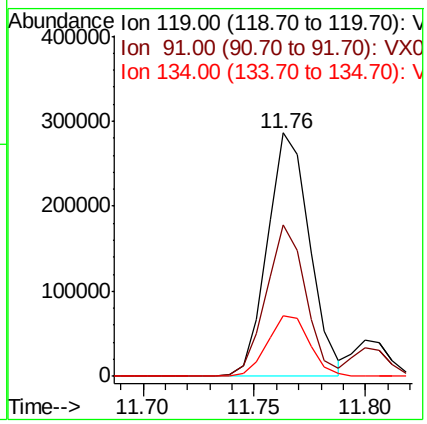
Manual Integrations APPROVED
apatel
12/27/2019 12:03:06 PM

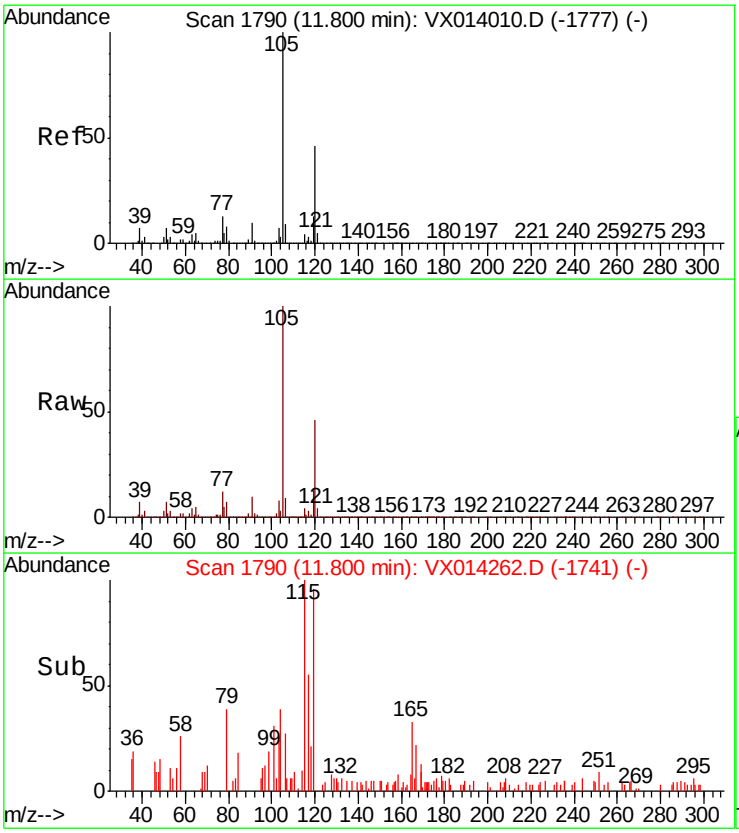


#83
tert-Butylbenzene
Concen: 19.724 ug/l
RT: 11.76 min Scan# 1784
Delta R.T. 0.00 min
Lab File: VX014262.D
Acq: 26 Dec 2019 12:18

Tgt Ion:119 Resp: 376568

Ion	Ratio	Lower	Upper
119	100		
91	58.2	28.5	85.6
134	25.0	12.2	36.6

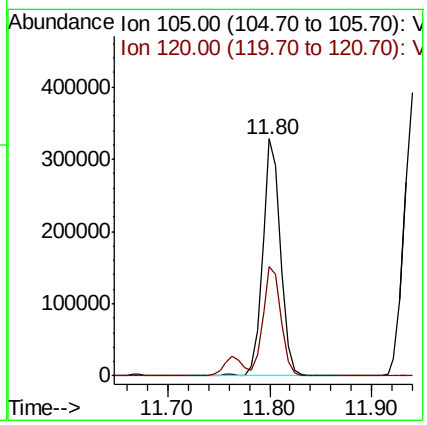




#84
1,2,4-Trimethylbenzene
Concen: 20.410 ug/l
RT: 11.80 min Scan# 1790
Delta R.T. 0.00 min
Lab File: VX014262.D
Acq: 26 Dec 2019 12:18

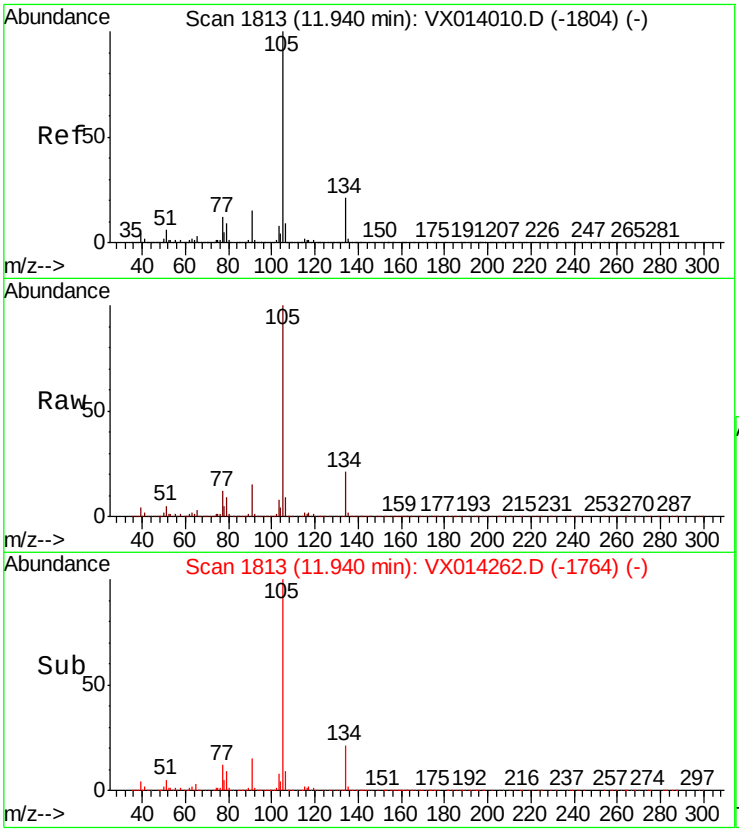
Tgt Ion:105 Resp: 400980

Ion	Ratio	Lower	Upper
105	100		
120	46.5	23.1	69.2



Instrument :
MSVOA_X
ClientSampleId :
VX1226WBS01

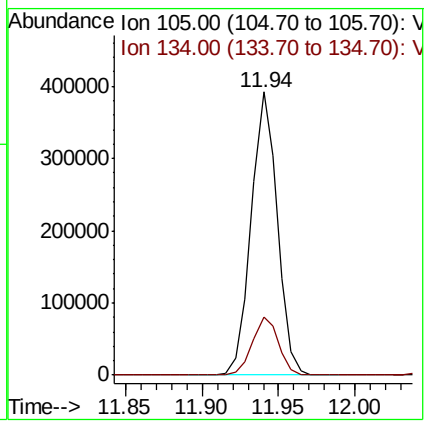
Manual Integrations APPROVED
apatel
12/27/2019 12:03:06 PM

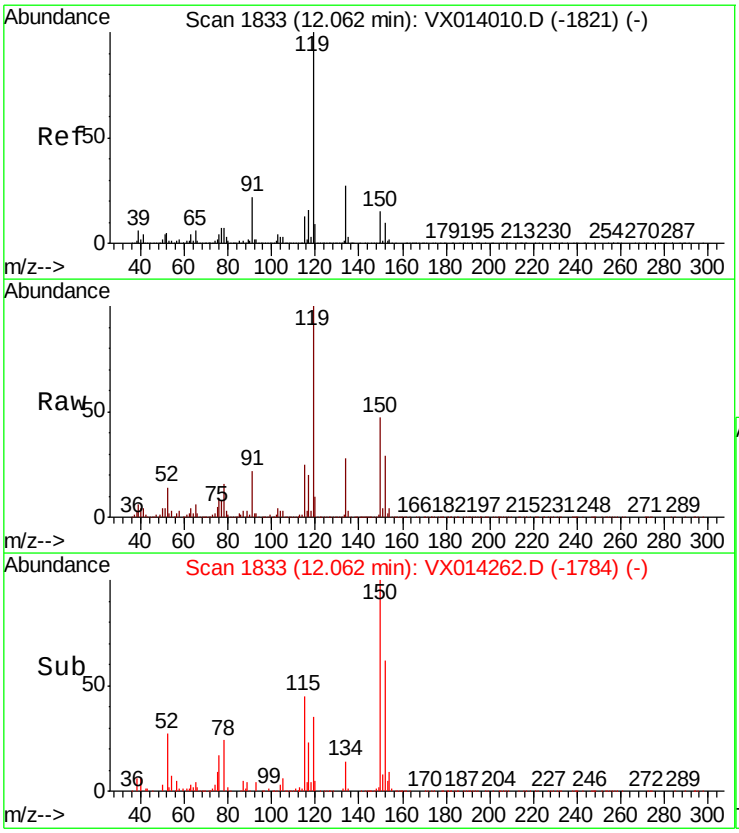


#85
sec-Butylbenzene
Concen: 20.618 ug/l
RT: 11.94 min Scan# 1813
Delta R.T. 0.00 min
Lab File: VX014262.D
Acq: 26 Dec 2019 12:18

Tgt Ion:105 Resp: 464690

Ion	Ratio	Lower	Upper
105	100		
134	20.7	10.4	31.1

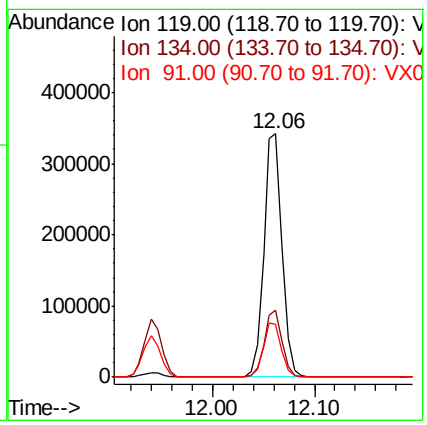




#86
p-Isopropyltoluene
Concen: 20.541 ug/l
RT: 12.06 min Scan# 1833
Delta R.T. 0.00 min
Lab File: VX014262.D
Acq: 26 Dec 2019 12:18

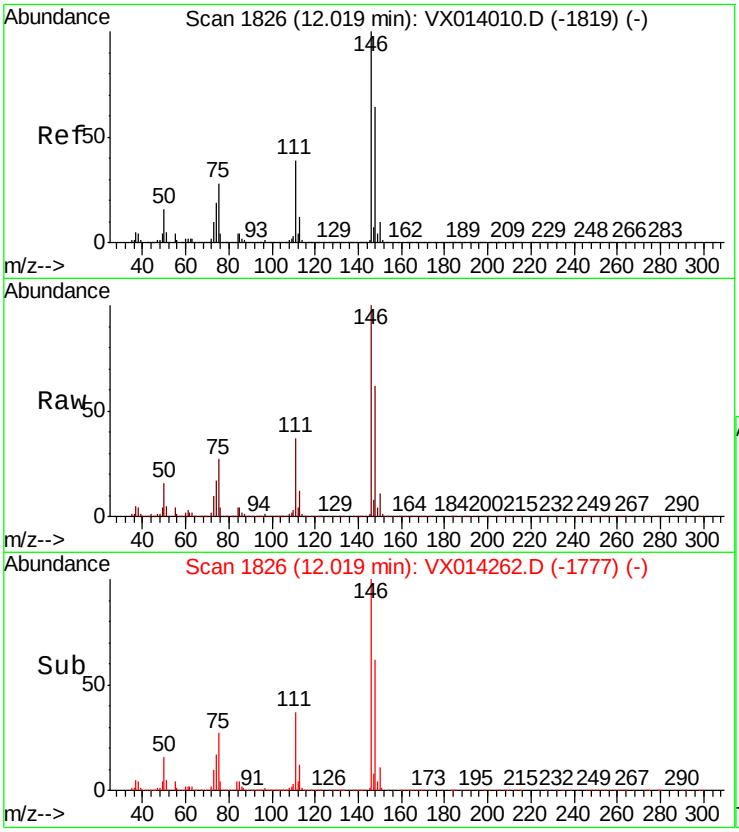
Tgt Ion:119 Resp: 423489

Ion	Ratio	Lower	Upper
119	100		
134	26.9	13.4	40.1
91	22.5	11.4	34.1



Instrument :
MSVOA_X
ClientSampleId :
VX1226WBS01

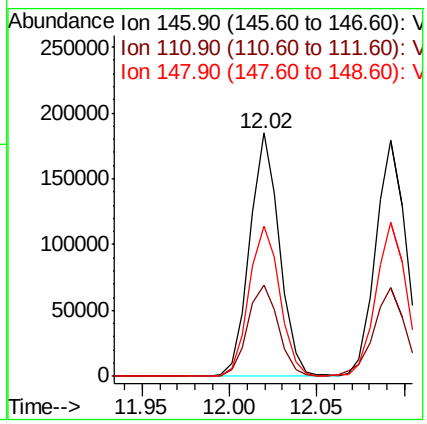
Manual Integrations APPROVED
apatel
12/27/2019 12:03:06 PM

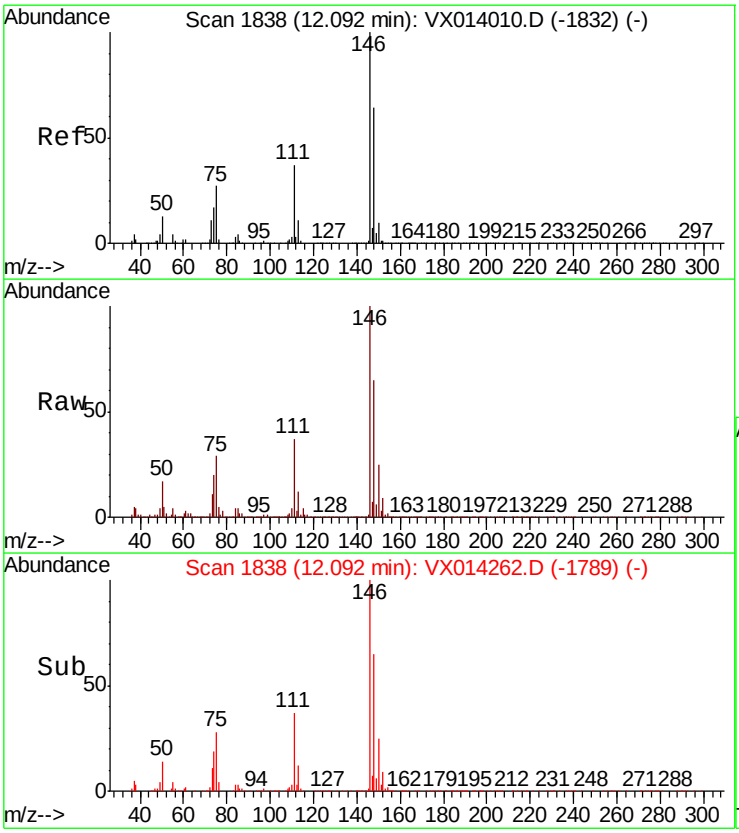


#87
1,3-Dichlorobenzene
Concen: 19.333 ug/l
RT: 12.02 min Scan# 1826
Delta R.T. 0.00 min
Lab File: VX014262.D
Acq: 26 Dec 2019 12:18

Tgt Ion:146 Resp: 217313

Ion	Ratio	Lower	Upper
146	100		
111	38.6	19.1	57.1
148	64.1	32.3	96.9

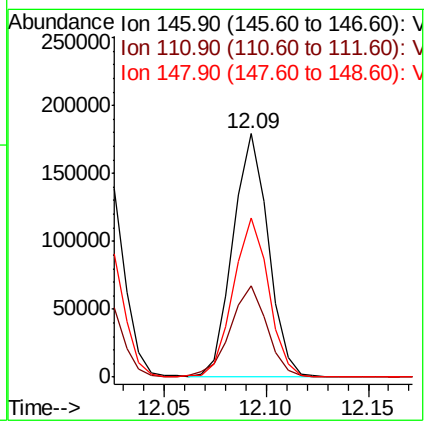




#88
1,4-Dichlorobenzene
Concen: 18.788 ug/l
RT: 12.09 min Scan# 1838
Delta R.T. 0.00 min
Lab File: VX014262.D
Acq: 26 Dec 2019 12:18

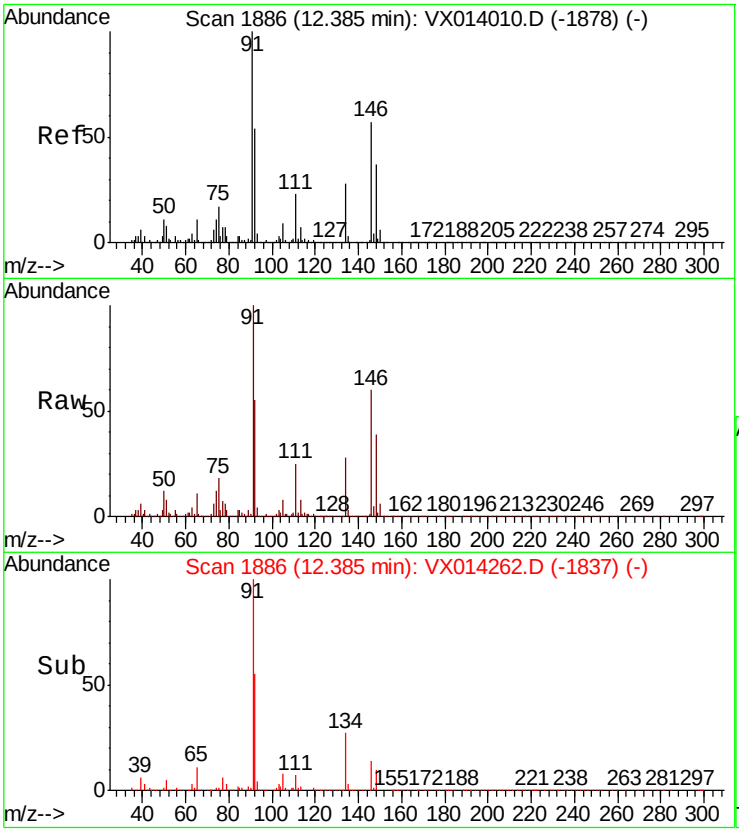
Tgt Ion:146 Resp: 214734

Ion	Ratio	Lower	Upper
146	100		
111	39.1	18.7	56.1
148	65.3	31.9	95.9



Instrument :
MSVOA_X
ClientSampleId :
VX1226WBS01

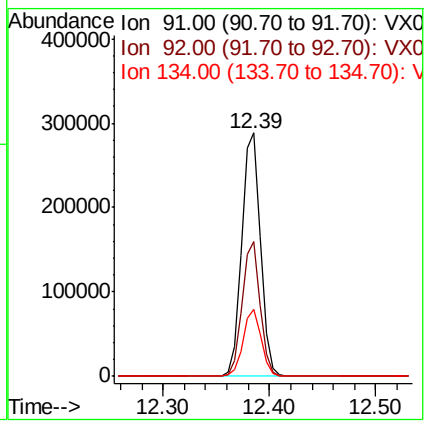
Manual Integrations APPROVED
apatel
12/27/2019 12:03:06 PM

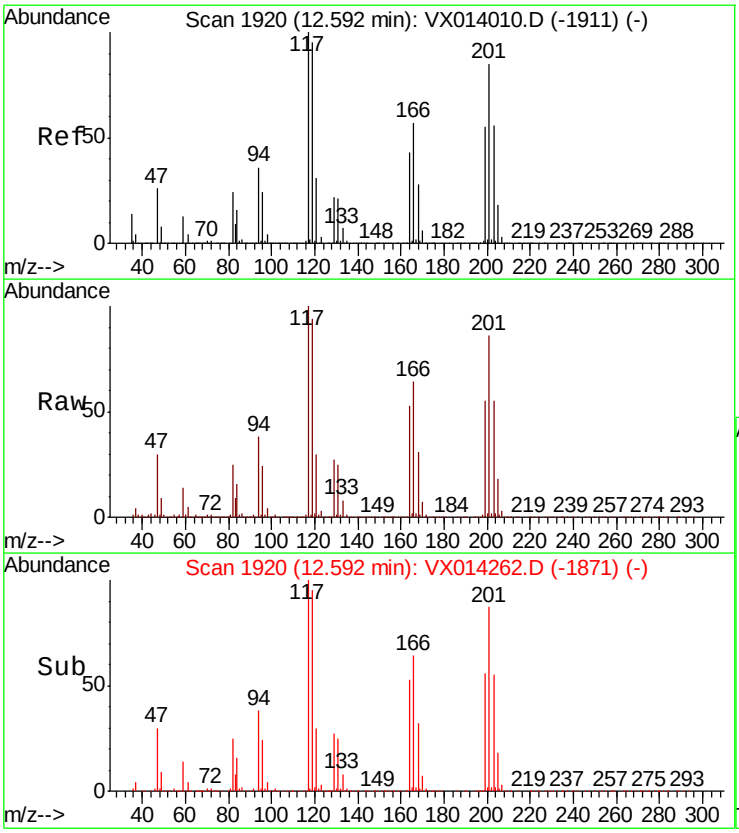


#89
n-Butylbenzene
Concen: 20.283 ug/l
RT: 12.39 min Scan# 1886
Delta R.T. 0.00 min
Lab File: VX014262.D
Acq: 26 Dec 2019 12:18

Tgt Ion: 91 Resp: 356805

Ion	Ratio	Lower	Upper
91	100		
92	52.8	27.2	81.6
134	26.7	13.4	40.1

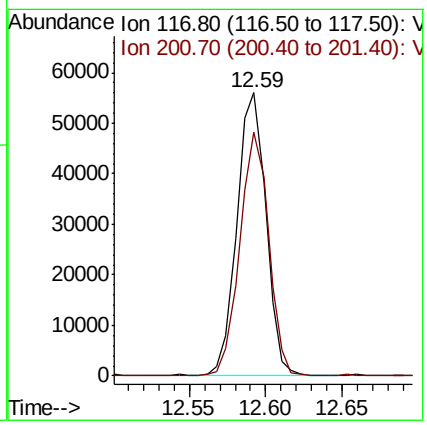




#90
Hexachloroethane
Concen: 19.798 ug/l
RT: 12.59 min Scan# 1920
Delta R.T. 0.00 min
Lab File: VX014262.D
Acq: 26 Dec 2019 12:18

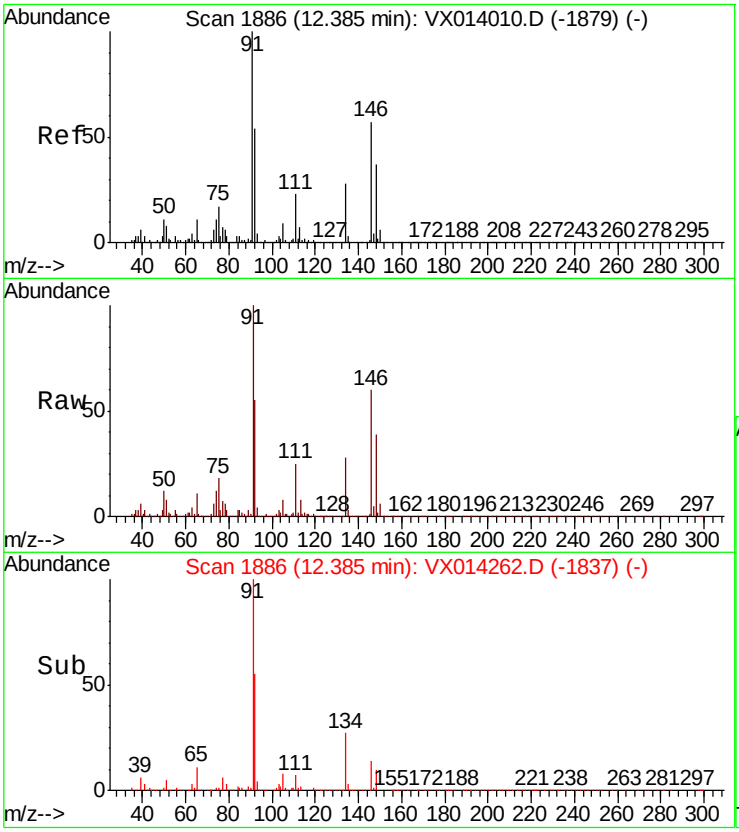
Tgt Ion:117 Resp: 73315

Ion	Ratio	Lower	Upper
117	100		
201	86.1	43.1	129.3



Instrument :
MSVOA_X
ClientSampleId :
VX1226WBS01

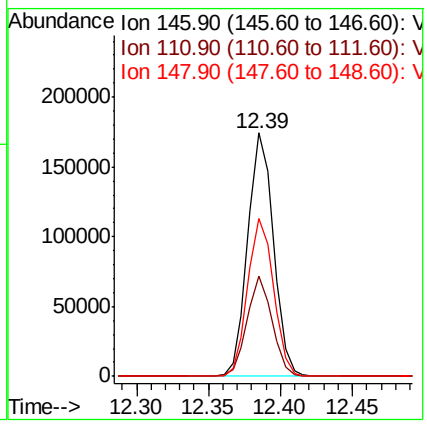
Manual Integrations APPROVED
apatel
12/27/2019 12:03:06 PM

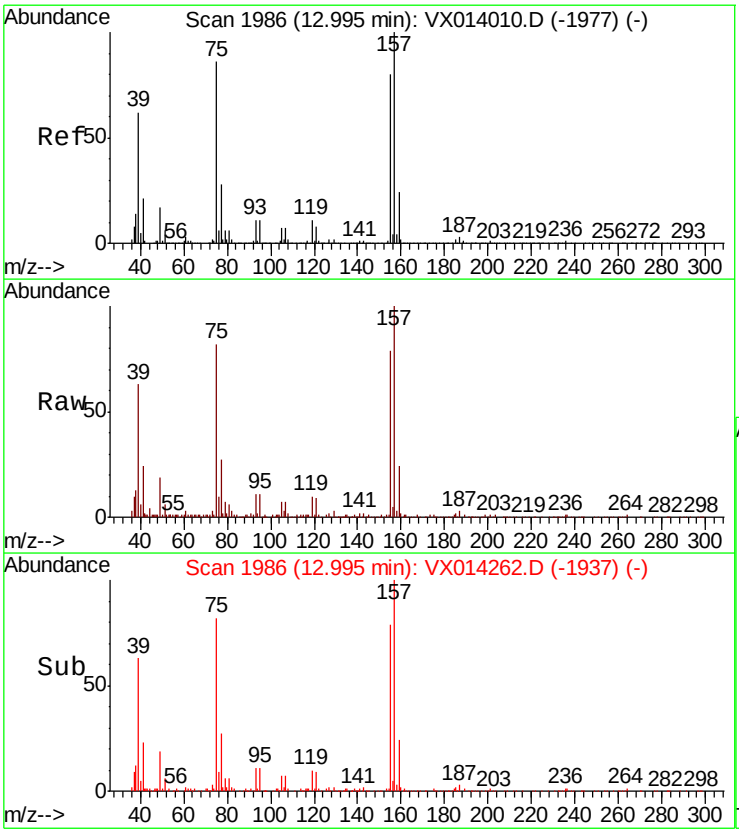


#91
1,2-Dichlorobenzene
Concen: 18.981 ug/l
RT: 12.39 min Scan# 1886
Delta R.T. 0.00 min
Lab File: VX014262.D
Acq: 26 Dec 2019 12:18

Tgt Ion:146 Resp: 214772

Ion	Ratio	Lower	Upper
146	100		
111	40.1	19.7	59.1
148	65.2	32.1	96.5

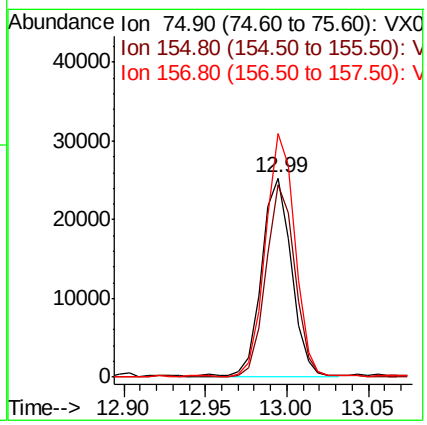




#92
1,2-Dibromo-3-Chloropropane
Concen: 17.728 ug/l
RT: 12.99 min Scan# 1986
Delta R.T. 0.00 min
Lab File: VX014262.D
Acq: 26 Dec 2019 12:18

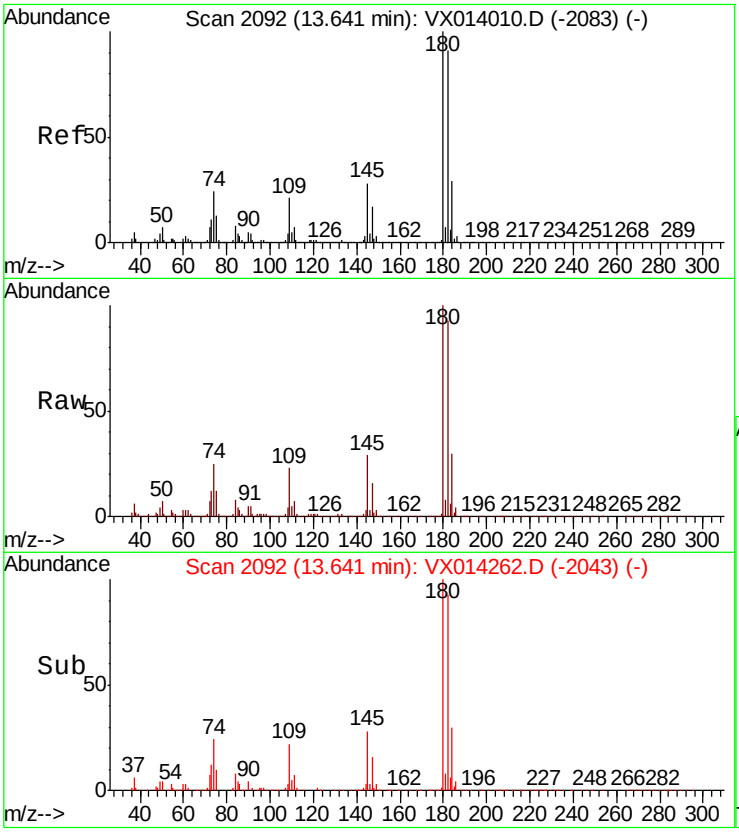
Tgt Ion: 75 Resp: 31705

Ion	Ratio	Lower	Upper
75	100		
155	95.2	46.9	140.6
157	121.1	60.8	182.4



Instrument :
MSVOA_X
ClientSampleId :
VX1226WBS01

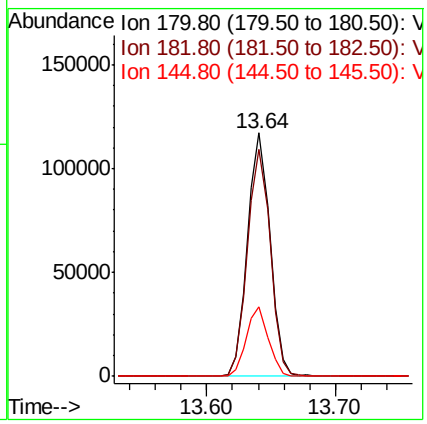
Manual Integrations APPROVED
apatel
12/27/2019 12:03:06 PM

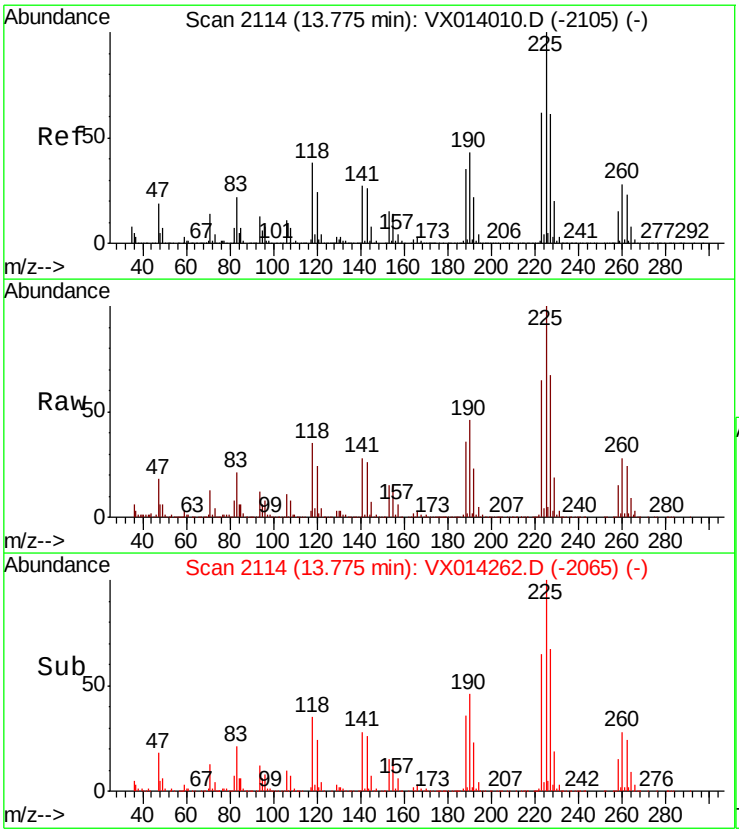


#93
1,2,4-Trichlorobenzene
Concen: 19.148 ug/l
RT: 13.64 min Scan# 2092
Delta R.T. 0.00 min
Lab File: VX014262.D
Acq: 26 Dec 2019 12:18

Tgt Ion:180 Resp: 140822

Ion	Ratio	Lower	Upper
180	100		
182	94.4	46.6	139.8
145	27.8	14.2	42.6

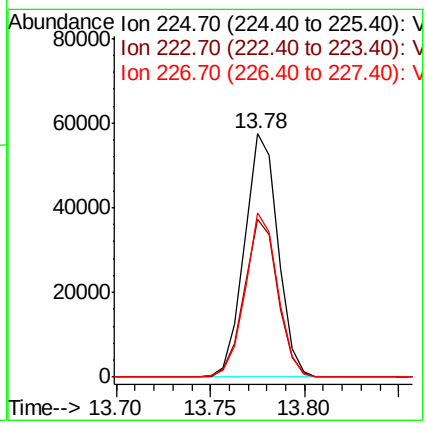




#94
Hexachlorobutadiene
Concen: 19.990 ug/l
RT: 13.78 min Scan# 2114
Delta R.T. 0.00 min
Lab File: VX014262.D
Acq: 26 Dec 2019 12:18

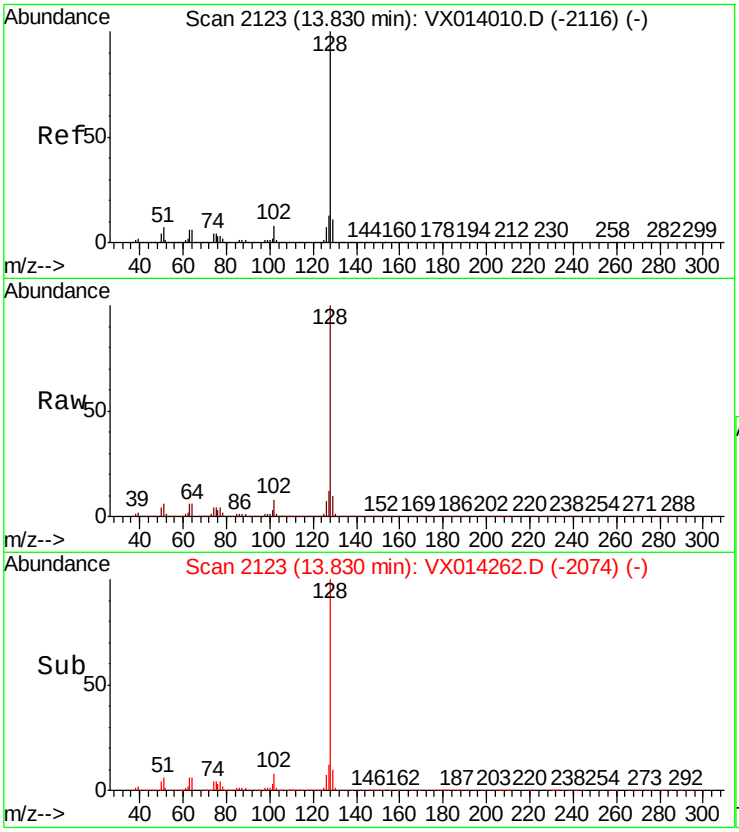
Tgt Ion:225 Resp: 70656

Ion	Ratio	Lower	Upper
225	100		
223	65.1	30.9	92.5
227	65.2	30.9	92.7



Instrument :
MSVOA_X
ClientSampleId :
VX1226WBS01

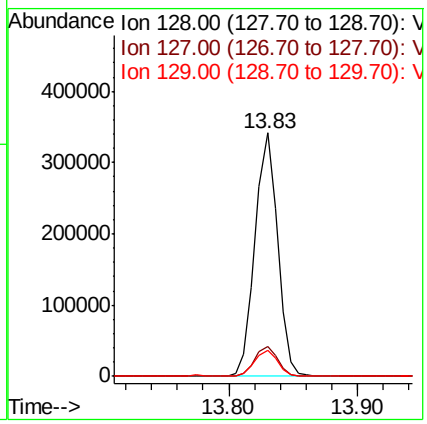
Manual Integrations APPROVED
apatel
12/27/2019 12:03:06 PM

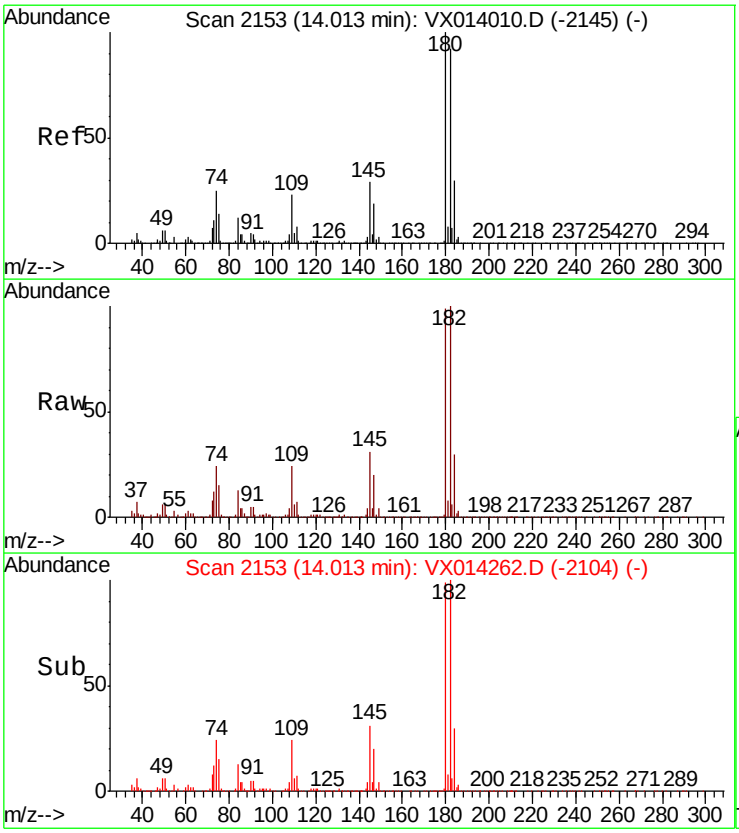


#95
Naphthalene
Concen: 19.023 ug/l
RT: 13.83 min Scan# 2123
Delta R.T. 0.00 min
Lab File: VX014262.D
Acq: 26 Dec 2019 12:18

Tgt Ion:128 Resp: 411043

Ion	Ratio	Lower	Upper
128	100		
127	12.9	10.2	15.4
129	11.0	8.7	13.1

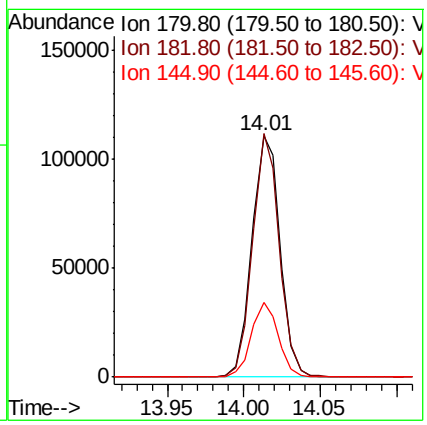




#96
1,2,3-Trichlorobenzene
Concen: 19.453 ug/l
RT: 14.01 min Scan# 2153
Delta R.T. 0.00 min
Lab File: VX014262.D
Acq: 26 Dec 2019 12:18

Tgt Ion:180 Resp: 141224

Ion	Ratio	Lower	Upper
180	100		
182	95.8	46.8	140.3
145	29.6	14.8	44.4



CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Day Environmental, Inc.	Date Collected:	
Project:	Andrew St. RI	Date Received:	
Client Sample ID:	VX1227WBS01	SDG No.:	K6405
Lab Sample ID:	VX1227WBS01	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	DB-624UI ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX014304.D	1		12/27/19 13:15	VX122719

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
75-71-8	Dichlorodifluoromethane	16.2		0.22	1.00	ug/L
74-87-3	Chloromethane	17.6		0.30	1.00	ug/L
75-01-4	Vinyl Chloride	17.5		0.16	1.00	ug/L
74-83-9	Bromomethane	15.7		2.10	5.00	ug/L
75-00-3	Chloroethane	19.0		0.34	1.00	ug/L
75-69-4	Trichlorofluoromethane	18.4		0.16	1.00	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	18.8		0.21	1.00	ug/L
75-35-4	1,1-Dichloroethene	17.4		0.18	1.00	ug/L
67-64-1	Acetone	81.1		0.90	5.00	ug/L
75-15-0	Carbon Disulfide	16.4		0.23	1.00	ug/L
1634-04-4	Methyl tert-butyl Ether	18.8		0.070	1.00	ug/L
79-20-9	Methyl Acetate	18.8		0.65	1.00	ug/L
75-09-2	Methylene Chloride	17.9		0.33	1.00	ug/L
156-60-5	trans-1,2-Dichloroethene	17.5		0.24	1.00	ug/L
75-34-3	1,1-Dichloroethane	18.8		0.17	1.00	ug/L
110-82-7	Cyclohexane	18.1		1.20	5.00	ug/L
78-93-3	2-Butanone	89.8		0.71	5.00	ug/L
56-23-5	Carbon Tetrachloride	18.5		0.22	1.00	ug/L
156-59-2	cis-1,2-Dichloroethene	18.4		0.30	1.00	ug/L
74-97-5	Bromochloromethane	21.7		0.31	1.00	ug/L
67-66-3	Chloroform	19.0		0.14	1.00	ug/L
71-55-6	1,1,1-Trichloroethane	18.0		0.12	1.00	ug/L
108-87-2	Methylcyclohexane	18.4		0.17	1.00	ug/L
71-43-2	Benzene	18.8		0.10	1.00	ug/L
107-06-2	1,2-Dichloroethane	18.7		0.13	1.00	ug/L
79-01-6	Trichloroethene	18.5		0.27	1.00	ug/L
78-87-5	1,2-Dichloropropane	19.1		0.14	1.00	ug/L
75-27-4	Bromodichloromethane	18.5		0.10	1.00	ug/L
108-10-1	4-Methyl-2-Pentanone	93.3		0.85	5.00	ug/L
108-88-3	Toluene	18.5		0.12	1.00	ug/L
10061-02-6	t-1,3-Dichloropropene	18.8		0.19	1.00	ug/L
10061-01-5	cis-1,3-Dichloropropene	19.0		0.16	1.00	ug/L

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Day Environmental, Inc.	Date Collected:	
Project:	Andrew St. RI	Date Received:	
Client Sample ID:	VX1227WBS01	SDG No.:	K6405
Lab Sample ID:	VX1227WBS01	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	DB-624UI ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX014304.D	1		12/27/19 13:15	VX122719

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
79-00-5	1,1,2-Trichloroethane	19.1		0.12	1.00	ug/L
591-78-6	2-Hexanone	90.7		1.40	5.00	ug/L
124-48-1	Dibromochloromethane	18.8		0.16	1.00	ug/L
106-93-4	1,2-Dibromoethane	19.2		0.14	1.00	ug/L
127-18-4	Tetrachloroethene	19.6		0.15	1.00	ug/L
108-90-7	Chlorobenzene	18.5		0.080	1.00	ug/L
100-41-4	Ethyl Benzene	18.9		0.080	1.00	ug/L
179601-23-1	m/p-Xylenes	37.8		0.20	2.00	ug/L
95-47-6	o-Xylene	18.6		0.13	1.00	ug/L
100-42-5	Styrene	18.6		0.11	1.00	ug/L
75-25-2	Bromoform	18.0		0.15	1.00	ug/L
98-82-8	Isopropylbenzene	19.3		0.13	1.00	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	18.6		0.15	1.00	ug/L
541-73-1	1,3-Dichlorobenzene	18.5		0.14	1.00	ug/L
106-46-7	1,4-Dichlorobenzene	18.3		0.20	1.00	ug/L
95-50-1	1,2-Dichlorobenzene	18.2		0.12	1.00	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	16.2		0.54	1.00	ug/L
120-82-1	1,2,4-Trichlorobenzene	18.4		0.24	1.00	ug/L
87-61-6	1,2,3-Trichlorobenzene	19.2		0.26	1.00	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	49.1		61 - 141	98%	SPK: 50
1868-53-7	Dibromofluoromethane	50.7		69 - 133	101%	SPK: 50
2037-26-5	Toluene-d8	50.0		65 - 126	100%	SPK: 50
460-00-4	4-Bromofluorobenzene	48.4		58 - 135	97%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	502000	5.65			
540-36-3	1,4-Difluorobenzene	756000	6.85			
3114-55-4	Chlorobenzene-d5	676000	10.1			
3855-82-1	1,4-Dichlorobenzene-d4	335000	12.07			

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Day Environmental, Inc.	Date Collected:	
Project:	Andrew St. RI	Date Received:	
Client Sample ID:	VX1227WBS01	SDG No.:	K6405
Lab Sample ID:	VX1227WBS01	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	DB-624UI ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX014304.D	1		12/27/19 13:15	VX122719

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit
A = Aldol-Condensation Reaction Products

Quantitation Report (QT Reviewed)

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX122719\
Data File : VX014304.D
Acq On : 27 Dec 2019 13:15
Operator : JC/SP
Sample : VX1227WBS01
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Dec 30 05:55:39 2019
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121319W.M
Quant Title : SW846 8260
QLast Update : Tue Dec 17 03:01:07 2019
Response via : Initial Calibration

Instrument : MSVOA_X
ClientSampleId : VX1227WBS01

Manual Integrations APPROVED
apatel
12/30/2019 11:04:11 AM

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	5.65	168	502000	50.00	ug/l	0.00
34) 1,4-Difluorobenzene	6.85	114	756236	50.00	ug/l	0.00
63) Chlorobenzene-d5	10.10	117	675604	50.00	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	12.07	152	335091	50.00	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	6.05	65	279188	49.07	ug/l	0.00
Spiked Amount 50.000			Recovery = 98.14%			
35) Dibromofluoromethane	5.48	113	232910	50.66	ug/l	0.00
Spiked Amount 50.000			Recovery = 101.32%			
50) Toluene-d8	8.71	98	895499	50.03	ug/l	0.00
Spiked Amount 50.000			Recovery = 100.06%			
62) 4-Bromofluorobenzene	11.13	95	316921	48.44	ug/l	0.00
Spiked Amount 50.000			Recovery = 96.88%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.19	85	72939	16.241	ug/l	99
3) Chloromethane	1.32	50	106172	17.616	ug/l	99
4) Vinyl Chloride	1.40	62	111335	17.507	ug/l	98
5) Bromomethane	1.63	94	70812	15.688	ug/l	97
6) Chloroethane	1.72	64	74614	19.010	ug/l	98
7) Trichlorofluoromethane	1.92	101	144581	18.365	ug/l	99
8) Diethyl Ether	2.18	74	68900	18.648	ug/l	99
9) 1,1,2-Trichlorotrifluoroet	2.38	101	89297	18.817	ug/l	99
10) Methyl Iodide	2.50	142	91746	16.512	ug/l	99
11) Tert butyl alcohol	3.02	59	102701	83.540	ug/l	98
12) 1,1-Dichloroethene	2.37	96	84094	17.415	ug/l	99
13) Acrolein	2.28	56	65112	92.524	ug/l	97
14) Allyl chloride	2.72	41	159837	18.538	ug/l	98
15) Acrylonitrile	3.12	53	272307	94.899	ug/l	98
16) Acetone	2.43	43	299472	81.077	ug/l	99
17) Carbon Disulfide	2.56	76	213580	16.443	ug/l	99
18) Methyl Acetate	2.76	43	137554	18.794	ug/l	98
19) Methyl tert-butyl Ether	3.18	73	298610	18.818	ug/l	97
20) Methylene Chloride	2.84	84	104225	17.919	ug/l	98
21) trans-1,2-Dichloroethene	3.15	96	93026	17.486	ug/l	95
22) Diisopropyl ether	3.84	45	337578	19.648	ug/l	91
23) Vinyl Acetate	3.80	43	1376601	98.182	ug/l	100
24) 1,1-Dichloroethane	3.69	63	179965	18.827	ug/l	99
25) 2-Butanone	4.65	43	408777	89.764	ug/l	96
26) 2,2-Dichloropropane	4.56	77	138158	18.615	ug/l	98
27) cis-1,2-Dichloroethene	4.58	96	110920	18.436	ug/l	99
28) Bromochloromethane	5.00	49	78966	21.739	ug/l	96
29) Tetrahydrofuran	5.11	42	239111	93.876	ug/l	99
30) Chloroform	5.20	83	172043	18.986	ug/l	99
31) Cyclohexane	5.57	56	154089	18.124	ug/l	99
32) 1,1,1-Trichloroethane	5.48	97	139166	18.020	ug/l	99
36) 1,1-Dichloropropene	5.79	75	125643	18.107	ug/l	99
37) Ethyl Acetate	4.81	43	146823	19.161	ug/l	99
38) Carbon Tetrachloride	5.78	117	117060	18.518	ug/l	99

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX122719\
Data File : VX014304.D
Acq On : 27 Dec 2019 13:15
Operator : JC/SP
Sample : VX1227WBS01
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 4 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
VX1227WBS01

Manual Integrations APPROVED
apatel
12/30/2019 11:04:11 AM

Quant Time: Dec 30 05:55:39 2019
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121319W.M
Quant Title : SW846 8260
QLast Update : Tue Dec 17 03:01:07 2019
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
39) Methylcyclohexane	7.45	83	158060	18.448	ug/l		98
40) Benzene	6.13	78	400895	18.777	ug/l		100
41) Methacrylonitrile	5.03	41	81690	19.214	ug/l		98
42) 1,2-Dichloroethane	6.18	62	135193	18.680	ug/l		99
43) Isopropyl Acetate	6.43	43	236159	18.623	ug/l		100
44) Trichloroethene	7.20	130	109283	18.532	ug/l		94
45) 1,2-Dichloropropane	7.51	63	104719	19.136	ug/l		97
46) Dibromomethane	7.65	93	66455	18.368	ug/l		99
47) Bromodichloromethane	7.89	83	126077	18.503	ug/l		98
48) Methyl methacrylate	7.76	41	114374	18.419	ug/l		99
49) 1,4-Dioxane	7.73	88	42618	337.258	ug/l		95
51) 4-Methyl-2-Pentanone	8.63	43	743342	93.339	ug/l		99
52) Toluene	8.78	92	249620	18.498	ug/l		99
53) t-1,3-Dichloropropene	9.03	75	140325	18.781	ug/l		100
54) cis-1,3-Dichloropropene	8.43	75	157749	18.952	ug/l		97
55) 1,1,2-Trichloroethane	9.21	97	103324	19.104	ug/l		99
56) Ethyl methacrylate	9.17	69	155302	18.280	ug/l		99
57) 1,3-Dichloropropane	9.36	76	172450	18.951	ug/l		98
58) 2-Chloroethyl Vinyl ether	8.30	63	327178	101.761	ug/l		99
59) 2-Hexanone	9.48	43	581761	90.744	ug/l		100
60) Dibromochloromethane	9.57	129	101232	18.830	ug/l		100
61) 1,2-Dibromoethane	9.67	107	105994	19.154	ug/l		98
64) Tetrachloroethene	9.33	164	117215	19.607	ug/l		98
65) Chlorobenzene	10.14	112	265338	18.471	ug/l		97
66) 1,1,1,2-Tetrachloroethane	10.21	131	95733	18.665	ug/l		100
67) Ethyl Benzene	10.24	91	467925	18.947	ug/l		100
68) m/p-Xylenes	10.35	106	358602	37.753	ug/l		100
69) o-Xylene	10.70	106	172906	18.560	ug/l		98
70) Styrene	10.71	104	293024	18.601	ug/l		99
71) Bromoform	10.85	173	74032	17.956	ug/l	#	100
73) Isopropylbenzene	11.01	105	456059	19.330	ug/l		99
74) N-amyl acetate	10.89	43	200215	18.104	ug/l		99
75) 1,1,2,2-Tetrachloroethane	11.26	83	151896	18.570	ug/l		98
76) 1,2,3-Trichloropropane	11.29	75	125481m	17.249	ug/l		
77) Bromobenzene	11.25	156	118787	18.299	ug/l		98
78) n-propylbenzene	11.35	91	518456	19.591	ug/l		100
79) 2-Chlorotoluene	11.42	91	309572	19.244	ug/l		98
80) 1,3,5-Trimethylbenzene	11.50	105	383872	19.333	ug/l		100
81) trans-1,4-Dichloro-2-buten	11.07	75	45707	17.734	ug/l		92
82) 4-Chlorotoluene	11.51	91	355142	19.032	ug/l		99
83) tert-Butylbenzene	11.76	119	360175	18.640	ug/l		99
84) 1,2,4-Trimethylbenzene	11.80	105	384678	19.346	ug/l		100
85) sec-Butylbenzene	11.94	105	448109	19.644	ug/l		100
86) p-Isopropyltoluene	12.06	119	409125	19.607	ug/l		99
87) 1,3-Dichlorobenzene	12.02	146	211028	18.549	ug/l		99
88) 1,4-Dichlorobenzene	12.09	146	212106	18.336	ug/l		100
89) n-Butylbenzene	12.38	91	348032	19.547	ug/l		100
90) Hexachloroethane	12.59	117	67356	17.971	ug/l		99
91) 1,2-Dichlorobenzene	12.38	146	208618	18.216	ug/l		100
92) 1,2-Dibromo-3-Chloropropan	12.99	75	29301	16.188	ug/l		96

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX122719\
Data File : VX014304.D
Acq On : 27 Dec 2019 13:15
Operator : JC/SP
Sample : VX1227WBS01
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 4 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
VX1227WBS01

Manual Integrations APPROVED
apatel
12/30/2019 11:04:11 AM

Quant Time: Dec 30 05:55:39 2019
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121319W.M
Quant Title : SW846 8260
QLast Update : Tue Dec 17 03:01:07 2019
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
93) 1,2,4-Trichlorobenzene	13.64	180	136968	18.401	ug/l	97
94) Hexachlorobutadiene	13.77	225	70352	19.666	ug/l	99
95) Naphthalene	13.83	128	404936	18.516	ug/l	100
96) 1,2,3-Trichlorobenzene	14.01	180	140764	19.157	ug/l	99

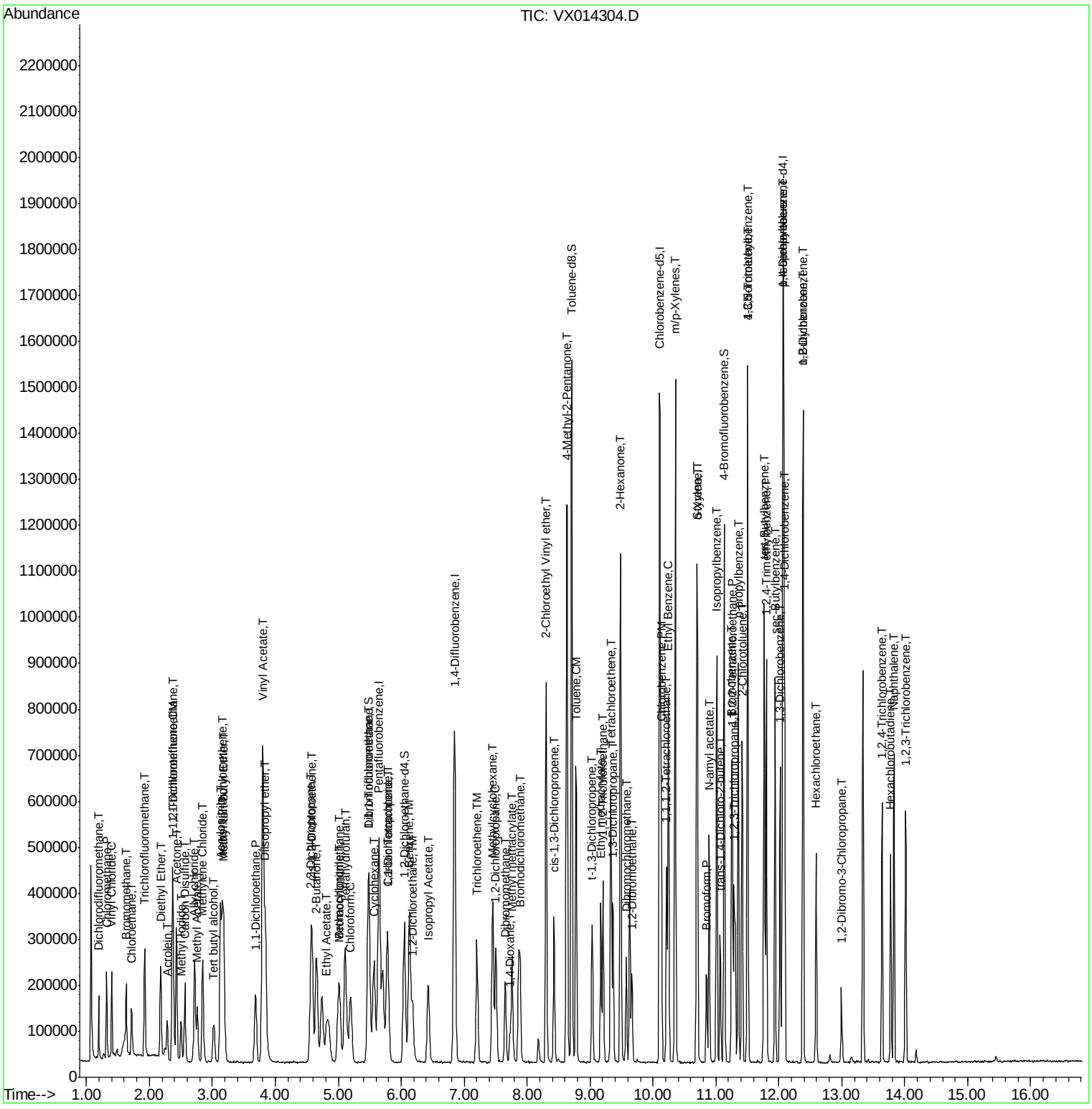
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX122719\
Data File : VX014304.D
Acq On : 27 Dec 2019 13:15
Operator : JC/SP
Sample : VX1227WBS01
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Dec 30 05:55:39 2019
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121319W.M
Quant Title : SW846 8260
QLast Update : Tue Dec 17 03:01:07 2019
Response via : Initial Calibration

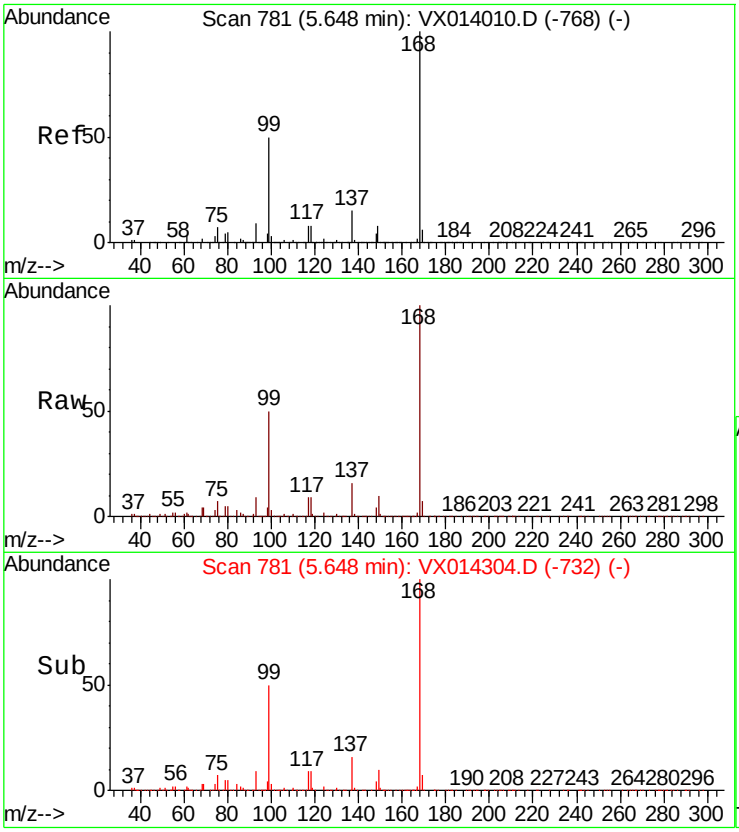
Instrument :
MSVOA_X
ClientSampleId :
VX1227WBS01

Manual Integrations APPROVED
apatel
12/30/2019 11:04:11 AM



Instrument :
MSVOA_X
ClientSampleId :
VX1227WBS01

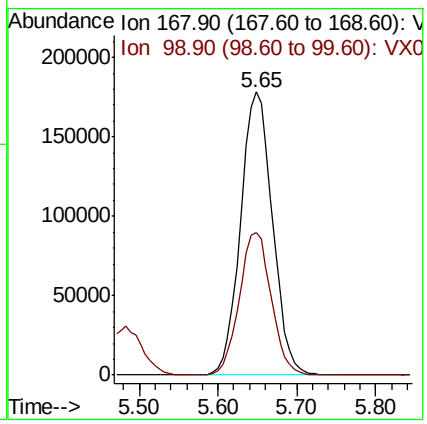
Manual Integrations APPROVED
apatel
12/30/2019 11:04:11 AM

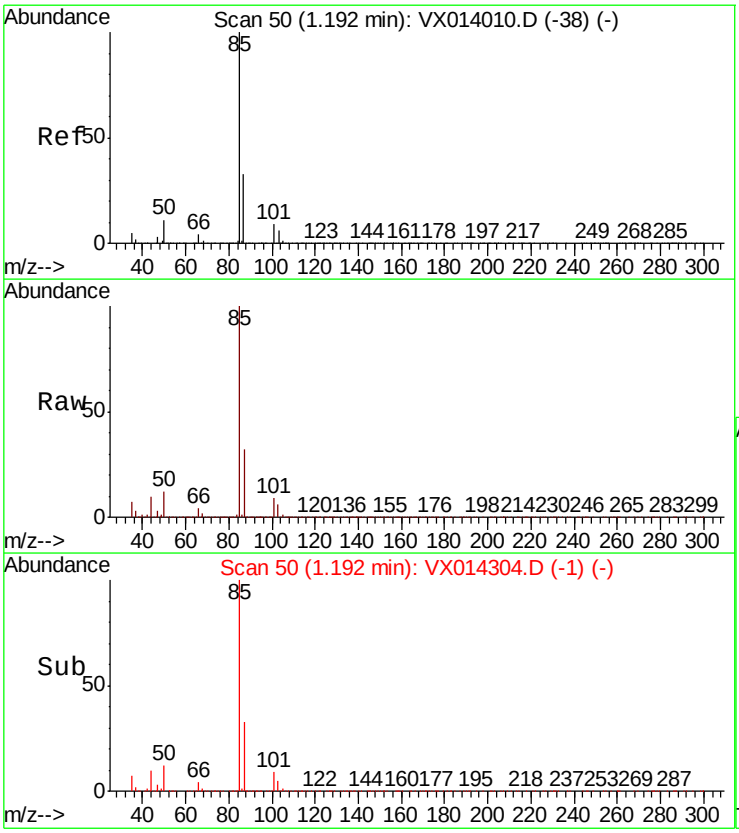


#1
Pentafluorobenzene
Concen: 50.000 ug/l
RT: 5.65 min Scan# 781
Delta R.T. -0.00 min
Lab File: VX014304.D
Acq: 27 Dec 2019 13:15

Tgt Ion:168 Resp: 502000

Ion	Ratio	Lower	Upper
168	100		
99	50.1	40.3	60.5

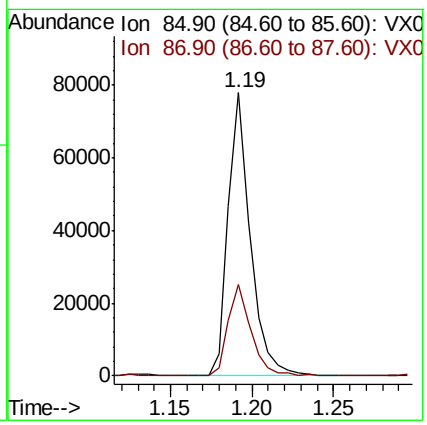




#2
Dichlorodifluoromethane
Concen: 16.241 ug/l
RT: 1.19 min Scan# 50
Delta R.T. -0.00 min
Lab File: VX014304.D
Acq: 27 Dec 2019 13:15

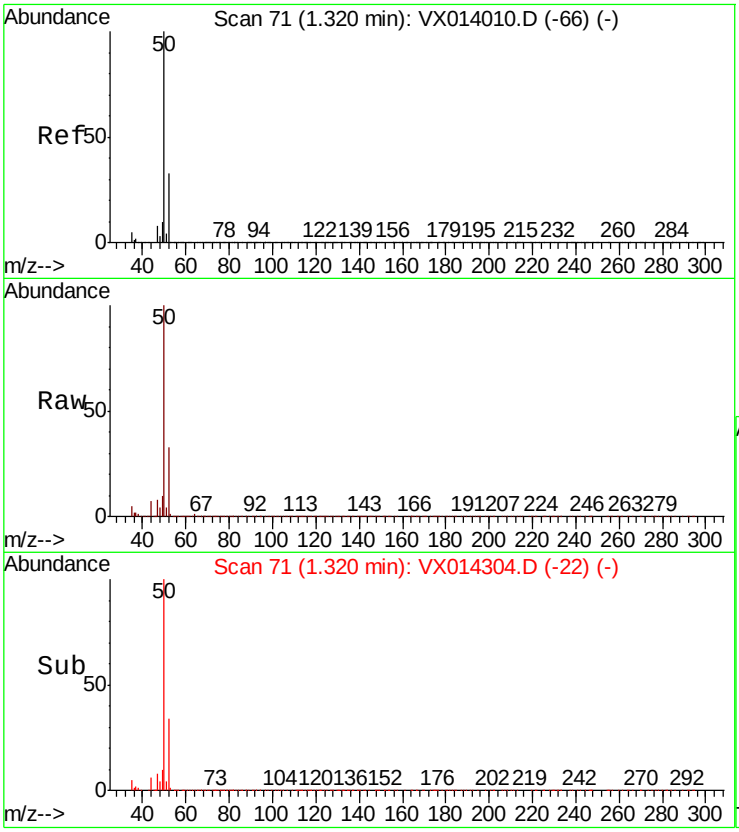
Tgt Ion: 85 Resp: 72939

Ion	Ratio	Lower	Upper
85	100		
87	32.4	16.4	49.2



Instrument :
MSVOA_X
ClientSampleId :
VX1227WBS01

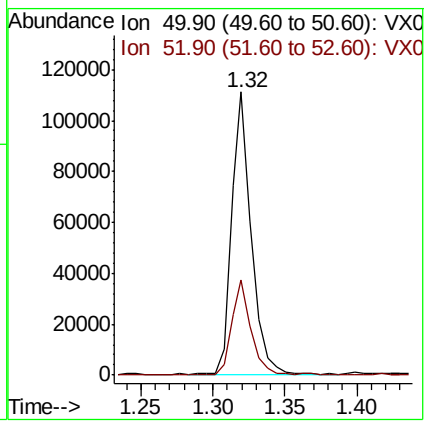
Manual Integrations APPROVED
apatel
12/30/2019 11:04:11 AM

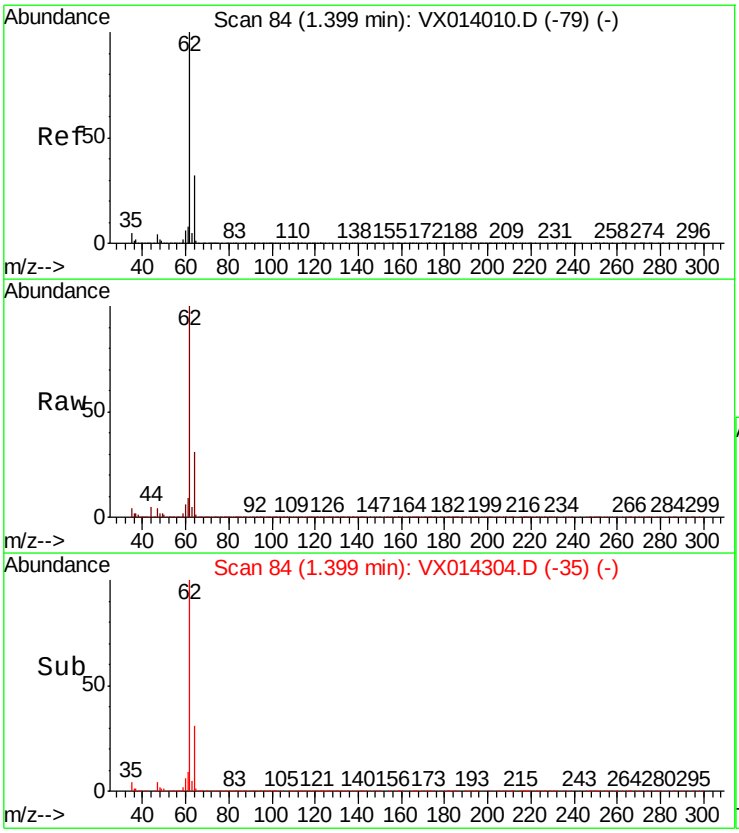


#3
Chloromethane
Concen: 17.616 ug/l
RT: 1.32 min Scan# 71
Delta R.T. -0.00 min
Lab File: VX014304.D
Acq: 27 Dec 2019 13:15

Tgt Ion: 50 Resp: 106172

Ion	Ratio	Lower	Upper
50	100		
52	33.3	26.2	39.4

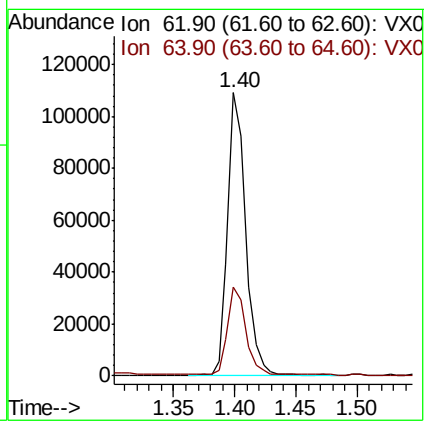




#4
Vinyl Chloride
Concen: 17.507 ug/l
RT: 1.40 min Scan# 84
Delta R.T. -0.00 min
Lab File: VX014304.D
Acq: 27 Dec 2019 13:15

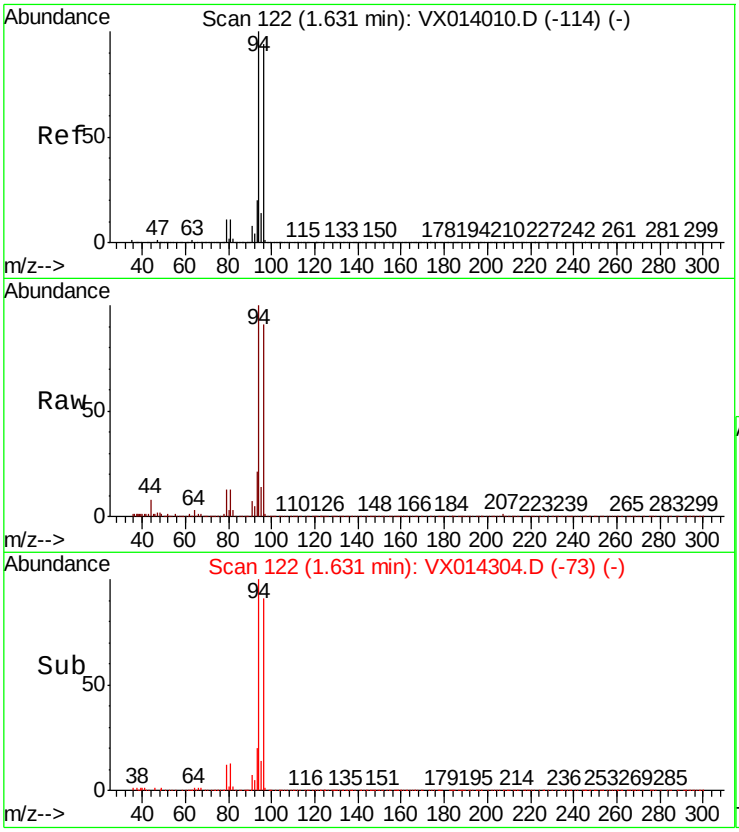
Tgt Ion: 62 Resp: 111335

Ion	Ratio	Lower	Upper
62	100		
64	31.0	25.7	38.5



Instrument :
MSVOA_X
ClientSampleId :
VX1227WBS01

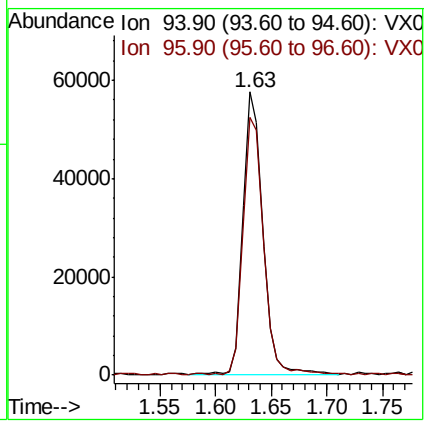
Manual Integrations APPROVED
apatel
12/30/2019 11:04:11 AM

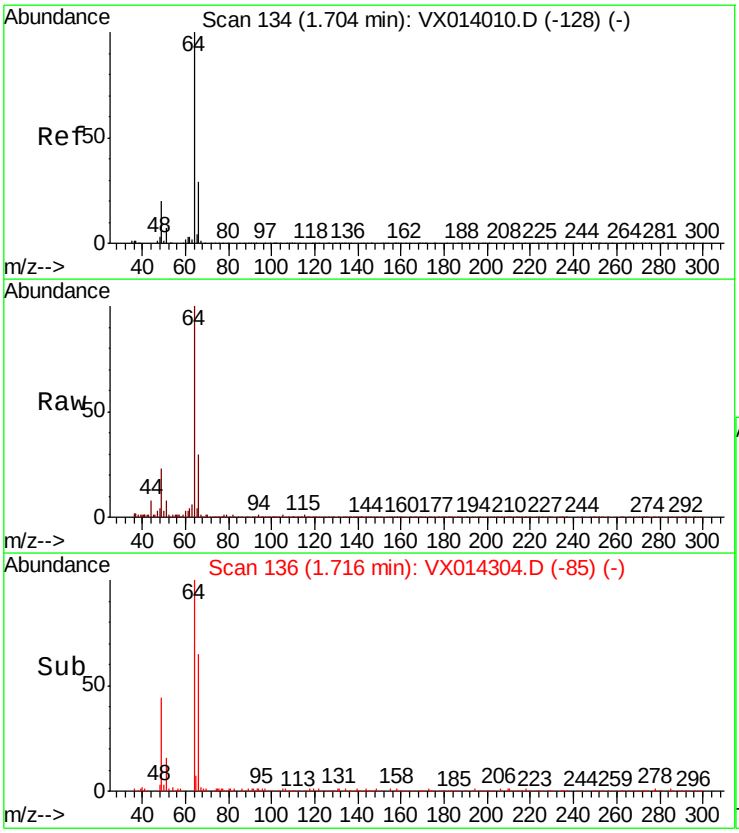


#5
Bromomethane
Concen: 15.688 ug/l
RT: 1.63 min Scan# 122
Delta R.T. -0.00 min
Lab File: VX014304.D
Acq: 27 Dec 2019 13:15

Tgt Ion: 94 Resp: 70812

Ion	Ratio	Lower	Upper
94	100		
96	91.4	75.2	112.8

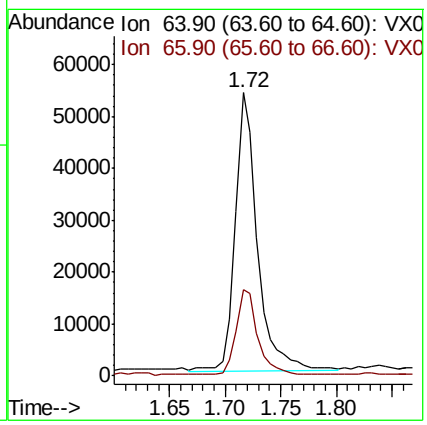




#6
Chloroethane
Concen: 19.010 ug/l
RT: 1.72 min Scan# 136
Delta R.T. 0.01 min
Lab File: VX014304.D
Acq: 27 Dec 2019 13:15

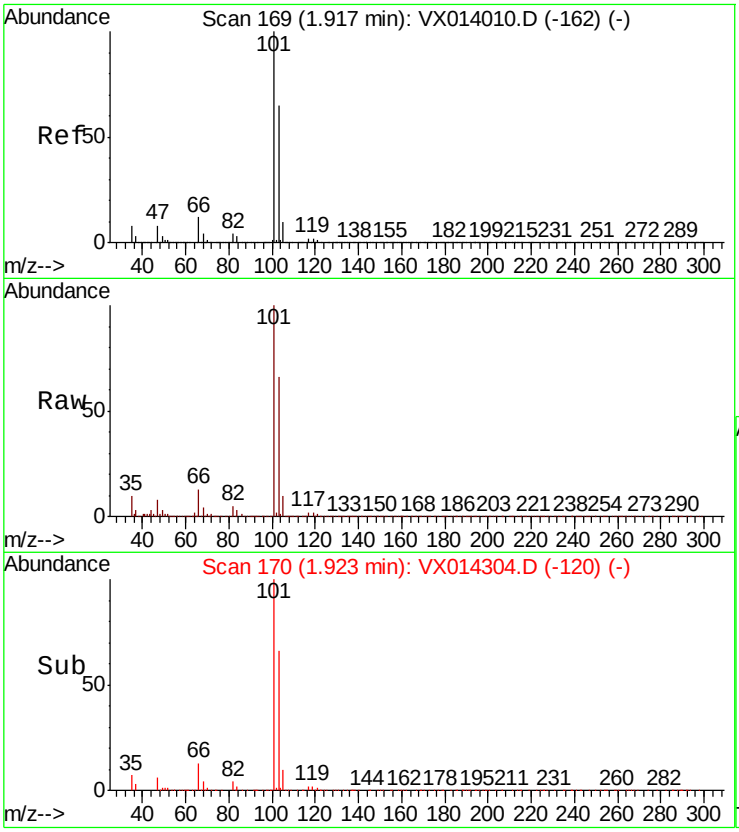
Tgt Ion: 64 Resp: 74614

Ion	Ratio	Lower	Upper
64	100		
66	30.5	23.4	35.2



Instrument :
MSVOA_X
ClientSampleId :
VX1227WBS01

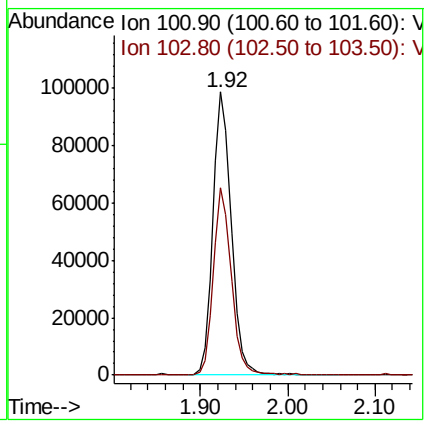
Manual Integrations APPROVED
apatel
12/30/2019 11:04:11 AM

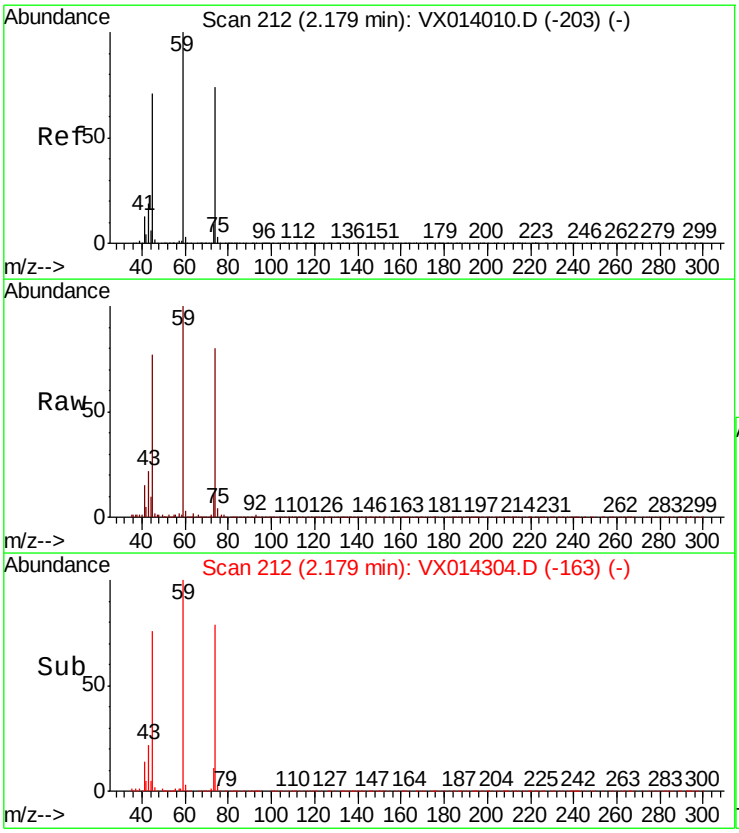


#7
Trichlorofluoromethane
Concen: 18.365 ug/l
RT: 1.92 min Scan# 170
Delta R.T. 0.01 min
Lab File: VX014304.D
Acq: 27 Dec 2019 13:15

Tgt Ion:101 Resp: 144581

Ion	Ratio	Lower	Upper
101	100		
103	66.1	52.2	78.4

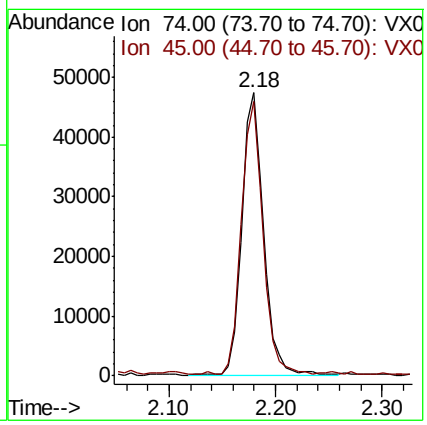




#8
Diethyl Ether
Concen: 18.648 ug/l
RT: 2.18 min Scan# 212
Delta R.T. -0.00 min
Lab File: VX014304.D
Acq: 27 Dec 2019 13:15

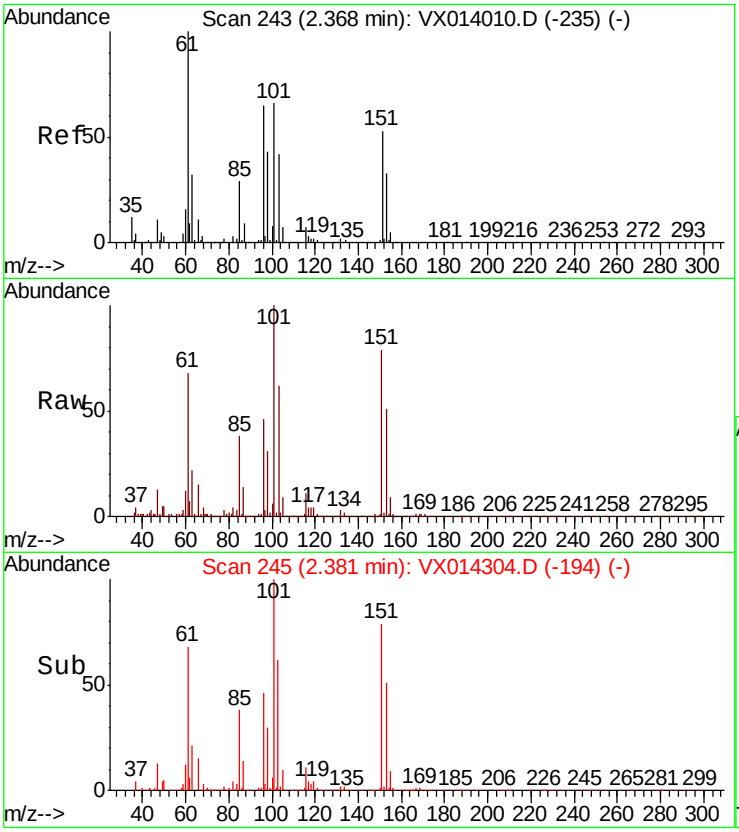
Tgt Ion: 74 Resp: 68900

Ion	Ratio	Lower	Upper
74	100		
45	94.8	48.1	144.3



Instrument :
MSVOA_X
ClientSampleId :
VX1227WBS01

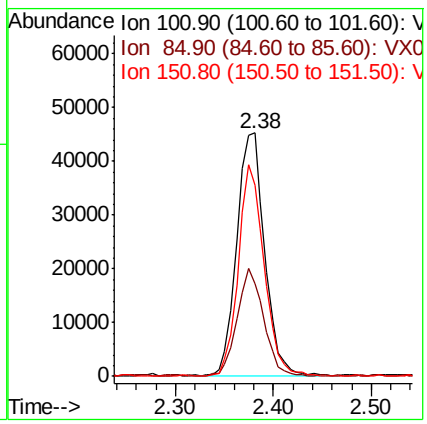
Manual Integrations APPROVED
apatel
12/30/2019 11:04:11 AM

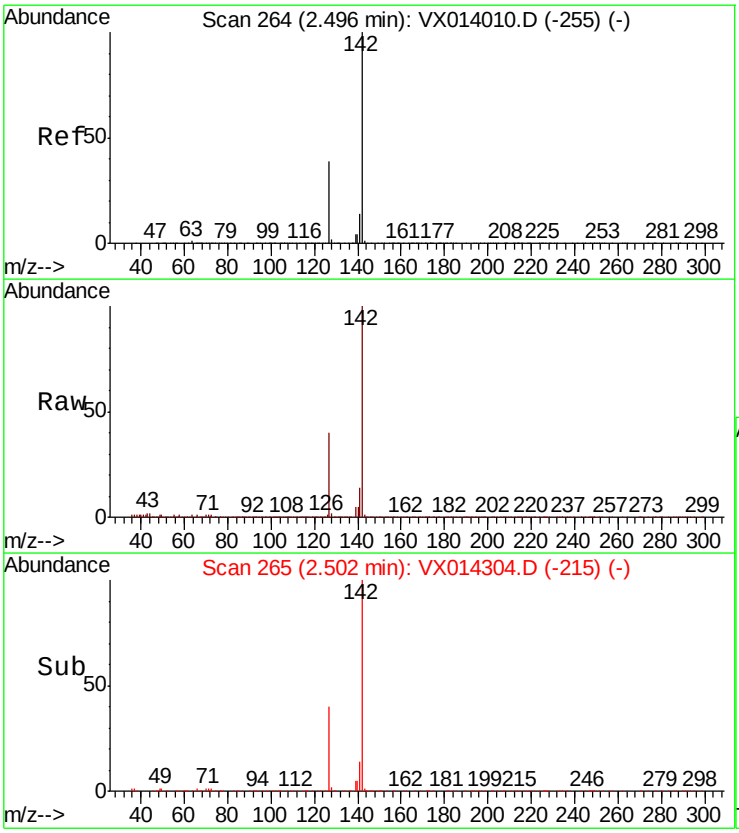


#9
1,1,2-Trichlorotrifluoroethane
Concen: 18.817 ug/l
RT: 2.38 min Scan# 245
Delta R.T. 0.01 min
Lab File: VX014304.D
Acq: 27 Dec 2019 13:15

Tgt Ion:101 Resp: 89297

Ion	Ratio	Lower	Upper
101	100		
85	41.7	33.7	50.5
151	81.2	64.5	96.7

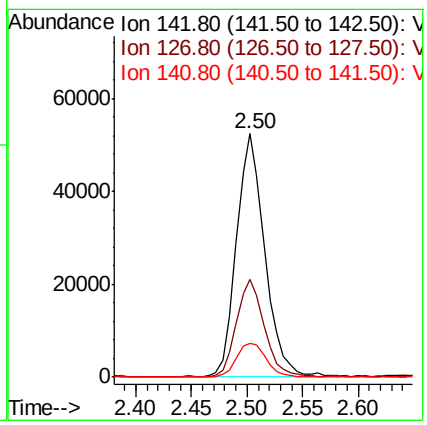




#10
Methyl Iodide
Concen: 16.512 ug/l
RT: 2.50 min Scan# 265
Delta R.T. 0.01 min
Lab File: VX014304.D
Acq: 27 Dec 2019 13:15

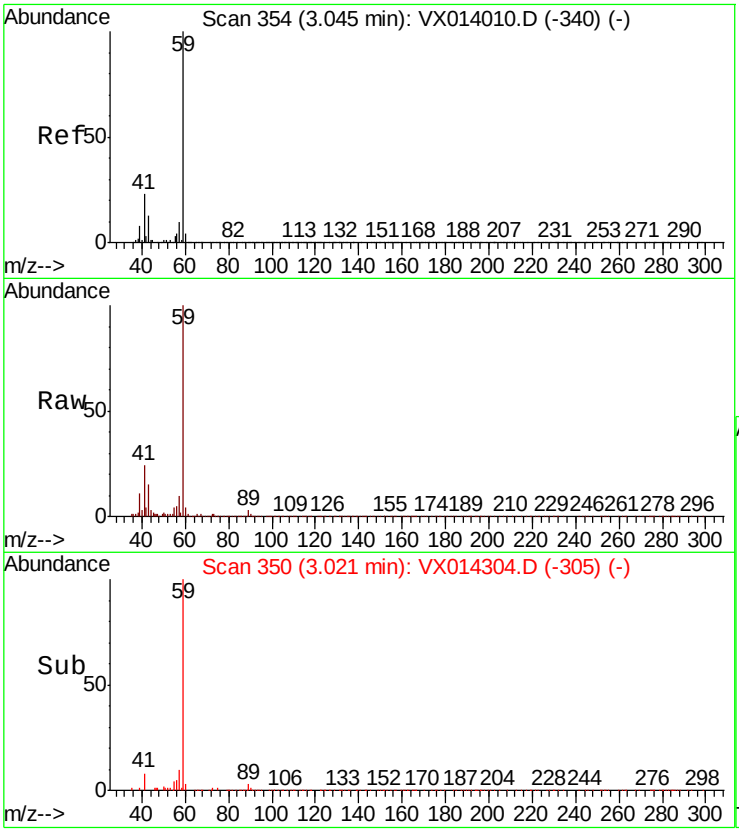
Tgt Ion:142 Resp: 91746

Ion	Ratio	Lower	Upper
142	100		
127	38.8	31.6	47.4
141	15.2	11.6	17.4



Instrument :
MSVOA_X
ClientSampleId :
VX1227WBS01

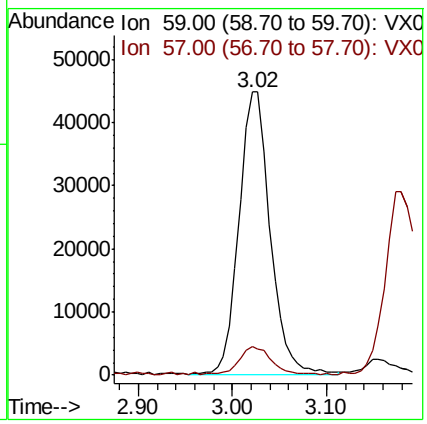
Manual Integrations APPROVED
apatel
12/30/2019 11:04:11 AM

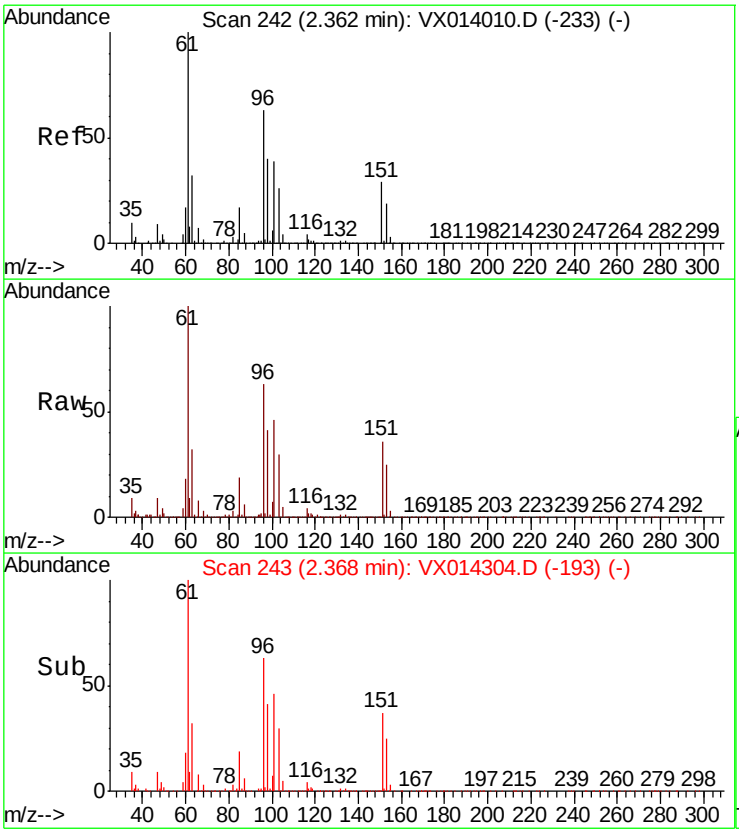


#11
Tert butyl alcohol
Concen: 83.540 ug/l
RT: 3.02 min Scan# 350
Delta R.T. -0.02 min
Lab File: VX014304.D
Acq: 27 Dec 2019 13:15

Tgt Ion: 59 Resp: 102701

Ion	Ratio	Lower	Upper
59	100		
57	9.7	8.4	12.6

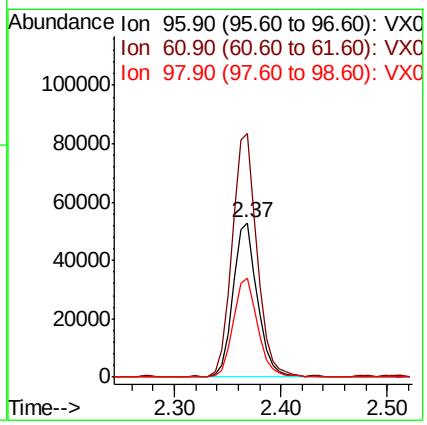




#12
1,1-Dichloroethene
Concen: 17.415 ug/l
RT: 2.37 min Scan# 243
Delta R.T. 0.01 min
Lab File: VX014304.D
Acq: 27 Dec 2019 13:15

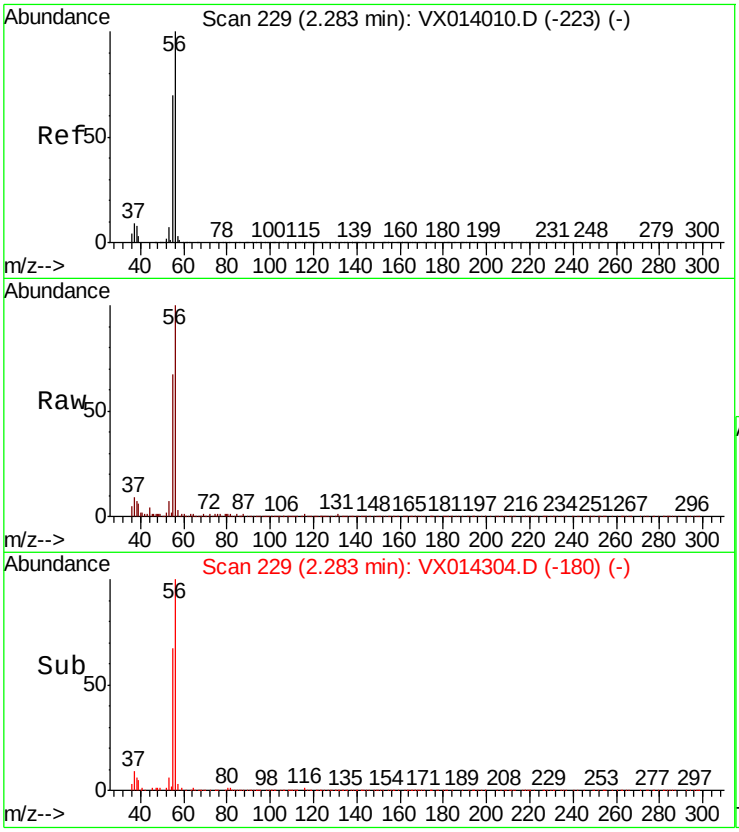
Tgt Ion: 96 Resp: 84094

Ion	Ratio	Lower	Upper
96	100		
61	158.0	127.9	191.9
98	64.3	50.5	75.7



Instrument :
MSVOA_X
ClientSampleId :
VX1227WBS01

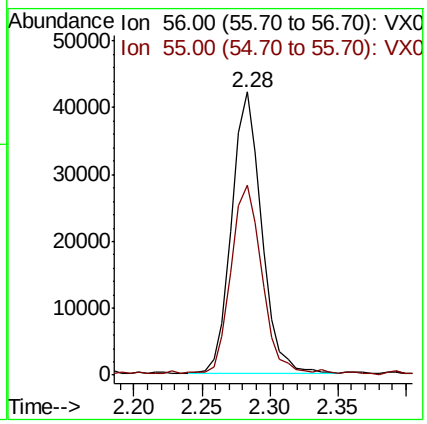
Manual Integrations APPROVED
apatel
12/30/2019 11:04:11 AM

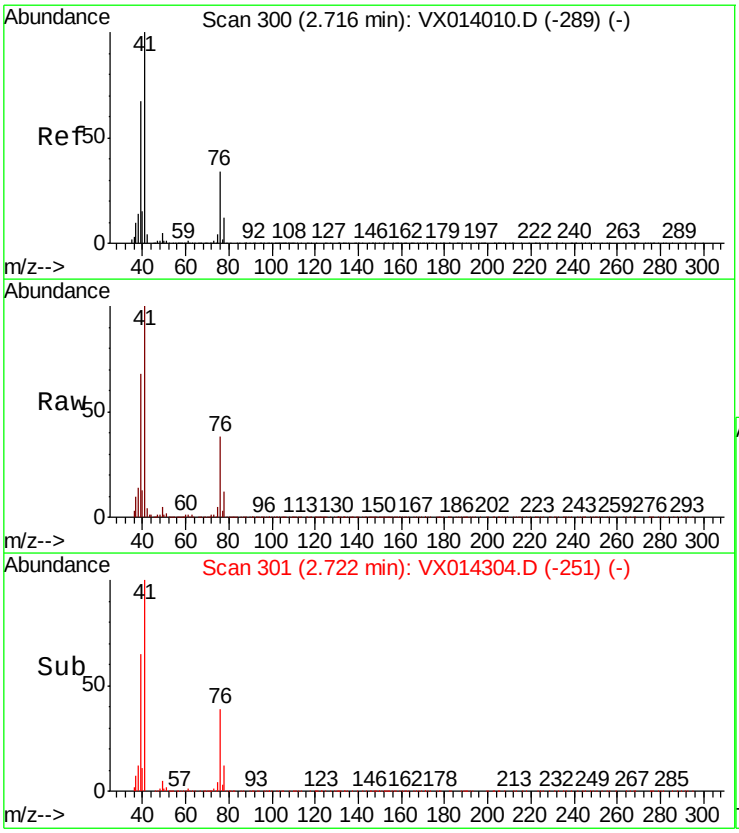


#13
Acrolein
Concen: 92.524 ug/l
RT: 2.28 min Scan# 229
Delta R.T. -0.00 min
Lab File: VX014304.D
Acq: 27 Dec 2019 13:15

Tgt Ion: 56 Resp: 65112

Ion	Ratio	Lower	Upper
56	100		
55	68.7	56.9	85.3

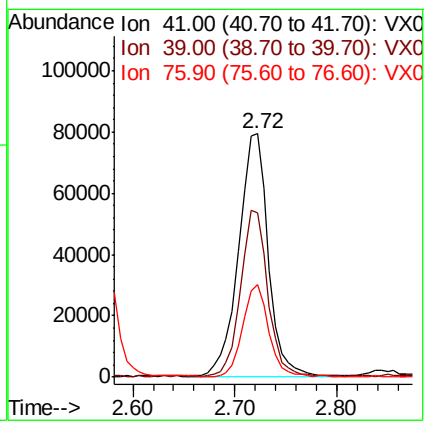




#14
Allyl chloride
Concen: 18.538 ug/l
RT: 2.72 min Scan# 301
Delta R.T. 0.01 min
Lab File: VX014304.D
Acq: 27 Dec 2019 13:15

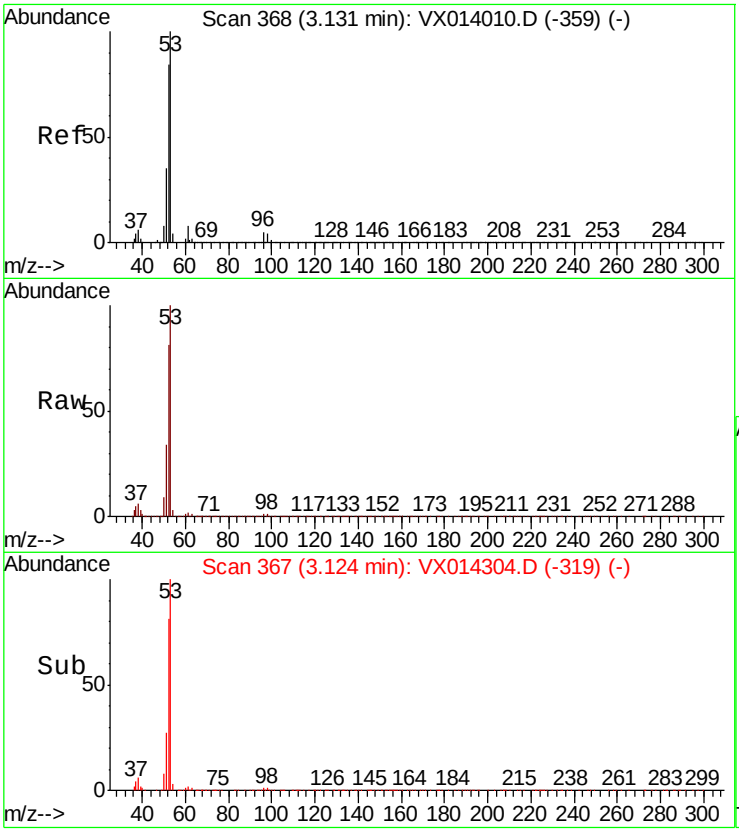
Tgt Ion: 41 Resp: 159837

Ion	Ratio	Lower	Upper
41	100		
39	62.9	51.8	77.8
76	32.6	25.9	38.9



Instrument :
MSVOA_X
ClientSampleId :
VX1227WBS01

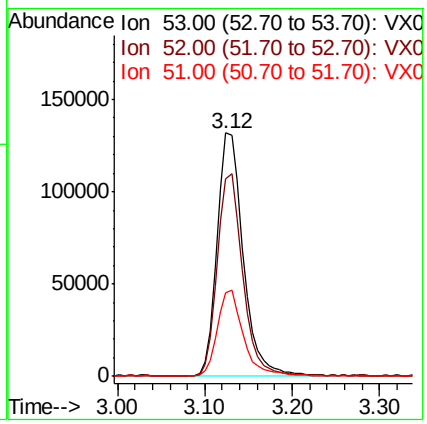
Manual Integrations APPROVED
apatel
12/30/2019 11:04:11 AM

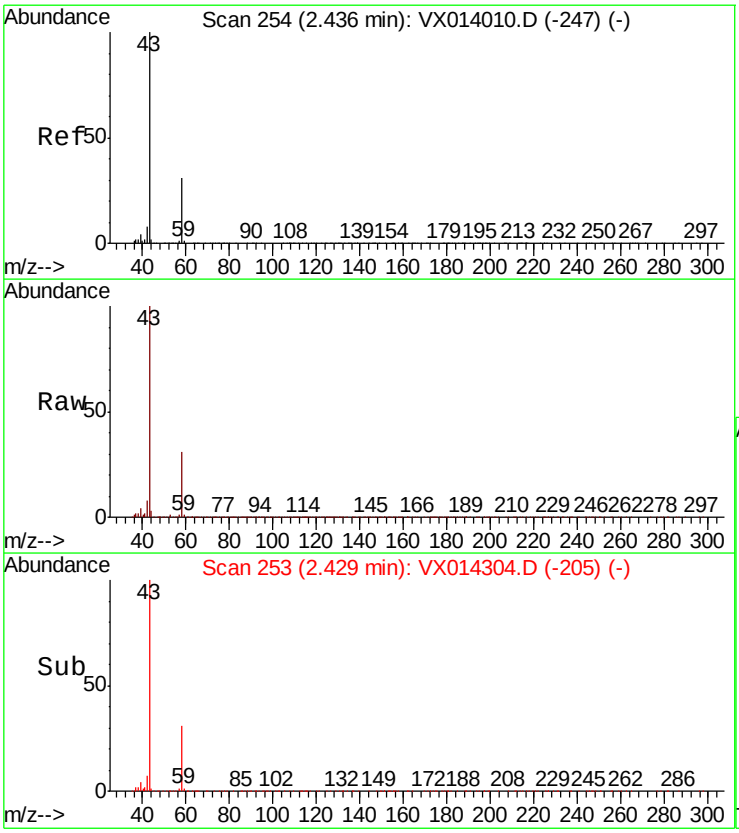


#15
Acrylonitrile
Concen: 94.899 ug/l
RT: 3.12 min Scan# 367
Delta R.T. -0.01 min
Lab File: VX014304.D
Acq: 27 Dec 2019 13:15

Tgt Ion: 53 Resp: 272307

Ion	Ratio	Lower	Upper
53	100		
52	81.2	66.5	99.7
51	35.9	28.1	42.1

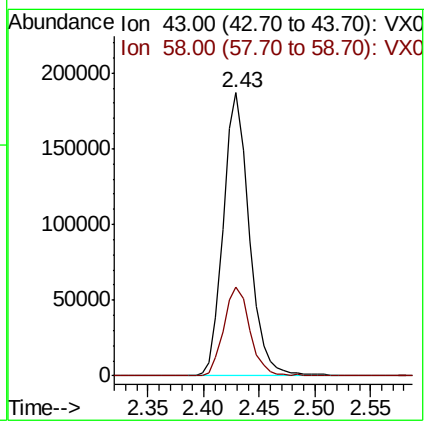




#16
Acetone
Concen: 81.077 ug/l
RT: 2.43 min Scan# 253
Delta R.T. -0.01 min
Lab File: VX014304.D
Acq: 27 Dec 2019 13:15

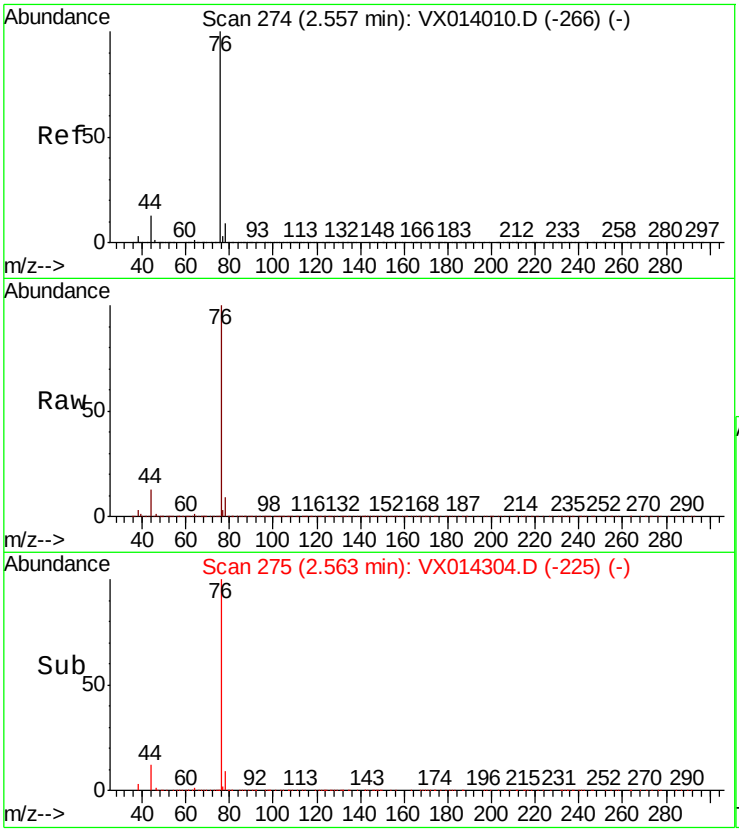
Tgt Ion: 43 Resp: 299472

Ion	Ratio	Lower	Upper
43	100		
58	31.4	24.9	37.3



Instrument :
MSVOA_X
ClientSampleId :
VX1227WBS01

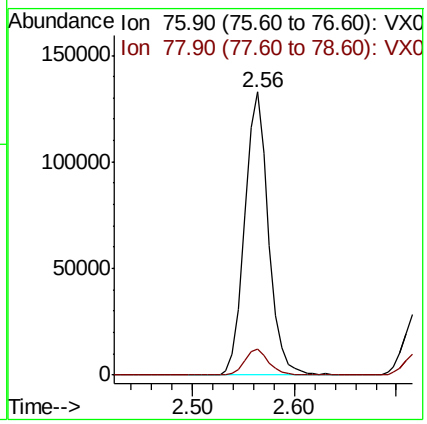
Manual Integrations APPROVED
apatel
12/30/2019 11:04:11 AM

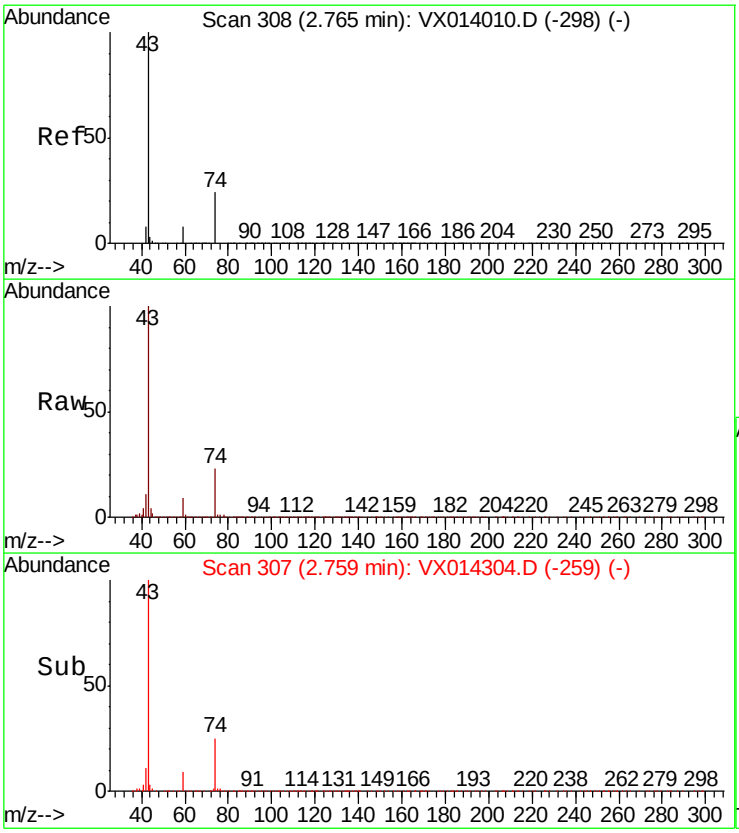


#17
Carbon Disulfide
Concen: 16.443 ug/l
RT: 2.56 min Scan# 275
Delta R.T. 0.01 min
Lab File: VX014304.D
Acq: 27 Dec 2019 13:15

Tgt Ion: 76 Resp: 213580

Ion	Ratio	Lower	Upper
76	100		
78	9.2	7.2	10.8

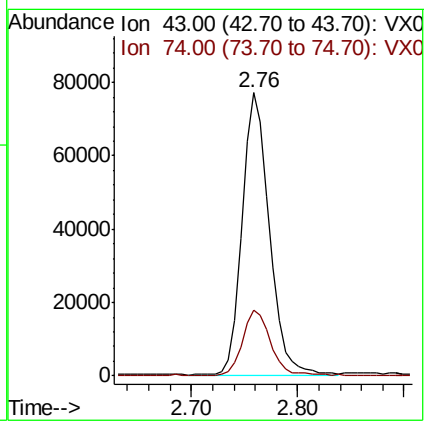




#18
Methyl Acetate
Concen: 18.794 ug/l
RT: 2.76 min Scan# 307
Delta R.T. -0.01 min
Lab File: VX014304.D
Acq: 27 Dec 2019 13:15

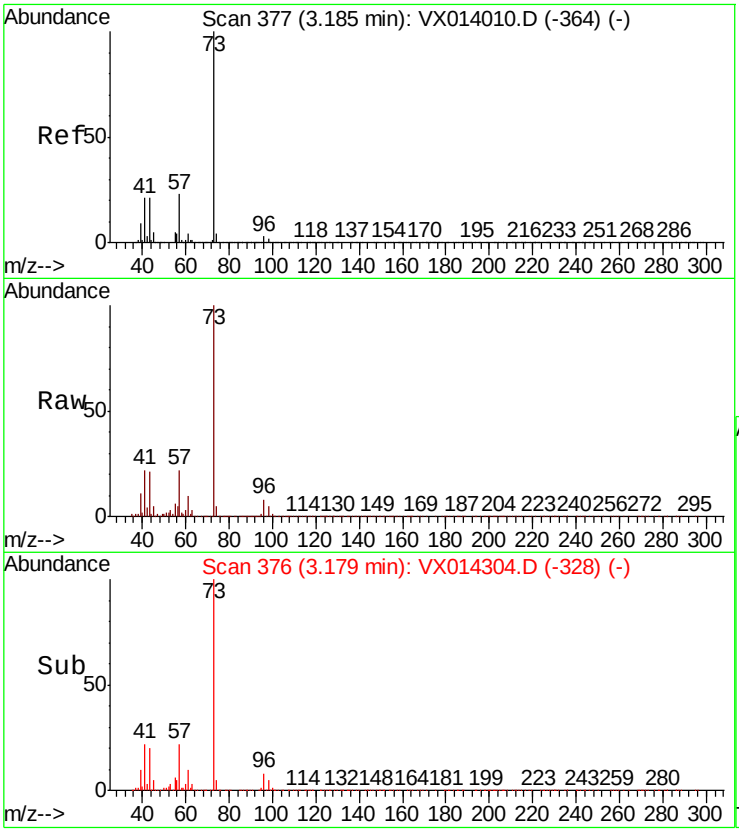
Tgt Ion: 43 Resp: 137554

Ion	Ratio	Lower	Upper
43	100		
74	23.4	19.5	29.3



Instrument :
MSVOA_X
ClientSampleId :
VX1227WBS01

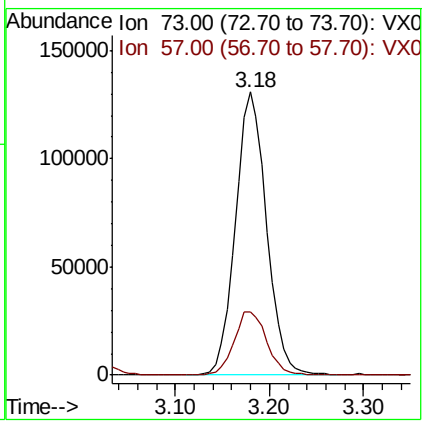
Manual Integrations APPROVED
apatel
12/30/2019 11:04:11 AM

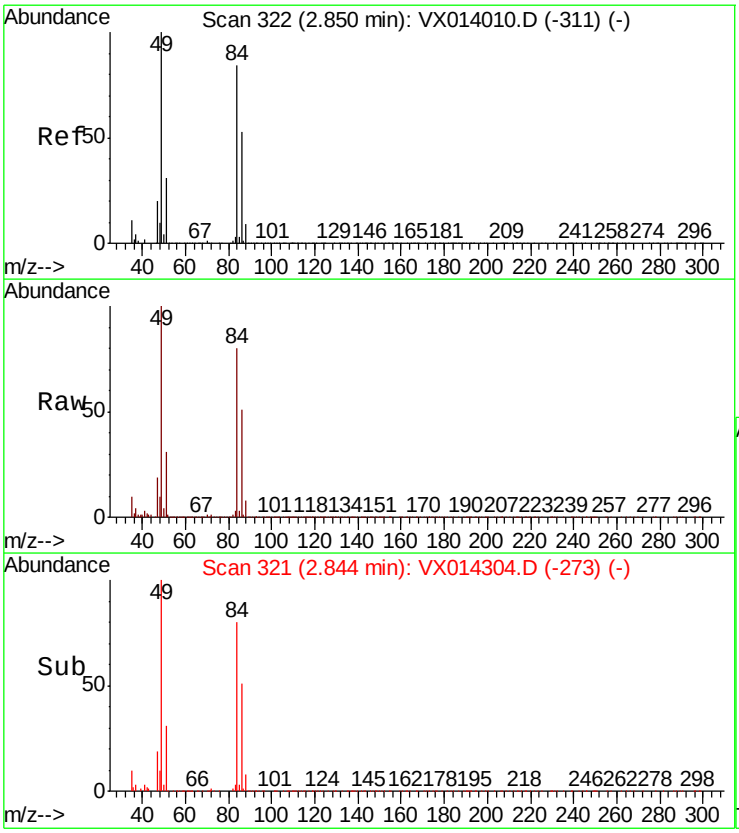


#19
Methyl tert-butyl Ether
Concen: 18.818 ug/l
RT: 3.18 min Scan# 376
Delta R.T. -0.01 min
Lab File: VX014304.D
Acq: 27 Dec 2019 13:15

Tgt Ion: 73 Resp: 298610

Ion	Ratio	Lower	Upper
73	100		
57	22.2	18.8	28.2

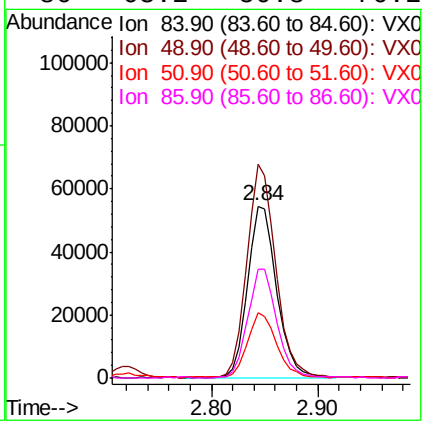




#20
Methylene Chloride
Concen: 17.919 ug/l
RT: 2.84 min Scan# 321
Delta R.T. -0.01 min
Lab File: VX014304.D
Acq: 27 Dec 2019 13:15

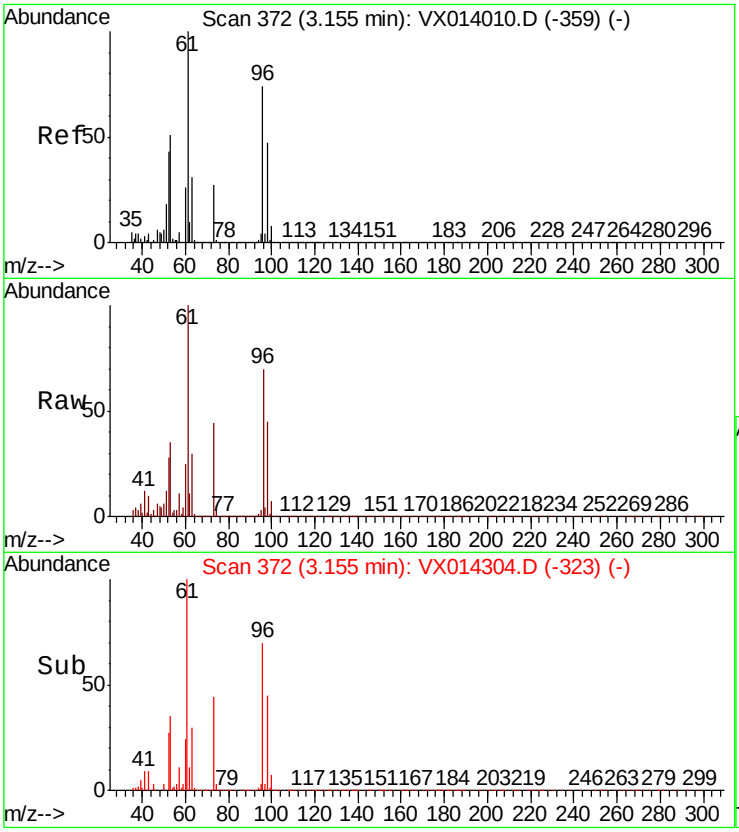
Tgt Ion: 84 Resp: 104225

Ion	Ratio	Lower	Upper
84	100		
49	124.1	95.8	143.6
51	37.6	29.8	44.8
86	63.2	50.8	76.2



Instrument :
MSVOA_X
ClientSampleId :
VX1227WBS01

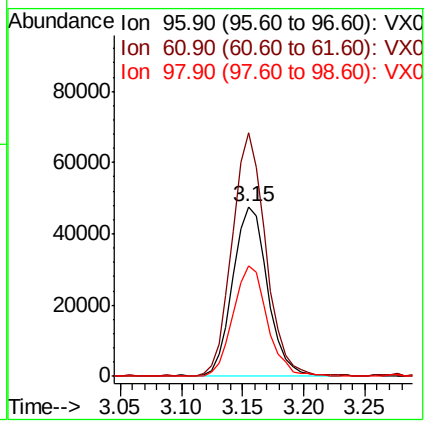
Manual Integrations APPROVED
apatel
12/30/2019 11:04:11 AM

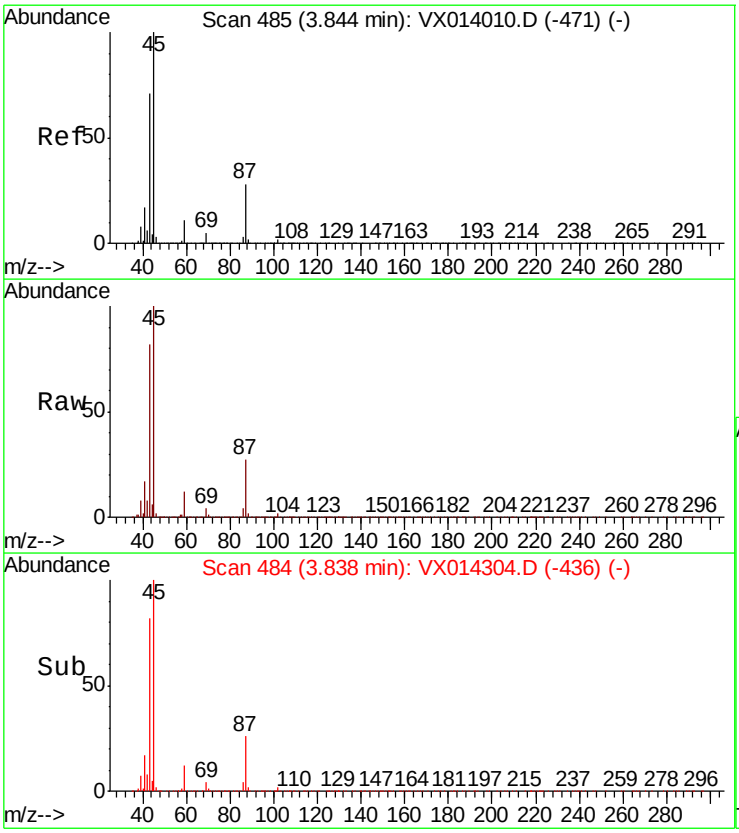


#21
trans-1,2-Dichloroethene
Concen: 17.486 ug/l
RT: 3.15 min Scan# 372
Delta R.T. -0.00 min
Lab File: VX014304.D
Acq: 27 Dec 2019 13:15

Tgt Ion: 96 Resp: 93026

Ion	Ratio	Lower	Upper
96	100		
61	143.5	108.3	162.5
98	64.6	50.8	76.2

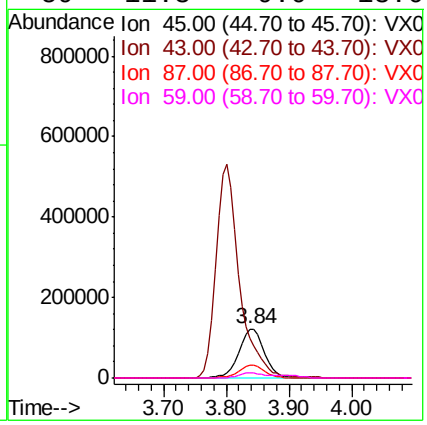




#22
Diisopropyl ether
Concen: 19.648 ug/l
RT: 3.84 min Scan# 484
Delta R.T. -0.01 min
Lab File: VX014304.D
Acq: 27 Dec 2019 13:15

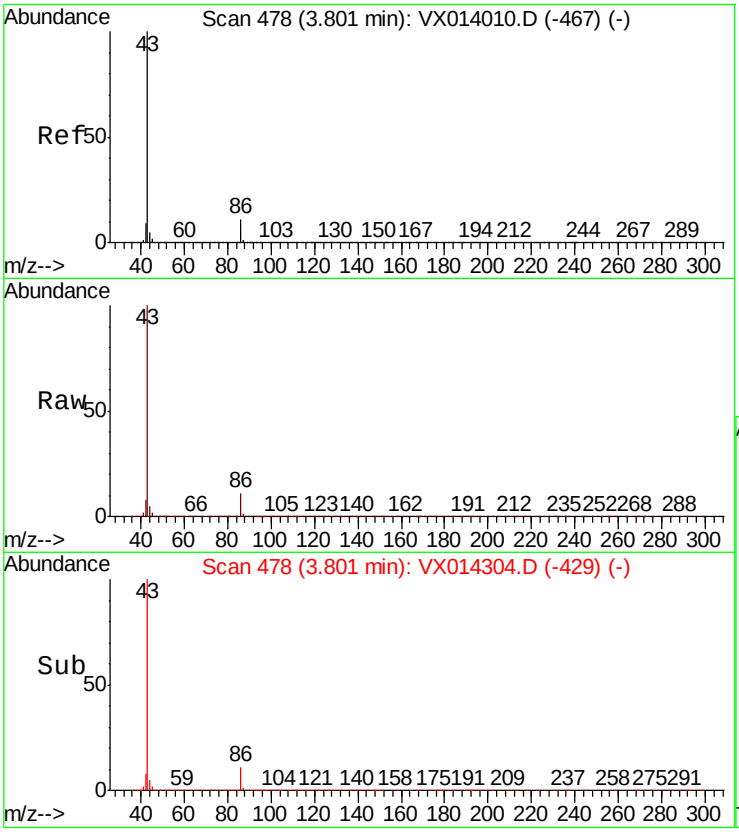
Tgt Ion: 45 Resp: 337578

Ion	Ratio	Lower	Upper
45	100		
43	82.0	57.4	86.0
87	26.4	21.9	32.9
59	11.3	9.0	13.6



Instrument :
MSVOA_X
ClientSampleId :
VX1227WBS01

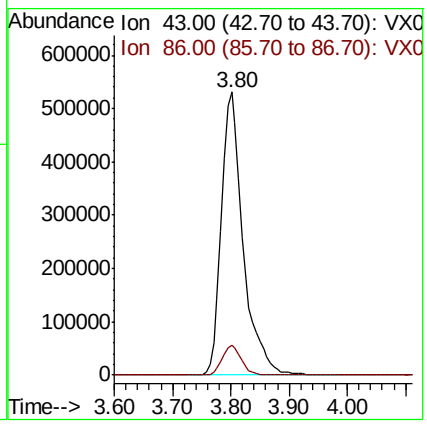
Manual Integrations APPROVED
apatel
12/30/2019 11:04:11 AM

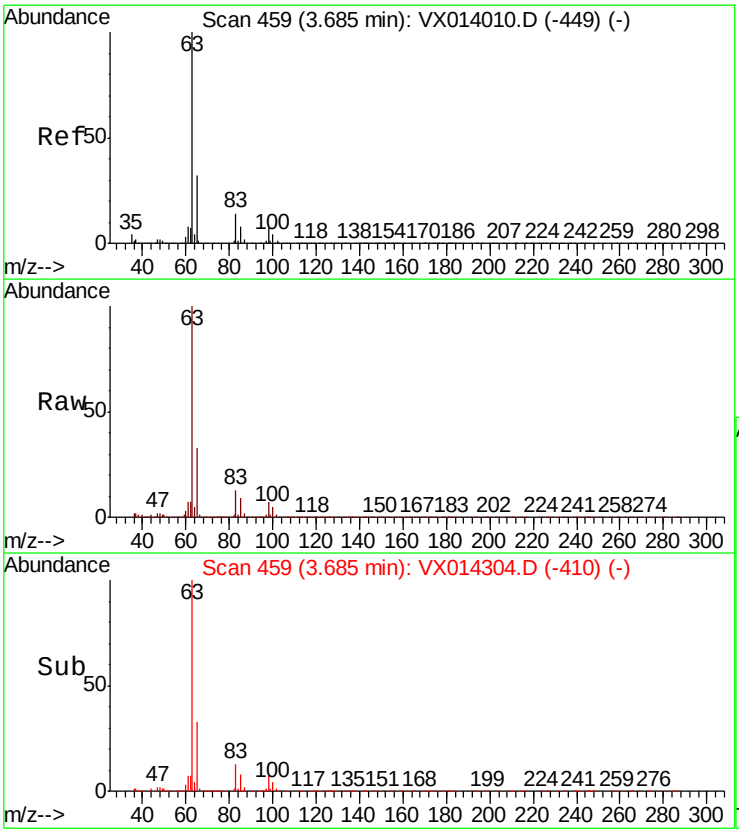


#23
Vinyl Acetate
Concen: 98.182 ug/l
RT: 3.80 min Scan# 478
Delta R.T. -0.00 min
Lab File: VX014304.D
Acq: 27 Dec 2019 13:15

Tgt Ion: 43 Resp: 1376601

Ion	Ratio	Lower	Upper
43	100		
86	10.6	8.6	12.8

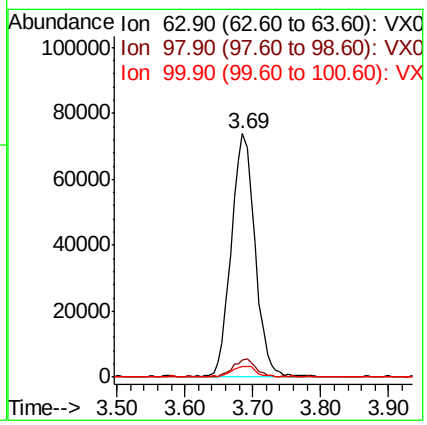




#24
1,1-Dichloroethane
Concen: 18.827 ug/l
RT: 3.69 min Scan# 459
Delta R.T. -0.00 min
Lab File: VX014304.D
Acq: 27 Dec 2019 13:15

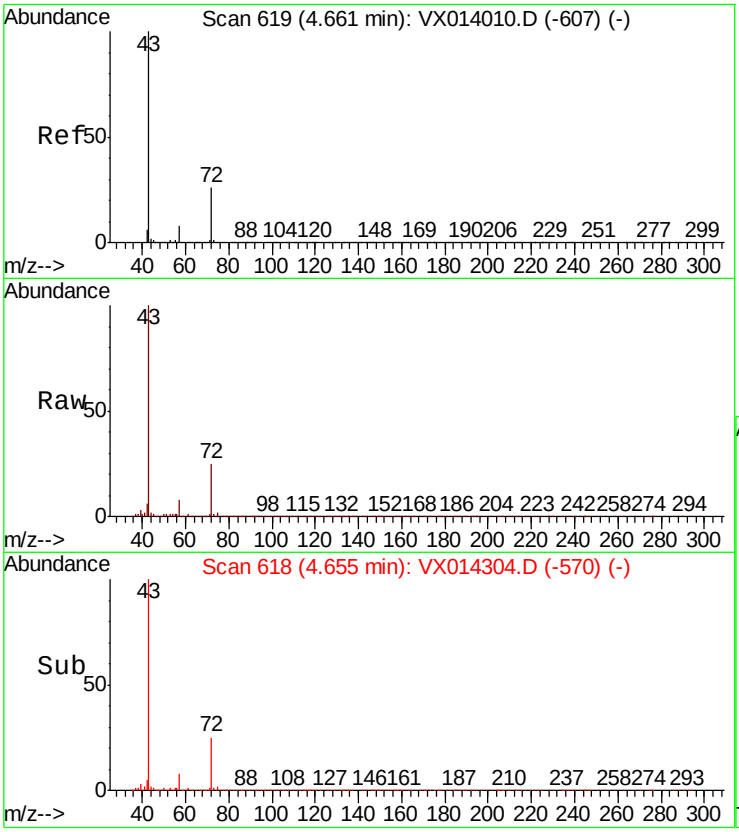
Tgt Ion: 63 Resp: 179965

Ion	Ratio	Lower	Upper
63	100		
98	6.7	3.6	10.8
100	4.4	2.3	6.8



Instrument :
MSVOA_X
ClientSampleId :
VX1227WBS01

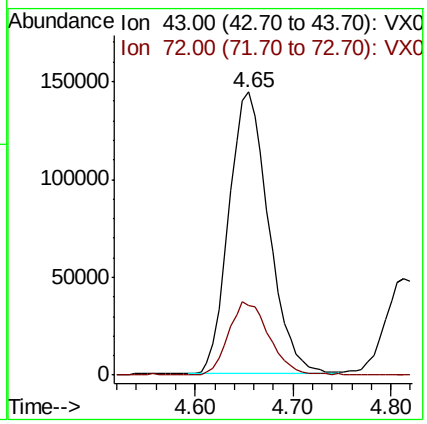
Manual Integrations APPROVED
apatel
12/30/2019 11:04:11 AM

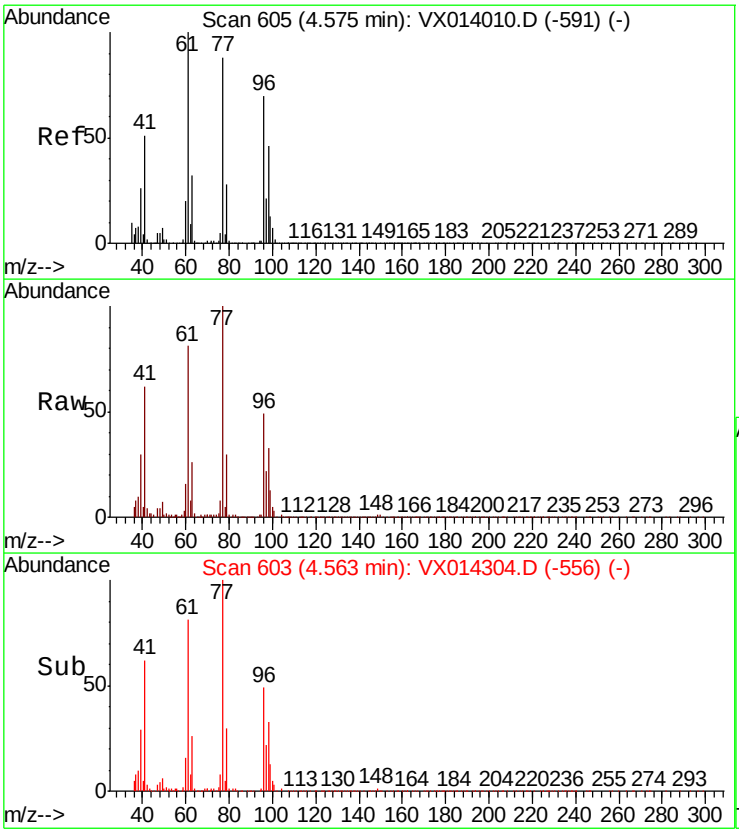


#25
2-Butanone
Concen: 89.764 ug/l
RT: 4.65 min Scan# 618
Delta R.T. -0.01 min
Lab File: VX014304.D
Acq: 27 Dec 2019 13:15

Tgt Ion: 43 Resp: 408777

Ion	Ratio	Lower	Upper
43	100		
72	24.4	21.0	31.4

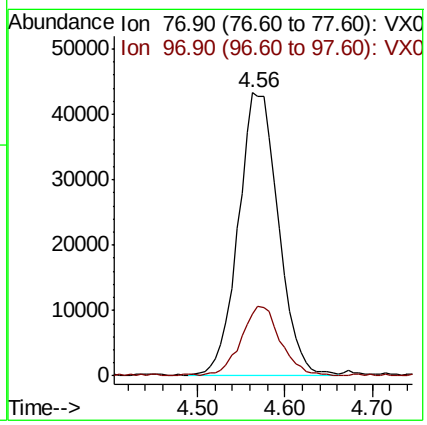




#26
2,2-Dichloropropane
Concen: 18.615 ug/l
RT: 4.56 min Scan# 603
Delta R.T. -0.01 min
Lab File: VX014304.D
Acq: 27 Dec 2019 13:15

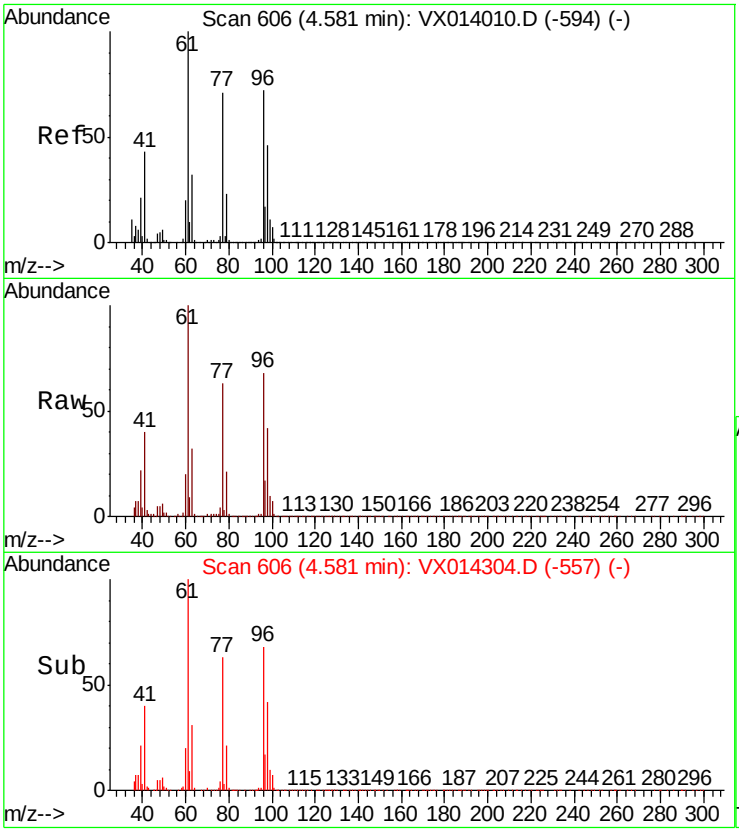
Tgt Ion: 77 Resp: 138158

Ion	Ratio	Lower	Upper
77	100		
97	23.0	11.9	35.9



Instrument :
MSVOA_X
ClientSampleId :
VX1227WBS01

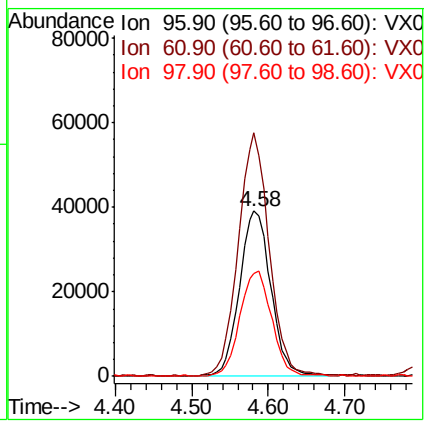
Manual Integrations APPROVED
apatel
12/30/2019 11:04:11 AM

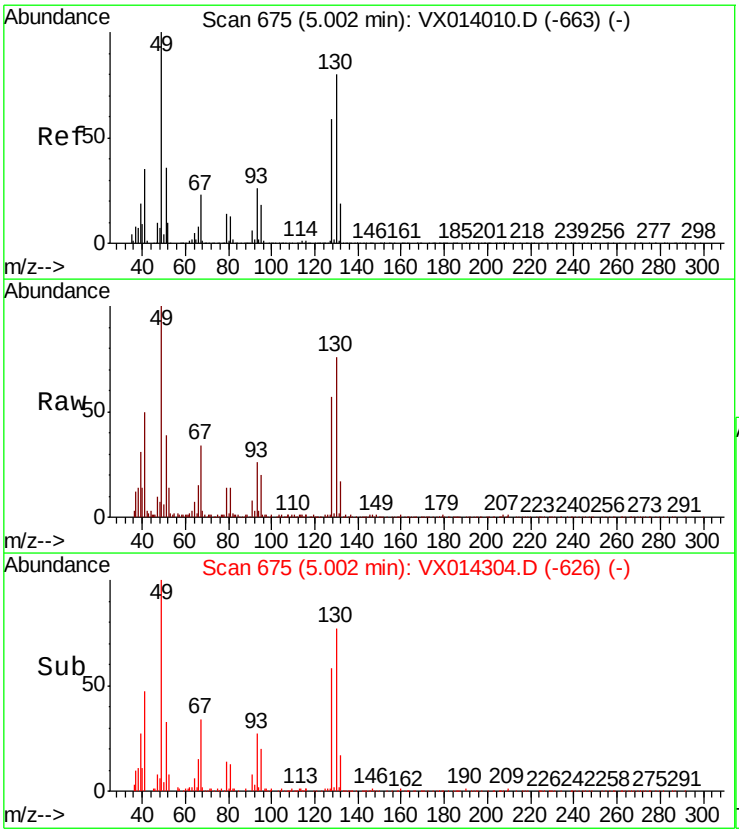


#27
cis-1,2-Dichloroethene
Concen: 18.436 ug/l
RT: 4.58 min Scan# 606
Delta R.T. -0.00 min
Lab File: VX014304.D
Acq: 27 Dec 2019 13:15

Tgt Ion: 96 Resp: 110920

Ion	Ratio	Lower	Upper
96	100		
61	145.6	0.0	288.4
98	63.9	0.0	129.6

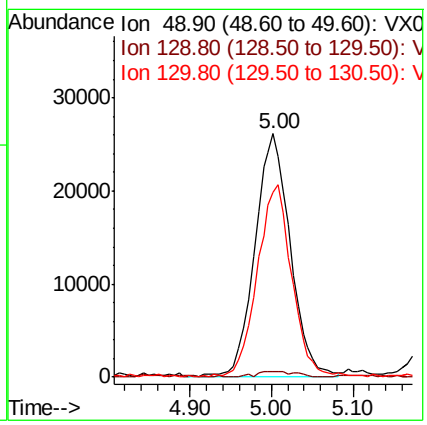




#28
Bromochloromethane
Concen: 21.739 ug/l
RT: 5.00 min Scan# 675
Delta R.T. 0.00 min
Lab File: VX014304.D
Acq: 27 Dec 2019 13:15

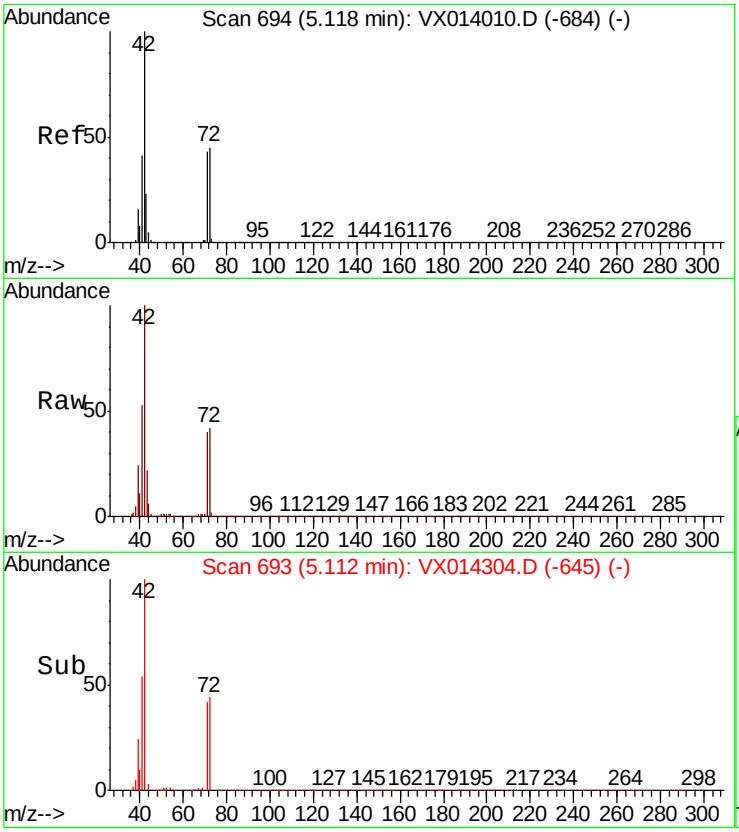
Tgt Ion: 49 Resp: 78966

Ion	Ratio	Lower	Upper
49	100		
129	2.7	0.0	5.0
130	77.5	64.6	97.0



Instrument :
MSVOA_X
ClientSampleId :
VX1227WBS01

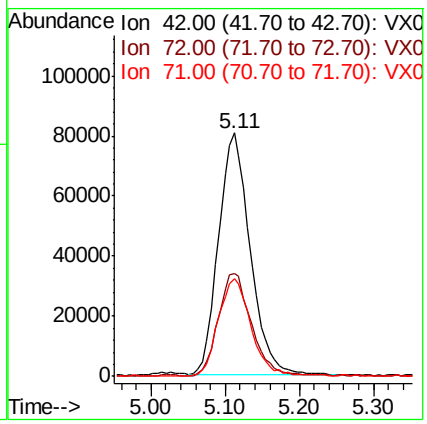
Manual Integrations APPROVED
apatel
12/30/2019 11:04:11 AM

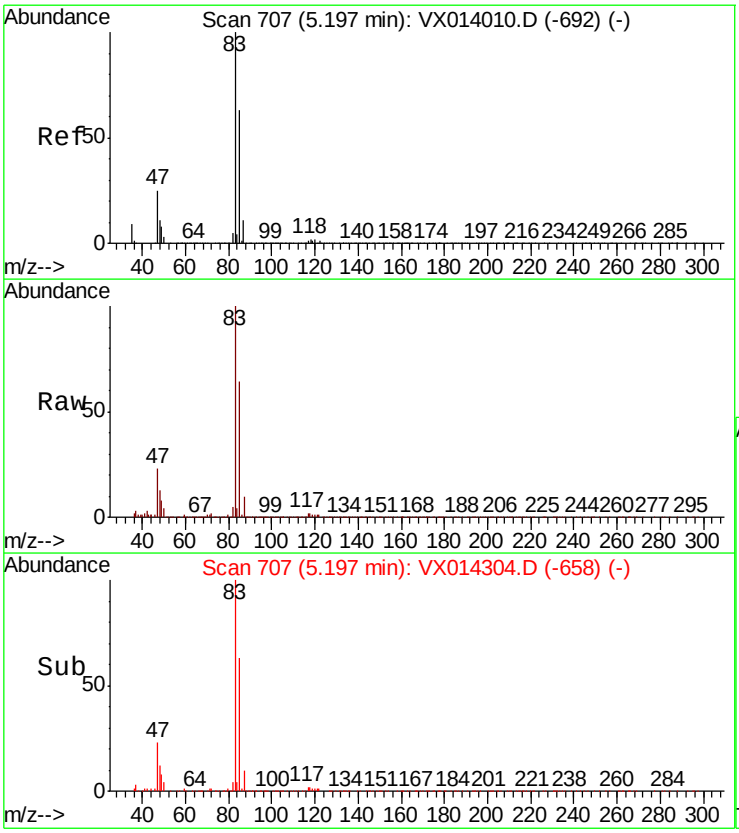


#29
Tetrahydrofuran
Concen: 93.876 ug/l
RT: 5.11 min Scan# 693
Delta R.T. -0.01 min
Lab File: VX014304.D
Acq: 27 Dec 2019 13:15

Tgt Ion: 42 Resp: 239111

Ion	Ratio	Lower	Upper
42	100		
72	44.4	35.8	53.8
71	41.2	33.6	50.4

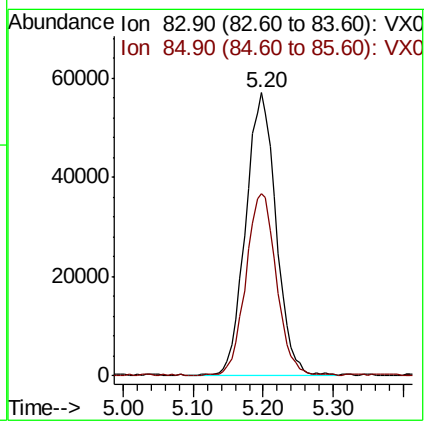




#30
Chloroform
Concen: 18.986 ug/l
RT: 5.20 min Scan# 707
Delta R.T. -0.00 min
Lab File: VX014304.D
Acq: 27 Dec 2019 13:15

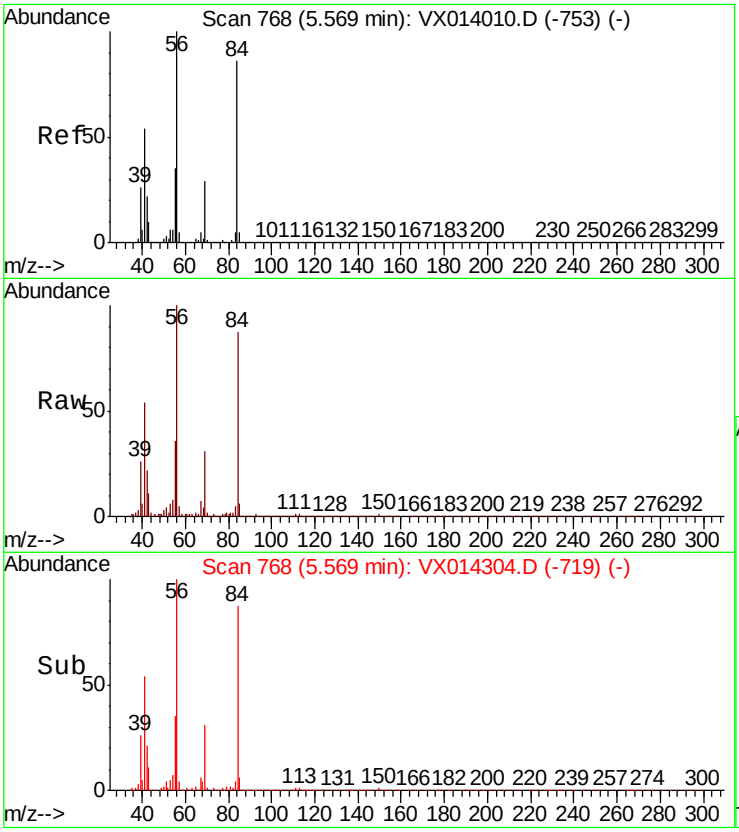
Tgt Ion: 83 Resp: 172043

Ion	Ratio	Lower	Upper
83	100		
85	64.6	50.8	76.2



Instrument :
MSVOA_X
ClientSampleId :
VX1227WBS01

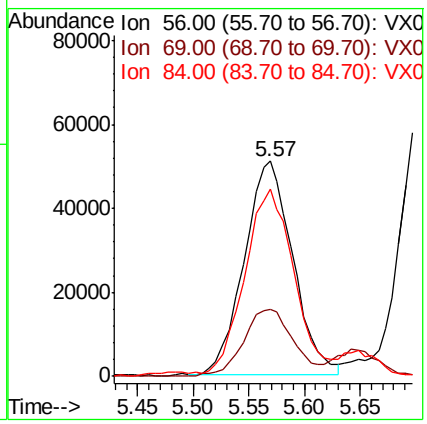
Manual Integrations APPROVED
apatel
12/30/2019 11:04:11 AM

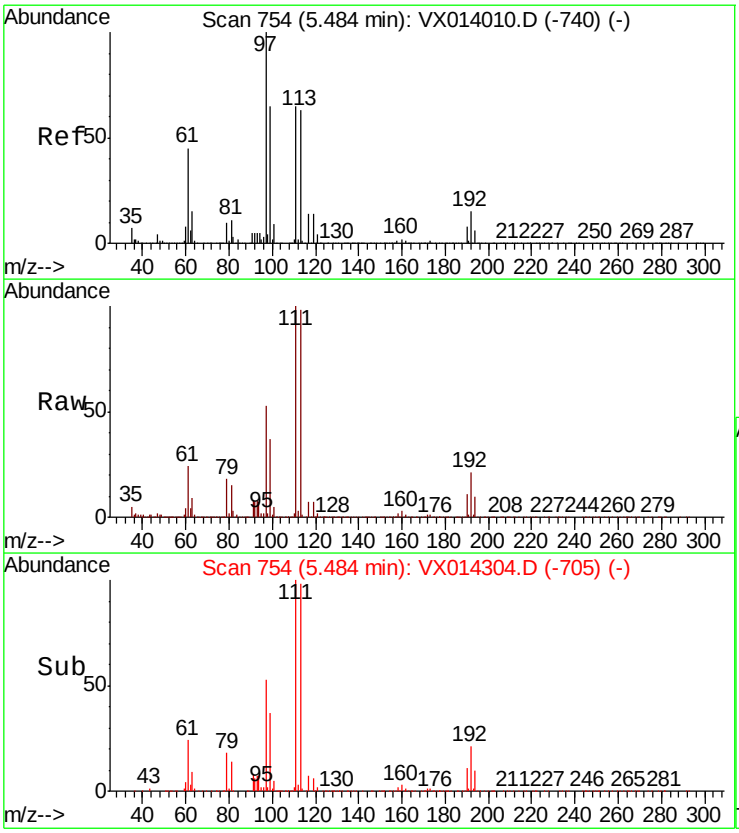


#31
Cyclohexane
Concen: 18.124 ug/l
RT: 5.57 min Scan# 768
Delta R.T. -0.00 min
Lab File: VX014304.D
Acq: 27 Dec 2019 13:15

Tgt Ion: 56 Resp: 154089

Ion	Ratio	Lower	Upper
56	100		
69	31.2	23.2	34.8
84	86.4	69.2	103.8

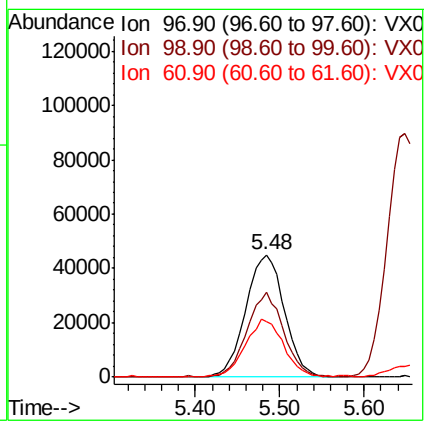




#32
1,1,1-Trichloroethane
Concen: 18.020 ug/l
RT: 5.48 min Scan# 754
Delta R.T. -0.00 min
Lab File: VX014304.D
Acq: 27 Dec 2019 13:15

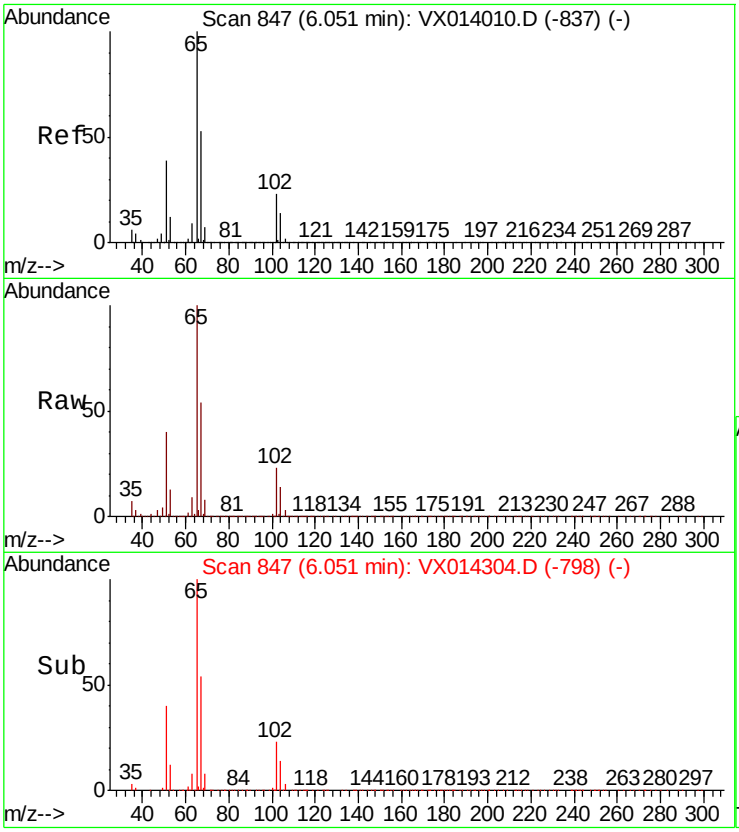
Tgt Ion: 97 Resp: 139166

Ion	Ratio	Lower	Upper
97	100		
99	65.1	52.0	78.0
61	47.7	36.7	55.1



Instrument :
MSVOA_X
ClientSampleId :
VX1227WBS01

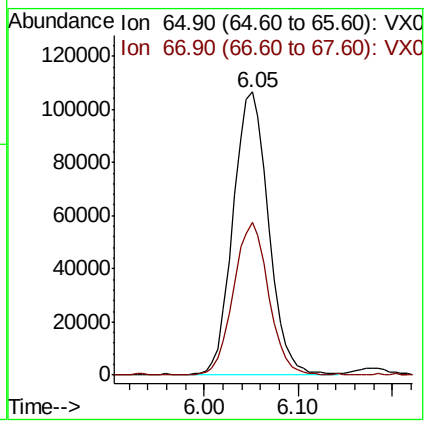
Manual Integrations APPROVED
apatel
12/30/2019 11:04:11 AM

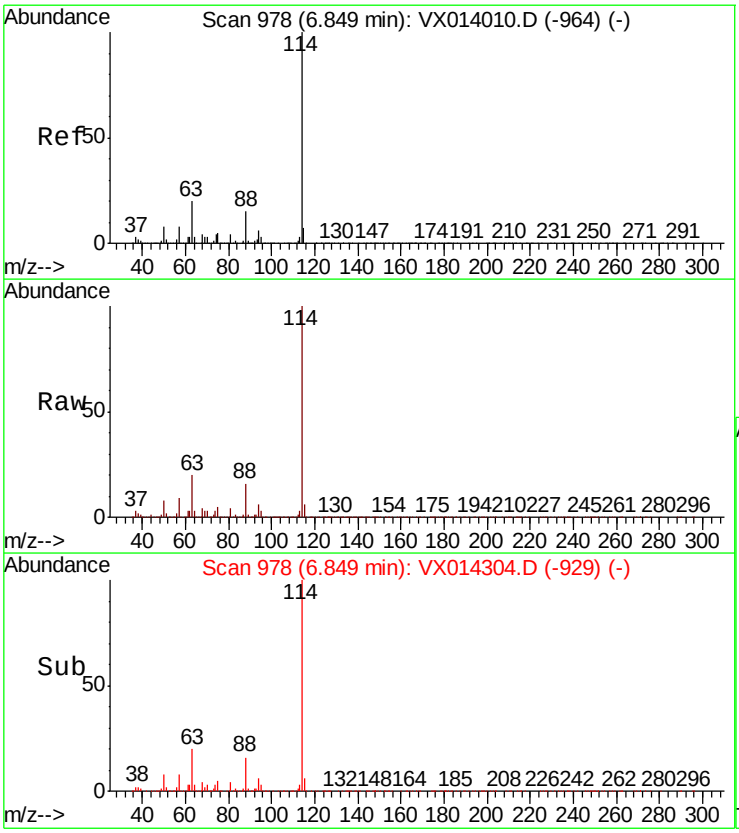


#33
1,2-Dichloroethane-d4
Concen: 49.071 ug/l
RT: 6.05 min Scan# 847
Delta R.T. -0.00 min
Lab File: VX014304.D
Acq: 27 Dec 2019 13:15

Tgt Ion: 65 Resp: 279188

Ion	Ratio	Lower	Upper
65	100		
67	53.1	0.0	106.4

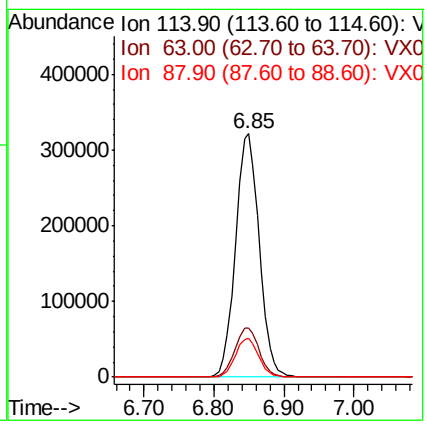




#34
1,4-Difluorobenzene
Concen: 50.000 ug/l
RT: 6.85 min Scan# 978
Delta R.T. -0.00 min
Lab File: VX014304.D
Acq: 27 Dec 2019 13:15

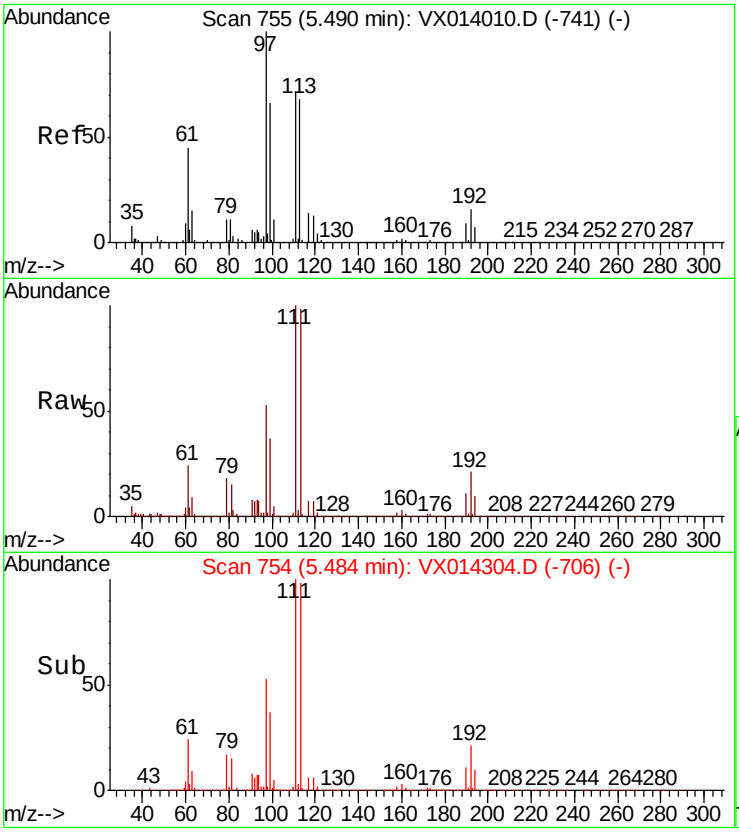
Tgt Ion:114 Resp: 756236

Ion	Ratio	Lower	Upper
114	100		
63	20.2	0.0	40.8
88	16.1	0.0	30.4



Instrument :
MSVOA_X
ClientSampleId :
VX1227WBS01

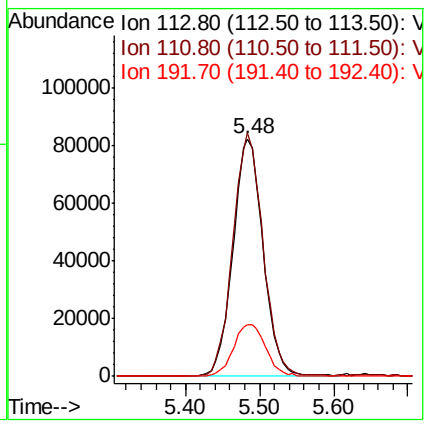
Manual Integrations APPROVED
apatel
12/30/2019 11:04:11 AM

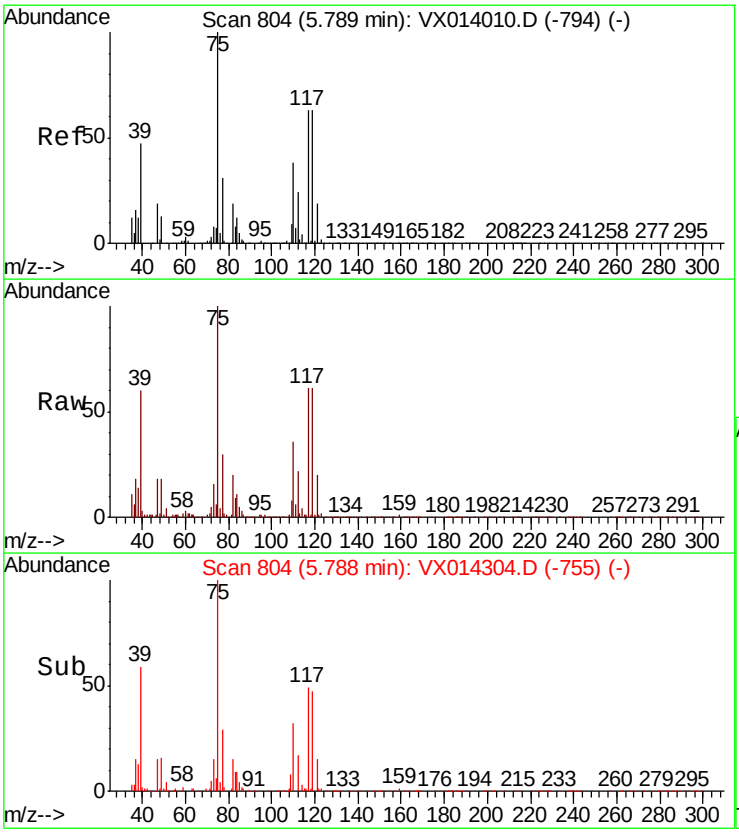


#35
Dibromofluoromethane
Concen: 50.665 ug/l
RT: 5.48 min Scan# 754
Delta R.T. -0.01 min
Lab File: VX014304.D
Acq: 27 Dec 2019 13:15

Tgt Ion:113 Resp: 232910

Ion	Ratio	Lower	Upper
113	100		
111	102.8	82.0	123.0
192	23.8	19.3	28.9

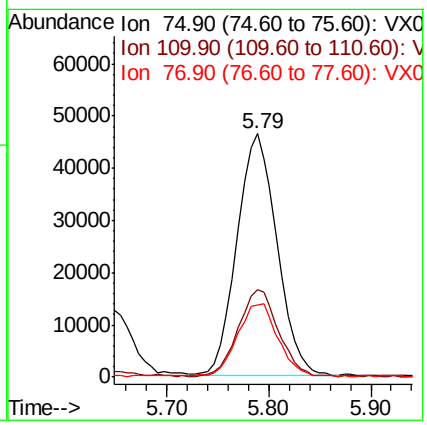




#36
1,1-Dichloropropene
Concen: 18.107 ug/l
RT: 5.79 min Scan# 804
Delta R.T. -0.00 min
Lab File: VX014304.D
Acq: 27 Dec 2019 13:15

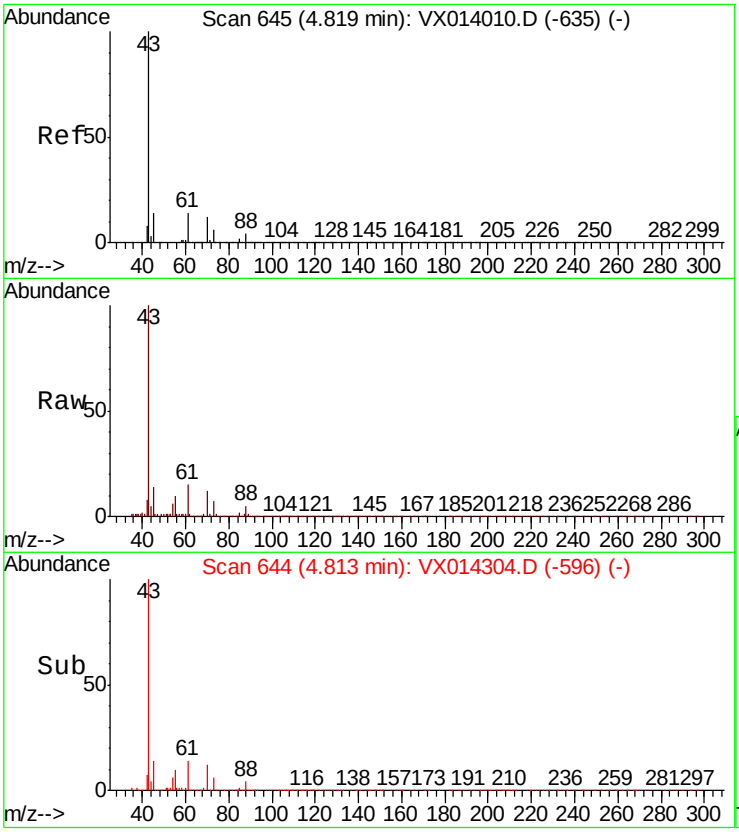
Tgt Ion: 75 Resp: 125643

Ion	Ratio	Lower	Upper
75	100		
110	36.3	18.3	54.9
77	30.5	24.8	37.2



Instrument :
MSVOA_X
ClientSampleId :
VX1227WBS01

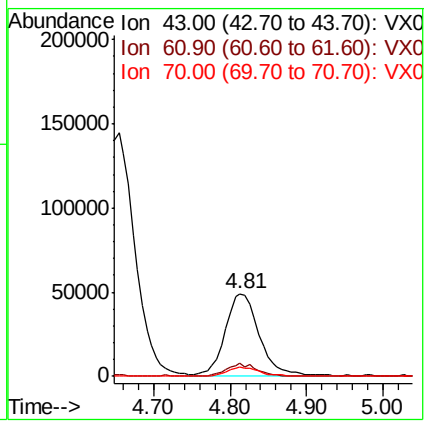
Manual Integrations APPROVED
apatel
12/30/2019 11:04:11 AM

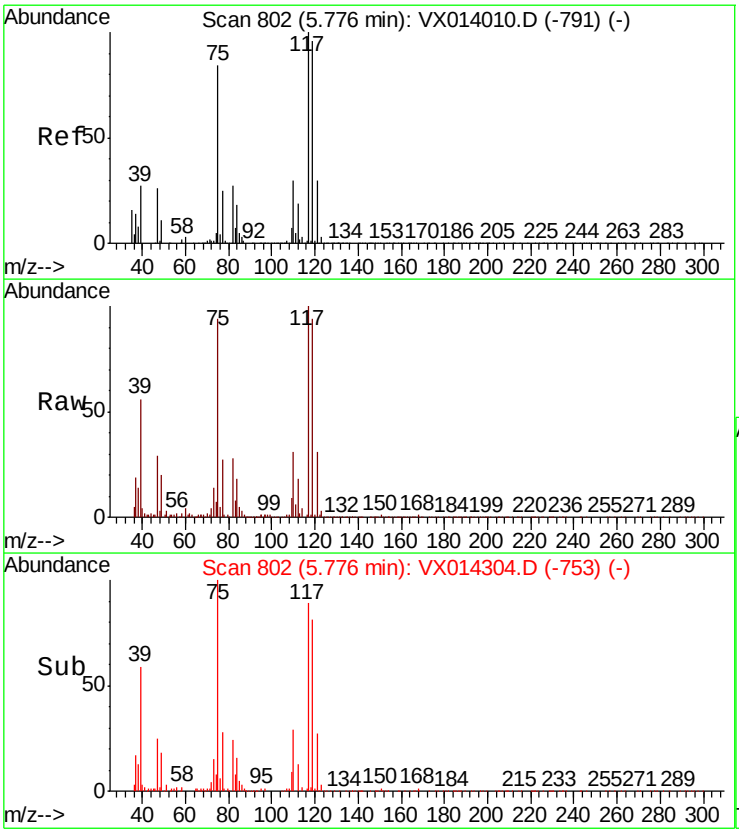


#37
Ethyl Acetate
Concen: 19.161 ug/l
RT: 4.81 min Scan# 644
Delta R.T. -0.01 min
Lab File: VX014304.D
Acq: 27 Dec 2019 13:15

Tgt Ion: 43 Resp: 146823

Ion	Ratio	Lower	Upper
43	100		
61	13.4	10.8	16.2
70	11.4	8.6	12.8

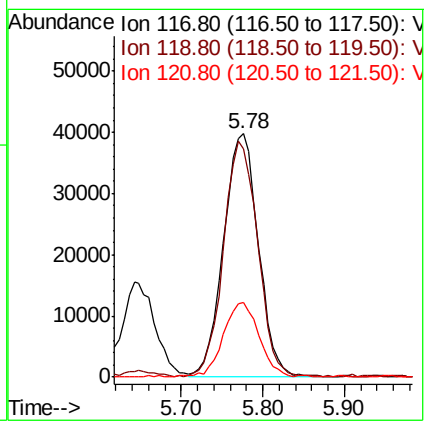




#38
Carbon Tetrachloride
Concen: 18.518 ug/l
RT: 5.78 min Scan# 802
Delta R.T. -0.00 min
Lab File: VX014304.D
Acq: 27 Dec 2019 13:15

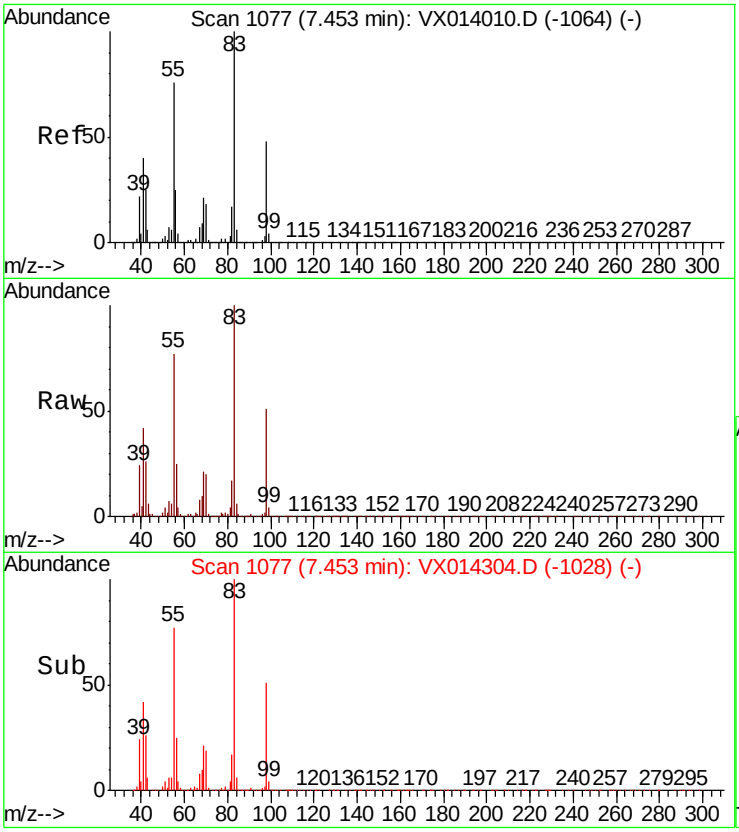
Tgt Ion:117 Resp: 117060

Ion	Ratio	Lower	Upper
117	100		
119	94.1	76.2	114.4
121	30.3	23.6	35.4



Instrument :
MSVOA_X
ClientSampleId :
VX1227WBS01

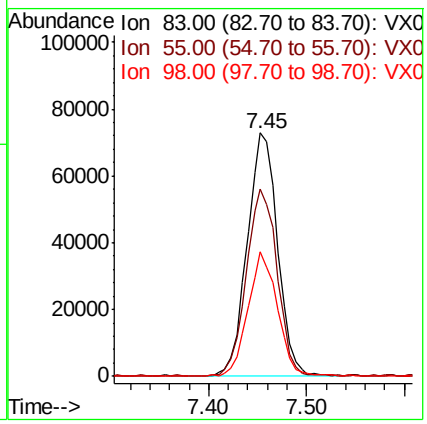
Manual Integrations APPROVED
apatel
12/30/2019 11:04:11 AM

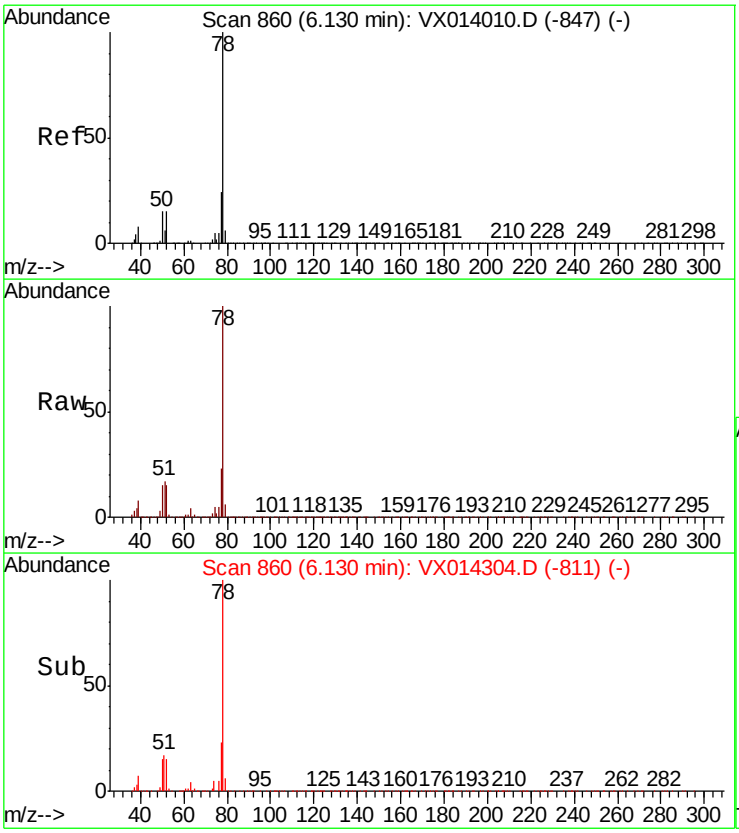


#39
Methylcyclohexane
Concen: 18.448 ug/l
RT: 7.45 min Scan# 1077
Delta R.T. -0.00 min
Lab File: VX014304.D
Acq: 27 Dec 2019 13:15

Tgt Ion: 83 Resp: 158060

Ion	Ratio	Lower	Upper
83	100		
55	76.7	61.0	91.6
98	50.8	38.6	57.8

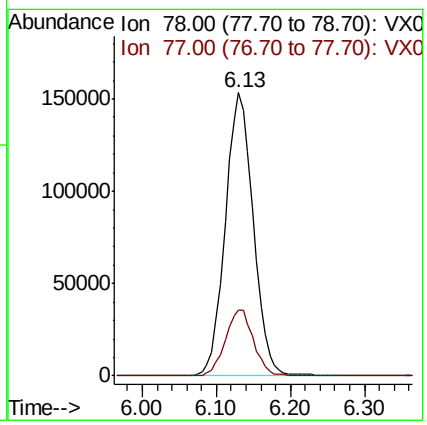




#40
Benzene
Concen: 18.777 ug/l
RT: 6.13 min Scan# 860
Delta R.T. -0.00 min
Lab File: VX014304.D
Acq: 27 Dec 2019 13:15

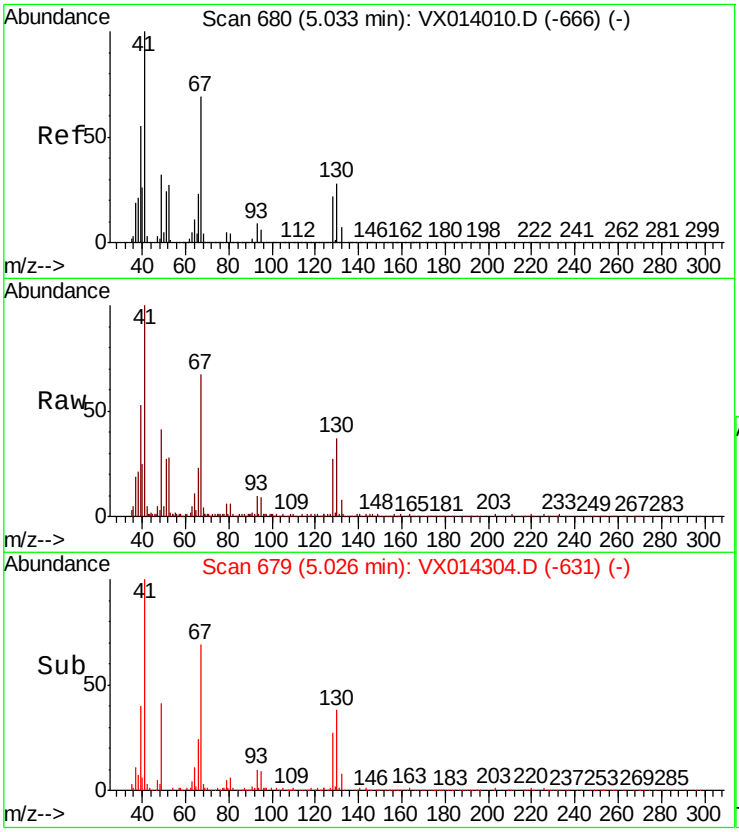
Tgt Ion: 78 Resp: 400895

Ion	Ratio	Lower	Upper
78	100		
77	23.3	18.8	28.2



Instrument :
MSVOA_X
ClientSampleId :
VX1227WBS01

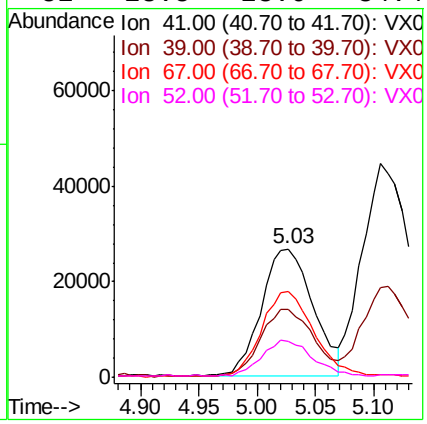
Manual Integrations APPROVED
apatel
12/30/2019 11:04:11 AM

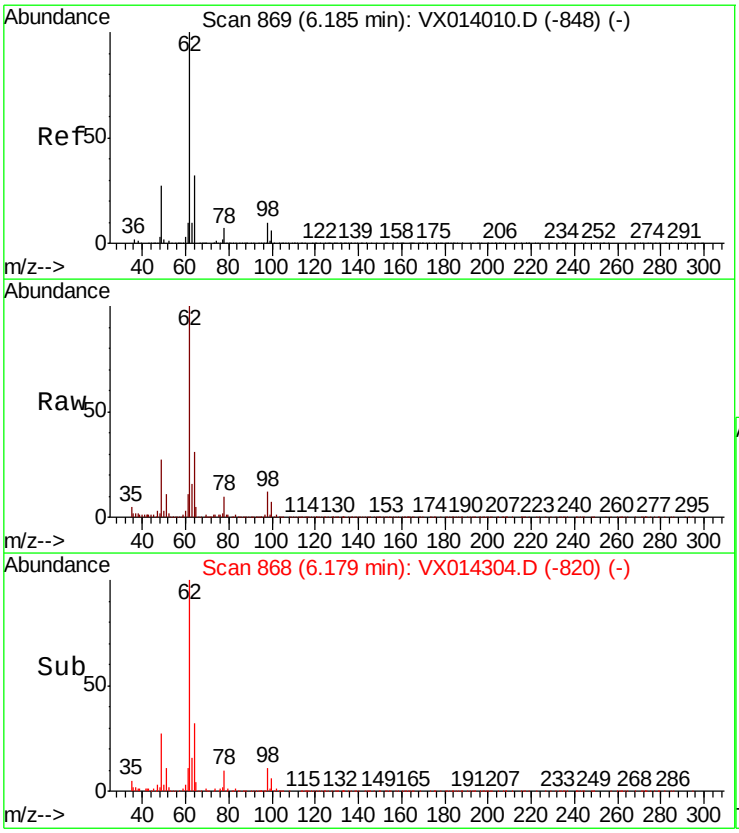


#41
Methacrylonitrile
Concen: 19.214 ug/l
RT: 5.03 min Scan# 679
Delta R.T. -0.01 min
Lab File: VX014304.D
Acq: 27 Dec 2019 13:15

Tgt Ion: 41 Resp: 81690

Ion	Ratio	Lower	Upper
41	100		
39	54.2	44.5	66.7
67	68.6	57.4	86.0
52	28.5	23.0	34.4

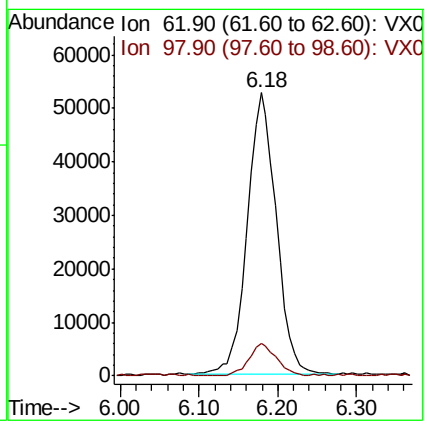




#42
1,2-Dichloroethane
Concen: 18.680 ug/l
RT: 6.18 min Scan# 868
Delta R.T. -0.01 min
Lab File: VX014304.D
Acq: 27 Dec 2019 13:15

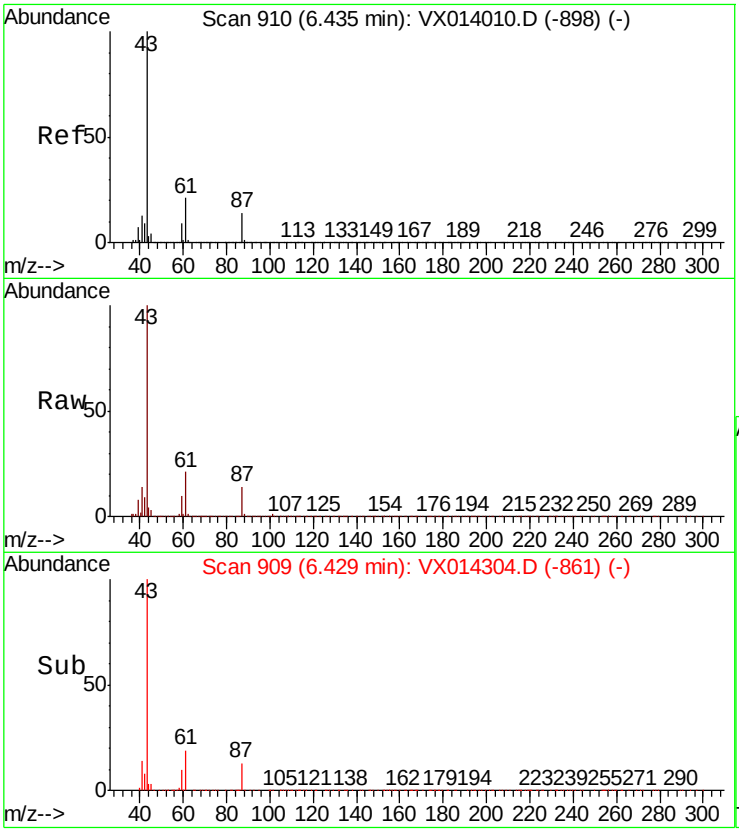
Tgt Ion: 62 Resp: 135193

Ion	Ratio	Lower	Upper
62	100		
98	11.1	0.0	21.0



Instrument :
MSVOA_X
ClientSampleId :
VX1227WBS01

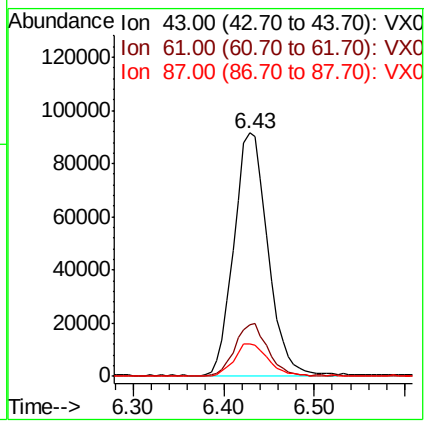
Manual Integrations APPROVED
apatel
12/30/2019 11:04:11 AM

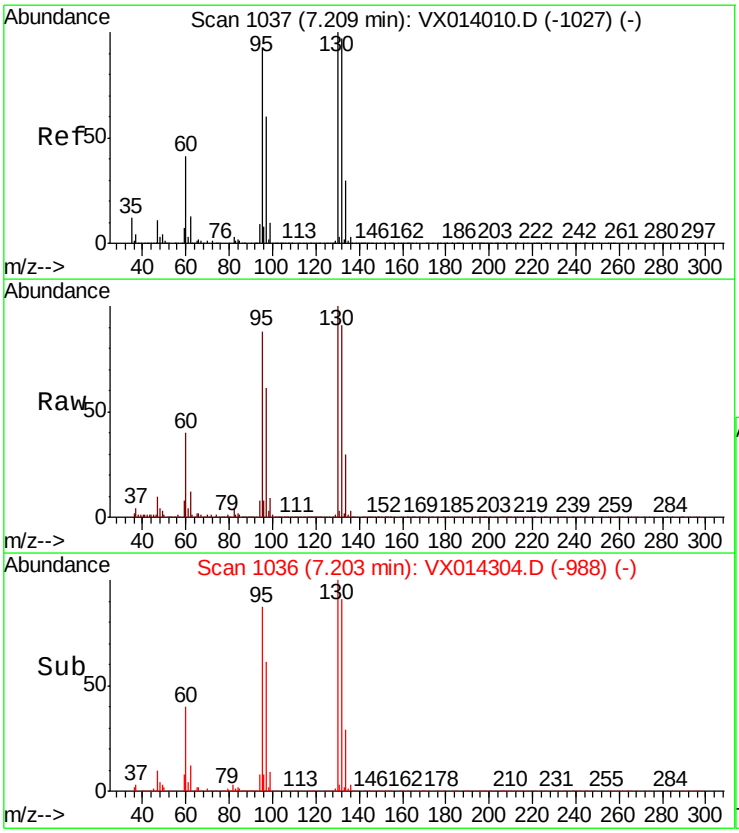


#43
Isopropyl Acetate
Concen: 18.623 ug/l
RT: 6.43 min Scan# 909
Delta R.T. -0.01 min
Lab File: VX014304.D
Acq: 27 Dec 2019 13:15

Tgt Ion: 43 Resp: 236159

Ion	Ratio	Lower	Upper
43	100		
61	20.3	16.4	24.6
87	13.1	10.7	16.1

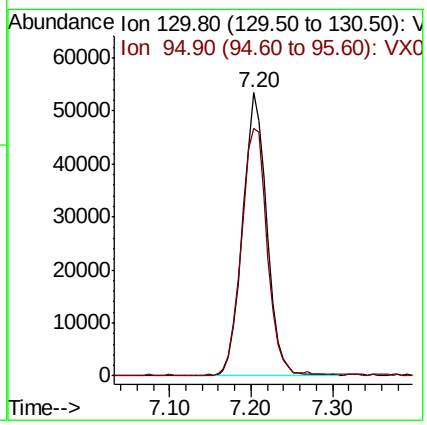




#44
Trichloroethene
Concen: 18.532 ug/l
RT: 7.20 min Scan# 1036
Delta R.T. -0.01 min
Lab File: VX014304.D
Acq: 27 Dec 2019 13:15

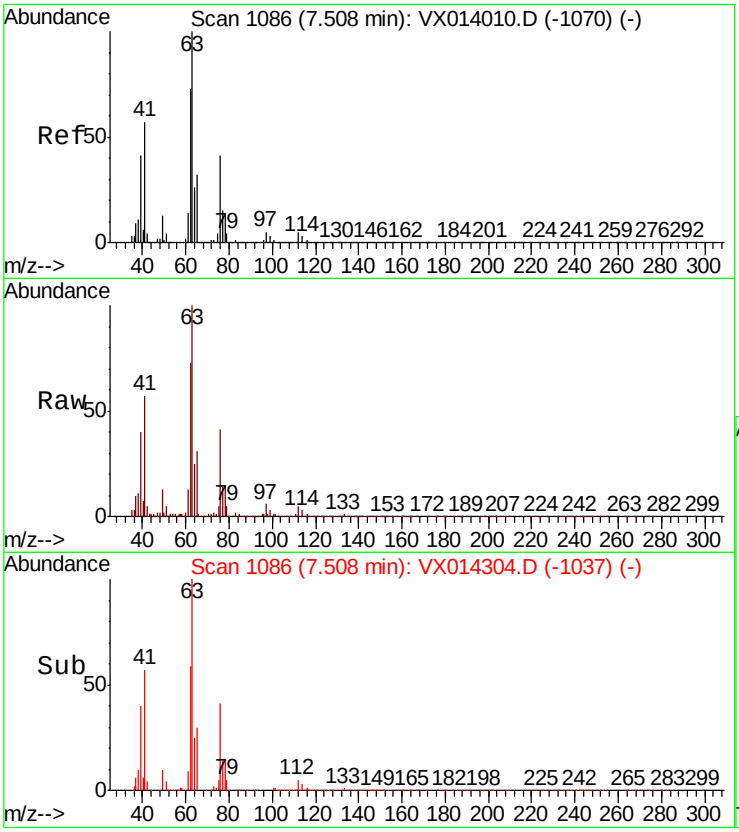
Tgt Ion:130 Resp: 109283

Ion	Ratio	Lower	Upper
130	100		
95	87.4	0.0	185.6



Instrument :
MSVOA_X
ClientSampleId :
VX1227WBS01

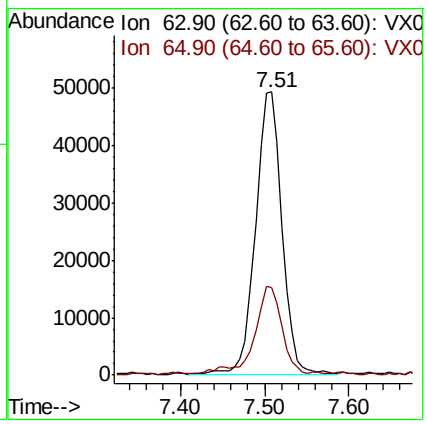
Manual Integrations APPROVED
apatel
12/30/2019 11:04:11 AM

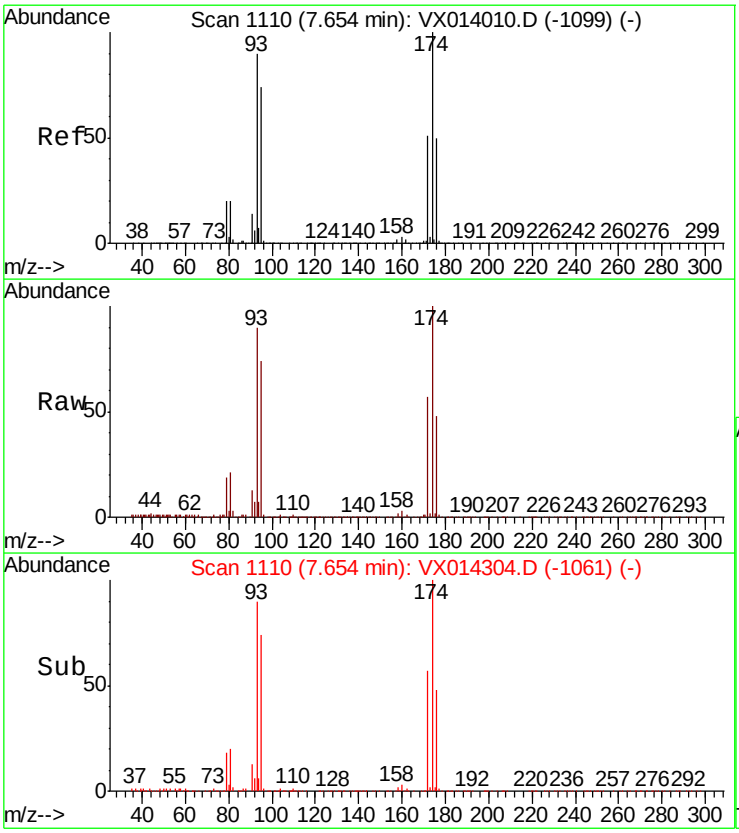


#45
1,2-Dichloropropane
Concen: 19.136 ug/l
RT: 7.51 min Scan# 1086
Delta R.T. -0.00 min
Lab File: VX014304.D
Acq: 27 Dec 2019 13:15

Tgt Ion: 63 Resp: 104719

Ion	Ratio	Lower	Upper
63	100		
65	30.8	25.8	38.8

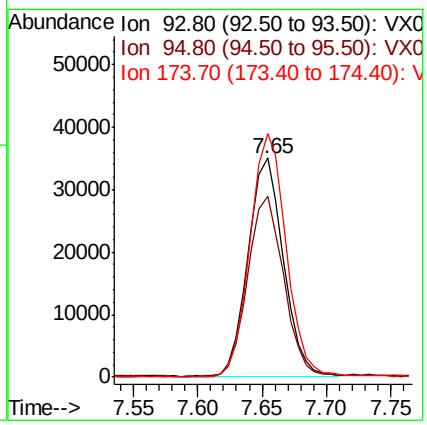




#46
Dibromomethane
Concen: 18.368 ug/l
RT: 7.65 min Scan# 1110
Delta R.T. -0.00 min
Lab File: VX014304.D
Acq: 27 Dec 2019 13:15

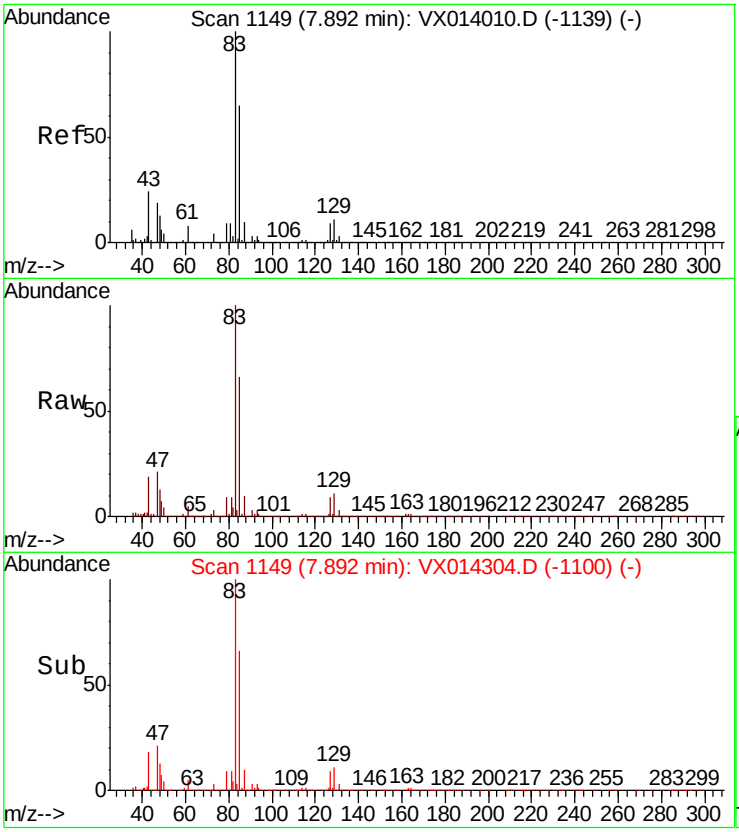
Tgt Ion: 93 Resp: 66455

Ion	Ratio	Lower	Upper
93	100		
95	83.1	67.3	100.9
174	113.5	91.6	137.4



Instrument :
MSVOA_X
ClientSampleId :
VX1227WBS01

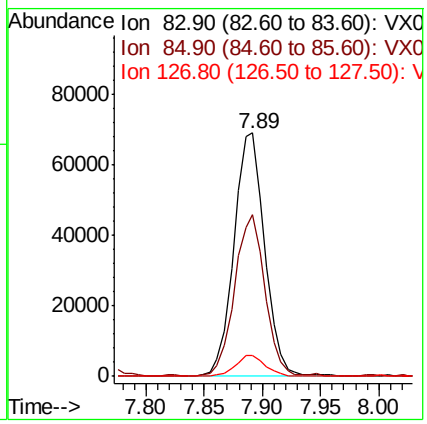
Manual Integrations APPROVED
apatel
12/30/2019 11:04:11 AM

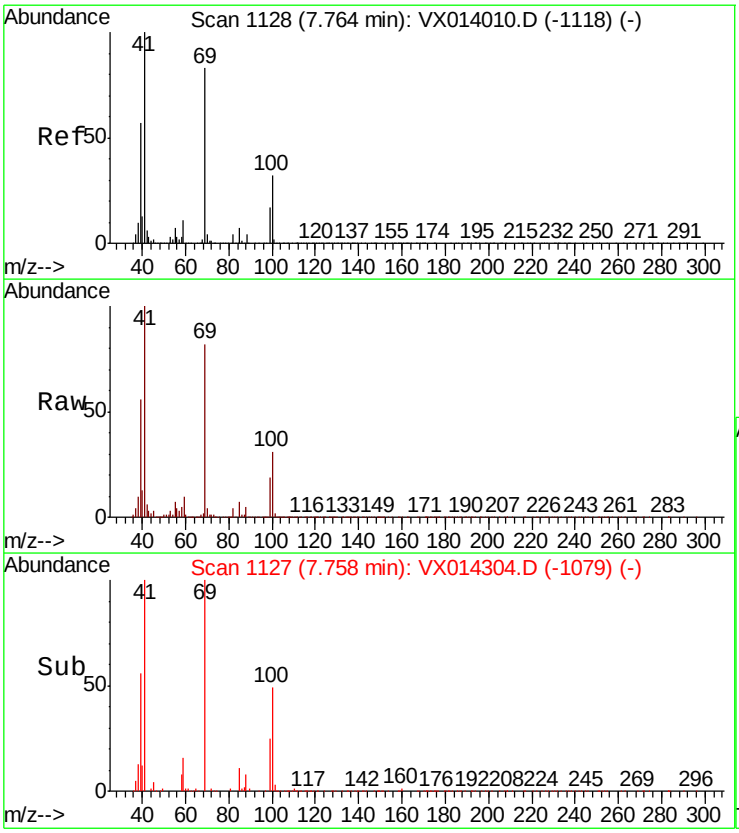


#47
Bromodichloromethane
Concen: 18.503 ug/l
RT: 7.89 min Scan# 1149
Delta R.T. -0.00 min
Lab File: VX014304.D
Acq: 27 Dec 2019 13:15

Tgt Ion: 83 Resp: 126077

Ion	Ratio	Lower	Upper
83	100		
85	66.1	51.8	77.8
127	8.7	7.0	10.4

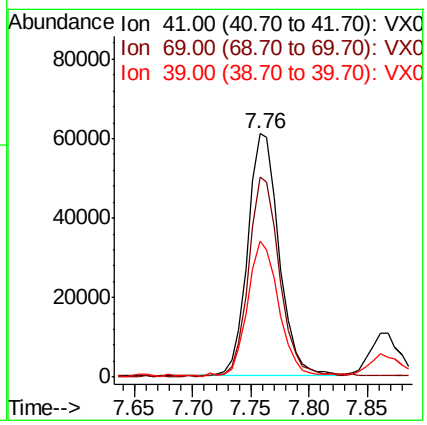




#48
Methyl methacrylate
Concen: 18.419 ug/l
RT: 7.76 min Scan# 1127
Delta R.T. -0.01 min
Lab File: VX014304.D
Acq: 27 Dec 2019 13:15

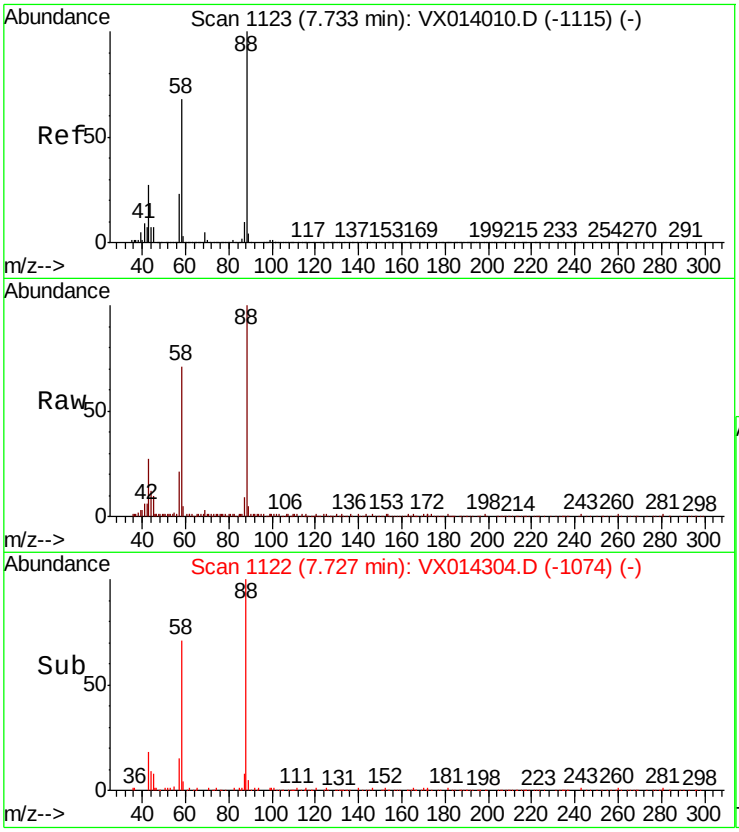
Tgt Ion: 41 Resp: 114374

Ion	Ratio	Lower	Upper
41	100		
69	82.8	65.8	98.6
39	57.1	44.6	67.0



Instrument :
MSVOA_X
ClientSampleId :
VX1227WBS01

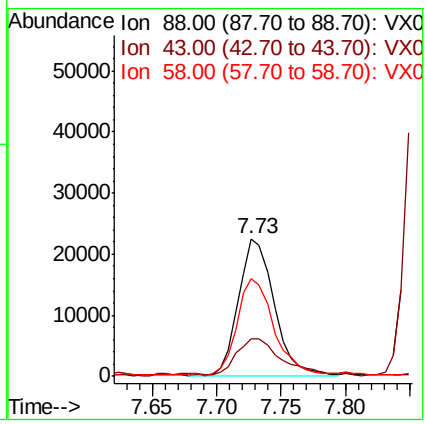
Manual Integrations APPROVED
apatel
12/30/2019 11:04:11 AM

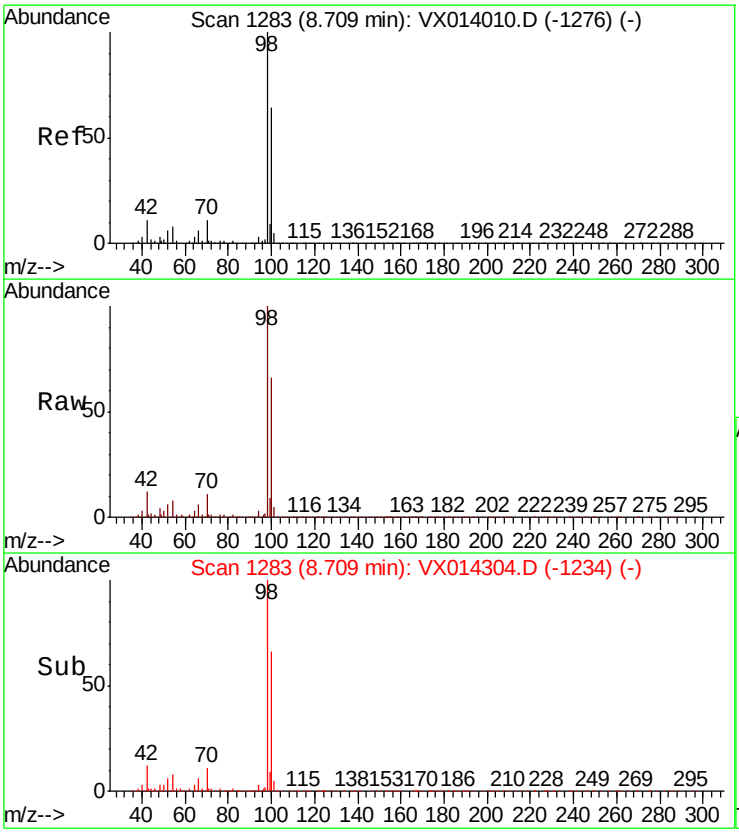


#49
1,4-Dioxane
Concen: 337.258 ug/l
RT: 7.73 min Scan# 1122
Delta R.T. -0.01 min
Lab File: VX014304.D
Acq: 27 Dec 2019 13:15

Tgt Ion: 88 Resp: 42618

Ion	Ratio	Lower	Upper
88	100		
43	37.4	26.5	39.7
58	73.6	56.8	85.2

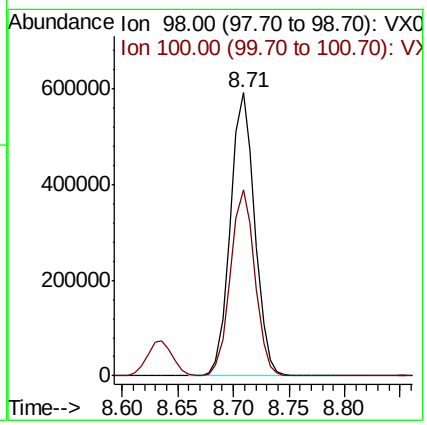




#50
Toluene-d8
Concen: 50.035 ug/l
RT: 8.71 min Scan# 1283
Delta R.T. -0.00 min
Lab File: VX014304.D
Acq: 27 Dec 2019 13:15

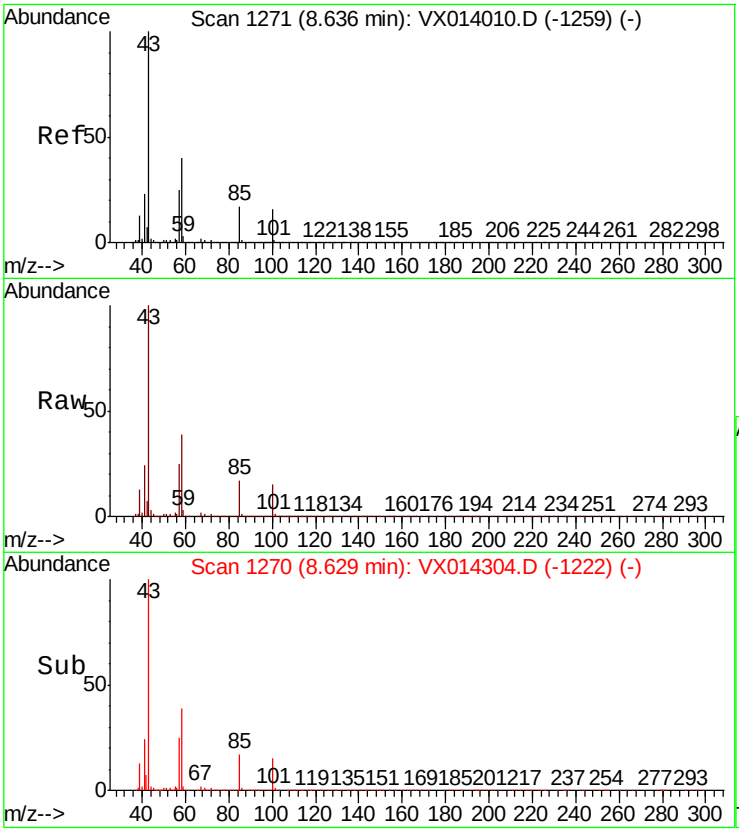
Tgt Ion: 98 Resp: 895499

Ion	Ratio	Lower	Upper
98	100		
100	66.0	52.9	79.3



Instrument :
MSVOA_X
ClientSampleId :
VX1227WBS01

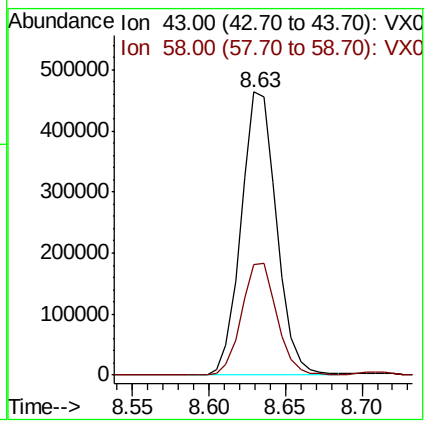
Manual Integrations APPROVED
apatel
12/30/2019 11:04:11 AM

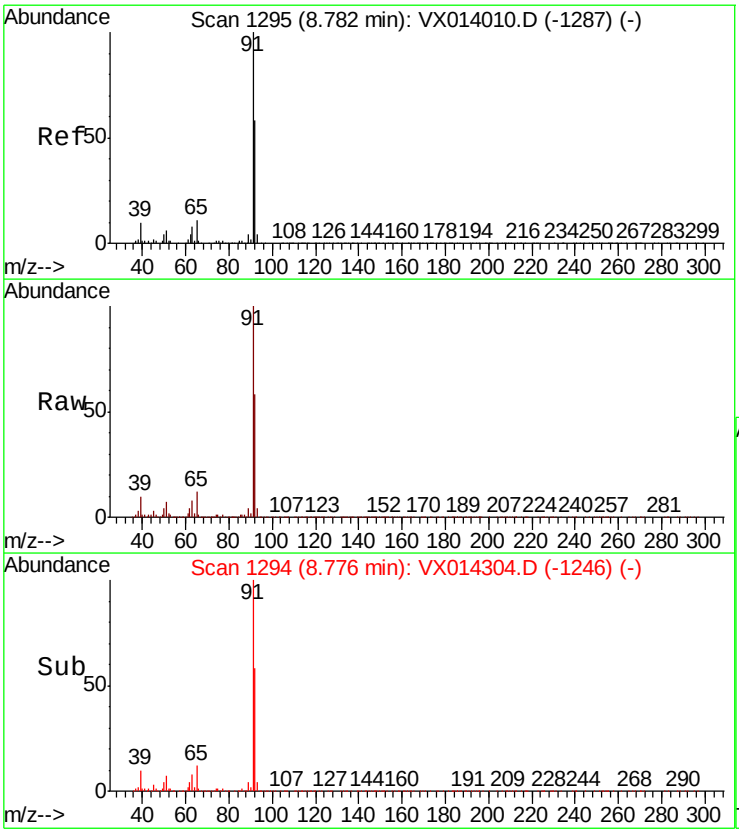


#51
4-Methyl-2-Pentanone
Concen: 93.339 ug/l
RT: 8.63 min Scan# 1270
Delta R.T. -0.01 min
Lab File: VX014304.D
Acq: 27 Dec 2019 13:15

Tgt Ion: 43 Resp: 743342

Ion	Ratio	Lower	Upper
43	100		
58	39.4	32.2	48.2

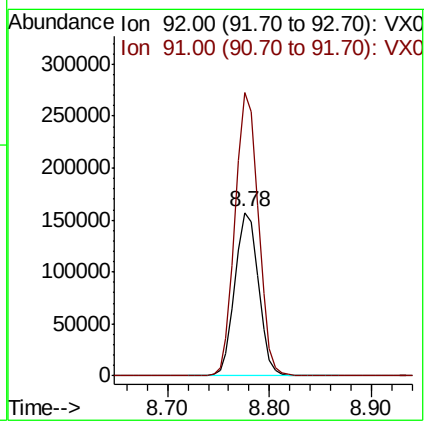




#52
Toluene
Concen: 18.498 ug/l
RT: 8.78 min Scan# 1294
Delta R.T. -0.01 min
Lab File: VX014304.D
Acq: 27 Dec 2019 13:15

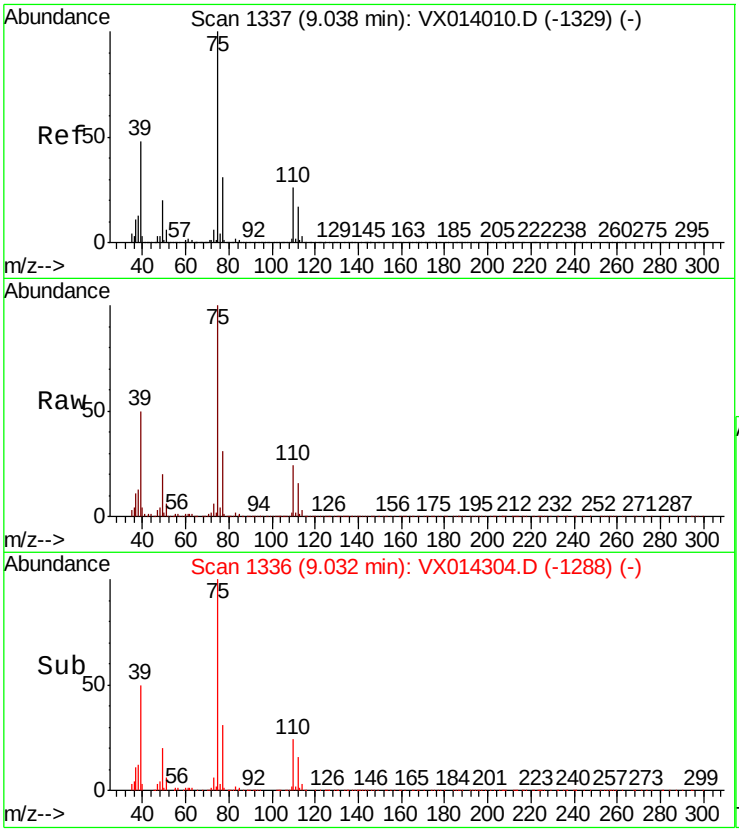
Tgt Ion: 92 Resp: 249620

Ion	Ratio	Lower	Upper
92	100		
91	171.3	136.2	204.4



Instrument :
MSVOA_X
ClientSampleId :
VX1227WBS01

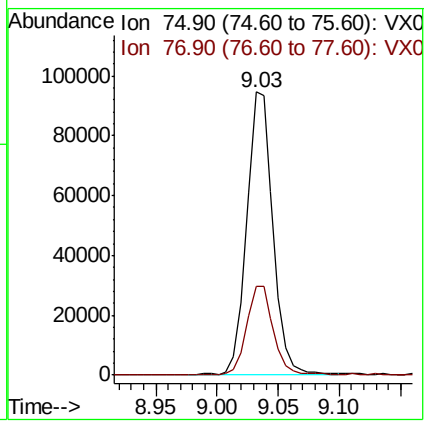
Manual Integrations APPROVED
apatel
12/30/2019 11:04:11 AM

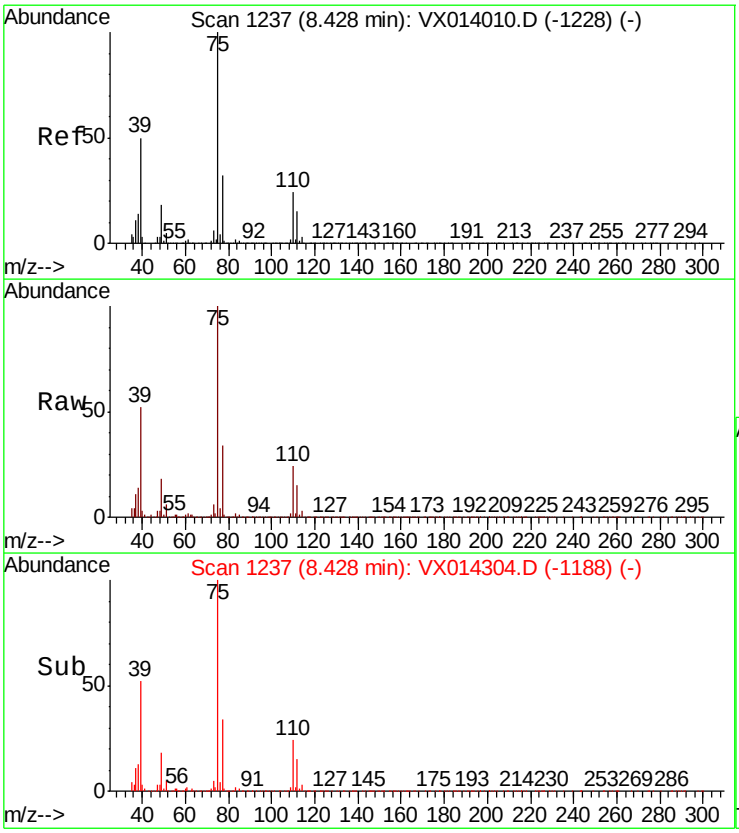


#53
t-1,3-Dichloropropene
Concen: 18.781 ug/l
RT: 9.03 min Scan# 1336
Delta R.T. -0.01 min
Lab File: VX014304.D
Acq: 27 Dec 2019 13:15

Tgt Ion: 75 Resp: 140325

Ion	Ratio	Lower	Upper
75	100		
77	31.2	25.1	37.7

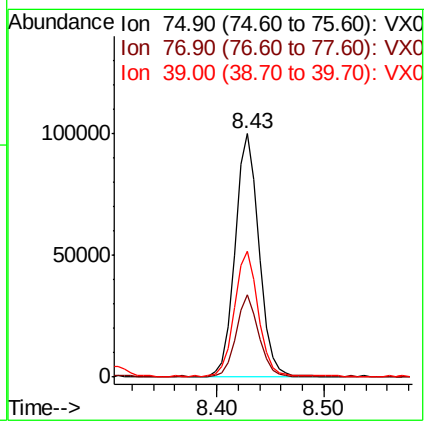




#54
cis-1,3-Dichloropropene
Concen: 18.952 ug/l
RT: 8.43 min Scan# 1237
Delta R.T. -0.00 min
Lab File: VX014304.D
Acq: 27 Dec 2019 13:15

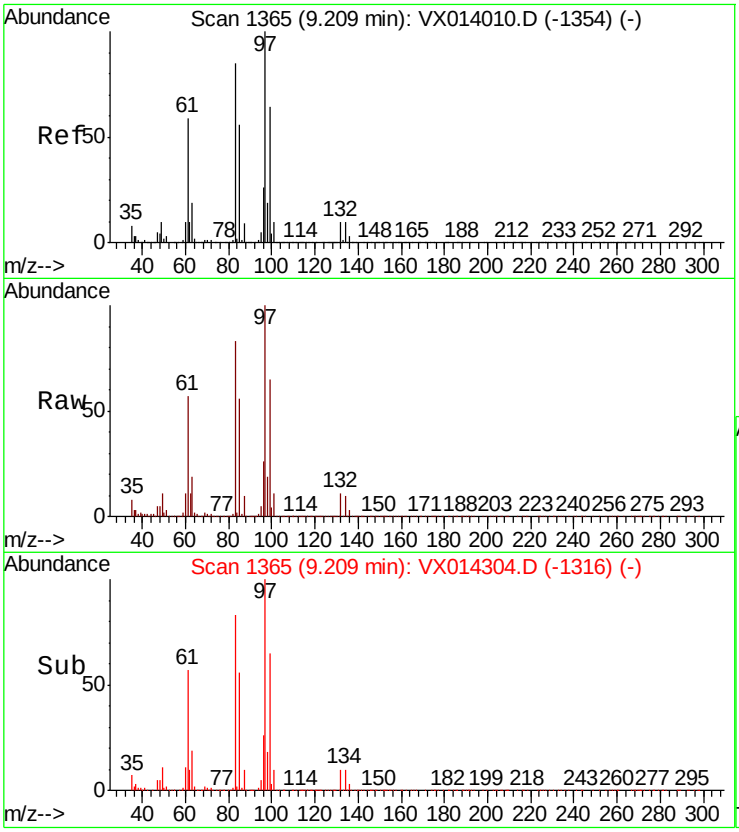
Tgt Ion: 75 Resp: 157749

Ion	Ratio	Lower	Upper
75	100		
77	33.7	25.3	37.9
39	51.4	39.9	59.9



Instrument :
MSVOA_X
ClientSampleId :
VX1227WBS01

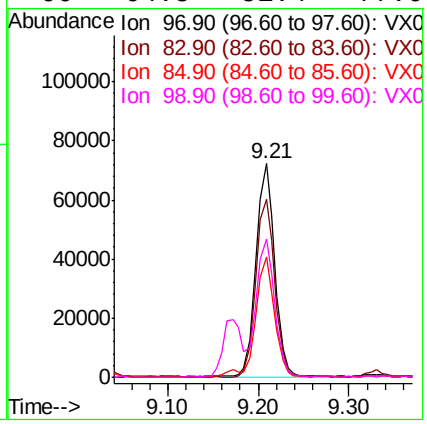
Manual Integrations APPROVED
apatel
12/30/2019 11:04:11 AM

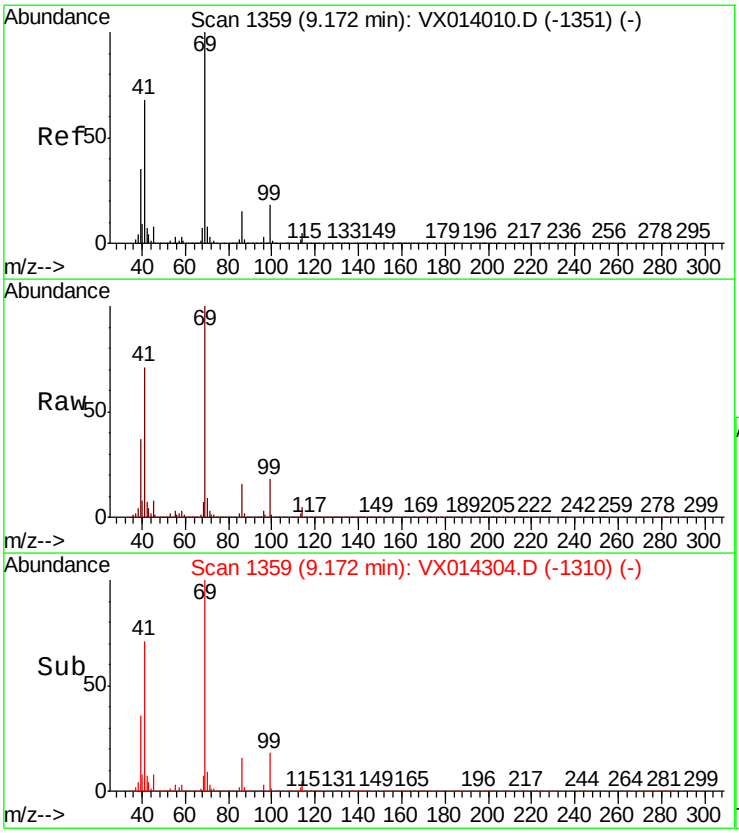


#55
1,1,2-Trichloroethane
Concen: 19.104 ug/l
RT: 9.21 min Scan# 1365
Delta R.T. -0.00 min
Lab File: VX014304.D
Acq: 27 Dec 2019 13:15

Tgt Ion: 97 Resp: 103324

Ion	Ratio	Lower	Upper
97	100		
83	83.1	68.2	102.4
85	56.1	44.6	66.8
99	64.5	51.4	77.0

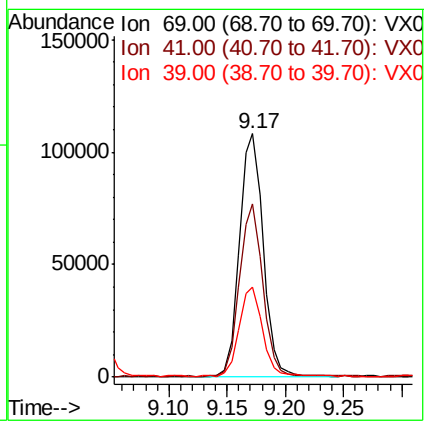




#56
Ethyl methacrylate
Concen: 18.280 ug/l
RT: 9.17 min Scan# 1359
Delta R.T. -0.00 min
Lab File: VX014304.D
Acq: 27 Dec 2019 13:15

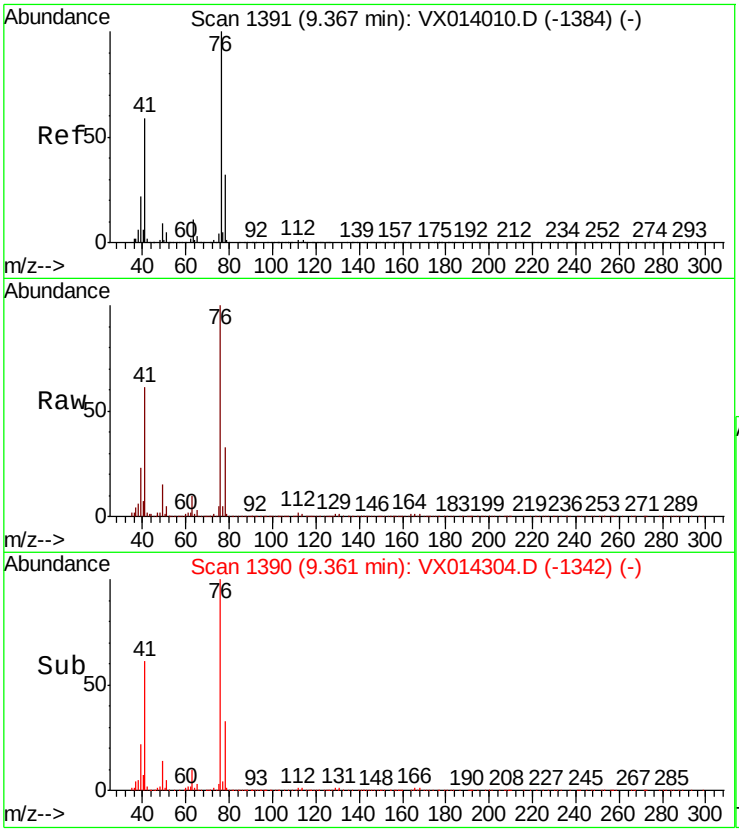
Tgt Ion: 69 Resp: 155302

Ion	Ratio	Lower	Upper
69	100		
41	69.5	54.8	82.2
39	36.1	28.3	42.5



Instrument :
MSVOA_X
ClientSampleId :
VX1227WBS01

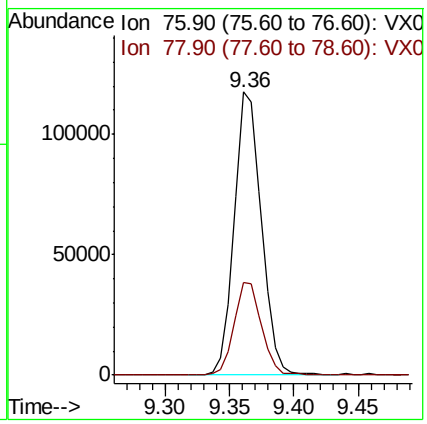
Manual Integrations APPROVED
apatel
12/30/2019 11:04:11 AM

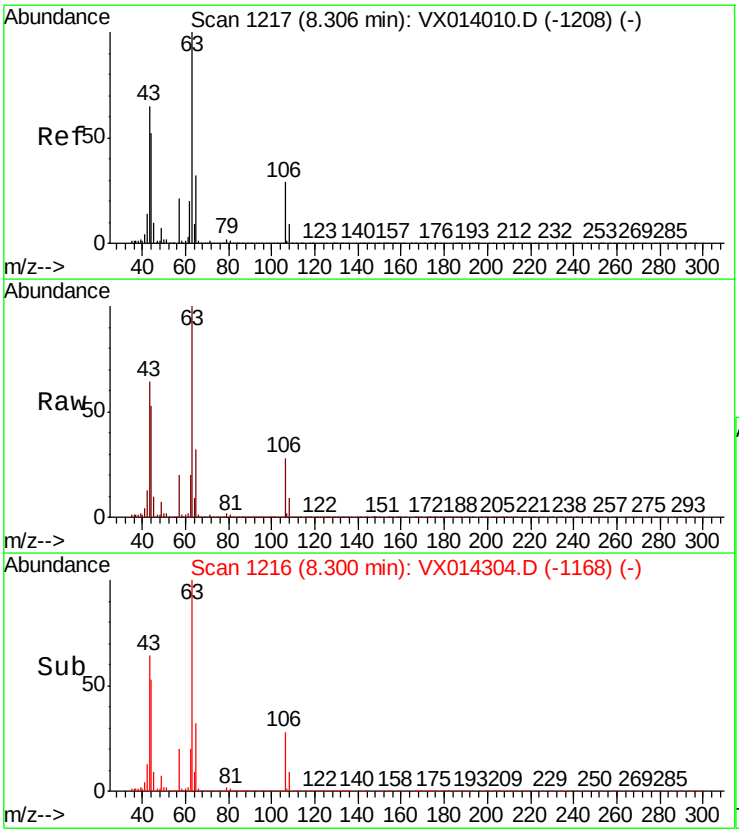


#57
1,3-Dichloropropane
Concen: 18.951 ug/l
RT: 9.36 min Scan# 1390
Delta R.T. -0.01 min
Lab File: VX014304.D
Acq: 27 Dec 2019 13:15

Tgt Ion: 76 Resp: 172450

Ion	Ratio	Lower	Upper
76	100		
78	33.1	25.8	38.6

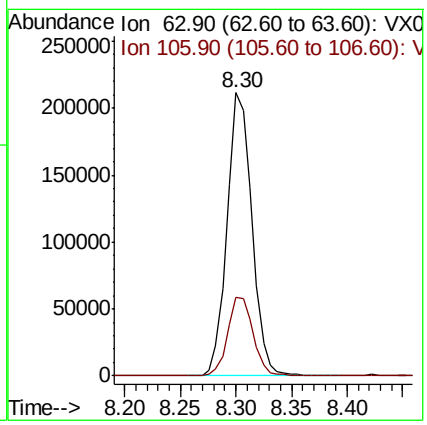




#58
2-Chloroethyl Vinyl ether
Concen: 101.761 ug/l
RT: 8.30 min Scan# 1216
Delta R.T. -0.01 min
Lab File: VX014304.D
Acq: 27 Dec 2019 13:15

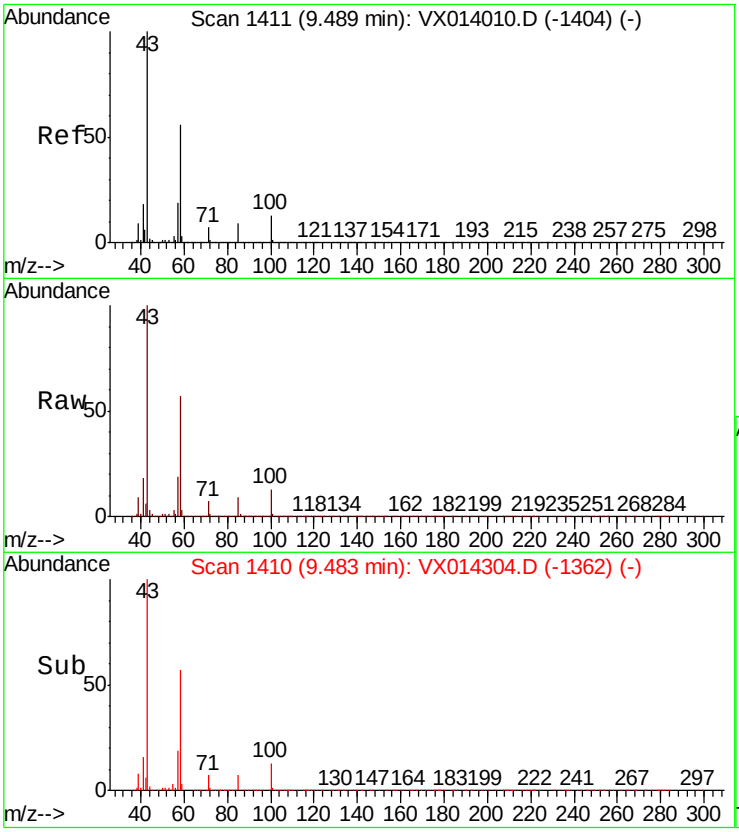
Tgt Ion: 63 Resp: 327178

Ion	Ratio	Lower	Upper
63	100		
106	28.1	23.0	34.6



Instrument :
MSVOA_X
ClientSampleId :
VX1227WBS01

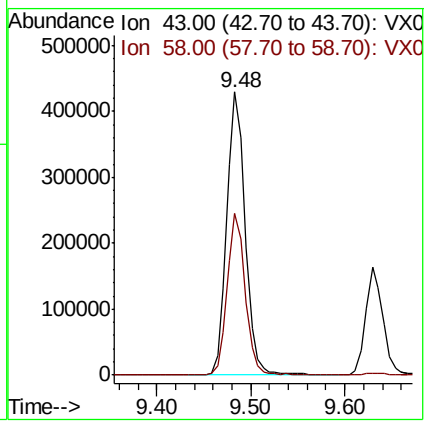
Manual Integrations APPROVED
apatel
12/30/2019 11:04:11 AM

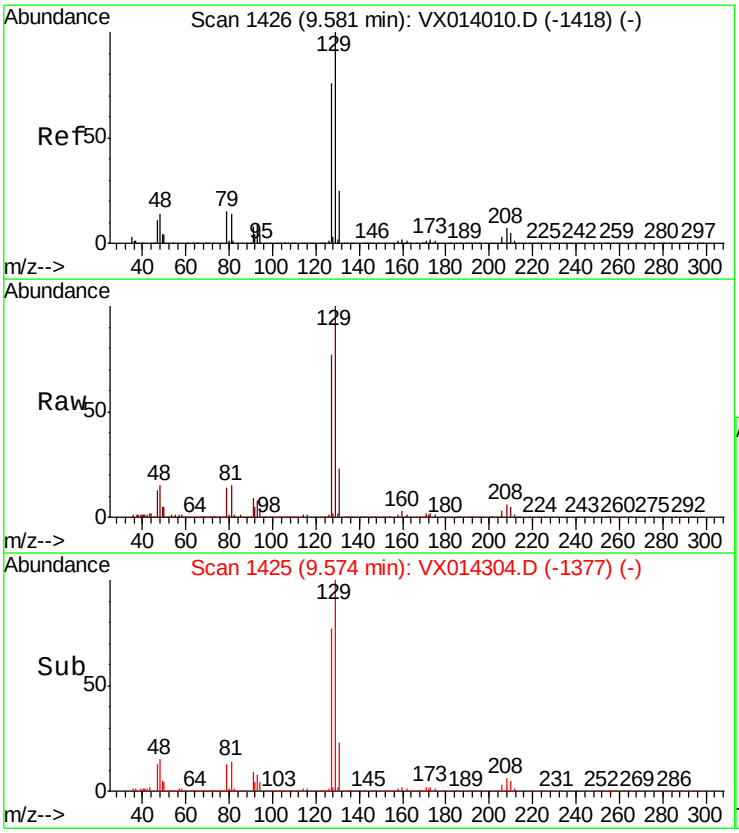


#59
2-Hexanone
Concen: 90.744 ug/l
RT: 9.48 min Scan# 1410
Delta R.T. -0.01 min
Lab File: VX014304.D
Acq: 27 Dec 2019 13:15

Tgt Ion: 43 Resp: 581761

Ion	Ratio	Lower	Upper
43	100		
58	56.2	28.0	84.0

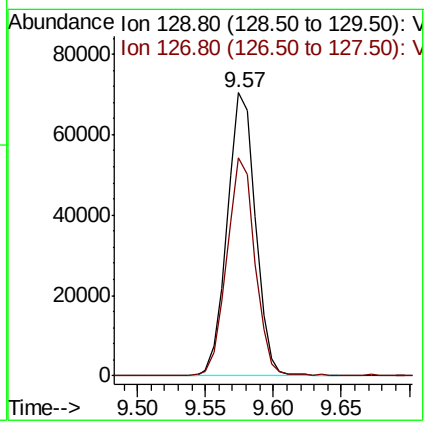




#60
Dibromochloromethane
Concen: 18.830 ug/l
RT: 9.57 min Scan# 1425
Delta R.T. -0.01 min
Lab File: VX014304.D
Acq: 27 Dec 2019 13:15

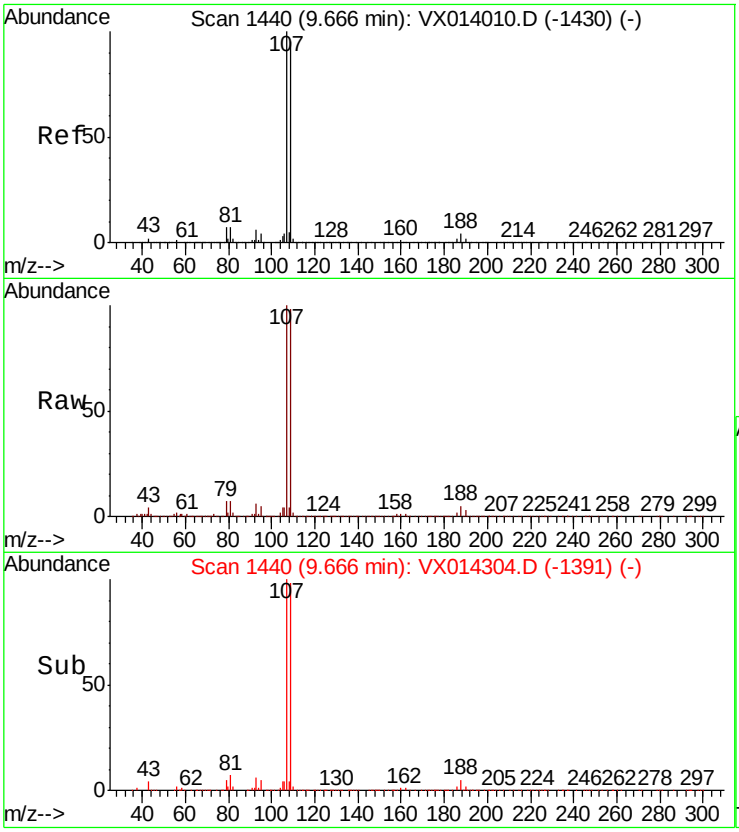
Tgt Ion:129 Resp: 101232

Ion	Ratio	Lower	Upper
129	100		
127	77.2	38.4	115.2



Instrument :
MSVOA_X
ClientSampleId :
VX1227WBS01

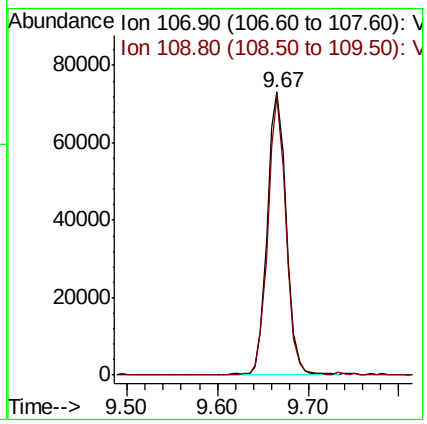
Manual Integrations APPROVED
apatel
12/30/2019 11:04:11 AM

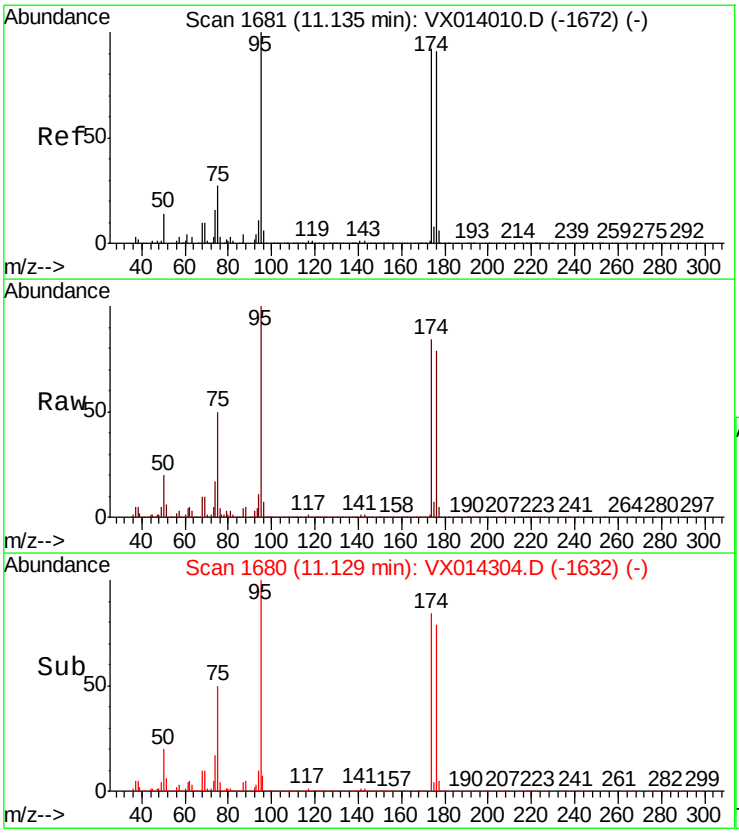


#61
1,2-Dibromoethane
Concen: 19.154 ug/l
RT: 9.67 min Scan# 1440
Delta R.T. -0.00 min
Lab File: VX014304.D
Acq: 27 Dec 2019 13:15

Tgt Ion:107 Resp: 105994

Ion	Ratio	Lower	Upper
107	100		
109	92.9	75.7	113.5

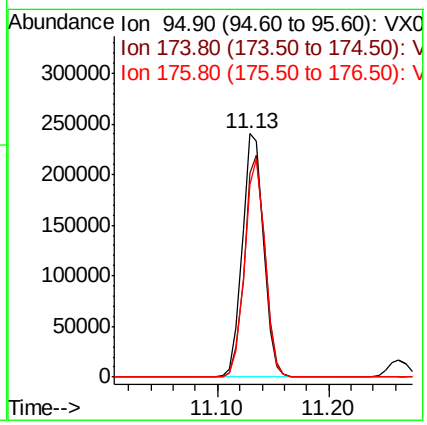




#62
4-Bromofluorobenzene
Concen: 48.441 ug/l
RT: 11.13 min Scan# 1680
Delta R.T. -0.01 min
Lab File: VX014304.D
Acq: 27 Dec 2019 13:15

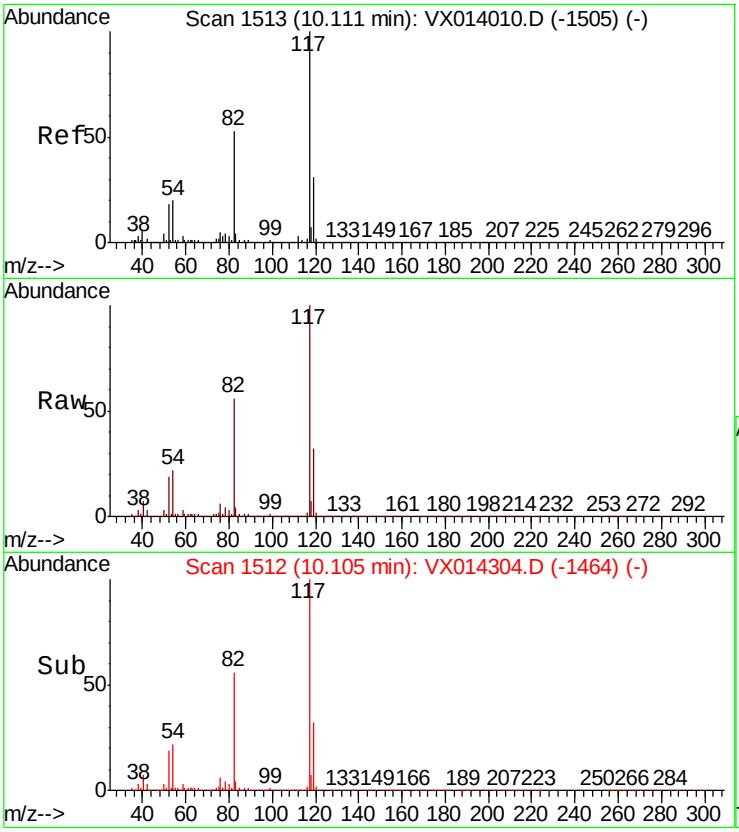
Tgt Ion: 95 Resp: 316921

Ion	Ratio	Lower	Upper
95	100		
174	88.0	0.0	175.8
176	85.9	0.0	173.0



Instrument :
MSVOA_X
ClientSampleId :
VX1227WBS01

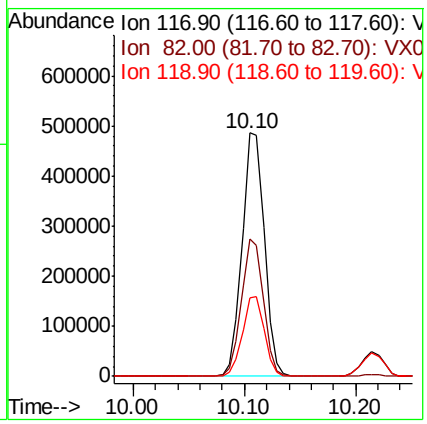
Manual Integrations APPROVED
apatel
12/30/2019 11:04:11 AM

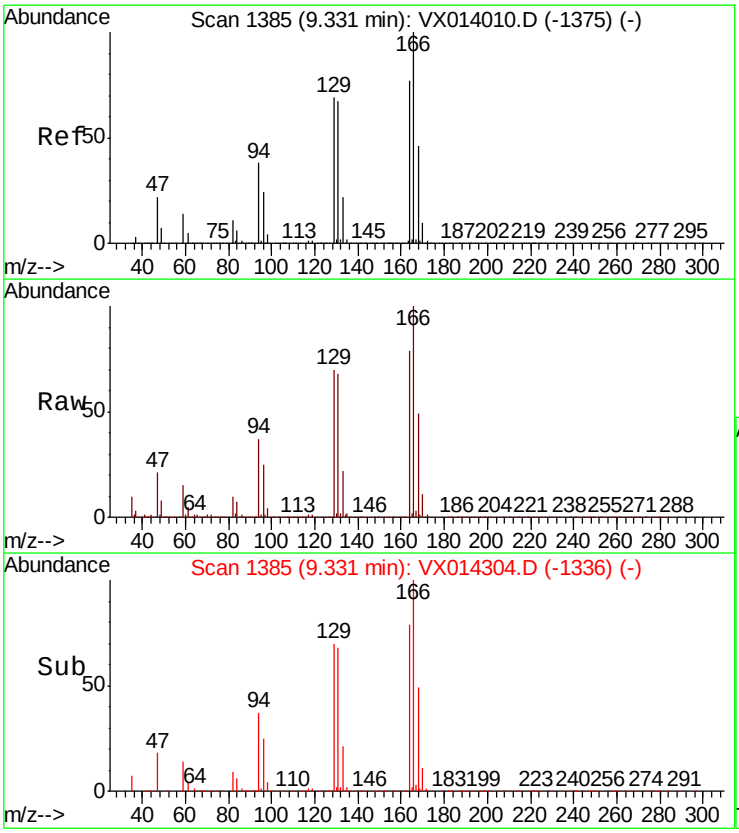


#63
Chlorobenzene-d5
Concen: 50.000 ug/l
RT: 10.10 min Scan# 1512
Delta R.T. -0.01 min
Lab File: VX014304.D
Acq: 27 Dec 2019 13:15

Tgt Ion:117 Resp: 675604

Ion	Ratio	Lower	Upper
117	100		
82	56.2	42.2	63.4
119	32.2	25.1	37.7

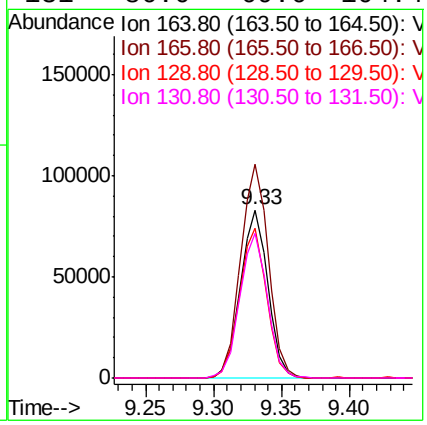




#64
Tetrachloroethene
Concen: 19.607 ug/l
RT: 9.33 min Scan# 1385
Delta R.T. -0.00 min
Lab File: VX014304.D
Acq: 27 Dec 2019 13:15

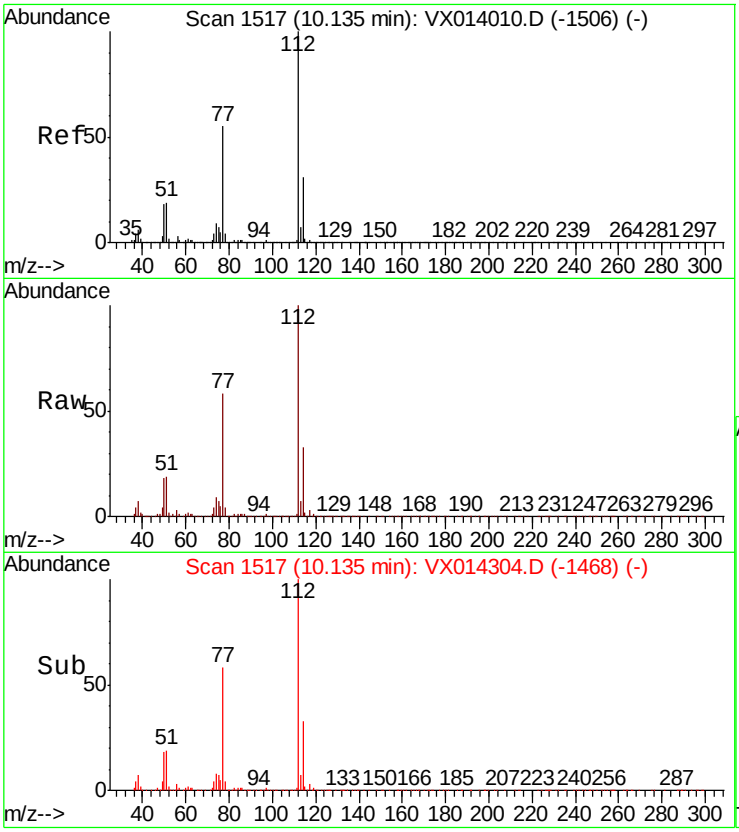
Tgt Ion:164 Resp: 117215

Ion	Ratio	Lower	Upper
164	100		
166	126.8	104.0	156.0
129	88.8	72.2	108.4
131	86.0	69.6	104.4



Instrument :
MSVOA_X
ClientSampleId :
VX1227WBS01

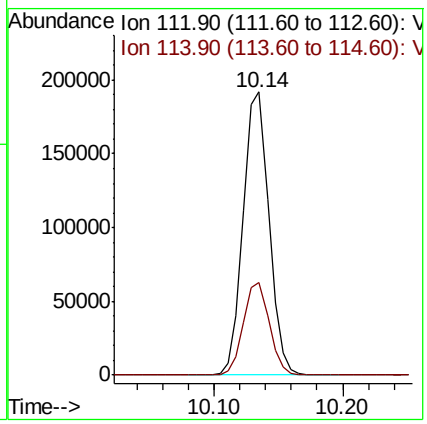
Manual Integrations APPROVED
apatel
12/30/2019 11:04:11 AM

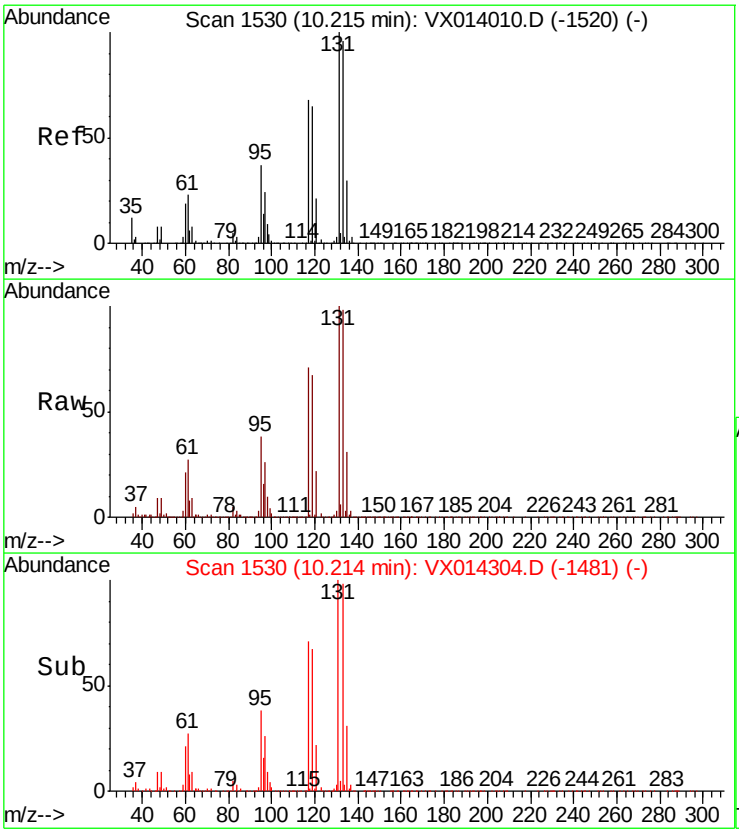


#65
Chlorobenzene
Concen: 18.471 ug/l
RT: 10.14 min Scan# 1517
Delta R.T. -0.00 min
Lab File: VX014304.D
Acq: 27 Dec 2019 13:15

Tgt Ion:112 Resp: 265338

Ion	Ratio	Lower	Upper
112	100		
114	32.5	24.9	37.3

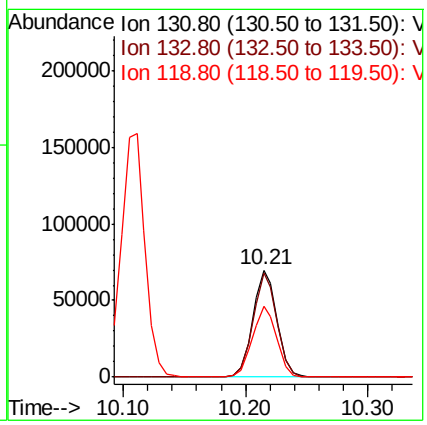




#66
1,1,1,2-Tetrachloroethane
Concen: 18.665 ug/l
RT: 10.21 min Scan# 1530
Delta R.T. -0.00 min
Lab File: VX014304.D
Acq: 27 Dec 2019 13:15

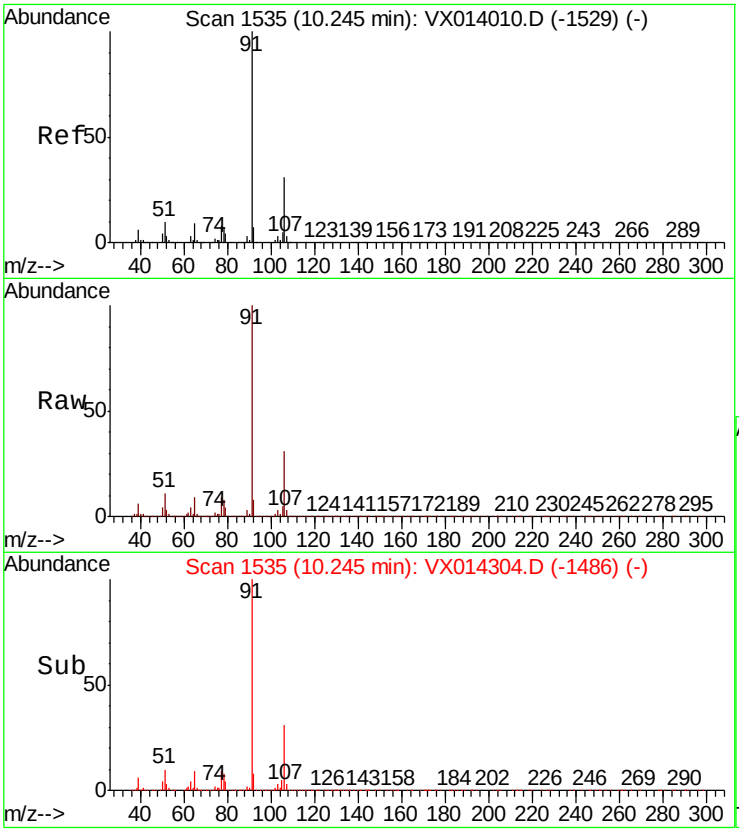
Tgt Ion:131 Resp: 95733

Ion	Ratio	Lower	Upper
131	100		
133	96.6	48.0	144.0
119	66.9	33.4	100.2



Instrument :
MSVOA_X
ClientSampleId :
VX1227WBS01

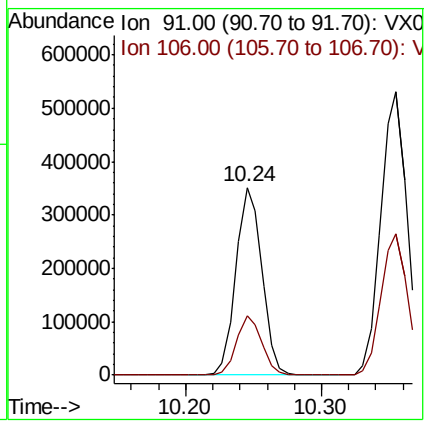
Manual Integrations APPROVED
apatel
12/30/2019 11:04:11 AM

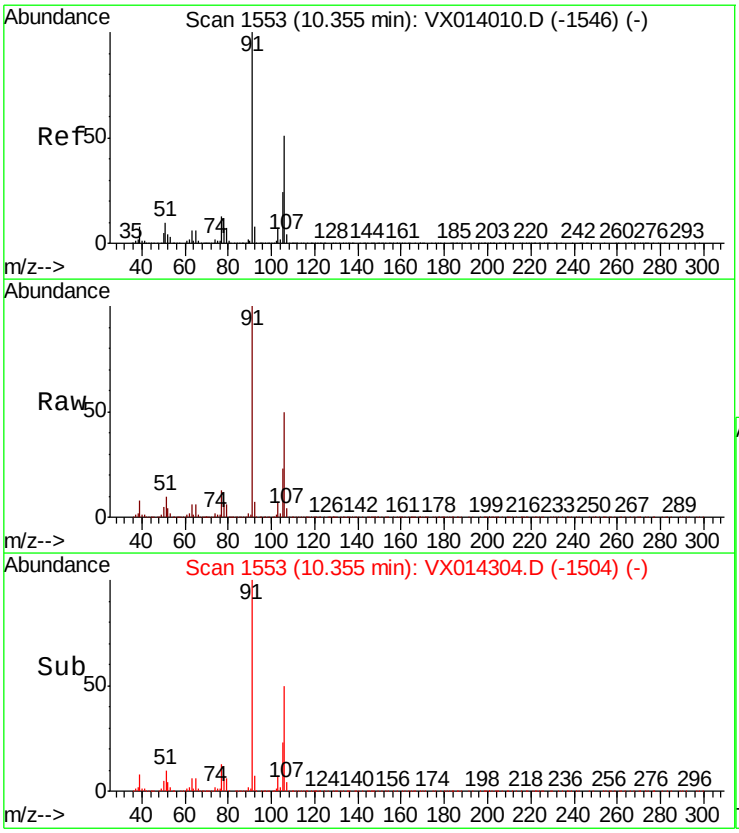


#67
Ethyl Benzene
Concen: 18.947 ug/l
RT: 10.24 min Scan# 1535
Delta R.T. -0.00 min
Lab File: VX014304.D
Acq: 27 Dec 2019 13:15

Tgt Ion: 91 Resp: 467925

Ion	Ratio	Lower	Upper
91	100		
106	31.4	25.0	37.6

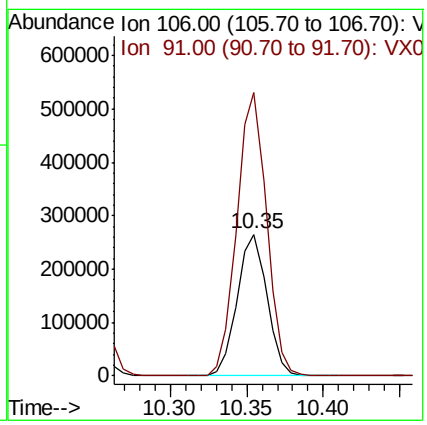




#68
m/p-Xylenes
Concen: 37.753 ug/l
RT: 10.35 min Scan# 1553
Delta R.T. -0.00 min
Lab File: VX014304.D
Acq: 27 Dec 2019 13:15

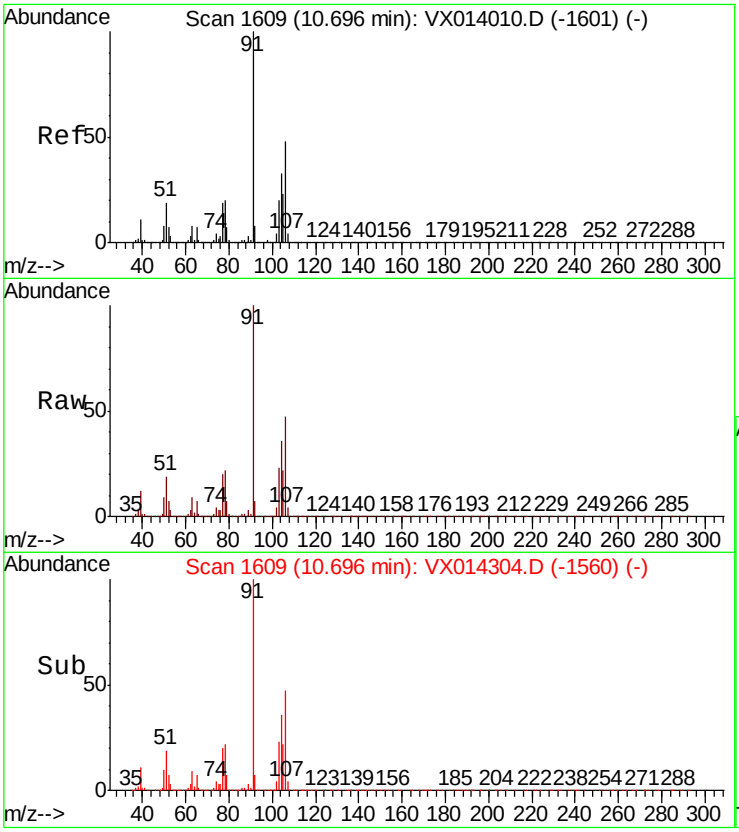
Tgt Ion:106 Resp: 358602

Ion	Ratio	Lower	Upper
106	100		
91	198.6	158.6	238.0



Instrument :
MSVOA_X
ClientSampleId :
VX1227WBS01

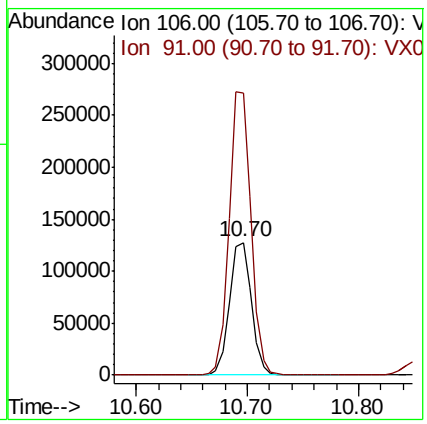
Manual Integrations APPROVED
apatel
12/30/2019 11:04:11 AM

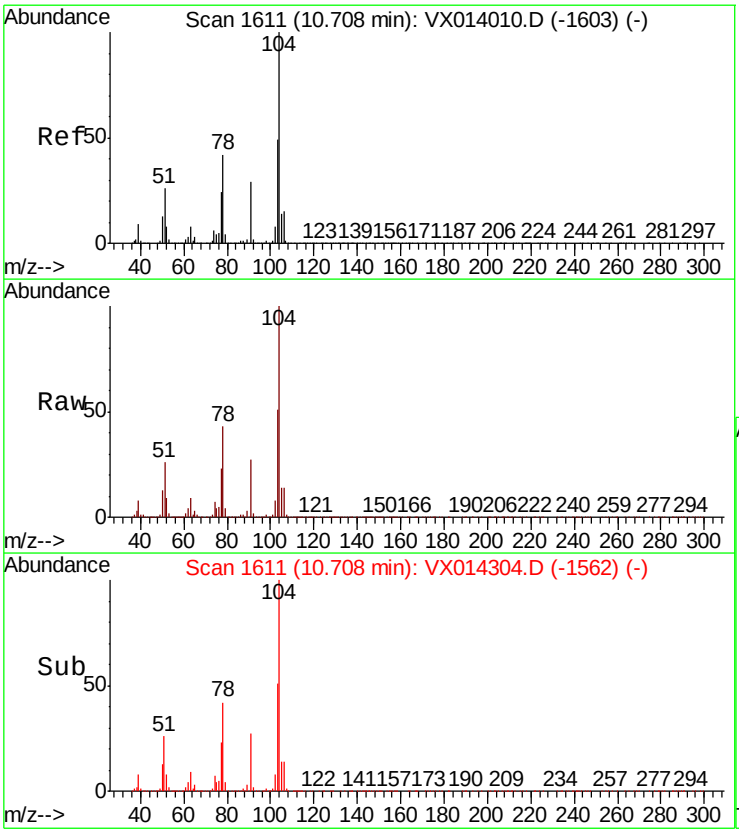


#69
o-Xylene
Concen: 18.560 ug/l
RT: 10.70 min Scan# 1609
Delta R.T. -0.00 min
Lab File: VX014304.D
Acq: 27 Dec 2019 13:15

Tgt Ion:106 Resp: 172906

Ion	Ratio	Lower	Upper
106	100		
91	212.1	104.2	312.6

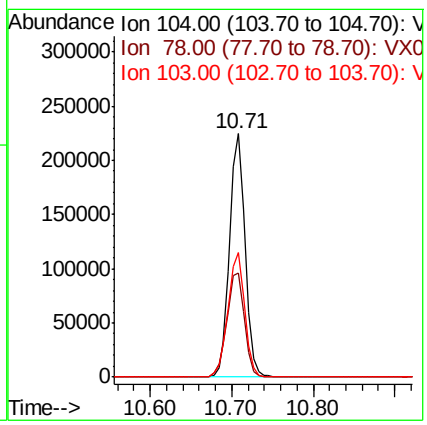


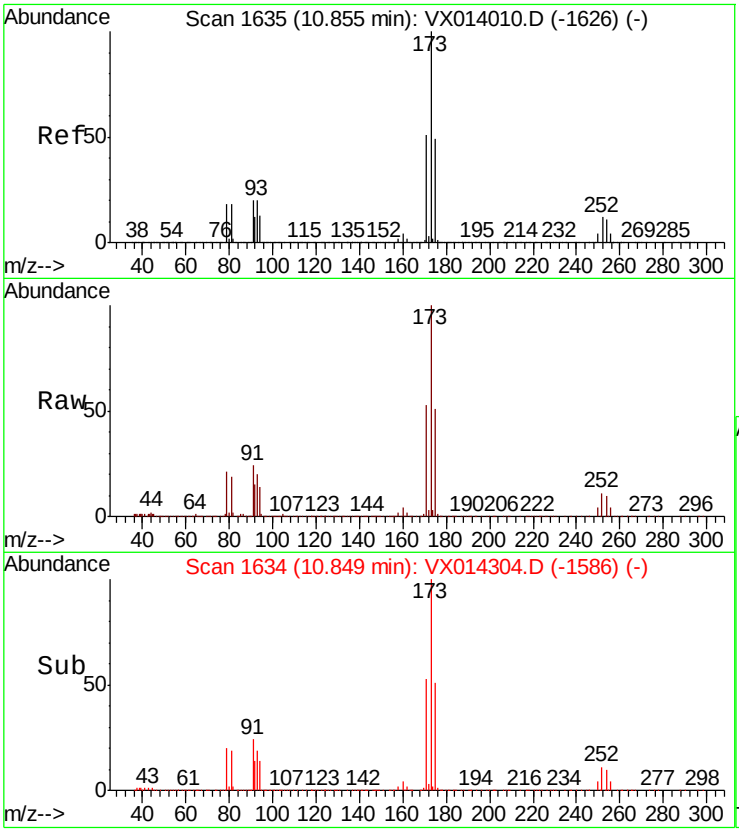


#70
Styrene
Concen: 18.601 ug/l
RT: 10.71 min Scan# 1611
Delta R.T. -0.00 min
Lab File: VX014304.D
Acq: 27 Dec 2019 13:15

Tgt Ion:104 Resp: 293024

Ion	Ratio	Lower	Upper
104	100		
78	48.2	38.5	57.7
103	55.1	42.9	64.3

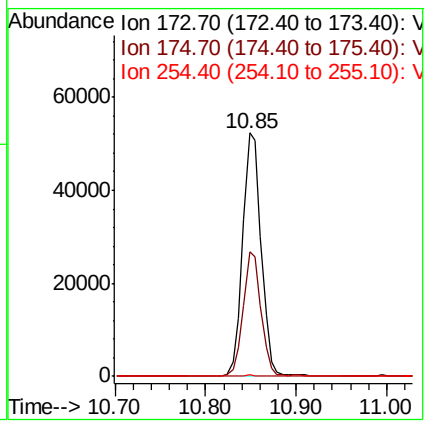


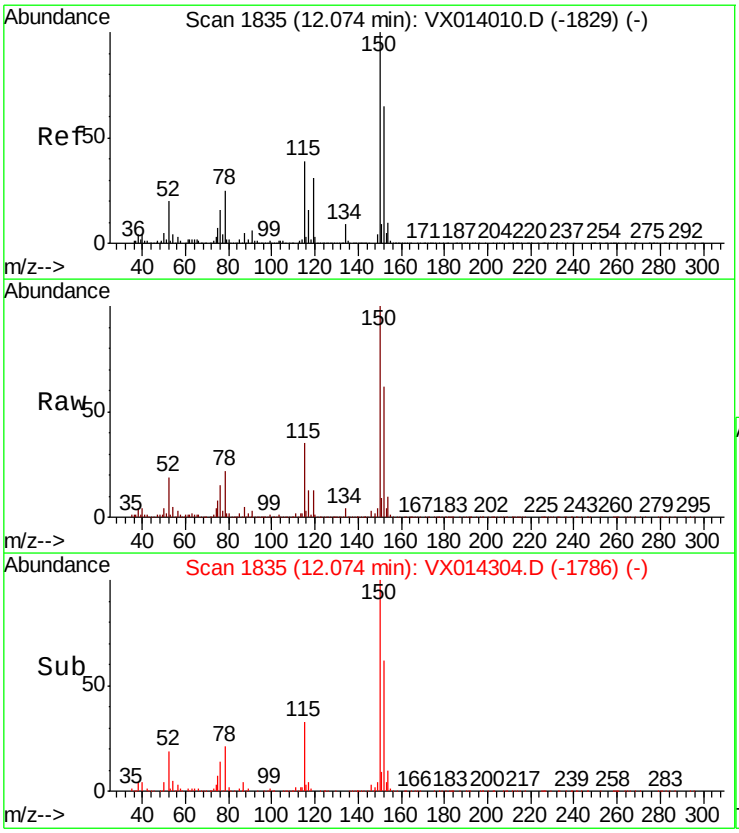


#71
Bromoform
Concen: 17.956 ug/l
RT: 10.85 min Scan# 1634
Delta R.T. -0.01 min
Lab File: VX014304.D
Acq: 27 Dec 2019 13:15

Tgt Ion:173 Resp: 74032

Ion	Ratio	Lower	Upper
173	100		
175	49.1	24.4	73.4
254	0.4	0.2	0.2#

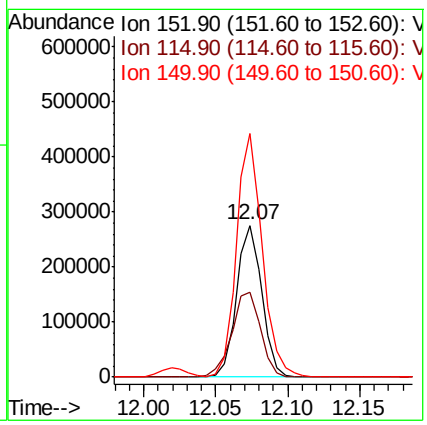




#72
1,4-Dichlorobenzene-d4
Concen: 50.000 ug/l
RT: 12.07 min Scan# 1835
Delta R.T. -0.00 min
Lab File: VX014304.D
Acq: 27 Dec 2019 13:15

Tgt Ion:152 Resp: 335091

Ion	Ratio	Lower	Upper
152	100		
115	64.4	38.3	114.9
150	164.4	0.0	345.4

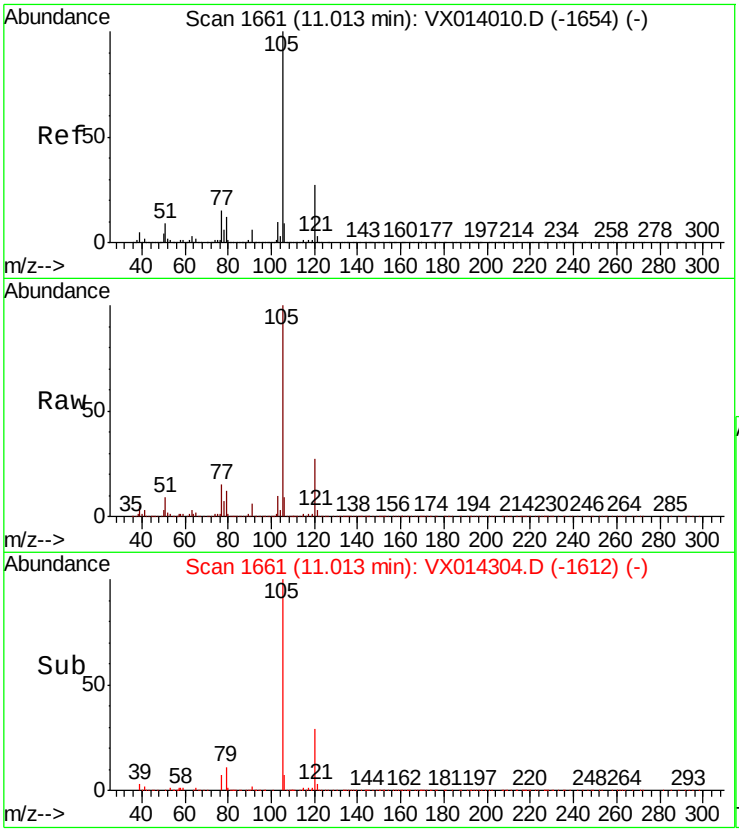


Instrument :
MSVOA_X
ClientSampleId :
VX1227WBS01

Manual Integrations APPROVED
apatel
12/30/2019 11:04:11 AM

Instrument :
MSVOA_X
ClientSampleId :
VX1227WBS01

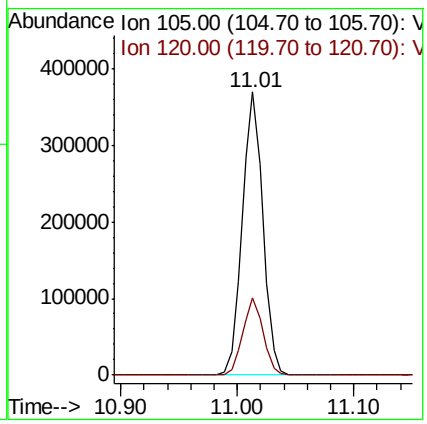
Manual Integrations APPROVED
apatel
12/30/2019 11:04:11 AM

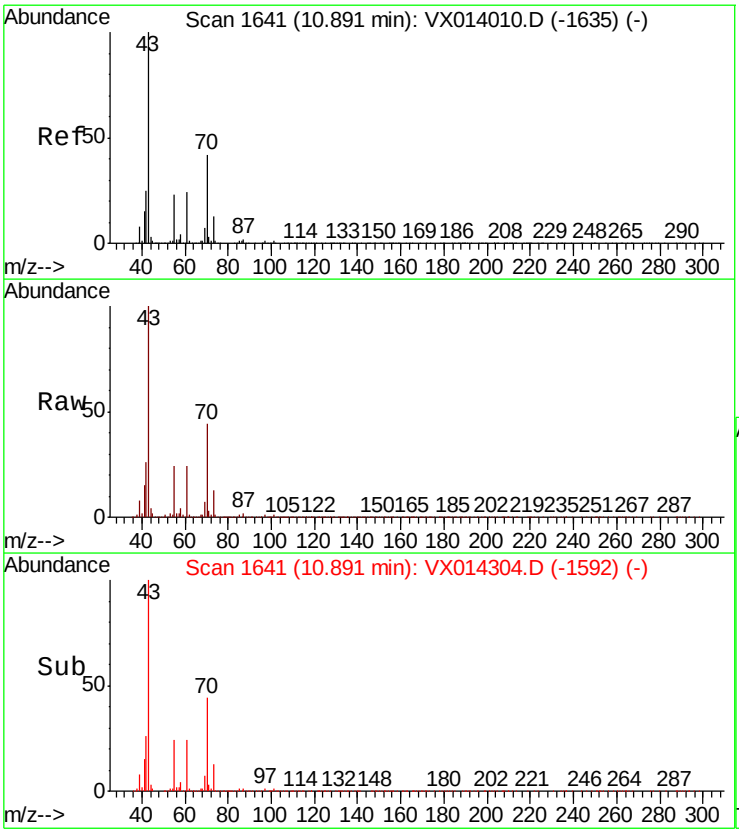


#73
Isopropylbenzene
Concen: 19.330 ug/l
RT: 11.01 min Scan# 1661
Delta R.T. -0.00 min
Lab File: VX014304.D
Acq: 27 Dec 2019 13:15

Tgt Ion:105 Resp: 456059

Ion	Ratio	Lower	Upper
105	100		
120	27.3	13.5	40.4

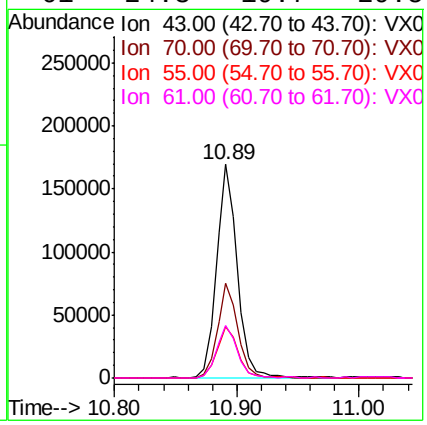




#74
N-amyl acetate
Concen: 18.104 ug/l
RT: 10.89 min Scan# 1641
Delta R.T. -0.00 min
Lab File: VX014304.D
Acq: 27 Dec 2019 13:15

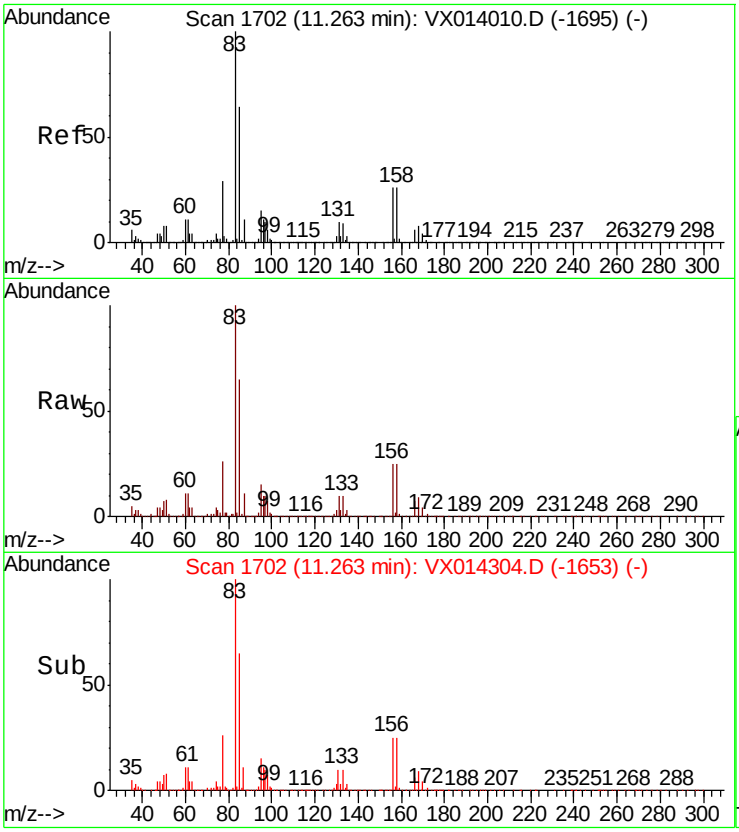
Tgt Ion: 43 Resp: 200215

Ion	Ratio	Lower	Upper
43	100		
70	42.8	34.4	51.6
55	24.4	19.1	28.7
61	24.3	19.7	29.5



Instrument :
MSVOA_X
ClientSampleId :
VX1227WBS01

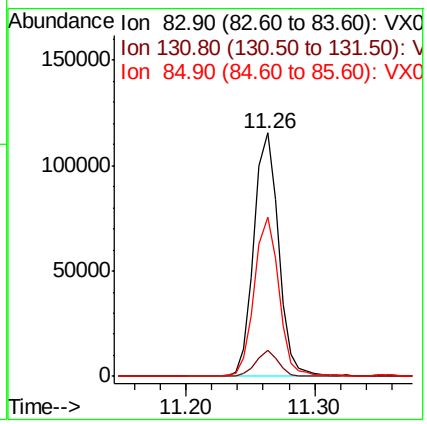
Manual Integrations APPROVED
apatel
12/30/2019 11:04:11 AM

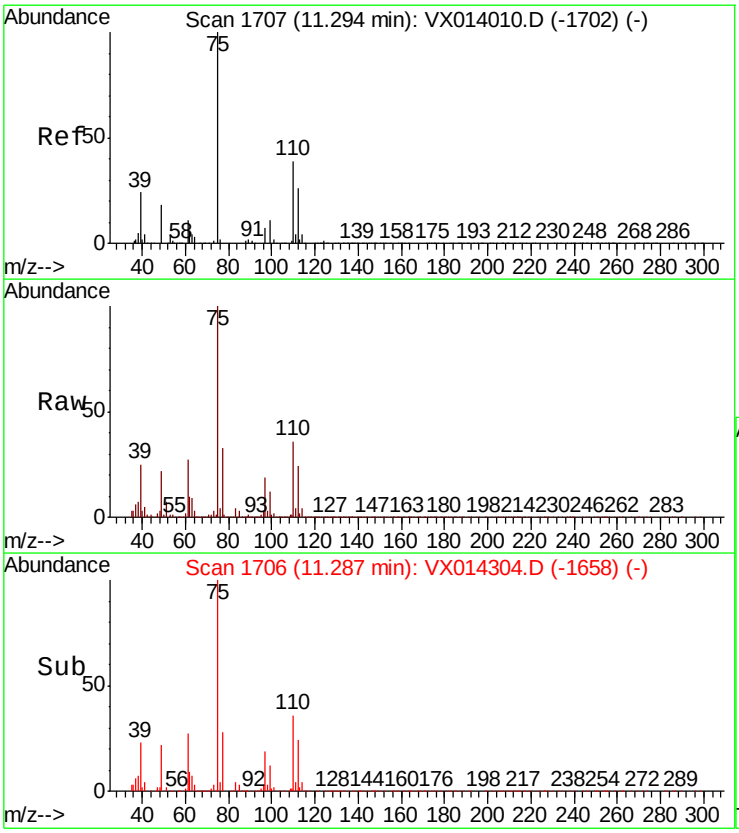


#75
1,1,2,2-Tetrachloroethane
Concen: 18.570 ug/l
RT: 11.26 min Scan# 1702
Delta R.T. -0.00 min
Lab File: VX014304.D
Acq: 27 Dec 2019 13:15

Tgt Ion: 83 Resp: 151896

Ion	Ratio	Lower	Upper
83	100		
131	9.9	5.1	15.2
85	65.2	31.9	95.7

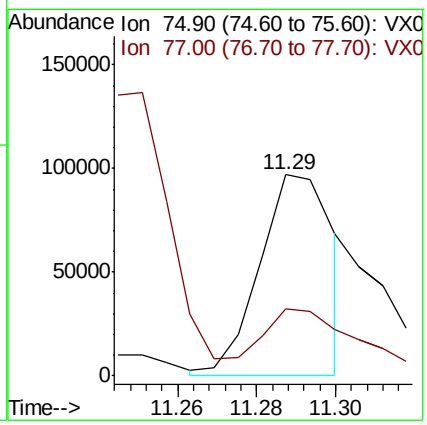




#76
1,2,3-Trichloropropane
Concen: 17.249 ug/l m
RT: 11.29 min Scan# 1706
Delta R.T. -0.01 min
Lab File: VX014304.D
Acq: 27 Dec 2019 13:15

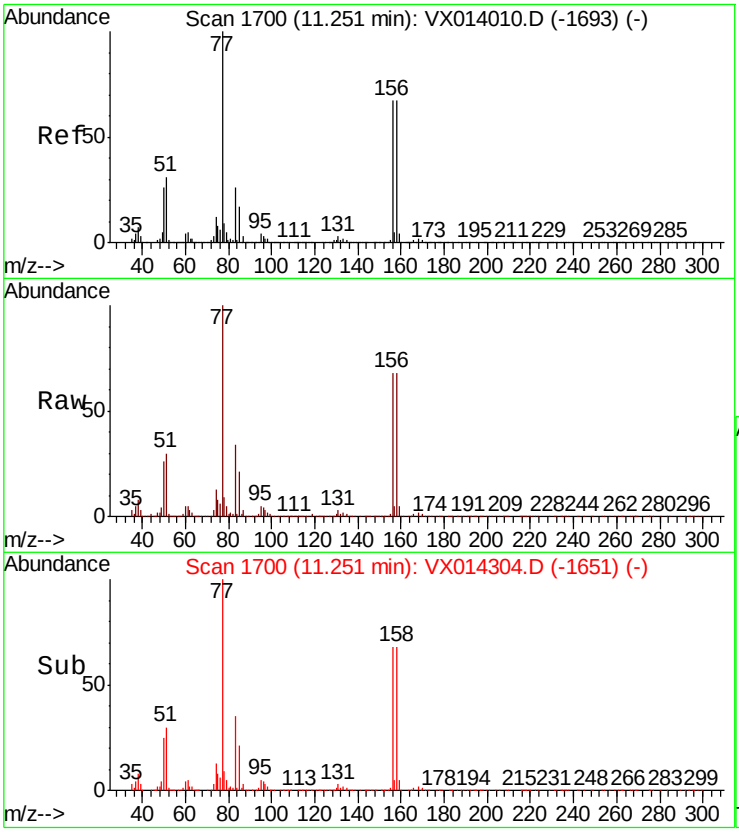
Tgt Ion: 75 Resp: 125481

Ion	Ratio	Lower	Upper
75	100		
77	41.7	19.3	57.8



Instrument :
MSVOA_X
ClientSampleId :
VX1227WBS01

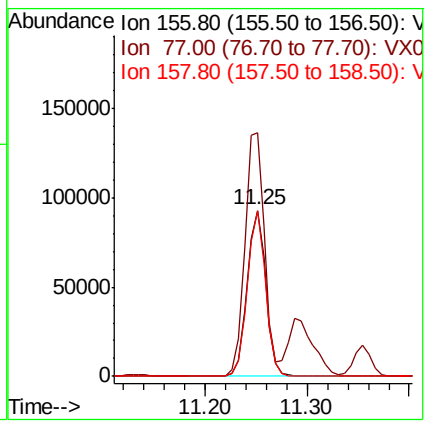
Manual Integrations APPROVED
apatel
12/30/2019 11:04:11 AM

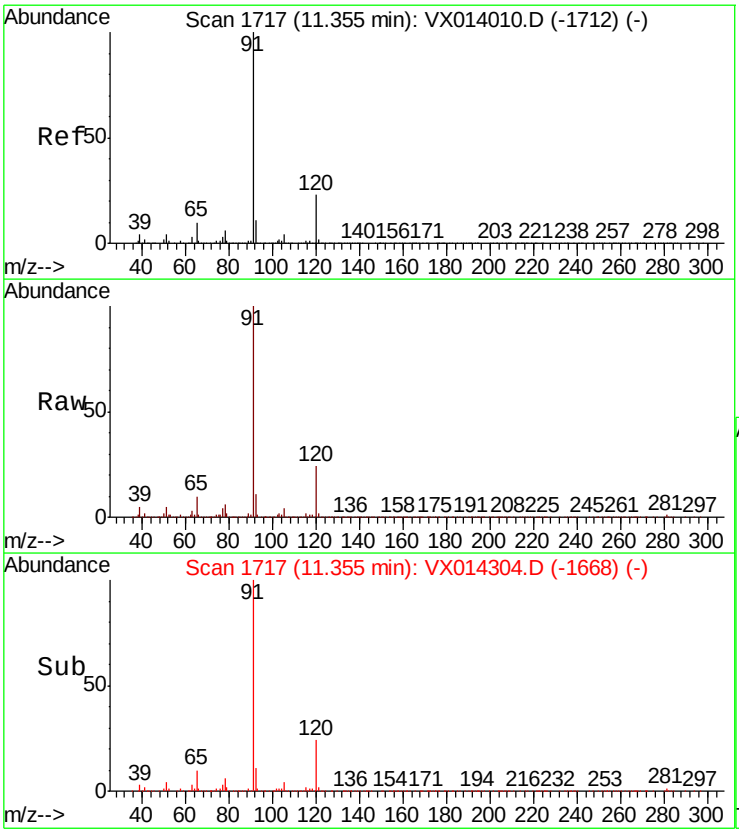


#77
Bromobenzene
Concen: 18.299 ug/l
RT: 11.25 min Scan# 1700
Delta R.T. -0.00 min
Lab File: VX014304.D
Acq: 27 Dec 2019 13:15

Tgt Ion:156 Resp: 118787

Ion	Ratio	Lower	Upper
156	100		
77	150.8	76.5	229.5
158	97.4	49.3	147.9

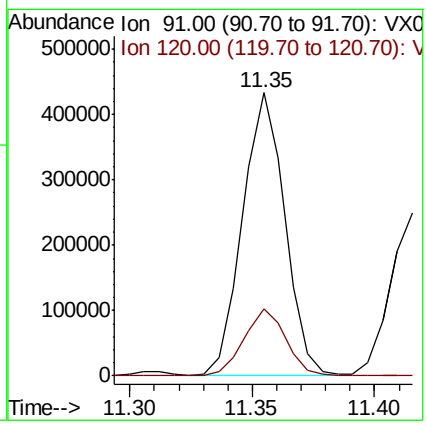




#78
n-propylbenzene
Concen: 19.591 ug/l
RT: 11.35 min Scan# 1717
Delta R.T. -0.00 min
Lab File: VX014304.D
Acq: 27 Dec 2019 13:15

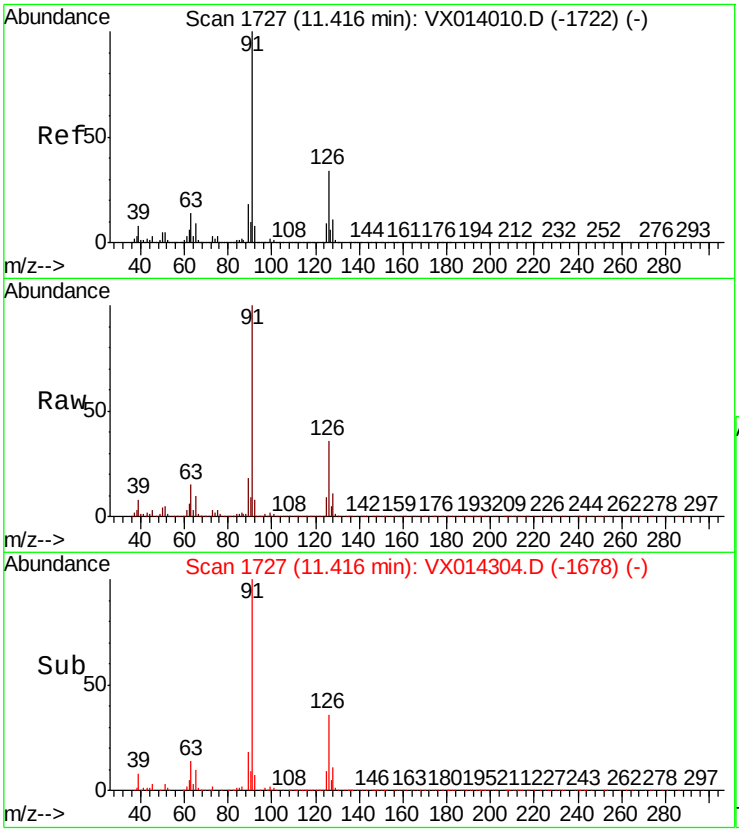
Tgt Ion: 91 Resp: 518456

Ion	Ratio	Lower	Upper
91	100		
120	23.5	11.7	35.0



Instrument :
MSVOA_X
ClientSampleId :
VX1227WBS01

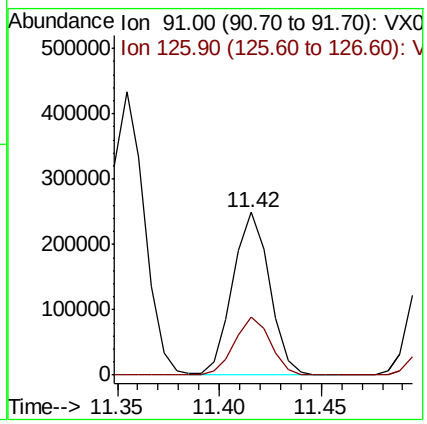
Manual Integrations APPROVED
apatel
12/30/2019 11:04:11 AM

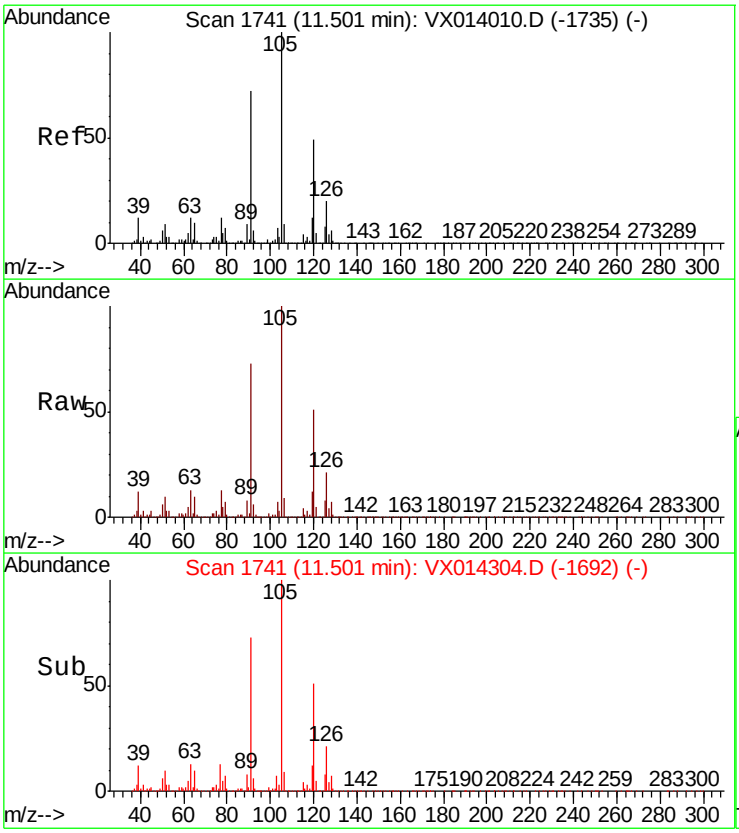


#79
2-Chlorotoluene
Concen: 19.244 ug/l
RT: 11.42 min Scan# 1727
Delta R.T. -0.00 min
Lab File: VX014304.D
Acq: 27 Dec 2019 13:15

Tgt Ion: 91 Resp: 309572

Ion	Ratio	Lower	Upper
91	100		
126	35.4	17.2	51.6

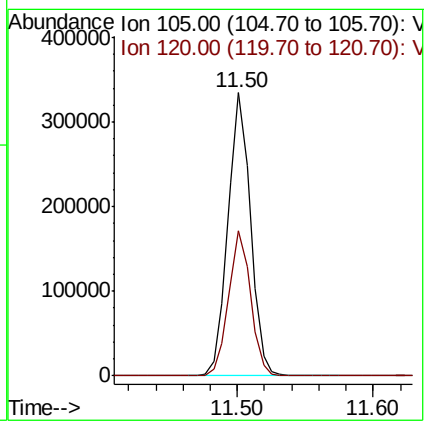


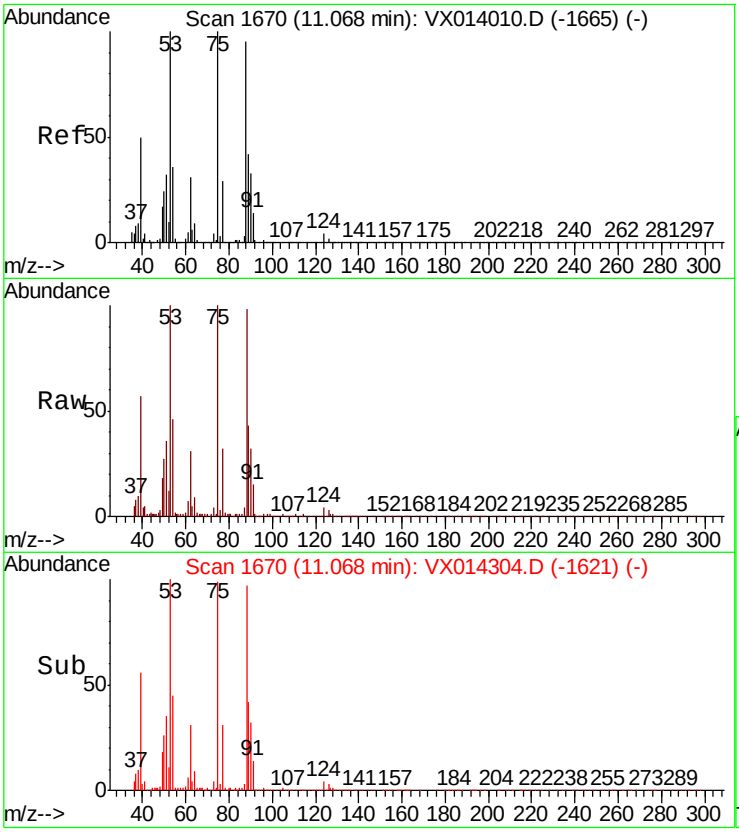


#80
1,3,5-Trimethylbenzene
Concen: 19.333 ug/l
RT: 11.50 min Scan# 1741
Delta R.T. -0.00 min
Lab File: VX014304.D
Acq: 27 Dec 2019 13:15

Tgt Ion:105 Resp: 383872

Ion	Ratio	Lower	Upper
105	100		
120	50.3	25.3	75.8

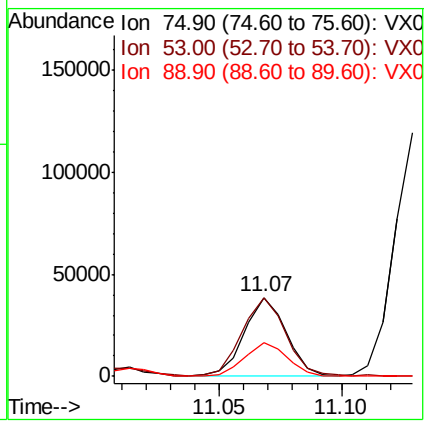




#81
trans-1,4-Dichloro-2-butene
Concen: 17.734 ug/l
RT: 11.07 min Scan# 1670
Delta R.T. -0.00 min
Lab File: VX014304.D
Acq: 27 Dec 2019 13:15

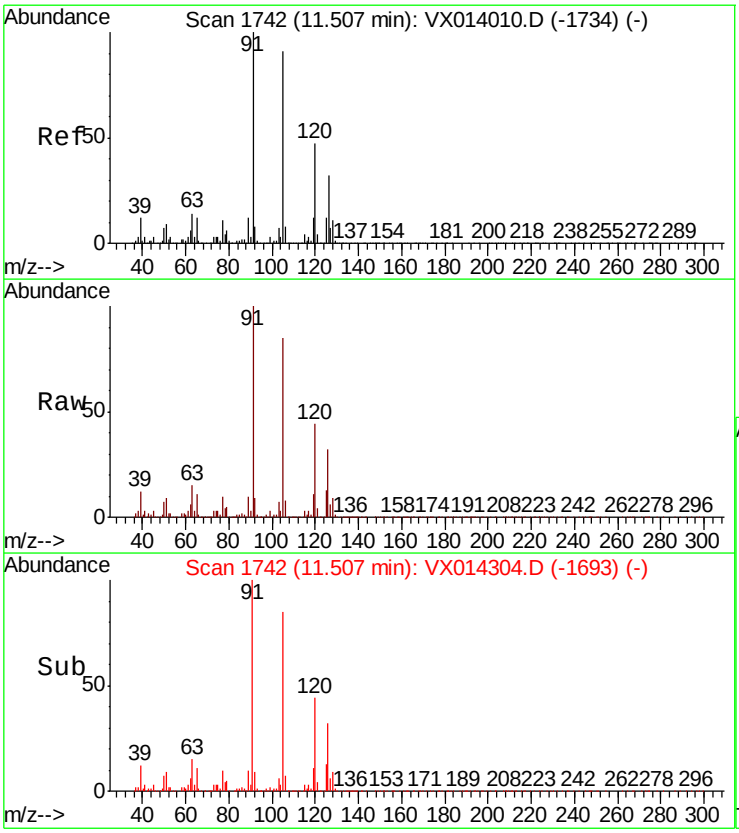
Tgt Ion: 75 Resp: 45707

Ion	Ratio	Lower	Upper
75	100		
53	105.4	76.7	115.1
89	45.7	34.6	51.8



Instrument :
MSVOA_X
ClientSampleId :
VX1227WBS01

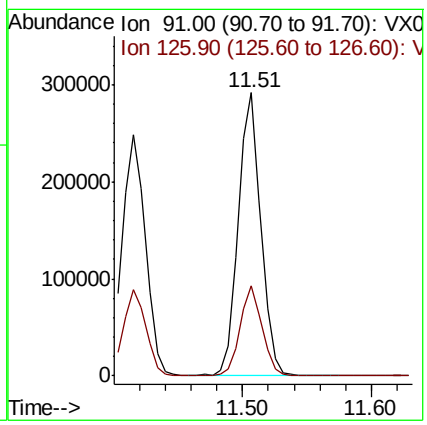
Manual Integrations APPROVED
apatel
12/30/2019 11:04:11 AM

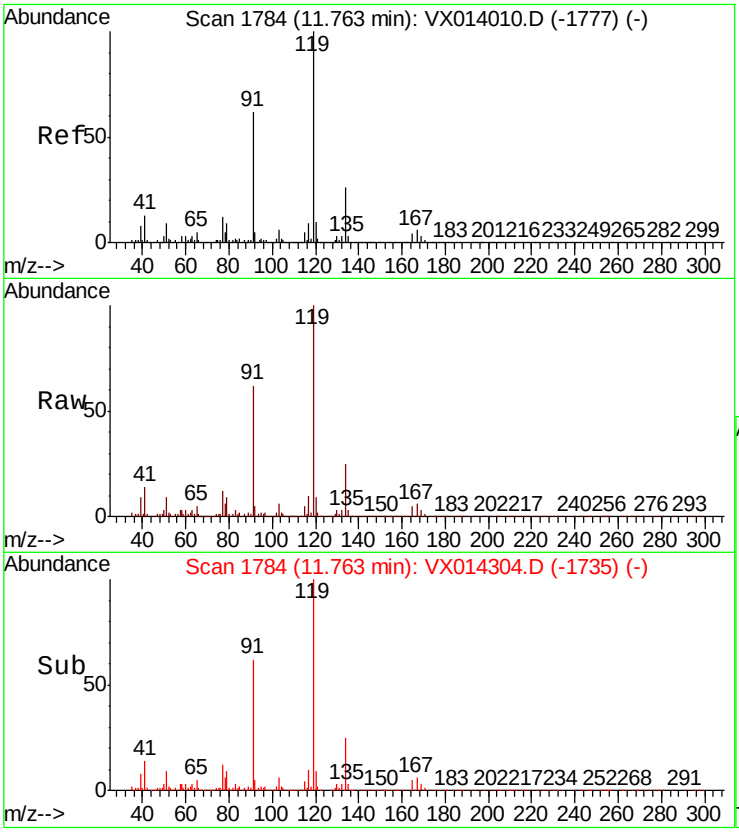


#82
4-Chlorotoluene
Concen: 19.032 ug/l
RT: 11.51 min Scan# 1742
Delta R.T. -0.00 min
Lab File: VX014304.D
Acq: 27 Dec 2019 13:15

Tgt Ion: 91 Resp: 355142

Ion	Ratio	Lower	Upper
91	100		
126	30.6	15.6	46.8

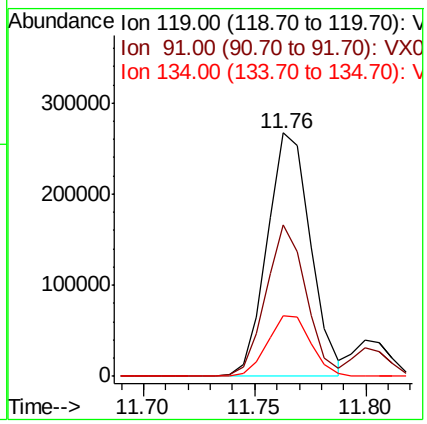


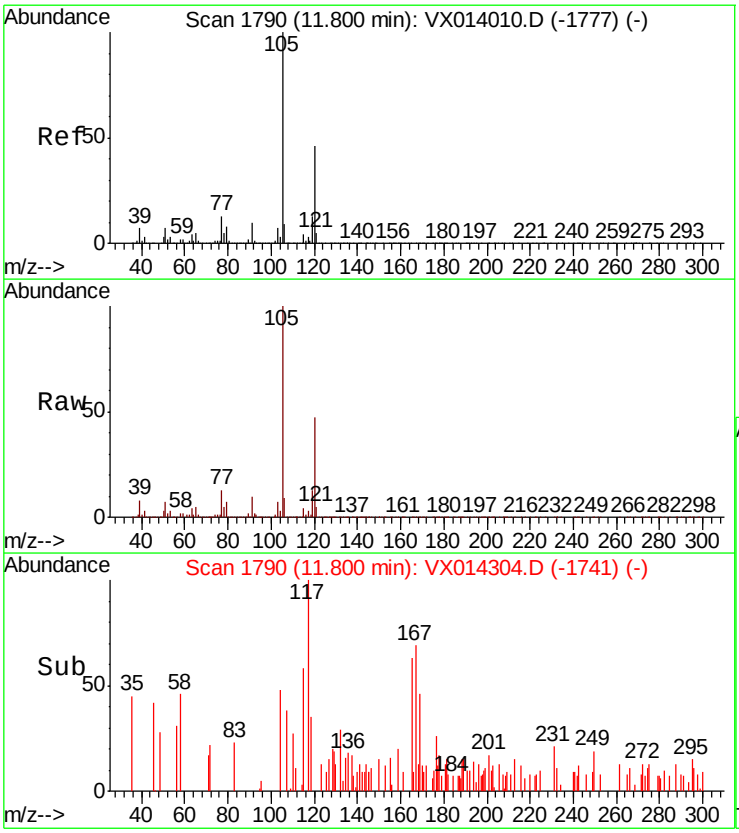


#83
tert-Butylbenzene
Concen: 18.640 ug/l
RT: 11.76 min Scan# 1784
Delta R.T. -0.00 min
Lab File: VX014304.D
Acq: 27 Dec 2019 13:15

Tgt Ion:119 Resp: 360175

Ion	Ratio	Lower	Upper
119	100		
91	57.8	28.5	85.6
134	24.7	12.2	36.6

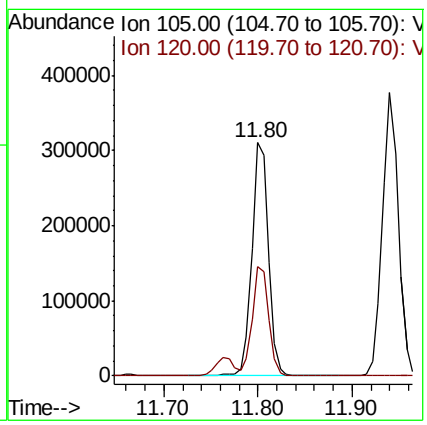




#84
1,2,4-Trimethylbenzene
Concen: 19.346 ug/l
RT: 11.80 min Scan# 1790
Delta R.T. -0.00 min
Lab File: VX014304.D
Acq: 27 Dec 2019 13:15

Tgt Ion:105 Resp: 384678

Ion	Ratio	Lower	Upper
105	100		
120	46.0	23.1	69.2

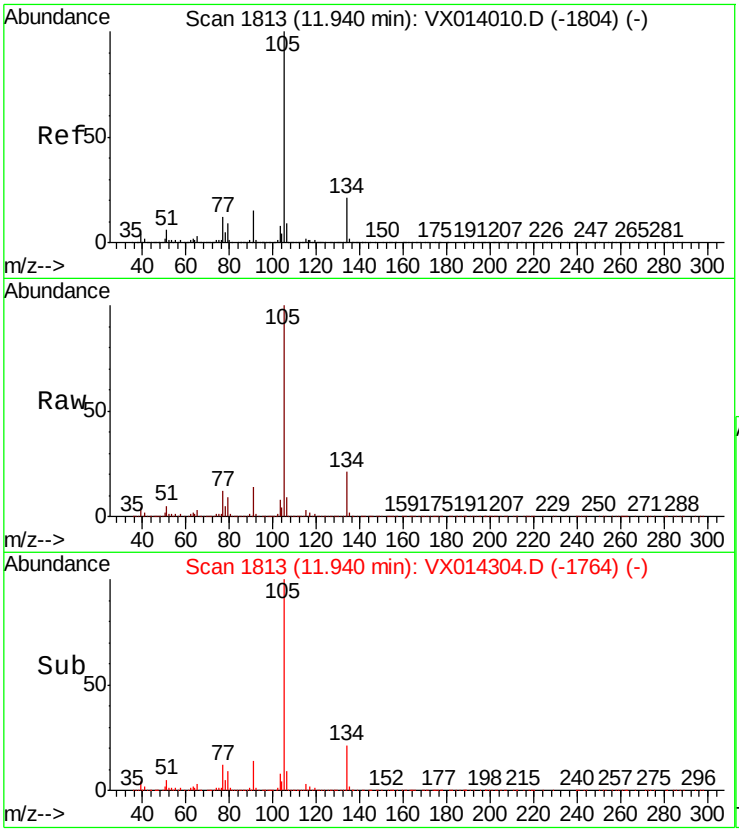


Instrument :
MSVOA_X
ClientSampleId :
VX1227WBS01

Manual Integrations APPROVED
apatel
12/30/2019 11:04:11 AM

Instrument :
MSVOA_X
ClientSampleId :
VX1227WBS01

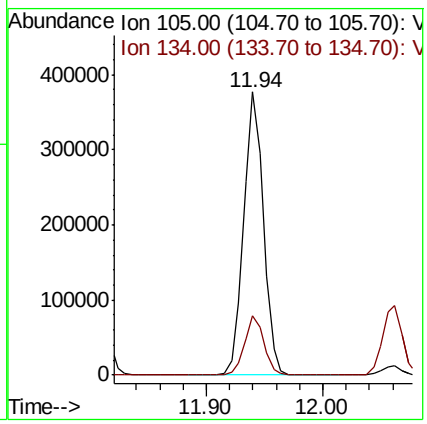
Manual Integrations APPROVED
apatel
12/30/2019 11:04:11 AM

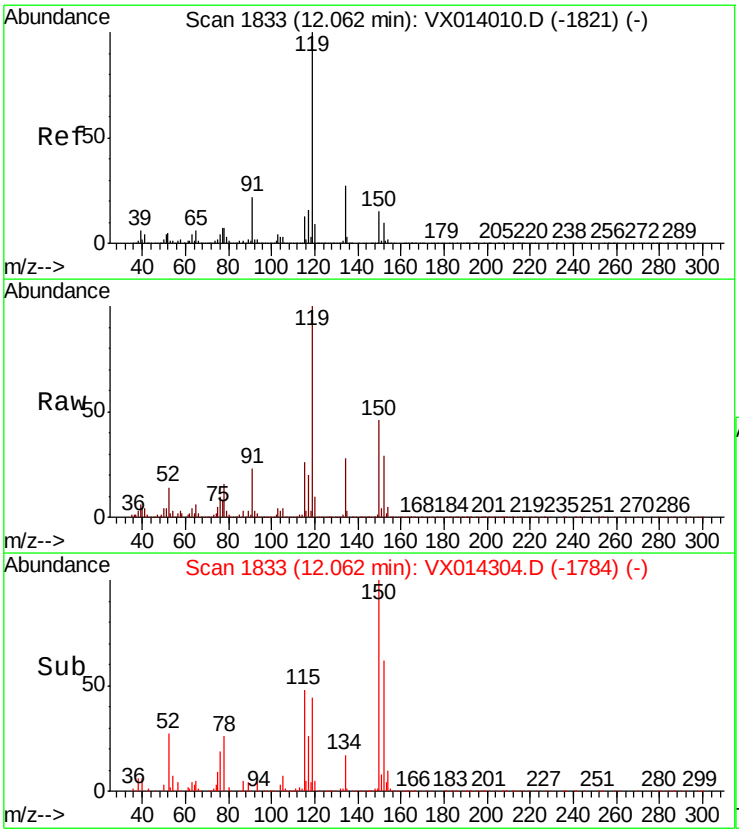


#85
sec-Butylbenzene
Concen: 19.644 ug/l
RT: 11.94 min Scan# 1813
Delta R.T. -0.00 min
Lab File: VX014304.D
Acq: 27 Dec 2019 13:15

Tgt Ion:105 Resp: 448109

Ion	Ratio	Lower	Upper
105	100		
134	20.6	10.4	31.1

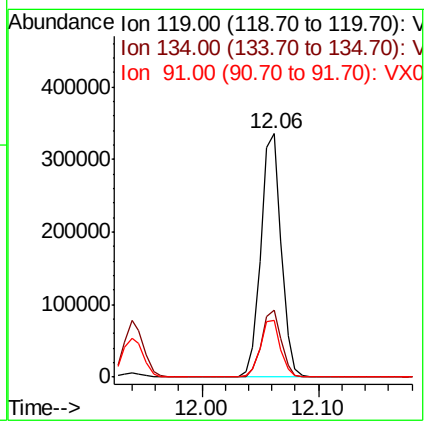


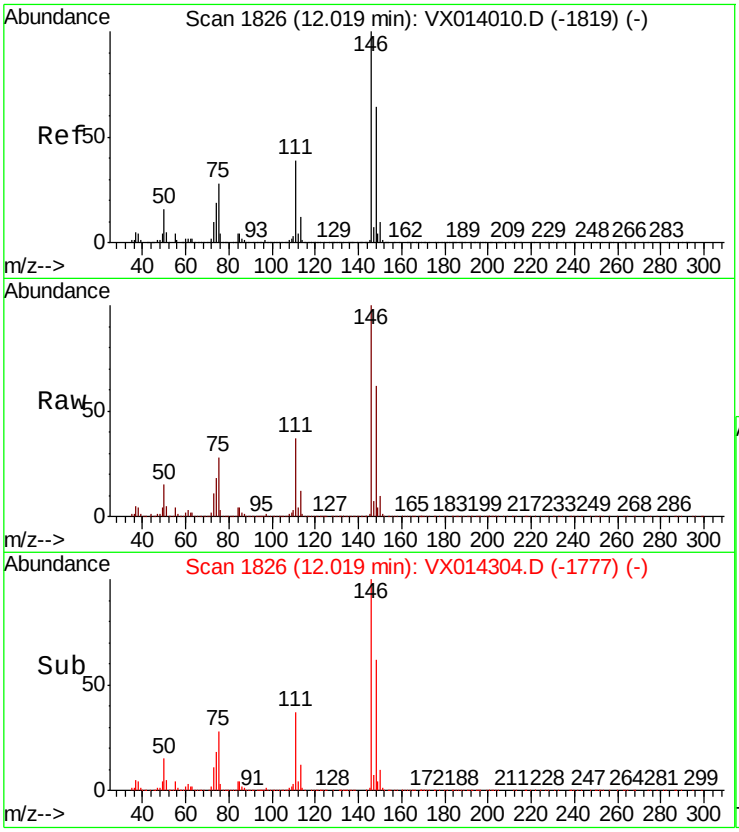


#86
p-Isopropyltoluene
Concen: 19.607 ug/l
RT: 12.06 min Scan# 1833
Delta R.T. -0.00 min
Lab File: VX014304.D
Acq: 27 Dec 2019 13:15

Tgt Ion:119 Resp: 409125

Ion	Ratio	Lower	Upper
119	100		
134	27.0	13.4	40.1
91	23.3	11.4	34.1

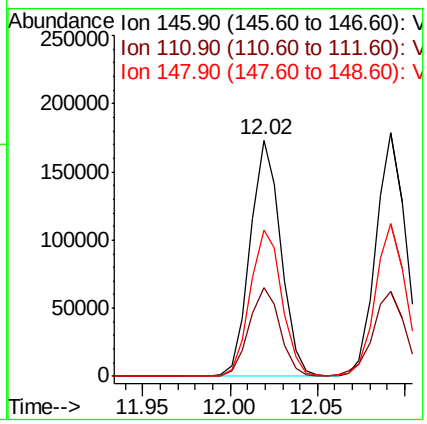




#87
1,3-Dichlorobenzene
Concen: 18.549 ug/l
RT: 12.02 min Scan# 1826
Delta R.T. -0.00 min
Lab File: VX014304.D
Acq: 27 Dec 2019 13:15

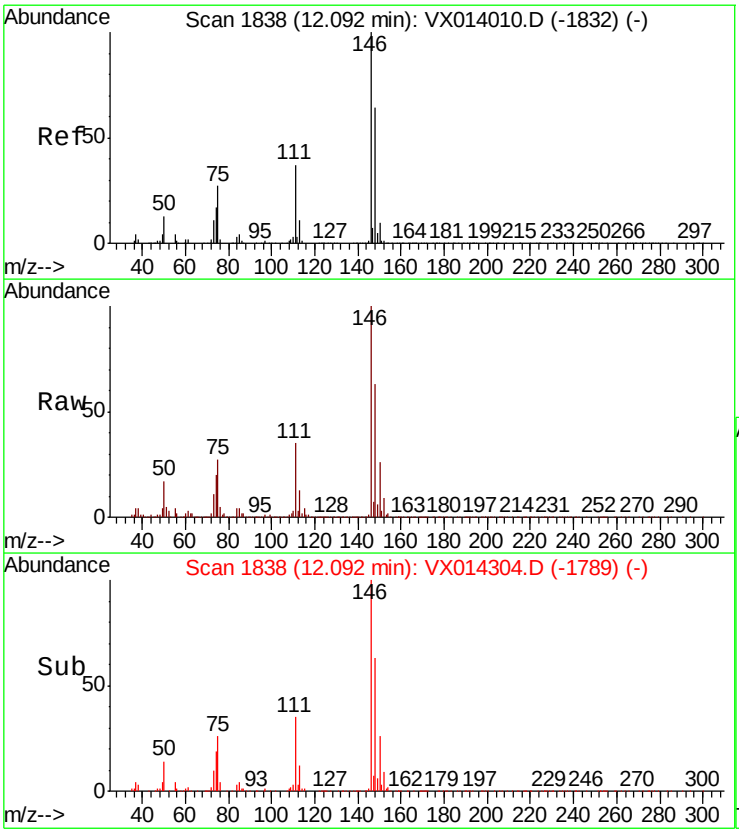
Tgt Ion:146 Resp: 211028

Ion	Ratio	Lower	Upper
146	100		
111	37.6	19.1	57.1
148	64.0	32.3	96.9



Instrument :
MSVOA_X
ClientSampleId :
VX1227WBS01

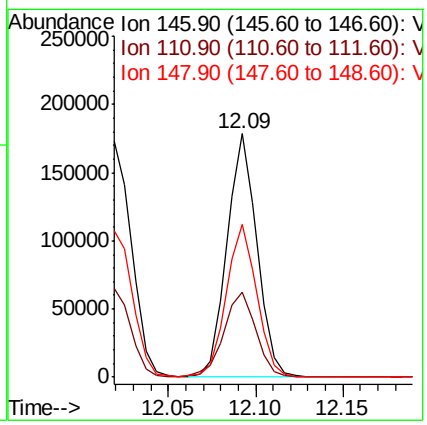
Manual Integrations APPROVED
apatel
12/30/2019 11:04:11 AM



#88
1,4-Dichlorobenzene
Concen: 18.336 ug/l
RT: 12.09 min Scan# 1838
Delta R.T. -0.00 min
Lab File: VX014304.D
Acq: 27 Dec 2019 13:15

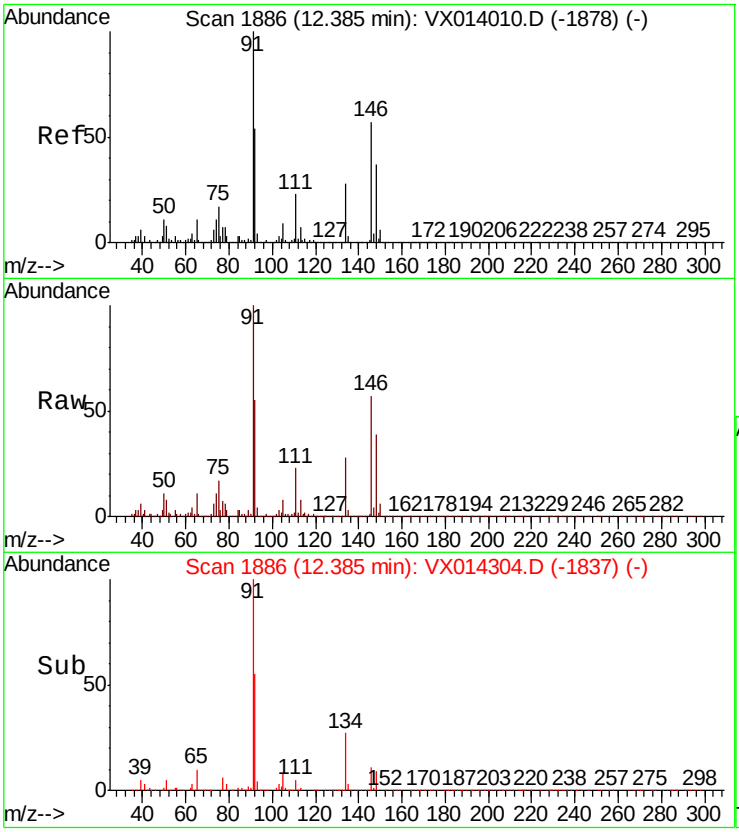
Tgt Ion:146 Resp: 212106

Ion	Ratio	Lower	Upper
146	100		
111	37.6	18.7	56.1
148	63.8	31.9	95.9



Instrument :
MSVOA_X
ClientSampleId :
VX1227WBS01

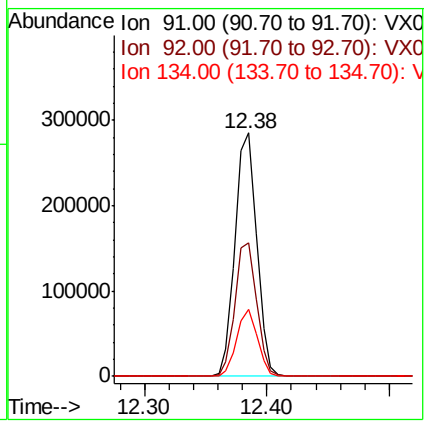
Manual Integrations APPROVED
apatel
12/30/2019 11:04:11 AM

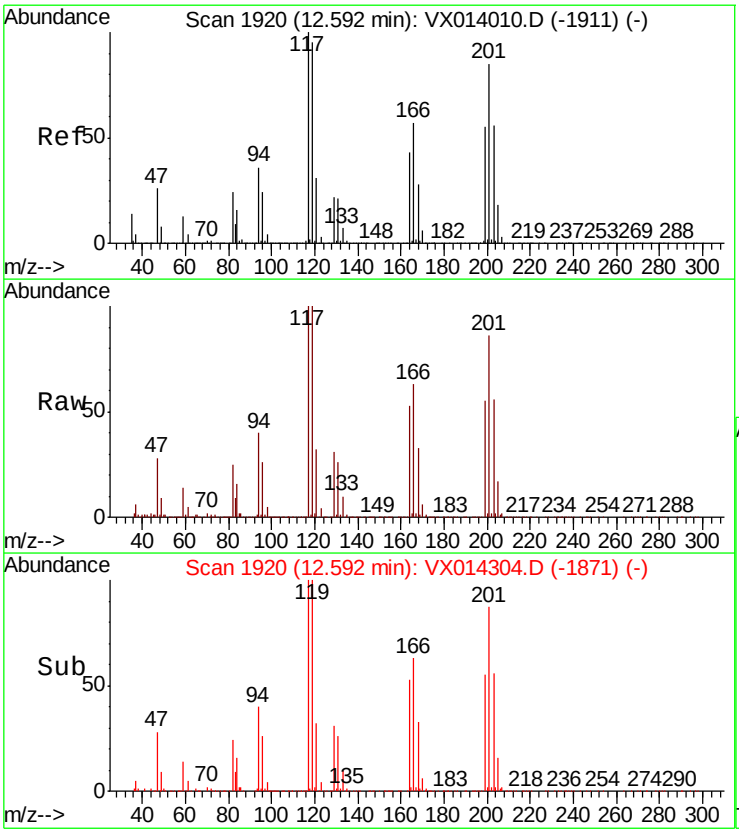


#89
n-Butylbenzene
Concen: 19.547 ug/l
RT: 12.38 min Scan# 1886
Delta R.T. -0.00 min
Lab File: VX014304.D
Acq: 27 Dec 2019 13:15

Tgt Ion: 91 Resp: 348032

Ion	Ratio	Lower	Upper
91	100		
92	54.7	27.2	81.6
134	26.4	13.4	40.1

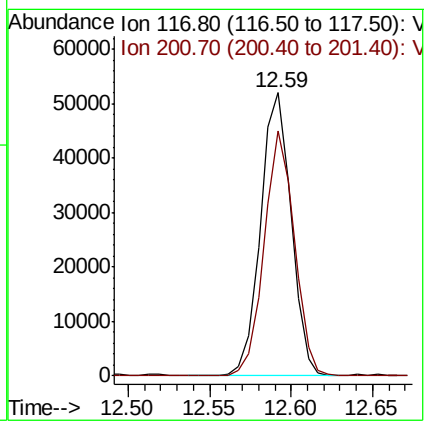


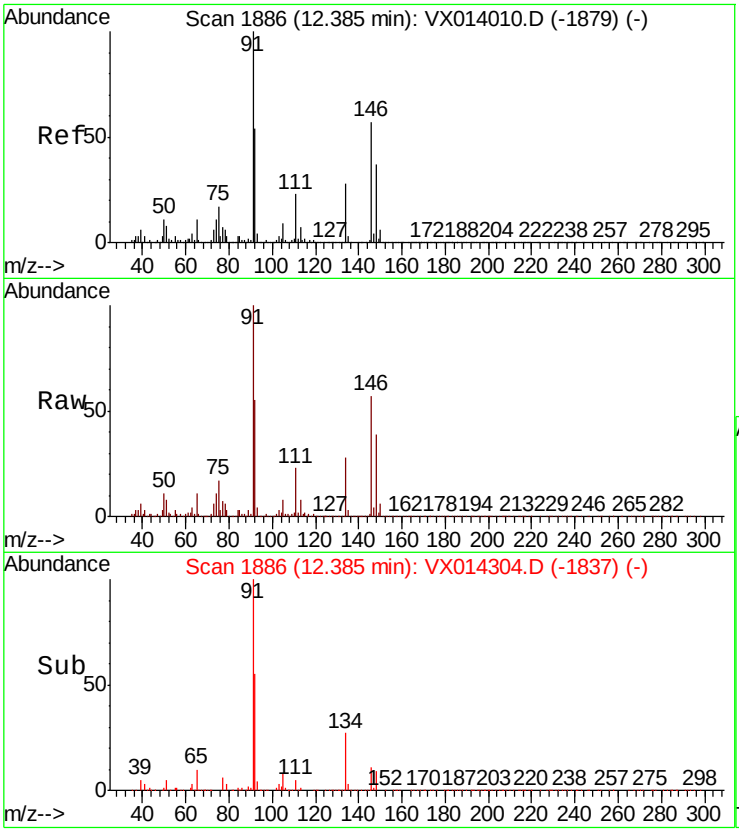


#90
Hexachloroethane
Concen: 17.971 ug/l
RT: 12.59 min Scan# 1920
Delta R.T. -0.00 min
Lab File: VX014304.D
Acq: 27 Dec 2019 13:15

Tgt Ion:117 Resp: 67356

Ion	Ratio	Lower	Upper
117	100		
201	85.2	43.1	129.3

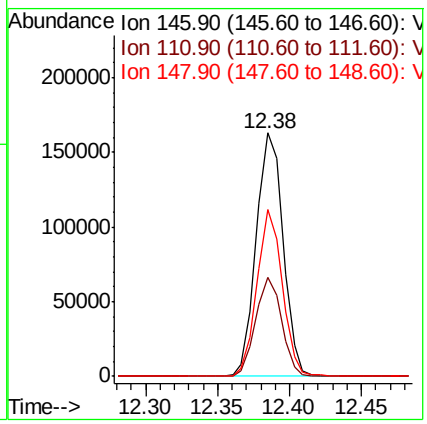




#91
1,2-Dichlorobenzene
Concen: 18.216 ug/l
RT: 12.38 min Scan# 1886
Delta R.T. -0.00 min
Lab File: VX014304.D
Acq: 27 Dec 2019 13:15

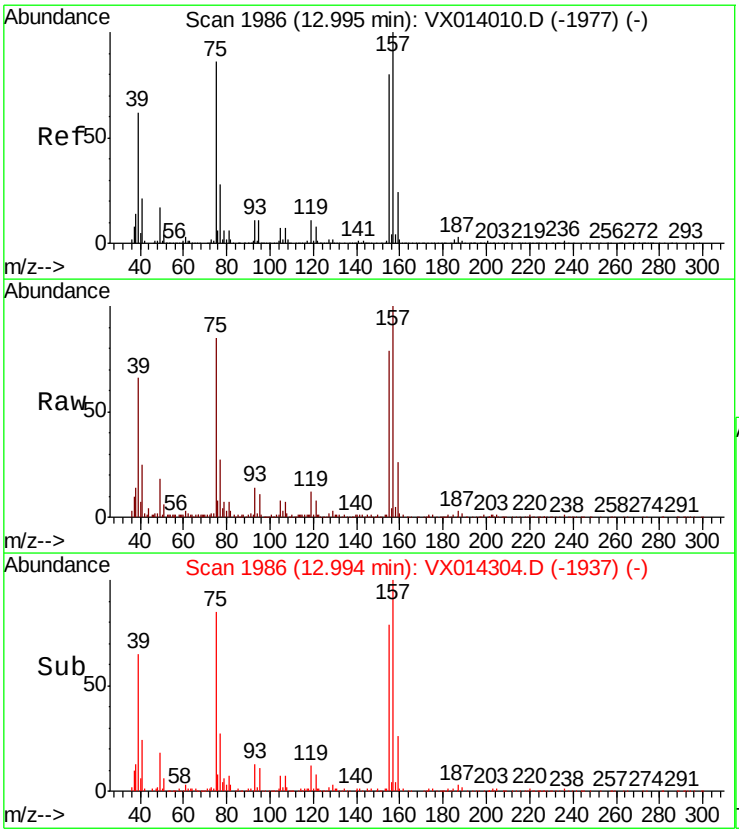
Tgt Ion:146 Resp: 208618

Ion	Ratio	Lower	Upper
146	100		
111	39.5	19.7	59.1
148	64.8	32.1	96.5



Instrument :
MSVOA_X
ClientSampleId :
VX1227WBS01

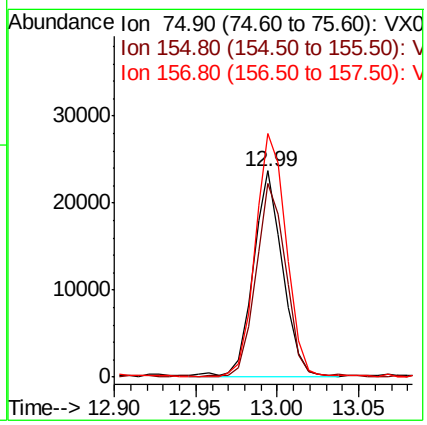
Manual Integrations APPROVED
apatel
12/30/2019 11:04:11 AM

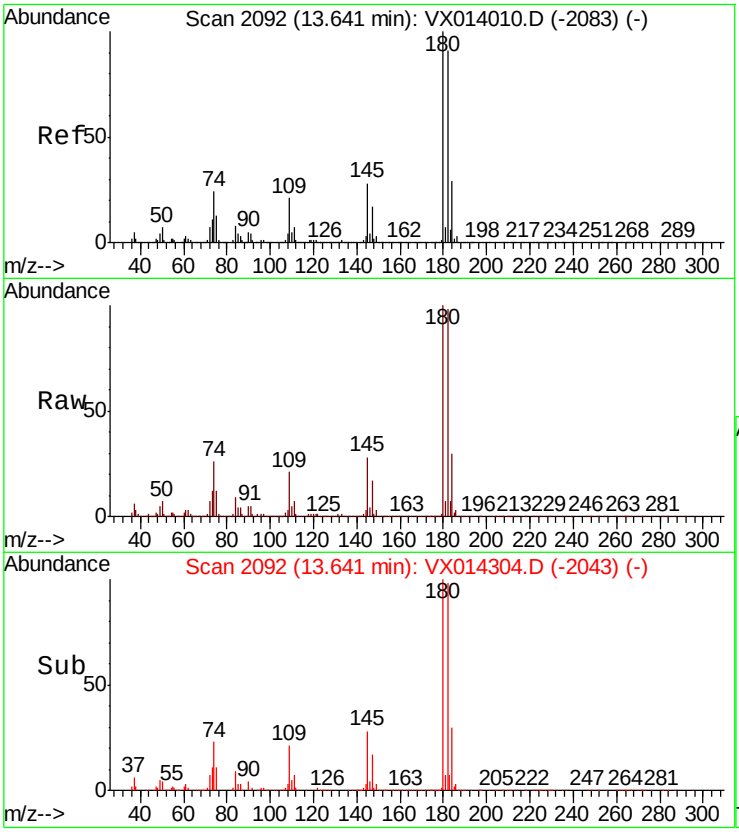


#92
1,2-Dibromo-3-Chloropropane
Concen: 16.188 ug/l
RT: 12.99 min Scan# 1986
Delta R.T. -0.00 min
Lab File: VX014304.D
Acq: 27 Dec 2019 13:15

Tgt Ion: 75 Resp: 29301

Ion	Ratio	Lower	Upper
75	100		
155	97.1	46.9	140.6
157	126.3	60.8	182.4

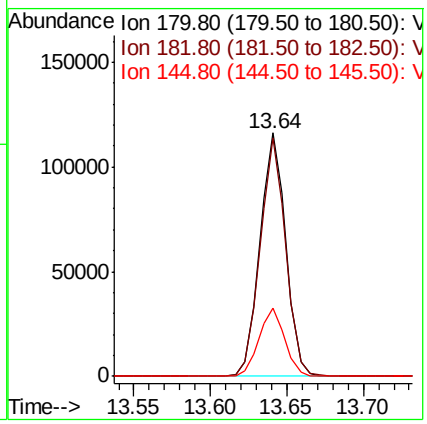




#93
1,2,4-Trichlorobenzene
Concen: 18.401 ug/l
RT: 13.64 min Scan# 2092
Delta R.T. -0.00 min
Lab File: VX014304.D
Acq: 27 Dec 2019 13:15

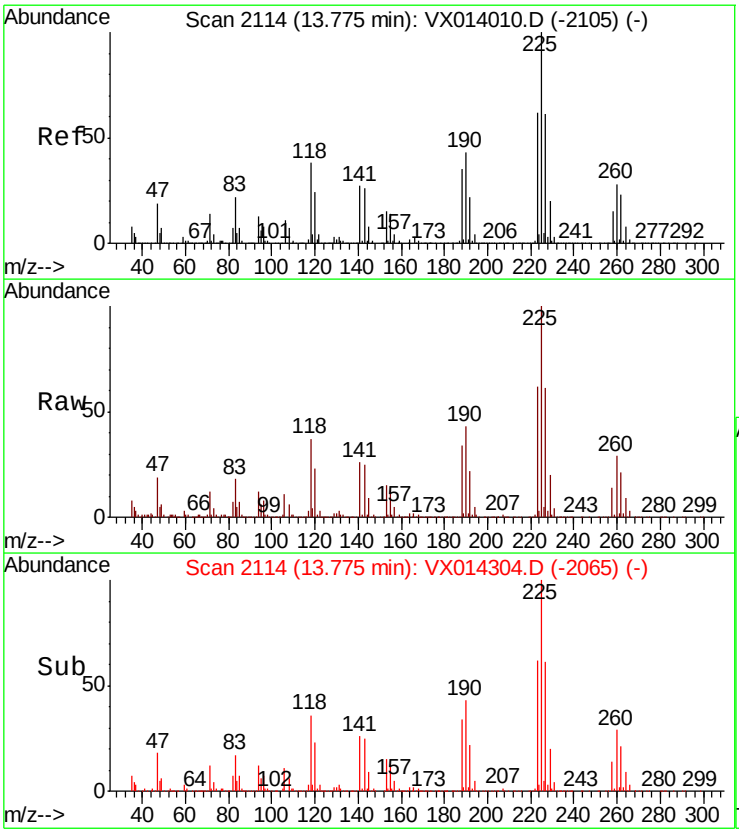
Tgt Ion:180 Resp: 136968

Ion	Ratio	Lower	Upper
180	100		
182	97.1	46.6	139.8
145	28.2	14.2	42.6



Instrument :
MSVOA_X
ClientSampleId :
VX1227WBS01

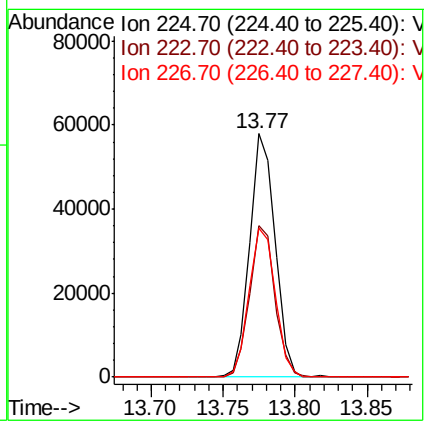
Manual Integrations APPROVED
apatel
12/30/2019 11:04:11 AM



#94
Hexachlorobutadiene
Concen: 19.666 ug/l
RT: 13.77 min Scan# 2114
Delta R.T. -0.00 min
Lab File: VX014304.D
Acq: 27 Dec 2019 13:15

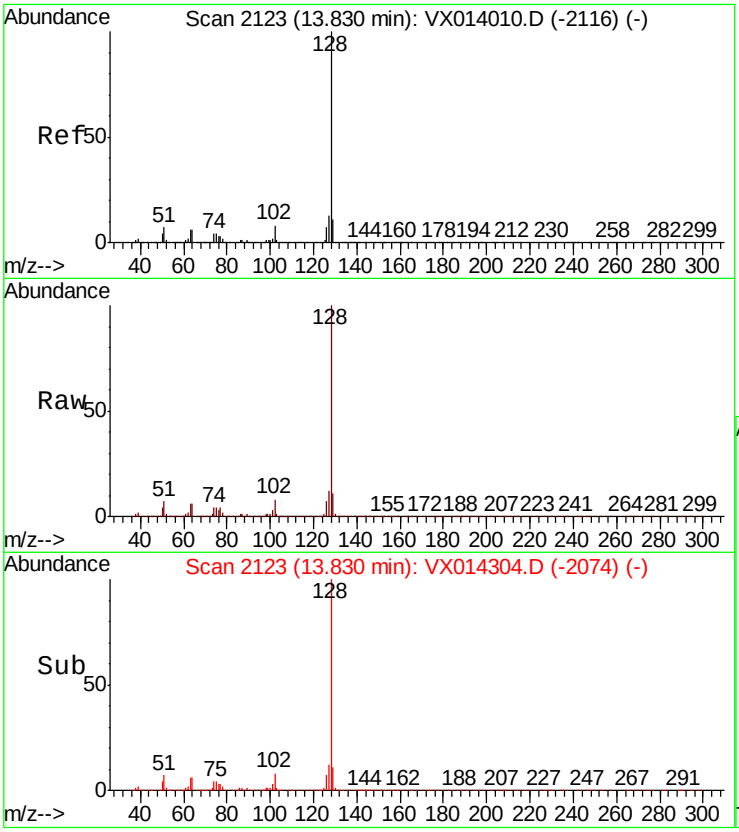
Tgt Ion:225 Resp: 70352

Ion	Ratio	Lower	Upper
225	100		
223	62.5	30.9	92.5
227	63.1	30.9	92.7



Instrument :
MSVOA_X
ClientSampleId :
VX1227WBS01

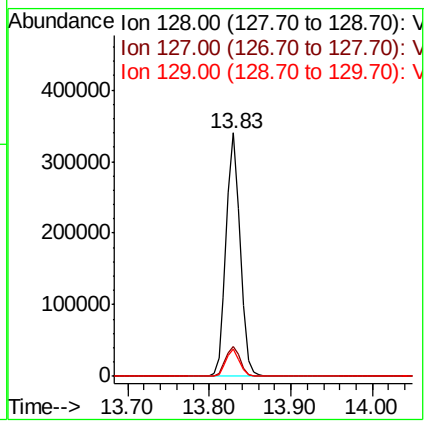
Manual Integrations APPROVED
apatel
12/30/2019 11:04:11 AM

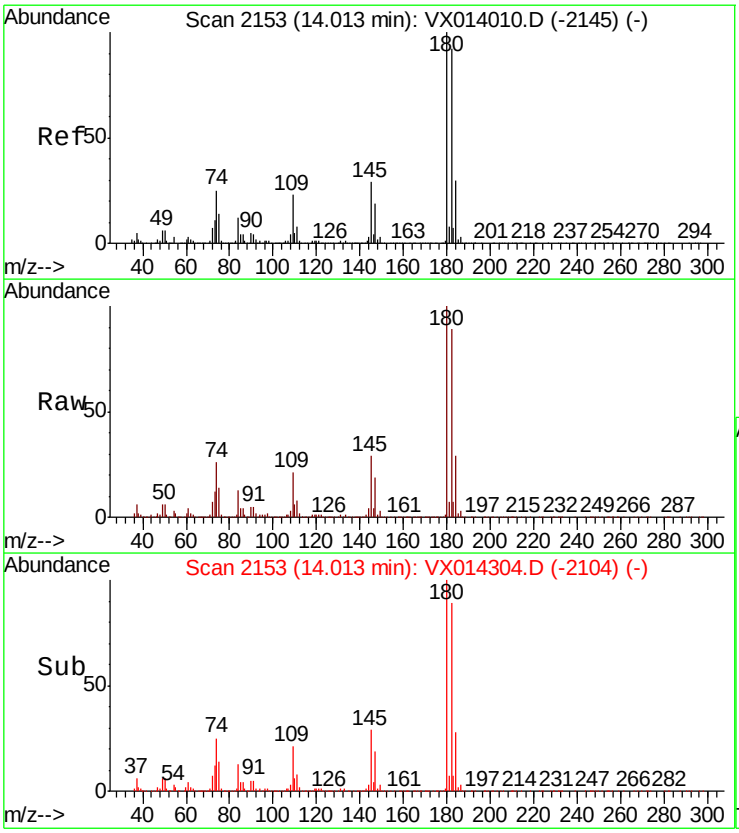


#95
Naphthalene
Concen: 18.516 ug/l
RT: 13.83 min Scan# 2123
Delta R.T. -0.00 min
Lab File: VX014304.D
Acq: 27 Dec 2019 13:15

Tgt Ion:128 Resp: 404936

Ion	Ratio	Lower	Upper
128	100		
127	12.8	10.2	15.4
129	10.8	8.7	13.1

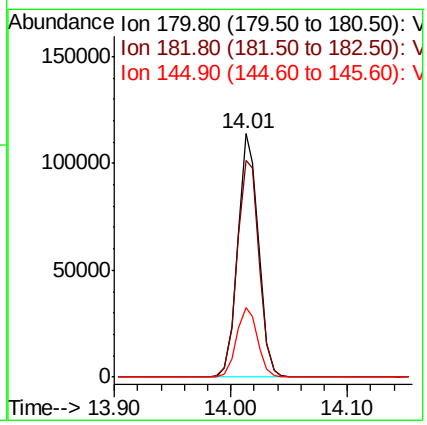




#96
1,2,3-Trichlorobenzene
Concen: 19.157 ug/l
RT: 14.01 min Scan# 2153
Delta R.T. -0.00 min
Lab File: VX014304.D
Acq: 27 Dec 2019 13:15

Tgt Ion:180 Resp: 140764

Ion	Ratio	Lower	Upper
180	100		
182	94.4	46.8	140.3
145	29.6	14.8	44.4



CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Day Environmental, Inc.	Date Collected:	12/20/19
Project:	Andrew St. RI	Date Received:	12/21/19
Client Sample ID:	996-MW-15-(17)MS	SDG No.:	K6405
Lab Sample ID:	K6405-07MS	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	DB-624UI ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX014255.D	1		12/24/19 19:08	VX122419

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
75-71-8	Dichlorodifluoromethane	43.3		0.22	1.00	ug/L
74-87-3	Chloromethane	46.8		0.30	1.00	ug/L
75-01-4	Vinyl Chloride	47.8		0.16	1.00	ug/L
74-83-9	Bromomethane	44.6		2.10	5.00	ug/L
75-00-3	Chloroethane	49.4		0.34	1.00	ug/L
75-69-4	Trichlorofluoromethane	48.9		0.16	1.00	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	47.9		0.21	1.00	ug/L
75-35-4	1,1-Dichloroethene	48.5		0.18	1.00	ug/L
67-64-1	Acetone	180		0.90	5.00	ug/L
75-15-0	Carbon Disulfide	44.6		0.23	1.00	ug/L
1634-04-4	Methyl tert-butyl Ether	51.9		0.070	1.00	ug/L
79-20-9	Methyl Acetate	49.1		0.65	1.00	ug/L
75-09-2	Methylene Chloride	48.1		0.33	1.00	ug/L
156-60-5	trans-1,2-Dichloroethene	48.4		0.24	1.00	ug/L
75-34-3	1,1-Dichloroethane	50.5		0.17	1.00	ug/L
110-82-7	Cyclohexane	49.3		1.20	5.00	ug/L
78-93-3	2-Butanone	230		0.71	5.00	ug/L
56-23-5	Carbon Tetrachloride	49.6		0.22	1.00	ug/L
156-59-2	cis-1,2-Dichloroethene	50.5		0.30	1.00	ug/L
74-97-5	Bromochloromethane	55.8		0.31	1.00	ug/L
67-66-3	Chloroform	52.1		0.14	1.00	ug/L
71-55-6	1,1,1-Trichloroethane	50.5		0.12	1.00	ug/L
108-87-2	Methylcyclohexane	45.0		0.17	1.00	ug/L
71-43-2	Benzene	49.1		0.10	1.00	ug/L
107-06-2	1,2-Dichloroethane	49.5		0.13	1.00	ug/L
79-01-6	Trichloroethene	47.3		0.27	1.00	ug/L
78-87-5	1,2-Dichloropropane	50.5		0.14	1.00	ug/L
75-27-4	Bromodichloromethane	50.3		0.10	1.00	ug/L
108-10-1	4-Methyl-2-Pentanone	260		0.85	5.00	ug/L
108-88-3	Toluene	48.2		0.12	1.00	ug/L
10061-02-6	t-1,3-Dichloropropene	50.1		0.19	1.00	ug/L
10061-01-5	cis-1,3-Dichloropropene	49.9		0.16	1.00	ug/L

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Day Environmental, Inc.	Date Collected:	12/20/19
Project:	Andrew St. RI	Date Received:	12/21/19
Client Sample ID:	996-MW-15-(17)MS	SDG No.:	K6405
Lab Sample ID:	K6405-07MS	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	DB-624UI ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX014255.D	1		12/24/19 19:08	VX122419

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
79-00-5	1,1,2-Trichloroethane	49.6		0.12	1.00	ug/L
591-78-6	2-Hexanone	240		1.40	5.00	ug/L
124-48-1	Dibromochloromethane	51.7		0.16	1.00	ug/L
106-93-4	1,2-Dibromoethane	50.5		0.14	1.00	ug/L
127-18-4	Tetrachloroethene	45.7		0.15	1.00	ug/L
108-90-7	Chlorobenzene	48.8		0.080	1.00	ug/L
100-41-4	Ethyl Benzene	49.5		0.080	1.00	ug/L
179601-23-1	m/p-Xylenes	97.1		0.20	2.00	ug/L
95-47-6	o-Xylene	49.2		0.13	1.00	ug/L
100-42-5	Styrene	49.3		0.11	1.00	ug/L
75-25-2	Bromoform	51.4		0.15	1.00	ug/L
98-82-8	Isopropylbenzene	51.0		0.13	1.00	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	51.3		0.15	1.00	ug/L
541-73-1	1,3-Dichlorobenzene	47.4		0.14	1.00	ug/L
106-46-7	1,4-Dichlorobenzene	46.4		0.20	1.00	ug/L
95-50-1	1,2-Dichlorobenzene	48.0		0.12	1.00	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	48.2		0.54	1.00	ug/L
120-82-1	1,2,4-Trichlorobenzene	47.3		0.24	1.00	ug/L
87-61-6	1,2,3-Trichlorobenzene	48.8		0.26	1.00	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	51.3		61 - 141	103%	SPK: 50
1868-53-7	Dibromofluoromethane	50.3		69 - 133	101%	SPK: 50
2037-26-5	Toluene-d8	49.2		65 - 126	98%	SPK: 50
460-00-4	4-Bromofluorobenzene	48.3		58 - 135	97%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	483000	5.65			
540-36-3	1,4-Difluorobenzene	766000	6.85			
3114-55-4	Chlorobenzene-d5	689000	10.11			
3855-82-1	1,4-Dichlorobenzene-d4	338000	12.07			

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Day Environmental, Inc.	Date Collected:	12/20/19
Project:	Andrew St. RI	Date Received:	12/21/19
Client Sample ID:	996-MW-15-(17)MS	SDG No.:	K6405
Lab Sample ID:	K6405-07MS	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	DB-624UI ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX014255.D	1		12/24/19 19:08	VX122419

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit
A = Aldol-Condensation Reaction Products

Quantitation Report (QT Reviewed)

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX122419\
Data File : VX014255.D
Acq On : 24 Dec 2019 19:08
Operator : JC/SP
Sample : K6405-07MS
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 25 Sample Multiplier: 1

Quant Time: Dec 25 08:09:57 2019
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121319W.M
Quant Title : SW846 8260
QLast Update : Tue Dec 17 03:01:07 2019
Response via : Initial Calibration

Instrument :
MSVOA_X
ClientSampleId :
996-MW-15-(17)MS

Manual Integrations APPROVED
apatel
12/26/2019 9:24:46 AM

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	5.65	168	483179	50.00	ug/l	0.00
34) 1,4-Difluorobenzene	6.85	114	766167	50.00	ug/l	0.00
63) Chlorobenzene-d5	10.11	117	688774	50.00	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	12.07	152	338475	50.00	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	6.05	65	280790	51.27	ug/l	0.00
Spiked Amount 50.000			Recovery = 102.54%			
35) Dibromofluoromethane	5.49	113	234066	50.26	ug/l	0.00
Spiked Amount 50.000			Recovery = 100.52%			
50) Toluene-d8	8.71	98	891333	49.16	ug/l	0.00
Spiked Amount 50.000			Recovery = 98.32%			
62) 4-Bromofluorobenzene	11.13	95	320373	48.33	ug/l	0.00
Spiked Amount 50.000			Recovery = 96.66%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.19	85	187074	43.277	ug/l	100
3) Chloromethane	1.32	50	271677	46.832	ug/l	99
4) Vinyl Chloride	1.40	62	292601	47.801	ug/l	100
5) Bromomethane	1.63	94	193558	44.552	ug/l	97
6) Chloroethane	1.71	64	186683	49.414	ug/l	95
7) Trichlorofluoromethane	1.92	101	370202	48.856	ug/l	100
8) Diethyl Ether	2.18	74	173065	48.665	ug/l	98
9) 1,1,2-Trichlorotrifluoroet	2.37	101	218662	47.872	ug/l	100
10) Methyl Iodide	2.50	142	294429	48.937	ug/l	99
11) Tert butyl alcohol	3.03	59	322593	272.628	ug/l	97
12) 1,1-Dichloroethene	2.36	96	225563	48.530	ug/l	97
13) Acrolein	2.28	56	174487	257.605	ug/l	97
14) Allyl chloride	2.72	41	422296	50.887	ug/l	98
15) Acrylonitrile	3.13	53	740569	268.143	ug/l	99
16) Acetone	2.43	43	624345	175.614	ug/l	100
17) Carbon Disulfide	2.56	76	574910	44.637	ug/l	100
18) Methyl Acetate	2.76	43	345747	49.078	ug/l	98
19) Methyl tert-butyl Ether	3.18	73	793008	51.922	ug/l	100
20) Methylene Chloride	2.85	84	269435	48.126	ug/l	99
21) trans-1,2-Dichloroethene	3.16	96	247689	48.372	ug/l	100
22) Diisopropyl ether	3.84	45	879447	53.180	ug/l	95
23) Vinyl Acetate	3.80	43	3452711	255.847	ug/l	100
24) 1,1-Dichloroethane	3.69	63	464903	50.530	ug/l	99
25) 2-Butanone	4.66	43	1027224	234.357	ug/l	99
26) 2,2-Dichloropropane	4.57	77	317347	44.425	ug/l	99
27) cis-1,2-Dichloroethene	4.58	96	292450	50.500	ug/l	98
28) Bromochloromethane	5.00	49	197549	55.777	ug/l	96
29) Tetrahydrofuran	5.11	42	672622	274.359	ug/l	99
30) Chloroform	5.20	83	454475	52.107	ug/l	99
31) Cyclohexane	5.57	56	403735	49.338	ug/l	96
32) 1,1,1-Trichloroethane	5.48	97	375318	50.490	ug/l	100
36) 1,1-Dichloropropene	5.79	75	334424	47.571	ug/l	99
37) Ethyl Acetate	4.82	43	374931	48.296	ug/l	99
38) Carbon Tetrachloride	5.78	117	317402	49.561	ug/l	98

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX122419\
Data File : VX014255.D
Acq On : 24 Dec 2019 19:08
Operator : JC/SP
Sample : K6405-07MS
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 25 Sample Multiplier: 1

Quant Time: Dec 25 08:09:57 2019
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121319W.M
Quant Title : SW846 8260
QLast Update : Tue Dec 17 03:01:07 2019
Response via : Initial Calibration

Instrument :
MSVOA_X
ClientSampleId :
996-MW-15-(17)MS

Manual Integrations APPROVED
apatel
12/26/2019 9:24:46 AM

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
39) Methylcyclohexane	7.46	83	390438	44.979	ug/l	100
40) Benzene	6.14	78	1062137	49.104	ug/l	100
41) Methacrylonitrile	5.03	41	228128	52.962	ug/l	96
42) 1,2-Dichloroethane	6.18	62	362803	49.481	ug/l	99
43) Isopropyl Acetate	6.43	43	630782	49.098	ug/l	100
44) Trichloroethene	7.21	130	282565	47.295	ug/l	98
45) 1,2-Dichloropropane	7.51	63	279759	50.461	ug/l	98
46) Dibromomethane	7.65	93	175821	47.967	ug/l	99
47) Bromodichloromethane	7.89	83	347181	50.291	ug/l	99
48) Methyl methacrylate	7.76	41	324850	51.636	ug/l	99
49) 1,4-Dioxane	7.73	88	133805	1045.142	ug/l	99
51) 4-Methyl-2-Pentanone	8.64	43	2087817	258.761	ug/l	99
52) Toluene	8.78	92	658593	48.171	ug/l	99
53) t-1,3-Dichloropropene	9.04	75	379547	50.141	ug/l	100
54) cis-1,3-Dichloropropene	8.43	75	420700	49.887	ug/l	99
55) 1,1,2-Trichloroethane	9.21	97	272040	49.646	ug/l	99
56) Ethyl methacrylate	9.17	69	443164	51.486	ug/l	99
57) 1,3-Dichloropropane	9.37	76	464151	50.345	ug/l	100
59) 2-Hexanone	9.48	43	1579226	243.139	ug/l	99
60) Dibromochloromethane	9.57	129	281823	51.741	ug/l	99
61) 1,2-Dibromoethane	9.67	107	283060	50.488	ug/l	100
64) Tetrachloroethene	9.33	164	278501	45.695	ug/l	99
65) Chlorobenzene	10.14	112	714869	48.813	ug/l	98
66) 1,1,1,2-Tetrachloroethane	10.21	131	263509	50.393	ug/l	99
67) Ethyl Benzene	10.25	91	1245344	49.461	ug/l	100
68) m/p-Xylenes	10.36	106	940021	97.071	ug/l	99
69) o-Xylene	10.70	106	467452	49.218	ug/l	99
70) Styrene	10.71	104	791013	49.253	ug/l	99
71) Bromoform	10.85	173	216196	51.435	ug/l	100
73) Isopropylbenzene	11.01	105	1214432	50.960	ug/l	100
74) N-amyl acetate	10.89	43	536115	47.993	ug/l	99
75) 1,1,2,2-Tetrachloroethane	11.26	83	423668	51.279	ug/l	100
76) 1,2,3-Trichloropropane	11.29	75	339868m	46.252	ug/l	
77) Bromobenzene	11.25	156	318233	48.535	ug/l	99
78) n-propylbenzene	11.35	91	1356585	50.750	ug/l	100
79) 2-Chlorotoluene	11.42	91	810748	49.895	ug/l	99
80) 1,3,5-Trimethylbenzene	11.50	105	999311	49.825	ug/l	99
81) trans-1,4-Dichloro-2-buten	11.07	75	131228	50.406	ug/l	97
82) 4-Chlorotoluene	11.51	91	930870	49.387	ug/l	98
83) tert-Butylbenzene	11.76	119	1003325	51.404	ug/l	98
84) 1,2,4-Trimethylbenzene	11.80	105	1019870	50.777	ug/l	100
85) sec-Butylbenzene	11.94	105	1162400	50.447	ug/l	99
86) p-Isopropyltoluene	12.06	119	1055684	50.087	ug/l	100
87) 1,3-Dichlorobenzene	12.02	146	544333	47.368	ug/l	100
88) 1,4-Dichlorobenzene	12.09	146	542101	46.394	ug/l	100
89) n-Butylbenzene	12.39	91	890234	49.500	ug/l	100
90) Hexachloroethane	12.59	117	191572	50.603	ug/l	98
91) 1,2-Dichlorobenzene	12.39	146	555817	48.047	ug/l	100
92) 1,2-Dibromo-3-Chloropropan	12.99	75	88076	48.172	ug/l	98
93) 1,2,4-Trichlorobenzene	13.64	180	355740	47.314	ug/l	99

Data Path : Z:\VOASRV\HPCHEM1\MSVOA X\DATA\VX122419\
Data File : VX014255.D
Acq On : 24 Dec 2019 19:08
Operator : JC/SP
Sample : K6405-07MS
Misc : 5.0mL/MSVOA X/WATER
ALS Vial : 25 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
996-MW-15-(17)MS

Manual Integrations APPROVED
apatel
12/26/2019 9:24:46 AM

Quant Time: Dec 25 08:09:57 2019
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121319W.M
Quant Title : SW846 8260
QLast Update : Tue Dec 17 03:01:07 2019
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
94) Hexachlorobutadiene	13.78	225	165352	45.759	ug/l	96
95) Naphthalene	13.83	128	1104462	49.997	ug/l	100
96) 1,2,3-Trichlorobenzene	14.01	180	362558	48.848	ug/l	98

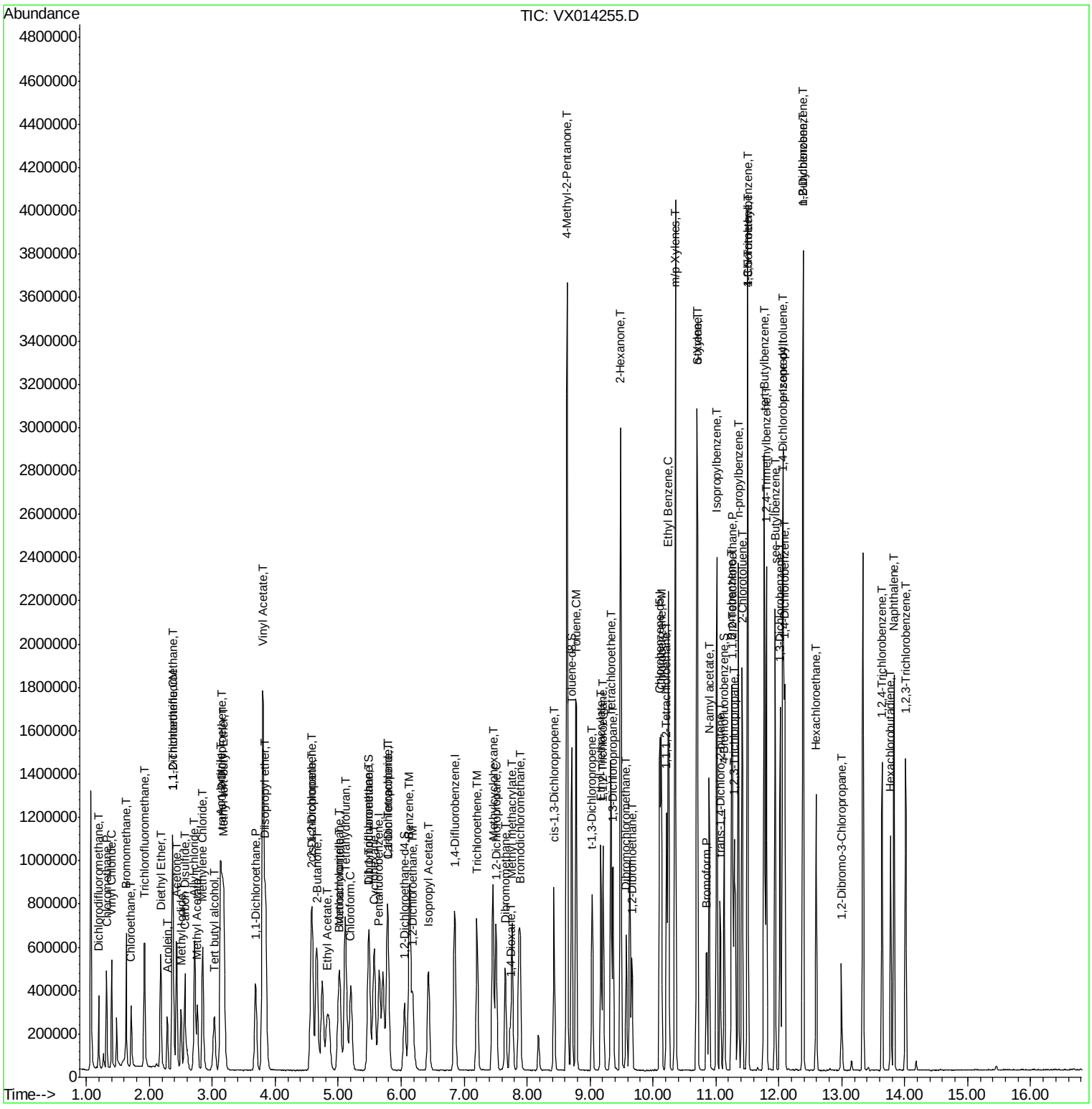
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX122419\
Data File : VX014255.D
Acq On : 24 Dec 2019 19:08
Operator : JC/SP
Sample : K6405-07MS
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 25 Sample Multiplier: 1

Quant Time: Dec 25 08:09:57 2019
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121319W.M
Quant Title : SW846 8260
QLast Update : Tue Dec 17 03:01:07 2019
Response via : Initial Calibration

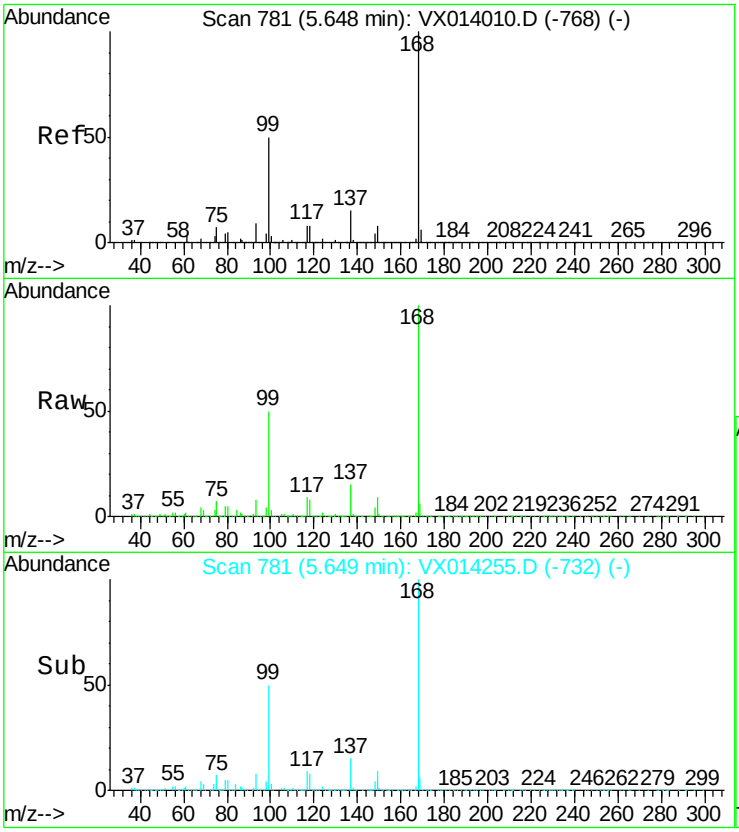
Instrument :
MSVOA_X
ClientSampleId :
996-MW-15-(17)MS

Manual Integrations APPROVED
apatel
12/26/2019 9:24:46 AM



Instrument :
MSVOA_X
ClientSampleId :
996-MW-15-(17)MS

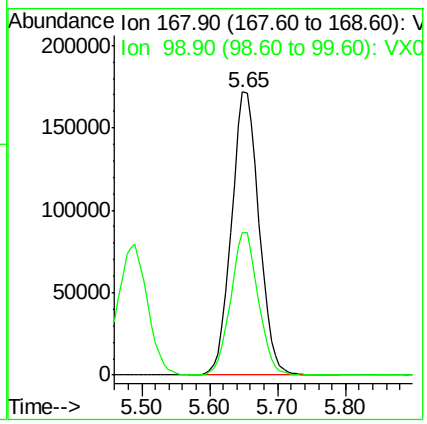
Manual Integrations APPROVED
apatel
12/26/2019 9:24:46 AM

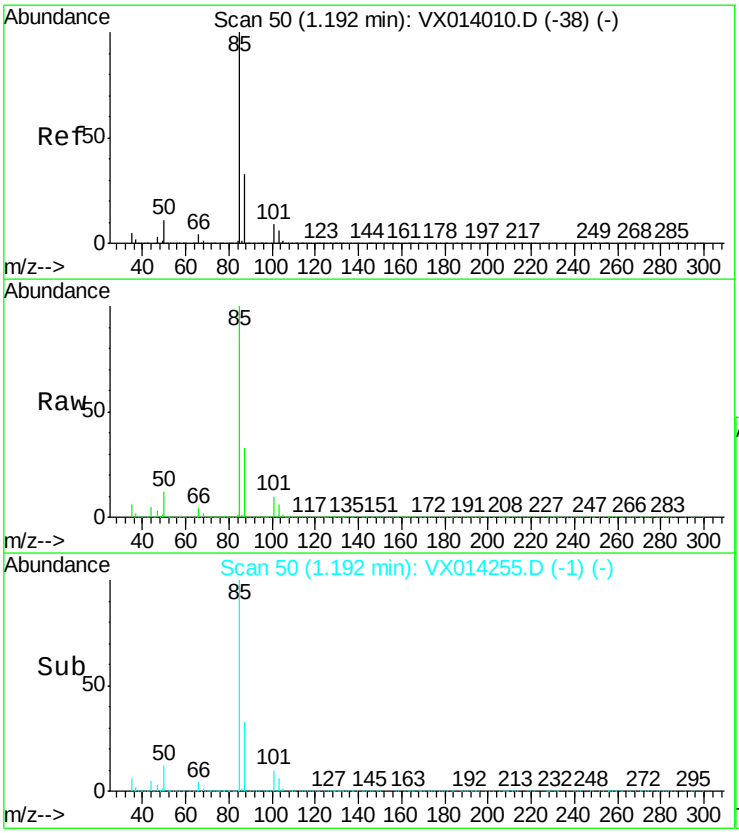


#1
Pentafluorobenzene
Concen: 50.000 ug/l
RT: 5.65 min Scan# 781
Delta R.T. 0.00 min
Lab File: VX014255.D
Acq: 24 Dec 2019 19:08

Tgt Ion:168 Resp: 483179

Ion	Ratio	Lower	Upper
168	100		
99	50.3	40.3	60.5

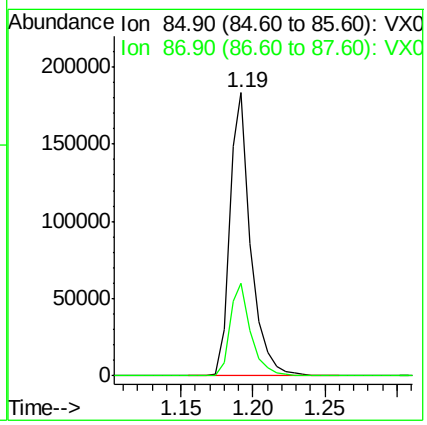




#2
Dichlorodifluoromethane
Concen: 43.277 ug/l
RT: 1.19 min Scan# 50
Delta R.T. 0.00 min
Lab File: VX014255.D
Acq: 24 Dec 2019 19:08

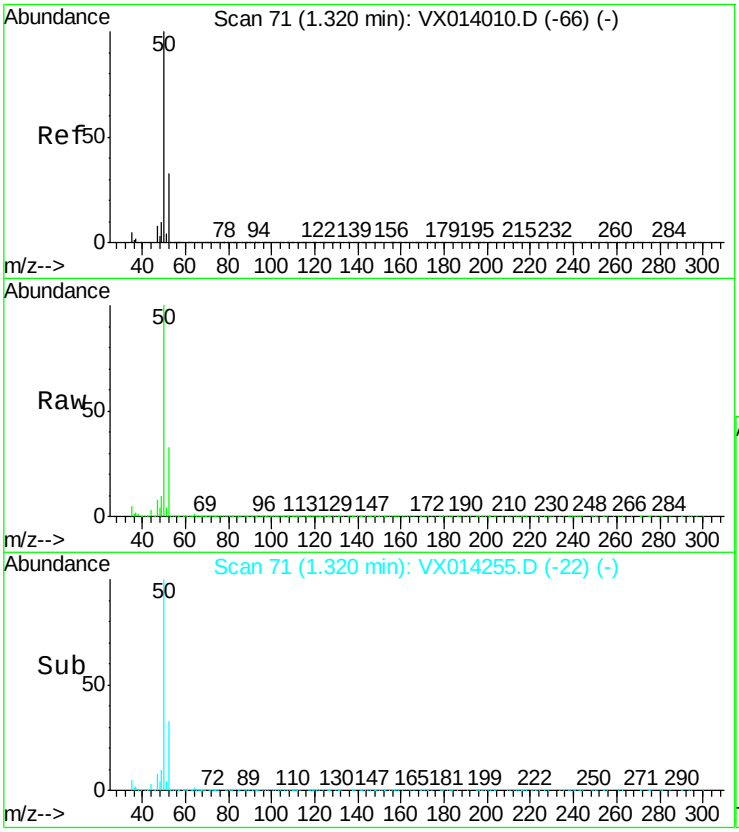
Tgt Ion: 85 Resp: 187074

Ion	Ratio	Lower	Upper
85	100		
87	32.7	16.4	49.2



Instrument :
MSVOA_X
ClientSampleId :
996-MW-15-(17)MS

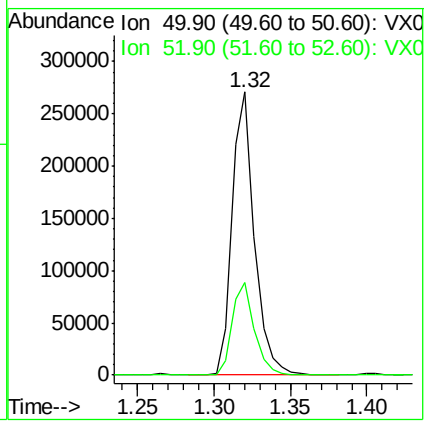
Manual Integrations APPROVED
apatel
12/26/2019 9:24:46 AM

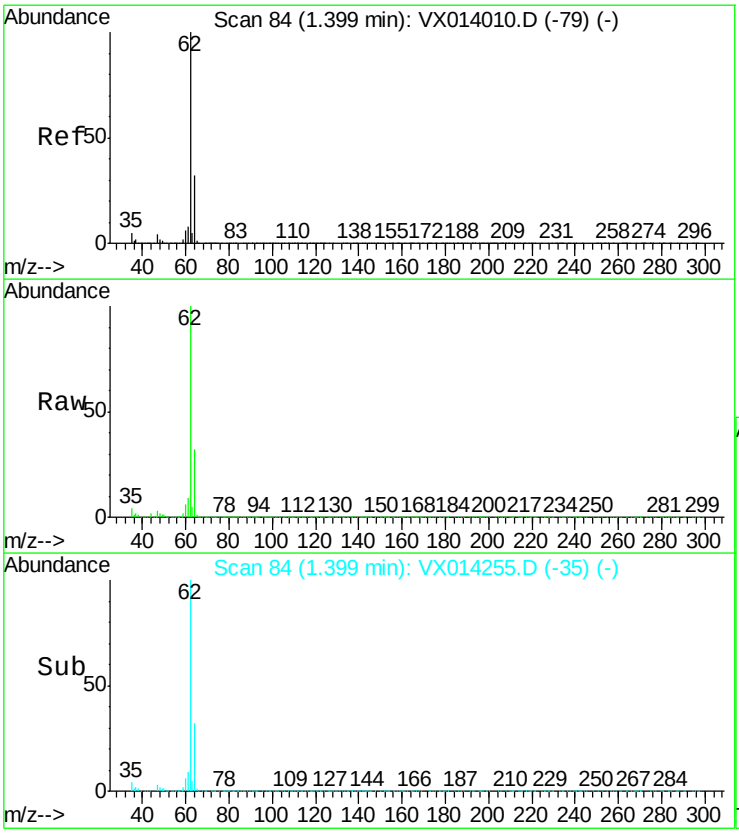


#3
Chloromethane
Concen: 46.832 ug/l
RT: 1.32 min Scan# 71
Delta R.T. 0.00 min
Lab File: VX014255.D
Acq: 24 Dec 2019 19:08

Tgt Ion: 50 Resp: 271677

Ion	Ratio	Lower	Upper
50	100		
52	32.4	26.2	39.4

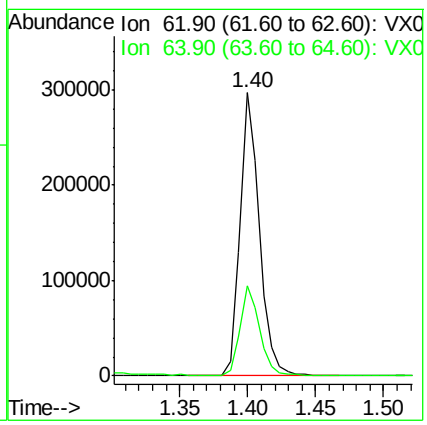




#4
Vinyl Chloride
Concen: 47.801 ug/l
RT: 1.40 min Scan# 84
Delta R.T. 0.00 min
Lab File: VX014255.D
Acq: 24 Dec 2019 19:08

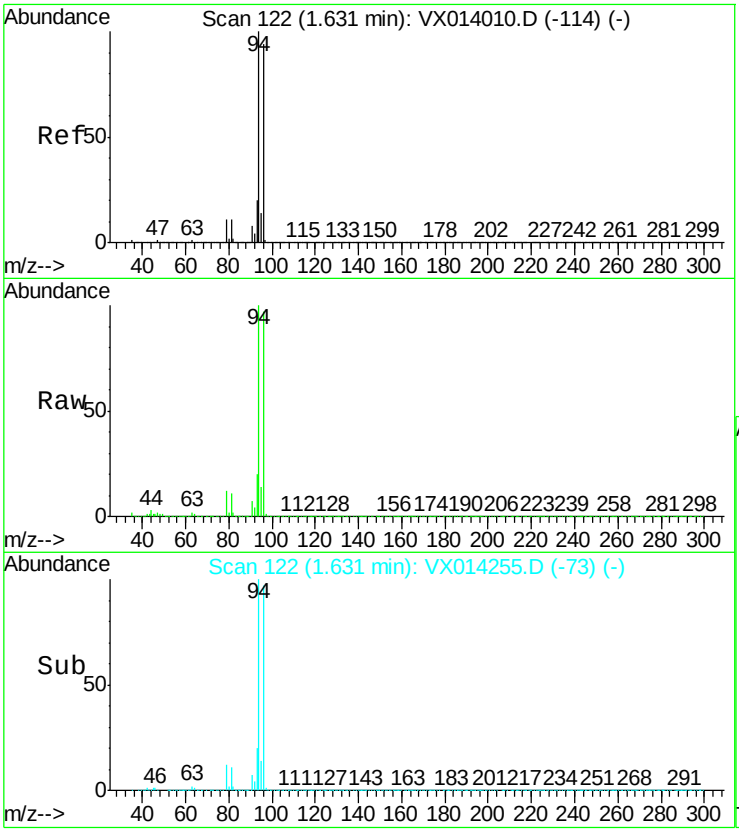
Tgt Ion: 62 Resp: 292601

Ion	Ratio	Lower	Upper
62	100		
64	31.8	25.7	38.5



Instrument :
MSVOA_X
ClientSampleId :
996-MW-15-(17)MS

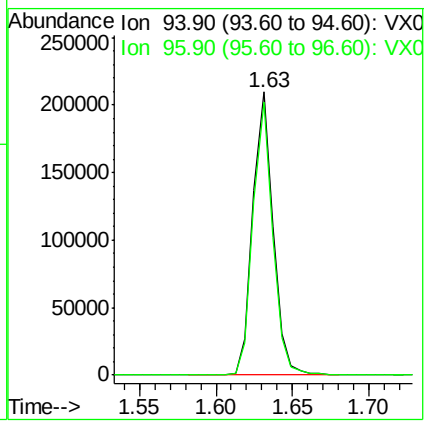
Manual Integrations APPROVED
apatel
12/26/2019 9:24:46 AM

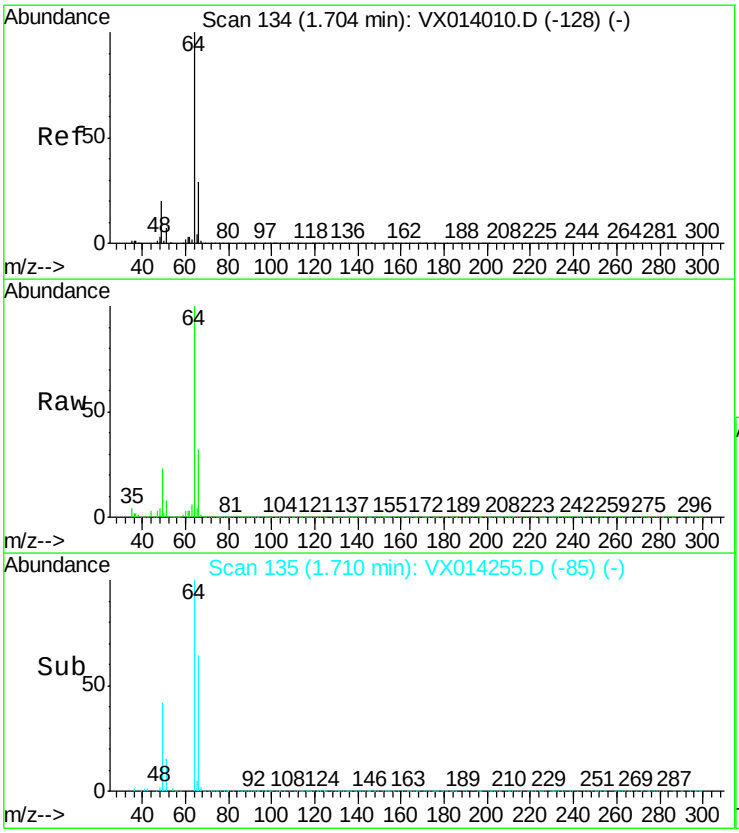


#5
Bromomethane
Concen: 44.552 ug/l
RT: 1.63 min Scan# 122
Delta R.T. 0.00 min
Lab File: VX014255.D
Acq: 24 Dec 2019 19:08

Tgt Ion: 94 Resp: 193558

Ion	Ratio	Lower	Upper
94	100		
96	96.5	75.2	112.8

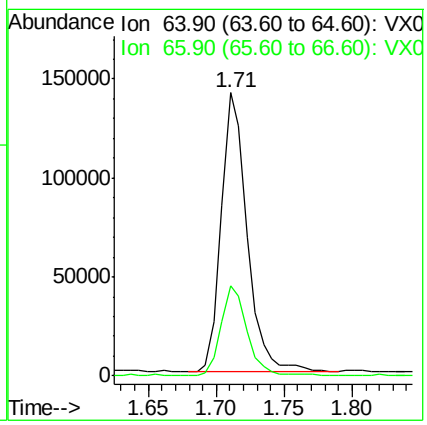




#6
Chloroethane
Concen: 49.414 ug/l
RT: 1.71 min Scan# 135
Delta R.T. 0.01 min
Lab File: VX014255.D
Acq: 24 Dec 2019 19:08

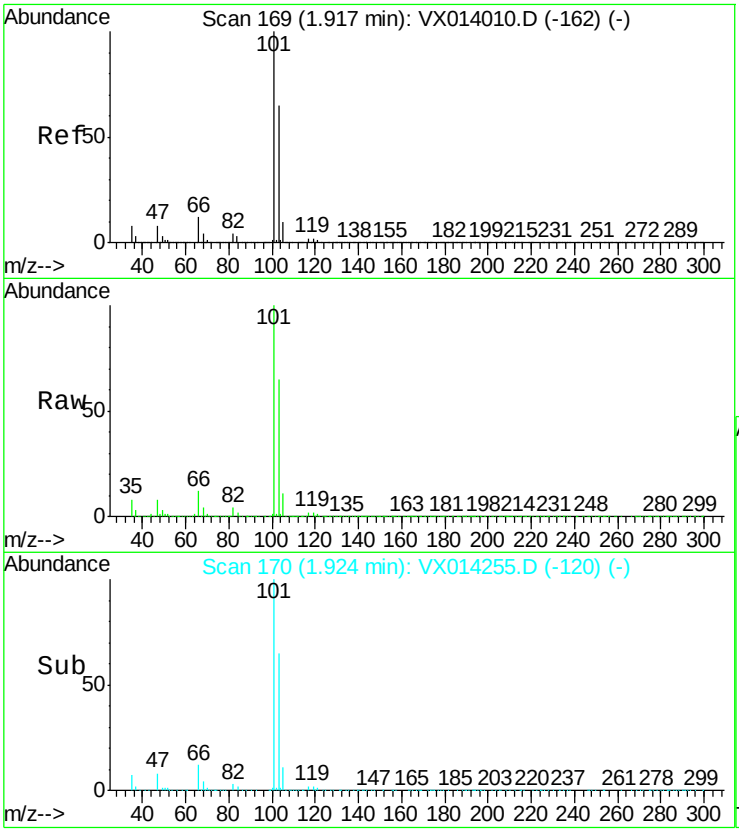
Tgt Ion: 64 Resp: 186683

Ion	Ratio	Lower	Upper
64	100		
66	32.2	23.4	35.2



Instrument :
MSVOA_X
ClientSampleId :
996-MW-15-(17)MS

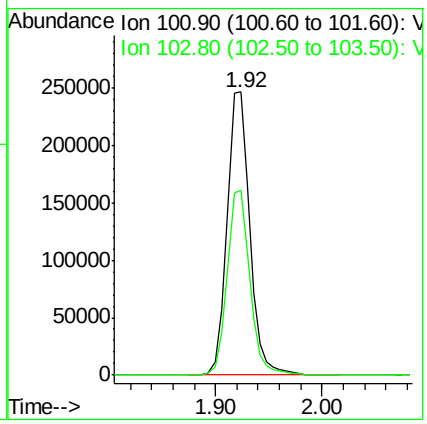
Manual Integrations APPROVED
apatel
12/26/2019 9:24:46 AM

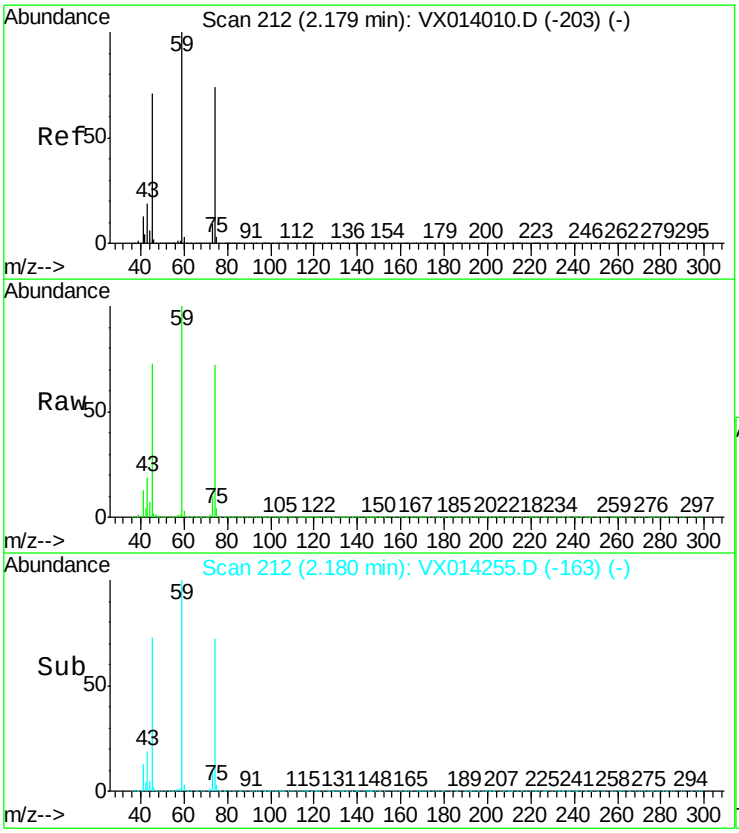


#7
Trichlorofluoromethane
Concen: 48.856 ug/l
RT: 1.92 min Scan# 170
Delta R.T. 0.01 min
Lab File: VX014255.D
Acq: 24 Dec 2019 19:08

Tgt Ion:101 Resp: 370202

Ion	Ratio	Lower	Upper
101	100		
103	65.4	52.2	78.4

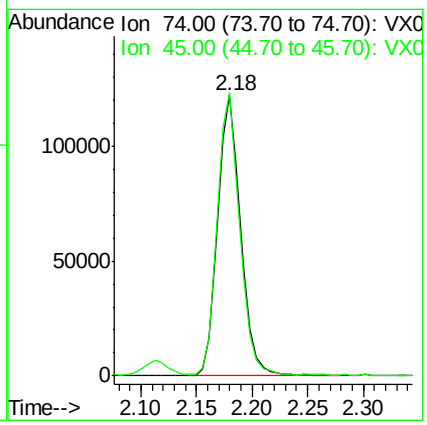




#8
Diethyl Ether
Concen: 48.665 ug/l
RT: 2.18 min Scan# 212
Delta R.T. 0.00 min
Lab File: VX014255.D
Acq: 24 Dec 2019 19:08

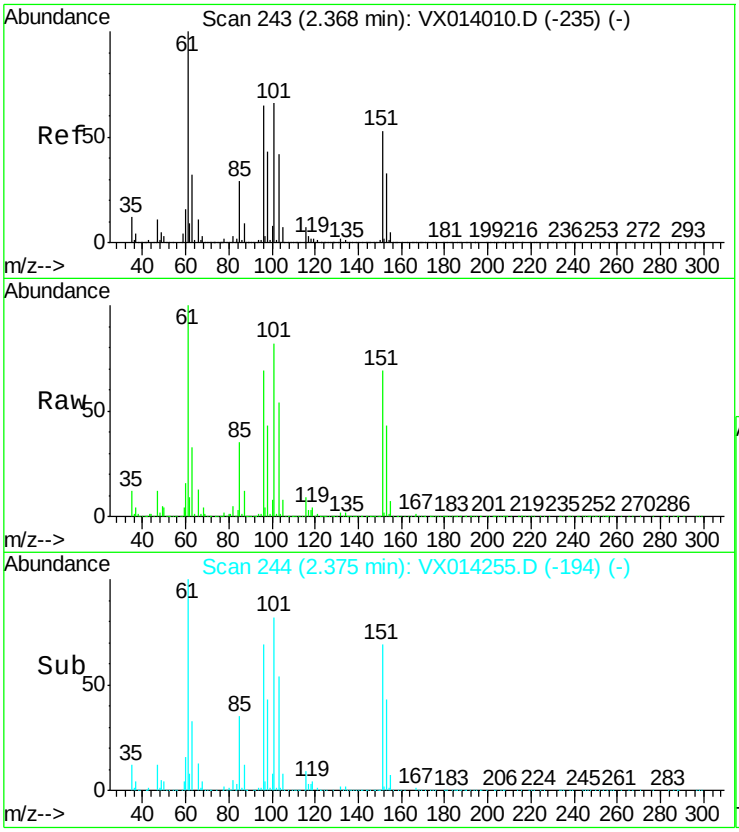
Tgt Ion: 74 Resp: 173065

Ion	Ratio	Lower	Upper
74	100		
45	98.5	48.1	144.3



Instrument :
MSVOA_X
ClientSampleId :
996-MW-15-(17)MS

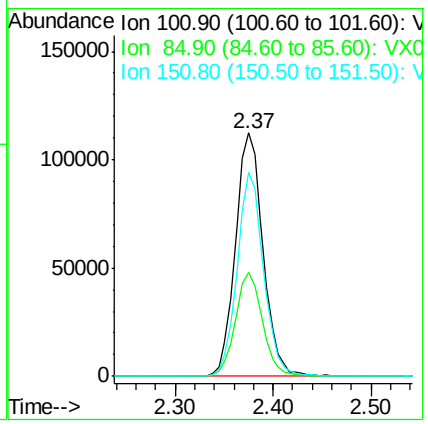
Manual Integrations APPROVED
apatel
12/26/2019 9:24:46 AM

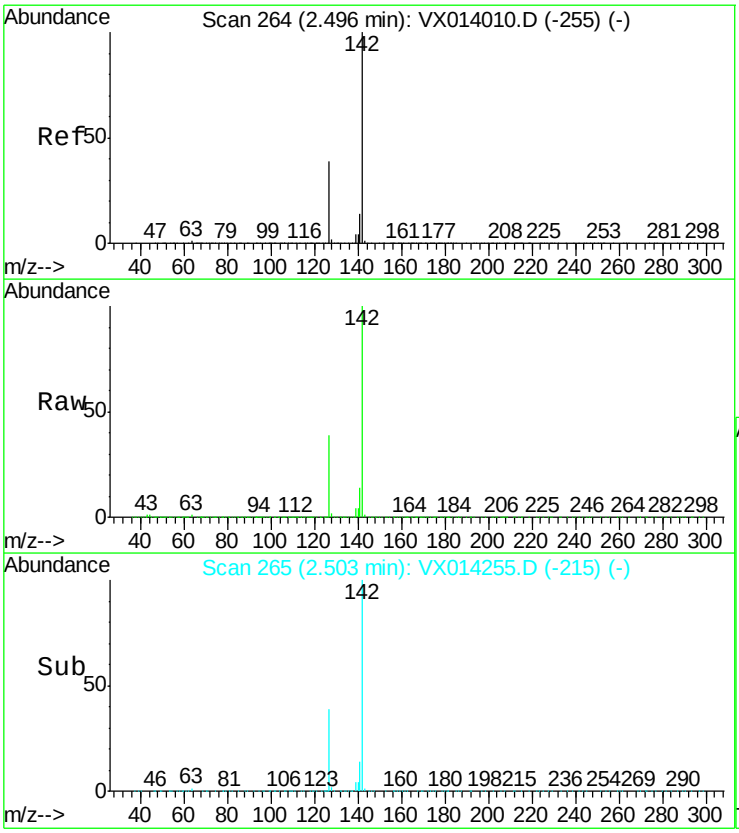


#9
1,1,2-Trichlorotrifluoroethane
Concen: 47.872 ug/l
RT: 2.37 min Scan# 244
Delta R.T. 0.01 min
Lab File: VX014255.D
Acq: 24 Dec 2019 19:08

Tgt Ion:101 Resp: 218662

Ion	Ratio	Lower	Upper
101	100		
85	41.8	33.7	50.5
151	80.9	64.5	96.7

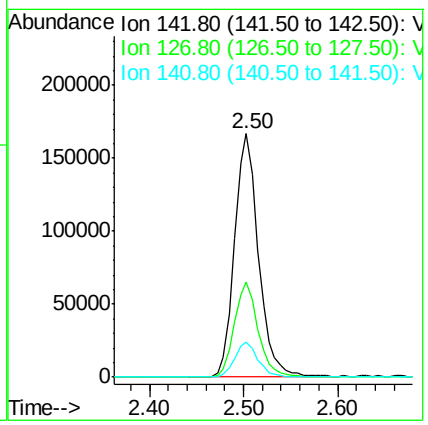




#10
Methyl Iodide
Concen: 48.937 ug/l
RT: 2.50 min Scan# 265
Delta R.T. 0.01 min
Lab File: VX014255.D
Acq: 24 Dec 2019 19:08

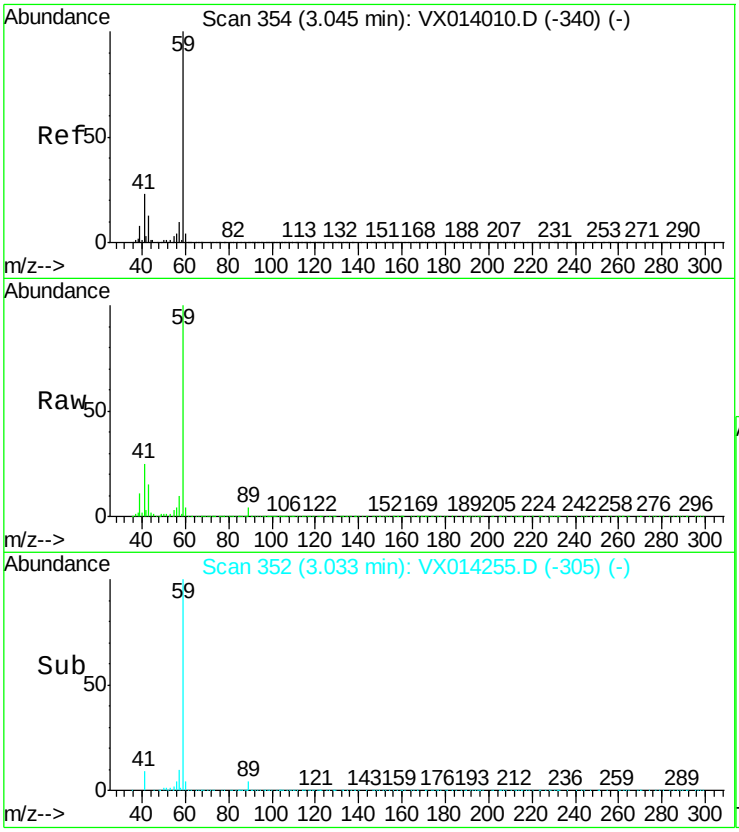
Tgt Ion:142 Resp: 294429

Ion	Ratio	Lower	Upper
142	100		
127	39.0	31.6	47.4
141	14.0	11.6	17.4



Instrument :
MSVOA_X
ClientSampleId :
996-MW-15-(17)MS

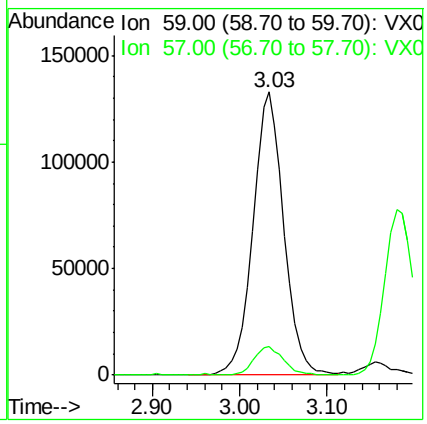
Manual Integrations APPROVED
apatel
12/26/2019 9:24:46 AM

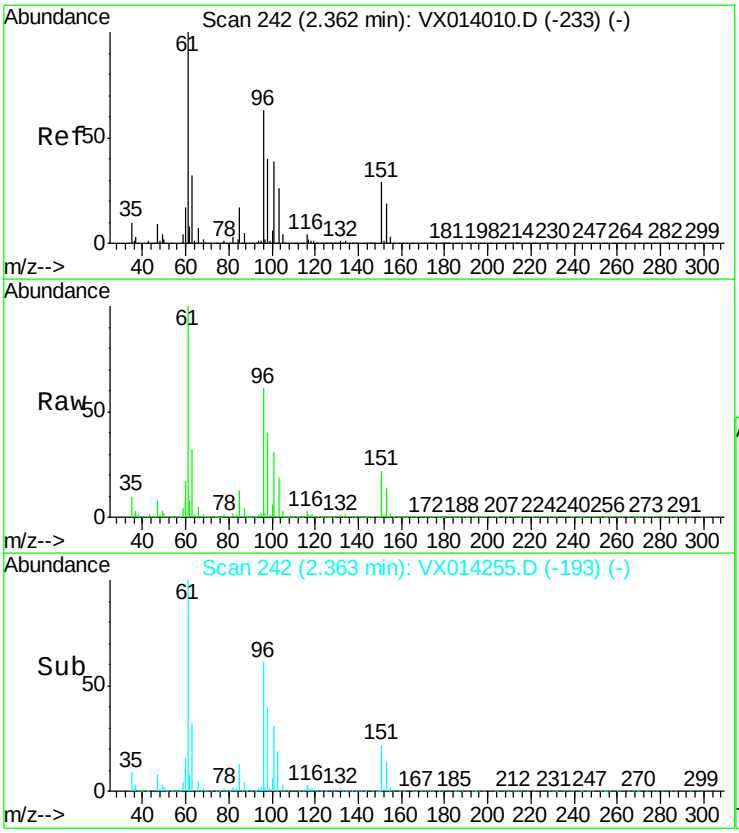


#11
Tert butyl alcohol
Concen: 272.628 ug/l
RT: 3.03 min Scan# 352
Delta R.T. -0.01 min
Lab File: VX014255.D
Acq: 24 Dec 2019 19:08

Tgt Ion: 59 Resp: 322593

Ion	Ratio	Lower	Upper
59	100		
57	9.4	8.4	12.6

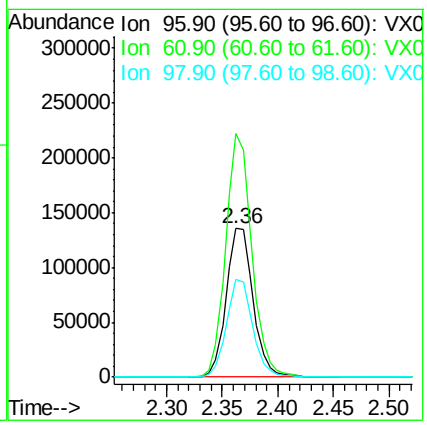




#12
1,1-Dichloroethene
Concen: 48.530 ug/l
RT: 2.36 min Scan# 242
Delta R.T. 0.00 min
Lab File: VX014255.D
Acq: 24 Dec 2019 19:08

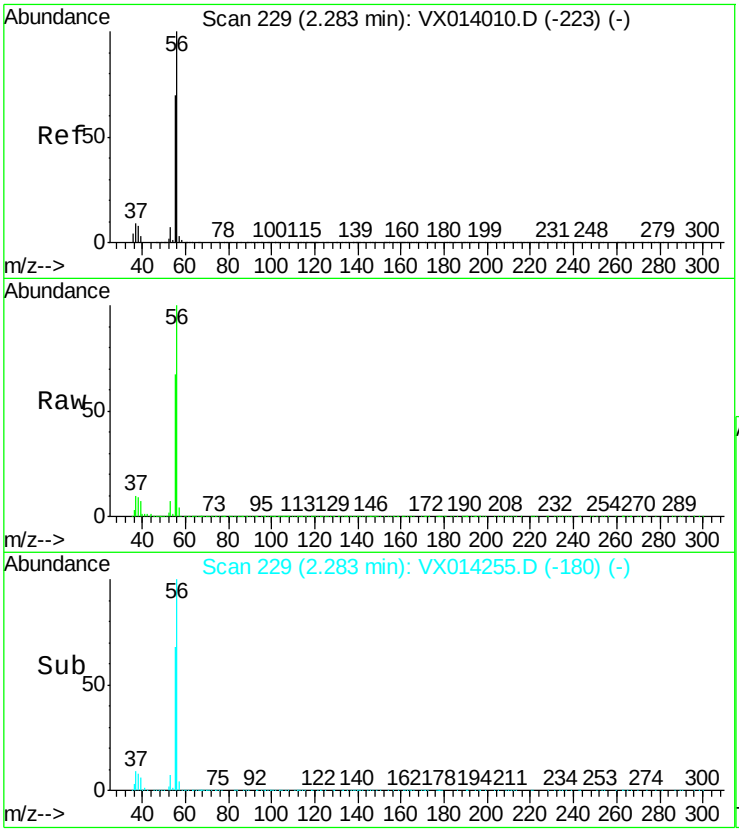
Tgt Ion: 96 Resp: 225563

Ion	Ratio	Lower	Upper
96	100		
61	163.6	127.9	191.9
98	65.3	50.5	75.7



Instrument :
MSVOA_X
ClientSampleId :
996-MW-15-(17)MS

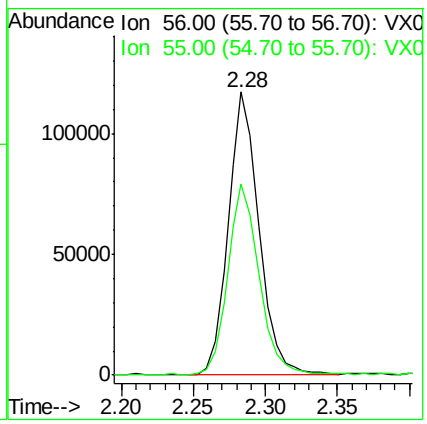
Manual Integrations APPROVED
apatel
12/26/2019 9:24:46 AM

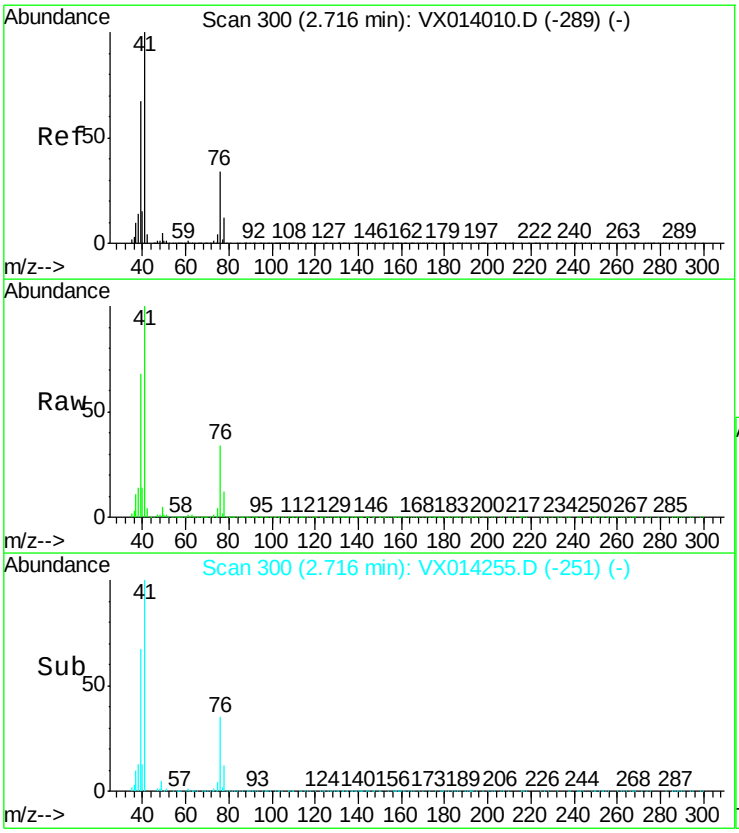


#13
Acrolein
Concen: 257.605 ug/l
RT: 2.28 min Scan# 229
Delta R.T. 0.00 min
Lab File: VX014255.D
Acq: 24 Dec 2019 19:08

Tgt Ion: 56 Resp: 174487

Ion	Ratio	Lower	Upper
56	100		
55	68.9	56.9	85.3

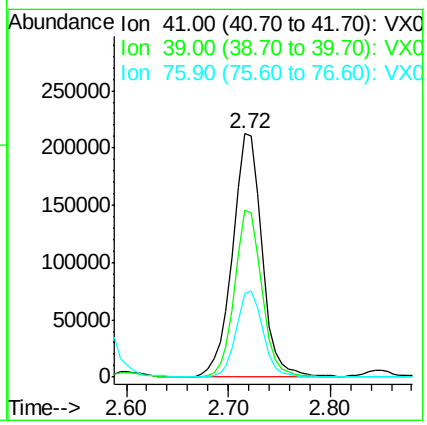




#14
Allyl chloride
Concen: 50.887 ug/l
RT: 2.72 min Scan# 300
Delta R.T. 0.00 min
Lab File: VX014255.D
Acq: 24 Dec 2019 19:08

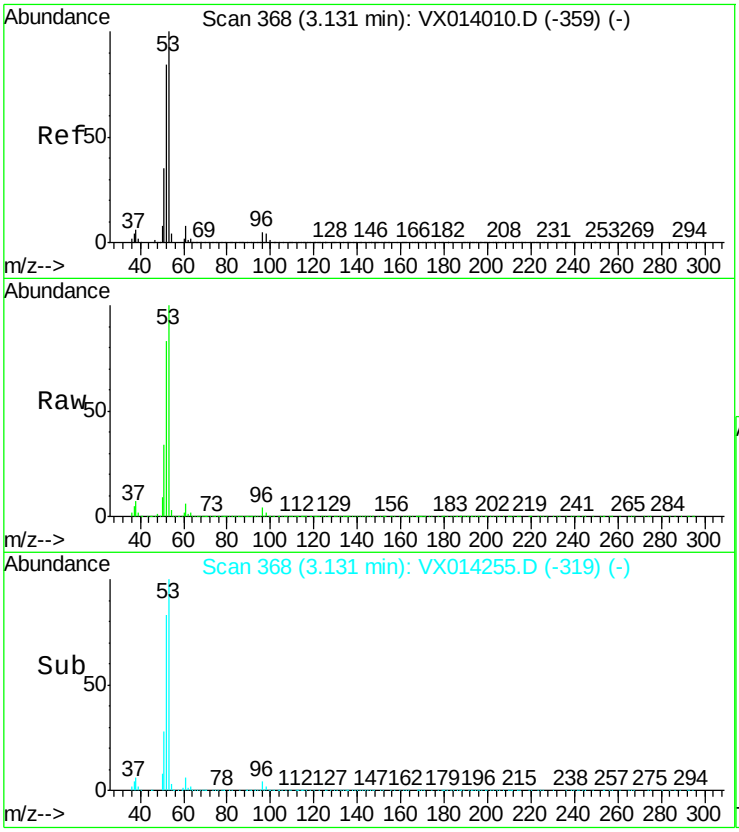
Tgt Ion: 41 Resp: 422296

Ion	Ratio	Lower	Upper
41	100		
39	63.0	51.8	77.8
76	31.9	25.9	38.9



Instrument :
MSVOA_X
ClientSampleId :
996-MW-15-(17)MS

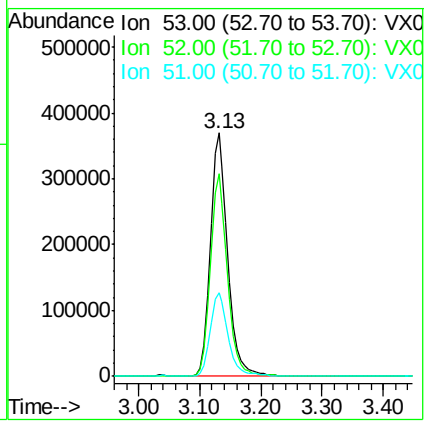
Manual Integrations APPROVED
apatel
12/26/2019 9:24:46 AM

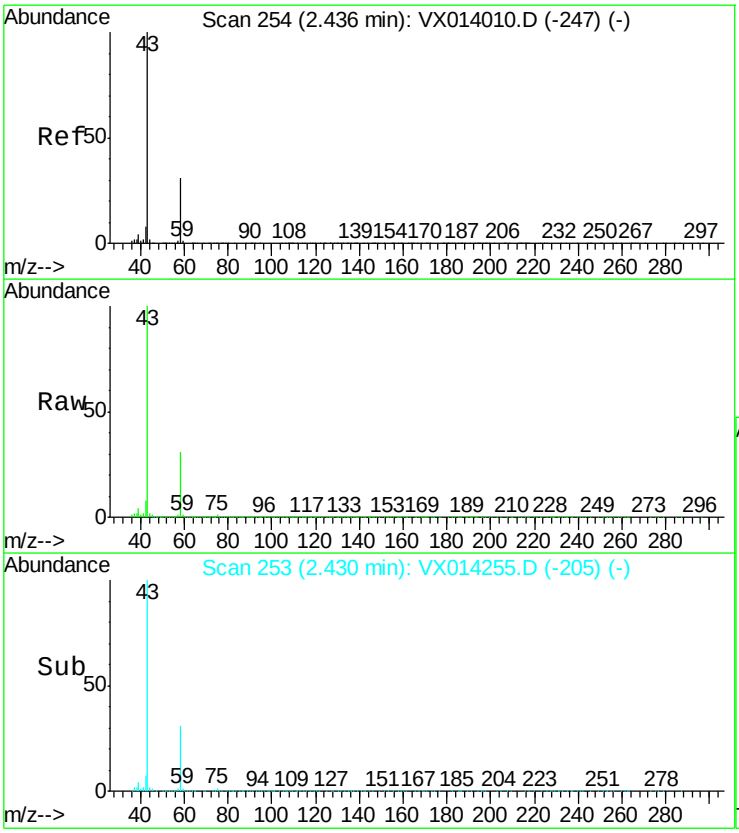


#15
Acrylonitrile
Concen: 268.143 ug/l
RT: 3.13 min Scan# 368
Delta R.T. 0.00 min
Lab File: VX014255.D
Acq: 24 Dec 2019 19:08

Tgt Ion: 53 Resp: 740569

Ion	Ratio	Lower	Upper
53	100		
52	82.3	66.5	99.7
51	35.5	28.1	42.1

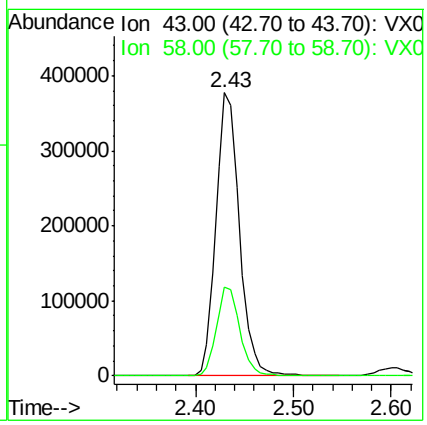




#16
Acetone
Concen: 175.614 ug/l
RT: 2.43 min Scan# 253
Delta R.T. -0.01 min
Lab File: VX014255.D
Acq: 24 Dec 2019 19:08

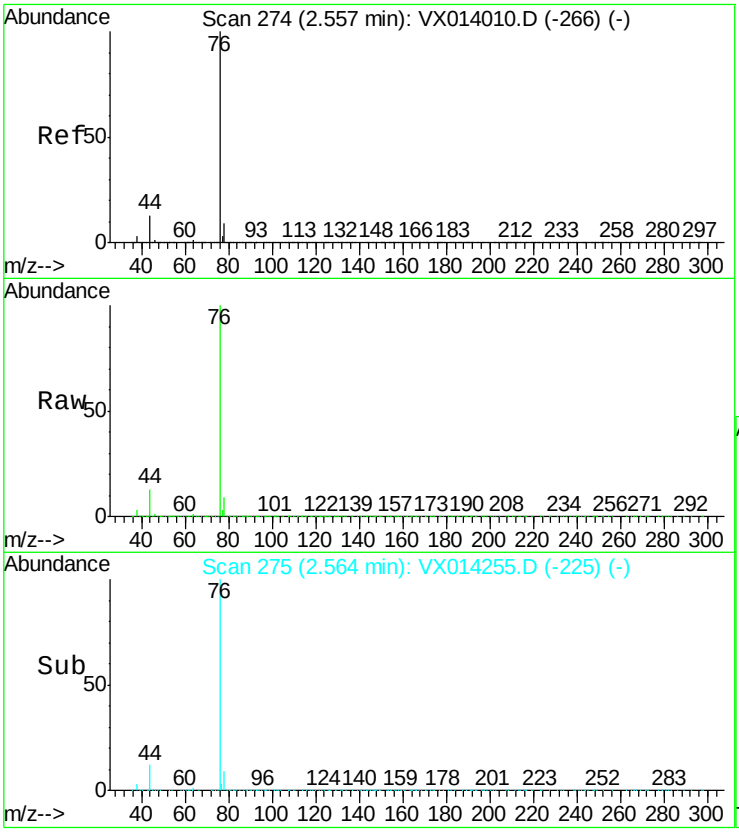
Tgt Ion: 43 Resp: 624345

Ion	Ratio	Lower	Upper
43	100		
58	31.2	24.9	37.3



Instrument :
MSVOA_X
ClientSampleId :
996-MW-15-(17)MS

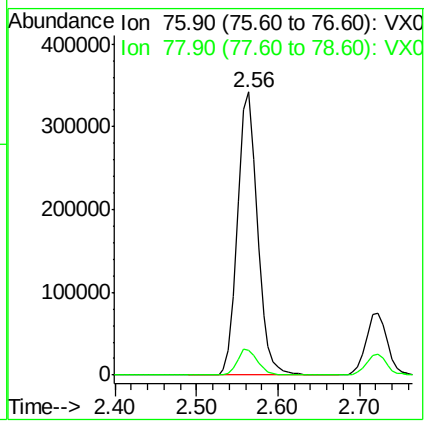
Manual Integrations APPROVED
apatel
12/26/2019 9:24:46 AM

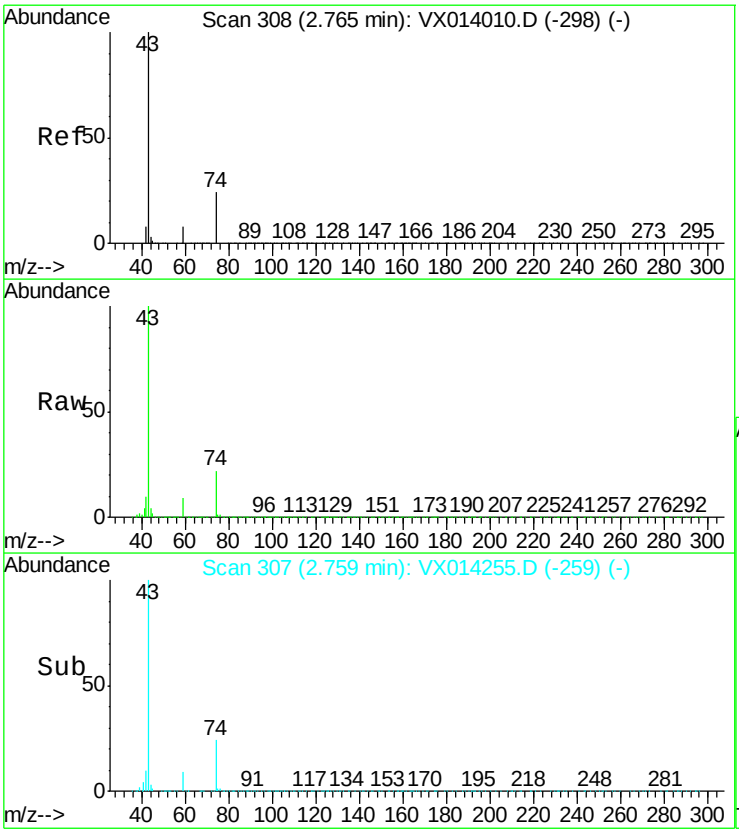


#17
Carbon Disulfide
Concen: 44.637 ug/l
RT: 2.56 min Scan# 275
Delta R.T. 0.01 min
Lab File: VX014255.D
Acq: 24 Dec 2019 19:08

Tgt Ion: 76 Resp: 574910

Ion	Ratio	Lower	Upper
76	100		
78	8.9	7.2	10.8

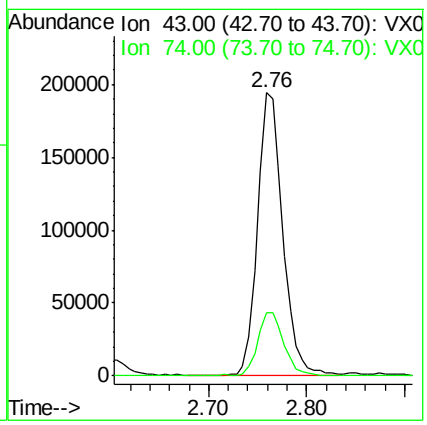




#18
Methyl Acetate
Concen: 49.078 ug/l
RT: 2.76 min Scan# 307
Delta R.T. -0.01 min
Lab File: VX014255.D
Acq: 24 Dec 2019 19:08

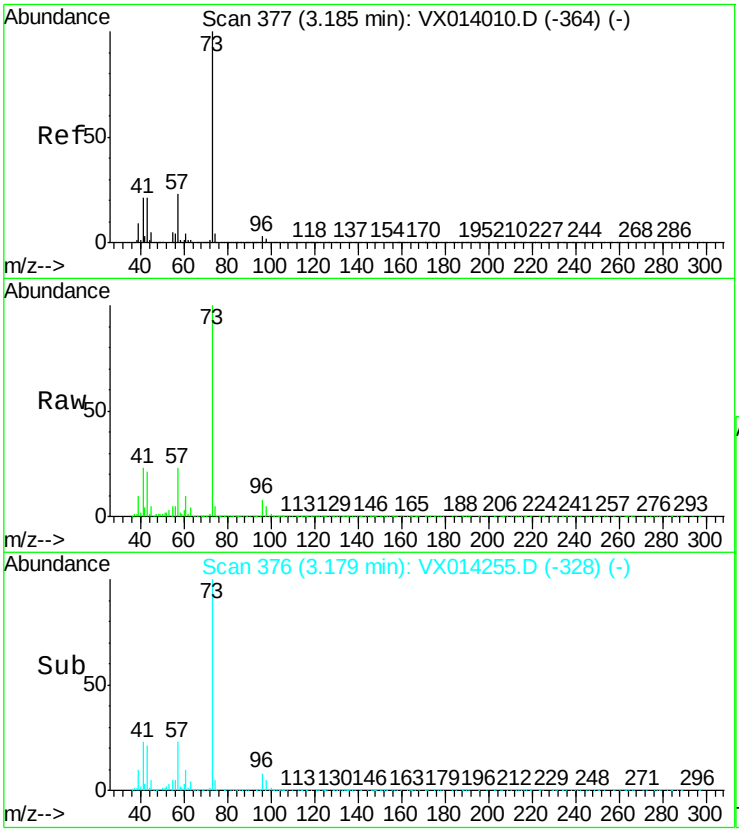
Tgt Ion: 43 Resp: 345747

Ion	Ratio	Lower	Upper
43	100		
74	23.6	19.5	29.3



Instrument :
MSVOA_X
ClientSampleId :
996-MW-15-(17)MS

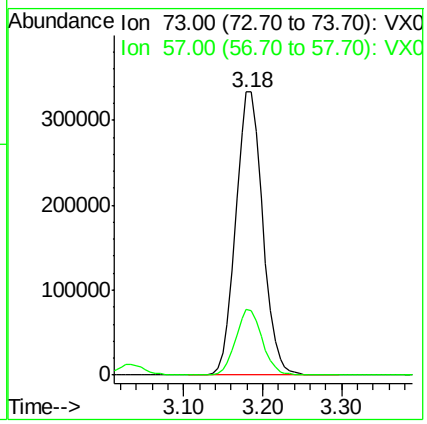
Manual Integrations APPROVED
apatel
12/26/2019 9:24:46 AM

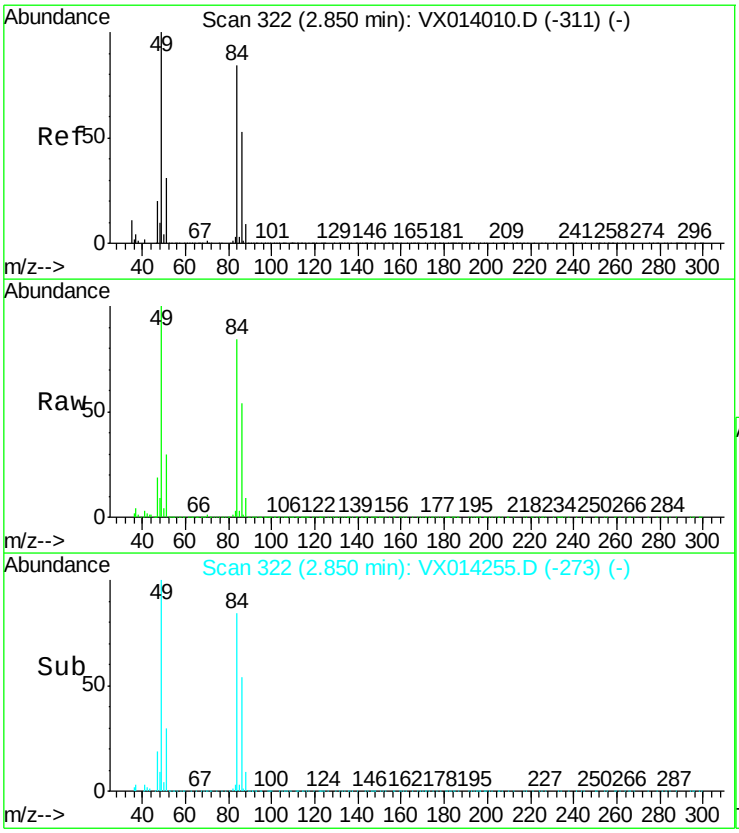


#19
Methyl tert-butyl Ether
Concen: 51.922 ug/l
RT: 3.18 min Scan# 376
Delta R.T. -0.01 min
Lab File: VX014255.D
Acq: 24 Dec 2019 19:08

Tgt Ion: 73 Resp: 793008

Ion	Ratio	Lower	Upper
73	100		
57	23.4	18.8	28.2

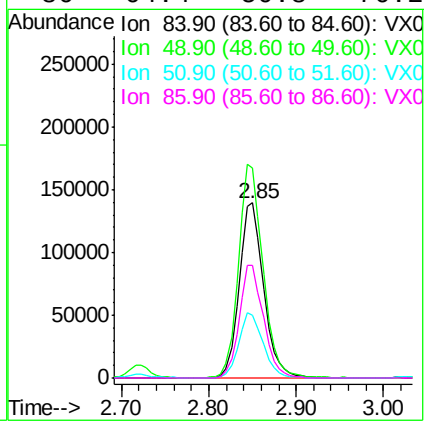




#20
Methylene Chloride
Concen: 48.126 ug/l
RT: 2.85 min Scan# 322
Delta R.T. 0.00 min
Lab File: VX014255.D
Acq: 24 Dec 2019 19:08

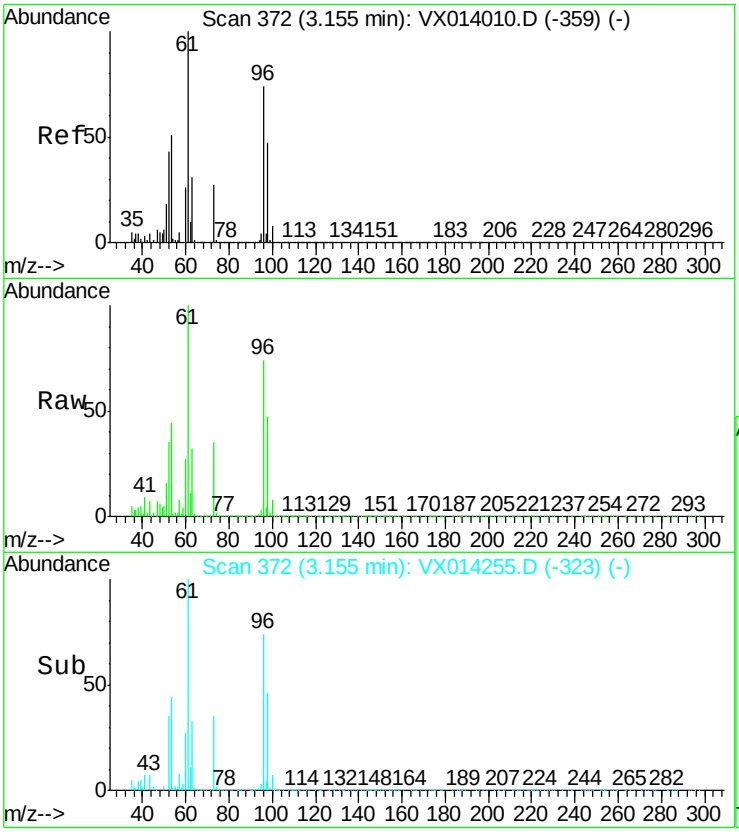
Tgt Ion: 84 Resp: 269435

Ion	Ratio	Lower	Upper
84	100		
49	119.7	95.8	143.6
51	36.0	29.8	44.8
86	64.4	50.8	76.2



Instrument :
MSVOA_X
ClientSampleId :
996-MW-15-(17)MS

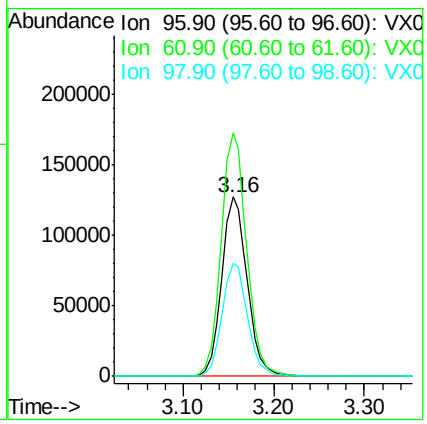
Manual Integrations APPROVED
apatel
12/26/2019 9:24:46 AM

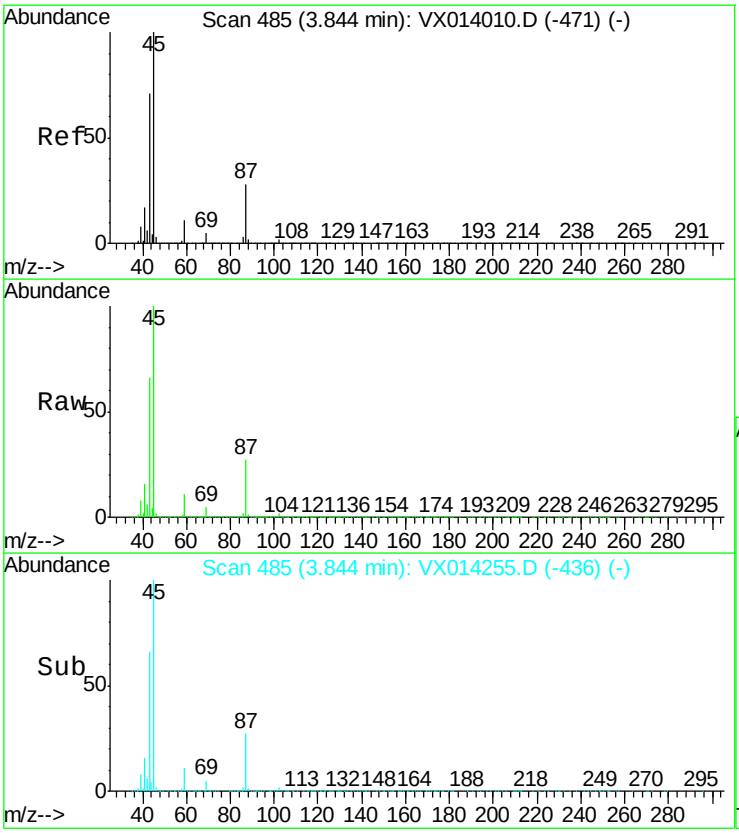


#21
trans-1,2-Dichloroethene
Concen: 48.372 ug/l
RT: 3.16 min Scan# 372
Delta R.T. 0.00 min
Lab File: VX014255.D
Acq: 24 Dec 2019 19:08

Tgt Ion: 96 Resp: 247689

Ion	Ratio	Lower	Upper
96	100		
61	135.6	108.3	162.5
98	63.1	50.8	76.2

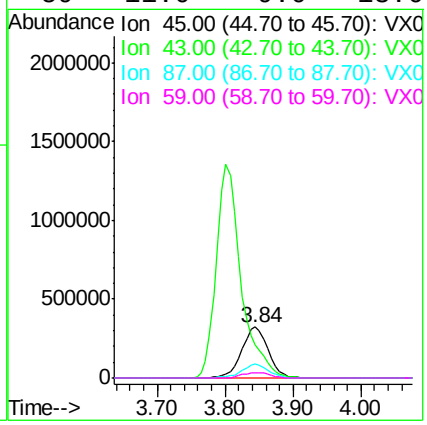




#22
Diisopropyl ether
Concen: 53.180 ug/l
RT: 3.84 min Scan# 485
Delta R.T. 0.00 min
Lab File: VX014255.D
Acq: 24 Dec 2019 19:08

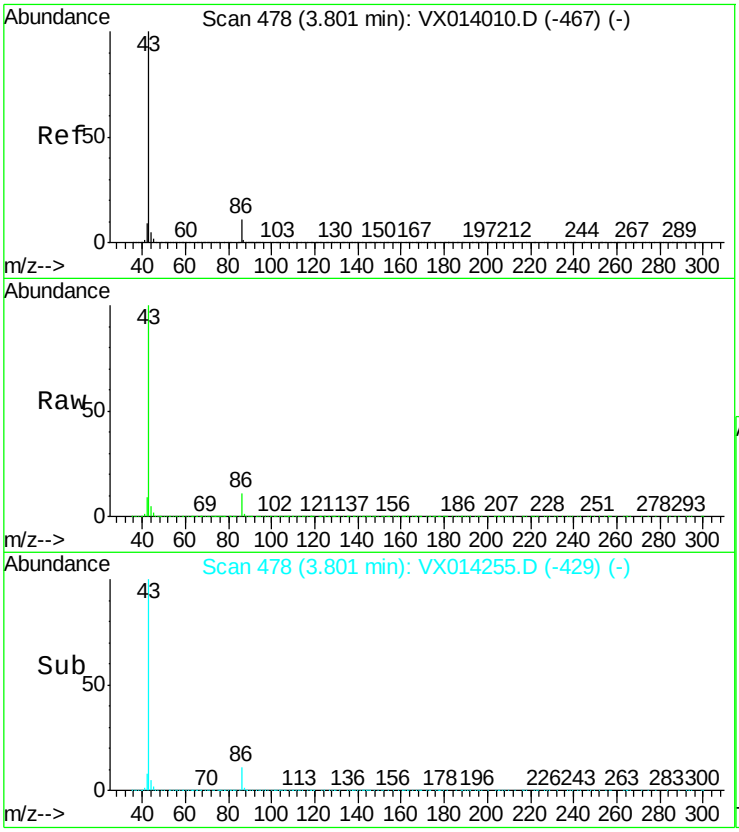
Tgt Ion: 45 Resp: 879447

Ion	Ratio	Lower	Upper
45	100		
43	66.0	57.4	86.0
87	27.2	21.9	32.9
59	11.0	9.0	13.6



Instrument :
MSVOA_X
ClientSampleId :
996-MW-15-(17)MS

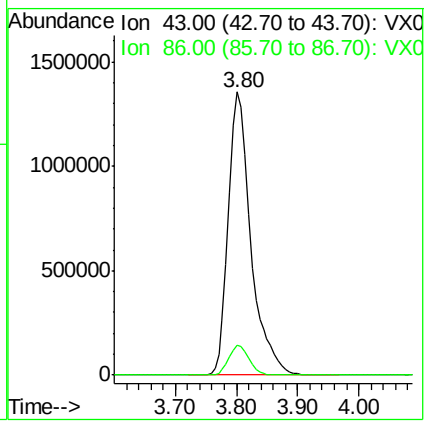
Manual Integrations APPROVED
apatel
12/26/2019 9:24:46 AM

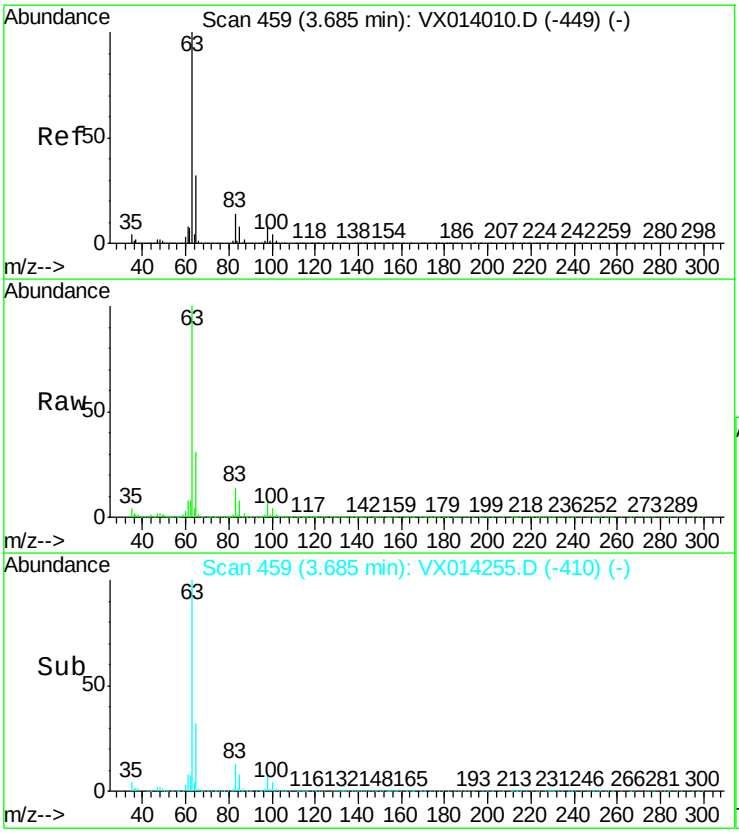


#23
Vinyl Acetate
Concen: 255.847 ug/l
RT: 3.80 min Scan# 478
Delta R.T. 0.00 min
Lab File: VX014255.D
Acq: 24 Dec 2019 19:08

Tgt Ion: 43 Resp: 3452711

Ion	Ratio	Lower	Upper
43	100		
86	10.8	8.6	12.8

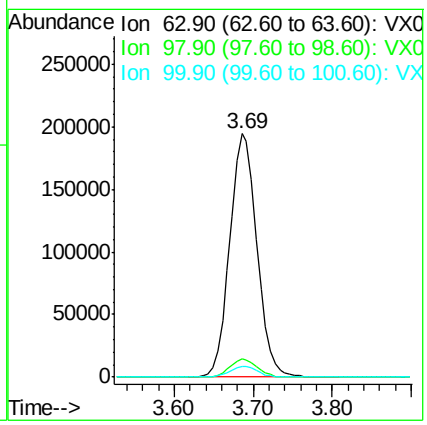




#24
1,1-Dichloroethane
Concen: 50.530 ug/l
RT: 3.69 min Scan# 459
Delta R.T. 0.00 min
Lab File: VX014255.D
Acq: 24 Dec 2019 19:08

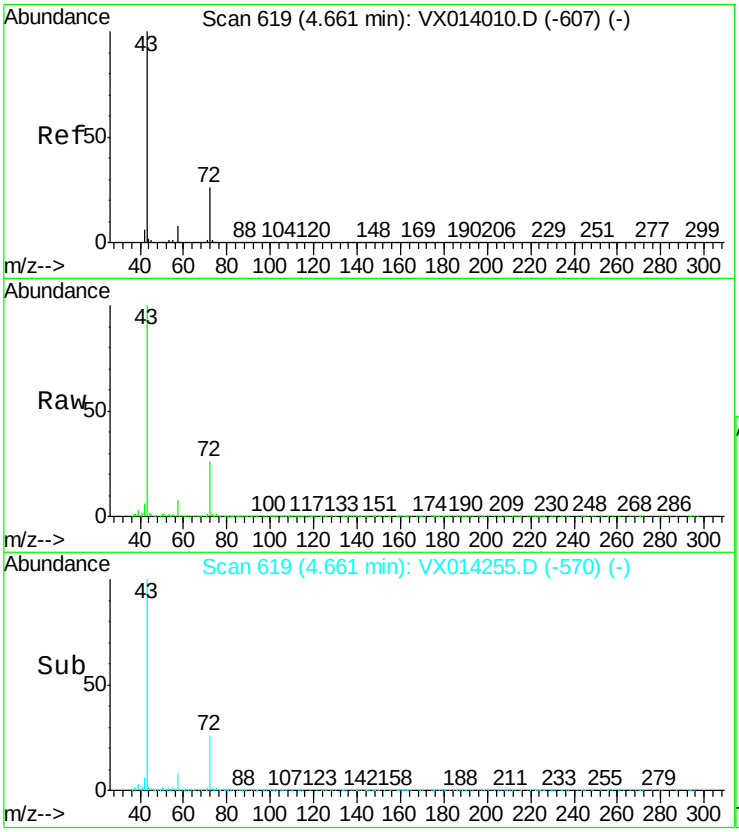
Tgt Ion: 63 Resp: 464903

Ion	Ratio	Lower	Upper
63	100		
98	7.3	3.6	10.8
100	4.2	2.3	6.8



Instrument :
MSVOA_X
ClientSampleId :
996-MW-15-(17)MS

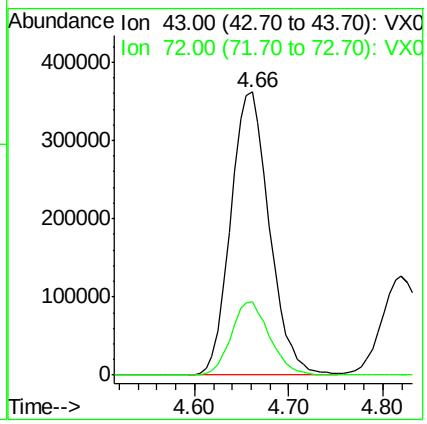
Manual Integrations APPROVED
apatel
12/26/2019 9:24:46 AM

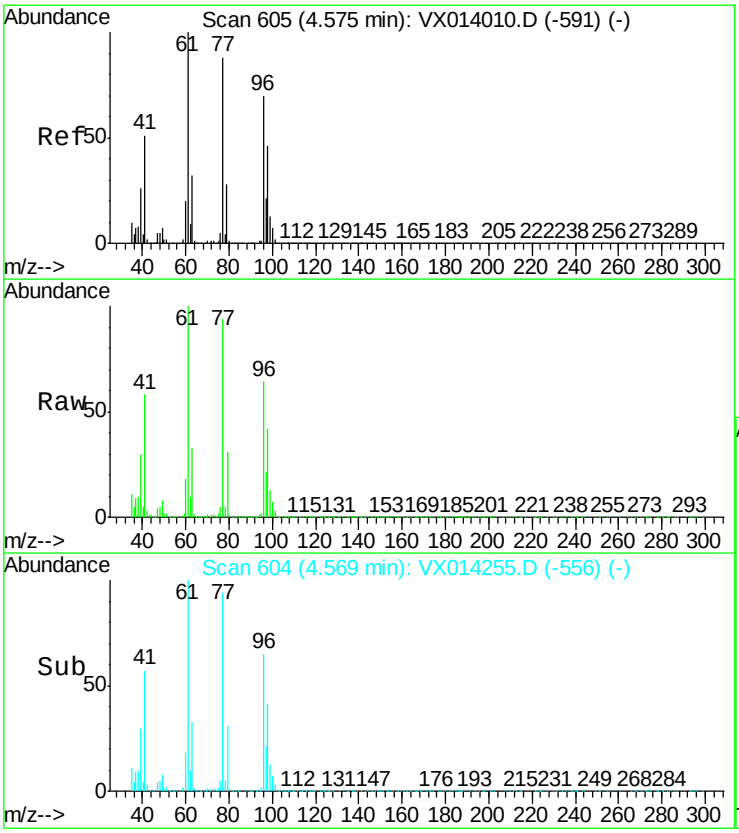


#25
2-Butanone
Concen: 234.357 ug/l
RT: 4.66 min Scan# 619
Delta R.T. 0.00 min
Lab File: VX014255.D
Acq: 24 Dec 2019 19:08

Tgt Ion: 43 Resp: 1027224

Ion	Ratio	Lower	Upper
43	100		
72	25.7	21.0	31.4

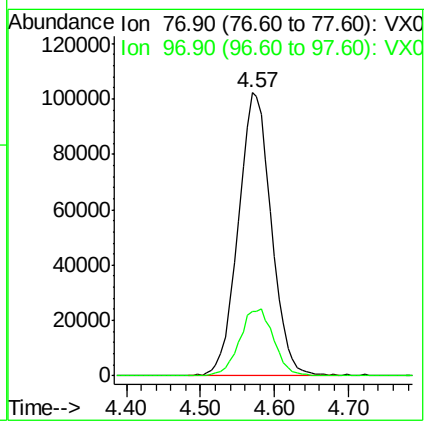




#26
2,2-Dichloropropane
Concen: 44.425 ug/l
RT: 4.57 min Scan# 604
Delta R.T. -0.01 min
Lab File: VX014255.D
Acq: 24 Dec 2019 19:08

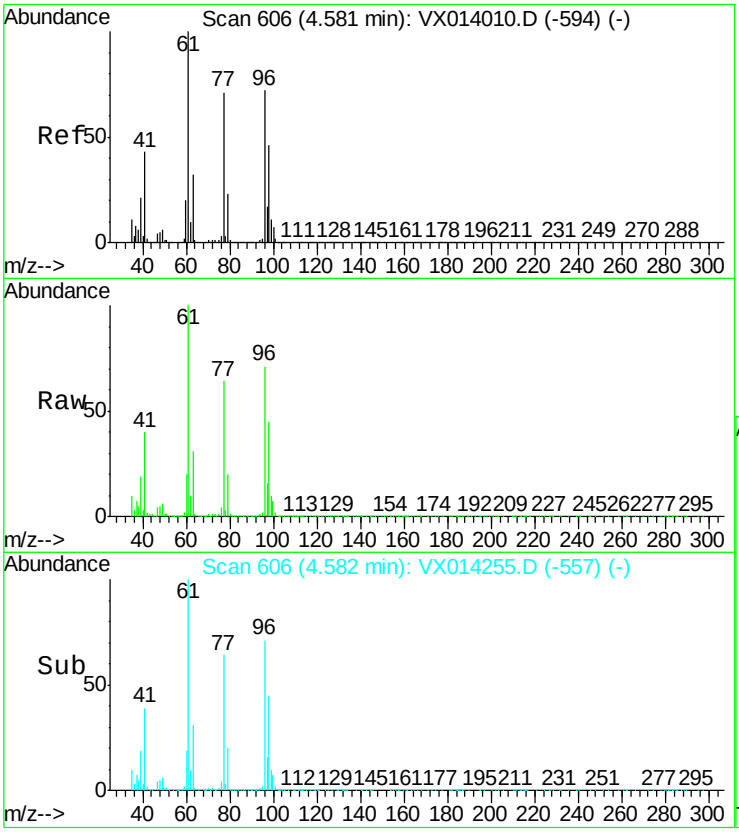
Tgt Ion: 77 Resp: 317347

Ion	Ratio	Lower	Upper
77	100		
97	24.5	11.9	35.9



Instrument :
MSVOA_X
ClientSampleId :
996-MW-15-(17)MS

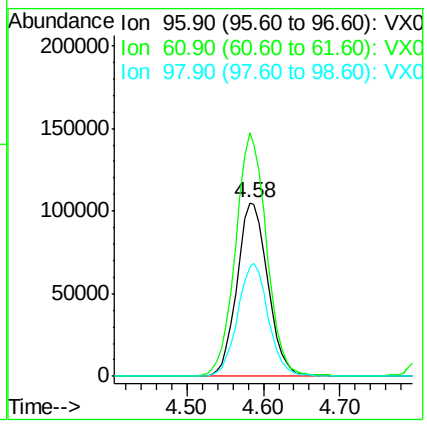
Manual Integrations APPROVED
apatel
12/26/2019 9:24:46 AM

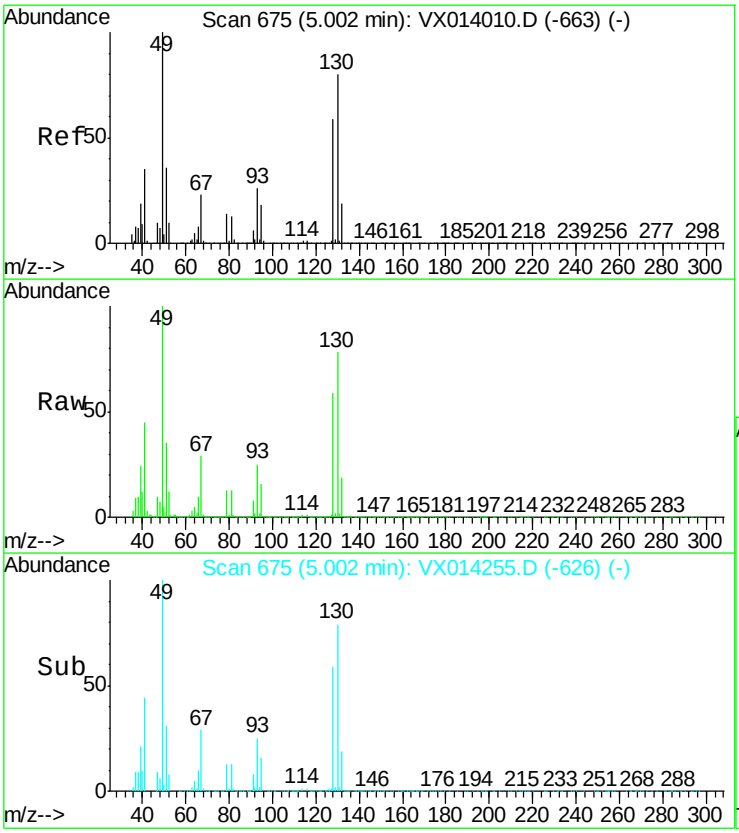


#27
cis-1,2-Dichloroethene
Concen: 50.500 ug/l
RT: 4.58 min Scan# 606
Delta R.T. 0.00 min
Lab File: VX014255.D
Acq: 24 Dec 2019 19:08

Tgt Ion: 96 Resp: 292450

Ion	Ratio	Lower	Upper
96	100		
61	141.4	0.0	288.4
98	64.5	0.0	129.6

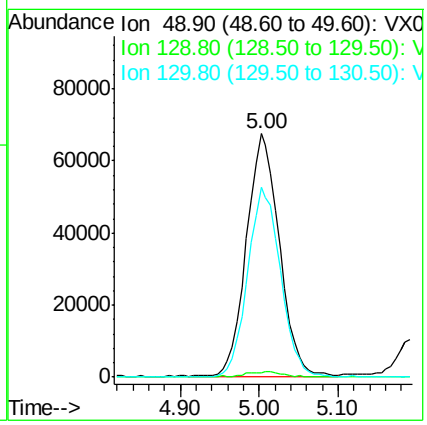




#28
Bromochloromethane
Concen: 55.777 ug/l
RT: 5.00 min Scan# 675
Delta R.T. 0.00 min
Lab File: VX014255.D
Acq: 24 Dec 2019 19:08

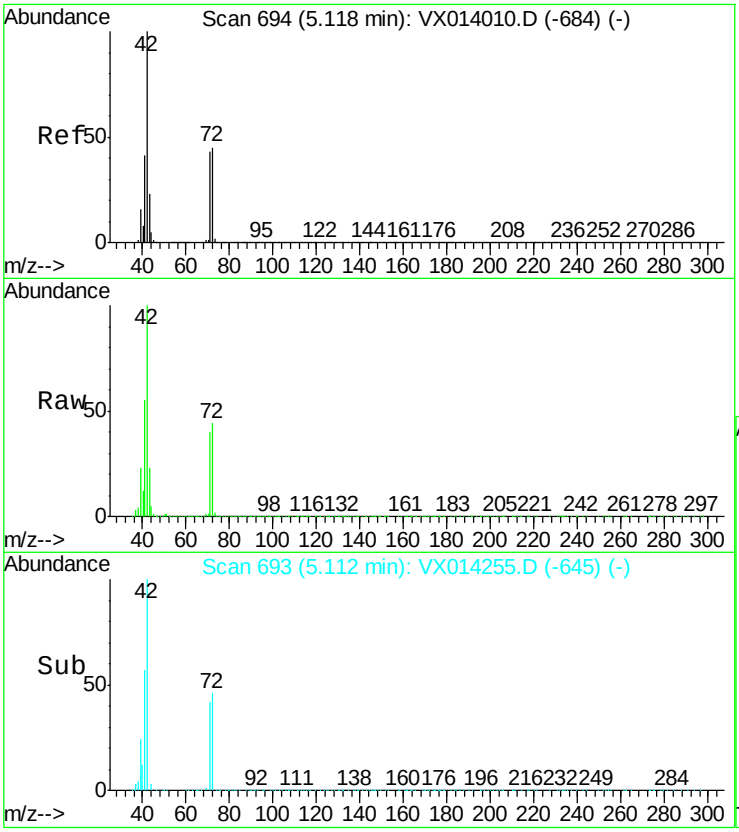
Tgt Ion: 49 Resp: 197549

Ion	Ratio	Lower	Upper
49	100		
129	2.5	0.0	5.0
130	77.4	64.6	97.0



Instrument :
MSVOA_X
ClientSampleId :
996-MW-15-(17)MS

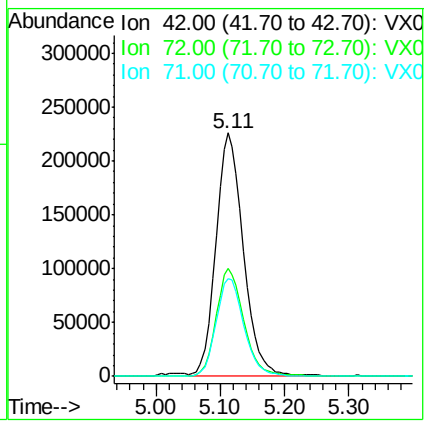
Manual Integrations APPROVED
apatel
12/26/2019 9:24:46 AM

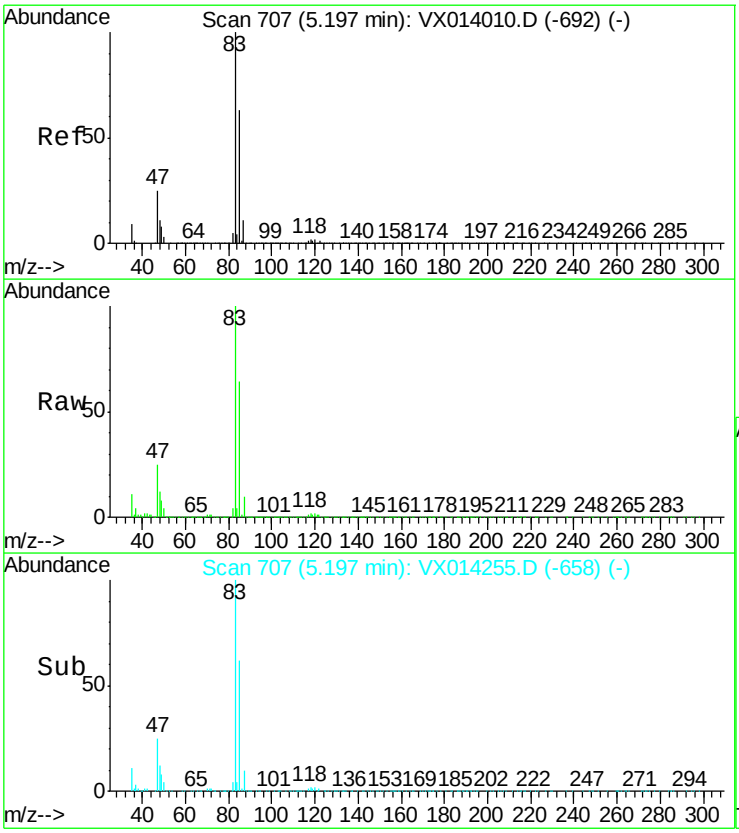


#29
Tetrahydrofuran
Concen: 274.359 ug/l
RT: 5.11 min Scan# 693
Delta R.T. -0.01 min
Lab File: VX014255.D
Acq: 24 Dec 2019 19:08

Tgt Ion: 42 Resp: 672622

Ion	Ratio	Lower	Upper
42	100		
72	44.6	35.8	53.8
71	41.0	33.6	50.4

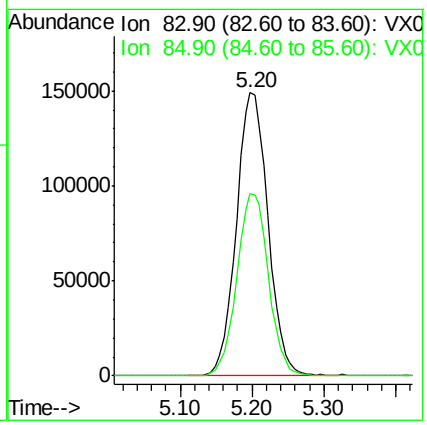




#30
Chloroform
Concen: 52.107 ug/l
RT: 5.20 min Scan# 707
Delta R.T. 0.00 min
Lab File: VX014255.D
Acq: 24 Dec 2019 19:08

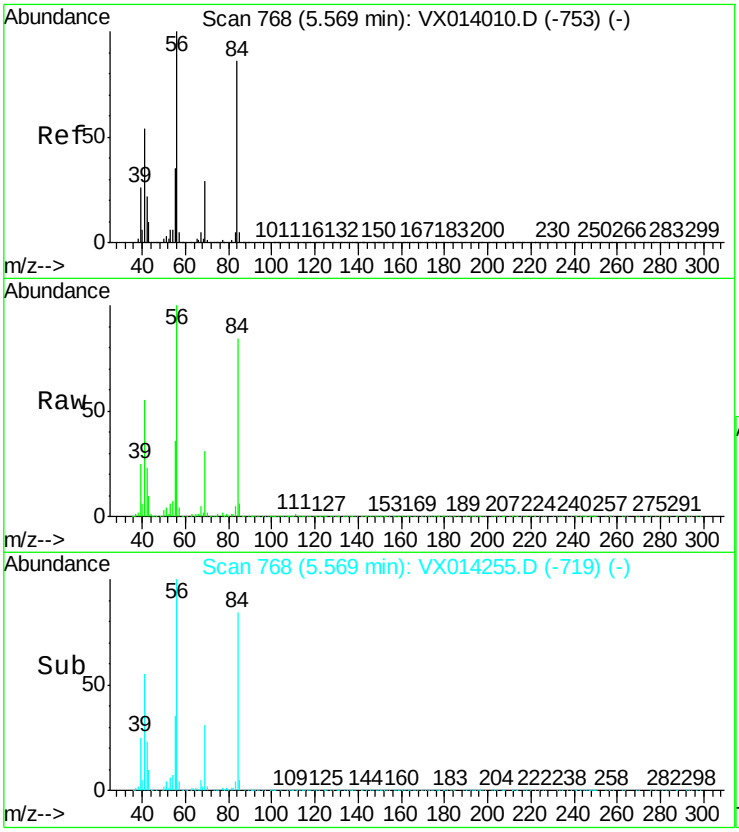
Tgt Ion: 83 Resp: 454475

Ion	Ratio	Lower	Upper
83	100		
85	64.1	50.8	76.2



Instrument :
MSVOA_X
ClientSampleId :
996-MW-15-(17)MS

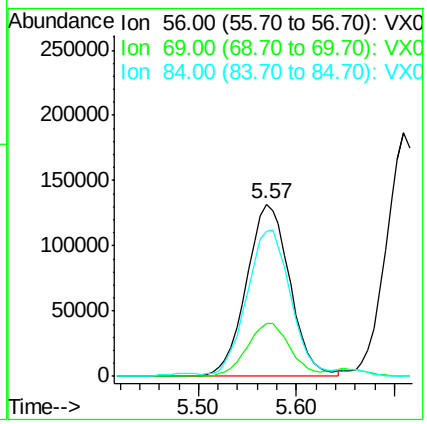
Manual Integrations APPROVED
apatel
12/26/2019 9:24:46 AM

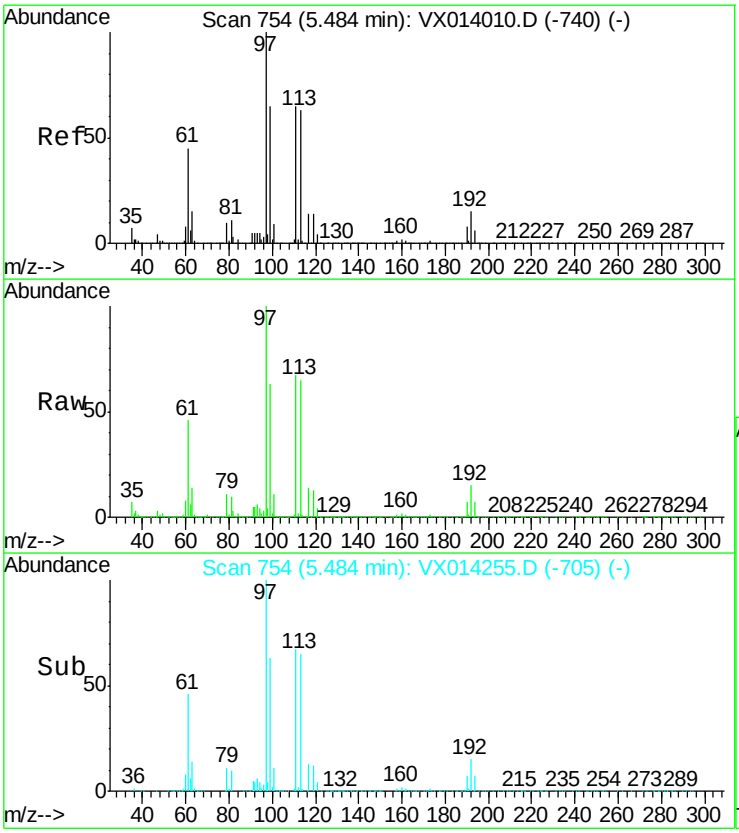


#31
Cyclohexane
Concen: 49.338 ug/l
RT: 5.57 min Scan# 768
Delta R.T. 0.00 min
Lab File: VX014255.D
Acq: 24 Dec 2019 19:08

Tgt Ion: 56 Resp: 403735

Ion	Ratio	Lower	Upper
56	100		
69	30.8	23.2	34.8
84	82.7	69.2	103.8

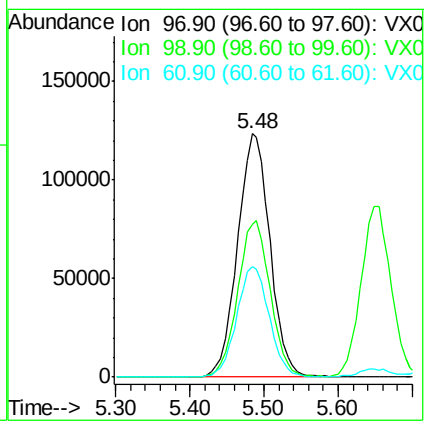




#32
1,1,1-Trichloroethane
Concen: 50.490 ug/l
RT: 5.48 min Scan# 754
Delta R.T. 0.00 min
Lab File: VX014255.D
Acq: 24 Dec 2019 19:08

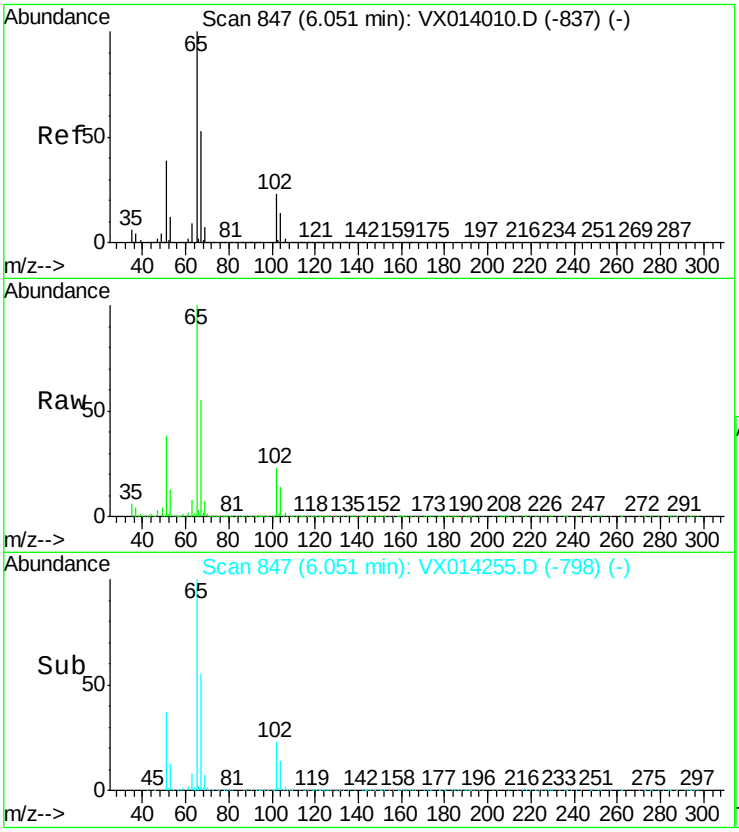
Tgt Ion: 97 Resp: 375318

Ion	Ratio	Lower	Upper
97	100		
99	64.9	52.0	78.0
61	45.5	36.7	55.1



Instrument :
MSVOA_X
ClientSampleId :
996-MW-15-(17)MS

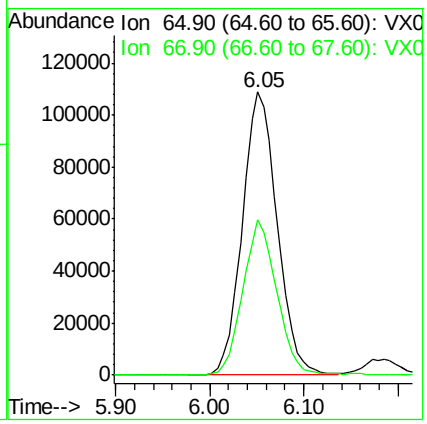
Manual Integrations APPROVED
apatel
12/26/2019 9:24:46 AM

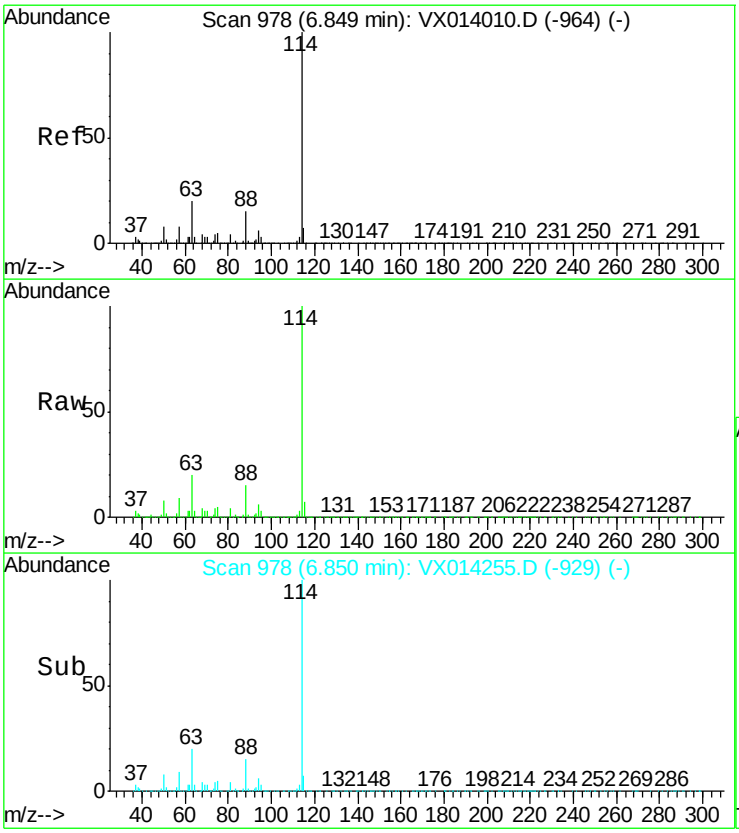


#33
1,2-Dichloroethane-d4
Concen: 51.275 ug/l
RT: 6.05 min Scan# 847
Delta R.T. 0.00 min
Lab File: VX014255.D
Acq: 24 Dec 2019 19:08

Tgt Ion: 65 Resp: 280790

Ion	Ratio	Lower	Upper
65	100		
67	53.8	0.0	106.4

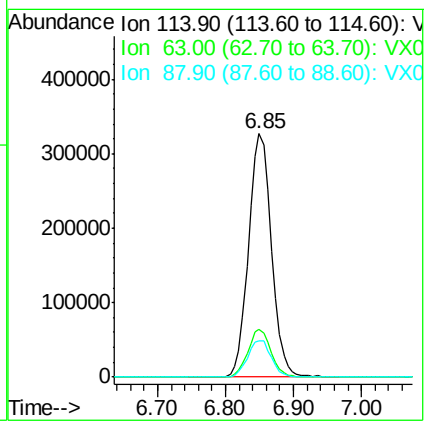




#34
1,4-Difluorobenzene
Concen: 50.000 ug/l
RT: 6.85 min Scan# 978
Delta R.T. 0.00 min
Lab File: VX014255.D
Acq: 24 Dec 2019 19:08

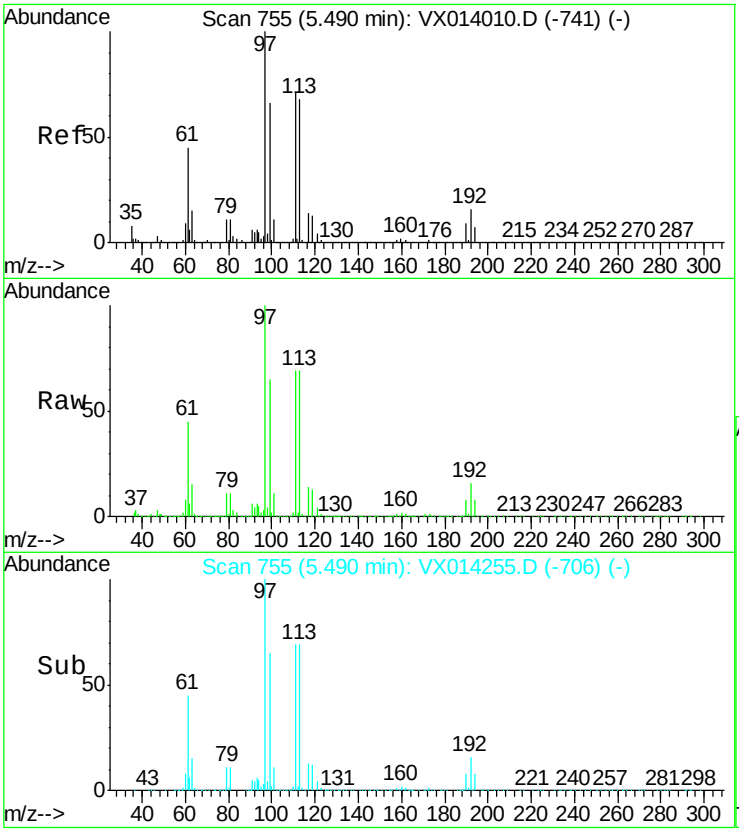
Tgt Ion:114 Resp: 766167

Ion	Ratio	Lower	Upper
114	100		
63	19.8	0.0	40.8
88	15.1	0.0	30.4



Instrument :
MSVOA_X
ClientSampleId :
996-MW-15-(17)MS

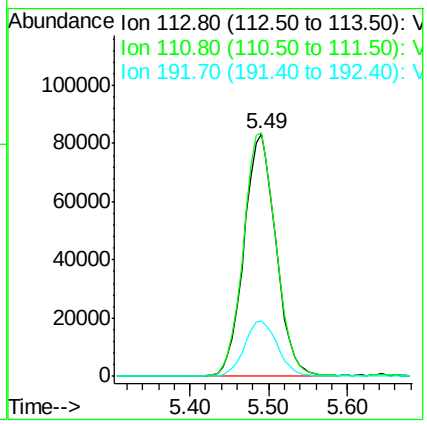
Manual Integrations APPROVED
apatel
12/26/2019 9:24:46 AM

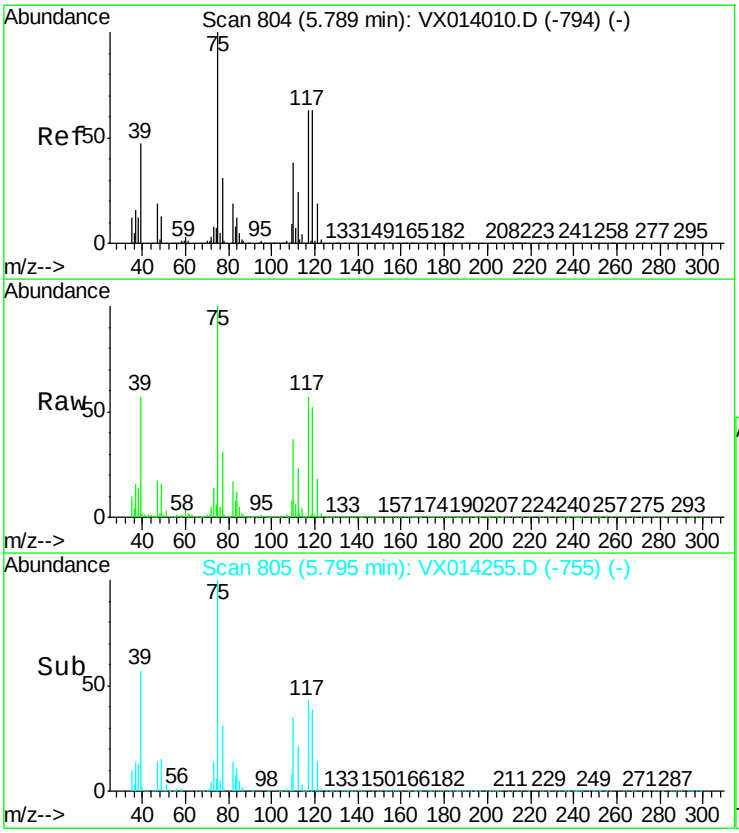


#35
Dibromofluoromethane
Concen: 50.256 ug/l
RT: 5.49 min Scan# 755
Delta R.T. 0.00 min
Lab File: VX014255.D
Acq: 24 Dec 2019 19:08

Tgt Ion:113 Resp: 234066

Ion	Ratio	Lower	Upper
113	100		
111	102.6	82.0	123.0
192	23.9	19.3	28.9

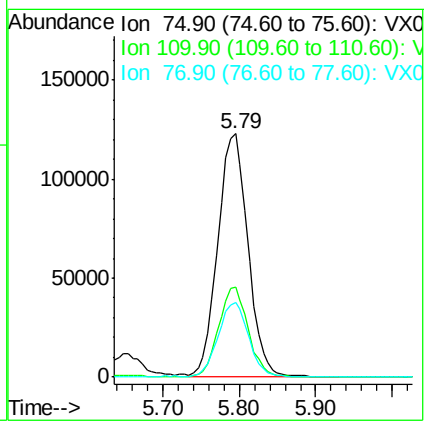




#36
1,1-Dichloropropene
Concen: 47.571 ug/l
RT: 5.79 min Scan# 805
Delta R.T. 0.01 min
Lab File: VX014255.D
Acq: 24 Dec 2019 19:08

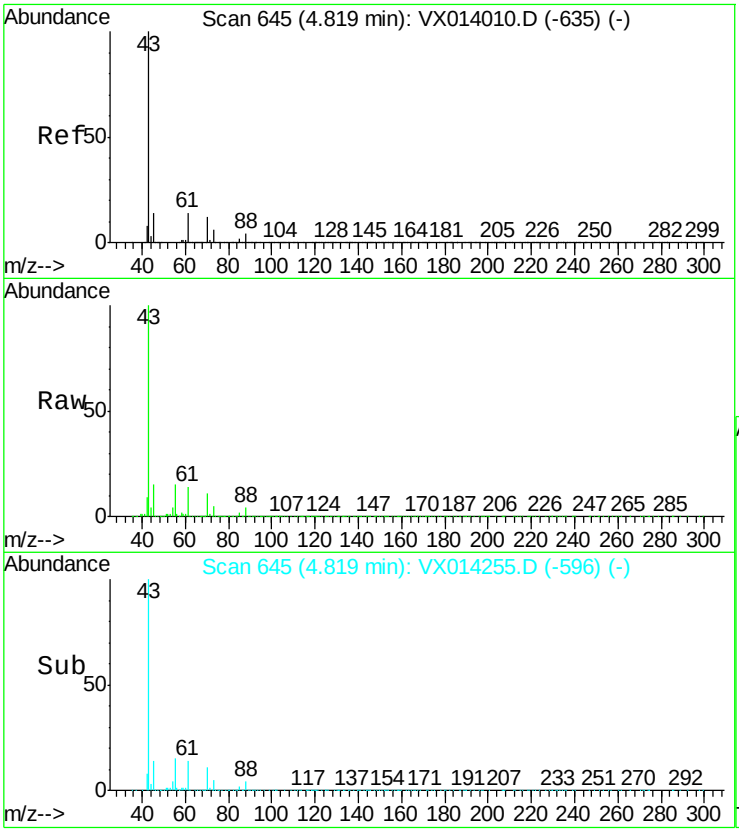
Tgt Ion: 75 Resp: 334424

Ion	Ratio	Lower	Upper
75	100		
110	35.8	18.3	54.9
77	30.4	24.8	37.2



Instrument :
MSVOA_X
ClientSampleId :
996-MW-15-(17)MS

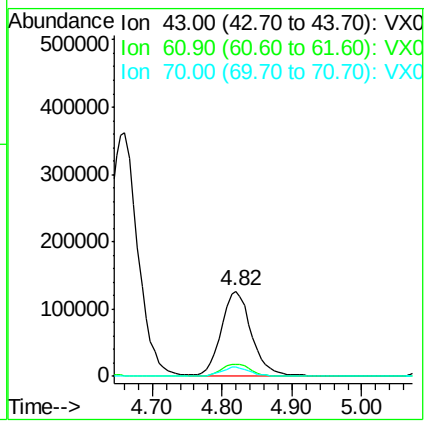
Manual Integrations APPROVED
apatel
12/26/2019 9:24:46 AM

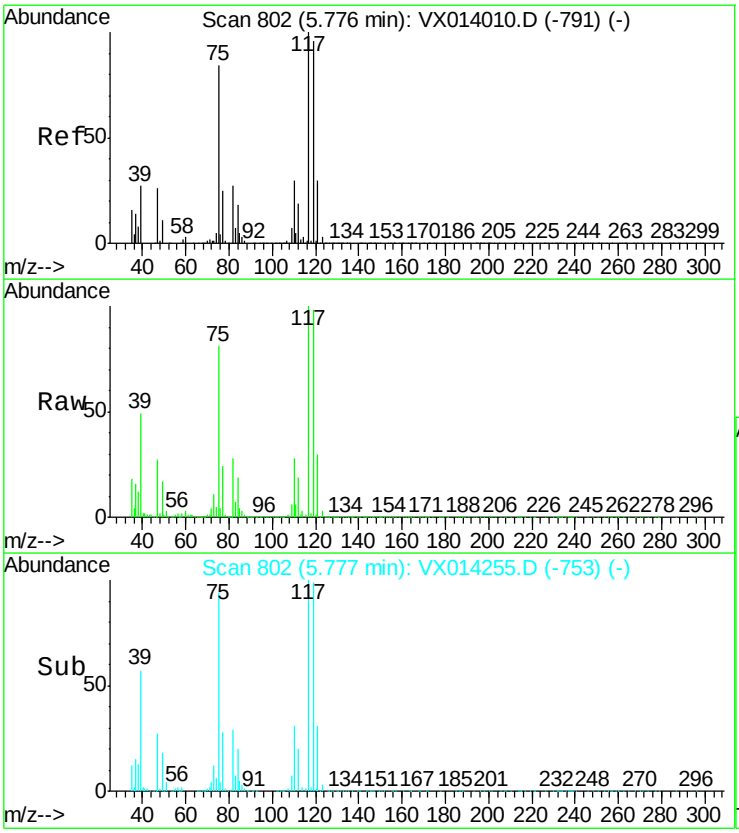


#37
Ethyl Acetate
Concen: 48.296 ug/l
RT: 4.82 min Scan# 645
Delta R.T. 0.00 min
Lab File: VX014255.D
Acq: 24 Dec 2019 19:08

Tgt Ion: 43 Resp: 374931

Ion	Ratio	Lower	Upper
43	100		
61	13.7	10.8	16.2
70	10.3	8.6	12.8

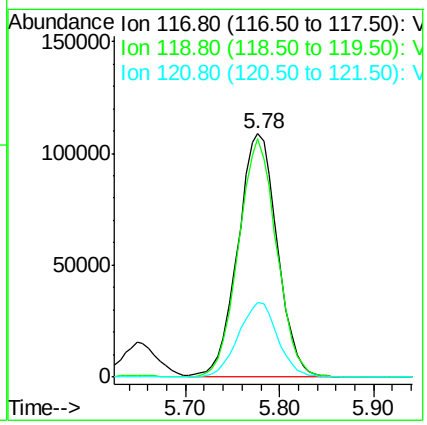




#38
Carbon Tetrachloride
Concen: 49.561 ug/l
RT: 5.78 min Scan# 802
Delta R.T. 0.00 min
Lab File: VX014255.D
Acq: 24 Dec 2019 19:08

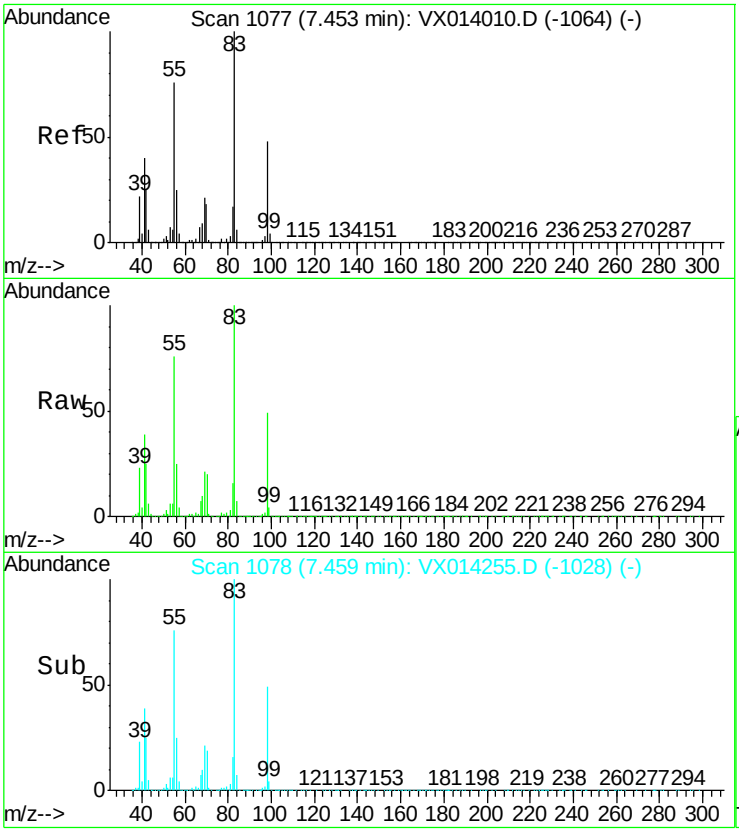
Tgt Ion:117 Resp: 317402

Ion	Ratio	Lower	Upper
117	100		
119	97.8	76.2	114.4
121	30.3	23.6	35.4



Instrument :
MSVOA_X
ClientSampleId :
996-MW-15-(17)MS

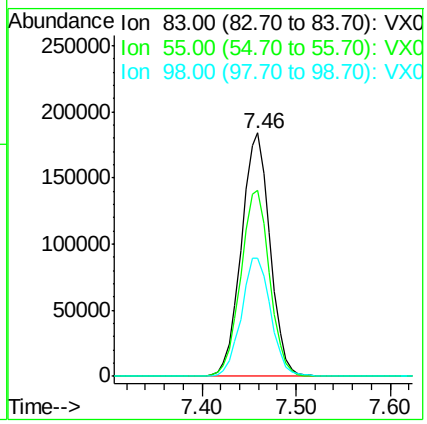
Manual Integrations APPROVED
apatel
12/26/2019 9:24:46 AM

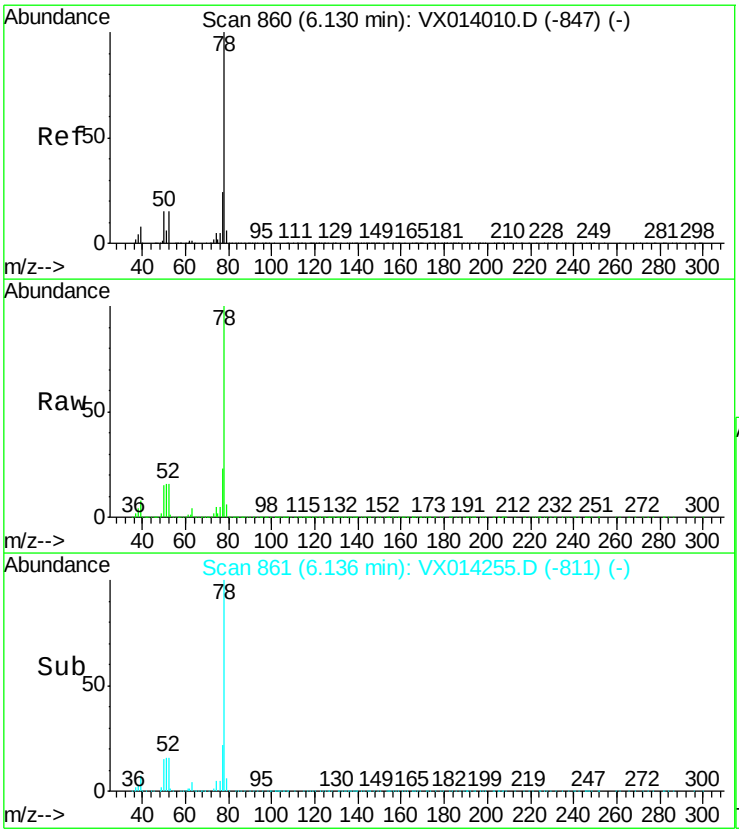


#39
Methylcyclohexane
Concen: 44.979 ug/l
RT: 7.46 min Scan# 1078
Delta R.T. 0.01 min
Lab File: VX014255.D
Acq: 24 Dec 2019 19:08

Tgt Ion: 83 Resp: 390438

Ion	Ratio	Lower	Upper
83	100		
55	76.1	61.0	91.6
98	48.7	38.6	57.8

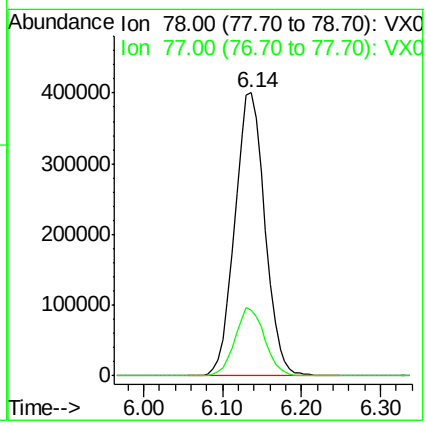




#40
Benzene
Concen: 49.104 ug/l
RT: 6.14 min Scan# 861
Delta R.T. 0.01 min
Lab File: VX014255.D
Acq: 24 Dec 2019 19:08

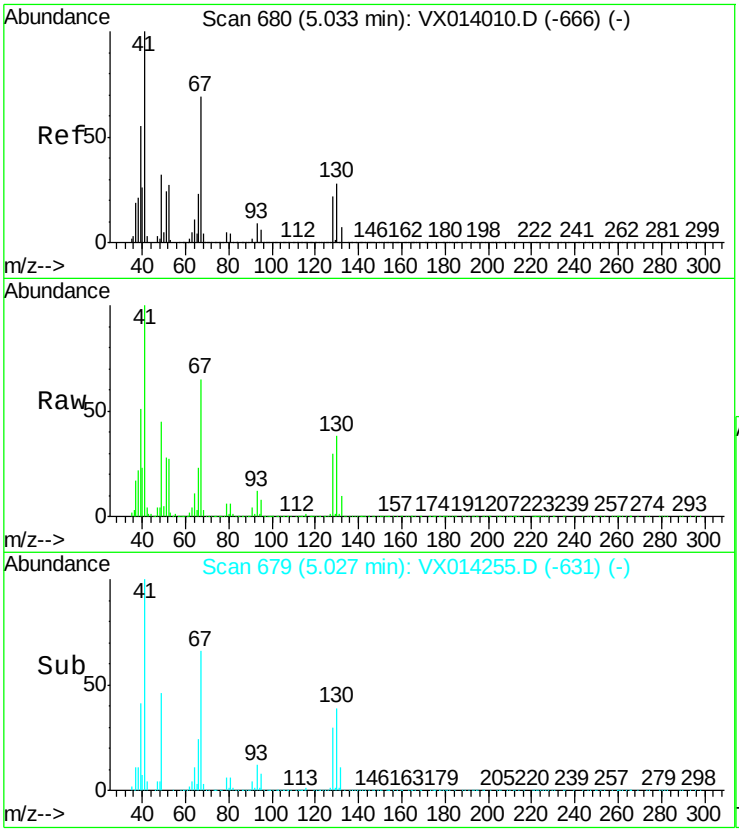
Tgt Ion: 78 Resp: 1062137

Ion	Ratio	Lower	Upper
78	100		
77	23.4	18.8	28.2



Instrument :
MSVOA_X
ClientSampleId :
996-MW-15-(17)MS

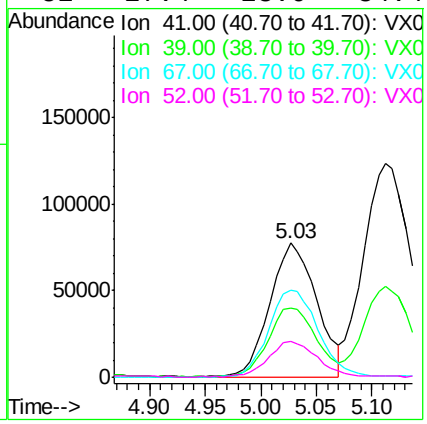
Manual Integrations APPROVED
apatel
12/26/2019 9:24:46 AM

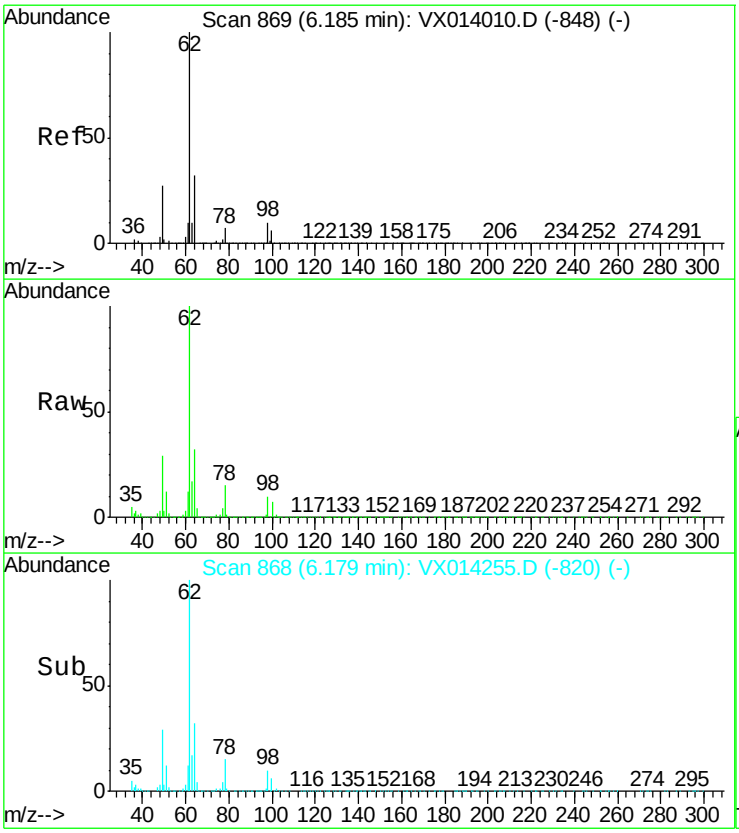


#41
Methacrylonitrile
Concen: 52.962 ug/l
RT: 5.03 min Scan# 679
Delta R.T. -0.01 min
Lab File: VX014255.D
Acq: 24 Dec 2019 19:08

Tgt Ion: 41 Resp: 228128

Ion	Ratio	Lower	Upper
41	100		
39	51.7	44.5	66.7
67	68.8	57.4	86.0
52	27.4	23.0	34.4

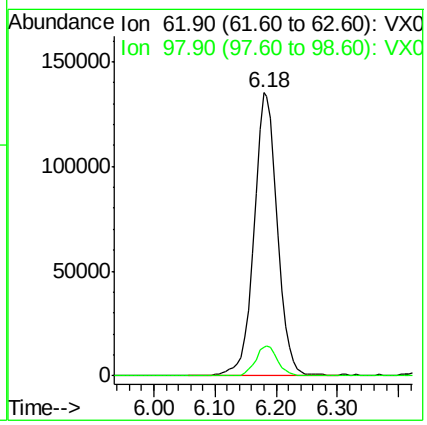




#42
1,2-Dichloroethane
Concen: 49.481 ug/l
RT: 6.18 min Scan# 868
Delta R.T. -0.01 min
Lab File: VX014255.D
Acq: 24 Dec 2019 19:08

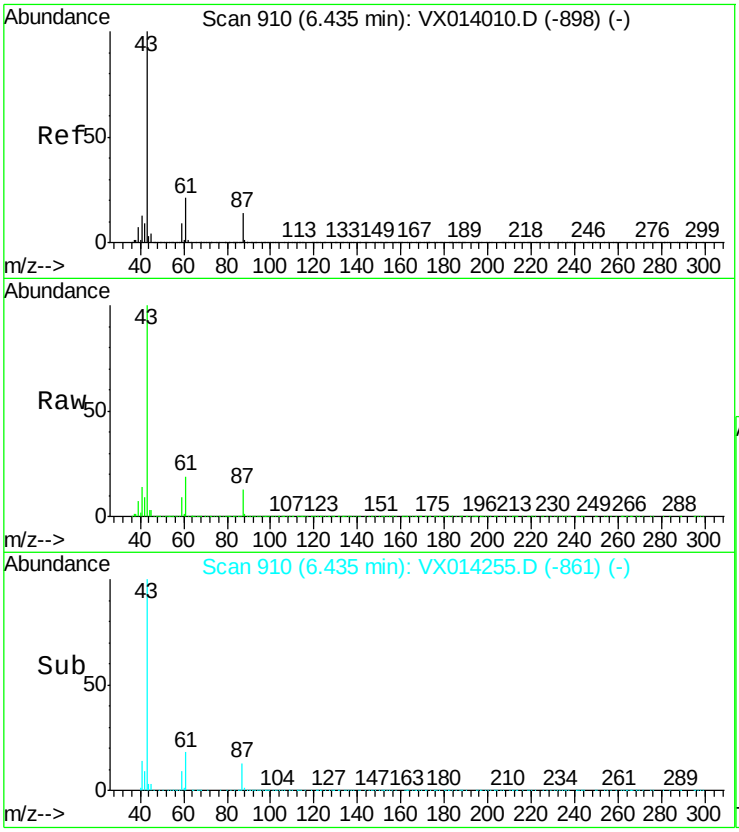
Tgt Ion: 62 Resp: 362803

Ion	Ratio	Lower	Upper
62	100		
98	10.2	0.0	21.0



Instrument :
MSVOA_X
ClientSampleId :
996-MW-15-(17)MS

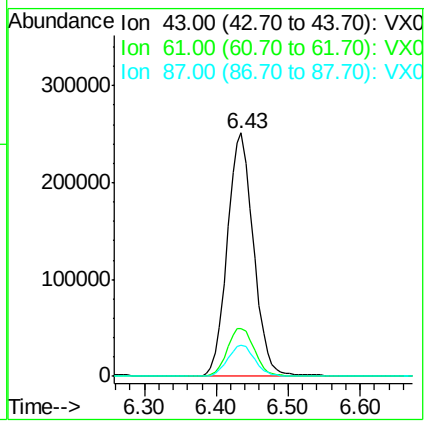
Manual Integrations APPROVED
apatel
12/26/2019 9:24:46 AM

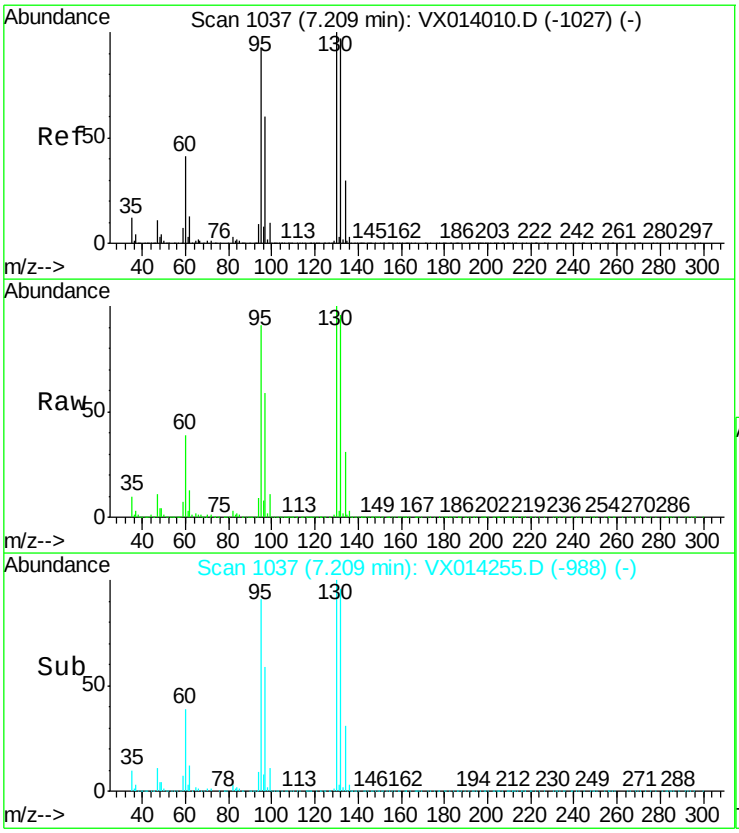


#43
Isopropyl Acetate
Concen: 49.098 ug/l
RT: 6.43 min Scan# 910
Delta R.T. 0.00 min
Lab File: VX014255.D
Acq: 24 Dec 2019 19:08

Tgt Ion: 43 Resp: 630782

Ion	Ratio	Lower	Upper
43	100		
61	20.5	16.4	24.6
87	13.0	10.7	16.1

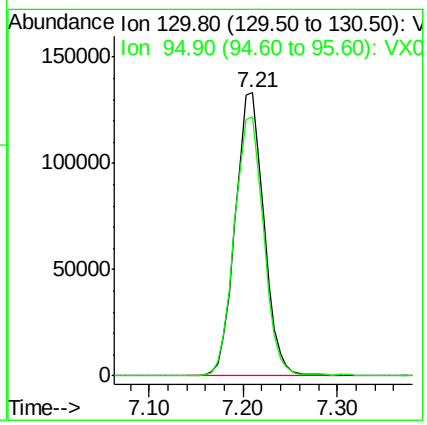




#44
Trichloroethene
Concen: 47.295 ug/l
RT: 7.21 min Scan# 1037
Delta R.T. 0.00 min
Lab File: VX014255.D
Acq: 24 Dec 2019 19:08

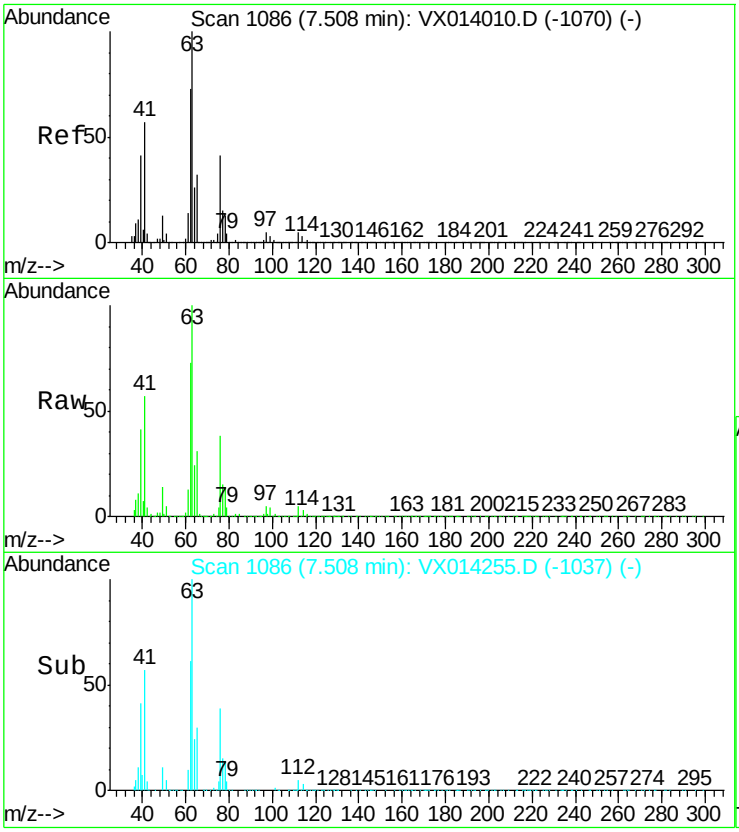
Tgt Ion:130 Resp: 282565

Ion	Ratio	Lower	Upper
130	100		
95	91.3	0.0	185.6



Instrument :
MSVOA_X
ClientSampleId :
996-MW-15-(17)MS

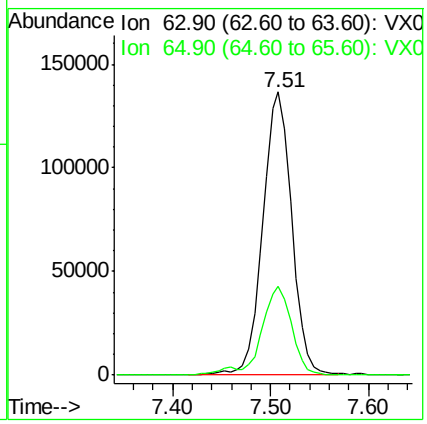
Manual Integrations APPROVED
apatel
12/26/2019 9:24:46 AM

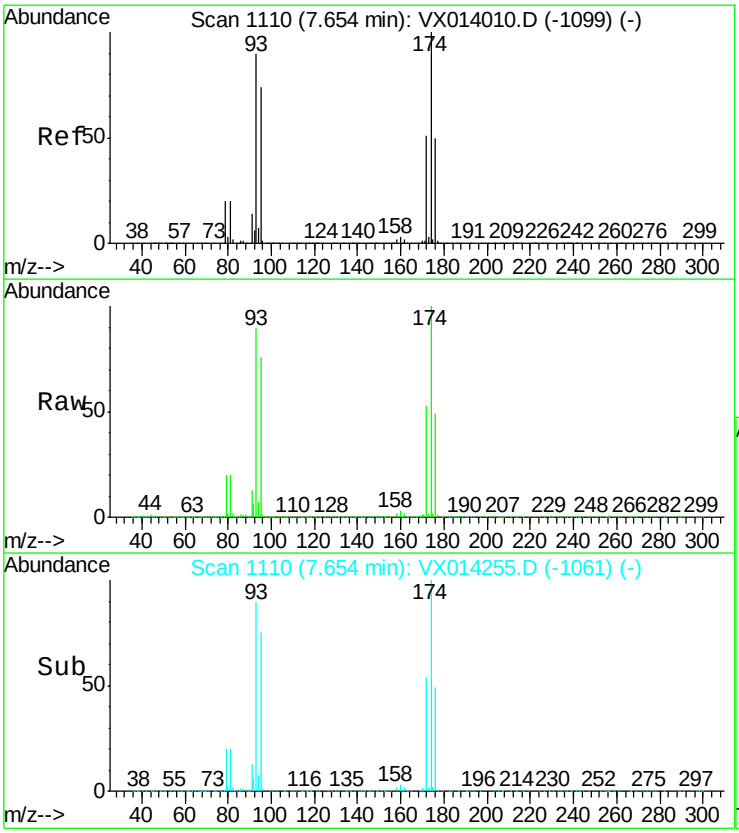


#45
1,2-Dichloropropane
Concen: 50.461 ug/l
RT: 7.51 min Scan# 1086
Delta R.T. 0.00 min
Lab File: VX014255.D
Acq: 24 Dec 2019 19:08

Tgt Ion: 63 Resp: 279759

Ion	Ratio	Lower	Upper
63	100		
65	31.0	25.8	38.8

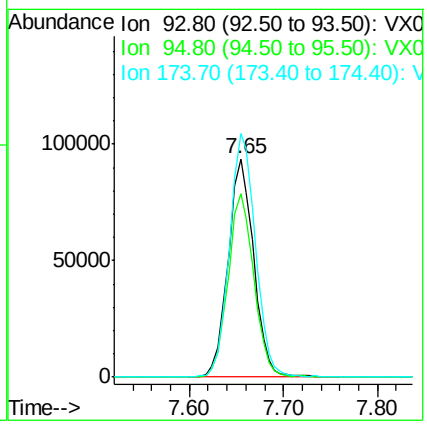




#46
Dibromomethane
Concen: 47.967 ug/l
RT: 7.65 min Scan# 1110
Delta R.T. 0.00 min
Lab File: VX014255.D
Acq: 24 Dec 2019 19:08

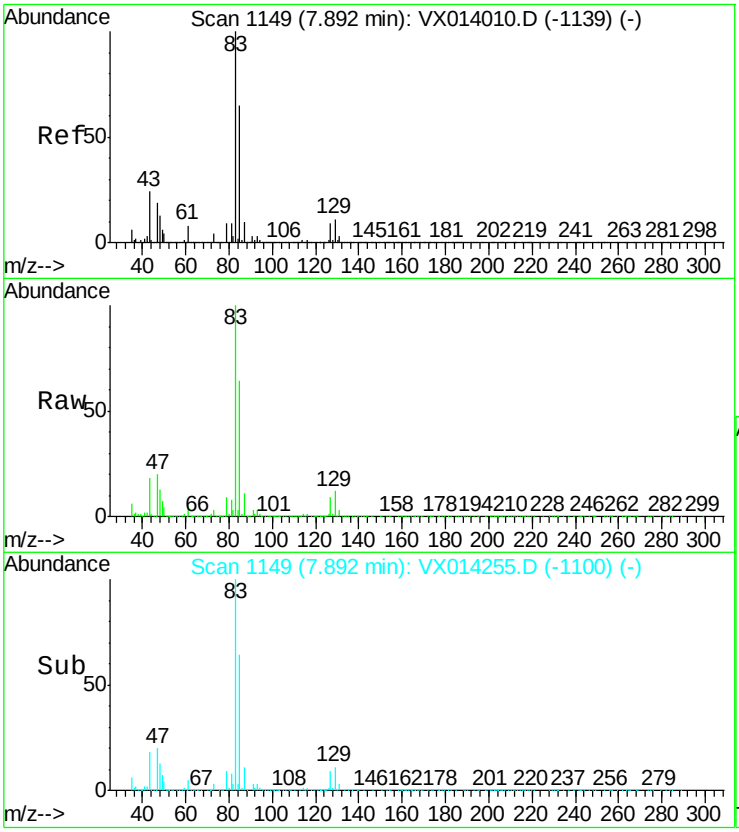
Tgt Ion: 93 Resp: 175821

Ion	Ratio	Lower	Upper
93	100		
95	85.1	67.3	100.9
174	113.7	91.6	137.4



Instrument :
MSVOA_X
ClientSampleId :
996-MW-15-(17)MS

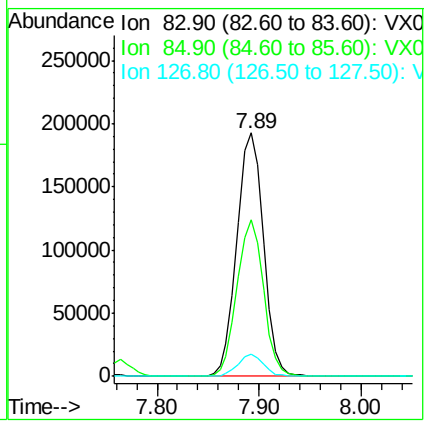
Manual Integrations APPROVED
apatel
12/26/2019 9:24:46 AM

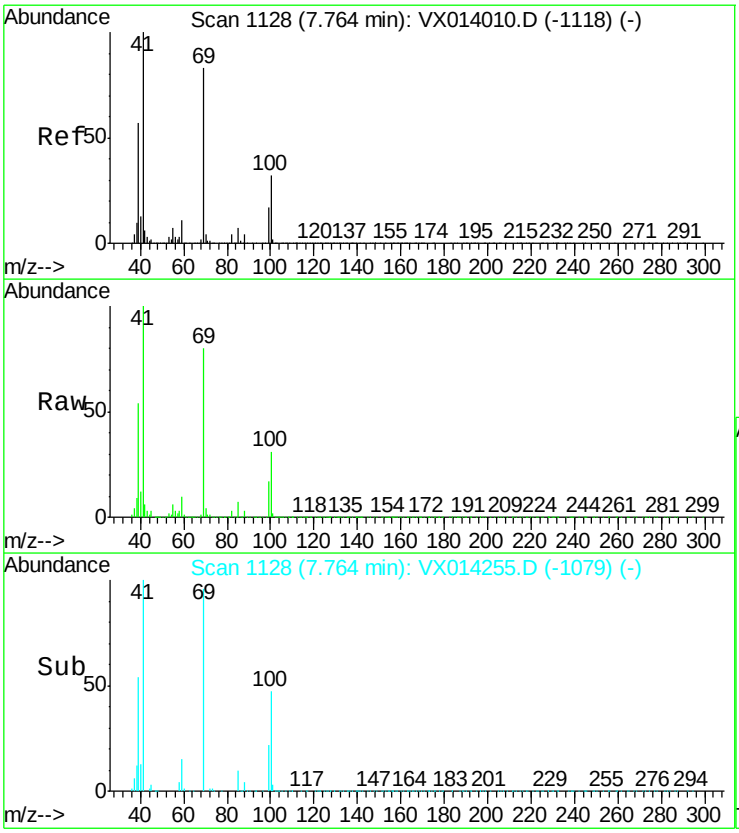


#47
Bromodichloromethane
Concen: 50.291 ug/l
RT: 7.89 min Scan# 1149
Delta R.T. 0.00 min
Lab File: VX014255.D
Acq: 24 Dec 2019 19:08

Tgt Ion: 83 Resp: 347181

Ion	Ratio	Lower	Upper
83	100		
85	64.3	51.8	77.8
127	8.9	7.0	10.4

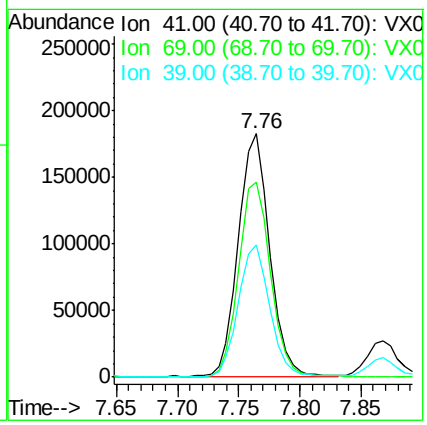




#48
Methyl methacrylate
Concen: 51.636 ug/l
RT: 7.76 min Scan# 1128
Delta R.T. 0.00 min
Lab File: VX014255.D
Acq: 24 Dec 2019 19:08

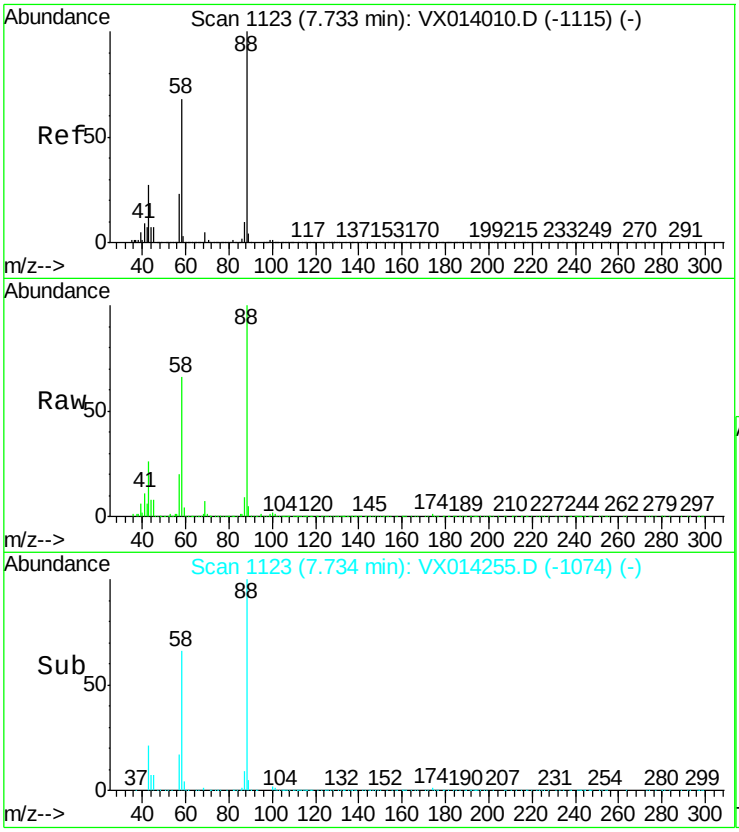
Tgt Ion: 41 Resp: 324850

Ion	Ratio	Lower	Upper
41	100		
69	81.6	65.8	98.6
39	54.4	44.6	67.0



Instrument :
MSVOA_X
ClientSampleId :
996-MW-15-(17)MS

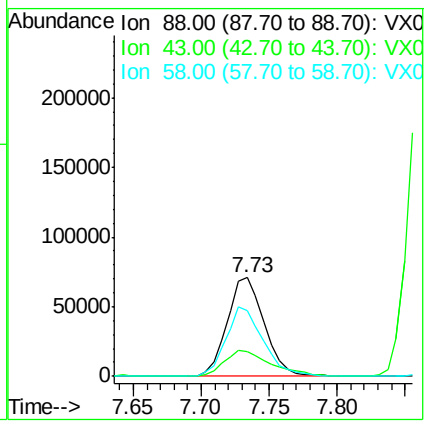
Manual Integrations APPROVED
apatel
12/26/2019 9:24:46 AM

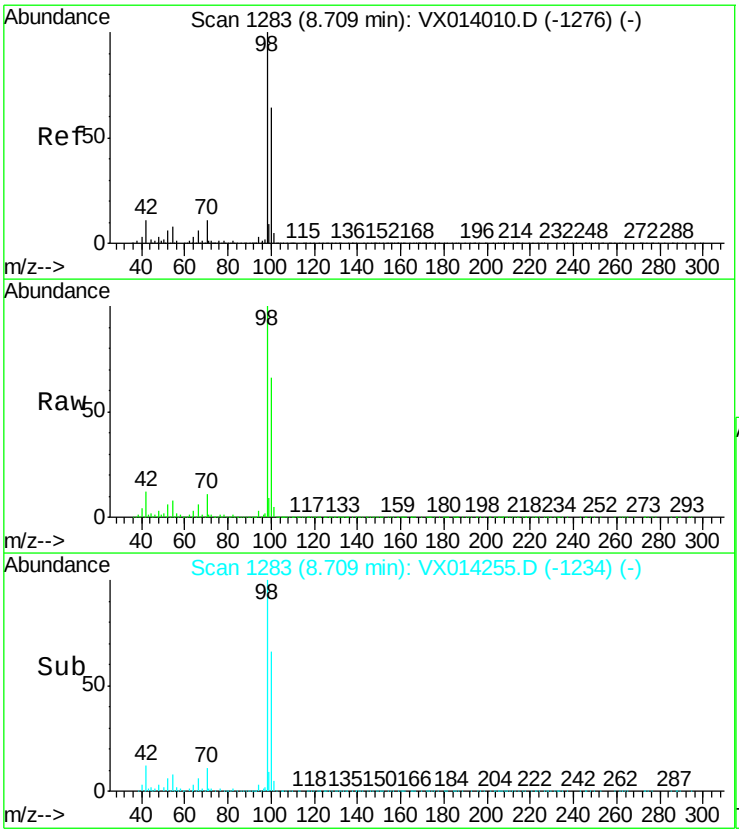


#49
1,4-Dioxane
Concen: 1045.142 ug/l
RT: 7.73 min Scan# 1123
Delta R.T. 0.00 min
Lab File: VX014255.D
Acq: 24 Dec 2019 19:08

Tgt Ion: 88 Resp: 133805

Ion	Ratio	Lower	Upper
88	100		
43	32.9	26.5	39.7
58	71.5	56.8	85.2

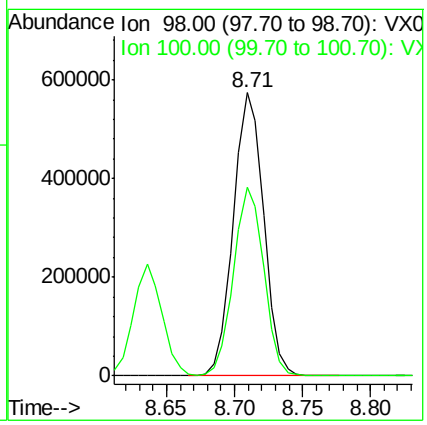




#50
Toluene-d8
Concen: 49.156 ug/l
RT: 8.71 min Scan# 1283
Delta R.T. 0.00 min
Lab File: VX014255.D
Acq: 24 Dec 2019 19:08

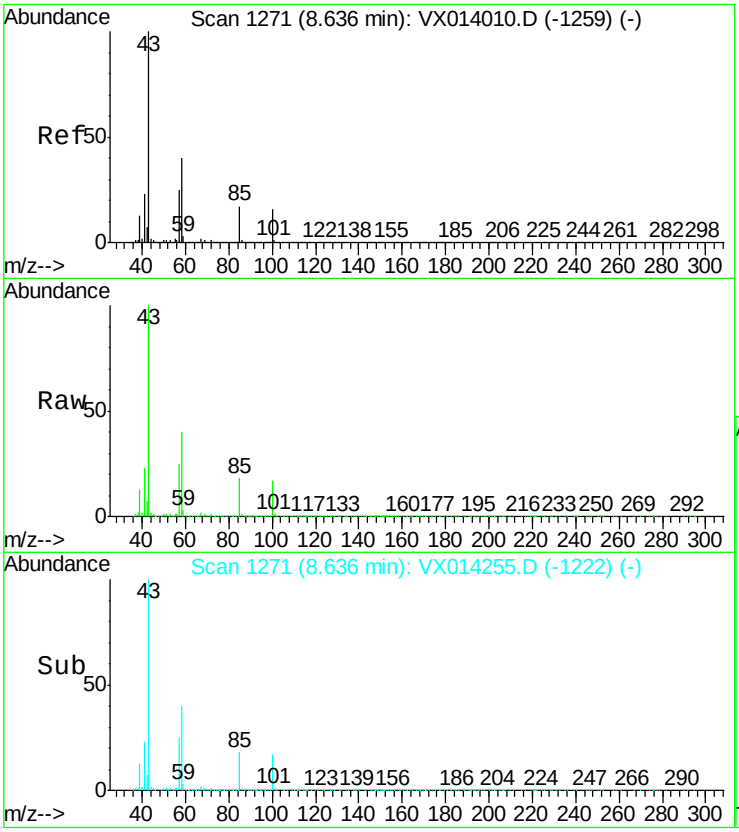
Tgt Ion: 98 Resp: 891333

Ion	Ratio	Lower	Upper
98	100		
100	66.0	52.9	79.3



Instrument :
MSVOA_X
ClientSampleId :
996-MW-15-(17)MS

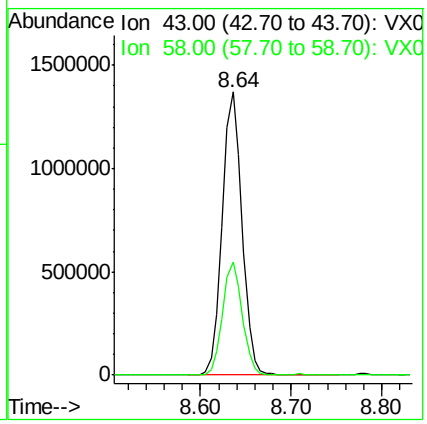
Manual Integrations APPROVED
apatel
12/26/2019 9:24:46 AM

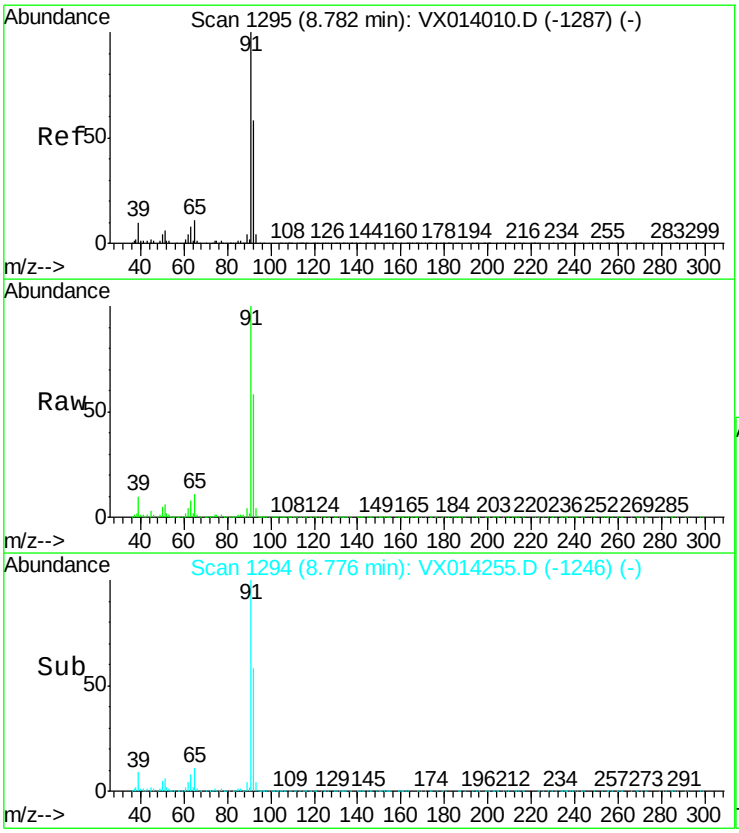


#51
4-Methyl-2-Pentanone
Concen: 258.761 ug/l
RT: 8.64 min Scan# 1271
Delta R.T. 0.00 min
Lab File: VX014255.D
Acq: 24 Dec 2019 19:08

Tgt Ion: 43 Resp: 2087817

Ion	Ratio	Lower	Upper
43	100		
58	39.7	32.2	48.2

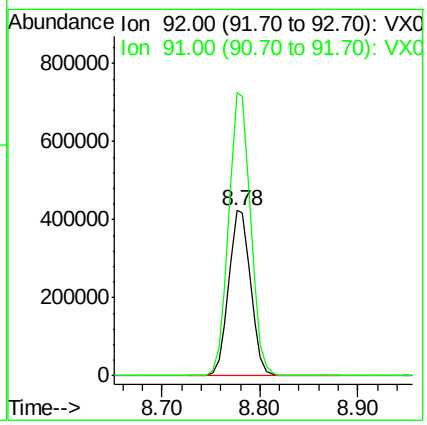




#52
Toluene
Concen: 48.171 ug/l
RT: 8.78 min Scan# 1294
Delta R.T. -0.01 min
Lab File: VX014255.D
Acq: 24 Dec 2019 19:08

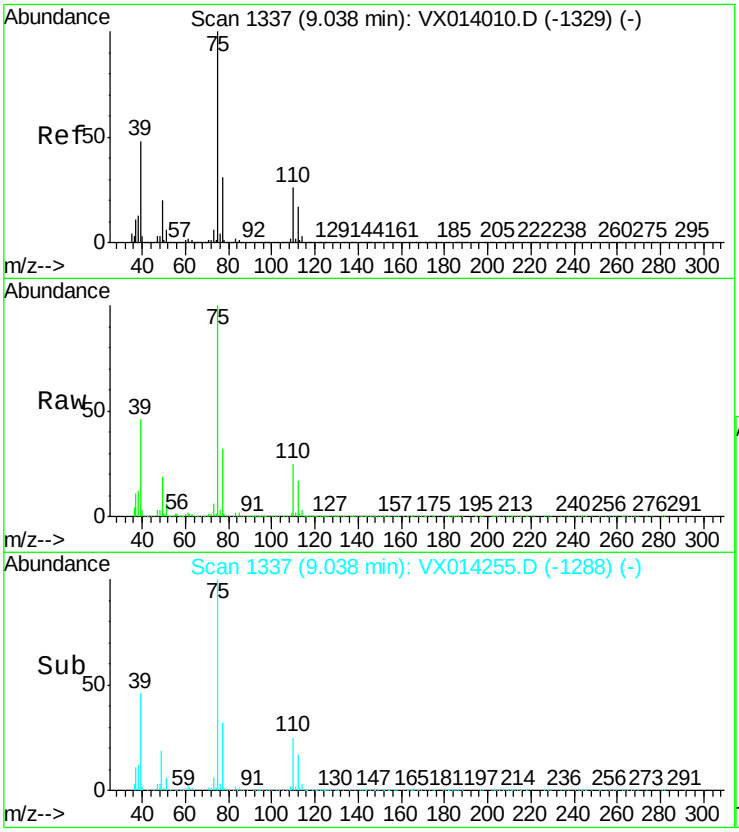
Tgt Ion: 92 Resp: 658593

Ion	Ratio	Lower	Upper
92	100		
91	171.2	136.2	204.4



Instrument :
MSVOA_X
ClientSampleId :
996-MW-15-(17)MS

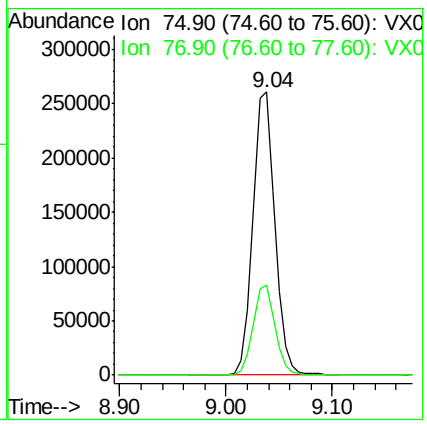
Manual Integrations APPROVED
apatel
12/26/2019 9:24:46 AM

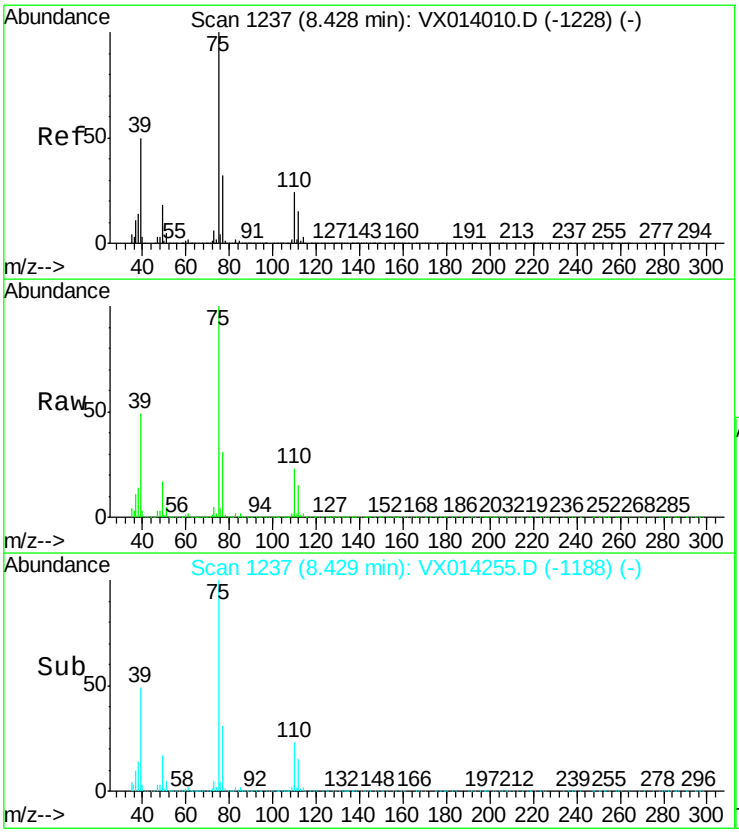


#53
t-1,3-Dichloropropene
Concen: 50.141 ug/l
RT: 9.04 min Scan# 1337
Delta R.T. 0.00 min
Lab File: VX014255.D
Acq: 24 Dec 2019 19:08

Tgt Ion: 75 Resp: 379547

Ion	Ratio	Lower	Upper
75	100		
77	31.5	25.1	37.7

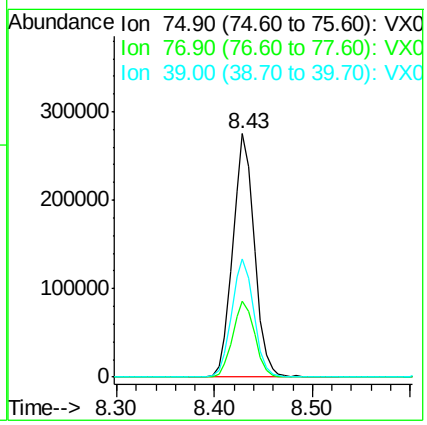




#54
cis-1,3-Dichloropropene
Concen: 49.887 ug/l
RT: 8.43 min Scan# 1237
Delta R.T. 0.00 min
Lab File: VX014255.D
Acq: 24 Dec 2019 19:08

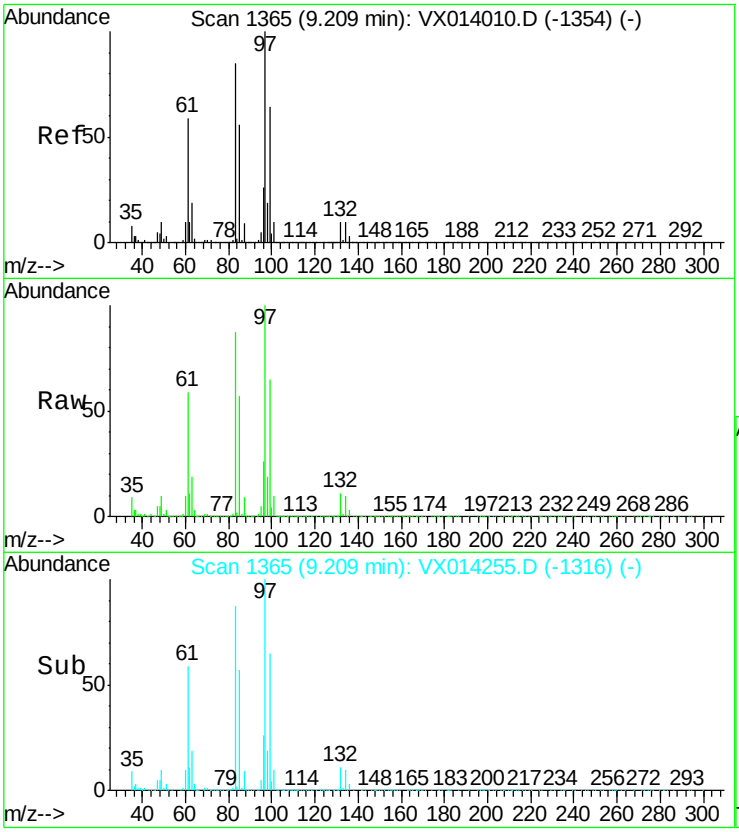
Tgt Ion: 75 Resp: 420700

Ion	Ratio	Lower	Upper
75	100		
77	31.3	25.3	37.9
39	48.5	39.9	59.9



Instrument :
MSVOA_X
ClientSampleId :
996-MW-15-(17)MS

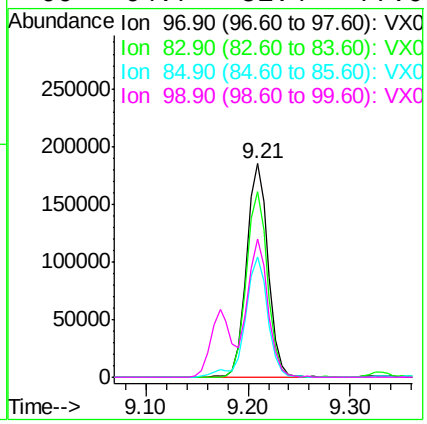
Manual Integrations APPROVED
apatel
12/26/2019 9:24:46 AM

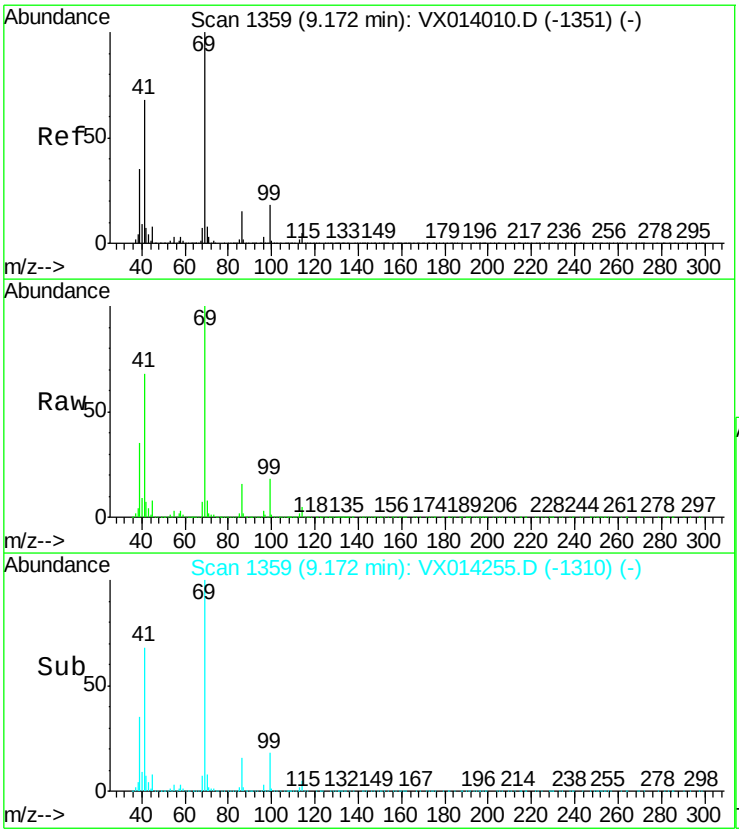


#55
1,1,2-Trichloroethane
Concen: 49.646 ug/l
RT: 9.21 min Scan# 1365
Delta R.T. 0.00 min
Lab File: VX014255.D
Acq: 24 Dec 2019 19:08

Tgt Ion: 97 Resp: 272040

Ion	Ratio	Lower	Upper
97	100		
83	87.1	68.2	102.4
85	56.6	44.6	66.8
99	64.7	51.4	77.0

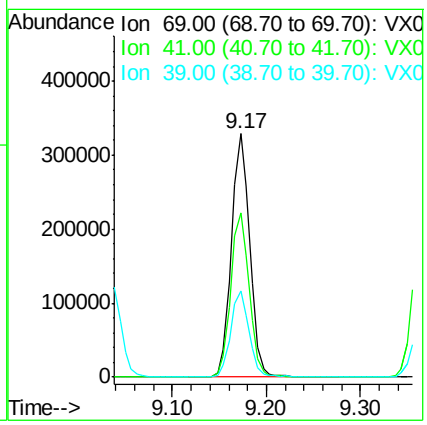




#56
Ethyl methacrylate
Concen: 51.486 ug/l
RT: 9.17 min Scan# 1359
Delta R.T. 0.00 min
Lab File: VX014255.D
Acq: 24 Dec 2019 19:08

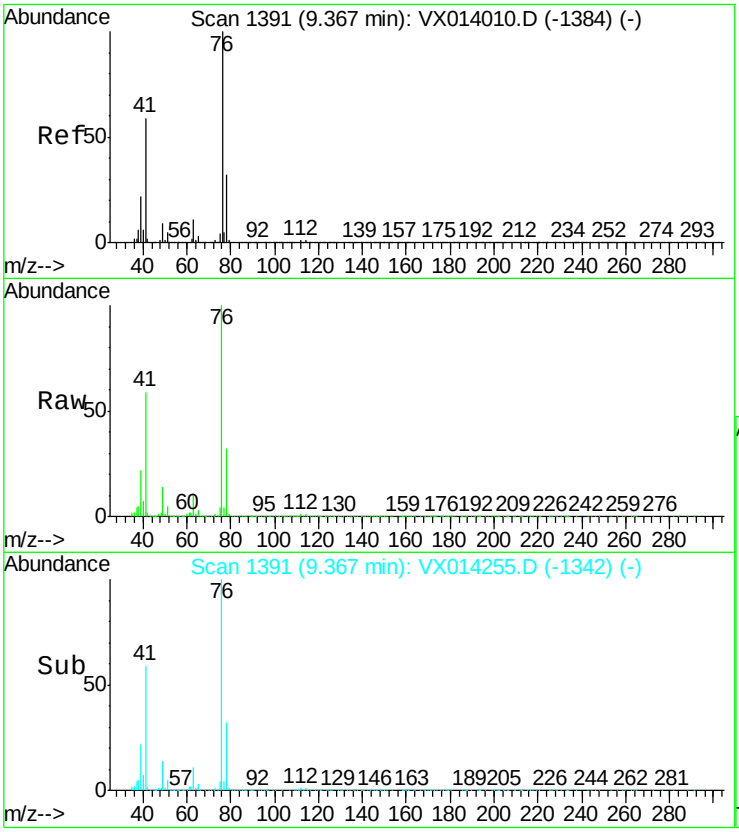
Tgt Ion: 69 Resp: 443164

Ion	Ratio	Lower	Upper
69	100		
41	67.7	54.8	82.2
39	35.3	28.3	42.5



Instrument :
MSVOA_X
ClientSampleId :
996-MW-15-(17)MS

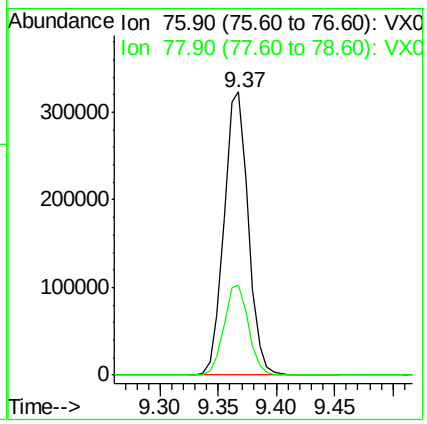
Manual Integrations APPROVED
apatel
12/26/2019 9:24:46 AM

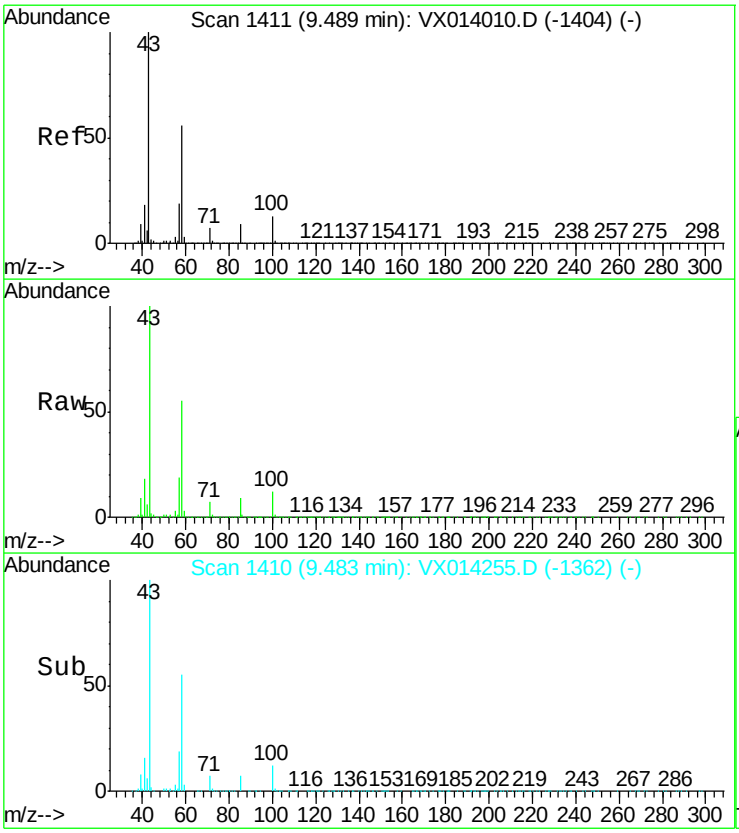


#57
1,3-Dichloropropane
Concen: 50.345 ug/l
RT: 9.37 min Scan# 1391
Delta R.T. 0.00 min
Lab File: VX014255.D
Acq: 24 Dec 2019 19:08

Tgt Ion: 76 Resp: 464151

Ion	Ratio	Lower	Upper
76	100		
78	32.1	25.8	38.6

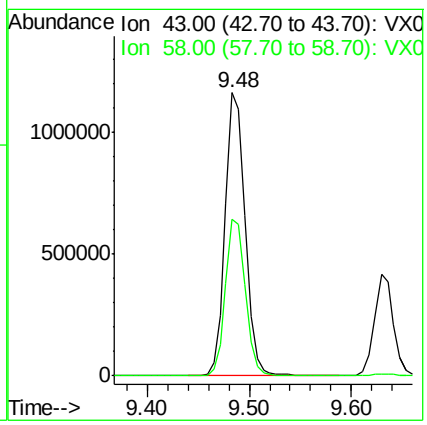




#59
2-Hexanone
Concen: 243.139 ug/l
RT: 9.48 min Scan# 1410
Delta R.T. -0.01 min
Lab File: VX014255.D
Acq: 24 Dec 2019 19:08

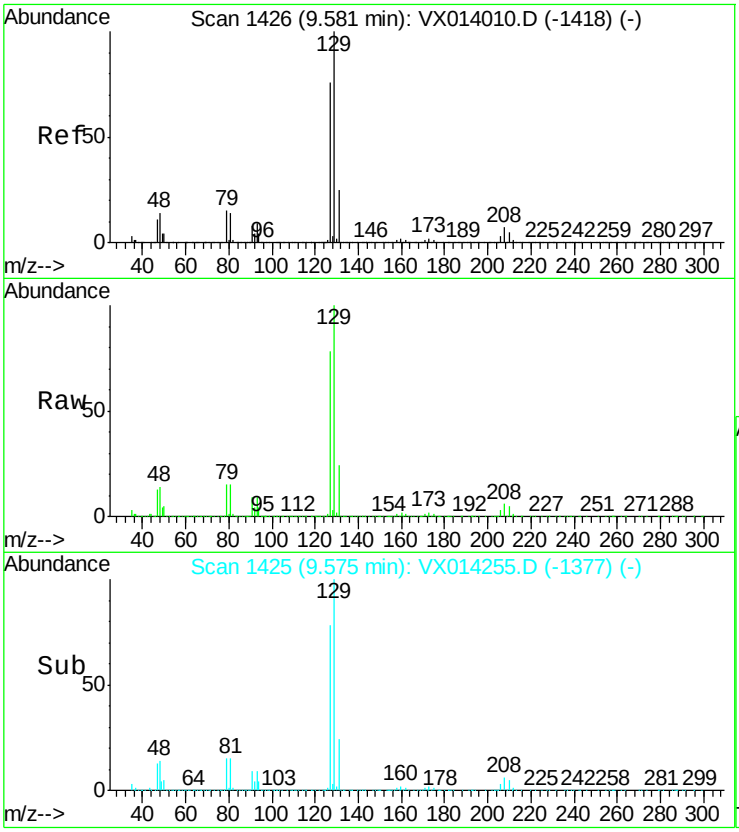
Tgt Ion: 43 Resp: 1579226

Ion	Ratio	Lower	Upper
43	100		
58	55.5	28.0	84.0



Instrument :
MSVOA_X
ClientSampleId :
996-MW-15-(17)MS

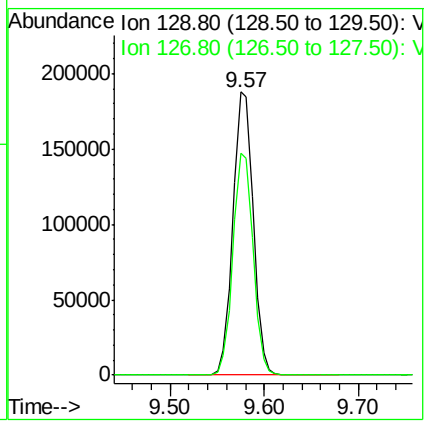
Manual Integrations APPROVED
apatel
12/26/2019 9:24:46 AM

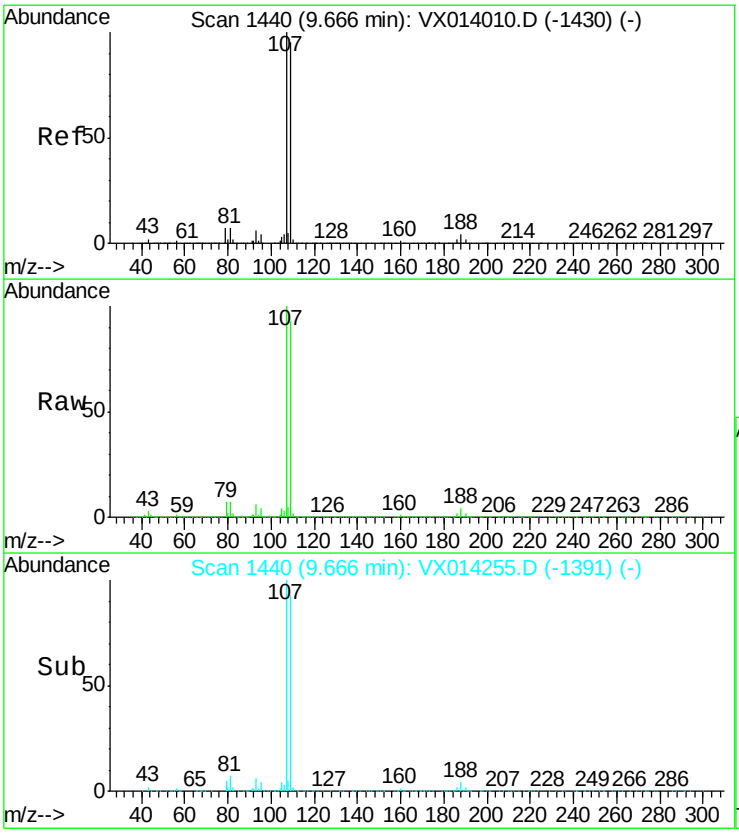


#60
Dibromochloromethane
Concen: 51.741 ug/l
RT: 9.57 min Scan# 1425
Delta R.T. -0.01 min
Lab File: VX014255.D
Acq: 24 Dec 2019 19:08

Tgt Ion:129 Resp: 281823

Ion	Ratio	Lower	Upper
129	100		
127	77.4	38.4	115.2

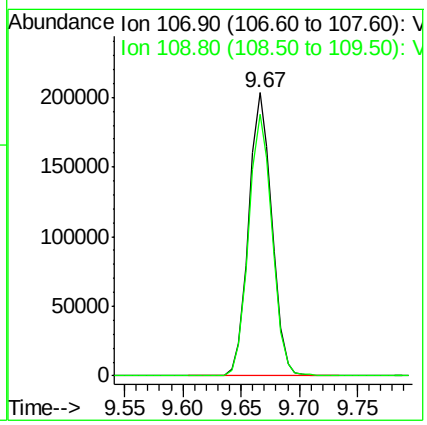




#61
1,2-Dibromoethane
Concen: 50.488 ug/l
RT: 9.67 min Scan# 1440
Delta R.T. 0.00 min
Lab File: VX014255.D
Acq: 24 Dec 2019 19:08

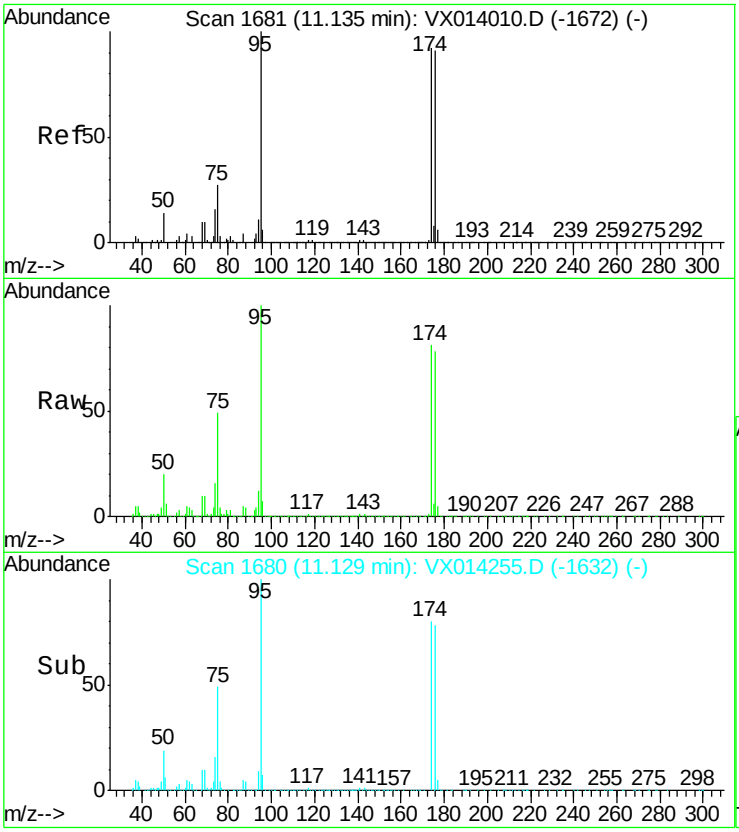
Tgt Ion:107 Resp: 283060

Ion	Ratio	Lower	Upper
107	100		
109	94.4	75.7	113.5



Instrument :
MSVOA_X
ClientSampleId :
996-MW-15-(17)MS

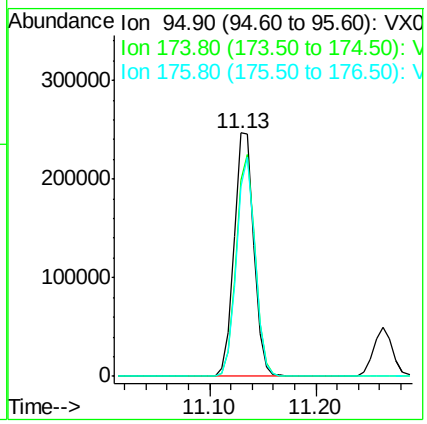
Manual Integrations APPROVED
apatel
12/26/2019 9:24:46 AM

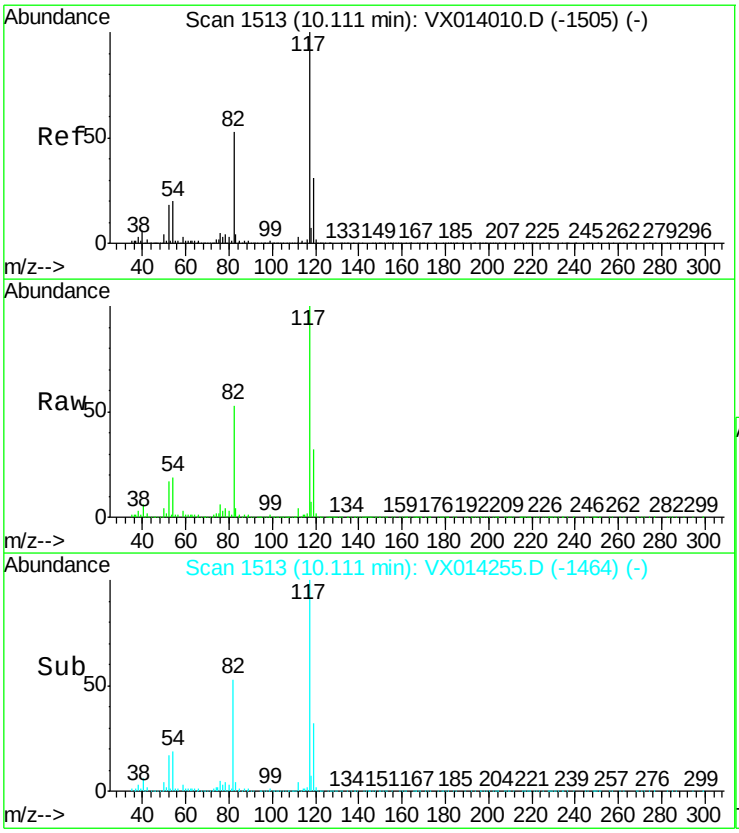


#62
4-Bromofluorobenzene
Concen: 48.334 ug/l
RT: 11.13 min Scan# 1680
Delta R.T. -0.01 min
Lab File: VX014255.D
Acq: 24 Dec 2019 19:08

Tgt Ion: 95 Resp: 320373

Ion	Ratio	Lower	Upper
95	100		
174	87.9	0.0	175.8
176	85.7	0.0	173.0

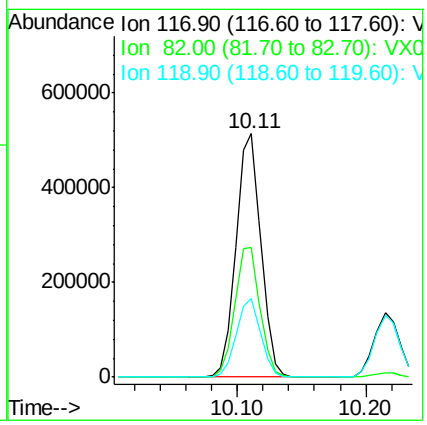




#63
Chlorobenzene-d5
Concen: 50.000 ug/l
RT: 10.11 min Scan# 1513
Delta R.T. 0.00 min
Lab File: VX014255.D
Acq: 24 Dec 2019 19:08

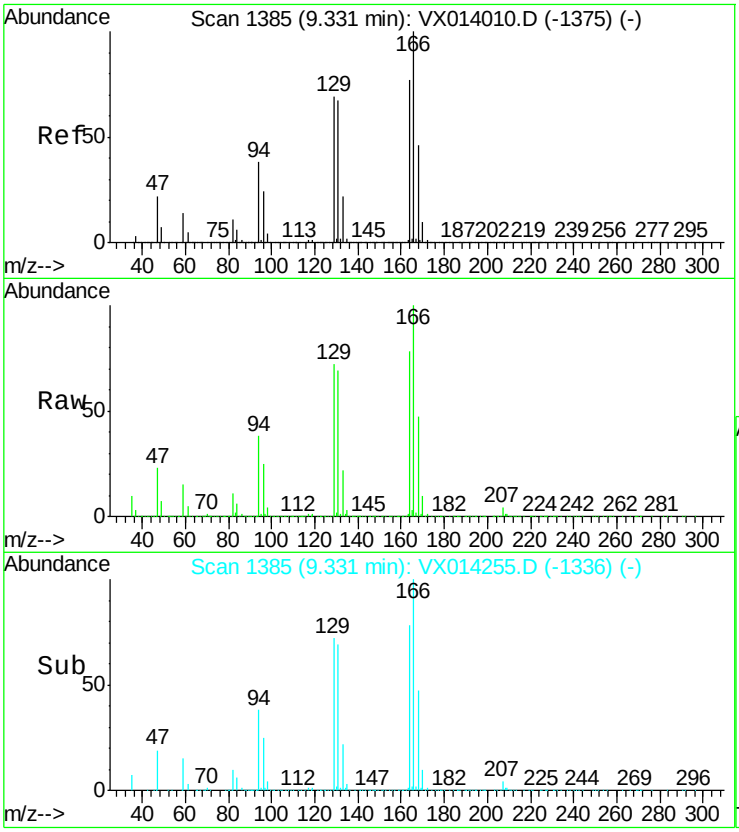
Tgt Ion:117 Resp: 688774

Ion	Ratio	Lower	Upper
117	100		
82	53.0	42.2	63.4
119	32.4	25.1	37.7



Instrument :
MSVOA_X
ClientSampleId :
996-MW-15-(17)MS

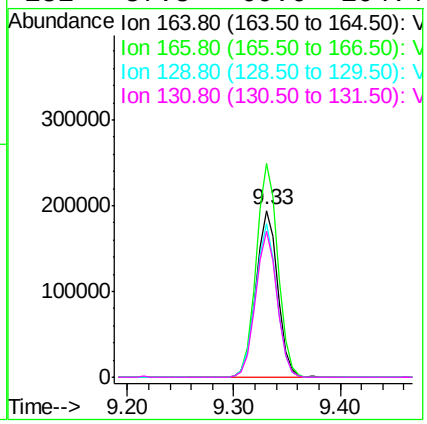
Manual Integrations APPROVED
apatel
12/26/2019 9:24:46 AM

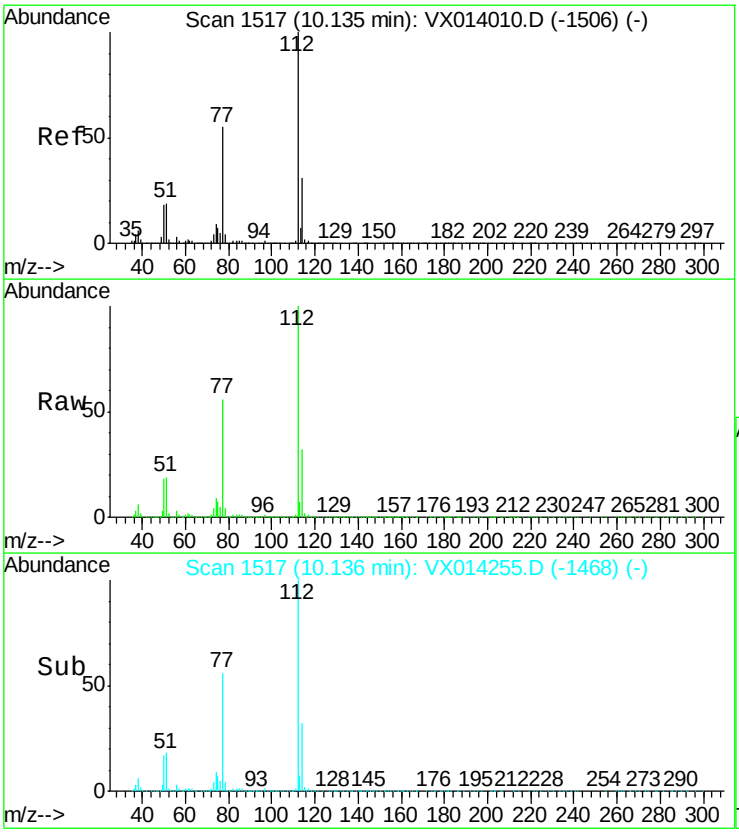


#64
Tetrachloroethene
Concen: 45.695 ug/l
RT: 9.33 min Scan# 1385
Delta R.T. 0.00 min
Lab File: VX014255.D
Acq: 24 Dec 2019 19:08

Tgt Ion:164 Resp: 278501

Ion	Ratio	Lower	Upper
164	100		
166	128.2	104.0	156.0
129	92.1	72.2	108.4
131	87.8	69.6	104.4

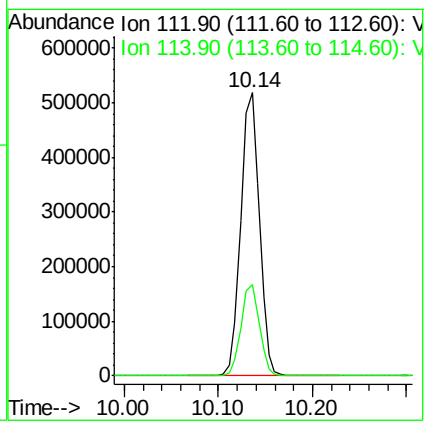




#65
Chlorobenzene
Concen: 48.813 ug/l
RT: 10.14 min Scan# 1517
Delta R.T. 0.00 min
Lab File: VX014255.D
Acq: 24 Dec 2019 19:08

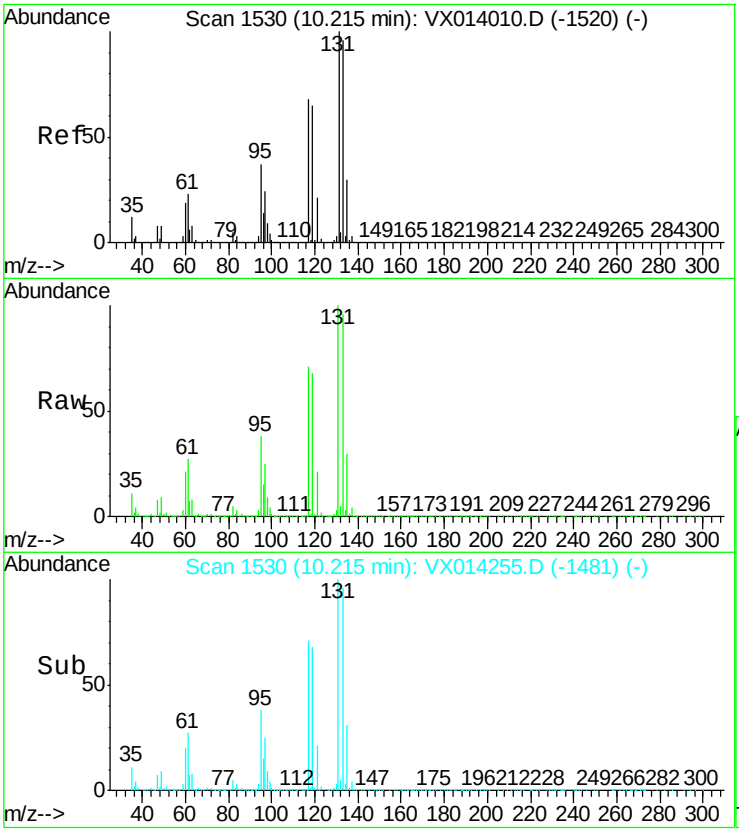
Tgt Ion:112 Resp: 714869

Ion	Ratio	Lower	Upper
112	100		
114	32.2	24.9	37.3



Instrument :
MSVOA_X
ClientSampleId :
996-MW-15-(17)MS

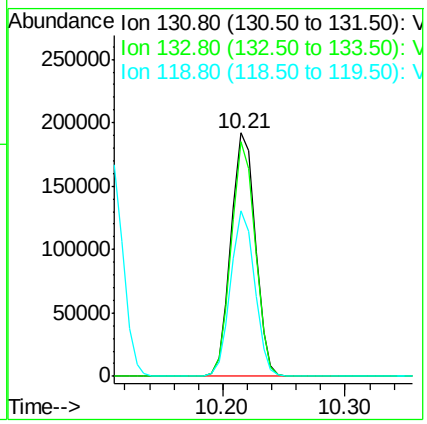
Manual Integrations APPROVED
apatel
12/26/2019 9:24:46 AM

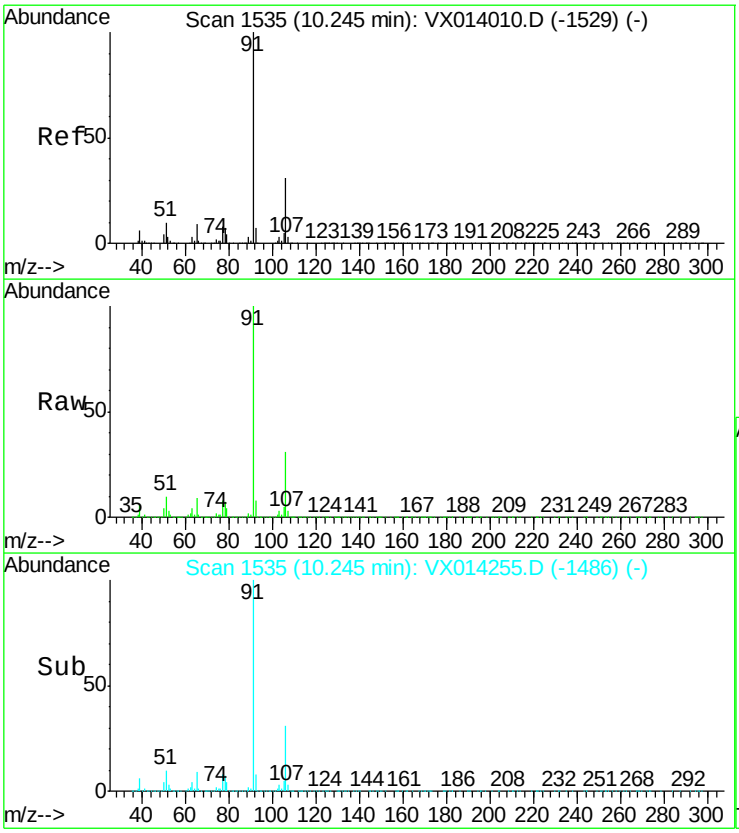


#66
1,1,1,2-Tetrachloroethane
Concen: 50.393 ug/l
RT: 10.21 min Scan# 1530
Delta R.T. 0.00 min
Lab File: VX014255.D
Acq: 24 Dec 2019 19:08

Tgt Ion:131 Resp: 263509

Ion	Ratio	Lower	Upper
131	100		
133	94.5	48.0	144.0
119	67.0	33.4	100.2

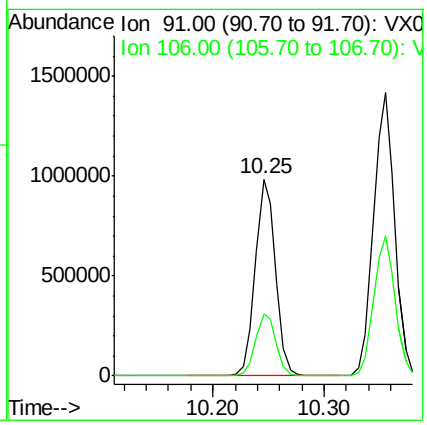




#67
Ethyl Benzene
Concen: 49.461 ug/l
RT: 10.25 min Scan# 1535
Delta R.T. 0.00 min
Lab File: VX014255.D
Acq: 24 Dec 2019 19:08

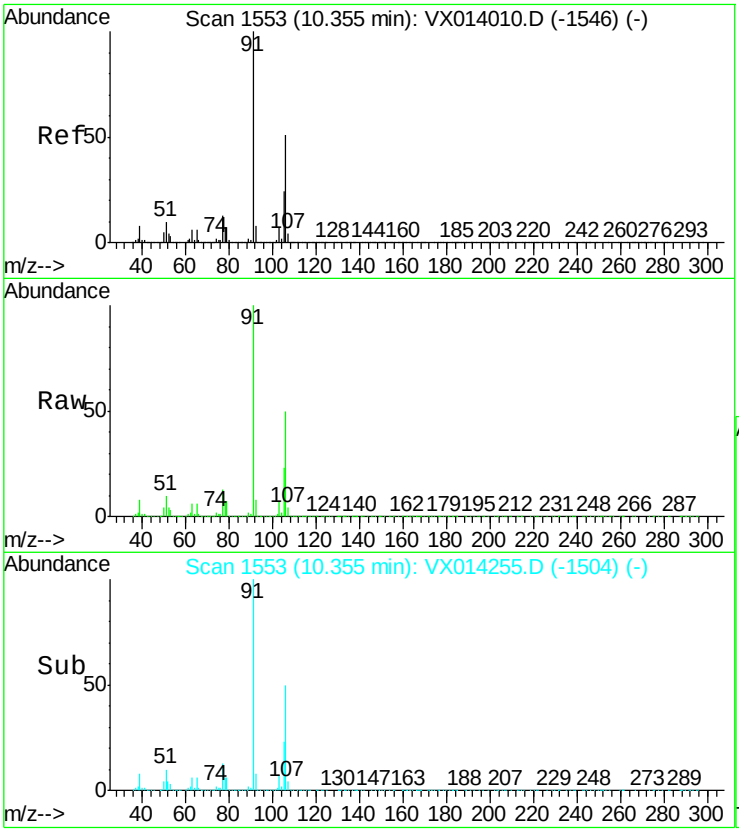
Tgt Ion: 91 Resp: 1245344

Ion	Ratio	Lower	Upper
91	100		
106	31.4	25.0	37.6



Instrument :
MSVOA_X
ClientSampleId :
996-MW-15-(17)MS

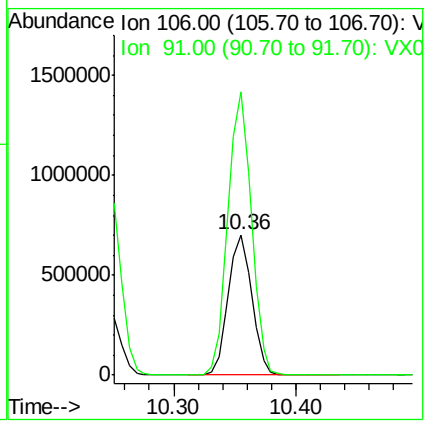
Manual Integrations APPROVED
apatel
12/26/2019 9:24:46 AM

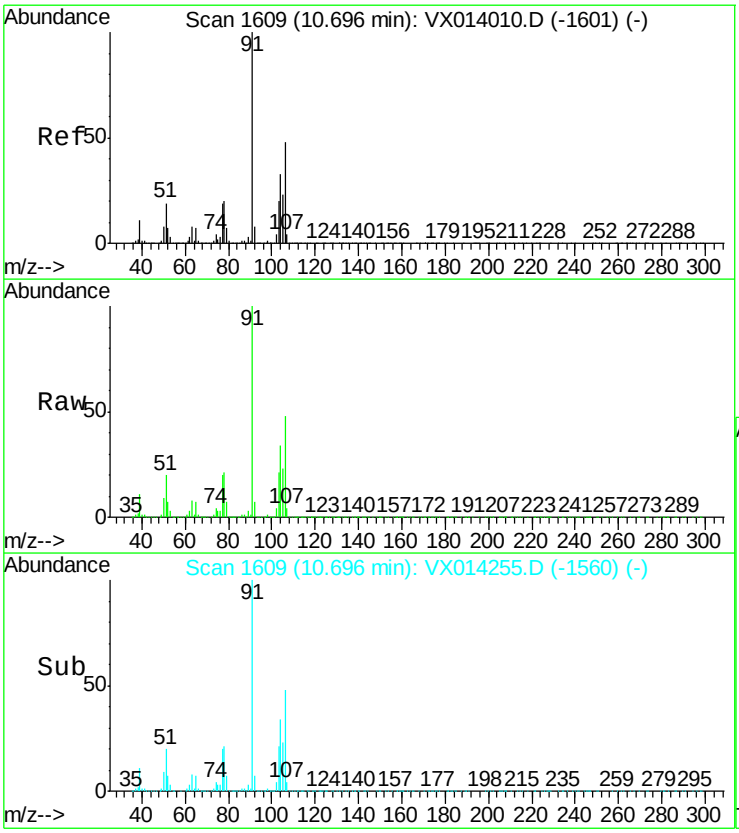


#68
m/p-Xylenes
Concen: 97.071 ug/l
RT: 10.36 min Scan# 1553
Delta R.T. 0.00 min
Lab File: VX014255.D
Acq: 24 Dec 2019 19:08

Tgt Ion:106 Resp: 940021

Ion	Ratio	Lower	Upper
106	100		
91	200.1	158.6	238.0

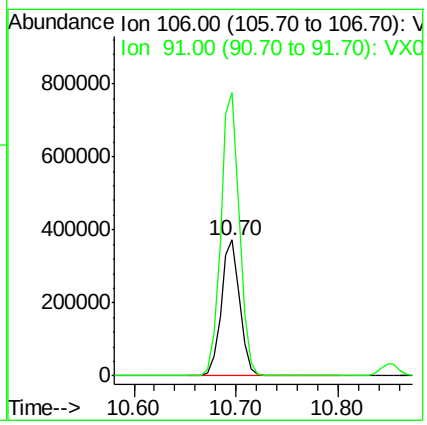




#69
o-Xylene
Concen: 49.218 ug/l
RT: 10.70 min Scan# 1609
Delta R.T. 0.00 min
Lab File: VX014255.D
Acq: 24 Dec 2019 19:08

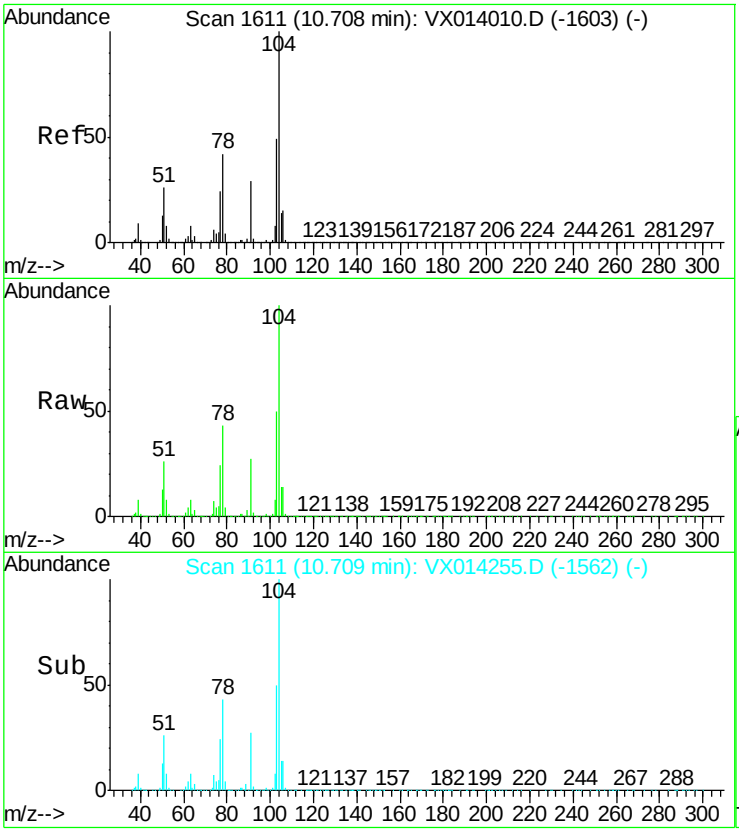
Tgt Ion:106 Resp: 467452

Ion	Ratio	Lower	Upper
106	100		
91	210.4	104.2	312.6



Instrument :
MSVOA_X
ClientSampleId :
996-MW-15-(17)MS

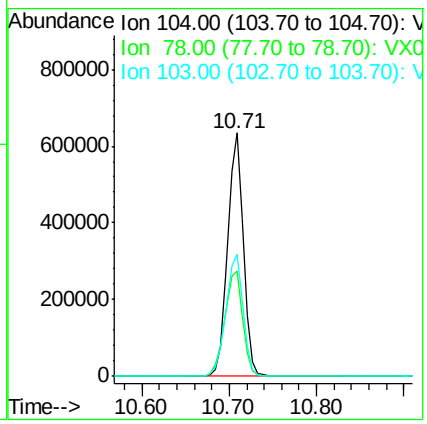
Manual Integrations APPROVED
apatel
12/26/2019 9:24:46 AM

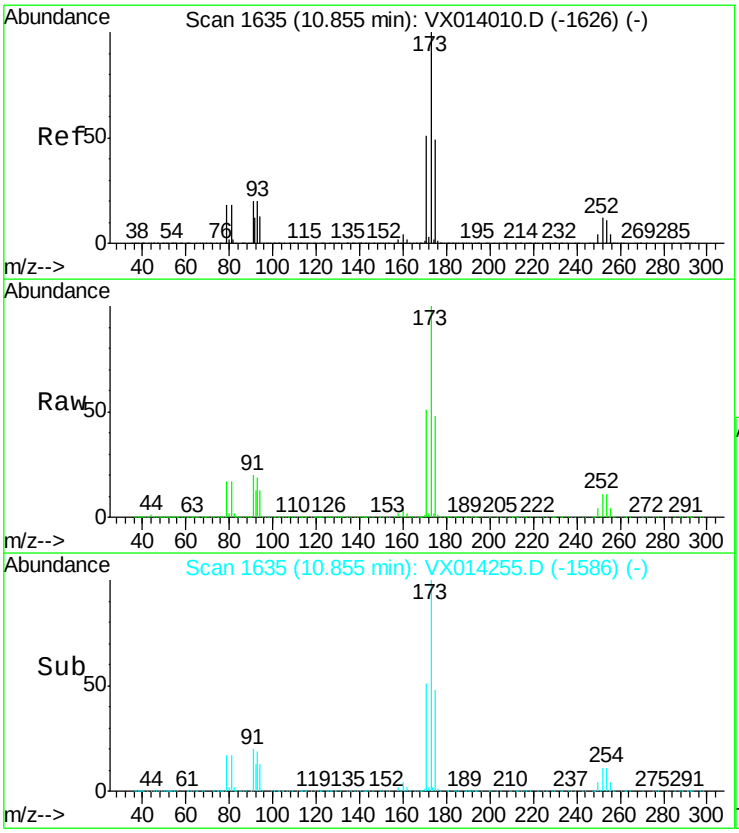


#70
Stvrene
Concen: 49.253 ug/l
RT: 10.71 min Scan# 1611
Delta R.T. 0.00 min
Lab File: VX014255.D
Acq: 24 Dec 2019 19:08

Tgt Ion:104 Resp: 791013

Ion	Ratio	Lower	Upper
104	100		
78	49.0	38.5	57.7
103	54.7	42.9	64.3

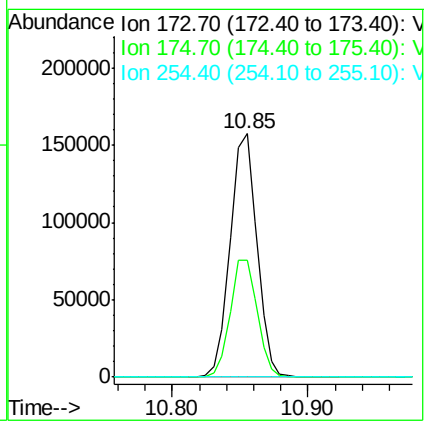




#71
Bromoform
Concen: 51.435 ug/l
RT: 10.85 min Scan# 1635
Delta R.T. 0.00 min
Lab File: VX014255.D
Acq: 24 Dec 2019 19:08

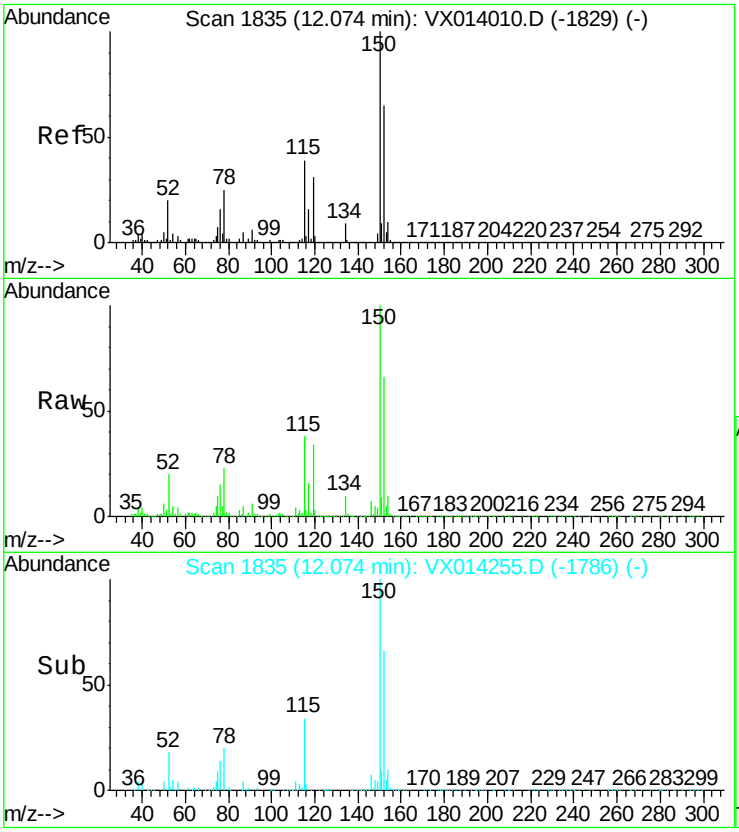
Tgt Ion:173 Resp: 216196

Ion	Ratio	Lower	Upper
173	100		
175	48.7	24.4	73.4
254	0.2	0.2	0.2



Instrument :
MSVOA_X
ClientSampleId :
996-MW-15-(17)MS

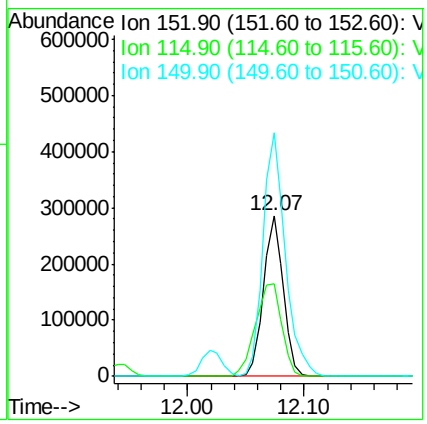
Manual Integrations APPROVED
apatel
12/26/2019 9:24:46 AM

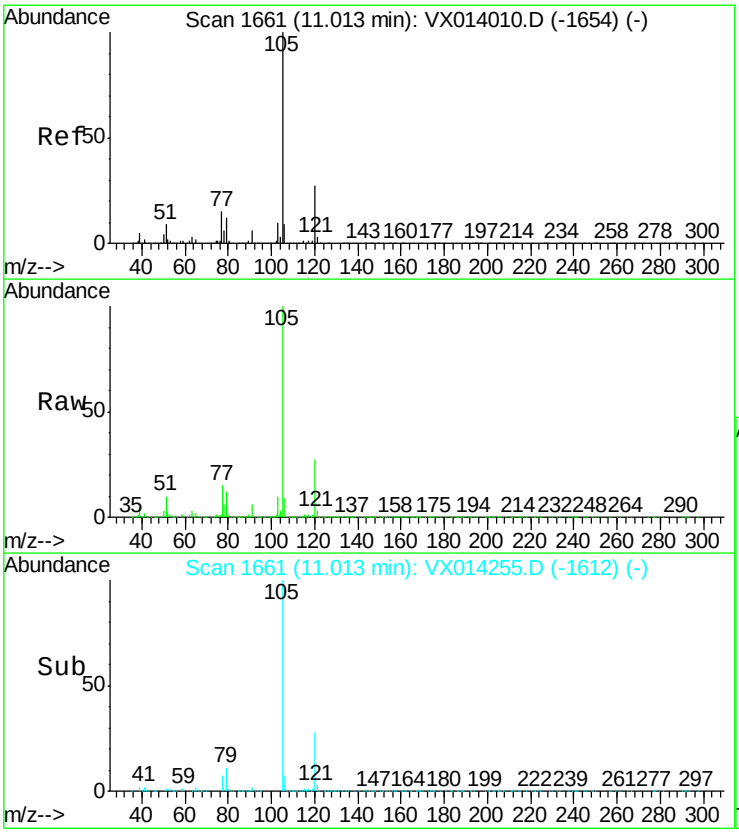


#72
1,4-Dichlorobenzene-d4
Concen: 50.000 ug/l
RT: 12.07 min Scan# 1835
Delta R.T. 0.00 min
Lab File: VX014255.D
Acq: 24 Dec 2019 19:08

Tgt Ion:152 Resp: 338475

Ion	Ratio	Lower	Upper
152	100		
115	76.4	38.3	114.9
150	171.2	0.0	345.4

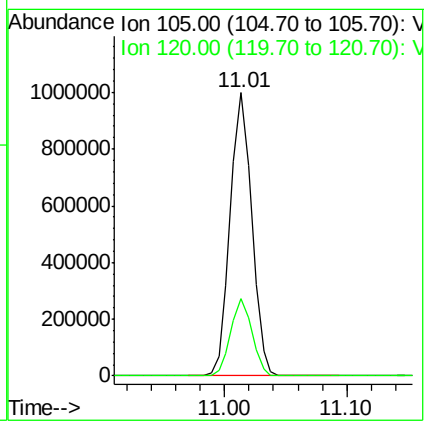




#73
Isopropylbenzene
Concen: 50.960 ug/l
RT: 11.01 min Scan# 1661
Delta R.T. 0.00 min
Lab File: VX014255.D
Acq: 24 Dec 2019 19:08

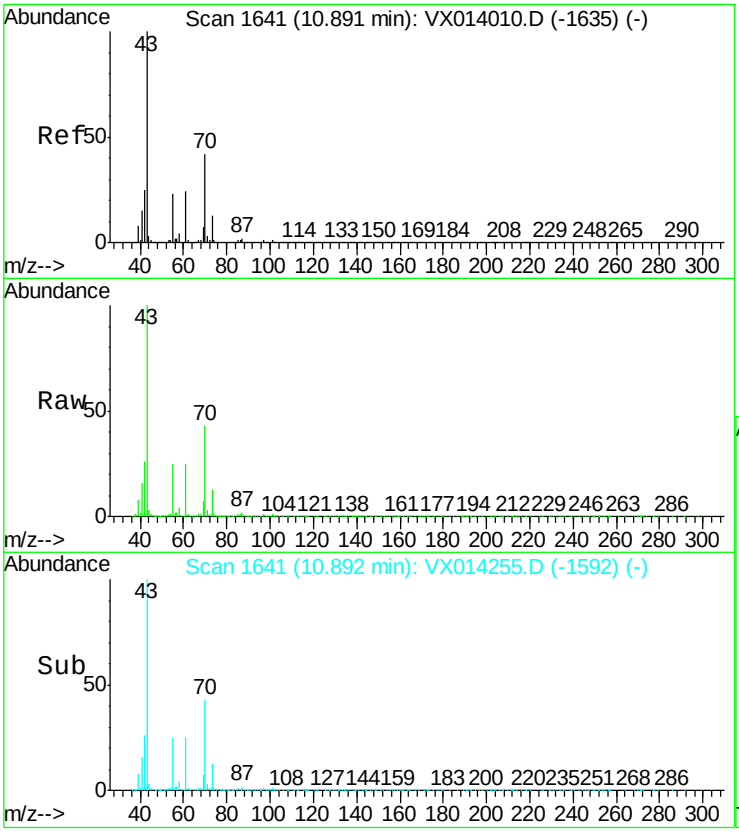
Tgt Ion:105 Resp: 1214432

Ion	Ratio	Lower	Upper
105	100		
120	26.9	13.5	40.4



Instrument :
MSVOA_X
ClientSampleId :
996-MW-15-(17)MS

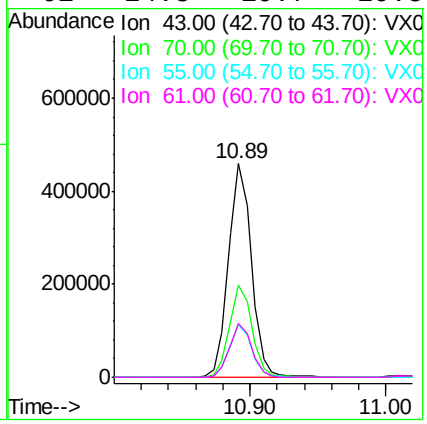
Manual Integrations APPROVED
apatel
12/26/2019 9:24:46 AM

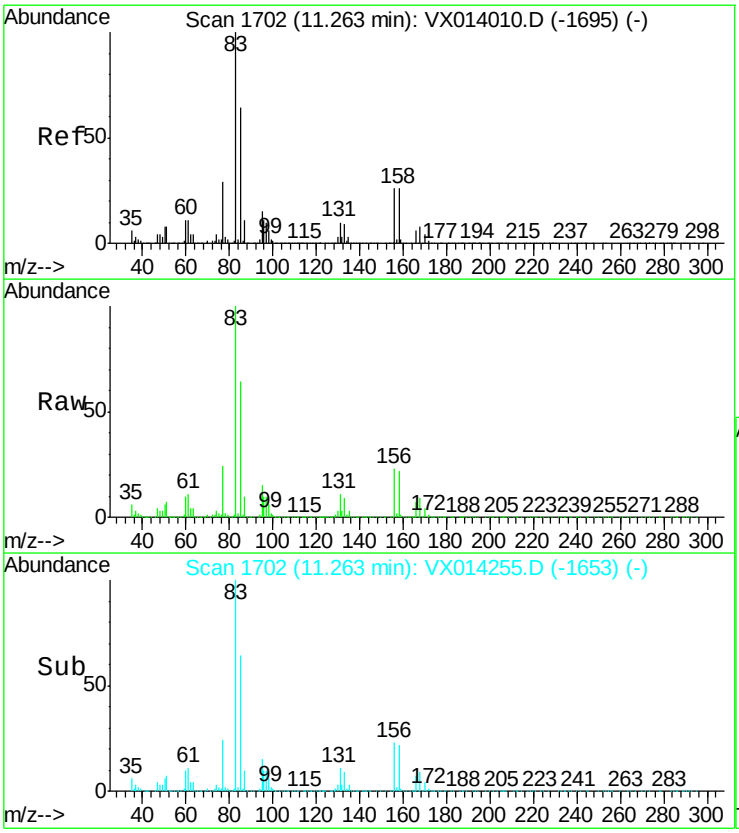


#74
N-amyl acetate
Concen: 47.993 ug/l
RT: 10.89 min Scan# 1641
Delta R.T. 0.00 min
Lab File: VX014255.D
Acq: 24 Dec 2019 19:08

Tgt Ion: 43 Resp: 536115

Ion	Ratio	Lower	Upper
43	100		
70	43.1	34.4	51.6
55	24.6	19.1	28.7
61	24.8	19.7	29.5

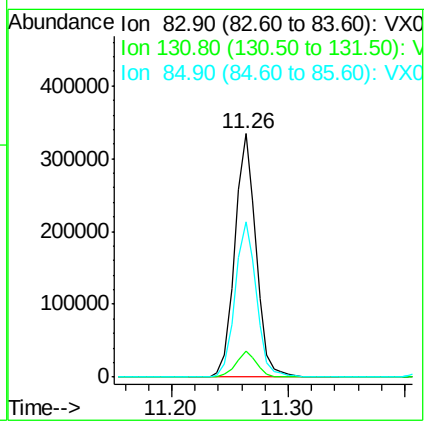




#75
1,1,2,2-Tetrachloroethane
Concen: 51.279 ug/l
RT: 11.26 min Scan# 1702
Delta R.T. 0.00 min
Lab File: VX014255.D
Acq: 24 Dec 2019 19:08

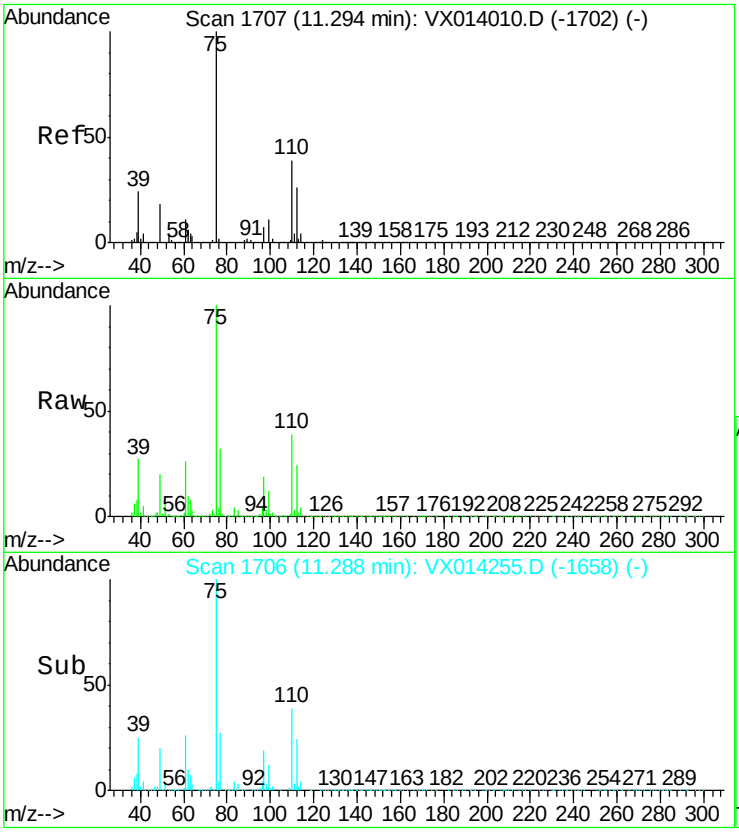
Tgt Ion: 83 Resp: 423668

Ion	Ratio	Lower	Upper
83	100		
131	10.3	5.1	15.2
85	64.0	31.9	95.7



Instrument :
MSVOA_X
ClientSampleId :
996-MW-15-(17)MS

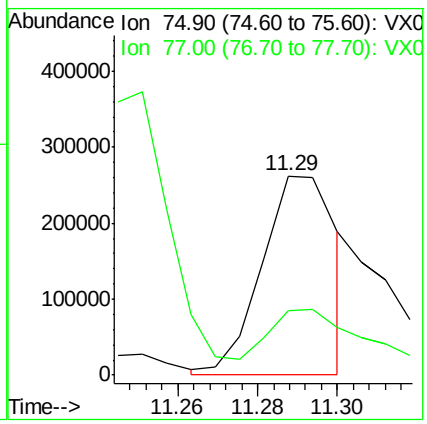
Manual Integrations APPROVED
apatel
12/26/2019 9:24:46 AM

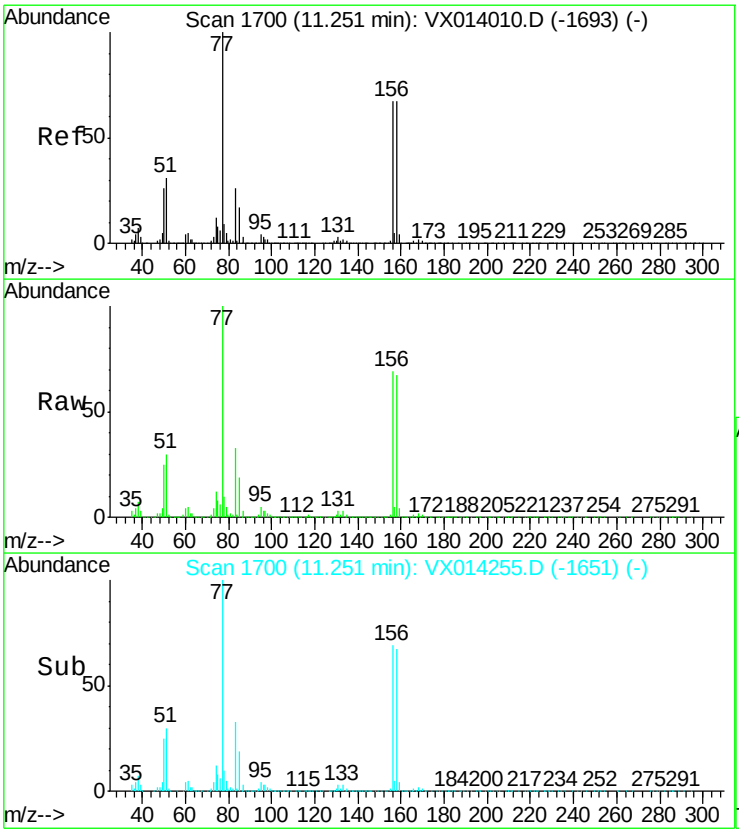


#76
1,2,3-Trichloropropane
Concen: 46.252 ug/l m
RT: 11.29 min Scan# 1706
Delta R.T. -0.01 min
Lab File: VX014255.D
Acq: 24 Dec 2019 19:08

Tgt Ion: 75 Resp: 339868

Ion	Ratio	Lower	Upper
75	100		
77	43.9	19.3	57.8

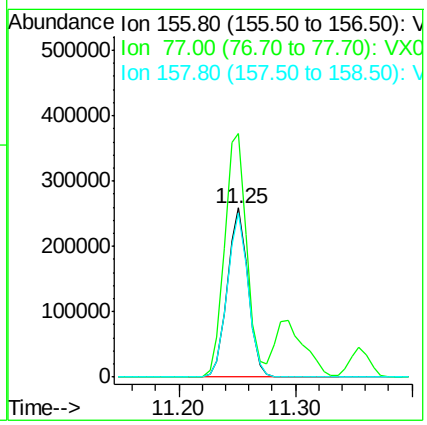




#77
Bromobenzene
Concen: 48.535 ug/l
RT: 11.25 min Scan# 1700
Delta R.T. 0.00 min
Lab File: VX014255.D
Acq: 24 Dec 2019 19:08

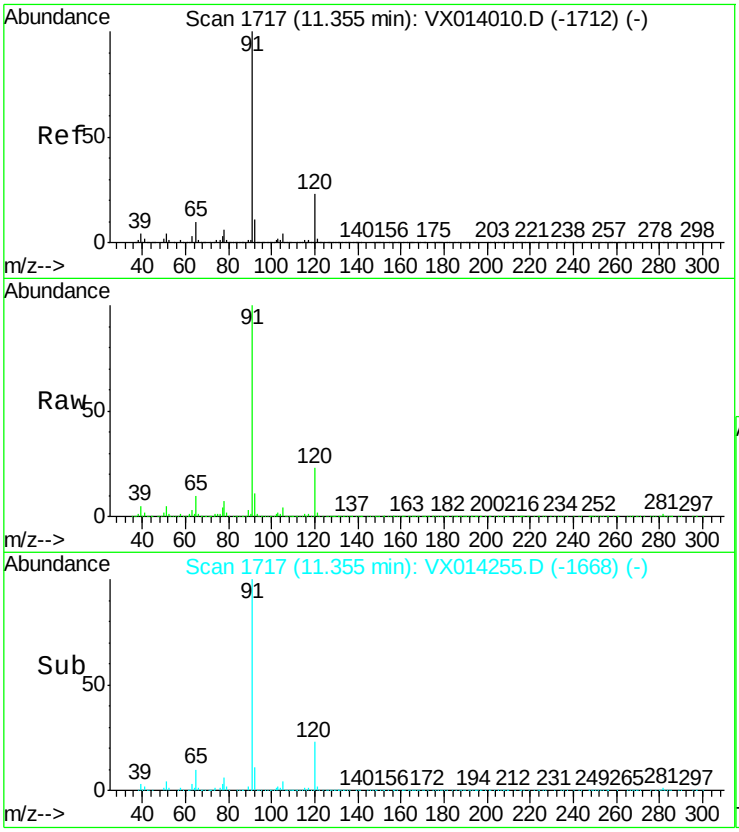
Tgt Ion:156 Resp: 318233

Ion	Ratio	Lower	Upper
156	100		
77	154.5	76.5	229.5
158	98.2	49.3	147.9



Instrument :
MSVOA_X
ClientSampleId :
996-MW-15-(17)MS

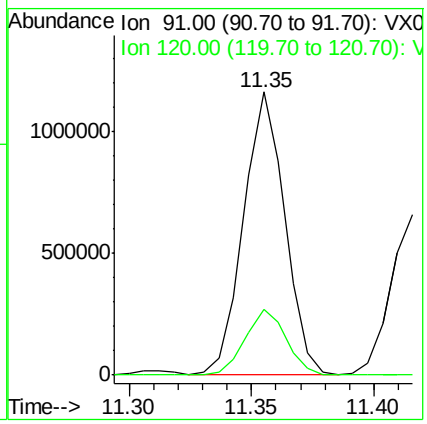
Manual Integrations APPROVED
apatel
12/26/2019 9:24:46 AM

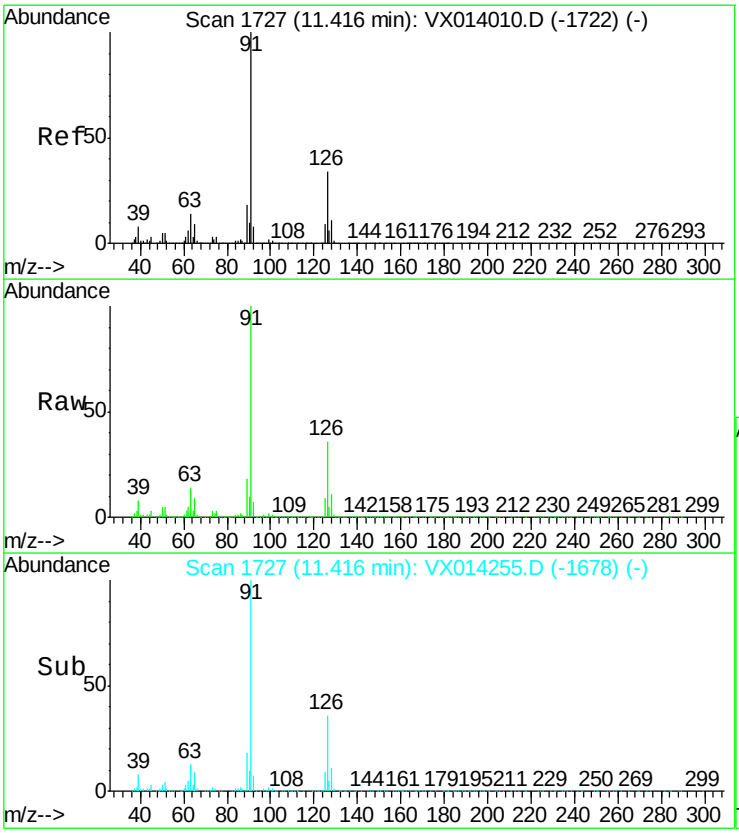


#78
n-propylbenzene
Concen: 50.750 ug/l
RT: 11.35 min Scan# 1717
Delta R.T. 0.00 min
Lab File: VX014255.D
Acq: 24 Dec 2019 19:08

Tgt Ion: 91 Resp: 1356585

Ion	Ratio	Lower	Upper
91	100		
120	23.4	11.7	35.0

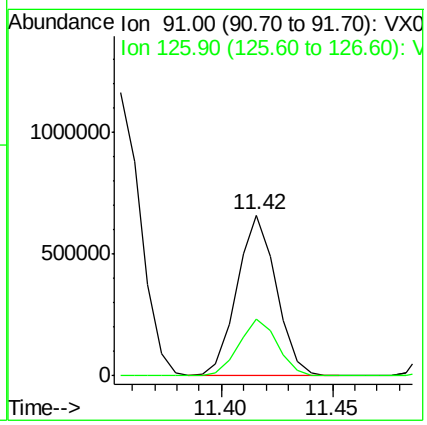


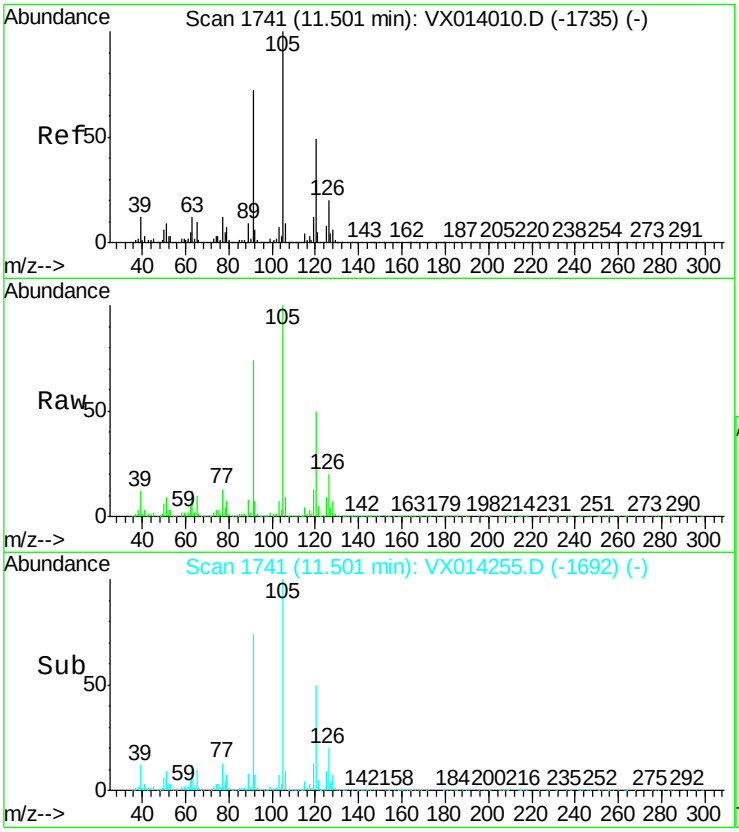


#79
2-Chlorotoluene
Concen: 49.895 ug/l
RT: 11.42 min Scan# 1727
Delta R.T. 0.00 min
Lab File: VX014255.D
Acq: 24 Dec 2019 19:08

Tgt Ion: 91 Resp: 810748

Ion	Ratio	Lower	Upper
91	100		
126	35.2	17.2	51.6





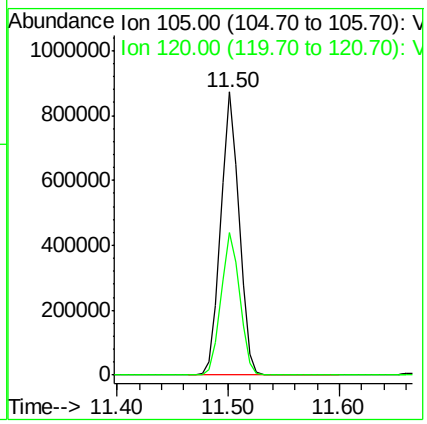
#80
1,3,5-Trimethylbenzene
Concen: 49.825 ug/l
RT: 11.50 min Scan# 1741
Delta R.T. 0.00 min
Lab File: VX014255.D
Acq: 24 Dec 2019 19:08

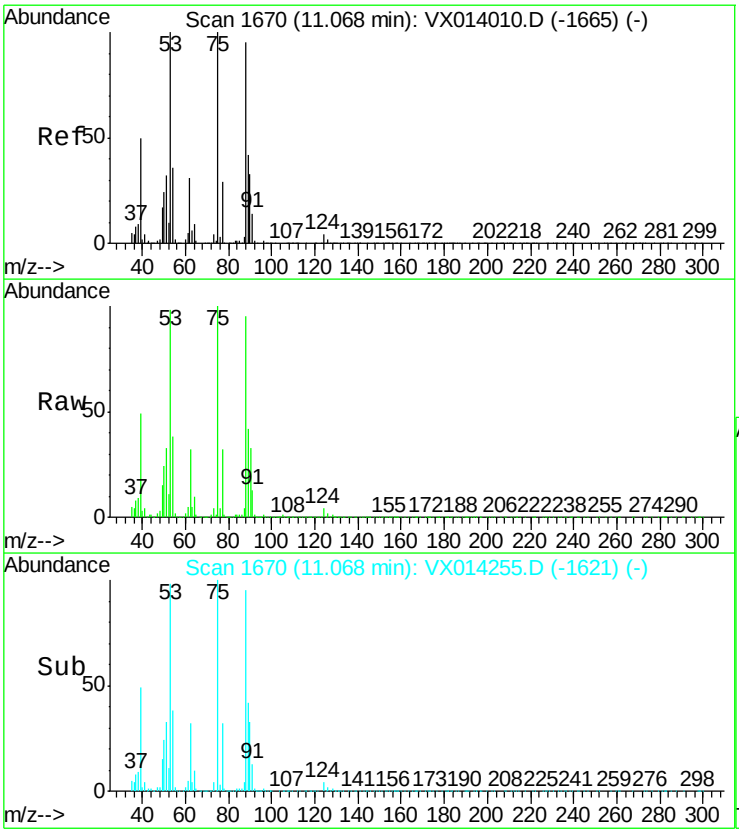
Tgt Ion:105 Resp: 999311

Ion	Ratio	Lower	Upper
105	100		
120	51.1	25.3	75.8

Instrument :
MSVOA_X
ClientSampleId :
996-MW-15-(17)MS

Manual Integrations APPROVED
apatel
12/26/2019 9:24:46 AM

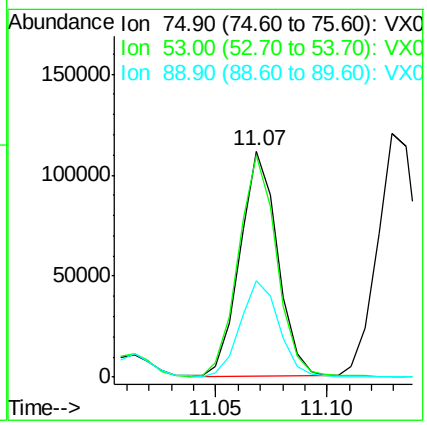




#81
trans-1,4-Dichloro-2-butene
Concen: 50.406 ug/l
RT: 11.07 min Scan# 1670
Delta R.T. 0.00 min
Lab File: VX014255.D
Acq: 24 Dec 2019 19:08

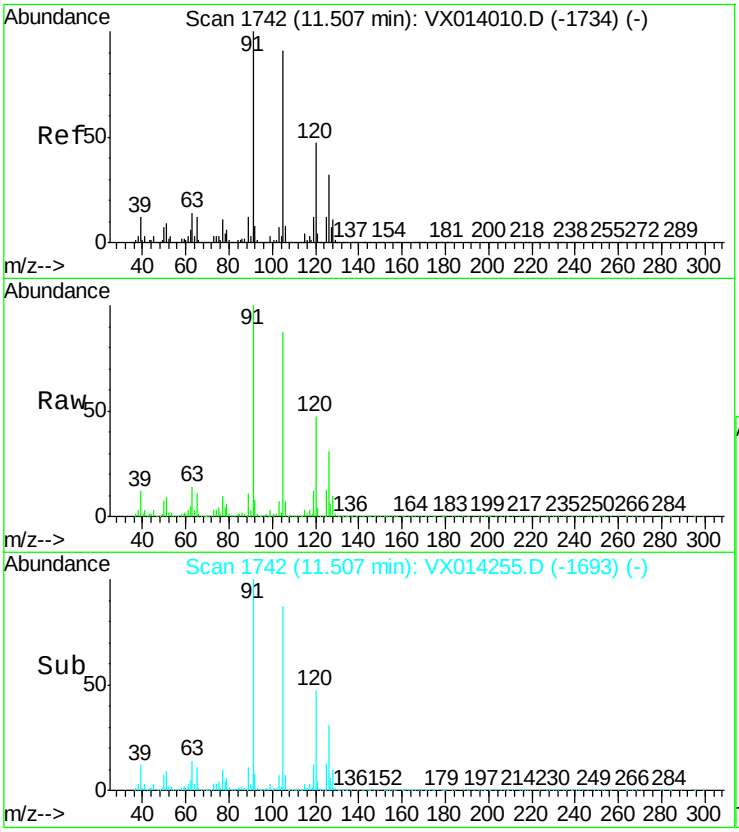
Tgt Ion: 75 Resp: 131228

Ion	Ratio	Lower	Upper
75	100		
53	100.0	76.7	115.1
89	44.4	34.6	51.8



Instrument :
MSVOA_X
ClientSampleId :
996-MW-15-(17)MS

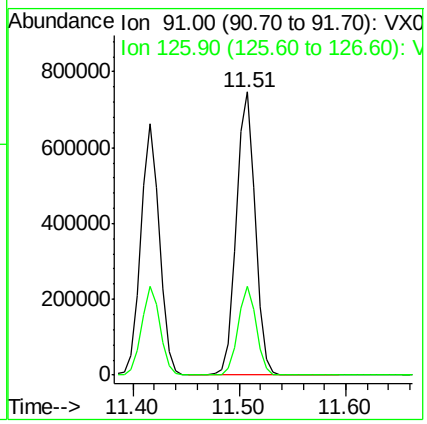
Manual Integrations APPROVED
apatel
12/26/2019 9:24:46 AM

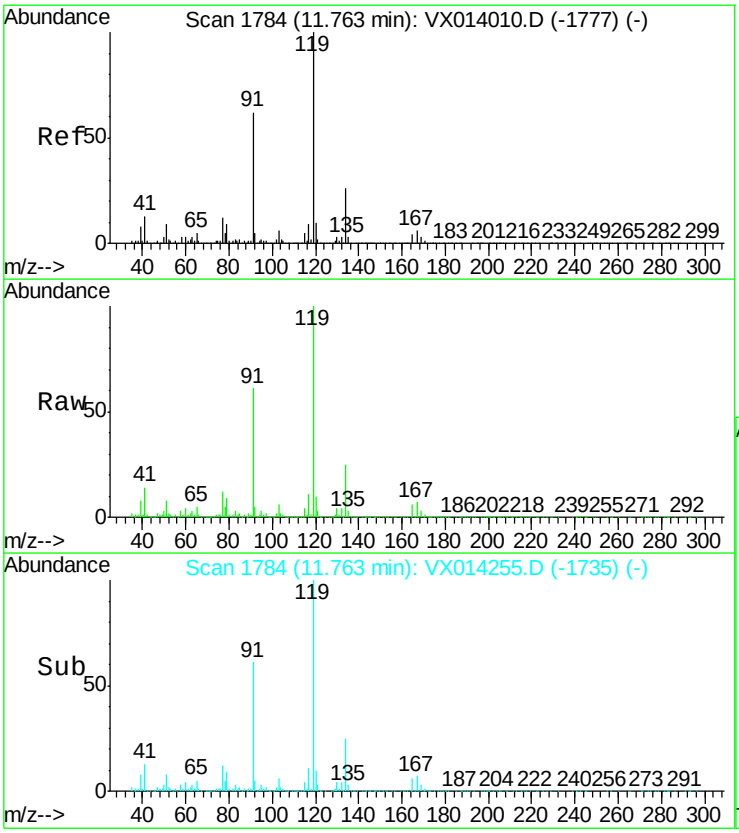


#82
4-Chlorotoluene
Concen: 49.387 ug/l
RT: 11.51 min Scan# 1742
Delta R.T. 0.00 min
Lab File: VX014255.D
Acq: 24 Dec 2019 19:08

Tgt Ion: 91 Resp: 930870

Ion	Ratio	Lower	Upper
91	100		
126	30.2	15.6	46.8

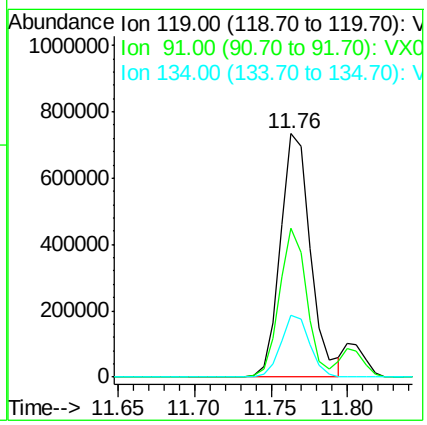


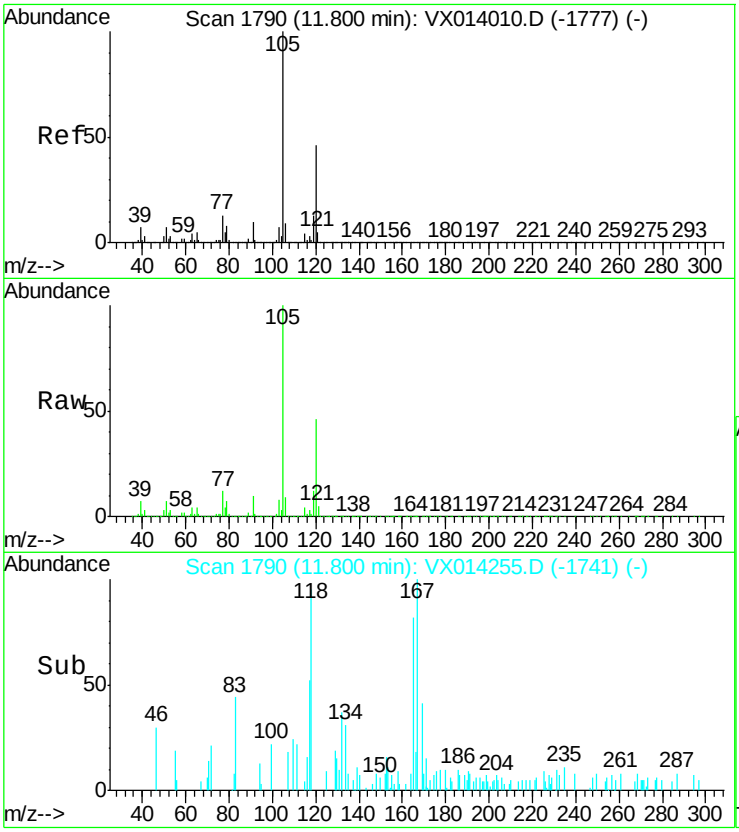


#83
tert-Butylbenzene
Concen: 51.404 ug/l
RT: 11.76 min Scan# 1784
Delta R.T. 0.00 min
Lab File: VX014255.D
Acq: 24 Dec 2019 19:08

Tgt Ion:119 Resp: 1003325

Ion	Ratio	Lower	Upper
119	100		
91	55.5	28.5	85.6
134	24.1	12.2	36.6

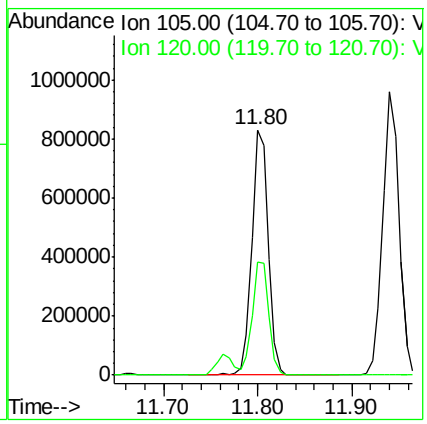


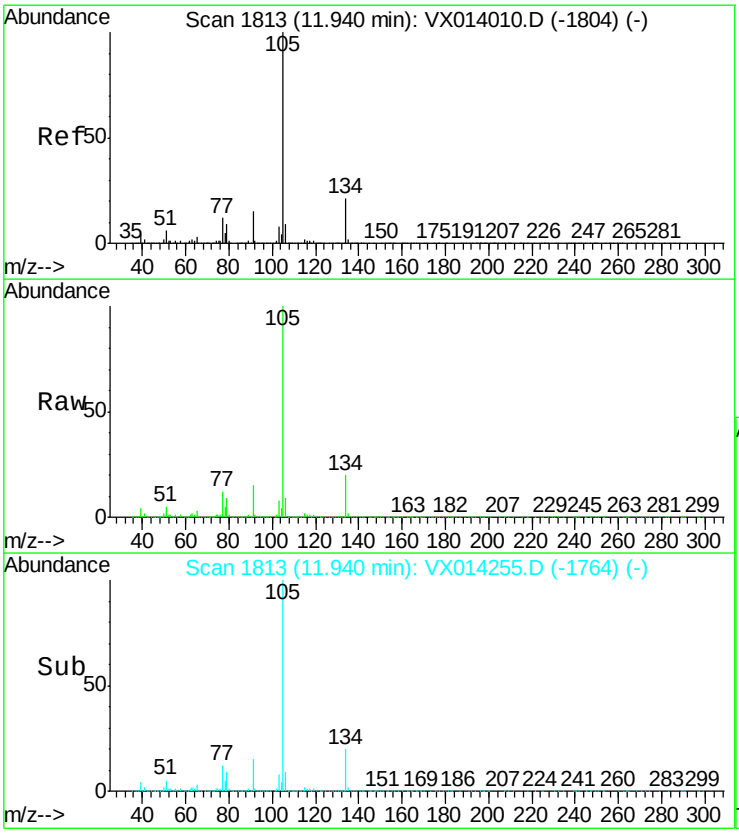


#84
1,2,4-Trimethylbenzene
Concen: 50.777 ug/l
RT: 11.80 min Scan# 1790
Delta R.T. 0.00 min
Lab File: VX014255.D
Acq: 24 Dec 2019 19:08

Tgt Ion:105 Resp: 1019870

Ion	Ratio	Lower	Upper
105	100		
120	46.3	23.1	69.2

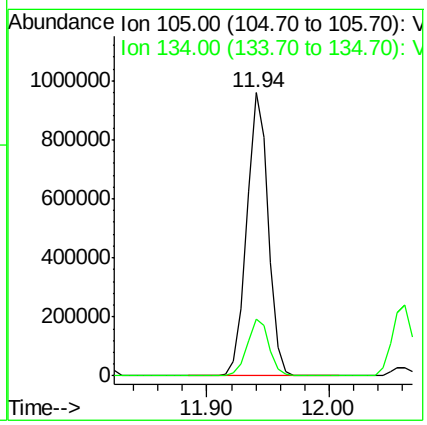




#85
sec-Butylbenzene
Concen: 50.447 ug/l
RT: 11.94 min Scan# 1813
Delta R.T. 0.00 min
Lab File: VX014255.D
Acq: 24 Dec 2019 19:08

Tgt Ion:105 Resp: 1162400

Ion	Ratio	Lower	Upper
105	100		
134	20.4	10.4	31.1

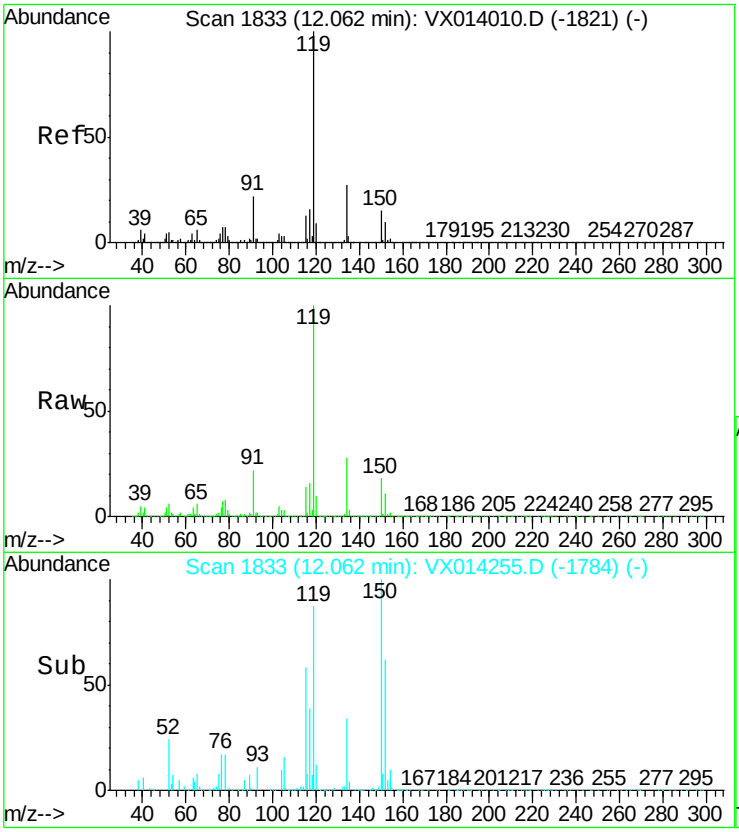


Instrument :
MSVOA_X
ClientSampleId :
996-MW-15-(17)MS

Manual Integrations APPROVED
apatel
12/26/2019 9:24:46 AM

Instrument :
MSVOA_X
ClientSampleId :
996-MW-15-(17)MS

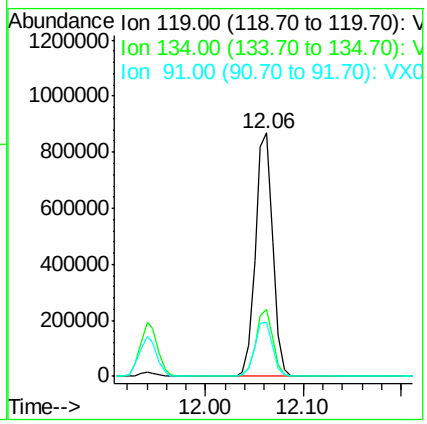
Manual Integrations APPROVED
apatel
12/26/2019 9:24:46 AM

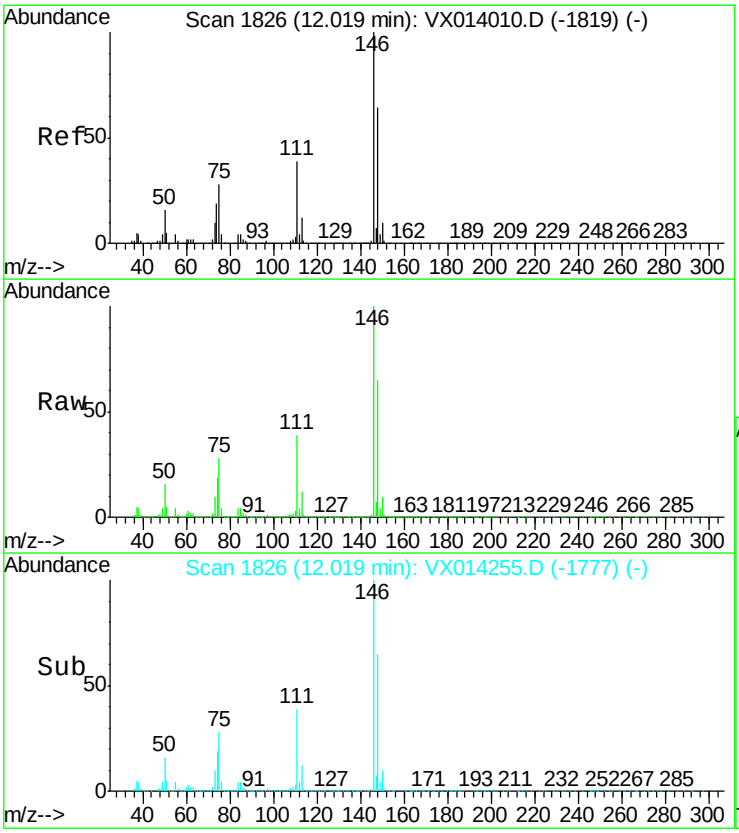


#86
p-Isopropyltoluene
Concen: 50.087 ug/l
RT: 12.06 min Scan# 1833
Delta R.T. 0.00 min
Lab File: VX014255.D
Acq: 24 Dec 2019 19:08

Tgt Ion:119 Resp: 1055684

Ion	Ratio	Lower	Upper
119	100		
134	26.9	13.4	40.1
91	22.8	11.4	34.1

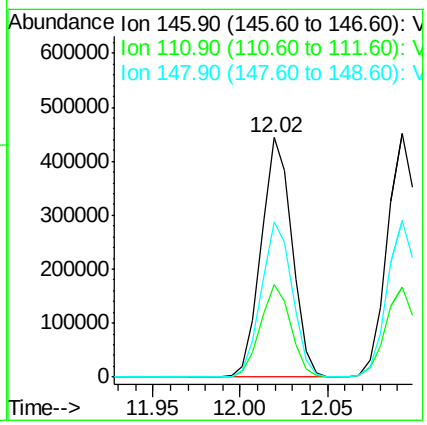




#87
1,3-Dichlorobenzene
Concen: 47.368 ug/l
RT: 12.02 min Scan# 1826
Delta R.T. 0.00 min
Lab File: VX014255.D
Acq: 24 Dec 2019 19:08

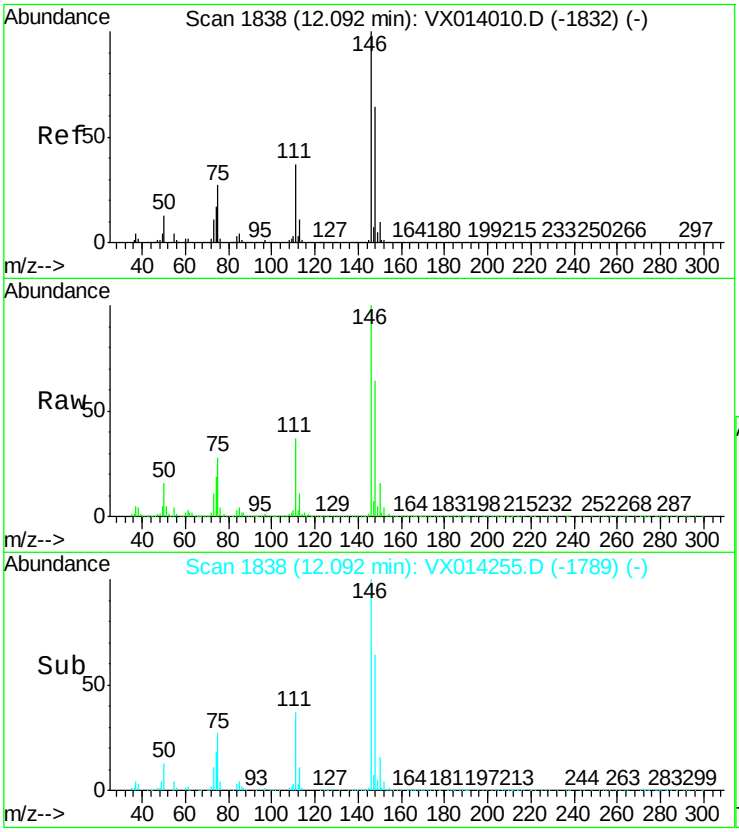
Tgt Ion:146 Resp: 544333

Ion	Ratio	Lower	Upper
146	100		
111	38.2	19.1	57.1
148	65.0	32.3	96.9



Instrument :
MSVOA_X
ClientSampleId :
996-MW-15-(17)MS

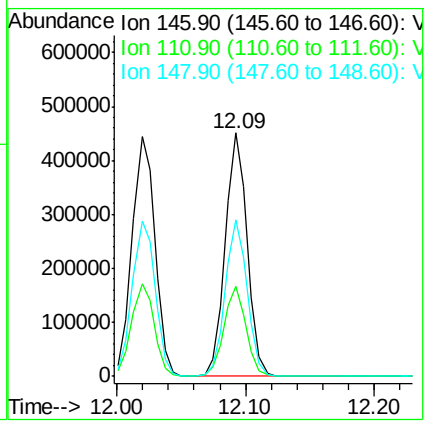
Manual Integrations APPROVED
apatel
12/26/2019 9:24:46 AM

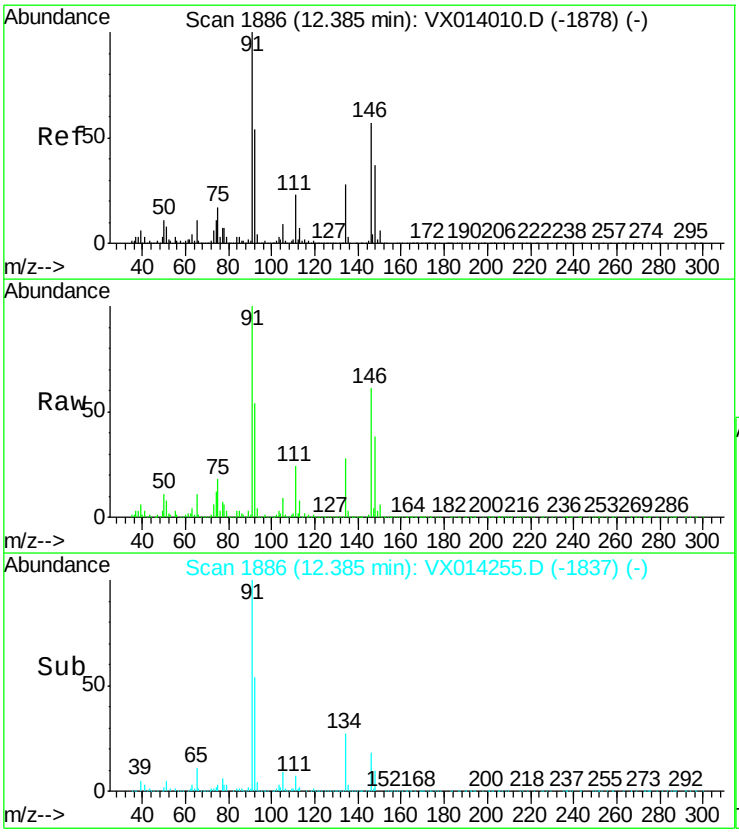


#88
1,4-Dichlorobenzene
Concen: 46.394 ug/l
RT: 12.09 min Scan# 1838
Delta R.T. 0.00 min
Lab File: VX014255.D
Acq: 24 Dec 2019 19:08

Tgt Ion:146 Resp: 542101

Ion	Ratio	Lower	Upper
146	100		
111	37.2	18.7	56.1
148	64.4	31.9	95.9

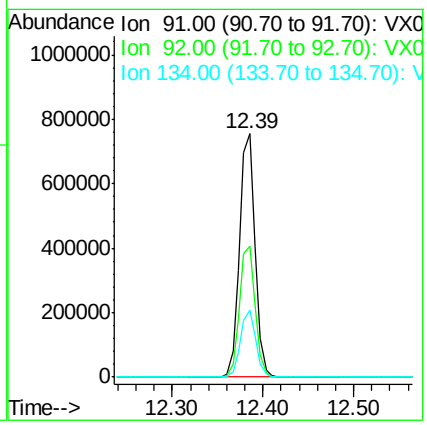




#89
n-Butylbenzene
Concen: 49.500 ug/l
RT: 12.39 min Scan# 1886
Delta R.T. 0.00 min
Lab File: VX014255.D
Acq: 24 Dec 2019 19:08

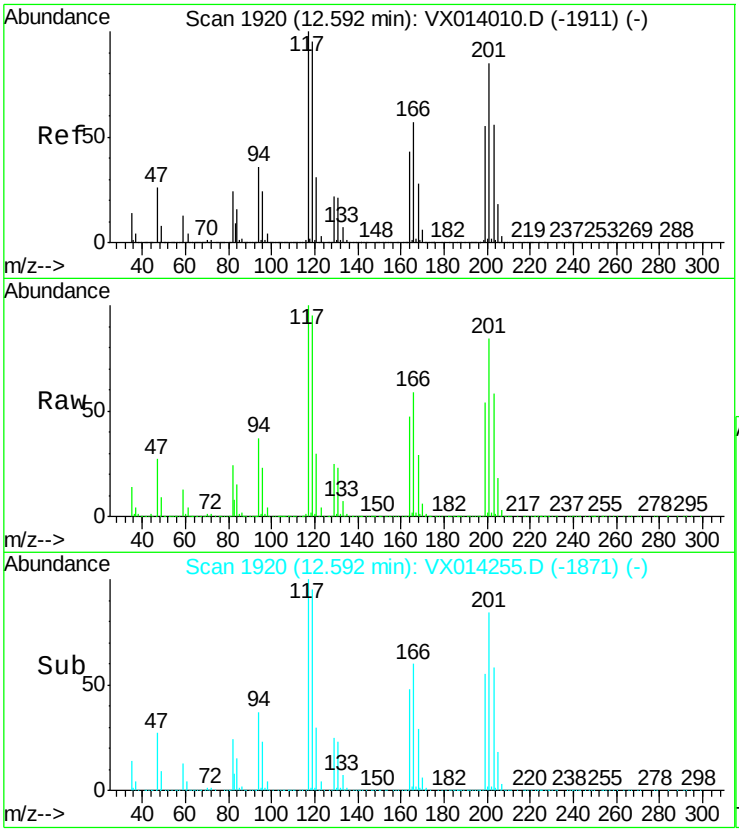
Tgt Ion: 91 Resp: 890234

Ion	Ratio	Lower	Upper
91	100		
92	54.3	27.2	81.6
134	27.1	13.4	40.1



Instrument :
MSVOA_X
ClientSampleId :
996-MW-15-(17)MS

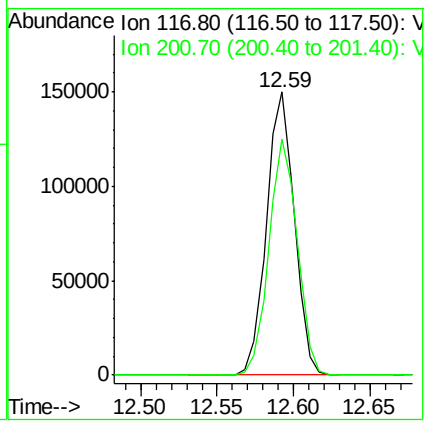
Manual Integrations APPROVED
apatel
12/26/2019 9:24:46 AM

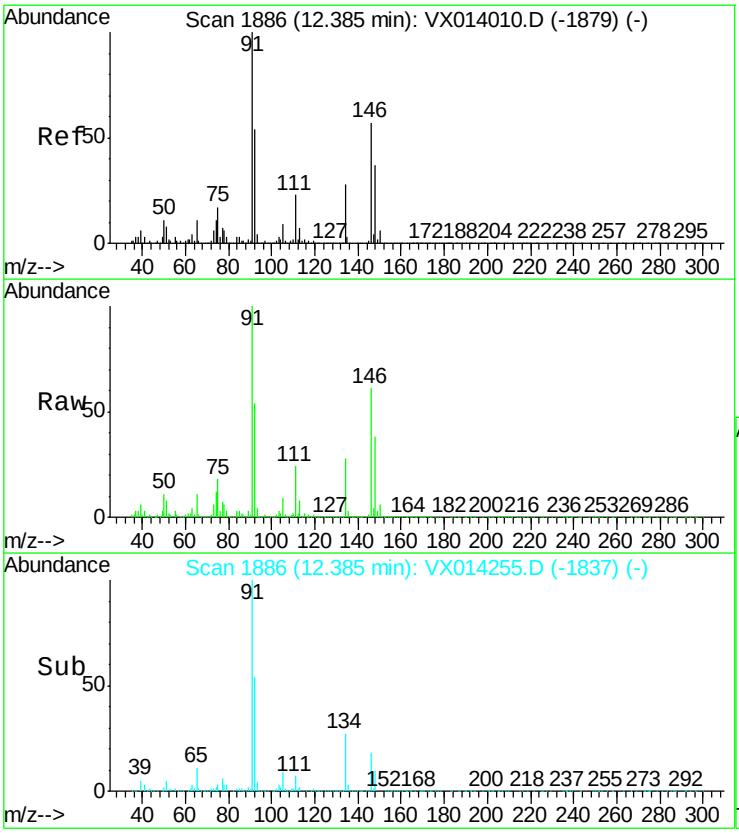


#90
Hexachloroethane
Concen: 50.603 ug/l
RT: 12.59 min Scan# 1920
Delta R.T. 0.00 min
Lab File: VX014255.D
Acq: 24 Dec 2019 19:08

Tgt Ion:117 Resp: 191572

Ion	Ratio	Lower	Upper
117	100		
201	84.8	43.1	129.3

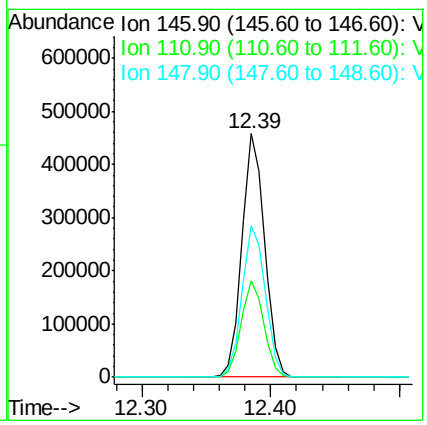


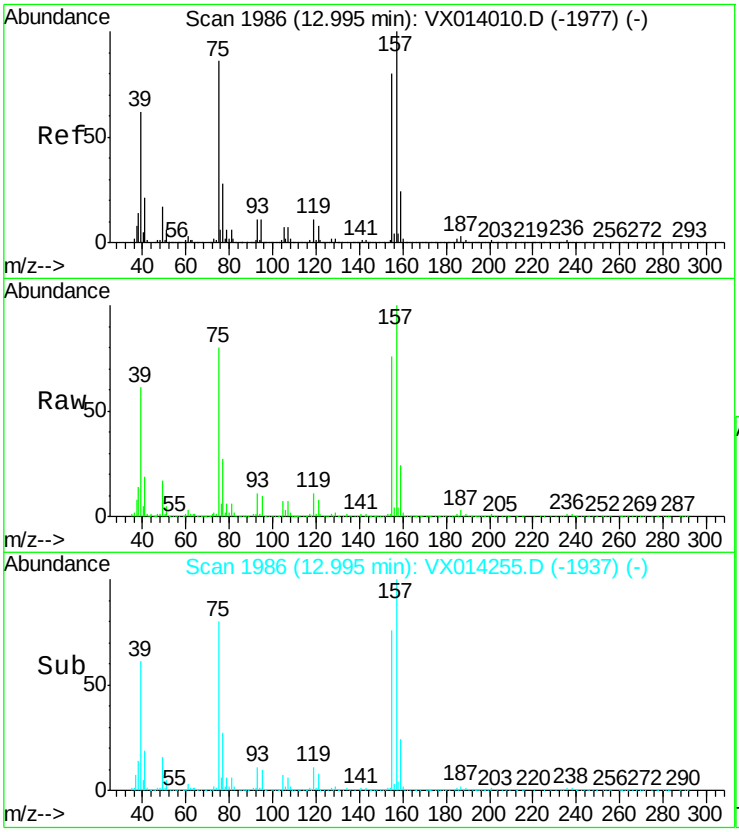


#91
1,2-Dichlorobenzene
Concen: 48.047 ug/l
RT: 12.39 min Scan# 1886
Delta R.T. 0.00 min
Lab File: VX014255.D
Acq: 24 Dec 2019 19:08

Tgt Ion:146 Resp: 555817

Ion	Ratio	Lower	Upper
146	100		
111	39.7	19.7	59.1
148	63.9	32.1	96.5

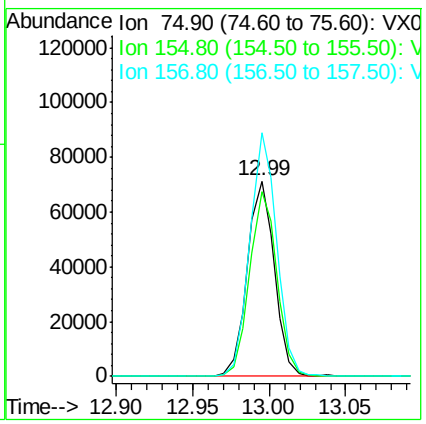




#92
1,2-Dibromo-3-Chloropropane
Concen: 48.172 ug/l
RT: 12.99 min Scan# 1986
Delta R.T. 0.00 min
Lab File: VX014255.D
Acq: 24 Dec 2019 19:08

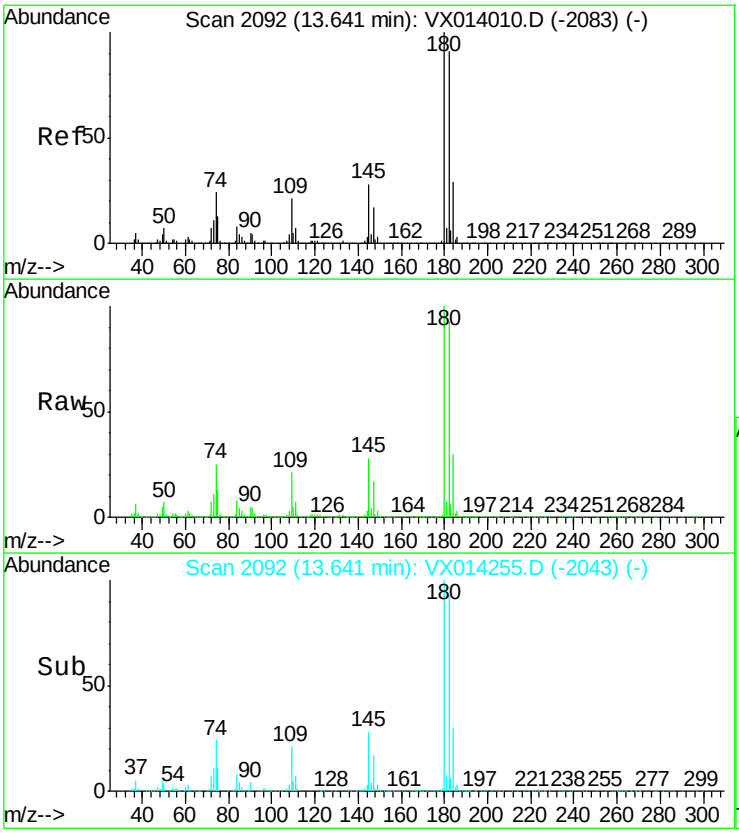
Tgt Ion: 75 Resp: 88076

Ion	Ratio	Lower	Upper
75	100		
155	94.9	46.9	140.6
157	124.2	60.8	182.4



Instrument :
MSVOA_X
ClientSampleId :
996-MW-15-(17)MS

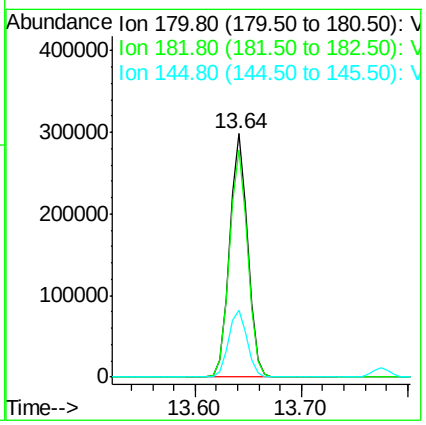
Manual Integrations APPROVED
apatel
12/26/2019 9:24:46 AM



#93
1,2,4-Trichlorobenzene
Concen: 47.314 ug/l
RT: 13.64 min Scan# 2092
Delta R.T. 0.00 min
Lab File: VX014255.D
Acq: 24 Dec 2019 19:08

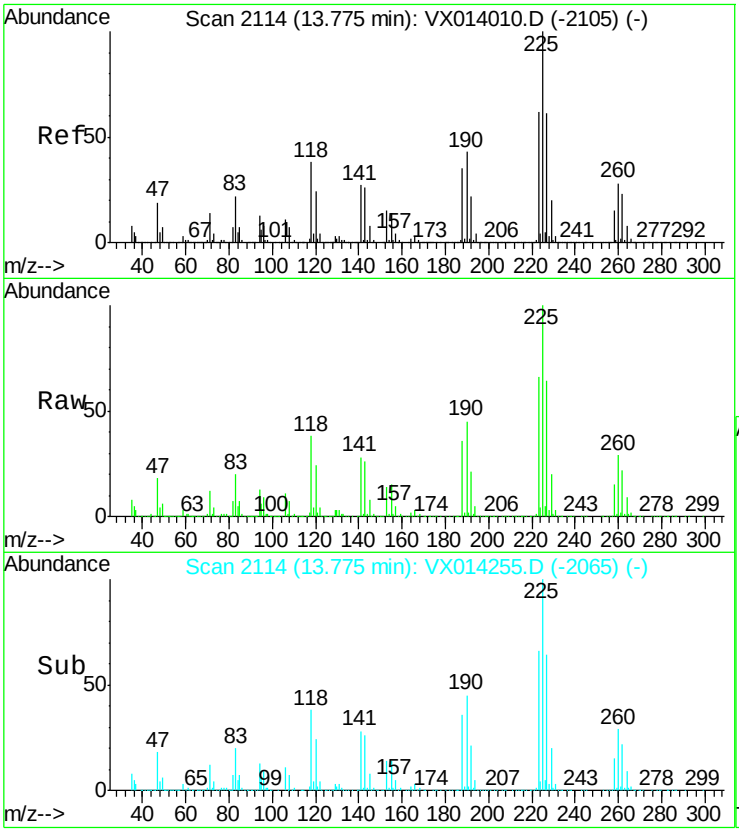
Tgt Ion:180 Resp: 355740

Ion	Ratio	Lower	Upper
180	100		
182	94.4	46.6	139.8
145	28.1	14.2	42.6



Instrument :
MSVOA_X
ClientSampleId :
996-MW-15-(17)MS

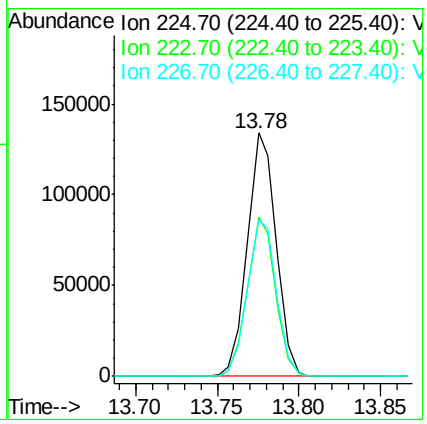
Manual Integrations APPROVED
apatel
12/26/2019 9:24:46 AM

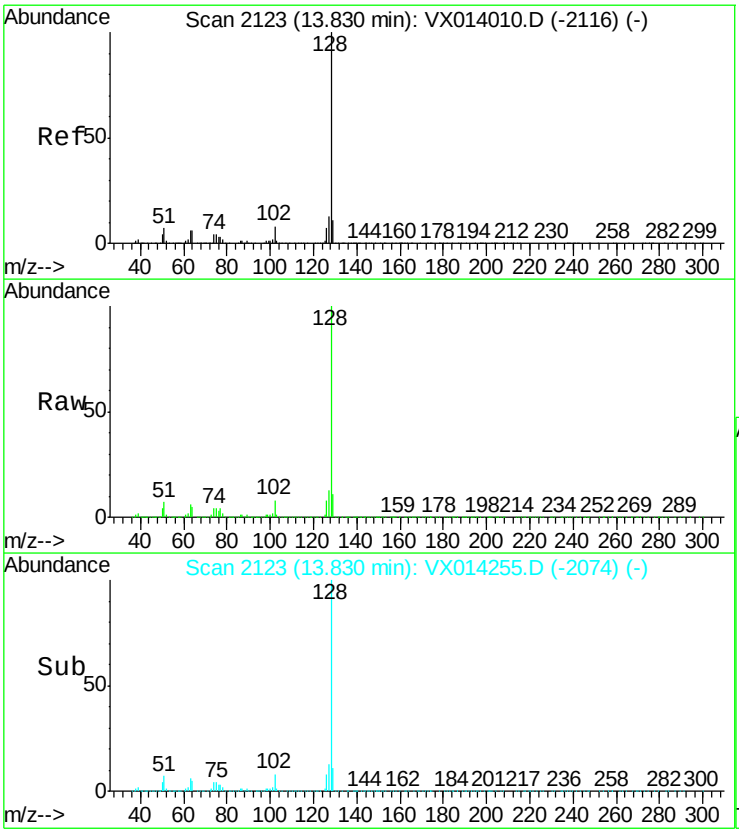


#94
Hexachlorobutadiene
Concen: 45.759 ug/l
RT: 13.78 min Scan# 2114
Delta R.T. 0.00 min
Lab File: VX014255.D
Acq: 24 Dec 2019 19:08

Tgt Ion:225 Resp: 165352

Ion	Ratio	Lower	Upper
225	100		
223	64.0	30.9	92.5
227	65.1	30.9	92.7

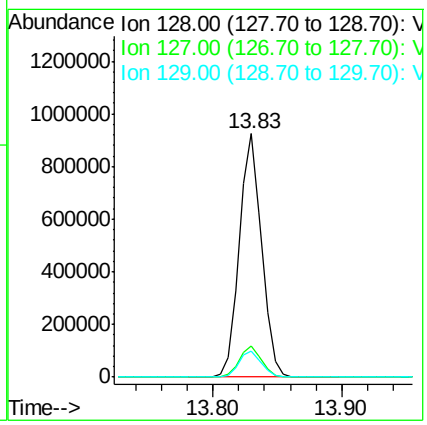


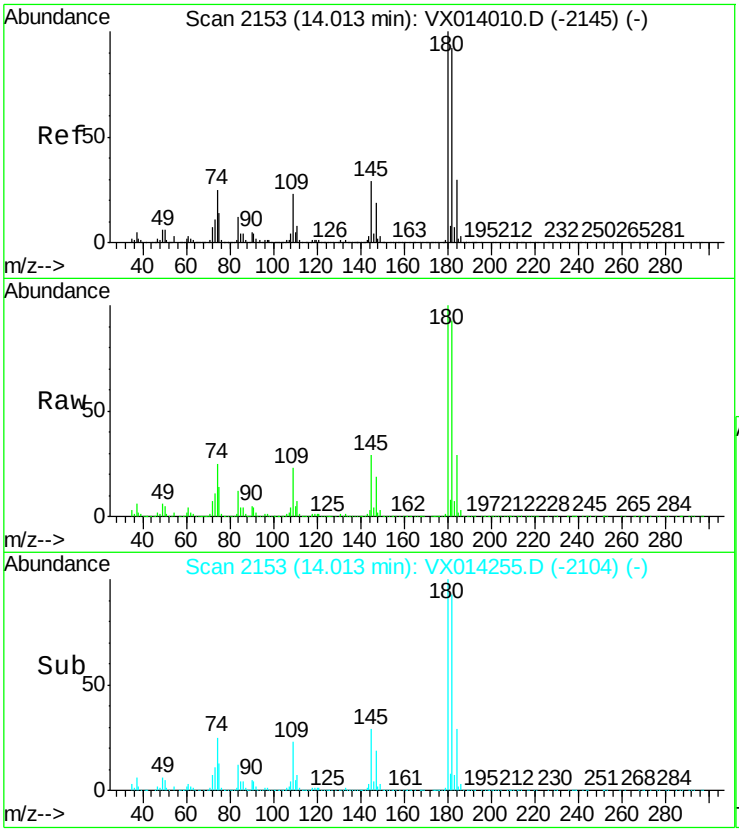


#95
Naphthalene
Concen: 49.997 ug/l
RT: 13.83 min Scan# 2123
Delta R.T. 0.00 min
Lab File: VX014255.D
Acq: 24 Dec 2019 19:08

Tgt Ion:128 Resp: 1104462

Ion	Ratio	Lower	Upper
128	100		
127	12.6	10.2	15.4
129	10.8	8.7	13.1

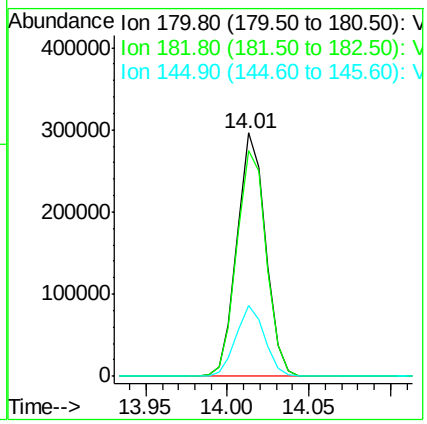




#96
1,2,3-Trichlorobenzene
Concen: 48.848 ug/l
RT: 14.01 min Scan# 2153
Delta R.T. 0.00 min
Lab File: VX014255.D
Acq: 24 Dec 2019 19:08

Tgt Ion:180 Resp: 362558

Ion	Ratio	Lower	Upper
180	100		
182	95.9	46.8	140.3
145	29.0	14.8	44.4



Instrument :
MSVOA_X
ClientSampleId :
996-MW-15-(17)MS

Manual Integrations APPROVED
apatel
12/26/2019 9:24:46 AM

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Day Environmental, Inc.	Date Collected:	12/20/19
Project:	Andrew St. RI	Date Received:	12/21/19
Client Sample ID:	996-MW-15-(17)MSD	SDG No.:	K6405
Lab Sample ID:	K6405-08MSD	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	DB-624UI ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX014256.D	1		12/24/19 19:31	VX122419

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
75-71-8	Dichlorodifluoromethane	43.8		0.22	1.00	ug/L
74-87-3	Chloromethane	46.8		0.30	1.00	ug/L
75-01-4	Vinyl Chloride	47.3		0.16	1.00	ug/L
74-83-9	Bromomethane	46.2		2.10	5.00	ug/L
75-00-3	Chloroethane	49.5		0.34	1.00	ug/L
75-69-4	Trichlorofluoromethane	48.5		0.16	1.00	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	48.0		0.21	1.00	ug/L
75-35-4	1,1-Dichloroethene	49.4		0.18	1.00	ug/L
67-64-1	Acetone	170		0.90	5.00	ug/L
75-15-0	Carbon Disulfide	45.1		0.23	1.00	ug/L
1634-04-4	Methyl tert-butyl Ether	52.2		0.070	1.00	ug/L
79-20-9	Methyl Acetate	49.7		0.65	1.00	ug/L
75-09-2	Methylene Chloride	48.4		0.33	1.00	ug/L
156-60-5	trans-1,2-Dichloroethene	48.5		0.24	1.00	ug/L
75-34-3	1,1-Dichloroethane	50.4		0.17	1.00	ug/L
110-82-7	Cyclohexane	49.7		1.20	5.00	ug/L
78-93-3	2-Butanone	240		0.71	5.00	ug/L
56-23-5	Carbon Tetrachloride	49.9		0.22	1.00	ug/L
156-59-2	cis-1,2-Dichloroethene	50.4		0.30	1.00	ug/L
74-97-5	Bromochloromethane	55.6		0.31	1.00	ug/L
67-66-3	Chloroform	51.3		0.14	1.00	ug/L
71-55-6	1,1,1-Trichloroethane	50.3		0.12	1.00	ug/L
108-87-2	Methylcyclohexane	46.1		0.17	1.00	ug/L
71-43-2	Benzene	48.7		0.10	1.00	ug/L
107-06-2	1,2-Dichloroethane	49.3		0.13	1.00	ug/L
79-01-6	Trichloroethene	47.7		0.27	1.00	ug/L
78-87-5	1,2-Dichloropropane	51.0		0.14	1.00	ug/L
75-27-4	Bromodichloromethane	50.9		0.10	1.00	ug/L
108-10-1	4-Methyl-2-Pentanone	260		0.85	5.00	ug/L
108-88-3	Toluene	48.1		0.12	1.00	ug/L
10061-02-6	t-1,3-Dichloropropene	50.7		0.19	1.00	ug/L
10061-01-5	cis-1,3-Dichloropropene	50.8		0.16	1.00	ug/L

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Day Environmental, Inc.	Date Collected:	12/20/19
Project:	Andrew St. RI	Date Received:	12/21/19
Client Sample ID:	996-MW-15-(17)MSD	SDG No.:	K6405
Lab Sample ID:	K6405-08MSD	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	DB-624UI ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX014256.D	1		12/24/19 19:31	VX122419

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
79-00-5	1,1,2-Trichloroethane	50.0		0.12	1.00	ug/L
591-78-6	2-Hexanone	240		1.40	5.00	ug/L
124-48-1	Dibromochloromethane	52.4		0.16	1.00	ug/L
106-93-4	1,2-Dibromoethane	50.0		0.14	1.00	ug/L
127-18-4	Tetrachloroethene	45.3		0.15	1.00	ug/L
108-90-7	Chlorobenzene	47.8		0.080	1.00	ug/L
100-41-4	Ethyl Benzene	49.2		0.080	1.00	ug/L
179601-23-1	m/p-Xylenes	97.7		0.20	2.00	ug/L
95-47-6	o-Xylene	48.5		0.13	1.00	ug/L
100-42-5	Styrene	49.4		0.11	1.00	ug/L
75-25-2	Bromoform	52.3		0.15	1.00	ug/L
98-82-8	Isopropylbenzene	50.9		0.13	1.00	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	51.1		0.15	1.00	ug/L
541-73-1	1,3-Dichlorobenzene	46.9		0.14	1.00	ug/L
106-46-7	1,4-Dichlorobenzene	46.7		0.20	1.00	ug/L
95-50-1	1,2-Dichlorobenzene	47.5		0.12	1.00	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	48.1		0.54	1.00	ug/L
120-82-1	1,2,4-Trichlorobenzene	48.0		0.24	1.00	ug/L
87-61-6	1,2,3-Trichlorobenzene	49.5		0.26	1.00	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	51.1		61 - 141	102%	SPK: 50
1868-53-7	Dibromofluoromethane	51.7		69 - 133	103%	SPK: 50
2037-26-5	Toluene-d8	50.6		65 - 126	101%	SPK: 50
460-00-4	4-Bromofluorobenzene	49.5		58 - 135	99%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	488000	5.65			
540-36-3	1,4-Difluorobenzene	767000	6.85			
3114-55-4	Chlorobenzene-d5	696000	10.11			
3855-82-1	1,4-Dichlorobenzene-d4	344000	12.07			

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Day Environmental, Inc.	Date Collected:	12/20/19
Project:	Andrew St. RI	Date Received:	12/21/19
Client Sample ID:	996-MW-15-(17)MSD	SDG No.:	K6405
Lab Sample ID:	K6405-08MSD	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	DB-624UI ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX014256.D	1		12/24/19 19:31	VX122419

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit
A = Aldol-Condensation Reaction Products

Quantitation Report (QT Reviewed)

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX122419\
Data File : VX014256.D
Acq On : 24 Dec 2019 19:31
Operator : JC/SP
Sample : K6405-08MSD
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 26 Sample Multiplier: 1

Quant Time: Dec 25 08:44:54 2019
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121319W.M
Quant Title : SW846 8260
QLast Update : Tue Dec 17 03:01:07 2019
Response via : Initial Calibration

Instrument :
MSVOA_X
ClientSampleId :
996-MW-15-(17)MSD

Manual Integrations APPROVED
apatel
12/26/2019 9:24:50 AM

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	5.65	168	488343	50.00	ug/l	0.00
34) 1,4-Difluorobenzene	6.85	114	767359	50.00	ug/l	0.00
63) Chlorobenzene-d5	10.11	117	695552	50.00	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	12.07	152	343564	50.00	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	6.06	65	282953	51.12	ug/l	0.00
Spiked Amount 50.000			Recovery = 102.24%			
35) Dibromofluoromethane	5.49	113	241087	51.68	ug/l	0.00
Spiked Amount 50.000			Recovery = 103.36%			
50) Toluene-d8	8.71	98	918443	50.57	ug/l	0.00
Spiked Amount 50.000			Recovery = 101.14%			
62) 4-Bromofluorobenzene	11.14	95	328698	49.51	ug/l	0.00
Spiked Amount 50.000			Recovery = 99.02%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.19	85	191163	43.756	ug/l	99
3) Chloromethane	1.32	50	274381	46.798	ug/l	99
4) Vinyl Chloride	1.40	62	292317	47.250	ug/l	100
5) Bromomethane	1.63	94	202870	46.202	ug/l	99
6) Chloroethane	1.72	64	189100	49.525	ug/l	93
7) Trichlorofluoromethane	1.92	101	371170	48.466	ug/l	99
8) Diethyl Ether	2.18	74	177483	49.380	ug/l	100
9) 1,1,2-Trichlorotrifluoroet	2.37	101	221637	48.010	ug/l	100
10) Methyl Iodide	2.50	142	298033	49.009	ug/l	99
11) Tert butyl alcohol	3.03	59	323298	270.334	ug/l	98
12) 1,1-Dichloroethene	2.37	96	232133	49.416	ug/l	94
13) Acrolein	2.28	56	181420	265.008	ug/l	98
14) Allyl chloride	2.72	41	428885	51.135	ug/l	99
15) Acrylonitrile	3.13	53	750093	268.719	ug/l	99
16) Acetone	2.43	43	625974	174.211	ug/l	100
17) Carbon Disulfide	2.56	76	587298	45.109	ug/l	99
18) Methyl Acetate	2.76	43	353803	49.691	ug/l	99
19) Methyl tert-butyl Ether	3.18	73	805079	52.155	ug/l	98
20) Methylene Chloride	2.85	84	273788	48.387	ug/l	99
21) trans-1,2-Dichloroethene	3.16	96	251092	48.518	ug/l	99
22) Diisopropyl ether	3.84	45	879598	52.627	ug/l	98
23) Vinyl Acetate	3.80	43	3464115	253.977	ug/l	99
24) 1,1-Dichloroethane	3.69	63	468929	50.428	ug/l	100
25) 2-Butanone	4.66	43	1041312	235.059	ug/l	99
26) 2,2-Dichloropropane	4.58	77	317761	44.012	ug/l	100
27) cis-1,2-Dichloroethene	4.58	96	294943	50.392	ug/l	98
28) Bromochloromethane	5.01	49	198920	55.572	ug/l	98
29) Tetrahydrofuran	5.11	42	682016	275.249	ug/l	99
30) Chloroform	5.20	83	452105	51.287	ug/l	98
31) Cyclohexane	5.58	56	411064	49.703	ug/l	98
32) 1,1,1-Trichloroethane	5.48	97	378086	50.325	ug/l	98
36) 1,1-Dichloropropene	5.79	75	332600	47.238	ug/l	99
37) Ethyl Acetate	4.82	43	380941	48.994	ug/l	100
38) Carbon Tetrachloride	5.78	117	319783	49.855	ug/l	97

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX122419\
Data File : VX014256.D
Acq On : 24 Dec 2019 19:31
Operator : JC/SP
Sample : K6405-08MSD
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 26 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
996-MW-15-(17)MSD

Manual Integrations APPROVED
apatel
12/26/2019 9:24:50 AM

Quant Time: Dec 25 08:44:54 2019
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121319W.M
Quant Title : SW846 8260
QLast Update : Tue Dec 17 03:01:07 2019
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
39) Methylcyclohexane	7.46	83	400357	46.051 ug/l	100
40) Benzene	6.14	78	1055542	48.723 ug/l	99
41) Methacrylonitrile	5.03	41	224651	52.074 ug/l	99
42) 1,2-Dichloroethane	6.18	62	361931	49.285 ug/l	99
43) Isopropyl Acetate	6.43	43	638787	49.643 ug/l	99
44) Trichloroethene	7.21	130	285721	47.749 ug/l	100
45) 1,2-Dichloropropane	7.51	63	282998	50.966 ug/l	95
46) Dibromomethane	7.65	93	177549	48.363 ug/l	99
47) Bromodichloromethane	7.89	83	352008	50.911 ug/l	100
48) Methyl methacrylate	7.76	41	326825	51.870 ug/l	99
49) 1,4-Dioxane	7.73	88	127560	994.815 ug/l	99
51) 4-Methyl-2-Pentanone	8.64	43	2099265	259.776 ug/l	99
52) Toluene	8.78	92	658898	48.118 ug/l	99
53) t-1,3-Dichloropropene	9.04	75	384066	50.659 ug/l	99
54) cis-1,3-Dichloropropene	8.43	75	429180	50.814 ug/l	99
55) 1,1,2-Trichloroethane	9.21	97	274360	49.991 ug/l	98
56) Ethyl methacrylate	9.17	69	444852	51.602 ug/l	99
57) 1,3-Dichloropropane	9.37	76	466423	50.513 ug/l	100
59) 2-Hexanone	9.48	43	1592875	244.859 ug/l	100
60) Dibromochloromethane	9.57	129	286082	52.442 ug/l	100
61) 1,2-Dibromoethane	9.67	107	280500	49.954 ug/l	98
64) Tetrachloroethene	9.33	164	278570	45.261 ug/l	99
65) Chlorobenzene	10.14	112	706814	47.793 ug/l	97
66) 1,1,1,2-Tetrachloroethane	10.21	131	267372	50.633 ug/l	99
67) Ethyl Benzene	10.25	91	1251103	49.206 ug/l	100
68) m/p-Xylenes	10.35	106	955477	97.705 ug/l	100
69) o-Xylene	10.70	106	464689	48.451 ug/l	99
70) Styrene	10.71	104	801486	49.419 ug/l	99
71) Bromoform	10.85	173	221926	52.283 ug/l	100
73) Isopropylbenzene	11.01	105	1231823	50.924 ug/l	100
74) N-amyl acetate	10.89	43	534666	47.154 ug/l	100
75) 1,1,2,2-Tetrachloroethane	11.26	83	428492	51.094 ug/l	100
76) 1,2,3-Trichloropropane	11.29	75	344017m	46.123 ug/l	
77) Bromobenzene	11.25	156	319086	47.944 ug/l	99
78) n-propylbenzene	11.35	91	1379089	50.827 ug/l	100
79) 2-Chlorotoluene	11.42	91	819442	49.683 ug/l	100
80) 1,3,5-Trimethylbenzene	11.50	105	1012595	49.739 ug/l	100
81) trans-1,4-Dichloro-2-buten	11.07	75	136911	51.810 ug/l	99
82) 4-Chlorotoluene	11.51	91	931082	48.667 ug/l	99
83) tert-Butylbenzene	11.76	119	1010181	50.989 ug/l	98
84) 1,2,4-Trimethylbenzene	11.81	105	1022495	50.153 ug/l	100
85) sec-Butylbenzene	11.94	105	1165943	49.852 ug/l	100
86) p-Isopropyltoluene	12.06	119	1066974	49.873 ug/l	99
87) 1,3-Dichlorobenzene	12.02	146	547359	46.926 ug/l	99
88) 1,4-Dichlorobenzene	12.09	146	554118	46.720 ug/l	100
89) n-Butylbenzene	12.39	91	899766	49.289 ug/l	99
90) Hexachloroethane	12.59	117	193496	50.354 ug/l	99
91) 1,2-Dichlorobenzene	12.39	146	557681	47.494 ug/l	100
92) 1,2-Dibromo-3-Chloropropan	12.99	75	89188	48.058 ug/l	97
93) 1,2,4-Trichlorobenzene	13.64	180	366460	48.017 ug/l	99

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX122419\
Data File : VX014256.D
Acq On : 24 Dec 2019 19:31
Operator : JC/SP
Sample : K6405-08MSD
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 26 Sample Multiplier: 1

Quant Time: Dec 25 08:44:54 2019
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121319W.M
Quant Title : SW846 8260
QLast Update : Tue Dec 17 03:01:07 2019
Response via : Initial Calibration

Instrument :
MSVOA_X
ClientSampleId :
996-MW-15-(17)MSD

Manual Integrations APPROVED
apatel
12/26/2019 9:24:50 AM

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
94) Hexachlorobutadiene	13.78	225	173891	47.410	ug/l	98
95) Naphthalene	13.83	128	1147246	51.165	ug/l	100
96) 1,2,3-Trichlorobenzene	14.01	180	373104	49.524	ug/l	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

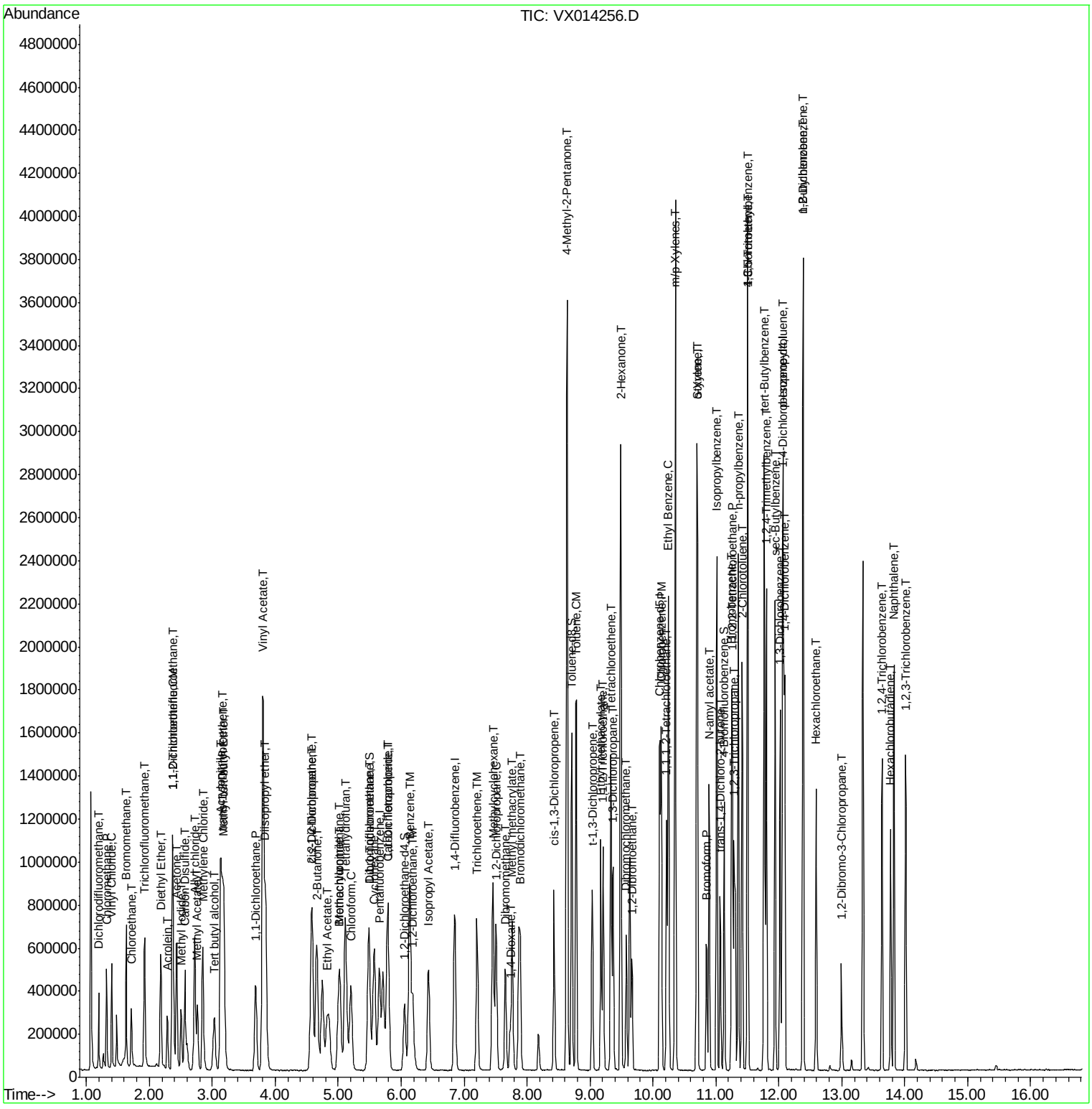
Quantitation Report (QT Reviewed)

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX122419\
Data File : VX014256.D
Acq On : 24 Dec 2019 19:31
Operator : JC/SP
Sample : K6405-08MSD
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 26 Sample Multiplier: 1

Quant Time: Dec 25 08:44:54 2019
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X121319W.M
Quant Title : SW846 8260
QLast Update : Tue Dec 17 03:01:07 2019
Response via : Initial Calibration

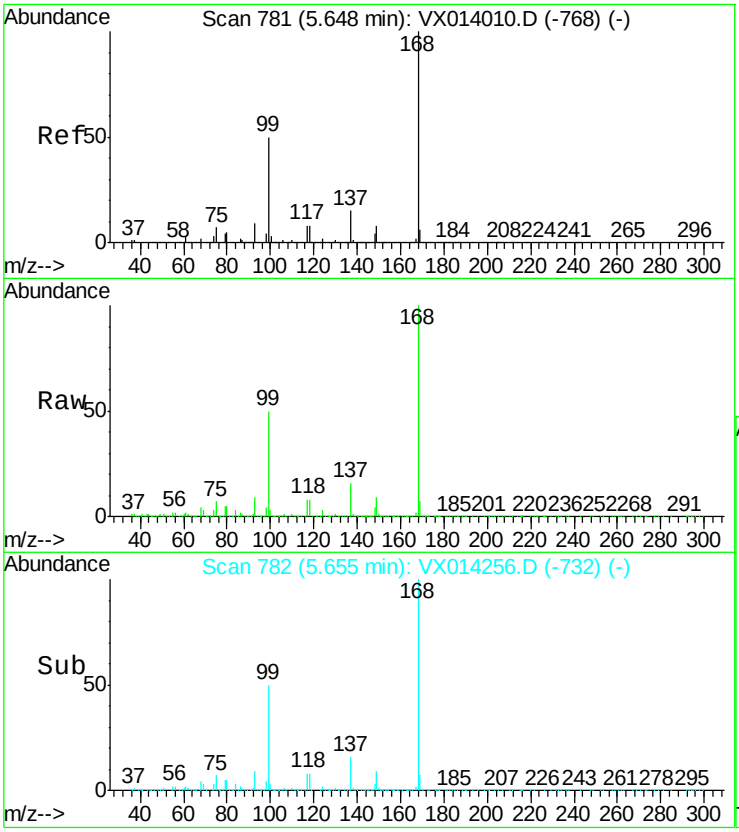
Instrument :
MSVOA_X
ClientSampleId :
996-MW-15-(17)MSD

Manual Integrations APPROVED
apatel
12/26/2019 9:24:50 AM



Instrument :
MSVOA_X
ClientSampleId :
996-MW-15-(17)MSD

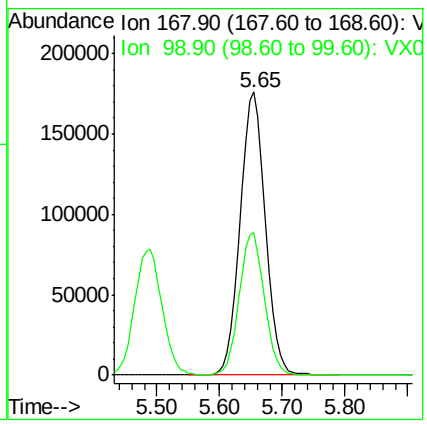
Manual Integrations APPROVED
apatel
12/26/2019 9:24:50 AM

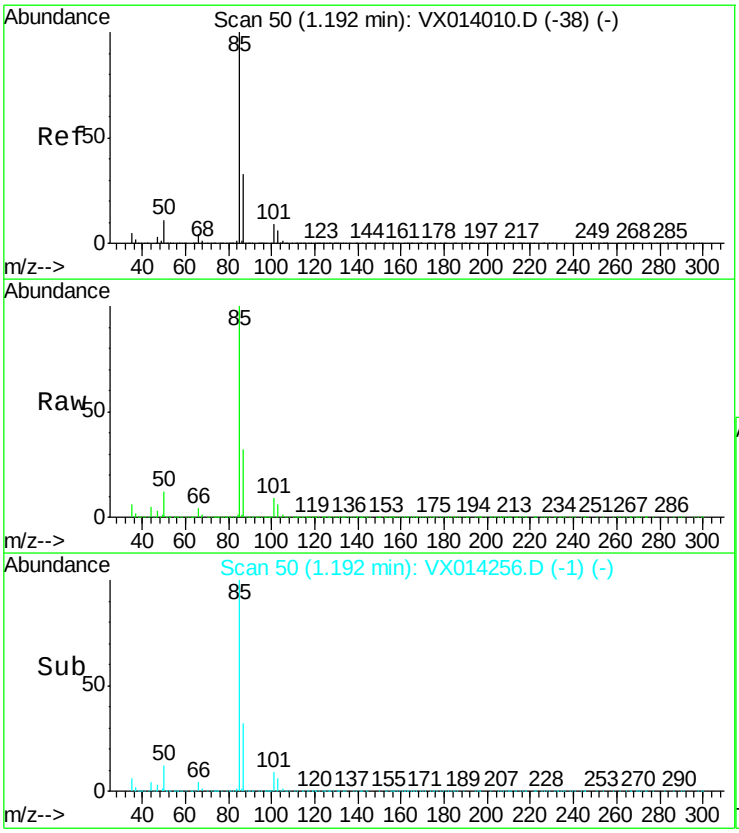


#1
Pentafluorobenzene
Concen: 50.000 ug/l
RT: 5.65 min Scan# 782
Delta R.T. 0.01 min
Lab File: VX014256.D
Acq: 24 Dec 2019 19:31

Tgt Ion:168 Resp: 488343

Ion	Ratio	Lower	Upper
168	100		
99	50.1	40.3	60.5

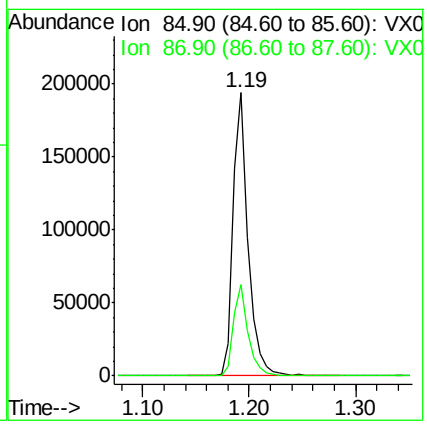




#2
Dichlorodifluoromethane
Concen: 43.756 ug/l
RT: 1.19 min Scan# 50
Delta R.T. 0.00 min
Lab File: VX014256.D
Acq: 24 Dec 2019 19:31

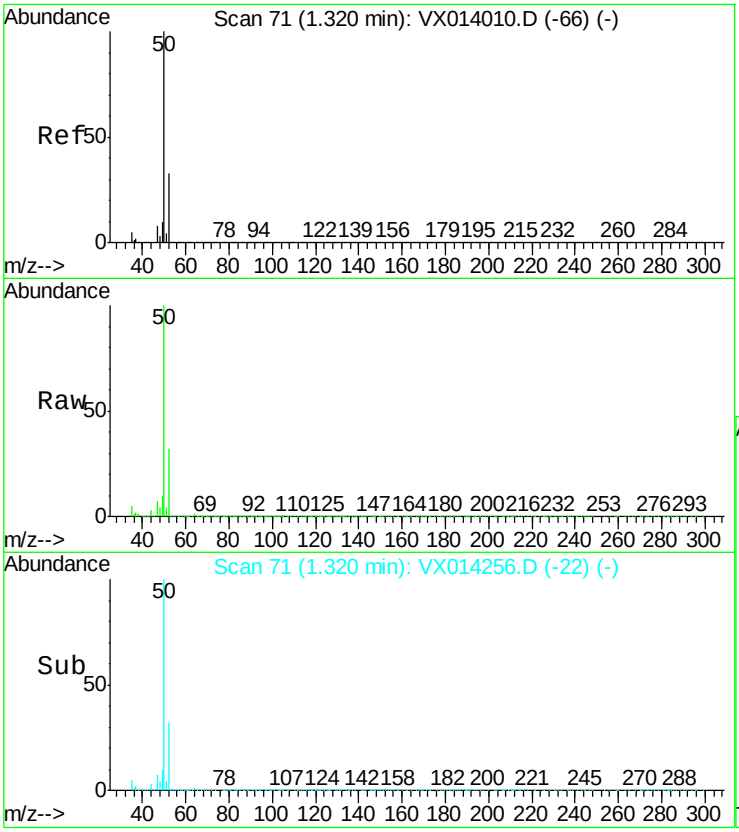
Tgt Ion: 85 Resp: 191163

Ion	Ratio	Lower	Upper
85	100		
87	32.1	16.4	49.2



Instrument :
MSVOA_X
ClientSampleId :
996-MW-15-(17)MSD

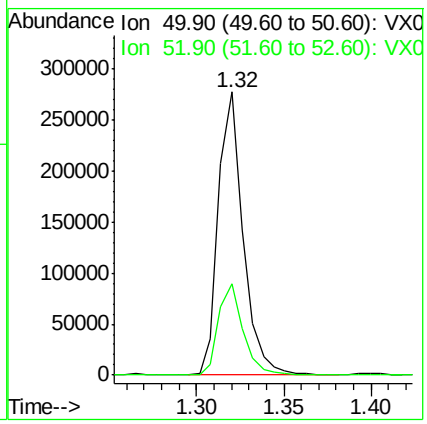
Manual Integrations APPROVED
apatel
12/26/2019 9:24:50 AM

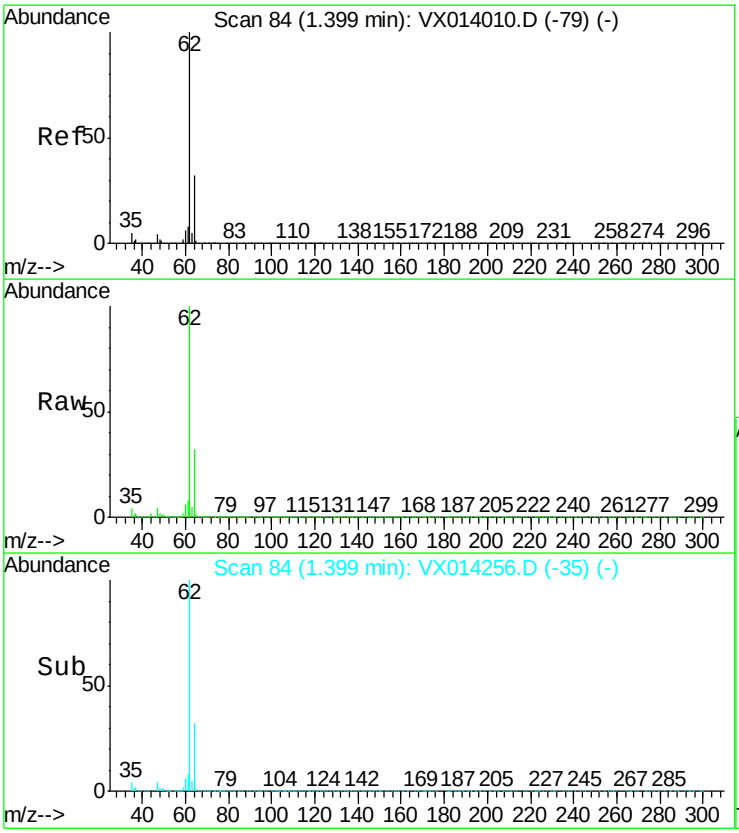


#3
Chloromethane
Concen: 46.798 ug/l
RT: 1.32 min Scan# 71
Delta R.T. 0.00 min
Lab File: VX014256.D
Acq: 24 Dec 2019 19:31

Tgt Ion: 50 Resp: 274381

Ion	Ratio	Lower	Upper
50	100		
52	32.2	26.2	39.4

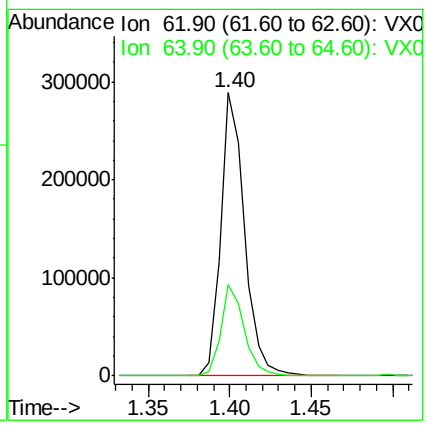




#4
Vinyl Chloride
Concen: 47.250 ug/l
RT: 1.40 min Scan# 84
Delta R.T. 0.00 min
Lab File: VX014256.D
Acq: 24 Dec 2019 19:31

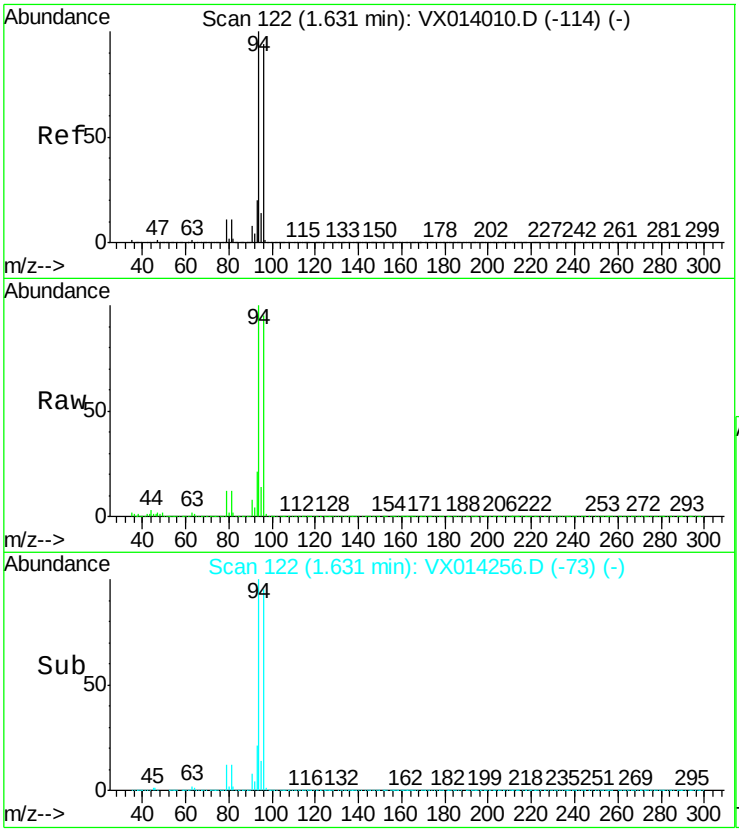
Tgt Ion: 62 Resp: 292317

Ion	Ratio	Lower	Upper
62	100		
64	32.1	25.7	38.5



Instrument :
MSVOA_X
ClientSampleId :
996-MW-15-(17)MSD

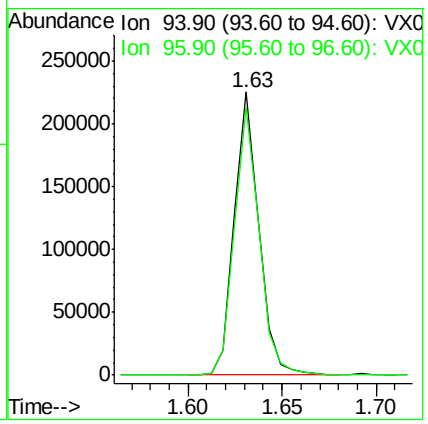
Manual Integrations APPROVED
apatel
12/26/2019 9:24:50 AM

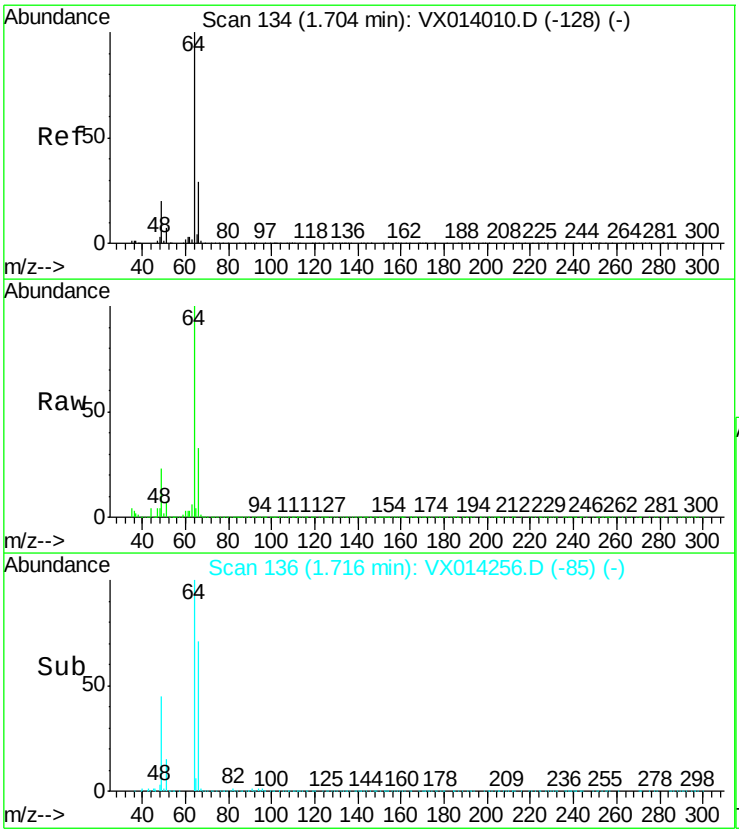


#5
Bromomethane
Concen: 46.202 ug/l
RT: 1.63 min Scan# 122
Delta R.T. 0.00 min
Lab File: VX014256.D
Acq: 24 Dec 2019 19:31

Tgt Ion: 94 Resp: 202870

Ion	Ratio	Lower	Upper
94	100		
96	94.7	75.2	112.8

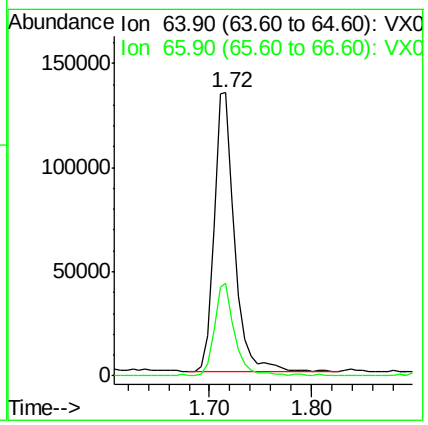




#6
Chloroethane
Concen: 49.525 ug/l
RT: 1.72 min Scan# 136
Delta R.T. 0.01 min
Lab File: VX014256.D
Acq: 24 Dec 2019 19:31

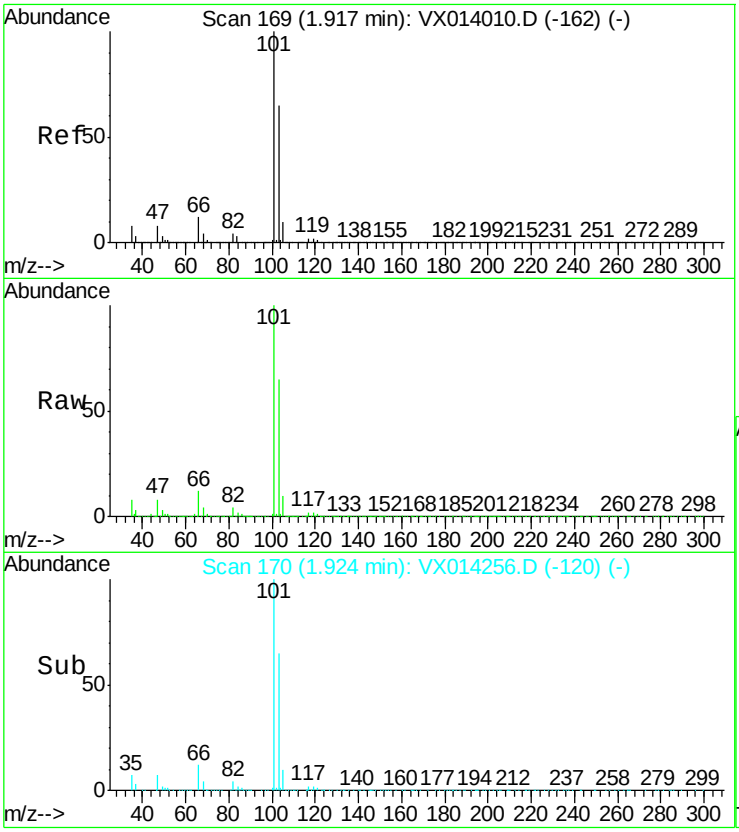
Tgt Ion: 64 Resp: 189100

Ion	Ratio	Lower	Upper
64	100		
66	33.1	23.4	35.2



Instrument :
MSVOA_X
ClientSampleId :
996-MW-15-(17)MSD

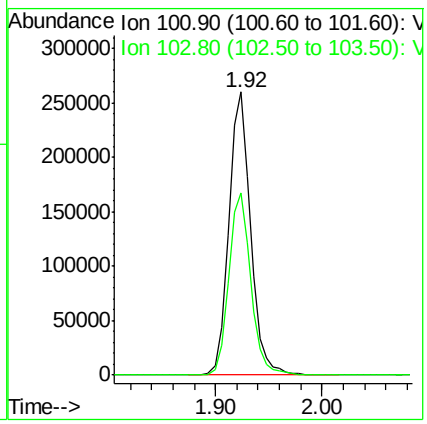
Manual Integrations APPROVED
apatel
12/26/2019 9:24:50 AM

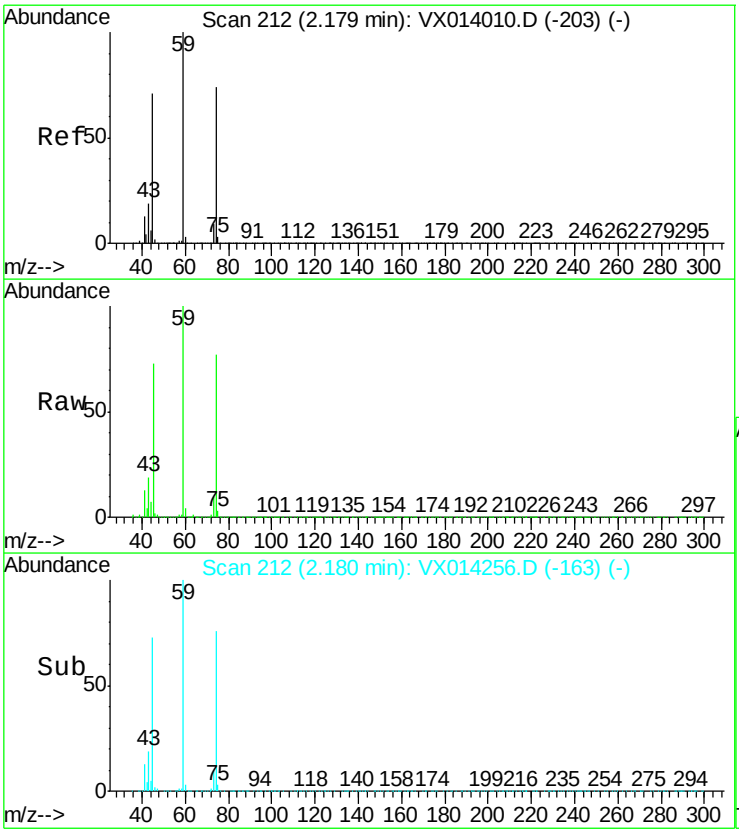


#7
Trichlorofluoromethane
Concen: 48.466 ug/l
RT: 1.92 min Scan# 170
Delta R.T. 0.01 min
Lab File: VX014256.D
Acq: 24 Dec 2019 19:31

Tgt Ion:101 Resp: 371170

Ion	Ratio	Lower	Upper
101	100		
103	64.6	52.2	78.4

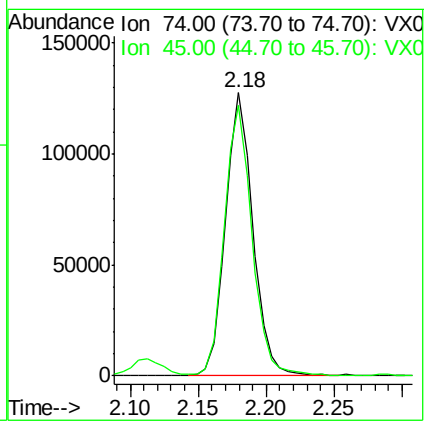


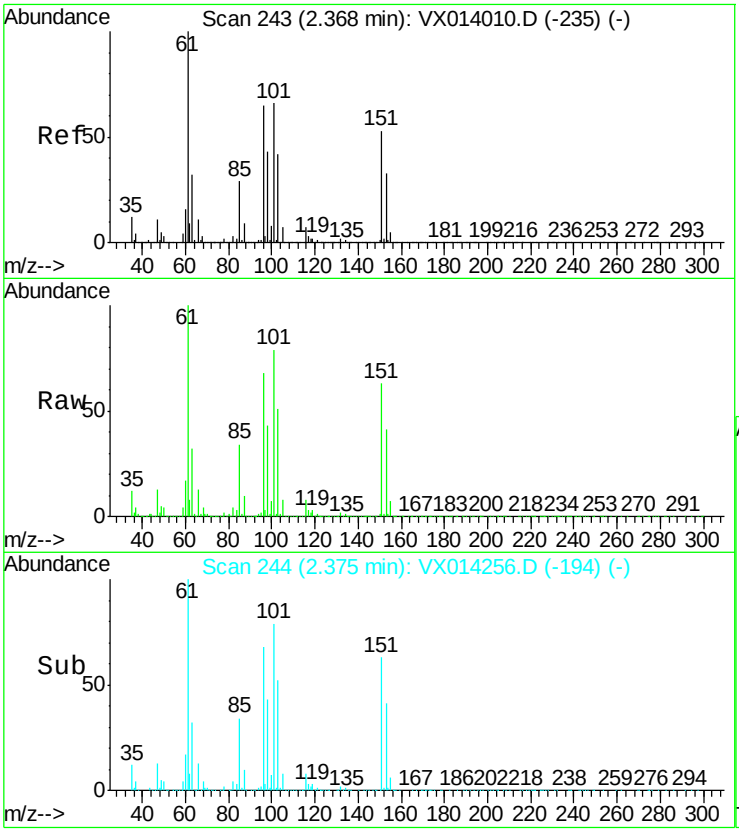


#8
Diethyl Ether
Concen: 49.380 ug/l
RT: 2.18 min Scan# 212
Delta R.T. 0.00 min
Lab File: VX014256.D
Acq: 24 Dec 2019 19:31

Tgt Ion: 74 Resp: 177483

Ion	Ratio	Lower	Upper
74	100		
45	96.2	48.1	144.3

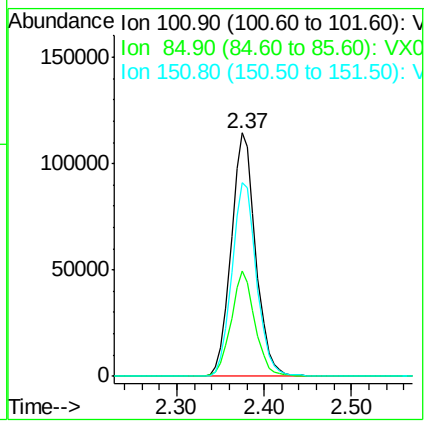




#9
1,1,2-Trichlorotrifluoroethane
Concen: 48.010 ug/l
RT: 2.37 min Scan# 244
Delta R.T. 0.01 min
Lab File: VX014256.D
Acq: 24 Dec 2019 19:31

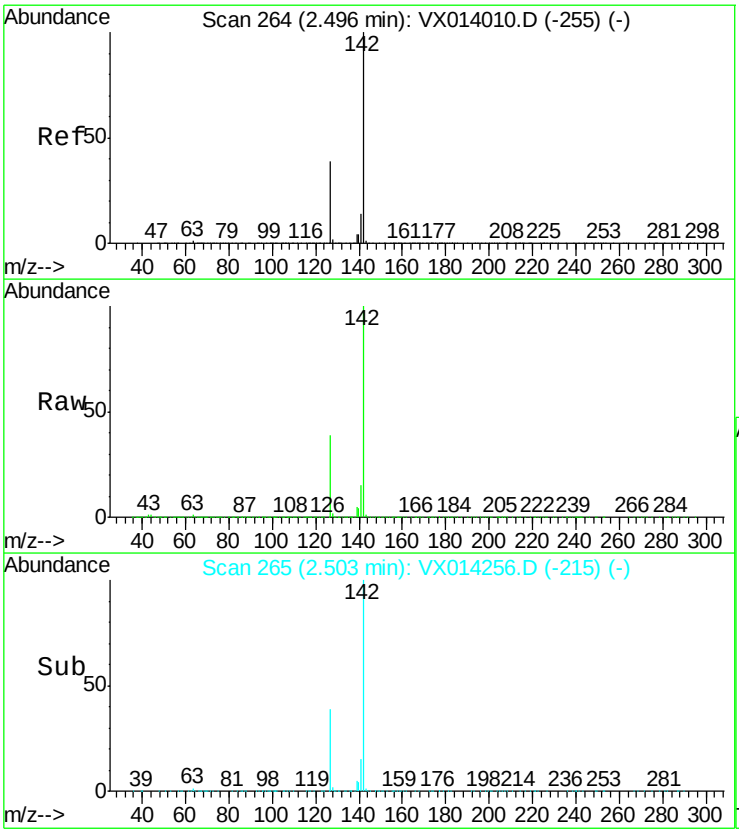
Tgt Ion:101 Resp: 221637

Ion	Ratio	Lower	Upper
101	100		
85	42.3	33.7	50.5
151	80.5	64.5	96.7



Instrument :
MSVOA_X
ClientSampleId :
996-MW-15-(17)MSD

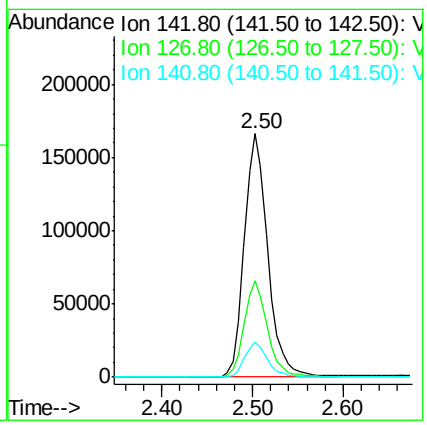
Manual Integrations APPROVED
apatel
12/26/2019 9:24:50 AM



#10
Methyl Iodide
Concen: 49.009 ug/l
RT: 2.50 min Scan# 265
Delta R.T. 0.01 min
Lab File: VX014256.D
Acq: 24 Dec 2019 19:31

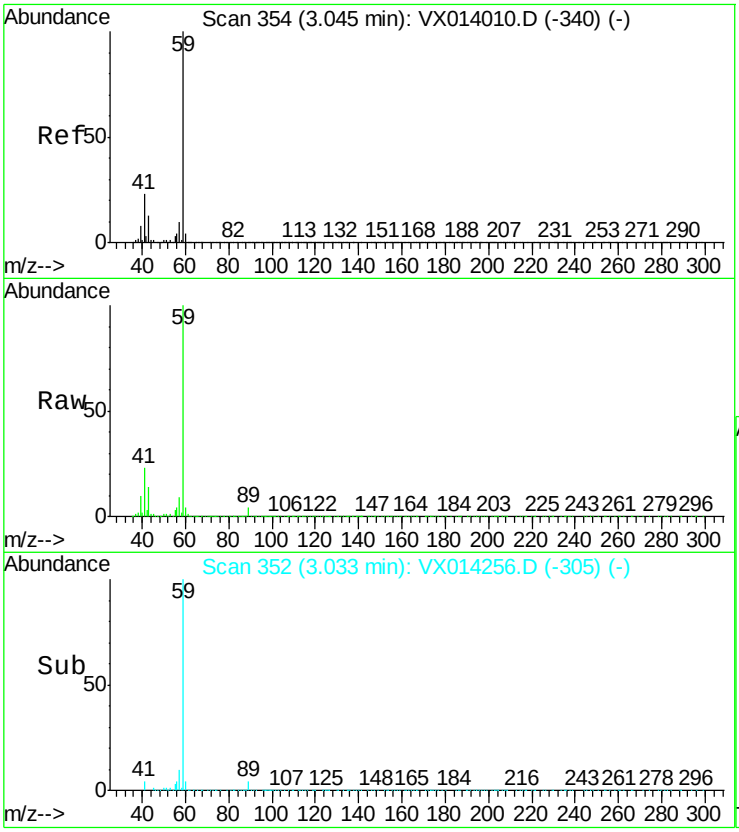
Tgt Ion:142 Resp: 298033

Ion	Ratio	Lower	Upper
142	100		
127	39.2	31.6	47.4
141	13.9	11.6	17.4



Instrument :
MSVOA_X
ClientSampleId :
996-MW-15-(17)MSD

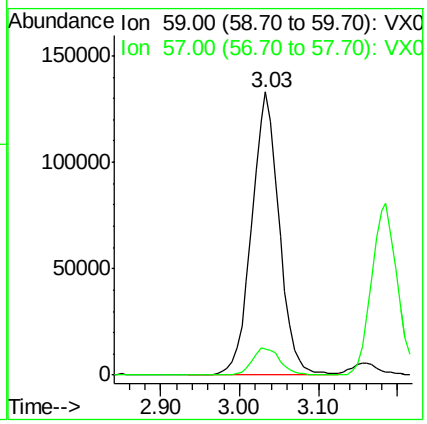
Manual Integrations APPROVED
apatel
12/26/2019 9:24:50 AM

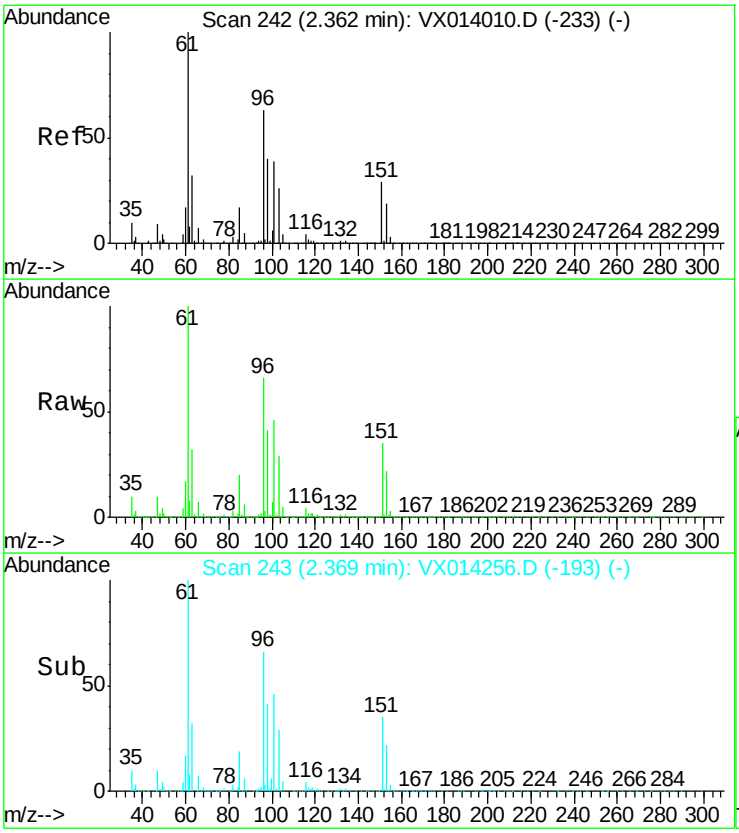


#11
Tert butyl alcohol
Concen: 270.334 ug/l
RT: 3.03 min Scan# 352
Delta R.T. -0.01 min
Lab File: VX014256.D
Acq: 24 Dec 2019 19:31

Tgt Ion: 59 Resp: 323298

Ion	Ratio	Lower	Upper
59	100		
57	9.7	8.4	12.6

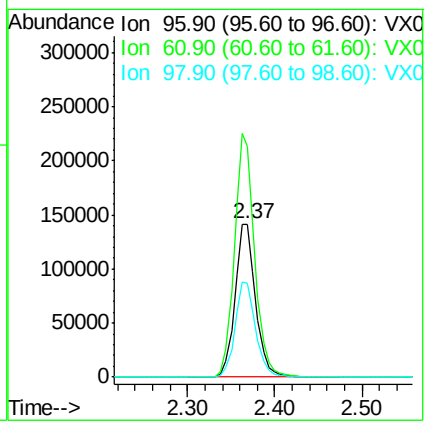




#12
1,1-Dichloroethene
Concen: 49.416 ug/l
RT: 2.37 min Scan# 243
Delta R.T. 0.01 min
Lab File: VX014256.D
Acq: 24 Dec 2019 19:31

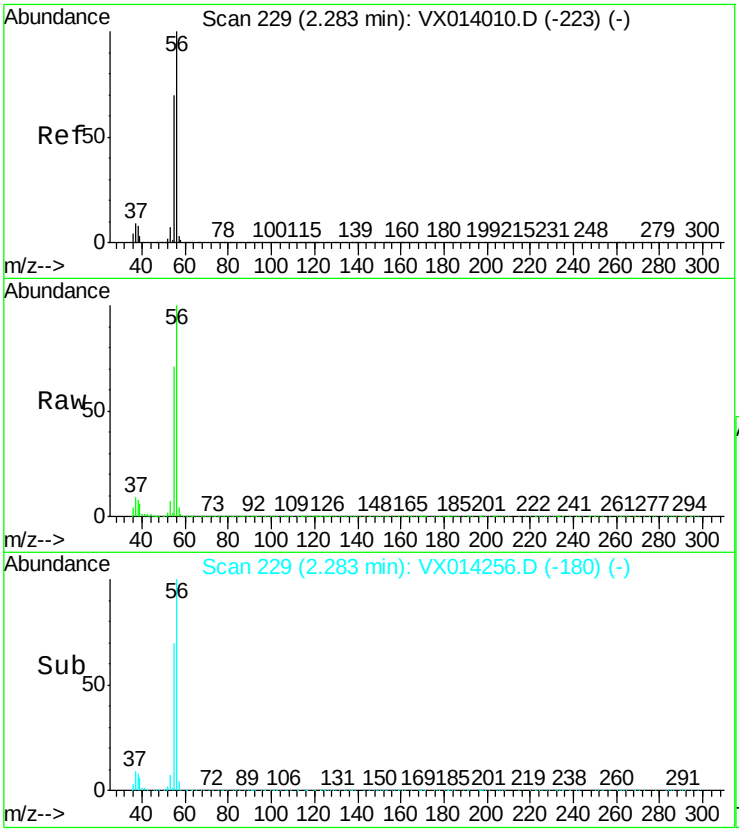
Tgt Ion: 96 Resp: 232133

Ion	Ratio	Lower	Upper
96	100		
61	150.7	127.9	191.9
98	61.6	50.5	75.7



Instrument :
MSVOA_X
ClientSampleId :
996-MW-15-(17)MSD

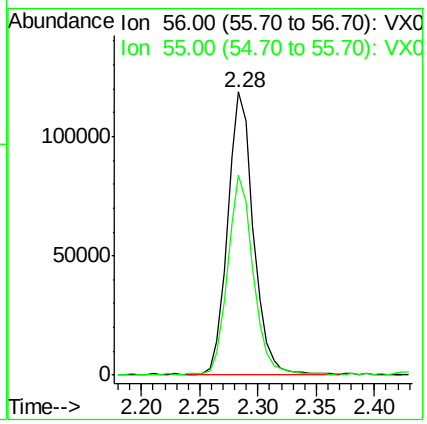
Manual Integrations APPROVED
apatel
12/26/2019 9:24:50 AM

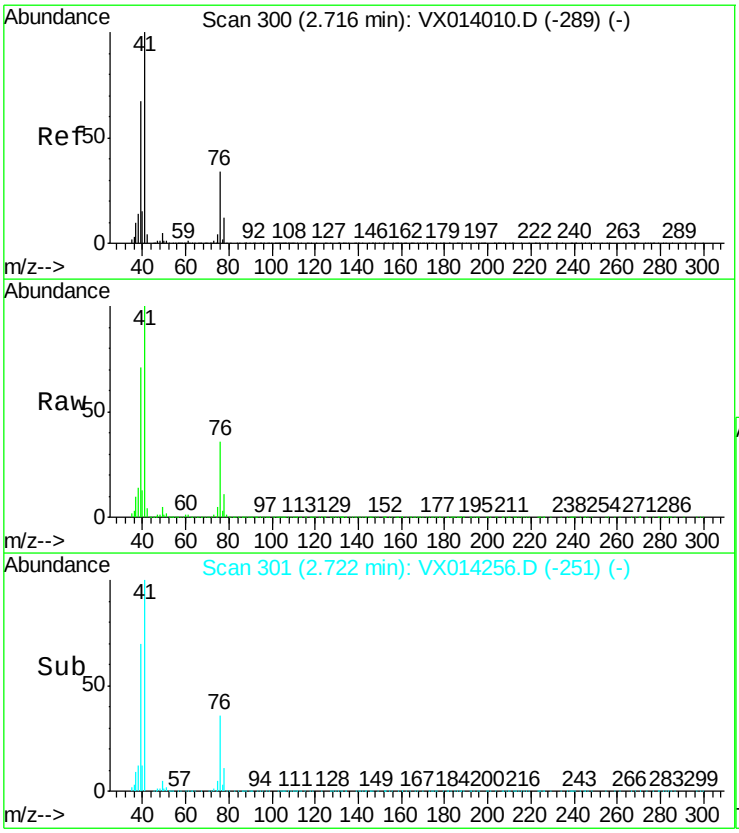


#13
Acrolein
Concen: 265.008 ug/l
RT: 2.28 min Scan# 229
Delta R.T. 0.00 min
Lab File: VX014256.D
Acq: 24 Dec 2019 19:31

Tgt Ion: 56 Resp: 181420

Ion	Ratio	Lower	Upper
56	100		
55	69.7	56.9	85.3

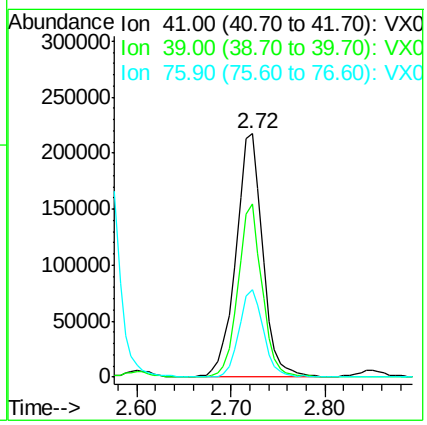




#14
Allyl chloride
Concen: 51.135 ug/l
RT: 2.72 min Scan# 301
Delta R.T. 0.01 min
Lab File: VX014256.D
Acq: 24 Dec 2019 19:31

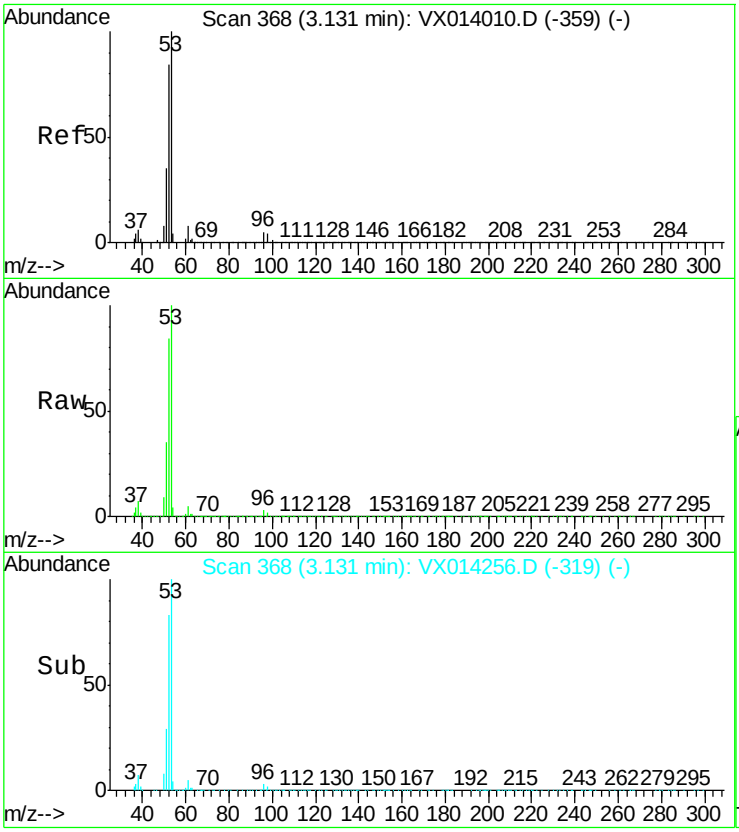
Tgt Ion: 41 Resp: 428885

Ion	Ratio	Lower	Upper
41	100		
39	63.4	51.8	77.8
76	32.3	25.9	38.9



Instrument :
MSVOA_X
ClientSampleId :
996-MW-15-(17)MSD

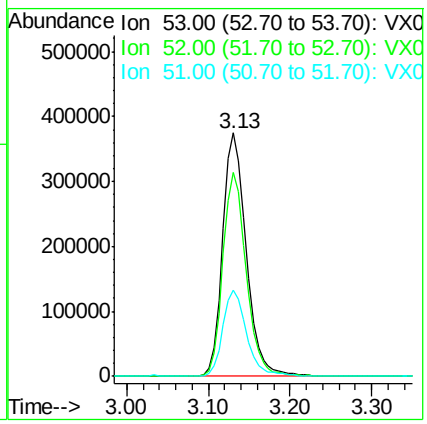
Manual Integrations APPROVED
apatel
12/26/2019 9:24:50 AM

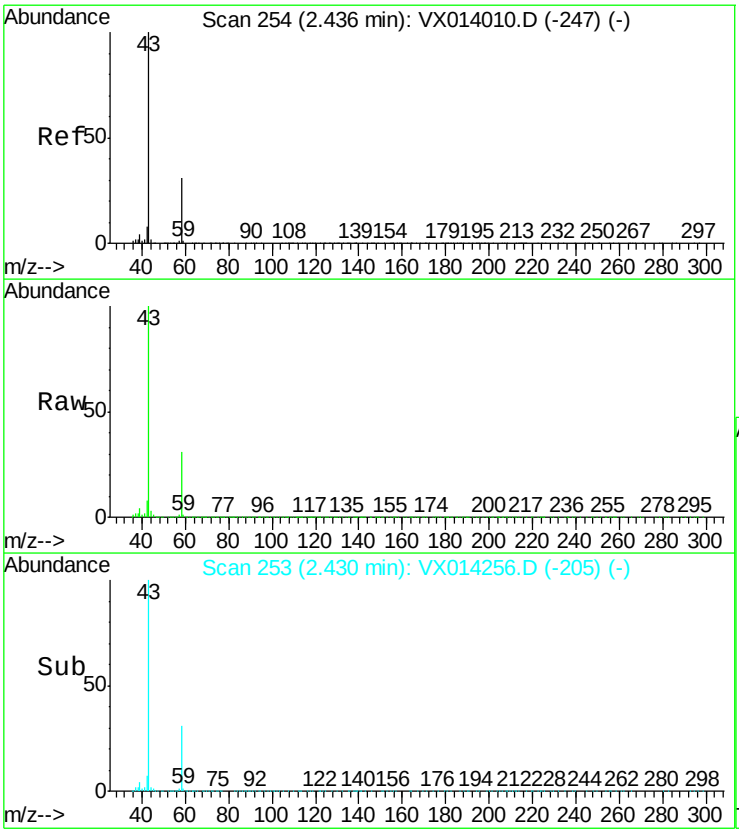


#15
Acrylonitrile
Concen: 268.719 ug/l
RT: 3.13 min Scan# 368
Delta R.T. 0.00 min
Lab File: VX014256.D
Acq: 24 Dec 2019 19:31

Tgt Ion: 53 Resp: 750093

Ion	Ratio	Lower	Upper
53	100		
52	82.7	66.5	99.7
51	35.9	28.1	42.1

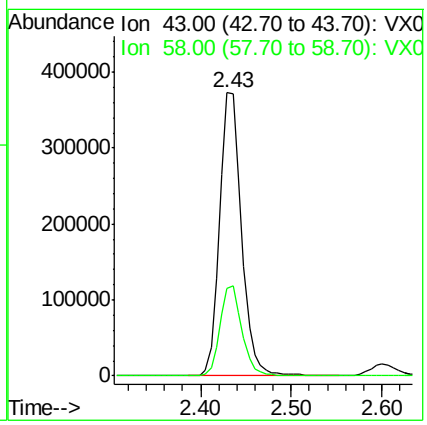




#16
Acetone
Concen: 174.211 ug/l
RT: 2.43 min Scan# 253
Delta R.T. -0.01 min
Lab File: VX014256.D
Acq: 24 Dec 2019 19:31

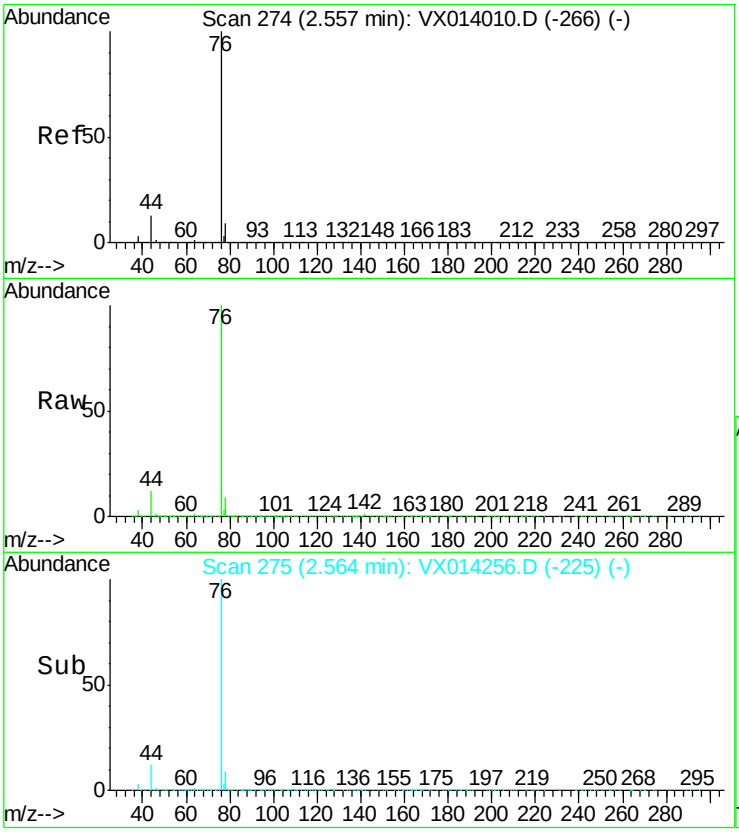
Tgt Ion: 43 Resp: 625974

Ion	Ratio	Lower	Upper
43	100		
58	31.0	24.9	37.3



Instrument :
MSVOA_X
ClientSampleId :
996-MW-15-(17)MSD

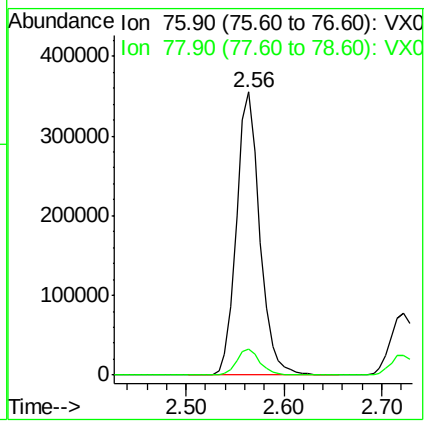
Manual Integrations APPROVED
apatel
12/26/2019 9:24:50 AM

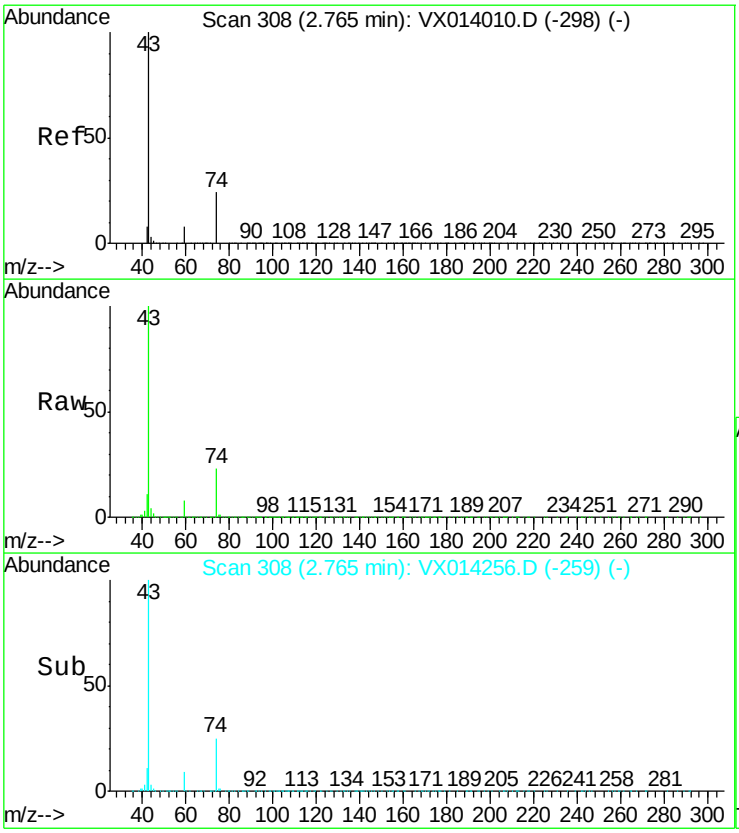


#17
Carbon Disulfide
Concen: 45.109 ug/l
RT: 2.56 min Scan# 275
Delta R.T. 0.01 min
Lab File: VX014256.D
Acq: 24 Dec 2019 19:31

Tgt Ion: 76 Resp: 587298

Ion	Ratio	Lower	Upper
76	100		
78	9.3	7.2	10.8

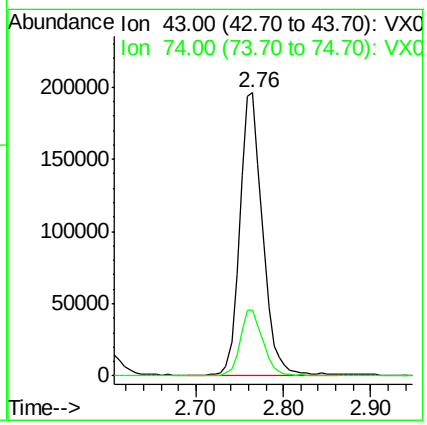




#18
Methyl Acetate
Concen: 49.691 ug/l
RT: 2.76 min Scan# 308
Delta R.T. 0.00 min
Lab File: VX014256.D
Acq: 24 Dec 2019 19:31

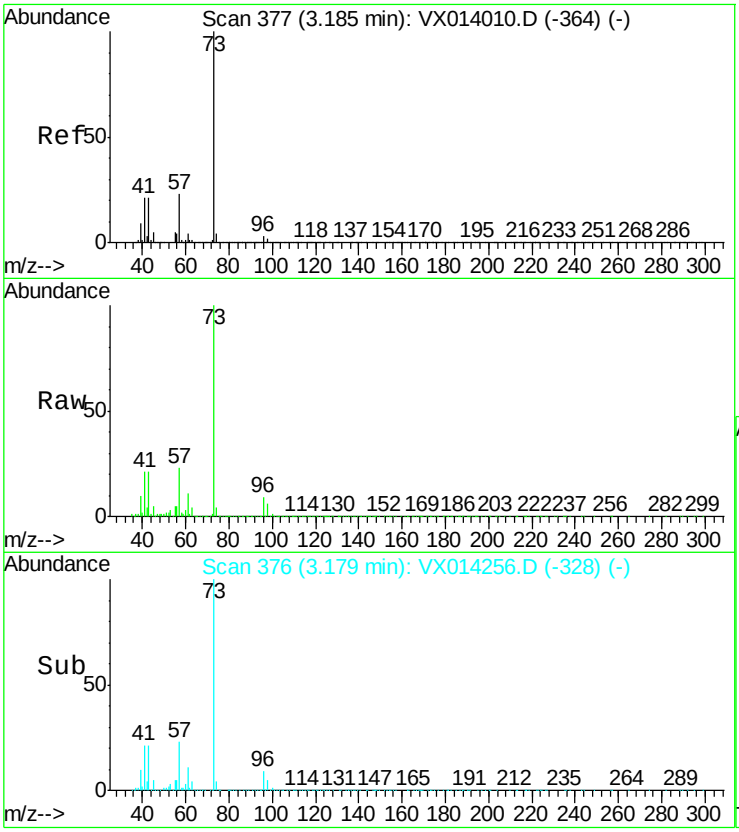
Tgt Ion: 43 Resp: 353803

Ion	Ratio	Lower	Upper
43	100		
74	23.9	19.5	29.3



Instrument :
MSVOA_X
ClientSampleId :
996-MW-15-(17)MSD

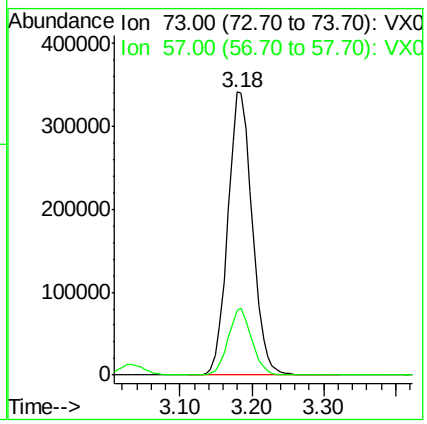
Manual Integrations APPROVED
apatel
12/26/2019 9:24:50 AM

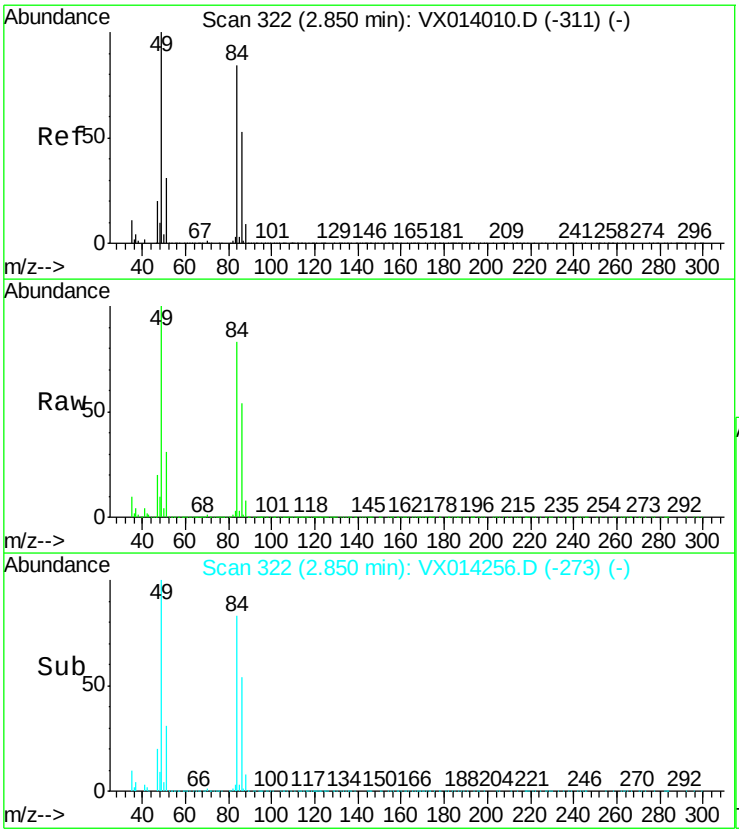


#19
Methyl tert-butyl Ether
Concen: 52.155 ug/l
RT: 3.18 min Scan# 376
Delta R.T. -0.01 min
Lab File: VX014256.D
Acq: 24 Dec 2019 19:31

Tgt Ion: 73 Resp: 805079

Ion	Ratio	Lower	Upper
73	100		
57	22.6	18.8	28.2

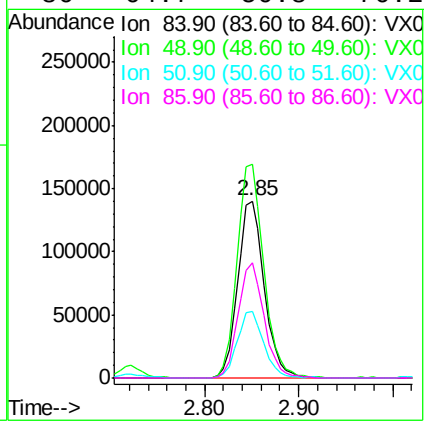




#20
Methylene Chloride
Concen: 48.387 ug/l
RT: 2.85 min Scan# 322
Delta R.T. 0.00 min
Lab File: VX014256.D
Acq: 24 Dec 2019 19:31

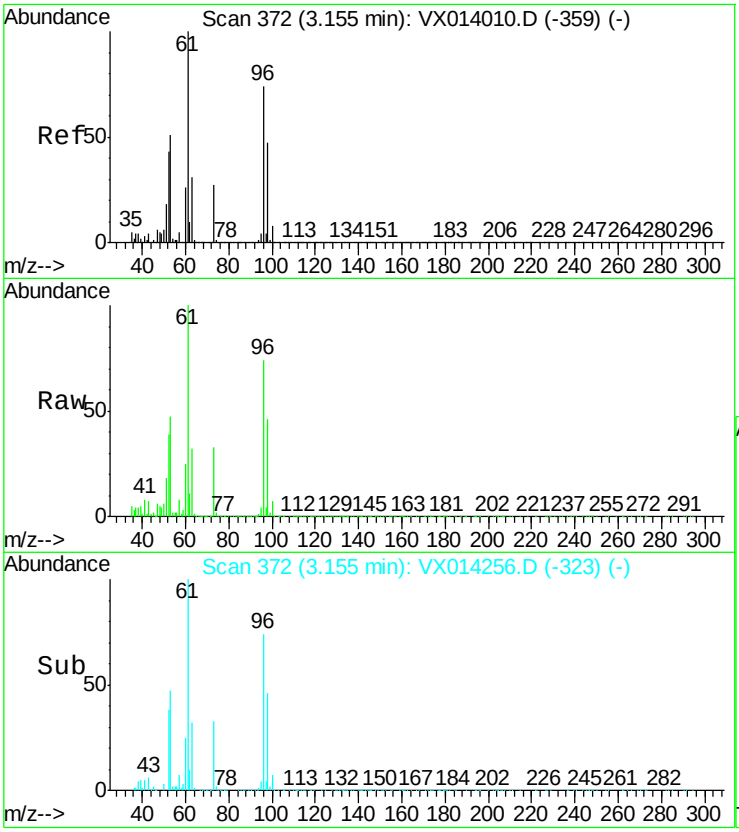
Tgt Ion: 84 Resp: 273788

Ion	Ratio	Lower	Upper
84	100		
49	120.2	95.8	143.6
51	37.2	29.8	44.8
86	64.7	50.8	76.2



Instrument :
MSVOA_X
ClientSampleId :
996-MW-15-(17)MSD

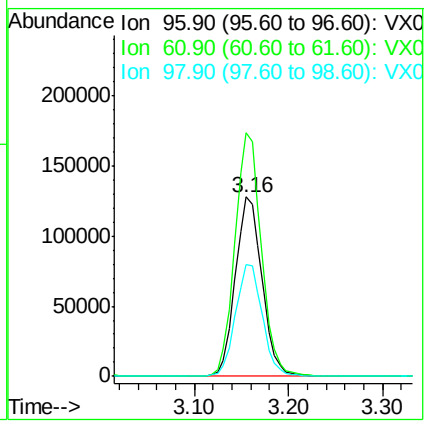
Manual Integrations APPROVED
apatel
12/26/2019 9:24:50 AM

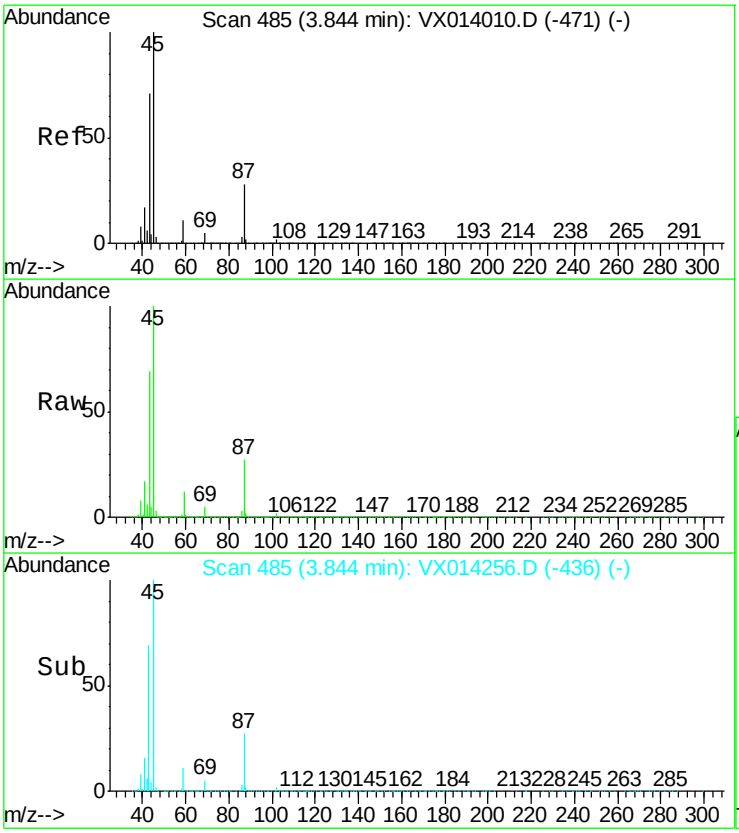


#21
trans-1,2-Dichloroethene
Concen: 48.518 ug/l
RT: 3.16 min Scan# 372
Delta R.T. 0.00 min
Lab File: VX014256.D
Acq: 24 Dec 2019 19:31

Tgt Ion: 96 Resp: 251092

Ion	Ratio	Lower	Upper
96	100		
61	136.0	108.3	162.5
98	62.5	50.8	76.2

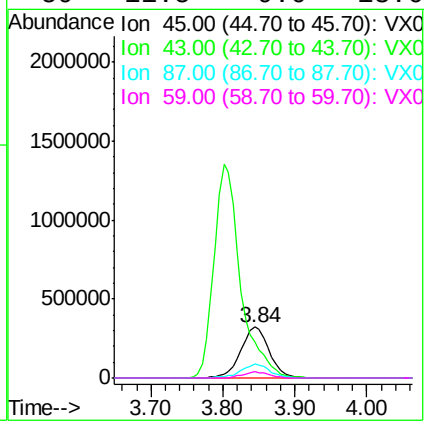




#22
Diisopropyl ether
Concen: 52.627 ug/l
RT: 3.84 min Scan# 485
Delta R.T. 0.00 min
Lab File: VX014256.D
Acq: 24 Dec 2019 19:31

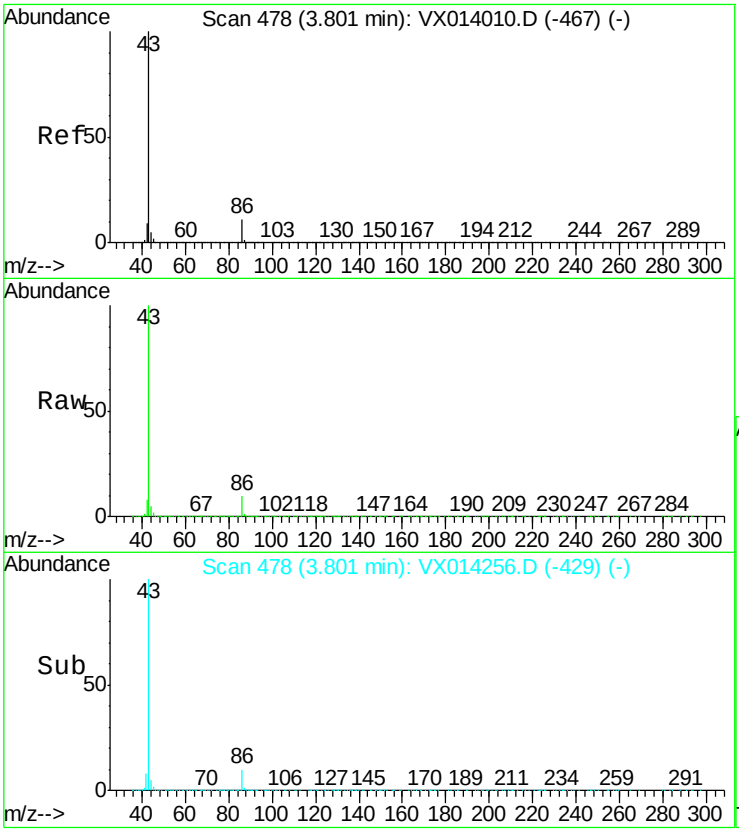
Tgt Ion: 45 Resp: 879598

Ion	Ratio	Lower	Upper
45	100		
43	69.1	57.4	86.0
87	27.4	21.9	32.9
59	11.5	9.0	13.6



Instrument :
MSVOA_X
ClientSampleId :
996-MW-15-(17)MSD

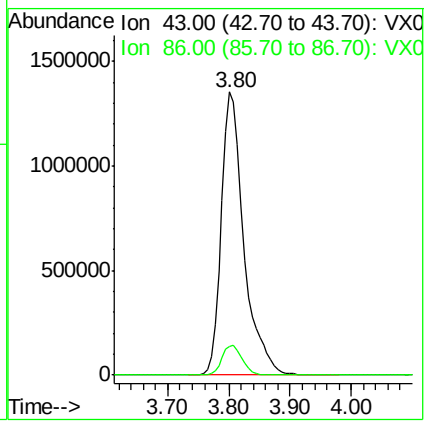
Manual Integrations APPROVED
apatel
12/26/2019 9:24:50 AM

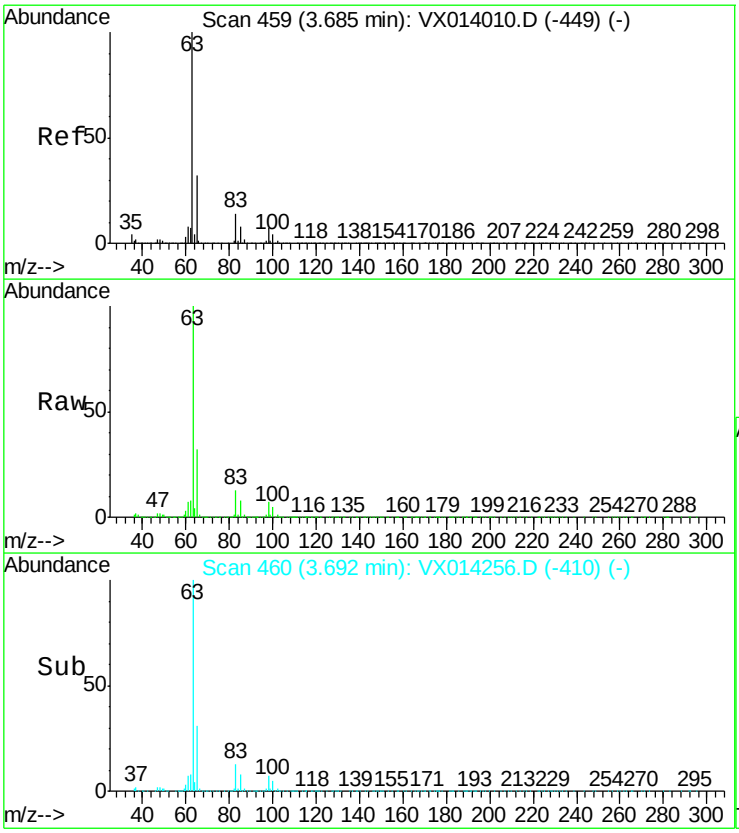


#23
Vinyl Acetate
Concen: 253.977 ug/l
RT: 3.80 min Scan# 478
Delta R.T. 0.00 min
Lab File: VX014256.D
Acq: 24 Dec 2019 19:31

Tgt Ion: 43 Resp: 3464115

Ion	Ratio	Lower	Upper
43	100		
86	10.3	8.6	12.8

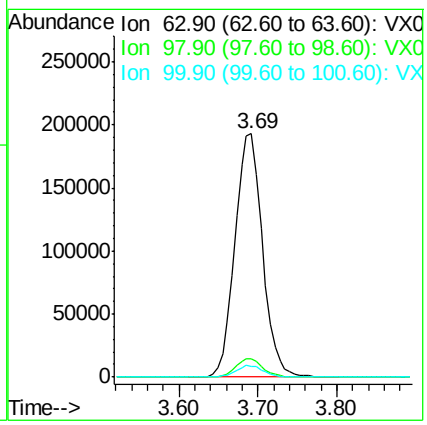




#24
1,1-Dichloroethane
Concen: 50.428 ug/l
RT: 3.69 min Scan# 460
Delta R.T. 0.01 min
Lab File: VX014256.D
Acq: 24 Dec 2019 19:31

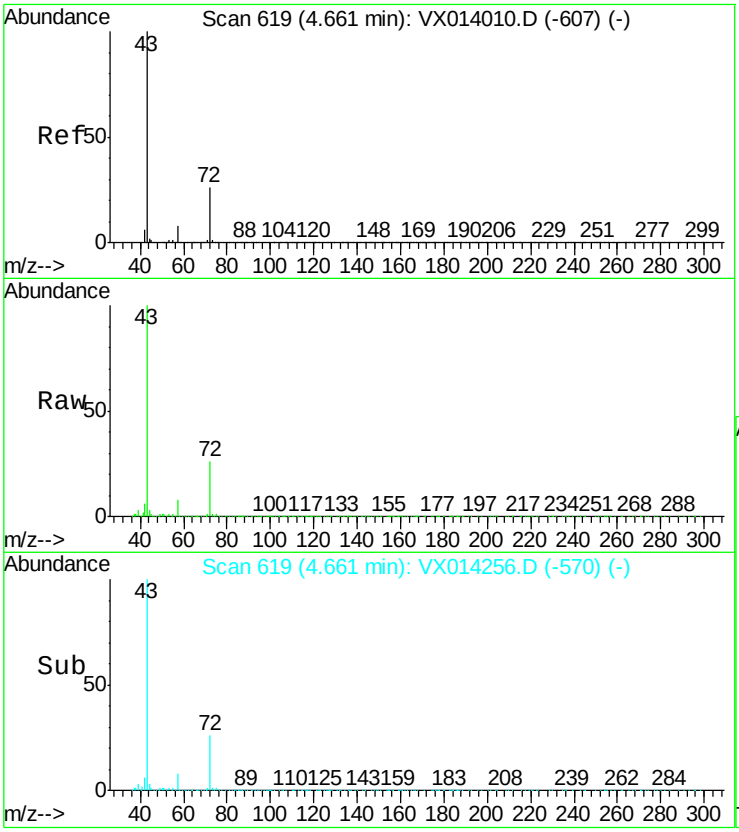
Tgt Ion: 63 Resp: 468929

Ion	Ratio	Lower	Upper
63	100		
98	7.4	3.6	10.8
100	4.5	2.3	6.8



Instrument :
MSVOA_X
ClientSampleId :
996-MW-15-(17)MSD

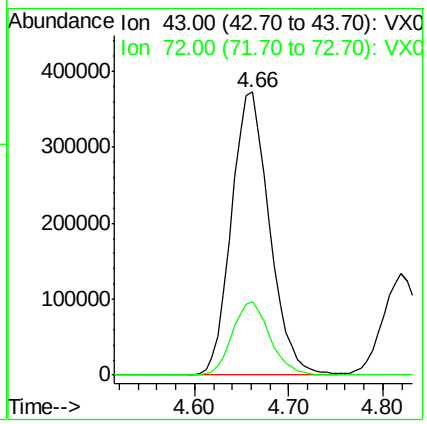
Manual Integrations APPROVED
apatel
12/26/2019 9:24:50 AM

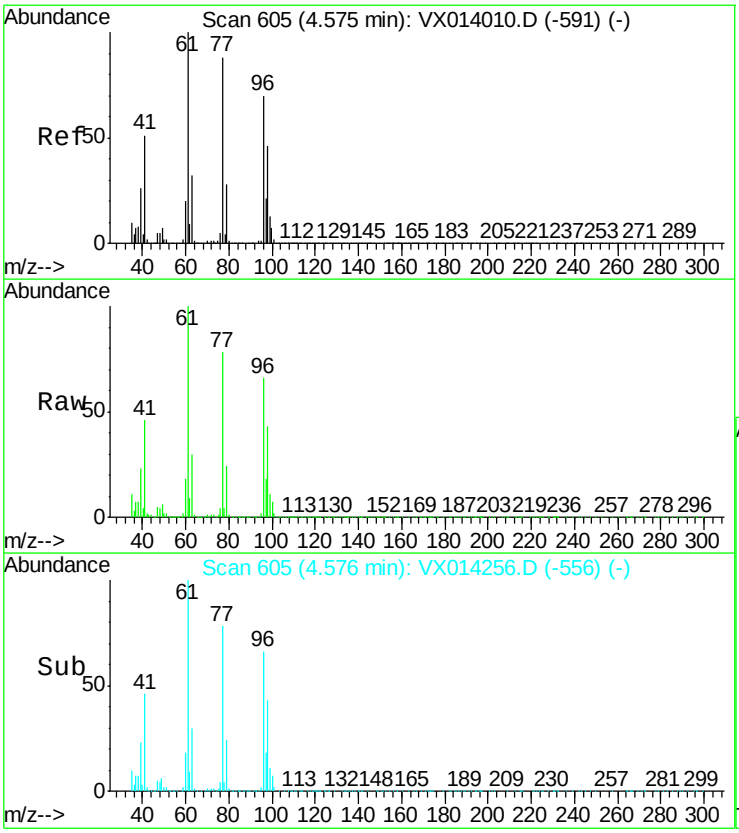


#25
2-Butanone
Concen: 235.059 ug/l
RT: 4.66 min Scan# 619
Delta R.T. 0.00 min
Lab File: VX014256.D
Acq: 24 Dec 2019 19:31

Tgt Ion: 43 Resp: 1041312

Ion	Ratio	Lower	Upper
43	100		
72	25.9	21.0	31.4

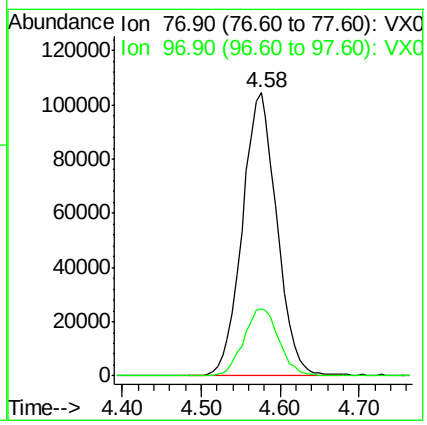




#26
2,2-Dichloropropane
Concen: 44.012 ug/l
RT: 4.58 min Scan# 605
Delta R.T. 0.00 min
Lab File: VX014256.D
Acq: 24 Dec 2019 19:31

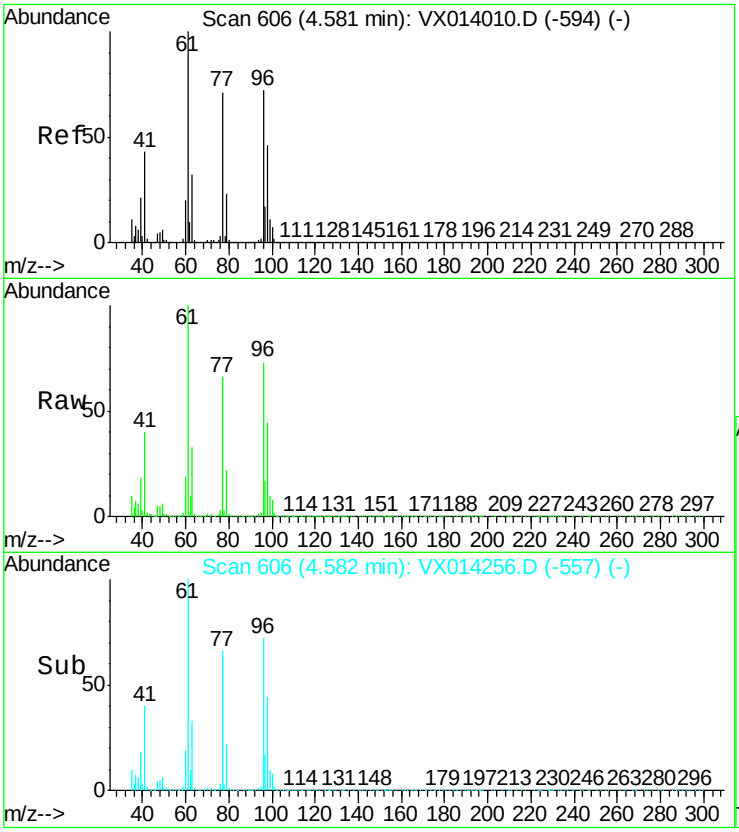
Tgt Ion: 77 Resp: 317761

Ion	Ratio	Lower	Upper
77	100		
97	23.7	11.9	35.9



Instrument :
MSVOA_X
ClientSampleId :
996-MW-15-(17)MSD

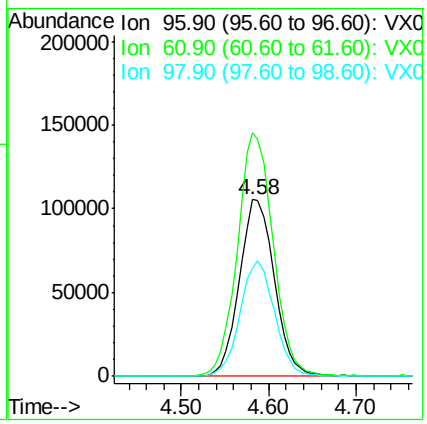
Manual Integrations APPROVED
apatel
12/26/2019 9:24:50 AM

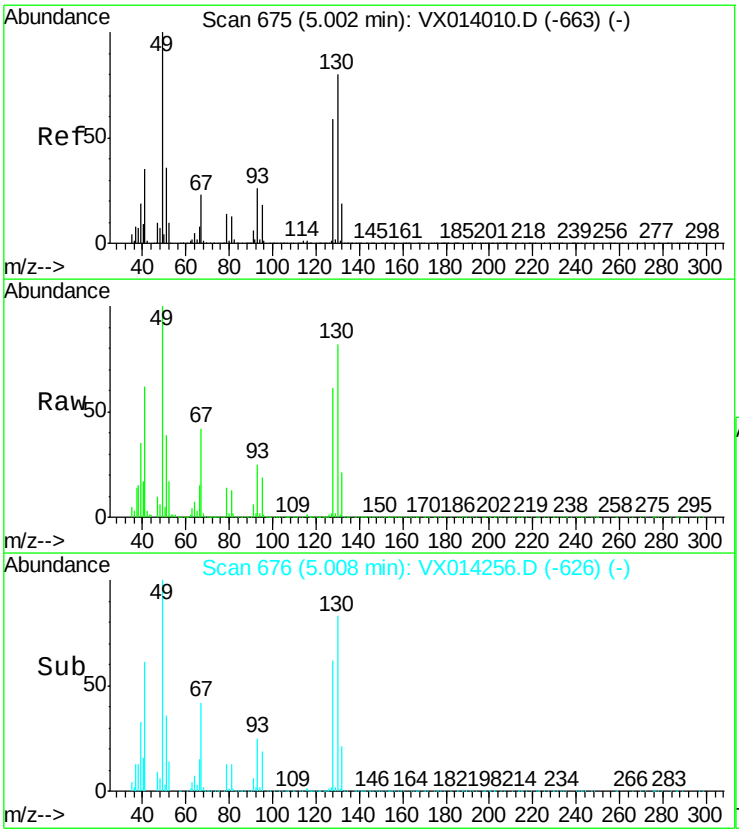


#27
cis-1,2-Dichloroethene
Concen: 50.392 ug/l
RT: 4.58 min Scan# 606
Delta R.T. 0.00 min
Lab File: VX014256.D
Acq: 24 Dec 2019 19:31

Tgt Ion: 96 Resp: 294943

Ion	Ratio	Lower	Upper
96	100		
61	140.5	0.0	288.4
98	63.8	0.0	129.6

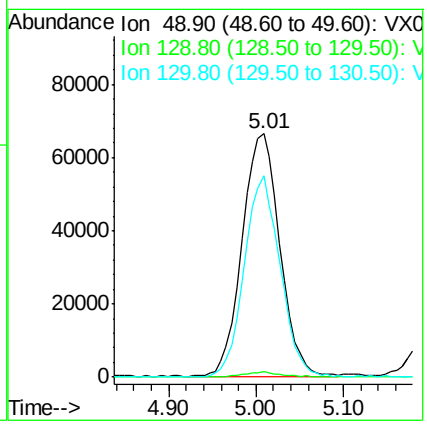




#28
Bromochloromethane
Concen: 55.572 ug/l
RT: 5.01 min Scan# 676
Delta R.T. 0.01 min
Lab File: VX014256.D
Acq: 24 Dec 2019 19:31

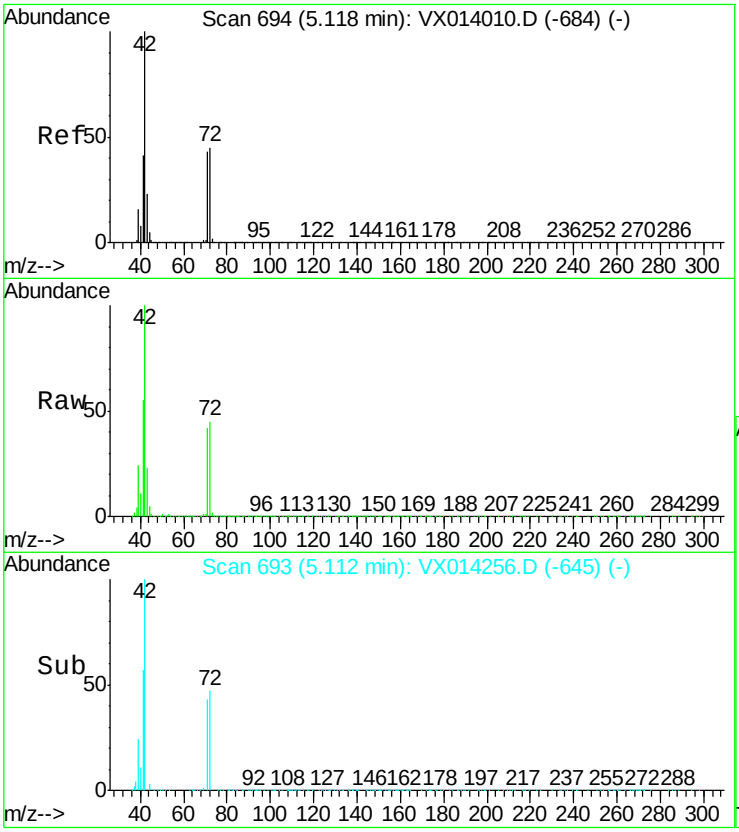
Tgt Ion: 49 Resp: 198920

Ion	Ratio	Lower	Upper
49	100		
129	2.2	0.0	5.0
130	78.6	64.6	97.0



Instrument :
MSVOA_X
ClientSampleId :
996-MW-15-(17)MSD

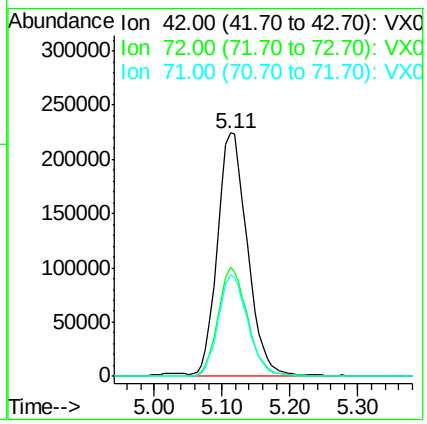
Manual Integrations APPROVED
apatel
12/26/2019 9:24:50 AM

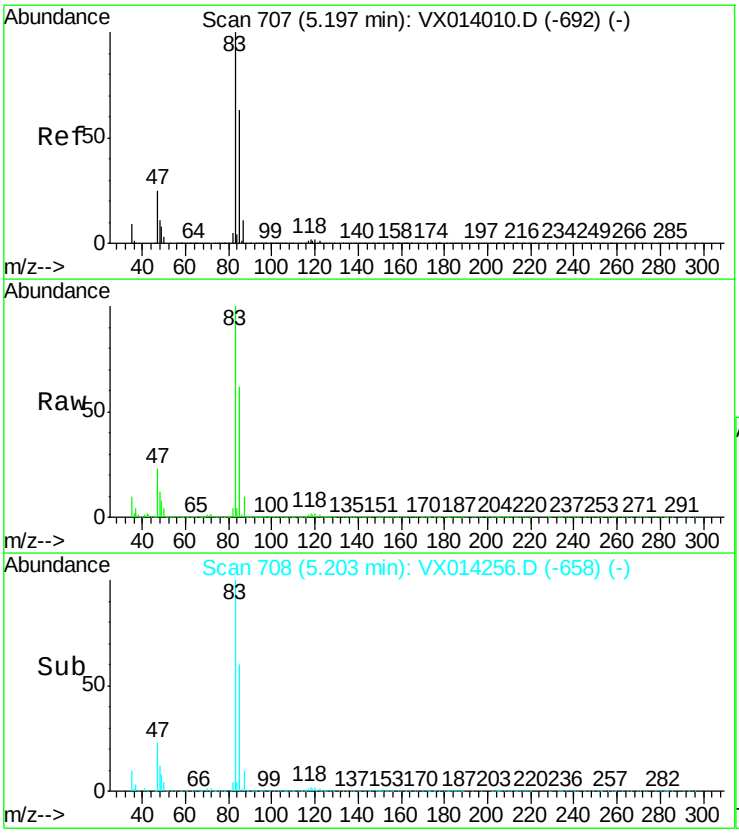


#29
Tetrahydrofuran
Concen: 275.249 ug/l
RT: 5.11 min Scan# 693
Delta R.T. -0.01 min
Lab File: VX014256.D
Acq: 24 Dec 2019 19:31

Tgt Ion: 42 Resp: 682016

Ion	Ratio	Lower	Upper
42	100		
72	44.5	35.8	53.8
71	41.4	33.6	50.4

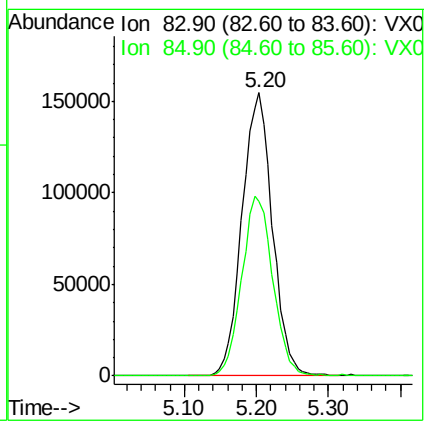




#30
Chloroform
Concen: 51.287 ug/l
RT: 5.20 min Scan# 708
Delta R.T. 0.01 min
Lab File: VX014256.D
Acq: 24 Dec 2019 19:31

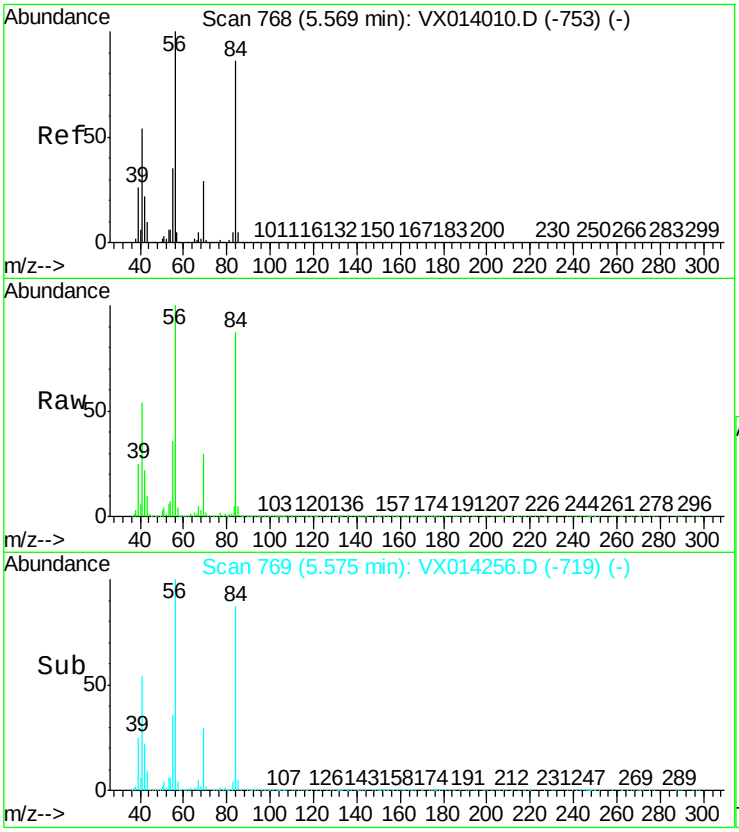
Tgt Ion: 83 Resp: 452105

Ion	Ratio	Lower	Upper
83	100		
85	61.6	50.8	76.2



Instrument :
MSVOA_X
ClientSampleId :
996-MW-15-(17)MSD

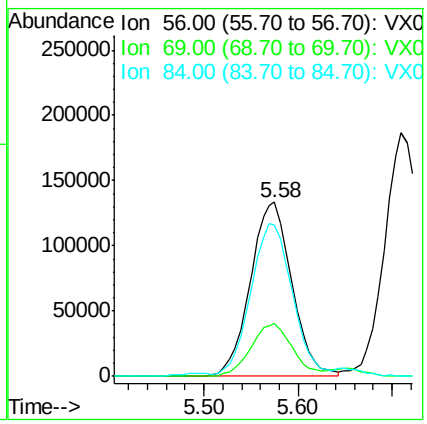
Manual Integrations APPROVED
apatel
12/26/2019 9:24:50 AM

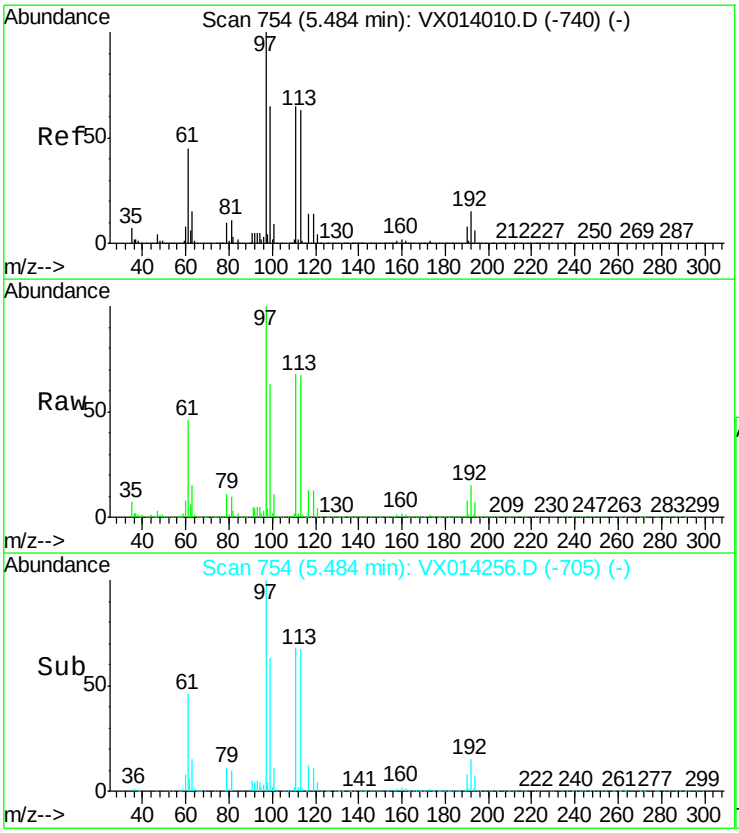


#31
Cyclohexane
Concen: 49.703 ug/l
RT: 5.58 min Scan# 769
Delta R.T. 0.01 min
Lab File: VX014256.D
Acq: 24 Dec 2019 19:31

Tgt Ion: 56 Resp: 411064

Ion	Ratio	Lower	Upper
56	100		
69	30.3	23.2	34.8
84	85.2	69.2	103.8

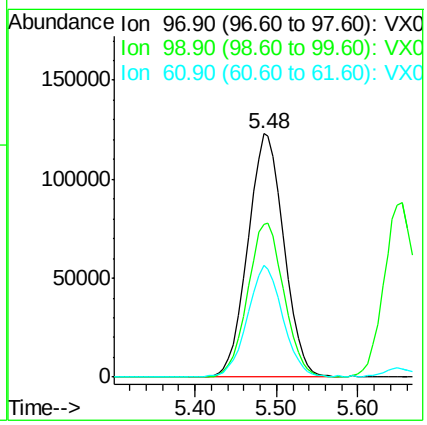




#32
1,1,1-Trichloroethane
Concen: 50.325 ug/l
RT: 5.48 min Scan# 754
Delta R.T. 0.00 min
Lab File: VX014256.D
Acq: 24 Dec 2019 19:31

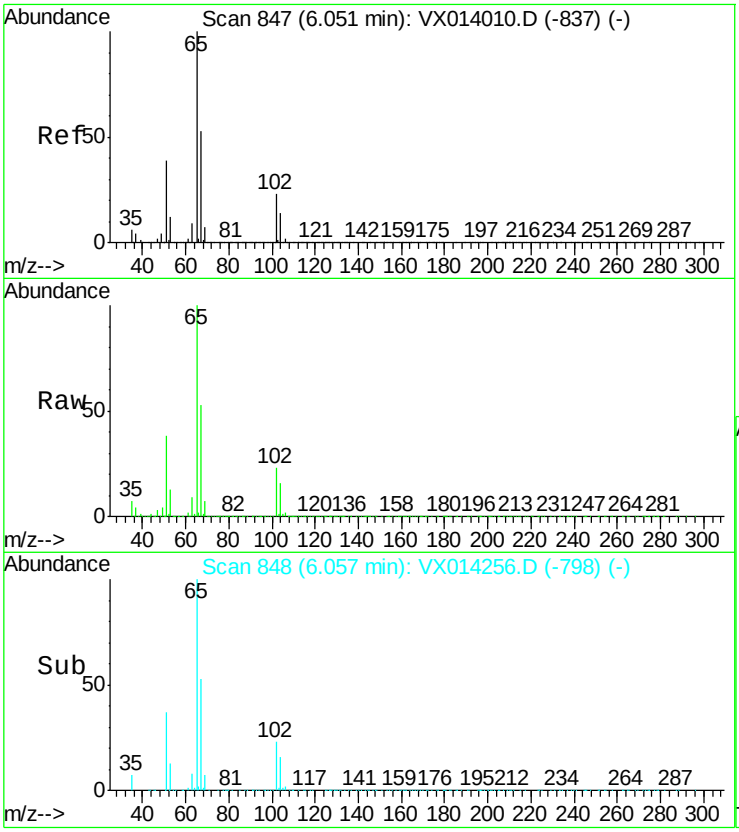
Tgt Ion: 97 Resp: 378086

Ion	Ratio	Lower	Upper
97	100		
99	63.4	52.0	78.0
61	44.9	36.7	55.1



Instrument :
MSVOA_X
ClientSampleId :
996-MW-15-(17)MSD

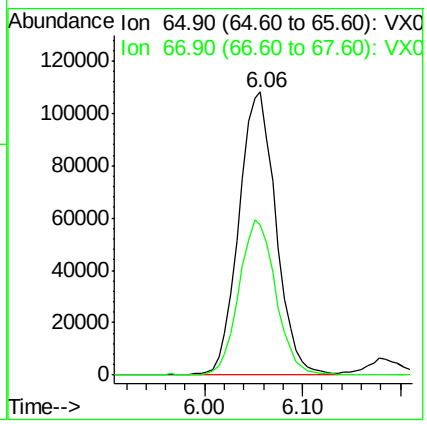
Manual Integrations APPROVED
apatel
12/26/2019 9:24:50 AM

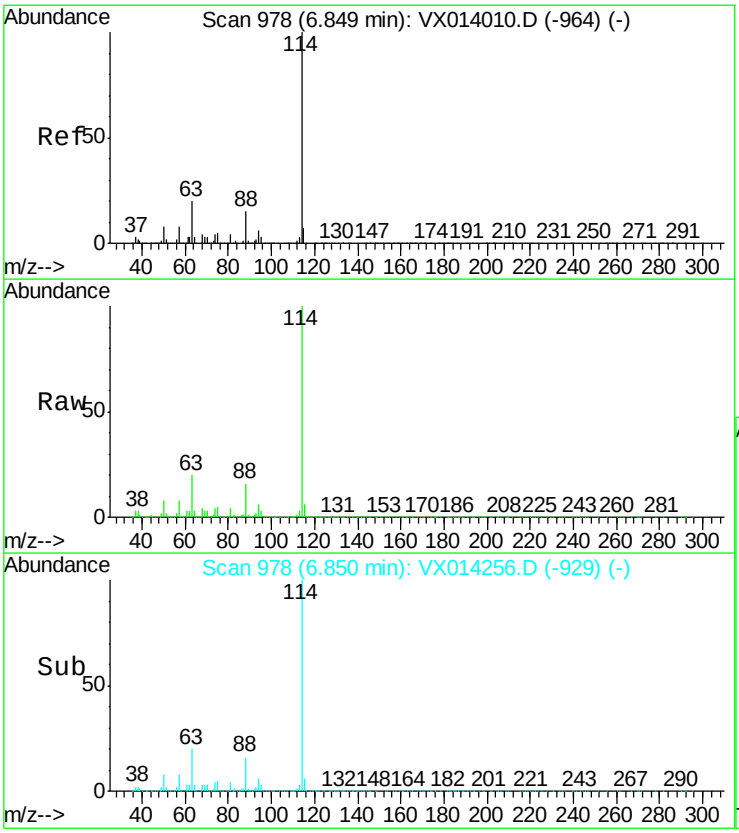


#33
1,2-Dichloroethane-d4
Concen: 51.124 ug/l
RT: 6.06 min Scan# 848
Delta R.T. 0.01 min
Lab File: VX014256.D
Acq: 24 Dec 2019 19:31

Tgt Ion: 65 Resp: 282953

Ion	Ratio	Lower	Upper
65	100		
67	54.5	0.0	106.4

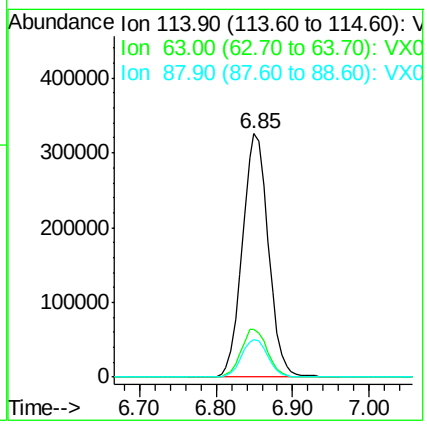




#34
1,4-Difluorobenzene
Concen: 50.000 ug/l
RT: 6.85 min Scan# 978
Delta R.T. 0.00 min
Lab File: VX014256.D
Acq: 24 Dec 2019 19:31

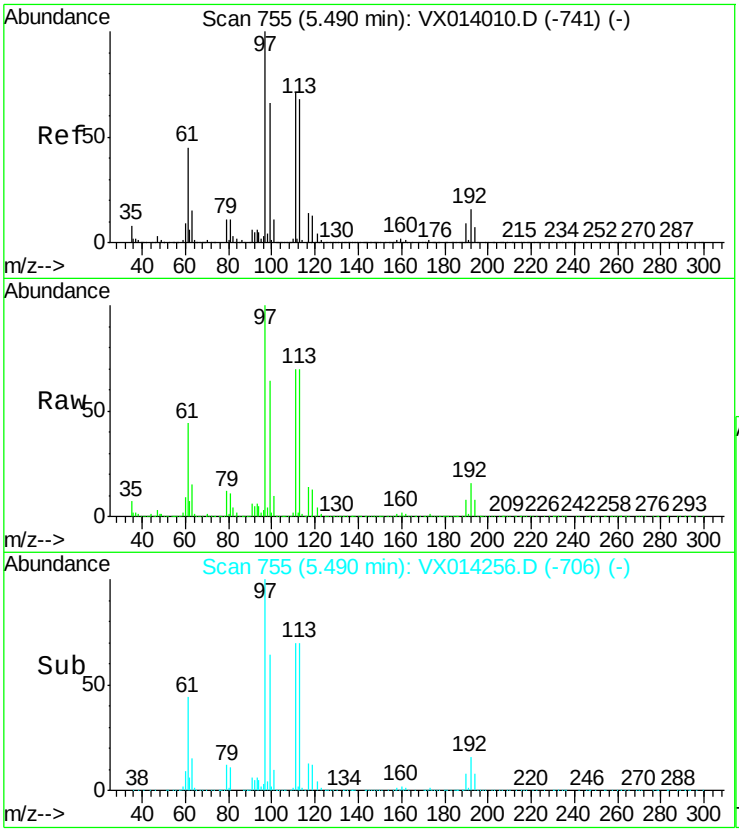
Tgt Ion:114 Resp: 767359

Ion	Ratio	Lower	Upper
114	100		
63	19.7	0.0	40.8
88	15.5	0.0	30.4



Instrument :
MSVOA_X
ClientSampleId :
996-MW-15-(17)MSD

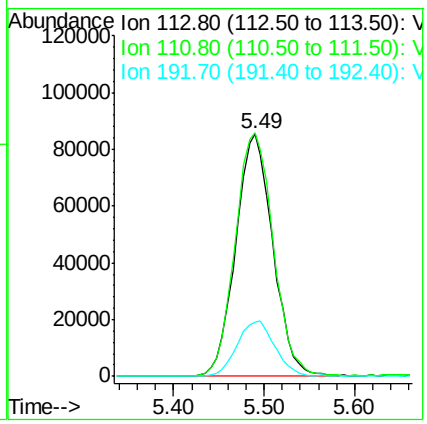
Manual Integrations APPROVED
apatel
12/26/2019 9:24:50 AM

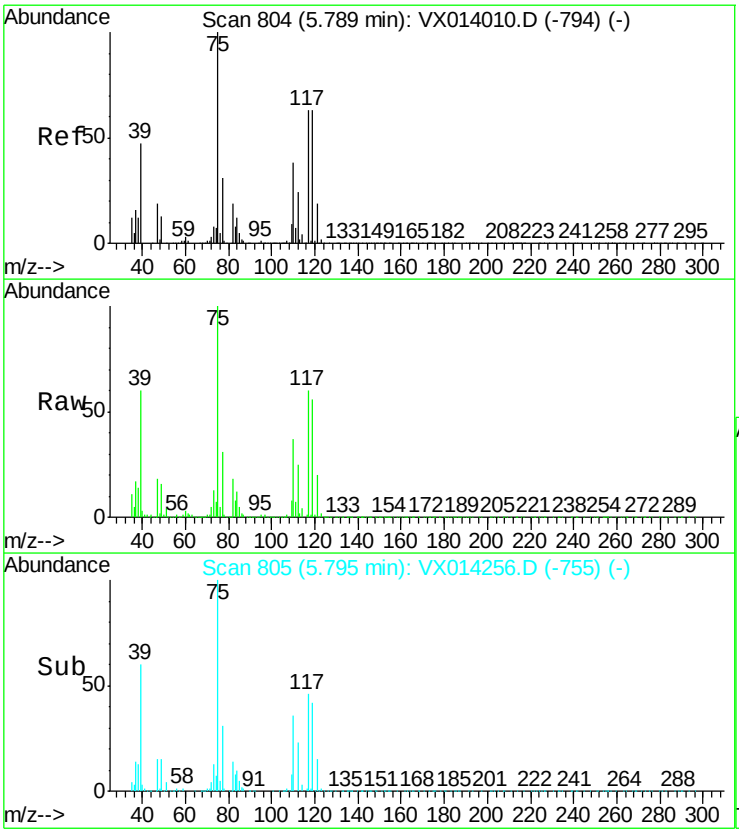


#35
Dibromofluoromethane
Concen: 51.683 ug/l
RT: 5.49 min Scan# 755
Delta R.T. 0.00 min
Lab File: VX014256.D
Acq: 24 Dec 2019 19:31

Tgt Ion:113 Resp: 241087

Ion	Ratio	Lower	Upper
113	100		
111	103.6	82.0	123.0
192	23.5	19.3	28.9

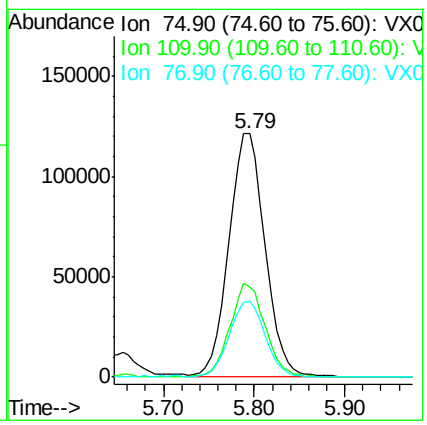




#36
1,1-Dichloropropene
Concen: 47.238 ug/l
RT: 5.79 min Scan# 805
Delta R.T. 0.01 min
Lab File: VX014256.D
Acq: 24 Dec 2019 19:31

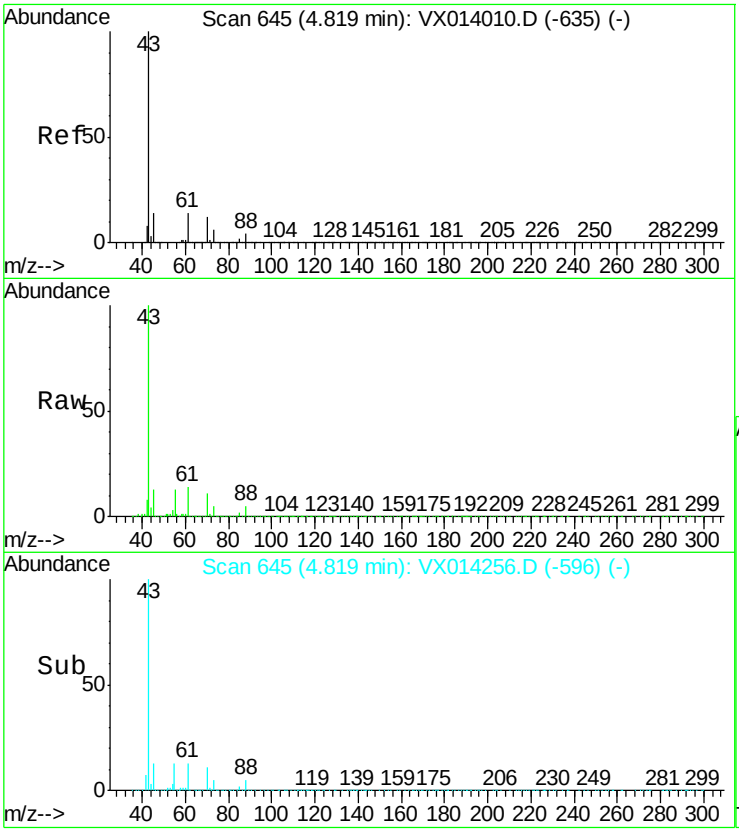
Tgt Ion: 75 Resp: 332600

Ion	Ratio	Lower	Upper
75	100		
110	37.4	18.3	54.9
77	30.7	24.8	37.2



Instrument :
MSVOA_X
ClientSampleId :
996-MW-15-(17)MSD

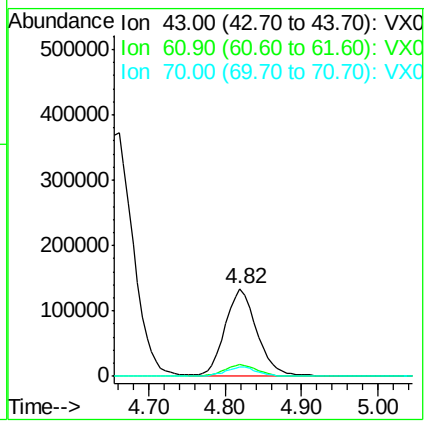
Manual Integrations APPROVED
apatel
12/26/2019 9:24:50 AM

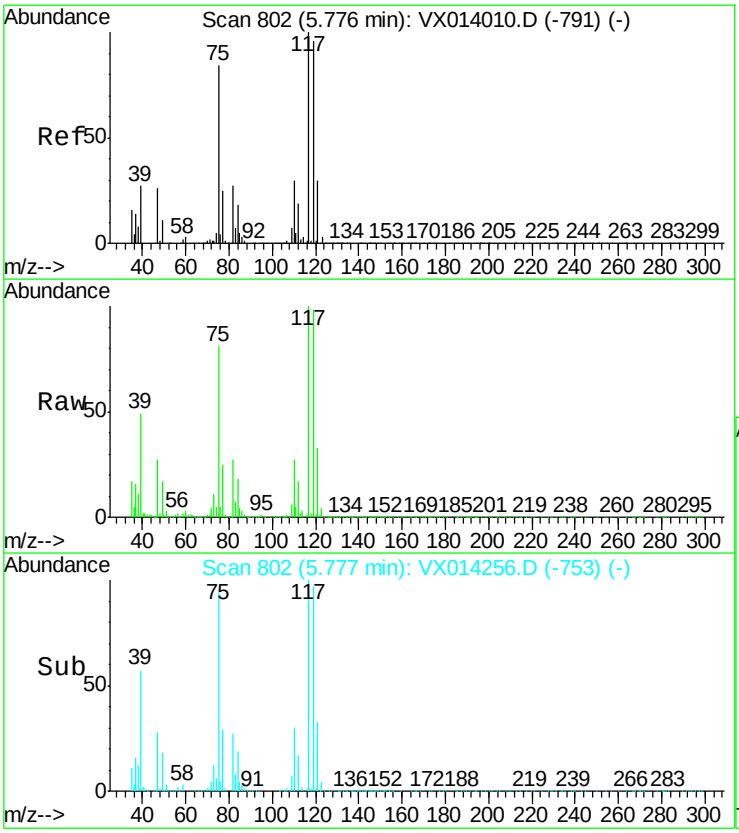


#37
Ethyl Acetate
Concen: 48.994 ug/l
RT: 4.82 min Scan# 645
Delta R.T. 0.00 min
Lab File: VX014256.D
Acq: 24 Dec 2019 19:31

Tgt Ion: 43 Resp: 380941

Ion	Ratio	Lower	Upper
43	100		
61	13.6	10.8	16.2
70	10.5	8.6	12.8

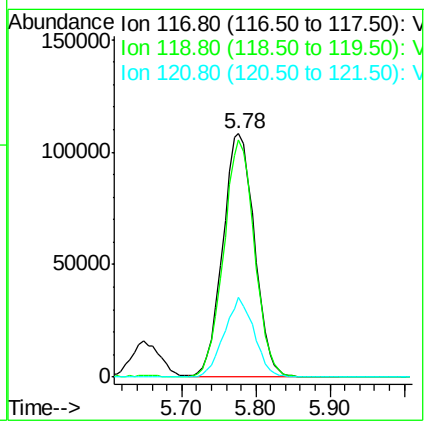




#38
Carbon Tetrachloride
Concen: 49.855 ug/l
RT: 5.78 min Scan# 802
Delta R.T. 0.00 min
Lab File: VX014256.D
Acq: 24 Dec 2019 19:31

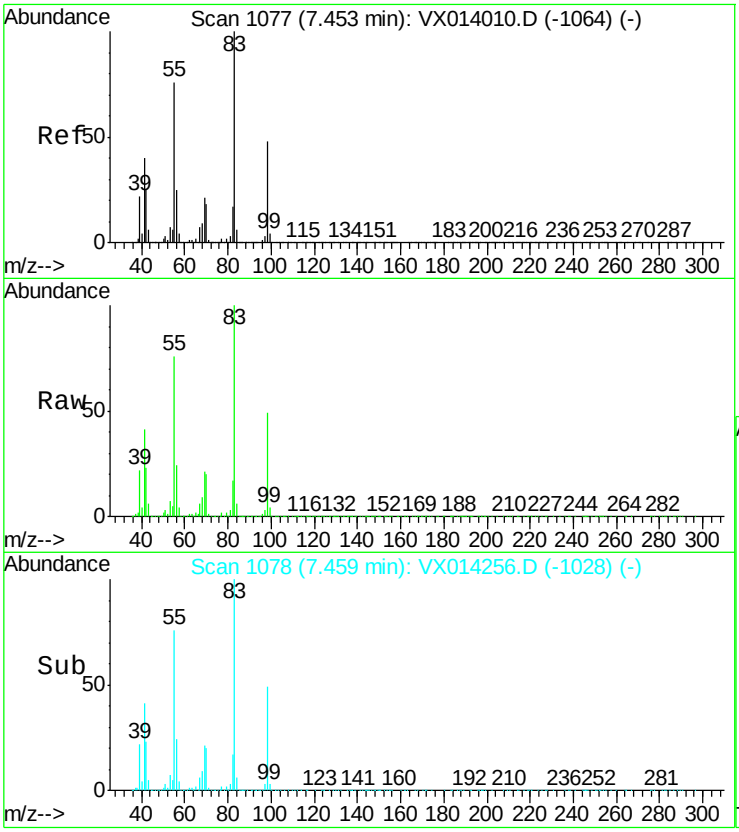
Tgt Ion:117 Resp: 319783

Ion	Ratio	Lower	Upper
117	100		
119	97.6	76.2	114.4
121	32.6	23.6	35.4



Instrument :
MSVOA_X
ClientSampleId :
996-MW-15-(17)MSD

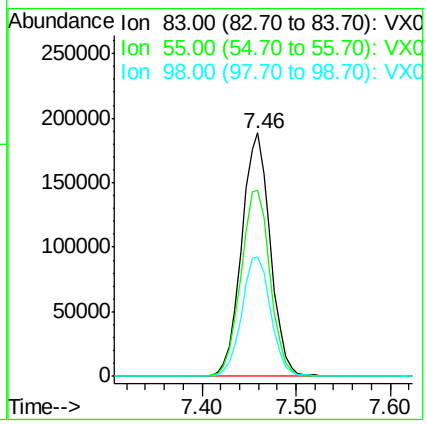
Manual Integrations APPROVED
apatel
12/26/2019 9:24:50 AM

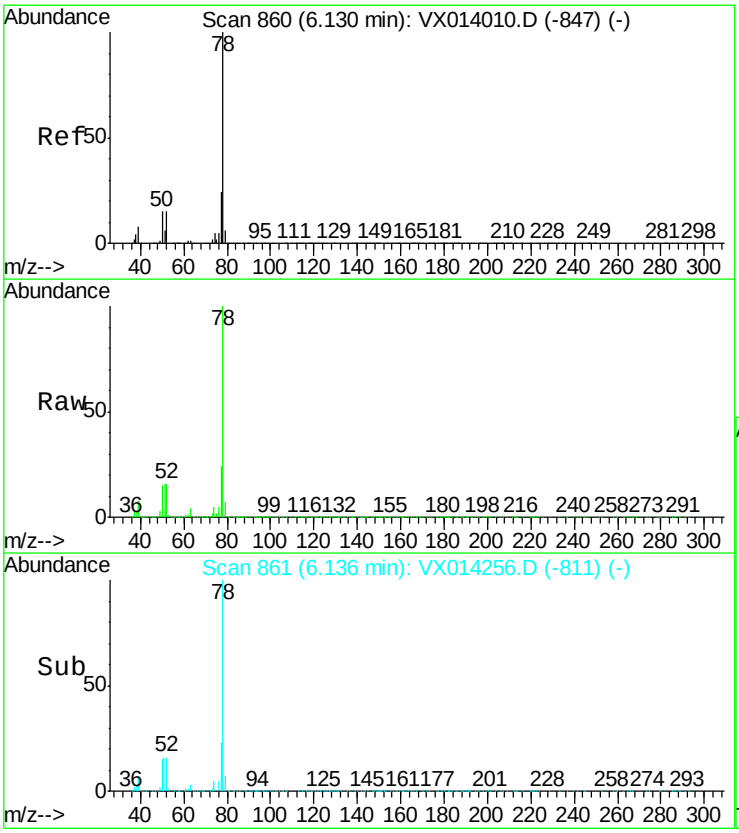


#39
Methylcyclohexane
Concen: 46.051 ug/l
RT: 7.46 min Scan# 1078
Delta R.T. 0.01 min
Lab File: VX014256.D
Acq: 24 Dec 2019 19:31

Tgt Ion: 83 Resp: 400357

Ion	Ratio	Lower	Upper
83	100		
55	76.4	61.0	91.6
98	48.8	38.6	57.8

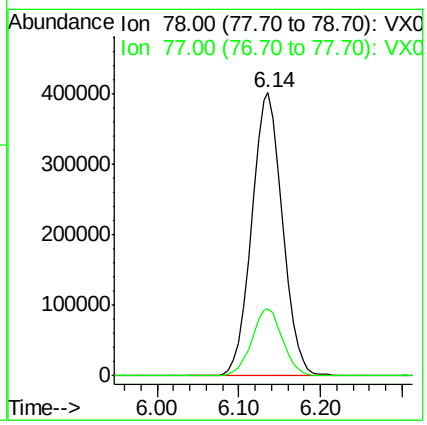




#40
Benzene
Concen: 48.723 ug/l
RT: 6.14 min Scan# 861
Delta R.T. 0.01 min
Lab File: VX014256.D
Acq: 24 Dec 2019 19:31

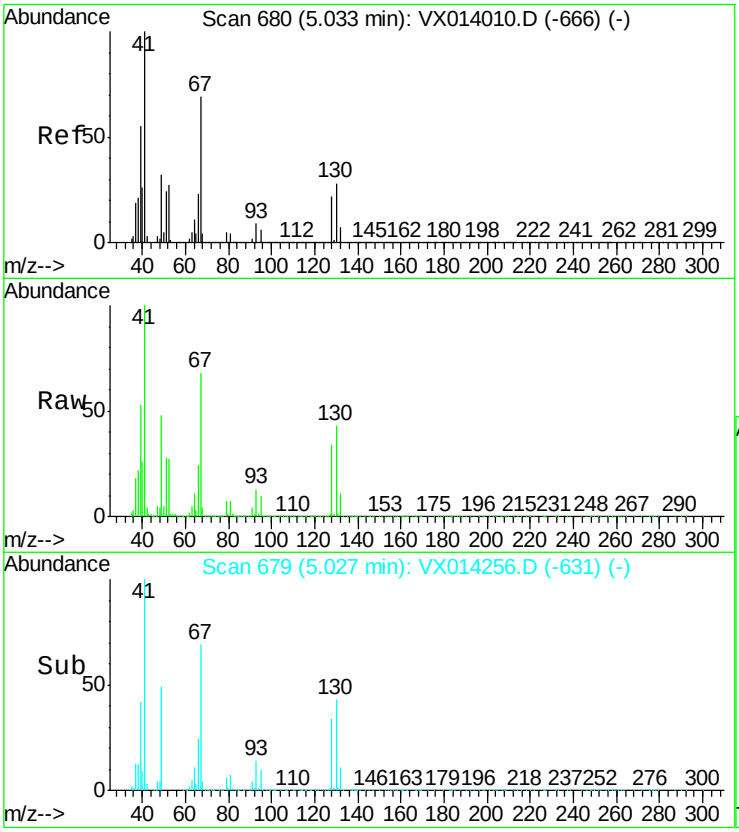
Tgt Ion: 78 Resp: 1055542

Ion	Ratio	Lower	Upper
78	100		
77	23.8	18.8	28.2



Instrument :
MSVOA_X
ClientSampleId :
996-MW-15-(17)MSD

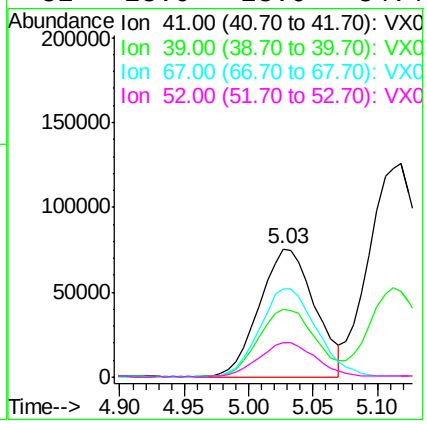
Manual Integrations APPROVED
apatel
12/26/2019 9:24:50 AM

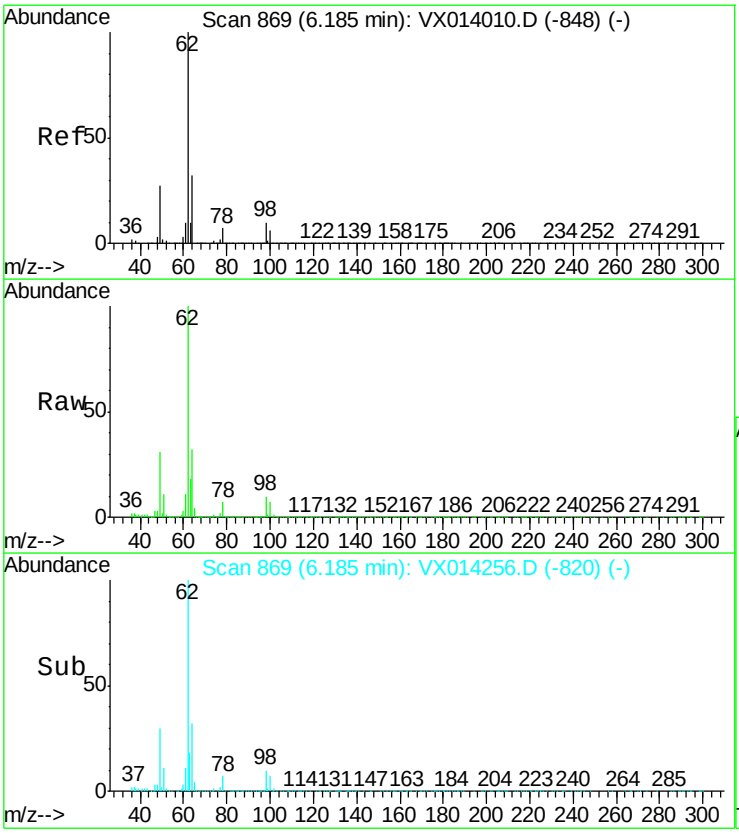


#41
Methacrylonitrile
Concen: 52.074 ug/l
RT: 5.03 min Scan# 679
Delta R.T. -0.01 min
Lab File: VX014256.D
Acq: 24 Dec 2019 19:31

Tgt Ion: 41 Resp: 224651

Ion	Ratio	Lower	Upper
41	100		
39	55.8	44.5	66.7
67	71.0	57.4	86.0
52	28.0	23.0	34.4

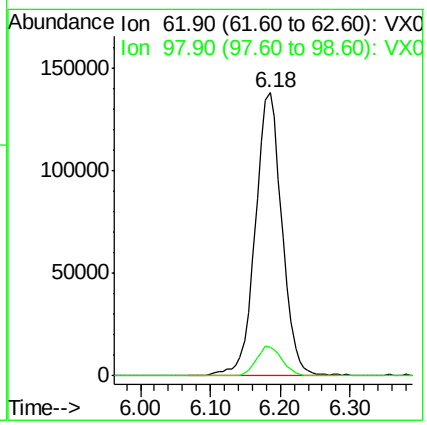




#42
1,2-Dichloroethane
Concen: 49.285 ug/l
RT: 6.18 min Scan# 869
Delta R.T. 0.00 min
Lab File: VX014256.D
Acq: 24 Dec 2019 19:31

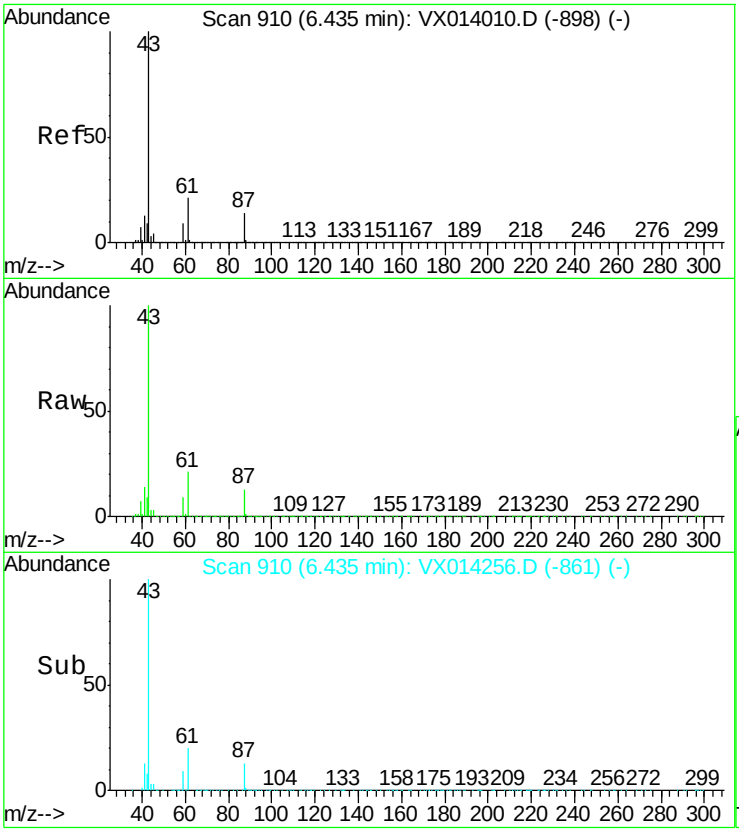
Tgt Ion: 62 Resp: 361931

Ion	Ratio	Lower	Upper
62	100		
98	10.1	0.0	21.0



Instrument :
MSVOA_X
ClientSampleId :
996-MW-15-(17)MSD

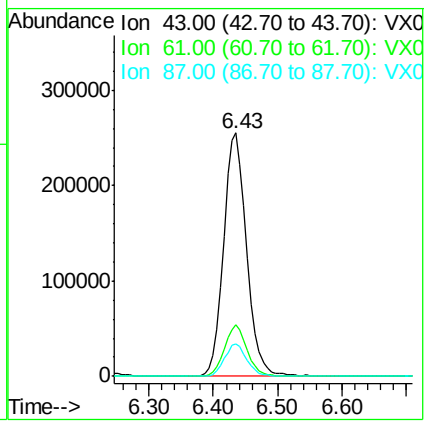
Manual Integrations APPROVED
apatel
12/26/2019 9:24:50 AM

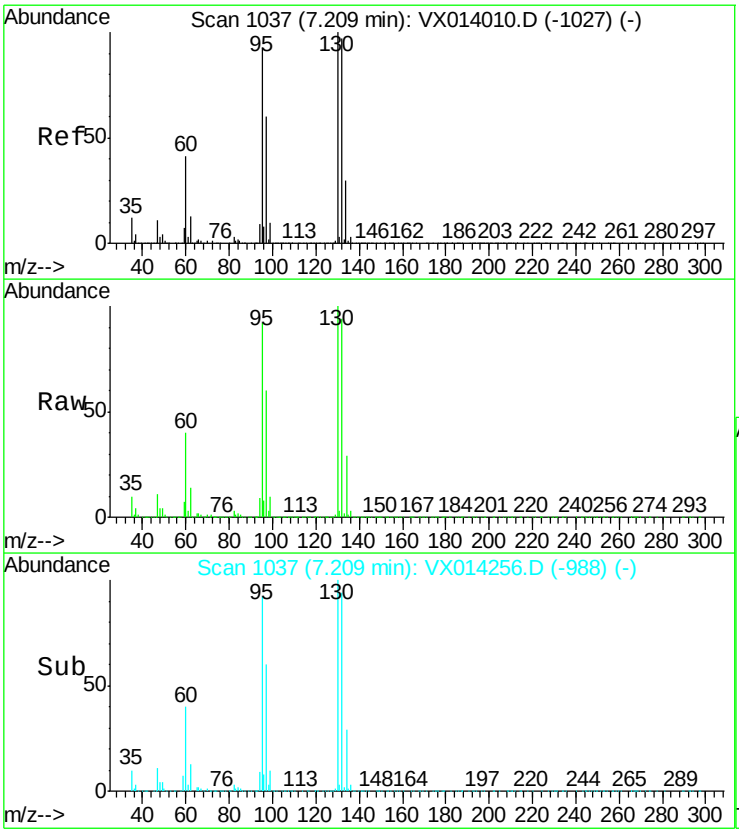


#43
Isopropyl Acetate
Concen: 49.643 ug/l
RT: 6.43 min Scan# 910
Delta R.T. 0.00 min
Lab File: VX014256.D
Acq: 24 Dec 2019 19:31

Tgt Ion: 43 Resp: 638787

Ion	Ratio	Lower	Upper
43	100		
61	20.6	16.4	24.6
87	13.0	10.7	16.1

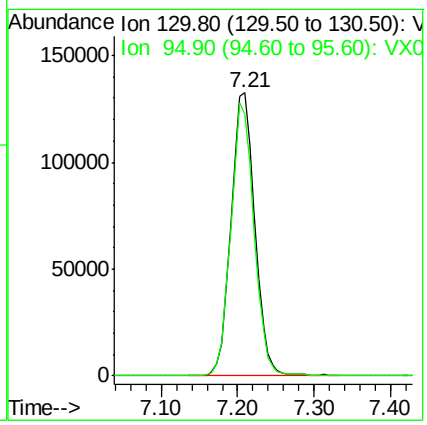




#44
Trichloroethene
Concen: 47.749 ug/l
RT: 7.21 min Scan# 1037
Delta R.T. 0.00 min
Lab File: VX014256.D
Acq: 24 Dec 2019 19:31

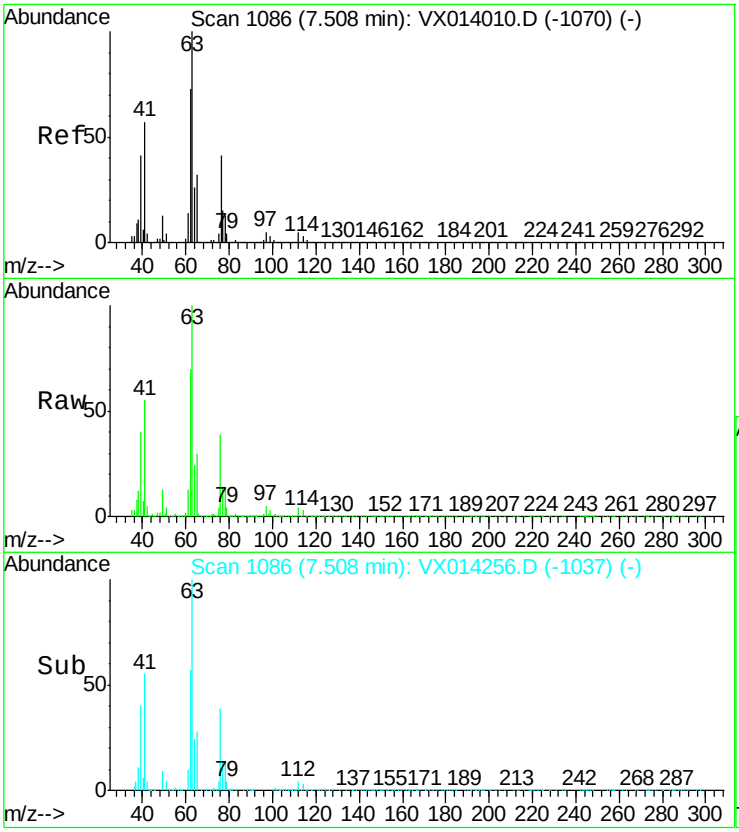
Tgt Ion:130 Resp: 285721

Ion	Ratio	Lower	Upper
130	100		
95	92.5	0.0	185.6



Instrument :
MSVOA_X
ClientSampleId :
996-MW-15-(17)MSD

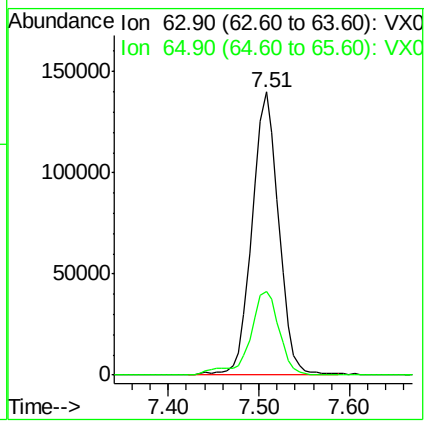
Manual Integrations APPROVED
apatel
12/26/2019 9:24:50 AM

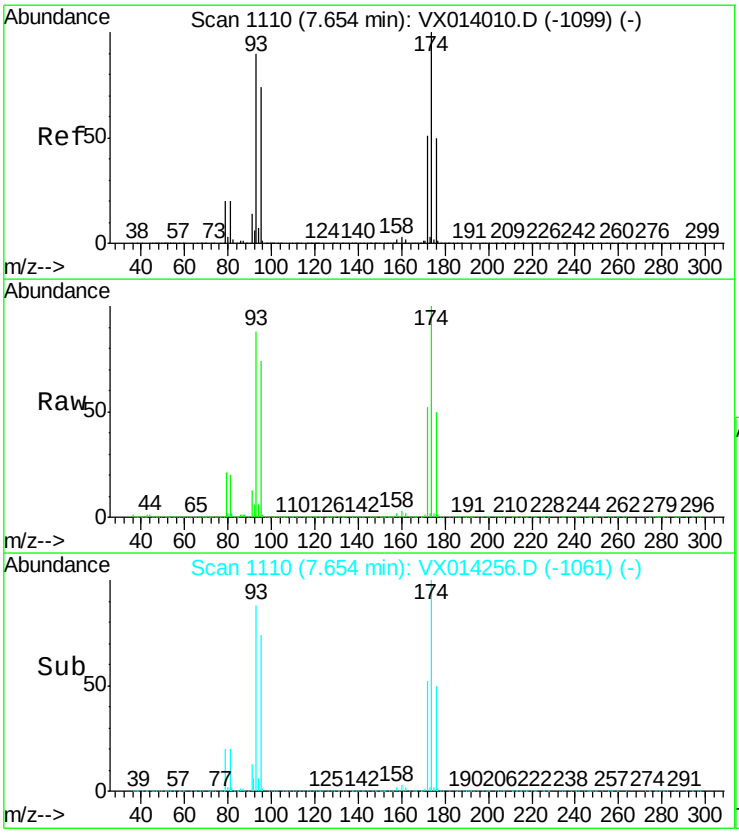


#45
1,2-Dichloropropane
Concen: 50.966 ug/l
RT: 7.51 min Scan# 1086
Delta R.T. 0.00 min
Lab File: VX014256.D
Acq: 24 Dec 2019 19:31

Tgt Ion: 63 Resp: 282998

Ion	Ratio	Lower	Upper
63	100		
65	29.5	25.8	38.8

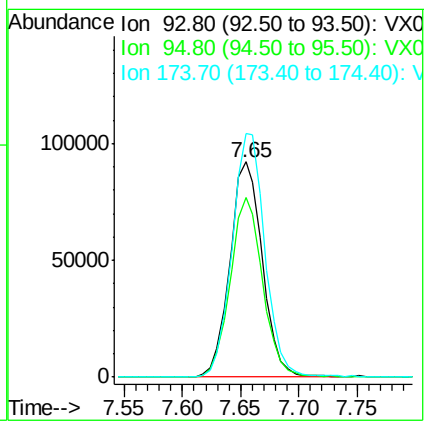




#46
Dibromomethane
Concen: 48.363 ug/l
RT: 7.65 min Scan# 1110
Delta R.T. 0.00 min
Lab File: VX014256.D
Acq: 24 Dec 2019 19:31

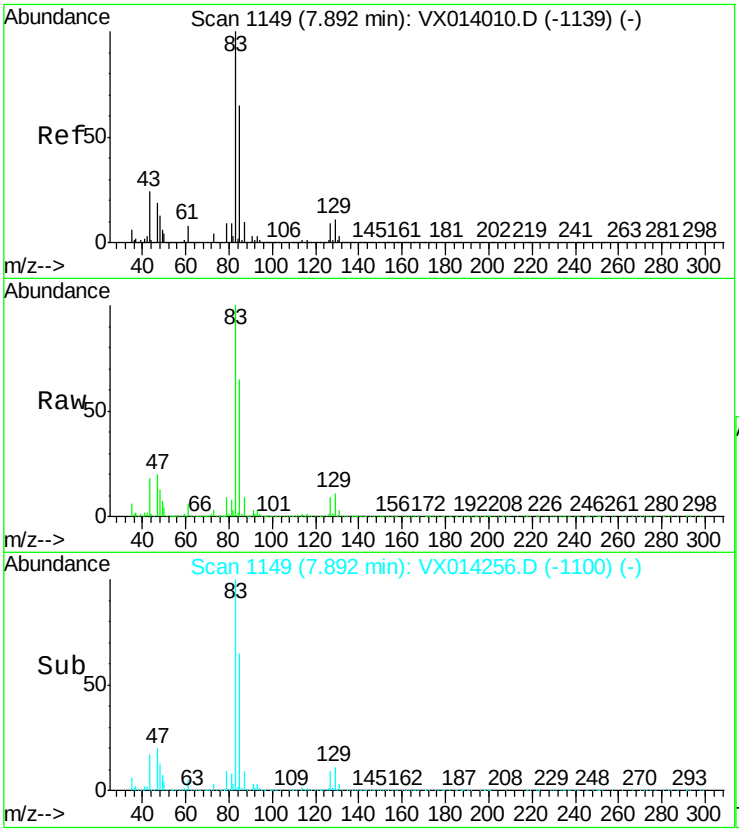
Tgt Ion: 93 Resp: 177549

Ion	Ratio	Lower	Upper
93	100		
95	83.5	67.3	100.9
174	115.3	91.6	137.4



Instrument :
MSVOA_X
ClientSampleId :
996-MW-15-(17)MSD

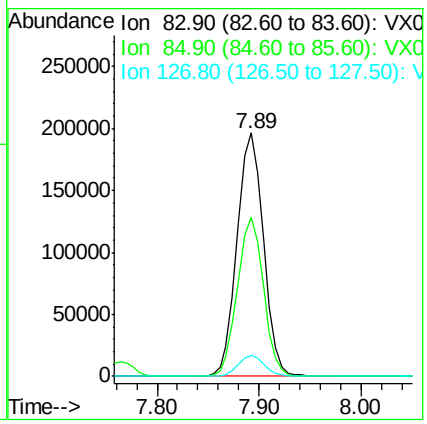
Manual Integrations APPROVED
apatel
12/26/2019 9:24:50 AM

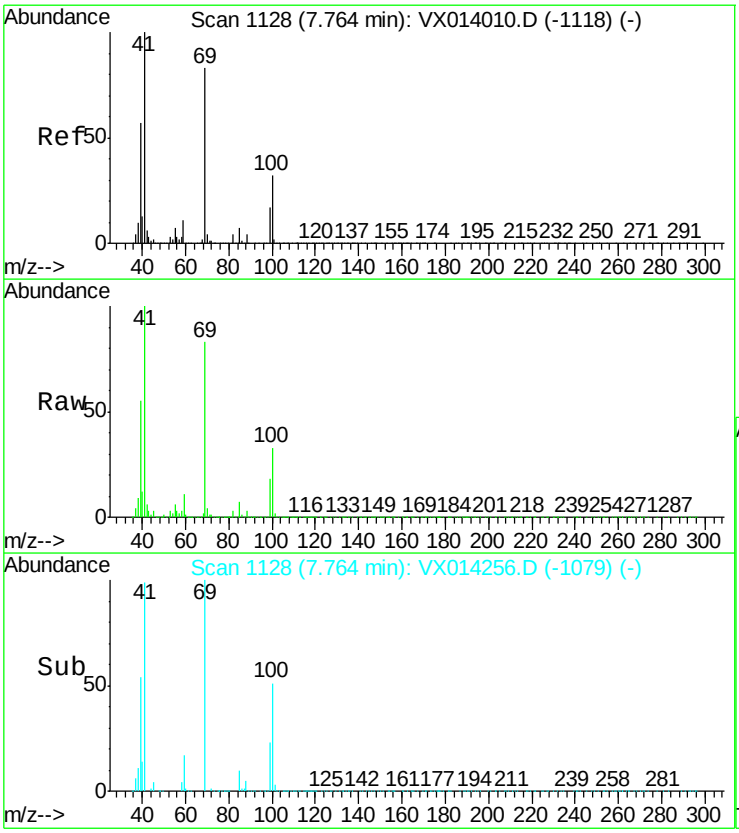


#47
Bromodichloromethane
Concen: 50.911 ug/l
RT: 7.89 min Scan# 1149
Delta R.T. 0.00 min
Lab File: VX014256.D
Acq: 24 Dec 2019 19:31

Tgt Ion: 83 Resp: 352008

Ion	Ratio	Lower	Upper
83	100		
85	65.2	51.8	77.8
127	8.6	7.0	10.4

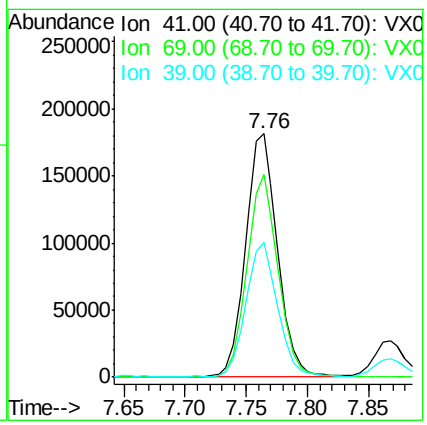




#48
Methyl methacrylate
Concen: 51.870 ug/l
RT: 7.76 min Scan# 1128
Delta R.T. 0.00 min
Lab File: VX014256.D
Acq: 24 Dec 2019 19:31

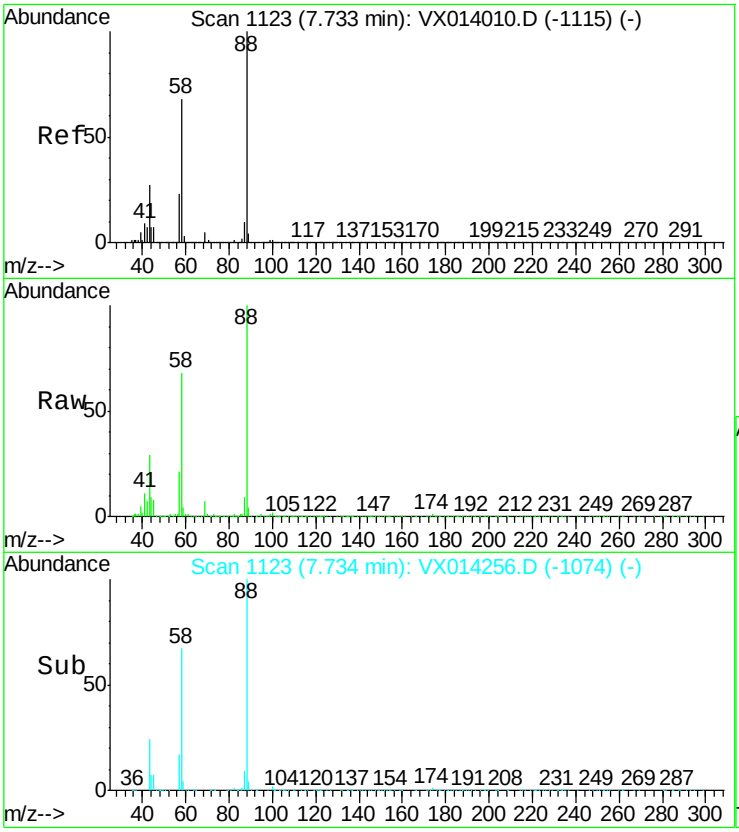
Tgt Ion: 41 Resp: 326825

Ion	Ratio	Lower	Upper
41	100		
69	81.8	65.8	98.6
39	54.4	44.6	67.0



Instrument :
MSVOA_X
ClientSampleId :
996-MW-15-(17)MSD

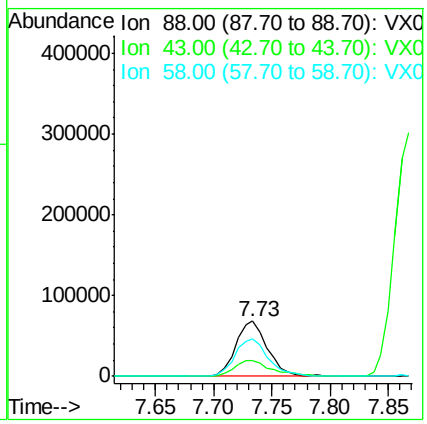
Manual Integrations APPROVED
apatel
12/26/2019 9:24:50 AM

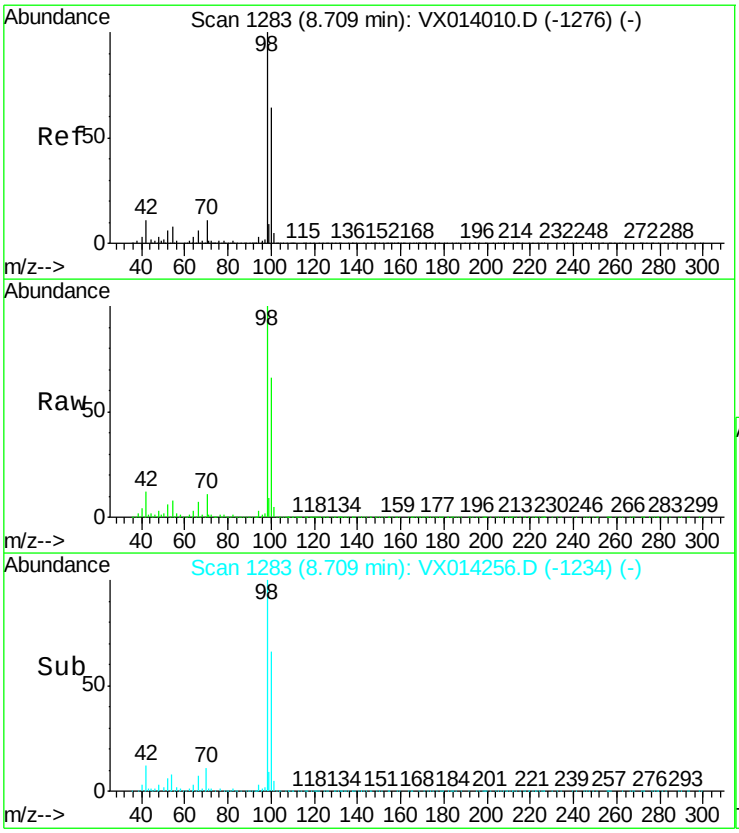


#49
1,4-Dioxane
Concen: 994.815 ug/l
RT: 7.73 min Scan# 1123
Delta R.T. 0.00 min
Lab File: VX014256.D
Acq: 24 Dec 2019 19:31

Tgt Ion: 88 Resp: 127560

Ion	Ratio	Lower	Upper
88	100		
43	33.9	26.5	39.7
58	71.2	56.8	85.2

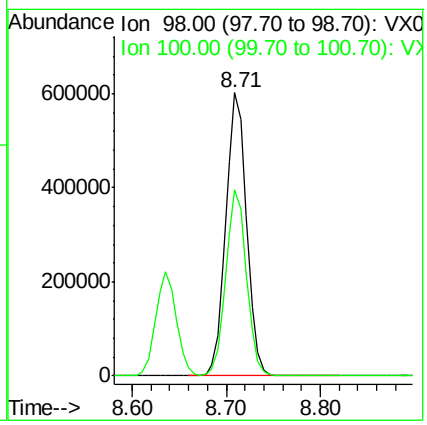




#50
Toluene-d8
Concen: 50.573 ug/l
RT: 8.71 min Scan# 1283
Delta R.T. 0.00 min
Lab File: VX014256.D
Acq: 24 Dec 2019 19:31

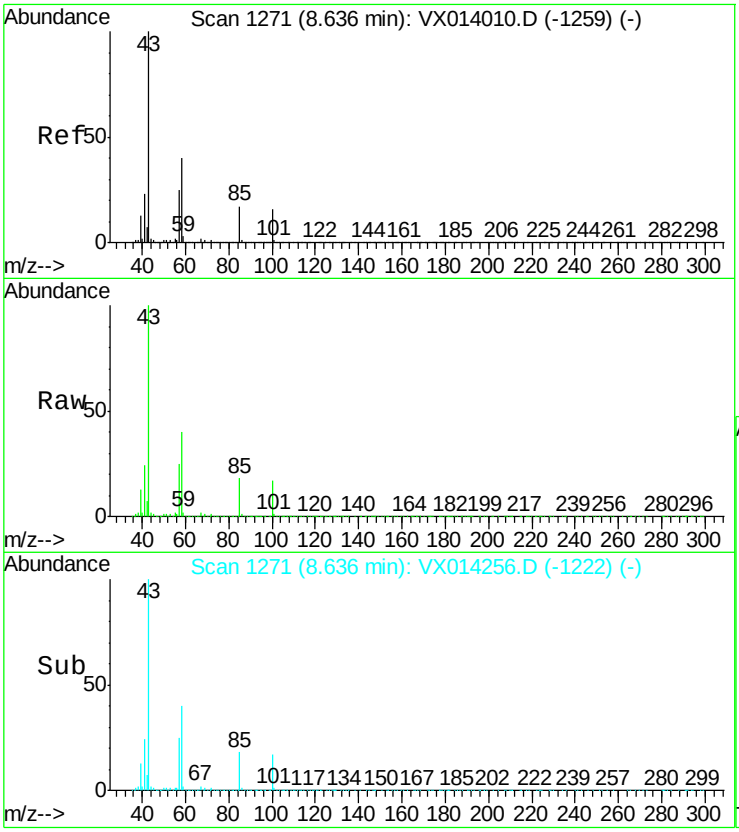
Tgt Ion: 98 Resp: 918443

Ion	Ratio	Lower	Upper
98	100		
100	65.3	52.9	79.3



Instrument :
MSVOA_X
ClientSampleId :
996-MW-15-(17)MSD

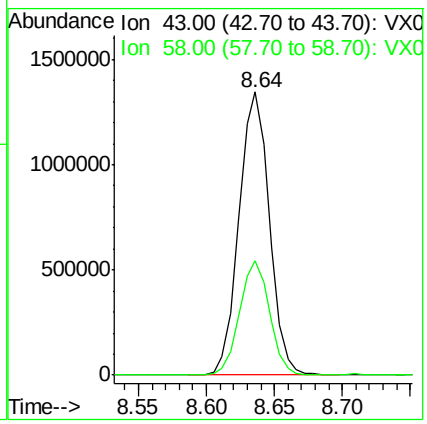
Manual Integrations APPROVED
apatel
12/26/2019 9:24:50 AM

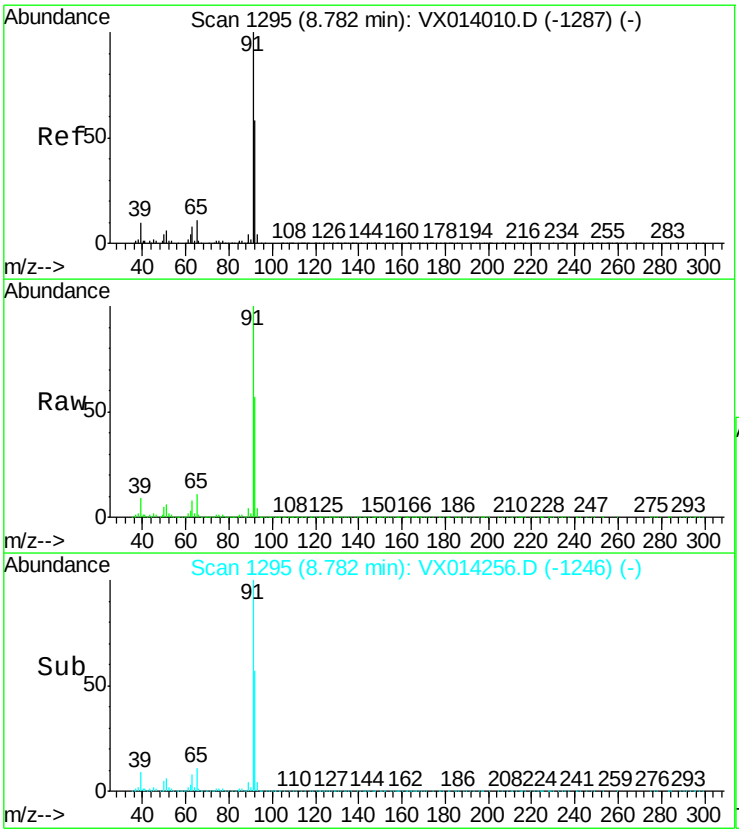


#51
4-Methyl-2-Pentanone
Concen: 259.776 ug/l
RT: 8.64 min Scan# 1271
Delta R.T. 0.00 min
Lab File: VX014256.D
Acq: 24 Dec 2019 19:31

Tgt Ion: 43 Resp: 2099265

Ion	Ratio	Lower	Upper
43	100		
58	39.8	32.2	48.2

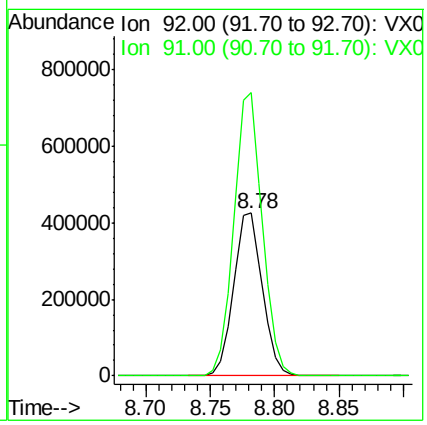




#52
Toluene
Concen: 48.118 ug/l
RT: 8.78 min Scan# 1295
Delta R.T. 0.00 min
Lab File: VX014256.D
Acq: 24 Dec 2019 19:31

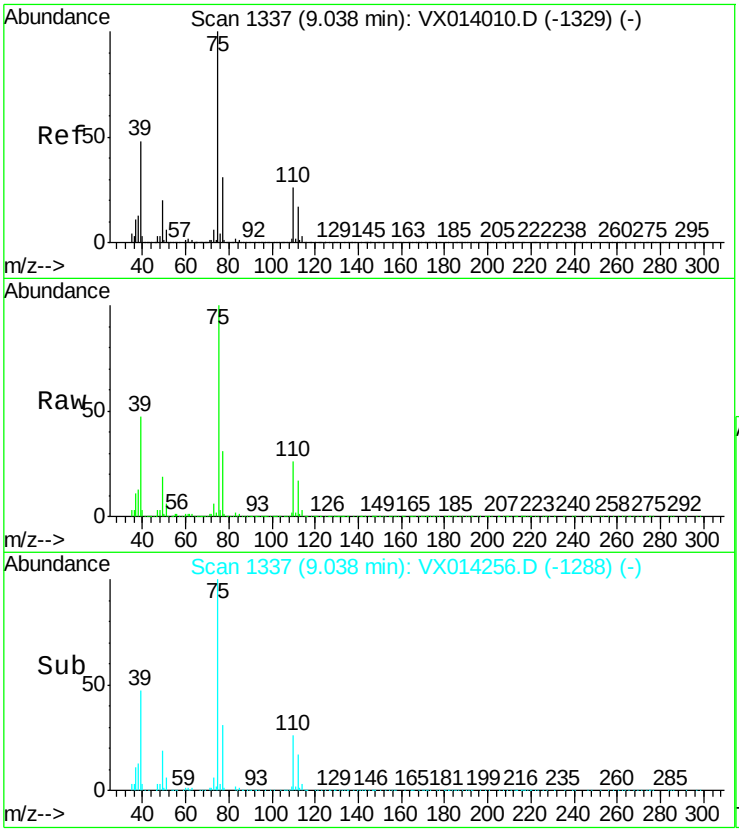
Tgt Ion: 92 Resp: 658898

Ion	Ratio	Lower	Upper
92	100		
91	172.2	136.2	204.4



Instrument :
MSVOA_X
ClientSampleId :
996-MW-15-(17)MSD

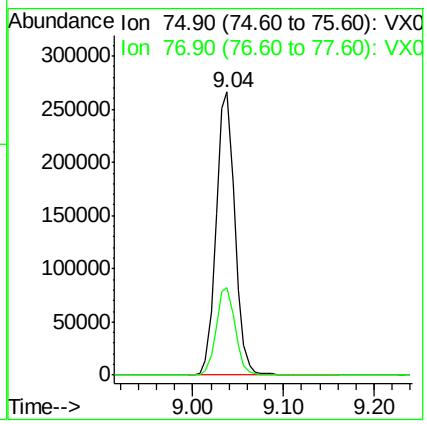
Manual Integrations APPROVED
apatel
12/26/2019 9:24:50 AM

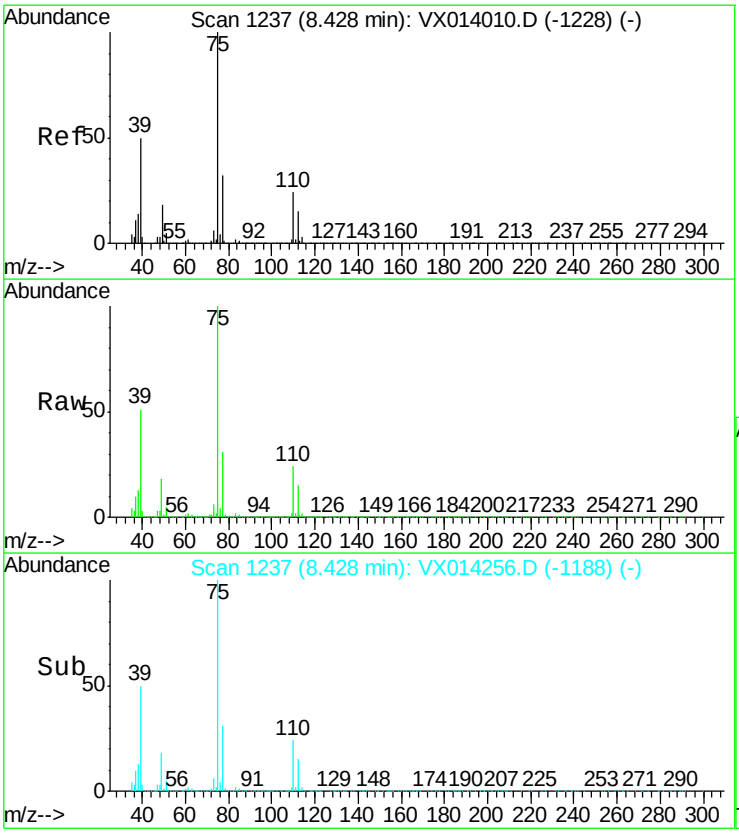


#53
t-1,3-Dichloropropene
Concen: 50.659 ug/l
RT: 9.04 min Scan# 1337
Delta R.T. 0.00 min
Lab File: VX014256.D
Acq: 24 Dec 2019 19:31

Tgt Ion: 75 Resp: 384066

Ion	Ratio	Lower	Upper
75	100		
77	31.0	25.1	37.7

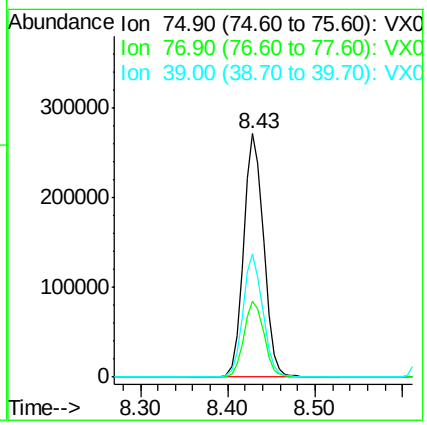




#54
cis-1,3-Dichloropropene
Concen: 50.814 ug/l
RT: 8.43 min Scan# 1237
Delta R.T. 0.00 min
Lab File: VX014256.D
Acq: 24 Dec 2019 19:31

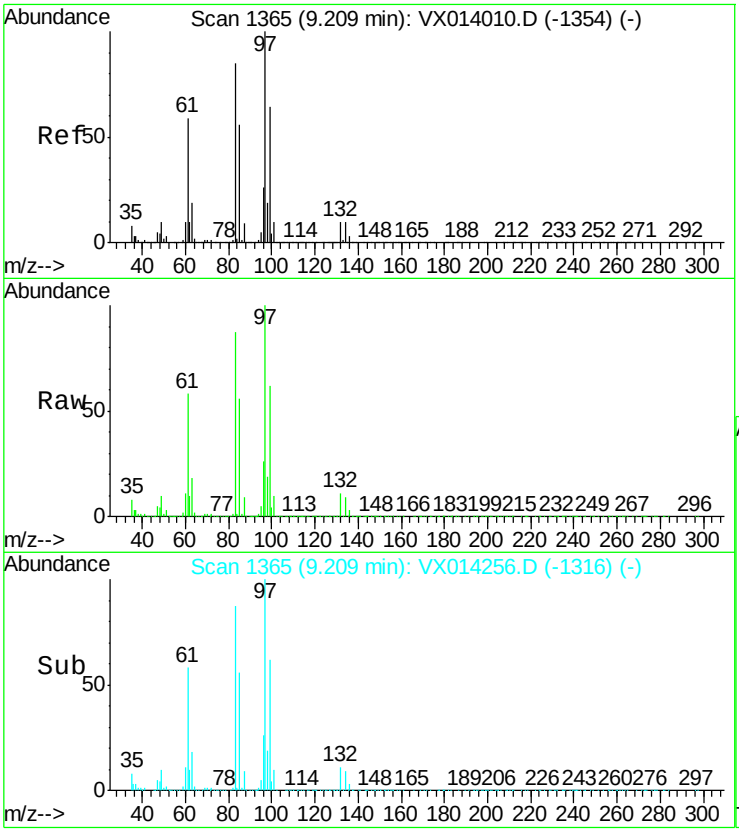
Tgt Ion: 75 Resp: 429180

Ion	Ratio	Lower	Upper
75	100		
77	30.9	25.3	37.9
39	50.4	39.9	59.9



Instrument :
MSVOA_X
ClientSampleId :
996-MW-15-(17)MSD

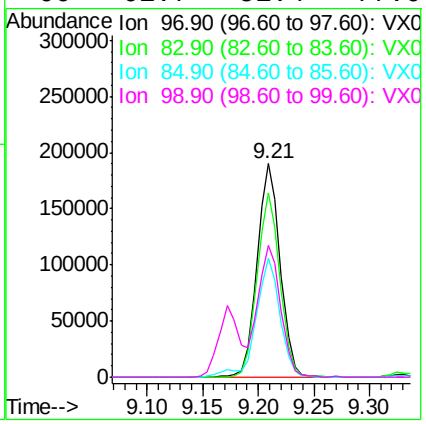
Manual Integrations APPROVED
apatel
12/26/2019 9:24:50 AM

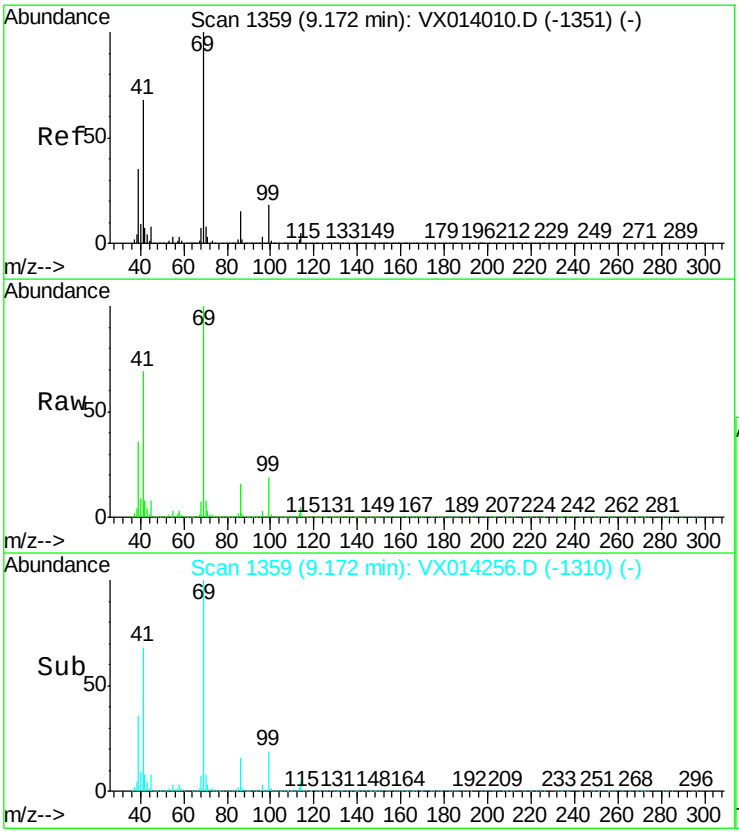


#55
1,1,2-Trichloroethane
Concen: 49.991 ug/l
RT: 9.21 min Scan# 1365
Delta R.T. 0.00 min
Lab File: VX014256.D
Acq: 24 Dec 2019 19:31

Tgt Ion: 97 Resp: 274360

Ion	Ratio	Lower	Upper
97	100		
83	86.4	68.2	102.4
85	55.8	44.6	66.8
99	61.7	51.4	77.0

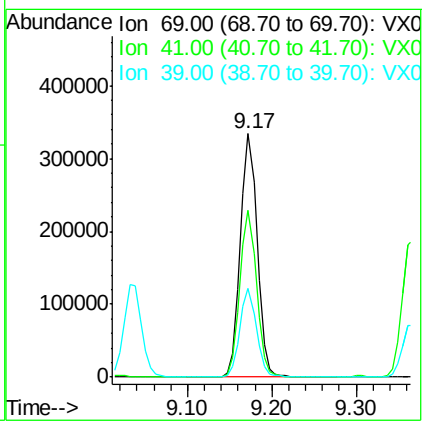




#56
Ethyl methacrylate
Concen: 51.602 ug/l
RT: 9.17 min Scan# 1359
Delta R.T. 0.00 min
Lab File: VX014256.D
Acq: 24 Dec 2019 19:31

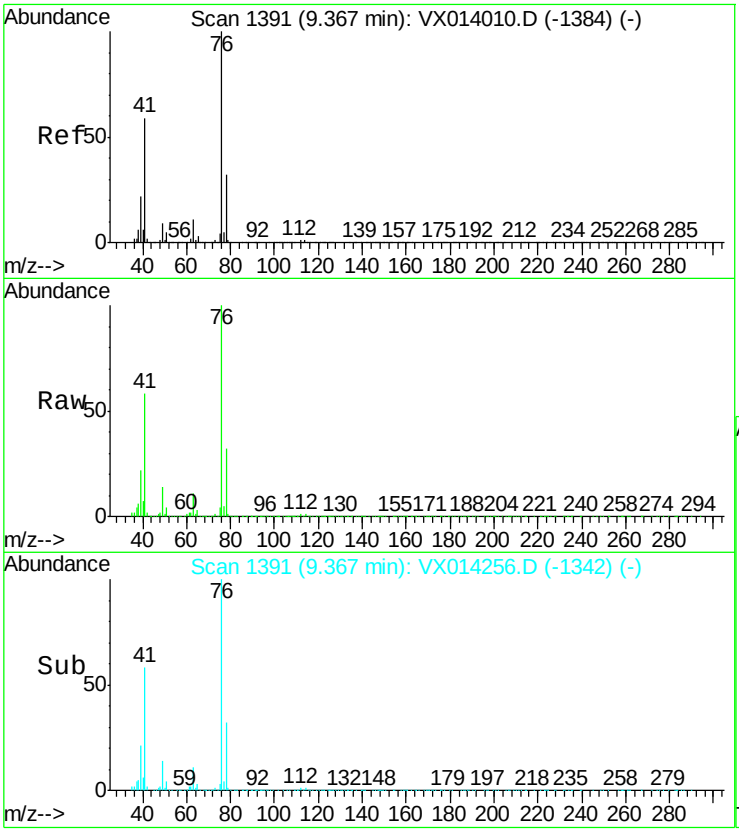
Tgt Ion: 69 Resp: 444852

Ion	Ratio	Lower	Upper
69	100		
41	67.7	54.8	82.2
39	35.3	28.3	42.5



Instrument :
MSVOA_X
ClientSampleId :
996-MW-15-(17)MSD

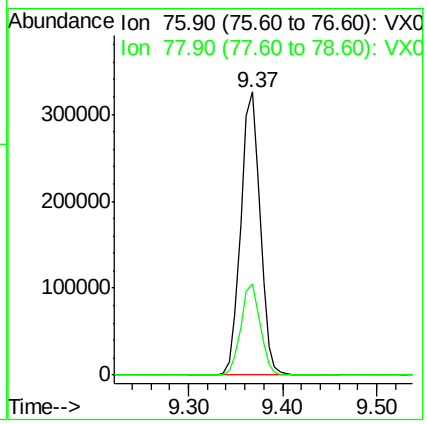
Manual Integrations APPROVED
apatel
12/26/2019 9:24:50 AM

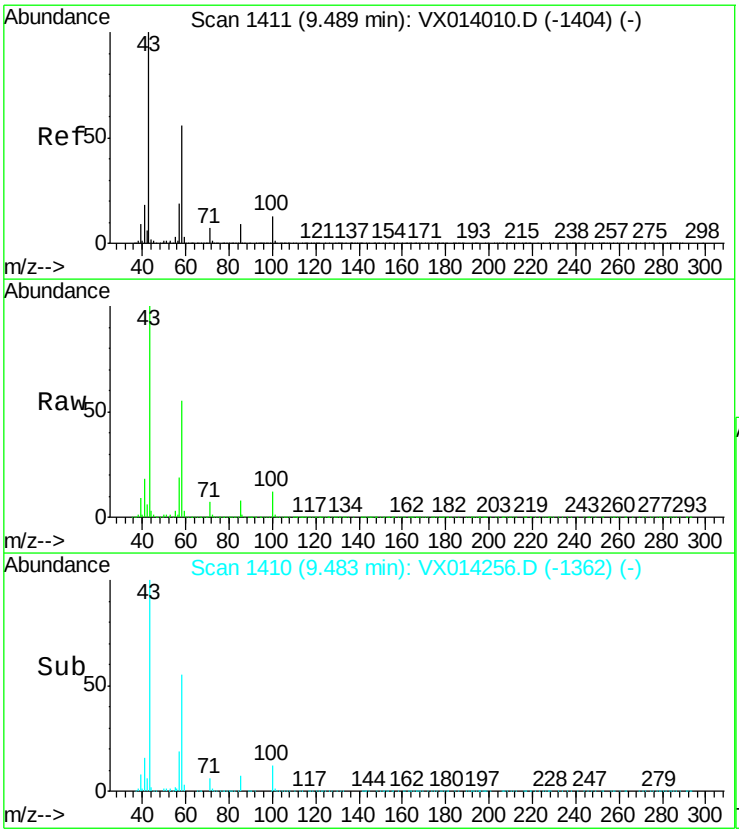


#57
1,3-Dichloropropane
Concen: 50.513 ug/l
RT: 9.37 min Scan# 1391
Delta R.T. 0.00 min
Lab File: VX014256.D
Acq: 24 Dec 2019 19:31

Tgt Ion: 76 Resp: 466423

Ion	Ratio	Lower	Upper
76	100		
78	32.3	25.8	38.6

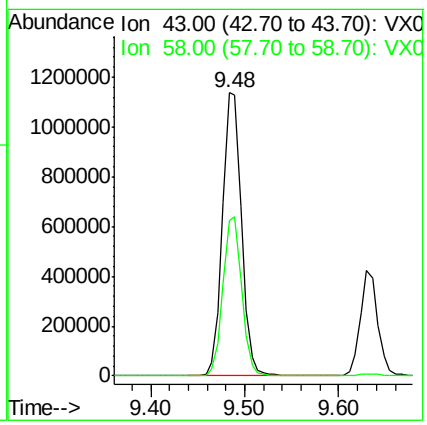




#59
2-Hexanone
Concen: 244.859 ug/l
RT: 9.48 min Scan# 1410
Delta R.T. -0.01 min
Lab File: VX014256.D
Acq: 24 Dec 2019 19:31

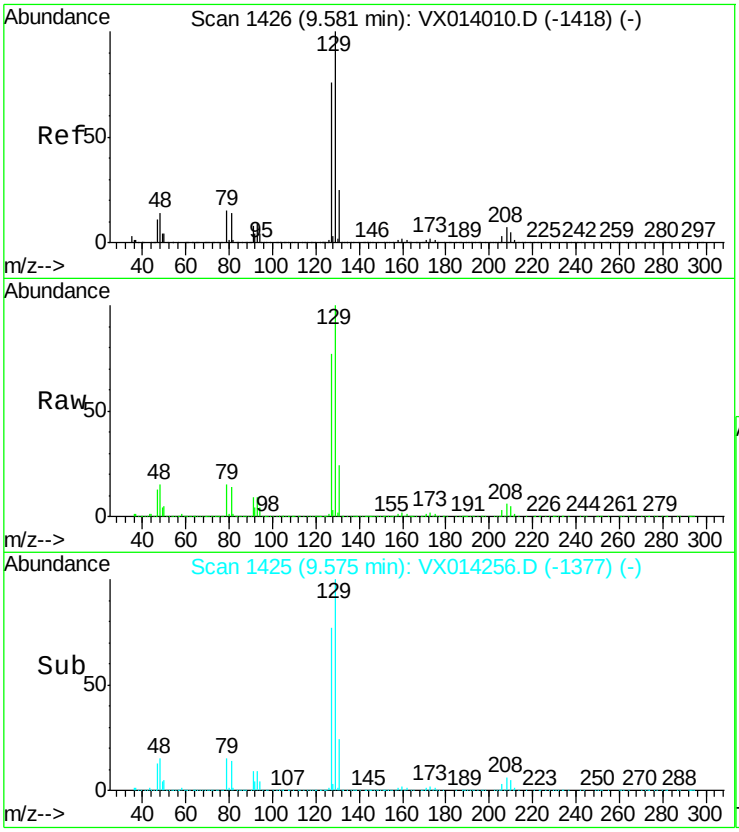
Tgt Ion: 43 Resp: 1592875

Ion	Ratio	Lower	Upper
43	100		
58	55.9	28.0	84.0



Instrument :
MSVOA_X
ClientSampleId :
996-MW-15-(17)MSD

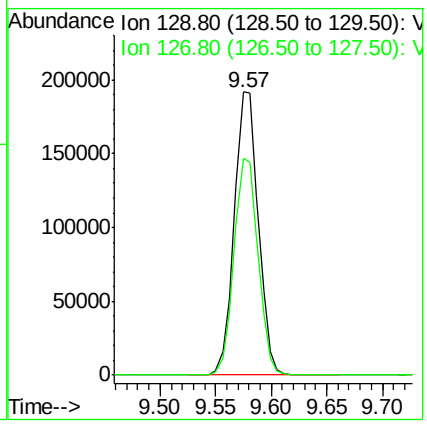
Manual Integrations APPROVED
apatel
12/26/2019 9:24:50 AM

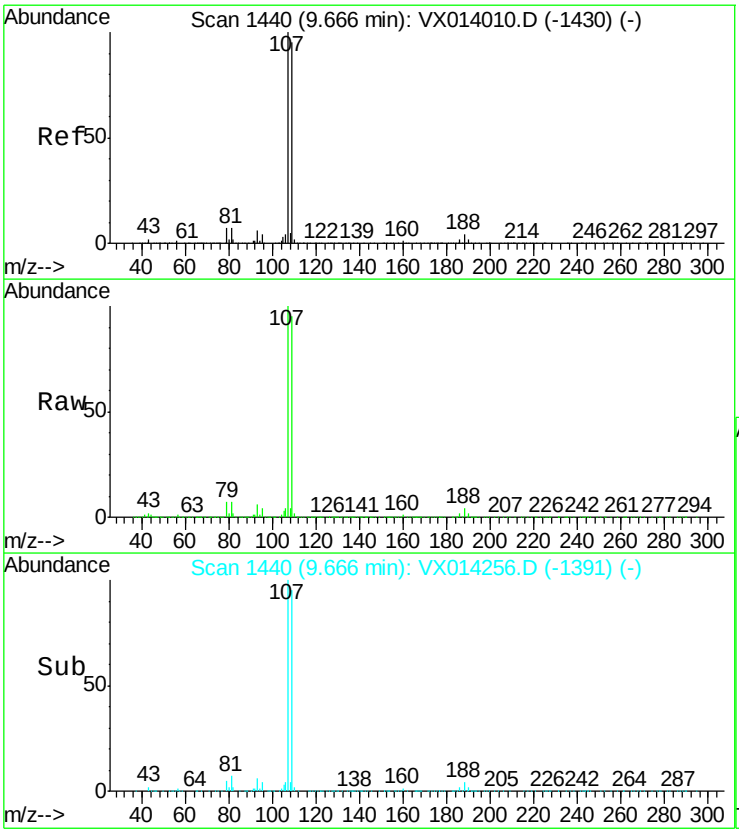


#60
Dibromochloromethane
Concen: 52.442 ug/l
RT: 9.57 min Scan# 1425
Delta R.T. -0.01 min
Lab File: VX014256.D
Acq: 24 Dec 2019 19:31

Tgt Ion:129 Resp: 286082

Ion	Ratio	Lower	Upper
129	100		
127	76.8	38.4	115.2

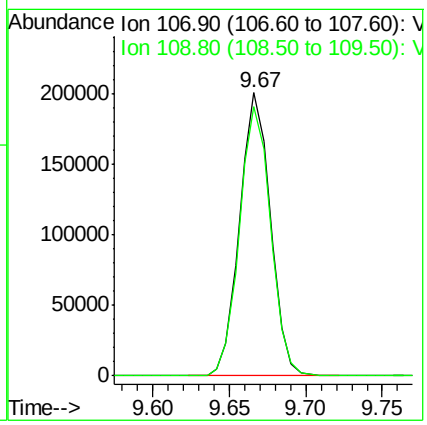


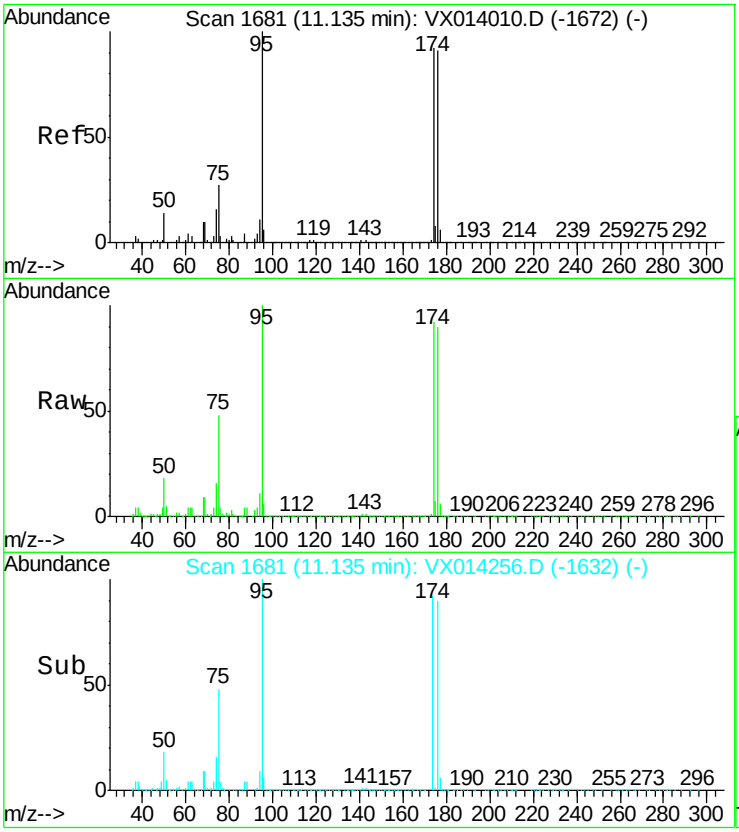


#61
1,2-Dibromoethane
Concen: 49.954 ug/l
RT: 9.67 min Scan# 1440
Delta R.T. 0.00 min
Lab File: VX014256.D
Acq: 24 Dec 2019 19:31

Tgt Ion:107 Resp: 280500

Ion	Ratio	Lower	Upper
107	100		
109	96.3	75.7	113.5

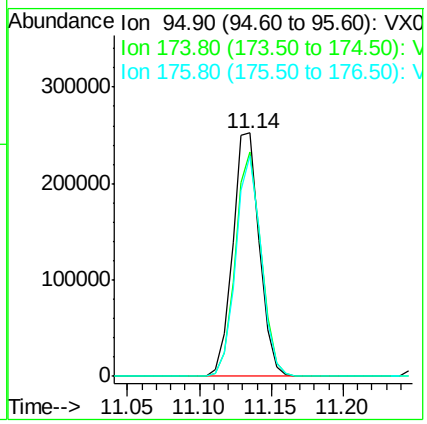




#62
4-Bromofluorobenzene
Concen: 49.513 ug/l
RT: 11.14 min Scan# 1681
Delta R.T. 0.00 min
Lab File: VX014256.D
Acq: 24 Dec 2019 19:31

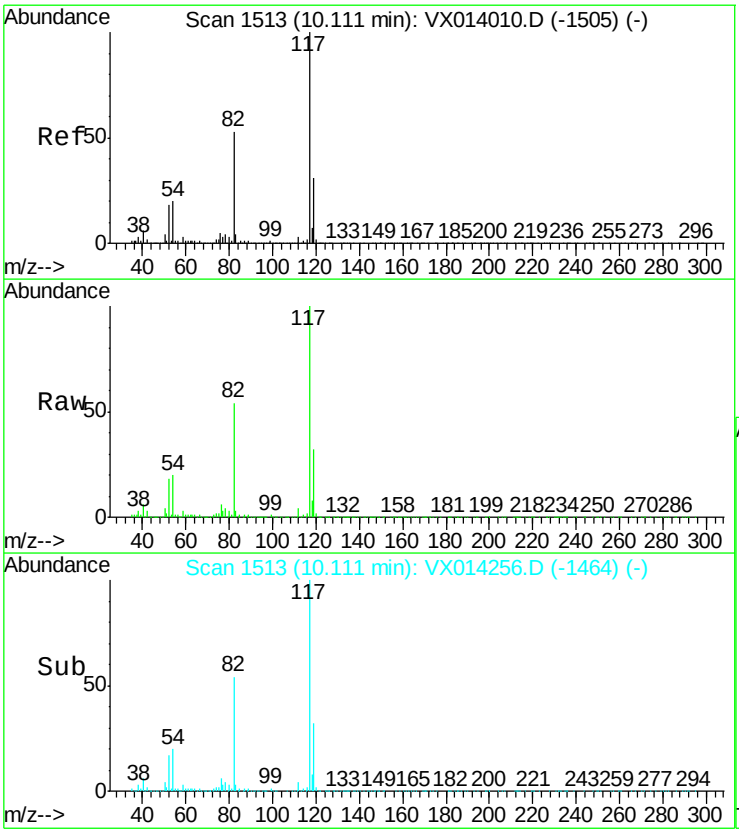
Tgt Ion: 95 Resp: 328698

Ion	Ratio	Lower	Upper
95	100		
174	88.4	0.0	175.8
176	85.7	0.0	173.0



Instrument :
MSVOA_X
ClientSampleId :
996-MW-15-(17)MSD

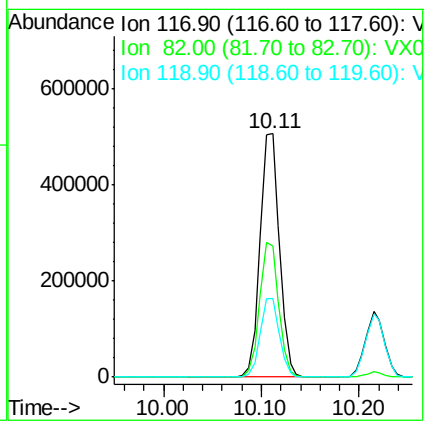
Manual Integrations APPROVED
apatel
12/26/2019 9:24:50 AM



#63
Chlorobenzene-d5
Concen: 50.000 ug/l
RT: 10.11 min Scan# 1513
Delta R.T. 0.00 min
Lab File: VX014256.D
Acq: 24 Dec 2019 19:31

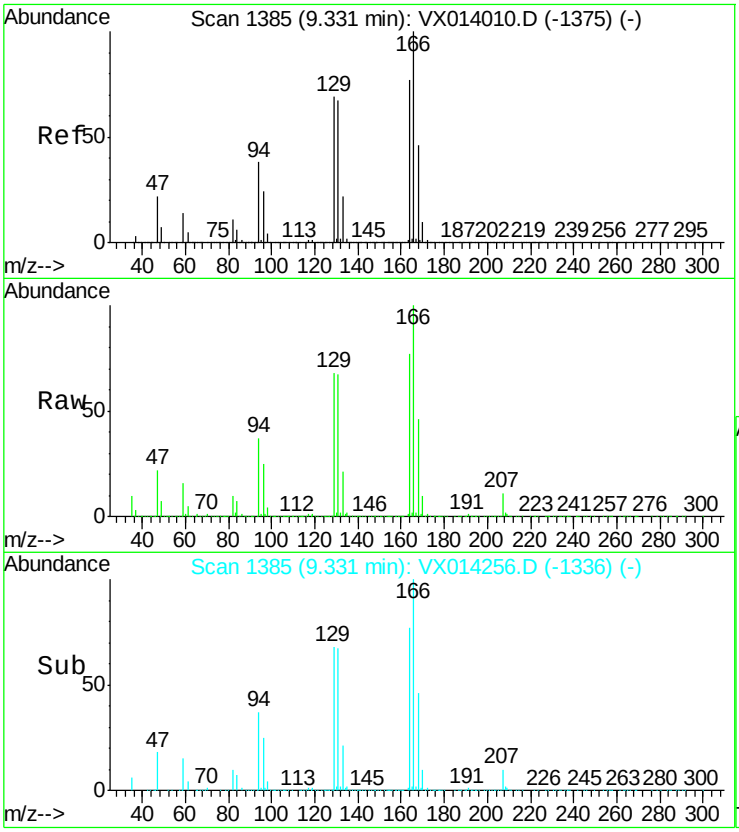
Tgt Ion:117 Resp: 695552

Ion	Ratio	Lower	Upper
117	100		
82	53.7	42.2	63.4
119	32.3	25.1	37.7



Instrument :
MSVOA_X
ClientSampleId :
996-MW-15-(17)MSD

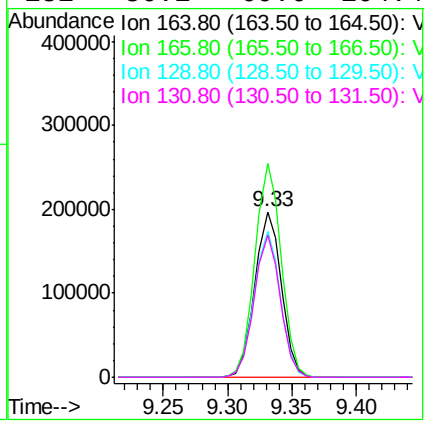
Manual Integrations APPROVED
apatel
12/26/2019 9:24:50 AM

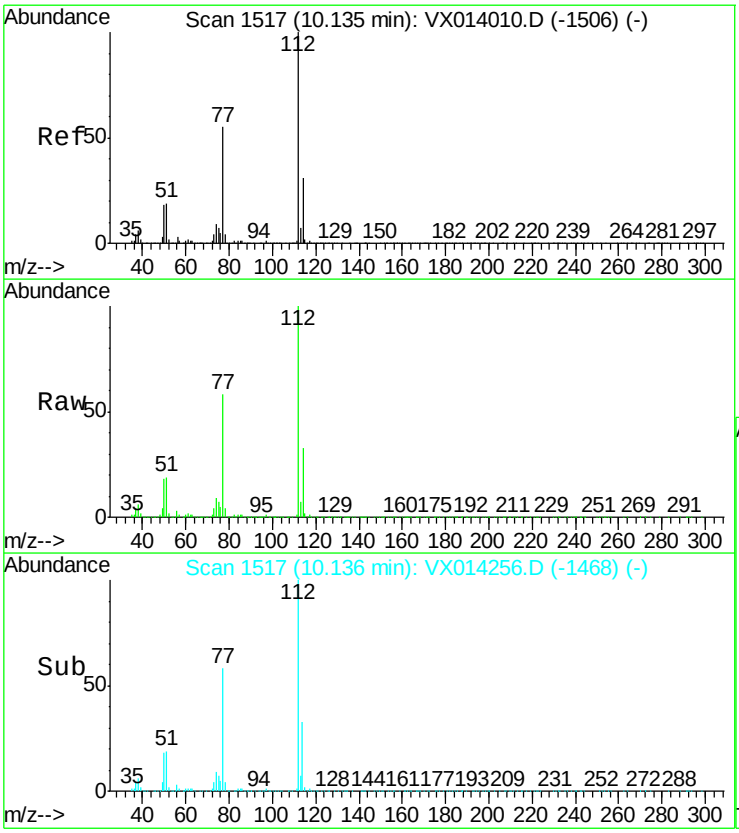


#64
Tetrachloroethene
Concen: 45.261 ug/l
RT: 9.33 min Scan# 1385
Delta R.T. 0.00 min
Lab File: VX014256.D
Acq: 24 Dec 2019 19:31

Tgt Ion:164 Resp: 278570

Ion	Ratio	Lower	Upper
164	100		
166	129.1	104.0	156.0
129	88.2	72.2	108.4
131	86.1	69.6	104.4

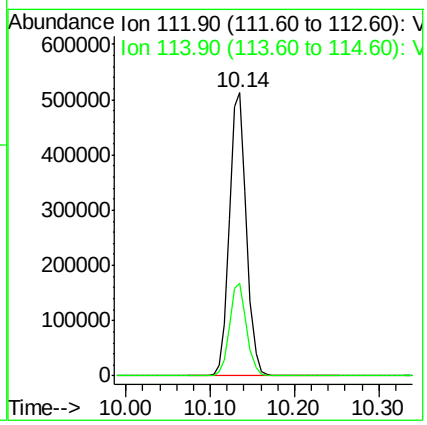




#65
Chlorobenzene
Concen: 47.793 ug/l
RT: 10.14 min Scan# 1517
Delta R.T. 0.00 min
Lab File: VX014256.D
Acq: 24 Dec 2019 19:31

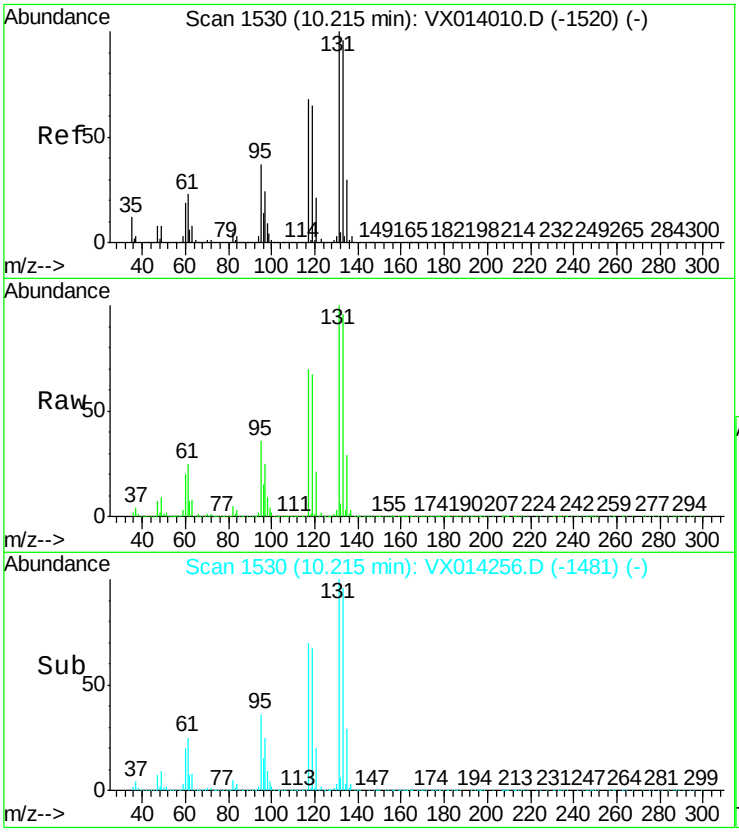
Tgt Ion:112 Resp: 706814

Ion	Ratio	Lower	Upper
112	100		
114	32.8	24.9	37.3



Instrument :
MSVOA_X
ClientSampleId :
996-MW-15-(17)MSD

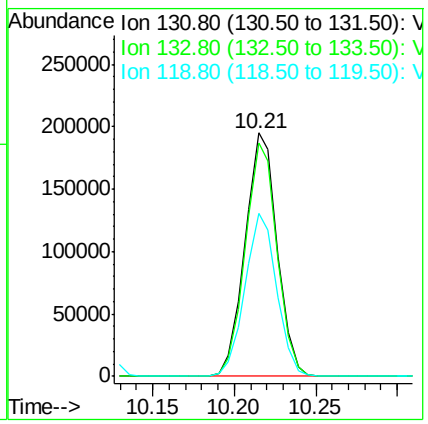
Manual Integrations APPROVED
apatel
12/26/2019 9:24:50 AM

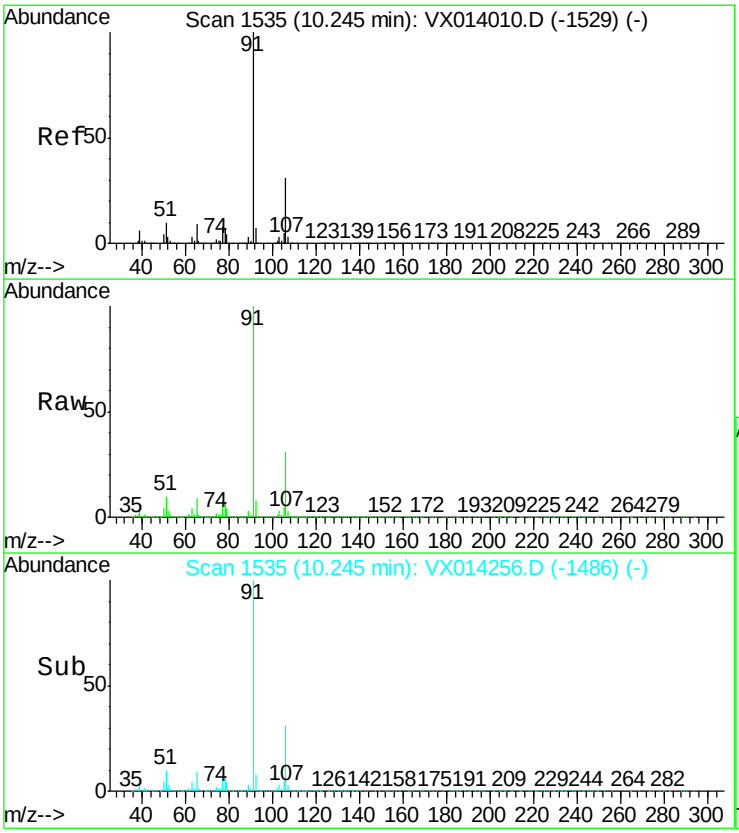


#66
1,1,1,2-Tetrachloroethane
Concen: 50.633 ug/l
RT: 10.21 min Scan# 1530
Delta R.T. 0.00 min
Lab File: VX014256.D
Acq: 24 Dec 2019 19:31

Tgt Ion:131 Resp: 267372

Ion	Ratio	Lower	Upper
131	100		
133	94.7	48.0	144.0
119	66.0	33.4	100.2

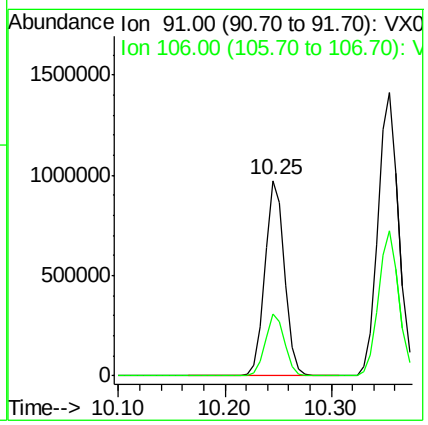




#67
Ethyl Benzene
Concen: 49.206 ug/l
RT: 10.25 min Scan# 1535
Delta R.T. 0.00 min
Lab File: VX014256.D
Acq: 24 Dec 2019 19:31

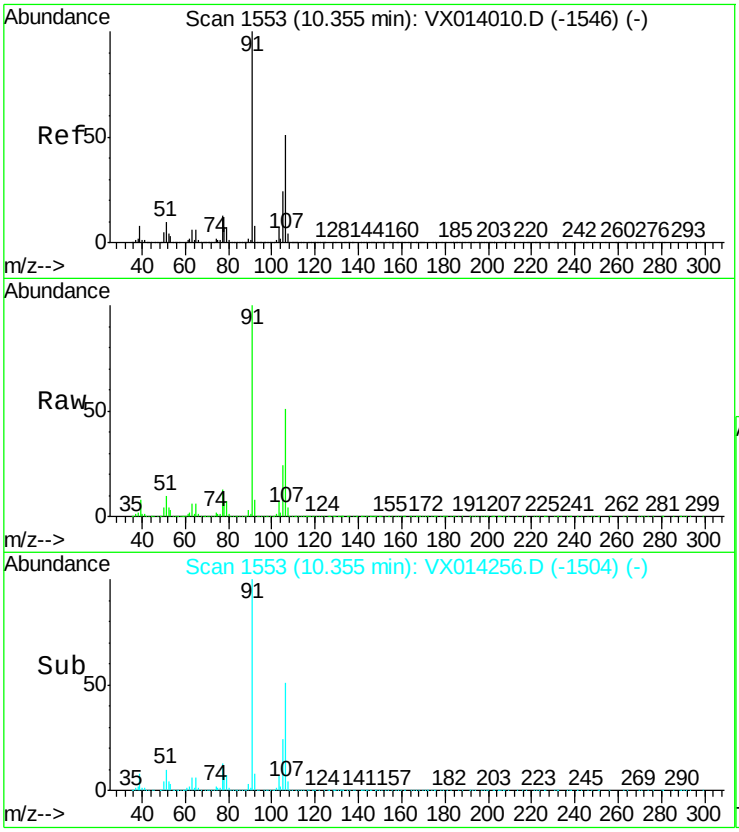
Tgt Ion: 91 Resp: 1251103

Ion	Ratio	Lower	Upper
91	100		
106	31.4	25.0	37.6



Instrument :
MSVOA_X
ClientSampleId :
996-MW-15-(17)MSD

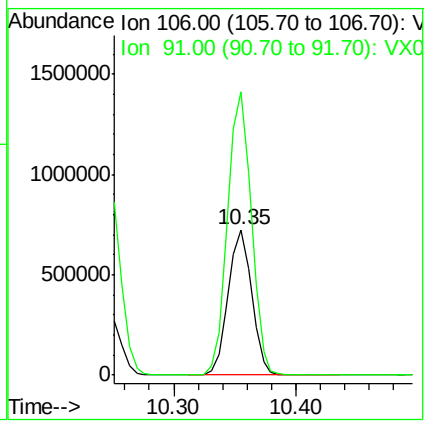
Manual Integrations APPROVED
apatel
12/26/2019 9:24:50 AM

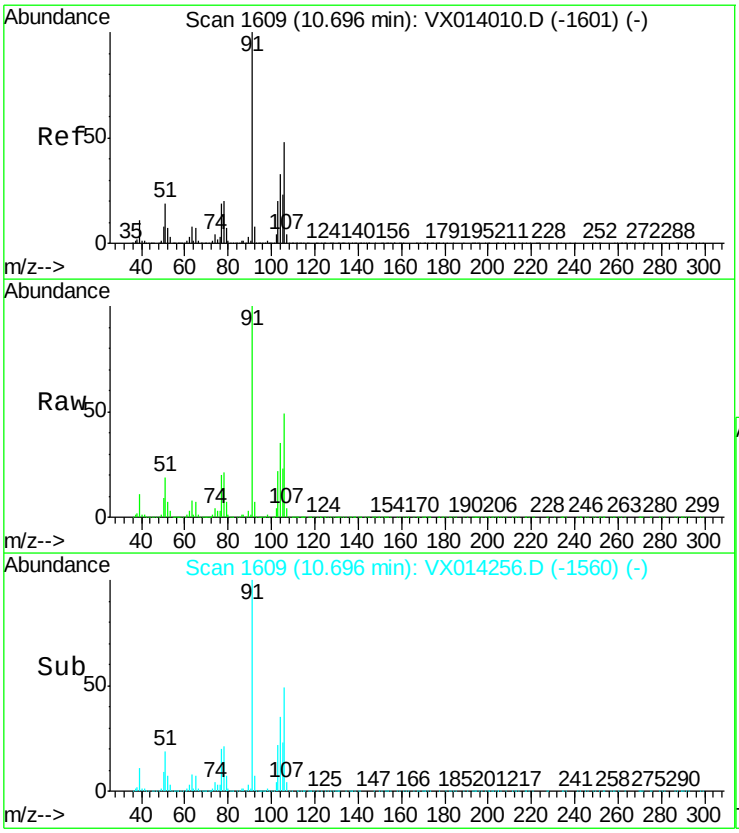


#68
m/p-Xylenes
Concen: 97.705 ug/l
RT: 10.35 min Scan# 1553
Delta R.T. 0.00 min
Lab File: VX014256.D
Acq: 24 Dec 2019 19:31

Tgt Ion:106 Resp: 955477

Ion	Ratio	Lower	Upper
106	100		
91	198.0	158.6	238.0

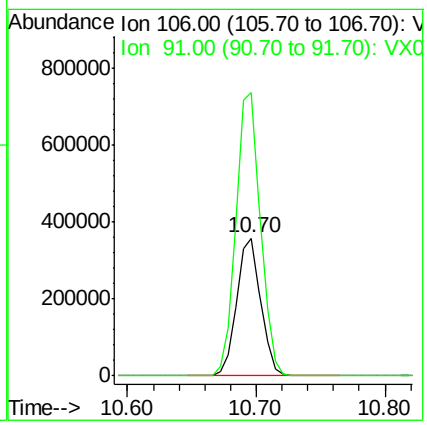




#69
o-Xylene
Concen: 48.451 ug/l
RT: 10.70 min Scan# 1609
Delta R.T. 0.00 min
Lab File: VX014256.D
Acq: 24 Dec 2019 19:31

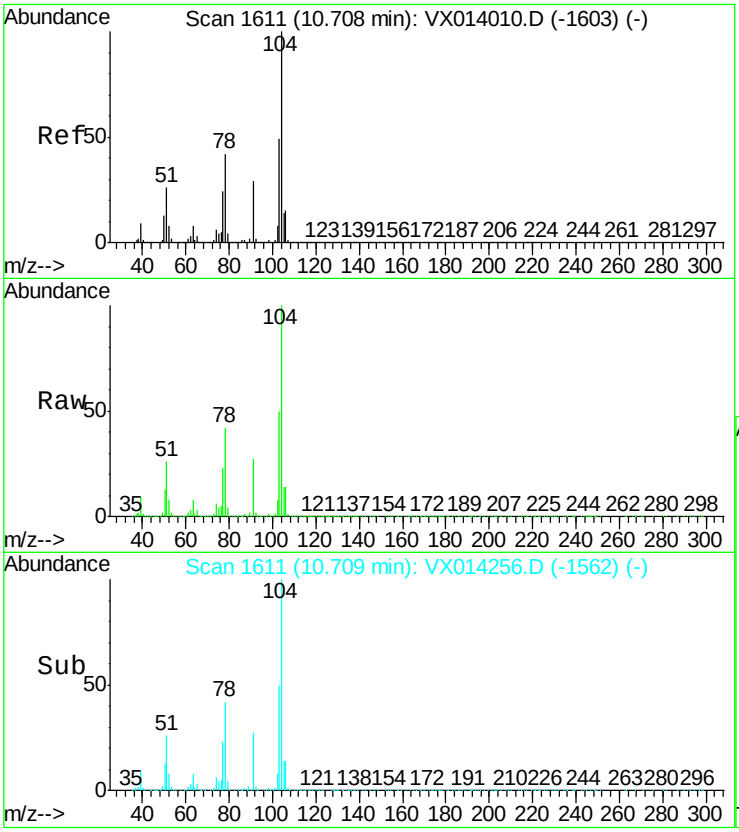
Tgt Ion:106 Resp: 464689

Ion	Ratio	Lower	Upper
106	100		
91	210.4	104.2	312.6



Instrument :
MSVOA_X
ClientSampleId :
996-MW-15-(17)MSD

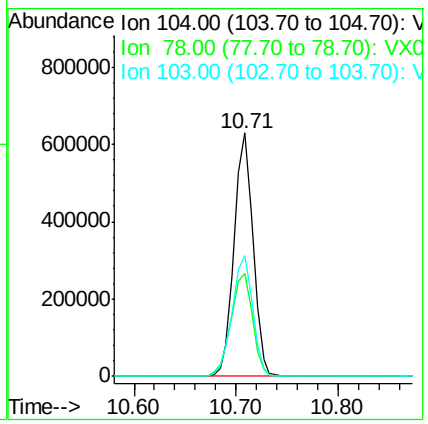
Manual Integrations APPROVED
apatel
12/26/2019 9:24:50 AM

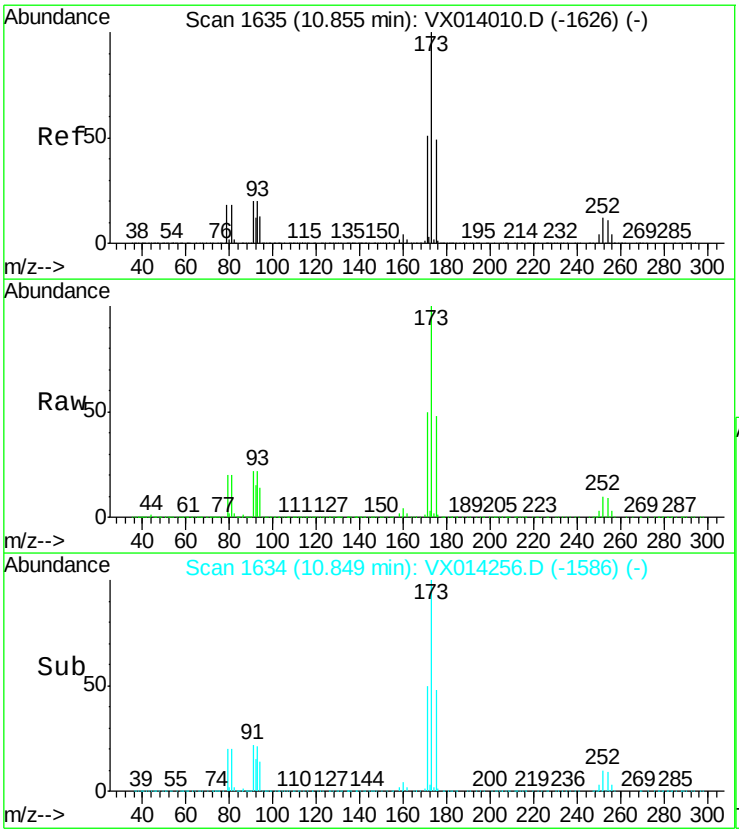


#70
Stvrene
Concen: 49.419 ug/l
RT: 10.71 min Scan# 1611
Delta R.T. 0.00 min
Lab File: VX014256.D
Acq: 24 Dec 2019 19:31

Tgt Ion:104 Resp: 801486

Ion	Ratio	Lower	Upper
104	100		
78	48.1	38.5	57.7
103	54.3	42.9	64.3

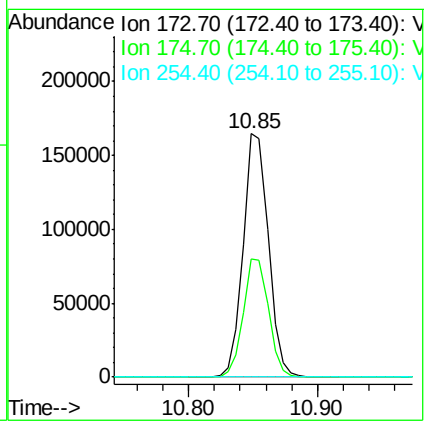




#71
Bromoform
Concen: 52.283 ug/l
RT: 10.85 min Scan# 1634
Delta R.T. -0.01 min
Lab File: VX014256.D
Acq: 24 Dec 2019 19:31

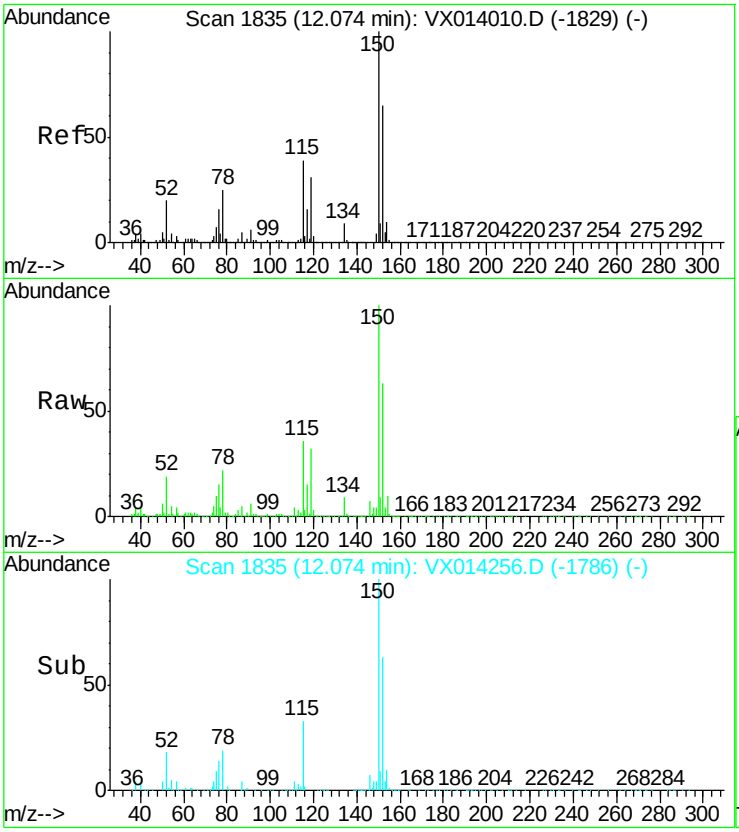
Tgt Ion:173 Resp: 221926

Ion	Ratio	Lower	Upper
173	100		
175	48.7	24.4	73.4
254	0.2	0.2	0.2



Instrument :
MSVOA_X
ClientSampleId :
996-MW-15-(17)MSD

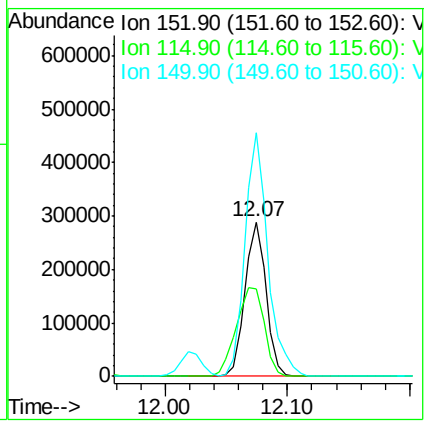
Manual Integrations APPROVED
apatel
12/26/2019 9:24:50 AM

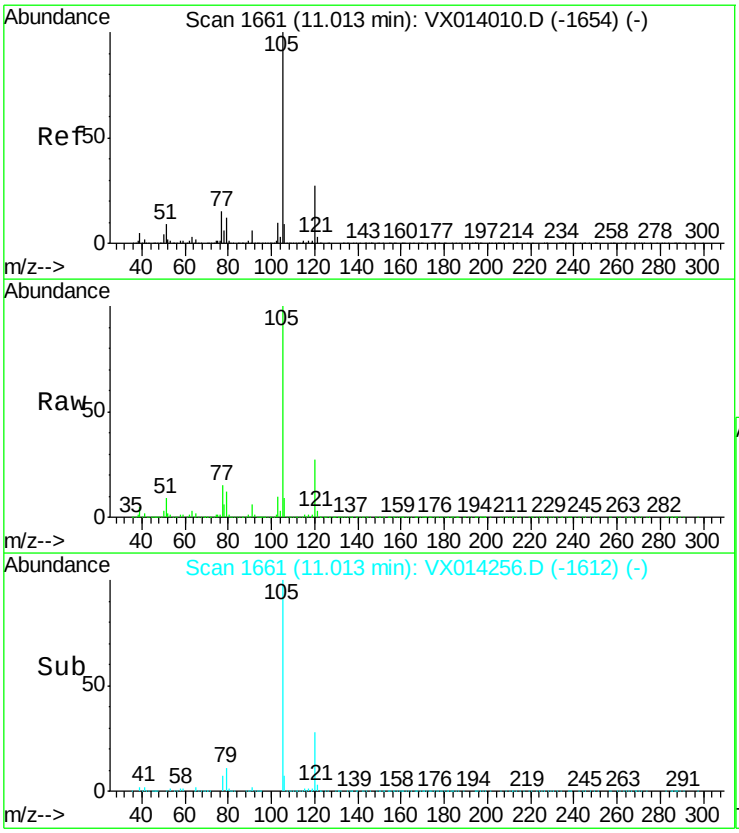


#72
1,4-Dichlorobenzene-d4
Concen: 50.000 ug/l
RT: 12.07 min Scan# 1835
Delta R.T. 0.00 min
Lab File: VX014256.D
Acq: 24 Dec 2019 19:31

Tgt Ion:152 Resp: 343564

Ion	Ratio	Lower	Upper
152	100		
115	76.3	38.3	114.9
150	170.7	0.0	345.4

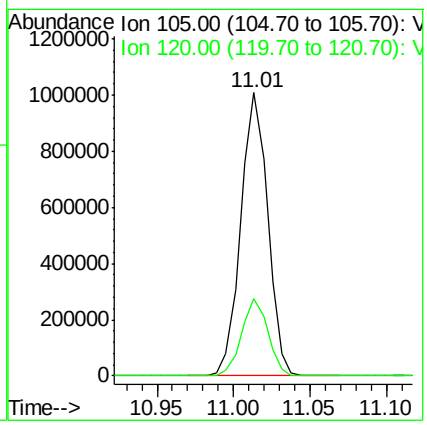




#73
Isopropylbenzene
Concen: 50.924 ug/l
RT: 11.01 min Scan# 1661
Delta R.T. 0.00 min
Lab File: VX014256.D
Acq: 24 Dec 2019 19:31

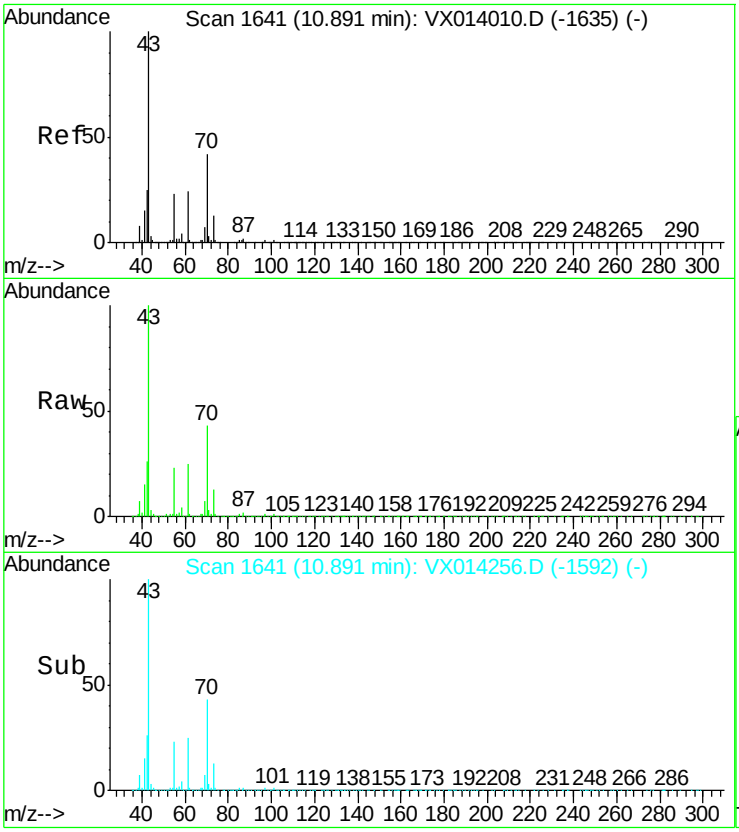
Tgt Ion:105 Resp: 1231823

Ion	Ratio	Lower	Upper
105	100		
120	26.8	13.5	40.4



Instrument :
MSVOA_X
ClientSampleId :
996-MW-15-(17)MSD

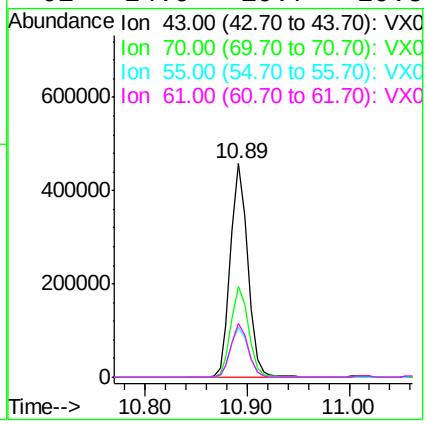
Manual Integrations APPROVED
apatel
12/26/2019 9:24:50 AM

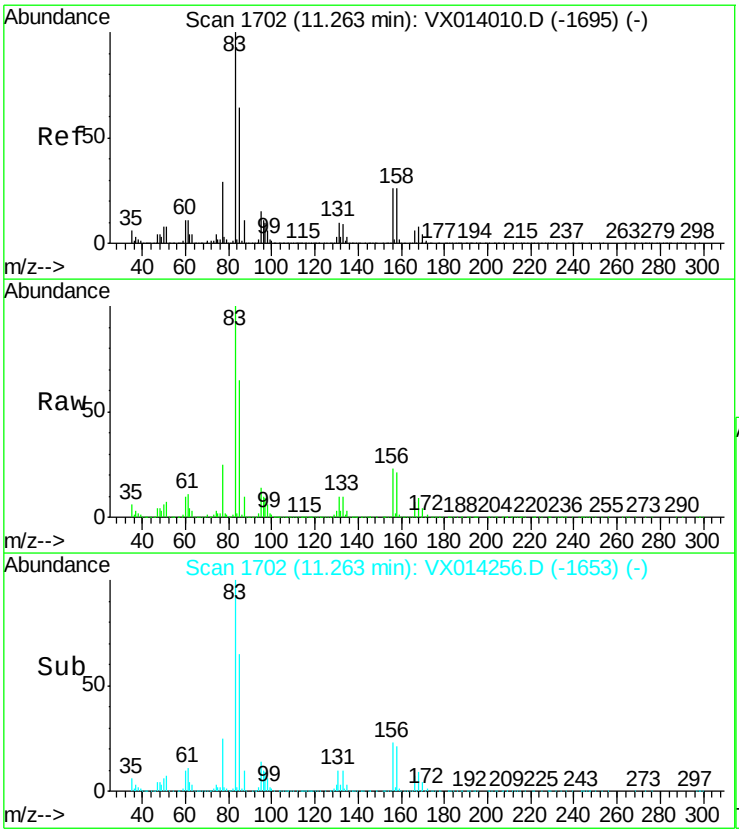


#74
N-amyl acetate
Concen: 47.154 ug/l
RT: 10.89 min Scan# 1641
Delta R.T. 0.00 min
Lab File: VX014256.D
Acq: 24 Dec 2019 19:31

Tgt Ion: 43 Resp: 534666

Ion	Ratio	Lower	Upper
43	100		
70	43.4	34.4	51.6
55	23.9	19.1	28.7
61	24.9	19.7	29.5

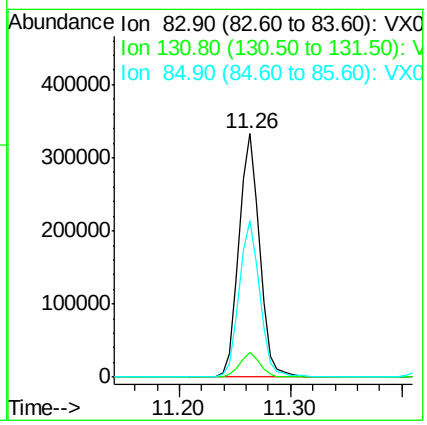


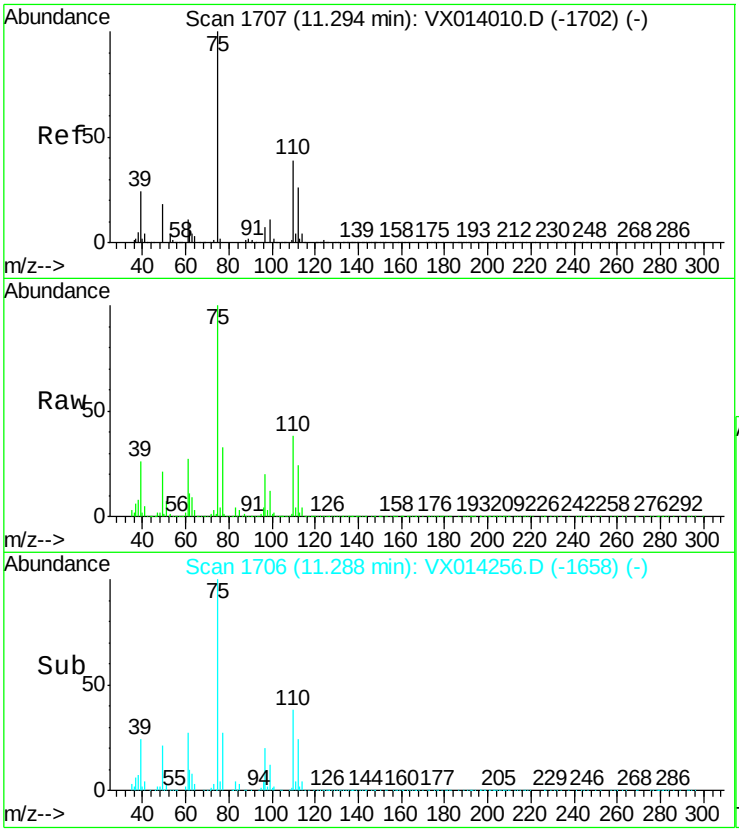


#75
1,1,2,2-Tetrachloroethane
Concen: 51.094 ug/l
RT: 11.26 min Scan# 1702
Delta R.T. 0.00 min
Lab File: VX014256.D
Acq: 24 Dec 2019 19:31

Tgt Ion: 83 Resp: 428492

Ion	Ratio	Lower	Upper
83	100		
131	10.0	5.1	15.2
85	64.1	31.9	95.7

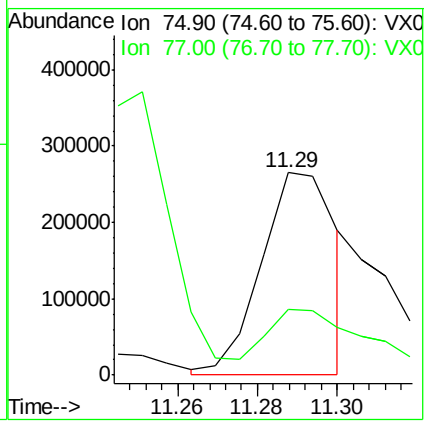


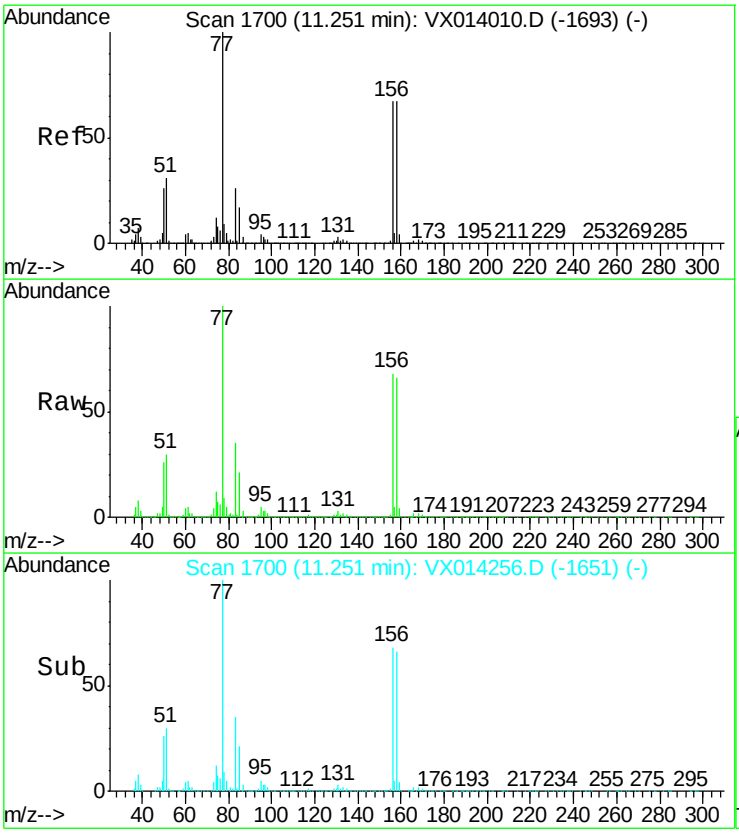


#76
1,2,3-Trichloropropane
Concen: 46.123 ug/l m
RT: 11.29 min Scan# 1706
Delta R.T. -0.01 min
Lab File: VX014256.D
Acq: 24 Dec 2019 19:31

Tgt Ion: 75 Resp: 344017

Ion	Ratio	Lower	Upper
75	100		
77	43.6	19.3	57.8

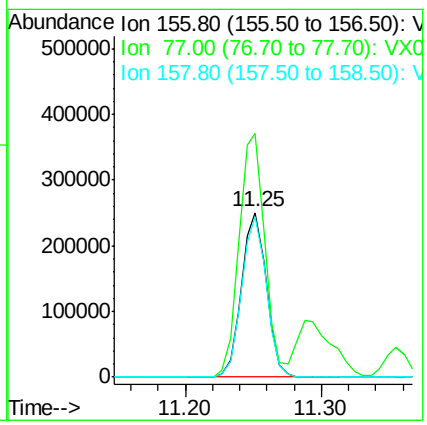




#77
Bromobenzene
Concen: 47.944 ug/l
RT: 11.25 min Scan# 1700
Delta R.T. 0.00 min
Lab File: VX014256.D
Acq: 24 Dec 2019 19:31

Tgt Ion:156 Resp: 319086

Ion	Ratio	Lower	Upper
156	100		
77	153.7	76.5	229.5
158	96.7	49.3	147.9

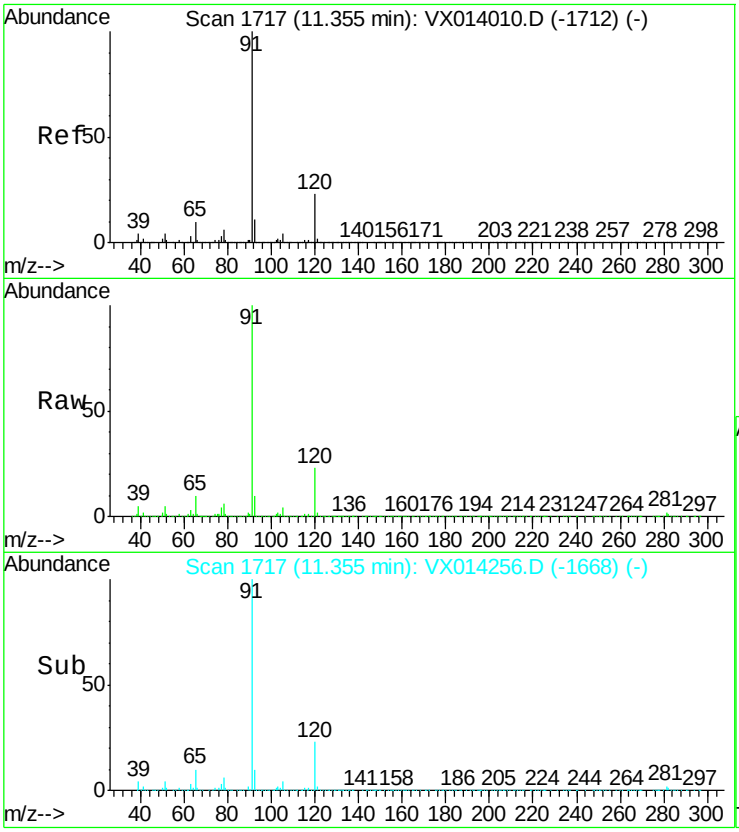


Instrument :
MSVOA_X
ClientSampleId :
996-MW-15-(17)MSD

Manual Integrations APPROVED
apatel
12/26/2019 9:24:50 AM

Instrument :
MSVOA_X
ClientSampleId :
996-MW-15-(17)MSD

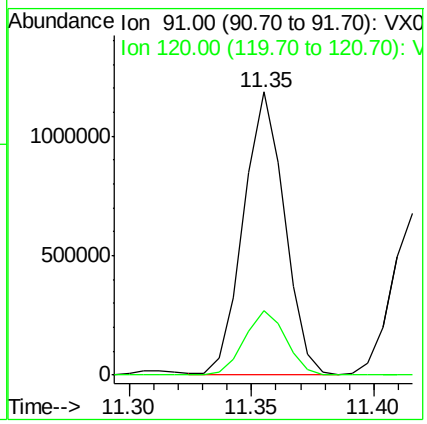
Manual Integrations APPROVED
apatel
12/26/2019 9:24:50 AM

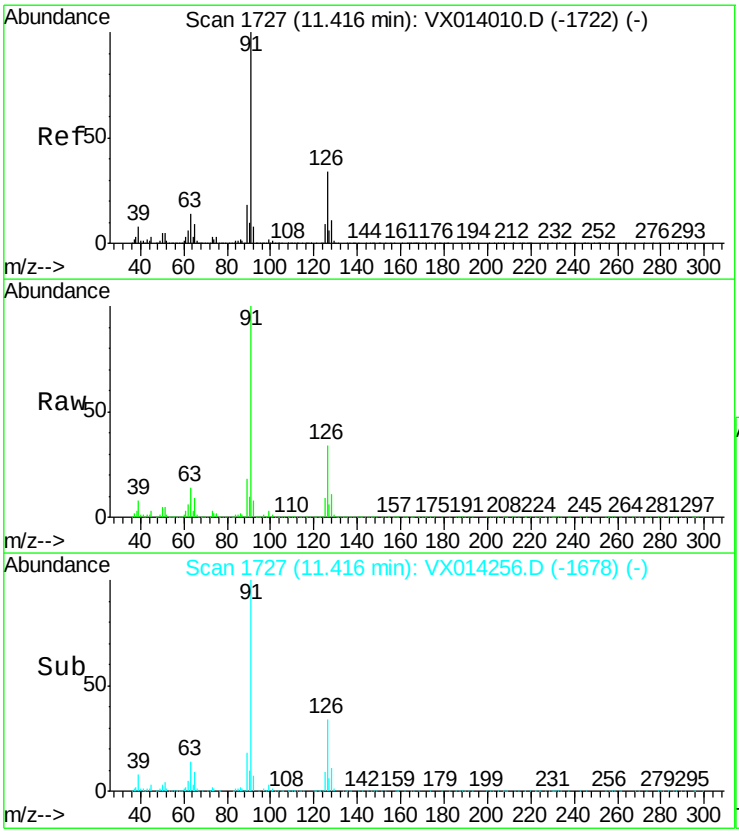


#78
n-propylbenzene
Concen: 50.827 ug/l
RT: 11.35 min Scan# 1717
Delta R.T. 0.00 min
Lab File: VX014256.D
Acq: 24 Dec 2019 19:31

Tgt Ion: 91 Resp: 1379089

Ion	Ratio	Lower	Upper
91	100		
120	23.3	11.7	35.0

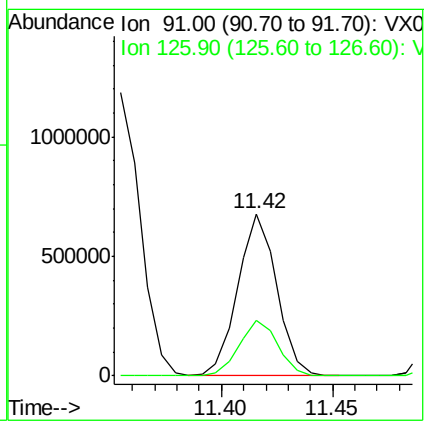


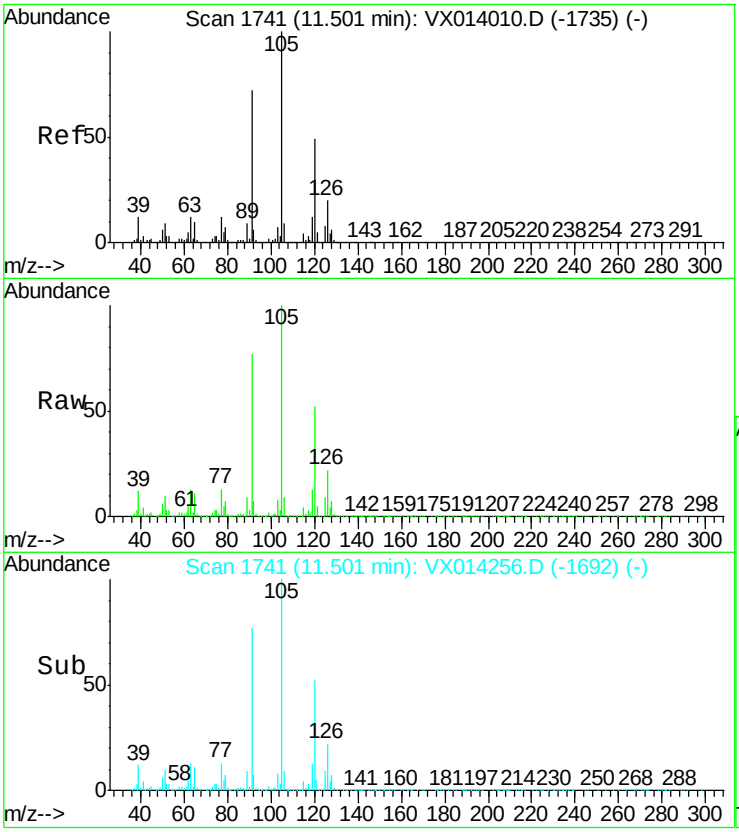


#79
2-Chlorotoluene
Concen: 49.683 ug/l
RT: 11.42 min Scan# 1727
Delta R.T. 0.00 min
Lab File: VX014256.D
Acq: 24 Dec 2019 19:31

Tgt Ion: 91 Resp: 819442

Ion	Ratio	Lower	Upper
91	100		
126	34.6	17.2	51.6

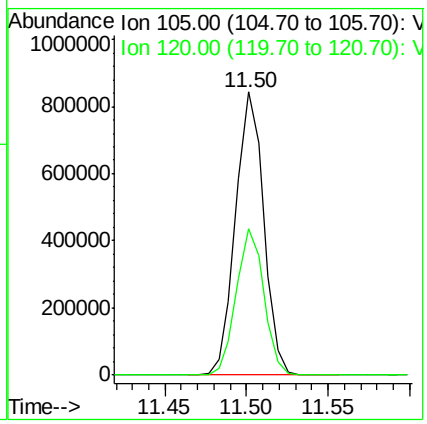




#80
1,3,5-Trimethylbenzene
Concen: 49.739 ug/l
RT: 11.50 min Scan# 1741
Delta R.T. 0.00 min
Lab File: VX014256.D
Acq: 24 Dec 2019 19:31

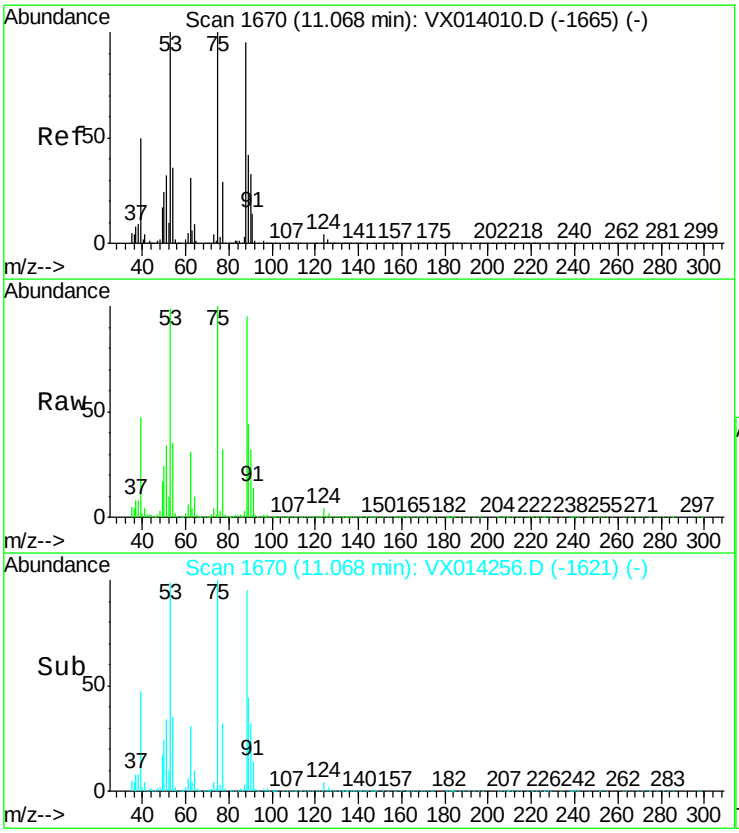
Tgt Ion:105 Resp: 1012595

Ion	Ratio	Lower	Upper
105	100		
120	50.6	25.3	75.8



Instrument :
MSVOA_X
ClientSampleId :
996-MW-15-(17)MSD

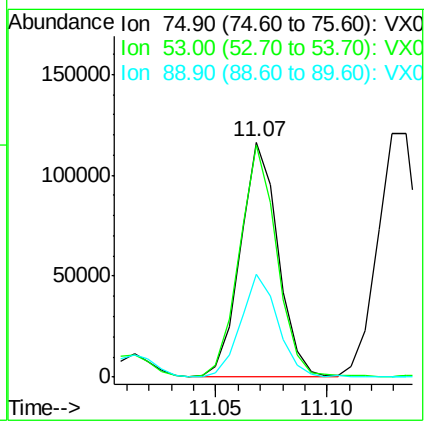
Manual Integrations APPROVED
apatel
12/26/2019 9:24:50 AM



#81
trans-1,4-Dichloro-2-butene
Concen: 51.810 ug/l
RT: 11.07 min Scan# 1670
Delta R.T. 0.00 min
Lab File: VX014256.D
Acq: 24 Dec 2019 19:31

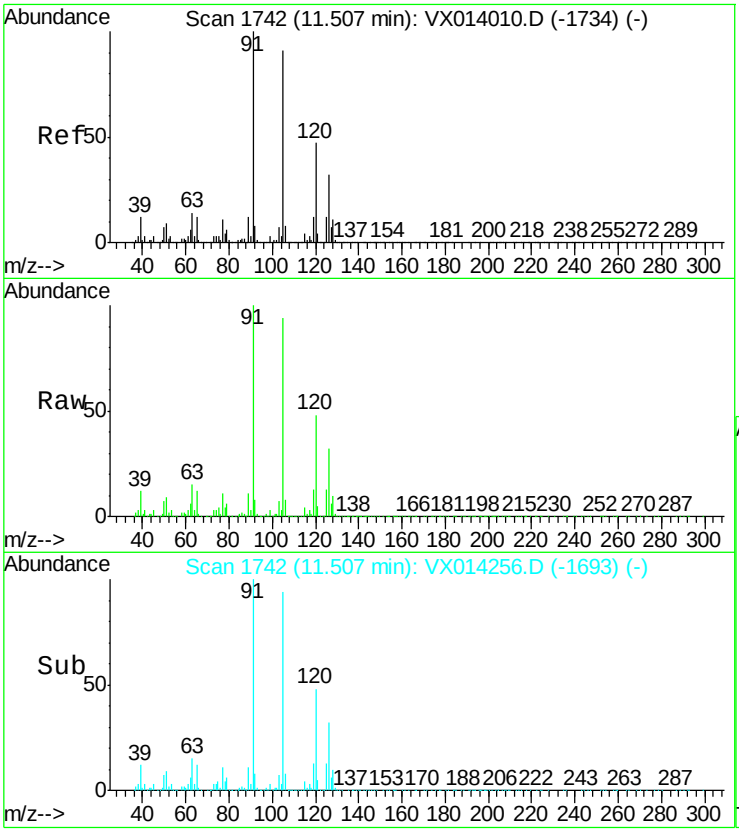
Tgt Ion: 75 Resp: 136911

Ion	Ratio	Lower	Upper
75	100		
53	97.3	76.7	115.1
89	43.7	34.6	51.8



Instrument :
MSVOA_X
ClientSampleId :
996-MW-15-(17)MSD

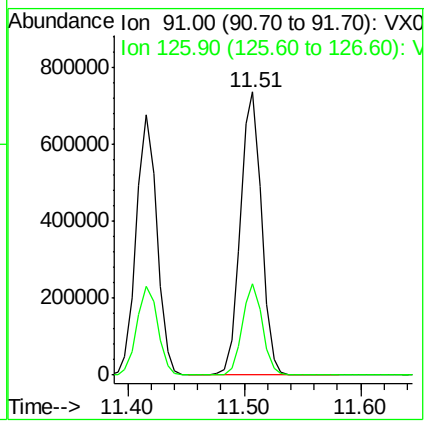
Manual Integrations APPROVED
apatel
12/26/2019 9:24:50 AM

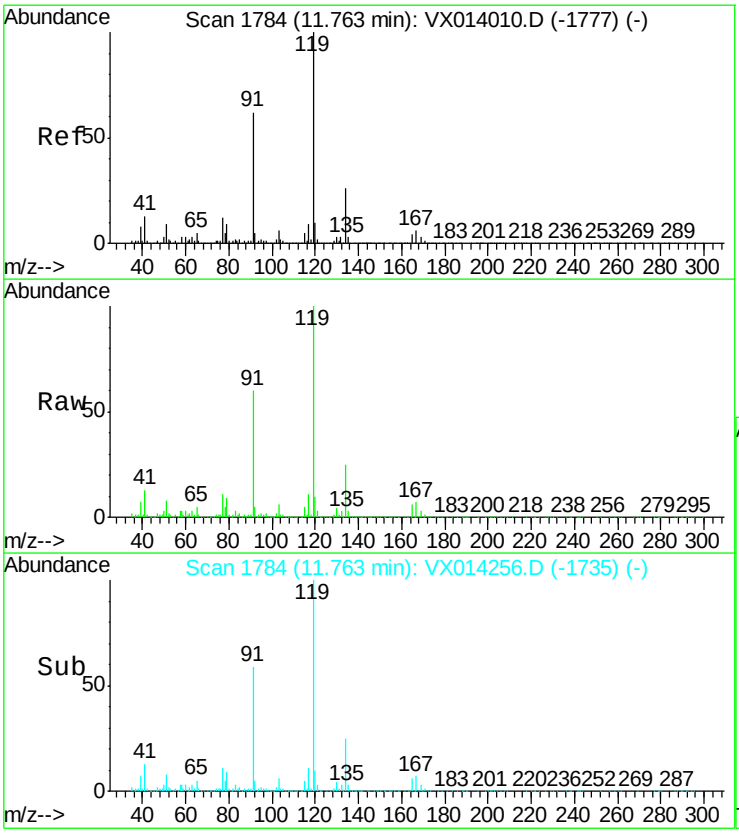


#82
4-Chlorotoluene
Concen: 48.667 ug/l
RT: 11.51 min Scan# 1742
Delta R.T. 0.00 min
Lab File: VX014256.D
Acq: 24 Dec 2019 19:31

Tgt Ion: 91 Resp: 931082

Ion	Ratio	Lower	Upper
91	100		
126	30.7	15.6	46.8

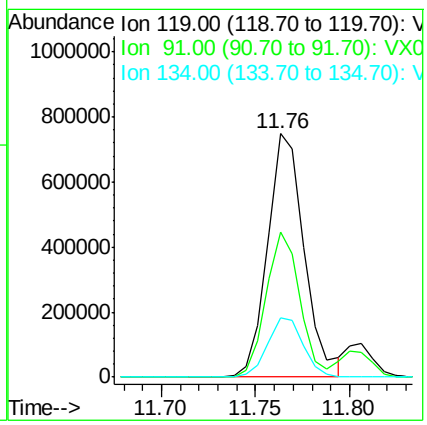


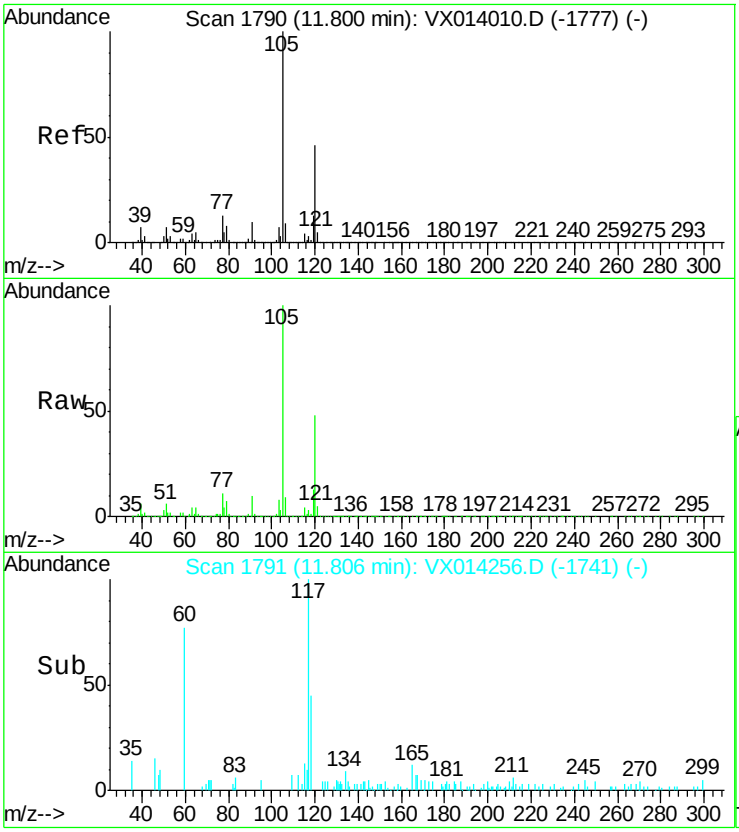


#83
tert-Butylbenzene
Concen: 50.989 ug/l
RT: 11.76 min Scan# 1784
Delta R.T. 0.00 min
Lab File: VX014256.D
Acq: 24 Dec 2019 19:31

Tgt Ion:119 Resp: 1010181

Ion	Ratio	Lower	Upper
119	100		
91	55.1	28.5	85.6
134	23.8	12.2	36.6

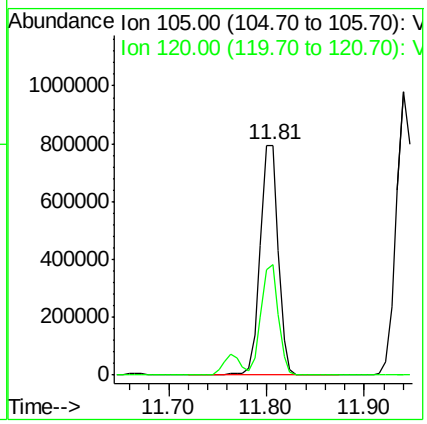




#84
1,2,4-Trimethylbenzene
Concen: 50.153 ug/l
RT: 11.81 min Scan# 1791
Delta R.T. 0.01 min
Lab File: VX014256.D
Acq: 24 Dec 2019 19:31

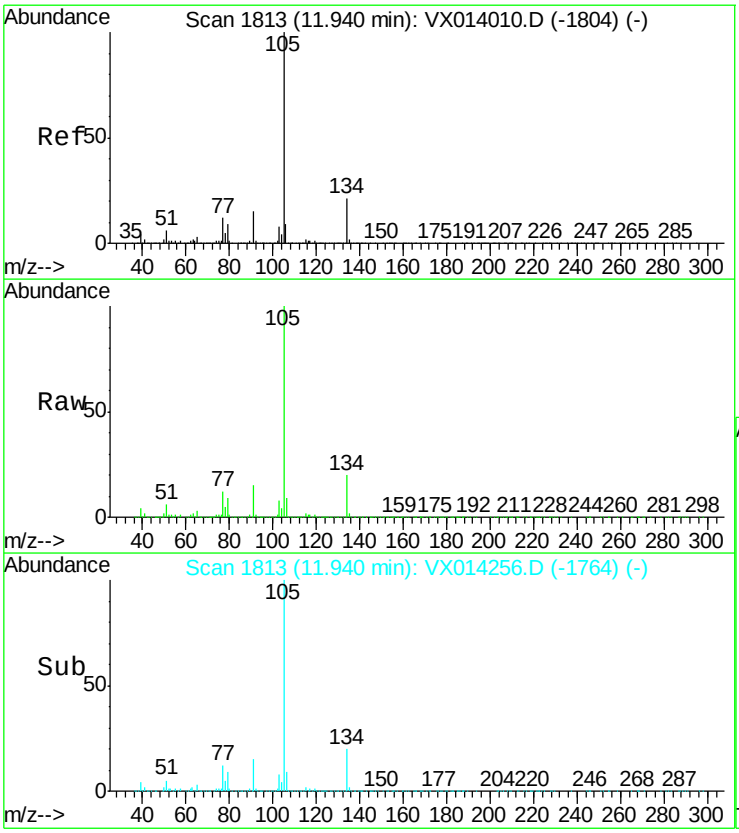
Tgt Ion:105 Resp: 1022495

Ion	Ratio	Lower	Upper
105	100		
120	46.3	23.1	69.2



Instrument :
MSVOA_X
ClientSampleId :
996-MW-15-(17)MSD

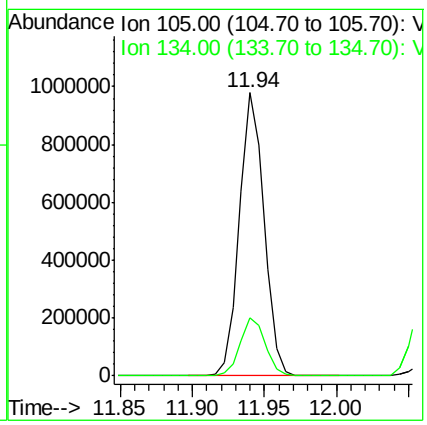
Manual Integrations APPROVED
apatel
12/26/2019 9:24:50 AM



#85
sec-Butylbenzene
Concen: 49.852 ug/l
RT: 11.94 min Scan# 1813
Delta R.T. 0.00 min
Lab File: VX014256.D
Acq: 24 Dec 2019 19:31

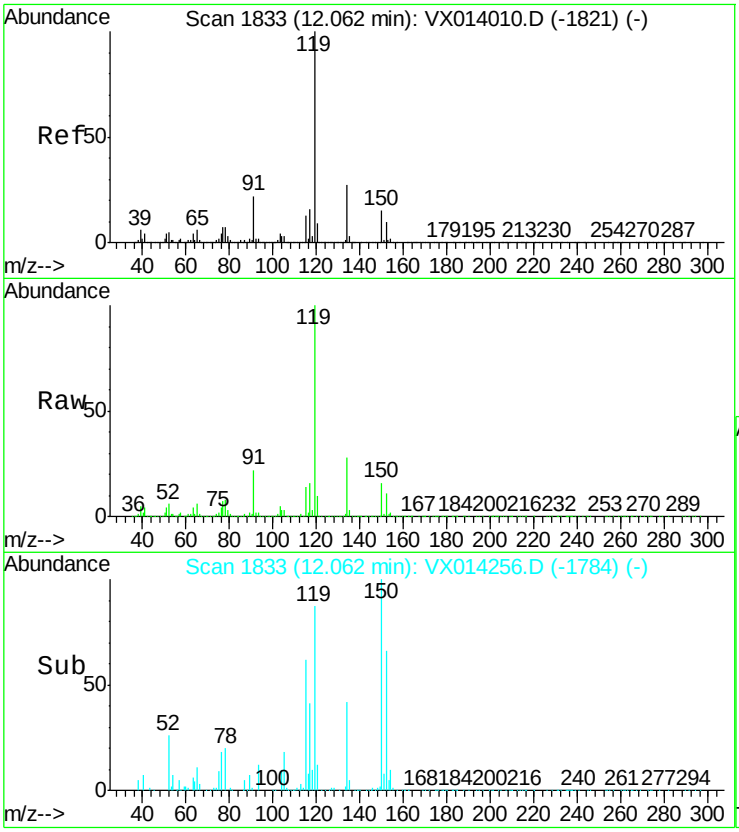
Tgt Ion:105 Resp: 1165943

Ion	Ratio	Lower	Upper
105	100		
134	20.8	10.4	31.1



Instrument :
MSVOA_X
ClientSampleId :
996-MW-15-(17)MSD

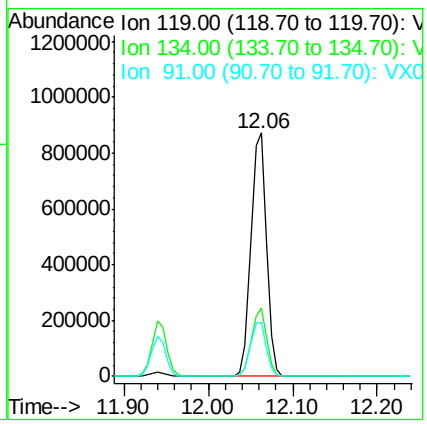
Manual Integrations APPROVED
apatel
12/26/2019 9:24:50 AM

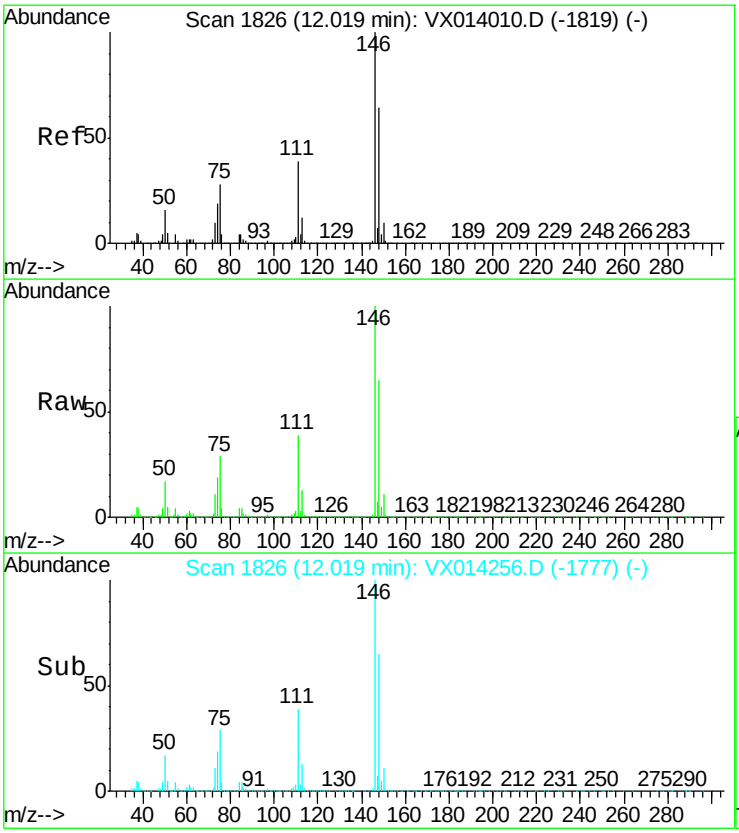


#86
p-Isopropyltoluene
Concen: 49.873 ug/l
RT: 12.06 min Scan# 1833
Delta R.T. 0.00 min
Lab File: VX014256.D
Acq: 24 Dec 2019 19:31

Tgt Ion:119 Resp: 1066974

Ion	Ratio	Lower	Upper
119	100		
134	27.1	13.4	40.1
91	22.3	11.4	34.1

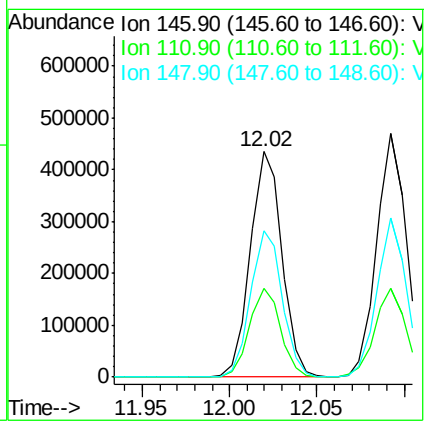




#87
1,3-Dichlorobenzene
Concen: 46.926 ug/l
RT: 12.02 min Scan# 1826
Delta R.T. 0.00 min
Lab File: VX014256.D
Acq: 24 Dec 2019 19:31

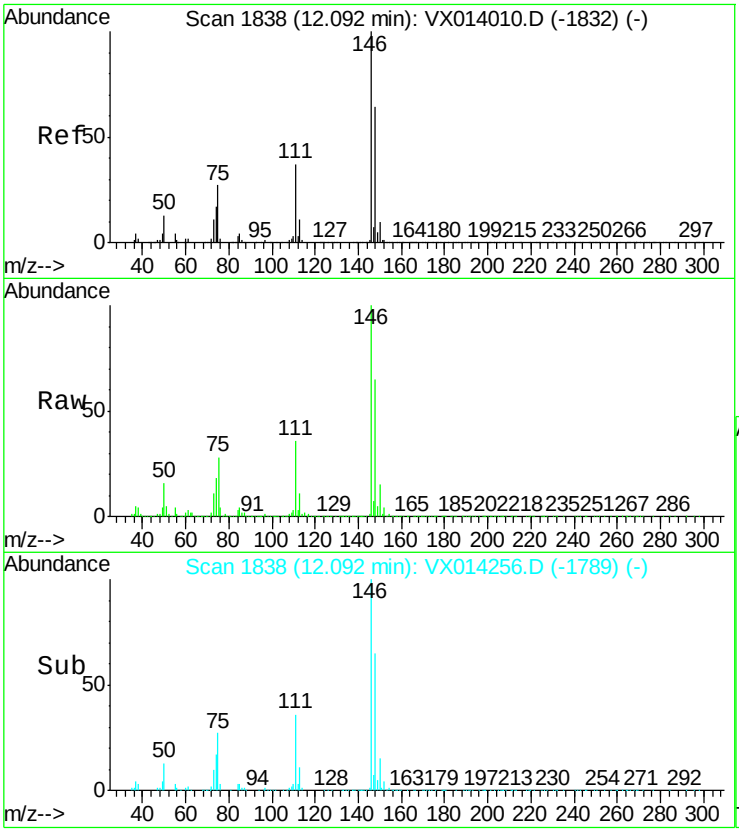
Tgt Ion:146 Resp: 547359

Ion	Ratio	Lower	Upper
146	100		
111	38.8	19.1	57.1
148	64.5	32.3	96.9



Instrument :
MSVOA_X
ClientSampleId :
996-MW-15-(17)MSD

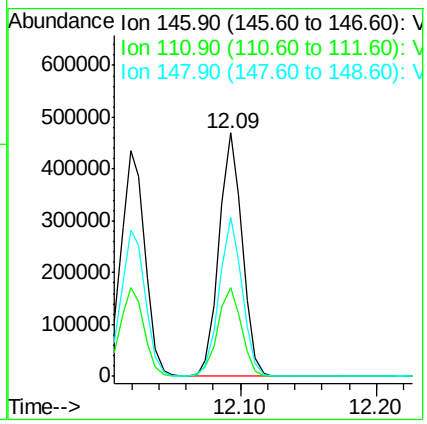
Manual Integrations APPROVED
apatel
12/26/2019 9:24:50 AM

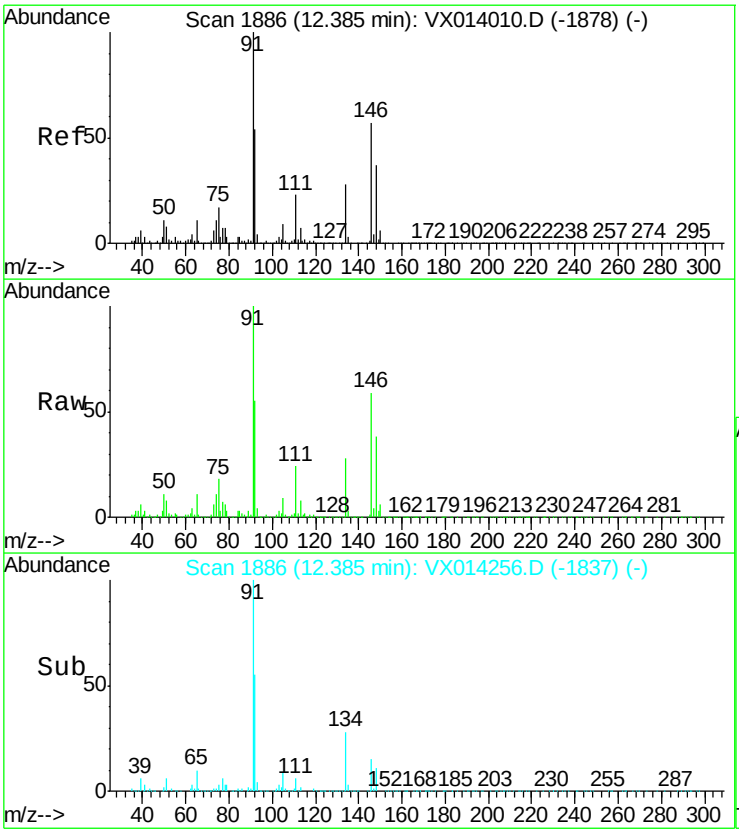


#88
1,4-Dichlorobenzene
Concen: 46.720 ug/l
RT: 12.09 min Scan# 1838
Delta R.T. 0.00 min
Lab File: VX014256.D
Acq: 24 Dec 2019 19:31

Tgt Ion:146 Resp: 554118

Ion	Ratio	Lower	Upper
146	100		
111	37.3	18.7	56.1
148	64.2	31.9	95.9

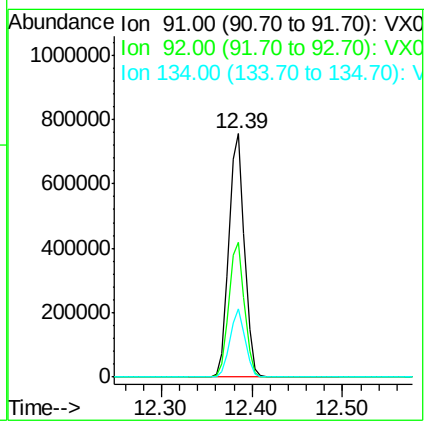




#89
n-Butylbenzene
Concen: 49.289 ug/l
RT: 12.39 min Scan# 1886
Delta R.T. 0.00 min
Lab File: VX014256.D
Acq: 24 Dec 2019 19:31

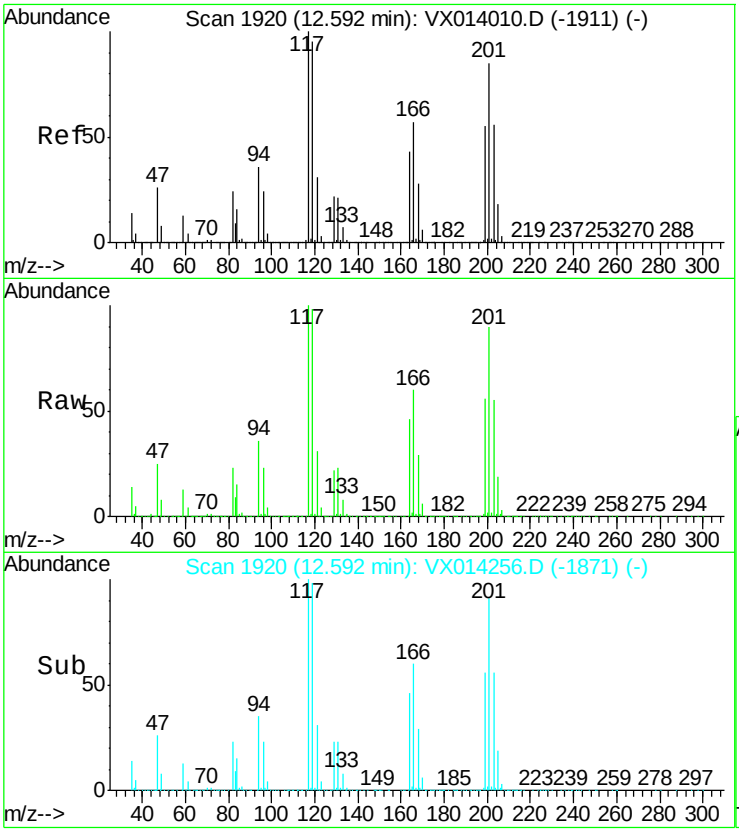
Tgt Ion: 91 Resp: 899766

Ion	Ratio	Lower	Upper
91	100		
92	55.2	27.2	81.6
134	26.9	13.4	40.1



Instrument :
MSVOA_X
ClientSampleId :
996-MW-15-(17)MSD

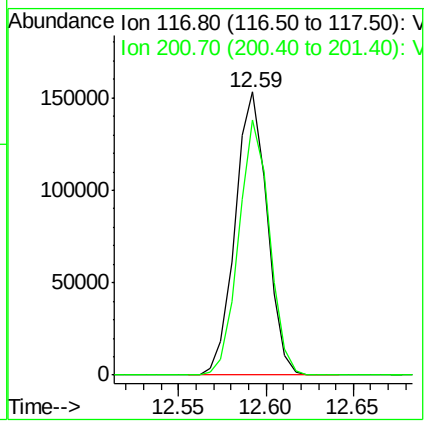
Manual Integrations APPROVED
apatel
12/26/2019 9:24:50 AM

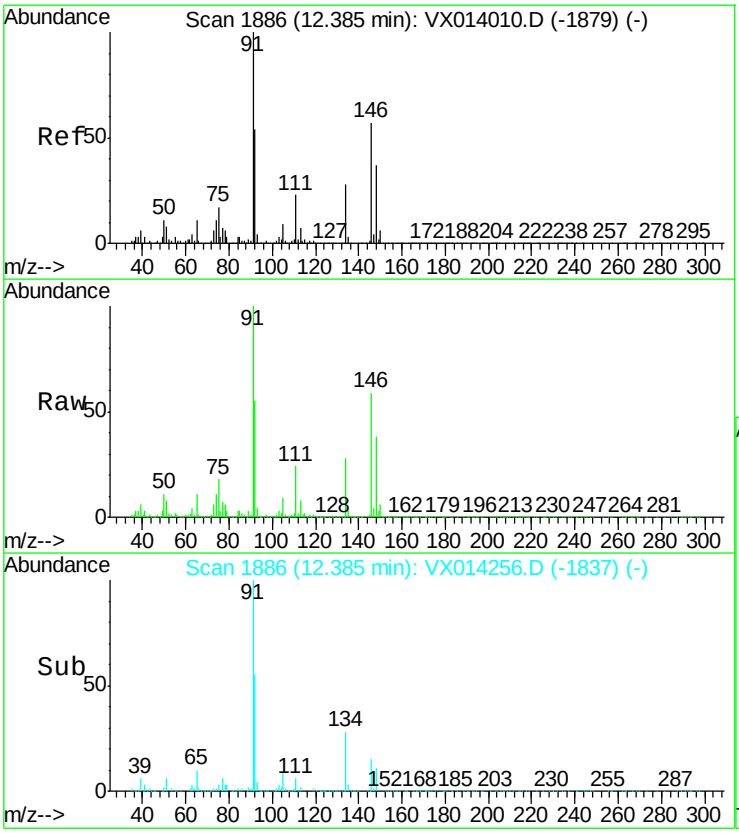


#90
Hexachloroethane
Concen: 50.354 ug/l
RT: 12.59 min Scan# 1920
Delta R.T. 0.00 min
Lab File: VX014256.D
Acq: 24 Dec 2019 19:31

Tgt Ion:117 Resp: 193496

Ion	Ratio	Lower	Upper
117	100		
201	87.3	43.1	129.3

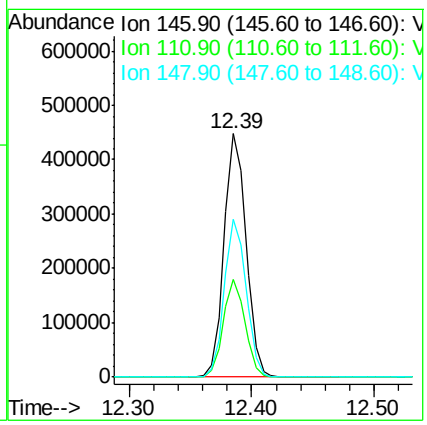


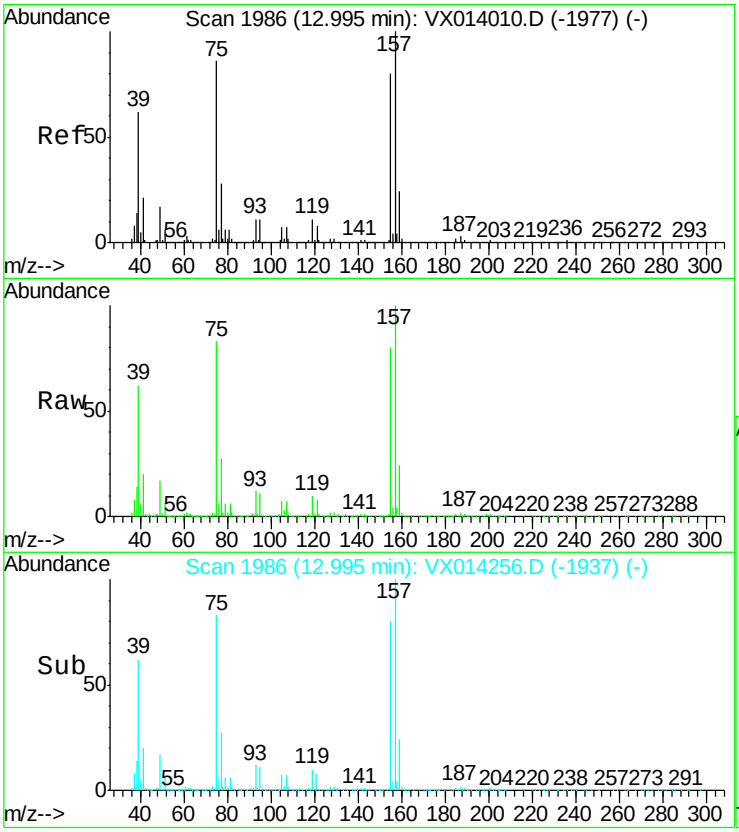


#91
1,2-Dichlorobenzene
Concen: 47.494 ug/l
RT: 12.39 min Scan# 1886
Delta R.T. 0.00 min
Lab File: VX014256.D
Acq: 24 Dec 2019 19:31

Tgt Ion:146 Resp: 557681

Ion	Ratio	Lower	Upper
146	100		
111	39.7	19.7	59.1
148	64.2	32.1	96.5

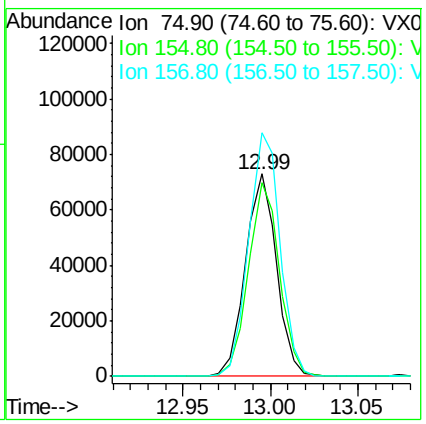


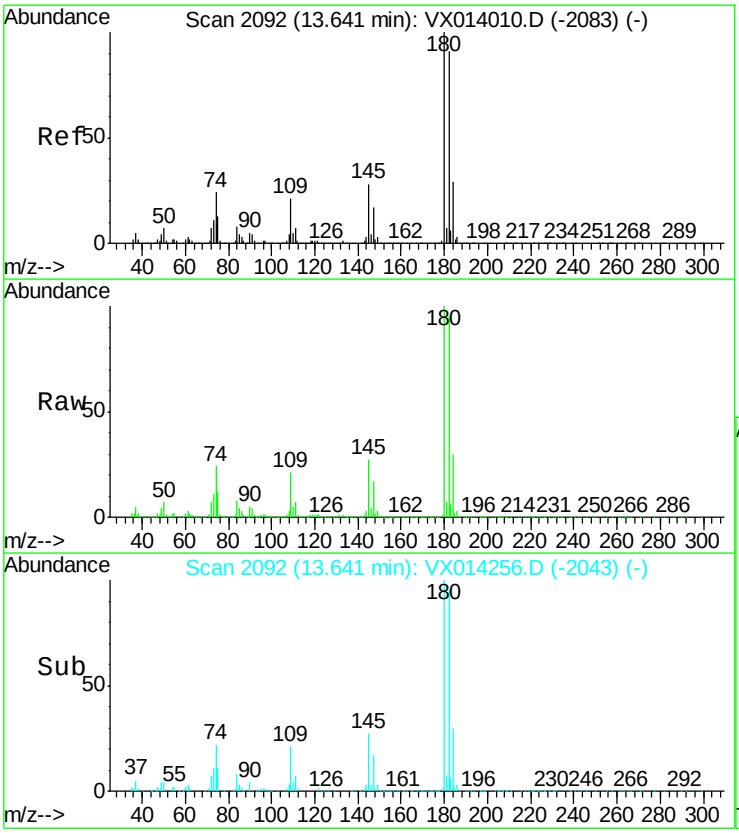


#92
1,2-Dibromo-3-Chloropropane
Concen: 48.058 ug/l
RT: 12.99 min Scan# 1986
Delta R.T. 0.00 min
Lab File: VX014256.D
Acq: 24 Dec 2019 19:31

Tgt Ion: 75 Resp: 89188

Ion	Ratio	Lower	Upper
75	100		
155	96.9	46.9	140.6
157	123.7	60.8	182.4

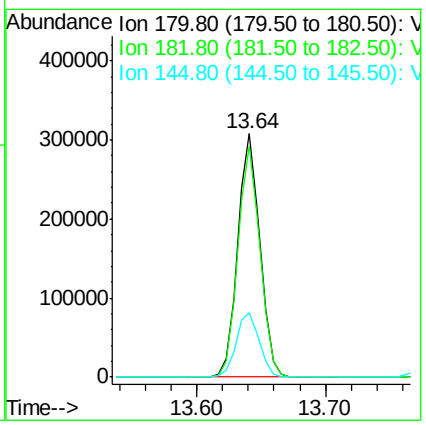




#93
1,2,4-Trichlorobenzene
Concen: 48.017 ug/l
RT: 13.64 min Scan# 2092
Delta R.T. 0.00 min
Lab File: VX014256.D
Acq: 24 Dec 2019 19:31

Tgt Ion:180 Resp: 366460

Ion	Ratio	Lower	Upper
180	100		
182	94.0	46.6	139.8
145	28.0	14.2	42.6

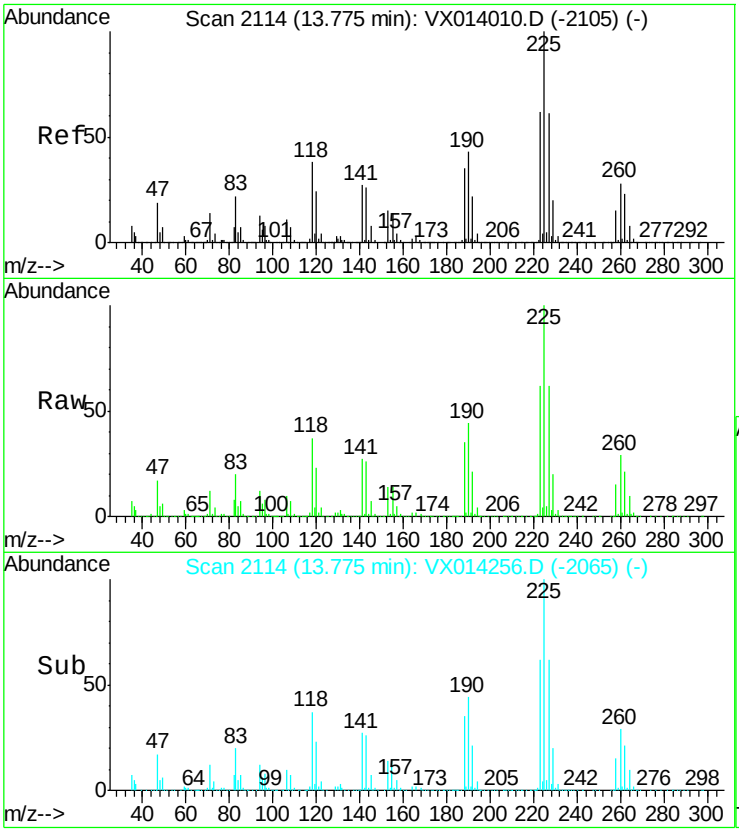


Instrument :
MSVOA_X
ClientSampleId :
996-MW-15-(17)MSD

Manual Integrations APPROVED
apatel
12/26/2019 9:24:50 AM

Instrument :
MSVOA_X
ClientSampleId :
996-MW-15-(17)MSD

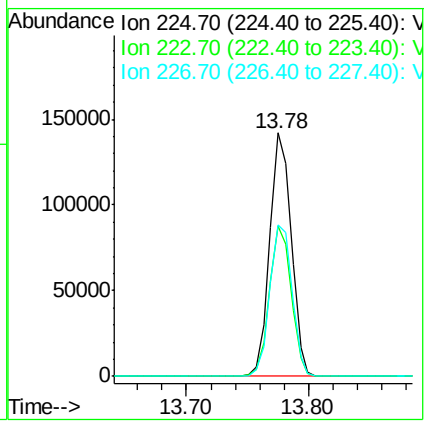
Manual Integrations APPROVED
apatel
12/26/2019 9:24:50 AM

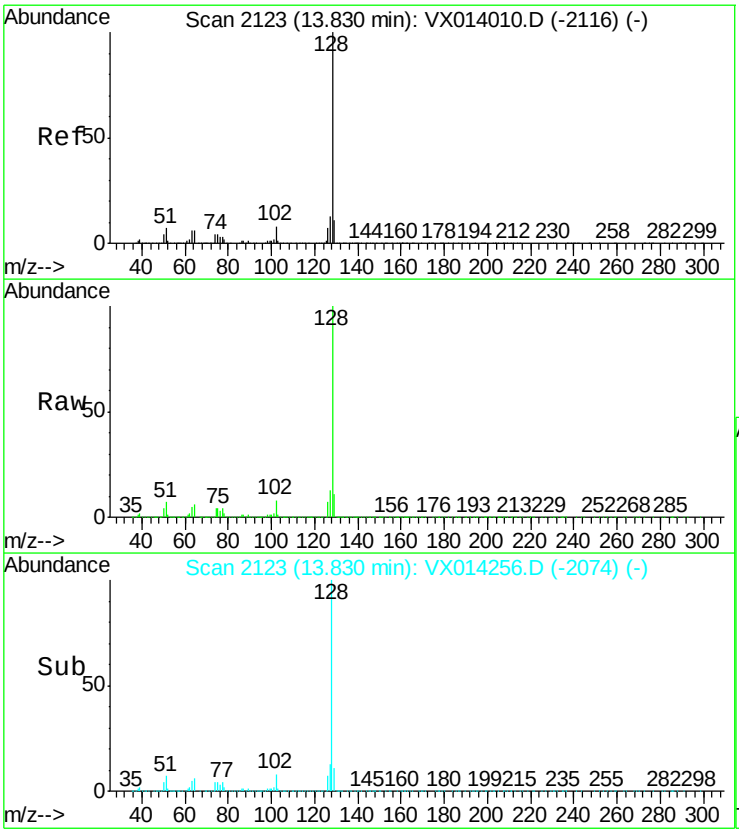


#94
Hexachlorobutadiene
Concen: 47.410 ug/l
RT: 13.78 min Scan# 2114
Delta R.T. 0.00 min
Lab File: VX014256.D
Acq: 24 Dec 2019 19:31

Tgt Ion:225 Resp: 173891

Ion	Ratio	Lower	Upper
225	100		
223	62.3	30.9	92.5
227	64.4	30.9	92.7

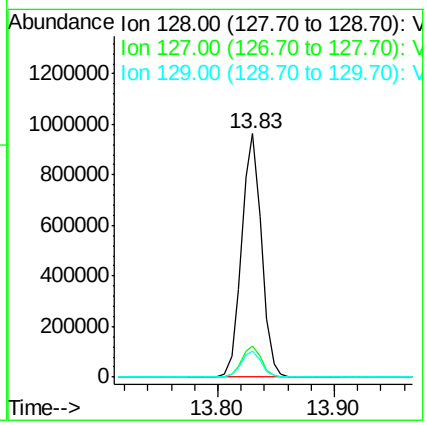


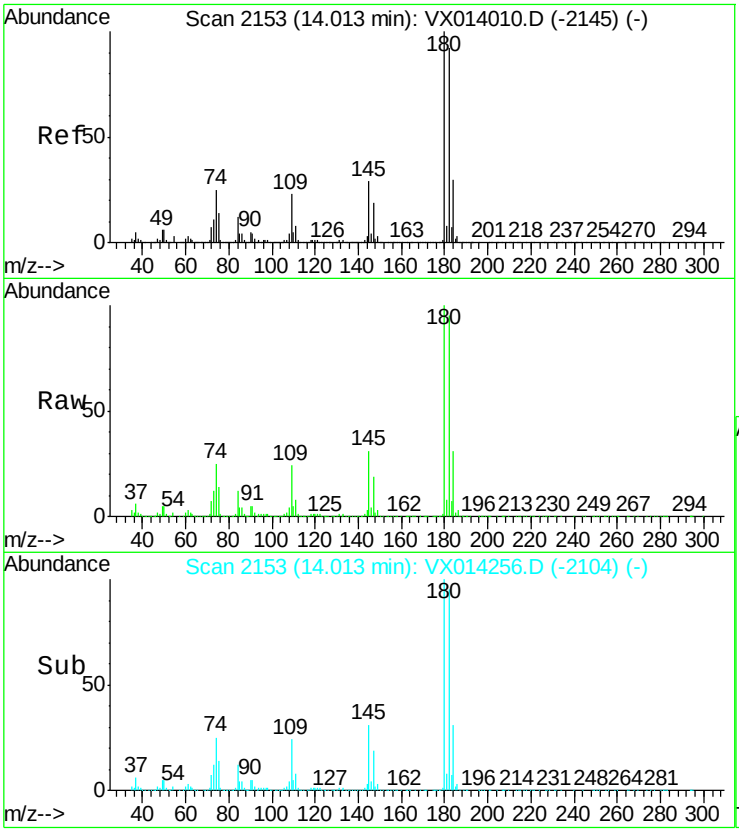


#95
Naphthalene
Concen: 51.165 ug/l
RT: 13.83 min Scan# 2123
Delta R.T. 0.00 min
Lab File: VX014256.D
Acq: 24 Dec 2019 19:31

Tgt Ion:128 Resp: 1147246

Ion	Ratio	Lower	Upper
128	100		
127	12.8	10.2	15.4
129	10.7	8.7	13.1

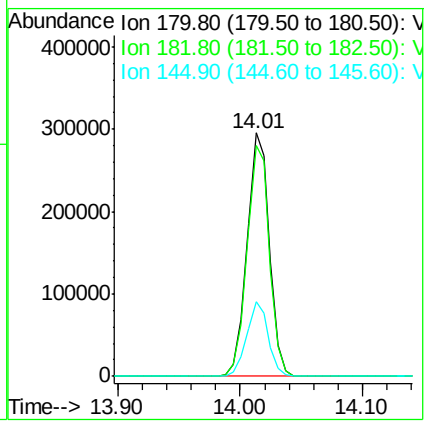




#96
1,2,3-Trichlorobenzene
Concen: 49.524 ug/l
RT: 14.01 min Scan# 2153
Delta R.T. 0.00 min
Lab File: VX014256.D
Acq: 24 Dec 2019 19:31

Tgt Ion:180 Resp: 373104

Ion	Ratio	Lower	Upper
180	100		
182	95.0	46.8	140.3
145	29.6	14.8	44.4



Instrument :
MSVOA_X
ClientSampleId :
996-MW-15-(17)MSD

Manual Integrations APPROVED
apatel
12/26/2019 9:24:50 AM

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Manual Integration Report

Sequence:	VX121319	Instrument	MSVOA_x

Sample ID	File ID	Parameter	Review By	Review On	Supervised By	Supervised On	Reason
VSTDICC001	VX014007.D	1,2,3-Trichloropropane	john	12/17/2019 2:46:27 PM	apatel	12/17/2019 2:48:42 PM	Peak Integrated by Software incorrectly
VSTDICC001	VX014007.D	1,4-Dichlorobenzene	john	12/17/2019 2:46:27 PM	apatel	12/17/2019 2:48:42 PM	Peak Integrated by Software incorrectly
VSTDICC005	VX014008.D	1,2,3-Trichloropropane	john	12/13/2019 5:48:34 PM	apatel	12/16/2019 12:45:57 PM	Peak Integrated by Software incorrectly
VSTDICC020	VX014009.D	1,2,3-Trichloropropane	john	12/13/2019 5:48:45 PM	apatel	12/16/2019 12:46:00 PM	Peak Integrated by Software incorrectly
VSTDICCC050	VX014010.D	1,2,3-Trichloropropane	john	12/13/2019 5:48:52 PM	apatel	12/16/2019 12:46:03 PM	Peak Integrated by Software incorrectly
VSTDICC100	VX014011.D	1,2,3-Trichloropropane	john	12/13/2019 5:48:56 PM	apatel	12/16/2019 12:46:06 PM	Peak Integrated by Software incorrectly
VSTDICC150	VX014012.D	1,2,3-Trichloropropane	john	12/13/2019 5:49:02 PM	apatel	12/16/2019 12:46:09 PM	Peak Integrated by Software incorrectly
VSTDICV050	VX014013.D	1,2,3-Trichloropropane	john	12/17/2019 2:46:32 PM	apatel	12/17/2019 2:48:46 PM	Peak Integrated by Software incorrectly
VSTDCCC050	VX014021.D	1,2,3-Trichloropropane	john	12/17/2019 2:46:46 PM	apatel	12/17/2019 2:48:56 PM	Peak Integrated by Software incorrectly

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Manual Integration Report

Sequence:	VX122419	Instrument	MSVOA_x

Sample ID	File ID	Parameter	Review By	Review On	Supervised By	Supervised On	Reason
VSTDCCC050	VX014232.D	1,2,3-Trichloropropane	john	12/26/2019 9:01:27 AM	apatel	12/26/2019 9:24:17 AM	Peak Integrated by Software incorrectly
VX1224WBS01	VX014235.D	1,2,3-Trichloropropane	john	12/26/2019 9:01:32 AM	apatel	12/26/2019 9:24:21 AM	Peak Integrated by Software incorrectly
K6405-07MS	VX014255.D	1,2,3-Trichloropropane	john	12/26/2019 9:02:04 AM	apatel	12/26/2019 9:24:46 AM	Peak Integrated by Software incorrectly
K6405-08MSD	VX014256.D	1,2,3-Trichloropropane	john	12/26/2019 9:02:09 AM	apatel	12/26/2019 9:24:50 AM	Peak Integrated by Software incorrectly
VSTDCCC050	VX014257.D	1,2,3-Trichloropropane	john	12/26/2019 9:02:14 AM	apatel	12/26/2019 9:24:53 AM	Peak Integrated by Software incorrectly

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Manual Integration Report

Sequence:	vx122619	Instrument	MSVOA_x

Sample ID	File ID	Parameter	Review By	Review On	Supervised By	Supervised On	Reason
VSTDCCC050	VX014259.D	1,2,3-Trichloropropane	john	12/27/2019 11:25:52 AM	apatel	12/27/2019 12:03:02 PM	Peak Integrated by Software incorrectly
VX1226WBS01	VX014262.D	1,2,3-Trichloropropane	john	12/27/2019 11:25:57 AM	apatel	12/27/2019 12:03:06 PM	Peak Integrated by Software incorrectly
VSTDCCC050	VX014286.D	1,2,3-Trichloropropane	john	12/27/2019 11:26:16 AM	apatel	12/27/2019 12:03:19 PM	Peak Integrated by Software incorrectly
VSTDCCC050	VX014288.D	1,2,3-Trichloropropane	john	12/27/2019 11:26:47 AM	apatel	12/27/2019 12:03:23 PM	Peak Integrated by Software incorrectly
VSTDCCC050	VX014300.D	1,2,3-Trichloropropane	john	12/27/2019 11:27:01 AM	apatel	12/27/2019 12:03:35 PM	Peak Integrated by Software incorrectly

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Manual Integration Report

Sequence:	VX122719	Instrument	MSVOA_x

Sample ID	File ID	Parameter	Review By	Review On	Supervised By	Supervised On	Reason
VSTDCCC050	VX014302.D	1,2,3-Trichloropropane	john	12/30/2019 9:04:52 AM	apatel	12/30/2019 11:04:07 AM	Peak Integrated by Software incorrectly
VX1227WBS01	VX014304.D	1,2,3-Trichloropropane	john	12/30/2019 9:04:57 AM	apatel	12/30/2019 11:04:11 AM	Peak Integrated by Software incorrectly
VSTDCCC050	VX014328.D	1,2,3-Trichloropropane	john	12/30/2019 9:05:11 AM	apatel	12/30/2019 11:04:23 AM	Peak Integrated by Software incorrectly
VSTDCCC050	VX014330.D	1,2,3-Trichloropropane	john	12/30/2019 9:05:21 AM	apatel	12/30/2019 11:04:30 AM	Peak Integrated by Software incorrectly
VSTDCCC050	VX014341.D	1,2,3-Trichloropropane	john	12/30/2019 9:05:35 AM	apatel	12/30/2019 11:05:06 AM	Peak Integrated by Software incorrectly

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Instrument ID: MSVOA_X

Daily Analysis Runlog For Sequence/QCBatch ID # VX121319

Review By	john	Review On	12/16/2019 9:19:40 AM		
Supervise By	apatel	Supervise On	12/16/2019 12:58:28 PM		
SubDirectory	VX121319	HP Acquire Method	MSVOA_X	HP Processing Method	82X121319W.M

STD. NAME	STD REF.#
Tune/Reschk	VP89492
Initial Calibration Stds	VP89506,VP89507,VP89508,VP89509,VP89510,VP89511
CCC	VP89498,VP89499
Internal Standard/PEM	VP88281
ICV/I.BLK	VP89512

Sr#	SampleId	Data File Name	Date-Time	Operator	Status
1	BFB	VX014005.D	13 Dec 2019 12:35	JC/SP	Ok
2	VSTDCCC050	VX014006.D	13 Dec 2019 14:08	JC/SP	Not Ok
3	VSTDICC001	VX014007.D	13 Dec 2019 14:49	JC/SP	Ok,M
4	VSTDICC005	VX014008.D	13 Dec 2019 15:12	JC/SP	Ok,M
5	VSTDICC020	VX014009.D	13 Dec 2019 15:36	JC/SP	Ok,M
6	VSTDICCC050	VX014010.D	13 Dec 2019 15:59	JC/SP	Ok,M
7	VSTDICC100	VX014011.D	13 Dec 2019 16:22	JC/SP	Ok,M
8	VSTDICC150	VX014012.D	13 Dec 2019 16:45	JC/SP	Ok,M
9	VSTDICV050	VX014013.D	13 Dec 2019 18:00	JC/SP	Ok,M
10	VX1213WBL01	VX014014.D	13 Dec 2019 18:58	JC/SP	Ok
11	VX1213WBS01	VX014015.D	13 Dec 2019 19:21	JC/SP	Ok,M
12	VX1213WBSD01	VX014016.D	13 Dec 2019 19:45	JC/SP	Ok,M
13	K6182-01	VX014017.D	13 Dec 2019 20:31	JC/SP	Ok
14	K6182-02	VX014018.D	13 Dec 2019 20:55	JC/SP	Ok
15	K6182-03	VX014019.D	13 Dec 2019 21:18	JC/SP	Ok
16	K6182-04	VX014020.D	13 Dec 2019 21:41	JC/SP	Ok
17	VSTDCCC050	VX014021.D	13 Dec 2019 22:04	JC/SP	Ok,M

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Instrument ID: MSVOA_X

Daily Analysis Runlog For Sequence/QCBatch ID # VX122419

Review By	john	Review On	12/26/2019 9:37:28 AM		
Supervise By	apatel	Supervise On	12/26/2019 2:34:15 PM		
SubDirectory	VX122419	HP Acquire Method	MSVOA_X	HP Processing Method	82X121319W.M

STD. NAME	STD REF.#
Tune/Reschk	VP89725
Initial Calibration Stds	VP89506,VP89507,VP89508,VP89509,VP89510,VP89511
CCC	VP89726,VP89727
Internal Standard/PEM	VP88281
ICV/I.BLK	VP89512

Sr#	SampleId	Data File Name	Date-Time	Operator	Status
1	BFB	VX014231.D	24 Dec 2019 08:54	JC/SP	Ok
2	VSTDCCC050	VX014232.D	24 Dec 2019 09:28	JC/SP	Ok,M
3	VX1224MBL01	VX014233.D	24 Dec 2019 10:08	JC/SP	Ok
4	VX1224WBL01	VX014234.D	24 Dec 2019 10:32	JC/SP	Ok
5	VX1224WBS01	VX014235.D	24 Dec 2019 11:09	JC/SP	Ok,M
6	VX1224MBS01	VX014236.D	24 Dec 2019 11:45	JC/SP	Ok,M
7	K6393-05	VX014237.D	24 Dec 2019 12:09	JC/SP	Ok
8	K6377-06DL	VX014238.D	24 Dec 2019 12:32	JC/SP	Ok
9	K6401-01	VX014239.D	24 Dec 2019 12:55	JC/SP	Ok
10	K6401-04	VX014240.D	24 Dec 2019 13:19	JC/SP	Ok
11	K6401-05	VX014241.D	24 Dec 2019 13:42	JC/SP	Not Ok
12	K6401-06	VX014242.D	24 Dec 2019 14:05	JC/SP	Ok
13	K6401-02MS	VX014243.D	24 Dec 2019 14:28	JC/SP	Not Ok
14	K6401-03MSD	VX014244.D	24 Dec 2019 14:52	JC/SP	Not Ok
15	K6406-02	VX014245.D	24 Dec 2019 15:15	JC/SP	Ok
16	VX1224WBSD01	VX014246.D	24 Dec 2019 15:38	JC/SP	Ok,M
17	K6405-01	VX014247.D	24 Dec 2019 16:01	JC/SP	Dilution
18	K6405-02	VX014248.D	24 Dec 2019 16:25	JC/SP	ReRun
19	K6405-03	VX014249.D	24 Dec 2019 16:48	JC/SP	Dilution
20	K6405-04	VX014250.D	24 Dec 2019 17:11	JC/SP	ReRun
21	K6405-05	VX014251.D	24 Dec 2019 17:35	JC/SP	Dilution
22	K6405-06	VX014252.D	24 Dec 2019 17:58	JC/SP	ReRun
23	K6405-09	VX014253.D	24 Dec 2019 18:21	JC/SP	Not Ok
24	K6405-10	VX014254.D	24 Dec 2019 18:45	JC/SP	Ok
25	K6405-07MS	VX014255.D	24 Dec 2019 19:08	JC/SP	Ok,M
26	K6405-08MSD	VX014256.D	24 Dec 2019 19:31	JC/SP	Ok,M

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Instrument ID: MSVOA_X

Daily Analysis Runlog For Sequence/QCBatch ID # VX122419

Review By	john	Review On	12/26/2019 9:37:28 AM		
Supervise By	apatel	Supervise On	12/26/2019 2:34:15 PM		
SubDirectory	VX122419	HP Acquire Method	MSVOA_X	HP Processing Method	82X121319W.M

STD. NAME	STD REF.#
Tune/Reschk	VP89725
Initial Calibration Stds	VP89506,VP89507,VP89508,VP89509,VP89510,VP89511
CCC	VP89726,VP89727
Internal Standard/PEM	VP88281
ICV/I.BLK	VP89512

27	VSTDCCC050	VX014257.D	24 Dec 2019 19:54	JC/SP	Ok,M

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Instrument ID: MSVOA_X

Daily Analysis Runlog For Sequence/QCBatch ID # VX122619

Review By	john	Review On	12/27/2019 11:35:47 AM		
Supervise By	apatel	Supervise On	12/27/2019 12:03:48 PM		
SubDirectory	VX122619	HP Acquire Method	MSVOA_X	HP Processing Method	82X121319W.M

STD. NAME	STD REF.#
Tune/Reschk	VP89756,VP89759
Initial Calibration Stds	VP89506,VP89507,VP89508,VP89509,VP89510,VP89511
CCC	VP89757,VP89758,VP89760,VP89761
Internal Standard/PEM	VP88281
ICV/I.BLK	VP89512

Sr#	SampleId	Data File Name	Date-Time	Operator	Status
1	BFB	VX014258.D	26 Dec 2019 10:14	JC/SP	Ok
2	VSTDCCC050	VX014259.D	26 Dec 2019 10:46	JC/SP	Ok,M
3	VX1226MBL01	VX014260.D	26 Dec 2019 11:22	JC/SP	Ok
4	VX1226WBL01	VX014261.D	26 Dec 2019 11:45	JC/SP	Ok
5	VX1226WBS01	VX014262.D	26 Dec 2019 12:18	JC/SP	Ok,M
6	VX1226MBS01	VX014263.D	26 Dec 2019 12:51	JC/SP	Ok,M
7	K6420-05	VX014264.D	26 Dec 2019 13:15	JC/SP	Ok
8	K6405-14	VX014265.D	26 Dec 2019 13:38	JC/SP	Ok
9	K6405-13	VX014266.D	26 Dec 2019 14:01	JC/SP	ReRun
10	VX1226WBSD01	VX014267.D	26 Dec 2019 14:24	JC/SP	Ok,M
11	PB125689TB	VX014268.D	26 Dec 2019 14:48	JC/SP	Ok
12	K6118-13	VX014269.D	26 Dec 2019 15:11	JC/SP	Ok
13	K6396-10	VX014270.D	26 Dec 2019 15:34	JC/SP	Ok
14	K6405-02	VX014271.D	26 Dec 2019 15:58	JC/SP	Ok
15	K6405-04	VX014272.D	26 Dec 2019 16:21	JC/SP	Ok
16	K6405-06	VX014273.D	26 Dec 2019 16:44	JC/SP	Ok
17	K6405-09	VX014274.D	26 Dec 2019 17:08	JC/SP	Ok
18	K6405-11	VX014275.D	26 Dec 2019 17:31	JC/SP	Ok
19	K6405-12	VX014276.D	26 Dec 2019 17:54	JC/SP	Ok
20	K6420-01	VX014277.D	26 Dec 2019 18:17	JC/SP	Ok
21	K6420-02	VX014278.D	26 Dec 2019 18:41	JC/SP	Ok
22	K6420-03	VX014279.D	26 Dec 2019 19:04	JC/SP	Dilution
23	K6420-04	VX014280.D	26 Dec 2019 19:27	JC/SP	Ok
24	K6405-01DL	VX014281.D	26 Dec 2019 19:50	JC/SP	Ok
25	K6405-03DL	VX014282.D	26 Dec 2019 20:14	JC/SP	Ok
26	K6405-05DL	VX014283.D	26 Dec 2019 20:37	JC/SP	Ok

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Instrument ID: MSVOA_X

Daily Analysis Runlog For Sequence/QCBatch ID # VX122619

Review By	john	Review On	12/27/2019 11:35:47 AM		
Supervise By	apatel	Supervise On	12/27/2019 12:03:48 PM		
SubDirectory	VX122619	HP Acquire Method	MSVOA_X	HP Processing Method	82X121319W.M

STD. NAME	STD REF.#
Tune/Reschk	VP89756,VP89759
Initial Calibration Stds	VP89506,VP89507,VP89508,VP89509,VP89510,VP89511
CCC	VP89757,VP89758,VP89760,VP89761
Internal Standard/PEM	VP88281
ICV/I.BLK	VP89512

27	K6434-01	VX014284.D	26 Dec 2019 21:00	JC/SP	Ok
28	K6434-02	VX014285.D	26 Dec 2019 21:24	JC/SP	Ok
29	VSTDCCC050	VX014286.D	26 Dec 2019 21:47	JC/SP	Ok,M
30	BFB	VX014287.D	26 Dec 2019 22:33	JC/SP	Ok
31	VSTDCCC050	VX014288.D	26 Dec 2019 22:56	JC/SP	Ok,M
32	VX1226WBL02	VX014289.D	27 Dec 2019 00:06	JC/SP	Ok
33	VX1226WBS02	VX014290.D	27 Dec 2019 00:29	JC/SP	Ok,M
34	VX1226WBSD02	VX014291.D	27 Dec 2019 00:52	JC/SP	Ok,M
35	K6396-12	VX014292.D	27 Dec 2019 01:16	JC/SP	Ok
36	K6413-14	VX014293.D	27 Dec 2019 01:39	JC/SP	Ok
37	K6413-15	VX014294.D	27 Dec 2019 02:02	JC/SP	Ok
38	K6413-16	VX014295.D	27 Dec 2019 02:25	JC/SP	Ok
39	K6414-09	VX014296.D	27 Dec 2019 02:49	JC/SP	Ok
40	K6414-10	VX014297.D	27 Dec 2019 03:12	JC/SP	Ok
41	K6436-08	VX014298.D	27 Dec 2019 03:35	JC/SP	Ok
42	K6436-09	VX014299.D	27 Dec 2019 03:59	JC/SP	Ok
43	VSTDCCC050	VX014300.D	27 Dec 2019 04:22	JC/SP	Ok,M

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Instrument ID: MSVOA_X

Daily Analysis Runlog For Sequence/QCBatch ID # VX122719

Review By	john	Review On	12/30/2019 9:43:35 AM		
Supervise By	apatel	Supervise On	12/30/2019 11:05:16 AM		
SubDirectory	VX122719	HP Acquire Method	MSVOA_X	HP Processing Method	82X121319W.M

STD. NAME	STD REF.#
Tune/Reschk	VP89795,VP89797
Initial Calibration Stds	VP89506,VP89507,VP89508,VP89509,VP89510,VP89511
CCC	VP89796,VP89798,VP89799,VP89800
Internal Standard/PEM	VP88281
ICV/I.BLK	VP89512

Sr#	SampleId	Data File Name	Date-Time	Operator	Status
1	BFB	VX014301.D	27 Dec 2019 11:31	JC/SP	Ok
2	VSTDCCC050	VX014302.D	27 Dec 2019 12:03	JC/SP	Ok,M
3	VX1227WBL01	VX014303.D	27 Dec 2019 12:41	JC/SP	Ok
4	VX1227WBS01	VX014304.D	27 Dec 2019 13:15	JC/SP	Ok,M
5	K6457-01	VX014305.D	27 Dec 2019 13:48	JC/SP	Ok
6	K6457-02	VX014306.D	27 Dec 2019 14:11	JC/SP	Ok
7	K6457-03	VX014307.D	27 Dec 2019 14:35	JC/SP	Ok
8	K6457-04	VX014308.D	27 Dec 2019 14:58	JC/SP	Ok
9	K6434-04	VX014309.D	27 Dec 2019 15:21	JC/SP	Ok
10	K6405-13	VX014310.D	27 Dec 2019 15:44	JC/SP	Ok
11	K6420-03DL	VX014311.D	27 Dec 2019 16:08	JC/SP	Ok
12	K6434-05	VX014312.D	27 Dec 2019 16:31	JC/SP	Ok
13	K6434-06	VX014313.D	27 Dec 2019 16:54	JC/SP	Ok
14	K6431-18	VX014314.D	27 Dec 2019 17:18	JC/SP	Ok
15	K6431-17	VX014315.D	27 Dec 2019 17:41	JC/SP	Ok
16	K6431-16	VX014316.D	27 Dec 2019 18:04	JC/SP	Ok
17	K6449-01	VX014317.D	27 Dec 2019 18:28	JC/SP	Ok
18	K6449-02	VX014318.D	27 Dec 2019 18:51	JC/SP	Ok
19	K6449-03	VX014319.D	27 Dec 2019 19:14	JC/SP	Ok
20	K6449-04	VX014320.D	27 Dec 2019 19:38	JC/SP	Ok
21	K6449-05	VX014321.D	27 Dec 2019 20:01	JC/SP	Ok
22	K6449-08	VX014322.D	27 Dec 2019 20:24	JC/SP	Ok
23	K6449-09	VX014323.D	27 Dec 2019 20:48	JC/SP	Ok
24	K6449-10	VX014324.D	27 Dec 2019 21:11	JC/SP	Ok
25	K6449-11	VX014325.D	27 Dec 2019 21:34	JC/SP	Ok
26	K6449-06MS	VX014326.D	27 Dec 2019 21:57	JC/SP	Ok,M

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Instrument ID: MSVOA_X

Daily Analysis Runlog For Sequence/QCBatch ID # VX122719

Review By	john	Review On	12/30/2019 9:43:35 AM		
Supervise By	apatel	Supervise On	12/30/2019 11:05:16 AM		
SubDirectory	VX122719	HP Acquire Method	MSVOA_X	HP Processing Method	82X121319W.M

STD. NAME	STD REF.#
Tune/Reschk	VP89795,VP89797
Initial Calibration Stds	VP89506,VP89507,VP89508,VP89509,VP89510,VP89511
CCC	VP89796,VP89798,VP89799,VP89800
Internal Standard/PEM	VP88281
ICV/I.BLK	VP89512

27	K6449-07MSD	VX014327.D	27 Dec 2019 22:21	JC/SP	Ok,M
28	VSTDCCC050	VX014328.D	27 Dec 2019 22:44	JC/SP	Ok,M
29	BFB	VX014329.D	27 Dec 2019 23:07	JC/SP	Ok
30	VSTDCCC050	VX014330.D	27 Dec 2019 23:54	JC/SP	Ok,M
31	VX1227WBL02	VX014331.D	28 Dec 2019 01:03	JC/SP	Ok
32	VX1227WBS02	VX014332.D	28 Dec 2019 01:27	JC/SP	Ok,M
33	VX1227WBSD02	VX014333.D	28 Dec 2019 01:50	JC/SP	Ok,M
34	PB125747TB	VX014334.D	28 Dec 2019 02:13	JC/SP	Ok
35	K6431-05	VX014335.D	28 Dec 2019 02:36	JC/SP	Ok
36	K6113-15	VX014336.D	28 Dec 2019 03:00	JC/SP	Ok
37	K6117-12	VX014337.D	28 Dec 2019 03:23	JC/SP	Ok
38	K6441-08	VX014338.D	28 Dec 2019 03:46	JC/SP	Ok
39	K6441-09	VX014339.D	28 Dec 2019 04:10	JC/SP	Ok
40	K6442-07	VX014340.D	28 Dec 2019 04:33	JC/SP	Ok
41	VSTDCCC050	VX014341.D	28 Dec 2019 04:56	JC/SP	Ok,M

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Instrument ID: MSVOA_X

Daily Analysis Runlog For Sequence/QCBatch ID # VX121319

Review By	john	Review On	12/16/2019 9:19:40 AM		
Supervise By	apatel	Supervise On	12/16/2019 12:58:28 PM		
SubDirectory	VX121319	HP Acquire Method	MSVOA_X	HP Processing Method	82X121319W.M

STD. NAME	STD REF.#
Tune/Reschk	VP89492
Initial Calibration Stds	VP89506,VP89507,VP89508,VP89509,VP89510,VP89511
CCC	VP89498,VP89499
Internal Standard/PEM	VP88281
ICV/I.BLK	VP89512

Sr#	SampleId	ClientID	Data File Name	Date-Time	Comment	Operator	Status
1	BFB	BFB	VX014005.D	13 Dec 2019 12:35		JC/SP	Ok
2	VSTDCCC050	VSTDCCC050	VX014006.D	13 Dec 2019 14:08	Need ical	JC/SP	Not Ok
3	VSTDICC001	VSTDICC001	VX014007.D	13 Dec 2019 14:49	Method pass for DOD	JC/SP	Ok,M
4	VSTDICC005	VSTDICC005	VX014008.D	13 Dec 2019 15:12		JC/SP	Ok,M
5	VSTDICC020	VSTDICC020	VX014009.D	13 Dec 2019 15:36		JC/SP	Ok,M
6	VSTDICCC050	VSTDICCC050	VX014010.D	13 Dec 2019 15:59		JC/SP	Ok,M
7	VSTDICC100	VSTDICC100	VX014011.D	13 Dec 2019 16:22		JC/SP	Ok,M
8	VSTDICC150	VSTDICC150	VX014012.D	13 Dec 2019 16:45		JC/SP	Ok,M
9	VSTDICV050	ICVVX121319	VX014013.D	13 Dec 2019 18:00	pH#Lot#9654	JC/SP	Ok,M
10	VX1213WBL01	VX1213WBL01	VX014014.D	13 Dec 2019 18:58		JC/SP	Ok
11	VX1213WBS01	VX1213WBS01	VX014015.D	13 Dec 2019 19:21		JC/SP	Ok,M
12	VX1213WBSD01	VX1213WBSD01	VX014016.D	13 Dec 2019 19:45		JC/SP	Ok,M
13	K6182-01	STORAGE-BLANK-SO	VX014017.D	13 Dec 2019 20:31	vial A pH<2	JC/SP	Ok
14	K6182-02	STORAGE-BLANK-WA	VX014018.D	13 Dec 2019 20:55	vial A pH<2	JC/SP	Ok
15	K6182-03	STORAGE-BLANK-WA	VX014019.D	13 Dec 2019 21:18	vial A pH<2	JC/SP	Ok
16	K6182-04	STORAGE-BLANK-SA	VX014020.D	13 Dec 2019 21:41	vial A pH<2	JC/SP	Ok
17	VSTDCCC050	VSTDCCC050EC	VX014021.D	13 Dec 2019 22:04		JC/SP	Ok,M

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Instrument ID: MSVOA_X

Daily Analysis Runlog For Sequence/QCBatch ID # VX122419

Review By	john	Review On	12/26/2019 9:37:28 AM		
Supervise By	apatel	Supervise On	12/26/2019 2:34:15 PM		
SubDirectory	VX122419	HP Acquire Method	MSVOA_X	HP Processing Method	82X121319W.M

STD. NAME	STD REF.#
Tune/Reschk	VP89725
Initial Calibration Stds	VP89506,VP89507,VP89508,VP89509,VP89510,VP89511
CCC	VP89726,VP89727
Internal Standard/PEM	VP88281
ICV/I.BLK	VP89512

Sr#	SampleId	ClientID	Data File Name	Date-Time	Comment	Operator	Status
1	BFB	BFB	VX014231.D	24 Dec 2019 08:54		JC/SP	Ok
2	VSTDCCC050	VSTDCCC050	VX014232.D	24 Dec 2019 09:28	pH#Lot#9654	JC/SP	Ok,M
3	VX1224MBL01	VX1224MBL01	VX014233.D	24 Dec 2019 10:08		JC/SP	Ok
4	VX1224WBL01	VX1224WBL01	VX014234.D	24 Dec 2019 10:32		JC/SP	Ok
5	VX1224WBS01	VX1224WBS01	VX014235.D	24 Dec 2019 11:09		JC/SP	Ok,M
6	VX1224MBS01	VX1224MBS01	VX014236.D	24 Dec 2019 11:45		JC/SP	Ok,M
7	K6393-05	TB-122019	VX014237.D	24 Dec 2019 12:09	vial B pH<2 Hit of compound#16,20	JC/SP	Ok
8	K6377-06DL	MW-7DL	VX014238.D	24 Dec 2019 12:32	vial B pH<2	JC/SP	Ok
9	K6401-01	C0B37	VX014239.D	24 Dec 2019 12:55		JC/SP	Ok
10	K6401-04	C0B38	VX014240.D	24 Dec 2019 13:19		JC/SP	Ok
11	K6401-05	C0B39	VX014241.D	24 Dec 2019 13:42	Need soil run	JC/SP	Not Ok
12	K6401-06	C0B40	VX014242.D	24 Dec 2019 14:05		JC/SP	Ok
13	K6401-02MS	C0B37MS	VX014243.D	24 Dec 2019 14:28	Removed from login	JC/SP	Not Ok
14	K6401-03MSD	C0B37MSD	VX014244.D	24 Dec 2019 14:52	Removed from login	JC/SP	Not Ok
15	K6406-02	C-WATER_12.20.19	VX014245.D	24 Dec 2019 15:15	vial A pH<2	JC/SP	Ok
16	VX1224WBSD01	VX1224WBSD01	VX014246.D	24 Dec 2019 15:38		JC/SP	Ok,M
17	K6405-01	991-MW-01-(23)	VX014247.D	24 Dec 2019 16:01	vial A pH<2 Need 20X	JC/SP	Dilution
18	K6405-02	992-MW-02-(23.8)	VX014248.D	24 Dec 2019 16:25	vial A pH<2 E flag in previous sample	JC/SP	ReRun
19	K6405-03	993-MW-03A-(17)	VX014249.D	24 Dec 2019 16:48	vial A pH<2 Need 5X	JC/SP	Dilution
20	K6405-04	994-MW-05-(17)	VX014250.D	24 Dec 2019 17:11	vial A pH<2 E flag in previous sample	JC/SP	ReRun

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Instrument ID: MSVOA_X

Daily Analysis Runlog For Sequence/QCBatch ID # VX122419

Review By	john	Review On	12/26/2019 9:37:28 AM		
Supervise By	apatel	Supervise On	12/26/2019 2:34:15 PM		
SubDirectory	VX122419	HP Acquire Method	MSVOA_X	HP Processing Method	82X121319W.M

STD. NAME	STD REF.#
Tune/Reschk	VP89725
Initial Calibration Stds	VP89506,VP89507,VP89508,VP89509,VP89510,VP89511
CCC	VP89726,VP89727
Internal Standard/PEM	VP88281
ICV/I.BLK	VP89512

21	K6405-05	995-MW-11-(15)	VX014251.D	24 Dec 2019 17:35	vial A pH<2 Need 5X	JC/SP	Dilution
22	K6405-06	996-MW-15-(17)	VX014252.D	24 Dec 2019 17:58	vial A pH<2 E flag in previous sample	JC/SP	ReRun
23	K6405-09	997-MW-16-(22.5)	VX014253.D	24 Dec 2019 18:21	vial A pH<2 confirm hit, #64	JC/SP	Not Ok
24	K6405-10	998-MW-17A-(15.5)	VX014254.D	24 Dec 2019 18:45	vial A pH<2	JC/SP	Ok
25	K6405-07MS	996-MW-15-(17)MS	VX014255.D	24 Dec 2019 19:08	vial A pH<2	JC/SP	Ok,M
26	K6405-08MSD	996-MW-15-(17)MSD	VX014256.D	24 Dec 2019 19:31	vial A pH<2	JC/SP	Ok,M
27	VSTDCCC050	VSTDCCC050EC	VX014257.D	24 Dec 2019 19:54		JC/SP	Ok,M

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Instrument ID: MSVOA_X

Daily Analysis Runlog For Sequence/QCBatch ID # VX122619

Review By	john	Review On	12/27/2019 11:35:47 AM		
Supervise By	apatel	Supervise On	12/27/2019 12:03:48 PM		
SubDirectory	VX122619	HP Acquire Method	MSVOA_X	HP Processing Method	82X121319W.M

STD. NAME	STD REF.#
Tune/Reschk	VP89756,VP89759
Initial Calibration Stds	VP89506,VP89507,VP89508,VP89509,VP89510,VP89511
CCC	VP89757,VP89758,VP89760,VP89761
Internal Standard/PEM	VP88281
ICV/I.BLK	VP89512

Sr#	SampleId	ClientID	Data File Name	Date-Time	Comment	Operator	Status
1	BFB	BFB	VX014258.D	26 Dec 2019 10:14		JC/SP	Ok
2	VSTDCCC050	VSTDCCC050	VX014259.D	26 Dec 2019 10:46	pH#Lot#9654	JC/SP	Ok,M
3	VX1226MBL01	VX1226MBL01	VX014260.D	26 Dec 2019 11:22		JC/SP	Ok
4	VX1226WBL01	VX1226WBL01	VX014261.D	26 Dec 2019 11:45		JC/SP	Ok
5	VX1226WBS01	VX1226WBS01	VX014262.D	26 Dec 2019 12:18		JC/SP	Ok,M
6	VX1226MBS01	VX1226MBS01	VX014263.D	26 Dec 2019 12:51		JC/SP	Ok,M
7	K6420-05	TRIP	VX014264.D	26 Dec 2019 13:15	vial A pH<2 TB	JC/SP	Ok
8	K6405-14	1002-TB122019	VX014265.D	26 Dec 2019 13:38	vial A pH<2 TB	JC/SP	Ok
9	K6405-13	1001-FB122019	VX014266.D	26 Dec 2019 14:01	vial A pH<2 FB, HIT of comp# 16,20	JC/SP	ReRun
10	VX1226WBSD01	VX1226WBSD01	VX014267.D	26 Dec 2019 14:24		JC/SP	Ok,M
11	PB125689TB	PB125689TB	VX014268.D	26 Dec 2019 14:48		JC/SP	Ok
12	K6118-13	SU-01-122319	VX014269.D	26 Dec 2019 15:11	vial A pH#7.0	JC/SP	Ok
13	K6396-10	SB-5-(0-2)	VX014270.D	26 Dec 2019 15:34		JC/SP	Ok
14	K6405-02	992-MW-02-(23.8)	VX014271.D	26 Dec 2019 15:58	vial B pH<2	JC/SP	Ok
15	K6405-04	994-MW-05-(17)	VX014272.D	26 Dec 2019 16:21	vial B pH<2	JC/SP	Ok
16	K6405-06	996-MW-15-(17)	VX014273.D	26 Dec 2019 16:44	vial B pH<2	JC/SP	Ok
17	K6405-09	997-MW-16-(22.5)	VX014274.D	26 Dec 2019 17:08	vial B pH<2	JC/SP	Ok
18	K6405-11	999-MW-18-(21.5)	VX014275.D	26 Dec 2019 17:31	vial A pH<2	JC/SP	Ok
19	K6405-12	1000-MW-19-(28)	VX014276.D	26 Dec 2019 17:54	vial A pH<2	JC/SP	Ok
20	K6420-01	MW-3	VX014277.D	26 Dec 2019 18:17	vial A pH<2	JC/SP	Ok
21	K6420-02	MW-1	VX014278.D	26 Dec 2019 18:41	vial A pH<2	JC/SP	Ok

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Instrument ID: MSVOA_X

Daily Analysis Runlog For Sequence/QCBatch ID # VX122619

Review By	john	Review On	12/27/2019 11:35:47 AM		
Supervise By	apatel	Supervise On	12/27/2019 12:03:48 PM		
SubDirectory	VX122619	HP Acquire Method	MSVOA_X	HP Processing Method	82X121319W.M

STD. NAME	STD REF.#
Tune/Reschk	VP89756,VP89759
Initial Calibration Stds	VP89506,VP89507,VP89508,VP89509,VP89510,VP89511
CCC	VP89757,VP89758,VP89760,VP89761
Internal Standard/PEM	VP88281
ICV/I.BLK	VP89512

22	K6420-03	MW-2	VX014279.D	26 Dec 2019 19:04	vial A pH<2 Need 10X	JC/SP	Dilution
23	K6420-04	PW	VX014280.D	26 Dec 2019 19:27	vial A pH<2	JC/SP	Ok
24	K6405-01DL	991-MW-01-(23)DL	VX014281.D	26 Dec 2019 19:50		JC/SP	Ok
25	K6405-03DL	993-MW-03A-(17)DL	VX014282.D	26 Dec 2019 20:14		JC/SP	Ok
26	K6405-05DL	995-MW-11-(15)DL	VX014283.D	26 Dec 2019 20:37		JC/SP	Ok
27	K6434-01	GW-2	VX014284.D	26 Dec 2019 21:00	vial A pH<2	JC/SP	Ok
28	K6434-02	GW-1	VX014285.D	26 Dec 2019 21:24	vial A pH<2	JC/SP	Ok
29	VSTDCCC050	VSTDCCC050EC	VX014286.D	26 Dec 2019 21:47		JC/SP	Ok,M
30	BFB	BFB	VX014287.D	26 Dec 2019 22:33		JC/SP	Ok
31	VSTDCCC050	VSTDCCC050	VX014288.D	26 Dec 2019 22:56		JC/SP	Ok,M
32	VX1226WBL02	VX1226WBL02	VX014289.D	27 Dec 2019 00:06		JC/SP	Ok
33	VX1226WBS02	VX1226WBS02	VX014290.D	27 Dec 2019 00:29		JC/SP	Ok,M
34	VX1226WBSD02	VX1226WBSD02	VX014291.D	27 Dec 2019 00:52		JC/SP	Ok,M
35	K6396-12	SB-2-(4-5)-TCLP	VX014292.D	27 Dec 2019 01:16	vial A pH#7.0	JC/SP	Ok
36	K6413-14	K005-AA-WC-1	VX014293.D	27 Dec 2019 01:39	vial A pH#7.0	JC/SP	Ok
37	K6413-15	K005-AA-WC-2	VX014294.D	27 Dec 2019 02:02	vial A pH#7.0	JC/SP	Ok
38	K6413-16	K005-AB-WC-1	VX014295.D	27 Dec 2019 02:25	vial A pH#7.0	JC/SP	Ok
39	K6414-09	K183-WC-01	VX014296.D	27 Dec 2019 02:49	vial A pH#7.0	JC/SP	Ok
40	K6414-10	K183-WC-02	VX014297.D	27 Dec 2019 03:12	vial A pH#7.0	JC/SP	Ok
41	K6436-08	K009-WC-1	VX014298.D	27 Dec 2019 03:35	vial A pH#7.0	JC/SP	Ok
42	K6436-09	K009-WC-2	VX014299.D	27 Dec 2019 03:59	vial A pH#7.0	JC/SP	Ok
43	VSTDCCC050	VSTDCCC050EC	VX014300.D	27 Dec 2019 04:22		JC/SP	Ok,M

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Instrument ID: MSVOA_X

Daily Analysis Runlog For Sequence/QCBatch ID # VX122719

Review By	john	Review On	12/30/2019 9:43:35 AM		
Supervise By	apatel	Supervise On	12/30/2019 11:05:16 AM		
SubDirectory	VX122719	HP Acquire Method	MSVOA_X	HP Processing Method	82X121319W.M

STD. NAME	STD REF.#
Tune/Reschk	VP89795,VP89797
Initial Calibration Stds	VP89506,VP89507,VP89508,VP89509,VP89510,VP89511
CCC	VP89796,VP89798,VP89799,VP89800
Internal Standard/PEM	VP88281
ICV/I.BLK	VP89512

Sr#	SampleId	ClientID	Data File Name	Date-Time	Comment	Operator	Status
1	BFB	BFB	VX014301.D	27 Dec 2019 11:31		JC/SP	Ok
2	VSTDCCC050	VSTDCCC050	VX014302.D	27 Dec 2019 12:03	pH#Lot#9654	JC/SP	Ok,M
3	VX1227WBL01	VX1227WBL01	VX014303.D	27 Dec 2019 12:41		JC/SP	Ok
4	VX1227WBS01	VX1227WBS01	VX014304.D	27 Dec 2019 13:15		JC/SP	Ok,M
5	K6457-01	STORAGE-BLANK-SO	VX014305.D	27 Dec 2019 13:48	vial A pH<2	JC/SP	Ok
6	K6457-02	STORAGE-BLANK-WA	VX014306.D	27 Dec 2019 14:11	vial A pH<2	JC/SP	Ok
7	K6457-03	STORAGE-BLANK-WA	VX014307.D	27 Dec 2019 14:35	vial A pH<2	JC/SP	Ok
8	K6457-04	STORAGE-BLANK-SA	VX014308.D	27 Dec 2019 14:58	vial A pH<2	JC/SP	Ok
9	K6434-04	TRIP-BLANK	VX014309.D	27 Dec 2019 15:21	vial A pH<2 TB	JC/SP	Ok
10	K6405-13	1001-FB122019	VX014310.D	27 Dec 2019 15:44	vial B pH<2 FB, HIT of comp# 16	JC/SP	Ok
11	K6420-03DL	MW-2DL	VX014311.D	27 Dec 2019 16:08	vial B pH<2	JC/SP	Ok
12	K6434-05	GW-3	VX014312.D	27 Dec 2019 16:31	vial A pH<2	JC/SP	Ok
13	K6434-06	GW-5	VX014313.D	27 Dec 2019 16:54	vial A pH<2	JC/SP	Ok
14	K6431-18	TB	VX014314.D	27 Dec 2019 17:18	vial A pH<2 TB	JC/SP	Ok
15	K6431-17	FIELD-BLANK	VX014315.D	27 Dec 2019 17:41	vial A pH<2 FB	JC/SP	Ok
16	K6431-16	GW-DUPLICATE	VX014316.D	27 Dec 2019 18:04	vial A pH#7.0	JC/SP	Ok
17	K6449-01	LW-04	VX014317.D	27 Dec 2019 18:28	vial A pH<2	JC/SP	Ok
18	K6449-02	LW-03	VX014318.D	27 Dec 2019 18:51	vial A pH<2	JC/SP	Ok
19	K6449-03	LW-05	VX014319.D	27 Dec 2019 19:14	vial A pH<2	JC/SP	Ok
20	K6449-04	OW-4	VX014320.D	27 Dec 2019 19:38	vial A pH<2	JC/SP	Ok
21	K6449-05	OW-5	VX014321.D	27 Dec 2019 20:01	vial A pH<2	JC/SP	Ok

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Instrument ID: MSVOA_X

Daily Analysis Runlog For Sequence/QCBatch ID # VX122719

Review By	john	Review On	12/30/2019 9:43:35 AM		
Supervise By	apatel	Supervise On	12/30/2019 11:05:16 AM		
SubDirectory	VX122719	HP Acquire Method	MSVOA_X	HP Processing Method	82X121319W.M

STD. NAME	STD REF.#
Tune/Reschk	VP89795,VP89797
Initial Calibration Stds	VP89506,VP89507,VP89508,VP89509,VP89510,VP89511
CCC	VP89796,VP89798,VP89799,VP89800
Internal Standard/PEM	VP88281
ICV/I.BLK	VP89512

22	K6449-08	OW-2	VX014322.D	27 Dec 2019 20:24	vial A pH<2	JC/SP	Ok
23	K6449-09	OW-1	VX014323.D	27 Dec 2019 20:48	vial A pH<2	JC/SP	Ok
24	K6449-10	FIELD-BLANK	VX014324.D	27 Dec 2019 21:11	vial A pH<2 FB	JC/SP	Ok
25	K6449-11	DUPLICATE	VX014325.D	27 Dec 2019 21:34	vial A pH<2	JC/SP	Ok
26	K6449-06MS	OW-5MS	VX014326.D	27 Dec 2019 21:57	vial A pH<2	JC/SP	Ok,M
27	K6449-07MSD	OW-5MSD	VX014327.D	27 Dec 2019 22:21	vial A pH<2	JC/SP	Ok,M
28	VSTDCCC050	VSTDCCC050EC	VX014328.D	27 Dec 2019 22:44		JC/SP	Ok,M
29	BFB	BFB	VX014329.D	27 Dec 2019 23:07		JC/SP	Ok
30	VSTDCCC050	VSTDCCC050	VX014330.D	27 Dec 2019 23:54		JC/SP	Ok,M
31	VX1227WBL02	VX1227WBL02	VX014331.D	28 Dec 2019 01:03		JC/SP	Ok
32	VX1227WBS02	VX1227WBS02	VX014332.D	28 Dec 2019 01:27		JC/SP	Ok,M
33	VX1227WBSD02	VX1227WBSD02	VX014333.D	28 Dec 2019 01:50		JC/SP	Ok,M
34	PB125747TB	PB125747TB	VX014334.D	28 Dec 2019 02:13		JC/SP	Ok
35	K6431-05	SB-4-(5-6)-TCLP	VX014335.D	28 Dec 2019 02:36	vial A pH#7.0	JC/SP	Ok
36	K6113-15	OR-03-122619	VX014336.D	28 Dec 2019 03:00	vial A pH#7.0	JC/SP	Ok
37	K6117-12	TR-05-122619	VX014337.D	28 Dec 2019 03:23	vial A pH#7.0	JC/SP	Ok
38	K6441-08	K321-WC-01	VX014338.D	28 Dec 2019 03:46	vial A pH#7.0	JC/SP	Ok
39	K6441-09	K321-WC-02	VX014339.D	28 Dec 2019 04:10	vial A pH#7.0	JC/SP	Ok
40	K6442-07	K615-WC-1	VX014340.D	28 Dec 2019 04:33	vial A pH#7.0	JC/SP	Ok
41	VSTDCCC050	VSTDCCC050EC	VX014341.D	28 Dec 2019 04:56		JC/SP	Ok,M

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Prep Standard - Chemical Standard Summary

Order ID : K6405

Test : VOC-TCLVOA-10

Prepbatch ID :

Sequence ID/Qc Batch ID: VX122419,vx122619,VX122719,

Standard ID :
VP84295,VP84555,VP84558,VP85868,VP86480,VP86482,VP86484,VP86947,VP88271,VP88272,VP88281,VP88666,VP8
8916,VP88920,VP88926,VP89139,VP89143,VP89145,VP89506,VP89507,VP89508,VP89509,VP89510,VP 89511,VP89512
,VP89543,VP89725,VP89726,VP89727,VP89756,VP89757,VP89758,VP89759,VP89760,VP89761,VP89795,VP89796,VP
89797,VP89798,VP89799,VP89800,

Chemical ID :
V10090,V10094,V10099,V10169,V10191,V10204,V10307,V10363,V10364,V10377,V10380,V10381,V10401,V10405,V1043
8,V10439,V10440,V10441,V10442,V10443,V10446,V10460,V10461,V10462,V10463,V7373,V7852,V8277,V8722,V8733,V8
736,V9161,V9162,V9164,V9166,V9172,V9177,V9358,V9359,V9514,V9515,V9516,V9517,V9518,V9701,V9707,V9718,V971
9,V9733,V9766,V9796,V9837,V9845,V9936,V9942,V9943,V9948,V9975,V9984,V9985,V9991,

CHEMTECH

284, Sheffield Street, Mountainside NJ 07092 (908) 789 - 8900

VOC STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
218	BFB, 25PPM	VP84295	07/08/2019	01/08/2020	Semsettin Yesilyurt	None	None	mohammad ahmed 07/16/2019

FROM 0.500ml of V7852 + 49.500ml of V9766 = Final Quantity: 50.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
262	8260 Working STD (BCM)-Second source, 100PPM	VP84555	07/16/2019	01/11/2020	Semsettin Yesilyurt	None	None	Mahesh Dadoda 07/16/2019

FROM 1.000ml of V8722 + 9.000ml of V9975 = Final Quantity: 10.000 ml

CHEMTECH

284, Sheffield Street, Mountainside NJ 07092 (908) 789 - 8900

VOC STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
252	8260 Working STD (BCM)-First source, 100PPM	VP84558	07/16/2019	01/11/2020	Semsettin Yesilyurt	None	None	Mahesh Dadoda 07/16/2019

FROM 1.000ml of V9172 + 19.000ml of V9975 = Final Quantity: 20.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
253	8260 Working STD (BCM)-First source, 20PPM	VP85868	08/27/2019	02/27/2020	Semsettin Yesilyurt	None	None	Sweetuben Patel 08/27/2019

FROM 0.500ml of V9177 + 49.500ml of V10094 = Final Quantity: 50.000 ml

CHEMTECH

284, Sheffield Street, Mountainside NJ 07092 (908) 789 - 8900

VOC STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1810	8260 Working Std(2-CVE)-800ppm	VP86480	09/11/2019	03/11/2020	Semsettin Yesilyurt	None	None	Sweetuben Patel 09/11/2019

FROM 0.400ml of V9517 + 1.200ml of V9514 + 1.200ml of V9515 + 1.200ml of V9516 + 46.000ml of V10099 = Final Quantity: 50.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1812	8260 Working Std(2-CVE)-100ppm	VP86482	09/11/2019	03/11/2020	Semsettin Yesilyurt	None	None	Sweetuben Patel 09/11/2019

FROM 0.250ml of V9518 + 24.750ml of V10099 = Final Quantity: 25.000 ml

CHEMTECH

284, Sheffield Street, Mountainside NJ 07092 (908) 789 - 8900

VOC STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1817	8260 Working Std(2-CVE)-SS, 800ppm	VP86484	09/11/2019	03/11/2020	Semsettin Yesilyurt	None	None	Sweetuben Patel 09/11/2019

FROM 1.600ml of V8277 + 18.400ml of V10099 = Final Quantity: 20.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
249	8260 Surrogate, 100PPM	VP86947	09/19/2019	03/06/2020	Semsettin Yesilyurt	None	None	Sweetuben Patel 09/19/2019

FROM 0.200ml of V8733 + 49.800ml of V10090 = Final Quantity: 50.000 ml

CHEMTECH

284, Sheffield Street, Mountainside NJ 07092 (908) 789 - 8900

VOC STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
617	8260 Surrogate, 400PPM	VP88271	10/23/2019	04/22/2020	Semsettin Yesilyurt	None	None	Mahesh Dadoda 11/04/2019

FROM 0.400ml of V8736 + 24.600ml of V10191 = Final Quantity: 25.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1738	8260 surrogate 20 ppm	VP88272	10/23/2019	04/22/2020	Semsettin Yesilyurt	None	None	Mahesh Dadoda 11/04/2019

FROM 0.020ml of V8736 + 24.990ml of V10191 = Final Quantity: 25.000 ml

CHEMTECH

284, Sheffield Street, Mountainside NJ 07092 (908) 789 - 8900

VOC STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
247	8260 Internal Standard, 250PPM	VP88281	10/24/2019	01/31/2020	Semsettin Yesilyurt	None	None	Sweetuben Patel 10/24/2019

FROM 0.500ml of V7373 + 49.500ml of V10191 = Final Quantity: 50.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
719	8260 Working STD (BCM)-First source, 400PPM	VP88666	11/06/2019	05/01/2020	Semsettin Yesilyurt	None	None	Mahesh Dadoda 11/11/2019

FROM 1.250ml of V9161 + 1.250ml of V9162 + 1.250ml of V9164 + 1.250ml of V9166 + 20.000ml of V10204 = Final Quantity: 25.000 ml

CHEMTECH

284, Sheffield Street, Mountainside NJ 07092 (908) 789 - 8900

VOC STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
51	8260 Working STD (Acrolein) -first source, 800PPM	VP88916	11/15/2019	12/14/2019	Semsettin Yesilyurt	None	None	Mahesh Dadoda 11/19/2019

FROM 0.400ml of V10441 + 1.200ml of V10438 + 1.200ml of V10439 + 1.200ml of V10440 + 21.000ml of V10380 = Final Quantity: 25.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
180	8260 Working STD (Acrolein)-First source, 100PPM	VP88920	11/15/2019	12/14/2019	Semsettin Yesilyurt	None	None	Mahesh Dadoda 11/19/2019

FROM 17.500ml of V10380 + 2.500ml of VP88916 = Final Quantity: 20.000 ml

CHEMTECH

284, Sheffield Street, Mountainside NJ 07092 (908) 789 - 8900

VOC STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
263	8260 Working STD (Acrolein)-Second source, 800PPM	VP88926	11/15/2019	12/13/2019	Semsettin Yesilyurt	None	None	Mahesh Dadoda 11/19/2019

FROM 0.400ml of V10443 + 1.200ml of V10442 + 8.400ml of V10380 = Final Quantity: 10.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
259	8260 Calibration Working STD Mix-Second source, 160PPM	VP89139	11/27/2019	12/31/2019	Semsettin Yesilyurt	None	None	Mahesh Dadoda 11/27/2019

FROM 0.160ml of V9707 + 0.400ml of V10405 + 0.800ml of V10169 + 0.800ml of V10446 + 0.800ml of V9733 + 0.800ml of V9796 + 0.800ml of V9991 + 1.200ml of V10401 + 4.240ml of V10381 = Final Quantity: 10.000 ml

CHEMTECH

284, Sheffield Street, Mountainside NJ 07092 (908) 789 - 8900

VOC STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
257	8260 Calibration Working STD Mix-First source, 160PPM	VP89143	11/26/2019	12/31/2019	Semsettin Yesilyurt	None	None	Mahesh Dadoda 11/27/2019

FROM 0.400ml of V9701 + 0.400ml of V9948 + 0.800ml of V10364 + 0.800ml of V9359 + 0.800ml of V9719 + 0.800ml of V9845 + 0.800ml of V9985 + 1.200ml of V10363 + 1.200ml of V9358 + 1.200ml of V9718 + 1.200ml of V9837 + 1.200ml of V9936 + 1.200ml of V9942 + 1.200ml of V9943 + 1.200ml of V9984 + 10.600ml of V10381 = Final Quantity: 25.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
245	8260 Calibration Working STD Mix-First source, 20PPM	VP89145	11/26/2019	12/31/2019	Semsettin Yesilyurt	None	None	Mahesh Dadoda 11/27/2019

FROM 17.500ml of V10381 + 2.500ml of VP89143 = Final Quantity: 20.000 ml

CHEMTECH

284, Sheffield Street, Mountainside NJ 07092 (908) 789 - 8900

VOC STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
334	1 PPB ICC, 8260-Water	VP89506	12/13/2019	12/14/2019	John Carlone	None	None	Mahesh Dadoda 12/13/2019

FROM 39.982ml of V10307 + 0.002ml of VP85868 + 0.002ml of VP86482 + 0.002ml of VP88272 + 0.002ml of VP88920 + 0.002ml of VP89145 + 0.008ml of VP88281 = Final Quantity: 40.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
335	5 PPB ICC, 8260-Water	VP89507	12/13/2019	12/14/2019	John Carlone	None	None	Mahesh Dadoda 12/13/2019

FROM 39.942ml of V10307 + 0.008ml of VP88281 + 0.010ml of VP85868 + 0.010ml of VP86482 + 0.010ml of VP88272 + 0.010ml of VP88920 + 0.010ml of VP89145 = Final Quantity: 40.000 ml

CHEMTECH

284, Sheffield Street, Mountainside NJ 07092 (908) 789 - 8900

VOC STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
337	20 PPB ICC, 8260-Water	VP89508	12/13/2019	12/14/2019	John Carlone	None	None	Mahesh Dadoda 12/13/2019

FROM 39.961ml of V10307 + 0.005ml of VP86480 + 0.005ml of VP88916 + 0.005ml of VP89143 + 0.008ml of VP84558 + 0.008ml of VP86947 + 0.008ml of VP88281 = Final Quantity: 40.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
380	50 PPB ICC, 8260-Water	VP89509	12/13/2019	12/14/2019	John Carlone	None	None	Mahesh Dadoda 12/13/2019

FROM 39.945ml of V10307 + 0.005ml of VP88271 + 0.005ml of VP88666 + 0.008ml of VP88281 + 0.013ml of VP86480 + 0.013ml of VP88916 + 0.013ml of VP89143 = Final Quantity: 40.000 ml

CHEMTECH

284, Sheffield Street, Mountainside NJ 07092 (908) 789 - 8900

VOC STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
381	100 PPB ICC, 8260-Water	VP89510	12/13/2019	12/14/2019	John Carlone	None	None	Mahesh Dadoda 12/13/2019

FROM 39.897ml of V10307 + 0.008ml of VP88281 + 0.010ml of VP88271 + 0.010ml of VP88666 + 0.025ml of VP86480 + 0.025ml of VP88916 + 0.025ml of VP89143 = Final Quantity: 40.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
382	150 PPB ICC, 8260-Water	VP89511	12/13/2019	12/14/2019	John Carlone	None	None	Mahesh Dadoda 12/13/2019

FROM 39.850ml of V10307 + 0.008ml of VP88281 + 0.015ml of VP88271 + 0.015ml of VP88666 + 0.038ml of VP86480 + 0.038ml of VP88916 + 0.038ml of VP89143 = Final Quantity: 40.000 ml

CHEMTECH

284, Sheffield Street, Mountainside NJ 07092 (908) 789 - 8900

VOC STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
385	50 PPB ICV, 8260-Water	VP89512	12/13/2019	12/13/2019	John Carlone	None	None	Mahesh Dadoda 12/13/2019

FROM 39.930ml of V10307 + 0.005ml of VP88271 + 0.008ml of VP88281 + 0.013ml of VP86484 + 0.013ml of VP88926 + 0.013ml of VP89139 + 0.020ml of VP84555 = Final Quantity: 40.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
51	8260 Working STD (Acrolein) -first source, 800PPM	VP89543	12/16/2019	01/12/2020	Semsettin Yesilyurt	None	None	Mahesh Dadoda 12/16/2019

FROM 0.400ml of V10463 + 1.200ml of V10460 + 1.200ml of V10461 + 1.200ml of V10462 + 21.000ml of V10377 = Final Quantity: 25.000 ml

CHEMTECH

284, Sheffield Street, Mountainside NJ 07092 (908) 789 - 8900

VOC STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
589	BFB TUNE CHECK	VP89725	12/24/2019	12/25/2019	John Carlone	None	None	Amit Patel 12/24/2019

FROM 39.984ml of V10307 + 0.016ml of VP84295 = Final Quantity: 40.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
620	50 PPB CCC, 8260-Water	VP89726	12/24/2019	12/25/2019	John Carlone	None	None	Amit Patel 12/24/2019

FROM 39.945ml of V10307 + 0.005ml of VP88271 + 0.005ml of VP88666 + 0.008ml of VP88281 + 0.013ml of VP86480 + 0.013ml of VP89143 + 0.013ml of VP89543 = Final Quantity: 40.000 ml

CHEMTECH

284, Sheffield Street, Mountainside NJ 07092 (908) 789 - 8900

VOC STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
620	50 PPB CCC, 8260-Water	VP89727	12/24/2019	12/25/2019	John Carlone	None	None	Amit Patel 12/24/2019

FROM 39.945ml of V10307 + 0.005ml of VP88271 + 0.005ml of VP88666 + 0.008ml of VP88281 + 0.013ml of VP86480 + 0.013ml of VP89143 + 0.013ml of VP89543 = Final Quantity: 40.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
589	BFB TUNE CHECK	VP89756	12/26/2019	12/27/2019	John Carlone	None	None	Amit Patel 12/26/2019

FROM 39.984ml of V10307 + 0.016ml of VP84295 = Final Quantity: 40.000 ml

CHEMTECH

284, Sheffield Street, Mountainside NJ 07092 (908) 789 - 8900

VOC STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
620	50 PPB CCC, 8260-Water	VP89757	12/26/2019	12/27/2019	John Carlone	None	None	Amit Patel 12/26/2019

FROM 39.945ml of V10307 + 0.005ml of VP88271 + 0.005ml of VP88666 + 0.008ml of VP88281 + 0.013ml of VP86480 + 0.013ml of VP89143 + 0.013ml of VP89543 = Final Quantity: 40.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
620	50 PPB CCC, 8260-Water	VP89758	12/26/2019	12/27/2019	John Carlone	None	None	Amit Patel 12/26/2019

FROM 39.945ml of V10307 + 0.005ml of VP88271 + 0.005ml of VP88666 + 0.008ml of VP88281 + 0.013ml of VP86480 + 0.013ml of VP89143 + 0.013ml of VP89543 = Final Quantity: 40.000 ml

CHEMTECH

284, Sheffield Street, Mountainside NJ 07092 (908) 789 - 8900

VOC STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
589	BFB TUNE CHECK	VP89759	12/26/2019	12/27/2019	John Carlone	None	None	Amit Patel 12/26/2019

FROM 39.984ml of V10307 + 0.016ml of VP84295 = Final Quantity: 40.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
620	50 PPB CCC, 8260-Water	VP89760	12/26/2019	12/27/2019	John Carlone	None	None	Amit Patel 12/26/2019

FROM 39.945ml of V10307 + 0.005ml of VP88271 + 0.005ml of VP88666 + 0.008ml of VP88281 + 0.013ml of VP86480 + 0.013ml of VP89143 + 0.013ml of VP89543 = Final Quantity: 40.000 ml

CHEMTECH

284, Sheffield Street, Mountainside NJ 07092 (908) 789 - 8900

VOC STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
620	50 PPB CCC, 8260-Water	VP89761	12/26/2019	12/27/2019	John Carlone	None	None	Amit Patel 12/26/2019

FROM 39.945ml of V10307 + 0.005ml of VP88271 + 0.005ml of VP88666 + 0.008ml of VP88281 + 0.013ml of VP86480 + 0.013ml of VP89143 + 0.013ml of VP89543 = Final Quantity: 40.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
589	BFB TUNE CHECK	VP89795	12/27/2019	12/28/2019	John Carlone	None	None	Amit Patel 12/28/2019

FROM 39.984ml of V10307 + 0.016ml of VP84295 = Final Quantity: 40.000 ml

CHEMTECH

284, Sheffield Street, Mountainside NJ 07092 (908) 789 - 8900

VOC STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
620	50 PPB CCC, 8260-Water	VP89796	12/27/2019	12/28/2019	John Carlone	None	None	Amit Patel 12/28/2019

FROM 39.945ml of V10307 + 0.005ml of VP88271 + 0.005ml of VP88666 + 0.008ml of VP88281 + 0.013ml of VP86480 + 0.013ml of VP89143 + 0.013ml of VP89543 = Final Quantity: 40.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
589	BFB TUNE CHECK	VP89797	12/27/2019	12/28/2019	John Carlone	None	None	Amit Patel 12/28/2019

FROM 39.984ml of V10307 + 0.016ml of VP84295 = Final Quantity: 40.000 ml

CHEMTECH

284, Sheffield Street, Mountainside NJ 07092 (908) 789 - 8900

VOC STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
620	50 PPB CCC, 8260-Water	VP89798	12/27/2019	12/28/2019	John Carlone	None	None	Amit Patel 12/28/2019

FROM 39.945ml of V10307 + 0.005ml of VP88271 + 0.005ml of VP88666 + 0.008ml of VP88281 + 0.013ml of VP86480 + 0.013ml of VP89143 + 0.013ml of VP89543 = Final Quantity: 40.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
620	50 PPB CCC, 8260-Water	VP89799	12/27/2019	12/28/2019	John Carlone	None	None	Amit Patel 12/28/2019

FROM 39.945ml of V10307 + 0.005ml of VP88271 + 0.005ml of VP88666 + 0.008ml of VP88281 + 0.013ml of VP86480 + 0.013ml of VP89143 + 0.013ml of VP89543 = Final Quantity: 40.000 ml

CHEMTECH

284, Sheffield Street, Mountainside NJ 07092 (908) 789 - 8900

VOC STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
620	50 PPB CCC, 8260-Water	VP89800	12/27/2019	12/28/2019	John Carlone	None	None	Amit Patel 12/28/2019

FROM 39.945ml of V10307 + 0.005ml of VP88271 + 0.005ml of VP88666 + 0.008ml of VP88281 + 0.013ml of VP86480 + 0.013ml of VP89143 + 0.013ml of VP89543 = Final Quantity: 40.000 ml

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA9077-02 / Methanol, Purge/Trap (cs=6x1L)	199507	03/19/2020	09/19/2019 / sam	08/19/2019 / SAM	V10090

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA9077-02 / Methanol, Purge/Trap (cs=6x1L)	199507	02/27/2020	08/27/2019 / sam	08/19/2019 / SAM	V10094

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA9077-02 / Methanol, Purge/Trap (cs=6x1L)	199507	03/11/2020	09/11/2019 / sam	08/19/2019 / SAM	V10099

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	95317 / Universal VOA Mega Mix (Min order = 5)	010419	05/27/2020	11/27/2019 / sam	08/29/2019 / sam	V10169

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA9077-02 / Methanol, Purge/Trap (cs=6x1L)	0000199507	04/23/2020	10/23/2019 / sam	09/16/2019 / sam	V10191

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA9077-02 / Methanol, Purge/Trap (cs=6x1L)	0000202813	05/01/2020	11/01/2019 / Sam	09/16/2019 / sam	V10204

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	DIW / DI Water	Daily Lab-Certified	10/24/2024	10/24/2019 / apatel	10/24/2019 / apatel	V10307

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	30489 / VOA Mix, 8260B Acetates Mix, P&TM, 1mL	A0152310	02/29/2020	11/20/2019 / sam	11/05/2019 / sam	V10363

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	30489 / VOA Mix, 8260B Acetates Mix, P&TM, 1mL	A0152310	02/29/2020	11/20/2019 / sam	11/05/2019 / sam	V10364

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA9077-02 / Methanol, Purge/Trap (cs=6x1L)	0000199507	06/11/2020	12/11/2019 / sam	11/07/2019 / sam	V10377

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA9077-02 / Methanol, Purge/Trap (cs=6x1L)	0000199507	05/14/2020	11/14/2019 / pedro	11/07/2019 / sam	V10380

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA9077-02 / Methanol, Purge/Trap (cs=6x1L)	0000199507	05/26/2020	11/26/2019 / sam	11/07/2019 / sam	V10381

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	30006 / VOA Mix, CLP method Calibration Std #1 ketones 5000uq/ml, PTM, 1ml	A0149957	05/27/2020	11/27/2019 / sam	11/11/2019 / sam	V10401

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	30006 / VOA Mix, CLP method Calibration Std #1 ketones 5000uq/ml, PTM, 1ml	A0149957	05/27/2020	11/27/2019 / sam	11/11/2019 / sam	V10405

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	91980 / Acrolin Std (Min = 5)	111419	12/14/2019	11/15/2019 / sam	11/15/2019 / sam	V10438

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	91980 / Acrolin Std (Min = 5)	111419	12/14/2019	11/15/2019 / sam	11/15/2019 / sam	V10439

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	91980 / Acrolin Std (Min = 5)	111419	12/14/2019	11/15/2019 / sam	11/15/2019 / sam	V10440

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	91980 / Acrolin Std (Min = 5)	111419	12/14/2019	11/15/2019 / sam	11/15/2019 / sam	V10441

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	91980 / Acrolin Std (Min = 5)	111319	12/13/2019	11/15/2019 / sam	11/15/2019 / sam	V10442

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	91980 / Acrolin Std (Min = 5)	111319	12/13/2019	11/15/2019 / sam	11/15/2019 / sam	V10443

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	30042 / VOA Mix,500 series method 502.2 Calibration Std #1 gases, 2000ug/ml, PTM, 1ml	A0150712	05/26/2020	11/26/2019 / sam	07/18/2019 / sam	V10446

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	91980 / Acrolin Std (Min = 5)	121219	01/12/2020	12/16/2019 / sam	12/16/2019 / sam	V10460

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	91980 / Acrolin Std (Min = 5)	121219	01/12/2020	12/16/2019 / sam	12/16/2019 / sam	V10461

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	91980 / Acrolin Std (Min = 5)	121219	01/12/2020	12/16/2019 / sam	12/16/2019 / sam	V10462

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	91980 / Acrolin Std (Min = 5)	121219	01/12/2020	12/16/2019 / sam	12/16/2019 / sam	V10463

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	555581 / Custom Standard, 8260 Internal Std [CS 5179-1]	A0123929	01/31/2020	10/23/2019 / sam	01/06/2017 / Sam	V7373

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	30067 / BFB tuneing solution	A0127174	01/08/2020	07/08/2019 / sam	08/10/2017 / sam	V7852

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	95318 / 2-Chloroethyl Vinyl Ether (Min = 5)	012218	03/11/2020	09/11/2019 / sam	01/23/2018 / sam	V8277

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	70046 / Bromochloromethane Std. sol/methanol 1000ppm	072918	01/16/2020	07/16/2019 / SAM	07/27/2018 / sam	V8722

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	555582 / Custom Mixture, 8260 A/B Surrogate Mix [CS 5179-2]	A0140077	03/06/2020	09/06/2019 / sam	07/31/2018 / sam	V8733

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	555582 / Custom Mixture, 8260 A/B Surrogate Mix [CS 5179-2]	A0140077	04/23/2020	10/23/2019 / sam	07/31/2018 / sam	V8736

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	30225 / VOA Mix, bromochloromethane, 2000ug/mL, P&TM, 1mL/ampul	A0143315	05/06/2020	11/06/2019 / sam	11/21/2018 / sam	V9161

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	30225 / VOA Mix, bromochloromethane, 2000ug/mL, P&TM, 1mL/ampul	A0143315	05/06/2020	11/06/2019 / sam	11/21/2018 / sam	V9162

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	30225 / VOA Mix, bromochloromethane, 2000ug/mL, P&TM, 1mL/ampul	A0143315	05/06/2020	11/06/2019 / sam	11/21/2018 / sam	V9164

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	30225 / VOA Mix, bromochloromethane, 2000ug/mL, P&TM, 1mL/ampul	A0143315	05/06/2020	11/06/2019 / sam	11/21/2018 / sam	V9166

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	30225 / VOA Mix, bromochloromethane, 2000ug/mL, P&TM, 1mL/ampul	A0143315	01/16/2020	07/16/2019 / SAM	11/21/2018 / sam	V9172

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	30225 / VOA Mix, bromochloromethane, 2000ug/mL, P&TM, 1mL/ampul	A0143315	02/27/2020	08/27/2019 / sam	11/21/2018 / sam	V9177

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	95317 / Universal VOA Mega Mix (Min order = 5)	010719	04/24/2020	10/24/2019 / sam	01/08/2019 / sam	V9358

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	95317 / Universal VOA Mega Mix (Min order = 5)	010719	05/20/2020	11/20/2019 / sam	01/08/2019 / sam	V9359

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	95318 / 2-Chloroethyl Vinyl Ether (Min = 5)	031419	03/11/2020	09/11/2019 / sam	03/15/2019 / sam	V9514

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	95318 / 2-Chloroethyl Vinyl Ether (Min = 5)	031419	03/11/2020	09/11/2019 / sam	03/15/2019 / sam	V9515

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	95318 / 2-Chloroethyl Vinyl Ether (Min = 5)	031419	03/11/2020	09/11/2019 / sam	03/15/2019 / sam	V9516

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	95318 / 2-Chloroethyl Vinyl Ether (Min = 5)	031419	03/11/2020	09/11/2019 / sam	03/15/2019 / sam	V9517

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	95318 / 2-Chloroethyl Vinyl Ether (Min = 5)	031419	03/11/2020	09/11/2019 / sam	03/15/2019 / sam	V9518

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	30470 / VOA Stock Solution, tert-butanol std, 1mL, P&TM	A0146062	05/20/2020	11/20/2019 / sam	05/03/2019 / sam	V9701

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	30470 / VOA Stock Solution, tert-butanol std, 1mL, P&TM	A0141192	05/27/2020	11/27/2019 / sam	05/03/2019 / sam	V9707

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	95319 / Revised Additions Mix (Min = 5)	050119	05/20/2020	11/20/2019 / sam	05/03/2019 / sam	V9718

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	95319 / Revised Additions Mix (Min = 5)	050119	05/01/2022	11/20/2019 / sam	05/03/2019 / sam	V9719

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	95319 / Revised Additions Mix (Min = 5)	050219	05/27/2020	11/27/2019 / sam	05/06/2019 / sam	V9733

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA9077-02 / Methanol, Purge/Trap (cs=6x1L)	199507	01/08/2020	07/08/2019 / sam	06/03/2019 / sam	V9766

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	30489 / VOA Mix, 8260B Acetates Mix, P&TM, 1mL	A0149877	12/31/2019	11/27/2019 / sam	06/13/2019 / sam	V9796

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	30042 / VOA Mix,500 series method 502.2 Calibration Std #1 gases, 2000ug/ml, PTM, 1ml	A0148931	05/20/2020	11/20/2019 / sam	06/24/2019 / Sam	V9837

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	30042 / VOA Mix,500 series method 502.2 Calibration Std #1 gases, 2000ug/ml, PTM, 1ml	A0148931	05/20/2020	11/20/2019 / sam	06/24/2019 / Sam	V9845

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	30006 / VOA Mix, CLP method Calibration Std #1 ketones 5000ug/ml, PTM, 1ml	A0147569	05/20/2020	11/20/2019 / sam	06/24/2019 / Sam	V9936

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	30006 / VOA Mix, CLP method Calibration Std #1 ketones 5000uq/ml, PTM, 1ml	A0147569	05/20/2020	11/20/2019 / sam	06/24/2019 / Sam	V9942

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	30006 / VOA Mix, CLP method Calibration Std #1 ketones 5000uq/ml, PTM, 1ml	A0147569	05/20/2020	11/20/2019 / sam	06/24/2019 / Sam	V9943

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	30006 / VOA Mix, CLP method Calibration Std #1 ketones 5000uq/ml, PTM, 1ml	A0147569	05/20/2020	11/20/2019 / sam	06/24/2019 / Sam	V9948

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA9077-02 / Methanol, Purge/Trap (cs=6x1L)	202404	01/12/2020	07/12/2019 / pedro	07/02/2019 / sam	V9975

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	555408 / Custom Standard, Vinyl Acetate Standard w/ Grav [CS 5066-6] TWO SEPARATE LOTS	A0150565	01/31/2020	11/20/2019 / sam	07/08/2019 / SAM	V9984

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	555408 / Custom Standard, Vinyl Acetate Standard w/ Grav [CS 5066-6] TWO SEPARATE LOTS	A0150565	01/31/2020	11/20/2019 / sam	07/08/2019 / SAM	V9985

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	555408 / Custom Standard, Vinyl Acetate Standard w/ Grav [CS 5066-6] TWO SEPARATE LOTS	A0150346	12/31/2019	11/27/2019 / sam	07/10/2019 / SAM	V9991

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Analytical Reference Material ARM

ISO 9001 QS Registered
ISO 17025-34-35-43 Accredited
Scopes: http://AbsoluteStandards.com

CERTIFIED WEIGHT REPORT

Part Number: 95318
Lot Number: 012218
Description: 2-Chloroethyl vinyl ether

Solvent(s): **Lot#**
Methanol DS435

Expiration Date: 012221
Recommended Storage: Refrigerate (4 °C)
Nominal Concentration (µg/mL): 10000
NIST Test ID#: 2506734D

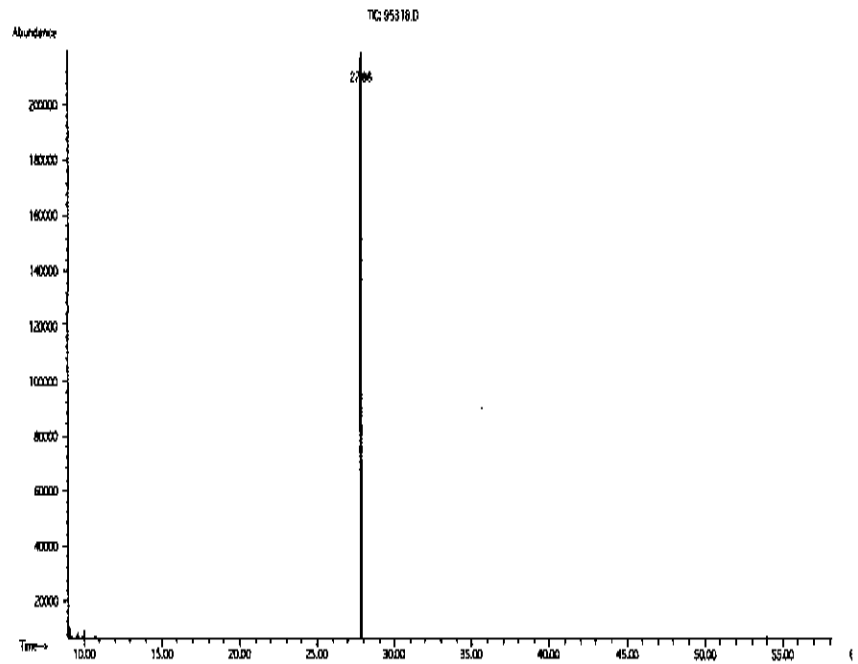
Weight(s) shown below were combined and diluted to (mL): 25.0 | 5E-05 Balance Uncertainty | 0.002 Flask Uncertainty

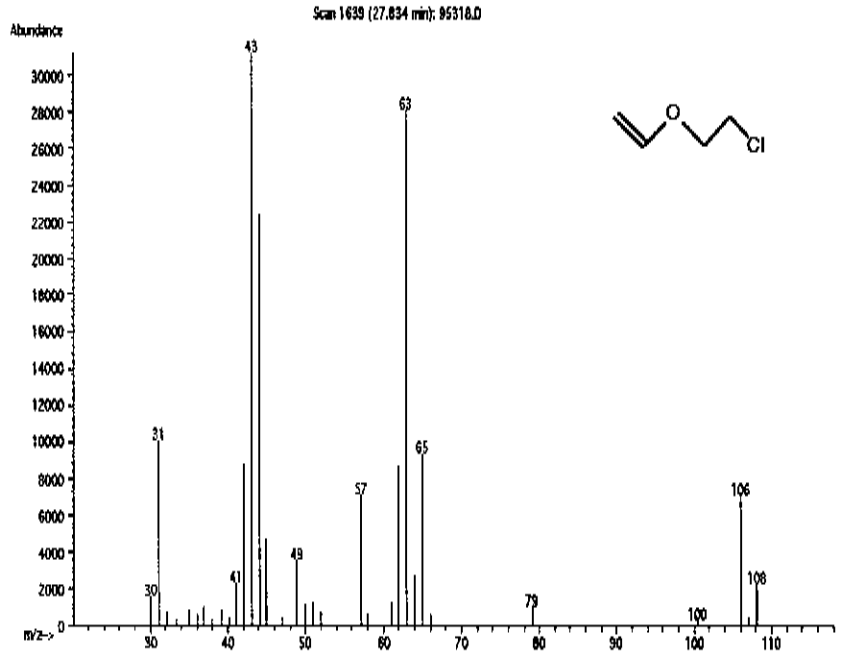
Formulated By: Mario Luis 012218 DATE

Reviewed By: Pedro L. Rentas 012218 DATE

Compound	RM#	Lot Number	Nominal Conc (µg/mL)	Purity (%)	Uncertainty Purity	Target Weight (g)	Actual Weight (g)	Actual Conc(µg/mL)	Expanded Uncertainty (+/-) (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50
1. 2-Chloroethyl vinyl ether	74	03206CI	10000	99	0.2	0.25256	0.02528	1000.9	5.7	110-75-8	N/A	ori-rat 250mg/kg

Method: GC6MSD-1.M. **Detector:** MSD. **Column:** (60m X 0.25mm X 1.5 µm). **Oven Profile:** Temp 1 = 35°C (Time 1=10min.), Temp 2 = 200°C (Time 2=8.75 min.), Rate = 4°C/min., Injector B Temp.= 200°C, Detector B Temp. = 220°C. **Analyst:** Candice Warren.





- The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
- Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
- Standards are certified (+/-) 0.5% of the stated value, unless otherwise stated.
- All Standards, after opening ampule, should be stored with caps tight and under appropriate laboratory conditions.
- Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, DC, (1994).

RESTEK
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Gravimetric Certificate

ACCREDITED
ISO Guide 34 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 555581 **Lot No.:** A0123929

Description : Custom 8260 Internal Standard Mix

Custom 8260 Internal Standard Mix 25,000µg/mL, P&T Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : January 31, 2020 **Storage:** 10°C or colder

CERTIFIED VALUES

Component #	Compound		Conc. Gravimetric (weight/volume)		Expanded Uncertainty (95 % C.I. K=2)		
1	1,4-Dichlorobenzene-d4 **CAS #** 3855-82-1 **Purity** 99%	(Lot PR-18488)	25,088.0	µg/mL	+/- 232.1691 +/- 1,418.2089 +/- 1,450.8610	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
2	1,4-Difluorobenzene **CAS #** 540-36-3 **Purity** 99%	(Lot MKBN8571V)	25,144.0	µg/mL	+/- 232.6873 +/- 1,421.3746 +/- 1,454.0995	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
3	Chlorobenzene-d5 **CAS #** 3114-55-4 **Purity** 99%	(Lot PR-23926)	25,012.0	µg/mL	+/- 231.4658 +/- 1,413.9127 +/- 1,446.4658	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
4	Pentafluorobenzene **CAS #** 363-72-4 **Purity** 99%	(Lot MKBT9337V)	25,224.0	µg/mL	+/- 233.4276 +/- 1,425.8969 +/- 1,458.7260	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed

RESTEK
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

ACCREDITED
ISO Guide 34 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 30067 **Lot No.:** A0127174

Description : 4-Bromofluorobenzene Standard

4-Bromofluorobenzene Standard 2,500µg/mL, P&T Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : April 30, 2022 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight volume)	Expanded Uncertainty (95% C.L. K=2)		
1	1-Bromo-4-fluorobenzene (BFB)	2,506.0 µg/mL	+/- 14.7066	µg/mL	Gravimetric
	CAS # 460-00-4 (Lot 01127COV)		+/- 140.5232	µg/mL	Unstressed
	Purity 99%		+/- 143.8106	µg/mL	Stressed

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

Methanol
ULTRA RESI-ANALYZED
For Purge and Trap Analysis

J.T.Baker® | avantor™

Material No.: 9077-02
Batch No.: 0000202404
Manufactured Date: 2018/05/21
Expiration Date: 2020/05/18
Revision No: 1

Certificate of Analysis

Test	Specification	Result
Assay (CH_3OH) (by GC, corrected for water)	>= 99.9 %	100.0
Residue after Evaporation	<= 1.0000 ppm	0.2000
Titrable Acid (µeq/g)	<= 0.3	0.2
Titrable Base (µeq/g)	<= 0.1	<0.01
Water (by KF, coulometric)	<= 0.08 %	0.01
Photoionization Detection (PID) Below CRQL	Passes Test	PT
Electroconductivity Detection (ELCD) Below CRQL	Passes Test	PT

For Laboratory, Research or Manufacturing Use
Performance Tested for Use in EPA Methods
500 Series for Drinking Water
600 Series for Wastewater
846 for Solid Waste

Country of Origin: US
Packaging Site: Phillipsburg Mfg Ctr & DC

ISO
Phillipsburg, NJ 9001:2015, FSSC 22000
Paris, KY 9001:2008
Mexico City, Mexico 9001:2008
Gliwice, Poland 9001:2008
Selangor, Malaysia 9001:2008
Dehradun, India, 9001:2008, 14001:2004, 13485:2003
Mumbai, India, 9001:2015, 17025:2005
Panoli, India 9001:2015

James Ethier
Jamie Ethier
Vice President Global Quality

For questions on this Certificate of Analysis please contact Technical Services at 855.282.6867 or +1.610.573.2600
Avantor Performance Materials, LLC.
3477 Corporate Parkway. Center Valley, PA 18034. U.S.A. Phone: 610.573.2600 . Fax: 610.573.2610

CERTIFIED WEIGHT REPORT

Part Number: 95317
Lot Number: 010719
Description: Universal VOA Megamix
69 components
Expiration Date: 010722
Recommended Storage: Freezer (0 °C)
Nominal Concentration (µg/mL): 2000
NIST Test ID#: 2684186

Solvent(s): Methanol Lot# DT140Q6

5E-05 Balance Uncertainty
Weight(s) shown below were combined and diluted to (mL): 100.0 0.001 Flask Uncertainty

Formulated By: Justin Dippold 010719 DATE

Reviewed By: Pedro L. Rentas 010719 DATE

	Compound	(RM#) Part Number	Lot Number	Dil. Factor	Initial Vol. (mL)	Initial Conc.(ug/mL)	Nominal Conc (µg/mL)	Purity (%)	Purity Uncertainty	Uncertainty Pipette (mL)	Target Weight(g)	Actual Weight(g)	Actual Conc (µg/mL)	Expanded Uncertainty (+/-) (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50
1.	Acetonitrile	(0324)	060812	NA	NA	NA	2000	99.9	0.2	NA	0.20022	0.20050	2002.8	8.1	75-05-8	40 ppm (70mg/m3/8H)	orl-rat 2460mg/kg
2.	Allyl chloride (3-Chloropropene)	(0325)	102396	NA	NA	NA	2000	99	0.2	NA	0.20204	0.20215	2001.1	8.1	107-05-1	1 ppm (3mg/m3/8H)	orl-rat 700mg/kg
3.	Carbon disulphide	(0060)	MKBZ8689V	NA	NA	NA	2000	99	0.2	NA	0.20204	0.20215	2001.1	8.1	75-15-0	4 ppm (12mg/m3) (skin)	orl-rat 1200mg/kg
4.	cis-1,4-Dichloro-2-butene	(1196)	14718EF	NA	NA	NA	2000	95	0.2	NA	0.21055	0.21075	2001.9	8.5	1476-11-5	N/A	N/A
5.	trans-1,4-Dichloro-2-butene	(0486)	MKBP6041V	NA	NA	NA	2000	96.5	0.2	NA	0.20728	0.20750	2002.2	8.4	110-57-6	N/A	N/A
6.	Diethyl ether	(0153)	209453	NA	NA	NA	2000	99	0.2	NA	0.20204	0.20230	2002.6	8.2	60-29-7	N/A	N/A
7.	Ethyl methacrylate	(0381)	06126PX	NA	NA	NA	2000	99	0.2	NA	0.20204	0.20225	2002.1	8.1	97-63-2	N/A	orl-rat 14800mg/kg
8.	Iodomethane	(0489)	SHBF8716V	NA	NA	NA	2000	99.5	0.2	NA	0.20103	0.20135	2003.2	8.1	74-88-4	5 ppm(28mg/m3/8H)(skin)	orl-rat 76mg/kg
9.	2-Methyl-1-propanol	(0445)	15241EB	NA	NA	NA	2000	99.5	0.2	NA	0.20103	0.20120	2001.7	8.1	78-83-1	50 ppm (150mg/m3/8H)	orl-rat 2460mg/kg
10.	Methacrylonitrile	(0442)	00427ET	NA	NA	NA	2000	99	0.2	NA	0.20204	0.20215	2001.1	8.1	126-98-7	1 ppm (3mg/m3/8H)(skin)	orl-rat 120mg/kg
11.	Methyl acrylate	(1075)	SHBK0679	NA	NA	NA	2000	99.9	0.2	NA	0.20022	0.20100	2007.8	8.1	96-33-3	10 ppm(35mg/m3/8H)(skin)	orl-rat 277mg/kg
12.	Methyl methacrylate	(0404)	03021BX	NA	NA	NA	2000	99	0.2	NA	0.20204	0.20220	2001.6	8.1	80-62-6	100 ppm (410mg/m3/8H)	orl-rat 7872mg/kg
13.	Nitrobenzene	(0228)	01213TV	NA	NA	NA	2000	99	0.2	NA	0.20204	0.20215	2001.1	8.1	98-95-3	1 ppm (5mg/m3/8H)(skin)	orl-rat 780mg/kg
14.	2-Nitropropane	(0461)	14002JX	NA	NA	NA	2000	95	0.2	NA	0.21055	0.21075	2001.9	8.5	79-46-9	10 ppm (35mg/m3/8H)	orl-rat 720mg/kg
15.	Pentachloroethane	(0450)	HGA01	NA	NA	NA	2000	98	0.2	NA	0.20410	0.20430	2001.9	8.2	76-01-7	N/A	N/A
16.	1,1,2-Trichlorotrifluoroethane	(0474)	18930	NA	NA	NA	2000	99	0.2	NA	0.20204	0.20220	2001.6	8.1	76-13-1	1000 ppm (7600mg/m3/8H)	orl-rat 43g/kg
17.	Bromodichloromethane	35171	051118	0.05	5.00	40001.7	2000	NA	NA	0.017	NA	NA	1999.9	15.9	75-27-4	N/A	orl-rat 916mg/kg
18.	Dibromochloromethane	35171	051118	0.05	5.00	40000.8	2000	NA	NA	0.017	NA	NA	1999.8	15.9	124-48-1	N/A	orl-rat 848mg/kg
19.	cis-1,2-Dichloroethene	35171	051118	0.05	5.00	40002.0	2000	NA	NA	0.017	NA	NA	1999.9	15.8	156-59-2	N/A	N/A
20.	trans-1,2-Dichloroethene	35171	051118	0.05	5.00	40000.8	2000	NA	NA	0.017	NA	NA	1999.8	15.9	156-60-5	N/A	orl-rat 1235mg/kg
21.	Methylene chloride	35171	051118	0.05	5.00	40003.2	2000	NA	NA	0.017	NA	NA	1999.9	15.8	75-09-2	500 ppm	orl-rat 820mg/kg
22.	1,1-Dichloroethene	32251	122818	0.10	10.00	20005.5	2000	NA	NA	0.042	NA	NA	2000.3	18.7	75-35-4	1 ppm (4mg/m3/8H)	orl-rat 200mg/kg
23.	Bromoform	95321	010419	0.10	10.00	20001.7	2000	NA	NA	0.042	NA	NA	2000.0	18.7	75-25-2	0.5 ppm (5mg/m3) (skin)	orl-rat 933mg/kg
24.	Carbon tetrachloride	95321	010419	0.10	10.00	20001.3	2000	NA	NA	0.042	NA	NA	1999.9	18.7	56-23-5	2 ppm (12.6mg/m3/8H)	orl-rat 2350mg/kg
25.	Chloroform	95321	010419	0.10	10.00	20001.8	2000	NA	NA	0.042	NA	NA	2000.0	18.7	67-66-3	50 ppm (240mg/m3) (CL)	orl-rat 908mg/kg
26.	Dibromomethane	95321	010419	0.10	10.00	20001.7	2000	NA	NA	0.042	NA	NA	2000.0	18.7	74-95-3	N/A	orl-rat 108mg/kg
27.	1,1-Dichloroethane	95321	010419	0.10	10.00	20000.8	2000	NA	NA	0.042	NA	NA	1999.9	18.7	75-34-3	100 ppm	orl-rat 725mg/kg
28.	2,2-Dichloropropane	95321	010419	0.10	10.00	20002.1	2000	NA	NA	0.042	NA	NA	2000.0	18.7	594-20-7	N/A	N/A
29.	Tetrachloroethene	95321	010419	0.10	10.00	20002.2	2000	NA	NA	0.042	NA	NA	2000.0	18.7	127-18-4	25 ppm (170mg/m3/8H)(final)	orl-rat 2629mg/kg
30.	1,1,1-Trichloroethane	95321	010419	0.10	10.00	20001.7	2000	NA	NA	0.042	NA	NA	2000.0	18.7	71-55-6	350 ppm (1900mg/m3/8H)	orl-rat 10300mg/kg
31.	1,2-Dibromo-3-chloropropane	35161	052418	0.05	5.00	40000.5	2000	NA	NA	0.017	NA	NA	1999.8	15.8	96-12-8	0.001 ppm	orl-rat 170mg/kg
32.	1,2-Dibromoethane	35161	052418	0.05	5.00	40001.5	2000	NA	NA	0.017	NA	NA	1999.9	15.8	106-93-4	20 ppm (8H)	orl-rat 108mg/kg
33.	1,2-Dichloroethane	35161	052418	0.05	5.00	40001.4	2000	NA	NA	0.017	NA	NA	1999.9	15.8	107-06-2	50 ppm (8H)	orl-rat 670mg/kg
34.	1,2-Dichloropropane	35161	052418	0.05	5.00	40001.5	2000	NA	NA	0.017	NA	NA	1999.9	15.8	78-87-5	75 ppm (350mg/m3/8H)	orl-rat 1947mg/kg
35.	1,3-Dichloropropane	35161	052418	0.05	5.00	40001.0	2000	NA	NA	0.017	NA	NA	1999.8	15.8	142-28-9	N/A	unr-mus 3600mg/kg
36.	1,1-Dichloropropene	35161	052418	0.05	5.00	39639.5	2000	NA	NA	0.017	NA	NA	1981.8	24.2	563-58-6	N/A	N/A
37.	cis-1,3-Dichloropropene	35161	052418	0.05	5.00	40001.2	2000	NA	NA	0.017	NA	NA	1999.8	15.9	10061-01-5	N/A	N/A
38.	trans-1,3-Dichloropropene	35161	052418	0.05	5.00	40000.7	2000	NA	NA	0.017	NA	NA	1999.8	16.0	10061-02-6	N/A	N/A
39.	Hexachloro-1,3-butadiene	35161	052418	0.05	5.00	40000.9	2000	NA	NA	0.017	NA	NA	1999.8	15.9	87-68-3	0.02 ppm (0.24mg/m3/8H)	orl-rat 82mg/kg
40.	1,1,1,2-Tetrachloroethane	35161	052418	0.05	5.00	40000.5	2000	NA	NA	0.017	NA	NA	1999.8	15.8	630-20-6	N/A	orl-rat 670mg/kg
41.	1,1,2,2-Tetrachloroethane	35161	052418	0.05	5.00	40001.5	2000	NA	NA	0.017	NA	NA	1999.9	15.8	79-34-5	5 ppm (35mg/m3/9H)(skin)	orl-rat 800mg/kg
42.	1,1,2-Trichloroethane	35161	052418	0.05	5.00	40000.7	2000	NA	NA	0.017	NA	NA	1999.8	15.9	79-00-5	10 ppm (45mg/m3/8H)(skin)	orl-rat 836mg/kg
43.	Trichloroethene	35161	052418	0.05	5.00	40000.6	2000	NA	NA	0.017	NA	NA	1999.8	15.8	79-01-6	50 ppm (270mg/m3/8H)	orl-mus 2402mg/kg
44.	1,2,3-Trichloropropane	35161	052418	0.05	5.00	40000.5	2000	NA	NA	0.017	NA	NA	1999.8	15.8	96-18-4	10 ppm (60mg/m3/8H)	orl-rat 149 6mg/kg
45.	Benzene	35162	060418	0.05	5.00	40000.4	2000	NA	NA	0.017	NA	NA	1999.8	15.8	71-43-2	1 ppm	orl-rat 4894mg/kg
46.	Bromobenzene	35162	060418	0.05	5.00	40000.5	2000	NA	NA	0.017	NA	NA	1999.8	15.8	108-86-1	N/A	orl-rat 2699mg/kg
47.	n-Butyl benzene	35162	060418	0.05	5.00	40001.5	2000	NA	NA	0.017	NA	NA	1999.9	15.8	104-51-8	N/A	N/A
48.	Ethyl benzene	35162	060418	0.05	5.00	40000.4	2000	NA	NA	0.017	NA	NA	1999.8	15.8	100-41-4	100 ppm (435mg/m3/8H)	orl-rat >2000mg/kg
49.	p-Isopropyl toluene	35162	060418	0.05	5.00	40001.0	2000	NA	NA	0.017	NA	NA	1999.8	15.8	99-87-6	N/A	orl-rat 4750mg/kg
50.	Naphthalene	35162	060418	0.05	5.00	40001.5	2000	NA	NA	0.017	NA	NA	1999.9	15.8	91-20-3	10 ppm (50mg/m3/8H)	orl-rat 490mg/kg
51.	Styrene	35162	060418	0.05	5.00	40000.5	2000	NA	NA	0.017	NA	NA	1999.8	15.8	100-42-5	100 ppm	orl-rat 5000mg/kg
52.	Toluene	35162	060418	0.05	5.00	40000.4	2000	NA	NA	0.017	NA	NA	1999.8	15.8	108-88-3	200 ppm	orl-rat 5000mg/kg
53.	1,2,3-Trichlorobenzene	35162	060418	0.05	5.00	40002.4	2000	NA	NA	0.017	NA	NA	1999.9	15.8	87-61-6	N/A	ipr-mus 1390mg/kg
54.	1,2,4-Trichlorobenzene	35162	060418	0.05	5.00	40001.0	2000	NA	NA	0.017	NA	NA	1999.8	15.8	120-82-1	5 ppm (CL) (40mg/m3)	orl-rat 756mg/kg
55.	1,2,4-Trimethylbenzene	35162	060418	0.05	5.00	40001.7	2000	NA	NA	0.017	NA	NA	1999.9	15.9	95-63-6	N/A	orl-rat 5g/kg
56.	1,3,5-Trimethylbenzene	35162	060418	0.05	5.00	40000.2	2000	NA	NA	0.017	NA	NA	1999.8	15.9	108-67-8	N/A	N/A
57.	m-Xylene	35162	060418	0.05	5.00	40001.0	2000	NA	NA	0.017	NA	NA	1999.8	15.8	108-38-3	100 ppm (435mg/m3/8H)	orl-rat 5g/kg
58.	tert-Butyl benzene	35163	051118	0.05	5.00	40001.5	2000	NA	NA	0.017	NA	NA	1999.9	15.8	98-06-6	N/A	N/A
59.	sec-Butyl benzene	35163	051118	0.05	5.00	40001.3	2000	NA	NA	0.017	NA	NA	1999.8	15.8	135-98-8	N/A	orl-rat 2240mg/kg
60.	Chlorobenzene	35163	051118	0.05	5.00	40001.6	2000	NA	NA	0.017	NA	NA	1999.9	15.8	108-90-7	75 ppm (350mg/m3/8H)	orl-rat 2290mg/kg
61.	2-Chlorotoluene	35163	051118	0.05	5.00	40001.0	2000	NA	NA	0.017	NA	NA	1999.8	15.8	95-49-8	50 ppm (250mg/m3/8H)	orl-rat 3900mg/kg
62.	4-Chlorotoluene	35163	051118	0.05	5.00	40001.4	2000	NA	NA	0.017	NA	NA	1999.8	15.9	106-43-4	N/A	orl-rat 2100mg/kg
63.	1,2-Dichlorobenzene	35163	051118	0.05	5.00	40002.3	2000	NA	NA	0.017	NA	NA	1999.9	15.8	95-50-1	50 ppm (300mg/m3) (CL)	orl-rat 500mg/kg
64.	1,3-Dichlorobenzene	35163	051118	0.05	5.00	40001.5	2000	NA	NA	0.017	NA	NA	1999.9	15.9	541-73-1	N/A	ipr-mus 1062mg/kg
65.	1,4-Dichlorobenzene	35163	051118	0.05	5.00	40001.3	2000	NA	NA	0.017	NA	NA	1999.8	15.8	106-46-7	75 ppm (450mg/m3/8H)	orl-rat 500mg/kg
66.	Isopropylbenzene	35163	051118	0.05	5.00	40001.7	2000	NA	NA	0.017	NA	NA	1999.9	15.9	98-82-8	50 ppm (245mg/m3/8H)	orl-rat 1400mg/kg
67.	n-Propylbenzene	35163	051118	0.05	5.00	40001.0	2000	NA	NA	0.017	NA	NA	1999.8	15.9	103-65-1	N/A	orl-rat 6040mg/kg
68.	o-Xylene	35163	051118	0.05	5.00	40001.1	2000	NA	NA	0.017	NA	NA	1999.8	15.8	95-47-6	100 ppm (435mg/m3/8H)	ipr-mus 1364mg/kg
69.	p-Xylene	35163	051118	0.05	5.00	40001.3	2000	NA	NA	0.017	NA	NA	1999.8	15.8	106-42-3	100 ppm (435mg/m3/8H)	orl-rat 5g/kg

- The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
- Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
- Standards are certified (+/-) 0.5% of the stated value, unless otherwise stated.
- All Standards, after opening ampule, should be stored with caps tight and under appropriate laboratory conditions.
- Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, DC, (1994).

Methanol
ULTRA RESI-ANALYZED
For Purge and Trap Analysis

Material No.: 9077-02
Batch No.: 0000202813
Manufactured Date: 2018/05/21
Expiration Date: 2020/05/18
Revision No: 1

Certificate of Analysis

Test	Specification	Result
Assay (CH_3OH) (by GC, corrected for water)	>= 99.9 %	100.0
Residue after Evaporation	<= 1.0000 ppm	0.2000
Titrable Acid (µeq/g)	<= 0.3	0.2
Titrable Base (µeq/g)	<= 0.1	<0.01
Water (by KF, coulometric)	<= 0.08 %	< 0.01
Photoionization Detection (PID) Below CRQL	Passes Test	PT
Electroconductivity Detection (ELCD) Below CRQL	Passes Test	PT

For Laboratory, Research or Manufacturing Use
Performance Tested for Use in EPA Methods
500 Series for Drinking Water
600 Series for Wastewater
846 for Solid Waste

Country of Origin: US
Packaging Site: Phillipsburg Mfg Ctr & DC

ISO
Phillipsburg, NJ 9001:2015, FSSC 22000
Paris, KY 9001:2008
Mexico City, Mexico 9001:2008
Gliwice, Poland 9001:2008
Selangor, Malaysia 9001:2008
Dehradun, India, 9001:2008, 14001:2004, 13485:2003
Mumbai, India, 9001:2015, 17025:2005
Panoli, India 9001:2015

James Ethier
Jamie Ethier
Vice President Global Quality

For questions on this Certificate of Analysis please contact Technical Services at 855.282.6867 or +1.610.573.2600
Avantor Performance Materials, LLC.
3477 Corporate Parkway. Center Valley, PA 18034. U.S.A. Phone: 610.573.2600 . Fax: 610.573.2610

Methanol
ULTRA RESI-ANALYZED
For Purge and Trap Analysis

J.T.Baker® | avantor™

Material No.: 9077-02
Batch No.: 0000199507
Manufactured Date: 2018/06/25
Expiration Date: 2020/06/22
Revision No: 1

Certificate of Analysis

Test	Specification	Result
Assay (CH_3OH) (by GC, corrected for water)	>= 99.9 %	100.0
Residue after Evaporation	<= 1.0000 ppm	<0.1
Titrable Acid (µeq/g)	<= 0.3	< 0.1
Titrable Base (µeq/g)	<= 0.1	<0.01
Water (by KF, coulometric)	<= 0.08 %	< 0.01
Photoionization Detection (PID) Below CRQL	Passes Test	PT
Electroconductivity Detection (ELCD) Below CRQL	Passes Test	PT

For Laboratory, Research or Manufacturing Use
Performance Tested for Use in EPA Methods
500 Series for Drinking Water
600 Series for Wastewater
846 for Solid Waste

Country of Origin: US
Packaging Site: Phillipsburg Mfg Ctr & DC

ISO
Phillipsburg, NJ 9001:2015, FSSC 22000
Paris, KY 9001:2008
Mexico City, Mexico 9001:2008
Gliwice, Poland 9001:2008
Selangor, Malaysia 9001:2008
Dehradun, India 9001:2015, 14001:2015, 13485:2016
Mumbai, India 9001:2015
Panoli, India 9001:2015

James Ethier
Jamie Ethier
Vice President Global Quality

For questions on this Certificate of Analysis please contact Technical Services at 855.282.6867 or +1.610.573.2600
Avantor Performance Materials, LLC.
3477 Corporate Parkway. Center Valley, PA 18034. U.S.A. Phone: 610.573.2600 . Fax: 610.573.2610

Methanol
ULTRA RESI-ANALYZED
For Purge and Trap Analysis

J.T.Baker® | avantor™

Material No.: 9077-02
Batch No.: 0000199507
Manufactured Date: 2018/06/25
Expiration Date: 2020/06/22
Revision No: 1

Certificate of Analysis

Test	Specification	Result
Assay (CH_3OH) (by GC, corrected for water)	>= 99.9 %	100.0
Residue after Evaporation	<= 1.0000 ppm	<0.1
Titrable Acid (µeq/g)	<= 0.3	< 0.1
Titrable Base (µeq/g)	<= 0.1	<0.01
Water (by KF, coulometric)	<= 0.08 %	< 0.01
Photoionization Detection (PID) Below CRQL	Passes Test	PT
Electroconductivity Detection (ELCD) Below CRQL	Passes Test	PT

For Laboratory, Research or Manufacturing Use
Performance Tested for Use in EPA Methods
500 Series for Drinking Water
600 Series for Wastewater
846 for Solid Waste

Country of Origin: US
Packaging Site: Phillipsburg Mfg Ctr & DC

ISO
Phillipsburg, NJ 9001:2015, FSSC 22000
Paris, KY 9001:2008
Mexico City, Mexico 9001:2008
Gliwice, Poland 9001:2008
Selangor, Malaysia 9001:2008
Dehradun, India 9001:2015, 14001:2015, 13485:2016
Mumbai, India 9001:2015
Panoli, India 9001:2015

James T Ethier
Jamie Ethier
Vice President Global Quality

For questions on this Certificate of Analysis please contact Technical Services at 855.282.6867 or +1.610.573.2600
Avantor Performance Materials, LLC.
3477 Corporate Parkway. Center Valley, PA 18034. U.S.A. Phone: 610.573.2600 . Fax: 610.573.2610

CERTIFIED WEIGHT REPORT

Part Number: 95317
Lot Number: 010419
Description: Universal VOA Megamix
69 components
Expiration Date: 010422
Recommended Storage: Freezer (0 °C)
Nominal Concentration (µg/mL): 2000
NIST Test ID#: 2684186

Solvent(s): Lot#
Methanol DT140Q6

Eli Aliaga		010419
Formulated By:	Eli Aliaga	DATE
Pedro Rentas		010419
Reviewed By:	Pedro L. Rentas	DATE

5E-05 Balance Uncertainty

Weight(s) shown below were combined and diluted to (mL): 100.0 0.001 Flask Uncertainty

Compound	(RM#) Part Number	Lot Number	Dil. Factor	Initial Vol. (mL)	Initial Conc (µg/mL)	Nominal Conc (µg/mL)	Purity (%)	Purity Uncertainty	Uncertainty Pipette (mL)	Target Weight(g)	Actual Weight(g)	Actual Conc (µg/mL)	Expanded Uncertainty (+/-) (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50
1. Acetonitrile	(0324)	060812	NA	NA	NA	2000	99.9	0.2	NA	0.20022	0.20040	2001.8	8.1	75-05-8	40 ppm (70mg/m3/8H)	orl-rat 2460mg/kg
2. Allyl chloride (3-Chloropropene)	(0325)	102396	NA	NA	NA	2000	99	0.2	NA	0.20204	0.20210	2000.6	8.1	107-05-1	1 ppm (3mg/m3/8H)	orl-rat 700mg/kg
3. Carbon disulphide	(0080)	MKBZ8689V	NA	NA	NA	2000	99	0.2	NA	0.20204	0.20215	2001.1	8.1	75-15-0	4 ppm (12mg/m3) (skin)	orl-rat 1200mg/kg
4. cis-1,4-Dichloro-2-butene	(1196)	14718EF	NA	NA	NA	2000	95	0.2	NA	0.21055	0.21060	2000.5	8.5	1476-11-5	N/A	N/A
5. trans-1,4-Dichloro-2-butene	(0486)	MKBP5041V	NA	NA	NA	2000	96.5	0.2	NA	0.20728	0.20745	2001.7	8.4	110-57-6	N/A	N/A
6. Diethyl ether	(0153)	209453	NA	NA	NA	2000	99	0.2	NA	0.20204	0.20210	2000.6	8.1	60-29-7	N/A	N/A
7. Ethyl methacrylate	(0381)	06126PX	NA	NA	NA	2000	99	0.2	NA	0.20204	0.20220	2001.6	8.1	97-63-2	N/A	orl-rat 14800mg/kg
8. Iodomethane	(0489)	SHBF8718V	NA	NA	NA	2000	99.5	0.2	NA	0.20103	0.20140	2003.7	8.1	74-88-4	5 ppm(28mg/m3/8H)(skin)	orl-rat 76mg/kg
9. 2-Methyl-1-propanol	(0445)	15241EB	NA	NA	NA	2000	99.5	0.2	NA	0.20103	0.20110	2000.7	8.1	78-83-1	50 ppm (150mg/m3/8H)	orl-rat 2460mg/kg
10. Methacrylonitrile	(0442)	00427ET	NA	NA	NA	2000	99	0.2	NA	0.20204	0.20215	2001.1	8.1	126-98-7	1 ppm (3mg/m3/8H)(skin)	orl-rat 120mg/kg
11. Methyl acrylate	(1075)	SHBK0679	NA	NA	NA	2000	99.9	0.2	NA	0.20022	0.20120	2009.8	8.1	96-33-3	10 ppm(35mg/m3/8H)(skin)	orl-rat 277mg/kg
12. Methyl methacrylate	(0404)	03021BX	NA	NA	NA	2000	99	0.2	NA	0.20204	0.20225	2002.1	8.1	80-62-6	100 ppm (410mg/m3/8H)	orl-rat 7872mg/kg
13. Nitrobenzene	(0228)	01213TV	NA	NA	NA	2000	99	0.2	NA	0.20204	0.20220	2001.6	8.1	98-95-3	1 ppm (5mg/m3/8H)(skin)	orl-rat 780mg/kg
14. 2-Nitropropane	(0461)	14002JX	NA	NA	NA	2000	95	0.2	NA	0.21055	0.21060	2000.5	8.5	79-46-9	10 ppm (35mg/m3/8H)	orl-rat 720mg/kg
15. Pentachloroethane	(0450)	HGA01	NA	NA	NA	2000	98	0.2	NA	0.20410	0.20425	2001.4	8.2	76-01-7	N/A	N/A
16. 1,1,2-Trichlorotrifluoroethane	(0474)	18930	NA	NA	NA	2000	99	0.2	NA	0.20204	0.20215	2001.1	8.1	76-13-1	1000 ppm (7600mg/m3/8H)	orl-rat 43g/kg
17. Bromodichloromethane	35171	051118	0.05	5.00	40001.7	2000	NA	NA	0.017	NA	NA	1999.9	15.9	75-27-4	N/A	orl-rat 916mg/kg
18. Dibromochloromethane	35171	051118	0.05	5.00	40000.8	2000	NA	NA	0.017	NA	NA	1999.8	15.9	124-48-1	N/A	orl-rat 848mg/kg
19. cis-1,2-Dichloroethene	35171	051118	0.05	5.00	40002.0	2000	NA	NA	0.017	NA	NA	1999.9	15.8	156-59-2	N/A	N/A
20. trans-1,2-Dichloroethene	35171	051118	0.05	5.00	40000.8	2000	NA	NA	0.017	NA	NA	1999.8	15.9	156-60-5	N/A	orl-rat 1235mg/kg
21. Methylene chloride	35171	051118	0.05	5.00	40003.2	2000	NA	NA	0.017	NA	NA	1999.9	15.8	75-09-2	500 ppm	orl-rat 820mg/kg
22. 1,1-Dichloroethene	32251	122818	0.10	10.00	20005.5	2000	NA	NA	0.042	NA	NA	2000.3	18.7	75-35-4	1 ppm (4mg/m3/8H)	orl-rat 200mg/kg
23. Bromoform	95321	010419	0.10	10.00	20001.7	2000	NA	NA	0.042	NA	NA	2000.0	18.7	75-25-2	0.5 ppm (5mg/m3) (skin)	orl-rat 933mg/kg
24. Carbon tetrachloride	95321	010419	0.10	10.00	20001.3	2000	NA	NA	0.042	NA	NA	1999.9	18.7	56-23-5	2 ppm (12.6mg/m3/8H)	orl-rat 2350mg/kg
25. Chloroform	95321	010419	0.10	10.00	20001.8	2000	NA	NA	0.042	NA	NA	2000.0	18.7	67-66-3	50 ppm (240mg/m3) (CL)	orl-rat 908mg/kg
26. Dibromomethane	95321	010419	0.10	10.00	20001.7	2000	NA	NA	0.042	NA	NA	2000.0	18.7	74-95-3	N/A	orl-rat 108mg/kg
27. 1,1-Dichloroethane	95321	010419	0.10	10.00	20000.8	2000	NA	NA	0.042	NA	NA	1999.9	18.7	75-34-3	100 ppm	orl-rat 725mg/kg
28. 2,2-Dichloropropane	95321	010419	0.10	10.00	20002.1	2000	NA	NA	0.042	NA	NA	2000.0	18.7	594-20-7	N/A	N/A
29. Tetrachloroethene	95321	010419	0.10	10.00	20002.2	2000	NA	NA	0.042	NA	NA	2000.0	18.7	127-18-4	25 ppm (170mg/m3/8H)(final)	orl-rat 2629mg/kg
30. 1,1,1-Trichloroethane	95321	010419	0.10	10.00	20001.7	2000	NA	NA	0.042	NA	NA	2000.0	18.7	71-55-6	350 ppm (1900mg/m3/8H)	orl-rat 10300mg/kg
31. 1,2-Dibromo-3-chloropropane	35161	052418	0.05	5.00	40000.5	2000	NA	NA	0.017	NA	NA	1999.8	15.8	96-12-8	0.001 ppm	orl-rat 170mg/kg
32. 1,2-Dibromoethane	35161	052418	0.05	5.00	40001.5	2000	NA	NA	0.017	NA	NA	1999.9	15.8	106-93-4	20 ppm (8H)	orl-rat 108mg/kg
33. 1,2-Dichloroethane	35161	052418	0.05	5.00	40001.4	2000	NA	NA	0.017	NA	NA	1999.9	15.8	107-06-2	50 ppm (8H)	orl-rat 670mg/kg
34. 1,2-Dichloropropane	35161	052418	0.05	5.00	40001.5	2000	NA	NA	0.017	NA	NA	1999.9	15.8	78-87-5	75 ppm (350mg/m3/8H)	orl-rat 1947mg/kg
35. 1,3-Dichloropropane	35161	052418	0.05	5.00	40001.0	2000	NA	NA	0.017	NA	NA	1999.8	15.8	142-28-9	N/A	unr-mus 3600mg/kg
36. 1,1-Dichloropropene	35161	052418	0.05	5.00	39639.5	2000	NA	NA	0.017	NA	NA	1981.8	24.2	563-58-6	N/A	N/A
37. cis-1,3-Dichloropropene	35161	052418	0.05	5.00	40001.2	2000	NA	NA	0.017	NA	NA	1999.8	15.9	10061-01-5	N/A	N/A
38. trans-1,3-Dichloropropene	35161	052418	0.05	5.00	40000.7	2000	NA	NA	0.017	NA	NA	1999.8	16.0	10061-02-6	N/A	N/A
39. Hexachloro-1,3-butadiene	35161	052418	0.05	5.00	40000.9	2000	NA	NA	0.017	NA	NA	1999.8	15.9	87-68-3	0.02 ppm (0.24mg/m3/8H)	orl-rat 82mg/kg
40. 1,1,1,2-Tetrachloroethane	35161	052418	0.05	5.00	40000.5	2000	NA	NA	0.017	NA	NA	1999.8	15.8	630-20-6	N/A	orl-rat 670mg/kg
41. 1,1,2,2-Tetrachloroethane	35161	052418	0.05	5.00	40001.5	2000	NA	NA	0.017	NA	NA	1999.9	15.8	79-34-5	5 ppm (35mg/m3/9H)(skin)	orl-rat 800mg/kg
42. 1,1,2-Trichloroethane	35161	052418	0.05	5.00	40000.7	2000	NA	NA	0.017	NA	NA	1999.8	15.9	79-00-5	10 ppm (45mg/m3/8H)(skin)	orl-rat 836mg/kg
43. Trichloroethene	35161	052418	0.05	5.00	40000.6	2000	NA	NA	0.017	NA	NA	1999.8	15.8	79-01-6	50 ppm (270mg/m3/8H)	orl-mus 2402mg/kg
44. 1,2,3-Trichloropropane	35161	052418	0.05	5.00	40000.5	2000	NA	NA	0.017	NA	NA	1999.8	15.8	96-18-4	10 ppm (60mg/m3/8H)	orl-rat 149.6mg/kg
45. Benzene	35162	060418	0.05	5.00	40000.4	2000	NA	NA	0.017	NA	NA	1999.8	15.8	71-43-2	1 ppm	orl-rat 4894mg/kg
46. Bromobenzene	35162	060418	0.05	5.00	40000.5	2000	NA	NA	0.017	NA	NA	1999.8	15.8	108-86-1	N/A	orl-rat 2699mg/kg
47. n-Butyl benzene	35162	060418	0.05	5.00	40001.5	2000	NA	NA	0.017	NA	NA	1999.9	15.8	104-51-8	N/A	N/A
48. Ethyl benzene	35162	060418	0.05	5.00	40000.4	2000	NA	NA	0.017	NA	NA	1999.8	15.8	100-41-4	100 ppm (435mg/m3/8H)	orl-rat >2000mg/kg
49. p-Isopropyl toluene	35162	060418	0.05	5.00	40001.0	2000	NA	NA	0.017	NA	NA	1999.8	15.8	99-87-6	N/A	orl-rat 4750mg/kg
50. Naphthalene	35162	060418	0.05	5.00	40001.5	2000	NA	NA	0.017	NA	NA	1999.9	15.8	91-20-3	10 ppm (50mg/m3/8H)	orl-rat 490mg/kg
51. Styrene	35162	060418	0.05	5.00	40000.5	2000	NA	NA	0.017	NA	NA	1999.8	15.8	100-42-5	100 ppm	orl-rat 5000mg/kg
52. Toluene	35162	060418	0.05	5.00	40000.4	2000	NA	NA	0.017	NA	NA	1999.8	15.8	108-88-3	200 ppm	orl-rat 5000mg/kg
53. 1,2,3-Trichlorobenzene	35162	060418	0.05	5.00	40002.4	2000	NA	NA	0.017	NA	NA	1999.9	15.8	87-61-6	N/A	ipr-mus 1390mg/kg
54. 1,2,4-Trichlorobenzene	35162	060418	0.05	5.00	40001.0	2000	NA	NA	0.017	NA	NA	1999.8	15.8	120-82-1	5 ppm (CL) (40mg/m3)	orl-rat 756mg/kg
55. 1,2,4-Trimethylbenzene	35162	060418	0.05	5.00	40001.7	2000	NA	NA	0.017	NA	NA	1999.9	15.9	95-63-6	N/A	orl-rat 5g/kg
56. 1,3,5-Trimethylbenzene	35162	060418	0.05	5.00	40000.2	2000	NA	NA	0.017	NA	NA	1999.8	15.9	108-67-8	N/A	N/A
57. m-Xylene	35162	060418	0.05	5.00	40001.0	2000	NA	NA	0.017	NA	NA	1999.8	15.8	108-38-3	100 ppm (435mg/m3/8H)	orl-rat 5g/kg
58. tert-Butyl benzene	35163	051118	0.05	5.00	40001.5	2000	NA	NA	0.017	NA	NA	1999.9	15.8	98-06-6	N/A	N/A
59. sec-Butyl benzene	35163	051118	0.05	5.00	40001.3	2000	NA	NA	0.017	NA	NA	1999.8	15.8	135-98-8	N/A	orl-rat 2240mg/kg
60. Chlorobenzene	35163	051118	0.05	5.00	40001.6	2000	NA	NA	0.017	NA	NA	1999.9	15.8	108-90-7	75 ppm (350mg/m3/8H)	orl-rat 2290mg/kg
61. 2-Chlorotoluene	35163	051118	0.05	5.00	40001.0	2000	NA	NA	0.017	NA	NA	1999.8	15.8	95-49-8	50 ppm (250mg/m3/8H)	orl-rat 3900mg/kg
62. 4-Chlorotoluene	35163	051118	0.05	5.00	40001.4	2000	NA	NA	0.017	NA	NA	1999.8	15.9	106-43-4	N/A	orl-rat 2100mg/kg
63. 1,2-Dichlorobenzene	35163	051118	0.05	5.00	40002.3	2000	NA	NA	0.017	NA	NA	1999.9	15.8	95-50-1	50 ppm (300mg/m3) (CL)	orl-rat 500mg/kg
64. 1,3-Dichlorobenzene	35163	051118	0.05	5.00	40001.5	2000	NA	NA	0.017	NA	NA	1999.9	15.9	541-73-1	N/A	ipr-mus 1062mg/kg
65. 1,4-Dichlorobenzene	35163	051118	0.05	5.00	40001.3	2000	NA	NA	0.017	NA	NA	1999.8	15.8	106-46-7	75 ppm (450mg/m3/8H)	orl-rat 500mg/kg
66. Isopropylbenzene	35163	051118	0.05	5.00	40001.7	2000	NA	NA	0.017	NA	NA	1999.9	15.9	98-82-8	50 ppm (245mg/m3/8H)	orl-rat 1400mg/kg
67. n-Propylbenzene	35163	051118	0.05	5.00	40001.0	2000	NA	NA	0.017	NA	NA	1999.8	15.9	103-65-1	N/A	orl-rat 6040mg/kg
68. o-Xylene	35163	051118	0.05	5.00	40001.1	2000	NA	NA	0.017	NA	NA	1999.8	15.8	95-47-6	100 ppm (435mg/m3/8H)	ipr-mus 1364mg/kg
69. p-Xylene	35163	051118	0.05	5.00	40001.3	2000	NA	NA	0.017	NA	NA	1999.8	15.8	106-42-3	100 ppm (435mg/m3/8H)	orl-rat 5g/kg

- The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
- Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
- Standards are certified (+/-) 0.5% of the stated value, unless otherwise stated.
- All Standards, after opening ampule, should be stored with caps tight and under appropriate laboratory conditions.
- Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, DC, (1994).

Absolute Standards Inc.

PO Box 5585
Hamden, CT 06518-0585

Phone: 203-281-2917
FAX: 203-281-2922

Safety Data Sheet (SDS) GHS/OSHA Compliant

Section I Product and Company Identification

IDENTITY **ANALYTICAL STANDARD DISSOLVED IN METHANOL**

Manufacturer's Name	ABSOLUTE STANDARDS INC	Emergency Telephone USA & CANADA	**1-800-535-5053**
Address	44 Rossotto Dr. Hamden CT, 06514	Emergency Telephone International Date Prepared/Revised	**1-352-323-3500** May 1, 2018

Section II - Hazards Identification

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

H225	**Highly Flammable Liquid and Vapor**	**H301, 311, 331**	**Toxic if swallowed, skin contact, inhaled**
H370	**Cause damage to organs**	**H351**	**Suspected of causing cancer**
P271	**Use in ventilated area**	**P280**	**Use gloves, eye protection/face sheild**
P302,332	**If on skin, wash with soap and water**	**P305,351,338**	**If in eyes, remove contacts, rinse with water**

Signal Word: DANGER

Section III - Composition

Components (Specific Chemical Identity; Common Name(s))			% (optional)
Methanol	METHYL ALCOHOL	CAS#: 67-56-1	> 97

See Certified Weight Report For Other Analytes Present At Trace Quantities.

INTENDED USE: REFERENCE MATERIAL

Section IV. FIRST AID MEASURES

General advice	Consult a physician. Show this safety data sheet to the doctor in attendance.Move to safe area.
If inhaled	If inhaled, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.
In case of skin contact	Wash with soap and water. Consult a physician.
In case of eye contact	Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.
If swallowed	Do NOT induce vomiting. Rinse mouth with water. Consult a physician.

Section V. FIREFIGHTING MEASURES

Flammability	Flammable in the presence of a source of ignition when the temperature is above the flash point. Keep away from heat/sparks/open flame/hot surface. No smoking.
Suitable extinguishing media	Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Protective equipment for fire	Wear self contained breathing apparatus for fire fighting if necessary.

Section VI. ACCIDENTAL RELEASE MEASURES

Personal precautions	Wear respiratory protection. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Vapours accumulate to form explosive concentrations.
Environmental precautions	Prevent further leakage or spillage if safe to do so. Do not let product enter drains.
Clean up	Contain spillage, and then collect and place in container for disposal according to local regulations (see section 13).

Section VII. HANDLING AND STORAGE

Precautions for safe handling	Avoid contact with skin and eyes. Avoid inhalation of vapour or mist. Use ventilation Keep away from sources of ignition. No smoking. Prevent the build up of electrostatic charge.
Storage Conditions	Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

Section VIII. EXPOSURE CONTROLS/PERSONAL PROTECTION

Methanol 67-56-1 TWA 200 ppm
Skin notation TWA 200 ppm
Potential for skin absorption , ingestion and inhalation.
Personal protective equipment Respiratory protection Handle with gloves. Gloves must be inspected prior to use. Eye protection.
Avoid contact with skin, eyes and clothing. Wash hands thoroughly after handling the product.

Section IX - Physical/Chemical Characteristics

Boiling Point	65°C	Specific Gravity (H2O = 1)	0.79
Vapor Pressure (mm Hg)	96	Melting Point	-98°C
Vapor Density (AIR = 1)	1.11	Evaporation rate (Butyl Acetate = 1)	4.6

Solubility in Water COMPLETE

Appearance and Odor CLEAR, COLORLESS LIQUID WITH CHARACTERISTIC PUNGENT ODOR.

Section X. STABILITY AND REACTIVITY

Chemical stability Stable under recommended storage conditions.
Possibility of hazardous reactions Vapours may form explosive mixture with air.
Conditions to avoid Heat, flames, sparks, extreme temperature and sunlight.
Materials to avoid Acid chlorides, Acid anhydrides, Oxidizing agents, Alkali metals, Reducing agents, Acids
Hazardous decomposition products formed under fire conditions. - Carbon oxides

Section XI. TOXICOLOGICAL INFORMATION

LD50 Oral - rat - 5,628 mg/kg
LC50 Inhalation - rat - 4 h - 64000 ppm
LD50 Dermal - rabbit - 15,800 mg/kg
Toxic if absorbed through skin. Causes skin irritation.
Eye damage/eye irritation
Toxic if inhaled. Causes respiratory tract irritation.
Toxic if swallowed.

Section XII. ECOLOGICAL INFORMATION FOR REPORTABLE QUANTITY OF 5000 lbs.

LC50	15,400 mg/l - 96 h
EC50	24,500.00 mg/l - 48 h
EC100	10,000.00 mg/l - 24 h

Section XIII. DISPOSAL CONSIDERATIONS

Dispose with normal Laboratory Solvent Waste.

Section XIV. TRANSPORT INFORMATION

DOT (US)
UN number: 1230 Class: 3 Packing group: II
Proper shipping name: Methanol

IATA
UN number: 1230 Class: 3 Packing group: II
Proper shipping name: Methanol

Section XV. REGULATORY INFORMATION

OSHA Hazards Flammable liquid, Target Organ Effect, Toxic by inhalation., Toxic by ingestion, Toxic by skin absorption, Irritant
SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

Section XVI. Misc. INFORMATION

The information in this Material Safety Data Sheet meets the requirements of the United States Occupational Safety and Health Act and regulations promulgated thereunder (29 CFR 1910.1200 et. seq.) and Global Harmonized System (GHS). This document is intended only as a guide to the appropriate precautionary handling of the material by trained personnel, or supervised by a person trained in chemical handling. The user is responsible for determining the precautions and dangers of this chemical for his or her particular application. Depending on usage, protective clothing including eye and face guards and respirators must be used to avoid contact with material or breathing chemical vapors/fumes. Exposure to this product may have serious adverse health effects. This chemical may interact with other substances. Since the potential uses are so varied, ABSOLUTE STANDARDS INC. cannot warn of all the potential dangers of use or interaction with other chemicals or substances. ABSOLUTE STANDARDS INC. warrants that the chemical meets the specifications set forth on the label. ABSOLUTE STANDARDS INC DISCLAIMS ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED WITH REGARD TO THE PRODUCT SUPPLIED HEREUNDER, ITS MERCHANTABILITY OR ITS FITNESS FOR A PARTICULAR APPLICATION. The user should recognize that this product can cause severe injury or death, especially if improperly handled or the known dangers of use are not heeded. READ ALL PRECAUTIONARY INFORMATION. As new documented general safety information becomes available, Absolute Standards Inc. will periodically revise this Safety Data Sheet. If you have any questions, please call Technical Service at 1-203-281-2917 for assistance.

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

4

ISO 17034 Accredited
Scopes: http://AbsoluteStandards.com

CERTIFIED WEIGHT REPORT

Part Number: 91980
Lot Number: 121219
Description: Acrolein

Expiration Date: 011220
Recommended Storage: Refrigerate (4 °C)
Nominal Concentration (µg/mL): 5000
NIST Test ID#: 6UTB

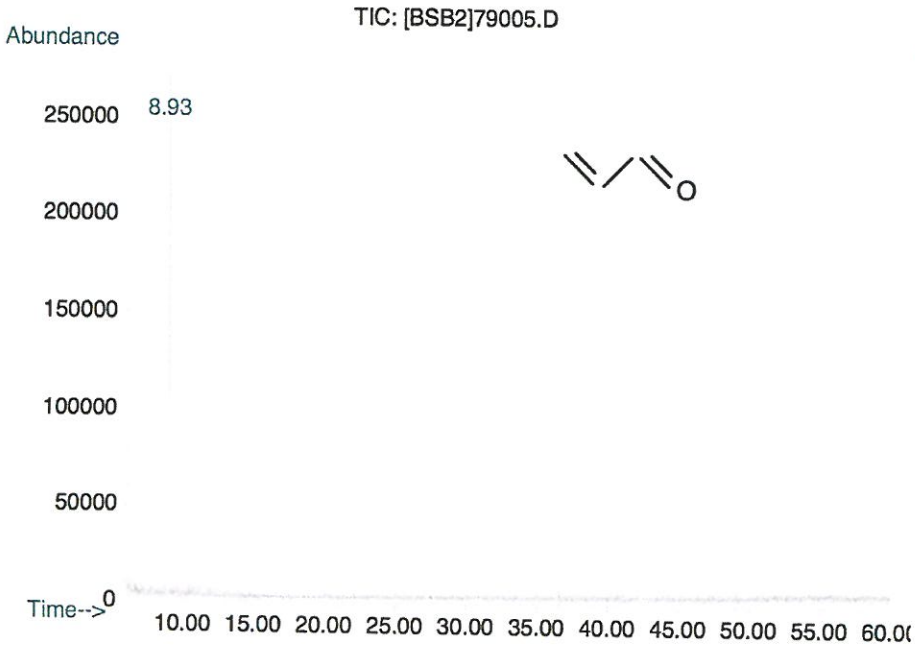
Solvent(s): Water **Lot#** 062419Q

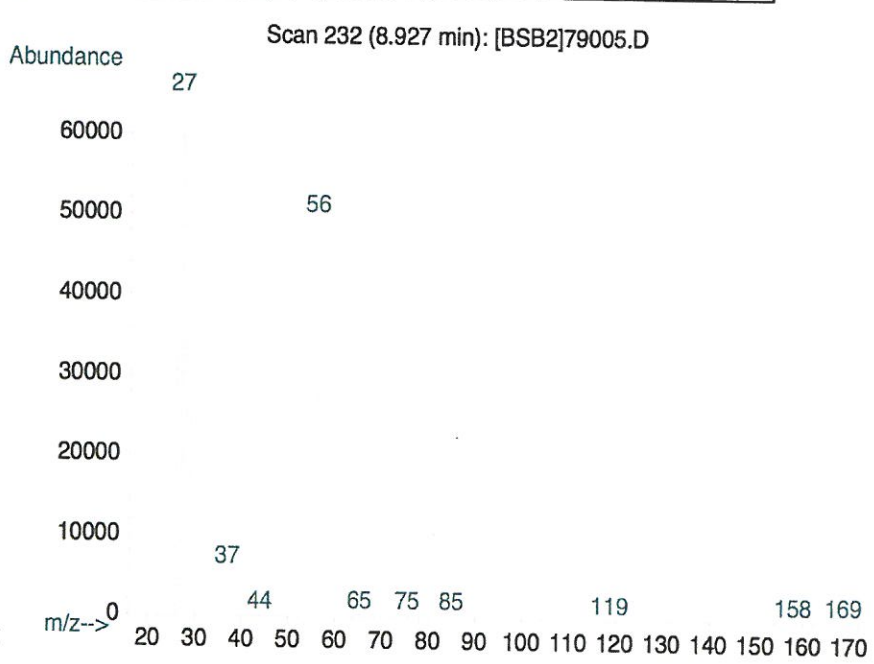
5E-05 Balance Uncertainty
Weight(s) shown below were combined and diluted to (mL): 20.0 0.002 Flask Uncertainty

Formulated By:	Prashant Chauhan	121219 DATE
Reviewed By:	Pedro L. Rentas	121219 DATE

Compound	RM#	Lot Number	Nominal Conc (µg/mL)	Purity (%)	Uncertainty Purity	Target Weight(g)	Actual Weight(g)	Actual Conc (µg/mL)	Expanded Uncertainty (+/-) (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50
1. Acrolein	5	07813BN	5000	97	0.2	0.10302	0.10332	5014.7	21.3	107-02-8	0.1 ppm	orl-rat 46mg/kg

Method: GC6MSD-1. **Detector:** Mass Selective Detector (Scan mode). **Column:** Vocol (60m X 0.25mm ID X 1.5µm film thickness). **Oven Profile:** Temp. 1 = 35°C (Time 1 = 10min.), Temp. 2=200°C (Time 2 = 8.75 min.) Rate = 4°C/min., Injector Temp. = 200°C, Detector Temp. = 220°C. **Analyst:** Pedro Rentas. **NOTE:** Due to the instability of acrolein in solution, all solutions of acrolein, and any dilutions thereof, should be used immediately Long term storage is not recommended. Please contact our technical department if further information is required.





- The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
- Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
- Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
- All Standards, after opening ampule, should be stored with caps tight and under appropriate laboratory conditions.
- Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, DC, (1994).

Absolute Standards Inc.

PO Box 5585
Hamden, CT 06518-0585

Phone: 203-281-2917
FAX: 203-281-2922

Safety Data Sheet (SDS) GHS/OSHA Compliant

Section I Product and Company Identification

IDENTITY **ANALYTICAL STANDARD DISSOLVED IN WATER**

Manufacturer's Name	ABSOLUTE STANDARDS INC	Emergency Telephone USA & CANADA	**1-800-535-5053**
Address	44 Rossotto Dr.	Emergency Telephone International	**1-352-323-3500**
	Hamden CT, 06514	Date Prepared/Revised	May 1, 2019

Section II - Hazards Identification

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

P271	**Use in ventilated area**	**H315**	**Causes skin and eye irritation.**
P302,332	**If on skin, wash with soap and water**	**P280**	**Use gloves, eye protection/face sheild**
		P305,351,338	**If in eyes, remove contacts, rinse with water**

Signal Word: DANGER

Section III - Composition

Components (Specific Chemical Identity; Common Name(s))		% (optional)
Water	CAS#: 7732-18-5	> 97

See Certified Weight Report For Other Analytes Present At Trace Quantities.

INTENDED USE: REFERENCE MATERIAL

Section IV. FIRST AID MEASURES

General advice	Consult a physician. Show this safety data sheet to the doctor in attendance.Move to safe area.
If inhaled	If inhaled, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.
In case of skin contact	Wash with soap and water. Consult a physician.
In case of eye contact	Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.
If swallowed	Do NOT induce vomiting. Rinse mouth with water. Consult a physician.

Section V. FIREFIGHTING MEASURES

Suitable extinguishing media	Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Protective equipment for fire	Wear self contained breathing apparatus for fire fighting if necessary.
Hazardous Decomposition products	Carbon oxides

Section VI. ACCIDENTAL RELEASE MEASURES

Personal precautions	Wear respiratory protection. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Vapours accumulate to form explosive concentrations.
Environmental precautions	Prevent further leakage or spillage if safe to do so. Do not let product enter drains.
Clean up	Contain spillage, and then collect and place in container for disposal according to local regulations (see section 13).

Section VII. HANDLING AND STORAGE

Precautions for safe handling	Avoid contact with skin and eyes. Avoid inhalation of vapour or mist. Use ventilation Keep away from sources of ignition. No smoking. Prevent the build up of electrostatic charge.
Storage Conditions	Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

Section VIII. EXPOSURE CONTROLS/PERSONAL PROTECTION

Water CAS#: 7732-18-5 TWA: 500 ppm

Personal protective equipment Respiratory protection Handle with gloves. Gloves must be inspected prior to use. Eye protection.
Avoid contact with skin, eyes and clothing. Wash hands thoroughly after handling the product.

Section IX - PHYSICAL/CHEMICAL CHARACTERISTICS

Boiling Point	100°C	Specific Gravity (H2O = 1)	1
Vapor Pressure (mm Hg)		Melting Point	

Absolute Standards Inc.

PO Box 5585
Hamden, CT 06518-0585

Phone: 203-281-2917
FAX: 203-281-2922

	NA		0°C
Vapor Density (AIR = 1)	NA	Evaporation rate (Butyl Acetate = 1)	NA

Solubility in Water Completely miscible

Appearance and Odor CLEAR, COLORLESS LIQUID WITH SLIGHT CHEMICAL ODOR.

Section X. STABILITY AND REACTIVITY

Chemical stability	Stable under recommended storage conditions.
Possibility of hazardous reactions	NA
Conditions to avoid	NA
Materials to avoid	NA

Hazardous decomposition products - No data available

Section XI. TOXICOLOGICAL INFORMATION

LD50 Oral - Rat	NA
LC50 Inhalation - Rat	NA
LD50 Dermal - Guinea pig	NA

Causes skin irritation.
Eye irritation

Section XII. ECOLOGICAL INFORMATION

LC50	NA
EC50	NA

Section XIII. DISPOSAL CONSIDERATIONS

Dispose with normal Laboratory Solvent Waste.

Section XIV. TRANSPORT INFORMATION

DOT (US)
Not dangerous goods
Proper shipping name: Water

IATA
Not dangerous goods
Proper shipping name: Water

Section XV. REGULATORY INFORMATION

SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

Section XVI. Misc. INFORMATION

The information in this Material Safety Data Sheet meets the requirements of the United States Occupational Safety and Health Act and regulations promulgated thereunder (29 CFR 1910.1200 et. seq.) and Global Harmonized System (GHS). This document is intended only as a guide to the appropriate precautionary handling of the material by trained personnel, or supervised by a person trained in chemical handling. The user is responsible for determining the precautions and dangers of this chemical for his or her particular application. Depending on usage, protective clothing including eye and face guards and respirators must be used to avoid contact with material or breathing chemical vapors/fumes. Exposure to this product may have serious adverse health effects. This chemical may interact with other substances. Since the potential uses are so varied, ABSOLUTE STANDARDS INC. cannot warn of all the potential dangers of use or interaction with other chemicals or substances. ABSOLUTE STANDARDS INC. warrants that the chemical meets the specifications set forth on the label. ABSOLUTE STANDARDS INC DISCLAIMS ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED WITH REGARD TO THE PRODUCT SUPPLIED HEREUNDER, ITS MERCHANTABILITY OR ITS FITNESS FOR A PARTICULAR APPLICATION. The user should recognize that this product can cause severe injury or death, especially if improperly handled or the known dangers of use are not heeded. READ ALL PRECAUTIONARY INFORMATION. As new documented general safety information becomes available, Absolute Standards Inc. will periodically revise this Material Safety Data Sheet. If you have any questions, please call Technical Service at 1-203-281-2917 for assistance.

RESTEK®
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ilac-MRA

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 30489 **Lot No.:** A0149877

Description : 8260B Acetates Mix

8260B Acetates Mix 2,000 µg/mL, P&T Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : December 31, 2019 **Storage:** 0°C or colder

Handling: This product is photosensitive.

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	Methyl acetate **CAS #** 79-20-9 (Lot SHBK5436) **Purity** 99%	2,015.0 µg/mL	+/- 11.8251 µg/mL +/- 121.5845 µg/mL +/- 121.8731 µg/mL	Gravimetric Unstressed Stressed
2	Vinyl acetate **CAS #** 108-05-4 (Lot STBD7333V) **Purity** 99%	2,018.0 µg/mL	+/- 11.8428 µg/mL +/- 121.7655 µg/mL +/- 122.0546 µg/mL	Gravimetric Unstressed Stressed
3	Ethyl acetate **CAS #** 141-78-6 (Lot SHBK2184) **Purity** 99%	2,016.0 µg/mL	+/- 11.8310 µg/mL +/- 121.6448 µg/mL +/- 121.9336 µg/mL	Gravimetric Unstressed Stressed
4	Isopropyl acetate **CAS #** 108-21-4 (Lot BCBT9845) **Purity** 99%	2,015.0 µg/mL	+/- 11.8251 µg/mL +/- 121.5845 µg/mL +/- 121.8731 µg/mL	Gravimetric Unstressed Stressed
5	Propyl acetate **CAS #** 109-60-4 (Lot MUZQD) **Purity** 99%	2,008.0 µg/mL	+/- 11.7841 µg/mL +/- 121.1621 µg/mL +/- 121.4497 µg/mL	Gravimetric Unstressed Stressed
6	Butyl acetate **CAS #** 123-86-4 (Lot SHBK5137) **Purity** 99%	2,018.0 µg/mL	+/- 11.8428 µg/mL +/- 121.7655 µg/mL +/- 122.0546 µg/mL	Gravimetric Unstressed Stressed
7	Amyl acetate **CAS #** 628-63-7 (Lot 41325/1) **Purity** 99%	2,016.0 µg/mL	+/- 11.8310 µg/mL +/- 121.6448 µg/mL +/- 121.9336 µg/mL	Gravimetric Unstressed Stressed

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

Tech Tips:
Vinyl acetate is a volatile organic ester included in the target lists of several US EPA and other methods . Under acidic conditions, esters react with alcohols to form new esters (transesterification). Methanol-based mixes containing halogenated compounds are slightly acidic, so it is important to minimize exposure of vinyl acetate to mixes of halogenated compounds in methanol. For this reason, we offer vinyl acetate in individual solution, and suggest that it be introduced into the working level calibration solution immediately before use. This will minimize problems and ensure more consistent results.

Column:
105m x 0.53mm x 3.0µm
Rtx-502.2 (cat.#10910)

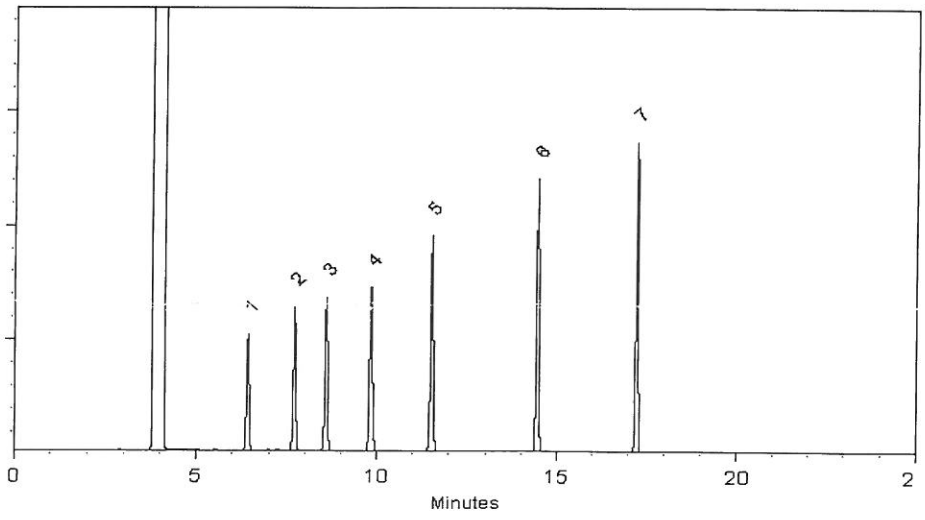
Carrier Gas:
Hydrogen-constant pressure 11.0 psi.

Temp. Program:
40°C (hold 2 min.) to 240°C
@ 8°C/min. (hold 5 min.)

Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
FID



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Tom Suckar - Mix Technician

Date Mixed: 06-Jun-2019 **Balance:** B251644995

Jennifer Pollino - Operations Tech-ARM QC

Date Passed: 07-Jun-2019

Manufactured under Restek's ISO 9001:2015
Registered Quality System
Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k\sqrt{U^2_{gravimetric} + U^2_{homogeneity} + U^2_{storage\ stability} + U^2_{shipping\ stability}}$$

k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Safety Data Sheet

Revision Date: 05/14/19
www.restek.com

2 Letter ISO country code/language code: US/EN

1. IDENTIFICATION

Catalog Number / Product Name:	**30489 / 8260B Acetates Mix**
Company:	Restek Corporation
Address:	110 Benner Circle Bellefonte, Pa. 16823
Phone#:	814-353-1300
Fax#:	814-353-1309
Emergency#:	800-424-9300 (CHEMTREC) 703-527-3887 (Outside the US)
Email:	www.restek.com
Revision Number:	14
Intended use:	For Laboratory use only

2. HAZARD(S)IDENTIFICATION

Emergency Overview:

GHS Hazard Symbols:

GHS Classification:
Specific Target Organ Systemic Toxicity (STOT) - Single Exposure Category 1
Flammable Liquid Category 2
Carcinogenicity Category 2
Acute Toxicity - Inhalation Dust / Mist Category 3
Acute Toxicity - Dermal Category 3
Acute Toxicity - Oral Category 3

GHS Signal Word:
Danger

GHS Hazard:
Highly flammable liquid and vapour.
Toxic if swallowed, in contact with skin or if inhaled.
Suspected of causing cancer.
Causes damage to organs.

GHS Precautions:

Safety Precautions:
Obtain special instructions before use.
Do not handle until all safety precautions have been read and understood.
Keep away from heat/sparks/open flames/hot surfaces. – No smoking.
Ground/bond container and receiving equipment.
Use explosion-proof electrical/ventilation and lighting equipment.
Use only non-sparking tools.
Take precautionary measures against static discharge.
Do not breathe dust/fume/gas/mist/vapours/spray.
Wash hands and skin thoroughly after handling.
Do not eat, drink or smoke when using this product.
Use only outdoors or in a well-ventilated area.
Wear protective gloves/protective clothing/eye protection/face protection.

First Aid Measures:
IF SWALLOWED: Immediately call a POISON CENTER/doctor/....
IF ON SKIN: Wash with plenty of soap and water.
IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
Specific treatment see section 4.
Rinse mouth.

Take off immediately all contaminated clothing and wash it before reuse.
In case of fire: Use extinguishing media in section 5 for extinction.

Storage: Store in a well-ventilated place. Keep container tightly closed.
Store in a well-ventilated place. Keep cool.
Store locked up.

Disposal: Dispose of contents/container according to section 13 of the SDS.

Single Exposure Target Organs: Specific target organ toxicity - Single exposure - STOT SE 1: H370 Causes damage to organs. (C >= 10 %; No information to prove exclusion of certain routes of exposure); Specific target organ toxicity - Single exposure - STOT SE 2: H371 May cause damage to organs. (3 % <= C <10 %; Concentration limits for acute toxicity cannot be translated into GHS from the DSD especially when minimum classifications are given)

Repeated Exposure Target Organs: No data available

3. COMPOSITION / INFORMATION ON INGREDIENT

Chemical Name	CAS #	EINEC #	% Composition
methanol	67-56-1	200-659-6	98.6
pentyl acetate (n-amyl acetate)	628-63-7	211-047-3	0.2
Isopropyl acetate	108-21-4	203-561-1	0.2
n-Butyl acetate	123-86-4	204-658-1	0.2
Vinyl acetate	108-05-4	203-545-4	0.2
n-Propyl acetate	109-60-4	203-686-1	0.2
Methyl acetate	79-20-9	201-185-2	0.2
Ethyl acetate	141-78-6	205-500-4	0.2

4. FIRST-AID MEASURES

Inhalation: Remove to fresh air. If breathing is difficult, have a trained individual administer oxygen. If not breathing, give artificial respiration and have a trained individual administer oxygen. Get medical attention immediately

Eyes: Flush eyes with plenty of water for at least 20 minutes retracting eyelids often. Tilt the head to prevent chemical from transferring to the uncontaminated eye. Get immediate medical attention. Immediately flush eyes with plenty of water for at least 20 minutes retracting eyelids often. Tilt the head to prevent chemical from transferring to the uncontaminated eye. Get immediate medical attention and monitor the eye daily as advised by your physician.

Skin Contact: Wash with soap and water. Remove contaminated clothing and launder. Get medical attention if irritation develops or persists.

Ingestion: Minimal risk of harm if swallowed. Do not induce vomiting. Seek medical attention immediately. Provide medical care provider with this SDS.

5. FIRE- FIGHTING MEASURES

Extinguishing Media: Use alcohol resistant foam, carbon dioxide, or dry chemical extinguishing agents. Water may be ineffective but water spray can be used extinguish a fire if swept across the base of the flames. Water can absorb heat and keep exposed material from being damaged by fire. Use alcohol resistant foam, carbon dioxide, or dry chemical extinguishing agents. Water spray or fog may also be effective for extinguishing if swept across the base of the fire. Water can also be used to absorb heat and keep exposed material from being damaged by fire.

Fire and/or Explosion Hazards: Vapors may be ignited by heat, sparks, flames or other sources of ignition at or above the low flash point giving rise to a Class B fire. Vapors are heavier than air and may travel to a source of ignition and flash back

Fire Fighting Methods and Protection: Do not enter fire area without proper protection including self-contained breathing apparatus and full protective equipment. Fight fire from a safe distance and a protected location due to the potential of hazardous vapors and decomposition products. Flammable component(s) of this material may be lighter than water and burn while floating on the surface.

Hazardous Combustion Products: Carbon dioxide, Carbon monoxide

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions and Equipment: Exposure to the spilled material may be severely irritating or toxic. Follow personal protective equipment recommendations found in Section 8 of this SDS. Personal protective equipment needs must be evaluated based on information provided on this sheet and the special circumstances created by the spill including; the material spilled, the quantity of the spill, the area in which the spill occurred, and the expertise of employees in the area responding to the spill. Never exceed any occupational exposure limits.

Methods for Clean-up: Prevent the spread of any spill to minimize harm to human health and the environment if safe to do so. Wear complete and proper personal protective equipment following the recommendation of Section 8 at a minimum. Dike with suitable absorbent material like granulated clay. Gather and store in a sealed container pending a waste disposal evaluation.

7. HANDLING AND STORAGE

Handling Technical Measures and Precautions: Toxic or severely irritating material. Avoid contacting and avoid breathing the material. Use only in a well ventilated area. Use spark-proof tools and explosion-proof equipment Wash thoroughly after handling Avoid contact with material. Remove contaminated clothing and wash before reuse "Empty" containers retain product residue (liquid and/or vapor) and can be dangerous.

Storage Technical Measures and Conditions: Store in a cool dry ventilated location. Isolate from incompatible materials and conditions. Keep container(s) closed. Keep away from sources of ignition Keep away from heat, sparks, and flame

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

United States:

Chemical Name	CAS No.	IDLH	ACGIH STEL	ACGIH TLV-TWA	OSHA Exposure Limit
methanol	67-56-1	6000 ppm IDLH	250 ppm STEL	200 ppm TWA	200 ppm TWA; 260 mg/m3 TWA
Vinyl acetate	108-05-4	Not established	15 ppm STEL; 53 mg/m3 STEL	10 ppm TWA; 35 mg/m3 TWA	No data available

Personal Protection:

Engineering Measures: Local exhaust ventilation or other engineering controls are normally required when handling or using this product to avoid overexposure.

Respiratory Protection: No respiratory protection required under normal conditions of use. Provide general room exhaust ventilation if symptoms of overexposure occur as explained Section 3. A respirator is not normally required.If an exposure limit is exceeded or if an operator is experiencing symptoms of inhalation overexposure as explained in Section 3, provide respiratory protection.

Eye Protection: Wear chemically resistant safety glasses with side shields when handling this product. Do not wear contact lenses.

Skin Protection: Not normally considered a skin hazard. Where use can result in skin contact, practice good personal hygiene and wear a barrier cream and/or impervious surgical style gloves. Wash hands and other exposed areas with mild soap and water before eating, drinking, and when leaving work. Wear protective gloves. Inspect gloves for chemical break-through and replace at regular intervals. Clean protective equipment regularly. Wash hands and other exposed areas with mild soap and water before eating, drinking, and when leaving work

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance, color: No data available
Odor: Mild
Physical State: Liquid
pH: Not applicable
Vapor Pressure: No data available
Vapor Density: 1.1 (air = 1)
Boiling Point (°C): 72.8 °C (HSDB) 64.7 °C at 760 mmHg (HSDB)

Melting Point (°C):	-98 °C
Flash Point (°F):	18
Flammability:	Highly Flammable Extremely Flammable
Upper Flammable/Explosive Limit, % in air:	36
Lower Flammable/Explosive Limit, % in air:	6
Autoignition Temperature (°C):	464 deg C
Decomposition Temperature (°C):	0
Specific Gravity:	0.791 - 0.792 g/cm3 at 20 °C
Evaporation Rate:	No data available
Odor Threshold:	No data available
Solubility:	Moderate; 50-99%
Partition Coefficient: n-octanol in water:	No data available
VOC % by weight:	99.8
Molecular Weight:	32.04

10. STABILITY AND REACTIVITY

Stability:	Stable under normal conditions.
Conditions to Avoid:	None known.Contamination
Materials to Avoid / Chemical Incompatiability:	Acids Oxidizing materials Peroxides Strong alkalies
Hazardous Decomposition Products:	Carbon dioxide Carbon monoxide

11. TOXICOLOGICAL INFORMATION

Routes of Entry:	Inhalation, Skin Contact, Eye Contact, Ingestion
Target Organs Potentially Affected By Exposure:	Eyes, Central nervous system stimulation, Skin, GI Tract, Respiratory Tract
Chemical Interactions That Change Toxicity:	None Known

Immediate (Acute) Health Effects by Route of Exposure:

Inhalation Irritation:	Can cause moderate respiratory irritation, dizziness, weakness, fatigue, nausea and headache.
Inhalation Toxicity:	Harmful! Can cause systemic damage (see "Target Organs)Methanol can cause central nervous system depression and overexposure can cause damage to the optic nerve resulting in visual impairment or blindness.
Skin Contact:	Can cause moderate skin irritation, defatting, and dermatitis. Not likely to cause permanent damage.
Eye Contact:	Can cause moderate irritation, tearing and reddening, but not likely to permanently injure eye tissue.
Ingestion Irritation:	Irritating to mouth, throat, and stomach. Can cause abdominal discomfort, nausea, vomiting and diarrhea.Highly toxic and may be fatal if swallowed.
Ingestion Toxicity:	Toxic if swallowed. May cause target organ failure and/or death.May be fatal if swallowed.

Long-Term (Chronic) Health Effects:

Carcinogenicity:	No data.
Reproductive and Developmental Toxicity:	No data available to indicate product or any components present at greater than 0.1% may cause birth defects.
Inhalation:	Upon prolonged and/or repeated exposure, can cause moderate respiratory irritation, dizziness, weakness, fatigue, nausea and headache.Harmful! Can cause systemic damage upon prolonged and/or repeated exposure (see "Target Organs)
Skin Contact:	Upon prolonged or repeated contact, can cause moderate skin irritation, defatting, and dermatitis. Not likely to cause permanent damage.
Skin Absorption:	Upon prolonged or repeated exposure, no hazard in normal industrial use.
Ingestion:	Toxic if swallowed. May cause target organ failure and/or death.

Component Toxicological Data:
NIOSH:

Chemical Name	CAS No.	LD50/LC50
Vinyl acetate Acetic acid, vinyl ester	108-05-4	Inhalation LC50 Rat : 11400 mg/m3/4H; Inhalation LC50 Mouse : 1550 ppm/4H; Oral LD50 Rat : 2920 mg/kg; Oral LD50 Mouse : 1613 mg/kg; Dermal LD50 Rabbit : 2335 mg/kg

Methanol	67-56-1	Inhalation LC50 Rat 22500 ppm 8 h

Component Carcinogenic Data:

OSHA:

Chemical Name	CAS No.	
Vinyl acetate	108-05-4	Present

ACGIH:

Chemical Name	CAS No.	
Vinyl acetate	108-05-4	A3 - Confirmed Animal Carcinogen with Unknown Relevance to Humans

NIOSH:

Chemical Name	CAS No.
No data available	

NTP:

Chemical Name	CAS No.
No data available	

IARC:

Chemical Name	CAS No.	Group No.
Monograph 63; 1995	108-05-4	Group 2B

12. ECOLOGICAL INFORMATION

Overview:	Moderate ecological hazard. This product may be dangerous to plants and/or wildlife.
Mobility:	No data
Persistence:	No data
Bioaccumulation:	No data
Degradability:	Biodegrades slowly.
Ecological Toxicity Data:	No data available

13. DISPOSAL CONSIDERATIONS

Waste Description of Spent Product:	Spent or discarded material is a hazardous waste.Mixing spent or discarded material with other materials may render the mixture hazardous. Perform a hazardous waste determination on mixtures.
Disposal Methods:	Dispose of by incineration following Federal, State, Local, or Provincial regulations.
Waste Disposal of Packaging:	Comply with all Local, State, Federal, and Provincial Environmental Regulations.

14. TRANSPORTATION INFORMATION

United States:

DOT Proper Shipping Name:	Flammable liquids, n.o.s. (Methanol, Ethyl acetate)
UN Number:	UN1993
Hazard Class:	3
Packing Group:	II

International:

IATA Proper Shipping Name:	Flammable liquids, n.o.s. (Methanol, Ethyl acetate)
UN Number:	UN1993
Hazard Class:	3
Packing Group:	II

Marine Pollutant: No

Chemical Name	CAS#	Marine Pollutant	Severe Marine Pollutant
No data available			

15. REGULATORY INFORMATION

United States:

Chemical Name	CAS#	CERCLA	SARA 313	SARA EHS 313	TSCA
methanol	67-56-1	X	X	-	X
Vinyl acetate	108-05-4	X	X	X	X

The following chemicals are listed on CA Prop 65:

Chemical Name	CAS #	Regulation
Methanol	67-56-1	Prop 65 Devolop Tox

State Right To Know Listing:

Chemical Name	CAS#	New Jersey	Massachusetts	Pennsylvania	California
methanol	67-56-1	X	X	X	X
pentyl acetate (n-amyl acetate)	628-63-7	X	X	X	X
Isopropyl acetate	108-21-4	X	X	X	X
n-Butyl acetate	123-86-4	X	X	X	X
Vinyl acetate	108-05-4	X	X	X	X
n-Propyl acetate	109-60-4	X	X	X	X
Methyl acetate	79-20-9	X	X	X	X
Ethyl acetate	141-78-6	X	X	X	X

16. OTHER INFORMATION

Prior Version Date: 01/17/18

Other Information: Any changes to the SDS compared to previous versions are marked by a vertical line in front of the concerned paragraph.

References: No data available

Disclaimer: Restek Corporation provides the descriptions, data and information contained herein in good faith but makes no representation as to its comprehensiveness or accuracy. It is provided for your guidance only. Because many factors may affect processing or application/use, Restek Corporation recommends you perform an assessment to determine the suitability of a product for your particular purpose prior to use. No warranties of any kind, either expressed or implied, including fitness for a particular purpose, are made regarding products described, data or information set forth. In no case shall the descriptions, information, or data provided be considered a part of our terms and conditions of sale. Further, the descriptions, data and information furnished hereunder are given gratis. No obligation or liability for the description, data and information given are assumed. All such being given and accepted at your risk.

RESTEK®
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Composition

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 555408-SL **Lot No.:** A0150565

Description : Custom Vinyl Acetate Standard

Custom Vinyl Acetate Standard 8,000µg/mL, P&T Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : January 31, 2020 **Storage:** 0°C or colder

Handling: This product is photosensitive.

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	Vinyl acetate **CAS #** 108-05-4 **Purity** 99% (Lot STBD7333V)	8,080.0 µg/mL	+/- 47.4180 µg/mL +/- 487.5448 µg/mL +/- 488.7021 µg/mL		Gravimetric Unstressed Stressed

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

Tech Tips:
Vinyl acetate is a volatile organic ester included in the target lists of several US EPA and other methods . Under acidic conditions, esters react with alcohols to form new esters (transesterification). Methanol-based mixes containing halogenated compounds are slightly acidic, so it is important to minimize exposure of vinyl acetate to mixes of halogenated compounds in methanol. For this reason, we offer vinyl acetate in individual solution, and suggest that it be introduced into the working level calibration solution immediately before use. This will minimize problems and ensure more consistent results.

Column:
105m x 0.53mm x 3.0µm
Rtx-502.2 (cat.#10910)

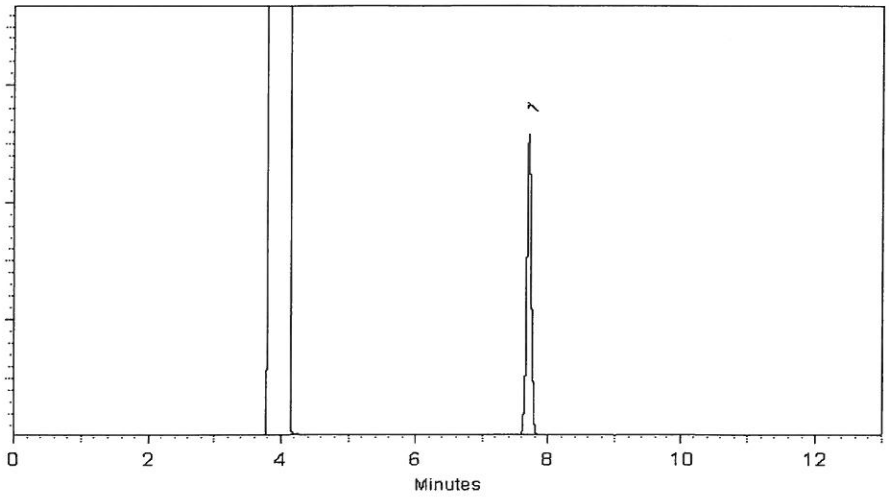
Carrier Gas:
hydrogen-constant pressure 11.0 psi.

Temp. Program:
40°C (hold 2 min.) to 240°C
@ 8°C/min. (hold 5 min.)

Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
FID



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Brandon Reish - Mix Technician

Date Mixed: 02-Jul-2019 **Balance:** 1127510105

Jennifer Pollino - Operations Tech-ARM QC

Date Passed: 03-Jul-2019

Manufactured under Restek's ISO 9001:2015
Registered Quality System
Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k\sqrt{U^2_{gravimetric} + U^2_{homogeneity} + U^2_{storage\ stability} + U^2_{shipping\ stability}}$$

k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

RESTEK

Safety Data Sheet

Revision Date: 02/05/18
www.restek.com

2 Letter ISO country code/language code: US/EN

1. IDENTIFICATION

Catalog Number / Product Name:	**555408-SL / Custom Vinyl Acetate Standard**
Company:	Restek Corporation
Address:	110 Benner Circle Bellefonte, Pa. 16823
Phone#:	814-353-1300
Fax#:	814-353-1309
Emergency#:	800-424-9300 (CHEMTREC) 703-527-3887 (Outside the US)
Email:	www.restek.com
Revision Number:	3
Intended use:	For Laboratory use only

2. HAZARD(S)IDENTIFICATION

Emergency Overview:

GHS Hazard Symbols:

GHS Classification:	Specific Target Organ Systemic Toxicity (STOT) - Single Exposure Category 1 Flammable Liquid Category 2 Carcinogenicity Category 2 Acute Toxicity - Dermal Category 3 Acute Toxicity - Oral Category 3
GHS Signal Word:	Danger
GHS Hazard:	Highly flammable liquid and vapour. Toxic if swallowed or in contact with skin. Suspected of causing cancer. Causes damage to organs.
GHS Precautions:	
Safety Precautions:	Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Keep away from heat/sparks/open flames/hot surfaces. – No smoking. Keep container tightly closed. Ground/bond container and receiving equipment. Use explosion-proof electrical/ventilation and lighting equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Do not breathe dust/fume/gas/mist/vapours/spray. Wash hands and skin thoroughly after handling. Do not eat, drink or smoke when using this product. Wear protective gloves/protective clothing/eye protection/face protection.
First Aid Measures:	IF SWALLOWED: Immediately call a POISON CENTER/doctor/.... IF ON SKIN: Wash with plenty of soap and water. IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. IF exposed: Call a POISON CENTER or doctor/physician. IF exposed or concerned: Get medical advice/attention. Call a POISON CENTER or doctor/physician if you feel unwell. Specific treatment see section 4.

Rinse mouth.
Take off immediately all contaminated clothing and wash it before reuse.
In case of fire: Use extinguishing media in section 5 for extinction.

Storage: Keep container tightly closed.
Store in a well-ventilated place. Keep cool.
Store locked up.

Disposal: Dispose of contents/container according to section 13 of the SDS.

Single Exposure Target Organs: Specific target organ toxicity - Single exposure - STOT SE 1: H370 Causes damage to organs. (C >= 10 %; No information to prove exclusion of certain routes of exposure); Specific target organ toxicity - Single exposure - STOT SE 2: H371 May cause damage to organs. (3 % <= C <10 %; Concentration limits for acute toxicity cannot be translated into GHS from the DSD especially when minimum classifications are given)

Repeated Exposure Target Organs: No data available

3. COMPOSITION / INFORMATION ON INGREDIENT

Chemical Name	CAS #	EINEC #	% Composition
methanol	67-56-1	200-659-6	99.2
Vinyl acetate	108-05-4	203-545-4	0.8

4. FIRST-AID MEASURES

Inhalation: Remove to fresh air. If breathing is difficult, have a trained individual administer oxygen. If not breathing, give artificial respiration and have a trained individual administer oxygen. Get medical attention immediately

Eyes: Immediately flush eyes with plenty of water for at least 20 minutes retracting eyelids often. Tilt the head to prevent chemical from transferring to the uncontaminated eye. Get immediate medical attention and monitor the eye daily as advised by your physician.

Skin Contact: Wash with soap and water. Remove contaminated clothing and launder. Get medical attention if irritation develops or persists.

Ingestion: Do not induce vomiting and seek medical attention immediately. Drink two glasses of water or milk to dilute. Provide medical care provider with this SDS.

5. FIRE- FIGHTING MEASURES

Extinguishing Media: Use alcohol resistant foam, carbon dioxide, or dry chemical extinguishing agents. Water spray or fog may also be effective for extinguishing if swept across the base of the fire. Water can also be used to absorb heat and keep exposed material from being damaged by fire.

Fire and/or Explosion Hazards: Vapors may be ignited by heat, sparks, flames or other sources of ignition at or above the low flash point giving rise to a Class B fire. Vapors are heavier than air and may travel to a source of ignition and flash back

Fire Fighting Methods and Protection: Do not enter fire area without proper protection including self-contained toxic breathing apparatus and full protective equipment. Fight fire from a safe distance and a protected location due to the potential of hazardous vapors and decomposition products. Flammable component(s) of this material may be lighter than water and burn while floating on the surface. Use water spray/fog for cooling.

Hazardous Combustion Products: Carbon dioxide, Carbon monoxide

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions and Equipment: Exposure to the spilled material may be severely irritating or toxic. Follow personal protective equipment recommendations found in Section 8 of this SDS. Personal protective equipment needs must be evaluated based on information provided on this sheet and the special circumstances created by the spill including; the material spilled, the quantity of the spill, the area in which the spill occurred, and the expertise of employees in the area responding to the spill. Never exceed any occupational exposure limits.

Methods for Clean-up: Prevent the spread of any spill to minimize harm to human health and the environment if safe to do so. Wear complete and proper personal

protective equipment following the recommendation of Section 8 at a minimum. Dike with suitable absorbent material like granulated clay. Gather and store in a sealed container pending a waste disposal evaluation.

7. HANDLING AND STORAGE

Handling Technical Measures and Precautions: Toxic or severely irritating material. Avoid contacting and avoid breathing the material. Use only in a well ventilated area. Use spark-proof tools and explosion-proof equipment Wash thoroughly after handling Avoid contact with material. Remove contaminated clothing and wash before reuse "Empty" containers retain product residue (liquid and/or vapor) and can be dangerous.

Storage Technical Measures and Conditions: Store in a cool dry ventilated location. Isolate from incompatible materials and conditions. Keep container(s) closed. Keep away from sources of ignition Keep away from heat, sparks, and flame

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

United States:

Chemical Name	CAS No.	IDLH	ACGIH STEL	ACGIH TLV-TWA	OSHA Exposure Limit
methanol	67-56-1	6000 ppm IDLH	250 ppm STEL	200 ppm TWA	200 ppm TWA; 260 mg/m3 TWA
Vinyl acetate	108-05-4	Not established	15 ppm STEL; 53 mg/m3 STEL	10 ppm TWA; 35 mg/m3 TWA	No data available

Personal Protection:

Engineering Measures: Local exhaust ventilation or other engineering controls are normally required when handling or using this product to avoid overexposure. Explosion proof exhaust ventilation should be used.

Respiratory Protection: Respiratory protection may be required to avoid overexposure when handling this product. General or local exhaust ventilation is the preferred means of protection. Use a respirator if general room ventilation is not available or sufficient to eliminate symptoms.If an exposure limit is exceeded or if an operator is experiencing symptoms of inhalation overexposure as explained in Section 3, provide respiratory protection.

Eye Protection: Wear chemically resistant safety glasses with side shields when handling this product. Wear additional eye protection such as chemical splash goggles and/or face shield when the possibility exists for eye contact with splashing or spraying liquid, or airborne material. Do not wear contact lenses. Have an eye wash station available.

Skin Protection: Wear protective gloves. Inspect gloves for chemical break-through and replace at regular intervals. Clean protective equipment regularly. Wash hands and other exposed areas with mild soap and water before eating, drinking, and when leaving work

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance, color:	No data available
Odor:	Mild
Physical State:	No data available
pH:	Not applicable
Vapor Pressure:	No data available
Vapor Density:	1.1 (air = 1)
Boiling Point (°C):	72.8 °C (HSDB) 64.7 °C at 760 mmHg (HSDB)
Melting Point (°C):	-98 °C
Flash Point (°F):	18
Flammability:	Extremely Flammable
Upper Flammable/Explosive Limit, % in air:	36
Lower Flammable/Explosive Limit, % in air:	6
Autoignition Temperature (°C):	464 deg C
Decomposition Temperature (°C):	0
Specific Gravity:	0.791 - 0.792 g/cm3 at 20 °C
Evaporation Rate:	No data available
Odor Threshold:	No data available

Solubility:	Moderate; 50-99%
Partition Coefficient: n-octanol in water:	No data available
VOC % by weight:	0
Molecular Weight:	32.04

10. STABILITY AND REACTIVITY

Stability:	Stable under normal conditions.
Conditions to Avoid:	None known.Contamination
Materials to Avoid / Chemical Incompatiability:	Acids Oxidizing materials Peroxides Strong alkalies
Hazardous Decomposition Products:	Carbon dioxide Carbon monoxide

11. TOXICOLOGICAL INFORMATION

Routes of Entry:	Inhalation, Skin Contact, Eye Contact, Ingestion
Target Organs Potentially Affected By Exposure:	Eyes, Central nervous system stimulation, Skin, GI Tract, Respiratory Tract
Chemical Interactions That Change Toxicity:	None Known

Immediate (Acute) Health Effects by Route of Exposure:

Inhalation Irritation:	Can cause moderate respiratory irritation, dizziness, weakness, fatigue, nausea and headache.
Inhalation Toxicity:	Harmful! Can cause systemic damage (see "Target Organs)Methanol can cause central nervous system depression and overexposure can cause damage to the optic nerve resulting in visual impairment or blindness.
Skin Contact:	Can cause moderate skin irritation, defatting, and dermatitis. Not likely to cause permanent damage.
Eye Contact:	Can cause moderate irritation, tearing and reddening, but not likely to permanently injure eye tissue.
Ingestion Irritation:	Irritating to mouth, throat, and stomach. Can cause abdominal discomfort, nausea, vomiting and diarrhea.Highly toxic and may be fatal if swallowed.
Ingestion Toxicity:	Toxic if swallowed. May cause target organ failure and/or death.May be fatal if swallowed.

Long-Term (Chronic) Health Effects:

Carcinogenicity:	No data.
Reproductive and Developmental Toxicity:	No data available to indicate product or any components present at greater than 0.1% may cause birth defects.
Inhalation:	Upon prolonged and/or repeated exposure, can cause moderate respiratory irritation, dizziness, weakness, fatigue, nausea and headache.Harmful! Can cause systemic damage upon prolonged and/or repeated exposure (see "Target Organs)
Skin Contact:	Upon prolonged or repeated contact, can cause moderate skin irritation, defatting, and dermatitis. Not likely to cause permanent damage.
Skin Absorption:	Upon prolonged or repeated exposure, no hazard in normal industrial use.
Ingestion:	Toxic if swallowed. May cause target organ failure and/or death.

Component Toxicological Data:
NIOSH:

Chemical Name	CAS No.	LD50/LC50
Vinyl acetate Acetic acid, vinyl ester	108-05-4	Inhalation LC50 Rat : 11400 mg/m3/4H; Inhalation LC50 Mouse : 1550 ppm/4H; Oral LD50 Rat : 2920 mg/kg; Oral LD50 Mouse : 1613 mg/kg; Dermal LD50 Rabbit : 2335 mg/kg
Methanol	67-56-1	Inhalation LC50 Rat 22500 ppm 8 h

Component Carcinogenic Data:
OSHA:

Chemical Name	CAS No.	
Vinyl acetate	108-05-4	Present

ACGIH:

Chemical Name	CAS No.	
Vinyl acetate	108-05-4	A3 - Confirmed Animal Carcinogen with

Unknown Relevance to Humans

NIOSH:

Chemical Name	CAS No.
No data available	

NTP:

Chemical Name	CAS No.
No data available	

IARC:

Chemical Name	CAS No.	Group No.
Monograph 63; 1995	108-05-4	Group 2B

12. ECOLOGICAL INFORMATION

Overview:	Moderate ecological hazard. This product may be dangerous to plants and/or wildlife.
Mobility:	No data
Persistence:	No data
Bioaccumulation:	No data
Degradability:	Biodegrades slowly.
Ecological Toxicity Data:	No data available

13. DISPOSAL CONSIDERATIONS

Waste Description of Spent Product:	Spent or discarded material is a hazardous waste. Mixing spent or discarded material with other materials may render the mixture hazardous. Perform a hazardous waste determination on mixtures.
Disposal Methods:	Dispose of by incineration following Federal, State, Local, or Provincial regulations.
Waste Disposal of Packaging:	Comply with all Local, State, Federal, and Provincial Environmental Regulations.

14. TRANSPORTATION INFORMATION

United States:	
DOT Proper Shipping Name:	Methanol
UN Number:	UN1230
Hazard Class:	3
Packing Group:	II
International:	
IATA Proper Shipping Name:	Methanol
UN Number:	UN1230
Hazard Class:	3(6.1)
Packing Group:	II

Marine Pollutant: No

Chemical Name	CAS#	Marine Pollutant	Severe Marine Pollutant
No data available			

15. REGULATORY INFORMATION

United States:

Chemical Name	CAS#	CERCLA	SARA 313	SARA EHS 313	TSCA
methanol	67-56-1	X	X	-	X
Vinyl acetate	108-05-4	X	X	X	X

The following chemicals are listed on CA Prop 65:

Chemical Name	CAS #	Regulation
Methanol	67-56-1	Prop 65 Devolop Tox

State Right To Know Listing:

Chemical Name	CAS#	New Jersey	Massachusetts	Pennsylvania	California
methanol	67-56-1	X	X	X	X
Vinyl acetate	108-05-4	X	X	X	X

16. OTHER INFORMATION

Prior Version Date: 08/04/16

Other Information: Any changes to the SDS compared to previous versions are marked by a vertical line in front of the concerned paragraph.

References: No data available

Disclaimer: Restek Corporation provides the descriptions, data and information contained herein in good faith but makes no representation as to its comprehensiveness or accuracy. It is provided for your guidance only. Because many factors may affect processing or application/use, Restek Corporation recommends you perform an assessment to determine the suitability of a product for your particular purpose prior to use. No warranties of any kind, either expressed or implied, including fitness for a particular purpose, are made regarding products described, data or information set forth. In no case shall the descriptions, information, or data provided be considered a part of our terms and conditions of sale. Further, the descriptions, data and information furnished hereunder are given gratis. No obligation or liability for the description, data and information given are assumed. All such being given and accepted at your risk.

RESTEK®
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 30489 **Lot No.:** A0152310

Description : 8260B Acetates Mix

8260B Acetates Mix 2,000 µg/mL, P&T Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : February 29, 2020 **Storage:** 0°C or colder

Handling: This product is photosensitive.

CERTIFIED VALUES

Elution Order	Compound		Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	Methyl acetate **CAS #** 79-20-9 **Purity** 99%	(Lot SHBK5436)	2,010.0 µg/mL	+/- 11.7958 µg/mL +/- 121.2828 µg/mL +/- 121.5707 µg/mL		Gravimetric Unstressed Stressed
2	Vinyl acetate **CAS #** 108-05-4 **Purity** 99%	(Lot STBD7333V)	2,012.0 µg/mL	+/- 11.8075 µg/mL +/- 121.4035 µg/mL +/- 121.6917 µg/mL		Gravimetric Unstressed Stressed
3	Ethyl acetate **CAS #** 141-78-6 **Purity** 99%	(Lot SHBL1336)	2,009.3 µg/mL	+/- 11.7919 µg/mL +/- 121.2426 µg/mL +/- 121.5304 µg/mL		Gravimetric Unstressed Stressed
4	Isopropyl acetate **CAS #** 108-21-4 **Purity** 99%	(Lot BCBT9845)	2,018.0 µg/mL	+/- 11.8428 µg/mL +/- 121.7655 µg/mL +/- 122.0546 µg/mL		Gravimetric Unstressed Stressed
5	Propyl acetate **CAS #** 109-60-4 **Purity** 99%	(Lot MUZQD)	2,010.0 µg/mL	+/- 11.7958 µg/mL +/- 121.2828 µg/mL +/- 121.5707 µg/mL		Gravimetric Unstressed Stressed
6	Butyl acetate **CAS #** 123-86-4 **Purity** 99%	(Lot SHBK5137)	2,008.7 µg/mL	+/- 11.7880 µg/mL +/- 121.2024 µg/mL +/- 121.4901 µg/mL		Gravimetric Unstressed Stressed
7	Amyl acetate **CAS #** 628-63-7 **Purity** 99%	(Lot 41325/1)	2,014.0 µg/mL	+/- 11.8193 µg/mL +/- 121.5242 µg/mL +/- 121.8126 µg/mL		Gravimetric Unstressed Stressed

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

Tech Tips:
Vinyl acetate is a volatile organic ester included in the target lists of several US EPA and other methods . Under acidic conditions, esters react with alcohols to form new esters (transesterification). Methanol-based mixes containing halogenated compounds are slightly acidic, so it is important to minimize exposure of vinyl acetate to mixes of halogenated compounds in methanol. For this reason, we offer vinyl acetate in individual solution, and suggest that it be introduced into the working level calibration solution immediately before use. This will minimize problems and ensure more consistent results.

Column:
105m x 0.53mm x 3.0µm
Rtx-502.2 (cat.#10910)

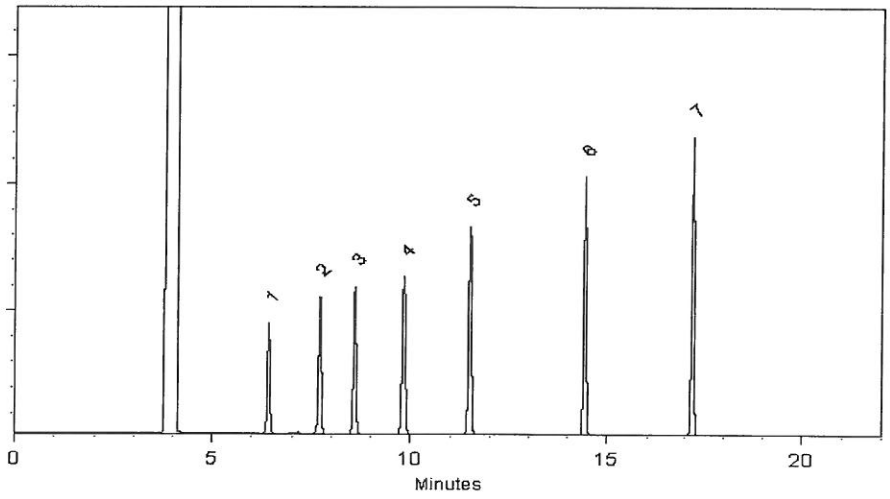
Carrier Gas:
hydrogen-constant pressure 11.0 psi.

Temp. Program:
40°C (hold 2 min.) to 240°C
@ 8°C/min. (hold 5 min.)

Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
FID



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Tom Suckar - Mix Technician

Date Mixed: 27-Aug-2019 **Balance:** B707717271

Fang-Yun Lo - QC Analyst

Date Passed: 29-Aug-2019

Manufactured under Restek's ISO 9001:2015
Registered Quality System
Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k\sqrt{U^2_{gravimetric} + U^2_{homogeneity} + U^2_{storage\ stability} + U^2_{shipping\ stability}}$$

k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

RESTEK

Safety Data Sheet

Revision Date: 05/14/19
www.restek.com

2 Letter ISO country code/language code: US/EN

1. IDENTIFICATION

Catalog Number / Product Name:	**30489 / 8260B Acetates Mix**
Company:	Restek Corporation
Address:	110 Benner Circle Bellefonte, Pa. 16823
Phone#:	814-353-1300
Fax#:	814-353-1309
Emergency#:	800-424-9300 (CHEMTREC) 703-527-3887 (Outside the US)
Email:	www.restek.com
Revision Number:	14
Intended use:	For Laboratory use only

2. HAZARD(S)IDENTIFICATION

Emergency Overview:

GHS Hazard Symbols:

GHS Classification:	Specific Target Organ Systemic Toxicity (STOT) - Single Exposure Category 1 Flammable Liquid Category 2 Carcinogenicity Category 2 Acute Toxicity - Inhalation Dust / Mist Category 3 Acute Toxicity - Dermal Category 3 Acute Toxicity - Oral Category 3
GHS Signal Word:	Danger
GHS Hazard:	Highly flammable liquid and vapour. Toxic if swallowed, in contact with skin or if inhaled. Suspected of causing cancer. Causes damage to organs.
GHS Precautions:	
Safety Precautions:	Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Keep away from heat/sparks/open flames/hot surfaces. – No smoking. Ground/bond container and receiving equipment. Use explosion-proof electrical/ventilation and lighting equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Do not breathe dust/fume/gas/mist/vapours/spray. Wash hands and skin thoroughly after handling. Do not eat, drink or smoke when using this product. Use only outdoors or in a well-ventilated area. Wear protective gloves/protective clothing/eye protection/face protection.
First Aid Measures:	IF SWALLOWED: Immediately call a POISON CENTER/doctor/.... IF ON SKIN: Wash with plenty of soap and water. IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Specific treatment see section 4. Rinse mouth.

Take off immediately all contaminated clothing and wash it before reuse.
In case of fire: Use extinguishing media in section 5 for extinction.

Storage: Store in a well-ventilated place. Keep container tightly closed.
Store in a well-ventilated place. Keep cool.
Store locked up.

Disposal: Dispose of contents/container according to section 13 of the SDS.

Single Exposure Target Organs: Specific target organ toxicity - Single exposure - STOT SE 1: H370 Causes damage to organs. (C >= 10 %; No information to prove exclusion of certain routes of exposure); Specific target organ toxicity - Single exposure - STOT SE 2: H371 May cause damage to organs. (3 % <= C <10 %; Concentration limits for acute toxicity cannot be translated into GHS from the DSD especially when minimum classifications are given)

Repeated Exposure Target Organs: No data available

3. COMPOSITION / INFORMATION ON INGREDIENT

Chemical Name	CAS #	EINEC #	% Composition
methanol	67-56-1	200-659-6	98.6
pentyl acetate (n-amyl acetate)	628-63-7	211-047-3	0.2
Isopropyl acetate	108-21-4	203-561-1	0.2
n-Butyl acetate	123-86-4	204-658-1	0.2
Vinyl acetate	108-05-4	203-545-4	0.2
n-Propyl acetate	109-60-4	203-686-1	0.2
Methyl acetate	79-20-9	201-185-2	0.2
Ethyl acetate	141-78-6	205-500-4	0.2

4. FIRST-AID MEASURES

Inhalation: Remove to fresh air. If breathing is difficult, have a trained individual administer oxygen. If not breathing, give artificial respiration and have a trained individual administer oxygen. Get medical attention immediately

Eyes: Flush eyes with plenty of water for at least 20 minutes retracting eyelids often. Tilt the head to prevent chemical from transferring to the uncontaminated eye. Get immediate medical attention. Immediately flush eyes with plenty of water for at least 20 minutes retracting eyelids often. Tilt the head to prevent chemical from transferring to the uncontaminated eye. Get immediate medical attention and monitor the eye daily as advised by your physician.

Skin Contact: Wash with soap and water. Remove contaminated clothing and launder. Get medical attention if irritation develops or persists.

Ingestion: Minimal risk of harm if swallowed. Do not induce vomiting. Seek medical attention immediately. Provide medical care provider with this SDS.

5. FIRE- FIGHTING MEASURES

Extinguishing Media: Use alcohol resistant foam, carbon dioxide, or dry chemical extinguishing agents. Water may be ineffective but water spray can be used extinguish a fire if swept across the base of the flames. Water can absorb heat and keep exposed material from being damaged by fire. Use alcohol resistant foam, carbon dioxide, or dry chemical extinguishing agents. Water spray or fog may also be effective for extinguishing if swept across the base of the fire. Water can also be used to absorb heat and keep exposed material from being damaged by fire.

Fire and/or Explosion Hazards: Vapors may be ignited by heat, sparks, flames or other sources of ignition at or above the low flash point giving rise to a Class B fire. Vapors are heavier than air and may travel to a source of ignition and flash back

Fire Fighting Methods and Protection: Do not enter fire area without proper protection including self-contained breathing apparatus and full protective equipment. Fight fire from a safe distance and a protected location due to the potential of hazardous vapors and decomposition products. Flammable component(s) of this material may be lighter than water and burn while floating on the surface.

Hazardous Combustion Products: Carbon dioxide, Carbon monoxide

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions and Equipment: Exposure to the spilled material may be severely irritating or toxic. Follow personal protective equipment recommendations found in Section 8 of this SDS. Personal protective equipment needs must be evaluated based on information provided on this sheet and the special circumstances created by the spill including; the material spilled, the quantity of the spill, the area in which the spill occurred, and the expertise of employees in the area responding to the spill. Never exceed any occupational exposure limits.

Methods for Clean-up: Prevent the spread of any spill to minimize harm to human health and the environment if safe to do so. Wear complete and proper personal protective equipment following the recommendation of Section 8 at a minimum. Dike with suitable absorbent material like granulated clay. Gather and store in a sealed container pending a waste disposal evaluation.

7. HANDLING AND STORAGE

Handling Technical Measures and Precautions: Toxic or severely irritating material. Avoid contacting and avoid breathing the material. Use only in a well ventilated area. Use spark-proof tools and explosion-proof equipment Wash thoroughly after handling Avoid contact with material. Remove contaminated clothing and wash before reuse "Empty" containers retain product residue (liquid and/or vapor) and can be dangerous.

Storage Technical Measures and Conditions: Store in a cool dry ventilated location. Isolate from incompatible materials and conditions. Keep container(s) closed. Keep away from sources of ignition Keep away from heat, sparks, and flame

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

United States:

Chemical Name	CAS No.	IDLH	ACGIH STEL	ACGIH TLV-TWA	OSHA Exposure Limit
methanol	67-56-1	6000 ppm IDLH	250 ppm STEL	200 ppm TWA	200 ppm TWA; 260 mg/m3 TWA
Vinyl acetate	108-05-4	Not established	15 ppm STEL; 53 mg/m3 STEL	10 ppm TWA; 35 mg/m3 TWA	No data available

Personal Protection:

Engineering Measures: Local exhaust ventilation or other engineering controls are normally required when handling or using this product to avoid overexposure.

Respiratory Protection: No respiratory protection required under normal conditions of use. Provide general room exhaust ventilation if symptoms of overexposure occur as explained Section 3. A respirator is not normally required.If an exposure limit is exceeded or if an operator is experiencing symptoms of inhalation overexposure as explained in Section 3, provide respiratory protection.

Eye Protection: Wear chemically resistant safety glasses with side shields when handling this product. Do not wear contact lenses.

Skin Protection: Not normally considered a skin hazard. Where use can result in skin contact, practice good personal hygiene and wear a barrier cream and/or impervious surgical style gloves. Wash hands and other exposed areas with mild soap and water before eating, drinking, and when leaving work. Wear protective gloves. Inspect gloves for chemical break-through and replace at regular intervals. Clean protective equipment regularly. Wash hands and other exposed areas with mild soap and water before eating, drinking, and when leaving work

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance, color:	No data available
Odor:	Mild
Physical State:	Liquid
pH:	Not applicable
Vapor Pressure:	No data available
Vapor Density:	1.1 (air = 1)
Boiling Point (°C):	72.8 °C (HSDB) 64.7 °C at 760 mmHg (HSDB)

Melting Point (°C):	-98 °C
Flash Point (°F):	18
Flammability:	Highly Flammable Extremely Flammable
Upper Flammable/Explosive Limit, % in air:	36
Lower Flammable/Explosive Limit, % in air:	6
Autoignition Temperature (°C):	464 deg C
Decomposition Temperature (°C):	0
Specific Gravity:	0.791 - 0.792 g/cm3 at 20 °C
Evaporation Rate:	No data available
Odor Threshold:	No data available
Solubility:	Moderate; 50-99%
Partition Coefficient: n-octanol in water:	No data available
VOC % by weight:	99.8
Molecular Weight:	32.04

10. STABILITY AND REACTIVITY

Stability:	Stable under normal conditions.
Conditions to Avoid:	None known.Contamination
Materials to Avoid / Chemical Incompatiability:	Acids Oxidizing materials Peroxides Strong alkalies
Hazardous Decomposition Products:	Carbon dioxide Carbon monoxide

11. TOXICOLOGICAL INFORMATION

Routes of Entry:	Inhalation, Skin Contact, Eye Contact, Ingestion
Target Organs Potentially Affected By Exposure:	Eyes, Central nervous system stimulation, Skin, GI Tract, Respiratory Tract
Chemical Interactions That Change Toxicity:	None Known

Immediate (Acute) Health Effects by Route of Exposure:

Inhalation Irritation:	Can cause moderate respiratory irritation, dizziness, weakness, fatigue, nausea and headache.
Inhalation Toxicity:	Harmful! Can cause systemic damage (see "Target Organs)Methanol can cause central nervous system depression and overexposure can cause damage to the optic nerve resulting in visual impairment or blindness.
Skin Contact:	Can cause moderate skin irritation, defatting, and dermatitis. Not likely to cause permanent damage.
Eye Contact:	Can cause moderate irritation, tearing and reddening, but not likely to permanently injure eye tissue.
Ingestion Irritation:	Irritating to mouth, throat, and stomach. Can cause abdominal discomfort, nausea, vomiting and diarrhea.Highly toxic and may be fatal if swallowed.
Ingestion Toxicity:	Toxic if swallowed. May cause target organ failure and/or death.May be fatal if swallowed.

Long-Term (Chronic) Health Effects:

Carcinogenicity:	No data.
Reproductive and Developmental Toxicity:	No data available to indicate product or any components present at greater than 0.1% may cause birth defects.
Inhalation:	Upon prolonged and/or repeated exposure, can cause moderate respiratory irritation, dizziness, weakness, fatigue, nausea and headache.Harmful! Can cause systemic damage upon prolonged and/or repeated exposure (see "Target Organs)
Skin Contact:	Upon prolonged or repeated contact, can cause moderate skin irritation, defatting, and dermatitis. Not likely to cause permanent damage.
Skin Absorption:	Upon prolonged or repeated exposure, no hazard in normal industrial use.
Ingestion:	Toxic if swallowed. May cause target organ failure and/or death.

Component Toxicological Data:
NIOSH:

Chemical Name	CAS No.	LD50/LC50
Vinyl acetate Acetic acid, vinyl ester	108-05-4	Inhalation LC50 Rat : 11400 mg/m3/4H; Inhalation LC50 Mouse : 1550 ppm/4H; Oral LD50 Rat : 2920 mg/kg; Oral LD50 Mouse : 1613 mg/kg; Dermal LD50 Rabbit : 2335 mg/kg

Methanol	67-56-1	Inhalation LC50 Rat 22500 ppm 8 h

Component Carcinogenic Data:

OSHA:

Chemical Name	CAS No.	
Vinyl acetate	108-05-4	Present

ACGIH:

Chemical Name	CAS No.	
Vinyl acetate	108-05-4	A3 - Confirmed Animal Carcinogen with Unknown Relevance to Humans

NIOSH:

Chemical Name	CAS No.
No data available	

NTP:

Chemical Name	CAS No.
No data available	

IARC:

Chemical Name	CAS No.	Group No.
Monograph 63; 1995	108-05-4	Group 2B

12. ECOLOGICAL INFORMATION

Overview:	Moderate ecological hazard. This product may be dangerous to plants and/or wildlife.
Mobility:	No data
Persistence:	No data
Bioaccumulation:	No data
Degradability:	Biodegrades slowly.
Ecological Toxicity Data:	No data available

13. DISPOSAL CONSIDERATIONS

Waste Description of Spent Product:	Spent or discarded material is a hazardous waste.Mixing spent or discarded material with other materials may render the mixture hazardous. Perform a hazardous waste determination on mixtures.
Disposal Methods:	Dispose of by incineration following Federal, State, Local, or Provincial regulations.
Waste Disposal of Packaging:	Comply with all Local, State, Federal, and Provincial Environmental Regulations.

14. TRANSPORTATION INFORMATION

United States:

DOT Proper Shipping Name:	Flammable liquids, n.o.s. (Methanol, Ethyl acetate)
UN Number:	UN1993
Hazard Class:	3
Packing Group:	II

International:

IATA Proper Shipping Name:	Flammable liquids, n.o.s. (Methanol, Ethyl acetate)
UN Number:	UN1993
Hazard Class:	3
Packing Group:	II

Marine Pollutant: No

Chemical Name	CAS#	Marine Pollutant	Severe Marine Pollutant
No data available			

15. REGULATORY INFORMATION

United States:

Chemical Name	CAS#	CERCLA	SARA 313	SARA EHS 313	TSCA
methanol	67-56-1	X	X	-	X
Vinyl acetate	108-05-4	X	X	X	X

The following chemicals are listed on CA Prop 65:

Chemical Name	CAS #	Regulation
Methanol	67-56-1	Prop 65 Devolop Tox

State Right To Know Listing:

Chemical Name	CAS#	New Jersey	Massachusetts	Pennsylvania	California
methanol	67-56-1	X	X	X	X
pentyl acetate (n-amyl acetate)	628-63-7	X	X	X	X
Isopropyl acetate	108-21-4	X	X	X	X
n-Butyl acetate	123-86-4	X	X	X	X
Vinyl acetate	108-05-4	X	X	X	X
n-Propyl acetate	109-60-4	X	X	X	X
Methyl acetate	79-20-9	X	X	X	X
Ethyl acetate	141-78-6	X	X	X	X

16. OTHER INFORMATION

Prior Version Date: 01/17/18

Other Information: Any changes to the SDS compared to previous versions are marked by a vertical line in front of the concerned paragraph.

References: No data available

Disclaimer: Restek Corporation provides the descriptions, data and information contained herein in good faith but makes no representation as to its comprehensiveness or accuracy. It is provided for your guidance only. Because many factors may affect processing or application/use, Restek Corporation recommends you perform an assessment to determine the suitability of a product for your particular purpose prior to use. No warranties of any kind, either expressed or implied, including fitness for a particular purpose, are made regarding products described, data or information set forth. In no case shall the descriptions, information, or data provided be considered a part of our terms and conditions of sale. Further, the descriptions, data and information furnished hereunder are given gratis. No obligation or liability for the description, data and information given are assumed. All such being given and accepted at your risk.

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Analytical Reference Material ARM

ISO 17034 Accredited
Scopes: http://AbsoluteStandards.com

CERTIFIED WEIGHT REPORT

Part Number: 95318
Lot Number: 031419
Description: 2-Chloroethyl vinyl ether

Solvent(s): **Lot#**
Methanol DU230-US

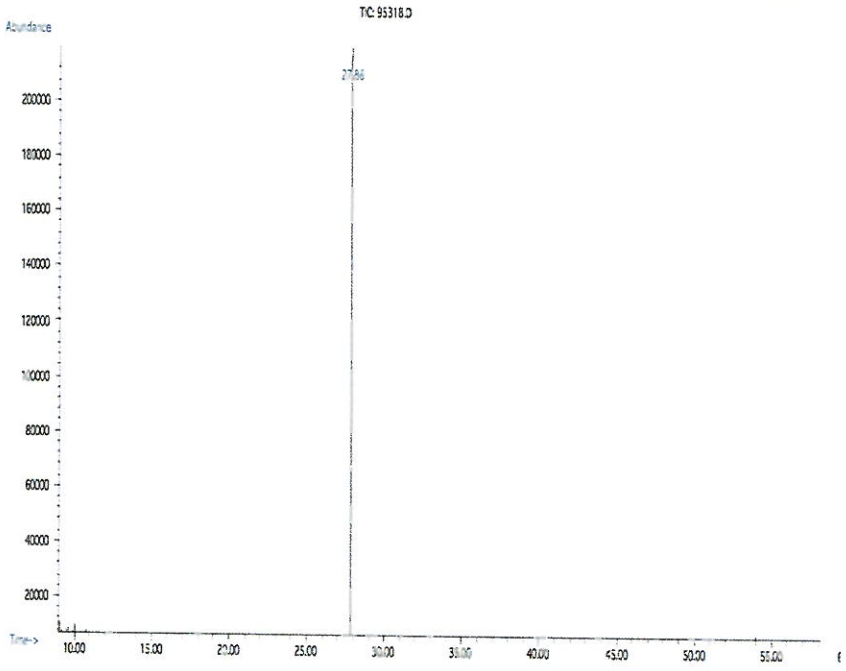
Expiration Date: 031422
Recommended Storage: Refrigerate (4 °C)
Nominal Concentration (µg/mL): 10000
NIST Test ID#: 2684186

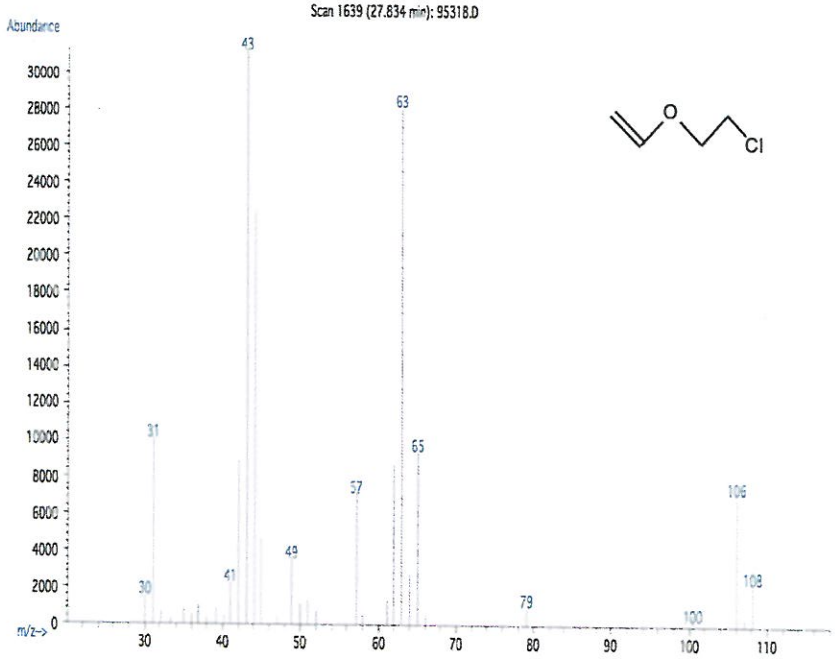
Weight(s) shown below were combined and diluted to (mL): 30.0 | 5E-05 Balance Uncertainty | 0.002 Flask Uncertainty

Eli Aliaga		031419
Formulated By:	Eli Aliaga	DATE
Pedro Rentas		031419
Reviewed By:	Pedro L. Rentas	DATE

Compound	RM#	Lot Number	Nominal Conc (µg/mL)	Purity (%)	Uncertainty Purity	Target Weight (g)	Actual Weight (g)	Actual Conc(µg/mL)	Expanded Uncertainty (+/-) (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50
1. 2-Chloroethyl vinyl ether	74	MKCD0033	10000	99	0.2	0.30284	0.30292	10002.6	40.6	110-75-8	N/A	orl-rat 250mg/kg

Method: GC6MSD-1.M. **Detector:** MSD. **Column:** (60m X 0.25mm X 1.5 µm). **Oven Profile:** Temp 1 = 35°C (Time 1=10min.), Temp 2 = 200°C (Time 2=8.75 min.), Rate = 4°C/min., Injector B Temp.= 200°C, Detector B Temp. = 220°C. **Analyst:** Candice Warren.





- The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
- Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
- Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
- All Standards, after opening ampule, should be stored with caps tight and under appropriate laboratory conditions.
- Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, DC, (1994).

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Analytical Reference Material ARM

ISO 17034 Accredited
Scopes: http://AbsoluteStandards.com

CERTIFIED WEIGHT REPORT

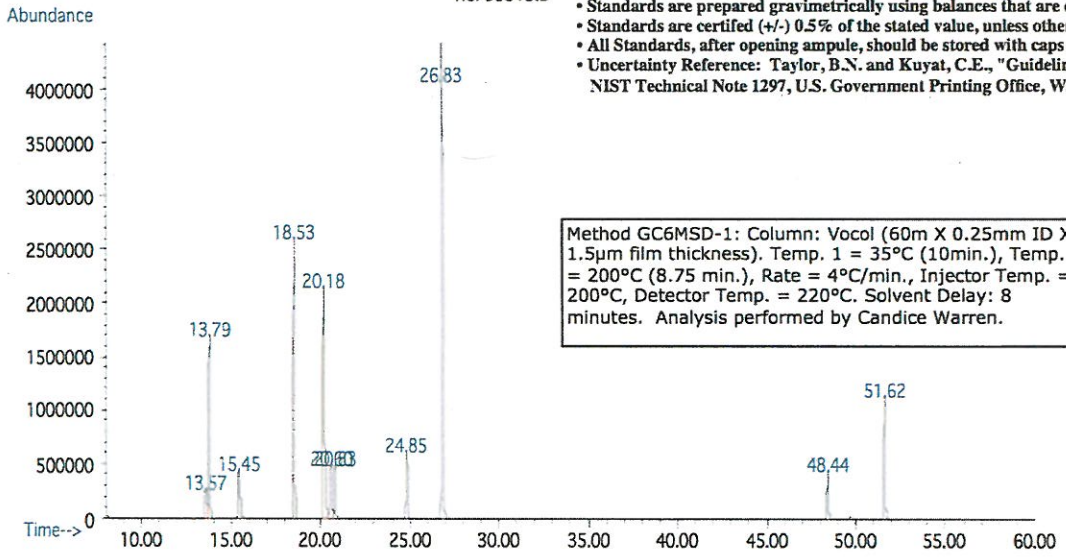
Part Number: 95319
Lot Number: 050119
Description: Revised Additions Mix
11 components
Expiration Date: 050122
Recommended Storage: Refrigerate (4 °C)
Nominal Concentration (µg/mL): Varied
NIST Test ID#: 6UTB

Solvent(s): Methanol **Lot#** DU230-US

5E-05 Balance Uncertainty
Weight(s) shown below were combined and diluted to (mL): 100.0 0.001 Flask Uncertainty

Formulated By: Justin Dippold	050119 DATE
Reviewed By: Pedro L. Rentas	050119 DATE

Compound	RM#	Lot Number	Nominal Conc (µg/mL)	Purity (%)	Uncertainty Purity	Target Weight(g)	Actual Weight(g)	Actual Conc (µg/mL)	Expanded Uncertainty (+/-) (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50
1. Acrylonitrile	7	4718CK	10000	99	0.2	1.01021	1.01045	10002.4	40.4	107-13-1	N/A	orl-rat 78 mg/kg
2. 1-Chlorobutane	1072	15538EZ	2000	99.5	0.2	0.20103	0.20124	2002.1	8.1	109-69-3	N/A	orl-rat 2670mg/kg
3. Cyclohexane	1023	SHBD2795V	2000	99.5	0.2	0.20103	0.20118	2001.5	8.1	110-82-7	300 ppm (1050mg/m3/8H)	orl-rat 12705mg/kg
4. Di-isopropyl ether (DIPE)	987	00412MX	2000	99	0.2	0.20204	0.20222	2001.8	8.1	108-20-3	500 ppm (2100mg/m3/8H)	orl-rat 8470mg/kg
5. 1,4-Dioxane	373	03853KE	40000	99	0.2	4.04085	4.04123	40003.8	161.6	123-91-1	25 ppm (90mg/m3/8H)(skin)	orl-mus 5700mg/kg
6. Hexachloroethane	199	12604HBV	2000	99	0.2	0.20204	0.20223	2001.9	8.1	67-72-1	1 ppm (10mg/m3/8H)(skin)	orl-gpg 4970mg/kg
7. Methylcyclohexane	1627	08046KN	2000	99	0.2	0.20204	0.20219	2001.5	8.1	108-87-2	N/A	N/A
8. Methyl tert-butyl ether (MTBE)	209	02197JJ	2000	99.8	0.2	0.20042	0.20059	2001.7	8.1	1634-04-4	N/A	orl-rat 4g/kg
9. Propionitrile	349	1395468	20000	99	0.2	2.02042	2.02067	20002.4	80.8	107-12-0	N/A	orl-rat 39mg/kg
10. Tetrahydrofuran	380	113886	10000	99.9	0.2	1.00111	1.00139	10002.8	40.1	109-99-9	20 ppm (590mg/m3/8H)	orl-rat 2500mg/kg
11. 1,2,3,4-Tetramethylbenzene	491	AP01	2000	93	0.2	0.21508	0.21530	2002.1	8.7	488-23-3	N/A	orl-rat 6408mg/kg



- **The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.**
- **Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).**
- **Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.**
- **All Standards, after opening ampule, should be stored with caps tight and under appropriate laboratory conditions.**
- **Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, DC, (1994).**

Method GC6MSD-1: Column: Vocol (60m X 0.25mm ID X 1.5µm film thickness). Temp. 1 = 35°C (10min.), Temp. 2 = 200°C (8.75 min.), Rate = 4°C/min., Injector Temp. = 200°C, Detector Temp. = 220°C. Solvent Delay: 8 minutes. Analysis performed by Candice Warren.

Name	MSD RT (min.)
Methyl tert-butyl ether (MTBE)	13.56
Acrylonitrile	13.79
Di-isopropyl ether	15.44
Propionitrile	18.53
Tetrahydrofuran	20.17
Cyclohexane	20.58
1-Chlorobutane	20.83
Methylcyclohexane	24.84
1,4-Dioxane	26.84
Hexachloroethane	48.44
1,2,3,4-Tetramethylbenzene	51.62

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Analytical Reference Material ARM

ISO 17034 Accredited
Scopes: http://AbsoluteStandards.com

CERTIFIED WEIGHT REPORT

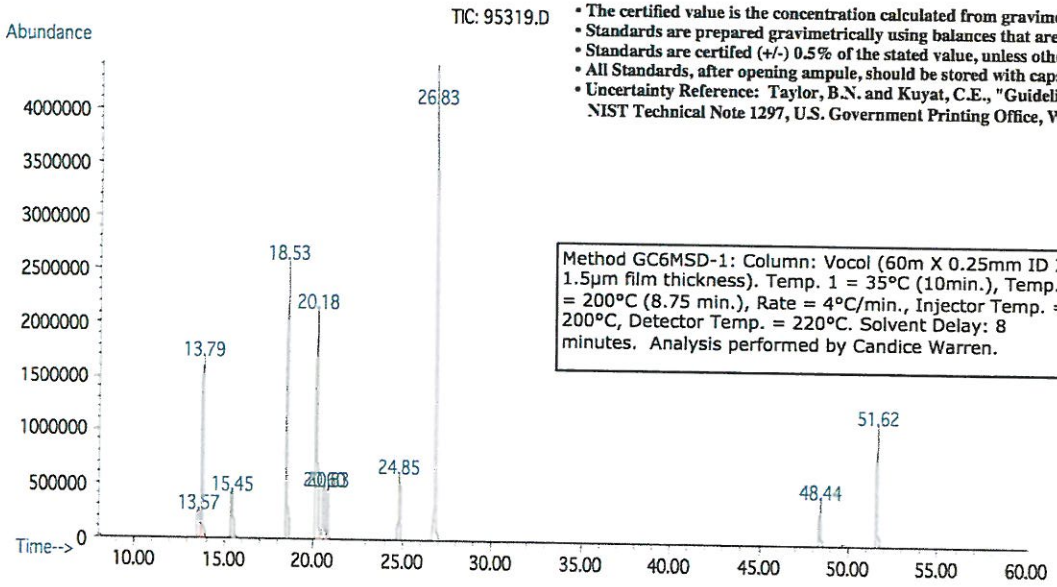
Part Number: 95319
Lot Number: 050219
Description: Revised Additions Mix
11 components
Expiration Date: 050222
Recommended Storage: Refrigerate (4 °C)
Nominal Concentration (µg/mL): Varied
NIST Test ID#: 6UTB

Solvent(s): Methanol **Lot#** DU230-US

Weight(s) shown below were combined and diluted to (mL): 100.0
5E-05 Balance Uncertainty
0.001 Flask Uncertainty

Formulated By:	Prashant Chauhan	050219 DATE
Reviewed By:	Pedro L. Rentas	050219 DATE

	Compound	RM#	Lot Number	Nominal Conc (µg/mL)	Purity (%)	Uncertainty Purity	Target Weight(g)	Actual Weight(g)	Actual Conc (µg/mL)	Expanded Uncertainty (+/-) (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50
1.	Acrylonitrile	7	4718CK	10000	99	0.2	1.01021	1.01061	10003.9	40.4	107-13-1	N/A	orl-rat 78 mg/kg
2.	1-Chlorobutane	1072	15538EZ	2000	99.5	0.2	0.20103	0.20120	2001.7	8.1	109-69-3	N/A	orl-rat 2670mg/kg
3.	Cyclohexane	1023	SHBD2795V	2000	99.5	0.2	0.20103	0.20120	2001.7	8.1	110-82-7	300 ppm (1050mg/m3/8H)	orl-rat 12705mg/kg
4.	Di-isopropyl ether (DIPE)	987	00412MX	2000	99	0.2	0.20204	0.20224	2002.0	8.1	108-20-3	500 ppm (2100mg/m3/8H)	orl-rat 8470mg/kg
5.	1,4-Dioxane	373	03853KE	40000	99	0.2	4.04085	4.04110	40002.5	161.6	123-91-1	25 ppm (90mg/m3/8H)(skin)	orl-mus 5700mg/kg
6.	Hexachloroethane	199	12604HBV	2000	99	0.2	0.20204	0.20220	2001.6	8.1	67-72-1	1 ppm (10mg/m3/8H)(skin)	orl-gpg 4970mg/kg
7.	Methylcyclohexane	1627	08046KN	2000	99	0.2	0.20204	0.20224	2002.0	8.1	108-87-2	N/A	N/A
8.	Methyl tert-butyl ether (MTBE)	209	02197JJ	2000	99.8	0.2	0.20042	0.20062	2002.0	8.1	1634-04-4	N/A	orl-rat 4g/kg
9.	Propionitrile	349	1395468	20000	99	0.2	2.02042	2.02082	20003.9	80.8	107-12-0	N/A	orl-rat 39mg/kg
10.	Tetrahydrofuran	380	113886	10000	99.9	0.2	1.00111	1.00151	10004.0	40.1	109-99-9	20 ppm (590mg/m3/8H)	orl-rat 2500mg/kg
11.	1,2,3,4-Tetramethylbenzene	491	AP01	2000	93	0.2	0.21508	0.21540	2003.0	8.7	488-23-3	N/A	orl-rat 6408mg/kg



- **The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.**
- **Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).**
- **Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.**
- **All Standards, after opening ampule, should be stored with caps tight and under appropriate laboratory conditions.**
- **Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, DC, (1994).**

Method GC6MSD-1: Column: Vocol (60m X 0.25mm ID X 1.5µm film thickness). Temp. 1 = 35°C (10min.), Temp. 2 = 200°C (8.75 min.), Rate = 4°C/min., Injector Temp. = 200°C, Detector Temp. = 220°C. Solvent Delay: 8 minutes. Analysis performed by Candice Warren.

Name	MSD RT (min.)
Methyl tert-butyl ether (MTBE)	13.56
Acrylonitrile	13.79
Di-isopropyl ether	15.44
Propionitrile	18.53
Tetrahydrofuran	20.17
Cyclohexane	20.58
1-Chlorobutane	20.83
Methylcyclohexane	24.84
1,4-Dioxane	26.84
Hexachloroethane	48.44
1,2,3,4-Tetramethylbenzene	51.62

Absolute Standards Inc.
PO Box 5585
Hamden, CT 06518-0585
Phone: 203-281-2917
FAX: 203-281-2922

Safety Data Sheet (SDS) GHS/OSHA Compliant

Section I Product and Company Identification

IDENTITY **ANALYTICAL STANDARD DISSOLVED IN METHANOL**

Manufacturer's Name	ABSOLUTE STANDARDS INC	Emergency Telephone USA & CANADA	**1-800-535-5053**
Address	44 Rossotto Dr. Hamden CT, 06514	Emergency Telephone International	**1-352-323-3500**
		Date Prepared/Revised	May 1, 2018

Section II - Hazards Identification

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

H225	**Highly Flammable Liquid and Vapor**	**H301, 311, 331**	**Toxic if swallowed, skin contact, inhaled**
H370	**Cause damage to organs**	**H351**	**Suspected of causing cancer**
P271	**Use in ventilated area**	**P280**	**Use gloves, eye protection/face sheild**
P302,332	**If on skin, wash with soap and water**	**P305,351,338**	**If in eyes, remove contacts, rinse with water**

Signal Word: DANGER

Section III - Composition

Components (Specific Chemical Identity; Common Name(s))			% (optional)
Methanol	METHYL ALCOHOL	CAS#: 67-56-1	> 97

See Certified Weight Report For Other Analytes Present At Trace Quantities.

INTENDED USE: REFERENCE MATERIAL

Section IV. FIRST AID MEASURES

General advice	Consult a physician. Show this safety data sheet to the doctor in attendance.Move to safe area.
If inhaled	If inhaled, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.
In case of skin contact	Wash with soap and water. Consult a physician.
In case of eye contact	Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.
If swallowed	Do NOT induce vomiting. Rinse mouth with water. Consult a physician.

Section V. FIREFIGHTING MEASURES

Flammability	Flammable in the presence of a source of ignition when the temperature is above the flash point. Keep away from heat/sparks/open flame/hot surface. No smoking.
Suitable extinguishing media	Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Protective equipment for fire	Wear self contained breathing apparatus for fire fighting if necessary.

Section VI. ACCIDENTAL RELEASE MEASURES

Personal precautions	Wear respiratory protection. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Vapours accumulate to form explosive concentrations.
Environmental precautions	Prevent further leakage or spillage if safe to do so. Do not let product enter drains.
Clean up	Contain spillage, and then collect and place in container for disposal according to local regulations (see section 13).

Section VII. HANDLING AND STORAGE

Precautions for safe handling	Avoid contact with skin and eyes. Avoid inhalation of vapour or mist. Use ventilation Keep away from sources of ignition. No smoking. Prevent the build up of electrostatic charge.
Storage Conditions	Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

Section VIII. EXPOSURE CONTROLS/PERSONAL PROTECTION

Methanol	67-56-1 TWA 200 ppm
Skin notation	TWA 200 ppm

Potential for skin absorption , ingestion and inhalation.

Personal protective equipment Respiratory protection Handle with gloves. Gloves must be inspected prior to use. Eye protection.

Avoid contact with skin, eyes and clothing. Wash hands thoroughly after handling the product.

Section IX - Physical/Chemical Characteristics

Absolute Standards Inc.
PO Box 5585
Hamden, CT 06518-0585
Phone: 203-281-2917
FAX: 203-281-2922

Boiling Point	65°C	Specific Gravity (H2O = 1)	0.79
Vapor Pressure (mm Hg)	96	Melting Point	-98°C
Vapor Density (AIR = 1)	1.11	Evaporation rate (Butyl Acetate = 1)	4.6
Solubility in Water	COMPLETE		
Appearance and Odor	CLEAR, COLORLESS LIQUID WITH CHARACTERISTIC PUNGENT ODOR.		

Section X. STABILITY AND REACTIVITY

Chemical stability	Stable under recommended storage conditions.
Possibility of hazardous reactions	Vapours may form explosive mixture with air.
Conditions to avoid	Heat, flames, sparks, extreme temperature and sunlight.
Materials to avoid	Acid chlorides, Acid anhydrides, Oxidizing agents, Alkali metals, Reducing agents, Acids
Hazardous decomposition products formed under fire conditions. - Carbon oxides	

Section XI. TOXICOLOGICAL INFORMATION

LD50 Oral - rat - 5,628 mg/kg
LC50 Inhalation - rat - 4 h - 64000 ppm
LD50 Dermal - rabbit - 15,800 mg/kg
Toxic if absorbed through skin. Causes skin irritation.
Eye damage/eye irritation
Toxic if inhaled. Causes respiratory tract irritation.
Toxic if swallowed.

Section XII. ECOLOGICAL INFORMATION FOR REPORTABLE QUANTITY OF 5000 lbs.

LC50	15,400 mg/l - 96 h
EC50	24,500.00 mg/l - 48 h
EC100	10,000.00 mg/l - 24 h

Section XIII. DISPOSAL CONSIDERATIONS

Dispose with normal Laboratory Solvent Waste.

Section XIV. TRANSPORT INFORMATION

DOT (US)
UN number: 1230 Class: 3 Packing group: II
Proper shipping name: Methanol

IATA
UN number: 1230 Class: 3 Packing group: II
Proper shipping name: Methanol

Section XV. REGULATORY INFORMATION

OSHA Hazards Flammable liquid, Target Organ Effect, Toxic by inhalation., Toxic by ingestion, Toxic by skin absorption, Irritant
SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

Section XVI. Misc. INFORMATION

The information in this Material Safety Data Sheet meets the requirements of the United States Occupational Safety and Health Act and regulations promulgated thereunder (29 CFR 1910.1200 et. seq.) and Global Harmonized System (GHS). This document is intended only as a guide to the appropriate precautionary handling of the material by trained personnel, or supervised by a person trained in chemical handling. The user is responsible for determining the precautions and dangers of this chemical for his or her particular application. Depending on usage, protective clothing including eye and face guards and respirators must be used to avoid contact with material or breathing chemical vapors/fumes. Exposure to this product may have serious adverse health effects. This chemical may interact with other substances. Since the potential uses are so varied, ABSOLUTE STANDARDS INC. cannot warn of all the potential dangers of use or interaction with other chemicals or substances. ABSOLUTE STANDARDS INC. warrants that the chemical meets the specifications set forth on the label. ABSOLUTE STANDARDS INC DISCLAIMS ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED WITH REGARD TO THE PRODUCT SUPPLIED HEREUNDER, ITS MERCHANTABILITY OR ITS FITNESS FOR A PARTICULAR APPLICATION. The user should recognize that this product can cause severe injury or death, especially if improperly handled or the known dangers of use are not heeded. READ ALL PRECAUTIONARY INFORMATION. As new documented general safety information becomes available, Absolute Standards Inc. will periodically revise this Safety Data Sheet. If you have any questions, please call Technical Service at 1-203-281-2917 for assistance.

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Analytical Reference Material ARM

ISO 9001 QS Registered
ISO 17025-34-35-43 Accredited
Scopes: http://AbsoluteStandards.com

CERTIFIED WEIGHT REPORT

Part Number: 70046
Lot Number: 072618
Description: Bromochloromethane

Solvent(s): Methanol **Lot#** DS526

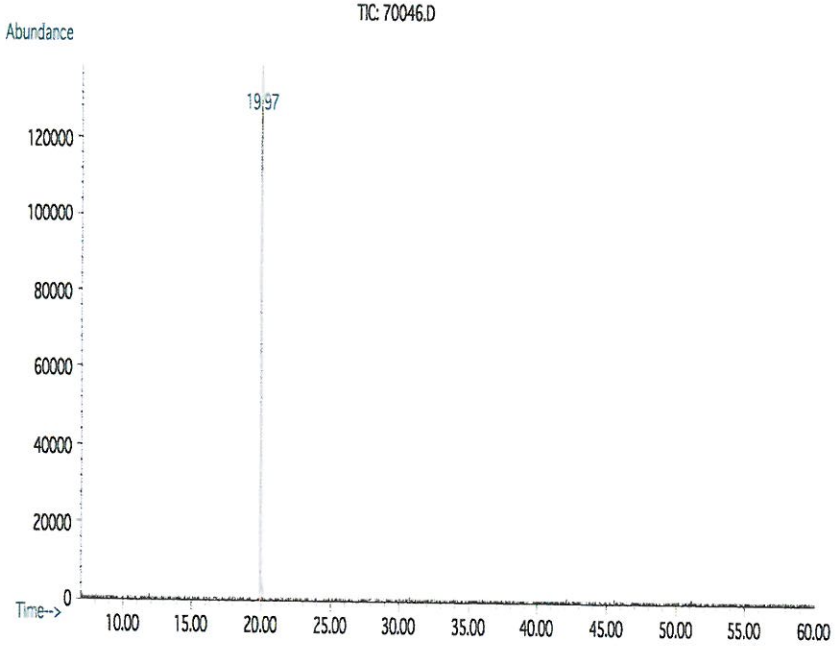
Expiration Date: 072623
Recommended Storage: Refrigerate (4 °C)
Nominal Concentration (µg/mL): 1000
NIST Test ID#: 822-275872-11

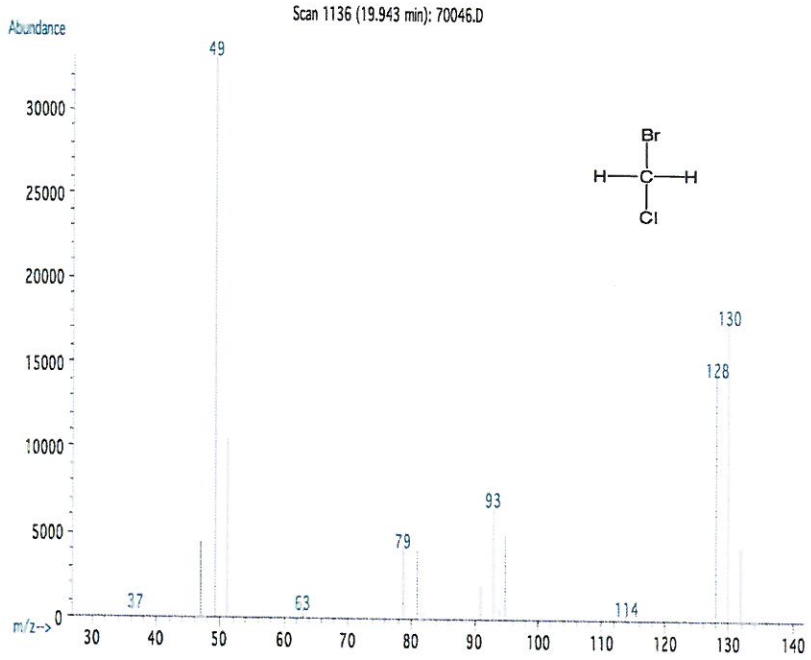
Weight(s) shown below were combined and diluted to (mL): 25.0 | 5E-05 Balance Uncertainty | 0.002 Flask Uncertainty

Eli Aliaga	072618
Formulated By: Eli Aliaga	DATE
Pedro Rentas	072618
Reviewed By: Pedro L. Rentas	DATE

Compound	RM#	Lot Number	Nominal Conc (µg/mL)	Purity (%)	Uncertainty Purity	Target Weight(g)	Actual Weight(g)	Actual Conc (µg/mL)	Expanded Uncertainty (+/-) (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50
1. Bromochloromethane	46	AY01	1000	99	0.2	0.02526	0.02540	1005.7	5.7	74-97-5	200 ppm (1050mg/m3/8H)	orl-rat 5000mg/kg

Method GC6MSD-1.M: Column : (60m X 0.25mm X 1.5 µm) Temp 1 = 35°C (10min.), Temp 2 = 200°C (8.75 min.), Rate = 4°C/min., Injector B= 200°C, Detector B = 220°C. Analyst: Candice Warren





- The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
- Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
- Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
- All Standards, after opening ampule, should be stored with caps tight and under appropriate laboratory conditions.
- Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, DC, (1994).

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

ISO 17034 Accredited
Scopes: http://AbsoluteStandards.com

CERTIFIED WEIGHT REPORT

Part Number: 91980
Lot Number: 111319
Description: Acrolein

Expiration Date: 121319
Recommended Storage: Refrigerate (4 °C)
Nominal Concentration (µg/mL): 5000
NIST Test ID#: 6UTB

Solvent(s): Water **Lot#** 062419Q

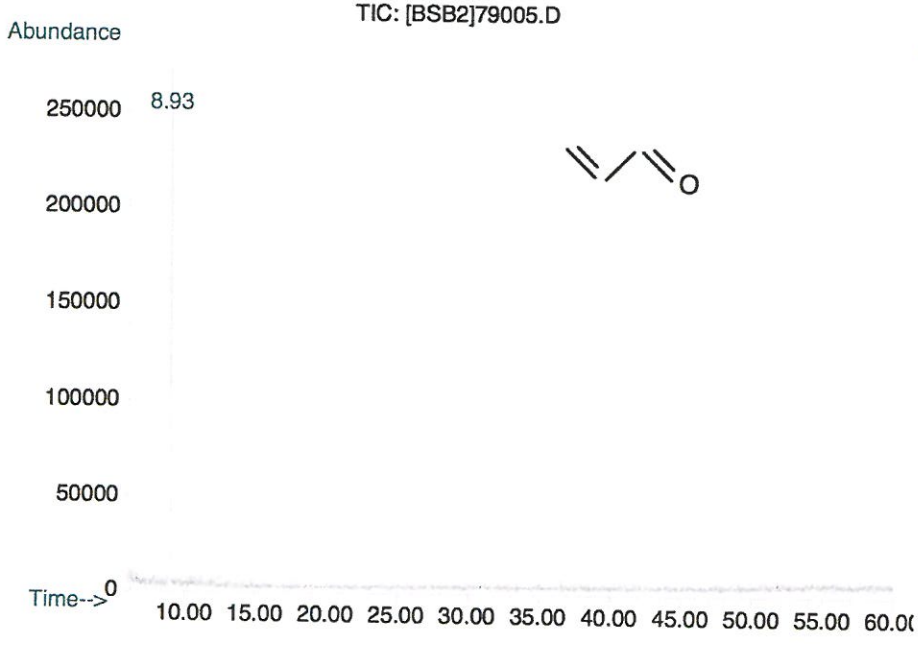
5E-05 Balance Uncertainty
Weight(s) shown below were combined and diluted to (mL): 10.0 0.007 Flask Uncertainty

Justin Dippold	111319
Formulated By: Justin Dippold	DATE
Pedro Rentas	111319
Reviewed By: Pedro L. Rentas	DATE

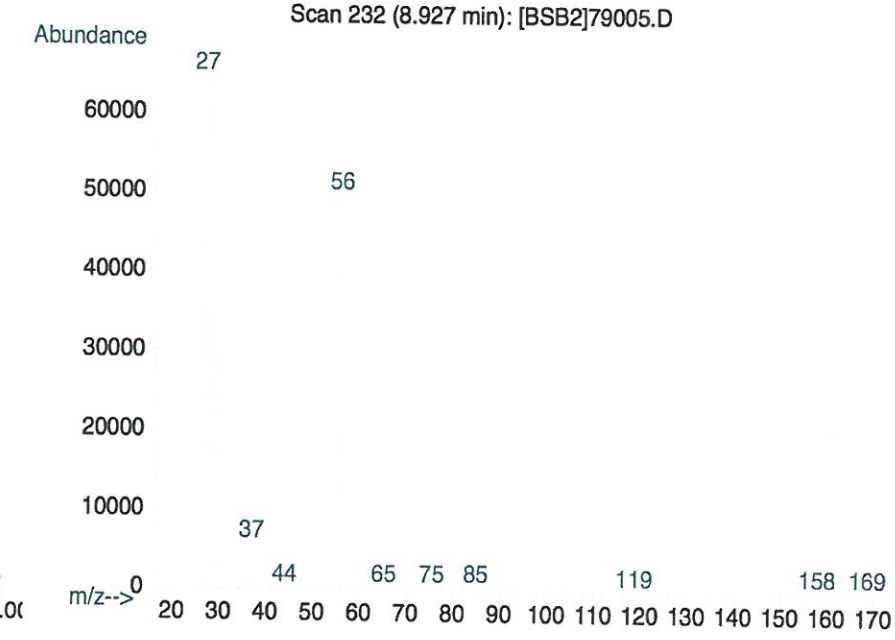
Compound	RM#	Lot Number	Nominal Conc (µg/mL)	Purity (%)	Uncertainty Purity	Target Weight(g)	Actual Weight(g)	Actual Conc (µg/mL)	Expanded Uncertainty (+/-) (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50
1. Acrolein	5	04715LL	5000	97	0.2	0.05157	0.05170	5012.9	23.8	107-02-8	0.1 ppm	orl-rat 46mg/kg

Method: GC6MSD-1. **Detector:** Mass Selective Detector (Scan mode). **Column:** Vocol (60m X 0.25mm ID X 1.5µm film thickness). **Oven Profile:** Temp. 1 = 35°C (Time 1 = 10min.), Temp. 2=200°C (Time 2 = 8.75 min.). Rate = 4°C/min., Injector Temp. = 200°C, Detector Temp. = 220°C. **Analyst:** Pedro Rentas. **NOTE:** Due to the instability of acrolein in solution, all solutions of acrolein, and any dilutions thereof, should be used immediately. Long term storage is not recommended. Please contact our technical department if further information is required.

TIC: [BSB2]79005.D



Scan 232 (8.927 min): [BSB2]79005.D



- The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
- Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
- Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
- All Standards, after opening ampule, should be stored with caps tight and under appropriate laboratory conditions.
- Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, DC, (1994).

Absolute Standards Inc.

PO Box 5585
Hamden, CT 06518-0585

Phone: 203-281-2917
FAX: 203-281-2922

Safety Data Sheet (SDS) GHS/OSHA Compliant

Section I Product and Company Identification

IDENTITY **ANALYTICAL STANDARD DISSOLVED IN WATER**

Manufacturer's Name	ABSOLUTE STANDARDS INC	Emergency Telephone USA & CANADA	**1-800-535-5053**
Address	44 Rossotto Dr.	Emergency Telephone International	**1-352-323-3500**
	Hamden CT, 06514	Date Prepared/Revised	May 1, 2019

Section II - Hazards Identification

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

P271	**Use in ventilated area**	**H315**	**Causes skin and eye irritation.**
P302,332	**If on skin, wash with soap and water**	**P280**	**Use gloves, eye protection/face sheild**
		P305,351,338	**If in eyes, remove contacts, rinse with water**

Signal Word: DANGER

Section III - Composition

Components (Specific Chemical Identity; Common Name(s))		% (optional)
Water	CAS#: 7732-18-5	> 97

See Certified Weight Report For Other Analytes Present At Trace Quantities.

INTENDED USE: REFERENCE MATERIAL

Section IV. FIRST AID MEASURES

General advice	Consult a physician. Show this safety data sheet to the doctor in attendance.Move to safe area.
If inhaled	If inhaled, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.
In case of skin contact	Wash with soap and water. Consult a physician.
In case of eye contact	Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.
If swallowed	Do NOT induce vomiting. Rinse mouth with water. Consult a physician.

Section V. FIREFIGHTING MEASURES

Suitable extinguishing media	Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Protective equipment for fire	Wear self contained breathing apparatus for fire fighting if necessary.
Hazardous Decomposition products	Carbon oxides

Section VI. ACCIDENTAL RELEASE MEASURES

Personal precautions	Wear respiratory protection. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Vapours accumulate to form explosive concentrations.
Environmental precautions	Prevent further leakage or spillage if safe to do so. Do not let product enter drains.
Clean up	Contain spillage, and then collect and place in container for disposal according to local regulations (see section 13).

Section VII. HANDLING AND STORAGE

Precautions for safe handling	Avoid contact with skin and eyes. Avoid inhalation of vapour or mist. Use ventilation Keep away from sources of ignition. No smoking. Prevent the build up of electrostatic charge.
Storage Conditions	Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

Section VIII. EXPOSURE CONTROLS/PERSONAL PROTECTION

Water CAS#: 7732-18-5 TWA: 500 ppm

Personal protective equipment Respiratory protection Handle with gloves. Gloves must be inspected prior to use. Eye protection.
Avoid contact with skin, eyes and clothing. Wash hands thoroughly after handling the product.

Section IX - PHYSICAL/CHEMICAL CHARACTERISTICS

Boiling Point	100°C	Specific Gravity (H2O = 1)	1
Vapor Pressure (mm Hg)		Melting Point	

Absolute Standards Inc.

PO Box 5585
Hamden, CT 06518-0585

Phone: 203-281-2917
FAX: 203-281-2922

	NA		0°C
Vapor Density (AIR = 1)	NA	Evaporation rate (Butyl Acetate = 1)	NA

Solubility in Water — Completely miscible

Appearance and Odor — CLEAR, COLORLESS LIQUID WITH SLIGHT CHEMICAL ODOR.

Section X. STABILITY AND REACTIVITY

Chemical stability — Stable under recommended storage conditions.
Possibility of hazardous reactions — NA
Conditions to avoid — NA
Materials to avoid — NA
Hazardous decomposition products - No data available

Section XI. TOXICOLOGICAL INFORMATION

LD50 Oral - Rat — NA
LC50 Inhalation - Rat — NA
LD50 Dermal - Guinea pig — NA
Causes skin irritation.
Eye irritation

Section XII. ECOLOGICAL INFORMATION

LC50 — NA
EC50 — NA

Section XIII. DISPOSAL CONSIDERATIONS

Dispose with normal Laboratory Solvent Waste.

Section XIV. TRANSPORT INFORMATION

DOT (US)
Not dangerous goods
Proper shipping name: Water

IATA
Not dangerous goods
Proper shipping name: Water

Section XV. REGULATORY INFORMATION

SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

Section XVI. Misc. INFORMATION

The information in this Material Safety Data Sheet meets the requirements of the United States Occupational Safety and Health Act and regulations promulgated thereunder (29 CFR 1910.1200 et. seq.) and Global Harmonized System (GHS). This document is intended only as a guide to the appropriate precautionary handling of the material by trained personnel, or supervised by a person trained in chemical handling. The user is responsible for determining the precautions and dangers of this chemical for his or her particular application. Depending on usage, protective clothing including eye and face guards and respirators must be used to avoid contact with material or breathing chemical vapors/fumes. Exposure to this product may have serious adverse health effects. This chemical may interact with other substances. Since the potential uses are so varied, ABSOLUTE STANDARDS INC. cannot warn of all the potential dangers of use or interaction with other chemicals or substances. ABSOLUTE STANDARDS INC. warrants that the chemical meets the specifications set forth on the label. ABSOLUTE STANDARDS INC DISCLAIMS ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED WITH REGARD TO THE PRODUCT SUPPLIED HEREUNDER, ITS MERCHANTABILITY OR ITS FITNESS FOR A PARTICULAR APPLICATION. The user should recognize that this product can cause severe injury or death, especially if improperly handled or the known dangers of use are not heeded. READ ALL PRECAUTIONARY INFORMATION. As new documented general safety information becomes available, Absolute Standards Inc. will periodically revise this Material Safety Data Sheet. If you have any questions, please call Technical Service at 1-203-281-2917 for assistance.

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

ISO 17034 Accredited
Scopes: http://AbsoluteStandards.com

CERTIFIED WEIGHT REPORT

Part Number: 91980
Lot Number: 111419
Description: Acrolein

Solvent(s): Water **Lot#** 062419Q

Expiration Date: 121419
Recommended Storage: Refrigerate (4 °C)
Nominal Concentration (µg/mL): 5000
NIST Test ID#: 6UTB

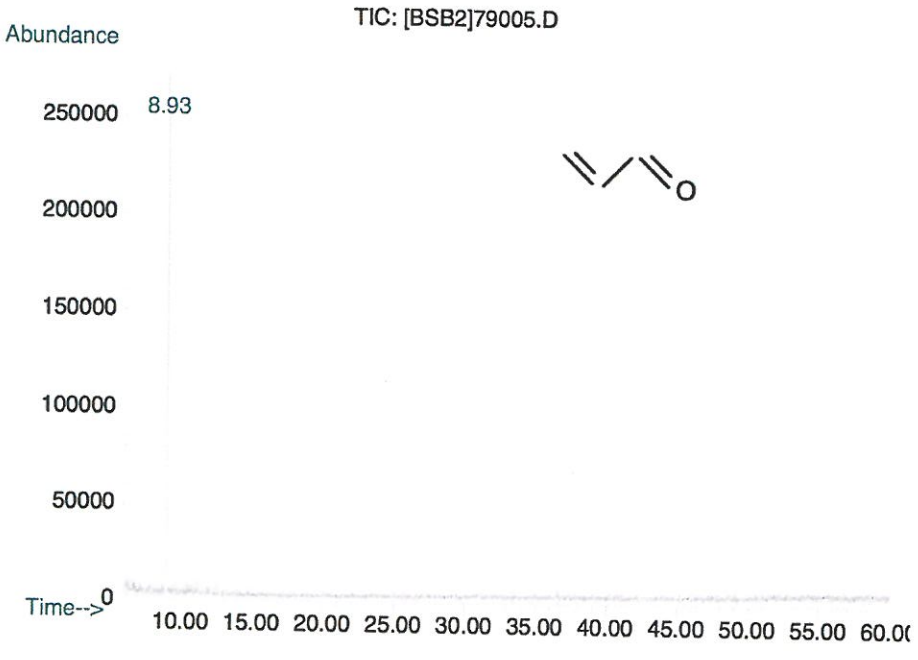
5E-05 Balance Uncertainty
0.002 Flask Uncertainty

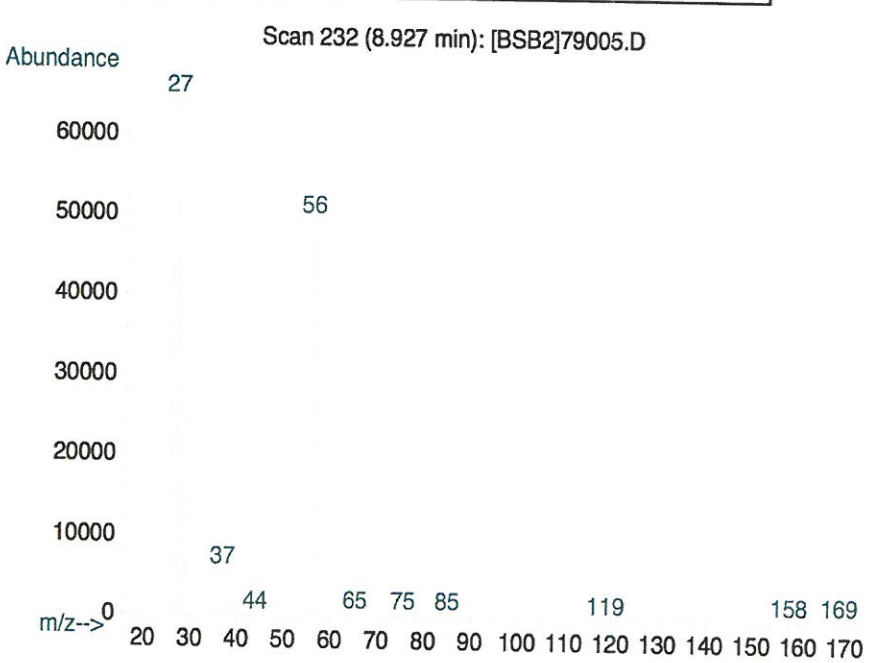
Weight(s) shown below were combined and diluted to (mL): 20.0

Formulated By:	Prashant Chauhan	111419 DATE
Reviewed By:	Pedro L. Rentas	111419 DATE

Compound	RM#	Lot Number	Nominal Conc (µg/mL)	Purity (%)	Uncertainty Purity	Target Weight(g)	Actual Weight(g)	Actual Conc (µg/mL)	Expanded Uncertainty (+/-) (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50
1. Acrolein	5	07813BN	5000	97	0.2	0.10302	0.10325	5011.3	21.2	107-02-8	0.1 ppm	orl-rat 46mg/kg

Method: GC6MSD-1. **Detector:** Mass Selective Detector (Scan mode). **Column:** Vocol (60m X 0.25mm ID X 1.5µm film thickness). **Oven Profile:** Temp. 1 = 35°C (Time 1 = 10min.), Temp. 2=200°C (Time 2 = 8.75 min.) Rate = 4°C/min., Injector Temp. = 200°C, Detector Temp. = 220°C. **Analyst:** Pedro Rentas. **NOTE:** Due to the instability of acrolein in solution, all solutions of acrolein, and any dilutions thereof, should be used immediately. Long term storage is not recommended. Please contact our technical department if further information is required.





- The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
- Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
- Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
- All Standards, after opening ampule, should be stored with caps tight and under appropriate laboratory conditions.
- Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, DC, (1994).

RESTEK
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Gravimetric Certificate

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ilac-MRA

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 555582 **Lot No.:** A0140077

Description : Custom 8260A/B Surrogate Mix

Custom 8260A/B Surrogate Mix 25,000µg/mL, P&T Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : July 31, 2021 **Storage:** 10°C or colder

CERTIFIED VALUES

Component #	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	1,2-Dichloroethane-d4 **CAS #** 17060-07-0 (Lot PR-29377) **Purity** 99%	25,008.0 µg/mL	+/- 231.4287 µg/mL +/- 1,413.6866 µg/mL +/- 1,446.2345 µg/mL	Gravimetric Unstressed Stressed
2	1-Bromo-4-fluorobenzene (BFB) **CAS #** 460-00-4 (Lot 20401KO) **Purity** 99%	25,028.0 µg/mL	+/- 231.6138 µg/mL +/- 1,414.8171 µg/mL +/- 1,447.3911 µg/mL	Gravimetric Unstressed Stressed
3	Dibromofluoromethane **CAS #** 1868-53-7 (Lot 0012017) **Purity** 99%	25,012.0 µg/mL	+/- 231.4658 µg/mL +/- 1,413.9127 µg/mL +/- 1,446.4658 µg/mL	Gravimetric Unstressed Stressed
4	Toluene-d8 **CAS #** 2037-26-5 (Lot PR-27311) **Purity** 99%	25,040.0 µg/mL	+/- 231.7249 µg/mL +/- 1,415.4955 µg/mL +/- 1,448.0851 µg/mL	Gravimetric Unstressed Stressed

RESTEK®
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 30470 **Lot No.:** A0141192

Description : tert-Butanol Standard

tert-Butanol Std 50,000µg/mL, P&T Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : August 31, 2021 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	tert-Butanol (TBA)	50,085.8 µg/mL	+/- 293.2636	µg/mL	Gravimetric
	CAS # 75-65-0 (Lot SHBJ3142)		+/- 1,072.9051	µg/mL	Unstressed
	Purity 98%		+/- 1,104.0642	µg/mL	Stressed

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

Column:
105m x 0.53mm x 3.0µm
Rtx-502.2 (cat.#10910)

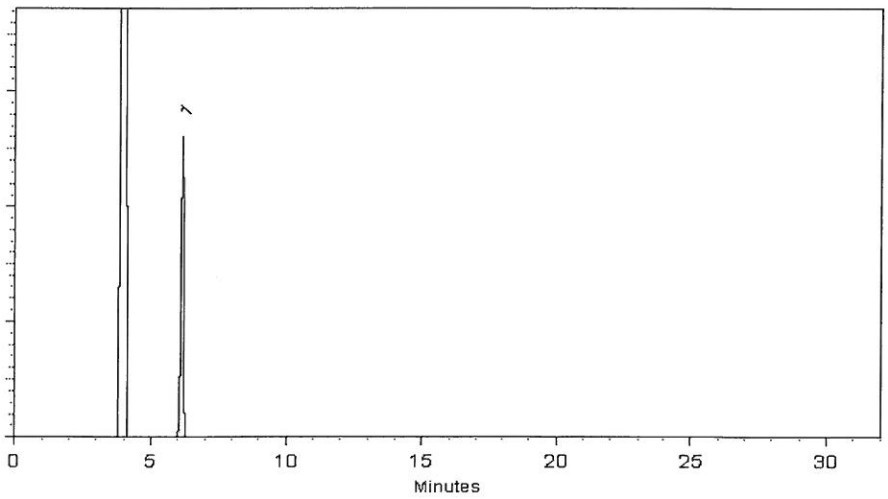
Carrier Gas:
hydrogen-constant pressure 11.0 psi.

Temp. Program:
40°C (hold 2 min.) to 240°C
@ 8°C/min. (hold 5 min.)

Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
FID



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Larry J. Moore - Mix Technician

Date Mixed: 31-Aug-2018 **Balance:** 1128342314

Jennifer Pollino - Operations Tech-ARM QC

Date Passed: 05-Sep-2018

Manufactured under Restek's ISO 9001:2015
Registered Quality System
Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k\sqrt{U^2_{gravimetric} + U^2_{homogeneity} + U^2_{storage\ stability} + U^2_{shipping\ stability}}$$

k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

RESTEK
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 30225 **Lot No.:** A0143315

Description : Bromochloromethane Standard

Bromochloromethane 2000µg/mL, P&T Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : November 30, 2023 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	Bromochloromethane	2,003.1 µg/mL	+/- 11.8979	µg/mL	Gravimetric
	CAS # 74-97-5 (Lot 00008541)		+/- 112.3393	µg/mL	Unstressed
	Purity 98%		+/- 114.9667	µg/mL	Stressed

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

Column:
105m x 0.53mm x 3.0µm
Rtx-502.2 (cat.#10910)

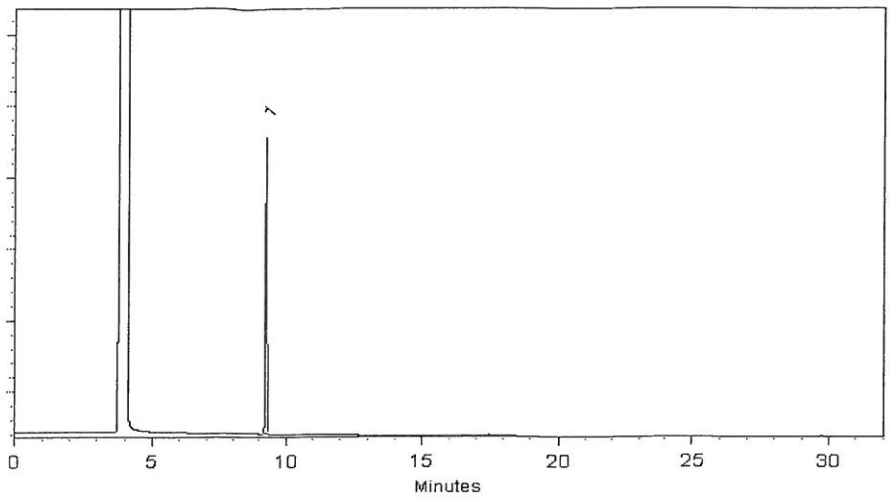
Carrier Gas:
hydrogen-constant pressure 11.0 psi.

Temp. Program:
40°C (hold 2 min.) to 240°C
@ 8°C/min. (hold 5 min.)

Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
FID



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Russ Bookhamer - Operations Technician I

Date Mixed: 15-Nov-2018 **Balance:** B707717271

Jennifer Pollino - Operations Tech-ARM QC

Date Passed: 20-Nov-2018

Manufactured under Restek's ISO 9001:2015
Registered Quality System
Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k\sqrt{U^2_{gravimetric} + U^2_{homogeneity} + U^2_{storage\ stability} + U^2_{shipping\ stability}}$$

k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

RESTEK

Safety Data Sheet

Revision Date: 11/08/18
www.restek.com

2 Letter ISO country code/language code: US/EN

1. IDENTIFICATION

Catalog Number / Product Name:	**30225 / Bromochloromethane Standard**
Company:	Restek Corporation
Address:	110 Benner Circle Bellefonte, Pa. 16823
Phone#:	814-353-1300
Fax#:	814-353-1309
Emergency#:	800-424-9300 (CHEMTREC) 703-527-3887 (Outside the US)
Email:	www.restek.com
Revision Number:	12
Intended use:	For Laboratory use only

2. HAZARD(S)IDENTIFICATION

Emergency Overview:

GHS Hazard Symbols:

GHS Classification:	Specific Target Organ Systemic Toxicity (STOT) - Single Exposure Category 1 Hazardous for the ozone layer Flammable Liquid Category 2 Acute Toxicity - Inhalation Dust / Mist Category 3 Acute Toxicity - Dermal Category 3 Acute Toxicity - Oral Category 3
GHS Signal Word:	Danger
GHS Hazard:	Highly flammable liquid and vapour. Toxic if swallowed, in contact with skin or if inhaled. Causes damage to organs. Harms public health and the environment by destroying ozone in the upper atmosphere.
GHS Precautions:	
Safety Precautions:	Keep away from heat/sparks/open flames/hot surfaces. – No smoking. Ground/bond container and receiving equipment. Use explosion-proof electrical/ventilation and lighting equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Do not breathe dust/fume/gas/mist/vapours/spray. Wash hands and skin thoroughly after handling. Do not eat, drink or smoke when using this product. Use only outdoors or in a well-ventilated area. Wear protective gloves/protective clothing/eye protection/face protection.
First Aid Measures:	IF SWALLOWED: Immediately call a POISON CENTER/doctor/.... IF ON SKIN: Wash with plenty of soap and water. IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Specific treatment see section 4. Rinse mouth. Take off immediately all contaminated clothing and wash it before reuse. In case of fire: Use extinguishing media in section 5 for extinction.

Storage:	Store in a well-ventilated place. Keep container tightly closed. Store in a well-ventilated place. Keep cool. Store locked up.
Disposal:	Dispose of contents/container according to section 13 of the SDS. Refer to manufacturer/supplier for information on recovery/recycling.
Single Exposure Target Organs:	Specific target organ toxicity - Single exposure - STOT SE 1: H370 Causes damage to organs. (C >= 10 %; No information to prove exclusion of certain routes of exposure); Specific target organ toxicity - Single exposure - STOT SE 2: H371 May cause damage to organs. (3 % <= C <10 %; Concentration limits for acute toxicity cannot be translated into GHS from the DSD especially when minimum classifications are given)
Repeated Exposure Target Organs:	No data available

3. COMPOSITION / INFORMATION ON INGREDIENT

Chemical Name	CAS #	EINEC #	% Composition
methanol	67-56-1	200-659-6	99.8
bromochloromethane	74-97-5	200-826-3	0.2

4. FIRST-AID MEASURES

Inhalation:	Remove to fresh air. If breathing is difficult, have a trained individual administer oxygen. If not breathing, give artificial respiration and have a trained individual administer oxygen. Get medical attention immediately
Eyes:	Flush eyes with plenty of water for at least 20 minutes retracting eyelids often. Tilt the head to prevent chemical from transferring to the uncontaminated eye. Get immediate medical attention.
Skin Contact:	Wash with soap and water. Remove contaminated clothing and launder. Get medical attention if irritation develops or persists.
Ingestion:	Do not induce vomiting and seek medical attention immediately. Drink two glasses of water or milk to dilute. Provide medical care provider with this SDS.

5. FIRE- FIGHTING MEASURES

Extinguishing Media:	Use alcohol resistant foam, carbon dioxide, or dry chemical extinguishing agents. Water may be ineffective but water spray can be used extinguish a fire if swept across the base of the flames. Water can absorb heat and keep exposed material from being damaged by fire.
Fire and/or Explosion Hazards:	Vapors may be ignited by sparks, flames or other sources of ignition if material is above the flash point giving rise to a fire (Class B). Vapors are heavier than air and may travel to a source of ignition and flash back.
Fire Fighting Methods and Protection:	Do not enter fire area without proper protection including self-contained breathing apparatus and full protective equipment. Fight fire from a safe distance and a protected location due to the potential of hazardous vapors and decomposition products. Flammable component(s) of this material may be lighter than water and burn while floating on the surface.
Hazardous Combustion Products:	Carbon dioxide, Carbon monoxide

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions and Equipment:	Exposure to the spilled material may be severely irritating or toxic. Follow personal protective equipment recommendations found in Section 8 of this SDS. Personal protective equipment needs must be evaluated based on information provided on this sheet and the special circumstances created by the spill including; the material spilled, the quantity of the spill, the area in which the spill occurred, and the expertise of employees in the area responding to the spill. Never exceed any occupational exposure limits.
Methods for Clean-up:	Prevent the spread of any spill to minimize harm to human health and the environment if safe to do so. Wear complete and proper personal protective equipment following the recommendation of Section 8 at a minimum. Dike with suitable absorbent material like granulated clay. Gather and store in a sealed container pending a waste disposal evaluation.

7. HANDLING AND STORAGE

Handling Technical Measures and Precautions:	Toxic or severely irritating material. Avoid contacting and avoid breathing the material. Use only in a well ventilated area. Use spark-proof tools and explosion-proof equipment
Storage Technical Measures and Conditions:	Store in a cool dry ventilated location. Isolate from incompatible materials and conditions. Keep container(s) closed. Keep away from sources of ignition

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

United States:

Chemical Name	CAS No.	IDLH	ACGIH STEL	ACGIH TLV-TWA	OSHA Exposure Limit
methanol	67-56-1	6000 ppm IDLH	250 ppm STEL	200 ppm TWA	200 ppm TWA; 260 mg/m3 TWA

Personal Protection:

Engineering Measures:	Local exhaust ventilation is recommended when generating excessive levels of vapours from handling or thermal processing.
Respiratory Protection:	Respiratory protection may be required to avoid overexposure when handling this product. General or local exhaust ventilation is the preferred means of protection. Use a respirator if general room ventilation is not available or sufficient to eliminate symptoms.If an exposure limit is exceeded or if an operator is experiencing symptoms of inhalation overexposure as explained in Section 3, provide respiratory protection.
Eye Protection:	Wear chemically resistant safety glasses with side shields when handling this product. Do not wear contact lenses.
Skin Protection:	Wear protective gloves. Inspect gloves for chemical break-through and replace at regular intervals. Clean protective equipment regularly. Wash hands and other exposed areas with mild soap and water before eating, drinking, and when leaving work

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance, color:	No data available
Odor:	Mild
Physical State:	Liquid
pH:	Not applicable
Vapor Pressure:	No data available
Vapor Density:	1.1 (air = 1)
Boiling Point (°C):	64.7 °C at 760 mmHg (HSDB)
Melting Point (°C):	-98 °C
Flash Point (°F):	52
Flammability:	Highly Flammable
Upper Flammable/Explosive Limit, % in air:	36
Lower Flammable/Explosive Limit, % in air:	6
Autoignition Temperature (°C):	464 deg C
Decomposition Temperature (°C):	No data available
Specific Gravity:	0.791 - 0.792 g/cm3 at 20 °C
Evaporation Rate:	No data available
Odor Threshold:	No data available
Solubility:	Moderate; 50-99%
Partition Coefficient: n-octanol in water:	No data available
VOC % by weight:	0
Molecular Weight:	32.04

10. STABILITY AND REACTIVITY

Stability:	Stable under normal conditions.
Conditions to Avoid:	None known.
Materials to Avoid / Chemical Incompatiability:	Strong oxidizing agents
Hazardous Decomposition Products:	Carbon dioxide Carbon monoxide

11. TOXICOLOGICAL INFORMATION

Routes of Entry:	Inhalation, Skin Contact, Eye Contact, Ingestion
Target Organs Potentially Affected By Exposure:	Eyes, Central nervous system stimulation, Skin, GI Tract, Respiratory Tract

Chemical Interactions That Change Toxicity: None Known

Immediate (Acute) Health Effects by Route of Exposure:

Inhalation Irritation:	Can cause moderate respiratory irritation, dizziness, weakness, fatigue, nausea and headache.
Inhalation Toxicity:	Harmful! Can cause systemic damage (see "Target Organs)Methanol can cause central nervous system depression and overexposure can cause damage to the optic nerve resulting in visual impairment or blindness.
Skin Contact:	Can cause moderate skin irritation, defatting, and dermatitis. Not likely to cause permanent damage.
Eye Contact:	Can cause moderate irritation, tearing and reddening, but not likely to permanently injure eye tissue.
Ingestion Irritation:	Irritating to mouth, throat, and stomach. Can cause abdominal discomfort, nausea, vomiting and diarrhea.Highly toxic and may be fatal if swallowed.
Ingestion Toxicity:	Toxic if swallowed. May cause target organ failure and/or death.May be fatal if swallowed.

Long-Term (Chronic) Health Effects:

Carcinogenicity:	No data.
Reproductive and Developmental Toxicity:	No data available to indicate product or any components present at greater than 0.1% may cause birth defects.
Inhalation:	Upon prolonged and/or repeated exposure, can cause moderate respiratory irritation, dizziness, weakness, fatigue, nausea and headache.Harmful! Can cause systemic damage upon prolonged and/or repeated exposure (see "Target Organs)
Skin Contact:	Upon prolonged or repeated contact, can cause moderate skin irritation, defatting, and dermatitis. Not likely to cause permanent damage.
Ingestion:	Toxic if swallowed. May cause target organ failure and/or death.

Component Toxicological Data:
NIOSH:

Chemical Name	CAS No.	LD50/LC50
Methanol	67-56-1	Inhalation LC50 Rat 22500 ppm 8 h

Component Carcinogenic Data:
OSHA:

Chemical Name	CAS No.
No data available	

ACGIH:

Chemical Name	CAS No.
No data available	

NIOSH:

Chemical Name	CAS No.
No data available	

NTP:

Chemical Name	CAS No.
No data available	

IARC:

Chemical Name	CAS No.	Group No.

12. ECOLOGICAL INFORMATION

Overview:	Moderate ecological hazard. This product may be dangerous to plants and/or wildlife.
Mobility:	No data
Persistence:	No data
Bioaccumulation:	No data
Degradability:	Biodegrades slowly.
Ecological Toxicity Data:	No data available

13. DISPOSAL CONSIDERATIONS

Waste Description of Spent Product:	Spent or discarded material is a hazardous waste. Mixing spent or discarded material with other materials may render the mixture hazardous. Perform a hazardous waste determination on mixtures.
Disposal Methods:	Dispose of by incineration following Federal, State, Local, or Provincial regulations.
Waste Disposal of Packaging:	Comply with all Local, State, Federal, and Provincial Environmental Regulations.

14. TRANSPORTATION INFORMATION

United States:	
DOT Proper Shipping Name:	Methanol
UN Number:	UN1230
Hazard Class:	3
Packing Group:	II
International:	
IATA Proper Shipping Name:	Methanol
UN Number:	UN1230
Hazard Class:	3(6.1)
Packing Group:	II

Marine Pollutant: No

Chemical Name	CAS#	Marine Pollutant	Severe Marine Pollutant
No data available			

15. REGULATORY INFORMATION

United States:

Chemical Name	CAS#	CERCLA	SARA 313	SARA EHS 313	TSCA
methanol	67-56-1	X	X	-	X

The following chemicals are listed on CA Prop 65:

Chemical Name	CAS #	Regulation
Methanol	67-56-1	Prop 65 Devolop Tox

State Right To Know Listing:

Chemical Name	CAS#	New Jersey	Massachusetts	Pennsylvania	California
methanol	67-56-1	X	X	X	X
bromochloromethane	74-97-5	X	X	X	X

16. OTHER INFORMATION

Prior Version Date:	05/24/18
Other Information:	Any changes to the SDS compared to previous versions are marked by a vertical line in front of the concerned paragraph.
References:	No data available
Disclaimer:	Restek Corporation provides the descriptions, data and information contained herein in good faith but makes no representation as to its comprehensiveness or accuracy. It is provided for your guidance only. Because many factors may affect processing or application/use, Restek Corporation recommends you perform an assessment to determine the suitability of a product for your particular purpose prior to use. No warranties of any kind, either expressed or implied, including fitness for a particular purpose, are made regarding products described, data or information set forth. In no case shall the descriptions, information, or data provided be considered a part of our terms and conditions of sale. Further, the descriptions, data and information furnished hereunder are given gratis. No obligation or liability for the description, data and information given are assumed. All such being given and accepted at your risk.

RESTEK®
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 30470 **Lot No.:** A0146062

Description : tert-Butanol Standard

tert-Butanol Std 50,000µg/mL, P&T Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : February 28, 2022 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound		Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	tert-Butanol (TBA) **CAS #** 75-65-0 **Purity** 99%	(Lot SHBJ9404)	50,098.0 µg/mL	+/- 293.3348 µg/mL +/- 1,073.1656 µg/mL +/- 1,104.3322 µg/mL		Gravimetric Unstressed Stressed

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

Column:
105m x 0.53mm x 3.0µm
Rtx-502.2 (cat.#10910)

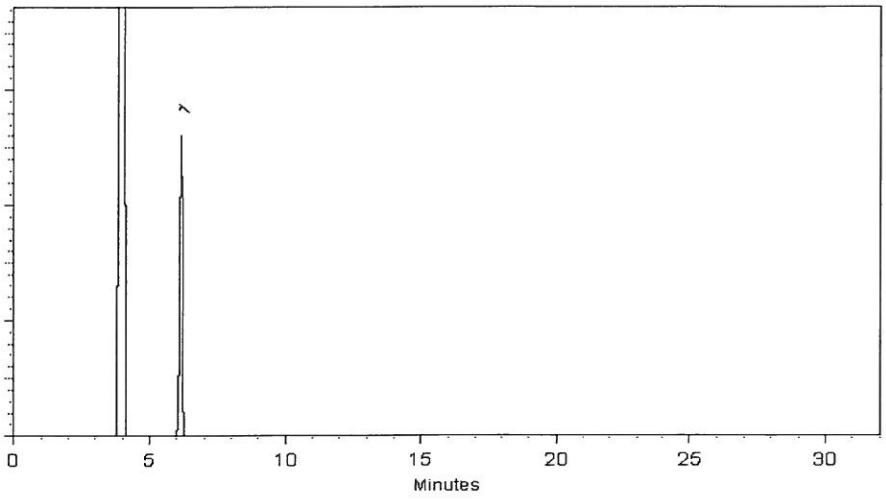
Carrier Gas:
hydrogen-constant pressure 11.0 psi.

Temp. Program:
40°C (hold 2 min.) to 240°C
@ 8°C/min. (hold 5 min.)

Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
FID



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Cathleen Soltis - Mix Technician

Date Mixed: 14-Feb-2019 **Balance:** B251644995

Justine Albertson - Operations Tech-ARM QC

Date Passed: 17-Feb-2019

Manufactured under Restek's ISO 9001:2015
Registered Quality System
Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k\sqrt{U^2_{gravimetric} + U^2_{homogeneity} + U^2_{storage\ stability} + U^2_{shipping\ stability}}$$

k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

RESTEK®
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 30006 **Lot No.:** A0147569

Description : VOA Calibration Mix #1

VOA Calibration Mix #1 5,000µg/mL, P&T Methanol/Water(90:10), 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : June 30, 2022 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound		Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	Acetone **CAS #** 67-64-1 **Purity** 99%	(Lot SHBJ7699)	5,000.5 µg/mL	+/- 29.0733 µg/mL +/- 301.7023 µg/mL +/- 302.4186 µg/mL	Gravimetric Unstressed Stressed
2	2-Butanone (MEK) **CAS #** 78-93-3 **Purity** 99%	(Lot SHBJ8761)	5,000.3 µg/mL	+/- 29.0719 µg/mL +/- 301.6872 µg/mL +/- 302.4035 µg/mL	Gravimetric Unstressed Stressed
3	4-Methyl-2-pentanone (MIBK) **CAS #** 108-10-1 **Purity** 99%	(Lot SHBK5017)	5,000.3 µg/mL	+/- 29.0719 µg/mL +/- 301.6872 µg/mL +/- 302.4035 µg/mL	Gravimetric Unstressed Stressed
4	2-Hexanone **CAS #** 591-78-6 **Purity** 99%	(Lot MKCD9048)	5,000.6 µg/mL	+/- 29.0741 µg/mL +/- 301.7099 µg/mL +/- 302.4262 µg/mL	Gravimetric Unstressed Stressed

Solvent: P&T Methanol/Water (90:10)
CAS # 67-56-1/7732-18-5
Purity 99%

Column:
105m x 0.53mm x 3.0µm
Rtx-502.2 (cat.#10910)

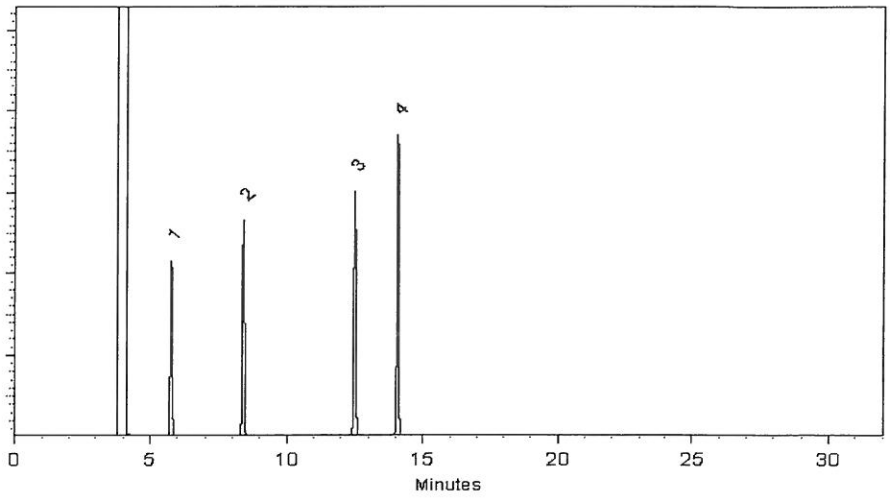
Carrier Gas:
hydrogen-constant pressure 11.0 psi.

Temp. Program:
40°C (hold 2 min.) to 240°C
@ 8°C/min. (hold 5 min.)

Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
FID



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Russ Bookhamer - Operations Technician I

Date Mixed: 28-Mar-2019 **Balance:** B707717271

Jennifer Pollino - Operations Tech-ARM QC

Date Passed: 01-Apr-2019

Manufactured under Restek's ISO 9001:2015
Registered Quality System
Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k\sqrt{U^2_{gravimetric} + U^2_{homogeneity} + U^2_{storage\ stability} + U^2_{shipping\ stability}}$$

k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

RESTEK®
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ilac-MRA

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 30042 **Lot No.:** A0148931

Description : 502.2 Calibration Mix #1

502.2 Calibration Mix #1 2,000µg/mL, P&T Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : January 31, 2026 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	Dichlorodifluoromethane (CFC-12) **CAS #** 75-71-8 (Lot 00012554) **Purity** 99%	2,000.5 µg/mL	+/- 13.6025 µg/mL +/- 112.3898 µg/mL +/- 115.0093 µg/mL	Gravimetric Unstressed Stressed
2	Chloromethane (methyl chloride) **CAS #** 74-87-3 (Lot SHBJ6334) **Purity** 99%	2,000.7 µg/mL	+/- 13.9088 µg/mL +/- 112.4334 µg/mL +/- 115.0522 µg/mL	Gravimetric Unstressed Stressed
3	Vinyl chloride **CAS #** 75-01-4 (Lot 00015559) **Purity** 99%	2,000.4 µg/mL	+/- 13.0813 µg/mL +/- 112.3179 µg/mL +/- 114.9386 µg/mL	Gravimetric Unstressed Stressed
4	Bromomethane (methyl bromide) **CAS #** 74-83-9 (Lot 101604) **Purity** 99%	2,002.2 µg/mL	+/- 13.9072 µg/mL +/- 112.5195 µg/mL +/- 115.1404 µg/mL	Gravimetric Unstressed Stressed
5	Chloroethane (ethyl chloride) **CAS #** 75-00-3 (Lot 107-401039114-1) **Purity** 99%	2,001.6 µg/mL	+/- 16.8115 µg/mL +/- 112.8794 µg/mL +/- 115.4905 µg/mL	Gravimetric Unstressed Stressed
6	Trichlorofluoromethane (CFC-11) **CAS #** 75-69-4 (Lot SHBH4155V) **Purity** 99%	2,001.7 µg/mL	+/- 13.7194 µg/mL +/- 112.4699 µg/mL +/- 115.0907 µg/mL	Gravimetric Unstressed Stressed

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

Column:
60m x 0.25mm x 1.4µm
Rtx-502.2 (cat.#10916)

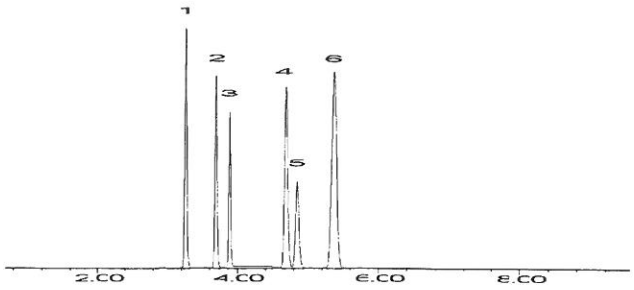
Carrier Gas:
helium-constant flow 2.0 mL/min.

Temp. Program:
40°C (hold 6 min.) to 100°C
@ 6°C/min.

Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
MSD



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Joseph Jaglowski - Mix Technician

Date Mixed: 08-May-2019 **Balance:** B251644995

Jennifer Pollino - Operations Tech-ARM QC

Date Passed: 24-May-2019

Manufactured under Restek's ISO 9001:2015
Registered Quality System
Certificate #FM 80397

RESTEK

Safety Data Sheet

Revision Date: 04/15/19
www.restek.com

2 Letter ISO country code/language code: US/EN

1. IDENTIFICATION

Catalog Number / Product Name:	**30042 / 502.2 Calibration Mix #1**
Company:	Restek Corporation
Address:	110 Benner Circle Bellefonte, Pa. 16823
Phone#:	814-353-1300
Fax#:	814-353-1309
Emergency#:	800-424-9300 (CHEMTREC) 703-527-3887 (Outside the US)
Email:	www.restek.com
Revision Number:	16
Intended use:	For Laboratory use only

2. HAZARD(S)IDENTIFICATION

Emergency Overview:

GHS Hazard Symbols:

GHS Classification:	Carcinogenicity Category 1A Specific Target Organ Systemic Toxicity (STOT) - Single Exposure Category 1 Hazardous for the ozone layer Flammable Liquid Category 2 Acute Toxicity - Dermal Category 3 Acute Toxicity - Oral Category 3
GHS Signal Word:	Danger
GHS Hazard:	Highly flammable liquid and vapour. Toxic if swallowed or in contact with skin. May cause cancer. Causes damage to organs. Harms public health and the environment by destroying ozone in the upper atmosphere.
GHS Precautions:	
Safety Precautions:	Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Keep away from heat/sparks/open flames/hot surfaces. – No smoking. Keep container tightly closed. Ground/bond container and receiving equipment. Use explosion-proof electrical/ventilation and lighting equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Do not breathe dust/fume/gas/mist/vapours/spray. Wash hands and skin thoroughly after handling. Do not eat, drink or smoke when using this product. Wear protective gloves/protective clothing/eye protection/face protection.
First Aid Measures:	IF SWALLOWED: Immediately call a POISON CENTER/doctor/.... IF ON SKIN: Wash with plenty of soap and water. IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. IF exposed: Call a POISON CENTER or doctor/physician. IF exposed or concerned: Get medical advice/attention.

Call a POISON CENTER or doctor/physician if you feel unwell.
Specific treatment see section 4.
Rinse mouth.
Take off immediately all contaminated clothing and wash it before reuse.
In case of fire: Use extinguishing media in section 5 for extinction.

Storage: Keep container tightly closed.
Store in a well-ventilated place. Keep cool.
Store locked up.

Disposal: Dispose of contents/container according to section 13 of the SDS.
Refer to manufacturer/supplier for information on recovery/recycling.

Single Exposure Target Organs: Specific target organ toxicity - Single exposure - STOT SE 1: H370 Causes damage to organs. (C >= 10 %; No information to prove exclusion of certain routes of exposure); Specific target organ toxicity - Single exposure - STOT SE 2: H371 May cause damage to organs. (3 % <= C <10 %; Concentration limits for acute toxicity cannot be translated into GHS from the DSD especially when minimum classifications are given)

Repeated Exposure Target Organs: Specific target organ toxicity - Repeated exposure - STOT RE 2: H373 May cause damage to organs through prolonged or repeated exposure. (Minimum classification, No information to prove exclusion of certain routes of exposure)

3. COMPOSITION / INFORMATION ON INGREDIENT

Chemical Name	CAS #	EINEC #	% Composition
methanol	67-56-1	200-659-6	98.8
trichlorofluoromethane	75-69-4	200-892-3	0.2
chloroethane	75-00-3	200-830-5	0.2
Vinyl chloride	75-01-4	200-831-0	0.2
methyl bromide	74-83-9	200-813-2	0.2
chloromethane (methyl chloride)	74-87-3	200-817-4	0.2
dichlorodifluoromethane	75-71-8	200-893-9	0.2

4. FIRST-AID MEASURES

Inhalation: Remove to fresh air. If breathing is difficult, have a trained individual administer oxygen. If not breathing, give artificial respiration and have a trained individual administer oxygen. Get medical attention immediately.

Eyes: Flush eyes with plenty of water for at least 20 minutes retracting eyelids often. Tilt the head to prevent chemical from transferring to the uncontaminated eye. Get immediate medical attention. Immediately flush eyes with plenty of water for at least 20 minutes retracting eyelids often. Tilt the head to prevent chemical from transferring to the uncontaminated eye. Get immediate medical attention and monitor the eye daily as advised by your physician.

Skin Contact: Wash with soap and water. Remove contaminated clothing and launder. Get medical attention if irritation develops or persists.

Ingestion: Do not induce vomiting and seek medical attention immediately. Drink two glasses of water or milk to dilute. Provide medical care provider with this SDS. No hazard in normal industrial use. Do not induce vomiting. Seek medical attention if symptoms develop. Provide medical care provider with this SDS.

5. FIRE- FIGHTING MEASURES

Extinguishing Media: Use alcohol resistant foam, carbon dioxide, or dry chemical extinguishing agents. Water may be ineffective but water spray can be used extinguish a fire if swept across the base of the flames. Water can absorb heat and keep exposed material from being damaged by fire. Use alcohol resistant foam, carbon dioxide, or dry chemical extinguishing agents. Water spray or fog may also be effective for extinguishing if swept across the base of the fire. Water can also be used to absorb heat and keep exposed material from being damaged by fire.

Fire and/or Explosion Hazards: Vapors may be ignited by heat, sparks, flames or other sources of ignition at or above the low flash point giving rise to a Class B fire. Vapors are heavier than air and may travel to a source of ignition and flash back

Fire Fighting Methods and Protection: Do not enter fire area without proper protection including self-contained breathing apparatus and full protective equipment. Fight fire from a safe distance and a protected location due to the potential of hazardous vapors and decomposition products. Flammable component(s) of this material may be lighter than water and burn while floating on the surface.

Hazardous Combustion Products: Carbon dioxide, Carbon monoxide

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions and Equipment: Exposure to the spilled material may be severely irritating or toxic. Follow personal protective equipment recommendations found in Section 8 of this SDS. Personal protective equipment needs must be evaluated based on information provided on this sheet and the special circumstances created by the spill including; the material spilled, the quantity of the spill, the area in which the spill occurred, and the expertise of employees in the area responding to the spill. Never exceed any occupational exposure limits.

Methods for Clean-up: Prevent the spread of any spill to minimize harm to human health and the environment if safe to do so. Wear complete and proper personal protective equipment following the recommendation of Section 8 at a minimum. Dike with suitable absorbent material like granulated clay. Gather and store in a sealed container pending a waste disposal evaluation.

7. HANDLING AND STORAGE

Handling Technical Measures and Precautions: Toxic or severely irritating material. Avoid contacting and avoid breathing the material. Use only in a well ventilated area. Use spark-proof tools and explosion-proof equipment

Storage Technical Measures and Conditions: Store in a cool dry ventilated location. Isolate from incompatible materials and conditions. Keep container(s) closed. Keep away from sources of ignition Keep away from heat, sparks, and flame

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

United States:

Chemical Name	CAS No.	IDLH	ACGIH STEL	ACGIH TLV-TWA	OSHA Exposure Limit
methanol	67-56-1	6000 ppm IDLH	250 ppm STEL	200 ppm TWA	200 ppm TWA; 260 mg/m3 TWA
Vinyl chloride	75-01-4	Not established	None Known	(5) ppm TWA; (13) mg/m3 TWA	1 ppm TWA

Personal Protection:

Engineering Measures: Local exhaust ventilation or other engineering controls are normally required when handling or using this product to avoid overexposure.

Respiratory Protection: Respiratory protection may be required to avoid overexposure when handling this product. General or local exhaust ventilation is the preferred means of protection. Use a respirator if general room ventilation is not available or sufficient to eliminate symptoms. Respiratory protection will be required when handling this product. Use respirators only if ventilation cannot be used to eliminate symptoms or reduce the exposure to below acceptable levels. Conduct air monitoring to determine the effectiveness of ventilation. If an exposure limit is exceeded or if an operator is experiencing symptoms of inhalation overexposure as explained in Section 3, provide respiratory protection.

Eye Protection: Wear chemically resistant safety glasses with side shields when handling this product. Do not wear contact lenses.

Skin Protection: Not normally considered a skin hazard. Where use can result in skin contact, practice good personal hygiene. Wash hands and other exposed areas with mild soap and water before eating, drinking, and when leaving work. Wear protective gloves. Inspect gloves for chemical break-through and replace at regular intervals. Clean protective equipment regularly. Wash hands and other exposed areas with mild soap and water before eating, drinking, and when leaving work

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance, color: No data available

Odor: Mild

Physical State:	No data available
pH:	Not applicable
Vapor Pressure:	No data available
Vapor Density:	1.1 (air = 1)
Boiling Point (°C):	-13.8 °C (HSDB) 64.7 °C at 760 mmHg (HSDB)
Melting Point (°C):	-98 °C
Flash Point (°F):	-108
Flammability:	Highly Flammable Extremely Flammable
Upper Flammable/Explosive Limit, % in air:	36
Lower Flammable/Explosive Limit, % in air:	6
Autoignition Temperature (°C):	464 deg C
Decomposition Temperature (°C):	No data available
Specific Gravity:	0.791 - 0.792 g/cm3 at 20 °C
Evaporation Rate:	No data available
Odor Threshold:	No data available
Solubility:	Moderate; 50-99%
Partition Coefficient: n-octanol in water:	No data available
VOC % by weight:	100
Molecular Weight:	32.04

10. STABILITY AND REACTIVITY

Stability:	Stable under normal conditions.
Conditions to Avoid:	None known.High temperatures
Materials to Avoid / Chemical Incompatiability:	Strong oxidizing agents
Hazardous Decomposition Products:	Carbon dioxide Carbon monoxide

11. TOXICOLOGICAL INFORMATION

Routes of Entry:	Inhalation, Skin Contact, Eye Contact, Ingestion
Target Organs Potentially Affected By Exposure:	Eyes, Central nervous system stimulation, Skin, GI Tract, Respiratory Tract
Chemical Interactions That Change Toxicity:	None Known

Immediate (Acute) Health Effects by Route of Exposure:

Inhalation Irritation:	Can cause moderate respiratory irritation, dizziness, weakness, fatigue, nausea and headache.
Inhalation Toxicity:	Harmful! Can cause systemic damage (see "Target Organs)Methanol can cause central nervous system depression and overexposure can cause damage to the optic nerve resulting in visual impairment or blindness.
Skin Contact:	Can cause moderate skin irritation, defatting, and dermatitis. Not likely to cause permanent damage.
Eye Contact:	Can cause moderate irritation, tearing and reddening, but not likely to permanently injure eye tissue.
Ingestion Irritation:	Irritating to mouth, throat, and stomach. Can cause abdominal discomfort, nausea, vomiting and diarrhea.Highly toxic and may be fatal if swallowed.
Ingestion Toxicity:	Toxic if swallowed. May cause target organ failure and/or death.May be fatal if swallowed.

Long-Term (Chronic) Health Effects:

Carcinogenicity:	Contains a probable or known human carcinogen.
Reproductive and Developmental Toxicity:	Contains a known human reproductive and/or developmental hazard.
Inhalation:	Upon prolonged and/or repeated exposure, can cause severe respiratory irritation, dizziness, weakness, fatigue, nausea, headache and possible unconsciousness.Toxic! Can cause systemic damage upon prolonged and/or repeated exposure (see "Target Organs). Harmful! Can cause systemic damage upon prolonged and/or repeated exposure (see "Target Organs)
Skin Contact:	Upon prolonged or repeated contact, can cause minor skin irritation, defatting, and dermatitis. Upon prolonged or repeated contact, can cause moderate skin irritation, defatting, and dermatitis. Not likely to cause permanent damage.
Skin Absorption:	Upon prolonged or repeated exposure, harmful if absorbed through the skin. May cause severe irritation and systemic damage Upon prolonged or repeated

Ingestion:	exposure, no hazard in normal industrial use. Toxic if swallowed. May cause target organ failure and/or death.

Component Toxicological Data:
NIOSH:

Chemical Name	CAS No.	LD50/LC50
Vinyl chloride	75-01-4	Inhalation LC50 Rat : 18 pph/15M; Oral LD50 Rat : 500 mg/kg
Ethylene, chloro-		
Methanol	67-56-1	Inhalation LC50 Rat 22500 ppm 8 h

Component Carcinogenic Data:
OSHA:

Chemical Name	CAS No.	
Vinyl chloride	75-01-4	Present

ACGIH:

Chemical Name	CAS No.	
Vinyl chloride	75-01-4	A1-confirmed human carcinogen

NIOSH:

Chemical Name	CAS No.	
Vinyl chloride	75-01-4	potential occupational carcinogen

NTP:

Chemical Name	CAS No.	
Vinyl chloride	75-01-4	Known Carcinogen

IARC:

Chemical Name	CAS No.	Group No.
Monograph 100F [2012]; Monograph 97 [2008]; Supplement 7 [1987]; Monograph 19 [1979]	75-01-4	Group 1

12. ECOLOGICAL INFORMATION

Overview:	Moderate ecological hazard. This product may be dangerous to plants and/or wildlife.
Mobility:	No data
Persistence:	No data
Bioaccumulation:	No data
Degradability:	Biodegrades slowly.
Ecological Toxicity Data:	No data available

13. DISPOSAL CONSIDERATIONS

Waste Description of Spent Product:	Spent or discarded material is a hazardous waste.Mixing spent or discarded material with other materials may render the mixture hazardous. Perform a hazardous waste determination on mixtures.
Disposal Methods:	Dispose of by incineration following Federal, State, Local, or Provincial regulations.
Waste Disposal of Packaging:	Comply with all Local, State, Federal, and Provincial Environmental Regulations.

14. TRANSPORTATION INFORMATION

United States:

DOT Proper Shipping Name:	Flammable liquids, n.o.s. (Methanol)
UN Number:	UN1993
Hazard Class:	3
Packing Group:	II

International:

IATA Proper Shipping Name:	Flammable liquids, n.o.s. (Methanol)
UN Number:	UN1993
Hazard Class:	3
Packing Group:	II

Marine Pollutant: No

Chemical Name	CAS#	Marine Pollutant	Severe Marine Pollutant
No data available			

15. REGULATORY INFORMATION

United States:

Chemical Name	CAS#	CERCLA	SARA 313	SARA EHS 313	TSCA
methanol	67-56-1	X	X	-	X
Vinyl chloride	75-01-4	X	X	-	X

The following chemicals are listed on CA Prop 65:

Chemical Name	CAS #	Regulation
Chloroethane	75-00-3	Prop 65 Cancer
Vinyl chloride	75-01-4	Prop 65 Cancer
Methyl bromide	74-83-9	Prop 65 Devolop Tox
Methyl chloride	74-87-3	Prop 65 Devolop Tox
Methanol	67-56-1	Prop 65 Devolop Tox
Methyl chloride	74-87-3	Prop 65 Rep Male

State Right To Know Listing:

Chemical Name	CAS#	New Jersey	Massachusetts	Pennsylvania	California
methanol	67-56-1	X	X	X	X
trichlorofluoromethane	75-69-4	X	X	X	X
chloroethane	75-00-3	X	X	X	X
Vinyl chloride	75-01-4	X	X	X	X
methyl bromide	74-83-9	X	X	X	X
chloromethane (methyl chloride)	74-87-3	X	X	X	X
dichlorodifluoromethane	75-71-8	X	X	X	X

16. OTHER INFORMATION

Prior Version Date: 12/05/18

Other Information: Any changes to the SDS compared to previous versions are marked by a vertical line in front of the concerned paragraph.

References: No data available

Disclaimer: Restek Corporation provides the descriptions, data and information contained herein in good faith but makes no representation as to its comprehensiveness or accuracy. It is provided for your guidance only. Because many factors may affect processing or application/use, Restek Corporation recommends you perform an assessment to determine the suitability of a product for your particular purpose prior to use. No warranties of any kind, either expressed or implied, including fitness for a particular purpose, are made regarding products described, data or information set forth. In no case shall the descriptions, information, or data provided be considered a part of our terms and conditions of sale. Further, the descriptions, data and information furnished hereunder are given gratis. No obligation or liability for the description, data and information given are assumed. All such being given and accepted at your risk.

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k\sqrt{U^2_{gravimetric} + U^2_{homogeneity} + U^2_{storage\ stability} + U^2_{shipping\ stability}}$$

k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

RESTEK®
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 30006 **Lot No.:** A0149957

Description : VOA Calibration Mix #1

VOA Calibration Mix #1 5,000µg/mL, P&T Methanol/Water(90:10), 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : September 30, 2022 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	Acetone **CAS #** 67-64-1 (Lot SHBK6362) **Purity** 99%	5,000.1 µg/mL	+/- 29.0710 µg/mL +/- 301.6782 µg/mL +/- 302.3944 µg/mL	Gravimetric Unstressed Stressed
2	2-Butanone (MEK) **CAS #** 78-93-3 (Lot SHBK2537) **Purity** 99%	5,000.2 µg/mL	+/- 29.0716 µg/mL +/- 301.6842 µg/mL +/- 302.4005 µg/mL	Gravimetric Unstressed Stressed
3	4-Methyl-2-pentanone (MIBK) **CAS #** 108-10-1 (Lot SHBK5017) **Purity** 99%	5,000.3 µg/mL	+/- 29.0722 µg/mL +/- 301.6903 µg/mL +/- 302.4065 µg/mL	Gravimetric Unstressed Stressed
4	2-Hexanone **CAS #** 591-78-6 (Lot MKBW0198V) **Purity** 99%	5,000.5 µg/mL	+/- 29.0733 µg/mL +/- 301.7023 µg/mL +/- 302.4186 µg/mL	Gravimetric Unstressed Stressed

Solvent: P&T Methanol/Water (90:10)
CAS # 67-56-1/7732-18-5
Purity 99%

Column:
105m x 0.53mm x 3.0µm
Rtx-502.2 (cat.#10910)

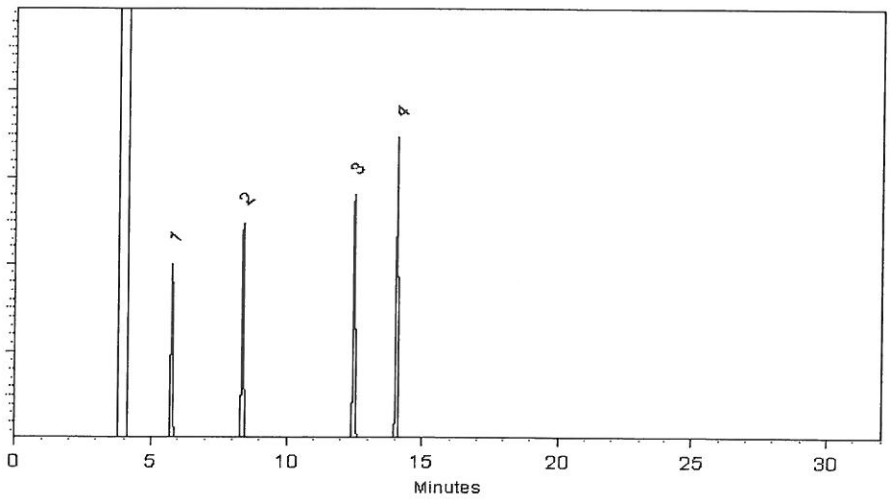
Carrier Gas:
hydrogen-constant pressure 11.0 psi.

Temp. Program:
40°C (hold 2 min.) to 240°C
@ 8°C/min. (hold 5 min.)

Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
FID



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Jessica McClenahan - Operations Technician I

Date Mixed: 10-Jun-2019 **Balance:** B251644995

Jennifer Pollino - Operations Tech-ARM QC

Date Passed: 12-Jun-2019

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k\sqrt{U^2_{gravimetric} + U^2_{homogeneity} + U^2_{storage\ stability} + U^2_{shipping\ stability}}$$

k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

RESTEK

Safety Data Sheet

Revision Date: 06/12/19
www.restek.com

2 Letter ISO country code/language code: US/EN

1. IDENTIFICATION

Catalog Number / Product Name:	**30006 / VOA Calibration Mix #1**
Company:	Restek Corporation
Address:	110 Benner Circle Bellefonte, Pa. 16823
Phone#:	814-353-1300
Fax#:	814-353-1309
Emergency#:	800-424-9300 (CHEMTREC) 703-527-3887 (Outside the US)
Email:	www.restek.com
Revision Number:	14
Intended use:	For Laboratory use only

2. HAZARD(S)IDENTIFICATION

Emergency Overview:

GHS Hazard Symbols:

GHS Classification:
Specific Target Organ Systemic Toxicity (STOT) - Single Exposure Category 1
Flammable Liquid Category 2
Acute Toxicity - Inhalation Dust / Mist Category 3
Acute Toxicity - Dermal Category 3
Acute Toxicity - Oral Category 3

GHS Signal Word:
Danger

GHS Hazard:
Highly flammable liquid and vapour.
Toxic if swallowed, in contact with skin or if inhaled.
Causes damage to organs.

GHS Precautions:

Safety Precautions:
Keep away from heat/sparks/open flames/hot surfaces. – No smoking.
Ground/bond container and receiving equipment.
Use explosion-proof electrical/ventilation and lighting equipment.
Use only non-sparking tools.
Take precautionary measures against static discharge.
Do not breathe dust/fume/gas/mist/vapours/spray.
Wash hands and skin thoroughly after handling.
Do not eat, drink or smoke when using this product.
Use only outdoors or in a well-ventilated area.
Wear protective gloves/protective clothing/eye protection/face protection.

First Aid Measures:
IF SWALLOWED: Immediately call a POISON CENTER/doctor/....
IF ON SKIN: Wash with plenty of soap and water.
IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
Specific treatment see section 4.
Rinse mouth.
Take off immediately all contaminated clothing and wash it before reuse.
In case of fire: Use extinguishing media in section 5 for extinction.

Storage:
Store in a well-ventilated place. Keep container tightly closed.

Store in a well-ventilated place. Keep cool.
Store locked up.

Disposal: Dispose of contents/container according to section 13 of the SDS.

Single Exposure Target Organs: Specific target organ toxicity - Single exposure - STOT SE 1: H370 Causes damage to organs. (C >= 10 %; No information to prove exclusion of certain routes of exposure); Specific target organ toxicity - Single exposure - STOT SE 2: H371 May cause damage to organs. (3 % <= C <10 %; Concentration limits for acute toxicity cannot be translated into GHS from the DSD especially when minimum classifications are given)

Repeated Exposure Target Organs: Specific target organ toxicity - Repeated exposure - STOT RE 1: H372 Causes damage to organs through prolonged or repeated exposure. (No information to prove exclusion of certain routes of exposure)

3. COMPOSITION / INFORMATION ON INGREDIENT

Chemical Name	CAS #	EINEC #	% Composition
methanol	67-56-1	200-659-6	88.2
water	7732-18-5	231-791-2	9.8
Acetone	67-64-1	200-662-2	0.5
4-Methyl-2-pentanone	108-10-1	203-550-1	0.5
Methyl ethyl ketone	78-93-3	201-159-0	0.5
2-hexanone	591-78-6	209-731-1	0.5

4. FIRST-AID MEASURES

Inhalation: Remove to fresh air. If breathing is difficult, have a trained individual administer oxygen. If not breathing, give artificial respiration and have a trained individual administer oxygen. Get medical attention immediately Remove to fresh air.

Eyes: Flush eyes with plenty of water for at least 20 minutes retracting eyelids often. Tilt the head to prevent chemical from transferring to the uncontaminated eye. Get immediate medical attention. None expected to be needed, however, use an eye wash to remove a chemical from your eye regardless of the level of hazard.

Skin Contact: Wash with soap and water. Remove contaminated clothing and launder. Get medical attention if irritation develops or persists.

Ingestion: Do not induce vomiting and seek medical attention immediately. Drink two glasses of water or milk to dilute. Provide medical care provider with this SDS. No hazard in normal industrial use. Do not induce vomiting. Seek medical attention if symptoms develop. Provide medical care provider with this SDS.

5. FIRE- FIGHTING MEASURES

Extinguishing Media: Use alcohol resistant foam, carbon dioxide, or dry chemical extinguishing agents. Water may be ineffective but water spray can be used extinguish a fire if swept across the base of the flames. Water can absorb heat and keep exposed material from being damaged by fire.

Fire and/or Explosion Hazards: Vapors may be ignited by sparks, flames or other sources of ignition if material is above the flash point giving rise to a fire (Class B). Vapors are heavier than air and may travel to a source of ignition and flash back.

Fire Fighting Methods and Protection: Do not enter fire area without proper protection including self-contained breathing apparatus and full protective equipment. Fight fire from a safe distance and a protected location due to the potential of hazardous vapors and decomposition products. Flammable component(s) of this material may be lighter than water and burn while floating on the surface.

Hazardous Combustion Products: None Known, Carbon dioxide, Carbon monoxide

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions and Equipment: Exposure to the spilled material may be severely irritating or toxic. Follow personal protective equipment recommendations found in Section 8 of this SDS. Personal protective equipment needs must be evaluated based on information provided on this sheet and the special circumstances created by the spill including; the material spilled, the quantity of the spill, the area in which the spill occurred, and the expertise of employees in the area responding to the spill. Never exceed any occupational exposure limits.

Methods for Clean-up: Prevent the spread of any spill to minimize harm to human health and the

environment if safe to do so. Wear complete and proper personal protective equipment following the recommendation of Section 8 at a minimum. Dike with suitable absorbent material like granulated clay. Gather and store in a sealed container pending a waste disposal evaluation. Absorb spill with inert material (e.g., dry sand or earth), then place in a chemical waste container

7. HANDLING AND STORAGE

Handling Technical Measures and Precautions: Toxic or severely irritating material. Avoid contacting and avoid breathing the material. Use only in a well ventilated area. Use spark-proof tools and explosion-proof equipment

Storage Technical Measures and Conditions: Store in a cool dry ventilated location. Isolate from incompatible materials and conditions. Keep container(s) closed. Keep away from sources of ignition

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

United States:

Chemical Name	CAS No.	IDLH	ACGIH STEL	ACGIH TLV-TWA	OSHA Exposure Limit
methanol	67-56-1	6000 ppm IDLH	250 ppm STEL	200 ppm TWA	200 ppm TWA; 260 mg/m3 TWA
water	7732-18-5	Not established	None Known	Not established	No data available

Personal Protection:

Engineering Measures: Local exhaust ventilation is recommended when generating excessive levels of vapours from handling or thermal processing.

Respiratory Protection: Respiratory protection may be required to avoid overexposure when handling this product. General or local exhaust ventilation is the preferred means of protection. Use a respirator if general room ventilation is not available or sufficient to eliminate symptoms. No respiratory protection required under normal conditions of use.If an exposure limit is exceeded or if an operator is experiencing symptoms of inhalation overexposure as explained in Section 3, provide respiratory protection.

Eye Protection: Wear chemically resistant safety glasses with side shields when handling this product. Do not wear contact lenses.

Skin Protection: Wear protective gloves. Inspect gloves for chemical break-through and replace at regular intervals. Clean protective equipment regularly. Wash hands and other exposed areas with mild soap and water before eating, drinking, and when leaving work Not normally considered a skin hazard. Where use can result in skin contact, practice good personal hygiene. Wash hands and other exposed areas with mild soap and water before eating, drinking, and when leaving work.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance, color:	No data available
Odor:	Mild
Physical State:	Liquid
pH:	Not applicable
Vapor Pressure:	No data available
Vapor Density:	1.1 (air = 1)
Boiling Point (°C):	100 °C Boiling Point 64.7 °C at 760 mmHg (HSDB)
Melting Point (°C):	-98 °C
Flash Point (°F):	52
Flammability:	Highly Flammable
Upper Flammable/Explosive Limit, % in air:	36
Lower Flammable/Explosive Limit, % in air:	6
Autoignition Temperature (°C):	464 deg C
Decomposition Temperature (°C):	No data available
Specific Gravity:	0.791 - 0.792 g/cm3 at 20 °C
Evaporation Rate:	No data available
Odor Threshold:	No data available
Solubility:	Moderate; 50-99%
Partition Coefficient: n-octanol in water:	No data available
VOC % by weight:	89.7
Molecular Weight:	32.04

10. STABILITY AND REACTIVITY

Stability:	Stable under normal conditions.
Conditions to Avoid:	None known.
Materials to Avoid / Chemical Incompatiability:	None Known
Hazardous Decomposition Products:	Carbon dioxide Carbon monoxide None Known

11. TOXICOLOGICAL INFORMATION

Routes of Entry:	Inhalation, Skin Contact, Eye Contact, Ingestion
Target Organs Potentially Affected By Exposure:	Eyes, Central nervous system stimulation, Skin, GI Tract, Respiratory Tract
Chemical Interactions That Change Toxicity:	None Known

Immediate (Acute) Health Effects by Route of Exposure:

Inhalation Irritation:	Can cause moderate respiratory irritation, dizziness, weakness, fatigue, nausea and headache.
Inhalation Toxicity:	Harmful! Can cause systemic damage (see "Target Organs)Methanol can cause central nervous system depression and overexposure can cause damage to the optic nerve resulting in visual impairment or blindness.
Skin Contact:	Can cause moderate skin irritation, defatting, and dermatitis. Not likely to cause permanent damage.
Eye Contact:	Can cause moderate irritation, tearing and reddening, but not likely to permanently injure eye tissue.
Ingestion Irritation:	Irritating to mouth, throat, and stomach. Can cause abdominal discomfort, nausea, vomiting and diarrhea.Highly toxic and may be fatal if swallowed.
Ingestion Toxicity:	Toxic if swallowed. May cause target organ failure and/or death.May be fatal if swallowed.

Long-Term (Chronic) Health Effects:

Carcinogenicity:	Contains a probable or known human carcinogen.
Reproductive and Developmental Toxicity:	Contains a known human reproductive and/or developmental hazard.
Inhalation:	Upon prolonged and/or repeated exposure, can cause moderate respiratory irritation, dizziness, weakness, fatigue, nausea and headache.Harmful! Can cause systemic damage upon prolonged and/or repeated exposure (see "Target Organs)
Skin Contact:	Upon prolonged or repeated contact, can cause moderate skin irritation, defatting, and dermatitis. Not likely to cause permanent damage.
Ingestion:	Toxic if swallowed. May cause target organ failure and/or death.

Component Toxicological Data:
NIOSH:

Chemical Name	CAS No.	LD50/LC50
Water	7732-18-5	Oral LD50 Rat >90 mL/kg
Methanol	67-56-1	Inhalation LC50 Rat 22500 ppm 8 h

Component Carcinogenic Data:
OSHA:

Chemical Name	CAS No.
No data available	

ACGIH:

Chemical Name	CAS No.
No data available	

NIOSH:

Chemical Name	CAS No.
No data available	

NTP:

Chemical Name	CAS No.
No data available	

IARC:

Chemical Name	CAS No.	Group No.

12. ECOLOGICAL INFORMATION

Overview:	Moderate ecological hazard. This product may be dangerous to plants and/or wildlife.
Mobility:	No data
Persistence:	No data
Bioaccumulation:	No data
Degradability:	Biodegrades slowly.
Ecological Toxicity Data:	No data available

13. DISPOSAL CONSIDERATIONS

Waste Description of Spent Product:	Spent or discarded material is a hazardous waste.Mixing spent or discarded material with other materials may render the mixture hazardous. Perform a hazardous waste determination on mixtures.
Disposal Methods:	Dispose of by incineration following Federal, State, Local, or Provincial regulations. Dispose of by waste water treatment following Federal, State, Local, or Provincial regulations.
Waste Disposal of Packaging:	Comply with all Local, State, Federal, and Provincial Environmental Regulations.

14. TRANSPORTATION INFORMATION

United States:	
DOT Proper Shipping Name:	Flammable liquids, n.o.s. (Methanol, Acetone)
UN Number:	UN1993
Hazard Class:	3
Packing Group:	II
International:	
IATA Proper Shipping Name:	Flammable liquids, n.o.s. (Methanol, Acetone)
UN Number:	UN1993
Hazard Class:	3
Packing Group:	II

Marine Pollutant: No

Chemical Name	CAS#	Marine Pollutant	Severe Marine Pollutant
No data available			

15. REGULATORY INFORMATION

United States:

Chemical Name	CAS#	CERCLA	SARA 313	SARA EHS 313	TSCA
methanol	67-56-1	X	X	-	X
water	7732-18-5	-	-	-	X

The following chemicals are listed on CA Prop 65:

Chemical Name	CAS #	Regulation
Methyl isobutyl ketone	108-10-1	Prop 65 Cancer
Methyl isobutyl ketone	108-10-1	Prop 65 Devolop Tox
Methyl n-butyl ketone	591-78-6	Prop 65 Devolop Tox
Methanol	67-56-1	Prop 65 Devolop Tox
Methyl n-butyl ketone	591-78-6	Prop 65 Rep Male

State Right To Know Listing:

Chemical Name	CAS#	New Jersey	Massachusetts	Pennsylvania	California
methanol	67-56-1	X	X	X	X
water	7732-18-5	-	-	-	-
Acetone	67-64-1	X	X	X	X
4-Methyl-2-pentanone	108-10-1	X	X	X	X

Methyl ethyl ketone	78-93-3	X	X	X	X
2-hexanone	591-78-6	X	X	X	X

16. OTHER INFORMATION

Prior Version Date: 04/11/19

Other Information: Any changes to the SDS compared to previous versions are marked by a vertical line in front of the concerned paragraph.

References: No data available

Disclaimer: Restek Corporation provides the descriptions, data and information contained herein in good faith but makes no representation as to its comprehensiveness or accuracy. It is provided for your guidance only. Because many factors may affect processing or application/use, Restek Corporation recommends you perform an assessment to determine the suitability of a product for your particular purpose prior to use. No warranties of any kind, either expressed or implied, including fitness for a particular purpose, are made regarding products described, data or information set forth. In no case shall the descriptions, information, or data provided be considered a part of our terms and conditions of sale. Further, the descriptions, data and information furnished hereunder are given gratis. No obligation or liability for the description, data and information given are assumed. All such being given and accepted at your risk.

RESTEK®
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 30042 **Lot No.:** A0150712

Description : 502.2 Calibration Mix #1

502.2 Calibration Mix #1 2,000µg/mL, P&T Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : March 31, 2026 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	Dichlorodifluoromethane (CFC-12) **CAS #** 75-71-8 (Lot 00012554) **Purity** 99%	2,001.5 µg/mL	+/- 13.9463 +/- 112.4873 +/- 115.1072	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
2	Chloromethane (methyl chloride) **CAS #** 74-87-3 (Lot SHBK6571) **Purity** 99%	2,001.9 µg/mL	+/- 13.1161 +/- 112.4067 +/- 115.0294	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
3	Vinyl chloride **CAS #** 75-01-4 (Lot 00015559) **Purity** 99%	2,003.0 µg/mL	+/- 13.7542 +/- 112.5439 +/- 115.1662	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
4	Bromomethane (methyl bromide) **CAS #** 74-83-9 (Lot 101604) **Purity** 99%	2,000.4 µg/mL	+/- 15.3501 +/- 112.6047 +/- 115.2189	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
5	Chloroethane (ethyl chloride) **CAS #** 75-00-3 (Lot 107-401039114-1) **Purity** 99%	2,000.6 µg/mL	+/- 15.3809 +/- 112.6239 +/- 115.2383	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
6	Trichlorofluoromethane (CFC-11) **CAS #** 75-69-4 (Lot 8703900) **Purity** 99%	2,000.0 µg/mL	+/- 11.6282 +/- 112.1380 +/- 114.7619	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

Column:
60m x 0.25mm x 1.4µm
Rtx-502.2 (cat.#10916)

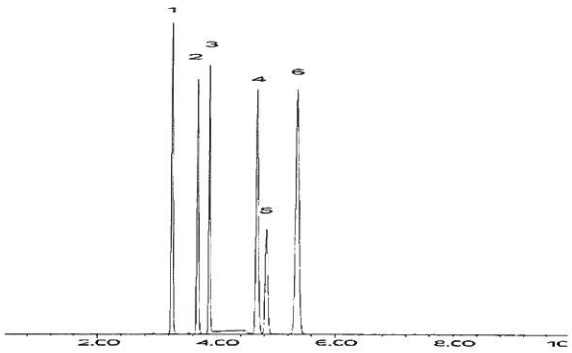
Carrier Gas:
helium-constant flow 2.0 mL/min.

Temp. Program:
40°C (hold 6 min.) to 100°C
@ 6°C/min.

Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
MSD



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Joseph Jagiowski - Mix Technician **Date Mixed:** 10-Jul-2019 **Balance:** B707717271

Jennifer Pollino - Operations Tech-ARM QC **Date Passed:** 16-Jul-2019

Manufactured under Restek's ISO 9001:2015
Registered Quality System
Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k\sqrt{U^2_{gravimetric} + U^2_{homogeneity} + U^2_{storage\ stability} + U^2_{shipping\ stability}}$$

k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

RESTEK®

110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Composition

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 555408-FL **Lot No.:** A0150346

Description : Custom Vinyl Acetate Standard

Custom Vinyl Acetate Standard 8,000µg/mL, P&T Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : December 31, 2019 **Storage:** 0°C or colder

Handling: This product is photosensitive.

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	Vinyl acetate **CAS #** 108-05-4 **Purity** 99% (Lot STBD7333V)	8,030.0 µg/mL	+/- 47.1245 µg/mL +/- 484.5278 µg/mL +/- 485.6780 µg/mL		Gravimetric Unstressed Stressed

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

Tech Tips:

Vinyl acetate is a volatile organic ester included in the target lists of several US EPA and other methods . Under acidic conditions, esters react with alcohols to form new esters (transesterification). Methanol-based mixes containing halogenated compounds are slightly acidic, so it is important to minimize exposure of vinyl acetate to mixes of halogenated compounds in methanol. For this reason, we offer vinyl acetate in individual solution, and suggest that it be introduced into the working level calibration solution immediately before use. This will minimize problems and ensure more consistent results.

Column:
105m x 0.53mm x 3.0µm
Rtx-502.2 (cat.#10910)

Carrier Gas:
hydrogen-constant pressure 11.0 psi.

Temp. Program:
40°C (hold 2 min.) to 240°C
@ 8°C/min. (hold 5 min.)

Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
FID

This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Tom Suckat - Mix Technician Date Mixed: 25-Jun-2019 Balance: B707717271

Jennifer Pollino - Operations Tech-ARM QC Date Passed: 03-Jul-2019

Manufactured under Restek's ISO 9001:2015
Registered Quality System
Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k\sqrt{U^2_{gravimetric} + U^2_{homogeneity} + U^2_{storage\ stability} + U^2_{shipping\ stability}}$$

k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

SHIPPING DOCUMENTS

CHEMTECH
CHAIN OF CUSTODY RECORD

284 Sheffield Street, Mountainside, NJ 07092
(908) 789-8900 Fax (908) 789-8922
www.chemtech.net

CHEMTECH PROJECT NO.
QUOTE NO. K6405
COC Number 039353

CLIENT INFORMATION
REPORT TO BE SENT TO:
COMPANY: Day Environmental, Inc.
ADDRESS: 1563 Lyell Avenue
CITY: Rochester STATE: NY ZIP: 14606
ATTENTION: Jeff Danzinger
PHONE: 585-454-0210 FAX: 585-454-0825

CLIENT PROJECT INFORMATION
PROJECT NAME: Andrews St. Site
PROJECT NO.: 5334$-17 LOCATION: Rochester, NY
PROJECT MANAGER: Jeff Danzinger
e-mail: jdanzinger@daymail.net
PHONE: 585-454-0210 FAX: 585-454-0825

CLIENT BILLING INFORMATION
BILL TO: Day Environmental, Inc. PO#: 5334$-17
ADDRESS: 1563 Lyell Avenue
CITY: Rochester STATE: NY ZIP: 14606
ATTENTION: Jeff Danzinger PHONE: 585-454-0210

DATA TURNAROUND INFORMATION
FAX: 5 DAYS *
HARD COPY: DAYS *
EDD: 15 DAYS *
PREAPPROVED TAT: [X] YES [ ] NO
* STANDARD TURNAROUND TIME IS 10 BUSINESS DAYS

DATA DELIVERABLE INFORMATION
[ ] LEVEL 1: Results only [ ] Others
[ ] LEVEL 2: Results + QC → NYSDEC ASP Cat B
[ ] LEVEL 3: ~~Results~~ (plus results raw data) + QC
[X] LEVEL 4: Results + QC (all raw data)
[X] EDD Format: NYSDEC Equis Excel

ANALYSIS
1 TCL VOCs + TICs 8260
2 3 4 5 6 7 8 9

CHEMTECH SAMPLE ID	PROJECT SAMPLE IDENTIFICATION	SAMPLE MATRIX	SAMPLE TYPE COMP	SAMPLE TYPE GRAB	SAMPLE COLLECTION DATE	SAMPLE COLLECTION TIME	# OF BOTTLES	A/E 1	2	3	4	5	6	7	8	9	COMMENTS
1.	991-MW-01(23)	GW		X	12/20/19	1355	2	X									
2.	992-MW-02(23.8)	GW		X		1345	2	X									
3.	993-MW-03A(17)	GW		X		1348	2	X									
4.	994-MW-05(17)	GW		X		1400	2	X									
5.	995-MW-11(15)	GW		X		1310	2	X									
6.	996-MW-15(17)	GW		X		1329	5	X									Also do MS/MSD
7.	997-MW-16(22.5)	GW		X		1414	5	X									
8.	998-MW-17A(15.5)	GW		X		1421	2	X									
9.	999-MW-18(21.5)	GW		X		1426	2	X									
10.	1000-MW-19(28)	GW		X		1430	2	X									

PRESERVATIVES
COMMENTS ← Specify Preservatives
A-HCl B-HNO_3 C-H_2SO_4 D-NaOH E-ICE F-Other

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION INCLUDING COURIER DELIVERY

RELINQUISHED BY SAMPLER:	DATE/TIME:	RECEIVED BY:
1.	12/20/19 1600	1. FED-EX
RELINQUISHED BY:	DATE/TIME:	RECEIVED BY:
2. FED-EX	12/21/19	2.
RELINQUISHED BY:	DATE/TIME: 10:45	RECEIVED FOR LAB BY:
3.		3.

Conditions of bottles or coolers at receipt: [ ] Compliant [ ] Non Compliant
MeOH extraction requires an additional 4 oz jar for percent solid.
Comments:
Cooler Temp. 2-3°
Ice in Cooler?: Yes

Page 1 of 2

SHIPPED VIA: CLIENT: [ ] HAND DELIVERED [ ] OVERNIGHT CHEMTECH: [ ] PICKED UP [ ] OVERNIGHT
Shipment Complete: [ ] YES [ ] NO

Revision 8/2007
WHITE - CHEMTECH COPY FOR RETURN TO CLIENT YELLOW - CHEMTECH COPY PINK - SAMPLER COPY

CHEMTECH
CHAIN OF CUSTODY RECORD

284 Sheffield Street, Mountainside, NJ 07092
(908) 789-8900 Fax (908) 789-8922
www.chemtech.net

Chemtech Project Number: K6405

COC Number: 2027381

CLIENT INFORMATION

Report to be sent to:

COMPANY: Day Environmental, Inc.
ADDRESS: 1563 Lyell Avenue
CITY: Rochester STATE: NY ZIP: 14606
ATTENTION: Jeff Danzinger
PHONE: 585-454-0210 FAX: 585-454-0825

PROJECT INFORMATION

PROJECT NAME: Andrews St. Site
PROJECT #: 5334 $-17 LOCATION: Rochester, NY
PROJECT MANAGER: Jeff Danzinger
E-MAIL: jdanzinger@daymail.net
PHONE: 585-454-0210 FAX: 585-454-0825

BILLING INFORMATION

BILL TO: Day Environmental, Inc. PO# 5334 $-17
ADDRESS: 1563 Lyell Avenue
CITY: Rochester STATE: NY ZIP: 14606
ATTENTION: Jeff Danzinger
PHONE: 585-454-0210

DATA TURNAROUND INFORMATION

FAX (RUSH) 5 DAYS*
HARDCOPY (DATA PACKAGE): DAYS*
EDD: 15 DAYS*
*TO BE APPROVED BY CHEMTECH
STANDARD HARDCOPY TURNAROUND TIME IS 10 BUSINESS DAYS

DATA DELIVERABLE INFORMATION

☐ Level 1 (Results Only)
☐ Level 2 (Results + QC)
☐ Level 3 (Results + QC + Raw Data)
☒ EDD FORMAT NYSDEC Equis Excel
☐ Level 4 (QC + Full Raw Data)
☐ NJ Reduced ☐ US EPA CLP
☐ NYS ASP A ☒ NYS ASP B
☐ Other

ANALYSIS

1 TCL VOCs + TICs Rated
2 3 4 5 6 7 8 9

CHEMTECH SAMPLE ID	PROJECT SAMPLE IDENTIFICATION	SAMPLE MATRIX	SAMPLE TYPE COMP	SAMPLE TYPE GRAB	SAMPLE COLLECTION DATE	SAMPLE COLLECTION TIME	# of Bottles	A/E 1	2	3	4	5	6	7	8	9	COMMENTS
1.	1001-FB122019	AQ		X	12/20/19	13:23	2	X									
2.	1002-TB122019	AQ		X	12/20/19	—	2	X									
3.																	
4.																	
5.																	
6.																	
7.																	
8.																	
9.																	
10.																	

PRESERVATIVES

<—Specify Preservatives
A-HCl D-NaOH
B-HNO3 E-ICE
C-H2SO4 F-OTHER

12-20-2019

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE PROSSESSION INCLUDING COURIER DELIVERY

RELINQUISHED BY SAMPLER	DATE/TIME	RECEIVED BY
1.	12-20-19 1650	1. FED-EX
RELINQUISHED BY	DATE/TIME	RECEIVED BY
2. FED-EX	12/21/19	2.
RELINQUISHED BY	DATE/TIME 10:45	RECEIVED FOR LAB BY
3.		3.

Conditions of bottles or coolers at receipt: ☐ COMPLIANT ☐ NON COMPLIANT ☐ COOLER TEMP 2.3 °C

Comments:

Page 2 of 2

CLIENT: ☐ Hand Delivered ☐ Other:
CHEMTECH: ☐ Picked Up

Shipment Complete ☐ YES ☐ NO

10/2018

WHITE - CHEMTECH COPY FOR RETURN TO CLIENT YELLOW - CHEMTECH COPY PINK - SAMPLER COPY

FedEx
TRK# 0221 1007 2560 5346
SATURDAY 12:00P
PRIORITY OVERNIGHT
XO KBCA
07092
NJ-US EWR
Part #156297-435 RRDW2 EXP 10/20
#5186830 12/20 567J2/18DD/05A2
K6405
12/21/19
10:45
2.3°C

Laboratory Certification

Certified By	License No.
CAS EPA CLP Contract	EP-W-14-030
Connecticut	PH-0649
DOD ELAP (L-A-B)	L2219
Florida	E87935
Maine	2012025
Maryland	296
New Hampshire	255413
New Jersey	20012
New York	11376
Pennsylvania	68-00548
Soil Permit	P330-13-00380
Texas	T104704488-13-5

CHEMTECH

LOGIN REPORT/SAMPLE TRANSFER

Order ID :	K6405 DAYE01	**Order Date :**	12/23/2019 8:22:00 AM	**Project Mgr :**	Tyler
Client Name :	Day Environmental, Inc.	**Project Name :**	Andrew St. RI	**Report Type :**	NYS ASP B
Client Contact :	Jeff Danzinger	**Receive DateTime :**	12/21/2019 10:45:00 AM	**EDD Type :**	Equis_EQNYDEC/Excel
Invoice Name :	Day Environmental, Inc.	**Purchase Order :**		**Hard Copy Date :**	
Invoice Contact :	Jeff Danzinger			**Date Signoff :**	12/23/2019 11:18:57 AM

LAB ID	CLIENT ID	MATRIX	SAMPLE DATE	SAMPLE TIME	TEST	TEST GROUP	METHOD		FAX DATE	DUE DATES
K6405-01	991-MW-01-(23)	Water	12/20/2019	13:55						
					VOC-TCLVOA-10		8260-Low	5 Bus. Days		
K6405-02	992-MW-02-(23.8)	Water	12/20/2019	13:45						
					VOC-TCLVOA-10		8260-Low	5 Bus. Days		
K6405-03	993-MW-03A-(17)	Water	12/20/2019	13:48						
					VOC-TCLVOA-10		8260-Low	5 Bus. Days		
K6405-04	994-MW-05-(17)	Water	12/20/2019	14:00						
					VOC-TCLVOA-10		8260-Low	5 Bus. Days		
K6405-05	995-MW-11-(15)	Water	12/20/2019	13:10						
					VOC-TCLVOA-10		8260-Low	5 Bus. Days		
K6405-06	996-MW-15-(17)	Water	12/20/2019	13:29						
					VOC-TCLVOA-10		8260-Low	5 Bus. Days		
K6405-07	K6405-06MS	Water	12/20/2019	13:29						
					VOC-TCLVOA-10		8260-Low	5 Bus. Days		
K6405-08	K6405-06MSD	Water	12/20/2019	13:29						
					VOC-TCLVOA-10		8260-Low	5 Bus. Days		
K6405-09	997-MW-16-(22.5)	Water	12/20/2019	14:14						

CHEMTECH

LOGIN REPORT/SAMPLE TRANSFER

Order ID :	K6405 DAYE01	**Order Date :**	12/23/2019 8:22:00 AM	**Project Mgr :**	Tyler
Client Name :	Day Environmental, Inc.	**Project Name :**	Andrew St. RI	**Report Type :**	NYS ASP B
Client Contact :	Jeff Danzinger	**Receive DateTime :**	12/21/2019 10:45:00 AM	**EDD Type :**	Equis_EQNYDEC/Excel
Invoice Name :	Day Environmental, Inc.	**Purchase Order :**		**Hard Copy Date :**	
Invoice Contact :	Jeff Danzinger			**Date Signoff :**	12/23/2019 11:18:57 AM

LAB ID	CLIENT ID	MATRIX	SAMPLE DATE	SAMPLE TIME	TEST	TEST GROUP	METHOD		FAX DATE	DUE DATES
					VOC-TCLVOA-10		8260-Low	5 Bus. Days		
K6405-10	998-MW-17A-(15.5)	Water	12/20/2019	14:21						
					VOC-TCLVOA-10		8260-Low	5 Bus. Days		
K6405-11	999-MW-18-(21.5)	Water	12/20/2019	14:26						
					VOC-TCLVOA-10		8260-Low	5 Bus. Days		
K6405-12	1000-MW-19-(28)	Water	12/20/2019	14:30						
					VOC-TCLVOA-10		8260-Low	5 Bus. Days		
K6405-13	1001-FB122019	Water	12/20/2019	13:23						
					VOC-TCLVOA-10		8260-Low	5 Bus. Days		
K6405-14	1002-TB122019	Water	12/20/2019	00:00						
					VOC-TCLVOA-10		8260-Low	5 Bus. Days		

Relinguished By : CL

Date / Time : 12-23-19 11:30

Received By :

Date / Time : 12-23-19 11:30

Storage Area : VOA Refridgerator Room

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

DATA PACKAGE

VOLATILE ORGANICS

PROJECT NAME : ANDREW ST. RI

DAY ENVIRONMENTAL, INC.

Canalside Business Center, 1563 Lyell Avenue

Rochester, NY - 14606

Phone No: 585-454-0210

ORDER ID : L3232

ATTENTION : Jeff Danzinger

CHEMTECH

Table Of Contents for L3232

1) VOLATILES DATA 2

2) Signature Page 4

3) Case Narrative 5

4) Qualifier Page 7

5) Conformance/Non Conformance 8

6) QA Checklist 10

7) Chronicle 11

8) Hit Summary 13

9) QC Data Summary For VOC-TCLVOA-10 17

- 9.1) Deuterated Monitoring Compound Summary 18
- 9.2) MS/MSD Summary 20
- 9.3) LCS/LCSD Summary 24
- 9.4) Method Blank Summary 28
- 9.5) GS/MS Tune Summary 30
- 9.6) Internal Standard Area and RT Summary 33

10) Sample Data 37

- 10.1) 1003-MW-01 38
- 10.2) 1003-MW-01DL 54
- 10.3) 1004-MW-02 65
- 10.4) 1005-MW-03A 82
- 10.5) 1005-MW-03ADL 98
- 10.6) 1006-MW-05 109
- 10.7) 1007-MW-11 124
- 10.8) 1007-MW-11DL 140
- 10.9) 1008-MW-15 151
- 10.10) 1009-MW-16 166
- 10.11) 1010-MW-17A 182
- 10.12) 1011-MW-18 203
- 10.13) 1012-MW-19 218
- 10.14) 1013-FB070620 235
- 10.15) 1014-TB070620 249

11) Calibration Data Summary 262

- 11.1) Initial Calibration Data 263
  - 11.1.1) VX062920 263
- 11.2) Continued Calibration Data 638

Table Of Contents for L3232

11.2.1) VX017219.D 638

11.2.2) VX017244.D 698

12) QC Sample Data 758

12.1) Tune Raw Data 759

12.2) Method Blank Data 762

12.3) LCS Data 788

12.4) MS Data 898

12.5) MSD Data 953

13) Manual Integration 1008

14) Analytical Runlogs 1011

15) Standard Prep Logs 1025

15.1) 16)Miscellaneous Data 1195

16) Shipping Document 1206

16.1) Chain Of Custody 1207

16.2) Air Bill 1209

16.3) Lab Certificate 1210

16.4) Internal COC 1211

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Cover Page

Order ID : L3232

Project ID : Andrew St. RI

Client : Day Environmental, Inc.

Lab Sample Number	Client Sample Number
L3232-01	1003-MW-01
L3232-02	1004-MW-02
L3232-03	1004-MW-02MS
L3232-04	1004-MW-02MSD
L3232-05	1005-MW-03A
L3232-06	1006-MW-05
L3232-07	1007-MW-11
L3232-08	1008-MW-15
L3232-09	1009-MW-16
L3232-10	1010-MW-17A
L3232-11	1011-MW-18
L3232-12	1012-MW-19
L3232-13	1013-FB070620
L3232-14	1014-TB070620

I certify that the data package is in compliance with the terms and conditions of the contract,both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hard copy data package has been authorized by the laboratory manager or his designee, as verified by the following signature.

Signature : REVIEWED By Aparana Soni at 1:25 pm, Jul 21, 2020

Date: 7/20/2020

NYDOH CERTIFICATION NO - 11376

NJDEP CERTIFICATION NO - 20012

CHEMTECH
284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

CASE NARRATIVE

Day Environmental, Inc.
Project Name: Andrew St. RI
Project # N/A
Chemtech Project # L3232
Test Name: VOC-TCLVOA-10

A. Number of Samples and Date of Receipt:
14 Water samples were received on 07/07/2020.

B. Parameters
According to the Chain of Custody document, the following analyses were requested: VOC-TCLVOA-10. This data package contains results for VOC-TCLVOA-10.

C. Analytical Techniques:
The analysis performed on instrument MSVOA_X were done using GC column DB-624UI 20m 0.18mm 1.0 um. Cat#121-1324UIThe analysis of VOC-TCLVOA-10 was based on method 8260-Low.

D. QA/ QC Samples:
The Holding Times were met for all analysis.
The Surrogate recoveries met the acceptable criteria.
The Internal Standards Areas met the acceptable requirements.
The Retention Times were acceptable for all samples.
The MS recoveries met the requirements for all compounds .

The MSD {L3232-04MSD} with File ID: VX017241.D recoveries met the acceptable requirements except for Tetrachloroethene[140%] .

The RPD for {L3232-04MSD} with File ID: VX017241.D met criteria except for Tetrachloroethene[33%] .

The Blank Spike met requirements for all samples .

The Blank analysis did not indicate the presence of lab contamination.

The % RSD is greater than 15% in the Initial calibration method (82X062920W.M) for Carbon Disulfide,Methylene Chloride,Trichloroethene,1,4-Dichlorobenzene are passing on Linear Regression and Bromomethane passing for NONDOD.

The Continuous Calibration File ID VX017219.D met the requirements except for Bromoform failing high but no positive hit in any associates samples therefore no corrective action required.

The Continuous Calibration File ID VX017244.D met the requirements except for Chloromethane failing marginally low therefore no corrective action required.

The Tuning criteria met requirements.

Samples 1003-MW-01, 1005-MW-03A and 1007-MW-11 were diluted due to high concentrations.

E. Additional Comments:

Sample # 1013-FB070620 has FB sample in which acetone has hit above CRQL which is confirmed by running this samples previously and that run is reported as screening data in miscellaneous data.

Please use %D calculated based on Avg RF and CCRF for all compounds using Average Response Factor when the %RSD value for a compound is <15% for the Initial Calibration curve and use %D calculated based on Amount added and Calculated amount for all compounds using Linear Regression when the %RSD value for a compound is > 15% for the Initial Calibration curve for SW-846 analysis.

F. Manual Integration Comments:
Please refer to the Manual integration Report included with the Run Logs for information on the manual integrations performed.

I certify that the data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. The laboratory manager or his designee, as verified by the following signature has authorized release of the data contained in this hard copy data package.

Signature: ***REVIEWED***
By Aparana Soni at 1:25 pm, Jul 21, 2020

DATA REPORTING QUALIFIERS- ORGANIC

For reporting results, the following " Results Qualifiers" are used:

Value	If the result is a value greater than or equal to the detection limit, report the value
U	Indicates the compound was analyzed for but was not detected. Report the minimum detection limit for the sample with the U, i.e. "10 U". This is not necessarily the instrument detection limit attainable for this particular sample based on any concentration or dilution that may have been required.
ND	Indicates the analyte was analyzed for, but not detected
J	Indicates an estimated value. This flag is used: (1) When estimating a concentration for a tentatively identified compound (library search hits, where a 1:1 response is assumed.) (2) When the mass spectral data indicated the identification, however the result was less than the specified detection limit greater than zero. If the detection limit was 10ug/L and a concentration of 3 ug/L was calculated report as 3 J. This is flag is used when similar situation arise on any organic parameter i.e. Pest, PCB and others.
B	Indicates the analyte was found in the blank as well as the sample report as "12 B".
E	Indicates the analyte 's concentration exceeds the calibrated range of the instrument for that specific analysis.
D	This flag identifies all compounds identified in an analysis at a secondary dilution factor.
P	This flag is used for Pesticide/PCB target analyte when there is >25% difference for detected concentrations between the two GC columns. The lower of the two values is reported on Form 1 and flagged with a "P".
N	This flag indicates presumptive evidence of a compound. This is only used for tentatively identified compounds (TICs), where the identification is based on a mass spectral library search. It applies to all TIC results. For generic characterization of a TIC, such as chlorinated hydrocarbon, the flag is not used.
A	This flag indicates that a Tentatively Identified Compound is a suspected aldol-condensation product.
Q	Indicates the LCS did not meet the control limits requirements

CHEMTECH
284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

GC/MS VOA CONFORMANCE/NON-CONFORMANCE SUMMARY

CHEMTECH PROJECT NUMBER: L3232 MATRIX: Water

METHOD: 8260-Low

		NA	NO	YES
1.	Chromatograms Labeled/Compounds Identified. (Field samples and Method Blanks)			✓
2.	GC/MS Tuning Specifications BFB Meet Criteria (NOTE THAT THERE ARE DIFFERENT CRITERIA FOR NY ASP CLP, CLP AND NJ)			✓
3.	GC/MS Tuning Frequency - Performed every 24 hours for 600 series and 12 hours for 8000 Series.			✓
4.	GC/MS Calibration - Initial Calibration performed before sample analysis and continuing calibration performed within 24 hours of sample analysis for 600 series and 12 hours for 8000 series.			✓
5.	GC/MS Calibration Requirements. The % RSD is greater than 15% in the Initial calibration method (82X062920W.M) for Carbon Disulfide,Methylene Chloride,Trichloroethene,1,4-Dichlorobenzene are passing on Linear Regression and Bromomethane passing for NONDOD. The Continuous Calibration File ID VX017219.D met the requirements except for Bromoform failing high but no positive hit in any associates samples therefore no corrective action required. The Continuous Calibration File ID VX017244.D met the requirements except for Chloromethane failing marginally low therefore no corrective action required.			✓
6.	Blank Contamination - If yes, list compounds and concentrations in each blank:		✓	
7.	Surrogate Recoveries Meet Criteria If not met, list those compounds and their recoveries which fall outside the acceptable ranges.			✓

CHEMTECH
284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

GC/MS VOA CONFORMANCE/NON-CONFORMANCE SUMMARY (CONTINUED)

		NA	NO	YES
8.	Matrix Spike/Matrix Spike Duplicate Recoveries Meet Criteria		✓	
	If not met, list those compounds and their recoveries which fall outside the acceptable range. The MSD {L3232-04MSD} with File ID: VX017241.D recoveries met the acceptable requirements except for Tetrachloroethene[140%] . The RPD for {L3232-04MSD} with File ID: VX017241.D met criteria except for Tetrachloroethene[33%] .			
9.	Internal Standard Area/Retention Time Shift Meet Criteria			✓
	Comments:			
10.	Analysis Holding Time Met			✓
	If not met, list number of days exceeded for each sample:			

ADDITIONAL COMMENTS:

Samples 1003-MW-01, 1005-MW-03A and 1007-MW-11 were diluted due to high concentrations.

Please use %D calculated based on Avg RF and CCRF for all compounds using Average Response Factor when the %RSD value for a compound is <15% for the Initial Calibration curve and use %D calculated based on Amount added and Calculated amount for all compounds using Linear Regression when the %RSD value for a compound is > 15% for the Initial Calibration curve for SW-846 analysis.

QA REVIEW

REVIEWED
By Aparana Soni at 1:25 pm, Jul 21, 2020

Date

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

APPENDIX A

QA REVIEW GENERAL DOCUMENTATION

Project #: L3232

	Completed
For thorough review, the report must have the following:	
GENERAL:	
Are all original paperwork present (chain of custody, record of communication,airbill, sample management lab chronicle, login page)	✓
Check chain-of-custody for proper relinquish/return of samples	✓
Is the chain of custody signed and complete	✓
Check internal chain-of-custody for proper relinquish/return of samples /sample extracts	✓
Collect information for each project id from server. Were all requirements followed	✓
COVER PAGE:	
Do numbers of samples correspond to the number of samples in the Chain of Custody on login page	✓
Do lab numbers and client Ids on cover page agree with the Chain of Custody	✓
CHAIN OF CUSTODY:	
Do requested analyses on Chain of Custody agree with form I results	✓
Do requested analyses on Chain of Custody agree with the log-in page	✓
Were the correct method log-in for analysis according to the Analytical Request and Chain of Castody	✓
Were the samples received within hold time	✓
Were any problems found with the samples at arrival recorded in the Sample Management Laboratory Chronicle	✓
ANALYTICAL:	
Was method requirement followed?	✓
Was client requirement followed?	✓
Does the case narrative summarize all QC failure?	✓
All runlogs and manual integration are reviewed for requirements	✓
All manual calculations and /or hand notations verified	✓

1st Level QA Review Signature: APARNA SONI **Date:** 07/21/2020

2nd Level QA Review Signature: _____ **Date:** _____

CHEMTECH

284 Sheffield Street, Mountainside, New Jersey - 07092

Phone: (908) 789 8900 Fax: (908) 789 8922

LAB CHRONICLE

OrderID:	L3232	**OrderDate:**	7/7/2020 10:19:00 AM
Client:	Day Environmental, Inc.	**Project:**	Andrew St. RI
Contact:	Jeff Danzinger	**Location:**	VOA Ref. #3 Water

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
L3232-01	**1003-MW-01**	**Water**			**07/06/20**			**07/07/20**
			VOC-TCLVOA-10	8260-Low			07/08/20	
L3232-01DL	**1003-MW-01DL**	**Water**			**07/06/20**			**07/07/20**
			VOC-TCLVOA-10	8260-Low			07/08/20	
L3232-02	**1004-MW-02**	**Water**			**07/06/20**			**07/07/20**
			VOC-TCLVOA-10	8260-Low			07/08/20	
L3232-05	**1005-MW-03A**	**Water**			**07/06/20**			**07/07/20**
			VOC-TCLVOA-10	8260-Low			07/08/20	
L3232-05DL	**1005-MW-03ADL**	**Water**			**07/06/20**			**07/07/20**
			VOC-TCLVOA-10	8260-Low			07/08/20	
L3232-06	**1006-MW-05**	**Water**			**07/06/20**			**07/07/20**
			VOC-TCLVOA-10	8260-Low			07/08/20	
L3232-07	**1007-MW-11**	**Water**			**07/06/20**			**07/07/20**
			VOC-TCLVOA-10	8260-Low			07/08/20	
L3232-07DL	**1007-MW-11DL**	**Water**			**07/06/20**			**07/07/20**
			VOC-TCLVOA-10	8260-Low			07/08/20	
L3232-08	**1008-MW-15**	**Water**			**07/06/20**			**07/07/20**
			VOC-TCLVOA-10	8260-Low			07/08/20	
L3232-09	**1009-MW-16**	**Water**			**07/06/20**			**07/07/20**
			VOC-TCLVOA-10	8260-Low			07/08/20	
L3232-10	**1010-MW-17A**	**Water**			**07/06/20**			**07/07/20**
			VOC-TCLVOA-10	8260-Low			07/08/20	
L3232-11	**1011-MW-18**	**Water**			**07/06/20**			**07/07/20**
			VOC-TCLVOA-10	8260-Low			07/08/20	

CHEMTECH

284 Sheffield Street, Mountainside, New Jersey - 07092

Phone: (908) 789 8900 Fax: (908) 789 8922

LAB CHRONICLE

L3232-12	**1012-MW-19**	**Water**			**07/06/20**		**07/07/20**
			VOC-TCLVOA-10	8260-Low		07/08/20	
L3232-13	**1013-FB070620**	**Water**			**07/06/20**		**07/07/20**
			VOC-TCLVOA-10	8260-Low		07/08/20	
L3232-14	**1014-TB070620**	**Water**			**07/06/20**		**07/07/20**
			VOC-TCLVOA-10	8260-Low		07/08/20	

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Hit Summary Sheet
SW-846

SDG No.: L3232

Client: Day Environmental, Inc.

Sample ID	Client ID	Matrix	Parameter		Concentration	C	MDL	RDL	Units
Client ID:	**1003-MW-01**								
L3232-01	1003-MW-01	Water	Vinyl Chloride		3.60		0.16	1.00	ug/L
L3232-01	1003-MW-01	Water	Acetone		10.60		0.90	5.00	ug/L
L3232-01	1003-MW-01	Water	trans-1,2-Dichloroethene		2.60		0.24	1.00	ug/L
L3232-01	1003-MW-01	Water	cis-1,2-Dichloroethene		96.60		0.30	1.00	ug/L
L3232-01	1003-MW-01	Water	Trichloroethene		100.00		0.27	1.00	ug/L
L3232-01	1003-MW-01	Water	Tetrachloroethene		340.00	E	0.15	1.00	ug/L
			Total Voc :		553.4				
			Total Concentration:		553.4				
Client ID:	**1003-MW-01DL**								
L3232-01DL	1003-MW-01DL	Water	cis-1,2-Dichloroethene		93.90	D	3.00	10.0	ug/L
L3232-01DL	1003-MW-01DL	Water	Trichloroethene		91.30	D	2.70	10.0	ug/L
L3232-01DL	1003-MW-01DL	Water	Tetrachloroethene		300.00	D	1.50	10.0	ug/L
			Total Voc :		485.2				
			Total Concentration:		485.2				
Client ID:	**1004-MW-02**								
L3232-02	1004-MW-02	Water	Vinyl Chloride		3.10		0.16	1.00	ug/L
L3232-02	1004-MW-02	Water	1,1-Dichloroethene		0.48	J	0.18	1.00	ug/L
L3232-02	1004-MW-02	Water	Acetone		10.20		0.90	5.00	ug/L
L3232-02	1004-MW-02	Water	trans-1,2-Dichloroethene		1.70		0.24	1.00	ug/L
L3232-02	1004-MW-02	Water	cis-1,2-Dichloroethene		54.20		0.30	1.00	ug/L
L3232-02	1004-MW-02	Water	Trichloroethene		63.90		0.27	1.00	ug/L
L3232-02	1004-MW-02	Water	Tetrachloroethene		130.00		0.15	1.00	ug/L
			Total Voc :		263.58				
L3232-02	1004-MW-02	Water	Isobutane	*	5.60	J	0	0	ug/L
			Total Tics :		5.6				
			Total Concentration:		269.18				
Client ID:	**1005-MW-03A**								
L3232-05	1005-MW-03A	Water	Acetone		11.70		0.90	5.00	ug/L
L3232-05	1005-MW-03A	Water	trans-1,2-Dichloroethene		8.20		0.24	1.00	ug/L
L3232-05	1005-MW-03A	Water	cis-1,2-Dichloroethene		140.00		0.30	1.00	ug/L
L3232-05	1005-MW-03A	Water	Benzene		0.84	J	0.10	1.00	ug/L
L3232-05	1005-MW-03A	Water	Trichloroethene		120.00		0.27	1.00	ug/L
L3232-05	1005-MW-03A	Water	Tetrachloroethene		350.00	E	0.15	1.00	ug/L
			Total Voc :		630.74				
			Total Concentration:		630.74				
Client ID:	**1005-MW-03ADL**								
L3232-05DL	1005-MW-03ADL	Water	trans-1,2-Dichloroethene		8.30	D	1.20	5.00	ug/L
L3232-05DL	1005-MW-03ADL	Water	cis-1,2-Dichloroethene		120.00	D	1.50	5.00	ug/L

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Hit Summary Sheet
SW-846

SDG No.: L3232

Client: Day Environmental, Inc.

Sample ID	Client ID	Matrix	Parameter	Concentration	C	MDL	RDL	Units
L3232-05DL	1005-MW-03ADL	Water	Trichloroethene	110.00	D	1.30	5.00	ug/L
L3232-05DL	1005-MW-03ADL	Water	Tetrachloroethene	340.00	D	0.77	5.00	ug/L
			Total Voc :	578.3				
			Total Concentration:	578.3				
Client ID:	**1006-MW-05**							
L3232-06	1006-MW-05	Water	Acetone	12.50		0.90	5.00	ug/L
L3232-06	1006-MW-05	Water	Trichloroethene	0.77	J	0.27	1.00	ug/L
L3232-06	1006-MW-05	Water	Tetrachloroethene	26.40		0.15	1.00	ug/L
			Total Voc :	39.67				
			Total Concentration:	39.67				
Client ID:	**1007-MW-11**							
L3232-07	1007-MW-11	Water	Acetone	10.40		0.90	5.00	ug/L
L3232-07	1007-MW-11	Water	2-Butanone	2.30	J	0.71	5.00	ug/L
L3232-07	1007-MW-11	Water	cis-1,2-Dichloroethene	8.10		0.30	1.00	ug/L
L3232-07	1007-MW-11	Water	Trichloroethene	12.70		0.27	1.00	ug/L
L3232-07	1007-MW-11	Water	Tetrachloroethene	200.00	E	0.15	1.00	ug/L
			Total Voc :	233.5				
			Total Concentration:	233.5				
Client ID:	**1007-MW-11DL**							
L3232-07DL	1007-MW-11DL	Water	Acetone	15.60	JD	3.60	20.0	ug/L
L3232-07DL	1007-MW-11DL	Water	cis-1,2-Dichloroethene	8.50	D	1.20	4.00	ug/L
L3232-07DL	1007-MW-11DL	Water	Trichloroethene	12.60	D	1.10	4.00	ug/L
L3232-07DL	1007-MW-11DL	Water	Tetrachloroethene	190.00	D	0.61	4.00	ug/L
			Total Voc :	226.7				
			Total Concentration:	226.7				
Client ID:	**1008-MW-15**							
L3232-08	1008-MW-15	Water	Acetone	13.10		0.90	5.00	ug/L
L3232-08	1008-MW-15	Water	Benzene	0.58	J	0.10	1.00	ug/L
L3232-08	1008-MW-15	Water	Tetrachloroethene	0.57	J	0.15	1.00	ug/L
			Total Voc :	14.25				
			Total Concentration:	14.25				
Client ID:	**1009-MW-16**							
L3232-09	1009-MW-16	Water	Acetone	7.60		0.90	5.00	ug/L
L3232-09	1009-MW-16	Water	cis-1,2-Dichloroethene	3.60		0.30	1.00	ug/L
L3232-09	1009-MW-16	Water	Trichloroethene	7.90		0.27	1.00	ug/L
L3232-09	1009-MW-16	Water	Toluene	0.78	J	0.12	1.00	ug/L
L3232-09	1009-MW-16	Water	Tetrachloroethene	10.50		0.15	1.00	ug/L
			Total Voc :	30.38				
			Total Concentration:	30.38				
Client ID:	**1010-MW-17A**							

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Hit Summary Sheet
SW-846

SDG No.: L3232

Client: Day Environmental, Inc.

Sample ID	Client ID	Matrix	Parameter		Concentration	C	MDL	RDL	Units
L3232-10	1010-MW-17A	Water	Vinyl Chloride		3.00		0.16	1.00	ug/L
L3232-10	1010-MW-17A	Water	Acetone		3.70	J	0.90	5.00	ug/L
L3232-10	1010-MW-17A	Water	trans-1,2-Dichloroethene		1.80		0.24	1.00	ug/L
L3232-10	1010-MW-17A	Water	cis-1,2-Dichloroethene		120.00		0.30	1.00	ug/L
L3232-10	1010-MW-17A	Water	Benzene		0.38	J	0.10	1.00	ug/L
L3232-10	1010-MW-17A	Water	Trichloroethene		32.00		0.27	1.00	ug/L
L3232-10	1010-MW-17A	Water	Tetrachloroethene		13.70		0.15	1.00	ug/L
			Total Voc :		174.58				
L3232-10	1010-MW-17A	Water	Naphthalene, 1-methyl-	*	7.10	J	0	0	ug/L
L3232-10	1010-MW-17A	Water	Biphenyl	*	6.90	J	0	0	ug/L
L3232-10	1010-MW-17A	Water	Naphthalene, 1,7-dimethyl-	*	6.00	J	0	0	ug/L
L3232-10	1010-MW-17A	Water	Naphthalene, 2,7-dimethyl-	*	6.60	J	0	0	ug/L
L3232-10	1010-MW-17A	Water	Naphthalene	*	2.70	J	0.48	1.00	ug/L
			Total Tics :		29.3				
			Total Concentration:		203.88				
Client ID:	**1011-MW-18**								
L3232-11	1011-MW-18	Water	cis-1,2-Dichloroethene		1.70		0.30	1.00	ug/L
L3232-11	1011-MW-18	Water	Trichloroethene		2.00		0.27	1.00	ug/L
L3232-11	1011-MW-18	Water	Tetrachloroethene		27.80		0.15	1.00	ug/L
			Total Voc :		31.5				
			Total Concentration:		31.5				
Client ID:	**1012-MW-19**								
L3232-12	1012-MW-19	Water	Vinyl Chloride		3.50		0.16	1.00	ug/L
L3232-12	1012-MW-19	Water	1,1-Dichloroethene		0.45	J	0.18	1.00	ug/L
L3232-12	1012-MW-19	Water	Acetone		7.40		0.90	5.00	ug/L
L3232-12	1012-MW-19	Water	trans-1,2-Dichloroethene		1.30		0.24	1.00	ug/L
L3232-12	1012-MW-19	Water	cis-1,2-Dichloroethene		26.40		0.30	1.00	ug/L
L3232-12	1012-MW-19	Water	Trichloroethene		23.20		0.27	1.00	ug/L
L3232-12	1012-MW-19	Water	Tetrachloroethene		16.00		0.15	1.00	ug/L
			Total Voc :		78.25				
			Total Concentration:		78.25				
Client ID:	**1013-FB070620**								
L3232-13	1013-FB070620	Water	Acetone		19.30		0.90	5.00	ug/L
L3232-13	1013-FB070620	Water	Tetrachloroethene		0.48	J	0.15	1.00	ug/L
			Total Voc :		19.78				
L3232-13	1013-FB070620	Water	1-Hexanol, 2-ethyl-	*	29.50	J	0	0	ug/L
			Total Tics :		29.5				
			Total Concentration:		49.28				

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Hit Summary Sheet
SW-846

SDG No.: L3232

Client: Day Environmental, Inc.

Sample ID	Client ID	Matrix	Parameter	Concentration	C	MDL	RDL	Units

QC SUMMARY

Surrogate Summary

SDG No.: L3232

Client: Day Environmental, Inc.

Analytical Method: SW8260-Low

Lab Sample ID	Client ID	Parameter	Spike	Result	RecoveryQual	Limits Low	Limits High
L3232-01	1003-MW-01	1,2-Dichloroethane-d4	50	52.9	106	61	141
		Dibromofluoromethane	50	54.0	108	69	133
		Toluene-d8	50	51.8	104	65	126
		4-Bromofluorobenzene	50	56.7	113	58	135
L3232-01DL	1003-MW-01DL	1,2-Dichloroethane-d4	50	54.4	109	61	141
		Dibromofluoromethane	50	54.5	109	69	133
		Toluene-d8	50	52.6	105	65	126
		4-Bromofluorobenzene	50	56.4	113	58	135
L3232-02	1004-MW-02	1,2-Dichloroethane-d4	50	54.3	109	61	141
		Dibromofluoromethane	50	53.2	106	69	133
		Toluene-d8	50	52.6	105	65	126
		4-Bromofluorobenzene	50	54.4	109	58	135
L3232-03MS	1004-MW-02MS	1,2-Dichloroethane-d4	50	50.7	101	61	141
		Dibromofluoromethane	50	52.7	105	69	133
		Toluene-d8	50	50.9	102	65	126
		4-Bromofluorobenzene	50	53.2	106	58	135
L3232-04MSD	1004-MW-02MSD	1,2-Dichloroethane-d4	50	49.6	99	61	141
		Dibromofluoromethane	50	51.8	104	69	133
		Toluene-d8	50	50.2	100	65	126
		4-Bromofluorobenzene	50	52.8	106	58	135
L3232-05	1005-MW-03A	1,2-Dichloroethane-d4	50	54.1	108	61	141
		Dibromofluoromethane	50	54.4	109	69	133
		Toluene-d8	50	52.3	105	65	126
		4-Bromofluorobenzene	50	54.7	109	58	135
L3232-05DL	1005-MW-03ADL	1,2-Dichloroethane-d4	50	52.0	104	61	141
		Dibromofluoromethane	50	54.1	108	69	133
		Toluene-d8	50	52.0	104	65	126
		4-Bromofluorobenzene	50	53.2	106	58	135
L3232-06	1006-MW-05	1,2-Dichloroethane-d4	50	54.3	109	61	141
		Dibromofluoromethane	50	54.1	108	69	133
		Toluene-d8	50	52.9	106	65	126
		4-Bromofluorobenzene	50	55.3	111	58	135
L3232-07	1007-MW-11	1,2-Dichloroethane-d4	50	54.4	109	61	141
		Dibromofluoromethane	50	54.8	110	69	133
		Toluene-d8	50	52.9	106	65	126
		4-Bromofluorobenzene	50	55.6	111	58	135
L3232-07DL	1007-MW-11DL	1,2-Dichloroethane-d4	50	51.3	103	61	141
		Dibromofluoromethane	50	52.5	105	69	133
		Toluene-d8	50	51.8	104	65	126
		4-Bromofluorobenzene	50	56.9	114	58	135
L3232-08	1008-MW-15	1,2-Dichloroethane-d4	50	54.6	109	61	141
		Dibromofluoromethane	50	53.6	107	69	133
		Toluene-d8	50	52.7	105	65	126
		4-Bromofluorobenzene	50	54.8	110	58	135
L3232-09	1009-MW-16	1,2-Dichloroethane-d4	50	55.4	111	61	141
		Dibromofluoromethane	50	54.5	109	69	133
		Toluene-d8	50	52.2	104	65	126
		4-Bromofluorobenzene	50	54.5	109	58	135
L3232-10	1010-MW-17A	1,2-Dichloroethane-d4	50	50.9	102	61	141
		Dibromofluoromethane	50	52.1	104	69	133
		Toluene-d8	50	51.4	103	65	126
		4-Bromofluorobenzene	50	56.7	113	58	135

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Surrogate Summary

SDG No.: L3232

Client: Day Environmental, Inc.

Analytical Method: SW8260-Low

Lab Sample ID	Client ID	Parameter	Spike	Result	RecoveryQual	Limits Low	Limits High
L3232-11	1011-MW-18	1,2-Dichloroethane-d4	50	55.0	110	61	141
		Dibromofluoromethane	50	54.0	108	69	133
		Toluene-d8	50	52.1	104	65	126
		4-Bromofluorobenzene	50	55.1	110	58	135
L3232-12	1012-MW-19	1,2-Dichloroethane-d4	50	55.7	111	61	141
		Dibromofluoromethane	50	54.9	110	69	133
		Toluene-d8	50	52.0	104	65	126
		4-Bromofluorobenzene	50	53.8	108	58	135
L3232-13	1013-FB070620	1,2-Dichloroethane-d4	50	52.6	105	61	141
		Dibromofluoromethane	50	53.9	108	69	133
		Toluene-d8	50	51.0	102	65	126
		4-Bromofluorobenzene	50	53.2	106	58	135
L3232-14	1014-TB070620	1,2-Dichloroethane-d4	50	54.8	110	61	141
		Dibromofluoromethane	50	55.4	111	69	133
		Toluene-d8	50	52.3	105	65	126
		4-Bromofluorobenzene	50	54.3	109	58	135
VX0707WBL02	VX0707WBL02	1,2-Dichloroethane-d4	50	53.5	107	61	141
		Dibromofluoromethane	50	53.7	107	69	133
		Toluene-d8	50	52.8	106	65	126
		4-Bromofluorobenzene	50	56.9	114	58	135
VX0707WBS02	VX0707WBS02	1,2-Dichloroethane-d4	50	49.9	100	61	141
		Dibromofluoromethane	50	51.1	102	69	133
		Toluene-d8	50	48.6	97	65	126
		4-Bromofluorobenzene	50	49.0	98	58	135
VX0708WBL01	VX0708WBL01	1,2-Dichloroethane-d4	50	51.8	104	61	141
		Dibromofluoromethane	50	53.2	106	69	133
		Toluene-d8	50	51.3	103	65	126
		4-Bromofluorobenzene	50	52.0	104	58	135
VX0708WBS01	VX0708WBS01	1,2-Dichloroethane-d4	50	46.1	92	61	141
		Dibromofluoromethane	50	50.2	100	69	133
		Toluene-d8	50	48.3	97	65	126
		4-Bromofluorobenzene	50	47.7	95	58	135

CHEMTECH

Matrix Spike/Matrix Spike Duplicate Summary
SW-846

SDG No.: L3232

Client: Day Environmental, Inc.

Analytical Method: SW8260-Low

Parameter	Spike	Sample Result	Result	Units	Rec	Rec Qual	RPD	RPD Qual	Limits Low	Limits High	Limits RPD
Lab Sample ID : L3232-03MS	**Client Sample ID :** 1004-MW-02MS							**Datafile :** VX017240.D			
Dichlorodifluoromethane	50	0	45.9	ug/L	92				47	161	
Chloromethane	50	0	40.8	ug/L	82				53	157	
Vinyl chloride	50	3.10	47.3	ug/L	88				57	149	
Bromomethane	50	0	42.6	ug/L	85				45	165	
Chloroethane	50	0	46.6	ug/L	93				47	166	
Trichlorofluoromethane	50	0	51.4	ug/L	103				51	165	
1,1,2-Trichlorotrifluoroethane	50	0	48.6	ug/L	97				61	145	
1,1-Dichloroethene	50	0.48	47.3	ug/L	94				55	148	
Acetone	250	10.2	270	ug/L	104				11	159	
Carbon disulfide	50	0	45.0	ug/L	90				13	149	
Methyl tert-butyl Ether	50	0	51.1	ug/L	102				60	145	
Methyl Acetate	50	0	46.1	ug/L	92				27	167	
Methylene Chloride	50	0	51.6	ug/L	103				56	146	
trans-1,2-Dichloroethene	50	1.70	50.7	ug/L	98				60	141	
1,1-Dichloroethane	50	0	49.2	ug/L	98				61	144	
Cyclohexane	50	0	46.1	ug/L	92				57	142	
2-Butanone	250	0	260	ug/L	104				42	145	
Carbon Tetrachloride	50	0	53.0	ug/L	106				60	140	
cis-1,2-Dichloroethene	50	54.2	96.8	ug/L	85				48	156	
Bromochloromethane	50	0	47.3	ug/L	95				59	146	
Chloroform	50	0	50.6	ug/L	101				63	140	
1,1,1-Trichloroethane	50	0	50.3	ug/L	101				65	140	
Methylcyclohexane	50	0	47.6	ug/L	95				62	128	
Benzene	50	0	49.4	ug/L	99				62	134	
1,2-Dichloroethane	50	0	52.8	ug/L	106				67	136	
Trichloroethene	50	63.9	110	ug/L	92				64	131	
1,2-Dichloropropane	50	0	50.7	ug/L	101				69	130	
Bromodichloromethane	50	0	53.3	ug/L	107				66	132	
4-Methyl-2-Pentanone	250	0	270	ug/L	108				57	148	
Toluene	50	0	51.7	ug/L	103				68	129	
t-1,3-Dichloropropene	50	0	47.7	ug/L	95				54	136	
cis-1,3-Dichloropropene	50	0	46.9	ug/L	94				56	133	
1,1,2-Trichloroethane	50	0	52.4	ug/L	105				68	134	
2-Hexanone	250	0	280	ug/L	112				46	158	
Dibromochloromethane	50	0	54.0	ug/L	108				59	136	
1,2-Dibromoethane	50	0	52.4	ug/L	105				65	138	
Tetrachloroethene	50	130	180	ug/L	100				29	137	
Chlorobenzene	50	0	48.9	ug/L	98				68	126	
Ethyl Benzene	50	0	50.4	ug/L	101				61	131	
m/p-Xylenes	100	0	100	ug/L	100				64	125	
o-Xylene	50	0	51.0	ug/L	102				65	126	
Styrene	50	0	53.3	ug/L	107				40	140	
Bromoform	50	0	57.6	ug/L	115				42	134	
Isopropylbenzene	50	0	47.2	ug/L	94				58	132	
1,1,2,2-Tetrachloroethane	50	0	47.7	ug/L	95				61	136	
1,3-Dichlorobenzene	50	0	46.7	ug/L	93				63	125	
1,4-Dichlorobenzene	50	0	50.5	ug/L	101				64	124	

CHEMTECH

Matrix Spike/Matrix Spike Duplicate Summary
SW-846

SDG No.: L3232

Client: Day Environmental, Inc.

Analytical Method: SW8260-Low

Parameter	Spike	Sample Result	Result	Units	Rec	Rec Qual	RPD	RPD Qual	Limits Low	Limits High	Limits RPD
1,2-Dichlorobenzene	50	0	48.6	ug/L	97				64	126	
1,2-Dibromo-3-Chloropropane	50	0	46.8	ug/L	94				57	139	
1,2,4-Trichlorobenzene	50	0	46.1	ug/L	92				57	130	
1,2,3-Trichlorobenzene	50	0	48.2	ug/L	96				57	131	

CHEMTECH

Matrix Spike/Matrix Spike Duplicate Summary
SW-846

SDG No.: L3232

Client: Day Environmental, Inc.

Analytical Method: SW8260-Low

Parameter	Spike	Sample Result	Result	Units	Rec	Rec Qual	RPD	RPD Qual	Limits Low	Limits High	Limits RPD
Lab Sample ID : L3232-04MSD	**Client Sample ID :** 1004-MW-02MSD							**Datafile :** VX017241.D			
Dichlorodifluoromethane	50	0	48.4	ug/L	97		5		47	161	20
Chloromethane	50	0	41.6	ug/L	83		2		53	157	20
Vinyl chloride	50	3.10	49.8	ug/L	93		6		57	149	20
Bromomethane	50	0	48.2	ug/L	96		12		45	165	20
Chloroethane	50	0	51.1	ug/L	102		9		47	166	20
Trichlorofluoromethane	50	0	55.6	ug/L	111		8		51	165	20
1,1,2-Trichlorotrifluoroethane	50	0	51.3	ug/L	103		5		61	145	20
1,1-Dichloroethene	50	0.48	49.9	ug/L	99		5		55	148	20
Acetone	250	10.2	290	ug/L	112		7		11	159	20
Carbon disulfide	50	0	47.9	ug/L	96		6		13	149	20
Methyl tert-butyl Ether	50	0	53.7	ug/L	107		5		60	145	20
Methyl Acetate	50	0	47.3	ug/L	95		3		27	167	20
Methylene Chloride	50	0	52.3	ug/L	105		1		56	146	20
trans-1,2-Dichloroethene	50	1.70	51.8	ug/L	100		2		60	141	20
1,1-Dichloroethane	50	0	50.6	ug/L	101		3		61	144	20
Cyclohexane	50	0	47.9	ug/L	96		4		57	142	20
2-Butanone	250	0	270	ug/L	108		4		42	145	20
Carbon Tetrachloride	50	0	56.5	ug/L	113		6		60	140	20
cis-1,2-Dichloroethene	50	54.2	100	ug/L	92		8		48	156	20
Bromochloromethane	50	0	46.8	ug/L	94		1		59	146	20
Chloroform	50	0	52.6	ug/L	105		4		63	140	20
1,1,1-Trichloroethane	50	0	53.1	ug/L	106		5		65	140	20
Methylcyclohexane	50	0	50.0	ug/L	100		5		62	128	20
Benzene	50	0	52.7	ug/L	105		6		62	134	20
1,2-Dichloroethane	50	0	56.4	ug/L	113		7		67	136	20
Trichloroethene	50	63.9	120	ug/L	112		20		64	131	20
1,2-Dichloropropane	50	0	53.1	ug/L	106		5		69	130	20
Bromodichloromethane	50	0	56.7	ug/L	113		6		66	132	20
4-Methyl-2-Pentanone	250	0	280	ug/L	112		4		57	148	20
Toluene	50	0	54.1	ug/L	108		5		68	129	20
t-1,3-Dichloropropene	50	0	51.0	ug/L	102		7		54	136	20
cis-1,3-Dichloropropene	50	0	49.5	ug/L	99		5		56	133	20
1,1,2-Trichloroethane	50	0	56.8	ug/L	114		8		68	134	20
2-Hexanone	250	0	300	ug/L	120		7		46	158	20
Dibromochloromethane	50	0	59.4	ug/L	119		10		59	136	20
1,2-Dibromoethane	50	0	56.5	ug/L	113		8		65	138	20
Tetrachloroethene	50	130	200	ug/L	140	*	33	*	29	137	20
Chlorobenzene	50	0	52.5	ug/L	105		7		68	126	20
Ethyl Benzene	50	0	53.8	ug/L	108		7		61	131	20
m/p-Xylenes	100	0	110	ug/L	110		10		64	125	20
o-Xylene	50	0	54.9	ug/L	110		7		65	126	20
Styrene	50	0	57.7	ug/L	115		8		40	140	20
Bromoform	50	0	62.9	ug/L	126		9		42	134	20
Isopropylbenzene	50	0	51.7	ug/L	103		9		58	132	20
1,1,2,2-Tetrachloroethane	50	0	51.7	ug/L	103		8		61	136	20
1,3-Dichlorobenzene	50	0	52.1	ug/L	104		11		63	125	20
1,4-Dichlorobenzene	50	0	54.8	ug/L	110		8		64	124	20

CHEMTECH

Matrix Spike/Matrix Spike Duplicate Summary
SW-846

SDG No.: L3232

Client: Day Environmental, Inc.

Analytical Method: SW8260-Low

Parameter	Spike	Sample Result	Result	Units	Rec	Rec Qual	RPD	RPD Qual	Limits Low	Limits High	Limits RPD
1,2-Dichlorobenzene	50	0	53.1	ug/L	106		9		64	126	20
1,2-Dibromo-3-Chloropropane	50	0	52.0	ug/L	104		11		57	139	20
1,2,4-Trichlorobenzene	50	0	50.9	ug/L	102		10		57	130	20
1,2,3-Trichlorobenzene	50	0	52.0	ug/L	104		8		57	131	20

CHEMTECH

Laboratory Control Sample/Laboratory Control Sample Duplicate Summary
SW-846

SDG No.: L3232
Client: Day Environmental, Inc.
Analytical Method: SW8260-Low **Datafile :** VX017221.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	Limits Low	Limits High	RPD
VX0707WBS02	Dichlorodifluoromethane	20	17.0	ug/L	85			46	139	
	Chloromethane	20	14.7	ug/L	74			58	139	
	Vinyl chloride	20	16.5	ug/L	83			65	137	
	Bromomethane	20	20.1	ug/L	101			50	162	
	Chloroethane	20	17.7	ug/L	89			54	160	
	Trichlorofluoromethane	20	19.4	ug/L	97			67	143	
	1,1,2-Trichlorotrifluoroethane	20	18.4	ug/L	92			71	136	
	1,1-Dichloroethene	20	18.1	ug/L	91			69	134	
	Acetone	100	97.2	ug/L	97			41	181	
	Carbon disulfide	20	17.3	ug/L	86			63	138	
	Methyl tert-butyl Ether	20	19.1	ug/L	96			72	136	
	Methyl Acetate	20	19.3	ug/L	97			51	158	
	Methylene Chloride	20	19.5	ug/L	98			67	138	
	trans-1,2-Dichloroethene	20	18.0	ug/L	90			72	132	
	1,1-Dichloroethane	20	18.8	ug/L	94			74	135	
	Cyclohexane	20	16.6	ug/L	83			67	132	
	2-Butanone	100	94.1	ug/L	94			64	146	
	Carbon Tetrachloride	20	19.2	ug/L	96			71	134	
	cis-1,2-Dichloroethene	20	18.0	ug/L	90			74	130	
	Bromochloromethane	20	17.1	ug/L	86			71	136	
	Chloroform	20	19.1	ug/L	96			74	134	
	1,1,1-Trichloroethane	20	19.2	ug/L	96			74	133	
	Methylcyclohexane	20	16.4	ug/L	82			71	125	
	Benzene	20	18.3	ug/L	92			75	125	
	1,2-Dichloroethane	20	19.8	ug/L	99			76	130	
	Trichloroethene	20	19.2	ug/L	96			73	127	
	1,2-Dichloropropane	20	18.8	ug/L	94			76	125	
	Bromodichloromethane	20	19.4	ug/L	97			78	127	
	4-Methyl-2-Pentanone	100	96.3	ug/L	96			71	140	
	Toluene	20	18.7	ug/L	94			74	125	
	t-1,3-Dichloropropene	20	18.2	ug/L	91			74	131	
	cis-1,3-Dichloropropene	20	17.8	ug/L	89			74	128	
	1,1,2-Trichloroethane	20	19.5	ug/L	98			75	129	
	2-Hexanone	100	96.7	ug/L	97			62	153	
	Dibromochloromethane	20	19.9	ug/L	100			74	131	
	1,2-Dibromoethane	20	19.3	ug/L	97			74	129	
	Tetrachloroethene	20	18.7	ug/L	94			46	157	
	Chlorobenzene	20	18.2	ug/L	91			76	123	
	Ethyl Benzene	20	18.3	ug/L	92			75	126	
	m/p-Xylenes	40	37.3	ug/L	93			74	126	
	o-Xylene	20	17.9	ug/L	90			73	127	
	Styrene	20	18.6	ug/L	93			75	126	
	Bromoform	20	20.6	ug/L	103			66	130	
	Isopropylbenzene	20	17.3	ug/L	86			70	127	
	1,1,2,2-Tetrachloroethane	20	18.7	ug/L	94			66	131	
	1,3-Dichlorobenzene	20	17.5	ug/L	88			70	125	
	1,4-Dichlorobenzene	20	18.9	ug/L	95			71	124	
	1,2-Dichlorobenzene	20	18.0	ug/L	90			71	126	
	1,2-Dibromo-3-Chloropropane	20	17.3	ug/L	86			62	134	

CHEMTECH

Laboratory Control Sample/Laboratory Control Sample Duplicate Summary
SW-846

SDG No.: L3232
Client: Day Environmental, Inc.
Analytical Method: SW8260-Low **Datafile :** VX017221.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	Limits Low	Limits High	Limits RPD
VX0707WBS02	1,2,4-Trichlorobenzene	20	17.0	ug/L	85			62	129	
	1,2,3-Trichlorobenzene	20	17.6	ug/L	88			58	130	

CHEMTECH

Laboratory Control Sample/Laboratory Control Sample Duplicate Summary
SW-846

SDG No.: L3232
Client: Day Environmental, Inc.
Analytical Method: SW8260-Low **Datafile :** VX017246.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	Limits Low	Limits High	RPD
VX0708WBS01	Dichlorodifluoromethane	20	17.5	ug/L	88			46	139	
	Chloromethane	20	14.4	ug/L	72			58	139	
	Vinyl chloride	20	16.1	ug/L	81			65	137	
	Bromomethane	20	21.0	ug/L	105			50	162	
	Chloroethane	20	17.4	ug/L	87			54	160	
	Trichlorofluoromethane	20	19.7	ug/L	99			67	143	
	1,1,2-Trichlorotrifluoroethane	20	17.9	ug/L	90			71	136	
	1,1-Dichloroethene	20	15.9	ug/L	79			69	134	
	Acetone	100	88.6	ug/L	89			41	181	
	Carbon disulfide	20	16.6	ug/L	83			63	138	
	Methyl tert-butyl Ether	20	18.4	ug/L	92			72	136	
	Methyl Acetate	20	18.0	ug/L	90			51	158	
	Methylene Chloride	20	18.2	ug/L	91			67	138	
	trans-1,2-Dichloroethene	20	17.7	ug/L	89			72	132	
	1,1-Dichloroethane	20	17.9	ug/L	90			74	135	
	Cyclohexane	20	16.6	ug/L	83			67	132	
	2-Butanone	100	82.6	ug/L	83			64	146	
	Carbon Tetrachloride	20	19.8	ug/L	99			71	134	
	cis-1,2-Dichloroethene	20	17.5	ug/L	88			74	130	
	Bromochloromethane	20	16.9	ug/L	85			71	136	
	Chloroform	20	18.6	ug/L	93			74	134	
	1,1,1-Trichloroethane	20	18.9	ug/L	95			74	133	
	Methylcyclohexane	20	18.5	ug/L	93			71	125	
	Benzene	20	18.6	ug/L	93			75	125	
	1,2-Dichloroethane	20	20.0	ug/L	100			76	130	
	Trichloroethene	20	20.5	ug/L	103			73	127	
	1,2-Dichloropropane	20	18.9	ug/L	95			76	125	
	Bromodichloromethane	20	19.9	ug/L	100			78	127	
	4-Methyl-2-Pentanone	100	91.2	ug/L	91			71	140	
	Toluene	20	19.0	ug/L	95			74	125	
	t-1,3-Dichloropropene	20	19.0	ug/L	95			74	131	
	cis-1,3-Dichloropropene	20	18.9	ug/L	95			74	128	
	1,1,2-Trichloroethane	20	19.6	ug/L	98			75	129	
	2-Hexanone	100	91.6	ug/L	92			62	153	
	Dibromochloromethane	20	20.2	ug/L	101			74	131	
	1,2-Dibromoethane	20	19.4	ug/L	97			74	129	
	Tetrachloroethene	20	20.8	ug/L	104			46	157	
	Chlorobenzene	20	19.4	ug/L	97			76	123	
	Ethyl Benzene	20	19.5	ug/L	98			75	126	
	m/p-Xylenes	40	39.7	ug/L	99			74	126	
	o-Xylene	20	19.3	ug/L	97			73	127	
	Styrene	20	19.5	ug/L	98			75	126	
	Bromoform	20	20.8	ug/L	104			66	130	
	Isopropylbenzene	20	18.4	ug/L	92			70	127	
	1,1,2,2-Tetrachloroethane	20	17.8	ug/L	89			66	131	
	1,3-Dichlorobenzene	20	18.3	ug/L	92			70	125	
	1,4-Dichlorobenzene	20	19.9	ug/L	100			71	124	
	1,2-Dichlorobenzene	20	19.2	ug/L	96			71	126	
	1,2-Dibromo-3-Chloropropane	20	16.6	ug/L	83			62	134	

CHEMTECH

Laboratory Control Sample/Laboratory Control Sample Duplicate Summary
SW-846

SDG No.: L3232
Client: Day Environmental, Inc.
Analytical Method: SW8260-Low **Datafile :** VX017246.D

Lab Sample ID	Parameter	Spike	Result	Unit	Rec	RPD	Qual	Limits Low	Limits High	Limits RPD
VX0708WBS01	1,2,4-Trichlorobenzene	20	17.4	ug/L	87			62	129	
	1,2,3-Trichlorobenzene	20	17.8	ug/L	89			58	130	

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VX0707WBL02

Lab Name: CHEMTECH Contract: DAYE01

Lab Code: CHEM Case No.: L3232 SAS No.: L3232 SDG NO.: L3232

Lab File ID: VX017220.D Lab Sample ID: VX0707WBL02

Date Analyzed: 07/07/2020 Time Analyzed: 22:41

GC Column: DB-624UI ID: 0.18 (mm) Heated Purge: (Y/N) N

Instrument ID: MSVOA_X

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
VX0707WBS02	VX0707WBS02	VX017221.D	07/07/2020
1014-TB070620	L3232-14	VX017230.D	07/08/2020
1003-MW-01DL	L3232-01DL	VX017231.D	07/08/2020
1004-MW-02	L3232-02	VX017232.D	07/08/2020
1006-MW-05	L3232-06	VX017233.D	07/08/2020
1008-MW-15	L3232-08	VX017234.D	07/08/2020
1009-MW-16	L3232-09	VX017235.D	07/08/2020
1011-MW-18	L3232-11	VX017236.D	07/08/2020
1012-MW-19	L3232-12	VX017237.D	07/08/2020
1005-MW-03A	L3232-05	VX017238.D	07/08/2020
1007-MW-11	L3232-07	VX017239.D	07/08/2020
1004-MW-02MS	L3232-03MS	VX017240.D	07/08/2020
1004-MW-02MSD	L3232-04MSD	VX017241.D	07/08/2020

COMMENTS:

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VX0708WBL01

Lab Name: CHEMTECH Contract: DAYE01

Lab Code: CHEM Case No.: L3232 SAS No.: L3232 SDG NO.: L3232

Lab File ID: VX017245.D Lab Sample ID: VX0708WBL01

Date Analyzed: 07/08/2020 Time Analyzed: 10:59

GC Column: DB-624UI ID: 0.18 (mm) Heated Purge: (Y/N) N

Instrument ID: MSVOA_X

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
VX0708WBS01	VX0708WBS01	VX017246.D	07/08/2020
1007-MW-11DL	L3232-07DL	VX017248.D	07/08/2020
1005-MW-03ADL	L3232-05DL	VX017249.D	07/08/2020
1013-FB070620	L3232-13	VX017250.D	07/08/2020
1003-MW-01	L3232-01	VX017258.D	07/08/2020
1010-MW-17A	L3232-10	VX017266.D	07/08/2020

COMMENTS:

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: CHEMTECH Contract: DAYE01

Lab Code: CHEM Case No.: L3232 SAS No.: L3232 SDG NO.: L3232

Lab File ID: VX017004.D BFB Injection Date: 06/29/2020

Instrument ID: MSVOA_X BFB Injection Time: 12:32

GC Column: DB-624UI ID: 0.18 (mm) Heated Purge: Y/N N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	17.8
75	30.0 - 60.0% of mass 95	48.8
95	Base Peak, 100% relative abundance	100
96	5.0 - 9.0% of mass 95	6.7
173	Less than 2.0% of mass 174	0.4 (0.5) 1
174	50.0 - 100.0% of mass 95	80.3
175	5.0 - 9.0% of mass 174	6 (7.5) 1
176	95.0 - 101.0% of mass 174	78.3 (97.6) 1
177	5.0 - 9.0% of mass 176	5.3 (6.8) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
VSTDICC001	VSTDICC001	VX017006.D	06/29/2020	14:13
VSTDICC005	VSTDICC005	VX017007.D	06/29/2020	14:35
VSTDICC020	VSTDICC020	VX017008.D	06/29/2020	14:58
VSTDICCC050	VSTDICCC050	VX017009.D	06/29/2020	15:21
VSTDICC100	VSTDICC100	VX017010.D	06/29/2020	15:43
VSTDICC150	VSTDICC150	VX017011.D	06/29/2020	16:06

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: CHEMTECH Contract: DAYE01

Lab Code: CHEM Case No.: L3232 SAS No.: L3232 SDG NO.: L3232

Lab File ID: VX017218.D BFB Injection Date: 07/07/2020

Instrument ID: MSVOA_X BFB Injection Time: 20:48

GC Column: DB-624UI ID: 0.18 (mm) Heated Purge: Y/N N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	17.6
75	30.0 - 60.0% of mass 95	49.1
95	Base Peak, 100% relative abundance	100
96	5.0 - 9.0% of mass 95	6.8
173	Less than 2.0% of mass 174	1 (1.2) 1
174	50.0 - 100.0% of mass 95	86.1
175	5.0 - 9.0% of mass 174	6.3 (7.3) 1
176	95.0 - 101.0% of mass 174	82.3 (95.6) 1
177	5.0 - 9.0% of mass 176	5.3 (6.5) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
VSTDCCC050	VSTDCCC050	VX017219.D	07/07/2020	21:33
VX0707WBL02	VX0707WBL02	VX017220.D	07/07/2020	22:41
VX0707WBS02	VX0707WBS02	VX017221.D	07/07/2020	23:04
1014-TB070620	L3232-14	VX017230.D	07/08/2020	02:29
1003-MW-01DL	L3232-01DL	VX017231.D	07/08/2020	02:52
1004-MW-02	L3232-02	VX017232.D	07/08/2020	03:15
1006-MW-05	L3232-06	VX017233.D	07/08/2020	03:37
1008-MW-15	L3232-08	VX017234.D	07/08/2020	04:00
1009-MW-16	L3232-09	VX017235.D	07/08/2020	04:23
1011-MW-18	L3232-11	VX017236.D	07/08/2020	04:46
1012-MW-19	L3232-12	VX017237.D	07/08/2020	05:08
1005-MW-03A	L3232-05	VX017238.D	07/08/2020	05:31
1007-MW-11	L3232-07	VX017239.D	07/08/2020	05:54
1004-MW-02MS	L3232-03MS	VX017240.D	07/08/2020	06:17
1004-MW-02MSD	L3232-04MSD	VX017241.D	07/08/2020	06:39

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: CHEMTECH Contract: DAYE01

Lab Code: CHEM Case No.: L3232 SAS No.: L3232 SDG NO.: L3232

Lab File ID: VX017243.D BFB Injection Date: 07/08/2020

Instrument ID: MSVOA_X BFB Injection Time: 09:17

GC Column: DB-624UI ID: 0.18 (mm) Heated Purge: Y/N N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	17.3
75	30.0 - 60.0% of mass 95	49.5
95	Base Peak, 100% relative abundance	100
96	5.0 - 9.0% of mass 95	7
173	Less than 2.0% of mass 174	0.8 (0.9) 1
174	50.0 - 100.0% of mass 95	87.4
175	5.0 - 9.0% of mass 174	6.6 (7.5) 1
176	95.0 - 101.0% of mass 174	83.8 (95.9) 1
177	5.0 - 9.0% of mass 176	5.4 (6.4) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
VSTDCCC050	VSTDCCC050	VX017244.D	07/08/2020	10:24
VX0708WBL01	VX0708WBL01	VX017245.D	07/08/2020	10:59
VX0708WBS01	VX0708WBS01	VX017246.D	07/08/2020	11:32
1007-MW-11DL	L3232-07DL	VX017248.D	07/08/2020	12:28
1005-MW-03ADL	L3232-05DL	VX017249.D	07/08/2020	12:51
1013-FB070620	L3232-13	VX017250.D	07/08/2020	13:14
1003-MW-01	L3232-01	VX017258.D	07/08/2020	16:16
1010-MW-17A	L3232-10	VX017266.D	07/08/2020	19:15

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH Contract: DAYE01

Lab Code: CHEM Case No.: L3232 SAS No.: L3232 SDG NO.: L3232

Lab File ID: VX017219.D Date Analyzed: 07/07/2020

Instrument ID: MSVOA_X Time Analyzed: 21:33

GC Column: DB-624UI ID: 0.18 (mm) Heated Purge: (Y/N) N

	IS1 AREA #	RT #	IS2 AREA #	RT #	IS3 AREA #	RT #
12 HOUR STD	284508	5.63	426532	6.83	403331	10.10
UPPER LIMIT	569016	6.13	853064	7.33	806662	10.6
LOWER LIMIT	142254	5.13	213266	6.33	201666	9.6
EPA SAMPLE NO.						
1003-MW-01DL	243092	5.64	407762	6.83	425891	10.10
1004-MW-02	243026	5.64	409727	6.83	423863	10.10
1004-MW-02MS	267056	5.64	407434	6.83	397720	10.10
1004-MW-02MSD	253387	5.63	381377	6.83	370137	10.10
1005-MW-03A	250938	5.63	421887	6.84	439558	10.10
1006-MW-05	239416	5.63	401364	6.84	424452	10.10
1007-MW-11	253652	5.63	429943	6.83	453724	10.10
1008-MW-15	247760	5.64	413814	6.84	429214	10.10
1009-MW-16	244415	5.63	415792	6.84	430676	10.10
1011-MW-18	244808	5.63	417009	6.84	436062	10.10
1012-MW-19	239542	5.63	409530	6.83	431507	10.10
1014-TB070620	245553	5.63	420318	6.83	434237	10.10
VX0707WBL02	254589	5.64	423760	6.83	437810	10.10
VX0707WBS02	279895	5.63	437536	6.84	415831	10.10

IS1 = Pentafluorobenzene
IS2 = 1,4-Difluorobenzene
IS3 = Chlorobenzene-d5

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH Contract: DAYE01

Lab Code: CHEM Case No.: L3232 SAS No.: L3232 SDG NO.: L3232

Lab File ID: VX017219.D Date Analyzed: 07/07/2020

Instrument ID: MSVOA_X Time Analyzed: 21:33

GC Column: DB-624UI ID: 0.18 (mm) Heated Purge: (Y/N) N

	IS4 AREA #	RT #				
12 HOUR STD	235111	12.06				
UPPER LIMIT	470222	12.56				
LOWER LIMIT	117556	11.56				
EPA SAMPLE NO.						
1003-MW-01DL	231127	12.06				
1004-MW-02	220893	12.06				
1004-MW-02MS	223912	12.06				
1004-MW-02MSD	207249	12.06				
1005-MW-03A	234400	12.06				
1006-MW-05	217967	12.06				
1007-MW-11	239306	12.06				
1008-MW-15	239652	12.06				
1009-MW-16	231984	12.06				
1011-MW-18	233058	12.06				
1012-MW-19	226443	12.06				
1014-TB070620	232593	12.06				
VX0707WBL02	242010	12.06				
VX0707WBS02	227553	12.06				

IS4 = 1,4-Dichlorobenzene-d4

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH Contract: DAYE01

Lab Code: CHEM Case No.: L3232 SAS No.: L3232 SDG NO.: L3232

Lab File ID: VX017244.D Date Analyzed: 07/08/2020

Instrument ID: MSVOA_X Time Analyzed: 10:24

GC Column: DB-624UI ID: 0.18 (mm) Heated Purge: (Y/N) N

	IS1 AREA #	RT #	IS2 AREA #	RT #	IS3 AREA #	RT #
12 HOUR STD	288935	5.62	412579	6.83	404180	10.10
UPPER LIMIT	577870	6.12	825158	7.33	808360	10.6
LOWER LIMIT	144468	5.12	206290	6.33	202090	9.6
EPA SAMPLE NO.						
1003-MW-01	258927	5.63	428166	6.84	456865	10.10
1005-MW-03ADL	256770	5.63	417673	6.83	428735	10.10
1007-MW-11DL	235819	5.63	382452	6.83	407430	10.10
1010-MW-17A	258457	5.64	423765	6.84	445496	10.10
1013-FB070620	248074	5.63	412010	6.83	422609	10.10
VX0708WBL01	260962	5.63	424665	6.83	429336	10.10
VX0708WBS01	293066	5.63	433898	6.83	401634	10.10

IS1 = Pentafluorobenzene
IS2 = 1,4-Difluorobenzene
IS3 = Chlorobenzene-d5

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CHEMTECH Contract: DAYE01

Lab Code: CHEM Case No.: L3232 SAS No.: L3232 SDG NO.: L3232

Lab File ID: VX017244.D Date Analyzed: 07/08/2020

Instrument ID: MSVOA_X Time Analyzed: 10:24

GC Column: DB-624UI ID: 0.18 (mm) Heated Purge: (Y/N) N

	IS4 AREA #	RT #				
12 HOUR STD	225987	12.06				
UPPER LIMIT	451974	12.56				
LOWER LIMIT	112994	11.56				
EPA SAMPLE NO.						
1003-MW-01	243585	12.06				
1005-MW-03ADL	218771	12.06				
1007-MW-11DL	218652	12.06				
1010-MW-17A	242727	12.06				
1013-FB070620	212687	12.06				
VX0708WBL01	213234	12.06				
VX0708WBS01	224720	12.06				

IS4 = 1,4-Dichlorobenzene-d4

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = -50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

SAMPLE DATA

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Day Environmental, Inc.	Date Collected:	07/06/20
Project:	Andrew St. RI	Date Received:	07/07/20
Client Sample ID:	1003-MW-01	SDG No.:	L3232
Lab Sample ID:	L3232-01	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	DB-624UI ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX017258.D	1		07/08/20 16:16	VX070820

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
75-71-8	Dichlorodifluoromethane	1.00	U	0.22	1.00	ug/L
74-87-3	Chloromethane	1.00	U	0.30	1.00	ug/L
75-01-4	Vinyl Chloride	3.60		0.16	1.00	ug/L
74-83-9	Bromomethane	5.00	U	2.10	5.00	ug/L
75-00-3	Chloroethane	1.00	U	0.34	1.00	ug/L
75-69-4	Trichlorofluoromethane	1.00	U	0.16	1.00	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	1.00	U	0.21	1.00	ug/L
75-35-4	1,1-Dichloroethene	1.00	U	0.18	1.00	ug/L
67-64-1	Acetone	10.6		0.90	5.00	ug/L
75-15-0	Carbon Disulfide	1.00	U	0.23	1.00	ug/L
1634-04-4	Methyl tert-butyl Ether	1.00	U	0.070	1.00	ug/L
79-20-9	Methyl Acetate	1.00	U	0.65	1.00	ug/L
75-09-2	Methylene Chloride	1.00	U	0.33	1.00	ug/L
156-60-5	trans-1,2-Dichloroethene	2.60		0.24	1.00	ug/L
75-34-3	1,1-Dichloroethane	1.00	U	0.17	1.00	ug/L
110-82-7	Cyclohexane	5.00	U	1.20	5.00	ug/L
78-93-3	2-Butanone	5.00	U	0.71	5.00	ug/L
56-23-5	Carbon Tetrachloride	1.00	U	0.22	1.00	ug/L
156-59-2	cis-1,2-Dichloroethene	96.6		0.30	1.00	ug/L
74-97-5	Bromochloromethane	1.00	U	0.31	1.00	ug/L
67-66-3	Chloroform	1.00	U	0.14	1.00	ug/L
71-55-6	1,1,1-Trichloroethane	1.00	U	0.12	1.00	ug/L
108-87-2	Methylcyclohexane	1.00	U	0.17	1.00	ug/L
71-43-2	Benzene	1.00	U	0.10	1.00	ug/L
107-06-2	1,2-Dichloroethane	1.00	U	0.13	1.00	ug/L
79-01-6	Trichloroethene	100		0.27	1.00	ug/L
78-87-5	1,2-Dichloropropane	1.00	U	0.14	1.00	ug/L
75-27-4	Bromodichloromethane	1.00	U	0.10	1.00	ug/L
108-10-1	4-Methyl-2-Pentanone	5.00	U	0.85	5.00	ug/L
108-88-3	Toluene	1.00	U	0.12	1.00	ug/L
10061-02-6	t-1,3-Dichloropropene	1.00	U	0.19	1.00	ug/L
10061-01-5	cis-1,3-Dichloropropene	1.00	U	0.16	1.00	ug/L

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Day Environmental, Inc.	Date Collected:	07/06/20
Project:	Andrew St. RI	Date Received:	07/07/20
Client Sample ID:	1003-MW-01	SDG No.:	L3232
Lab Sample ID:	L3232-01	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	DB-624UI ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX017258.D	1		07/08/20 16:16	VX070820

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
79-00-5	1,1,2-Trichloroethane	1.00	U	0.12	1.00	ug/L
591-78-6	2-Hexanone	5.00	U	1.40	5.00	ug/L
124-48-1	Dibromochloromethane	1.00	U	0.16	1.00	ug/L
106-93-4	1,2-Dibromoethane	1.00	U	0.14	1.00	ug/L
127-18-4	Tetrachloroethene	340	E	0.15	1.00	ug/L
108-90-7	Chlorobenzene	1.00	U	0.080	1.00	ug/L
100-41-4	Ethyl Benzene	1.00	U	0.080	1.00	ug/L
179601-23-1	m/p-Xylenes	2.00	U	0.20	2.00	ug/L
95-47-6	o-Xylene	1.00	U	0.13	1.00	ug/L
100-42-5	Styrene	1.00	U	0.11	1.00	ug/L
75-25-2	Bromoform	1.00	U	0.15	1.00	ug/L
98-82-8	Isopropylbenzene	1.00	U	0.13	1.00	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	1.00	U	0.15	1.00	ug/L
541-73-1	1,3-Dichlorobenzene	1.00	U	0.14	1.00	ug/L
106-46-7	1,4-Dichlorobenzene	1.00	U	0.20	1.00	ug/L
95-50-1	1,2-Dichlorobenzene	1.00	U	0.12	1.00	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	1.00	U	0.54	1.00	ug/L
120-82-1	1,2,4-Trichlorobenzene	1.00	U	0.24	1.00	ug/L
87-61-6	1,2,3-Trichlorobenzene	1.00	U	0.26	1.00	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	52.9		61 - 141	106%	SPK: 50
1868-53-7	Dibromofluoromethane	54.0		69 - 133	108%	SPK: 50
2037-26-5	Toluene-d8	51.8		65 - 126	104%	SPK: 50
460-00-4	4-Bromofluorobenzene	56.7		58 - 135	113%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	259000	5.63			
540-36-3	1,4-Difluorobenzene	428000	6.84			
3114-55-4	Chlorobenzene-d5	457000	10.1			
3855-82-1	1,4-Dichlorobenzene-d4	244000	12.06			

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Day Environmental, Inc.	Date Collected:	07/06/20
Project:	Andrew St. RI	Date Received:	07/07/20
Client Sample ID:	1003-MW-01	SDG No.:	L3232
Lab Sample ID:	L3232-01	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	DB-624UI ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX017258.D	1		07/08/20 16:16	VX070820

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit
A = Aldol-Condensation Reaction Products

Quantitation Report (QT Reviewed)

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX070820\
Data File : VX017258.D
Acq On : 08 Jul 2020 16:16
Operator : JC/SP
Sample : L3232-01
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 16 Sample Multiplier: 1

Instrument : MSVOA_X
ClientSampleId : 1003-MW-01

Quant Time: Jul 15 02:42:02 2020
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X062920W.M
Quant Title : SW846 8260
QLast Update : Mon Jun 29 17:10:38 2020
Response via : Initial Calibration

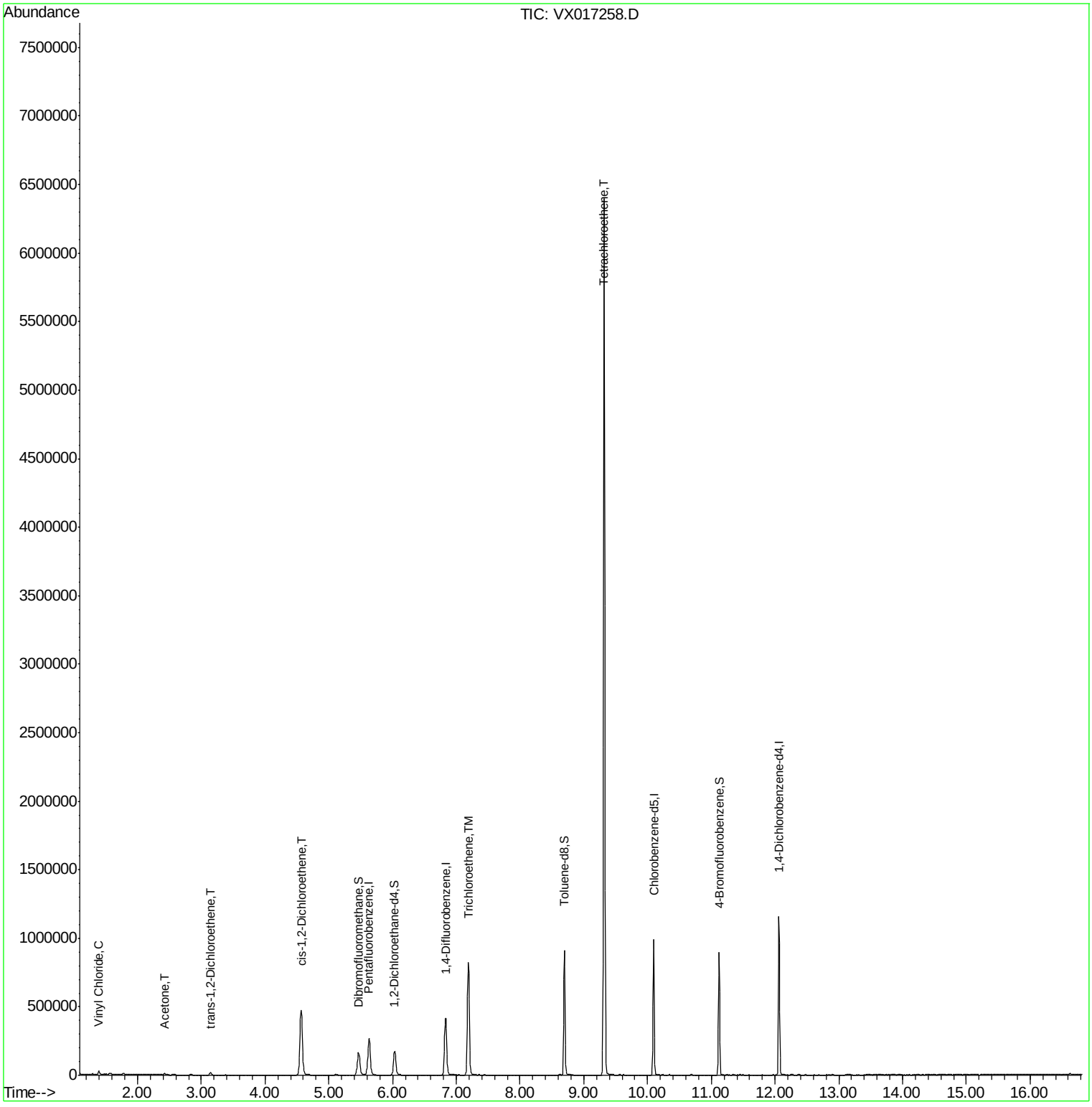
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	5.63	168	258927	50.00	ug/l	0.00
34) 1,4-Difluorobenzene	6.84	114	428166	50.00	ug/l	0.00
63) Chlorobenzene-d5	10.10	117	456865	50.00	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	12.06	152	243585	50.00	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	6.03	65	168701	52.85	ug/l	0.00
Spiked Amount 50.000			Recovery = 105.70%			
35) Dibromofluoromethane	5.46	113	146197	53.98	ug/l	0.00
Spiked Amount 50.000			Recovery = 107.96%			
50) Toluene-d8	8.70	98	518553	51.78	ug/l	0.00
Spiked Amount 50.000			Recovery = 103.56%			
62) 4-Bromofluorobenzene	11.12	95	222101	56.73	ug/l	0.00
Spiked Amount 50.000			Recovery = 113.46%			
Target Compounds						Qvalue
4) Vinyl Chloride	1.39	62	10151	3.608	ug/l	99
16) Acetone	2.42	43	12685	10.623	ug/l	90
21) trans-1,2-Dichloroethene	3.15	96	7448	2.620	ug/l	98
27) cis-1,2-Dichloroethene	4.57	96	311078	96.574	ug/l	89
44) Trichloroethene	7.19	130	329119	100.624	ug/l	99
64) Tetrachloroethene	9.32	164	1271799	344.924	ug/l	96

(#) = qualifier out of range (m) = manual integration (+) = signals summed

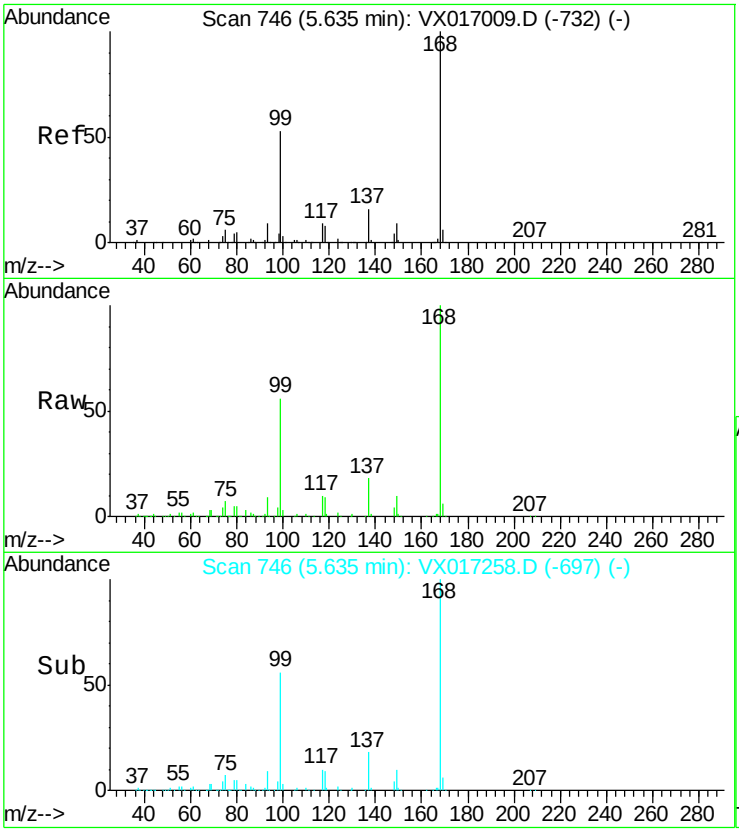
Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX070820\
Data File : VX017258.D
Acq On : 08 Jul 2020 16:16
Operator : JC/SP
Sample : L3232-01
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 16 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
1003-MW-01

Quant Time: Jul 15 02:42:02 2020
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X062920W.M
Quant Title : SW846 8260
QLast Update : Mon Jun 29 17:10:38 2020
Response via : Initial Calibration



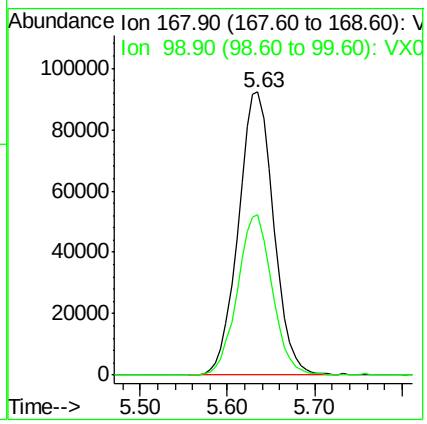
Instrument :
MSVOA_X
ClientSampleId :
1003-MW-01

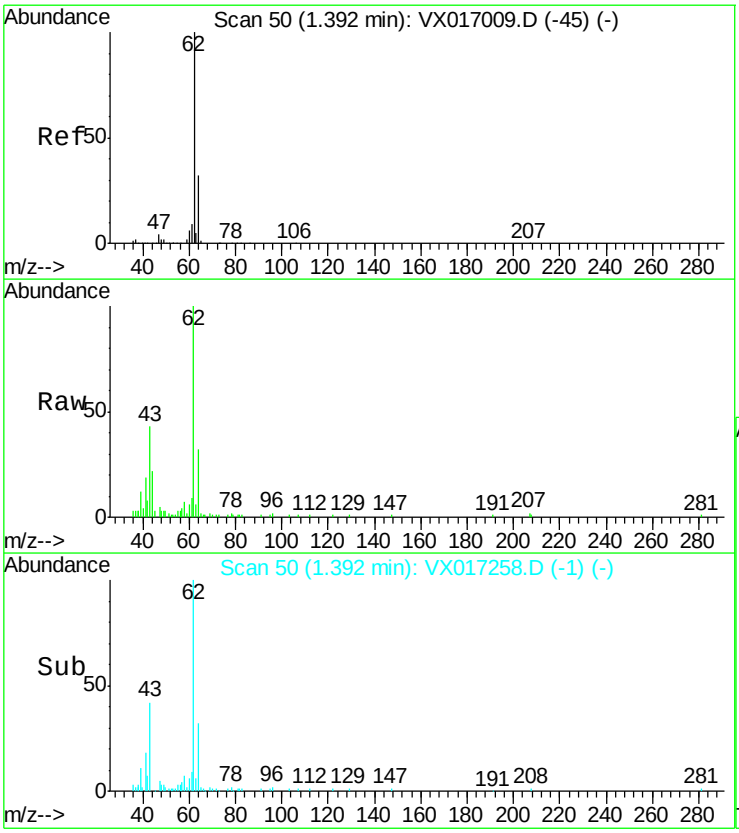


#1
Pentafluorobenzene
Concen: 50.000 ug/l
RT: 5.63 min Scan# 746
Delta R.T. -0.00 min
Lab File: VX017258.D
Acq: 08 Jul 2020 16:16

Tgt Ion:168 Resp: 258927

Ion	Ratio	Lower	Upper
168	100		
99	56.5	42.6	64.0

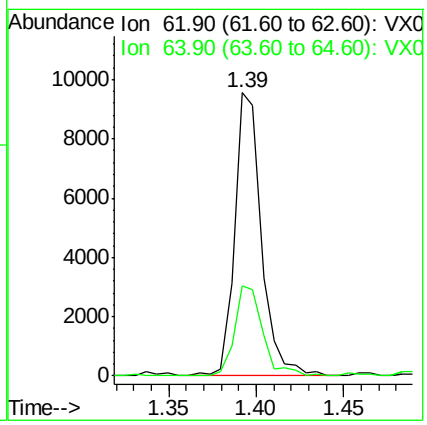




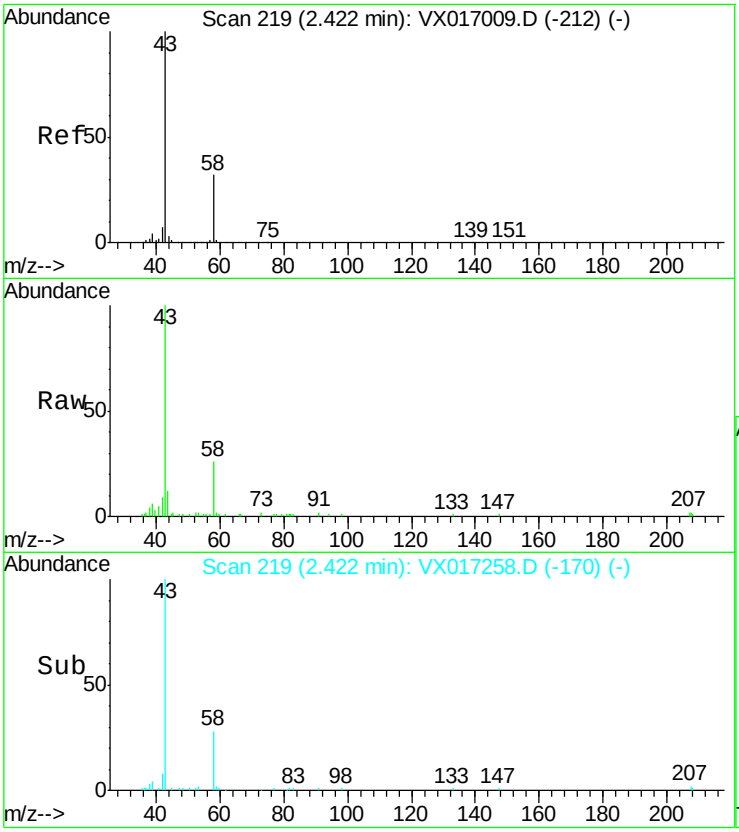
#4
Vinyl Chloride
Concen: 3.608 ug/l
RT: 1.39 min Scan# 50
Delta R.T. -0.00 min
Lab File: VX017258.D
Acq: 08 Jul 2020 16:16

Tgt Ion: 62 Resp: 10151

Ion	Ratio	Lower	Upper
62	100		
64	31.9	25.9	38.9



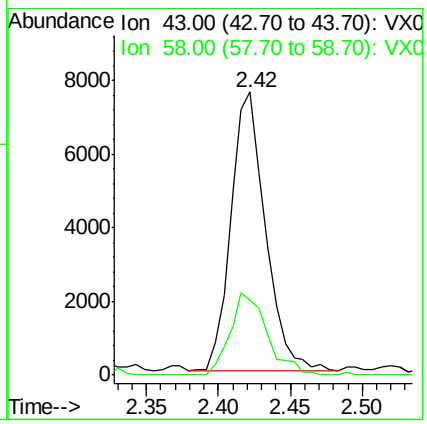
Instrument :
MSVOA_X
ClientSampleId :
1003-MW-01

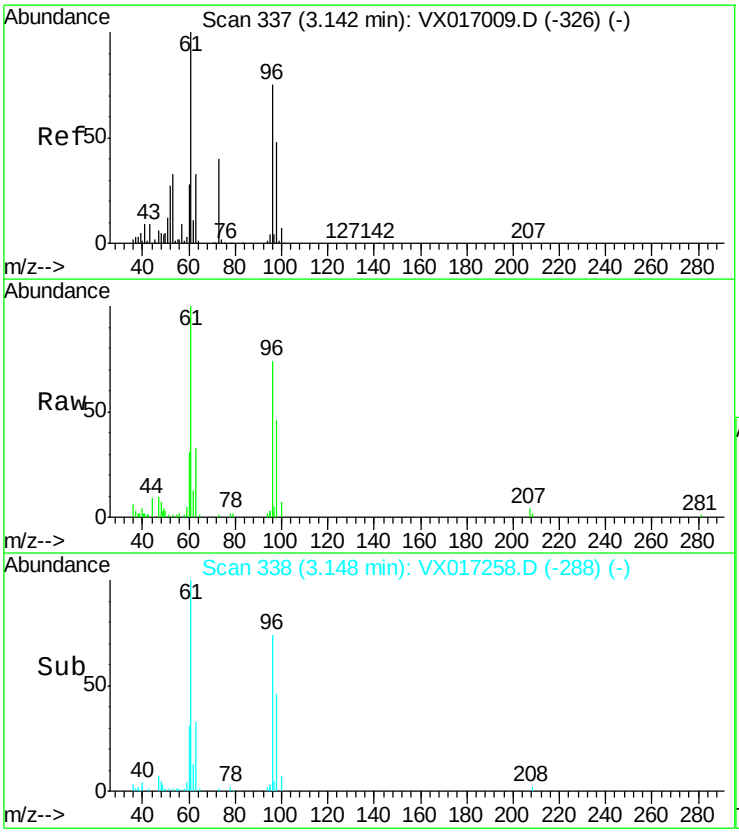


#16
Acetone
Concen: 10.623 ug/l
RT: 2.42 min Scan# 219
Delta R.T. -0.00 min
Lab File: VX017258.D
Acq: 08 Jul 2020 16:16

Tgt Ion: 43 Resp: 12685

Ion	Ratio	Lower	Upper
43	100		
58	26.6	25.7	38.5

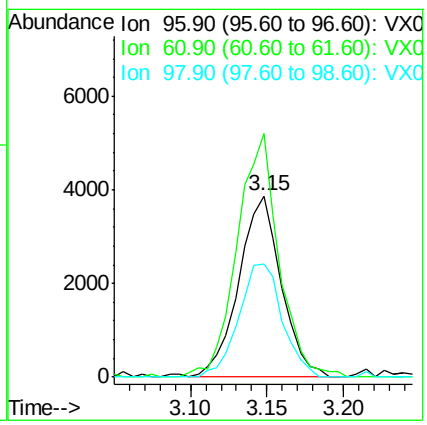




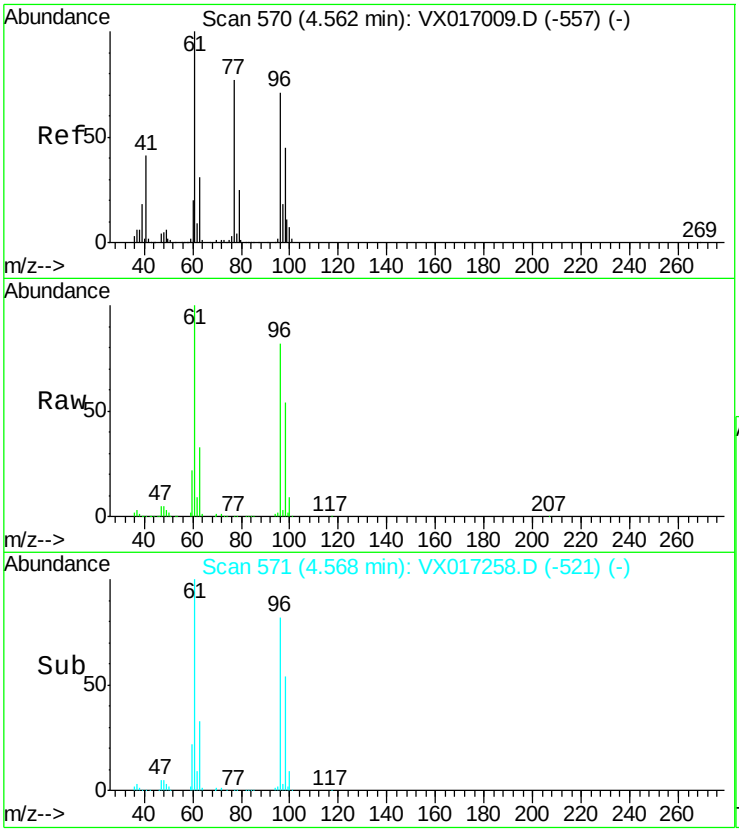
#21
trans-1,2-Dichloroethene
Concen: 2.620 ug/l
RT: 3.15 min Scan# 338
Delta R.T. 0.01 min
Lab File: VX017258.D
Acq: 08 Jul 2020 16:16

Tgt Ion: 96 Resp: 7448

Ion	Ratio	Lower	Upper
96	100		
61	131.7	107.0	160.6
98	62.3	51.6	77.4



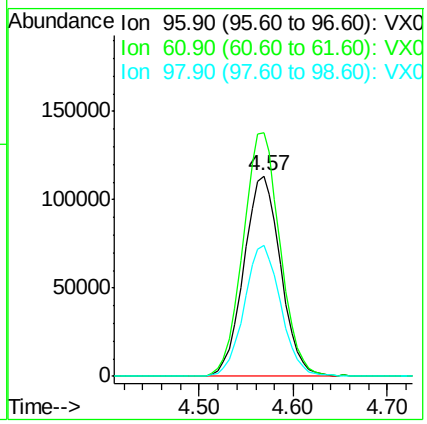
Instrument :
MSVOA_X
ClientSampleId :
1003-MW-01

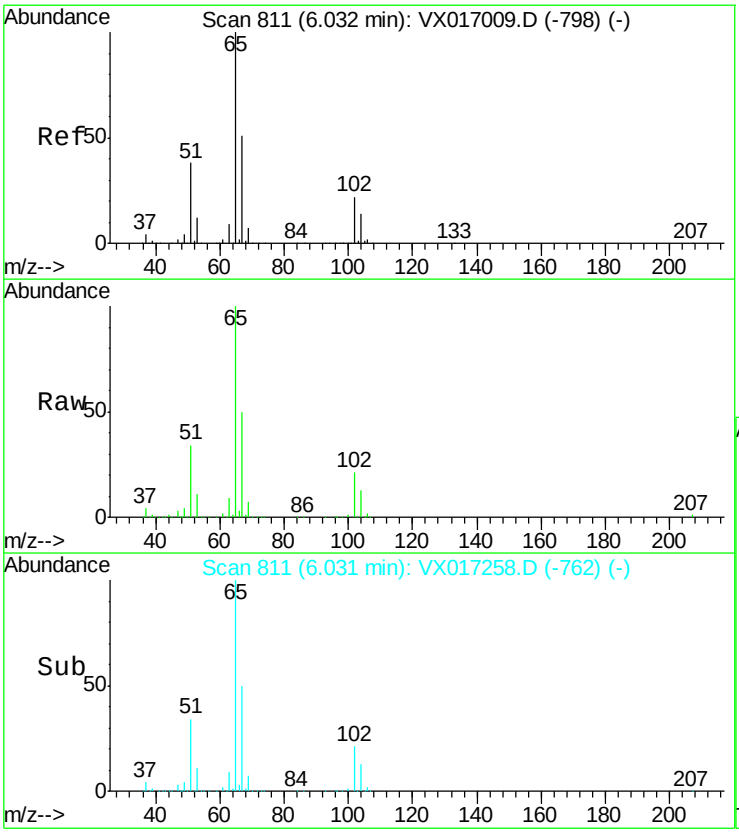


#27
cis-1,2-Dichloroethene
Concen: 96.574 ug/l
RT: 4.57 min Scan# 571
Delta R.T. 0.01 min
Lab File: VX017258.D
Acq: 08 Jul 2020 16:16

Tgt Ion: 96 Resp: 311078

Ion	Ratio	Lower	Upper
96	100		
61	122.7	0.0	282.8
98	64.9	0.0	127.6

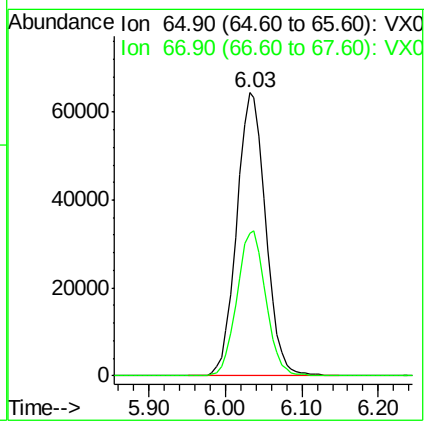




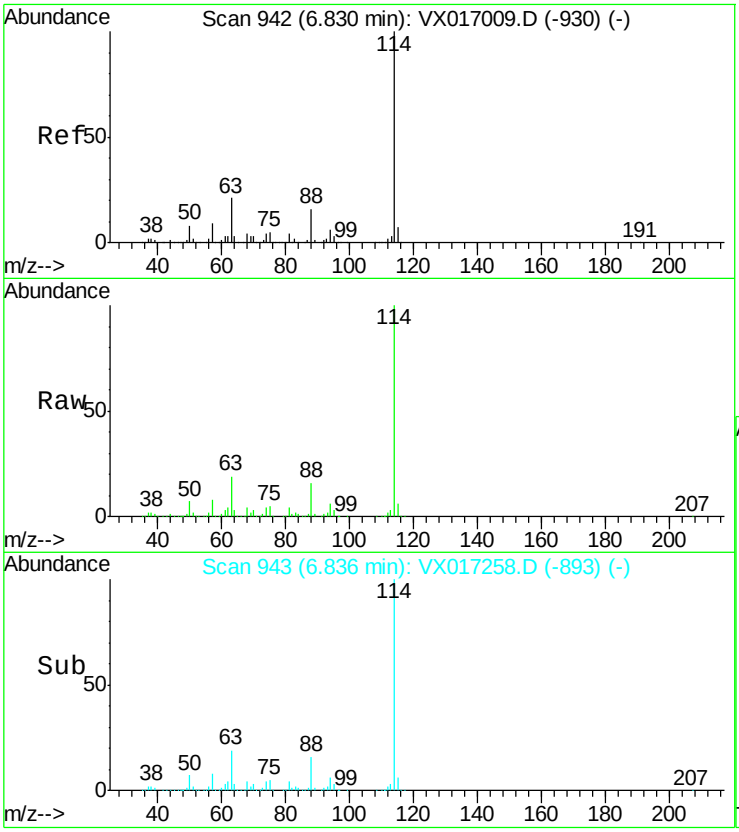
#33
1,2-Dichloroethane-d4
Concen: 52.850 ug/l
RT: 6.03 min Scan# 811
Delta R.T. -0.00 min
Lab File: VX017258.D
Acq: 08 Jul 2020 16:16

Tgt Ion: 65 Resp: 168701

Ion	Ratio	Lower	Upper
65	100		
67	51.2	0.0	103.8



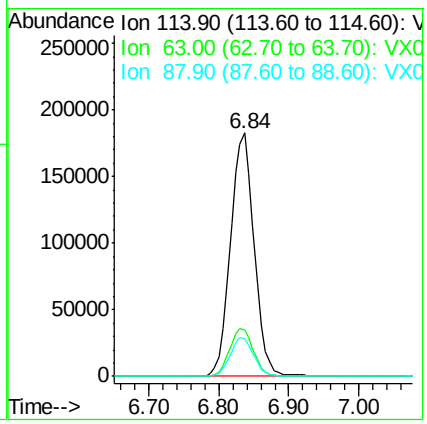
Instrument :
MSVOA_X
ClientSampleId :
1003-MW-01

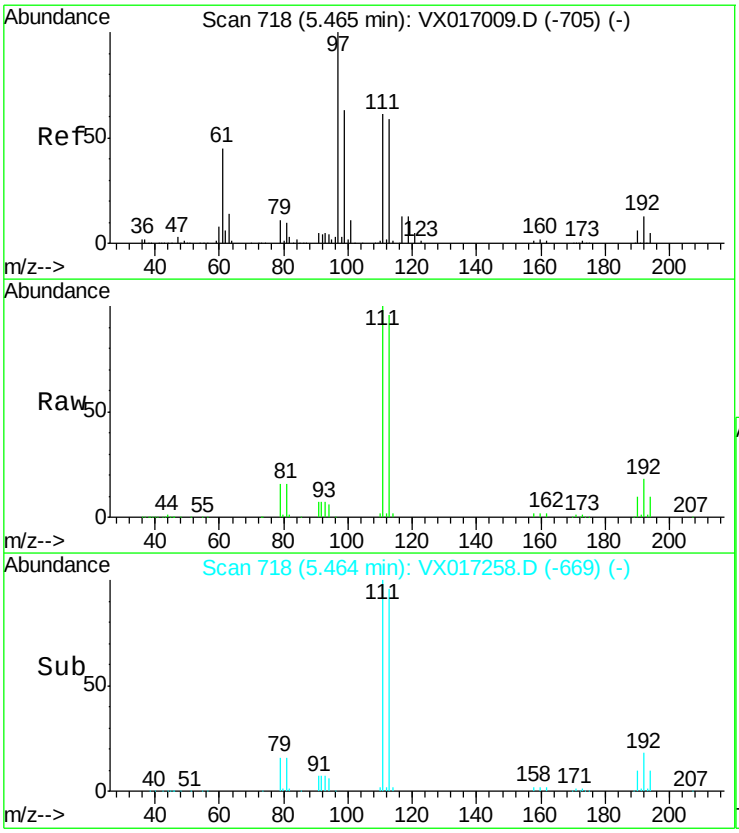


#34
1,4-Difluorobenzene
Concen: 50.000 ug/l
RT: 6.84 min Scan# 943
Delta R.T. 0.01 min
Lab File: VX017258.D
Acq: 08 Jul 2020 16:16

Tgt Ion:114 Resp: 428166

Ion	Ratio	Lower	Upper
114	100		
63	19.1	0.0	41.4
88	15.5	0.0	32.4

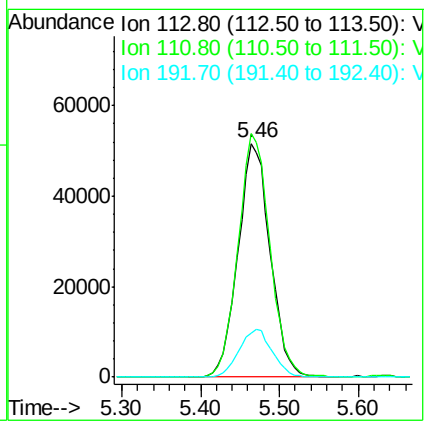




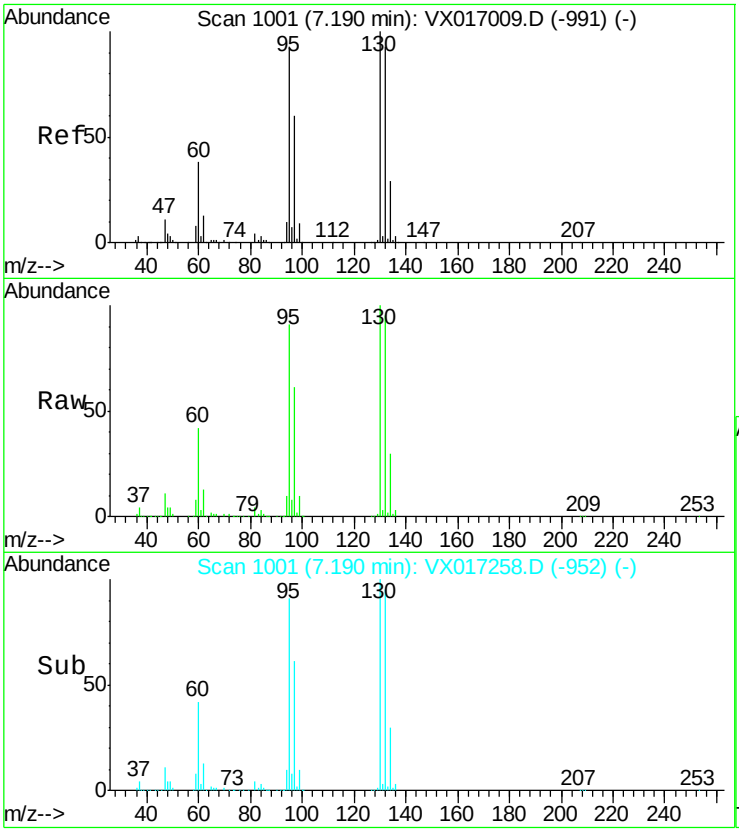
#35
Dibromofluoromethane
Concen: 53.978 ug/l
RT: 5.46 min Scan# 718
Delta R.T. -0.00 min
Lab File: VX017258.D
Acq: 08 Jul 2020 16:16

Tgt Ion:113 Resp: 146197

Ion	Ratio	Lower	Upper
113	100		
111	103.1	81.9	122.9
192	21.1	16.7	25.1



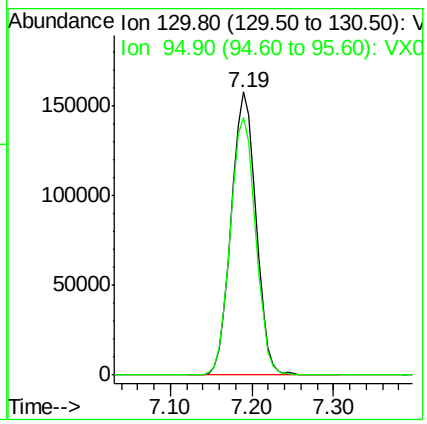
Instrument :
MSVOA_X
ClientSampleId :
1003-MW-01

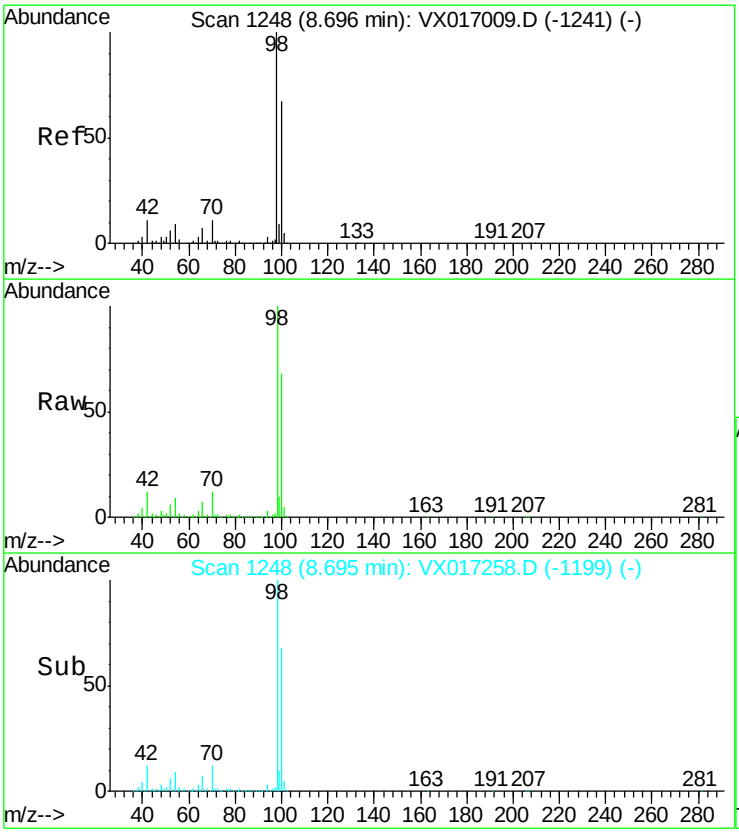


#44
Trichloroethene
Concen: 100.624 ug/l
RT: 7.19 min Scan# 1001
Delta R.T. 0.00 min
Lab File: VX017258.D
Acq: 08 Jul 2020 16:16

Tgt Ion:130 Resp: 329119

Ion	Ratio	Lower	Upper
130	100		
95	91.1	0.0	185.0

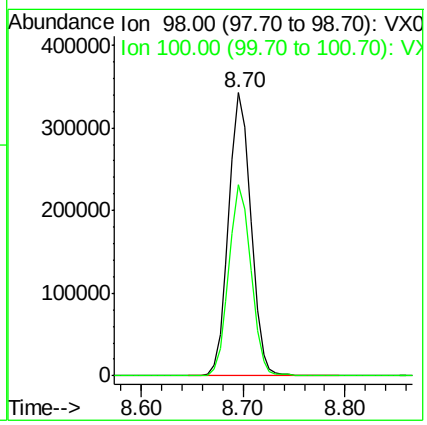




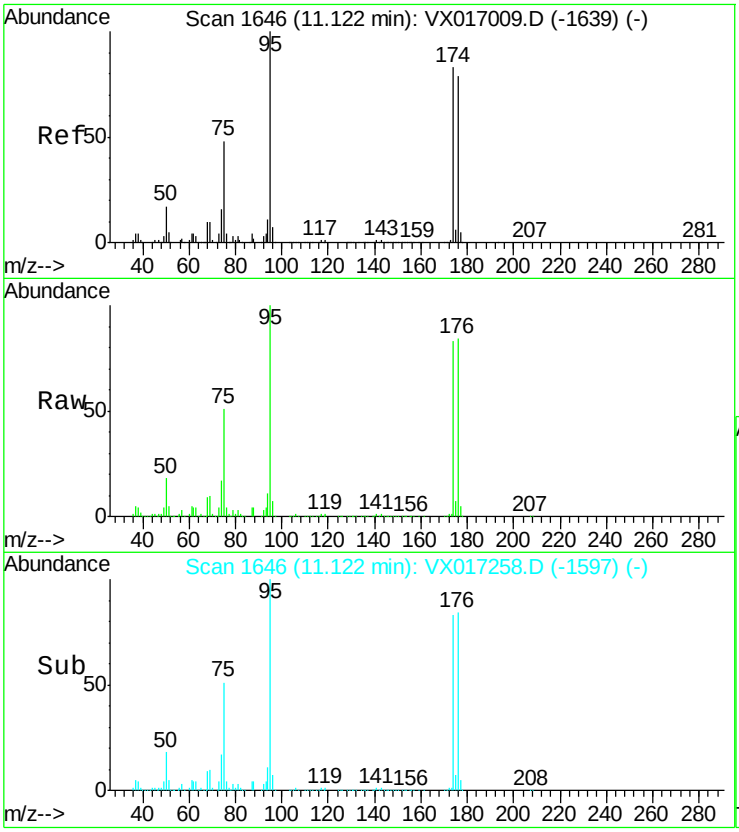
#50
Toluene-d8
Concen: 51.776 ug/l
RT: 8.70 min Scan# 1248
Delta R.T. -0.00 min
Lab File: VX017258.D
Acq: 08 Jul 2020 16:16

Tgt Ion: 98 Resp: 518553

Ion	Ratio	Lower	Upper
98	100		
100	67.2	53.8	80.6



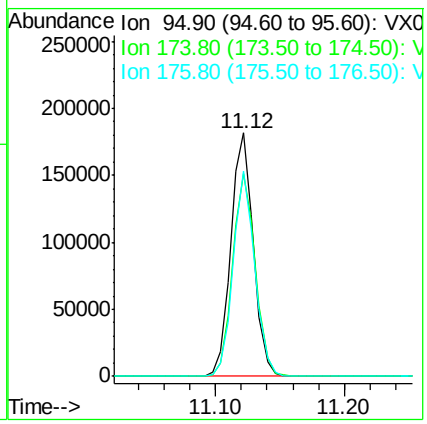
Instrument :
MSVOA_X
ClientSampleId :
1003-MW-01

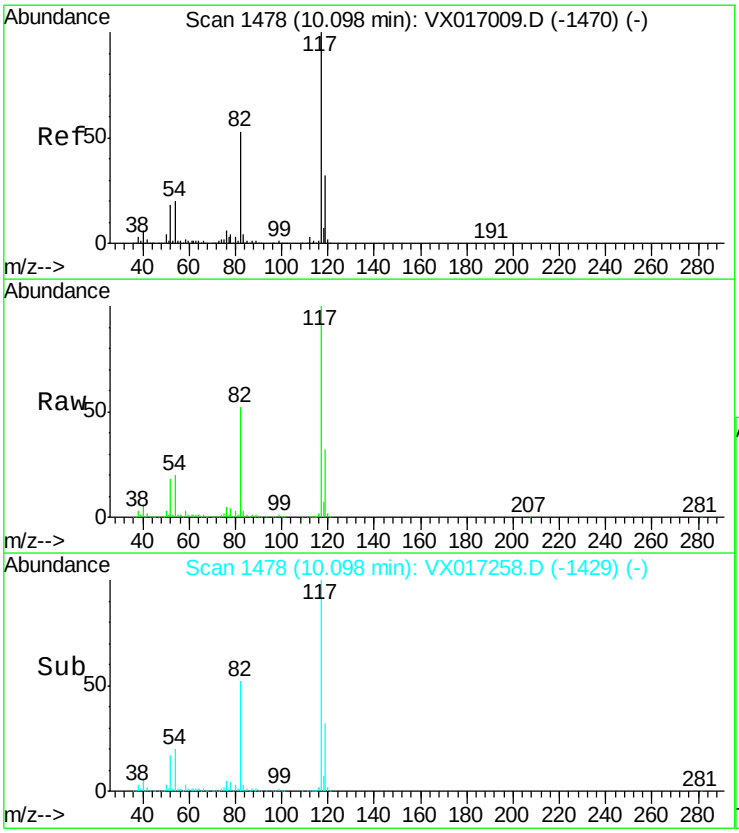


#62
4-Bromofluorobenzene
Concen: 56.729 ug/l
RT: 11.12 min Scan# 1646
Delta R.T. -0.00 min
Lab File: VX017258.D
Acq: 08 Jul 2020 16:16

Tgt Ion: 95 Resp: 222101

Ion	Ratio	Lower	Upper
95	100		
174	84.1	0.0	164.0
176	81.1	0.0	157.6

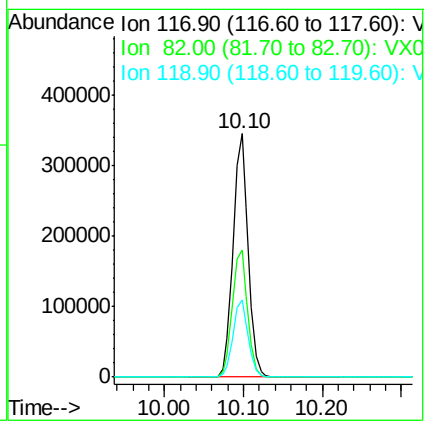




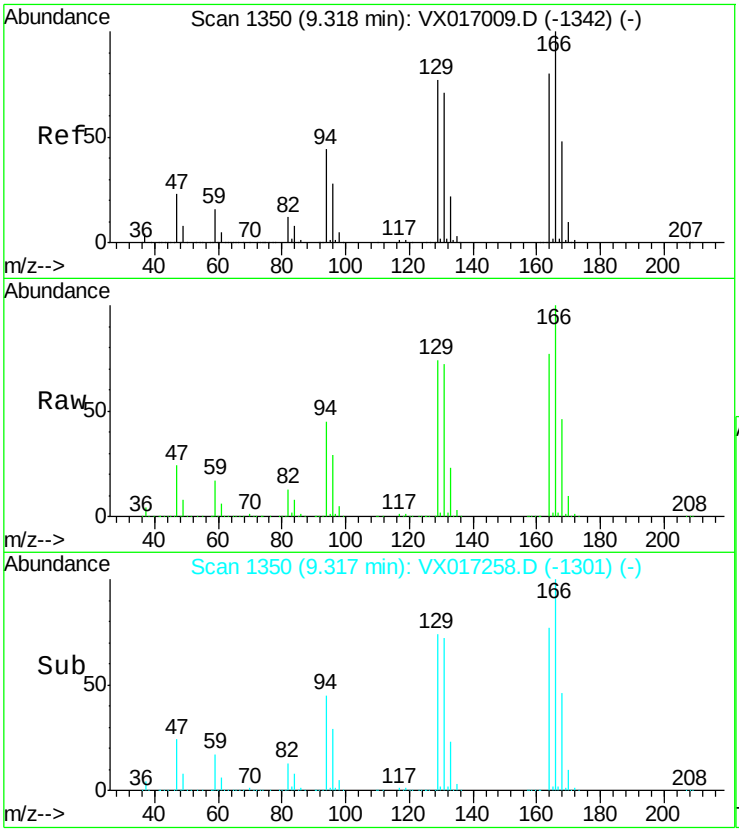
#63
Chlorobenzene-d5
Concen: 50.000 ug/l
RT: 10.10 min Scan# 1478
Delta R.T. -0.00 min
Lab File: VX017258.D
Acq: 08 Jul 2020 16:16

Tgt Ion:117 Resp: 456865

Ion	Ratio	Lower	Upper
117	100		
82	52.0	42.6	63.8
119	31.6	25.4	38.2



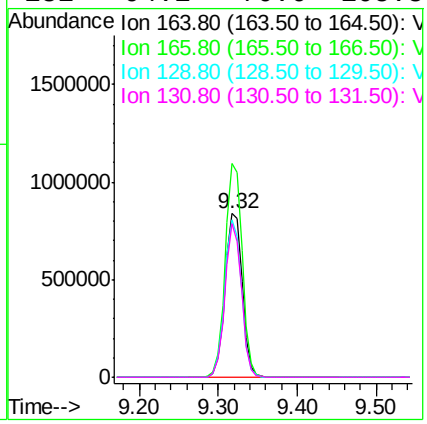
Instrument :
MSVOA_X
ClientSampleId :
1003-MW-01

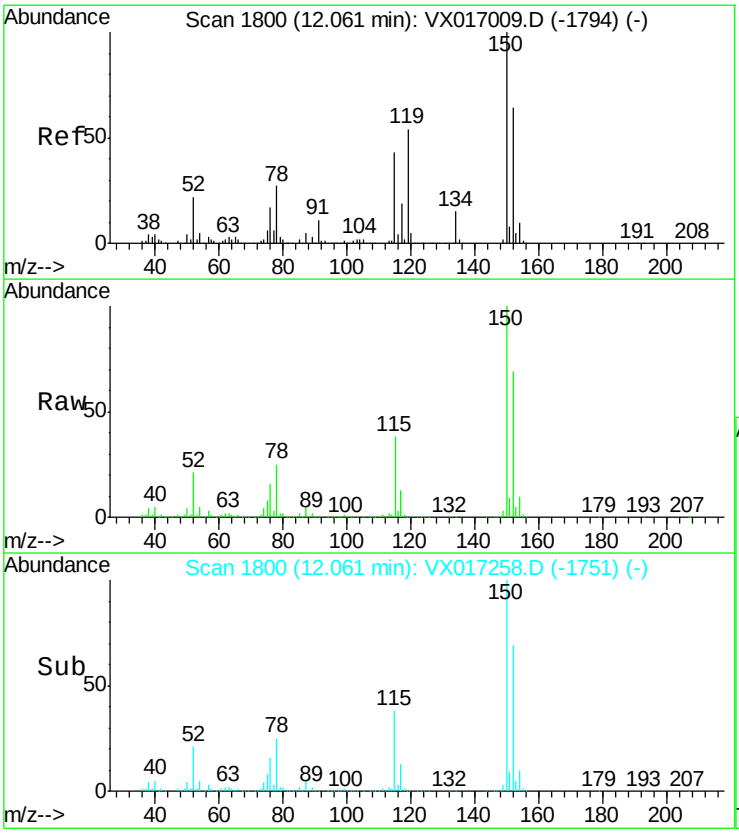


#64
Tetrachloroethene
Concen: 344.924 ug/l
RT: 9.32 min Scan# 1350
Delta R.T. -0.00 min
Lab File: VX017258.D
Acq: 08 Jul 2020 16:16

Tgt Ion:164 Resp: 1271799

Ion	Ratio	Lower	Upper
164	100		
166	130.4	99.4	149.0
129	96.0	76.3	114.5
131	94.1	70.6	105.8

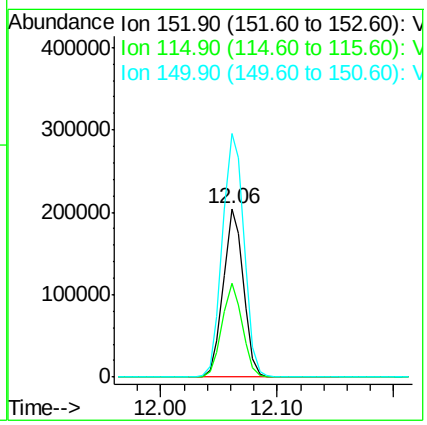




#72
1,4-Dichlorobenzene-d4
Concen: 50.000 ug/l
RT: 12.06 min Scan# 1800
Delta R.T. -0.00 min
Lab File: VX017258.D
Acq: 08 Jul 2020 16:16

Tgt Ion:152 Resp: 243585

Ion	Ratio	Lower	Upper
152	100		
115	56.1	40.9	122.7
150	154.8	0.0	351.6



Instrument :
MSVOA_X
ClientSampleId :
1003-MW-01

LSC Area Percent Report

Data Path : Z:\VOASRV\HPCHEM1\MSVOA X\DATA\VX070820\
Data File : VX017258.D
Acq On : 08 Jul 2020 16:16
Operator : JC/SP
Sample : L3232-01
Misc : 5.0mL/MSVOA X/WATER
ALS Vial : 16 Sample Multiplier: 1

Integration Parameters: RTEINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 3 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X062920W.M
Title : SW846 8260

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	4.568	558	571	588	rBV	471919	1316197	13.94%	6.432%
2	5.464	707	718	731	rBV2	168676	492902	5.22%	2.409%
3	5.629	735	745	758	rVB	266860	746102	7.90%	3.646%
4	6.031	800	811	822	rBV	173323	461852	4.89%	2.257%
5	6.836	932	943	955	rBV	413362	1002164	10.62%	4.897%
6	7.190	991	1001	1018	rBV	823520	1746737	18.51%	8.536%
7	8.695	1241	1248	1258	rBV	909214	1385060	14.67%	6.769%
8	9.317	1342	1350	1369	rBV	6397630	9439213	100.00%	46.128%
9	10.098	1471	1478	1488	rBV	989413	1342551	14.22%	6.561%
10	11.122	1640	1646	1656	rBV	893500	1098493	11.64%	5.368%
11	12.061	1795	1800	1807	rBV	1156484	1431687	15.17%	6.996%

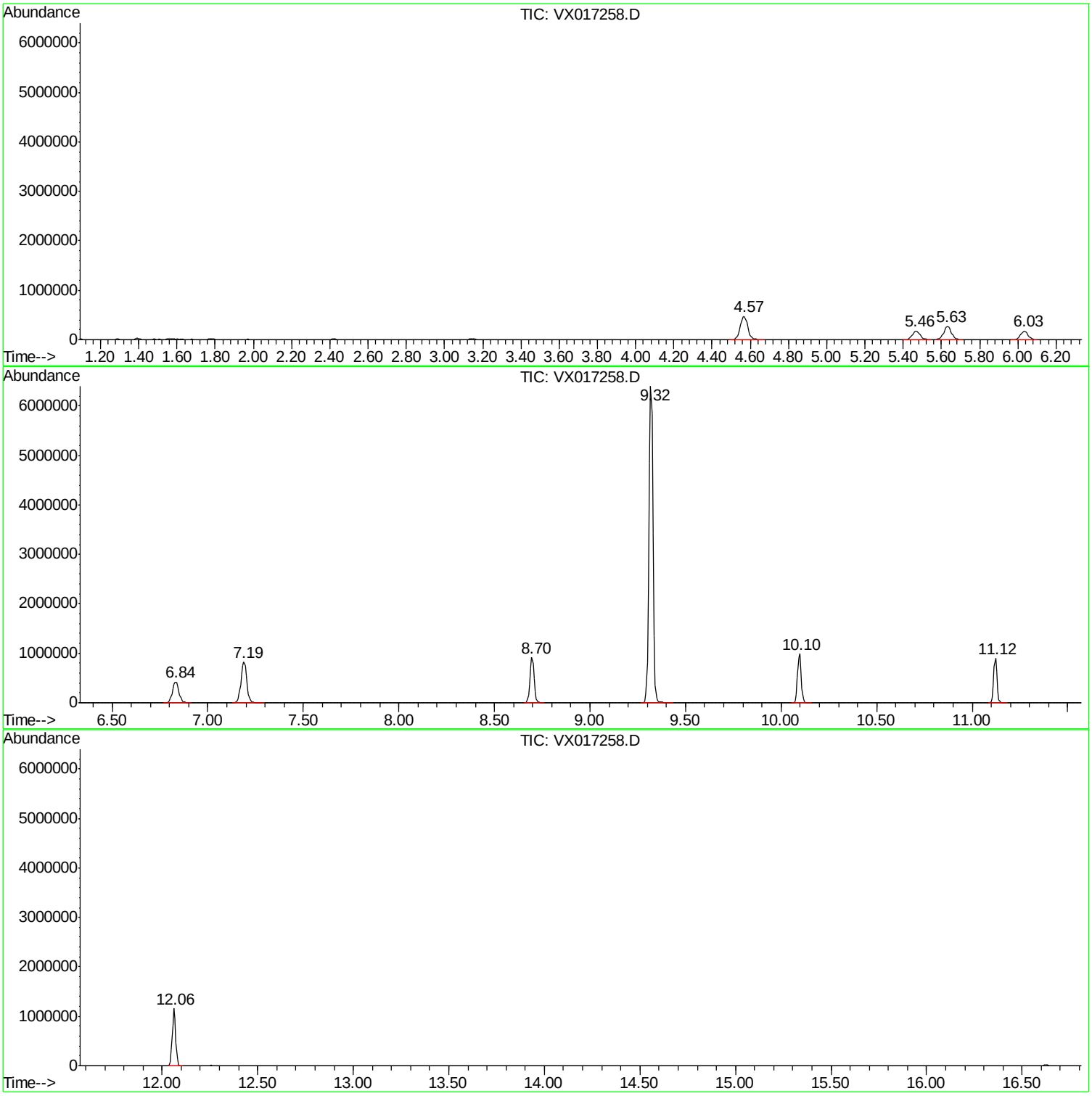
Sum of corrected areas: 20462958

Data Path : Z:\VOASRV\HPCHEM1\MSVOA X\DATA\VX070820\
Data File : VX017258.D
Acq On : 08 Jul 2020 16:16
Operator : JC/SP
Sample : L3232-01
Misc : 5.0mL/MSVOA X/WATER
ALS Vial : 16 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
1003-MW-01

Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X062920W.M
Quant Title : SW846 8260

TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P



Library Search Compound Report

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX070820\
Data File : VX017258.D
Acq On : 08 Jul 2020 16:16
Operator : JC/SP
Sample : L3232-01
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 16 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
1003-MW-01

Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X062920W.M
Quant Title : SW846 8260

TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

No Library Search Compounds Detected

****

Tentatively Identified Compound (LSC) summary

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX070820\
Data File : VX017258.D
Acq On : 08 Jul 2020 16:16
Operator : JC/SP
Sample : L3232-01
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 16 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
1003-MW-01

Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X062920W.M
Quant Title : SW846 8260

TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

TIC Top Hit name	RT	EstConc	Units	Response	Internal Standard #	Internal Standard RT	Internal Standard Resp	Internal Standard Conc

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Day Environmental, Inc.	Date Collected:	07/06/20
Project:	Andrew St. RI	Date Received:	07/07/20
Client Sample ID:	1003-MW-01DL	SDG No.:	L3232
Lab Sample ID:	L3232-01DL	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	DB-624UI ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX017231.D	10		07/08/20 02:52	VX070720

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
75-71-8	Dichlorodifluoromethane	10.0	UD	2.20	10.0	ug/L
74-87-3	Chloromethane	10.0	UD	3.00	10.0	ug/L
75-01-4	Vinyl Chloride	10.0	UD	1.60	10.0	ug/L
74-83-9	Bromomethane	50.0	UD	20.5	50.0	ug/L
75-00-3	Chloroethane	10.0	UD	3.40	10.0	ug/L
75-69-4	Trichlorofluoromethane	10.0	UD	1.60	10.0	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	10.0	UD	2.10	10.0	ug/L
75-35-4	1,1-Dichloroethene	10.0	UD	1.80	10.0	ug/L
67-64-1	Acetone	50.0	UD	9.00	50.0	ug/L
75-15-0	Carbon Disulfide	10.0	UD	2.30	10.0	ug/L
1634-04-4	Methyl tert-butyl Ether	10.0	UD	0.70	10.0	ug/L
79-20-9	Methyl Acetate	10.0	UD	6.50	10.0	ug/L
75-09-2	Methylene Chloride	10.0	UD	3.30	10.0	ug/L
156-60-5	trans-1,2-Dichloroethene	10.0	UD	2.40	10.0	ug/L
75-34-3	1,1-Dichloroethane	10.0	UD	1.70	10.0	ug/L
110-82-7	Cyclohexane	50.0	UD	12.0	50.0	ug/L
78-93-3	2-Butanone	50.0	UD	7.10	50.0	ug/L
56-23-5	Carbon Tetrachloride	10.0	UD	2.20	10.0	ug/L
156-59-2	cis-1,2-Dichloroethene	93.9	D	3.00	10.0	ug/L
74-97-5	Bromochloromethane	10.0	UD	3.10	10.0	ug/L
67-66-3	Chloroform	10.0	UD	1.40	10.0	ug/L
71-55-6	1,1,1-Trichloroethane	10.0	UD	1.20	10.0	ug/L
108-87-2	Methylcyclohexane	10.0	UD	1.70	10.0	ug/L
71-43-2	Benzene	10.0	UD	0.99	10.0	ug/L
107-06-2	1,2-Dichloroethane	10.0	UD	1.30	10.0	ug/L
79-01-6	Trichloroethene	91.3	D	2.70	10.0	ug/L
78-87-5	1,2-Dichloropropane	10.0	UD	1.40	10.0	ug/L
75-27-4	Bromodichloromethane	10.0	UD	1.00	10.0	ug/L
108-10-1	4-Methyl-2-Pentanone	50.0	UD	8.50	50.0	ug/L
108-88-3	Toluene	10.0	UD	1.20	10.0	ug/L
10061-02-6	t-1,3-Dichloropropene	10.0	UD	1.90	10.0	ug/L
10061-01-5	cis-1,3-Dichloropropene	10.0	UD	1.60	10.0	ug/L

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Day Environmental, Inc.	Date Collected:	07/06/20
Project:	Andrew St. RI	Date Received:	07/07/20
Client Sample ID:	1003-MW-01DL	SDG No.:	L3232
Lab Sample ID:	L3232-01DL	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	DB-624UI ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX017231.D	10		07/08/20 02:52	VX070720

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
79-00-5	1,1,2-Trichloroethane	10.0	UD	1.20	10.0	ug/L
591-78-6	2-Hexanone	50.0	UD	13.6	50.0	ug/L
124-48-1	Dibromochloromethane	10.0	UD	1.60	10.0	ug/L
106-93-4	1,2-Dibromoethane	10.0	UD	1.40	10.0	ug/L
127-18-4	Tetrachloroethene	300	D	1.50	10.0	ug/L
108-90-7	Chlorobenzene	10.0	UD	0.76	10.0	ug/L
100-41-4	Ethyl Benzene	10.0	UD	0.83	10.0	ug/L
179601-23-1	m/p-Xylenes	20.0	UD	2.00	20.0	ug/L
95-47-6	o-Xylene	10.0	UD	1.30	10.0	ug/L
100-42-5	Styrene	10.0	UD	1.10	10.0	ug/L
75-25-2	Bromoform	10.0	UD	1.50	10.0	ug/L
98-82-8	Isopropylbenzene	10.0	UD	1.30	10.0	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	10.0	UD	1.50	10.0	ug/L
541-73-1	1,3-Dichlorobenzene	10.0	UD	1.40	10.0	ug/L
106-46-7	1,4-Dichlorobenzene	10.0	UD	2.00	10.0	ug/L
95-50-1	1,2-Dichlorobenzene	10.0	UD	1.20	10.0	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	10.0	UD	5.40	10.0	ug/L
120-82-1	1,2,4-Trichlorobenzene	10.0	UD	2.40	10.0	ug/L
87-61-6	1,2,3-Trichlorobenzene	10.0	UD	2.60	10.0	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	54.4		61 - 141	109%	SPK: 50
1868-53-7	Dibromofluoromethane	54.5		69 - 133	109%	SPK: 50
2037-26-5	Toluene-d8	52.6		65 - 126	105%	SPK: 50
460-00-4	4-Bromofluorobenzene	56.4		58 - 135	113%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	243000	5.64			
540-36-3	1,4-Difluorobenzene	408000	6.83			
3114-55-4	Chlorobenzene-d5	426000	10.1			
3855-82-1	1,4-Dichlorobenzene-d4	231000	12.06			

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Day Environmental, Inc.	Date Collected:	07/06/20
Project:	Andrew St. RI	Date Received:	07/07/20
Client Sample ID:	1003-MW-01DL	SDG No.:	L3232
Lab Sample ID:	L3232-01DL	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	DB-624UI ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX017231.D	10		07/08/20 02:52	VX070720

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit
A = Aldol-Condensation Reaction Products

Quantitation Report (QT Reviewed)

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX070720\
Data File : VX017231.D
Acq On : 08 Jul 2020 02:52
Operator : JC/SP
Sample : L3232-01DL 10X
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 45 Sample Multiplier: 1

Instrument : MSVOA_X
ClientSampleId : 1003-MW-01DL

Quant Time: Jul 08 04:24:11 2020
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X062920W.M
Quant Title : SW846 8260
QLast Update : Mon Jun 29 17:10:38 2020
Response via : Initial Calibration

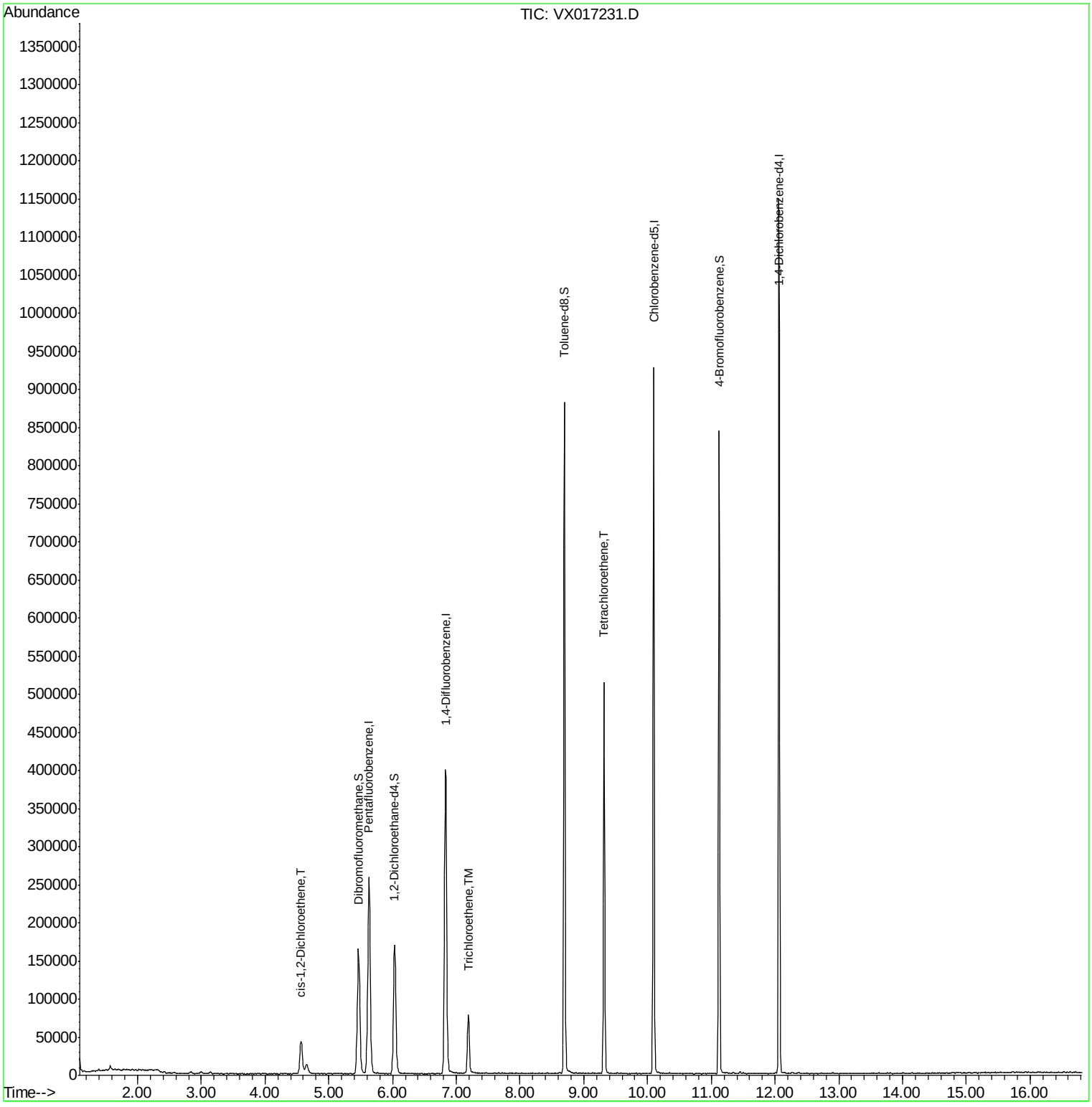
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	5.64	168	243092	50.00	ug/l	0.00
34) 1,4-Difluorobenzene	6.83	114	407762	50.00	ug/l	0.00
63) Chlorobenzene-d5	10.10	117	425891	50.00	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	12.06	152	231127	50.00	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	6.03	65	163069	54.41	ug/l	0.00
Spiked Amount 50.000			Recovery = 108.82%			
35) Dibromofluoromethane	5.46	113	140558	54.49	ug/l	0.00
Spiked Amount 50.000			Recovery = 108.98%			
50) Toluene-d8	8.70	98	501895	52.62	ug/l	0.00
Spiked Amount 50.000			Recovery = 105.24%			
62) 4-Bromofluorobenzene	11.12	95	210201	56.38	ug/l	0.00
Spiked Amount 50.000			Recovery = 112.76%			
Target Compounds						Qvalue
27) cis-1,2-Dichloroethene	4.57	96	28394	9.389	ug/l	90
44) Trichloroethene	7.19	130	29330	9.134	ug/l	94
64) Tetrachloroethene	9.32	164	101997	29.674	ug/l	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

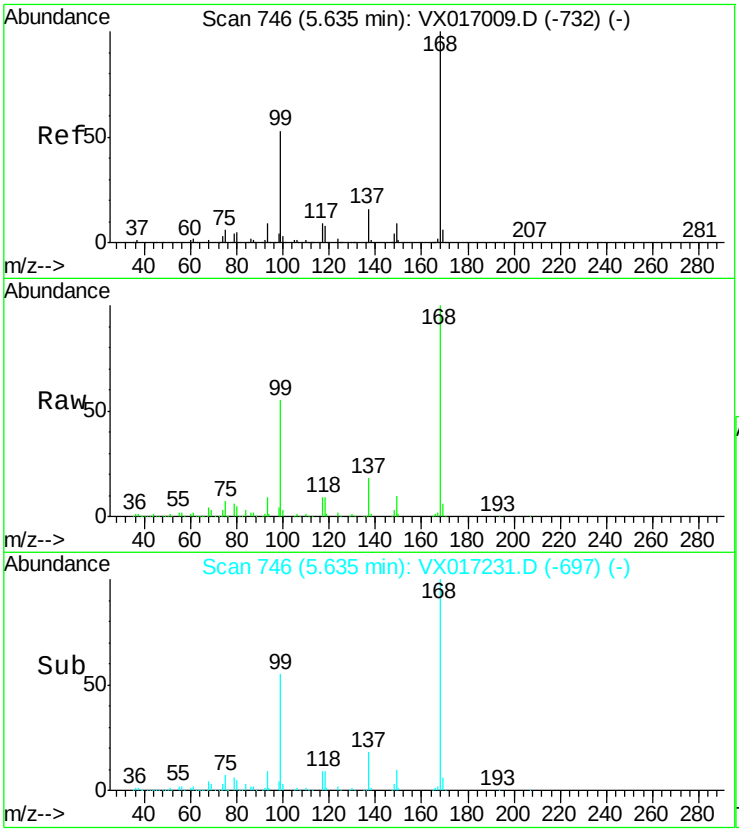
Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX070720\
Data File : VX017231.D
Acq On : 08 Jul 2020 02:52
Operator : JC/SP
Sample : L3232-01DL 10X
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 45 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
1003-MW-01DL

Quant Time: Jul 08 04:24:11 2020
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X062920W.M
Quant Title : SW846 8260
QLast Update : Mon Jun 29 17:10:38 2020
Response via : Initial Calibration



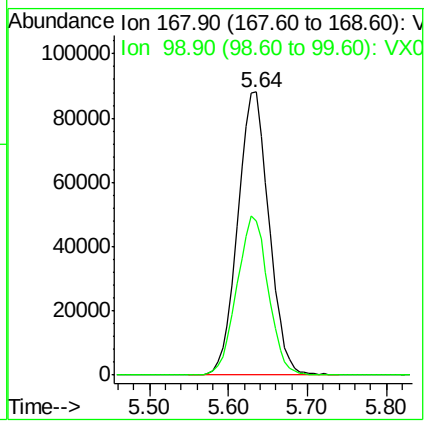
Instrument :
MSVOA_X
ClientSampleId :
1003-MW-01DL

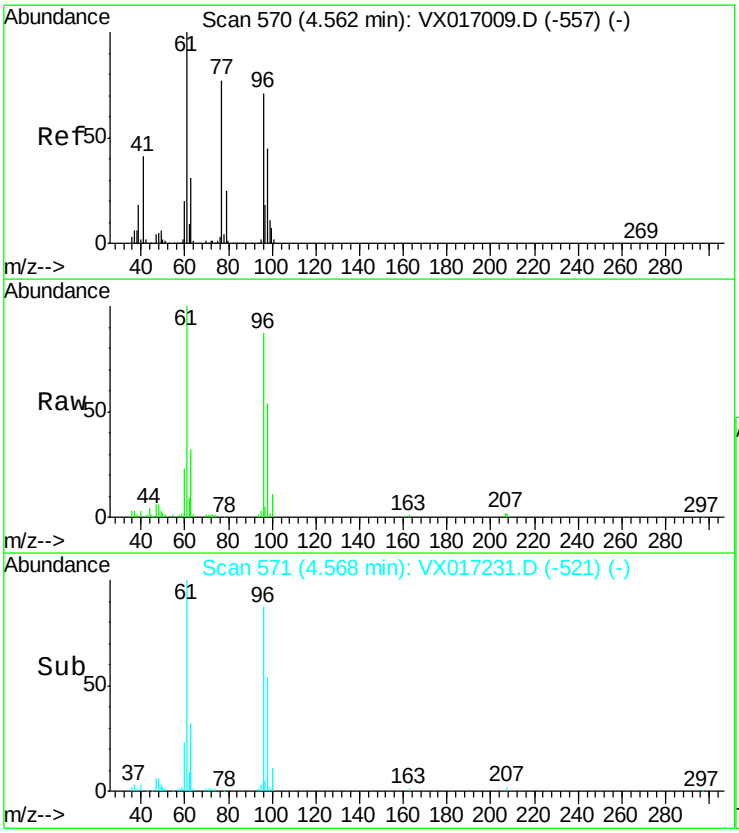


#1
Pentafluorobenzene
Concen: 50.000 ug/l
RT: 5.64 min Scan# 746
Delta R.T. -0.00 min
Lab File: VX017231.D
Acq: 08 Jul 2020 02:52

Tgt Ion:168 Resp: 243092

Ion	Ratio	Lower	Upper
168	100		
99	54.5	42.6	64.0

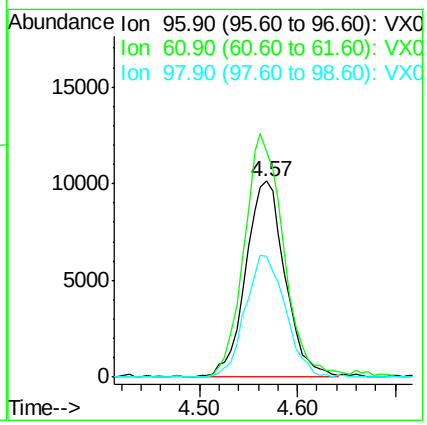




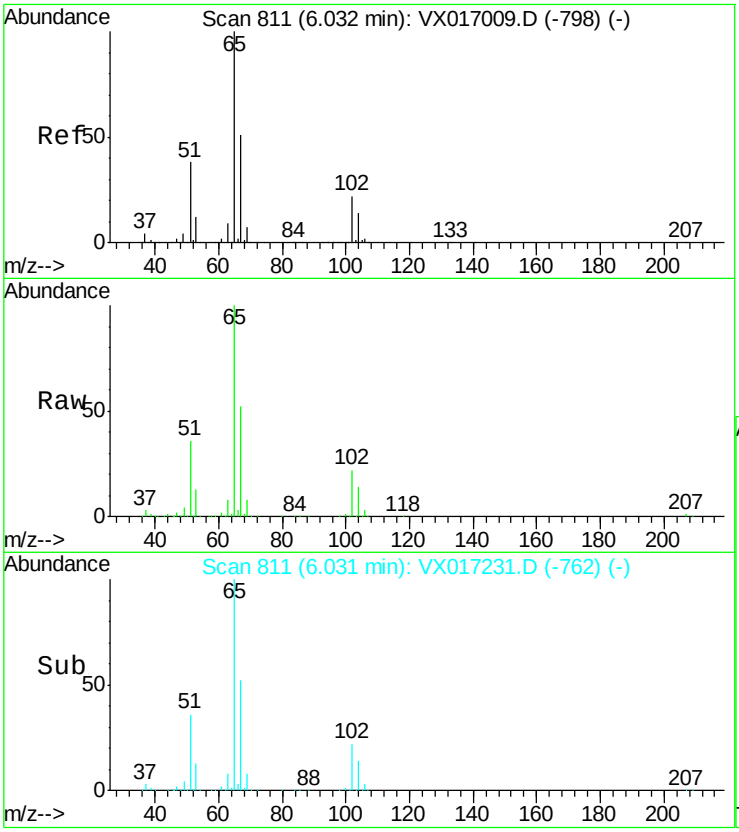
#27
cis-1,2-Dichloroethene
Concen: 9.389 ug/l
RT: 4.57 min Scan# 571
Delta R.T. 0.01 min
Lab File: VX017231.D
Acq: 08 Jul 2020 02:52

Tgt Ion: 96 Resp: 28394

Ion	Ratio	Lower	Upper
96	100		
61	124.4	0.0	282.8
98	63.1	0.0	127.6



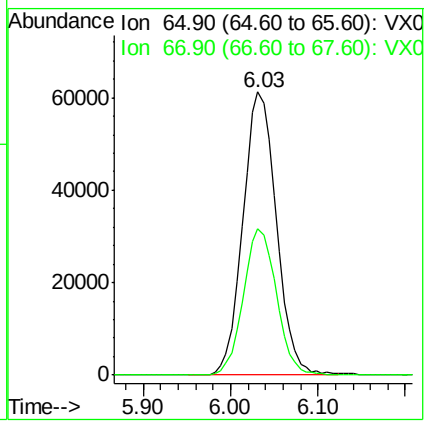
Instrument :
MSVOA_X
ClientSampleId :
1003-MW-01DL

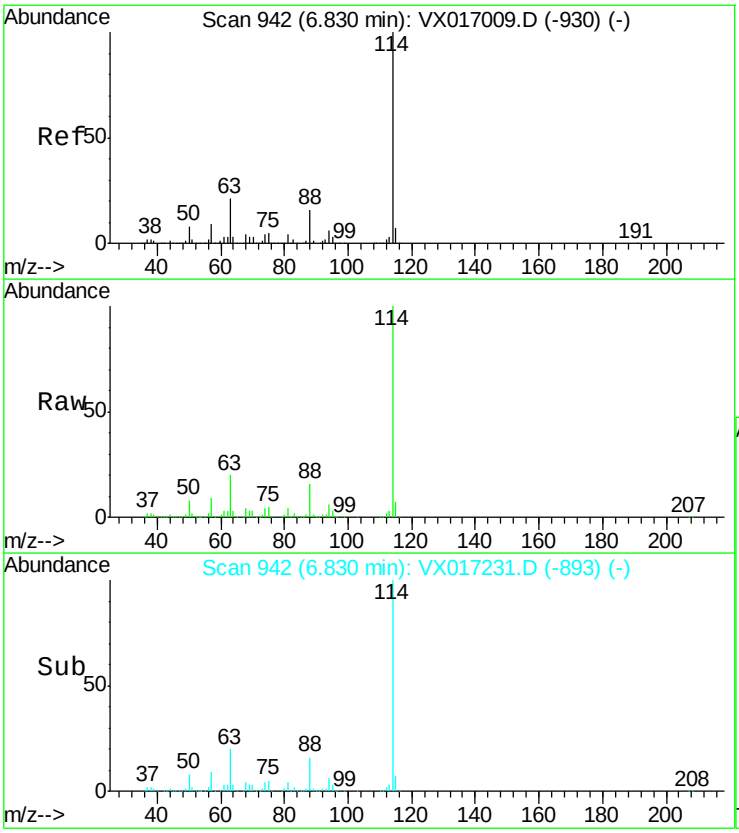


#33
1,2-Dichloroethane-d4
Concen: 54.414 ug/l
RT: 6.03 min Scan# 811
Delta R.T. -0.00 min
Lab File: VX017231.D
Acq: 08 Jul 2020 02:52

Tgt Ion: 65 Resp: 163069

Ion	Ratio	Lower	Upper
65	100		
67	51.2	0.0	103.8

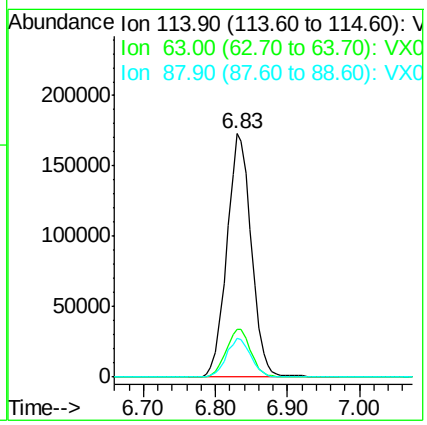




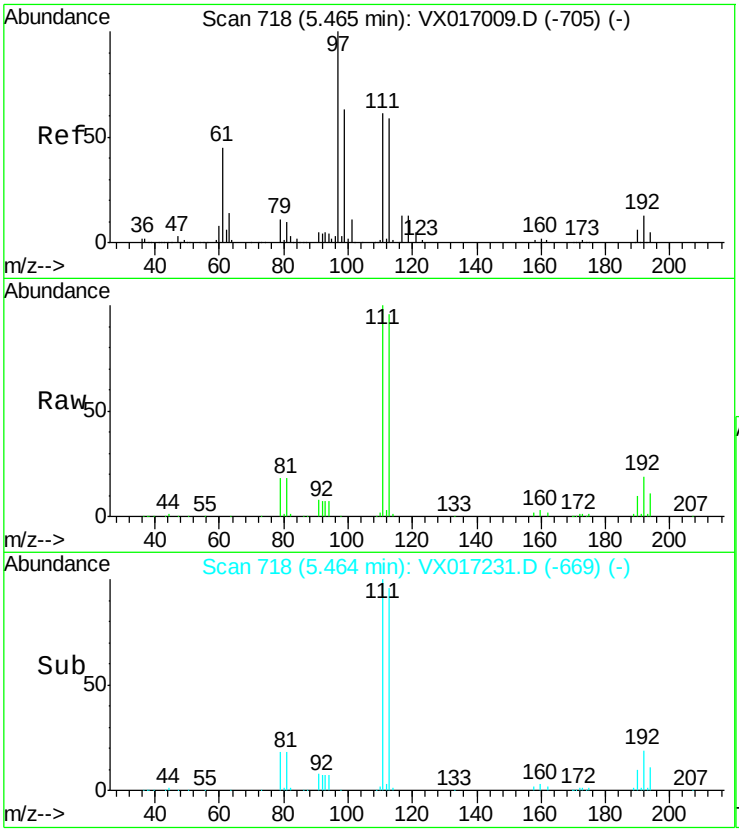
#34
1,4-Difluorobenzene
Concen: 50.000 ug/l
RT: 6.83 min Scan# 942
Delta R.T. -0.00 min
Lab File: VX017231.D
Acq: 08 Jul 2020 02:52

Tgt Ion:114 Resp: 407762

Ion	Ratio	Lower	Upper
114	100		
63	19.7	0.0	41.4
88	15.9	0.0	32.4



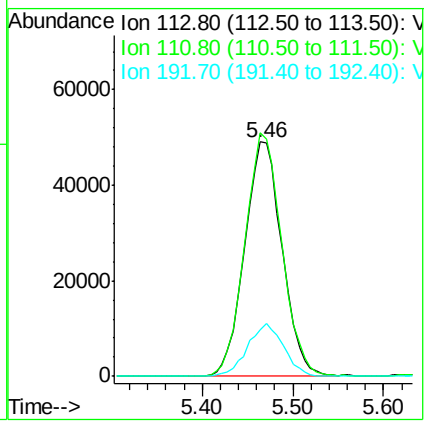
Instrument :
MSVOA_X
ClientSampleId :
1003-MW-01DL

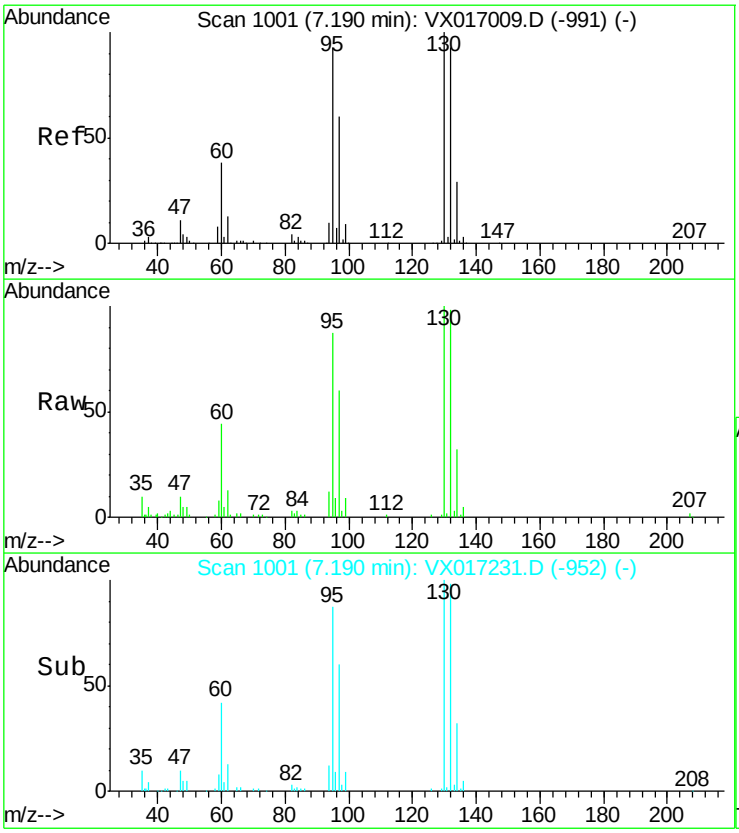


#35
Dibromofluoromethane
Concen: 54.493 ug/l
RT: 5.46 min Scan# 718
Delta R.T. -0.00 min
Lab File: VX017231.D
Acq: 08 Jul 2020 02:52

Tgt Ion:113 Resp: 140558

Ion	Ratio	Lower	Upper
113	100		
111	102.3	81.9	122.9
192	21.7	16.7	25.1

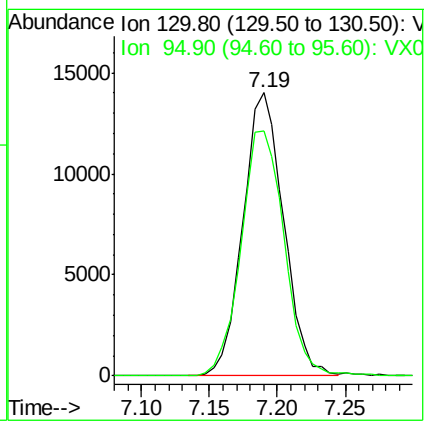




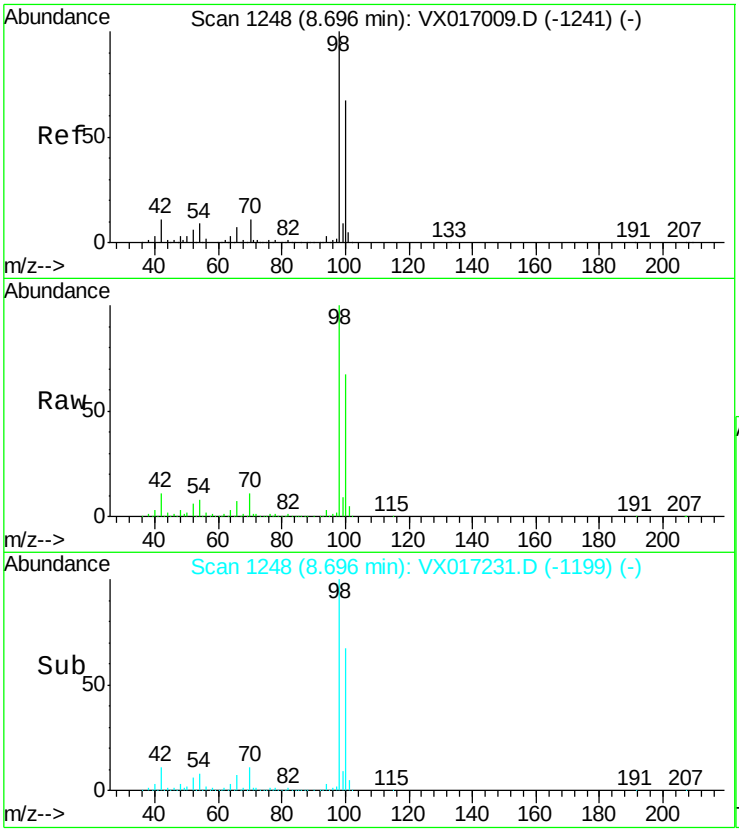
#44
Trichloroethene
Concen: 9.134 ug/l
RT: 7.19 min Scan# 1001
Delta R.T. 0.00 min
Lab File: VX017231.D
Acq: 08 Jul 2020 02:52

Tgt Ion:130 Resp: 29330

Ion	Ratio	Lower	Upper
130	100		
95	86.6	0.0	185.0



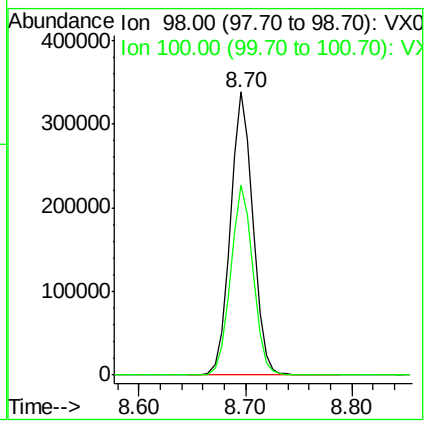
Instrument :
MSVOA_X
ClientSampleId :
1003-MW-01DL

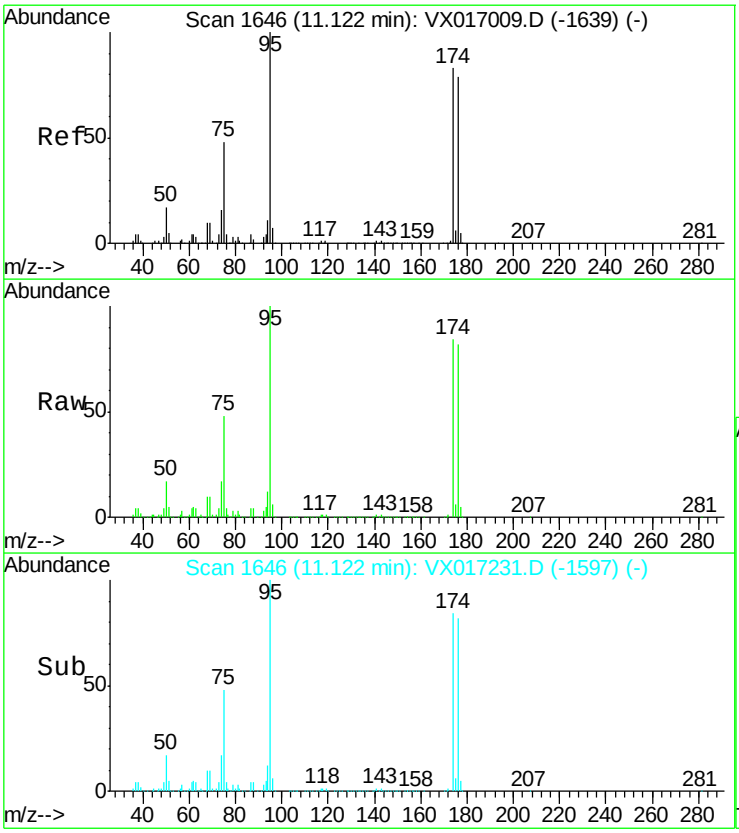


#50
Toluene-d8
Concen: 52.620 ug/l
RT: 8.70 min Scan# 1248
Delta R.T. -0.00 min
Lab File: VX017231.D
Acq: 08 Jul 2020 02:52

Tgt Ion: 98 Resp: 501895

Ion	Ratio	Lower	Upper
98	100		
100	66.9	53.8	80.6

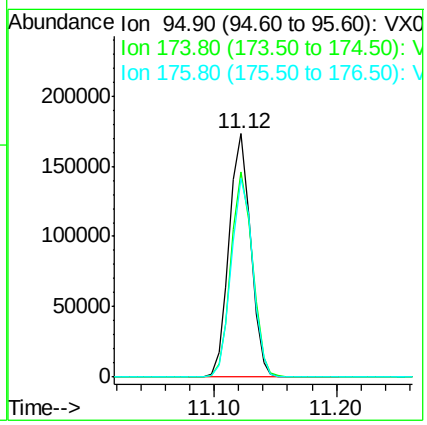




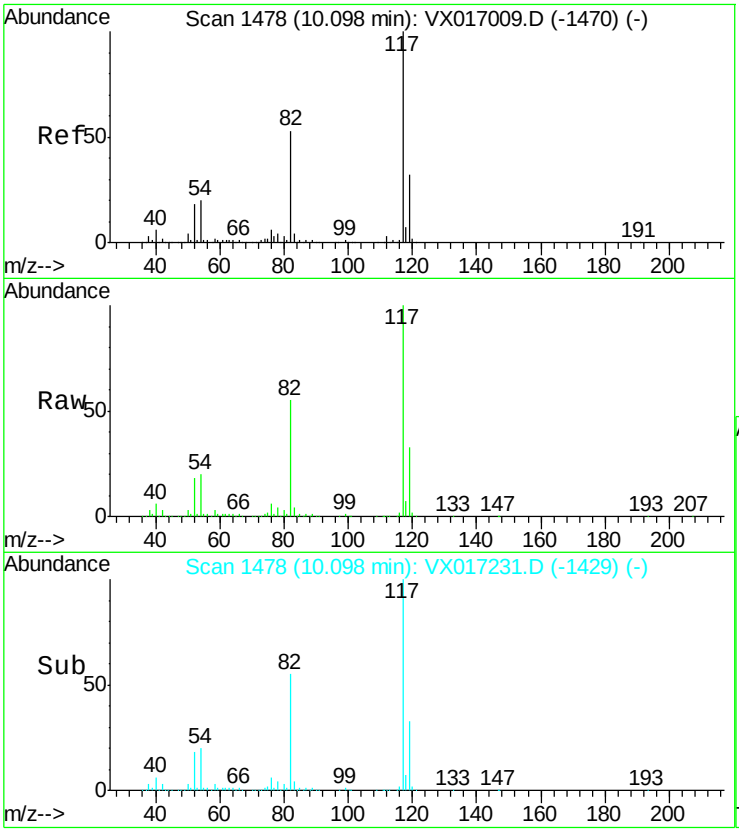
#62
4-Bromofluorobenzene
Concen: 56.376 ug/l
RT: 11.12 min Scan# 1646
Delta R.T. -0.00 min
Lab File: VX017231.D
Acq: 08 Jul 2020 02:52

Tgt Ion: 95 Resp: 210201

Ion	Ratio	Lower	Upper
95	100		
174	84.5	0.0	164.0
176	81.6	0.0	157.6



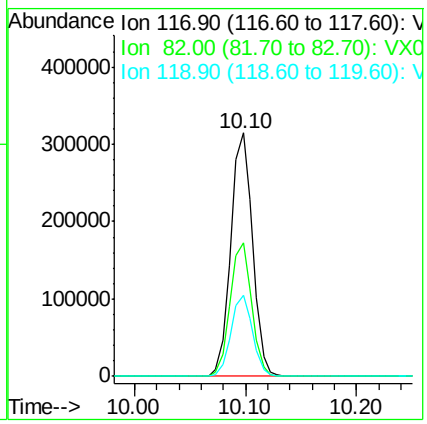
Instrument :
MSVOA_X
ClientSampleId :
1003-MW-01DL

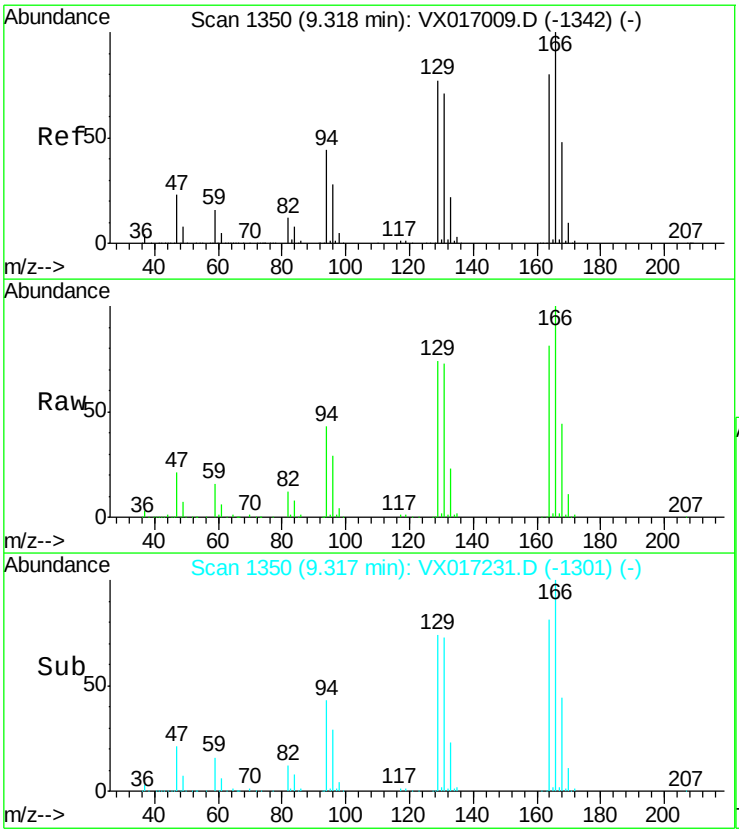


#63
Chlorobenzene-d5
Concen: 50.000 ug/l
RT: 10.10 min Scan# 1478
Delta R.T. -0.00 min
Lab File: VX017231.D
Acq: 08 Jul 2020 02:52

Tgt Ion:117 Resp: 425891

Ion	Ratio	Lower	Upper
117	100		
82	54.8	42.6	63.8
119	33.2	25.4	38.2

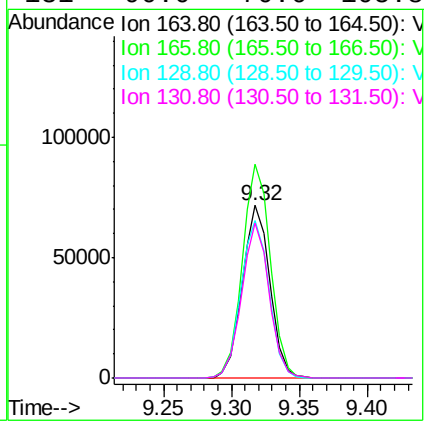


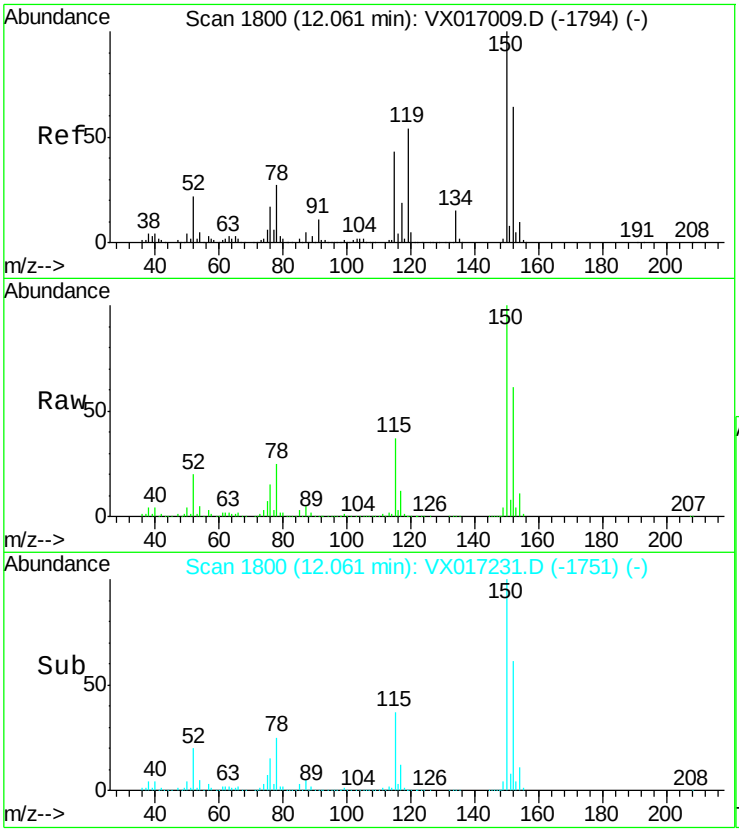


#64
Tetrachloroethene
Concen: 29.674 ug/l
RT: 9.32 min Scan# 1350
Delta R.T. -0.00 min
Lab File: VX017231.D
Acq: 08 Jul 2020 02:52

Tgt Ion:164 Resp: 101997

Ion	Ratio	Lower	Upper
164	100		
166	123.9	99.4	149.0
129	91.5	76.3	114.5
131	90.0	70.6	105.8

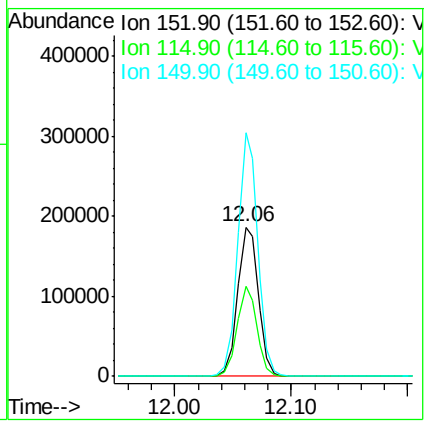




#72
1,4-Dichlorobenzene-d4
Concen: 50.000 ug/l
RT: 12.06 min Scan# 1800
Delta R.T. -0.00 min
Lab File: VX017231.D
Acq: 08 Jul 2020 02:52

Tgt Ion:152 Resp: 231127

Ion	Ratio	Lower	Upper
152	100		
115	57.4	40.9	122.7
150	157.0	0.0	351.6



Instrument :
MSVOA_X
ClientSampleId :
1003-MW-01DL

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Day Environmental, Inc.	Date Collected:	07/06/20
Project:	Andrew St. RI	Date Received:	07/07/20
Client Sample ID:	1004-MW-02	SDG No.:	L3232
Lab Sample ID:	L3232-02	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	DB-624UI ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX017232.D	1		07/08/20 03:15	VX070720

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
75-71-8	Dichlorodifluoromethane	1.00	U	0.22	1.00	ug/L
74-87-3	Chloromethane	1.00	U	0.30	1.00	ug/L
75-01-4	Vinyl Chloride	3.10		0.16	1.00	ug/L
74-83-9	Bromomethane	5.00	U	2.10	5.00	ug/L
75-00-3	Chloroethane	1.00	U	0.34	1.00	ug/L
75-69-4	Trichlorofluoromethane	1.00	U	0.16	1.00	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	1.00	U	0.21	1.00	ug/L
75-35-4	1,1-Dichloroethene	0.48	J	0.18	1.00	ug/L
67-64-1	Acetone	10.2		0.90	5.00	ug/L
75-15-0	Carbon Disulfide	1.00	U	0.23	1.00	ug/L
1634-04-4	Methyl tert-butyl Ether	1.00	U	0.070	1.00	ug/L
79-20-9	Methyl Acetate	1.00	U	0.65	1.00	ug/L
75-09-2	Methylene Chloride	1.00	U	0.33	1.00	ug/L
156-60-5	trans-1,2-Dichloroethene	1.70		0.24	1.00	ug/L
75-34-3	1,1-Dichloroethane	1.00	U	0.17	1.00	ug/L
110-82-7	Cyclohexane	5.00	U	1.20	5.00	ug/L
78-93-3	2-Butanone	5.00	U	0.71	5.00	ug/L
56-23-5	Carbon Tetrachloride	1.00	U	0.22	1.00	ug/L
156-59-2	cis-1,2-Dichloroethene	54.2		0.30	1.00	ug/L
74-97-5	Bromochloromethane	1.00	U	0.31	1.00	ug/L
67-66-3	Chloroform	1.00	U	0.14	1.00	ug/L
71-55-6	1,1,1-Trichloroethane	1.00	U	0.12	1.00	ug/L
108-87-2	Methylcyclohexane	1.00	U	0.17	1.00	ug/L
71-43-2	Benzene	1.00	U	0.10	1.00	ug/L
107-06-2	1,2-Dichloroethane	1.00	U	0.13	1.00	ug/L
79-01-6	Trichloroethene	63.9		0.27	1.00	ug/L
78-87-5	1,2-Dichloropropane	1.00	U	0.14	1.00	ug/L
75-27-4	Bromodichloromethane	1.00	U	0.10	1.00	ug/L
108-10-1	4-Methyl-2-Pentanone	5.00	U	0.85	5.00	ug/L
108-88-3	Toluene	1.00	U	0.12	1.00	ug/L
10061-02-6	t-1,3-Dichloropropene	1.00	U	0.19	1.00	ug/L
10061-01-5	cis-1,3-Dichloropropene	1.00	U	0.16	1.00	ug/L

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Day Environmental, Inc.	Date Collected:	07/06/20
Project:	Andrew St. RI	Date Received:	07/07/20
Client Sample ID:	1004-MW-02	SDG No.:	L3232
Lab Sample ID:	L3232-02	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	DB-624UI ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX017232.D	1		07/08/20 03:15	VX070720

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
79-00-5	1,1,2-Trichloroethane	1.00	U	0.12	1.00	ug/L
591-78-6	2-Hexanone	5.00	U	1.40	5.00	ug/L
124-48-1	Dibromochloromethane	1.00	U	0.16	1.00	ug/L
106-93-4	1,2-Dibromoethane	1.00	U	0.14	1.00	ug/L
127-18-4	Tetrachloroethene	130		0.15	1.00	ug/L
108-90-7	Chlorobenzene	1.00	U	0.080	1.00	ug/L
100-41-4	Ethyl Benzene	1.00	U	0.080	1.00	ug/L
179601-23-1	m/p-Xylenes	2.00	U	0.20	2.00	ug/L
95-47-6	o-Xylene	1.00	U	0.13	1.00	ug/L
100-42-5	Styrene	1.00	U	0.11	1.00	ug/L
75-25-2	Bromoform	1.00	U	0.15	1.00	ug/L
98-82-8	Isopropylbenzene	1.00	U	0.13	1.00	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	1.00	U	0.15	1.00	ug/L
541-73-1	1,3-Dichlorobenzene	1.00	U	0.14	1.00	ug/L
106-46-7	1,4-Dichlorobenzene	1.00	U	0.20	1.00	ug/L
95-50-1	1,2-Dichlorobenzene	1.00	U	0.12	1.00	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	1.00	U	0.54	1.00	ug/L
120-82-1	1,2,4-Trichlorobenzene	1.00	U	0.24	1.00	ug/L
87-61-6	1,2,3-Trichlorobenzene	1.00	U	0.26	1.00	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	54.3		61 - 141	109%	SPK: 50
1868-53-7	Dibromofluoromethane	53.2		69 - 133	106%	SPK: 50
2037-26-5	Toluene-d8	52.6		65 - 126	105%	SPK: 50
460-00-4	4-Bromofluorobenzene	54.4		58 - 135	109%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	243000	5.64			
540-36-3	1,4-Difluorobenzene	410000	6.83			
3114-55-4	Chlorobenzene-d5	424000	10.1			
3855-82-1	1,4-Dichlorobenzene-d4	221000	12.06			
TENTATIVE IDENTIFIED COMPOUNDS						
000075-28-5	Isobutane	5.60	J		1.29	ug/L

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Day Environmental, Inc.	Date Collected:	07/06/20
Project:	Andrew St. RI	Date Received:	07/07/20
Client Sample ID:	1004-MW-02	SDG No.:	L3232
Lab Sample ID:	L3232-02	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	DB-624UI ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX017232.D	1		07/08/20 03:15	VX070720

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit
A = Aldol-Condensation Reaction Products

Quantitation Report (LSC Reviewed)

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX070720\
Data File : VX017232.D
Acq On : 08 Jul 2020 03:15
Operator : JC/SP
Sample : L3232-02
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 46 Sample Multiplier: 1

Instrument : MSVOA_X
ClientSampleId : 1004-MW-02

Quant Time: Jul 08 07:03:25 2020
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X062920W.M
Quant Title : SW846 8260
QLast Update : Mon Jun 29 17:10:38 2020
Response via : Initial Calibration

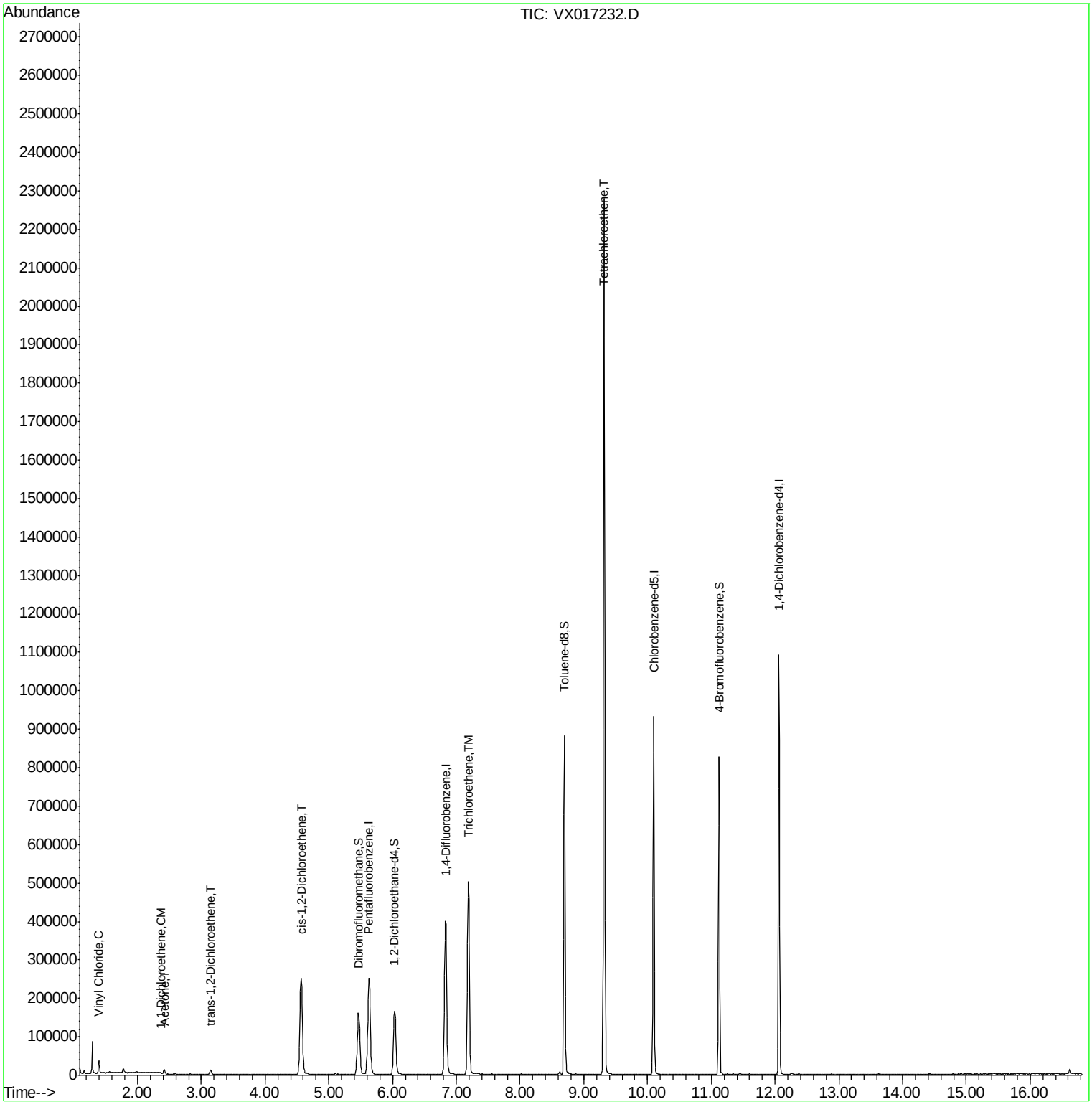
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	5.64	168	243026	50.00	ug/l	0.00
34) 1,4-Difluorobenzene	6.83	114	409727	50.00	ug/l	0.00
63) Chlorobenzene-d5	10.10	117	423863	50.00	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	12.06	152	220893	50.00	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	6.03	65	162802	54.34	ug/l	0.00
Spiked Amount 50.000			Recovery =	108.68%		
35) Dibromofluoromethane	5.46	113	137796	53.17	ug/l	0.00
Spiked Amount 50.000			Recovery =	106.34%		
50) Toluene-d8	8.70	98	504008	52.59	ug/l	0.00
Spiked Amount 50.000			Recovery =	105.18%		
62) 4-Bromofluorobenzene	11.12	95	203868	54.42	ug/l	0.00
Spiked Amount 50.000			Recovery =	108.84%		
Target Compounds						Qvalue
4) Vinyl Chloride	1.39	62	8291	3.140	ug/l	99
12) 1,1-Dichloroethene	2.36	96	1142	0.475	ug/l #	91
16) Acetone	2.42	43	11466	10.230	ug/l	98
21) trans-1,2-Dichloroethene	3.14	96	4539	1.701	ug/l	96
27) cis-1,2-Dichloroethene	4.57	96	163937	54.224	ug/l	90
44) Trichloroethene	7.19	130	200299	63.882	ug/l	95
64) Tetrachloroethene	9.32	164	437703	127.952	ug/l	96

(#) = qualifier out of range (m) = manual integration (+) = signals summed

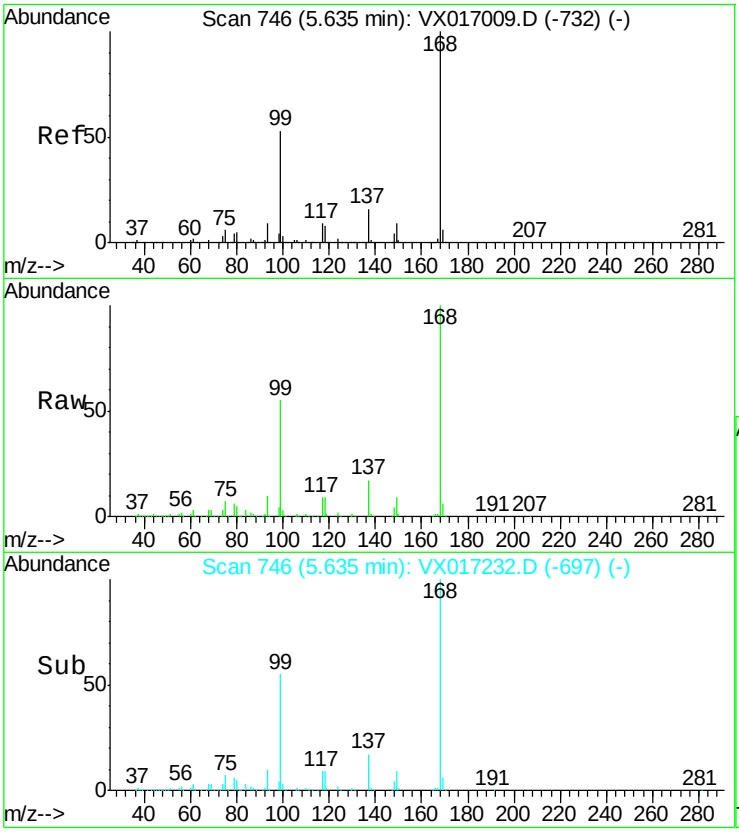
Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX070720\
Data File : VX017232.D
Acq On : 08 Jul 2020 03:15
Operator : JC/SP
Sample : L3232-02
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 46 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
1004-MW-02

Quant Time: Jul 08 07:03:25 2020
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X062920W.M
Quant Title : SW846 8260
QLast Update : Mon Jun 29 17:10:38 2020
Response via : Initial Calibration



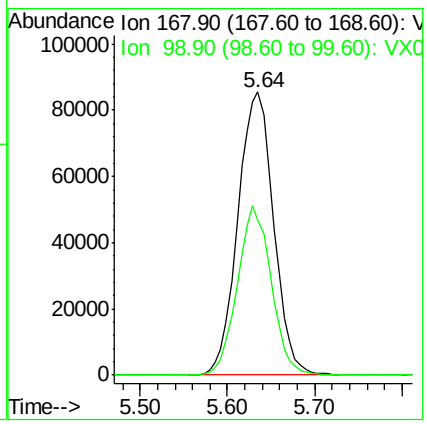
Instrument :
MSVOA_X
ClientSampleId :
1004-MW-02

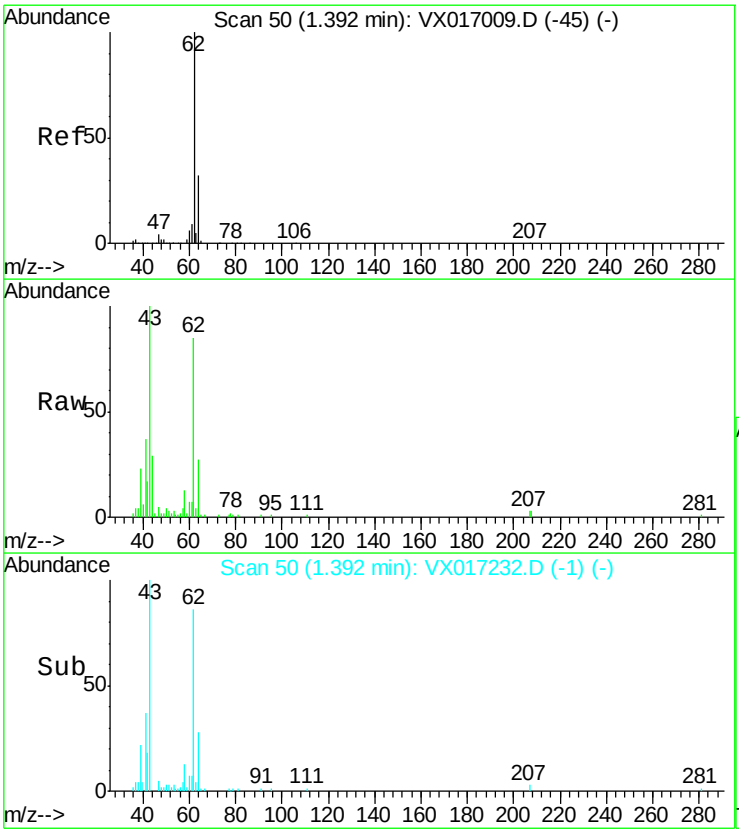


#1
Pentafluorobenzene
Concen: 50.000 ug/l
RT: 5.64 min Scan# 746
Delta R.T. -0.00 min
Lab File: VX017232.D
Acq: 08 Jul 2020 03:15

Tgt Ion:168 Resp: 243026

Ion	Ratio	Lower	Upper
168	100		
99	55.1	42.6	64.0

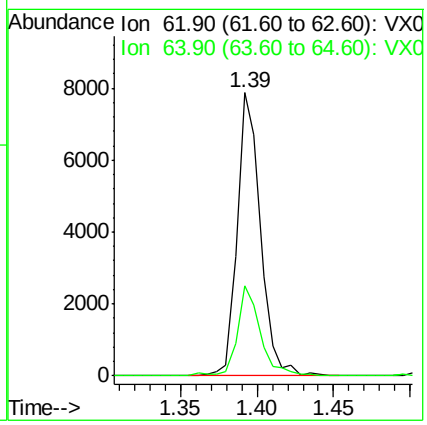




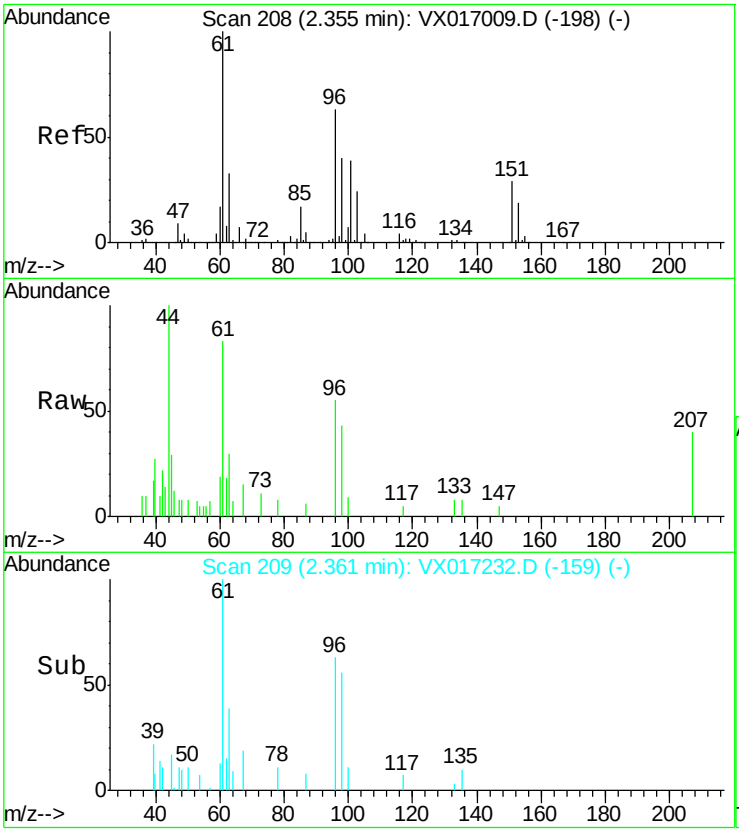
#4
Vinyl Chloride
Concen: 3.140 ug/l
RT: 1.39 min Scan# 50
Delta R.T. -0.00 min
Lab File: VX017232.D
Acq: 08 Jul 2020 03:15

Tgt Ion: 62 Resp: 8291

Ion	Ratio	Lower	Upper
62	100		
64	32.0	25.9	38.9



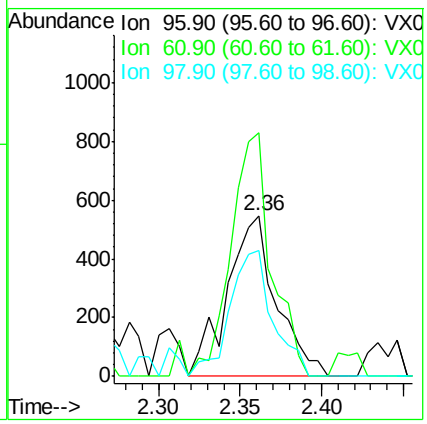
Instrument :
MSVOA_X
ClientSampleId :
1004-MW-02

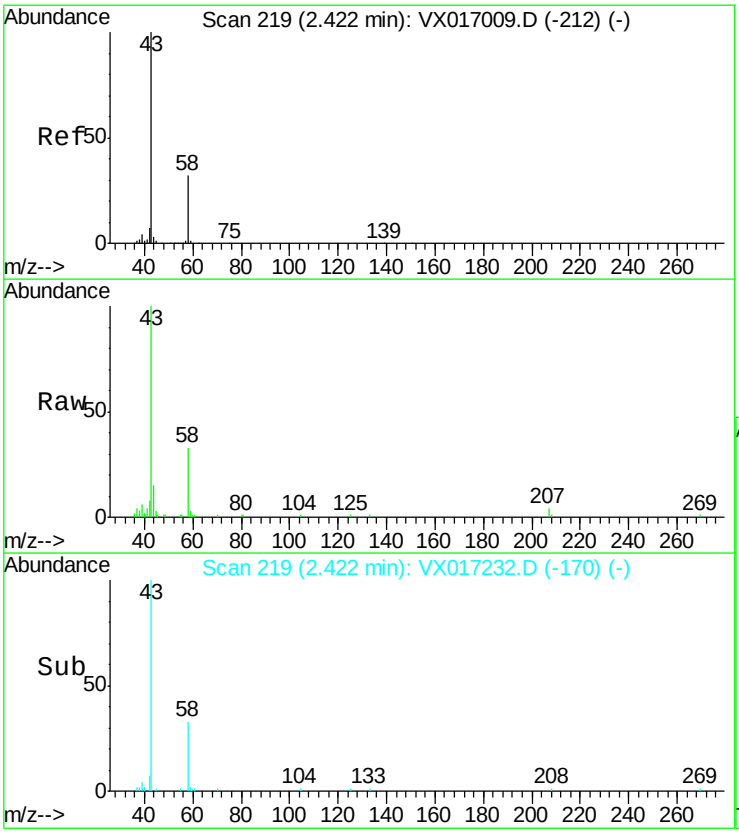


#12
1,1-Dichloroethene
Concen: 0.475 ug/l
RT: 2.36 min Scan# 209
Delta R.T. 0.01 min
Lab File: VX017232.D
Acq: 08 Jul 2020 03:15

Tgt Ion: 96 Resp: 1142

Ion	Ratio	Lower	Upper
96	100		
61	151.6	126.3	189.5
98	78.2	51.0	76.6#

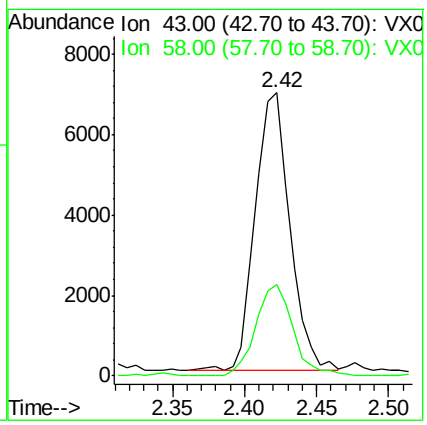




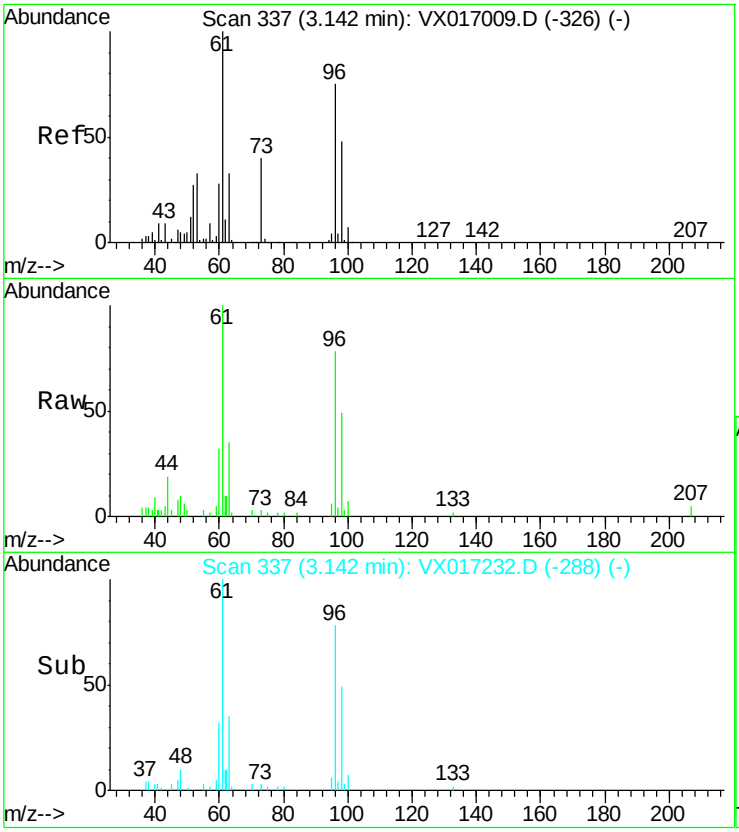
#16
Acetone
Concen: 10.230 ug/l
RT: 2.42 min Scan# 219
Delta R.T. -0.00 min
Lab File: VX017232.D
Acq: 08 Jul 2020 03:15

Tgt Ion: 43 Resp: 11466

Ion	Ratio	Lower	Upper
43	100		
58	33.2	25.7	38.5



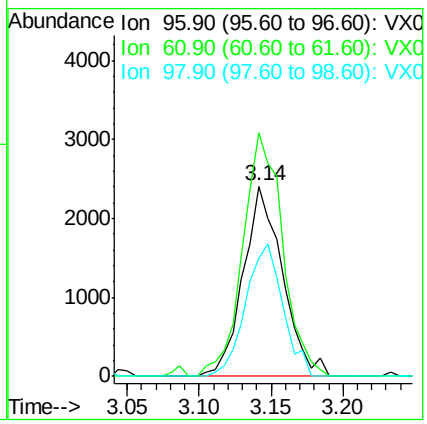
Instrument :
MSVOA_X
ClientSampleId :
1004-MW-02

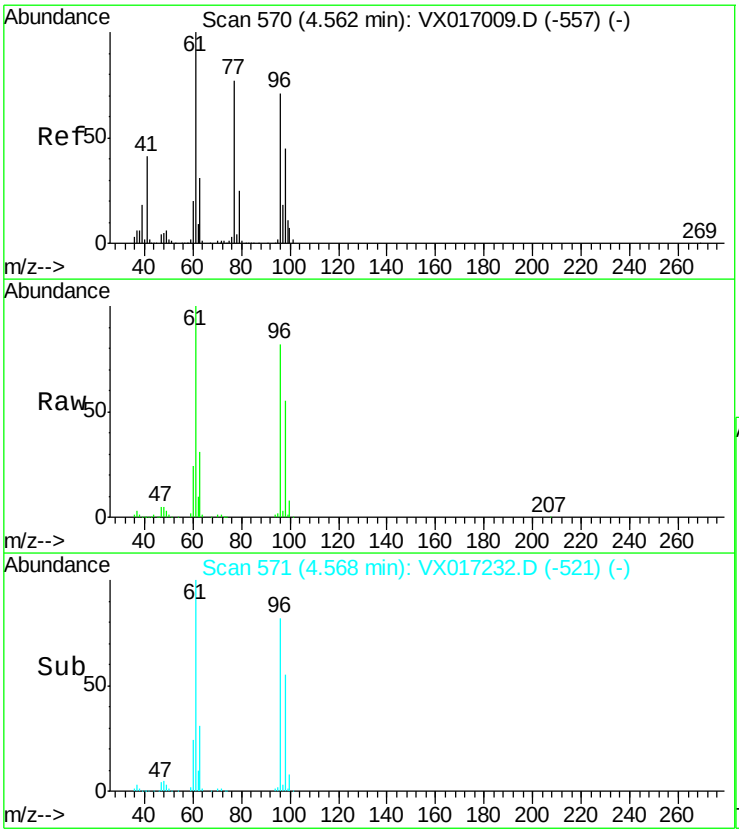


#21
trans-1,2-Dichloroethene
Concen: 1.701 ug/l
RT: 3.14 min Scan# 337
Delta R.T. -0.00 min
Lab File: VX017232.D
Acq: 08 Jul 2020 03:15

Tgt Ion: 96 Resp: 4539

Ion	Ratio	Lower	Upper
96	100		
61	128.2	107.0	160.6
98	62.3	51.6	77.4

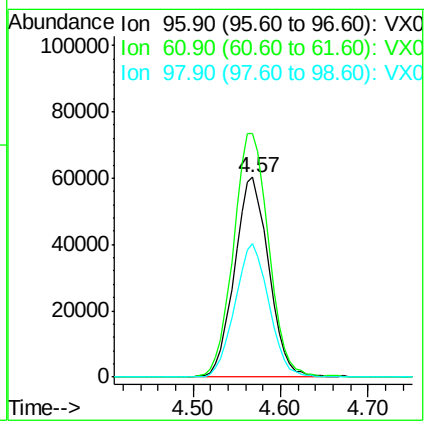




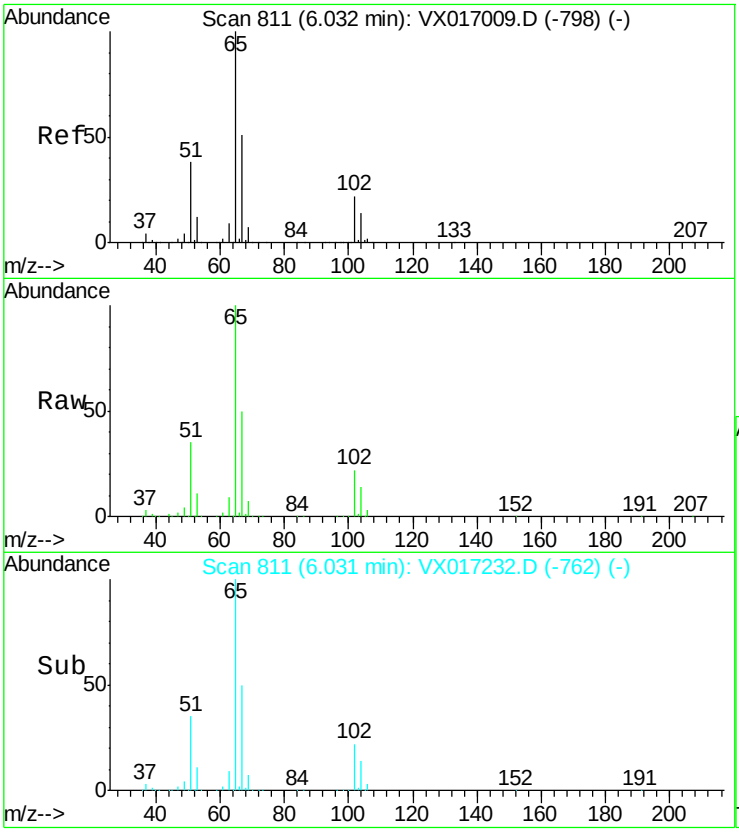
#27
cis-1,2-Dichloroethene
Concen: 54.224 ug/l
RT: 4.57 min Scan# 571
Delta R.T. 0.01 min
Lab File: VX017232.D
Acq: 08 Jul 2020 03:15

Tgt Ion: 96 Resp: 163937

Ion	Ratio	Lower	Upper
96	100		
61	125.3	0.0	282.8
98	66.7	0.0	127.6



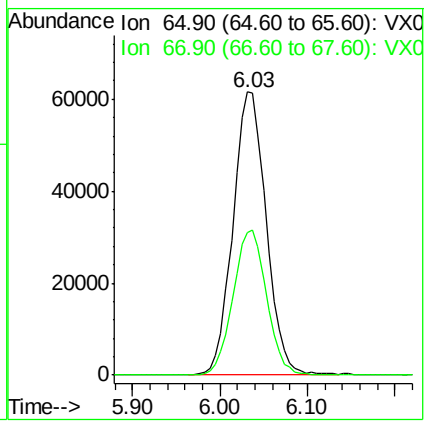
Instrument :
MSVOA_X
ClientSampleId :
1004-MW-02

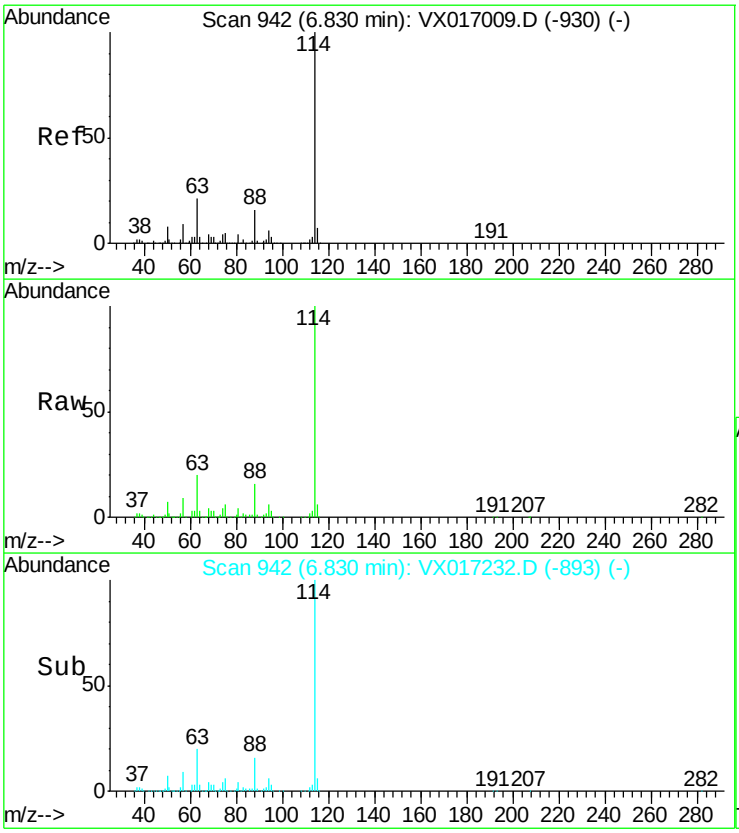


#33
1,2-Dichloroethane-d4
Concen: 54.339 ug/l
RT: 6.03 min Scan# 811
Delta R.T. -0.00 min
Lab File: VX017232.D
Acq: 08 Jul 2020 03:15

Tgt Ion: 65 Resp: 162802

Ion	Ratio	Lower	Upper
65	100		
67	51.6	0.0	103.8

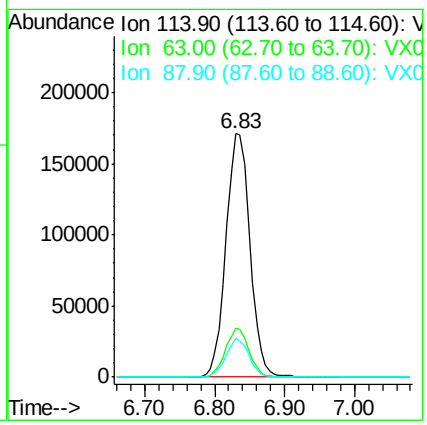




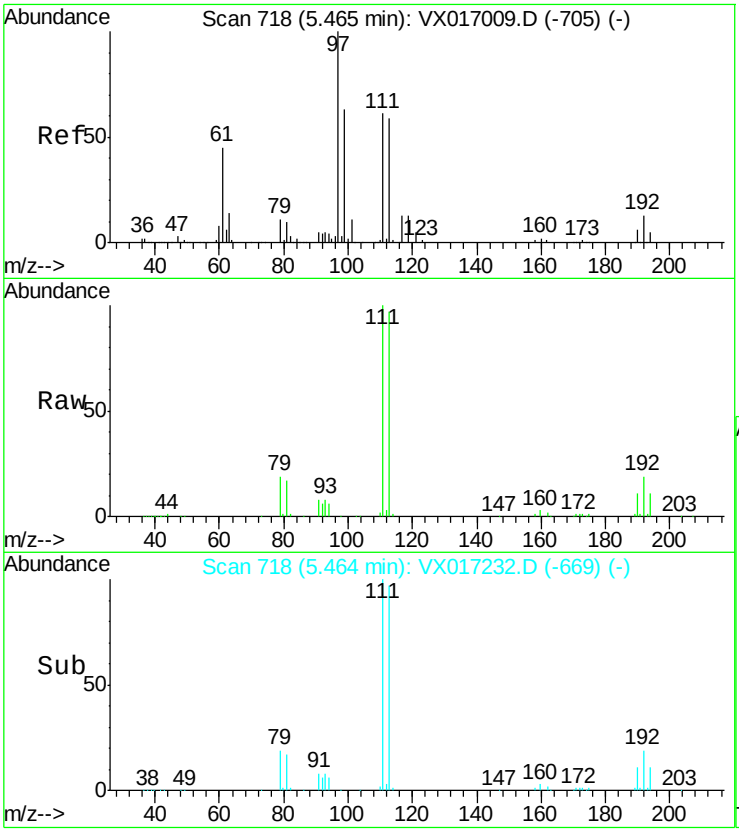
#34
1,4-Difluorobenzene
Concen: 50.000 ug/l
RT: 6.83 min Scan# 942
Delta R.T. -0.00 min
Lab File: VX017232.D
Acq: 08 Jul 2020 03:15

Tgt Ion:114 Resp: 409727

Ion	Ratio	Lower	Upper
114	100		
63	20.0	0.0	41.4
88	15.8	0.0	32.4



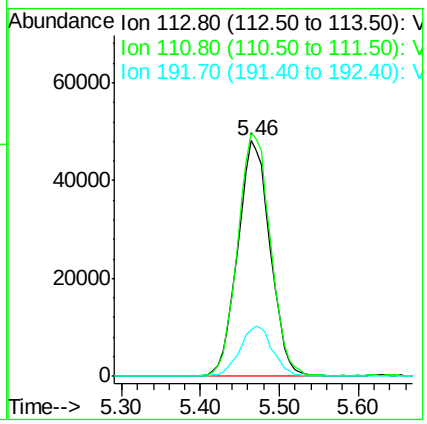
Instrument :
MSVOA_X
ClientSampleId :
1004-MW-02

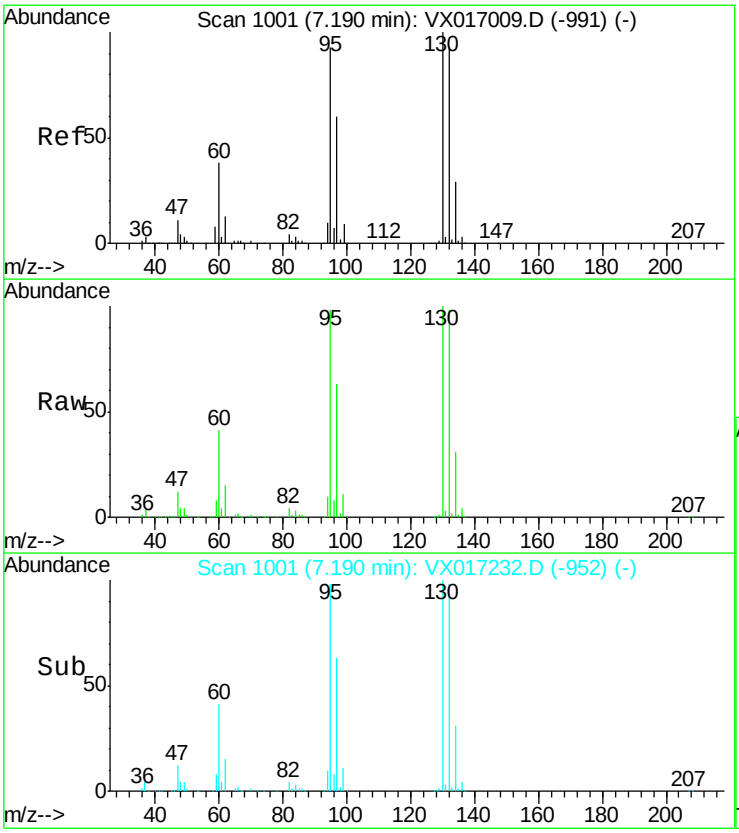


#35
Dibromofluoromethane
Concen: 53.166 ug/l
RT: 5.46 min Scan# 718
Delta R.T. -0.00 min
Lab File: VX017232.D
Acq: 08 Jul 2020 03:15

Tgt Ion:113 Resp: 137796

Ion	Ratio	Lower	Upper
113	100		
111	104.7	81.9	122.9
192	21.6	16.7	25.1

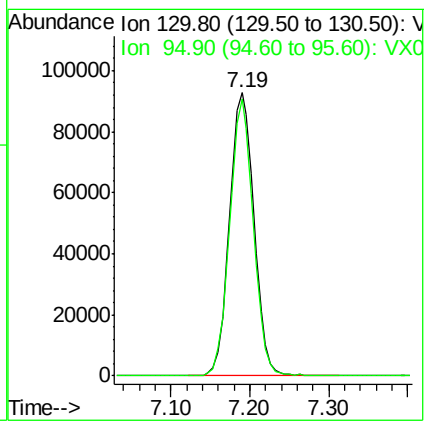




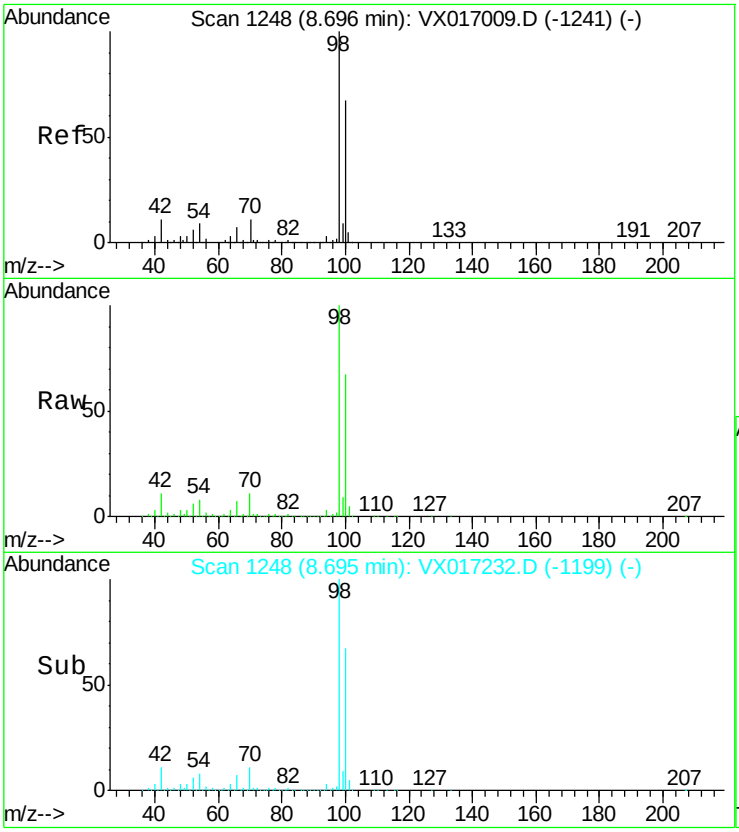
#44
Trichloroethene
Concen: 63.882 ug/l
RT: 7.19 min Scan# 1001
Delta R.T. 0.00 min
Lab File: VX017232.D
Acq: 08 Jul 2020 03:15

Tgt Ion:130 Resp: 200299

Ion	Ratio	Lower	Upper
130	100		
95	97.7	0.0	185.0



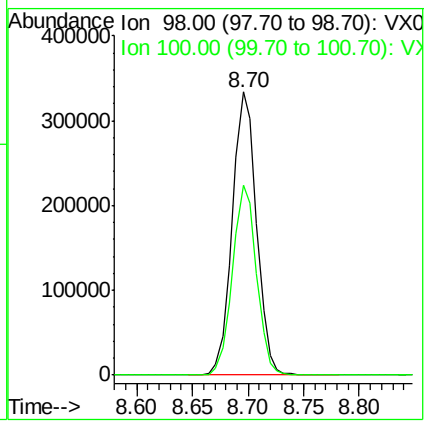
Instrument :
MSVOA_X
ClientSampleId :
1004-MW-02

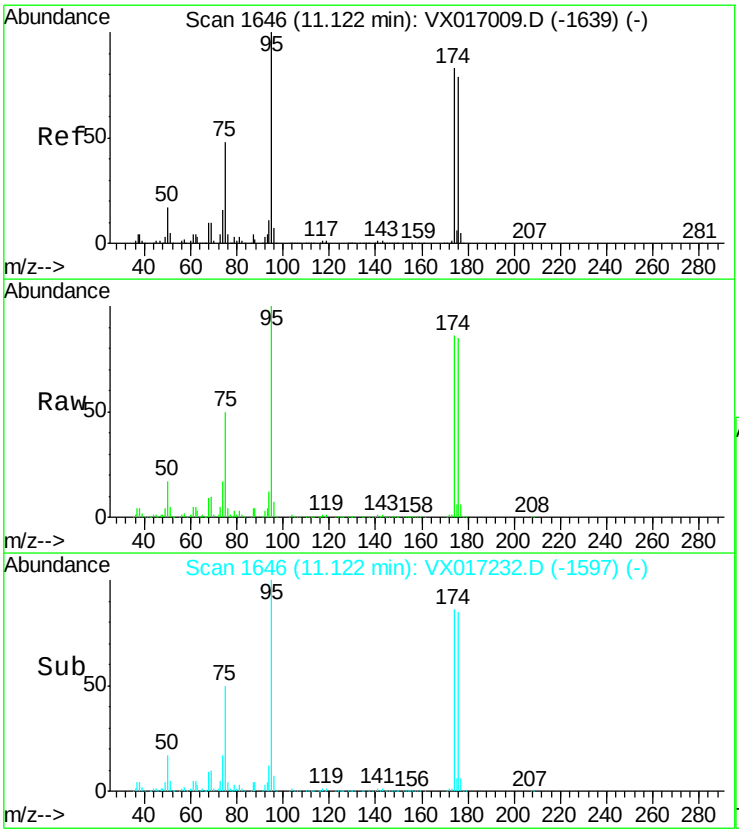


#50
Toluene-d8
Concen: 52.589 ug/l
RT: 8.70 min Scan# 1248
Delta R.T. -0.00 min
Lab File: VX017232.D
Acq: 08 Jul 2020 03:15

Tgt Ion: 98 Resp: 504008

Ion	Ratio	Lower	Upper
98	100		
100	66.6	53.8	80.6

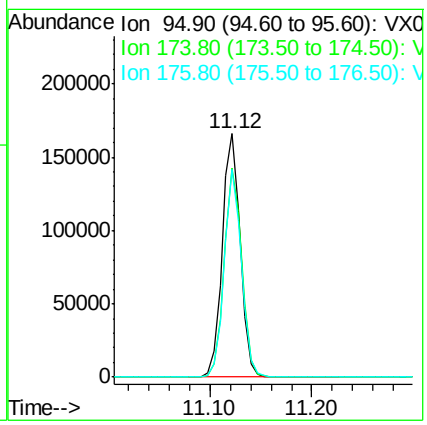




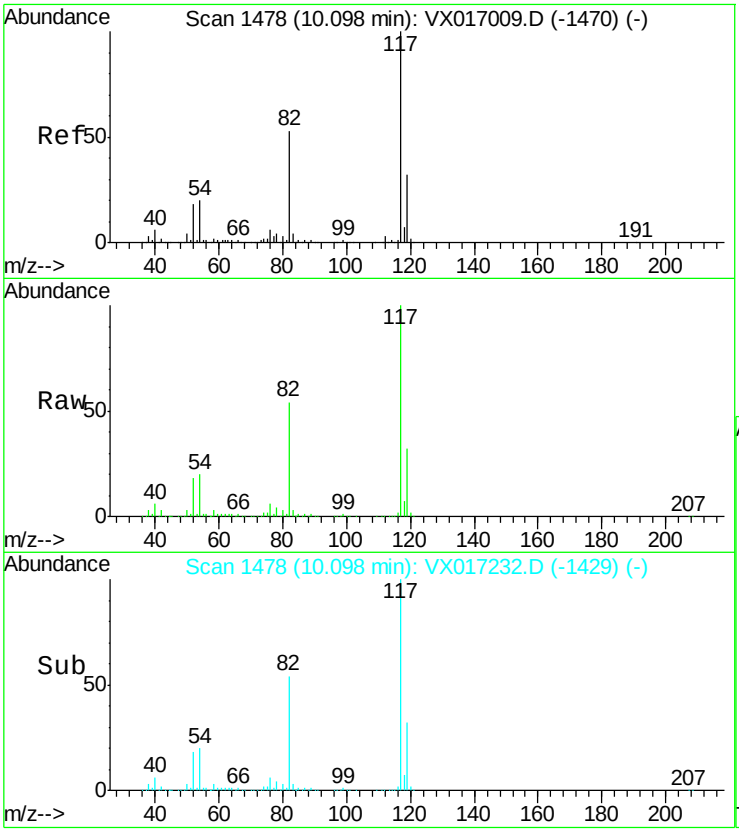
#62
4-Bromofluorobenzene
Concen: 54.416 ug/l
RT: 11.12 min Scan# 1646
Delta R.T. -0.00 min
Lab File: VX017232.D
Acq: 08 Jul 2020 03:15

Tgt Ion: 95 Resp: 203868

Ion	Ratio	Lower	Upper
95	100		
174	83.7	0.0	164.0
176	81.5	0.0	157.6



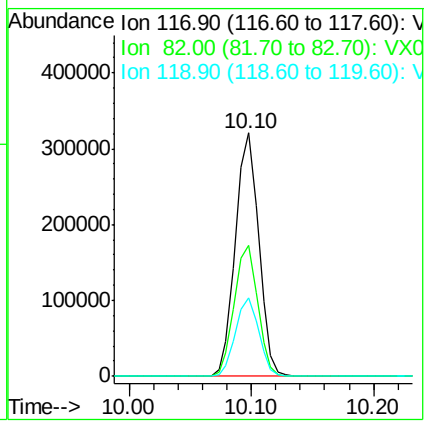
Instrument :
MSVOA_X
ClientSampleId :
1004-MW-02

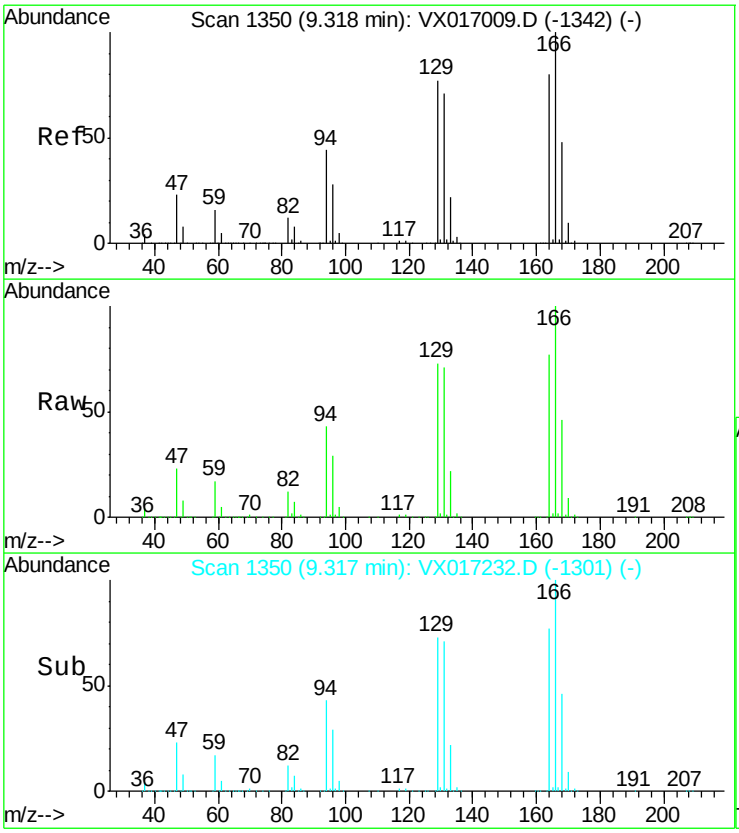


#63
Chlorobenzene-d5
Concen: 50.000 ug/l
RT: 10.10 min Scan# 1478
Delta R.T. -0.00 min
Lab File: VX017232.D
Acq: 08 Jul 2020 03:15

Tgt Ion:117 Resp: 423863

Ion	Ratio	Lower	Upper
117	100		
82	53.7	42.6	63.8
119	32.3	25.4	38.2

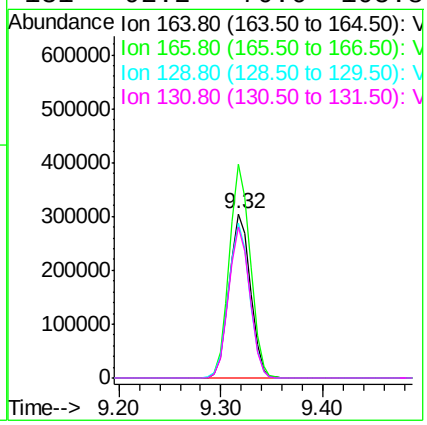


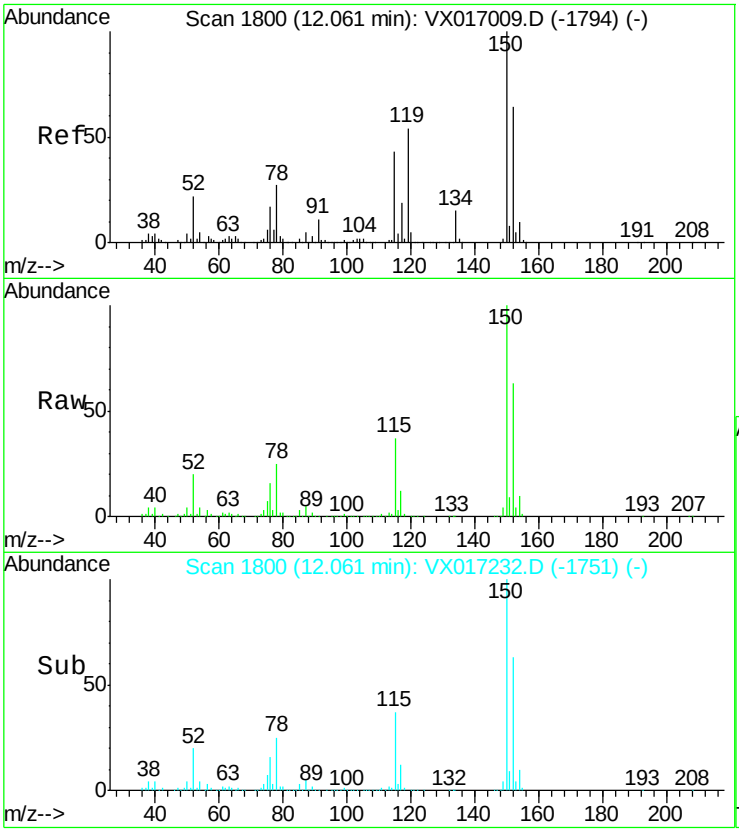


#64
Tetrachloroethene
Concen: 127.952 ug/l
RT: 9.32 min Scan# 1350
Delta R.T. -0.00 min
Lab File: VX017232.D
Acq: 08 Jul 2020 03:15

Tgt Ion:164 Resp: 437703

Ion	Ratio	Lower	Upper
164	100		
166	130.3	99.4	149.0
129	94.6	76.3	114.5
131	92.2	70.6	105.8

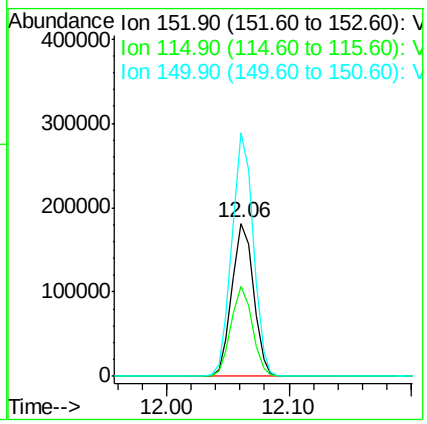




#72
1,4-Dichlorobenzene-d4
Concen: 50.000 ug/l
RT: 12.06 min Scan# 1800
Delta R.T. -0.00 min
Lab File: VX017232.D
Acq: 08 Jul 2020 03:15

Tgt Ion:152 Resp: 220893

Ion	Ratio	Lower	Upper
152	100		
115	57.8	40.9	122.7
150	156.7	0.0	351.6



Instrument :
MSVOA_X
ClientSampleId :
1004-MW-02

Instrument :
MSVOA_X
ClientSampleId :
1004-MW-02

LSC Area Percent Report

Data Path : Z:\VOASRV\HPCHEM1\MSVOA X\DATA\VX070720\
Data File : VX017232.D
Acq On : 08 Jul 2020 03:15
Operator : JC/SP
Sample : L3232-02
Misc : 5.0mL/MSVOA X/WATER
ALS Vial : 46 Sample Multiplier: 1

Integration Parameters: RTEINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 3 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X062920W.M
Title : SW846 8260

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	1.288	29	33	40	rBV	82952	80920	2.50%	0.640%
2	1.392	45	50	57	rBV	32620	34842	1.07%	0.275%
3	4.568	559	571	595	rBV	250634	711904	21.95%	5.627%
4	5.464	705	718	733	rBV2	161125	472711	14.58%	3.736%
5	5.629	734	745	760	rVB2	250342	717279	22.12%	5.669%
6	6.031	799	811	822	rBV	166508	446849	13.78%	3.532%
7	6.830	932	942	959	rBV	399728	962287	29.67%	7.606%
8	7.190	992	1001	1012	rBV	500503	1067163	32.91%	8.435%
9	8.695	1242	1248	1264	rBV	880424	1337606	41.25%	10.572%
10	9.317	1343	1350	1362	rBV	2277794	3242944	100.00%	25.631%
11	10.098	1470	1478	1487	rBV	931142	1255202	38.71%	9.921%
12	11.122	1640	1646	1656	rBV	825105	1006875	31.05%	7.958%
13	12.061	1795	1800	1807	rBV	1090491	1315621	40.57%	10.398%

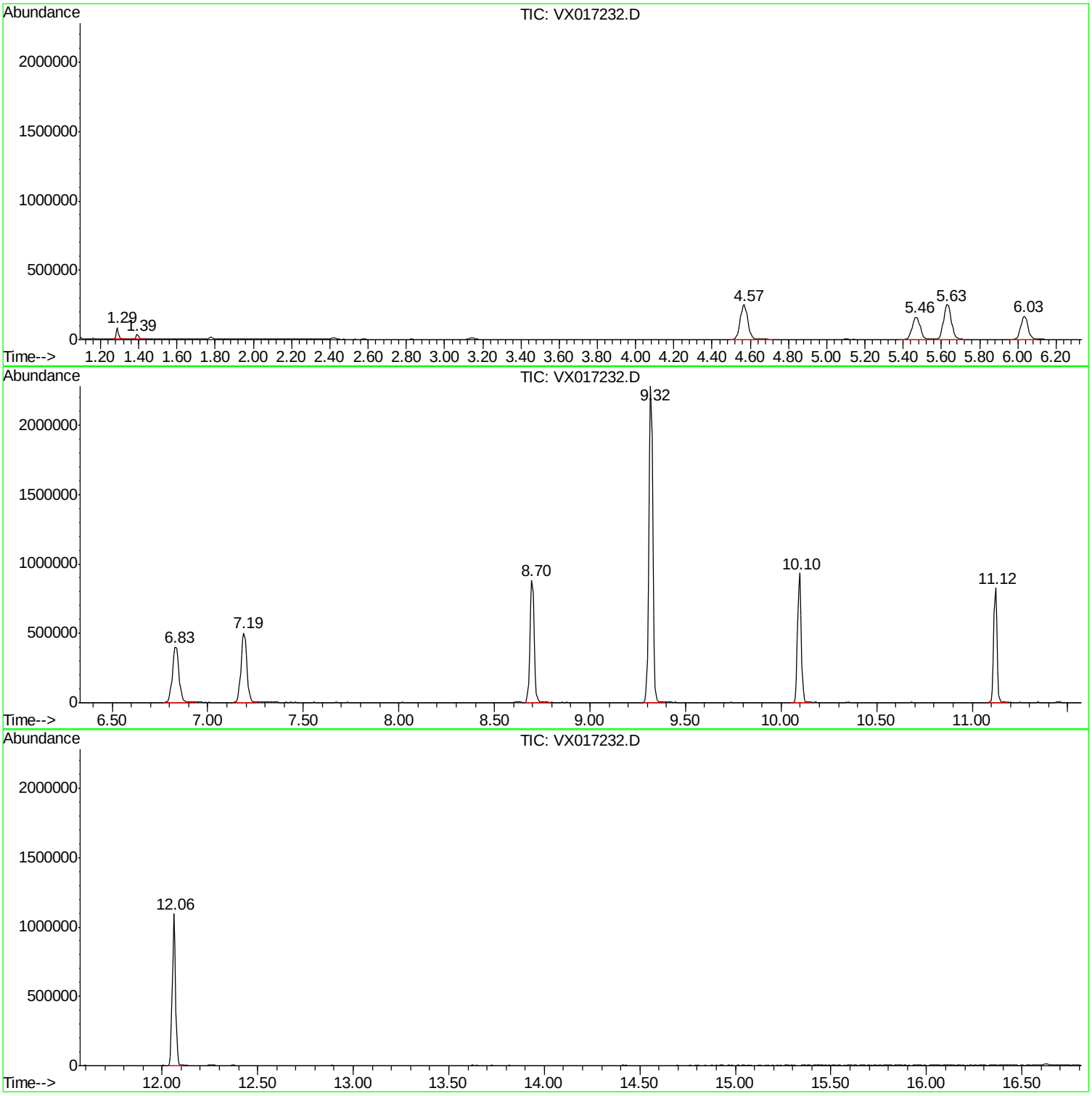
Sum of corrected areas: 12652203

Data Path : Z:\VOASRV\HPCHEM1\MSVOA X\DATA\VX070720\
Data File : VX017232.D
Acq On : 08 Jul 2020 03:15
Operator : JC/SP
Sample : L3232-02
Misc : 5.0mL/MSVOA X/WATER
ALS Vial : 46 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
1004-MW-02

Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X062920W.M
Quant Title : SW846 8260

TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P



Library Search Compound Report

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX070720\
Data File : VX017232.D
Acq On : 08 Jul 2020 03:15
Operator : JC/SP
Sample : L3232-02
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 46 Sample Multiplier: 1

Instrument : MSVOA_X
ClientSampleId : 1004-MW-02

Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X062920W.M
Quant Title : SW846 8260

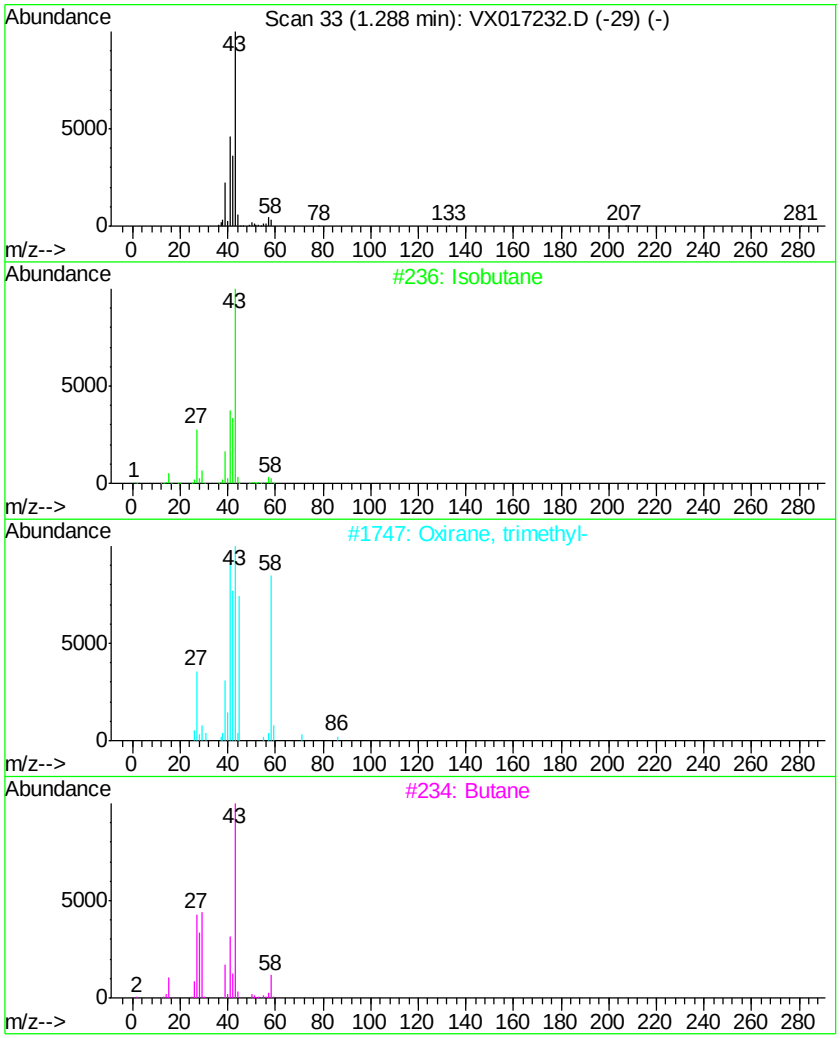
TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

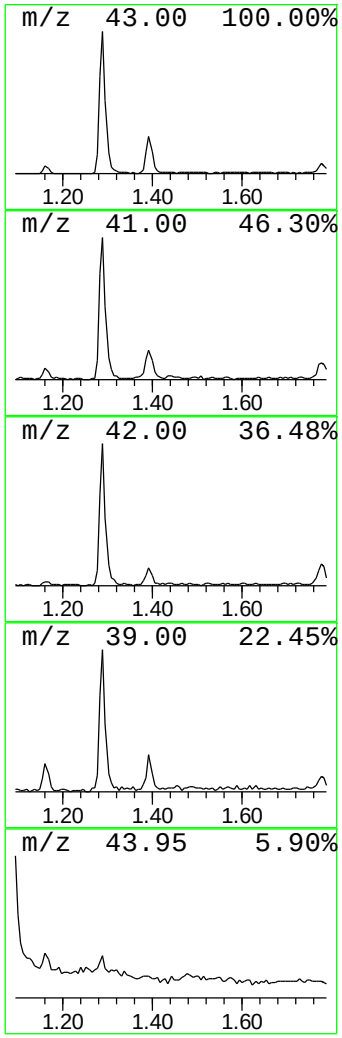
****

Peak Number 1 Isobutane Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
1.29	5.64 ug/l	80920	Pentafluorobenzene	5.64

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Isobutane	58	C4H10	000075-28-5	64
2	Oxirane, trimethyl-	86	C5H10O	005076-19-7	4
3	Butane	58	C4H10	000106-97-8	4
4	Isobutyl nitrite	103	C4H9NO2	000542-56-3	4
5	Propane, 1-isocyanato-2-methyl-	99	C5H9NO	001873-29-6	4





Instrument :
MSVOA_X
ClientSampleId :
1004-MW-02

Tentatively Identified Compound (LSC) summary

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX070720\
Data File : VX017232.D
Acq On : 08 Jul 2020 03:15
Operator : JC/SP
Sample : L3232-02
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 46 Sample Multiplier: 1

Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X062920W.M
Quant Title : SW846 8260

TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

					Internal Standard			
TIC Top Hit name	RT	EstConc	Units	Response	#	RT	Resp	Conc
Isobutane	1.29	5.6	ug/l	80920	1	5.64	717279	50.0

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Day Environmental, Inc.	Date Collected:	07/06/20
Project:	Andrew St. RI	Date Received:	07/07/20
Client Sample ID:	1005-MW-03A	SDG No.:	L3232
Lab Sample ID:	L3232-05	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	DB-624UI ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX017238.D	1		07/08/20 05:31	VX070720

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
75-71-8	Dichlorodifluoromethane	1.00	U	0.22	1.00	ug/L
74-87-3	Chloromethane	1.00	U	0.30	1.00	ug/L
75-01-4	Vinyl Chloride	1.00	U	0.16	1.00	ug/L
74-83-9	Bromomethane	5.00	U	2.10	5.00	ug/L
75-00-3	Chloroethane	1.00	U	0.34	1.00	ug/L
75-69-4	Trichlorofluoromethane	1.00	U	0.16	1.00	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	1.00	U	0.21	1.00	ug/L
75-35-4	1,1-Dichloroethene	1.00	U	0.18	1.00	ug/L
67-64-1	Acetone	11.7		0.90	5.00	ug/L
75-15-0	Carbon Disulfide	1.00	U	0.23	1.00	ug/L
1634-04-4	Methyl tert-butyl Ether	1.00	U	0.070	1.00	ug/L
79-20-9	Methyl Acetate	1.00	U	0.65	1.00	ug/L
75-09-2	Methylene Chloride	1.00	U	0.33	1.00	ug/L
156-60-5	trans-1,2-Dichloroethene	8.20		0.24	1.00	ug/L
75-34-3	1,1-Dichloroethane	1.00	U	0.17	1.00	ug/L
110-82-7	Cyclohexane	5.00	U	1.20	5.00	ug/L
78-93-3	2-Butanone	5.00	U	0.71	5.00	ug/L
56-23-5	Carbon Tetrachloride	1.00	U	0.22	1.00	ug/L
156-59-2	cis-1,2-Dichloroethene	140		0.30	1.00	ug/L
74-97-5	Bromochloromethane	1.00	U	0.31	1.00	ug/L
67-66-3	Chloroform	1.00	U	0.14	1.00	ug/L
71-55-6	1,1,1-Trichloroethane	1.00	U	0.12	1.00	ug/L
108-87-2	Methylcyclohexane	1.00	U	0.17	1.00	ug/L
71-43-2	Benzene	0.84	J	0.10	1.00	ug/L
107-06-2	1,2-Dichloroethane	1.00	U	0.13	1.00	ug/L
79-01-6	Trichloroethene	120		0.27	1.00	ug/L
78-87-5	1,2-Dichloropropane	1.00	U	0.14	1.00	ug/L
75-27-4	Bromodichloromethane	1.00	U	0.10	1.00	ug/L
108-10-1	4-Methyl-2-Pentanone	5.00	U	0.85	5.00	ug/L
108-88-3	Toluene	1.00	U	0.12	1.00	ug/L
10061-02-6	t-1,3-Dichloropropene	1.00	U	0.19	1.00	ug/L
10061-01-5	cis-1,3-Dichloropropene	1.00	U	0.16	1.00	ug/L

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Day Environmental, Inc.	Date Collected:	07/06/20
Project:	Andrew St. RI	Date Received:	07/07/20
Client Sample ID:	1005-MW-03A	SDG No.:	L3232
Lab Sample ID:	L3232-05	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	DB-624UI ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX017238.D	1		07/08/20 05:31	VX070720

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
79-00-5	1,1,2-Trichloroethane	1.00	U	0.12	1.00	ug/L
591-78-6	2-Hexanone	5.00	U	1.40	5.00	ug/L
124-48-1	Dibromochloromethane	1.00	U	0.16	1.00	ug/L
106-93-4	1,2-Dibromoethane	1.00	U	0.14	1.00	ug/L
127-18-4	Tetrachloroethene	350	E	0.15	1.00	ug/L
108-90-7	Chlorobenzene	1.00	U	0.080	1.00	ug/L
100-41-4	Ethyl Benzene	1.00	U	0.080	1.00	ug/L
179601-23-1	m/p-Xylenes	2.00	U	0.20	2.00	ug/L
95-47-6	o-Xylene	1.00	U	0.13	1.00	ug/L
100-42-5	Styrene	1.00	U	0.11	1.00	ug/L
75-25-2	Bromoform	1.00	U	0.15	1.00	ug/L
98-82-8	Isopropylbenzene	1.00	U	0.13	1.00	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	1.00	U	0.15	1.00	ug/L
541-73-1	1,3-Dichlorobenzene	1.00	U	0.14	1.00	ug/L
106-46-7	1,4-Dichlorobenzene	1.00	U	0.20	1.00	ug/L
95-50-1	1,2-Dichlorobenzene	1.00	U	0.12	1.00	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	1.00	U	0.54	1.00	ug/L
120-82-1	1,2,4-Trichlorobenzene	1.00	U	0.24	1.00	ug/L
87-61-6	1,2,3-Trichlorobenzene	1.00	U	0.26	1.00	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	54.1		61 - 141	108%	SPK: 50
1868-53-7	Dibromofluoromethane	54.4		69 - 133	109%	SPK: 50
2037-26-5	Toluene-d8	52.3		65 - 126	105%	SPK: 50
460-00-4	4-Bromofluorobenzene	54.7		58 - 135	109%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	251000	5.63			
540-36-3	1,4-Difluorobenzene	422000	6.84			
3114-55-4	Chlorobenzene-d5	440000	10.1			
3855-82-1	1,4-Dichlorobenzene-d4	234000	12.06			

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Day Environmental, Inc.	Date Collected:	07/06/20
Project:	Andrew St. RI	Date Received:	07/07/20
Client Sample ID:	1005-MW-03A	SDG No.:	L3232
Lab Sample ID:	L3232-05	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	DB-624UI ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX017238.D	1		07/08/20 05:31	VX070720

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit
A = Aldol-Condensation Reaction Products

Quantitation Report (QT Reviewed)

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX070720\
Data File : VX017238.D
Acq On : 08 Jul 2020 05:31
Operator : JC/SP
Sample : L3232-05
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 52 Sample Multiplier: 1

Instrument : MSVOA_X
ClientSampleId : 1005-MW-03A

Quant Time: Jul 08 07:10:54 2020
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X062920W.M
Quant Title : SW846 8260
QLast Update : Mon Jun 29 17:10:38 2020
Response via : Initial Calibration

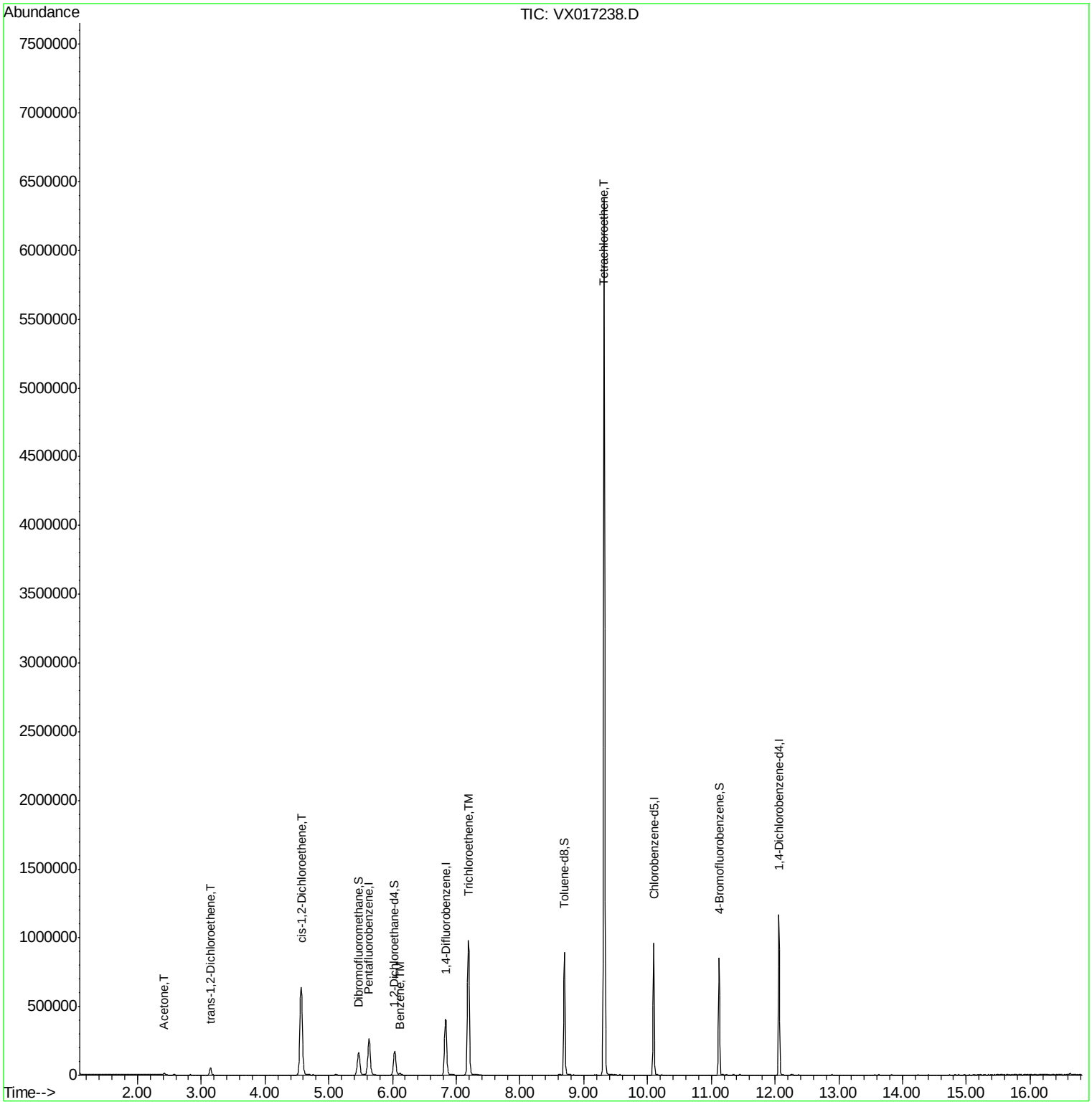
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	5.63	168	250938	50.00	ug/l	0.00
34) 1,4-Difluorobenzene	6.84	114	421887	50.00	ug/l	0.00
63) Chlorobenzene-d5	10.10	117	439558	50.00	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	12.06	152	234400	50.00	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	6.04	65	167229	54.06	ug/l	0.00
Spiked Amount 50.000			Recovery =	108.12%		
35) Dibromofluoromethane	5.47	113	145120	54.38	ug/l	0.00
Spiked Amount 50.000			Recovery =	108.76%		
50) Toluene-d8	8.70	98	516311	52.32	ug/l	0.00
Spiked Amount 50.000			Recovery =	104.64%		
62) 4-Bromofluorobenzene	11.12	95	211168	54.74	ug/l	0.00
Spiked Amount 50.000			Recovery =	109.48%		
Target Compounds						Qvalue
16) Acetone	2.42	43	13547	11.706	ug/l	93
21) trans-1,2-Dichloroethene	3.15	96	22549	8.184	ug/l	92
27) cis-1,2-Dichloroethene	4.57	96	421724	135.092	ug/l	89
40) Benzene	6.12	78	9814	0.838	ug/l	97
44) Trichloroethene	7.19	130	388665	120.660	ug/l	96
64) Tetrachloroethene	9.32	164	1256271	354.127	ug/l	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

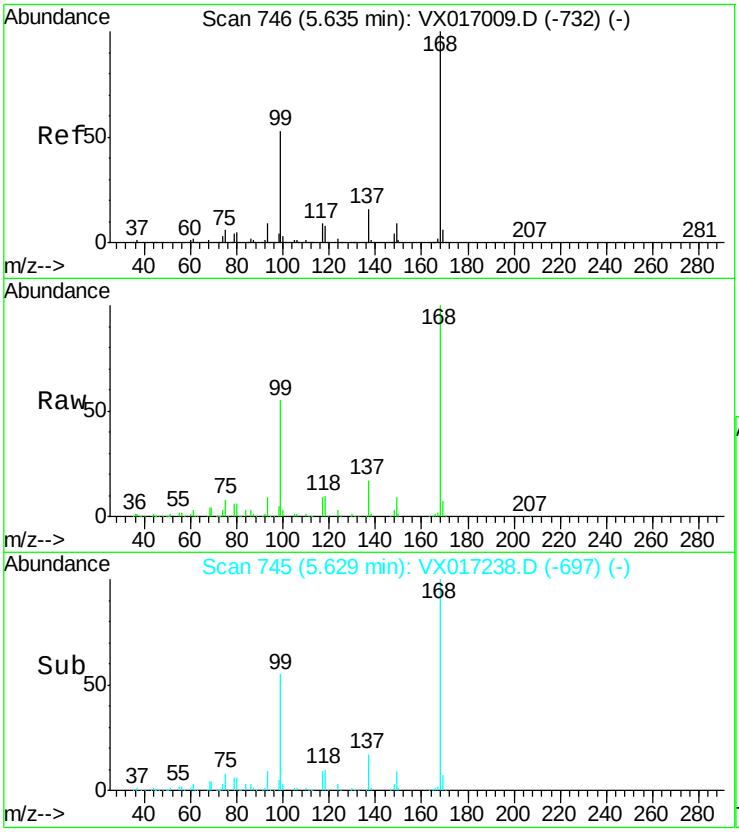
Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX070720\
Data File : VX017238.D
Acq On : 08 Jul 2020 05:31
Operator : JC/SP
Sample : L3232-05
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 52 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
1005-MW-03A

Quant Time: Jul 08 07:10:54 2020
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X062920W.M
Quant Title : SW846 8260
QLast Update : Mon Jun 29 17:10:38 2020
Response via : Initial Calibration



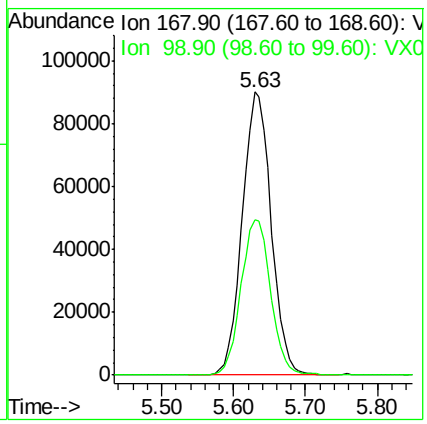
Instrument :
MSVOA_X
ClientSampleId :
1005-MW-03A

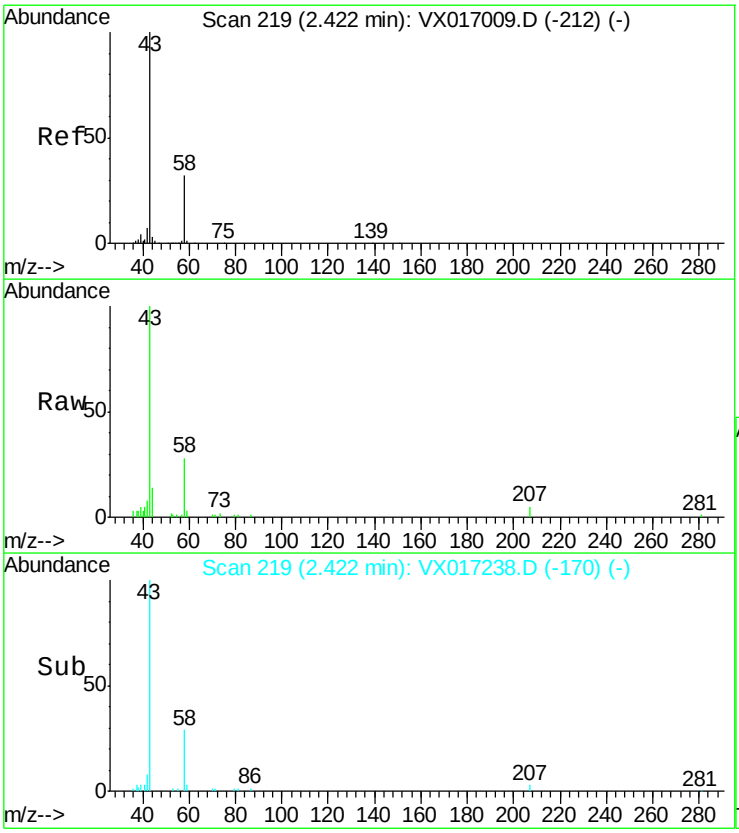


#1
Pentafluorobenzene
Concen: 50.000 ug/l
RT: 5.63 min Scan# 745
Delta R.T. -0.01 min
Lab File: VX017238.D
Acq: 08 Jul 2020 05:31

Tgt Ion:168 Resp: 250938

Ion	Ratio	Lower	Upper
168	100		
99	55.0	42.6	64.0

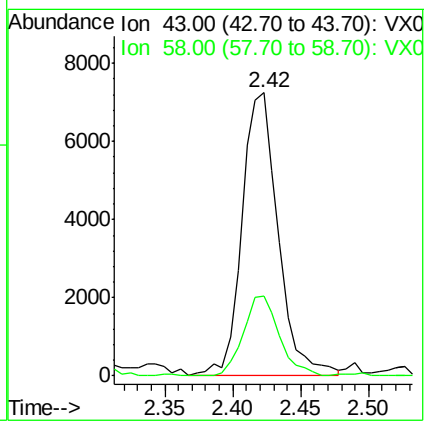




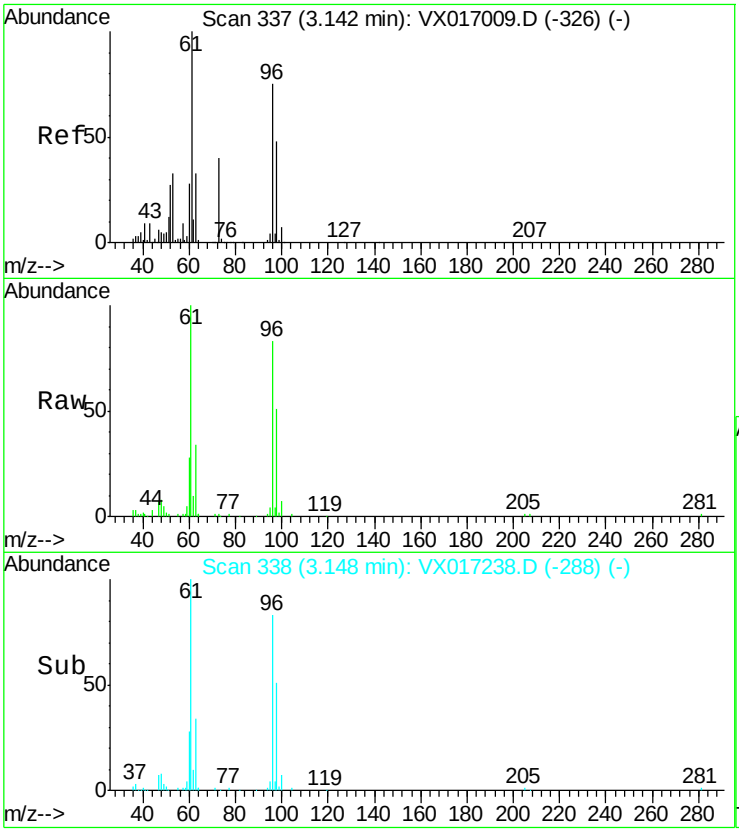
#16
Acetone
Concen: 11.706 ug/l
RT: 2.42 min Scan# 219
Delta R.T. 0.00 min
Lab File: VX017238.D
Acq: 08 Jul 2020 05:31

Tgt Ion: 43 Resp: 13547

Ion	Ratio	Lower	Upper
43	100		
58	28.0	25.7	38.5



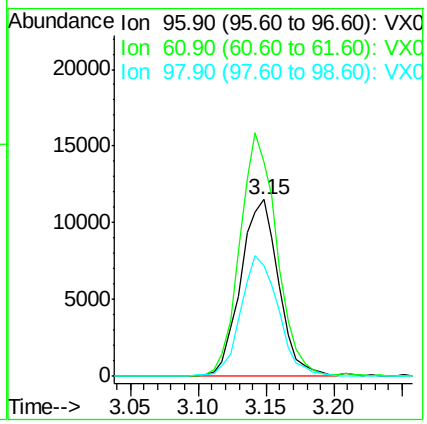
Instrument :
MSVOA_X
ClientSampleId :
1005-MW-03A

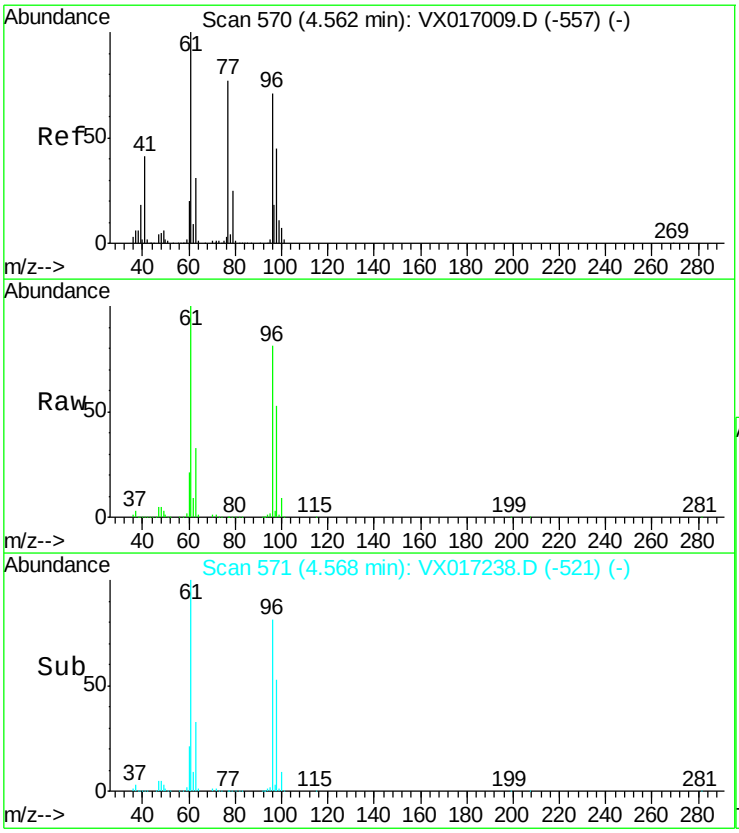


#21
trans-1,2-Dichloroethene
Concen: 8.184 ug/l
RT: 3.15 min Scan# 338
Delta R.T. 0.01 min
Lab File: VX017238.D
Acq: 08 Jul 2020 05:31

Tgt Ion: 96 Resp: 22549

Ion	Ratio	Lower	Upper
96	100		
61	121.1	107.0	160.6
98	62.3	51.6	77.4

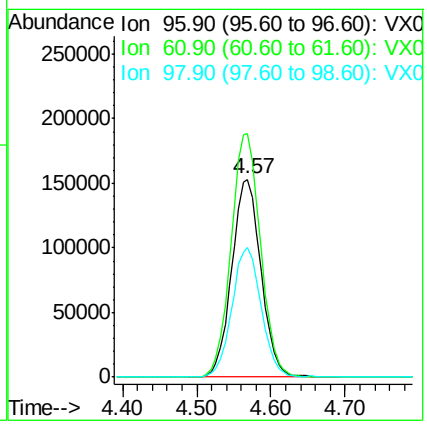




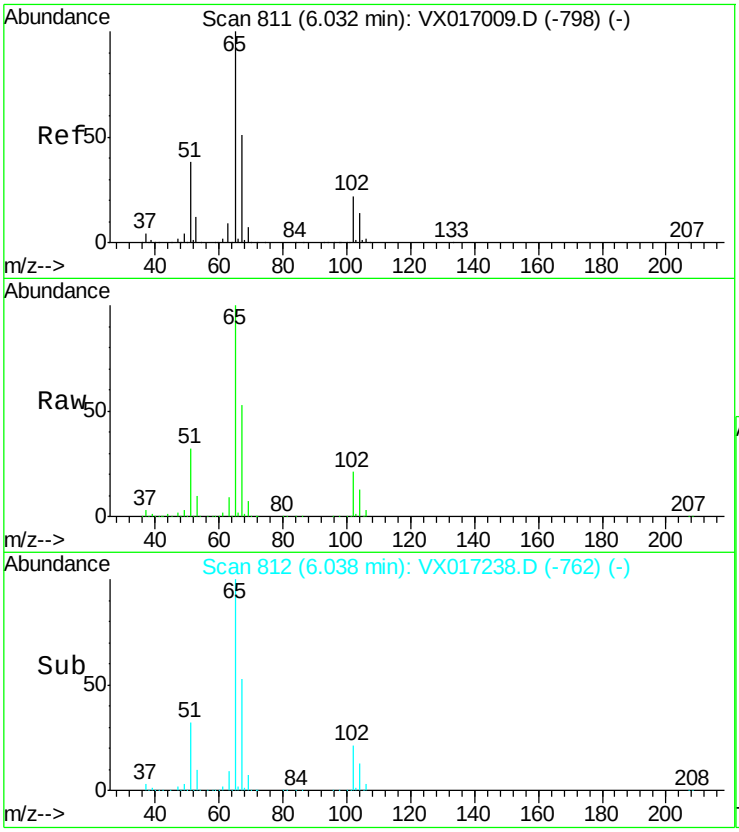
#27
cis-1,2-Dichloroethene
Concen: 135.092 ug/l
RT: 4.57 min Scan# 571
Delta R.T. 0.01 min
Lab File: VX017238.D
Acq: 08 Jul 2020 05:31

Tgt Ion: 96 Resp: 421724

Ion	Ratio	Lower	Upper
96	100		
61	123.8	0.0	282.8
98	65.3	0.0	127.6



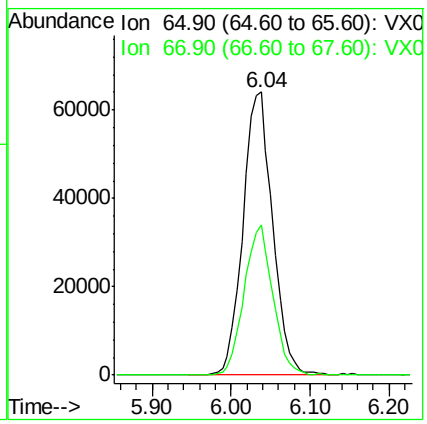
Instrument :
MSVOA_X
ClientSampleId :
1005-MW-03A

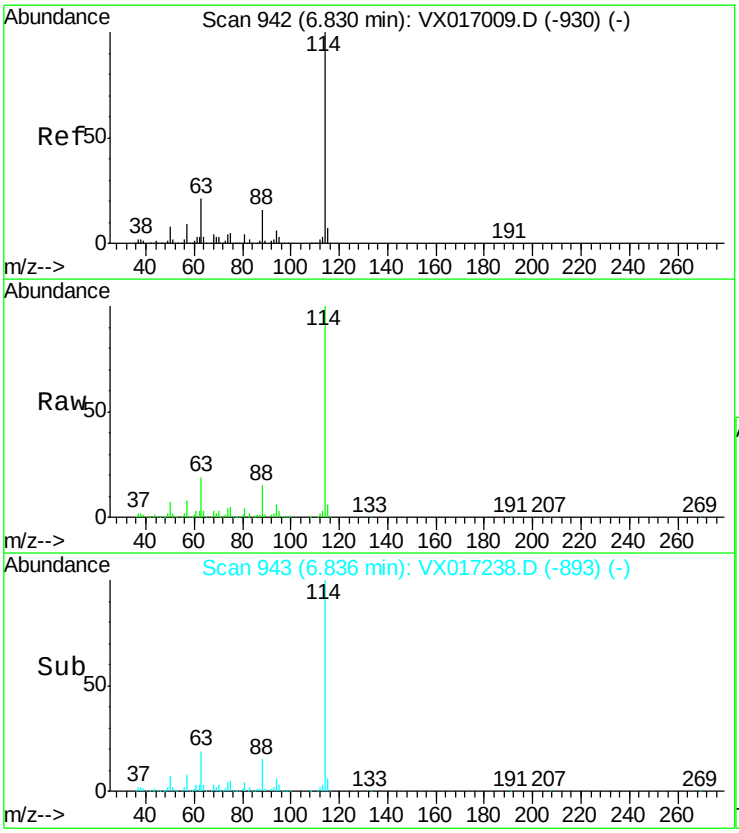


#33
1,2-Dichloroethane-d4
Concen: 54.057 ug/l
RT: 6.04 min Scan# 812
Delta R.T. 0.01 min
Lab File: VX017238.D
Acq: 08 Jul 2020 05:31

Tgt Ion: 65 Resp: 167229

Ion	Ratio	Lower	Upper
65	100		
67	51.3	0.0	103.8

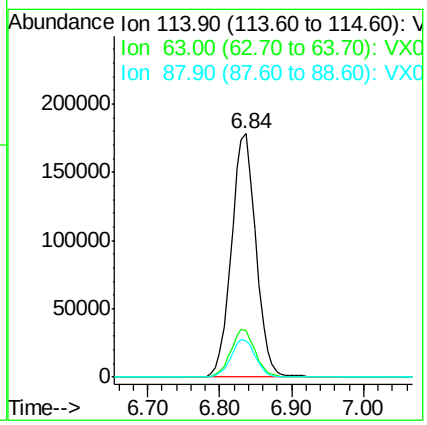




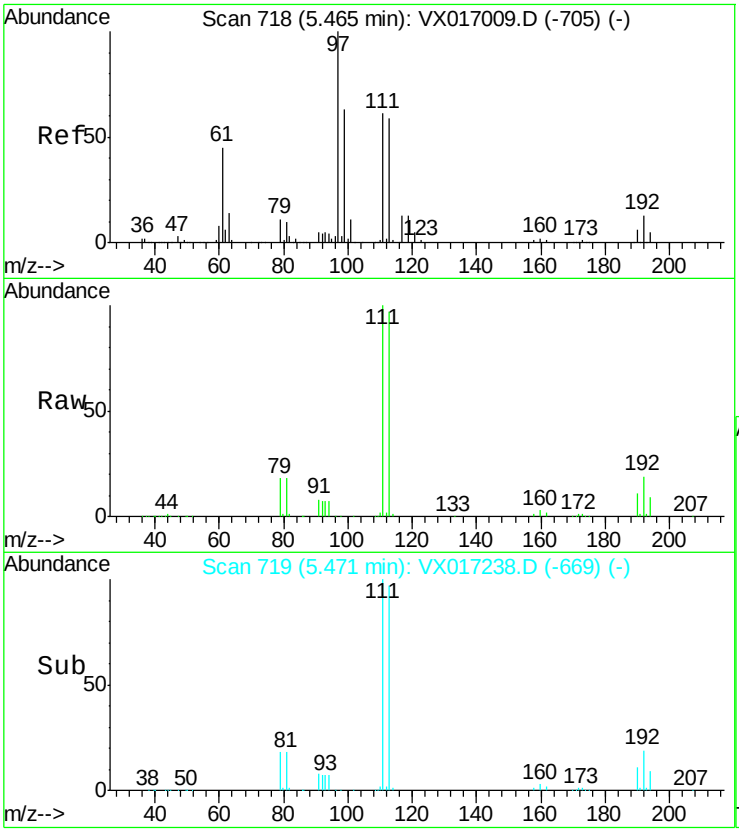
#34
1,4-Difluorobenzene
Concen: 50.000 ug/l
RT: 6.84 min Scan# 943
Delta R.T. 0.01 min
Lab File: VX017238.D
Acq: 08 Jul 2020 05:31

Tgt Ion:114 Resp: 421887

Ion	Ratio	Lower	Upper
114	100		
63	19.2	0.0	41.4
88	15.0	0.0	32.4



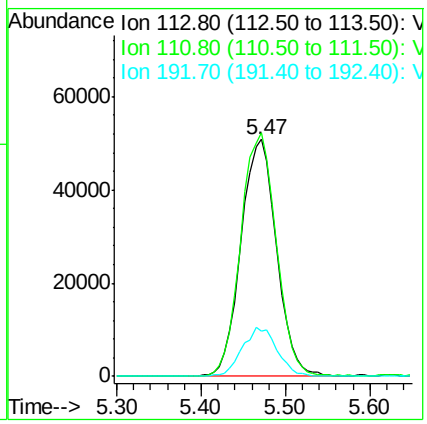
Instrument :
MSVOA_X
ClientSampleId :
1005-MW-03A

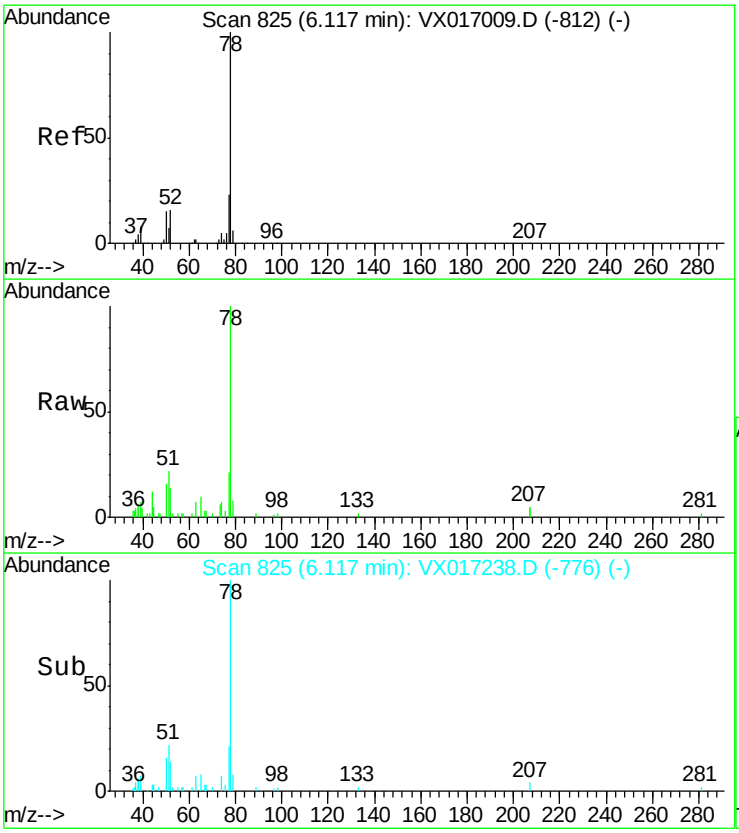


#35
Dibromofluoromethane
Concen: 54.378 ug/l
RT: 5.47 min Scan# 719
Delta R.T. 0.01 min
Lab File: VX017238.D
Acq: 08 Jul 2020 05:31

Tgt Ion:113 Resp: 145120

Ion	Ratio	Lower	Upper
113	100		
111	103.1	81.9	122.9
192	20.3	16.7	25.1

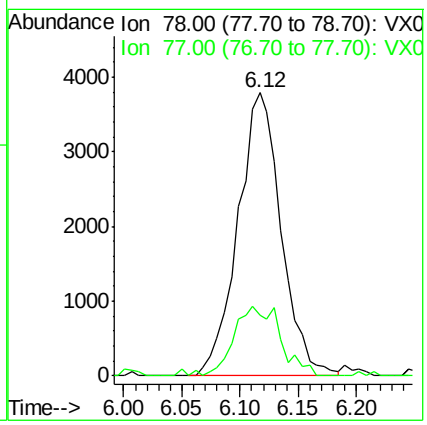




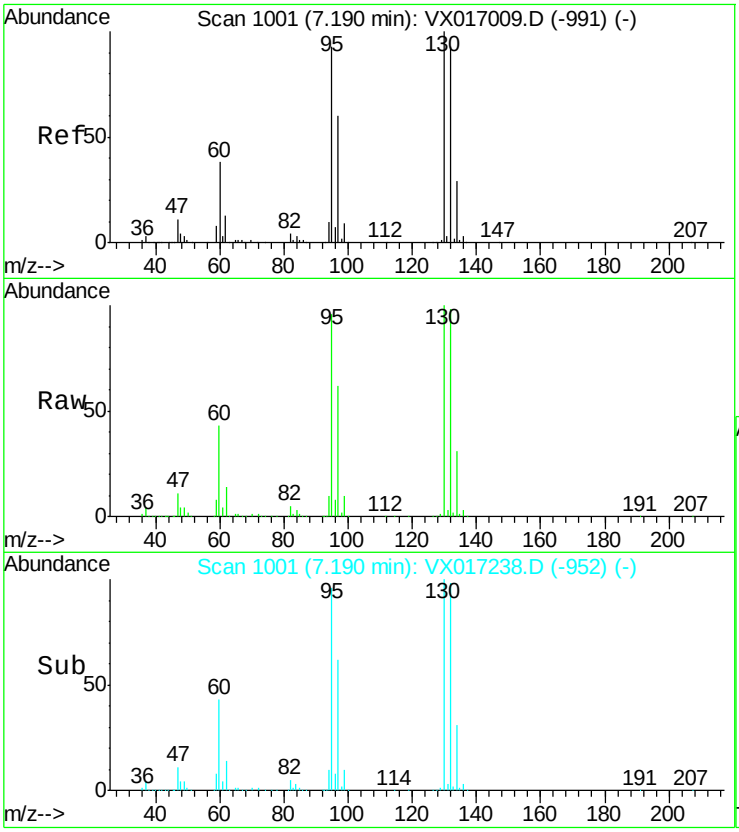
#40
Benzene
Concen: 0.838 ug/l
RT: 6.12 min Scan# 825
Delta R.T. 0.00 min
Lab File: VX017238.D
Acq: 08 Jul 2020 05:31

Tgt Ion: 78 Resp: 9814

Ion	Ratio	Lower	Upper
78	100		
77	21.5	18.3	27.5



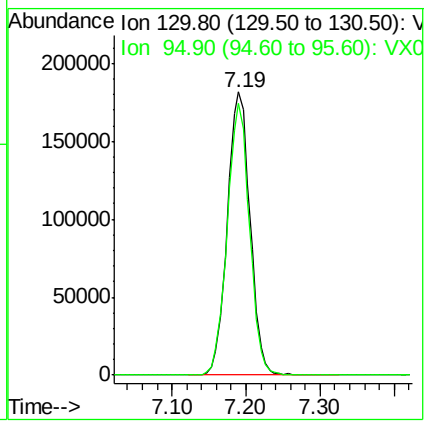
Instrument :
MSVOA_X
ClientSampleId :
1005-MW-03A

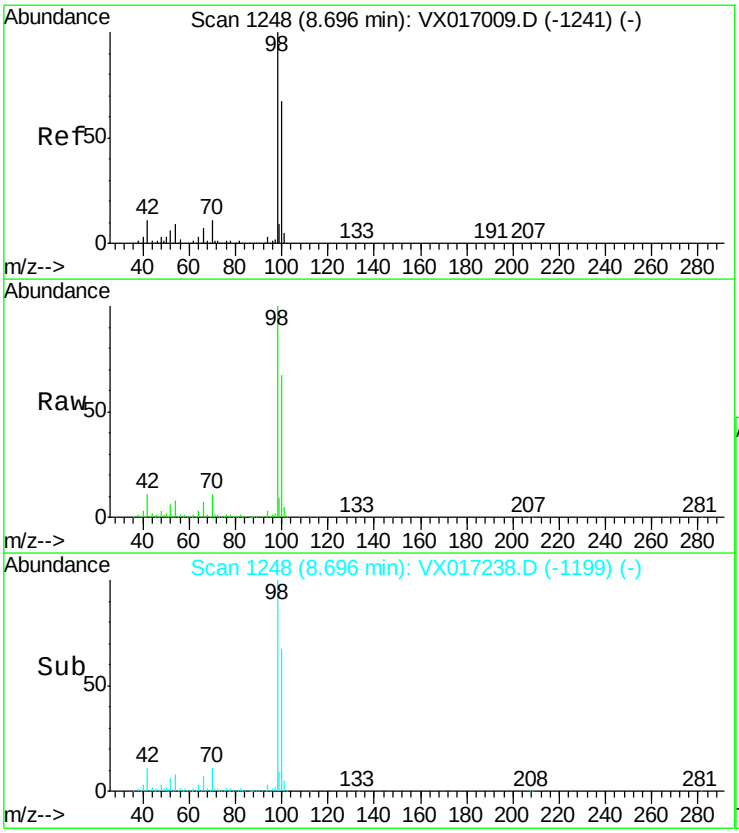


#44
Trichloroethene
Concen: 120.660 ug/l
RT: 7.19 min Scan# 1001
Delta R.T. 0.00 min
Lab File: VX017238.D
Acq: 08 Jul 2020 05:31

Tgt Ion:130 Resp: 388665

Ion	Ratio	Lower	Upper
130	100		
95	96.1	0.0	185.0

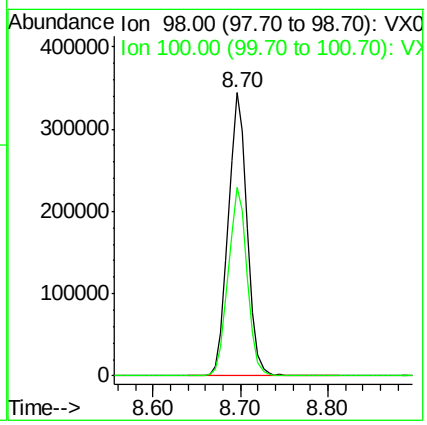




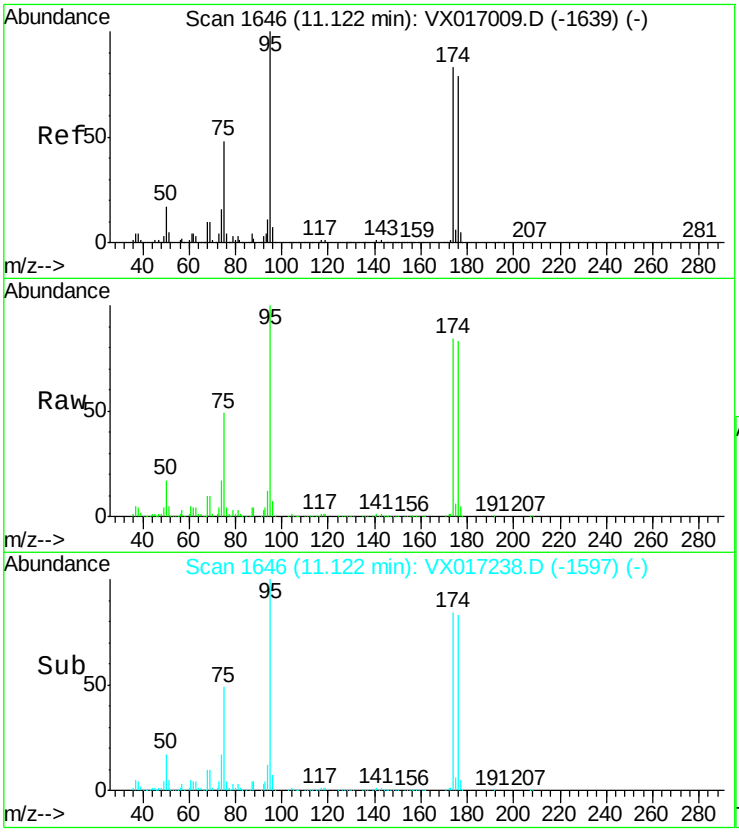
#50
Toluene-d8
Concen: 52.320 ug/l
RT: 8.70 min Scan# 1248
Delta R.T. 0.00 min
Lab File: VX017238.D
Acq: 08 Jul 2020 05:31

Tgt Ion: 98 Resp: 516311

Ion	Ratio	Lower	Upper
98	100		
100	66.8	53.8	80.6



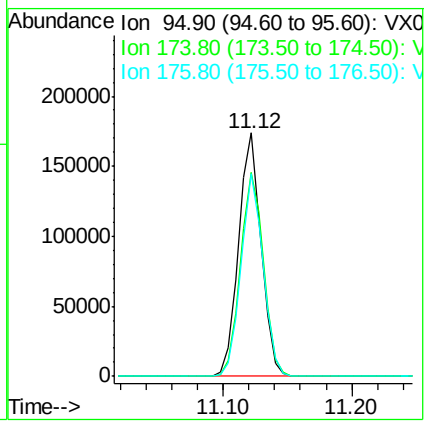
Instrument :
MSVOA_X
ClientSampleId :
1005-MW-03A

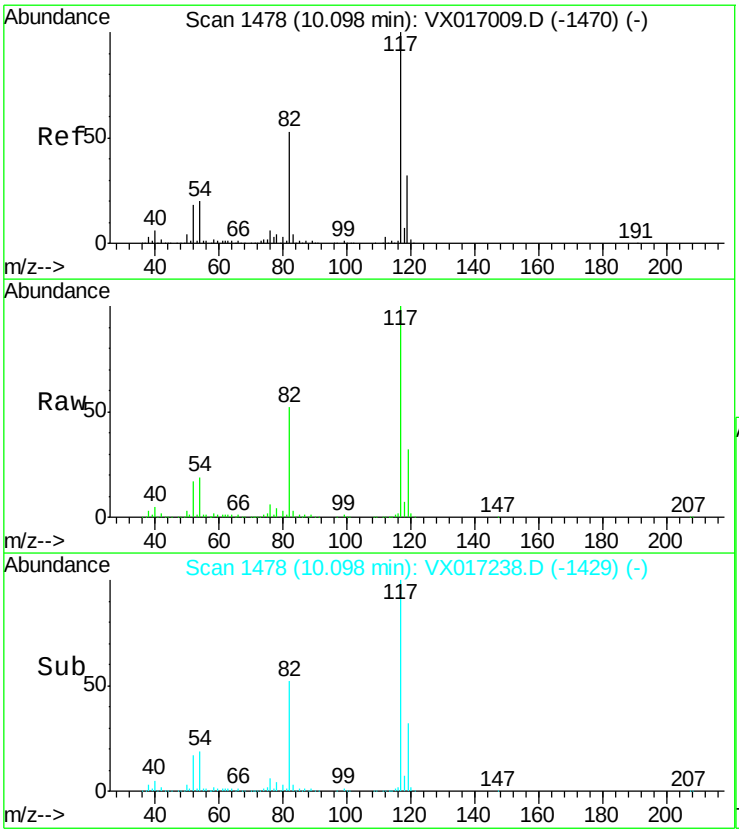


#62
4-Bromofluorobenzene
Concen: 54.740 ug/l
RT: 11.12 min Scan# 1646
Delta R.T. 0.00 min
Lab File: VX017238.D
Acq: 08 Jul 2020 05:31

Tgt Ion: 95 Resp: 211168

Ion	Ratio	Lower	Upper
95	100		
174	85.2	0.0	164.0
176	81.4	0.0	157.6

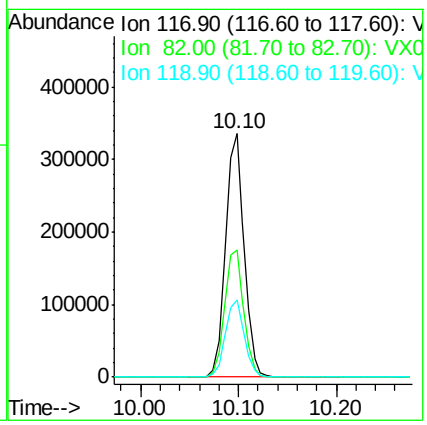




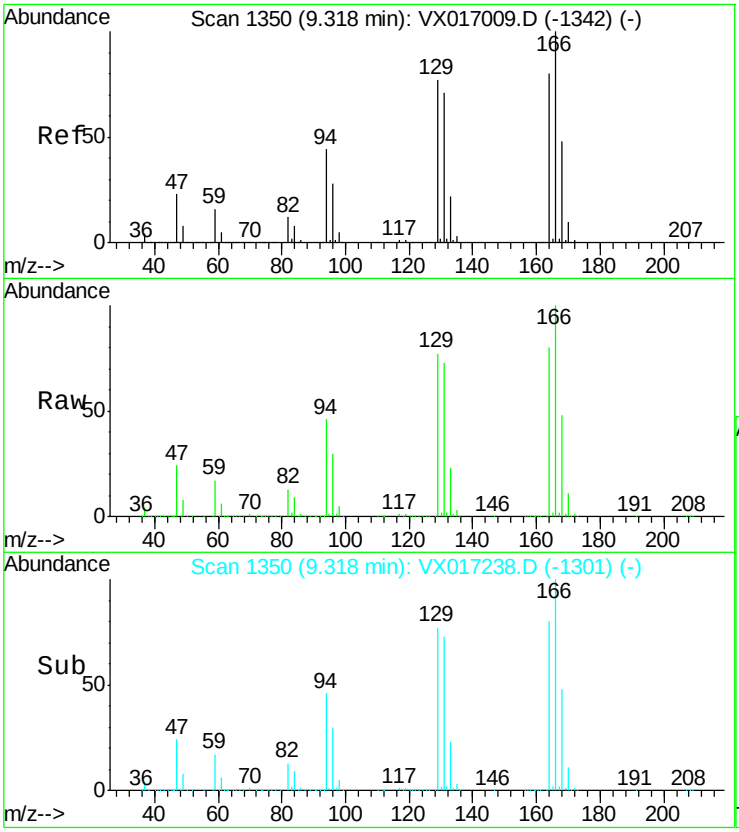
#63
Chlorobenzene-d5
Concen: 50.000 ug/l
RT: 10.10 min Scan# 1478
Delta R.T. 0.00 min
Lab File: VX017238.D
Acq: 08 Jul 2020 05:31

Tgt Ion:117 Resp: 439558

Ion	Ratio	Lower	Upper
117	100		
82	52.1	42.6	63.8
119	31.8	25.4	38.2



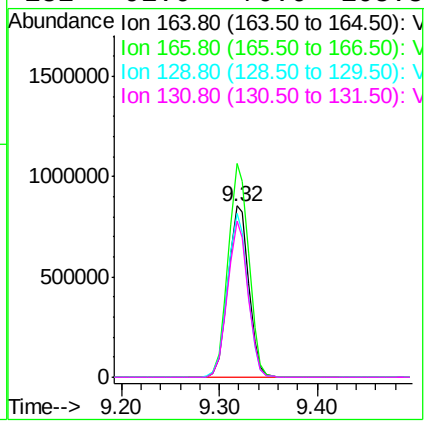
Instrument :
MSVOA_X
ClientSampleId :
1005-MW-03A

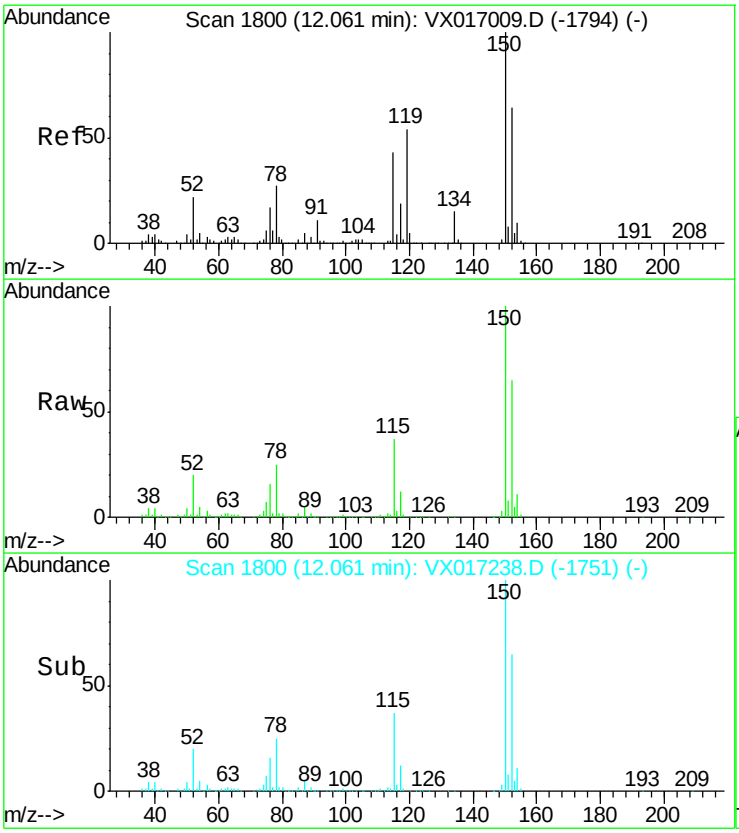


#64
Tetrachloroethene
Concen: 354.127 ug/l
RT: 9.32 min Scan# 1350
Delta R.T. 0.00 min
Lab File: VX017238.D
Acq: 08 Jul 2020 05:31

Tgt Ion:164 Resp: 1256271

Ion	Ratio	Lower	Upper
164	100		
166	124.8	99.4	149.0
129	95.6	76.3	114.5
131	91.6	70.6	105.8

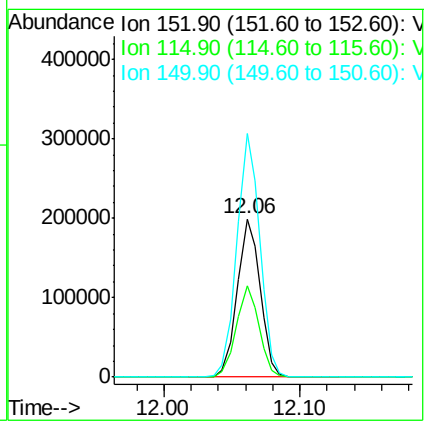




#72
1,4-Dichlorobenzene-d4
Concen: 50.000 ug/l
RT: 12.06 min Scan# 1800
Delta R.T. 0.00 min
Lab File: VX017238.D
Acq: 08 Jul 2020 05:31

Tgt Ion:152 Resp: 234400

Ion	Ratio	Lower	Upper
152	100		
115	56.6	40.9	122.7
150	153.5	0.0	351.6



Instrument :
MSVOA_X
ClientSampleId :
1005-MW-03A

LSC Area Percent Report

Data Path : Z:\VOASRV\HPCHEM1\MSVOA X\DATA\VX070720\
Data File : VX017238.D
Acq On : 08 Jul 2020 05:31
Operator : JC/SP
Sample : L3232-05
Misc : 5.0mL/MSVOA X/WATER
ALS Vial : 52 Sample Multiplier: 1

Integration Parameters: RTEINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 3 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X062920W.M
Title : SW846 8260

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	3.142	328	337	347	rBV	52343	107067	1.16%	0.511%
2	4.568	558	571	596	rBV	640540	1792864	19.41%	8.554%
3	5.471	705	719	734	rBV	167663	490360	5.31%	2.339%
4	5.629	734	745	760	rVB	262669	739161	8.00%	3.527%
5	6.032	800	811	821	rBV	173200	458873	4.97%	2.189%
6	6.830	933	942	959	rBV	408262	982340	10.63%	4.687%
7	7.190	991	1001	1011	rBV	979375	2065546	22.36%	9.855%
8	8.696	1241	1248	1257	rBV	892568	1365303	14.78%	6.514%
9	9.318	1343	1350	1368	rBV	6377615	9238452	100.00%	44.076%
10	10.098	1471	1478	1487	rBV	956606	1293796	14.00%	6.173%
11	11.122	1640	1646	1653	rBV	849989	1046264	11.33%	4.992%
12	12.061	1794	1800	1808	rBV	1167871	1380084	14.94%	6.584%

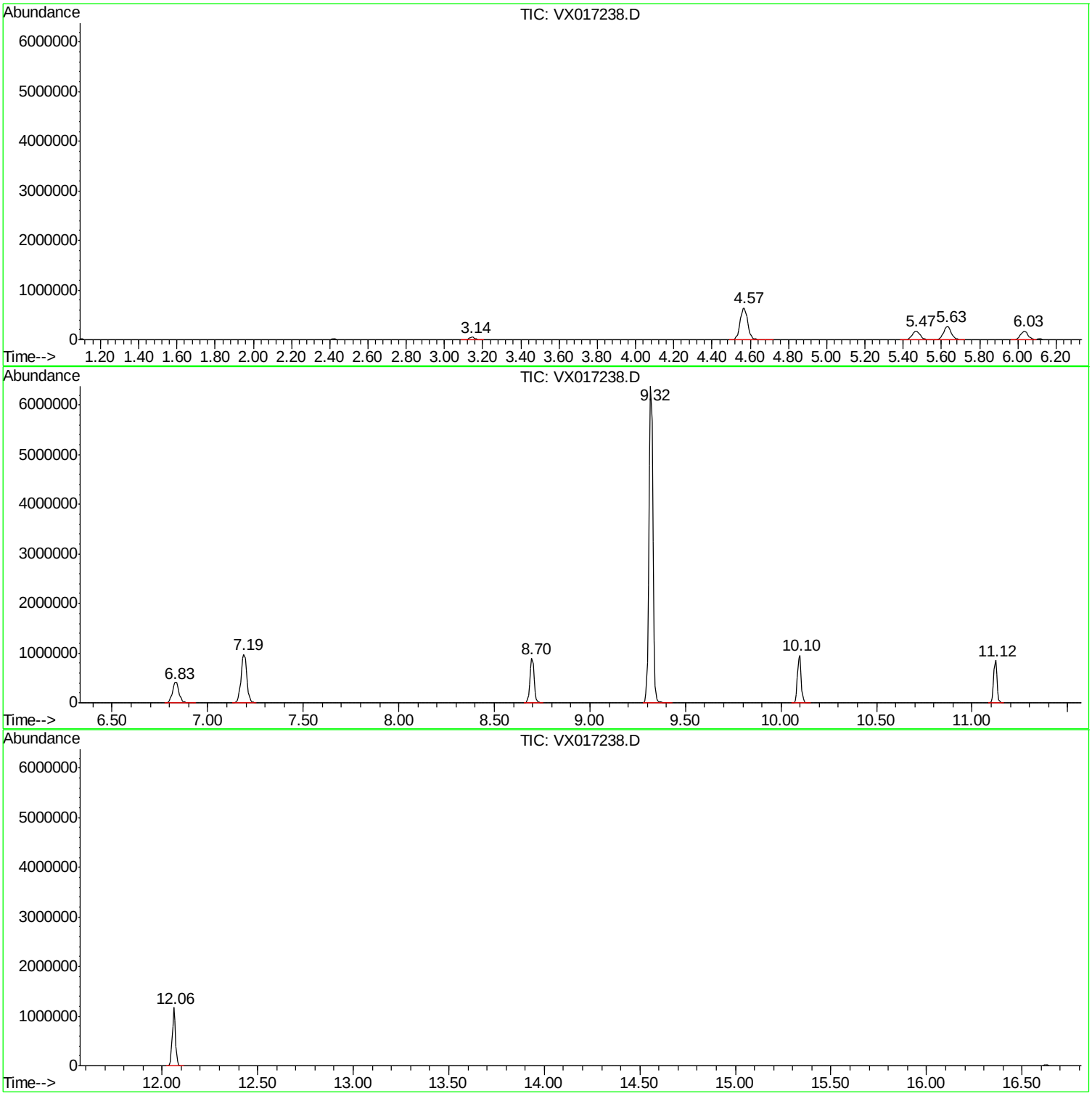
Sum of corrected areas: 20960110

Data Path : Z:\VOASRV\HPCHEM1\MSVOA X\DATA\VX070720\
Data File : VX017238.D
Acq On : 08 Jul 2020 05:31
Operator : JC/SP
Sample : L3232-05
Misc : 5.0mL/MSVOA X/WATER
ALS Vial : 52 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
1005-MW-03A

Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X062920W.M
Quant Title : SW846 8260

TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P



Library Search Compound Report

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX070720\
Data File : VX017238.D
Acq On : 08 Jul 2020 05:31
Operator : JC/SP
Sample : L3232-05
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 52 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
1005-MW-03A

Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X062920W.M
Quant Title : SW846 8260

TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

No Library Search Compounds Detected

****

Tentatively Identified Compound (LSC) summary

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX070720\
Data File : VX017238.D
Acq On : 08 Jul 2020 05:31
Operator : JC/SP
Sample : L3232-05
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 52 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
1005-MW-03A

Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X062920W.M
Quant Title : SW846 8260

TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

					Internal Standard		
TIC Top Hit name	RT	EstConc	Units	Response	#	RT	Resp	Conc

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Day Environmental, Inc.	Date Collected:	07/06/20
Project:	Andrew St. RI	Date Received:	07/07/20
Client Sample ID:	1005-MW-03ADL	SDG No.:	L3232
Lab Sample ID:	L3232-05DL	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	DB-624UI ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX017249.D	5		07/08/20 12:51	VX070820

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
75-71-8	Dichlorodifluoromethane	5.00	UD	1.10	5.00	ug/L
74-87-3	Chloromethane	5.00	UD	1.50	5.00	ug/L
75-01-4	Vinyl Chloride	5.00	UD	0.80	5.00	ug/L
74-83-9	Bromomethane	25.0	UD	10.3	25.0	ug/L
75-00-3	Chloroethane	5.00	UD	1.70	5.00	ug/L
75-69-4	Trichlorofluoromethane	5.00	UD	0.79	5.00	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	5.00	UD	1.00	5.00	ug/L
75-35-4	1,1-Dichloroethene	5.00	UD	0.91	5.00	ug/L
67-64-1	Acetone	25.0	UD	4.50	25.0	ug/L
75-15-0	Carbon Disulfide	5.00	UD	1.20	5.00	ug/L
1634-04-4	Methyl tert-butyl Ether	5.00	UD	0.35	5.00	ug/L
79-20-9	Methyl Acetate	5.00	UD	3.20	5.00	ug/L
75-09-2	Methylene Chloride	5.00	UD	1.60	5.00	ug/L
156-60-5	trans-1,2-Dichloroethene	8.30	D	1.20	5.00	ug/L
75-34-3	1,1-Dichloroethane	5.00	UD	0.83	5.00	ug/L
110-82-7	Cyclohexane	25.0	UD	6.00	25.0	ug/L
78-93-3	2-Butanone	25.0	UD	3.50	25.0	ug/L
56-23-5	Carbon Tetrachloride	5.00	UD	1.10	5.00	ug/L
156-59-2	cis-1,2-Dichloroethene	120	D	1.50	5.00	ug/L
74-97-5	Bromochloromethane	5.00	UD	1.60	5.00	ug/L
67-66-3	Chloroform	5.00	UD	0.71	5.00	ug/L
71-55-6	1,1,1-Trichloroethane	5.00	UD	0.62	5.00	ug/L
108-87-2	Methylcyclohexane	5.00	UD	0.86	5.00	ug/L
71-43-2	Benzene	5.00	UD	0.49	5.00	ug/L
107-06-2	1,2-Dichloroethane	5.00	UD	0.65	5.00	ug/L
79-01-6	Trichloroethene	110	D	1.30	5.00	ug/L
78-87-5	1,2-Dichloropropane	5.00	UD	0.68	5.00	ug/L
75-27-4	Bromodichloromethane	5.00	UD	0.51	5.00	ug/L
108-10-1	4-Methyl-2-Pentanone	25.0	UD	4.30	25.0	ug/L
108-88-3	Toluene	5.00	UD	0.58	5.00	ug/L
10061-02-6	t-1,3-Dichloropropene	5.00	UD	0.96	5.00	ug/L
10061-01-5	cis-1,3-Dichloropropene	5.00	UD	0.78	5.00	ug/L

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Day Environmental, Inc.	Date Collected:	07/06/20
Project:	Andrew St. RI	Date Received:	07/07/20
Client Sample ID:	1005-MW-03ADL	SDG No.:	L3232
Lab Sample ID:	L3232-05DL	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	DB-624UI ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX017249.D	5		07/08/20 12:51	VX070820

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
79-00-5	1,1,2-Trichloroethane	5.00	UD	0.61	5.00	ug/L
591-78-6	2-Hexanone	25.0	UD	6.80	25.0	ug/L
124-48-1	Dibromochloromethane	5.00	UD	0.78	5.00	ug/L
106-93-4	1,2-Dibromoethane	5.00	UD	0.69	5.00	ug/L
127-18-4	Tetrachloroethene	340	D	0.77	5.00	ug/L
108-90-7	Chlorobenzene	5.00	UD	0.38	5.00	ug/L
100-41-4	Ethyl Benzene	5.00	UD	0.41	5.00	ug/L
179601-23-1	m/p-Xylenes	10.0	UD	0.98	10.0	ug/L
95-47-6	o-Xylene	5.00	UD	0.65	5.00	ug/L
100-42-5	Styrene	5.00	UD	0.53	5.00	ug/L
75-25-2	Bromoform	5.00	UD	0.75	5.00	ug/L
98-82-8	Isopropylbenzene	5.00	UD	0.66	5.00	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	5.00	UD	0.76	5.00	ug/L
541-73-1	1,3-Dichlorobenzene	5.00	UD	0.70	5.00	ug/L
106-46-7	1,4-Dichlorobenzene	5.00	UD	1.00	5.00	ug/L
95-50-1	1,2-Dichlorobenzene	5.00	UD	0.60	5.00	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	5.00	UD	2.70	5.00	ug/L
120-82-1	1,2,4-Trichlorobenzene	5.00	UD	1.20	5.00	ug/L
87-61-6	1,2,3-Trichlorobenzene	5.00	UD	1.30	5.00	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	52.0		61 - 141	104%	SPK: 50
1868-53-7	Dibromofluoromethane	54.1		69 - 133	108%	SPK: 50
2037-26-5	Toluene-d8	52.1		65 - 126	104%	SPK: 50
460-00-4	4-Bromofluorobenzene	53.2		58 - 135	106%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	257000	5.63			
540-36-3	1,4-Difluorobenzene	418000	6.83			
3114-55-4	Chlorobenzene-d5	429000	10.1			
3855-82-1	1,4-Dichlorobenzene-d4	219000	12.06			

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Day Environmental, Inc.	Date Collected:	07/06/20
Project:	Andrew St. RI	Date Received:	07/07/20
Client Sample ID:	1005-MW-03ADL	SDG No.:	L3232
Lab Sample ID:	L3232-05DL	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	DB-624UI ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX017249.D	5		07/08/20 12:51	VX070820

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit
A = Aldol-Condensation Reaction Products

Quantitation Report (QT Reviewed)

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX070820\
Data File : VX017249.D
Acq On : 08 Jul 2020 12:51
Operator : JC/SP
Sample : L3232-05DL 5X
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 7 Sample Multiplier: 1

Instrument : MSVOA_X
ClientSampleId : 1005-MW-03ADL

Quant Time: Jul 09 06:47:54 2020
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X062920W.M
Quant Title : SW846 8260
QLast Update : Mon Jun 29 17:10:38 2020
Response via : Initial Calibration

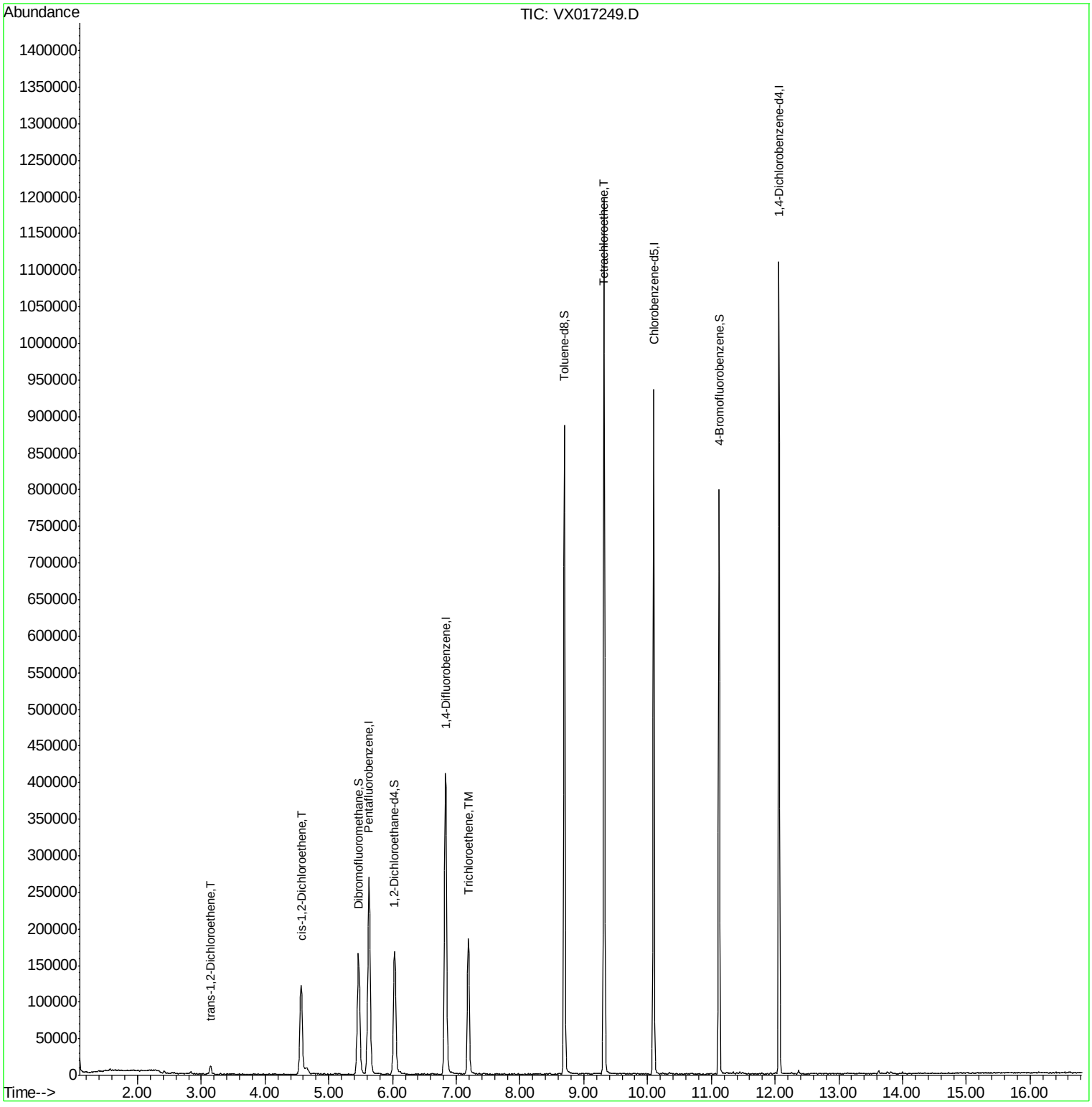
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	5.63	168	256770	50.00	ug/l	0.00
34) 1,4-Difluorobenzene	6.83	114	417673	50.00	ug/l	0.00
63) Chlorobenzene-d5	10.10	117	428735	50.00	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	12.06	152	218771	50.00	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	6.03	65	164620	52.01	ug/l	0.00
Spiked Amount 50.000			Recovery = 104.02%			
35) Dibromofluoromethane	5.46	113	142938	54.10	ug/l	0.00
Spiked Amount 50.000			Recovery = 108.20%			
50) Toluene-d8	8.70	98	508540	52.05	ug/l	0.00
Spiked Amount 50.000			Recovery = 104.10%			
62) 4-Bromofluorobenzene	11.12	95	203110	53.18	ug/l	0.00
Spiked Amount 50.000			Recovery = 106.36%			
Target Compounds						Qvalue
21) trans-1,2-Dichloroethene	3.15	96	4686	1.662	ug/l	97
27) cis-1,2-Dichloroethene	4.57	96	79718	24.956	ug/l	90
44) Trichloroethene	7.19	130	73317	22.739	ug/l	97
64) Tetrachloroethene	9.32	164	237748	68.710	ug/l	95

(#) = qualifier out of range (m) = manual integration (+) = signals summed

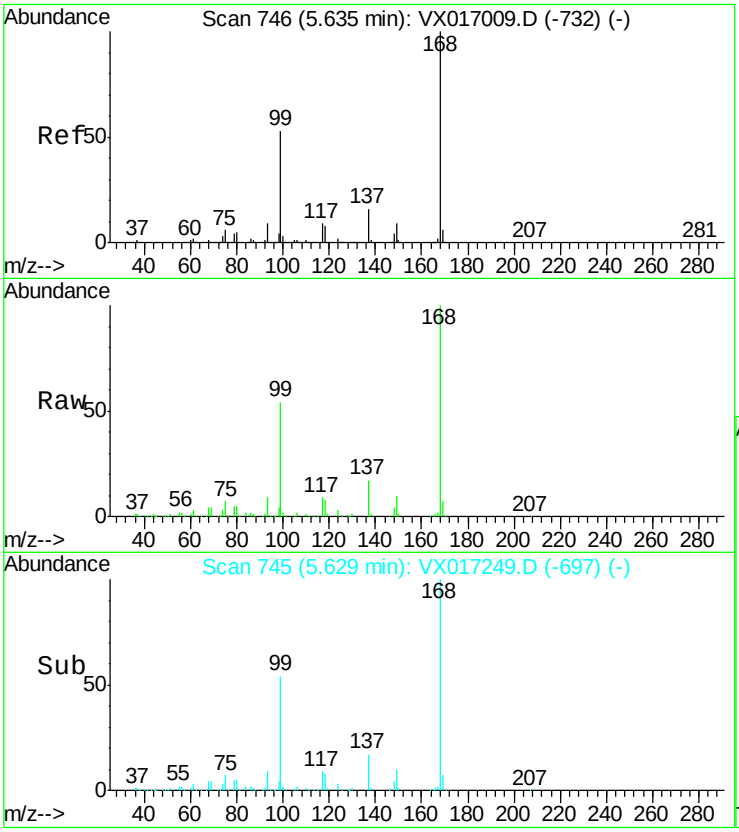
Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX070820\
Data File : VX017249.D
Acq On : 08 Jul 2020 12:51
Operator : JC/SP
Sample : L3232-05DL 5X
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 7 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
1005-MW-03ADL

Quant Time: Jul 09 06:47:54 2020
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X062920W.M
Quant Title : SW846 8260
QLast Update : Mon Jun 29 17:10:38 2020
Response via : Initial Calibration



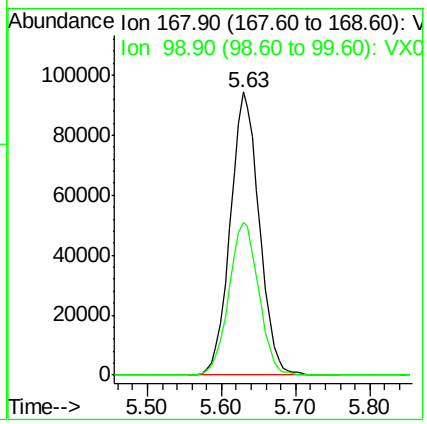
Instrument :
MSVOA_X
ClientSampleId :
1005-MW-03ADL

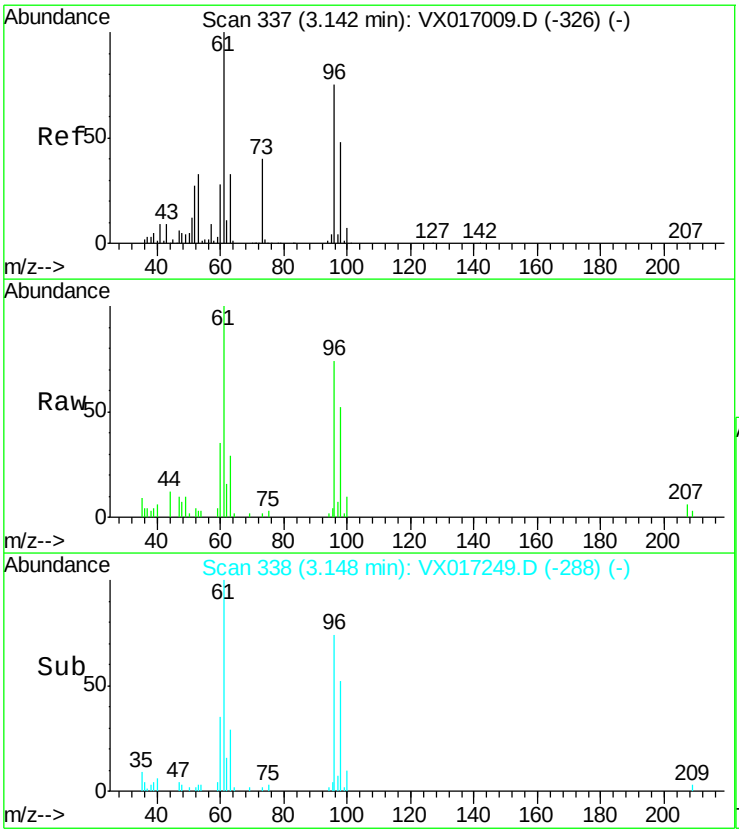


#1
Pentafluorobenzene
Concen: 50.000 ug/l
RT: 5.63 min Scan# 745
Delta R.T. -0.01 min
Lab File: VX017249.D
Acq: 08 Jul 2020 12:51

Tgt Ion:168 Resp: 256770

Ion	Ratio	Lower	Upper
168	100		
99	54.1	42.6	64.0

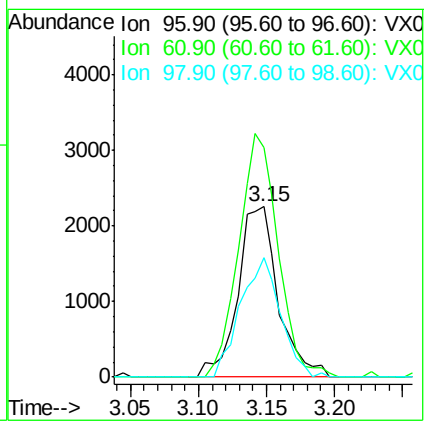




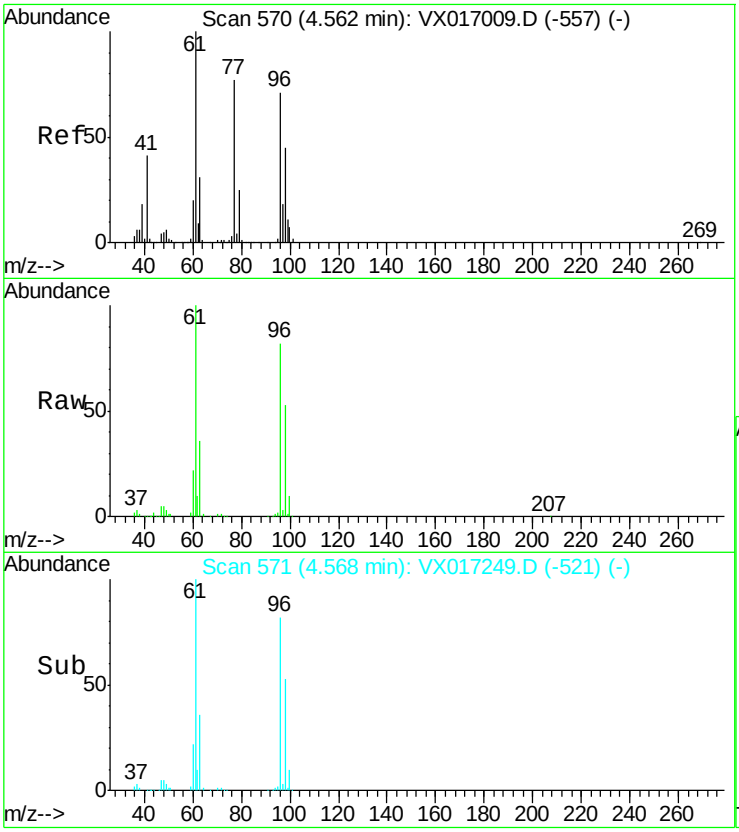
#21
trans-1,2-Dichloroethene
Concen: 1.662 ug/l
RT: 3.15 min Scan# 338
Delta R.T. 0.01 min
Lab File: VX017249.D
Acq: 08 Jul 2020 12:51

Tgt Ion: 96 Resp: 4686

Ion	Ratio	Lower	Upper
96	100		
61	134.7	107.0	160.6
98	69.7	51.6	77.4



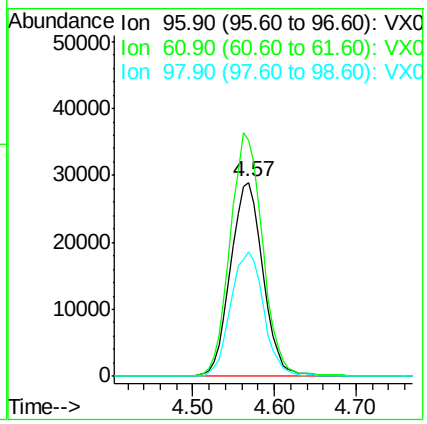
Instrument :
MSVOA_X
ClientSampleId :
1005-MW-03ADL

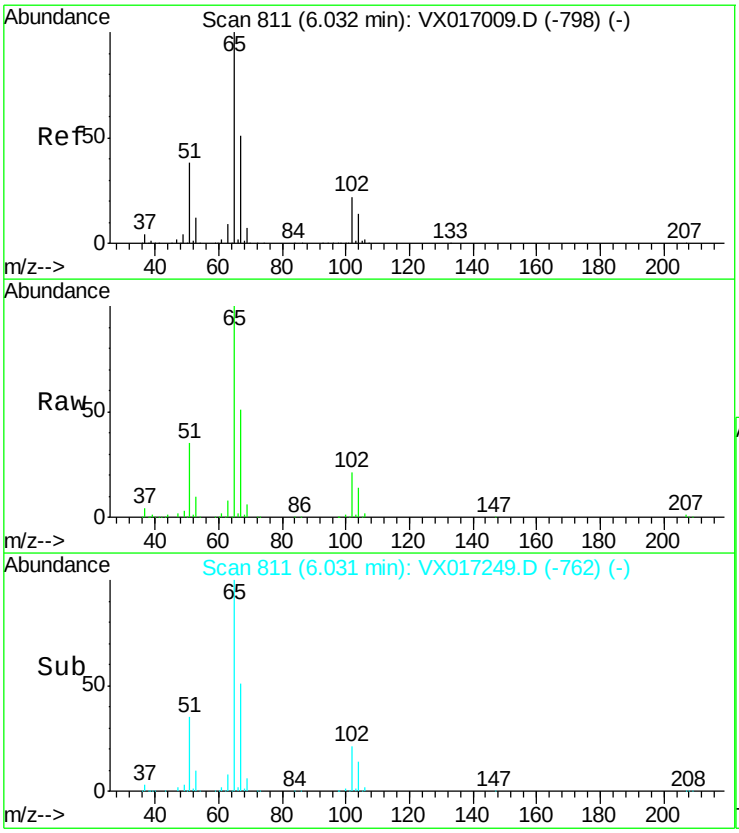


#27
cis-1,2-Dichloroethene
Concen: 24.956 ug/l
RT: 4.57 min Scan# 571
Delta R.T. 0.01 min
Lab File: VX017249.D
Acq: 08 Jul 2020 12:51

Tgt Ion: 96 Resp: 79718

Ion	Ratio	Lower	Upper
96	100		
61	125.2	0.0	282.8
98	64.9	0.0	127.6

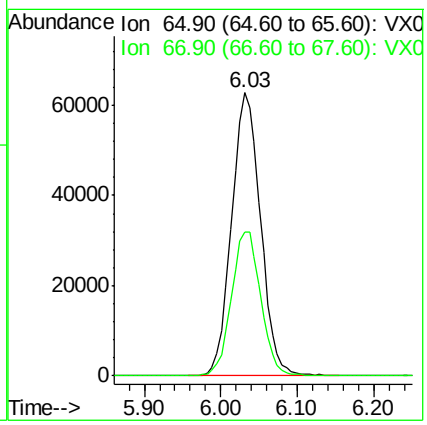




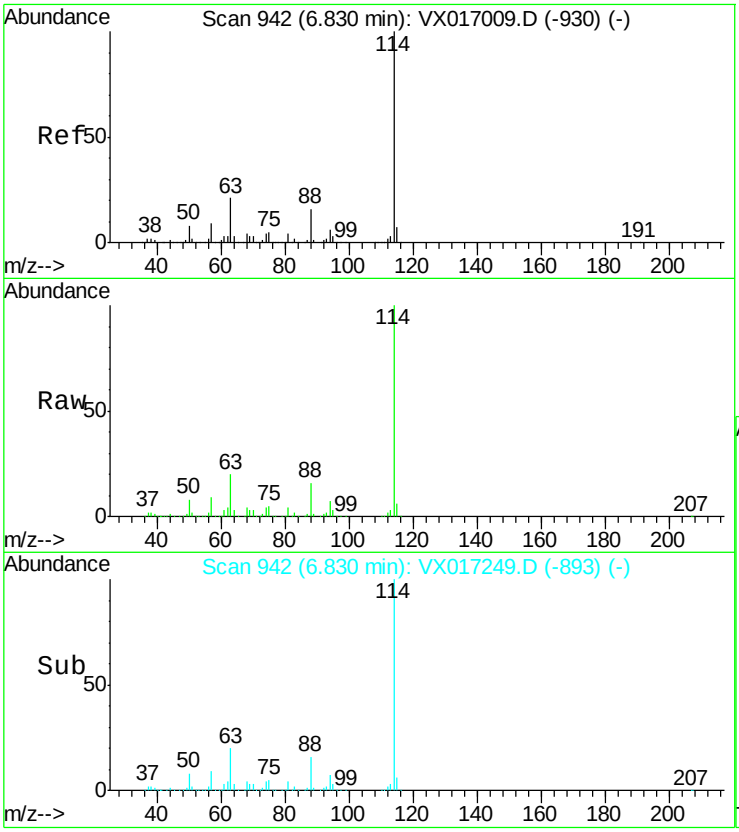
#33
1,2-Dichloroethane-d4
Concen: 52.005 ug/l
RT: 6.03 min Scan# 811
Delta R.T. -0.00 min
Lab File: VX017249.D
Acq: 08 Jul 2020 12:51

Tgt Ion: 65 Resp: 164620

Ion	Ratio	Lower	Upper
65	100		
67	51.7	0.0	103.8



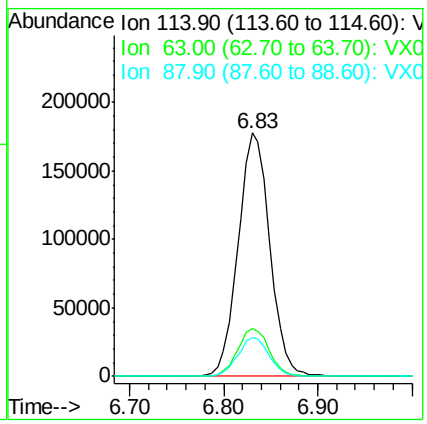
Instrument :
MSVOA_X
ClientSampleId :
1005-MW-03ADL

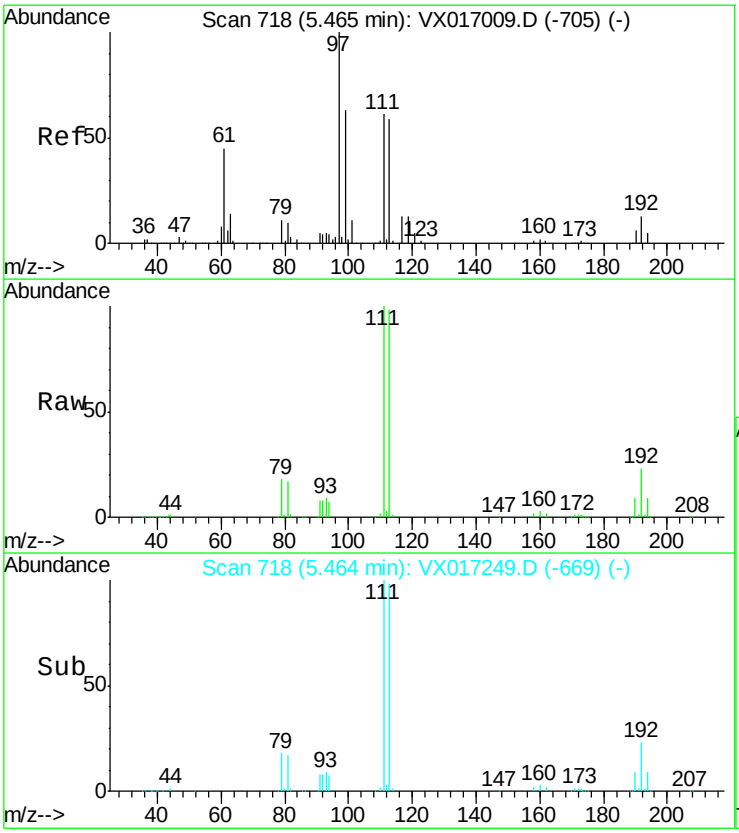


#34
1,4-Difluorobenzene
Concen: 50.000 ug/l
RT: 6.83 min Scan# 942
Delta R.T. -0.00 min
Lab File: VX017249.D
Acq: 08 Jul 2020 12:51

Tgt Ion:114 Resp: 417673

Ion	Ratio	Lower	Upper
114	100		
63	19.7	0.0	41.4
88	15.7	0.0	32.4

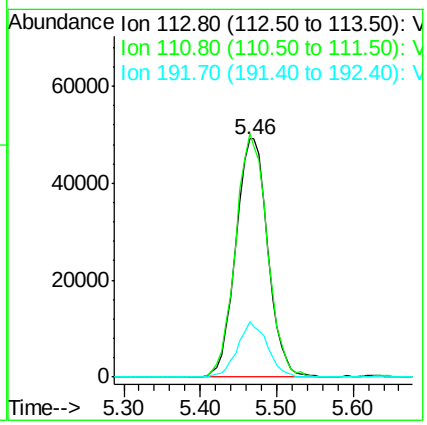




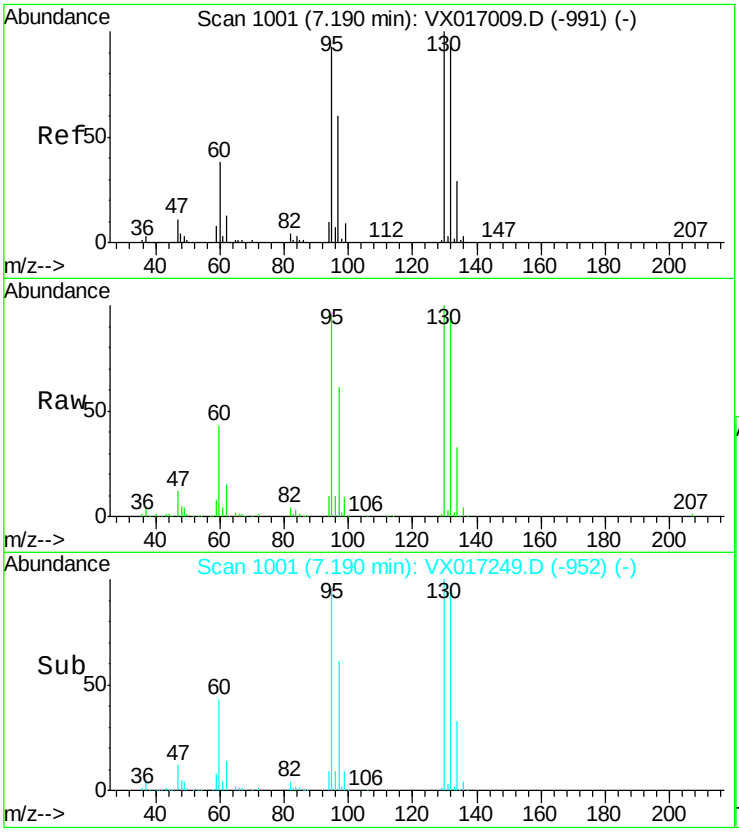
#35
Dibromofluoromethane
Concen: 54.101 ug/l
RT: 5.46 min Scan# 718
Delta R.T. -0.00 min
Lab File: VX017249.D
Acq: 08 Jul 2020 12:51

Tgt Ion:113 Resp: 142938

Ion	Ratio	Lower	Upper
113	100		
111	101.1	81.9	122.9
192	21.7	16.7	25.1



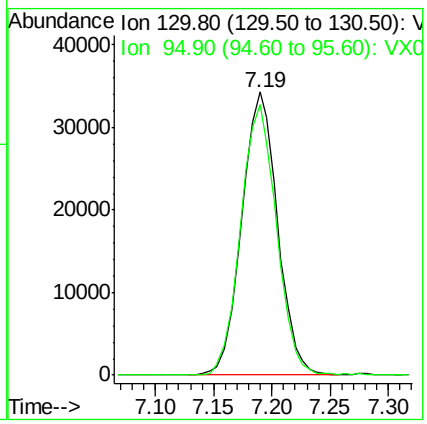
Instrument :
MSVOA_X
ClientSampleId :
1005-MW-03ADL

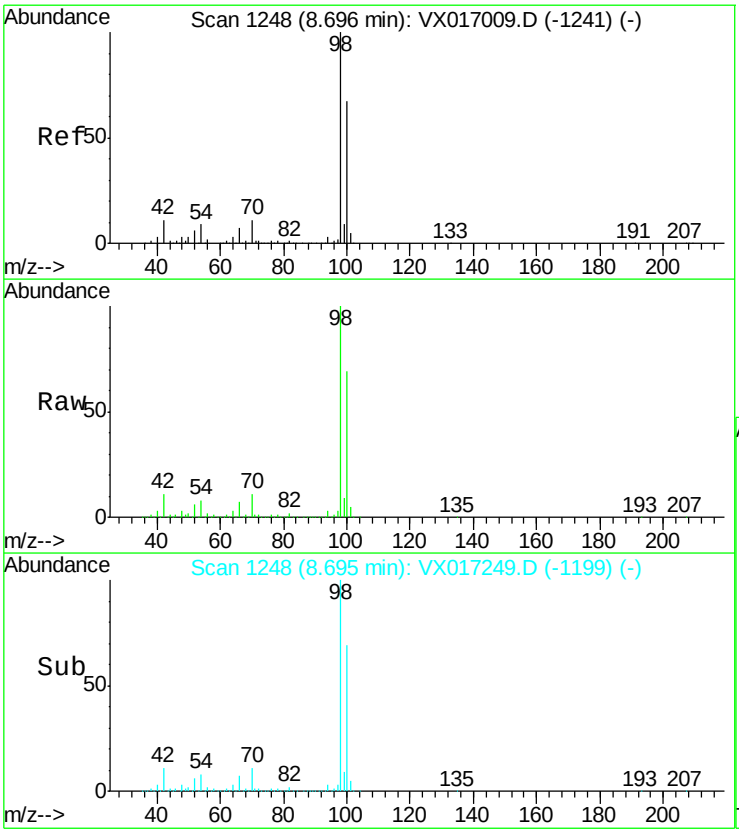


#44
Trichloroethene
Concen: 22.739 ug/l
RT: 7.19 min Scan# 1001
Delta R.T. 0.00 min
Lab File: VX017249.D
Acq: 08 Jul 2020 12:51

Tgt Ion:130 Resp: 73317

Ion	Ratio	Lower	Upper
130	100		
95	95.6	0.0	185.0

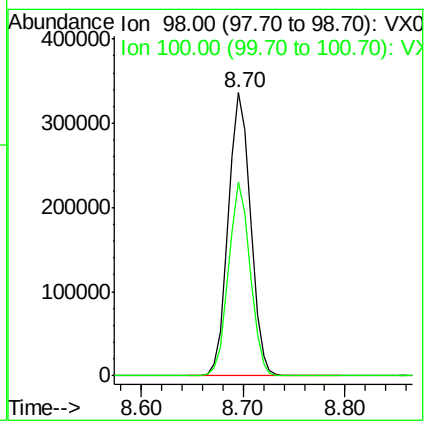




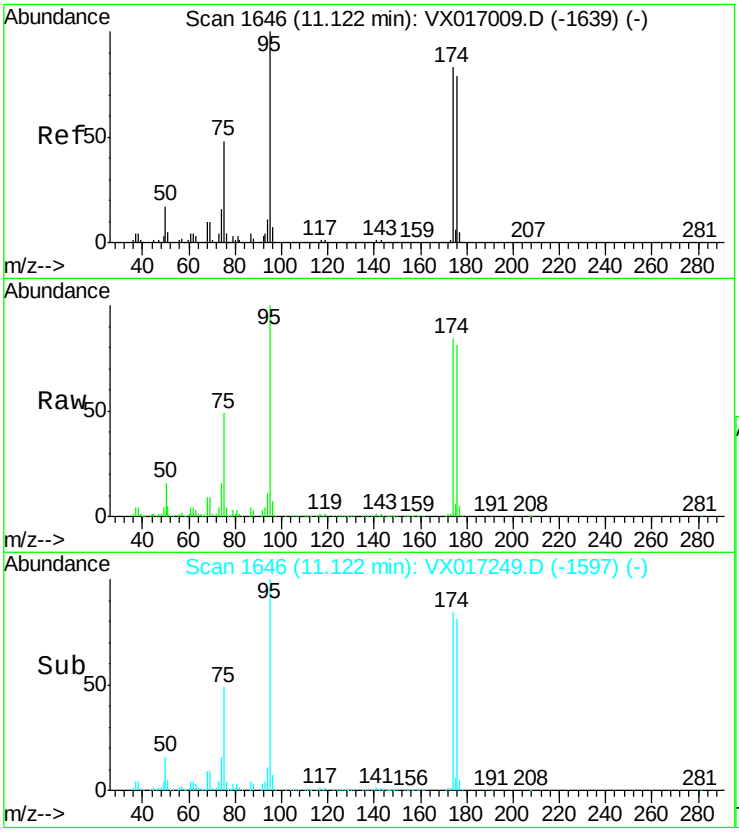
#50
Toluene-d8
Concen: 52.052 ug/l
RT: 8.70 min Scan# 1248
Delta R.T. -0.00 min
Lab File: VX017249.D
Acq: 08 Jul 2020 12:51

Tgt Ion: 98 Resp: 508540

Ion	Ratio	Lower	Upper
98	100		
100	66.2	53.8	80.6



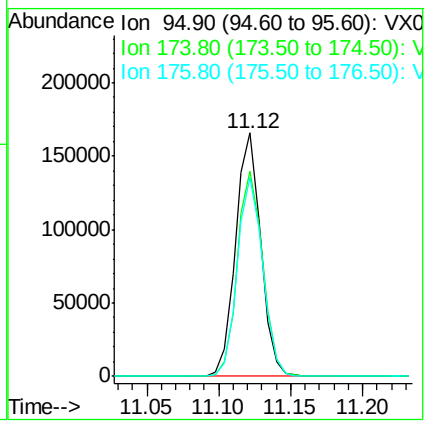
Instrument :
MSVOA_X
ClientSampleId :
1005-MW-03ADL

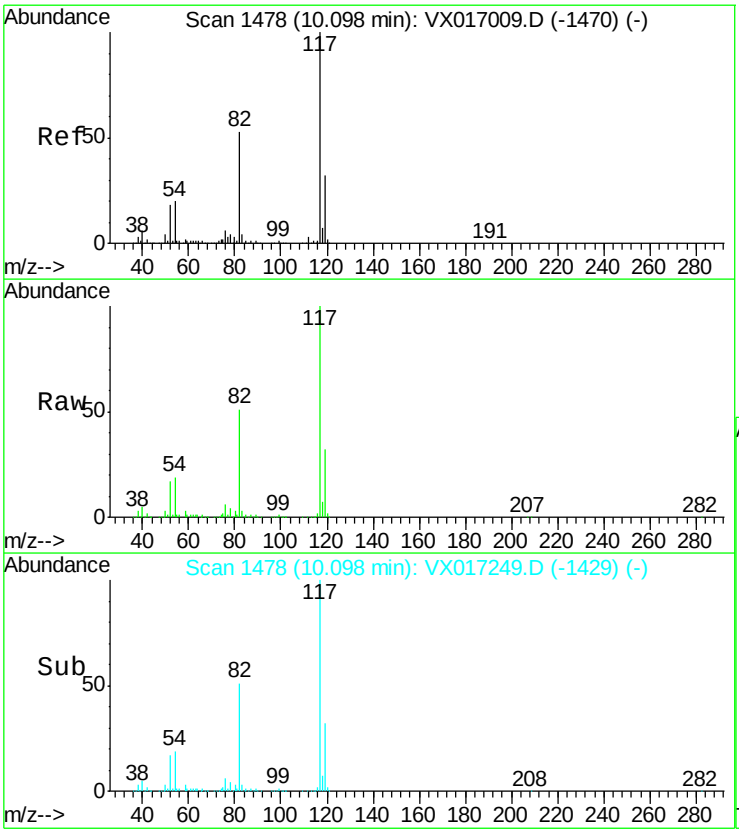


#62
4-Bromofluorobenzene
Concen: 53.182 ug/l
RT: 11.12 min Scan# 1646
Delta R.T. -0.00 min
Lab File: VX017249.D
Acq: 08 Jul 2020 12:51

Tgt Ion: 95 Resp: 203110

Ion	Ratio	Lower	Upper
95	100		
174	84.9	0.0	164.0
176	81.9	0.0	157.6

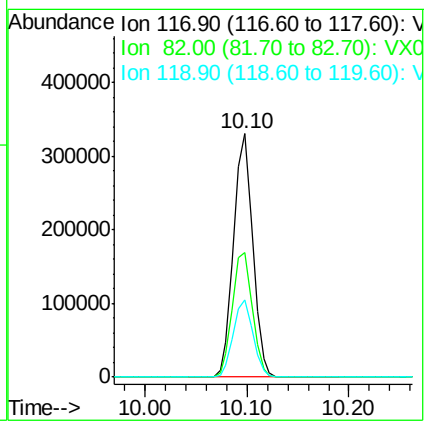




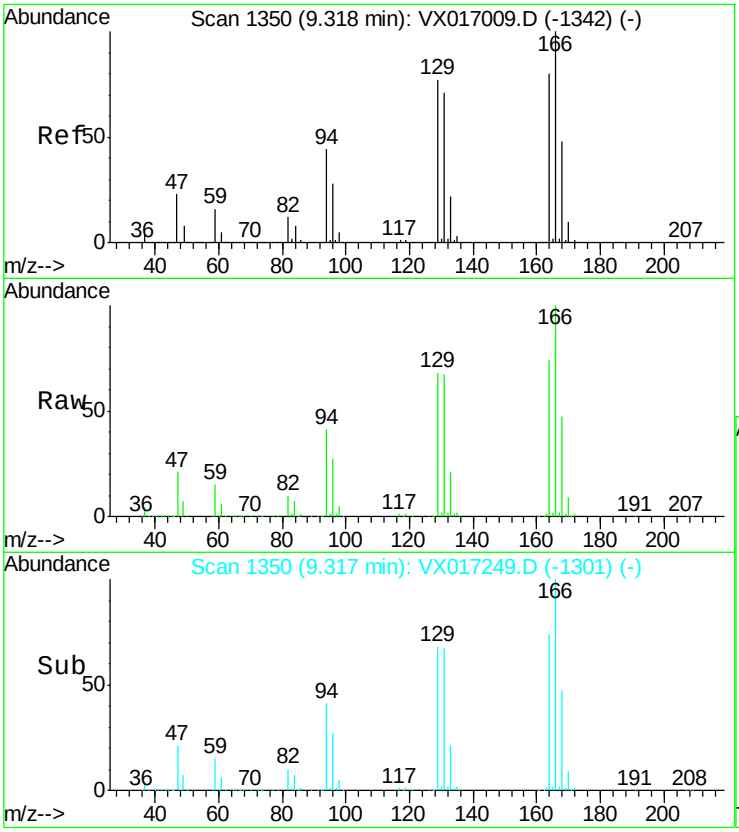
#63
Chlorobenzene-d5
Concen: 50.000 ug/l
RT: 10.10 min Scan# 1478
Delta R.T. -0.00 min
Lab File: VX017249.D
Acq: 08 Jul 2020 12:51

Tgt Ion:117 Resp: 428735

Ion	Ratio	Lower	Upper
117	100		
82	51.0	42.6	63.8
119	31.9	25.4	38.2



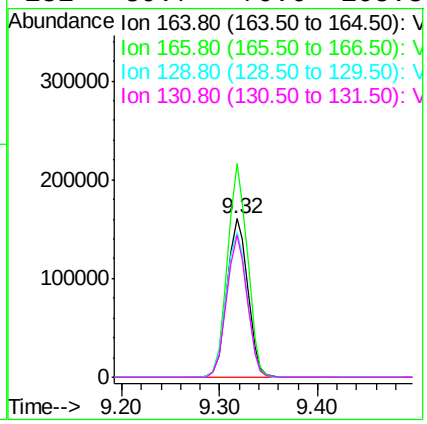
Instrument :
MSVOA_X
ClientSampleId :
1005-MW-03ADL

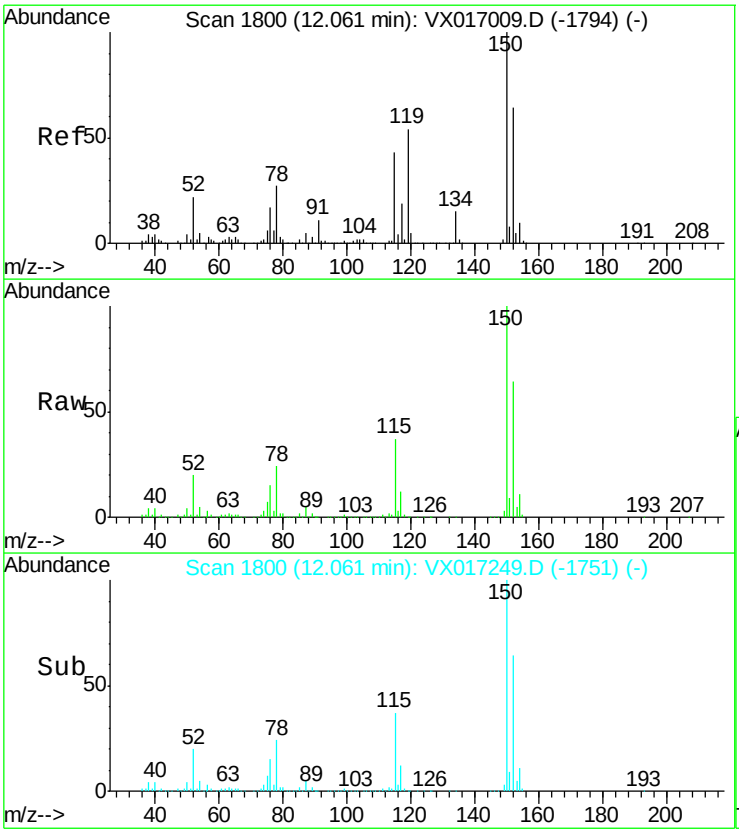


#64
Tetrachloroethene
Concen: 68.710 ug/l
RT: 9.32 min Scan# 1350
Delta R.T. -0.00 min
Lab File: VX017249.D
Acq: 08 Jul 2020 12:51

Tgt Ion:164 Resp: 237748

Ion	Ratio	Lower	Upper
164	100		
166	134.7	99.4	149.0
129	91.3	76.3	114.5
131	89.7	70.6	105.8

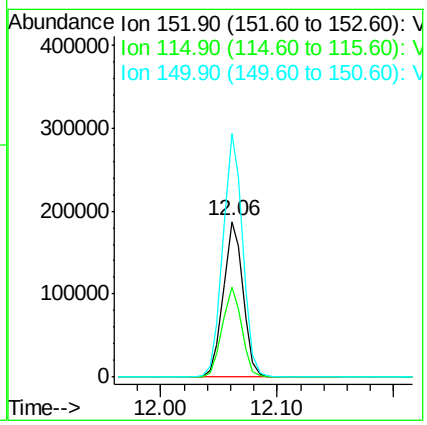




#72
1,4-Dichlorobenzene-d4
Concen: 50.000 ug/l
RT: 12.06 min Scan# 1800
Delta R.T. -0.00 min
Lab File: VX017249.D
Acq: 08 Jul 2020 12:51

Tgt Ion:152 Resp: 218771

Ion	Ratio	Lower	Upper
152	100		
115	56.9	40.9	122.7
150	155.9	0.0	351.6



CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Day Environmental, Inc.	Date Collected:	07/06/20
Project:	Andrew St. RI	Date Received:	07/07/20
Client Sample ID:	1006-MW-05	SDG No.:	L3232
Lab Sample ID:	L3232-06	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	DB-624UI ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX017233.D	1		07/08/20 03:37	VX070720

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
75-71-8	Dichlorodifluoromethane	1.00	U	0.22	1.00	ug/L
74-87-3	Chloromethane	1.00	U	0.30	1.00	ug/L
75-01-4	Vinyl Chloride	1.00	U	0.16	1.00	ug/L
74-83-9	Bromomethane	5.00	U	2.10	5.00	ug/L
75-00-3	Chloroethane	1.00	U	0.34	1.00	ug/L
75-69-4	Trichlorofluoromethane	1.00	U	0.16	1.00	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	1.00	U	0.21	1.00	ug/L
75-35-4	1,1-Dichloroethene	1.00	U	0.18	1.00	ug/L
67-64-1	Acetone	12.5		0.90	5.00	ug/L
75-15-0	Carbon Disulfide	1.00	U	0.23	1.00	ug/L
1634-04-4	Methyl tert-butyl Ether	1.00	U	0.070	1.00	ug/L
79-20-9	Methyl Acetate	1.00	U	0.65	1.00	ug/L
75-09-2	Methylene Chloride	1.00	U	0.33	1.00	ug/L
156-60-5	trans-1,2-Dichloroethene	1.00	U	0.24	1.00	ug/L
75-34-3	1,1-Dichloroethane	1.00	U	0.17	1.00	ug/L
110-82-7	Cyclohexane	5.00	U	1.20	5.00	ug/L
78-93-3	2-Butanone	5.00	U	0.71	5.00	ug/L
56-23-5	Carbon Tetrachloride	1.00	U	0.22	1.00	ug/L
156-59-2	cis-1,2-Dichloroethene	1.00	U	0.30	1.00	ug/L
74-97-5	Bromochloromethane	1.00	U	0.31	1.00	ug/L
67-66-3	Chloroform	1.00	U	0.14	1.00	ug/L
71-55-6	1,1,1-Trichloroethane	1.00	U	0.12	1.00	ug/L
108-87-2	Methylcyclohexane	1.00	U	0.17	1.00	ug/L
71-43-2	Benzene	1.00	U	0.10	1.00	ug/L
107-06-2	1,2-Dichloroethane	1.00	U	0.13	1.00	ug/L
79-01-6	Trichloroethene	0.77	J	0.27	1.00	ug/L
78-87-5	1,2-Dichloropropane	1.00	U	0.14	1.00	ug/L
75-27-4	Bromodichloromethane	1.00	U	0.10	1.00	ug/L
108-10-1	4-Methyl-2-Pentanone	5.00	U	0.85	5.00	ug/L
108-88-3	Toluene	1.00	U	0.12	1.00	ug/L
10061-02-6	t-1,3-Dichloropropene	1.00	U	0.19	1.00	ug/L
10061-01-5	cis-1,3-Dichloropropene	1.00	U	0.16	1.00	ug/L

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Day Environmental, Inc.	Date Collected:	07/06/20
Project:	Andrew St. RI	Date Received:	07/07/20
Client Sample ID:	1006-MW-05	SDG No.:	L3232
Lab Sample ID:	L3232-06	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	DB-624UI ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX017233.D	1		07/08/20 03:37	VX070720

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
79-00-5	1,1,2-Trichloroethane	1.00	U	0.12	1.00	ug/L
591-78-6	2-Hexanone	5.00	U	1.40	5.00	ug/L
124-48-1	Dibromochloromethane	1.00	U	0.16	1.00	ug/L
106-93-4	1,2-Dibromoethane	1.00	U	0.14	1.00	ug/L
127-18-4	Tetrachloroethene	26.4		0.15	1.00	ug/L
108-90-7	Chlorobenzene	1.00	U	0.080	1.00	ug/L
100-41-4	Ethyl Benzene	1.00	U	0.080	1.00	ug/L
179601-23-1	m/p-Xylenes	2.00	U	0.20	2.00	ug/L
95-47-6	o-Xylene	1.00	U	0.13	1.00	ug/L
100-42-5	Styrene	1.00	U	0.11	1.00	ug/L
75-25-2	Bromoform	1.00	U	0.15	1.00	ug/L
98-82-8	Isopropylbenzene	1.00	U	0.13	1.00	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	1.00	U	0.15	1.00	ug/L
541-73-1	1,3-Dichlorobenzene	1.00	U	0.14	1.00	ug/L
106-46-7	1,4-Dichlorobenzene	1.00	U	0.20	1.00	ug/L
95-50-1	1,2-Dichlorobenzene	1.00	U	0.12	1.00	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	1.00	U	0.54	1.00	ug/L
120-82-1	1,2,4-Trichlorobenzene	1.00	U	0.24	1.00	ug/L
87-61-6	1,2,3-Trichlorobenzene	1.00	U	0.26	1.00	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	54.3		61 - 141	109%	SPK: 50
1868-53-7	Dibromofluoromethane	54.1		69 - 133	108%	SPK: 50
2037-26-5	Toluene-d8	52.9		65 - 126	106%	SPK: 50
460-00-4	4-Bromofluorobenzene	55.3		58 - 135	111%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	239000	5.63			
540-36-3	1,4-Difluorobenzene	401000	6.84			
3114-55-4	Chlorobenzene-d5	424000	10.1			
3855-82-1	1,4-Dichlorobenzene-d4	218000	12.06			

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Day Environmental, Inc.	Date Collected:	07/06/20
Project:	Andrew St. RI	Date Received:	07/07/20
Client Sample ID:	1006-MW-05	SDG No.:	L3232
Lab Sample ID:	L3232-06	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	DB-624UI ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX017233.D	1		07/08/20 03:37	VX070720

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit
A = Aldol-Condensation Reaction Products

Quantitation Report (QT Reviewed)

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX070720\
Data File : VX017233.D
Acq On : 08 Jul 2020 03:37
Operator : JC/SP
Sample : L3232-06
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 47 Sample Multiplier: 1

Instrument : MSVOA_X
ClientSampleId : 1006-MW-05

Quant Time: Jul 08 07:04:38 2020
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X062920W.M
Quant Title : SW846 8260
QLast Update : Mon Jun 29 17:10:38 2020
Response via : Initial Calibration

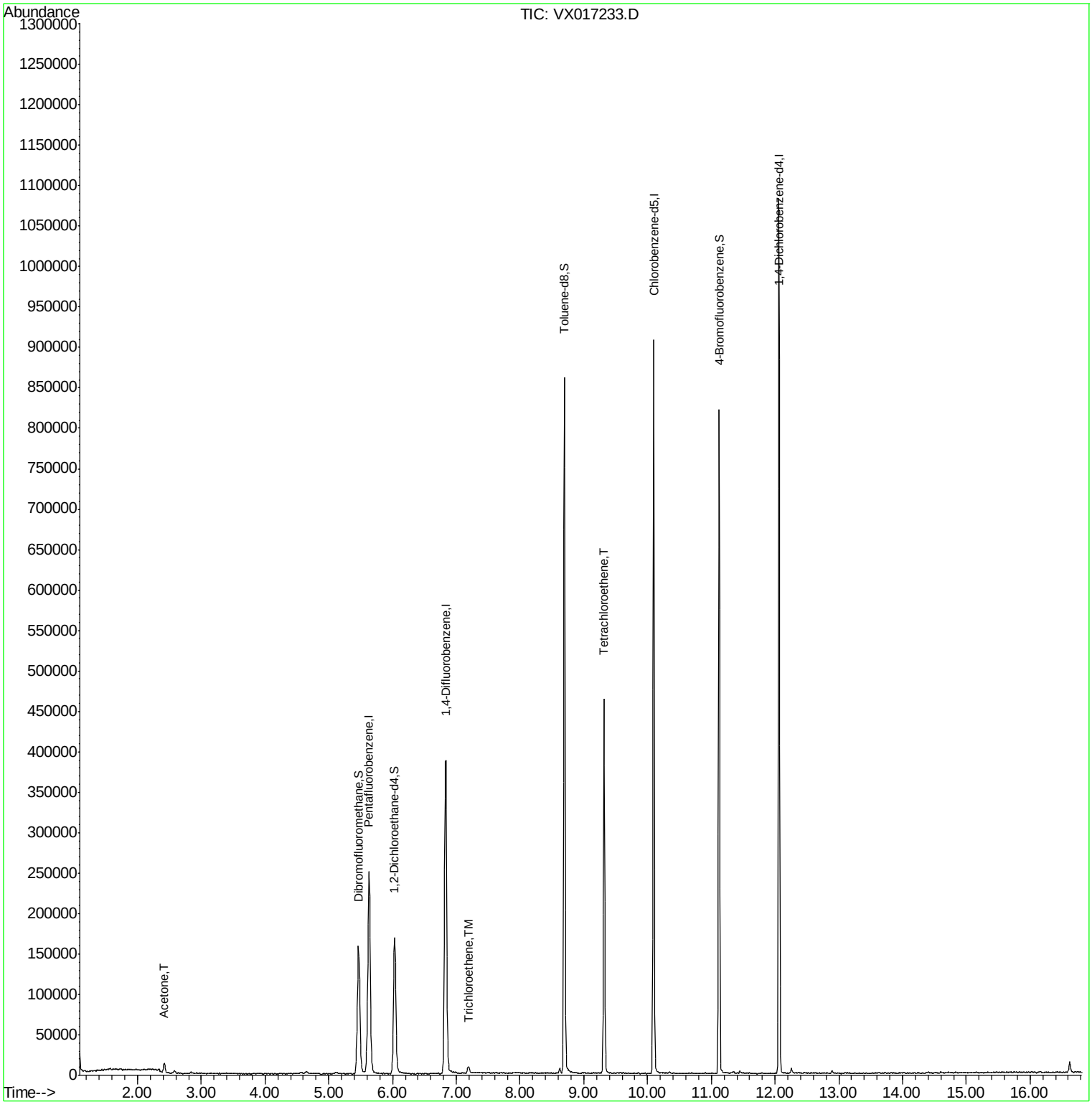
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	5.63	168	239416	50.00	ug/l	0.00
34) 1,4-Difluorobenzene	6.84	114	401364	50.00	ug/l	0.00
63) Chlorobenzene-d5	10.10	117	424452	50.00	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	12.06	152	217967	50.00	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	6.03	65	160356	54.33	ug/l	0.00
Spiked Amount 50.000			Recovery =	108.66%		
35) Dibromofluoromethane	5.47	113	137297	54.08	ug/l	0.00
Spiked Amount 50.000			Recovery =	108.16%		
50) Toluene-d8	8.70	98	496202	52.85	ug/l	0.00
Spiked Amount 50.000			Recovery =	105.70%		
62) 4-Bromofluorobenzene	11.12	95	202973	55.31	ug/l	0.00
Spiked Amount 50.000			Recovery =	110.62%		
Target Compounds						Qvalue
16) Acetone	2.42	43	13761	12.463	ug/l	99
44) Trichloroethene	7.19	130	3297	0.767	ug/l	79
64) Tetrachloroethene	9.32	164	90267	26.351	ug/l	93

(#) = qualifier out of range (m) = manual integration (+) = signals summed

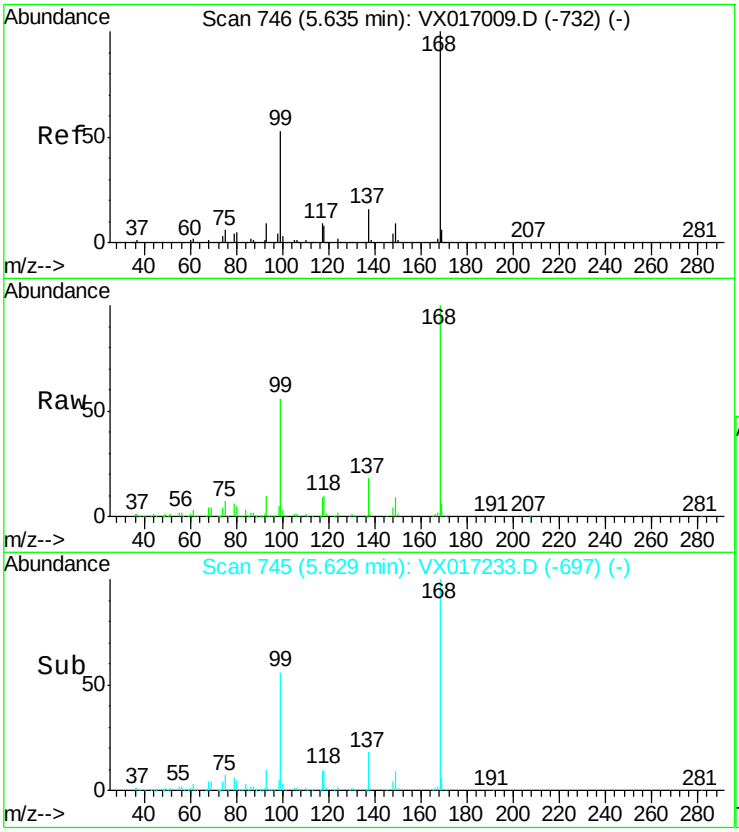
Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX070720\
Data File : VX017233.D
Acq On : 08 Jul 2020 03:37
Operator : JC/SP
Sample : L3232-06
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 47 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
1006-MW-05

Quant Time: Jul 08 07:04:38 2020
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X062920W.M
Quant Title : SW846 8260
QLast Update : Mon Jun 29 17:10:38 2020
Response via : Initial Calibration



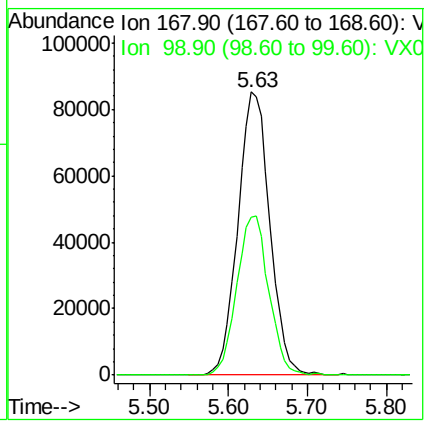
Instrument :
MSVOA_X
ClientSampleId :
1006-MW-05

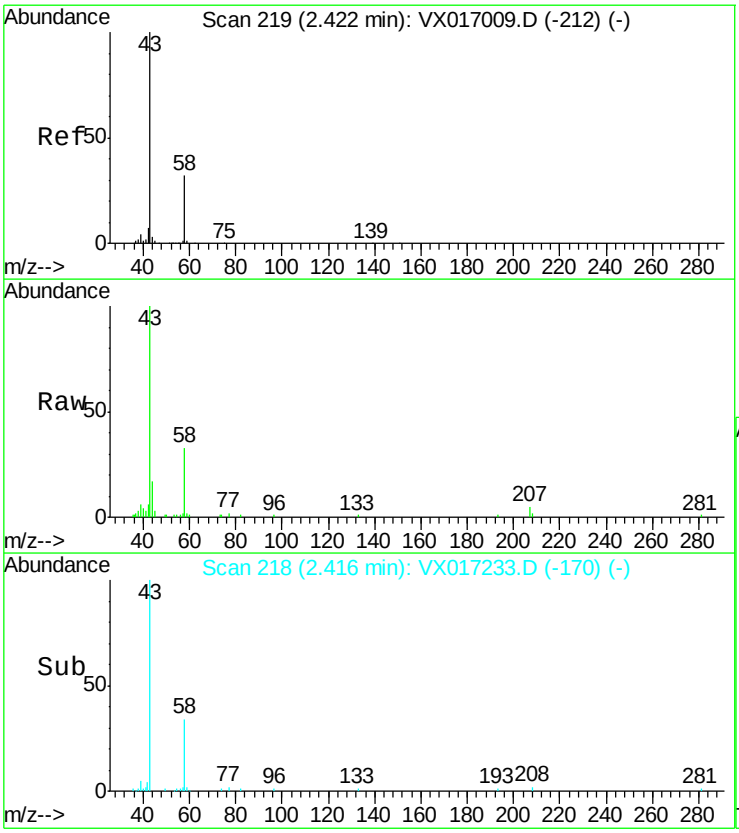


#1
Pentafluorobenzene
Concen: 50.000 ug/l
RT: 5.63 min Scan# 745
Delta R.T. -0.01 min
Lab File: VX017233.D
Acq: 08 Jul 2020 03:37

Tgt Ion:168 Resp: 239416

Ion	Ratio	Lower	Upper
168	100		
99	55.6	42.6	64.0

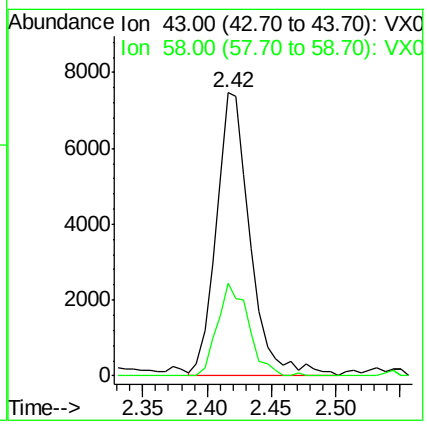




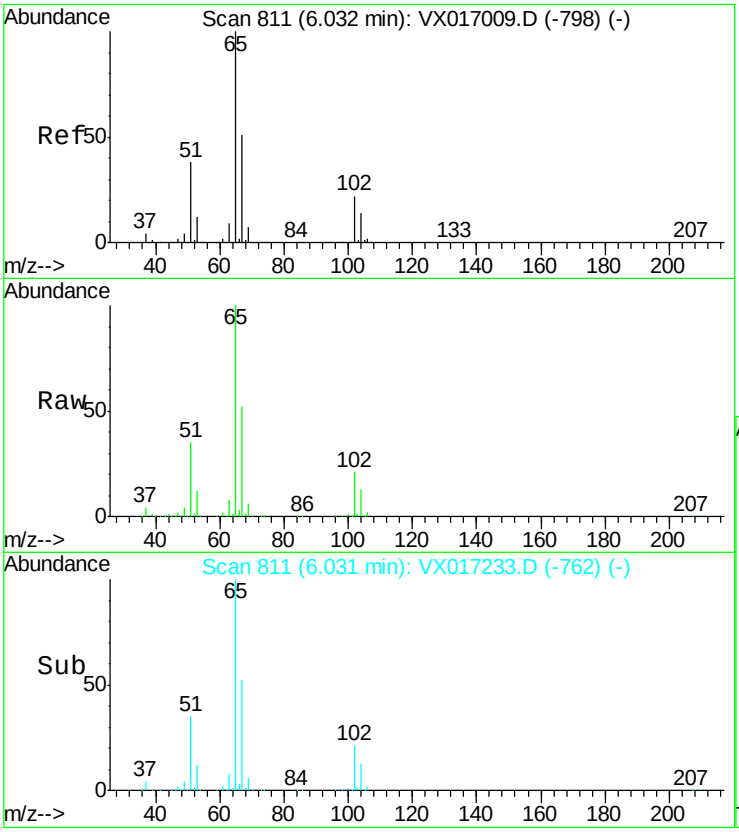
#16
Acetone
Concen: 12.463 ug/l
RT: 2.42 min Scan# 218
Delta R.T. -0.01 min
Lab File: VX017233.D
Acq: 08 Jul 2020 03:37

Tgt Ion: 43 Resp: 13761

Ion	Ratio	Lower	Upper
43	100		
58	32.7	25.7	38.5



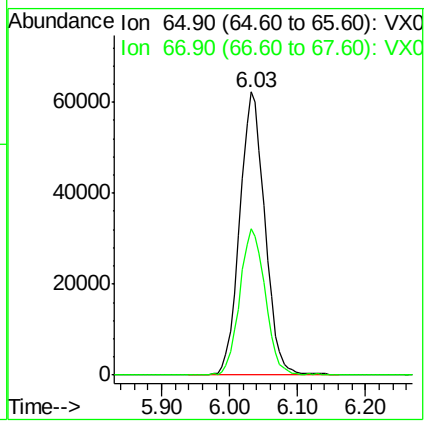
Instrument :
MSVOA_X
ClientSampleId :
1006-MW-05

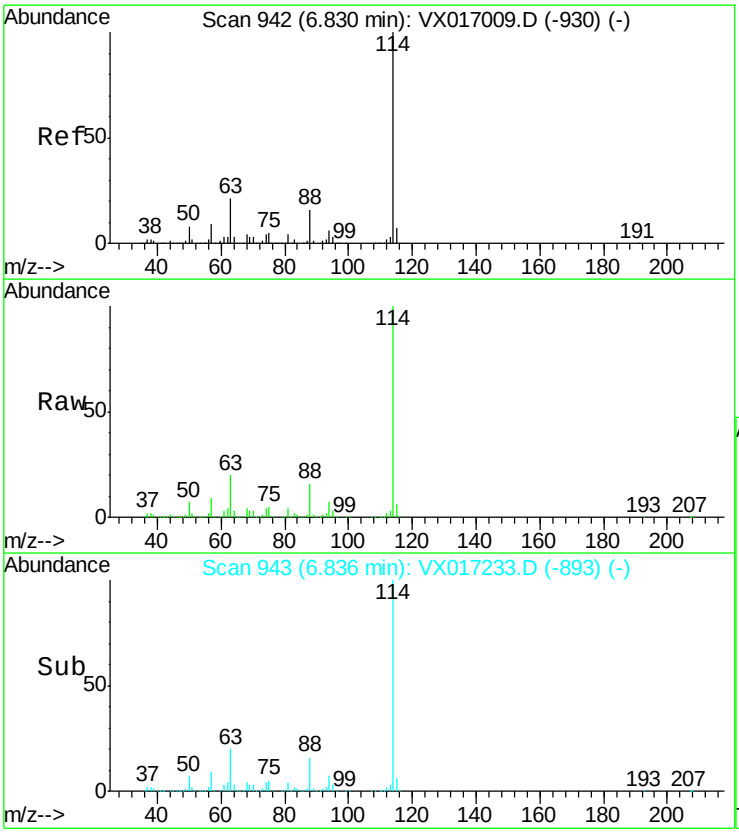


#33
1,2-Dichloroethane-d4
Concen: 54.330 ug/l
RT: 6.03 min Scan# 811
Delta R.T. -0.00 min
Lab File: VX017233.D
Acq: 08 Jul 2020 03:37

Tgt Ion: 65 Resp: 160356

Ion	Ratio	Lower	Upper
65	100		
67	52.0	0.0	103.8

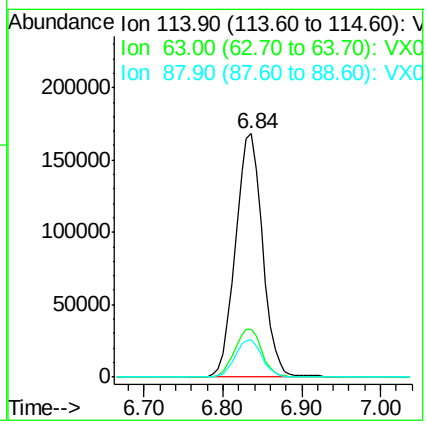




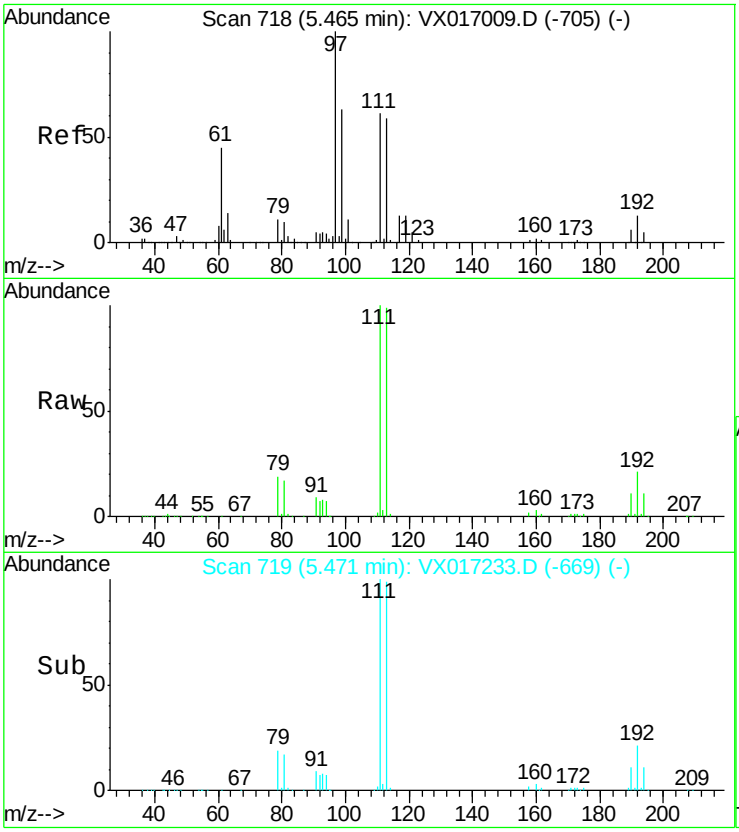
#34
1,4-Difluorobenzene
Concen: 50.000 ug/l
RT: 6.84 min Scan# 943
Delta R.T. 0.01 min
Lab File: VX017233.D
Acq: 08 Jul 2020 03:37

Tgt Ion:114 Resp: 401364

Ion	Ratio	Lower	Upper
114	100		
63	19.5	0.0	41.4
88	15.6	0.0	32.4



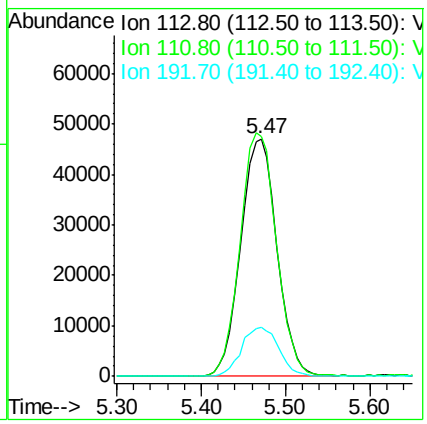
Instrument :
MSVOA_X
ClientSampleId :
1006-MW-05

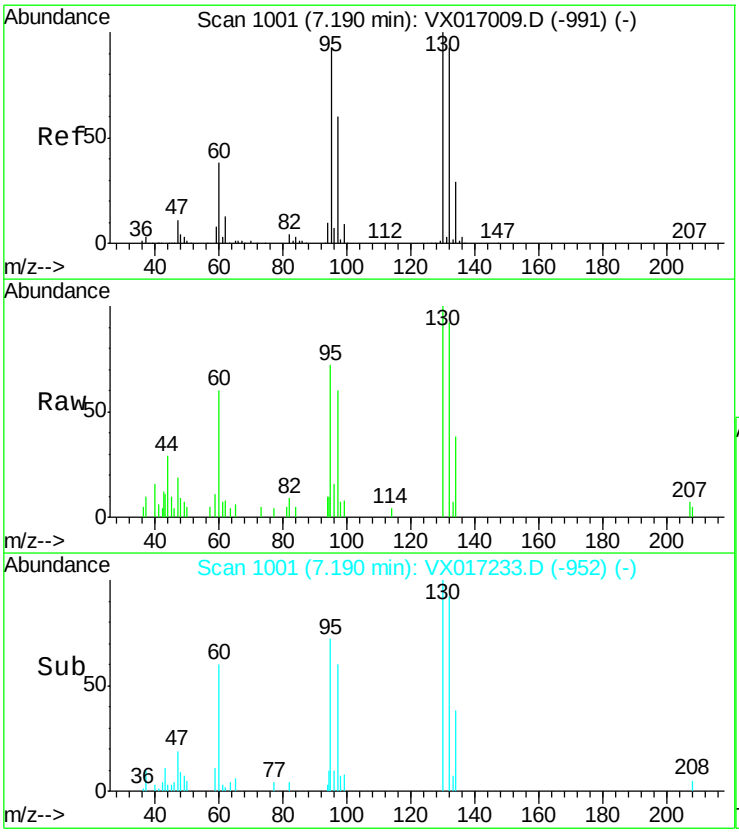


#35
Dibromofluoromethane
Concen: 54.077 ug/l
RT: 5.47 min Scan# 719
Delta R.T. 0.01 min
Lab File: VX017233.D
Acq: 08 Jul 2020 03:37

Tgt Ion:113 Resp: 137297

Ion	Ratio	Lower	Upper
113	100		
111	102.7	81.9	122.9
192	21.3	16.7	25.1

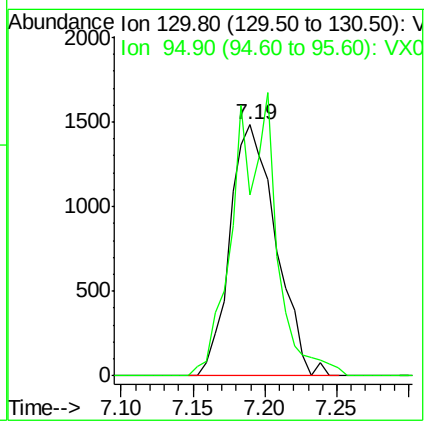




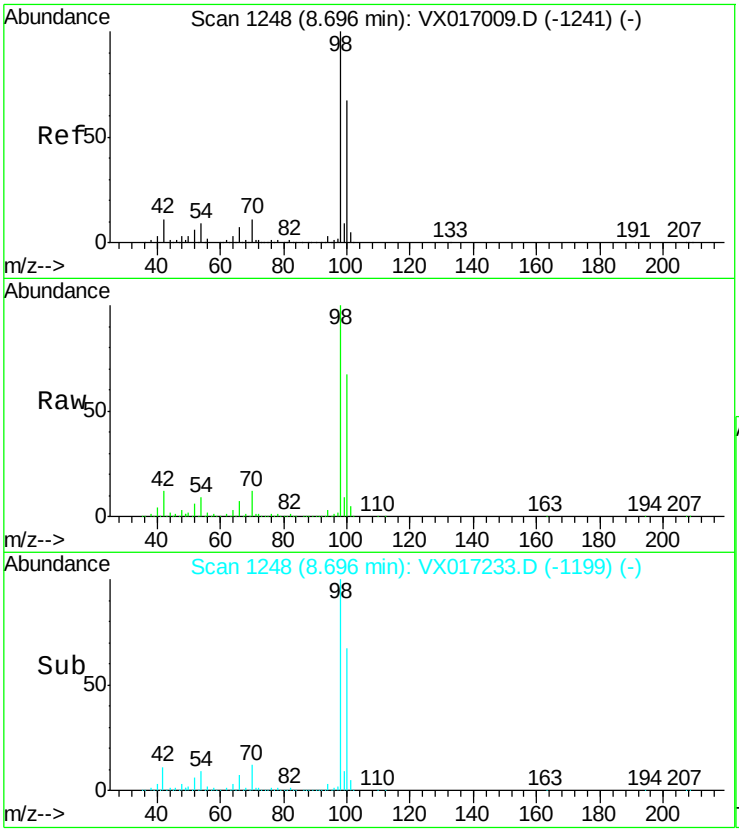
#44
Trichloroethene
Concen: 0.767 ug/l
RT: 7.19 min Scan# 1001
Delta R.T. 0.00 min
Lab File: VX017233.D
Acq: 08 Jul 2020 03:37

Tgt Ion:130 Resp: 3297

Ion	Ratio	Lower	Upper
130	100		
95	72.0	0.0	185.0



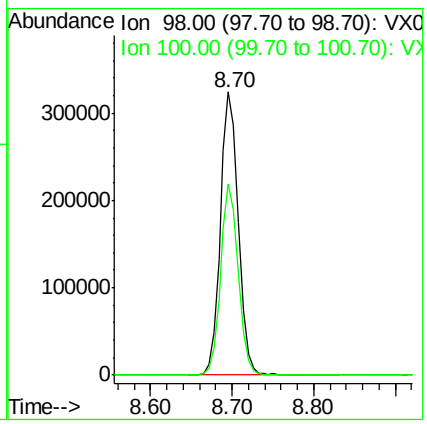
Instrument :
MSVOA_X
ClientSampleId :
1006-MW-05

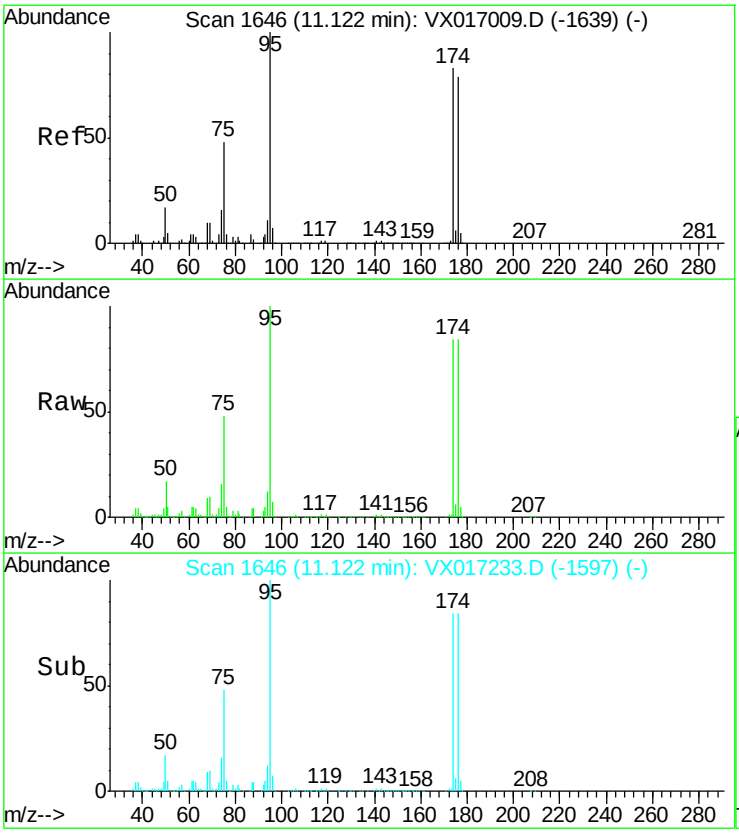


#50
Toluene-d8
Concen: 52.853 ug/l
RT: 8.70 min Scan# 1248
Delta R.T. -0.00 min
Lab File: VX017233.D
Acq: 08 Jul 2020 03:37

Tgt Ion: 98 Resp: 496202

Ion	Ratio	Lower	Upper
98	100		
100	66.1	53.8	80.6

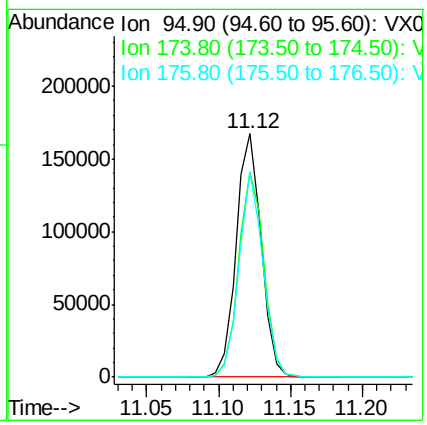




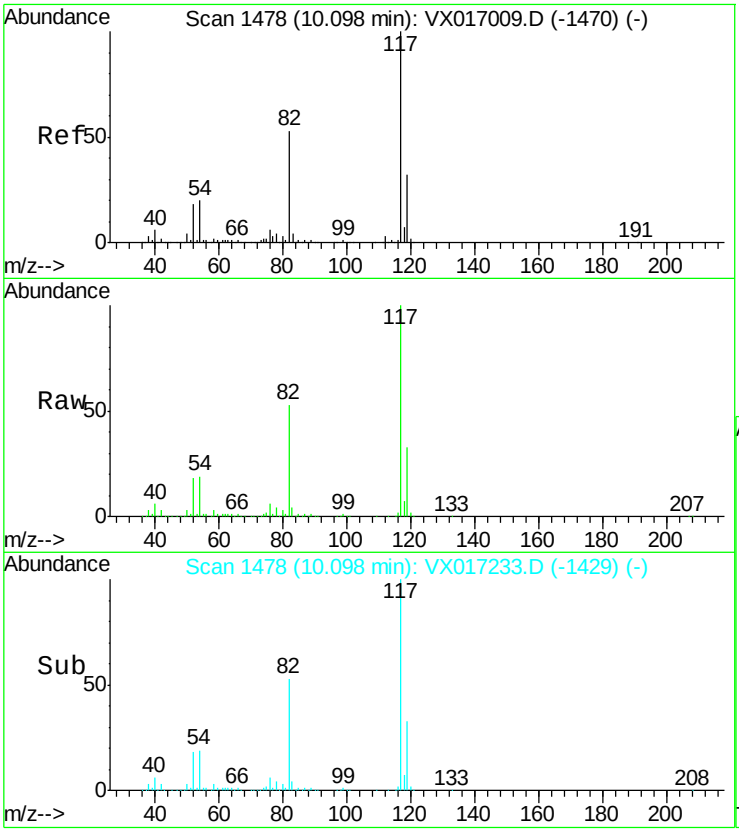
#62
4-Bromofluorobenzene
Concen: 55.306 ug/l
RT: 11.12 min Scan# 1646
Delta R.T. -0.00 min
Lab File: VX017233.D
Acq: 08 Jul 2020 03:37

Tgt Ion: 95 Resp: 202973

Ion	Ratio	Lower	Upper
95	100		
174	84.8	0.0	164.0
176	80.7	0.0	157.6



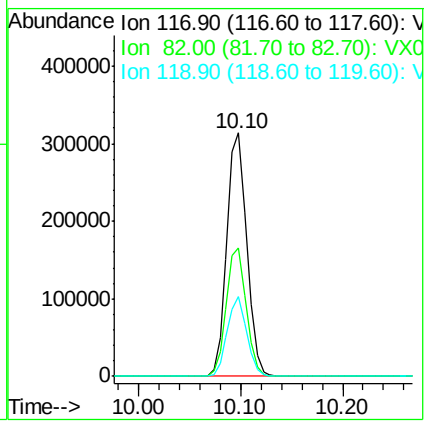
Instrument :
MSVOA_X
ClientSampleId :
1006-MW-05

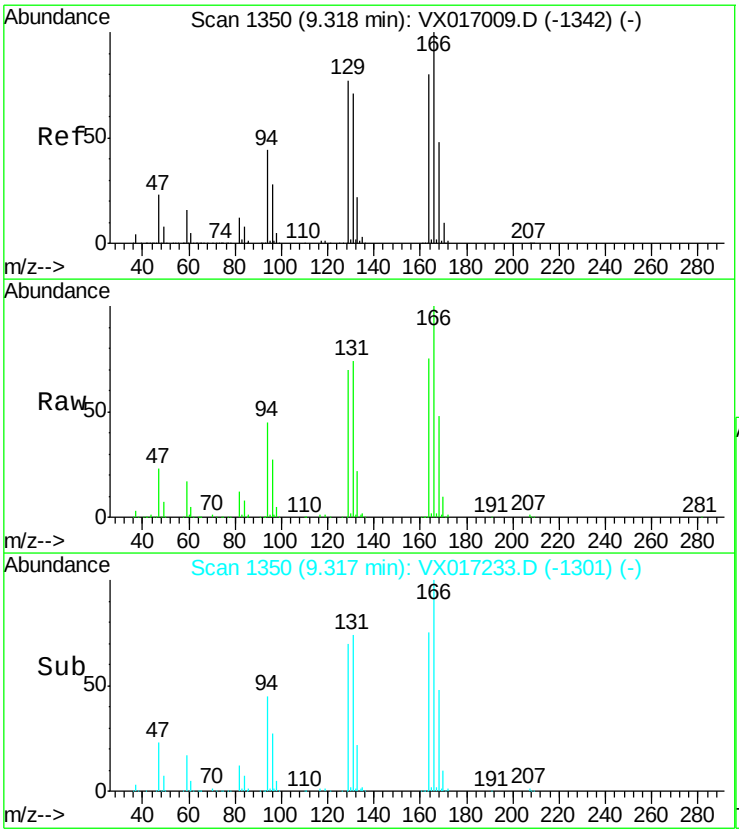


#63
Chlorobenzene-d5
Concen: 50.000 ug/l
RT: 10.10 min Scan# 1478
Delta R.T. -0.00 min
Lab File: VX017233.D
Acq: 08 Jul 2020 03:37

Tgt Ion:117 Resp: 424452

Ion	Ratio	Lower	Upper
117	100		
82	52.6	42.6	63.8
119	32.9	25.4	38.2

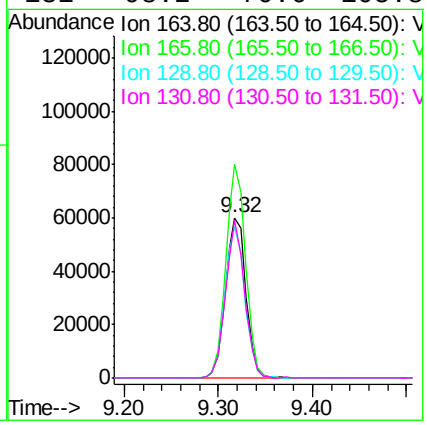


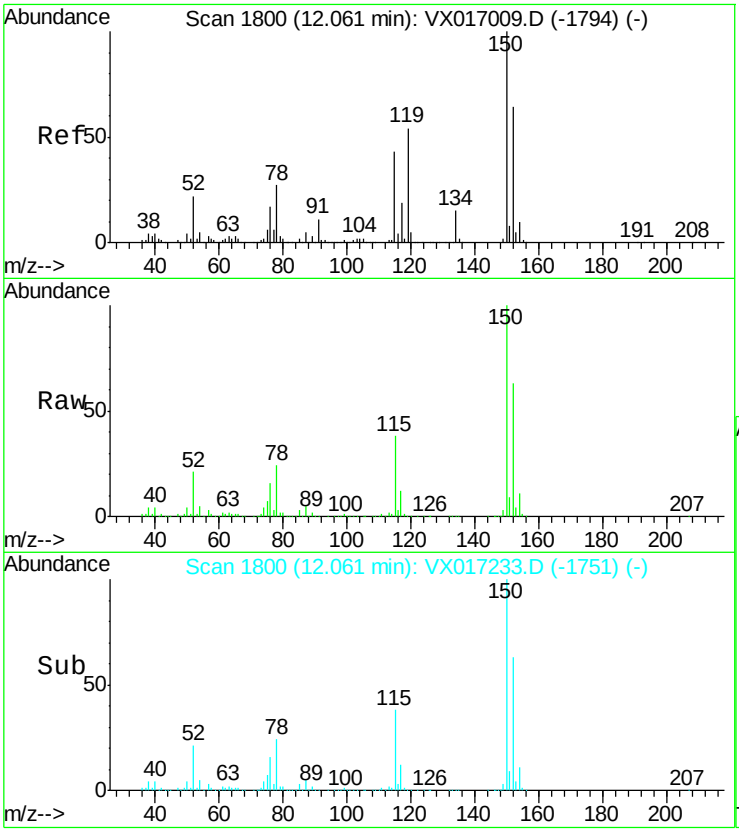


#64
Tetrachloroethene
Concen: 26.351 ug/l
RT: 9.32 min Scan# 1350
Delta R.T. -0.00 min
Lab File: VX017233.D
Acq: 08 Jul 2020 03:37

Tgt Ion:164 Resp: 90267

Ion	Ratio	Lower	Upper
164	100		
166	133.0	99.4	149.0
129	93.7	76.3	114.5
131	98.2	70.6	105.8

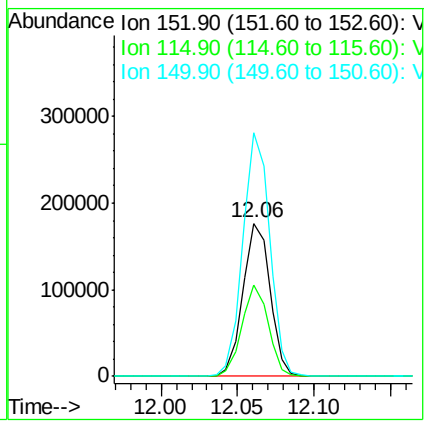




#72
1,4-Dichlorobenzene-d4
Concen: 50.000 ug/l
RT: 12.06 min Scan# 1800
Delta R.T. -0.00 min
Lab File: VX017233.D
Acq: 08 Jul 2020 03:37

Tgt Ion:152 Resp: 217967

Ion	Ratio	Lower	Upper
152	100		
115	58.1	40.9	122.7
150	158.1	0.0	351.6



Instrument :
MSVOA_X
ClientSampleId :
1006-MW-05

LSC Area Percent Report

Data Path : Z:\VOASRV\HPCHEM1\MSVOA X\DATA\VX070720\
Data File : VX017233.D
Acq On : 08 Jul 2020 03:37
Operator : JC/SP
Sample : L3232-06
Misc : 5.0mL/MSVOA X/WATER
ALS Vial : 47 Sample Multiplier: 1

Instrument : MSVOA_X
ClientSampleId : 1006-MW-05

Integration Parameters: RTEINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 3 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X062920W.M
Title : SW846 8260

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	2.416	213	218	226	rVB	12304	23410	1.78%	0.287%
2	5.464	708	718	729	rBV	158055	462788	35.21%	5.676%
3	5.629	734	745	758	rVB	248079	696456	52.99%	8.542%
4	6.031	800	811	824	rBV	168252	442798	33.69%	5.431%
5	6.836	931	943	956	rBV	387312	941998	71.68%	11.553%
6	7.196	993	1002	1008	rBV5	8531	21107	1.61%	0.259%
7	8.696	1241	1248	1256	rBV	860137	1314239	100.00%	16.118%
8	9.317	1342	1350	1361	rBV	462819	677089	51.52%	8.304%
9	10.098	1472	1478	1487	rBV	906530	1236088	94.05%	15.160%
10	11.122	1640	1646	1653	rBV	820425	1002365	76.27%	12.293%
11	12.061	1794	1800	1808	rBV	1081856	1309857	99.67%	16.065%
12	16.621	2542	2548	2560	rBV5	13228	25483	1.94%	0.313%

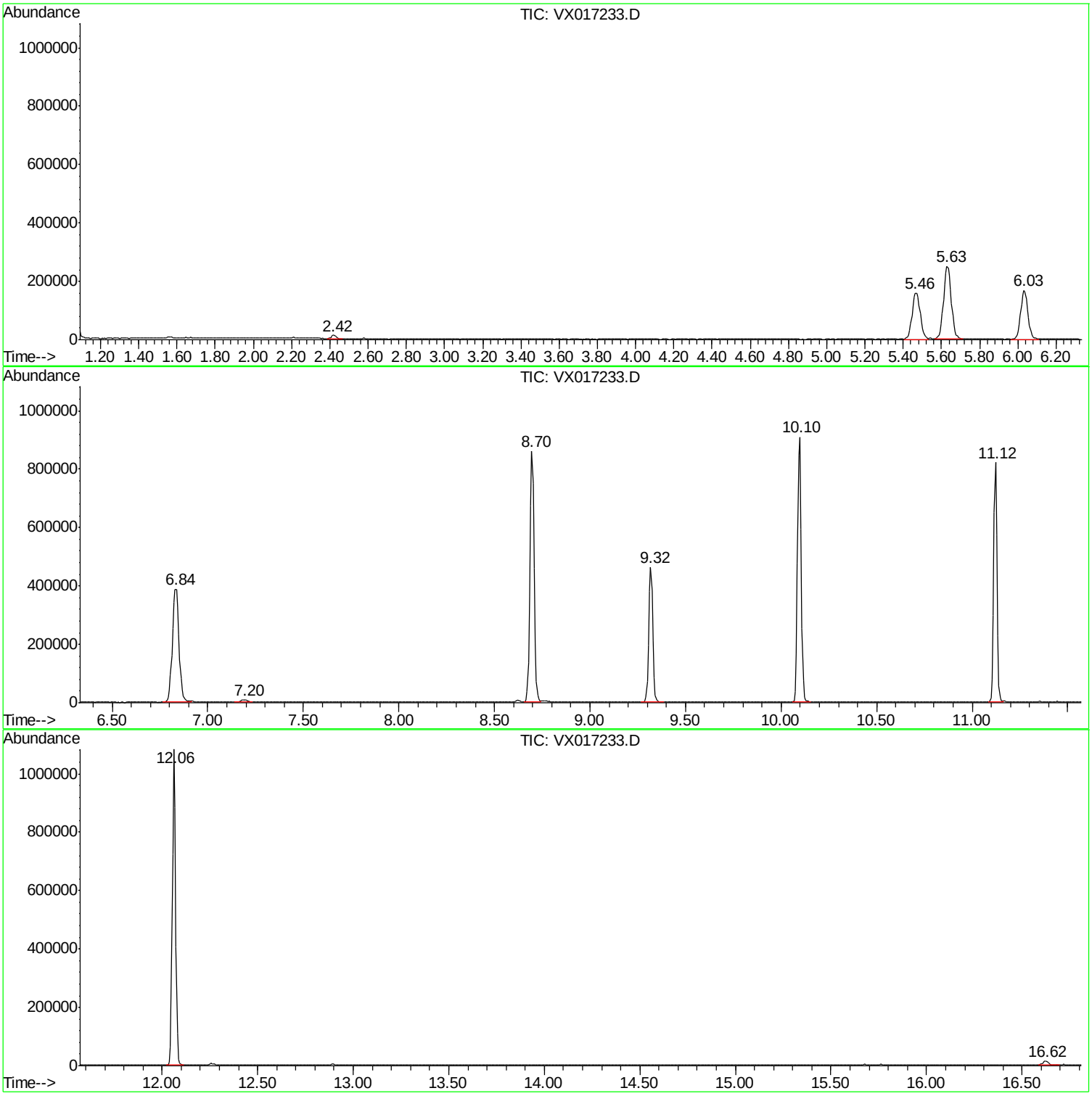
Sum of corrected areas: 8153678

Data Path : Z:\VOASRV\HPCHEM1\MSVOA X\DATA\VX070720\
Data File : VX017233.D
Acq On : 08 Jul 2020 03:37
Operator : JC/SP
Sample : L3232-06
Misc : 5.0mL/MSVOA X/WATER
ALS Vial : 47 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
1006-MW-05

Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X062920W.M
Quant Title : SW846 8260

TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P



Library Search Compound Report

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX070720\
Data File : VX017233.D
Acq On : 08 Jul 2020 03:37
Operator : JC/SP
Sample : L3232-06
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 47 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
1006-MW-05

Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X062920W.M
Quant Title : SW846 8260

TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

No Library Search Compounds Detected

****

Tentatively Identified Compound (LSC) summary

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX070720\
Data File : VX017233.D
Acq On : 08 Jul 2020 03:37
Operator : JC/SP
Sample : L3232-06
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 47 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
1006-MW-05

Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X062920W.M
Quant Title : SW846 8260

TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

TIC Top Hit name	RT	EstConc	Units	Response	Internal Standard #	Internal Standard RT	Internal Standard Resp	Internal Standard Conc

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Day Environmental, Inc.	Date Collected:	07/06/20
Project:	Andrew St. RI	Date Received:	07/07/20
Client Sample ID:	1007-MW-11	SDG No.:	L3232
Lab Sample ID:	L3232-07	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	DB-624UI ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX017239.D	1		07/08/20 05:54	VX070720

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
75-71-8	Dichlorodifluoromethane	1.00	U	0.22	1.00	ug/L
74-87-3	Chloromethane	1.00	U	0.30	1.00	ug/L
75-01-4	Vinyl Chloride	1.00	U	0.16	1.00	ug/L
74-83-9	Bromomethane	5.00	U	2.10	5.00	ug/L
75-00-3	Chloroethane	1.00	U	0.34	1.00	ug/L
75-69-4	Trichlorofluoromethane	1.00	U	0.16	1.00	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	1.00	U	0.21	1.00	ug/L
75-35-4	1,1-Dichloroethene	1.00	U	0.18	1.00	ug/L
67-64-1	Acetone	10.4		0.90	5.00	ug/L
75-15-0	Carbon Disulfide	1.00	U	0.23	1.00	ug/L
1634-04-4	Methyl tert-butyl Ether	1.00	U	0.070	1.00	ug/L
79-20-9	Methyl Acetate	1.00	U	0.65	1.00	ug/L
75-09-2	Methylene Chloride	1.00	U	0.33	1.00	ug/L
156-60-5	trans-1,2-Dichloroethene	1.00	U	0.24	1.00	ug/L
75-34-3	1,1-Dichloroethane	1.00	U	0.17	1.00	ug/L
110-82-7	Cyclohexane	5.00	U	1.20	5.00	ug/L
78-93-3	2-Butanone	2.30	J	0.71	5.00	ug/L
56-23-5	Carbon Tetrachloride	1.00	U	0.22	1.00	ug/L
156-59-2	cis-1,2-Dichloroethene	8.10		0.30	1.00	ug/L
74-97-5	Bromochloromethane	1.00	U	0.31	1.00	ug/L
67-66-3	Chloroform	1.00	U	0.14	1.00	ug/L
71-55-6	1,1,1-Trichloroethane	1.00	U	0.12	1.00	ug/L
108-87-2	Methylcyclohexane	1.00	U	0.17	1.00	ug/L
71-43-2	Benzene	1.00	U	0.10	1.00	ug/L
107-06-2	1,2-Dichloroethane	1.00	U	0.13	1.00	ug/L
79-01-6	Trichloroethene	12.7		0.27	1.00	ug/L
78-87-5	1,2-Dichloropropane	1.00	U	0.14	1.00	ug/L
75-27-4	Bromodichloromethane	1.00	U	0.10	1.00	ug/L
108-10-1	4-Methyl-2-Pentanone	5.00	U	0.85	5.00	ug/L
108-88-3	Toluene	1.00	U	0.12	1.00	ug/L
10061-02-6	t-1,3-Dichloropropene	1.00	U	0.19	1.00	ug/L
10061-01-5	cis-1,3-Dichloropropene	1.00	U	0.16	1.00	ug/L

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Day Environmental, Inc.	Date Collected:	07/06/20
Project:	Andrew St. RI	Date Received:	07/07/20
Client Sample ID:	1007-MW-11	SDG No.:	L3232
Lab Sample ID:	L3232-07	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	DB-624UI ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX017239.D	1		07/08/20 05:54	VX070720

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
79-00-5	1,1,2-Trichloroethane	1.00	U	0.12	1.00	ug/L
591-78-6	2-Hexanone	5.00	U	1.40	5.00	ug/L
124-48-1	Dibromochloromethane	1.00	U	0.16	1.00	ug/L
106-93-4	1,2-Dibromoethane	1.00	U	0.14	1.00	ug/L
127-18-4	Tetrachloroethene	200	E	0.15	1.00	ug/L
108-90-7	Chlorobenzene	1.00	U	0.080	1.00	ug/L
100-41-4	Ethyl Benzene	1.00	U	0.080	1.00	ug/L
179601-23-1	m/p-Xylenes	2.00	U	0.20	2.00	ug/L
95-47-6	o-Xylene	1.00	U	0.13	1.00	ug/L
100-42-5	Styrene	1.00	U	0.11	1.00	ug/L
75-25-2	Bromoform	1.00	U	0.15	1.00	ug/L
98-82-8	Isopropylbenzene	1.00	U	0.13	1.00	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	1.00	U	0.15	1.00	ug/L
541-73-1	1,3-Dichlorobenzene	1.00	U	0.14	1.00	ug/L
106-46-7	1,4-Dichlorobenzene	1.00	U	0.20	1.00	ug/L
95-50-1	1,2-Dichlorobenzene	1.00	U	0.12	1.00	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	1.00	U	0.54	1.00	ug/L
120-82-1	1,2,4-Trichlorobenzene	1.00	U	0.24	1.00	ug/L
87-61-6	1,2,3-Trichlorobenzene	1.00	U	0.26	1.00	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	54.4		61 - 141	109%	SPK: 50
1868-53-7	Dibromofluoromethane	54.8		69 - 133	110%	SPK: 50
2037-26-5	Toluene-d8	52.9		65 - 126	106%	SPK: 50
460-00-4	4-Bromofluorobenzene	55.6		58 - 135	111%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	254000	5.63			
540-36-3	1,4-Difluorobenzene	430000	6.83			
3114-55-4	Chlorobenzene-d5	454000	10.1			
3855-82-1	1,4-Dichlorobenzene-d4	239000	12.06			

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Day Environmental, Inc.	Date Collected:	07/06/20
Project:	Andrew St. RI	Date Received:	07/07/20
Client Sample ID:	1007-MW-11	SDG No.:	L3232
Lab Sample ID:	L3232-07	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	DB-624UI ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX017239.D	1		07/08/20 05:54	VX070720

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit
A = Aldol-Condensation Reaction Products

Quantitation Report (QT Reviewed)

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX070720\
Data File : VX017239.D
Acq On : 08 Jul 2020 05:54
Operator : JC/SP
Sample : L3232-07
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 53 Sample Multiplier: 1

Instrument : MSVOA_X
ClientSampleId : 1007-MW-11

Quant Time: Jul 08 07:12:13 2020
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X062920W.M
Quant Title : SW846 8260
QLast Update : Mon Jun 29 17:10:38 2020
Response via : Initial Calibration

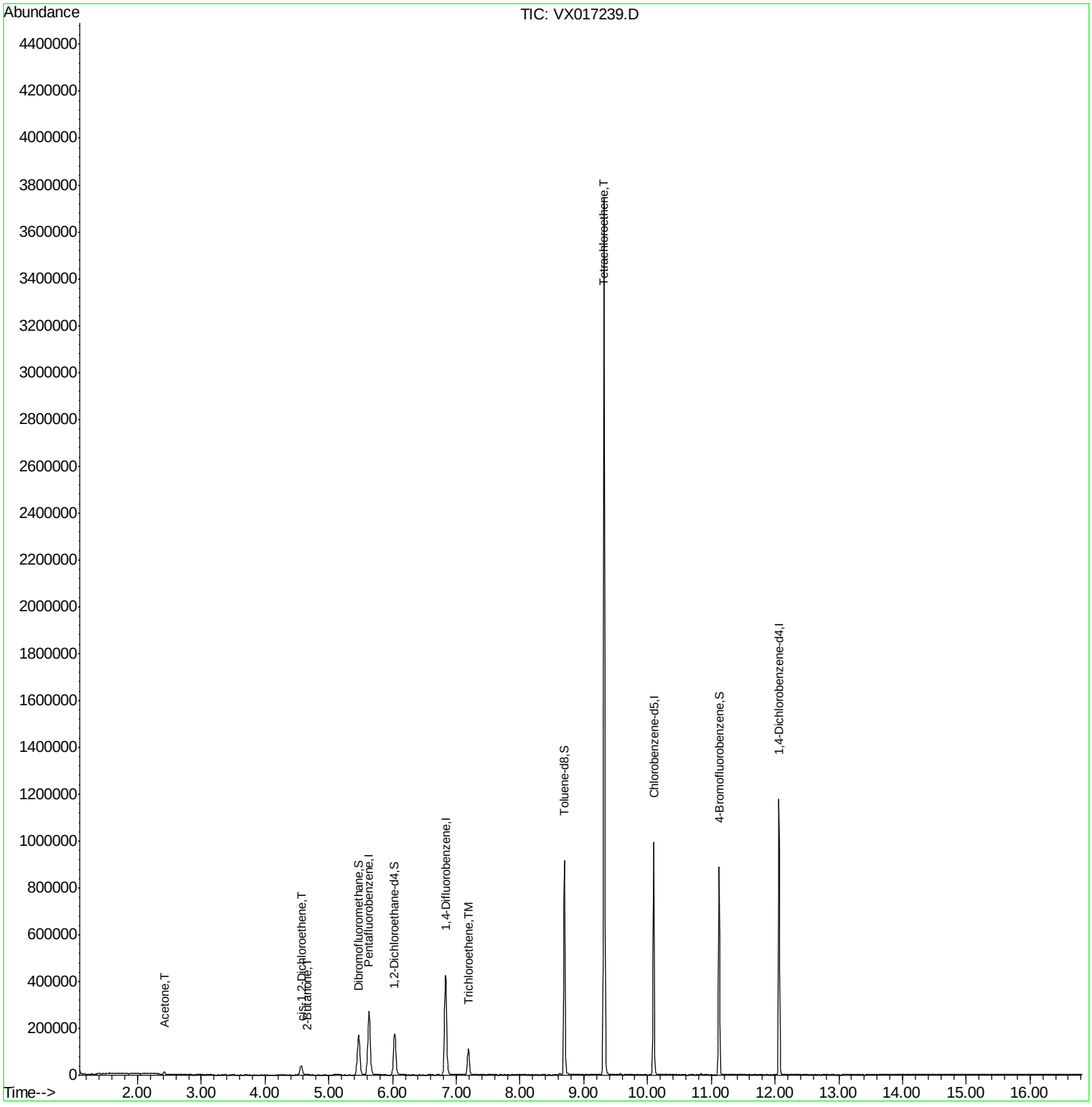
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	5.63	168	253652	50.00	ug/l	0.00
34) 1,4-Difluorobenzene	6.83	114	429943	50.00	ug/l	0.00
63) Chlorobenzene-d5	10.10	117	453724	50.00	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	12.06	152	239306	50.00	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	6.04	65	170176	54.42	ug/l	0.00
Spiked Amount 50.000			Recovery = 108.84%			
35) Dibromofluoromethane	5.47	113	148974	54.78	ug/l	0.00
Spiked Amount 50.000			Recovery = 109.56%			
50) Toluene-d8	8.70	98	531621	52.86	ug/l	0.00
Spiked Amount 50.000			Recovery = 105.72%			
62) 4-Bromofluorobenzene	11.12	95	218498	55.58	ug/l	0.00
Spiked Amount 50.000			Recovery = 111.16%			
Target Compounds						Qvalue
16) Acetone	2.42	43	12127	10.367	ug/l	100
25) 2-Butanone	4.66	43	4449	2.283	ug/l #	81
27) cis-1,2-Dichloroethene	4.56	96	25440	8.062	ug/l	90
44) Trichloroethene	7.19	130	42530	12.678	ug/l	98
64) Tetrachloroethene	9.32	164	715311	195.342	ug/l	97

(#) = qualifier out of range (m) = manual integration (+) = signals summed

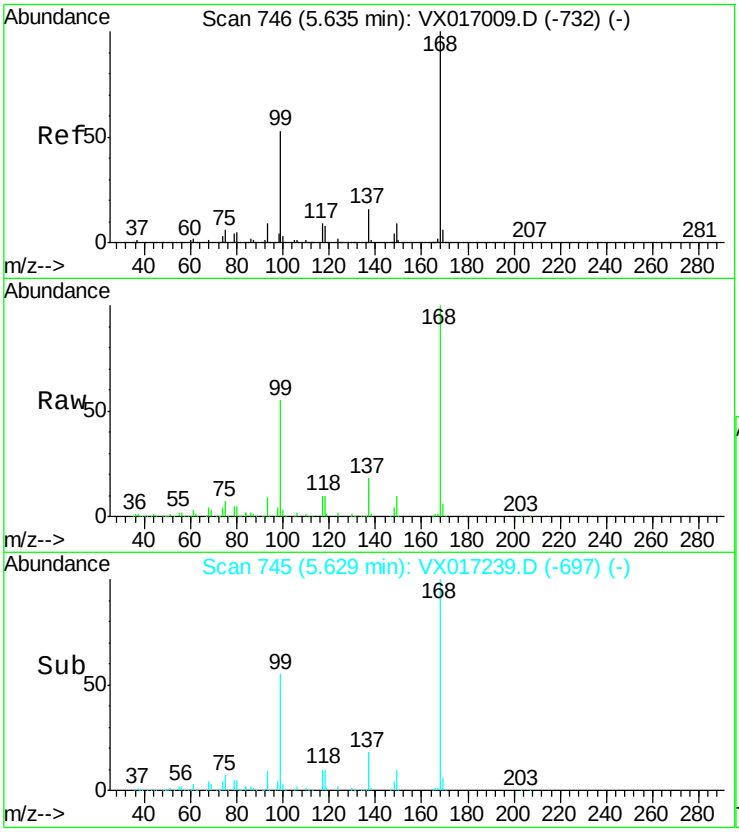
Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX070720\
Data File : VX017239.D
Acq On : 08 Jul 2020 05:54
Operator : JC/SP
Sample : L3232-07
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 53 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
1007-MW-11

Quant Time: Jul 08 07:12:13 2020
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X062920W.M
Quant Title : SW846 8260
QLast Update : Mon Jun 29 17:10:38 2020
Response via : Initial Calibration



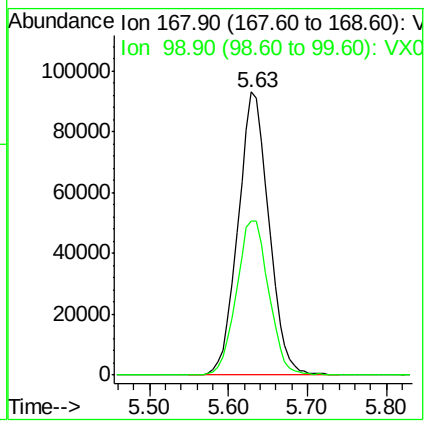
Instrument :
MSVOA_X
ClientSampleId :
1007-MW-11

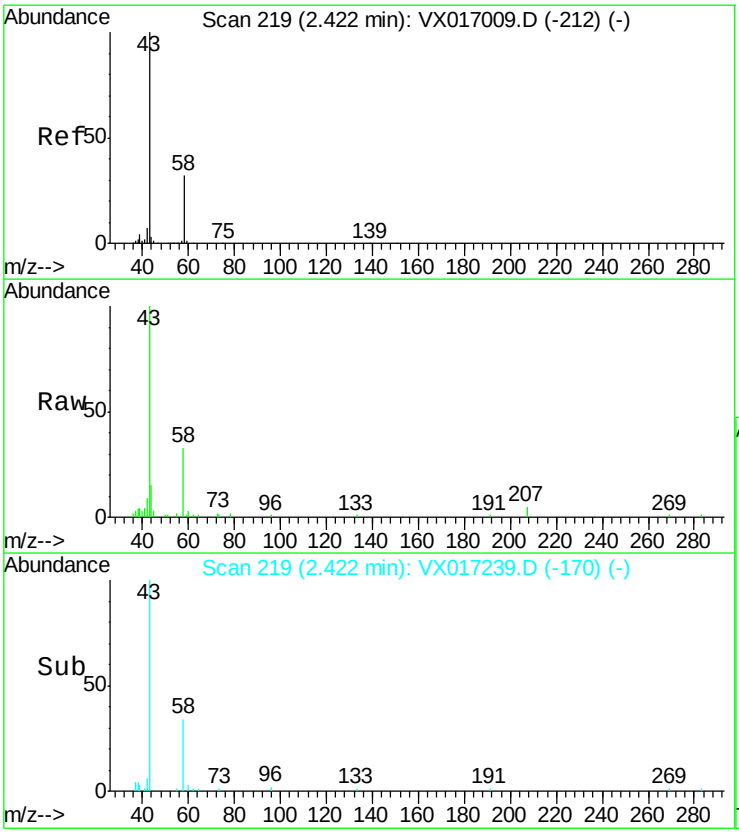


#1
Pentafluorobenzene
Concen: 50.000 ug/l
RT: 5.63 min Scan# 745
Delta R.T. -0.01 min
Lab File: VX017239.D
Acq: 08 Jul 2020 05:54

Tgt Ion:168 Resp: 253652

Ion	Ratio	Lower	Upper
168	100		
99	54.5	42.6	64.0

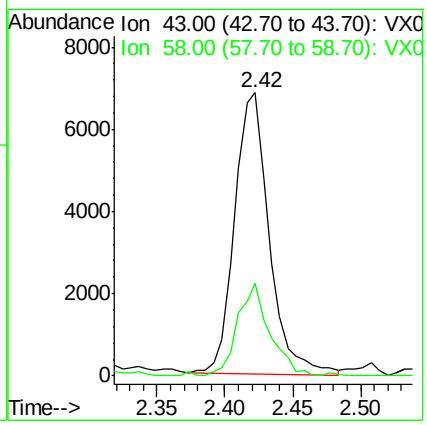




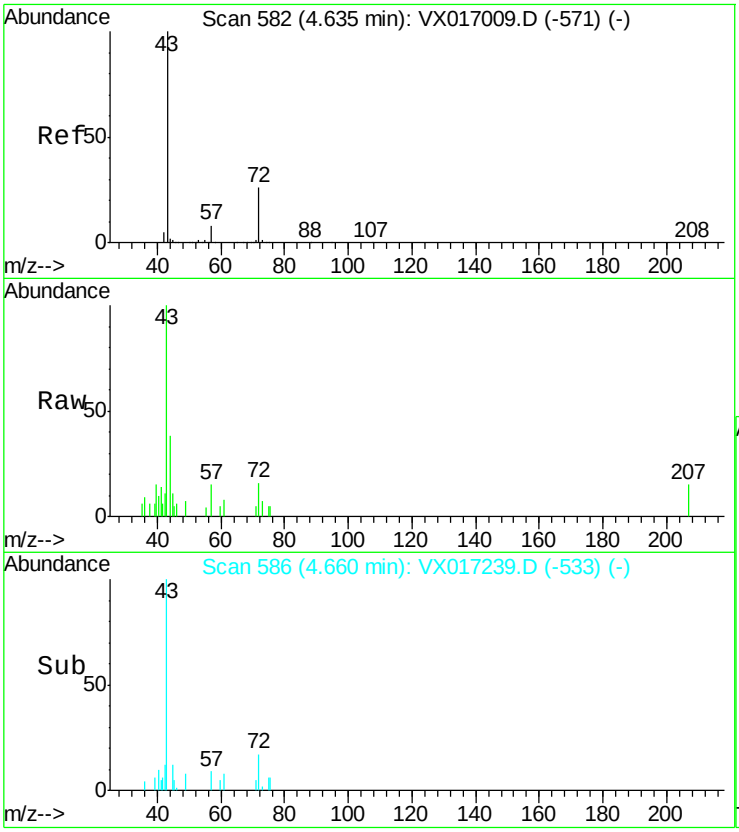
#16
Acetone
Concen: 10.367 ug/l
RT: 2.42 min Scan# 219
Delta R.T. -0.00 min
Lab File: VX017239.D
Acq: 08 Jul 2020 05:54

Tgt Ion: 43 Resp: 12127

Ion	Ratio	Lower	Upper
43	100		
58	32.0	25.7	38.5



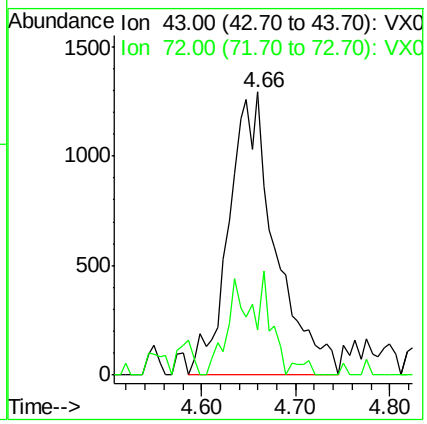
Instrument :
MSVOA_X
ClientSampleId :
1007-MW-11

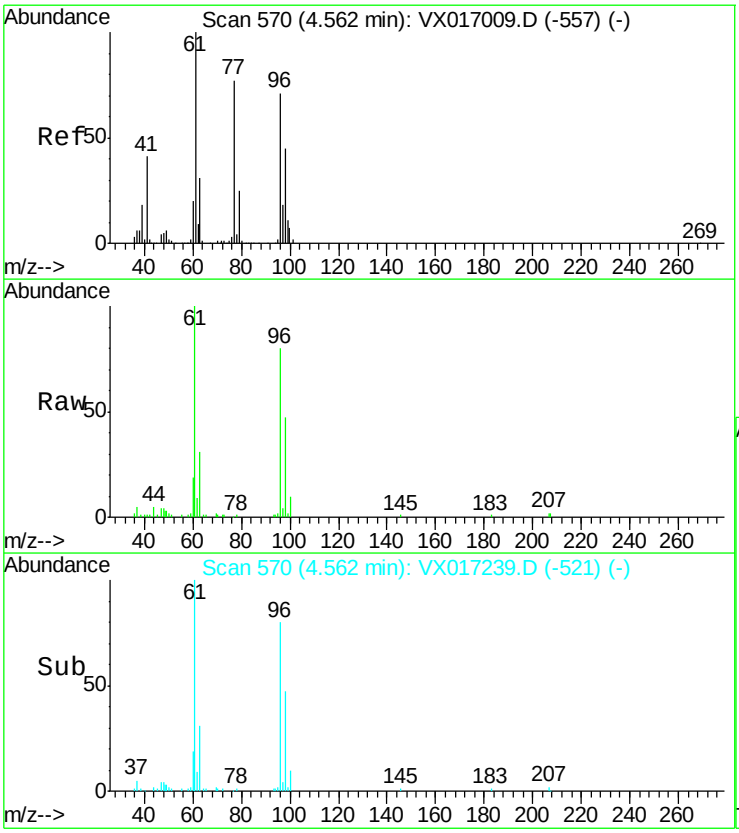


#25
2-Butanone
Concen: 2.283 ug/l
RT: 4.66 min Scan# 586
Delta R.T. 0.02 min
Lab File: VX017239.D
Acq: 08 Jul 2020 05:54

Tgt Ion: 43 Resp: 4449

Ion	Ratio	Lower	Upper
43	100		
72	16.1	20.8	31.2#

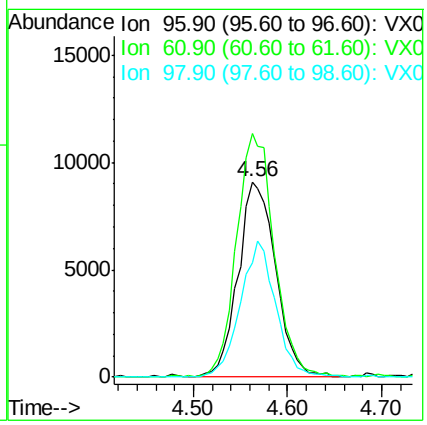




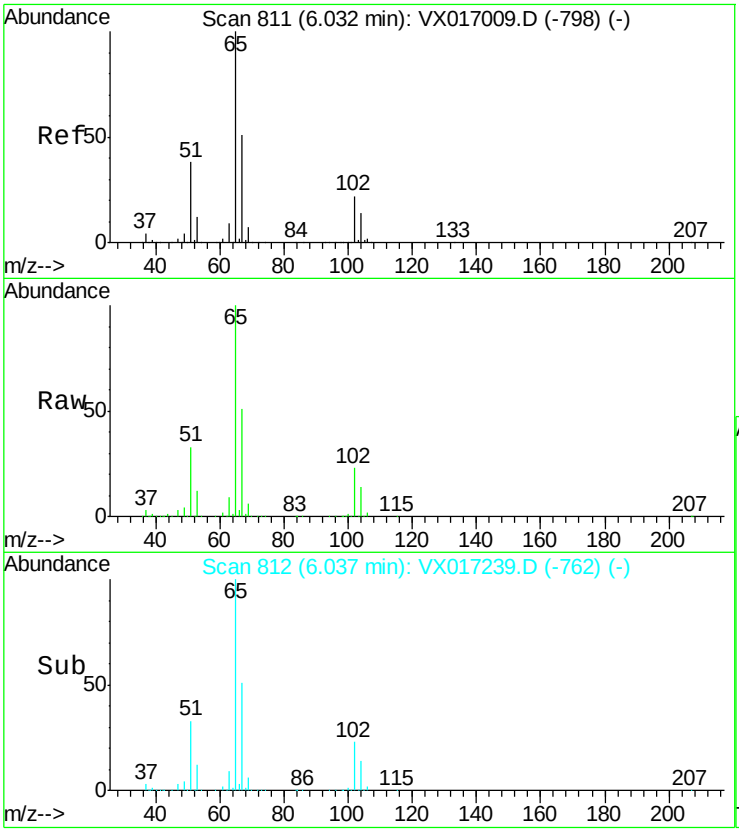
#27
cis-1,2-Dichloroethene
Concen: 8.062 ug/l
RT: 4.56 min Scan# 570
Delta R.T. -0.00 min
Lab File: VX017239.D
Acq: 08 Jul 2020 05:54

Tgt Ion: 96 Resp: 25440

Ion	Ratio	Lower	Upper
96	100		
61	125.3	0.0	282.8
98	65.6	0.0	127.6



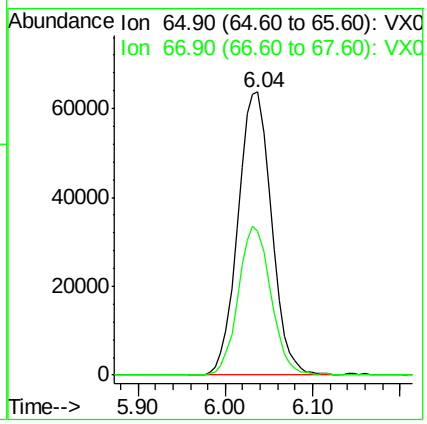
Instrument :
MSVOA_X
ClientSampleId :
1007-MW-11

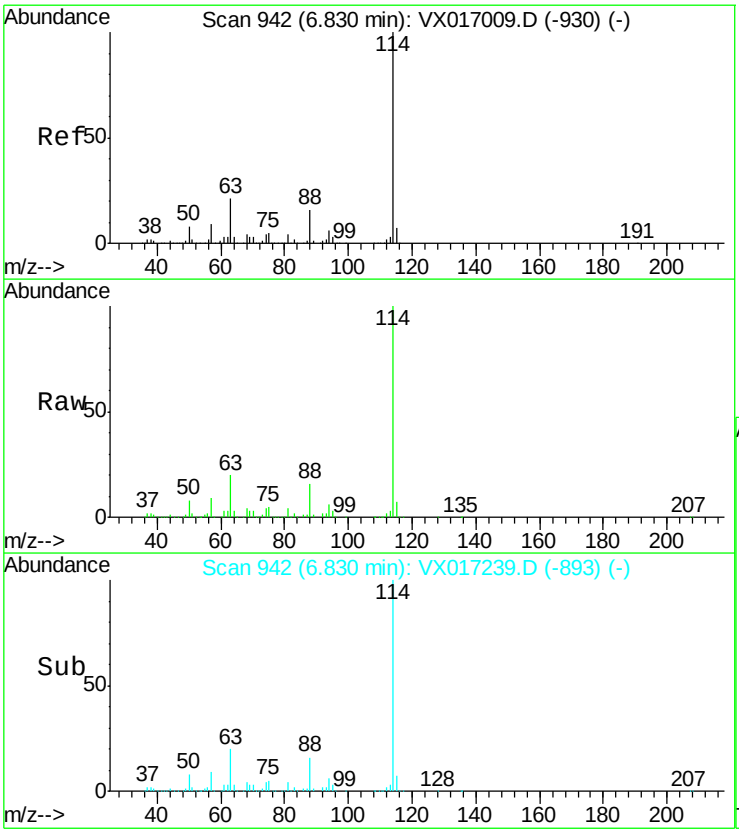


#33
1,2-Dichloroethane-d4
Concen: 54.421 ug/l
RT: 6.04 min Scan# 812
Delta R.T. 0.01 min
Lab File: VX017239.D
Acq: 08 Jul 2020 05:54

Tgt Ion: 65 Resp: 170176

Ion	Ratio	Lower	Upper
65	100		
67	50.9	0.0	103.8

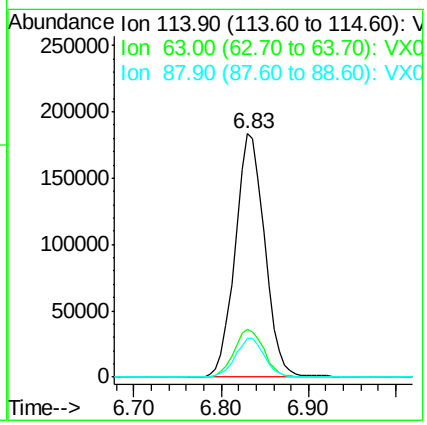




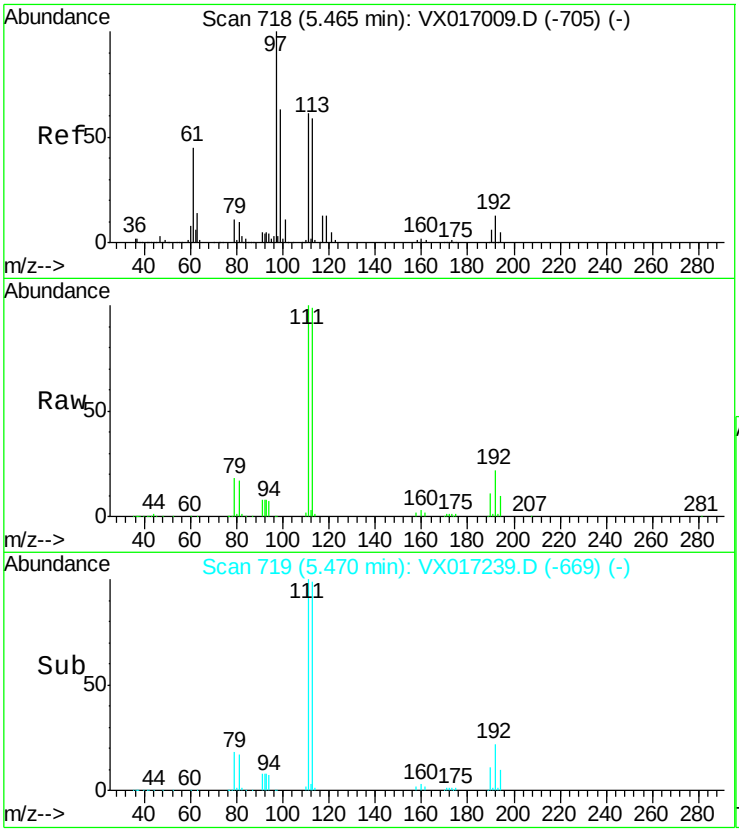
#34
1,4-Difluorobenzene
Concen: 50.000 ug/l
RT: 6.83 min Scan# 942
Delta R.T. -0.00 min
Lab File: VX017239.D
Acq: 08 Jul 2020 05:54

Tgt Ion:114 Resp: 429943

Ion	Ratio	Lower	Upper
114	100		
63	19.7	0.0	41.4
88	15.8	0.0	32.4



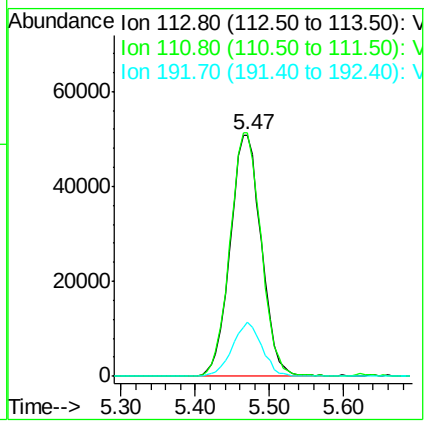
Instrument :
MSVOA_X
ClientSampleId :
1007-MW-11

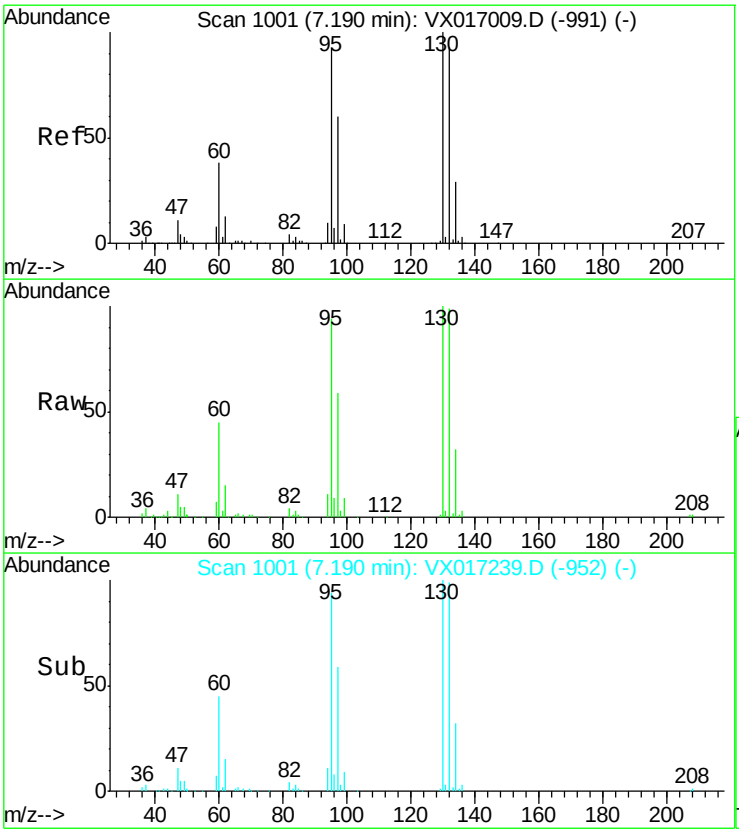


#35
Dibromofluoromethane
Concen: 54.776 ug/l
RT: 5.47 min Scan# 719
Delta R.T. 0.01 min
Lab File: VX017239.D
Acq: 08 Jul 2020 05:54

Tgt Ion:113 Resp: 148974

Ion	Ratio	Lower	Upper
113	100		
111	100.7	81.9	122.9
192	21.3	16.7	25.1

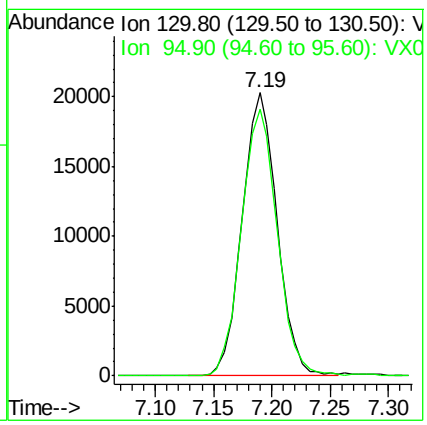




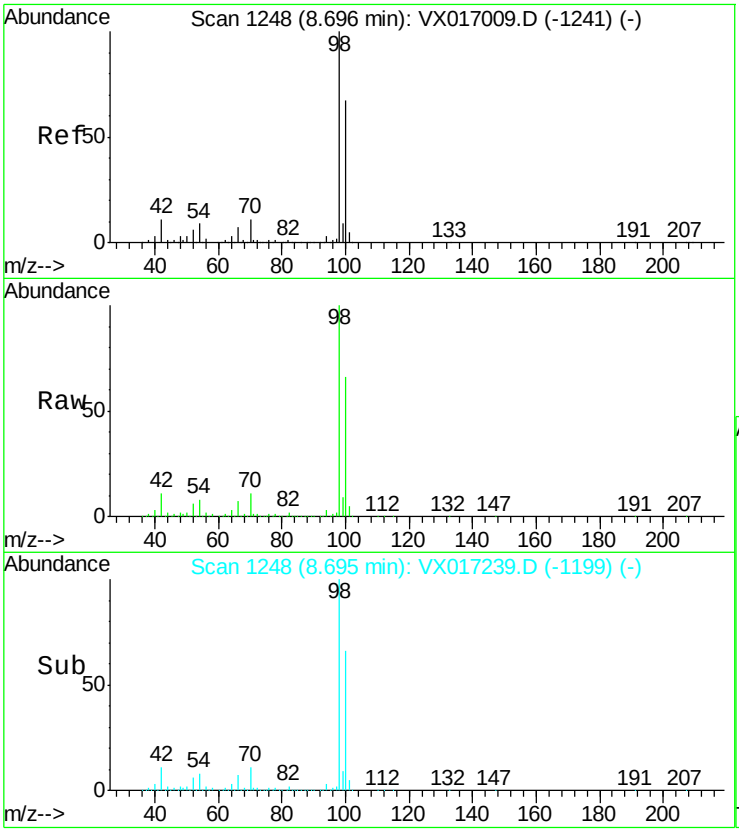
#44
Trichloroethene
Concen: 12.678 ug/l
RT: 7.19 min Scan# 1001
Delta R.T. 0.00 min
Lab File: VX017239.D
Acq: 08 Jul 2020 05:54

Tgt Ion:130 Resp: 42530

Ion	Ratio	Lower	Upper
130	100		
95	94.3	0.0	185.0



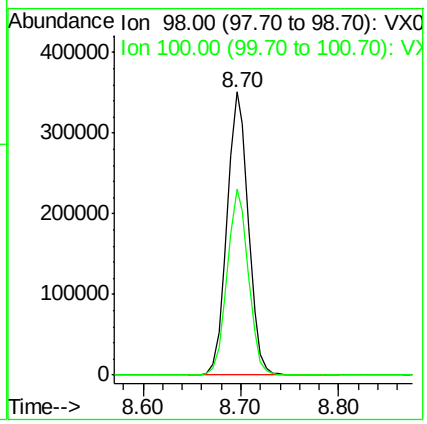
Instrument :
MSVOA_X
ClientSampleId :
1007-MW-11

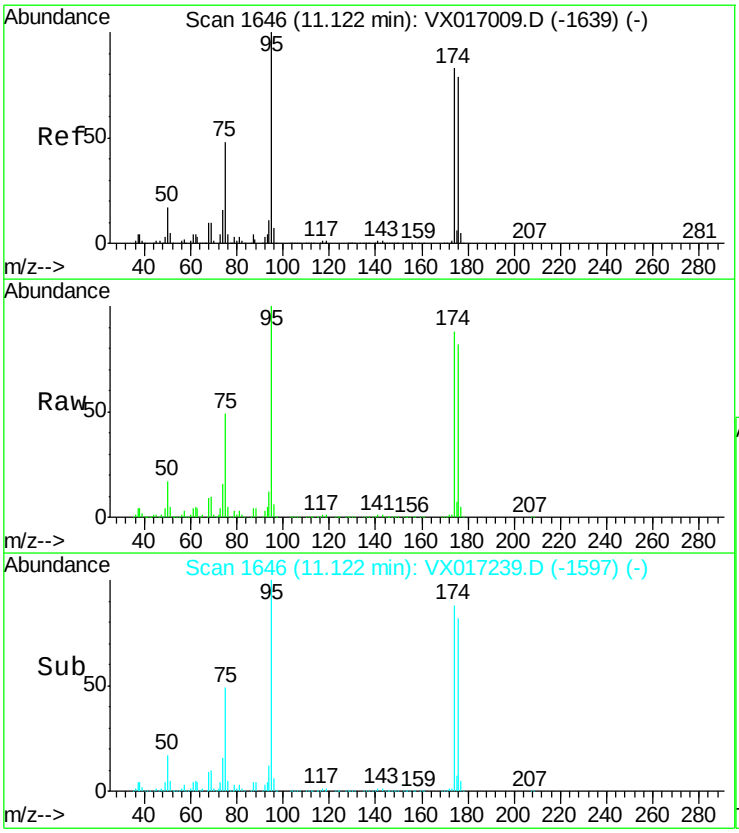


#50
Toluene-d8
Concen: 52.862 ug/l
RT: 8.70 min Scan# 1248
Delta R.T. -0.00 min
Lab File: VX017239.D
Acq: 08 Jul 2020 05:54

Tgt Ion: 98 Resp: 531621

Ion	Ratio	Lower	Upper
98	100		
100	65.2	53.8	80.6

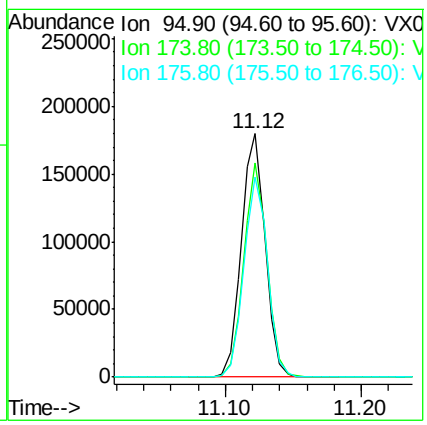




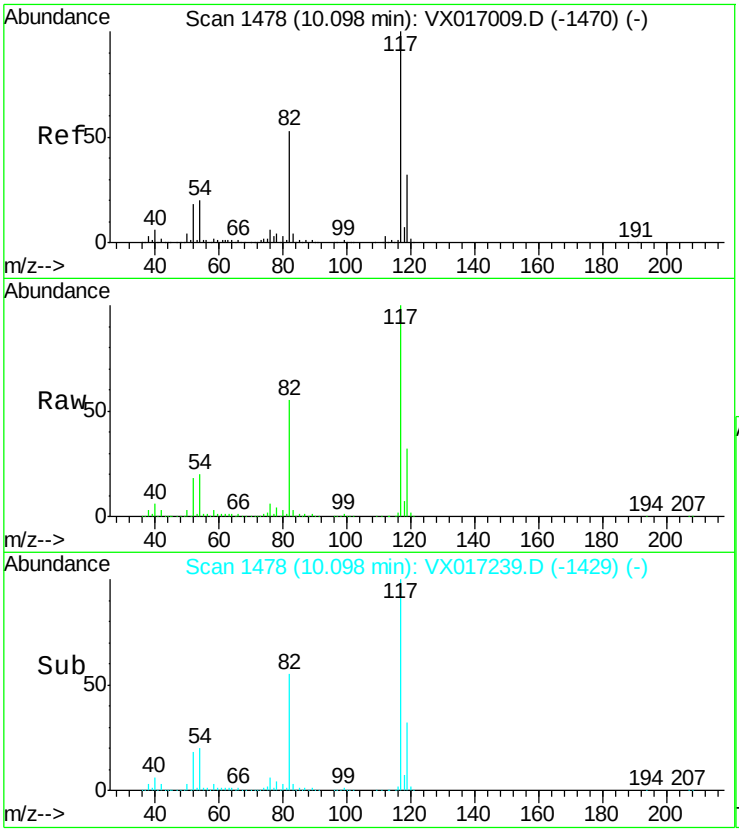
#62
4-Bromofluorobenzene
Concen: 55.578 ug/l
RT: 11.12 min Scan# 1646
Delta R.T. -0.00 min
Lab File: VX017239.D
Acq: 08 Jul 2020 05:54

Tgt Ion: 95 Resp: 218498

Ion	Ratio	Lower	Upper
95	100		
174	86.3	0.0	164.0
176	81.9	0.0	157.6



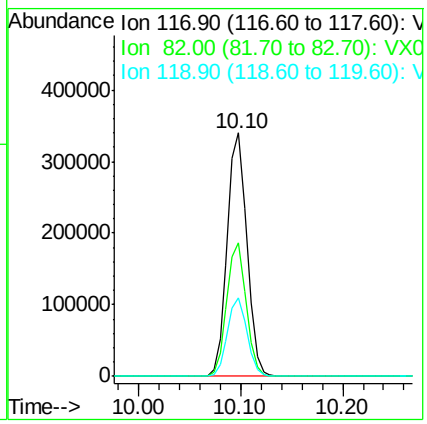
Instrument :
MSVOA_X
ClientSampleId :
1007-MW-11

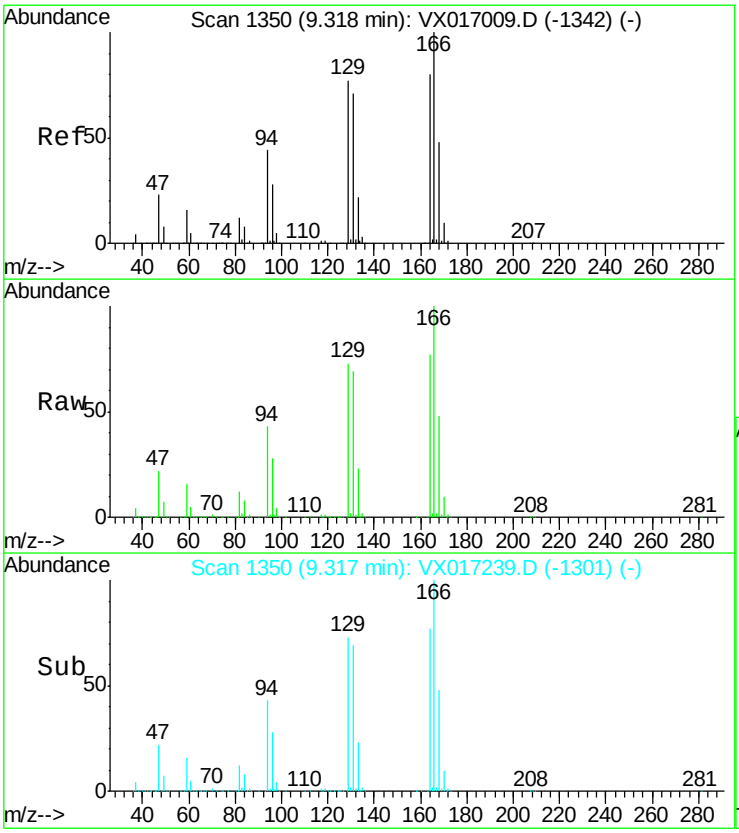


#63
Chlorobenzene-d5
Concen: 50.000 ug/l
RT: 10.10 min Scan# 1478
Delta R.T. -0.00 min
Lab File: VX017239.D
Acq: 08 Jul 2020 05:54

Tgt Ion:117 Resp: 453724

Ion	Ratio	Lower	Upper
117	100		
82	54.7	42.6	63.8
119	32.1	25.4	38.2

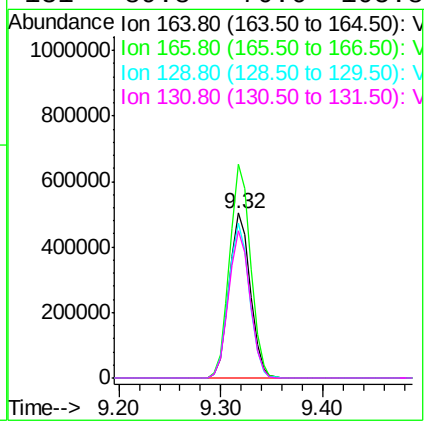


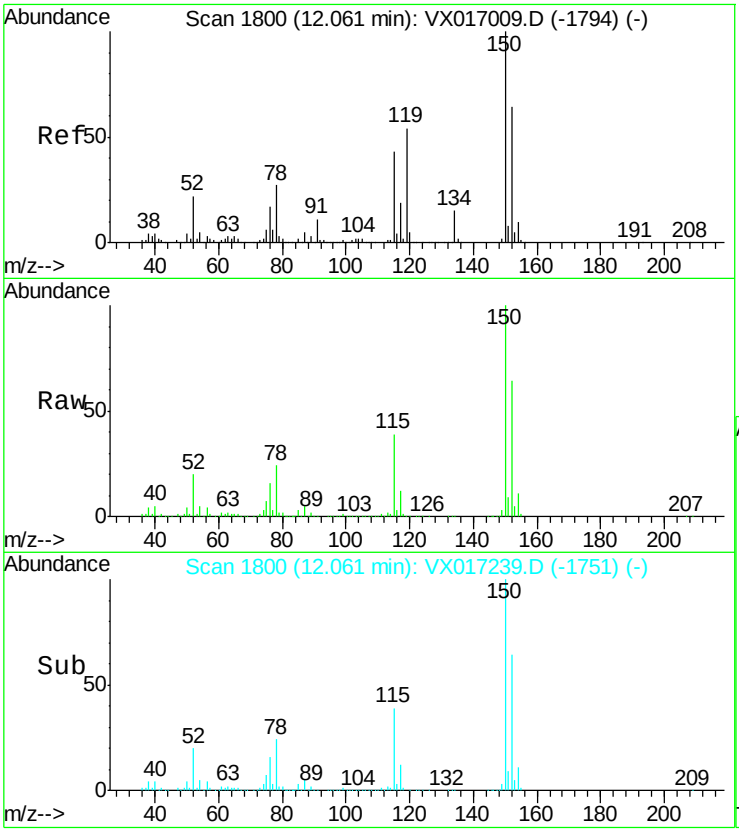


#64
Tetrachloroethene
Concen: 195.342 ug/l
RT: 9.32 min Scan# 1350
Delta R.T. -0.00 min
Lab File: VX017239.D
Acq: 08 Jul 2020 05:54

Tgt Ion:164 Resp: 715311

Ion	Ratio	Lower	Upper
164	100		
166	129.7	99.4	149.0
129	94.5	76.3	114.5
131	89.8	70.6	105.8



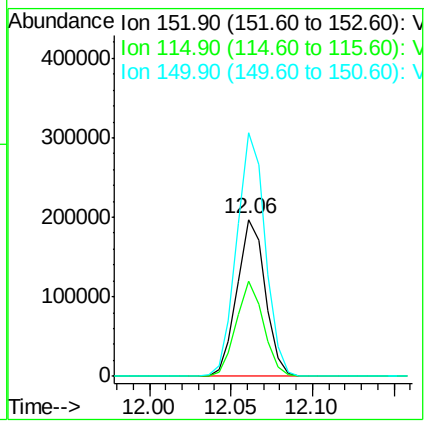


#72
1,4-Dichlorobenzene-d4
Concen: 50.000 ug/l
RT: 12.06 min Scan# 1800
Delta R.T. -0.00 min
Lab File: VX017239.D
Acq: 08 Jul 2020 05:54

Instrument :
MSVOA_X
ClientSampleId :
1007-MW-11

Tgt Ion:152 Resp: 239306

Ion	Ratio	Lower	Upper
152	100		
115	58.4	40.9	122.7
150	156.1	0.0	351.6



Instrument :
MSVOA_X
ClientSampleId :
1007-MW-11

LSC Area Percent Report

Data Path : Z:\VOASRV\HPCHEM1\MSVOA X\DATA\VX070720\
Data File : VX017239.D
Acq On : 08 Jul 2020 05:54
Operator : JC/SP
Sample : L3232-07
Misc : 5.0mL/MSVOA X/WATER
ALS Vial : 53 Sample Multiplier: 1

Integration Parameters: RTEINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 3 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X062920W.M
Title : SW846 8260

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	4.568	559	571	580	rBV2	39393	113438	2.13%	0.831%
2	5.470	705	719	734	rBV2	169411	501560	9.43%	3.674%
3	5.629	734	745	757	rBV	271735	745817	14.03%	5.463%
4	6.031	801	811	823	rBV	176594	467388	8.79%	3.423%
5	6.830	932	942	955	rBV	426245	1003241	18.87%	7.348%
6	7.190	992	1001	1012	rBV	109308	232812	4.38%	1.705%
7	8.695	1241	1248	1257	rBV	917006	1403819	26.41%	10.282%
8	9.317	1343	1350	1367	rBV	3740744	5316007	100.00%	38.937%
9	10.098	1471	1478	1491	rBV	991858	1340114	25.21%	9.816%
10	11.122	1639	1646	1659	rBV	886502	1089983	20.50%	7.984%
11	12.061	1794	1800	1808	rBV	1176093	1438531	27.06%	10.537%

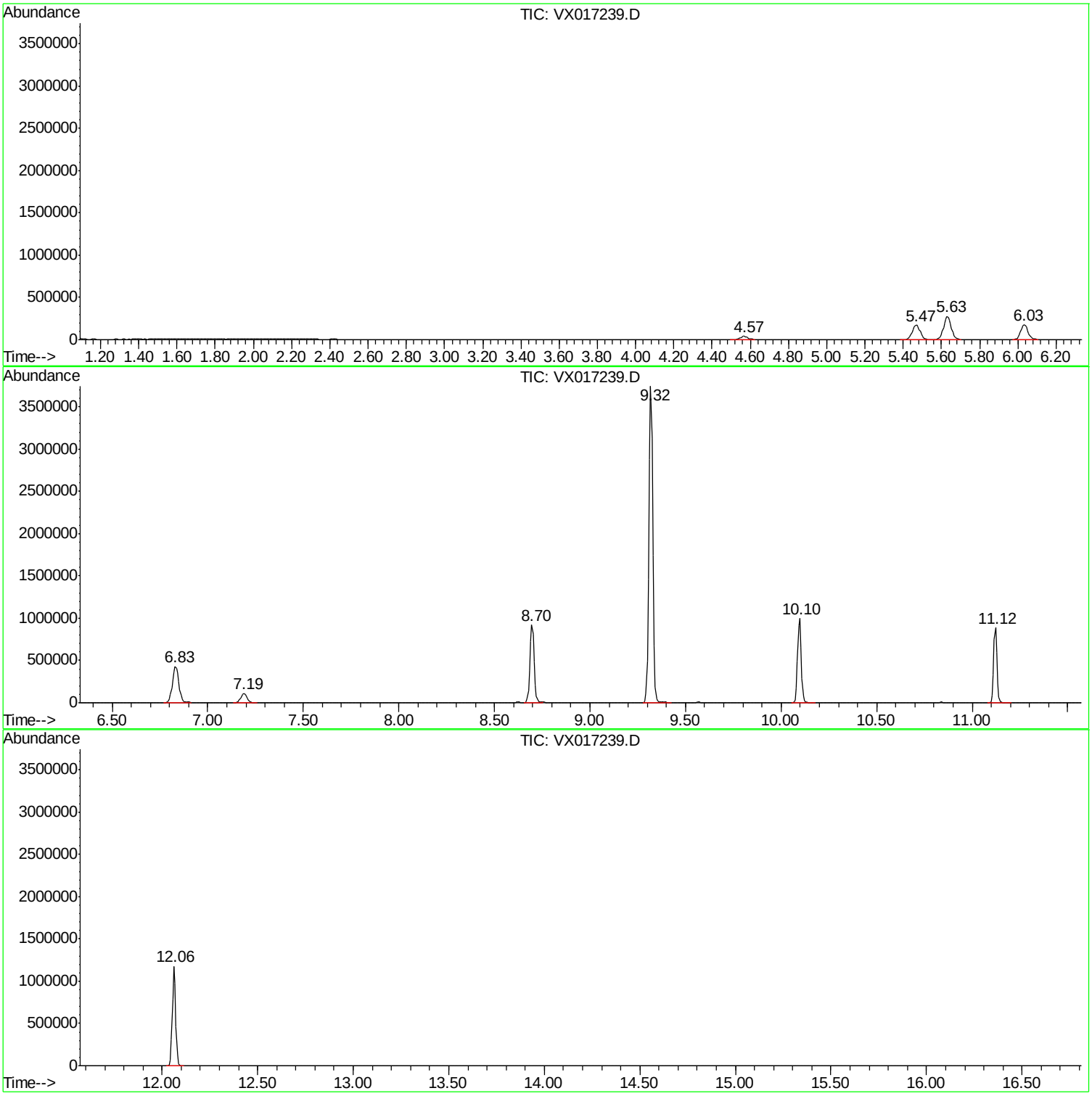
Sum of corrected areas: 13652710

Data Path : Z:\VOASRV\HPCHEM1\MSVOA X\DATA\VX070720\
Data File : VX017239.D
Acq On : 08 Jul 2020 05:54
Operator : JC/SP
Sample : L3232-07
Misc : 5.0mL/MSVOA X/WATER
ALS Vial : 53 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
1007-MW-11

Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X062920W.M
Quant Title : SW846 8260

TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P



Library Search Compound Report

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX070720\
Data File : VX017239.D
Acq On : 08 Jul 2020 05:54
Operator : JC/SP
Sample : L3232-07
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 53 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
1007-MW-11

Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X062920W.M
Quant Title : SW846 8260

TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

No Library Search Compounds Detected

****

Tentatively Identified Compound (LSC) summary

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX070720\
Data File : VX017239.D
Acq On : 08 Jul 2020 05:54
Operator : JC/SP
Sample : L3232-07
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 53 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
1007-MW-11

Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X062920W.M
Quant Title : SW846 8260

TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

TIC Top Hit name	RT	EstConc	Units	Response	Internal Standard #	Internal Standard RT	Internal Standard Resp	Internal Standard Conc

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Day Environmental, Inc.	Date Collected:	07/06/20
Project:	Andrew St. RI	Date Received:	07/07/20
Client Sample ID:	1007-MW-11DL	SDG No.:	L3232
Lab Sample ID:	L3232-07DL	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	DB-624UI ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX017248.D	4		07/08/20 12:28	VX070820

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
75-71-8	Dichlorodifluoromethane	4.00	UD	0.88	4.00	ug/L
74-87-3	Chloromethane	4.00	UD	1.20	4.00	ug/L
75-01-4	Vinyl Chloride	4.00	UD	0.64	4.00	ug/L
74-83-9	Bromomethane	20.0	UD	8.20	20.0	ug/L
75-00-3	Chloroethane	4.00	UD	1.30	4.00	ug/L
75-69-4	Trichlorofluoromethane	4.00	UD	0.63	4.00	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	4.00	UD	0.82	4.00	ug/L
75-35-4	1,1-Dichloroethene	4.00	UD	0.73	4.00	ug/L
67-64-1	Acetone	15.6	JD	3.60	20.0	ug/L
75-15-0	Carbon Disulfide	4.00	UD	0.93	4.00	ug/L
1634-04-4	Methyl tert-butyl Ether	4.00	UD	0.28	4.00	ug/L
79-20-9	Methyl Acetate	4.00	UD	2.60	4.00	ug/L
75-09-2	Methylene Chloride	4.00	UD	1.30	4.00	ug/L
156-60-5	trans-1,2-Dichloroethene	4.00	UD	0.95	4.00	ug/L
75-34-3	1,1-Dichloroethane	4.00	UD	0.67	4.00	ug/L
110-82-7	Cyclohexane	20.0	UD	4.80	20.0	ug/L
78-93-3	2-Butanone	20.0	UD	2.80	20.0	ug/L
56-23-5	Carbon Tetrachloride	4.00	UD	0.87	4.00	ug/L
156-59-2	cis-1,2-Dichloroethene	8.50	D	1.20	4.00	ug/L
74-97-5	Bromochloromethane	4.00	UD	1.30	4.00	ug/L
67-66-3	Chloroform	4.00	UD	0.56	4.00	ug/L
71-55-6	1,1,1-Trichloroethane	4.00	UD	0.50	4.00	ug/L
108-87-2	Methylcyclohexane	4.00	UD	0.69	4.00	ug/L
71-43-2	Benzene	4.00	UD	0.39	4.00	ug/L
107-06-2	1,2-Dichloroethane	4.00	UD	0.52	4.00	ug/L
79-01-6	Trichloroethene	12.6	D	1.10	4.00	ug/L
78-87-5	1,2-Dichloropropane	4.00	UD	0.54	4.00	ug/L
75-27-4	Bromodichloromethane	4.00	UD	0.41	4.00	ug/L
108-10-1	4-Methyl-2-Pentanone	20.0	UD	3.40	20.0	ug/L
108-88-3	Toluene	4.00	UD	0.47	4.00	ug/L
10061-02-6	t-1,3-Dichloropropene	4.00	UD	0.77	4.00	ug/L
10061-01-5	cis-1,3-Dichloropropene	4.00	UD	0.62	4.00	ug/L

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Day Environmental, Inc.	Date Collected:	07/06/20
Project:	Andrew St. RI	Date Received:	07/07/20
Client Sample ID:	1007-MW-11DL	SDG No.:	L3232
Lab Sample ID:	L3232-07DL	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	DB-624UI ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX017248.D	4		07/08/20 12:28	VX070820

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
79-00-5	1,1,2-Trichloroethane	4.00	UD	0.49	4.00	ug/L
591-78-6	2-Hexanone	20.0	UD	5.40	20.0	ug/L
124-48-1	Dibromochloromethane	4.00	UD	0.63	4.00	ug/L
106-93-4	1,2-Dibromoethane	4.00	UD	0.55	4.00	ug/L
127-18-4	Tetrachloroethene	190	D	0.61	4.00	ug/L
108-90-7	Chlorobenzene	4.00	UD	0.30	4.00	ug/L
100-41-4	Ethyl Benzene	4.00	UD	0.33	4.00	ug/L
179601-23-1	m/p-Xylenes	8.00	UD	0.78	8.00	ug/L
95-47-6	o-Xylene	4.00	UD	0.52	4.00	ug/L
100-42-5	Styrene	4.00	UD	0.43	4.00	ug/L
75-25-2	Bromoform	4.00	UD	0.60	4.00	ug/L
98-82-8	Isopropylbenzene	4.00	UD	0.53	4.00	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	4.00	UD	0.60	4.00	ug/L
541-73-1	1,3-Dichlorobenzene	4.00	UD	0.56	4.00	ug/L
106-46-7	1,4-Dichlorobenzene	4.00	UD	0.80	4.00	ug/L
95-50-1	1,2-Dichlorobenzene	4.00	UD	0.48	4.00	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	4.00	UD	2.20	4.00	ug/L
120-82-1	1,2,4-Trichlorobenzene	4.00	UD	0.95	4.00	ug/L
87-61-6	1,2,3-Trichlorobenzene	4.00	UD	1.00	4.00	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	51.3		61 - 141	103%	SPK: 50
1868-53-7	Dibromofluoromethane	52.4		69 - 133	105%	SPK: 50
2037-26-5	Toluene-d8	51.8		65 - 126	104%	SPK: 50
460-00-4	4-Bromofluorobenzene	56.9		58 - 135	114%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	236000	5.63			
540-36-3	1,4-Difluorobenzene	382000	6.83			
3114-55-4	Chlorobenzene-d5	407000	10.1			
3855-82-1	1,4-Dichlorobenzene-d4	219000	12.06			

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Day Environmental, Inc.	Date Collected:	07/06/20
Project:	Andrew St. RI	Date Received:	07/07/20
Client Sample ID:	1007-MW-11DL	SDG No.:	L3232
Lab Sample ID:	L3232-07DL	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	DB-624UI ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX017248.D	4		07/08/20 12:28	VX070820

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit
A = Aldol-Condensation Reaction Products

Quantitation Report (QT Reviewed)

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX070820\
Data File : VX017248.D
Acq On : 08 Jul 2020 12:28
Operator : JC/SP
Sample : L3232-07DL 4X
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 6 Sample Multiplier: 1

Instrument : MSVOA_X
ClientSampleId : 1007-MW-11DL

Quant Time: Jul 09 02:50:21 2020
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X062920W.M
Quant Title : SW846 8260
QLast Update : Mon Jun 29 17:10:38 2020
Response via : Initial Calibration

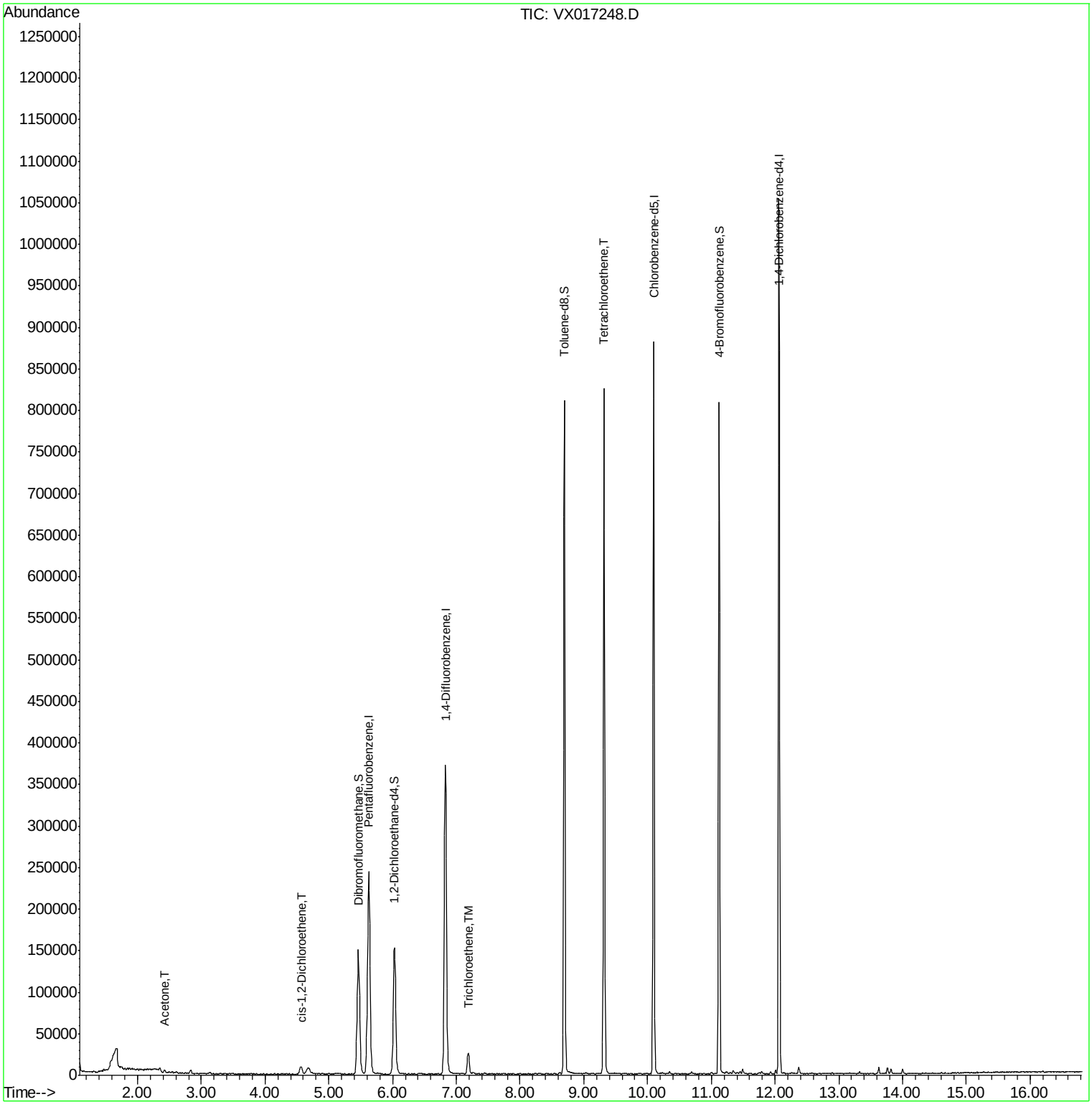
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	5.63	168	235819	50.00	ug/l	0.00
34) 1,4-Difluorobenzene	6.83	114	382452	50.00	ug/l	0.00
63) Chlorobenzene-d5	10.10	117	407430	50.00	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	12.06	152	218652	50.00	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	6.03	65	149018	51.26	ug/l	0.00
Spiked Amount 50.000			Recovery = 102.52%			
35) Dibromofluoromethane	5.46	113	126879	52.45	ug/l	0.00
Spiked Amount 50.000			Recovery = 104.90%			
50) Toluene-d8	8.70	98	463312	51.79	ug/l	0.00
Spiked Amount 50.000			Recovery = 103.58%			
62) 4-Bromofluorobenzene	11.12	95	198982	56.90	ug/l	0.00
Spiked Amount 50.000			Recovery = 113.80%			
Target Compounds						Qvalue
16) Acetone	2.42	43	4255	3.912	ug/l	99
27) cis-1,2-Dichloroethene	4.57	96	6204	2.115	ug/l	85
44) Trichloroethene	7.19	130	10054	3.140	ug/l	92
64) Tetrachloroethene	9.32	164	159919	48.634	ug/l	96

(#) = qualifier out of range (m) = manual integration (+) = signals summed

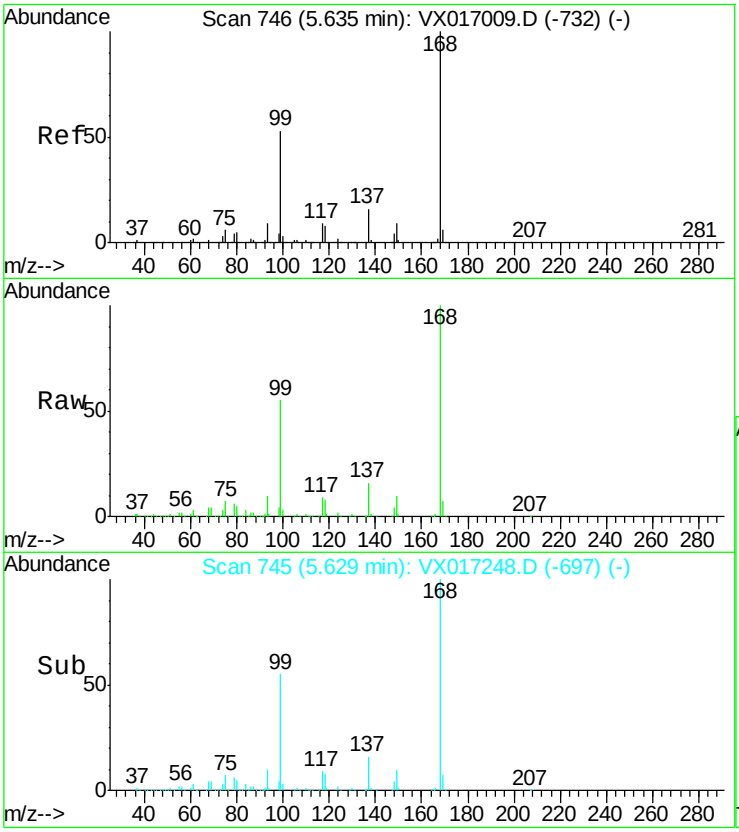
Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX070820\
Data File : VX017248.D
Acq On : 08 Jul 2020 12:28
Operator : JC/SP
Sample : L3232-07DL 4X
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 6 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
1007-MW-11DL

Quant Time: Jul 09 02:50:21 2020
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X062920W.M
Quant Title : SW846 8260
QLast Update : Mon Jun 29 17:10:38 2020
Response via : Initial Calibration



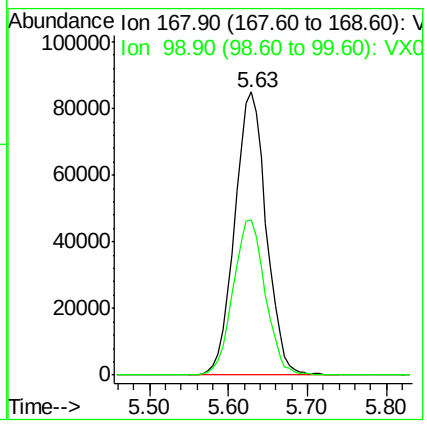
Instrument :
MSVOA_X
ClientSampleId :
1007-MW-11DL

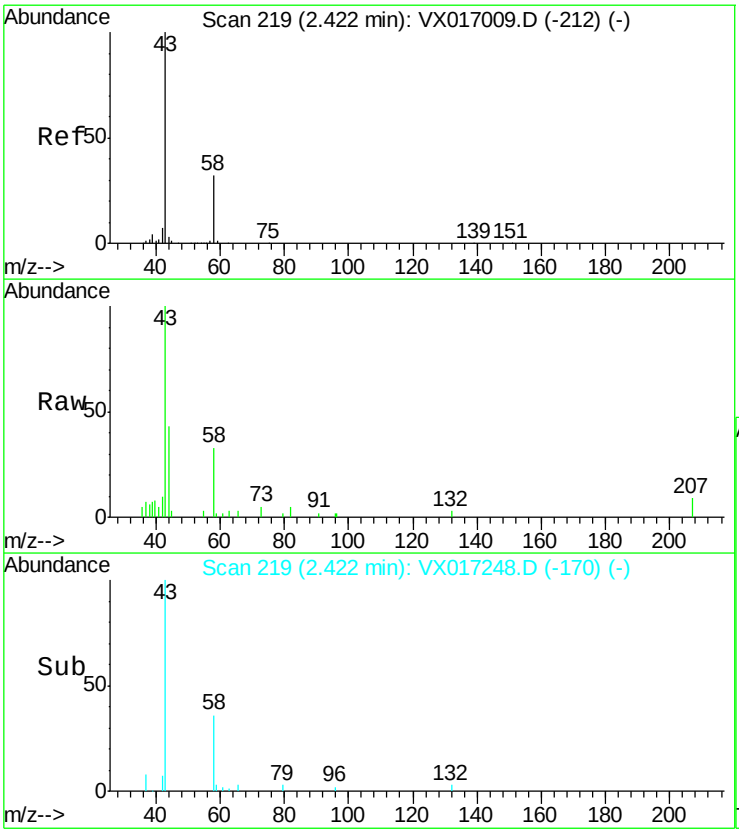


#1
Pentafluorobenzene
Concen: 50.000 ug/l
RT: 5.63 min Scan# 745
Delta R.T. -0.01 min
Lab File: VX017248.D
Acq: 08 Jul 2020 12:28

Tgt Ion:168 Resp: 235819

Ion	Ratio	Lower	Upper
168	100		
99	55.0	42.6	64.0

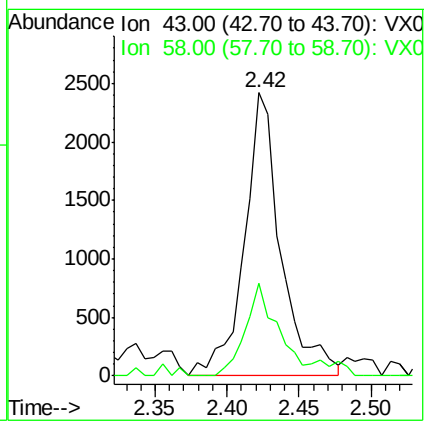




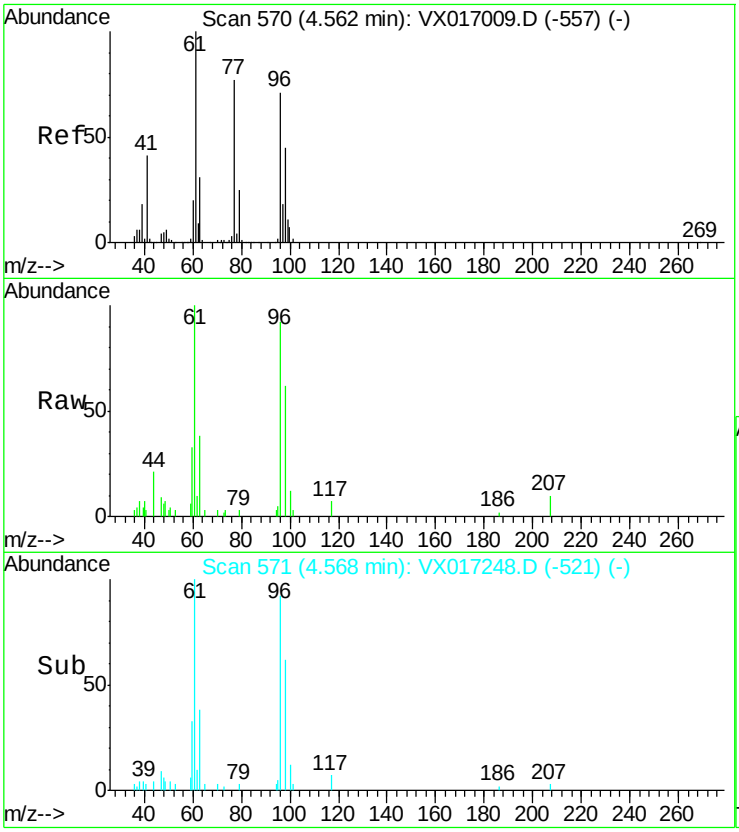
#16
Acetone
Concen: 3.912 ug/l
RT: 2.42 min Scan# 219
Delta R.T. -0.00 min
Lab File: VX017248.D
Acq: 08 Jul 2020 12:28

Tgt Ion: 43 Resp: 4255

Ion	Ratio	Lower	Upper
43	100		
58	32.6	25.7	38.5



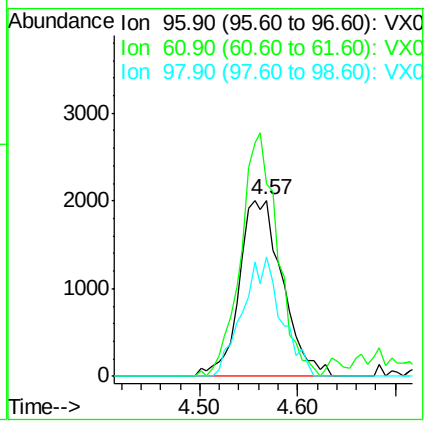
Instrument :
MSVOA_X
ClientSampleId :
1007-MW-11DL

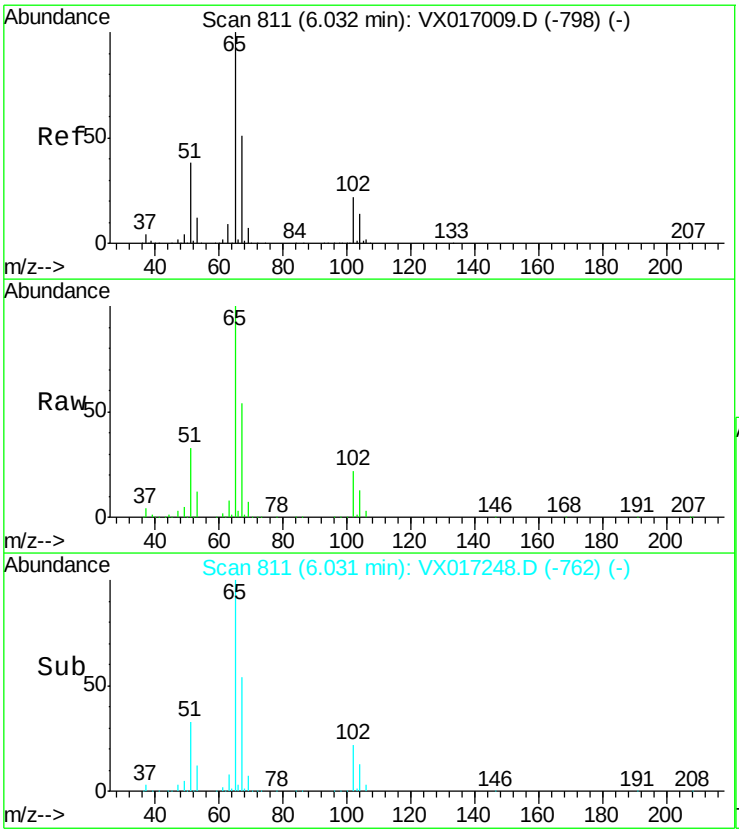


#27
cis-1,2-Dichloroethene
Concen: 2.115 ug/l
RT: 4.57 min Scan# 571
Delta R.T. 0.01 min
Lab File: VX017248.D
Acq: 08 Jul 2020 12:28

Tgt Ion: 96 Resp: 6204

Ion	Ratio	Lower	Upper
96	100		
61	116.9	0.0	282.8
98	60.8	0.0	127.6

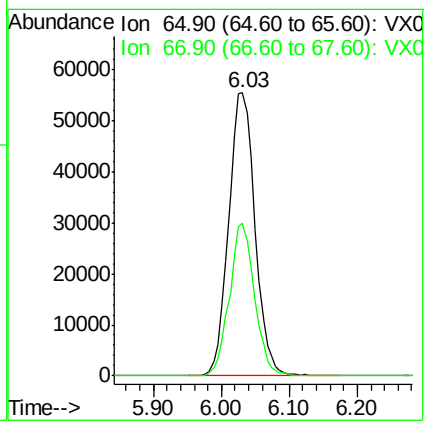




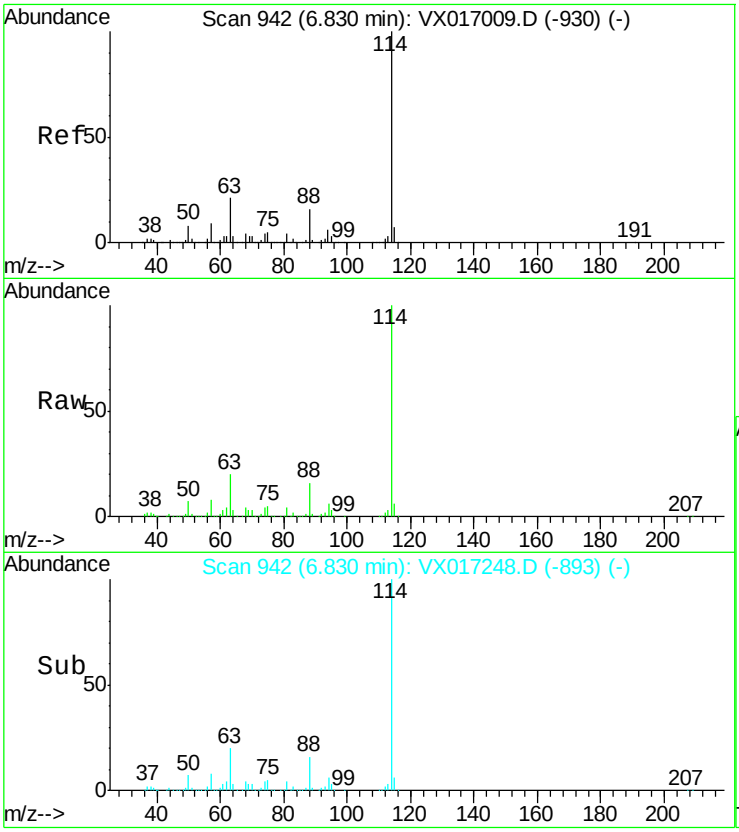
#33
1,2-Dichloroethane-d4
Concen: 51.259 ug/l
RT: 6.03 min Scan# 811
Delta R.T. -0.00 min
Lab File: VX017248.D
Acq: 08 Jul 2020 12:28

Tgt Ion: 65 Resp: 149018

Ion	Ratio	Lower	Upper
65	100		
67	51.5	0.0	103.8



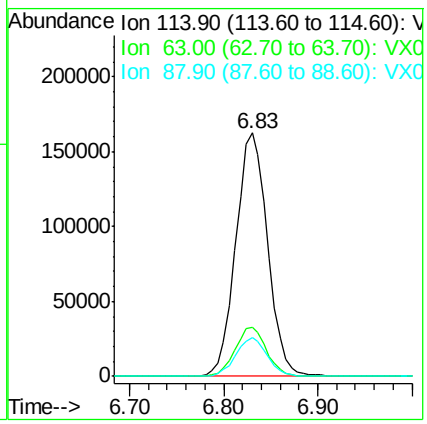
Instrument :
MSVOA_X
ClientSampleId :
1007-MW-11DL

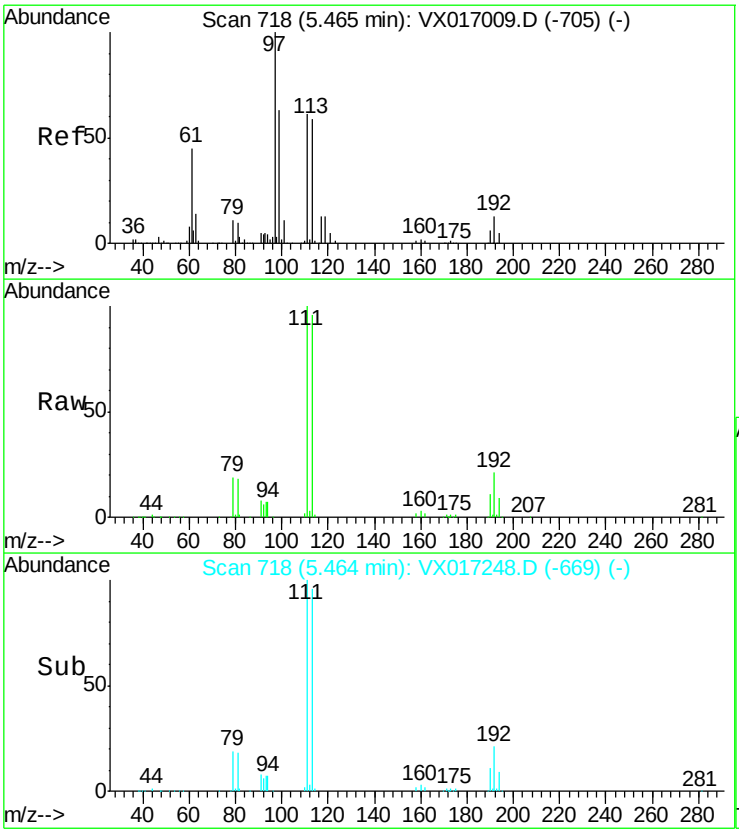


#34
1,4-Difluorobenzene
Concen: 50.000 ug/l
RT: 6.83 min Scan# 942
Delta R.T. -0.00 min
Lab File: VX017248.D
Acq: 08 Jul 2020 12:28

Tgt Ion:114 Resp: 382452

Ion	Ratio	Lower	Upper
114	100		
63	20.0	0.0	41.4
88	16.0	0.0	32.4

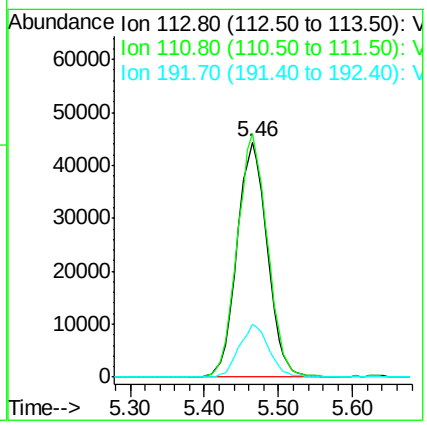




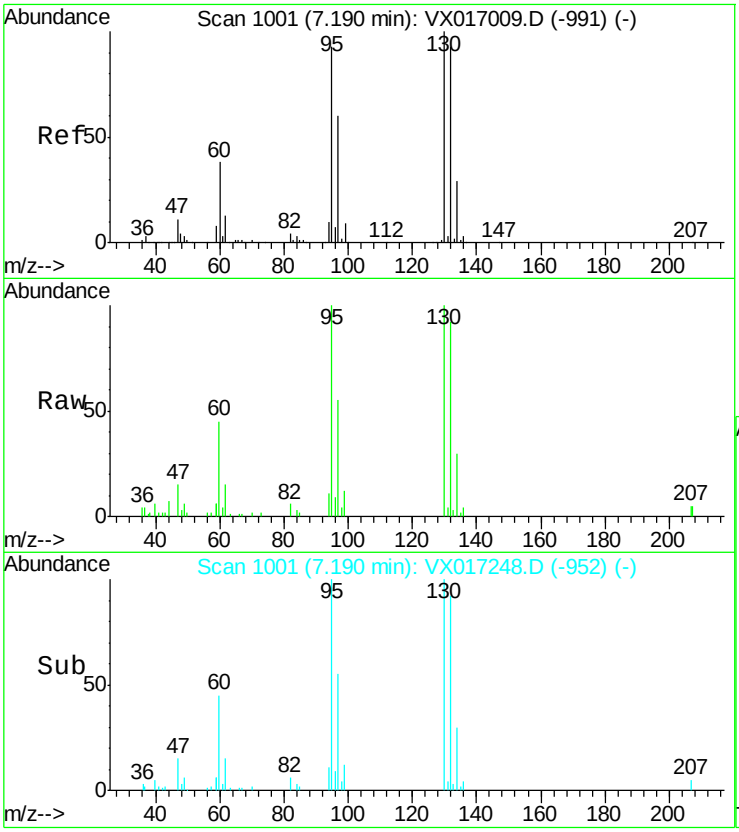
#35
Dibromofluoromethane
Concen: 52.445 ug/l
RT: 5.46 min Scan# 718
Delta R.T. -0.00 min
Lab File: VX017248.D
Acq: 08 Jul 2020 12:28

Tgt Ion:113 Resp: 126879

Ion	Ratio	Lower	Upper
113	100		
111	103.5	81.9	122.9
192	22.1	16.7	25.1



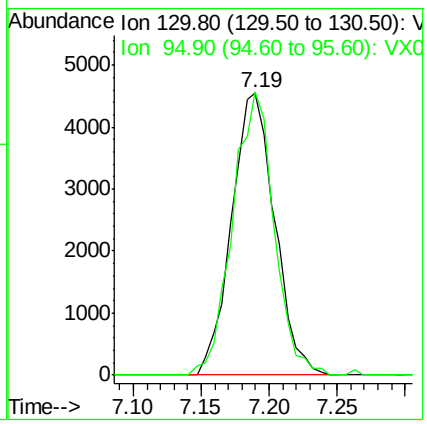
Instrument :
MSVOA_X
ClientSampleId :
1007-MW-11DL

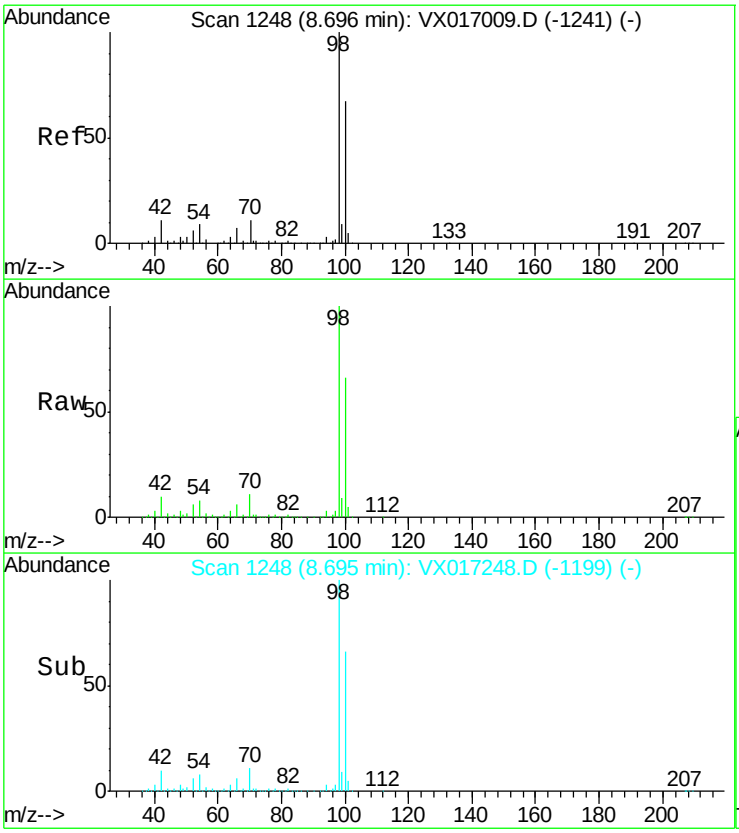


#44
Trichloroethene
Concen: 3.140 ug/l
RT: 7.19 min Scan# 1001
Delta R.T. 0.00 min
Lab File: VX017248.D
Acq: 08 Jul 2020 12:28

Tgt Ion:130 Resp: 10054

Ion	Ratio	Lower	Upper
130	100		
95	100.3	0.0	185.0

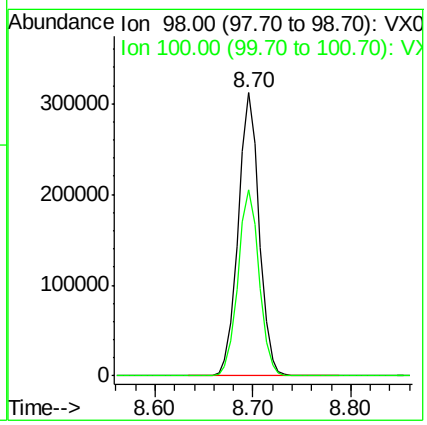




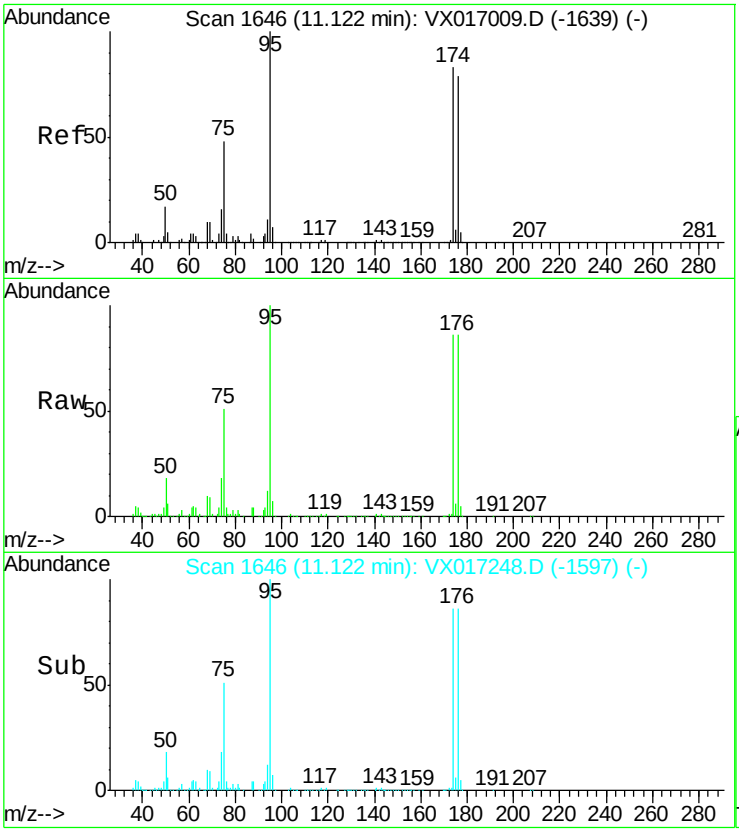
#50
Toluene-d8
Concen: 51.790 ug/l
RT: 8.70 min Scan# 1248
Delta R.T. -0.00 min
Lab File: VX017248.D
Acq: 08 Jul 2020 12:28

Tgt Ion: 98 Resp: 463312

Ion	Ratio	Lower	Upper
98	100		
100	66.5	53.8	80.6



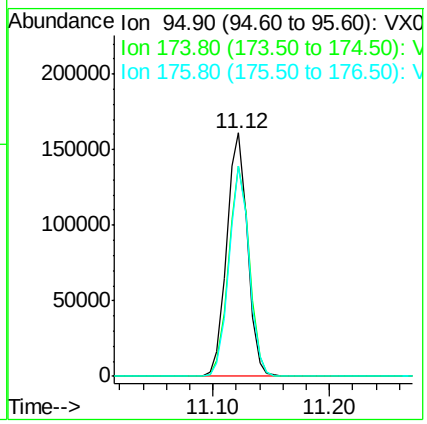
Instrument :
MSVOA_X
ClientSampleId :
1007-MW-11DL

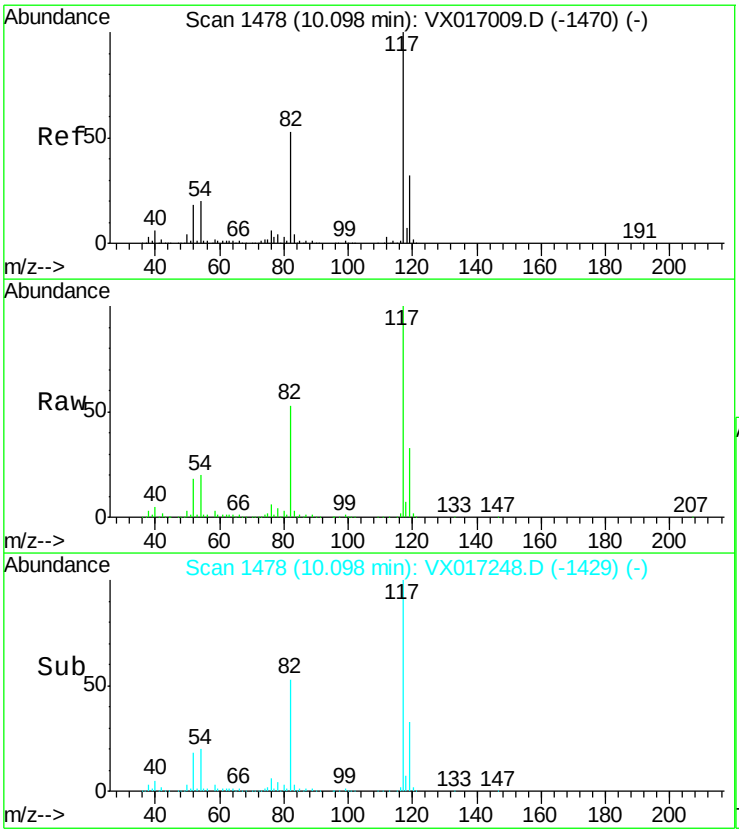


#62
4-Bromofluorobenzene
Concen: 56.899 ug/l
RT: 11.12 min Scan# 1646
Delta R.T. -0.00 min
Lab File: VX017248.D
Acq: 08 Jul 2020 12:28

Tgt Ion: 95 Resp: 198982

Ion	Ratio	Lower	Upper
95	100		
174	87.0	0.0	164.0
176	83.9	0.0	157.6

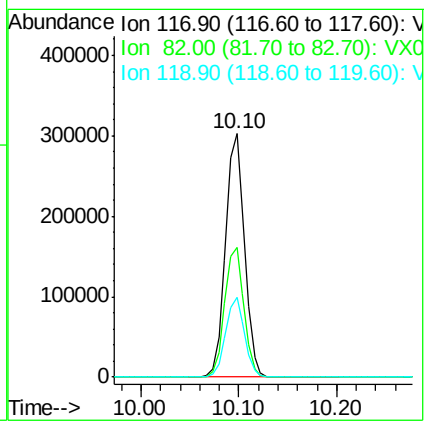




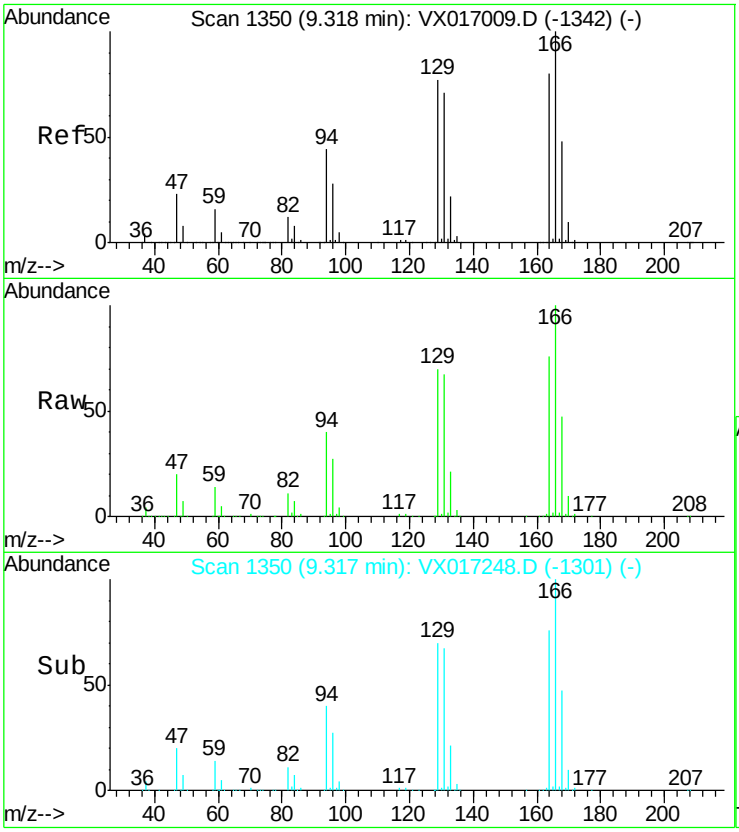
#63
Chlorobenzene-d5
Concen: 50.000 ug/l
RT: 10.10 min Scan# 1478
Delta R.T. -0.00 min
Lab File: VX017248.D
Acq: 08 Jul 2020 12:28

Tgt Ion:117 Resp: 407430

Ion	Ratio	Lower	Upper
117	100		
82	53.3	42.6	63.8
119	32.9	25.4	38.2



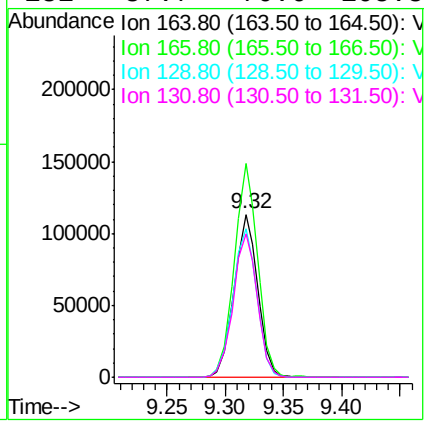
Instrument :
MSVOA_X
ClientSampleId :
1007-MW-11DL

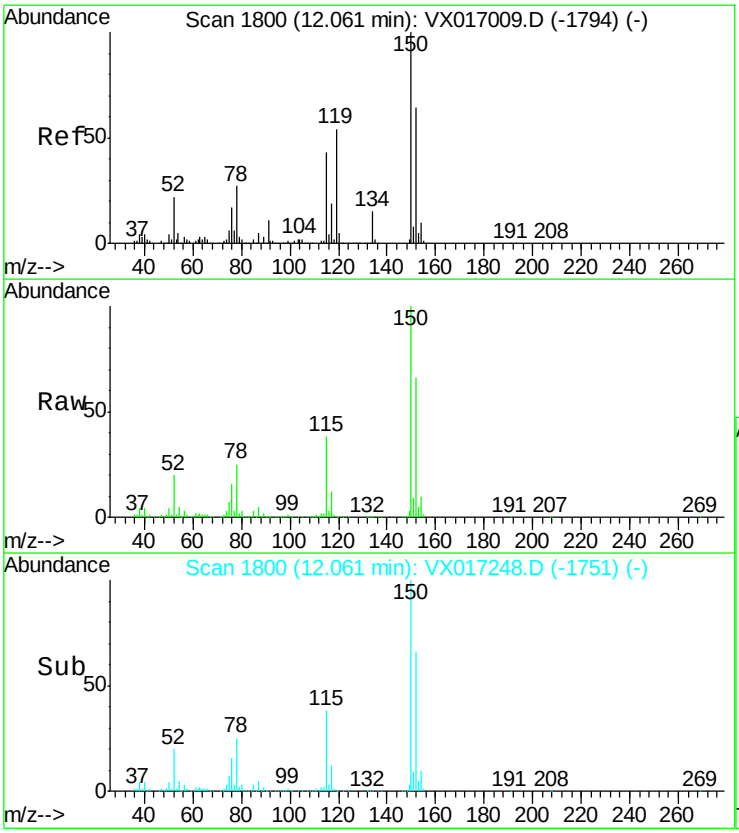


#64
Tetrachloroethene
Concen: 48.634 ug/l
RT: 9.32 min Scan# 1350
Delta R.T. -0.00 min
Lab File: VX017248.D
Acq: 08 Jul 2020 12:28

Tgt Ion:164 Resp: 159919

Ion	Ratio	Lower	Upper
164	100		
166	131.1	99.4	149.0
129	91.4	76.3	114.5
131	87.7	70.6	105.8

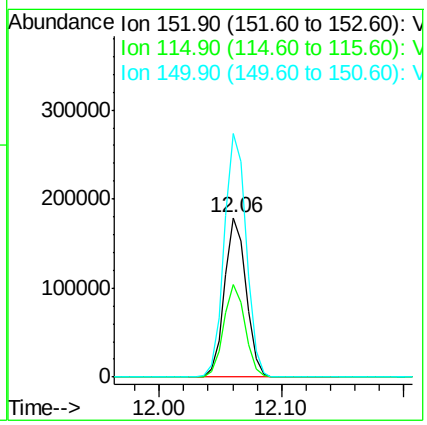




#72
1,4-Dichlorobenzene-d4
Concen: 50.000 ug/l
RT: 12.06 min Scan# 1800
Delta R.T. -0.00 min
Lab File: VX017248.D
Acq: 08 Jul 2020 12:28

Tgt Ion:152 Resp: 218652

Ion	Ratio	Lower	Upper
152	100		
115	57.7	40.9	122.7
150	155.4	0.0	351.6



CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Day Environmental, Inc.	Date Collected:	07/06/20
Project:	Andrew St. RI	Date Received:	07/07/20
Client Sample ID:	1008-MW-15	SDG No.:	L3232
Lab Sample ID:	L3232-08	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	DB-624UI ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX017234.D	1		07/08/20 04:00	VX070720

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
75-71-8	Dichlorodifluoromethane	1.00	U	0.22	1.00	ug/L
74-87-3	Chloromethane	1.00	U	0.30	1.00	ug/L
75-01-4	Vinyl Chloride	1.00	U	0.16	1.00	ug/L
74-83-9	Bromomethane	5.00	U	2.10	5.00	ug/L
75-00-3	Chloroethane	1.00	U	0.34	1.00	ug/L
75-69-4	Trichlorofluoromethane	1.00	U	0.16	1.00	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	1.00	U	0.21	1.00	ug/L
75-35-4	1,1-Dichloroethene	1.00	U	0.18	1.00	ug/L
67-64-1	Acetone	13.1		0.90	5.00	ug/L
75-15-0	Carbon Disulfide	1.00	U	0.23	1.00	ug/L
1634-04-4	Methyl tert-butyl Ether	1.00	U	0.070	1.00	ug/L
79-20-9	Methyl Acetate	1.00	U	0.65	1.00	ug/L
75-09-2	Methylene Chloride	1.00	U	0.33	1.00	ug/L
156-60-5	trans-1,2-Dichloroethene	1.00	U	0.24	1.00	ug/L
75-34-3	1,1-Dichloroethane	1.00	U	0.17	1.00	ug/L
110-82-7	Cyclohexane	5.00	U	1.20	5.00	ug/L
78-93-3	2-Butanone	5.00	U	0.71	5.00	ug/L
56-23-5	Carbon Tetrachloride	1.00	U	0.22	1.00	ug/L
156-59-2	cis-1,2-Dichloroethene	1.00	U	0.30	1.00	ug/L
74-97-5	Bromochloromethane	1.00	U	0.31	1.00	ug/L
67-66-3	Chloroform	1.00	U	0.14	1.00	ug/L
71-55-6	1,1,1-Trichloroethane	1.00	U	0.12	1.00	ug/L
108-87-2	Methylcyclohexane	1.00	U	0.17	1.00	ug/L
71-43-2	Benzene	0.58	J	0.10	1.00	ug/L
107-06-2	1,2-Dichloroethane	1.00	U	0.13	1.00	ug/L
79-01-6	Trichloroethene	1.00	U	0.27	1.00	ug/L
78-87-5	1,2-Dichloropropane	1.00	U	0.14	1.00	ug/L
75-27-4	Bromodichloromethane	1.00	U	0.10	1.00	ug/L
108-10-1	4-Methyl-2-Pentanone	5.00	U	0.85	5.00	ug/L
108-88-3	Toluene	1.00	U	0.12	1.00	ug/L
10061-02-6	t-1,3-Dichloropropene	1.00	U	0.19	1.00	ug/L
10061-01-5	cis-1,3-Dichloropropene	1.00	U	0.16	1.00	ug/L

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Day Environmental, Inc.	Date Collected:	07/06/20
Project:	Andrew St. RI	Date Received:	07/07/20
Client Sample ID:	1008-MW-15	SDG No.:	L3232
Lab Sample ID:	L3232-08	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	DB-624UI ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX017234.D	1		07/08/20 04:00	VX070720

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
79-00-5	1,1,2-Trichloroethane	1.00	U	0.12	1.00	ug/L
591-78-6	2-Hexanone	5.00	U	1.40	5.00	ug/L
124-48-1	Dibromochloromethane	1.00	U	0.16	1.00	ug/L
106-93-4	1,2-Dibromoethane	1.00	U	0.14	1.00	ug/L
127-18-4	Tetrachloroethene	0.57	J	0.15	1.00	ug/L
108-90-7	Chlorobenzene	1.00	U	0.080	1.00	ug/L
100-41-4	Ethyl Benzene	1.00	U	0.080	1.00	ug/L
179601-23-1	m/p-Xylenes	2.00	U	0.20	2.00	ug/L
95-47-6	o-Xylene	1.00	U	0.13	1.00	ug/L
100-42-5	Styrene	1.00	U	0.11	1.00	ug/L
75-25-2	Bromoform	1.00	U	0.15	1.00	ug/L
98-82-8	Isopropylbenzene	1.00	U	0.13	1.00	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	1.00	U	0.15	1.00	ug/L
541-73-1	1,3-Dichlorobenzene	1.00	U	0.14	1.00	ug/L
106-46-7	1,4-Dichlorobenzene	1.00	U	0.20	1.00	ug/L
95-50-1	1,2-Dichlorobenzene	1.00	U	0.12	1.00	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	1.00	U	0.54	1.00	ug/L
120-82-1	1,2,4-Trichlorobenzene	1.00	U	0.24	1.00	ug/L
87-61-6	1,2,3-Trichlorobenzene	1.00	U	0.26	1.00	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	54.6		61 - 141	109%	SPK: 50
1868-53-7	Dibromofluoromethane	53.6		69 - 133	107%	SPK: 50
2037-26-5	Toluene-d8	52.7		65 - 126	105%	SPK: 50
460-00-4	4-Bromofluorobenzene	54.8		58 - 135	110%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	248000	5.64			
540-36-3	1,4-Difluorobenzene	414000	6.84			
3114-55-4	Chlorobenzene-d5	429000	10.1			
3855-82-1	1,4-Dichlorobenzene-d4	240000	12.06			

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Day Environmental, Inc.	Date Collected:	07/06/20
Project:	Andrew St. RI	Date Received:	07/07/20
Client Sample ID:	1008-MW-15	SDG No.:	L3232
Lab Sample ID:	L3232-08	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	DB-624UI ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX017234.D	1		07/08/20 04:00	VX070720

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit
A = Aldol-Condensation Reaction Products

Quantitation Report (QT Reviewed)

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX070720\
Data File : VX017234.D
Acq On : 08 Jul 2020 04:00
Operator : JC/SP
Sample : L3232-08
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 48 Sample Multiplier: 1

Instrument : MSVOA_X
ClientSampleId : 1008-MW-15

Quant Time: Jul 15 02:44:58 2020
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X062920W.M
Quant Title : SW846 8260
QLast Update : Mon Jun 29 17:10:38 2020
Response via : Initial Calibration

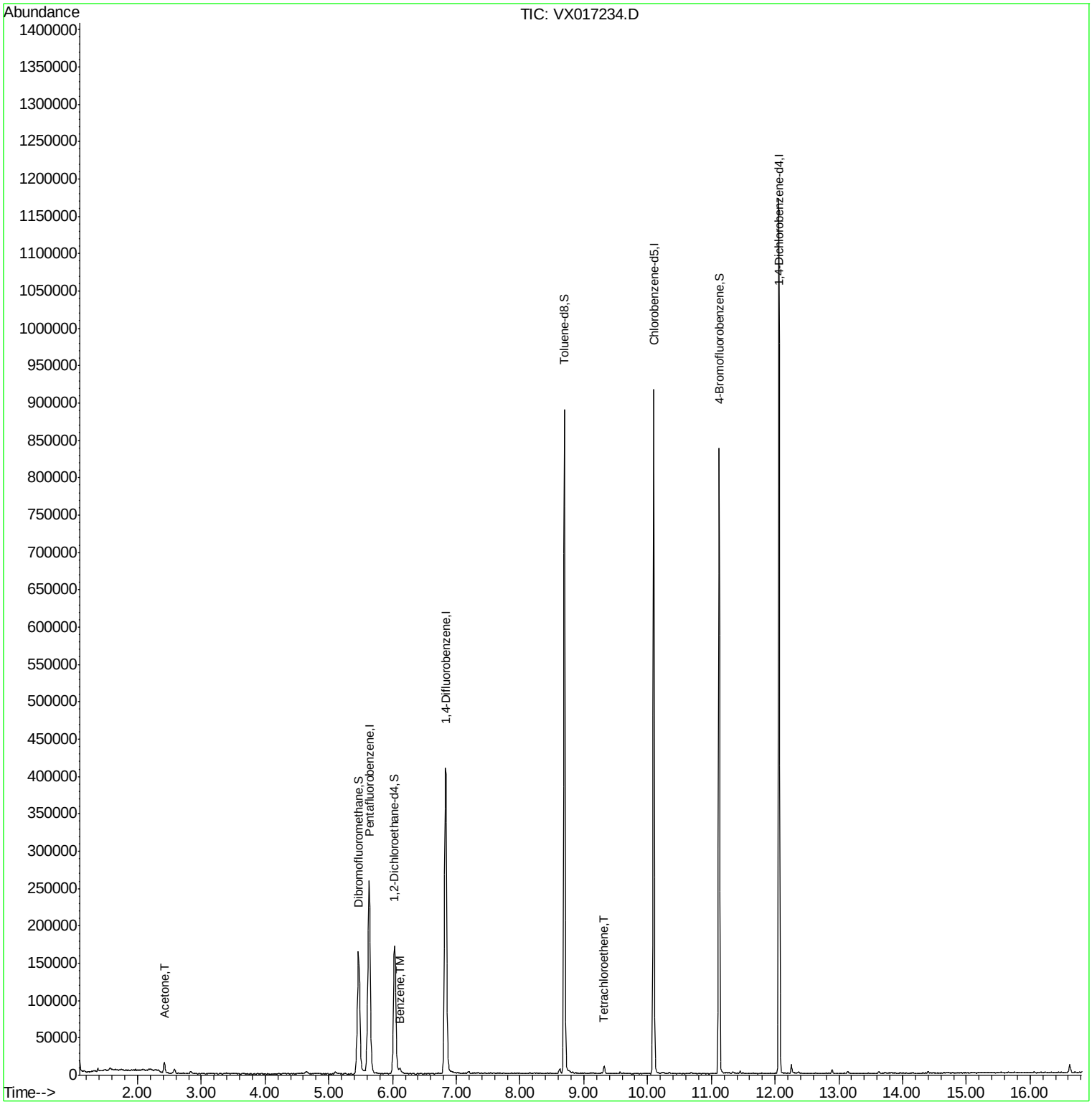
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	5.64	168	247760	50.00	ug/l	0.00
34) 1,4-Difluorobenzene	6.84	114	413814	50.00	ug/l	0.00
63) Chlorobenzene-d5	10.10	117	429214	50.00	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	12.06	152	239652	50.00	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	6.03	65	166646	54.56	ug/l	0.00
Spiked Amount 50.000			Recovery = 109.12%			
35) Dibromofluoromethane	5.46	113	140426	53.65	ug/l	0.00
Spiked Amount 50.000			Recovery = 107.30%			
50) Toluene-d8	8.70	98	510551	52.75	ug/l	0.00
Spiked Amount 50.000			Recovery = 105.50%			
62) 4-Bromofluorobenzene	11.12	95	207191	54.76	ug/l	0.00
Spiked Amount 50.000			Recovery = 109.52%			
Target Compounds						Qvalue
16) Acetone	2.42	43	15010	13.137	ug/l	96
40) Benzene	6.12	78	6638	0.578	ug/l	95
64) Tetrachloroethene	9.32	164	1959	0.566	ug/l	85

(#) = qualifier out of range (m) = manual integration (+) = signals summed

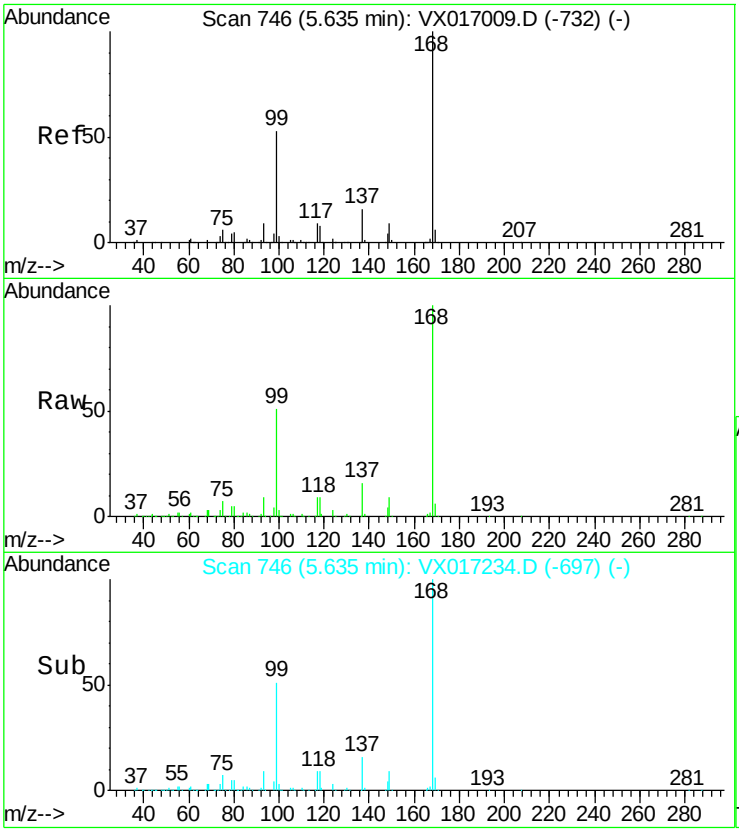
Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX070720\
Data File : VX017234.D
Acq On : 08 Jul 2020 04:00
Operator : JC/SP
Sample : L3232-08
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 48 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
1008-MW-15

Quant Time: Jul 15 02:44:58 2020
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X062920W.M
Quant Title : SW846 8260
QLast Update : Mon Jun 29 17:10:38 2020
Response via : Initial Calibration



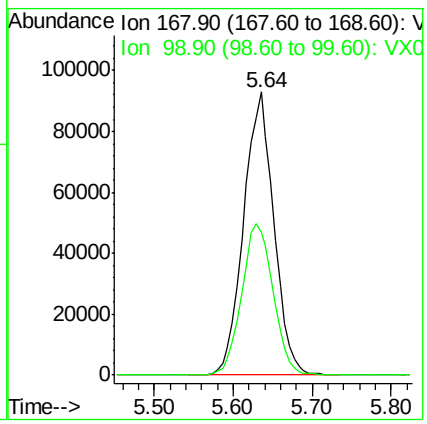
Instrument :
MSVOA_X
ClientSampleId :
1008-MW-15

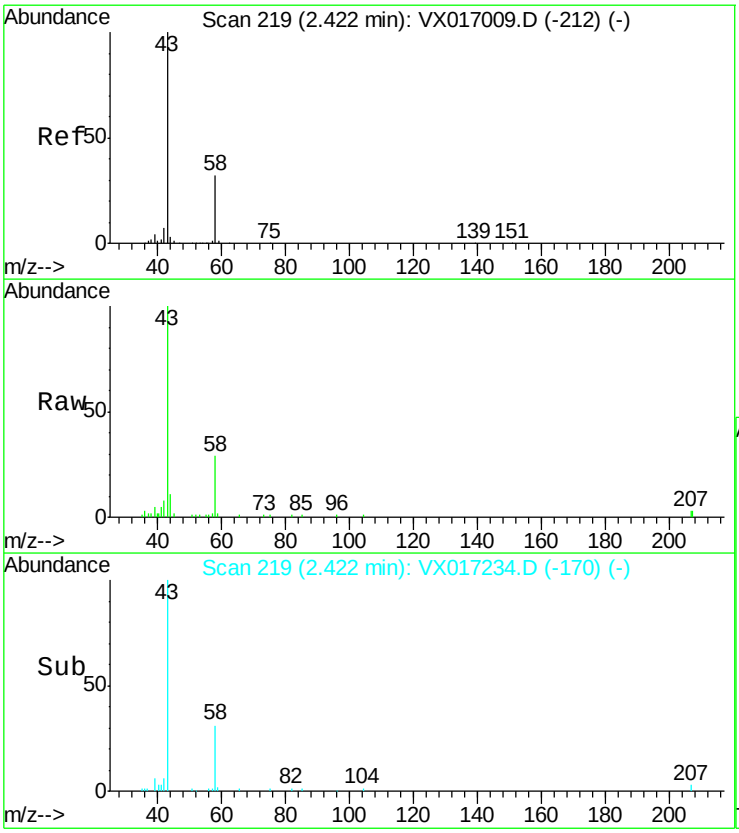


#1
Pentafluorobenzene
Concen: 50.000 ug/l
RT: 5.64 min Scan# 746
Delta R.T. -0.00 min
Lab File: VX017234.D
Acq: 08 Jul 2020 04:00

Tgt Ion:168 Resp: 247760

Ion	Ratio	Lower	Upper
168	100		
99	50.6	42.6	64.0

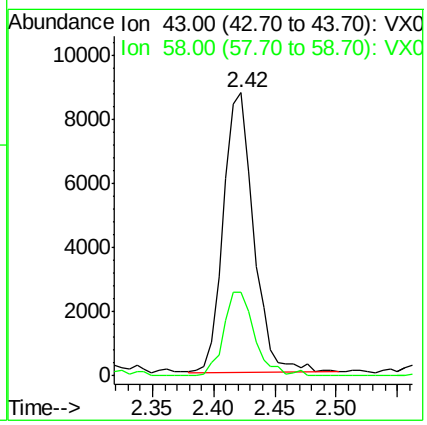




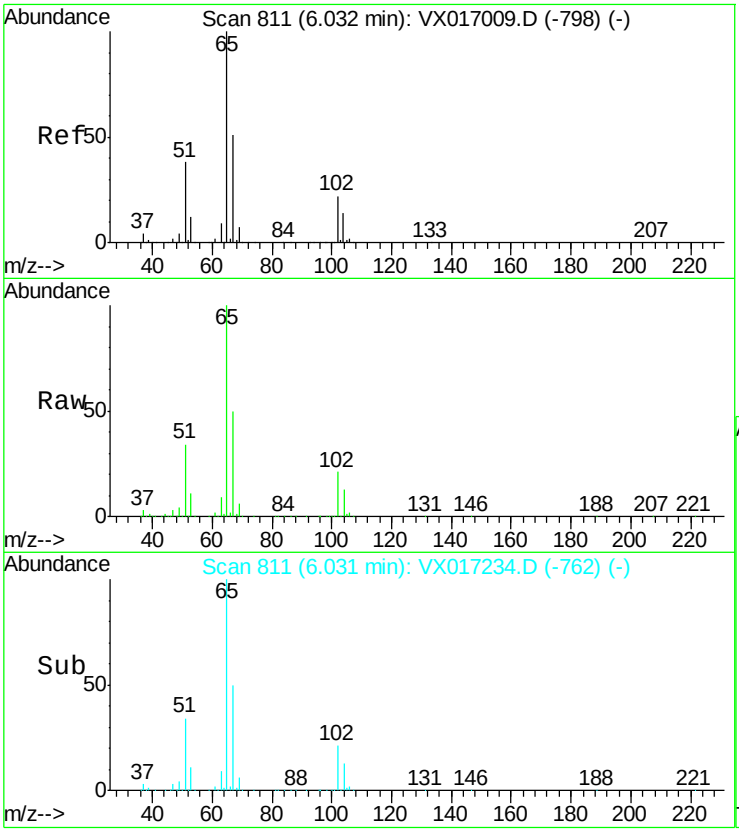
#16
Acetone
Concen: 13.137 ug/l
RT: 2.42 min Scan# 219
Delta R.T. -0.00 min
Lab File: VX017234.D
Acq: 08 Jul 2020 04:00

Tgt Ion: 43 Resp: 15010

Ion	Ratio	Lower	Upper
43	100		
58	29.9	25.7	38.5



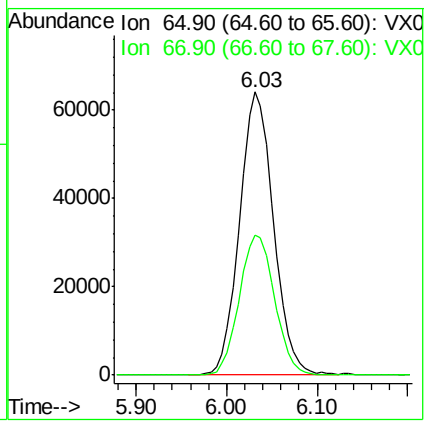
Instrument :
MSVOA_X
ClientSampleId :
1008-MW-15

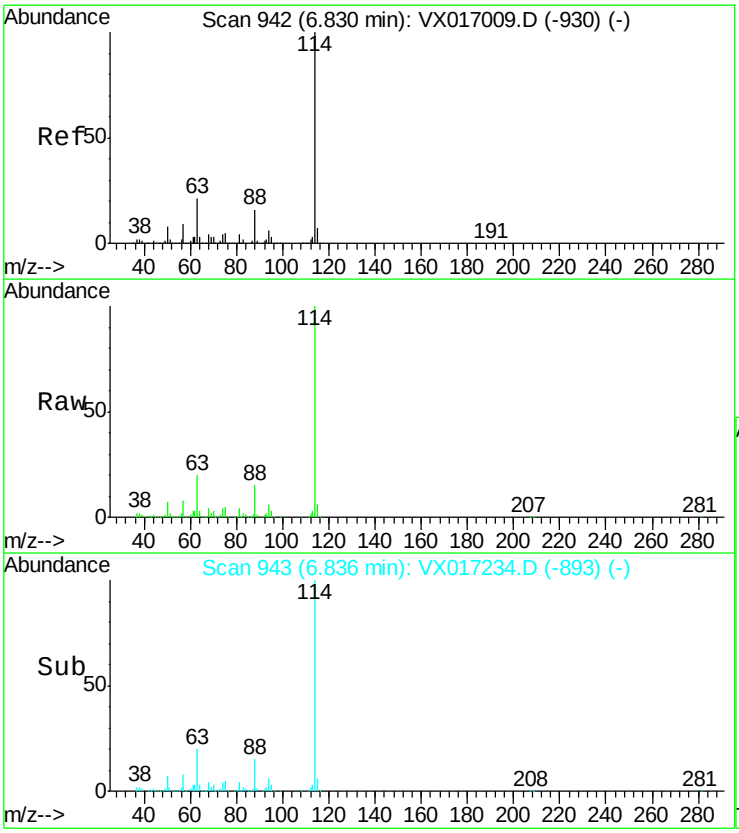


#33
1,2-Dichloroethane-d4
Concen: 54.560 ug/l
RT: 6.03 min Scan# 811
Delta R.T. -0.00 min
Lab File: VX017234.D
Acq: 08 Jul 2020 04:00

Tgt Ion: 65 Resp: 166646

Ion	Ratio	Lower	Upper
65	100		
67	51.3	0.0	103.8

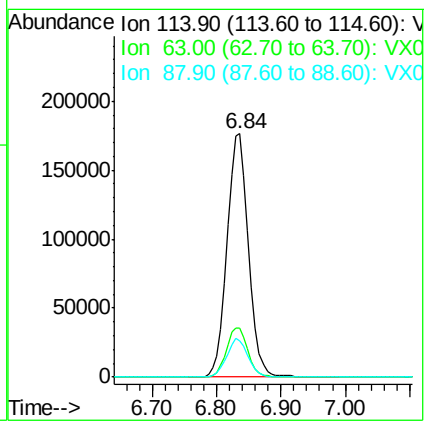




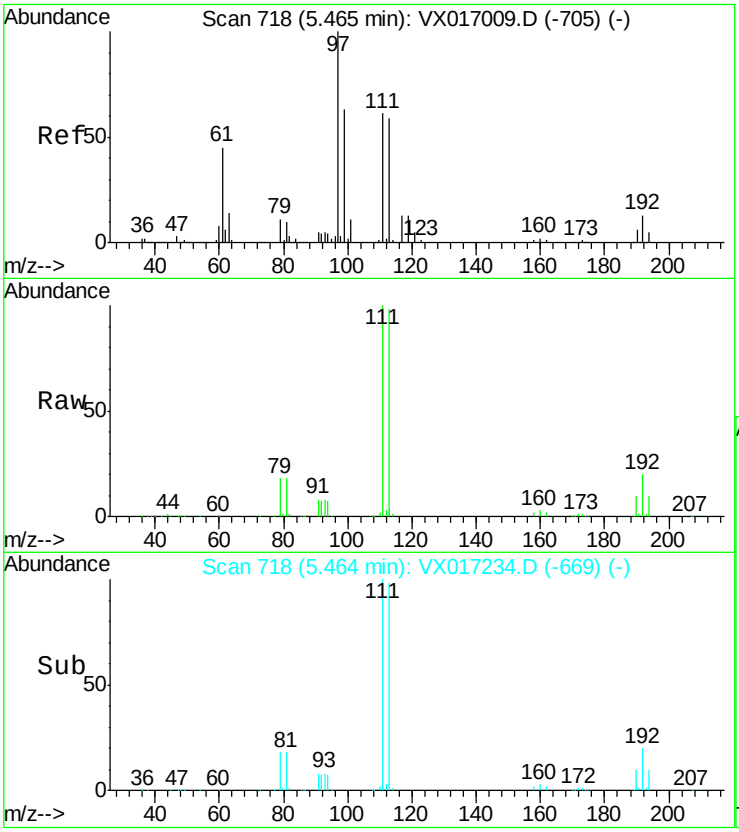
#34
1,4-Difluorobenzene
Concen: 50.000 ug/l
RT: 6.84 min Scan# 943
Delta R.T. 0.01 min
Lab File: VX017234.D
Acq: 08 Jul 2020 04:00

Tgt Ion:114 Resp: 413814

Ion	Ratio	Lower	Upper
114	100		
63	20.0	0.0	41.4
88	15.0	0.0	32.4



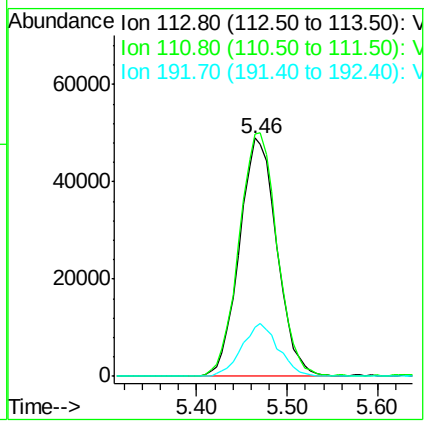
Instrument :
MSVOA_X
ClientSampleId :
1008-MW-15

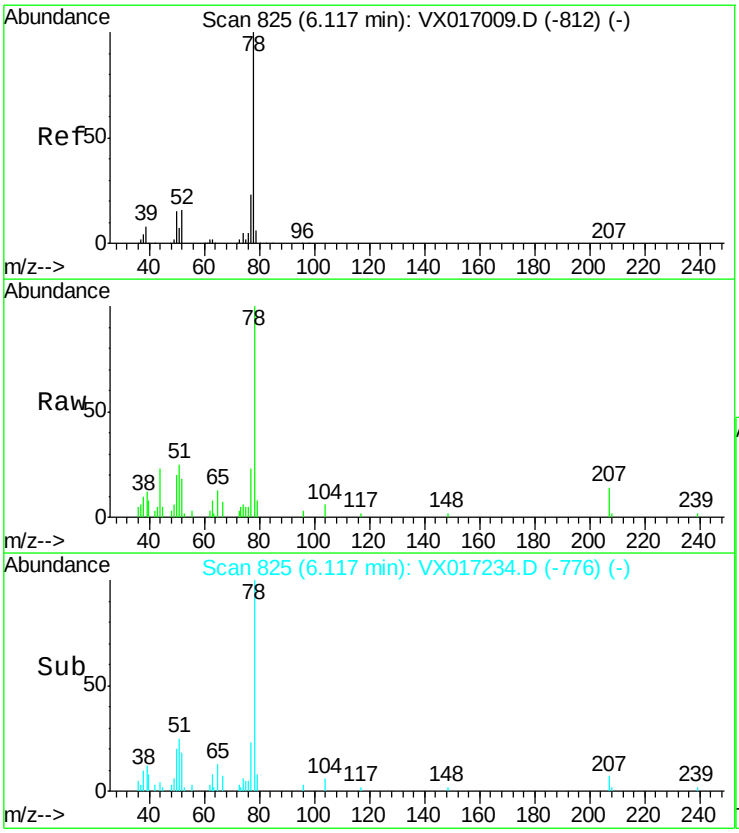


#35
Dibromofluoromethane
Concen: 53.646 ug/l
RT: 5.46 min Scan# 718
Delta R.T. -0.00 min
Lab File: VX017234.D
Acq: 08 Jul 2020 04:00

Tgt Ion:113 Resp: 140426

Ion	Ratio	Lower	Upper
113	100		
111	104.0	81.9	122.9
192	21.7	16.7	25.1

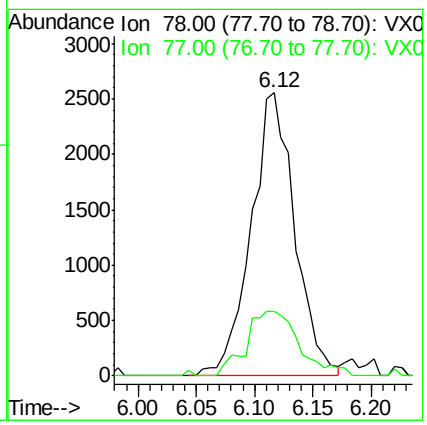




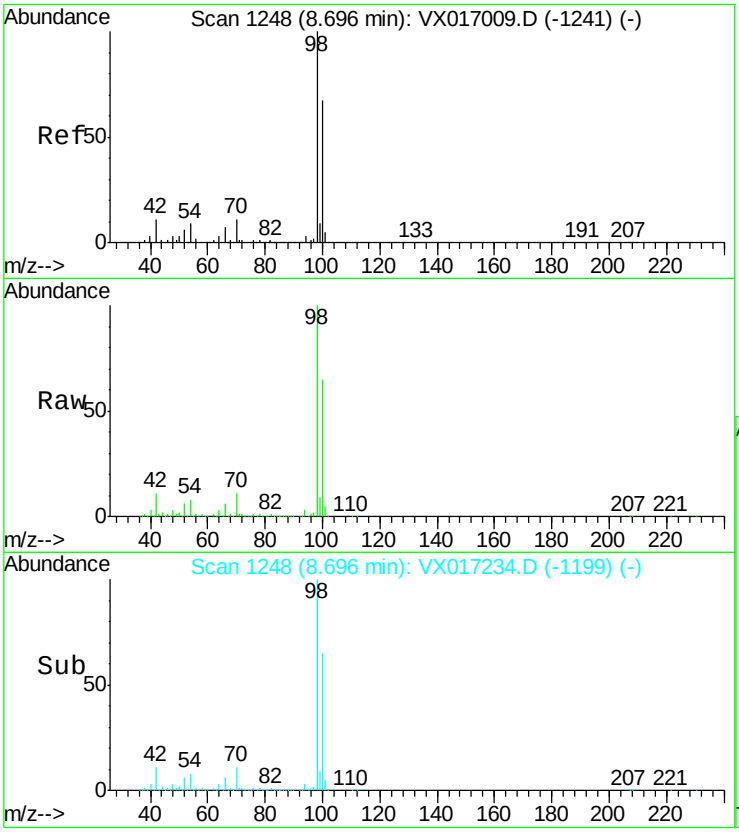
#40
Benzene
Concen: 0.578 ug/l
RT: 6.12 min Scan# 825
Delta R.T. -0.00 min
Lab File: VX017234.D
Acq: 08 Jul 2020 04:00

Tgt Ion: 78 Resp: 6638

Ion	Ratio	Lower	Upper
78	100		
77	20.6	18.3	27.5



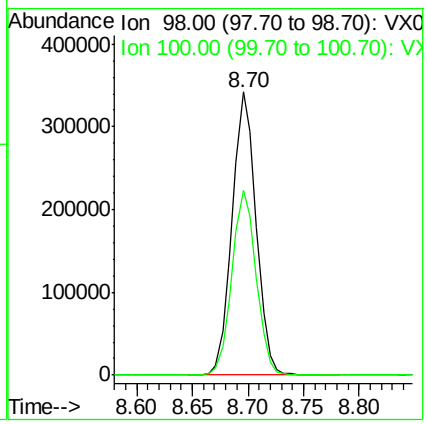
Instrument :
MSVOA_X
ClientSampleId :
1008-MW-15

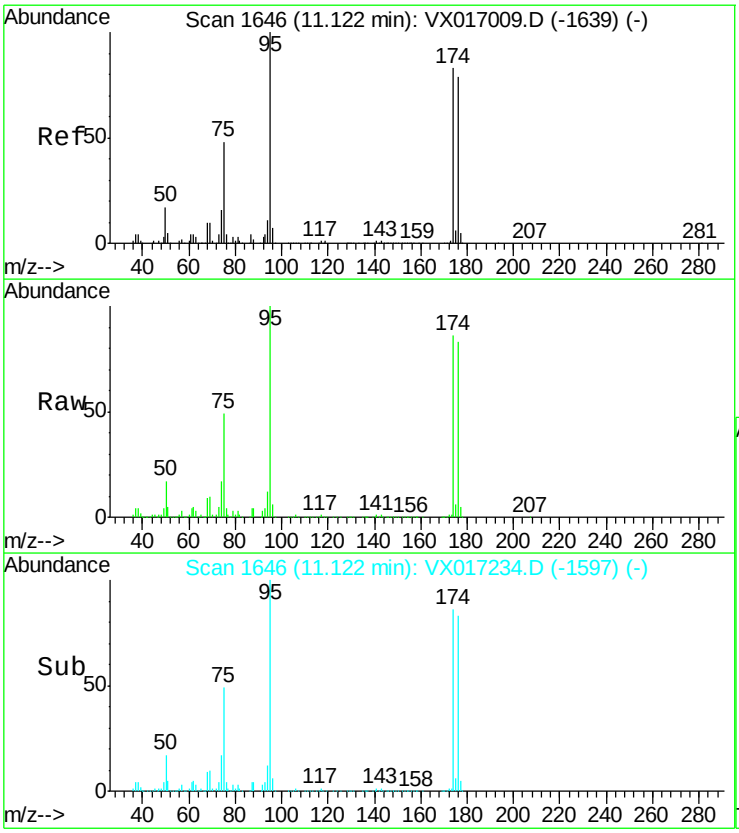


#50
Toluene-d8
Concen: 52.745 ug/l
RT: 8.70 min Scan# 1248
Delta R.T. -0.00 min
Lab File: VX017234.D
Acq: 08 Jul 2020 04:00

Tgt Ion: 98 Resp: 510551

Ion	Ratio	Lower	Upper
98	100		
100	65.8	53.8	80.6

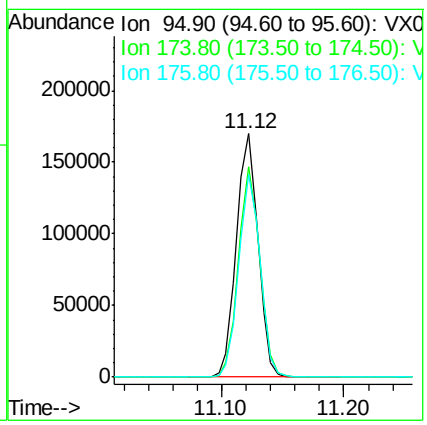




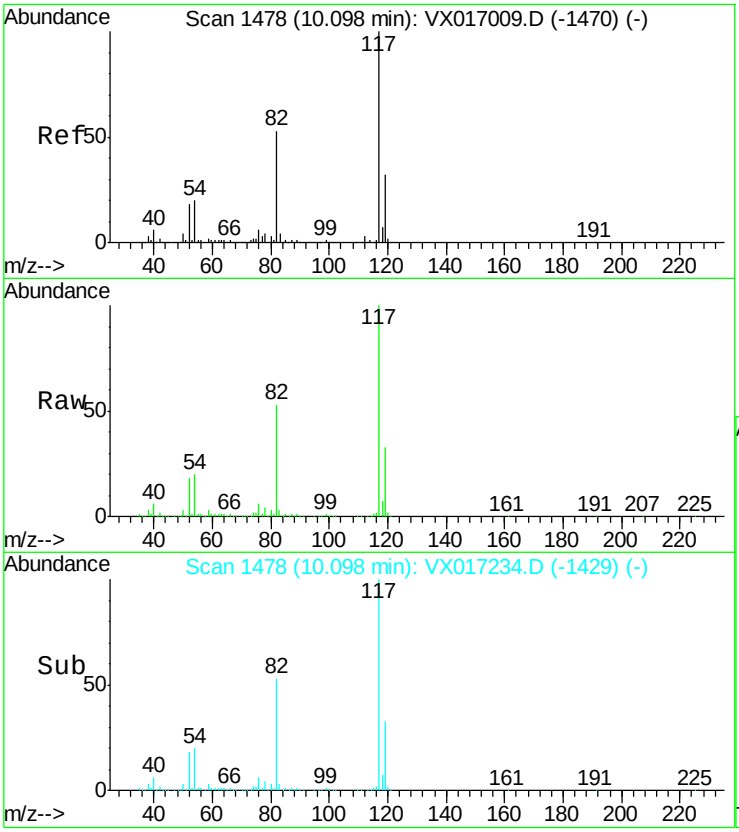
#62
4-Bromofluorobenzene
Concen: 54.756 ug/l
RT: 11.12 min Scan# 1646
Delta R.T. -0.00 min
Lab File: VX017234.D
Acq: 08 Jul 2020 04:00

Tgt Ion: 95 Resp: 207191

Ion	Ratio	Lower	Upper
95	100		
174	85.5	0.0	164.0
176	82.0	0.0	157.6



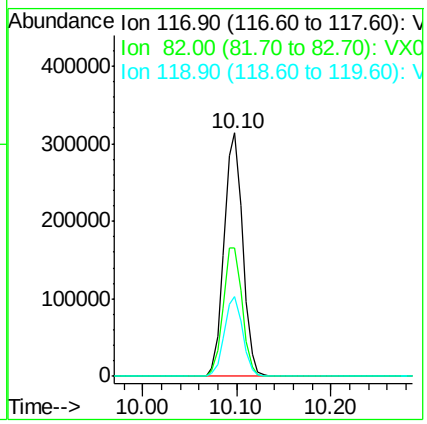
Instrument :
MSVOA_X
ClientSampleId :
1008-MW-15

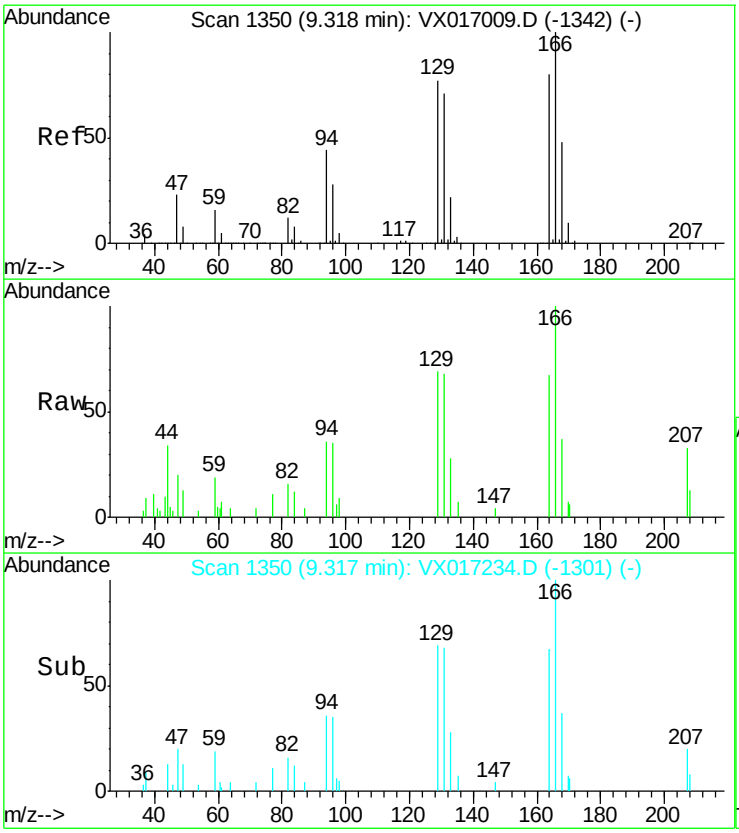


#63
Chlorobenzene-d5
Concen: 50.000 ug/l
RT: 10.10 min Scan# 1478
Delta R.T. -0.00 min
Lab File: VX017234.D
Acq: 08 Jul 2020 04:00

Tgt Ion:117 Resp: 429214

Ion	Ratio	Lower	Upper
117	100		
82	52.8	42.6	63.8
119	32.7	25.4	38.2

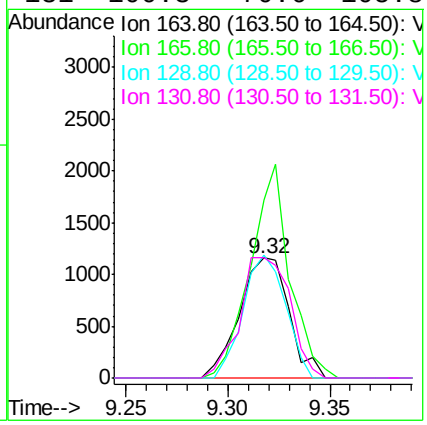


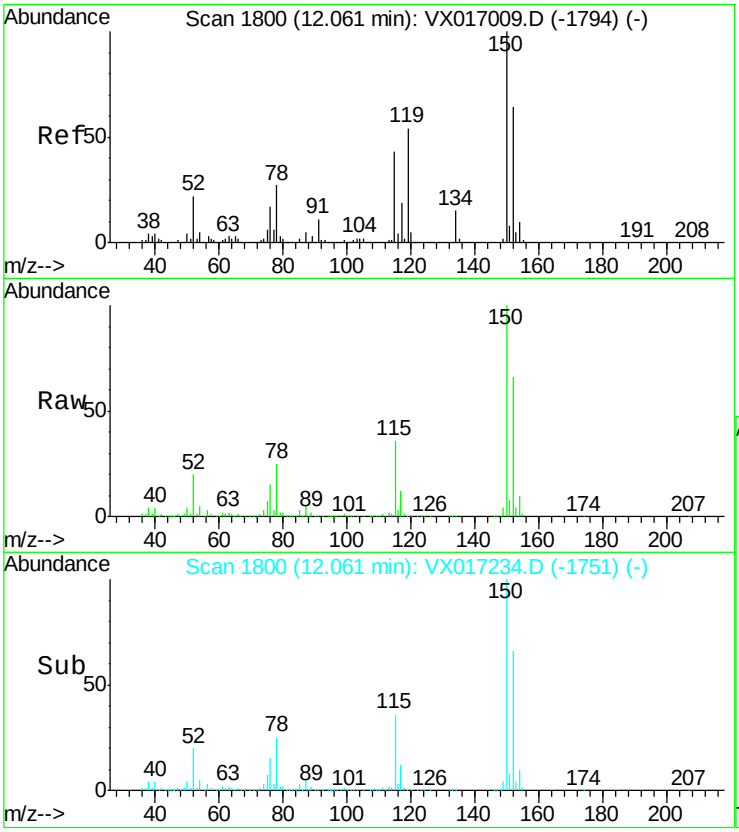


#64
Tetrachloroethene
Concen: 0.566 ug/l
RT: 9.32 min Scan# 1350
Delta R.T. -0.00 min
Lab File: VX017234.D
Acq: 08 Jul 2020 04:00

Tgt Ion:164 Resp: 1959

Ion	Ratio	Lower	Upper
164	100		
166	148.3	99.4	149.0
129	102.7	76.3	114.5
131	100.3	70.6	105.8



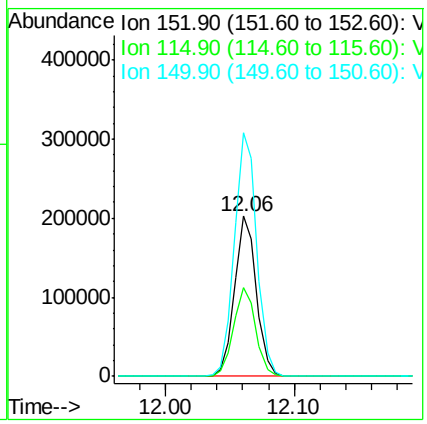


#72
1,4-Dichlorobenzene-d4
Concen: 50.000 ug/l
RT: 12.06 min Scan# 1800
Delta R.T. -0.00 min
Lab File: VX017234.D
Acq: 08 Jul 2020 04:00

Instrument :
MSVOA_X
ClientSampleId :
1008-MW-15

Tgt Ion:152 Resp: 239652

Ion	Ratio	Lower	Upper
152	100		
115	55.8	40.9	122.7
150	156.0	0.0	351.6



LSC Area Percent Report

Data Path : Z:\VOASRV\HPCHEM1\MSVOA X\DATA\VX070720\
Data File : VX017234.D
Acq On : 08 Jul 2020 04:00
Operator : JC/SP
Sample : L3232-08
Misc : 5.0mL/MSVOA X/WATER
ALS Vial : 48 Sample Multiplier: 1

Instrument : MSVOA_X
ClientSampleId : 1008-MW-15

Integration Parameters: RTEINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 3 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X062920W.M
Title : SW846 8260

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	2.422	214	219	226	rBV	13499	22670	1.61%	0.291%
2	5.464	704	718	734	rBV	164139	487256	34.62%	6.249%
3	5.635	735	746	760	rVB2	257390	727896	51.71%	9.336%
4	6.031	800	811	822	rBV2	170989	460149	32.69%	5.902%
5	6.830	930	942	957	rBV	409760	976133	69.35%	12.519%
6	8.696	1241	1248	1257	rBV	888710	1349255	95.85%	17.305%
7	9.317	1345	1350	1356	rVB2	10265	18173	1.29%	0.233%
8	10.098	1470	1478	1488	rBV	916503	1275694	90.63%	16.361%
9	11.122	1640	1646	1658	rVB	836316	1033582	73.43%	13.256%
10	12.061	1795	1800	1808	rVB	1170423	1407606	100.00%	18.053%
11	12.256	1827	1832	1837	rBV2	12274	18481	1.31%	0.237%
12	16.621	2541	2548	2554	rBV7	10743	20088	1.43%	0.258%

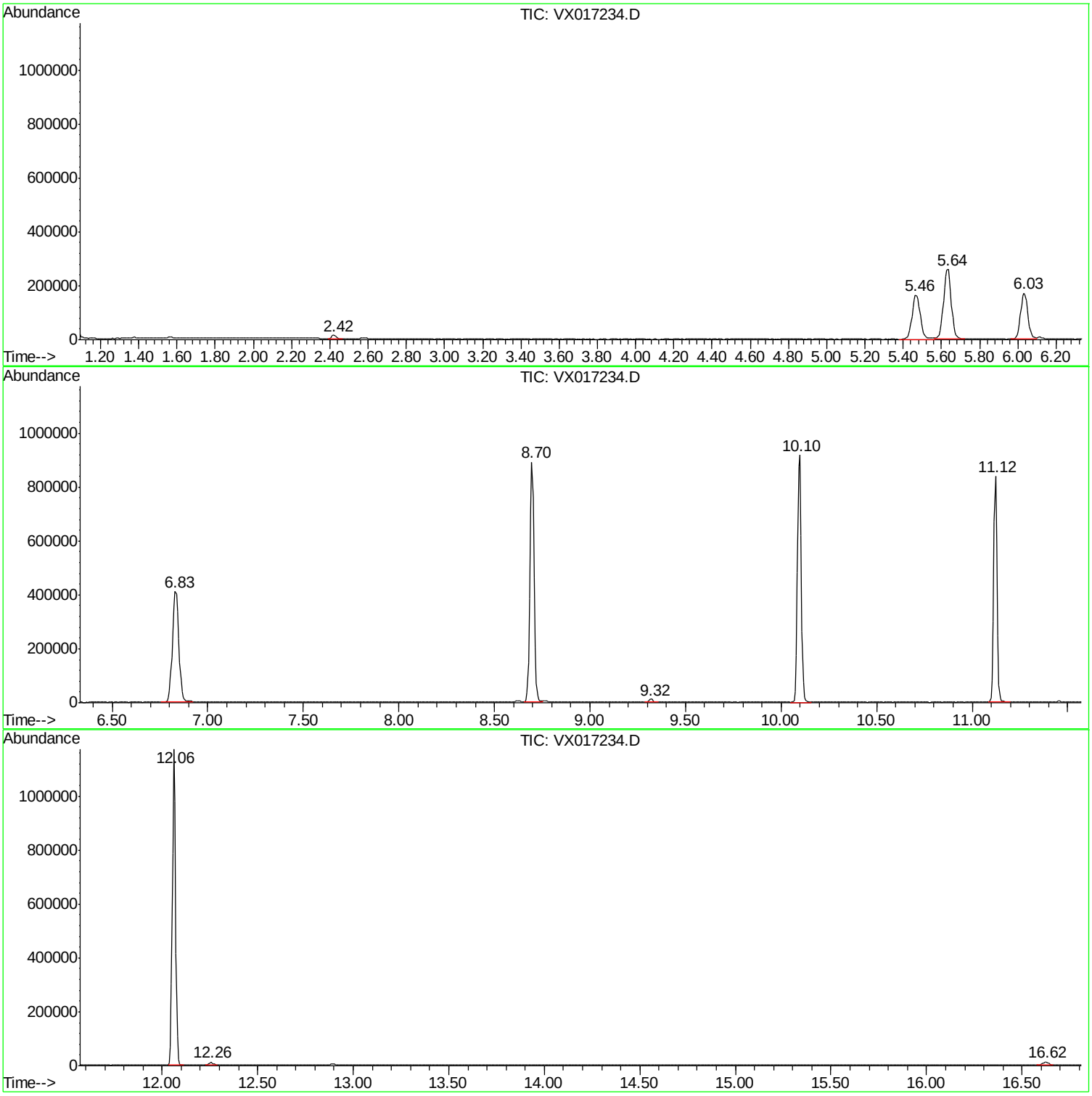
Sum of corrected areas: 7796983

Data Path : Z:\VOASRV\HPCHEM1\MSVOA X\DATA\VX070720\
Data File : VX017234.D
Acq On : 08 Jul 2020 04:00
Operator : JC/SP
Sample : L3232-08
Misc : 5.0mL/MSVOA X/WATER
ALS Vial : 48 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
1008-MW-15

Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X062920W.M
Quant Title : SW846 8260

TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P



Library Search Compound Report

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX070720\
Data File : VX017234.D
Acq On : 08 Jul 2020 04:00
Operator : JC/SP
Sample : L3232-08
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 48 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
1008-MW-15

Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X062920W.M
Quant Title : SW846 8260

TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

No Library Search Compounds Detected

****

Instrument :
MSVOA_X
ClientSampleId :
1008-MW-15

Tentatively Identified Compound (LSC) summary

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX070720\
Data File : VX017234.D
Acq On : 08 Jul 2020 04:00
Operator : JC/SP
Sample : L3232-08
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 48 Sample Multiplier: 1

Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X062920W.M
Quant Title : SW846 8260

TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

					Internal Standard		
TIC Top Hit name	RT	EstConc	Units	Response	#	RT	Resp	Conc

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Day Environmental, Inc.	Date Collected:	07/06/20
Project:	Andrew St. RI	Date Received:	07/07/20
Client Sample ID:	1009-MW-16	SDG No.:	L3232
Lab Sample ID:	L3232-09	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	DB-624UI ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX017235.D	1		07/08/20 04:23	VX070720

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
75-71-8	Dichlorodifluoromethane	1.00	U	0.22	1.00	ug/L
74-87-3	Chloromethane	1.00	U	0.30	1.00	ug/L
75-01-4	Vinyl Chloride	1.00	U	0.16	1.00	ug/L
74-83-9	Bromomethane	5.00	U	2.10	5.00	ug/L
75-00-3	Chloroethane	1.00	U	0.34	1.00	ug/L
75-69-4	Trichlorofluoromethane	1.00	U	0.16	1.00	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	1.00	U	0.21	1.00	ug/L
75-35-4	1,1-Dichloroethene	1.00	U	0.18	1.00	ug/L
67-64-1	Acetone	7.60		0.90	5.00	ug/L
75-15-0	Carbon Disulfide	1.00	U	0.23	1.00	ug/L
1634-04-4	Methyl tert-butyl Ether	1.00	U	0.070	1.00	ug/L
79-20-9	Methyl Acetate	1.00	U	0.65	1.00	ug/L
75-09-2	Methylene Chloride	1.00	U	0.33	1.00	ug/L
156-60-5	trans-1,2-Dichloroethene	1.00	U	0.24	1.00	ug/L
75-34-3	1,1-Dichloroethane	1.00	U	0.17	1.00	ug/L
110-82-7	Cyclohexane	5.00	U	1.20	5.00	ug/L
78-93-3	2-Butanone	5.00	U	0.71	5.00	ug/L
56-23-5	Carbon Tetrachloride	1.00	U	0.22	1.00	ug/L
156-59-2	cis-1,2-Dichloroethene	3.60		0.30	1.00	ug/L
74-97-5	Bromochloromethane	1.00	U	0.31	1.00	ug/L
67-66-3	Chloroform	1.00	U	0.14	1.00	ug/L
71-55-6	1,1,1-Trichloroethane	1.00	U	0.12	1.00	ug/L
108-87-2	Methylcyclohexane	1.00	U	0.17	1.00	ug/L
71-43-2	Benzene	1.00	U	0.10	1.00	ug/L
107-06-2	1,2-Dichloroethane	1.00	U	0.13	1.00	ug/L
79-01-6	Trichloroethene	7.90		0.27	1.00	ug/L
78-87-5	1,2-Dichloropropane	1.00	U	0.14	1.00	ug/L
75-27-4	Bromodichloromethane	1.00	U	0.10	1.00	ug/L
108-10-1	4-Methyl-2-Pentanone	5.00	U	0.85	5.00	ug/L
108-88-3	Toluene	0.78	J	0.12	1.00	ug/L
10061-02-6	t-1,3-Dichloropropene	1.00	U	0.19	1.00	ug/L
10061-01-5	cis-1,3-Dichloropropene	1.00	U	0.16	1.00	ug/L

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Day Environmental, Inc.	Date Collected:	07/06/20
Project:	Andrew St. RI	Date Received:	07/07/20
Client Sample ID:	1009-MW-16	SDG No.:	L3232
Lab Sample ID:	L3232-09	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	DB-624UI ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX017235.D	1		07/08/20 04:23	VX070720

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
79-00-5	1,1,2-Trichloroethane	1.00	U	0.12	1.00	ug/L
591-78-6	2-Hexanone	5.00	U	1.40	5.00	ug/L
124-48-1	Dibromochloromethane	1.00	U	0.16	1.00	ug/L
106-93-4	1,2-Dibromoethane	1.00	U	0.14	1.00	ug/L
127-18-4	Tetrachloroethene	10.5		0.15	1.00	ug/L
108-90-7	Chlorobenzene	1.00	U	0.080	1.00	ug/L
100-41-4	Ethyl Benzene	1.00	U	0.080	1.00	ug/L
179601-23-1	m/p-Xylenes	2.00	U	0.20	2.00	ug/L
95-47-6	o-Xylene	1.00	U	0.13	1.00	ug/L
100-42-5	Styrene	1.00	U	0.11	1.00	ug/L
75-25-2	Bromoform	1.00	U	0.15	1.00	ug/L
98-82-8	Isopropylbenzene	1.00	U	0.13	1.00	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	1.00	U	0.15	1.00	ug/L
541-73-1	1,3-Dichlorobenzene	1.00	U	0.14	1.00	ug/L
106-46-7	1,4-Dichlorobenzene	1.00	U	0.20	1.00	ug/L
95-50-1	1,2-Dichlorobenzene	1.00	U	0.12	1.00	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	1.00	U	0.54	1.00	ug/L
120-82-1	1,2,4-Trichlorobenzene	1.00	U	0.24	1.00	ug/L
87-61-6	1,2,3-Trichlorobenzene	1.00	U	0.26	1.00	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	55.4		61 - 141	111%	SPK: 50
1868-53-7	Dibromofluoromethane	54.5		69 - 133	109%	SPK: 50
2037-26-5	Toluene-d8	52.2		65 - 126	104%	SPK: 50
460-00-4	4-Bromofluorobenzene	54.5		58 - 135	109%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	244000	5.63			
540-36-3	1,4-Difluorobenzene	416000	6.84			
3114-55-4	Chlorobenzene-d5	431000	10.1			
3855-82-1	1,4-Dichlorobenzene-d4	232000	12.06			

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Day Environmental, Inc.	Date Collected:	07/06/20
Project:	Andrew St. RI	Date Received:	07/07/20
Client Sample ID:	1009-MW-16	SDG No.:	L3232
Lab Sample ID:	L3232-09	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	DB-624UI ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX017235.D	1		07/08/20 04:23	VX070720

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit
A = Aldol-Condensation Reaction Products

Quantitation Report (QT Reviewed)

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX070720\
Data File : VX017235.D
Acq On : 08 Jul 2020 04:23
Operator : JC/SP
Sample : L3232-09
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 49 Sample Multiplier: 1

Instrument : MSVOA_X
ClientSampleId : 1009-MW-16

Quant Time: Jul 15 02:45:51 2020
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X062920W.M
Quant Title : SW846 8260
QLast Update : Mon Jun 29 17:10:38 2020
Response via : Initial Calibration

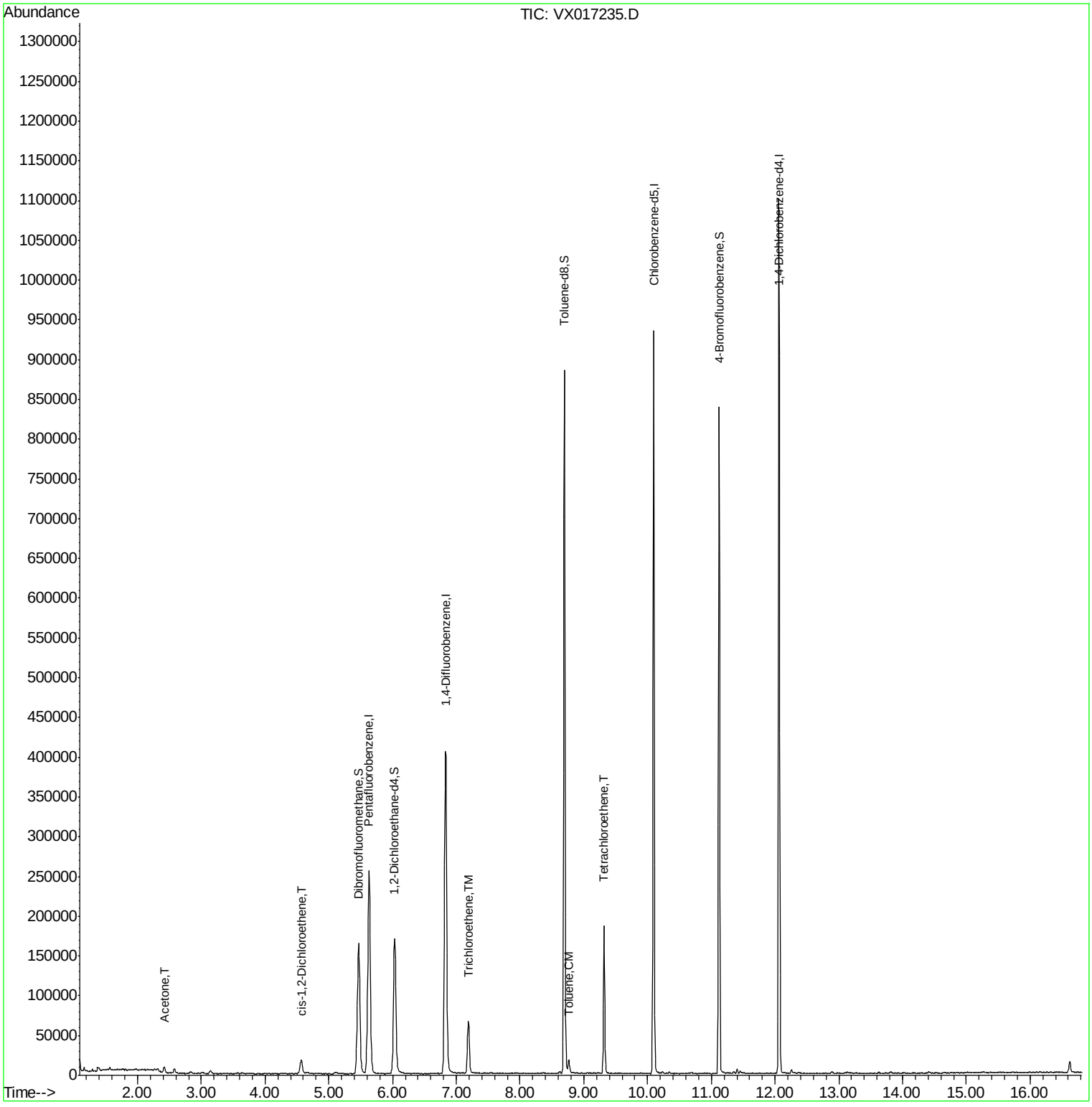
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	5.63	168	244415	50.00	ug/l	0.00
34) 1,4-Difluorobenzene	6.84	114	415792	50.00	ug/l	0.00
63) Chlorobenzene-d5	10.10	117	430676	50.00	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	12.06	152	231984	50.00	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	6.03	65	166987	55.42	ug/l	0.00
Spiked Amount 50.000			Recovery = 110.84%			
35) Dibromofluoromethane	5.47	113	143418	54.53	ug/l	0.00
Spiked Amount 50.000			Recovery = 109.06%			
50) Toluene-d8	8.70	98	507904	52.22	ug/l	0.00
Spiked Amount 50.000			Recovery = 104.44%			
62) 4-Bromofluorobenzene	11.12	95	207057	54.46	ug/l	0.00
Spiked Amount 50.000			Recovery = 108.92%			
Target Compounds						Qvalue
16) Acetone	2.42	43	8579	7.611	ug/l	96
27) cis-1,2-Dichloroethene	4.57	96	10986	3.613	ug/l	88
44) Trichloroethene	7.19	130	25962	7.888	ug/l	95
52) Toluene	8.76	92	5625	0.780	ug/l	92
64) Tetrachloroethene	9.32	164	36613	10.534	ug/l	95

(#) = qualifier out of range (m) = manual integration (+) = signals summed

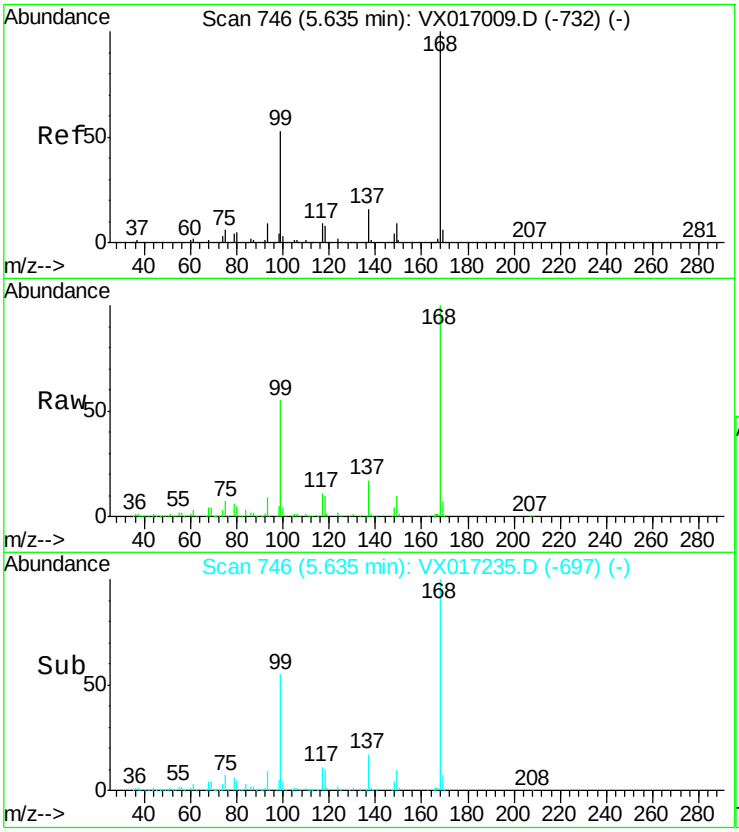
Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX070720\
Data File : VX017235.D
Acq On : 08 Jul 2020 04:23
Operator : JC/SP
Sample : L3232-09
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 49 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
1009-MW-16

Quant Time: Jul 15 02:45:51 2020
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X062920W.M
Quant Title : SW846 8260
QLast Update : Mon Jun 29 17:10:38 2020
Response via : Initial Calibration



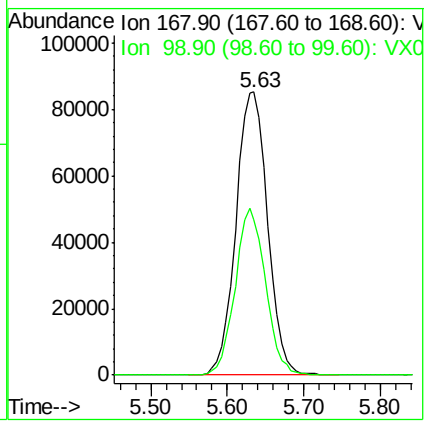
Instrument :
MSVOA_X
ClientSampleId :
1009-MW-16

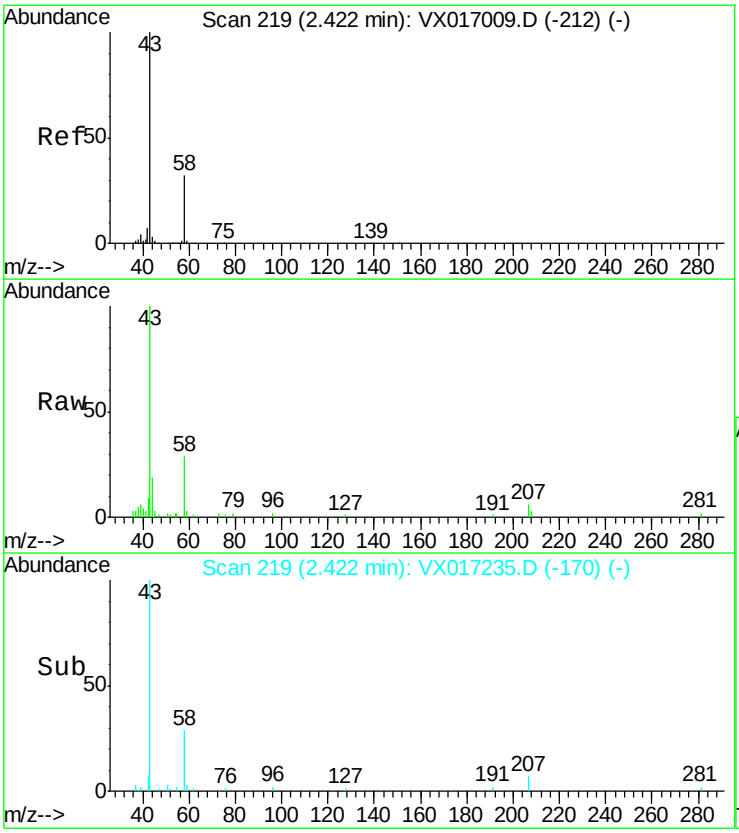


#1
Pentafluorobenzene
Concen: 50.000 ug/l
RT: 5.63 min Scan# 746
Delta R.T. -0.00 min
Lab File: VX017235.D
Acq: 08 Jul 2020 04:23

Tgt Ion:168 Resp: 244415

Ion	Ratio	Lower	Upper
168	100		
99	55.0	42.6	64.0

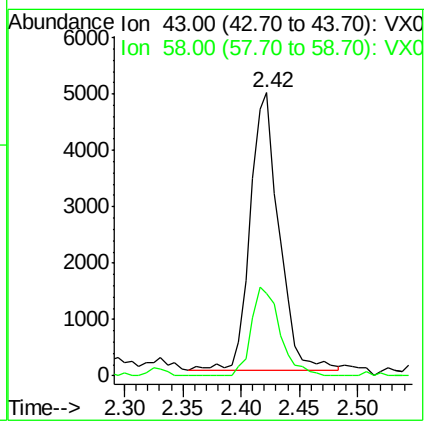




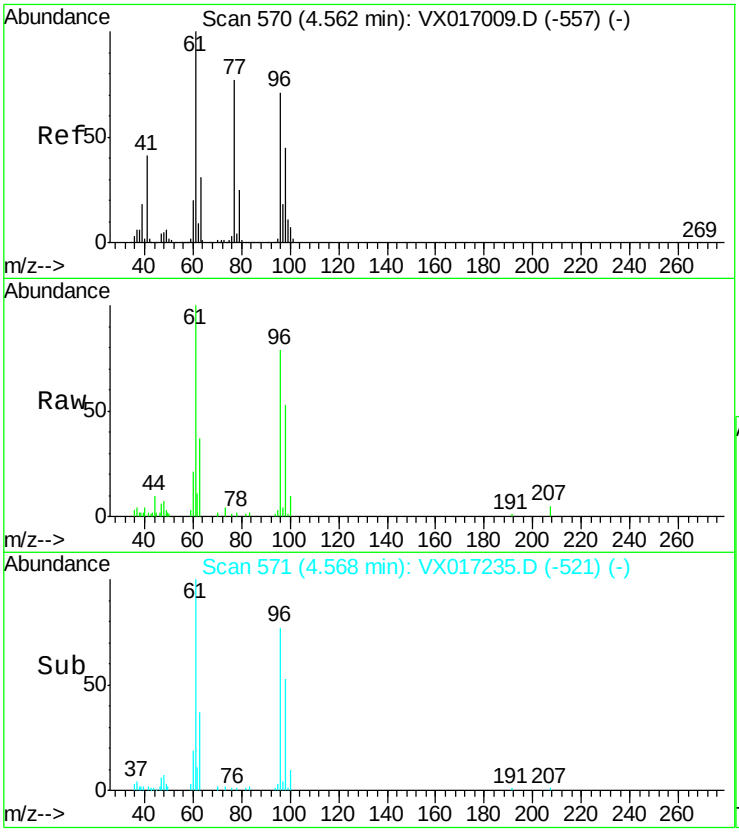
#16
Acetone
Concen: 7.611 ug/l
RT: 2.42 min Scan# 219
Delta R.T. -0.00 min
Lab File: VX017235.D
Acq: 08 Jul 2020 04:23

Tgt Ion: 43 Resp: 8579

Ion	Ratio	Lower	Upper
43	100		
58	29.7	25.7	38.5



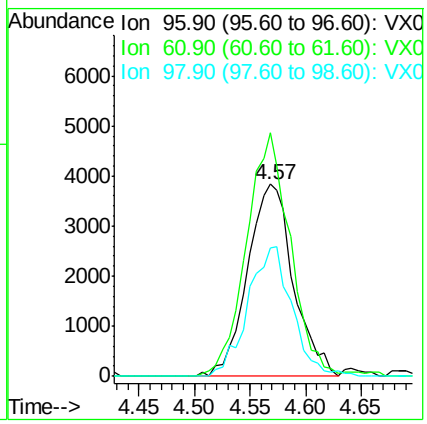
Instrument :
MSVOA_X
ClientSampleId :
1009-MW-16

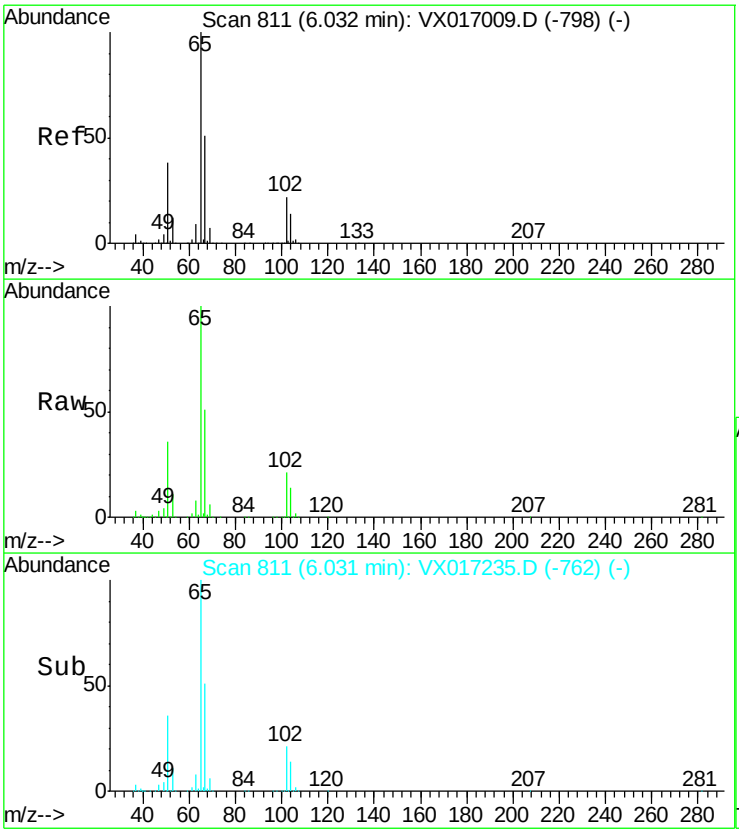


#27
cis-1,2-Dichloroethene
Concen: 3.613 ug/l
RT: 4.57 min Scan# 571
Delta R.T. 0.01 min
Lab File: VX017235.D
Acq: 08 Jul 2020 04:23

Tgt Ion: 96 Resp: 10986

Ion	Ratio	Lower	Upper
96	100		
61	121.4	0.0	282.8
98	65.2	0.0	127.6

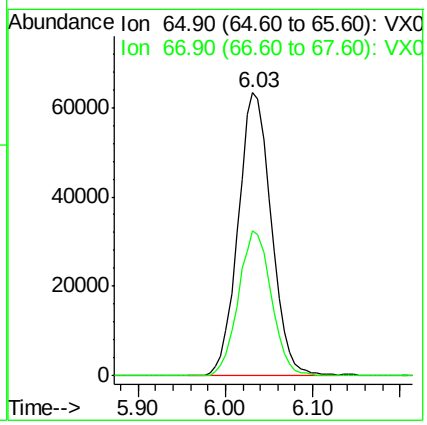




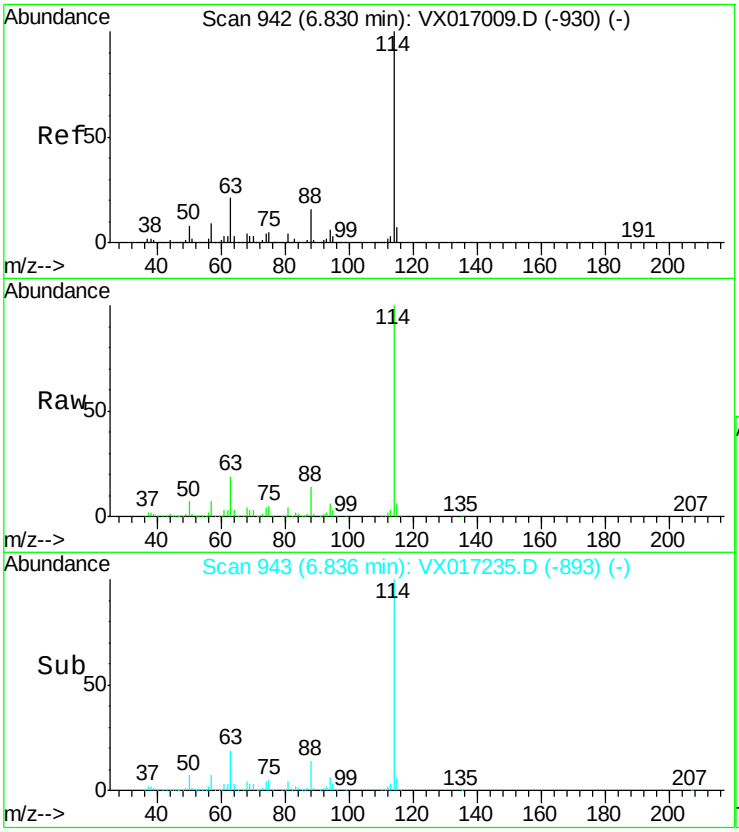
#33
1,2-Dichloroethane-d4
Concen: 55.419 ug/l
RT: 6.03 min Scan# 811
Delta R.T. -0.00 min
Lab File: VX017235.D
Acq: 08 Jul 2020 04:23

Tgt Ion: 65 Resp: 166987

Ion	Ratio	Lower	Upper
65	100		
67	51.1	0.0	103.8



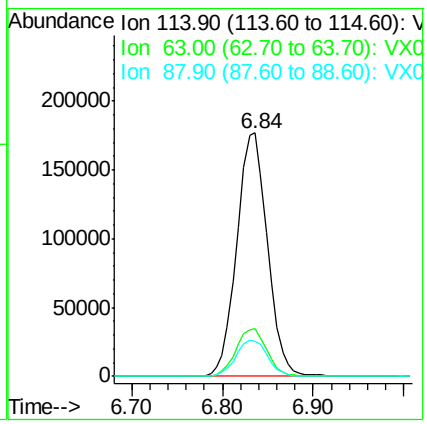
Instrument :
MSVOA_X
ClientSampleId :
1009-MW-16

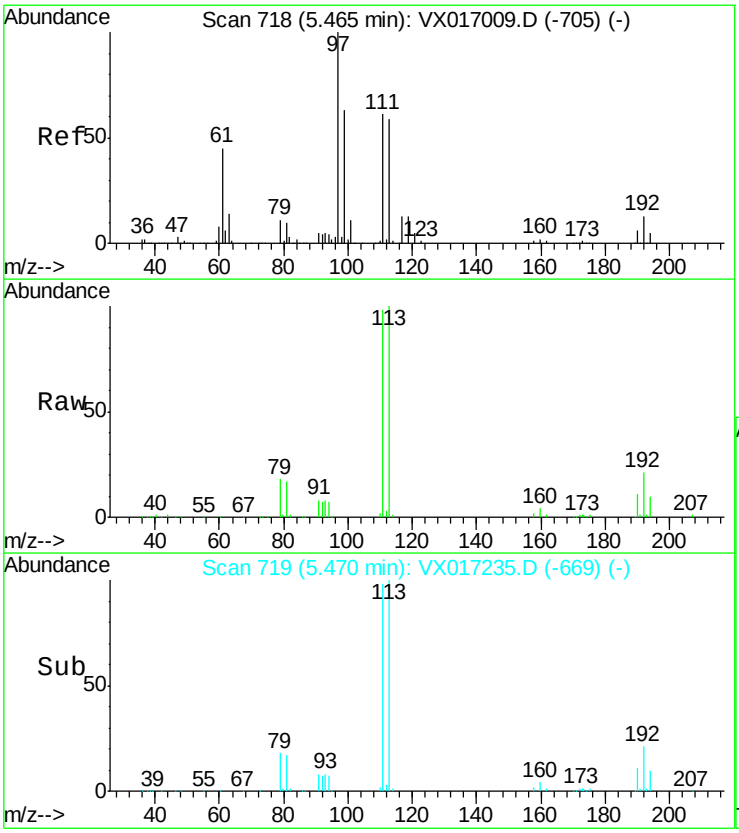


#34
1,4-Difluorobenzene
Concen: 50.000 ug/l
RT: 6.84 min Scan# 943
Delta R.T. 0.01 min
Lab File: VX017235.D
Acq: 08 Jul 2020 04:23

Tgt Ion:114 Resp: 415792

Ion	Ratio	Lower	Upper
114	100		
63	19.4	0.0	41.4
88	14.3	0.0	32.4

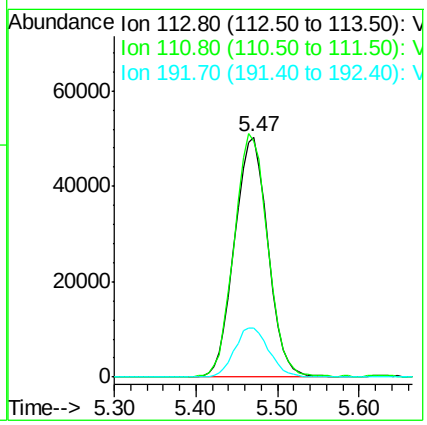




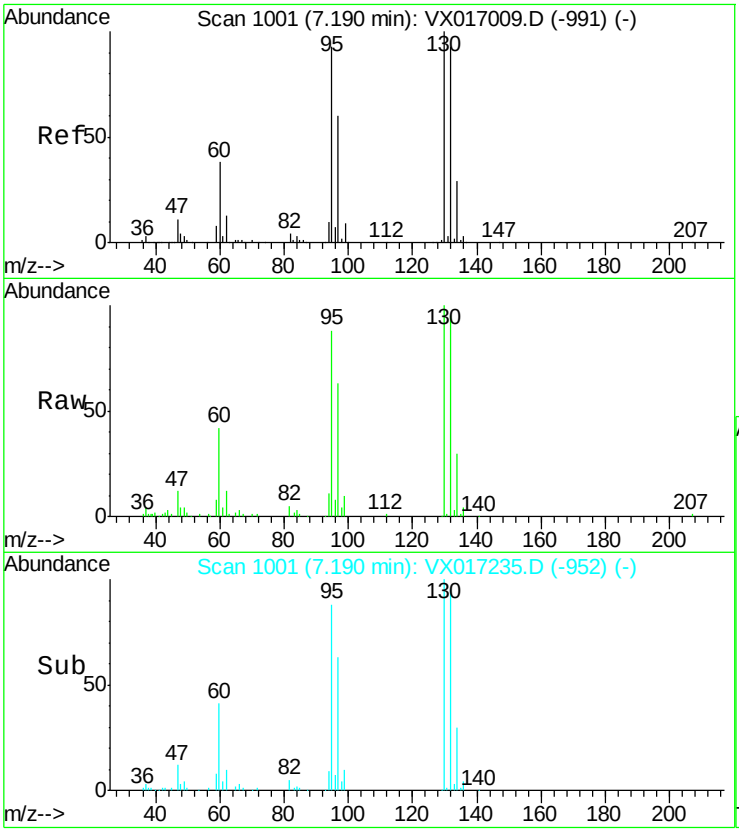
#35
Dibromofluoromethane
Concen: 54.528 ug/l
RT: 5.47 min Scan# 719
Delta R.T. 0.01 min
Lab File: VX017235.D
Acq: 08 Jul 2020 04:23

Tgt Ion:113 Resp: 143418

Ion	Ratio	Lower	Upper
113	100		
111	101.9	81.9	122.9
192	21.0	16.7	25.1



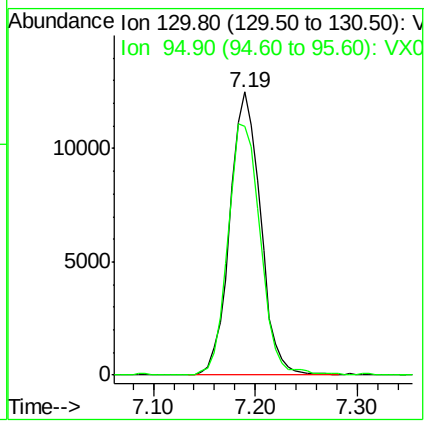
Instrument :
MSVOA_X
ClientSampleId :
1009-MW-16

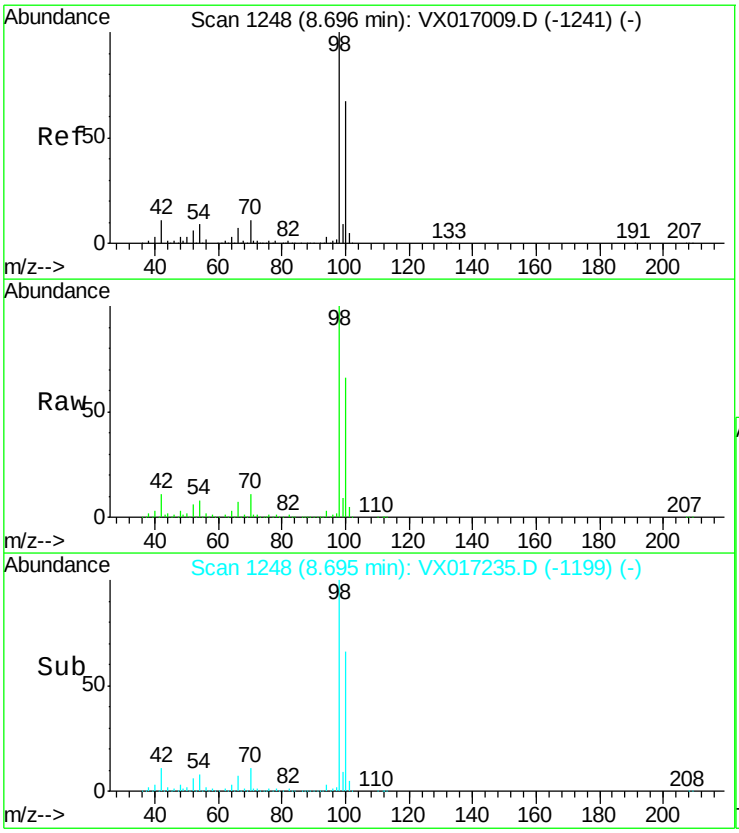


#44
Trichloroethene
Concen: 7.888 ug/l
RT: 7.19 min Scan# 1001
Delta R.T. 0.00 min
Lab File: VX017235.D
Acq: 08 Jul 2020 04:23

Tgt Ion:130 Resp: 25962

Ion	Ratio	Lower	Upper
130	100		
95	87.7	0.0	185.0

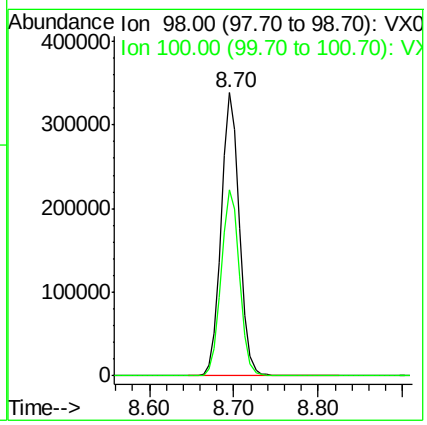




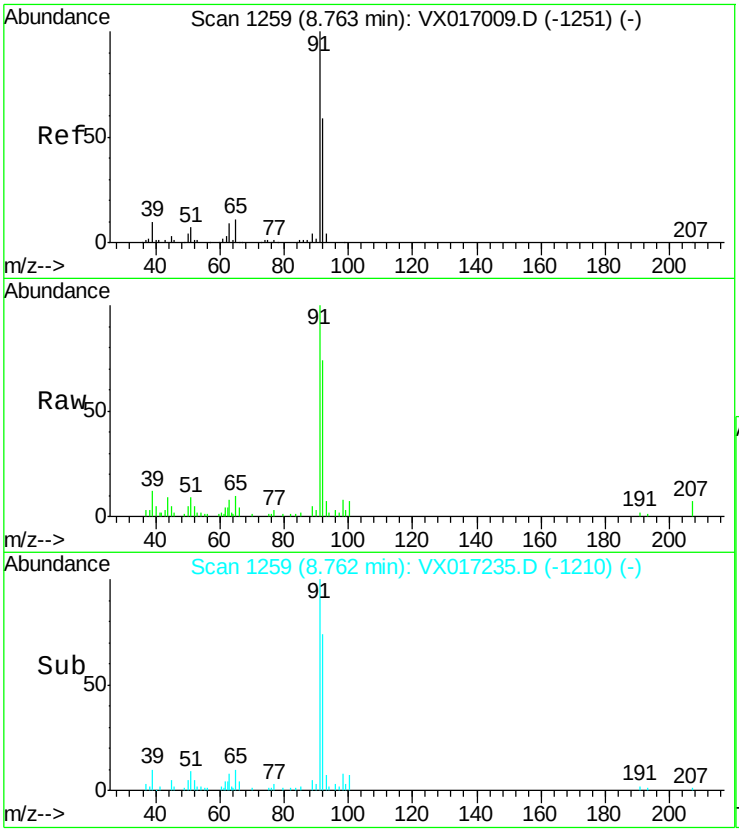
#50
Toluene-d8
Concen: 52.222 ug/l
RT: 8.70 min Scan# 1248
Delta R.T. -0.00 min
Lab File: VX017235.D
Acq: 08 Jul 2020 04:23

Tgt Ion: 98 Resp: 507904

Ion	Ratio	Lower	Upper
98	100		
100	66.4	53.8	80.6



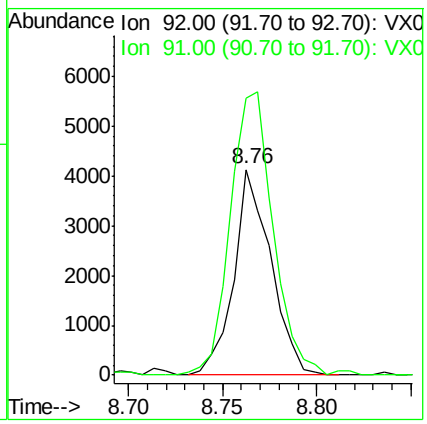
Instrument :
MSVOA_X
ClientSampleId :
1009-MW-16

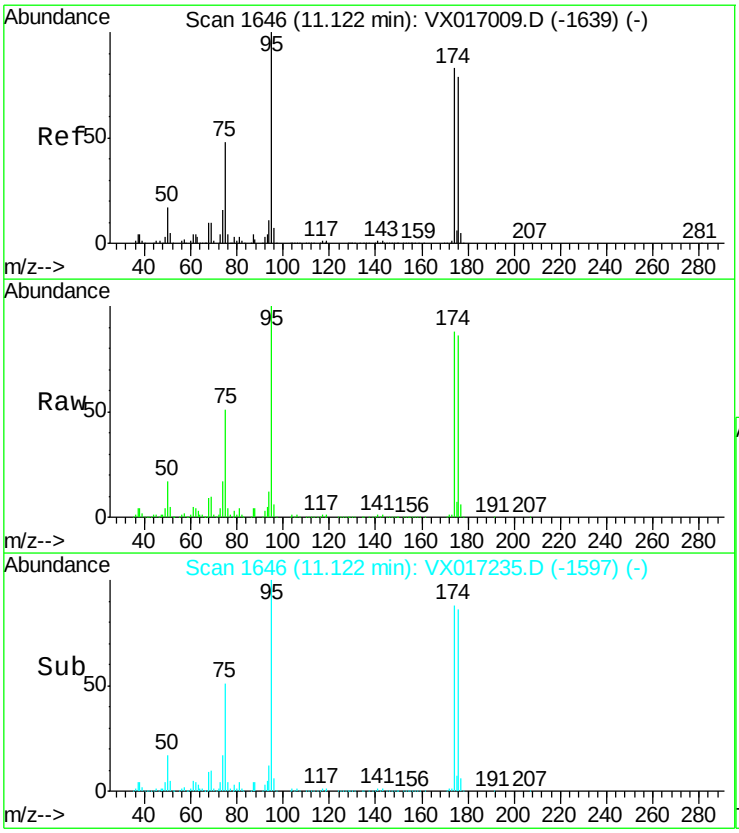


#52
Toluene
Concen: 0.780 ug/l
RT: 8.76 min Scan# 1259
Delta R.T. -0.00 min
Lab File: VX017235.D
Acq: 08 Jul 2020 04:23

Tgt Ion: 92 Resp: 5625

Ion	Ratio	Lower	Upper
92	100		
91	160.4	136.9	205.3

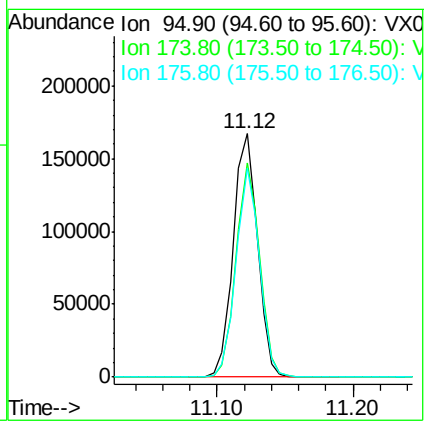




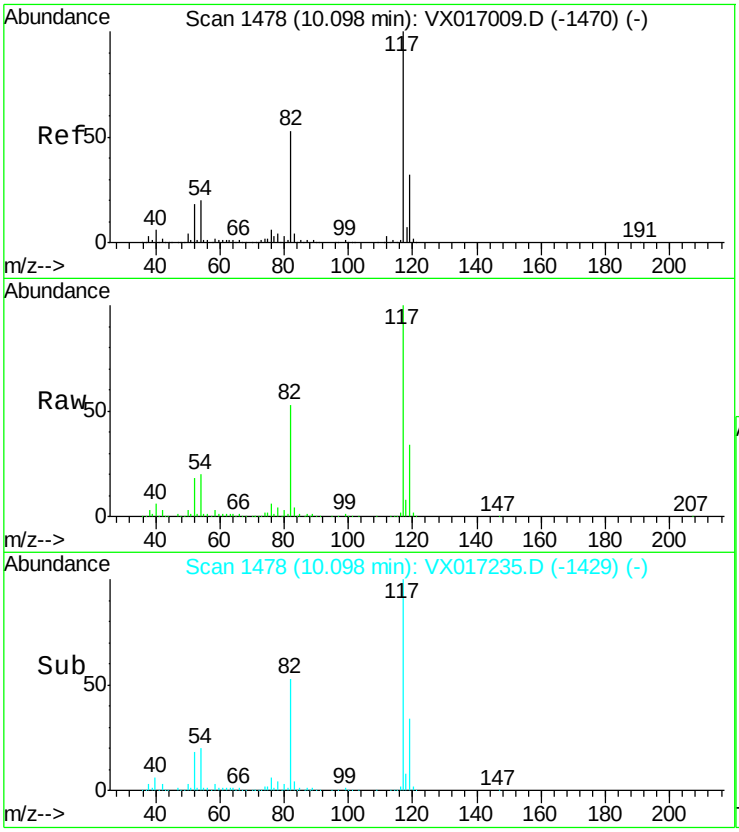
#62
4-Bromofluorobenzene
Concen: 54.461 ug/l
RT: 11.12 min Scan# 1646
Delta R.T. -0.00 min
Lab File: VX017235.D
Acq: 08 Jul 2020 04:23

Tgt Ion: 95 Resp: 207057

Ion	Ratio	Lower	Upper
95	100		
174	86.0	0.0	164.0
176	82.7	0.0	157.6



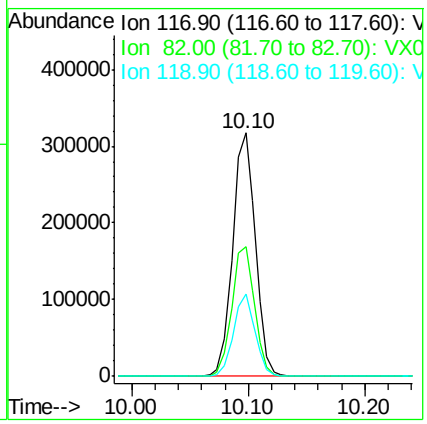
Instrument :
MSVOA_X
ClientSampleId :
1009-MW-16

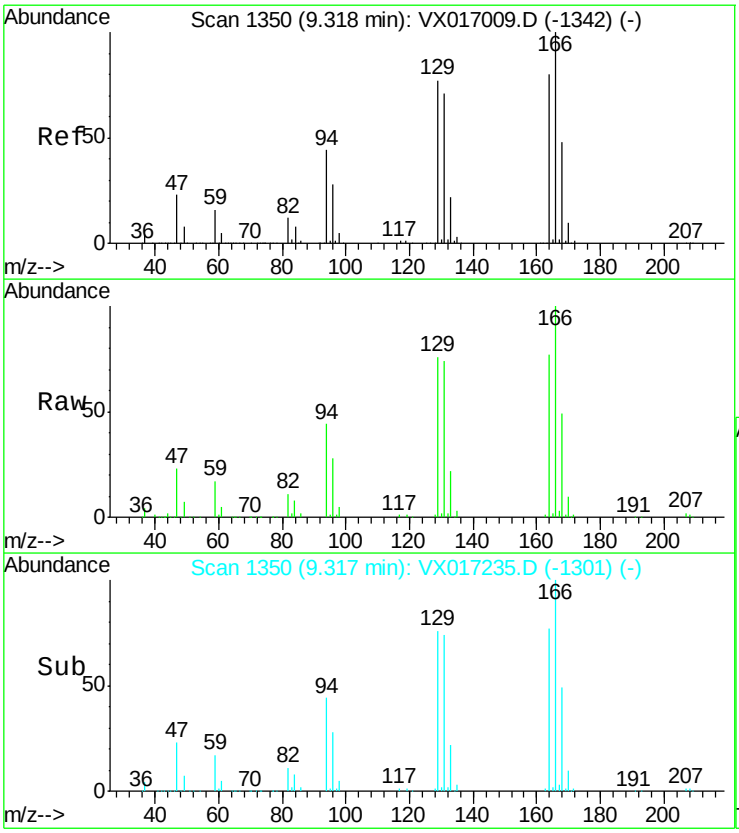


#63
Chlorobenzene-d5
Concen: 50.000 ug/l
RT: 10.10 min Scan# 1478
Delta R.T. -0.00 min
Lab File: VX017235.D
Acq: 08 Jul 2020 04:23

Tgt Ion:117 Resp: 430676

Ion	Ratio	Lower	Upper
117	100		
82	53.4	42.6	63.8
119	33.7	25.4	38.2

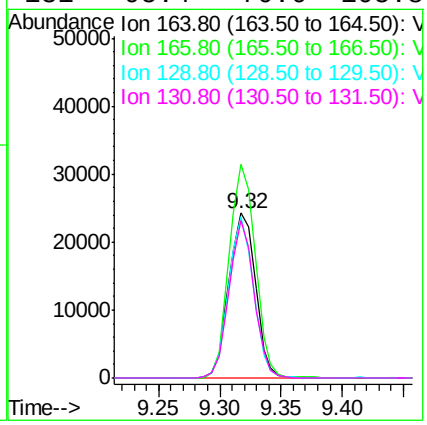


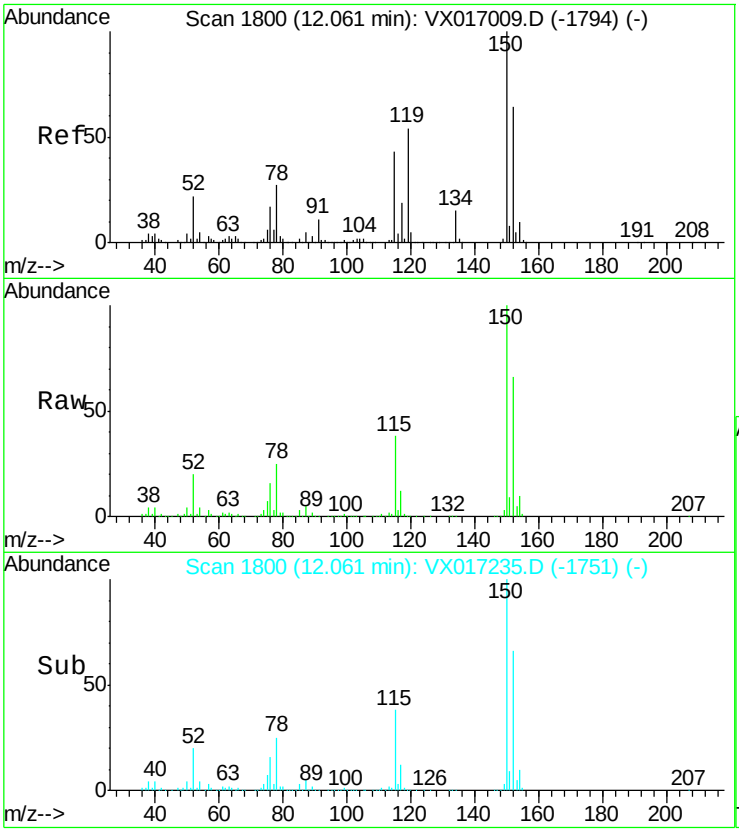


#64
Tetrachloroethene
Concen: 10.534 ug/l
RT: 9.32 min Scan# 1350
Delta R.T. -0.00 min
Lab File: VX017235.D
Acq: 08 Jul 2020 04:23

Tgt Ion:164 Resp: 36613

Ion	Ratio	Lower	Upper
164	100		
166	129.7	99.4	149.0
129	98.2	76.3	114.5
131	95.4	70.6	105.8



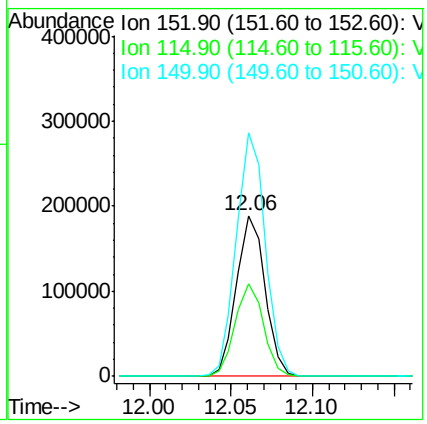


#72
1,4-Dichlorobenzene-d4
Concen: 50.000 ug/l
RT: 12.06 min Scan# 1800
Delta R.T. -0.00 min
Lab File: VX017235.D
Acq: 08 Jul 2020 04:23

Instrument :
MSVOA_X
ClientSampleId :
1009-MW-16

Tgt Ion:152 Resp: 231984

Ion	Ratio	Lower	Upper
152	100		
115	56.9	40.9	122.7
150	153.5	0.0	351.6



LSC Area Percent Report

Data Path : Z:\VOASRV\HPCHEM1\MSVOA X\DATA\VX070720\
Data File : VX017235.D
Acq On : 08 Jul 2020 04:23
Operator : JC/SP
Sample : L3232-09
Misc : 5.0mL/MSVOA X/WATER
ALS Vial : 49 Sample Multiplier: 1

Instrument : MSVOA_X
ClientSampleId : 1009-MW-16

Integration Parameters: RTEINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 3 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X062920W.M
Title : SW846 8260

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	2.422	213	219	224	rBV	7705	13900	1.02%	0.170%
2	4.568	560	571	581	rBV2	17603	50354	3.68%	0.614%
3	5.470	707	719	733	rBV	164758	480386	35.11%	5.859%
4	5.629	733	745	759	rVV2	253907	721507	52.73%	8.799%
5	6.031	799	811	829	rBV	170458	459556	33.59%	5.605%
6	6.830	932	942	958	rBV	406264	976814	71.39%	11.913%
7	7.190	992	1001	1010	rBV	66075	142311	10.40%	1.736%
8	8.695	1241	1248	1256	rBV	884238	1347349	98.47%	16.432%
9	8.769	1256	1260	1265	rVB	16131	25860	1.89%	0.315%
10	9.317	1344	1350	1357	rBV	186068	272619	19.92%	3.325%
11	10.098	1470	1478	1489	rBV	935212	1275453	93.22%	15.555%
12	11.122	1639	1646	1654	rBV	838161	1035349	75.67%	12.627%
13	12.061	1793	1800	1809	rBV	1100570	1368240	100.00%	16.686%
14	16.621	2541	2548	2556	rBV3	14466	30004	2.19%	0.366%

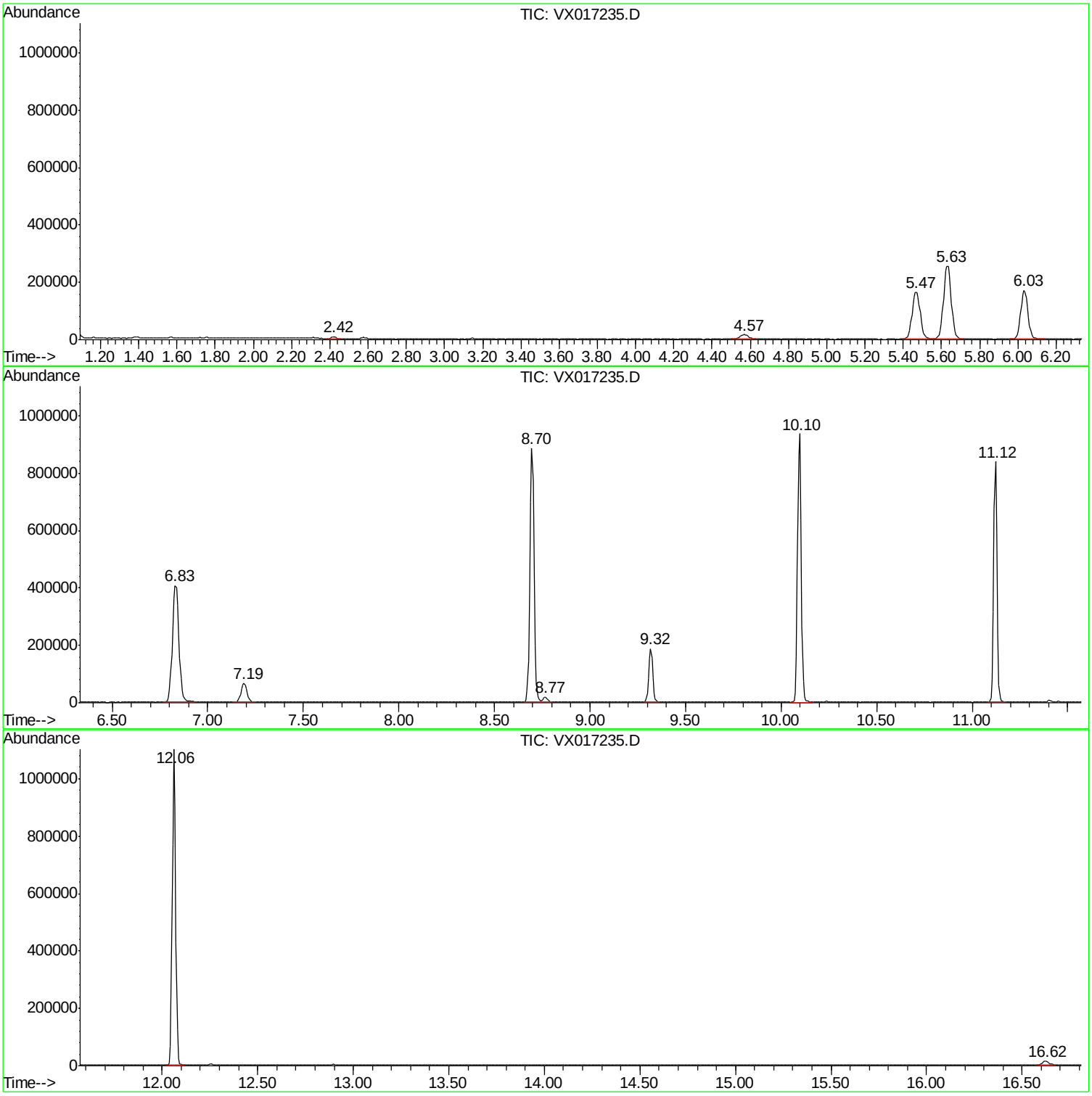
Sum of corrected areas: 8199702

Data Path : Z:\VOASRV\HPCHEM1\MSVOA X\DATA\VX070720\
Data File : VX017235.D
Acq On : 08 Jul 2020 04:23
Operator : JC/SP
Sample : L3232-09
Misc : 5.0mL/MSVOA X/WATER
ALS Vial : 49 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
1009-MW-16

Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X062920W.M
Quant Title : SW846 8260

TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P



Library Search Compound Report

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX070720\
Data File : VX017235.D
Acq On : 08 Jul 2020 04:23
Operator : JC/SP
Sample : L3232-09
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 49 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
1009-MW-16

Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X062920W.M
Quant Title : SW846 8260

TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

No Library Search Compounds Detected

****

Tentatively Identified Compound (LSC) summary

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX070720\
Data File : VX017235.D
Acq On : 08 Jul 2020 04:23
Operator : JC/SP
Sample : L3232-09
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 49 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
1009-MW-16

Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X062920W.M
Quant Title : SW846 8260

TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

TIC Top Hit name	RT	EstConc	Units	Response	Internal Standard #	Internal Standard RT	Internal Standard Resp	Internal Standard Conc

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Day Environmental, Inc.	Date Collected:	07/06/20
Project:	Andrew St. RI	Date Received:	07/07/20
Client Sample ID:	1010-MW-17A	SDG No.:	L3232
Lab Sample ID:	L3232-10	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	DB-624UI ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX017266.D	1		07/08/20 19:15	VX070820

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
75-71-8	Dichlorodifluoromethane	1.00	U	0.22	1.00	ug/L
74-87-3	Chloromethane	1.00	U	0.30	1.00	ug/L
75-01-4	Vinyl Chloride	3.00		0.16	1.00	ug/L
74-83-9	Bromomethane	5.00	U	2.10	5.00	ug/L
75-00-3	Chloroethane	1.00	U	0.34	1.00	ug/L
75-69-4	Trichlorofluoromethane	1.00	U	0.16	1.00	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	1.00	U	0.21	1.00	ug/L
75-35-4	1,1-Dichloroethene	1.00	U	0.18	1.00	ug/L
67-64-1	Acetone	3.70	J	0.90	5.00	ug/L
75-15-0	Carbon Disulfide	1.00	U	0.23	1.00	ug/L
1634-04-4	Methyl tert-butyl Ether	1.00	U	0.070	1.00	ug/L
79-20-9	Methyl Acetate	1.00	U	0.65	1.00	ug/L
75-09-2	Methylene Chloride	1.00	U	0.33	1.00	ug/L
156-60-5	trans-1,2-Dichloroethene	1.80		0.24	1.00	ug/L
75-34-3	1,1-Dichloroethane	1.00	U	0.17	1.00	ug/L
110-82-7	Cyclohexane	5.00	U	1.20	5.00	ug/L
78-93-3	2-Butanone	5.00	U	0.71	5.00	ug/L
56-23-5	Carbon Tetrachloride	1.00	U	0.22	1.00	ug/L
156-59-2	cis-1,2-Dichloroethene	120		0.30	1.00	ug/L
74-97-5	Bromochloromethane	1.00	U	0.31	1.00	ug/L
67-66-3	Chloroform	1.00	U	0.14	1.00	ug/L
71-55-6	1,1,1-Trichloroethane	1.00	U	0.12	1.00	ug/L
108-87-2	Methylcyclohexane	1.00	U	0.17	1.00	ug/L
71-43-2	Benzene	0.38	J	0.10	1.00	ug/L
107-06-2	1,2-Dichloroethane	1.00	U	0.13	1.00	ug/L
79-01-6	Trichloroethene	32.0		0.27	1.00	ug/L
78-87-5	1,2-Dichloropropane	1.00	U	0.14	1.00	ug/L
75-27-4	Bromodichloromethane	1.00	U	0.10	1.00	ug/L
108-10-1	4-Methyl-2-Pentanone	5.00	U	0.85	5.00	ug/L
108-88-3	Toluene	1.00	U	0.12	1.00	ug/L
10061-02-6	t-1,3-Dichloropropene	1.00	U	0.19	1.00	ug/L
10061-01-5	cis-1,3-Dichloropropene	1.00	U	0.16	1.00	ug/L

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Day Environmental, Inc.	Date Collected:	07/06/20
Project:	Andrew St. RI	Date Received:	07/07/20
Client Sample ID:	1010-MW-17A	SDG No.:	L3232
Lab Sample ID:	L3232-10	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	DB-624UI ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX017266.D	1		07/08/20 19:15	VX070820

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
79-00-5	1,1,2-Trichloroethane	1.00	U	0.12	1.00	ug/L
591-78-6	2-Hexanone	5.00	U	1.40	5.00	ug/L
124-48-1	Dibromochloromethane	1.00	U	0.16	1.00	ug/L
106-93-4	1,2-Dibromoethane	1.00	U	0.14	1.00	ug/L
127-18-4	Tetrachloroethene	13.7		0.15	1.00	ug/L
108-90-7	Chlorobenzene	1.00	U	0.080	1.00	ug/L
100-41-4	Ethyl Benzene	1.00	U	0.080	1.00	ug/L
179601-23-1	m/p-Xylenes	2.00	U	0.20	2.00	ug/L
95-47-6	o-Xylene	1.00	U	0.13	1.00	ug/L
100-42-5	Styrene	1.00	U	0.11	1.00	ug/L
75-25-2	Bromoform	1.00	U	0.15	1.00	ug/L
98-82-8	Isopropylbenzene	1.00	U	0.13	1.00	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	1.00	U	0.15	1.00	ug/L
541-73-1	1,3-Dichlorobenzene	1.00	U	0.14	1.00	ug/L
106-46-7	1,4-Dichlorobenzene	1.00	U	0.20	1.00	ug/L
95-50-1	1,2-Dichlorobenzene	1.00	U	0.12	1.00	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	1.00	U	0.54	1.00	ug/L
120-82-1	1,2,4-Trichlorobenzene	1.00	U	0.24	1.00	ug/L
87-61-6	1,2,3-Trichlorobenzene	1.00	U	0.26	1.00	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	50.9		61 - 141	102%	SPK: 50
1868-53-7	Dibromofluoromethane	52.1		69 - 133	104%	SPK: 50
2037-26-5	Toluene-d8	51.3		65 - 126	103%	SPK: 50
460-00-4	4-Bromofluorobenzene	56.7		58 - 135	113%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	258000	5.64			
540-36-3	1,4-Difluorobenzene	424000	6.84			
3114-55-4	Chlorobenzene-d5	445000	10.1			
3855-82-1	1,4-Dichlorobenzene-d4	243000	12.06			
TENTATIVE IDENTIFIED COMPOUNDS						
91-20-3	Naphthalene	2.70	J		13.8	ug/L
000090-12-0	Naphthalene, 1-methyl-	7.10	J		14.8	ug/L
000092-52-4	Biphenyl	6.90	J		15.3	ug/L

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Day Environmental, Inc.	Date Collected:	07/06/20
Project:	Andrew St. RI	Date Received:	07/07/20
Client Sample ID:	1010-MW-17A	SDG No.:	L3232
Lab Sample ID:	L3232-10	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	DB-624UI ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX017266.D	1		07/08/20 19:15	VX070820

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
000575-37-1	Naphthalene, 1,7-dimethyl-	6.00	J		15.5	ug/L
000582-16-1	Naphthalene, 2,7-dimethyl-	6.60	J		15.7	ug/L

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit
A = Aldol-Condensation Reaction Products

Quantitation Report (LSC Reviewed)

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX070820\
Data File : VX017266.D
Acq On : 08 Jul 2020 19:15
Operator : JC/SP
Sample : L3232-10
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 24 Sample Multiplier: 1

Instrument : MSVOA_X
ClientSampleId : 1010-MW-17A

Quant Time: Jul 15 02:42:31 2020
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X062920W.M
Quant Title : SW846 8260
QLast Update : Mon Jun 29 17:10:38 2020
Response via : Initial Calibration

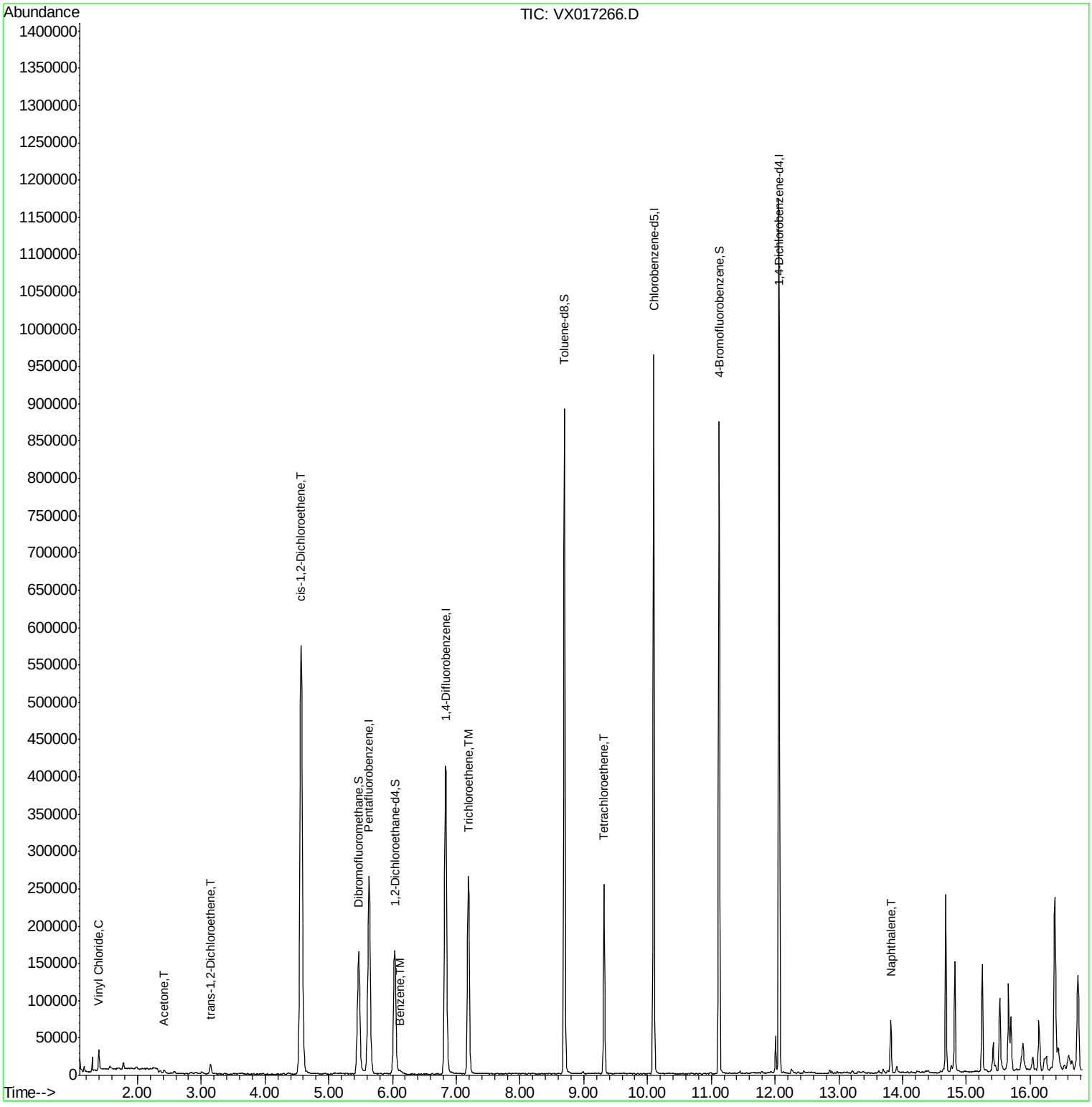
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	5.64	168	258457	50.00	ug/l	0.00
34) 1,4-Difluorobenzene	6.84	114	423765	50.00	ug/l	0.00
63) Chlorobenzene-d5	10.10	117	445496	50.00	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	12.06	152	242727	50.00	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	6.04	65	162132	50.88	ug/l	0.00
Spiked Amount 50.000			Recovery = 101.76%			
35) Dibromofluoromethane	5.47	113	139587	52.07	ug/l	0.00
Spiked Amount 50.000			Recovery = 104.14%			
50) Toluene-d8	8.70	98	508963	51.35	ug/l	0.00
Spiked Amount 50.000			Recovery = 102.70%			
62) 4-Bromofluorobenzene	11.12	95	219664	56.69	ug/l	0.00
Spiked Amount 50.000			Recovery = 113.38%			
Target Compounds						Qvalue
4) Vinyl Chloride	1.39	62	8384	2.986	ug/l	96
16) Acetone	2.42	43	4454	3.737	ug/l	99
21) trans-1,2-Dichloroethene	3.14	96	5124	1.806	ug/l	93
27) cis-1,2-Dichloroethene	4.57	96	379615	118.066	ug/l	90
40) Benzene	6.12	78	4433	0.377	ug/l	91
44) Trichloroethene	7.19	130	104182	31.971	ug/l	99
64) Tetrachloroethene	9.32	164	49348	13.725	ug/l	98
95) Naphthalene	13.82	128	42312	2.749	ug/l	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

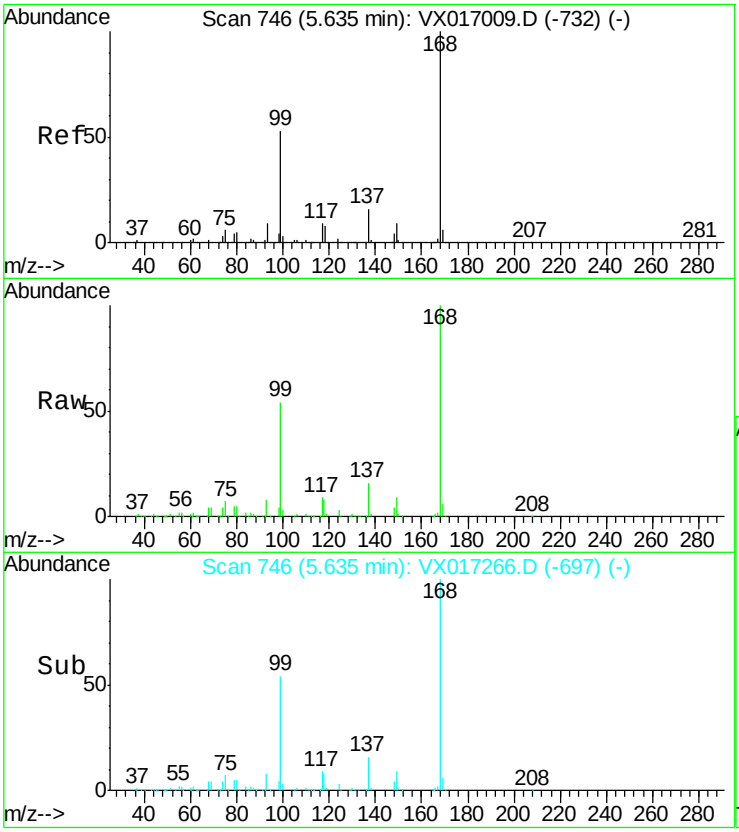
Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX070820\
Data File : VX017266.D
Acq On : 08 Jul 2020 19:15
Operator : JC/SP
Sample : L3232-10
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 24 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
1010-MW-17A

Quant Time: Jul 15 02:42:31 2020
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X062920W.M
Quant Title : SW846 8260
QLast Update : Mon Jun 29 17:10:38 2020
Response via : Initial Calibration



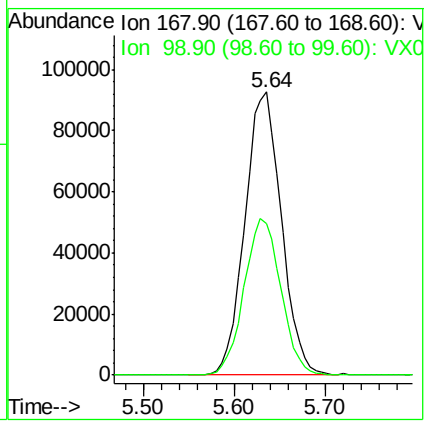
Instrument :
MSVOA_X
ClientSampleId :
1010-MW-17A

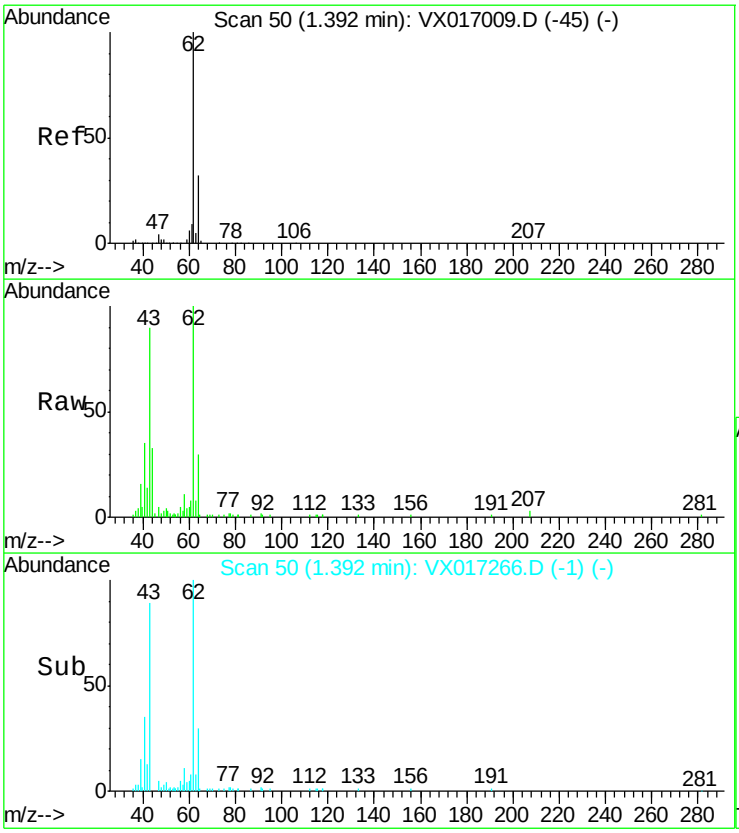


#1
Pentafluorobenzene
Concen: 50.000 ug/l
RT: 5.64 min Scan# 746
Delta R.T. -0.00 min
Lab File: VX017266.D
Acq: 08 Jul 2020 19:15

Tgt Ion:168 Resp: 258457

Ion	Ratio	Lower	Upper
168	100		
99	53.5	42.6	64.0

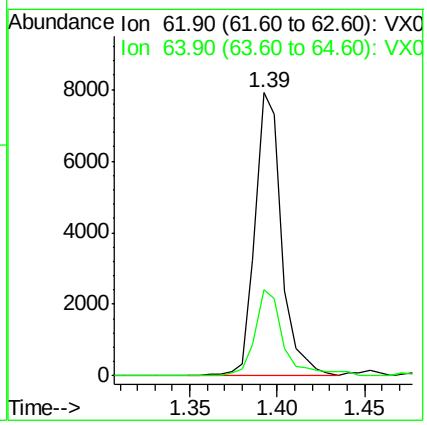




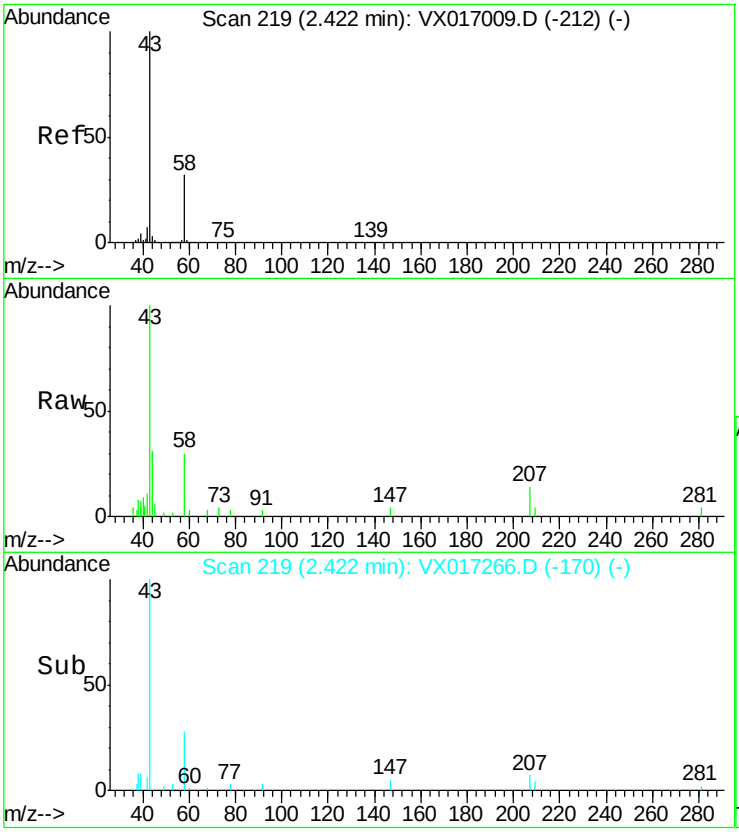
#4
Vinyl Chloride
Concen: 2.986 ug/l
RT: 1.39 min Scan# 50
Delta R.T. -0.00 min
Lab File: VX017266.D
Acq: 08 Jul 2020 19:15

Tgt Ion: 62 Resp: 8384

Ion	Ratio	Lower	Upper
62	100		
64	30.3	25.9	38.9



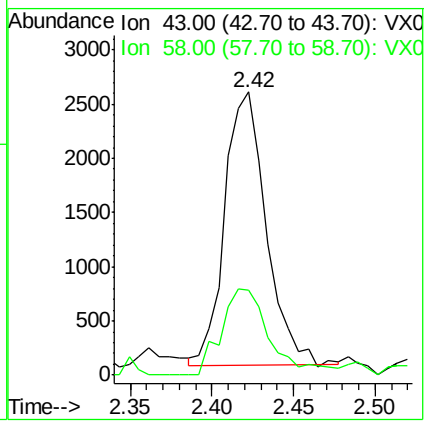
Instrument :
MSVOA_X
ClientSampleId :
1010-MW-17A

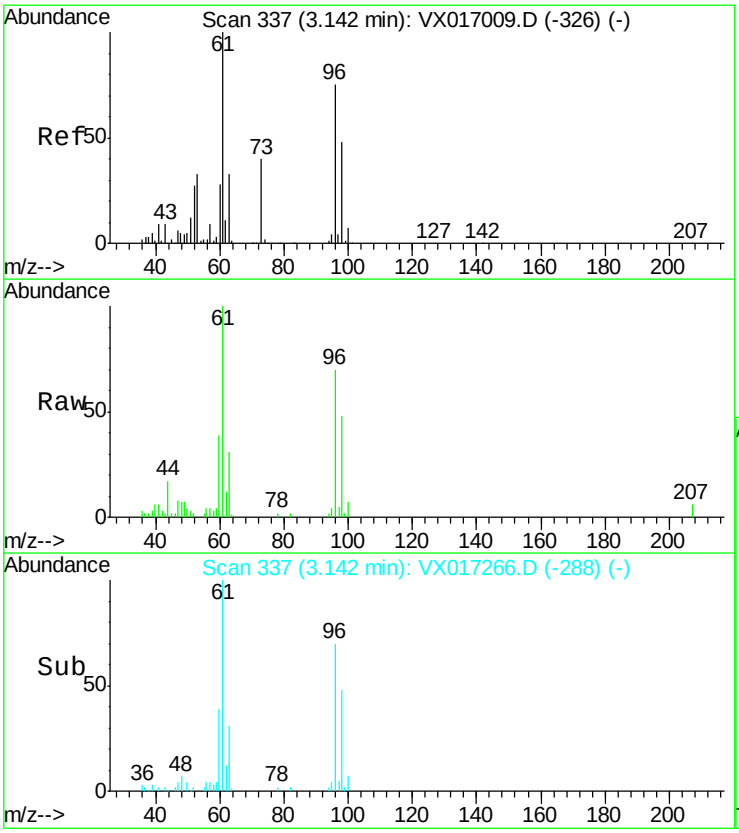


#16
Acetone
Concen: 3.737 ug/l
RT: 2.42 min Scan# 219
Delta R.T. -0.00 min
Lab File: VX017266.D
Acq: 08 Jul 2020 19:15

Tgt Ion: 43 Resp: 4454

Ion	Ratio	Lower	Upper
43	100		
58	31.4	25.7	38.5

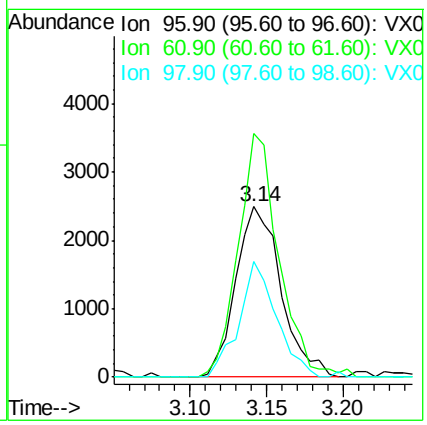




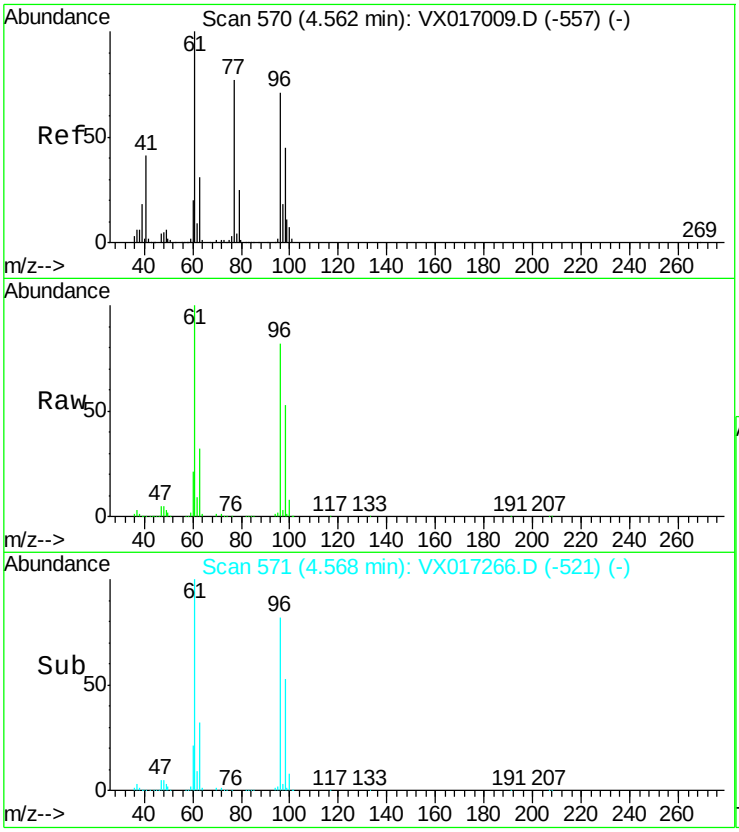
#21
trans-1,2-Dichloroethene
Concen: 1.806 ug/l
RT: 3.14 min Scan# 337
Delta R.T. -0.00 min
Lab File: VX017266.D
Acq: 08 Jul 2020 19:15

Tgt Ion: 96 Resp: 5124

Ion	Ratio	Lower	Upper
96	100		
61	143.1	107.0	160.6
98	68.1	51.6	77.4



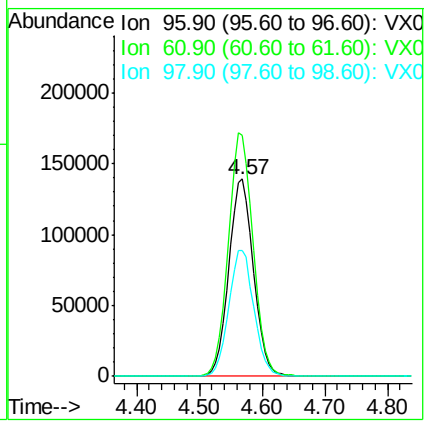
Instrument :
MSVOA_X
ClientSampleId :
1010-MW-17A

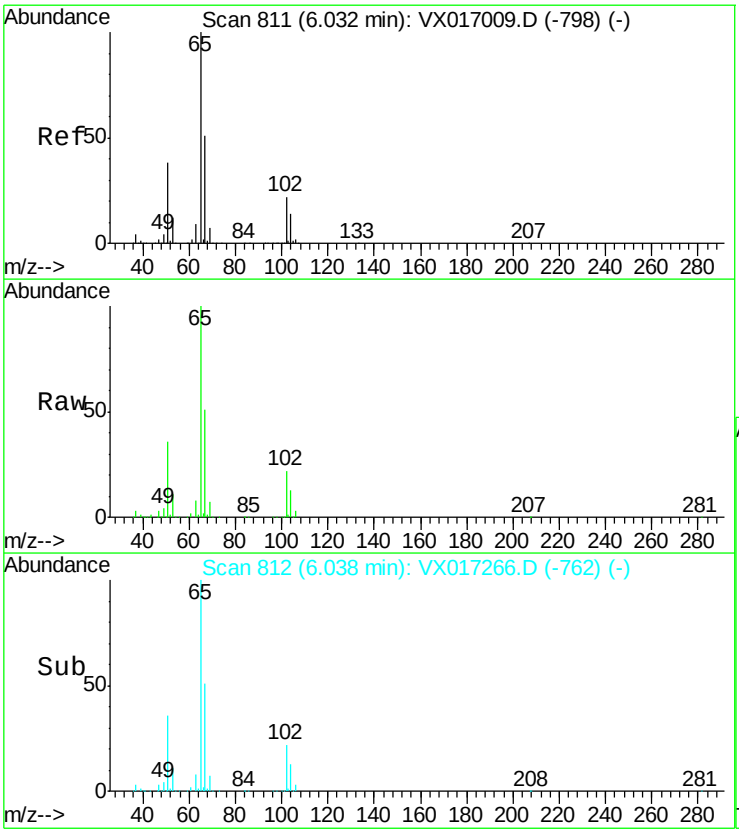


#27
cis-1,2-Dichloroethene
Concen: 118.066 ug/l
RT: 4.57 min Scan# 571
Delta R.T. 0.01 min
Lab File: VX017266.D
Acq: 08 Jul 2020 19:15

Tgt Ion: 96 Resp: 379615

Ion	Ratio	Lower	Upper
96	100		
61	123.8	0.0	282.8
98	64.9	0.0	127.6

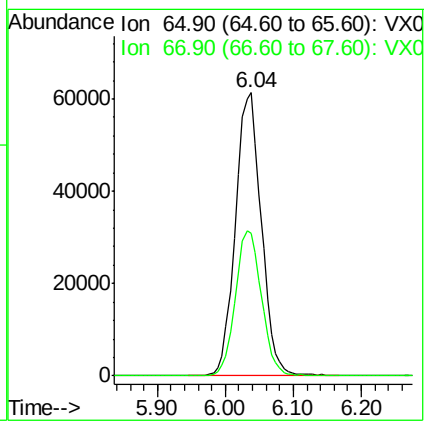




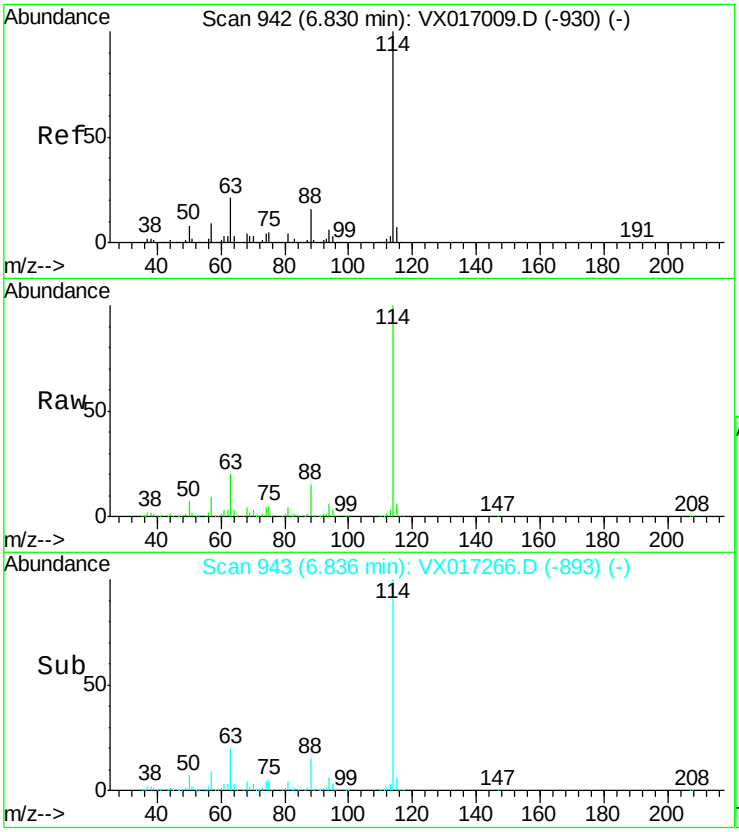
#33
1,2-Dichloroethane-d4
Concen: 50.885 ug/l
RT: 6.04 min Scan# 812
Delta R.T. 0.01 min
Lab File: VX017266.D
Acq: 08 Jul 2020 19:15

Tgt Ion: 65 Resp: 162132

Ion	Ratio	Lower	Upper
65	100		
67	51.7	0.0	103.8



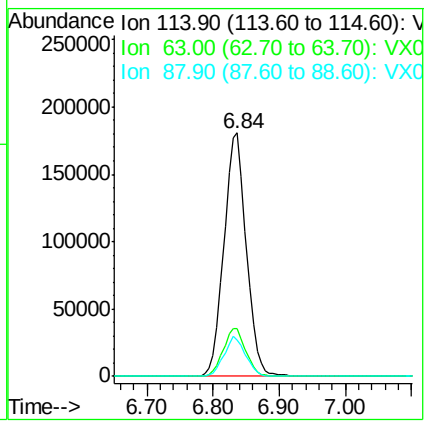
Instrument :
MSVOA_X
ClientSampleId :
1010-MW-17A

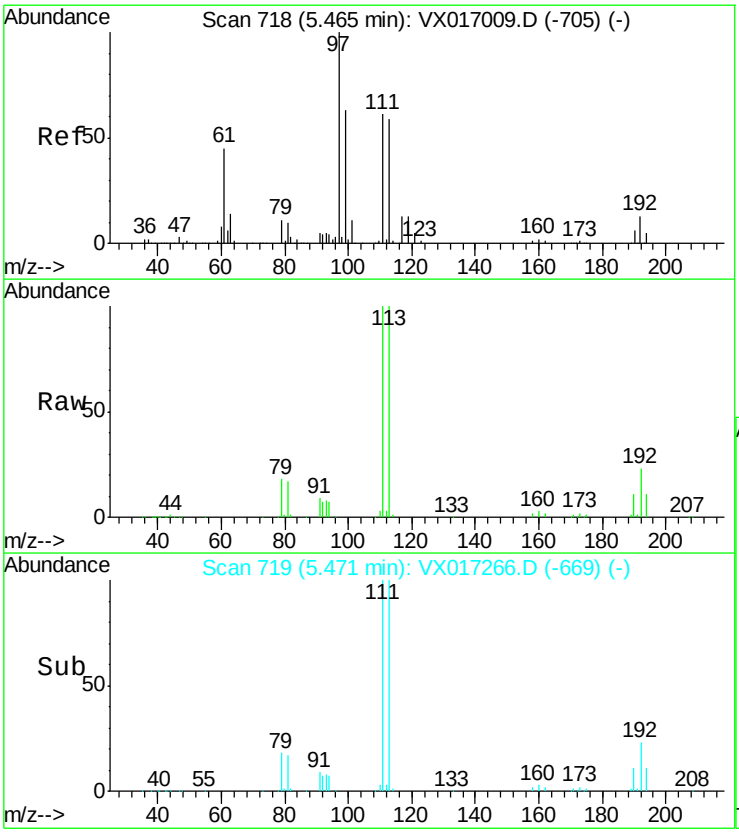


#34
1,4-Difluorobenzene
Concen: 50.000 ug/l
RT: 6.84 min Scan# 943
Delta R.T. 0.01 min
Lab File: VX017266.D
Acq: 08 Jul 2020 19:15

Tgt Ion:114 Resp: 423765

Ion	Ratio	Lower	Upper
114	100		
63	19.5	0.0	41.4
88	14.9	0.0	32.4

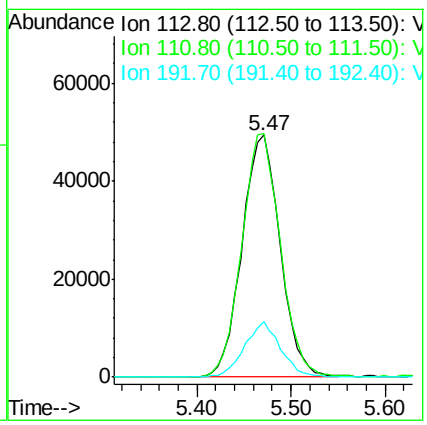




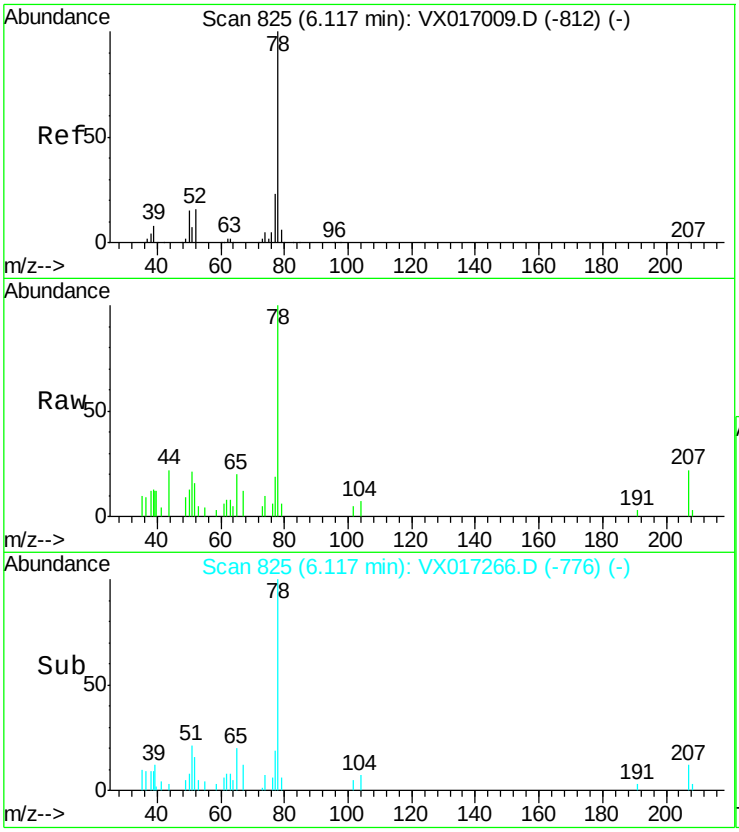
#35
Dibromofluoromethane
Concen: 52.073 ug/l
RT: 5.47 min Scan# 719
Delta R.T. 0.01 min
Lab File: VX017266.D
Acq: 08 Jul 2020 19:15

Tgt Ion:113 Resp: 139587

Ion	Ratio	Lower	Upper
113	100		
111	101.6	81.9	122.9
192	21.5	16.7	25.1



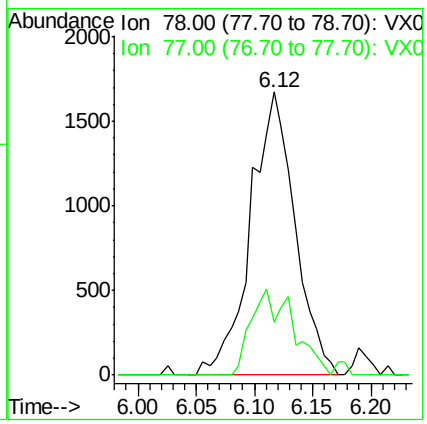
Instrument :
MSVOA_X
ClientSampleId :
1010-MW-17A

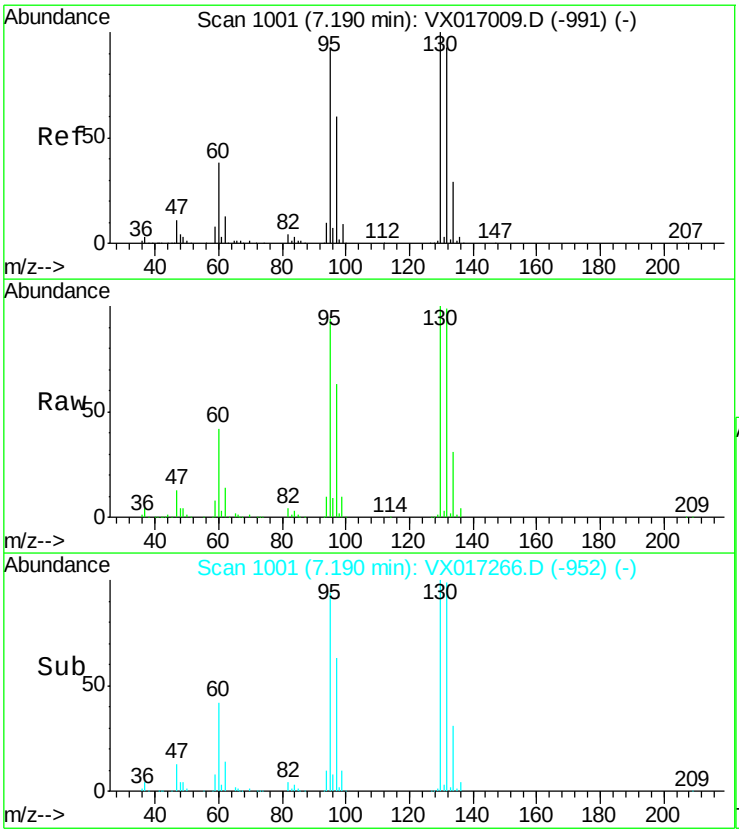


#40
Benzene
Concen: 0.377 ug/l
RT: 6.12 min Scan# 825
Delta R.T. -0.00 min
Lab File: VX017266.D
Acq: 08 Jul 2020 19:15

Tgt Ion: 78 Resp: 4433

Ion	Ratio	Lower	Upper
78	100		
77	18.7	18.3	27.5

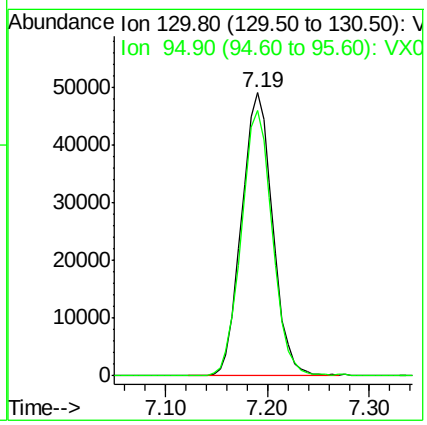




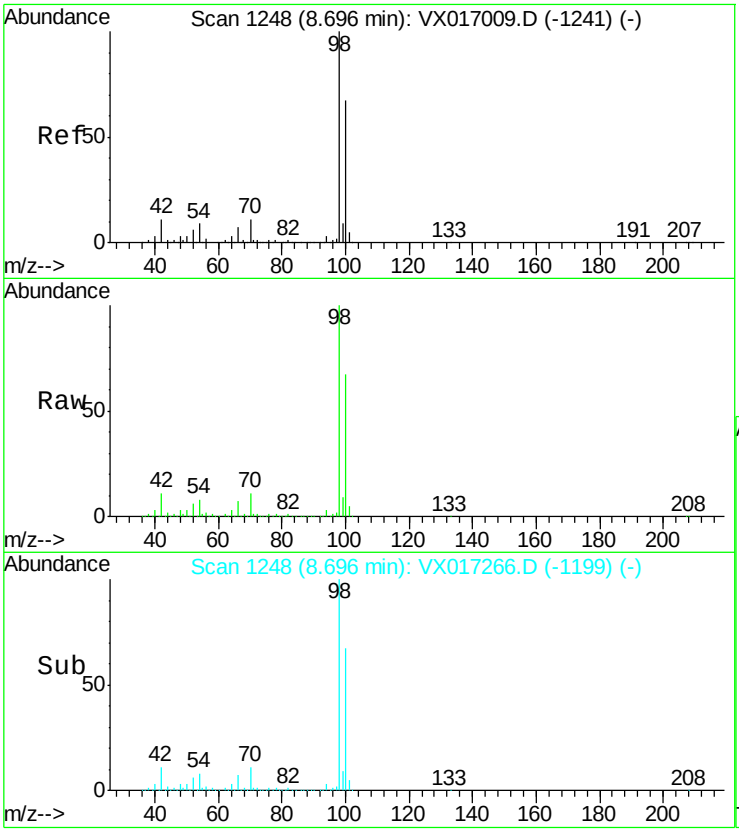
#44
Trichloroethene
Concen: 31.971 ug/l
RT: 7.19 min Scan# 1001
Delta R.T. 0.00 min
Lab File: VX017266.D
Acq: 08 Jul 2020 19:15

Tgt Ion:130 Resp: 104182

Ion	Ratio	Lower	Upper
130	100		
95	93.7	0.0	185.0



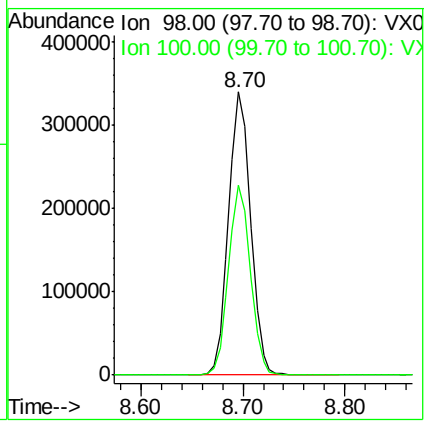
Instrument :
MSVOA_X
ClientSampleId :
1010-MW-17A

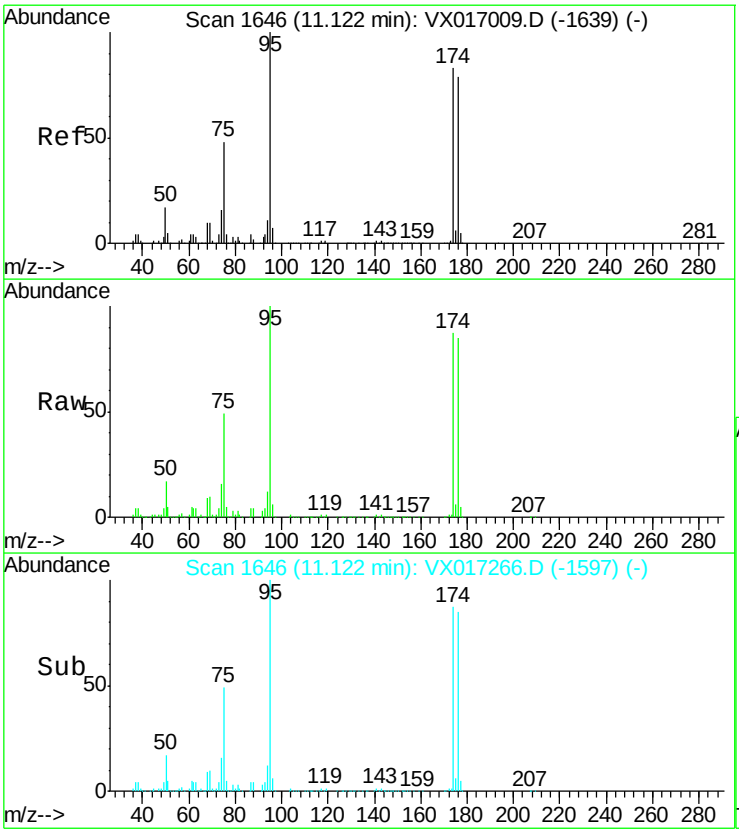


#50
Toluene-d8
Concen: 51.346 ug/l
RT: 8.70 min Scan# 1248
Delta R.T. -0.00 min
Lab File: VX017266.D
Acq: 08 Jul 2020 19:15

Tgt Ion: 98 Resp: 508963

Ion	Ratio	Lower	Upper
98	100		
100	66.3	53.8	80.6

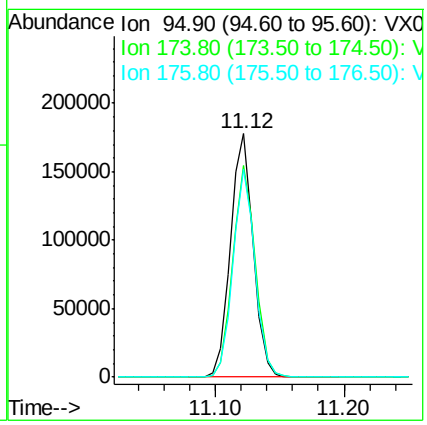




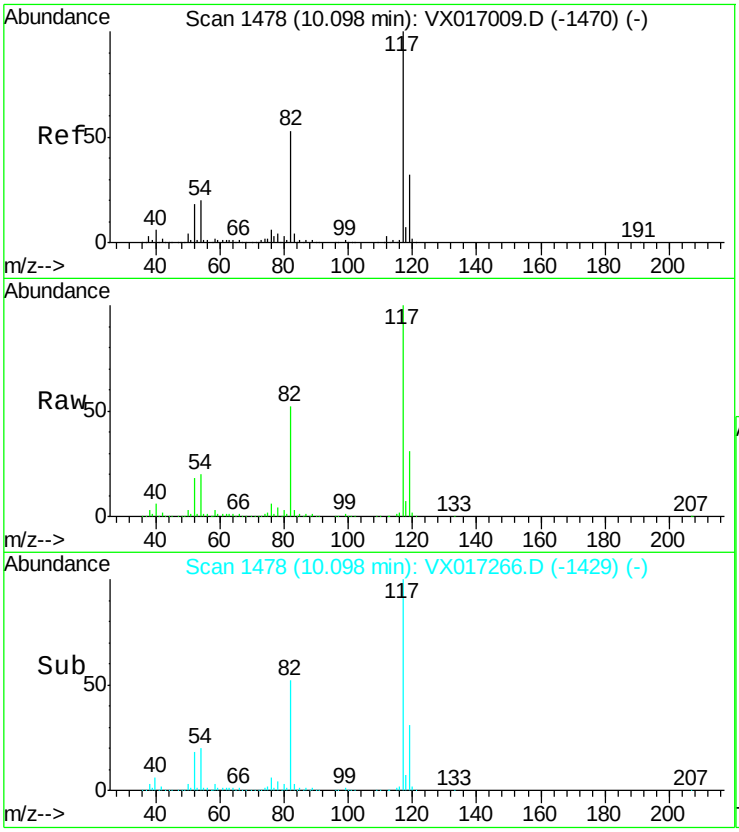
#62
4-Bromofluorobenzene
Concen: 56.690 ug/l
RT: 11.12 min Scan# 1646
Delta R.T. -0.00 min
Lab File: VX017266.D
Acq: 08 Jul 2020 19:15

Tgt Ion: 95 Resp: 219664

Ion	Ratio	Lower	Upper
95	100		
174	86.0	0.0	164.0
176	82.5	0.0	157.6



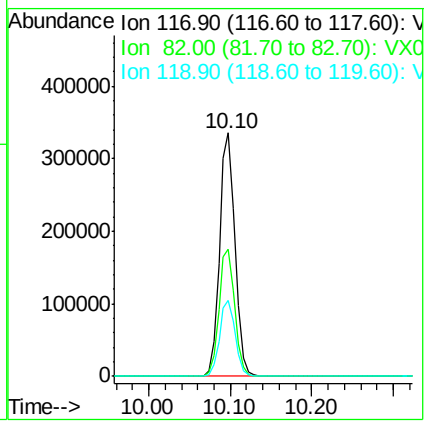
Instrument :
MSVOA_X
ClientSampleId :
1010-MW-17A

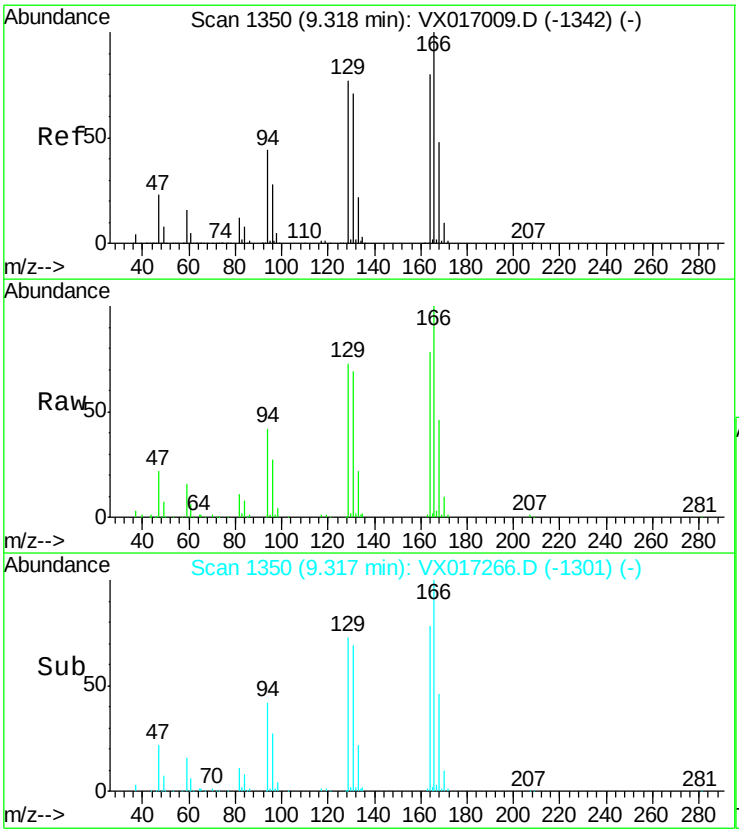


#63
Chlorobenzene-d5
Concen: 50.000 ug/l
RT: 10.10 min Scan# 1478
Delta R.T. -0.00 min
Lab File: VX017266.D
Acq: 08 Jul 2020 19:15

Tgt Ion:117 Resp: 445496

Ion	Ratio	Lower	Upper
117	100		
82	52.1	42.6	63.8
119	31.1	25.4	38.2

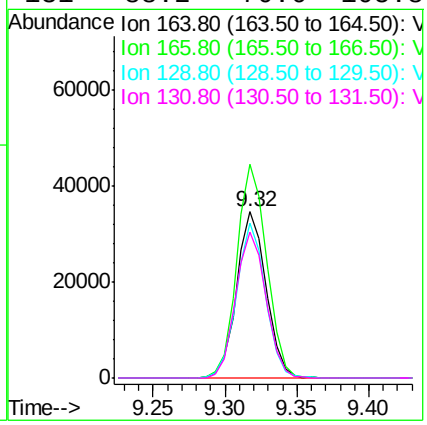




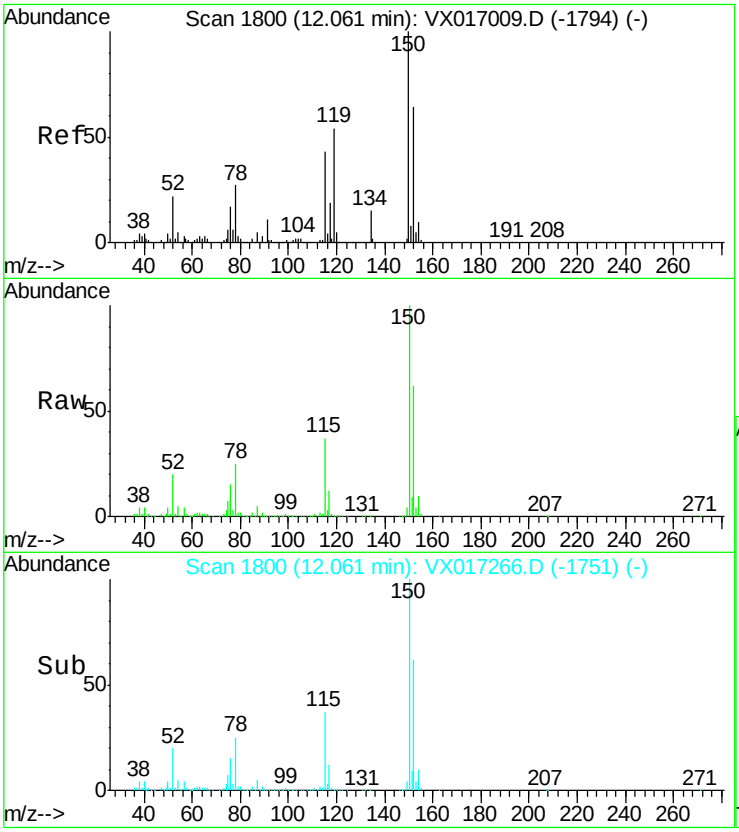
#64
Tetrachloroethene
Concen: 13.725 ug/l
RT: 9.32 min Scan# 1350
Delta R.T. -0.00 min
Lab File: VX017266.D
Acq: 08 Jul 2020 19:15

Tgt Ion:164 Resp: 49348

Ion	Ratio	Lower	Upper
164	100		
166	128.6	99.4	149.0
129	93.3	76.3	114.5
131	88.2	70.6	105.8



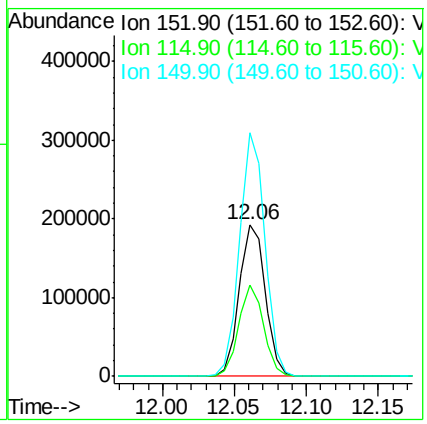
Instrument :
MSVOA_X
ClientSampleId :
1010-MW-17A

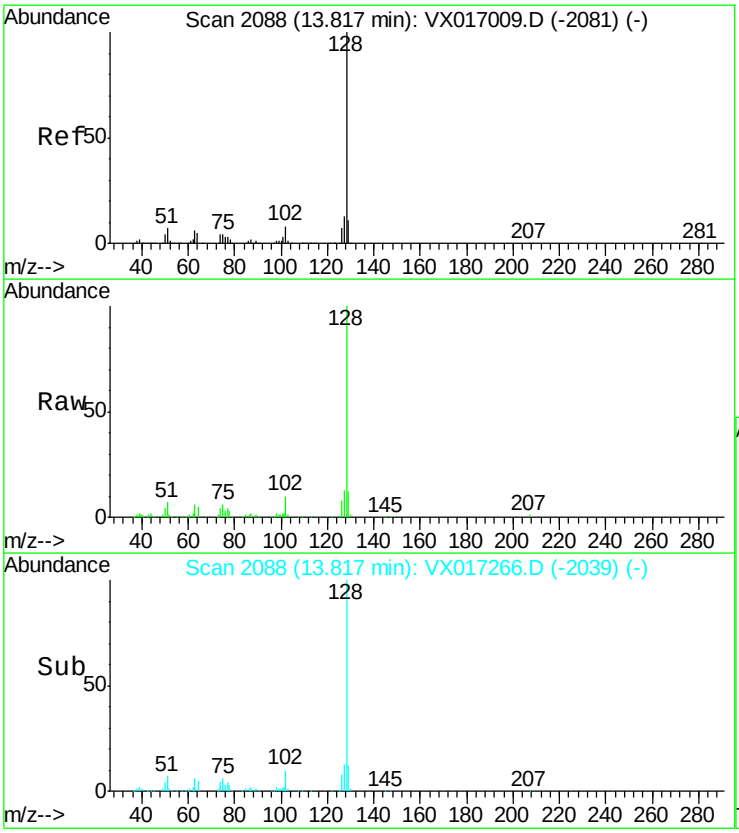


#72
1,4-Dichlorobenzene-d4
Concen: 50.000 ug/l
RT: 12.06 min Scan# 1800
Delta R.T. -0.00 min
Lab File: VX017266.D
Acq: 08 Jul 2020 19:15

Tgt Ion:152 Resp: 242727

Ion	Ratio	Lower	Upper
152	100		
115	57.0	40.9	122.7
150	156.1	0.0	351.6

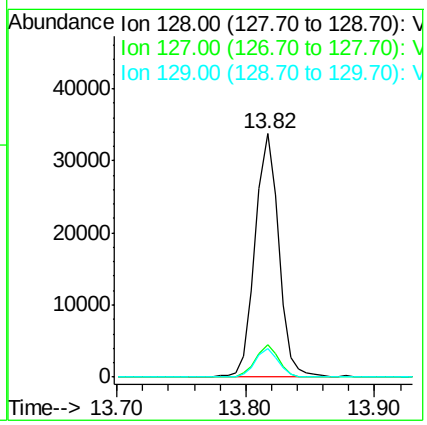




#95
Naphthalene
Concen: 2.749 ug/l
RT: 13.82 min Scan# 2088
Delta R.T. -0.00 min
Lab File: VX017266.D
Acq: 08 Jul 2020 19:15

Tgt Ion:128 Resp: 42312

Ion	Ratio	Lower	Upper
128	100		
127	13.5	10.2	15.4
129	11.6	8.7	13.1



LSC Area Percent Report

Data Path : Z:\VOASRV\HPCHEM1\MSVOA X\DATA\VX070820\
Data File : VX017266.D
Acq On : 08 Jul 2020 19:15
Operator : JC/SP
Sample : L3232-10
Misc : 5.0mL/MSVOA X/WATER
ALS Vial : 24 Sample Multiplier: 1

Instrument : MSVOA_X
ClientSampleId : 1010-MW-17A

Integration Parameters: RTEINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 3 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X062920W.M
Title : SW846 8260

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	1.288	27	33	36	rBV2	20491	21833	1.38%	0.169%
2	1.392	44	50	60	rBV	27888	37408	2.36%	0.289%
3	3.142	328	337	343	rBV	13317	25301	1.60%	0.196%
4	4.562	556	570	583	rBV	574399	1584259	100.00%	12.249%
5	5.471	706	719	731	rBV	164609	472963	29.85%	3.657%
6	5.629	735	745	763	rVB	264572	752042	47.47%	5.815%
7	6.038	800	812	821	rBV	165807	443965	28.02%	3.433%
8	6.830	932	942	956	rBV	413559	982615	62.02%	7.597%
9	7.190	990	1001	1014	rBV	265192	564469	35.63%	4.364%
10	8.696	1241	1248	1259	rBV	891305	1354499	85.50%	10.473%
11	9.317	1343	1350	1358	rBV	253639	365951	23.10%	2.829%
12	10.098	1470	1478	1487	rBV	964314	1307222	82.51%	10.107%
13	11.122	1640	1646	1654	rBV	873862	1091556	68.90%	8.440%
14	12.012	1786	1792	1795	rBV2	49308	62511	3.95%	0.483%
15	12.061	1795	1800	1808	rVB	1172012	1441325	90.98%	11.144%
16	13.817	2083	2088	2093	rVB	69607	87477	5.52%	0.676%
17	14.676	2224	2229	2239	rVB	237838	308101	19.45%	2.382%
18	14.823	2246	2253	2260	rVB	146349	203999	12.88%	1.577%
19	15.249	2317	2323	2329	rBV	143197	199178	12.57%	1.540%
20	15.420	2342	2351	2355	rBV	39712	61450	3.88%	0.475%
21	15.524	2362	2368	2379	rBV	97361	173142	10.93%	1.339%
22	15.664	2381	2391	2394	rVV	116887	190870	12.05%	1.476%
23	15.700	2394	2397	2405	rVB2	73060	111493	7.04%	0.862%
24	15.889	2418	2428	2437	rBV3	35760	94997	6.00%	0.735%
25	16.042	2445	2453	2458	rBV3	17450	31852	2.01%	0.246%
26	16.139	2463	2469	2477	rBV2	67508	124934	7.89%	0.966%
27	16.225	2477	2483	2484	rBV2	15812	21013	1.33%	0.162%
28	16.389	2503	2510	2516	rBV2	228877	428638	27.06%	3.314%
29	16.438	2516	2518	2529	rVB3	29231	62256	3.93%	0.481%
30	16.603	2539	2545	2551	rBV4	17568	44488	2.81%	0.344%
31	16.658	2552	2554	2560	rVB6	12530	19224	1.21%	0.149%
32	16.749	2560	2569	2575	rBV	126838	262407	16.56%	2.029%

LSC Area Percent Report

Data Path : Z:\VOASRV\HPCHEM1\MSVOA X\DATA\VX070820\
Data File : VX017266.D
Acq On : 08 Jul 2020 19:15
Operator : JC/SP
Sample : L3232-10
Misc : 5.0mL/MSVOA X/WATER
ALS Vial : 24 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
1010-MW-17A

Integration Parameters: RTEINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 3 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X062920W.M
Title : SW846 8260

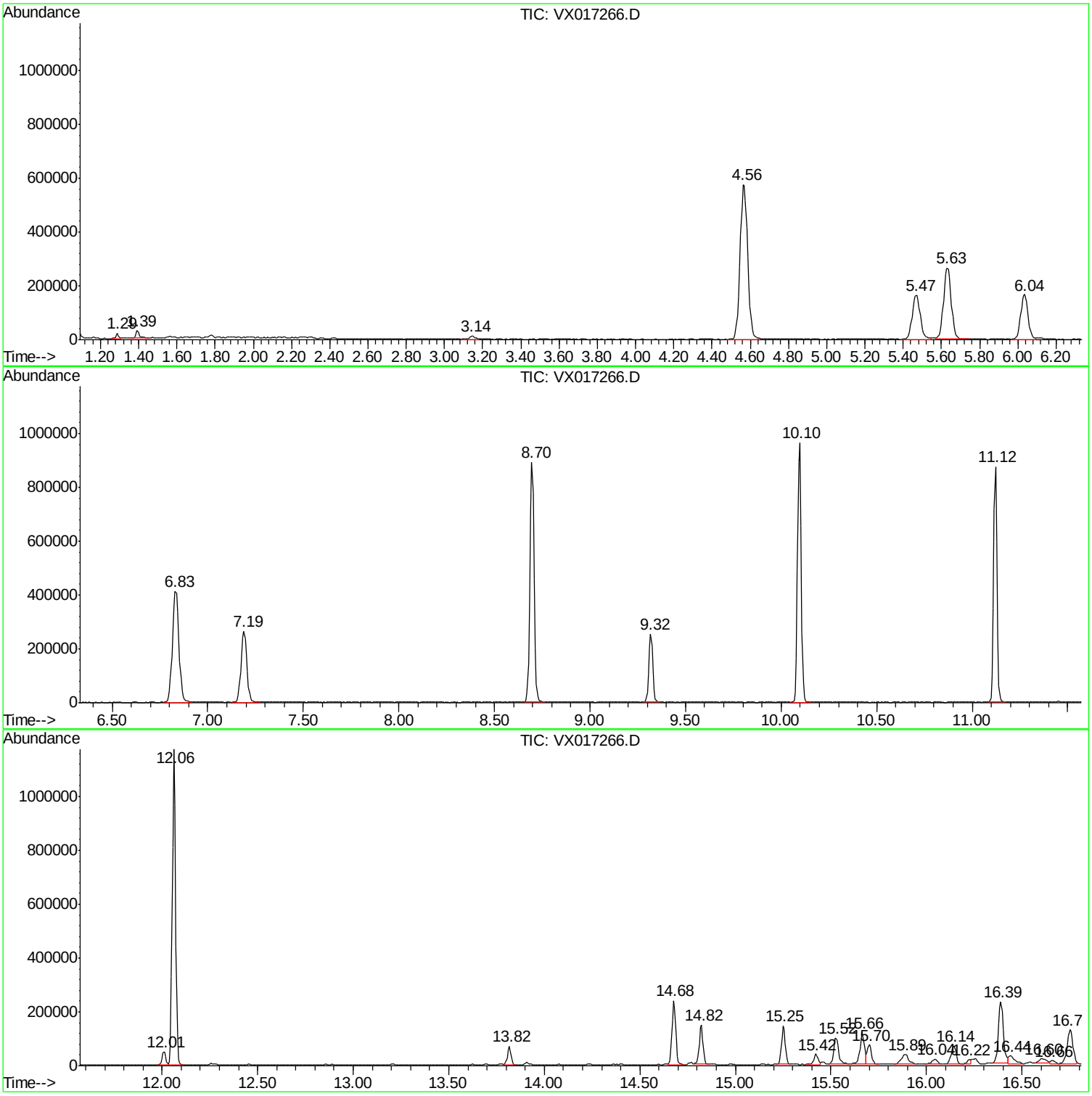
Sum of corrected areas: 12933438

Data Path : Z:\VOASRV\HPCHEM1\MSVOA X\DATA\VX070820\
Data File : VX017266.D
Acq On : 08 Jul 2020 19:15
Operator : JC/SP
Sample : L3232-10
Misc : 5.0mL/MSVOA X/WATER
ALS Vial : 24 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
1010-MW-17A

Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X062920W.M
Quant Title : SW846 8260

TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P



Library Search Compound Report

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX070820\
Data File : VX017266.D
Acq On : 08 Jul 2020 19:15
Operator : JC/SP
Sample : L3232-10
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 24 Sample Multiplier: 1

Instrument : MSVOA_X
ClientSampleId : 1010-MW-17A

Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X062920W.M
Quant Title : SW846 8260

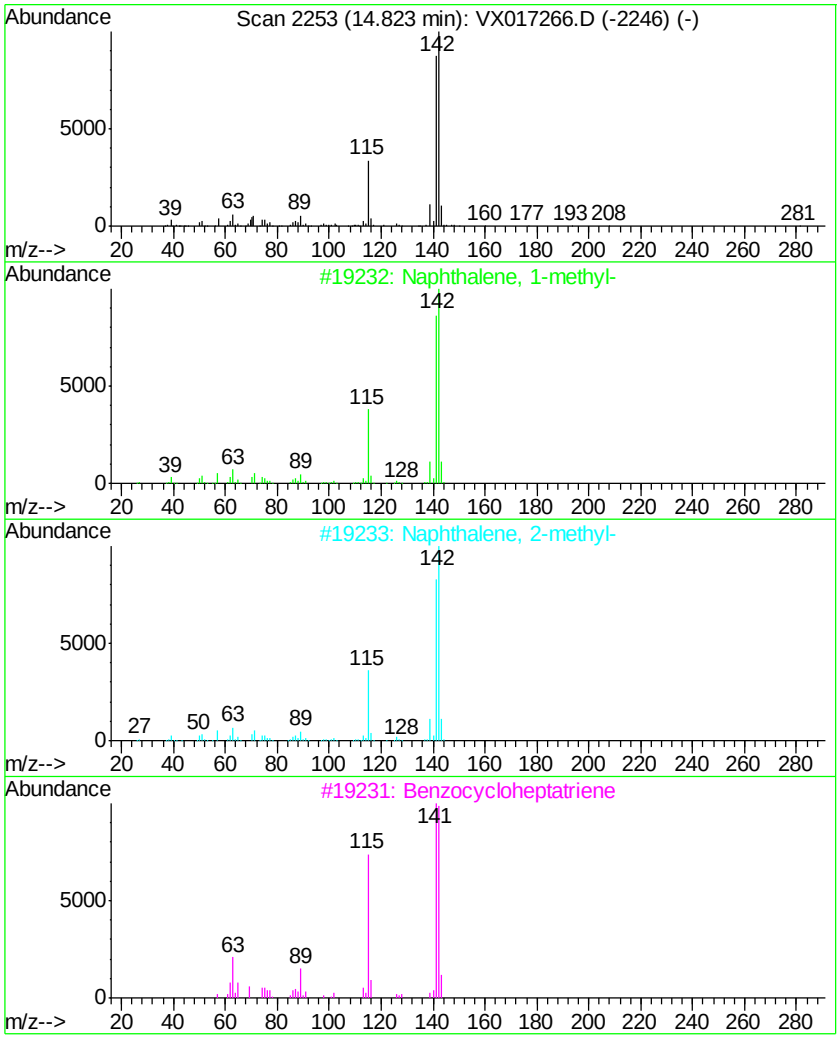
TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

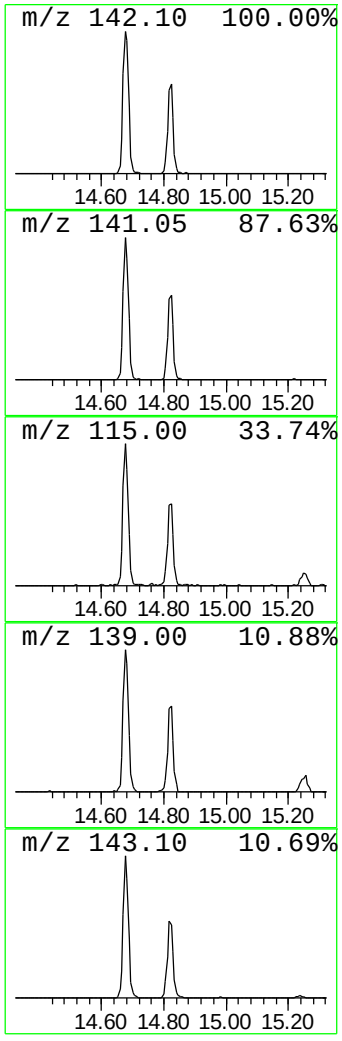
****

Peak Number 2 Naphthalene, 1-methyl- Concentration Rank 4

R.T.	EstConc	Area	Relative to ISTD	R.T.
14.82	7.08 ug/l	203999	1,4-Dichlorobenzene-d4	12.06

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Naphthalene, 1-methyl-	142	C11H10	000090-12-0	96
2	Naphthalene, 2-methyl-	142	C11H10	000091-57-6	96
3	Benzocycloheptatriene	142	C11H10	000264-09-5	91
4	1,4-Methanonaphthalene, 1,4-dihy...	142	C11H10	004453-90-1	91
5	1H-Indene, 1-ethylidene-	142	C11H10	002471-83-2	64





Library Search Compound Report

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX070820\
Data File : VX017266.D
Acq On : 08 Jul 2020 19:15
Operator : JC/SP
Sample : L3232-10
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 24 Sample Multiplier: 1

Instrument : MSVOA_X
ClientSampleId : 1010-MW-17A

Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X062920W.M
Quant Title : SW846 8260

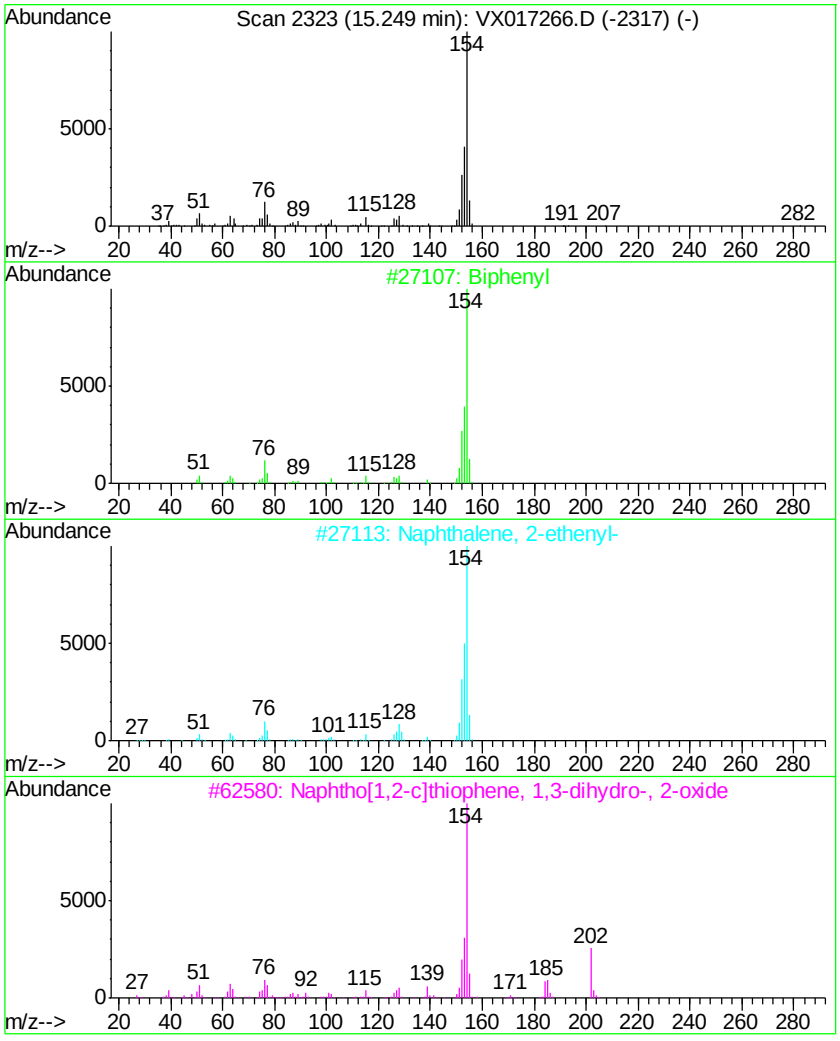
TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

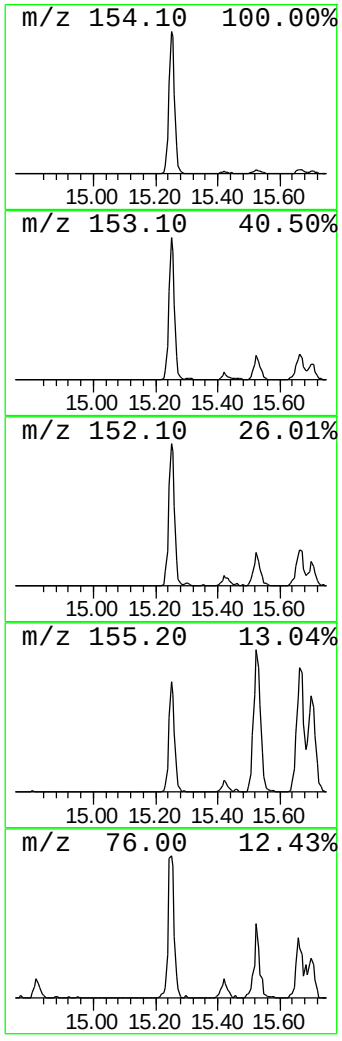
****

Peak Number 3 Biphenyl Concentration Rank 5

R.T.	EstConc	Area	Relative to ISTD	R.T.
15.25	6.91 ug/l	199178	1,4-Dichlorobenzene-d4	12.06

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Biphenyl	154	C12H10	000092-52-4	95
2	Naphthalene, 2-ethenyl-	154	C12H10	000827-54-3	93
3	Naphtho[1,2-c]thiophene, 1,3-dih...	202	C12H10OS	031739-49-8	50
4	6-Cyanoquinoline	154	C10H6N2	023395-72-4	49
5	1-Isoquinolinecarbonitrile	154	C10H6N2	001198-30-7	47





Library Search Compound Report

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX070820\
Data File : VX017266.D
Acq On : 08 Jul 2020 19:15
Operator : JC/SP
Sample : L3232-10
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 24 Sample Multiplier: 1

Instrument : MSVOA_X
ClientSampleId : 1010-MW-17A

Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X062920W.M
Quant Title : SW846 8260

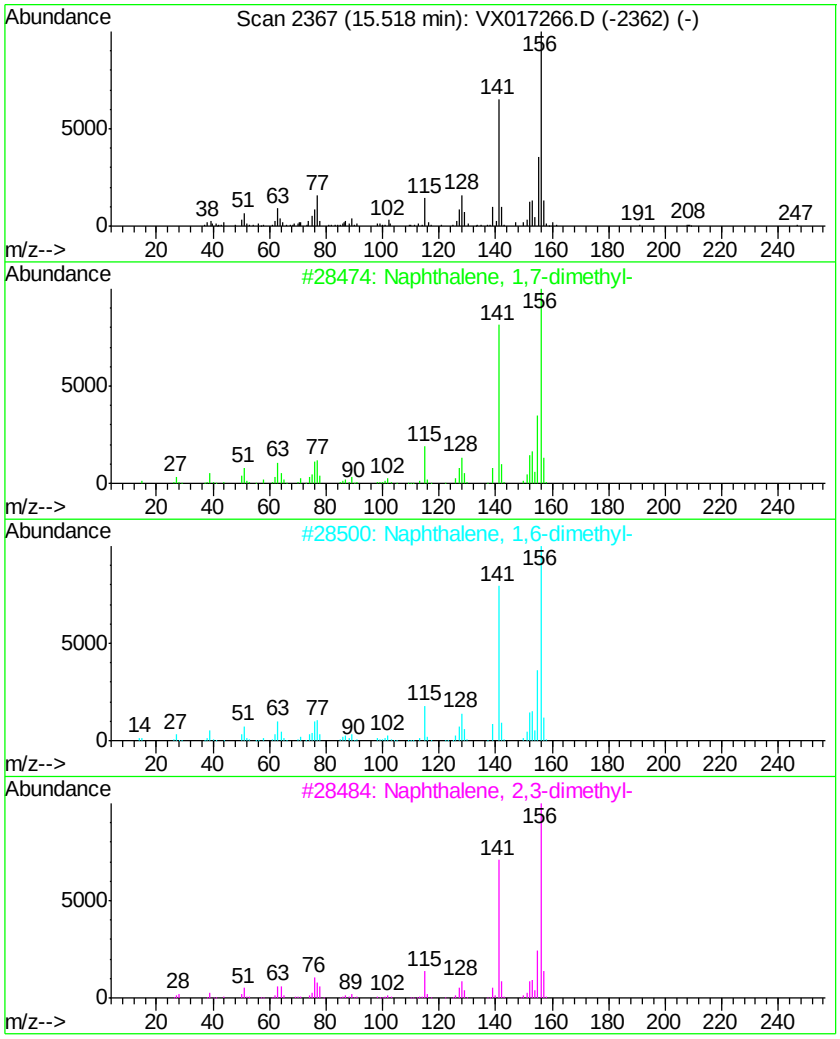
TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

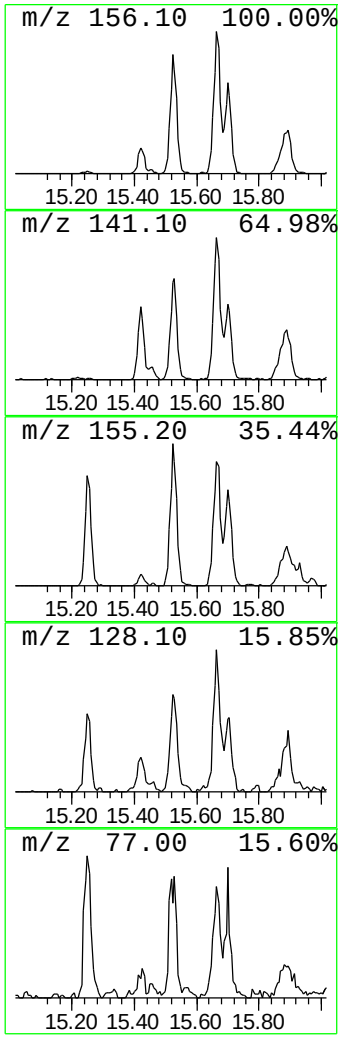
****

Peak Number 4 Naphthalene, 1,7-dimethyl- Concentration Rank 7

R.T.	EstConc	Area	Relative to ISTD	R.T.
15.52	6.01 ug/l	173142	1,4-Dichlorobenzene-d4	12.06

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Naphthalene, 1,7-dimethyl-	156	C12H12	000575-37-1	98
2	Naphthalene, 1,6-dimethyl-	156	C12H12	000575-43-9	98
3	Naphthalene, 2,3-dimethyl-	156	C12H12	000581-40-8	96
4	Naphthalene, 2,6-dimethyl-	156	C12H12	000581-42-0	95
5	Naphthalene, 2,7-dimethyl-	156	C12H12	000582-16-1	95





Library Search Compound Report

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX070820\
Data File : VX017266.D
Acq On : 08 Jul 2020 19:15
Operator : JC/SP
Sample : L3232-10
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 24 Sample Multiplier: 1

Instrument : MSVOA_X
ClientSampleId : 1010-MW-17A

Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X062920W.M
Quant Title : SW846 8260

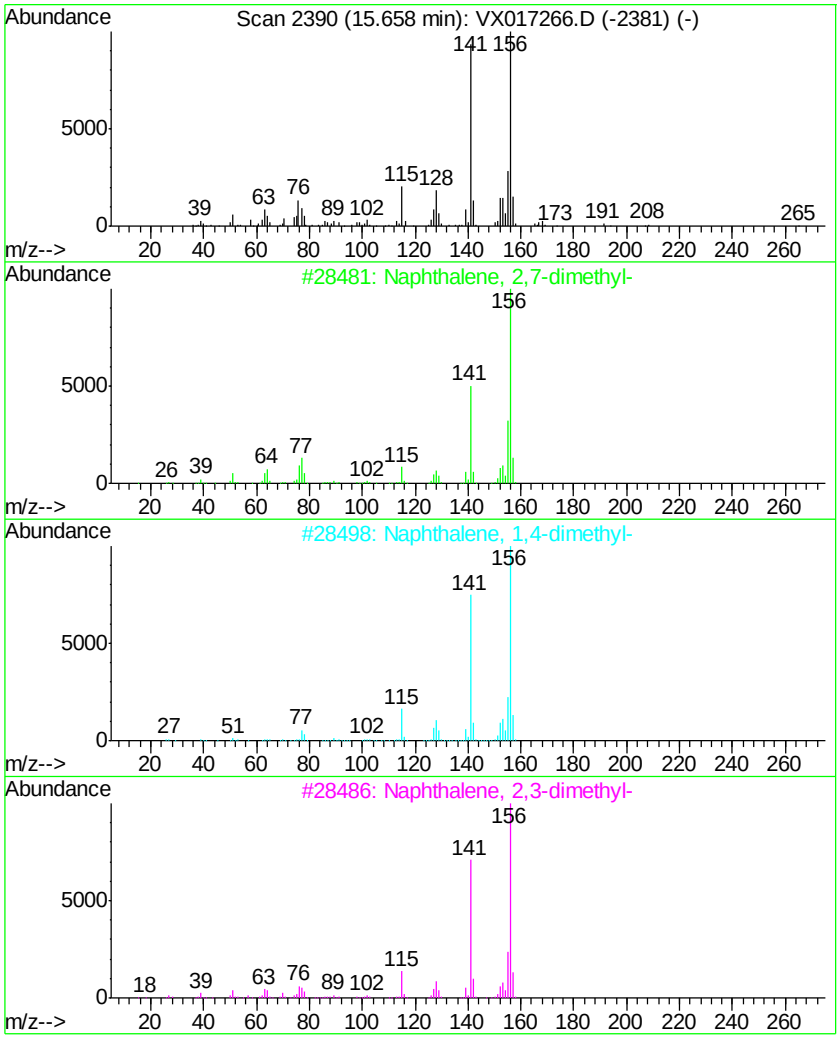
TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

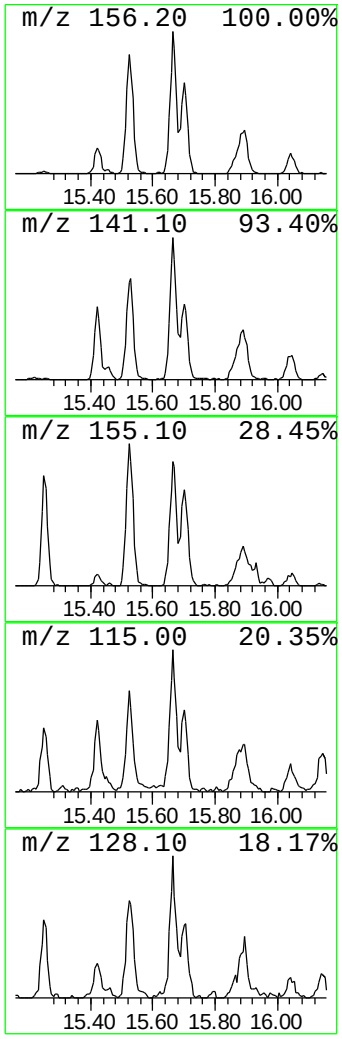
****

Peak Number 5 Naphthalene, 2,7-dimethyl- Concentration Rank 6

R.T.	EstConc	Area	Relative to ISTD	R.T.
15.66	6.62 ug/l	190870	1,4-Dichlorobenzene-d4	12.06

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Naphthalene, 2,7-dimethyl-	156	C12H12	000582-16-1	97
2	Naphthalene, 1,4-dimethyl-	156	C12H12	000571-58-4	97
3	Naphthalene, 2,3-dimethyl-	156	C12H12	000581-40-8	97
4	Naphthalene, 1,6-dimethyl-	156	C12H12	000575-43-9	96
5	Naphthalene, 1,7-dimethyl-	156	C12H12	000575-37-1	96





Instrument :
MSVOA_X
ClientSampleId :
1010-MW-17A

Tentatively Identified Compound (LSC) summary

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX070820\
Data File : VX017266.D
Acq On : 08 Jul 2020 19:15
Operator : JC/SP
Sample : L3232-10
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 24 Sample Multiplier: 1

Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X062920W.M
Quant Title : SW846 8260

TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

					Internal Standard			
TIC Top Hit name	RT	EstConc	Units	Response	#	RT	Resp	Conc
Naphthalene, 1-me...	14.82	7.1	ug/l	203999	4	12.06	1441330	50.0
Biphenyl	15.25	6.9	ug/l	199178	4	12.06	1441330	50.0
Naphthalene, 1,7-...	15.52	6.0	ug/l	173142	4	12.06	1441330	50.0
Naphthalene, 2,7-...	15.66	6.6	ug/l	190870	4	12.06	1441330	50.0

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Day Environmental, Inc.	Date Collected:	07/06/20
Project:	Andrew St. RI	Date Received:	07/07/20
Client Sample ID:	1011-MW-18	SDG No.:	L3232
Lab Sample ID:	L3232-11	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	DB-624UI ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX017236.D	1		07/08/20 04:46	VX070720

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
75-71-8	Dichlorodifluoromethane	1.00	U	0.22	1.00	ug/L
74-87-3	Chloromethane	1.00	U	0.30	1.00	ug/L
75-01-4	Vinyl Chloride	1.00	U	0.16	1.00	ug/L
74-83-9	Bromomethane	5.00	U	2.10	5.00	ug/L
75-00-3	Chloroethane	1.00	U	0.34	1.00	ug/L
75-69-4	Trichlorofluoromethane	1.00	U	0.16	1.00	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	1.00	U	0.21	1.00	ug/L
75-35-4	1,1-Dichloroethene	1.00	U	0.18	1.00	ug/L
67-64-1	Acetone	5.00	U	0.90	5.00	ug/L
75-15-0	Carbon Disulfide	1.00	U	0.23	1.00	ug/L
1634-04-4	Methyl tert-butyl Ether	1.00	U	0.070	1.00	ug/L
79-20-9	Methyl Acetate	1.00	U	0.65	1.00	ug/L
75-09-2	Methylene Chloride	1.00	U	0.33	1.00	ug/L
156-60-5	trans-1,2-Dichloroethene	1.00	U	0.24	1.00	ug/L
75-34-3	1,1-Dichloroethane	1.00	U	0.17	1.00	ug/L
110-82-7	Cyclohexane	5.00	U	1.20	5.00	ug/L
78-93-3	2-Butanone	5.00	U	0.71	5.00	ug/L
56-23-5	Carbon Tetrachloride	1.00	U	0.22	1.00	ug/L
156-59-2	cis-1,2-Dichloroethene	1.70		0.30	1.00	ug/L
74-97-5	Bromochloromethane	1.00	U	0.31	1.00	ug/L
67-66-3	Chloroform	1.00	U	0.14	1.00	ug/L
71-55-6	1,1,1-Trichloroethane	1.00	U	0.12	1.00	ug/L
108-87-2	Methylcyclohexane	1.00	U	0.17	1.00	ug/L
71-43-2	Benzene	1.00	U	0.10	1.00	ug/L
107-06-2	1,2-Dichloroethane	1.00	U	0.13	1.00	ug/L
79-01-6	Trichloroethene	2.00		0.27	1.00	ug/L
78-87-5	1,2-Dichloropropane	1.00	U	0.14	1.00	ug/L
75-27-4	Bromodichloromethane	1.00	U	0.10	1.00	ug/L
108-10-1	4-Methyl-2-Pentanone	5.00	U	0.85	5.00	ug/L
108-88-3	Toluene	1.00	U	0.12	1.00	ug/L
10061-02-6	t-1,3-Dichloropropene	1.00	U	0.19	1.00	ug/L
10061-01-5	cis-1,3-Dichloropropene	1.00	U	0.16	1.00	ug/L

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Day Environmental, Inc.	Date Collected:	07/06/20
Project:	Andrew St. RI	Date Received:	07/07/20
Client Sample ID:	1011-MW-18	SDG No.:	L3232
Lab Sample ID:	L3232-11	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	DB-624UI ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX017236.D	1		07/08/20 04:46	VX070720

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
79-00-5	1,1,2-Trichloroethane	1.00	U	0.12	1.00	ug/L
591-78-6	2-Hexanone	5.00	U	1.40	5.00	ug/L
124-48-1	Dibromochloromethane	1.00	U	0.16	1.00	ug/L
106-93-4	1,2-Dibromoethane	1.00	U	0.14	1.00	ug/L
127-18-4	Tetrachloroethene	27.8		0.15	1.00	ug/L
108-90-7	Chlorobenzene	1.00	U	0.080	1.00	ug/L
100-41-4	Ethyl Benzene	1.00	U	0.080	1.00	ug/L
179601-23-1	m/p-Xylenes	2.00	U	0.20	2.00	ug/L
95-47-6	o-Xylene	1.00	U	0.13	1.00	ug/L
100-42-5	Styrene	1.00	U	0.11	1.00	ug/L
75-25-2	Bromoform	1.00	U	0.15	1.00	ug/L
98-82-8	Isopropylbenzene	1.00	U	0.13	1.00	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	1.00	U	0.15	1.00	ug/L
541-73-1	1,3-Dichlorobenzene	1.00	U	0.14	1.00	ug/L
106-46-7	1,4-Dichlorobenzene	1.00	U	0.20	1.00	ug/L
95-50-1	1,2-Dichlorobenzene	1.00	U	0.12	1.00	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	1.00	U	0.54	1.00	ug/L
120-82-1	1,2,4-Trichlorobenzene	1.00	U	0.24	1.00	ug/L
87-61-6	1,2,3-Trichlorobenzene	1.00	U	0.26	1.00	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	54.9		61 - 141	110%	SPK: 50
1868-53-7	Dibromofluoromethane	54.1		69 - 133	108%	SPK: 50
2037-26-5	Toluene-d8	52.1		65 - 126	104%	SPK: 50
460-00-4	4-Bromofluorobenzene	55.1		58 - 135	110%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	245000	5.63			
540-36-3	1,4-Difluorobenzene	417000	6.84			
3114-55-4	Chlorobenzene-d5	436000	10.1			
3855-82-1	1,4-Dichlorobenzene-d4	233000	12.06			

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Day Environmental, Inc.	Date Collected:	07/06/20
Project:	Andrew St. RI	Date Received:	07/07/20
Client Sample ID:	1011-MW-18	SDG No.:	L3232
Lab Sample ID:	L3232-11	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	DB-624UI ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX017236.D	1		07/08/20 04:46	VX070720

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit
A = Aldol-Condensation Reaction Products

Quantitation Report (QT Reviewed)

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX070720\
Data File : VX017236.D
Acq On : 08 Jul 2020 04:46
Operator : JC/SP
Sample : L3232-11
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 50 Sample Multiplier: 1

Instrument : MSVOA_X
ClientSampleId : 1011-MW-18

Quant Time: Jul 08 07:08:31 2020
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X062920W.M
Quant Title : SW846 8260
QLast Update : Mon Jun 29 17:10:38 2020
Response via : Initial Calibration

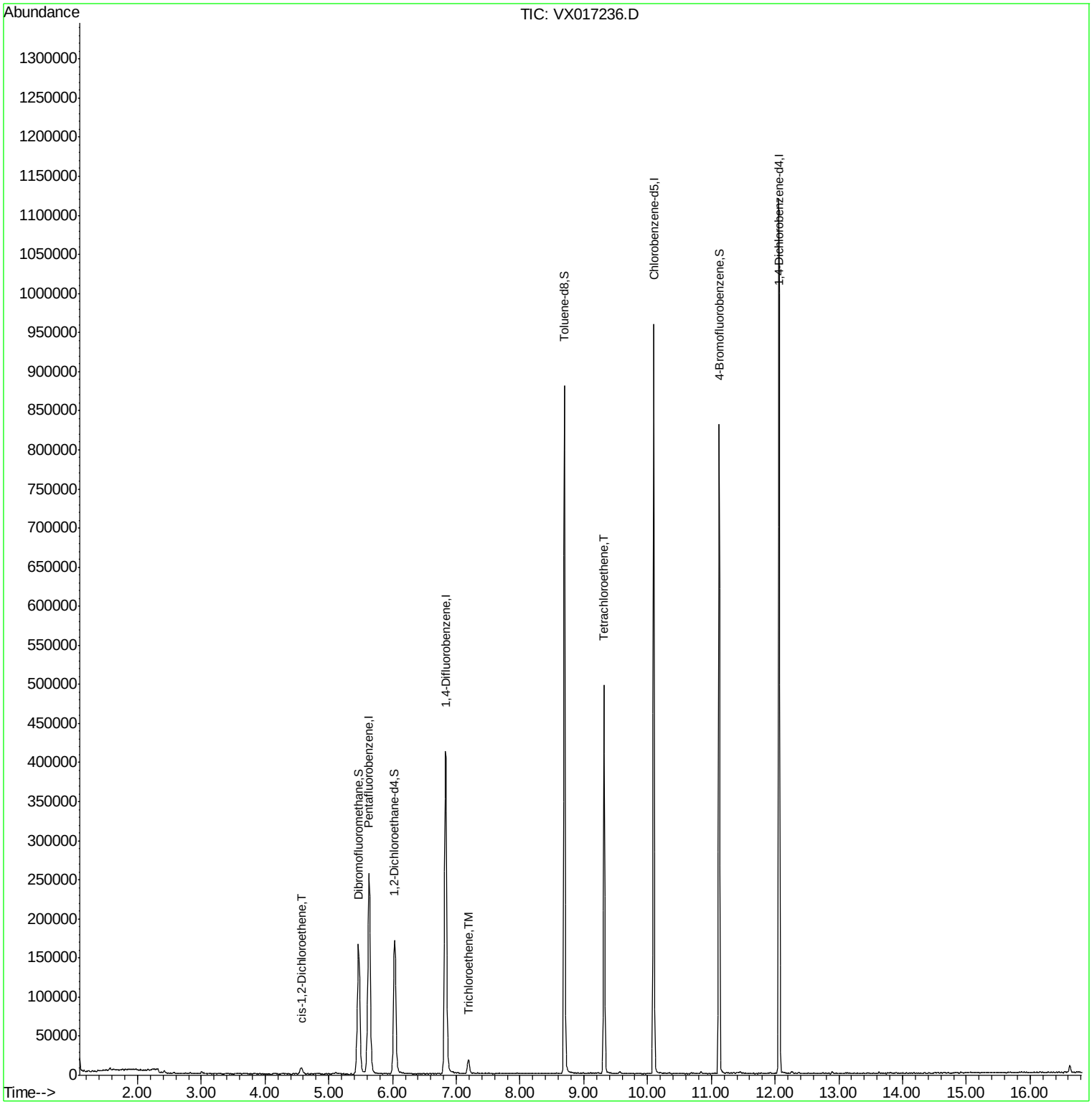
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	5.63	168	244808	50.00	ug/l	0.00
34) 1,4-Difluorobenzene	6.84	114	417009	50.00	ug/l	0.00
63) Chlorobenzene-d5	10.10	117	436062	50.00	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	12.06	152	233058	50.00	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	6.03	65	165837	54.95	ug/l	0.00
Spiked Amount 50.000			Recovery =	109.90%		
35) Dibromofluoromethane	5.46	113	142586	54.05	ug/l	0.00
Spiked Amount 50.000			Recovery =	108.10%		
50) Toluene-d8	8.70	98	508359	52.12	ug/l	0.00
Spiked Amount 50.000			Recovery =	104.24%		
62) 4-Bromofluorobenzene	11.12	95	210285	55.15	ug/l	0.00
Spiked Amount 50.000			Recovery =	110.30%		
Target Compounds						Qvalue
27) cis-1,2-Dichloroethene	4.57	96	5056	1.660	ug/l	83
44) Trichloroethene	7.20	130	7202	1.956	ug/l	90
64) Tetrachloroethene	9.32	164	97786	27.786	ug/l	94

(#) = qualifier out of range (m) = manual integration (+) = signals summed

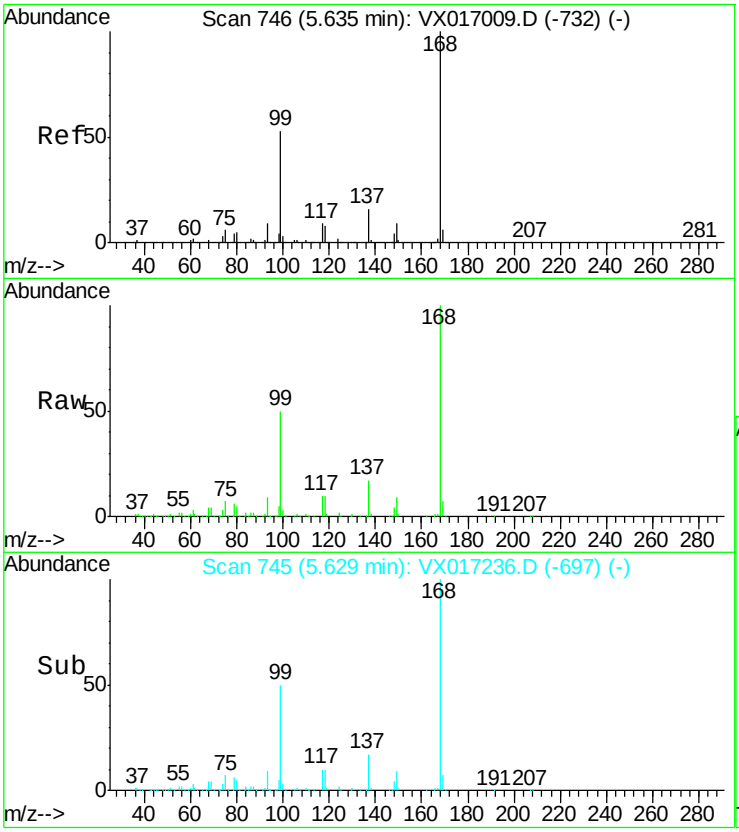
Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX070720\
Data File : VX017236.D
Acq On : 08 Jul 2020 04:46
Operator : JC/SP
Sample : L3232-11
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 50 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
1011-MW-18

Quant Time: Jul 08 07:08:31 2020
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X062920W.M
Quant Title : SW846 8260
QLast Update : Mon Jun 29 17:10:38 2020
Response via : Initial Calibration



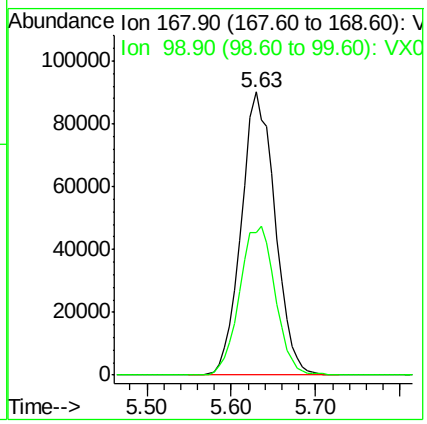
Instrument :
MSVOA_X
ClientSampleId :
1011-MW-18

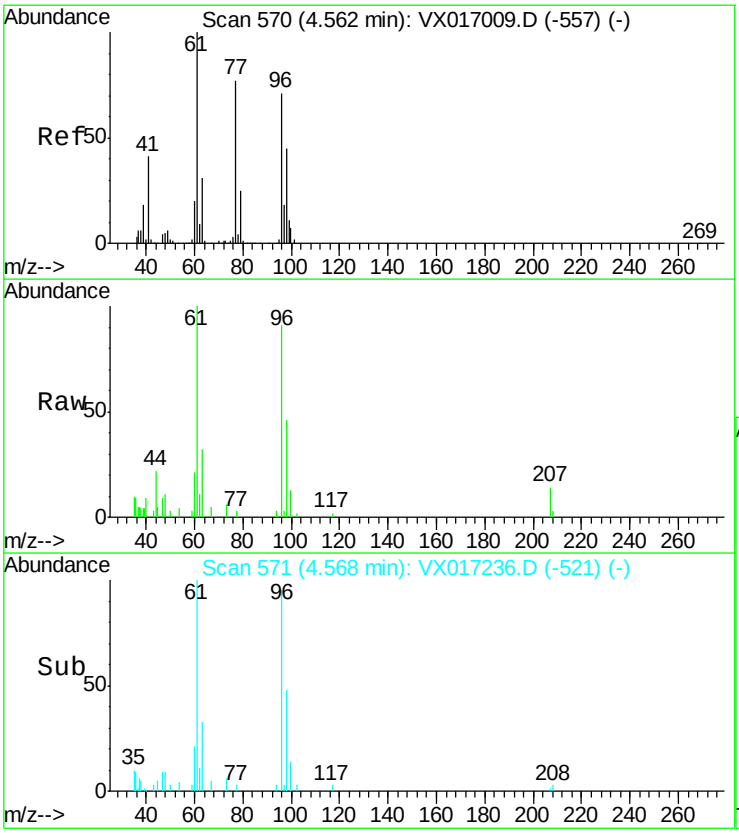


#1
Pentafluorobenzene
Concen: 50.000 ug/l
RT: 5.63 min Scan# 745
Delta R.T. -0.01 min
Lab File: VX017236.D
Acq: 08 Jul 2020 04:46

Tgt Ion:168 Resp: 244808

Ion	Ratio	Lower	Upper
168	100		
99	50.2	42.6	64.0

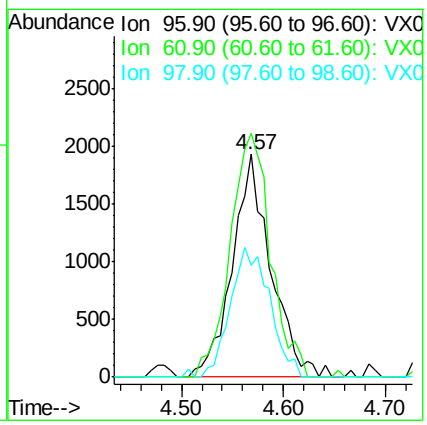




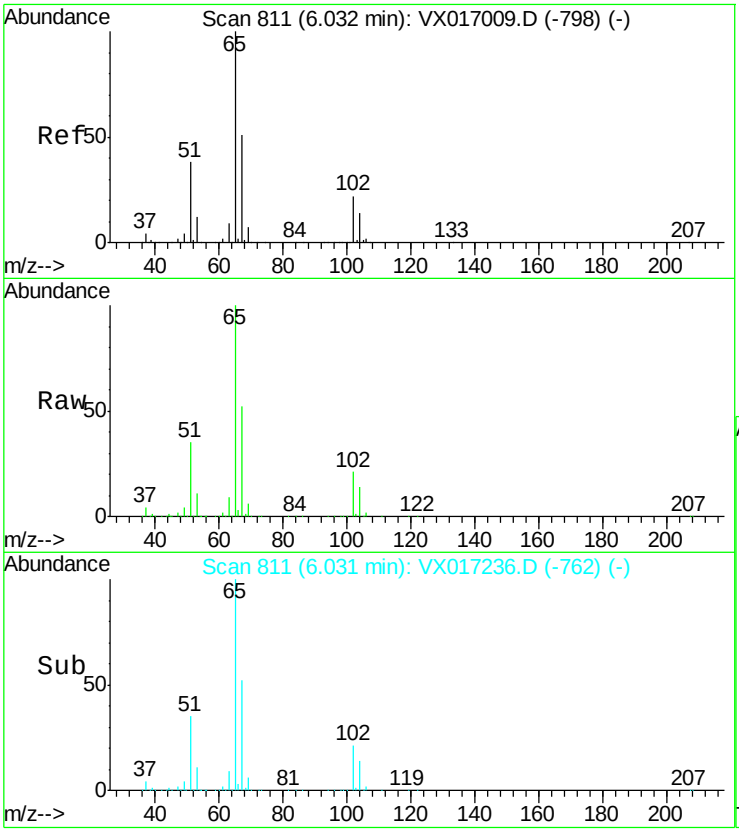
#27
cis-1,2-Dichloroethene
Concen: 1.660 ug/l
RT: 4.57 min Scan# 571
Delta R.T. 0.01 min
Lab File: VX017236.D
Acq: 08 Jul 2020 04:46

Tgt Ion: 96 Resp: 5056

Ion	Ratio	Lower	Upper
96	100		
61	114.5	0.0	282.8
98	59.5	0.0	127.6



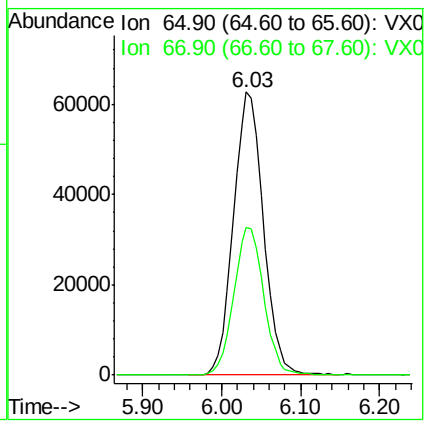
Instrument :
MSVOA_X
ClientSampleId :
1011-MW-18

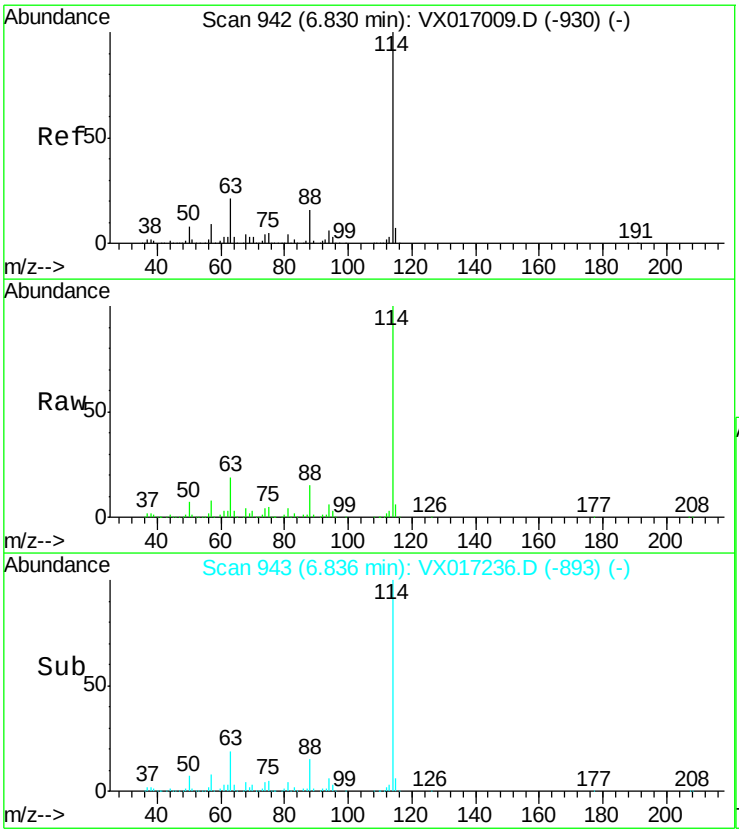


#33
1,2-Dichloroethane-d4
Concen: 54.949 ug/l
RT: 6.03 min Scan# 811
Delta R.T. -0.00 min
Lab File: VX017236.D
Acq: 08 Jul 2020 04:46

Tgt Ion: 65 Resp: 165837

Ion	Ratio	Lower	Upper
65	100		
67	52.1	0.0	103.8

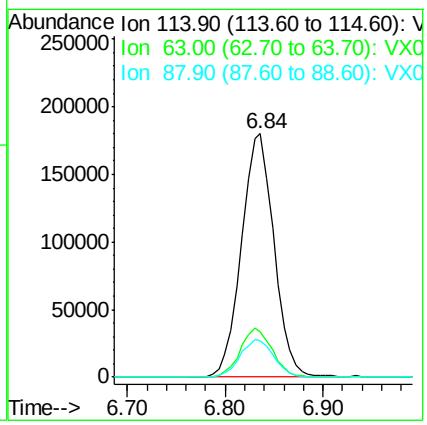




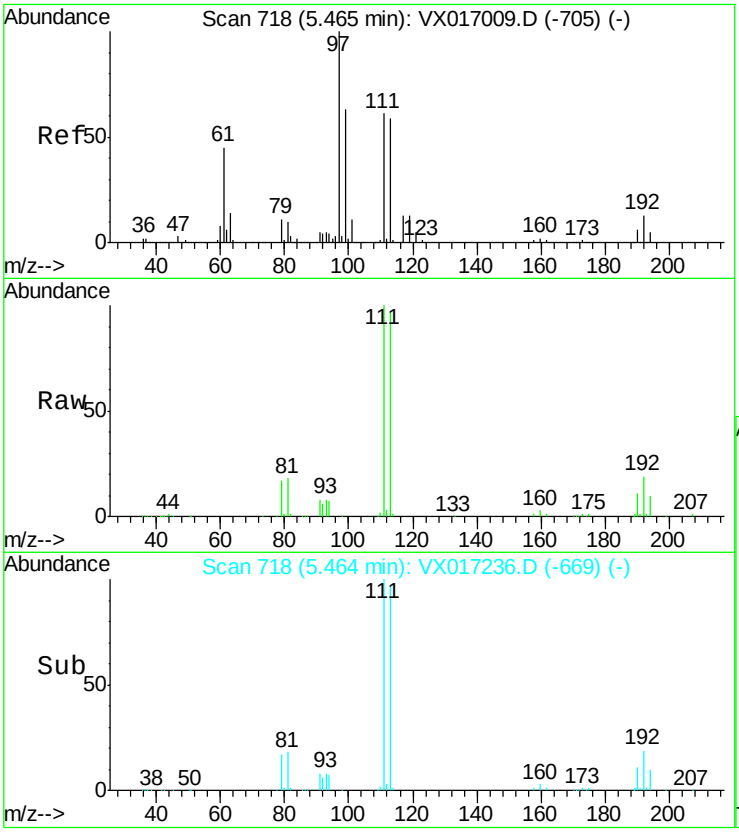
#34
1,4-Difluorobenzene
Concen: 50.000 ug/l
RT: 6.84 min Scan# 943
Delta R.T. 0.01 min
Lab File: VX017236.D
Acq: 08 Jul 2020 04:46

Tgt Ion:114 Resp: 417009

Ion	Ratio	Lower	Upper
114	100		
63	18.7	0.0	41.4
88	14.9	0.0	32.4



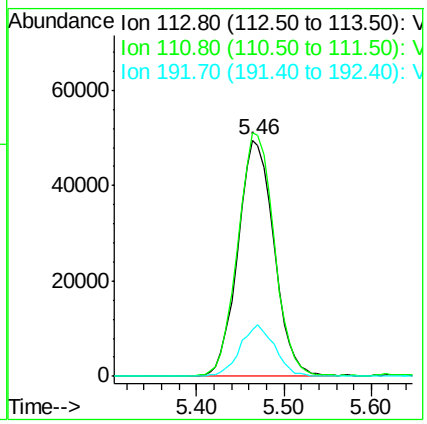
Instrument :
MSVOA_X
ClientSampleId :
1011-MW-18

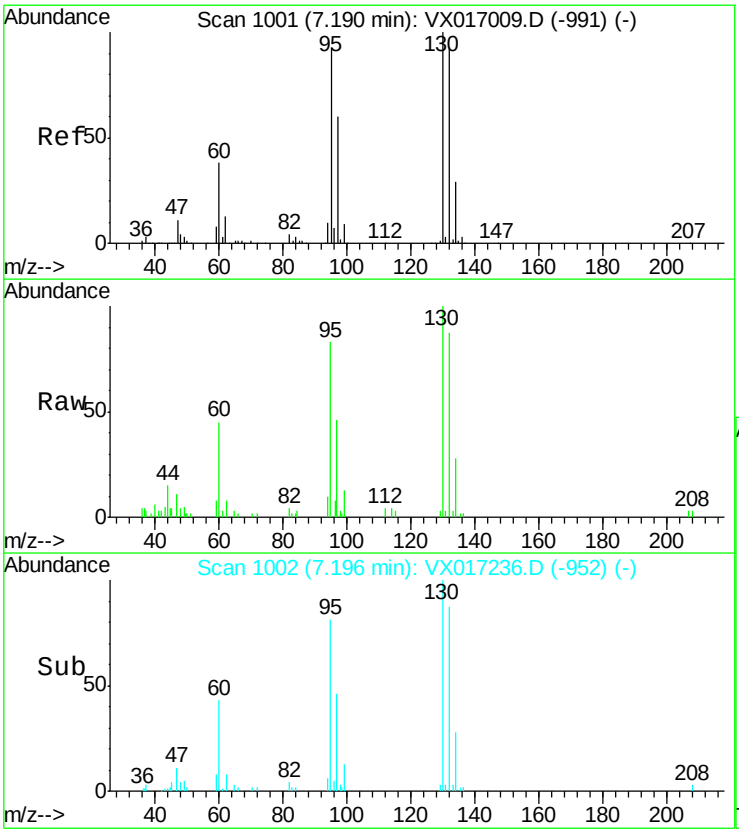


#35
Dibromofluoromethane
Concen: 54.053 ug/l
RT: 5.46 min Scan# 718
Delta R.T. -0.00 min
Lab File: VX017236.D
Acq: 08 Jul 2020 04:46

Tgt Ion:113 Resp: 142586

Ion	Ratio	Lower	Upper
113	100		
111	103.4	81.9	122.9
192	21.1	16.7	25.1

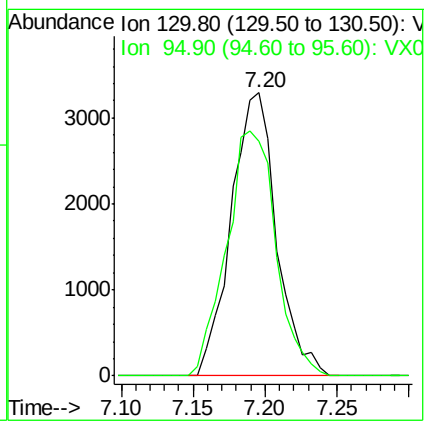




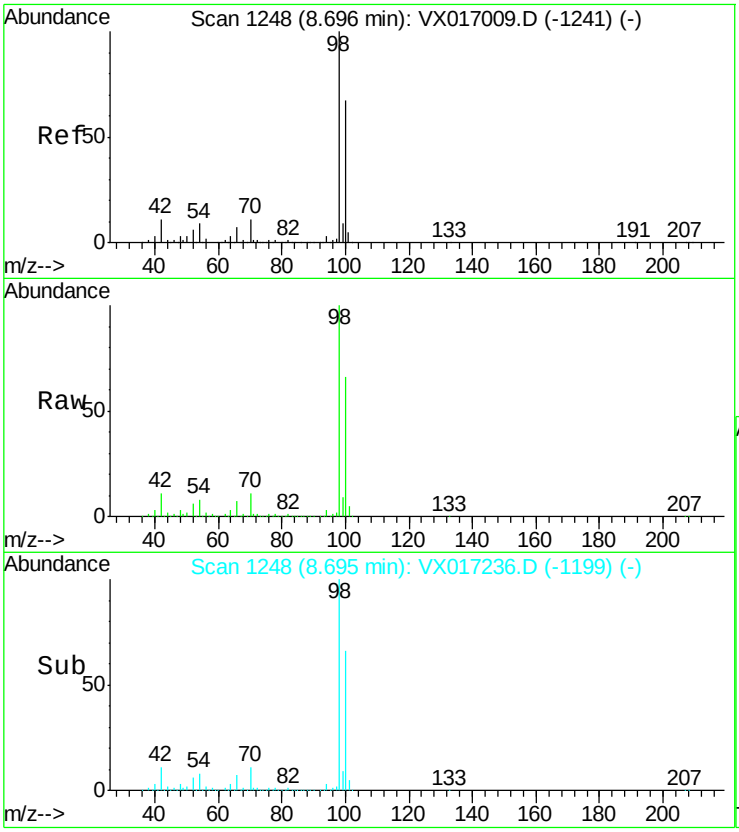
#44
Trichloroethene
Concen: 1.956 ug/l
RT: 7.20 min Scan# 1002
Delta R.T. 0.01 min
Lab File: VX017236.D
Acq: 08 Jul 2020 04:46

Tgt Ion:130 Resp: 7202

Ion	Ratio	Lower	Upper
130	100		
95	82.8	0.0	185.0



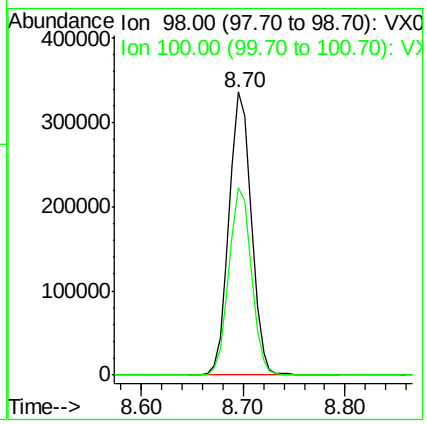
Instrument :
MSVOA_X
ClientSampleId :
1011-MW-18

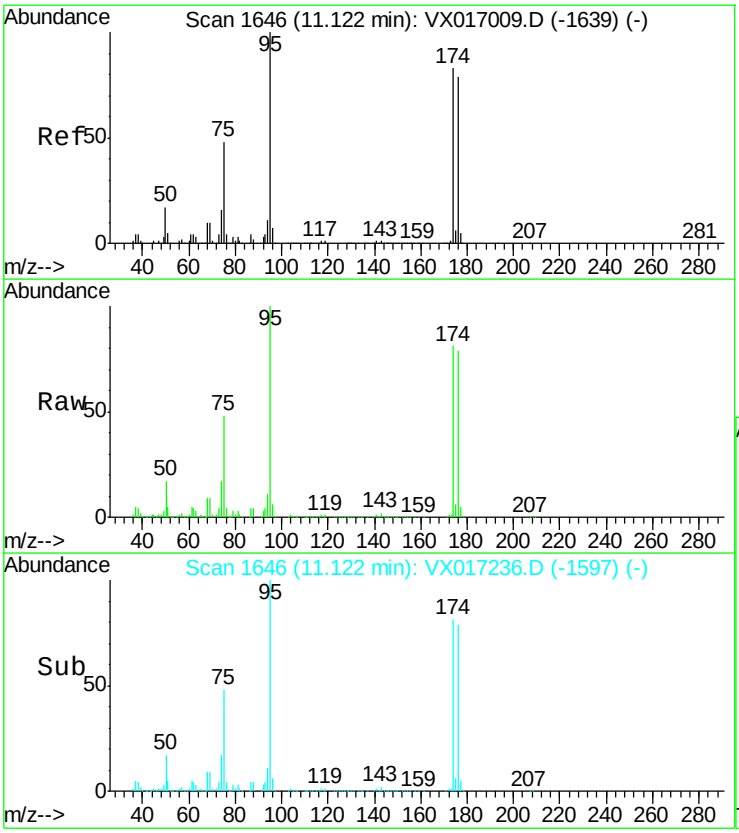


#50
Toluene-d8
Concen: 52.116 ug/l
RT: 8.70 min Scan# 1248
Delta R.T. -0.00 min
Lab File: VX017236.D
Acq: 08 Jul 2020 04:46

Tgt Ion: 98 Resp: 508359

Ion	Ratio	Lower	Upper
98	100		
100	66.7	53.8	80.6

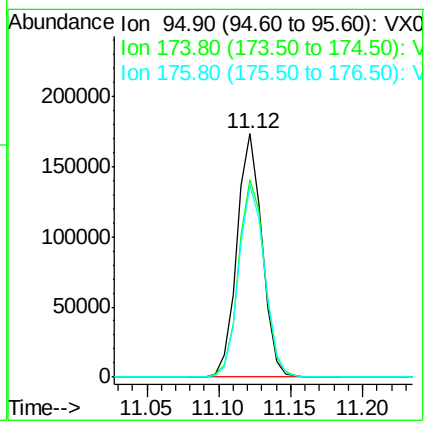




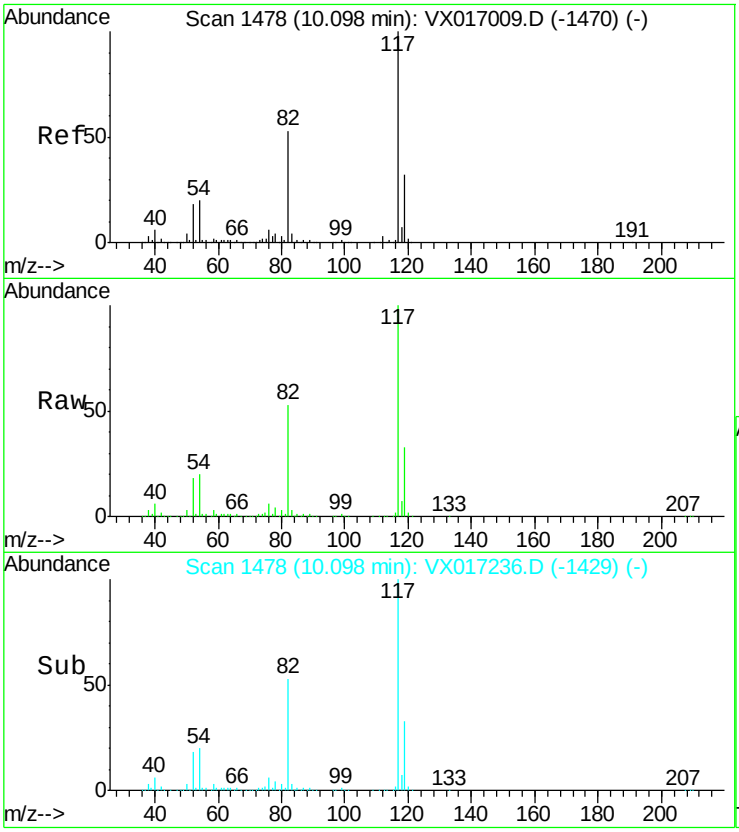
#62
4-Bromofluorobenzene
Concen: 55.148 ug/l
RT: 11.12 min Scan# 1646
Delta R.T. -0.00 min
Lab File: VX017236.D
Acq: 08 Jul 2020 04:46

Tgt Ion: 95 Resp: 210285

Ion	Ratio	Lower	Upper
95	100		
174	84.1	0.0	164.0
176	81.8	0.0	157.6



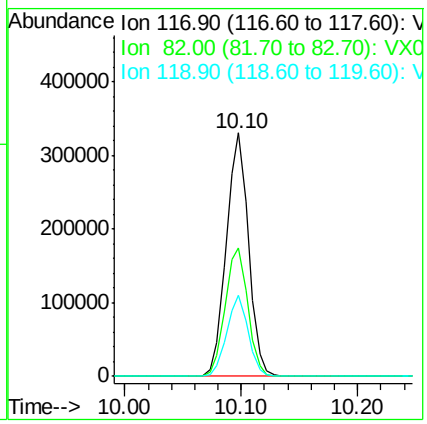
Instrument :
MSVOA_X
ClientSampleId :
1011-MW-18

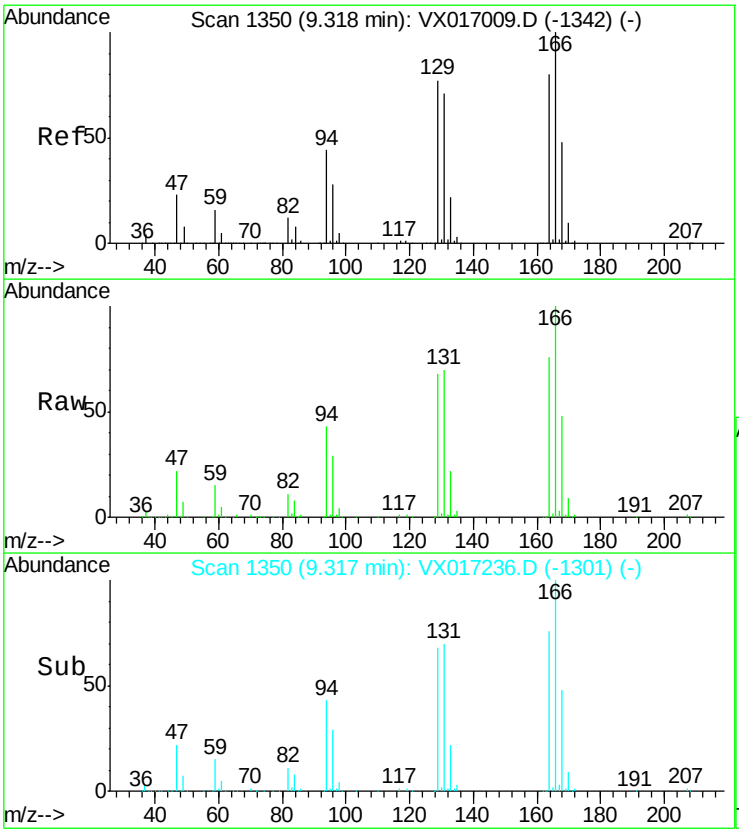


#63
Chlorobenzene-d5
Concen: 50.000 ug/l
RT: 10.10 min Scan# 1478
Delta R.T. -0.00 min
Lab File: VX017236.D
Acq: 08 Jul 2020 04:46

Tgt Ion:117 Resp: 436062

Ion	Ratio	Lower	Upper
117	100		
82	52.7	42.6	63.8
119	33.3	25.4	38.2

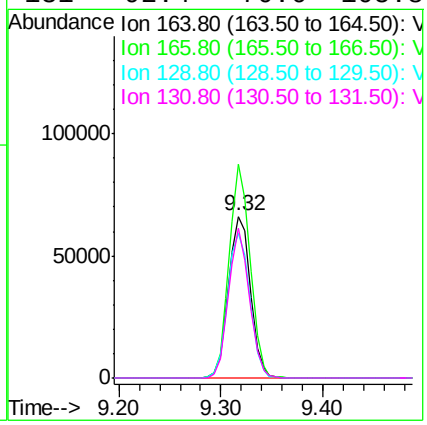


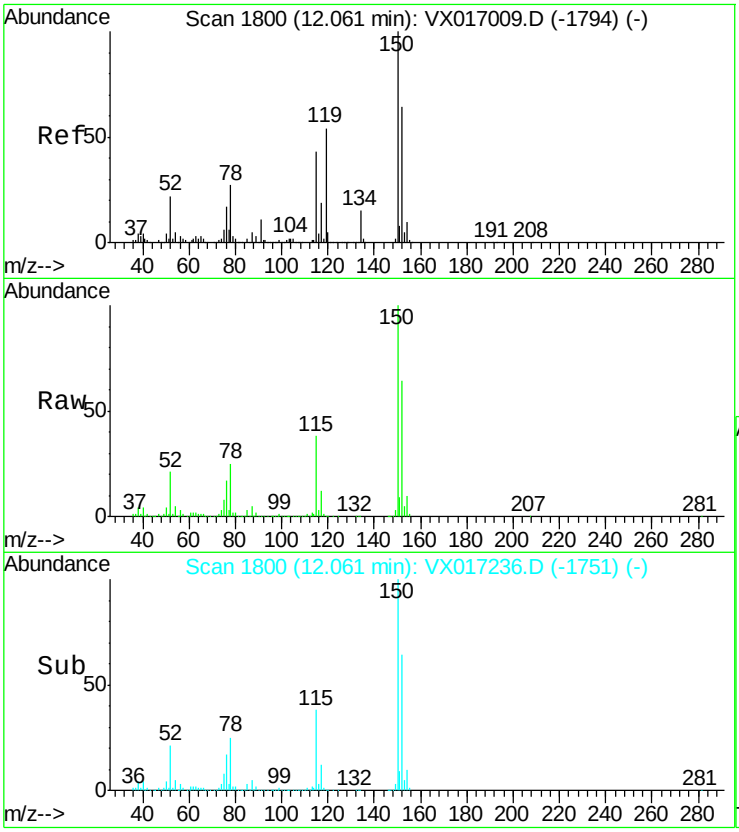


#64
Tetrachloroethene
Concen: 27.786 ug/l
RT: 9.32 min Scan# 1350
Delta R.T. -0.00 min
Lab File: VX017236.D
Acq: 08 Jul 2020 04:46

Tgt Ion:164 Resp: 97786

Ion	Ratio	Lower	Upper
164	100		
166	132.0	99.4	149.0
129	89.7	76.3	114.5
131	92.4	70.6	105.8



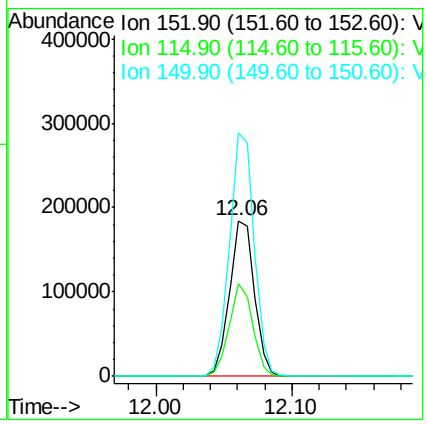


#72
1,4-Dichlorobenzene-d4
Concen: 50.000 ug/l
RT: 12.06 min Scan# 1800
Delta R.T. -0.00 min
Lab File: VX017236.D
Acq: 08 Jul 2020 04:46

Instrument :
MSVOA_X
ClientSampleId :
1011-MW-18

Tgt Ion:152 Resp: 233058

Ion	Ratio	Lower	Upper
152	100		
115	57.1	40.9	122.7
150	156.3	0.0	351.6



Instrument :
MSVOA_X
ClientSampleId :
1011-MW-18

LSC Area Percent Report

Data Path : Z:\VOASRV\HPCHEM1\MSVOA X\DATA\VX070720\
Data File : VX017236.D
Acq On : 08 Jul 2020 04:46
Operator : JC/SP
Sample : L3232-11
Misc : 5.0mL/MSVOA X/WATER
ALS Vial : 50 Sample Multiplier: 1

Integration Parameters: RTEINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 3 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X062920W.M
Title : SW846 8260

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	4.568	562	571	580	rBV5	8167	24096	1.73%	0.283%
2	5.464	705	718	731	rBV	165930	484600	34.84%	5.690%
3	5.629	734	745	761	rVB2	256292	727751	52.33%	8.545%
4	6.031	799	811	824	rBV	171022	458815	32.99%	5.387%
5	6.830	932	942	957	rBV	412214	980624	70.51%	11.514%
6	7.190	992	1001	1010	rVB2	18144	42622	3.06%	0.500%
7	8.695	1241	1248	1259	rBV	879794	1352184	97.22%	15.877%
8	9.317	1343	1350	1358	rBV	497148	714135	51.35%	8.385%
9	10.098	1472	1478	1490	rBV	957975	1282324	92.20%	15.056%
10	11.122	1640	1646	1659	rBV	829936	1042314	74.94%	12.238%
11	12.061	1793	1800	1808	rBV	1119377	1390808	100.00%	16.330%
12	16.621	2543	2548	2554	rVB2	9214	16614	1.19%	0.195%

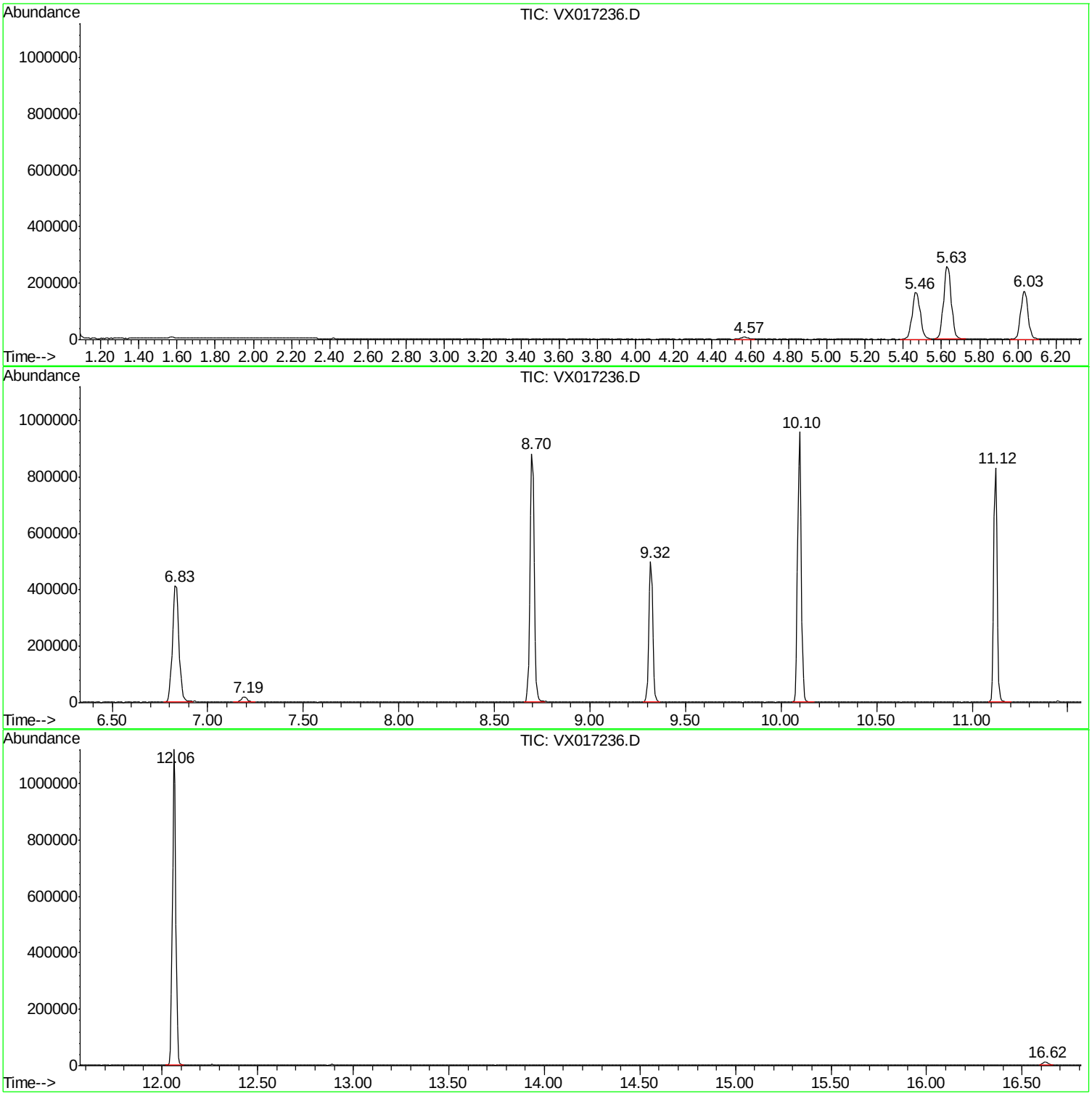
Sum of corrected areas: 8516887

Data Path : Z:\VOASRV\HPCHEM1\MSVOA X\DATA\VX070720\
Data File : VX017236.D
Acq On : 08 Jul 2020 04:46
Operator : JC/SP
Sample : L3232-11
Misc : 5.0mL/MSVOA X/WATER
ALS Vial : 50 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
1011-MW-18

Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X062920W.M
Quant Title : SW846 8260

TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P



Library Search Compound Report

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX070720\
Data File : VX017236.D
Acq On : 08 Jul 2020 04:46
Operator : JC/SP
Sample : L3232-11
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 50 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
1011-MW-18

Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X062920W.M
Quant Title : SW846 8260

TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

No Library Search Compounds Detected

****

Tentatively Identified Compound (LSC) summary

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX070720\
Data File : VX017236.D
Acq On : 08 Jul 2020 04:46
Operator : JC/SP
Sample : L3232-11
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 50 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
1011-MW-18

Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X062920W.M
Quant Title : SW846 8260

TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

TIC Top Hit name	RT	EstConc	Units	Response	Internal Standard #	Internal Standard RT	Internal Standard Resp	Internal Standard Conc

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Day Environmental, Inc.	Date Collected:	07/06/20
Project:	Andrew St. RI	Date Received:	07/07/20
Client Sample ID:	1012-MW-19	SDG No.:	L3232
Lab Sample ID:	L3232-12	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	DB-624UI ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX017237.D	1		07/08/20 05:08	VX070720

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
75-71-8	Dichlorodifluoromethane	1.00	U	0.22	1.00	ug/L
74-87-3	Chloromethane	1.00	U	0.30	1.00	ug/L
75-01-4	Vinyl Chloride	3.50		0.16	1.00	ug/L
74-83-9	Bromomethane	5.00	U	2.10	5.00	ug/L
75-00-3	Chloroethane	1.00	U	0.34	1.00	ug/L
75-69-4	Trichlorofluoromethane	1.00	U	0.16	1.00	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	1.00	U	0.21	1.00	ug/L
75-35-4	1,1-Dichloroethene	0.45	J	0.18	1.00	ug/L
67-64-1	Acetone	7.40		0.90	5.00	ug/L
75-15-0	Carbon Disulfide	1.00	U	0.23	1.00	ug/L
1634-04-4	Methyl tert-butyl Ether	1.00	U	0.070	1.00	ug/L
79-20-9	Methyl Acetate	1.00	U	0.65	1.00	ug/L
75-09-2	Methylene Chloride	1.00	U	0.33	1.00	ug/L
156-60-5	trans-1,2-Dichloroethene	1.30		0.24	1.00	ug/L
75-34-3	1,1-Dichloroethane	1.00	U	0.17	1.00	ug/L
110-82-7	Cyclohexane	5.00	U	1.20	5.00	ug/L
78-93-3	2-Butanone	5.00	U	0.71	5.00	ug/L
56-23-5	Carbon Tetrachloride	1.00	U	0.22	1.00	ug/L
156-59-2	cis-1,2-Dichloroethene	26.4		0.30	1.00	ug/L
74-97-5	Bromochloromethane	1.00	U	0.31	1.00	ug/L
67-66-3	Chloroform	1.00	U	0.14	1.00	ug/L
71-55-6	1,1,1-Trichloroethane	1.00	U	0.12	1.00	ug/L
108-87-2	Methylcyclohexane	1.00	U	0.17	1.00	ug/L
71-43-2	Benzene	1.00	U	0.10	1.00	ug/L
107-06-2	1,2-Dichloroethane	1.00	U	0.13	1.00	ug/L
79-01-6	Trichloroethene	23.2		0.27	1.00	ug/L
78-87-5	1,2-Dichloropropane	1.00	U	0.14	1.00	ug/L
75-27-4	Bromodichloromethane	1.00	U	0.10	1.00	ug/L
108-10-1	4-Methyl-2-Pentanone	5.00	U	0.85	5.00	ug/L
108-88-3	Toluene	1.00	U	0.12	1.00	ug/L
10061-02-6	t-1,3-Dichloropropene	1.00	U	0.19	1.00	ug/L
10061-01-5	cis-1,3-Dichloropropene	1.00	U	0.16	1.00	ug/L

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Day Environmental, Inc.	Date Collected:	07/06/20
Project:	Andrew St. RI	Date Received:	07/07/20
Client Sample ID:	1012-MW-19	SDG No.:	L3232
Lab Sample ID:	L3232-12	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	DB-624UI ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX017237.D	1		07/08/20 05:08	VX070720

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
79-00-5	1,1,2-Trichloroethane	1.00	U	0.12	1.00	ug/L
591-78-6	2-Hexanone	5.00	U	1.40	5.00	ug/L
124-48-1	Dibromochloromethane	1.00	U	0.16	1.00	ug/L
106-93-4	1,2-Dibromoethane	1.00	U	0.14	1.00	ug/L
127-18-4	Tetrachloroethene	16.0		0.15	1.00	ug/L
108-90-7	Chlorobenzene	1.00	U	0.080	1.00	ug/L
100-41-4	Ethyl Benzene	1.00	U	0.080	1.00	ug/L
179601-23-1	m/p-Xylenes	2.00	U	0.20	2.00	ug/L
95-47-6	o-Xylene	1.00	U	0.13	1.00	ug/L
100-42-5	Styrene	1.00	U	0.11	1.00	ug/L
75-25-2	Bromoform	1.00	U	0.15	1.00	ug/L
98-82-8	Isopropylbenzene	1.00	U	0.13	1.00	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	1.00	U	0.15	1.00	ug/L
541-73-1	1,3-Dichlorobenzene	1.00	U	0.14	1.00	ug/L
106-46-7	1,4-Dichlorobenzene	1.00	U	0.20	1.00	ug/L
95-50-1	1,2-Dichlorobenzene	1.00	U	0.12	1.00	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	1.00	U	0.54	1.00	ug/L
120-82-1	1,2,4-Trichlorobenzene	1.00	U	0.24	1.00	ug/L
87-61-6	1,2,3-Trichlorobenzene	1.00	U	0.26	1.00	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	55.7		61 - 141	111%	SPK: 50
1868-53-7	Dibromofluoromethane	54.9		69 - 133	110%	SPK: 50
2037-26-5	Toluene-d8	52.0		65 - 126	104%	SPK: 50
460-00-4	4-Bromofluorobenzene	53.8		58 - 135	108%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	240000	5.63			
540-36-3	1,4-Difluorobenzene	410000	6.83			
3114-55-4	Chlorobenzene-d5	432000	10.1			
3855-82-1	1,4-Dichlorobenzene-d4	226000	12.06			

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Day Environmental, Inc.	Date Collected:	07/06/20
Project:	Andrew St. RI	Date Received:	07/07/20
Client Sample ID:	1012-MW-19	SDG No.:	L3232
Lab Sample ID:	L3232-12	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	DB-624UI ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX017237.D	1		07/08/20 05:08	VX070720

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit
A = Aldol-Condensation Reaction Products

Quantitation Report (QT Reviewed)

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX070720\
Data File : VX017237.D
Acq On : 08 Jul 2020 05:08
Operator : JC/SP
Sample : L3232-12
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 51 Sample Multiplier: 1

Instrument : MSVOA_X
ClientSampleId : 1012-MW-19

Quant Time: Jul 08 07:09:38 2020
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X062920W.M
Quant Title : SW846 8260
QLast Update : Mon Jun 29 17:10:38 2020
Response via : Initial Calibration

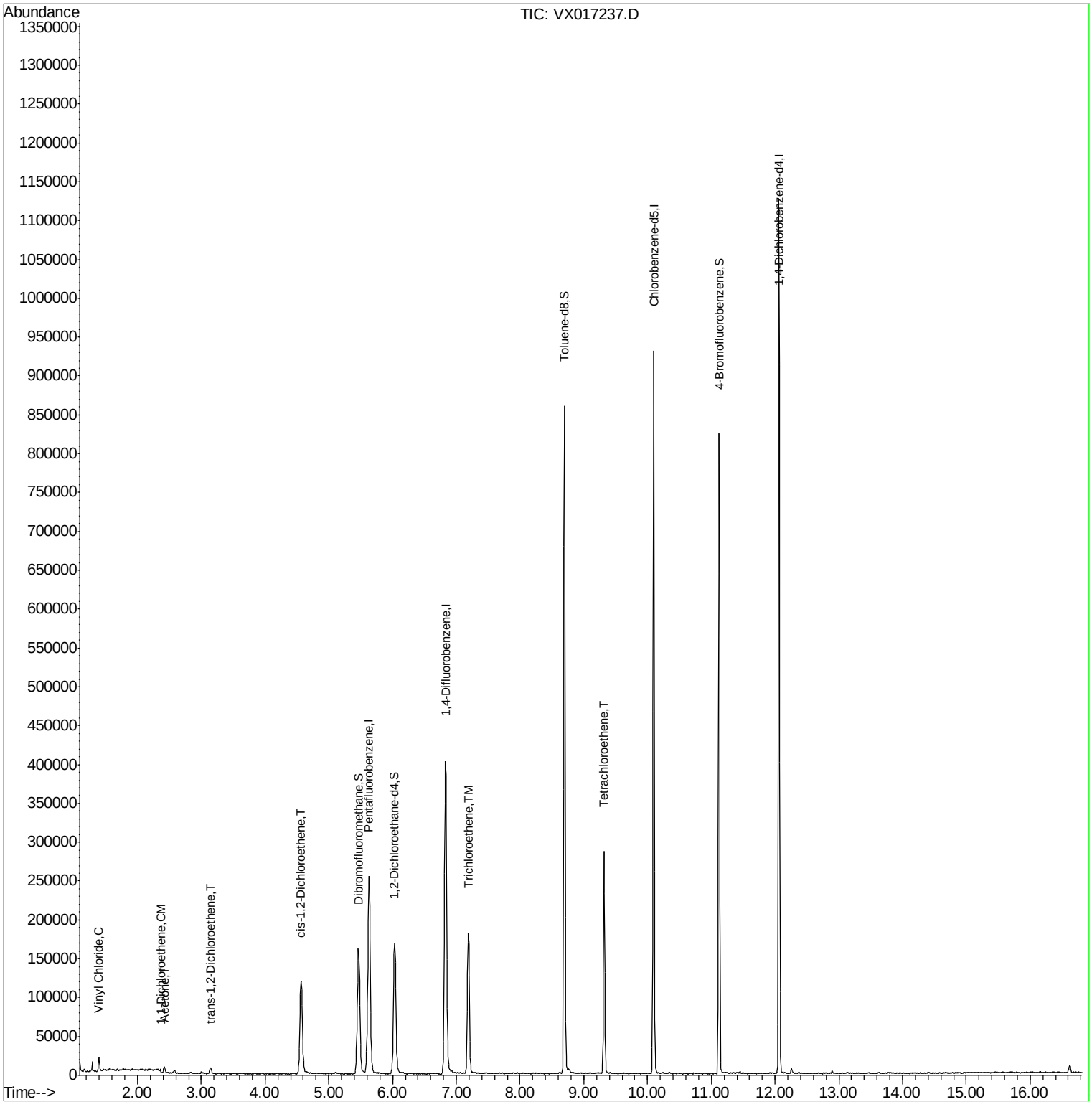
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	5.63	168	239542	50.00	ug/l	0.00
34) 1,4-Difluorobenzene	6.83	114	409530	50.00	ug/l	0.00
63) Chlorobenzene-d5	10.10	117	431507	50.00	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	12.06	152	226443	50.00	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	6.03	65	164412	55.67	ug/l	0.00
Spiked Amount 50.000			Recovery =	111.34%		
35) Dibromofluoromethane	5.47	113	142124	54.86	ug/l	0.00
Spiked Amount 50.000			Recovery =	109.72%		
50) Toluene-d8	8.70	98	498328	52.02	ug/l	0.00
Spiked Amount 50.000			Recovery =	104.04%		
62) 4-Bromofluorobenzene	11.12	95	201363	53.77	ug/l	0.00
Spiked Amount 50.000			Recovery =	107.54%		
Target Compounds						Qvalue
4) Vinyl Chloride	1.39	62	9111	3.501	ug/l	92
12) 1,1-Dichloroethene	2.36	96	1057	0.446	ug/l #	94
16) Acetone	2.42	43	8129	7.358	ug/l	93
21) trans-1,2-Dichloroethene	3.15	96	3355	1.276	ug/l	96
27) cis-1,2-Dichloroethene	4.56	96	78538	26.355	ug/l	90
44) Trichloroethene	7.19	130	73397	23.223	ug/l	99
64) Tetrachloroethene	9.32	164	55756	16.010	ug/l	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

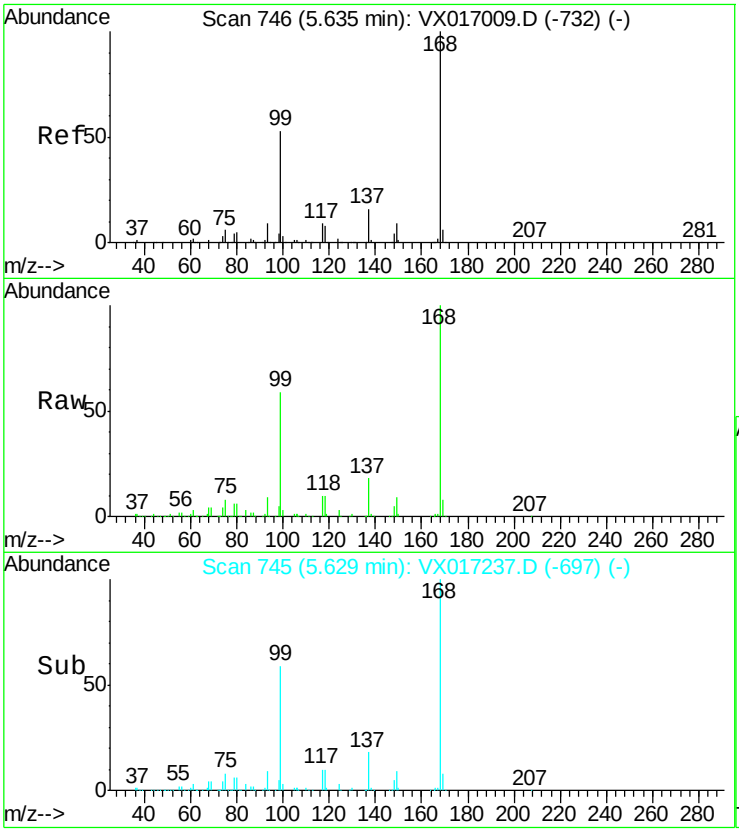
Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX070720\
Data File : VX017237.D
Acq On : 08 Jul 2020 05:08
Operator : JC/SP
Sample : L3232-12
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 51 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
1012-MW-19

Quant Time: Jul 08 07:09:38 2020
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X062920W.M
Quant Title : SW846 8260
QLast Update : Mon Jun 29 17:10:38 2020
Response via : Initial Calibration



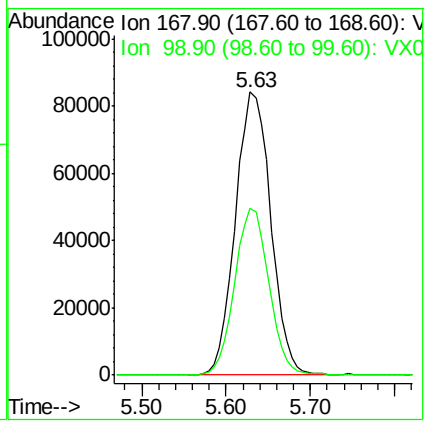
Instrument :
MSVOA_X
ClientSampleId :
1012-MW-19

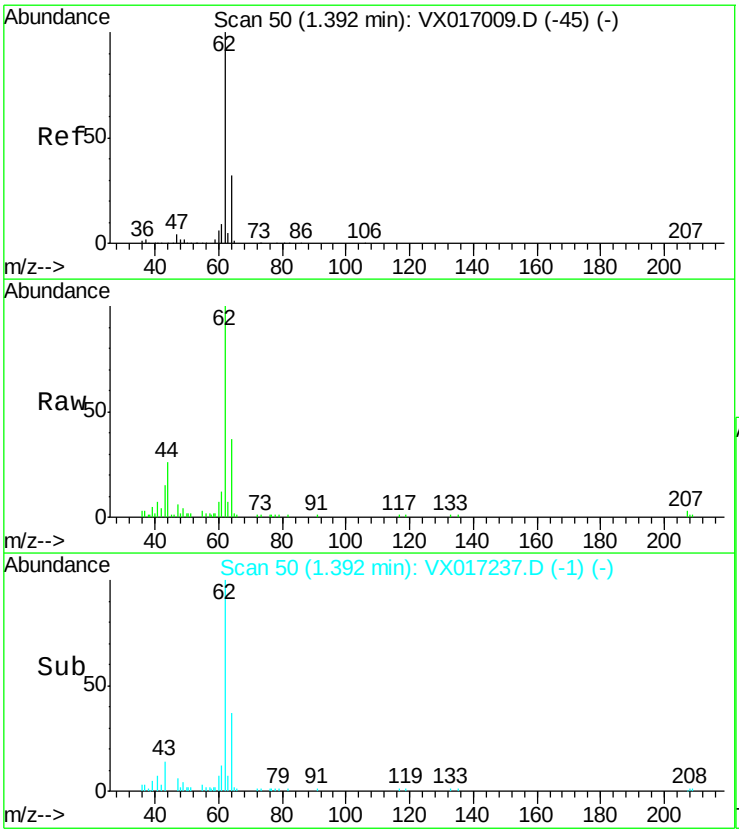


#1
Pentafluorobenzene
Concen: 50.000 ug/l
RT: 5.63 min Scan# 745
Delta R.T. -0.01 min
Lab File: VX017237.D
Acq: 08 Jul 2020 05:08

Tgt Ion:168 Resp: 239542

Ion	Ratio	Lower	Upper
168	100		
99	59.0	42.6	64.0

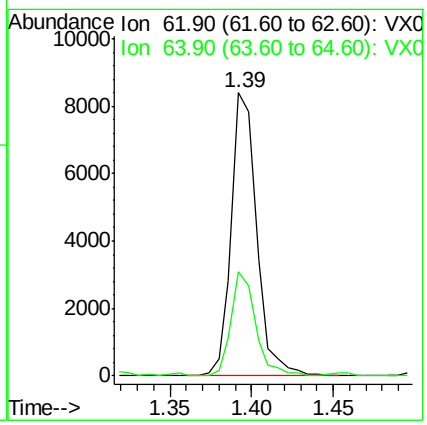




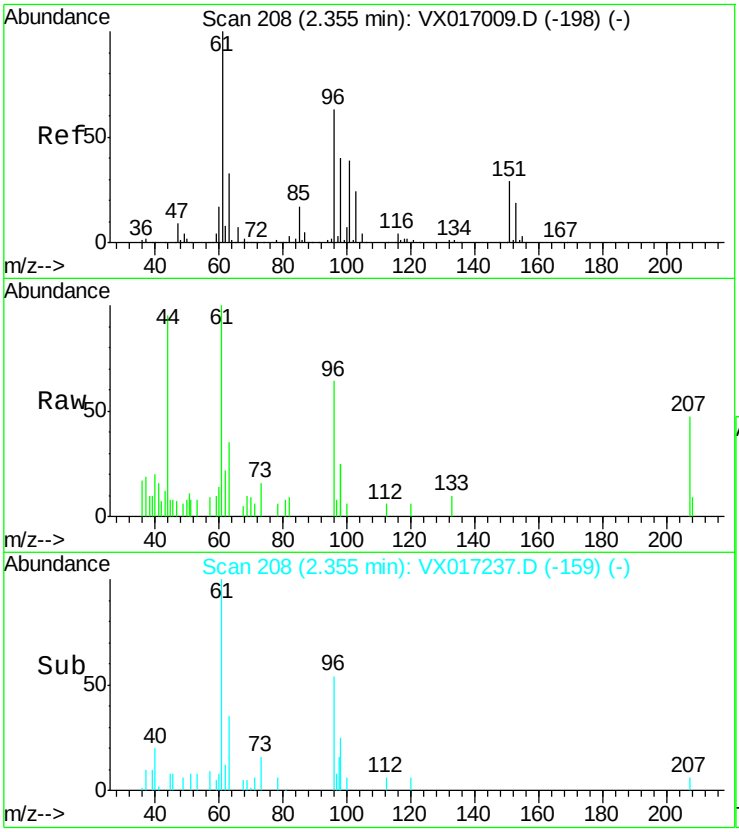
#4
Vinyl Chloride
Concen: 3.501 ug/l
RT: 1.39 min Scan# 50
Delta R.T. -0.00 min
Lab File: VX017237.D
Acq: 08 Jul 2020 05:08

Tgt Ion: 62 Resp: 9111

Ion	Ratio	Lower	Upper
62	100		
64	36.6	25.9	38.9



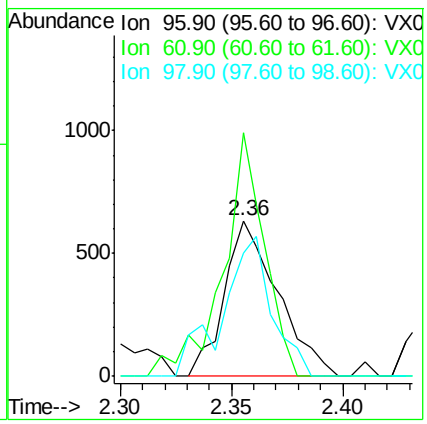
Instrument :
MSVOA_X
ClientSampleId :
1012-MW-19

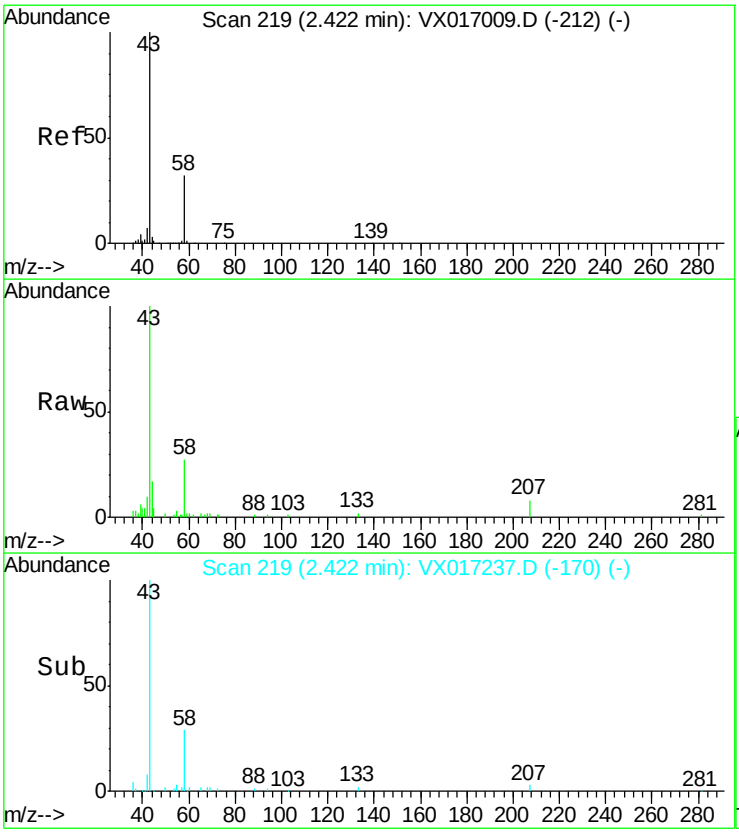


#12
1,1-Dichloroethene
Concen: 0.446 ug/l
RT: 2.36 min Scan# 208
Delta R.T. -0.00 min
Lab File: VX017237.D
Acq: 08 Jul 2020 05:08

Tgt Ion: 96 Resp: 1057

Ion	Ratio	Lower	Upper
96	100		
61	156.6	126.3	189.5
98	79.0	51.0	76.6#

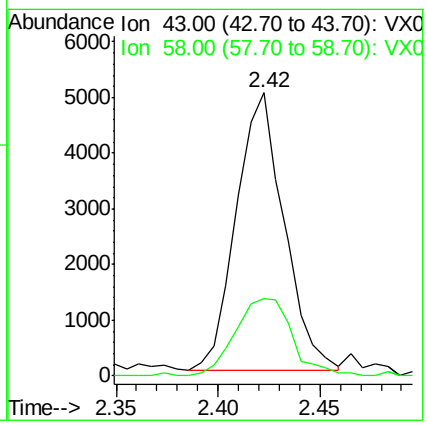




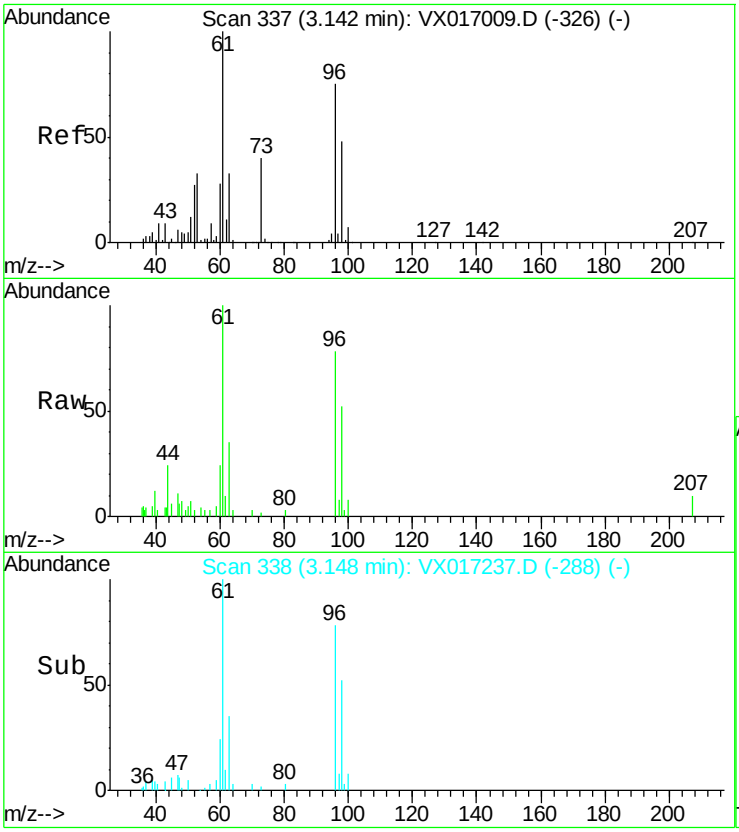
#16
Acetone
Concen: 7.358 ug/l
RT: 2.42 min Scan# 219
Delta R.T. -0.00 min
Lab File: VX017237.D
Acq: 08 Jul 2020 05:08

Tgt Ion: 43 Resp: 8129

Ion	Ratio	Lower	Upper
43	100		
58	28.0	25.7	38.5



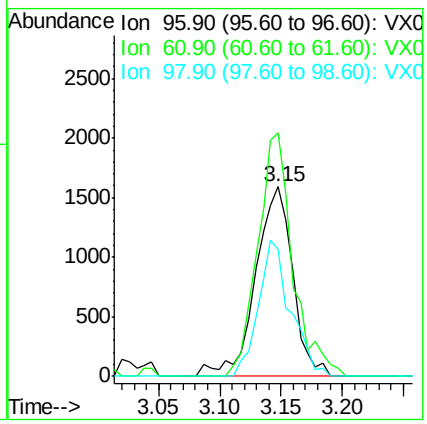
Instrument :
MSVOA_X
ClientSampleId :
1012-MW-19

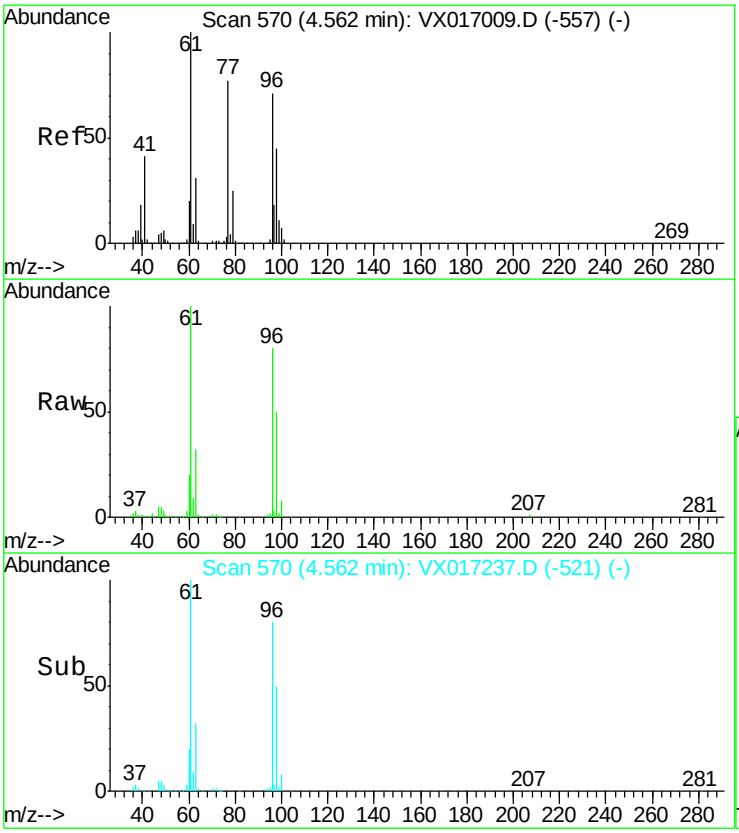


#21
trans-1,2-Dichloroethene
Concen: 1.276 ug/l
RT: 3.15 min Scan# 338
Delta R.T. 0.01 min
Lab File: VX017237.D
Acq: 08 Jul 2020 05:08

Tgt Ion: 96 Resp: 3355

Ion	Ratio	Lower	Upper
96	100		
61	128.6	107.0	160.6
98	67.5	51.6	77.4

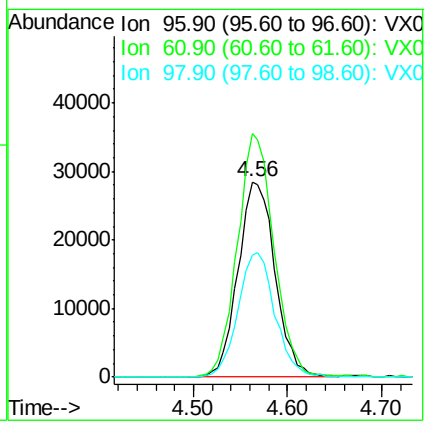




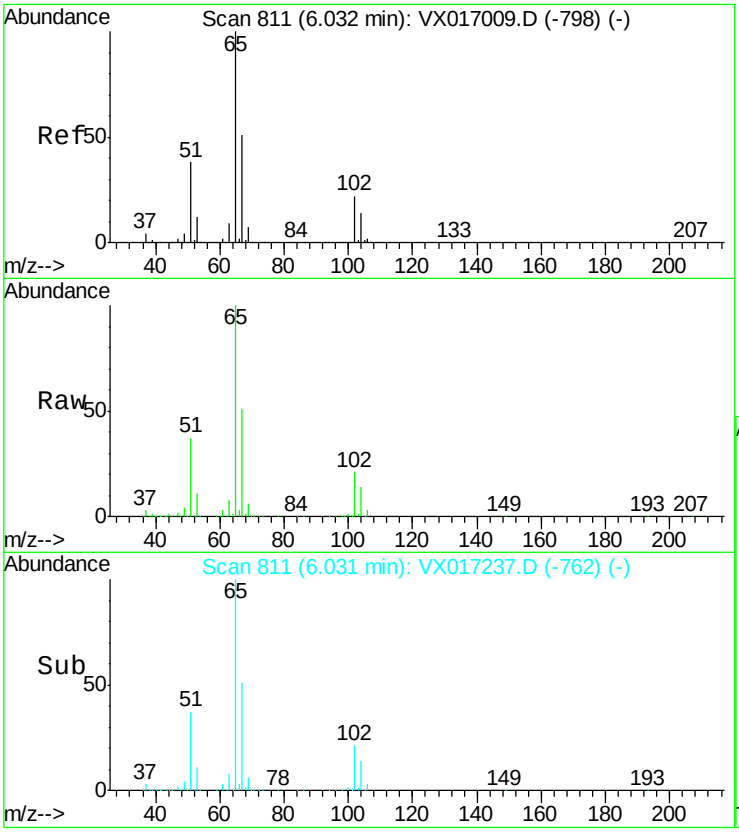
#27
cis-1,2-Dichloroethene
Concen: 26.355 ug/l
RT: 4.56 min Scan# 570
Delta R.T. -0.00 min
Lab File: VX017237.D
Acq: 08 Jul 2020 05:08

Tgt Ion: 96 Resp: 78538

Ion	Ratio	Lower	Upper
96	100		
61	123.6	0.0	282.8
98	63.3	0.0	127.6



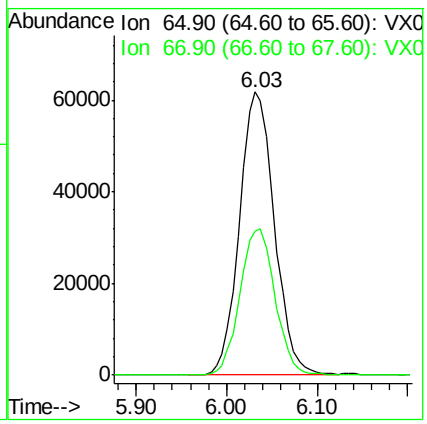
Instrument :
MSVOA_X
ClientSampleId :
1012-MW-19

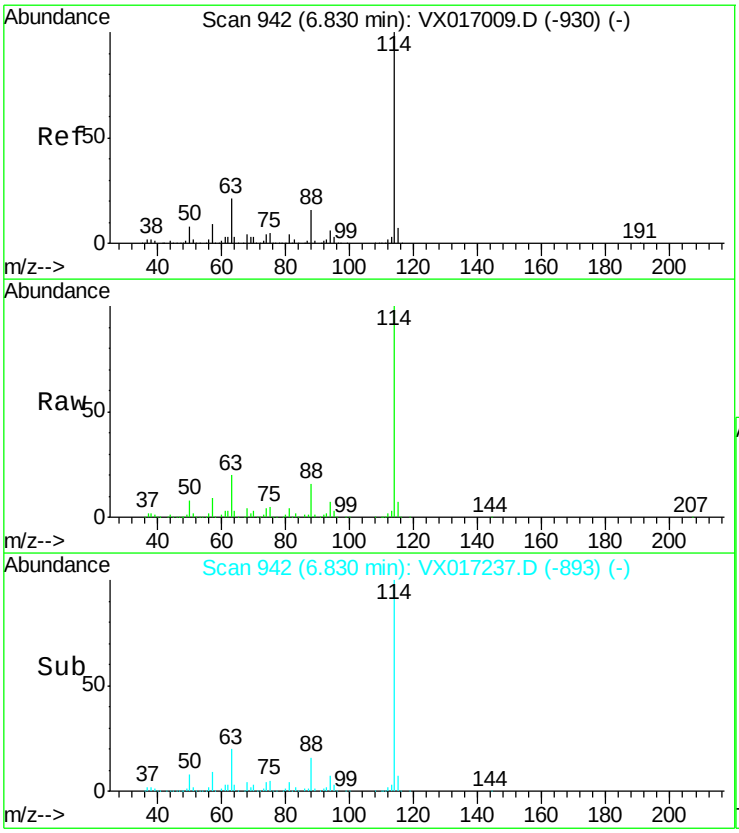


#33
1,2-Dichloroethane-d4
Concen: 55.675 ug/l
RT: 6.03 min Scan# 811
Delta R.T. -0.00 min
Lab File: VX017237.D
Acq: 08 Jul 2020 05:08

Tgt Ion: 65 Resp: 164412

Ion	Ratio	Lower	Upper
65	100		
67	52.3	0.0	103.8

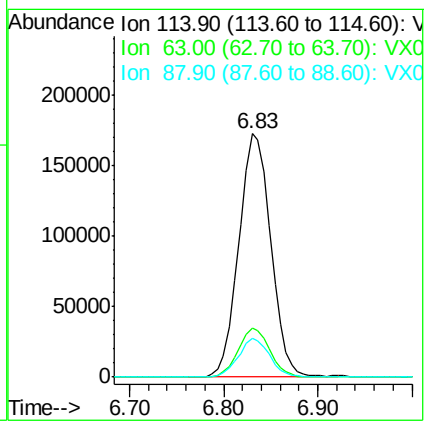




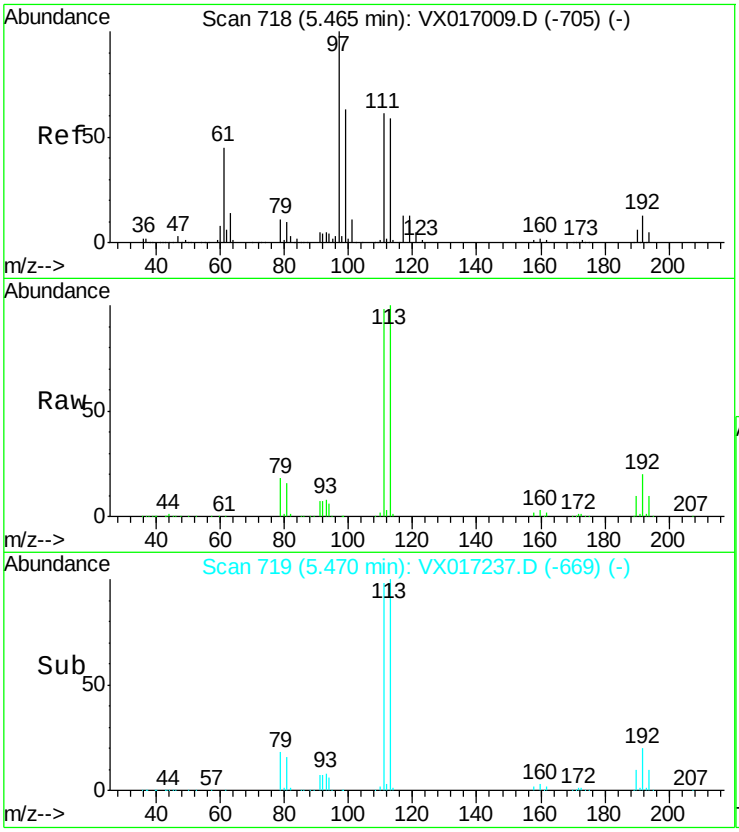
#34
1,4-Difluorobenzene
Concen: 50.000 ug/l
RT: 6.83 min Scan# 942
Delta R.T. -0.00 min
Lab File: VX017237.D
Acq: 08 Jul 2020 05:08

Tgt Ion:114 Resp: 409530

Ion	Ratio	Lower	Upper
114	100		
63	20.1	0.0	41.4
88	15.8	0.0	32.4



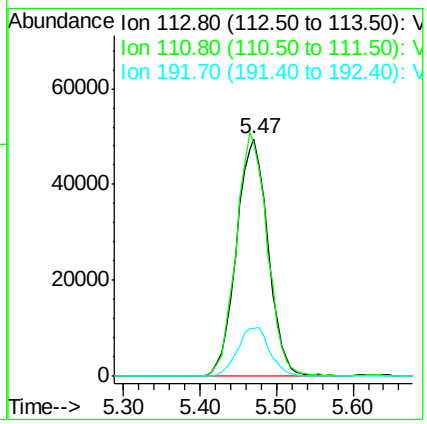
Instrument :
MSVOA_X
ClientSampleId :
1012-MW-19

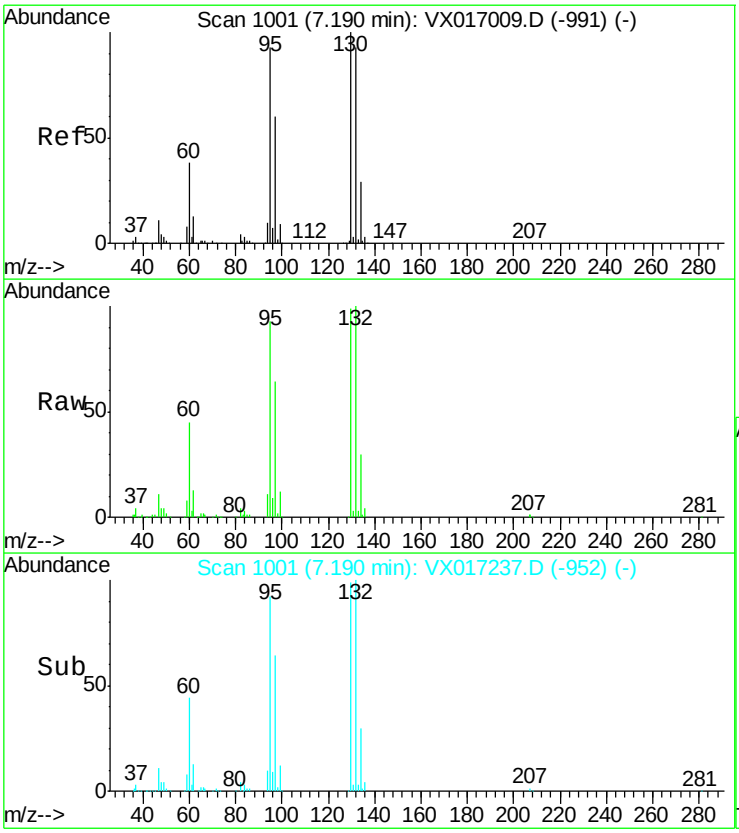


#35
Dibromofluoromethane
Concen: 54.862 ug/l
RT: 5.47 min Scan# 719
Delta R.T. 0.01 min
Lab File: VX017237.D
Acq: 08 Jul 2020 05:08

Tgt Ion:113 Resp: 142124

Ion	Ratio	Lower	Upper
113	100		
111	100.5	81.9	122.9
192	21.0	16.7	25.1

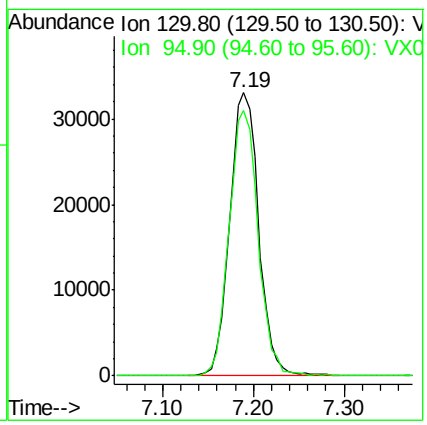




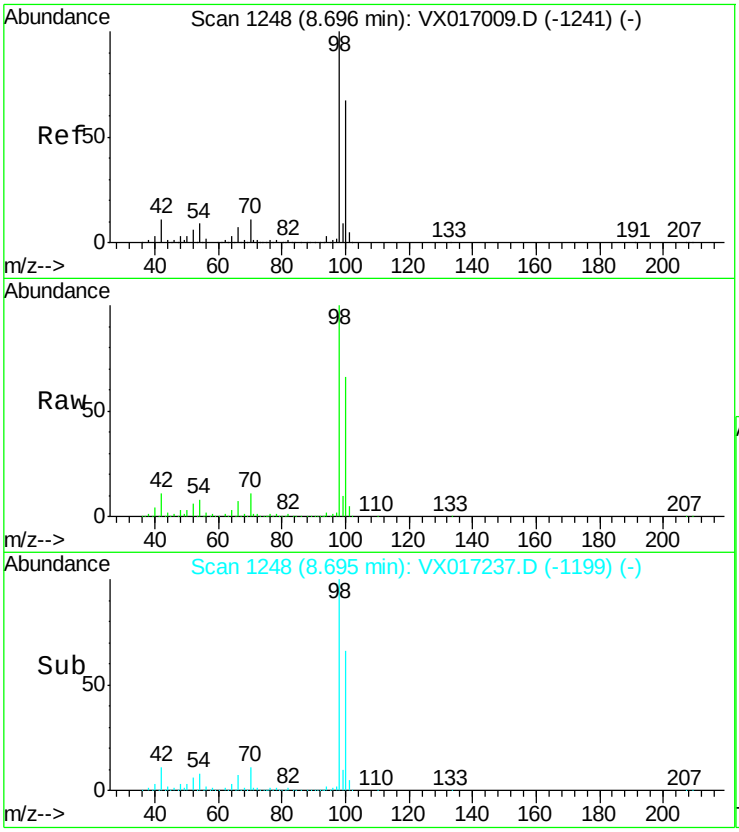
#44
Trichloroethene
Concen: 23.223 ug/l
RT: 7.19 min Scan# 1001
Delta R.T. 0.00 min
Lab File: VX017237.D
Acq: 08 Jul 2020 05:08

Tgt Ion:130 Resp: 73397

Ion	Ratio	Lower	Upper
130	100		
95	93.8	0.0	185.0



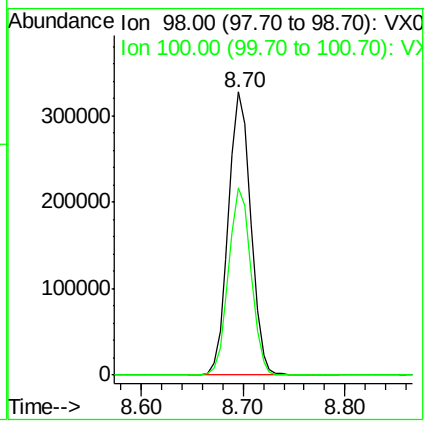
Instrument :
MSVOA_X
ClientSampleId :
1012-MW-19

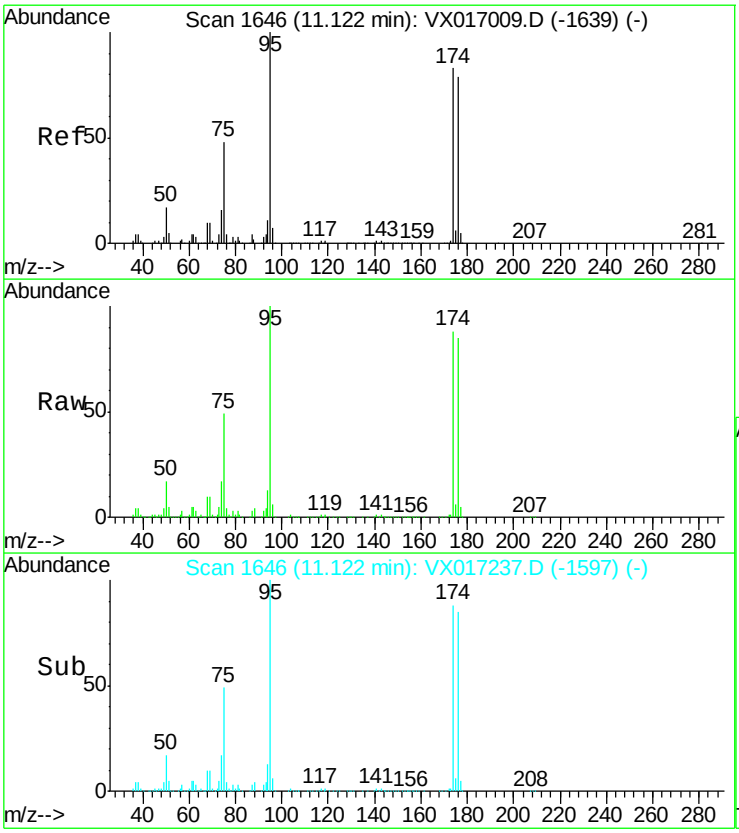


#50
Toluene-d8
Concen: 52.021 ug/l
RT: 8.70 min Scan# 1248
Delta R.T. -0.00 min
Lab File: VX017237.D
Acq: 08 Jul 2020 05:08

Tgt Ion: 98 Resp: 498328

Ion	Ratio	Lower	Upper
98	100		
100	66.3	53.8	80.6

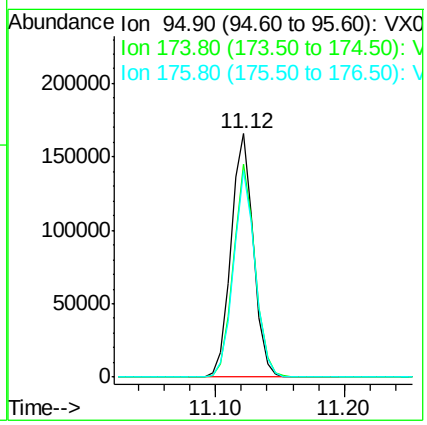




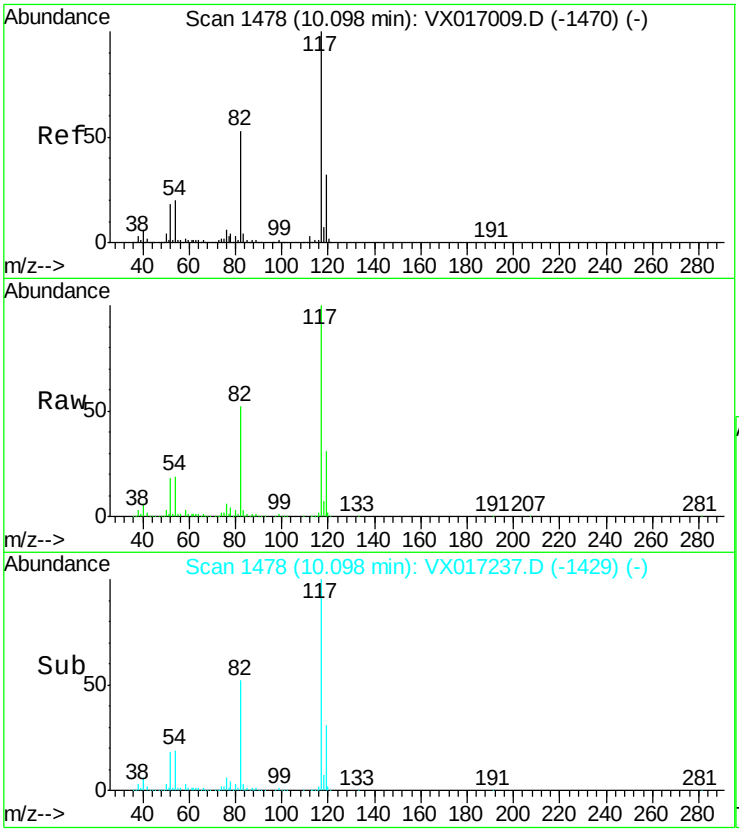
#62
4-Bromofluorobenzene
Concen: 53.773 ug/l
RT: 11.12 min Scan# 1646
Delta R.T. -0.00 min
Lab File: VX017237.D
Acq: 08 Jul 2020 05:08

Tgt Ion: 95 Resp: 201363

Ion	Ratio	Lower	Upper
95	100		
174	84.9	0.0	164.0
176	82.4	0.0	157.6



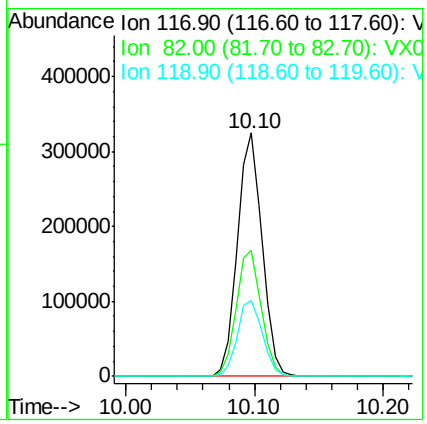
Instrument :
MSVOA_X
ClientSampleId :
1012-MW-19

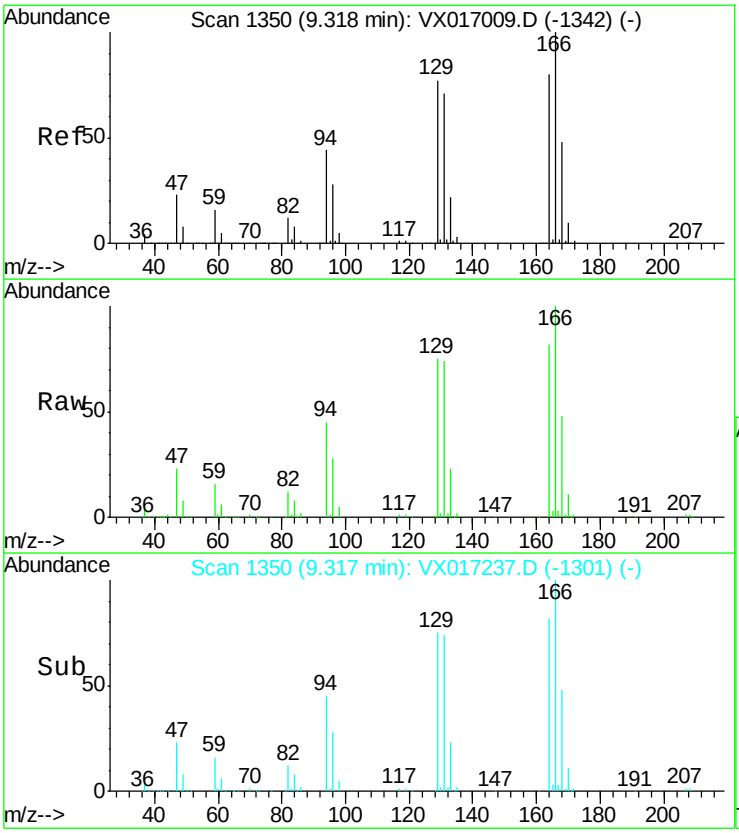


#63
Chlorobenzene-d5
Concen: 50.000 ug/l
RT: 10.10 min Scan# 1478
Delta R.T. -0.00 min
Lab File: VX017237.D
Acq: 08 Jul 2020 05:08

Tgt Ion:117 Resp: 431507

Ion	Ratio	Lower	Upper
117	100		
82	51.9	42.6	63.8
119	31.2	25.4	38.2

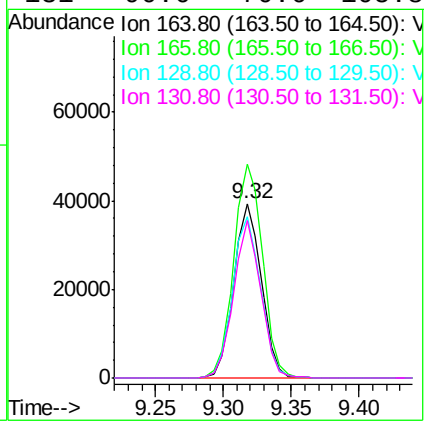


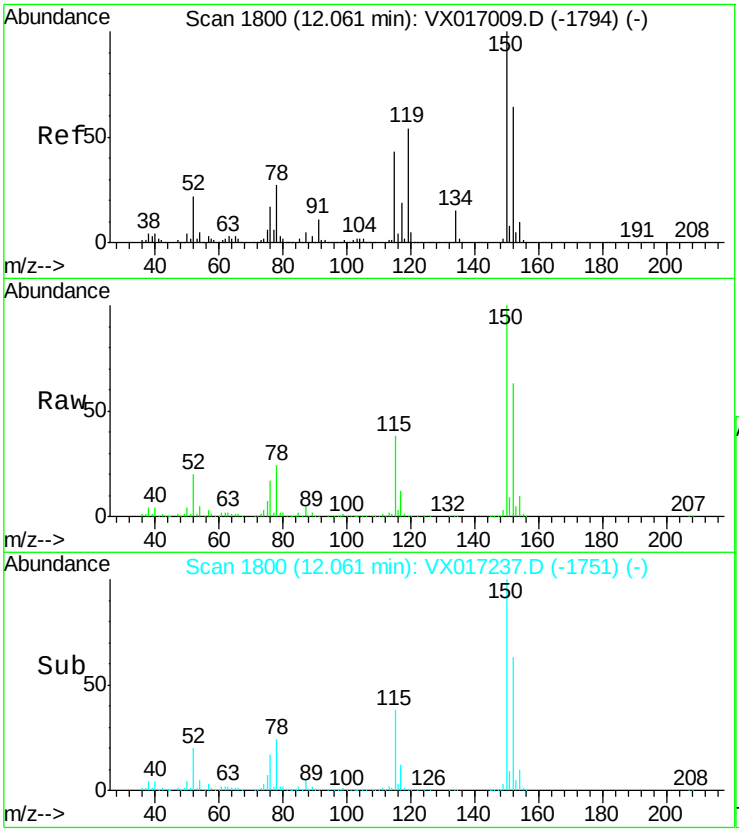


#64
Tetrachloroethene
Concen: 16.010 ug/l
RT: 9.32 min Scan# 1350
Delta R.T. -0.00 min
Lab File: VX017237.D
Acq: 08 Jul 2020 05:08

Tgt Ion:164 Resp: 55756

Ion	Ratio	Lower	Upper
164	100		
166	122.6	99.4	149.0
129	92.3	76.3	114.5
131	90.6	70.6	105.8

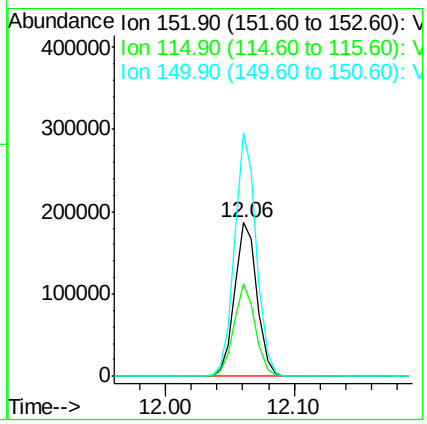




#72
1,4-Dichlorobenzene-d4
Concen: 50.000 ug/l
RT: 12.06 min Scan# 1800
Delta R.T. -0.00 min
Lab File: VX017237.D
Acq: 08 Jul 2020 05:08

Tgt Ion:152 Resp: 226443

Ion	Ratio	Lower	Upper
152	100		
115	57.6	40.9	122.7
150	153.9	0.0	351.6



Instrument :
MSVOA_X
ClientSampleId :
1012-MW-19

Instrument :
MSVOA_X
ClientSampleId :
1012-MW-19

LSC Area Percent Report

Data Path : Z:\VOASRV\HPCHEM1\MSVOA X\DATA\VX070720\
Data File : VX017237.D
Acq On : 08 Jul 2020 05:08
Operator : JC/SP
Sample : L3232-12
Misc : 5.0mL/MSVOA X/WATER
ALS Vial : 51 Sample Multiplier: 1

Integration Parameters: RTEINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 3 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X062920W.M
Title : SW846 8260

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	1.392	45	50	57	rBV	18743	24766	1.85%	0.284%
2	3.148	330	338	347	rBV2	7684	16404	1.22%	0.188%
3	4.562	559	570	582	rBV	118803	334179	24.94%	3.829%
4	5.464	708	718	729	rBV3	160528	467975	34.92%	5.361%
5	5.629	734	745	760	rVB	253108	710168	53.00%	8.136%
6	6.031	799	811	825	rBV	168461	455905	34.02%	5.223%
7	6.830	932	942	956	rBV	402892	962070	71.79%	11.022%
8	7.190	991	1001	1010	rBV	181371	392958	29.32%	4.502%
9	8.695	1241	1248	1256	rBV	858913	1322126	98.66%	15.147%
10	9.317	1343	1350	1359	rBV	285476	417232	31.14%	4.780%
11	10.098	1471	1478	1488	rBV	930658	1260271	94.05%	14.439%
12	11.122	1640	1646	1655	rBV	824054	1005739	75.05%	11.522%
13	12.061	1793	1800	1809	rBV	1126017	1340049	100.00%	15.353%
14	16.621	2542	2548	2553	rBV5	9647	18664	1.39%	0.214%

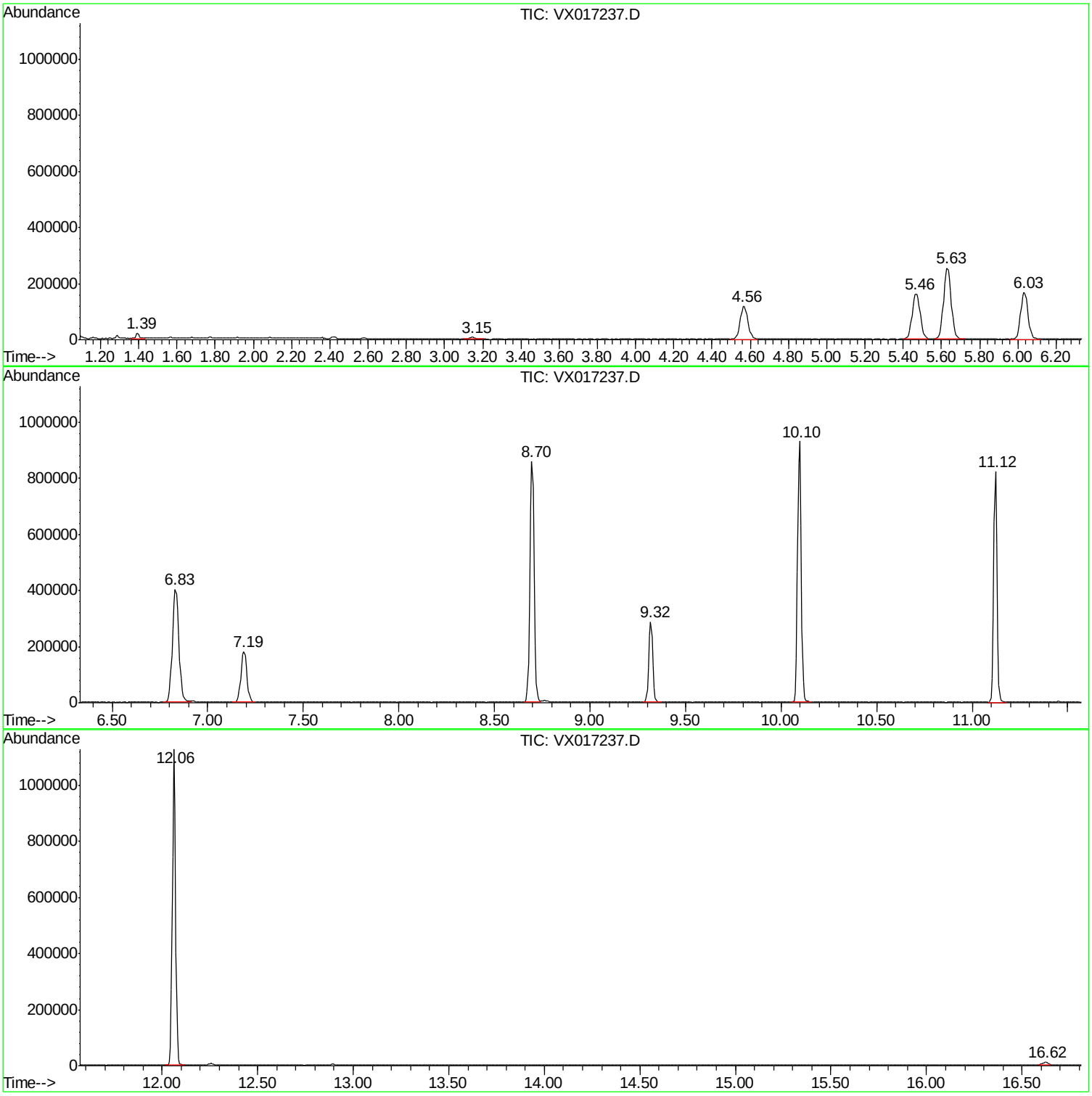
Sum of corrected areas: 8728506

Data Path : Z:\VOASRV\HPCHEM1\MSVOA X\DATA\VX070720\
Data File : VX017237.D
Acq On : 08 Jul 2020 05:08
Operator : JC/SP
Sample : L3232-12
Misc : 5.0mL/MSVOA X/WATER
ALS Vial : 51 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
1012-MW-19

Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X062920W.M
Quant Title : SW846 8260

TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P



Library Search Compound Report

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX070720\
Data File : VX017237.D
Acq On : 08 Jul 2020 05:08
Operator : JC/SP
Sample : L3232-12
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 51 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
1012-MW-19

Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X062920W.M
Quant Title : SW846 8260

TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

No Library Search Compounds Detected

****

Tentatively Identified Compound (LSC) summary

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX070720\
Data File : VX017237.D
Acq On : 08 Jul 2020 05:08
Operator : JC/SP
Sample : L3232-12
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 51 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
1012-MW-19

Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X062920W.M
Quant Title : SW846 8260

TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

TIC Top Hit name	RT	EstConc	Units	Response	Internal Standard #	Internal Standard RT	Internal Standard Resp	Internal Standard Conc

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Day Environmental, Inc.	Date Collected:	07/06/20
Project:	Andrew St. RI	Date Received:	07/07/20
Client Sample ID:	1013-FB070620	SDG No.:	L3232
Lab Sample ID:	L3232-13	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	DB-624UI ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX017250.D	1		07/08/20 13:14	VX070820

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
75-71-8	Dichlorodifluoromethane	1.00	U	0.22	1.00	ug/L
74-87-3	Chloromethane	1.00	U	0.30	1.00	ug/L
75-01-4	Vinyl Chloride	1.00	U	0.16	1.00	ug/L
74-83-9	Bromomethane	5.00	U	2.10	5.00	ug/L
75-00-3	Chloroethane	1.00	U	0.34	1.00	ug/L
75-69-4	Trichlorofluoromethane	1.00	U	0.16	1.00	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	1.00	U	0.21	1.00	ug/L
75-35-4	1,1-Dichloroethene	1.00	U	0.18	1.00	ug/L
67-64-1	Acetone	19.3		0.90	5.00	ug/L
75-15-0	Carbon Disulfide	1.00	U	0.23	1.00	ug/L
1634-04-4	Methyl tert-butyl Ether	1.00	U	0.070	1.00	ug/L
79-20-9	Methyl Acetate	1.00	U	0.65	1.00	ug/L
75-09-2	Methylene Chloride	1.00	U	0.33	1.00	ug/L
156-60-5	trans-1,2-Dichloroethene	1.00	U	0.24	1.00	ug/L
75-34-3	1,1-Dichloroethane	1.00	U	0.17	1.00	ug/L
110-82-7	Cyclohexane	5.00	U	1.20	5.00	ug/L
78-93-3	2-Butanone	5.00	U	0.71	5.00	ug/L
56-23-5	Carbon Tetrachloride	1.00	U	0.22	1.00	ug/L
156-59-2	cis-1,2-Dichloroethene	1.00	U	0.30	1.00	ug/L
74-97-5	Bromochloromethane	1.00	U	0.31	1.00	ug/L
67-66-3	Chloroform	1.00	U	0.14	1.00	ug/L
71-55-6	1,1,1-Trichloroethane	1.00	U	0.12	1.00	ug/L
108-87-2	Methylcyclohexane	1.00	U	0.17	1.00	ug/L
71-43-2	Benzene	1.00	U	0.10	1.00	ug/L
107-06-2	1,2-Dichloroethane	1.00	U	0.13	1.00	ug/L
79-01-6	Trichloroethene	1.00	U	0.27	1.00	ug/L
78-87-5	1,2-Dichloropropane	1.00	U	0.14	1.00	ug/L
75-27-4	Bromodichloromethane	1.00	U	0.10	1.00	ug/L
108-10-1	4-Methyl-2-Pentanone	5.00	U	0.85	5.00	ug/L
108-88-3	Toluene	1.00	U	0.12	1.00	ug/L
10061-02-6	t-1,3-Dichloropropene	1.00	U	0.19	1.00	ug/L
10061-01-5	cis-1,3-Dichloropropene	1.00	U	0.16	1.00	ug/L

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Day Environmental, Inc.	Date Collected:	07/06/20
Project:	Andrew St. RI	Date Received:	07/07/20
Client Sample ID:	1013-FB070620	SDG No.:	L3232
Lab Sample ID:	L3232-13	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	DB-624UI ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX017250.D	1		07/08/20 13:14	VX070820

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
79-00-5	1,1,2-Trichloroethane	1.00	U	0.12	1.00	ug/L
591-78-6	2-Hexanone	5.00	U	1.40	5.00	ug/L
124-48-1	Dibromochloromethane	1.00	U	0.16	1.00	ug/L
106-93-4	1,2-Dibromoethane	1.00	U	0.14	1.00	ug/L
127-18-4	Tetrachloroethene	0.48	J	0.15	1.00	ug/L
108-90-7	Chlorobenzene	1.00	U	0.080	1.00	ug/L
100-41-4	Ethyl Benzene	1.00	U	0.080	1.00	ug/L
179601-23-1	m/p-Xylenes	2.00	U	0.20	2.00	ug/L
95-47-6	o-Xylene	1.00	U	0.13	1.00	ug/L
100-42-5	Styrene	1.00	U	0.11	1.00	ug/L
75-25-2	Bromoform	1.00	U	0.15	1.00	ug/L
98-82-8	Isopropylbenzene	1.00	U	0.13	1.00	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	1.00	U	0.15	1.00	ug/L
541-73-1	1,3-Dichlorobenzene	1.00	U	0.14	1.00	ug/L
106-46-7	1,4-Dichlorobenzene	1.00	U	0.20	1.00	ug/L
95-50-1	1,2-Dichlorobenzene	1.00	U	0.12	1.00	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	1.00	U	0.54	1.00	ug/L
120-82-1	1,2,4-Trichlorobenzene	1.00	U	0.24	1.00	ug/L
87-61-6	1,2,3-Trichlorobenzene	1.00	U	0.26	1.00	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	52.6		61 - 141	105%	SPK: 50
1868-53-7	Dibromofluoromethane	53.8		69 - 133	108%	SPK: 50
2037-26-5	Toluene-d8	51.0		65 - 126	102%	SPK: 50
460-00-4	4-Bromofluorobenzene	53.2		58 - 135	106%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	248000	5.63			
540-36-3	1,4-Difluorobenzene	412000	6.83			
3114-55-4	Chlorobenzene-d5	423000	10.1			
3855-82-1	1,4-Dichlorobenzene-d4	213000	12.06			
TENTATIVE IDENTIFIED COMPOUNDS						
000104-76-7	1-Hexanol, 2-ethyl-	29.5	J		12.3	ug/L

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Day Environmental, Inc.	Date Collected:	07/06/20
Project:	Andrew St. RI	Date Received:	07/07/20
Client Sample ID:	1013-FB070620	SDG No.:	L3232
Lab Sample ID:	L3232-13	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	DB-624UI ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX017250.D	1		07/08/20 13:14	VX070820

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit
A = Aldol-Condensation Reaction Products

Quantitation Report (QT/LSC Reviewed)

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX070820\
Data File : VX017250.D
Acq On : 08 Jul 2020 13:14
Operator : JC/SP
Sample : L3232-13
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 8 Sample Multiplier: 1

Instrument : MSVOA_X
ClientSampleId : 1013-FB070620

Quant Time: Jul 09 06:49:18 2020
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X062920W.M
Quant Title : SW846 8260
QLast Update : Mon Jun 29 17:10:38 2020
Response via : Initial Calibration

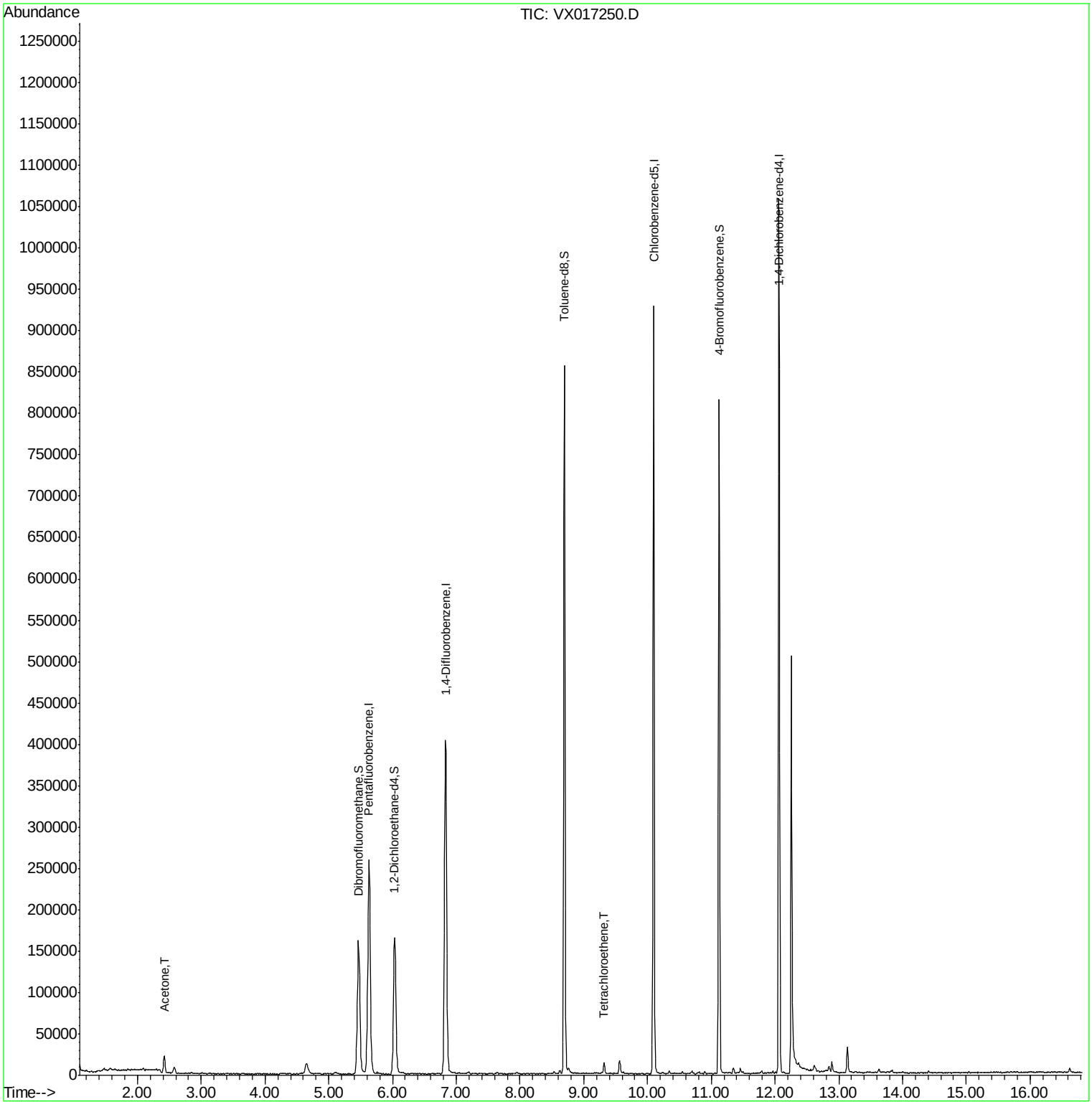
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	5.63	168	248074	50.00	ug/l	0.00
34) 1,4-Difluorobenzene	6.83	114	412010	50.00	ug/l	0.00
63) Chlorobenzene-d5	10.10	117	422609	50.00	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	12.06	152	212687	50.00	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	6.03	65	160774	52.57	ug/l	0.00
Spiked Amount 50.000			Recovery =	105.14%		
35) Dibromofluoromethane	5.46	113	140341	53.85	ug/l	0.00
Spiked Amount 50.000			Recovery =	107.70%		
50) Toluene-d8	8.70	98	491929	51.04	ug/l	0.00
Spiked Amount 50.000			Recovery =	102.08%		
62) 4-Bromofluorobenzene	11.12	95	200426	53.20	ug/l	0.00
Spiked Amount 50.000			Recovery =	106.40%		
Target Compounds						Qvalue
16) Acetone	2.42	43	22113	19.328	ug/l	93
64) Tetrachloroethene	9.32	164	1630	0.478	ug/l	94

(#) = qualifier out of range (m) = manual integration (+) = signals summed

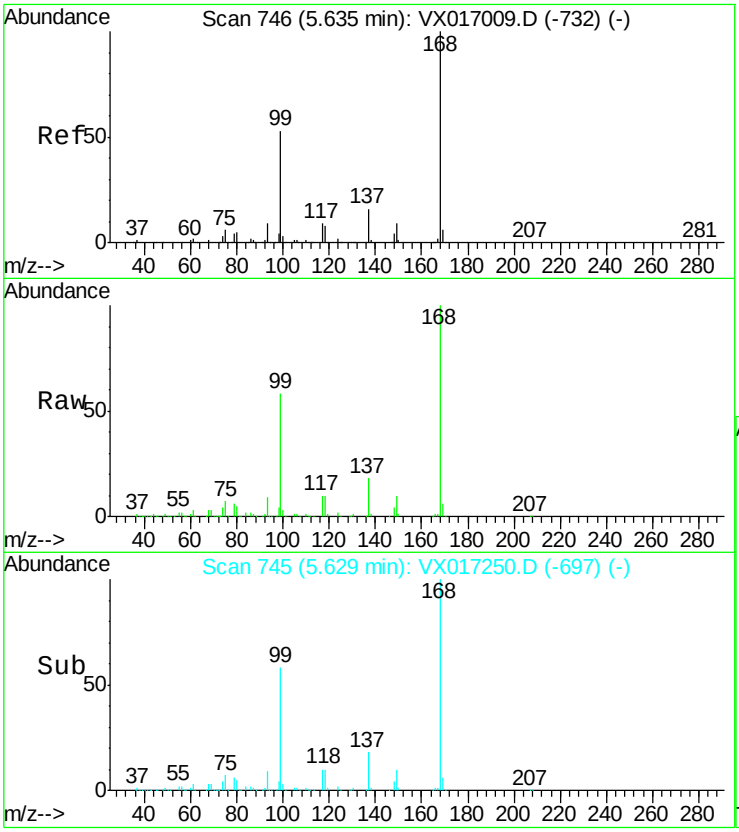
Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX070820\
Data File : VX017250.D
Acq On : 08 Jul 2020 13:14
Operator : JC/SP
Sample : L3232-13
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 8 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
1013-FB070620

Quant Time: Jul 09 06:49:18 2020
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X062920W.M
Quant Title : SW846 8260
QLast Update : Mon Jun 29 17:10:38 2020
Response via : Initial Calibration



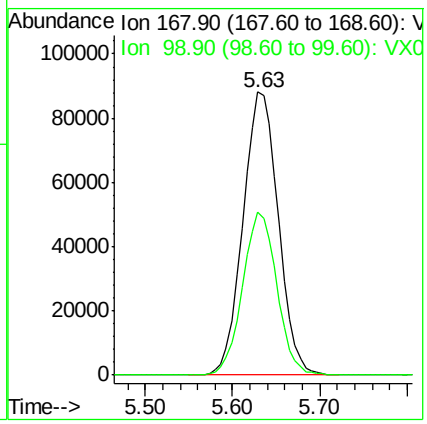
Instrument :
MSVOA_X
ClientSampleId :
1013-FB070620

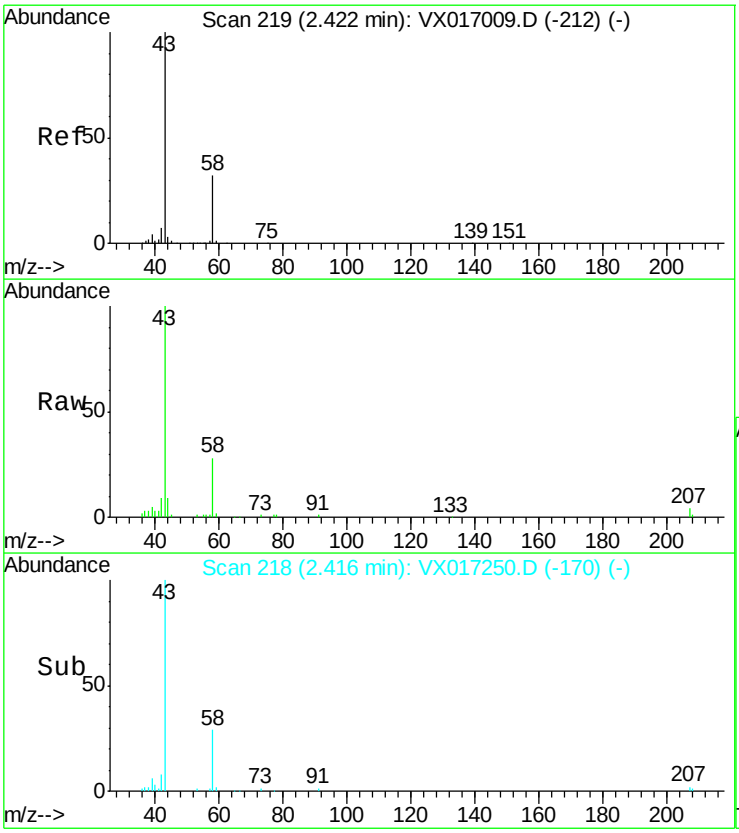


#1
Pentafluorobenzene
Concen: 50.000 ug/l
RT: 5.63 min Scan# 745
Delta R.T. -0.01 min
Lab File: VX017250.D
Acq: 08 Jul 2020 13:14

Tgt Ion:168 Resp: 248074

Ion	Ratio	Lower	Upper
168	100		
99	57.5	42.6	64.0

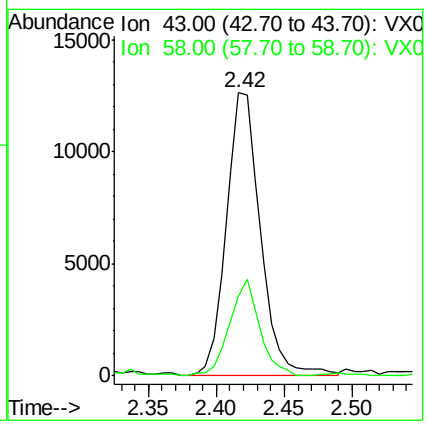




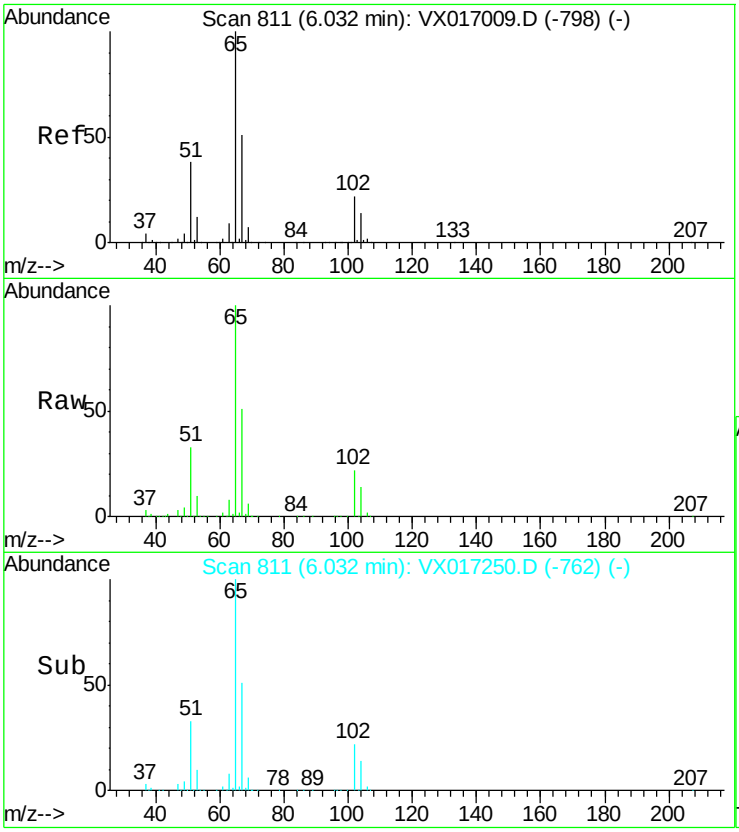
#16
Acetone
Concen: 19.328 ug/l
RT: 2.42 min Scan# 218
Delta R.T. -0.01 min
Lab File: VX017250.D
Acq: 08 Jul 2020 13:14

Tgt Ion: 43 Resp: 22113

Ion	Ratio	Lower	Upper
43	100		
58	28.2	25.7	38.5



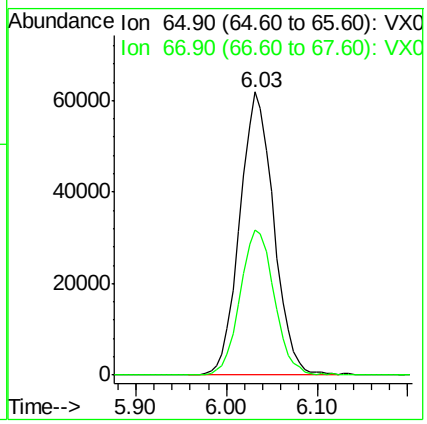
Instrument :
MSVOA_X
ClientSampleId :
1013-FB070620

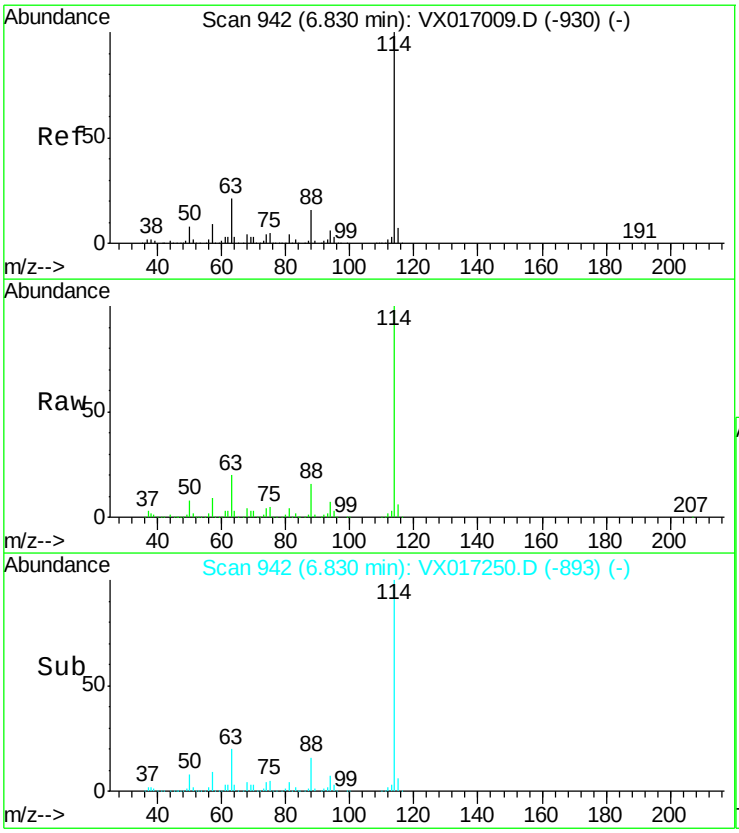


#33
1,2-Dichloroethane-d4
Concen: 52.571 ug/l
RT: 6.03 min Scan# 811
Delta R.T. -0.00 min
Lab File: VX017250.D
Acq: 08 Jul 2020 13:14

Tgt Ion: 65 Resp: 160774

Ion	Ratio	Lower	Upper
65	100		
67	51.9	0.0	103.8

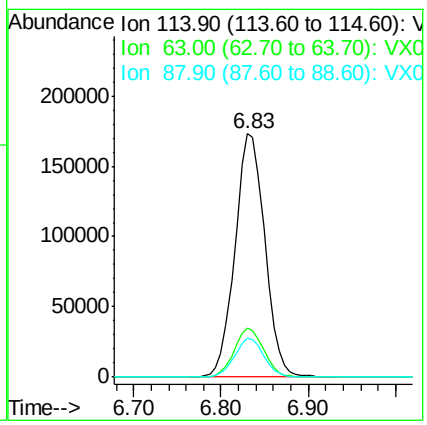




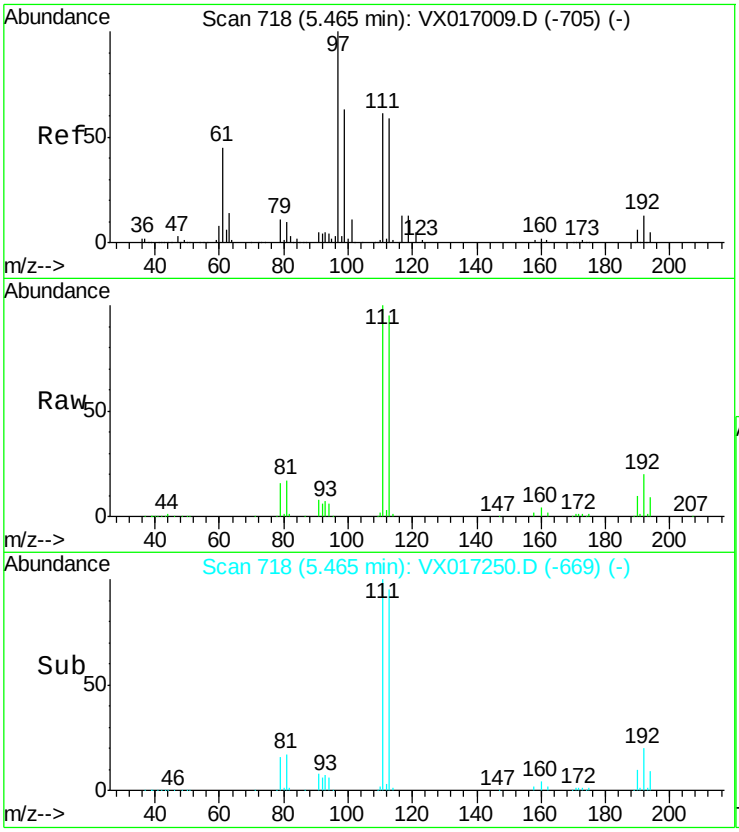
#34
1,4-Difluorobenzene
Concen: 50.000 ug/l
RT: 6.83 min Scan# 942
Delta R.T. -0.00 min
Lab File: VX017250.D
Acq: 08 Jul 2020 13:14

Tgt Ion:114 Resp: 412010

Ion	Ratio	Lower	Upper
114	100		
63	20.2	0.0	41.4
88	16.1	0.0	32.4



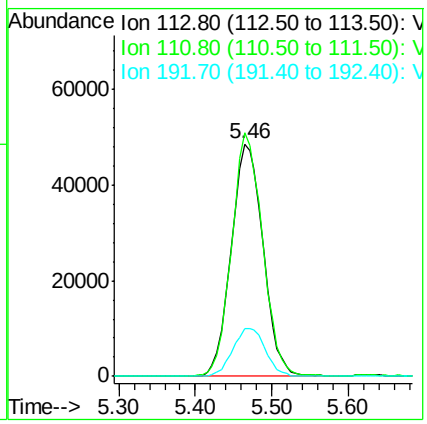
Instrument :
MSVOA_X
ClientSampleId :
1013-FB070620

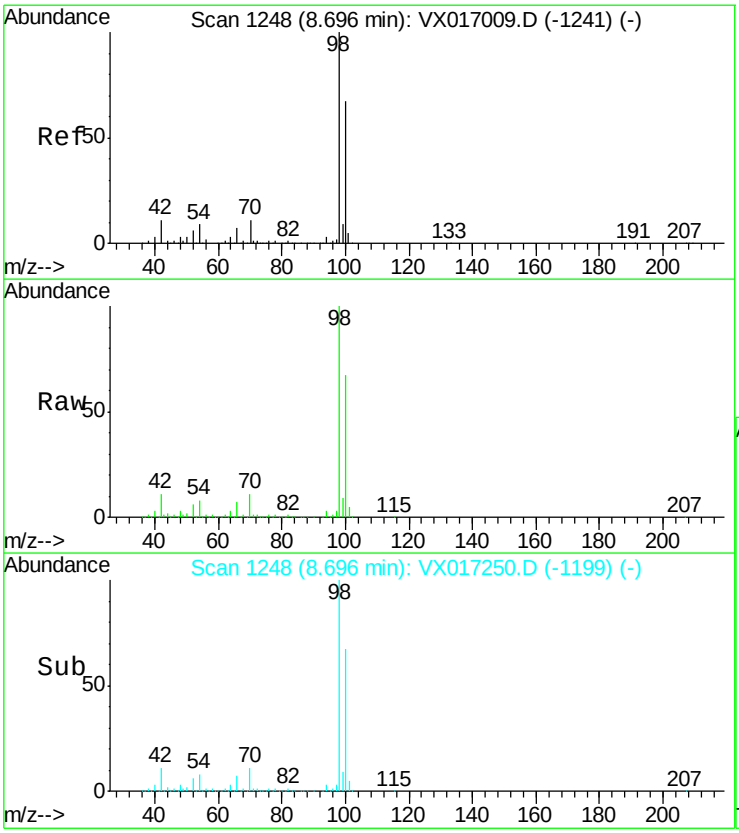


#35
Dibromofluoromethane
Concen: 53.848 ug/l
RT: 5.46 min Scan# 718
Delta R.T. -0.00 min
Lab File: VX017250.D
Acq: 08 Jul 2020 13:14

Tgt Ion:113 Resp: 140341

Ion	Ratio	Lower	Upper
113	100		
111	101.7	81.9	122.9
192	21.2	16.7	25.1

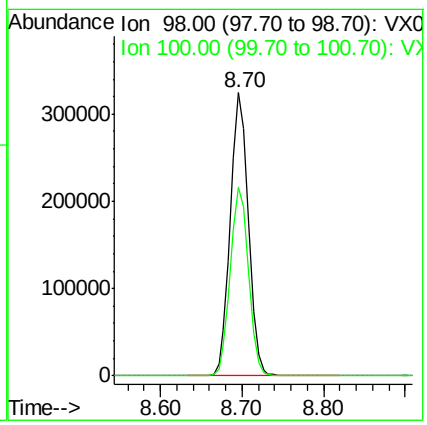




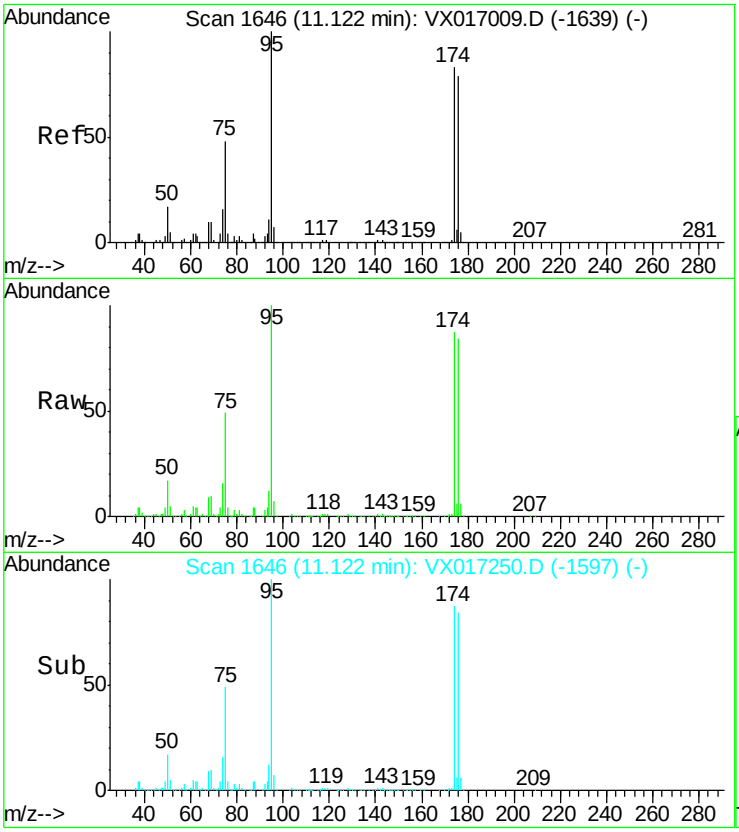
#50
Toluene-d8
Concen: 51.044 ug/l
RT: 8.70 min Scan# 1248
Delta R.T. -0.00 min
Lab File: VX017250.D
Acq: 08 Jul 2020 13:14

Tgt Ion: 98 Resp: 491929

Ion	Ratio	Lower	Upper
98	100		
100	67.2	53.8	80.6



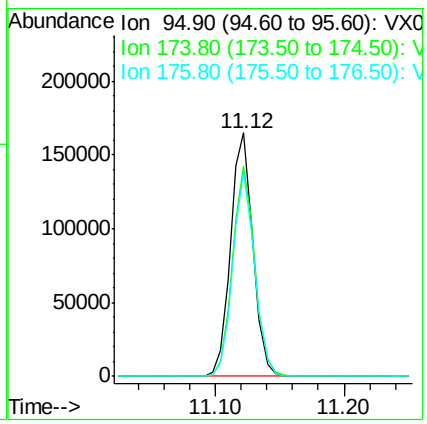
Instrument :
MSVOA_X
ClientSampleId :
1013-FB070620

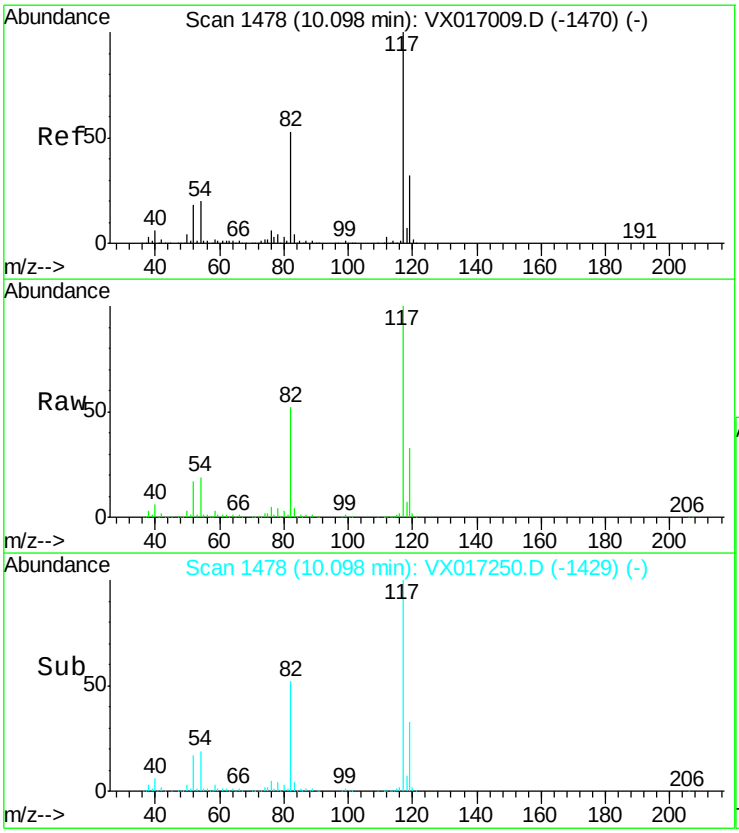


#62
4-Bromofluorobenzene
Concen: 53.200 ug/l
RT: 11.12 min Scan# 1646
Delta R.T. -0.00 min
Lab File: VX017250.D
Acq: 08 Jul 2020 13:14

Tgt Ion: 95 Resp: 200426

Ion	Ratio	Lower	Upper
95	100		
174	86.1	0.0	164.0
176	82.0	0.0	157.6

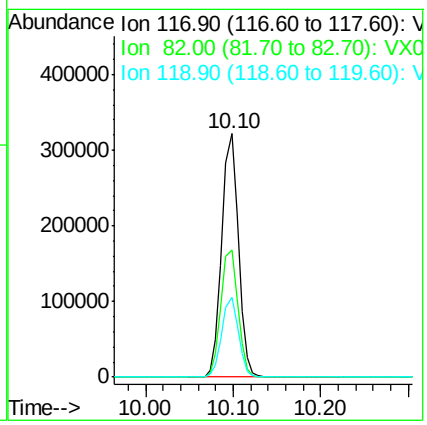




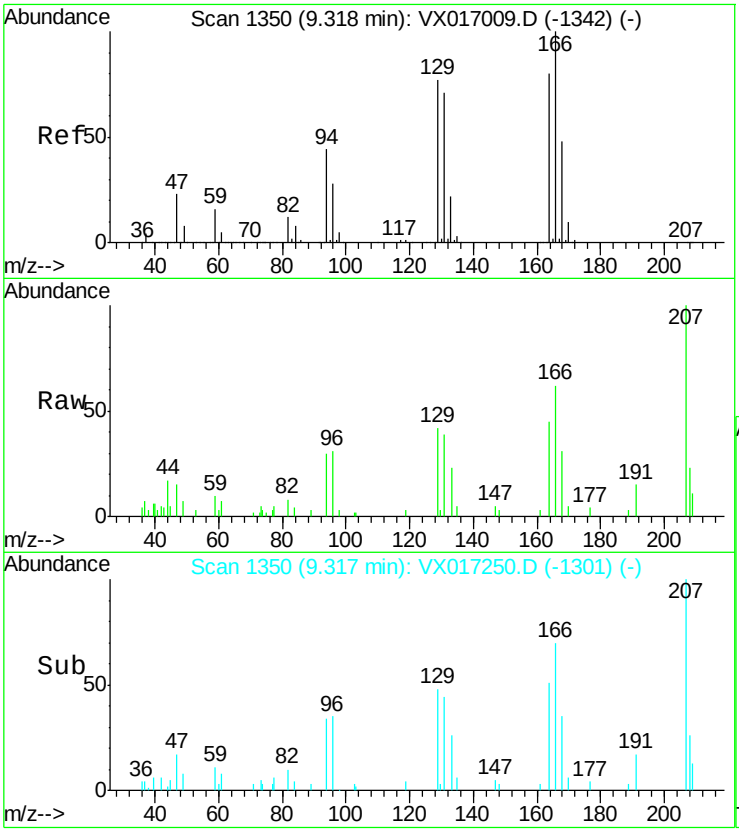
#63
Chlorobenzene-d5
Concen: 50.000 ug/l
RT: 10.10 min Scan# 1478
Delta R.T. -0.00 min
Lab File: VX017250.D
Acq: 08 Jul 2020 13:14

Tgt Ion:117 Resp: 422609

Ion	Ratio	Lower	Upper
117	100		
82	52.4	42.6	63.8
119	32.5	25.4	38.2



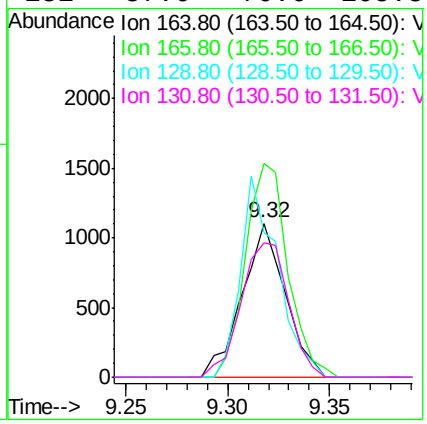
Instrument :
MSVOA_X
ClientSampleId :
1013-FB070620

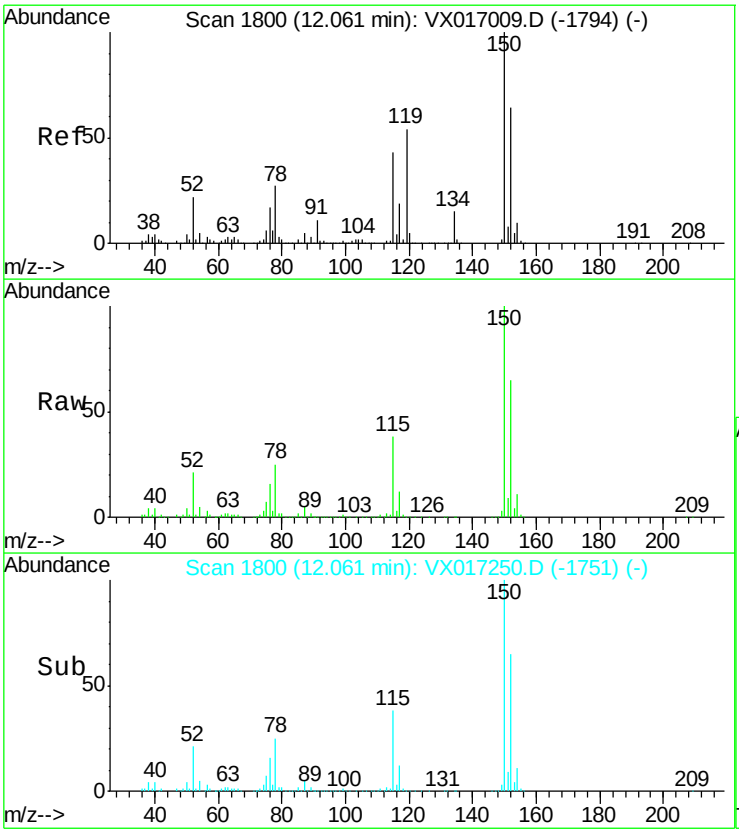


#64
Tetrachloroethene
Concen: 0.478 ug/l
RT: 9.32 min Scan# 1350
Delta R.T. -0.00 min
Lab File: VX017250.D
Acq: 08 Jul 2020 13:14

Tgt Ion:164 Resp: 1630

Ion	Ratio	Lower	Upper
164	100		
166	139.0	99.4	149.0
129	94.0	76.3	114.5
131	87.6	70.6	105.8

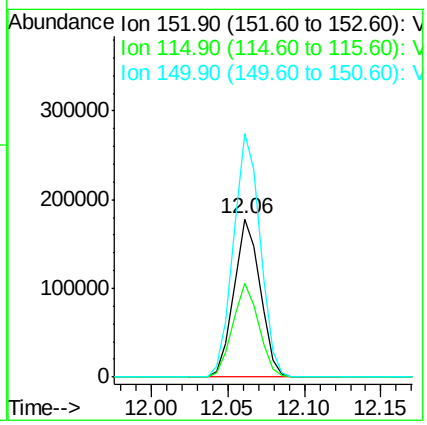




#72
1,4-Dichlorobenzene-d4
Concen: 50.000 ug/l
RT: 12.06 min Scan# 1800
Delta R.T. -0.00 min
Lab File: VX017250.D
Acq: 08 Jul 2020 13:14

Tgt Ion:152 Resp: 212687

Ion	Ratio	Lower	Upper
152	100		
115	58.8	40.9	122.7
150	156.8	0.0	351.6



Instrument :
MSVOA_X
ClientSampleId :
1013-FB070620

LSC Area Percent Report

Data Path : Z:\VOASRV\HPCHEM1\MSVOA X\DATA\VX070820\
Data File : VX017250.D
Acq On : 08 Jul 2020 13:14
Operator : JC/SP
Sample : L3232-13
Misc : 5.0mL/MSVOA X/WATER
ALS Vial : 8 Sample Multiplier: 1

Integration Parameters: RTEINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 3 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X062920W.M
Title : SW846 8260

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	2.422	213	219	225	rVB	20420	34832	2.65%	0.414%
2	2.575	237	244	251	rVB2	7530	15883	1.21%	0.189%
3	4.654	576	585	600	rVB2	12476	43763	3.33%	0.520%
4	5.465	705	718	730	rBV	161639	467085	35.57%	5.550%
5	5.629	735	745	761	rVB	258452	725687	55.27%	8.623%
6	6.032	801	811	827	rBV	164872	444063	33.82%	5.276%
7	6.830	930	942	952	rBV	404422	962029	73.27%	11.431%
8	8.696	1241	1248	1256	rBV	855264	1313081	100.00%	15.602%
9	9.317	1341	1350	1356	rVB3	13679	24605	1.87%	0.292%
10	9.561	1386	1390	1396	rBV4	15495	25203	1.92%	0.299%
11	10.098	1470	1478	1487	rBV	928353	1255670	95.63%	14.920%
12	11.122	1640	1646	1655	rBV	815030	1003574	76.43%	11.925%
13	12.061	1794	1800	1809	rBV	1057831	1282985	97.71%	15.245%
14	12.256	1824	1832	1849	rBV	505076	757125	57.66%	8.996%
15	12.890	1933	1936	1943	rVB5	12089	14612	1.11%	0.174%
16	13.134	1969	1976	1986	rBV	31462	45733	3.48%	0.543%

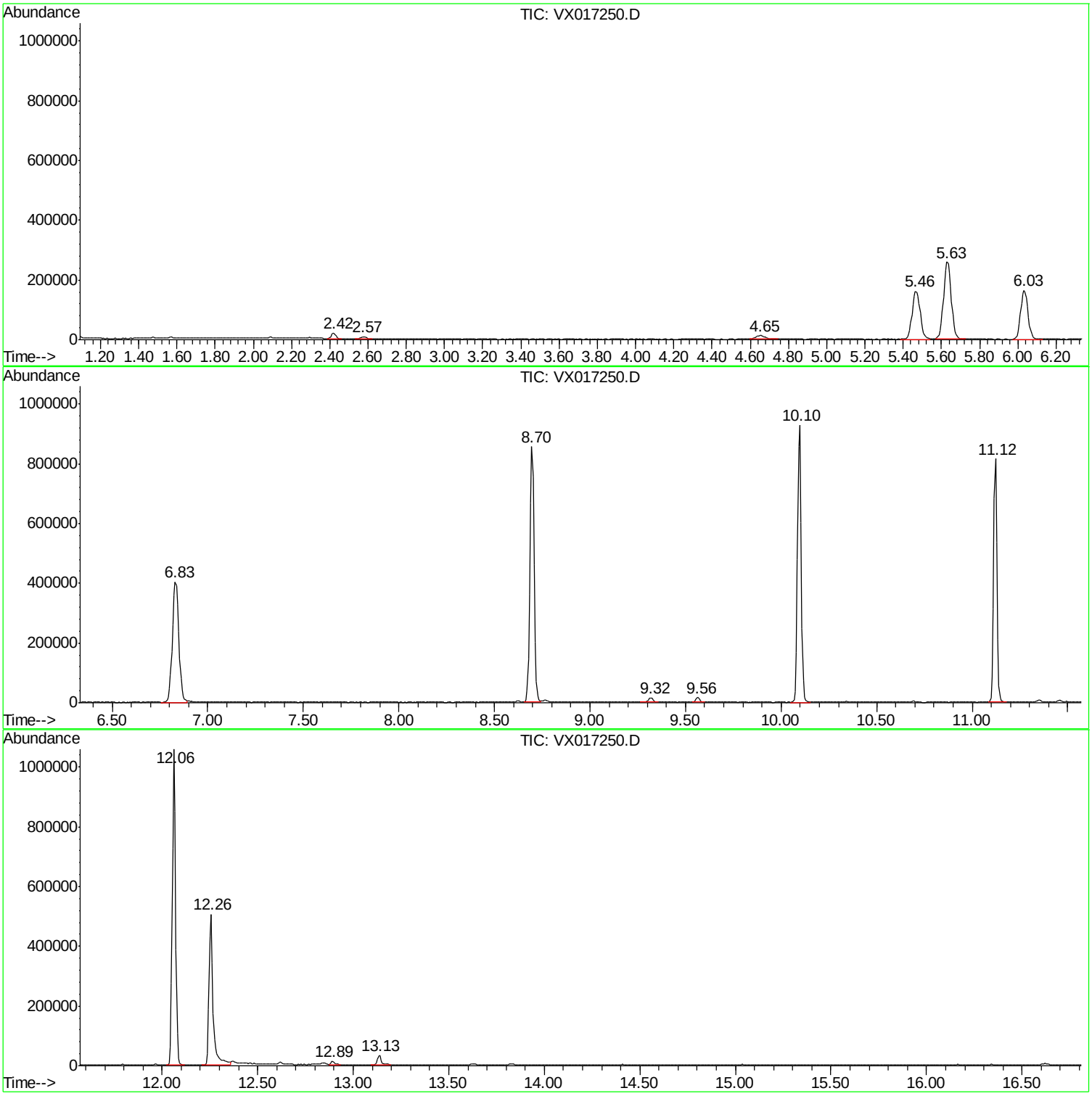
Sum of corrected areas: 8415930

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX070820\
Data File : VX017250.D
Acq On : 08 Jul 2020 13:14
Operator : JC/SP
Sample : L3232-13
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 8 Sample Multiplier: 1

Instrument : MSVOA_X
ClientSampleId : 1013-FB070620

Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X062920W.M
Quant Title : SW846 8260

TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P



Library Search Compound Report

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX070820\
Data File : VX017250.D
Acq On : 08 Jul 2020 13:14
Operator : JC/SP
Sample : L3232-13
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 8 Sample Multiplier: 1

Instrument : MSVOA_X
ClientSampleId : 1013-FB070620

Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X062920W.M
Quant Title : SW846 8260

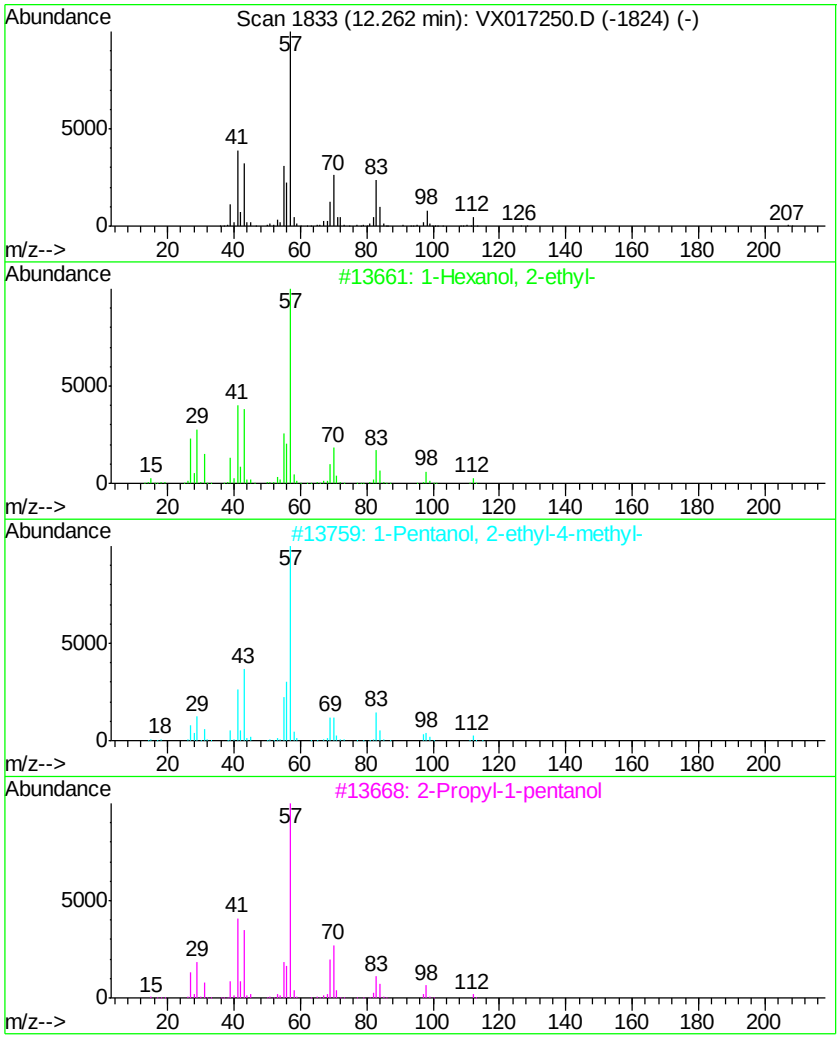
TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

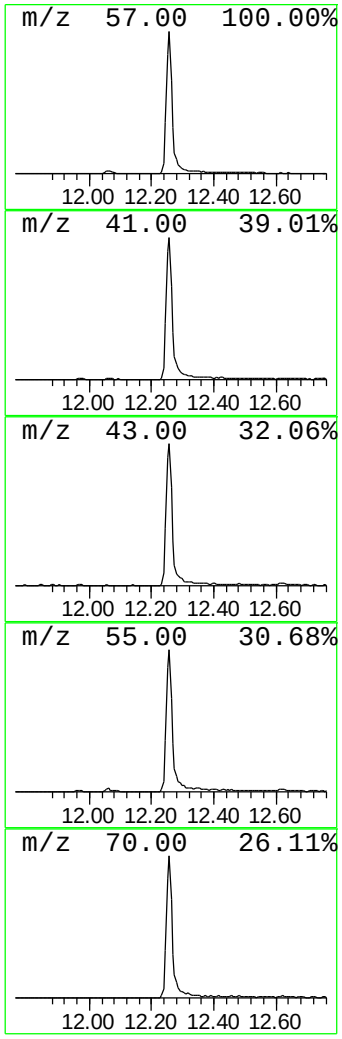
****

Peak Number 1 1-Hexanol, 2-ethyl- Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
12.26	29.51 ug/l	757125	1,4-Dichlorobenzene-d4	12.06

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	1-Hexanol, 2-ethyl-	130	C8H18O	000104-76-7	78
2	1-Pentanol, 2-ethyl-4-methyl-	130	C8H18O	000106-67-2	56
3	2-Propyl-1-pentanol	130	C8H18O	058175-57-8	50
4	Oxalic acid, 2-ethylhexyl hexyl ...	286	C16H30O4	1000309-38-9	50
5	Heptane, 1,1'-oxybis-	214	C14H30O	000629-64-1	50





Instrument :
MSVOA_X
ClientSampleId :
1013-FB070620

Tentatively Identified Compound (LSC) summary

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX070820\
Data File : VX017250.D
Acq On : 08 Jul 2020 13:14
Operator : JC/SP
Sample : L3232-13
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 8 Sample Multiplier: 1

Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X062920W.M
Quant Title : SW846 8260

TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

					--Internal Standard---			
TIC Top Hit name	RT	EstConc	Units	Response	#	RT	Resp	Conc
1-Hexanol, 2-ethyl-	12.26	29.5	ug/l	757125	4	12.06	1282990	50.0

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Day Environmental, Inc.	Date Collected:	07/06/20
Project:	Andrew St. RI	Date Received:	07/07/20
Client Sample ID:	1014-TB070620	SDG No.:	L3232
Lab Sample ID:	L3232-14	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	DB-624UI ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX017230.D	1		07/08/20 02:29	VX070720

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
75-71-8	Dichlorodifluoromethane	1.00	U	0.22	1.00	ug/L
74-87-3	Chloromethane	1.00	U	0.30	1.00	ug/L
75-01-4	Vinyl Chloride	1.00	U	0.16	1.00	ug/L
74-83-9	Bromomethane	5.00	U	2.10	5.00	ug/L
75-00-3	Chloroethane	1.00	U	0.34	1.00	ug/L
75-69-4	Trichlorofluoromethane	1.00	U	0.16	1.00	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	1.00	U	0.21	1.00	ug/L
75-35-4	1,1-Dichloroethene	1.00	U	0.18	1.00	ug/L
67-64-1	Acetone	5.00	U	0.90	5.00	ug/L
75-15-0	Carbon Disulfide	1.00	U	0.23	1.00	ug/L
1634-04-4	Methyl tert-butyl Ether	1.00	U	0.070	1.00	ug/L
79-20-9	Methyl Acetate	1.00	U	0.65	1.00	ug/L
75-09-2	Methylene Chloride	1.00	U	0.33	1.00	ug/L
156-60-5	trans-1,2-Dichloroethene	1.00	U	0.24	1.00	ug/L
75-34-3	1,1-Dichloroethane	1.00	U	0.17	1.00	ug/L
110-82-7	Cyclohexane	5.00	U	1.20	5.00	ug/L
78-93-3	2-Butanone	5.00	U	0.71	5.00	ug/L
56-23-5	Carbon Tetrachloride	1.00	U	0.22	1.00	ug/L
156-59-2	cis-1,2-Dichloroethene	1.00	U	0.30	1.00	ug/L
74-97-5	Bromochloromethane	1.00	U	0.31	1.00	ug/L
67-66-3	Chloroform	1.00	U	0.14	1.00	ug/L
71-55-6	1,1,1-Trichloroethane	1.00	U	0.12	1.00	ug/L
108-87-2	Methylcyclohexane	1.00	U	0.17	1.00	ug/L
71-43-2	Benzene	1.00	U	0.10	1.00	ug/L
107-06-2	1,2-Dichloroethane	1.00	U	0.13	1.00	ug/L
79-01-6	Trichloroethene	1.00	U	0.27	1.00	ug/L
78-87-5	1,2-Dichloropropane	1.00	U	0.14	1.00	ug/L
75-27-4	Bromodichloromethane	1.00	U	0.10	1.00	ug/L
108-10-1	4-Methyl-2-Pentanone	5.00	U	0.85	5.00	ug/L
108-88-3	Toluene	1.00	U	0.12	1.00	ug/L
10061-02-6	t-1,3-Dichloropropene	1.00	U	0.19	1.00	ug/L
10061-01-5	cis-1,3-Dichloropropene	1.00	U	0.16	1.00	ug/L

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Day Environmental, Inc.	Date Collected:	07/06/20
Project:	Andrew St. RI	Date Received:	07/07/20
Client Sample ID:	1014-TB070620	SDG No.:	L3232
Lab Sample ID:	L3232-14	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	DB-624UI ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX017230.D	1		07/08/20 02:29	VX070720

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
79-00-5	1,1,2-Trichloroethane	1.00	U	0.12	1.00	ug/L
591-78-6	2-Hexanone	5.00	U	1.40	5.00	ug/L
124-48-1	Dibromochloromethane	1.00	U	0.16	1.00	ug/L
106-93-4	1,2-Dibromoethane	1.00	U	0.14	1.00	ug/L
127-18-4	Tetrachloroethene	1.00	U	0.15	1.00	ug/L
108-90-7	Chlorobenzene	1.00	U	0.080	1.00	ug/L
100-41-4	Ethyl Benzene	1.00	U	0.080	1.00	ug/L
179601-23-1	m/p-Xylenes	2.00	U	0.20	2.00	ug/L
95-47-6	o-Xylene	1.00	U	0.13	1.00	ug/L
100-42-5	Styrene	1.00	U	0.11	1.00	ug/L
75-25-2	Bromoform	1.00	U	0.15	1.00	ug/L
98-82-8	Isopropylbenzene	1.00	U	0.13	1.00	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	1.00	U	0.15	1.00	ug/L
541-73-1	1,3-Dichlorobenzene	1.00	U	0.14	1.00	ug/L
106-46-7	1,4-Dichlorobenzene	1.00	U	0.20	1.00	ug/L
95-50-1	1,2-Dichlorobenzene	1.00	U	0.12	1.00	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	1.00	U	0.54	1.00	ug/L
120-82-1	1,2,4-Trichlorobenzene	1.00	U	0.24	1.00	ug/L
87-61-6	1,2,3-Trichlorobenzene	1.00	U	0.26	1.00	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	54.8		61 - 141	110%	SPK: 50
1868-53-7	Dibromofluoromethane	55.4		69 - 133	111%	SPK: 50
2037-26-5	Toluene-d8	52.3		65 - 126	105%	SPK: 50
460-00-4	4-Bromofluorobenzene	54.3		58 - 135	109%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	246000	5.63			
540-36-3	1,4-Difluorobenzene	420000	6.83			
3114-55-4	Chlorobenzene-d5	434000	10.1			
3855-82-1	1,4-Dichlorobenzene-d4	233000	12.06			

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Day Environmental, Inc.	Date Collected:	07/06/20
Project:	Andrew St. RI	Date Received:	07/07/20
Client Sample ID:	1014-TB070620	SDG No.:	L3232
Lab Sample ID:	L3232-14	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	DB-624UI ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX017230.D	1		07/08/20 02:29	VX070720

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit
A = Aldol-Condensation Reaction Products

Quantitation Report (QT Reviewed)

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX070720\
Data File : VX017230.D
Acq On : 08 Jul 2020 02:29
Operator : JC/SP
Sample : L3232-14
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 44 Sample Multiplier: 1

Instrument : MSVOA_X
ClientSampleId : 1014-TB070620

Quant Time: Jul 08 04:20:55 2020
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X062920W.M
Quant Title : SW846 8260
QLast Update : Mon Jun 29 17:10:38 2020
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	5.63	168	245553	50.00	ug/l	0.00
34) 1,4-Difluorobenzene	6.83	114	420318	50.00	ug/l	0.00
63) Chlorobenzene-d5	10.10	117	434237	50.00	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	12.06	152	232593	50.00	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	6.03	65	165801	54.77	ug/l	0.00
Spiked Amount 50.000			Recovery =	109.54%		
35) Dibromofluoromethane	5.47	113	147184	55.36	ug/l	0.00
Spiked Amount 50.000			Recovery =	110.72%		
50) Toluene-d8	8.70	98	514589	52.34	ug/l	0.00
Spiked Amount 50.000			Recovery =	104.68%		
62) 4-Bromofluorobenzene	11.12	95	208716	54.31	ug/l	0.00
Spiked Amount 50.000			Recovery =	108.62%		

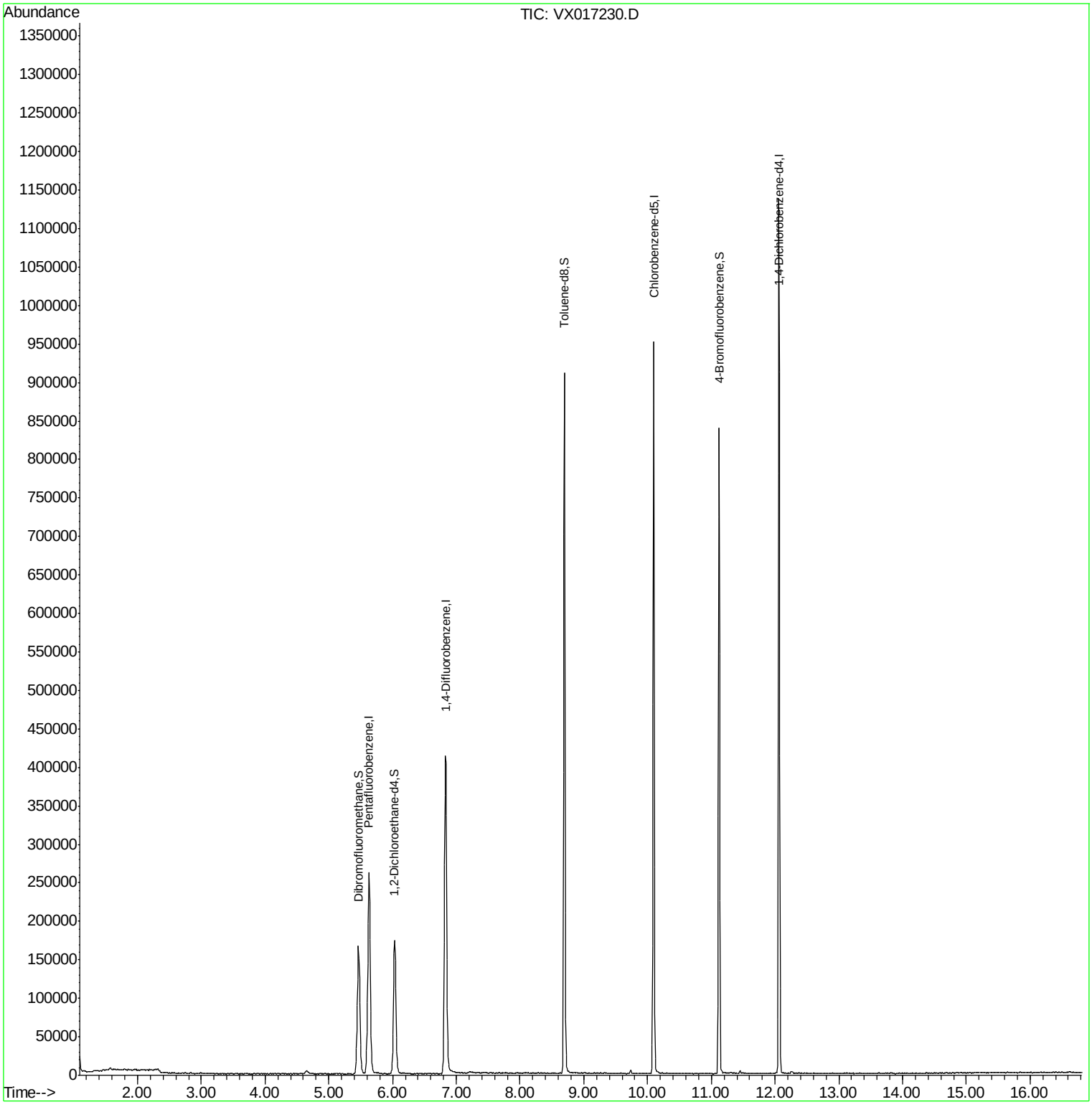
Target Compounds	Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

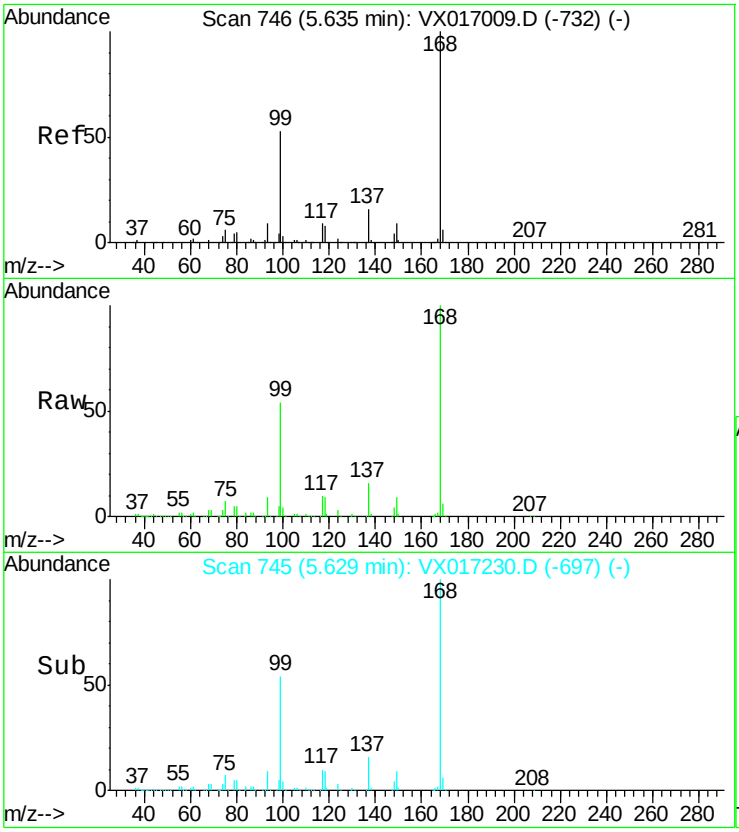
Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX070720\
Data File : VX017230.D
Acq On : 08 Jul 2020 02:29
Operator : JC/SP
Sample : L3232-14
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 44 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
1014-TB070620

Quant Time: Jul 08 04:20:55 2020
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X062920W.M
Quant Title : SW846 8260
QLast Update : Mon Jun 29 17:10:38 2020
Response via : Initial Calibration



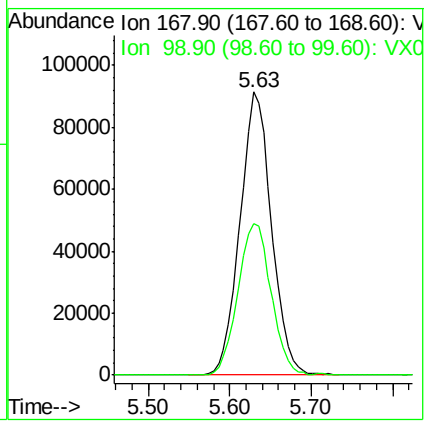
Instrument :
MSVOA_X
ClientSampleId :
1014-TB070620

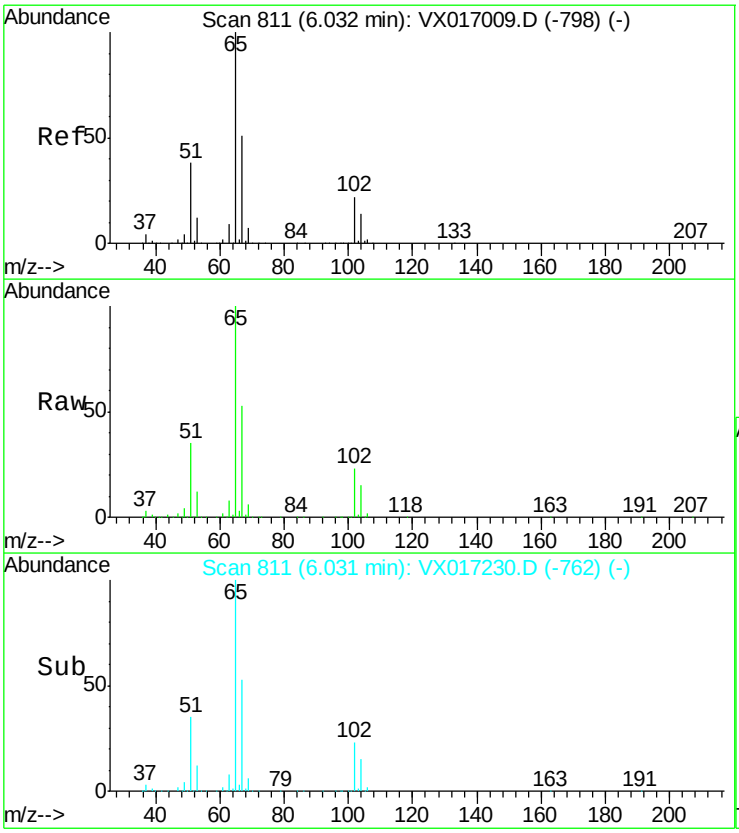


#1
Pentafluorobenzene
Concen: 50.000 ug/l
RT: 5.63 min Scan# 745
Delta R.T. -0.01 min
Lab File: VX017230.D
Acq: 08 Jul 2020 02:29

Tgt Ion:168 Resp: 245553

Ion	Ratio	Lower	Upper
168	100		
99	53.5	42.6	64.0

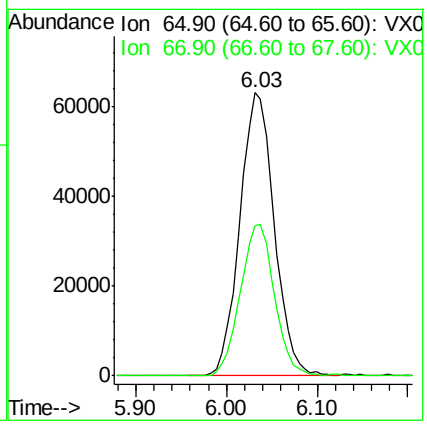




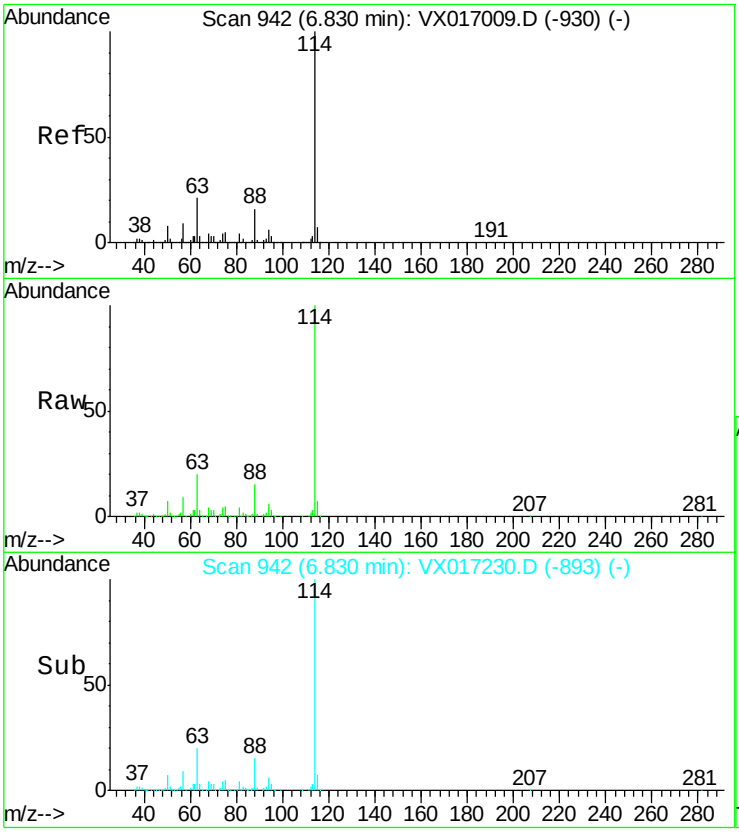
#33
1,2-Dichloroethane-d4
Concen: 54.771 ug/l
RT: 6.03 min Scan# 811
Delta R.T. -0.00 min
Lab File: VX017230.D
Acq: 08 Jul 2020 02:29

Tgt Ion: 65 Resp: 165801

Ion	Ratio	Lower	Upper
65	100		
67	53.0	0.0	103.8



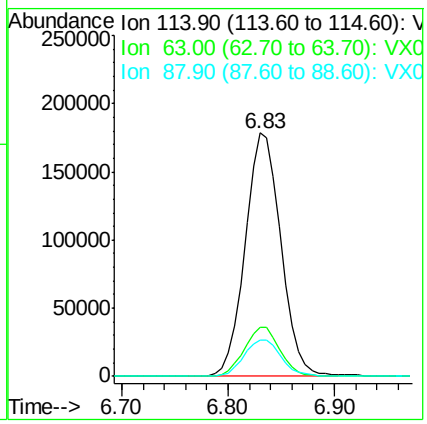
Instrument :
MSVOA_X
ClientSampleId :
1014-TB070620

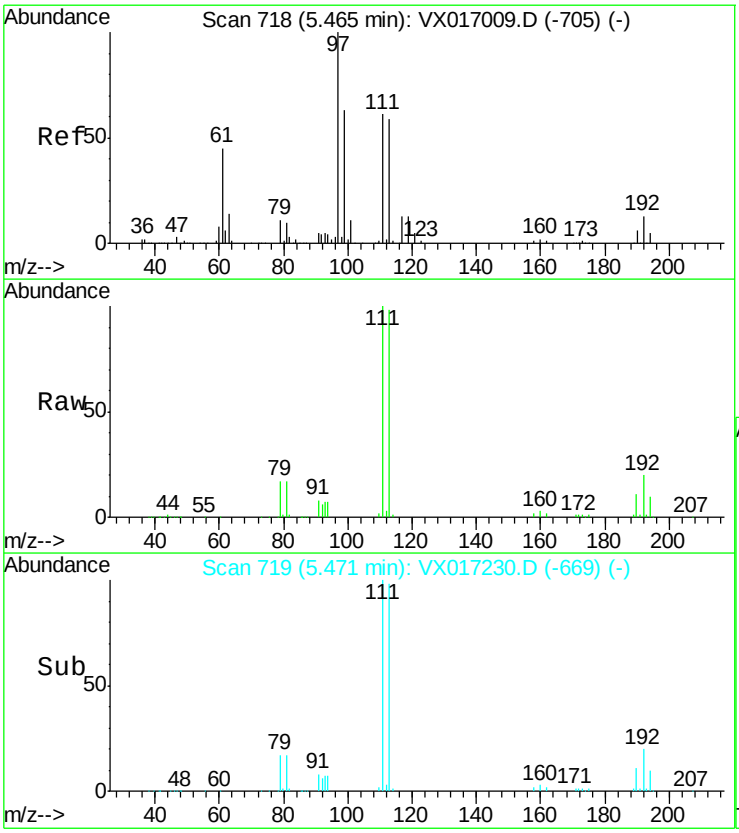


#34
1,4-Difluorobenzene
Concen: 50.000 ug/l
RT: 6.83 min Scan# 942
Delta R.T. -0.00 min
Lab File: VX017230.D
Acq: 08 Jul 2020 02:29

Tgt Ion:114 Resp: 420318

Ion	Ratio	Lower	Upper
114	100		
63	20.4	0.0	41.4
88	15.1	0.0	32.4

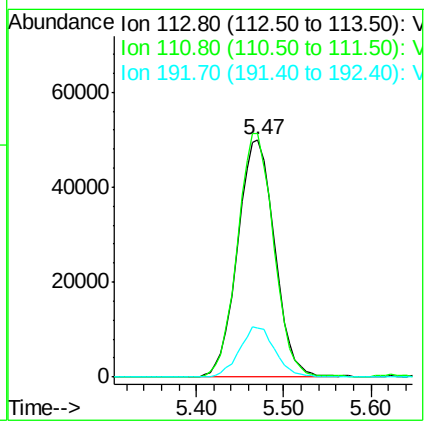




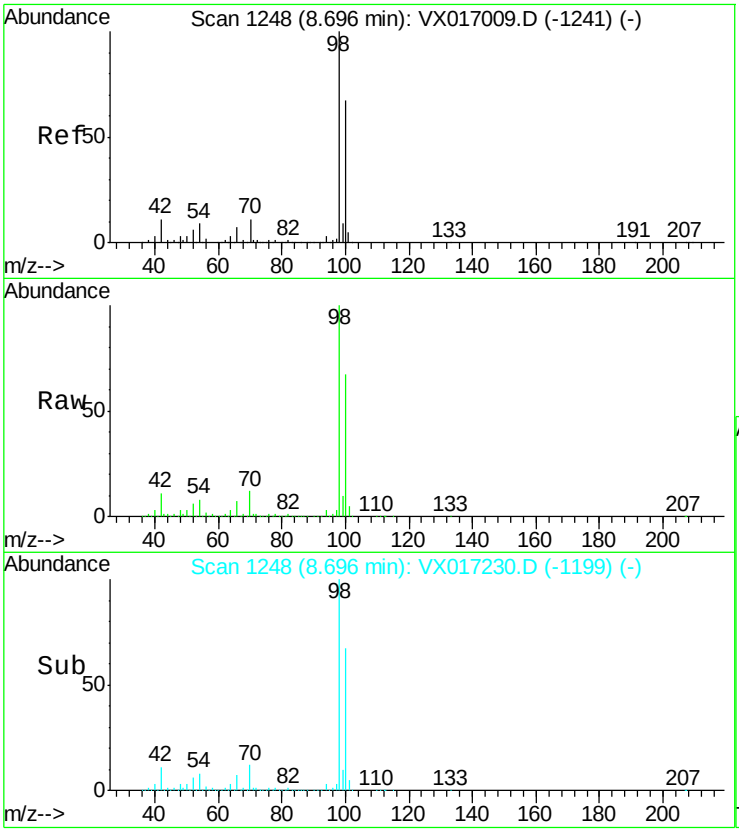
#35
Dibromofluoromethane
Concen: 55.357 ug/l
RT: 5.47 min Scan# 719
Delta R.T. 0.01 min
Lab File: VX017230.D
Acq: 08 Jul 2020 02:29

Tgt Ion:113 Resp: 147184

Ion	Ratio	Lower	Upper
113	100		
111	100.6	81.9	122.9
192	20.3	16.7	25.1



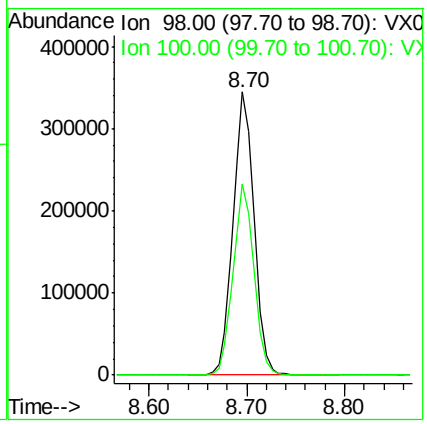
Instrument :
MSVOA_X
ClientSampleId :
1014-TB070620

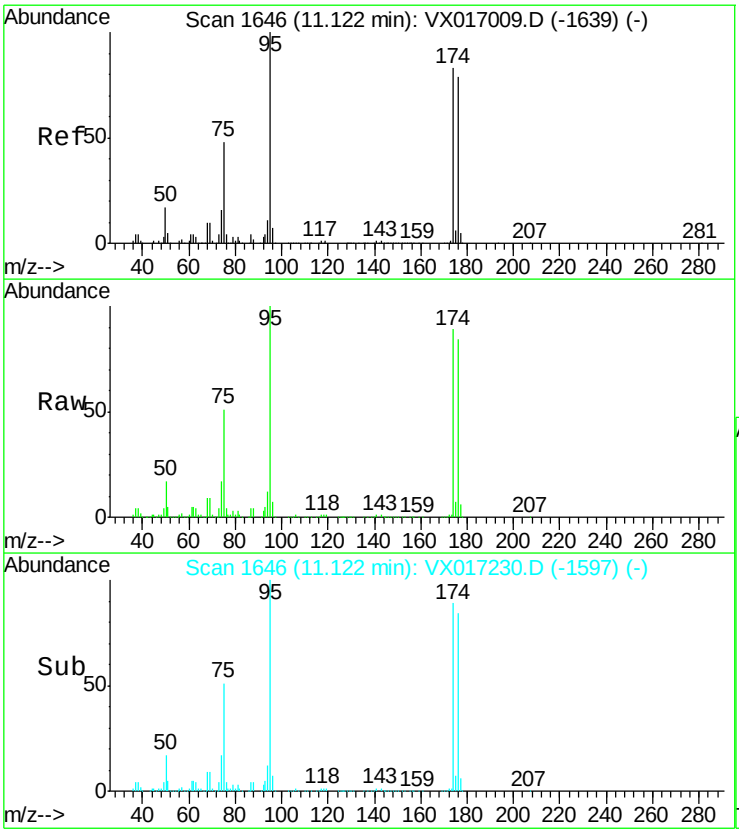


#50
Toluene-d8
Concen: 52.340 ug/l
RT: 8.70 min Scan# 1248
Delta R.T. -0.00 min
Lab File: VX017230.D
Acq: 08 Jul 2020 02:29

Tgt Ion: 98 Resp: 514589

Ion	Ratio	Lower	Upper
98	100		
100	66.9	53.8	80.6

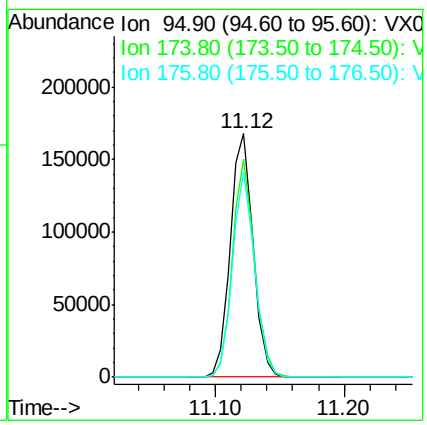




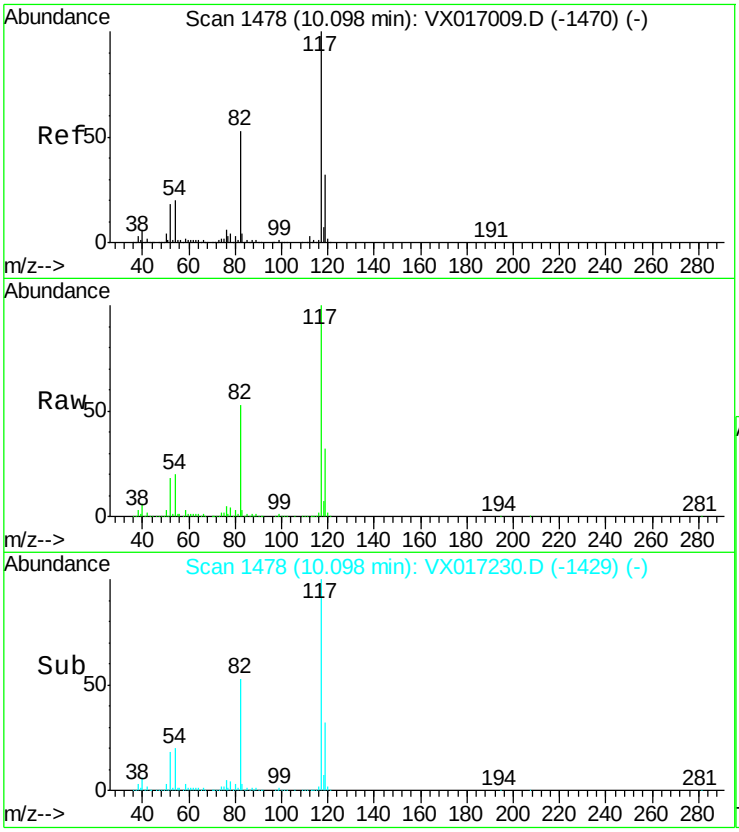
#62
4-Bromofluorobenzene
Concen: 54.306 ug/l
RT: 11.12 min Scan# 1646
Delta R.T. -0.00 min
Lab File: VX017230.D
Acq: 08 Jul 2020 02:29

Tgt Ion: 95 Resp: 208716

Ion	Ratio	Lower	Upper
95	100		
174	87.0	0.0	164.0
176	81.7	0.0	157.6



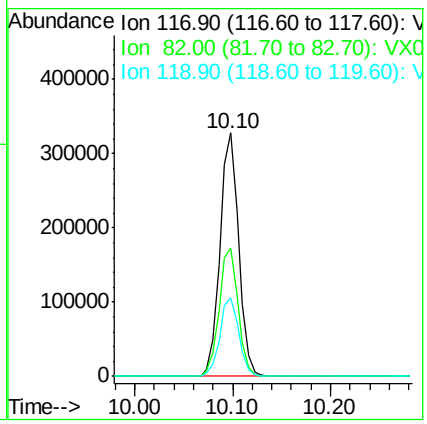
Instrument :
MSVOA_X
ClientSampleId :
1014-TB070620

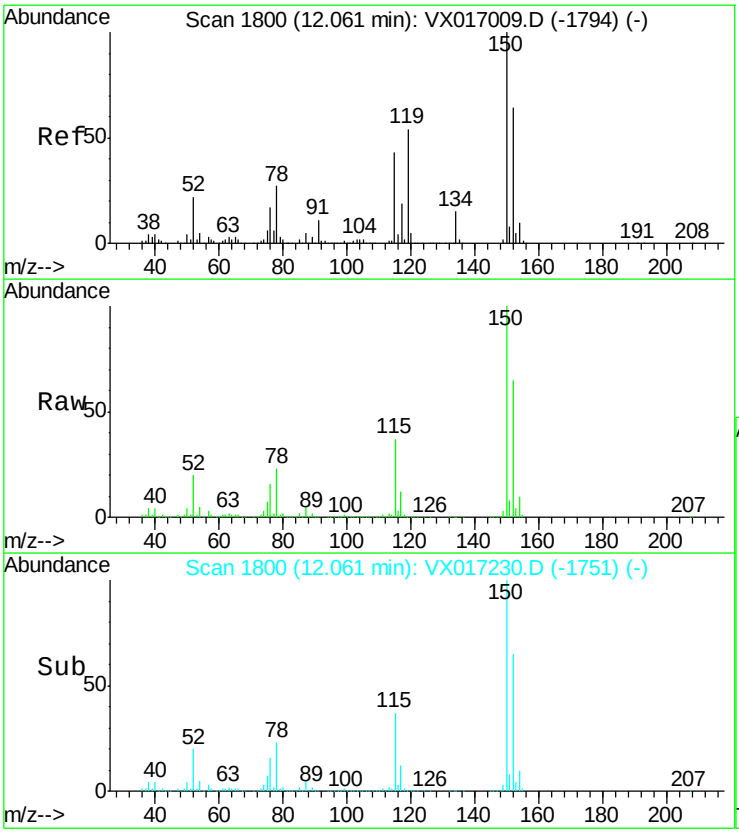


#63
Chlorobenzene-d5
Concen: 50.000 ug/l
RT: 10.10 min Scan# 1478
Delta R.T. -0.00 min
Lab File: VX017230.D
Acq: 08 Jul 2020 02:29

Tgt Ion:117 Resp: 434237

Ion	Ratio	Lower	Upper
117	100		
82	53.0	42.6	63.8
119	32.5	25.4	38.2

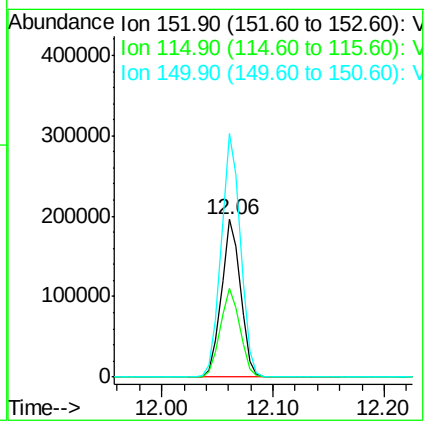




#72
1,4-Dichlorobenzene-d4
Concen: 50.000 ug/l
RT: 12.06 min Scan# 1800
Delta R.T. -0.00 min
Lab File: VX017230.D
Acq: 08 Jul 2020 02:29

Tgt Ion:152 Resp: 232593

Ion	Ratio	Lower	Upper
152	100		
115	57.7	40.9	122.7
150	155.8	0.0	351.6



LSC Area Percent Report

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX070720\
Data File : VX017230.D
Acq On : 08 Jul 2020 02:29
Operator : JC/SP
Sample : L3232-14
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 44 Sample Multiplier: 1

Instrument : MSVOA_X
ClientSampleId : 1014-TB070620

Integration Parameters: RTEINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 3 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X062920W.M
Title : SW846 8260

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	5.464	704	718	731	rBV	166170	488499	35.44%	6.287%
2	5.629	734	745	759	rVV	260597	727907	52.80%	9.368%
3	6.031	797	811	825	rBV	173617	462303	33.53%	5.950%
4	6.830	931	942	956	rBV	412999	997144	72.33%	12.834%
5	8.696	1240	1248	1258	rBV	910710	1375933	99.81%	17.709%
6	10.098	1471	1478	1493	rBV	950948	1292122	93.73%	16.630%
7	11.122	1640	1646	1656	rBV	839297	1047319	75.97%	13.479%
8	12.061	1794	1800	1808	rBV	1136256	1378571	100.00%	17.743%

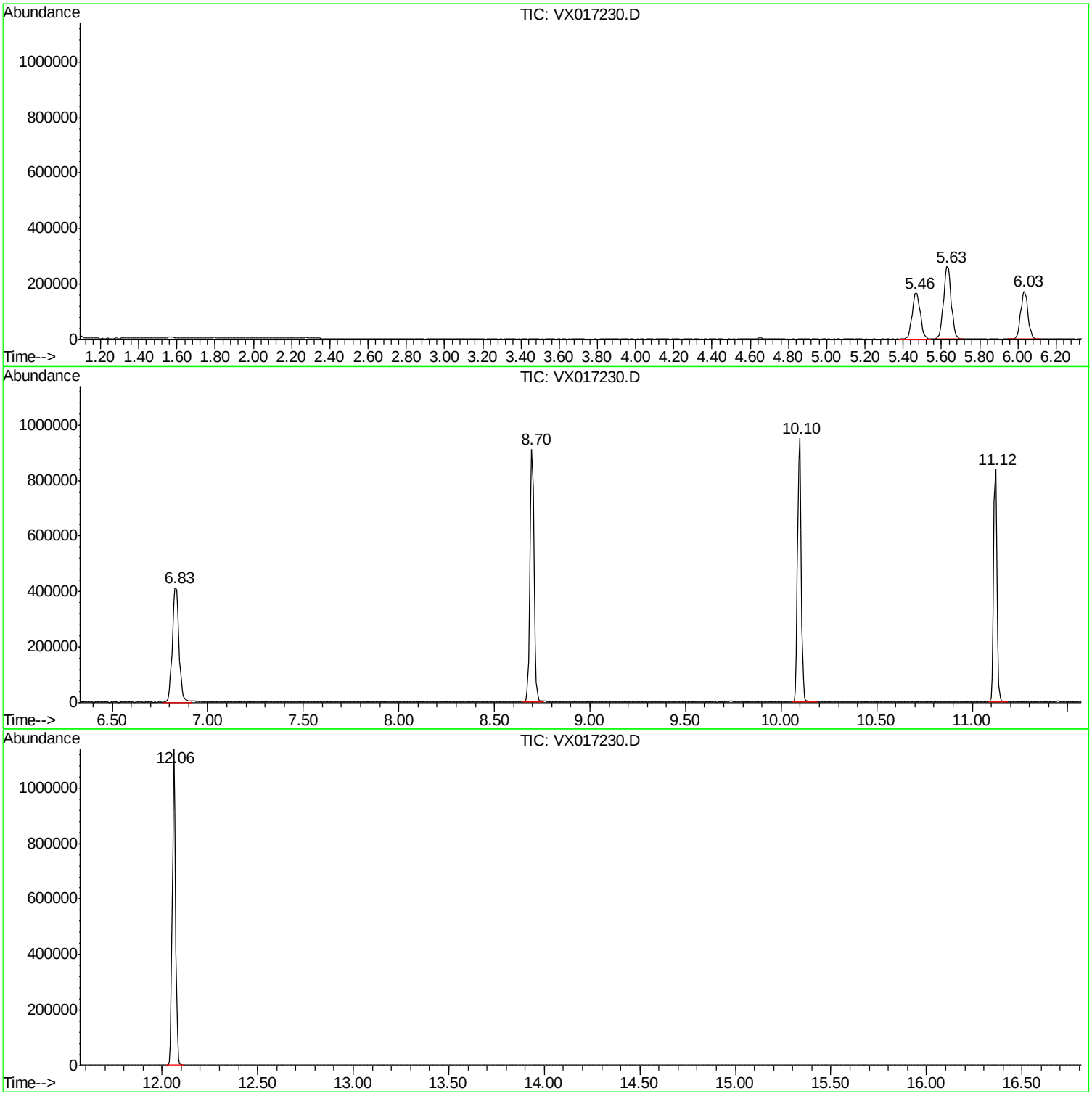
Sum of corrected areas: 7769798

Data Path : Z:\VOASRV\HPCHEM1\MSVOA X\DATA\VX070720\
Data File : VX017230.D
Acq On : 08 Jul 2020 02:29
Operator : JC/SP
Sample : L3232-14
Misc : 5.0mL/MSVOA X/WATER
ALS Vial : 44 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
1014-TB070620

Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X062920W.M
Quant Title : SW846 8260

TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P



Library Search Compound Report

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX070720\
Data File : VX017230.D
Acq On : 08 Jul 2020 02:29
Operator : JC/SP
Sample : L3232-14
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 44 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
1014-TB070620

Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X062920W.M
Quant Title : SW846 8260

TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

No Library Search Compounds Detected

****

Tentatively Identified Compound (LSC) summary

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX070720\
Data File : VX017230.D
Acq On : 08 Jul 2020 02:29
Operator : JC/SP
Sample : L3232-14
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 44 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
1014-TB070620

Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X062920W.M
Quant Title : SW846 8260

TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

TIC Top Hit name	RT	EstConc	Units	Response	Internal Standard #	Internal Standard RT	Internal Standard Resp	Internal Standard Conc

CALIBRATION SUMMARY

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: CHEMTECH Contract: DAYE01

Lab Code: CHEM Case No.: L3232 SAS No.: L3232 SDG No.: L3232

Instrument ID: MSVOA_X Calibration Date(s): 06/29/2020 06/29/2020

Heated Purge: (Y/N) N Calibration Time(s): 14:13 16:06

GC Column: DB-624UI ID: 0.18 (mm)

LAB FILE ID: RRF001 = VX017006.D RRF005 = VX017007.D RRF020 = VX017008.D
RRF050 = VX017009.D RRF100 = VX017010.D RRF150 = VX017011.D

COMPOUND	RRF001	RRF005	RRF020	RRF050	RRF100	RRF150	$\overline{RRF}$	% RSD
Dichlorodifluoromethane	0.530	0.439	0.511	0.484	0.431	0.508	0.484	8.4
Chloromethane	0.698	0.568	0.563	0.569	0.497	0.617	0.586	11.5
Vinyl Chloride	0.652	0.518	0.548	0.533	0.461	0.548	0.543	11.5
Bromomethane		0.314	0.353	0.286	0.218	0.264	0.287	17.7
Chloroethane	0.395	0.312	0.327	0.310	0.269	0.312	0.321	12.8
Trichlorofluoromethane	0.947	0.807	0.803	0.784	0.685	0.795	0.803	10.4
1,1,2-Trichlorotrifluoroethane	0.531	0.493	0.500	0.484	0.409	0.472	0.482	8.4
1,1-Dichloroethene	0.575	0.497	0.507	0.490	0.420	0.478	0.495	10.1
Acetone	0.280	0.232	0.224	0.228	0.195	0.225	0.231	11.9
Carbon Disulfide	2.017	1.499	1.457	1.444	1.239	1.435	1.515	17.3
Methyl tert-butyl Ether	1.789	1.645	1.686	1.683	1.461	1.697	1.660	6.5
Methyl Acetate	0.654	0.650	0.597	0.600	0.518	0.593	0.602	8.2
Methylene Chloride	0.769	0.613	0.572	0.566	0.475	0.541	0.589	16.8
trans-1,2-Dichloroethene	0.642	0.555	0.546	0.545	0.468	0.538	0.549	10.1
1,1-Dichloroethane	1.069	0.983	0.978	0.966	0.827	0.954	0.963	8.1
Cyclohexane		0.845	0.855	0.855	0.742	0.863	0.832	6.1
2-Butanone	0.403	0.381	0.392	0.395	0.336	0.398	0.384	6.4
Carbon Tetrachloride	0.607	0.520	0.510	0.521	0.453	0.511	0.520	9.5
cis-1,2-Dichloroethene	0.727	0.632	0.615	0.619	0.531	0.609	0.622	10.1
Bromochloromethane	0.546	0.481	0.475	0.461	0.393	0.456	0.469	10.5
Chloroform	1.111	1.006	1.006	0.989	0.842	0.968	0.987	8.8
1,1,1-Trichloroethane	1.043	0.896	0.929	0.908	0.775	0.902	0.909	9.4
Methylcyclohexane	0.554	0.493	0.525	0.540	0.486	0.556	0.526	5.7
Benzene	1.586	1.375	1.392	1.387	1.220	1.371	1.388	8.4
1,2-Dichloroethane	0.576	0.502	0.499	0.501	0.439	0.493	0.502	8.7
Trichloroethene	0.540	0.416	0.409	0.402	0.348	0.394	0.418	15.3
1,2-Dichloropropane	0.399	0.359	0.357	0.354	0.314	0.357	0.357	7.5
Bromodichloromethane	0.553	0.486	0.503	0.510	0.448	0.510	0.502	6.9
4-Methyl-2-Pentanone	0.445	0.460	0.496	0.497	0.445	0.506	0.475	5.9
Toluene	0.941	0.839	0.880	0.879	0.778	0.884	0.867	6.3
t-1,3-Dichloropropene	0.578	0.520	0.543	0.565	0.515	0.600	0.554	6.1
cis-1,3-Dichloropropene	0.633	0.579	0.592	0.605	0.536	0.615	0.593	5.7
1,1,2-Trichloroethane	0.383	0.357	0.354	0.354	0.318	0.360	0.354	5.9

* Compounds with required minimum RRF and maximum %RSD values.
All other compounds must meet a minimum RRF of 0.010.
RRF of 1,4-Dioxane = Value should be divide by 1000.

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: CHEMTECH Contract: DAYE01

Lab Code: CHEM Case No.: L3232 SAS No.: L3232 SDG No.: L3232

Instrument ID: MSVOA_X Calibration Date(s): 06/29/2020 06/29/2020

Heated Purge: (Y/N) N Calibration Time(s): 14:13 16:06

GC Column: DB-624UI ID: 0.18 (mm)

LAB FILE ID: RRF001 = VX017006.D RRF005 = VX017007.D RRF020 = VX017008.D
RRF050 = VX017009.D RRF100 = VX017010.D RRF150 = VX017011.D

COMPOUND	RRF001	RRF005	RRF020	RRF050	RRF100	RRF150	$\overline{RRF}$	% RSD
2-Hexanone	0.305	0.335	0.363	0.370	0.334	0.375	0.347	7.8
Dibromochloromethane	0.429	0.392	0.408	0.416	0.381	0.442	0.411	5.5
1,2-Dibromoethane	0.405	0.374	0.379	0.384	0.345	0.397	0.381	5.5
Tetrachloroethene	0.497	0.426	0.405	0.399	0.333	0.361	0.404	14.1
Chlorobenzene	1.221	1.028	1.013	1.021	0.888	1.021	1.032	10.4
Ethyl Benzene	1.831	1.640	1.723	1.786	1.570	1.791	1.723	5.8
m/p-Xylenes	0.700	0.622	0.675	0.692	0.601	0.681	0.662	6.1
o-Xylene	0.651	0.585	0.633	0.652	0.582	0.673	0.630	6
Styrene	1.022	0.977	1.090	1.149	1.029	1.165	1.072	7
Bromoform	0.301	0.305	0.311	0.336	0.300	0.339	0.315	5.5
Isopropylbenzene	3.212	3.186	3.358	3.461	3.013	3.420	3.275	5.2
1,1,2,2-Tetrachloroethane	1.161	1.040	1.030	1.038	0.888	1.024	1.030	8.4
1,3-Dichlorobenzene	1.980	1.628	1.622	1.596	1.395	1.587	1.635	11.6
1,4-Dichlorobenzene	2.164	1.658	1.606	1.630	1.402	1.588	1.675	15.3
1,2-Dichlorobenzene	1.790	1.501	1.515	1.537	1.323	1.502	1.528	9.8
1,2-Dibromo-3-Chloropropane	0.305	0.227	0.234	0.241	0.214	0.252	0.246	13
1,2,4-Trichlorobenzene	1.229	0.950	0.993	1.053	0.936	1.097	1.043	10.5
1,2,3-Trichlorobenzene	1.140	0.918	0.964	1.036	0.931	1.069	1.009	8.6
1,2-Dichloroethane-d4		0.701	0.613	0.579	0.532	0.657	0.616	10.7
Dibromofluoromethane		0.346	0.318	0.306	0.280	0.332	0.316	7.9
Toluene-d8		1.240	1.181	1.112	1.053	1.262	1.170	7.5
4-Bromofluorobenzene		0.463	0.442	0.437	0.426	0.517	0.457	7.9

* Compounds with required minimum RRF and maximum %RSD values.
All other compounds must meet a minimum RRF of 0.010.
RRF of 1,4-Dioxane = Value should be divide by 1000.

Response Factor Report MSVOA_X

Method Path : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\
Method File : 82X062920W.M
Title : SW846 8260
Last Update : Mon Jun 29 17:10:38 2020
Response Via : Initial Calibration

Calibration Files
1 =VX017006.D 5 =VX017007.D 20 =VX017008.D
50 =VX017009.D 100 =VX017010.D 150 =VX017011.D

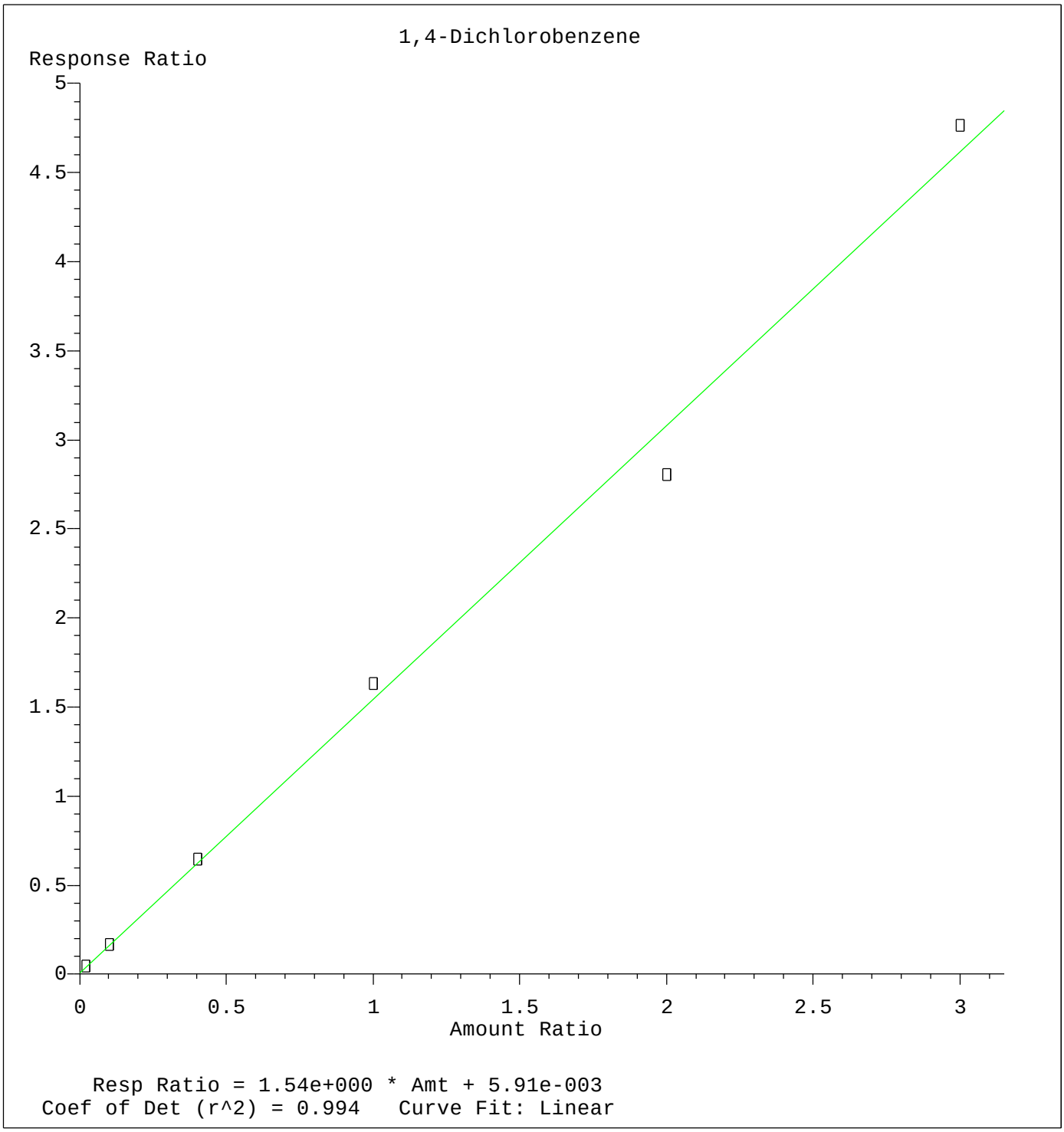
		Compound	1	5	20	50	100	150	Avg	%RSD
1)	I	Pentafluorobenzene	----------	----------	ISTD	----------	----------	----------		
2)	T	Dichlorodifluorom	0.530	0.439	0.511	0.484	0.431	0.508	0.484	8.39
3)	P	Chloromethane	0.698	0.568	0.563	0.569	0.497	0.617	0.586	11.46
4)	C	Vinyl Chloride	0.652	0.518	0.548	0.533	0.461	0.548	0.543	11.46#
5)	T	Bromomethane		0.314	0.353	0.286	0.218	0.264	0.287	17.65
6)	T	Chloroethane	0.395	0.312	0.327	0.310	0.269	0.312	0.321	12.83
7)	T	Trichlorofluorome	0.947	0.807	0.803	0.784	0.685	0.795	0.803	10.44
8)	T	Diethyl Ether	0.379	0.289	0.289	0.276	0.243	0.283	0.293	15.56
9)	T	1,1,2-Trichlorotr	0.531	0.493	0.500	0.484	0.409	0.472	0.482	8.43
10)	T	Methyl Iodide		0.542	0.633	0.665	0.595	0.672	0.621	8.64
11)	T	Tert butyl alcoho		0.120	0.118	0.119	0.106	0.125	0.118	5.97
12)	CM	1,1-Dichloroethen	0.575	0.497	0.507	0.490	0.420	0.478	0.495	10.10#
13)	T	Acrolein		0.074	0.069	0.070	0.063	0.076	0.070	7.09
14)	T	Allyl chloride	1.130	0.897	0.881	0.896	0.786	0.895	0.914	12.47
15)	T	Acrylonitrile	0.307	0.288	0.281	0.285	0.248	0.287	0.283	6.77
16)	T	Acetone	0.280	0.232	0.224	0.228	0.195	0.225	0.231	11.94
17)	T	Carbon Disulfide	2.017	1.499	1.457	1.444	1.239	1.435	1.515	17.29
18)	T	Methyl Acetate	0.654	0.650	0.597	0.600	0.518	0.593	0.602	8.20
19)	T	Methyl tert-butyl	1.789	1.645	1.686	1.683	1.461	1.697	1.660	6.54
20)	T	Methylene Chlorid	0.769	0.613	0.572	0.566	0.475	0.541	0.589	16.81
21)	T	trans-1,2-Dichlor	0.642	0.555	0.546	0.545	0.468	0.538	0.549	10.11
22)	T	Diisopropyl ether	1.811	1.691	1.769	1.739	1.454	1.687	1.692	7.44
23)	T	Vinyl Acetate	1.421	1.416	1.526	1.537	1.319	1.504	1.454	5.77
24)	P	1,1-Dichloroethan	1.069	0.983	0.978	0.966	0.827	0.954	0.963	8.12
25)	T	2-Butanone	0.403	0.381	0.392	0.395	0.336	0.398	0.384	6.40
26)	T	2,2-Dichloropropa	1.014	0.875	0.859	0.848	0.710	0.824	0.855	11.43
27)	T	cis-1,2-Dichloroe	0.727	0.632	0.615	0.619	0.531	0.609	0.622	10.07
28)	T	Bromochloromethan	0.546	0.481	0.475	0.461	0.393	0.456	0.468	10.54
29)	T	Tetrahydrofuran	0.257	0.253	0.265	0.265	0.224	0.259	0.254	5.94
30)	C	Chloroform	1.111	1.006	1.006	0.989	0.842	0.968	0.987	8.78#
31)	T	Cyclohexane		0.845	0.855	0.855	0.742	0.863	0.832	6.08
32)	T	1,1,1-Trichloroet	1.043	0.896	0.929	0.908	0.775	0.902	0.909	9.38
33)	S	1,2-Dichloroethan		0.701	0.613	0.579	0.532	0.657	0.616	10.69
34)	I	1,4-Difluorobenzene	----------	----------	ISTD	----------	----------	----------		
35)	S	Dibromofluorometh		0.346	0.318	0.306	0.280	0.332	0.316	7.91
36)	T	1,1-Dichloroprope	0.575	0.451	0.462	0.471	0.411	0.466	0.473	11.51
37)	T	Ethyl Acetate	0.489	0.482	0.494	0.501	0.427	0.483	0.479	5.55
38)	T	Carbon Tetrachlor	0.607	0.520	0.510	0.521	0.453	0.511	0.520	9.50
39)	T	Methylcyclohexane	0.554	0.493	0.525	0.540	0.486	0.556	0.526	5.73
40)	TM	Benzene	1.586	1.375	1.392	1.387	1.220	1.371	1.388	8.41
41)	T	Methacrylonitrile	0.305	0.252	0.277	0.272	0.242	0.270	0.270	8.09
42)	TM	1,2-Dichloroethan	0.576	0.502	0.499	0.501	0.439	0.493	0.502	8.69
43)	T	Isopropyl Acetate	0.887	0.743	0.780	0.806	0.726	0.837	0.797	7.54
44)	TM	Trichloroethene	0.540	0.416	0.409	0.402	0.348	0.394	0.418	15.33
45)	C	1,2-Dichloropropa	0.399	0.359	0.357	0.354	0.314	0.357	0.357	7.52#
46)	T	Dibromomethane	0.274	0.242	0.243	0.244	0.214	0.245	0.243	7.73
47)	T	Bromodichlorometh	0.553	0.486	0.503	0.510	0.448	0.510	0.502	6.87
48)	T	Methyl methacryla	0.356	0.360	0.373	0.404	0.359	0.420	0.379	7.12
49)	T	1,4-Dioxane	0.009	0.008	0.009	0.009	0.008	0.009	0.009	4.82
50)	S	Toluene-d8		1.240	1.181	1.112	1.053	1.262	1.170	7.46
51)	T	4-Methyl-2-Pentan	0.445	0.460	0.496	0.497	0.445	0.506	0.475	5.92
52)	CM	Toluene	0.941	0.839	0.880	0.879	0.778	0.884	0.867	6.27#

Method Path : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\
Method File : 82X062920W.M
Title : SW846 8260
Last Update : Mon Jun 29 17:10:38 2020
Response Via : Initial Calibration

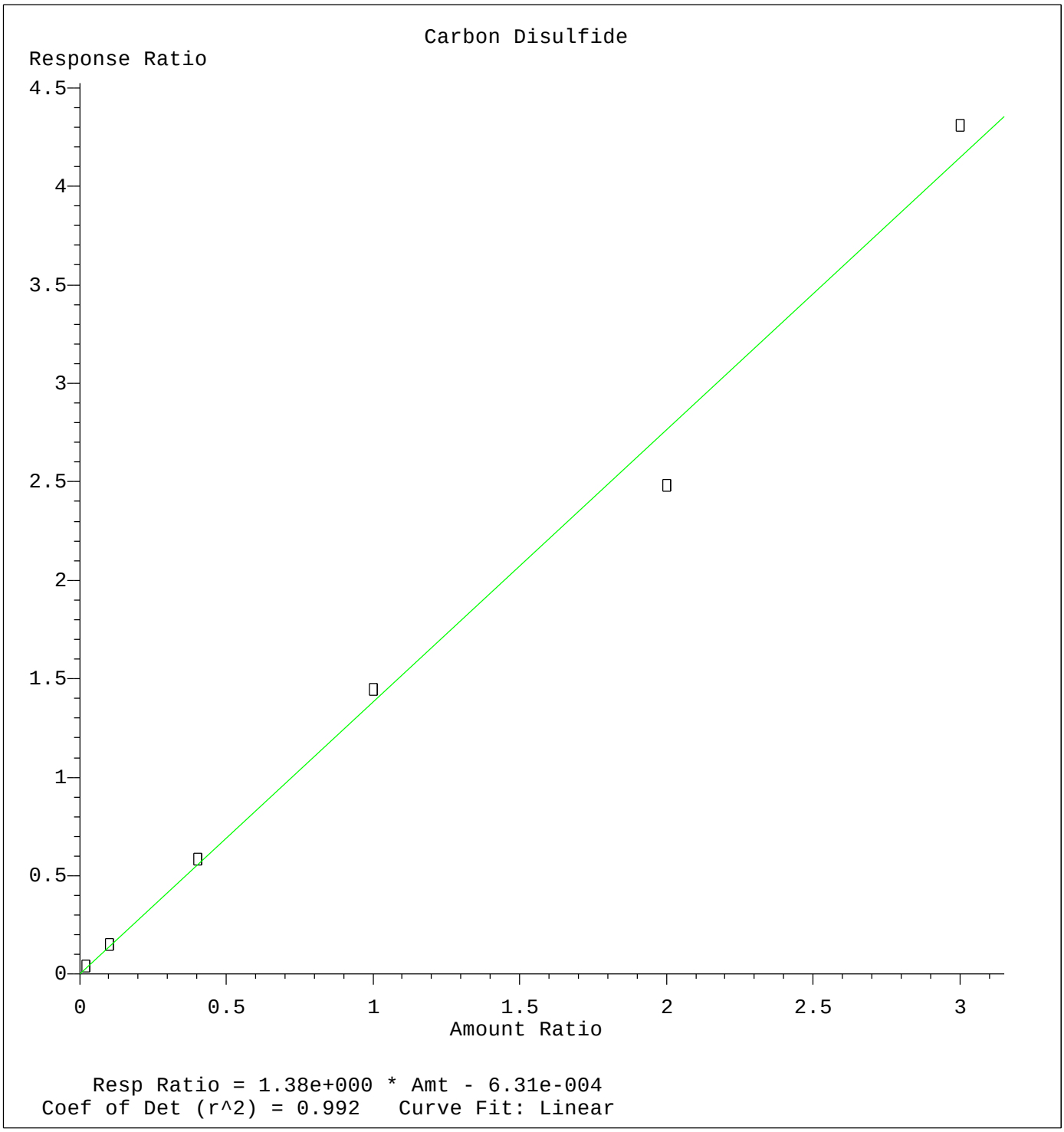
Calibration Files
1 =VX017006.D 5 =VX017007.D 20 =VX017008.D
50 =VX017009.D 100 =VX017010.D 150 =VX017011.D

		Compound	1	5	20	50	100	150	Avg	%RSD
53)	T	t-1,3-Dichloropro	0.578	0.520	0.543	0.565	0.515	0.600	0.554	6.06
54)	T	cis-1,3-Dichlorop	0.633	0.579	0.592	0.605	0.536	0.615	0.593	5.72
55)	T	1,1,2-Trichloroet	0.383	0.357	0.354	0.354	0.318	0.360	0.354	5.85
56)	T	Ethyl methacrylat	0.448	0.444	0.508	0.539	0.504	0.582	0.504	10.53
57)	T	1,3-Dichloropropa	0.672	0.594	0.600	0.598	0.526	0.605	0.599	7.71
58)	T	2-Chloroethyl Vin	0.189	0.242	0.263	0.276	0.249	0.287	0.251	13.86
59)	T	2-Hexanone	0.305	0.335	0.363	0.370	0.334	0.375	0.347	7.76
60)	T	Dibromochlorometh	0.429	0.392	0.408	0.416	0.381	0.442	0.411	5.50
61)	T	1,2-Dibromoethane	0.405	0.374	0.379	0.384	0.345	0.397	0.381	5.55
62)	S	4-Bromofluorobenz		0.463	0.442	0.437	0.426	0.517	0.457	7.89
63)	I	Chlorobenzene-d5	----------ISTD----------							
64)	T	Tetrachloroethene	0.497	0.426	0.405	0.399	0.333	0.361	0.404	14.06
65)	PM	Chlorobenzene	1.221	1.028	1.013	1.021	0.888	1.021	1.032	10.38
66)	T	1,1,1,2-Tetrachlo	0.461	0.387	0.392	0.395	0.347	0.404	0.398	9.27
67)	C	Ethyl Benzene	1.831	1.640	1.723	1.786	1.570	1.791	1.723	5.83#
68)	T	m/p-Xylenes	0.700	0.622	0.675	0.692	0.601	0.681	0.662	6.14
69)	T	o-Xylene	0.651	0.585	0.633	0.652	0.582	0.673	0.630	6.00
70)	T	Styrene	1.021	0.977	1.090	1.149	1.029	1.165	1.072	7.01
71)	P	Bromoform	0.301	0.305	0.311	0.336	0.300	0.339	0.315	5.53
72)	I	1,4-Dichlorobenzene-d	----------ISTD----------							
73)	T	Isopropylbenzene	3.212	3.186	3.358	3.461	3.013	3.420	3.275	5.16
74)	T	N-amyl acetate	1.332	1.251	1.406	1.531	1.335	1.530	1.397	8.16
75)	P	1,1,2,2-Tetrachlo	1.161	1.040	1.030	1.038	0.888	1.024	1.030	8.41
76)	T	1,2,3-Trichloropr	1.082	0.981	1.016	1.034	0.852	0.935	0.983	8.27
77)	T	Bromobenzene	1.039	0.888	0.886	0.910	0.788	0.890	0.900	8.97
78)	T	n-propylbenzene	3.595	3.490	3.805	3.920	3.464	3.946	3.704	5.80
79)	T	2-Chlorotoluene	2.305	2.171	2.280	2.353	2.055	2.285	2.241	4.87
80)	T	1,3,5-Trimethylbe	2.604	2.529	2.796	2.909	2.561	2.900	2.717	6.36
81)	T	trans-1,4-Dichlor		0.375	0.364	0.406	0.349	0.404	0.380	6.55
82)	T	4-Chlorotoluene	2.798	2.616	2.699	2.785	2.433	2.747	2.679	5.14
83)	T	tert-Butylbenzene	2.605	2.521	2.694	2.847	2.492	2.841	2.667	5.79
84)	T	1,2,4-Trimethylbe	2.441	2.589	2.900	2.983	2.649	2.974	2.756	8.25
85)	T	sec-Butylbenzene	2.958	2.962	3.186	3.348	2.979	3.374	3.135	6.23
86)	T	p-Isopropyltoluen	2.704	2.728	3.004	3.186	2.766	3.121	2.918	7.27
87)	T	1,3-Dichlorobenze	1.980	1.628	1.622	1.596	1.395	1.587	1.635	11.63
88)	T	1,4-Dichlorobenze	2.164	1.658	1.606	1.630	1.402	1.588	1.675	15.30
89)	T	n-Butylbenzene	2.800	2.315	2.586	2.730	2.431	2.772	2.606	7.61
90)	T	Hexachloroethane	0.596	0.578	0.560	0.596	0.523	0.599	0.575	5.16
91)	T	1,2-Dichlorobenze	1.790	1.501	1.515	1.537	1.323	1.502	1.528	9.82
92)	T	1,2-Dibromo-3-Chl	0.305	0.227	0.234	0.241	0.214	0.252	0.246	12.99
93)	T	1,2,4-Trichlorobe	1.229	0.950	0.993	1.053	0.936	1.097	1.043	10.51
94)	T	Hexachlorobutadie	0.562	0.398	0.387	0.405	0.365	0.414	0.422	16.70
95)	T	Naphthalene	2.970	2.793	3.186	3.460	3.053	3.563	3.171	9.30
96)	T	1,2,3-Trichlorobe	1.140	0.918	0.964	1.036	0.931	1.069	1.009	8.61

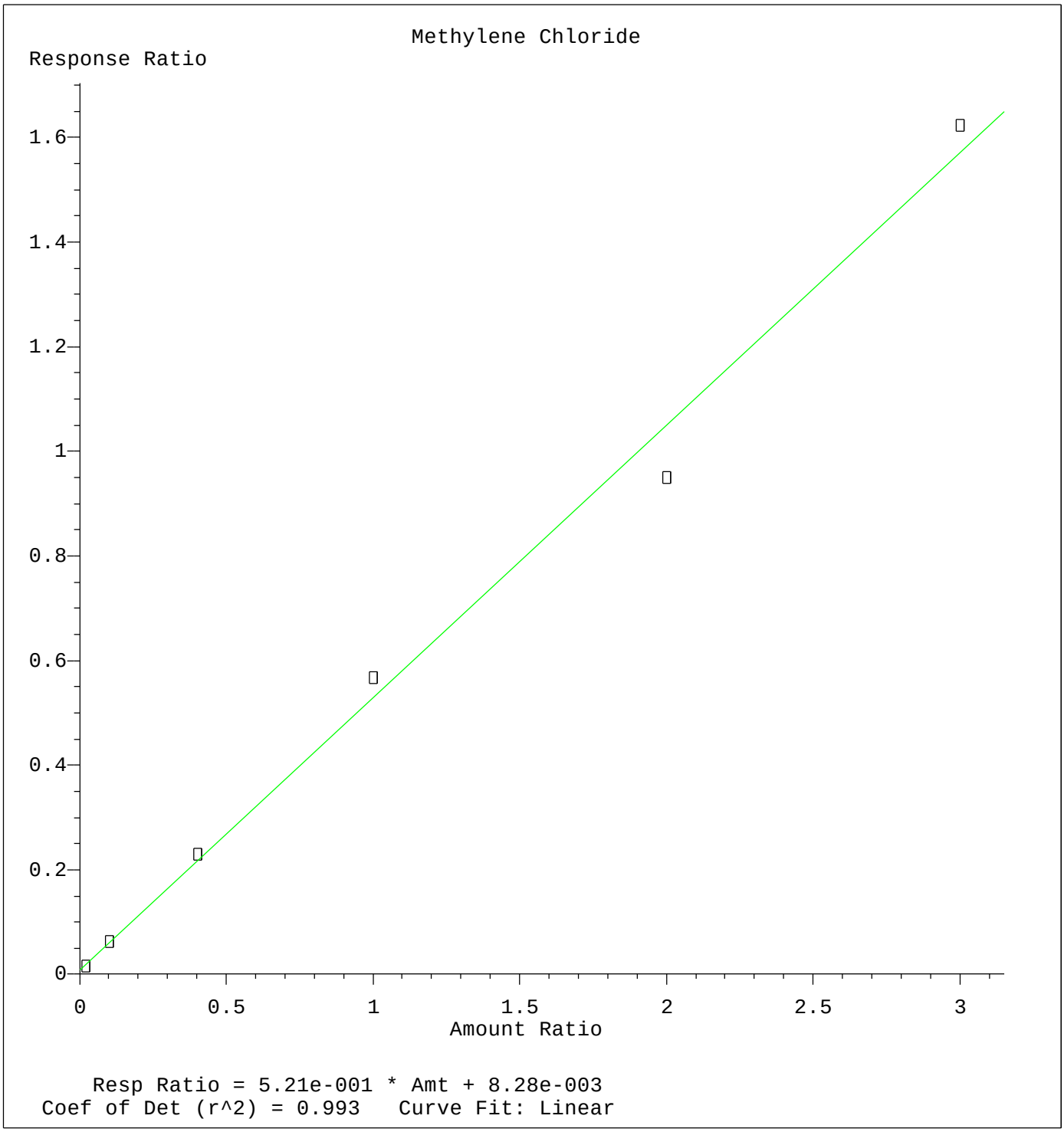
(#) = Out of Range



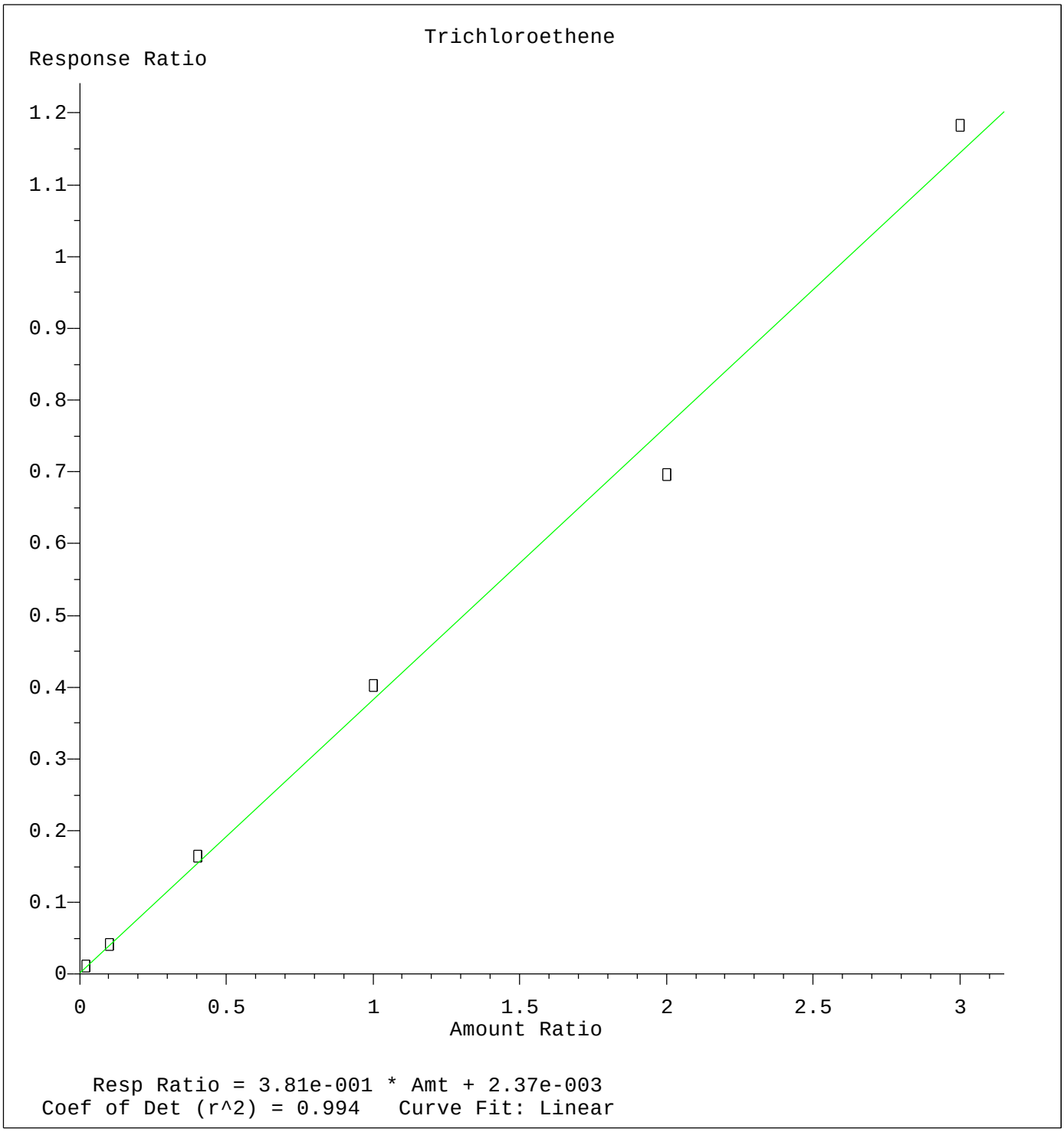
Method Name: Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X062920W.M
Calibration Table Last Updated: Mon Jun 29 17:10:38 2020



Method Name: Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X062920W.M
Calibration Table Last Updated: Mon Jun 29 17:10:38 2020



Method Name: Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X062920W.M
Calibration Table Last Updated: Mon Jun 29 17:10:38 2020



Method Name: Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X062920W.M
Calibration Table Last Updated: Mon Jun 29 17:10:38 2020

Quantitation Report (QT Reviewed)

ICAL Form

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX062920\
Data File : VX017006.D
Acq On : 29 Jun 2020 14:13
Operator : JC/SP
Sample : VSTDICC001
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 4 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
VSTDICC001

Manual Integrations APPROVED
MMDadoda
6/30/2020 10:12:40 AM

Quant Time: Jun 29 17:09:31 2020
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X062920W.M
Quant Title : SW846 8260
QLast Update : Mon Jun 29 16:53:31 2020
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	5.63	168	364638	50.00	ug/l	0.00
34) 1,4-Difluorobenzene	6.83	114	578404	50.00	ug/l	0.00
63) Chlorobenzene-d5	10.09	117	530301	50.00	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	12.06	152	264891	50.00	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	0.00	65	0d	0.00	ug/l	
Spiked Amount 50.000			Recovery =	0.00%		
35) Dibromofluoromethane	0.00	113	0d	0.00	ug/l	
Spiked Amount 50.000			Recovery =	0.00%		
50) Toluene-d8	0.00	98	0d	0.00	ug/l	
Spiked Amount 50.000			Recovery =	0.00%		
62) 4-Bromofluorobenzene	0.00	95	0d	0.00	ug/l	
Spiked Amount 50.000			Recovery =	0.00%		
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.18	85	3862	1.095	ug/l	98
3) Chloromethane	1.32	50	5093	1.193	ug/l	96
4) Vinyl Chloride	1.39	62	4754	1.200	ug/l	99
6) Chloroethane	1.71	64	2879	1.230	ug/l #	77
7) Trichlorofluoromethane	1.92	101	6907	1.179	ug/l	95
8) Diethyl Ether	2.17	74	2767	1.294	ug/l	88
9) 1,1,2-Trichlorotrifluoroet	2.37	101	3870	1.102	ug/l	95
12) 1,1-Dichloroethene	2.36	96	4195	1.163	ug/l	84
14) Allyl chloride	2.71	41	8240	1.236	ug/l	96
15) Acrylonitrile	3.12	53	11200	5.433	ug/l	96
16) Acetone	2.42	43	10201	6.066	ug/l	91
17) Carbon Disulfide	2.55	76	14709	1.331	ug/l	99
18) Methyl Acetate	2.75	43	4767	1.086	ug/l	95
19) Methyl tert-butyl Ether	3.17	73	13047	1.078	ug/l	99
20) Methylene Chloride	2.84	84	5607	1.305	ug/l	95
21) trans-1,2-Dichloroethene	3.14	96	4683	1.170	ug/l	91
22) Diisopropyl ether	3.82	45	13207	1.070	ug/l #	91
23) Vinyl Acetate	3.78	43	51830	4.888	ug/l	99
24) 1,1-Dichloroethane	3.67	63	7796	1.110	ug/l	97
25) 2-Butanone	4.64	43	14709	5.249	ug/l	97
26) 2,2-Dichloropropane	4.55	77	7393	1.186	ug/l	96
27) cis-1,2-Dichloroethene	4.56	96	5299	1.168	ug/l	97
28) Bromochloromethane	4.98	49	3983	1.166	ug/l #	91
29) Tetrahydrofuran	5.09	42	9365	5.058	ug/l	98
30) Chloroform	5.17	83	8104	1.126	ug/l	90
32) 1,1,1-Trichloroethane	5.46	97	7603	1.147	ug/l #	42
36) 1,1-Dichloropropene	5.76	75	6647	1.216	ug/l	97
37) Ethyl Acetate	4.79	43	5657	1.020	ug/l #	81
38) Carbon Tetrachloride	5.75	117	7024	1.167	ug/l	91
39) Methylcyclohexane	7.44	83	6406	1.053	ug/l	95
40) Benzene	6.11	78	18349	1.142	ug/l	97
41) Methacrylonitrile	4.99	41	3530	1.131	ug/l #	82
42) 1,2-Dichloroethane	6.17	62	6659	1.148	ug/l	98
43) Isopropyl Acetate	6.42	43	10265	1.114	ug/l	98

ICAL Form

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX062920\
Data File : VX017006.D
Acq On : 29 Jun 2020 14:13
Operator : JC/SP
Sample : VSTDICC001
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 4 Sample Multiplier: 1

Instrument : MSVOA_X
ClientSampleId : VSTDICC001

Manual Integrations APPROVED
MMDadoda
6/30/2020 10:12:40 AM

Quant Time: Jun 29 17:09:31 2020
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X062920W.M
Quant Title : SW846 8260
QLast Update : Mon Jun 29 16:53:31 2020
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
44) Trichloroethene	7.19	130	6241	1.290	ug/l		94
45) 1,2-Dichloropropane	7.49	63	4612	1.118	ug/l	#	81
46) Dibromomethane	7.64	93	3164	1.123	ug/l		97
47) Bromodichloromethane	7.87	83	6402	1.103	ug/l	#	85
48) Methyl methacrylate	7.75	41	4121	0.941	ug/l		87
49) 1,4-Dioxane	7.72	88	2037	20.534	ug/l	#	83
51) 4-Methyl-2-Pentanone	8.62	43	25716	4.681	ug/l		97
52) Toluene	8.76	92	10890	1.086	ug/l		98
53) t-1,3-Dichloropropene	9.02	75	6692	1.045	ug/l		98
54) cis-1,3-Dichloropropene	8.41	75	7327	1.067	ug/l		95
55) 1,1,2-Trichloroethane	9.20	97	4430	1.081	ug/l		94
56) Ethyl methacrylate	9.16	69	5181	0.888	ug/l	#	92
57) 1,3-Dichloropropane	9.35	76	7773	1.121	ug/l		95
58) 2-Chloroethyl Vinyl ether	8.29	63	10907	3.758	ug/l		95
59) 2-Hexanone	9.47	43	17651	4.399	ug/l		96
60) Dibromochloromethane	9.57	129	4958	1.042	ug/l		99
61) 1,2-Dibromoethane	9.65	107	4685	1.064	ug/l		96
64) Tetrachloroethene	9.32	164	5270	1.231	ug/l		96
65) Chlorobenzene	10.12	112	12955	1.184	ug/l		96
66) 1,1,1,2-Tetrachloroethane	10.20	131	4889	1.159	ug/l	#	65
67) Ethyl Benzene	10.23	91	19420	1.062	ug/l		95
68) m/p-Xylenes	10.34	106	14842	2.115	ug/l		100
69) o-Xylene	10.68	106	6909	1.035	ug/l		100
70) Styrene	10.70	104	10834	0.953	ug/l		98
71) Bromoform	10.84	173	3194	0.955	ug/l	#	97
73) Isopropylbenzene	11.00	105	17016	0.981	ug/l		98
74) N-amyl acetate	10.88	43	7057	0.953	ug/l		98
75) 1,1,2,2-Tetrachloroethane	11.25	83	6149	1.127	ug/l		99
76) 1,2,3-Trichloropropane	11.28	75	5730m	0.878	ug/l		
77) Bromobenzene	11.24	156	5506	1.155	ug/l		99
78) n-propylbenzene	11.34	91	19048	0.971	ug/l		96
79) 2-Chlorotoluene	11.40	91	12211	1.028	ug/l		100
80) 1,3,5-Trimethylbenzene	11.49	105	13796	0.959	ug/l		97
82) 4-Chlorotoluene	11.49	91	14823	1.044	ug/l		99
83) tert-Butylbenzene	11.76	119	13801	0.977	ug/l		97
84) 1,2,4-Trimethylbenzene	11.79	105	12930	0.886	ug/l		95
85) sec-Butylbenzene	11.93	105	15672	0.944	ug/l		99
86) p-Isopropyltoluene	12.05	119	14325	0.927	ug/l		90
87) 1,3-Dichlorobenzene	12.01	146	10492	1.211	ug/l		96
88) 1,4-Dichlorobenzene	12.08	146	11464m	1.316	ug/l		
89) n-Butylbenzene	12.37	91	14834	1.075	ug/l		94
90) Hexachloroethane	12.58	117	3156	1.035	ug/l		98
91) 1,2-Dichlorobenzene	12.38	146	9485	1.172	ug/l		99
92) 1,2-Dibromo-3-Chloropropan	12.98	75	1618	1.243	ug/l		76
93) 1,2,4-Trichlorobenzene	13.63	180	6510	1.178	ug/l		94
94) Hexachlorobutadiene	13.77	225	2975	1.331	ug/l		97
95) Naphthalene	13.82	128	15734	0.937	ug/l		98
96) 1,2,3-Trichlorobenzene	14.01	180	6037	1.129	ug/l		98

ICAL Form

Data Path : Z:\VOASRV\HPCHEM1\MSVOA X\DATA\VX062920\
Data File : VX017006.D
Acq On : 29 Jun 2020 14:13
Operator : JC/SP
Sample : VSTDICC001
Misc : 5.0mL/MSVOA X/WATER
ALS Vial : 4 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
VSTDICC001

Manual Integrations APPROVED
MMDadoda
6/30/2020 10:12:40 AM

Quant Time: Jun 29 17:09:31 2020
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X062920W.M
Quant Title : SW846 8260
QLast Update : Mon Jun 29 16:53:31 2020
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)

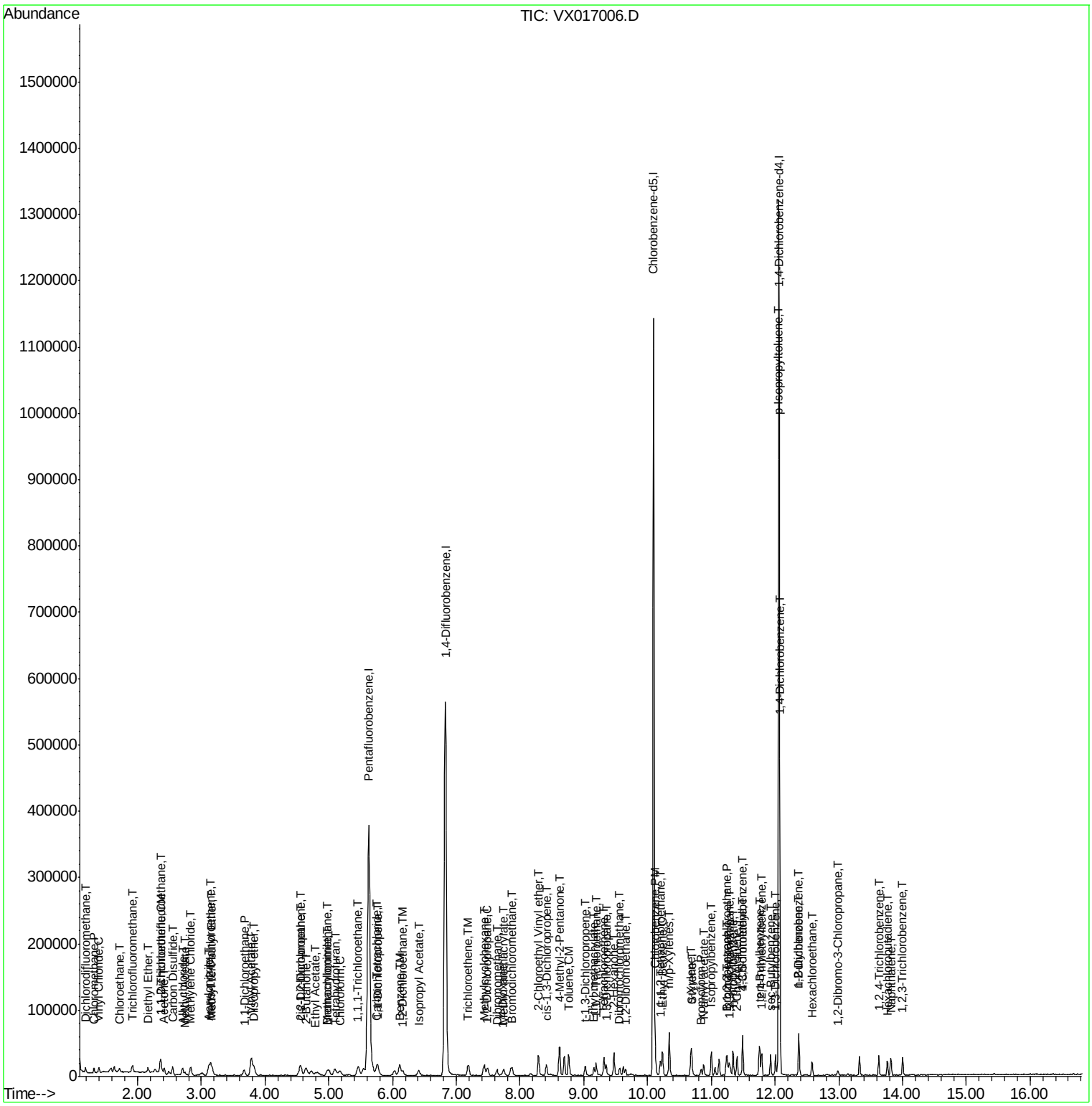
(#) = qualifier out of range (m) = manual integration (+) = signals summed

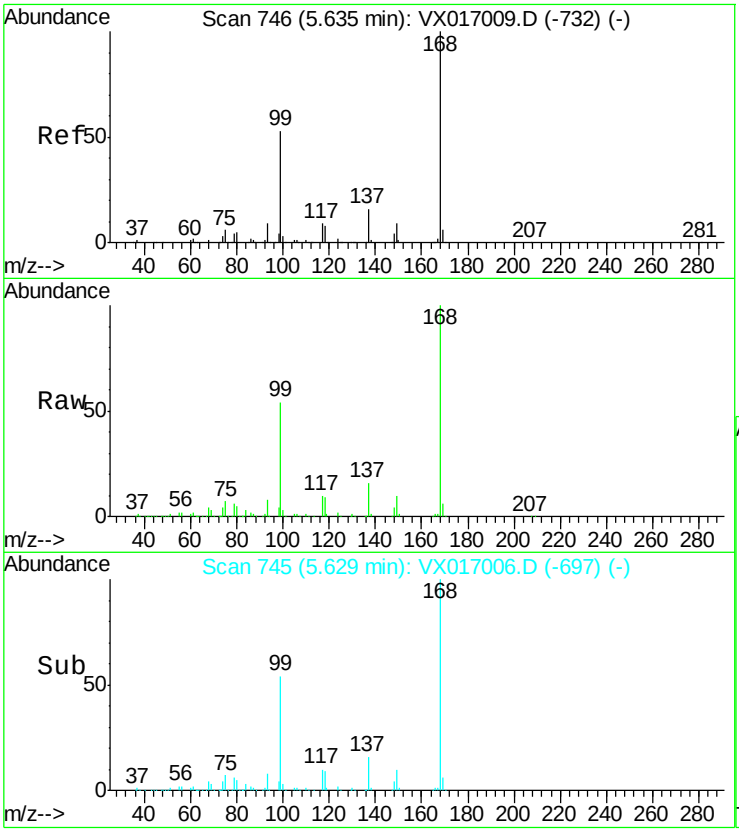
Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX062920\
Data File : VX017006.D
Acq On : 29 Jun 2020 14:13
Operator : JC/SP
Sample : VSTDICC001
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jun 29 17:09:31 2020
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X062920W.M
Quant Title : SW846 8260
QLast Update : Mon Jun 29 16:53:31 2020
Response via : Initial Calibration

Instrument :
MSVOA_X
ClientSampleId :
VSTDICC001

Manual Integrations APPROVED
MMDadoda
6/30/2020 10:12:40 AM

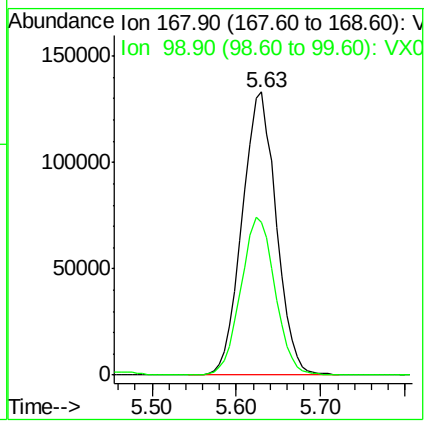




#1
Pentafluorobenzene
Concen: 50.000 ug/l
RT: 5.63 min Scan# 745
Delta R.T. -0.01 min
Lab File: VX017006.D
Acq: 29 Jun 2020 14:13

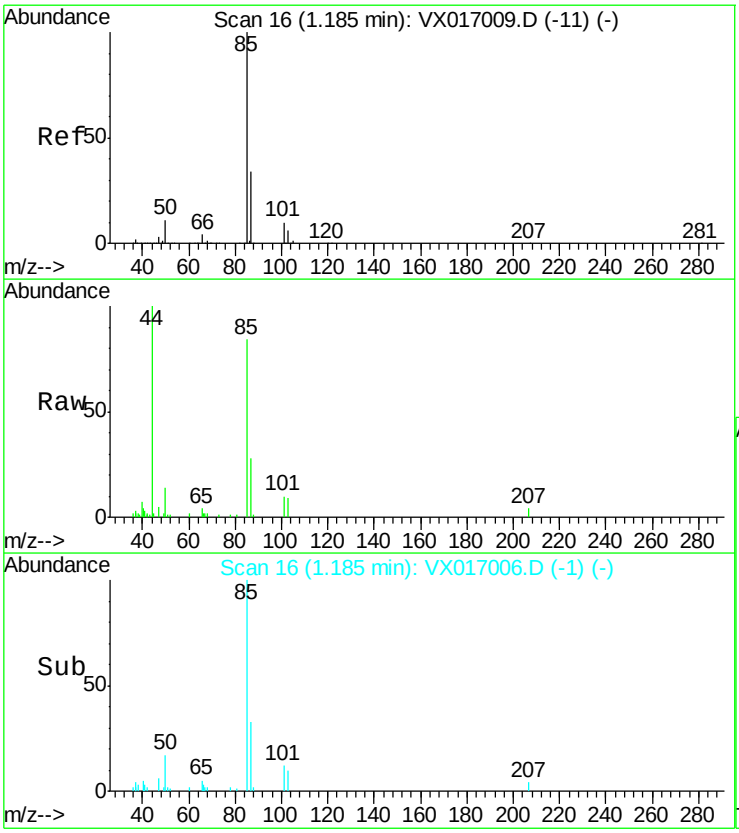
Tgt Ion:168 Resp: 364638

Ion	Ratio	Lower	Upper
168	100		
99	53.9	42.6	64.0



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC001

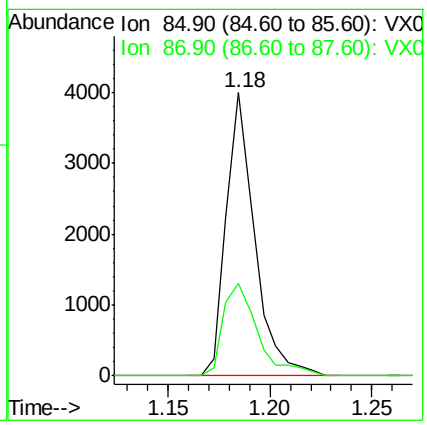
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:12:40 AM



#2
Dichlorodifluoromethane
Concen: 1.095 ug/l
RT: 1.18 min Scan# 16
Delta R.T. -0.00 min
Lab File: VX017006.D
Acq: 29 Jun 2020 14:13

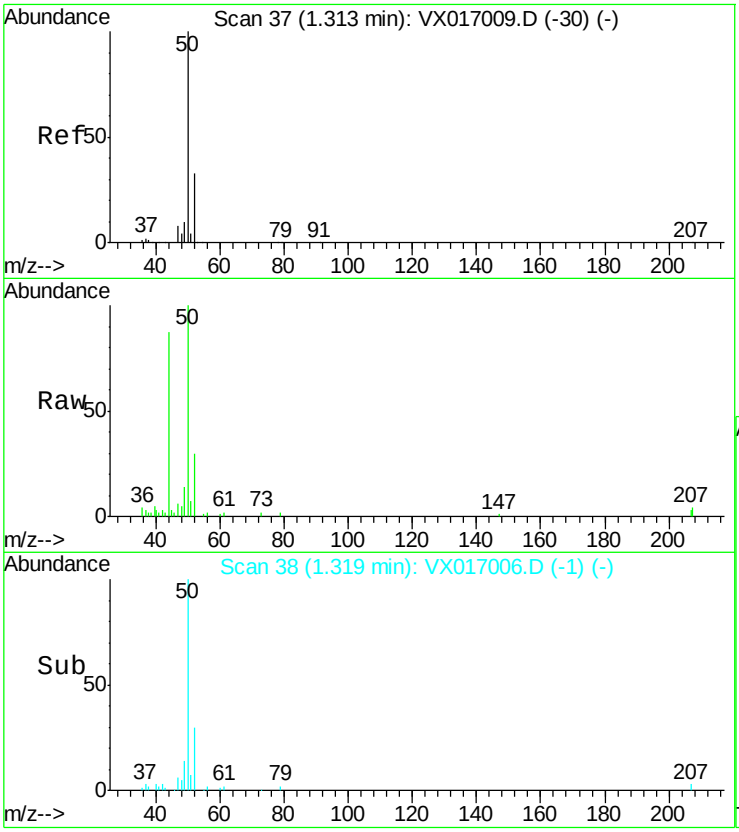
Tgt Ion: 85 Resp: 3862

Ion	Ratio	Lower	Upper
85	100		
87	32.6	16.8	50.4



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC001

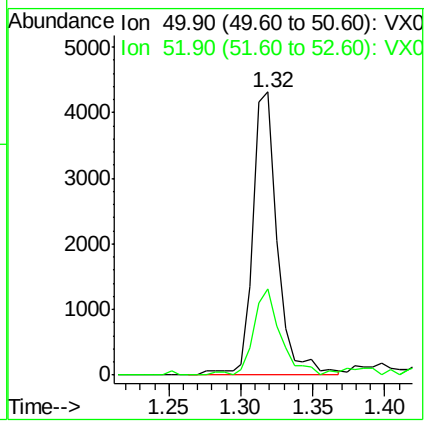
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:12:40 AM

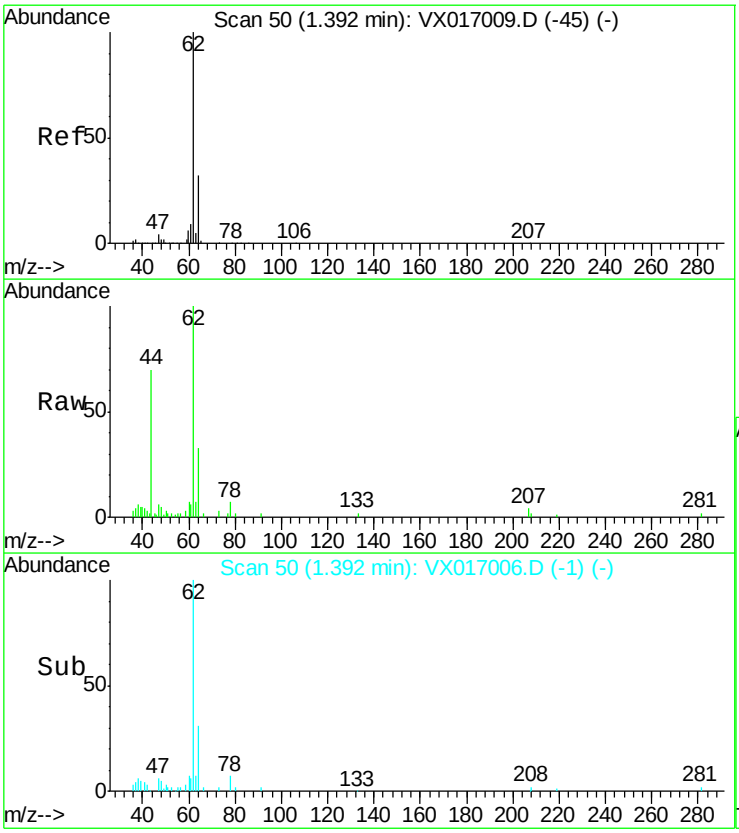


#3
Chloromethane
Concen: 1.193 ug/l
RT: 1.32 min Scan# 38
Delta R.T. 0.01 min
Lab File: VX017006.D
Acq: 29 Jun 2020 14:13

Tgt Ion: 50 Resp: 5093

Ion	Ratio	Lower	Upper
50	100		
52	30.3	26.1	39.1

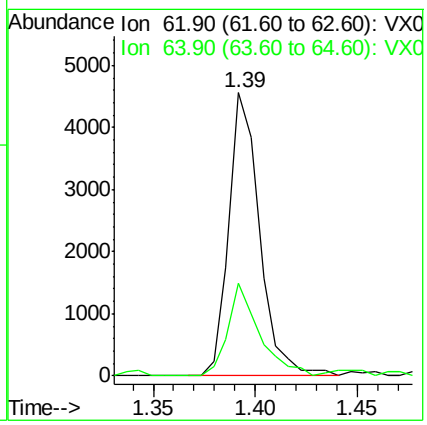


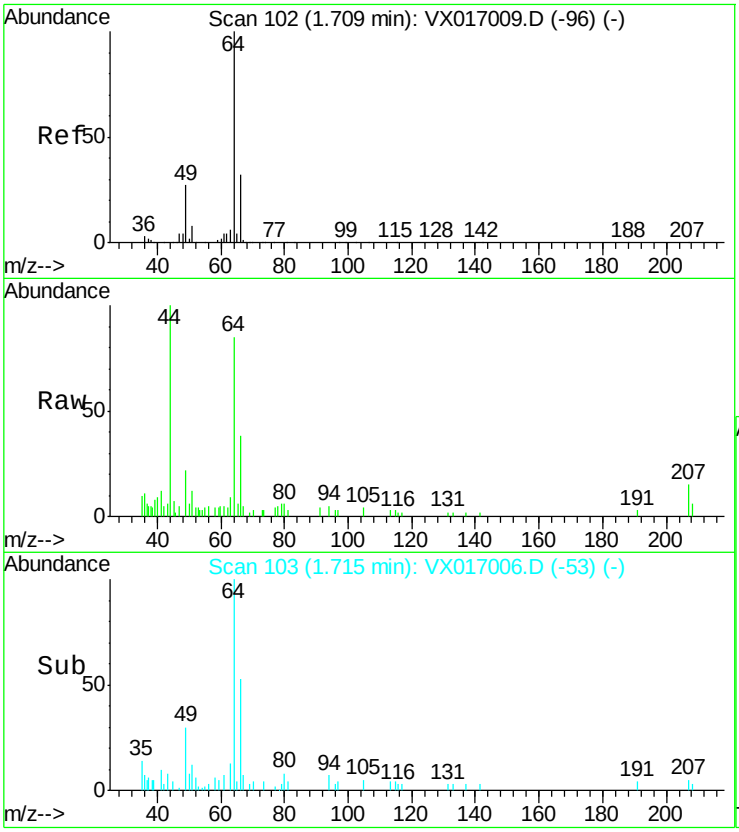


#4
Vinyl Chloride
Concen: 1.200 ug/l
RT: 1.39 min Scan# 50
Delta R.T. -0.00 min
Lab File: VX017006.D
Acq: 29 Jun 2020 14:13

Tgt Ion: 62 Resp: 4754

Ion	Ratio	Lower	Upper
62	100		
64	32.9	25.9	38.9

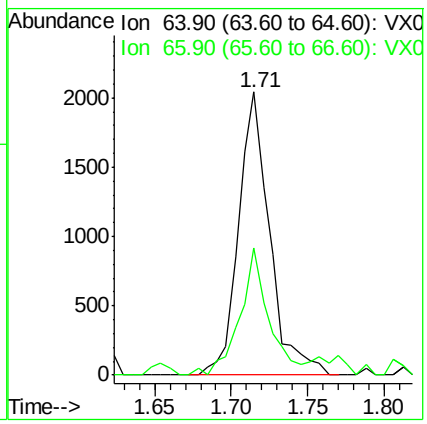




#6
Chloroethane
Concen: 1.230 ug/l
RT: 1.71 min Scan# 103
Delta R.T. 0.01 min
Lab File: VX017006.D
Acq: 29 Jun 2020 14:13

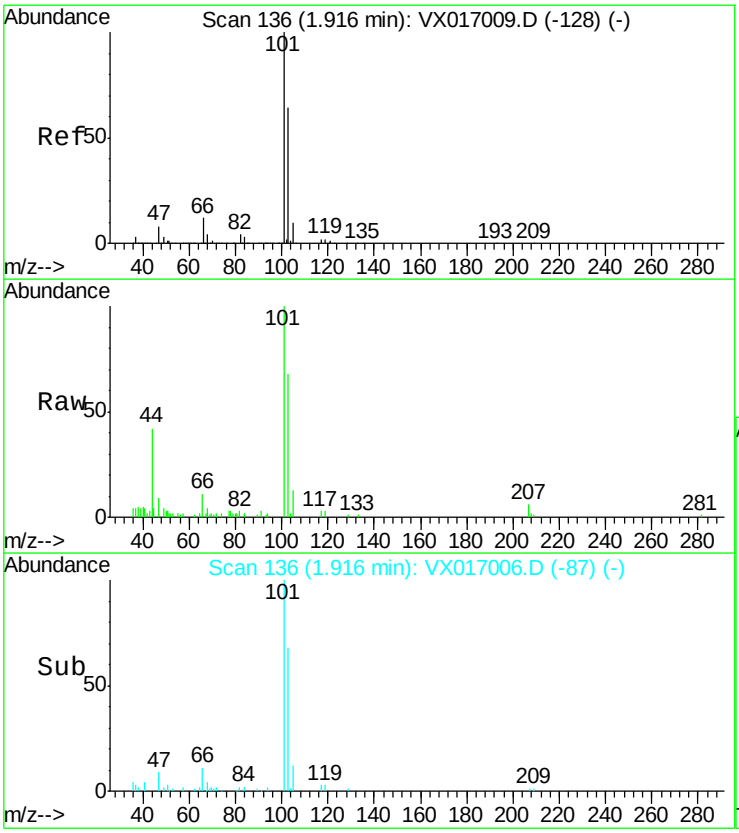
Tgt Ion: 64 Resp: 2879

Ion	Ratio	Lower	Upper
64	100		
66	45.0	25.5	38.3#



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC001

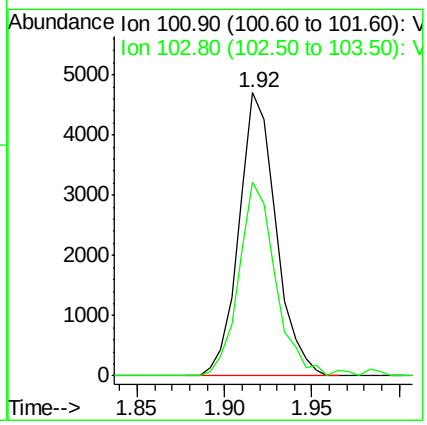
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:12:40 AM

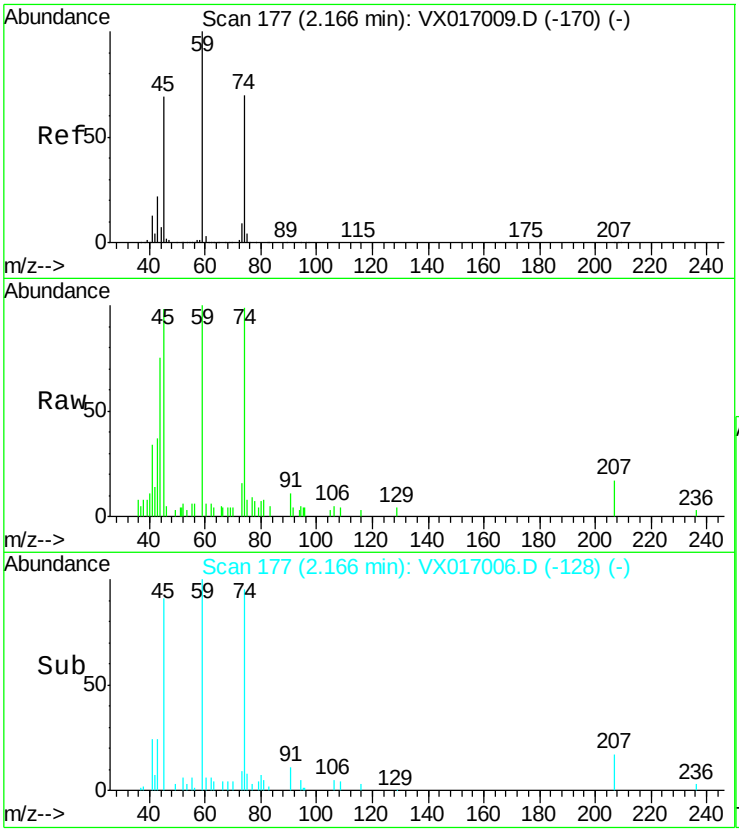


#7
Trichlorofluoromethane
Concen: 1.179 ug/l
RT: 1.92 min Scan# 136
Delta R.T. -0.00 min
Lab File: VX017006.D
Acq: 29 Jun 2020 14:13

Tgt Ion:101 Resp: 6907

Ion	Ratio	Lower	Upper
101	100		
103	68.4	51.5	77.3





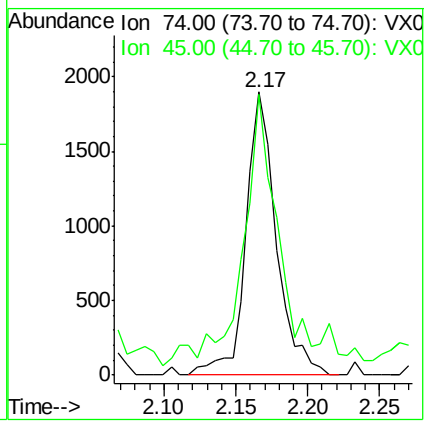
#8
Diethyl Ether
Concen: 1.294 ug/l
RT: 2.17 min Scan# 177
Delta R.T. 0.00 min
Lab File: VX017006.D
Acq: 29 Jun 2020 14:13

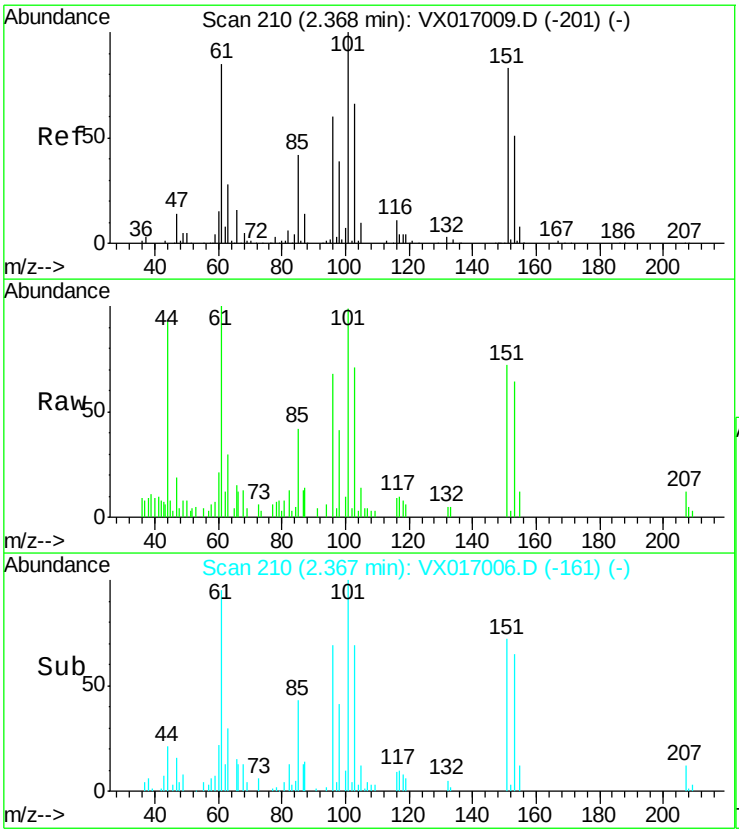
Tgt Ion: 74 Resp: 2767

Ion	Ratio	Lower	Upper
74	100		
45	111.4	49.8	149.3

Instrument :
MSVOA_X
ClientSampleId :
VSTDICC001

Manual Integrations APPROVED
MMDadoda
6/30/2020 10:12:40 AM

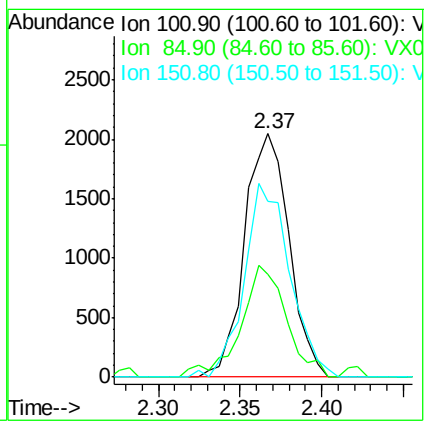




#9
1,1,2-Trichlorotrifluoroethane
Concen: 1.102 ug/l
RT: 2.37 min Scan# 210
Delta R.T. -0.00 min
Lab File: VX017006.D
Acq: 29 Jun 2020 14:13

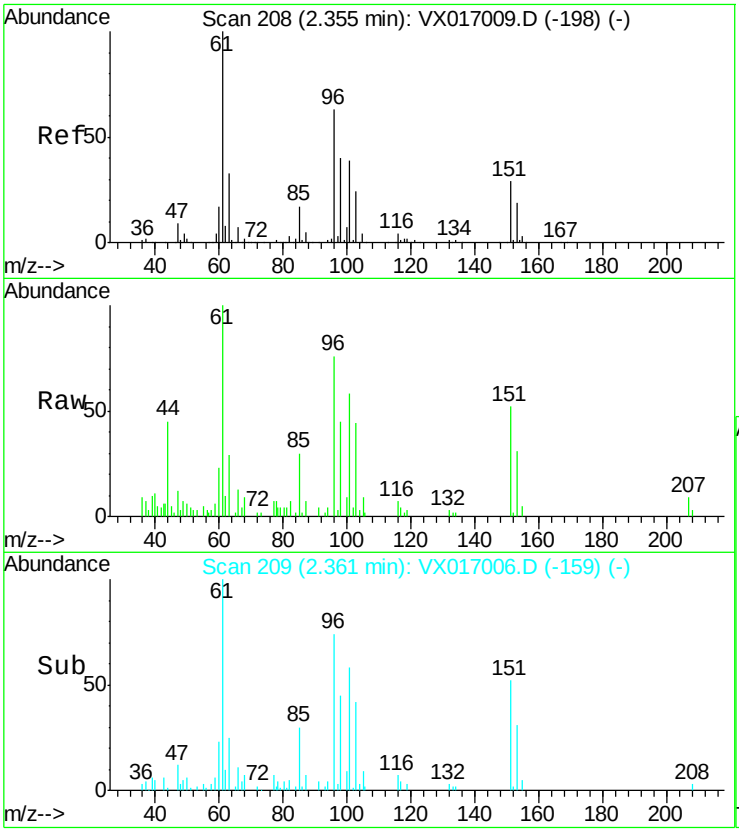
Tgt Ion:101 Resp: 3870

Ion	Ratio	Lower	Upper
101	100		
85	47.5	33.5	50.3
151	82.0	63.8	95.6



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC001

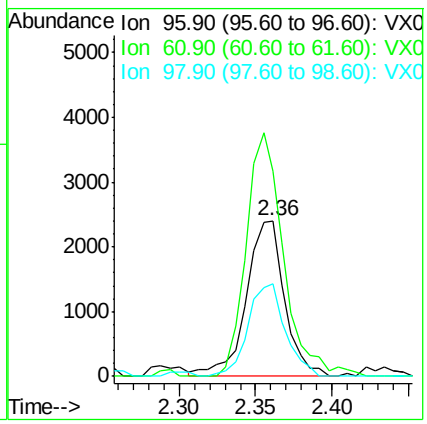
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:12:40 AM

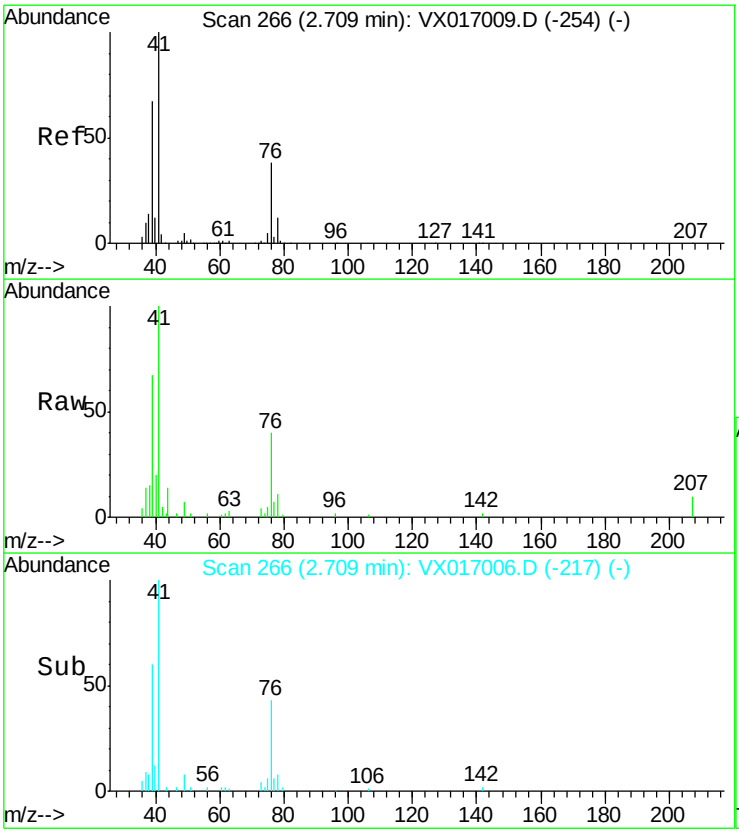


#12
1,1-Dichloroethene
Concen: 1.163 ug/l
RT: 2.36 min Scan# 209
Delta R.T. 0.01 min
Lab File: VX017006.D
Acq: 29 Jun 2020 14:13

Tgt Ion: 96 Resp: 4195

Ion	Ratio	Lower	Upper
96	100		
61	131.8	126.3	189.5
98	59.2	51.0	76.6

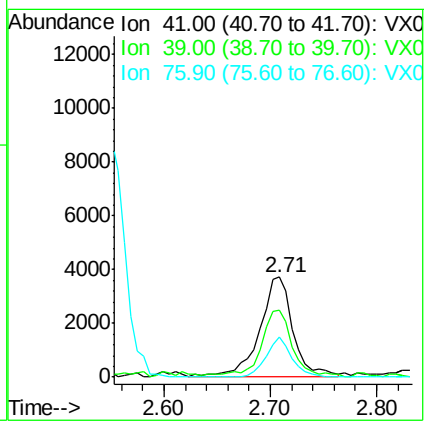




#14
Allyl chloride
Concen: 1.236 ug/l
RT: 2.71 min Scan# 266
Delta R.T. -0.00 min
Lab File: VX017006.D
Acq: 29 Jun 2020 14:13

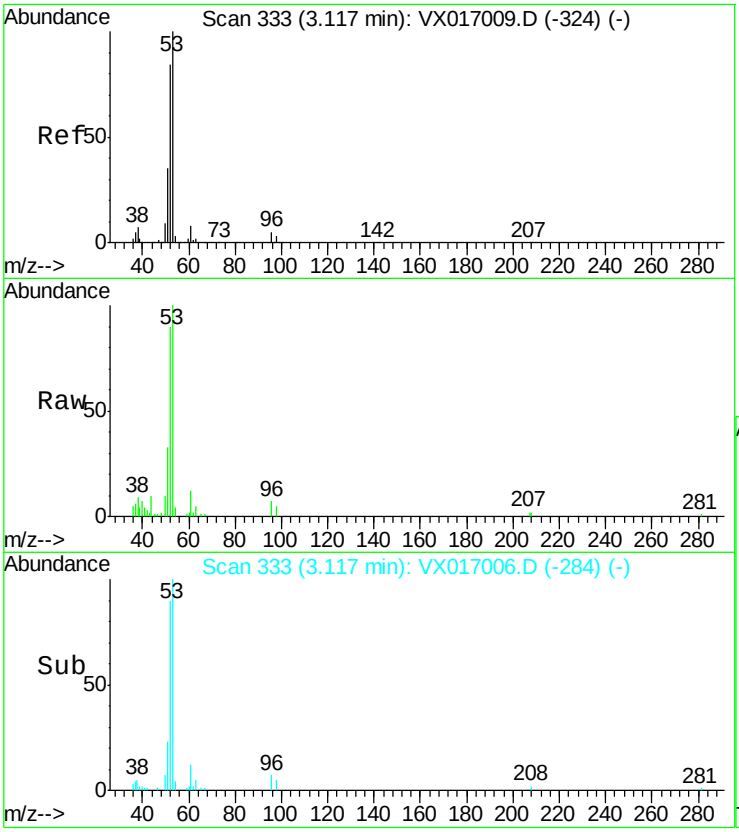
Tgt Ion: 41 Resp: 8240

Ion	Ratio	Lower	Upper
41	100		
39	63.6	49.4	74.2
76	30.2	26.8	40.2



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC001

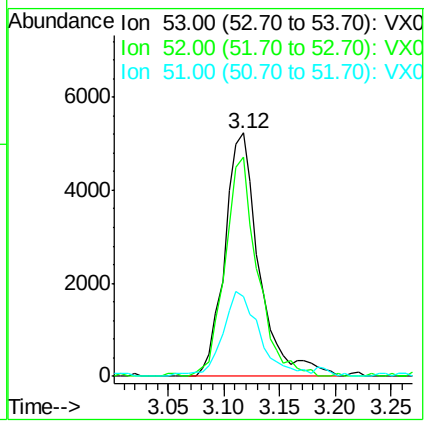
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:12:40 AM

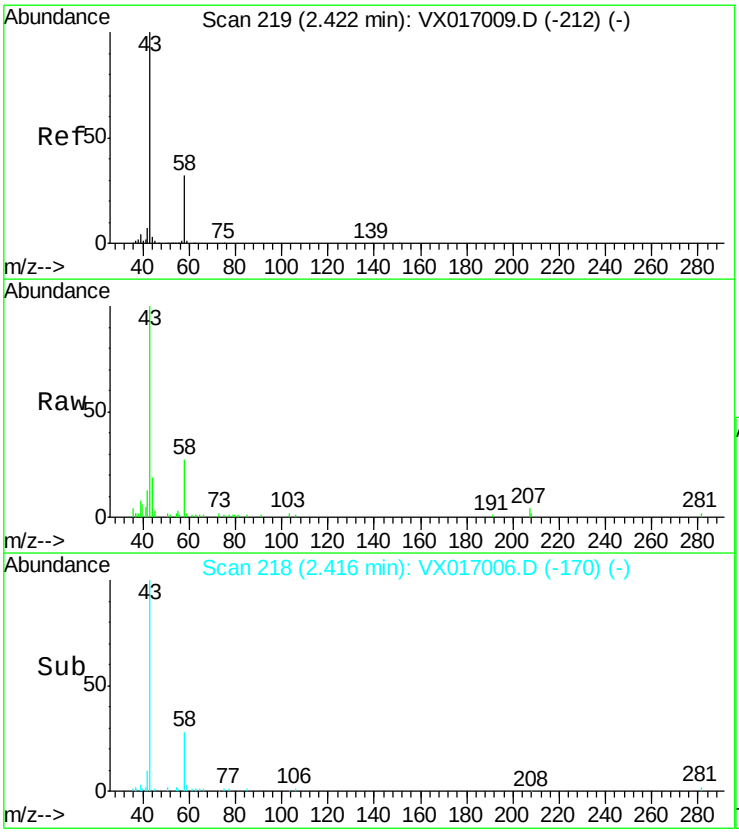


#15
Acrylonitrile
Concen: 5.433 ug/l
RT: 3.12 min Scan# 333
Delta R.T. -0.00 min
Lab File: VX017006.D
Acq: 29 Jun 2020 14:13

Tgt Ion: 53 Resp: 11200

Ion	Ratio	Lower	Upper
53	100		
52	85.3	65.6	98.4
51	37.8	28.3	42.5

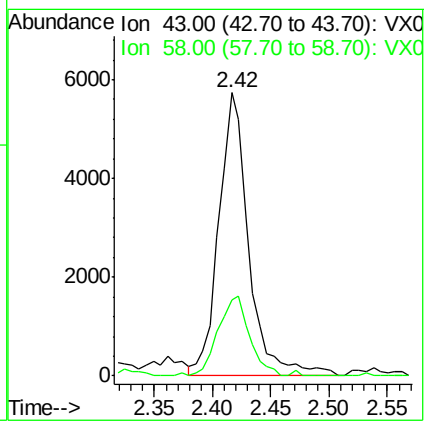




#16
Acetone
Concen: 6.066 ug/l
RT: 2.42 min Scan# 218
Delta R.T. -0.01 min
Lab File: VX017006.D
Acq: 29 Jun 2020 14:13

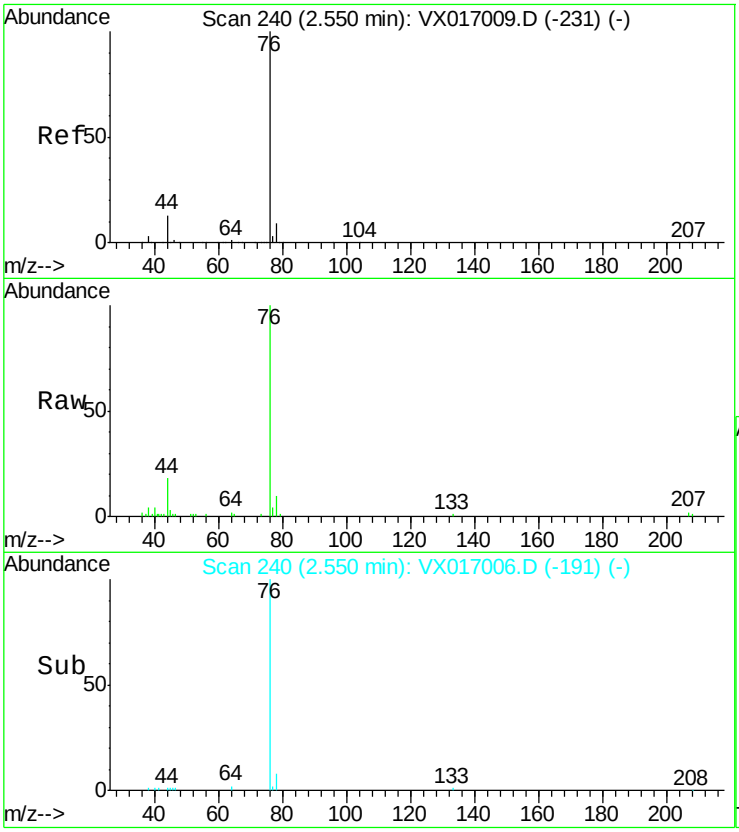
Tgt Ion: 43 Resp: 10201

Ion	Ratio	Lower	Upper
43	100		
58	27.0	25.7	38.5



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC001

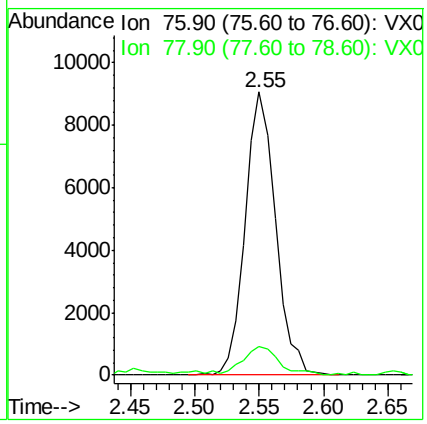
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:12:40 AM

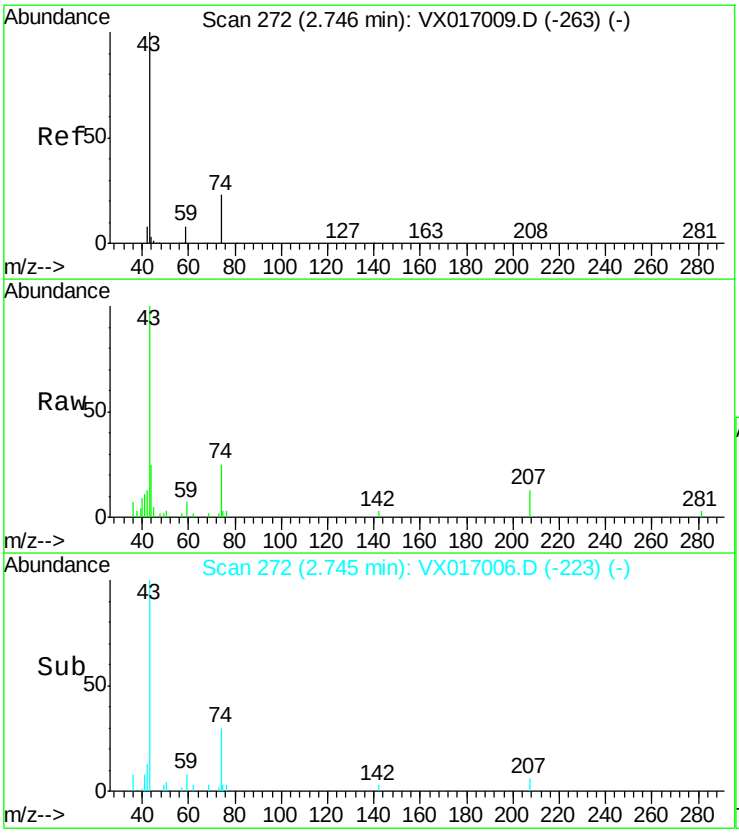


#17
Carbon Disulfide
Concen: 1.331 ug/l
RT: 2.55 min Scan# 240
Delta R.T. 0.00 min
Lab File: VX017006.D
Acq: 29 Jun 2020 14:13

Tgt Ion: 76 Resp: 14709

Ion	Ratio	Lower	Upper
76	100		
78	9.4	7.2	10.8

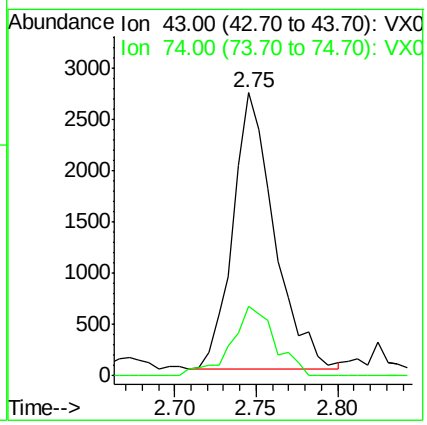




#18
Methyl Acetate
Concen: 1.086 ug/l
RT: 2.75 min Scan# 272
Delta R.T. -0.00 min
Lab File: VX017006.D
Acq: 29 Jun 2020 14:13

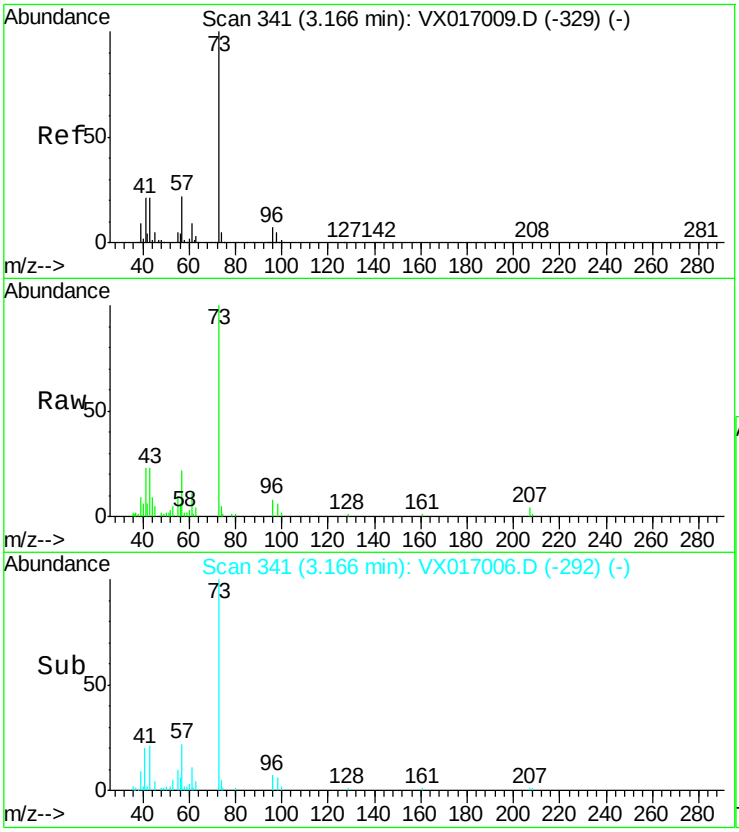
Tgt Ion: 43 Resp: 4767

Ion	Ratio	Lower	Upper
43	100		
74	26.5	19.3	28.9



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC001

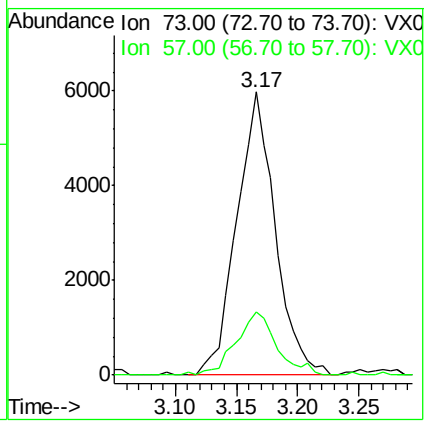
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:12:40 AM

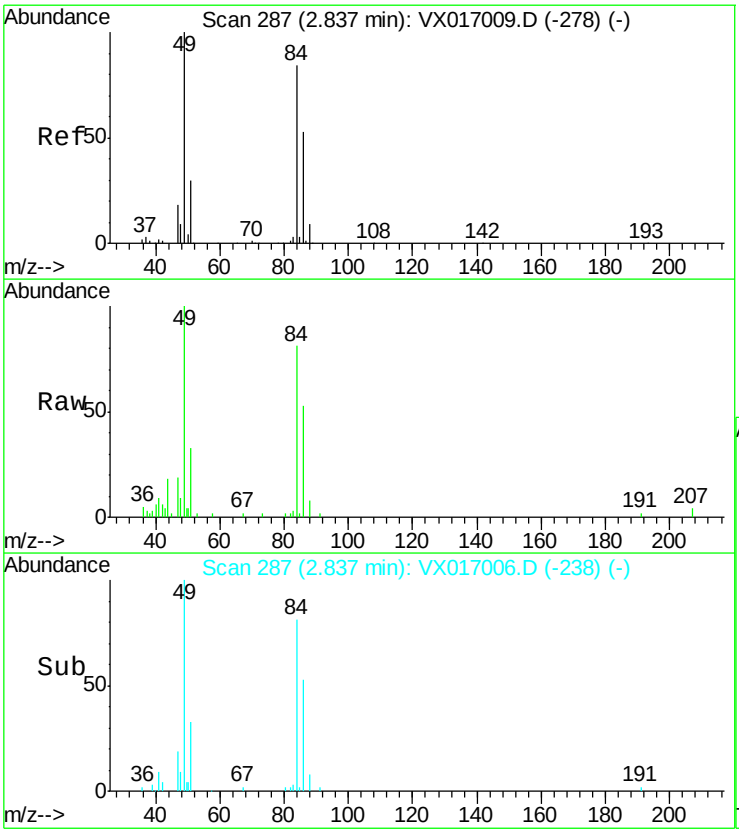


#19
Methyl tert-butyl Ether
Concen: 1.078 ug/l
RT: 3.17 min Scan# 341
Delta R.T. -0.00 min
Lab File: VX017006.D
Acq: 29 Jun 2020 14:13

Tgt Ion: 73 Resp: 13047

Ion	Ratio	Lower	Upper
73	100		
57	22.3	17.6	26.4

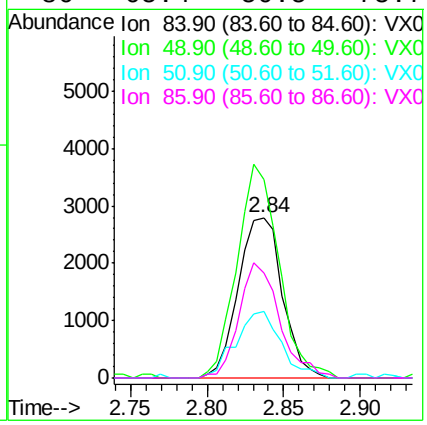


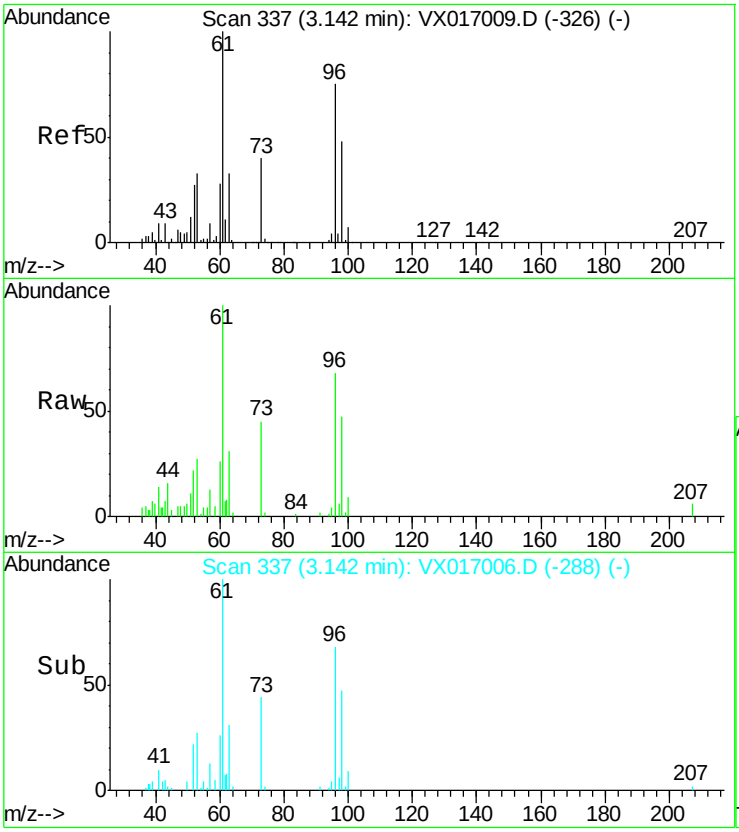


#20
Methylene Chloride
Concen: 1.305 ug/l
RT: 2.84 min Scan# 287
Delta R.T. 0.00 min
Lab File: VX017006.D
Acq: 29 Jun 2020 14:13

Tgt Ion: 84 Resp: 5607

Ion	Ratio	Lower	Upper
84	100		
49	123.6	94.7	142.1
51	41.3	28.6	42.8
86	65.4	50.5	75.7

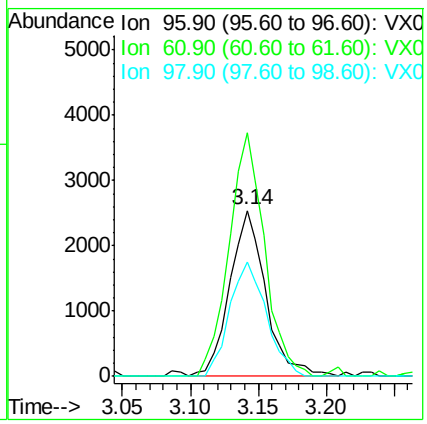




#21
trans-1,2-Dichloroethene
Concen: 1.170 ug/l
RT: 3.14 min Scan# 337
Delta R.T. -0.00 min
Lab File: VX017006.D
Acq: 29 Jun 2020 14:13

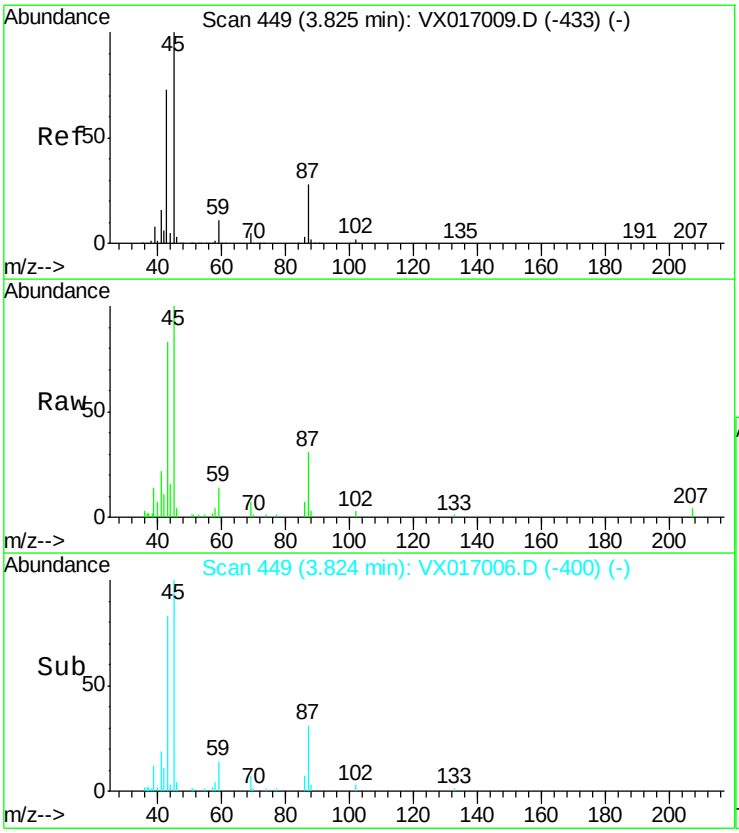
Tgt Ion: 96 Resp: 4683

Ion	Ratio	Lower	Upper
96	100		
61	146.6	107.0	160.6
98	68.9	51.6	77.4



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC001

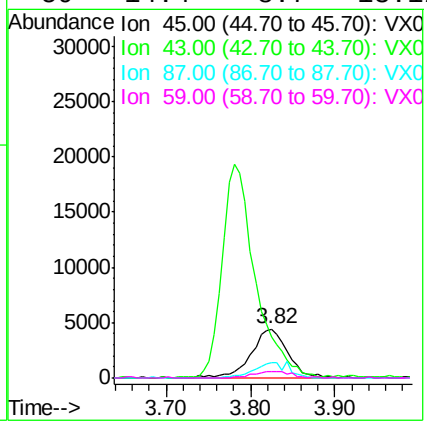
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:12:40 AM



#22
Diisopropyl ether
Concen: 1.070 ug/l
RT: 3.82 min Scan# 449
Delta R.T. -0.00 min
Lab File: VX017006.D
Acq: 29 Jun 2020 14:13

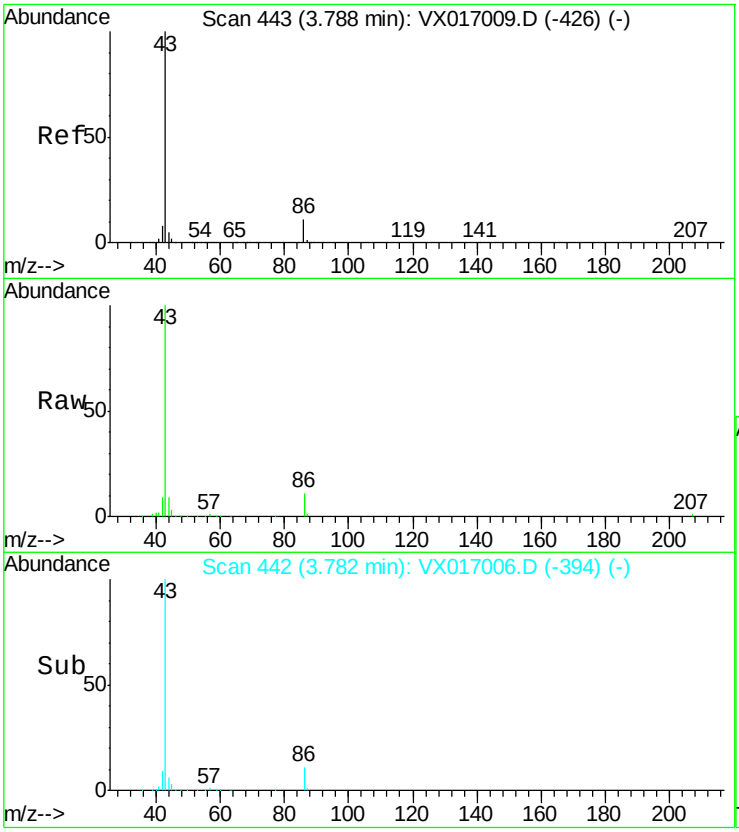
Tgt Ion: 45 Resp: 13207

Ion	Ratio	Lower	Upper
45	100		
43	81.5	58.6	88.0
87	31.0	22.6	34.0
59	14.4	8.7	13.1#



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC001

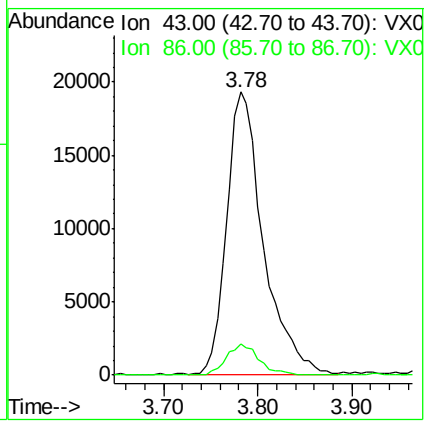
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:12:40 AM

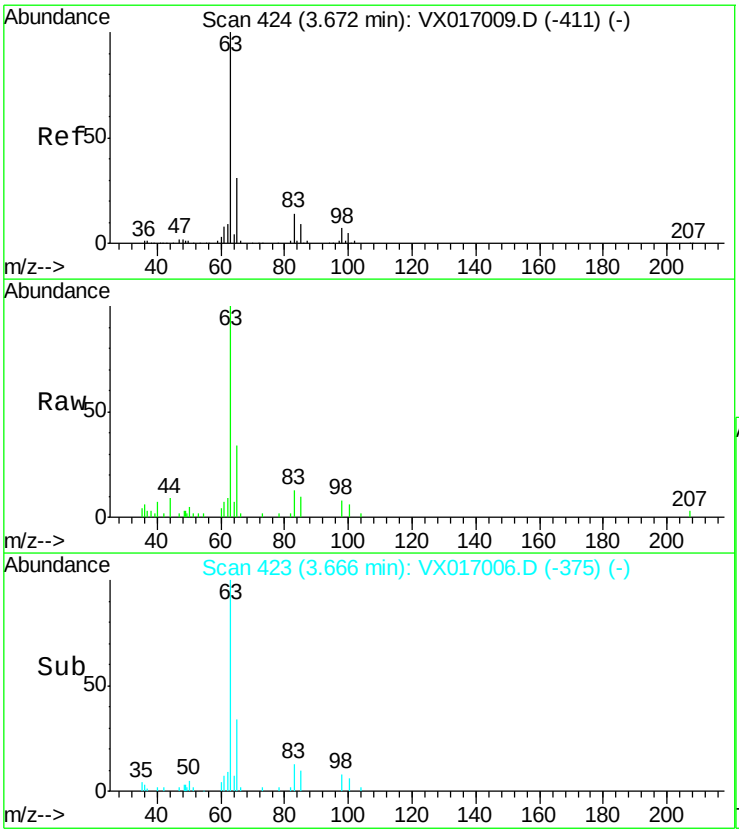


#23
Vinyl Acetate
Concen: 4.888 ug/l
RT: 3.78 min Scan# 442
Delta R.T. -0.01 min
Lab File: VX017006.D
Acq: 29 Jun 2020 14:13

Tgt Ion: 43 Resp: 51830

Ion	Ratio	Lower	Upper
43	100		
86	11.2	8.6	13.0

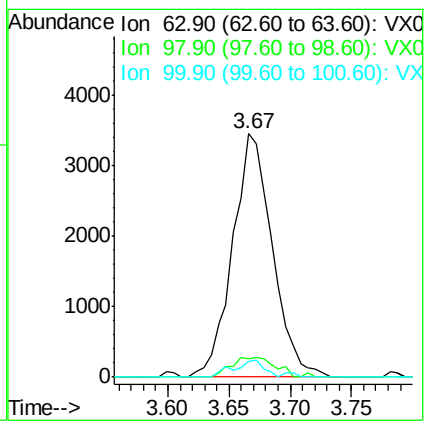




#24
1,1-Dichloroethane
Concen: 1.110 ug/l
RT: 3.67 min Scan# 423
Delta R.T. -0.01 min
Lab File: VX017006.D
Acq: 29 Jun 2020 14:13

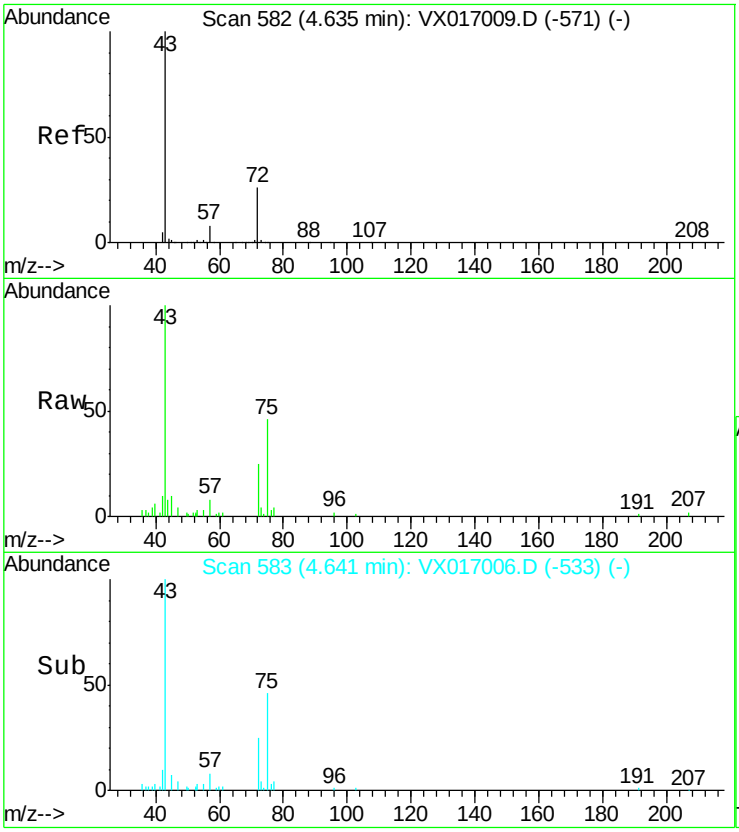
Tgt Ion: 63 Resp: 7796

Ion	Ratio	Lower	Upper
63	100		
98	7.6	3.6	10.8
100	6.4	2.4	7.1



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC001

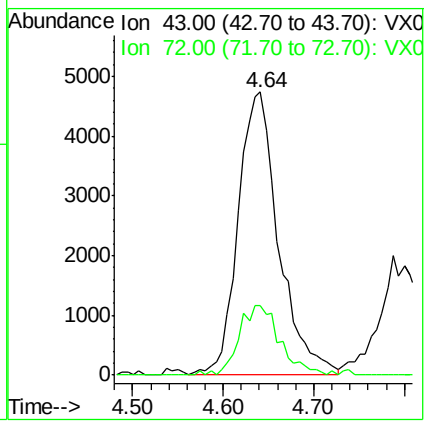
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:12:40 AM

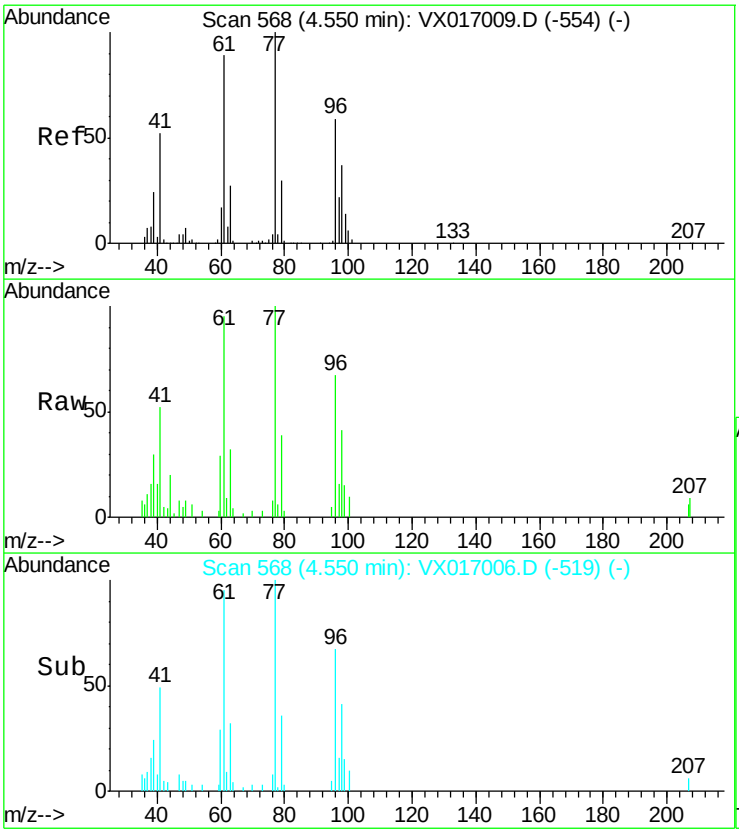


#25
2-Butanone
Concen: 5.249 ug/l
RT: 4.64 min Scan# 583
Delta R.T. 0.01 min
Lab File: VX017006.D
Acq: 29 Jun 2020 14:13

Tgt Ion: 43 Resp: 14709

Ion	Ratio	Lower	Upper
43	100		
72	24.6	20.8	31.2

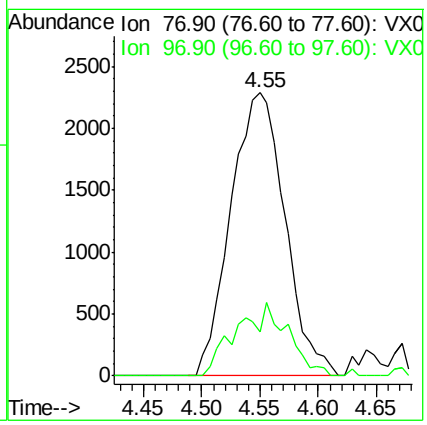




#26
2,2-Dichloropropane
Concen: 1.186 ug/l
RT: 4.55 min Scan# 568
Delta R.T. -0.00 min
Lab File: VX017006.D
Acq: 29 Jun 2020 14:13

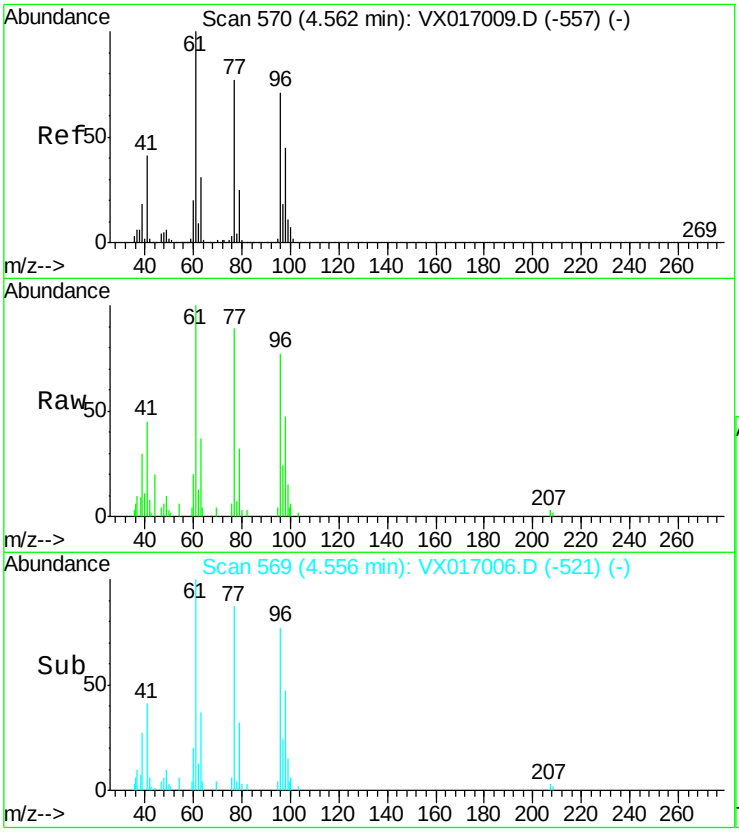
Tgt Ion: 77 Resp: 7393

Ion	Ratio	Lower	Upper
77	100		
97	24.5	11.4	34.2



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC001

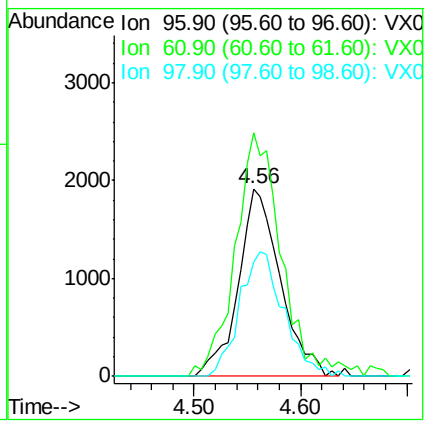
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:12:40 AM

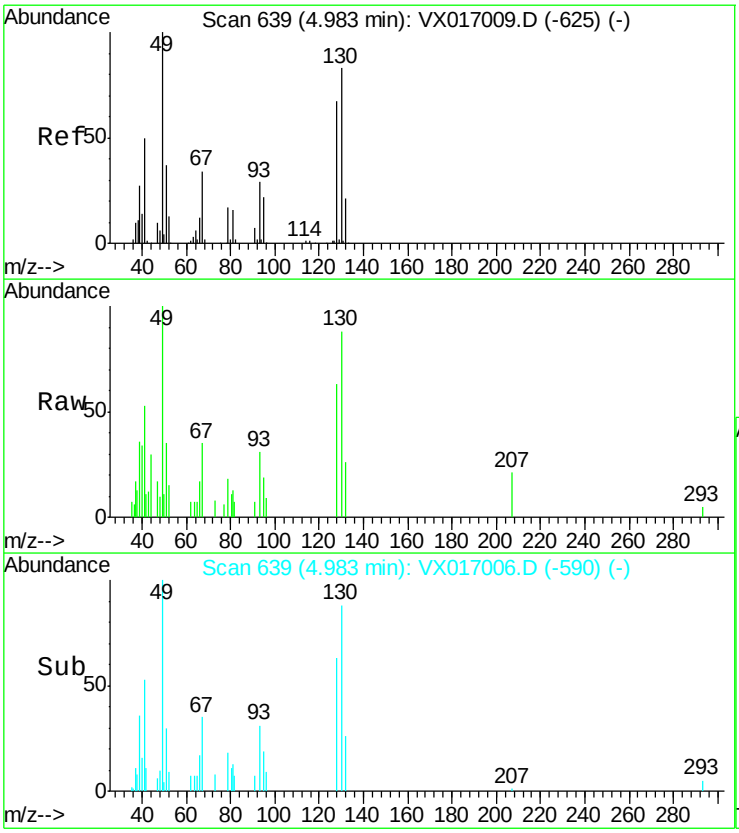


#27
cis-1,2-Dichloroethene
Concen: 1.168 ug/l
RT: 4.56 min Scan# 569
Delta R.T. -0.01 min
Lab File: VX017006.D
Acq: 29 Jun 2020 14:13

Tgt Ion: 96 Resp: 5299

Ion	Ratio	Lower	Upper
96	100		
61	142.6	0.0	282.8
98	69.6	0.0	127.6

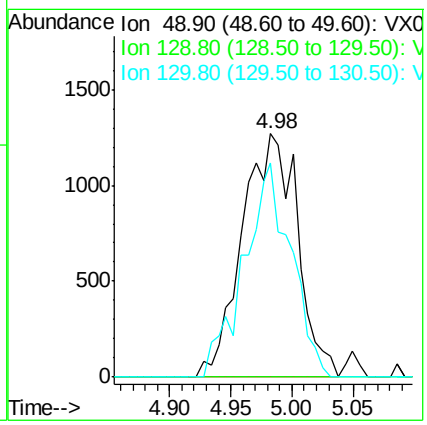




#28
Bromochloromethane
Concen: 1.166 ug/l
RT: 4.98 min Scan# 639
Delta R.T. -0.00 min
Lab File: VX017006.D
Acq: 29 Jun 2020 14:13

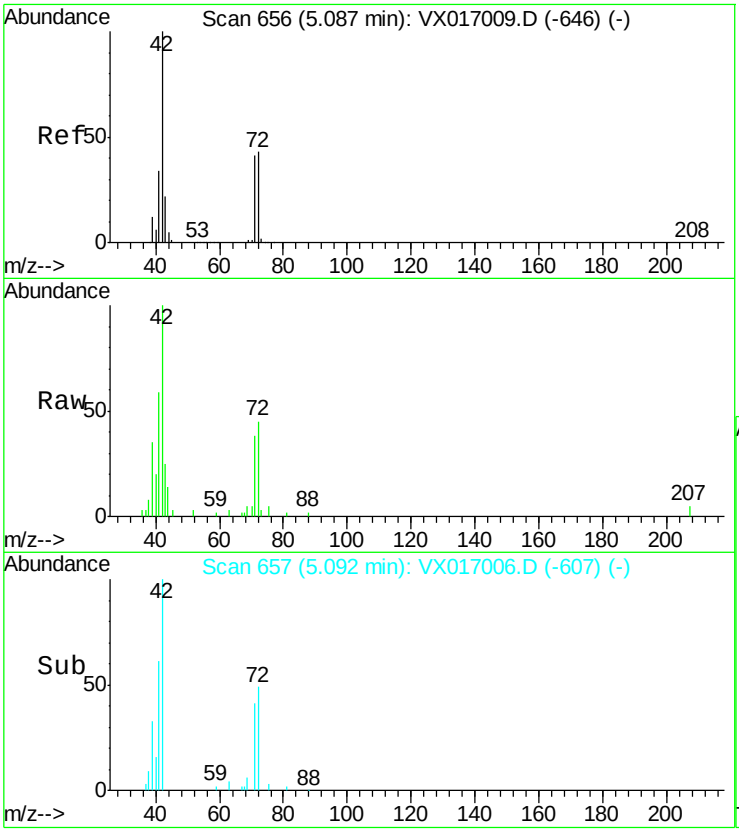
Tgt Ion: 49 Resp: 3983

Ion	Ratio	Lower	Upper
49	100		
129	0.0	0.0	4.2
130	75.1	66.6	100.0



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC001

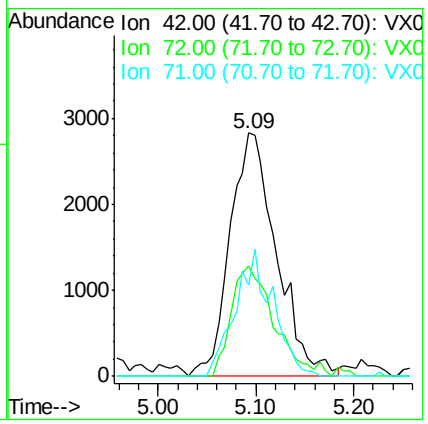
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:12:40 AM

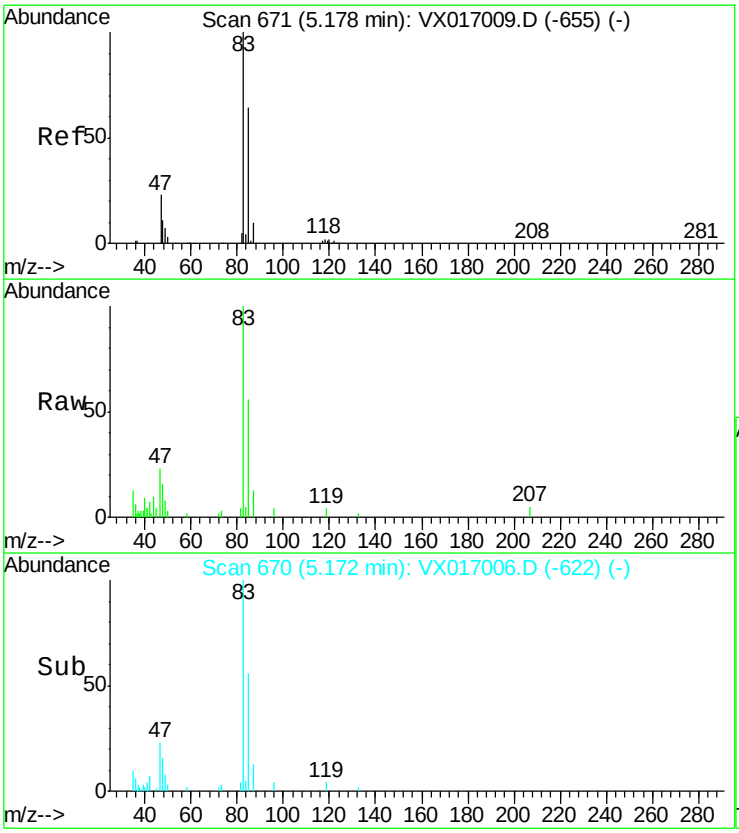


#29
Tetrahydrofuran
Concen: 5.058 ug/l
RT: 5.09 min Scan# 657
Delta R.T. 0.01 min
Lab File: VX017006.D
Acq: 29 Jun 2020 14:13

Tgt Ion: 42 Resp: 9365

Ion	Ratio	Lower	Upper
42	100		
72	41.8	35.3	52.9
71	42.2	33.1	49.7

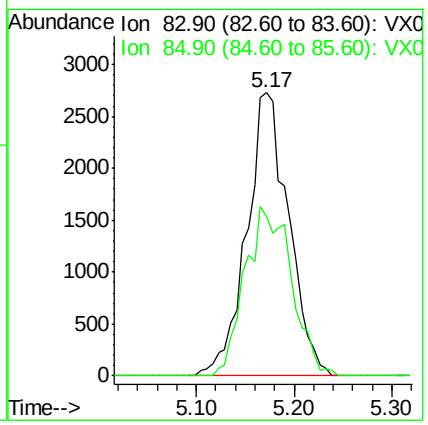


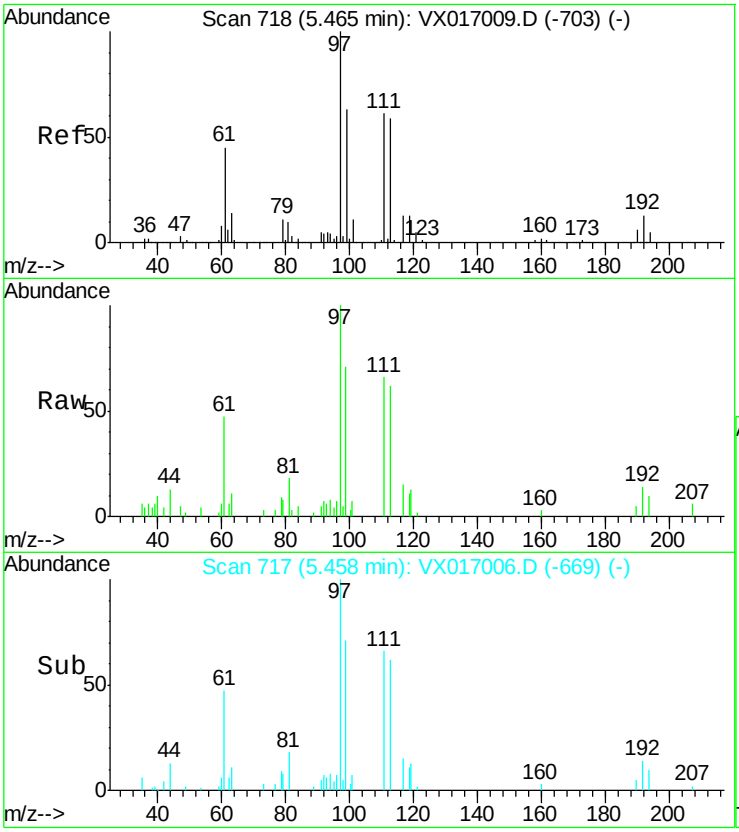


#30
Chloroform
Concen: 1.126 ug/l
RT: 5.17 min Scan# 670
Delta R.T. -0.01 min
Lab File: VX017006.D
Acq: 29 Jun 2020 14:13

Tgt Ion: 83 Resp: 8104

Ion	Ratio	Lower	Upper
83	100		
85	56.4	51.4	77.2

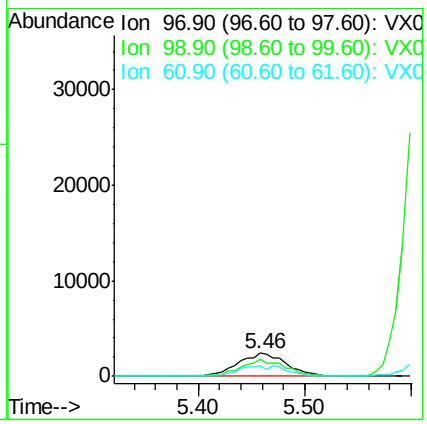




#32
1,1,1-Trichloroethane
Concen: 1.147 ug/l
RT: 5.46 min Scan# 717
Delta R.T. -0.01 min
Lab File: VX017006.D
Acq: 29 Jun 2020 14:13

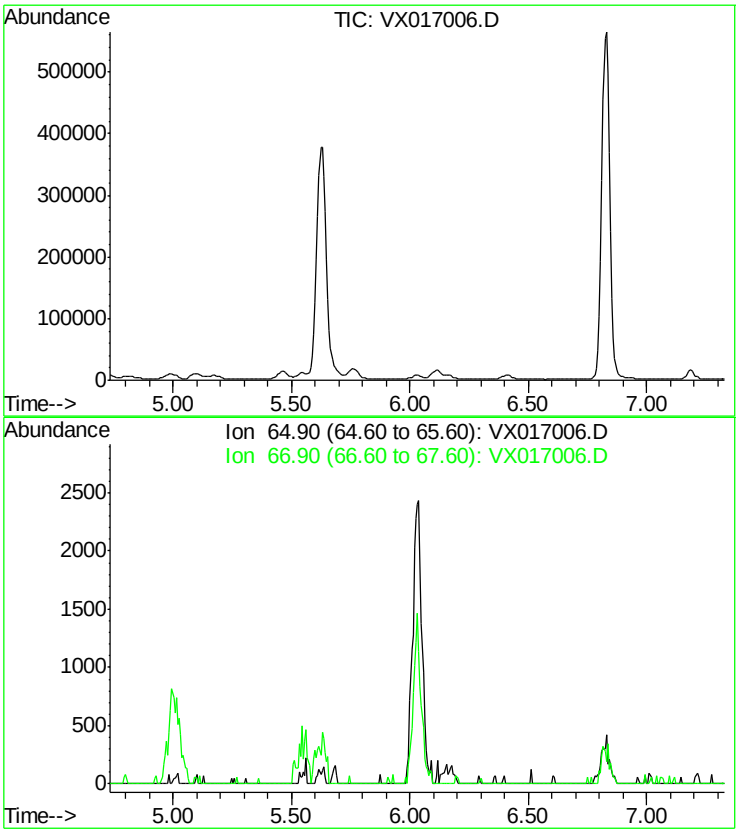
Tgt Ion: 97 Resp: 7603

Ion	Ratio	Lower	Upper
97	100		
99	0.0	50.8	76.2#
61	28.4	33.7	50.5#



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC001

Manual Integrations APPROVED
MMDadoda
6/30/2020 10:12:40 AM

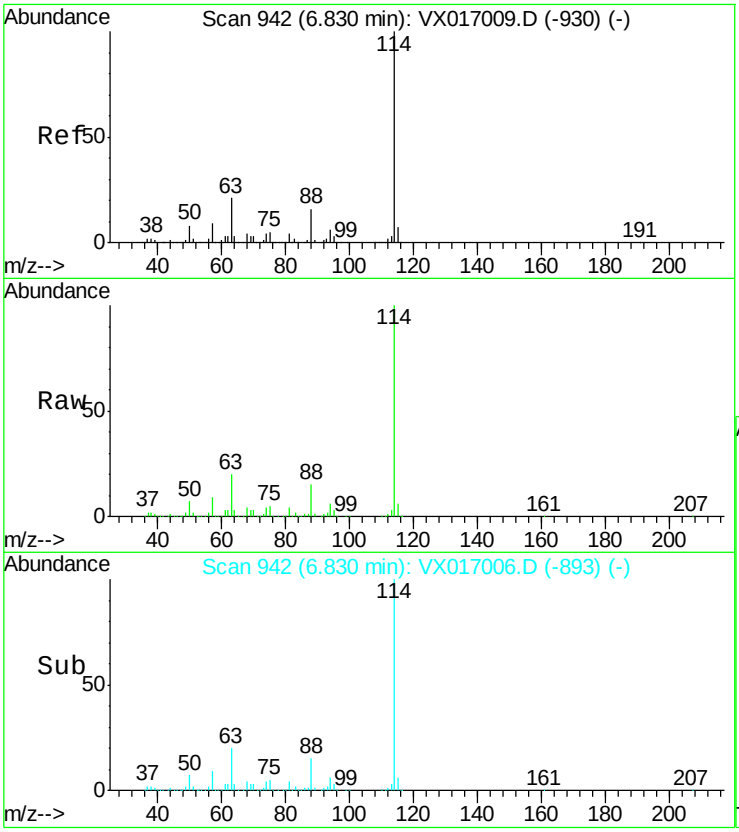


#33
1,2-Dichloroethane-d4
Concen: 0.000 ug/l
Expected RT: 6.03 min

Lab File: VX017006.D
Acq: 29 Jun 2020 14:13

Tgt Ion: 65

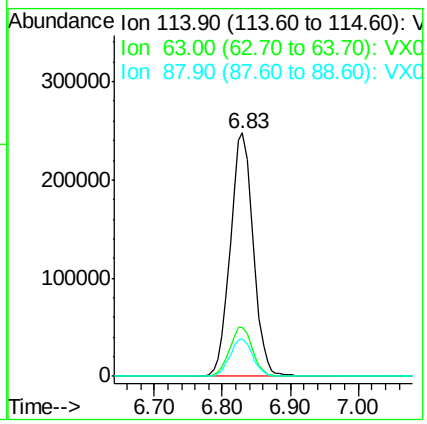
Sig	Exp Ratio
65	100
67	51.9



#34
1,4-Difluorobenzene
Concen: 50.000 ug/l
RT: 6.83 min Scan# 942
Delta R.T. -0.00 min
Lab File: VX017006.D
Acq: 29 Jun 2020 14:13

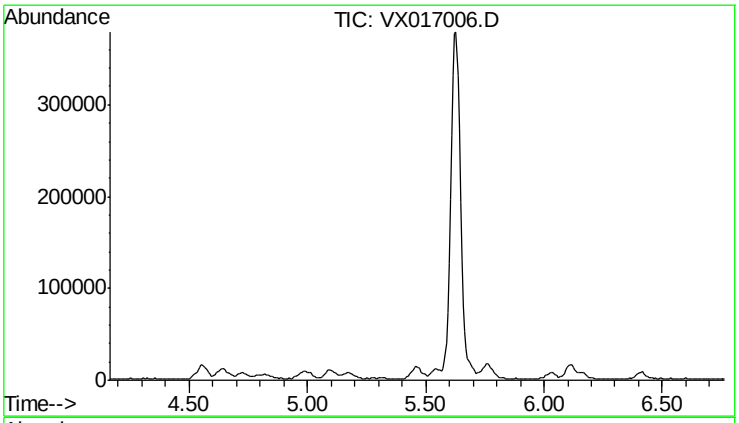
Tgt Ion:114 Resp: 578404

Ion	Ratio	Lower	Upper
114	100		
63	20.0	0.0	41.4
88	15.4	0.0	32.4



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC001

Manual Integrations APPROVED
MMDadoda
6/30/2020 10:12:40 AM

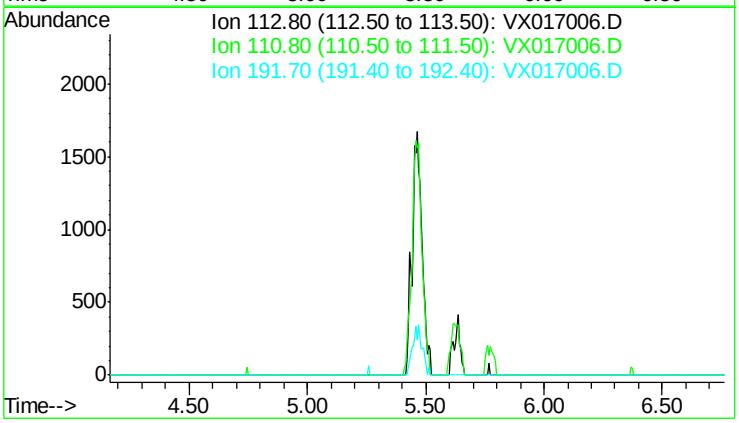


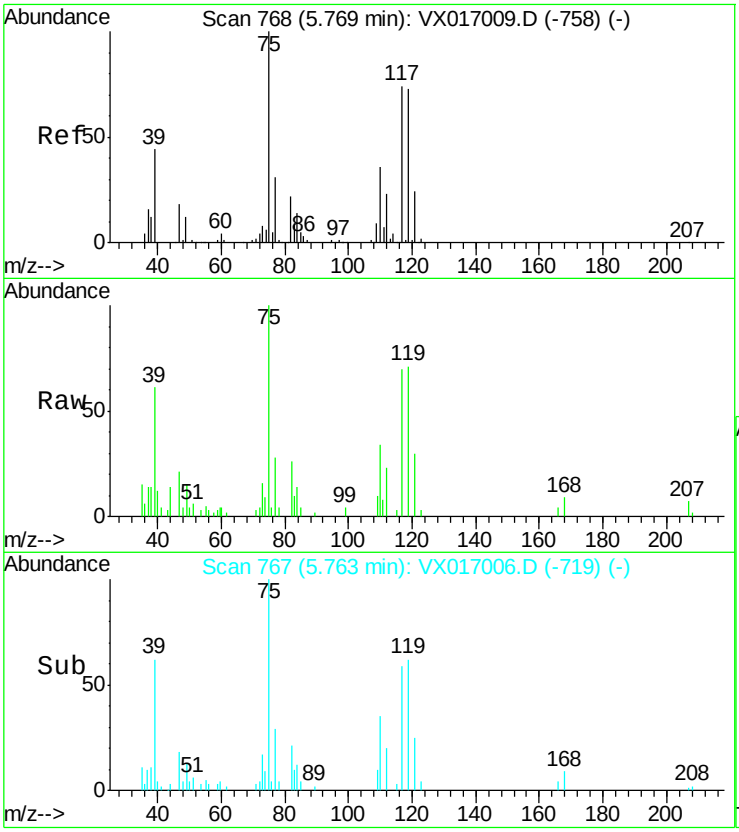
#35
Dibromofluoromethane
Concen: 0.000 ug/l
Expected RT: 5.46 min

Lab File: VX017006.D
Acq: 29 Jun 2020 14:13

Tgt Ion: 113

Sig	Exp Ratio
113	100
111	102.4
192	20.9

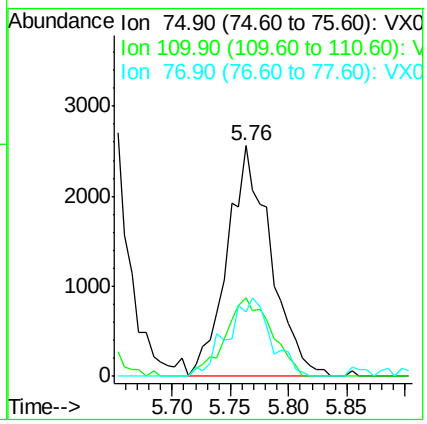




#36
1,1-Dichloropropene
Concen: 1.216 ug/l
RT: 5.76 min Scan# 767
Delta R.T. -0.01 min
Lab File: VX017006.D
Acq: 29 Jun 2020 14:13

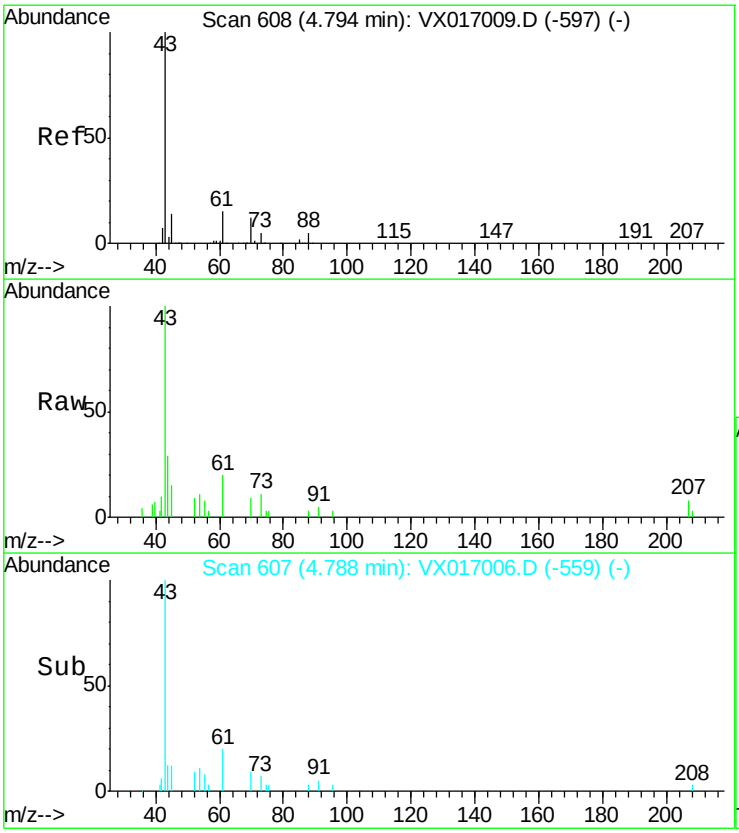
Tgt Ion: 75 Resp: 6647

Ion	Ratio	Lower	Upper
75	100		
110	36.1	18.1	54.1
77	34.4	24.6	37.0



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC001

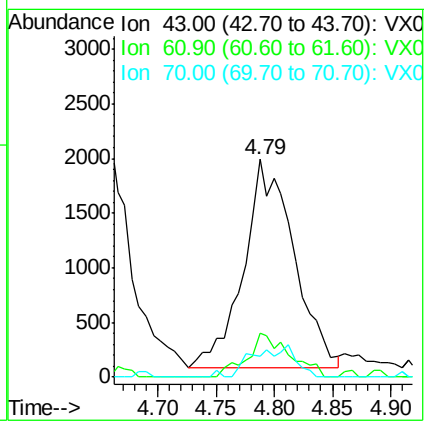
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:12:40 AM

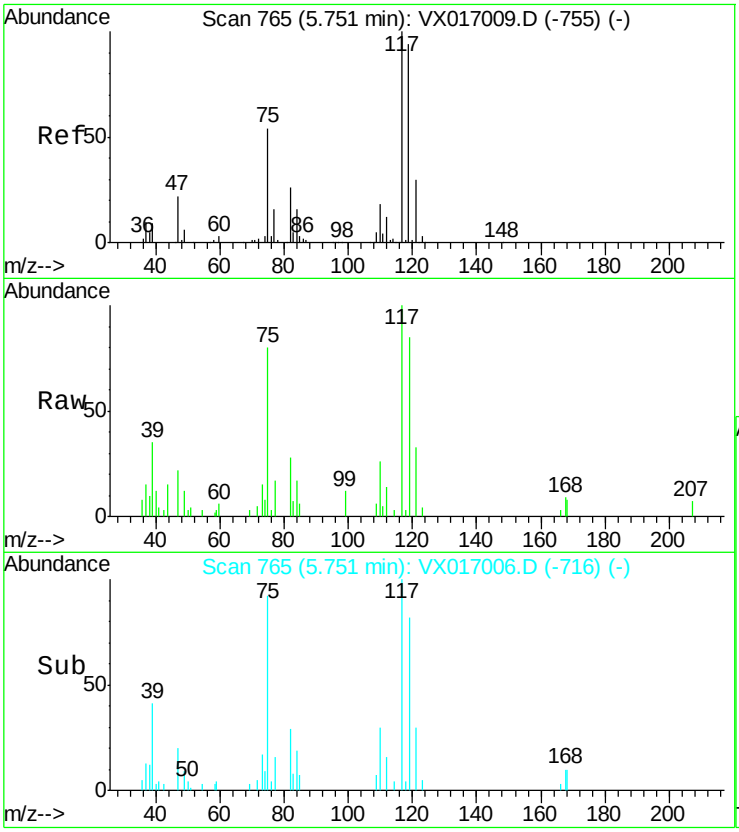


#37
Ethyl Acetate
Concen: 1.020 ug/l
RT: 4.79 min Scan# 607
Delta R.T. -0.01 min
Lab File: VX017006.D
Acq: 29 Jun 2020 14:13

Tgt Ion: 43 Resp: 5657

Ion	Ratio	Lower	Upper
43	100		
61	17.7	11.0	16.4#
70	0.0	8.9	13.3#

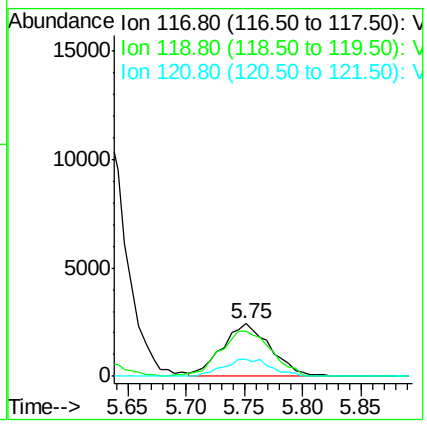




#38
Carbon Tetrachloride
Concen: 1.167 ug/l
RT: 5.75 min Scan# 765
Delta R.T. -0.00 min
Lab File: VX017006.D
Acq: 29 Jun 2020 14:13

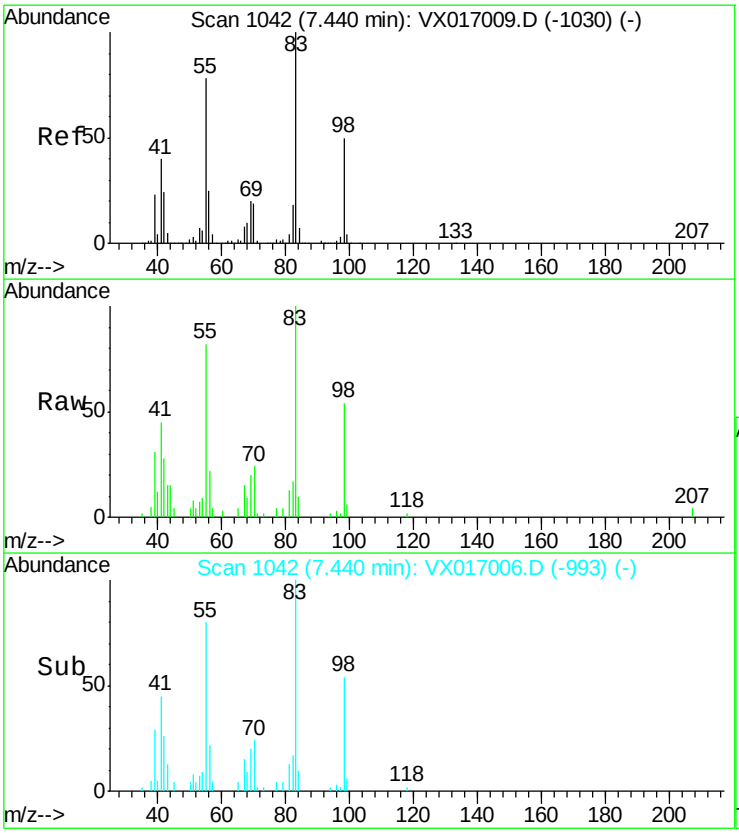
Tgt Ion:117 Resp: 7024

Ion	Ratio	Lower	Upper
117	100		
119	85.1	75.4	113.0
121	33.1	23.8	35.6



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC001

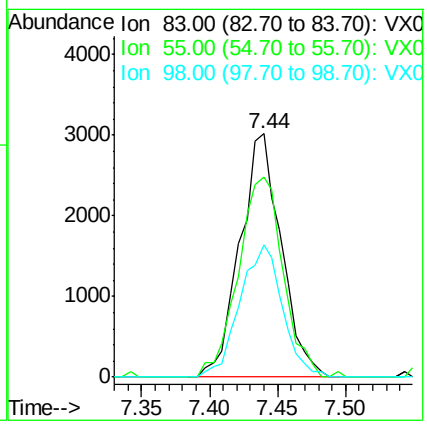
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:12:40 AM



#39
Methylcyclohexane
Concen: 1.053 ug/l
RT: 7.44 min Scan# 1042
Delta R.T. -0.00 min
Lab File: VX017006.D
Acq: 29 Jun 2020 14:13

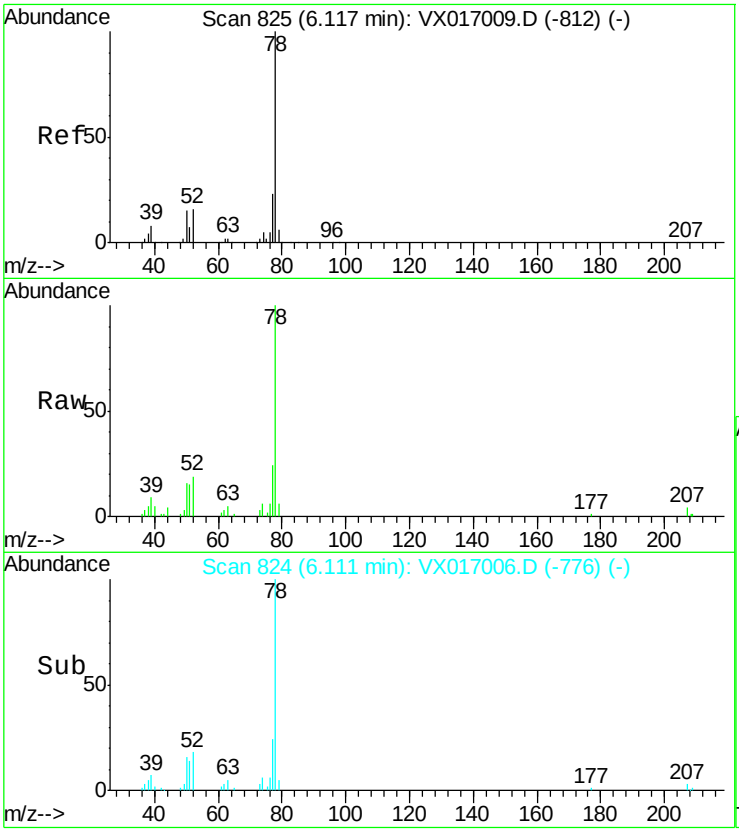
Tgt Ion: 83 Resp: 6406

Ion	Ratio	Lower	Upper
83	100		
55	82.3	62.5	93.7
98	54.1	40.1	60.1



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC001

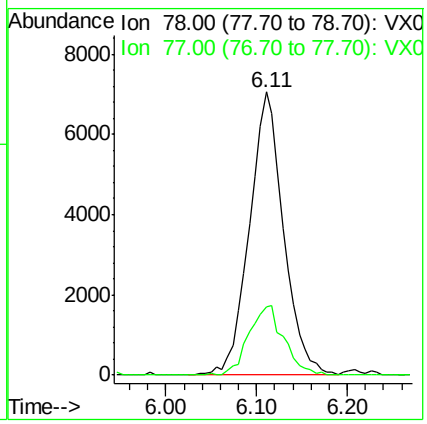
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:12:40 AM

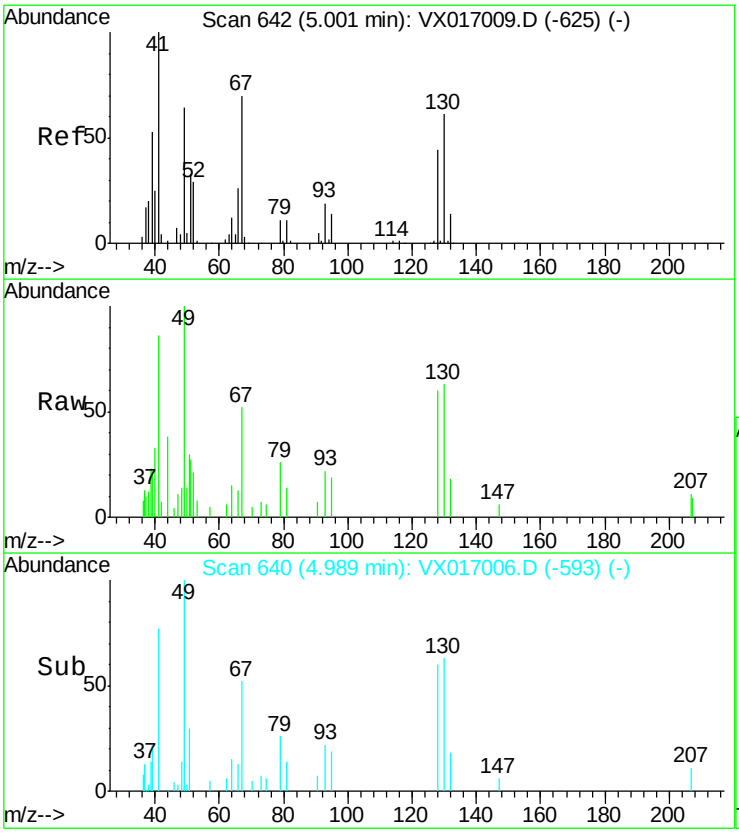


#40
Benzene
Concen: 1.142 ug/l
RT: 6.11 min Scan# 824
Delta R.T. -0.01 min
Lab File: VX017006.D
Acq: 29 Jun 2020 14:13

Tgt Ion: 78 Resp: 18349

Ion	Ratio	Lower	Upper
78	100		
77	24.1	18.3	27.5

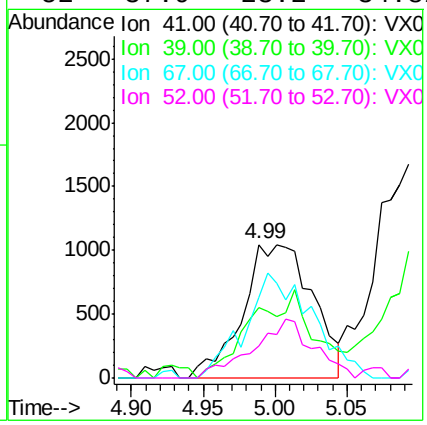




#41
Methacrylonitrile
Concen: 1.131 ug/l
RT: 4.99 min Scan# 640
Delta R.T. -0.01 min
Lab File: VX017006.D
Acq: 29 Jun 2020 14:13

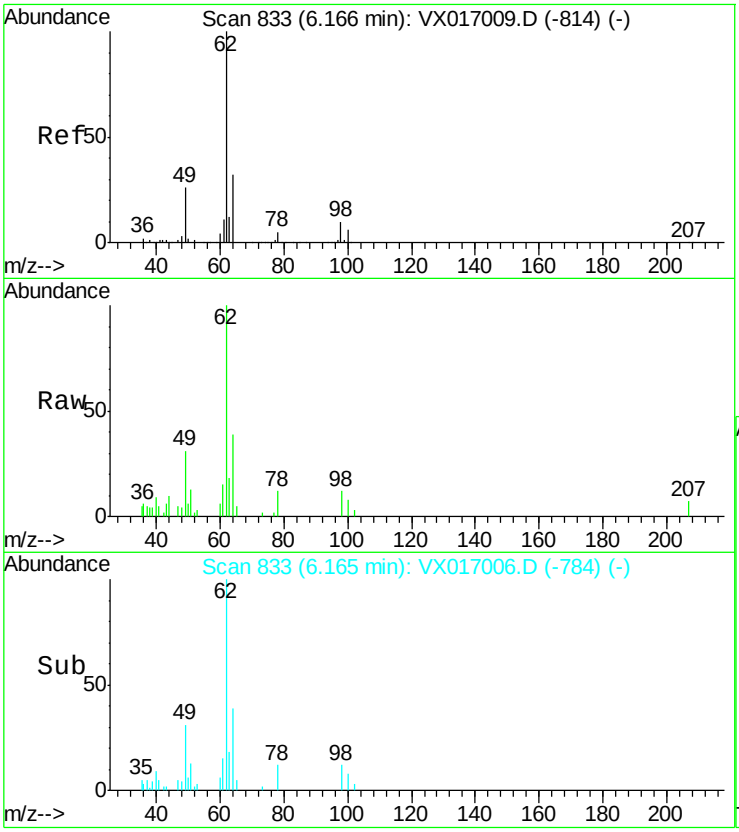
Tgt Ion: 41 Resp: 3530

Ion	Ratio	Lower	Upper
41	100		
39	30.1	44.4	66.6#
67	76.1	57.1	85.7
52	37.9	23.2	34.8#



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC001

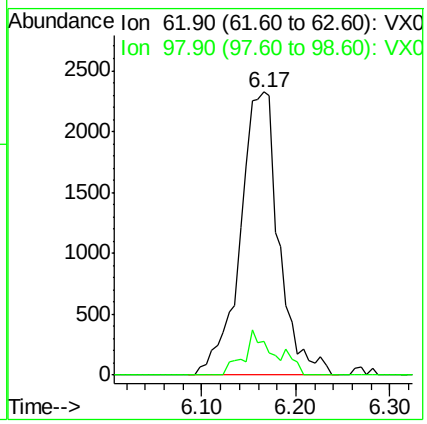
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:12:40 AM

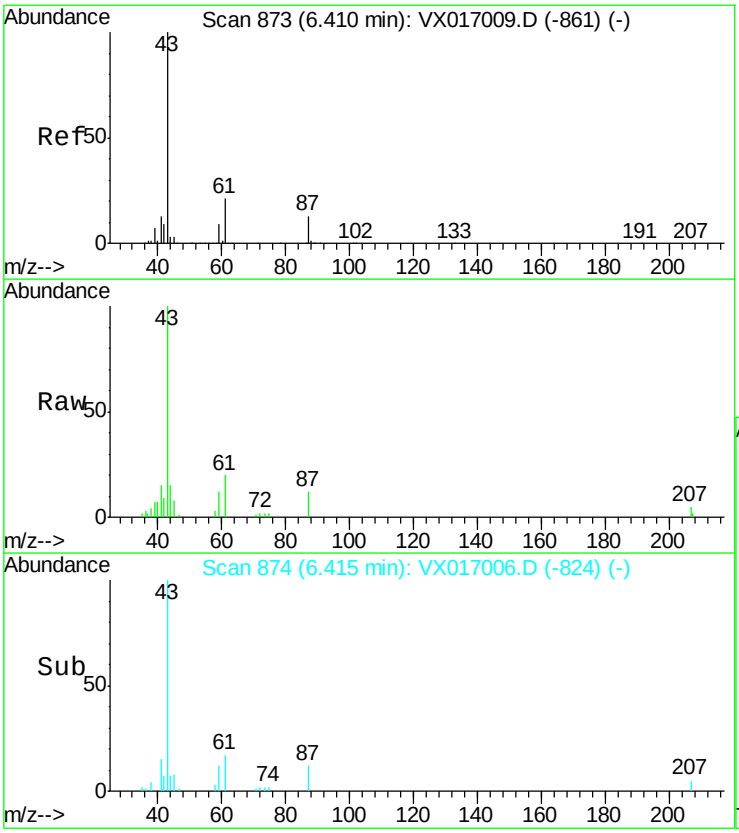


#42
1,2-Dichloroethane
Concen: 1.148 ug/l
RT: 6.17 min Scan# 833
Delta R.T. -0.00 min
Lab File: VX017006.D
Acq: 29 Jun 2020 14:13

Tgt Ion: 62 Resp: 6659

Ion	Ratio	Lower	Upper
62	100		
98	10.2	0.0	19.2

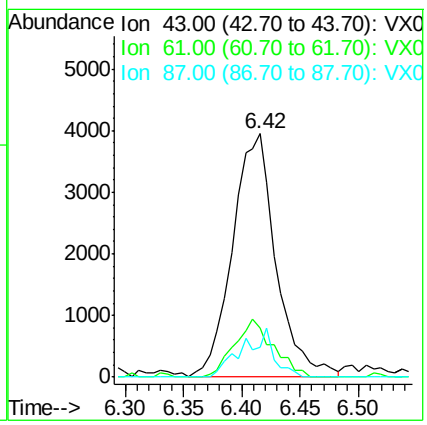


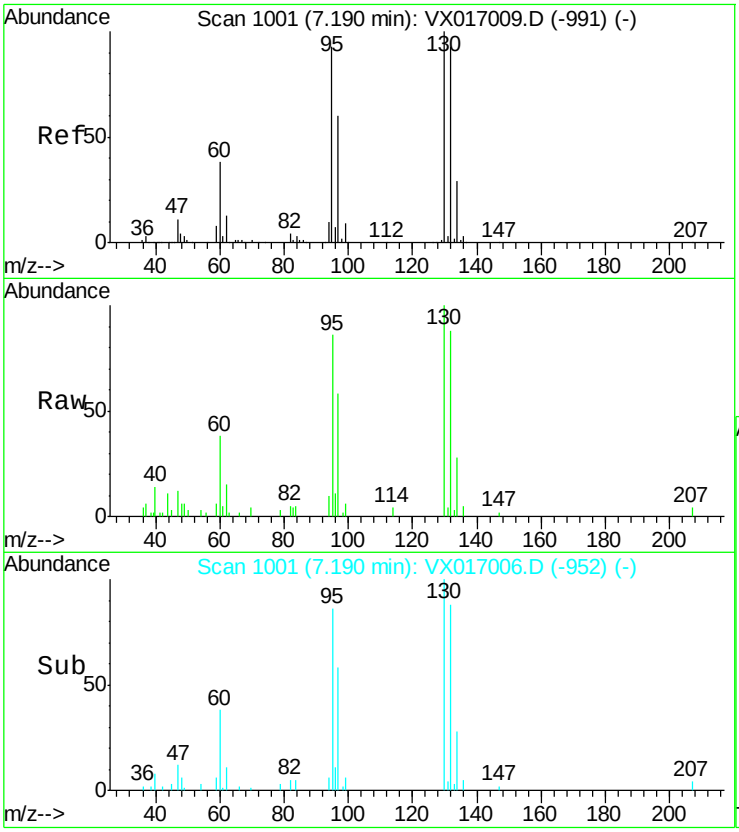


#43
Isopropyl Acetate
Concen: 1.114 ug/l
RT: 6.42 min Scan# 874
Delta R.T. 0.01 min
Lab File: VX017006.D
Acq: 29 Jun 2020 14:13

Tgt Ion: 43 Resp: 10265

Ion	Ratio	Lower	Upper
43	100		
61	21.3	16.2	24.2
87	14.3	10.7	16.1

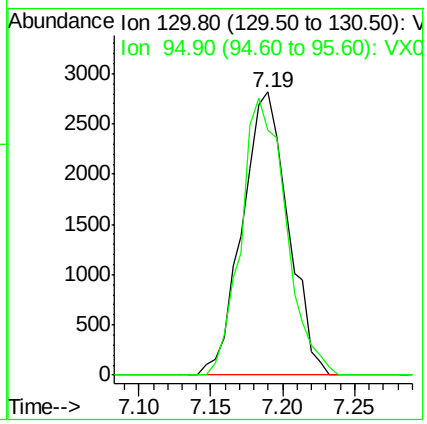




#44
Trichloroethene
Concen: 1.290 ug/l
RT: 7.19 min Scan# 1001
Delta R.T. 0.00 min
Lab File: VX017006.D
Acq: 29 Jun 2020 14:13

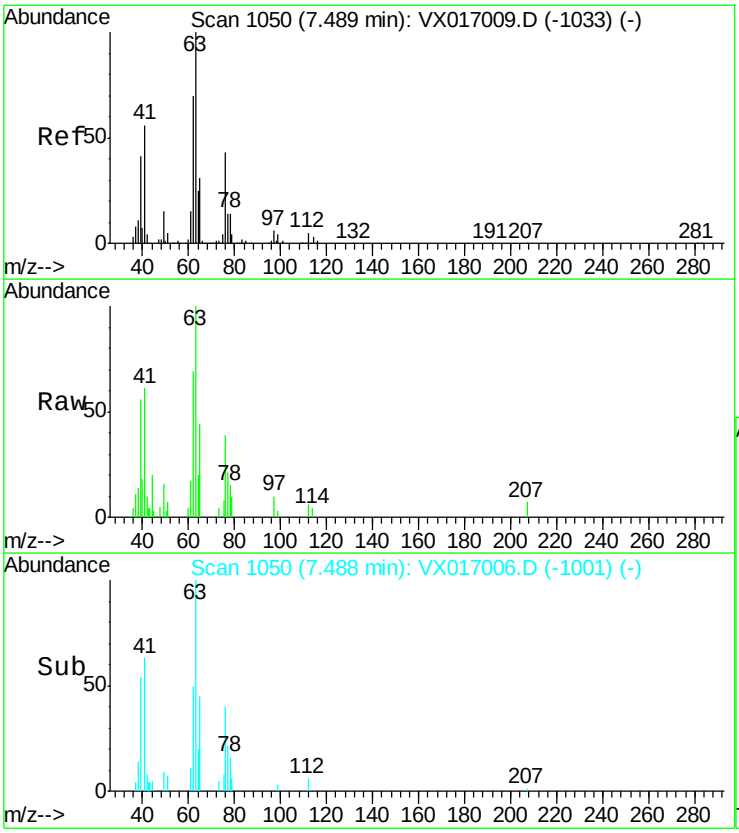
Tgt Ion:130 Resp: 6241

Ion	Ratio	Lower	Upper
130	100		
95	86.5	0.0	185.0



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC001

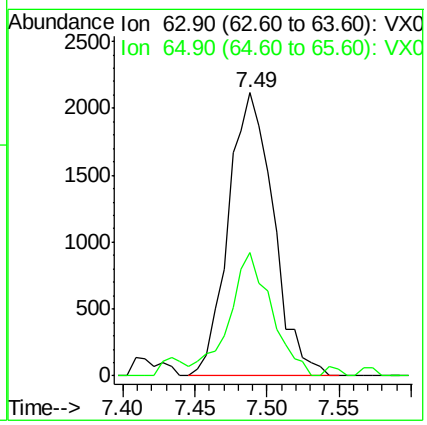
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:12:40 AM

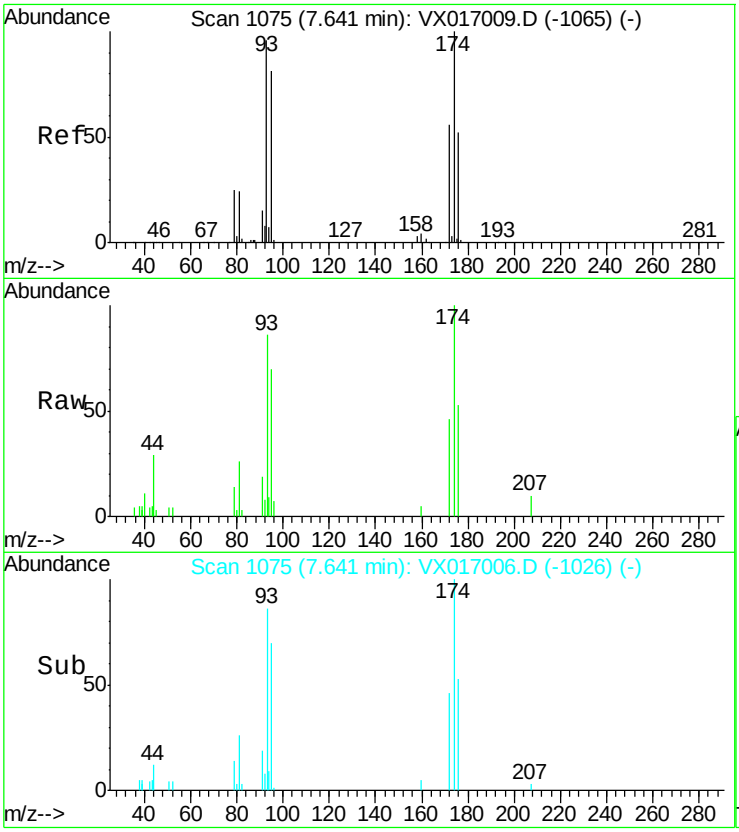


#45
1,2-Dichloropropane
Concen: 1.118 ug/l
RT: 7.49 min Scan# 1050
Delta R.T. -0.00 min
Lab File: VX017006.D
Acq: 29 Jun 2020 14:13

Tgt Ion: 63 Resp: 4612

Ion	Ratio	Lower	Upper
63	100		
65	41.2	24.6	36.8#

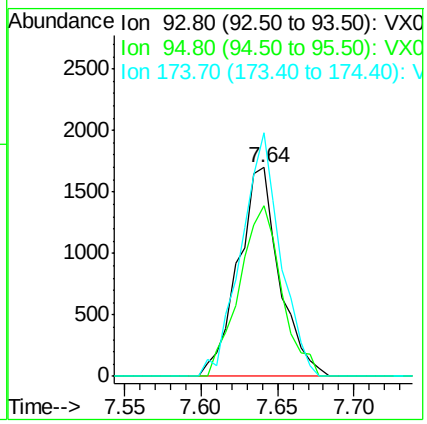




#46
Dibromomethane
Concen: 1.123 ug/l
RT: 7.64 min Scan# 1075
Delta R.T. -0.00 min
Lab File: VX017006.D
Acq: 29 Jun 2020 14:13

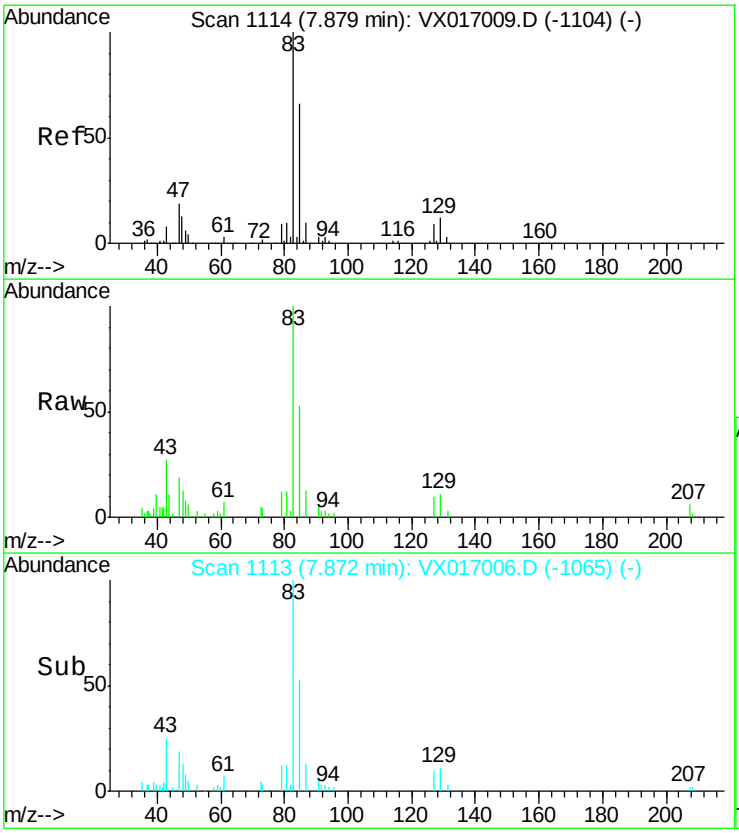
Tgt Ion: 93 Resp: 3164

Ion	Ratio	Lower	Upper
93	100		
95	84.2	67.4	101.0
174	111.6	84.3	126.5



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC001

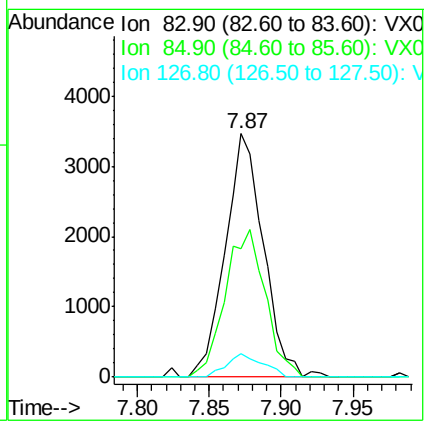
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:12:40 AM

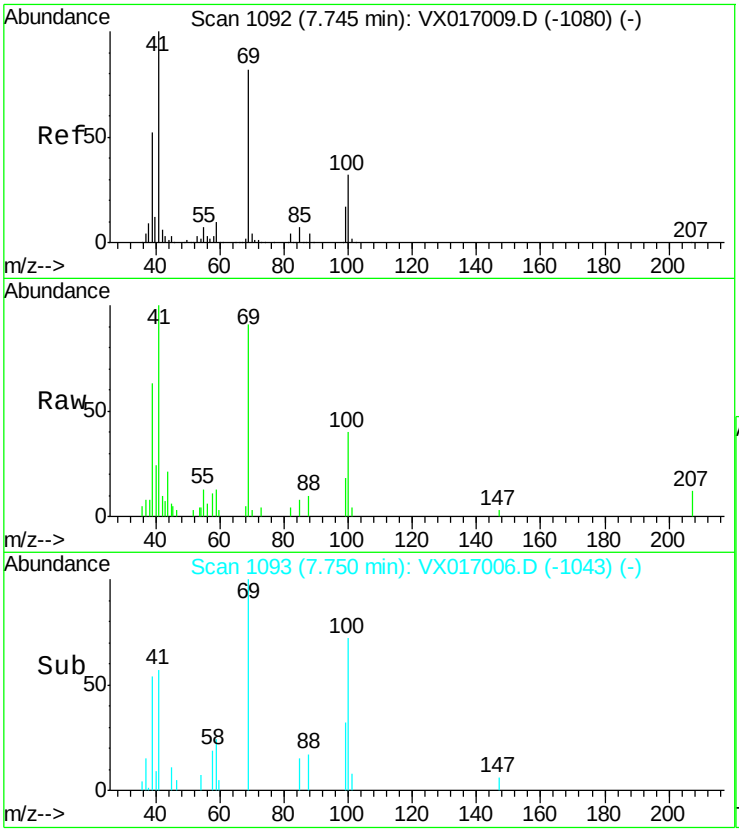


#47
Bromodichloromethane
Concen: 1.103 ug/l
RT: 7.87 min Scan# 1113
Delta R.T. -0.01 min
Lab File: VX017006.D
Acq: 29 Jun 2020 14:13

Tgt Ion: 83 Resp: 6402

Ion	Ratio	Lower	Upper
83	100		
85	52.8	53.0	79.4#
127	9.9	7.5	11.3

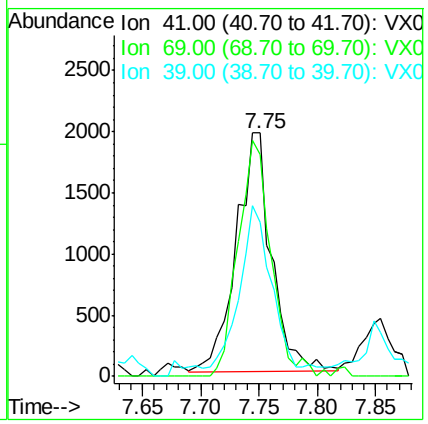


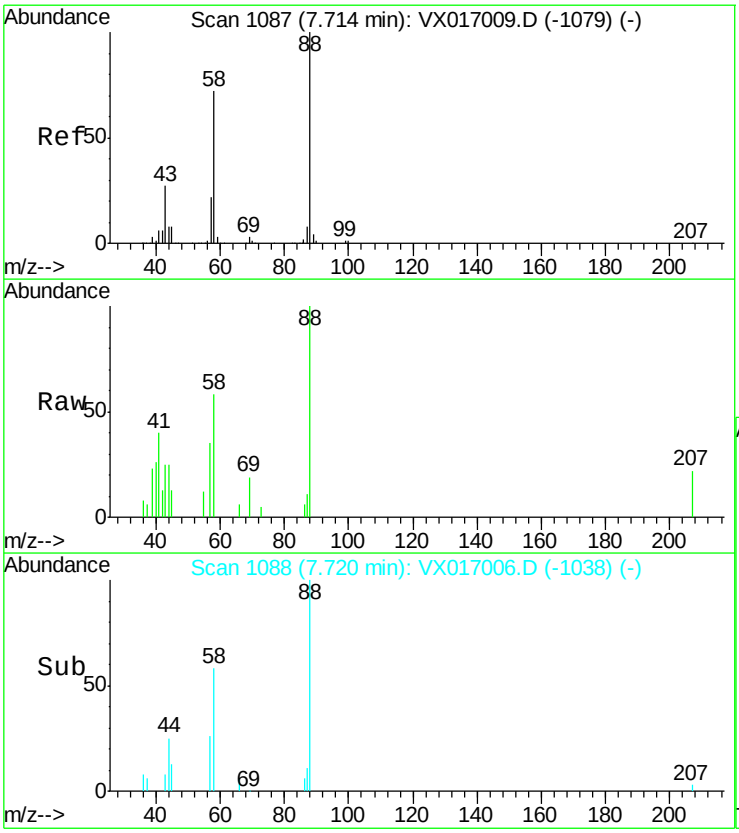


#48
Methyl methacrylate
Concen: 0.941 ug/l
RT: 7.75 min Scan# 1093
Delta R.T. 0.01 min
Lab File: VX017006.D
Acq: 29 Jun 2020 14:13

Tgt Ion: 41 Resp: 4121

Ion	Ratio	Lower	Upper
41	100		
69	92.3	65.8	98.8
39	63.6	42.5	63.7

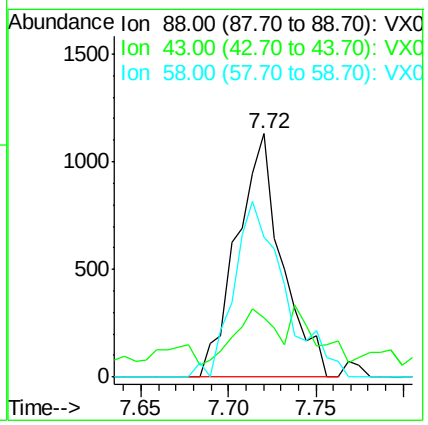




#49
1,4-Dioxane
Concen: 20.534 ug/l
RT: 7.72 min Scan# 1088
Delta R.T. 0.01 min
Lab File: VX017006.D
Acq: 29 Jun 2020 14:13

Tgt Ion: 88 Resp: 2037

Ion	Ratio	Lower	Upper
88	100		
43	20.6	25.8	38.8#
58	81.3	54.8	82.2

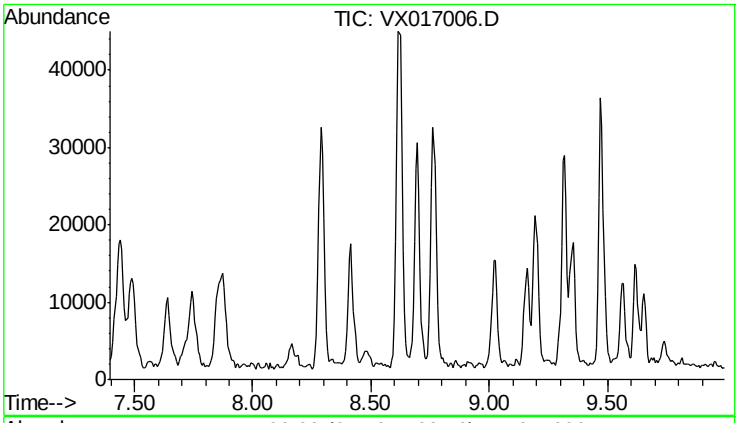


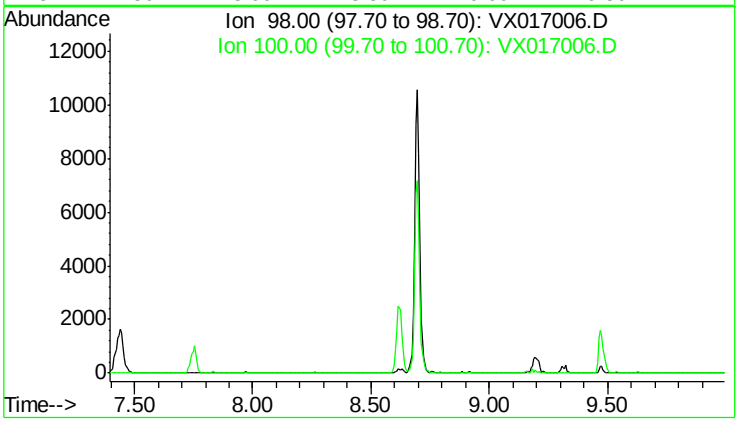
Instrument :
MSVOA_X
ClientSampleId :
VSTDICC001

Manual Integrations APPROVED
MMDadoda
6/30/2020 10:12:40 AM

Instrument :
MSVOA_X
ClientSampleId :
VSTDICC001

Manual Integrations APPROVED
MMDadoda
6/30/2020 10:12:40 AM



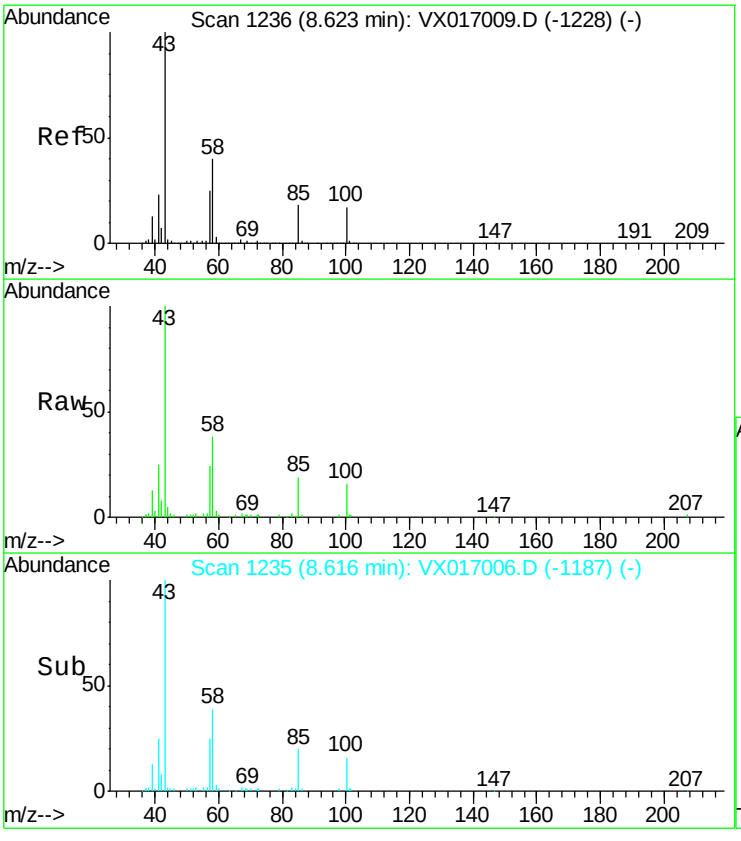


#50
Toluene-d8
Concen: 0.000 ug/l
Expected RT: 8.70 min

Lab File: VX017006.D
Acq: 29 Jun 2020 14:13

Tgt Ion: 98

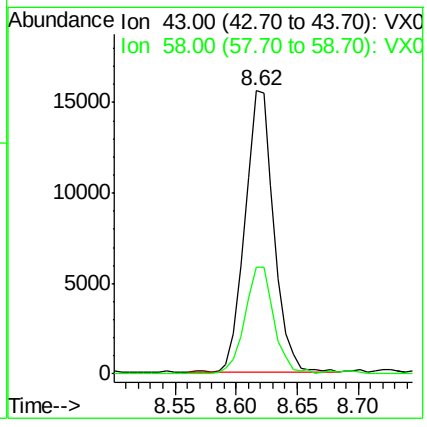
Sig	Exp Ratio
98	100
100	67.2



#51
4-Methyl-2-Pentanone
Concen: 4.681 ug/l
RT: 8.62 min Scan# 1235
Delta R.T. -0.01 min
Lab File: VX017006.D
Acq: 29 Jun 2020 14:13

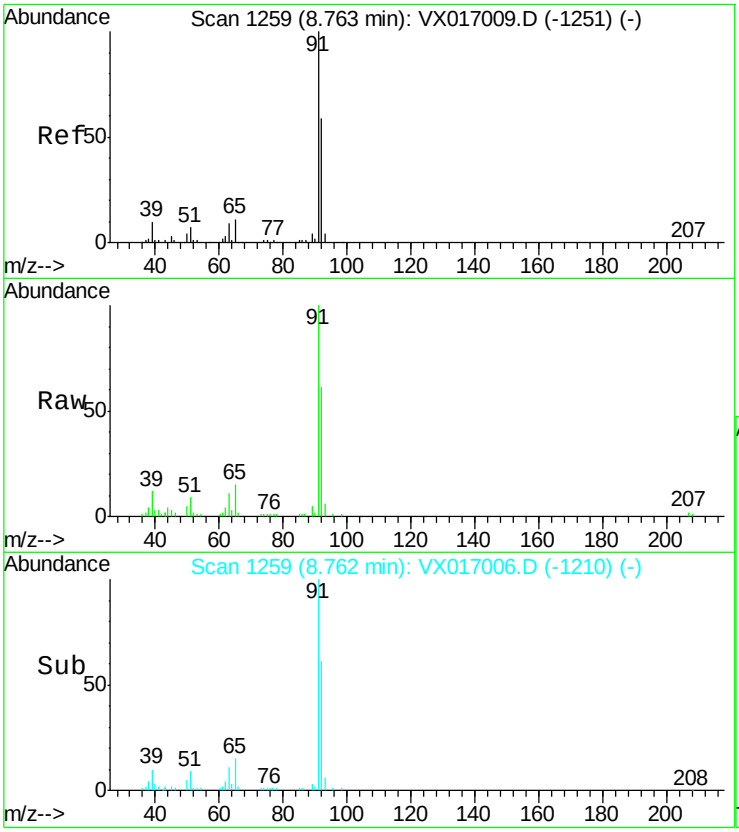
Tgt Ion: 43 Resp: 25716

Ion	Ratio	Lower	Upper
43	100		
58	38.1	31.9	47.9



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC001

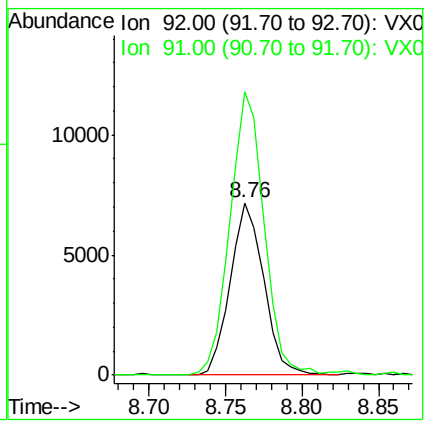
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:12:40 AM

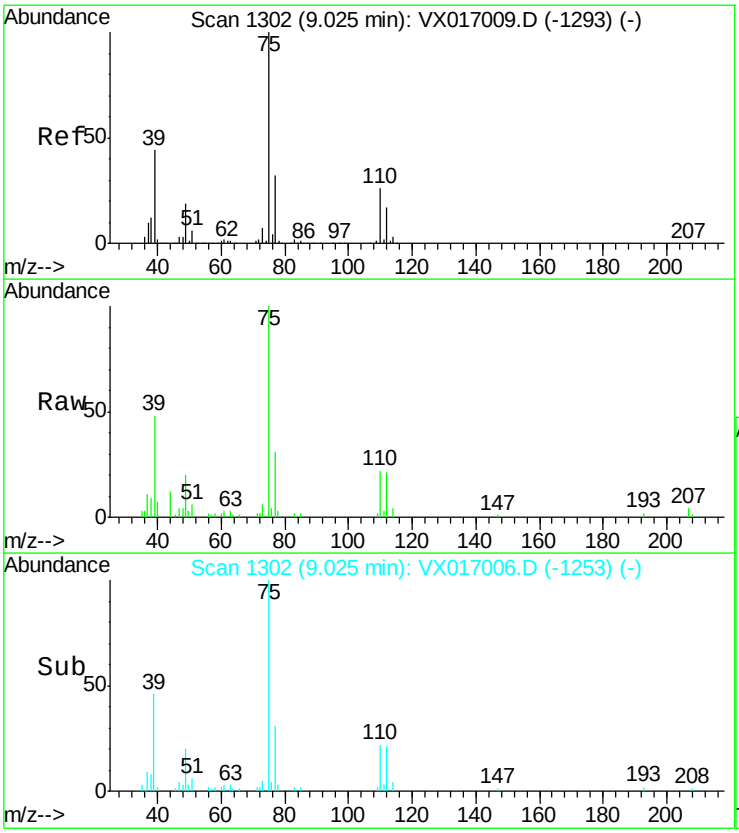


#52
Toluene
Concen: 1.086 ug/l
RT: 8.76 min Scan# 1259
Delta R.T. -0.00 min
Lab File: VX017006.D
Acq: 29 Jun 2020 14:13

Tgt Ion: 92 Resp: 10890

Ion	Ratio	Lower	Upper
92	100		
91	167.9	136.9	205.3

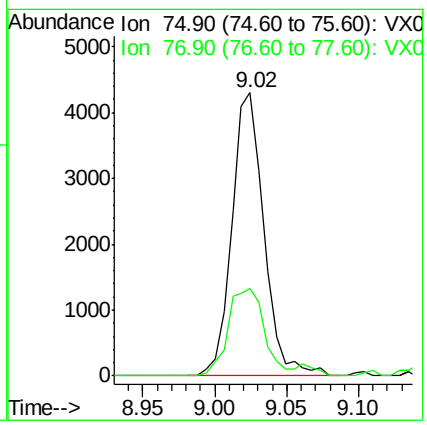


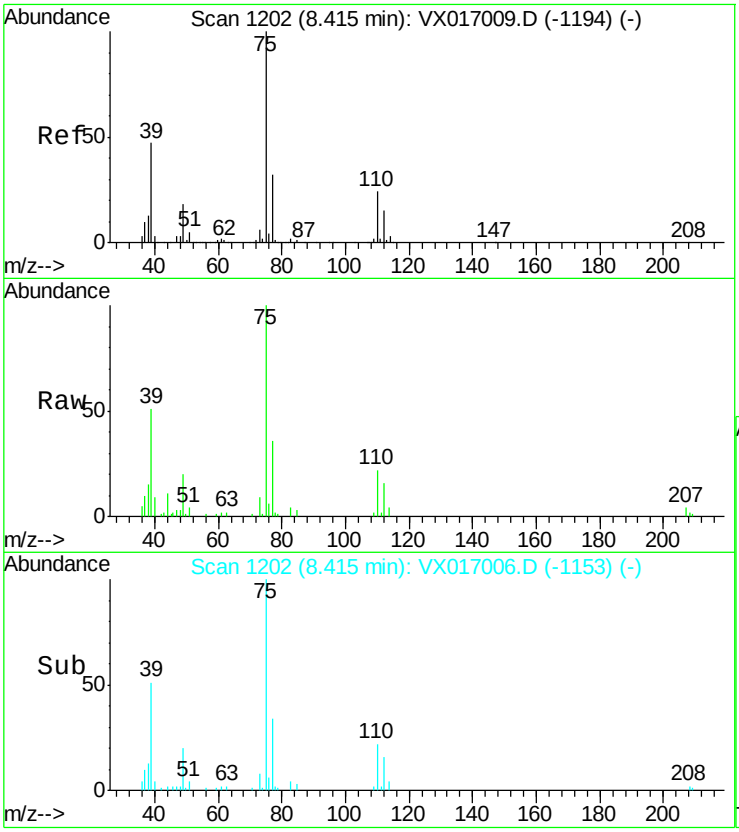


#53
t-1,3-Dichloropropene
Concen: 1.045 ug/l
RT: 9.02 min Scan# 1302
Delta R.T. -0.00 min
Lab File: VX017006.D
Acq: 29 Jun 2020 14:13

Tgt Ion: 75 Resp: 6692

Ion	Ratio	Lower	Upper
75	100		
77	31.1	25.6	38.4

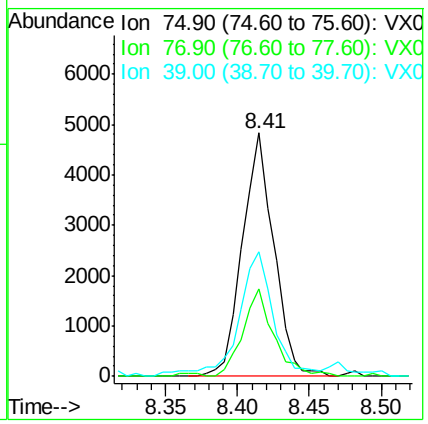




#54
cis-1,3-Dichloropropene
Concen: 1.067 ug/l
RT: 8.41 min Scan# 1202
Delta R.T. -0.00 min
Lab File: VX017006.D
Acq: 29 Jun 2020 14:13

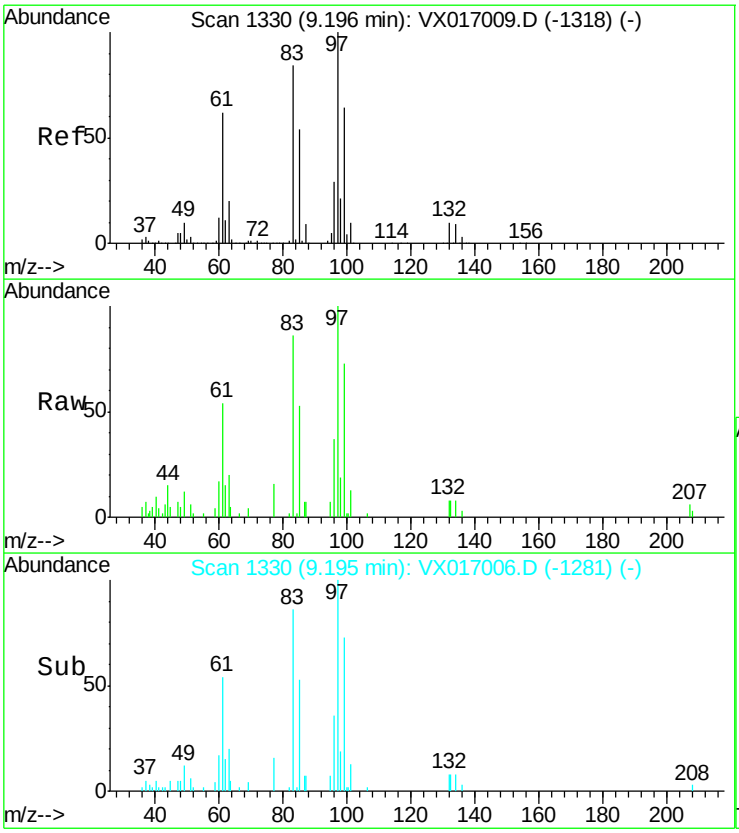
Tgt Ion: 75 Resp: 7327

Ion	Ratio	Lower	Upper
75	100		
77	35.9	25.2	37.8
39	49.1	37.4	56.2



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC001

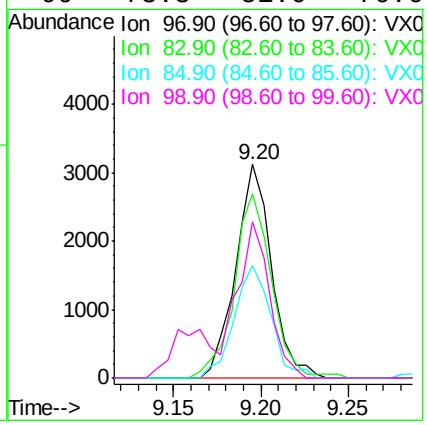
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:12:40 AM



#55
1,1,2-Trichloroethane
Concen: 1.081 ug/l
RT: 9.20 min Scan# 1330
Delta R.T. -0.00 min
Lab File: VX017006.D
Acq: 29 Jun 2020 14:13

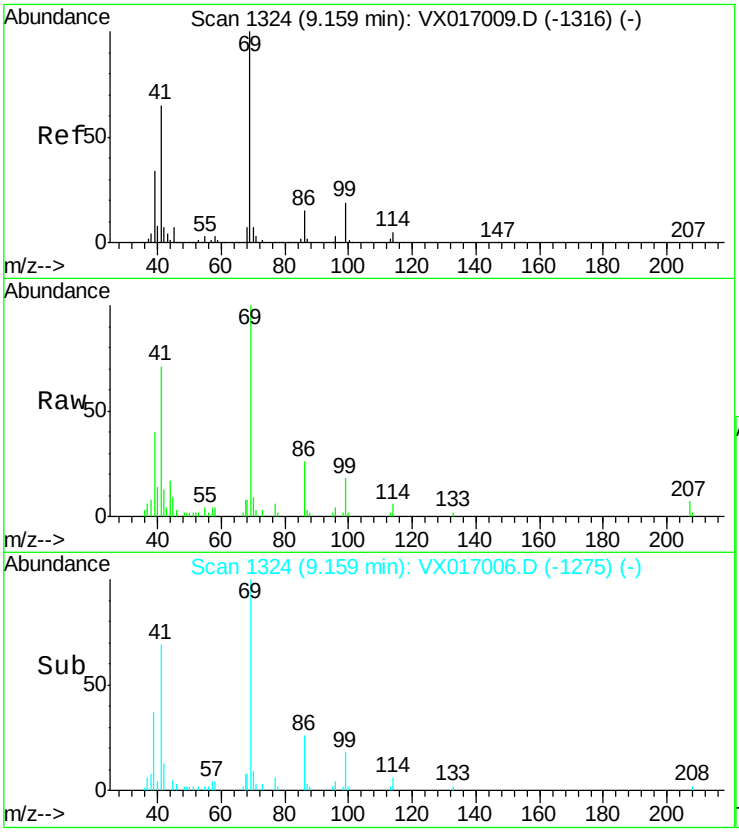
Tgt Ion: 97 Resp: 4430

Ion	Ratio	Lower	Upper
97	100		
83	86.3	67.0	100.6
85	52.5	43.5	65.3
99	73.3	51.0	76.6



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC001

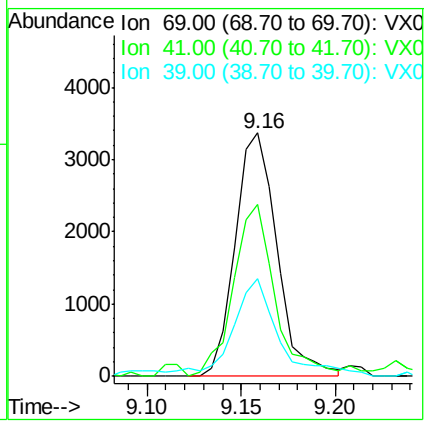
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:12:40 AM

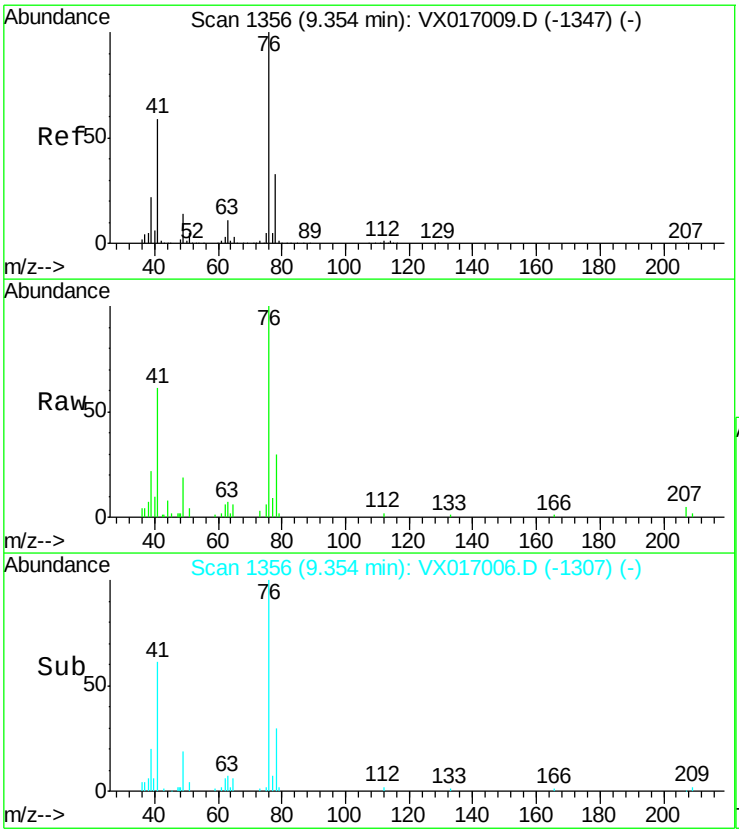


#56
Ethyl methacrylate
Concen: 0.888 ug/l
RT: 9.16 min Scan# 1324
Delta R.T. -0.00 min
Lab File: VX017006.D
Acq: 29 Jun 2020 14:13

Tgt Ion: 69 Resp: 5181

Ion	Ratio	Lower	Upper
69	100		
41	70.3	53.6	80.4
39	43.8	28.2	42.2#

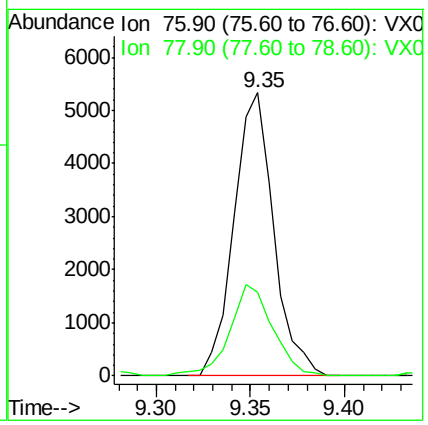


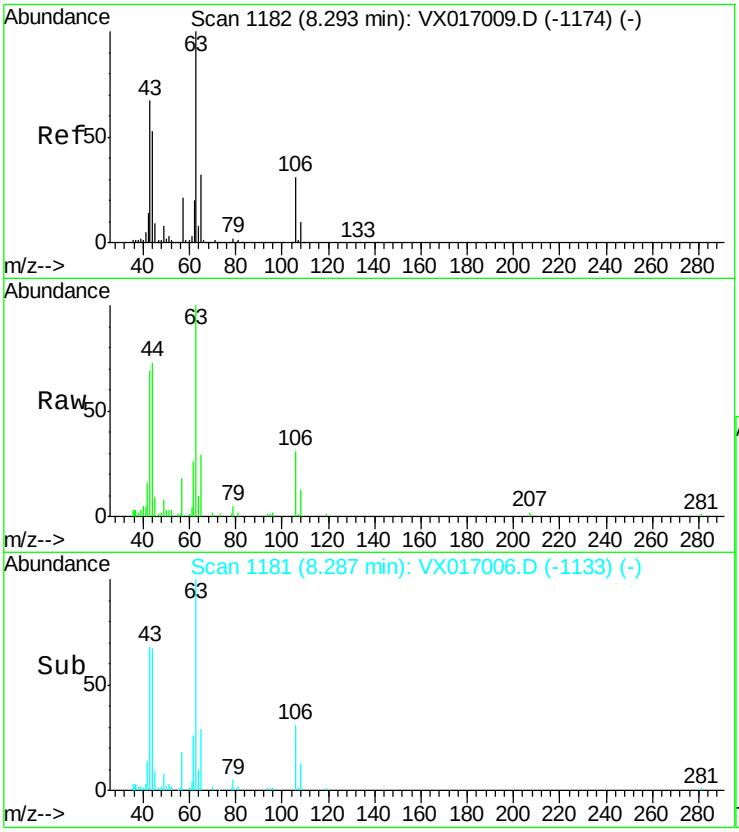


#57
1,3-Dichloropropane
Concen: 1.121 ug/l
RT: 9.35 min Scan# 1356
Delta R.T. -0.00 min
Lab File: VX017006.D
Acq: 29 Jun 2020 14:13

Tgt Ion: 76 Resp: 7773

Ion	Ratio	Lower	Upper
76	100		
78	35.1	25.9	38.9

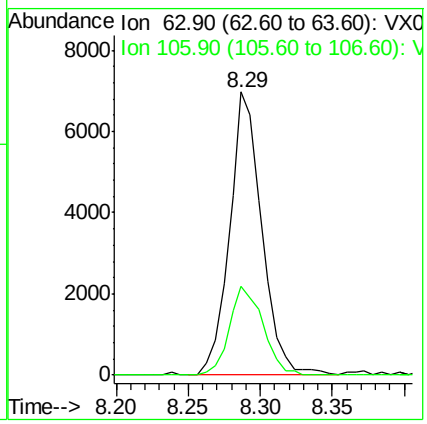




#58
2-Chloroethyl Vinyl ether
Concen: 3.758 ug/l
RT: 8.29 min Scan# 1181
Delta R.T. -0.01 min
Lab File: VX017006.D
Acq: 29 Jun 2020 14:13

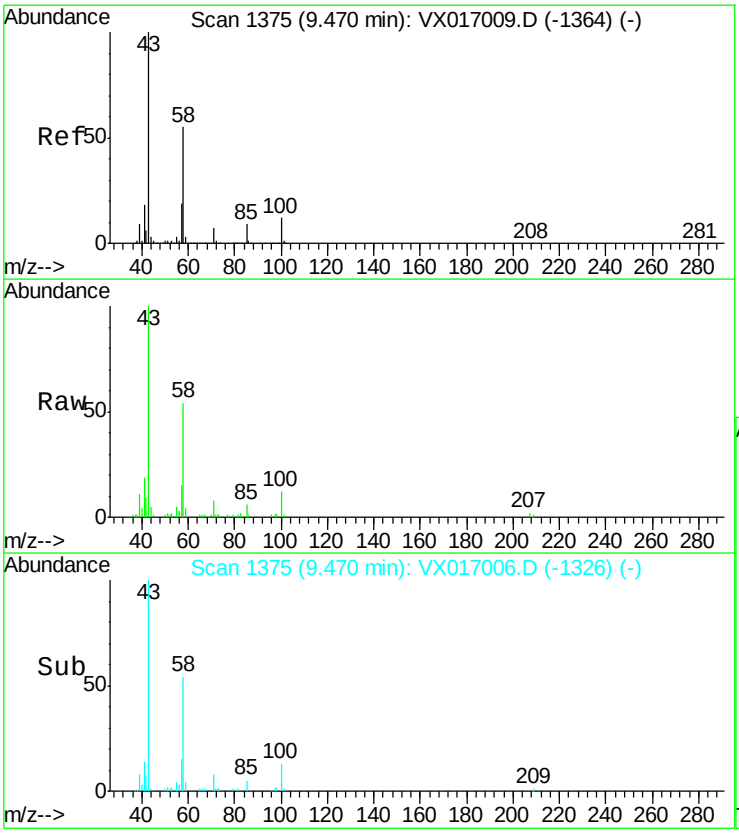
Tgt Ion: 63 Resp: 10907

Ion	Ratio	Lower	Upper
63	100		
106	32.7	24.0	36.0



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC001

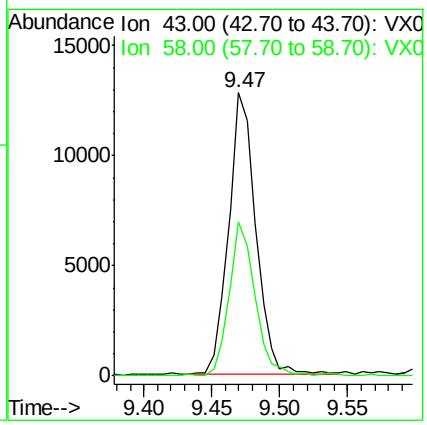
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:12:40 AM

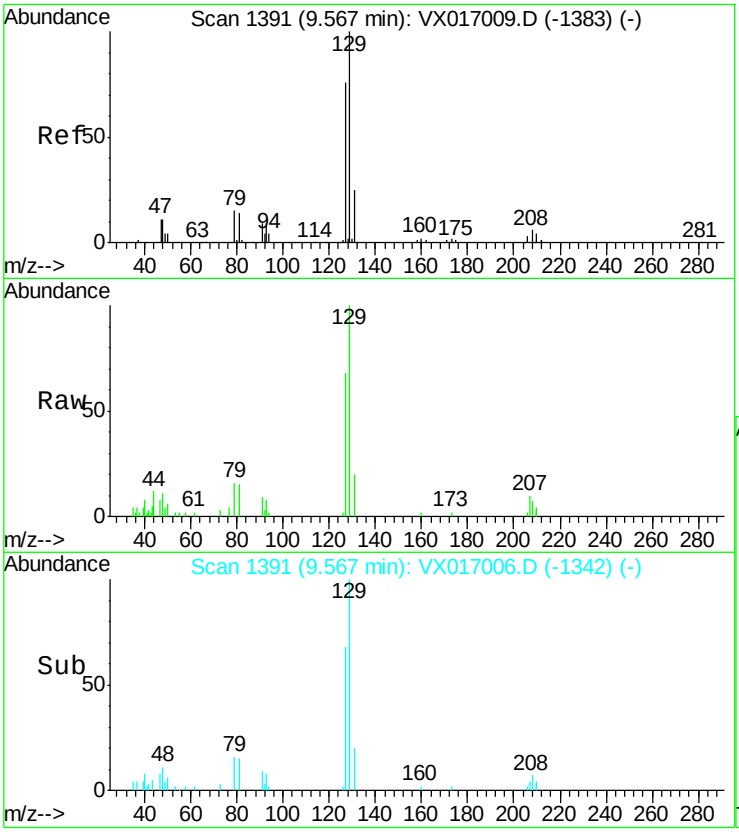


#59
2-Hexanone
Concen: 4.399 ug/l
RT: 9.47 min Scan# 1375
Delta R.T. -0.00 min
Lab File: VX017006.D
Acq: 29 Jun 2020 14:13

Tgt Ion: 43 Resp: 17651

Ion	Ratio	Lower	Upper
43	100		
58	52.7	27.9	83.6

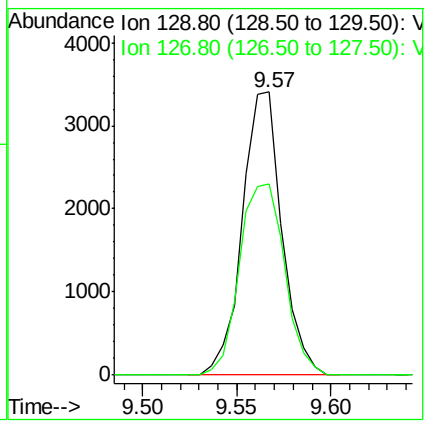


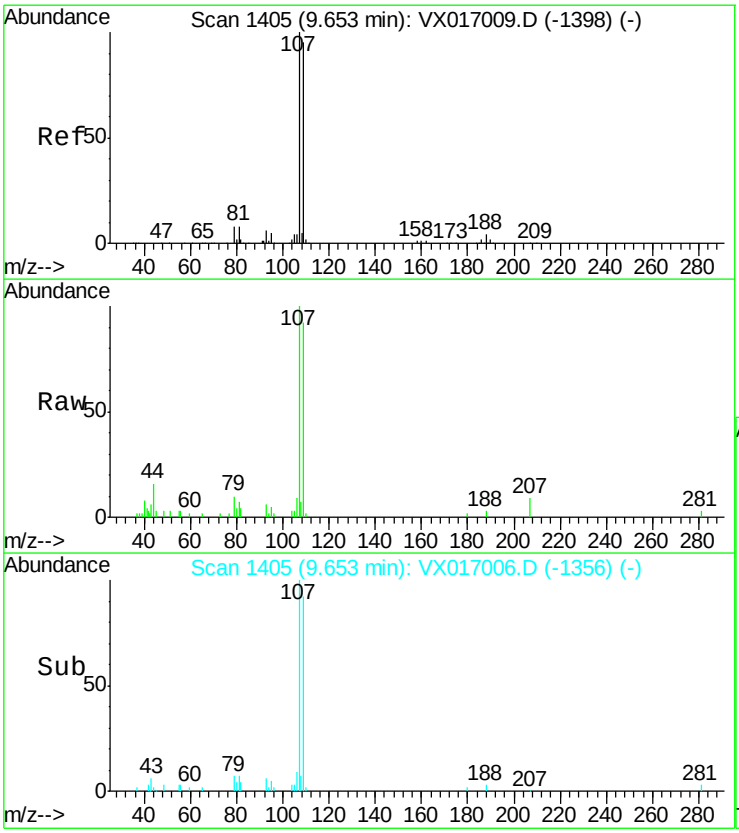


#60
Dibromochloromethane
Concen: 1.042 ug/l
RT: 9.57 min Scan# 1391
Delta R.T. -0.00 min
Lab File: VX017006.D
Acq: 29 Jun 2020 14:13

Tgt Ion:129 Resp: 4958

Ion	Ratio	Lower	Upper
129	100		
127	77.1	38.9	116.7

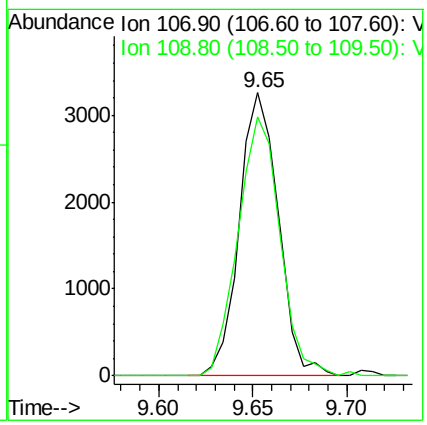




#61
1,2-Dibromoethane
Concen: 1.064 ug/l
RT: 9.65 min Scan# 1405
Delta R.T. -0.00 min
Lab File: VX017006.D
Acq: 29 Jun 2020 14:13

Tgt Ion:107 Resp: 4685

Ion	Ratio	Lower	Upper
107	100		
109	98.5	75.8	113.8

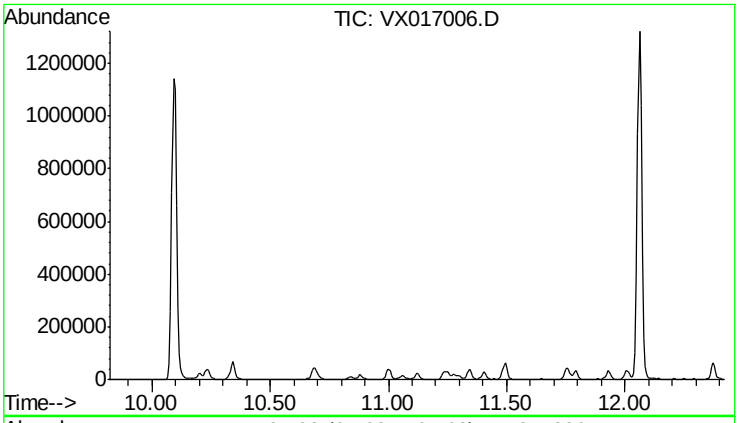


Instrument :
MSVOA_X
ClientSampleId :
VSTDICC001

Manual Integrations APPROVED
MMDadoda
6/30/2020 10:12:40 AM

Instrument :
MSVOA_X
ClientSampleId :
VSTDICC001

Manual Integrations APPROVED
MMDadoda
6/30/2020 10:12:40 AM

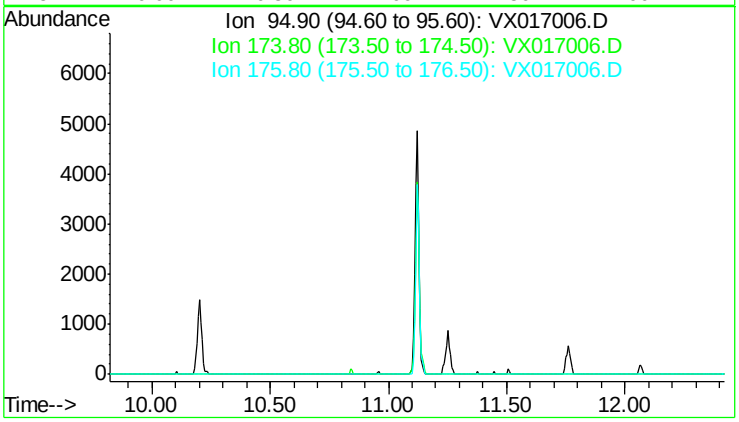


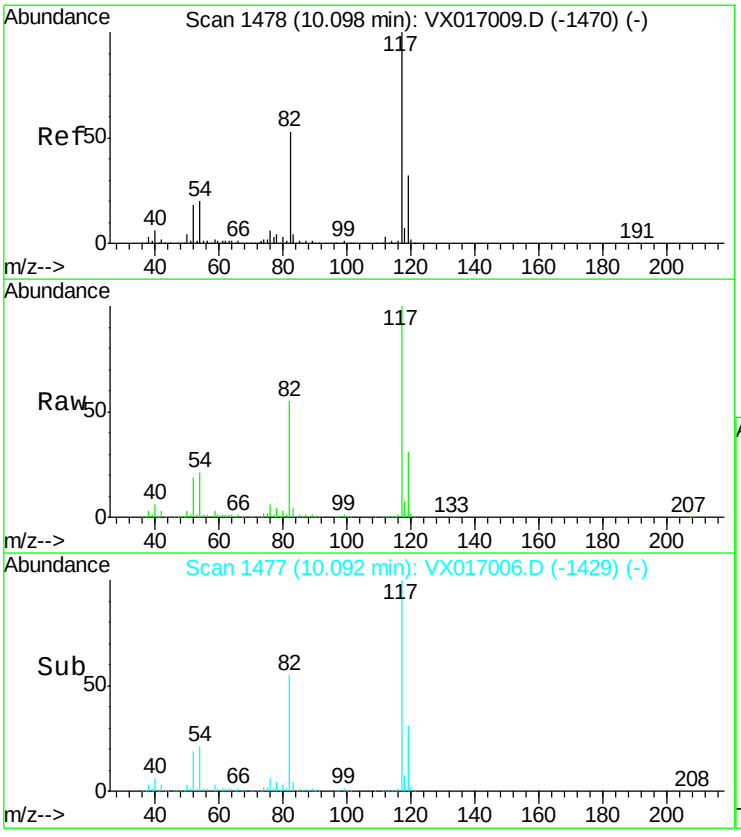
#62
4-Bromofluorobenzene
Concen: 0.000 ug/l
Expected RT: 11.12 min

Lab File: VX017006.D
Acq: 29 Jun 2020 14:13

Tgt Ion: 95

Sig	Exp Ratio
95	100
174	82.0
176	78.8

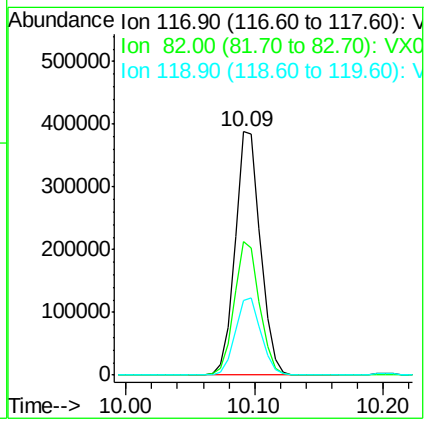


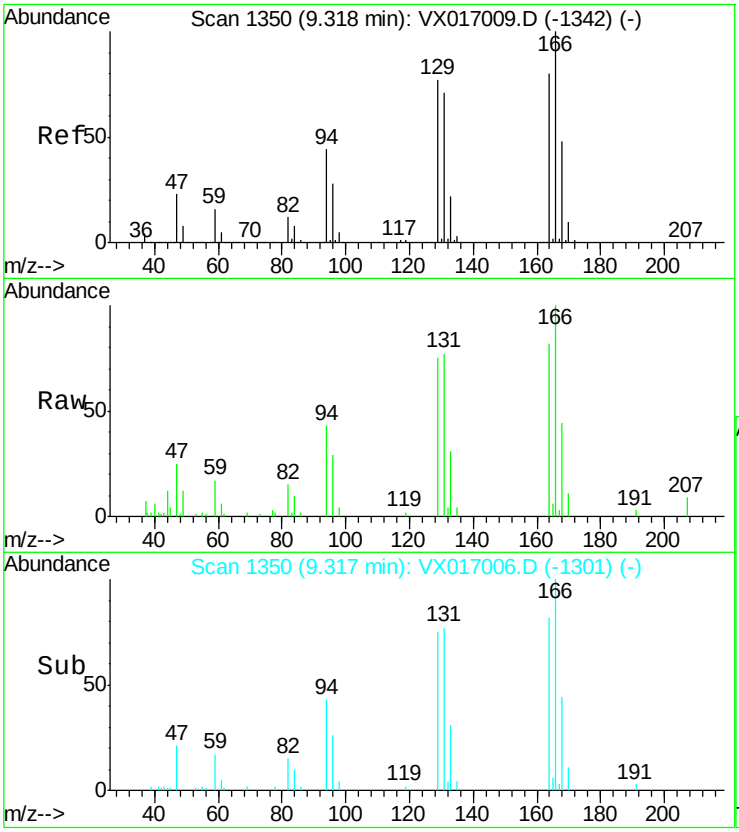


#63
Chlorobenzene-d5
Concen: 50.000 ug/l
RT: 10.09 min Scan# 1477
Delta R.T. -0.01 min
Lab File: VX017006.D
Acq: 29 Jun 2020 14:13

Tgt Ion:117 Resp: 530301

Ion	Ratio	Lower	Upper
117	100		
82	54.9	42.6	63.8
119	30.8	25.4	38.2

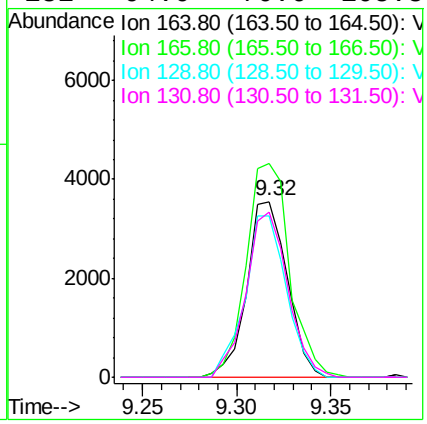




#64
Tetrachloroethene
Concen: 1.231 ug/l
RT: 9.32 min Scan# 1350
Delta R.T. -0.00 min
Lab File: VX017006.D
Acq: 29 Jun 2020 14:13

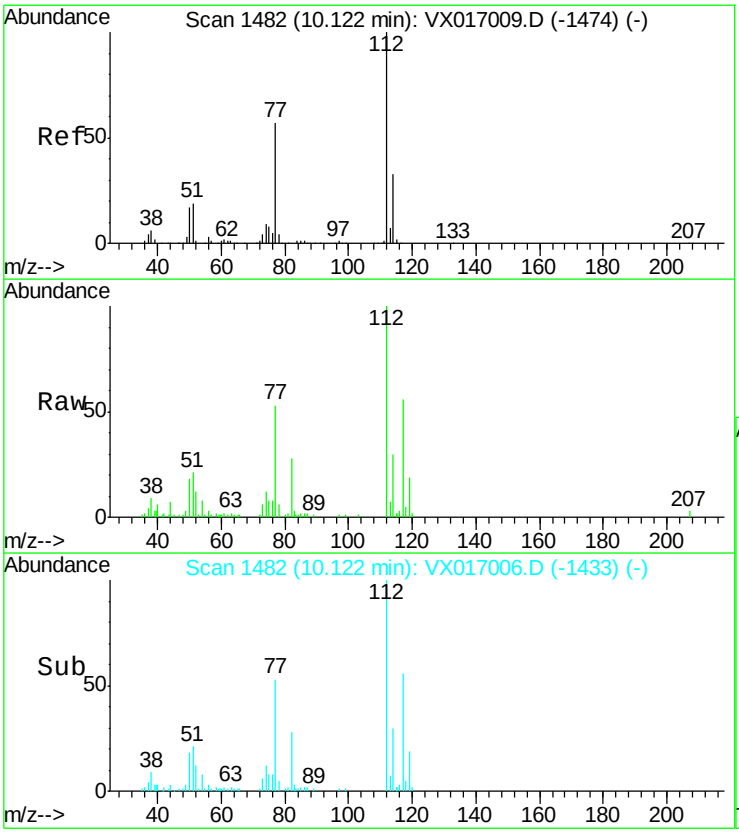
Tgt Ion:164 Resp: 5270

Ion	Ratio	Lower	Upper
164	100		
166	121.5	99.4	149.0
129	91.4	76.3	114.5
131	94.0	70.6	105.8



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC001

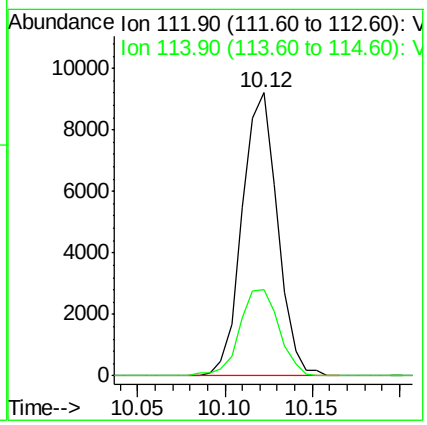
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:12:40 AM

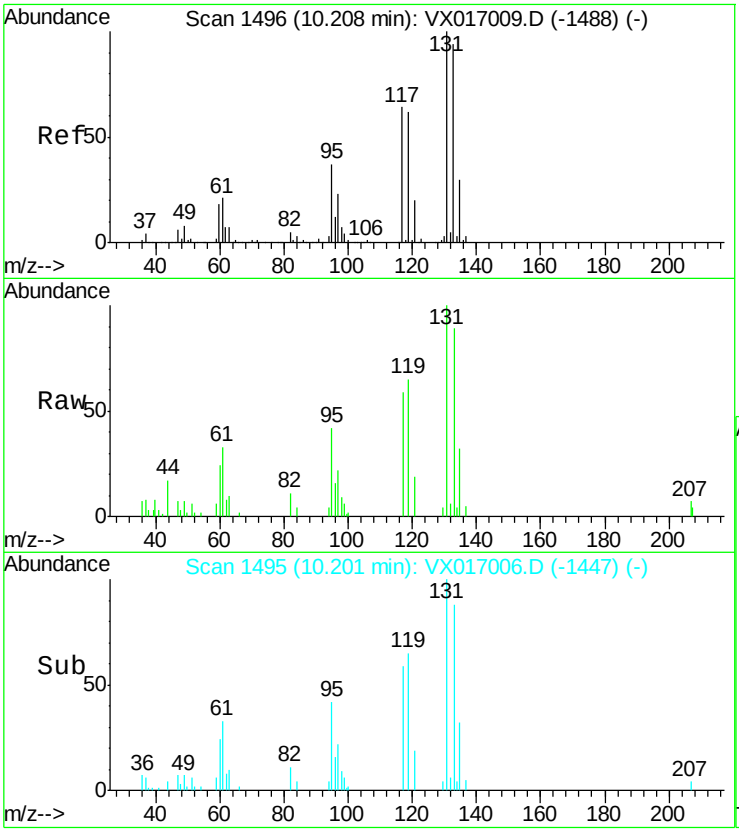


#65
Chlorobenzene
Concen: 1.184 ug/l
RT: 10.12 min Scan# 1482
Delta R.T. -0.00 min
Lab File: VX017006.D
Acq: 29 Jun 2020 14:13

Tgt Ion:112 Resp: 12955

Ion	Ratio	Lower	Upper
112	100		
114	30.4	26.2	39.4

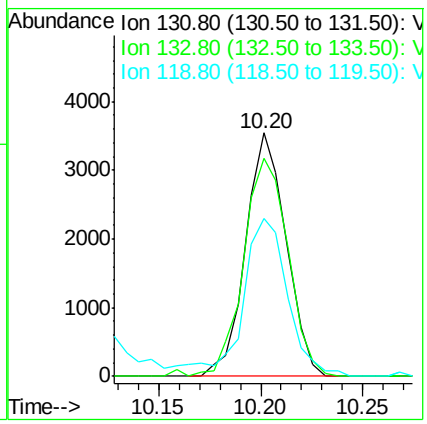




#66
1,1,1,2-Tetrachloroethane
Concen: 1.159 ug/l
RT: 10.20 min Scan# 1495
Delta R.T. -0.01 min
Lab File: VX017006.D
Acq: 29 Jun 2020 14:13

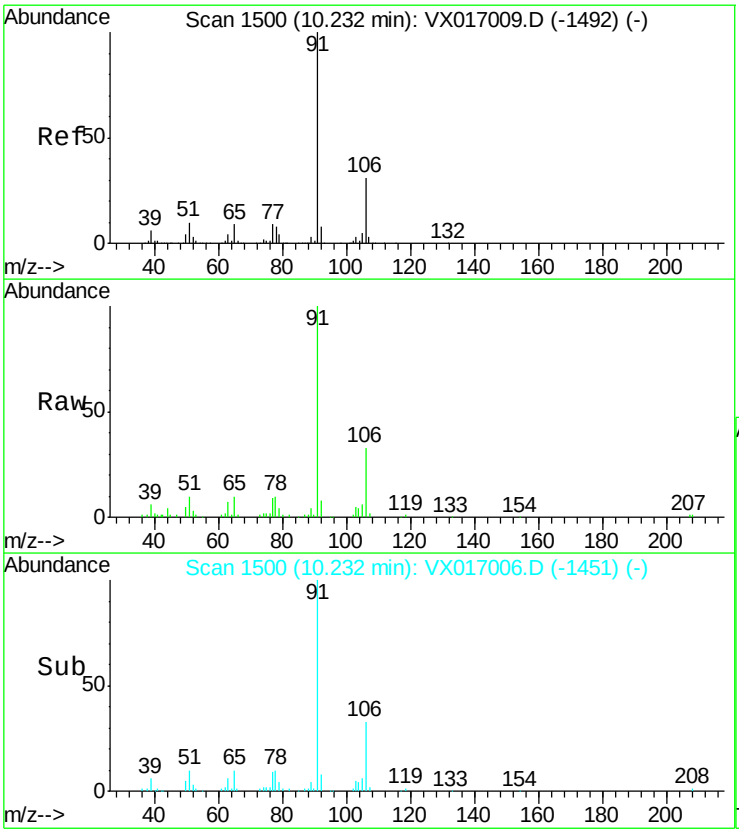
Tgt Ion:131 Resp: 4889

Ion	Ratio	Lower	Upper
131	100		
133	98.4	47.3	141.9
119	0.0	31.9	95.5#



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC001

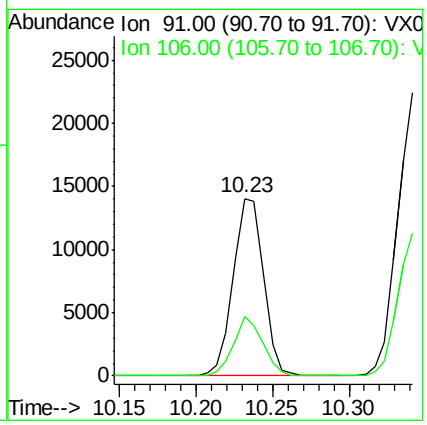
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:12:40 AM

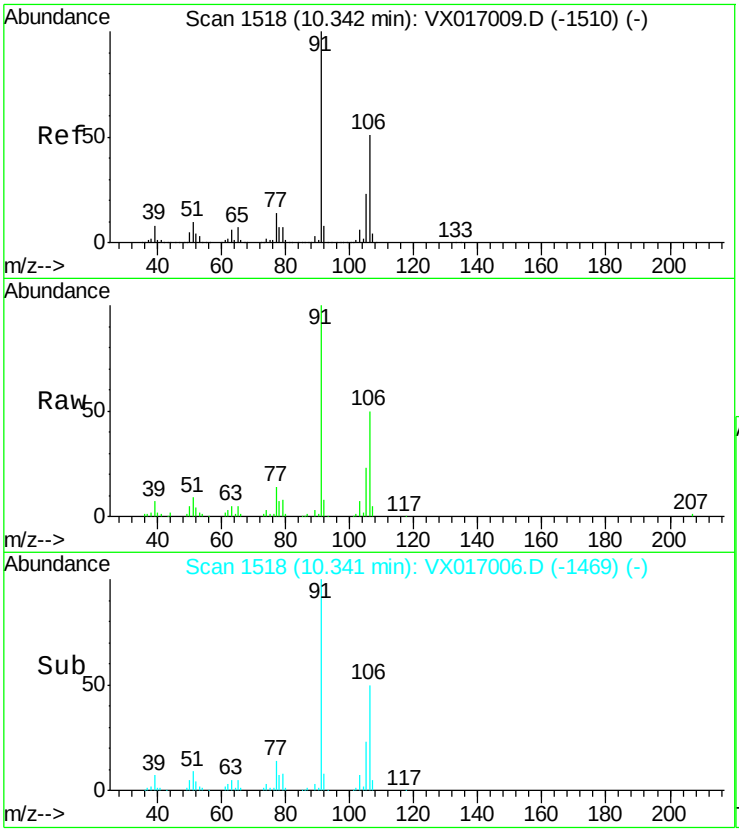


#67
Ethyl Benzene
Concen: 1.062 ug/l
RT: 10.23 min Scan# 1500
Delta R.T. -0.00 min
Lab File: VX017006.D
Acq: 29 Jun 2020 14:13

Tgt Ion: 91 Resp: 19420

Ion	Ratio	Lower	Upper
91	100		
106	33.5	24.7	37.1

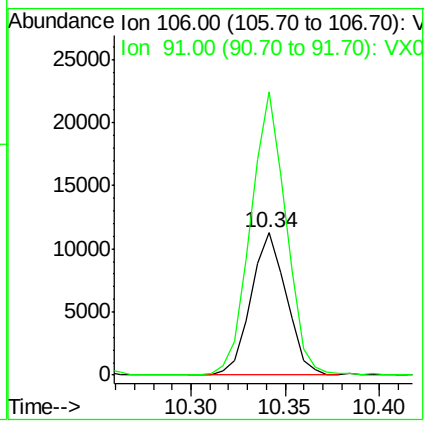




#68
m/p-Xylenes
Concen: 2.115 ug/l
RT: 10.34 min Scan# 1518
Delta R.T. -0.00 min
Lab File: VX017006.D
Acq: 29 Jun 2020 14:13

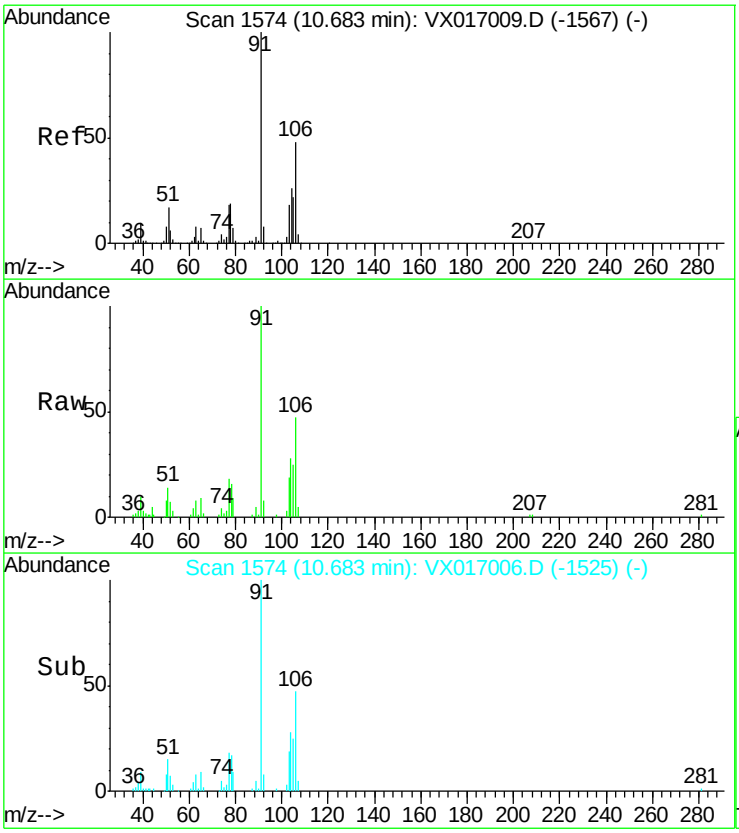
Tgt Ion:106 Resp: 14842

Ion	Ratio	Lower	Upper
106	100		
91	197.6	158.6	238.0



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC001

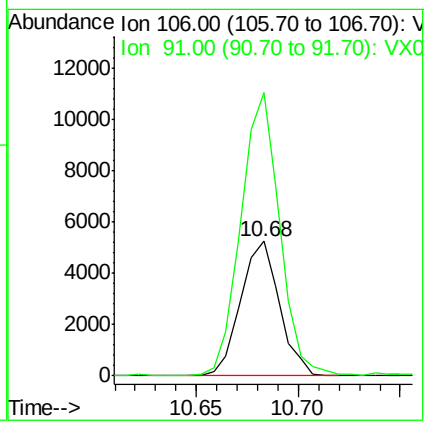
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:12:40 AM

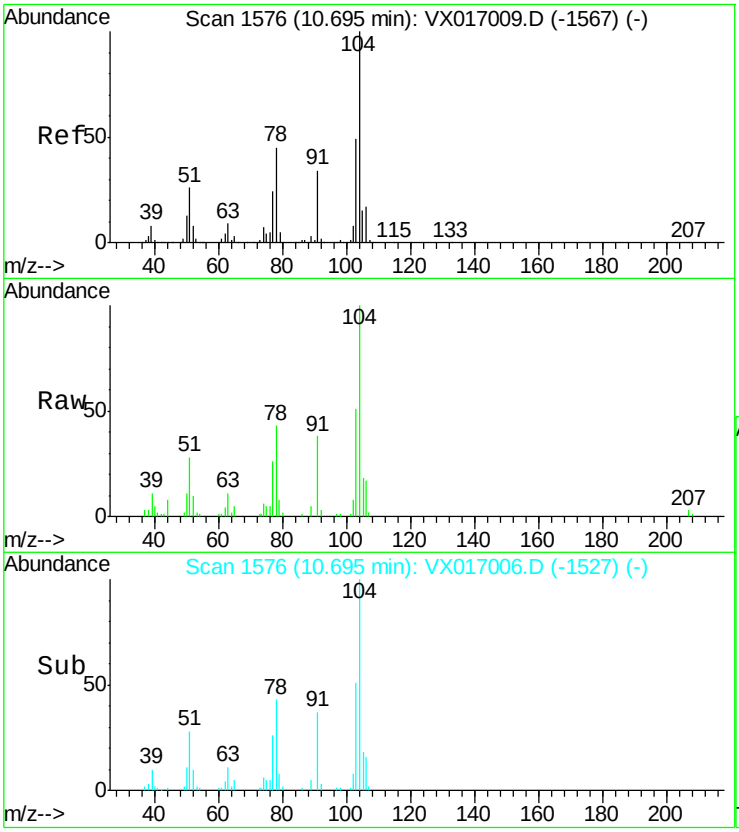


#69
o-Xylene
Concen: 1.035 ug/l
RT: 10.68 min Scan# 1574
Delta R.T. -0.00 min
Lab File: VX017006.D
Acq: 29 Jun 2020 14:13

Tgt Ion:106 Resp: 6909

Ion	Ratio	Lower	Upper
106	100		
91	211.0	105.6	316.7

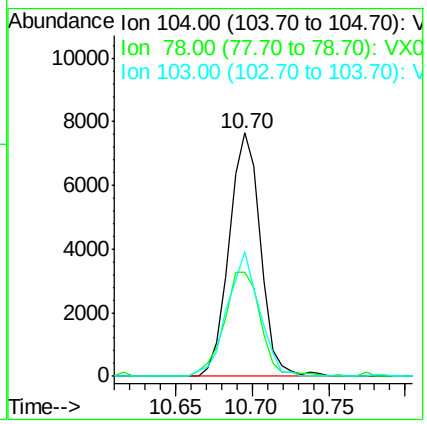




#70
Stvrene
Concen: 0.953 ug/l
RT: 10.70 min Scan# 1576
Delta R.T. -0.00 min
Lab File: VX017006.D
Acq: 29 Jun 2020 14:13

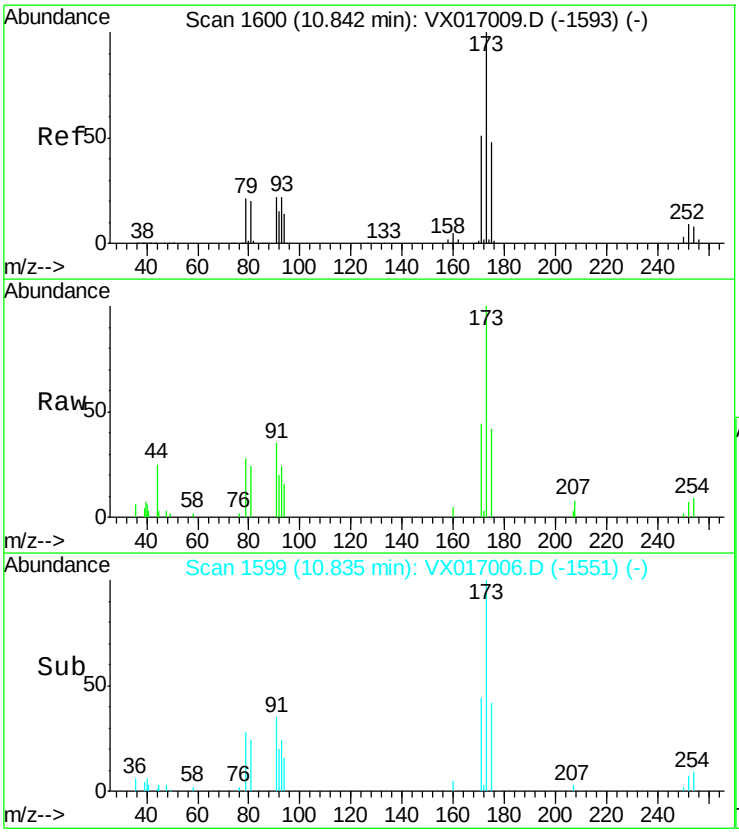
Tgt Ion:104 Resp: 10834

Ion	Ratio	Lower	Upper
104	100		
78	50.5	39.5	59.3
103	52.7	43.0	64.6



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC001

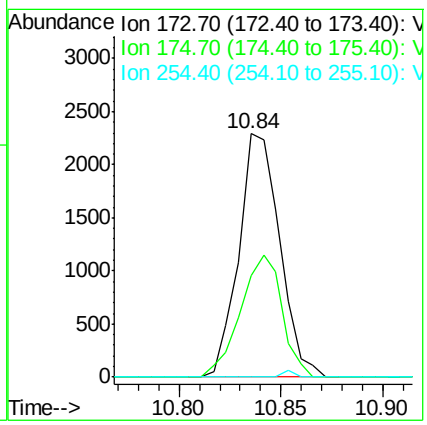
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:12:40 AM

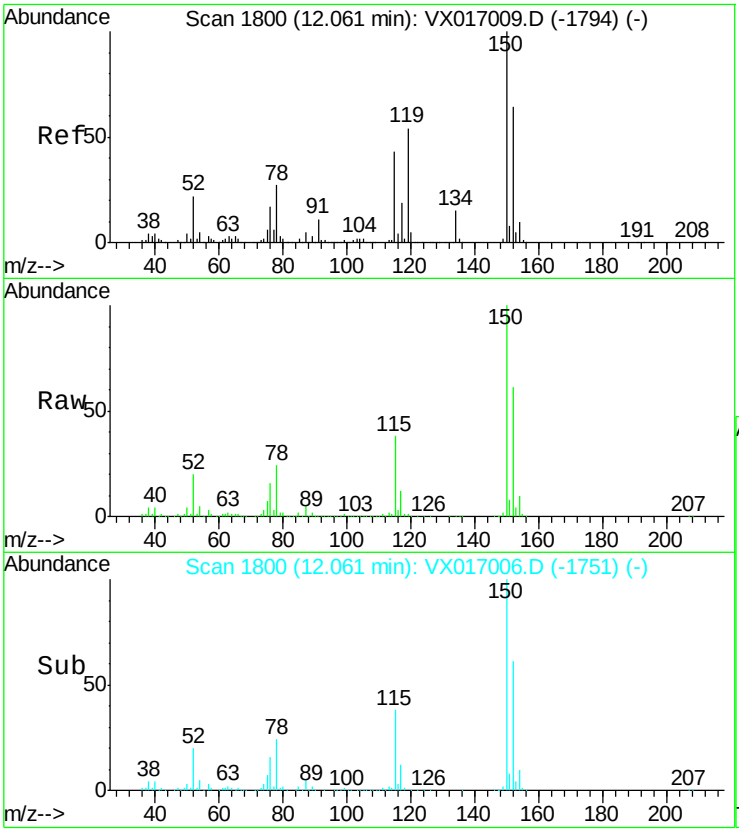


#71
Bromoform
Concen: 0.955 ug/l
RT: 10.84 min Scan# 1599
Delta R.T. -0.01 min
Lab File: VX017006.D
Acq: 29 Jun 2020 14:13

Tgt Ion:173 Resp: 3194

Ion	Ratio	Lower	Upper
173	100		
175	51.1	24.5	73.5
254	0.7	0.1	0.1#

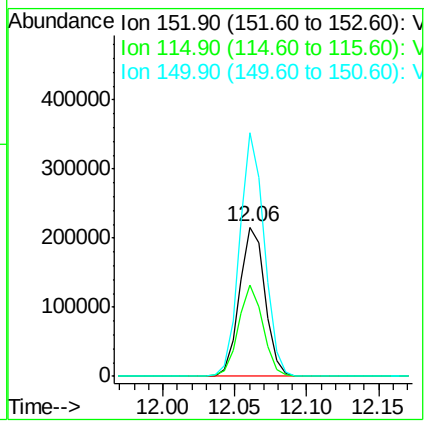


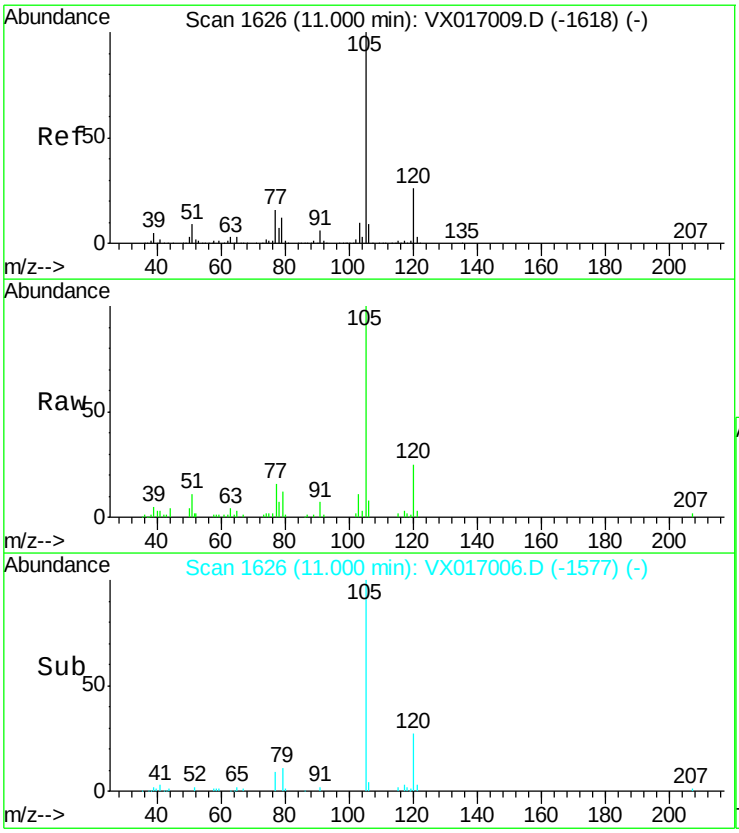


#72
1,4-Dichlorobenzene-d4
Concen: 50.000 ug/l
RT: 12.06 min Scan# 1800
Delta R.T. -0.00 min
Lab File: VX017006.D
Acq: 29 Jun 2020 14:13

Tgt Ion:152 Resp: 264891

Ion	Ratio	Lower	Upper
152	100		
115	59.0	40.9	122.7
150	157.5	0.0	351.6

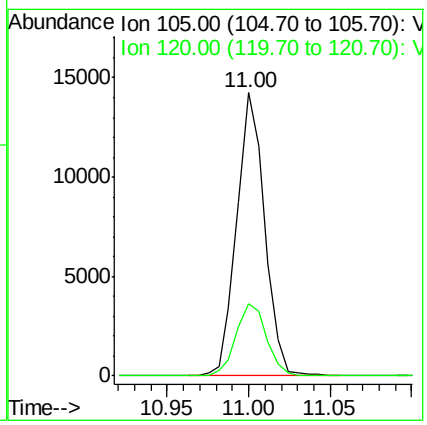




#73
Isopropylbenzene
Concen: 0.981 ug/l
RT: 11.00 min Scan# 1626
Delta R.T. -0.00 min
Lab File: VX017006.D
Acq: 29 Jun 2020 14:13

Tgt Ion:105 Resp: 17016

Ion	Ratio	Lower	Upper
105	100		
120	27.6	13.4	40.2

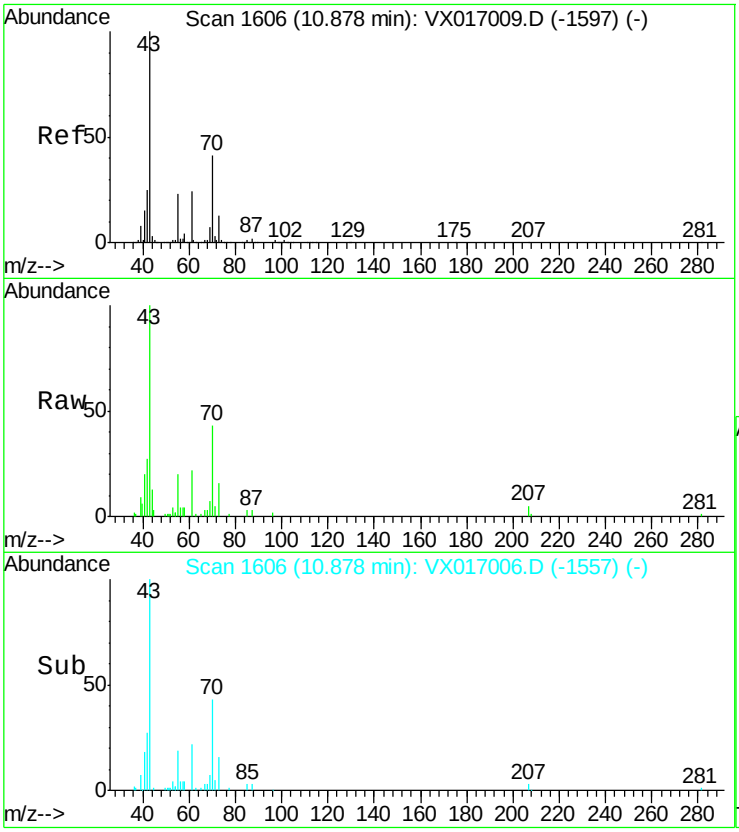


Instrument :
MSVOA_X
ClientSampleId :
VSTDICC001

Manual Integrations APPROVED
MMDadoda
6/30/2020 10:12:40 AM

Instrument :
MSVOA_X
ClientSampleId :
VSTDICC001

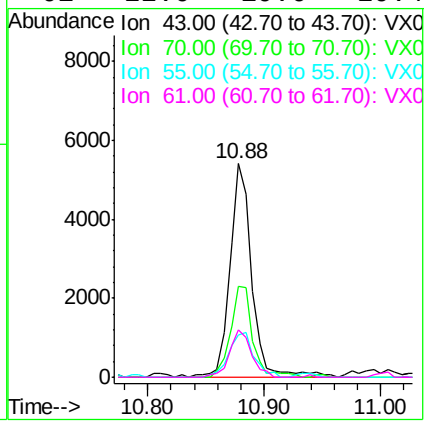
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:12:40 AM

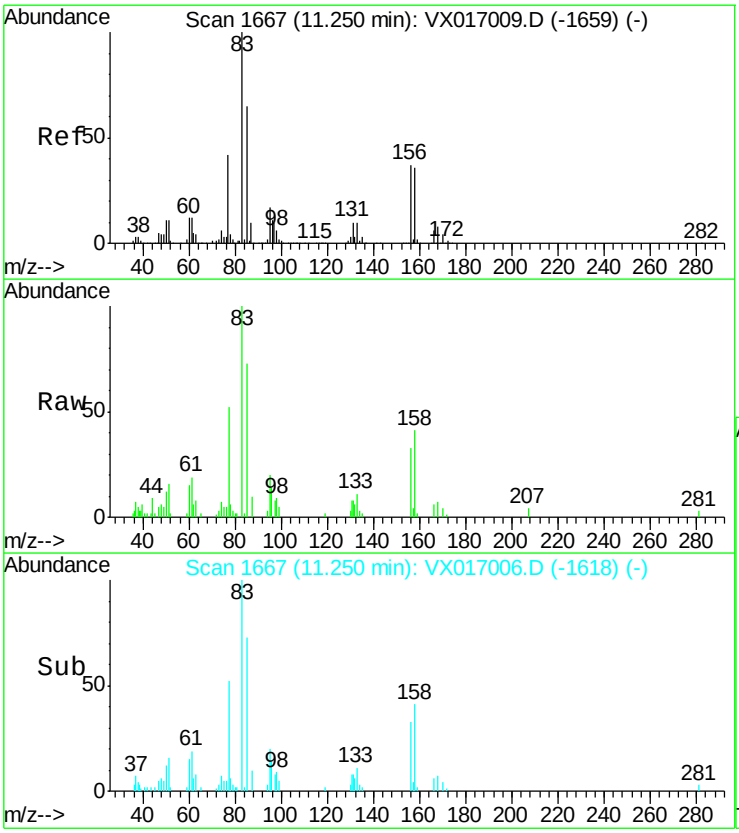


#74
N-amyl acetate
Concen: 0.953 ug/l
RT: 10.88 min Scan# 1606
Delta R.T. -0.00 min
Lab File: VX017006.D
Acq: 29 Jun 2020 14:13

Tgt Ion: 43 Resp: 7057

Ion	Ratio	Lower	Upper
43	100		
70	43.1	34.2	51.2
55	23.9	19.2	28.8
61	22.0	19.6	29.4

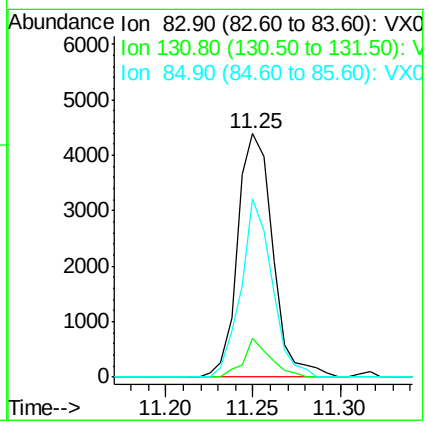


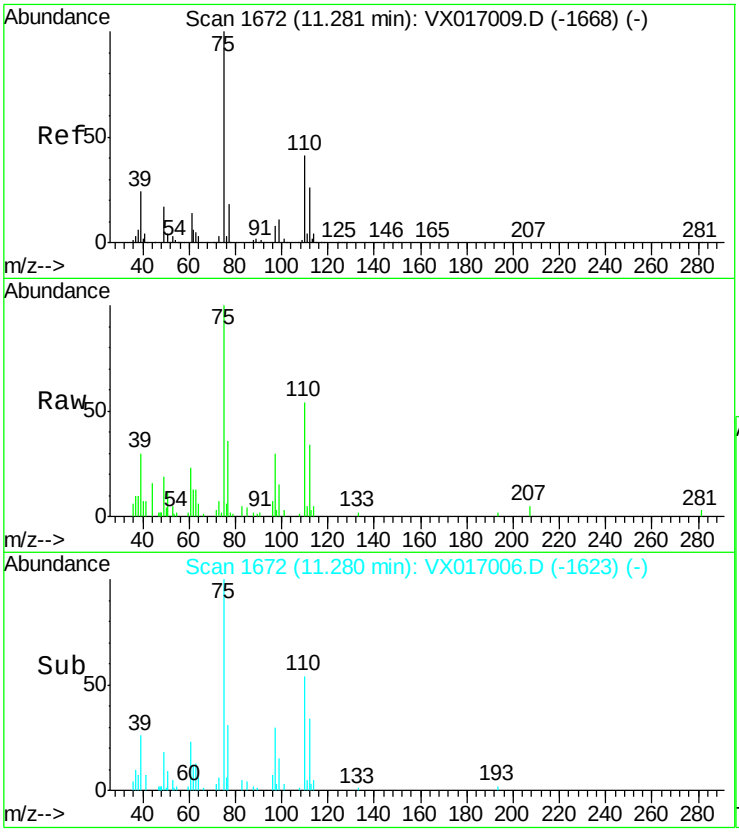


#75
1,1,2,2-Tetrachloroethane
Concen: 1.127 ug/l
RT: 11.25 min Scan# 1667
Delta R.T. -0.00 min
Lab File: VX017006.D
Acq: 29 Jun 2020 14:13

Tgt Ion: 83 Resp: 6149

Ion	Ratio	Lower	Upper
83	100		
131	12.0	5.4	16.2
85	64.8	31.9	95.9

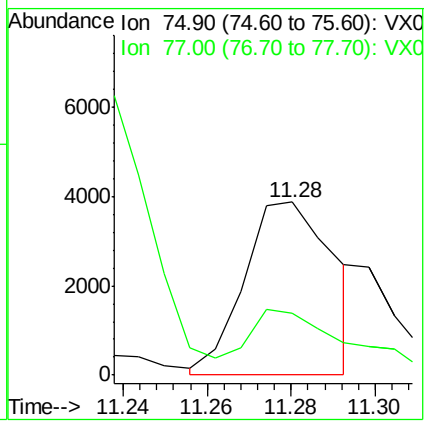




#76
1,2,3-Trichloropropane
Concen: 0.878 ug/l m
RT: 11.28 min Scan# 1672
Delta R.T. -0.00 min
Lab File: VX017006.D
Acq: 29 Jun 2020 14:13

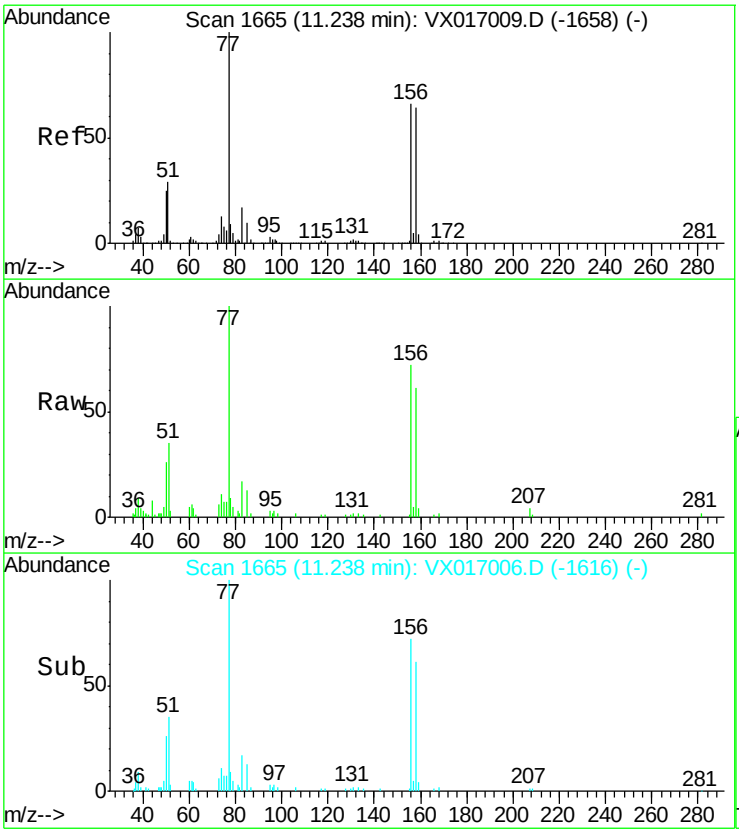
Tgt Ion: 75 Resp: 5730

Ion	Ratio	Lower	Upper
75	100		
77	42.4	20.2	60.6



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC001

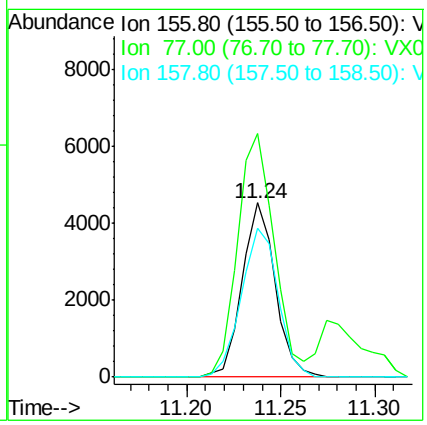
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:12:40 AM

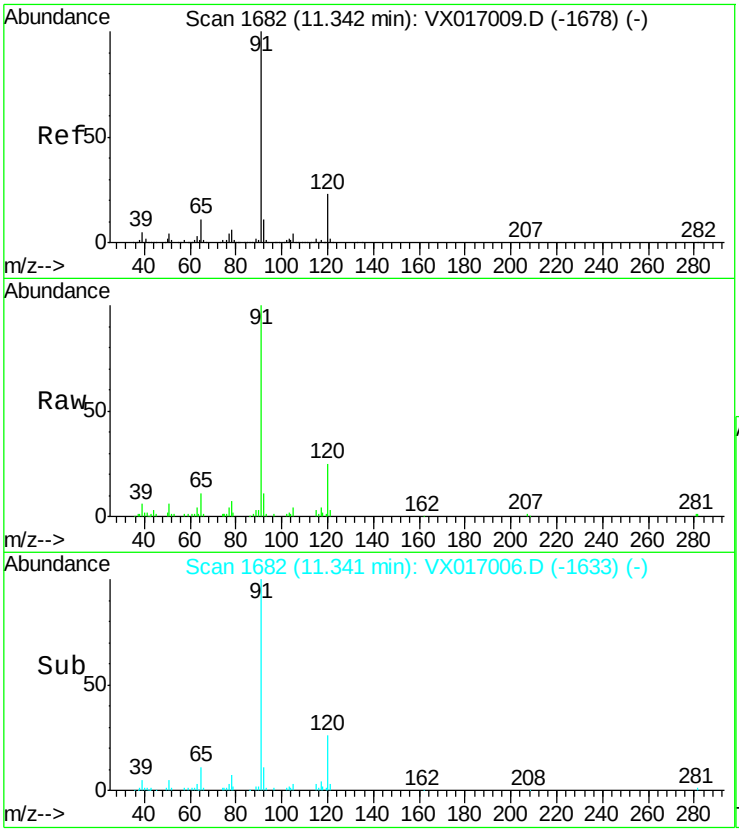


#77
Bromobenzene
Concen: 1.155 ug/l
RT: 11.24 min Scan# 1665
Delta R.T. -0.00 min
Lab File: VX017006.D
Acq: 29 Jun 2020 14:13

Tgt Ion:156 Resp: 5506

Ion	Ratio	Lower	Upper
156	100		
77	154.9	76.9	230.7
158	95.3	47.9	143.6

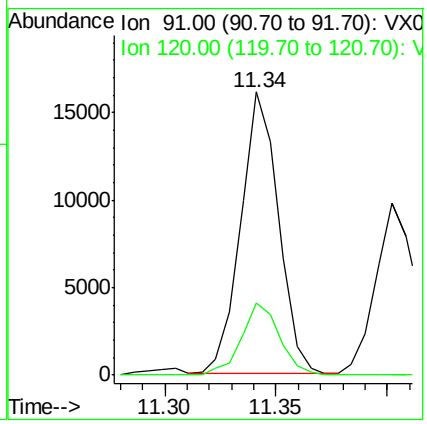




#78
n-propylbenzene
Concen: 0.971 ug/l
RT: 11.34 min Scan# 1682
Delta R.T. -0.00 min
Lab File: VX017006.D
Acq: 29 Jun 2020 14:13

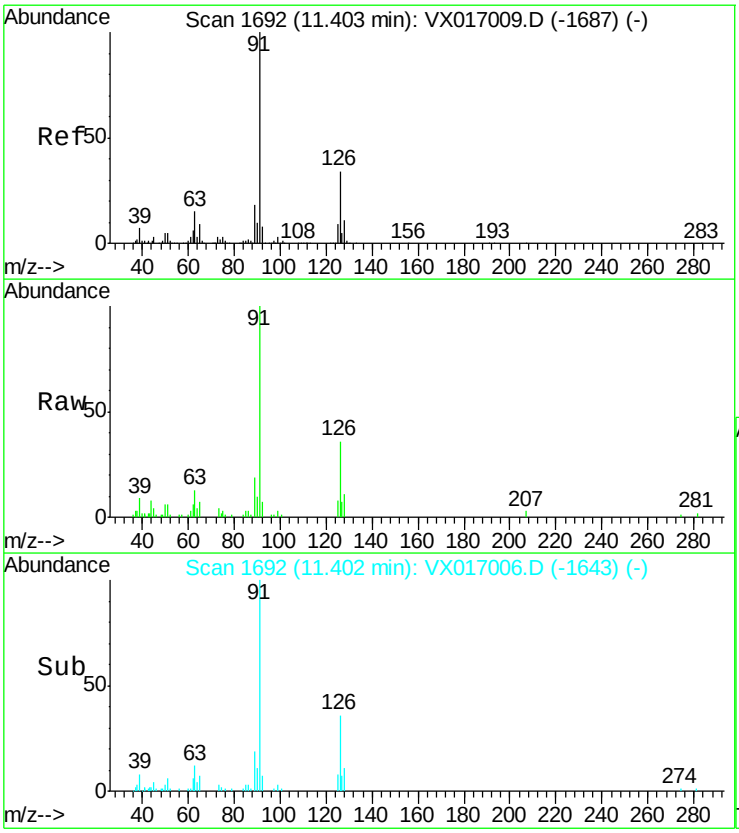
Tgt Ion: 91 Resp: 19048

Ion	Ratio	Lower	Upper
91	100		
120	25.9	11.9	35.9



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC001

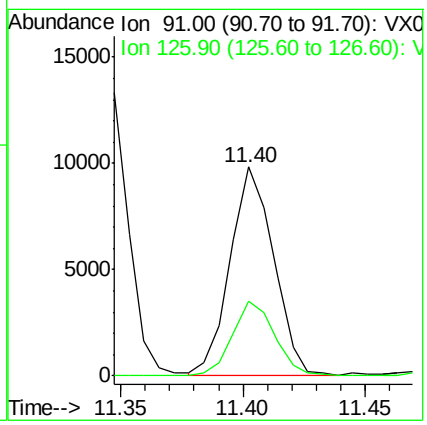
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:12:40 AM

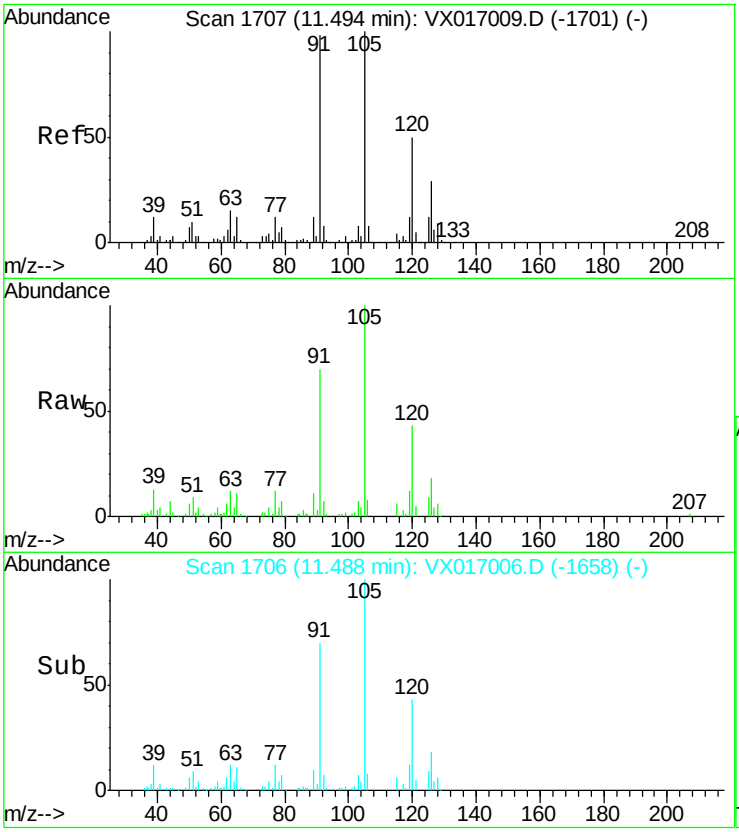


#79
2-Chlorotoluene
Concen: 1.028 ug/l
RT: 11.40 min Scan# 1692
Delta R.T. -0.00 min
Lab File: VX017006.D
Acq: 29 Jun 2020 14:13

Tgt Ion: 91 Resp: 12211

Ion	Ratio	Lower	Upper
91	100		
126	34.6	17.4	52.3

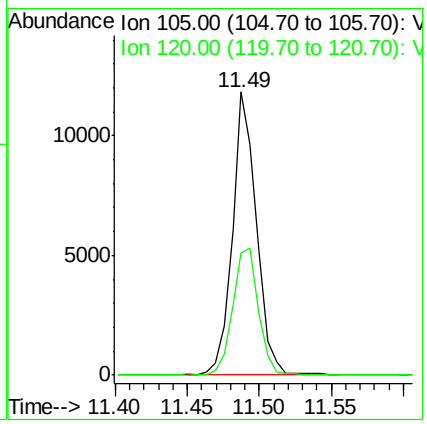




#80
1,3,5-Trimethylbenzene
Concen: 0.959 ug/l
RT: 11.49 min Scan# 1706
Delta R.T. -0.01 min
Lab File: VX017006.D
Acq: 29 Jun 2020 14:13

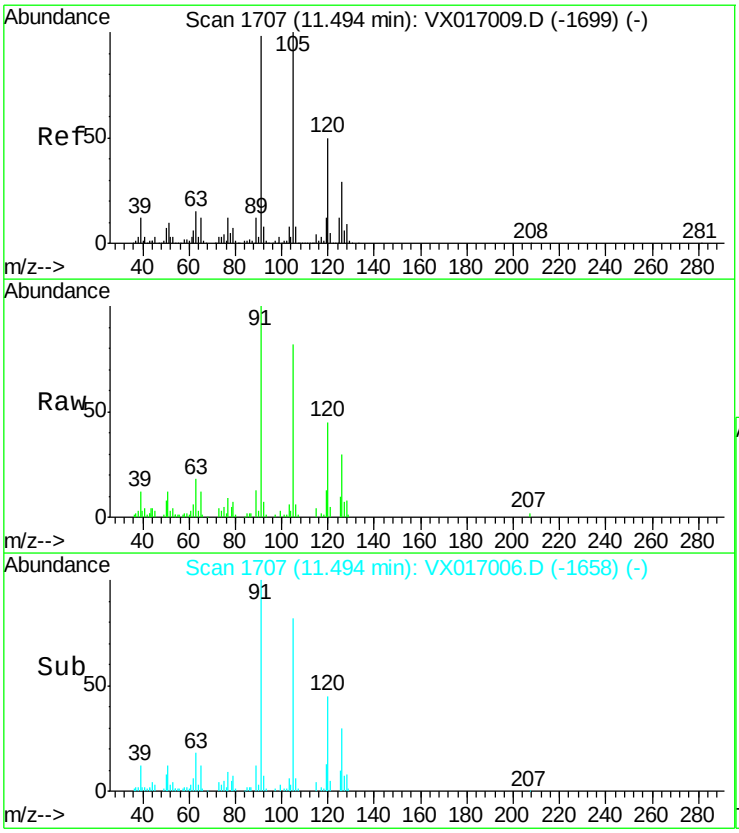
Tgt Ion:105 Resp: 13796

Ion	Ratio	Lower	Upper
105	100		
120	48.0	24.9	74.6



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC001

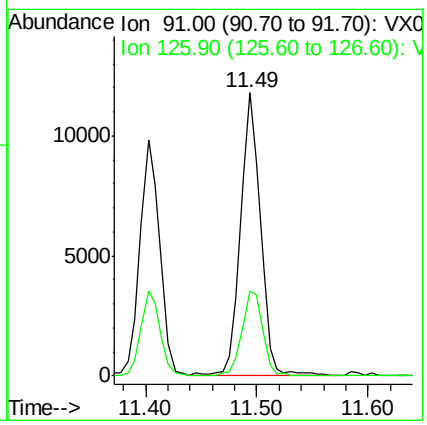
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:12:40 AM

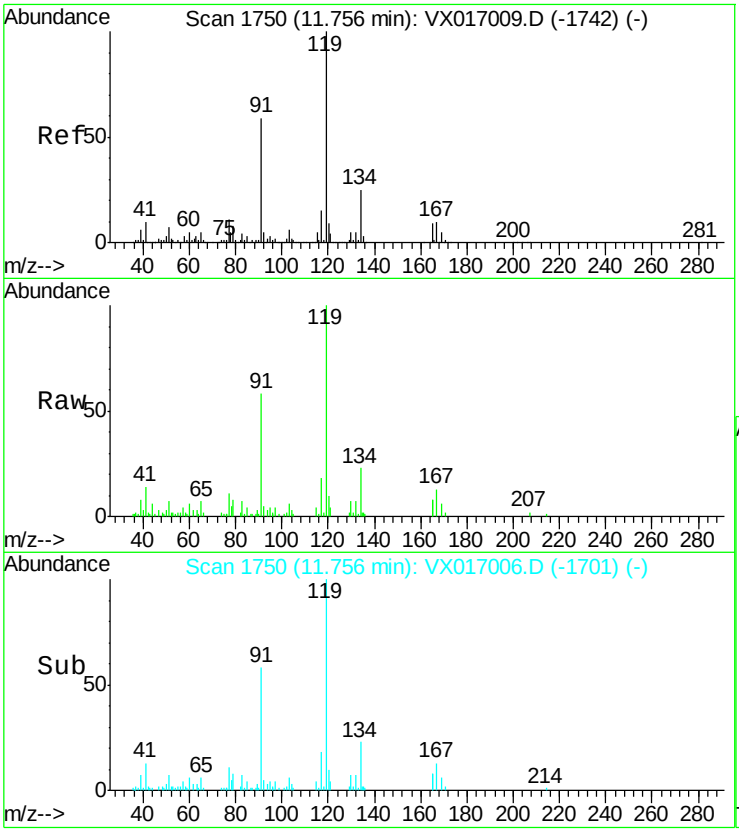


#82
4-Chlorotoluene
Concen: 1.044 ug/l
RT: 11.49 min Scan# 1707
Delta R.T. -0.00 min
Lab File: VX017006.D
Acq: 29 Jun 2020 14:13

Tgt Ion: 91 Resp: 14823

Ion	Ratio	Lower	Upper
91	100		
126	30.7	15.2	45.5

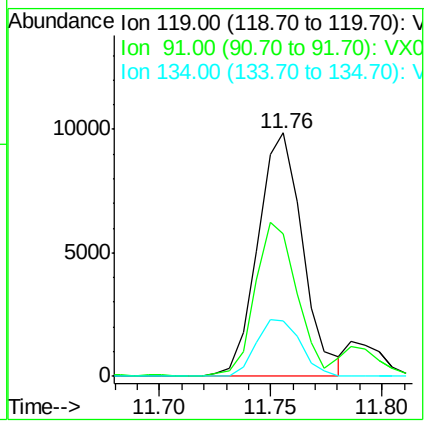




#83
tert-Butylbenzene
Concen: 0.977 ug/l
RT: 11.76 min Scan# 1750
Delta R.T. -0.00 min
Lab File: VX017006.D
Acq: 29 Jun 2020 14:13

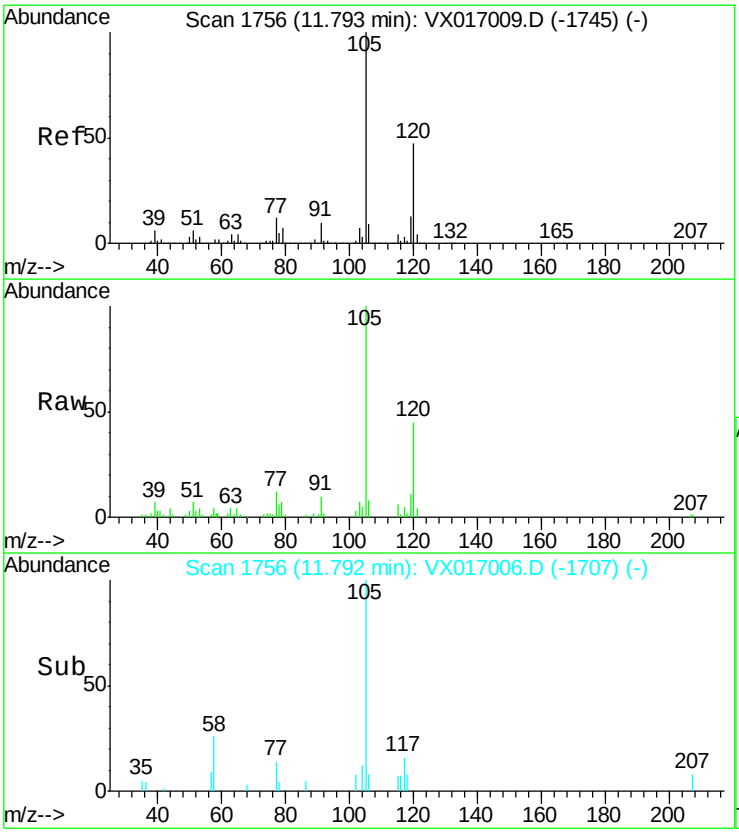
Tgt Ion:119 Resp: 13801

Ion	Ratio	Lower	Upper
119	100		
91	59.0	28.3	84.9
134	22.9	11.7	35.1



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC001

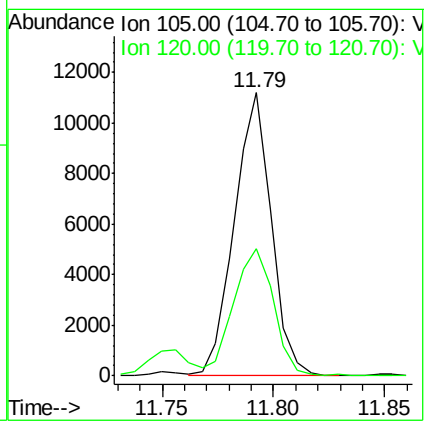
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:12:40 AM

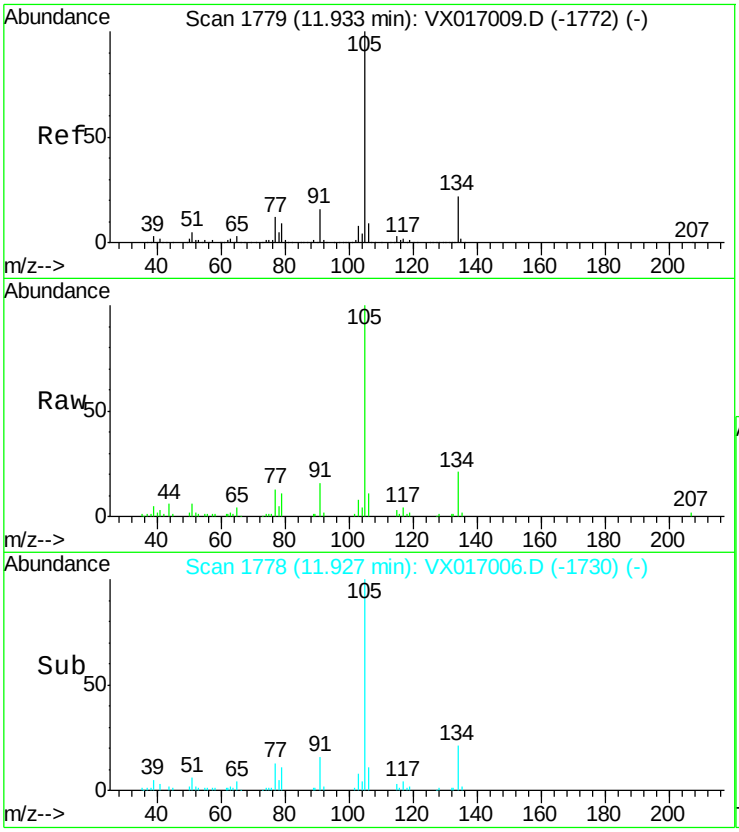


#84
1,2,4-Trimethylbenzene
Concen: 0.886 ug/l
RT: 11.79 min Scan# 1756
Delta R.T. -0.00 min
Lab File: VX017006.D
Acq: 29 Jun 2020 14:13

Tgt Ion:105 Resp: 12930

Ion	Ratio	Lower	Upper
105	100		
120	49.0	22.9	68.5

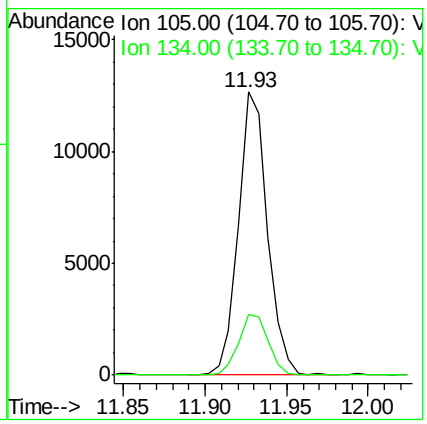




#85
sec-Butylbenzene
Concen: 0.944 ug/l
RT: 11.93 min Scan# 1778
Delta R.T. -0.01 min
Lab File: VX017006.D
Acq: 29 Jun 2020 14:13

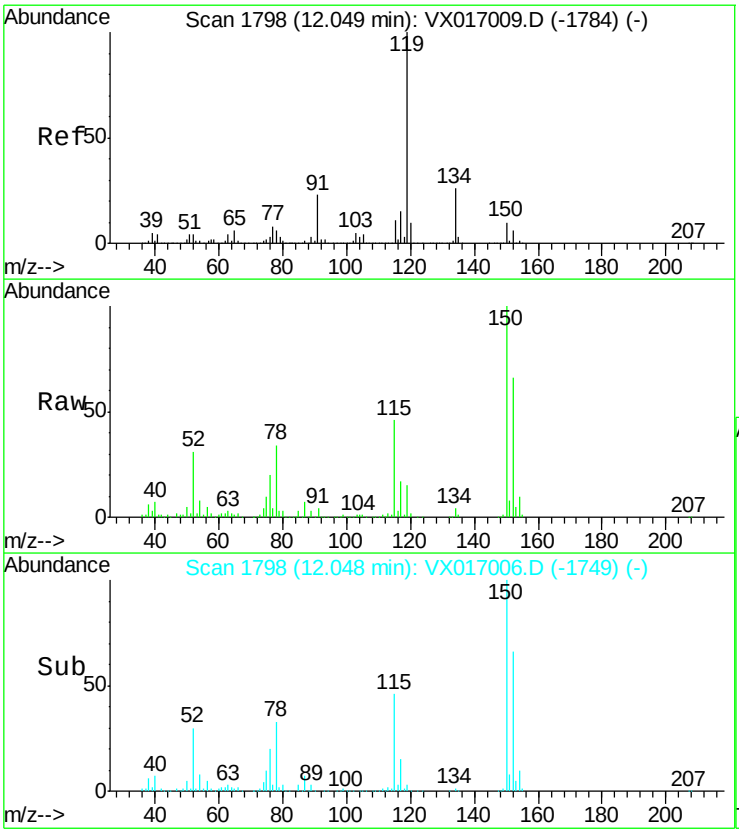
Tgt Ion:105 Resp: 15672

Ion	Ratio	Lower	Upper
105	100		
134	21.6	10.5	31.6



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC001

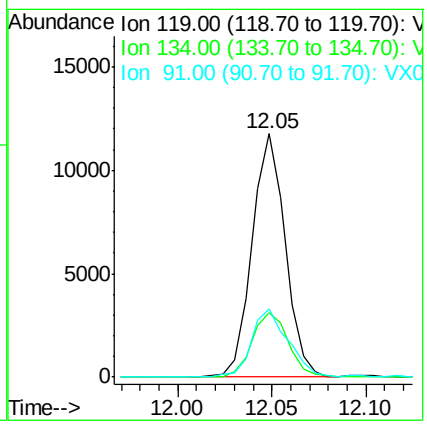
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:12:40 AM

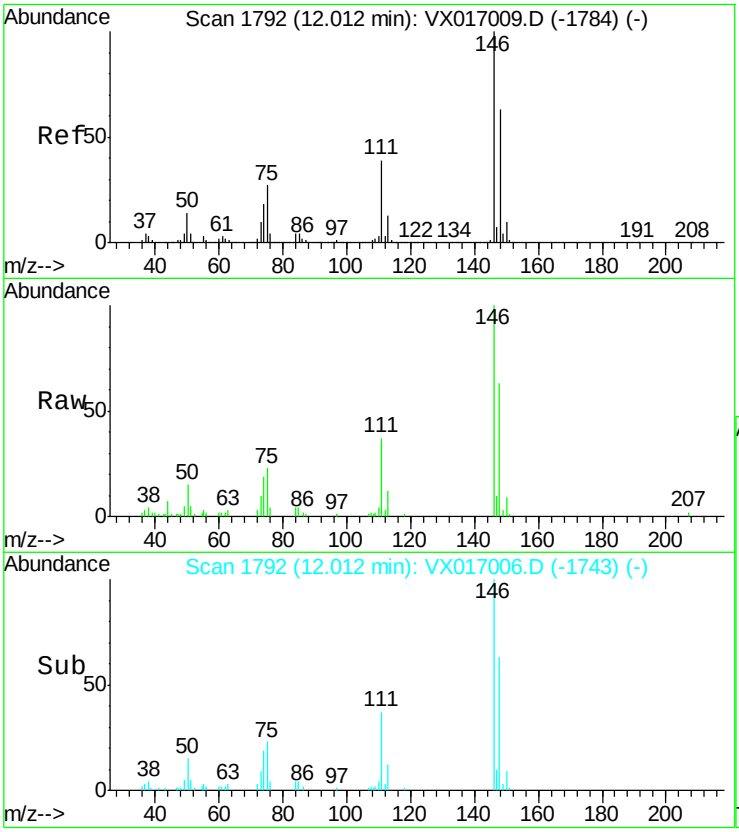


#86
p-Isopropyltoluene
Concen: 0.927 ug/l
RT: 12.05 min Scan# 1798
Delta R.T. -0.00 min
Lab File: VX017006.D
Acq: 29 Jun 2020 14:13

Tgt Ion:119 Resp: 14325

Ion	Ratio	Lower	Upper
119	100		
134	28.8	13.2	39.5
91	31.0	11.8	35.4

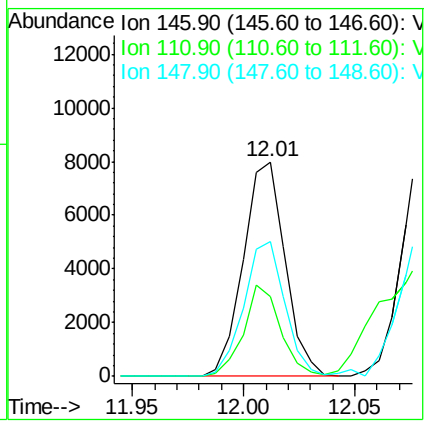




#87
1,3-Dichlorobenzene
Concen: 1.211 ug/l
RT: 12.01 min Scan# 1792
Delta R.T. -0.00 min
Lab File: VX017006.D
Acq: 29 Jun 2020 14:13

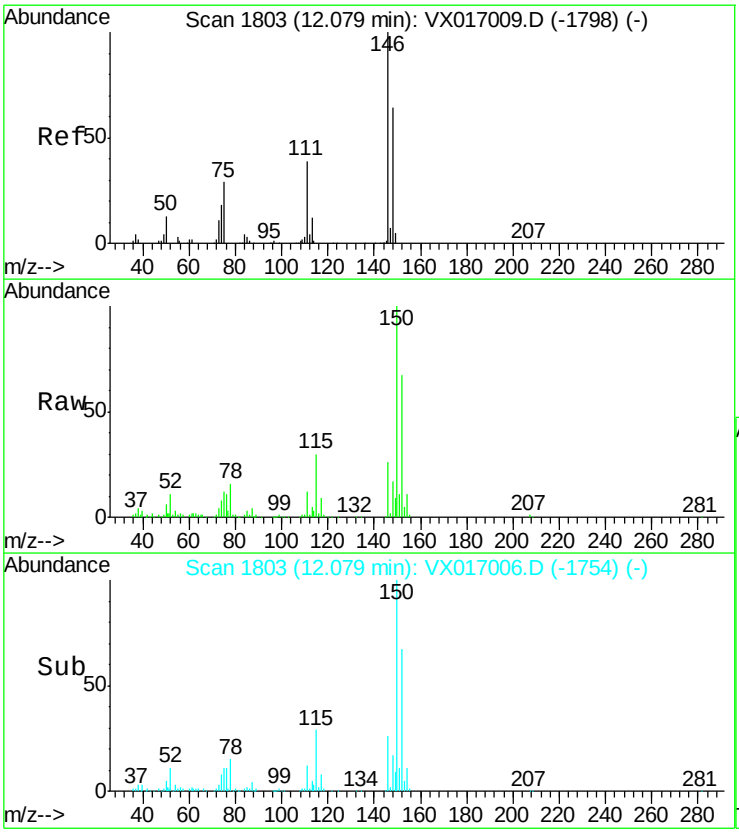
Tgt Ion:146 Resp: 10492

Ion	Ratio	Lower	Upper
146	100		
111	37.6	20.4	61.2
148	61.9	32.5	97.5



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC001

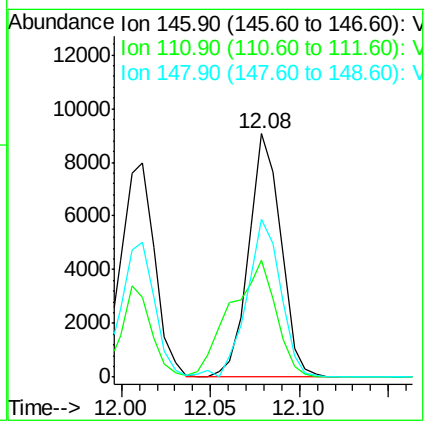
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:12:40 AM



#88
1,4-Dichlorobenzene
Concen: 1.316 ug/l m
RT: 12.08 min Scan# 1803
Delta R.T. -0.00 min
Lab File: VX017006.D
Acq: 29 Jun 2020 14:13

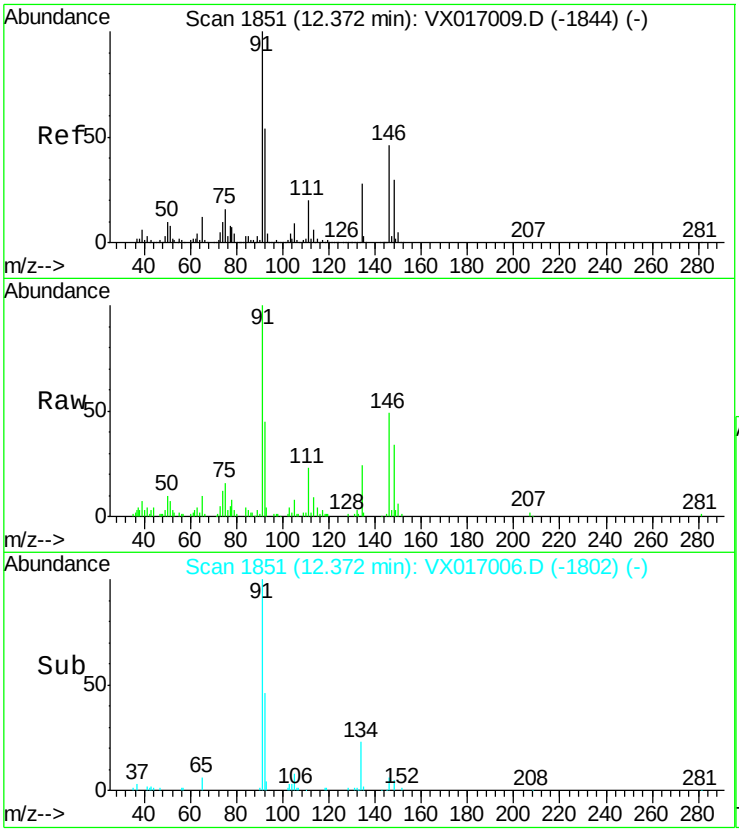
Tgt Ion:146 Resp: 11464

Ion	Ratio	Lower	Upper
146	100		
111	34.4	19.5	58.5
148	56.6	31.9	95.7



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC001

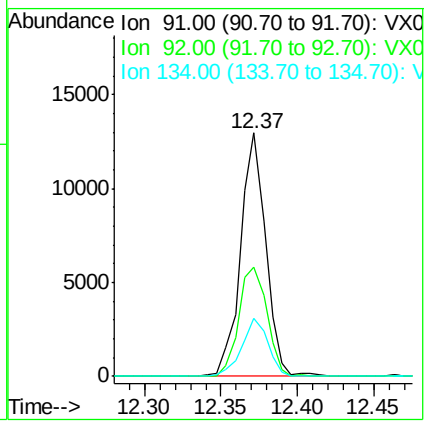
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:12:40 AM

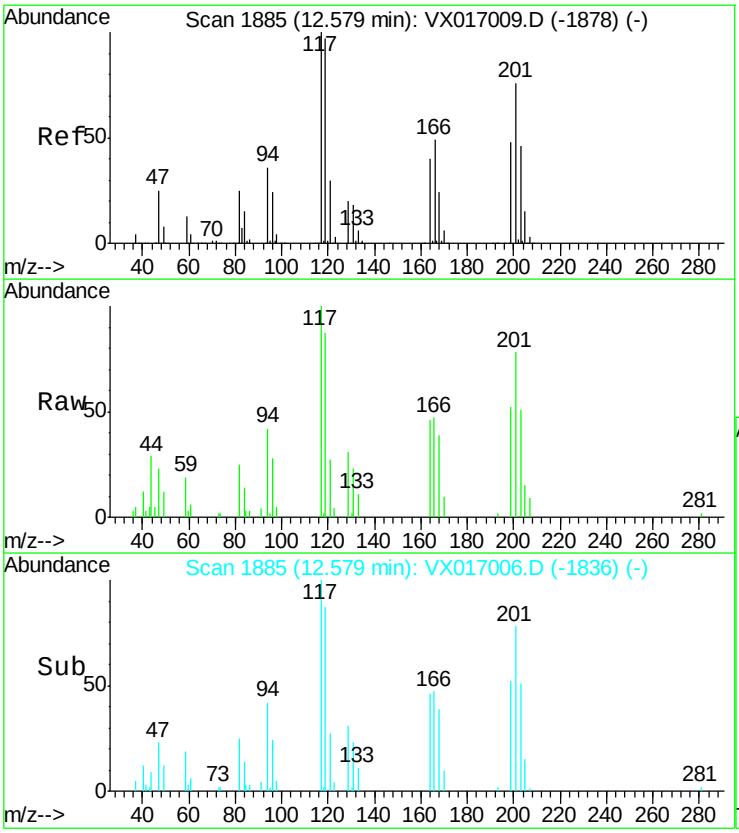


#89
n-Butylbenzene
Concen: 1.075 ug/l
RT: 12.37 min Scan# 1851
Delta R.T. -0.00 min
Lab File: VX017006.D
Acq: 29 Jun 2020 14:13

Tgt Ion: 91 Resp: 14834

Ion	Ratio	Lower	Upper
91	100		
92	50.0	27.2	81.6
134	24.7	13.6	40.7

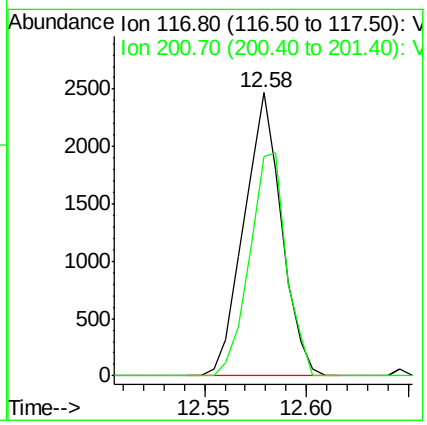


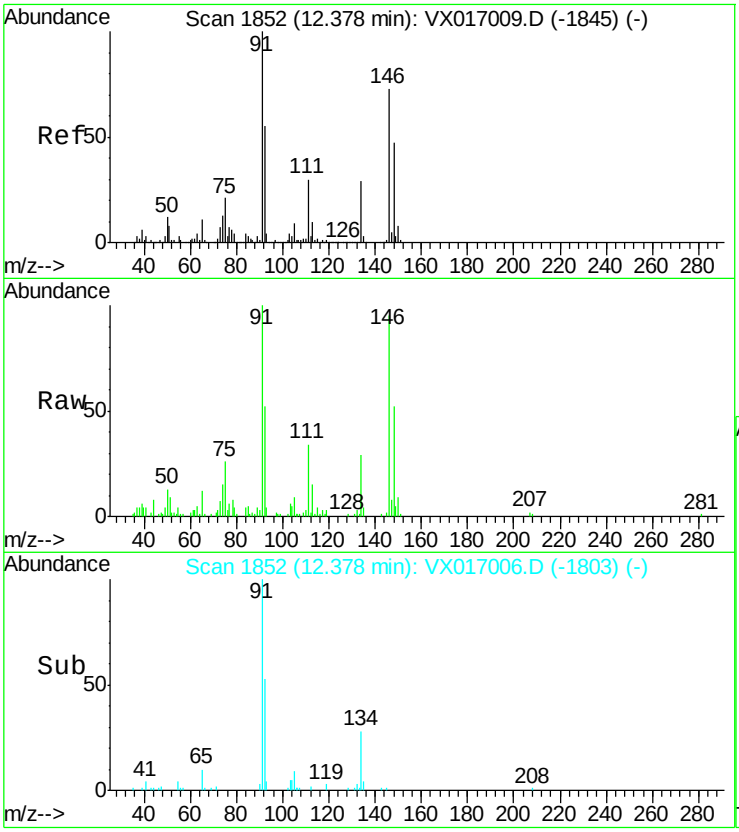


#90
Hexachloroethane
Concen: 1.035 ug/l
RT: 12.58 min Scan# 1885
Delta R.T. -0.00 min
Lab File: VX017006.D
Acq: 29 Jun 2020 14:13

Tgt Ion:117 Resp: 3156

Ion	Ratio	Lower	Upper
117	100		
201	77.3	39.4	118.2

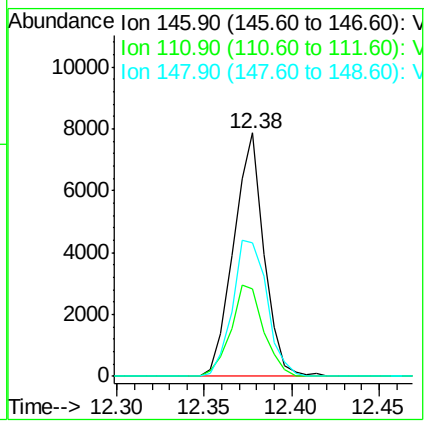




#91
1,2-Dichlorobenzene
Concen: 1.172 ug/l
RT: 12.38 min Scan# 1852
Delta R.T. -0.00 min
Lab File: VX017006.D
Acq: 29 Jun 2020 14:13

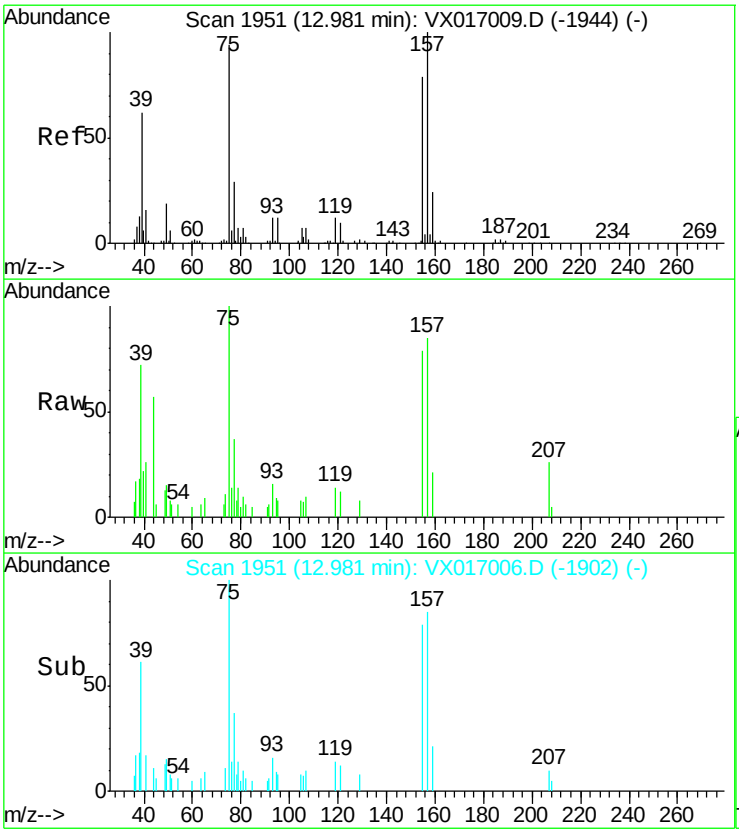
Tgt Ion:146 Resp: 9485

Ion	Ratio	Lower	Upper
146	100		
111	40.5	20.6	61.9
148	63.8	32.4	97.2



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC001

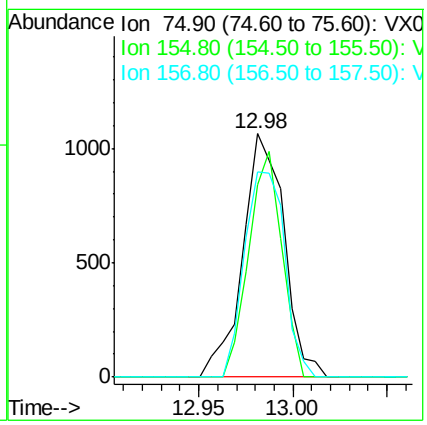
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:12:40 AM

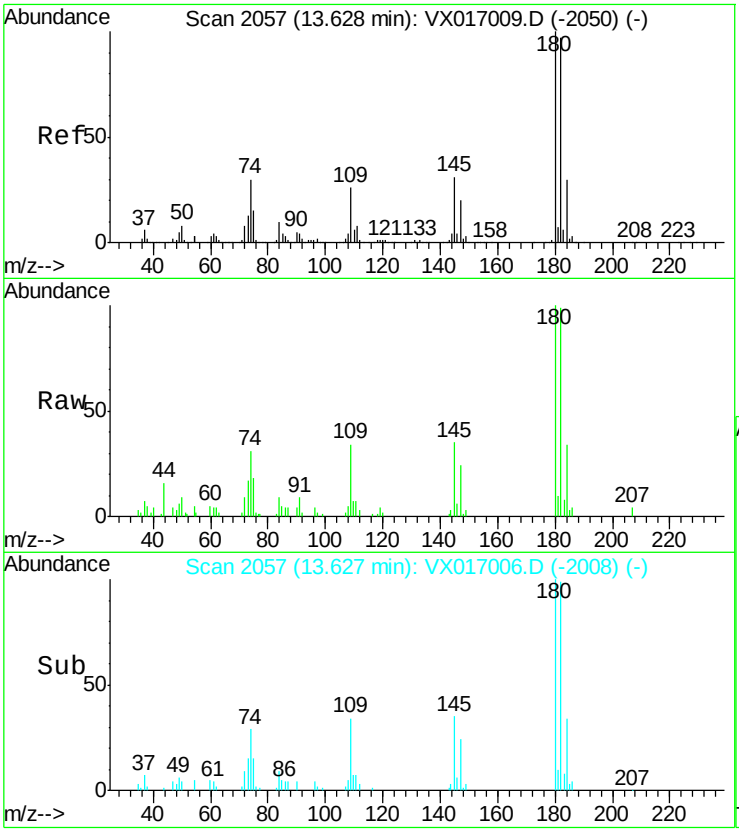


#92
1,2-Dibromo-3-Chloropropane
Concen: 1.243 ug/l
RT: 12.98 min Scan# 1951
Delta R.T. -0.00 min
Lab File: VX017006.D
Acq: 29 Jun 2020 14:13

Tgt Ion: 75 Resp: 1618

Ion	Ratio	Lower	Upper
75	100		
155	74.2	45.1	135.2
157	82.0	56.5	169.3

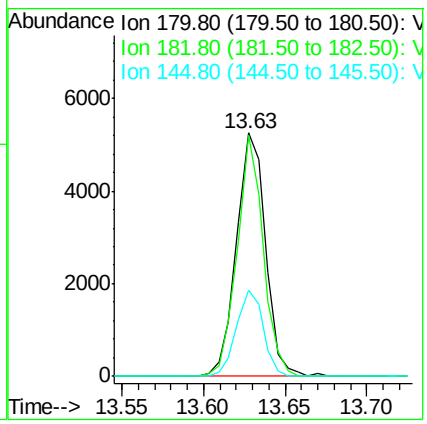


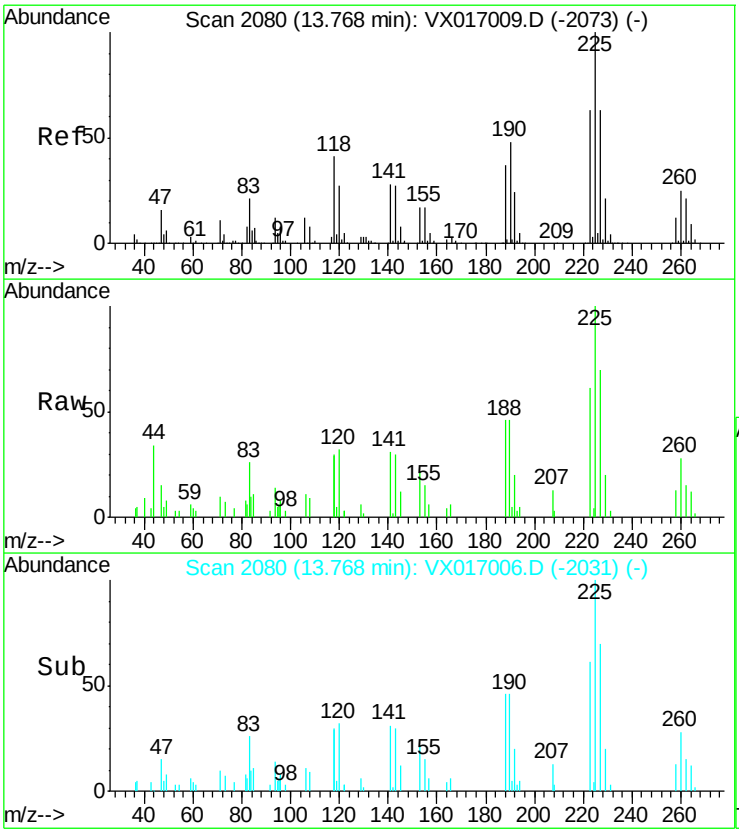


#93
1,2,4-Trichlorobenzene
Concen: 1.178 ug/l
RT: 13.63 min Scan# 2057
Delta R.T. -0.00 min
Lab File: VX017006.D
Acq: 29 Jun 2020 14:13

Tgt Ion:180 Resp: 6510

Ion	Ratio	Lower	Upper
180	100		
182	88.6	47.3	141.9
145	32.6	15.4	46.2

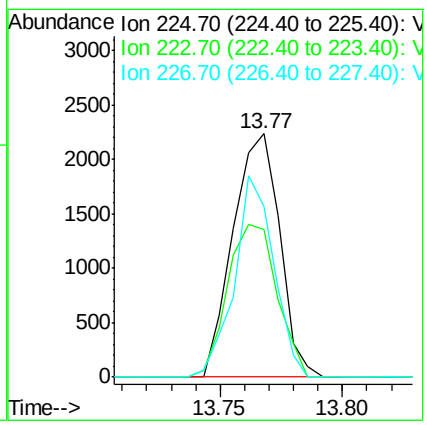




#94
Hexachlorobutadiene
Concen: 1.331 ug/l
RT: 13.77 min Scan# 2080
Delta R.T. 0.00 min
Lab File: VX017006.D
Acq: 29 Jun 2020 14:13

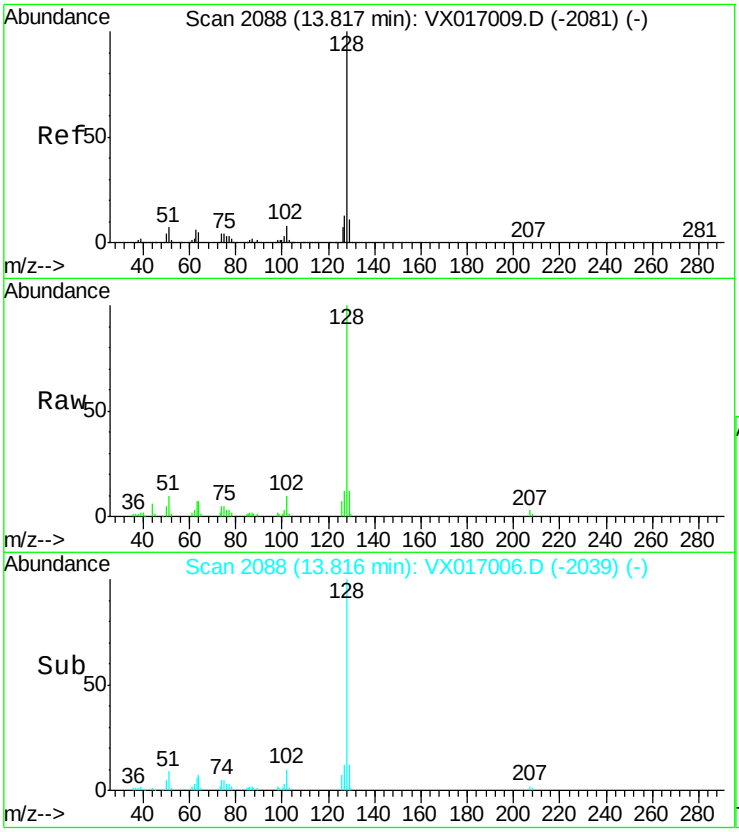
Tgt Ion:225 Resp: 2975

Ion	Ratio	Lower	Upper
225	100		
223	66.7	32.5	97.5
227	69.1	33.1	99.2



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC001

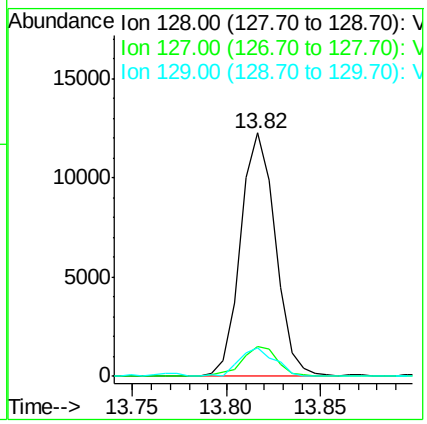
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:12:40 AM



#95
Naphthalene
Concen: 0.937 ug/l
RT: 13.82 min Scan# 2088
Delta R.T. -0.00 min
Lab File: VX017006.D
Acq: 29 Jun 2020 14:13

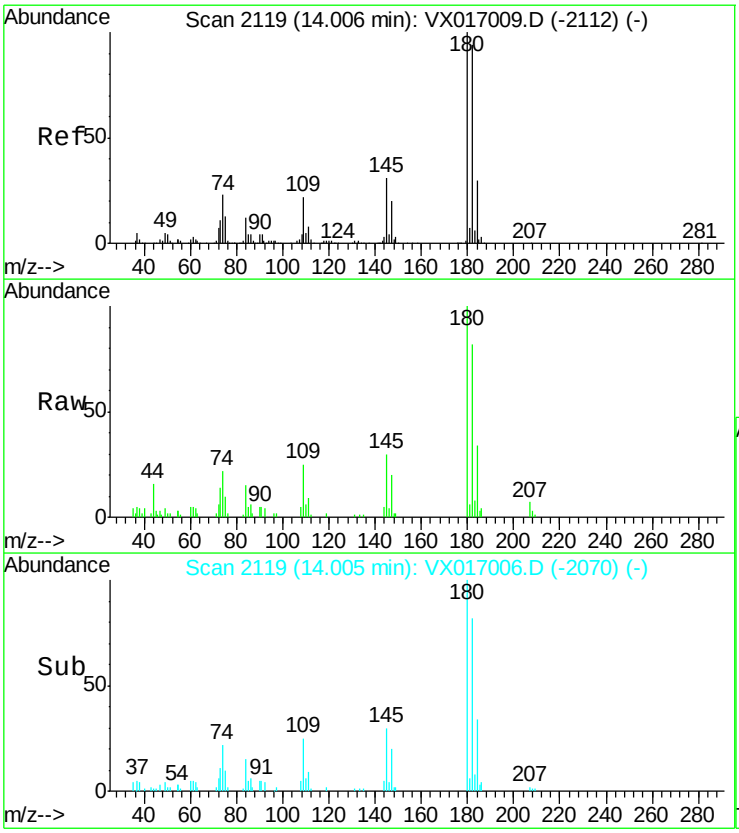
Tgt Ion:128 Resp: 15734

Ion	Ratio	Lower	Upper
128	100		
127	12.5	10.2	15.4
129	11.8	8.7	13.1



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC001

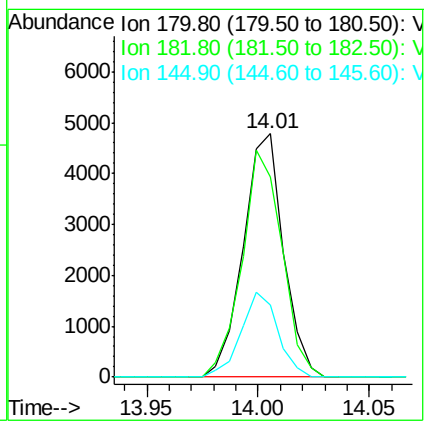
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:12:40 AM



#96
1,2,3-Trichlorobenzene
Concen: 1.129 ug/l
RT: 14.01 min Scan# 2119
Delta R.T. -0.00 min
Lab File: VX017006.D
Acq: 29 Jun 2020 14:13

Tgt Ion:180 Resp: 6037

Ion	Ratio	Lower	Upper
180	100		
182	92.7	47.1	141.4
145	32.2	16.6	49.7



Quantitation Report (QT Reviewed)

ICAL Form

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX062920\
Data File : VX017007.D
Acq On : 29 Jun 2020 14:35
Operator : JC/SP
Sample : VSTDICC005
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 5 Sample Multiplier: 1

Instrument : MSVOA_X
ClientSampleId : VSTDICC005

Manual Integrations APPROVED
MMDadoda
6/30/2020 10:12:44 AM

Quant Time: Jun 29 17:07:36 2020
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X062920W.M
Quant Title : SW846 8260
QLast Update : Mon Jun 29 16:54:07 2020
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	5.63	168	290713	50.00	ug/l	0.00
34) 1,4-Difluorobenzene	6.83	114	467593	50.00	ug/l	0.00
63) Chlorobenzene-d5	10.10	117	441650	50.00	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	12.06	152	221915	50.00	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	6.03	65	20382	5.69	ug/l	0.00
Spiked Amount 50.000			Recovery = 11.38%			
35) Dibromofluoromethane	5.47	113	16164	5.46	ug/l	0.00
Spiked Amount 50.000			Recovery = 10.92%			
50) Toluene-d8	8.70	98	57979	5.30	ug/l	0.00
Spiked Amount 50.000			Recovery = 10.60%			
62) 4-Bromofluorobenzene	11.12	95	21660	5.07	ug/l	0.00
Spiked Amount 50.000			Recovery = 10.14%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.18	85	12757	4.536	ug/l	95
3) Chloromethane	1.31	50	16515	4.851	ug/l	98
4) Vinyl Chloride	1.39	62	15063	4.769	ug/l	98
5) Bromomethane	1.62	94	9130	5.471	ug/l	93
6) Chloroethane	1.71	64	9071	4.863	ug/l	94
7) Trichlorofluoromethane	1.92	101	23461	5.022	ug/l	100
8) Diethyl Ether	2.17	74	8400	4.926	ug/l	93
9) 1,1,2-Trichlorotrifluoroet	2.37	101	14334	5.120	ug/l	95
10) Methyl Iodide	2.49	142	15765	4.364	ug/l	99
11) Tert butyl alcohol	3.01	59	17445	25.515	ug/l	98
12) 1,1-Dichloroethene	2.35	96	14455	5.026	ug/l	95
13) Acrolein	2.27	56	10708	26.200	ug/l	95
14) Allyl chloride	2.71	41	26065	4.904	ug/l	99
15) Acrylonitrile	3.12	53	41839	25.456	ug/l	99
16) Acetone	2.42	43	33653	25.101	ug/l	95
17) Carbon Disulfide	2.55	76	43570	4.946	ug/l	99
18) Methyl Acetate	2.75	43	18899	5.400	ug/l	96
19) Methyl tert-butyl Ether	3.17	73	47818	4.954	ug/l	97
20) Methylene Chloride	2.84	84	17833	5.204	ug/l	95
21) trans-1,2-Dichloroethene	3.14	96	16148	5.059	ug/l	100
22) Diisopropyl ether	3.83	45	49167	4.998	ug/l	93
23) Vinyl Acetate	3.79	43	205850	24.350	ug/l	100
24) 1,1-Dichloroethane	3.67	63	28565	5.103	ug/l	97
25) 2-Butanone	4.64	43	55389	24.794	ug/l	98
26) 2,2-Dichloropropane	4.55	77	25438	5.118	ug/l	100
27) cis-1,2-Dichloroethene	4.56	96	18376	5.081	ug/l	99
28) Bromochloromethane	4.98	49	13972	5.129	ug/l	97
29) Tetrahydrofuran	5.09	42	36817	24.943	ug/l	98
30) Chloroform	5.18	83	29251	5.098	ug/l	97
31) Cyclohexane	5.54	56	24573	5.079	ug/l	98
32) 1,1,1-Trichloroethane	5.46	97	26061	4.931	ug/l	98
36) 1,1-Dichloropropene	5.77	75	21105	4.776	ug/l	97
37) Ethyl Acetate	4.80	43	22559	5.031	ug/l	97
38) Carbon Tetrachloride	5.75	117	24334	4.999	ug/l	92

ICAL Form

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX062920\
Data File : VX017007.D
Acq On : 29 Jun 2020 14:35
Operator : JC/SP
Sample : VSTDICC005
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 5 Sample Multiplier: 1

Instrument : MSVOA_X
ClientSampleId : VSTDICC005

Manual Integrations APPROVED
MMDadoda
6/30/2020 10:12:44 AM

Quant Time: Jun 29 17:07:36 2020
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X062920W.M
Quant Title : SW846 8260
QLast Update : Mon Jun 29 16:54:07 2020
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
39) Methylcyclohexane	7.45	83	23052	4.688	ug/l		97
40) Benzene	6.11	78	64310	4.953	ug/l		99
41) Methacrylonitrile	5.01	41	11790	4.672	ug/l		98
42) 1,2-Dichloroethane	6.16	62	23459	5.002	ug/l		98
43) Isopropyl Acetate	6.42	43	34752	4.664	ug/l		97
44) Trichloroethene	7.18	130	19447	4.972	ug/l		98
45) 1,2-Dichloropropane	7.49	63	16777	5.031	ug/l		94
46) Dibromomethane	7.64	93	11305	4.965	ug/l		97
47) Bromodichloromethane	7.88	83	22730	4.844	ug/l		91
48) Methyl methacrylate	7.74	41	16835	4.756	ug/l		99
49) 1,4-Dioxane	7.71	88	7784	97.063	ug/l		93
51) 4-Methyl-2-Pentanone	8.62	43	107508	24.205	ug/l		99
52) Toluene	8.77	92	39228	4.839	ug/l		100
53) t-1,3-Dichloropropene	9.02	75	24321	4.698	ug/l		94
54) cis-1,3-Dichloropropene	8.41	75	27082	4.880	ug/l		96
55) 1,1,2-Trichloroethane	9.20	97	16682	5.036	ug/l		95
56) Ethyl methacrylate	9.16	69	20742	4.400	ug/l		96
57) 1,3-Dichloropropane	9.35	76	27782	4.957	ug/l		97
58) 2-Chloroethyl Vinyl ether	8.29	63	56498	24.079	ug/l		99
59) 2-Hexanone	9.47	43	78308	24.141	ug/l		96
60) Dibromochloromethane	9.57	129	18326	4.764	ug/l		99
61) 1,2-Dibromoethane	9.65	107	17491	4.913	ug/l		96
64) Tetrachloroethene	9.32	164	18832	5.283	ug/l		96
65) Chlorobenzene	10.12	112	45383	4.979	ug/l		99
66) 1,1,1,2-Tetrachloroethane	10.21	131	17103	4.869	ug/l		99
67) Ethyl Benzene	10.23	91	72409	4.757	ug/l		97
68) m/p-Xylenes	10.34	106	54898	9.392	ug/l		99
69) o-Xylene	10.68	106	25857	4.650	ug/l		99
70) Styrene	10.69	104	43168	4.559	ug/l		99
71) Bromoform	10.84	173	13485	4.841	ug/l	#	98
73) Isopropylbenzene	11.00	105	70703	4.864	ug/l		100
74) N-amyl acetate	10.88	43	27768	4.477	ug/l		97
75) 1,1,2,2-Tetrachloroethane	11.25	83	23088	5.050	ug/l		99
76) 1,2,3-Trichloropropane	11.28	75	21769m	3.983	ug/l		
77) Bromobenzene	11.24	156	19700	4.931	ug/l		99
78) n-propylbenzene	11.34	91	77459	4.712	ug/l		99
79) 2-Chlorotoluene	11.40	91	48176	4.843	ug/l		99
80) 1,3,5-Trimethylbenzene	11.49	105	56128	4.655	ug/l		99
81) trans-1,4-Dichloro-2-buten	11.05	75	8317	4.936	ug/l		96
82) 4-Chlorotoluene	11.49	91	58048	4.881	ug/l		100
83) tert-Butylbenzene	11.76	119	55951	4.727	ug/l		98
84) 1,2,4-Trimethylbenzene	11.79	105	57457	4.697	ug/l		99
85) sec-Butylbenzene	11.93	105	65741	4.725	ug/l		98
86) p-Isopropyltoluene	12.05	119	60544	4.675	ug/l		98
87) 1,3-Dichlorobenzene	12.01	146	36137	4.981	ug/l		96
88) 1,4-Dichlorobenzene	12.08	146	36801	5.043	ug/l		95
89) n-Butylbenzene	12.37	91	51363	4.441	ug/l		99
90) Hexachloroethane	12.58	117	12827	5.022	ug/l		97
91) 1,2-Dichlorobenzene	12.38	146	33306	4.911	ug/l		100
92) 1,2-Dibromo-3-Chloropropan	12.99	75	5032	4.613	ug/l		98

Quantitation Report (QT Reviewed)

ICAL Form

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX062920\
Data File : VX017007.D
Acq On : 29 Jun 2020 14:35
Operator : JC/SP
Sample : VSTDICC005
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 5 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
VSTDICC005

Manual Integrations APPROVED
MMDadoda
6/30/2020 10:12:44 AM

Quant Time: Jun 29 17:07:36 2020
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X062920W.M
Quant Title : SW846 8260
QLast Update : Mon Jun 29 16:54:07 2020
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
93) 1,2,4-Trichlorobenzene	13.63	180	21079	4.554	ug/l	99
94) Hexachlorobutadiene	13.77	225	8826	4.714	ug/l	95
95) Naphthalene	13.82	128	61984	4.404	ug/l	99
96) 1,2,3-Trichlorobenzene	14.00	180	20366	4.546	ug/l	96

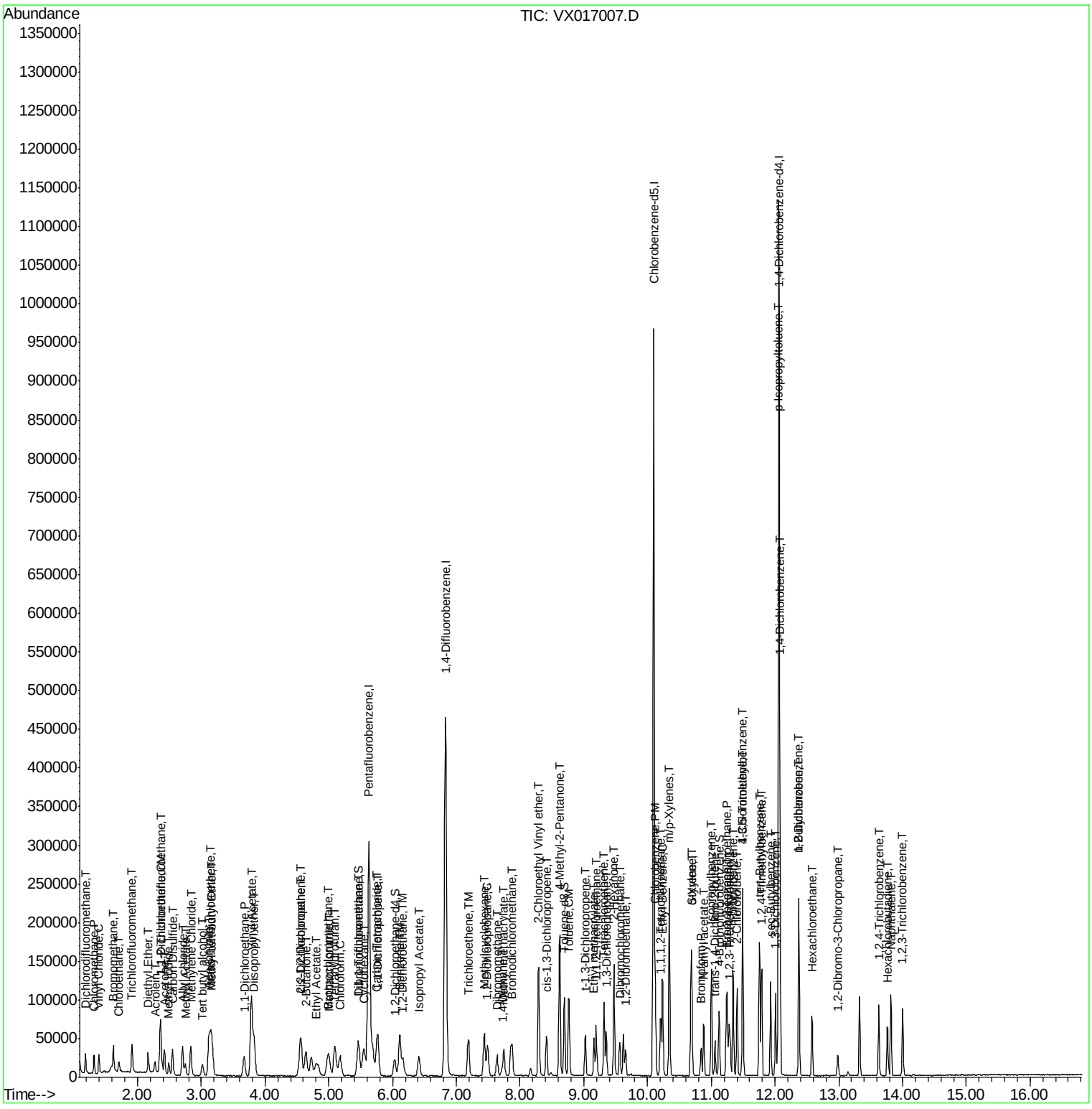
(#) = qualifier out of range (m) = manual integration (+) = signals summed

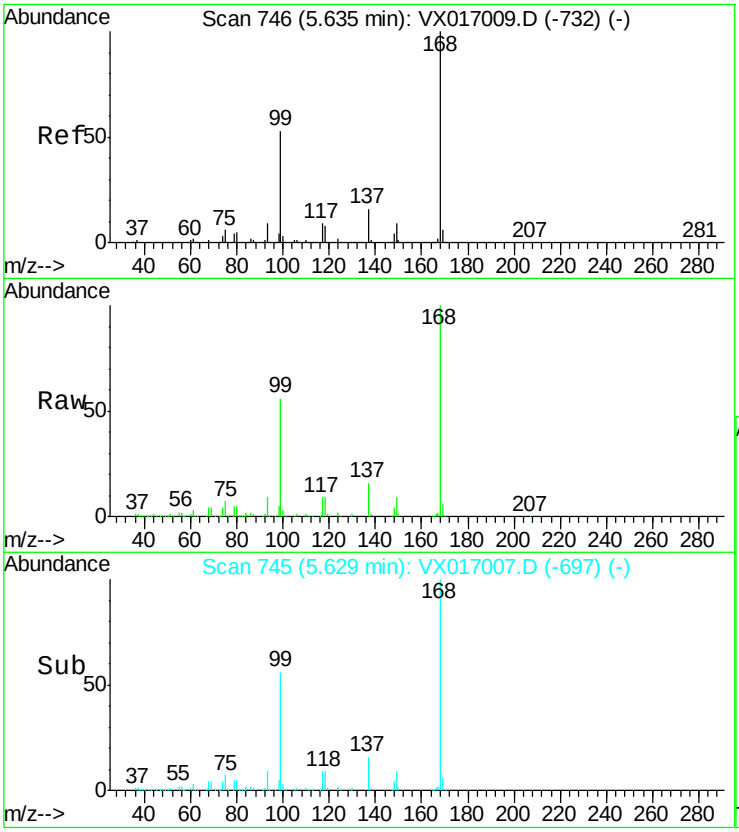
Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX062920\
Data File : VX017007.D
Acq On : 29 Jun 2020 14:35
Operator : JC/SP
Sample : VSTDICC005
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jun 29 17:07:36 2020
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X062920W.M
Quant Title : SW846 8260
QLast Update : Mon Jun 29 16:54:07 2020
Response via : Initial Calibration

Instrument :
MSVOA_X
ClientSampleId :
VSTDICC005

Manual Integrations APPROVED
MMDadoda
6/30/2020 10:12:44 AM

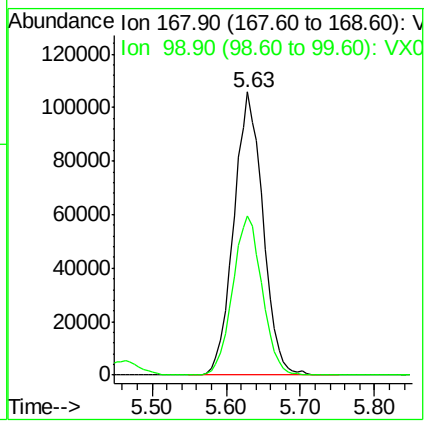




#1
Pentafluorobenzene
Concen: 50.000 ug/l
RT: 5.63 min Scan# 745
Delta R.T. -0.01 min
Lab File: VX017007.D
Acq: 29 Jun 2020 14:35

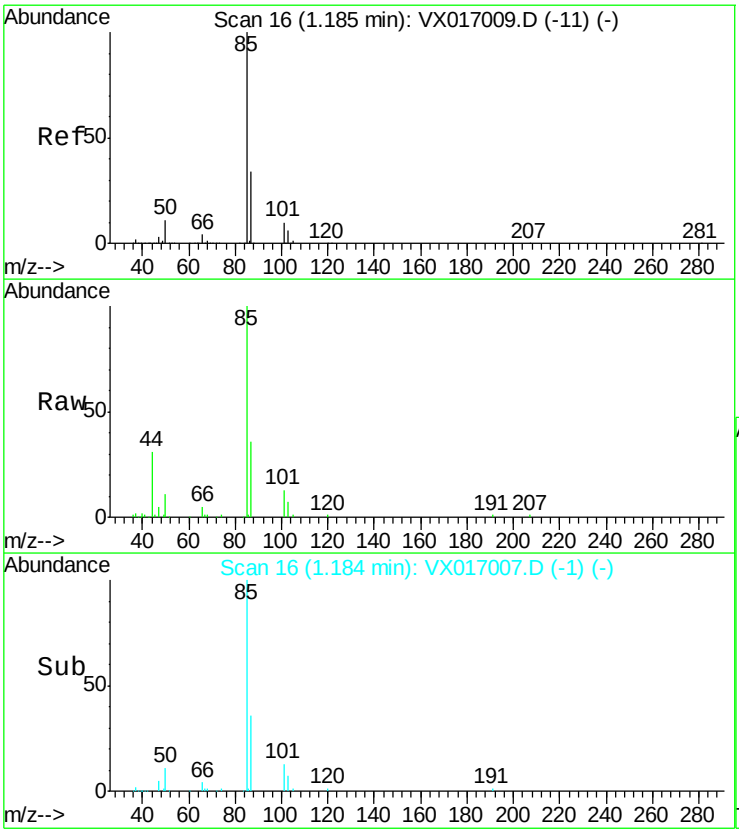
Tgt Ion:168 Resp: 290713

Ion	Ratio	Lower	Upper
168	100		
99	56.2	42.6	64.0



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC005

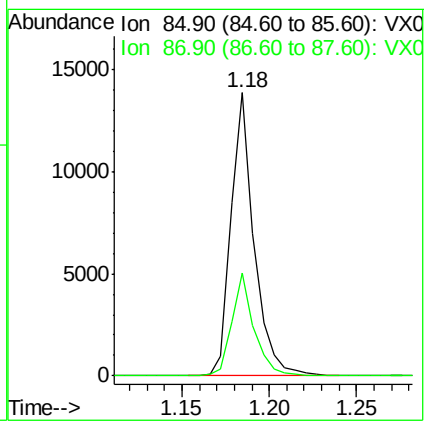
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:12:44 AM



#2
Dichlorodifluoromethane
Concen: 4.536 ug/l
RT: 1.18 min Scan# 16
Delta R.T. -0.00 min
Lab File: VX017007.D
Acq: 29 Jun 2020 14:35

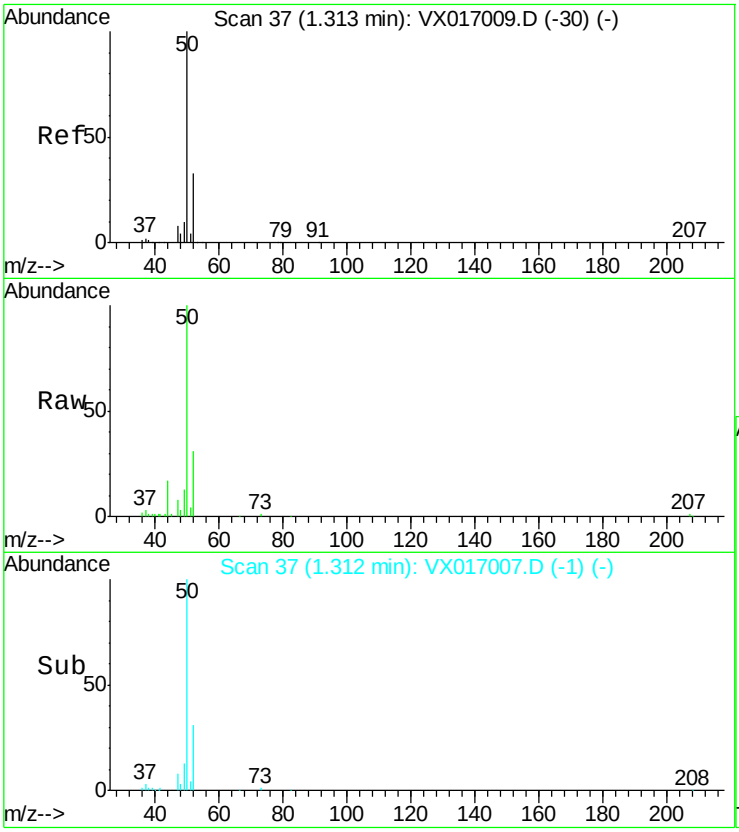
Tgt Ion: 85 Resp: 12757

Ion	Ratio	Lower	Upper
85	100		
87	36.2	16.8	50.4



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC005

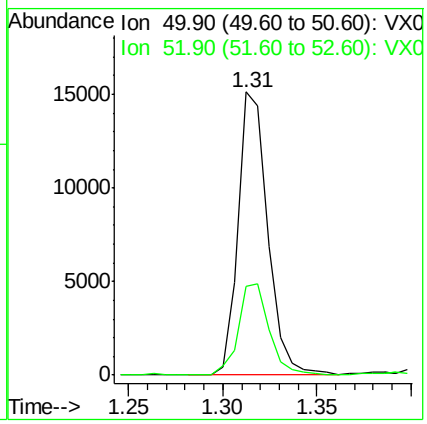
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:12:44 AM

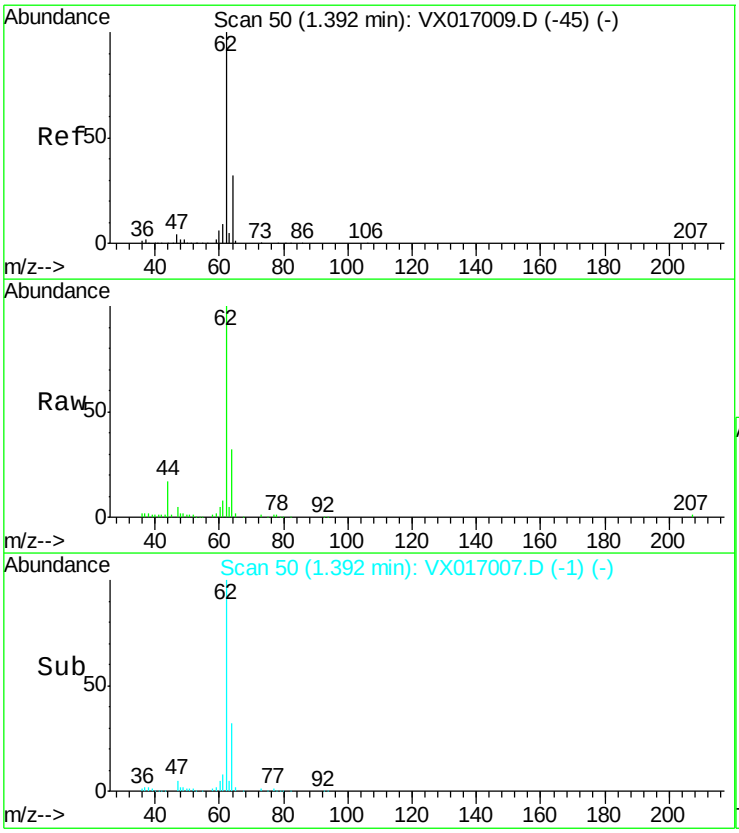


#3
Chloromethane
Concen: 4.851 ug/l
RT: 1.31 min Scan# 37
Delta R.T. -0.00 min
Lab File: VX017007.D
Acq: 29 Jun 2020 14:35

Tgt Ion: 50 Resp: 16515

Ion	Ratio	Lower	Upper
50	100		
52	31.3	26.1	39.1

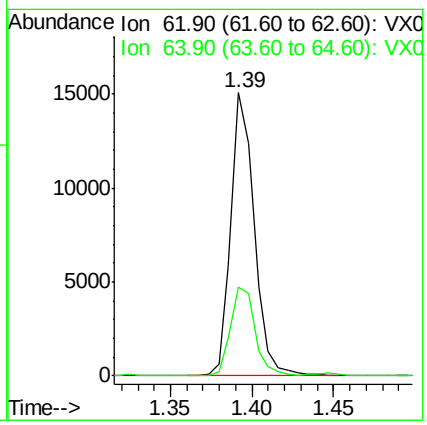


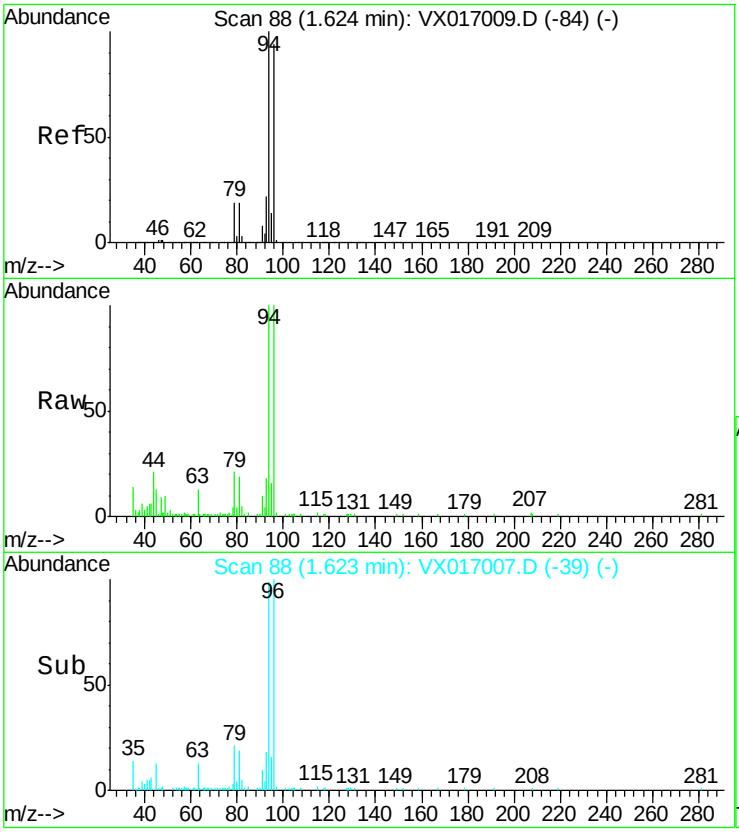


#4
Vinyl Chloride
Concen: 4.769 ug/l
RT: 1.39 min Scan# 50
Delta R.T. -0.00 min
Lab File: VX017007.D
Acq: 29 Jun 2020 14:35

Tgt Ion: 62 Resp: 15063

Ion	Ratio	Lower	Upper
62	100		
64	31.5	25.9	38.9

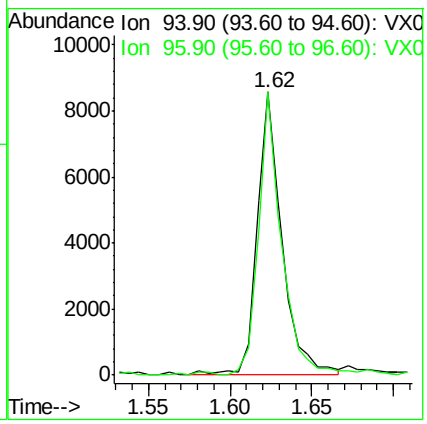




#5
Bromomethane
Concen: 5.471 ug/l
RT: 1.62 min Scan# 88
Delta R.T. 0.00 min
Lab File: VX017007.D
Acq: 29 Jun 2020 14:35

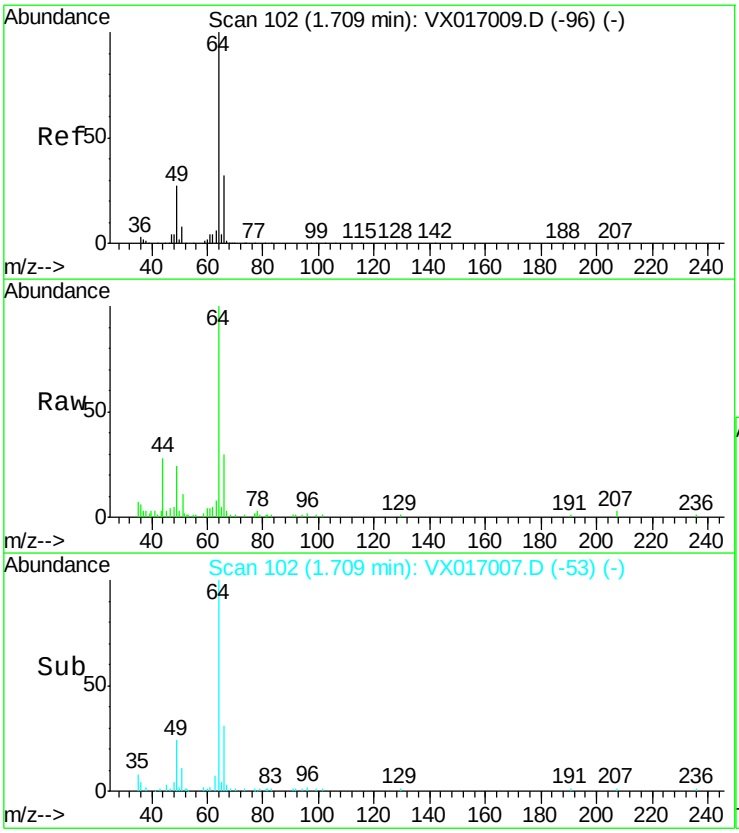
Tgt Ion: 94 Resp: 9130

Ion	Ratio	Lower	Upper
94	100		
96	100.0	75.0	112.4



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC005

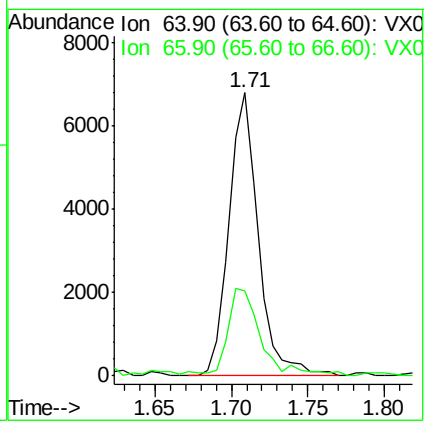
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:12:44 AM



#6
Chloroethane
Concen: 4.863 ug/l
RT: 1.71 min Scan# 102
Delta R.T. -0.00 min
Lab File: VX017007.D
Acq: 29 Jun 2020 14:35

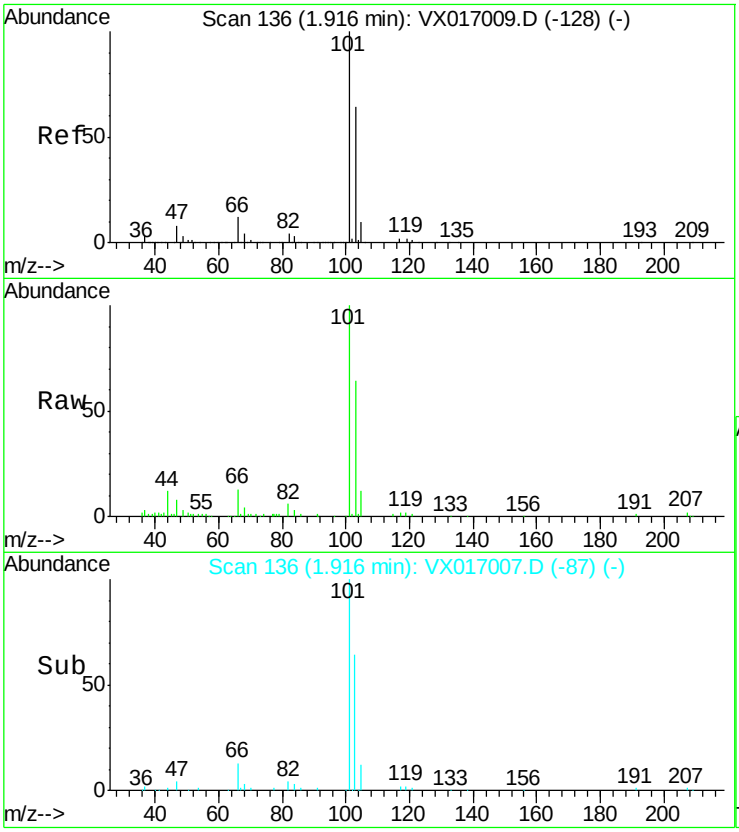
Tgt Ion: 64 Resp: 9071

Ion	Ratio	Lower	Upper
64	100		
66	28.6	25.5	38.3



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC005

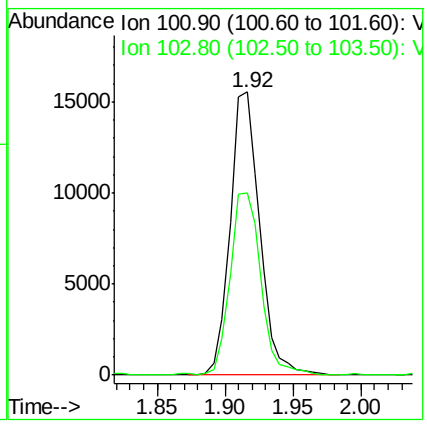
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:12:44 AM

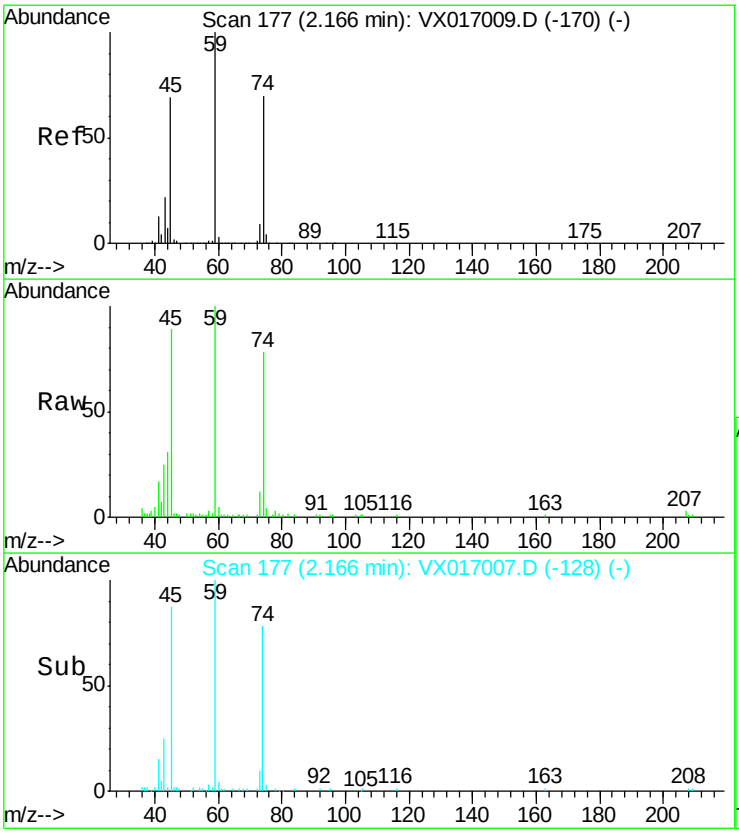


#7
Trichlorofluoromethane
Concen: 5.022 ug/l
RT: 1.92 min Scan# 136
Delta R.T. -0.00 min
Lab File: VX017007.D
Acq: 29 Jun 2020 14:35

Tgt Ion:101 Resp: 23461

Ion	Ratio	Lower	Upper
101	100		
103	64.3	51.5	77.3

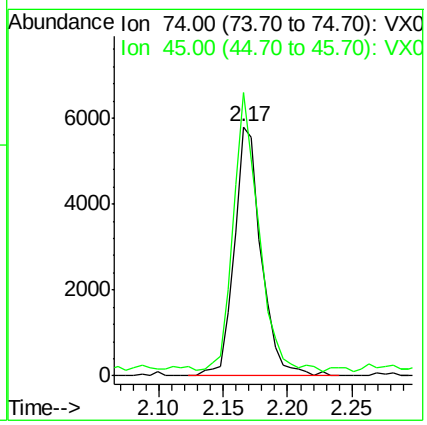


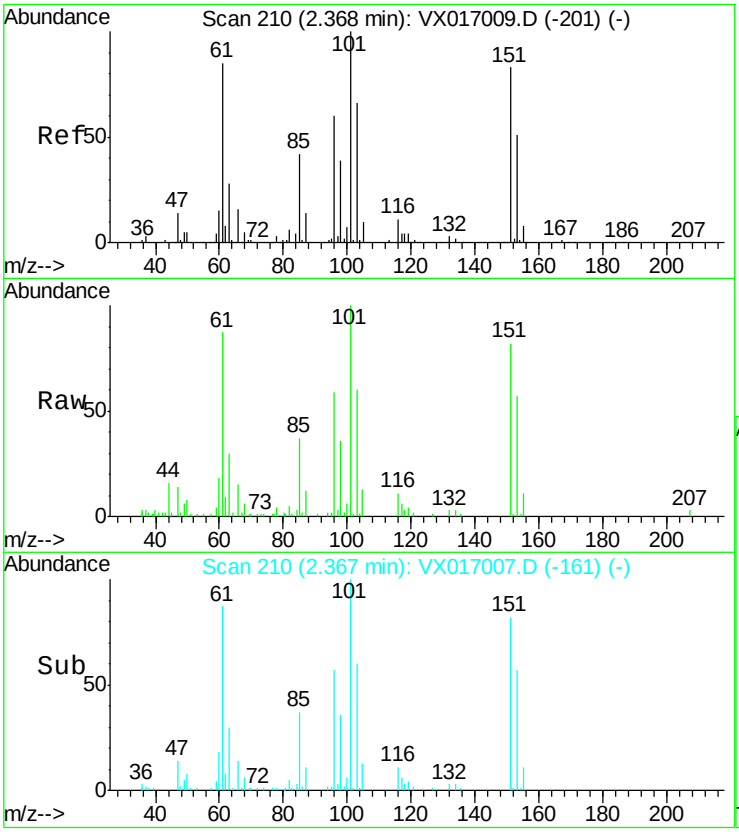


#8
Diethyl Ether
Concen: 4.926 ug/l
RT: 2.17 min Scan# 177
Delta R.T. -0.00 min
Lab File: VX017007.D
Acq: 29 Jun 2020 14:35

Tgt Ion: 74 Resp: 8400

Ion	Ratio	Lower	Upper
74	100		
45	106.5	49.8	149.3

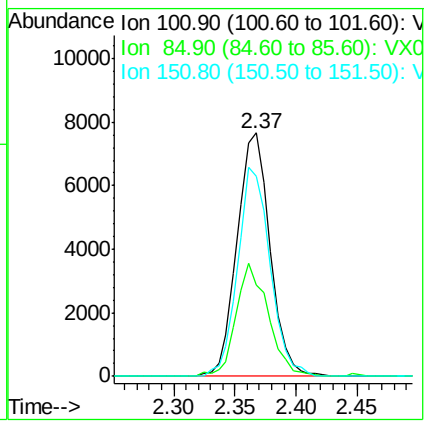




#9
1,1,2-Trichlorotrifluoroethane
Concen: 5.120 ug/l
RT: 2.37 min Scan# 210
Delta R.T. -0.00 min
Lab File: VX017007.D
Acq: 29 Jun 2020 14:35

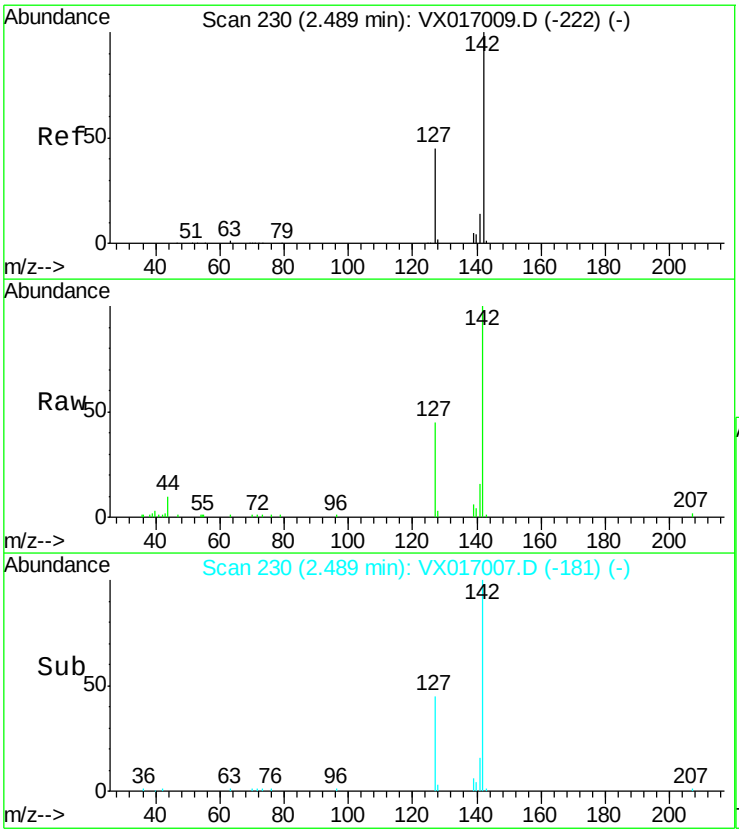
Tgt Ion:101 Resp: 14334

Ion	Ratio	Lower	Upper
101	100		
85	45.3	33.5	50.3
151	84.3	63.8	95.6



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC005

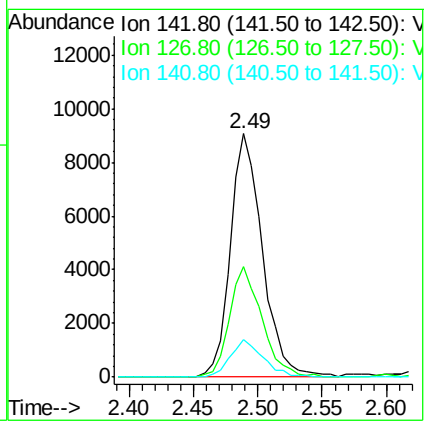
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:12:44 AM

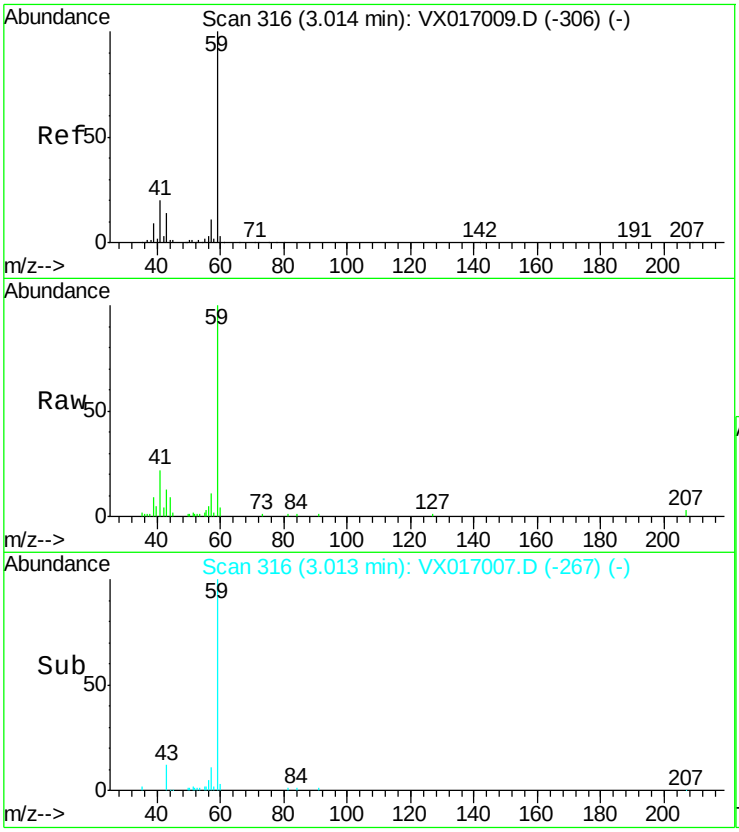


#10
Methyl Iodide
Concen: 4.364 ug/l
RT: 2.49 min Scan# 230
Delta R.T. -0.00 min
Lab File: VX017007.D
Acq: 29 Jun 2020 14:35

Tgt Ion:142 Resp: 15765

Ion	Ratio	Lower	Upper
142	100		
127	45.9	36.6	54.8
141	15.8	11.6	17.4

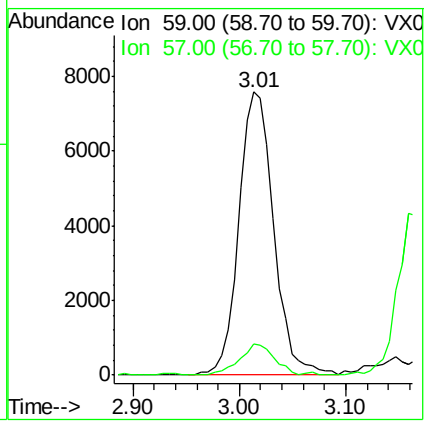




#11
Tert butyl alcohol
Concen: 25.515 ug/l
RT: 3.01 min Scan# 316
Delta R.T. -0.00 min
Lab File: VX017007.D
Acq: 29 Jun 2020 14:35

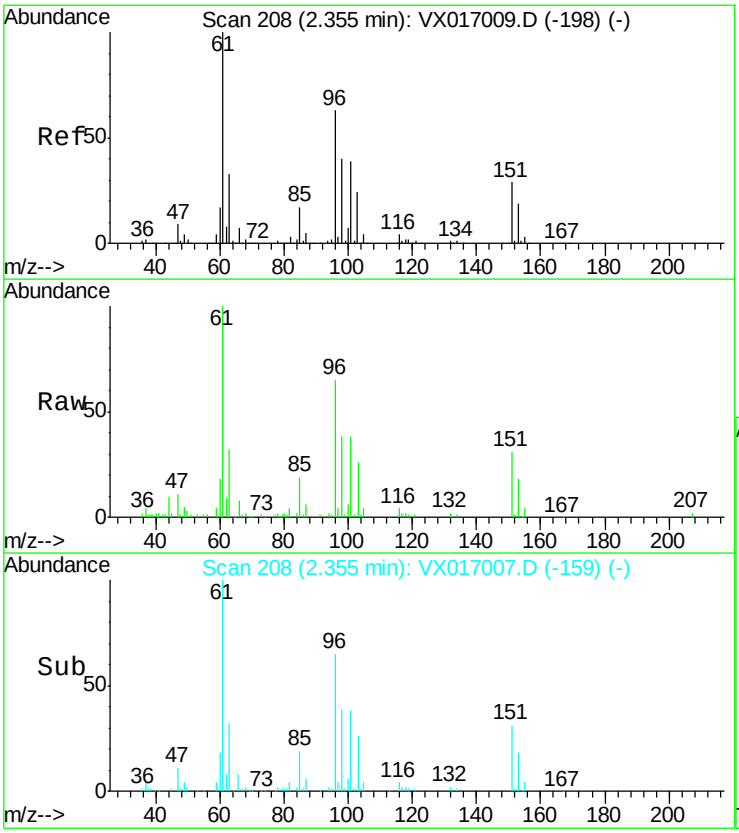
Tgt Ion: 59 Resp: 17445

Ion	Ratio	Lower	Upper
59	100		
57	10.9	8.2	12.2



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC005

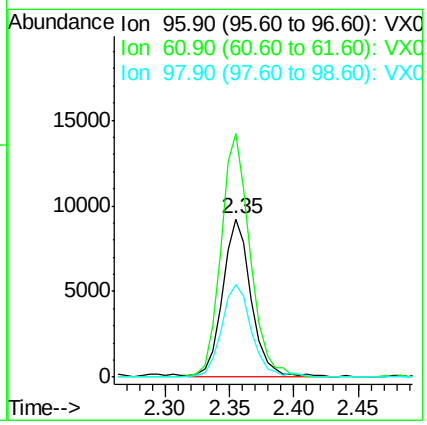
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:12:44 AM

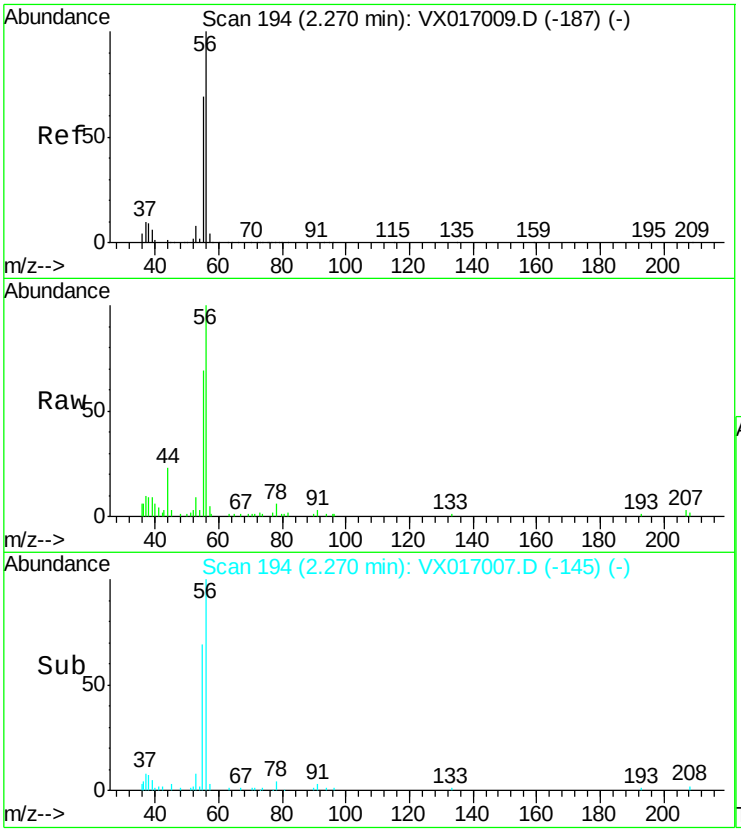


#12
1,1-Dichloroethene
Concen: 5.026 ug/l
RT: 2.35 min Scan# 208
Delta R.T. -0.00 min
Lab File: VX017007.D
Acq: 29 Jun 2020 14:35

Tgt Ion: 96 Resp: 14455

Ion	Ratio	Lower	Upper
96	100		
61	153.0	126.3	189.5
98	58.7	51.0	76.6

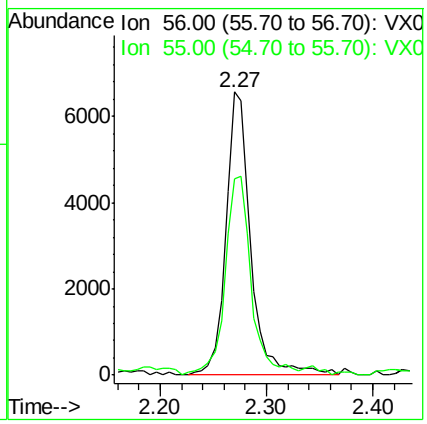




#13
Acrolein
Concen: 26.200 ug/l
RT: 2.27 min Scan# 194
Delta R.T. -0.00 min
Lab File: VX017007.D
Acq: 29 Jun 2020 14:35

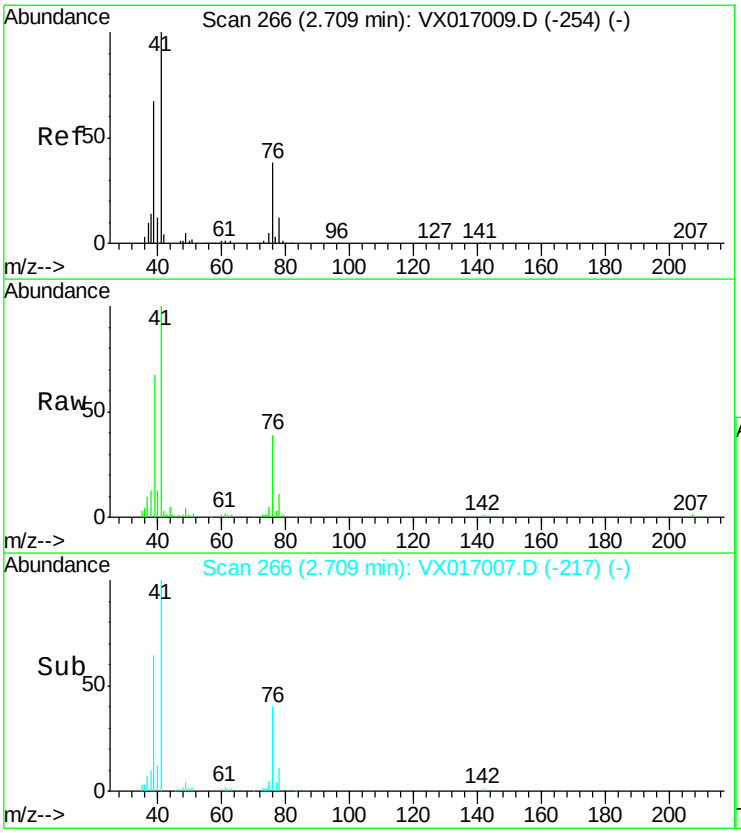
Tgt Ion: 56 Resp: 10708

Ion	Ratio	Lower	Upper
56	100		
55	74.0	55.7	83.5



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC005

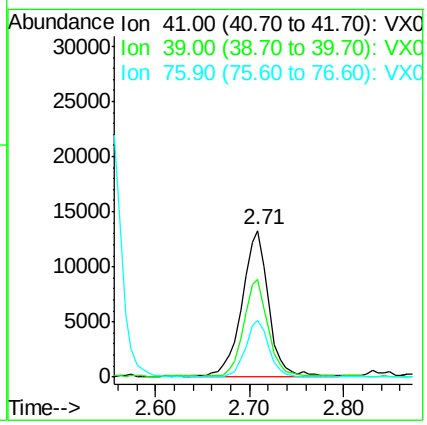
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:12:44 AM



#14
Allyl chloride
Concen: 4.904 ug/l
RT: 2.71 min Scan# 266
Delta R.T. -0.00 min
Lab File: VX017007.D
Acq: 29 Jun 2020 14:35

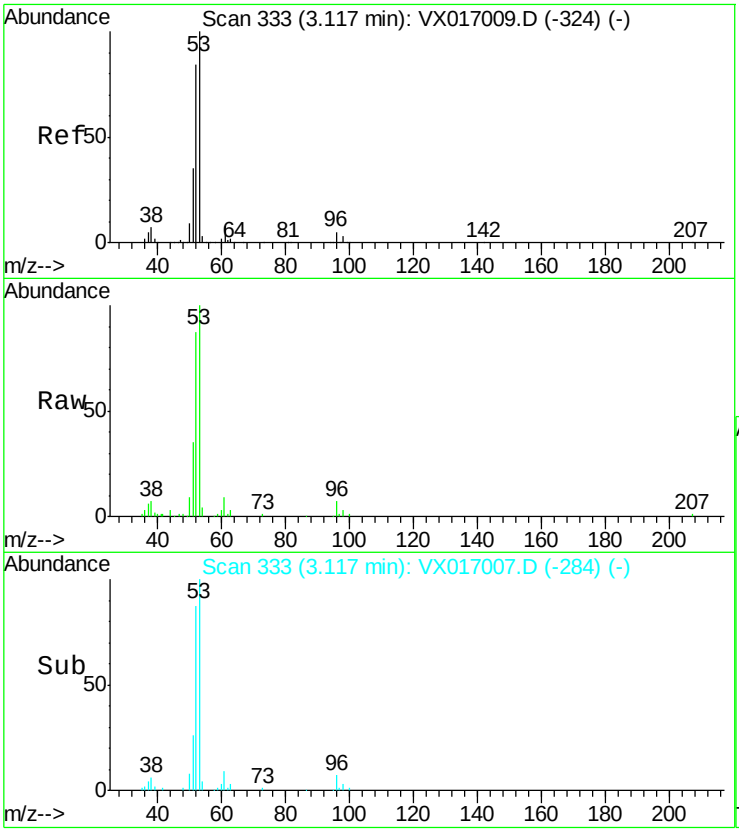
Tgt Ion: 41 Resp: 26065

Ion	Ratio	Lower	Upper
41	100		
39	61.3	49.4	74.2
76	34.2	26.8	40.2



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC005

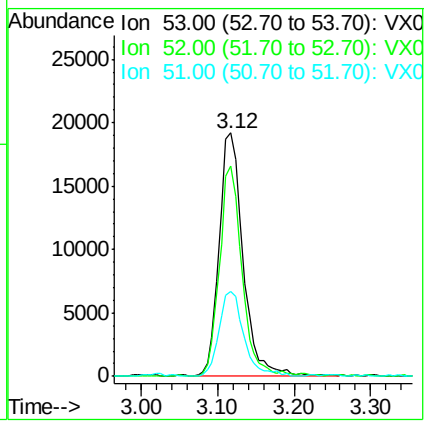
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:12:44 AM

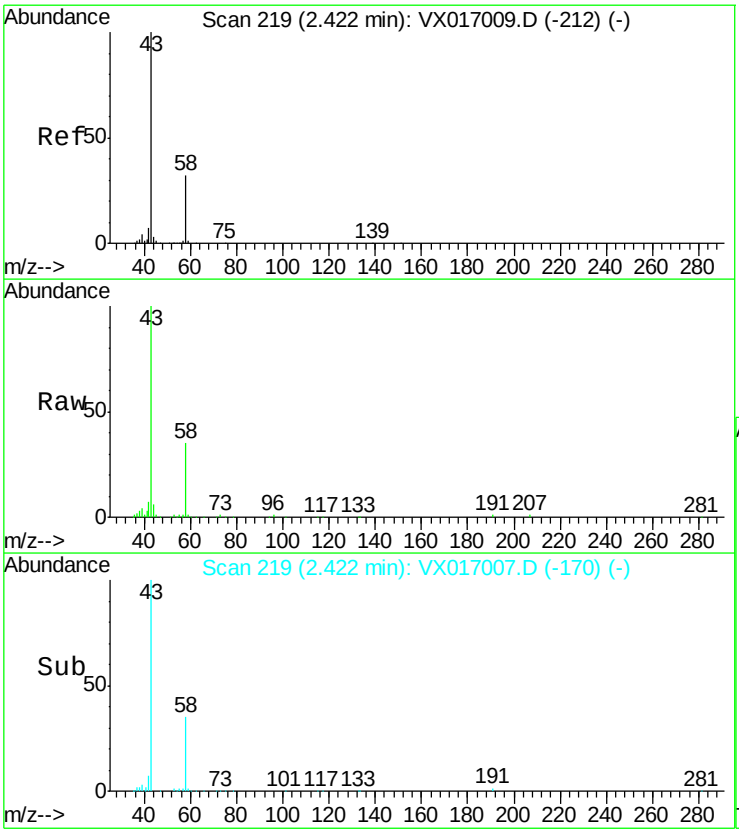


#15
Acrylonitrile
Concen: 25.456 ug/l
RT: 3.12 min Scan# 333
Delta R.T. -0.00 min
Lab File: VX017007.D
Acq: 29 Jun 2020 14:35

Tgt Ion: 53 Resp: 41839

Ion	Ratio	Lower	Upper
53	100		
52	81.1	65.6	98.4
51	36.2	28.3	42.5

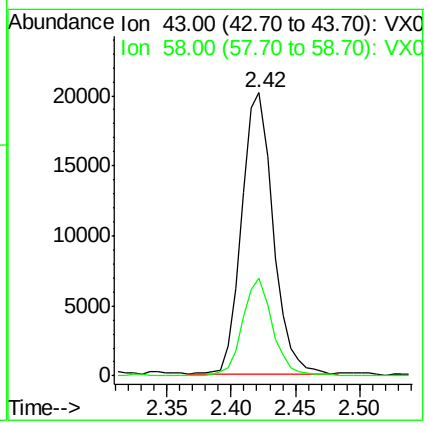


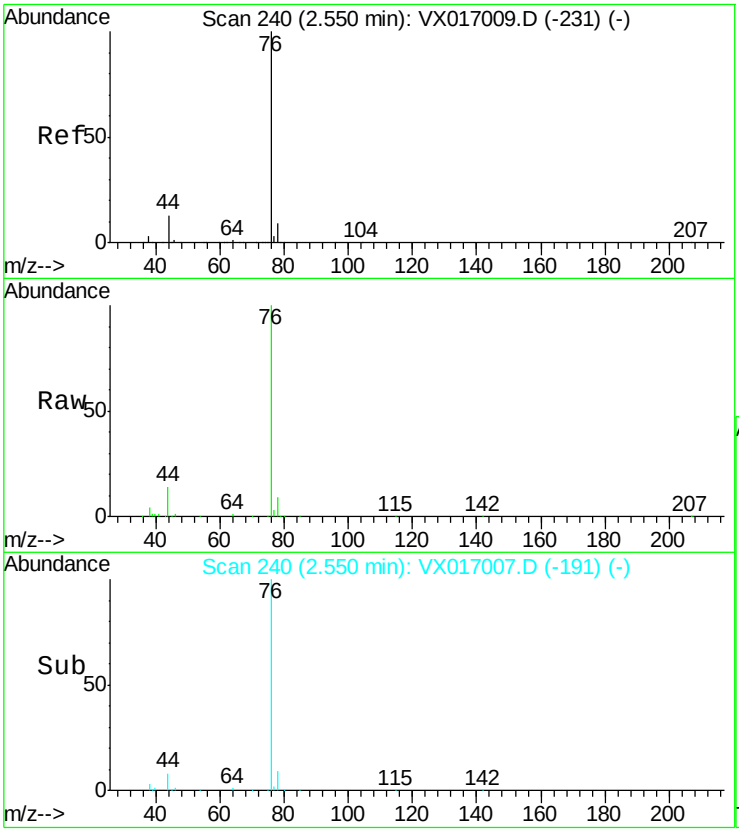


#16
Acetone
Concen: 25.101 ug/l
RT: 2.42 min Scan# 219
Delta R.T. -0.00 min
Lab File: VX017007.D
Acq: 29 Jun 2020 14:35

Tgt Ion: 43 Resp: 33653

Ion	Ratio	Lower	Upper
43	100		
58	34.9	25.7	38.5

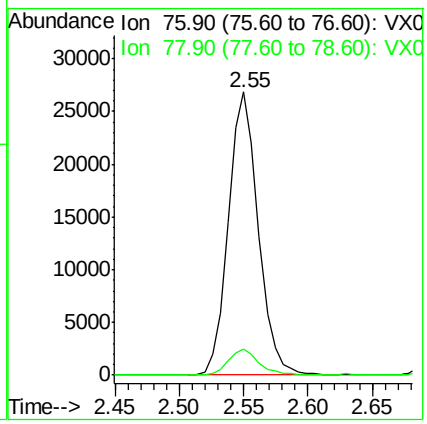




#17
Carbon Disulfide
Concen: 4.946 ug/l
RT: 2.55 min Scan# 240
Delta R.T. 0.00 min
Lab File: VX017007.D
Acq: 29 Jun 2020 14:35

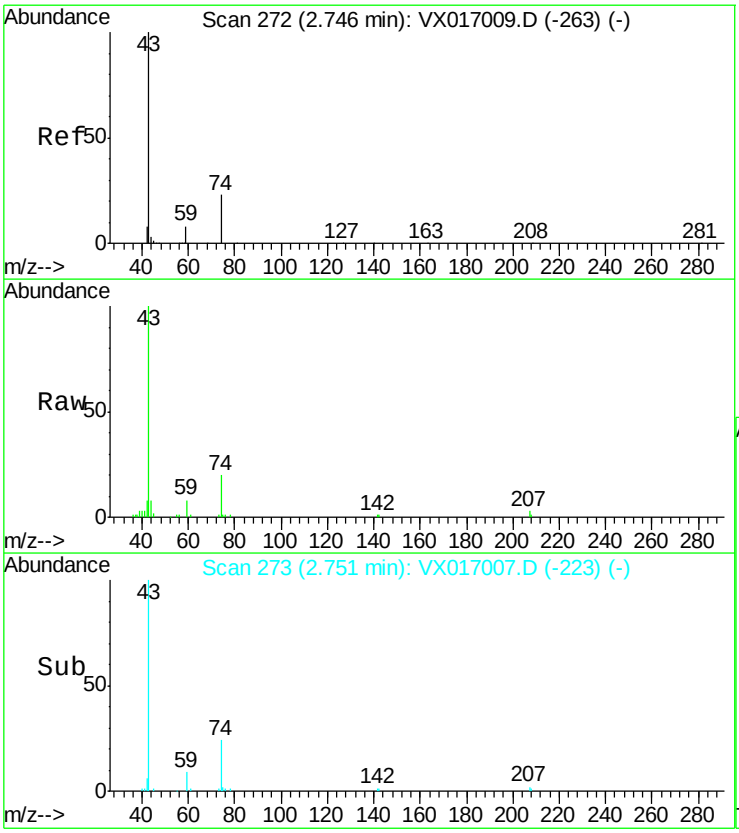
Tgt Ion: 76 Resp: 43570

Ion	Ratio	Lower	Upper
76	100		
78	9.3	7.2	10.8



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC005

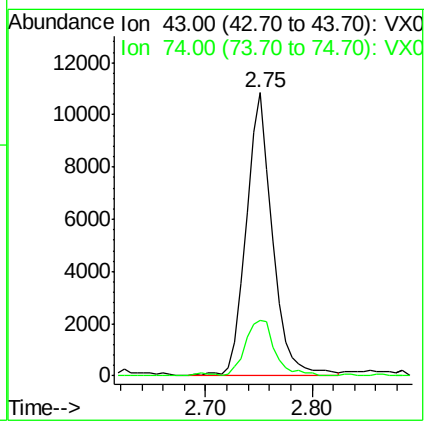
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:12:44 AM



#18
Methyl Acetate
Concen: 5.400 ug/l
RT: 2.75 min Scan# 273
Delta R.T. 0.01 min
Lab File: VX017007.D
Acq: 29 Jun 2020 14:35

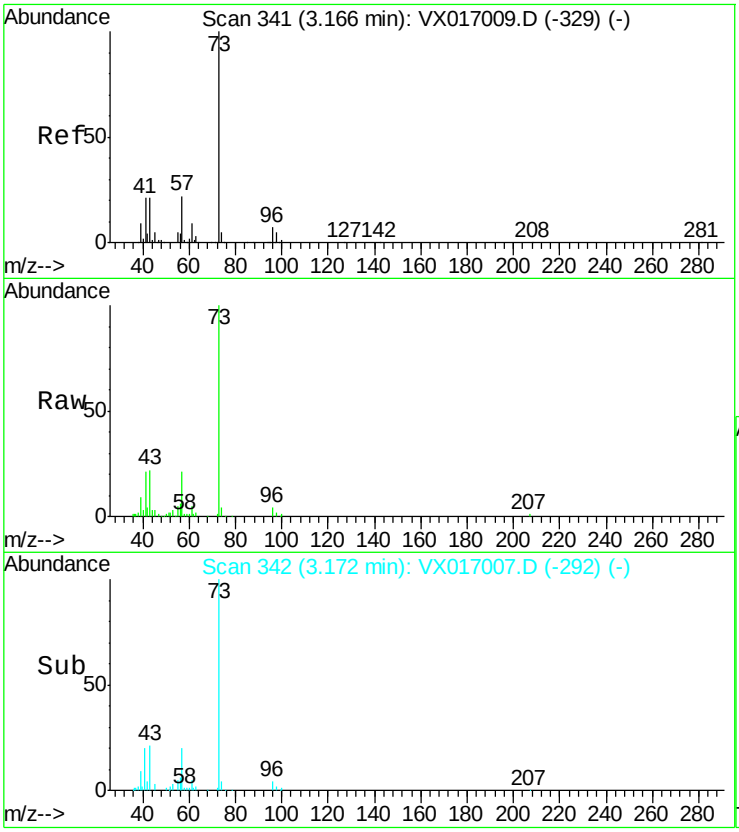
Tgt Ion: 43 Resp: 18899

Ion	Ratio	Lower	Upper
43	100		
74	22.1	19.3	28.9



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC005

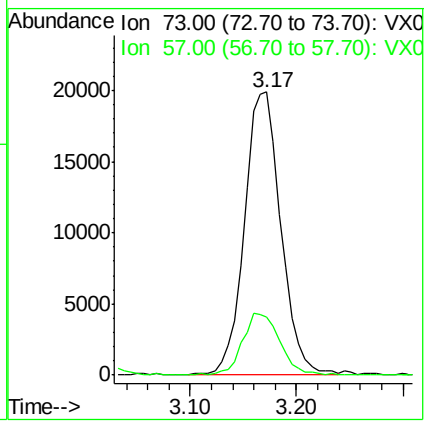
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:12:44 AM

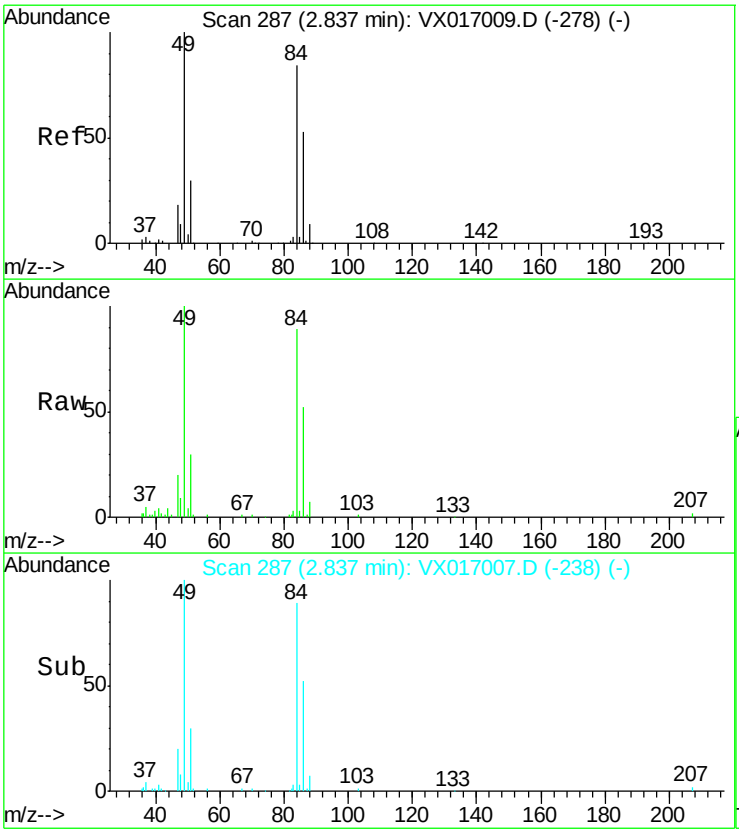


#19
Methyl tert-butyl Ether
Concen: 4.954 ug/l
RT: 3.17 min Scan# 342
Delta R.T. 0.01 min
Lab File: VX017007.D
Acq: 29 Jun 2020 14:35

Tgt Ion: 73 Resp: 47818

Ion	Ratio	Lower	Upper
73	100		
57	20.6	17.6	26.4

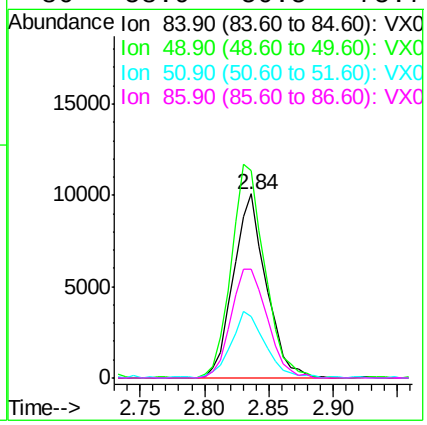




#20
Methylene Chloride
Concen: 5.204 ug/l
RT: 2.84 min Scan# 287
Delta R.T. 0.00 min
Lab File: VX017007.D
Acq: 29 Jun 2020 14:35

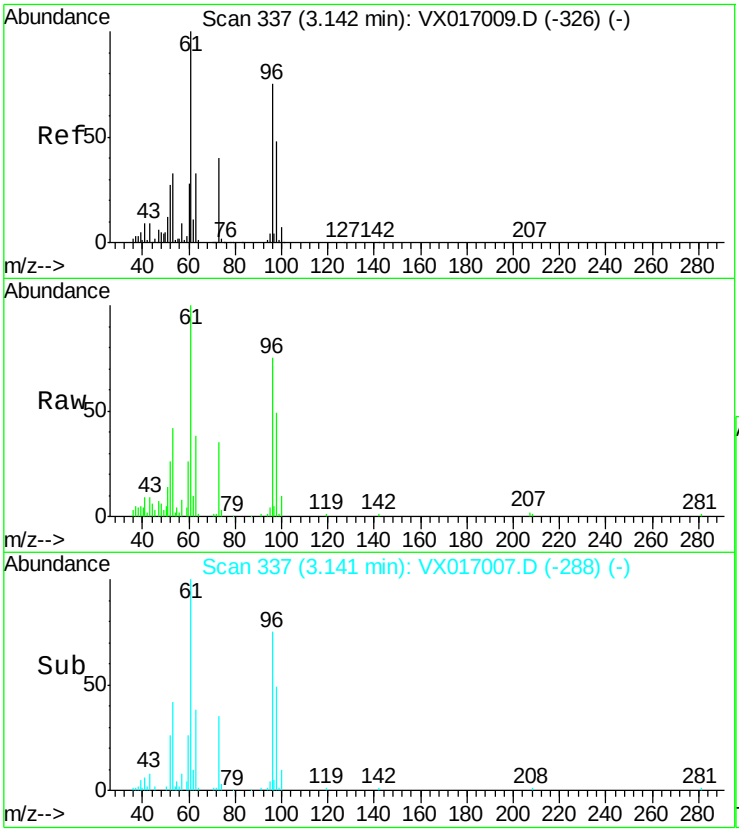
Tgt Ion: 84 Resp: 17833

Ion	Ratio	Lower	Upper
84	100		
49	113.0	94.7	142.1
51	32.9	28.6	42.8
86	58.9	50.5	75.7



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC005

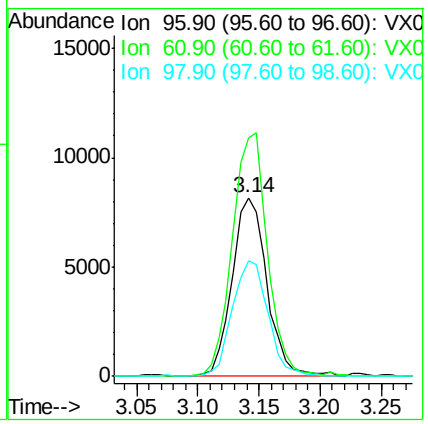
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:12:44 AM

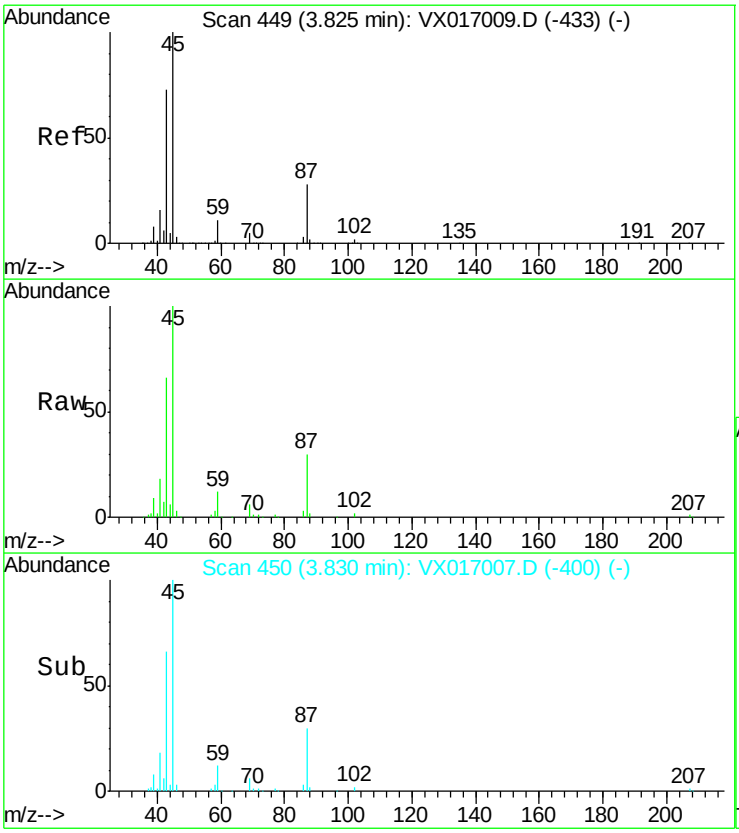


#21
trans-1,2-Dichloroethene
Concen: 5.059 ug/l
RT: 3.14 min Scan# 337
Delta R.T. -0.00 min
Lab File: VX017007.D
Acq: 29 Jun 2020 14:35

Tgt Ion: 96 Resp: 16148

Ion	Ratio	Lower	Upper
96	100		
61	133.6	107.0	160.6
98	65.1	51.6	77.4

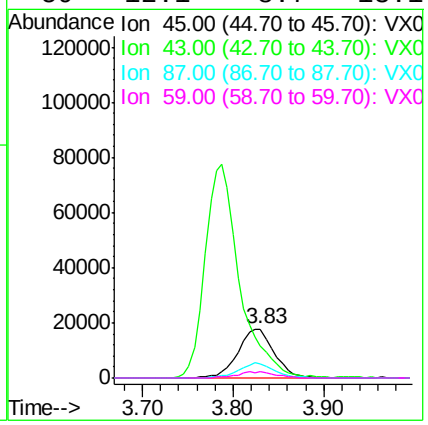




#22
Diisopropyl ether
Concen: 4.998 ug/l
RT: 3.83 min Scan# 450
Delta R.T. 0.01 min
Lab File: VX017007.D
Acq: 29 Jun 2020 14:35

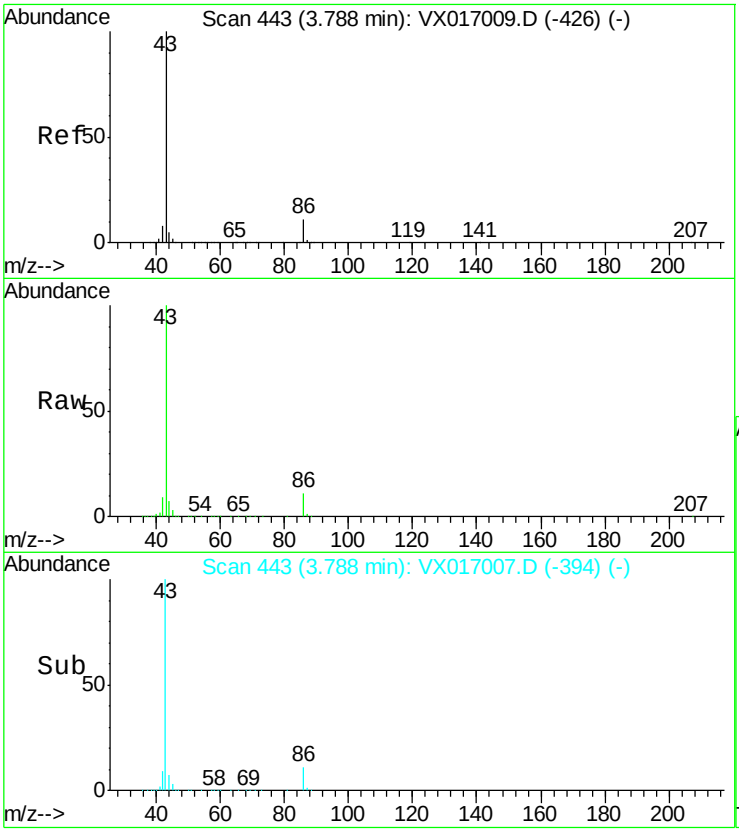
Tgt Ion: 45 Resp: 49167

Ion	Ratio	Lower	Upper
45	100		
43	65.0	58.6	88.0
87	29.7	22.6	34.0
59	12.1	8.7	13.1



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC005

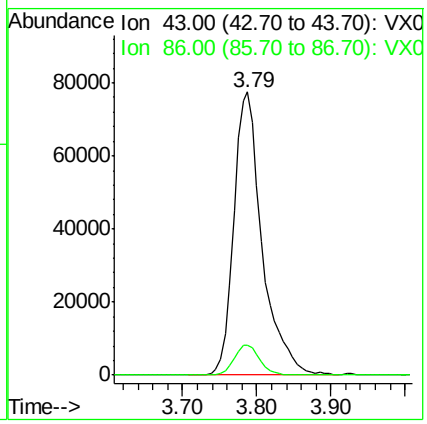
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:12:44 AM

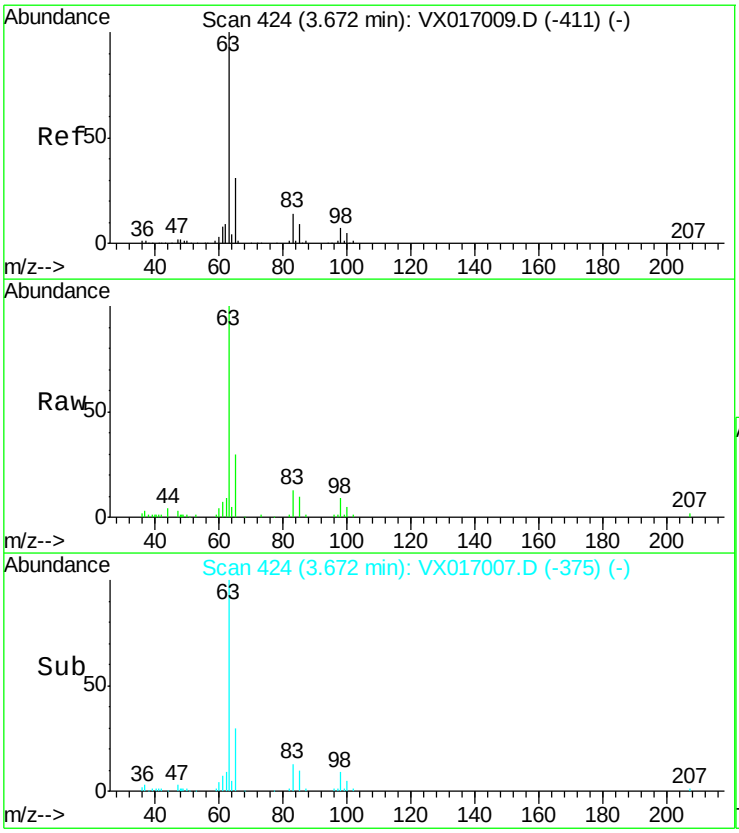


#23
Vinyl Acetate
Concen: 24.350 ug/l
RT: 3.79 min Scan# 443
Delta R.T. -0.00 min
Lab File: VX017007.D
Acq: 29 Jun 2020 14:35

Tgt Ion: 43 Resp: 205850

Ion	Ratio	Lower	Upper
43	100		
86	10.7	8.6	13.0

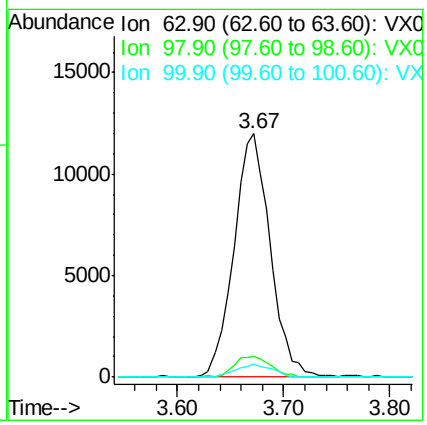


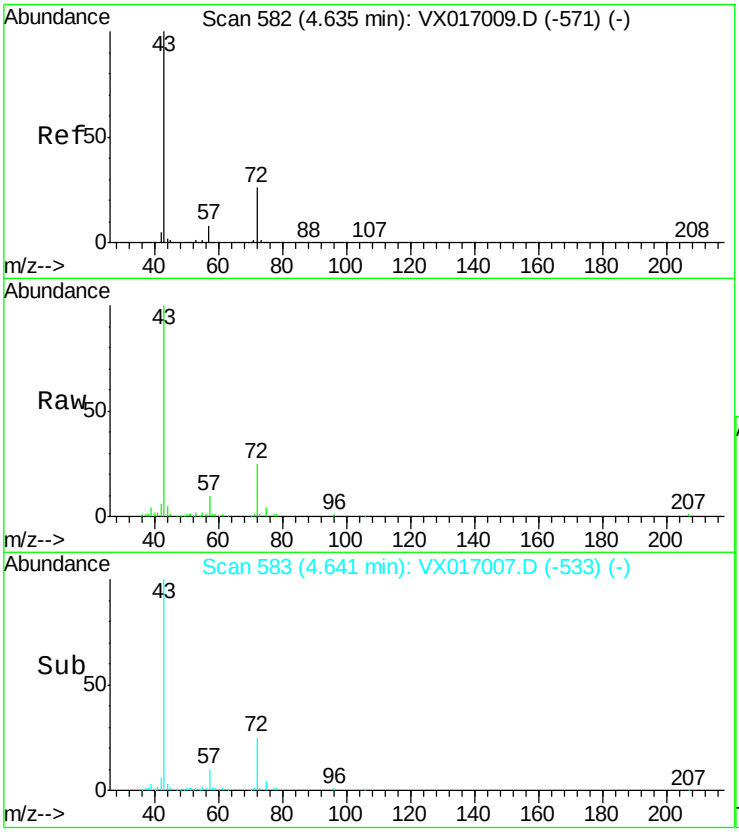


#24
1,1-Dichloroethane
Concen: 5.103 ug/l
RT: 3.67 min Scan# 424
Delta R.T. -0.00 min
Lab File: VX017007.D
Acq: 29 Jun 2020 14:35

Tgt Ion: 63 Resp: 28565

Ion	Ratio	Lower	Upper
63	100		
98	8.6	3.6	10.8
100	5.2	2.4	7.1

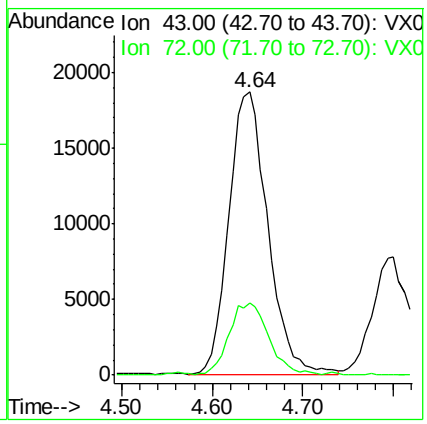




#25
2-Butanone
Concen: 24.794 ug/l
RT: 4.64 min Scan# 583
Delta R.T. 0.01 min
Lab File: VX017007.D
Acq: 29 Jun 2020 14:35

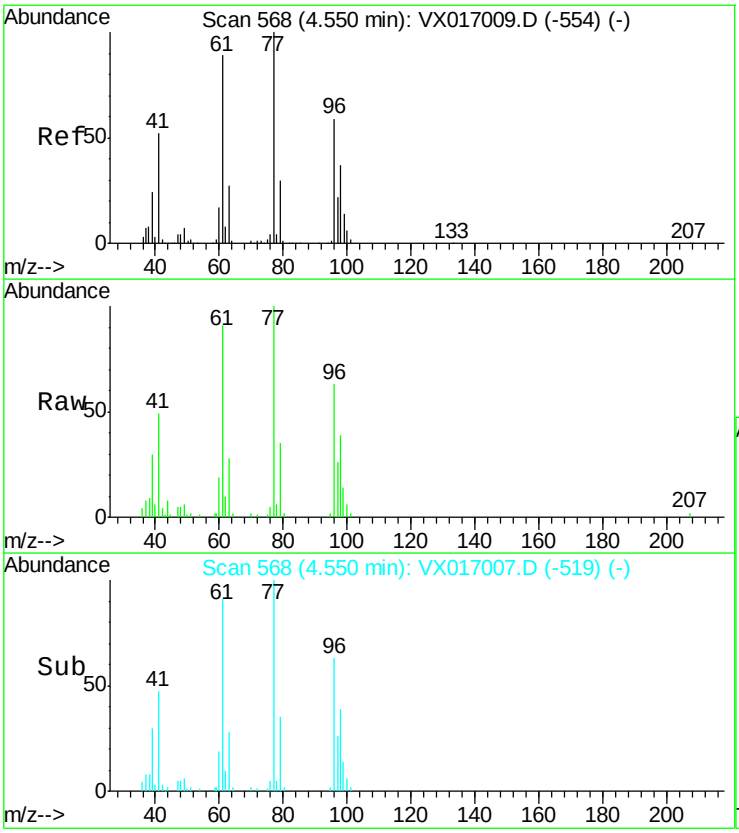
Tgt Ion: 43 Resp: 55389

Ion	Ratio	Lower	Upper
43	100		
72	25.1	20.8	31.2



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC005

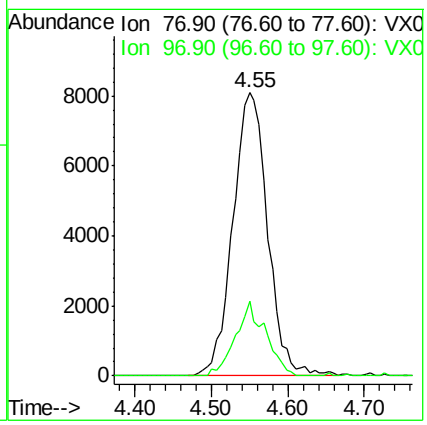
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:12:44 AM



#26
2,2-Dichloropropane
Concen: 5.118 ug/l
RT: 4.55 min Scan# 568
Delta R.T. -0.00 min
Lab File: VX017007.D
Acq: 29 Jun 2020 14:35

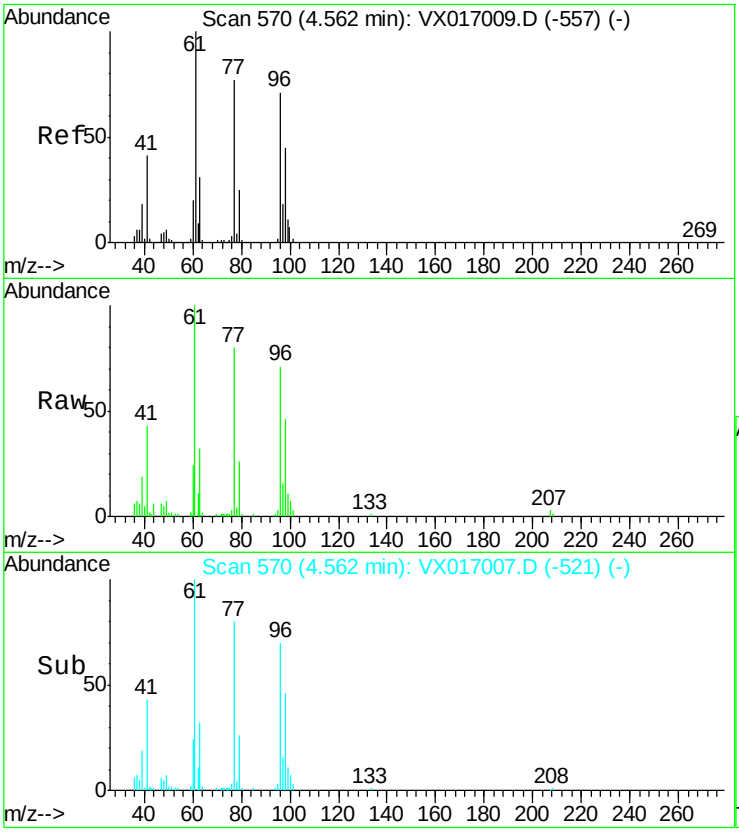
Tgt Ion: 77 Resp: 25438

Ion	Ratio	Lower	Upper
77	100		
97	23.0	11.4	34.2



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC005

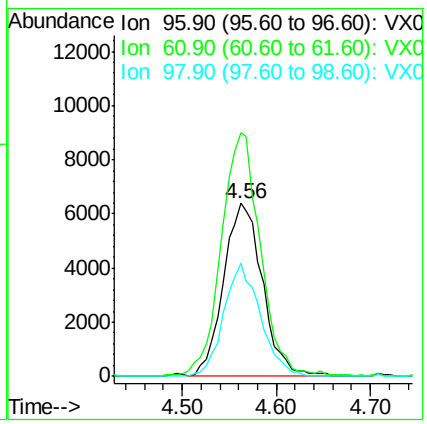
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:12:44 AM

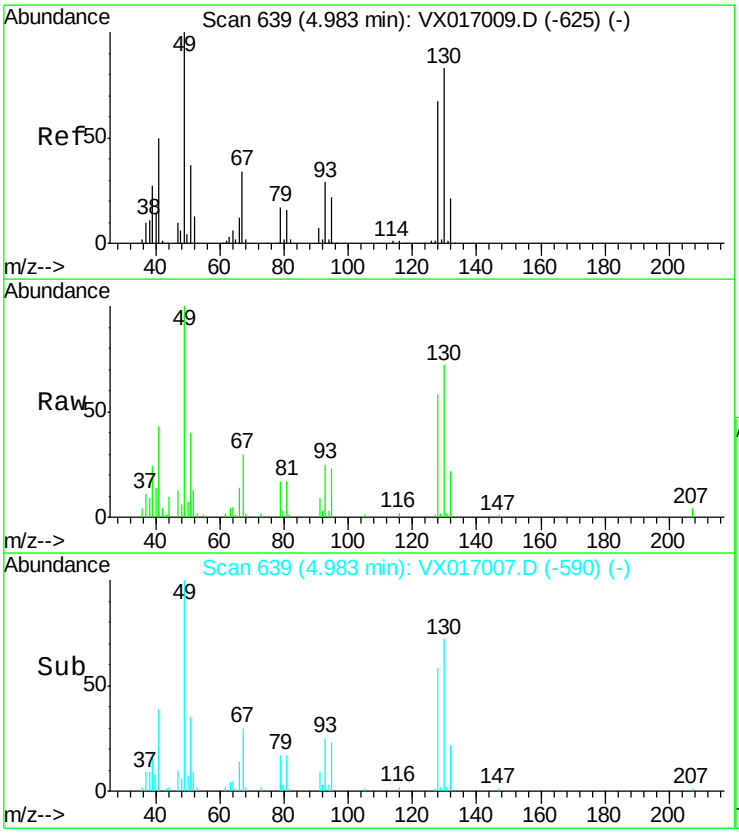


#27
cis-1,2-Dichloroethene
Concen: 5.081 ug/l
RT: 4.56 min Scan# 570
Delta R.T. -0.00 min
Lab File: VX017007.D
Acq: 29 Jun 2020 14:35

Tgt Ion: 96 Resp: 18376

Ion	Ratio	Lower	Upper
96	100		
61	141.4	0.0	282.8
98	61.0	0.0	127.6

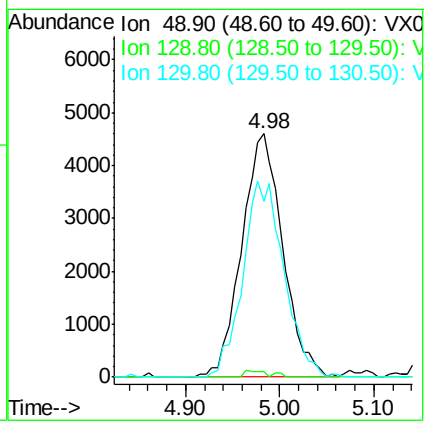




#28
Bromochloromethane
Concen: 5.129 ug/l
RT: 4.98 min Scan# 639
Delta R.T. -0.00 min
Lab File: VX017007.D
Acq: 29 Jun 2020 14:35

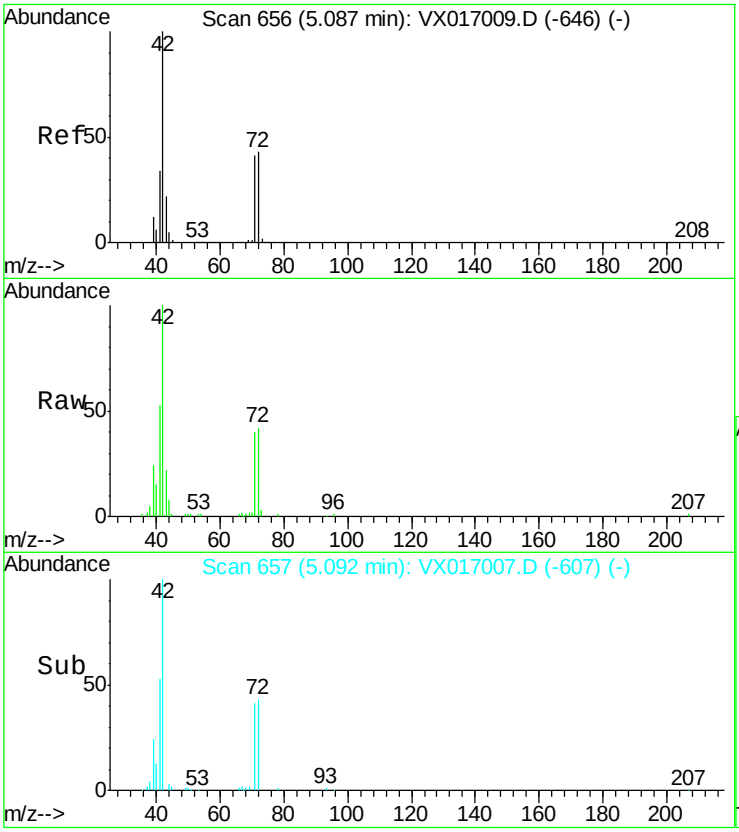
Tgt Ion: 49 Resp: 13972

Ion	Ratio	Lower	Upper
49	100		
129	1.1	0.0	4.2
130	80.9	66.6	100.0



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC005

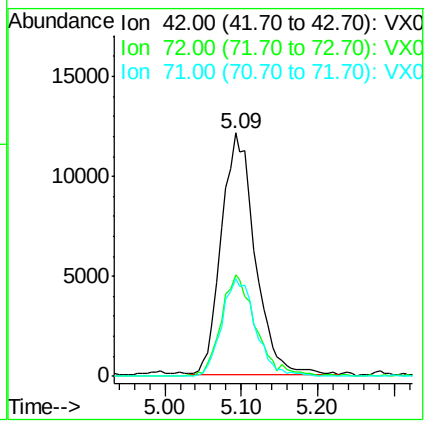
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:12:44 AM

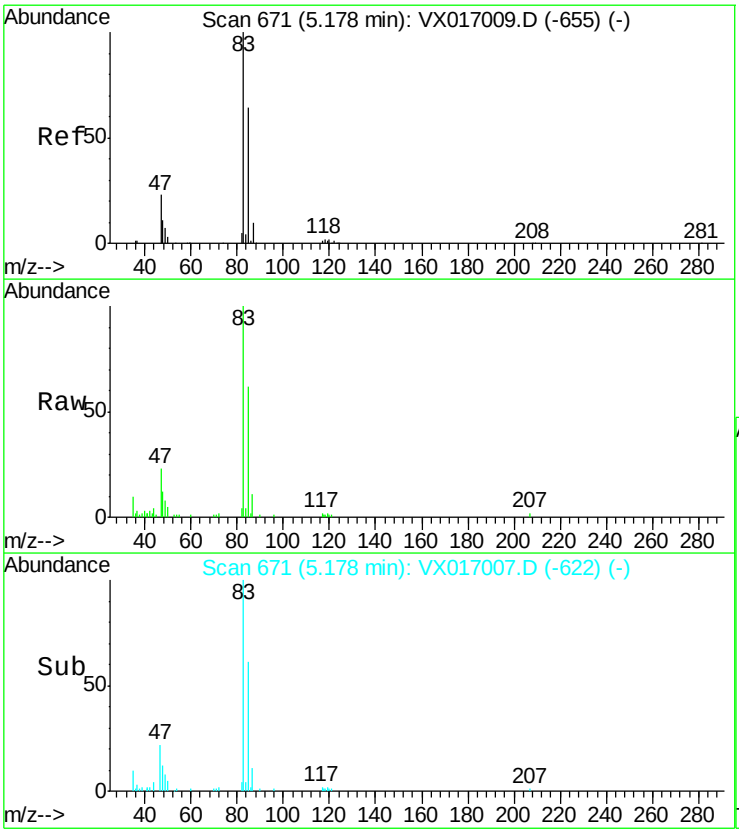


#29
Tetrahydrofuran
Concen: 24.943 ug/l
RT: 5.09 min Scan# 657
Delta R.T. 0.01 min
Lab File: VX017007.D
Acq: 29 Jun 2020 14:35

Tgt Ion: 42 Resp: 36817

Ion	Ratio	Lower	Upper
42	100		
72	43.1	35.3	52.9
71	40.5	33.1	49.7

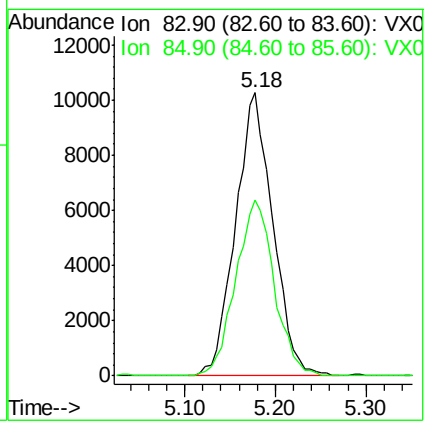


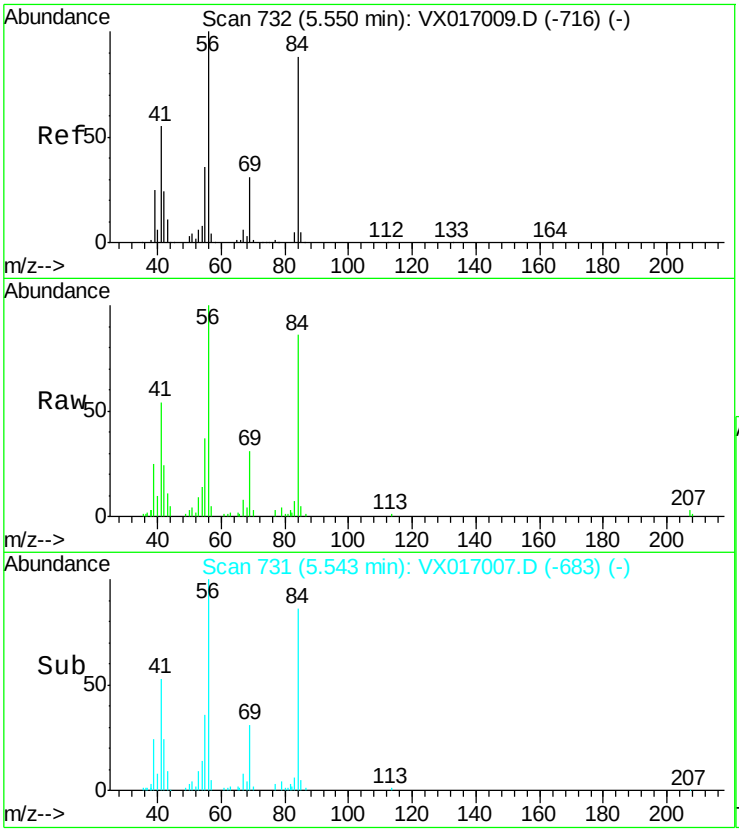


#30
Chloroform
Concen: 5.098 ug/l
RT: 5.18 min Scan# 671
Delta R.T. -0.00 min
Lab File: VX017007.D
Acq: 29 Jun 2020 14:35

Tgt Ion: 83 Resp: 29251

Ion	Ratio	Lower	Upper
83	100		
85	62.3	51.4	77.2

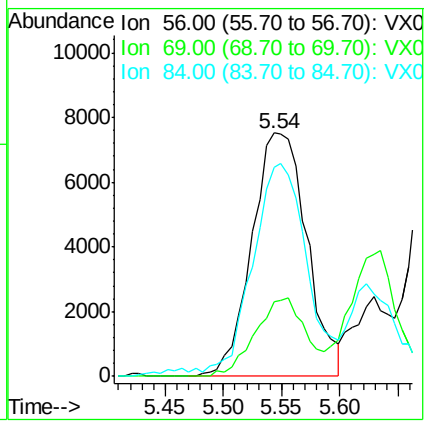




#31
Cyclohexane
Concen: 5.079 ug/l
RT: 5.54 min Scan# 731
Delta R.T. -0.01 min
Lab File: VX017007.D
Acq: 29 Jun 2020 14:35

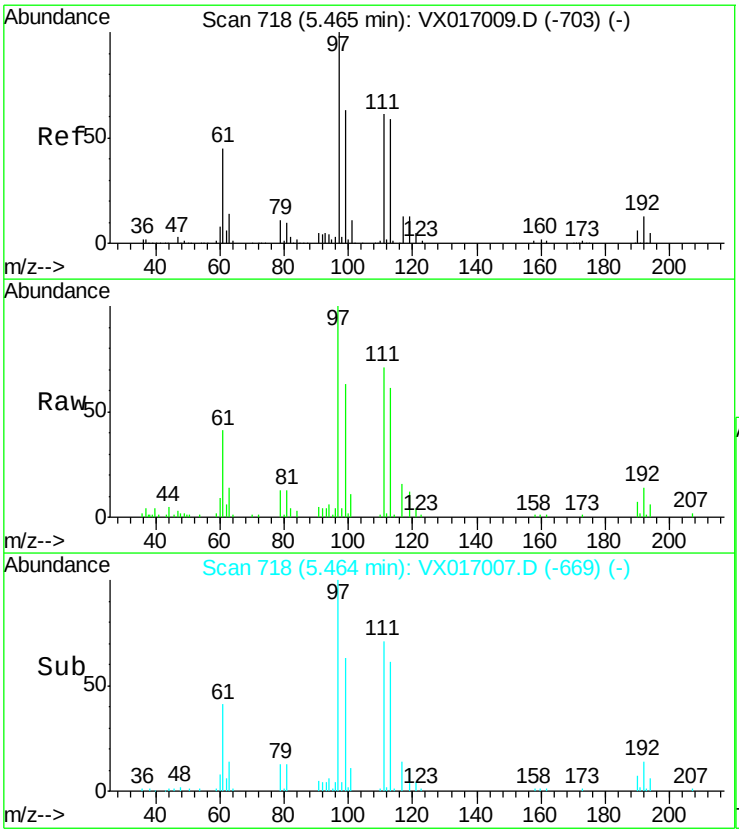
Tgt Ion: 56 Resp: 24573

Ion	Ratio	Lower	Upper
56	100		
69	30.5	25.0	37.4
84	84.3	69.1	103.7



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC005

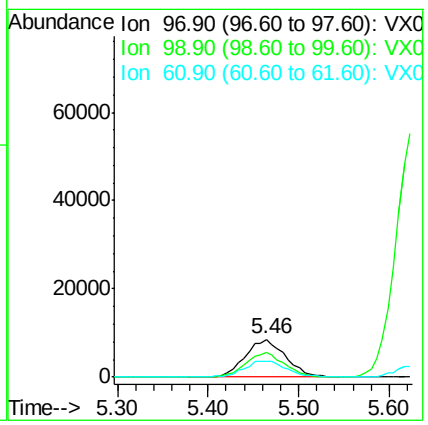
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:12:44 AM

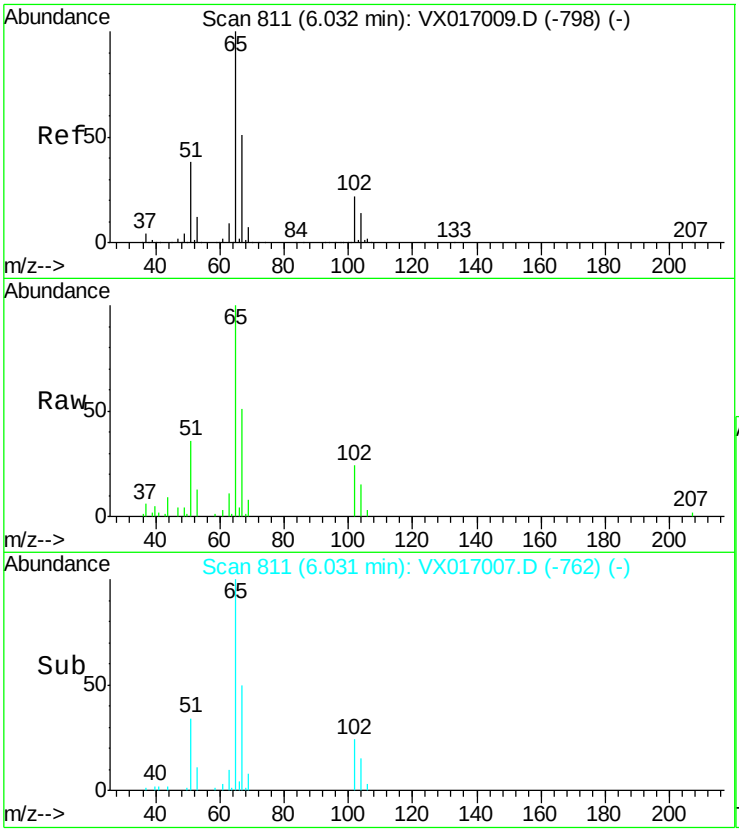


#32
1,1,1-Trichloroethane
Concen: 4.931 ug/l
RT: 5.46 min Scan# 718
Delta R.T. -0.00 min
Lab File: VX017007.D
Acq: 29 Jun 2020 14:35

Tgt Ion: 97 Resp: 26061

Ion	Ratio	Lower	Upper
97	100		
99	62.3	50.8	76.2
61	44.6	33.7	50.5

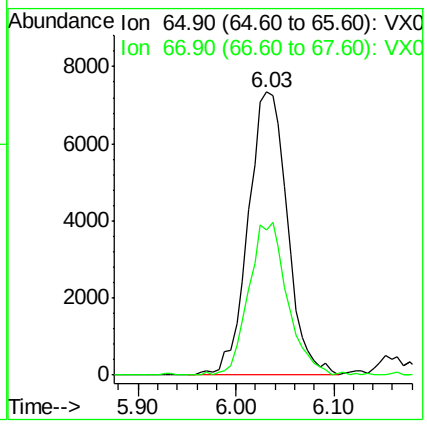




#33
1,2-Dichloroethane-d4
Concen: 5.687 ug/l
RT: 6.03 min Scan# 811
Delta R.T. -0.00 min
Lab File: VX017007.D
Acq: 29 Jun 2020 14:35

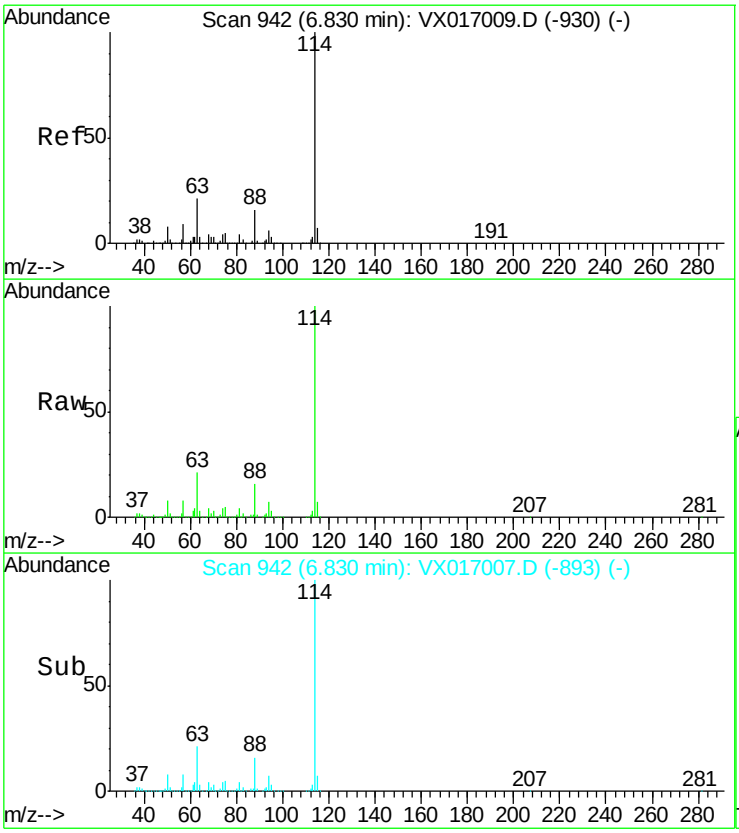
Tgt Ion: 65 Resp: 20382

Ion	Ratio	Lower	Upper
65	100		
67	53.3	0.0	103.8



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC005

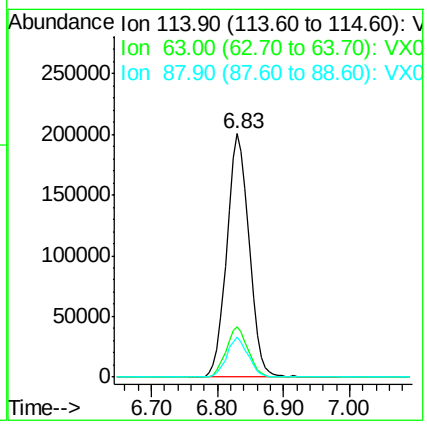
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:12:44 AM

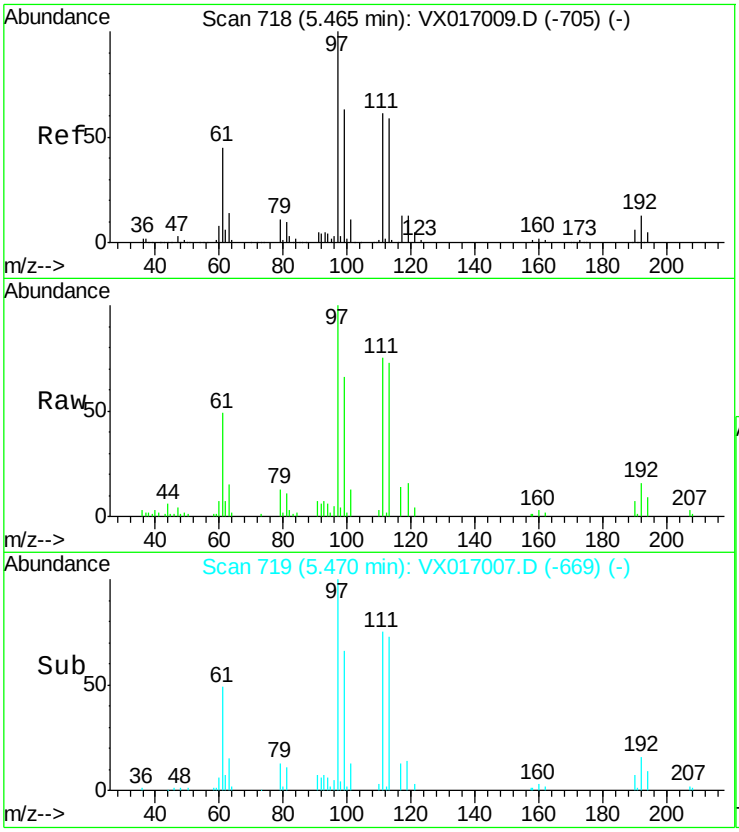


#34
1,4-Difluorobenzene
Concen: 50.000 ug/l
RT: 6.83 min Scan# 942
Delta R.T. -0.00 min
Lab File: VX017007.D
Acq: 29 Jun 2020 14:35

Tgt Ion:114 Resp: 467593

Ion	Ratio	Lower	Upper
114	100		
63	20.6	0.0	41.4
88	16.4	0.0	32.4

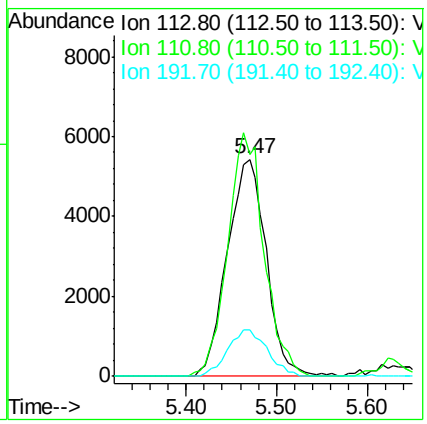


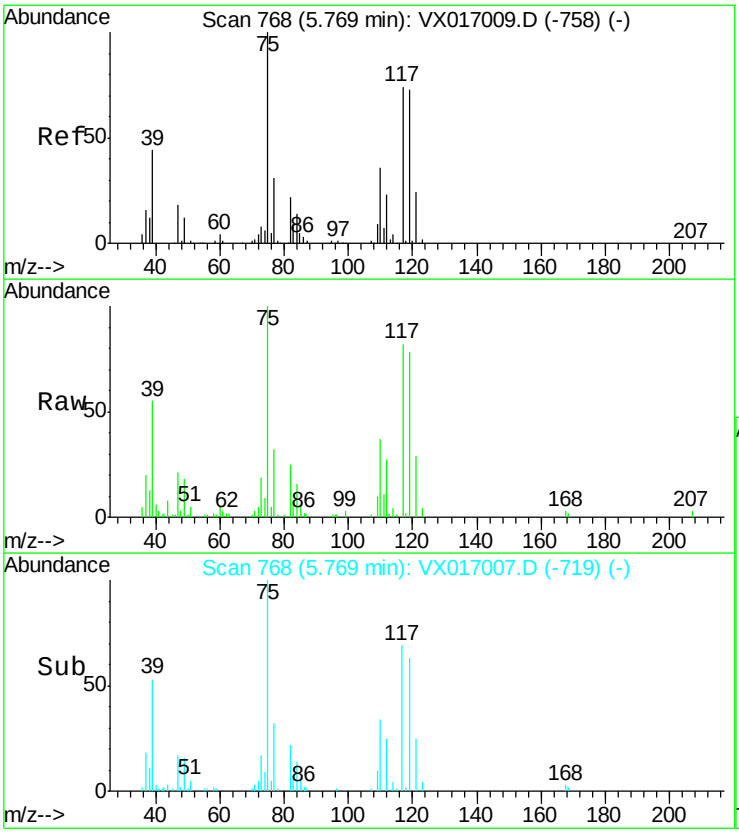


#35
Dibromofluoromethane
Concen: 5.465 ug/l
RT: 5.47 min Scan# 719
Delta R.T. 0.01 min
Lab File: VX017007.D
Acq: 29 Jun 2020 14:35

Tgt Ion:113 Resp: 16164

Ion	Ratio	Lower	Upper
113	100		
111	105.2	81.9	122.9
192	21.7	16.7	25.1

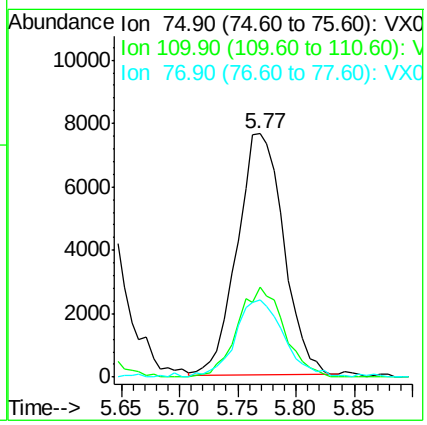




#36
1,1-Dichloropropene
Concen: 4.776 ug/l
RT: 5.77 min Scan# 768
Delta R.T. -0.00 min
Lab File: VX017007.D
Acq: 29 Jun 2020 14:35

Tgt Ion: 75 Resp: 21105

Ion	Ratio	Lower	Upper
75	100		
110	37.3	18.1	54.1
77	33.6	24.6	37.0

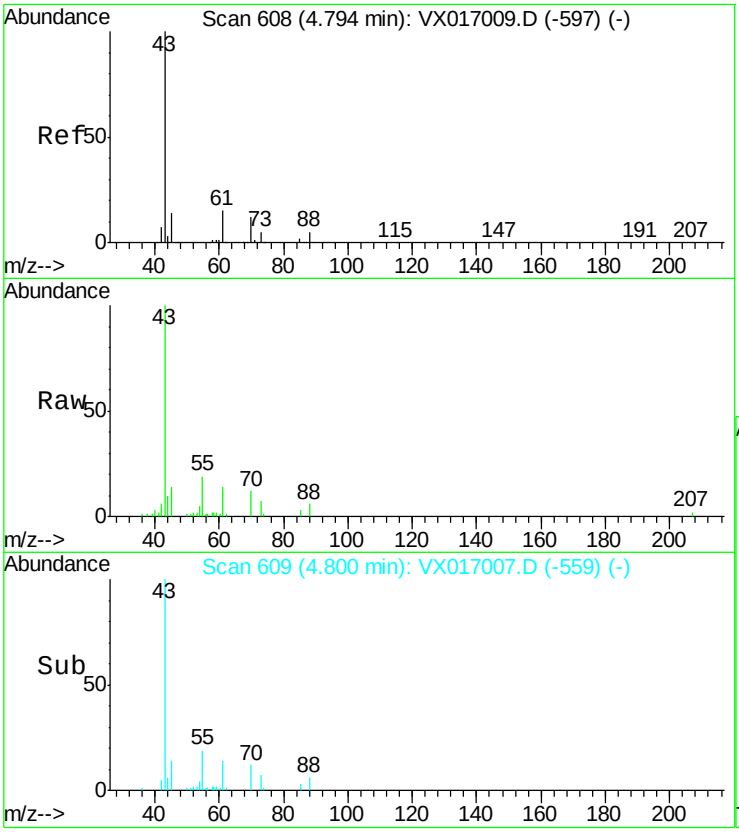


Instrument :
MSVOA_X
ClientSampleId :
VSTDICC005

Manual Integrations APPROVED
MMDadoda
6/30/2020 10:12:44 AM

Instrument :
MSVOA_X
ClientSampleId :
VSTDICC005

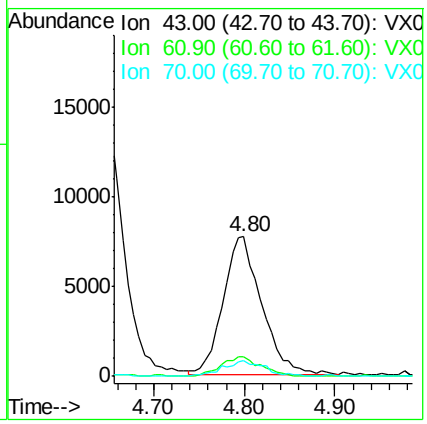
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:12:44 AM

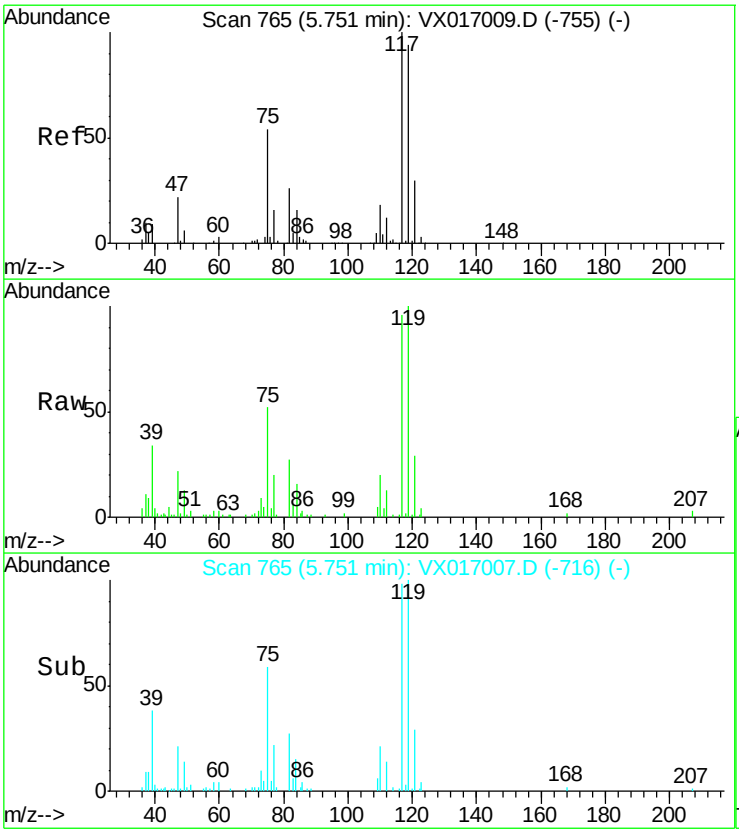


#37
Ethyl Acetate
Concen: 5.031 ug/l
RT: 4.80 min Scan# 609
Delta R.T. 0.01 min
Lab File: VX017007.D
Acq: 29 Jun 2020 14:35

Tgt Ion: 43 Resp: 22559

Ion	Ratio	Lower	Upper
43	100		
61	14.8	11.0	16.4
70	12.5	8.9	13.3

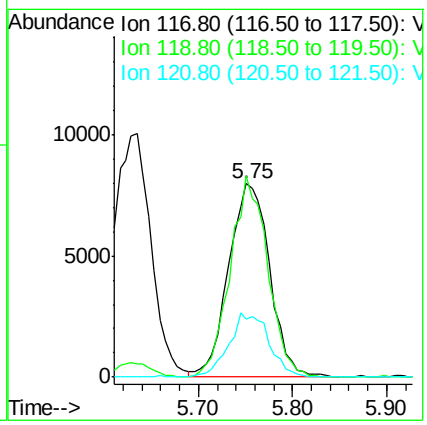


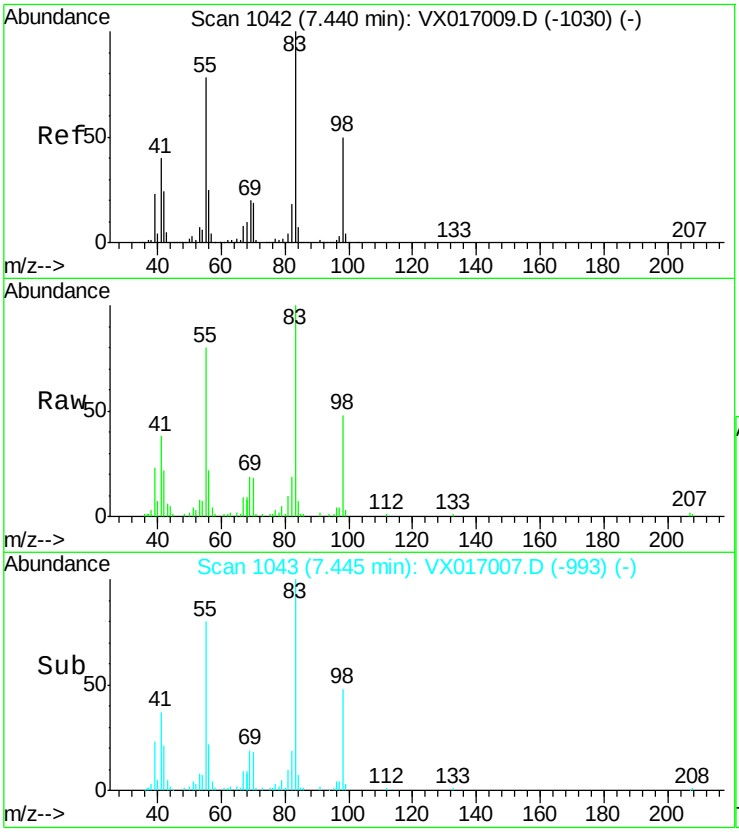


#38
Carbon Tetrachloride
Concen: 4.999 ug/l
RT: 5.75 min Scan# 765
Delta R.T. -0.00 min
Lab File: VX017007.D
Acq: 29 Jun 2020 14:35

Tgt Ion:117 Resp: 24334

Ion	Ratio	Lower	Upper
117	100		
119	104.2	75.4	113.0
121	30.0	23.8	35.6

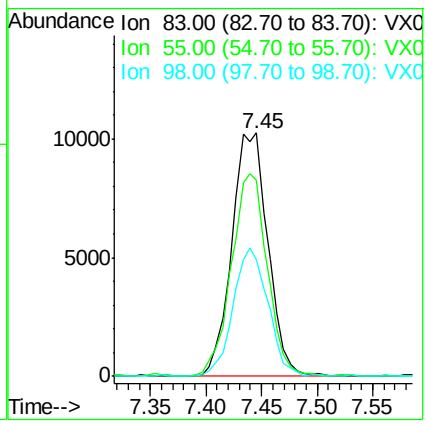




#39
Methylcyclohexane
Concen: 4.688 ug/l
RT: 7.45 min Scan# 1043
Delta R.T. 0.01 min
Lab File: VX017007.D
Acq: 29 Jun 2020 14:35

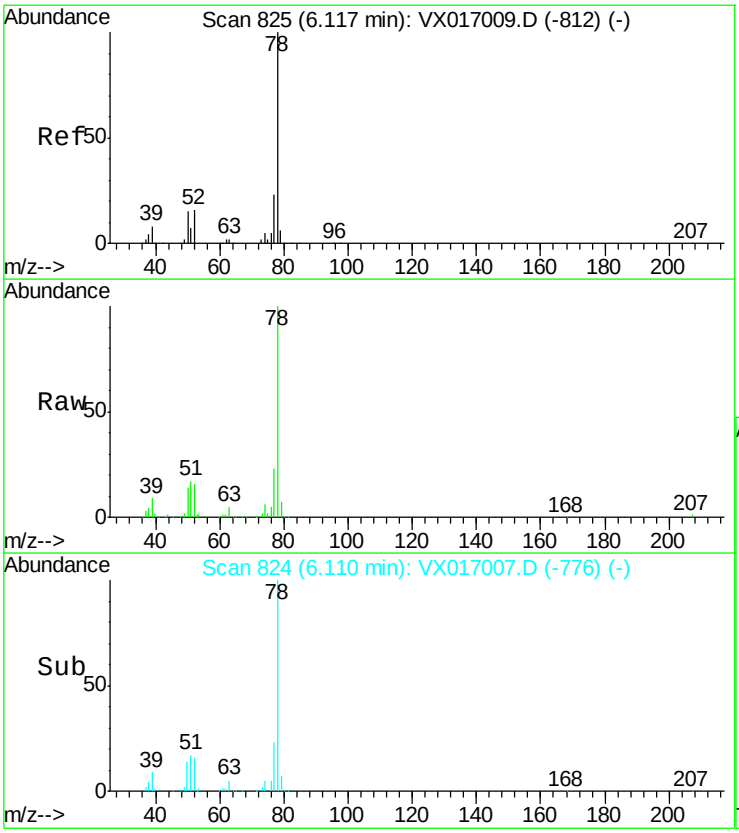
Tgt Ion: 83 Resp: 23052

Ion	Ratio	Lower	Upper
83	100		
55	80.5	62.5	93.7
98	48.1	40.1	60.1



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC005

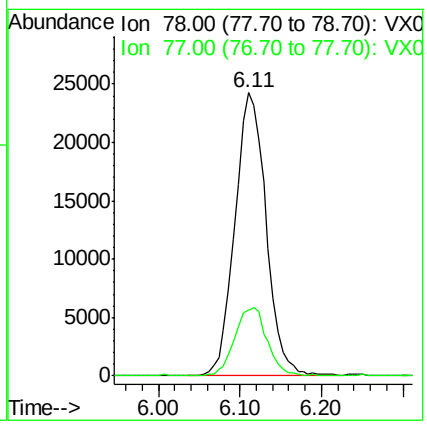
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:12:44 AM

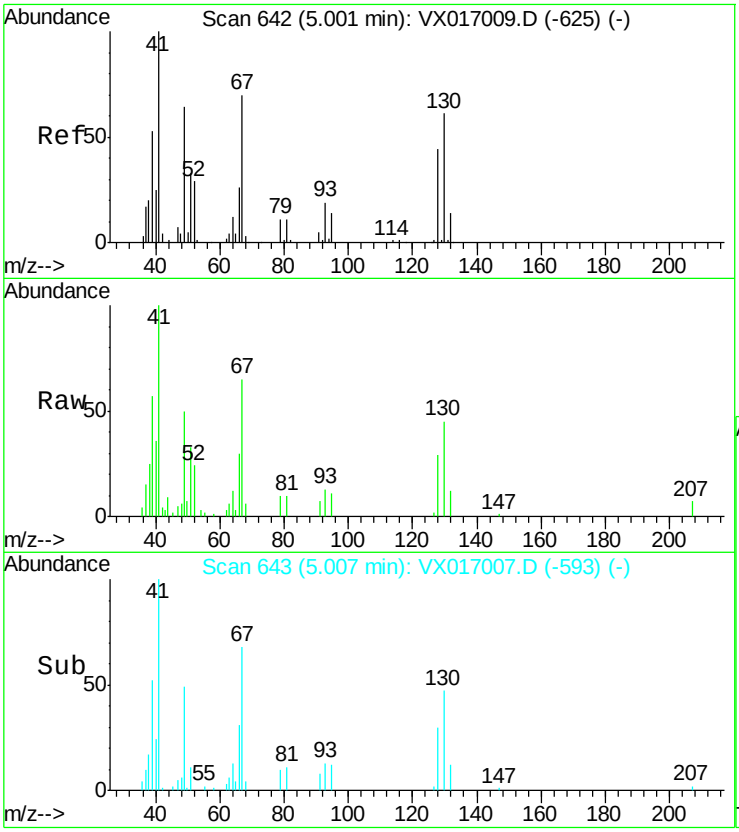


#40
Benzene
Concen: 4.953 ug/l
RT: 6.11 min Scan# 824
Delta R.T. -0.01 min
Lab File: VX017007.D
Acq: 29 Jun 2020 14:35

Tgt Ion: 78 Resp: 64310

Ion	Ratio	Lower	Upper
78	100		
77	23.4	18.3	27.5

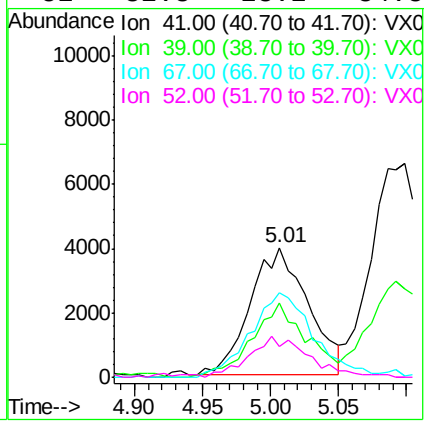


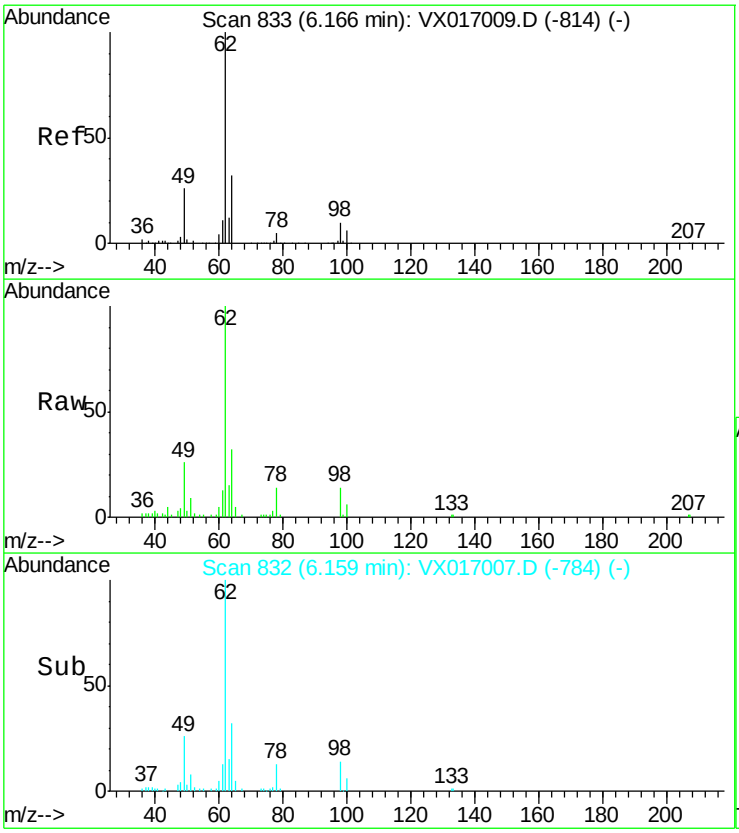


#41
Methacrylonitrile
Concen: 4.672 ug/l
RT: 5.01 min Scan# 643
Delta R.T. 0.01 min
Lab File: VX017007.D
Acq: 29 Jun 2020 14:35

Tgt Ion: 41 Resp: 11790

Ion	Ratio	Lower	Upper
41	100		
39	55.0	44.4	66.6
67	72.5	57.1	85.7
52	32.8	23.2	34.8

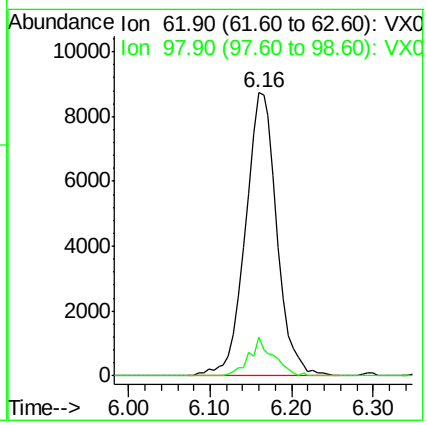




#42
1,2-Dichloroethane
Concen: 5.002 ug/l
RT: 6.16 min Scan# 832
Delta R.T. -0.01 min
Lab File: VX017007.D
Acq: 29 Jun 2020 14:35

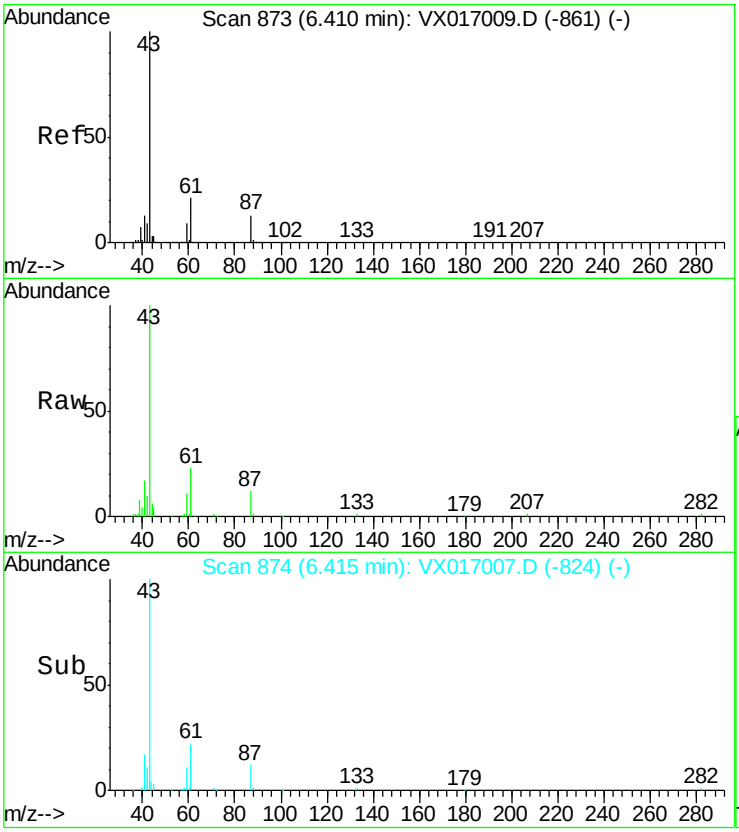
Tgt Ion: 62 Resp: 23459

Ion	Ratio	Lower	Upper
62	100		
98	10.3	0.0	19.2



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC005

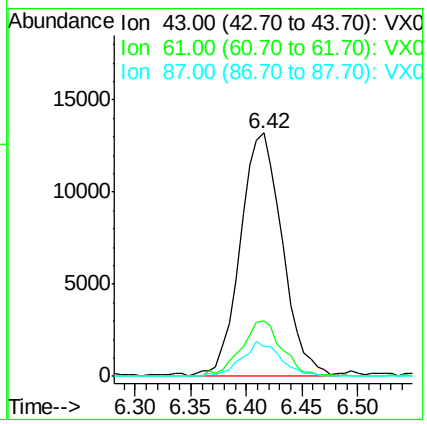
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:12:44 AM

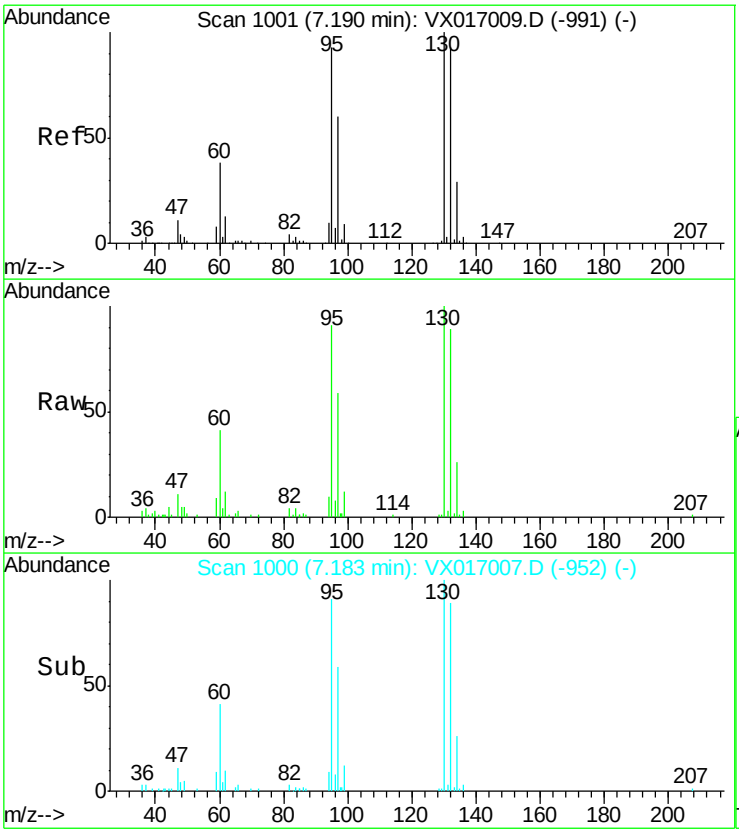


#43
Isopropyl Acetate
Concen: 4.664 ug/l
RT: 6.42 min Scan# 874
Delta R.T. 0.01 min
Lab File: VX017007.D
Acq: 29 Jun 2020 14:35

Tgt Ion: 43 Resp: 34752

Ion	Ratio	Lower	Upper
43	100		
61	22.1	16.2	24.2
87	13.0	10.7	16.1

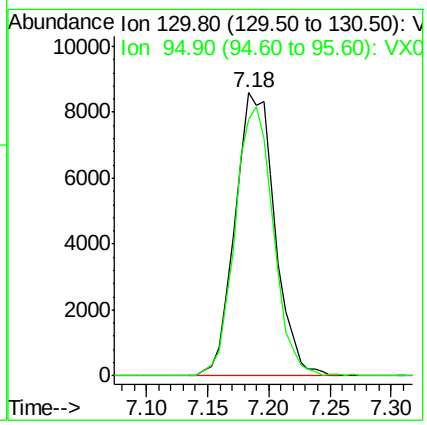




#44
Trichloroethene
Concen: 4.972 ug/l
RT: 7.18 min Scan# 1000
Delta R.T. -0.01 min
Lab File: VX017007.D
Acq: 29 Jun 2020 14:35

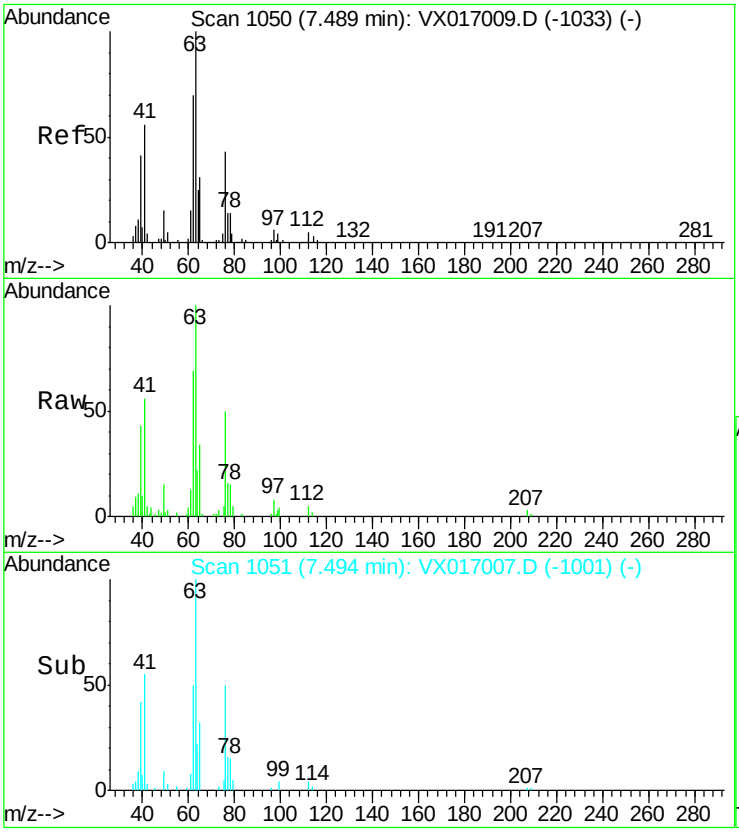
Tgt Ion:130 Resp: 19447

Ion	Ratio	Lower	Upper
130	100		
95	90.5	0.0	185.0



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC005

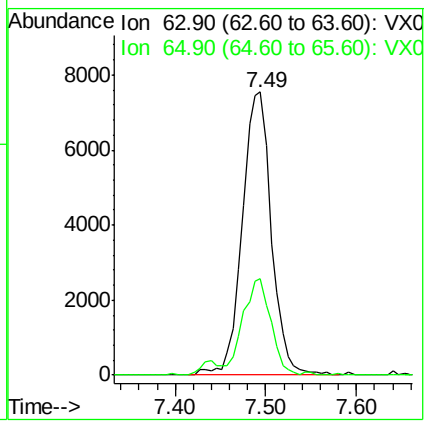
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:12:44 AM



#45
1,2-Dichloropropane
Concen: 5.031 ug/l
RT: 7.49 min Scan# 1051
Delta R.T. 0.01 min
Lab File: VX017007.D
Acq: 29 Jun 2020 14:35

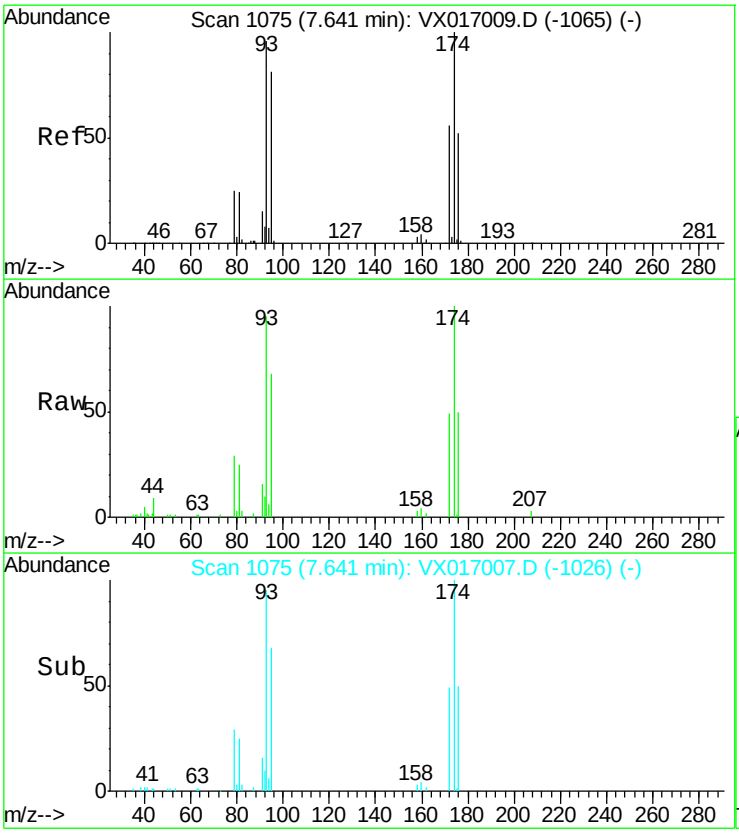
Tgt Ion: 63 Resp: 16777

Ion	Ratio	Lower	Upper
63	100		
65	33.9	24.6	36.8



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC005

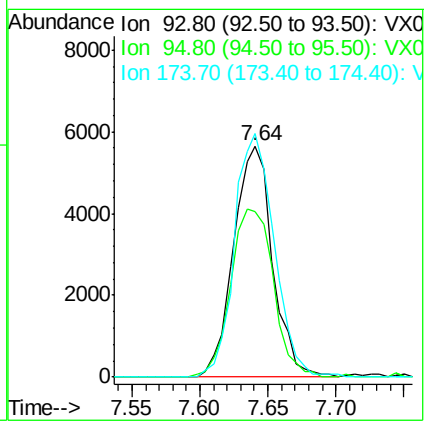
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:12:44 AM

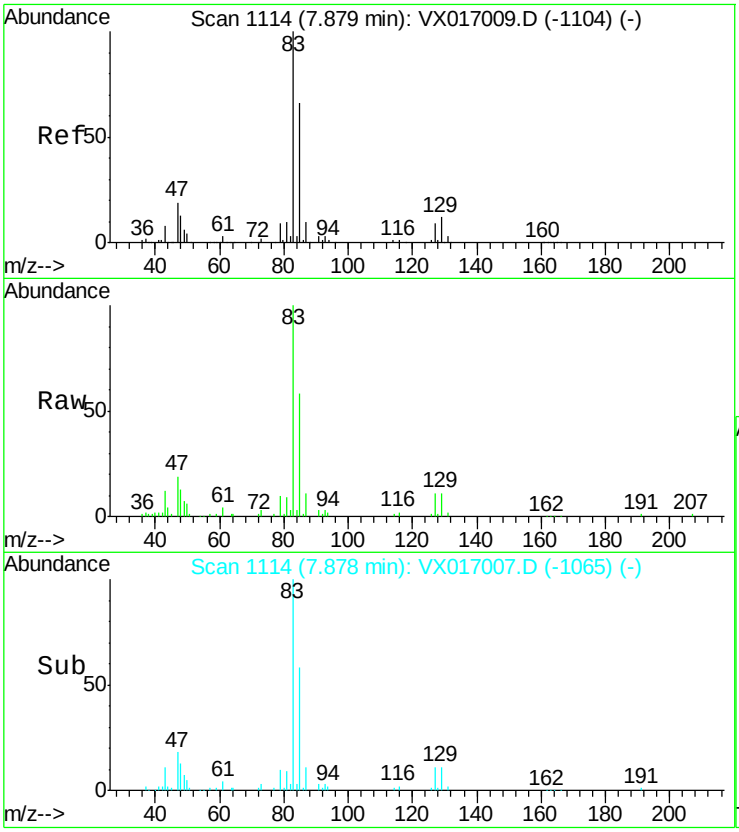


#46
Dibromomethane
Concen: 4.965 ug/l
RT: 7.64 min Scan# 1075
Delta R.T. -0.00 min
Lab File: VX017007.D
Acq: 29 Jun 2020 14:35

Tgt Ion: 93 Resp: 11305

Ion	Ratio	Lower	Upper
93	100		
95	79.6	67.4	101.0
174	107.3	84.3	126.5

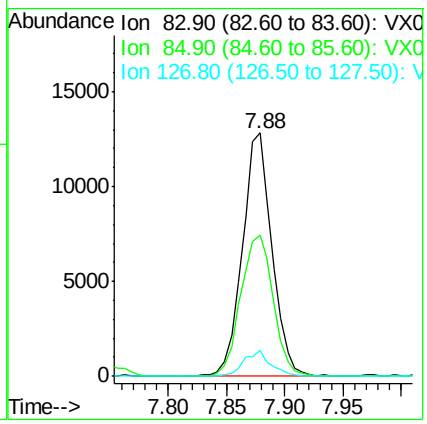


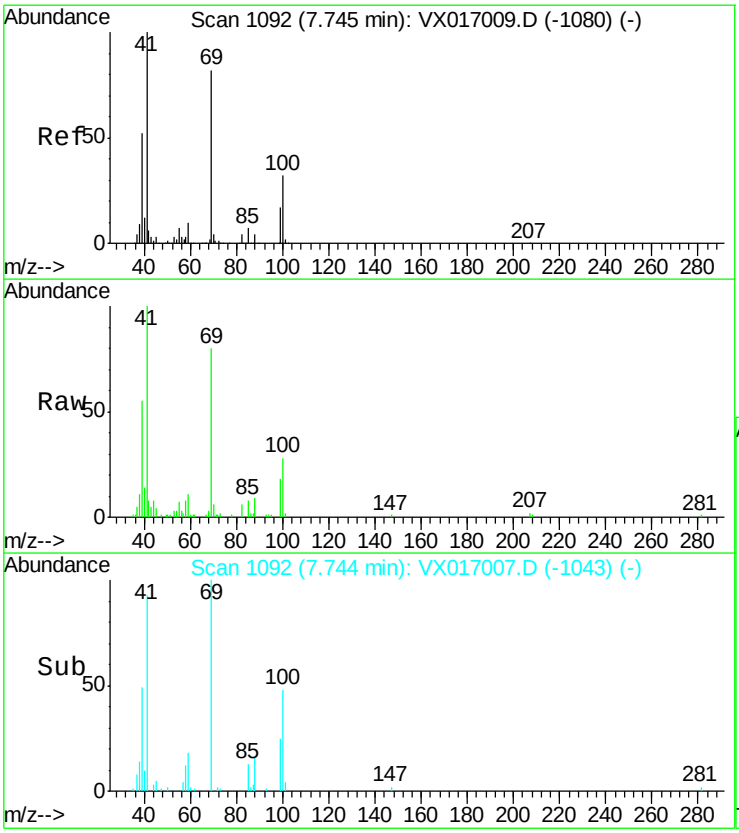


#47
Bromodichloromethane
Concen: 4.844 ug/l
RT: 7.88 min Scan# 1114
Delta R.T. -0.00 min
Lab File: VX017007.D
Acq: 29 Jun 2020 14:35

Tgt Ion: 83 Resp: 22730

Ion	Ratio	Lower	Upper
83	100		
85	58.1	53.0	79.4
127	10.5	7.5	11.3

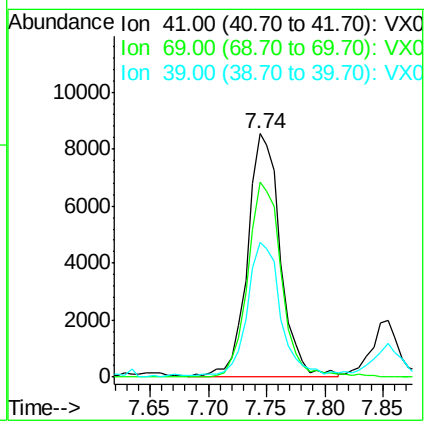




#48
Methyl methacrylate
Concen: 4.756 ug/l
RT: 7.74 min Scan# 1092
Delta R.T. -0.00 min
Lab File: VX017007.D
Acq: 29 Jun 2020 14:35

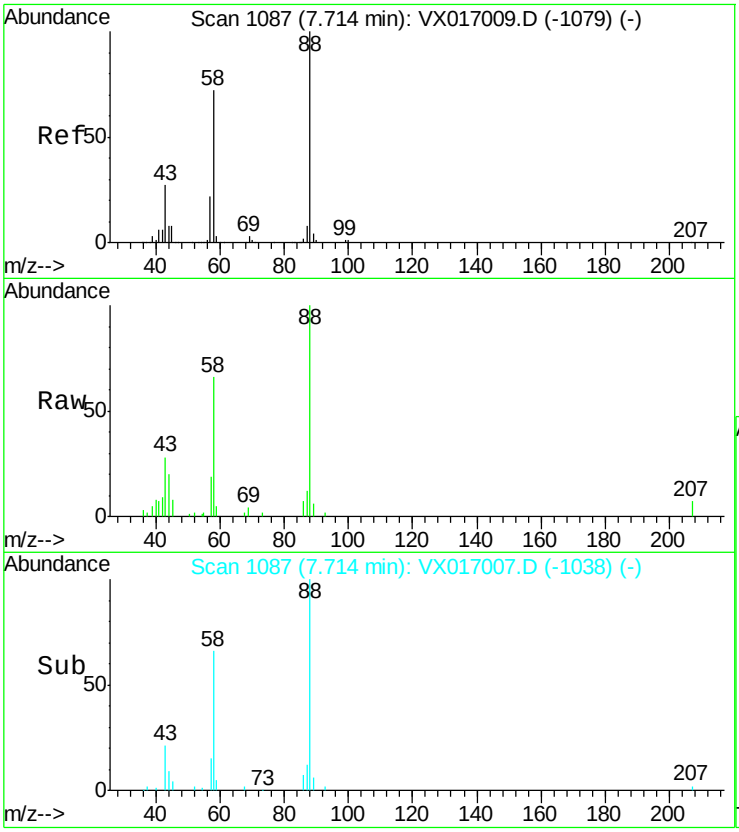
Tgt Ion: 41 Resp: 16835

Ion	Ratio	Lower	Upper
41	100		
69	82.1	65.8	98.8
39	54.4	42.5	63.7



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC005

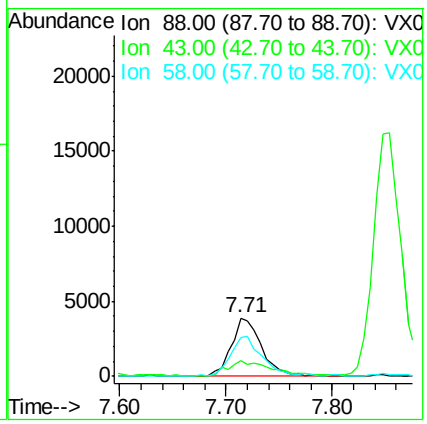
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:12:44 AM



#49
1,4-Dioxane
Concen: 97.063 ug/l
RT: 7.71 min Scan# 1087
Delta R.T. -0.00 min
Lab File: VX017007.D
Acq: 29 Jun 2020 14:35

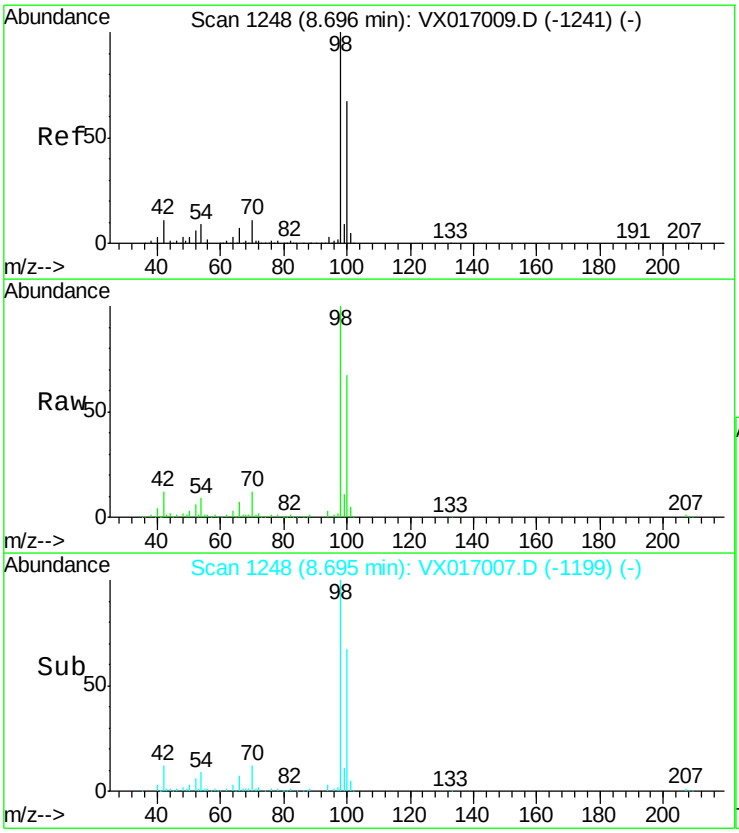
Tgt Ion: 88 Resp: 7784

Ion	Ratio	Lower	Upper
88	100		
43	38.0	25.8	38.8
58	72.9	54.8	82.2



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC005

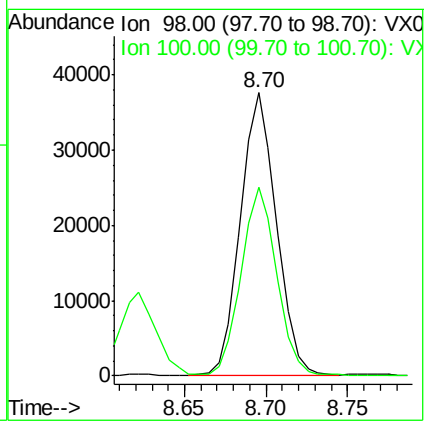
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:12:44 AM

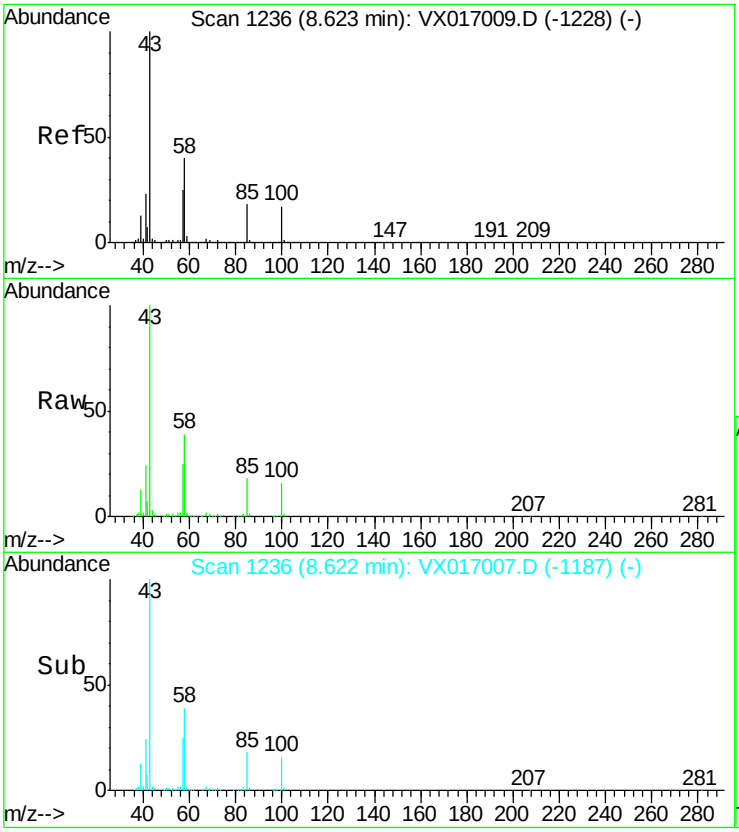


#50
Toluene-d8
Concen: 5.301 ug/l
RT: 8.70 min Scan# 1248
Delta R.T. -0.00 min
Lab File: VX017007.D
Acq: 29 Jun 2020 14:35

Tgt Ion: 98 Resp: 57979

Ion	Ratio	Lower	Upper
98	100		
100	66.0	53.8	80.6

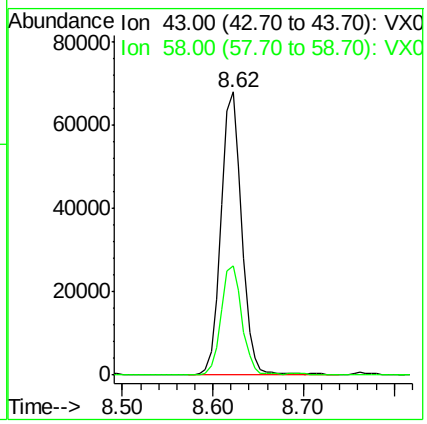




#51
4-Methyl-2-Pentanone
Concen: 24.205 ug/l
RT: 8.62 min Scan# 1236
Delta R.T. -0.00 min
Lab File: VX017007.D
Acq: 29 Jun 2020 14:35

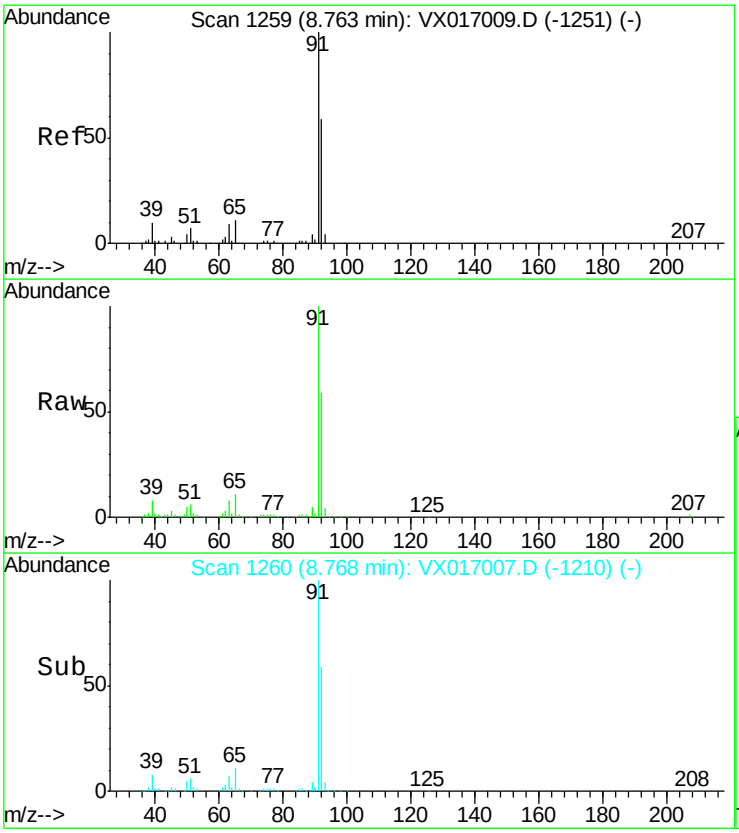
Tgt Ion: 43 Resp: 107508

Ion	Ratio	Lower	Upper
43	100		
58	39.0	31.9	47.9



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC005

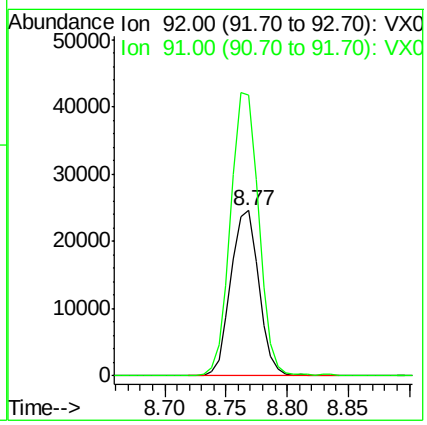
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:12:44 AM

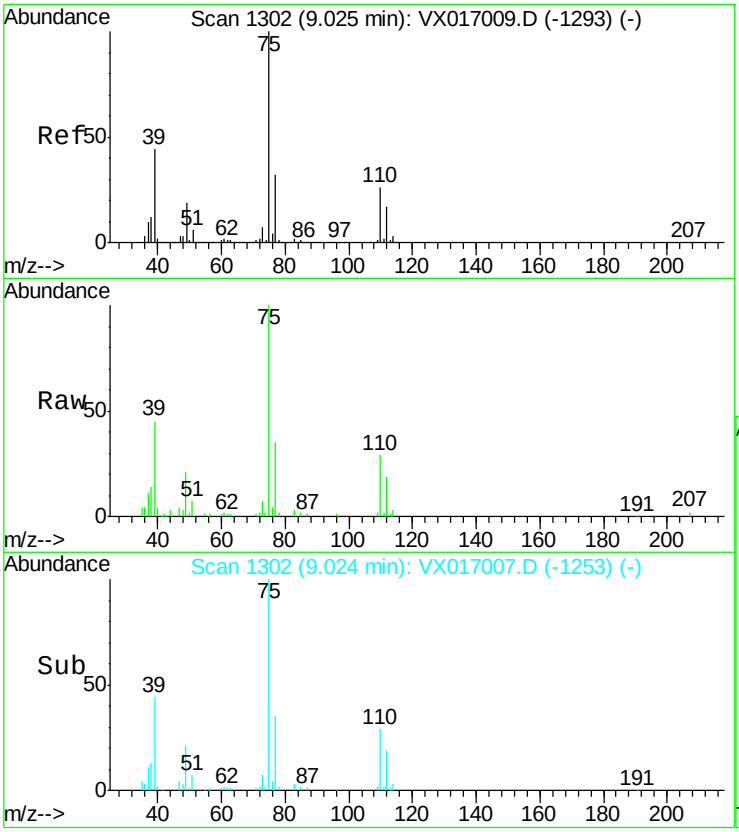


#52
Toluene
Concen: 4.839 ug/l
RT: 8.77 min Scan# 1260
Delta R.T. 0.01 min
Lab File: VX017007.D
Acq: 29 Jun 2020 14:35

Tgt Ion: 92 Resp: 39228

Ion	Ratio	Lower	Upper
92	100		
91	171.0	136.9	205.3

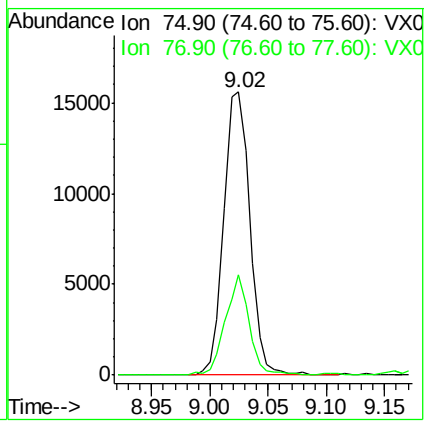




#53
t-1,3-Dichloropropene
Concen: 4.698 ug/l
RT: 9.02 min Scan# 1302
Delta R.T. -0.00 min
Lab File: VX017007.D
Acq: 29 Jun 2020 14:35

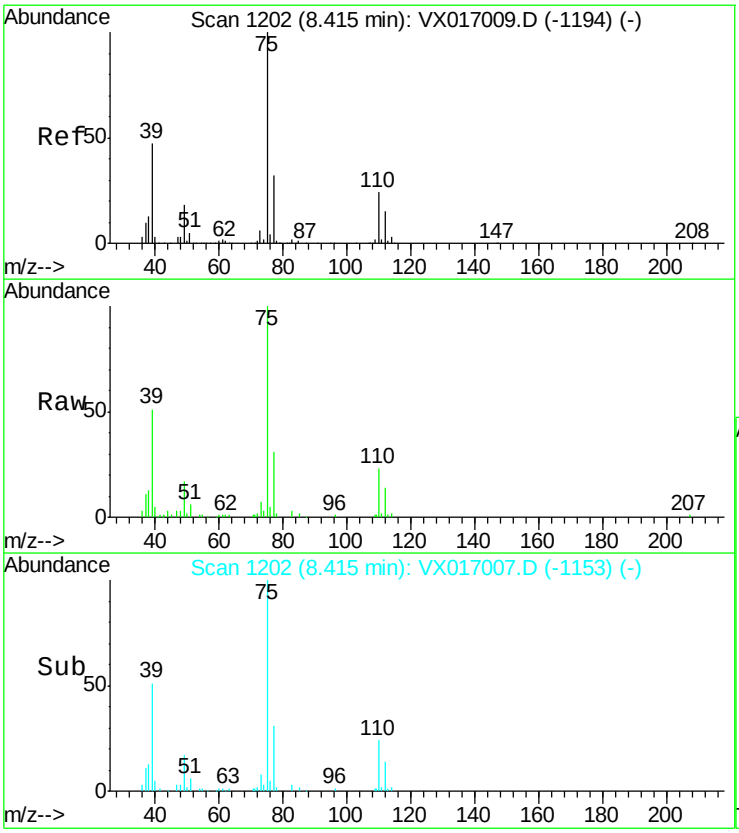
Tgt Ion: 75 Resp: 24321

Ion	Ratio	Lower	Upper
75	100		
77	35.3	25.6	38.4



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC005

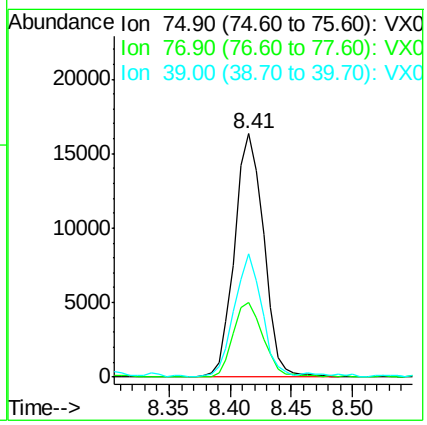
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:12:44 AM



#54
cis-1,3-Dichloropropene
Concen: 4.880 ug/l
RT: 8.41 min Scan# 1202
Delta R.T. -0.00 min
Lab File: VX017007.D
Acq: 29 Jun 2020 14:35

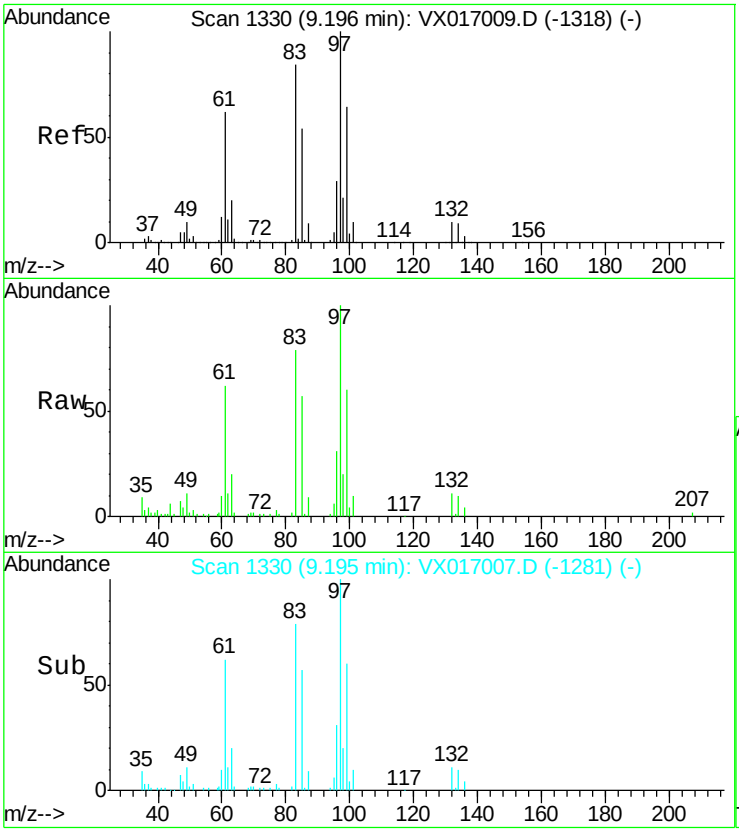
Tgt Ion: 75 Resp: 27082

Ion	Ratio	Lower	Upper
75	100		
77	30.7	25.2	37.8
39	50.5	37.4	56.2



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC005

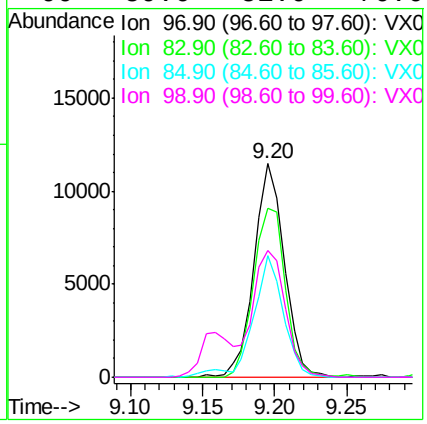
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:12:44 AM

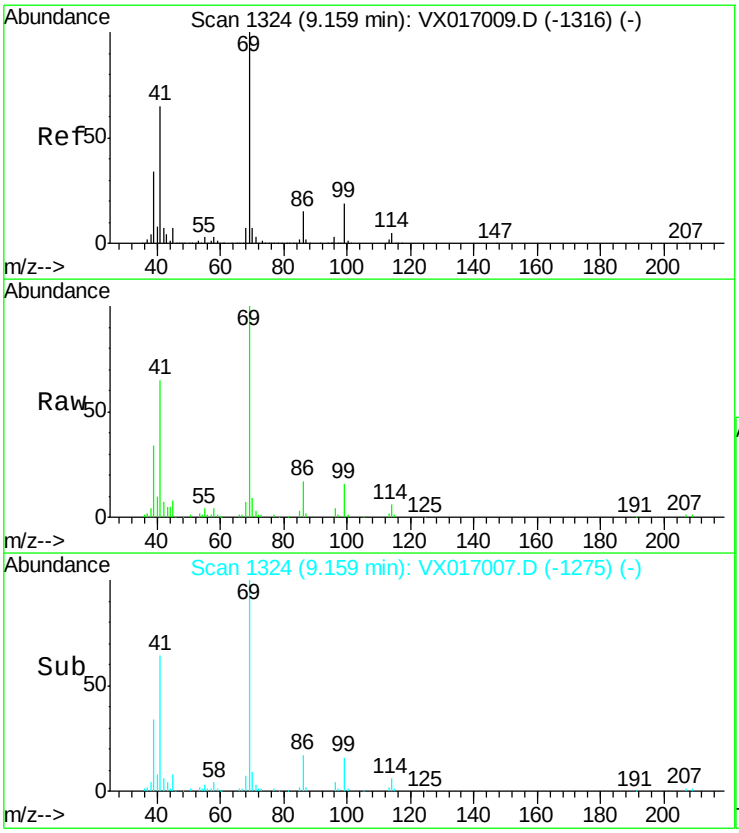


#55
1,1,2-Trichloroethane
Concen: 5.036 ug/l
RT: 9.20 min Scan# 1330
Delta R.T. -0.00 min
Lab File: VX017007.D
Acq: 29 Jun 2020 14:35

Tgt Ion: 97 Resp: 16682

Ion	Ratio	Lower	Upper
97	100		
83	78.9	67.0	100.6
85	56.7	43.5	65.3
99	59.6	51.0	76.6

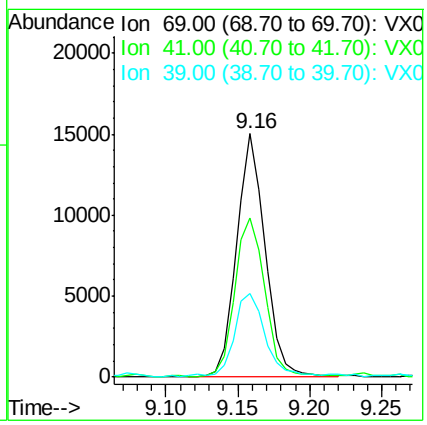


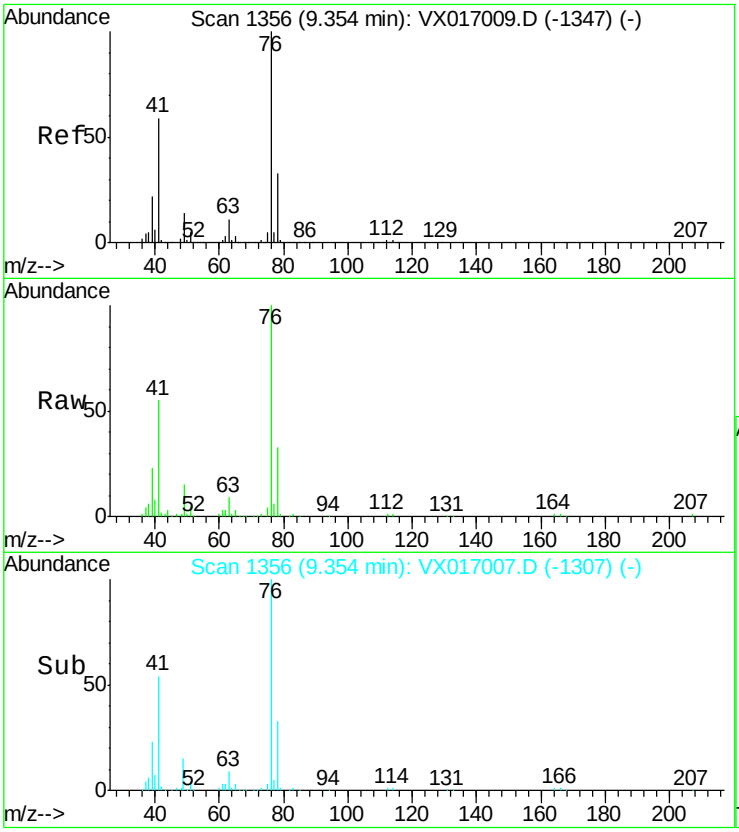


#56
Ethyl methacrylate
Concen: 4.400 ug/l
RT: 9.16 min Scan# 1324
Delta R.T. -0.00 min
Lab File: VX017007.D
Acq: 29 Jun 2020 14:35

Tgt Ion: 69 Resp: 20742

Ion	Ratio	Lower	Upper
69	100		
41	69.7	53.6	80.4
39	37.5	28.2	42.2

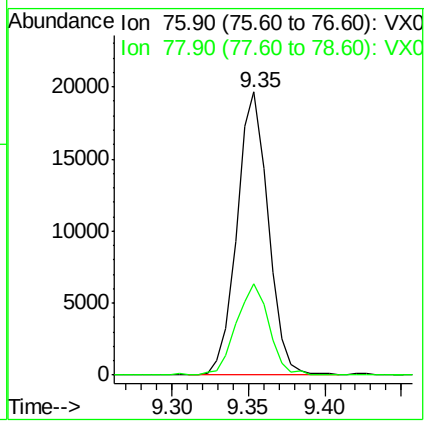




#57
1,3-Dichloropropane
Concen: 4.957 ug/l
RT: 9.35 min Scan# 1356
Delta R.T. -0.00 min
Lab File: VX017007.D
Acq: 29 Jun 2020 14:35

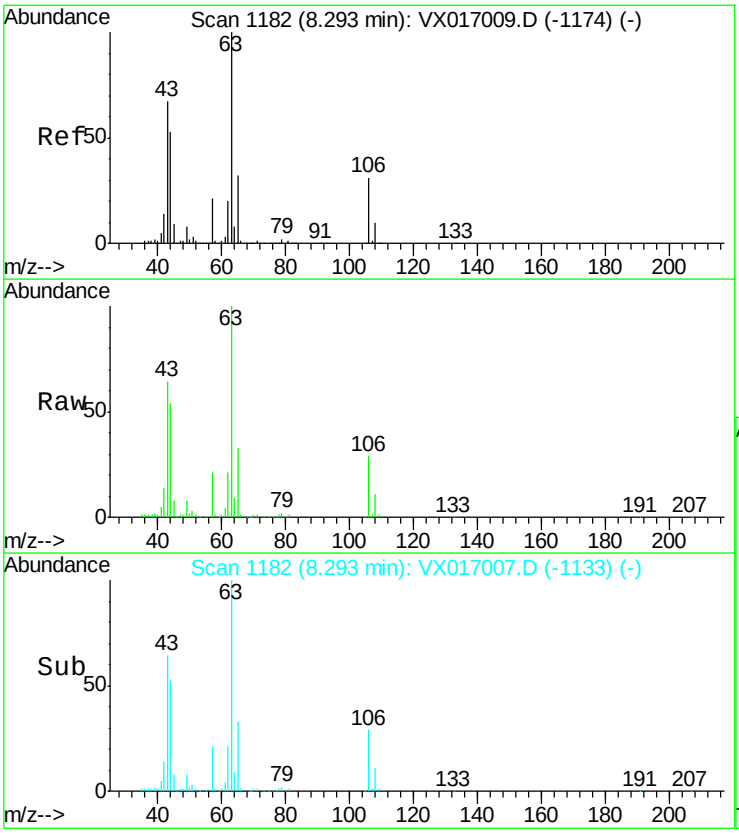
Tgt Ion: 76 Resp: 27782

Ion	Ratio	Lower	Upper
76	100		
78	34.1	25.9	38.9



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC005

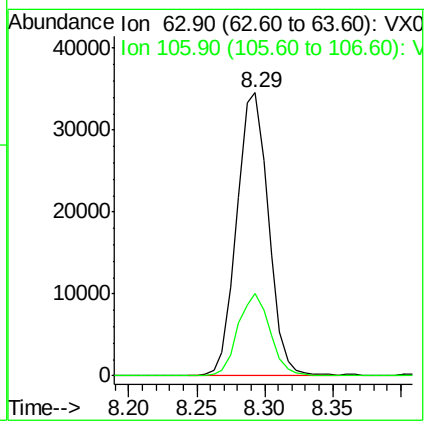
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:12:44 AM

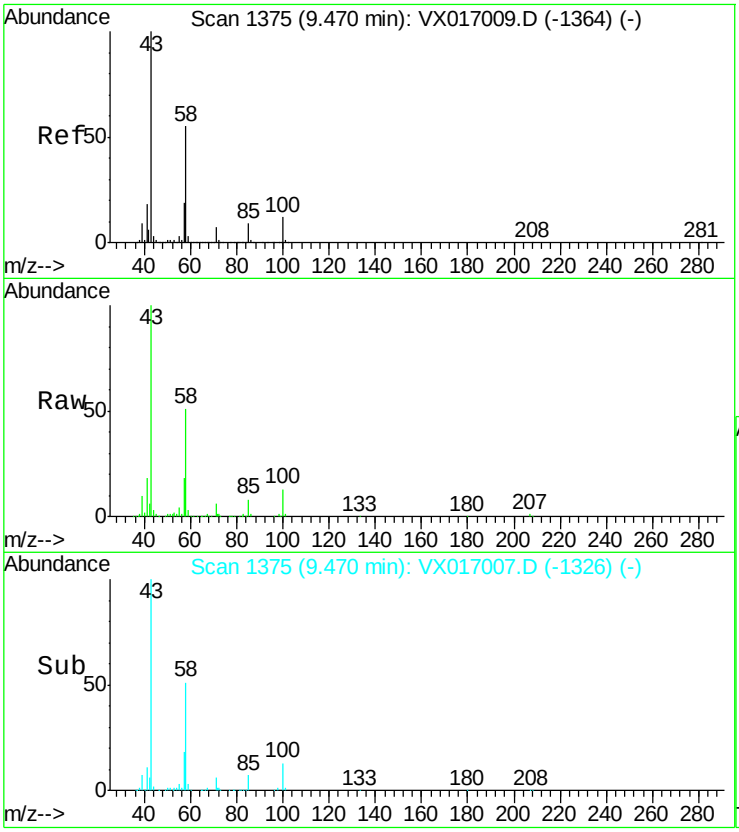


#58
2-Chloroethyl Vinyl ether
Concen: 24.079 ug/l
RT: 8.29 min Scan# 1182
Delta R.T. -0.00 min
Lab File: VX017007.D
Acq: 29 Jun 2020 14:35

Tgt Ion: 63 Resp: 56498

Ion	Ratio	Lower	Upper
63	100		
106	29.3	24.0	36.0

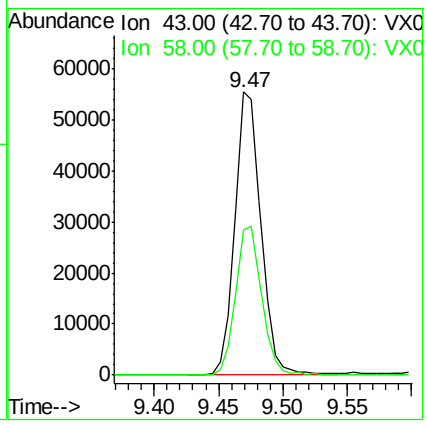




#59
2-Hexanone
Concen: 24.141 ug/l
RT: 9.47 min Scan# 1375
Delta R.T. -0.00 min
Lab File: VX017007.D
Acq: 29 Jun 2020 14:35

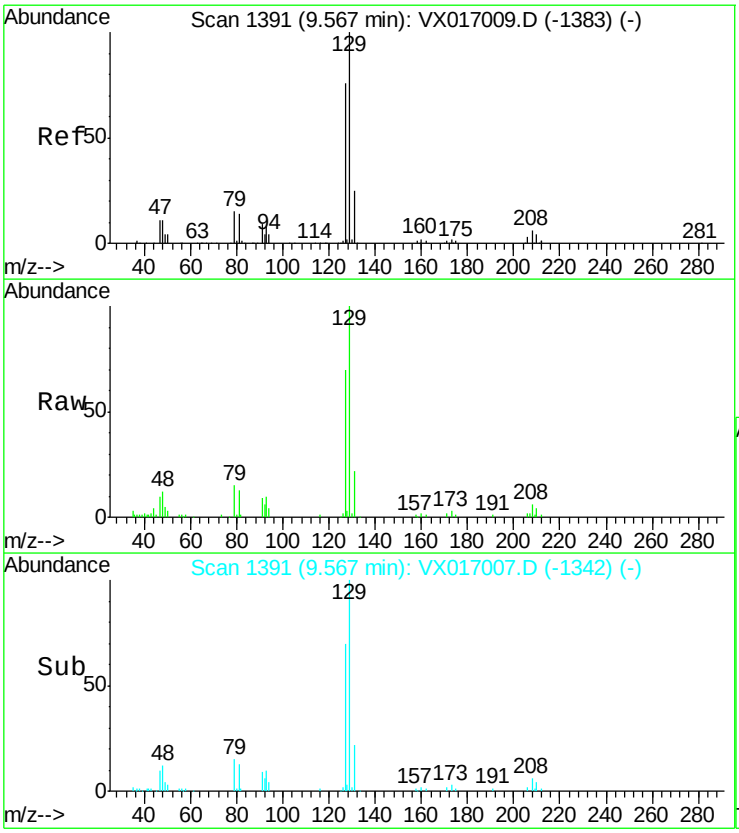
Tgt Ion: 43 Resp: 78308

Ion	Ratio	Lower	Upper
43	100		
58	52.8	27.9	83.6



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC005

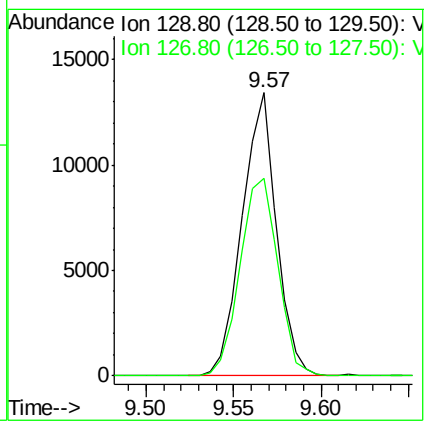
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:12:44 AM

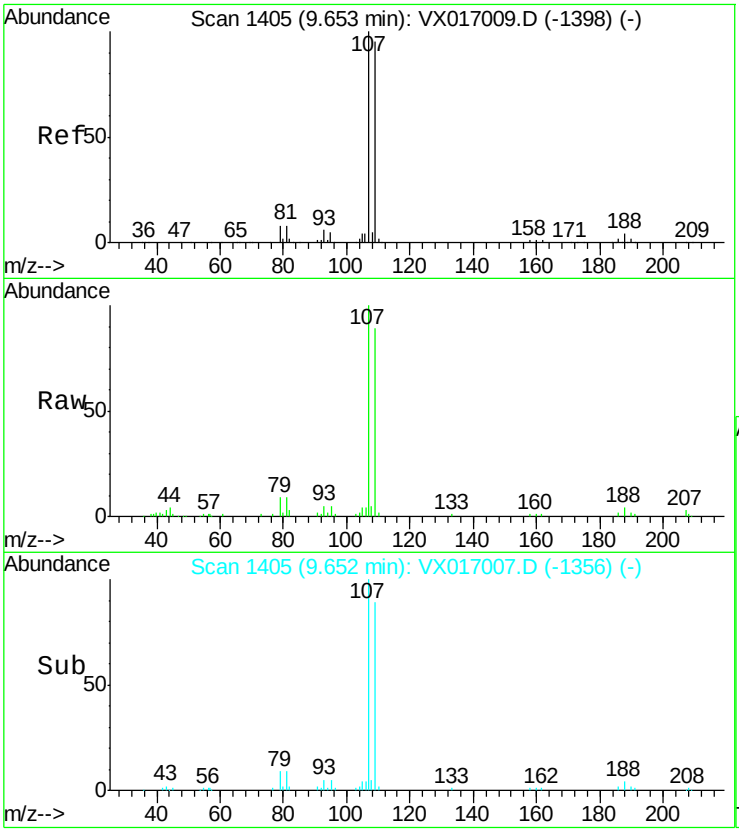


#60
Dibromochloromethane
Concen: 4.764 ug/l
RT: 9.57 min Scan# 1391
Delta R.T. -0.00 min
Lab File: VX017007.D
Acq: 29 Jun 2020 14:35

Tgt Ion:129 Resp: 18326

Ion	Ratio	Lower	Upper
129	100		
127	77.1	38.9	116.7

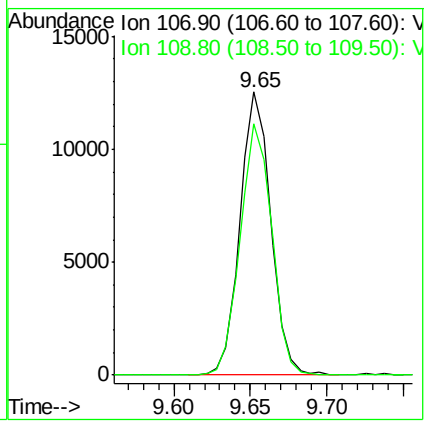


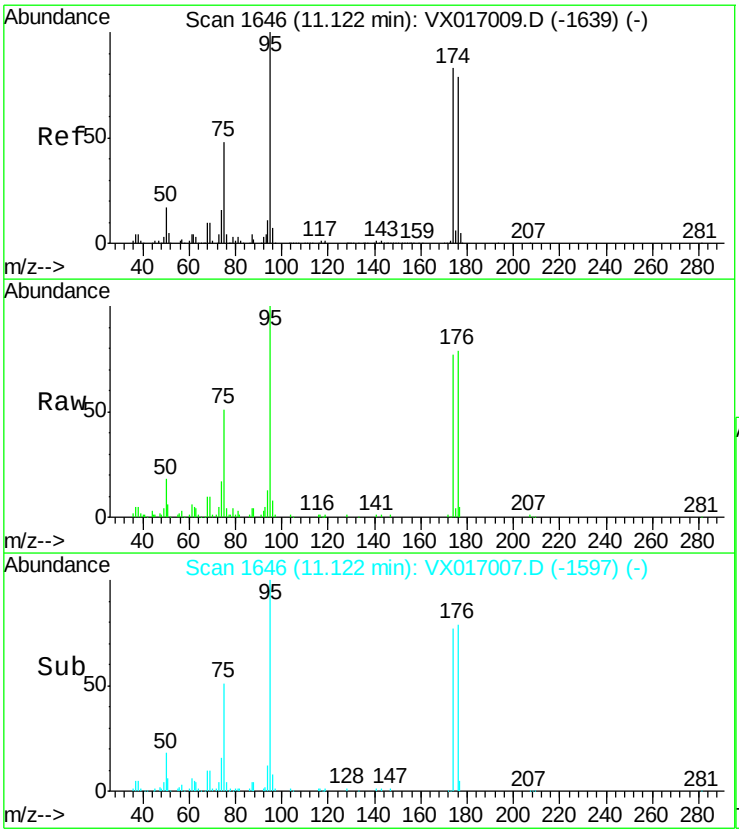


#61
1,2-Dibromoethane
Concen: 4.913 ug/l
RT: 9.65 min Scan# 1405
Delta R.T. -0.00 min
Lab File: VX017007.D
Acq: 29 Jun 2020 14:35

Tgt Ion:107 Resp: 17491

Ion	Ratio	Lower	Upper
107	100		
109	91.1	75.8	113.8

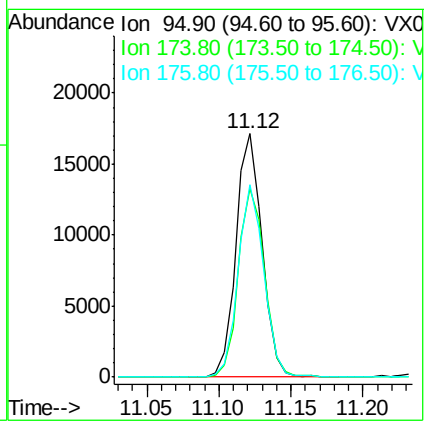




#62
4-Bromofluorobenzene
Concen: 5.066 ug/l
RT: 11.12 min Scan# 1646
Delta R.T. -0.00 min
Lab File: VX017007.D
Acq: 29 Jun 2020 14:35

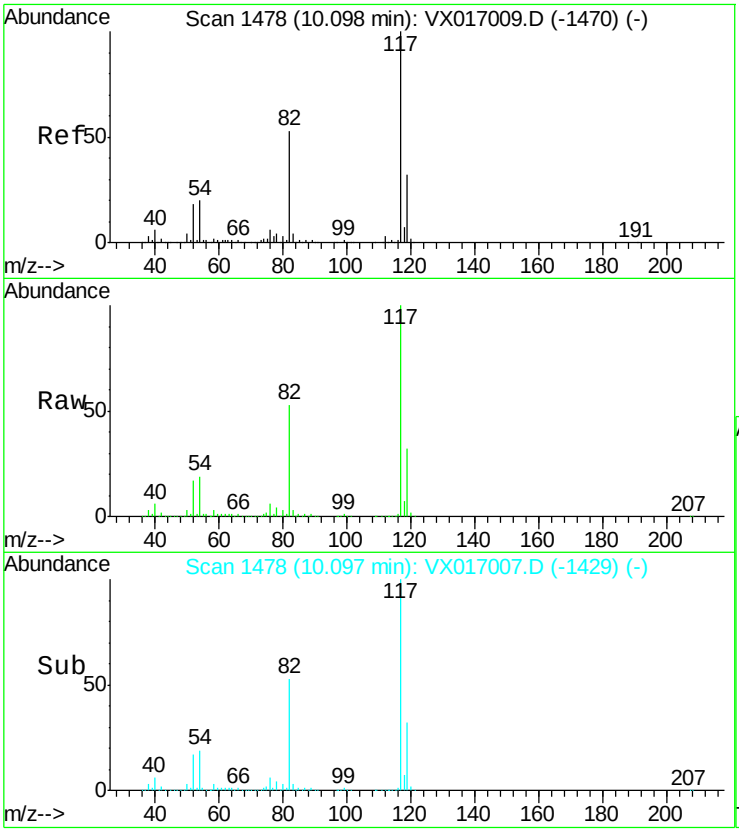
Tgt Ion: 95 Resp: 21660

Ion	Ratio	Lower	Upper
95	100		
174	77.8	0.0	164.0
176	77.7	0.0	157.6



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC005

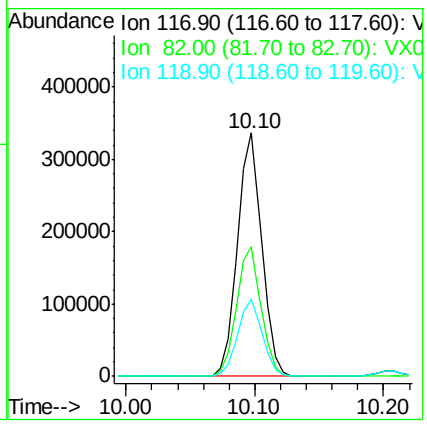
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:12:44 AM

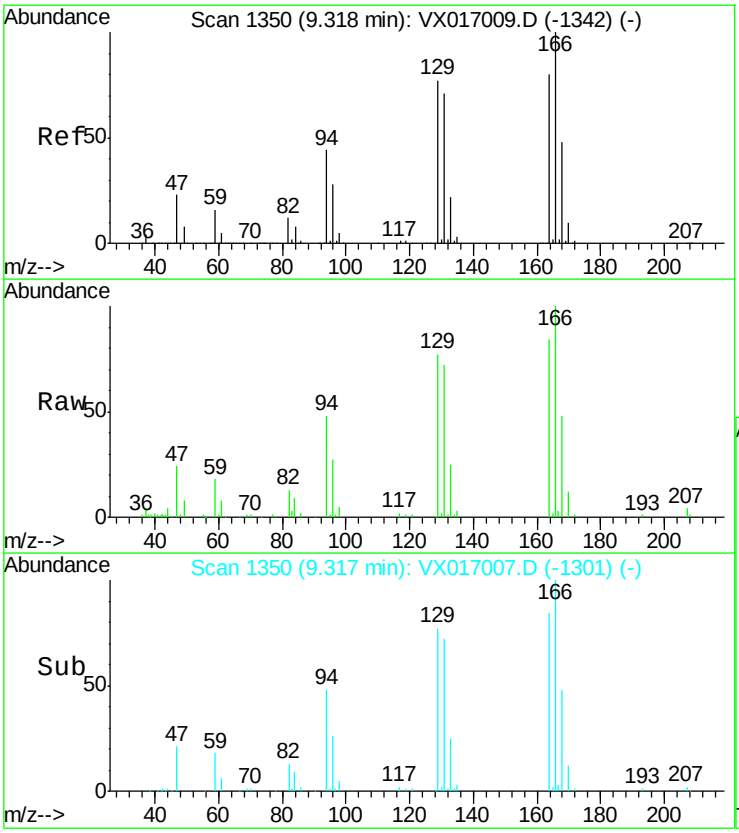


#63
Chlorobenzene-d5
Concen: 50.000 ug/l
RT: 10.10 min Scan# 1478
Delta R.T. -0.00 min
Lab File: VX017007.D
Acq: 29 Jun 2020 14:35

Tgt Ion:117 Resp: 441650

Ion	Ratio	Lower	Upper
117	100		
82	53.0	42.6	63.8
119	31.8	25.4	38.2

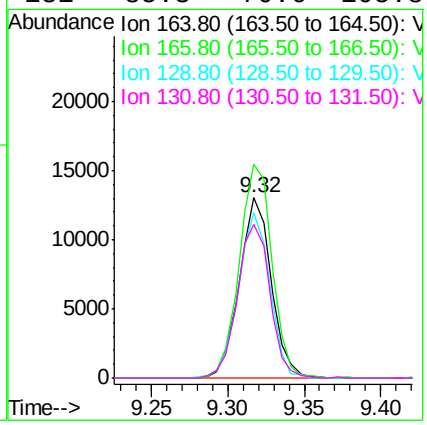




#64
Tetrachloroethene
Concen: 5.283 ug/l
RT: 9.32 min Scan# 1350
Delta R.T. -0.00 min
Lab File: VX017007.D
Acq: 29 Jun 2020 14:35

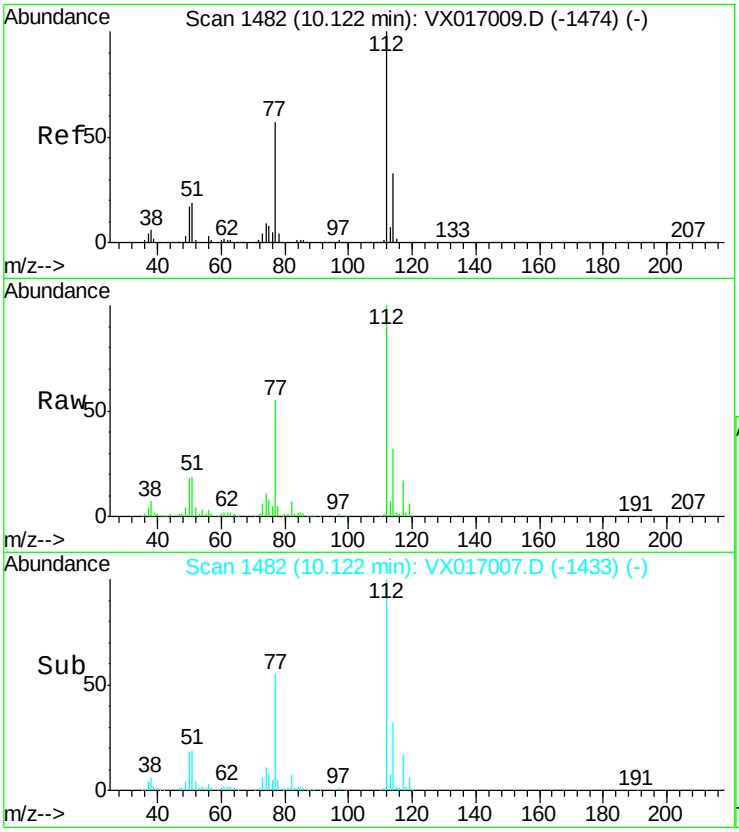
Tgt Ion:164 Resp: 18832

Ion	Ratio	Lower	Upper
164	100		
166	118.6	99.4	149.0
129	91.8	76.3	114.5
131	85.3	70.6	105.8



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC005

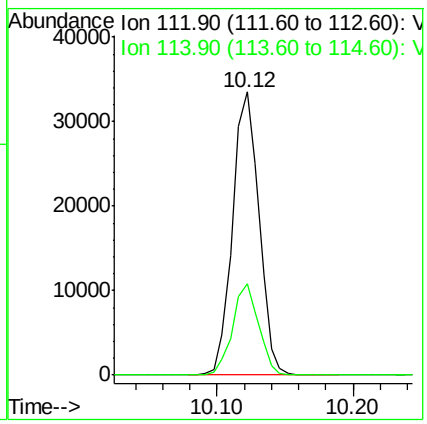
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:12:44 AM



#65
Chlorobenzene
Concen: 4.979 ug/l
RT: 10.12 min Scan# 1482
Delta R.T. -0.00 min
Lab File: VX017007.D
Acq: 29 Jun 2020 14:35

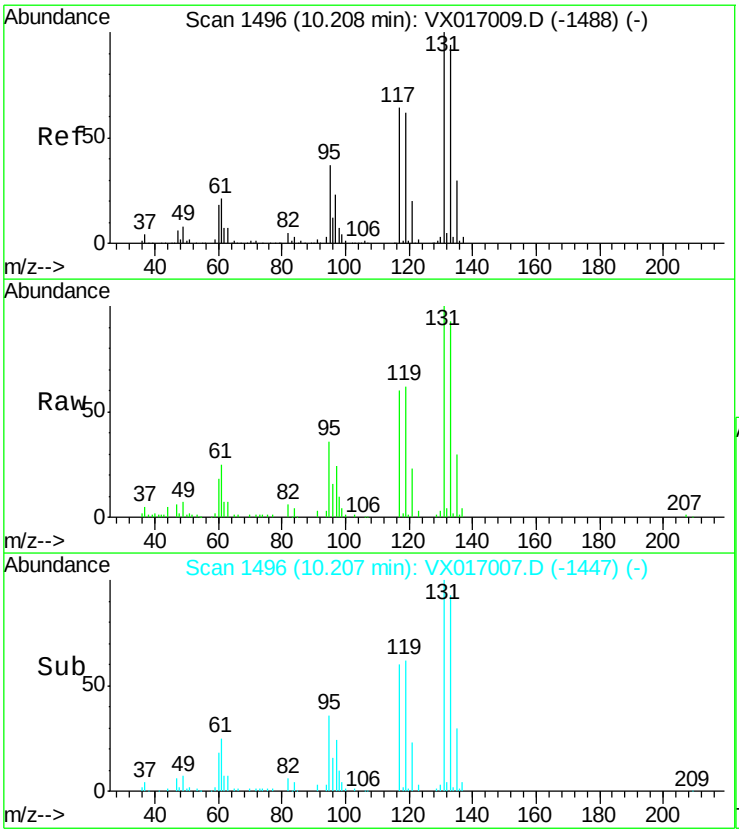
Tgt Ion:112 Resp: 45383

Ion	Ratio	Lower	Upper
112	100		
114	32.3	26.2	39.4



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC005

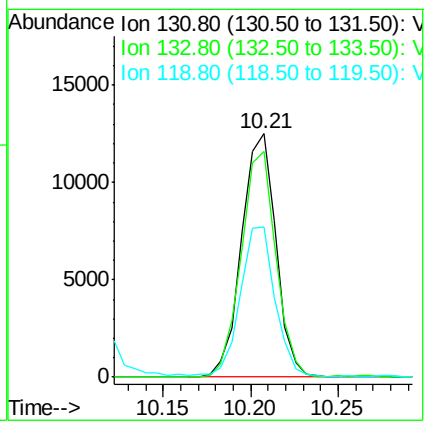
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:12:44 AM



#66
1,1,1,2-Tetrachloroethane
Concen: 4.869 ug/l
RT: 10.21 min Scan# 1496
Delta R.T. -0.00 min
Lab File: VX017007.D
Acq: 29 Jun 2020 14:35

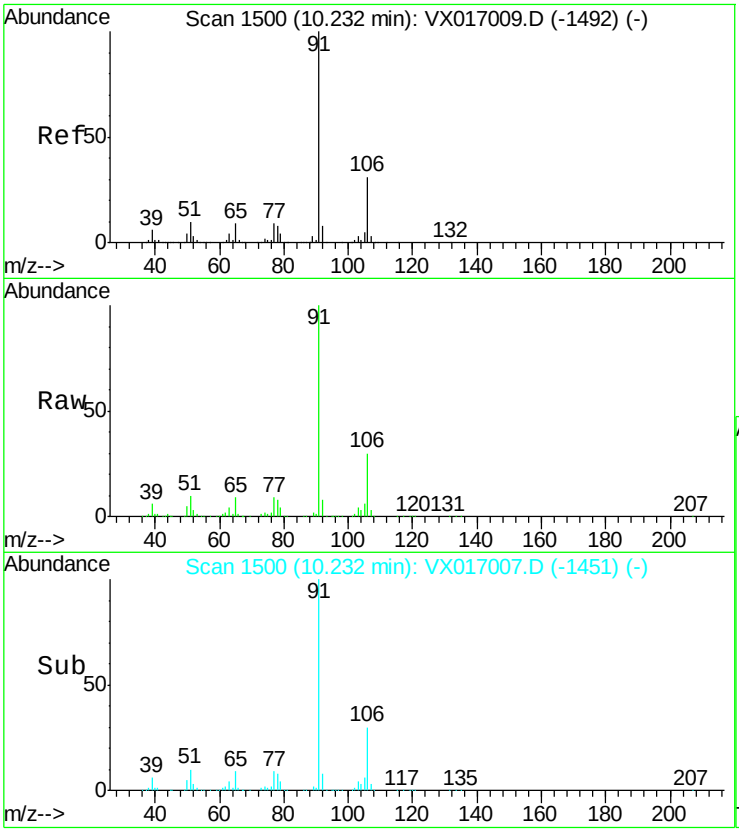
Tgt Ion:131 Resp: 17103

Ion	Ratio	Lower	Upper
131	100		
133	93.4	47.3	141.9
119	63.1	31.9	95.5



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC005

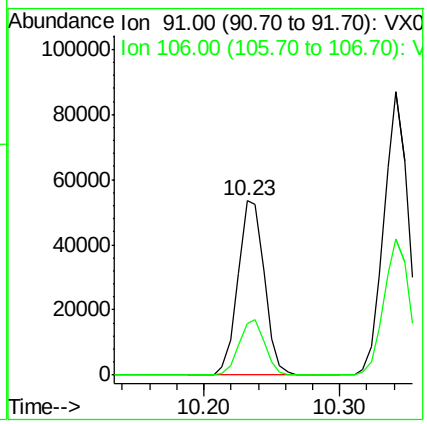
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:12:44 AM

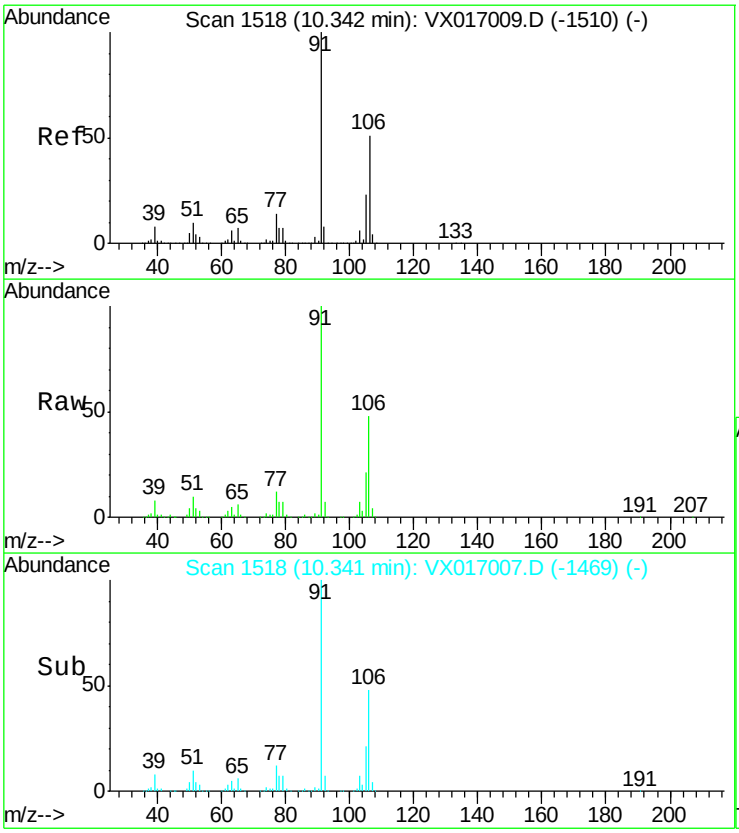


#67
Ethyl Benzene
Concen: 4.757 ug/l
RT: 10.23 min Scan# 1500
Delta R.T. -0.00 min
Lab File: VX017007.D
Acq: 29 Jun 2020 14:35

Tgt Ion: 91 Resp: 72409

Ion	Ratio	Lower	Upper
91	100		
106	29.5	24.7	37.1

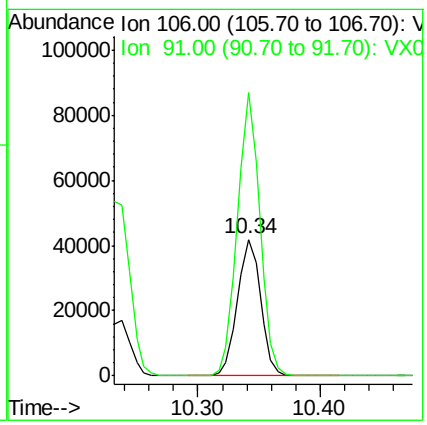


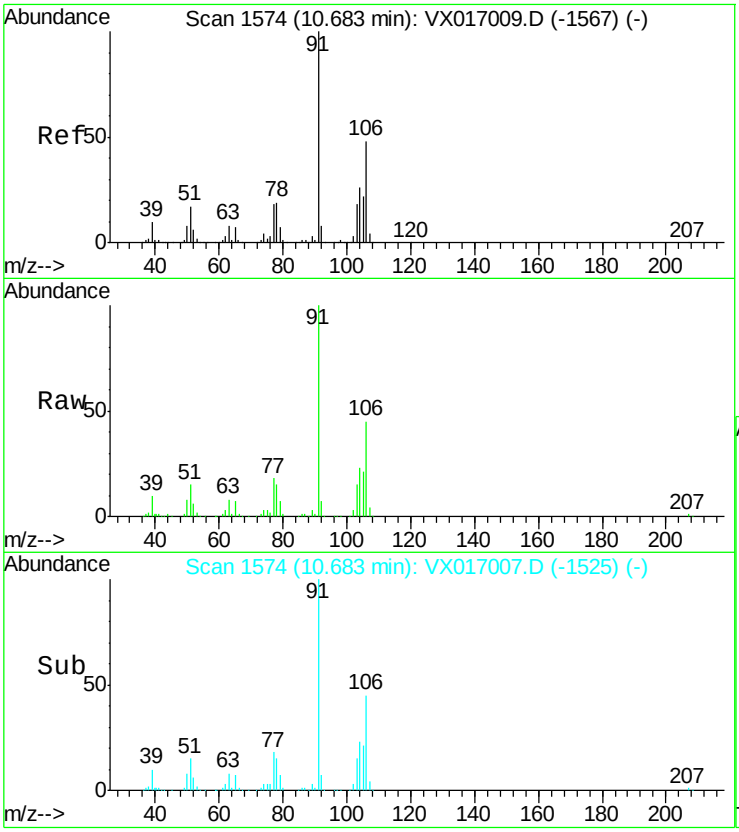


#68
m/p-Xylenes
Concen: 9.392 ug/l
RT: 10.34 min Scan# 1518
Delta R.T. -0.00 min
Lab File: VX017007.D
Acq: 29 Jun 2020 14:35

Tgt Ion:106 Resp: 54898

Ion	Ratio	Lower	Upper
106	100		
91	200.0	158.6	238.0

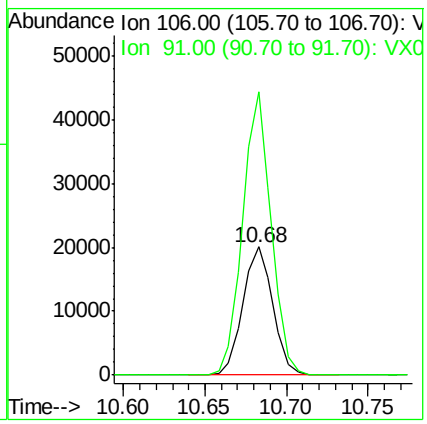




#69
o-Xylene
Concen: 4.650 ug/l
RT: 10.68 min Scan# 1574
Delta R.T. -0.00 min
Lab File: VX017007.D
Acq: 29 Jun 2020 14:35

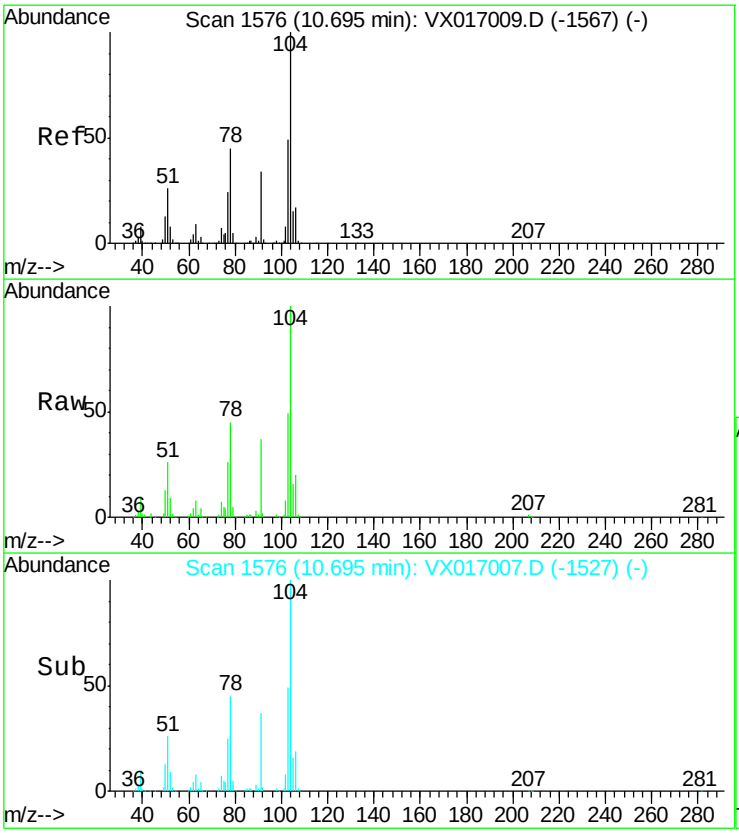
Tgt Ion:106 Resp: 25857

Ion	Ratio	Lower	Upper
106	100		
91	209.0	105.6	316.7



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC005

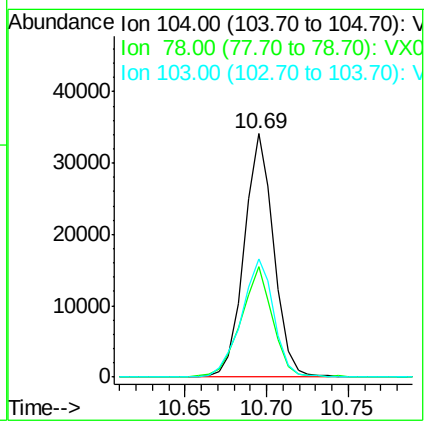
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:12:44 AM

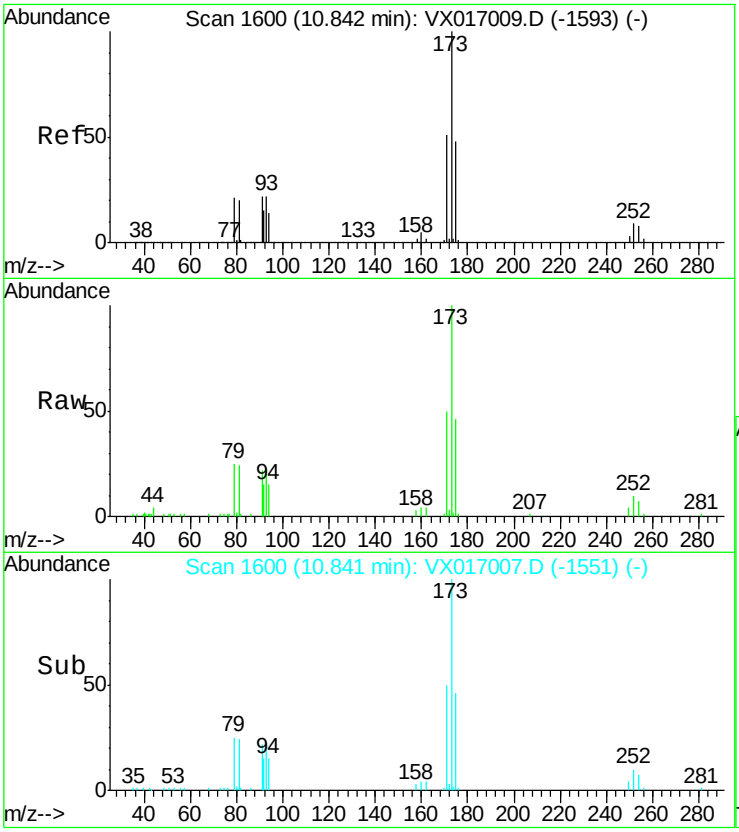


#70
Styrene
Concen: 4.559 ug/l
RT: 10.69 min Scan# 1576
Delta R.T. -0.00 min
Lab File: VX017007.D
Acq: 29 Jun 2020 14:35

Tgt Ion:104 Resp: 43168

Ion	Ratio	Lower	Upper
104	100		
78	49.0	39.5	59.3
103	53.4	43.0	64.6

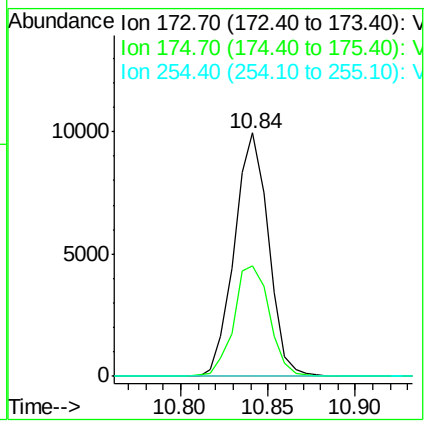




#71
Bromoform
Concen: 4.841 ug/l
RT: 10.84 min Scan# 1600
Delta R.T. -0.00 min
Lab File: VX017007.D
Acq: 29 Jun 2020 14:35

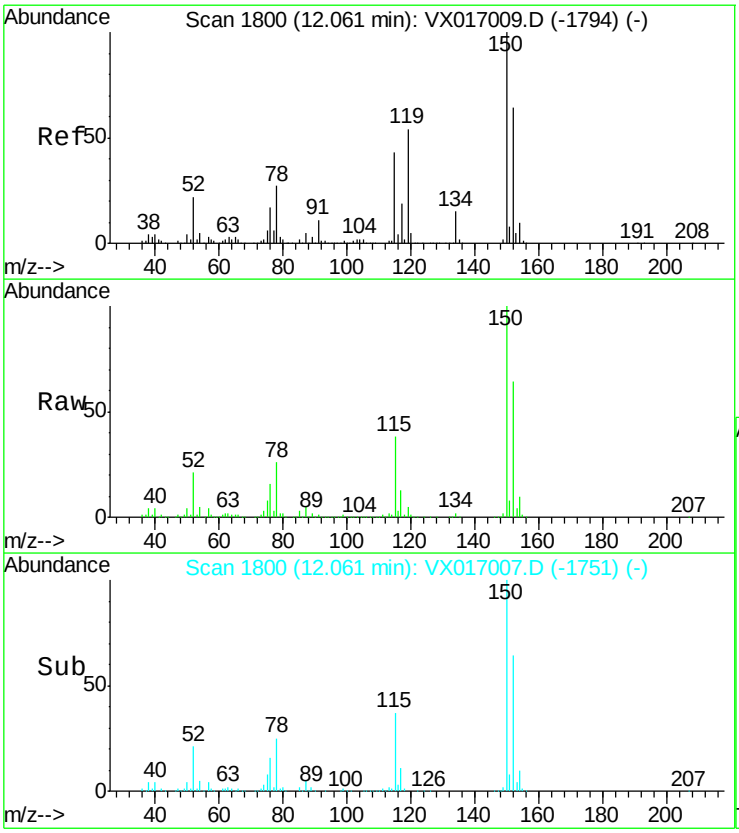
Tgt Ion:173 Resp: 13485

Ion	Ratio	Lower	Upper
173	100		
175	47.7	24.5	73.5
254	0.0	0.1	0.1#



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC005

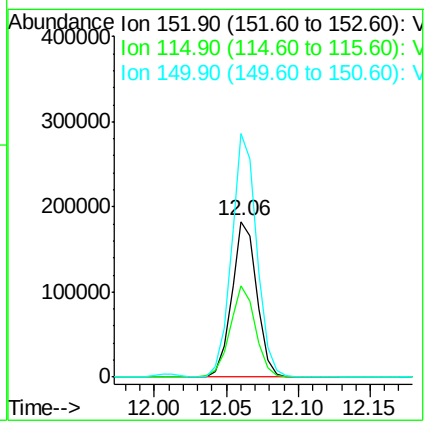
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:12:44 AM

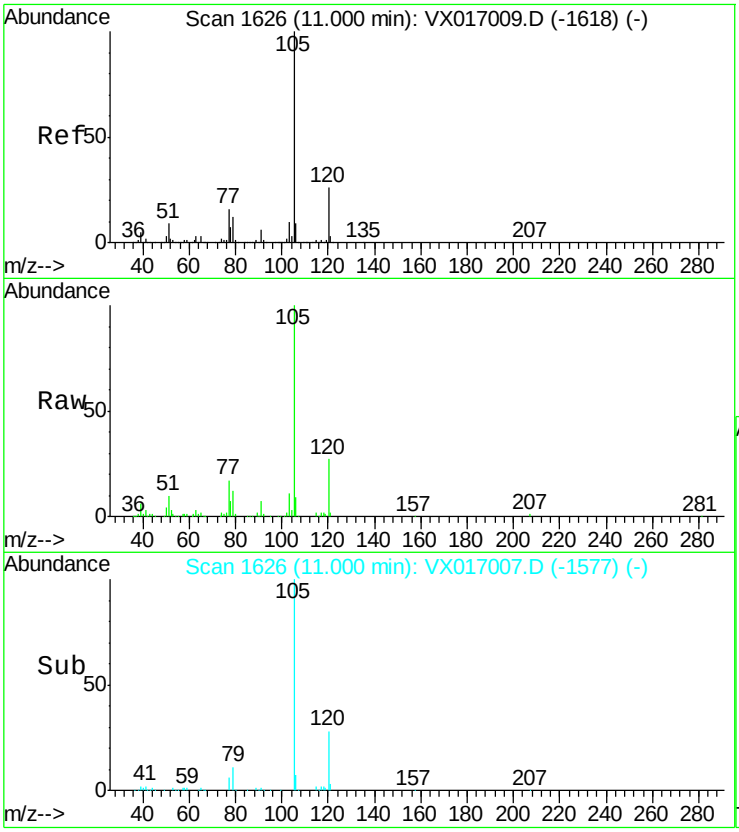


#72
1,4-Dichlorobenzene-d4
Concen: 50.000 ug/l
RT: 12.06 min Scan# 1800
Delta R.T. -0.00 min
Lab File: VX017007.D
Acq: 29 Jun 2020 14:35

Tgt Ion:152 Resp: 221915

Ion	Ratio	Lower	Upper
152	100		
115	59.6	40.9	122.7
150	157.1	0.0	351.6

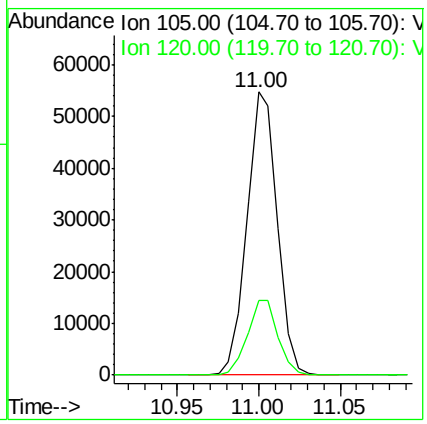




#73
Isopropylbenzene
Concen: 4.864 ug/l
RT: 11.00 min Scan# 1626
Delta R.T. -0.00 min
Lab File: VX017007.D
Acq: 29 Jun 2020 14:35

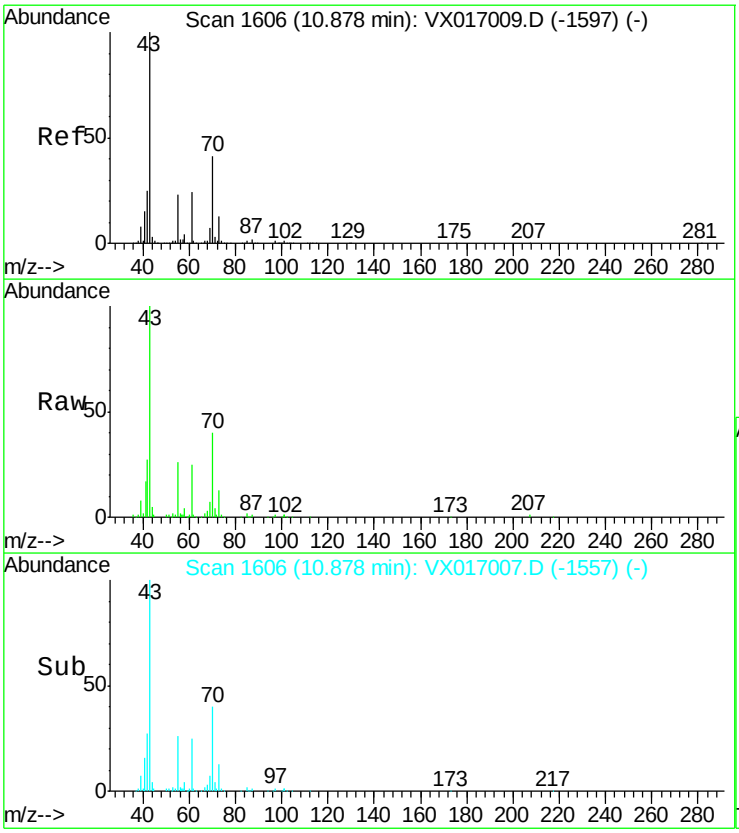
Tgt Ion:105 Resp: 70703

Ion	Ratio	Lower	Upper
105	100		
120	26.8	13.4	40.2



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC005

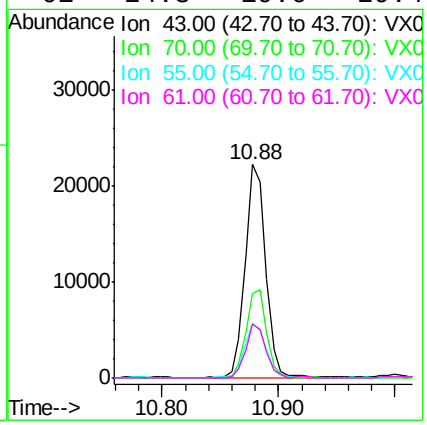
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:12:44 AM

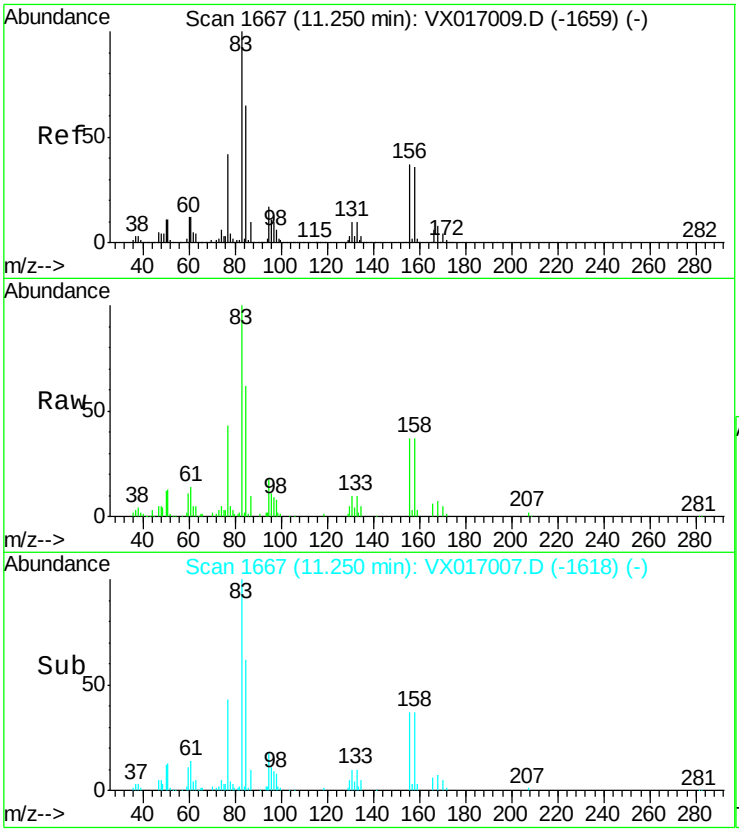


#74
N-amyl acetate
Concen: 4.477 ug/l
RT: 10.88 min Scan# 1606
Delta R.T. -0.00 min
Lab File: VX017007.D
Acq: 29 Jun 2020 14:35

Tgt Ion: 43 Resp: 27768

Ion	Ratio	Lower	Upper
43	100		
70	40.8	34.2	51.2
55	26.4	19.2	28.8
61	24.3	19.6	29.4

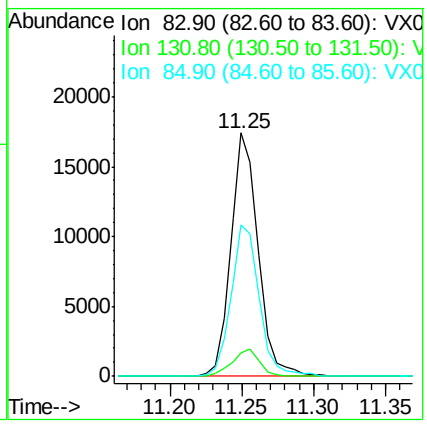




#75
1,1,2,2-Tetrachloroethane
Concen: 5.050 ug/l
RT: 11.25 min Scan# 1667
Delta R.T. -0.00 min
Lab File: VX017007.D
Acq: 29 Jun 2020 14:35

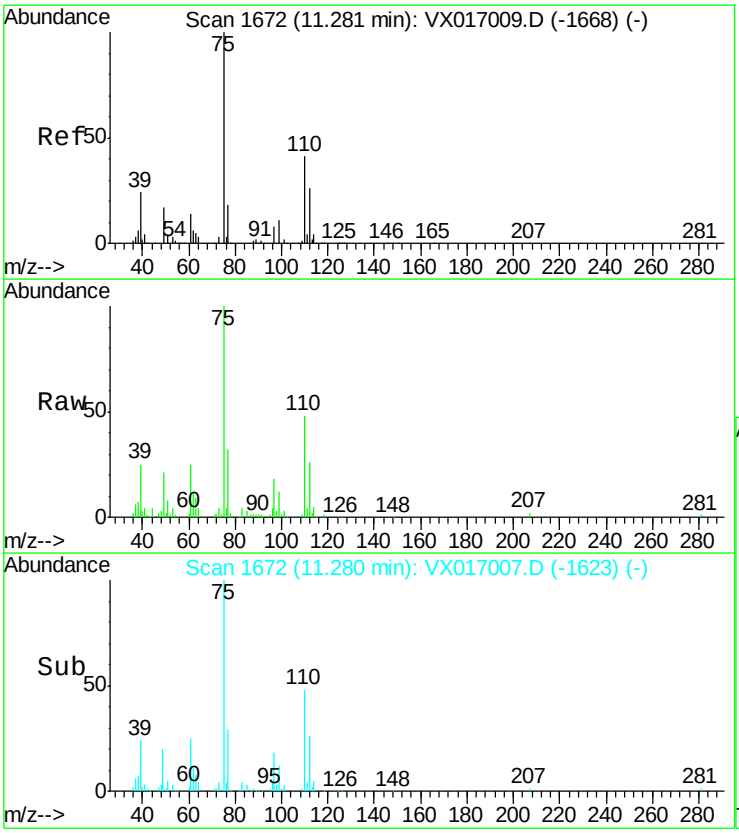
Tgt Ion: 83 Resp: 23088

Ion	Ratio	Lower	Upper
83	100		
131	11.0	5.4	16.2
85	64.4	31.9	95.9



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC005

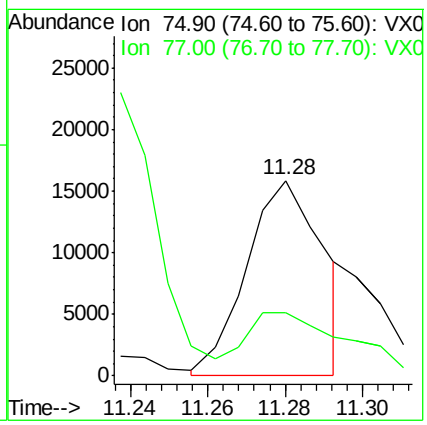
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:12:44 AM

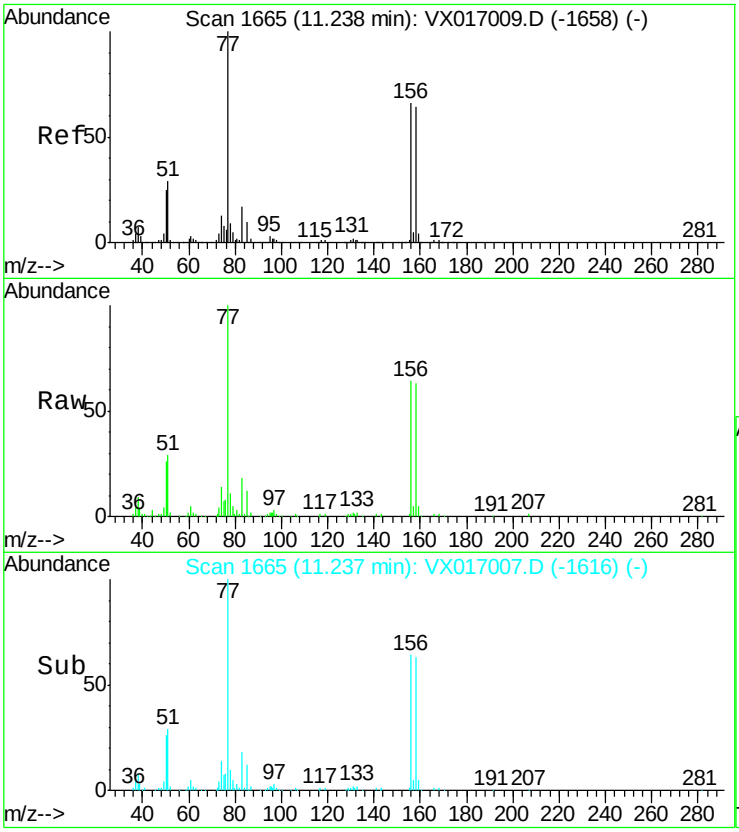


#76
1,2,3-Trichloropropane
Concen: 3.983 ug/l m
RT: 11.28 min Scan# 1672
Delta R.T. -0.00 min
Lab File: VX017007.D
Acq: 29 Jun 2020 14:35

Tgt Ion: 75 Resp: 21769

Ion	Ratio	Lower	Upper
75	100		
77	43.4	20.2	60.6

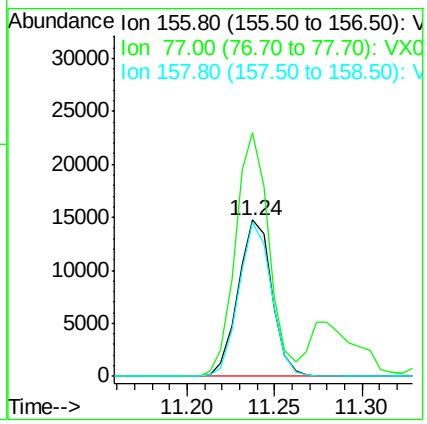




#77
Bromobenzene
Concen: 4.931 ug/l
RT: 11.24 min Scan# 1665
Delta R.T. -0.00 min
Lab File: VX017007.D
Acq: 29 Jun 2020 14:35

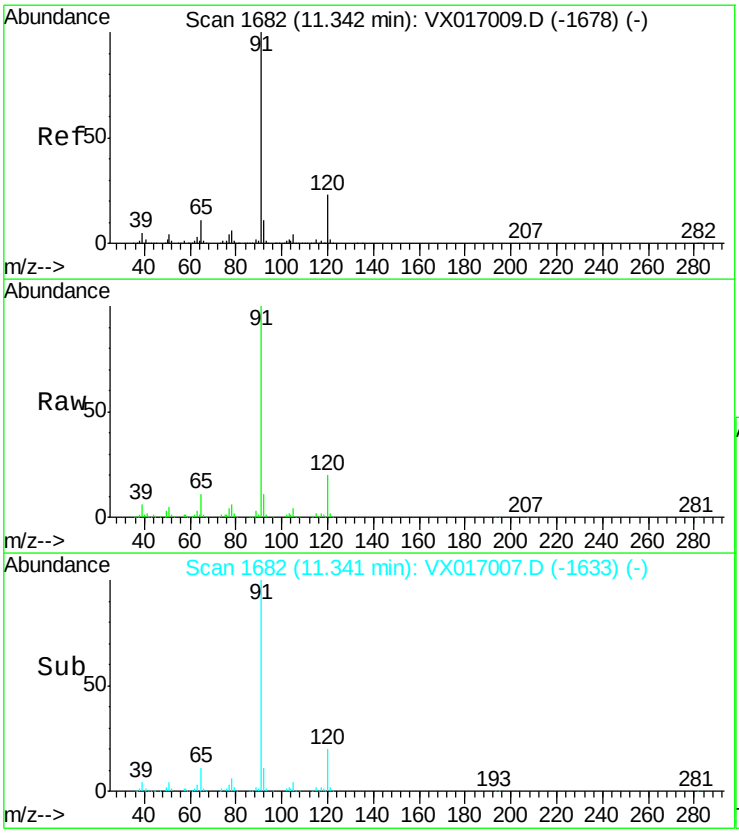
Tgt Ion:156 Resp: 19700

Ion	Ratio	Lower	Upper
156	100		
77	155.9	76.9	230.7
158	95.5	47.9	143.6



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC005

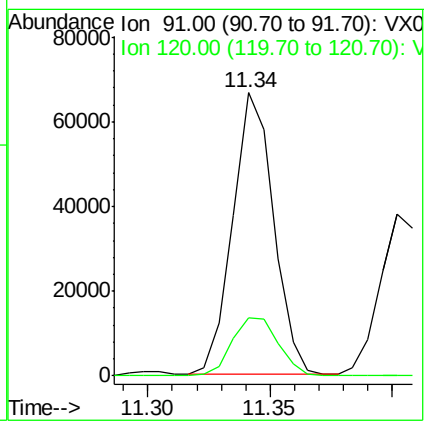
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:12:44 AM

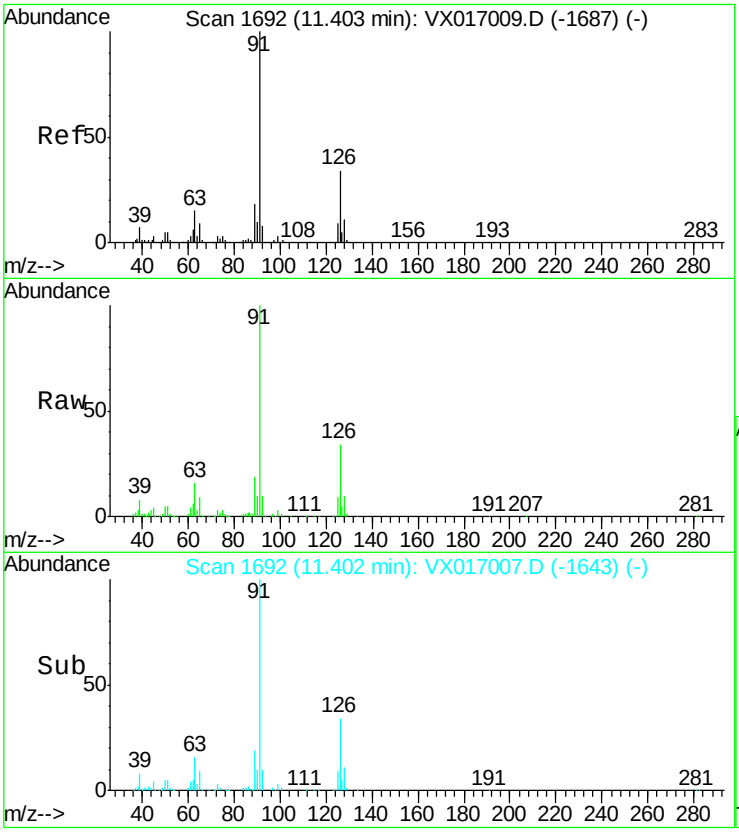


#78
n-propylbenzene
Concen: 4.712 ug/l
RT: 11.34 min Scan# 1682
Delta R.T. -0.00 min
Lab File: VX017007.D
Acq: 29 Jun 2020 14:35

Tgt Ion: 91 Resp: 77459

Ion	Ratio	Lower	Upper
91	100		
120	23.5	11.9	35.9

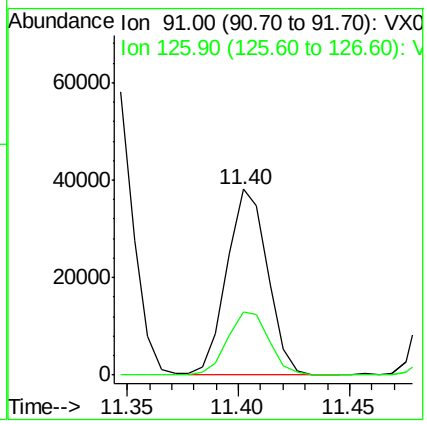




#79
2-Chlorotoluene
Concen: 4.843 ug/l
RT: 11.40 min Scan# 1692
Delta R.T. -0.00 min
Lab File: VX017007.D
Acq: 29 Jun 2020 14:35

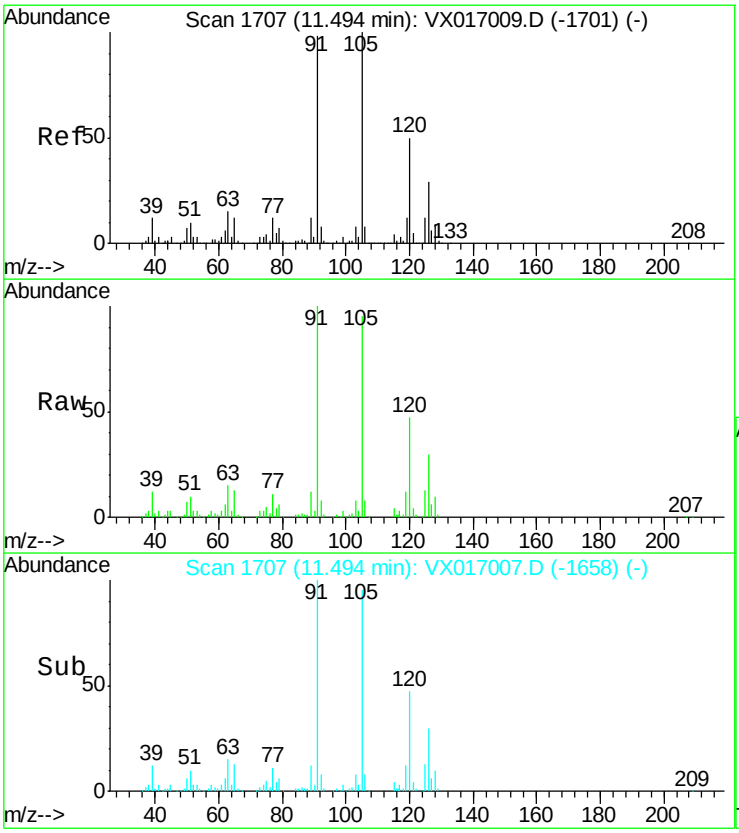
Tgt Ion: 91 Resp: 48176

Ion	Ratio	Lower	Upper
91	100		
126	35.6	17.4	52.3



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC005

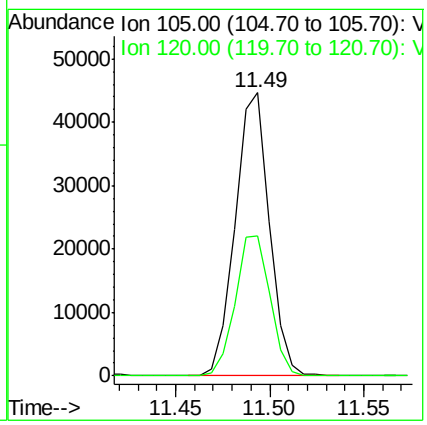
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:12:44 AM

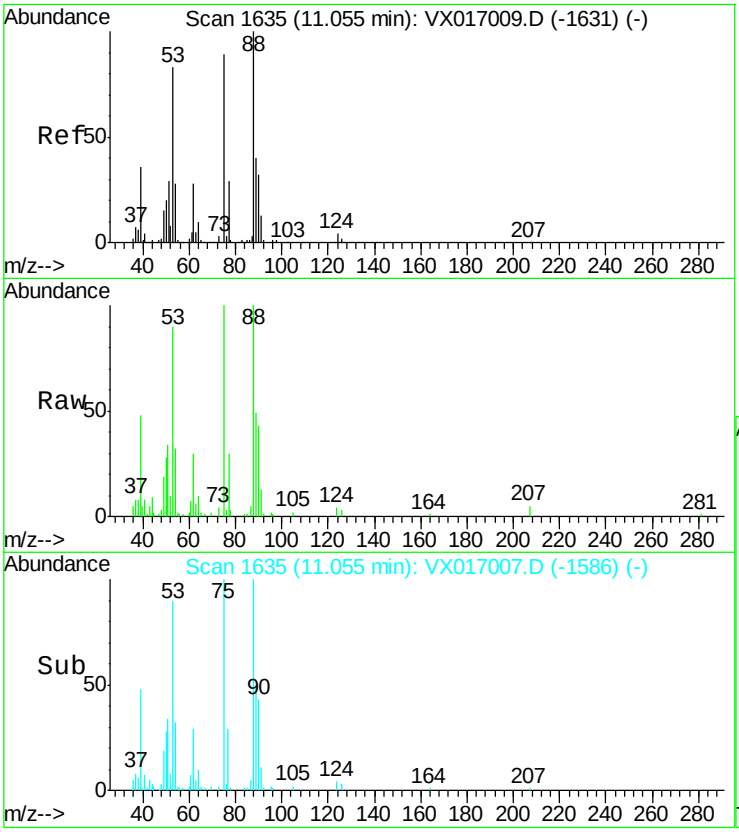


#80
1,3,5-Trimethylbenzene
Concen: 4.655 ug/l
RT: 11.49 min Scan# 1707
Delta R.T. -0.00 min
Lab File: VX017007.D
Acq: 29 Jun 2020 14:35

Tgt Ion:105 Resp: 56128

Ion	Ratio	Lower	Upper
105	100		
120	50.6	24.9	74.6

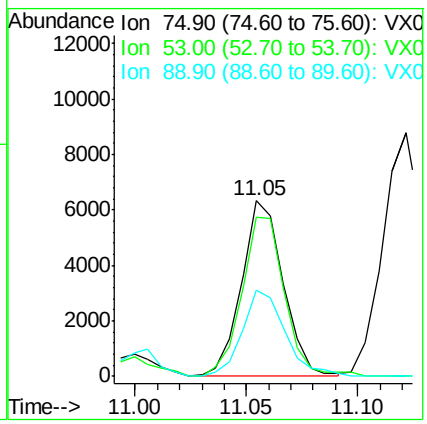




#81
trans-1,4-Dichloro-2-butene
Concen: 4.936 ug/l
RT: 11.05 min Scan# 1635
Delta R.T. -0.00 min
Lab File: VX017007.D
Acq: 29 Jun 2020 14:35

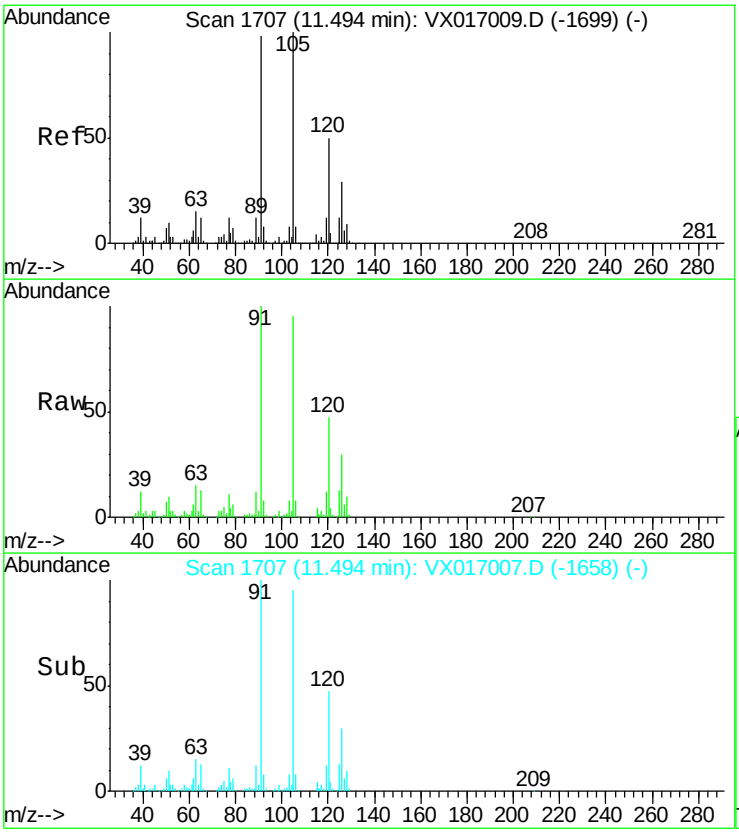
Tgt Ion: 75 Resp: 8317

Ion	Ratio	Lower	Upper
75	100		
53	92.9	72.4	108.6
89	50.4	37.0	55.4



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC005

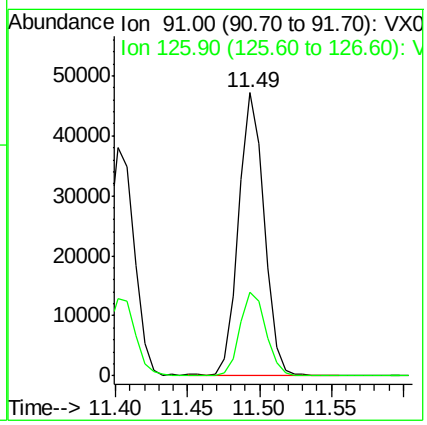
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:12:44 AM

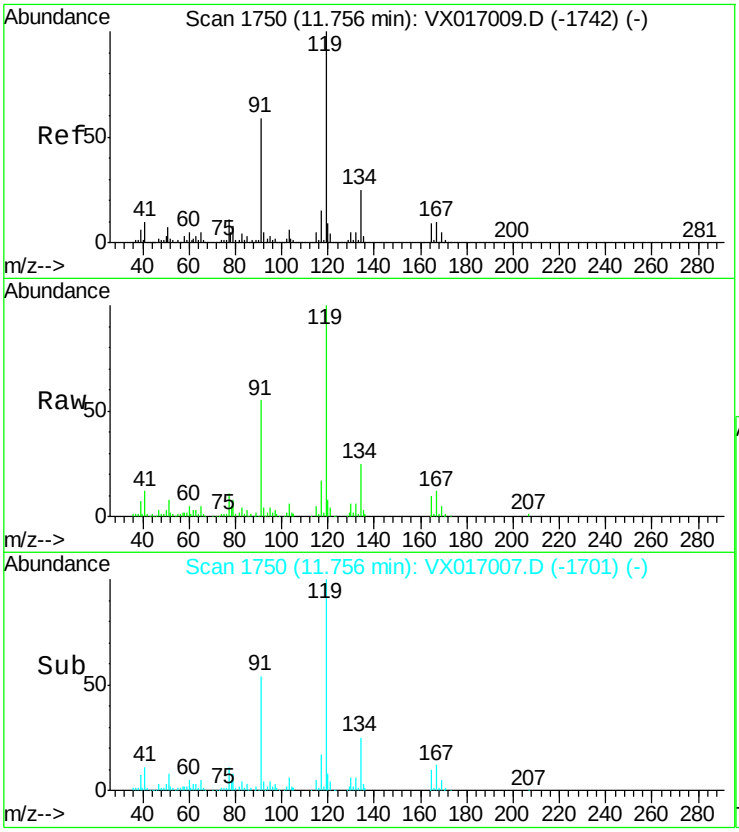


#82
4-Chlorotoluene
Concen: 4.881 ug/l
RT: 11.49 min Scan# 1707
Delta R.T. -0.00 min
Lab File: VX017007.D
Acq: 29 Jun 2020 14:35

Tgt Ion: 91 Resp: 58048

Ion	Ratio	Lower	Upper
91	100		
126	30.4	15.2	45.5

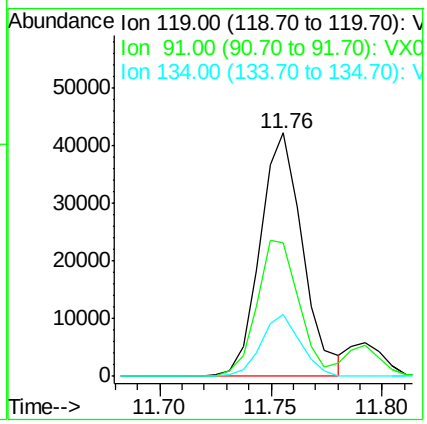




#83
tert-Butylbenzene
Concen: 4.727 ug/l
RT: 11.76 min Scan# 1750
Delta R.T. -0.00 min
Lab File: VX017007.D
Acq: 29 Jun 2020 14:35

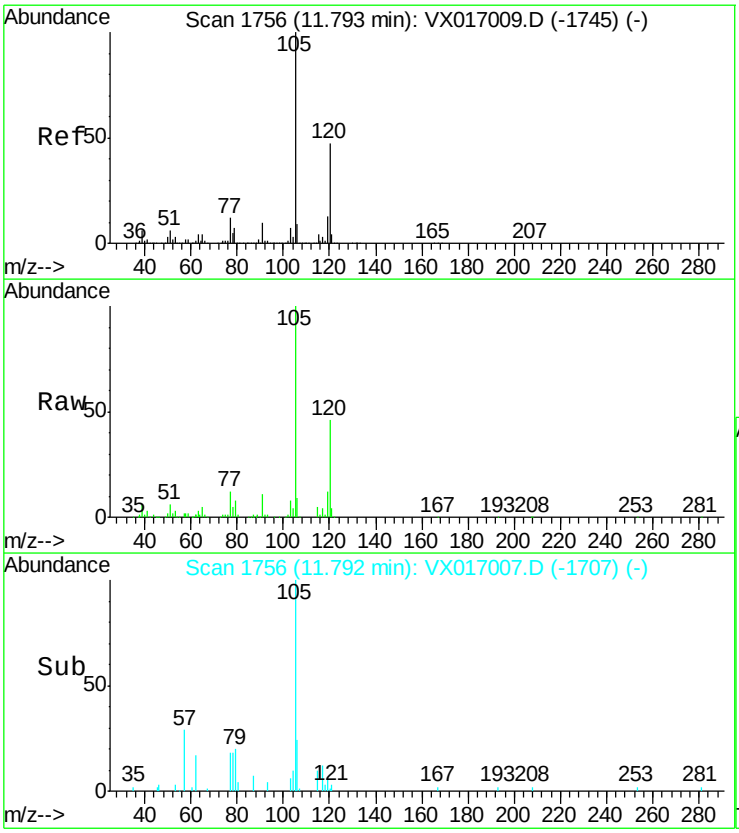
Tgt Ion:119 Resp: 55951

Ion	Ratio	Lower	Upper
119	100		
91	55.2	28.3	84.9
134	23.7	11.7	35.1



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC005

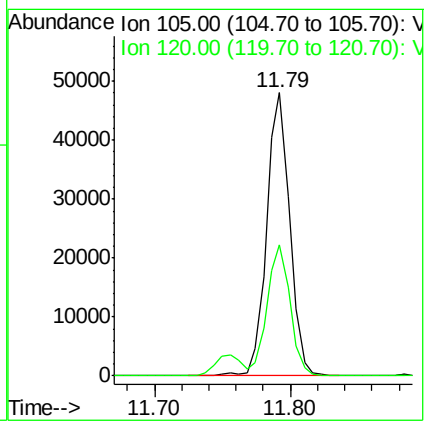
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:12:44 AM

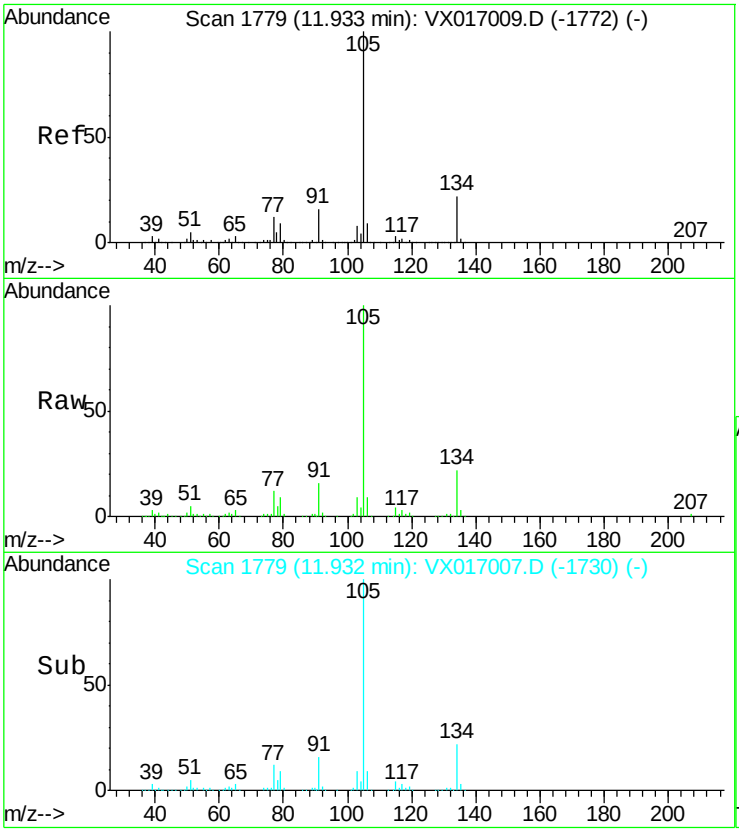


#84
1,2,4-Trimethylbenzene
Concen: 4.697 ug/l
RT: 11.79 min Scan# 1756
Delta R.T. -0.00 min
Lab File: VX017007.D
Acq: 29 Jun 2020 14:35

Tgt Ion:105 Resp: 57457

Ion	Ratio	Lower	Upper
105	100		
120	46.0	22.9	68.5

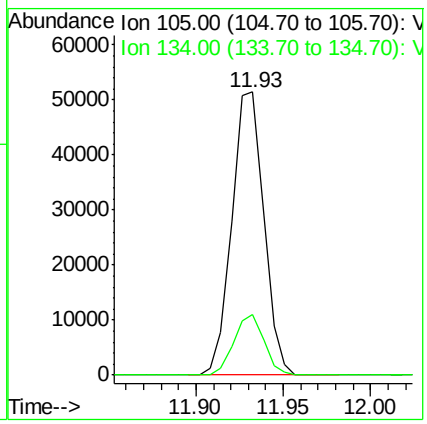


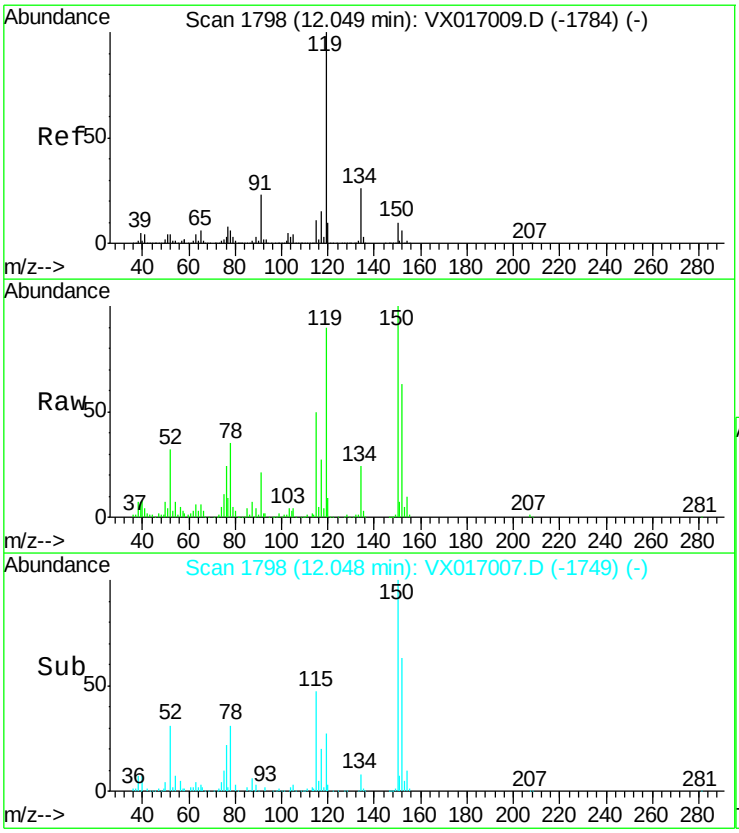


#85
sec-Butylbenzene
Concen: 4.725 ug/l
RT: 11.93 min Scan# 1779
Delta R.T. -0.00 min
Lab File: VX017007.D
Acq: 29 Jun 2020 14:35

Tgt Ion:105 Resp: 65741

Ion	Ratio	Lower	Upper
105	100		
134	20.2	10.5	31.6

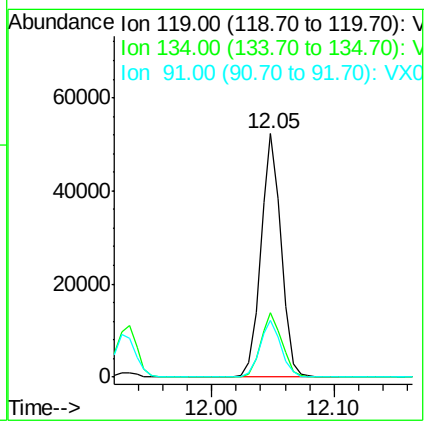




#86
p-Isopropyltoluene
Concen: 4.675 ug/l
RT: 12.05 min Scan# 1798
Delta R.T. -0.00 min
Lab File: VX017007.D
Acq: 29 Jun 2020 14:35

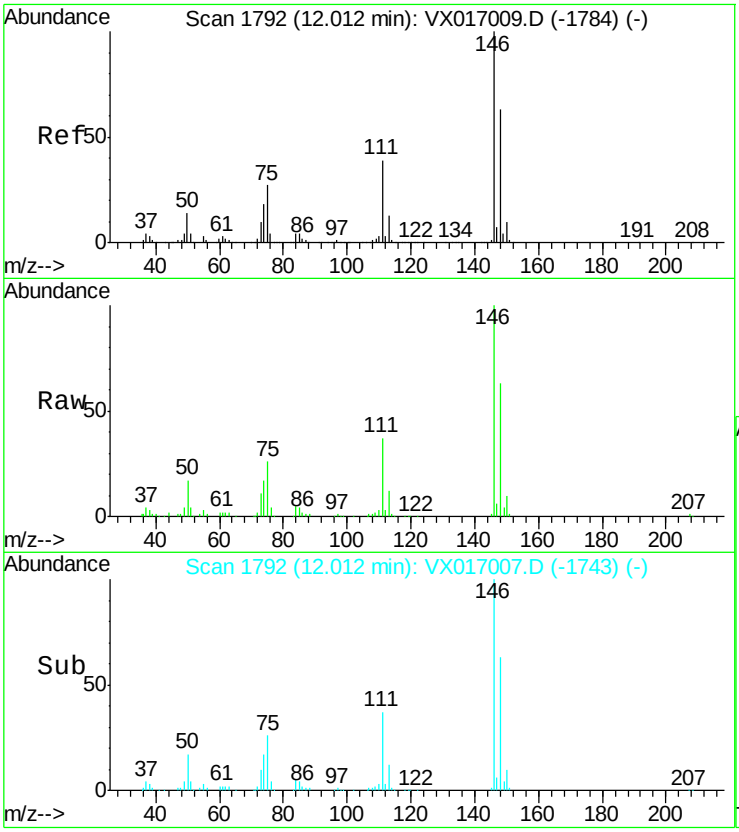
Tgt Ion:119 Resp: 60544

Ion	Ratio	Lower	Upper
119	100		
134	27.4	13.2	39.5
91	24.4	11.8	35.4



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC005

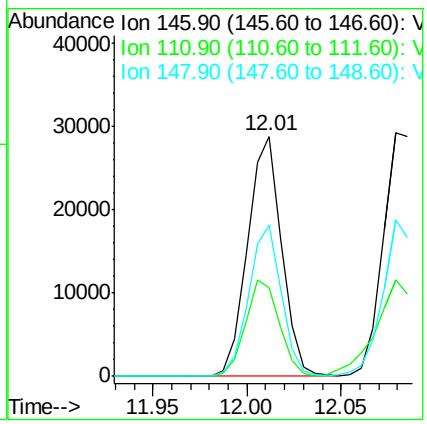
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:12:44 AM



#87
1,3-Dichlorobenzene
Concen: 4.981 ug/l
RT: 12.01 min Scan# 1792
Delta R.T. -0.00 min
Lab File: VX017007.D
Acq: 29 Jun 2020 14:35

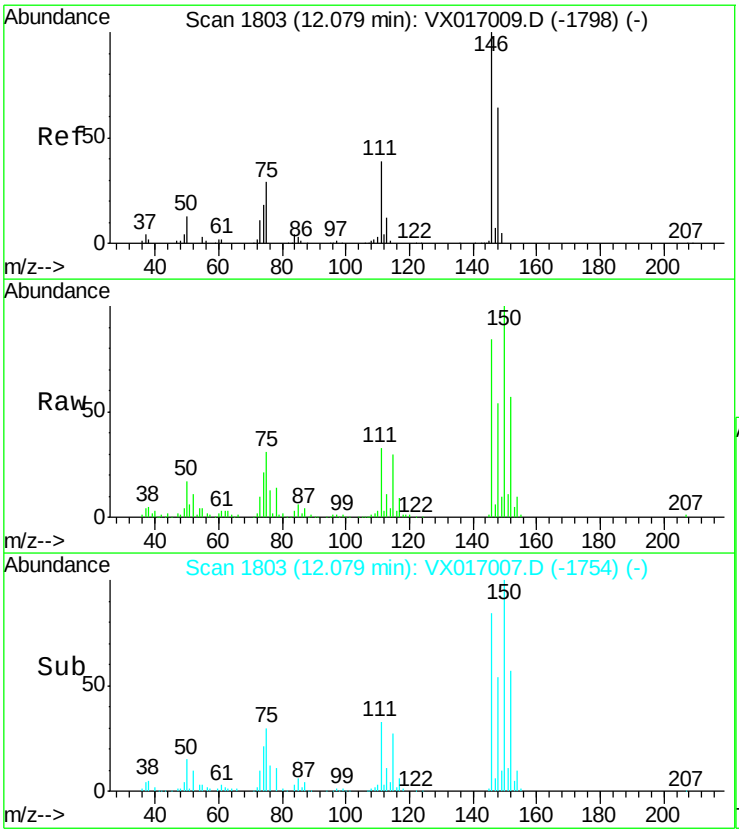
Tgt Ion:146 Resp: 36137

Ion	Ratio	Lower	Upper
146	100		
111	40.1	20.4	61.2
148	60.6	32.5	97.5



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC005

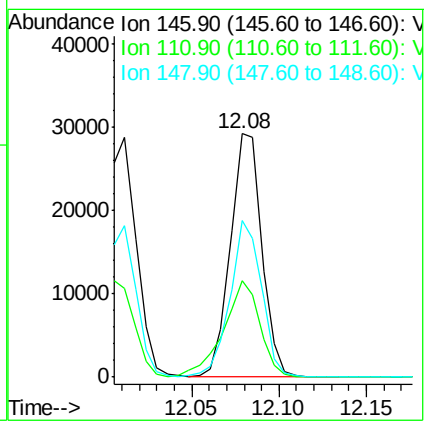
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:12:44 AM

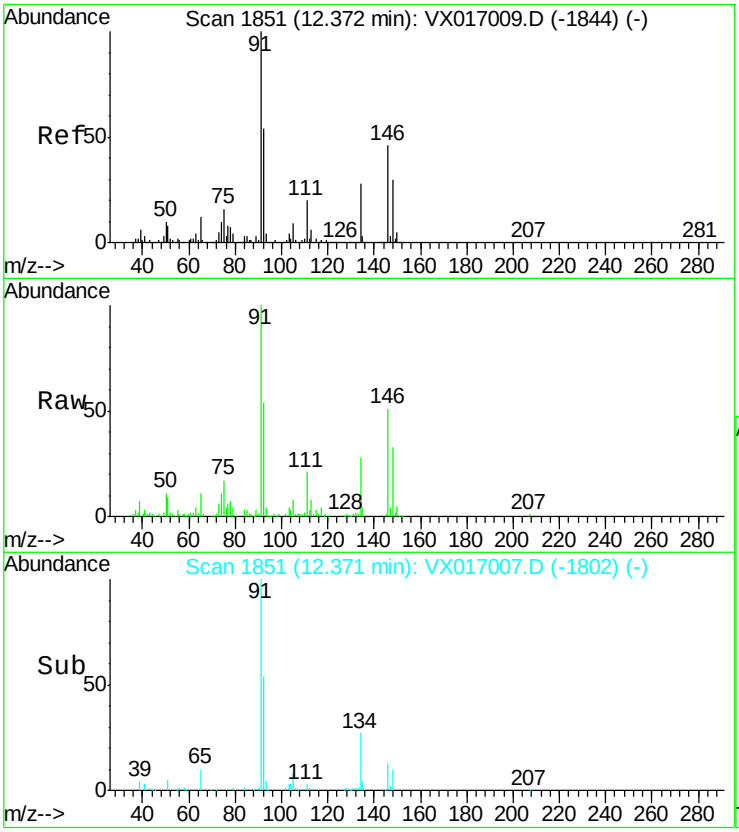


#88
1,4-Dichlorobenzene
Concen: 5.043 ug/l
RT: 12.08 min Scan# 1803
Delta R.T. -0.00 min
Lab File: VX017007.D
Acq: 29 Jun 2020 14:35

Tgt Ion:146 Resp: 36801

Ion	Ratio	Lower	Upper
146	100		
111	45.3	19.5	58.5
148	64.5	31.9	95.7

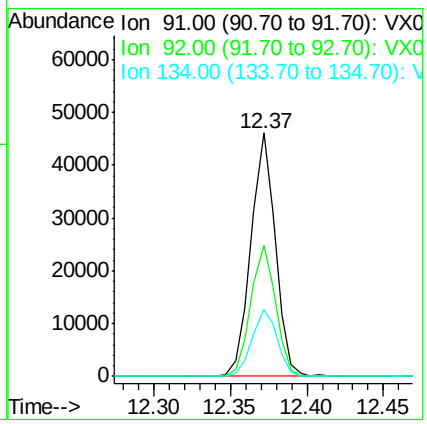




#89
n-Butylbenzene
Concen: 4.441 ug/l
RT: 12.37 min Scan# 1851
Delta R.T. -0.00 min
Lab File: VX017007.D
Acq: 29 Jun 2020 14:35

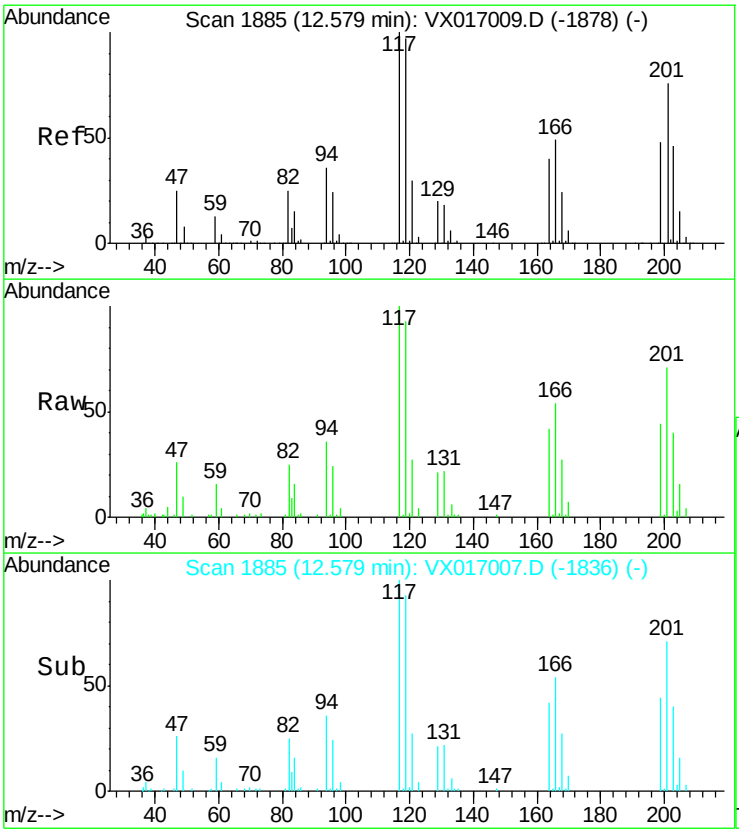
Tgt Ion: 91 Resp: 51363

Ion	Ratio	Lower	Upper
91	100		
92	54.4	27.2	81.6
134	28.1	13.6	40.7



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC005

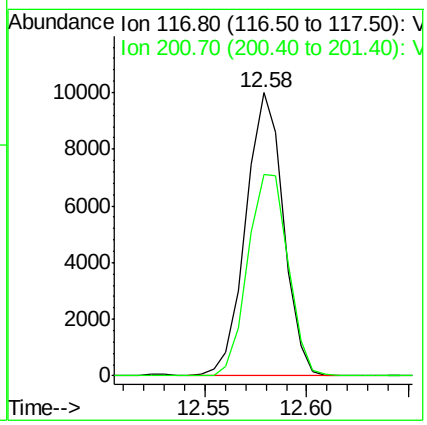
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:12:44 AM

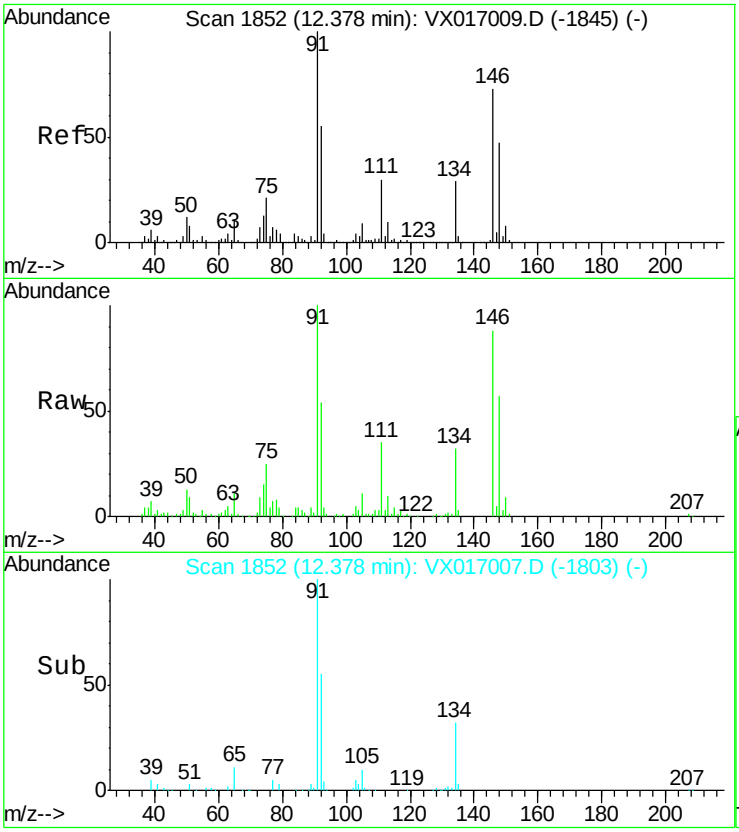


#90
Hexachloroethane
Concen: 5.022 ug/l
RT: 12.58 min Scan# 1885
Delta R.T. -0.00 min
Lab File: VX017007.D
Acq: 29 Jun 2020 14:35

Tgt Ion:117 Resp: 12827

Ion	Ratio	Lower	Upper
117	100		
201	76.1	39.4	118.2

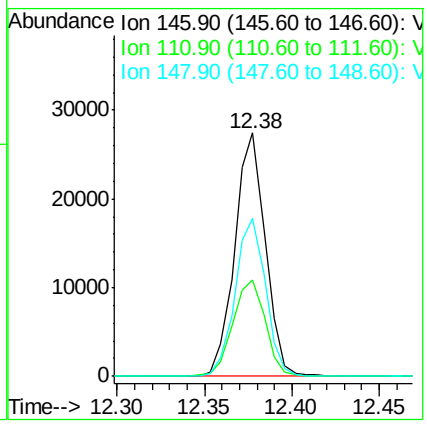




#91
1,2-Dichlorobenzene
Concen: 4.911 ug/l
RT: 12.38 min Scan# 1852
Delta R.T. -0.00 min
Lab File: VX017007.D
Acq: 29 Jun 2020 14:35

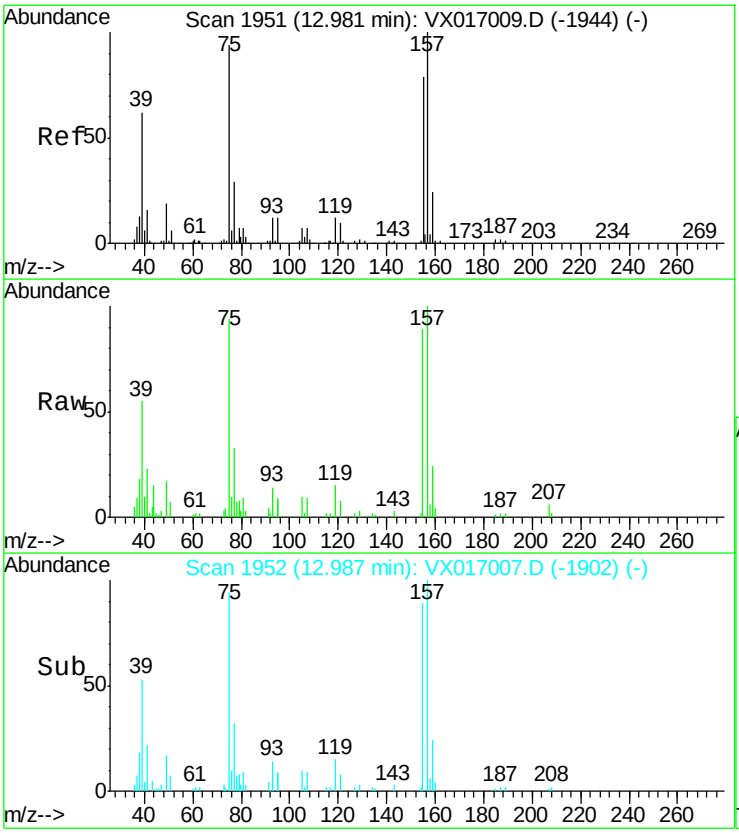
Tgt Ion:146 Resp: 33306

Ion	Ratio	Lower	Upper
146	100		
111	41.9	20.6	61.9
148	64.8	32.4	97.2



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC005

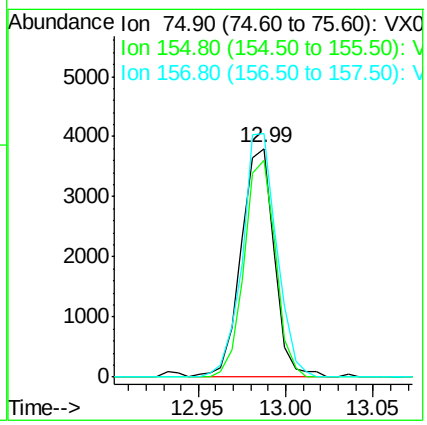
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:12:44 AM

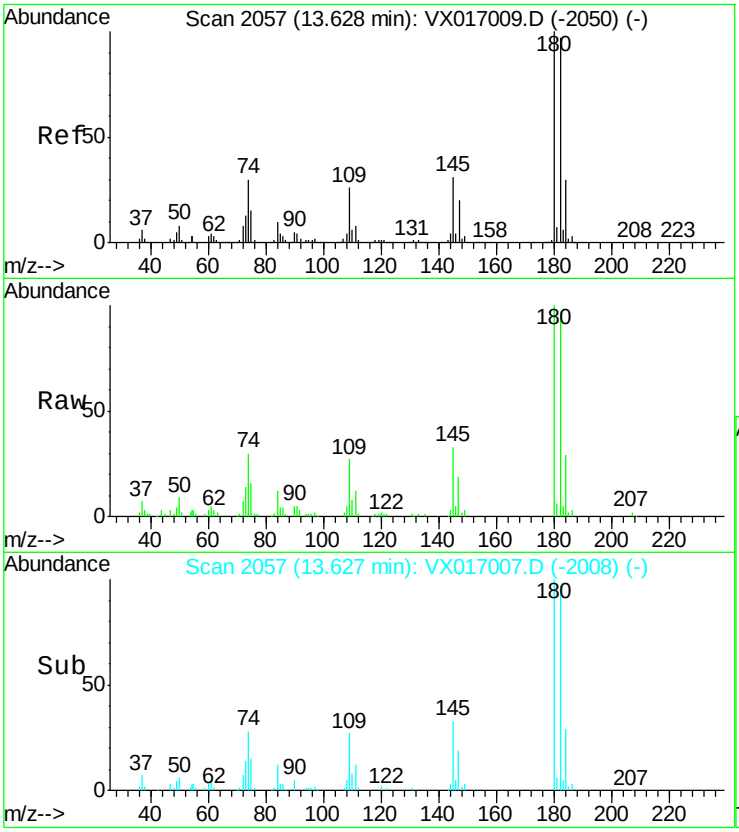


#92
1,2-Dibromo-3-Chloropropane
Concen: 4.613 ug/l
RT: 12.99 min Scan# 1952
Delta R.T. 0.01 min
Lab File: VX017007.D
Acq: 29 Jun 2020 14:35

Tgt Ion: 75 Resp: 5032

Ion	Ratio	Lower	Upper
75	100		
155	88.9	45.1	135.2
157	109.5	56.5	169.3

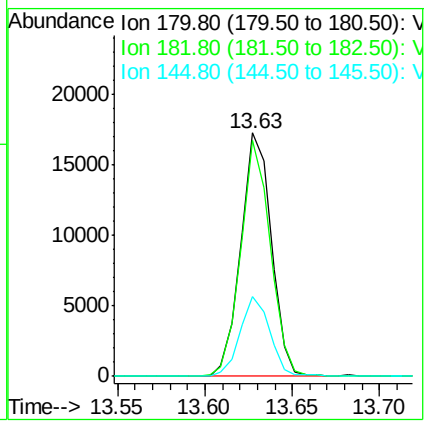




#93
1,2,4-Trichlorobenzene
Concen: 4.554 ug/l
RT: 13.63 min Scan# 2057
Delta R.T. -0.00 min
Lab File: VX017007.D
Acq: 29 Jun 2020 14:35

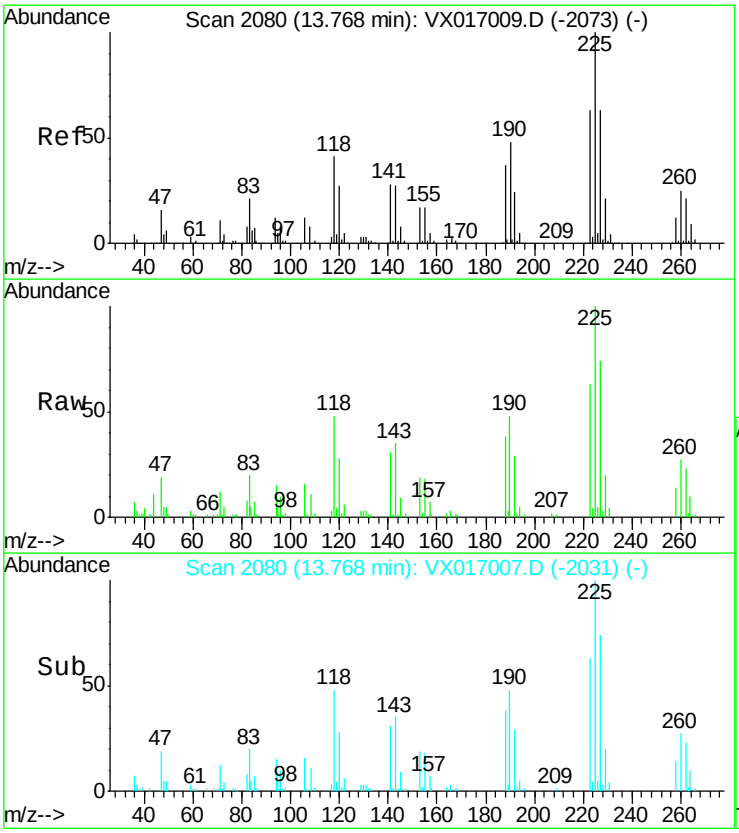
Tgt Ion:180 Resp: 21079

Ion	Ratio	Lower	Upper
180	100		
182	93.7	47.3	141.9
145	31.9	15.4	46.2



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC005

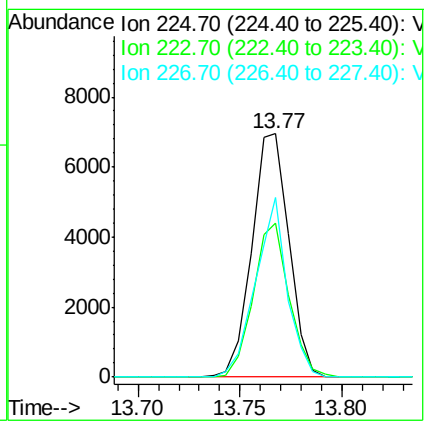
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:12:44 AM

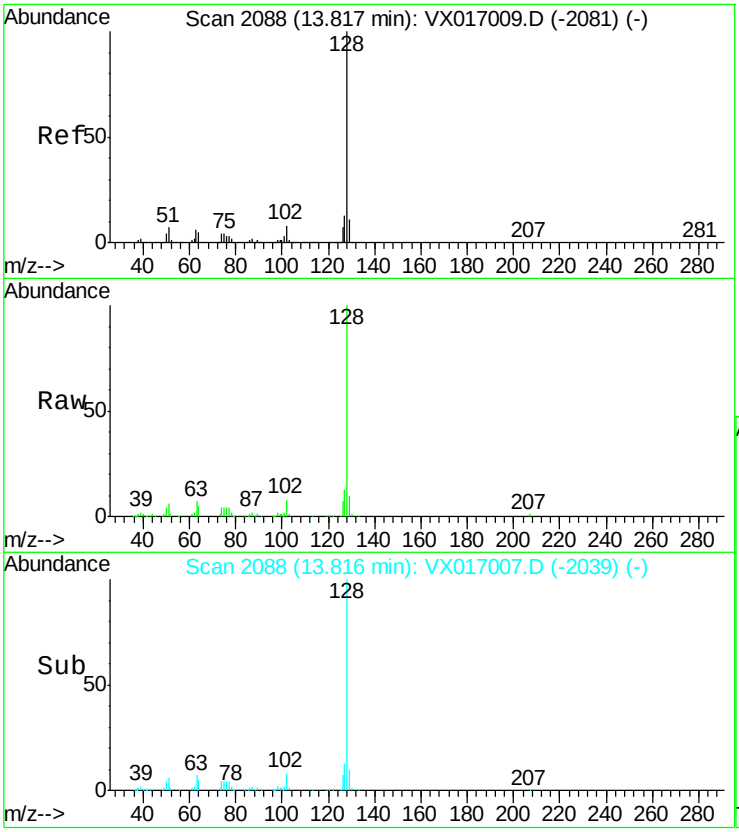


#94
Hexachlorobutadiene
Concen: 4.714 ug/l
RT: 13.77 min Scan# 2080
Delta R.T. 0.00 min
Lab File: VX017007.D
Acq: 29 Jun 2020 14:35

Tgt Ion:225 Resp: 8826

Ion	Ratio	Lower	Upper
225	100		
223	60.8	32.5	97.5
227	62.6	33.1	99.2

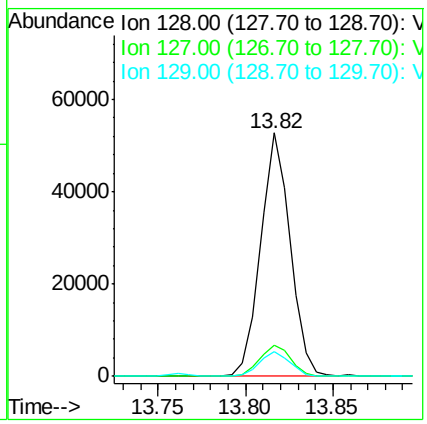




#95
Naphthalene
Concen: 4.404 ug/l
RT: 13.82 min Scan# 2088
Delta R.T. -0.00 min
Lab File: VX017007.D
Acq: 29 Jun 2020 14:35

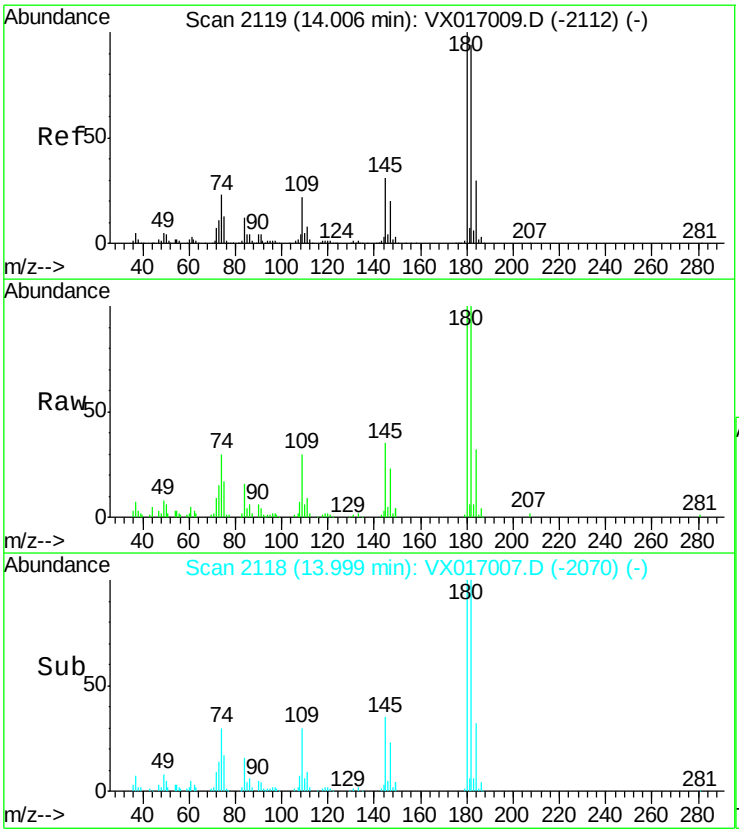
Tgt Ion:128 Resp: 61984

Ion	Ratio	Lower	Upper
128	100		
127	13.5	10.2	15.4
129	10.7	8.7	13.1



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC005

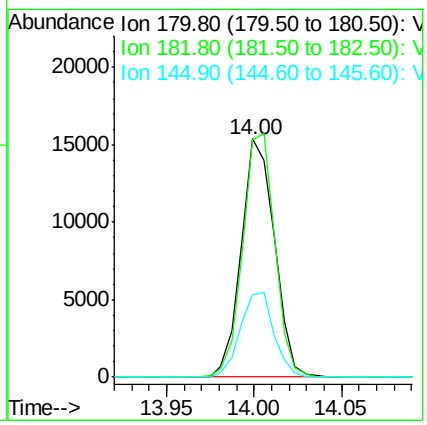
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:12:44 AM



#96
1,2,3-Trichlorobenzene
Concen: 4.546 ug/l
RT: 14.00 min Scan# 2118
Delta R.T. -0.01 min
Lab File: VX017007.D
Acq: 29 Jun 2020 14:35

Tgt Ion:180 Resp: 20366

Ion	Ratio	Lower	Upper
180	100		
182	98.5	47.1	141.4
145	35.8	16.6	49.7



Quantitation Report (QT Reviewed)

ICAL Form

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX062920\
Data File : VX017008.D
Acq On : 29 Jun 2020 14:58
Operator : JC/SP
Sample : VSTDICC020
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 6 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
VSTDICC020

Manual Integrations APPROVED
MMDadoda
6/30/2020 10:12:50 AM

Quant Time: Jun 29 17:06:26 2020
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X062920W.M
Quant Title : SW846 8260
QLast Update : Mon Jun 29 16:54:07 2020
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	5.63	168	281836	50.00	ug/l	0.00
34) 1,4-Difluorobenzene	6.83	114	445178	50.00	ug/l	0.00
63) Chlorobenzene-d5	10.10	117	421520	50.00	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	12.06	152	215078	50.00	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	6.03	65	69101	19.89	ug/l	0.00
Spiked Amount 50.000			Recovery = 39.78%			
35) Dibromofluoromethane	5.46	113	56626	20.11	ug/l	0.00
Spiked Amount 50.000			Recovery = 40.22%			
50) Toluene-d8	8.70	98	210228	20.19	ug/l	0.00
Spiked Amount 50.000			Recovery = 40.38%			
62) 4-Bromofluorobenzene	11.12	95	78771	19.35	ug/l	0.00
Spiked Amount 50.000			Recovery = 38.70%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.18	85	57604	21.127	ug/l	97
3) Chloromethane	1.32	50	63515	19.245	ug/l	100
4) Vinyl Chloride	1.39	62	61784	20.177	ug/l	99
5) Bromomethane	1.63	94	39760	24.576	ug/l	99
6) Chloroethane	1.72	64	36854	20.378	ug/l	96
7) Trichlorofluoromethane	1.92	101	90553	19.995	ug/l	98
8) Diethyl Ether	2.17	74	32622	19.732	ug/l	98
9) 1,1,2-Trichlorotrifluoroet	2.37	101	56413	20.783	ug/l	99
10) Methyl Iodide	2.49	142	71348	20.371	ug/l	96
11) Tert butyl alcohol	3.01	59	66593	100.468	ug/l	98
12) 1,1-Dichloroethene	2.36	96	57203	20.515	ug/l	97
13) Acrolein	2.27	56	39168	98.853	ug/l	100
14) Allyl chloride	2.71	41	99274	19.265	ug/l	98
15) Acrylonitrile	3.12	53	158349	99.378	ug/l	99
16) Acetone	2.42	43	126382	97.234	ug/l	99
17) Carbon Disulfide	2.55	76	164253	19.232	ug/l	99
18) Methyl Acetate	2.75	43	67276	19.828	ug/l	98
19) Methyl tert-butyl Ether	3.17	73	190061	20.309	ug/l	99
20) Methylene Chloride	2.84	84	64520	19.421	ug/l	97
21) trans-1,2-Dichloroethene	3.14	96	61508	19.877	ug/l	94
22) Diisopropyl ether	3.82	45	199480	20.915	ug/l	95
23) Vinyl Acetate	3.79	43	860251	104.963	ug/l	100
24) 1,1-Dichloroethane	3.67	63	110281	20.321	ug/l	98
25) 2-Butanone	4.64	43	221225	102.147	ug/l	100
26) 2,2-Dichloropropane	4.56	77	96805	20.090	ug/l	99
27) cis-1,2-Dichloroethene	4.57	96	69298	19.765	ug/l	99
28) Bromochloromethane	4.98	49	53514	20.264	ug/l	100
29) Tetrahydrofuran	5.09	42	149148	104.230	ug/l	99
30) Chloroform	5.18	83	113367	20.379	ug/l	99
31) Cyclohexane	5.55	56	96411	20.553	ug/l	98
32) 1,1,1-Trichloroethane	5.46	97	104784	20.452	ug/l	99
36) 1,1-Dichloropropene	5.77	75	82181	19.532	ug/l	98
37) Ethyl Acetate	4.79	43	88008	20.616	ug/l	99
38) Carbon Tetrachloride	5.76	117	90802	19.594	ug/l	99

ICAL Form

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX062920\
Data File : VX017008.D
Acq On : 29 Jun 2020 14:58
Operator : JC/SP
Sample : VSTDICC020
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 6 Sample Multiplier: 1

Instrument : MSVOA_X
ClientSampleId : VSTDICC020

Manual Integrations APPROVED
MMDadoda
6/30/2020 10:12:50 AM

Quant Time: Jun 29 17:06:26 2020
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X062920W.M
Quant Title : SW846 8260
QLast Update : Mon Jun 29 16:54:07 2020
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
39) Methylcyclohexane	7.44	83	93483	19.969	ug/l		98
40) Benzene	6.11	78	247955	20.057	ug/l		100
41) Methacrylonitrile	5.01	41	49303	20.520	ug/l		98
42) 1,2-Dichloroethane	6.17	62	88932	19.916	ug/l		98
43) Isopropyl Acetate	6.42	43	138976	19.591	ug/l		99
44) Trichloroethene	7.19	130	72869	19.570	ug/l		99
45) 1,2-Dichloropropane	7.49	63	63624	20.038	ug/l		98
46) Dibromomethane	7.64	93	43232	19.943	ug/l		99
47) Bromodichloromethane	7.88	83	89567	20.049	ug/l		95
48) Methyl methacrylate	7.74	41	66342	19.685	ug/l		97
49) 1,4-Dioxane	7.71	88	31078	407.041	ug/l		97
51) 4-Methyl-2-Pentanone	8.62	43	441943	104.514	ug/l		99
52) Toluene	8.77	92	156654	20.296	ug/l		97
53) t-1,3-Dichloropropene	9.02	75	96717	19.622	ug/l		99
54) cis-1,3-Dichloropropene	8.42	75	105384	19.945	ug/l		97
55) 1,1,2-Trichloroethane	9.20	97	63012	19.982	ug/l		98
56) Ethyl methacrylate	9.16	69	90526	20.169	ug/l		100
57) 1,3-Dichloropropane	9.35	76	106854	20.025	ug/l		100
58) 2-Chloroethyl Vinyl ether	8.29	63	234163	104.825	ug/l		99
59) 2-Hexanone	9.47	43	322906	104.559	ug/l		99
60) Dibromochloromethane	9.57	129	72683	19.844	ug/l		100
61) 1,2-Dibromoethane	9.65	107	67558	19.931	ug/l		100
64) Tetrachloroethene	9.32	164	68310	20.080	ug/l		95
65) Chlorobenzene	10.12	112	170775	19.630	ug/l		98
66) 1,1,1,2-Tetrachloroethane	10.21	131	66021	19.691	ug/l		99
67) Ethyl Benzene	10.23	91	290580	20.000	ug/l		99
68) m/p-Xylenes	10.34	106	227758	40.827	ug/l		99
69) o-Xylene	10.68	106	106664	20.099	ug/l		100
70) Styrene	10.70	104	183775	20.335	ug/l		99
71) Bromoform	10.84	173	52380	19.701	ug/l	#	100
73) Isopropylbenzene	11.00	105	288850	20.503	ug/l		100
74) N-amyl acetate	10.88	43	120945	20.120	ug/l		99
75) 1,1,2,2-Tetrachloroethane	11.25	83	88574	19.988	ug/l		99
76) 1,2,3-Trichloropropane	11.28	75	87445m	16.509	ug/l		
77) Bromobenzene	11.24	156	76253	19.694	ug/l		99
78) n-propylbenzene	11.34	91	327332	20.547	ug/l		99
79) 2-Chlorotoluene	11.40	91	196125	20.341	ug/l		100
80) 1,3,5-Trimethylbenzene	11.49	105	240563	20.586	ug/l		100
81) trans-1,4-Dichloro-2-buten	11.06	75	31309	19.170	ug/l		94
82) 4-Chlorotoluene	11.49	91	232172	20.143	ug/l		98
83) tert-Butylbenzene	11.76	119	231777	20.205	ug/l		100
84) 1,2,4-Trimethylbenzene	11.79	105	249505	21.046	ug/l		100
85) sec-Butylbenzene	11.93	105	274135	20.331	ug/l		99
86) p-Isopropyltoluene	12.05	119	258471	20.591	ug/l		99
87) 1,3-Dichlorobenzene	12.01	146	139542	19.844	ug/l		96
88) 1,4-Dichlorobenzene	12.08	146	138142	19.533	ug/l		98
89) n-Butylbenzene	12.37	91	222468	19.849	ug/l		98
90) Hexachloroethane	12.58	117	48192	19.468	ug/l		99
91) 1,2-Dichlorobenzene	12.38	146	130331	19.828	ug/l		99
92) 1,2-Dibromo-3-Chloropropan	12.98	75	20172	19.082	ug/l		98

ICAL Form

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX062920\
Data File : VX017008.D
Acq On : 29 Jun 2020 14:58
Operator : JC/SP
Sample : VSTDICC020
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 6 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
VSTDICC020

Manual Integrations APPROVED
MMDadoda
6/30/2020 10:12:50 AM

Quant Time: Jun 29 17:06:26 2020
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X062920W.M
Quant Title : SW846 8260
QLast Update : Mon Jun 29 16:54:07 2020
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
93) 1,2,4-Trichlorobenzene	13.63	180	85431	19.042 ug/l	99
94) Hexachlorobutadiene	13.77	225	33329	18.367 ug/l	97
95) Naphthalene	13.82	128	274117	20.097 ug/l	99
96) 1,2,3-Trichlorobenzene	14.01	180	82924	19.099 ug/l	98

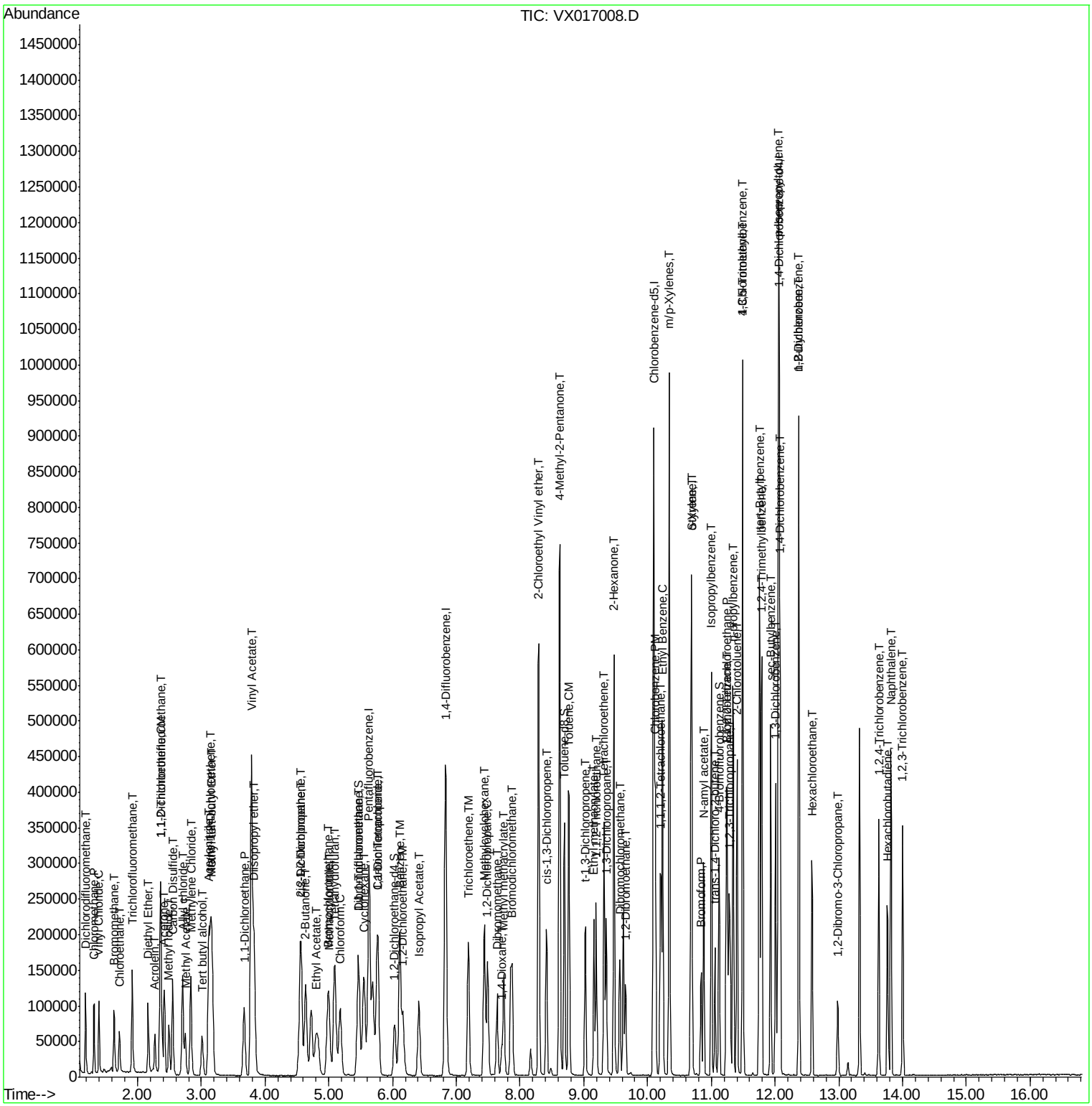
(#) = qualifier out of range (m) = manual integration (+) = signals summed

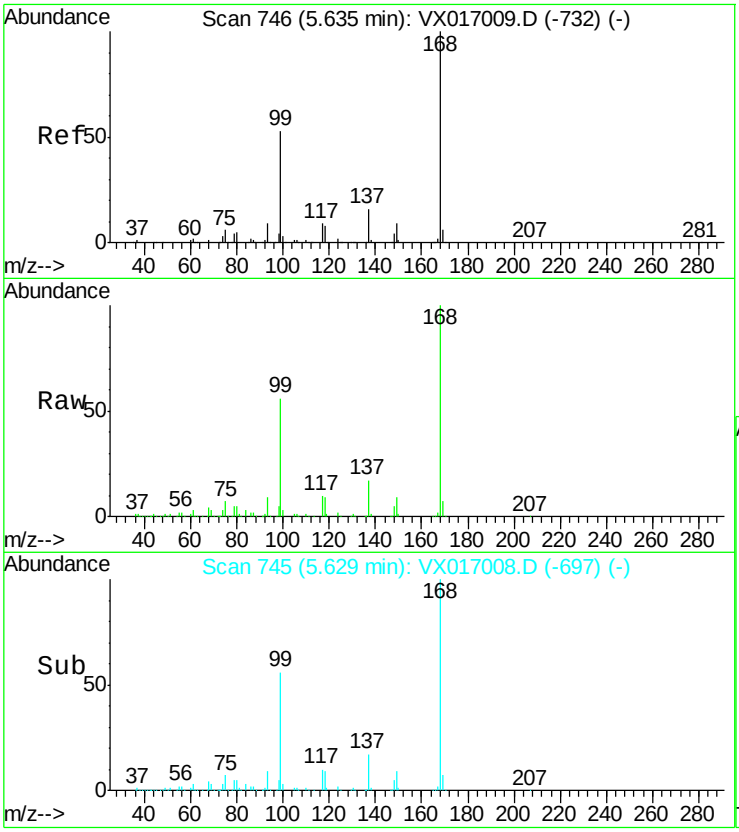
Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX062920\
Data File : VX017008.D
Acq On : 29 Jun 2020 14:58
Operator : JC/SP
Sample : VSTDICC020
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jun 29 17:06:26 2020
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X062920W.M
Quant Title : SW846 8260
QLast Update : Mon Jun 29 16:54:07 2020
Response via : Initial Calibration

Instrument :
MSVOA_X
ClientSampleId :
VSTDICC020

Manual Integrations APPROVED
MMDadoda
6/30/2020 10:12:50 AM

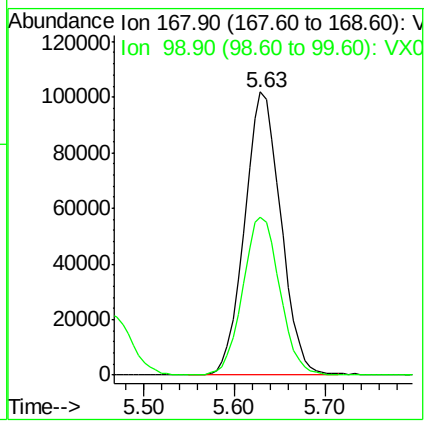




#1
Pentafluorobenzene
Concen: 50.000 ug/l
RT: 5.63 min Scan# 745
Delta R.T. -0.01 min
Lab File: VX017008.D
Acq: 29 Jun 2020 14:58

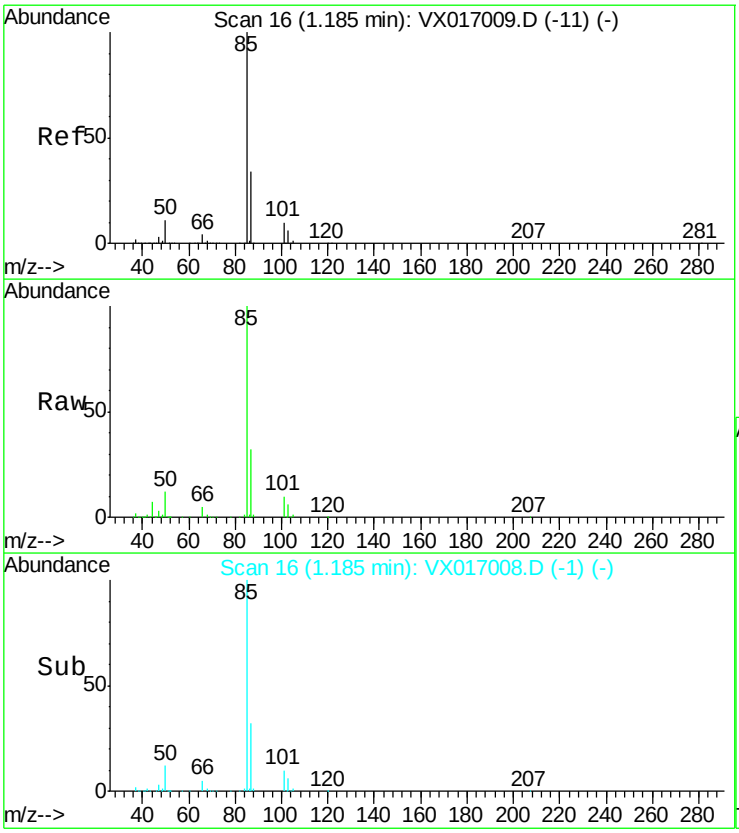
Tgt Ion:168 Resp: 281836

Ion	Ratio	Lower	Upper
168	100		
99	55.9	42.6	64.0



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC020

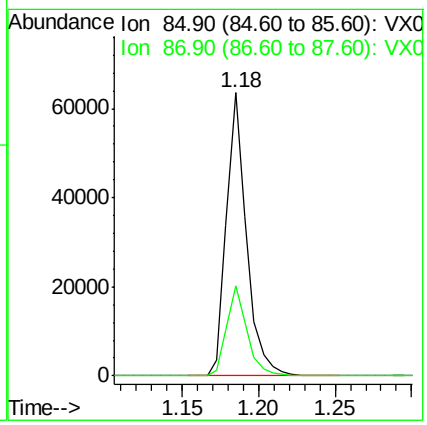
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:12:50 AM



#2
Dichlorodifluoromethane
Concen: 21.127 ug/l
RT: 1.18 min Scan# 16
Delta R.T. -0.00 min
Lab File: VX017008.D
Acq: 29 Jun 2020 14:58

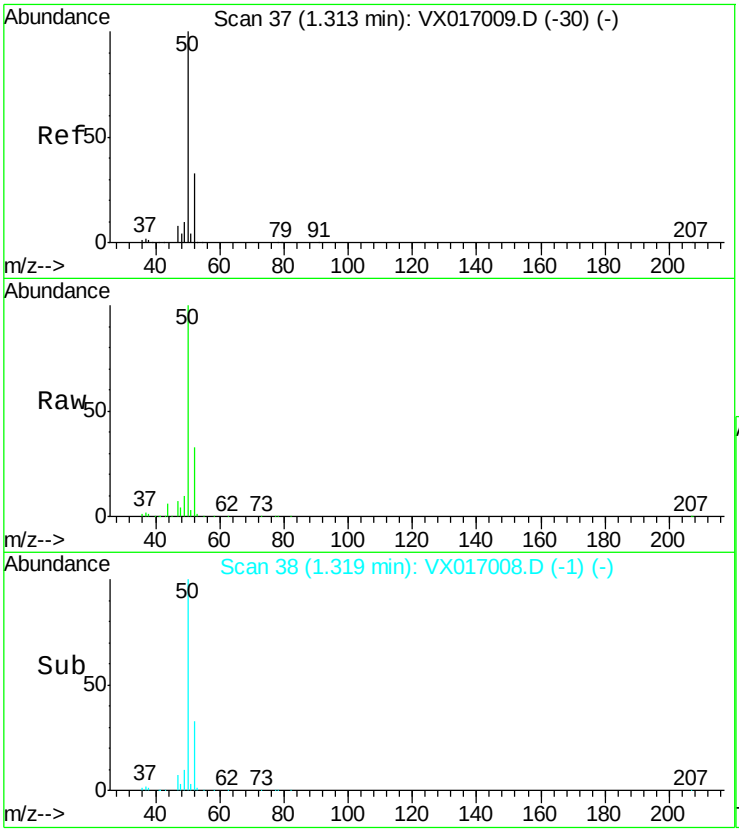
Tgt Ion: 85 Resp: 57604

Ion	Ratio	Lower	Upper
85	100		
87	31.9	16.8	50.4



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC020

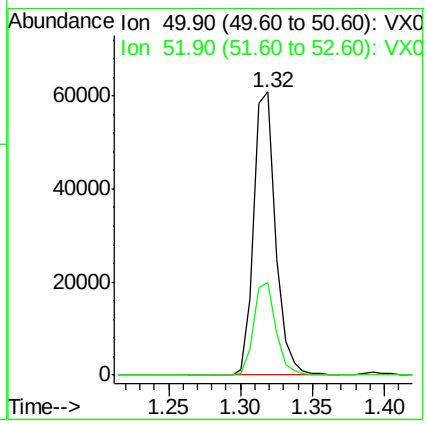
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:12:50 AM

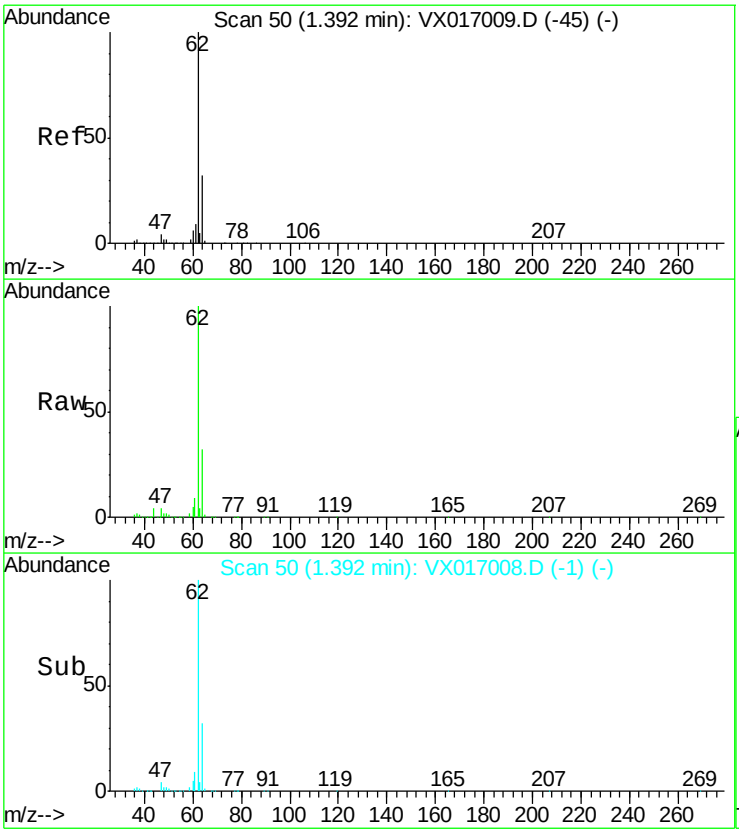


#3
Chloromethane
Concen: 19.245 ug/l
RT: 1.32 min Scan# 38
Delta R.T. 0.01 min
Lab File: VX017008.D
Acq: 29 Jun 2020 14:58

Tgt Ion: 50 Resp: 63515

Ion	Ratio	Lower	Upper
50	100		
52	32.8	26.1	39.1

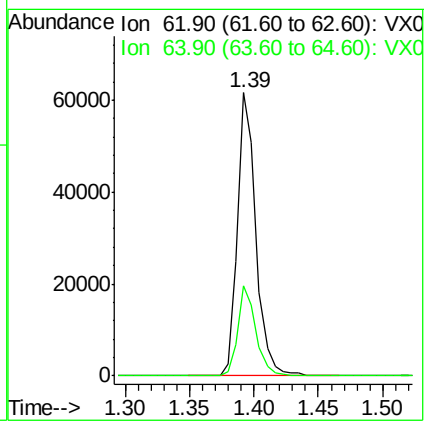


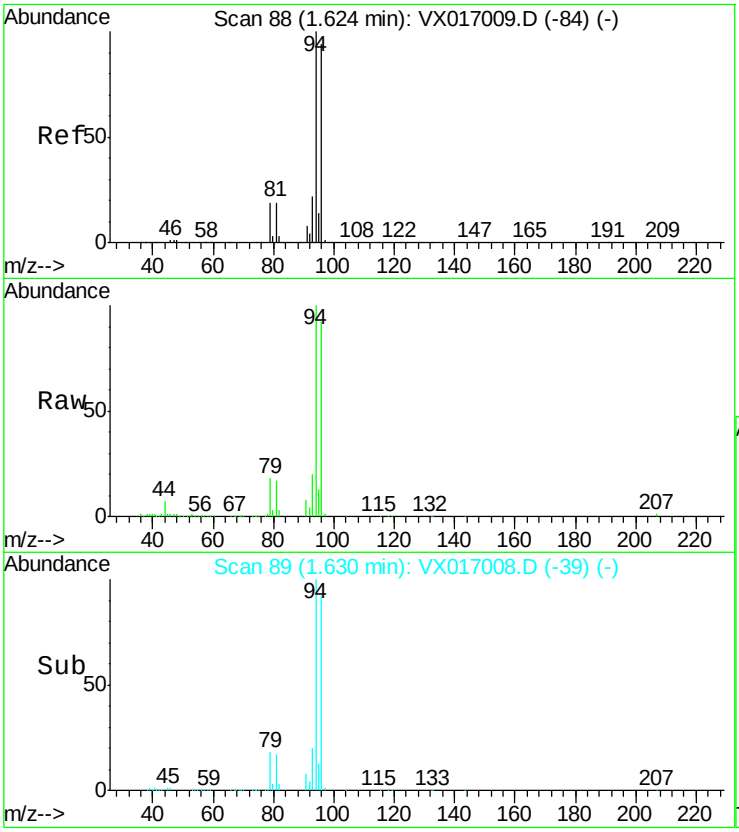


#4
Vinyl Chloride
Concen: 20.177 ug/l
RT: 1.39 min Scan# 50
Delta R.T. -0.00 min
Lab File: VX017008.D
Acq: 29 Jun 2020 14:58

Tgt Ion: 62 Resp: 61784

Ion	Ratio	Lower	Upper
62	100		
64	32.0	25.9	38.9

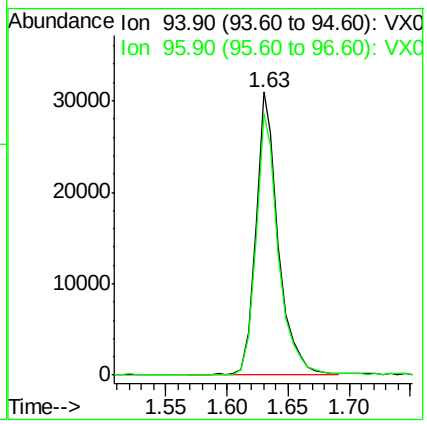




#5
Bromomethane
Concen: 24.576 ug/l
RT: 1.63 min Scan# 89
Delta R.T. 0.01 min
Lab File: VX017008.D
Acq: 29 Jun 2020 14:58

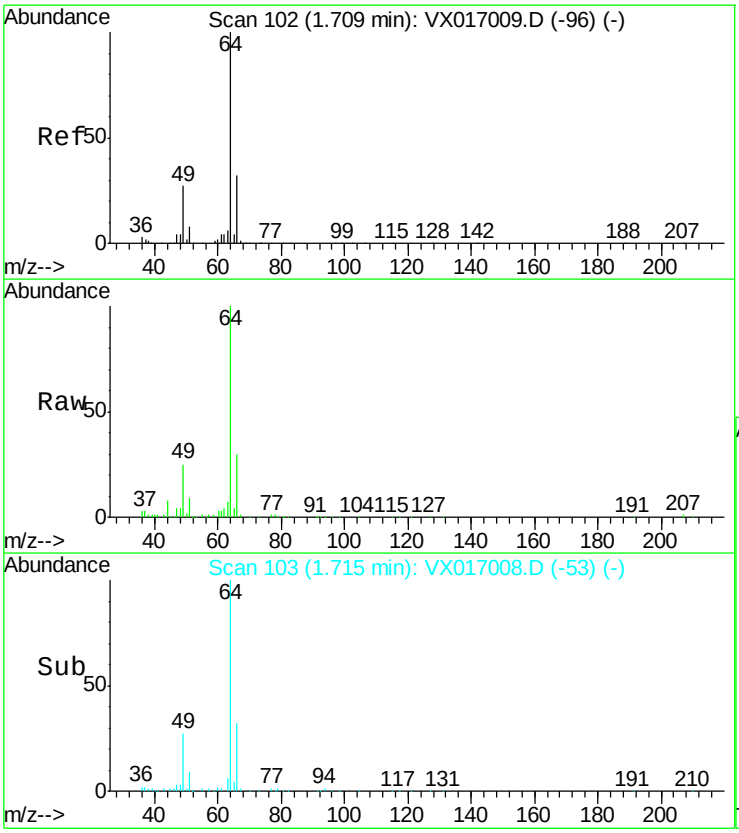
Tgt Ion: 94 Resp: 39760

Ion	Ratio	Lower	Upper
94	100		
96	92.4	75.0	112.4



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC020

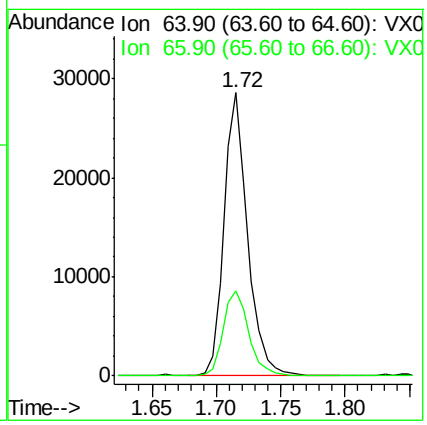
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:12:50 AM

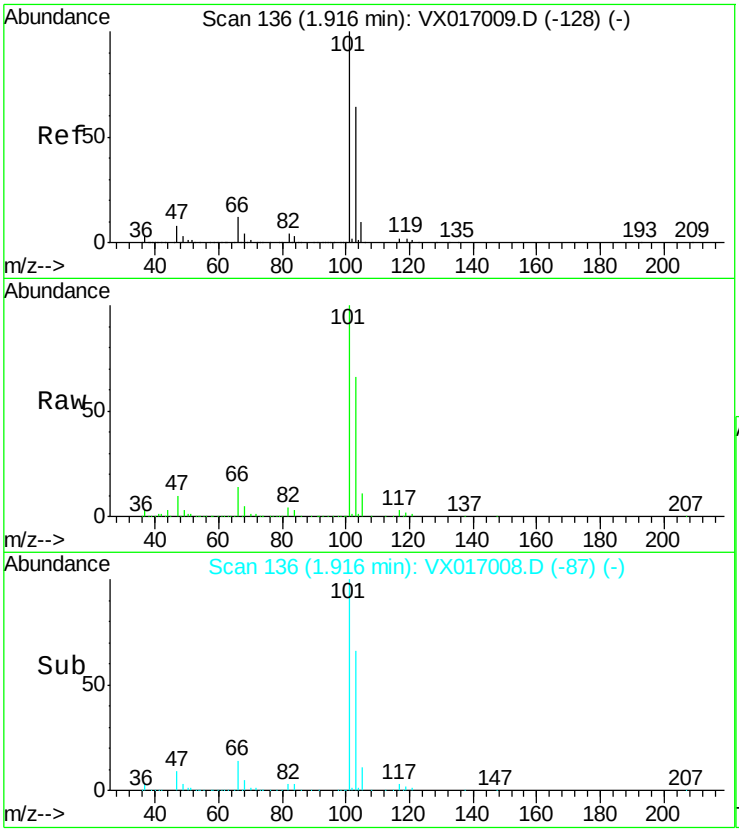


#6
Chloroethane
Concen: 20.378 ug/l
RT: 1.72 min Scan# 103
Delta R.T. 0.01 min
Lab File: VX017008.D
Acq: 29 Jun 2020 14:58

Tgt Ion: 64 Resp: 36854

Ion	Ratio	Lower	Upper
64	100		
66	29.9	25.5	38.3

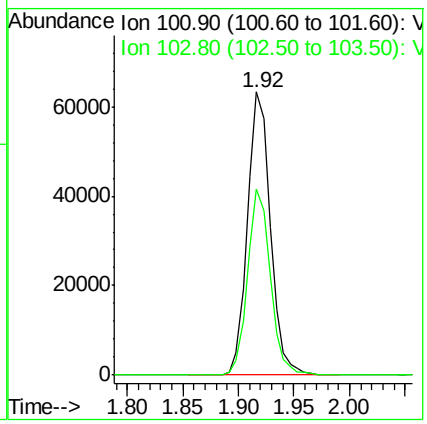




#7
Trichlorofluoromethane
Concen: 19.995 ug/l
RT: 1.92 min Scan# 136
Delta R.T. -0.00 min
Lab File: VX017008.D
Acq: 29 Jun 2020 14:58

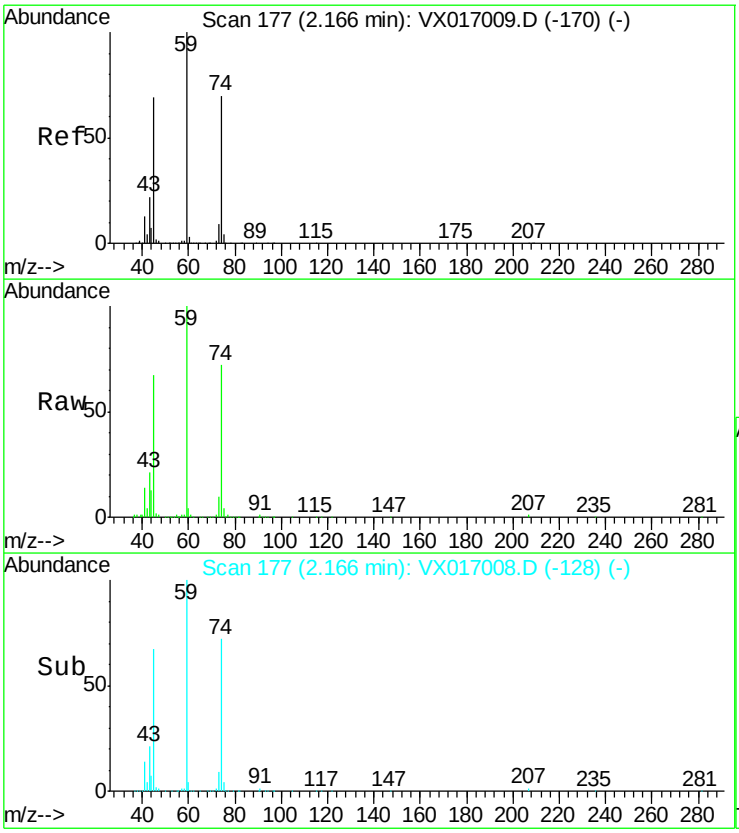
Tgt Ion:101 Resp: 90553

Ion	Ratio	Lower	Upper
101	100		
103	65.7	51.5	77.3



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC020

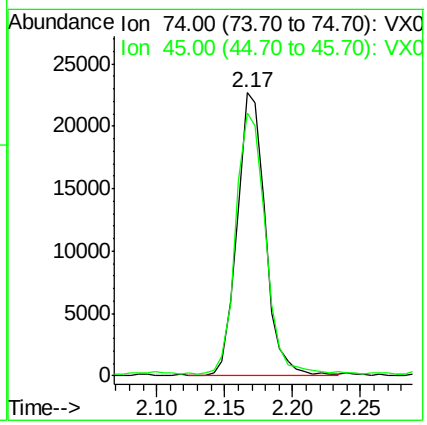
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:12:50 AM

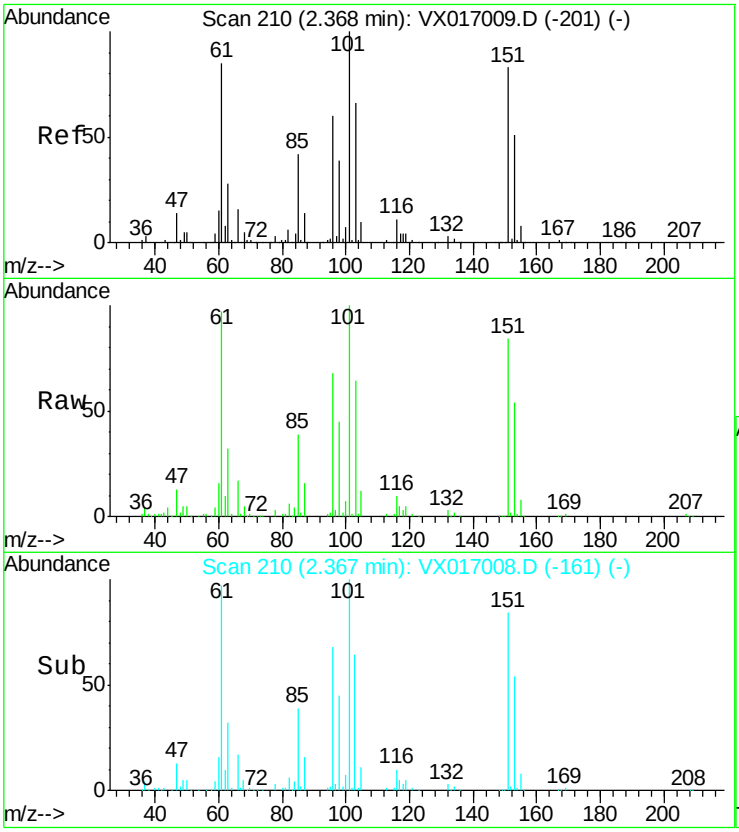


#8
Diethyl Ether
Concen: 19.732 ug/l
RT: 2.17 min Scan# 177
Delta R.T. 0.00 min
Lab File: VX017008.D
Acq: 29 Jun 2020 14:58

Tgt Ion: 74 Resp: 32622

Ion	Ratio	Lower	Upper
74	100		
45	97.9	49.8	149.3

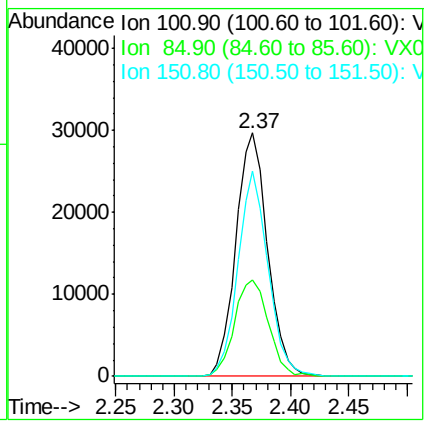




#9
1,1,2-Trichlorotrifluoroethane
Concen: 20.783 ug/l
RT: 2.37 min Scan# 210
Delta R.T. -0.00 min
Lab File: VX017008.D
Acq: 29 Jun 2020 14:58

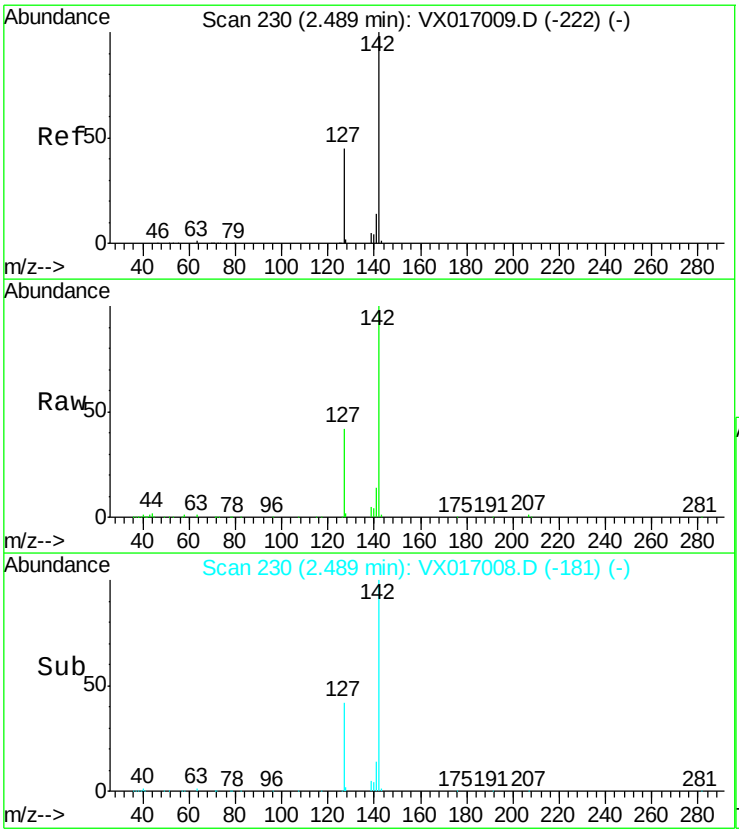
Tgt Ion:101 Resp: 56413

Ion	Ratio	Lower	Upper
101	100		
85	42.3	33.5	50.3
151	80.4	63.8	95.6



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC020

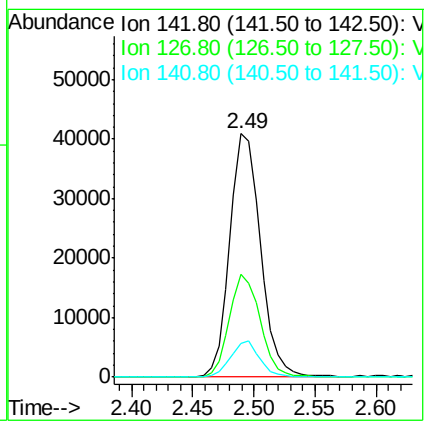
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:12:50 AM



#10
Methyl Iodide
Concen: 20.371 ug/l
RT: 2.49 min Scan# 230
Delta R.T. -0.00 min
Lab File: VX017008.D
Acq: 29 Jun 2020 14:58

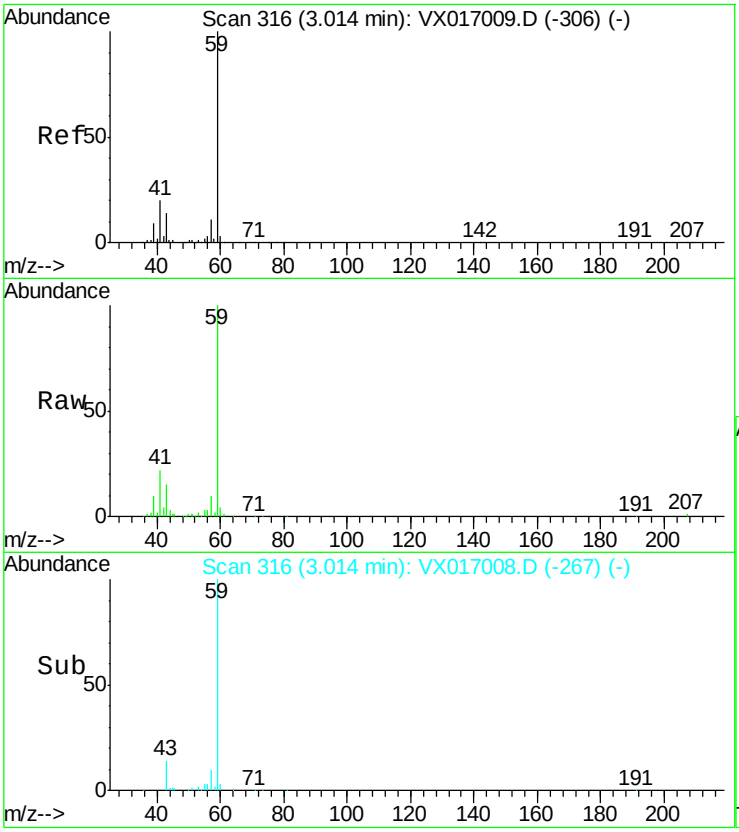
Tgt Ion:142 Resp: 71348

Ion	Ratio	Lower	Upper
142	100		
127	42.5	36.6	54.8
141	13.9	11.6	17.4



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC020

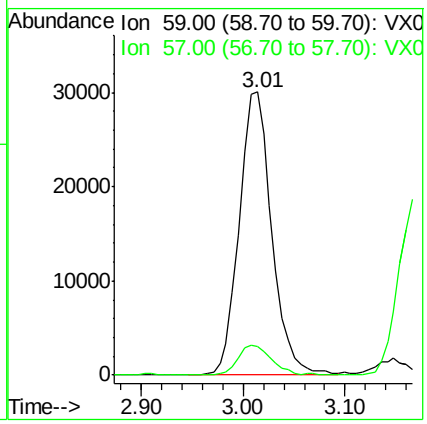
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:12:50 AM

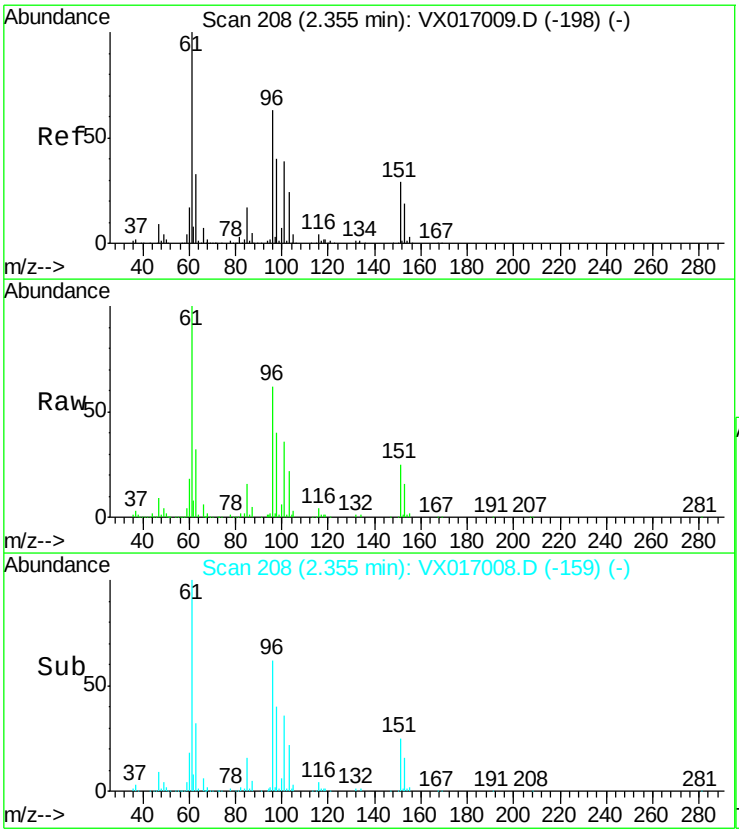


#11
Tert butyl alcohol
Concen: 100.468 ug/l
RT: 3.01 min Scan# 316
Delta R.T. -0.00 min
Lab File: VX017008.D
Acq: 29 Jun 2020 14:58

Tgt Ion: 59 Resp: 66593

Ion	Ratio	Lower	Upper
59	100		
57	11.1	8.2	12.2

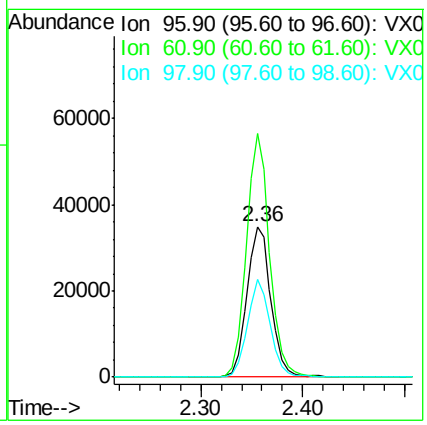




#12
1,1-Dichloroethene
Concen: 20.515 ug/l
RT: 2.36 min Scan# 208
Delta R.T. -0.00 min
Lab File: VX017008.D
Acq: 29 Jun 2020 14:58

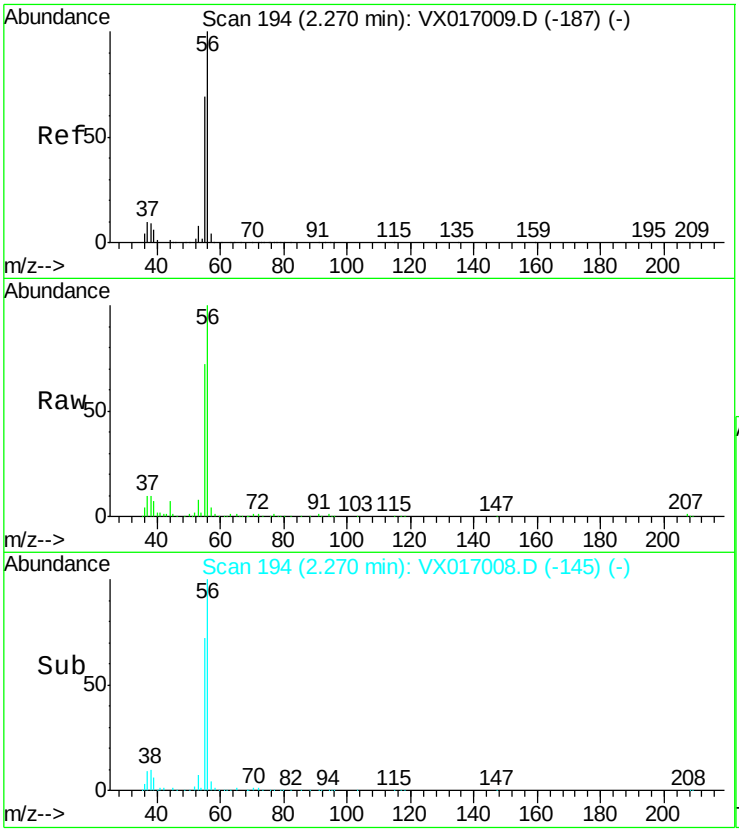
Tgt Ion: 96 Resp: 57203

Ion	Ratio	Lower	Upper
96	100		
61	162.0	126.3	189.5
98	65.3	51.0	76.6



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC020

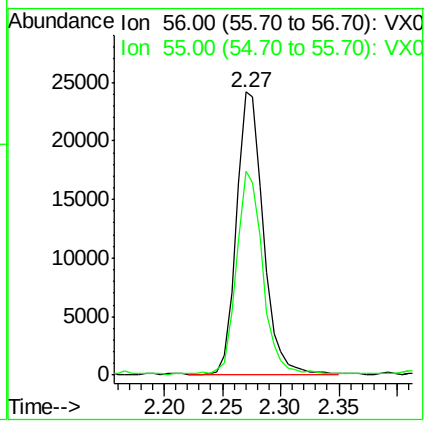
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:12:50 AM

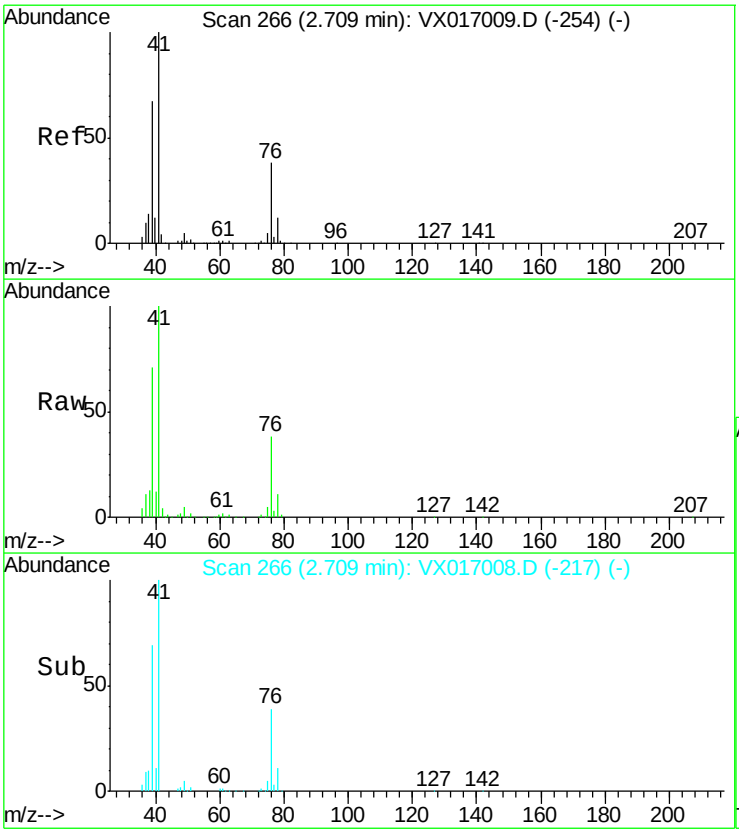


#13
Acrolein
Concen: 98.853 ug/l
RT: 2.27 min Scan# 194
Delta R.T. -0.00 min
Lab File: VX017008.D
Acq: 29 Jun 2020 14:58

Tgt Ion: 56 Resp: 39168

Ion	Ratio	Lower	Upper
56	100		
55	69.2	55.7	83.5

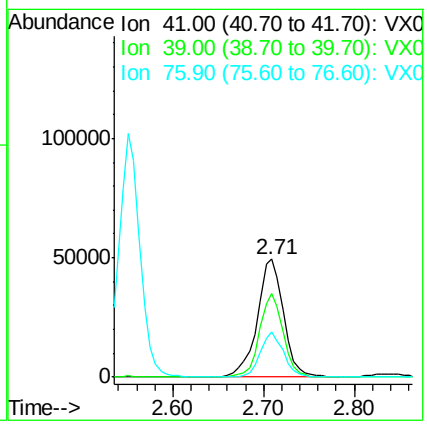




#14
Allyl chloride
Concen: 19.265 ug/l
RT: 2.71 min Scan# 266
Delta R.T. -0.00 min
Lab File: VX017008.D
Acq: 29 Jun 2020 14:58

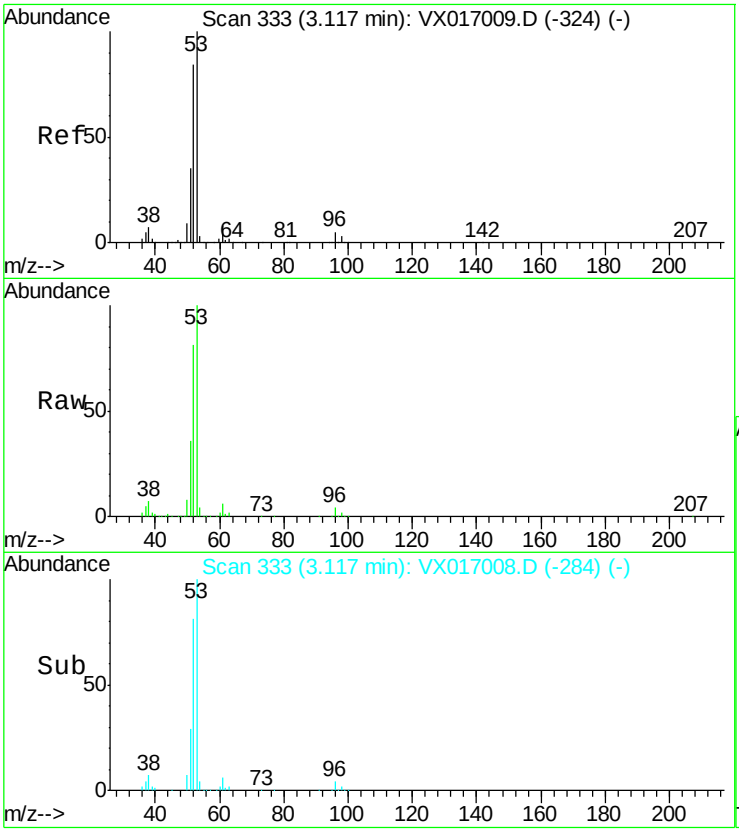
Tgt Ion: 41 Resp: 99274

Ion	Ratio	Lower	Upper
41	100		
39	63.4	49.4	74.2
76	33.2	26.8	40.2



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC020

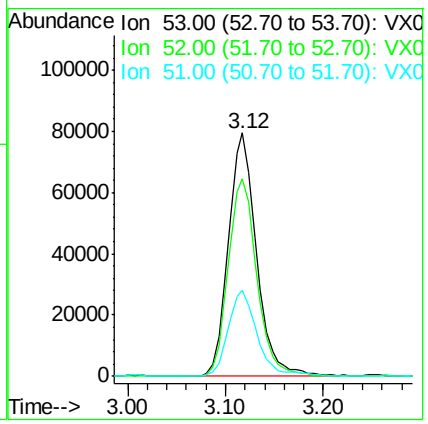
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:12:50 AM

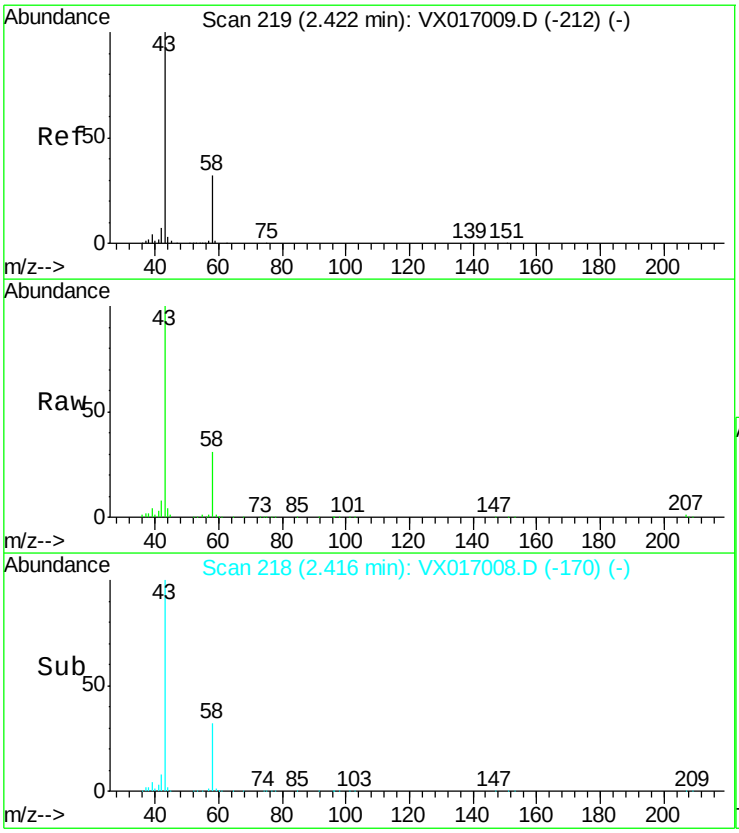


#15
Acrylonitrile
Concen: 99.378 ug/l
RT: 3.12 min Scan# 333
Delta R.T. -0.00 min
Lab File: VX017008.D
Acq: 29 Jun 2020 14:58

Tgt Ion: 53 Resp: 158349

Ion	Ratio	Lower	Upper
53	100		
52	82.7	65.6	98.4
51	36.6	28.3	42.5

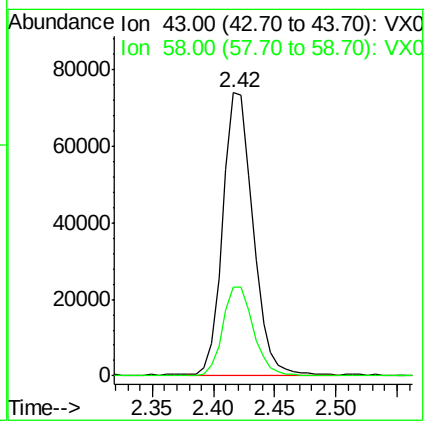




#16
Acetone
Concen: 97.234 ug/l
RT: 2.42 min Scan# 218
Delta R.T. -0.01 min
Lab File: VX017008.D
Acq: 29 Jun 2020 14:58

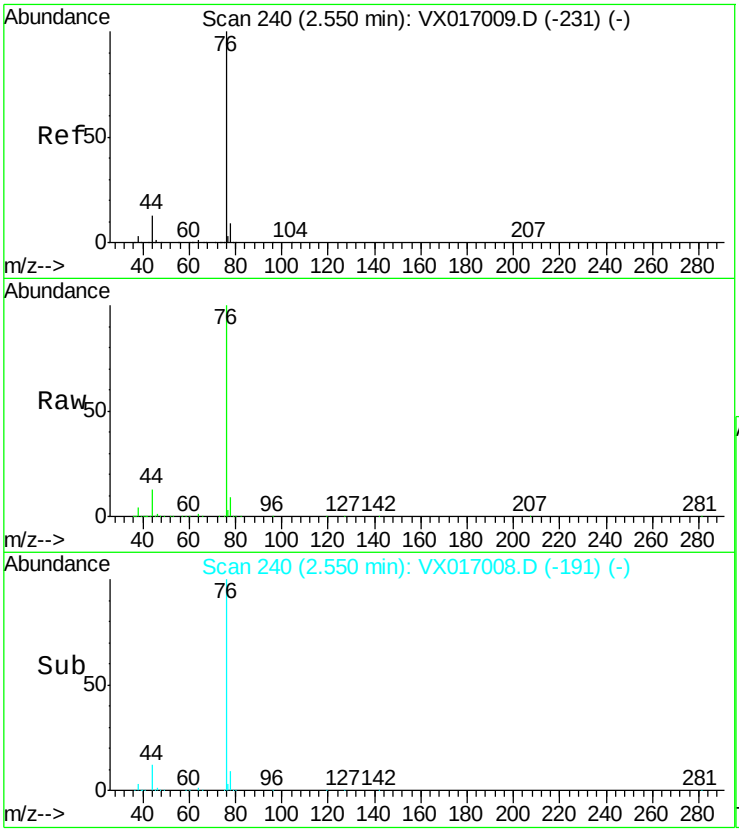
Tgt Ion: 43 Resp: 126382

Ion	Ratio	Lower	Upper
43	100		
58	31.4	25.7	38.5



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC020

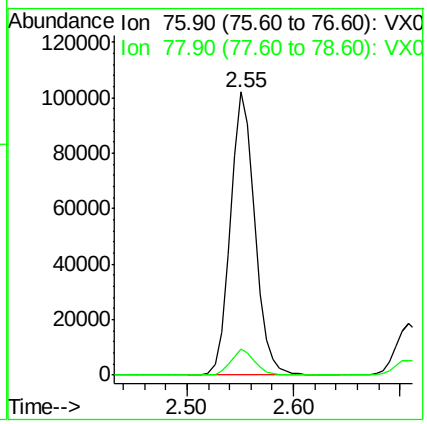
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:12:50 AM

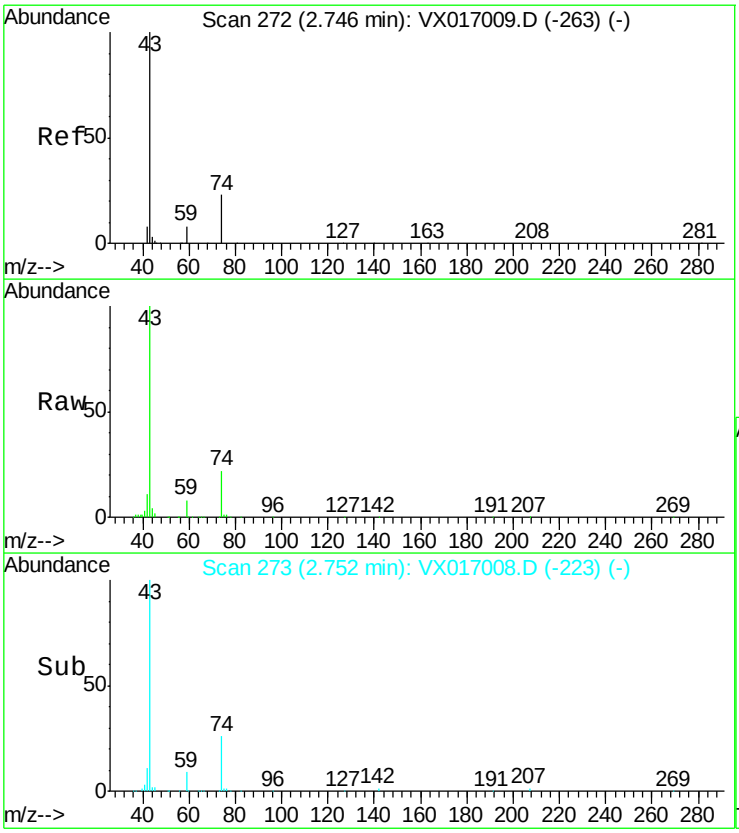


#17
Carbon Disulfide
Concen: 19.232 ug/l
RT: 2.55 min Scan# 240
Delta R.T. 0.00 min
Lab File: VX017008.D
Acq: 29 Jun 2020 14:58

Tgt Ion: 76 Resp: 164253

Ion	Ratio	Lower	Upper
76	100		
78	9.2	7.2	10.8

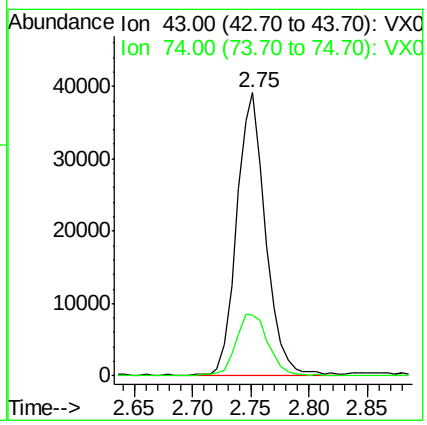


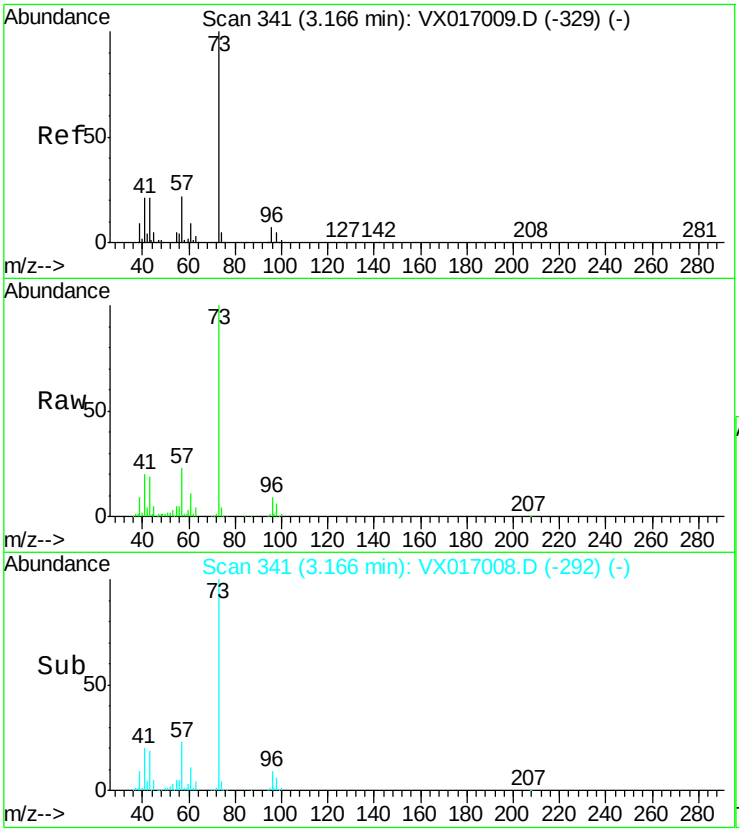


#18
Methyl Acetate
Concen: 19.828 ug/l
RT: 2.75 min Scan# 273
Delta R.T. 0.01 min
Lab File: VX017008.D
Acq: 29 Jun 2020 14:58

Tgt Ion: 43 Resp: 67276

Ion	Ratio	Lower	Upper
43	100		
74	25.1	19.3	28.9

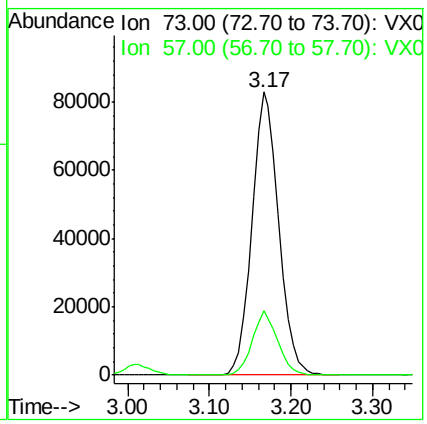




#19
Methyl tert-butyl Ether
Concen: 20.309 ug/l
RT: 3.17 min Scan# 341
Delta R.T. -0.00 min
Lab File: VX017008.D
Acq: 29 Jun 2020 14:58

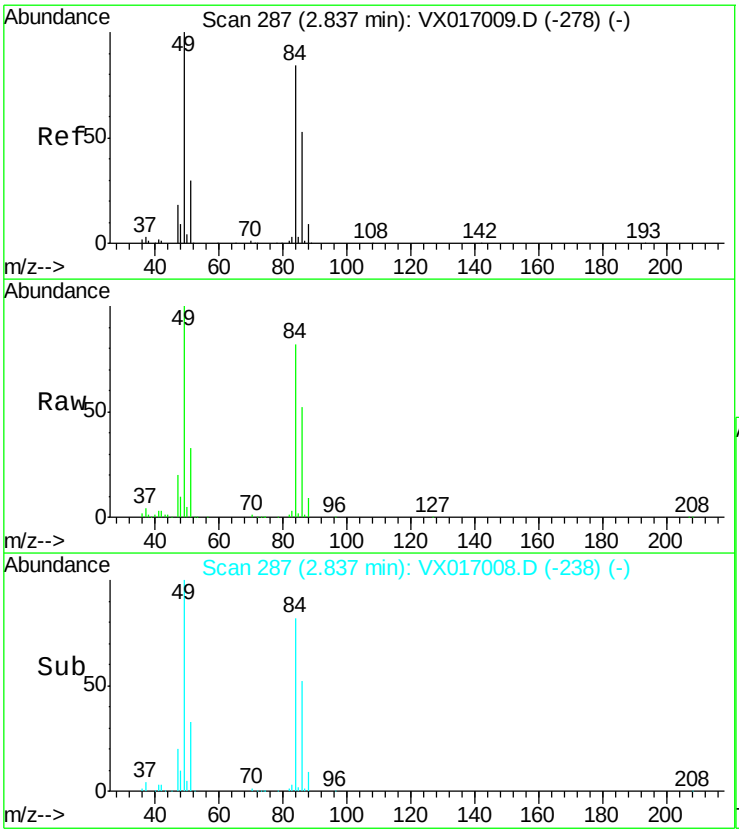
Tgt Ion: 73 Resp: 190061

Ion	Ratio	Lower	Upper
73	100		
57	22.5	17.6	26.4



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC020

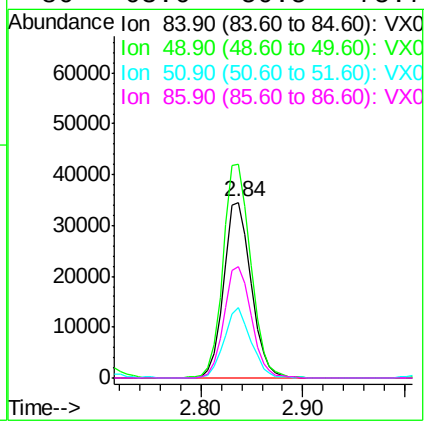
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:12:50 AM



#20
Methylene Chloride
Concen: 19.421 ug/l
RT: 2.84 min Scan# 287
Delta R.T. 0.00 min
Lab File: VX017008.D
Acq: 29 Jun 2020 14:58

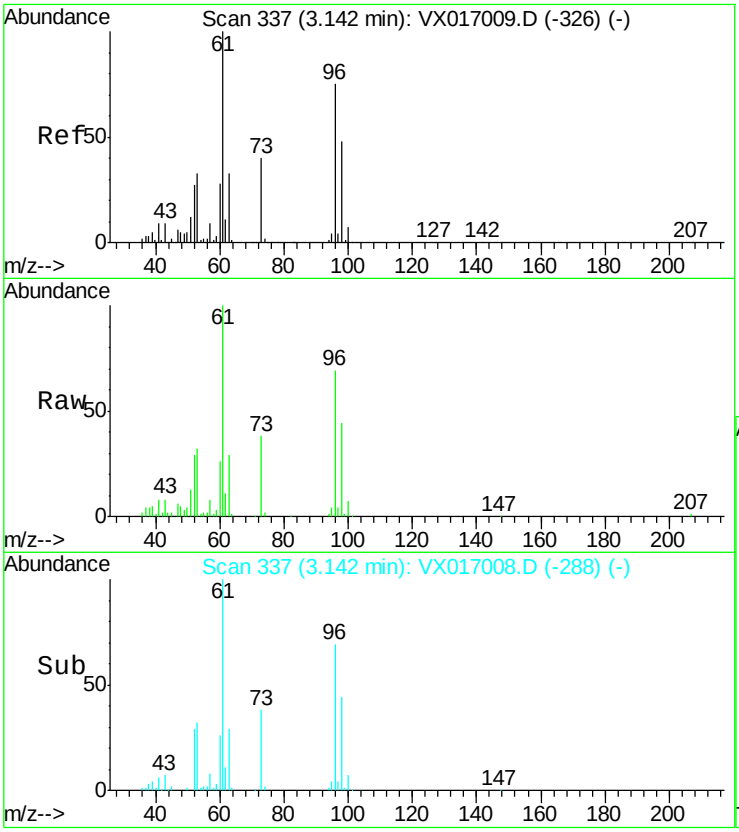
Tgt Ion: 84 Resp: 64520

Ion	Ratio	Lower	Upper
84	100		
49	121.2	94.7	142.1
51	39.7	28.6	42.8
86	63.6	50.5	75.7



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC020

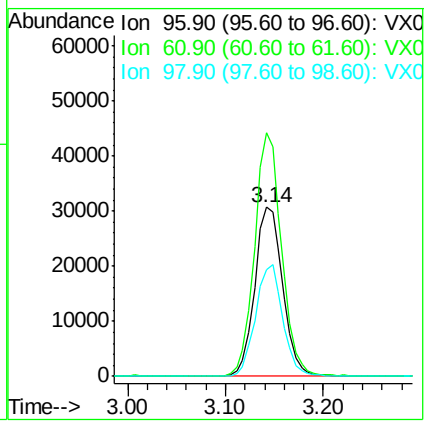
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:12:50 AM

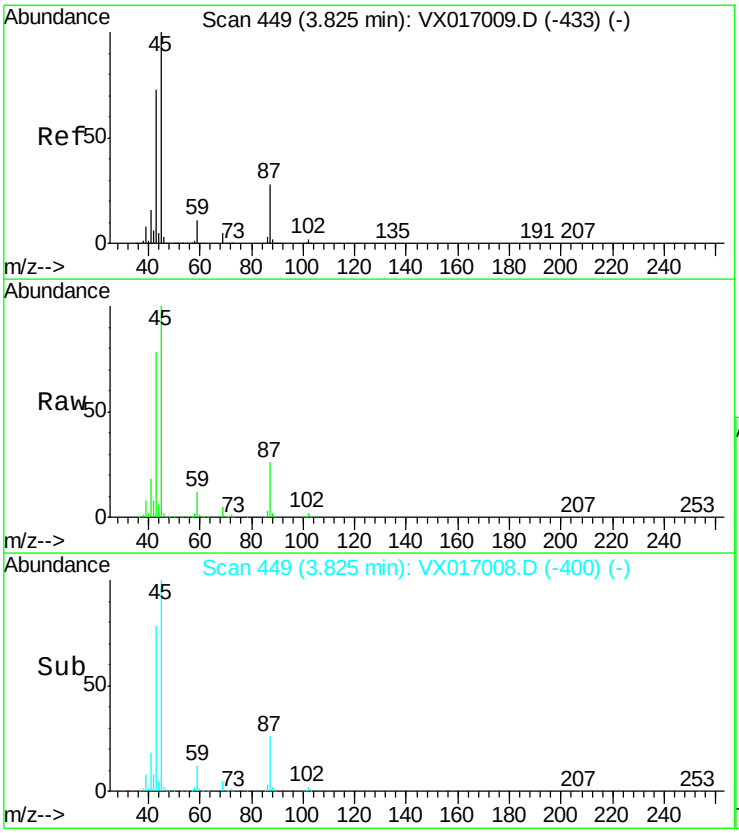


#21
trans-1,2-Dichloroethene
Concen: 19.877 ug/l
RT: 3.14 min Scan# 337
Delta R.T. -0.00 min
Lab File: VX017008.D
Acq: 29 Jun 2020 14:58

Tgt Ion: 96 Resp: 61508

Ion	Ratio	Lower	Upper
96	100		
61	144.1	107.0	160.6
98	63.5	51.6	77.4

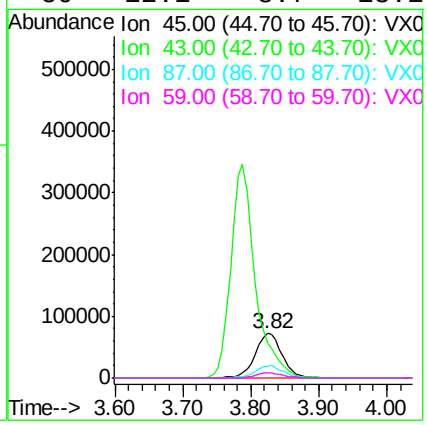


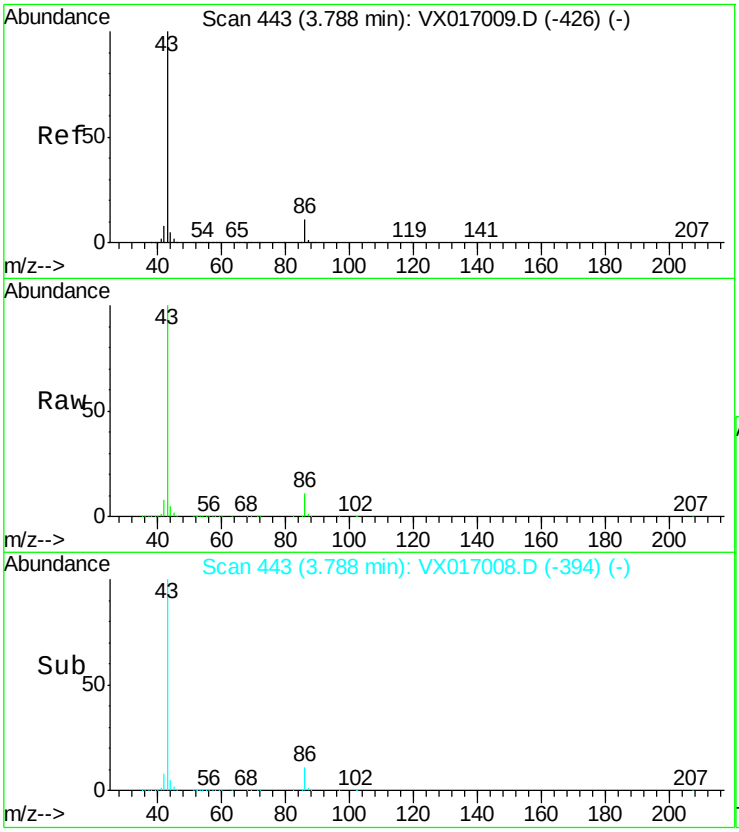


#22
Diisopropyl ether
Concen: 20.915 ug/l
RT: 3.82 min Scan# 449
Delta R.T. -0.00 min
Lab File: VX017008.D
Acq: 29 Jun 2020 14:58

Tgt Ion: 45 Resp: 199480

Ion	Ratio	Lower	Upper
45	100		
43	77.7	58.6	88.0
87	26.0	22.6	34.0
59	12.1	8.7	13.1

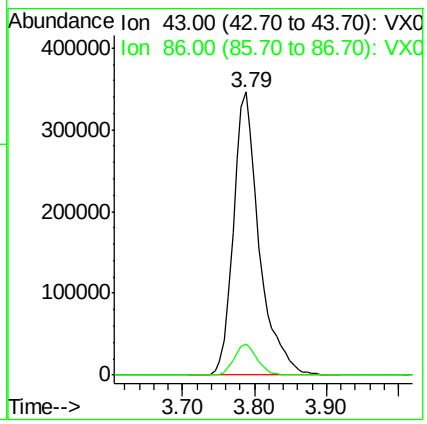




#23
Vinyl Acetate
Concen: 104.963 ug/l
RT: 3.79 min Scan# 443
Delta R.T. -0.00 min
Lab File: VX017008.D
Acq: 29 Jun 2020 14:58

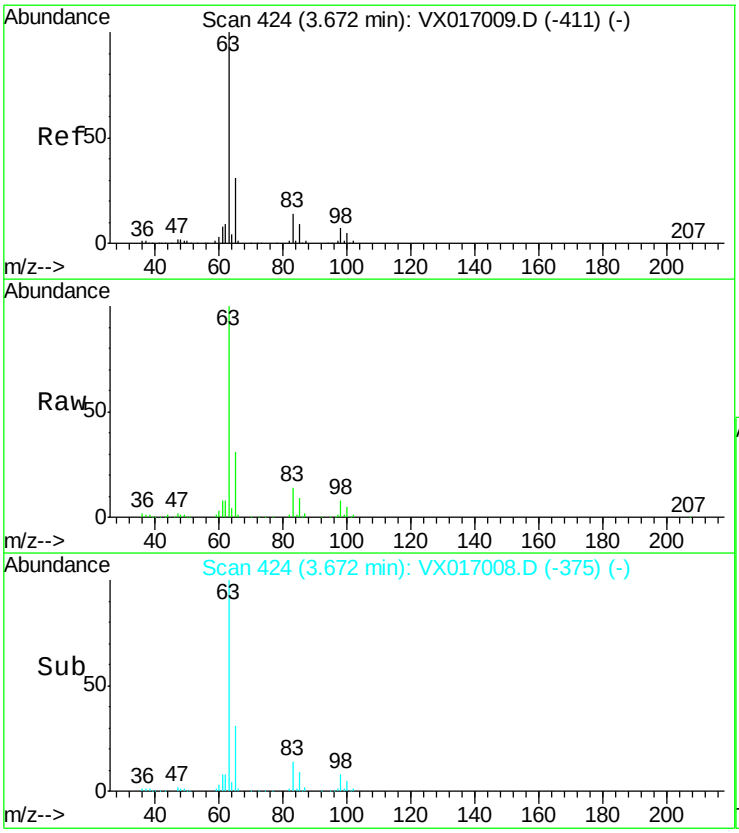
Tgt Ion: 43 Resp: 860251

Ion	Ratio	Lower	Upper
43	100		
86	11.0	8.6	13.0



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC020

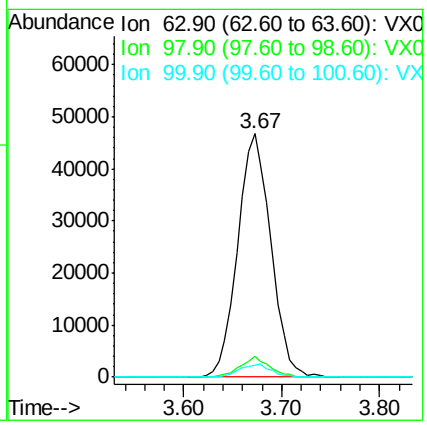
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:12:50 AM



#24
1,1-Dichloroethane
Concen: 20.321 ug/l
RT: 3.67 min Scan# 424
Delta R.T. -0.00 min
Lab File: VX017008.D
Acq: 29 Jun 2020 14:58

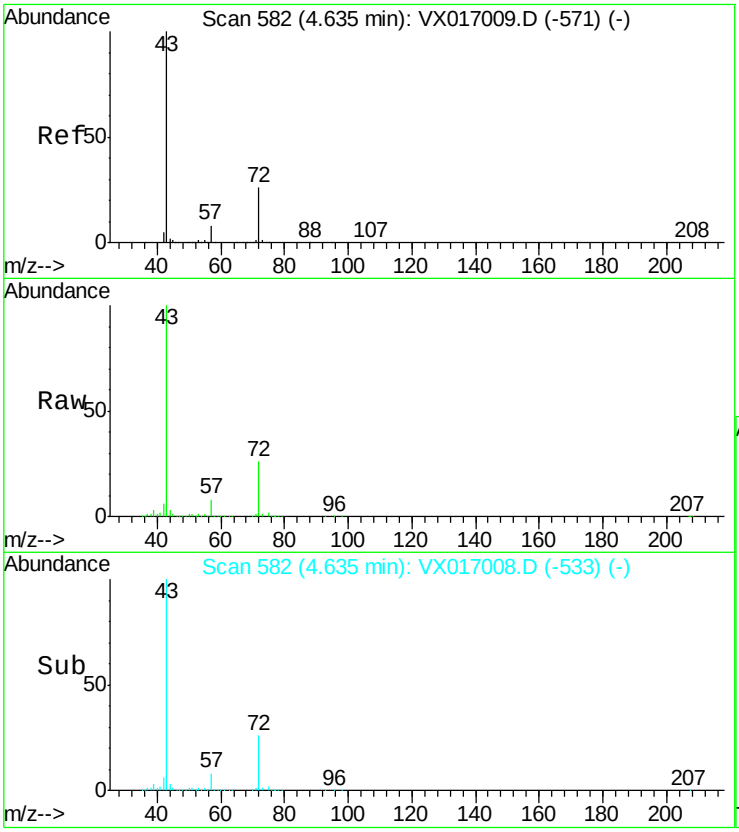
Tgt Ion: 63 Resp: 110281

Ion	Ratio	Lower	Upper
63	100		
98	8.4	3.6	10.8
100	4.8	2.4	7.1



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC020

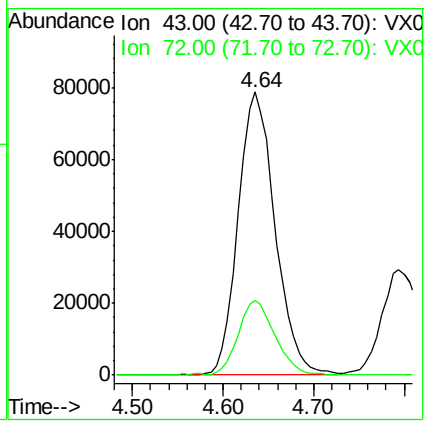
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:12:50 AM

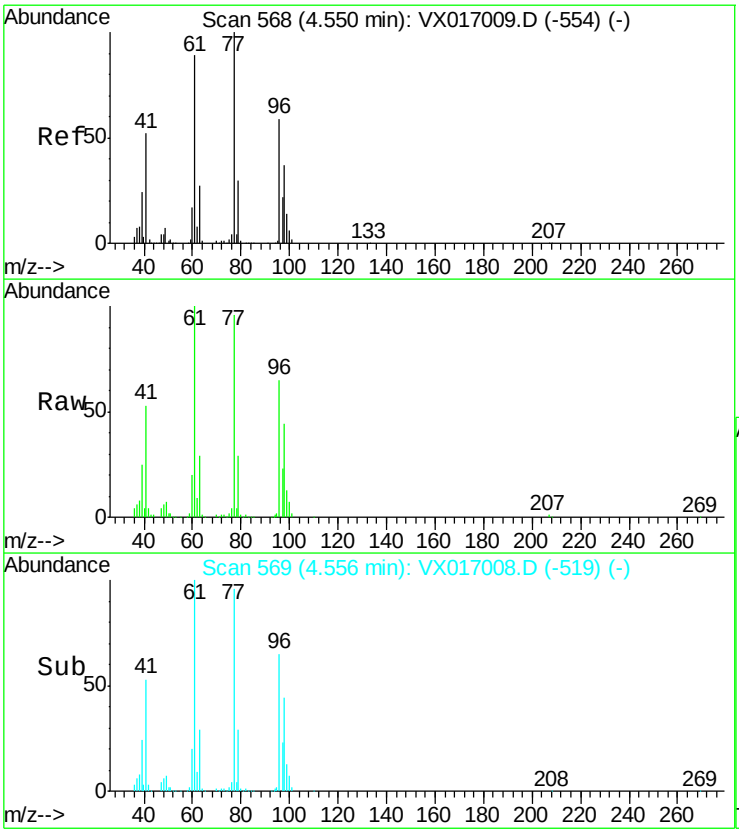


#25
2-Butanone
Concen: 102.147 ug/l
RT: 4.64 min Scan# 582
Delta R.T. -0.00 min
Lab File: VX017008.D
Acq: 29 Jun 2020 14:58

Tgt Ion: 43 Resp: 221225

Ion	Ratio	Lower	Upper
43	100		
72	26.3	20.8	31.2

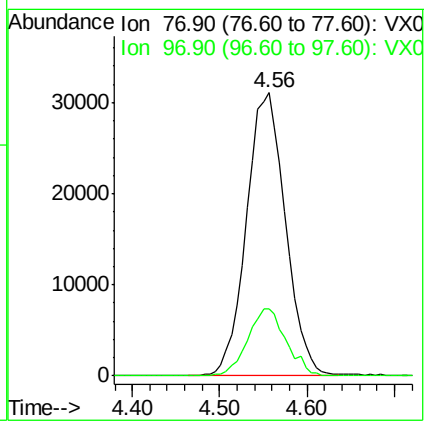




#26
2,2-Dichloropropane
Concen: 20.090 ug/l
RT: 4.56 min Scan# 569
Delta R.T. 0.01 min
Lab File: VX017008.D
Acq: 29 Jun 2020 14:58

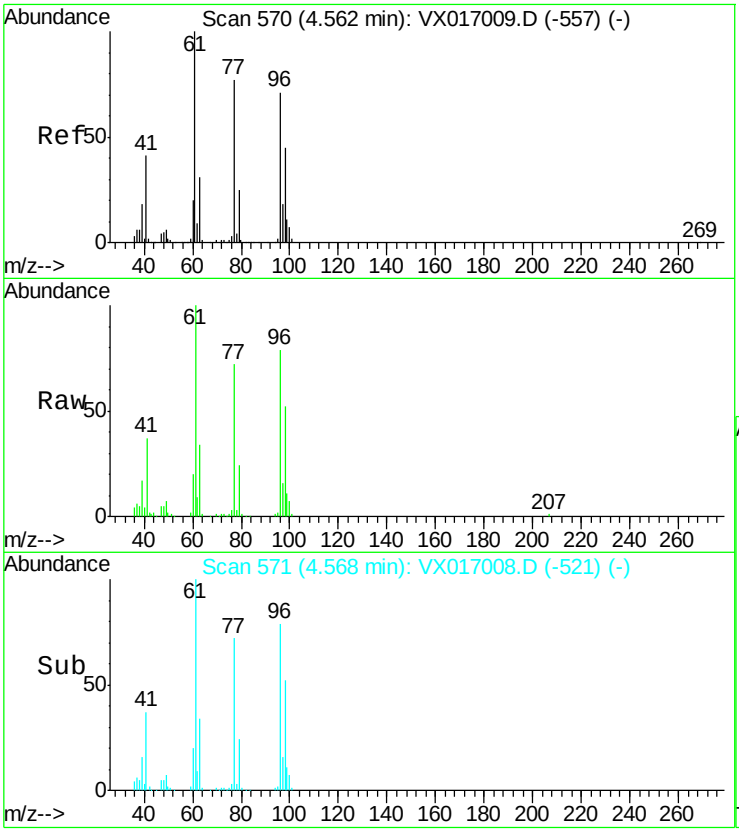
Tgt Ion: 77 Resp: 96805

Ion	Ratio	Lower	Upper
77	100		
97	23.4	11.4	34.2



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC020

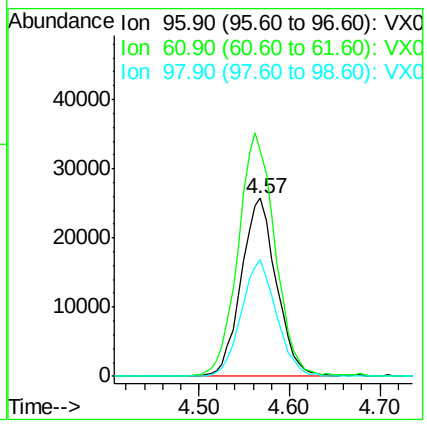
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:12:50 AM

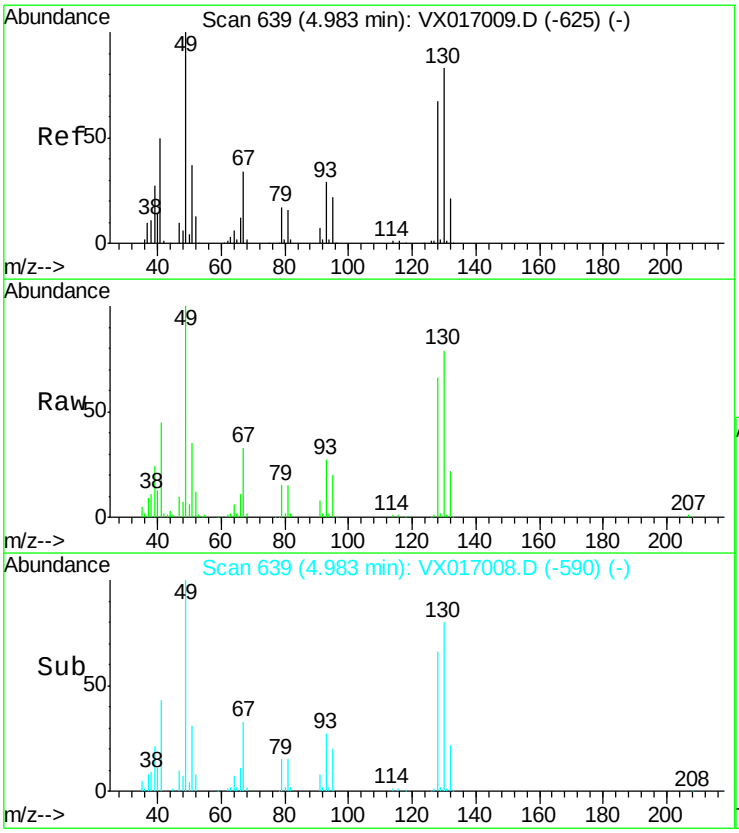


#27
cis-1,2-Dichloroethene
Concen: 19.765 ug/l
RT: 4.57 min Scan# 571
Delta R.T. 0.01 min
Lab File: VX017008.D
Acq: 29 Jun 2020 14:58

Tgt Ion: 96 Resp: 69298

Ion	Ratio	Lower	Upper
96	100		
61	142.9	0.0	282.8
98	65.1	0.0	127.6

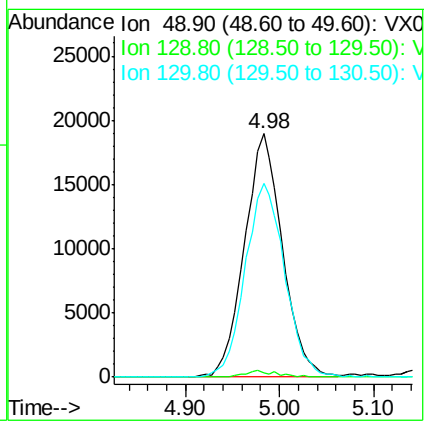




#28
Bromochloromethane
Concen: 20.264 ug/l
RT: 4.98 min Scan# 639
Delta R.T. -0.00 min
Lab File: VX017008.D
Acq: 29 Jun 2020 14:58

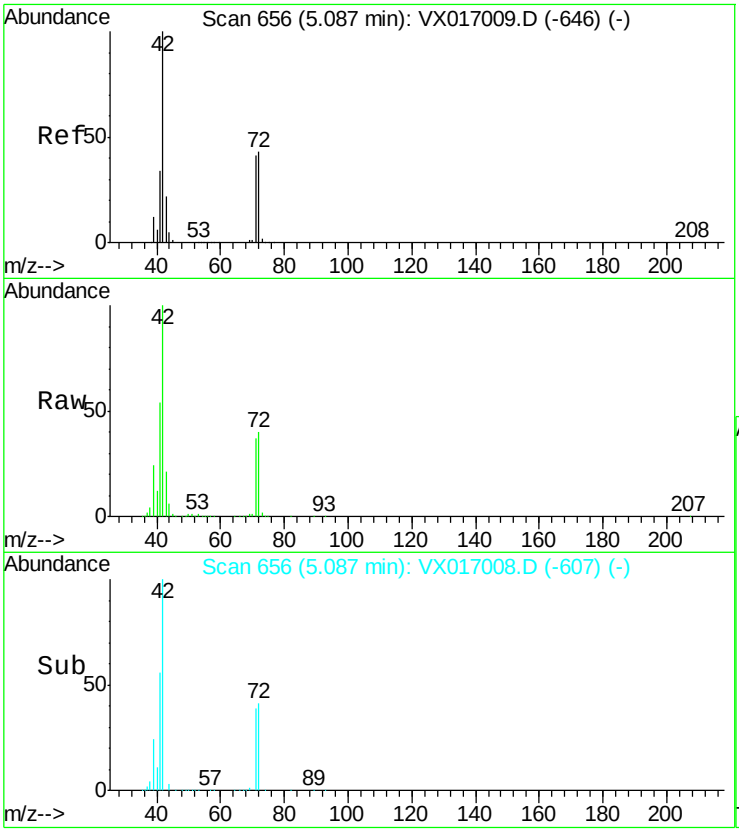
Tgt Ion: 49 Resp: 53514

Ion	Ratio	Lower	Upper
49	100		
129	2.2	0.0	4.2
130	83.0	66.6	100.0



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC020

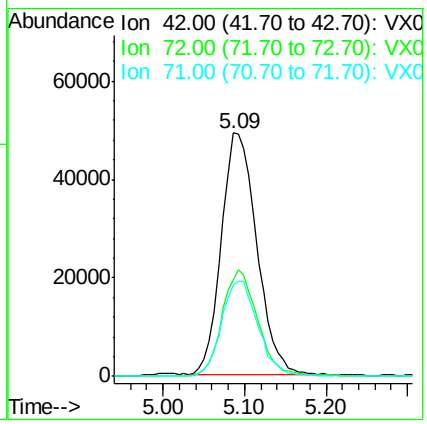
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:12:50 AM

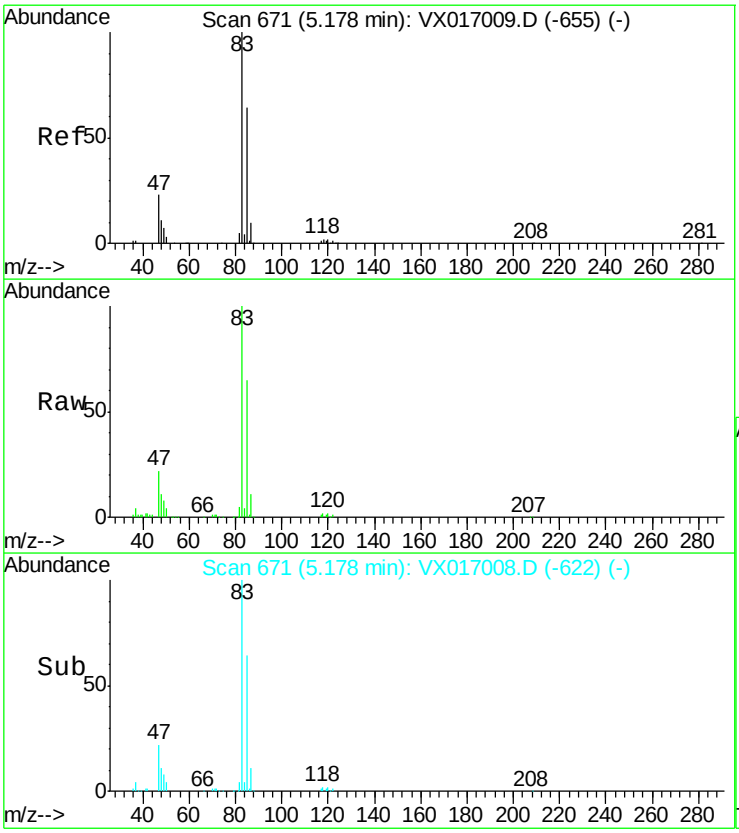


#29
Tetrahydrofuran
Concen: 104.230 ug/l
RT: 5.09 min Scan# 656
Delta R.T. -0.00 min
Lab File: VX017008.D
Acq: 29 Jun 2020 14:58

Tgt Ion: 42 Resp: 149148

Ion	Ratio	Lower	Upper
42	100		
72	43.9	35.3	52.9
71	40.4	33.1	49.7

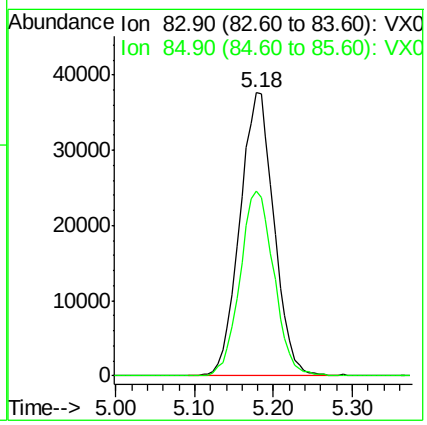




#30
Chloroform
Concen: 20.379 ug/l
RT: 5.18 min Scan# 671
Delta R.T. -0.00 min
Lab File: VX017008.D
Acq: 29 Jun 2020 14:58

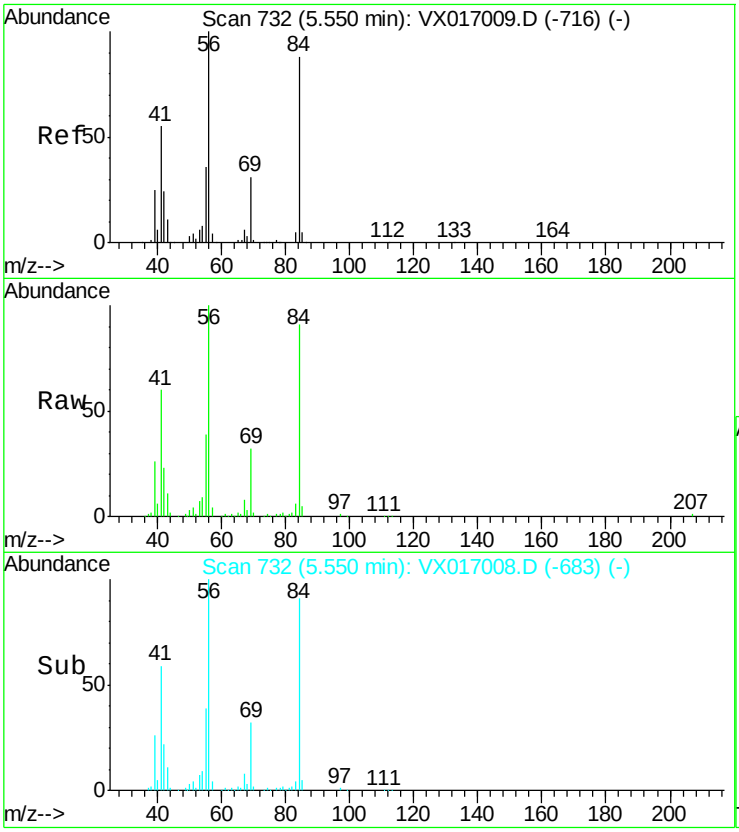
Tgt Ion: 83 Resp: 113367

Ion	Ratio	Lower	Upper
83	100		
85	65.3	51.4	77.2



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC020

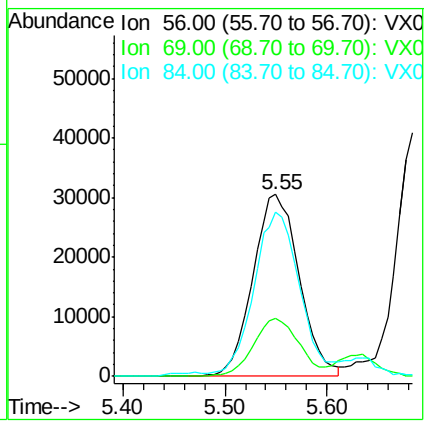
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:12:50 AM

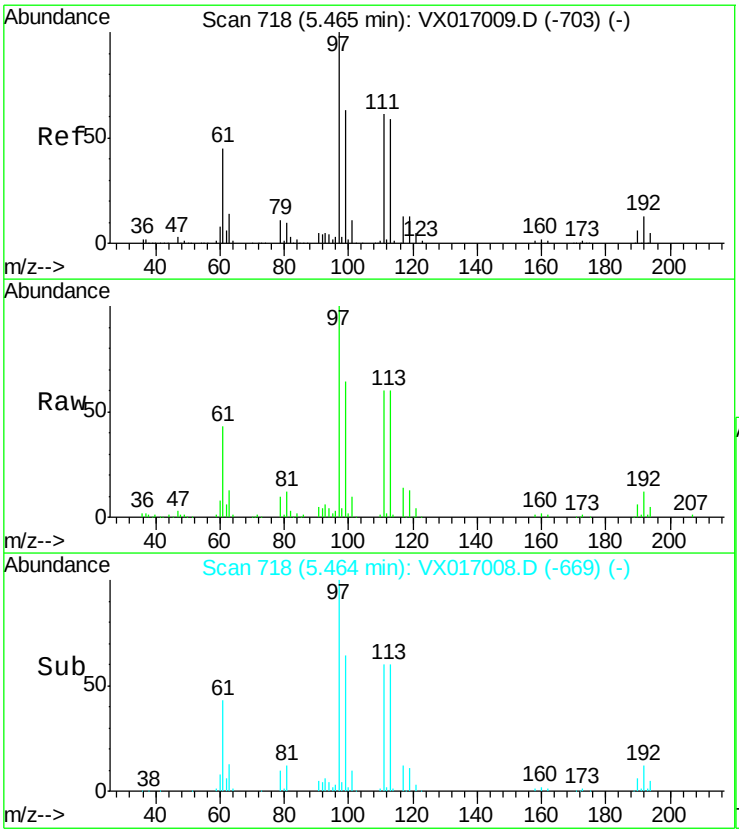


#31
Cyclohexane
Concen: 20.553 ug/l
RT: 5.55 min Scan# 732
Delta R.T. -0.00 min
Lab File: VX017008.D
Acq: 29 Jun 2020 14:58

Tgt Ion: 56 Resp: 96411

Ion	Ratio	Lower	Upper
56	100		
69	31.8	25.0	37.4
84	88.7	69.1	103.7

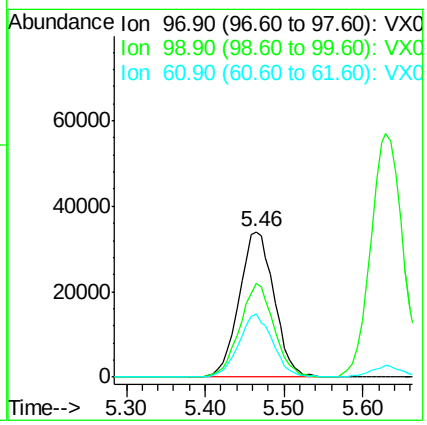


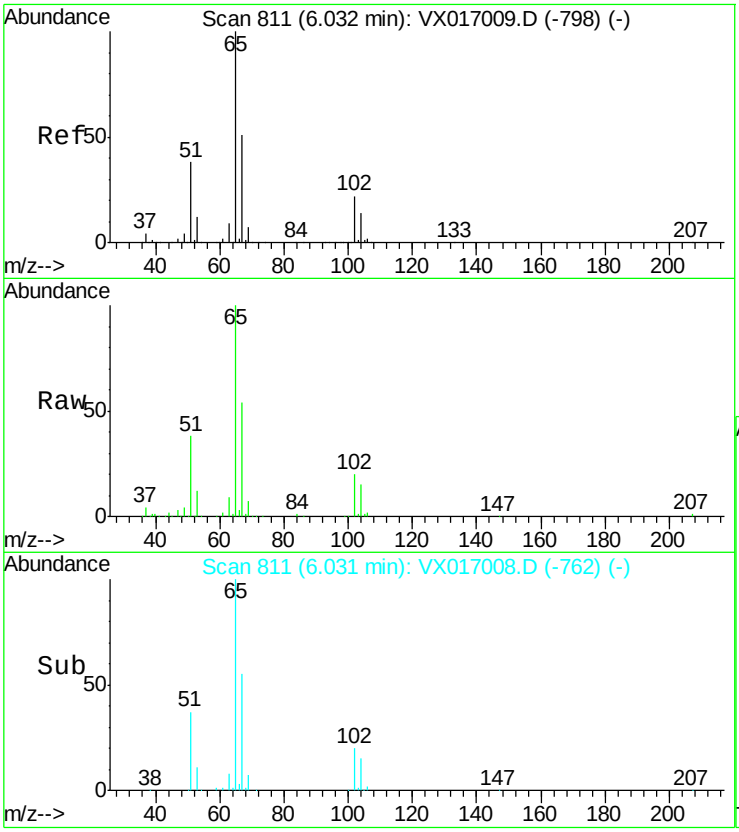


#32
1,1,1-Trichloroethane
Concen: 20.452 ug/l
RT: 5.46 min Scan# 718
Delta R.T. -0.00 min
Lab File: VX017008.D
Acq: 29 Jun 2020 14:58

Tgt Ion: 97 Resp: 104784

Ion	Ratio	Lower	Upper
97	100		
99	62.7	50.8	76.2
61	42.0	33.7	50.5

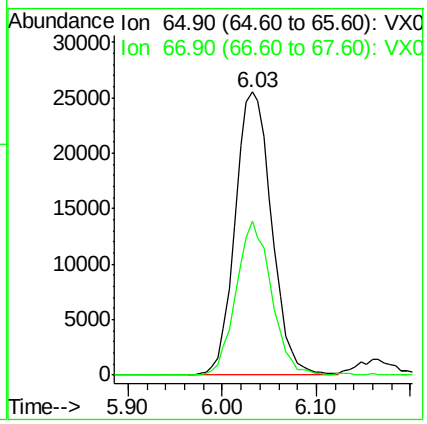




#33
1,2-Dichloroethane-d4
Concen: 19.888 ug/l
RT: 6.03 min Scan# 811
Delta R.T. -0.00 min
Lab File: VX017008.D
Acq: 29 Jun 2020 14:58

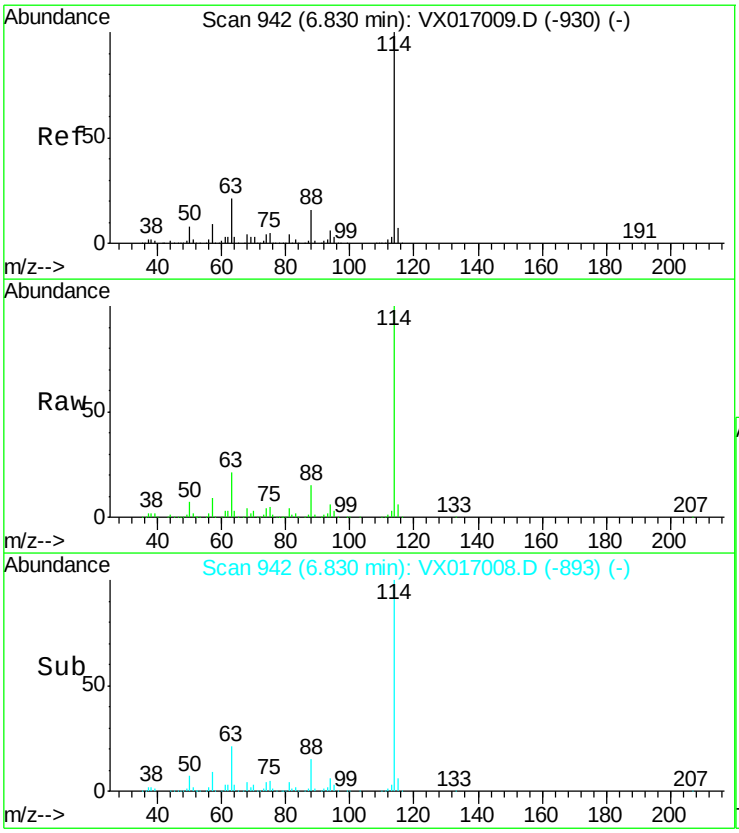
Tgt Ion: 65 Resp: 69101

Ion	Ratio	Lower	Upper
65	100		
67	52.6	0.0	103.8



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC020

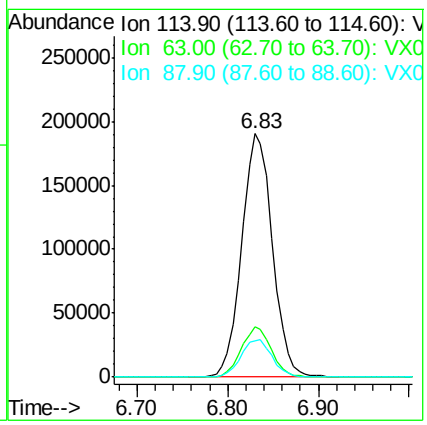
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:12:50 AM

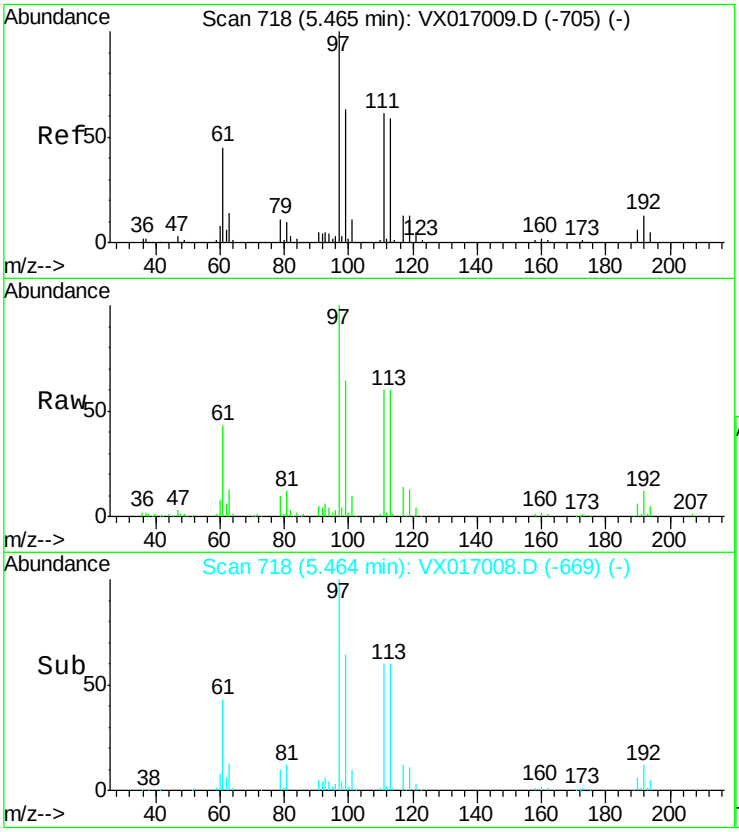


#34
1,4-Difluorobenzene
Concen: 50.000 ug/l
RT: 6.83 min Scan# 942
Delta R.T. -0.00 min
Lab File: VX017008.D
Acq: 29 Jun 2020 14:58

Tgt Ion:114 Resp: 445178

Ion	Ratio	Lower	Upper
114	100		
63	20.5	0.0	41.4
88	14.9	0.0	32.4

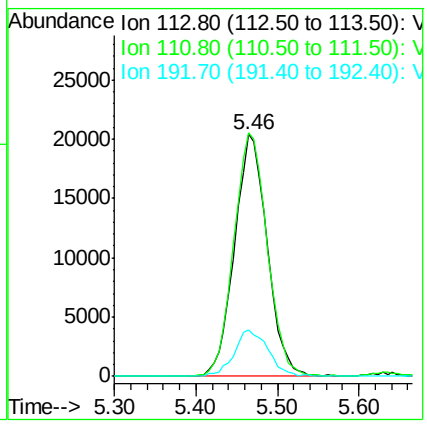




#35
Dibromofluoromethane
Concen: 20.108 ug/l
RT: 5.46 min Scan# 718
Delta R.T. -0.00 min
Lab File: VX017008.D
Acq: 29 Jun 2020 14:58

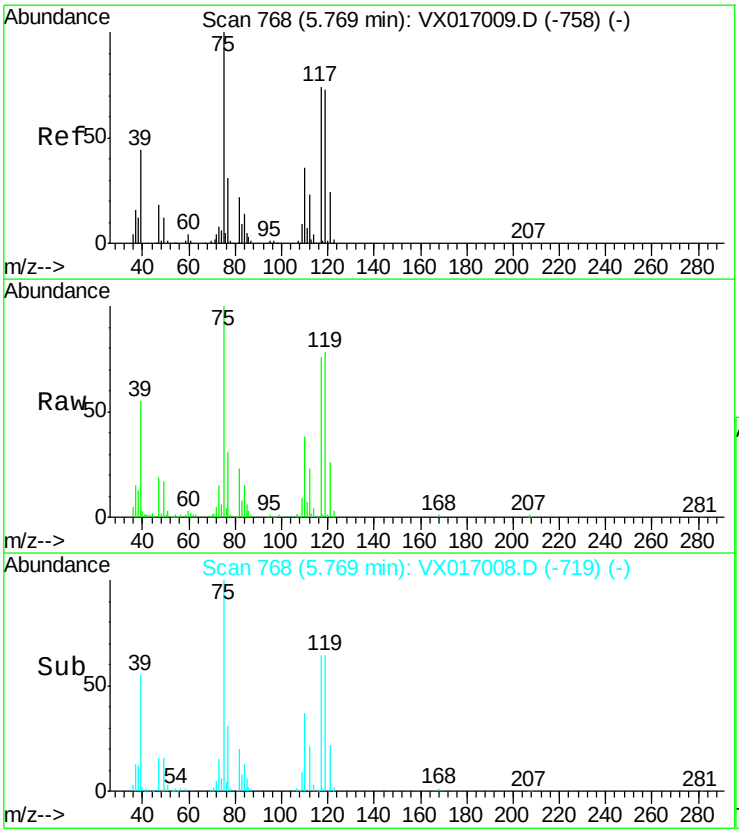
Tgt Ion:113 Resp: 56626

Ion	Ratio	Lower	Upper
113	100		
111	102.6	81.9	122.9
192	20.1	16.7	25.1



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC020

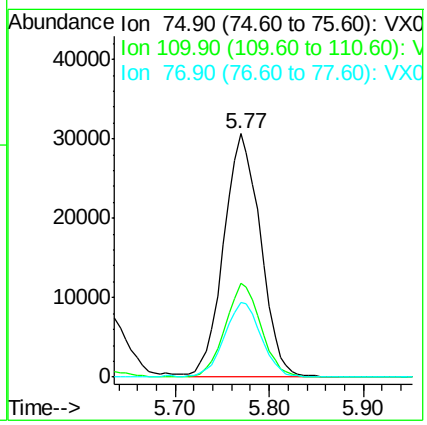
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:12:50 AM



#36
1,1-Dichloropropene
Concen: 19.532 ug/l
RT: 5.77 min Scan# 768
Delta R.T. -0.00 min
Lab File: VX017008.D
Acq: 29 Jun 2020 14:58

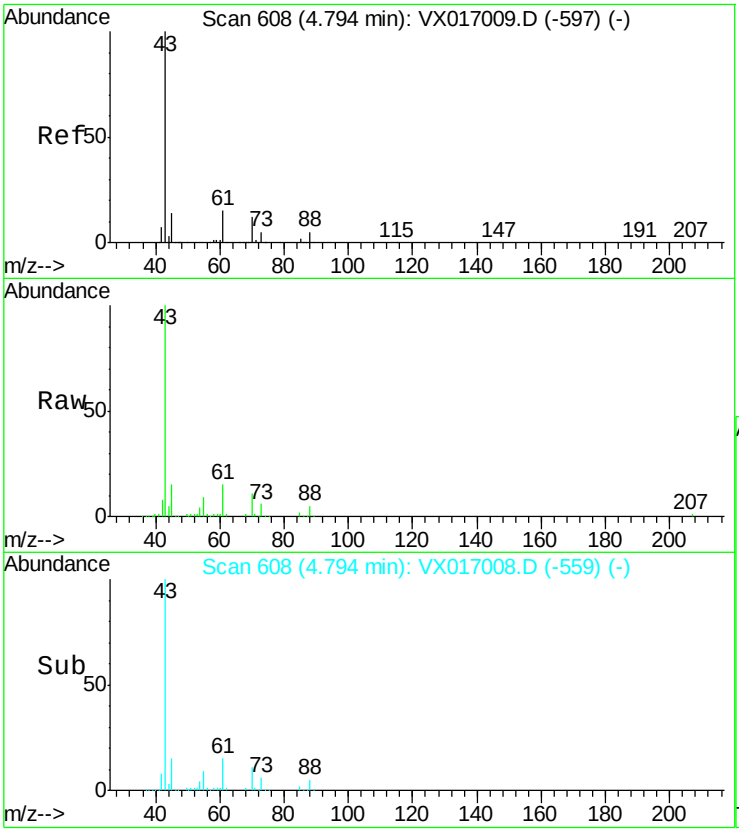
Tgt Ion: 75 Resp: 82181

Ion	Ratio	Lower	Upper
75	100		
110	37.5	18.1	54.1
77	31.2	24.6	37.0



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC020

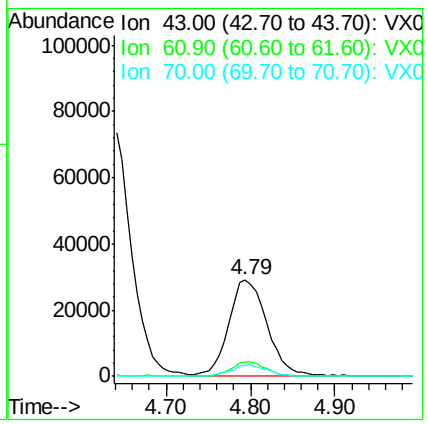
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:12:50 AM

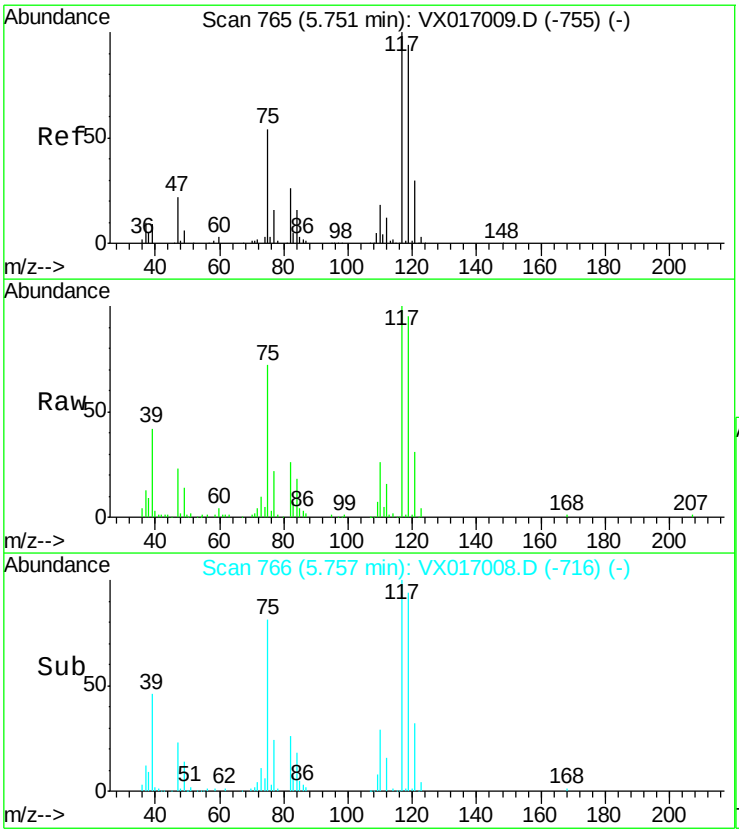


#37
Ethyl Acetate
Concen: 20.616 ug/l
RT: 4.79 min Scan# 608
Delta R.T. -0.00 min
Lab File: VX017008.D
Acq: 29 Jun 2020 14:58

Tgt Ion: 43 Resp: 88008

Ion	Ratio	Lower	Upper
43	100		
61	13.9	11.0	16.4
70	11.5	8.9	13.3

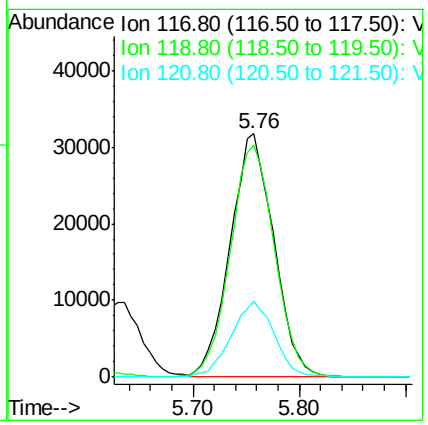


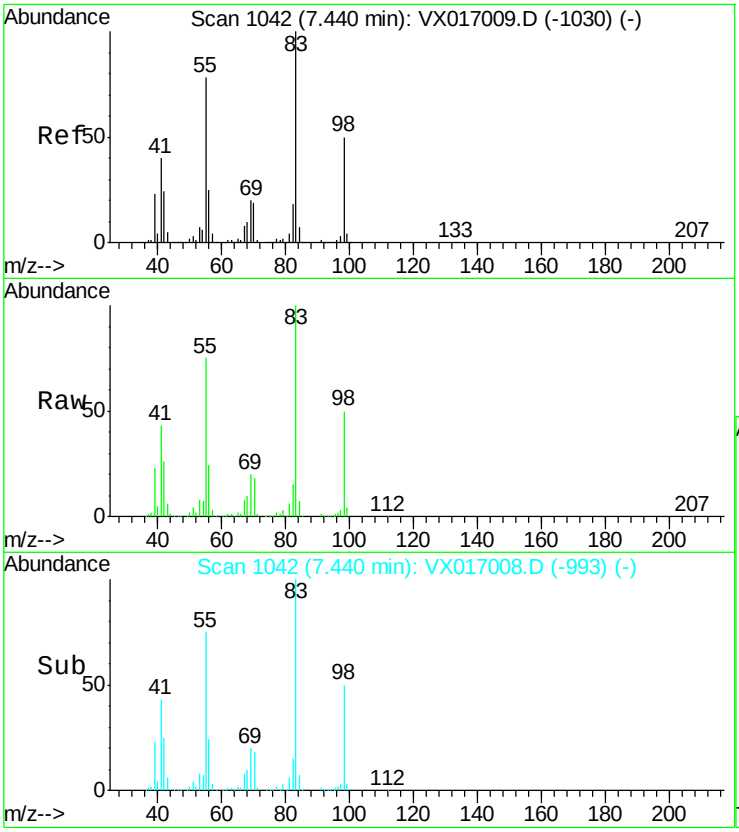


#38
Carbon Tetrachloride
Concen: 19.594 ug/l
RT: 5.76 min Scan# 766
Delta R.T. 0.01 min
Lab File: VX017008.D
Acq: 29 Jun 2020 14:58

Tgt Ion:117 Resp: 90802

Ion	Ratio	Lower	Upper
117	100		
119	94.8	75.4	113.0
121	31.3	23.8	35.6

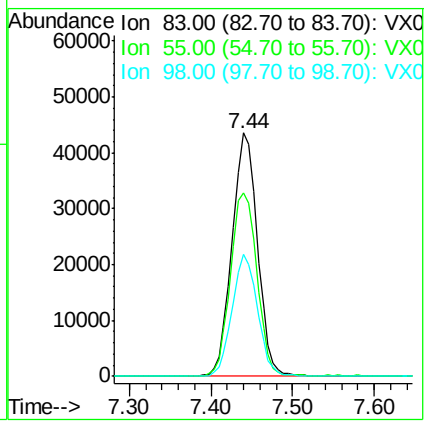


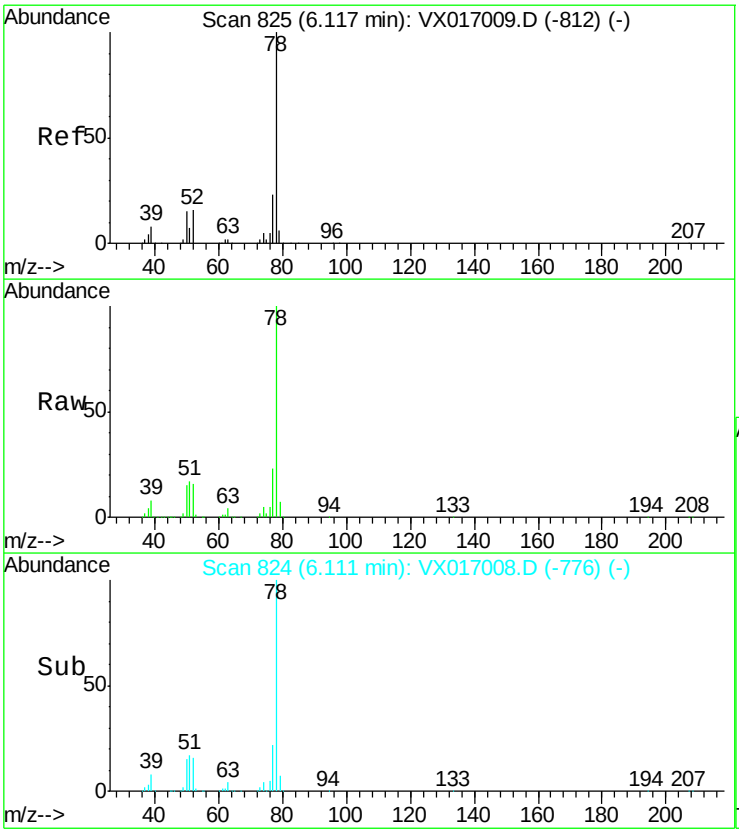


#39
Methylcyclohexane
Concen: 19.969 ug/l
RT: 7.44 min Scan# 1042
Delta R.T. -0.00 min
Lab File: VX017008.D
Acq: 29 Jun 2020 14:58

Tgt Ion: 83 Resp: 93483

Ion	Ratio	Lower	Upper
83	100		
55	75.4	62.5	93.7
98	50.0	40.1	60.1

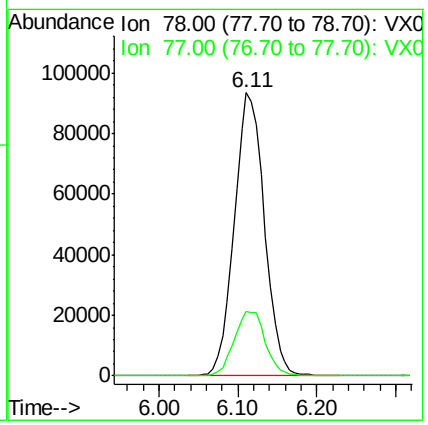




#40
Benzene
Concen: 20.057 ug/l
RT: 6.11 min Scan# 824
Delta R.T. -0.01 min
Lab File: VX017008.D
Acq: 29 Jun 2020 14:58

Tgt Ion: 78 Resp: 247955

Ion	Ratio	Lower	Upper
78	100		
77	22.7	18.3	27.5

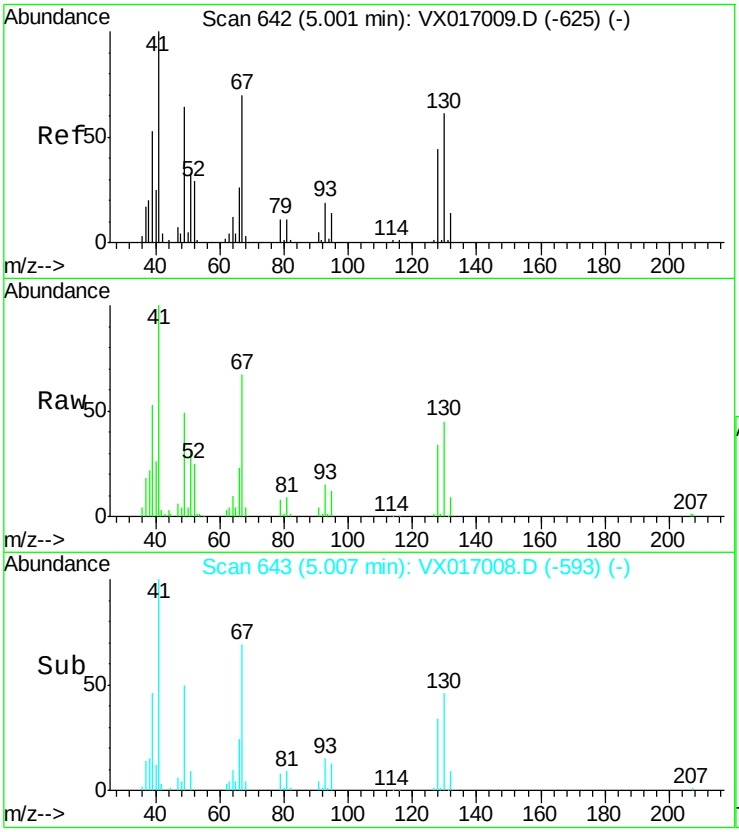


Instrument :
MSVOA_X
ClientSampleId :
VSTDICC020

Manual Integrations APPROVED
MMDadoda
6/30/2020 10:12:50 AM

Instrument :
MSVOA_X
ClientSampleId :
VSTDICC020

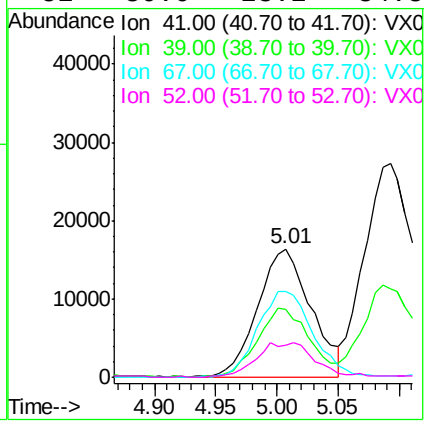
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:12:50 AM

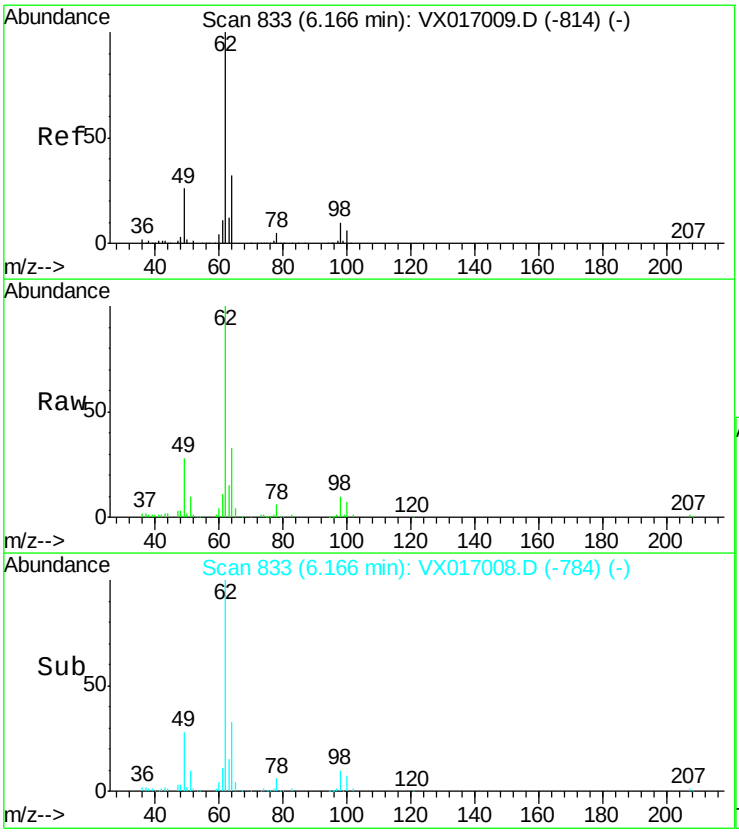


#41
Methacrylonitrile
Concen: 20.520 ug/l
RT: 5.01 min Scan# 643
Delta R.T. 0.01 min
Lab File: VX017008.D
Acq: 29 Jun 2020 14:58

Tgt Ion: 41 Resp: 49303

Ion	Ratio	Lower	Upper
41	100		
39	52.6	44.4	66.6
67	70.3	57.1	85.7
52	30.0	23.2	34.8

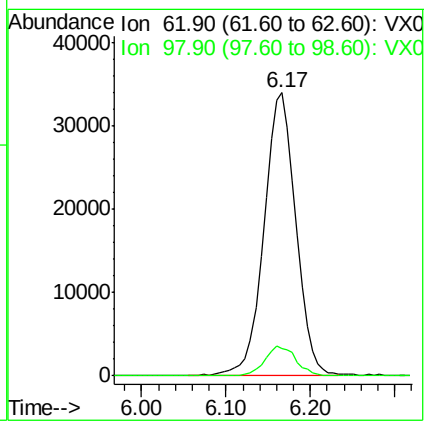




#42
1,2-Dichloroethane
Concen: 19.916 ug/l
RT: 6.17 min Scan# 833
Delta R.T. -0.00 min
Lab File: VX017008.D
Acq: 29 Jun 2020 14:58

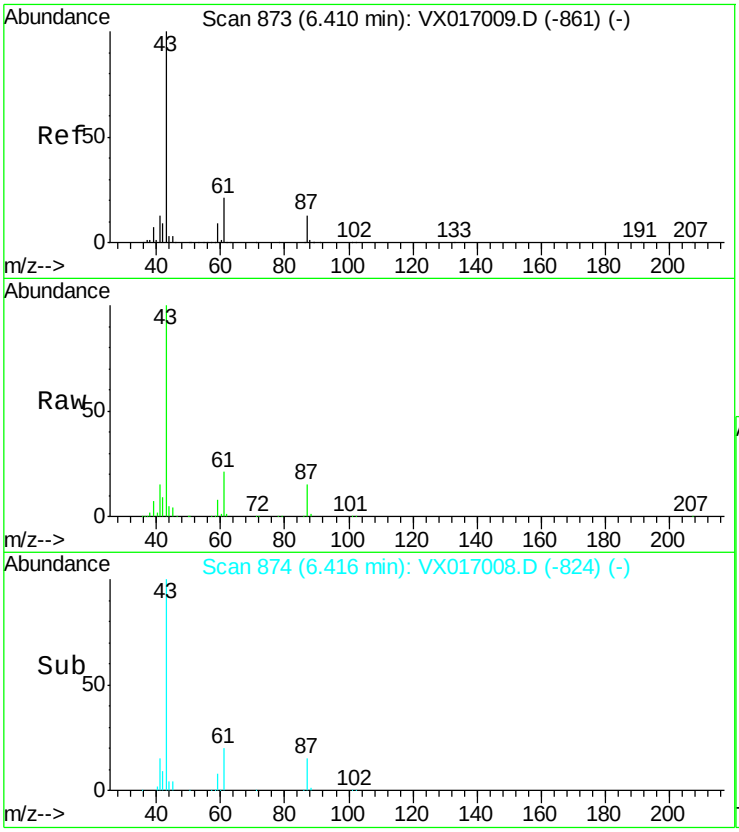
Tgt Ion: 62 Resp: 88932

Ion	Ratio	Lower	Upper
62	100		
98	10.2	0.0	19.2



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC020

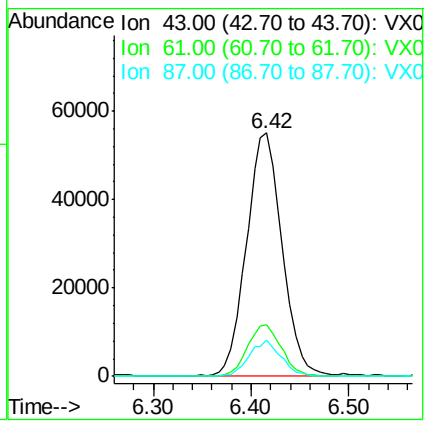
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:12:50 AM

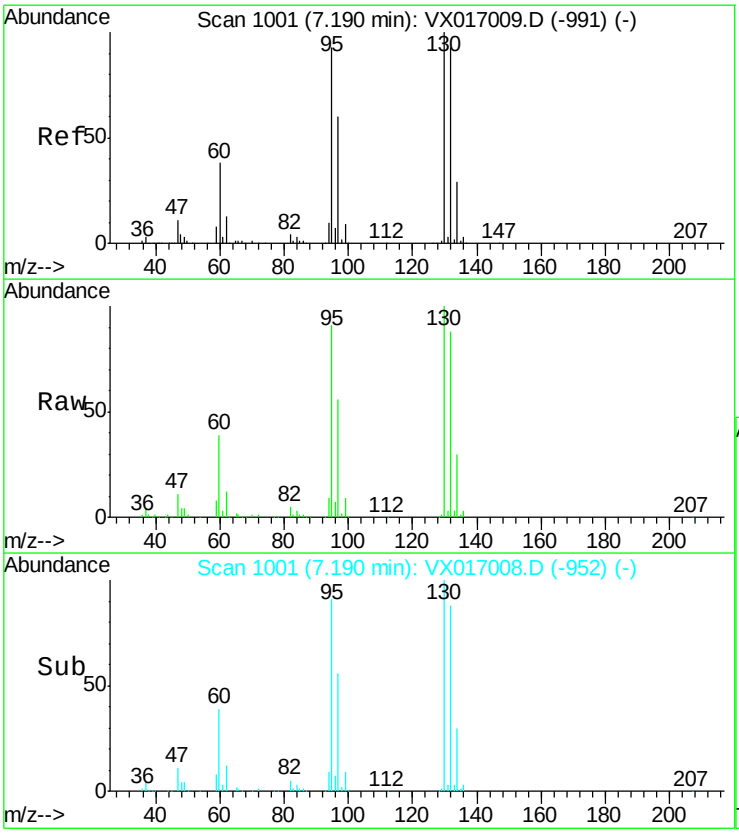


#43
Isopropyl Acetate
Concen: 19.591 ug/l
RT: 6.42 min Scan# 874
Delta R.T. 0.01 min
Lab File: VX017008.D
Acq: 29 Jun 2020 14:58

Tgt Ion: 43 Resp: 138976

Ion	Ratio	Lower	Upper
43	100		
61	20.5	16.2	24.2
87	13.6	10.7	16.1

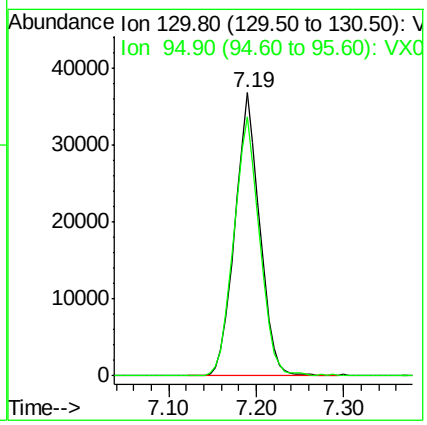


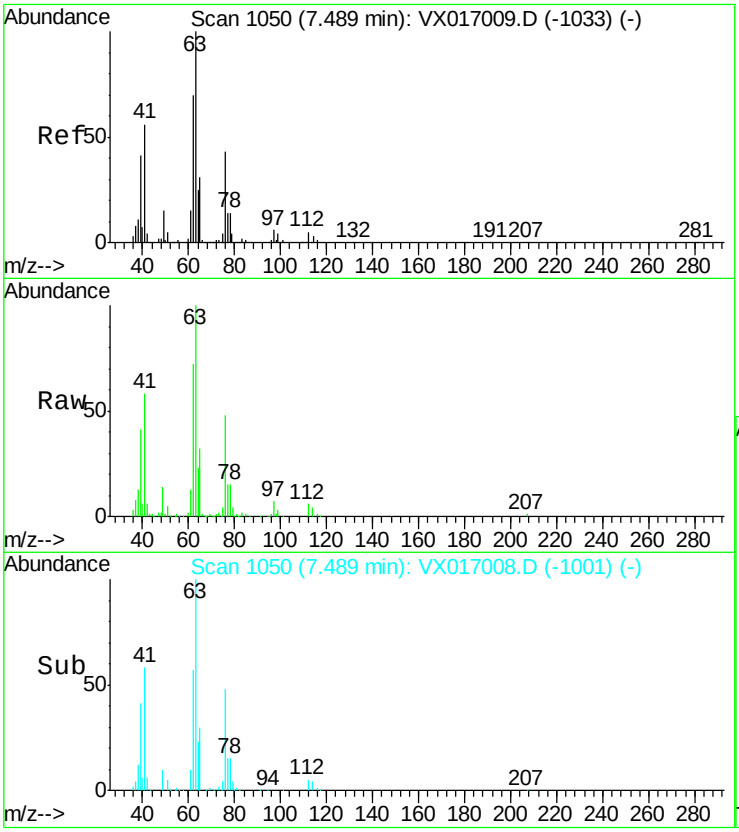


#44
Trichloroethene
Concen: 19.570 ug/l
RT: 7.19 min Scan# 1001
Delta R.T. 0.00 min
Lab File: VX017008.D
Acq: 29 Jun 2020 14:58

Tgt Ion:130 Resp: 72869

Ion	Ratio	Lower	Upper
130	100		
95	91.4	0.0	185.0

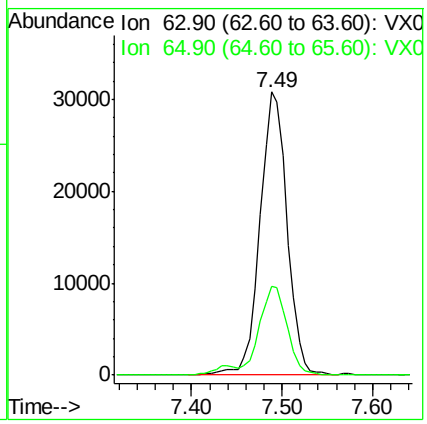




#45
1,2-Dichloropropane
Concen: 20.038 ug/l
RT: 7.49 min Scan# 1050
Delta R.T. -0.00 min
Lab File: VX017008.D
Acq: 29 Jun 2020 14:58

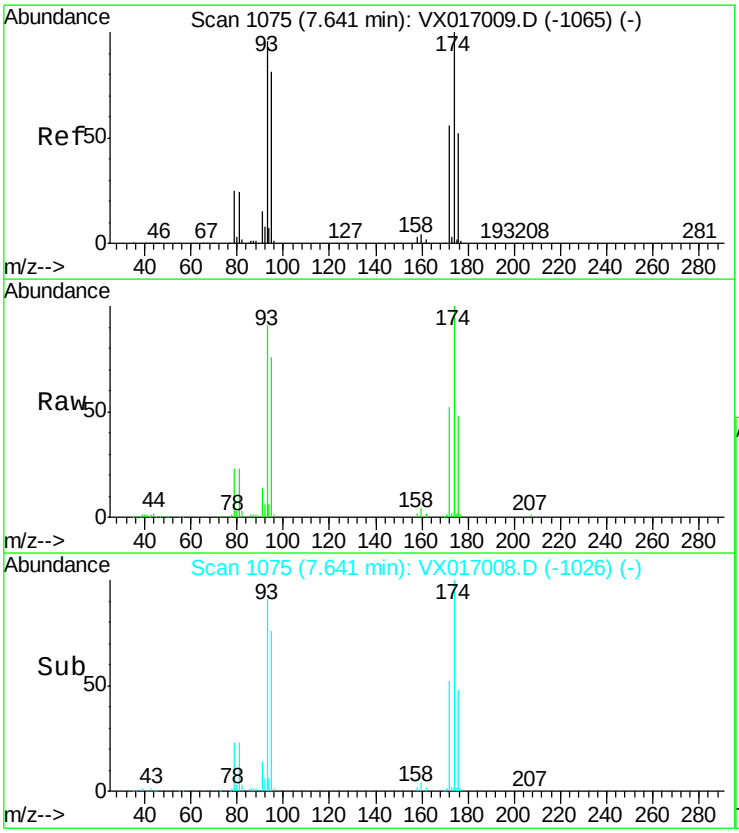
Tgt Ion: 63 Resp: 63624

Ion	Ratio	Lower	Upper
63	100		
65	31.6	24.6	36.8



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC020

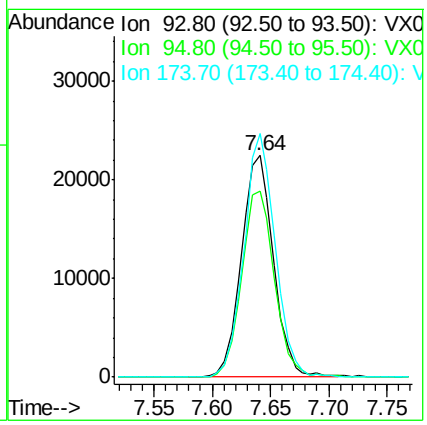
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:12:50 AM

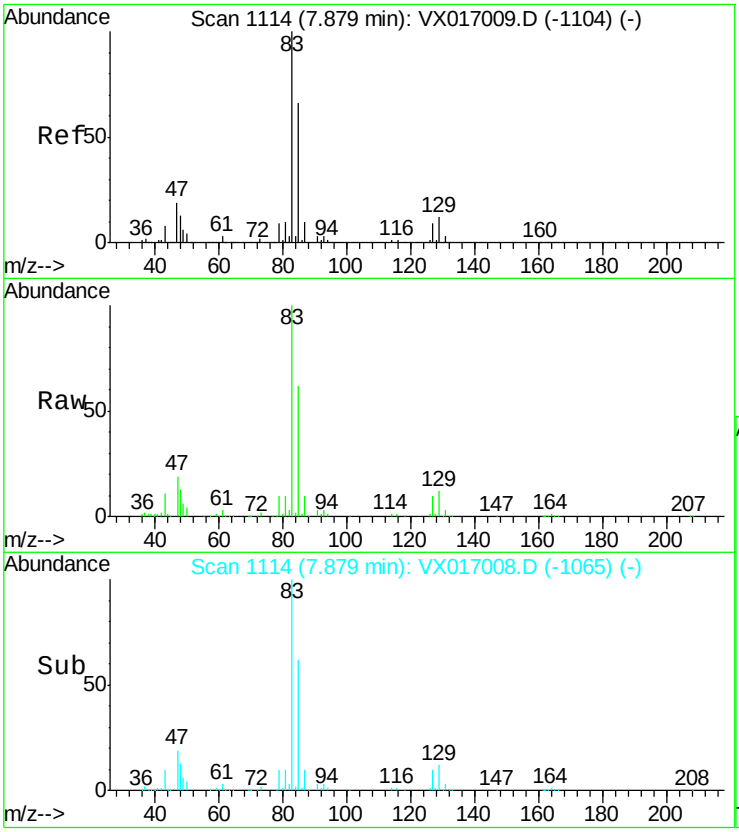


#46
Dibromomethane
Concen: 19.943 ug/l
RT: 7.64 min Scan# 1075
Delta R.T. -0.00 min
Lab File: VX017008.D
Acq: 29 Jun 2020 14:58

Tgt Ion: 93 Resp: 43232

Ion	Ratio	Lower	Upper
93	100		
95	85.4	67.4	101.0
174	106.9	84.3	126.5

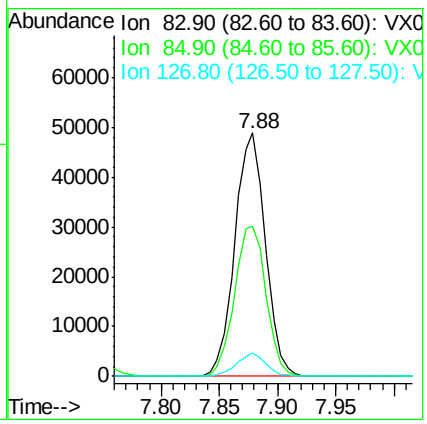


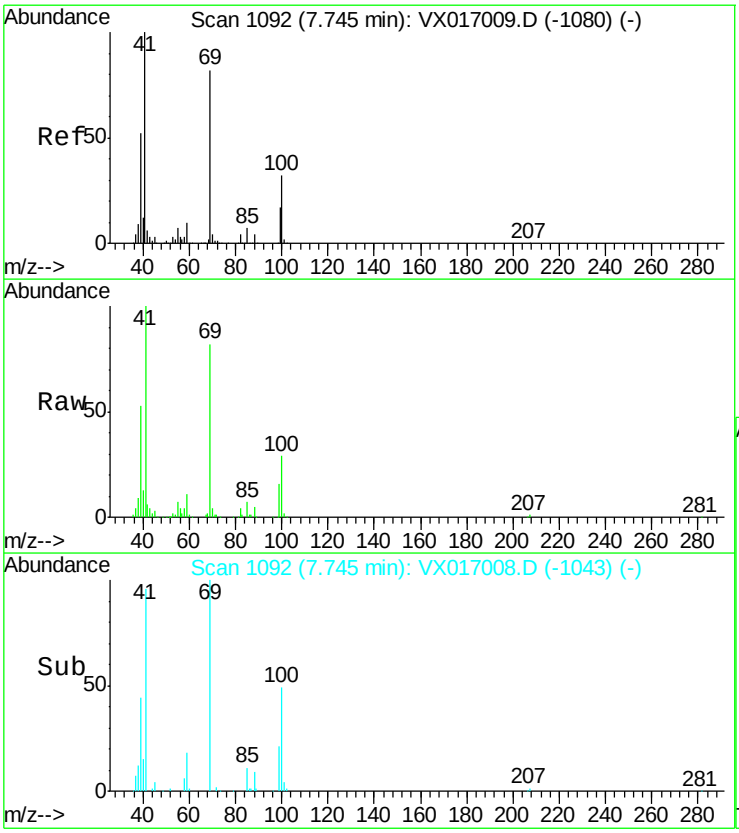


#47
Bromodichloromethane
Concen: 20.049 ug/l
RT: 7.88 min Scan# 1114
Delta R.T. -0.00 min
Lab File: VX017008.D
Acq: 29 Jun 2020 14:58

Tgt Ion: 83 Resp: 89567

Ion	Ratio	Lower	Upper
83	100		
85	61.9	53.0	79.4
127	9.8	7.5	11.3

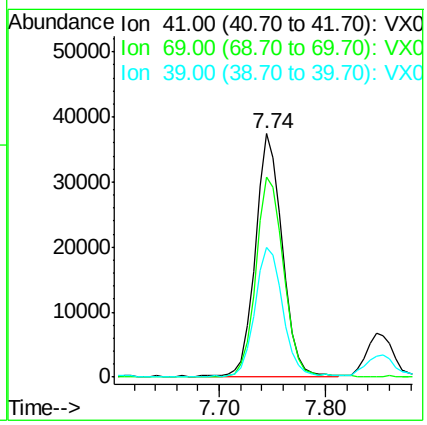




#48
Methyl methacrylate
Concen: 19.685 ug/l
RT: 7.74 min Scan# 1092
Delta R.T. -0.00 min
Lab File: VX017008.D
Acq: 29 Jun 2020 14:58

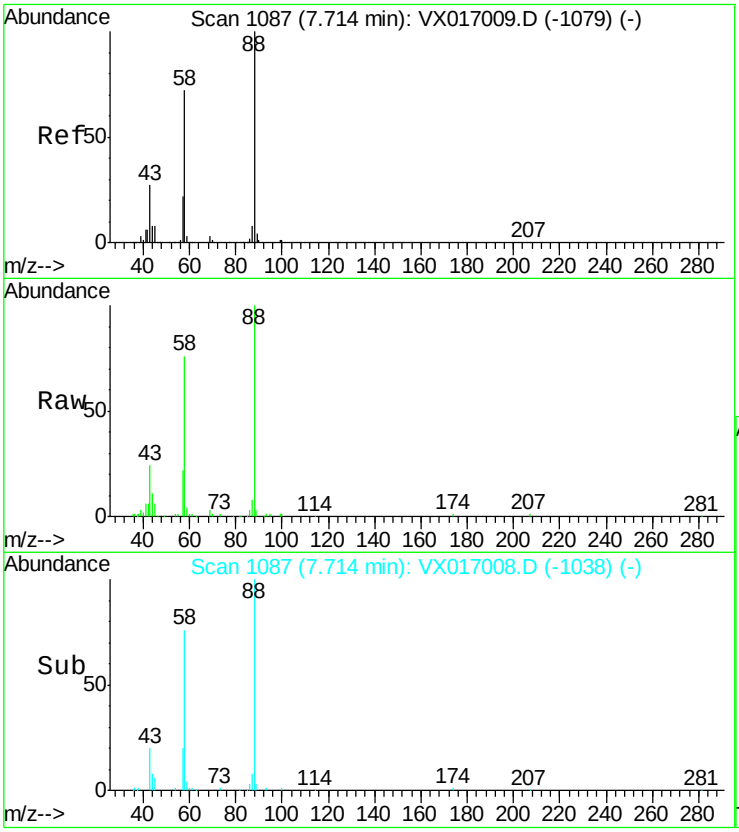
Tgt Ion: 41 Resp: 66342

Ion	Ratio	Lower	Upper
41	100		
69	85.0	65.8	98.8
39	55.0	42.5	63.7



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC020

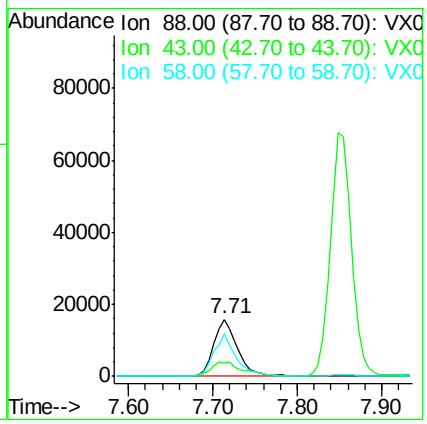
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:12:50 AM

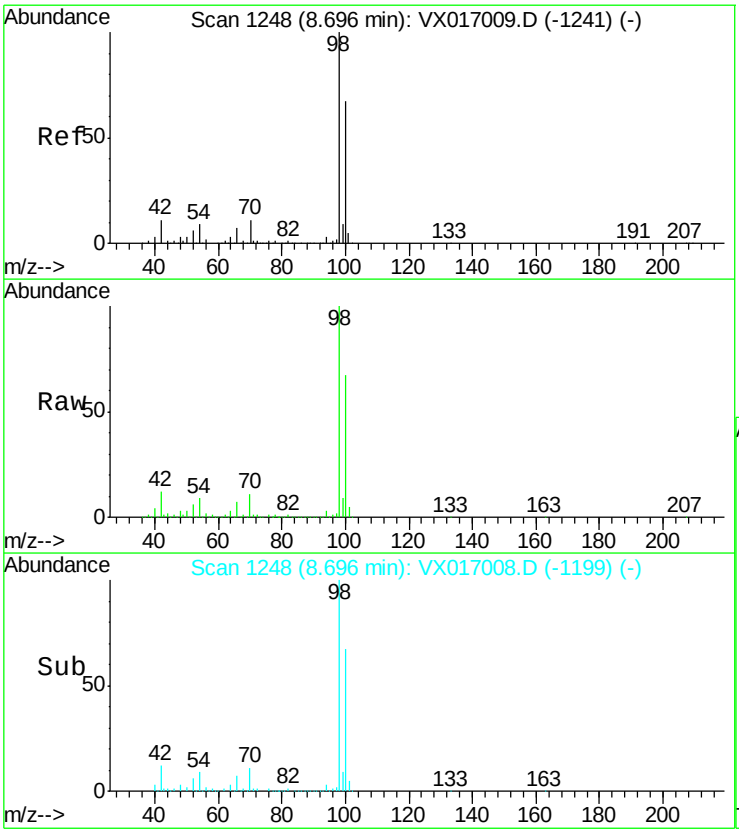


#49
1,4-Dioxane
Concen: 407.041 ug/l
RT: 7.71 min Scan# 1087
Delta R.T. -0.00 min
Lab File: VX017008.D
Acq: 29 Jun 2020 14:58

Tgt Ion: 88 Resp: 31078

Ion	Ratio	Lower	Upper
88	100		
43	34.6	25.8	38.8
58	70.1	54.8	82.2

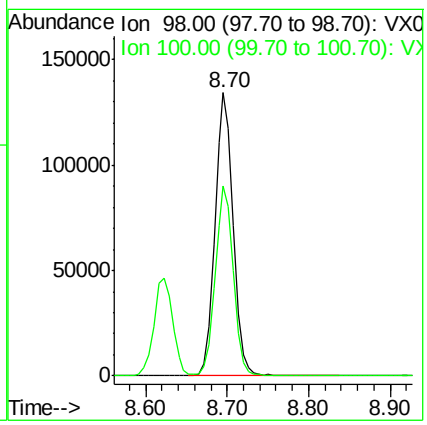




#50
Toluene-d8
Concen: 20.189 ug/l
RT: 8.70 min Scan# 1248
Delta R.T. -0.00 min
Lab File: VX017008.D
Acq: 29 Jun 2020 14:58

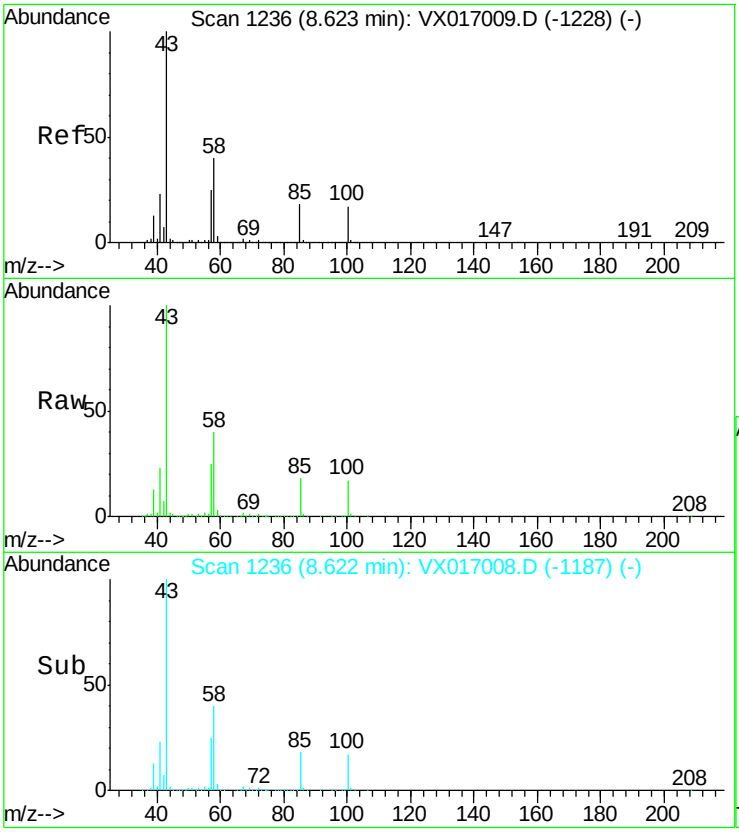
Tgt Ion: 98 Resp: 210228

Ion	Ratio	Lower	Upper
98	100		
100	67.0	53.8	80.6



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC020

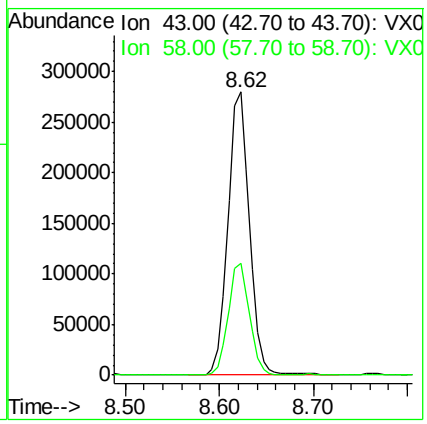
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:12:50 AM



#51
4-Methyl-2-Pentanone
Concen: 104.514 ug/l
RT: 8.62 min Scan# 1236
Delta R.T. -0.00 min
Lab File: VX017008.D
Acq: 29 Jun 2020 14:58

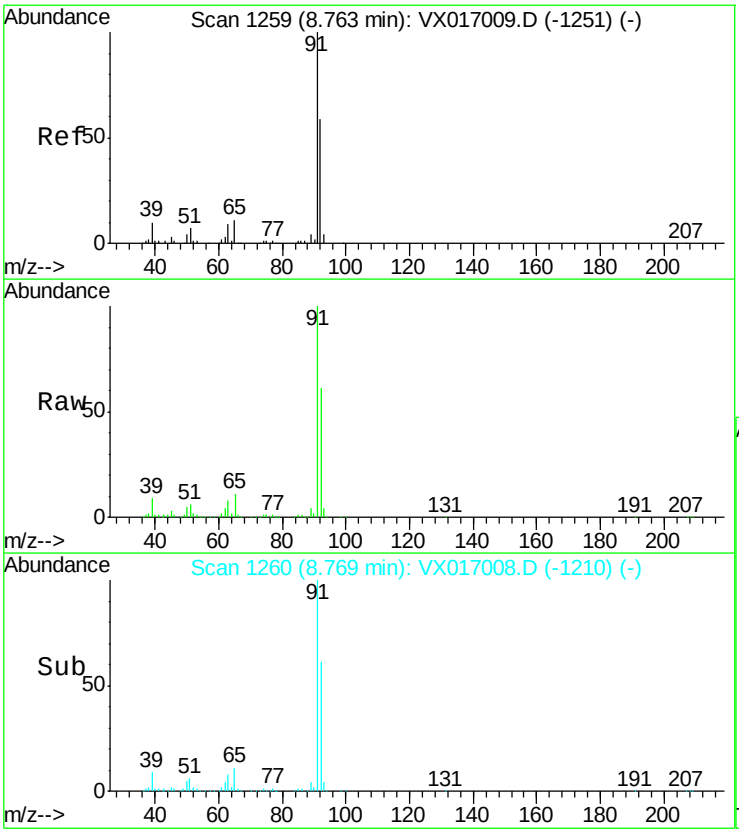
Tgt Ion: 43 Resp: 441943

Ion	Ratio	Lower	Upper
43	100		
58	39.3	31.9	47.9



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC020

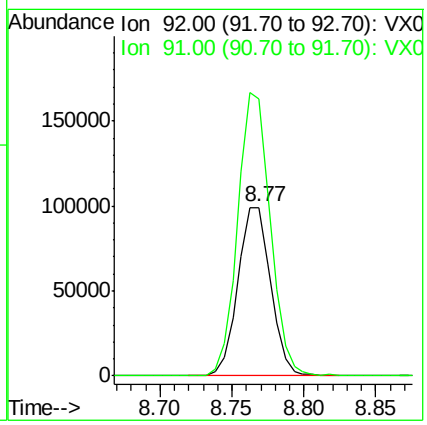
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:12:50 AM

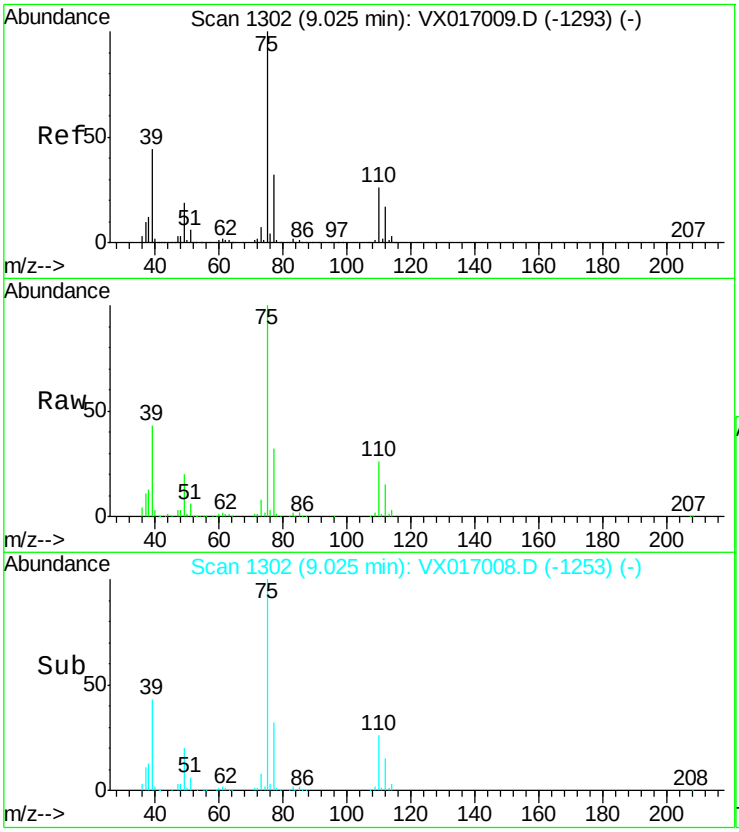


#52
Toluene
Concen: 20.296 ug/l
RT: 8.77 min Scan# 1260
Delta R.T. 0.01 min
Lab File: VX017008.D
Acq: 29 Jun 2020 14:58

Tgt Ion: 92 Resp: 156654

Ion	Ratio	Lower	Upper
92	100		
91	167.6	136.9	205.3

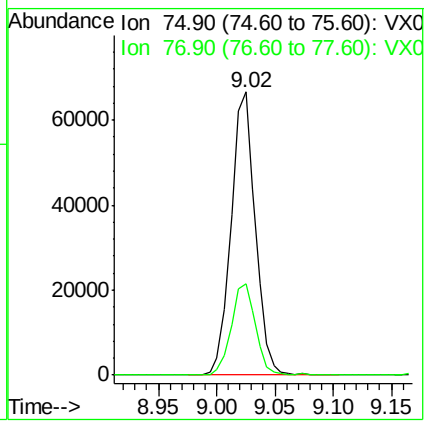


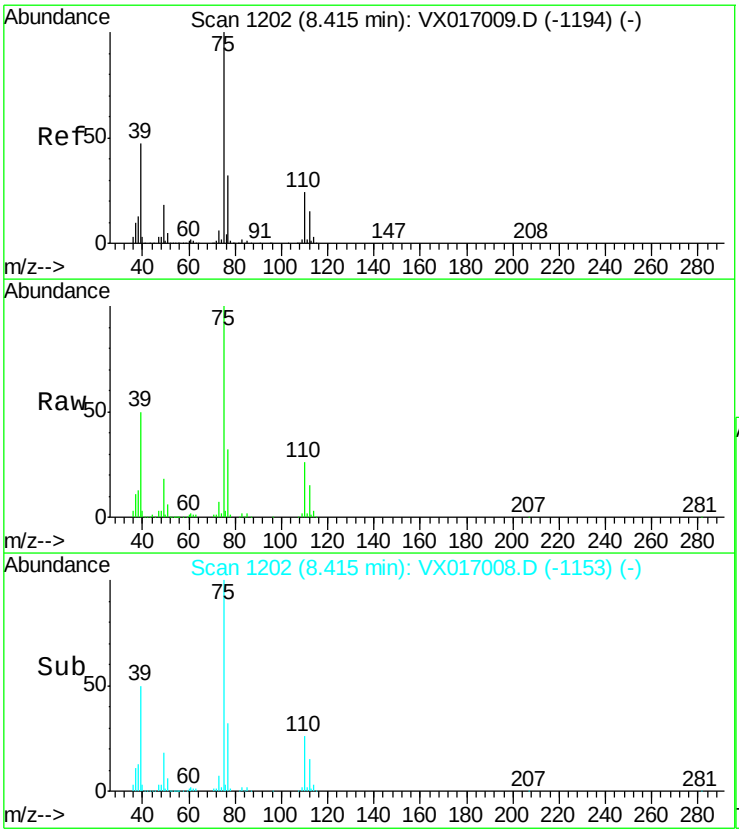


#53
t-1,3-Dichloropropene
Concen: 19.622 ug/l
RT: 9.02 min Scan# 1302
Delta R.T. -0.00 min
Lab File: VX017008.D
Acq: 29 Jun 2020 14:58

Tgt Ion: 75 Resp: 96717

Ion	Ratio	Lower	Upper
75	100		
77	32.3	25.6	38.4

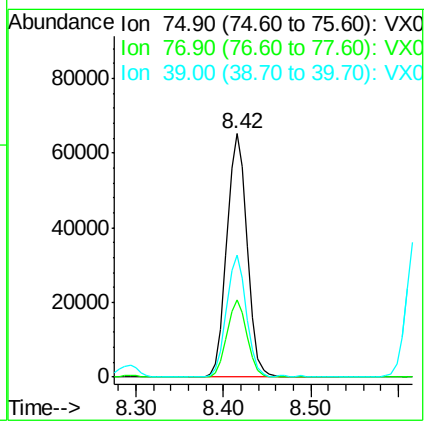




#54
cis-1,3-Dichloropropene
Concen: 19.945 ug/l
RT: 8.42 min Scan# 1202
Delta R.T. -0.00 min
Lab File: VX017008.D
Acq: 29 Jun 2020 14:58

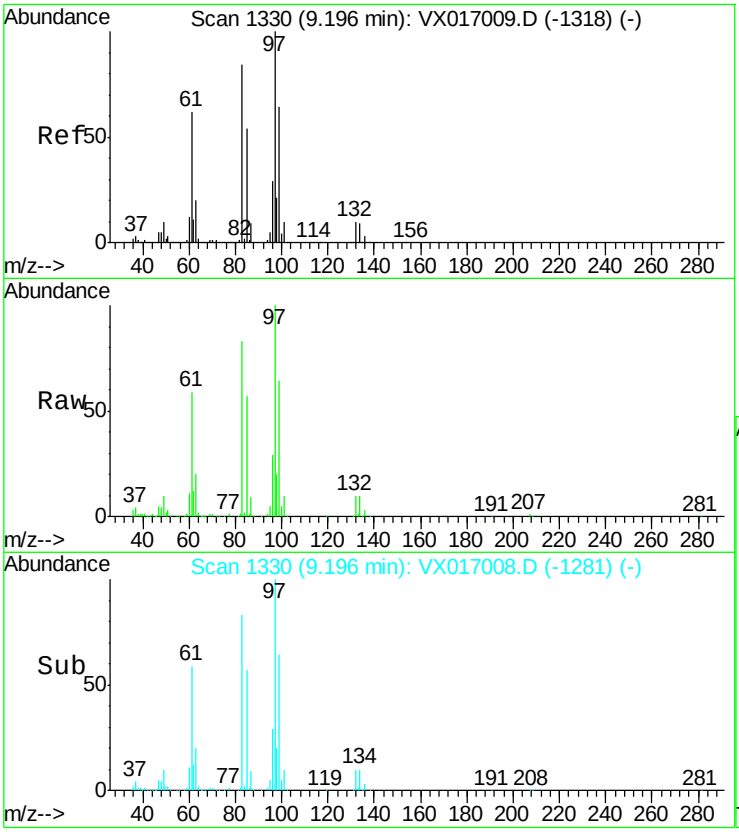
Tgt Ion: 75 Resp: 105384

Ion	Ratio	Lower	Upper
75	100		
77	31.5	25.2	37.8
39	49.7	37.4	56.2



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC020

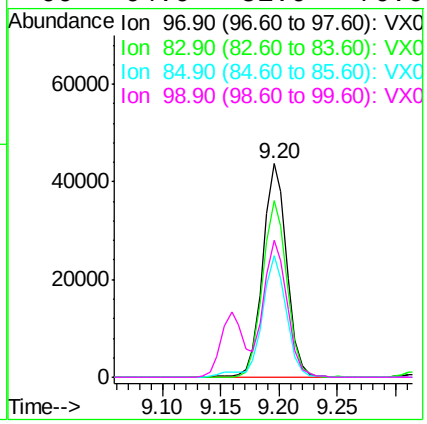
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:12:50 AM



#55
1,1,2-Trichloroethane
Concen: 19.982 ug/l
RT: 9.20 min Scan# 1330
Delta R.T. -0.00 min
Lab File: VX017008.D
Acq: 29 Jun 2020 14:58

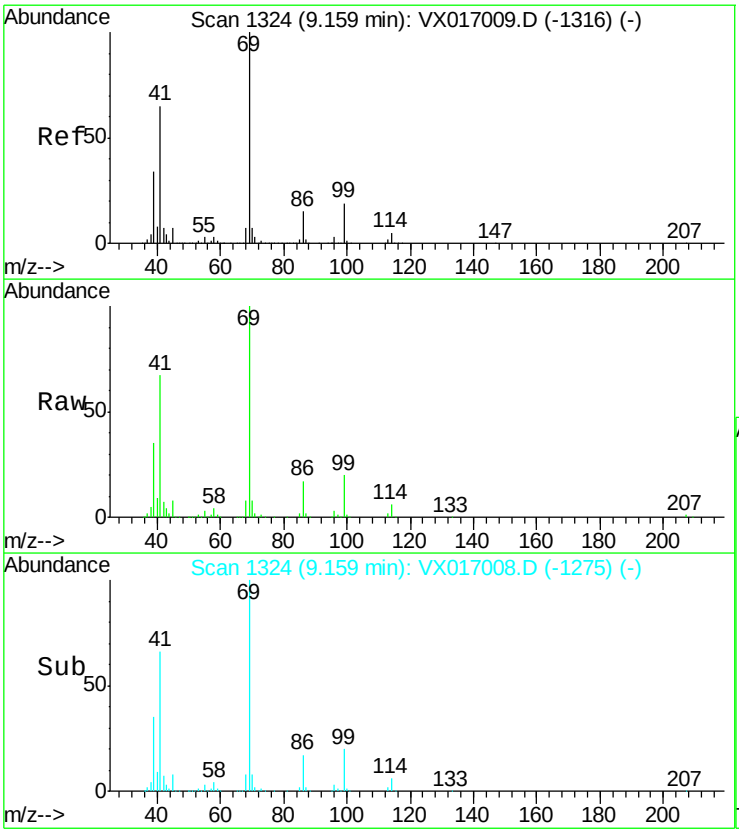
Tgt Ion: 97 Resp: 63012

Ion	Ratio	Lower	Upper
97	100		
83	82.6	67.0	100.6
85	57.2	43.5	65.3
99	64.0	51.0	76.6



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC020

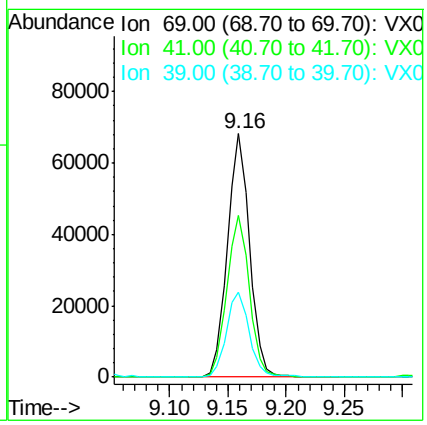
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:12:50 AM

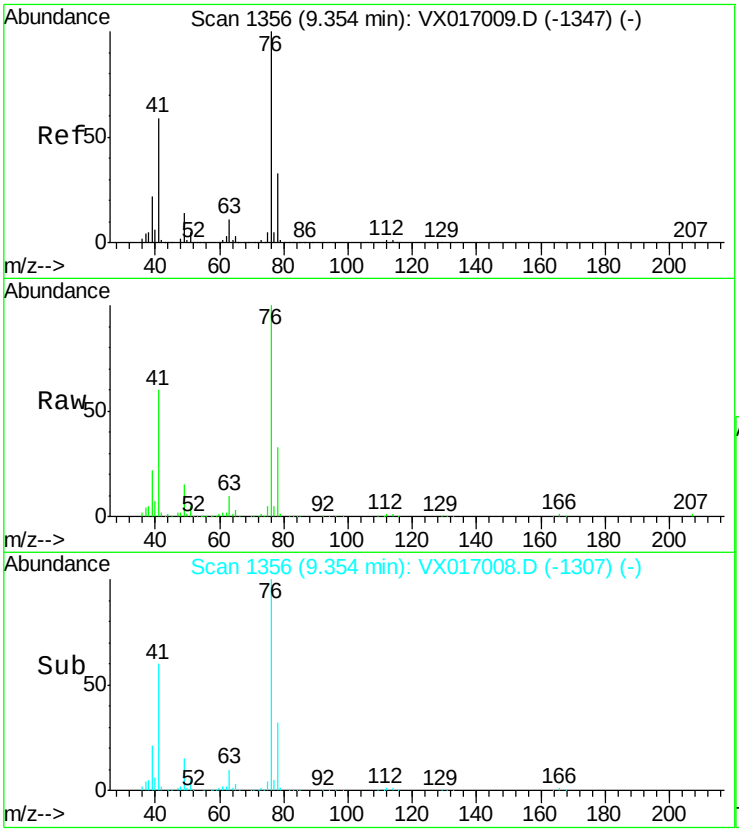


#56
Ethyl methacrylate
Concen: 20.169 ug/l
RT: 9.16 min Scan# 1324
Delta R.T. -0.00 min
Lab File: VX017008.D
Acq: 29 Jun 2020 14:58

Tgt Ion: 69 Resp: 90526

Ion	Ratio	Lower	Upper
69	100		
41	67.0	53.6	80.4
39	35.5	28.2	42.2

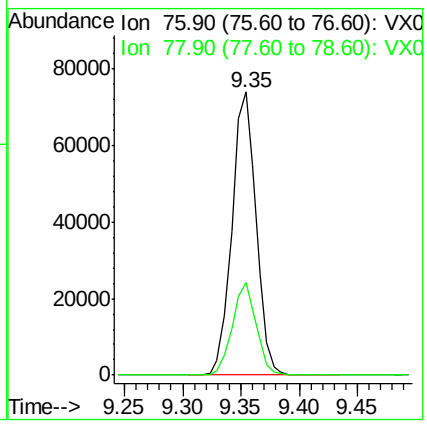




#57
1,3-Dichloropropane
Concen: 20.025 ug/l
RT: 9.35 min Scan# 1356
Delta R.T. -0.00 min
Lab File: VX017008.D
Acq: 29 Jun 2020 14:58

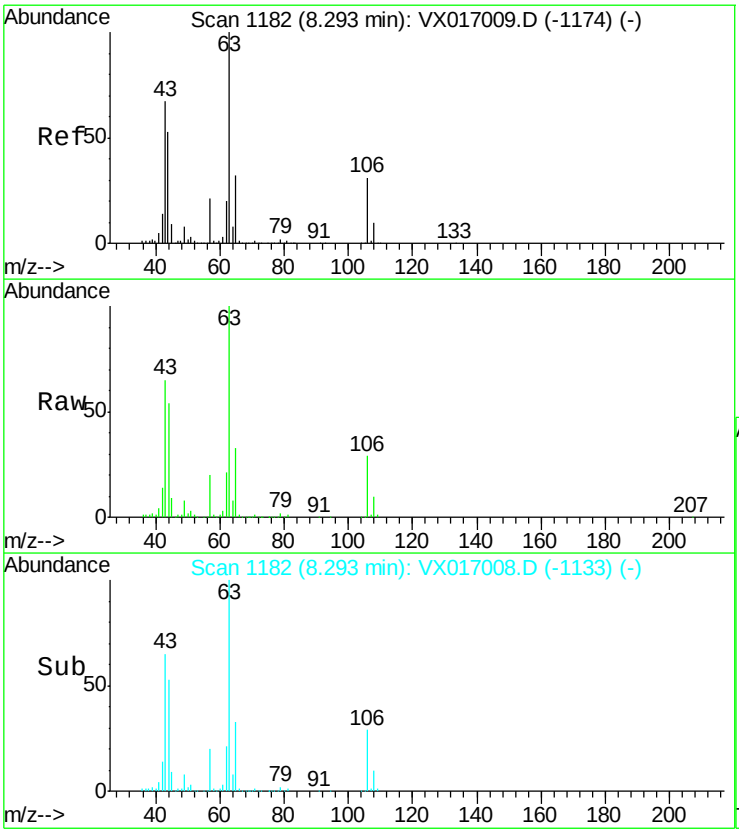
Tgt Ion: 76 Resp: 106854

Ion	Ratio	Lower	Upper
76	100		
78	32.2	25.9	38.9



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC020

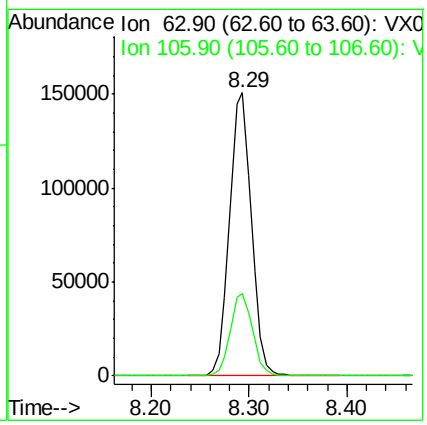
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:12:50 AM

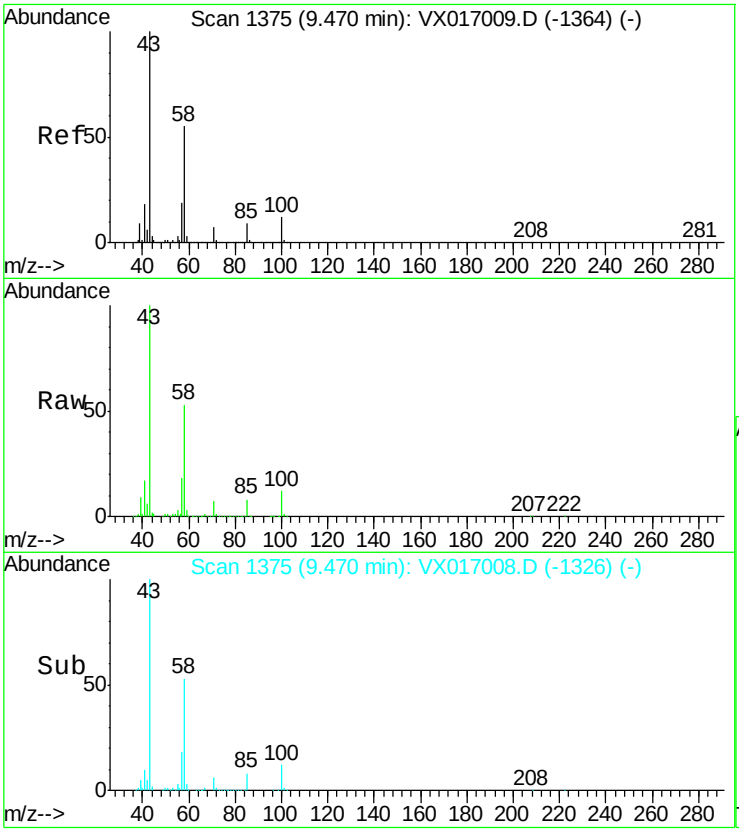


#58
2-Chloroethyl Vinyl ether
Concen: 104.825 ug/l
RT: 8.29 min Scan# 1182
Delta R.T. -0.00 min
Lab File: VX017008.D
Acq: 29 Jun 2020 14:58

Tgt Ion: 63 Resp: 234163

Ion	Ratio	Lower	Upper
63	100		
106	29.6	24.0	36.0

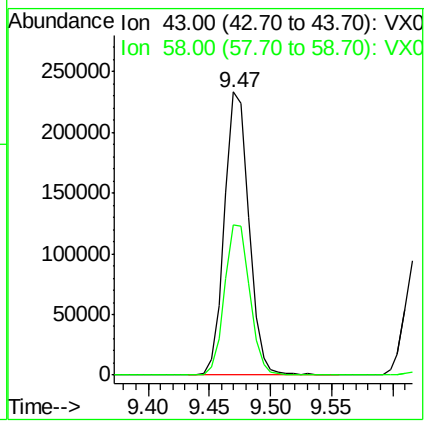




#59
2-Hexanone
Concen: 104.559 ug/l
RT: 9.47 min Scan# 1375
Delta R.T. -0.00 min
Lab File: VX017008.D
Acq: 29 Jun 2020 14:58

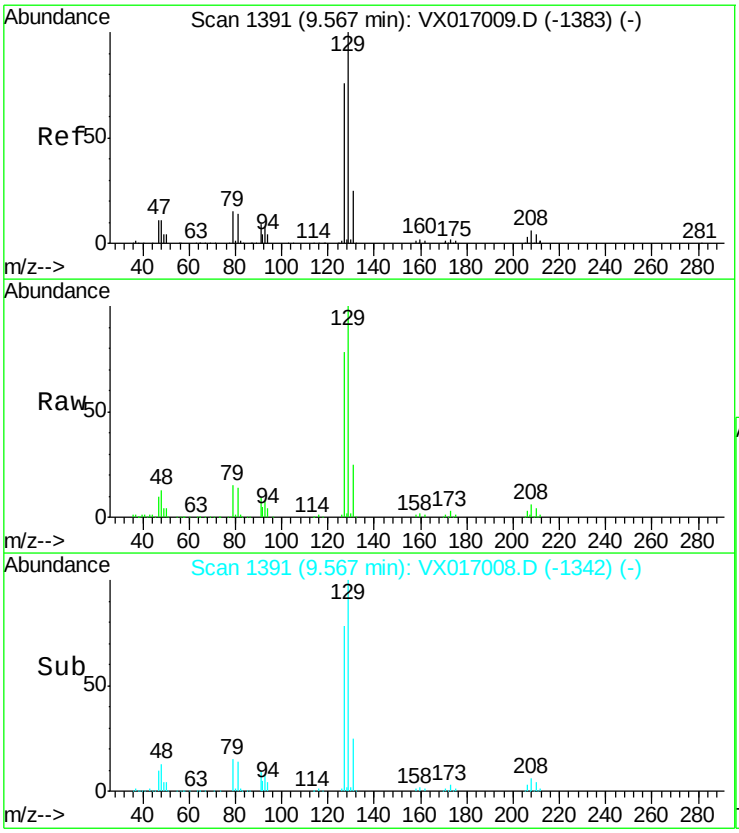
Tgt Ion: 43 Resp: 322906

Ion	Ratio	Lower	Upper
43	100		
58	54.6	27.9	83.6



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC020

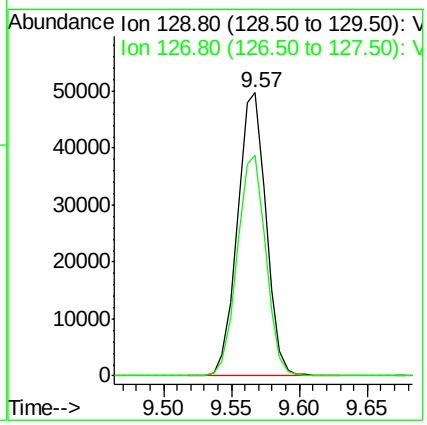
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:12:50 AM

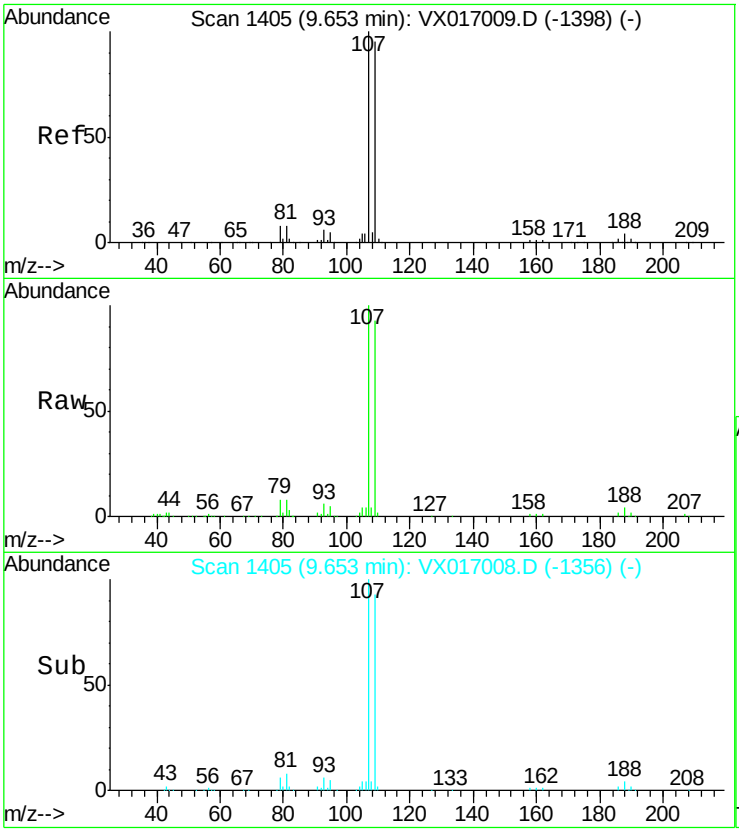


#60
Dibromochloromethane
Concen: 19.844 ug/l
RT: 9.57 min Scan# 1391
Delta R.T. -0.00 min
Lab File: VX017008.D
Acq: 29 Jun 2020 14:58

Tgt Ion:129 Resp: 72683

Ion	Ratio	Lower	Upper
129	100		
127	77.8	38.9	116.7

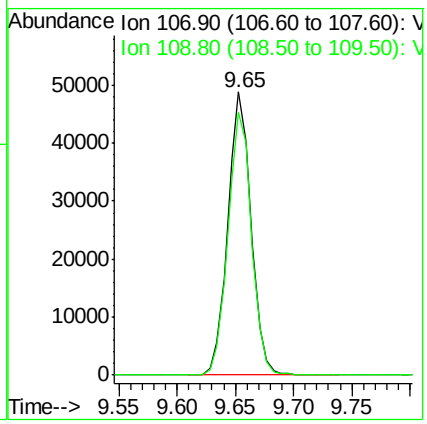




#61
1,2-Dibromoethane
Concen: 19.931 ug/l
RT: 9.65 min Scan# 1405
Delta R.T. -0.00 min
Lab File: VX017008.D
Acq: 29 Jun 2020 14:58

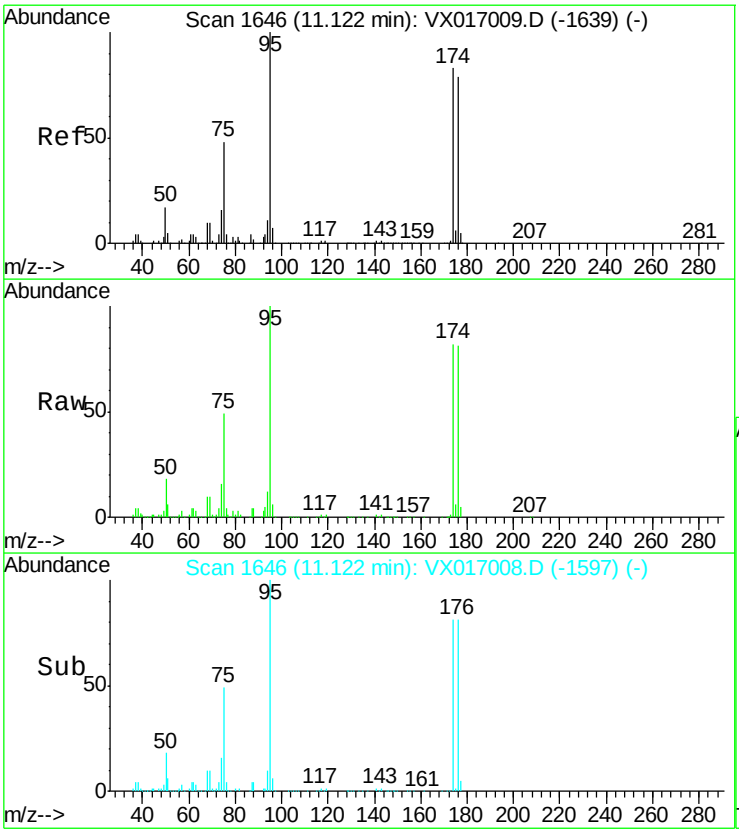
Tgt Ion:107 Resp: 67558

Ion	Ratio	Lower	Upper
107	100		
109	94.4	75.8	113.8



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC020

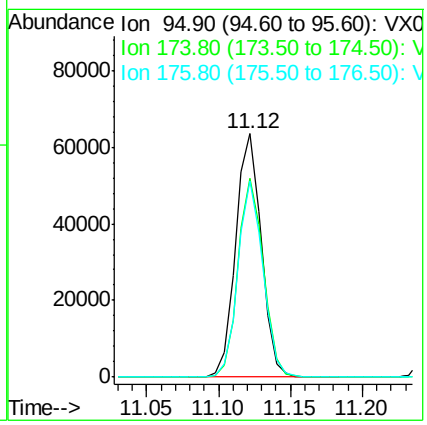
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:12:50 AM

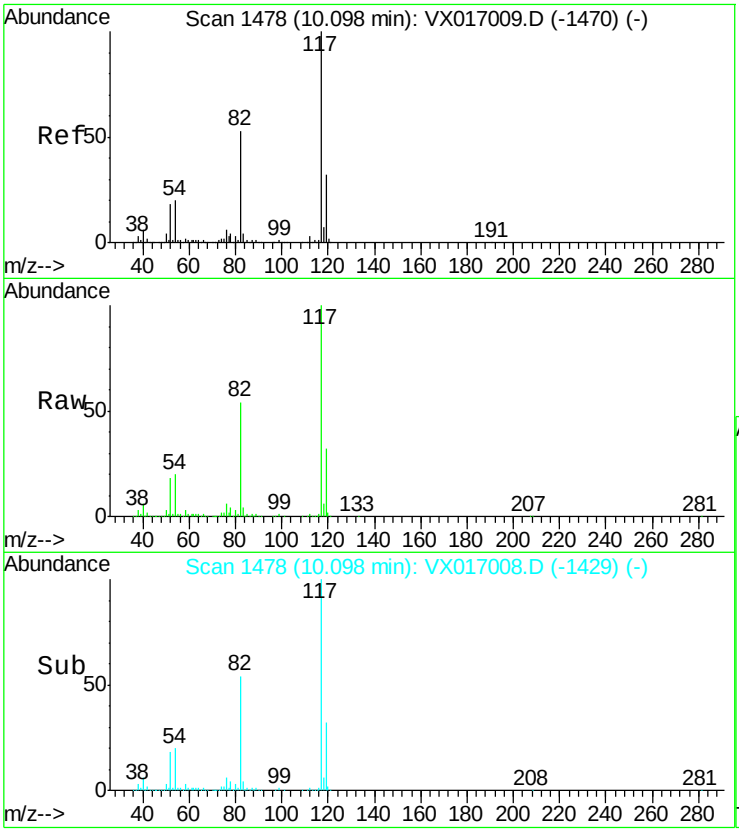


#62
4-Bromofluorobenzene
Concen: 19.351 ug/l
RT: 11.12 min Scan# 1646
Delta R.T. -0.00 min
Lab File: VX017008.D
Acq: 29 Jun 2020 14:58

Tgt Ion: 95 Resp: 78771

Ion	Ratio	Lower	Upper
95	100		
174	80.8	0.0	164.0
176	78.7	0.0	157.6

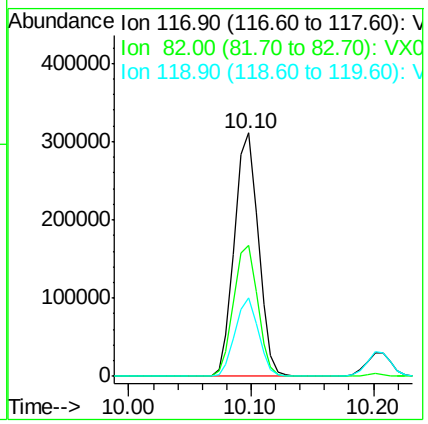




#63
Chlorobenzene-d5
Concen: 50.000 ug/l
RT: 10.10 min Scan# 1478
Delta R.T. -0.00 min
Lab File: VX017008.D
Acq: 29 Jun 2020 14:58

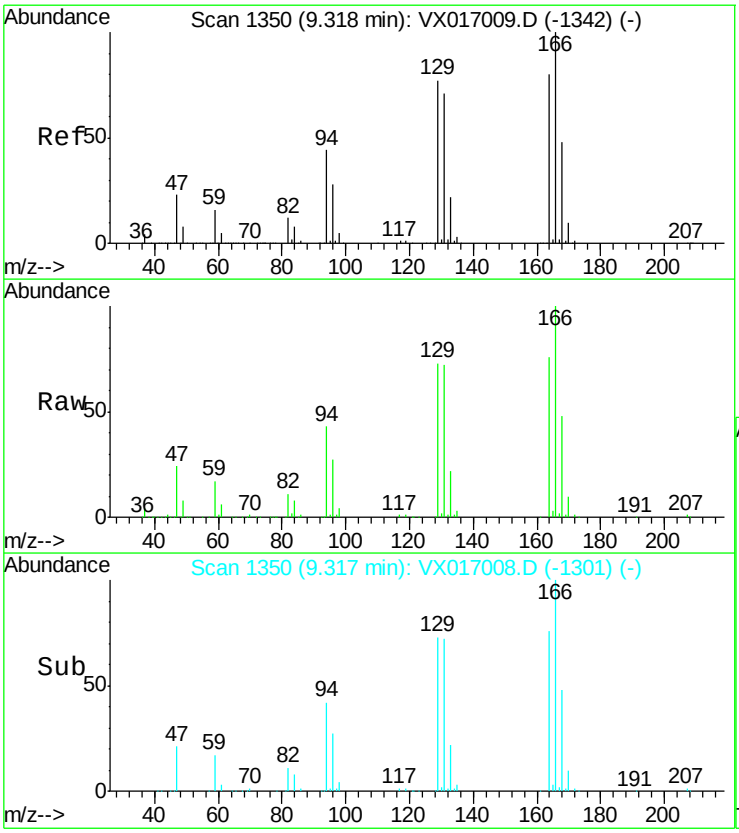
Tgt Ion:117 Resp: 421520

Ion	Ratio	Lower	Upper
117	100		
82	53.8	42.6	63.8
119	32.1	25.4	38.2



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC020

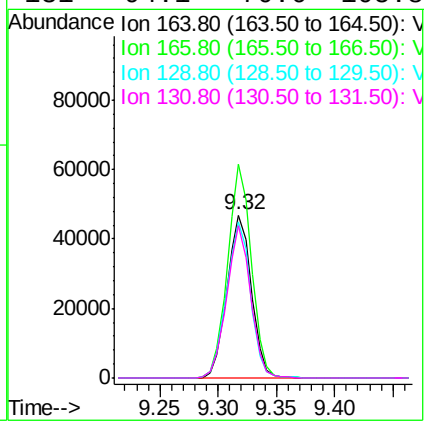
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:12:50 AM

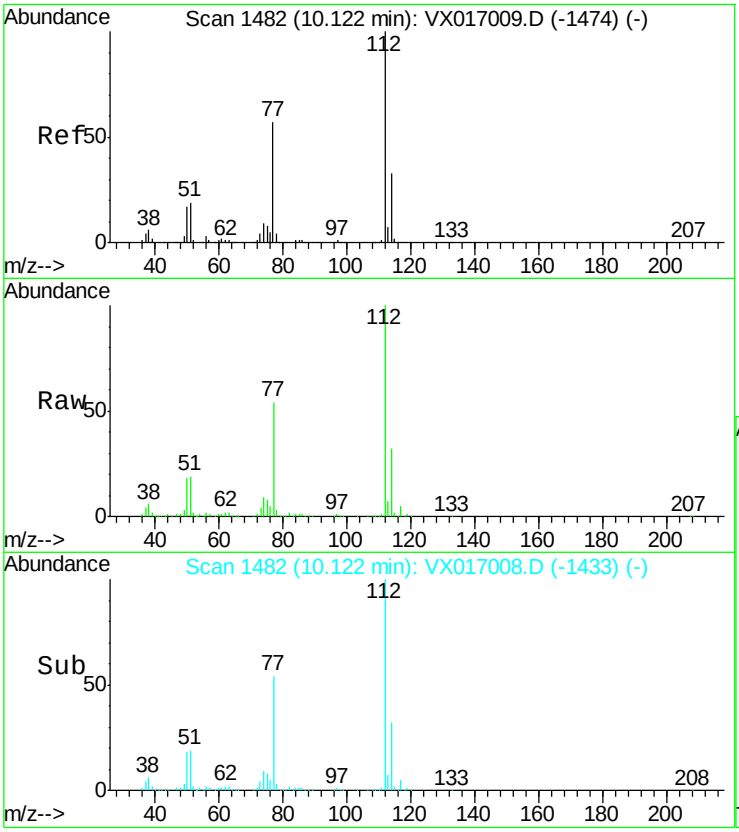


#64
Tetrachloroethene
Concen: 20.080 ug/l
RT: 9.32 min Scan# 1350
Delta R.T. -0.00 min
Lab File: VX017008.D
Acq: 29 Jun 2020 14:58

Tgt Ion:164 Resp: 68310

Ion	Ratio	Lower	Upper
164	100		
166	131.4	99.4	149.0
129	96.4	76.3	114.5
131	94.1	70.6	105.8

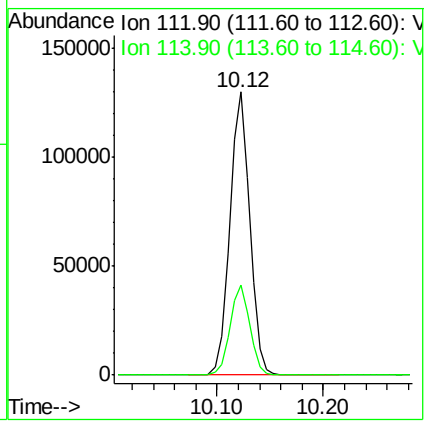


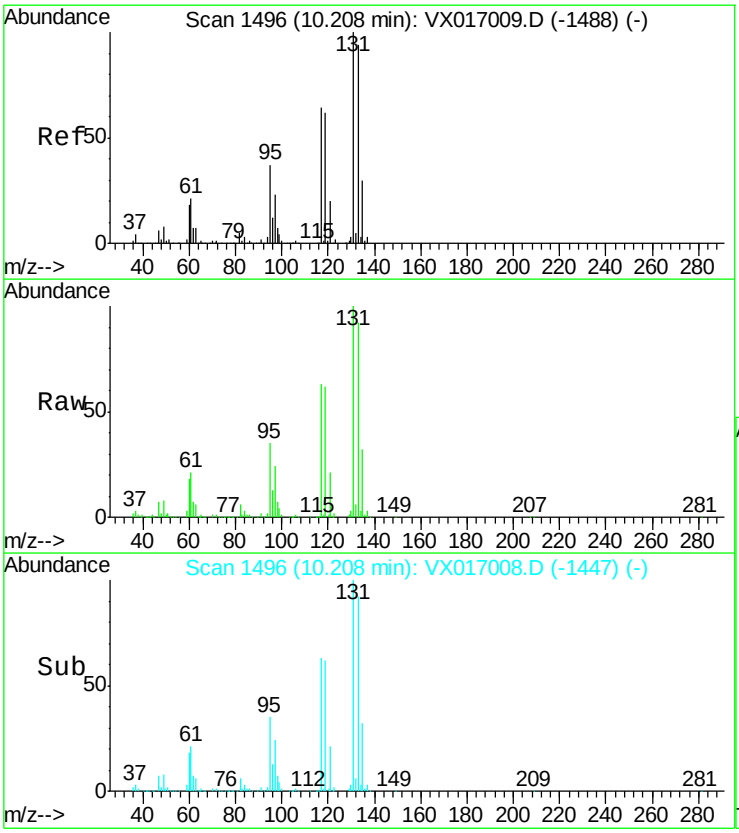


#65
Chlorobenzene
Concen: 19.630 ug/l
RT: 10.12 min Scan# 1482
Delta R.T. -0.00 min
Lab File: VX017008.D
Acq: 29 Jun 2020 14:58

Tgt Ion:112 Resp: 170775

Ion	Ratio	Lower	Upper
112	100		
114	31.9	26.2	39.4

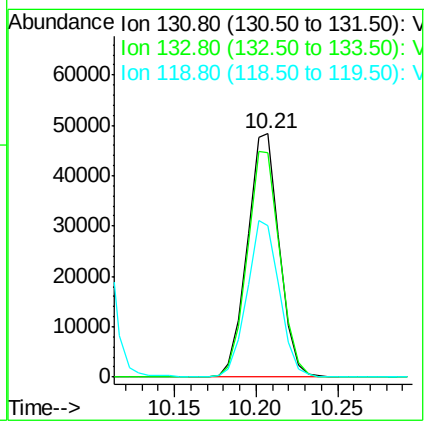




#66
1,1,1,2-Tetrachloroethane
Concen: 19.691 ug/l
RT: 10.21 min Scan# 1496
Delta R.T. -0.00 min
Lab File: VX017008.D
Acq: 29 Jun 2020 14:58

Tgt Ion:131 Resp: 66021

Ion	Ratio	Lower	Upper
131	100		
133	95.1	47.3	141.9
119	65.3	31.9	95.5

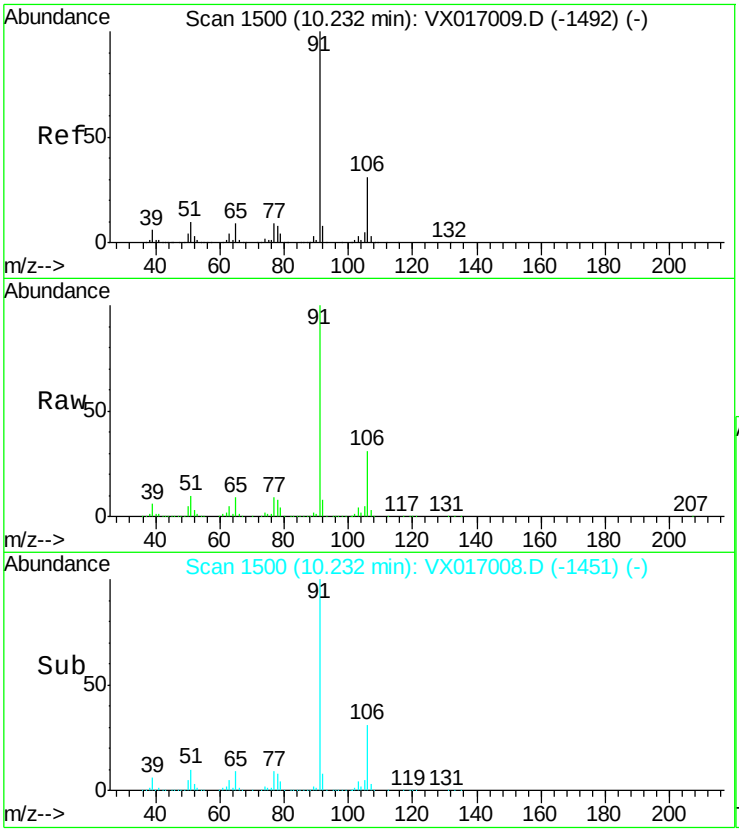


Instrument :
MSVOA_X
ClientSampleId :
VSTDICC020

Manual Integrations APPROVED
MMDadoda
6/30/2020 10:12:50 AM

Instrument :
MSVOA_X
ClientSampleId :
VSTDICC020

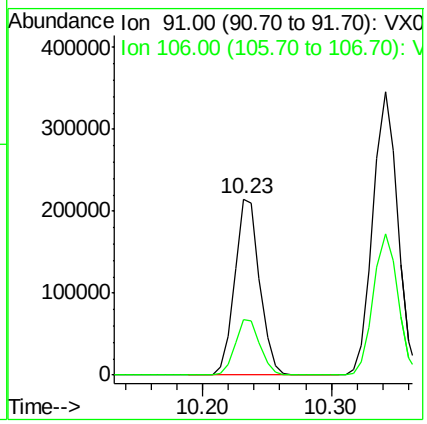
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:12:50 AM

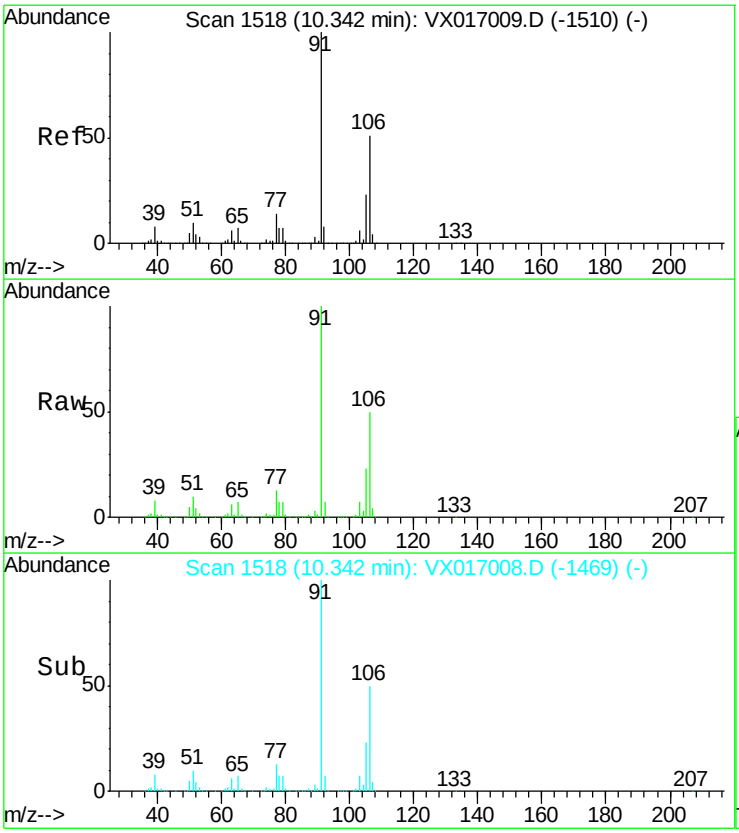


#67
Ethyl Benzene
Concen: 20.000 ug/l
RT: 10.23 min Scan# 1500
Delta R.T. -0.00 min
Lab File: VX017008.D
Acq: 29 Jun 2020 14:58

Tgt Ion: 91 Resp: 290580

Ion	Ratio	Lower	Upper
91	100		
106	31.4	24.7	37.1

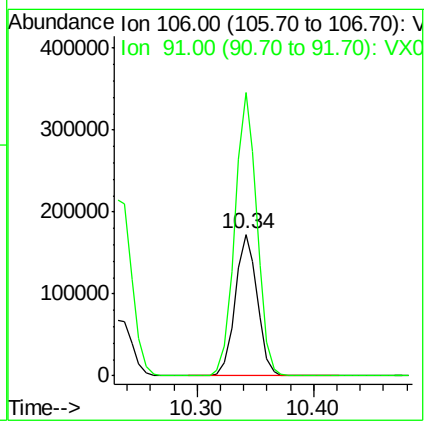


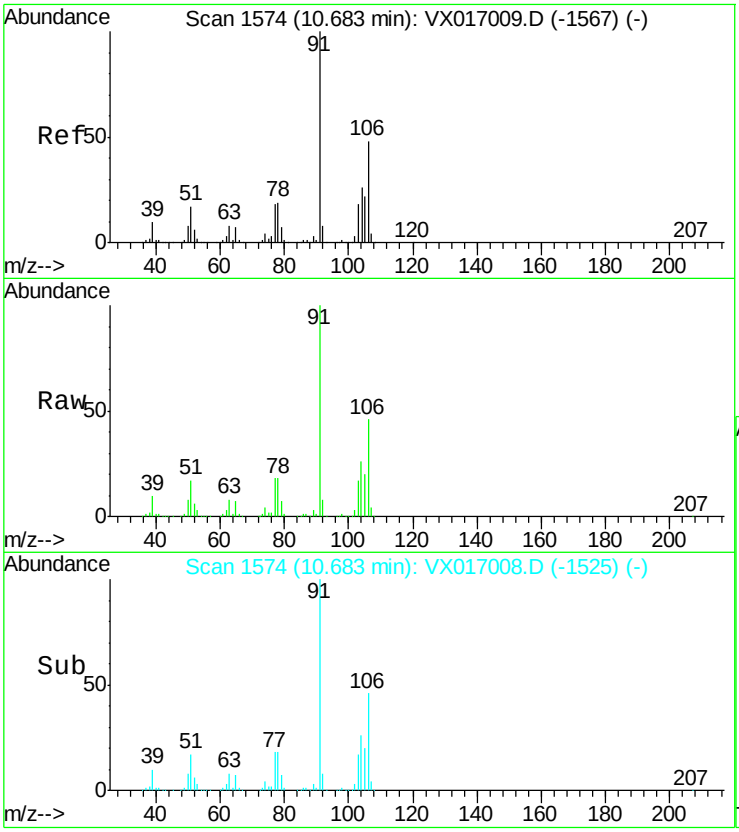


#68
m/p-Xylenes
Concen: 40.827 ug/l
RT: 10.34 min Scan# 1518
Delta R.T. -0.00 min
Lab File: VX017008.D
Acq: 29 Jun 2020 14:58

Tgt Ion:106 Resp: 227758

Ion	Ratio	Lower	Upper
106	100		
91	199.4	158.6	238.0

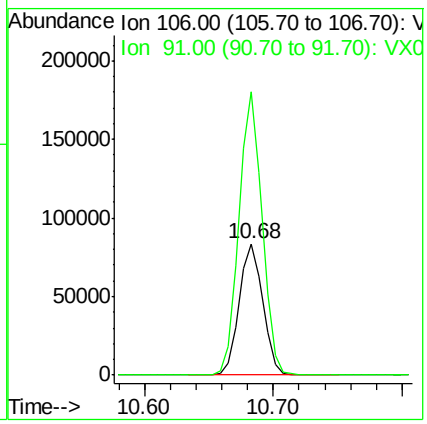




#69
o-Xylene
Concen: 20.099 ug/l
RT: 10.68 min Scan# 1574
Delta R.T. -0.00 min
Lab File: VX017008.D
Acq: 29 Jun 2020 14:58

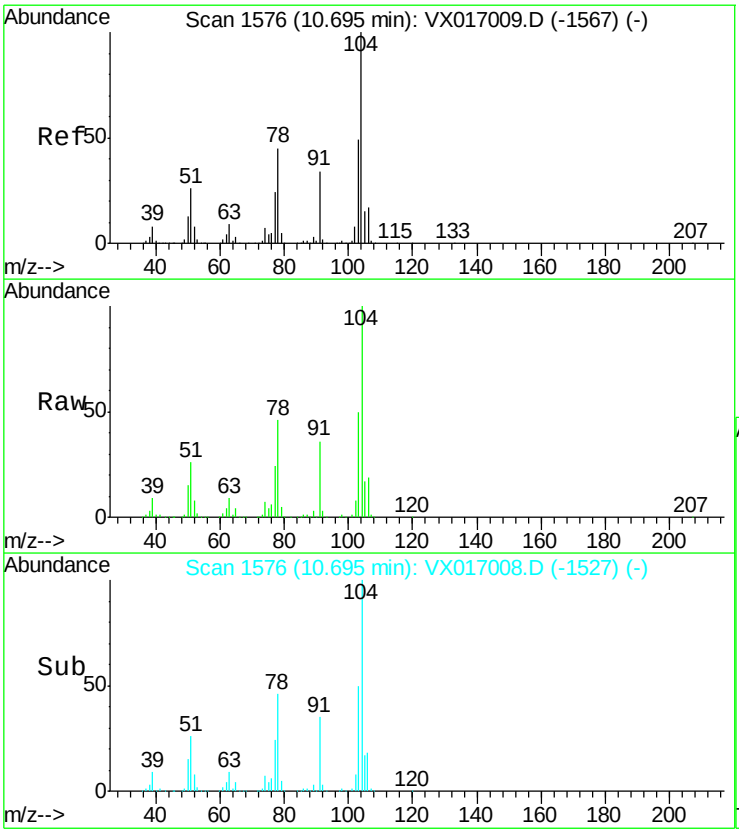
Tgt Ion:106 Resp: 106664

Ion	Ratio	Lower	Upper
106	100		
91	210.8	105.6	316.7



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC020

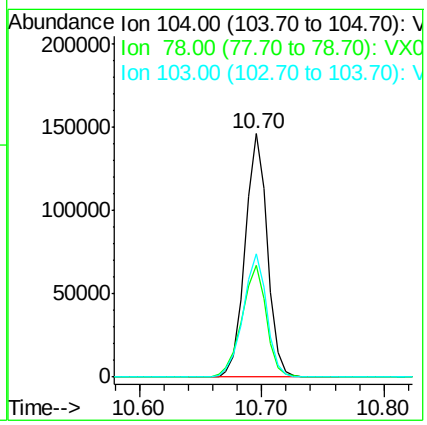
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:12:50 AM

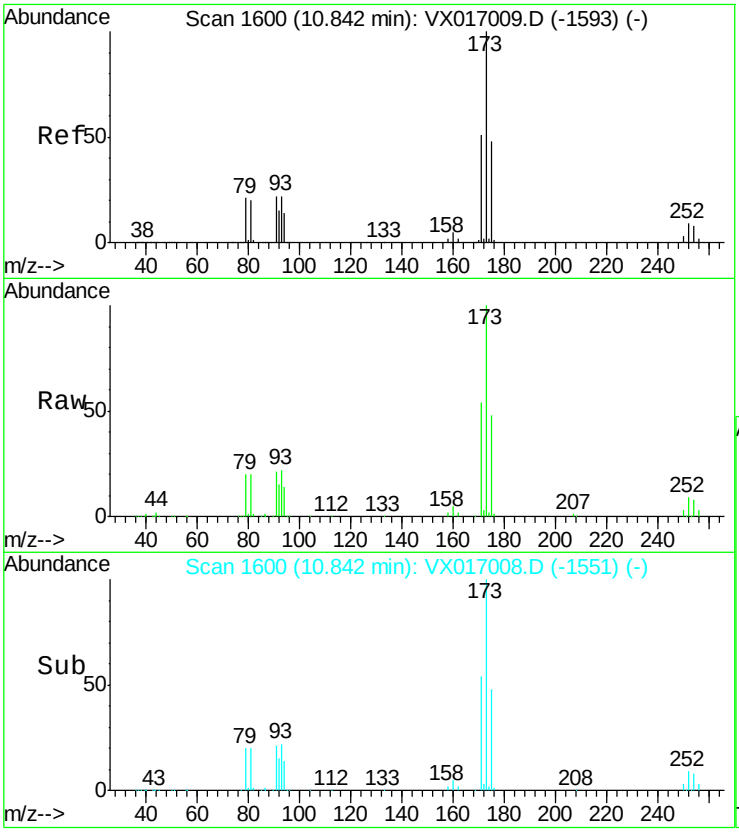


#70
Styrene
Concen: 20.335 ug/l
RT: 10.70 min Scan# 1576
Delta R.T. -0.00 min
Lab File: VX017008.D
Acq: 29 Jun 2020 14:58

Tgt Ion:104 Resp: 183775

Ion	Ratio	Lower	Upper
104	100		
78	50.3	39.5	59.3
103	54.2	43.0	64.6

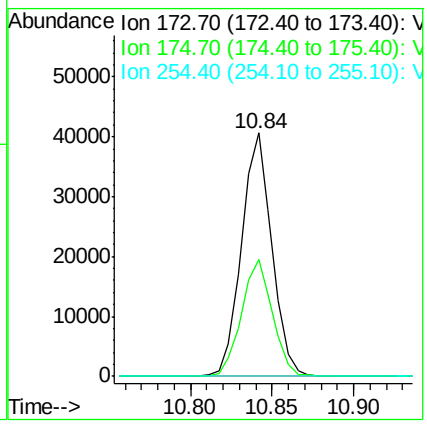




#71
Bromoform
Concen: 19.701 ug/l
RT: 10.84 min Scan# 1600
Delta R.T. -0.00 min
Lab File: VX017008.D
Acq: 29 Jun 2020 14:58

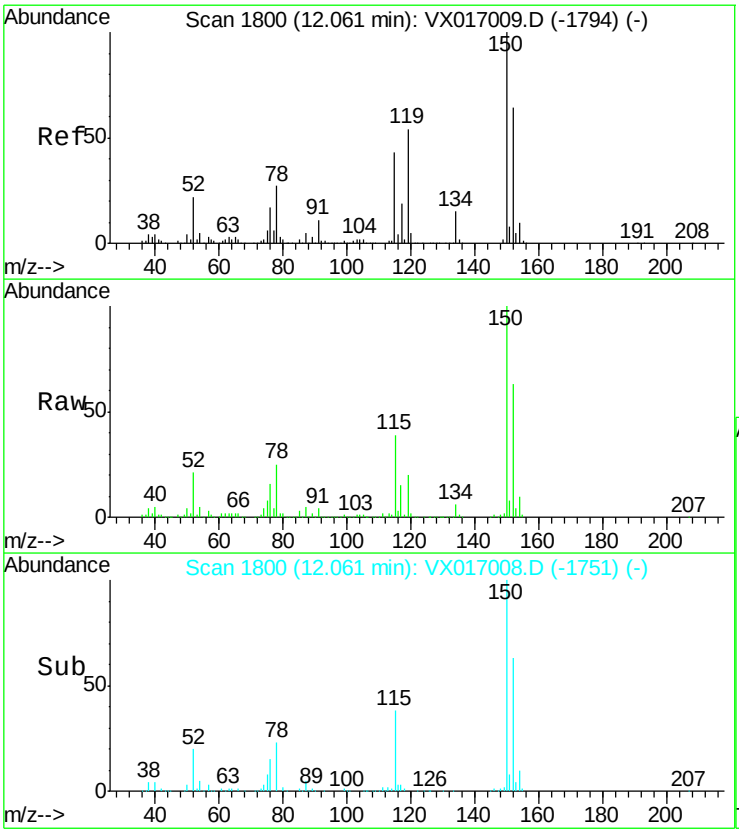
Tgt Ion:173 Resp: 52380

Ion	Ratio	Lower	Upper
173	100		
175	49.2	24.5	73.5
254	0.0	0.1	0.1#



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC020

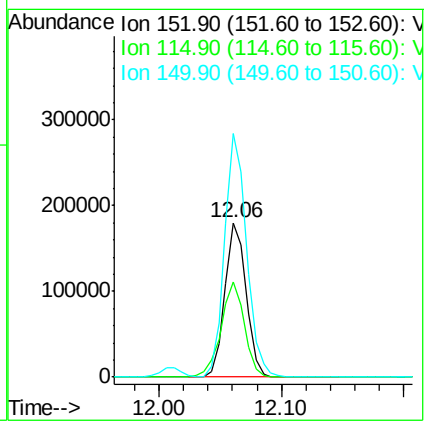
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:12:50 AM

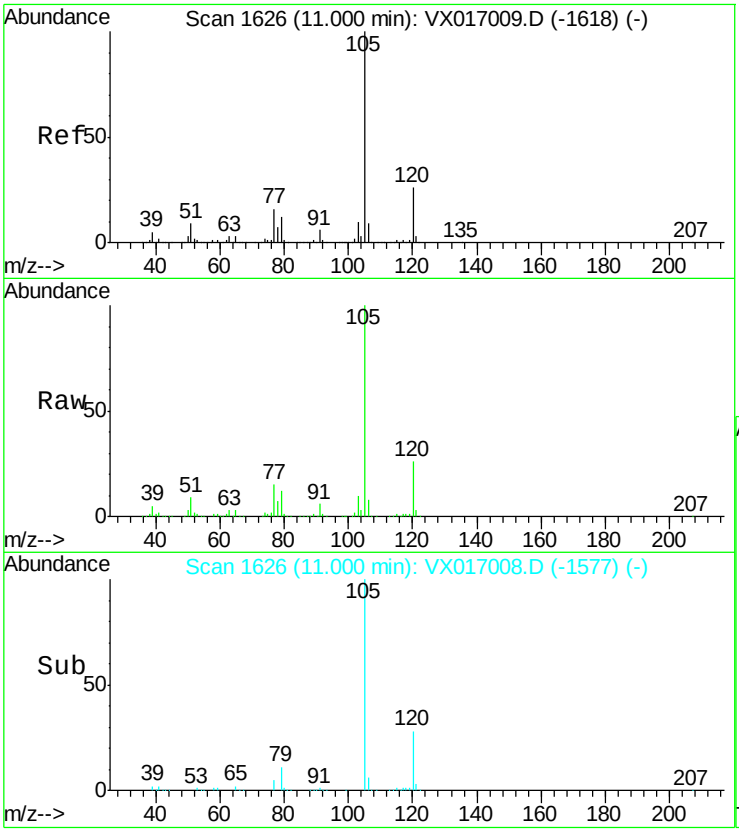


#72
1,4-Dichlorobenzene-d4
Concen: 50.000 ug/l
RT: 12.06 min Scan# 1800
Delta R.T. -0.00 min
Lab File: VX017008.D
Acq: 29 Jun 2020 14:58

Tgt Ion:152 Resp: 215078

Ion	Ratio	Lower	Upper
152	100		
115	67.9	40.9	122.7
150	163.8	0.0	351.6

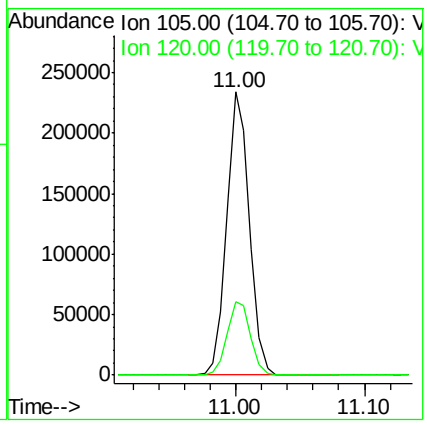




#73
Isopropylbenzene
Concen: 20.503 ug/l
RT: 11.00 min Scan# 1626
Delta R.T. -0.00 min
Lab File: VX017008.D
Acq: 29 Jun 2020 14:58

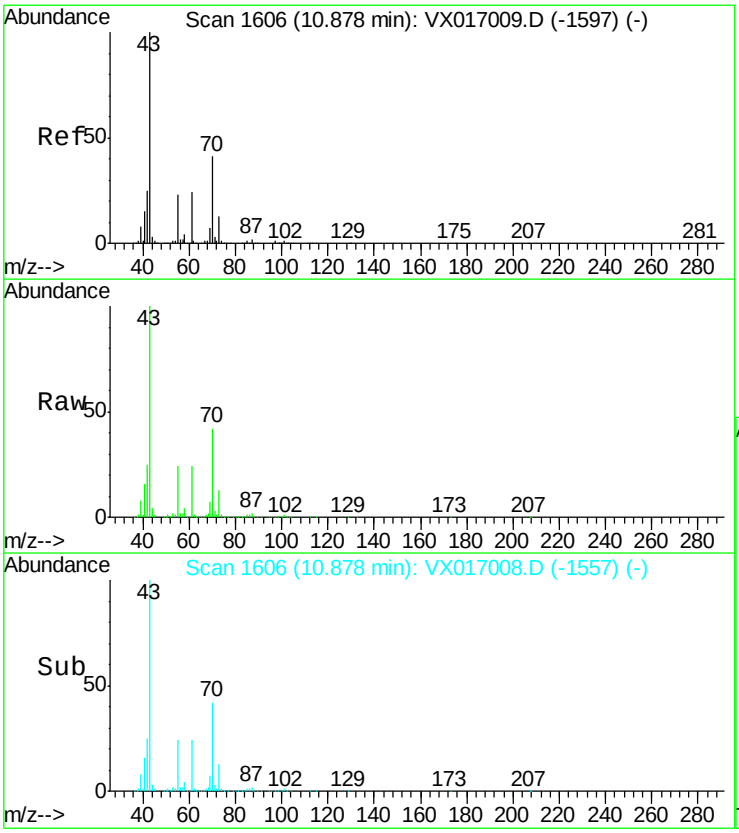
Tgt Ion:105 Resp: 288850

Ion	Ratio	Lower	Upper
105	100		
120	26.9	13.4	40.2



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC020

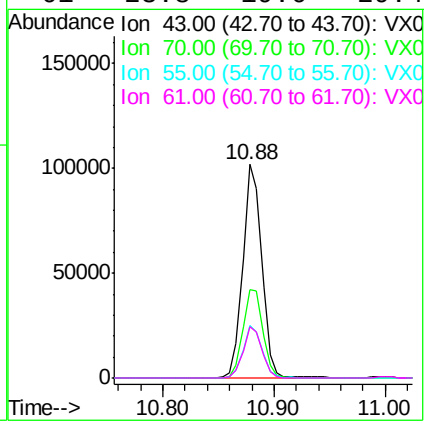
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:12:50 AM

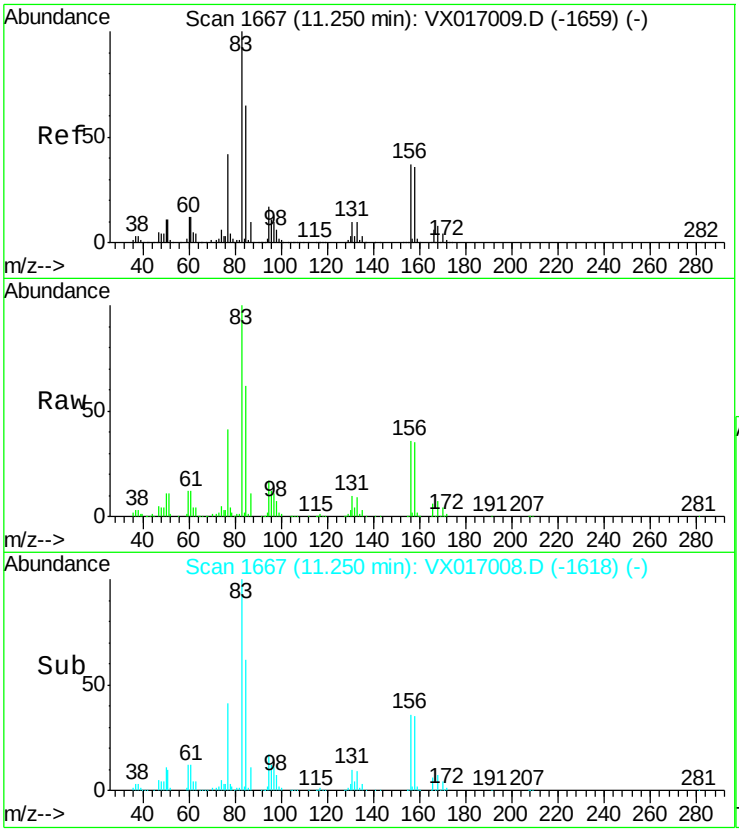


#74
N-amyl acetate
Concen: 20.120 ug/l
RT: 10.88 min Scan# 1606
Delta R.T. -0.00 min
Lab File: VX017008.D
Acq: 29 Jun 2020 14:58

Tgt Ion: 43 Resp: 120945

Ion	Ratio	Lower	Upper
43	100		
70	43.6	34.2	51.2
55	24.4	19.2	28.8
61	23.8	19.6	29.4

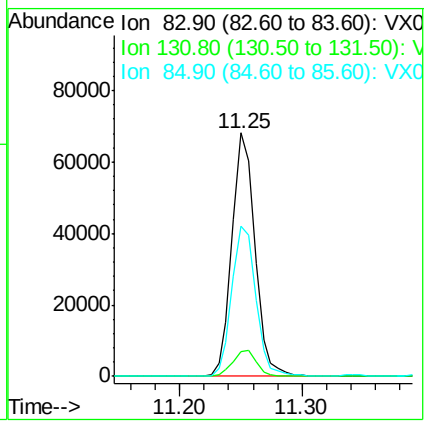




#75
1,1,2,2-Tetrachloroethane
Concen: 19.988 ug/l
RT: 11.25 min Scan# 1667
Delta R.T. -0.00 min
Lab File: VX017008.D
Acq: 29 Jun 2020 14:58

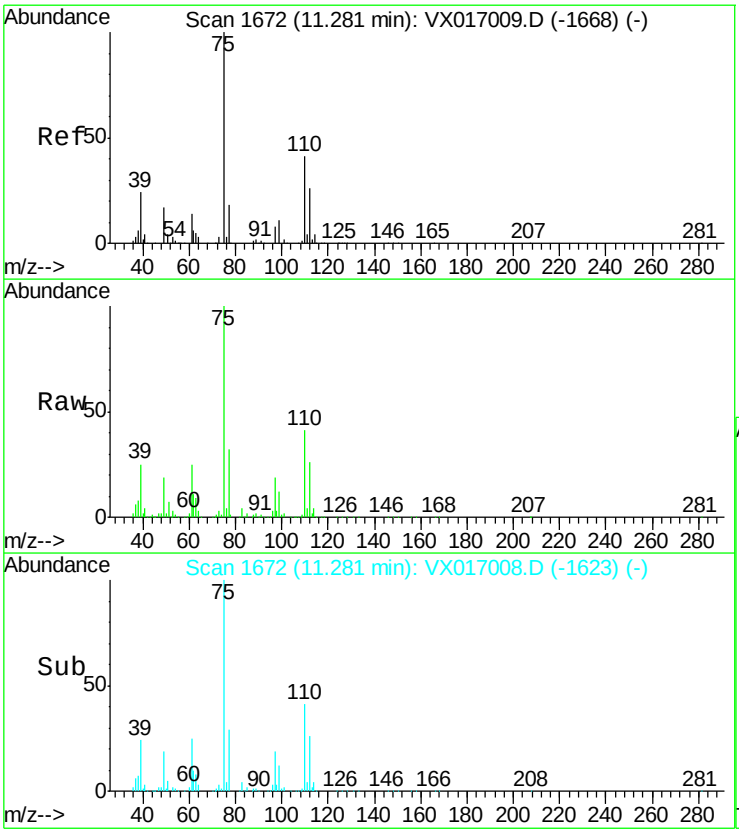
Tgt Ion: 83 Resp: 88574

Ion	Ratio	Lower	Upper
83	100		
131	11.0	5.4	16.2
85	64.5	31.9	95.9



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC020

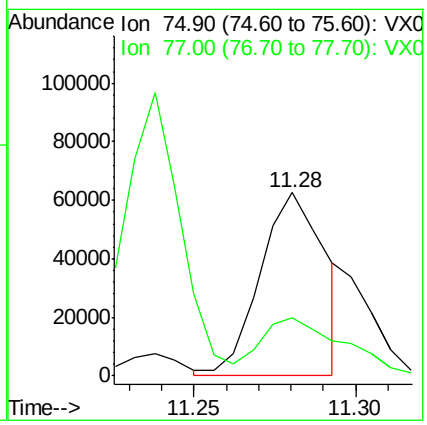
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:12:50 AM

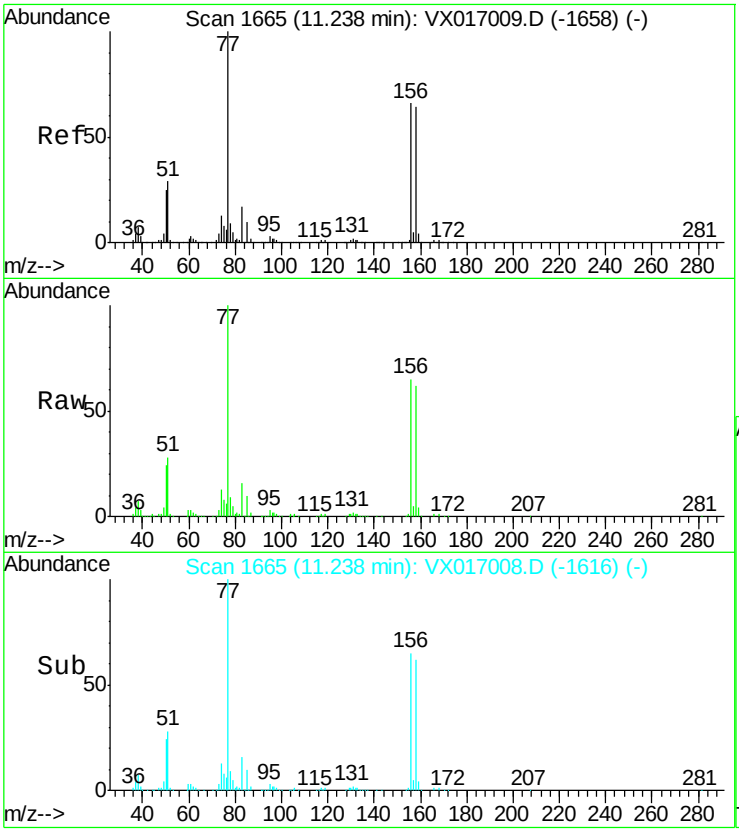


#76
1,2,3-Trichloropropane
Concen: 16.509 ug/l m
RT: 11.28 min Scan# 1672
Delta R.T. -0.00 min
Lab File: VX017008.D
Acq: 29 Jun 2020 14:58

Tgt Ion: 75 Resp: 87445

Ion	Ratio	Lower	Upper
75	100		
77	40.4	20.2	60.6

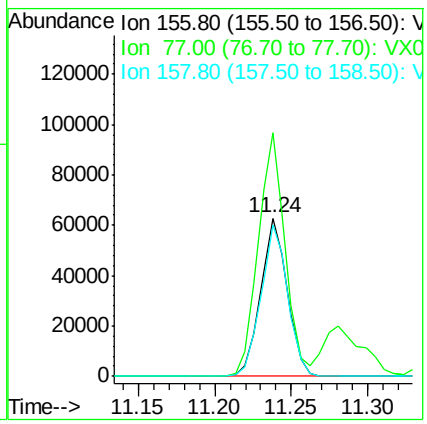


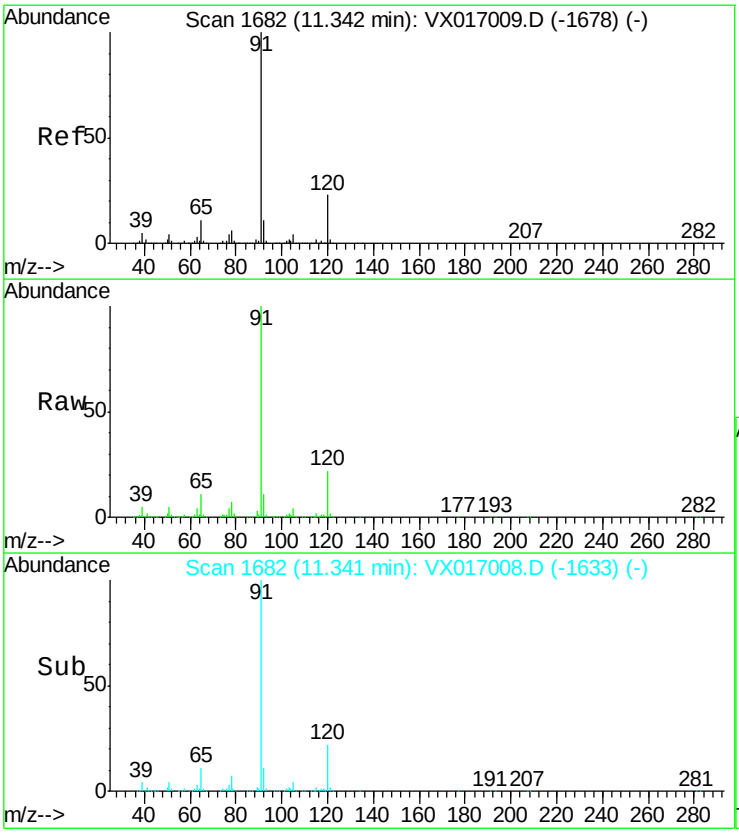


#77
Bromobenzene
Concen: 19.694 ug/l
RT: 11.24 min Scan# 1665
Delta R.T. -0.00 min
Lab File: VX017008.D
Acq: 29 Jun 2020 14:58

Tgt Ion:156 Resp: 76253

Ion	Ratio	Lower	Upper
156	100		
77	155.3	76.9	230.7
158	96.3	47.9	143.6

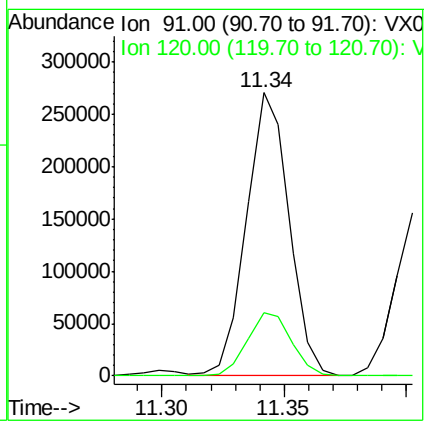




#78
n-propylbenzene
Concen: 20.547 ug/l
RT: 11.34 min Scan# 1682
Delta R.T. -0.00 min
Lab File: VX017008.D
Acq: 29 Jun 2020 14:58

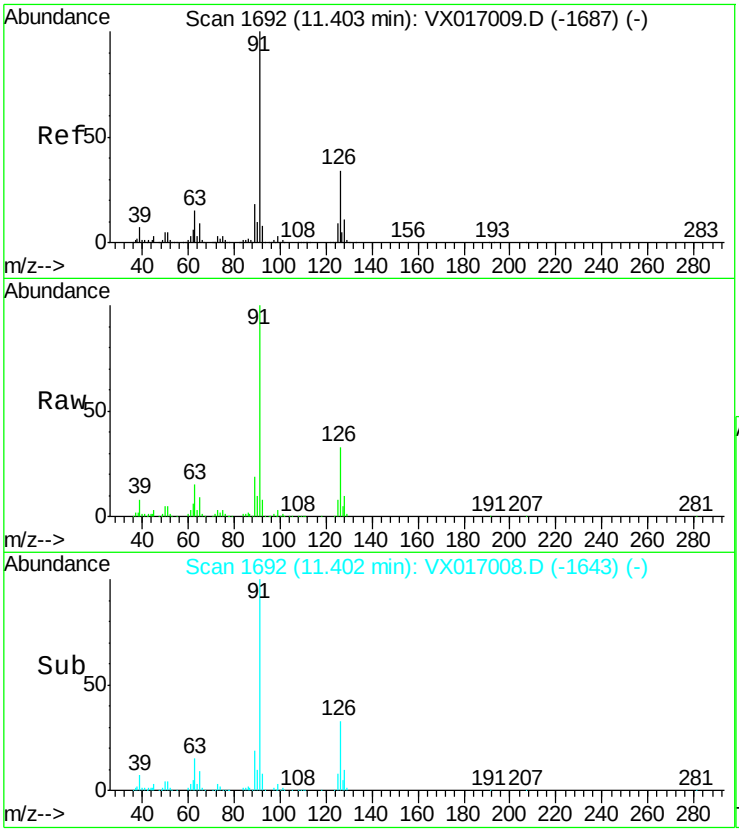
Tgt Ion: 91 Resp: 327332

Ion	Ratio	Lower	Upper
91	100		
120	23.3	11.9	35.9



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC020

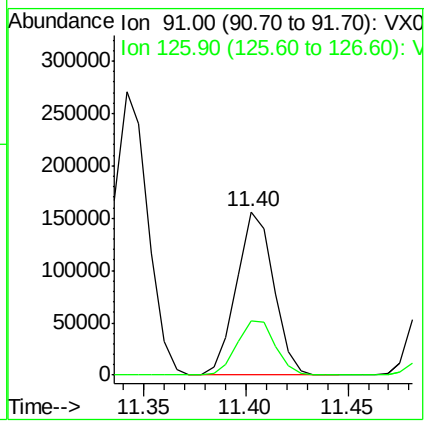
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:12:50 AM



#79
2-Chlorotoluene
Concen: 20.341 ug/l
RT: 11.40 min Scan# 1692
Delta R.T. -0.00 min
Lab File: VX017008.D
Acq: 29 Jun 2020 14:58

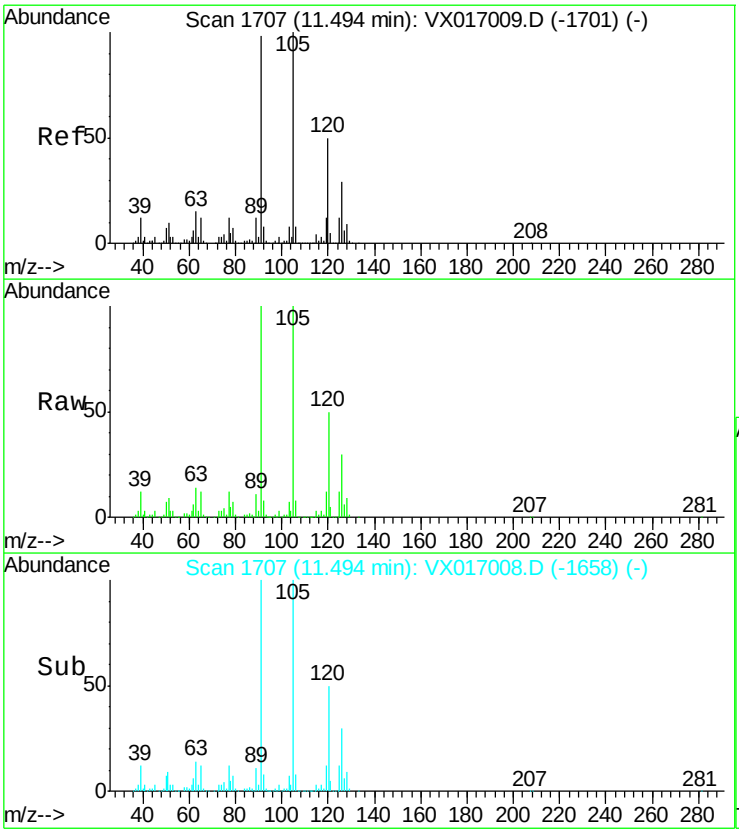
Tgt Ion: 91 Resp: 196125

Ion	Ratio	Lower	Upper
91	100		
126	34.8	17.4	52.3



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC020

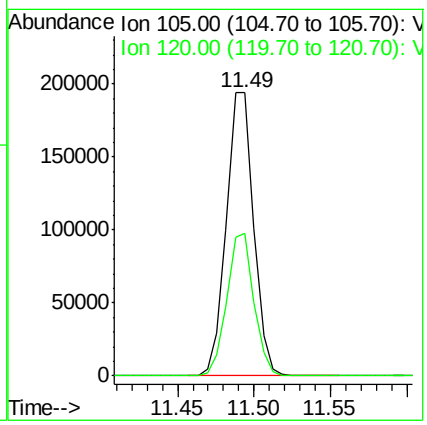
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:12:50 AM

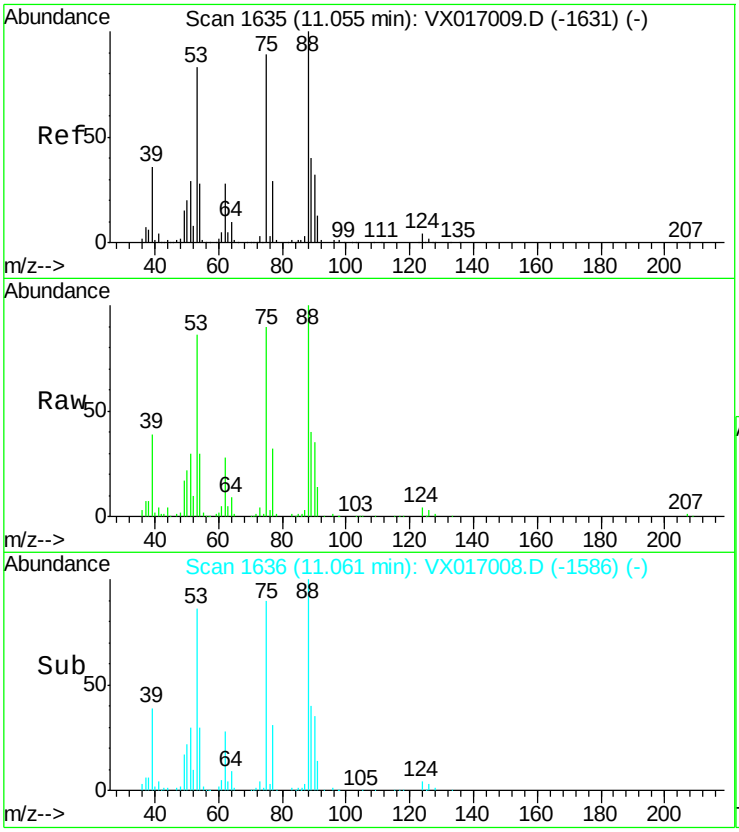


#80
1,3,5-Trimethylbenzene
Concen: 20.586 ug/l
RT: 11.49 min Scan# 1707
Delta R.T. -0.00 min
Lab File: VX017008.D
Acq: 29 Jun 2020 14:58

Tgt Ion:105 Resp: 240563

Ion	Ratio	Lower	Upper
105	100		
120	49.6	24.9	74.6

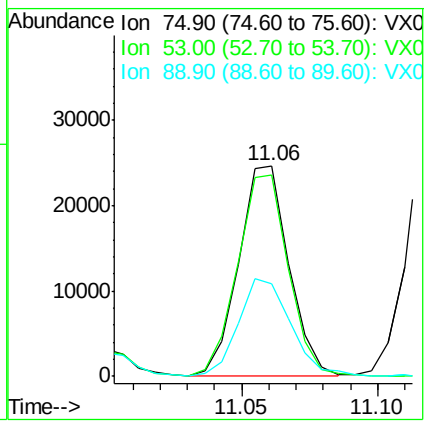




#81
trans-1,4-Dichloro-2-butene
Concen: 19.170 ug/l
RT: 11.06 min Scan# 1636
Delta R.T. 0.01 min
Lab File: VX017008.D
Acq: 29 Jun 2020 14:58

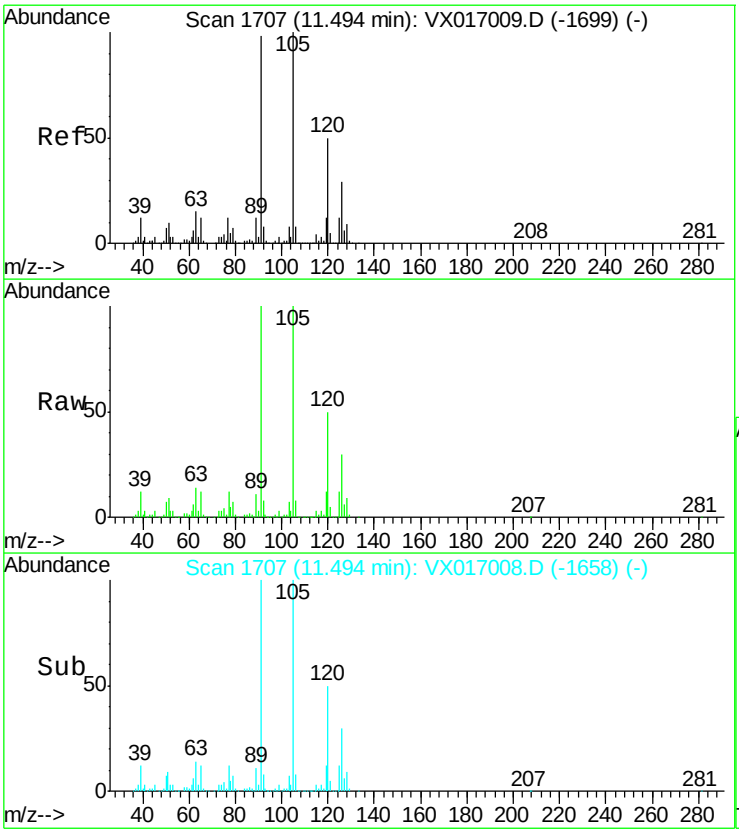
Tgt Ion: 75 Resp: 31309

Ion	Ratio	Lower	Upper
75	100		
53	97.2	72.4	108.6
89	48.9	37.0	55.4



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC020

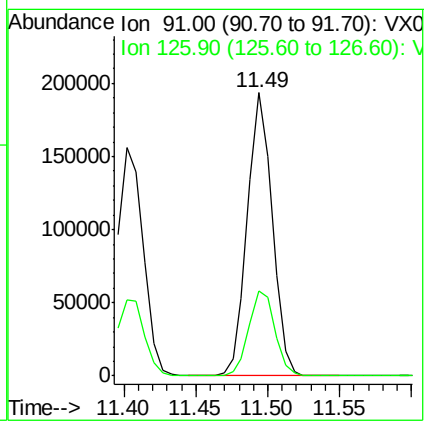
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:12:50 AM

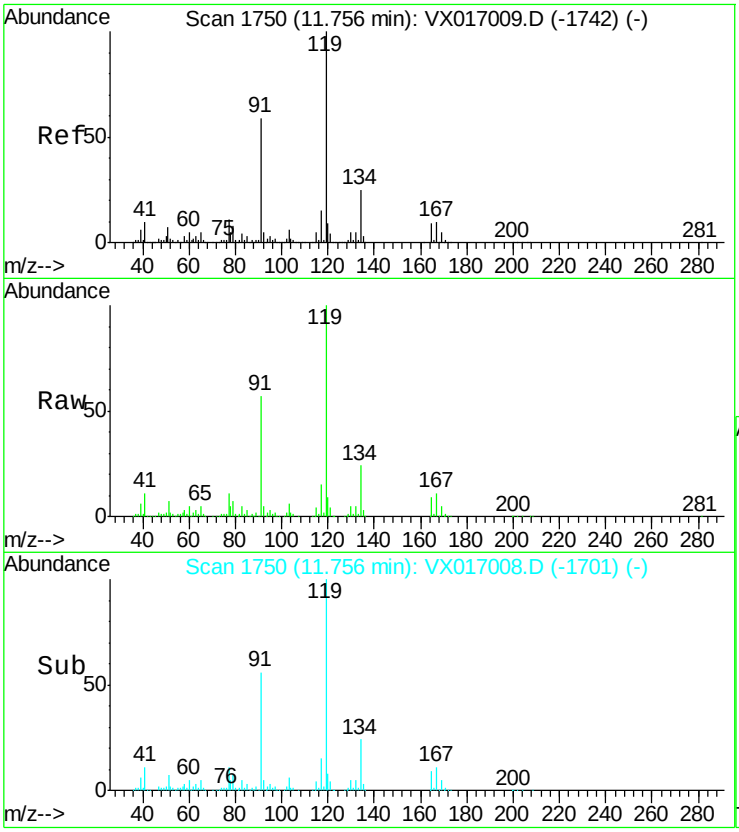


#82
4-Chlorotoluene
Concen: 20.143 ug/l
RT: 11.49 min Scan# 1707
Delta R.T. -0.00 min
Lab File: VX017008.D
Acq: 29 Jun 2020 14:58

Tgt Ion: 91 Resp: 232172

Ion	Ratio	Lower	Upper
91	100		
126	31.2	15.2	45.5

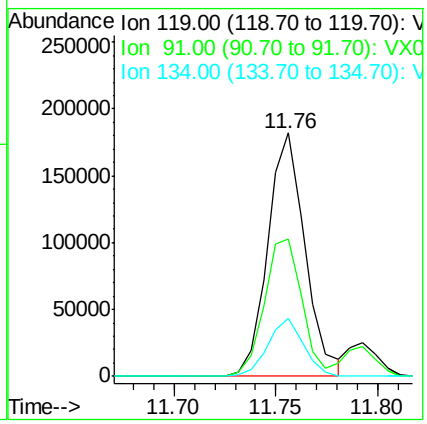




#83
tert-Butylbenzene
Concen: 20.205 ug/l
RT: 11.76 min Scan# 1750
Delta R.T. -0.00 min
Lab File: VX017008.D
Acq: 29 Jun 2020 14:58

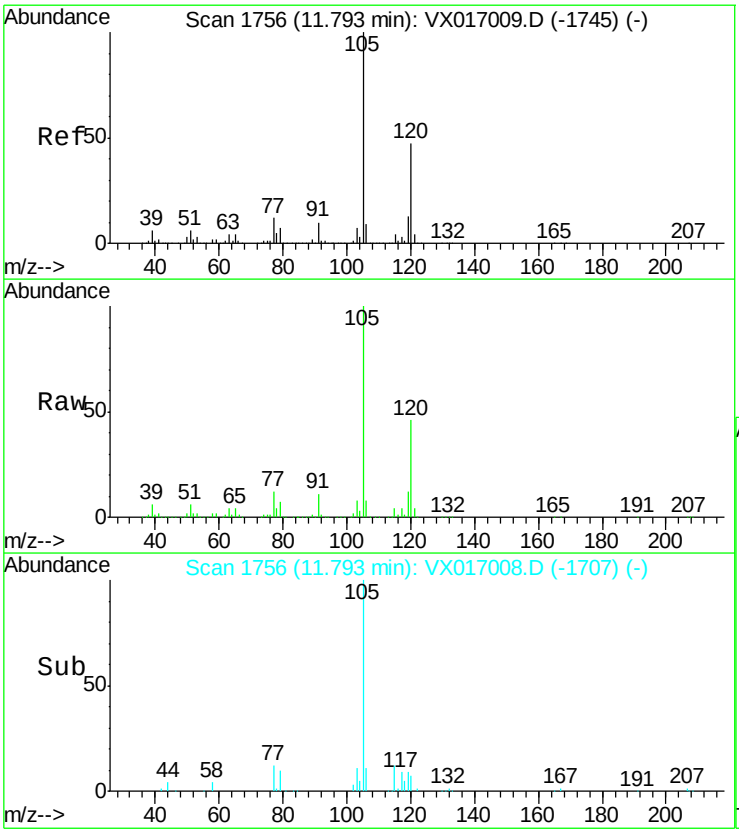
Tgt Ion:119 Resp: 231777

Ion	Ratio	Lower	Upper
119	100		
91	56.6	28.3	84.9
134	22.8	11.7	35.1



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC020

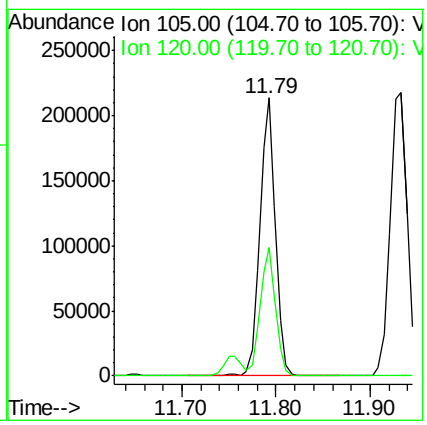
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:12:50 AM

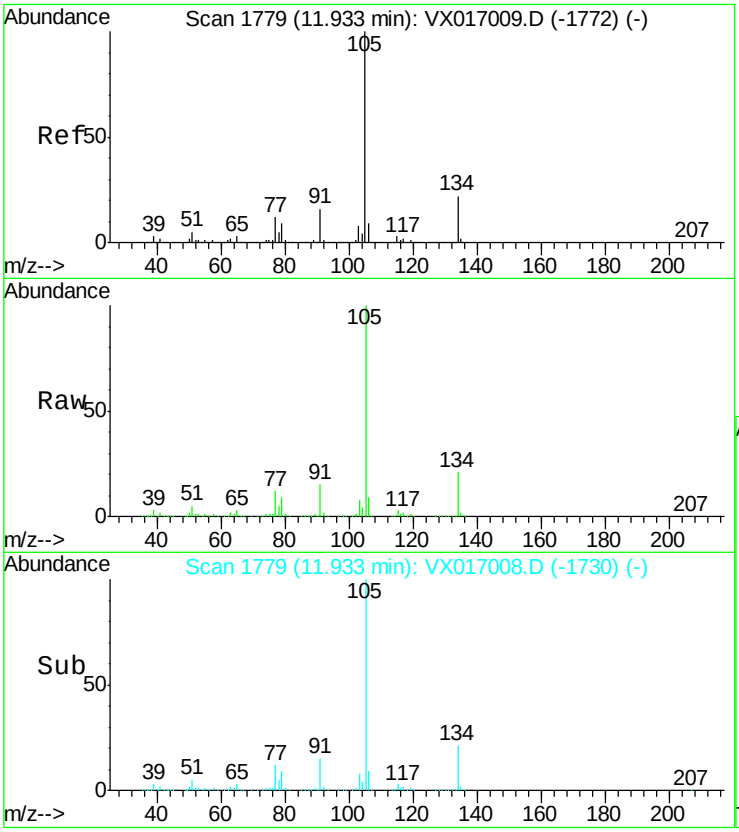


#84
1,2,4-Trimethylbenzene
Concen: 21.046 ug/l
RT: 11.79 min Scan# 1756
Delta R.T. -0.00 min
Lab File: VX017008.D
Acq: 29 Jun 2020 14:58

Tgt Ion:105 Resp: 249505

Ion	Ratio	Lower	Upper
105	100		
120	45.6	22.9	68.5

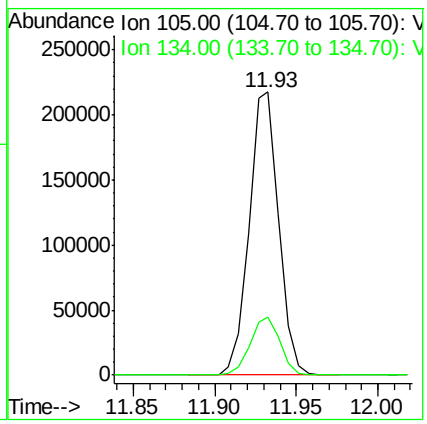




#85
sec-Butylbenzene
Concen: 20.331 ug/l
RT: 11.93 min Scan# 1779
Delta R.T. -0.00 min
Lab File: VX017008.D
Acq: 29 Jun 2020 14:58

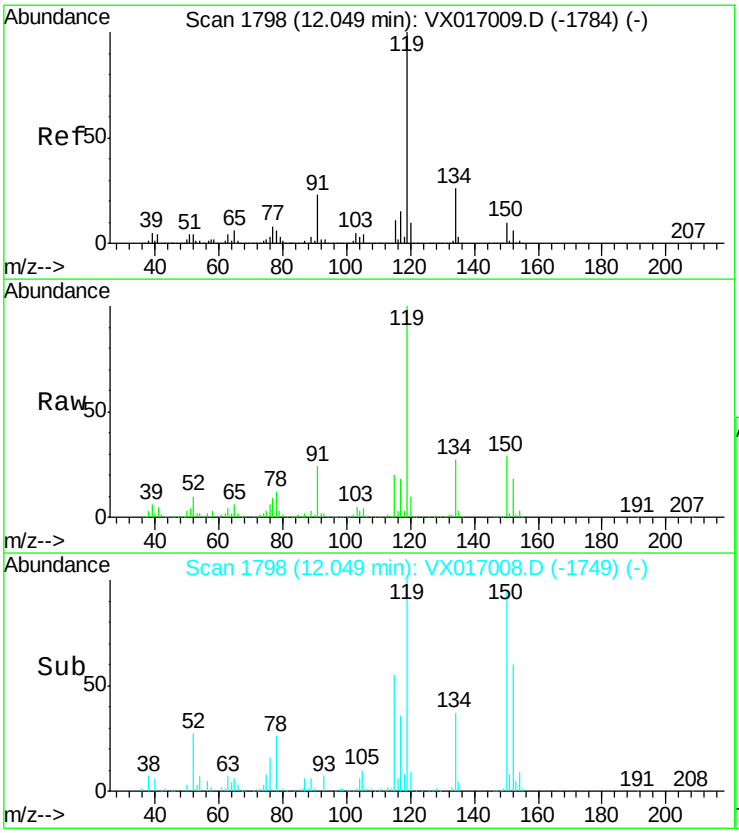
Tgt Ion:105 Resp: 274135

Ion	Ratio	Lower	Upper
105	100		
134	20.8	10.5	31.6



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC020

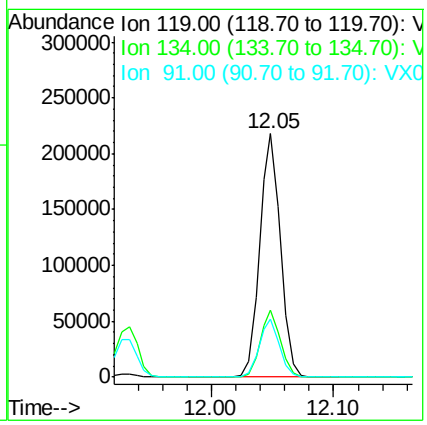
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:12:50 AM

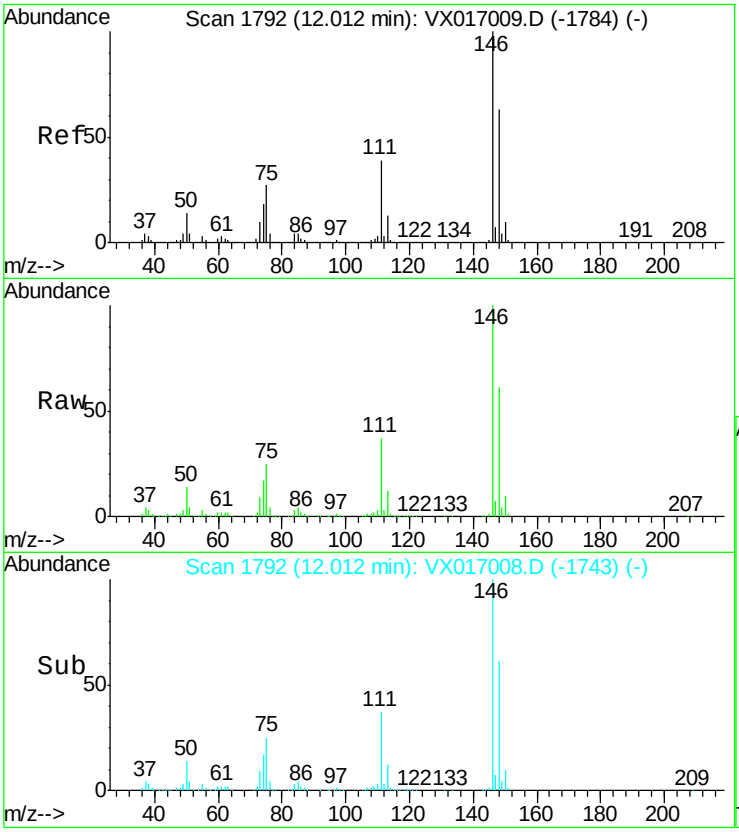


#86
p-Isopropyltoluene
Concen: 20.591 ug/l
RT: 12.05 min Scan# 1798
Delta R.T. -0.00 min
Lab File: VX017008.D
Acq: 29 Jun 2020 14:58

Tgt Ion:119 Resp: 258471

Ion	Ratio	Lower	Upper
119	100		
134	26.8	13.2	39.5
91	23.5	11.8	35.4

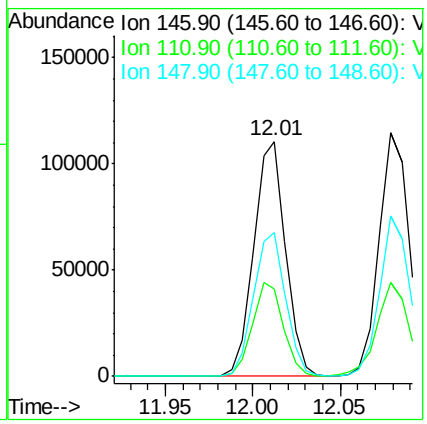




#87
1,3-Dichlorobenzene
Concen: 19.844 ug/l
RT: 12.01 min Scan# 1792
Delta R.T. -0.00 min
Lab File: VX017008.D
Acq: 29 Jun 2020 14:58

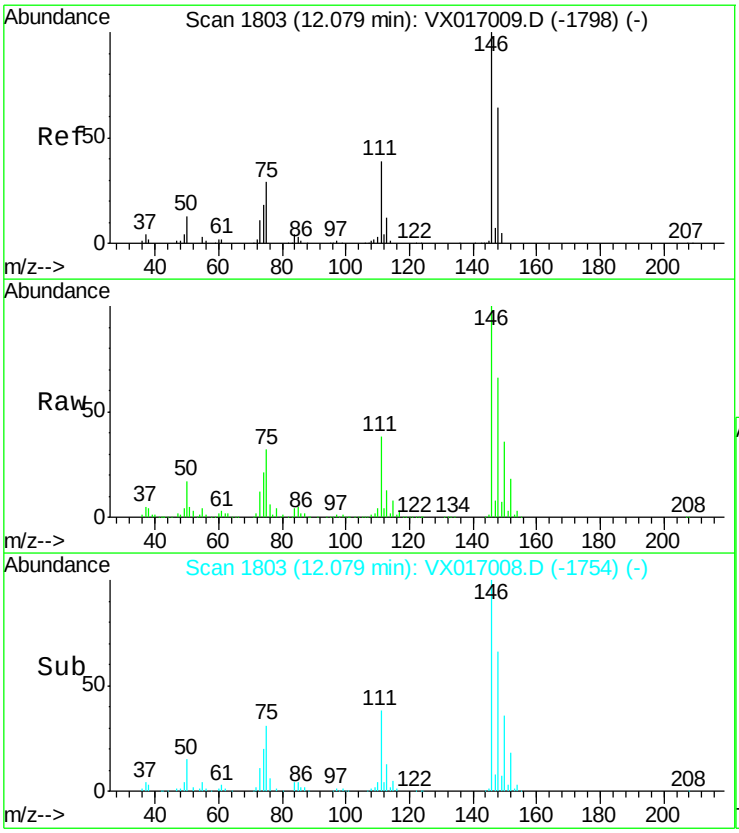
Tgt Ion:146 Resp: 139542

Ion	Ratio	Lower	Upper
146	100		
111	39.0	20.4	61.2
148	61.9	32.5	97.5



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC020

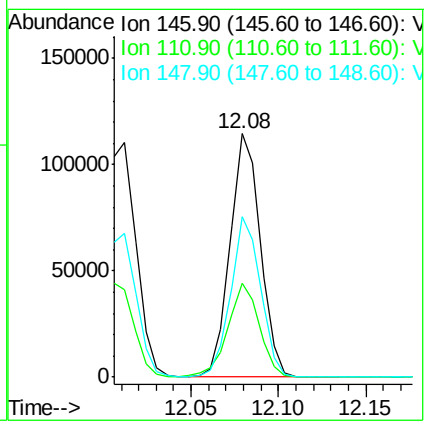
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:12:50 AM

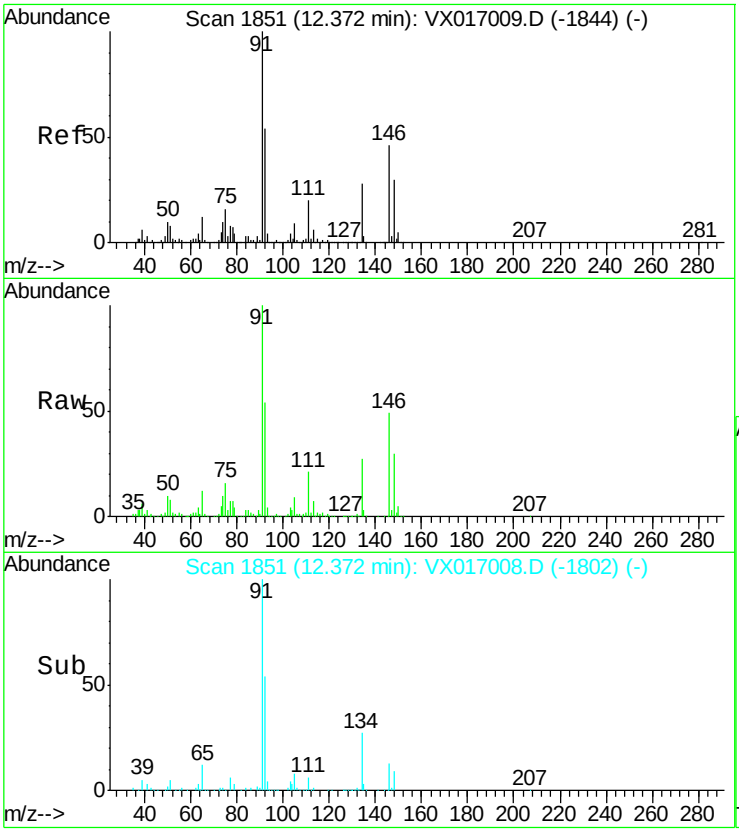


#88
1,4-Dichlorobenzene
Concen: 19.533 ug/l
RT: 12.08 min Scan# 1803
Delta R.T. -0.00 min
Lab File: VX017008.D
Acq: 29 Jun 2020 14:58

Tgt Ion:146 Resp: 138142

Ion	Ratio	Lower	Upper
146	100		
111	40.3	19.5	58.5
148	65.2	31.9	95.7

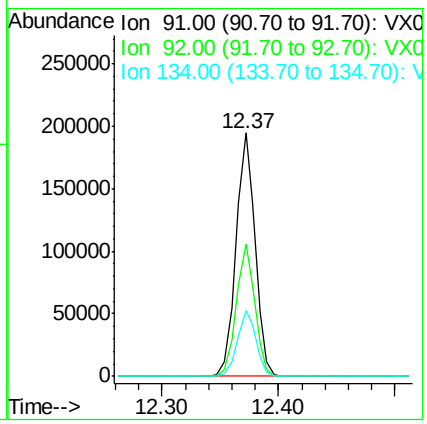




#89
n-Butylbenzene
Concen: 19.849 ug/l
RT: 12.37 min Scan# 1851
Delta R.T. -0.00 min
Lab File: VX017008.D
Acq: 29 Jun 2020 14:58

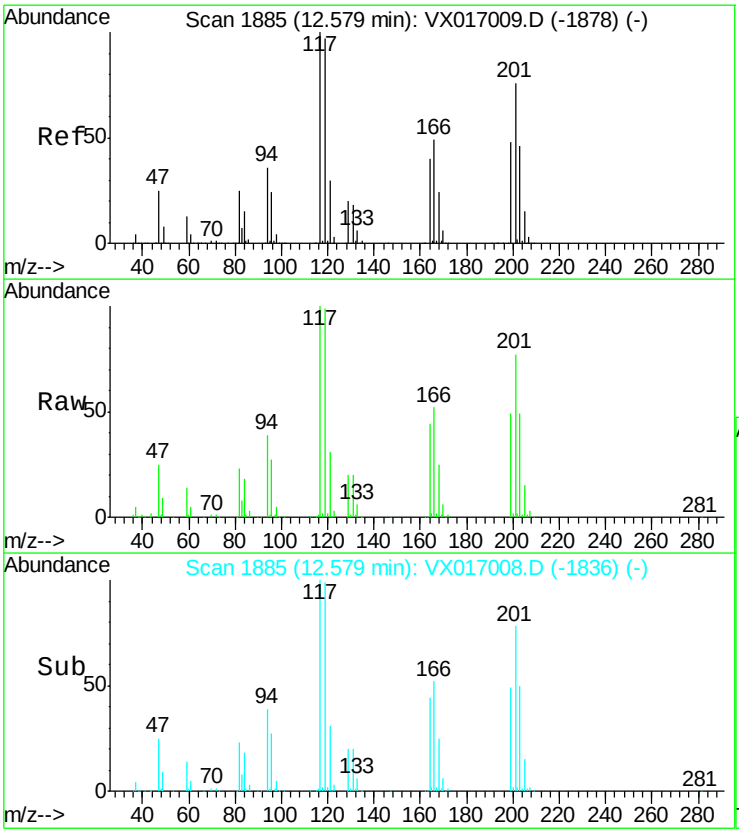
Tgt Ion: 91 Resp: 222468

Ion	Ratio	Lower	Upper
91	100		
92	52.6	27.2	81.6
134	26.4	13.6	40.7



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC020

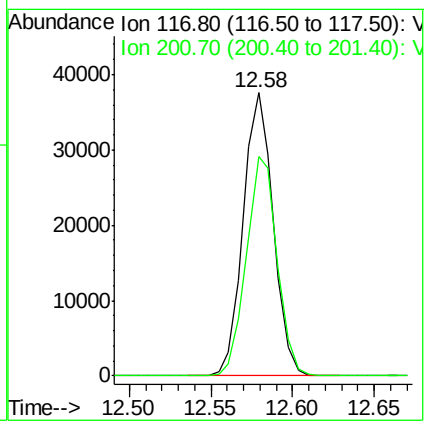
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:12:50 AM

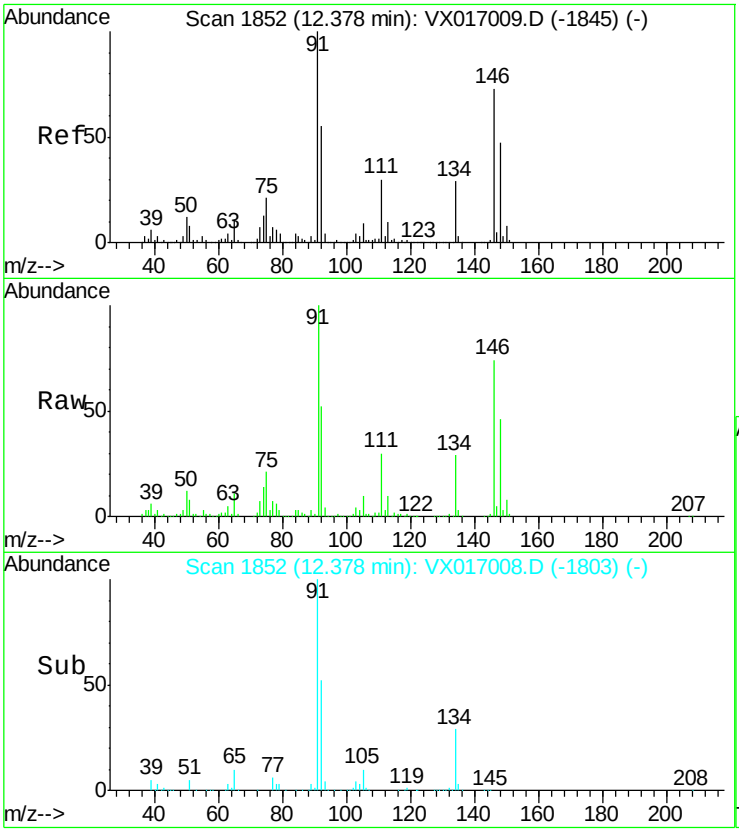


#90
Hexachloroethane
Concen: 19.468 ug/l
RT: 12.58 min Scan# 1885
Delta R.T. -0.00 min
Lab File: VX017008.D
Acq: 29 Jun 2020 14:58

Tgt Ion:117 Resp: 48192

Ion	Ratio	Lower	Upper
117	100		
201	79.5	39.4	118.2

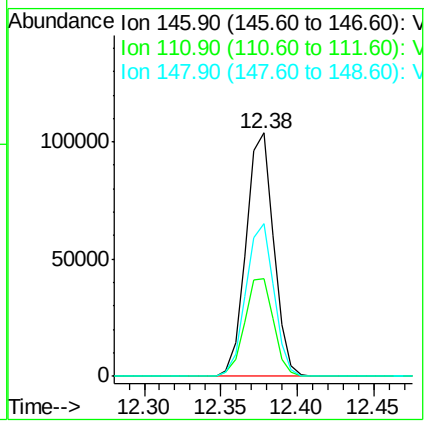




#91
1,2-Dichlorobenzene
Concen: 19.828 ug/l
RT: 12.38 min Scan# 1852
Delta R.T. -0.00 min
Lab File: VX017008.D
Acq: 29 Jun 2020 14:58

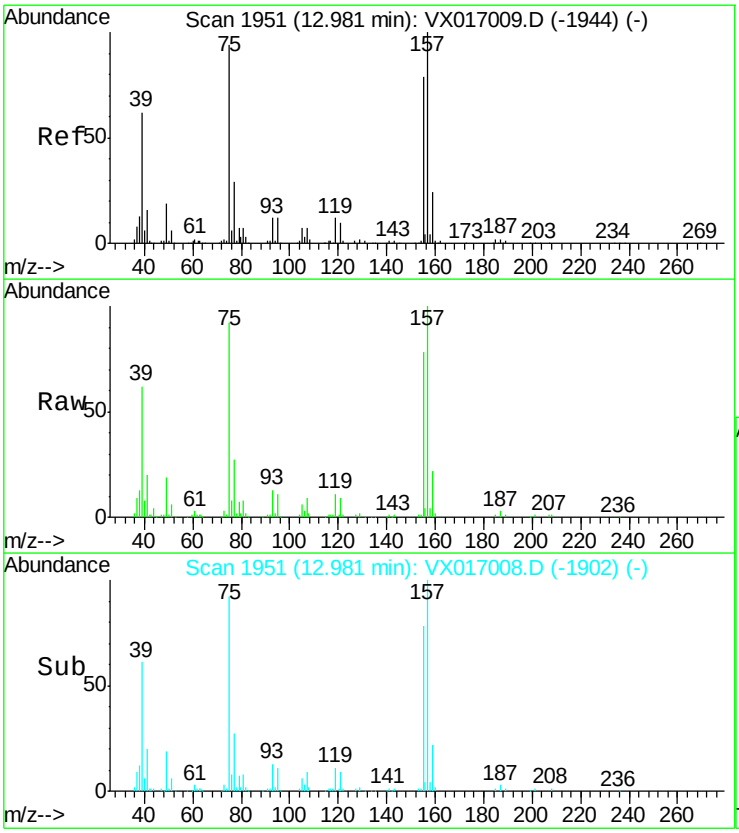
Tgt Ion:146 Resp: 130331

Ion	Ratio	Lower	Upper
146	100		
111	41.9	20.6	61.9
148	63.6	32.4	97.2



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC020

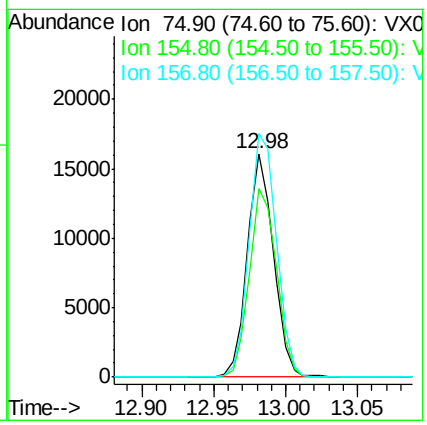
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:12:50 AM

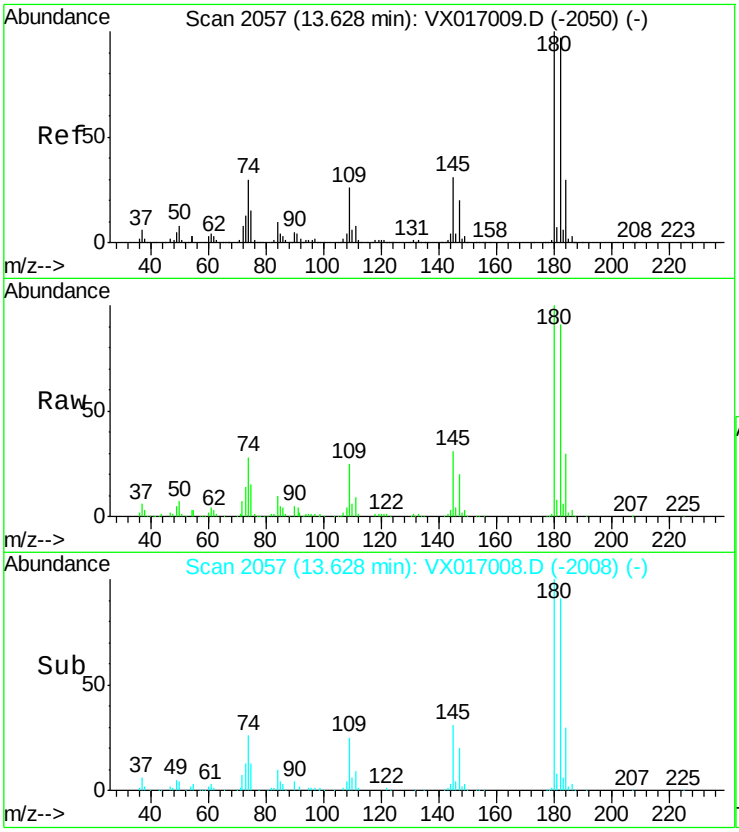


#92
1,2-Dibromo-3-Chloropropane
Concen: 19.082 ug/l
RT: 12.98 min Scan# 1951
Delta R.T. -0.00 min
Lab File: VX017008.D
Acq: 29 Jun 2020 14:58

Tgt Ion: 75 Resp: 20172

Ion	Ratio	Lower	Upper
75	100		
155	87.2	45.1	135.2
157	113.7	56.5	169.3

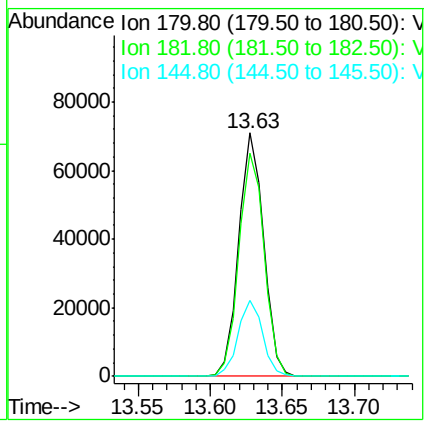


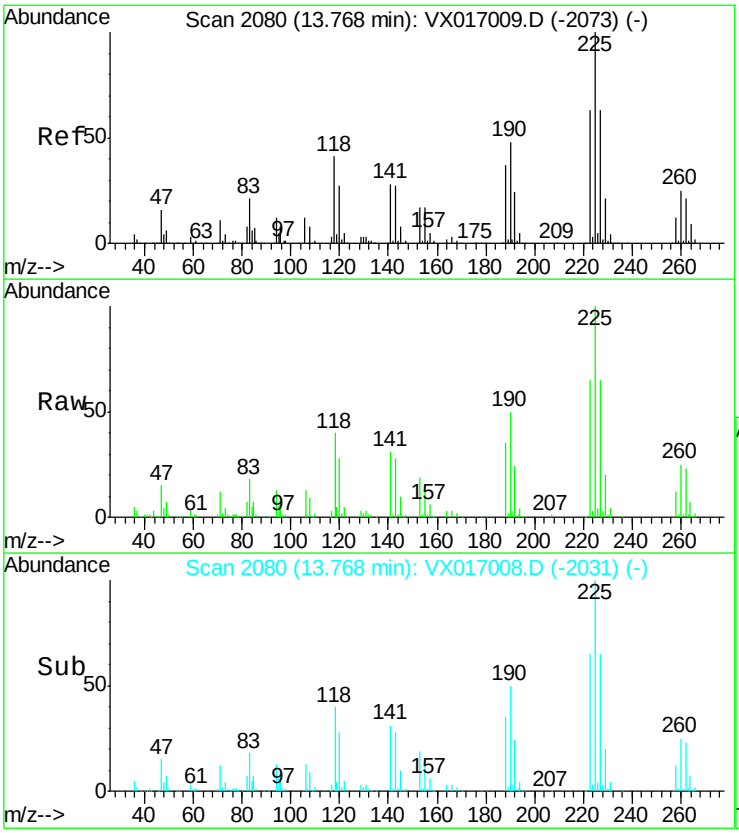


#93
1,2,4-Trichlorobenzene
Concen: 19.042 ug/l
RT: 13.63 min Scan# 2057
Delta R.T. -0.00 min
Lab File: VX017008.D
Acq: 29 Jun 2020 14:58

Tgt Ion:180 Resp: 85431

Ion	Ratio	Lower	Upper
180	100		
182	92.8	47.3	141.9
145	30.7	15.4	46.2

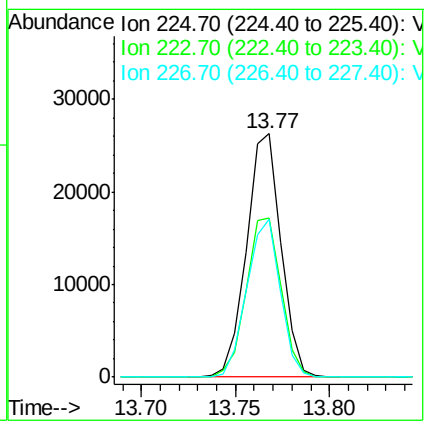




#94
Hexachlorobutadiene
Concen: 18.367 ug/l
RT: 13.77 min Scan# 2080
Delta R.T. 0.00 min
Lab File: VX017008.D
Acq: 29 Jun 2020 14:58

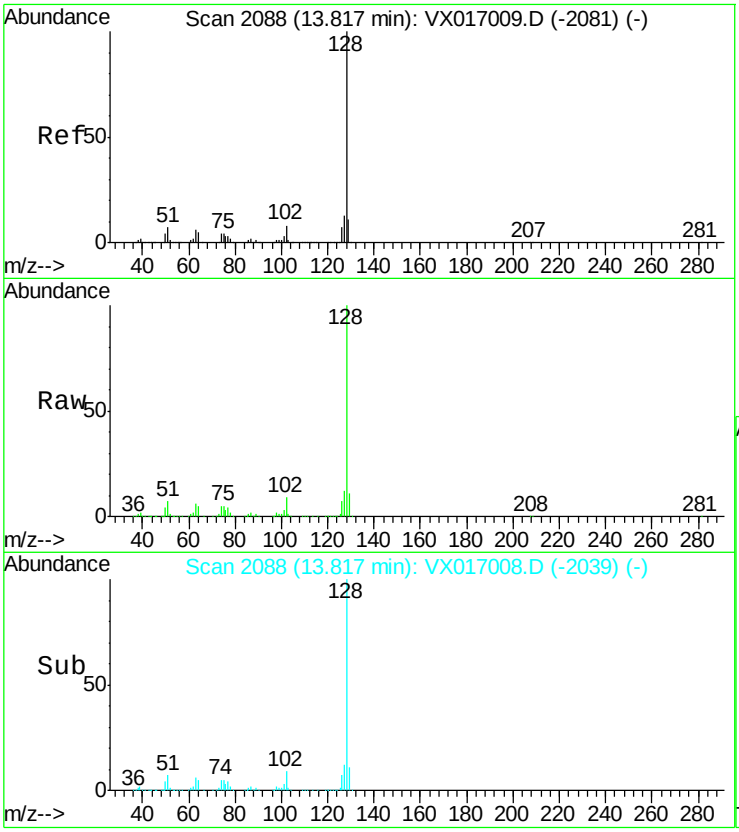
Tgt Ion:225 Resp: 33329

Ion	Ratio	Lower	Upper
225	100		
223	66.5	32.5	97.5
227	62.7	33.1	99.2



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC020

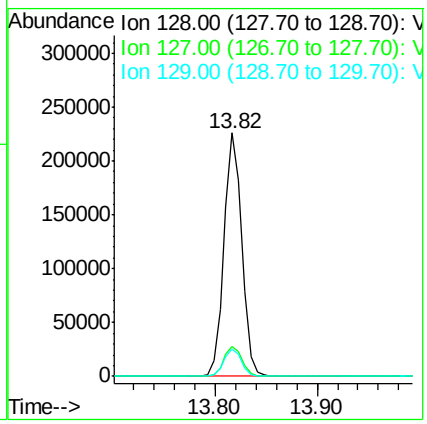
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:12:50 AM



#95
Naphthalene
Concen: 20.097 ug/l
RT: 13.82 min Scan# 2088
Delta R.T. -0.00 min
Lab File: VX017008.D
Acq: 29 Jun 2020 14:58

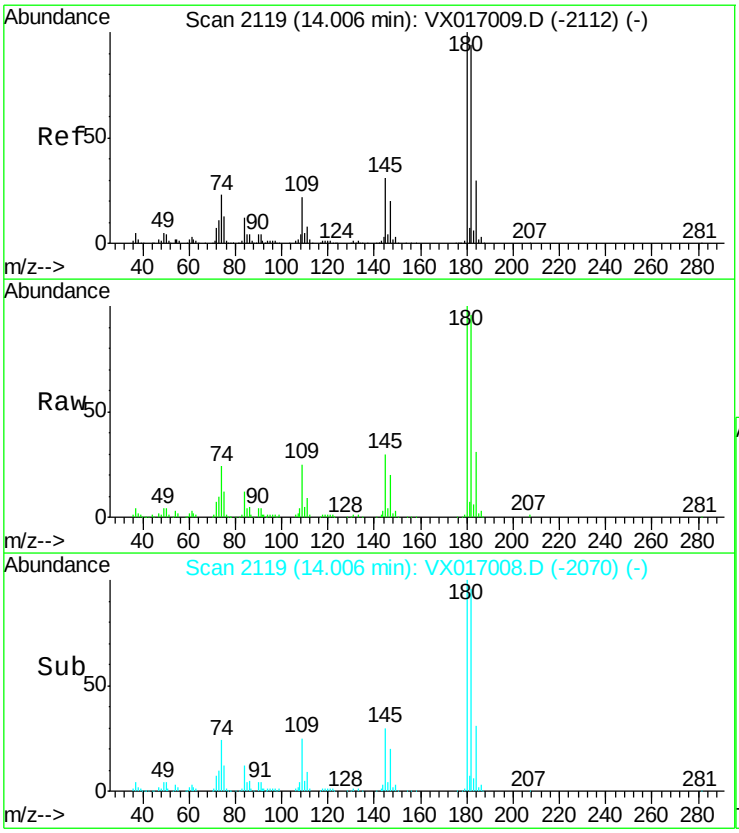
Tgt Ion:128 Resp: 274117

Ion	Ratio	Lower	Upper
128	100		
127	12.6	10.2	15.4
129	11.2	8.7	13.1



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC020

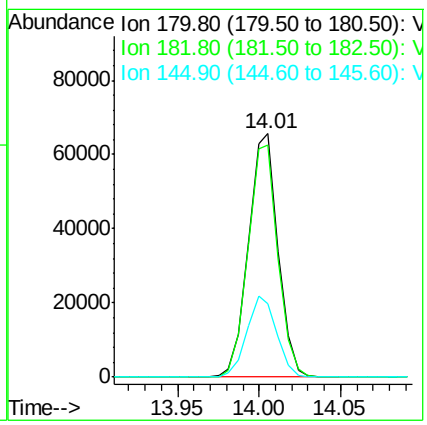
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:12:50 AM



#96
1,2,3-Trichlorobenzene
Concen: 19.099 ug/l
RT: 14.01 min Scan# 2119
Delta R.T. -0.00 min
Lab File: VX017008.D
Acq: 29 Jun 2020 14:58

Tgt Ion:180 Resp: 82924

Ion	Ratio	Lower	Upper
180	100		
182	96.5	47.1	141.4
145	33.5	16.6	49.7



Quantitation Report (QT Reviewed)

ICAL Form

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX062920\
Data File : VX017009.D
Acq On : 29 Jun 2020 15:21
Operator : JC/SP
Sample : VSTDICCC050
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 7 Sample Multiplier: 1

Instrument : MSVOA_X
ClientSampleId : VSTDICCC050

Manual Integrations APPROVED
MMDadoda
6/30/2020 10:13:30 AM

Quant Time: Jun 29 17:05:12 2020
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X062920W.M
Quant Title : SW846 8260
QLast Update : Mon Jun 29 16:54:07 2020
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	5.64	168	287611	50.00	ug/l	0.00
34) 1,4-Difluorobenzene	6.83	114	454479	50.00	ug/l	0.00
63) Chlorobenzene-d5	10.10	117	430393	50.00	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	12.06	152	219637	50.00	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	6.03	65	166587	46.98	ug/l	0.00
Spiked Amount 50.000			Recovery = 93.96%			
35) Dibromofluoromethane	5.46	113	138905	48.32	ug/l	0.00
Spiked Amount 50.000			Recovery = 96.64%			
50) Toluene-d8	8.70	98	505600	47.56	ug/l	0.00
Spiked Amount 50.000			Recovery = 95.12%			
62) 4-Bromofluorobenzene	11.12	95	198816	47.84	ug/l	0.00
Spiked Amount 50.000			Recovery = 95.68%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.18	85	139319	50.070	ug/l	100
3) Chloromethane	1.31	50	163754	48.620	ug/l	100
4) Vinyl Chloride	1.39	62	153336	49.069	ug/l	100
5) Bromomethane	1.62	94	82131	49.747	ug/l	100
6) Chloroethane	1.71	64	89279	48.375	ug/l	100
7) Trichlorofluoromethane	1.92	101	225426	48.777	ug/l	100
8) Diethyl Ether	2.17	74	79427	47.077	ug/l	100
9) 1,1,2-Trichlorotrifluoroet	2.37	101	139273	50.280	ug/l	100
10) Methyl Iodide	2.49	142	191141	53.478	ug/l	100
11) Tert butyl alcohol	3.01	59	171768	253.941	ug/l	100
12) 1,1-Dichloroethene	2.36	96	140851	49.499	ug/l	100
13) Acrolein	2.27	56	100387	248.271	ug/l	100
14) Allyl chloride	2.71	41	257782	49.020	ug/l	100
15) Acrylonitrile	3.12	53	409947	252.111	ug/l	100
16) Acetone	2.42	43	328347	247.547	ug/l	100
17) Carbon Disulfide	2.55	76	415382	47.660	ug/l	100
18) Methyl Acetate	2.75	43	172673	49.868	ug/l	100
19) Methyl tert-butyl Ether	3.17	73	484062	50.687	ug/l	100
20) Methylene Chloride	2.84	84	162770	48.012	ug/l	100
21) trans-1,2-Dichloroethene	3.14	96	156675	49.615	ug/l	100
22) Diisopropyl ether	3.82	45	500252	51.397	ug/l	100
23) Vinyl Acetate	3.79	43	2209678	264.200	ug/l	100
24) 1,1-Dichloroethane	3.67	63	277752	50.154	ug/l	100
25) 2-Butanone	4.64	43	567354	256.706	ug/l	100
26) 2,2-Dichloropropane	4.55	77	243781	49.577	ug/l	100
27) cis-1,2-Dichloroethene	4.56	96	178098	49.776	ug/l	100
28) Bromochloromethane	4.98	49	132541	49.182	ug/l	100
29) Tetrahydrofuran	5.09	42	380770	260.752	ug/l	100
30) Chloroform	5.18	83	284364	50.090	ug/l	100
31) Cyclohexane	5.55	56	245926	51.374	ug/l	100
32) 1,1,1-Trichloroethane	5.46	97	261063	49.932	ug/l	100
36) 1,1-Dichloropropene	5.77	75	213862	49.789	ug/l	100
37) Ethyl Acetate	4.79	43	227765	52.262	ug/l	100
38) Carbon Tetrachloride	5.75	117	236997	50.094	ug/l	100

ICAL Form

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX062920\
Data File : VX017009.D
Acq On : 29 Jun 2020 15:21
Operator : JC/SP
Sample : VSTDICCC050
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 7 Sample Multiplier: 1

Instrument : MSVOA_X
ClientSampleId : VSTDICCC050

Manual Integrations APPROVED
MMDadoda
6/30/2020 10:13:30 AM

Quant Time: Jun 29 17:05:12 2020
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X062920W.M
Quant Title : SW846 8260
QLast Update : Mon Jun 29 16:54:07 2020
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
39) Methylcyclohexane	7.44	83	245583	51.386	ug/l		100
40) Benzene	6.12	78	630189	49.934	ug/l		100
41) Methacrylonitrile	5.00	41	123771	50.460	ug/l		100
42) 1,2-Dichloroethane	6.17	62	227612	49.930	ug/l		100
43) Isopropyl Acetate	6.41	43	366531	50.612	ug/l		100
44) Trichloroethene	7.19	130	182894	48.114	ug/l		100
45) 1,2-Dichloropropane	7.49	63	160912	49.641	ug/l		100
46) Dibromomethane	7.64	93	110883	50.105	ug/l		100
47) Bromodichloromethane	7.88	83	231779	50.821	ug/l		100
48) Methyl methacrylate	7.74	41	183457	53.321	ug/l		100
49) 1,4-Dioxane	7.71	88	80039	1026.850	ug/l		100
51) 4-Methyl-2-Pentanone	8.62	43	1129428	261.629	ug/l		100
52) Toluene	8.76	92	399432	50.692	ug/l		100
53) t-1,3-Dichloropropene	9.02	75	256694	51.013	ug/l		100
54) cis-1,3-Dichloropropene	8.42	75	275072	50.994	ug/l		100
55) 1,1,2-Trichloroethane	9.20	97	160677	49.910	ug/l		100
56) Ethyl methacrylate	9.16	69	245077	53.484	ug/l		100
57) 1,3-Dichloropropane	9.35	76	271991	49.930	ug/l		100
58) 2-Chloroethyl Vinyl ether	8.29	63	626354	274.654	ug/l		100
59) 2-Hexanone	9.47	43	840076	266.455	ug/l		100
60) Dibromochloromethane	9.57	129	189195	50.598	ug/l		100
61) 1,2-Dibromoethane	9.65	107	174453	50.413	ug/l		100
64) Tetrachloroethene	9.32	164	171871	49.480	ug/l		100
65) Chlorobenzene	10.12	112	439303	49.454	ug/l		100
66) 1,1,1,2-Tetrachloroethane	10.21	131	170074	49.680	ug/l		100
67) Ethyl Benzene	10.23	91	768615	51.812	ug/l		100
68) m/p-Xylenes	10.34	106	595461	104.539	ug/l		100
69) o-Xylene	10.68	106	280660	51.795	ug/l		100
70) Styrene	10.70	104	494438	53.584	ug/l		100
71) Bromoform	10.84	173	144559	53.250	ug/l	#	100
73) Isopropylbenzene	11.00	105	760266	52.846	ug/l		100
74) N-amyl acetate	10.88	43	336317	54.787	ug/l		100
75) 1,1,2,2-Tetrachloroethane	11.25	83	228087	50.402	ug/l		100
76) 1,2,3-Trichloropropane	11.28	75	227127m	41.990	ug/l		
77) Bromobenzene	11.24	156	199879	50.552	ug/l		100
78) n-propylbenzene	11.34	91	860988	52.923	ug/l		100
79) 2-Chlorotoluene	11.40	91	516807	52.489	ug/l		100
80) 1,3,5-Trimethylbenzene	11.49	105	638907	53.540	ug/l		100
81) trans-1,4-Dichloro-2-buten	11.06	75	89140	53.447	ug/l		100
82) 4-Chlorotoluene	11.49	91	611624	51.963	ug/l		100
83) tert-Butylbenzene	11.76	119	625356	53.384	ug/l		100
84) 1,2,4-Trimethylbenzene	11.79	105	655137	54.116	ug/l		100
85) sec-Butylbenzene	11.93	105	735368	53.405	ug/l		100
86) p-Isopropyltoluene	12.05	119	699654	54.581	ug/l		100
87) 1,3-Dichlorobenzene	12.01	146	350441	48.800	ug/l		100
88) 1,4-Dichlorobenzene	12.08	146	358097	49.584	ug/l		100
89) n-Butylbenzene	12.37	91	599658	52.391	ug/l		100
90) Hexachloroethane	12.58	117	130970	51.811	ug/l		100
91) 1,2-Dichlorobenzene	12.38	146	337602	50.295	ug/l		100
92) 1,2-Dibromo-3-Chloropropan	12.98	75	53032	49.124	ug/l		100

ICAL Form

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX062920\
Data File : VX017009.D
Acq On : 29 Jun 2020 15:21
Operator : JC/SP
Sample : VSTDICCC050
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 7 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
VSTDICCC050

Manual Integrations APPROVED
MMDadoda
6/30/2020 10:13:30 AM

Quant Time: Jun 29 17:05:12 2020
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X062920W.M
Quant Title : SW846 8260
QLast Update : Mon Jun 29 16:54:07 2020
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
93) 1,2,4-Trichlorobenzene	13.63	180	231230	50.469 ug/l	100
94) Hexachlorobutadiene	13.77	225	88880	47.964 ug/l	100
95) Naphthalene	13.82	128	759862	54.553 ug/l	100
96) 1,2,3-Trichlorobenzene	14.01	180	227446	51.297 ug/l	100

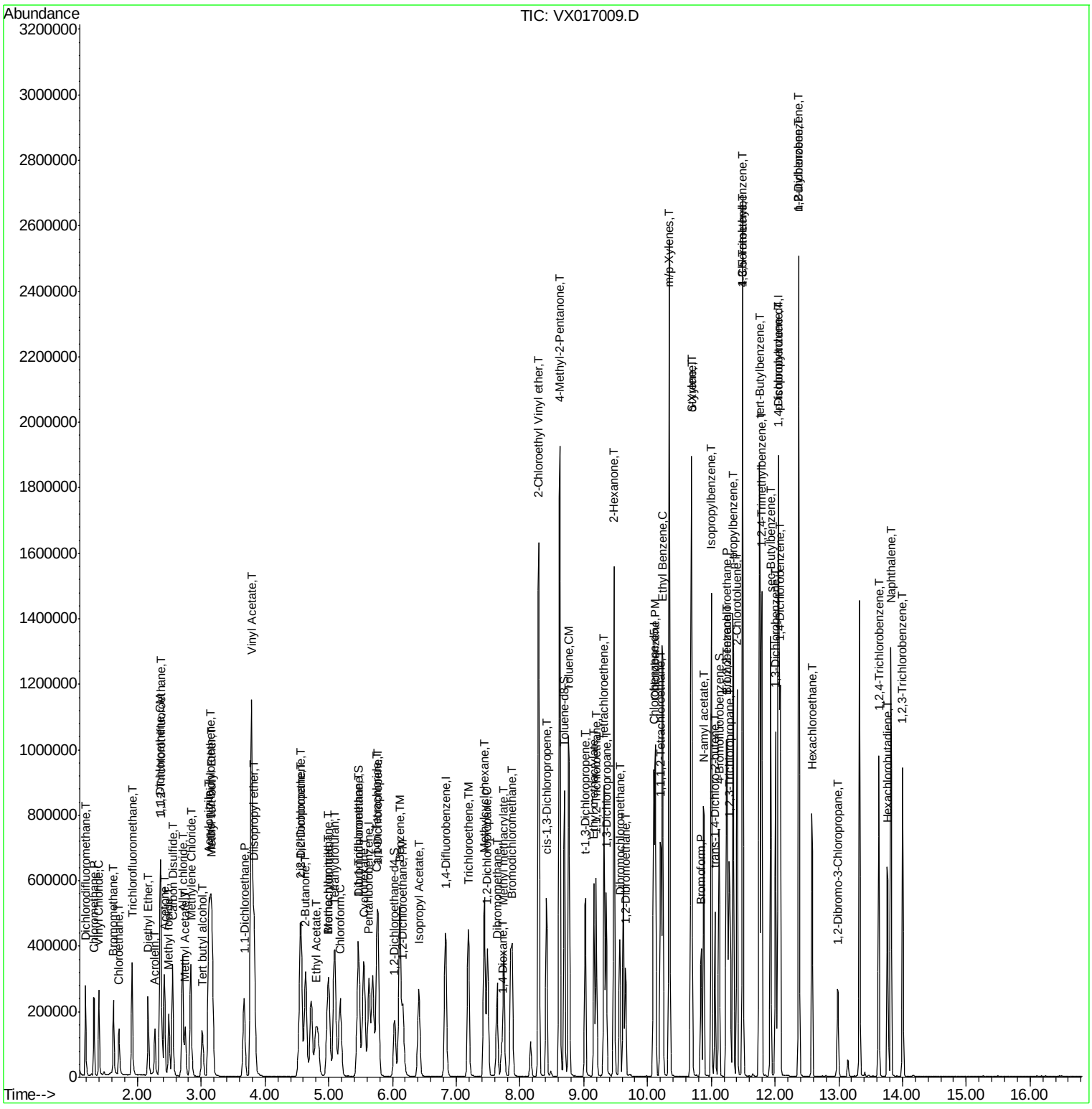
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX062920\
Data File : VX017009.D
Acq On : 29 Jun 2020 15:21
Operator : JC/SP
Sample : VSTDICCC050
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jun 29 17:05:12 2020
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X062920W.M
Quant Title : SW846 8260
QLast Update : Mon Jun 29 16:54:07 2020
Response via : Initial Calibration

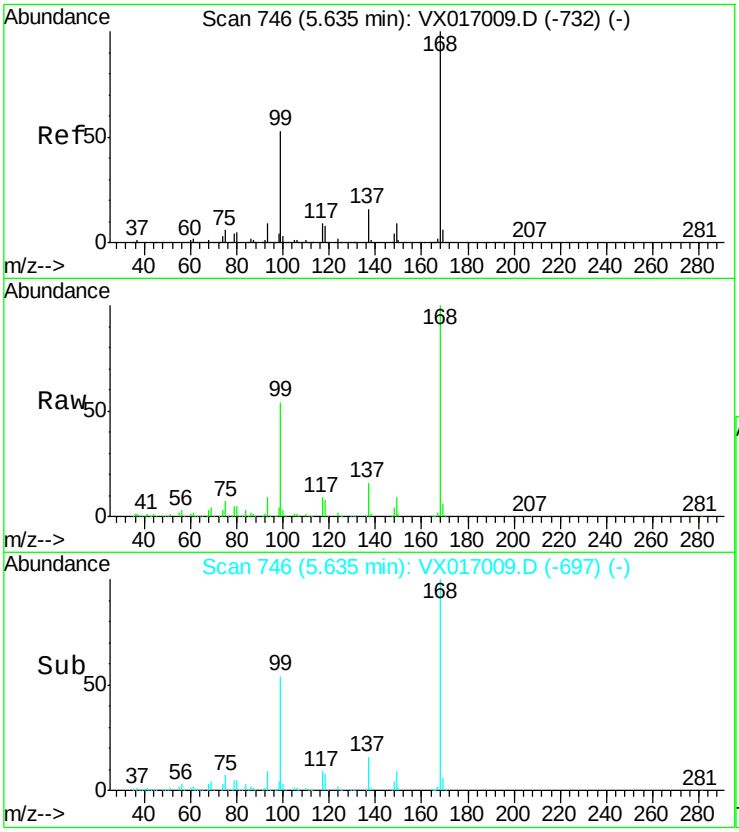
Instrument :
MSVOA_X
ClientSampleId :
VSTDICCC050

Manual Integrations APPROVED
MMDadoda
6/30/2020 10:13:30 AM



Instrument :
MSVOA_X
ClientSampleId :
VSTDICCC050

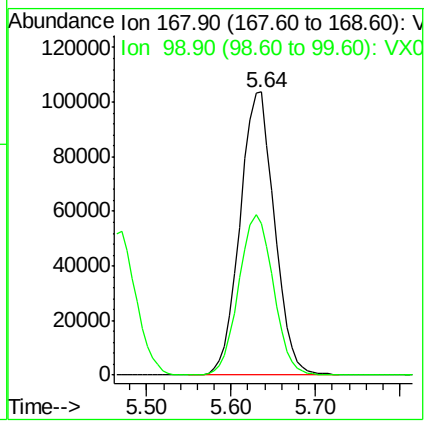
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:13:30 AM

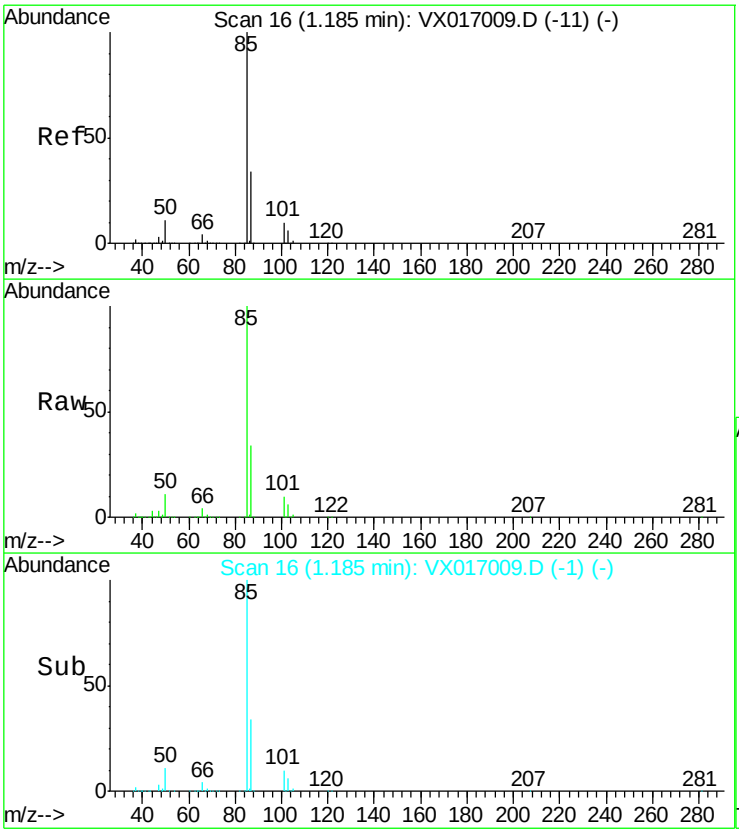


#1
Pentafluorobenzene
Concen: 50.000 ug/l
RT: 5.64 min Scan# 746
Delta R.T. 0.00 min
Lab File: VX017009.D
Acq: 29 Jun 2020 15:21

Tgt Ion:168 Resp: 287611

Ion	Ratio	Lower	Upper
168	100		
99	53.3	42.6	64.0

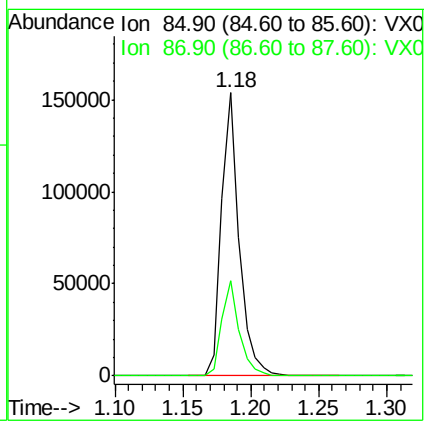




#2
Dichlorodifluoromethane
Concen: 50.070 ug/l
RT: 1.18 min Scan# 16
Delta R.T. 0.00 min
Lab File: VX017009.D
Acq: 29 Jun 2020 15:21

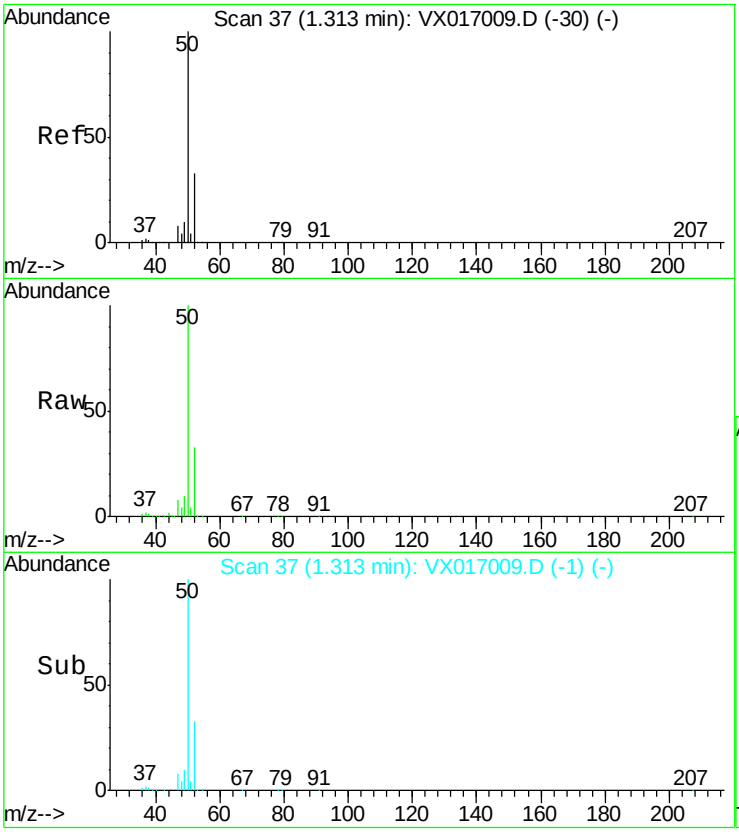
Tgt Ion: 85 Resp: 139319

Ion	Ratio	Lower	Upper
85	100		
87	33.6	16.8	50.4



Instrument :
MSVOA_X
ClientSampleId :
VSTDICCC050

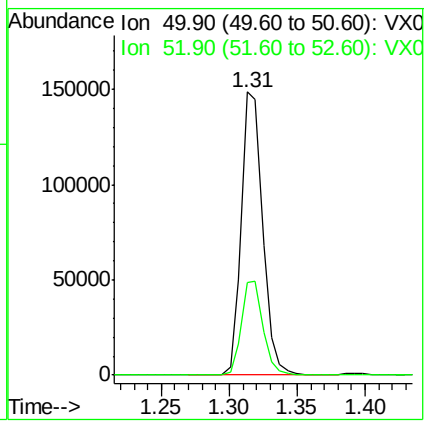
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:13:30 AM

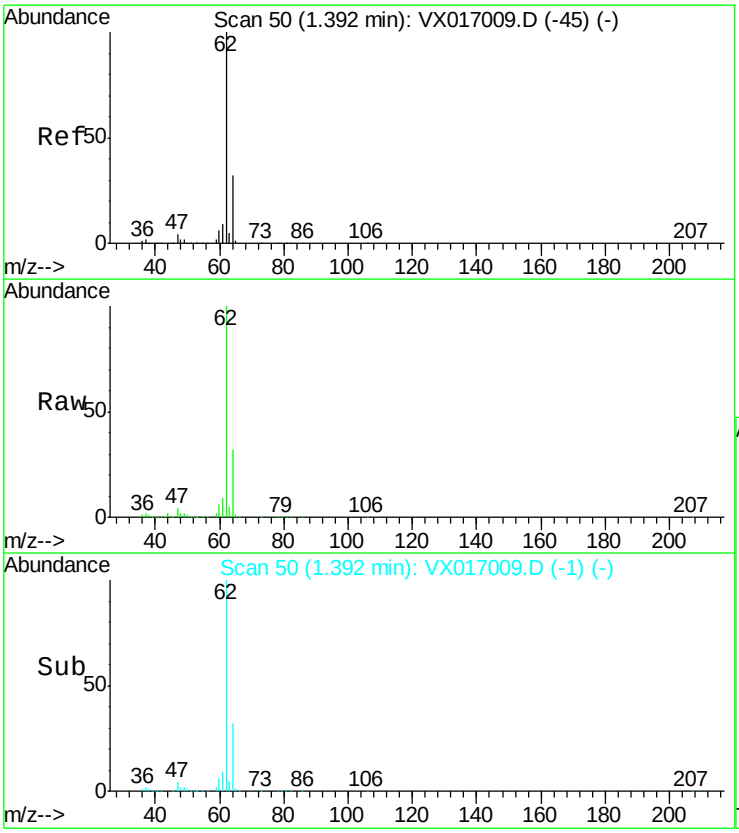


#3
Chloromethane
Concen: 48.620 ug/l
RT: 1.31 min Scan# 37
Delta R.T. 0.00 min
Lab File: VX017009.D
Acq: 29 Jun 2020 15:21

Tgt Ion: 50 Resp: 163754

Ion	Ratio	Lower	Upper
50	100		
52	32.6	26.1	39.1

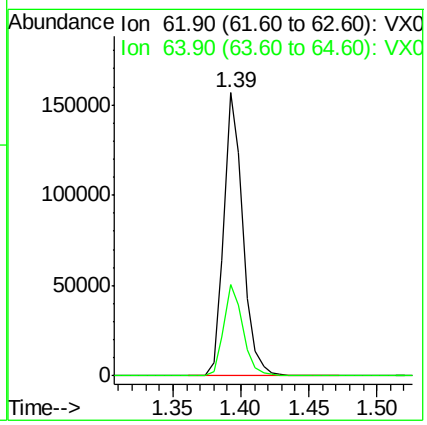


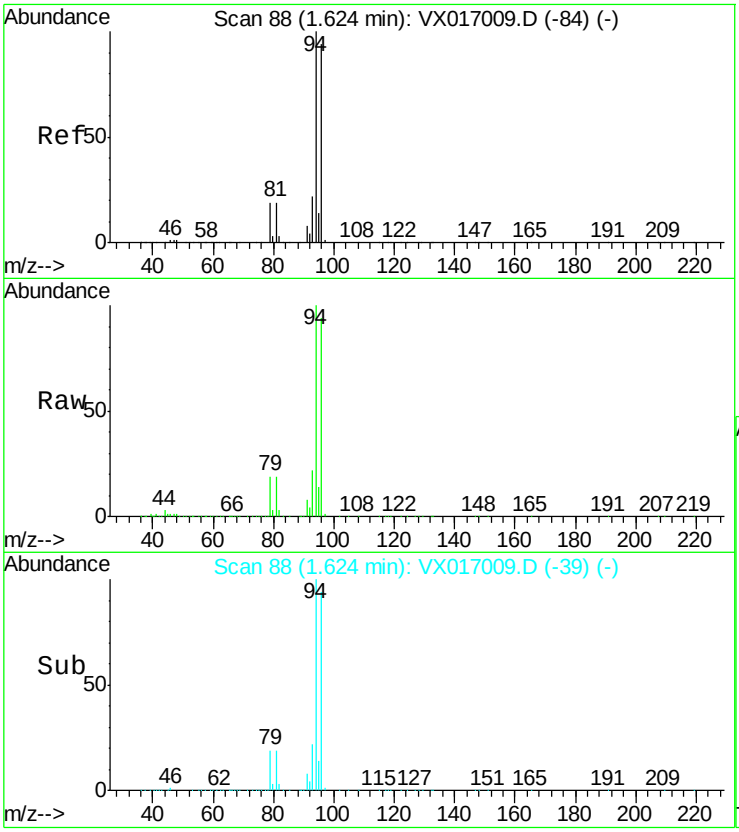


#4
Vinyl Chloride
Concen: 49.069 ug/l
RT: 1.39 min Scan# 50
Delta R.T. 0.00 min
Lab File: VX017009.D
Acq: 29 Jun 2020 15:21

Tgt Ion: 62 Resp: 153336

Ion	Ratio	Lower	Upper
62	100		
64	32.4	25.9	38.9

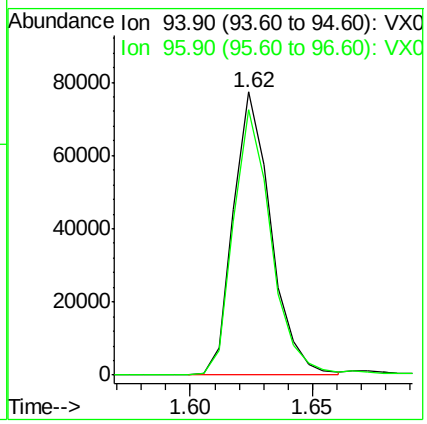




#5
Bromomethane
Concen: 49.747 ug/l
RT: 1.62 min Scan# 88
Delta R.T. 0.00 min
Lab File: VX017009.D
Acq: 29 Jun 2020 15:21

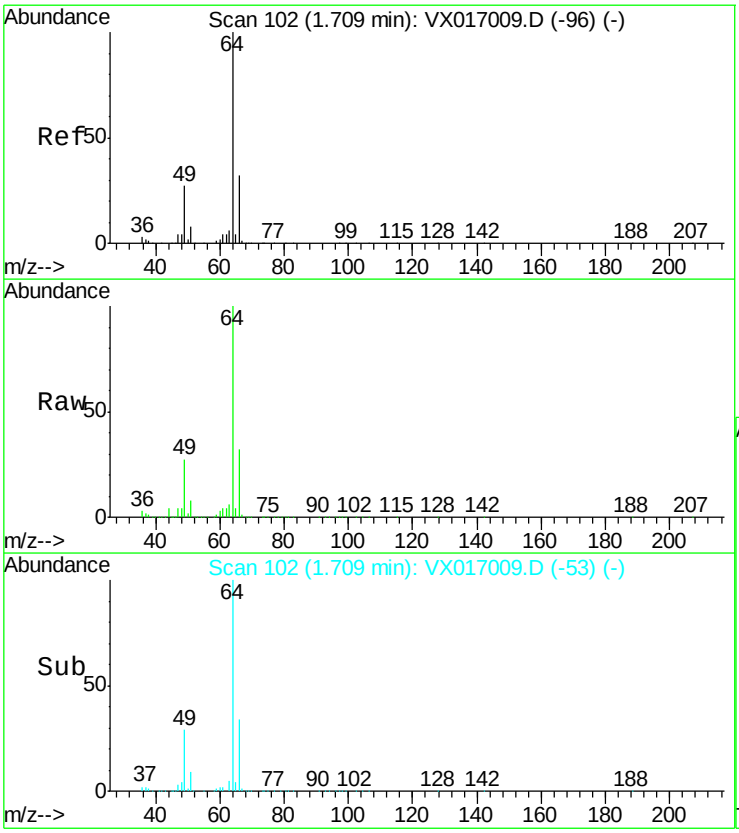
Tgt Ion: 94 Resp: 82131

Ion	Ratio	Lower	Upper
94	100		
96	93.7	75.0	112.4



Instrument :
MSVOA_X
ClientSampleId :
VSTDICCC050

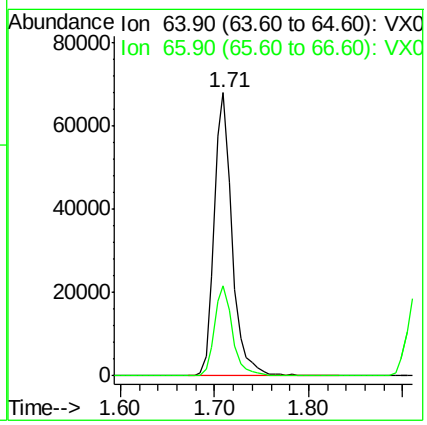
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:13:30 AM

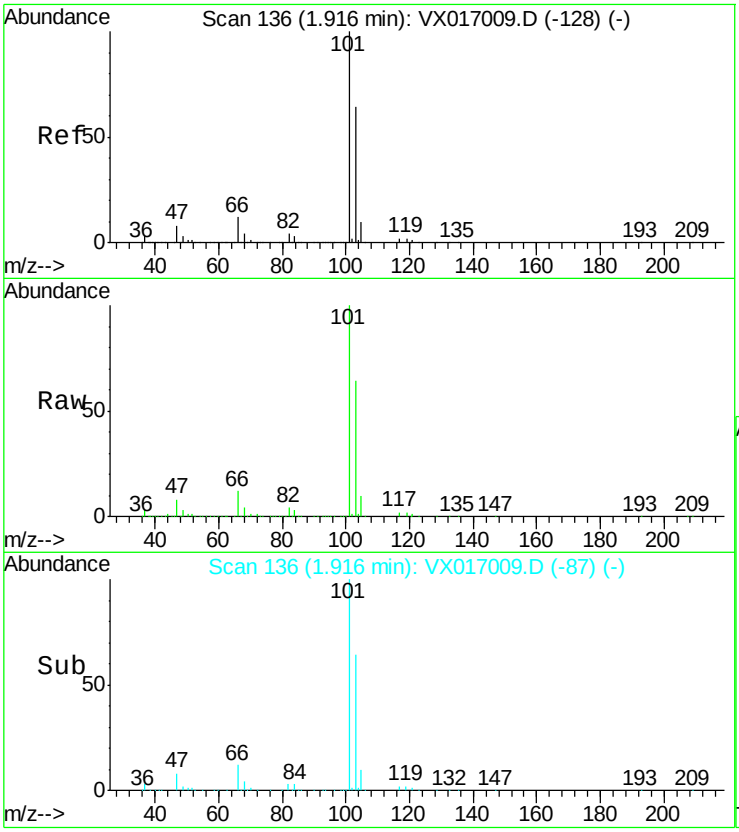


#6
Chloroethane
Concen: 48.375 ug/l
RT: 1.71 min Scan# 102
Delta R.T. 0.00 min
Lab File: VX017009.D
Acq: 29 Jun 2020 15:21

Tgt Ion: 64 Resp: 89279

Ion	Ratio	Lower	Upper
64	100		
66	31.9	25.5	38.3

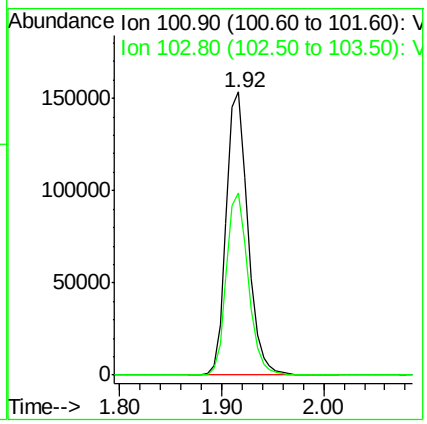




#7
Trichlorofluoromethane
Concen: 48.777 ug/l
RT: 1.92 min Scan# 136
Delta R.T. 0.00 min
Lab File: VX017009.D
Acq: 29 Jun 2020 15:21

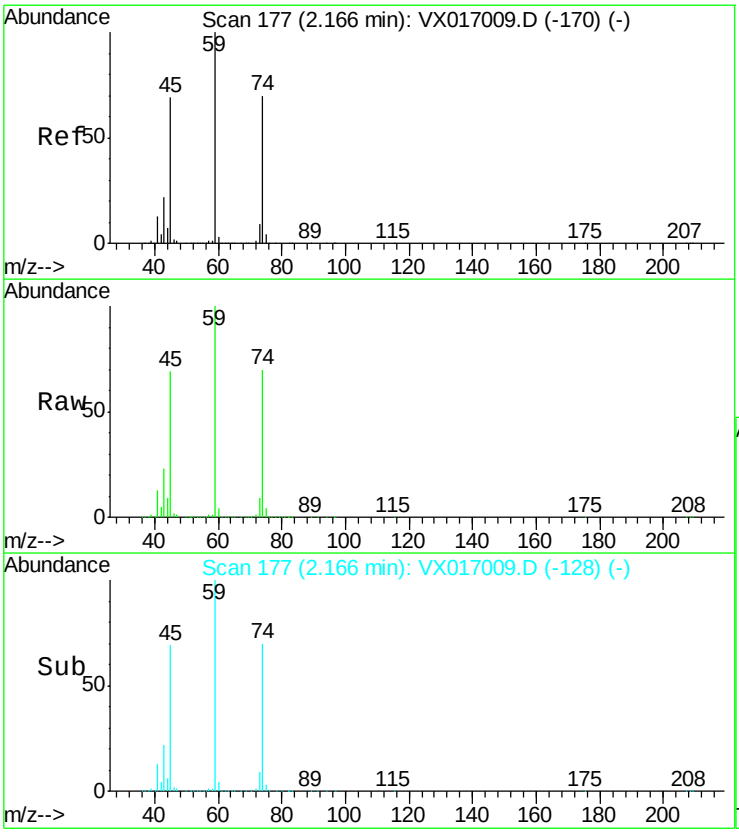
Tgt Ion:101 Resp: 225426

Ion	Ratio	Lower	Upper
101	100		
103	64.4	51.5	77.3



Instrument :
MSVOA_X
ClientSampleId :
VSTDICCC050

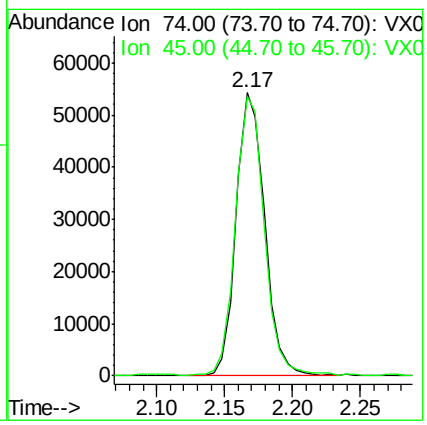
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:13:30 AM

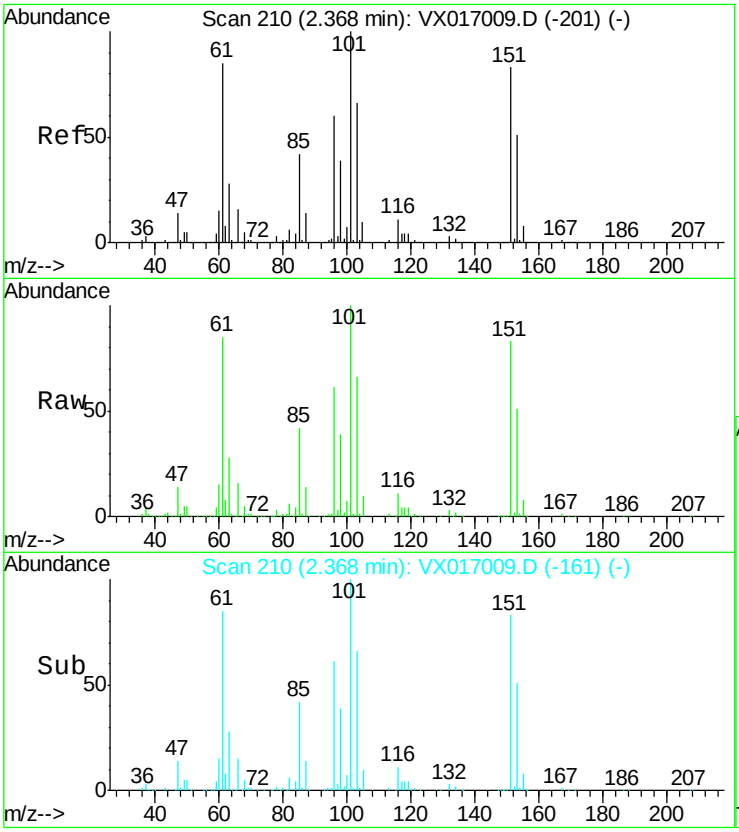


#8
Diethyl Ether
Concen: 47.077 ug/l
RT: 2.17 min Scan# 177
Delta R.T. 0.00 min
Lab File: VX017009.D
Acq: 29 Jun 2020 15:21

Tgt Ion: 74 Resp: 79427

Ion	Ratio	Lower	Upper
74	100		
45	99.5	49.8	149.3

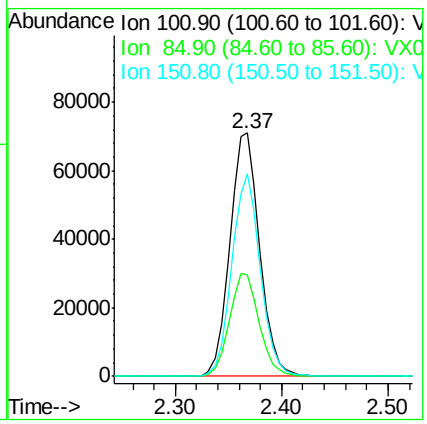




#9
1,1,2-Trichlorotrifluoroethane
Concen: 50.280 ug/l
RT: 2.37 min Scan# 210
Delta R.T. 0.00 min
Lab File: VX017009.D
Acq: 29 Jun 2020 15:21

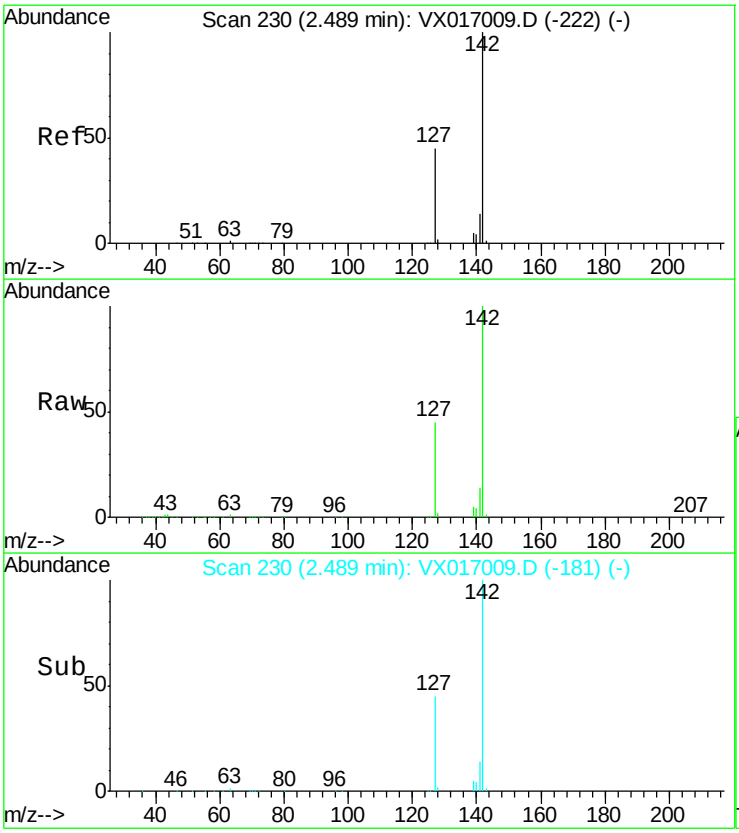
Tgt Ion:101 Resp: 139273

Ion	Ratio	Lower	Upper
101	100		
85	41.9	33.5	50.3
151	79.7	63.8	95.6



Instrument :
MSVOA_X
ClientSampleId :
VSTDICCC050

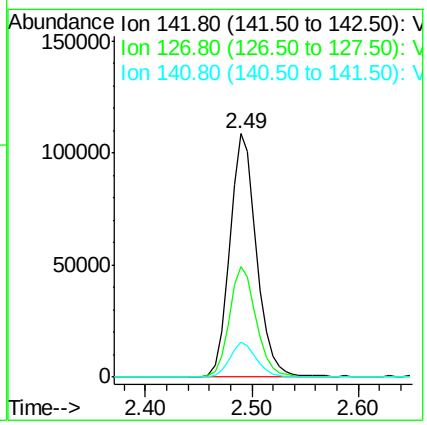
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:13:30 AM

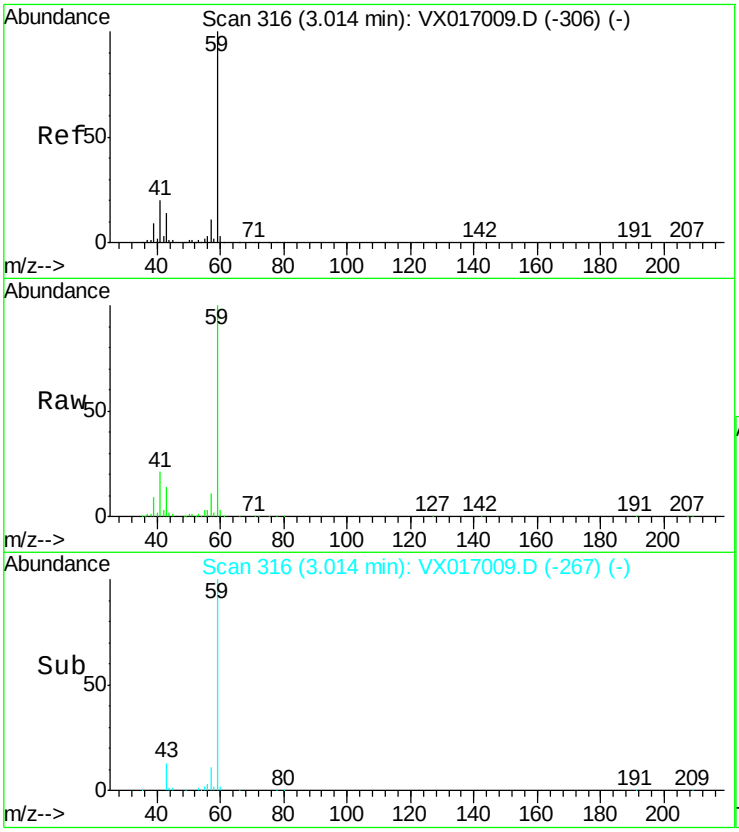


#10
Methyl Iodide
Concen: 53.478 ug/l
RT: 2.49 min Scan# 230
Delta R.T. 0.00 min
Lab File: VX017009.D
Acq: 29 Jun 2020 15:21

Tgt Ion:142 Resp: 191141

Ion	Ratio	Lower	Upper
142	100		
127	45.7	36.6	54.8
141	14.5	11.6	17.4

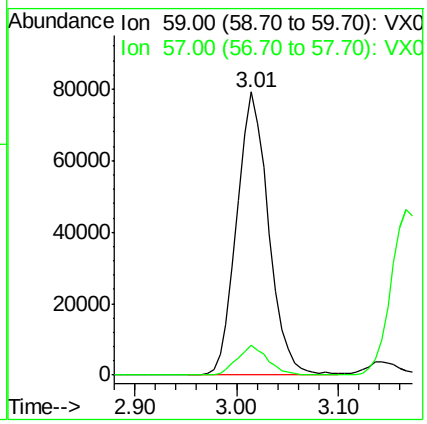




#11
Tert butyl alcohol
Concen: 253.941 ug/l
RT: 3.01 min Scan# 316
Delta R.T. 0.00 min
Lab File: VX017009.D
Acq: 29 Jun 2020 15:21

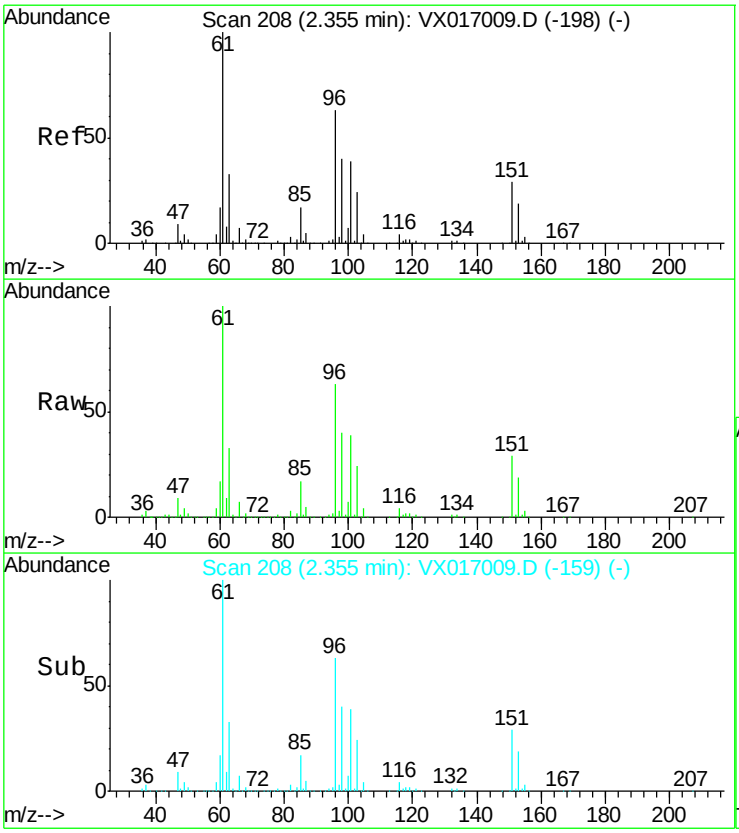
Tgt Ion: 59 Resp: 171768

Ion	Ratio	Lower	Upper
59	100		
57	10.2	8.2	12.2



Instrument :
MSVOA_X
ClientSampleId :
VSTDICCC050

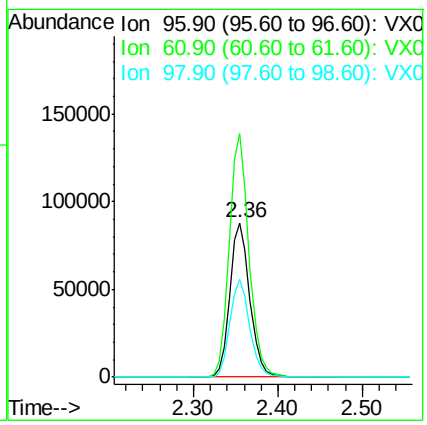
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:13:30 AM

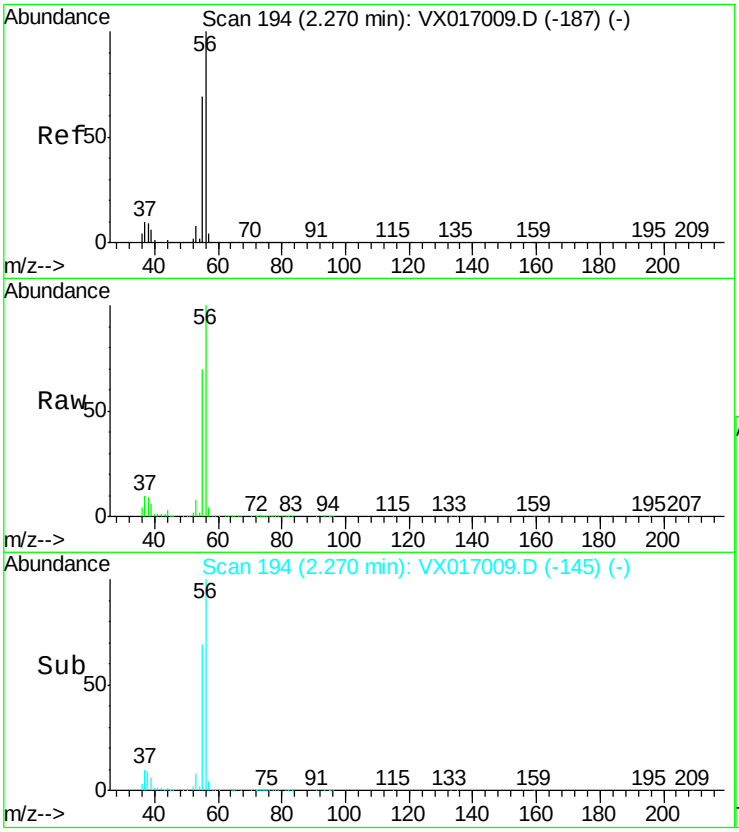


#12
1,1-Dichloroethene
Concen: 49.499 ug/l
RT: 2.36 min Scan# 208
Delta R.T. 0.00 min
Lab File: VX017009.D
Acq: 29 Jun 2020 15:21

Tgt Ion: 96 Resp: 140851

Ion	Ratio	Lower	Upper
96	100		
61	157.9	126.3	189.5
98	63.8	51.0	76.6

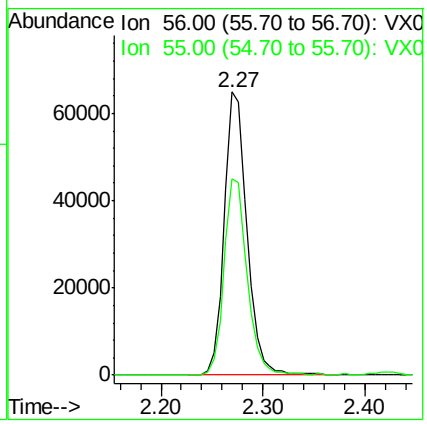




#13
Acrolein
Concen: 248.271 ug/l
RT: 2.27 min Scan# 194
Delta R.T. 0.00 min
Lab File: VX017009.D
Acq: 29 Jun 2020 15:21

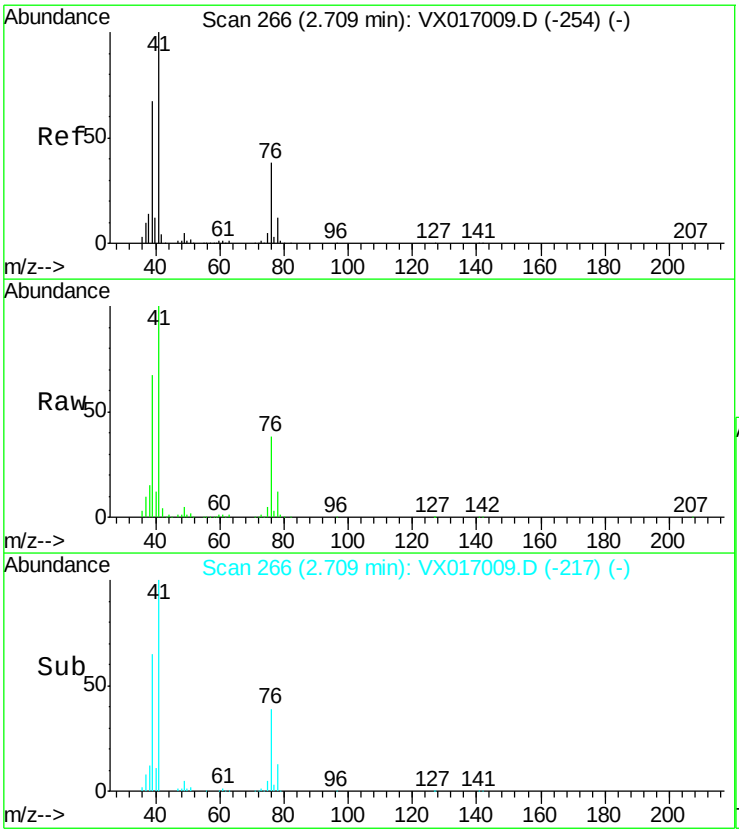
Tgt Ion: 56 Resp: 100387

Ion	Ratio	Lower	Upper
56	100		
55	69.6	55.7	83.5



Instrument :
MSVOA_X
ClientSampleId :
VSTDICCC050

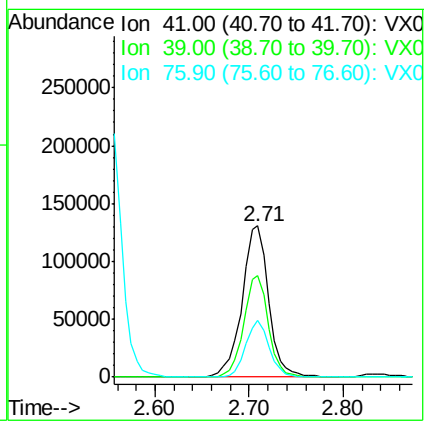
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:13:30 AM



#14
Allyl chloride
Concen: 49.020 ug/l
RT: 2.71 min Scan# 266
Delta R.T. 0.00 min
Lab File: VX017009.D
Acq: 29 Jun 2020 15:21

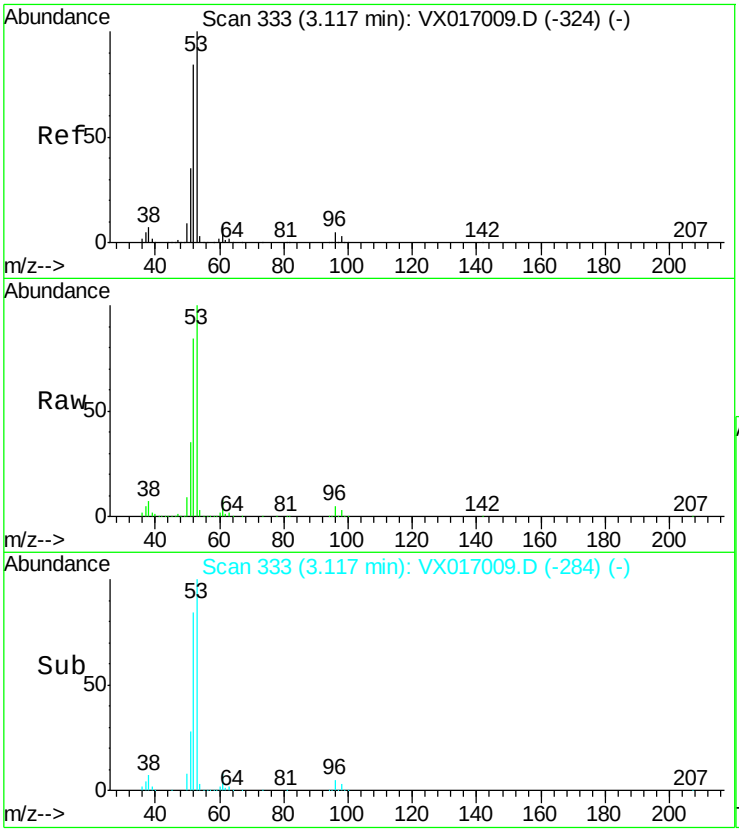
Tgt Ion: 41 Resp: 257782

Ion	Ratio	Lower	Upper
41	100		
39	61.8	49.4	74.2
76	33.5	26.8	40.2



Instrument :
MSVOA_X
ClientSampleId :
VSTDICCC050

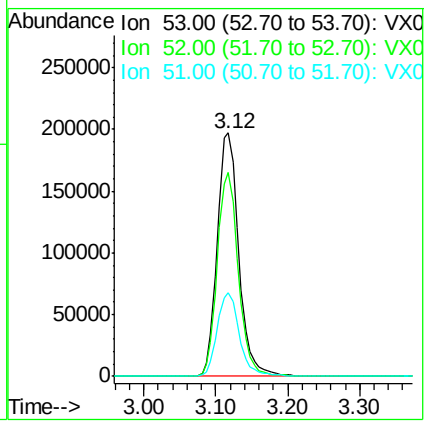
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:13:30 AM

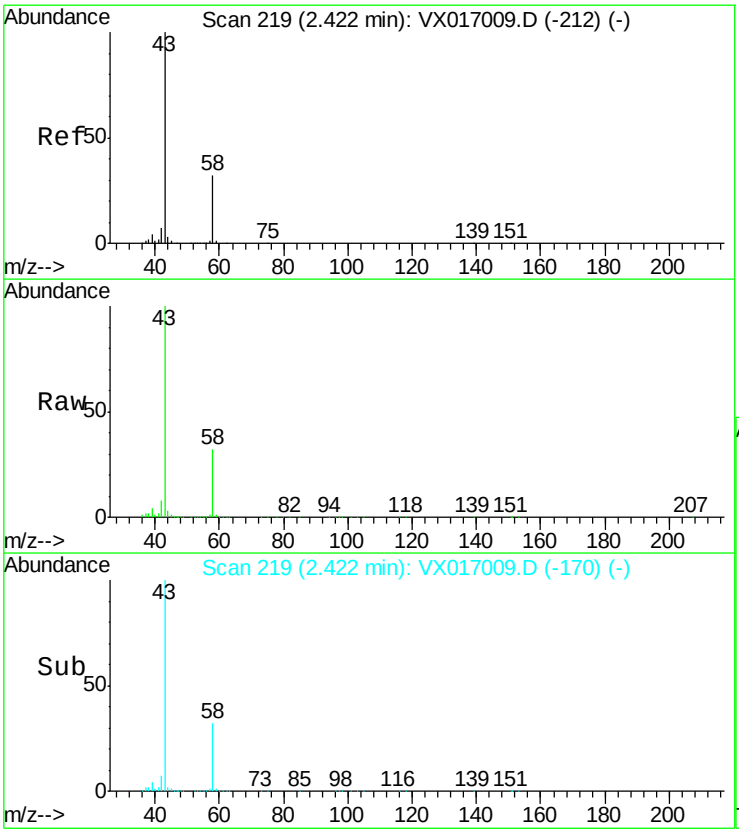


#15
Acrylonitrile
Concen: 252.111 ug/l
RT: 3.12 min Scan# 333
Delta R.T. 0.00 min
Lab File: VX017009.D
Acq: 29 Jun 2020 15:21

Tgt Ion: 53 Resp: 409947

Ion	Ratio	Lower	Upper
53	100		
52	82.0	65.6	98.4
51	35.4	28.3	42.5

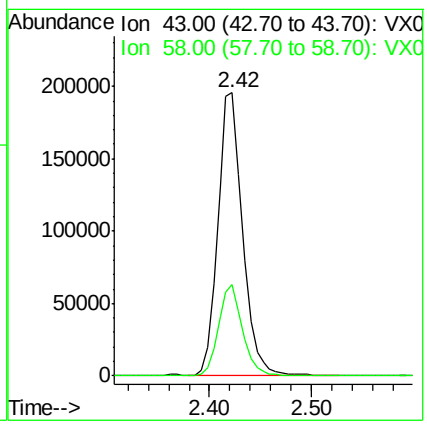


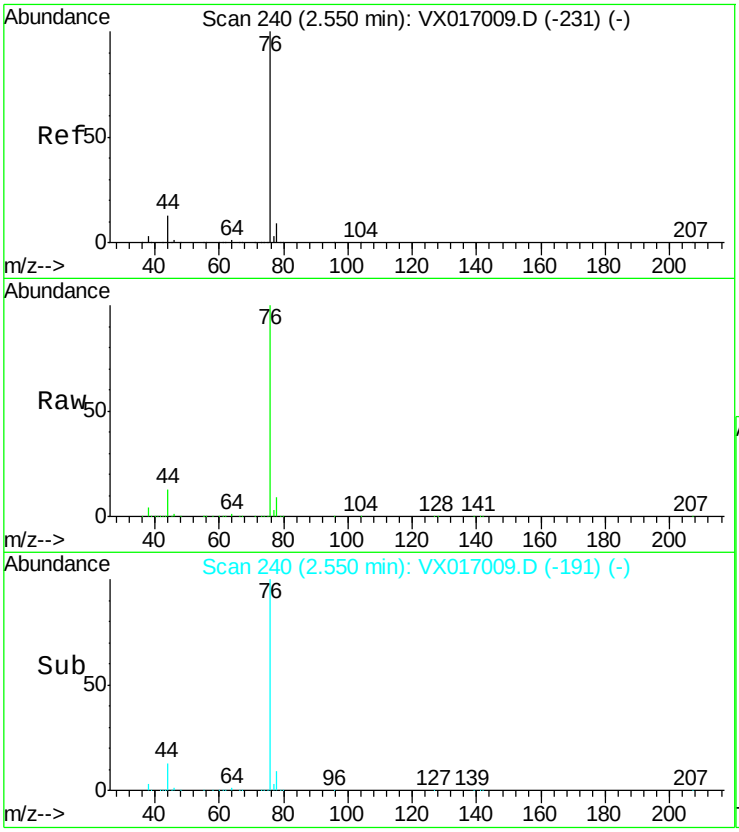


#16
Acetone
Concen: 247.547 ug/l
RT: 2.42 min Scan# 219
Delta R.T. 0.00 min
Lab File: VX017009.D
Acq: 29 Jun 2020 15:21

Tgt Ion: 43 Resp: 328347

Ion	Ratio	Lower	Upper
43	100		
58	32.1	25.7	38.5

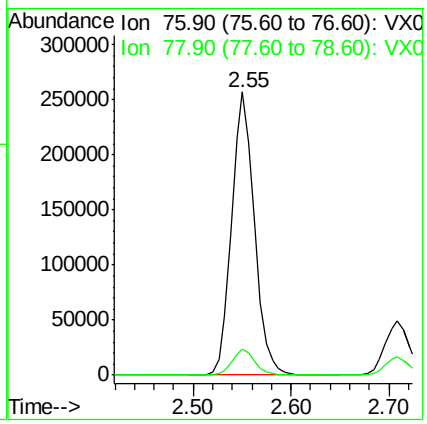


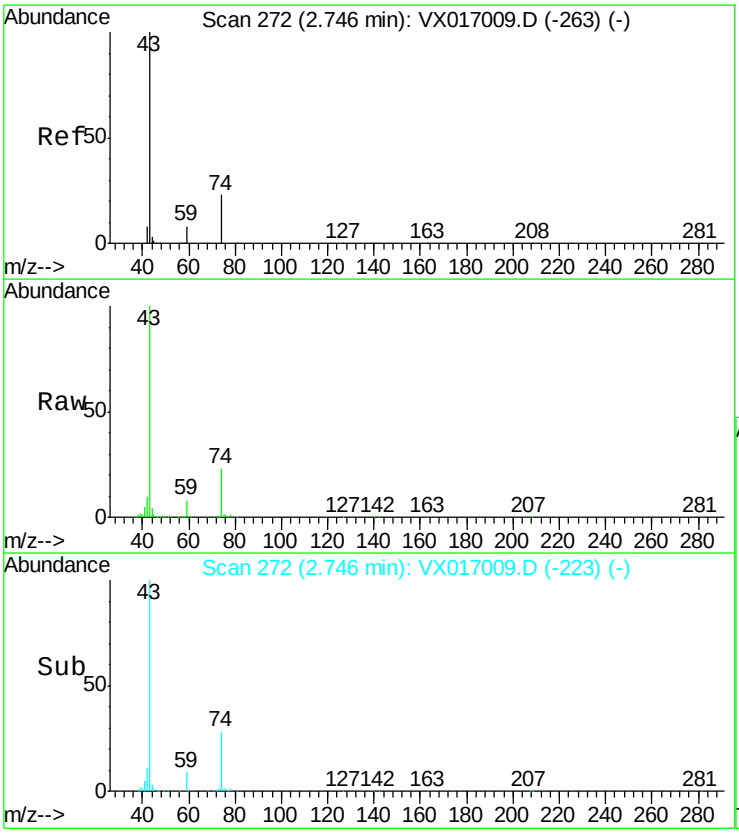


#17
Carbon Disulfide
Concen: 47.660 ug/l
RT: 2.55 min Scan# 240
Delta R.T. 0.00 min
Lab File: VX017009.D
Acq: 29 Jun 2020 15:21

Tgt Ion: 76 Resp: 415382

Ion	Ratio	Lower	Upper
76	100		
78	9.0	7.2	10.8

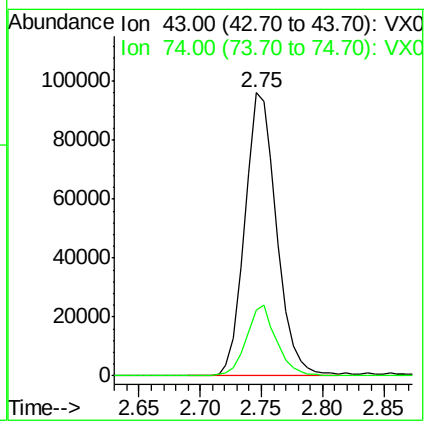




#18
Methyl Acetate
Concen: 49.868 ug/l
RT: 2.75 min Scan# 272
Delta R.T. 0.00 min
Lab File: VX017009.D
Acq: 29 Jun 2020 15:21

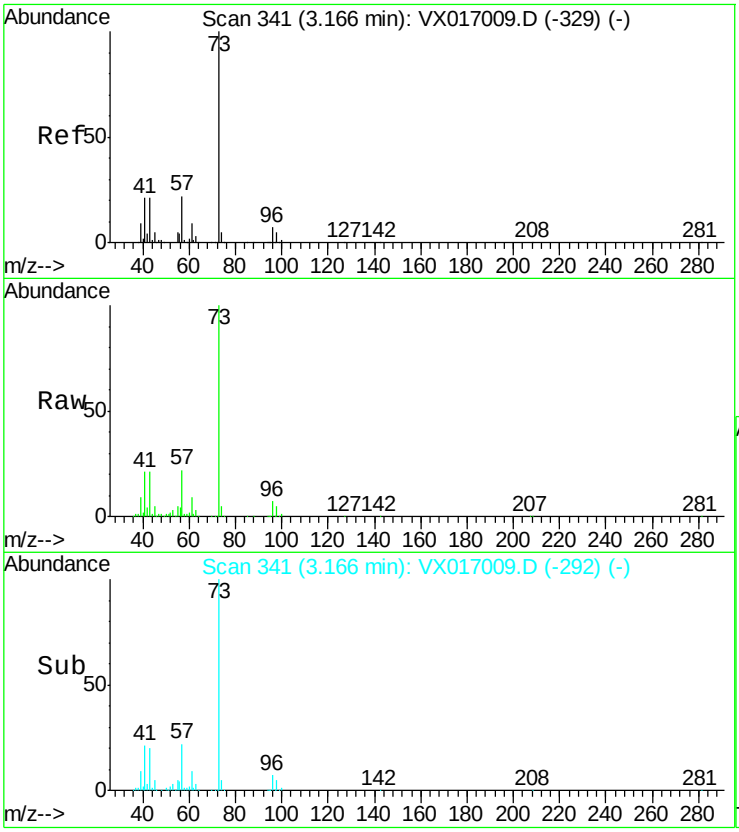
Tgt Ion: 43 Resp: 172673

Ion	Ratio	Lower	Upper
43	100		
74	24.1	19.3	28.9



Instrument :
MSVOA_X
ClientSampleId :
VSTDICCC050

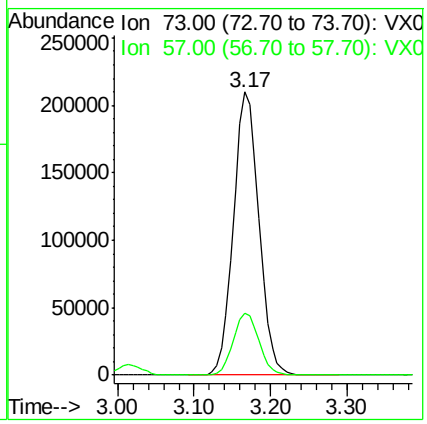
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:13:30 AM



#19
Methyl tert-butyl Ether
Concen: 50.687 ug/l
RT: 3.17 min Scan# 341
Delta R.T. 0.00 min
Lab File: VX017009.D
Acq: 29 Jun 2020 15:21

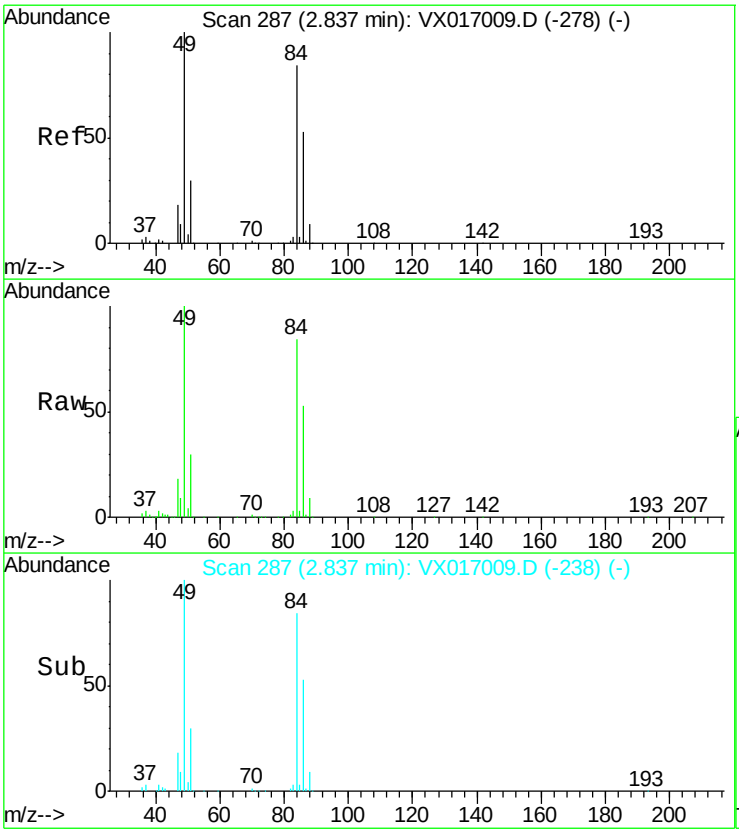
Tgt Ion: 73 Resp: 484062

Ion	Ratio	Lower	Upper
73	100		
57	22.0	17.6	26.4



Instrument :
MSVOA_X
ClientSampleId :
VSTDICCC050

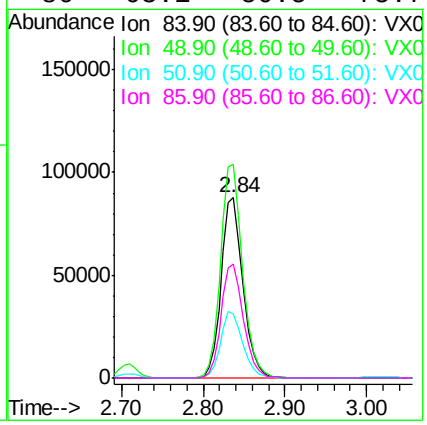
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:13:30 AM

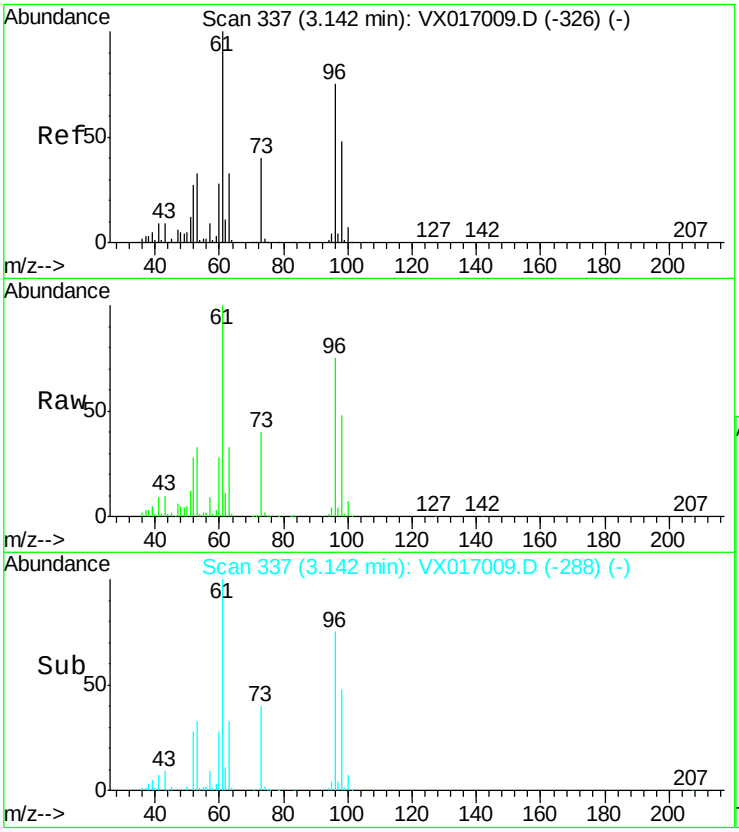


#20
Methylene Chloride
Concen: 48.012 ug/l
RT: 2.84 min Scan# 287
Delta R.T. 0.00 min
Lab File: VX017009.D
Acq: 29 Jun 2020 15:21

Tgt Ion: 84 Resp: 162770

Ion	Ratio	Lower	Upper
84	100		
49	118.4	94.7	142.1
51	35.7	28.6	42.8
86	63.1	50.5	75.7

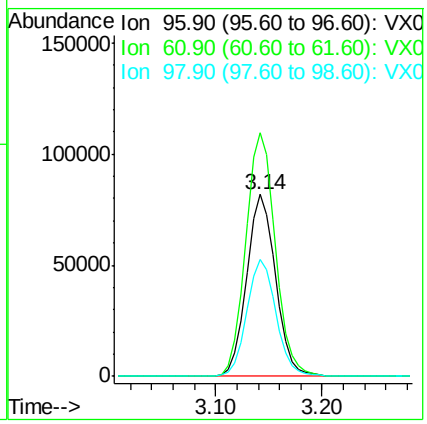




#21
trans-1,2-Dichloroethene
Concen: 49.615 ug/l
RT: 3.14 min Scan# 337
Delta R.T. 0.00 min
Lab File: VX017009.D
Acq: 29 Jun 2020 15:21

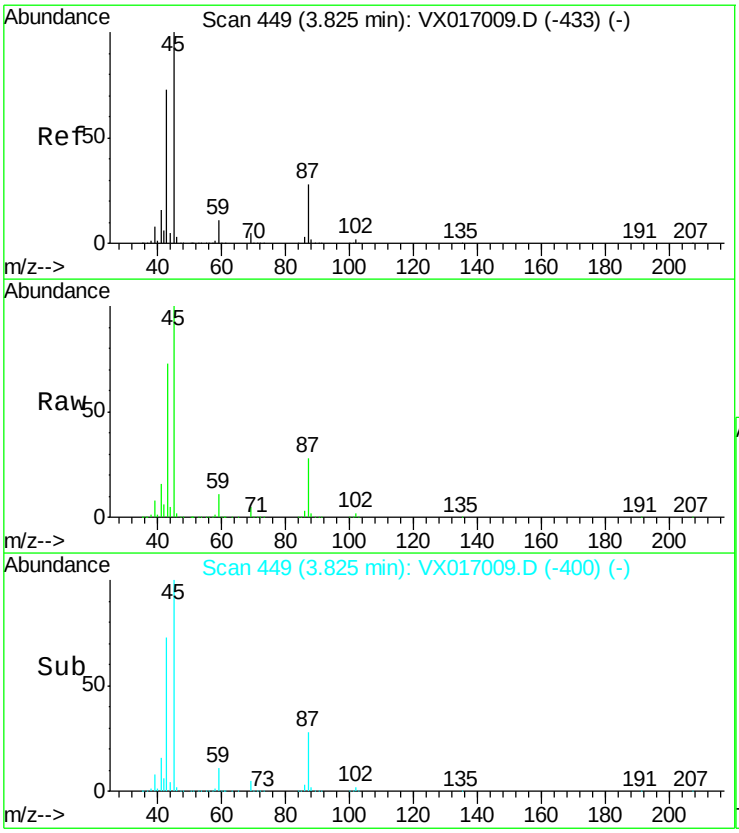
Tgt Ion: 96 Resp: 156675

Ion	Ratio	Lower	Upper
96	100		
61	133.8	107.0	160.6
98	64.5	51.6	77.4



Instrument :
MSVOA_X
ClientSampleId :
VSTDICCC050

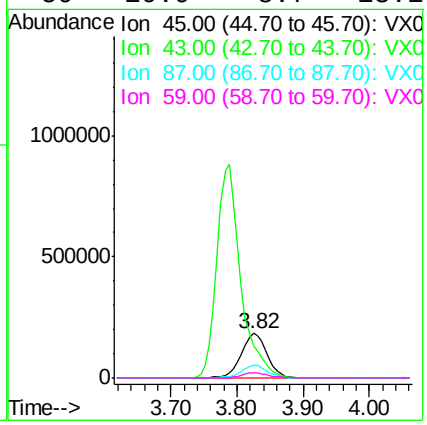
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:13:30 AM



#22
Diisopropyl ether
Concen: 51.397 ug/l
RT: 3.82 min Scan# 449
Delta R.T. 0.00 min
Lab File: VX017009.D
Acq: 29 Jun 2020 15:21

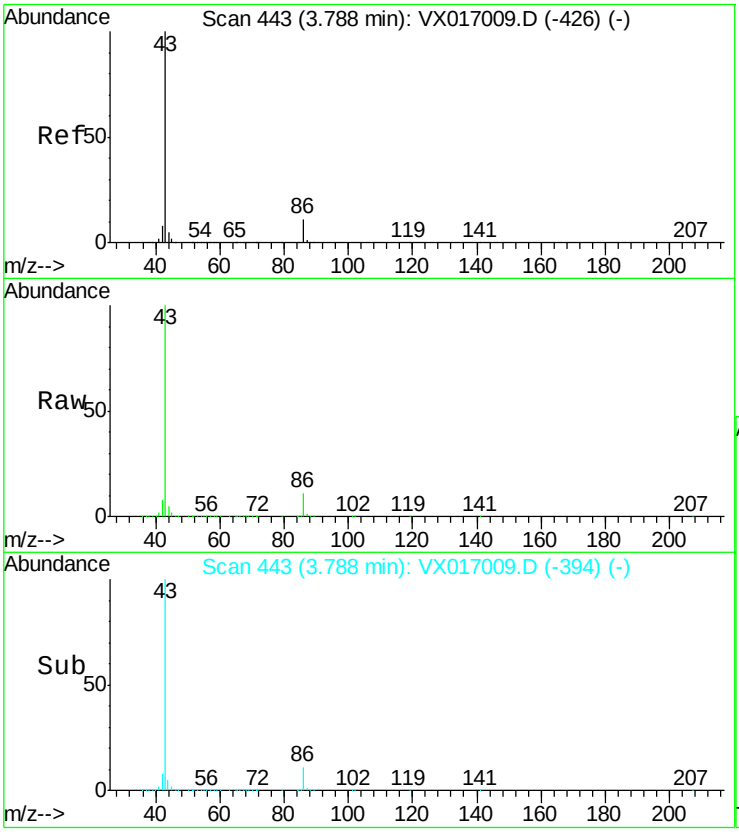
Tgt Ion: 45 Resp: 500252

Ion	Ratio	Lower	Upper
45	100		
43	73.3	58.6	88.0
87	28.3	22.6	34.0
59	10.9	8.7	13.1



Instrument :
MSVOA_X
ClientSampleId :
VSTDICCC050

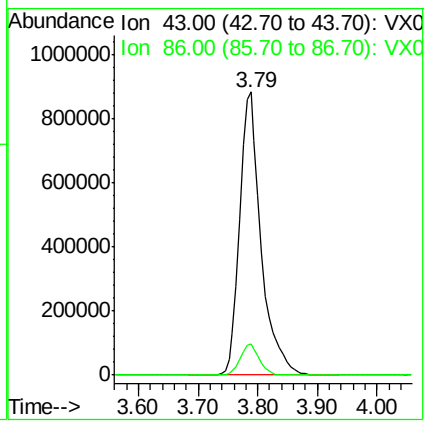
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:13:30 AM

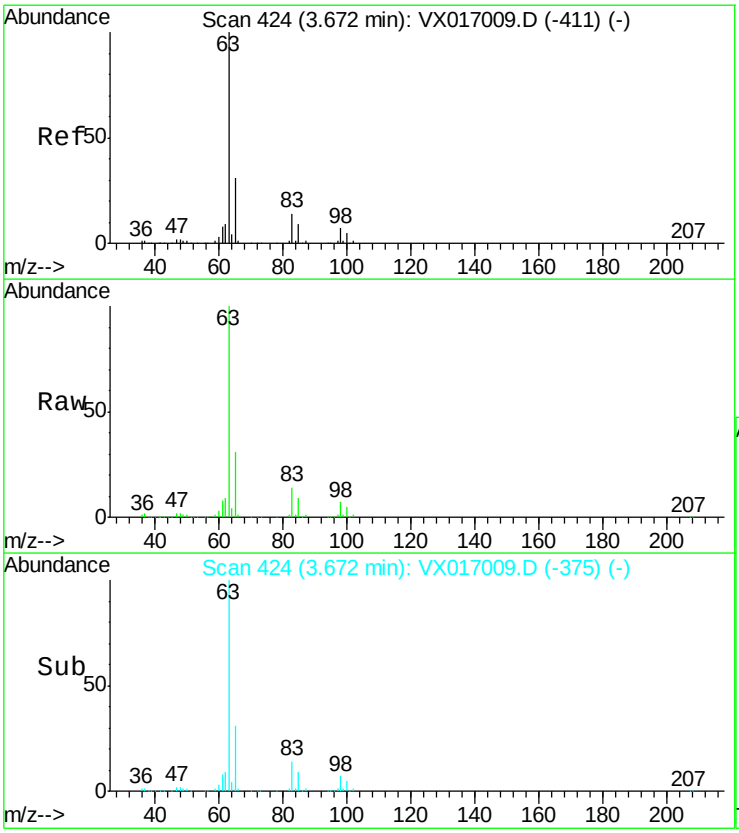


#23
Vinyl Acetate
Concen: 264.200 ug/l
RT: 3.79 min Scan# 443
Delta R.T. 0.00 min
Lab File: VX017009.D
Acq: 29 Jun 2020 15:21

Tgt Ion: 43 Resp: 2209678

Ion	Ratio	Lower	Upper
43	100		
86	10.8	8.6	13.0

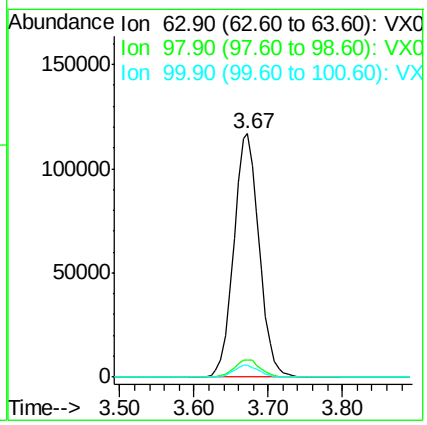


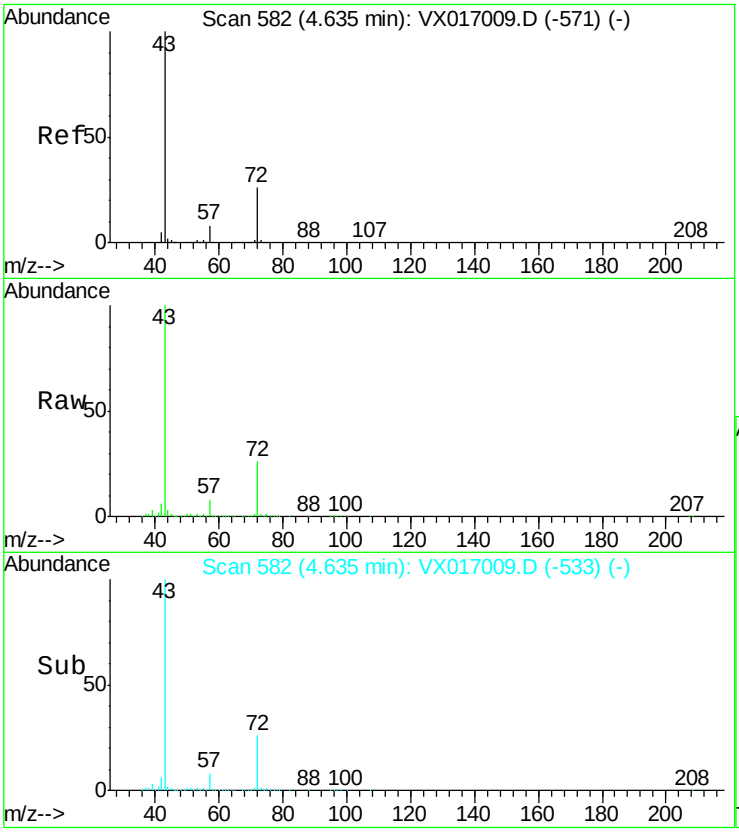


#24
1,1-Dichloroethane
Concen: 50.154 ug/l
RT: 3.67 min Scan# 424
Delta R.T. 0.00 min
Lab File: VX017009.D
Acq: 29 Jun 2020 15:21

Tgt Ion: 63 Resp: 277752

Ion	Ratio	Lower	Upper
63	100		
98	7.2	3.6	10.8
100	4.7	2.4	7.1

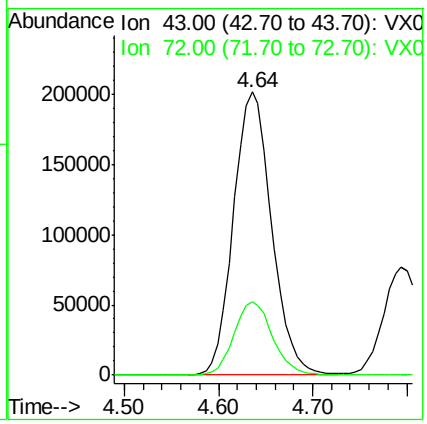




#25
2-Butanone
Concen: 256.706 ug/l
RT: 4.64 min Scan# 582
Delta R.T. 0.00 min
Lab File: VX017009.D
Acq: 29 Jun 2020 15:21

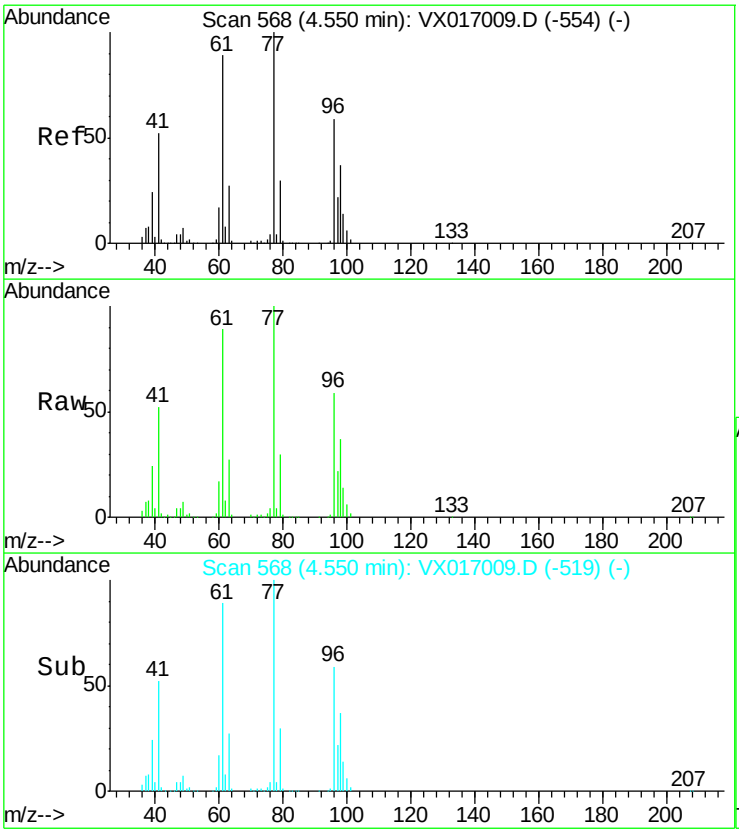
Tgt Ion: 43 Resp: 567354

Ion	Ratio	Lower	Upper
43	100		
72	26.0	20.8	31.2



Instrument :
MSVOA_X
ClientSampleId :
VSTDICCC050

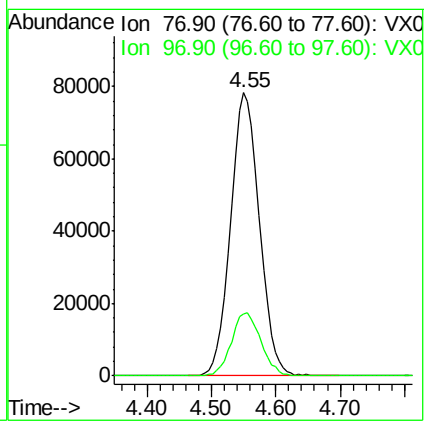
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:13:30 AM



#26
2,2-Dichloropropane
Concen: 49.577 ug/l
RT: 4.55 min Scan# 568
Delta R.T. 0.00 min
Lab File: VX017009.D
Acq: 29 Jun 2020 15:21

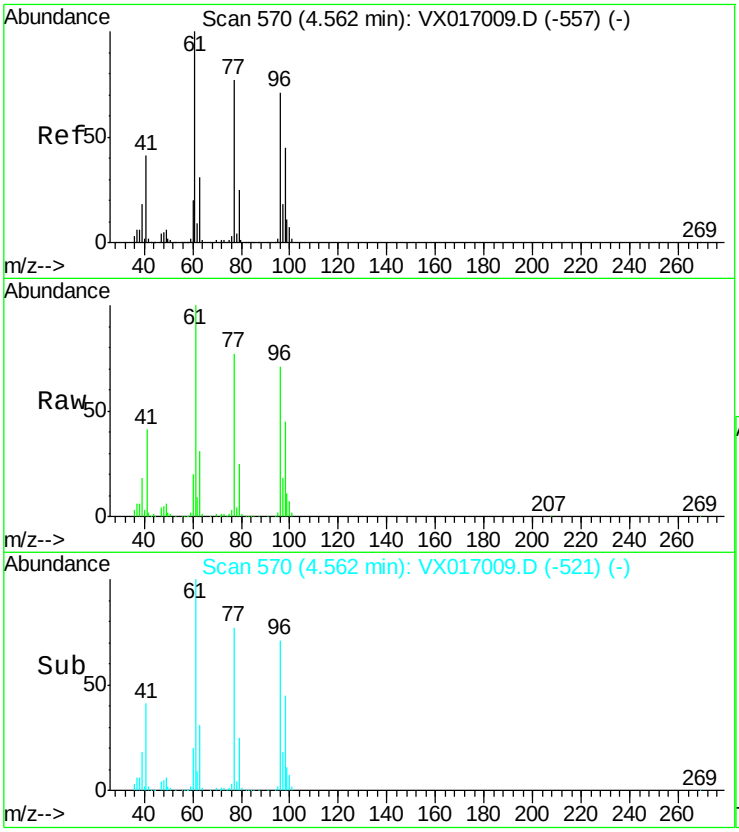
Tgt Ion: 77 Resp: 243781

Ion	Ratio	Lower	Upper
77	100		
97	22.8	11.4	34.2



Instrument :
MSVOA_X
ClientSampleId :
VSTDICCC050

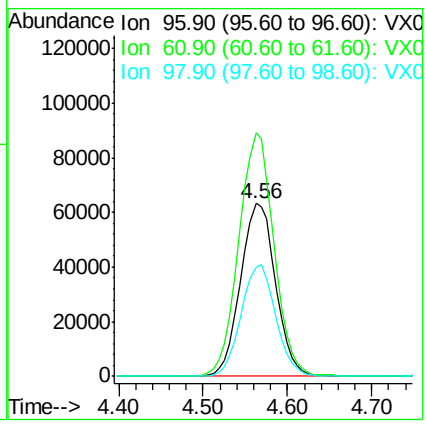
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:13:30 AM

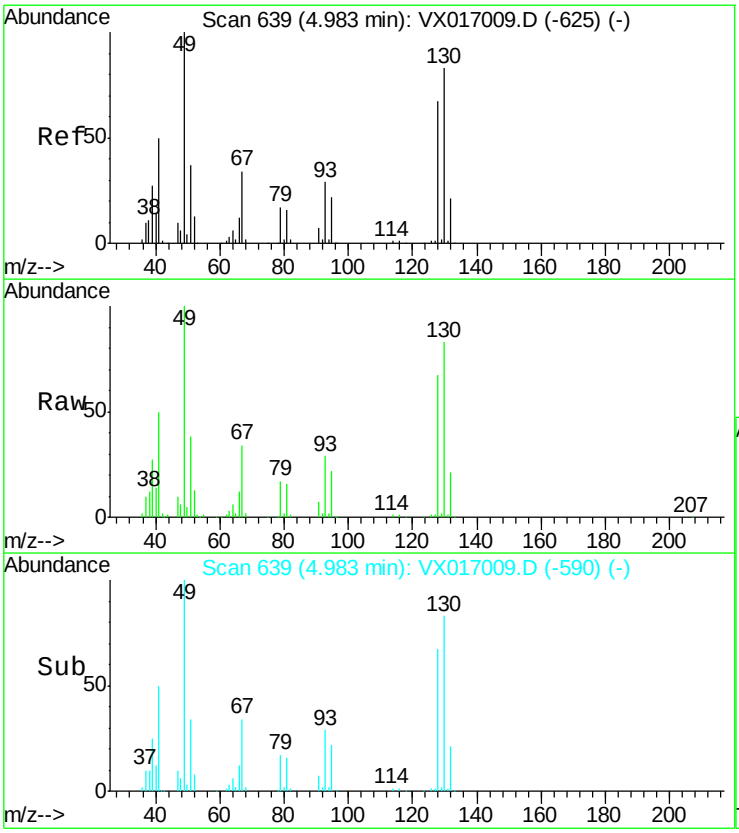


#27
cis-1,2-Dichloroethene
Concen: 49.776 ug/l
RT: 4.56 min Scan# 570
Delta R.T. 0.00 min
Lab File: VX017009.D
Acq: 29 Jun 2020 15:21

Tgt Ion: 96 Resp: 178098

Ion	Ratio	Lower	Upper
96	100		
61	141.4	0.0	282.8
98	63.8	0.0	127.6

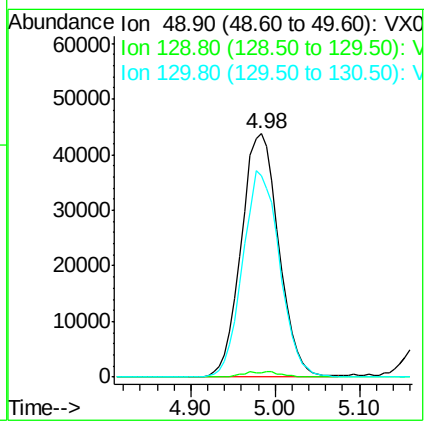


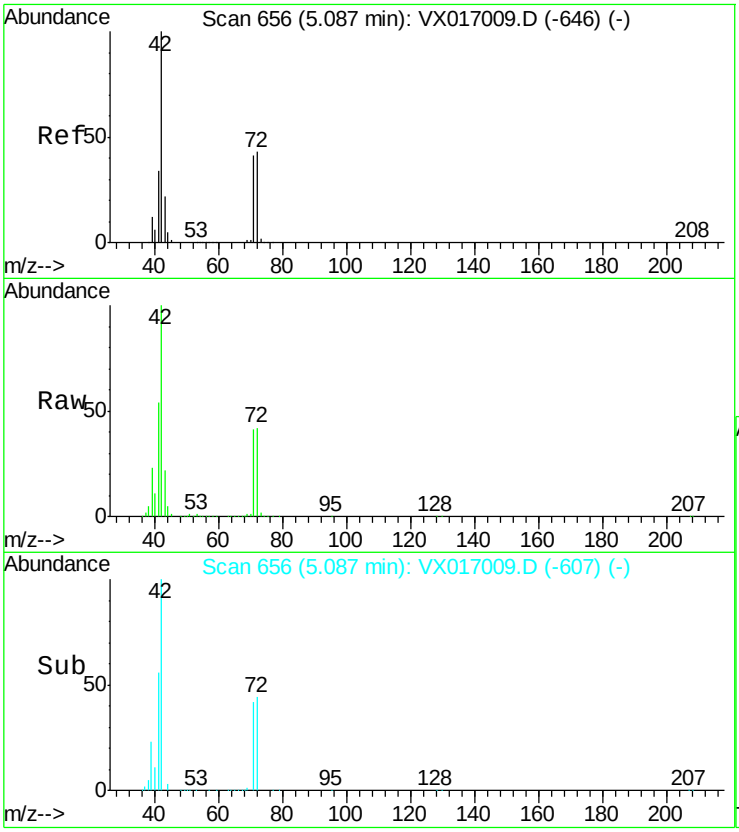


#28
Bromochloromethane
Concen: 49.182 ug/l
RT: 4.98 min Scan# 639
Delta R.T. 0.00 min
Lab File: VX017009.D
Acq: 29 Jun 2020 15:21

Tgt Ion: 49 Resp: 132541

Ion	Ratio	Lower	Upper
49	100		
129	2.1	0.0	4.2
130	83.3	66.6	100.0

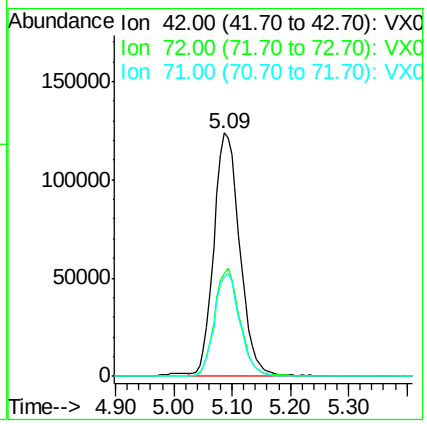




#29
Tetrahydrofuran
Concen: 260.752 ug/l
RT: 5.09 min Scan# 656
Delta R.T. 0.00 min
Lab File: VX017009.D
Acq: 29 Jun 2020 15:21

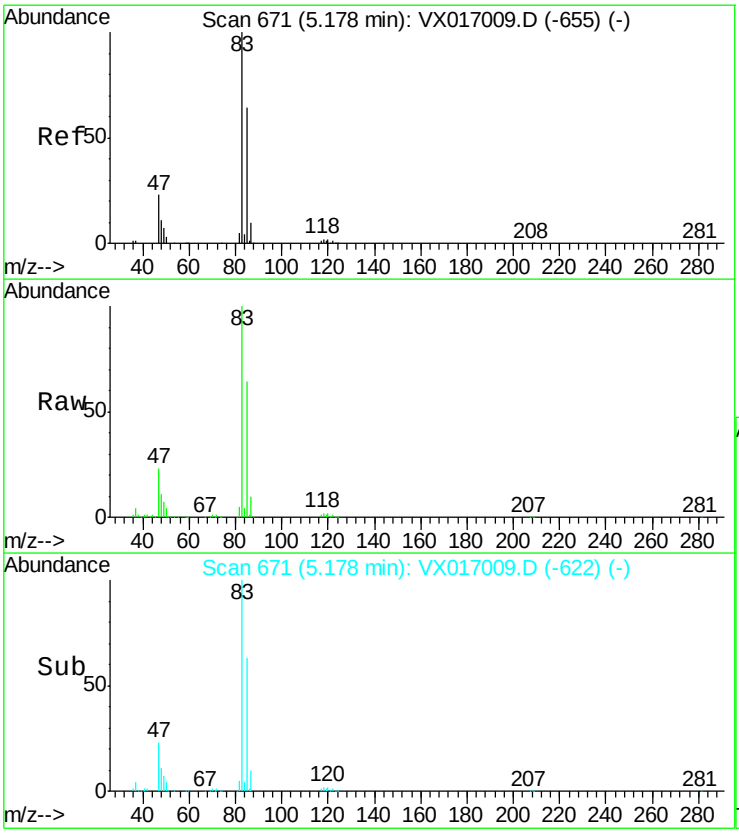
Tgt Ion: 42 Resp: 380770

Ion	Ratio	Lower	Upper
42	100		
72	44.1	35.3	52.9
71	41.4	33.1	49.7



Instrument :
MSVOA_X
ClientSampleId :
VSTDICCC050

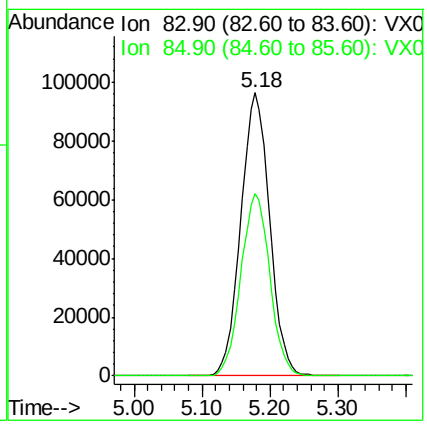
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:13:30 AM

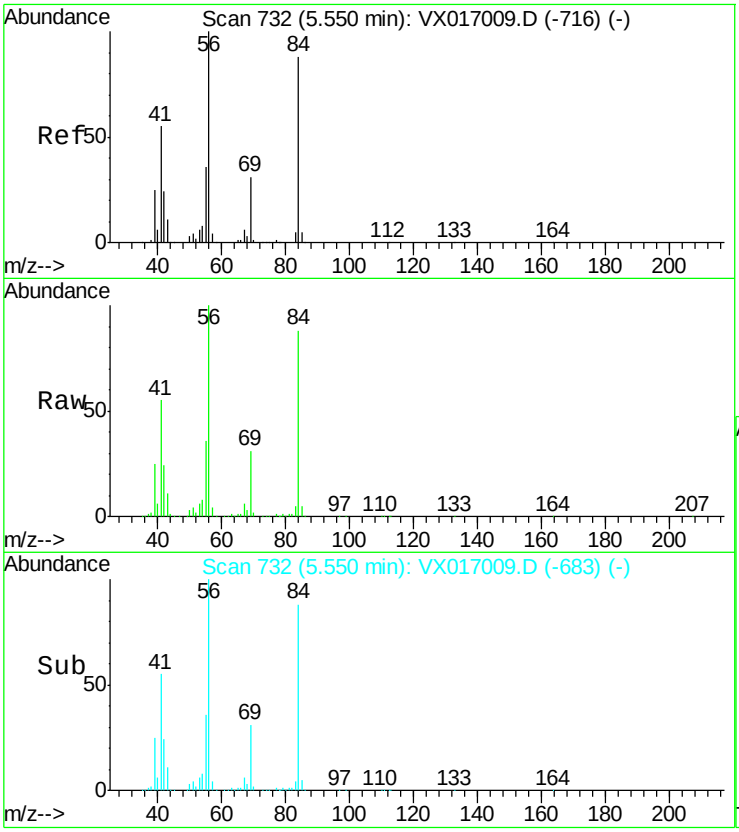


#30
Chloroform
Concen: 50.090 ug/l
RT: 5.18 min Scan# 671
Delta R.T. 0.00 min
Lab File: VX017009.D
Acq: 29 Jun 2020 15:21

Tgt Ion: 83 Resp: 284364

Ion	Ratio	Lower	Upper
83	100		
85	64.3	51.4	77.2

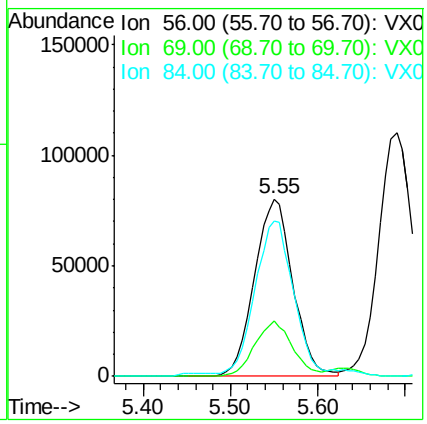




#31
Cyclohexane
Concen: 51.374 ug/l
RT: 5.55 min Scan# 732
Delta R.T. 0.00 min
Lab File: VX017009.D
Acq: 29 Jun 2020 15:21

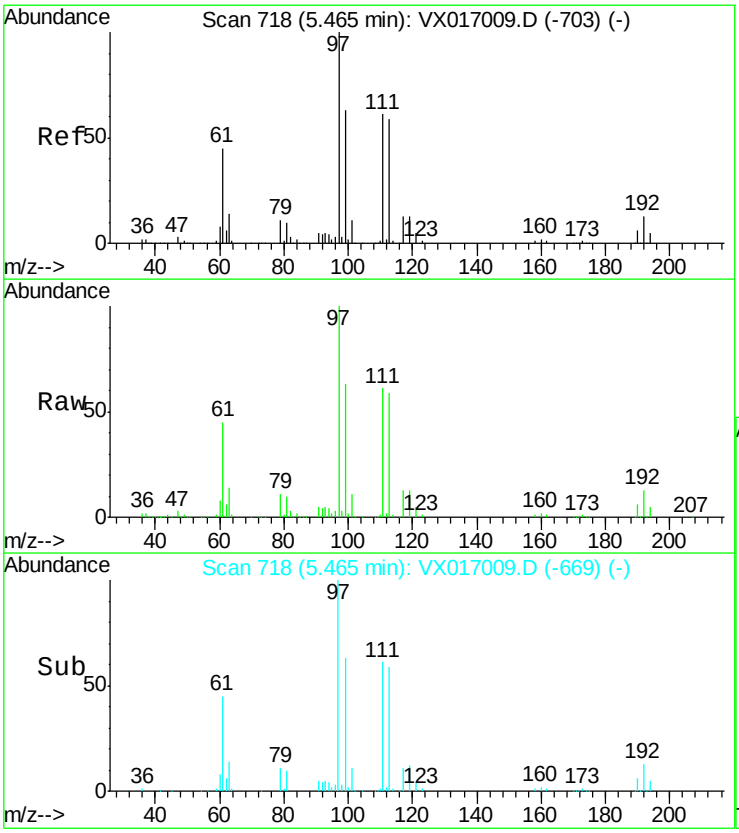
Tgt Ion: 56 Resp: 245926

Ion	Ratio	Lower	Upper
56	100		
69	31.2	25.0	37.4
84	86.4	69.1	103.7



Instrument :
MSVOA_X
ClientSampleId :
VSTDICCC050

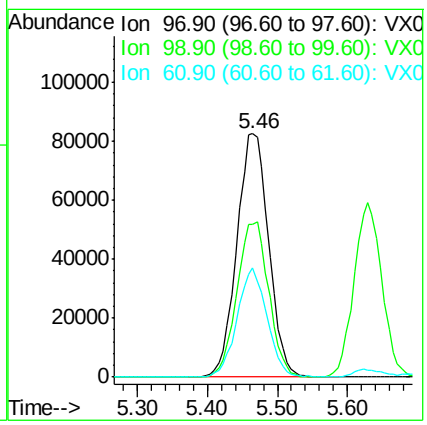
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:13:30 AM

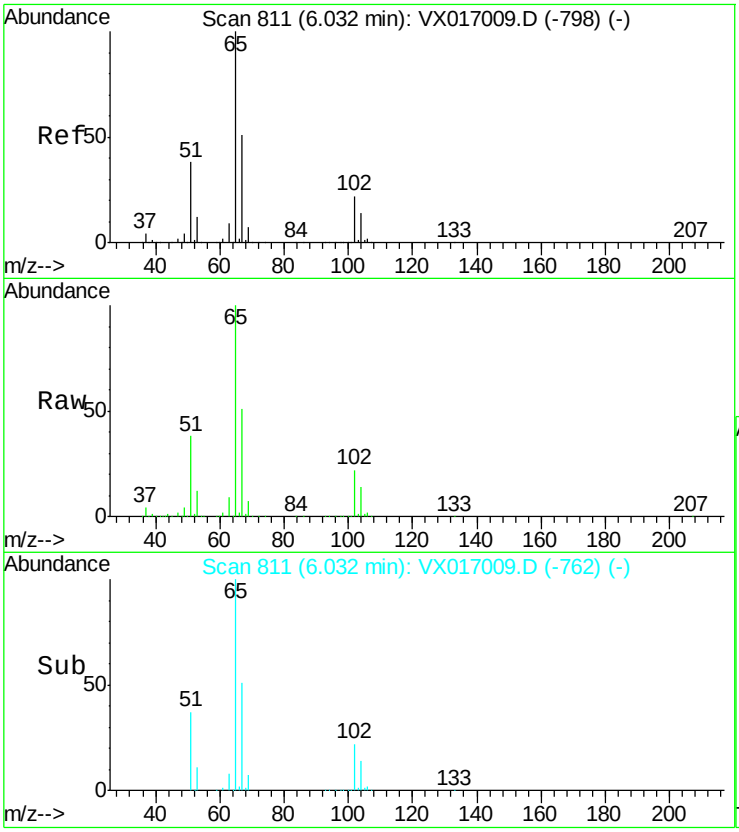


#32
1,1,1-Trichloroethane
Concen: 49.932 ug/l
RT: 5.46 min Scan# 718
Delta R.T. 0.00 min
Lab File: VX017009.D
Acq: 29 Jun 2020 15:21

Tgt Ion: 97 Resp: 261063

Ion	Ratio	Lower	Upper
97	100		
99	63.5	50.8	76.2
61	42.1	33.7	50.5

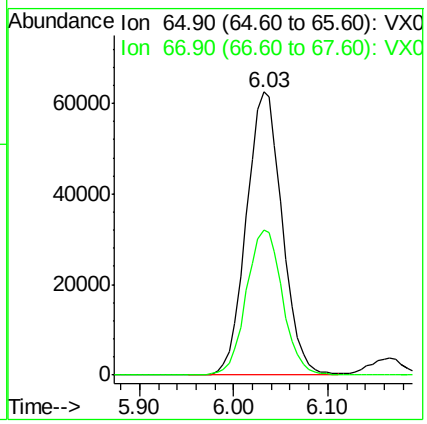




#33
1,2-Dichloroethane-d4
Concen: 46.983 ug/l
RT: 6.03 min Scan# 811
Delta R.T. 0.00 min
Lab File: VX017009.D
Acq: 29 Jun 2020 15:21

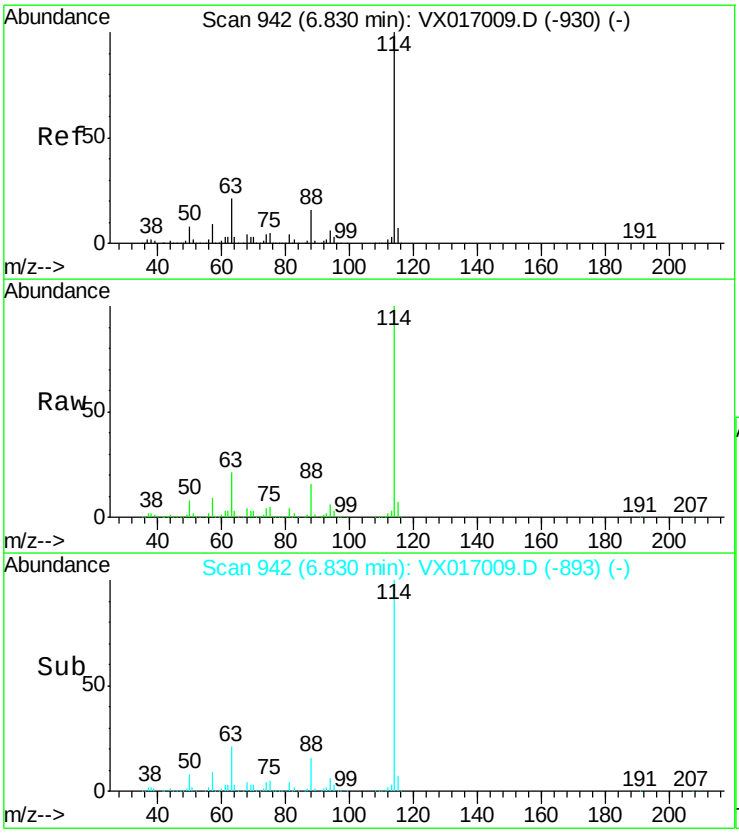
Tgt Ion: 65 Resp: 166587

Ion	Ratio	Lower	Upper
65	100		
67	51.9	0.0	103.8



Instrument :
MSVOA_X
ClientSampleId :
VSTDICCC050

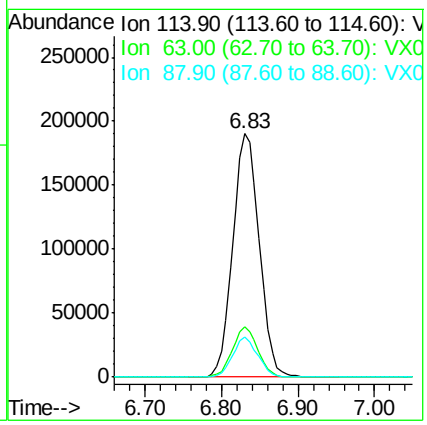
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:13:30 AM

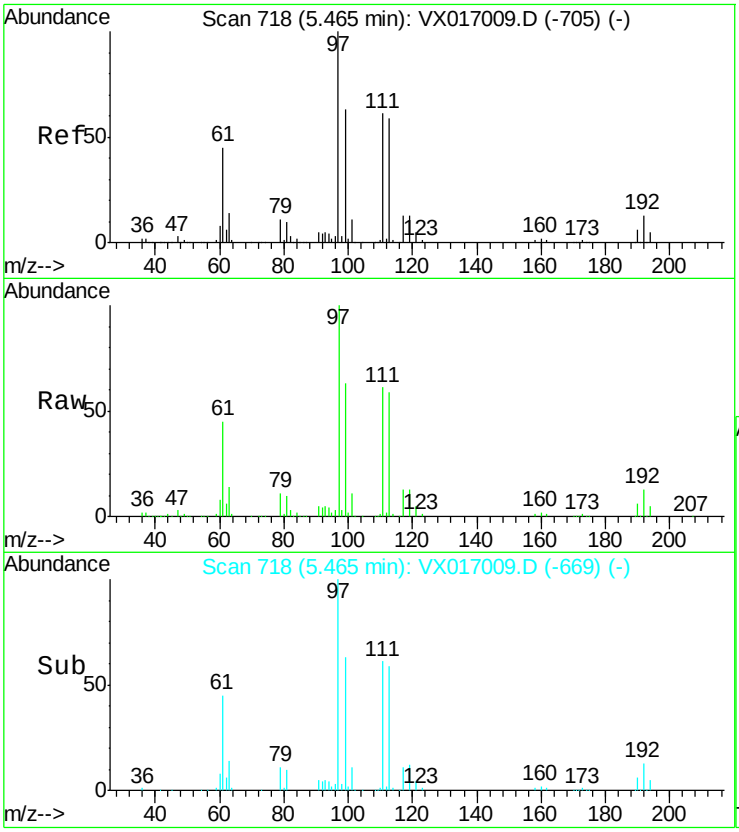


#34
1,4-Difluorobenzene
Concen: 50.000 ug/l
RT: 6.83 min Scan# 942
Delta R.T. 0.00 min
Lab File: VX017009.D
Acq: 29 Jun 2020 15:21

Tgt Ion:114 Resp: 454479

Ion	Ratio	Lower	Upper
114	100		
63	20.7	0.0	41.4
88	16.2	0.0	32.4

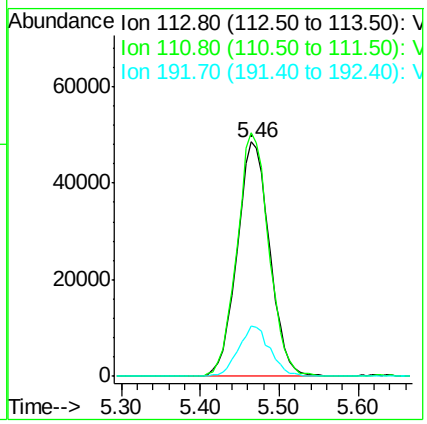


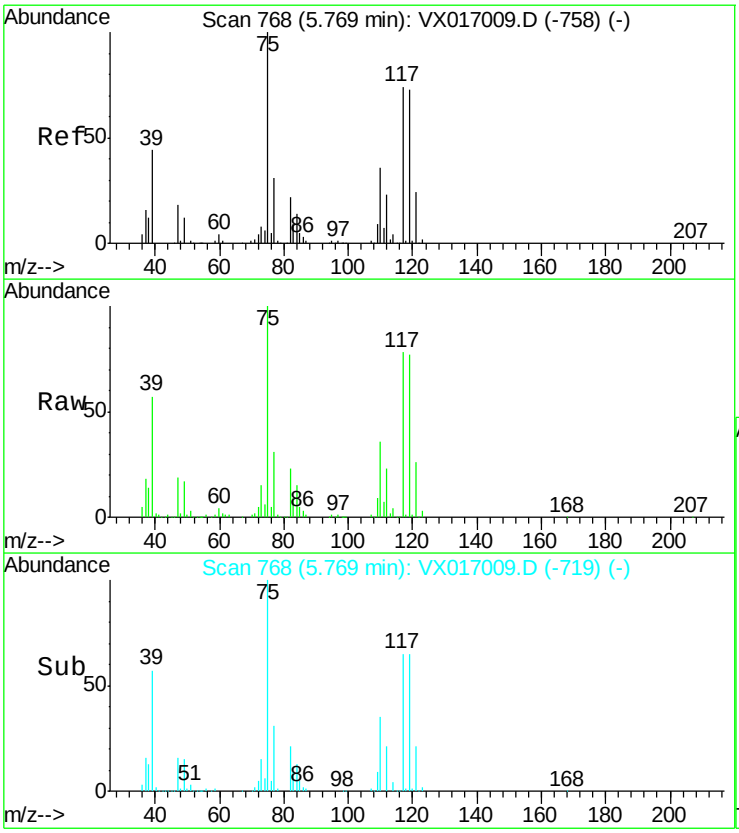


#35
Dibromofluoromethane
Concen: 48.317 ug/l
RT: 5.46 min Scan# 718
Delta R.T. 0.00 min
Lab File: VX017009.D
Acq: 29 Jun 2020 15:21

Tgt Ion:113 Resp: 138905

Ion	Ratio	Lower	Upper
113	100		
111	102.4	81.9	122.9
192	20.9	16.7	25.1

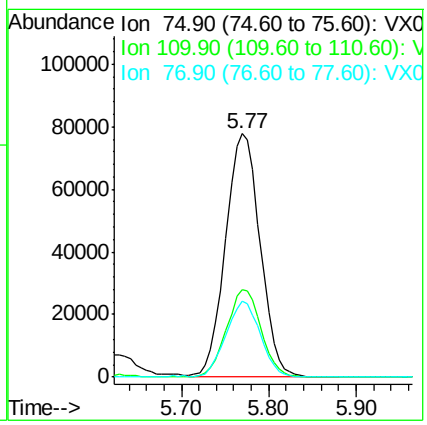




#36
1,1-Dichloropropene
Concen: 49.789 ug/l
RT: 5.77 min Scan# 768
Delta R.T. 0.00 min
Lab File: VX017009.D
Acq: 29 Jun 2020 15:21

Tgt Ion: 75 Resp: 213862

Ion	Ratio	Lower	Upper
75	100		
110	36.1	18.1	54.1
77	30.8	24.6	37.0

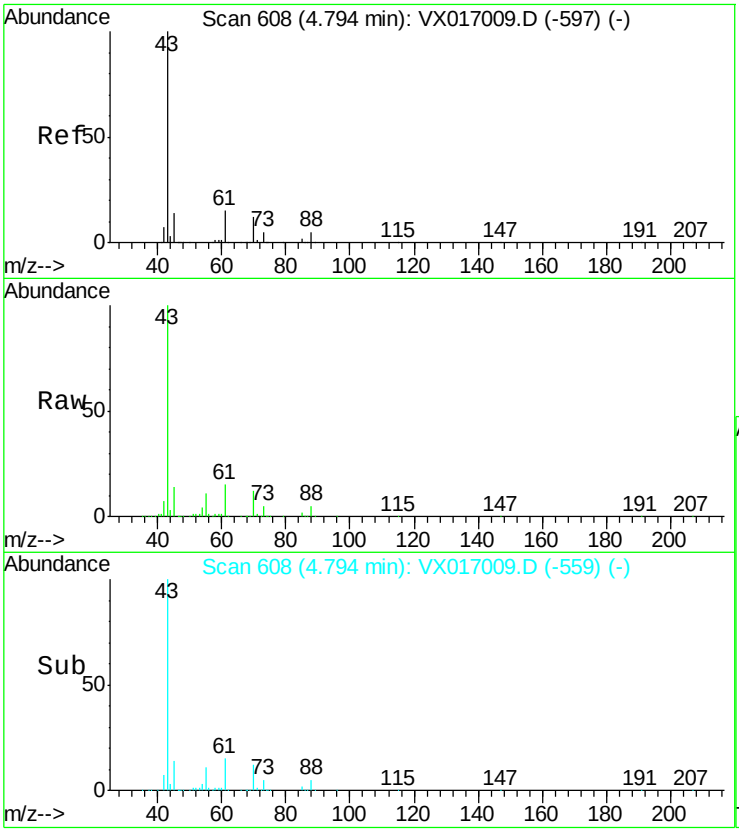


Instrument :
MSVOA_X
ClientSampleId :
VSTDICCC050

Manual Integrations APPROVED
MMDadoda
6/30/2020 10:13:30 AM

Instrument :
MSVOA_X
ClientSampleId :
VSTDICCC050

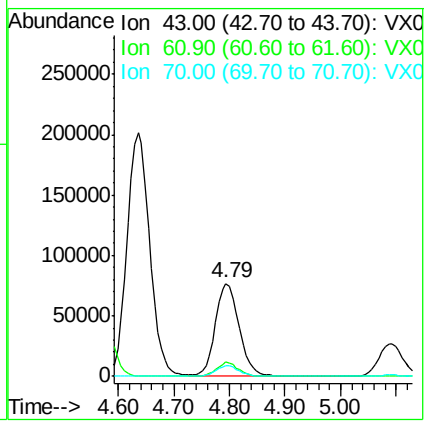
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:13:30 AM

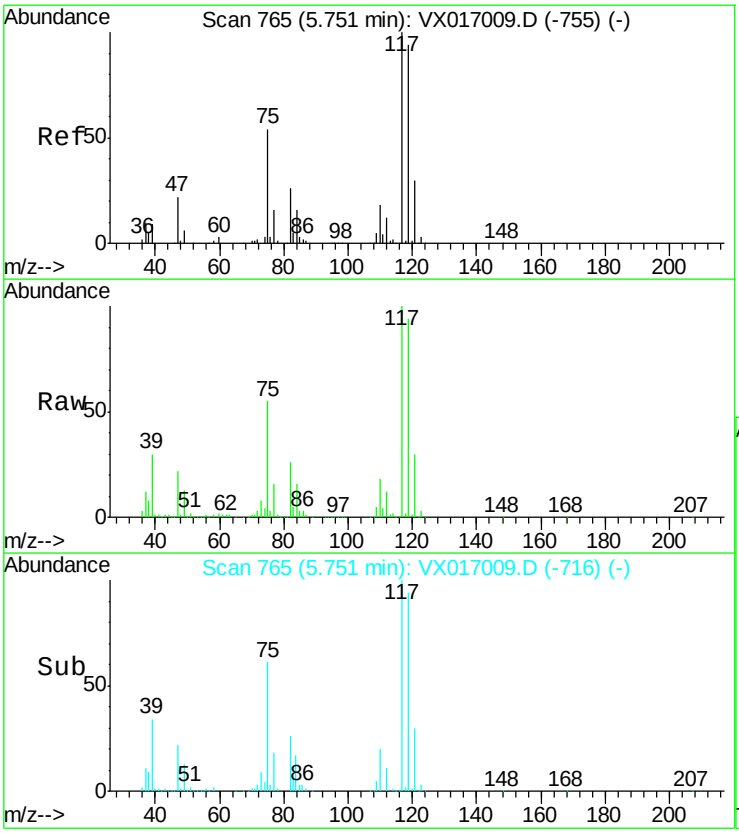


#37
Ethyl Acetate
Concen: 52.262 ug/l
RT: 4.79 min Scan# 608
Delta R.T. 0.00 min
Lab File: VX017009.D
Acq: 29 Jun 2020 15:21

Tgt Ion: 43 Resp: 227765

Ion	Ratio	Lower	Upper
43	100		
61	13.7	11.0	16.4
70	11.1	8.9	13.3

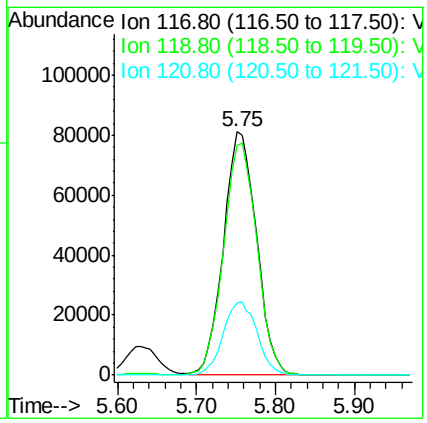


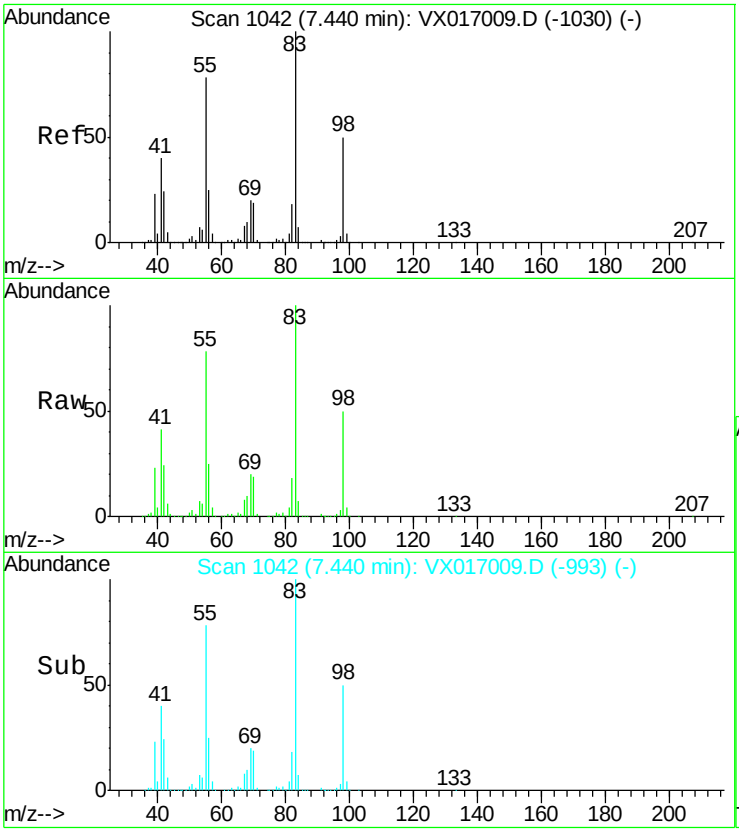


#38
Carbon Tetrachloride
Concen: 50.094 ug/l
RT: 5.75 min Scan# 765
Delta R.T. 0.00 min
Lab File: VX017009.D
Acq: 29 Jun 2020 15:21

Tgt Ion:117 Resp: 236997

Ion	Ratio	Lower	Upper
117	100		
119	94.2	75.4	113.0
121	29.7	23.8	35.6

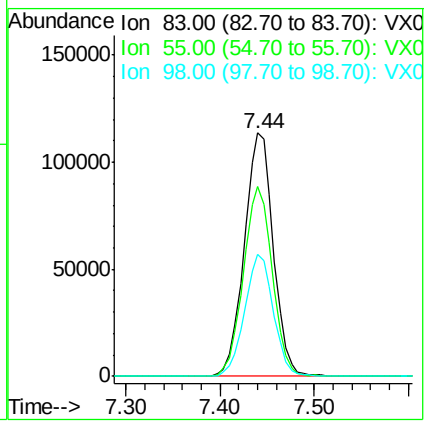


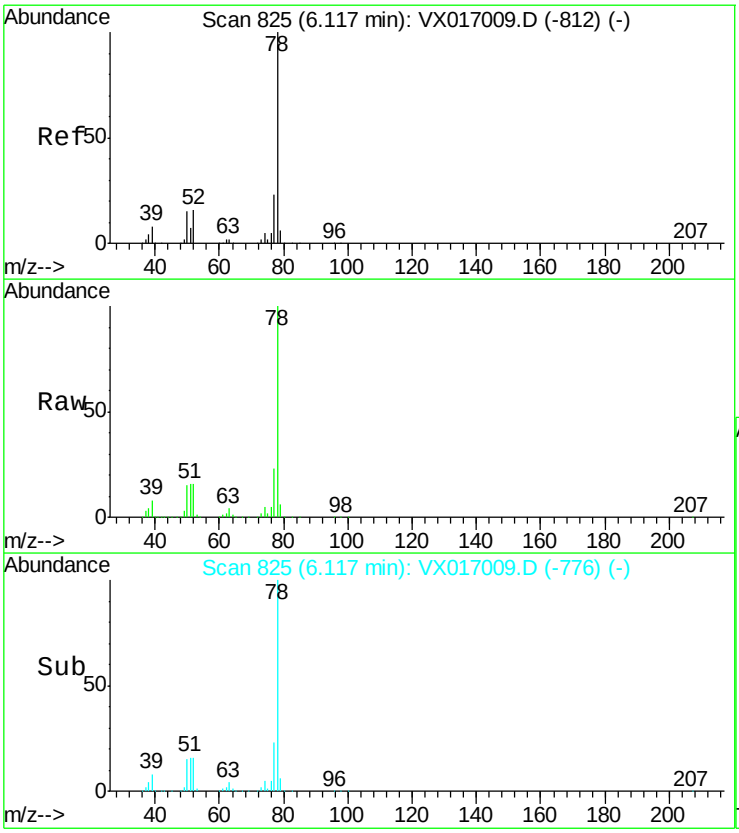


#39
Methylcyclohexane
Concen: 51.386 ug/l
RT: 7.44 min Scan# 1042
Delta R.T. 0.00 min
Lab File: VX017009.D
Acq: 29 Jun 2020 15:21

Tgt Ion: 83 Resp: 245583

Ion	Ratio	Lower	Upper
83	100		
55	78.1	62.5	93.7
98	50.1	40.1	60.1

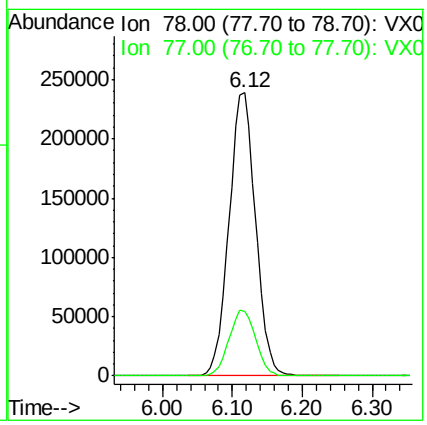




#40
Benzene
Concen: 49.934 ug/l
RT: 6.12 min Scan# 825
Delta R.T. 0.00 min
Lab File: VX017009.D
Acq: 29 Jun 2020 15:21

Tgt Ion: 78 Resp: 630189

Ion	Ratio	Lower	Upper
78	100		
77	22.9	18.3	27.5

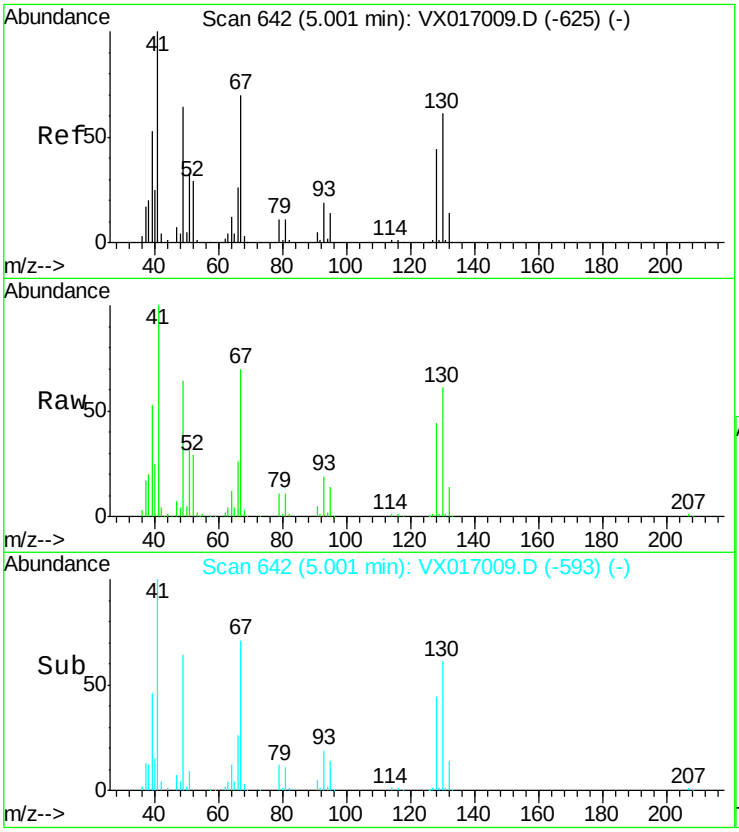


Instrument :
MSVOA_X
ClientSampleId :
VSTDICCC050

Manual Integrations APPROVED
MMDadoda
6/30/2020 10:13:30 AM

Instrument :
MSVOA_X
ClientSampleId :
VSTDICCC050

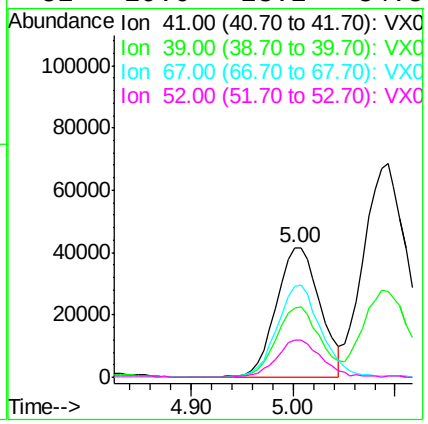
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:13:30 AM

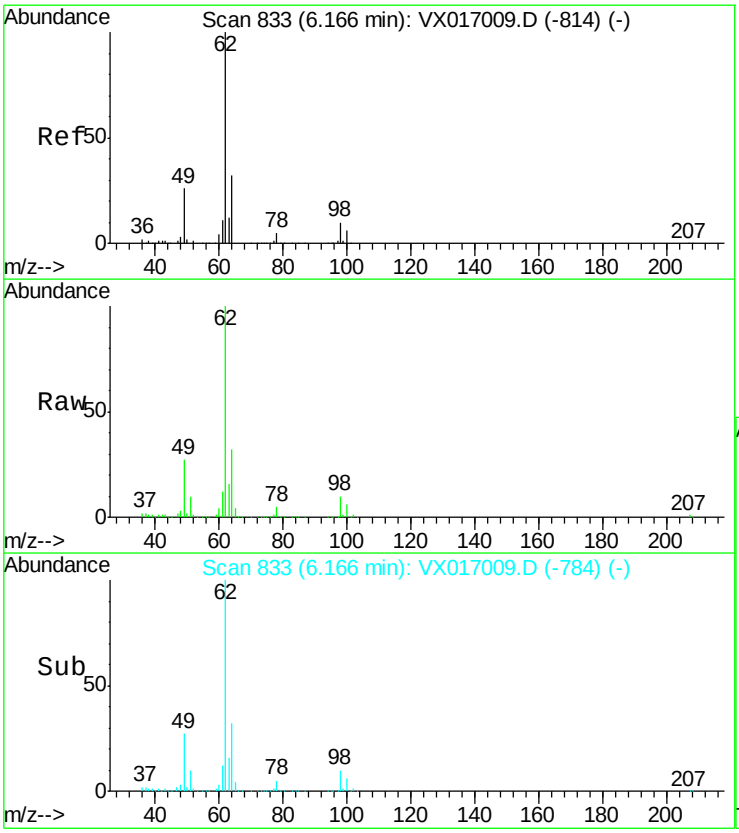


#41
Methacrylonitrile
Concen: 50.460 ug/l
RT: 5.00 min Scan# 642
Delta R.T. 0.00 min
Lab File: VX017009.D
Acq: 29 Jun 2020 15:21

Tgt Ion: 41 Resp: 123771

Ion	Ratio	Lower	Upper
41	100		
39	55.5	44.4	66.6
67	71.4	57.1	85.7
52	29.0	23.2	34.8

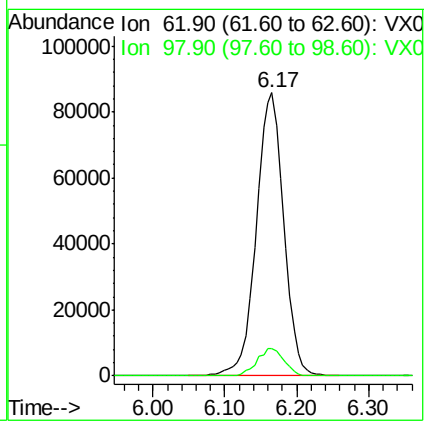




#42
1,2-Dichloroethane
Concen: 49.930 ug/l
RT: 6.17 min Scan# 833
Delta R.T. 0.00 min
Lab File: VX017009.D
Acq: 29 Jun 2020 15:21

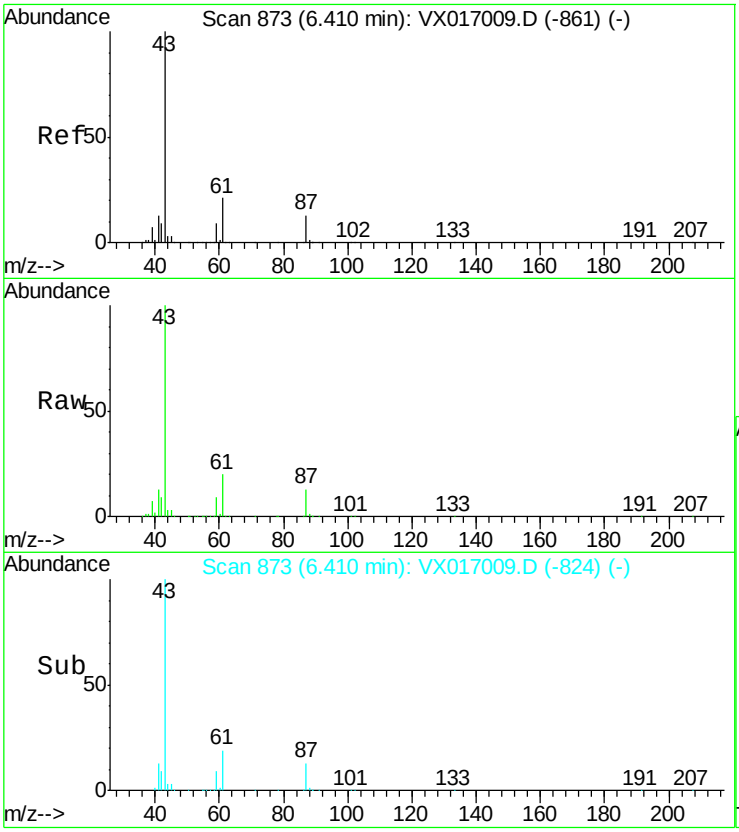
Tgt Ion: 62 Resp: 227612

Ion	Ratio	Lower	Upper
62	100		
98	9.6	0.0	19.2



Instrument :
MSVOA_X
ClientSampleId :
VSTDICCC050

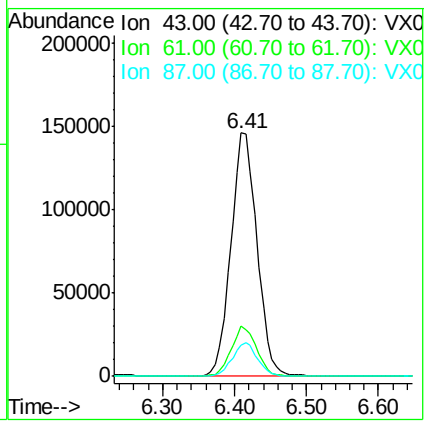
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:13:30 AM

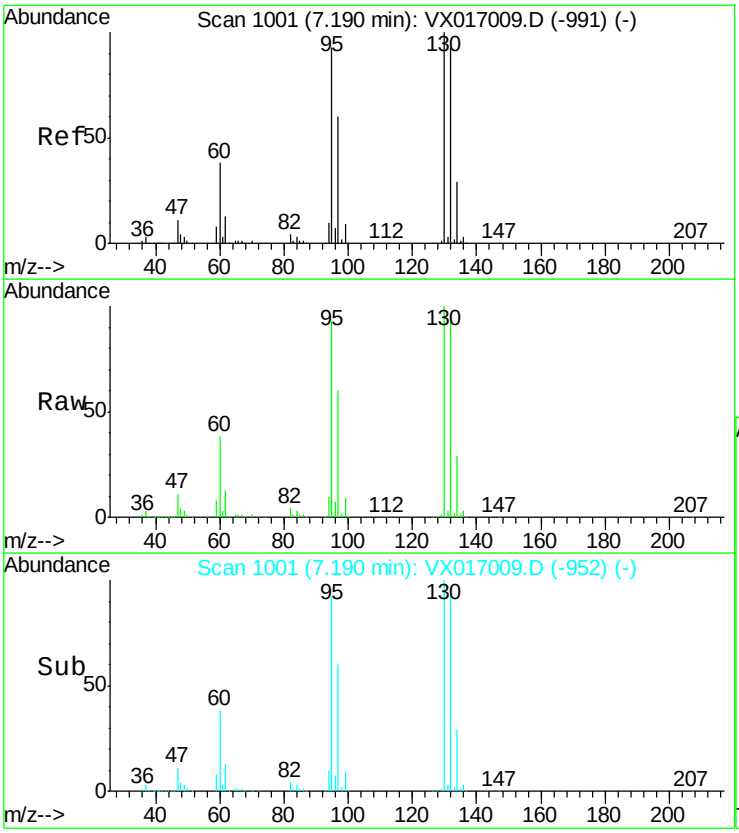


#43
Isopropyl Acetate
Concen: 50.612 ug/l
RT: 6.41 min Scan# 873
Delta R.T. 0.00 min
Lab File: VX017009.D
Acq: 29 Jun 2020 15:21

Tgt Ion: 43 Resp: 366531

Ion	Ratio	Lower	Upper
43	100		
61	20.2	16.2	24.2
87	13.4	10.7	16.1

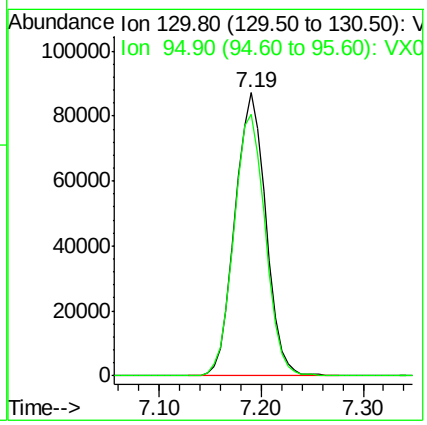


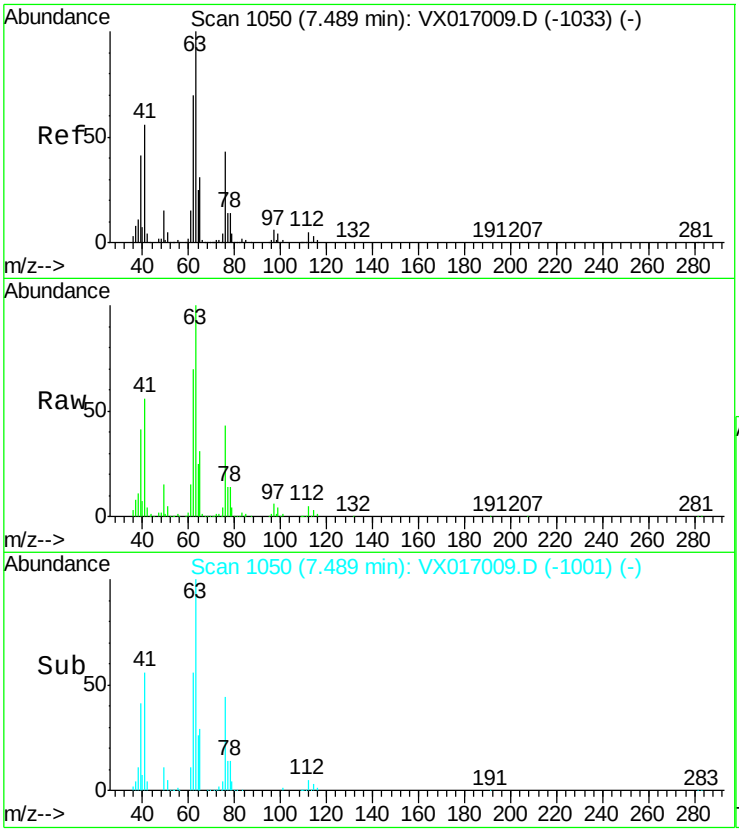


#44
Trichloroethene
Concen: 48.114 ug/l
RT: 7.19 min Scan# 1001
Delta R.T. 0.00 min
Lab File: VX017009.D
Acq: 29 Jun 2020 15:21

Tgt Ion:130 Resp: 182894

Ion	Ratio	Lower	Upper
130	100		
95	92.5	0.0	185.0

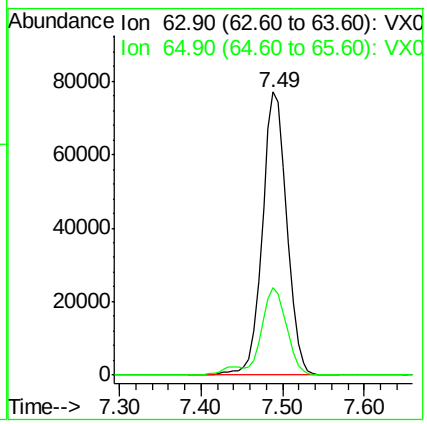




#45
1,2-Dichloropropane
Concen: 49.641 ug/l
RT: 7.49 min Scan# 1050
Delta R.T. 0.00 min
Lab File: VX017009.D
Acq: 29 Jun 2020 15:21

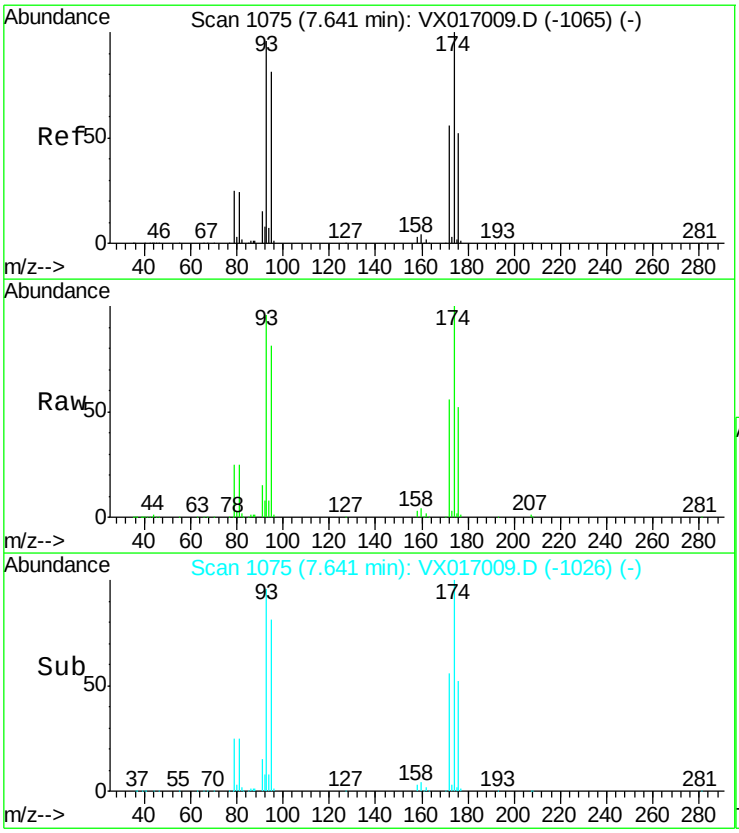
Tgt Ion: 63 Resp: 160912

Ion	Ratio	Lower	Upper
63	100		
65	30.7	24.6	36.8



Instrument :
MSVOA_X
ClientSampleId :
VSTDICCC050

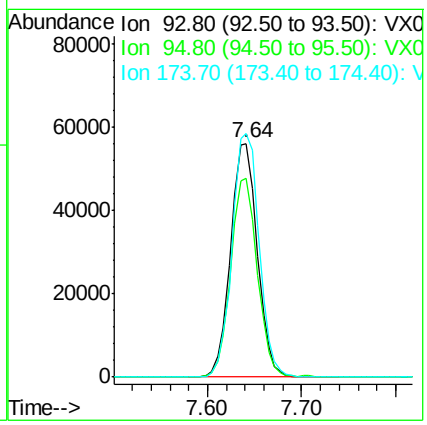
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:13:30 AM

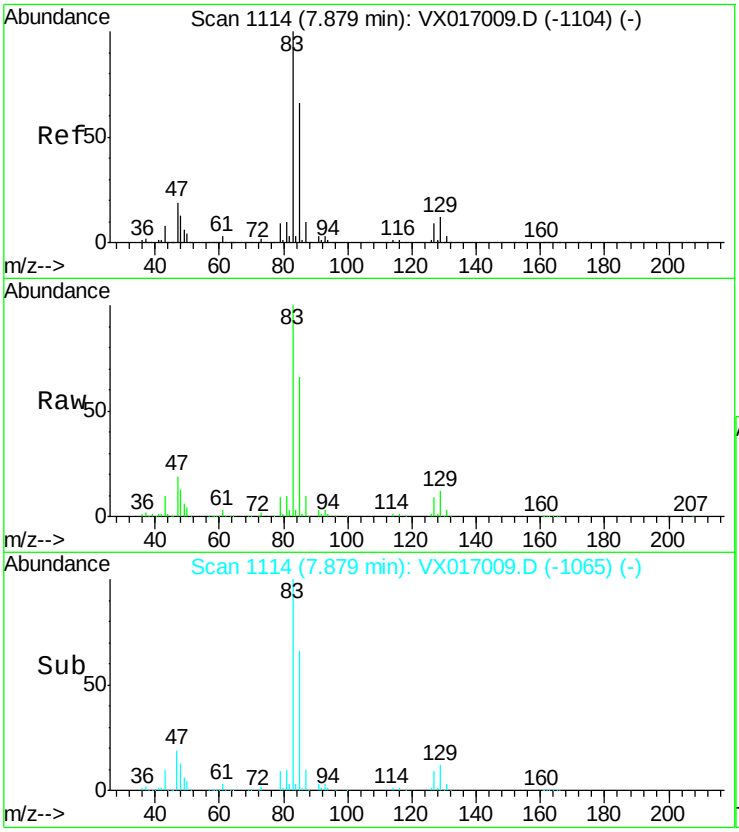


#46
Dibromomethane
Concen: 50.105 ug/l
RT: 7.64 min Scan# 1075
Delta R.T. 0.00 min
Lab File: VX017009.D
Acq: 29 Jun 2020 15:21

Tgt Ion: 93 Resp: 110883

Ion	Ratio	Lower	Upper
93	100		
95	84.2	67.4	101.0
174	105.4	84.3	126.5

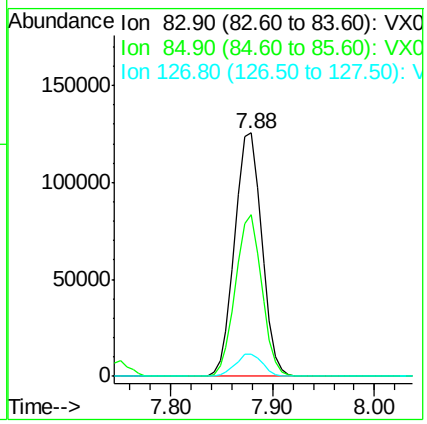




#47
Bromodichloromethane
Concen: 50.821 ug/l
RT: 7.88 min Scan# 1114
Delta R.T. 0.00 min
Lab File: VX017009.D
Acq: 29 Jun 2020 15:21

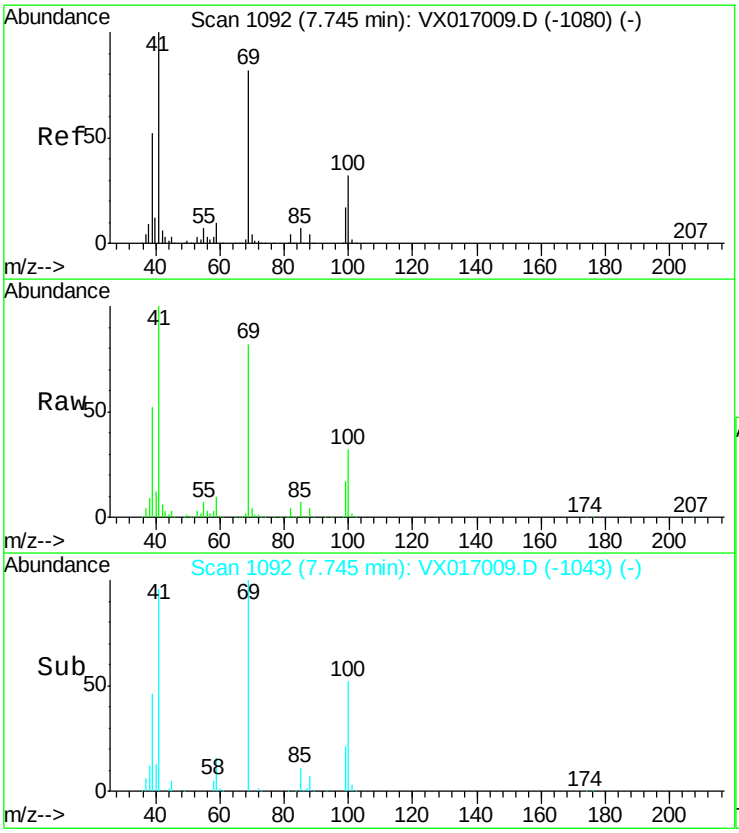
Tgt Ion: 83 Resp: 231779

Ion	Ratio	Lower	Upper
83	100		
85	66.2	53.0	79.4
127	9.4	7.5	11.3



Instrument :
MSVOA_X
ClientSampleId :
VSTDICCC050

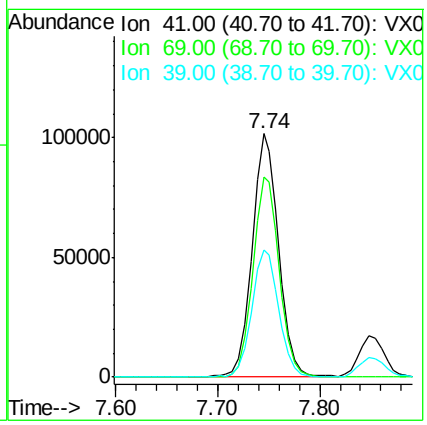
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:13:30 AM

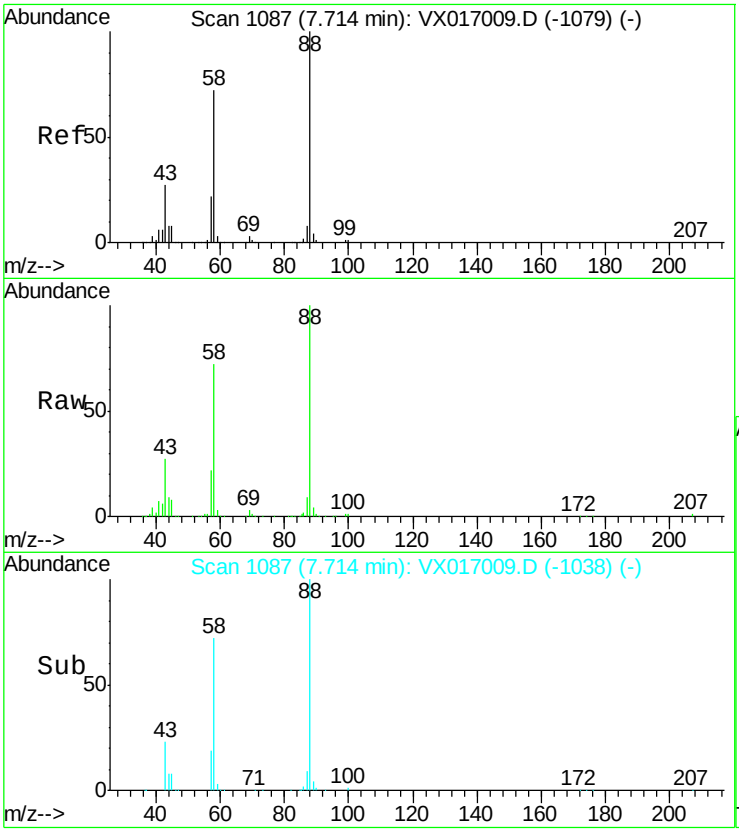


#48
Methyl methacrylate
Concen: 53.321 ug/l
RT: 7.74 min Scan# 1092
Delta R.T. 0.00 min
Lab File: VX017009.D
Acq: 29 Jun 2020 15:21

Tgt Ion: 41 Resp: 183457

Ion	Ratio	Lower	Upper
41	100		
69	82.3	65.8	98.8
39	53.1	42.5	63.7

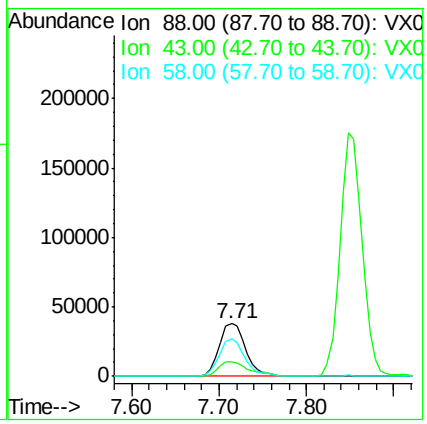




#49
1,4-Dioxane
Concen: 1026.850 ug/l
RT: 7.71 min Scan# 1087
Delta R.T. 0.00 min
Lab File: VX017009.D
Acq: 29 Jun 2020 15:21

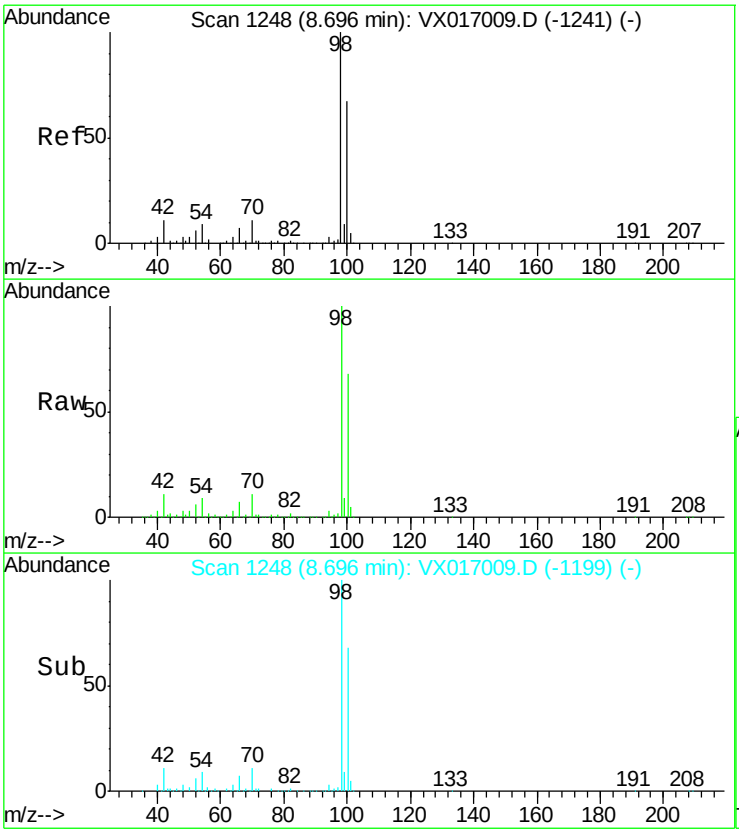
Tgt Ion: 88 Resp: 80039

Ion	Ratio	Lower	Upper
88	100		
43	32.3	25.8	38.8
58	68.5	54.8	82.2



Instrument :
MSVOA_X
ClientSampleId :
VSTDICCC050

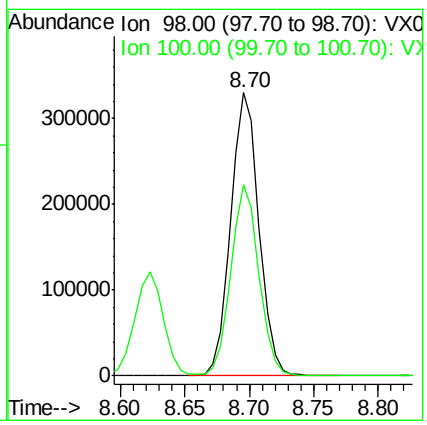
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:13:30 AM

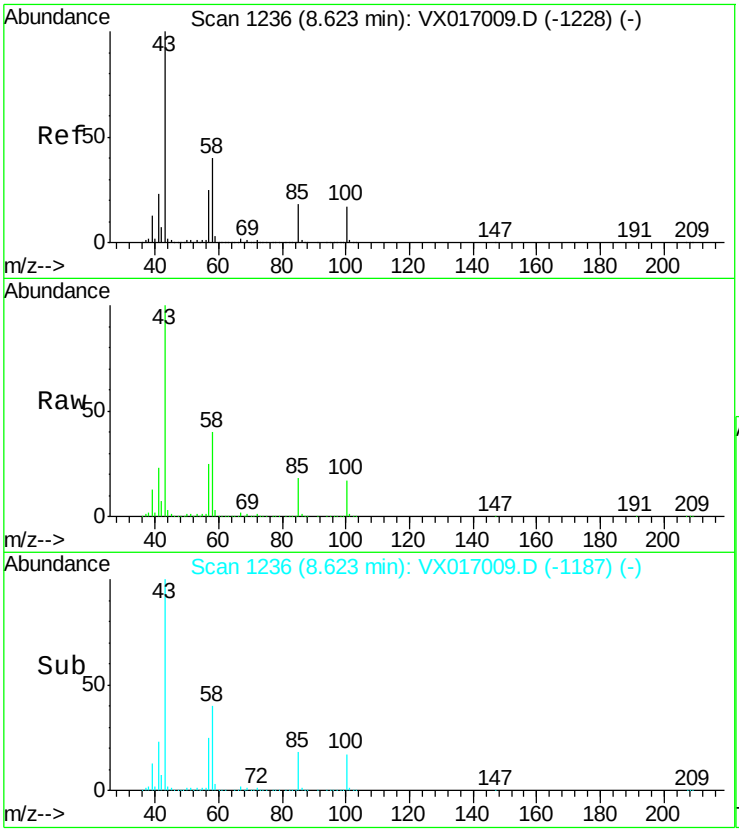


#50
Toluene-d8
Concen: 47.560 ug/l
RT: 8.70 min Scan# 1248
Delta R.T. 0.00 min
Lab File: VX017009.D
Acq: 29 Jun 2020 15:21

Tgt Ion: 98 Resp: 505600

Ion	Ratio	Lower	Upper
98	100		
100	67.2	53.8	80.6

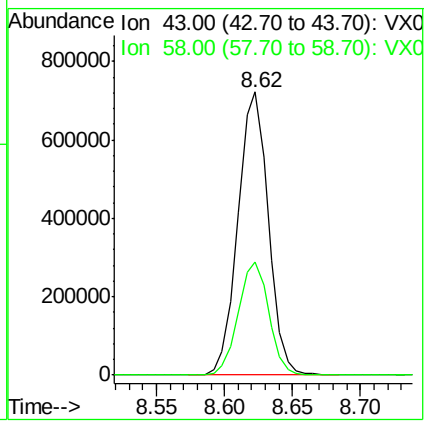




#51
4-Methyl-2-Pentanone
Concen: 261.629 ug/l
RT: 8.62 min Scan# 1236
Delta R.T. 0.00 min
Lab File: VX017009.D
Acq: 29 Jun 2020 15:21

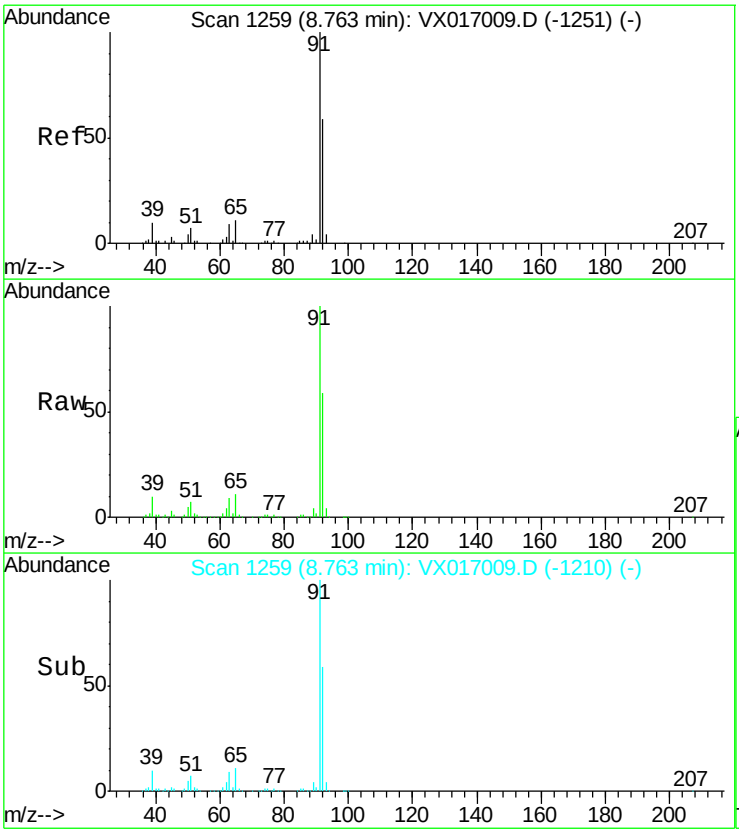
Tgt Ion: 43 Resp: 1129428

Ion	Ratio	Lower	Upper
43	100		
58	39.9	31.9	47.9



Instrument :
MSVOA_X
ClientSampleId :
VSTDICCC050

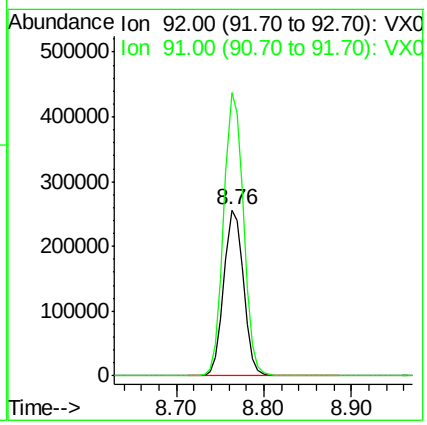
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:13:30 AM

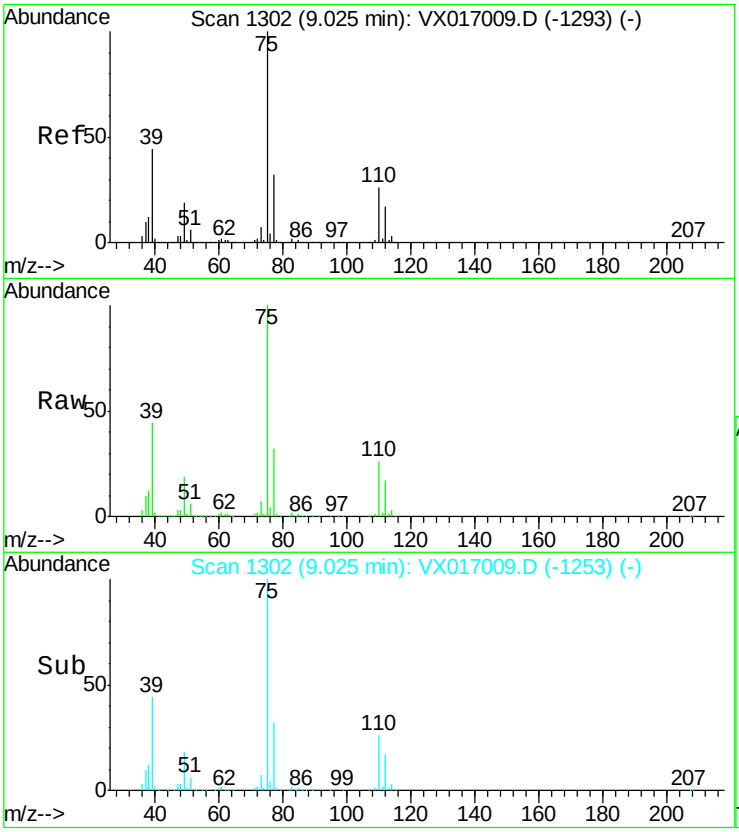


#52
Toluene
Concen: 50.692 ug/l
RT: 8.76 min Scan# 1259
Delta R.T. 0.00 min
Lab File: VX017009.D
Acq: 29 Jun 2020 15:21

Tgt Ion: 92 Resp: 399432

Ion	Ratio	Lower	Upper
92	100		
91	171.1	136.9	205.3

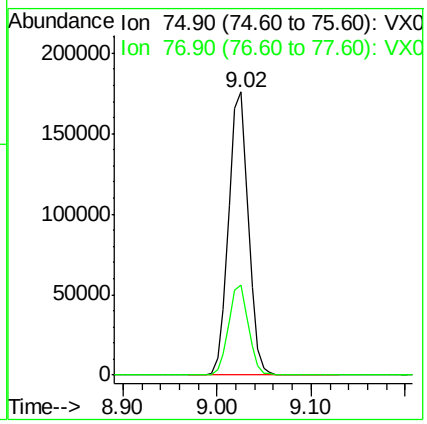




#53
t-1,3-Dichloropropene
Concen: 51.013 ug/l
RT: 9.02 min Scan# 1302
Delta R.T. 0.00 min
Lab File: VX017009.D
Acq: 29 Jun 2020 15:21

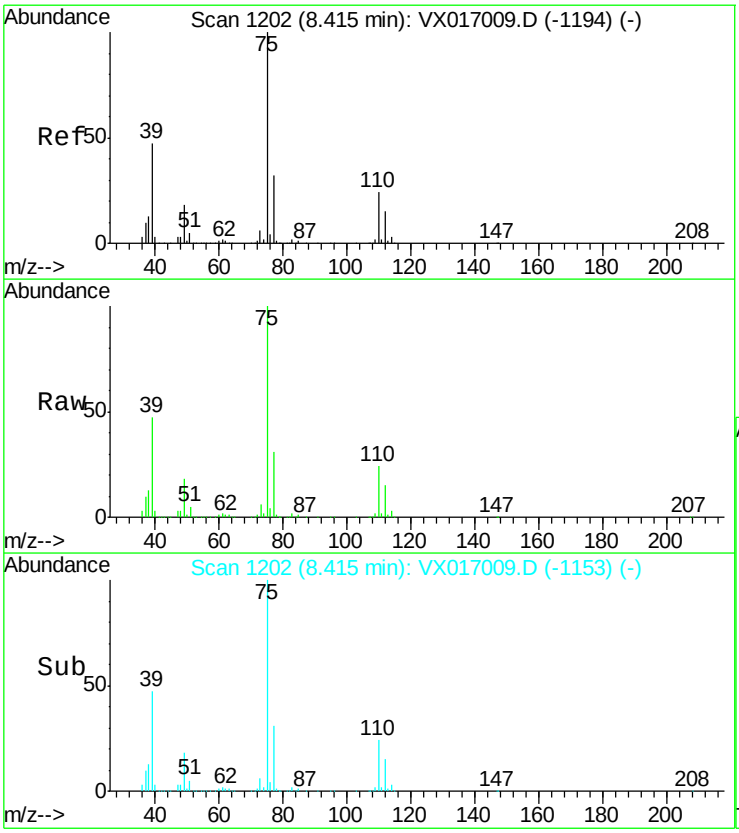
Tgt Ion: 75 Resp: 256694

Ion	Ratio	Lower	Upper
75	100		
77	32.0	25.6	38.4



Instrument :
MSVOA_X
ClientSampleId :
VSTDICCC050

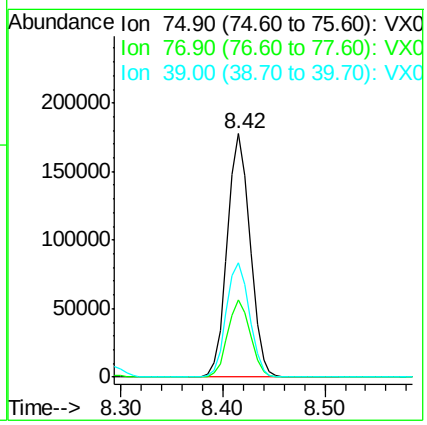
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:13:30 AM



#54
cis-1,3-Dichloropropene
Concen: 50.994 ug/l
RT: 8.42 min Scan# 1202
Delta R.T. 0.00 min
Lab File: VX017009.D
Acq: 29 Jun 2020 15:21

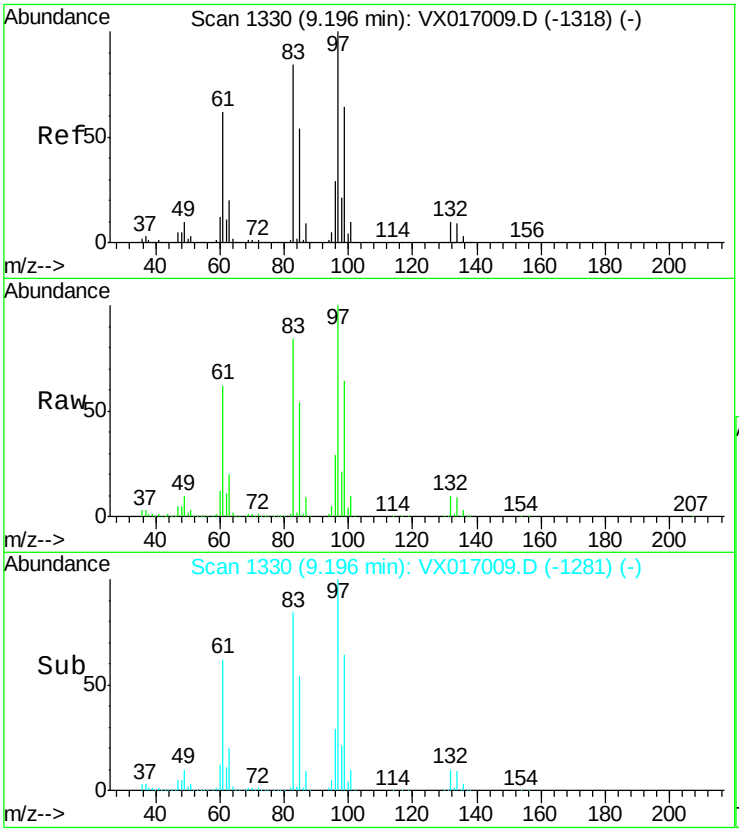
Tgt Ion: 75 Resp: 275072

Ion	Ratio	Lower	Upper
75	100		
77	31.5	25.2	37.8
39	46.8	37.4	56.2



Instrument :
MSVOA_X
ClientSampleId :
VSTDICCC050

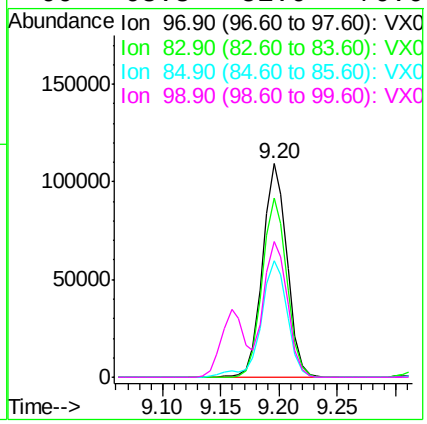
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:13:30 AM

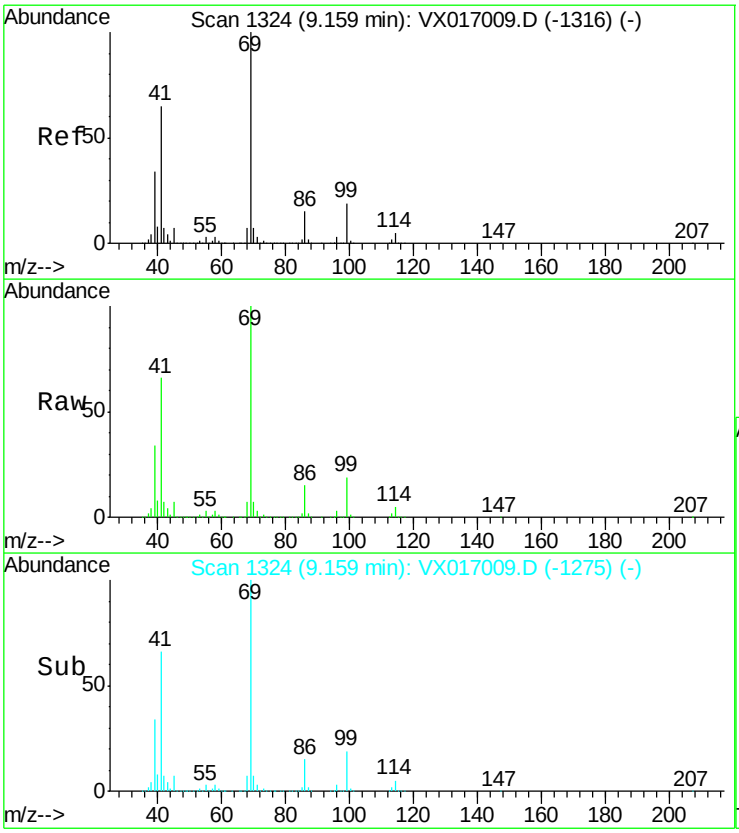


#55
1,1,2-Trichloroethane
Concen: 49.910 ug/l
RT: 9.20 min Scan# 1330
Delta R.T. 0.00 min
Lab File: VX017009.D
Acq: 29 Jun 2020 15:21

Tgt Ion: 97 Resp: 160677

Ion	Ratio	Lower	Upper
97	100		
83	83.8	67.0	100.6
85	54.4	43.5	65.3
99	63.8	51.0	76.6

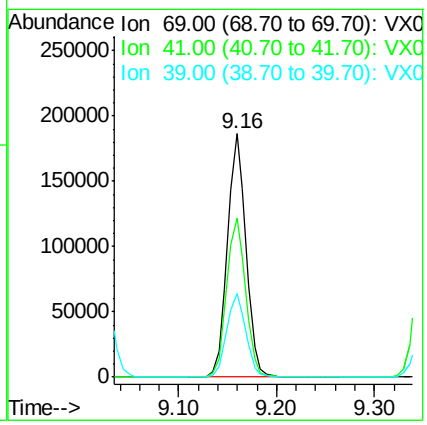


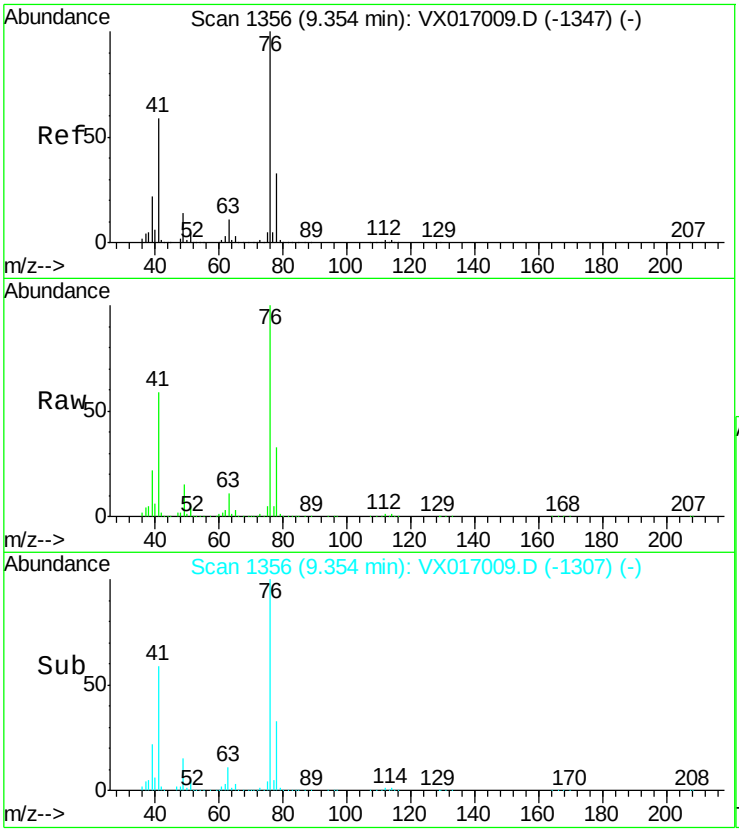


#56
Ethyl methacrylate
Concen: 53.484 ug/l
RT: 9.16 min Scan# 1324
Delta R.T. 0.00 min
Lab File: VX017009.D
Acq: 29 Jun 2020 15:21

Tgt Ion: 69 Resp: 245077

Ion	Ratio	Lower	Upper
69	100		
41	67.0	53.6	80.4
39	35.2	28.2	42.2

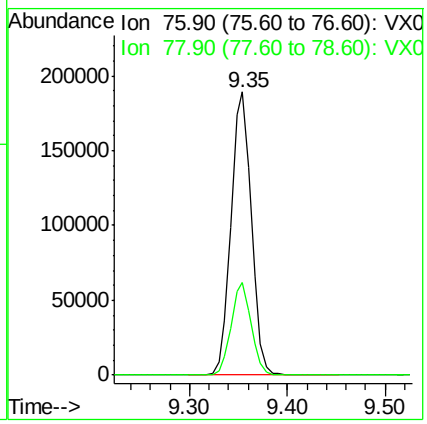




#57
1,3-Dichloropropane
Concen: 49.930 ug/l
RT: 9.35 min Scan# 1356
Delta R.T. 0.00 min
Lab File: VX017009.D
Acq: 29 Jun 2020 15:21

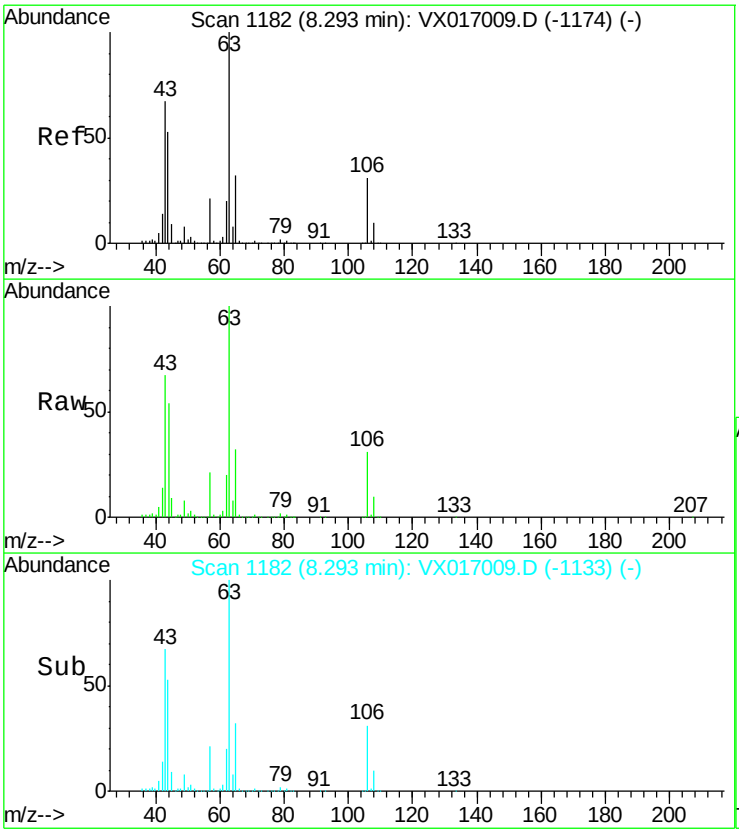
Tgt Ion: 76 Resp: 271991

Ion	Ratio	Lower	Upper
76	100		
78	32.4	25.9	38.9



Instrument :
MSVOA_X
ClientSampleId :
VSTDICCC050

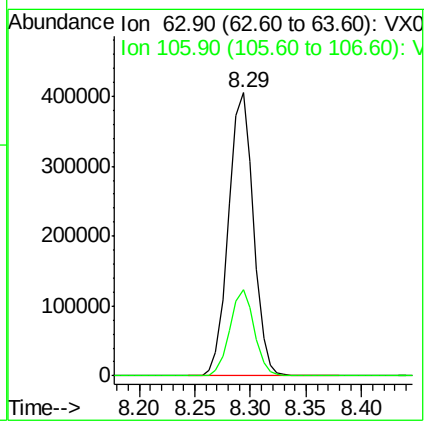
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:13:30 AM

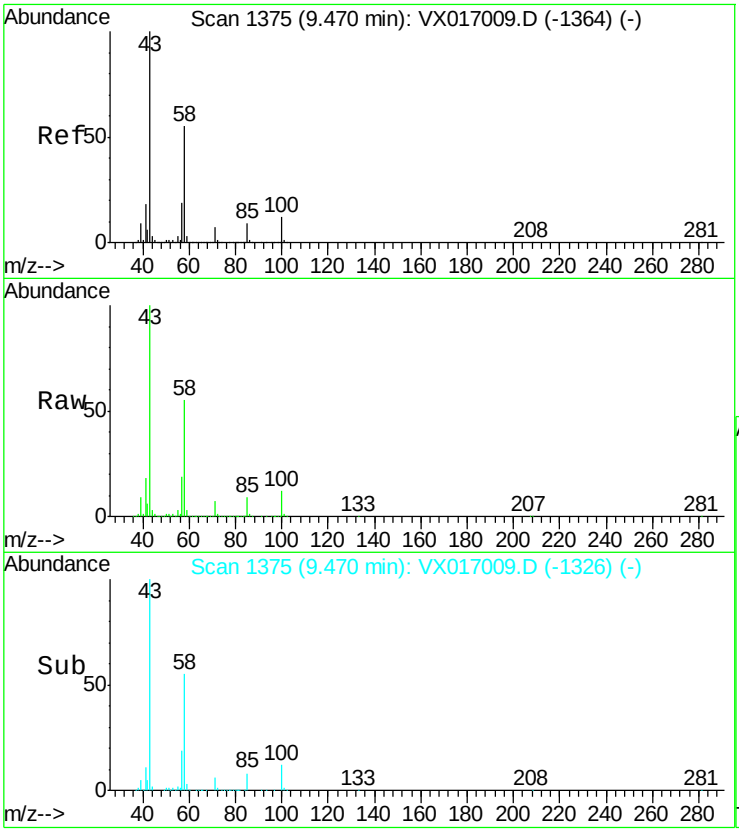


#58
2-Chloroethyl Vinyl ether
Concen: 274.654 ug/l
RT: 8.29 min Scan# 1182
Delta R.T. 0.00 min
Lab File: VX017009.D
Acq: 29 Jun 2020 15:21

Tgt Ion: 63 Resp: 626354

Ion	Ratio	Lower	Upper
63	100		
106	30.0	24.0	36.0

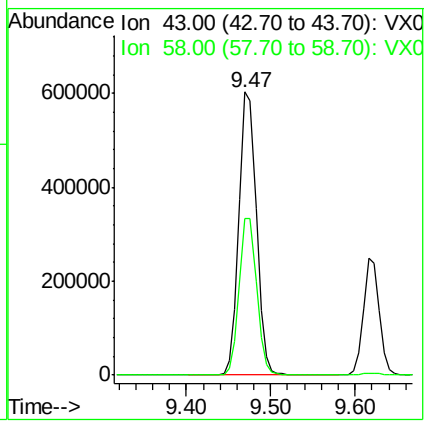




#59
2-Hexanone
Concen: 266.455 ug/l
RT: 9.47 min Scan# 1375
Delta R.T. 0.00 min
Lab File: VX017009.D
Acq: 29 Jun 2020 15:21

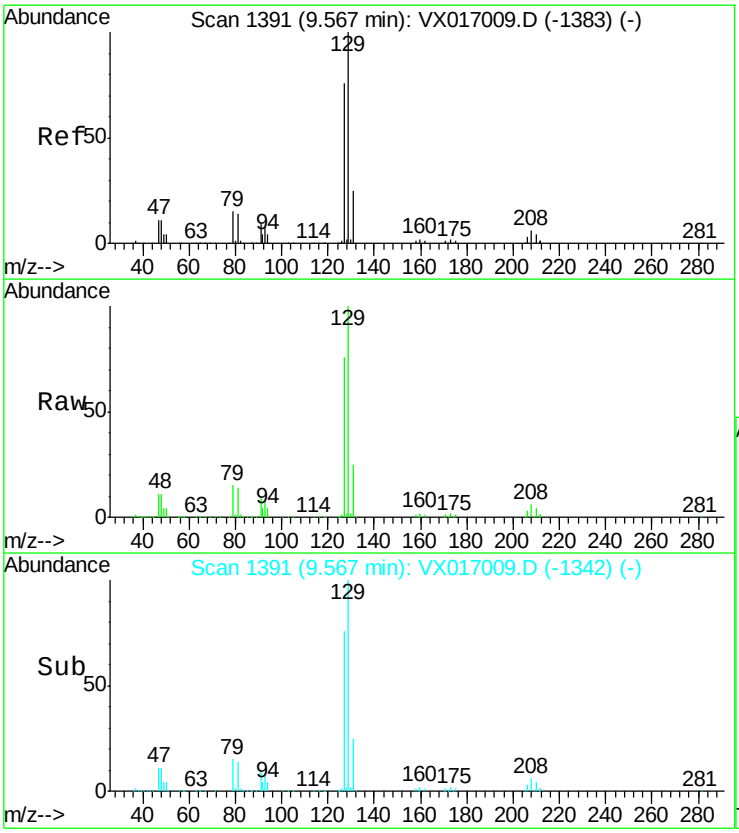
Tgt Ion: 43 Resp: 840076

Ion	Ratio	Lower	Upper
43	100		
58	55.7	27.9	83.6



Instrument :
MSVOA_X
ClientSampleId :
VSTDICCC050

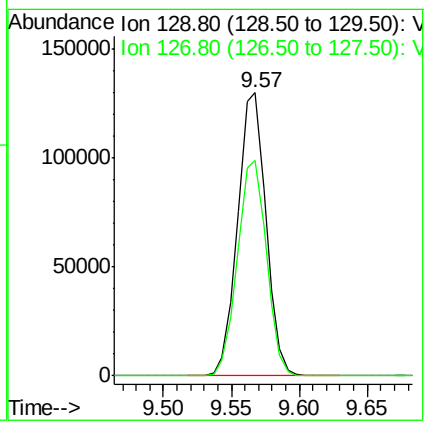
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:13:30 AM



#60
Dibromochloromethane
Concen: 50.598 ug/l
RT: 9.57 min Scan# 1391
Delta R.T. 0.00 min
Lab File: VX017009.D
Acq: 29 Jun 2020 15:21

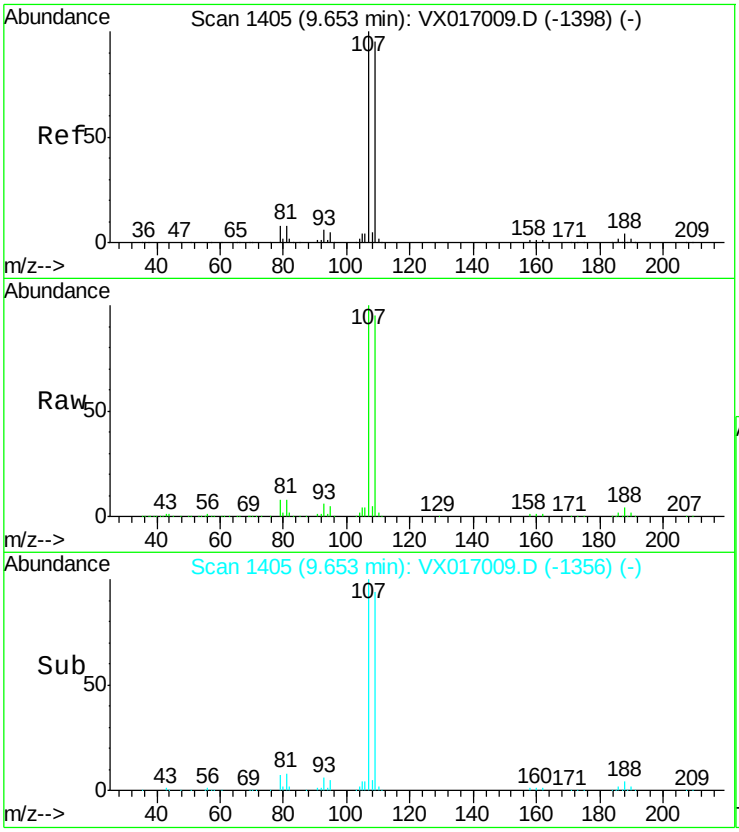
Tgt Ion:129 Resp: 189195

Ion	Ratio	Lower	Upper
129	100		
127	77.8	38.9	116.7



Instrument :
MSVOA_X
ClientSampleId :
VSTDICCC050

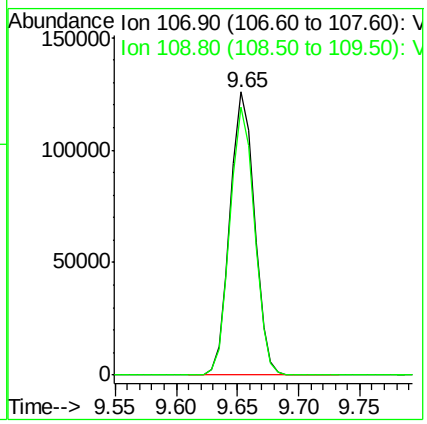
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:13:30 AM

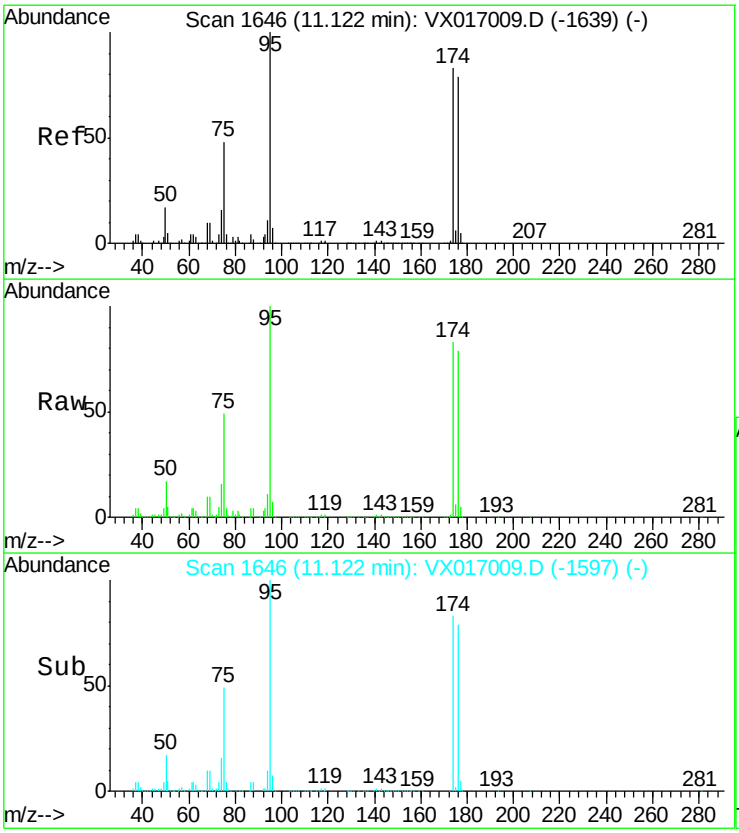


#61
1,2-Dibromoethane
Concen: 50.413 ug/l
RT: 9.65 min Scan# 1405
Delta R.T. 0.00 min
Lab File: VX017009.D
Acq: 29 Jun 2020 15:21

Tgt Ion:107 Resp: 174453

Ion	Ratio	Lower	Upper
107	100		
109	94.8	75.8	113.8

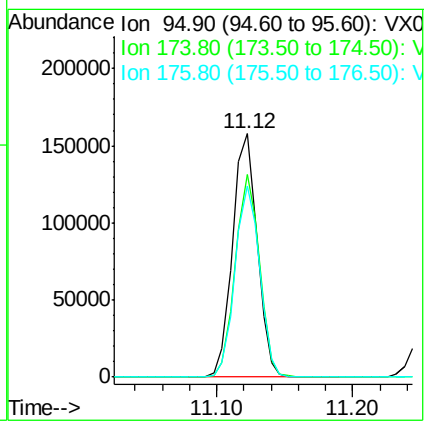




#62
4-Bromofluorobenzene
Concen: 47.842 ug/l
RT: 11.12 min Scan# 1646
Delta R.T. 0.00 min
Lab File: VX017009.D
Acq: 29 Jun 2020 15:21

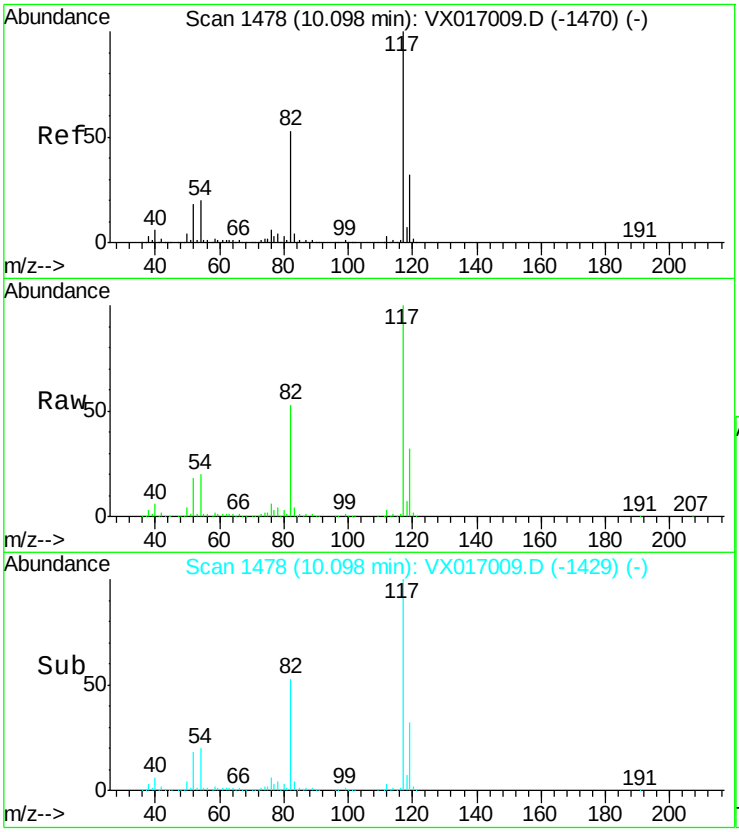
Tgt Ion: 95 Resp: 198816

Ion	Ratio	Lower	Upper
95	100		
174	82.0	0.0	164.0
176	78.8	0.0	157.6



Instrument :
MSVOA_X
ClientSampleId :
VSTDICCC050

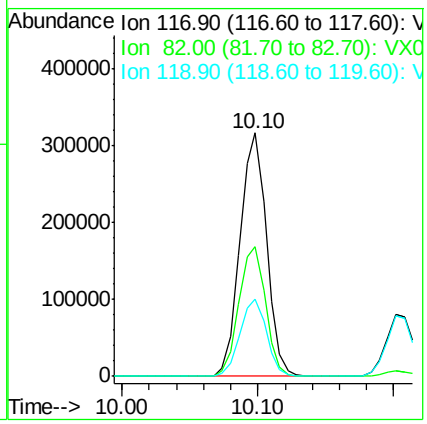
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:13:30 AM

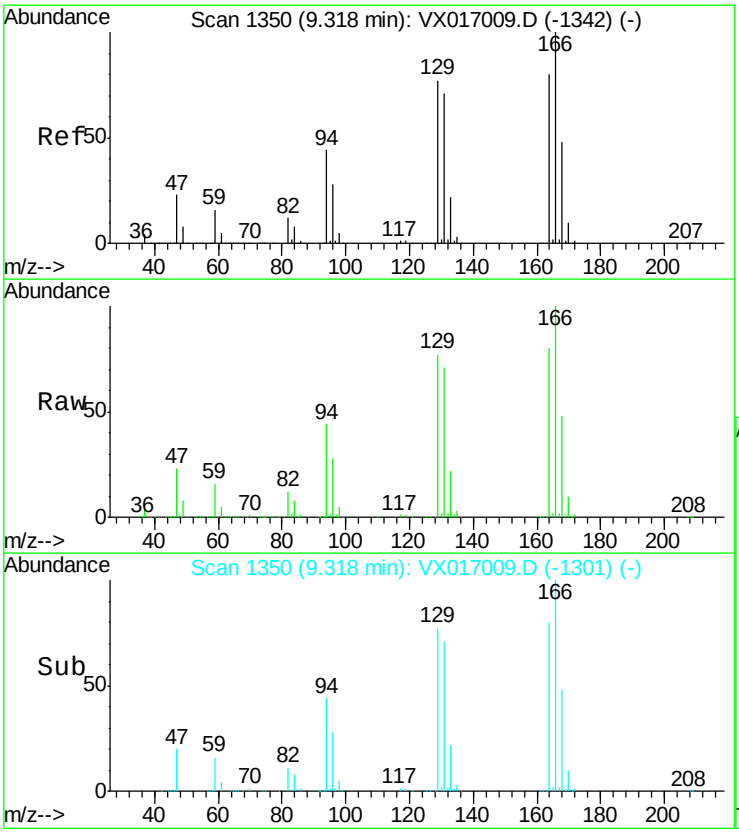


#63
Chlorobenzene-d5
Concen: 50.000 ug/l
RT: 10.10 min Scan# 1478
Delta R.T. 0.00 min
Lab File: VX017009.D
Acq: 29 Jun 2020 15:21

Tgt Ion:117 Resp: 430393

Ion	Ratio	Lower	Upper
117	100		
82	53.2	42.6	63.8
119	31.8	25.4	38.2

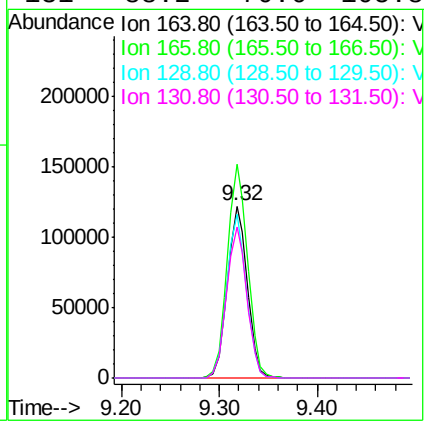


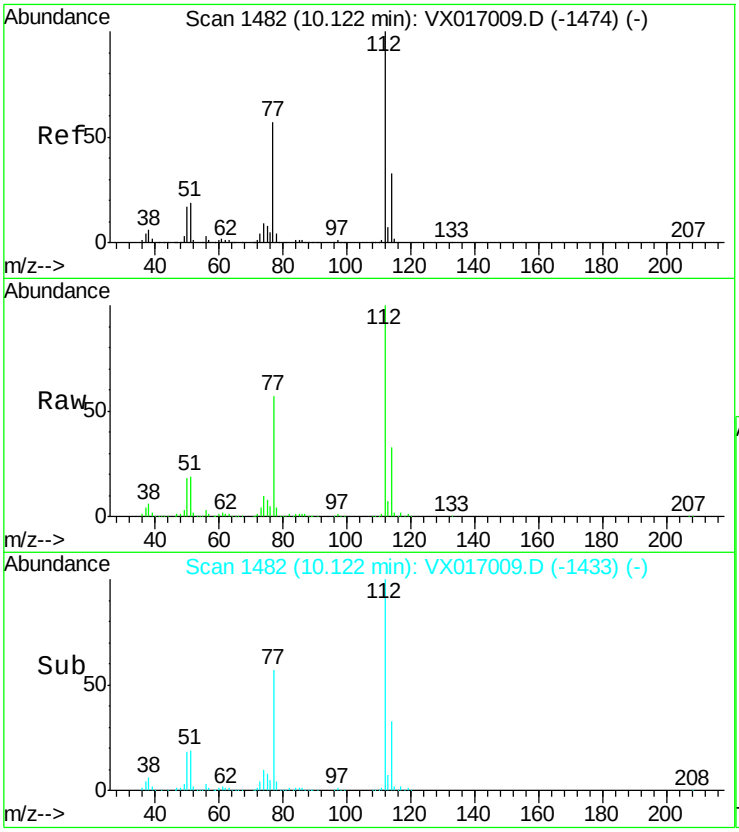


#64
Tetrachloroethene
Concen: 49.480 ug/l
RT: 9.32 min Scan# 1350
Delta R.T. 0.00 min
Lab File: VX017009.D
Acq: 29 Jun 2020 15:21

Tgt Ion:164 Resp: 171871

Ion	Ratio	Lower	Upper
164	100		
166	124.2	99.4	149.0
129	95.4	76.3	114.5
131	88.2	70.6	105.8

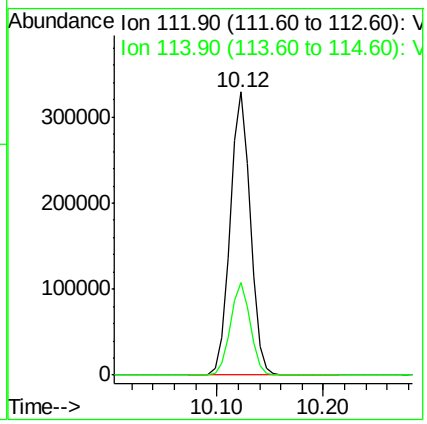




#65
Chlorobenzene
Concen: 49.454 ug/l
RT: 10.12 min Scan# 1482
Delta R.T. 0.00 min
Lab File: VX017009.D
Acq: 29 Jun 2020 15:21

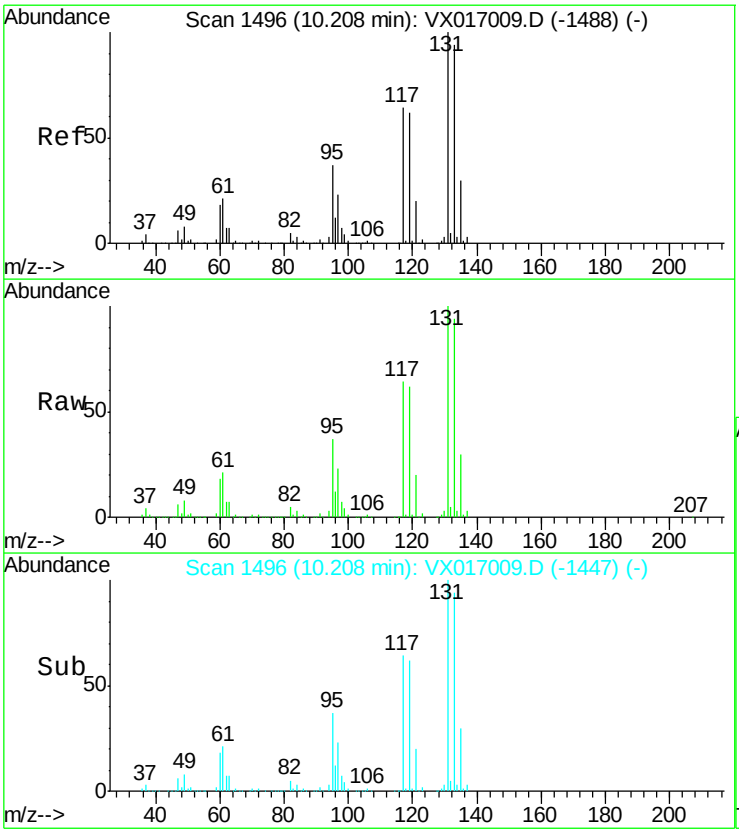
Tgt Ion:112 Resp: 439303

Ion	Ratio	Lower	Upper
112	100		
114	32.8	26.2	39.4



Instrument :
MSVOA_X
ClientSampleId :
VSTDICCC050

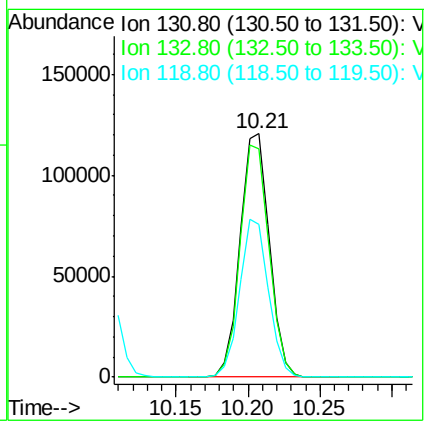
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:13:30 AM

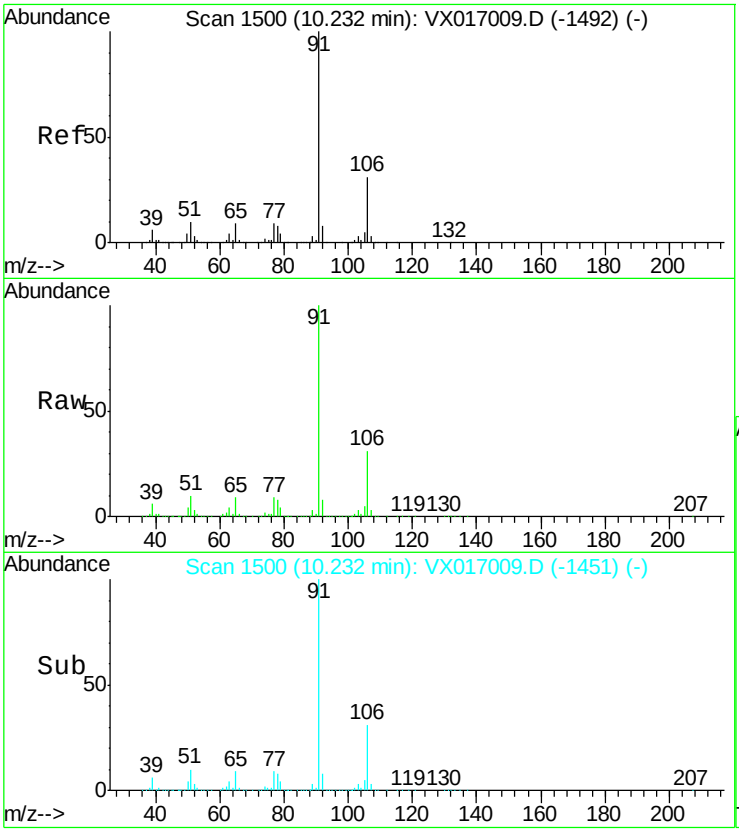


#66
1,1,1,2-Tetrachloroethane
Concen: 49.680 ug/l
RT: 10.21 min Scan# 1496
Delta R.T. 0.00 min
Lab File: VX017009.D
Acq: 29 Jun 2020 15:21

Tgt Ion:131 Resp: 170074

Ion	Ratio	Lower	Upper
131	100		
133	94.6	47.3	141.9
119	63.7	31.9	95.5

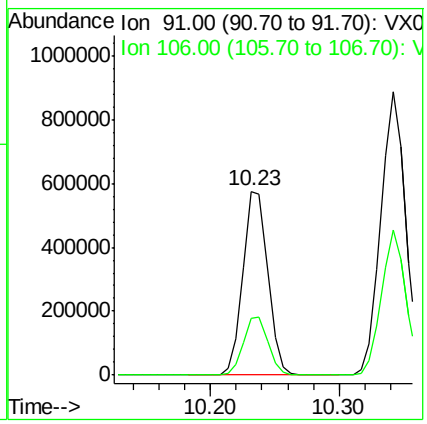




#67
Ethyl Benzene
Concen: 51.812 ug/l
RT: 10.23 min Scan# 1500
Delta R.T. 0.00 min
Lab File: VX017009.D
Acq: 29 Jun 2020 15:21

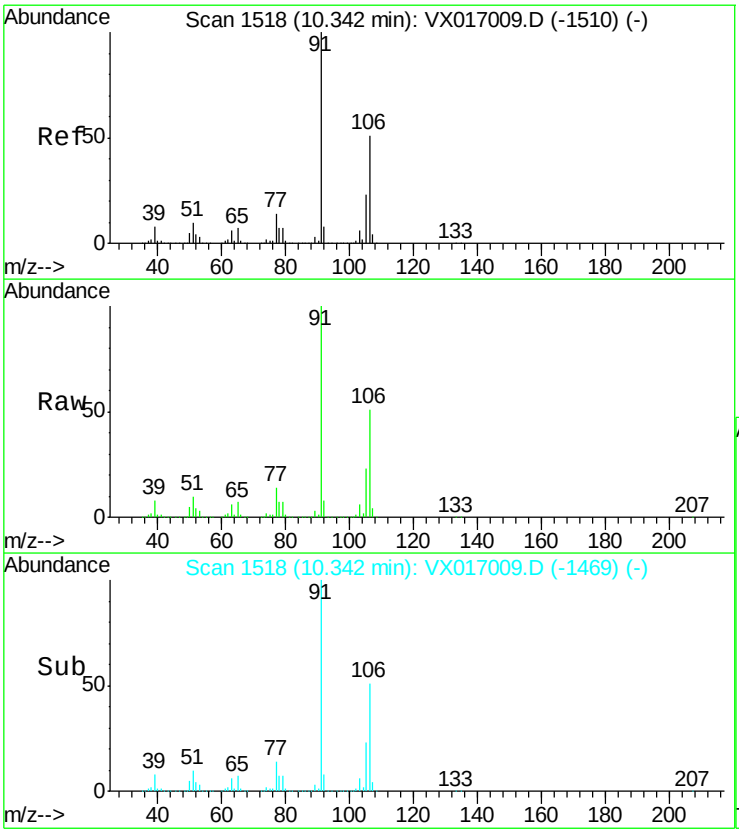
Tgt Ion: 91 Resp: 768615

Ion	Ratio	Lower	Upper
91	100		
106	30.9	24.7	37.1



Instrument :
MSVOA_X
ClientSampleId :
VSTDICCC050

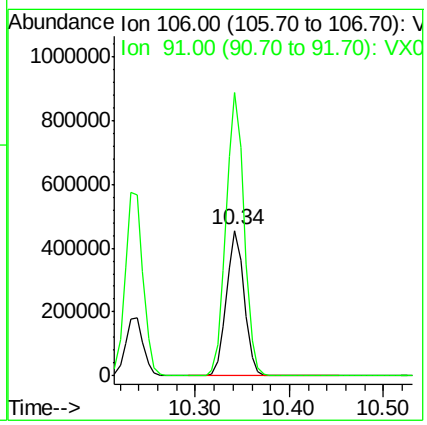
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:13:30 AM



#68
m/p-Xylenes
Concen: 104.539 ug/l
RT: 10.34 min Scan# 1518
Delta R.T. 0.00 min
Lab File: VX017009.D
Acq: 29 Jun 2020 15:21

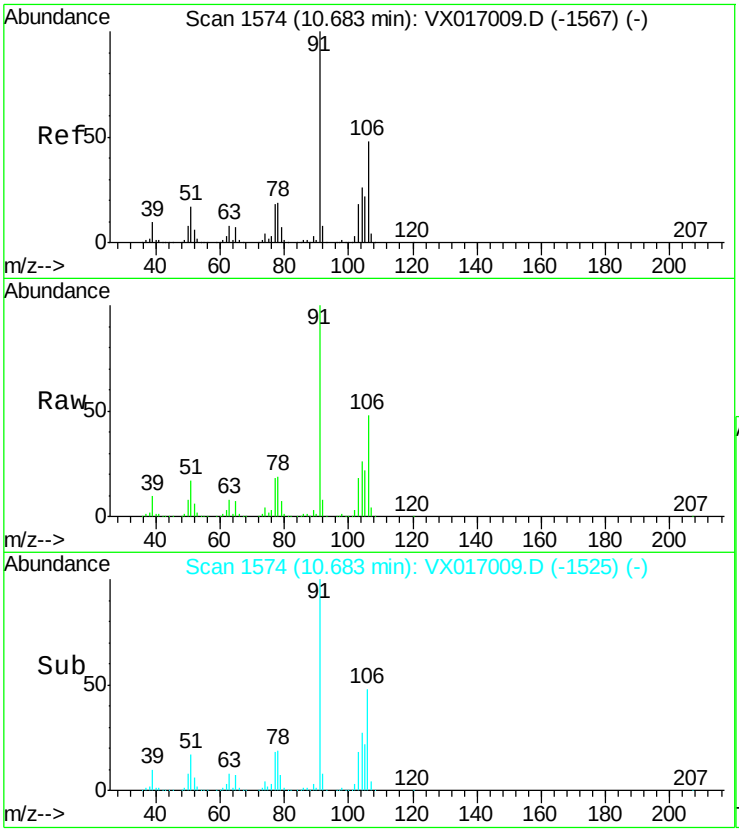
Tgt Ion:106 Resp: 595461

Ion	Ratio	Lower	Upper
106	100		
91	198.3	158.6	238.0



Instrument :
MSVOA_X
ClientSampleId :
VSTDICCC050

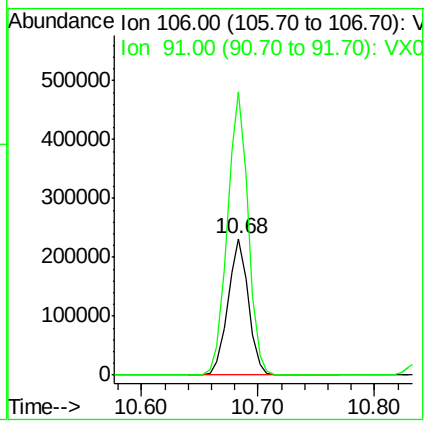
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:13:30 AM

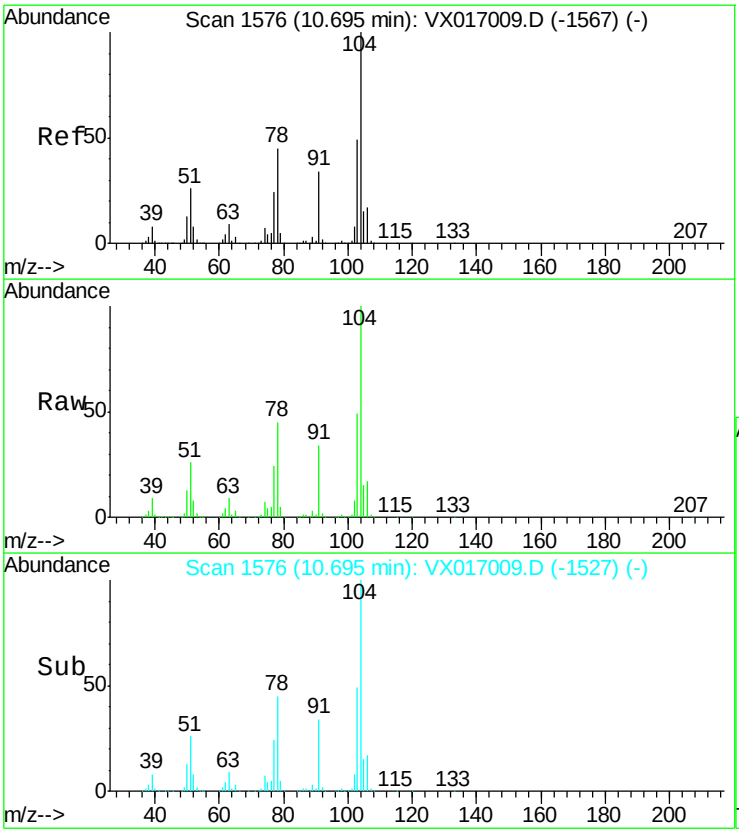


#69
o-Xylene
Concen: 51.795 ug/l
RT: 10.68 min Scan# 1574
Delta R.T. 0.00 min
Lab File: VX017009.D
Acq: 29 Jun 2020 15:21

Tgt Ion:106 Resp: 280660

Ion	Ratio	Lower	Upper
106	100		
91	211.1	105.6	316.7

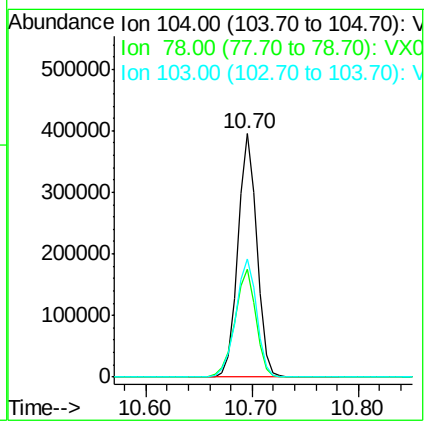


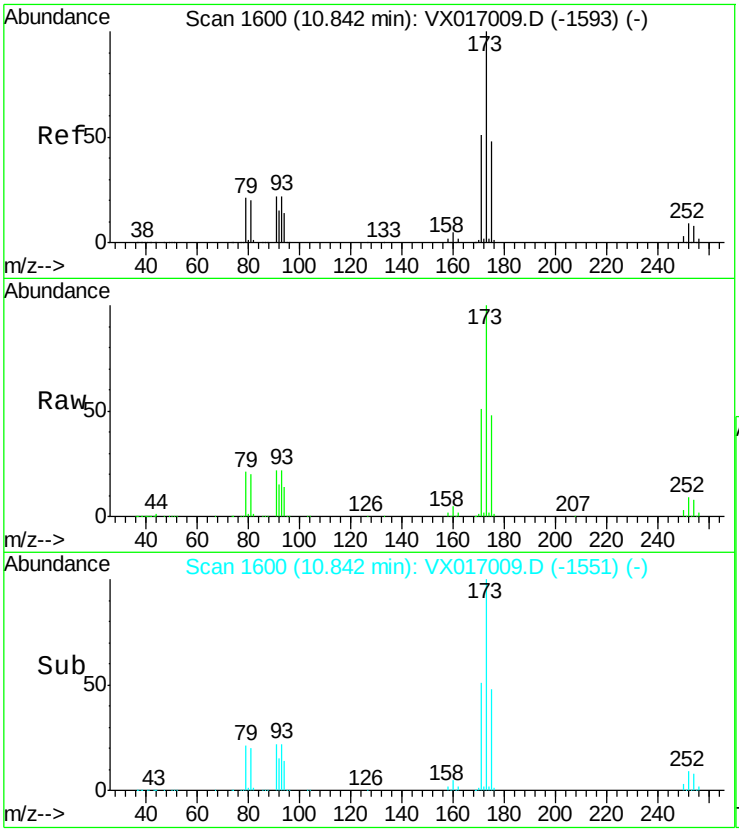


#70
Styrene
Concen: 53.584 ug/l
RT: 10.70 min Scan# 1576
Delta R.T. 0.00 min
Lab File: VX017009.D
Acq: 29 Jun 2020 15:21

Tgt Ion:104 Resp: 494438

Ion	Ratio	Lower	Upper
104	100		
78	49.4	39.5	59.3
103	53.8	43.0	64.6

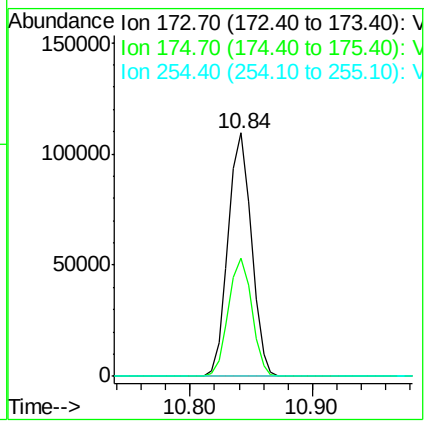




#71
Bromoform
Concen: 53.250 ug/l
RT: 10.84 min Scan# 1600
Delta R.T. 0.00 min
Lab File: VX017009.D
Acq: 29 Jun 2020 15:21

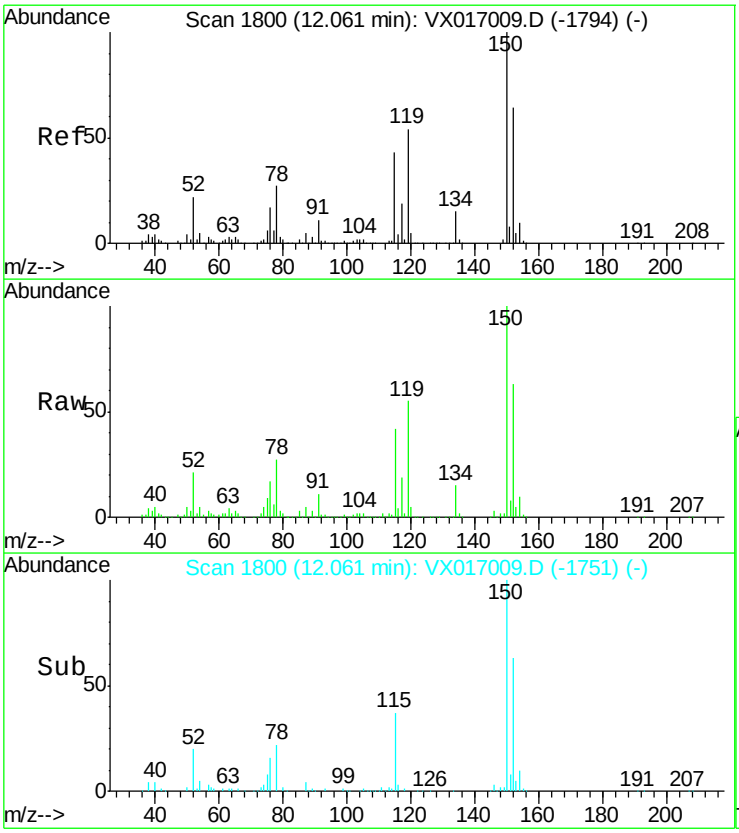
Tgt Ion:173 Resp: 144559

Ion	Ratio	Lower	Upper
173	100		
175	49.0	24.5	73.5
254	0.1	0.1	0.1#



Instrument :
MSVOA_X
ClientSampleId :
VSTDICCC050

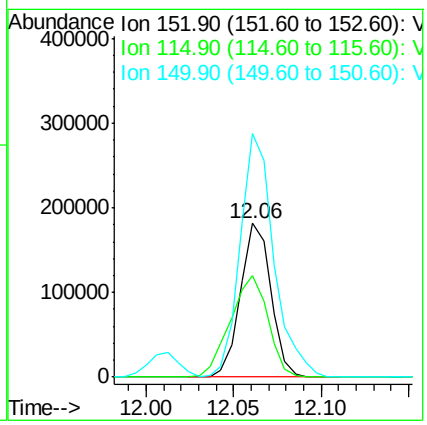
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:13:30 AM

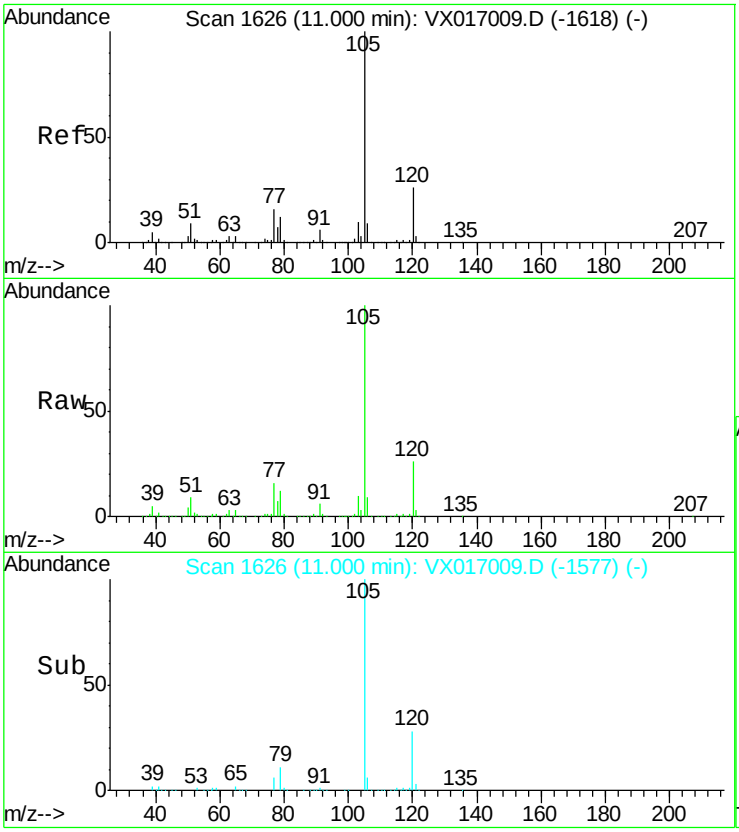


#72
1,4-Dichlorobenzene-d4
Concen: 50.000 ug/l
RT: 12.06 min Scan# 1800
Delta R.T. 0.00 min
Lab File: VX017009.D
Acq: 29 Jun 2020 15:21

Tgt Ion:152 Resp: 219637

Ion	Ratio	Lower	Upper
152	100		
115	81.8	40.9	122.7
150	175.8	0.0	351.6

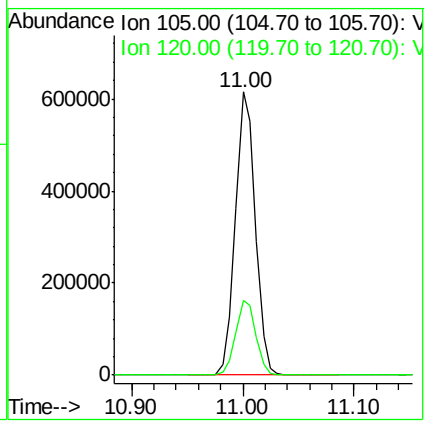




#73
Isopropylbenzene
Concen: 52.846 ug/l
RT: 11.00 min Scan# 1626
Delta R.T. 0.00 min
Lab File: VX017009.D
Acq: 29 Jun 2020 15:21

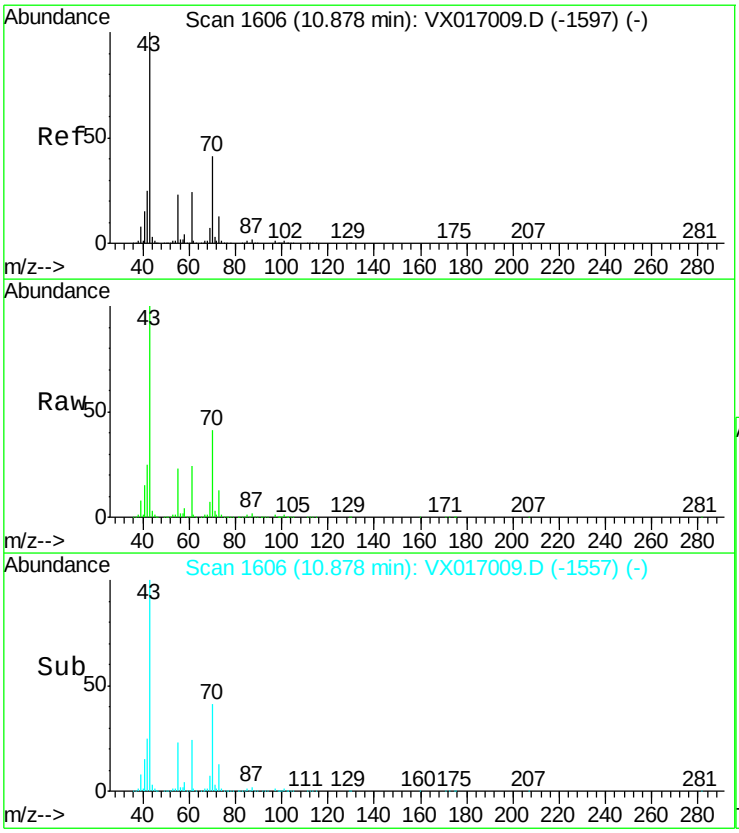
Tgt Ion:105 Resp: 760266

Ion	Ratio	Lower	Upper
105	100		
120	26.8	13.4	40.2



Instrument :
MSVOA_X
ClientSampleId :
VSTDICCC050

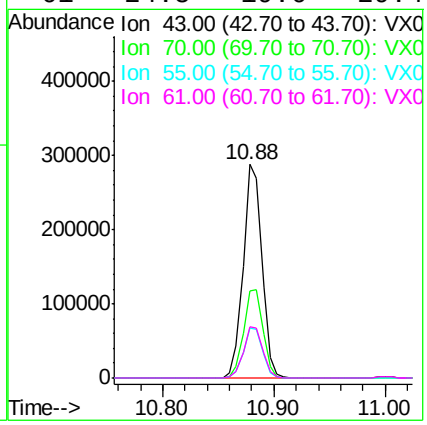
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:13:30 AM

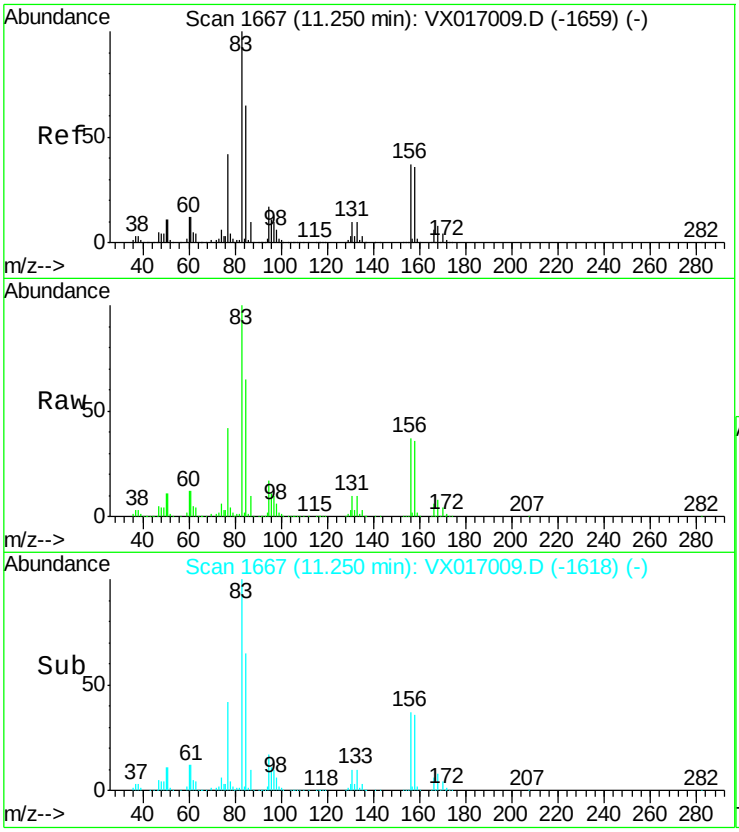


#74
N-amyl acetate
Concen: 54.787 ug/l
RT: 10.88 min Scan# 1606
Delta R.T. 0.00 min
Lab File: VX017009.D
Acq: 29 Jun 2020 15:21

Tgt Ion: 43 Resp: 336317

Ion	Ratio	Lower	Upper
43	100		
70	42.7	34.2	51.2
55	24.0	19.2	28.8
61	24.5	19.6	29.4

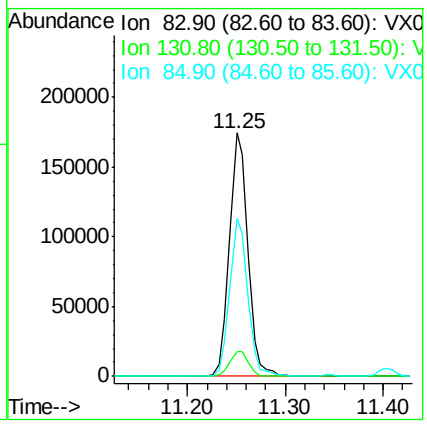




#75
1,1,2,2-Tetrachloroethane
Concen: 50.402 ug/l
RT: 11.25 min Scan# 1667
Delta R.T. 0.00 min
Lab File: VX017009.D
Acq: 29 Jun 2020 15:21

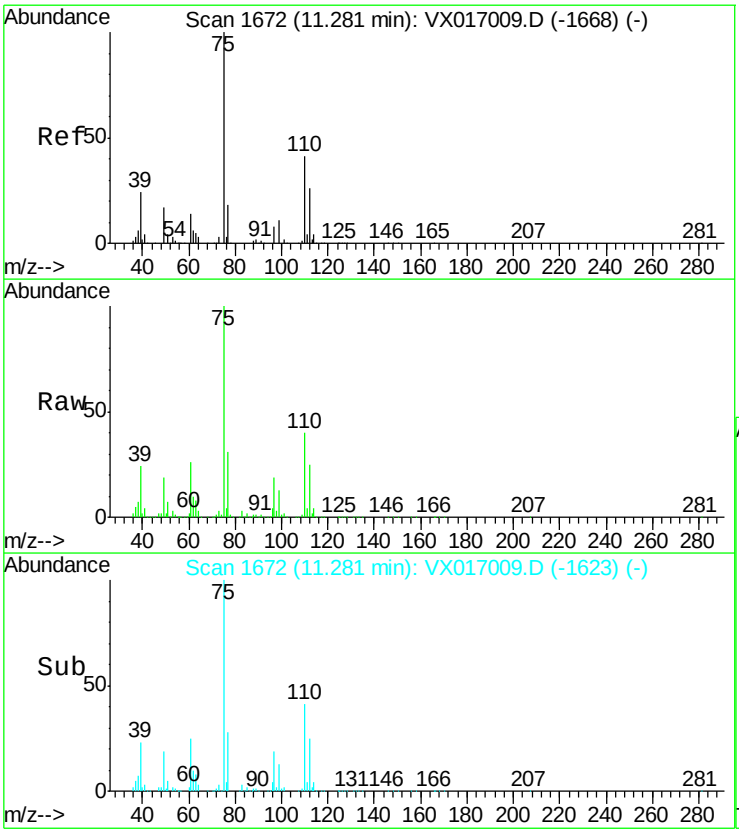
Tgt Ion: 83 Resp: 228087

Ion	Ratio	Lower	Upper
83	100		
131	10.8	5.4	16.2
85	63.9	31.9	95.9



Instrument :
MSVOA_X
ClientSampleId :
VSTDICCC050

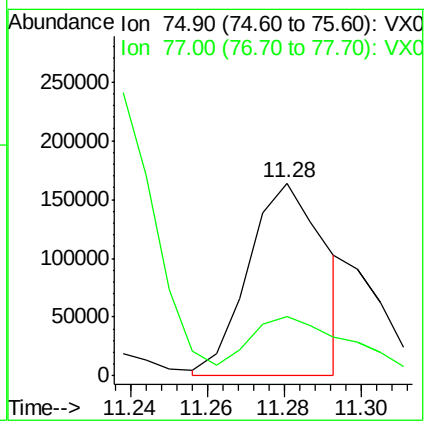
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:13:30 AM

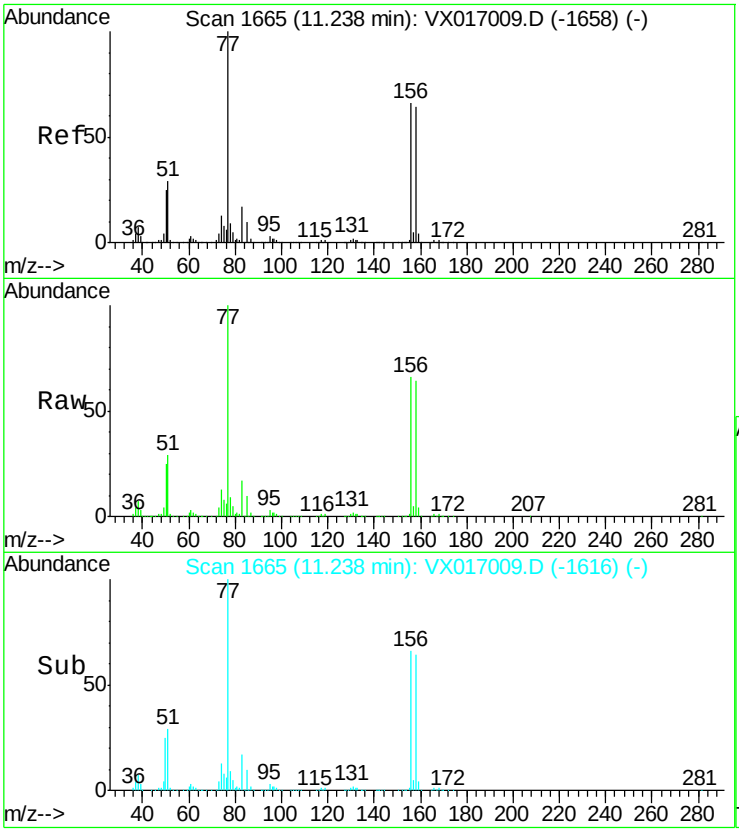


#76
1,2,3-Trichloropropane
Concen: 41.990 ug/l m
RT: 11.28 min Scan# 1672
Delta R.T. 0.00 min
Lab File: VX017009.D
Acq: 29 Jun 2020 15:21

Tgt Ion: 75 Resp: 227127

Ion	Ratio	Lower	Upper
75	100		
77	40.4	20.2	60.6

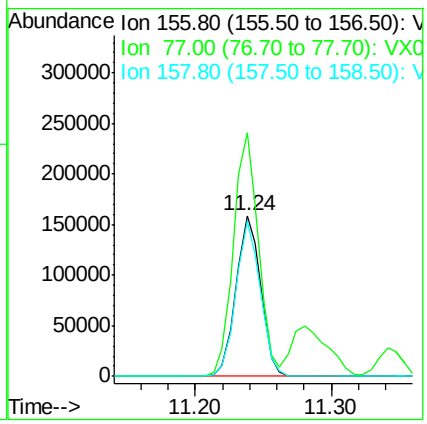


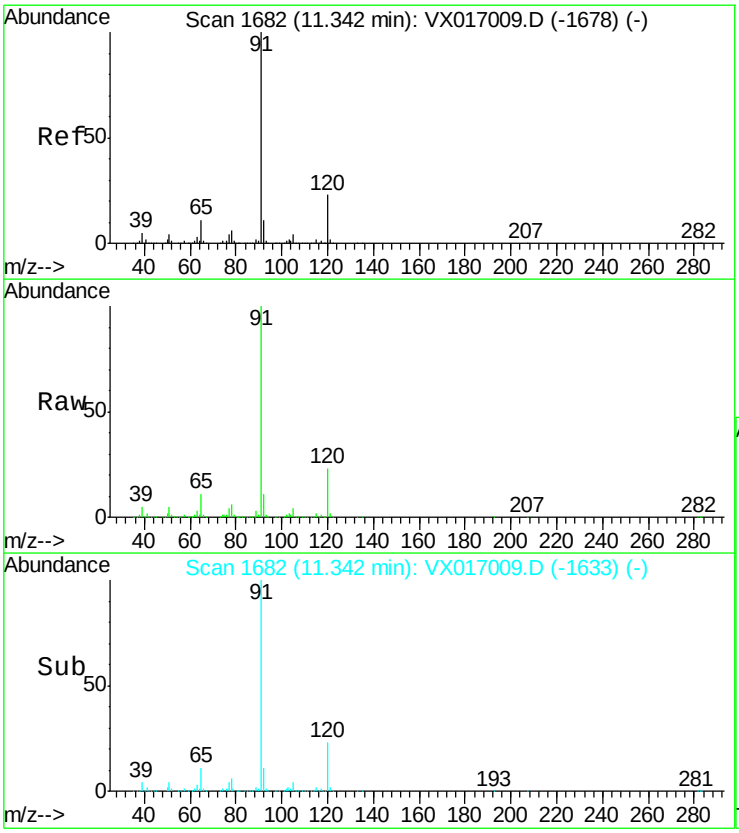


#77
Bromobenzene
Concen: 50.552 ug/l
RT: 11.24 min Scan# 1665
Delta R.T. 0.00 min
Lab File: VX017009.D
Acq: 29 Jun 2020 15:21

Tgt Ion:156 Resp: 199879

Ion	Ratio	Lower	Upper
156	100		
77	153.8	76.9	230.7
158	95.7	47.9	143.6

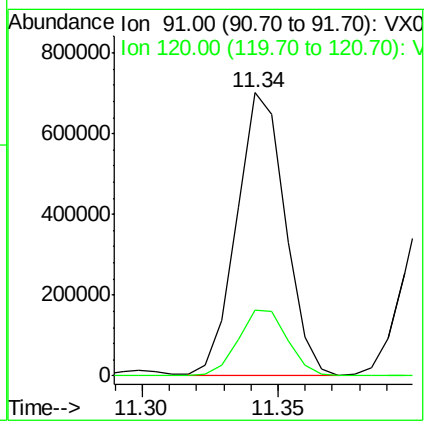




#78
n-propylbenzene
Concen: 52.923 ug/l
RT: 11.34 min Scan# 1682
Delta R.T. 0.00 min
Lab File: VX017009.D
Acq: 29 Jun 2020 15:21

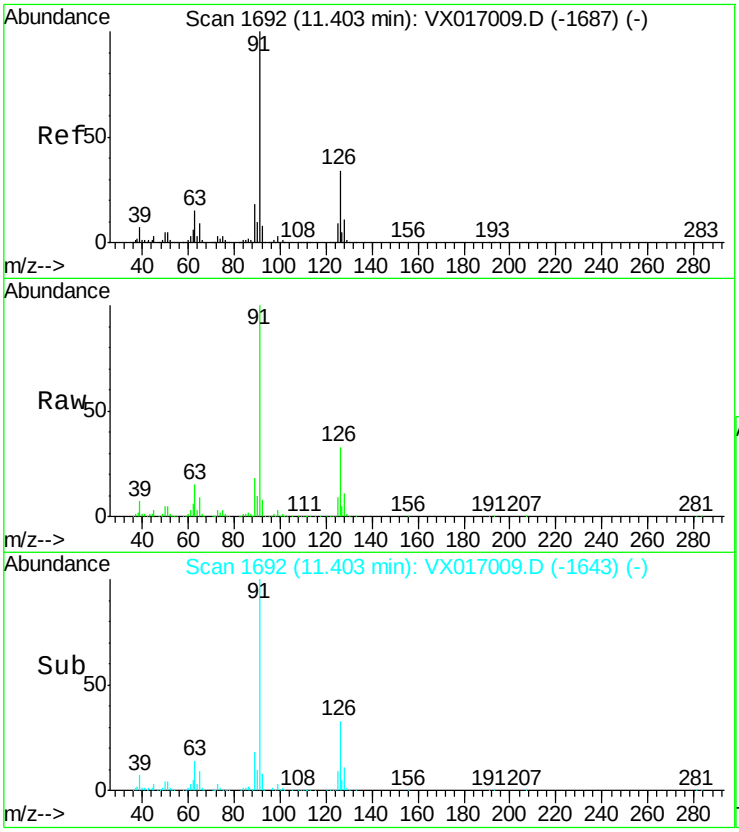
Tgt Ion: 91 Resp: 860988

Ion	Ratio	Lower	Upper
91	100		
120	23.9	11.9	35.9



Instrument :
MSVOA_X
ClientSampleId :
VSTDICCC050

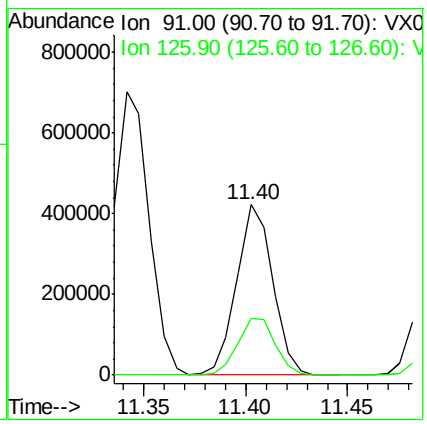
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:13:30 AM

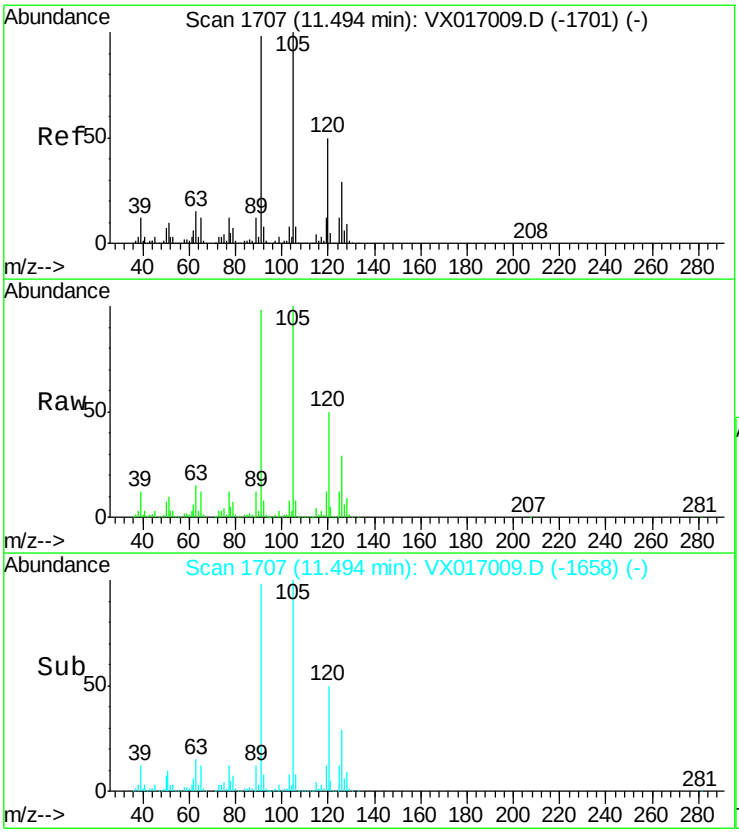


#79
2-Chlorotoluene
Concen: 52.489 ug/l
RT: 11.40 min Scan# 1692
Delta R.T. 0.00 min
Lab File: VX017009.D
Acq: 29 Jun 2020 15:21

Tgt Ion: 91 Resp: 516807

Ion	Ratio	Lower	Upper
91	100		
126	34.9	17.4	52.3

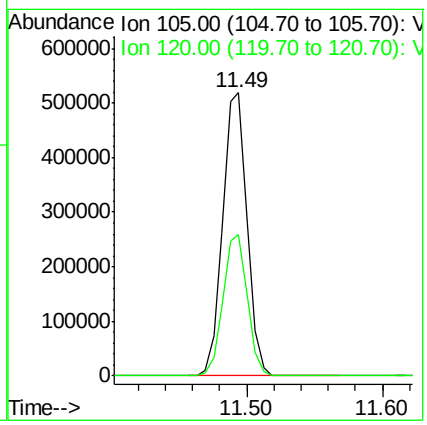




#80
1,3,5-Trimethylbenzene
Concen: 53.540 ug/l
RT: 11.49 min Scan# 1707
Delta R.T. 0.00 min
Lab File: VX017009.D
Acq: 29 Jun 2020 15:21

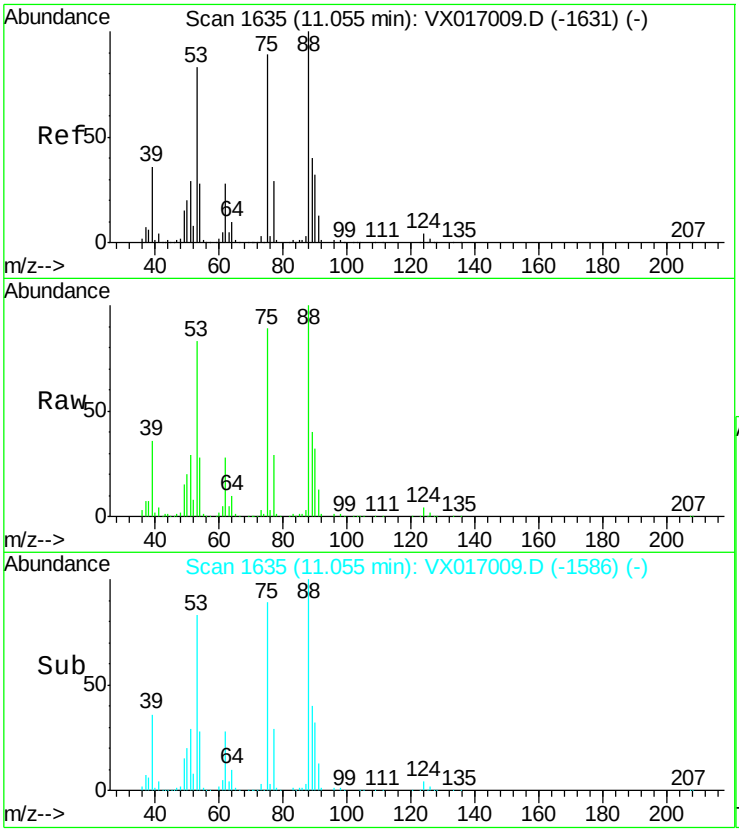
Tgt Ion:105 Resp: 638907

Ion	Ratio	Lower	Upper
105	100		
120	49.7	24.9	74.6



Instrument :
MSVOA_X
ClientSampleId :
VSTDICCC050

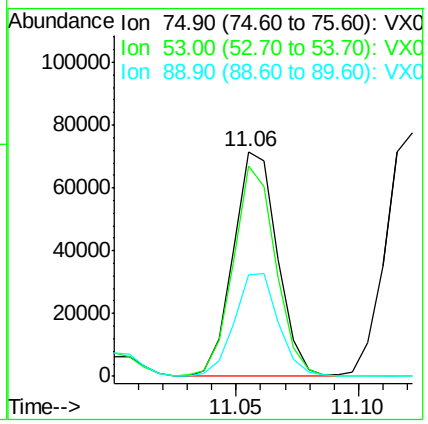
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:13:30 AM



#81
trans-1,4-Dichloro-2-butene
Concen: 53.447 ug/l
RT: 11.06 min Scan# 1635
Delta R.T. 0.00 min
Lab File: VX017009.D
Acq: 29 Jun 2020 15:21

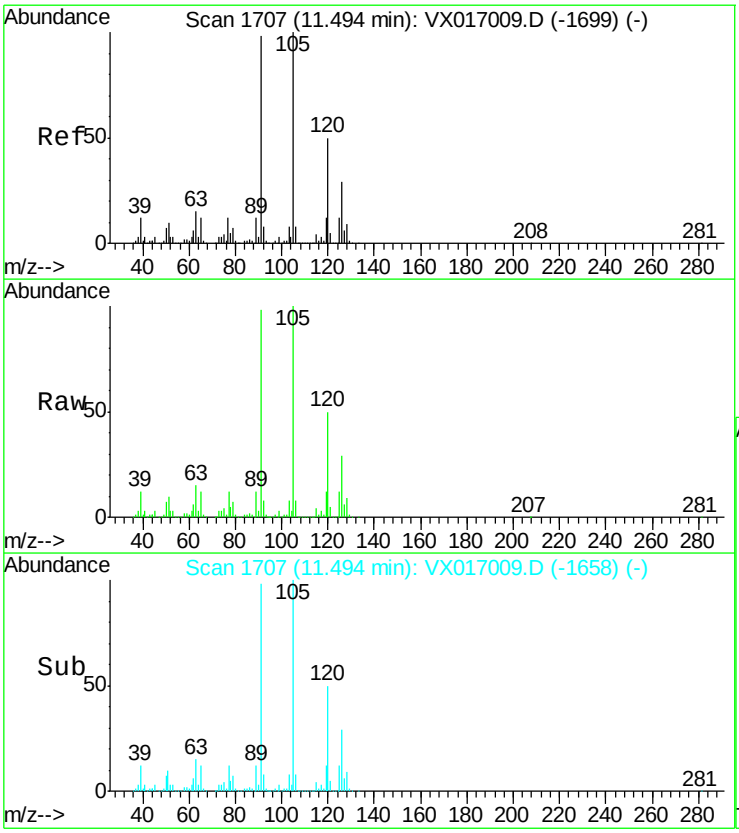
Tgt Ion: 75 Resp: 89140

Ion	Ratio	Lower	Upper
75	100		
53	90.4	72.4	108.6
89	46.1	37.0	55.4



Instrument :
MSVOA_X
ClientSampleId :
VSTDICCC050

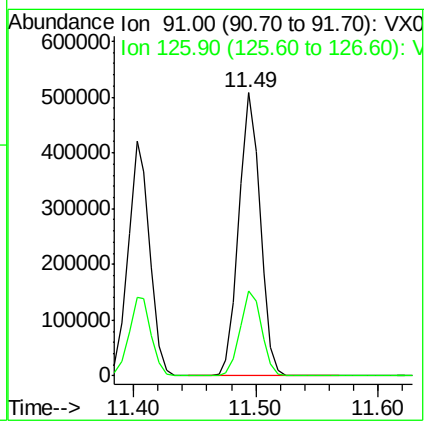
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:13:30 AM

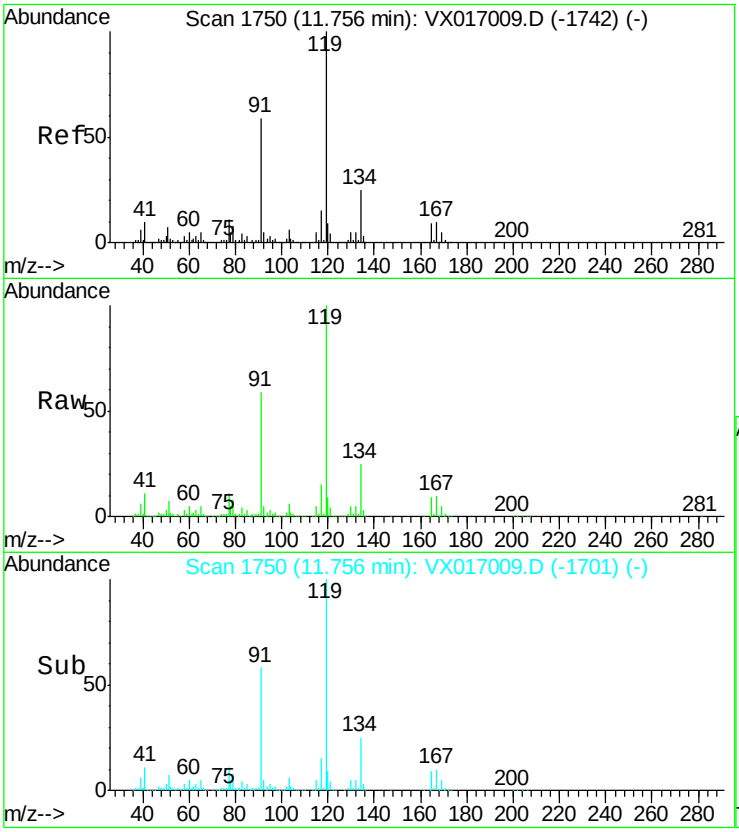


#82
4-Chlorotoluene
Concen: 51.963 ug/l
RT: 11.49 min Scan# 1707
Delta R.T. 0.00 min
Lab File: VX017009.D
Acq: 29 Jun 2020 15:21

Tgt Ion: 91 Resp: 611624

Ion	Ratio	Lower	Upper
91	100		
126	30.3	15.2	45.5

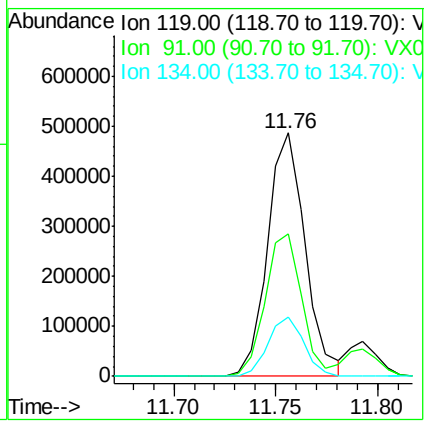


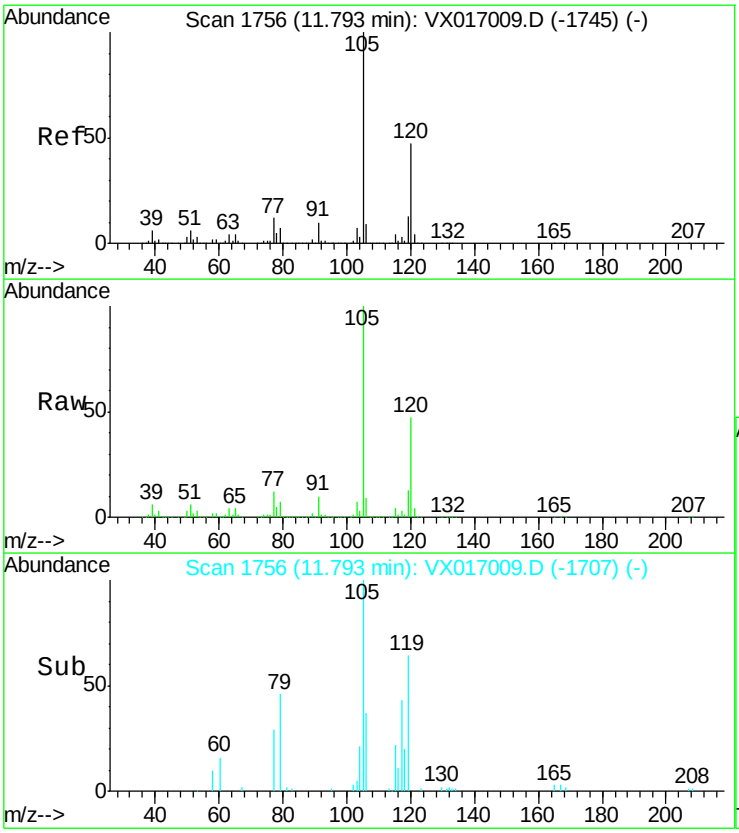


#83
tert-Butylbenzene
Concen: 53.384 ug/l
RT: 11.76 min Scan# 1750
Delta R.T. 0.00 min
Lab File: VX017009.D
Acq: 29 Jun 2020 15:21

Tgt Ion:119 Resp: 625356

Ion	Ratio	Lower	Upper
119	100		
91	56.6	28.3	84.9
134	23.4	11.7	35.1

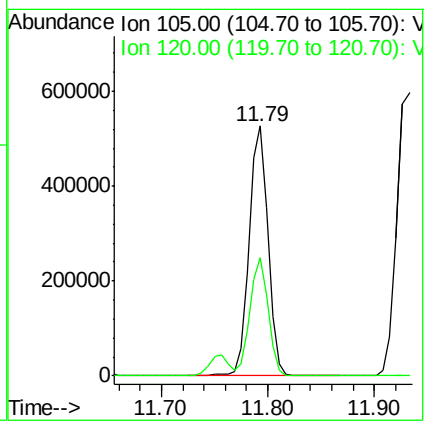




#84
1,2,4-Trimethylbenzene
Concen: 54.116 ug/l
RT: 11.79 min Scan# 1756
Delta R.T. 0.00 min
Lab File: VX017009.D
Acq: 29 Jun 2020 15:21

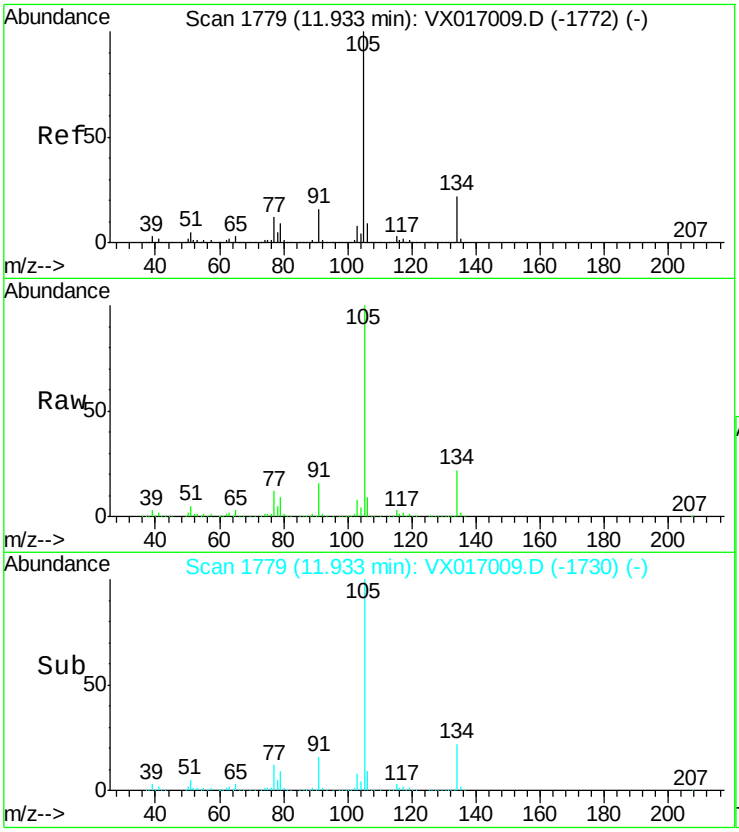
Tgt Ion:105 Resp: 655137

Ion	Ratio	Lower	Upper
105	100		
120	45.7	22.9	68.5



Instrument :
MSVOA_X
ClientSampleId :
VSTDICCC050

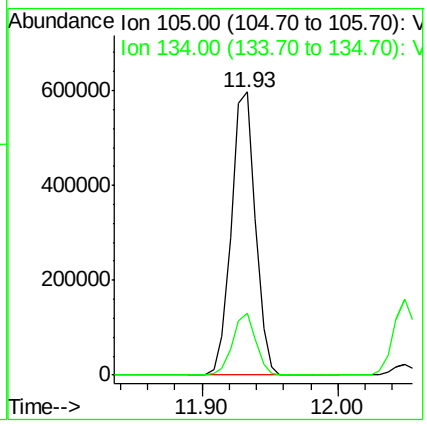
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:13:30 AM



#85
sec-Butylbenzene
Concen: 53.405 ug/l
RT: 11.93 min Scan# 1779
Delta R.T. 0.00 min
Lab File: VX017009.D
Acq: 29 Jun 2020 15:21

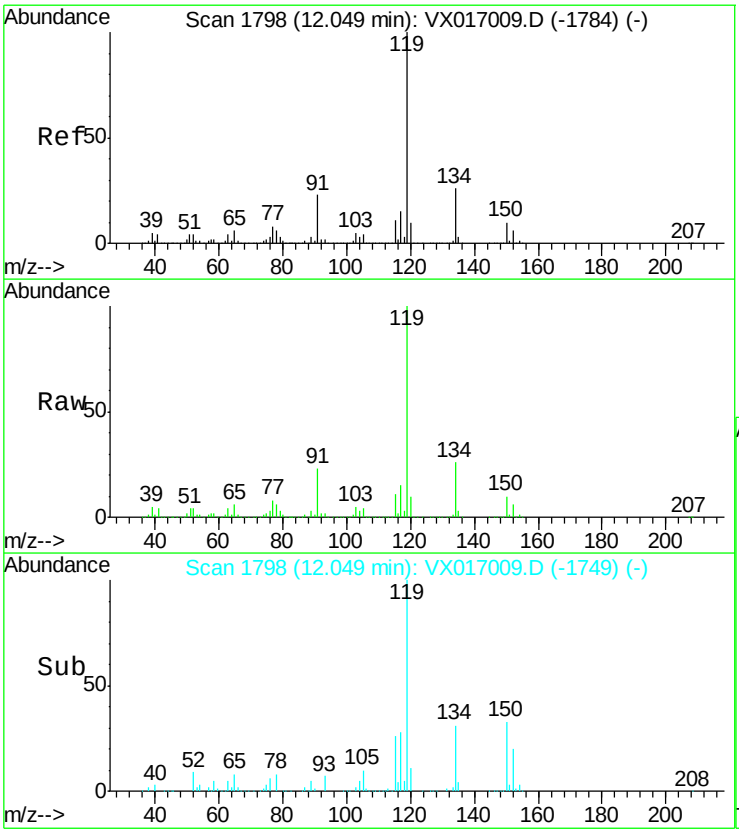
Tgt Ion:105 Resp: 735368

Ion	Ratio	Lower	Upper
105	100		
134	21.1	10.5	31.6



Instrument :
MSVOA_X
ClientSampleId :
VSTDICCC050

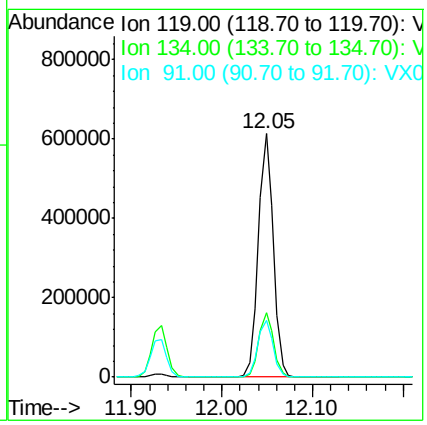
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:13:30 AM

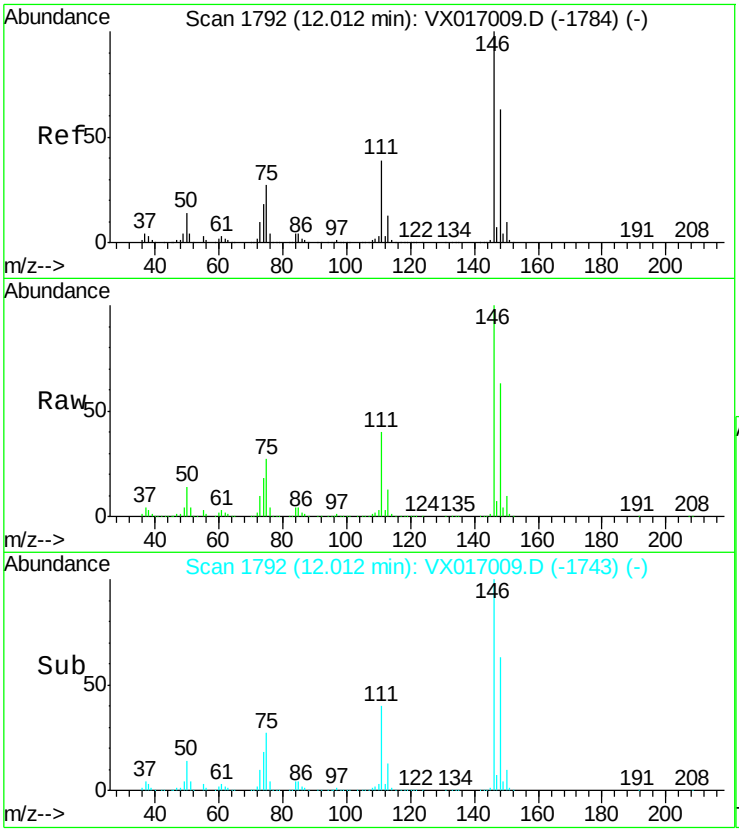


#86
p-Isopropyltoluene
Concen: 54.581 ug/l
RT: 12.05 min Scan# 1798
Delta R.T. 0.00 min
Lab File: VX017009.D
Acq: 29 Jun 2020 15:21

Tgt Ion:119 Resp: 699654

Ion	Ratio	Lower	Upper
119	100		
134	26.3	13.2	39.5
91	23.6	11.8	35.4

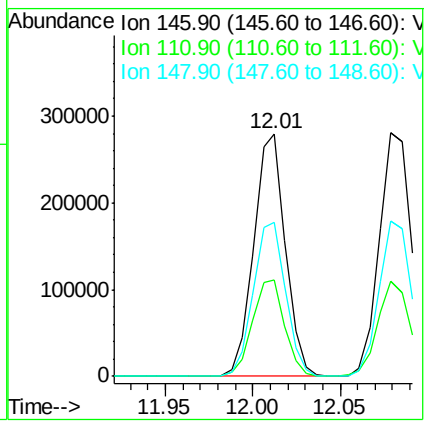




#87
1,3-Dichlorobenzene
Concen: 48.800 ug/l
RT: 12.01 min Scan# 1792
Delta R.T. 0.00 min
Lab File: VX017009.D
Acq: 29 Jun 2020 15:21

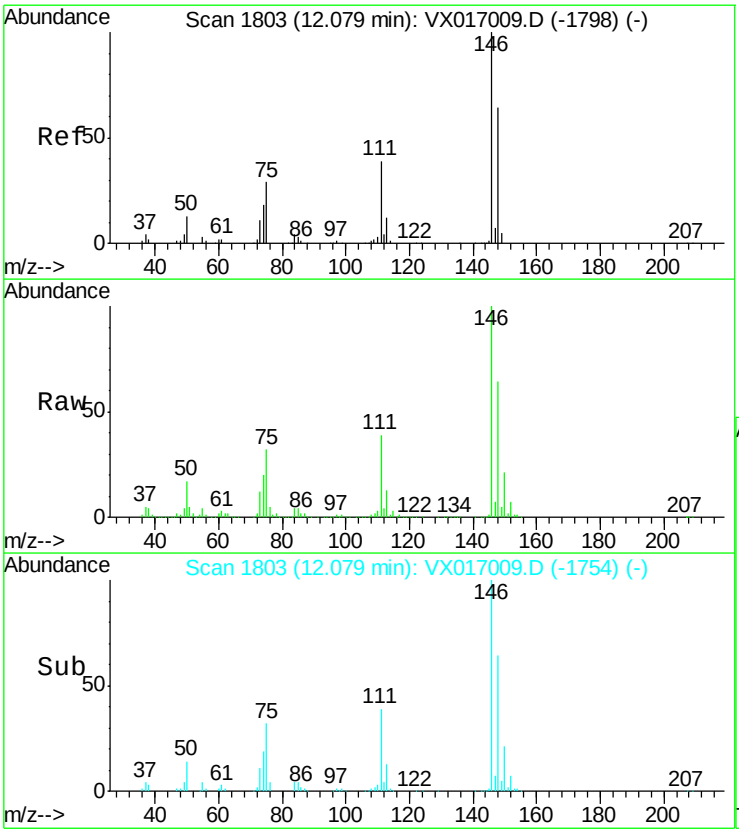
Tgt Ion:146 Resp: 350441

Ion	Ratio	Lower	Upper
146	100		
111	40.8	20.4	61.2
148	65.0	32.5	97.5



Instrument :
MSVOA_X
ClientSampleId :
VSTDICCC050

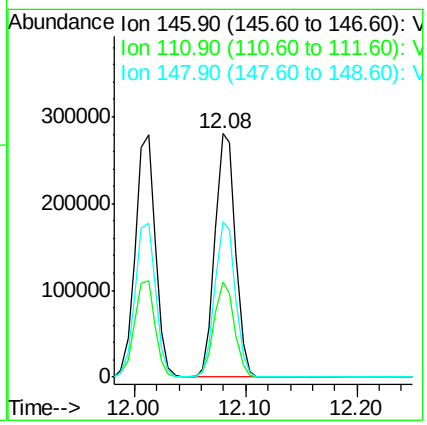
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:13:30 AM

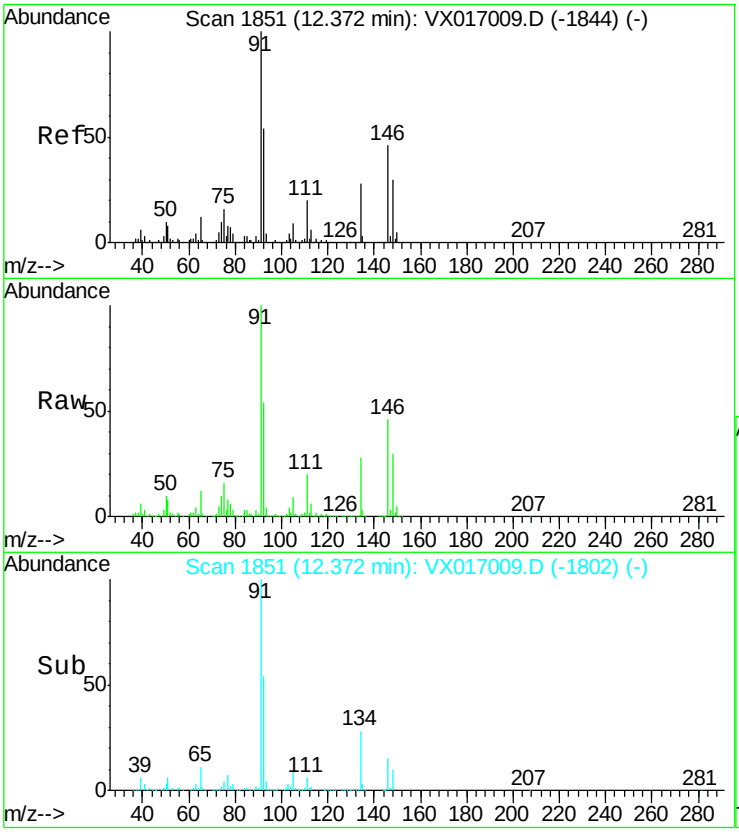


#88
1,4-Dichlorobenzene
Concen: 49.584 ug/l
RT: 12.08 min Scan# 1803
Delta R.T. 0.00 min
Lab File: VX017009.D
Acq: 29 Jun 2020 15:21

Tgt Ion:146 Resp: 358097

Ion	Ratio	Lower	Upper
146	100		
111	39.0	19.5	58.5
148	63.8	31.9	95.7

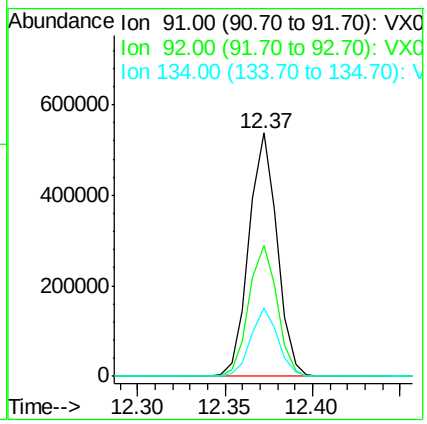




#89
n-Butylbenzene
Concen: 52.391 ug/l
RT: 12.37 min Scan# 1851
Delta R.T. 0.00 min
Lab File: VX017009.D
Acq: 29 Jun 2020 15:21

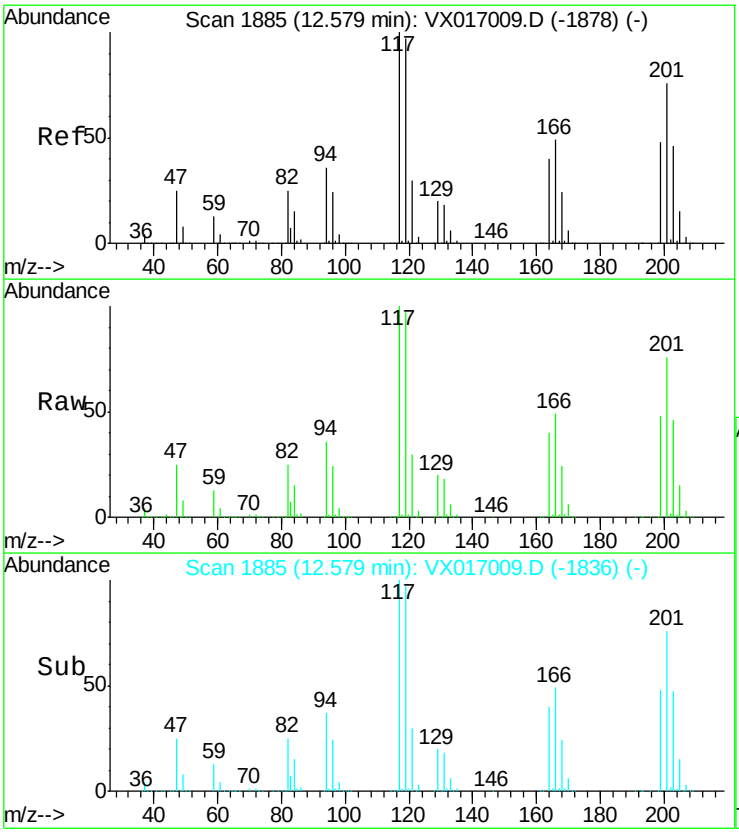
Tgt Ion: 91 Resp: 599658

Ion	Ratio	Lower	Upper
91	100		
92	54.4	27.2	81.6
134	27.1	13.6	40.7



Instrument :
MSVOA_X
ClientSampleId :
VSTDICCC050

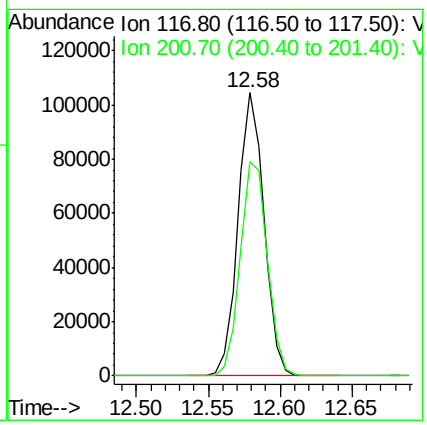
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:13:30 AM

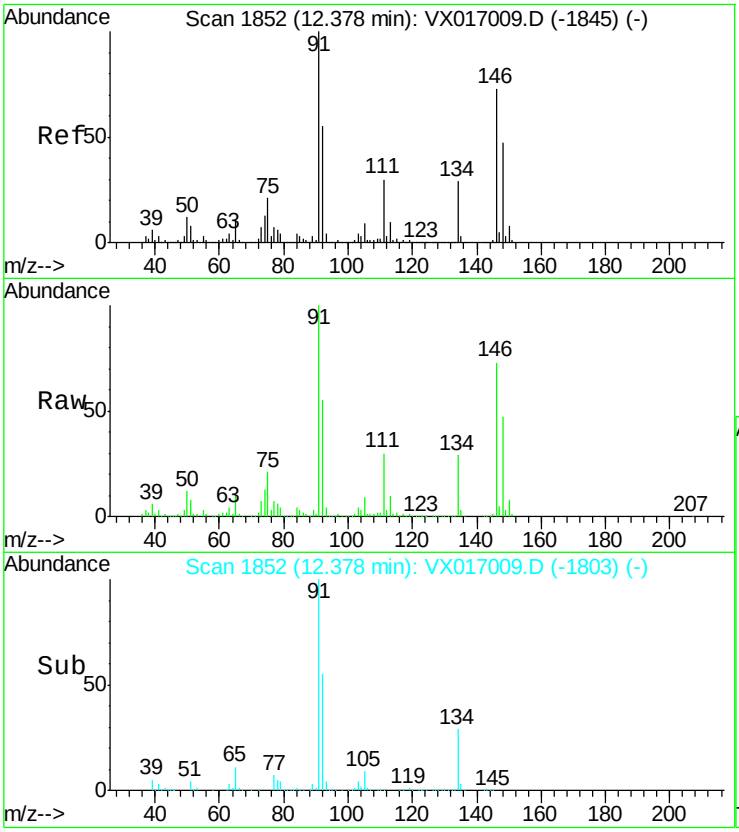


#90
Hexachloroethane
Concen: 51.811 ug/l
RT: 12.58 min Scan# 1885
Delta R.T. 0.00 min
Lab File: VX017009.D
Acq: 29 Jun 2020 15:21

Tgt Ion:117 Resp: 130970

Ion	Ratio	Lower	Upper
117	100		
201	78.8	39.4	118.2

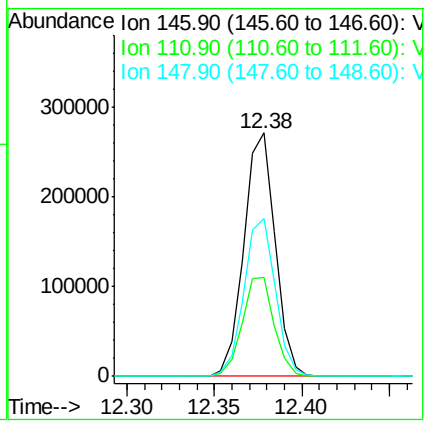




#91
1,2-Dichlorobenzene
Concen: 50.295 ug/l
RT: 12.38 min Scan# 1852
Delta R.T. 0.00 min
Lab File: VX017009.D
Acq: 29 Jun 2020 15:21

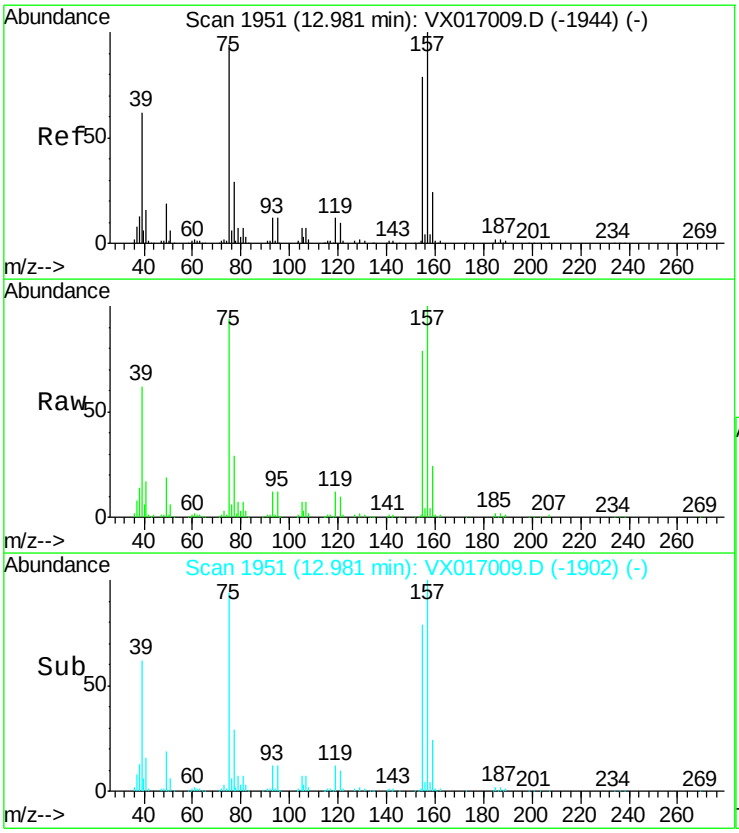
Tgt Ion:146 Resp: 337602

Ion	Ratio	Lower	Upper
146	100		
111	41.3	20.6	61.9
148	64.8	32.4	97.2



Instrument :
MSVOA_X
ClientSampleId :
VSTDICCC050

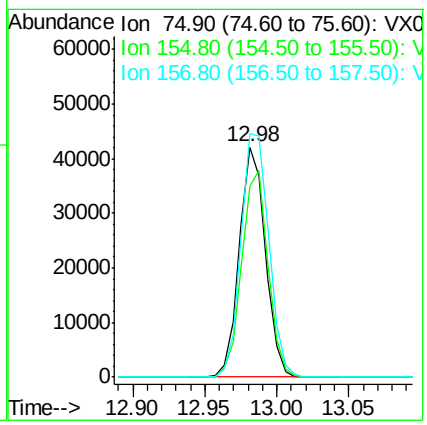
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:13:30 AM

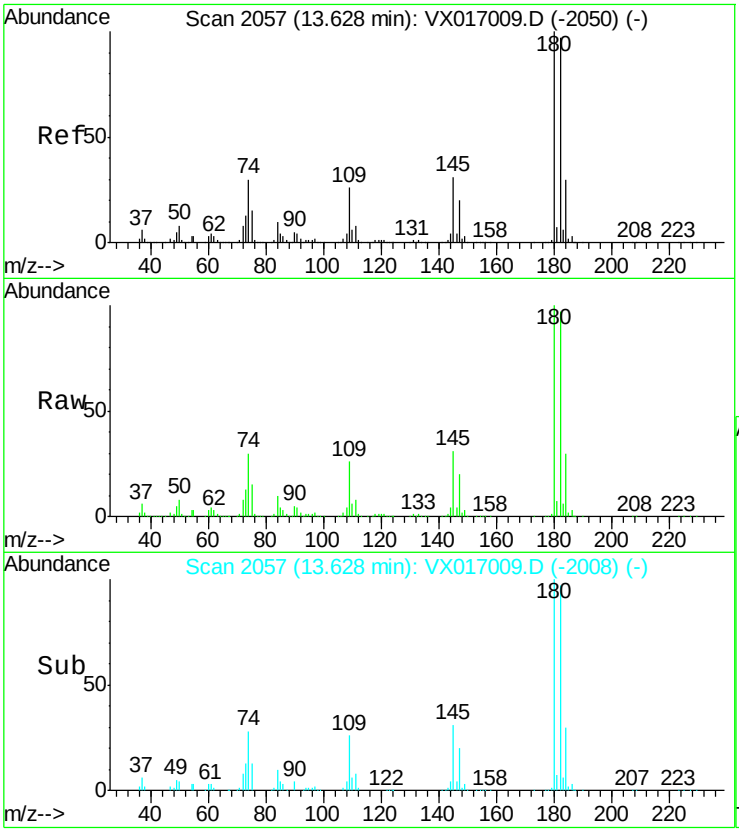


#92
1,2-Dibromo-3-Chloropropane
Concen: 49.124 ug/l
RT: 12.98 min Scan# 1951
Delta R.T. 0.00 min
Lab File: VX017009.D
Acq: 29 Jun 2020 15:21

Tgt Ion: 75 Resp: 53032

Ion	Ratio	Lower	Upper
75	100		
155	90.1	45.1	135.2
157	112.9	56.5	169.3

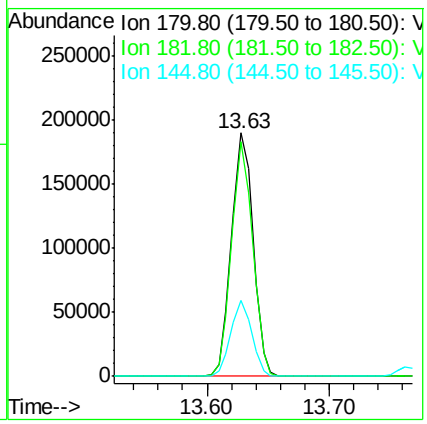




#93
1,2,4-Trichlorobenzene
Concen: 50.469 ug/l
RT: 13.63 min Scan# 2057
Delta R.T. 0.00 min
Lab File: VX017009.D
Acq: 29 Jun 2020 15:21

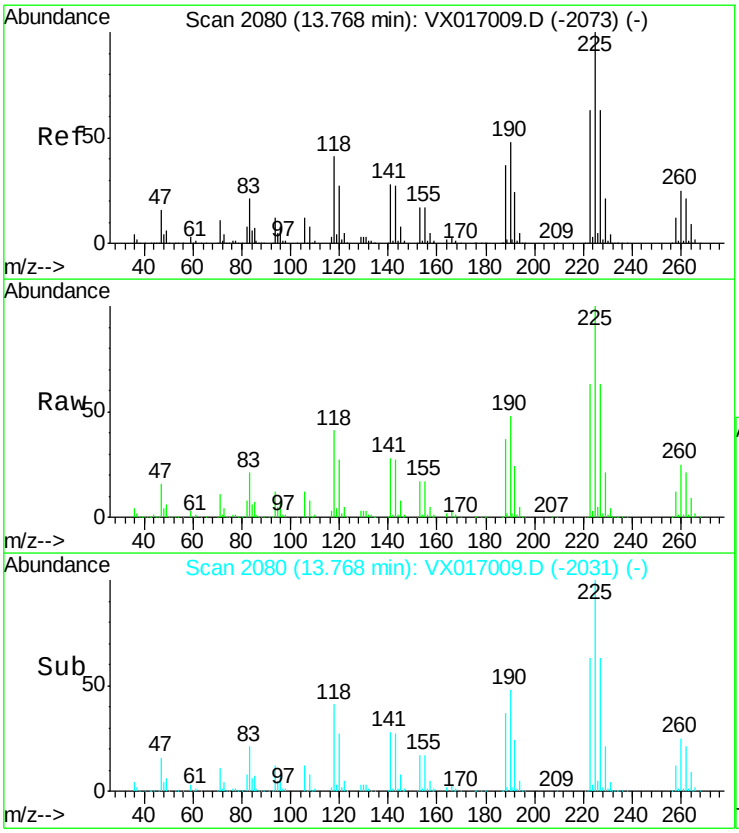
Tgt Ion:180 Resp: 231230

Ion	Ratio	Lower	Upper
180	100		
182	94.6	47.3	141.9
145	30.8	15.4	46.2



Instrument :
MSVOA_X
ClientSampleId :
VSTDICCC050

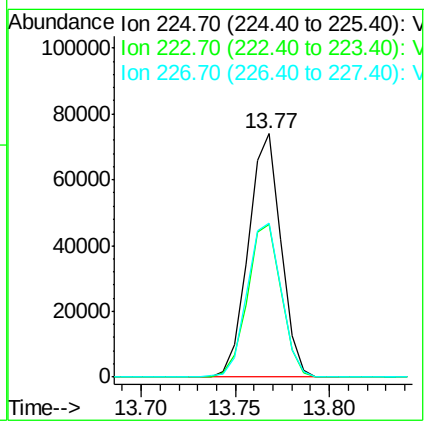
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:13:30 AM

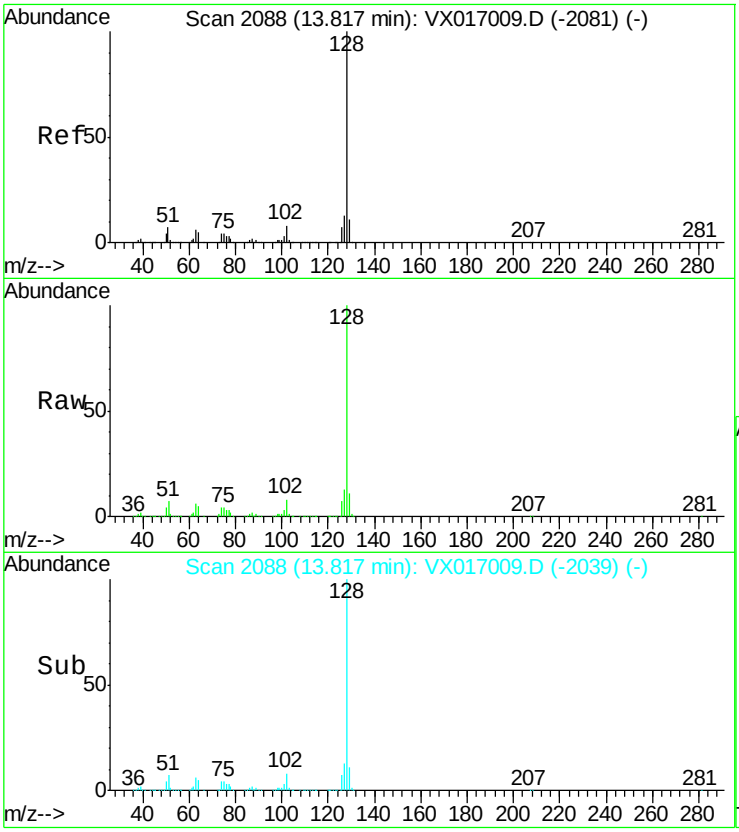


#94
Hexachlorobutadiene
Concen: 47.964 ug/l
RT: 13.77 min Scan# 2080
Delta R.T. 0.00 min
Lab File: VX017009.D
Acq: 29 Jun 2020 15:21

Tgt Ion:225 Resp: 88880

Ion	Ratio	Lower	Upper
225	100		
223	65.0	32.5	97.5
227	66.1	33.1	99.2

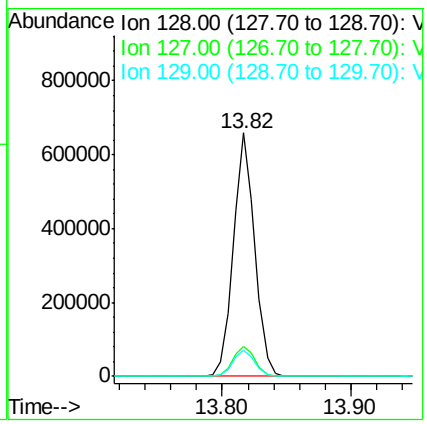




#95
Naphthalene
Concen: 54.553 ug/l
RT: 13.82 min Scan# 2088
Delta R.T. 0.00 min
Lab File: VX017009.D
Acq: 29 Jun 2020 15:21

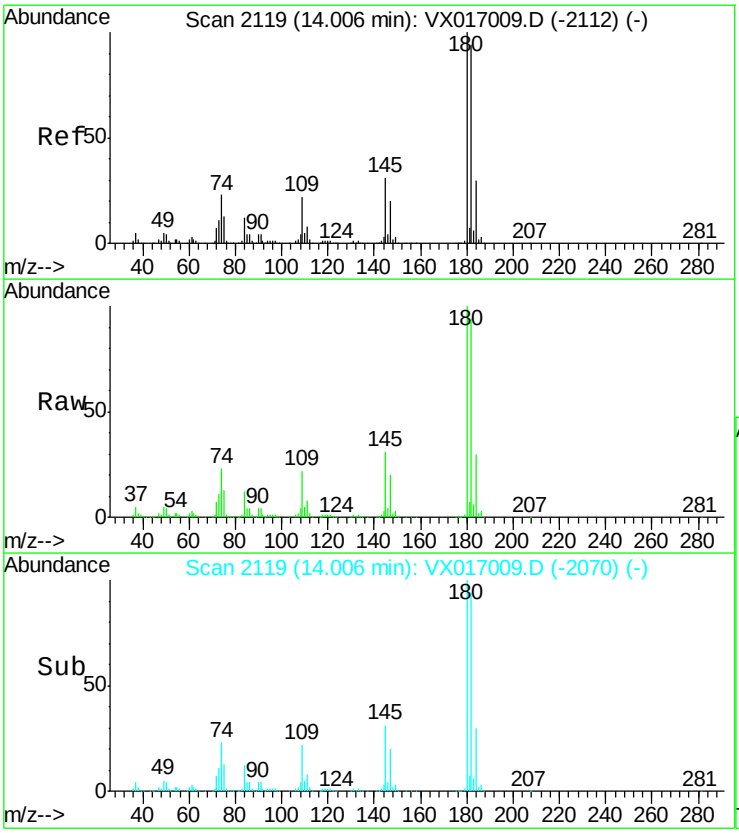
Tgt Ion:128 Resp: 759862

Ion	Ratio	Lower	Upper
128	100		
127	12.8	10.2	15.4
129	10.9	8.7	13.1



Instrument :
MSVOA_X
ClientSampleId :
VSTDICCC050

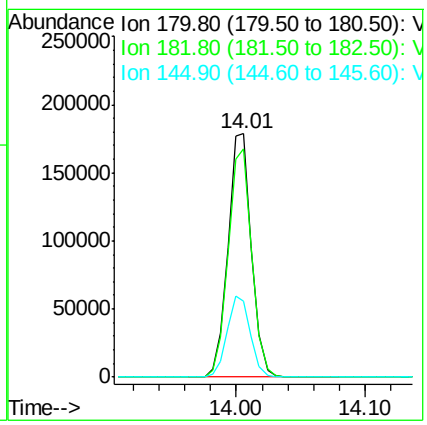
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:13:30 AM



#96
1,2,3-Trichlorobenzene
Concen: 51.297 ug/l
RT: 14.01 min Scan# 2119
Delta R.T. 0.00 min
Lab File: VX017009.D
Acq: 29 Jun 2020 15:21

Tgt Ion:180 Resp: 227446

Ion	Ratio	Lower	Upper
180	100		
182	94.3	47.1	141.4
145	33.1	16.6	49.7



Quantitation Report (QT Reviewed)

ICAL Form

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX062920\
Data File : VX017010.D
Acq On : 29 Jun 2020 15:43
Operator : JC/SP
Sample : VSTDICC100
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 8 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
VSTDICC100

Manual Integrations APPROVED
MMDadoda
6/30/2020 10:13:34 AM

Quant Time: Jun 29 17:03:51 2020
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X062920W.M
Quant Title : SW846 8260
QLast Update : Mon Jun 29 16:54:07 2020
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	5.63	168	329686	50.00	ug/l	0.00
34) 1,4-Difluorobenzene	6.83	114	515672	50.00	ug/l	0.00
63) Chlorobenzene-d5	10.10	117	504882	50.00	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	12.06	152	262944	50.00	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	6.03	65	350658	86.28	ug/l	0.00
Spiked Amount 50.000			Recovery = 172.56%			
35) Dibromofluoromethane	5.46	113	289233	88.67	ug/l	0.00
Spiked Amount 50.000			Recovery = 177.34%			
50) Toluene-d8	8.70	98	1085901	90.03	ug/l	0.00
Spiked Amount 50.000			Recovery = 180.06%			
62) 4-Bromofluorobenzene	11.12	95	439288	93.16	ug/l	0.00
Spiked Amount 50.000			Recovery = 186.32%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.18	85	284061	89.061	ug/l	99
3) Chloromethane	1.31	50	327943	84.943	ug/l	100
4) Vinyl Chloride	1.39	62	303750	84.798	ug/l	98
5) Bromomethane	1.62	94	144017	76.099	ug/l	100
6) Chloroethane	1.70	64	177285	83.800	ug/l	95
7) Trichlorofluoromethane	1.91	101	451649	85.254	ug/l	99
8) Diethyl Ether	2.17	74	159961	82.711	ug/l	98
9) 1,1,2-Trichlorotrifluoroet	2.36	101	269787	84.968	ug/l	99
10) Methyl Iodide	2.49	142	392327	95.758	ug/l	97
11) Tert butyl alcohol	3.03	59	348817	449.877	ug/l	99
12) 1,1-Dichloroethene	2.35	96	277123	84.961	ug/l	99
13) Acrolein	2.28	56	206826	446.230	ug/l	98
14) Allyl chloride	2.70	41	518513	86.017	ug/l	100
15) Acrylonitrile	3.12	53	818729	439.247	ug/l	100
16) Acetone	2.42	43	641415	421.861	ug/l	99
17) Carbon Disulfide	2.54	76	816780	81.756	ug/l	99
18) Methyl Acetate	2.75	43	341376	86.008	ug/l	99
19) Methyl tert-butyl Ether	3.17	73	963510	88.014	ug/l	100
20) Methylene Chloride	2.83	84	313165	80.585	ug/l	97
21) trans-1,2-Dichloroethene	3.14	96	308787	85.306	ug/l	97
22) Diisopropyl ether	3.82	45	958604	85.920	ug/l	98
23) Vinyl Acetate	3.79	43	4349490	453.677	ug/l	99
24) 1,1-Dichloroethane	3.67	63	545012	85.853	ug/l	100
25) 2-Butanone	4.64	43	1108764	437.650	ug/l	100
26) 2,2-Dichloropropane	4.55	77	467865	83.005	ug/l	99
27) cis-1,2-Dichloroethene	4.56	96	349998	85.336	ug/l	100
28) Bromochloromethane	4.98	49	258810	83.780	ug/l	100
29) Tetrahydrofuran	5.09	42	740050	442.110	ug/l	99
30) Chloroform	5.18	83	555196	85.315	ug/l	99
31) Cyclohexane	5.55	56	489474	89.202	ug/l	99
32) 1,1,1-Trichloroethane	5.46	97	511166	85.291	ug/l	99
36) 1,1-Dichloropropene	5.77	75	424159	87.030	ug/l	99
37) Ethyl Acetate	4.79	43	440507	89.082	ug/l	100
38) Carbon Tetrachloride	5.75	117	467566	87.102	ug/l	97

ICAL Form

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX062920\
Data File : VX017010.D
Acq On : 29 Jun 2020 15:43
Operator : JC/SP
Sample : VSTDICC100
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 8 Sample Multiplier: 1

Instrument : MSVOA_X
ClientSampleId : VSTDICC100

Manual Integrations APPROVED
MMDadoda
6/30/2020 10:13:34 AM

Quant Time: Jun 29 17:03:51 2020
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X062920W.M
Quant Title : SW846 8260
QLast Update : Mon Jun 29 16:54:07 2020
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
39) Methylcyclohexane	7.44	83	501697	92.519 ug/l	98
40) Benzene	6.11	78	1257759	87.833 ug/l	99
41) Methacrylonitrile	5.01	41	249777	89.747 ug/l	97
42) 1,2-Dichloroethane	6.17	62	452590	87.501 ug/l	100
43) Isopropyl Acetate	6.42	43	748855	91.134 ug/l	100
44) Trichloroethene	7.19	130	359036	83.243 ug/l	99
45) 1,2-Dichloropropane	7.49	63	323816	88.043 ug/l	100
46) Dibromomethane	7.63	93	220760	87.917 ug/l	98
47) Bromodichloromethane	7.88	83	462021	89.284 ug/l	97
48) Methyl methacrylate	7.74	41	369760	94.716 ug/l	99
49) 1,4-Dioxane	7.71	88	161907	1830.675 ug/l	98
51) 4-Methyl-2-Pentanone	8.62	43	2297127	468.977 ug/l	100
52) Toluene	8.77	92	802705	89.783 ug/l	98
53) t-1,3-Dichloropropene	9.02	75	531059	93.014 ug/l	99
54) cis-1,3-Dichloropropene	8.42	75	552420	90.258 ug/l	98
55) 1,1,2-Trichloroethane	9.20	97	328321	89.881 ug/l	98
56) Ethyl methacrylate	9.16	69	519812	99.980 ug/l	99
57) 1,3-Dichloropropane	9.35	76	542690	87.800 ug/l	99
58) 2-Chloroethyl Vinyl ether	8.29	63	1285755	496.895 ug/l	100
59) 2-Hexanone	9.48	43	1720186	480.862 ug/l	99
60) Dibromochloromethane	9.57	129	393183	92.675 ug/l	99
61) 1,2-Dibromoethane	9.65	107	355346	90.502 ug/l	99
64) Tetrachloroethene	9.32	164	336131	82.492 ug/l	98
65) Chlorobenzene	10.12	112	896407	86.024 ug/l	98
66) 1,1,1,2-Tetrachloroethane	10.20	131	350208	87.205 ug/l	99
67) Ethyl Benzene	10.24	91	1585354	91.100 ug/l	98
68) m/p-Xylenes	10.34	106	1213121	181.553 ug/l	99
69) o-Xylene	10.68	106	587633	92.446 ug/l	100
70) Styrene	10.70	104	1039095	95.995 ug/l	100
71) Bromoform	10.84	173	303353	95.257 ug/l	100
73) Isopropylbenzene	11.00	105	1584699	92.010 ug/l	100
74) N-amyl acetate	10.88	43	701815	95.498 ug/l	100
75) 1,1,2,2-Tetrachloroethane	11.25	83	466883	86.178 ug/l	99
76) 1,2,3-Trichloropropane	11.28	75	447809m	69.154 ug/l	
77) Bromobenzene	11.24	156	414204	87.504 ug/l	100
78) n-propylbenzene	11.34	91	1821687	93.533 ug/l	100
79) 2-Chlorotoluene	11.40	91	1080579	91.672 ug/l	100
80) 1,3,5-Trimethylbenzene	11.49	105	1346667	94.264 ug/l	100
81) trans-1,4-Dichloro-2-buten	11.06	75	183789	92.048 ug/l	98
82) 4-Chlorotoluene	11.49	91	1279324	90.790 ug/l	100
83) tert-Butylbenzene	11.76	119	1310444	93.443 ug/l	99
84) 1,2,4-Trimethylbenzene	11.79	105	1393190	96.126 ug/l	100
85) sec-Butylbenzene	11.93	105	1566555	95.030 ug/l	100
86) p-Isopropyltoluene	12.05	119	1454687	94.792 ug/l	99
87) 1,3-Dichlorobenzene	12.01	146	733794	85.354 ug/l	100
88) 1,4-Dichlorobenzene	12.08	146	737377	85.284 ug/l	99
89) n-Butylbenzene	12.37	91	1278315	93.290 ug/l	100
90) Hexachloroethane	12.58	117	275090	90.900 ug/l	100
91) 1,2-Dichlorobenzene	12.38	146	695743	86.578 ug/l	99
92) 1,2-Dibromo-3-Chloropropan	12.98	75	112699	87.201 ug/l	98

ICAL Form

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX062920\
Data File : VX017010.D
Acq On : 29 Jun 2020 15:43
Operator : JC/SP
Sample : VSTDICC100
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 8 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
VSTDICC100

Manual Integrations APPROVED
MMDadoda
6/30/2020 10:13:34 AM

Quant Time: Jun 29 17:03:51 2020
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X062920W.M
Quant Title : SW846 8260
QLast Update : Mon Jun 29 16:54:07 2020
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
93) 1,2,4-Trichlorobenzene	13.63	180	492460	89.784	ug/l	99
94) Hexachlorobutadiene	13.77	225	192198	86.636	ug/l	96
95) Naphthalene	13.82	128	1605517	96.282	ug/l	100
96) 1,2,3-Trichlorobenzene	14.00	180	489523	92.221	ug/l	99

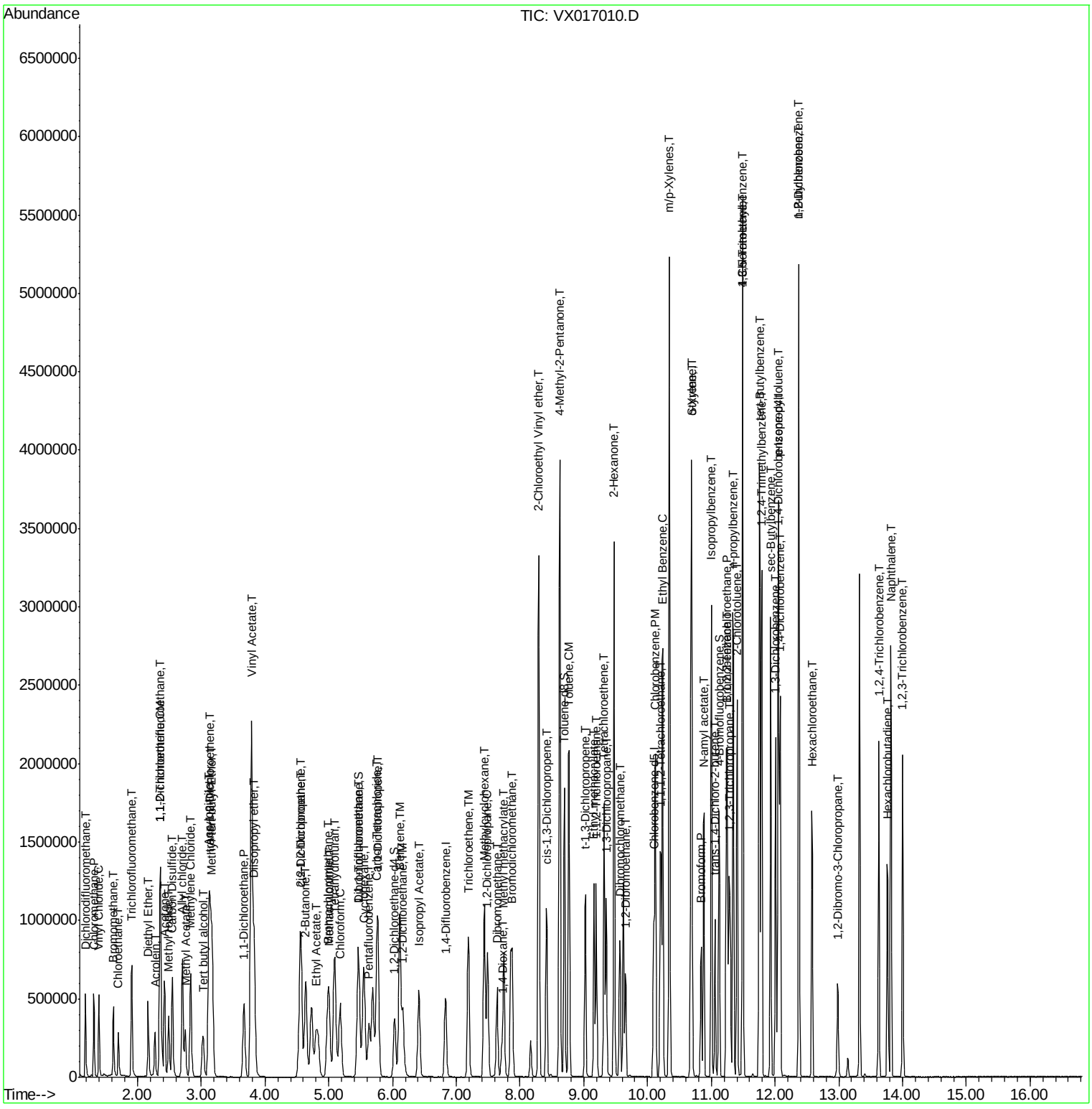
(#) = qualifier out of range (m) = manual integration (+) = signals summed

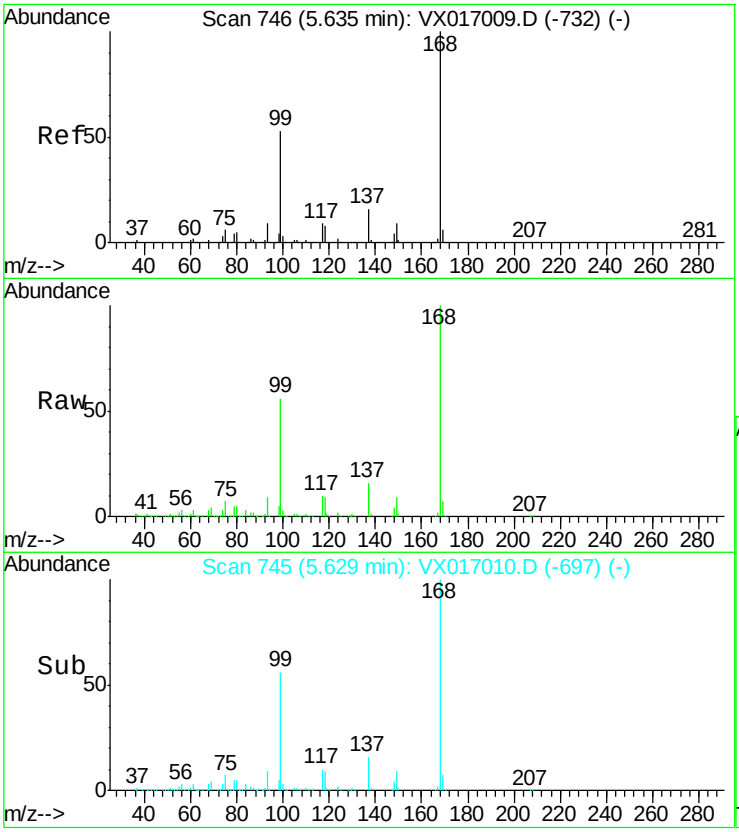
Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX062920\
Data File : VX017010.D
Acq On : 29 Jun 2020 15:43
Operator : JC/SP
Sample : VSTDICC100
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jun 29 17:03:51 2020
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X062920W.M
Quant Title : SW846 8260
QLast Update : Mon Jun 29 16:54:07 2020
Response via : Initial Calibration

Instrument :
MSVOA_X
ClientSampleId :
VSTDICC100

Manual Integrations APPROVED
MMDadoda
6/30/2020 10:13:34 AM

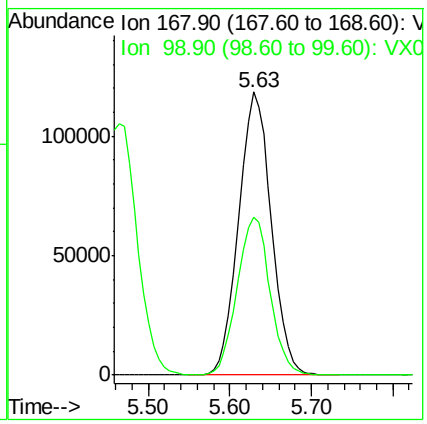




#1
Pentafluorobenzene
Concen: 50.000 ug/l
RT: 5.63 min Scan# 745
Delta R.T. -0.01 min
Lab File: VX017010.D
Acq: 29 Jun 2020 15:43

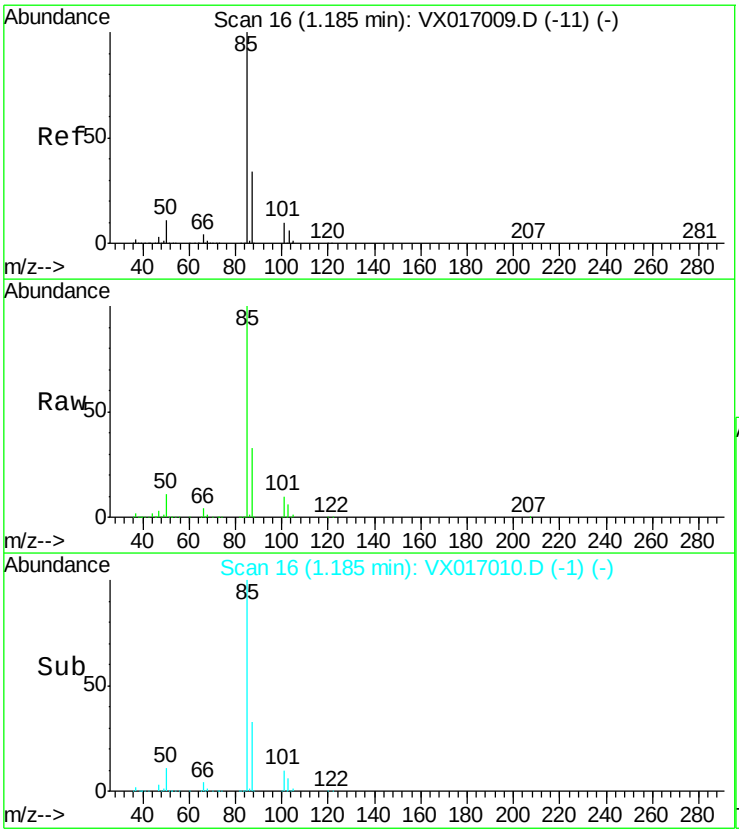
Tgt Ion:168 Resp: 329686

Ion	Ratio	Lower	Upper
168	100		
99	55.7	42.6	64.0



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC100

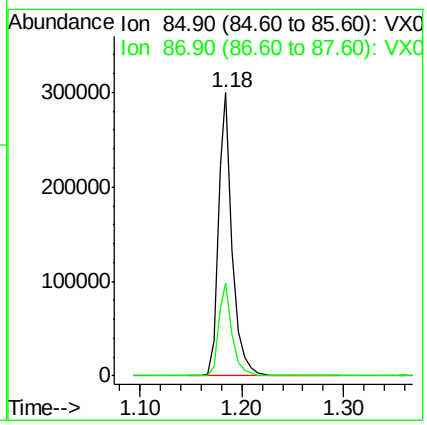
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:13:34 AM



#2
Dichlorodifluoromethane
Concen: 89.061 ug/l
RT: 1.18 min Scan# 16
Delta R.T. -0.00 min
Lab File: VX017010.D
Acq: 29 Jun 2020 15:43

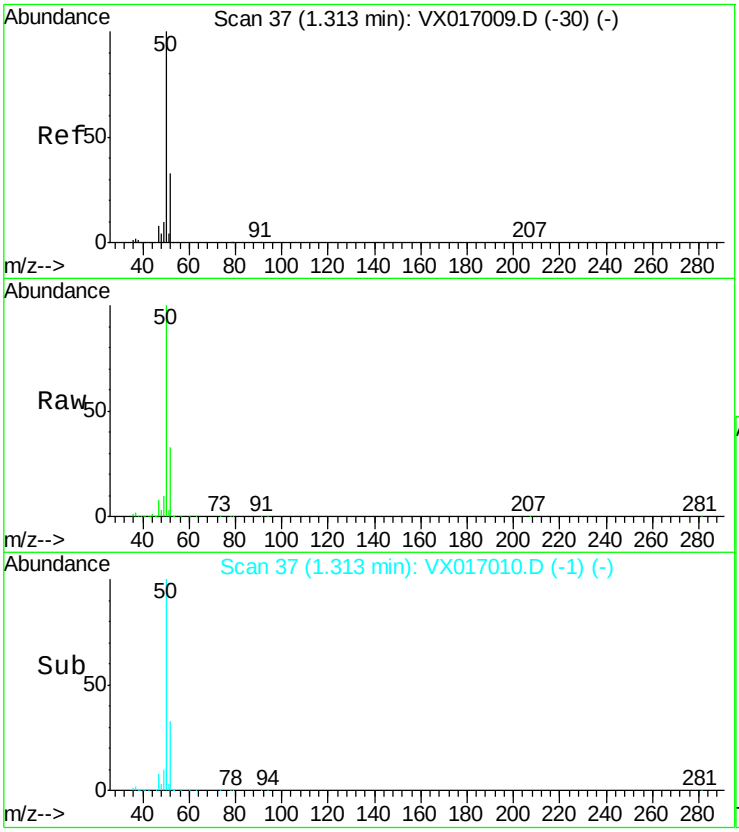
Tgt Ion: 85 Resp: 284061

Ion	Ratio	Lower	Upper
85	100		
87	32.9	16.8	50.4



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC100

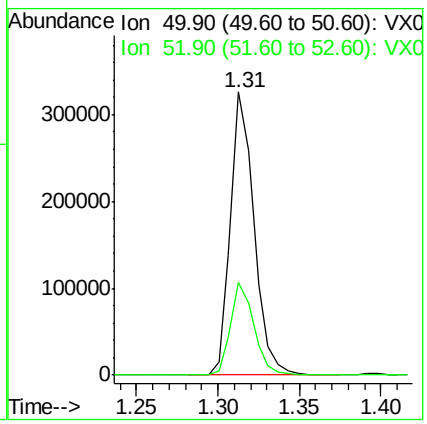
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:13:34 AM

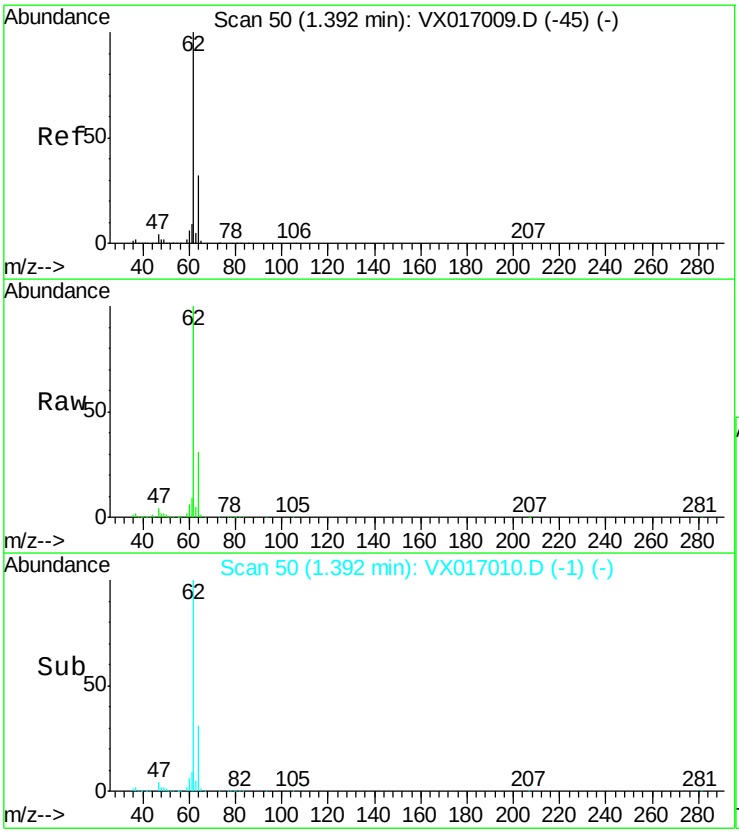


#3
Chloromethane
Concen: 84.943 ug/l
RT: 1.31 min Scan# 37
Delta R.T. -0.00 min
Lab File: VX017010.D
Acq: 29 Jun 2020 15:43

Tgt Ion: 50 Resp: 327943

Ion	Ratio	Lower	Upper
50	100		
52	32.8	26.1	39.1

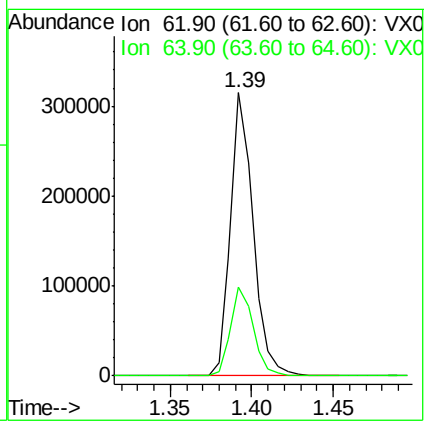


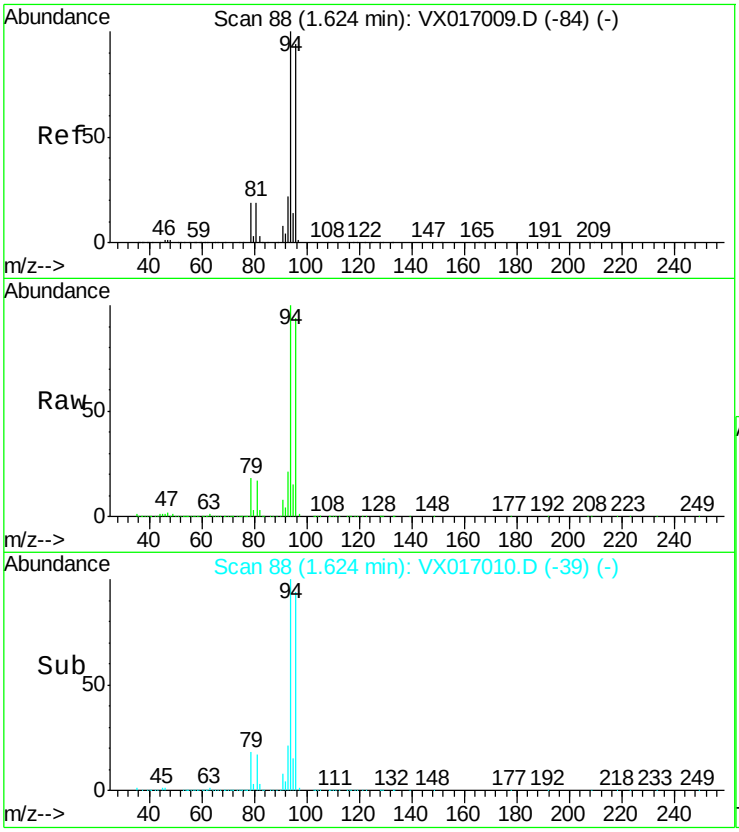


#4
Vinyl Chloride
Concen: 84.798 ug/l
RT: 1.39 min Scan# 50
Delta R.T. -0.00 min
Lab File: VX017010.D
Acq: 29 Jun 2020 15:43

Tgt Ion: 62 Resp: 303750

Ion	Ratio	Lower	Upper
62	100		
64	31.4	25.9	38.9

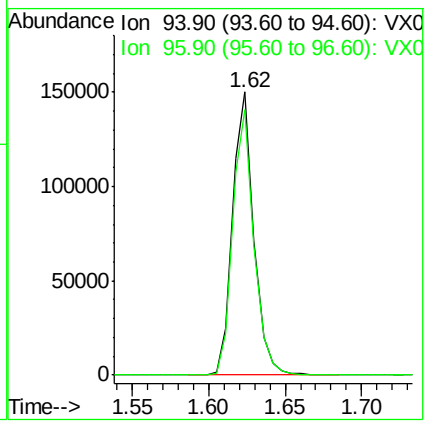




#5
Bromomethane
Concen: 76.099 ug/l
RT: 1.62 min Scan# 88
Delta R.T. 0.00 min
Lab File: VX017010.D
Acq: 29 Jun 2020 15:43

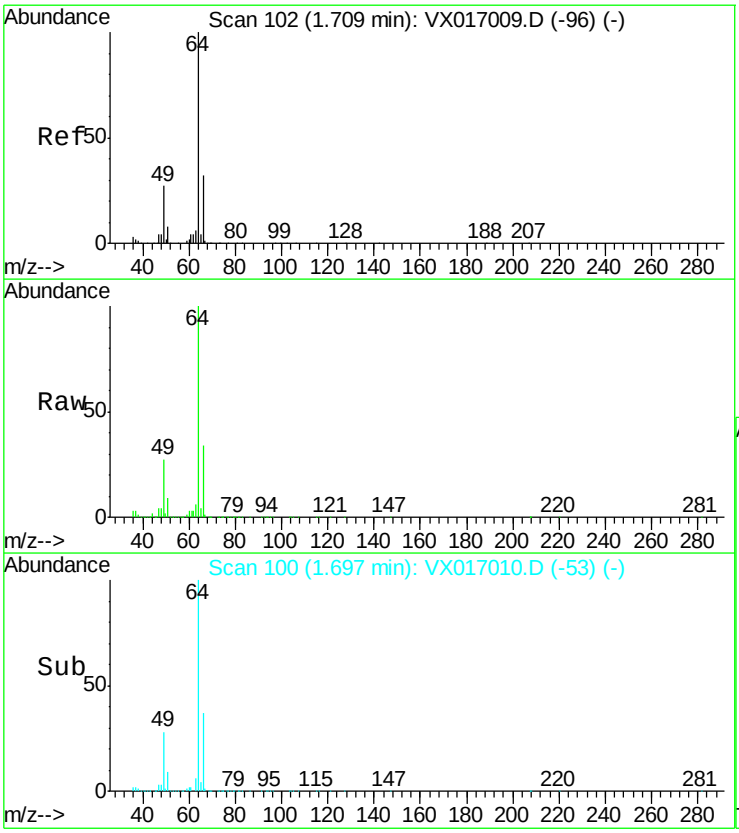
Tgt Ion: 94 Resp: 144017

Ion	Ratio	Lower	Upper
94	100		
96	93.7	75.0	112.4



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC100

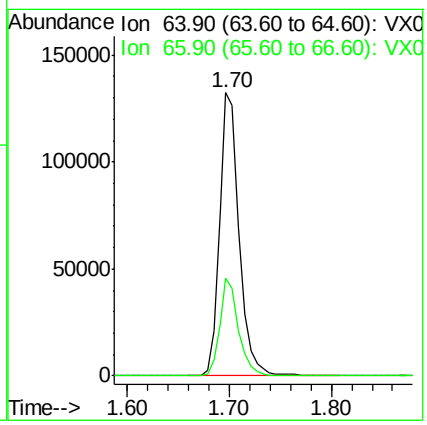
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:13:34 AM

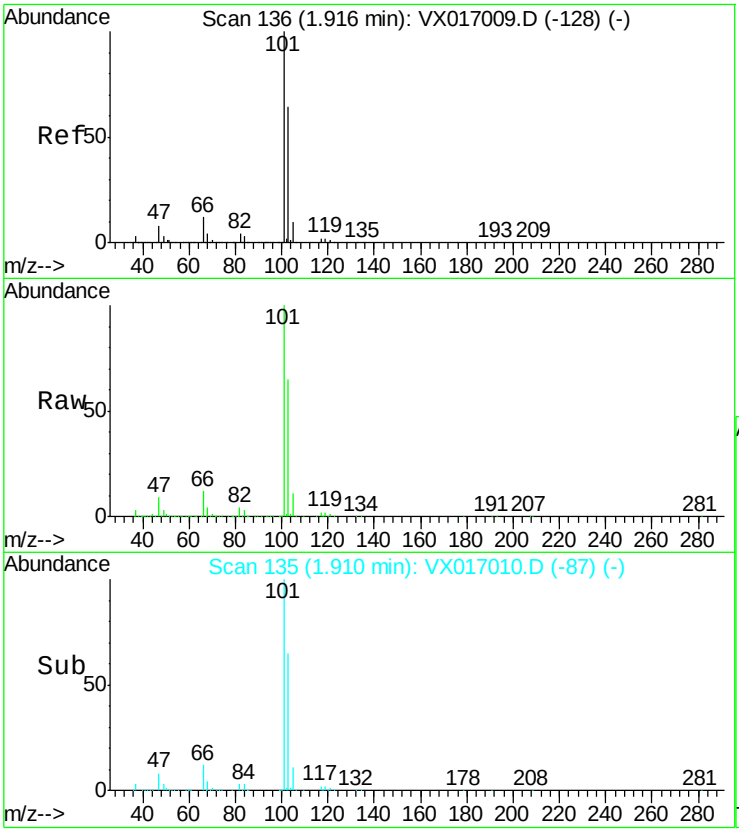


#6
Chloroethane
Concen: 83.800 ug/l
RT: 1.70 min Scan# 100
Delta R.T. -0.01 min
Lab File: VX017010.D
Acq: 29 Jun 2020 15:43

Tgt Ion: 64 Resp: 177285

Ion	Ratio	Lower	Upper
64	100		
66	34.4	25.5	38.3

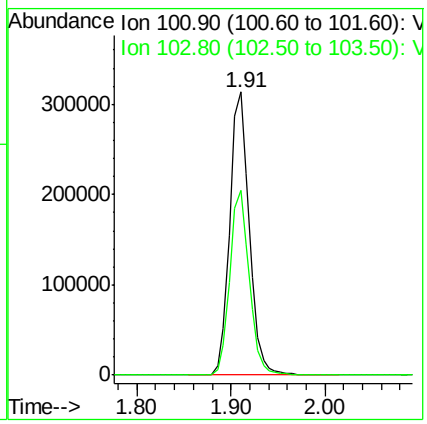




#7
Trichlorofluoromethane
Concen: 85.254 ug/l
RT: 1.91 min Scan# 135
Delta R.T. -0.01 min
Lab File: VX017010.D
Acq: 29 Jun 2020 15:43

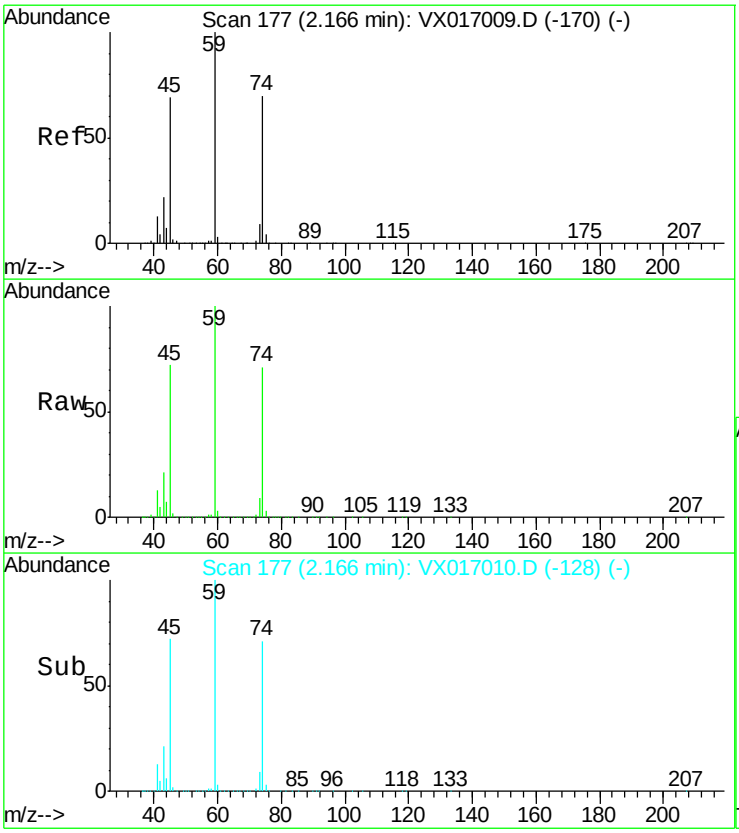
Tgt Ion:101 Resp: 451649

Ion	Ratio	Lower	Upper
101	100		
103	65.4	51.5	77.3



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC100

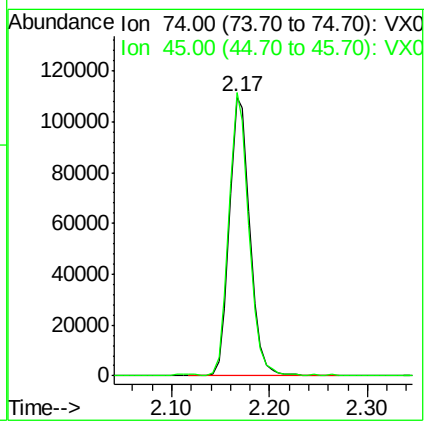
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:13:34 AM

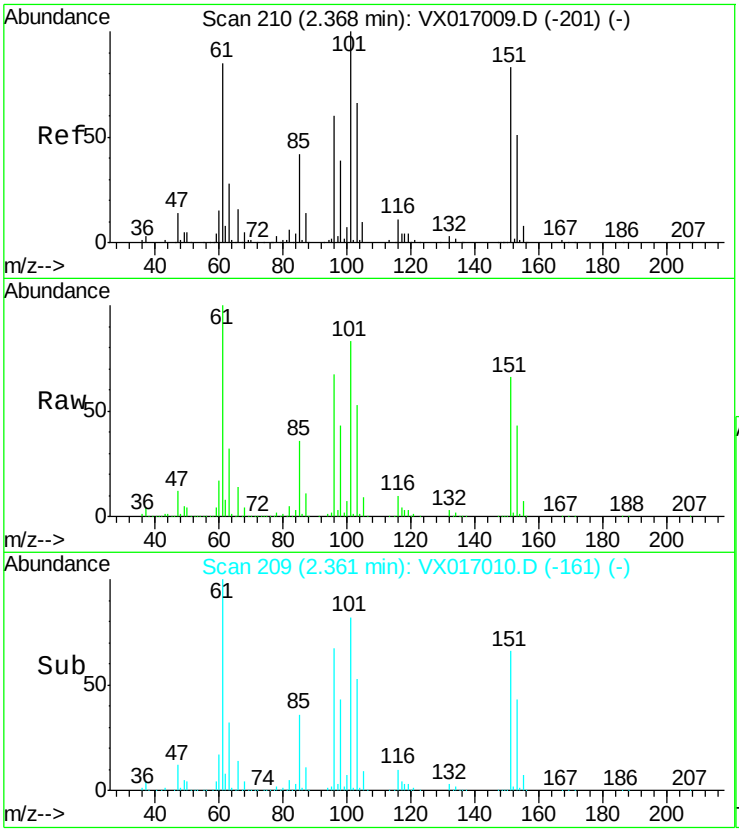


#8
Diethyl Ether
Concen: 82.711 ug/l
RT: 2.17 min Scan# 177
Delta R.T. 0.00 min
Lab File: VX017010.D
Acq: 29 Jun 2020 15:43

Tgt Ion: 74 Resp: 159961

Ion	Ratio	Lower	Upper
74	100		
45	97.9	49.8	149.3

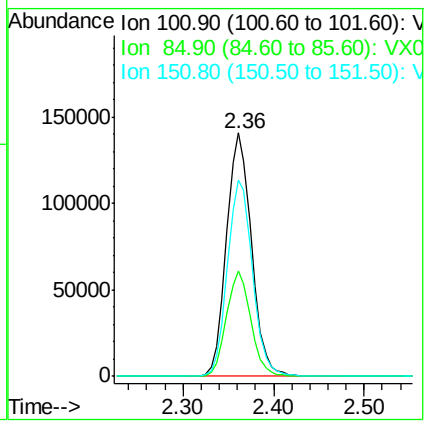




#9
1,1,2-Trichlorotrifluoroethane
Concen: 84.968 ug/l
RT: 2.36 min Scan# 209
Delta R.T. -0.01 min
Lab File: VX017010.D
Acq: 29 Jun 2020 15:43

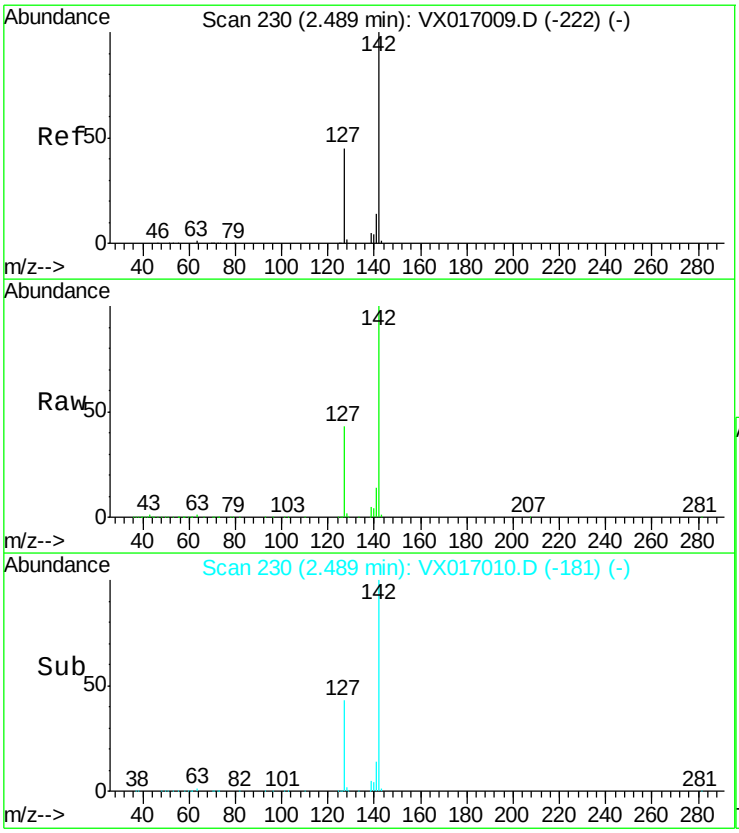
Tgt Ion:101 Resp: 269787

Ion	Ratio	Lower	Upper
101	100		
85	42.3	33.5	50.3
151	81.1	63.8	95.6



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC100

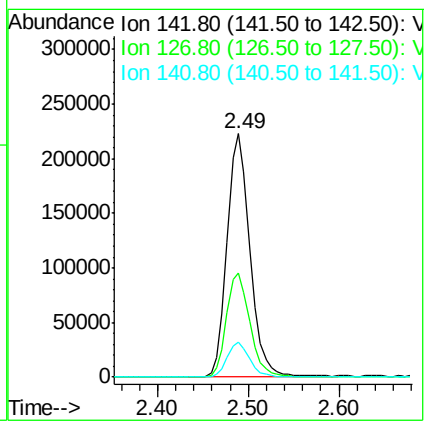
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:13:34 AM

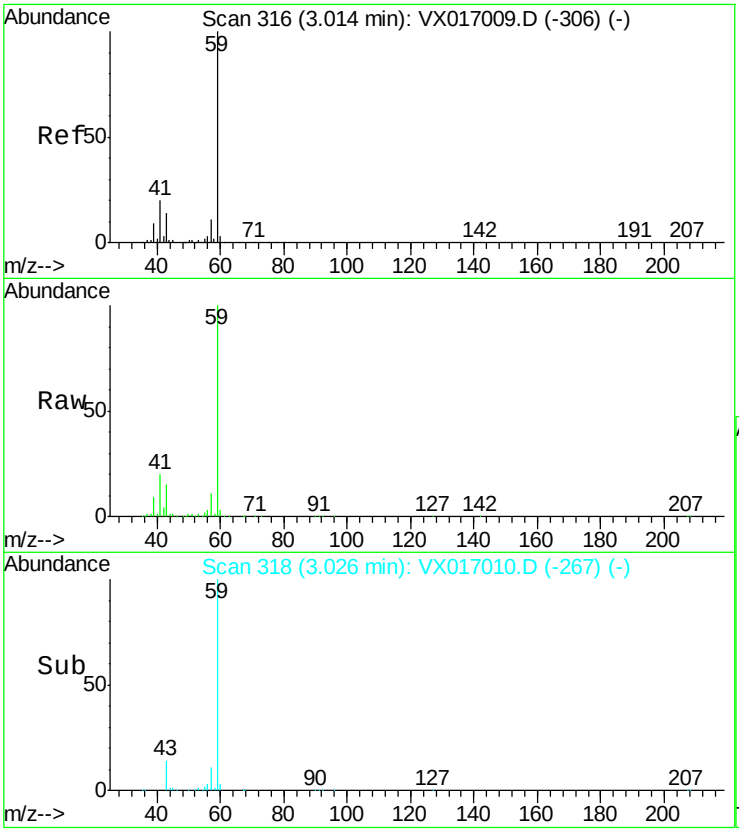


#10
Methyl Iodide
Concen: 95.758 ug/l
RT: 2.49 min Scan# 230
Delta R.T. -0.00 min
Lab File: VX017010.D
Acq: 29 Jun 2020 15:43

Tgt Ion:142 Resp: 392327

Ion	Ratio	Lower	Upper
142	100		
127	43.8	36.6	54.8
141	14.0	11.6	17.4

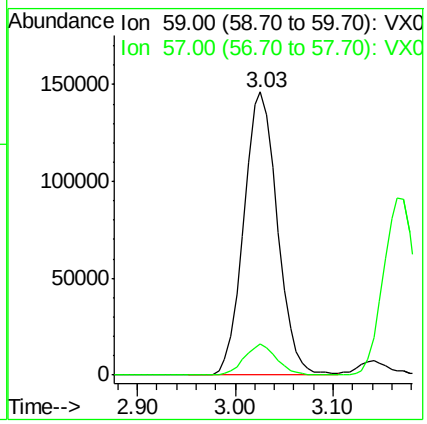




#11
Tert butyl alcohol
Concen: 449.877 ug/l
RT: 3.03 min Scan# 318
Delta R.T. 0.01 min
Lab File: VX017010.D
Acq: 29 Jun 2020 15:43

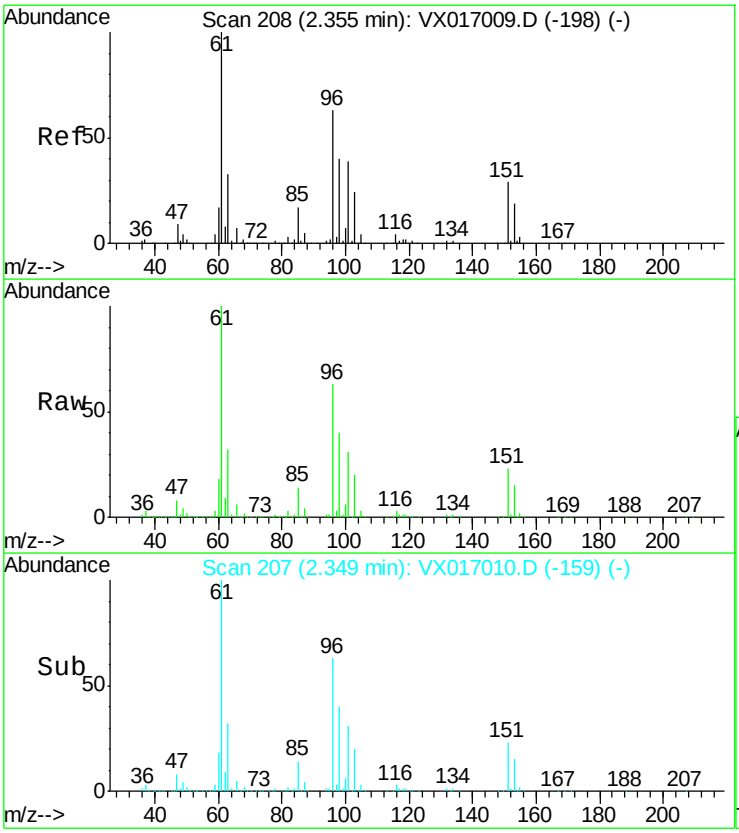
Tgt Ion: 59 Resp: 348817

Ion	Ratio	Lower	Upper
59	100		
57	10.6	8.2	12.2



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC100

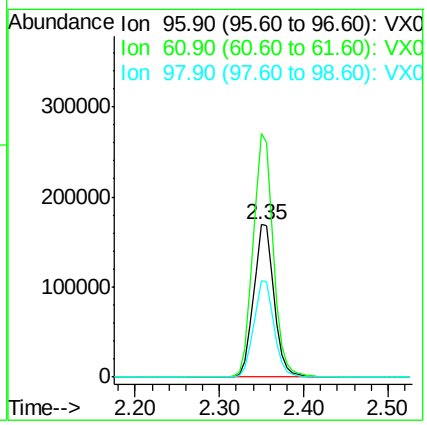
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:13:34 AM

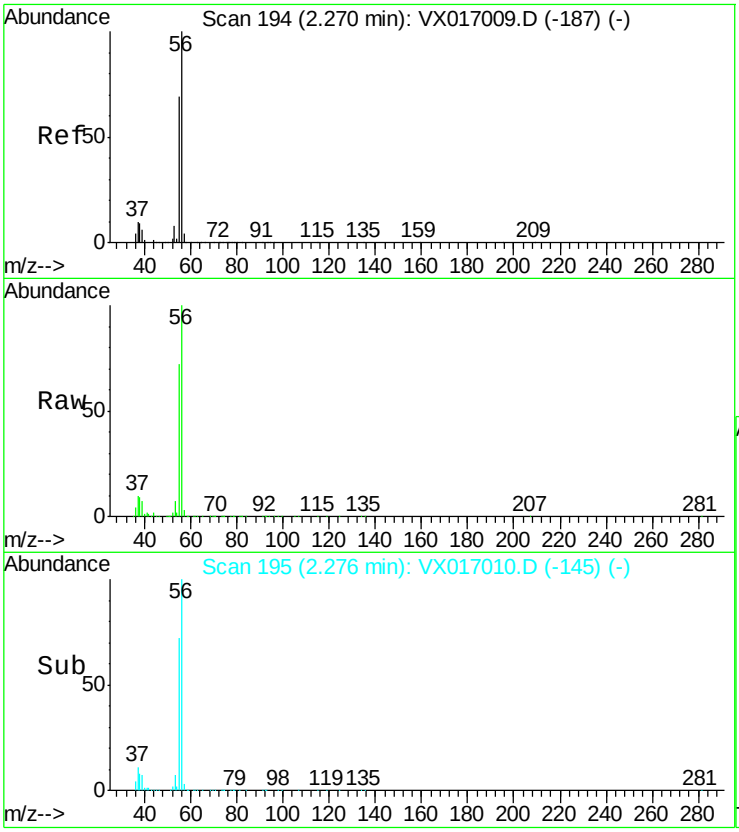


#12
1,1-Dichloroethene
Concen: 84.961 ug/l
RT: 2.35 min Scan# 207
Delta R.T. -0.01 min
Lab File: VX017010.D
Acq: 29 Jun 2020 15:43

Tgt Ion: 96 Resp: 277123

Ion	Ratio	Lower	Upper
96	100		
61	159.8	126.3	189.5
98	63.6	51.0	76.6

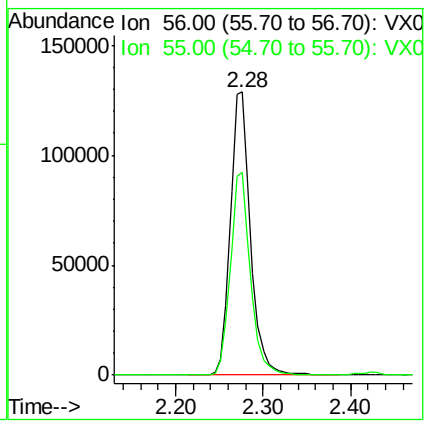




#13
Acrolein
Concen: 446.230 ug/l
RT: 2.28 min Scan# 195
Delta R.T. 0.01 min
Lab File: VX017010.D
Acq: 29 Jun 2020 15:43

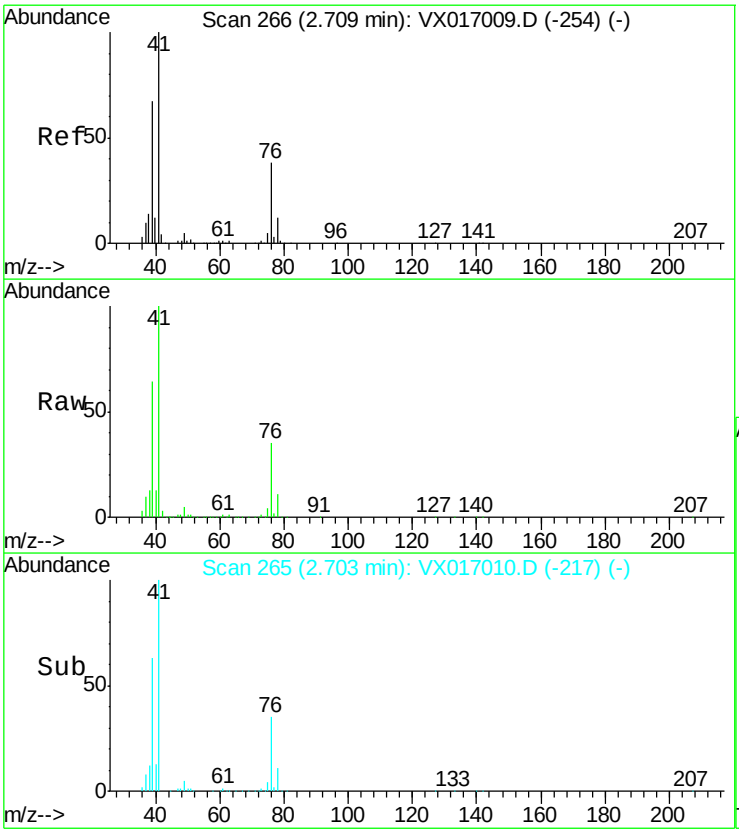
Tgt Ion: 56 Resp: 206826

Ion	Ratio	Lower	Upper
56	100		
55	71.1	55.7	83.5



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC100

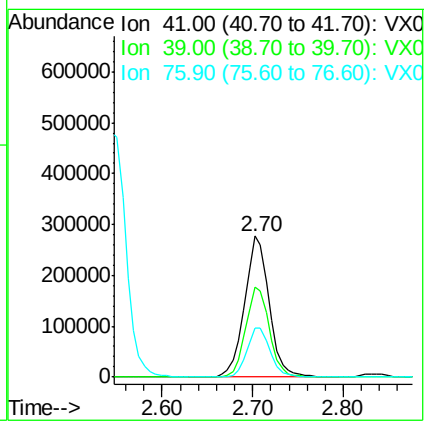
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:13:34 AM



#14
Allyl chloride
Concen: 86.017 ug/l
RT: 2.70 min Scan# 265
Delta R.T. -0.01 min
Lab File: VX017010.D
Acq: 29 Jun 2020 15:43

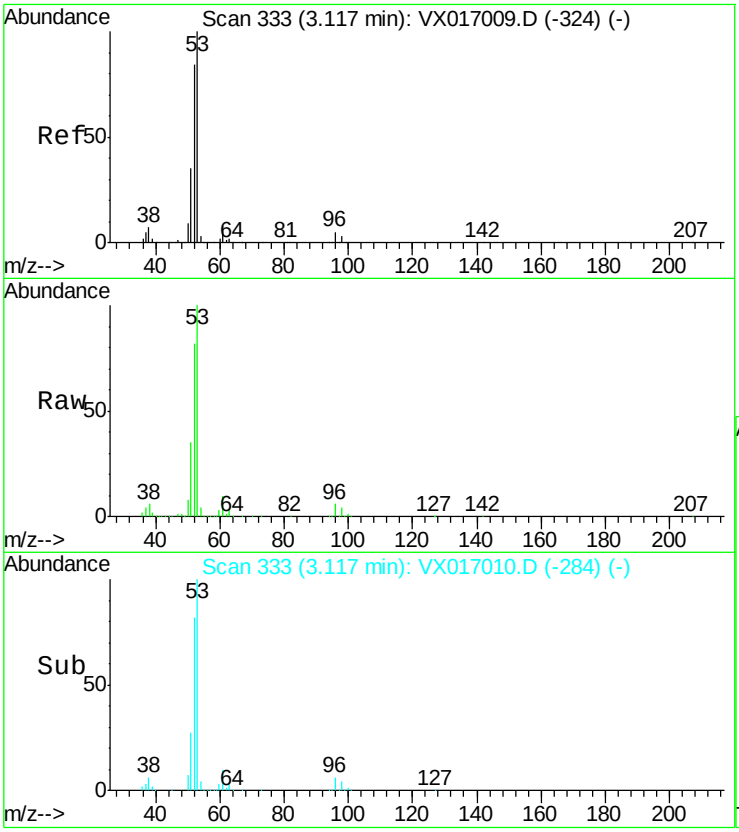
Tgt Ion: 41 Resp: 518513

Ion	Ratio	Lower	Upper
41	100		
39	61.7	49.4	74.2
76	33.1	26.8	40.2



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC100

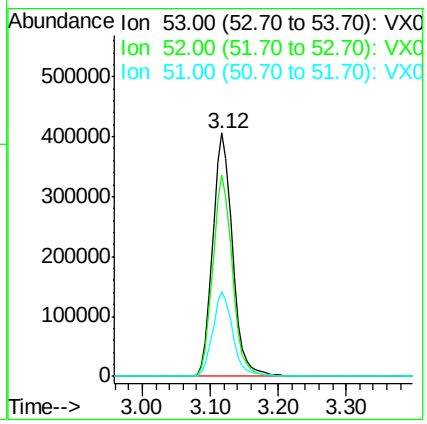
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:13:34 AM

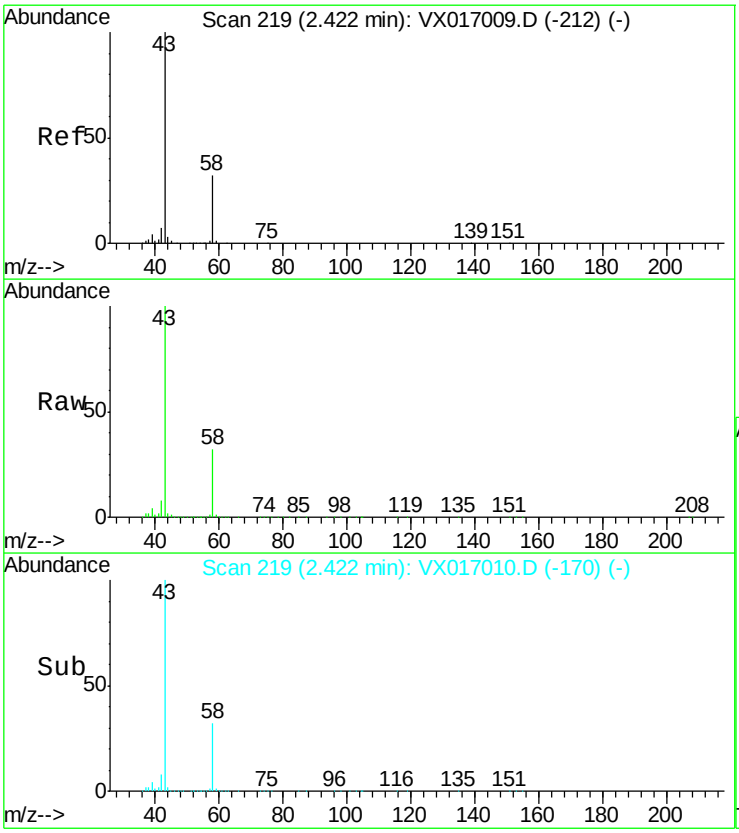


#15
Acrylonitrile
Concen: 439.247 ug/l
RT: 3.12 min Scan# 333
Delta R.T. -0.00 min
Lab File: VX017010.D
Acq: 29 Jun 2020 15:43

Tgt Ion: 53 Resp: 818729

Ion	Ratio	Lower	Upper
53	100		
52	82.0	65.6	98.4
51	35.2	28.3	42.5

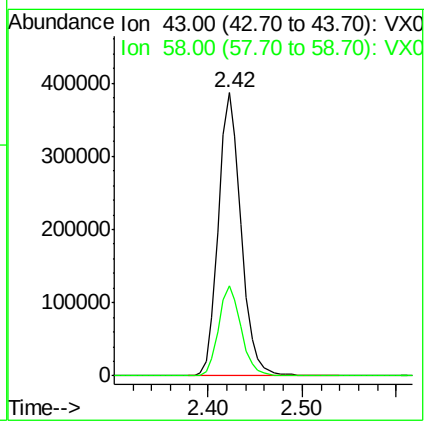


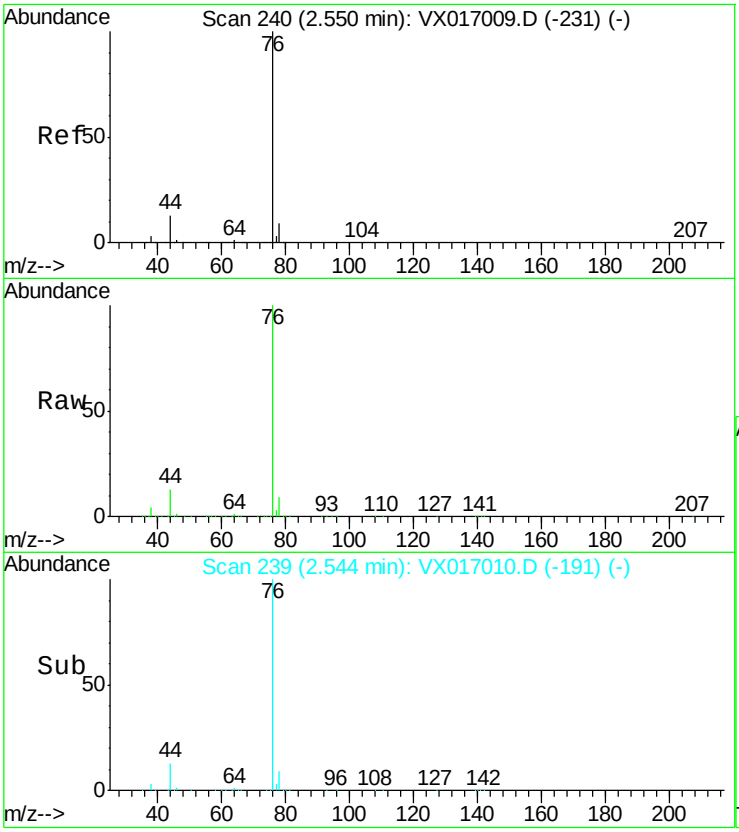


#16
Acetone
Concen: 421.861 ug/l
RT: 2.42 min Scan# 219
Delta R.T. -0.00 min
Lab File: VX017010.D
Acq: 29 Jun 2020 15:43

Tgt Ion: 43 Resp: 641415

Ion	Ratio	Lower	Upper
43	100		
58	31.6	25.7	38.5

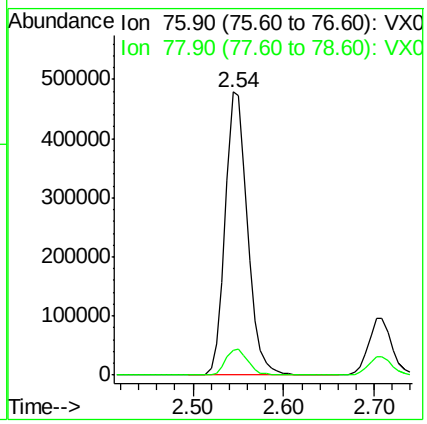




#17
Carbon Disulfide
Concen: 81.756 ug/l
RT: 2.54 min Scan# 239
Delta R.T. -0.01 min
Lab File: VX017010.D
Acq: 29 Jun 2020 15:43

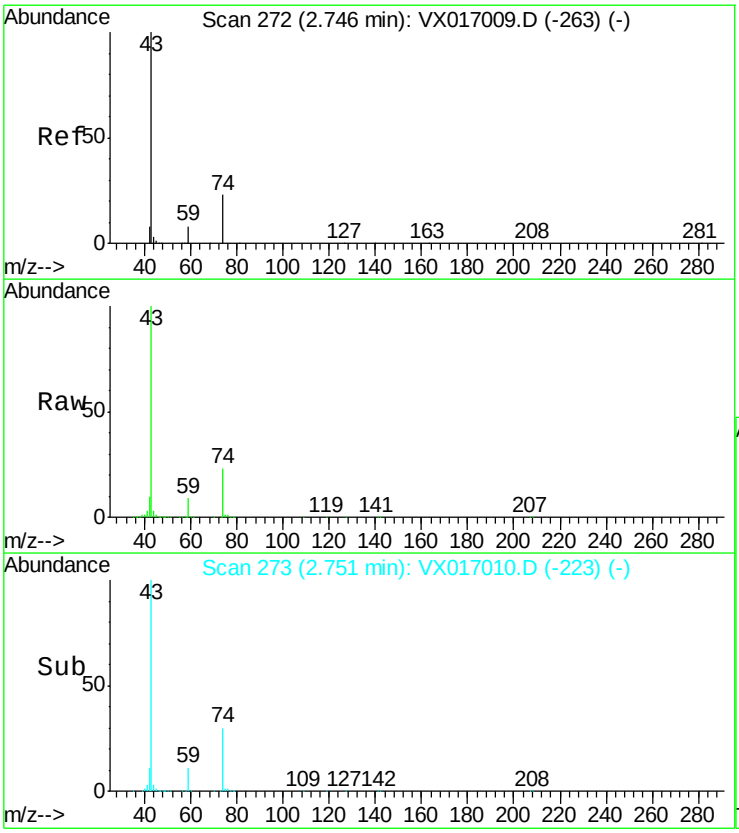
Tgt Ion: 76 Resp: 816780

Ion	Ratio	Lower	Upper
76	100		
78	8.8	7.2	10.8



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC100

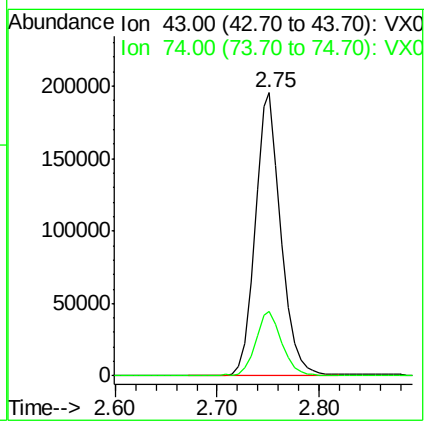
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:13:34 AM

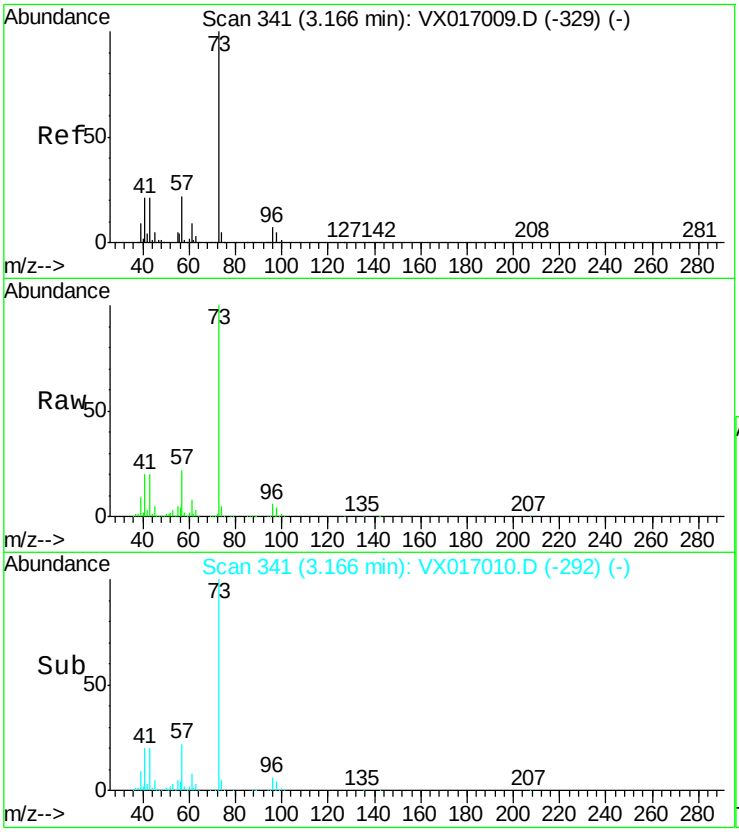


#18
Methyl Acetate
Concen: 86.008 ug/l
RT: 2.75 min Scan# 273
Delta R.T. 0.01 min
Lab File: VX017010.D
Acq: 29 Jun 2020 15:43

Tgt Ion: 43 Resp: 341376

Ion	Ratio	Lower	Upper
43	100		
74	23.6	19.3	28.9

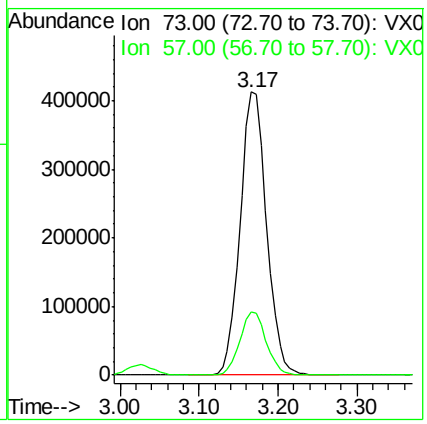




#19
Methyl tert-butyl Ether
Concen: 88.014 ug/l
RT: 3.17 min Scan# 341
Delta R.T. -0.00 min
Lab File: VX017010.D
Acq: 29 Jun 2020 15:43

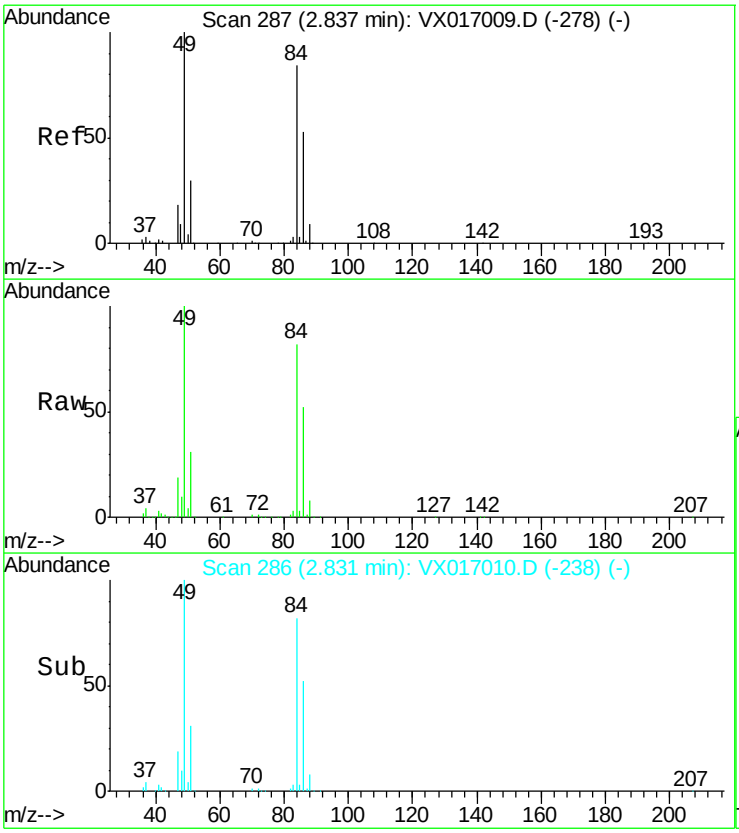
Tgt Ion: 73 Resp: 963510

Ion	Ratio	Lower	Upper
73	100		
57	22.2	17.6	26.4



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC100

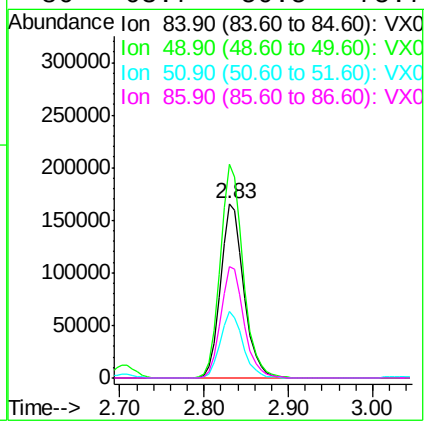
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:13:34 AM



#20
Methylene Chloride
Concen: 80.585 ug/l
RT: 2.83 min Scan# 286
Delta R.T. -0.01 min
Lab File: VX017010.D
Acq: 29 Jun 2020 15:43

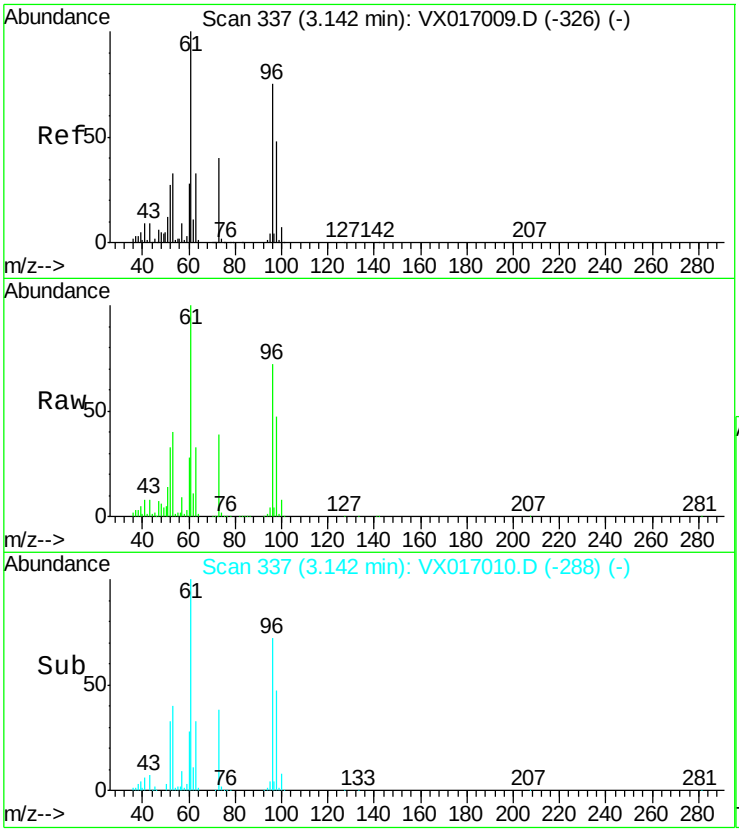
Tgt Ion: 84 Resp: 313165

Ion	Ratio	Lower	Upper
84	100		
49	122.4	94.7	142.1
51	37.8	28.6	42.8
86	63.7	50.5	75.7



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC100

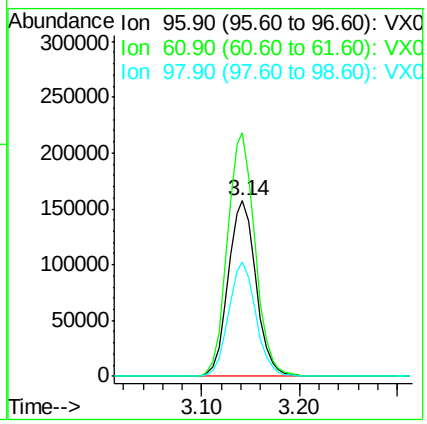
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:13:34 AM

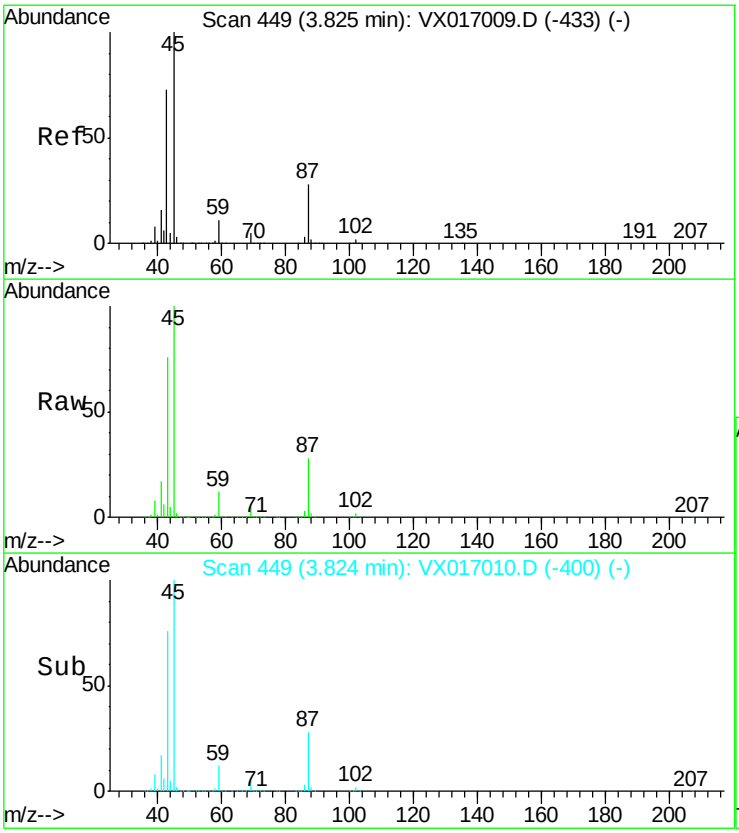


#21
trans-1,2-Dichloroethene
Concen: 85.306 ug/l
RT: 3.14 min Scan# 337
Delta R.T. -0.00 min
Lab File: VX017010.D
Acq: 29 Jun 2020 15:43

Tgt Ion: 96 Resp: 308787

Ion	Ratio	Lower	Upper
96	100		
61	138.8	107.0	160.6
98	65.0	51.6	77.4

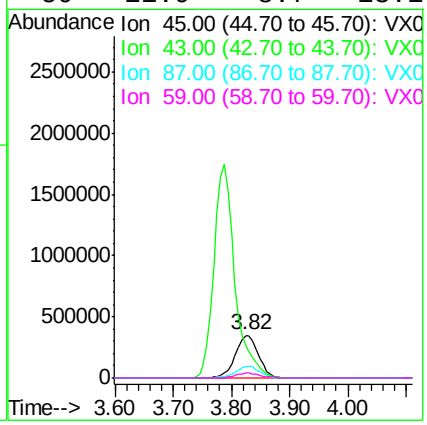




#22
Diisopropyl ether
Concen: 85.920 ug/l
RT: 3.82 min Scan# 449
Delta R.T. -0.00 min
Lab File: VX017010.D
Acq: 29 Jun 2020 15:43

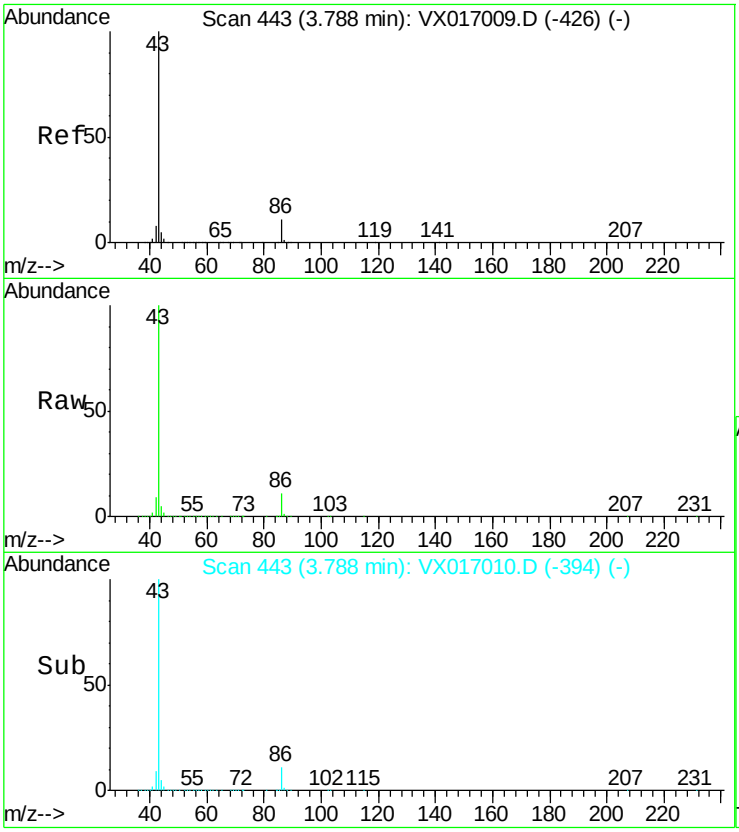
Tgt Ion: 45 Resp: 958604

Ion	Ratio	Lower	Upper
45	100		
43	75.5	58.6	88.0
87	27.7	22.6	34.0
59	11.9	8.7	13.1



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC100

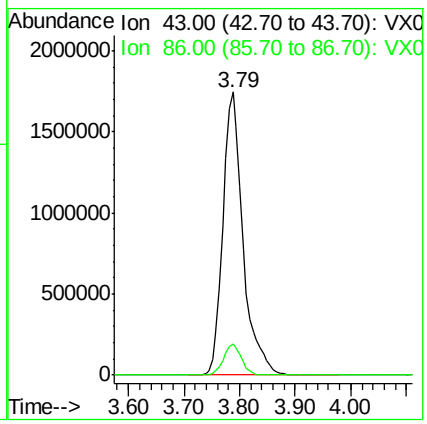
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:13:34 AM

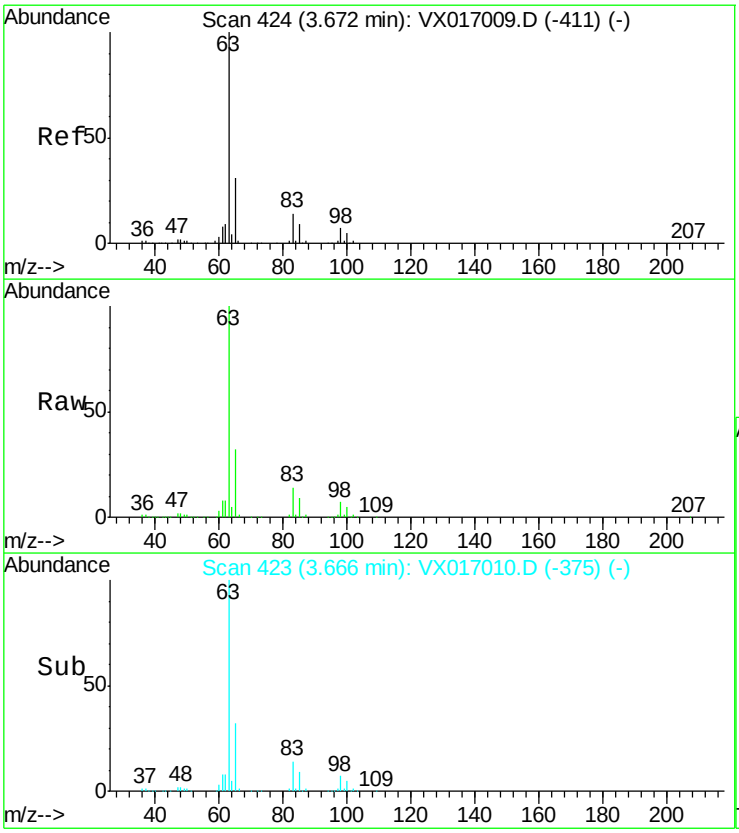


#23
Vinyl Acetate
Concen: 453.677 ug/l
RT: 3.79 min Scan# 443
Delta R.T. -0.00 min
Lab File: VX017010.D
Acq: 29 Jun 2020 15:43

Tgt Ion: 43 Resp: 4349490

Ion	Ratio	Lower	Upper
43	100		
86	11.0	8.6	13.0

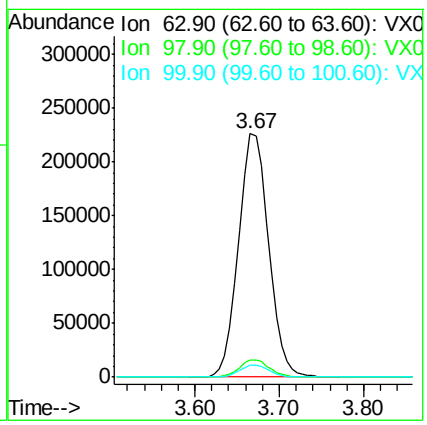


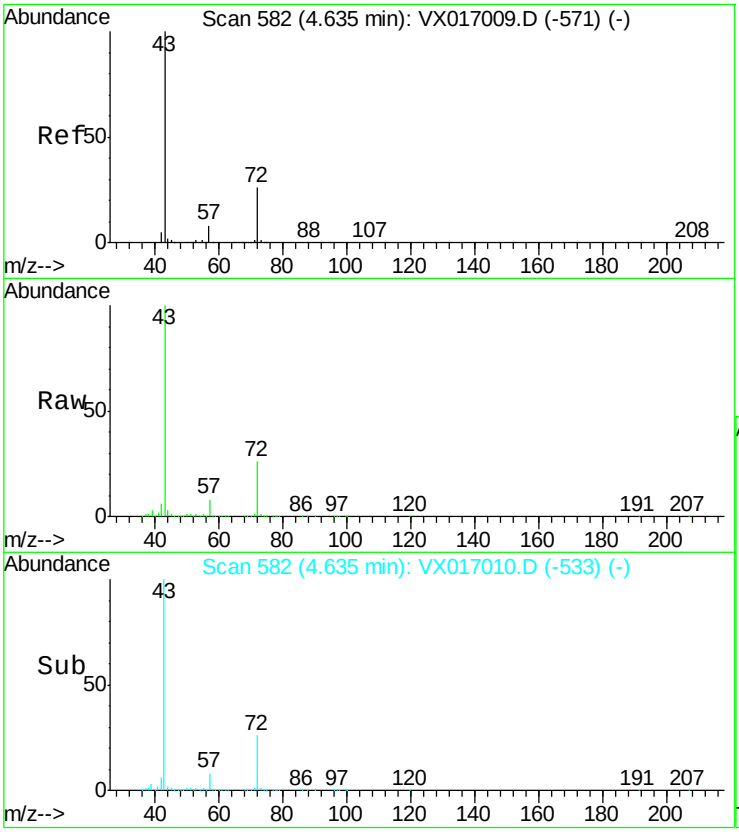


#24
1,1-Dichloroethane
Concen: 85.853 ug/l
RT: 3.67 min Scan# 423
Delta R.T. -0.01 min
Lab File: VX017010.D
Acq: 29 Jun 2020 15:43

Tgt Ion: 63 Resp: 545012

Ion	Ratio	Lower	Upper
63	100		
98	7.1	3.6	10.8
100	4.9	2.4	7.1

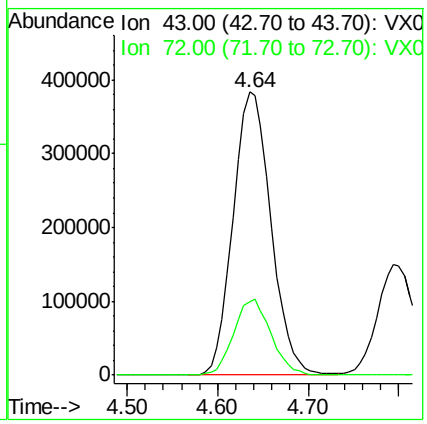




#25
2-Butanone
Concen: 437.650 ug/l
RT: 4.64 min Scan# 582
Delta R.T. -0.00 min
Lab File: VX017010.D
Acq: 29 Jun 2020 15:43

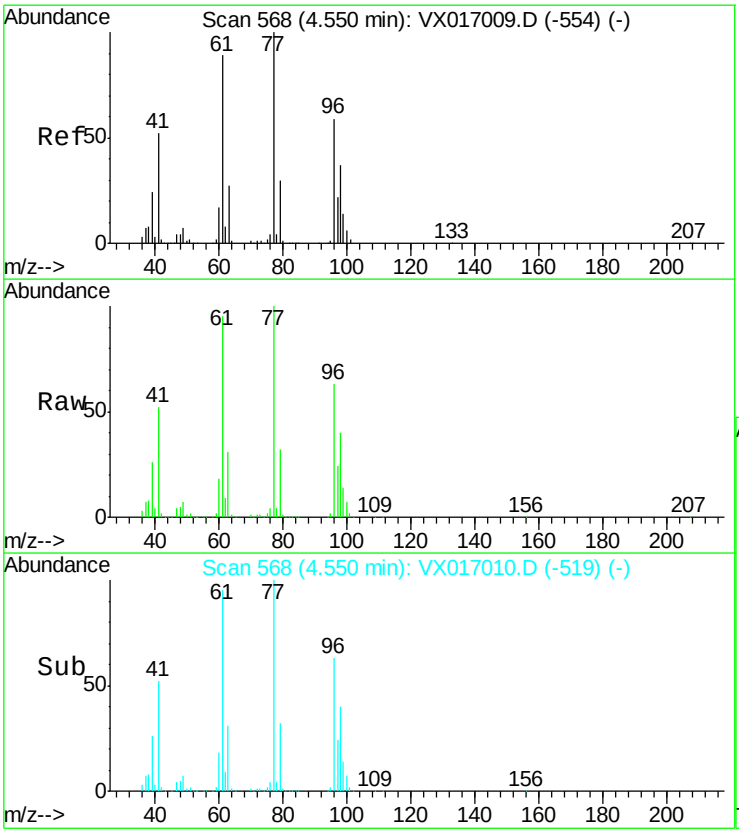
Tgt Ion: 43 Resp: 1108764

Ion	Ratio	Lower	Upper
43	100		
72	26.1	20.8	31.2



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC100

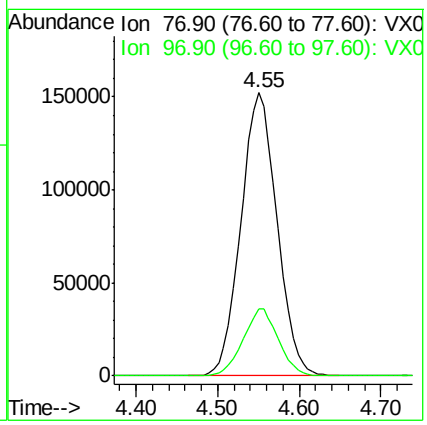
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:13:34 AM



#26
2,2-Dichloropropane
Concen: 83.005 ug/l
RT: 4.55 min Scan# 568
Delta R.T. -0.00 min
Lab File: VX017010.D
Acq: 29 Jun 2020 15:43

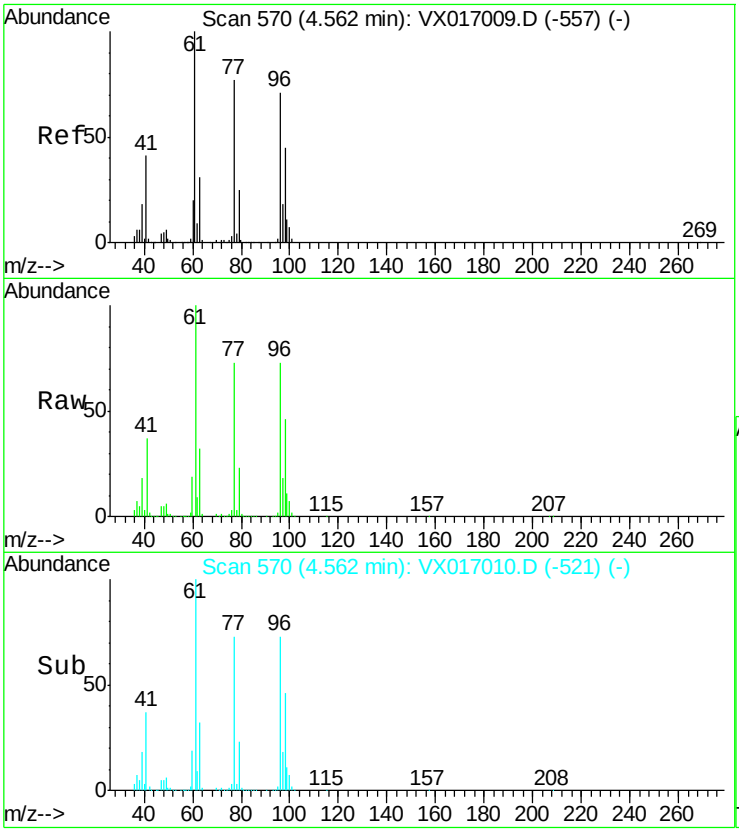
Tgt Ion: 77 Resp: 467865

Ion	Ratio	Lower	Upper
77	100		
97	23.3	11.4	34.2



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC100

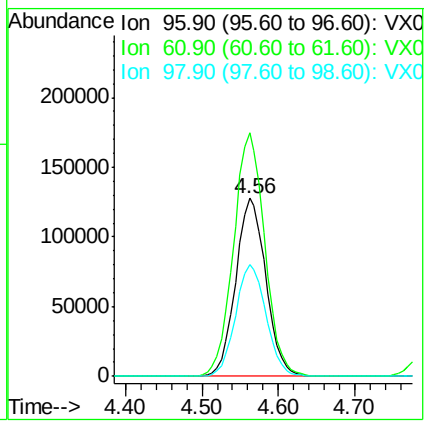
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:13:34 AM

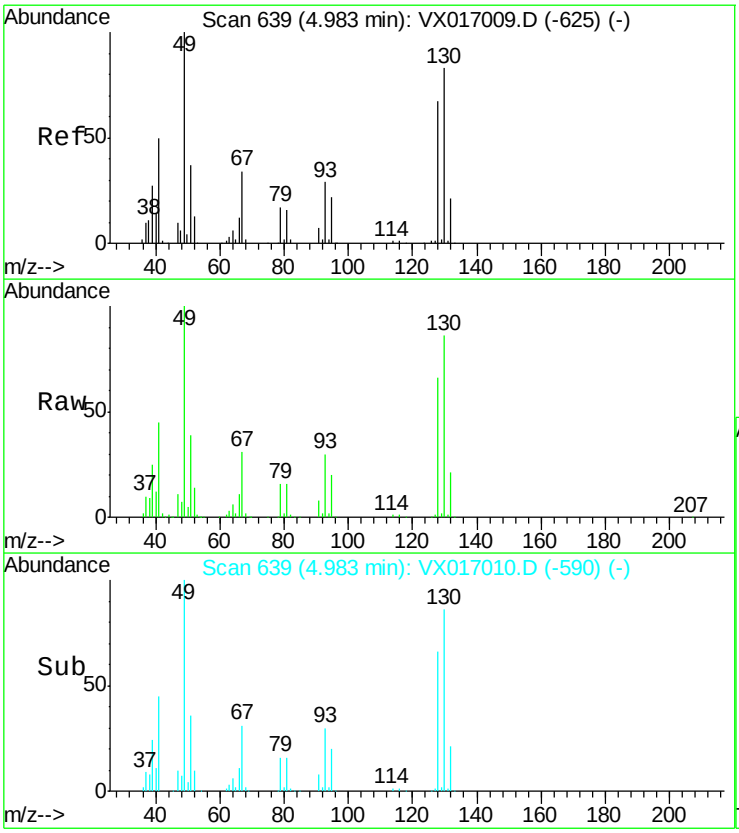


#27
cis-1,2-Dichloroethene
Concen: 85.336 ug/l
RT: 4.56 min Scan# 570
Delta R.T. -0.00 min
Lab File: VX017010.D
Acq: 29 Jun 2020 15:43

Tgt Ion: 96 Resp: 349998

Ion	Ratio	Lower	Upper
96	100		
61	141.6	0.0	282.8
98	63.6	0.0	127.6

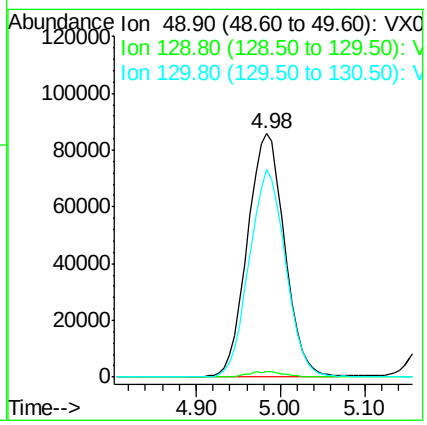




#28
Bromochloromethane
Concen: 83.780 ug/l
RT: 4.98 min Scan# 639
Delta R.T. -0.00 min
Lab File: VX017010.D
Acq: 29 Jun 2020 15:43

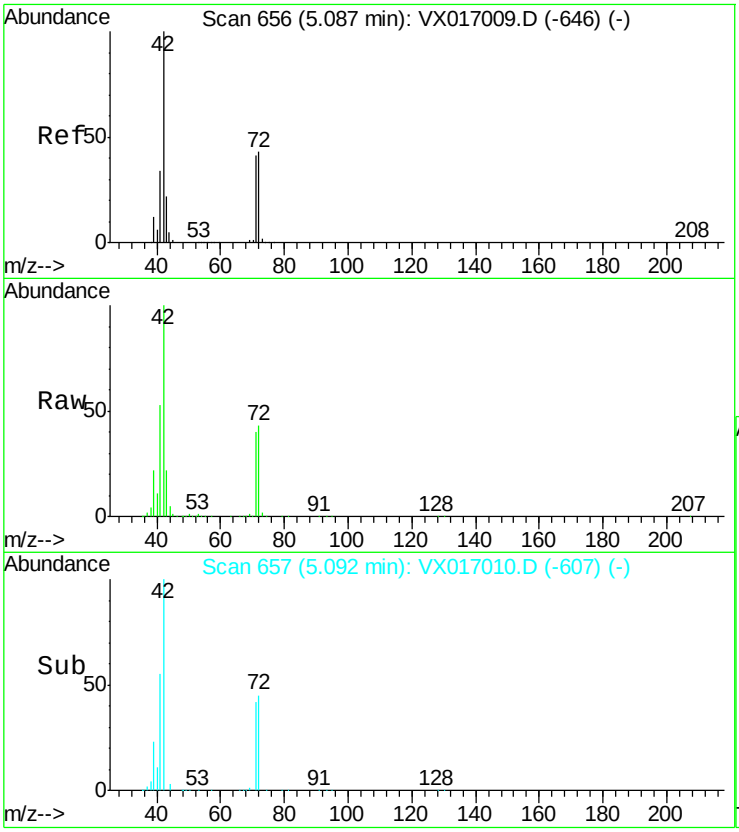
Tgt Ion: 49 Resp: 258810

Ion	Ratio	Lower	Upper
49	100		
129	2.2	0.0	4.2
130	83.3	66.6	100.0



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC100

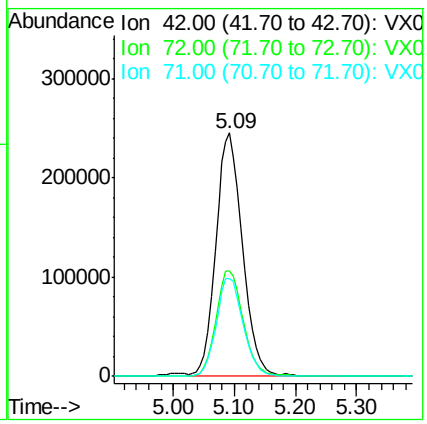
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:13:34 AM

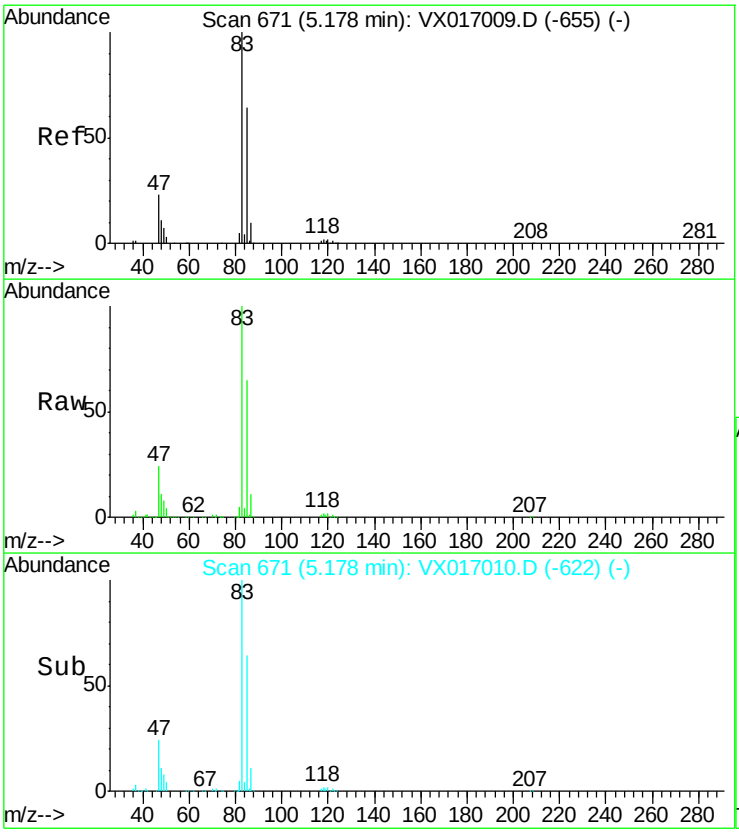


#29
Tetrahydrofuran
Concen: 442.110 ug/l
RT: 5.09 min Scan# 657
Delta R.T. 0.01 min
Lab File: VX017010.D
Acq: 29 Jun 2020 15:43

Tgt Ion: 42 Resp: 740050

Ion	Ratio	Lower	Upper
42	100		
72	44.6	35.3	52.9
71	40.9	33.1	49.7

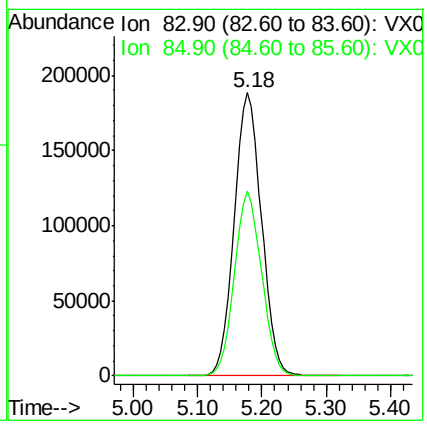




#30
Chloroform
Concen: 85.315 ug/l
RT: 5.18 min Scan# 671
Delta R.T. -0.00 min
Lab File: VX017010.D
Acq: 29 Jun 2020 15:43

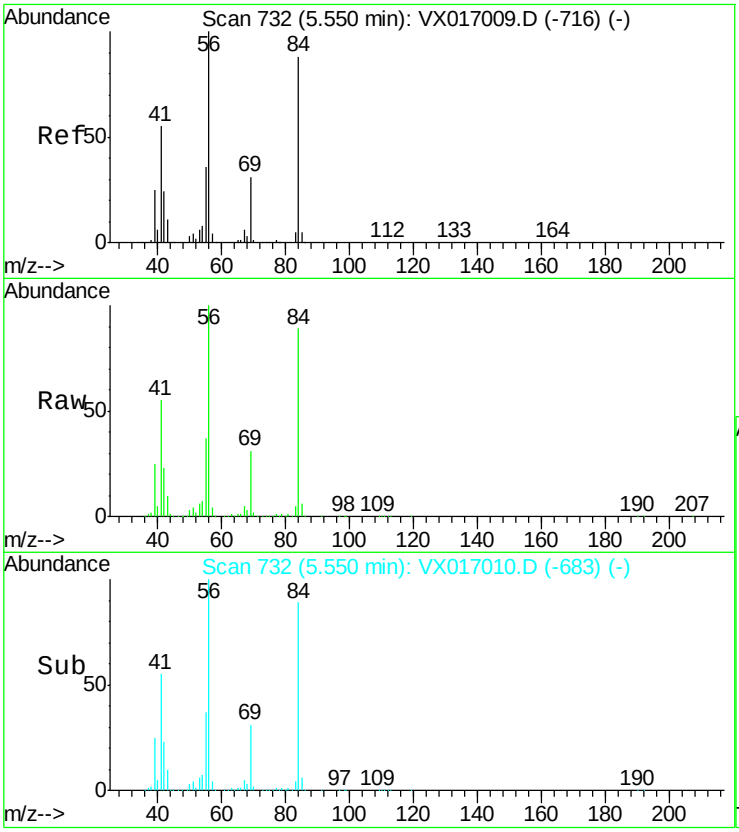
Tgt Ion: 83 Resp: 555196

Ion	Ratio	Lower	Upper
83	100		
85	65.3	51.4	77.2



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC100

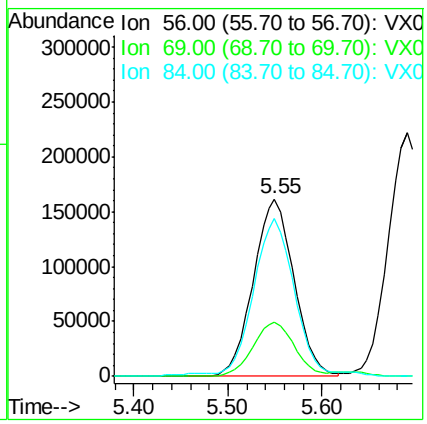
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:13:34 AM

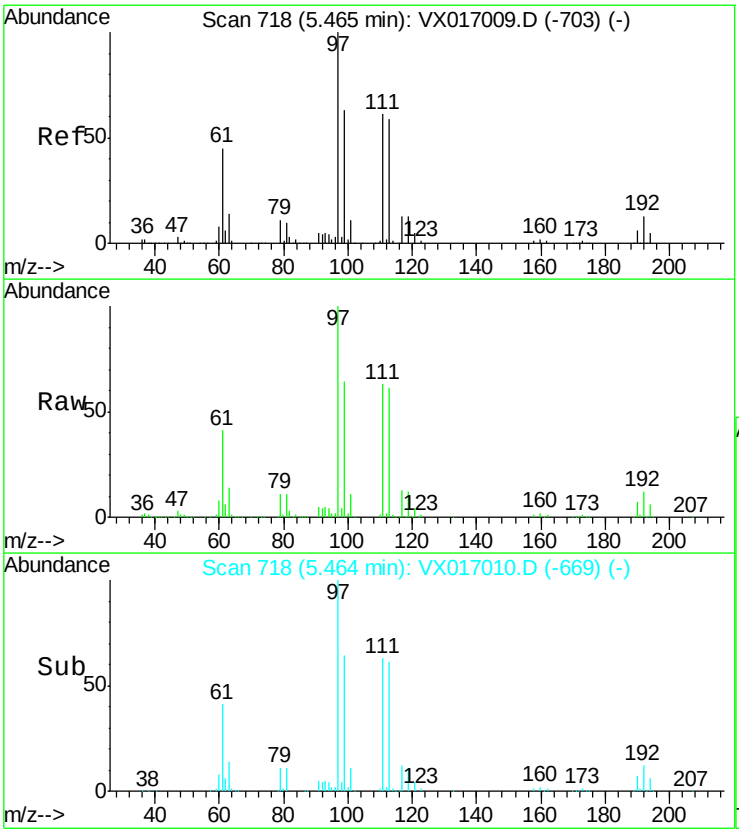


#31
Cyclohexane
Concen: 89.202 ug/l
RT: 5.55 min Scan# 732
Delta R.T. -0.00 min
Lab File: VX017010.D
Acq: 29 Jun 2020 15:43

Tgt Ion: 56 Resp: 489474

Ion	Ratio	Lower	Upper
56	100		
69	30.7	25.0	37.4
84	87.3	69.1	103.7

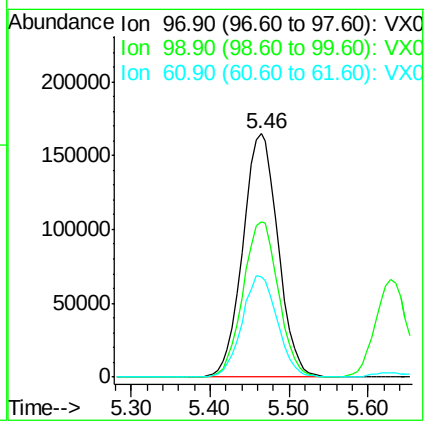


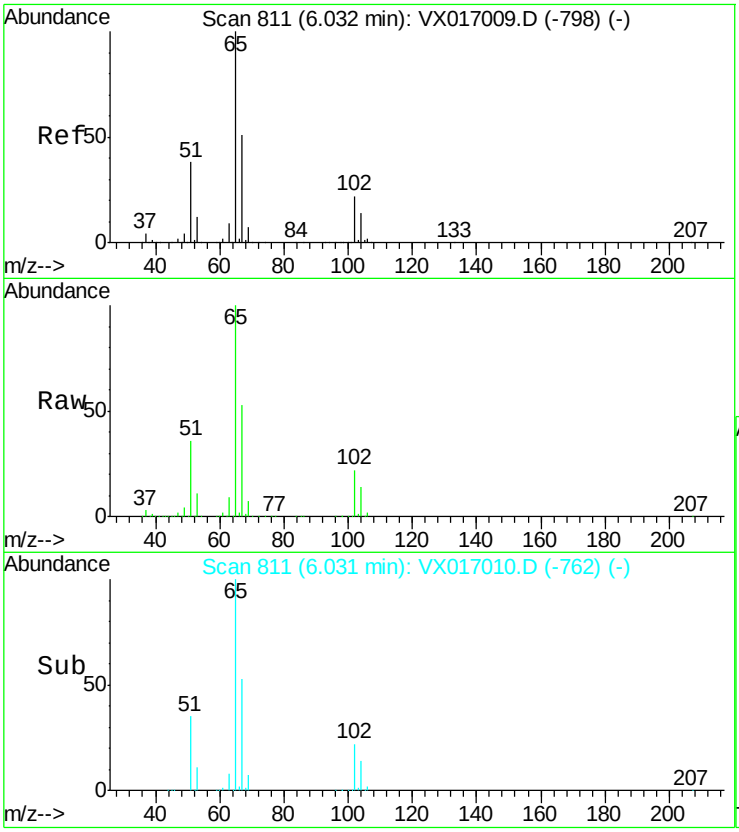


#32
1,1,1-Trichloroethane
Concen: 85.291 ug/l
RT: 5.46 min Scan# 718
Delta R.T. -0.00 min
Lab File: VX017010.D
Acq: 29 Jun 2020 15:43

Tgt Ion: 97 Resp: 511166

Ion	Ratio	Lower	Upper
97	100		
99	64.3	50.8	76.2
61	41.8	33.7	50.5

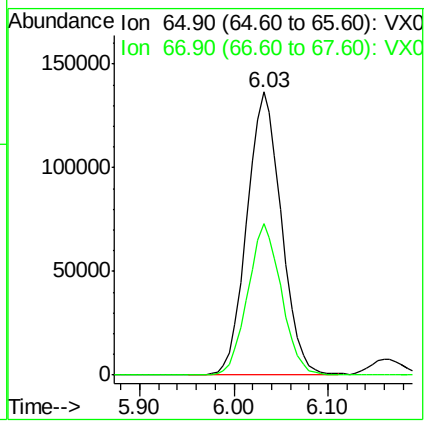




#33
1,2-Dichloroethane-d4
Concen: 86.276 ug/l
RT: 6.03 min Scan# 811
Delta R.T. -0.00 min
Lab File: VX017010.D
Acq: 29 Jun 2020 15:43

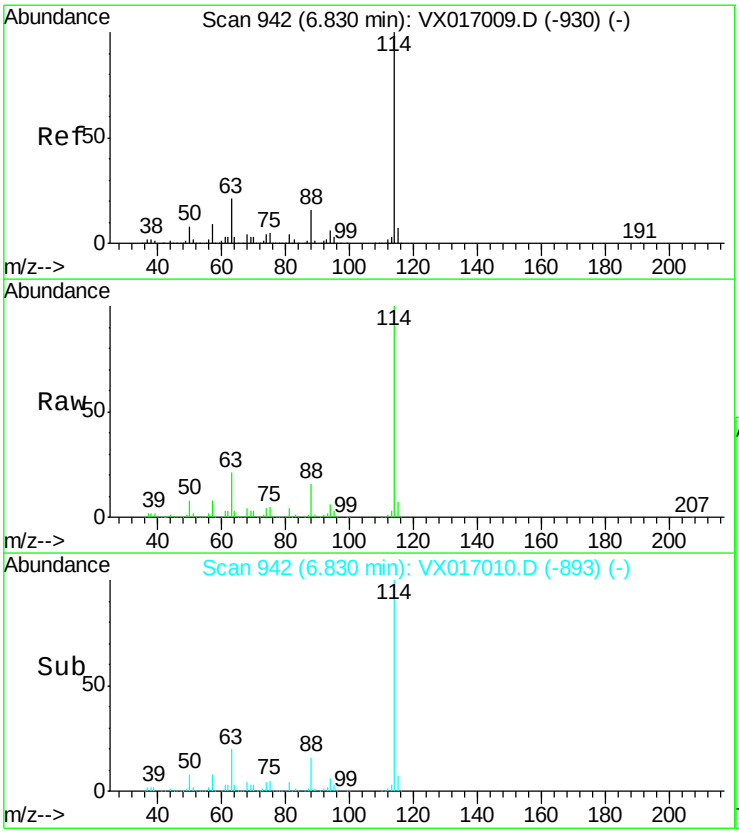
Tgt Ion: 65 Resp: 350658

Ion	Ratio	Lower	Upper
65	100		
67	52.4	0.0	103.8



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC100

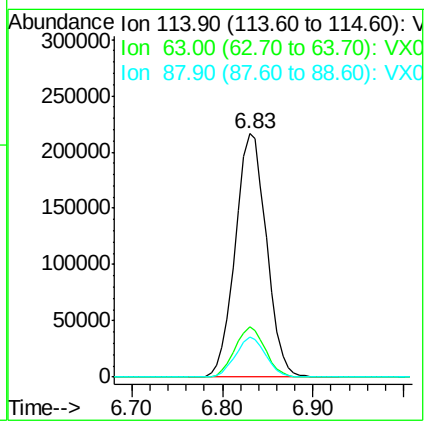
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:13:34 AM

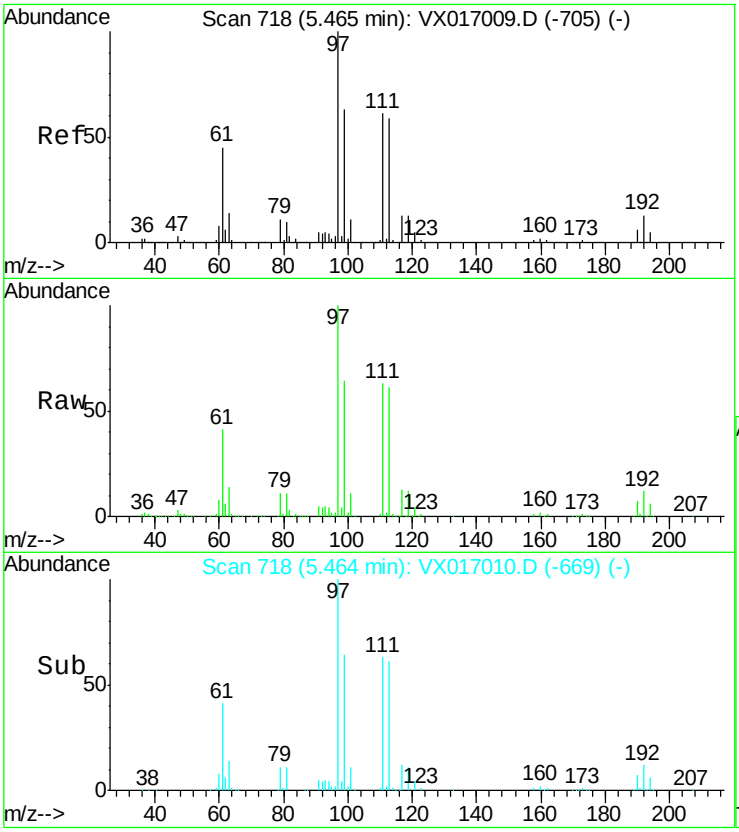


#34
1,4-Difluorobenzene
Concen: 50.000 ug/l
RT: 6.83 min Scan# 942
Delta R.T. -0.00 min
Lab File: VX017010.D
Acq: 29 Jun 2020 15:43

Tgt Ion:114 Resp: 515672

Ion	Ratio	Lower	Upper
114	100		
63	20.5	0.0	41.4
88	16.3	0.0	32.4

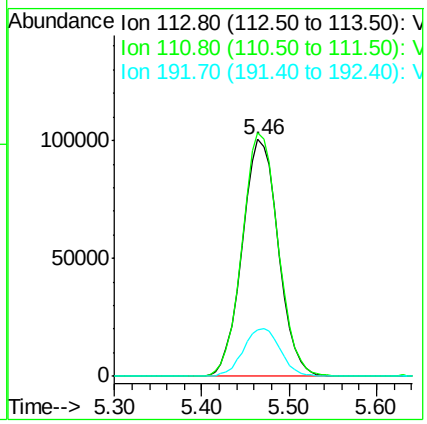




#35
Dibromofluoromethane
Concen: 88.668 ug/l
RT: 5.46 min Scan# 718
Delta R.T. -0.00 min
Lab File: VX017010.D
Acq: 29 Jun 2020 15:43

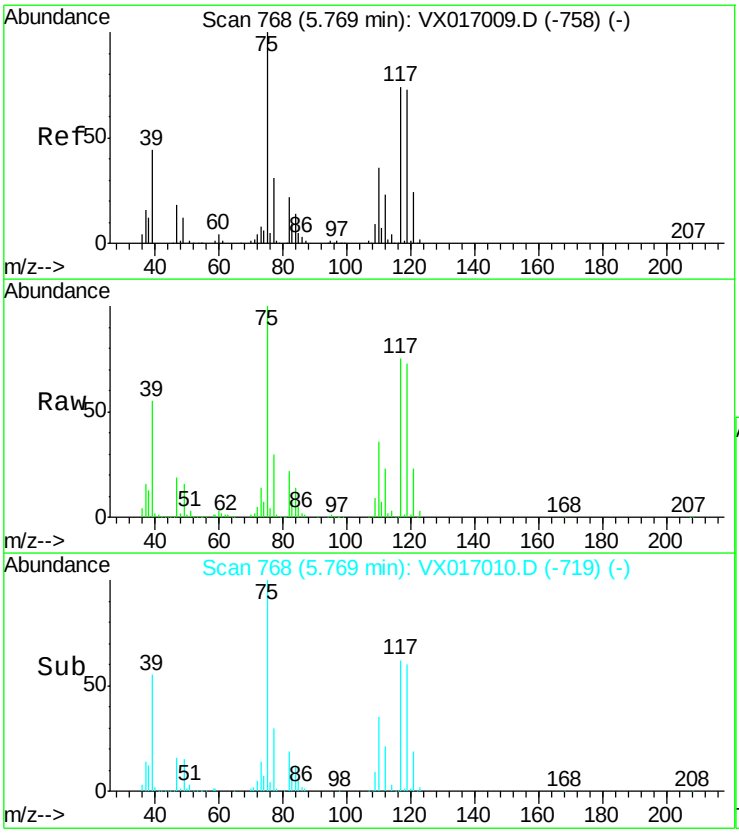
Tgt Ion:113 Resp: 289233

Ion	Ratio	Lower	Upper
113	100		
111	102.4	81.9	122.9
192	20.8	16.7	25.1



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC100

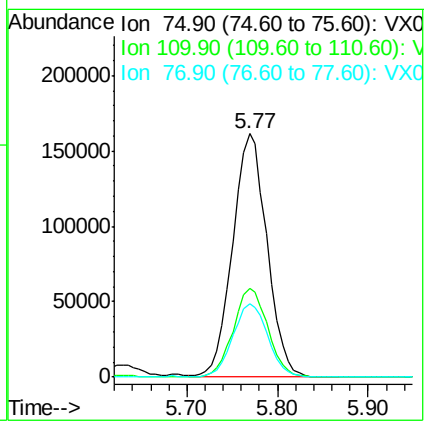
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:13:34 AM



#36
1,1-Dichloropropene
Concen: 87.030 ug/l
RT: 5.77 min Scan# 768
Delta R.T. -0.00 min
Lab File: VX017010.D
Acq: 29 Jun 2020 15:43

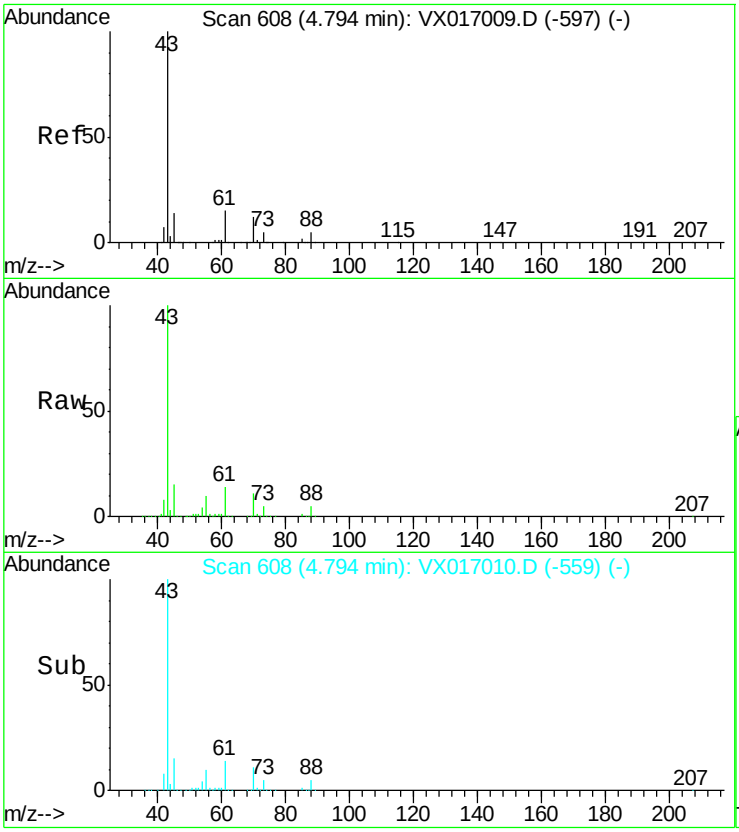
Tgt Ion: 75 Resp: 424159

Ion	Ratio	Lower	Upper
75	100		
110	36.9	18.1	54.1
77	30.7	24.6	37.0



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC100

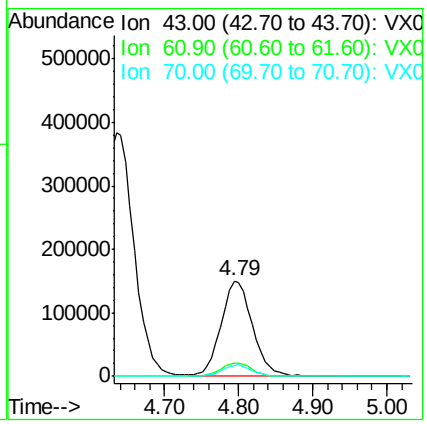
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:13:34 AM

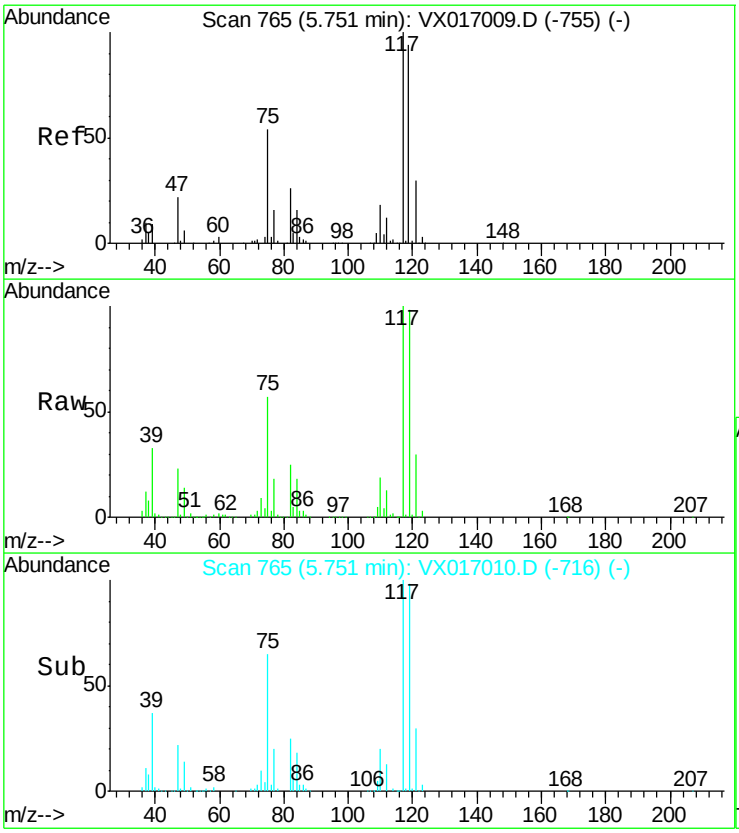


#37
Ethyl Acetate
Concen: 89.082 ug/l
RT: 4.79 min Scan# 608
Delta R.T. -0.00 min
Lab File: VX017010.D
Acq: 29 Jun 2020 15:43

Tgt Ion: 43 Resp: 440507

Ion	Ratio	Lower	Upper
43	100		
61	13.7	11.0	16.4
70	11.4	8.9	13.3

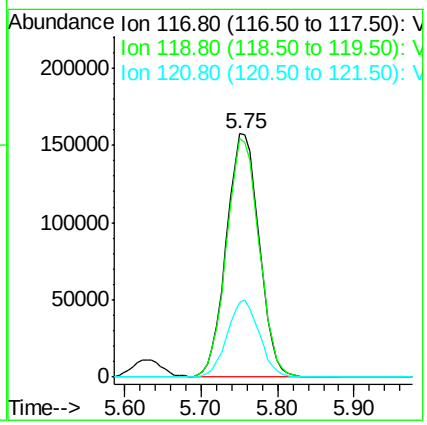




#38
Carbon Tetrachloride
Concen: 87.102 ug/l
RT: 5.75 min Scan# 765
Delta R.T. -0.00 min
Lab File: VX017010.D
Acq: 29 Jun 2020 15:43

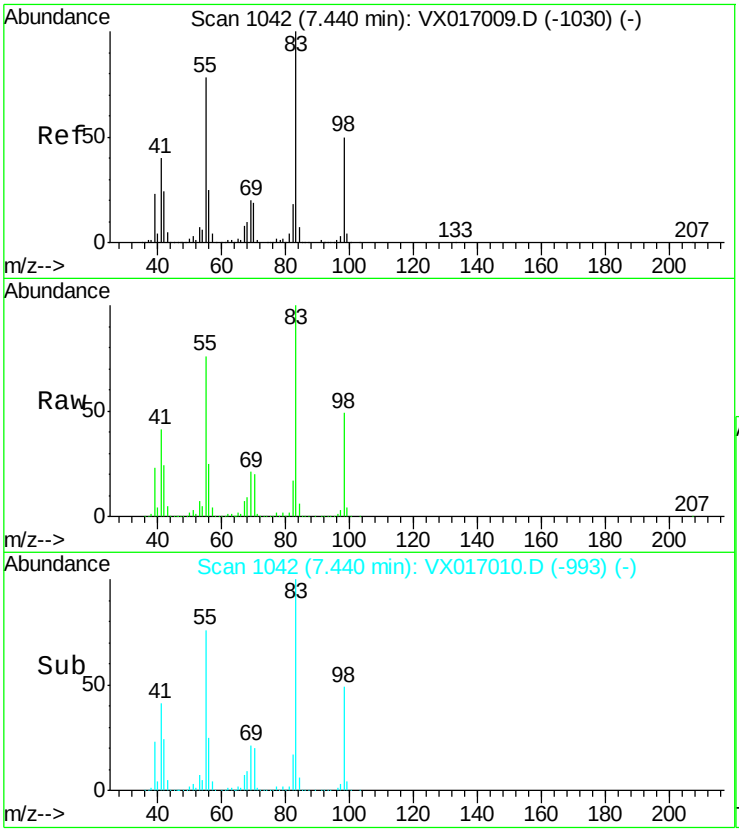
Tgt Ion:117 Resp: 467566

Ion	Ratio	Lower	Upper
117	100		
119	97.8	75.4	113.0
121	30.5	23.8	35.6



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC100

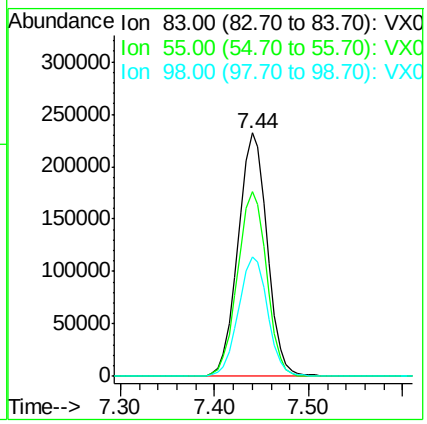
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:13:34 AM

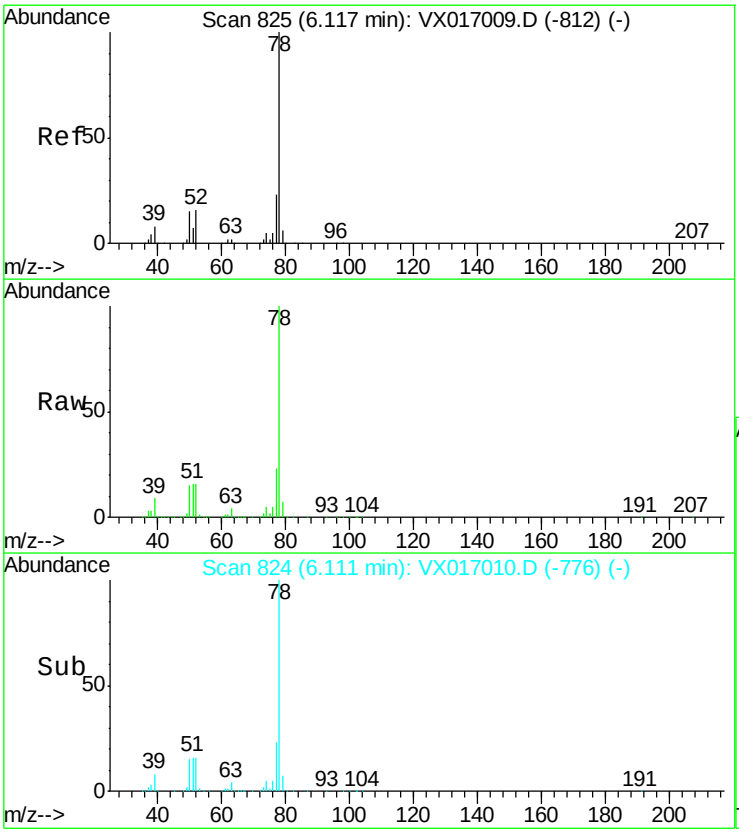


#39
Methylcyclohexane
Concen: 92.519 ug/l
RT: 7.44 min Scan# 1042
Delta R.T. -0.00 min
Lab File: VX017010.D
Acq: 29 Jun 2020 15:43

Tgt Ion: 83 Resp: 501697

Ion	Ratio	Lower	Upper
83	100		
55	75.7	62.5	93.7
98	49.2	40.1	60.1

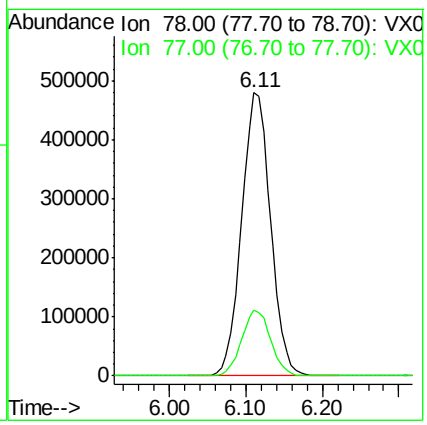




#40
Benzene
Concen: 87.833 ug/l
RT: 6.11 min Scan# 824
Delta R.T. -0.01 min
Lab File: VX017010.D
Acq: 29 Jun 2020 15:43

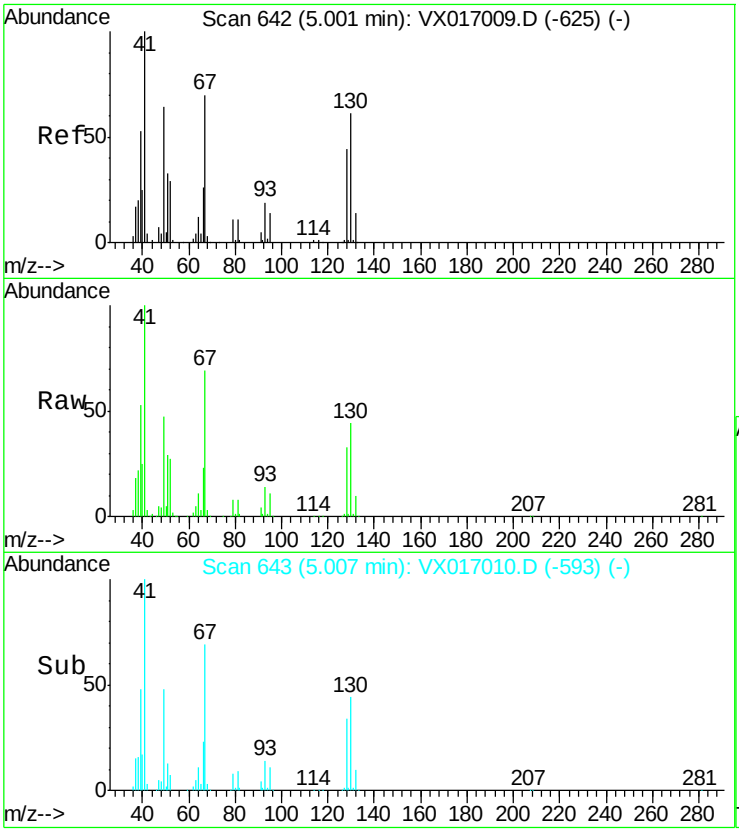
Tgt Ion: 78 Resp: 1257759

Ion	Ratio	Lower	Upper
78	100		
77	23.2	18.3	27.5



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC100

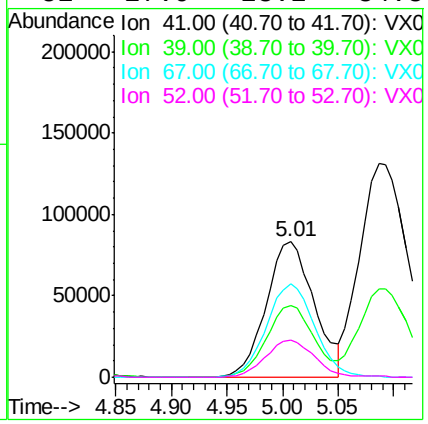
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:13:34 AM

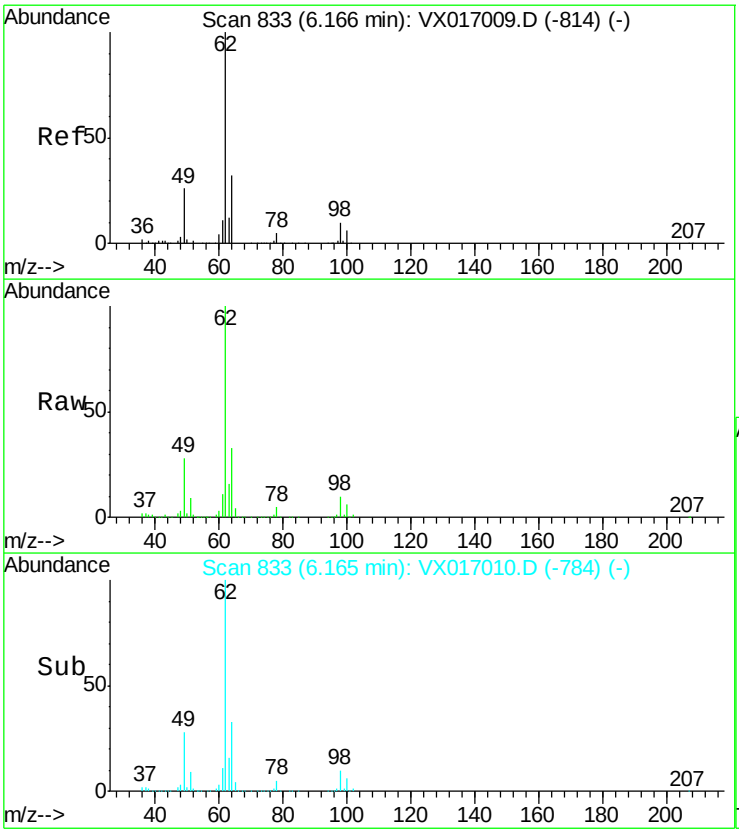


#41
Methacrylonitrile
Concen: 89.747 ug/l
RT: 5.01 min Scan# 643
Delta R.T. 0.01 min
Lab File: VX017010.D
Acq: 29 Jun 2020 15:43

Tgt Ion: 41 Resp: 249777

Ion	Ratio	Lower	Upper
41	100		
39	53.2	44.4	66.6
67	69.4	57.1	85.7
52	27.9	23.2	34.8

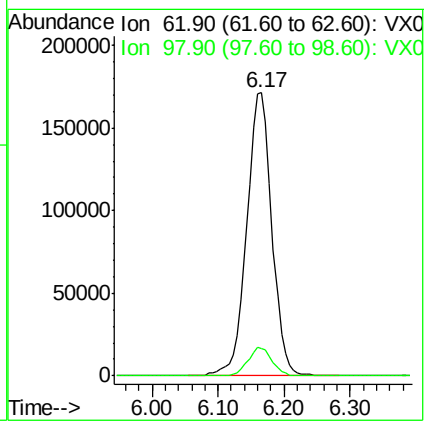




#42
1,2-Dichloroethane
Concen: 87.501 ug/l
RT: 6.17 min Scan# 833
Delta R.T. -0.00 min
Lab File: VX017010.D
Acq: 29 Jun 2020 15:43

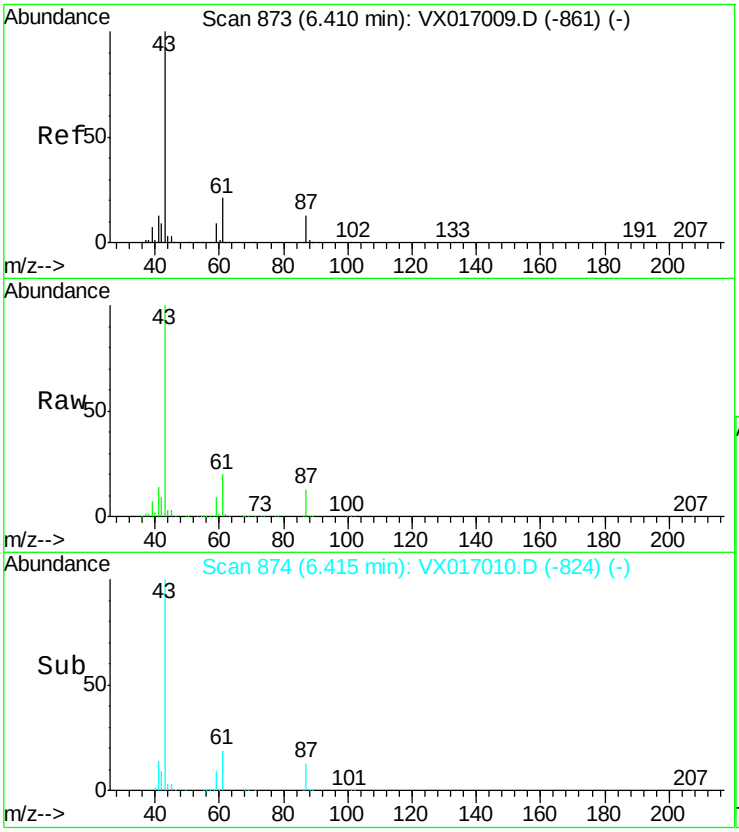
Tgt Ion: 62 Resp: 452590

Ion	Ratio	Lower	Upper
62	100		
98	9.7	0.0	19.2



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC100

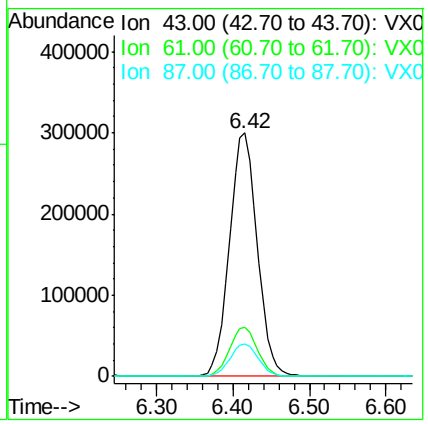
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:13:34 AM

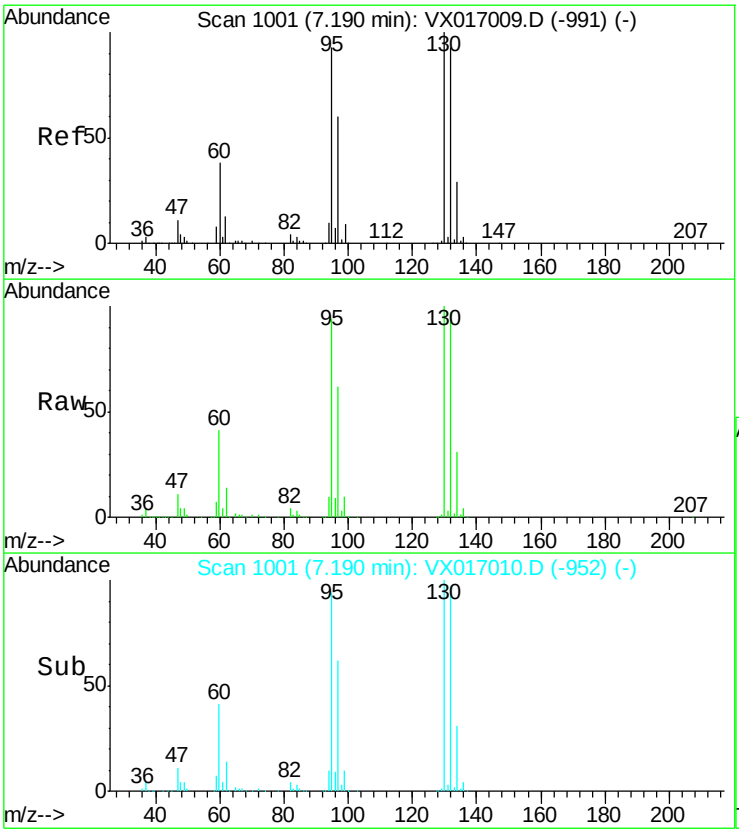


#43
Isopropyl Acetate
Concen: 91.134 ug/l
RT: 6.42 min Scan# 874
Delta R.T. 0.01 min
Lab File: VX017010.D
Acq: 29 Jun 2020 15:43

Tgt Ion: 43 Resp: 748855

Ion	Ratio	Lower	Upper
43	100		
61	20.4	16.2	24.2
87	13.6	10.7	16.1

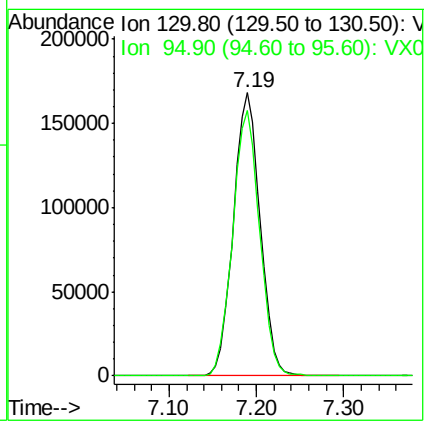


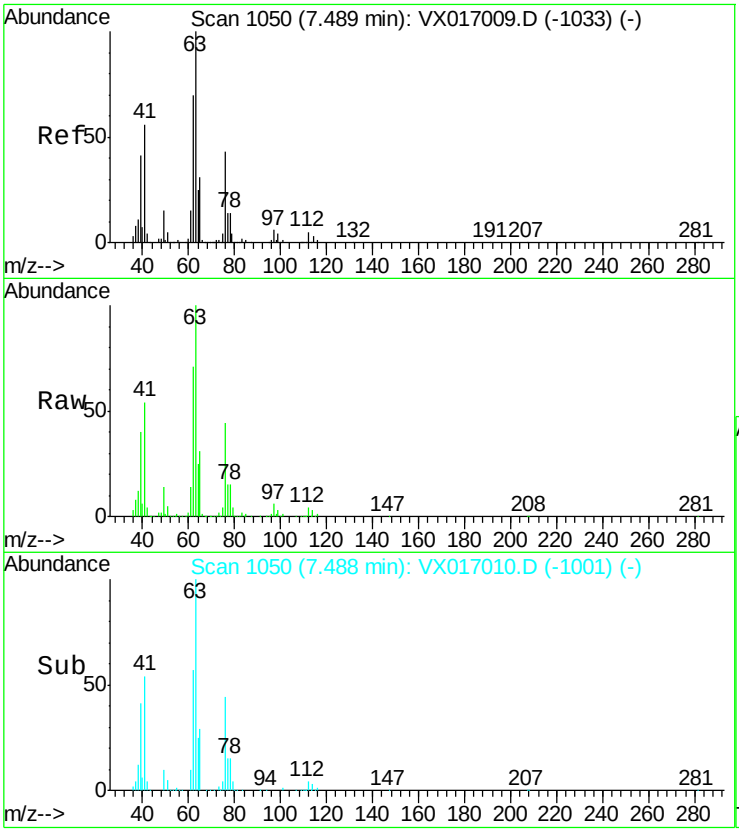


#44
Trichloroethene
Concen: 83.243 ug/l
RT: 7.19 min Scan# 1001
Delta R.T. 0.00 min
Lab File: VX017010.D
Acq: 29 Jun 2020 15:43

Tgt Ion:130 Resp: 359036

Ion	Ratio	Lower	Upper
130	100		
95	93.6	0.0	185.0

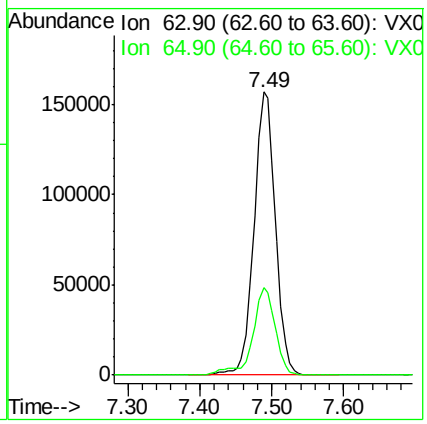




#45
1,2-Dichloropropane
Concen: 88.043 ug/l
RT: 7.49 min Scan# 1050
Delta R.T. -0.00 min
Lab File: VX017010.D
Acq: 29 Jun 2020 15:43

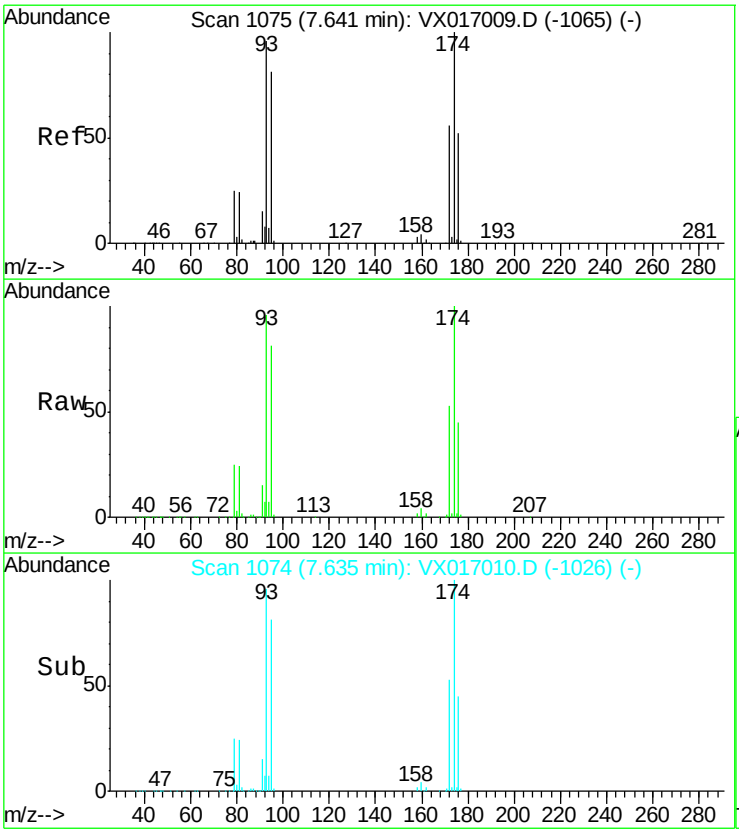
Tgt Ion: 63 Resp: 323816

Ion	Ratio	Lower	Upper
63	100		
65	30.9	24.6	36.8



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC100

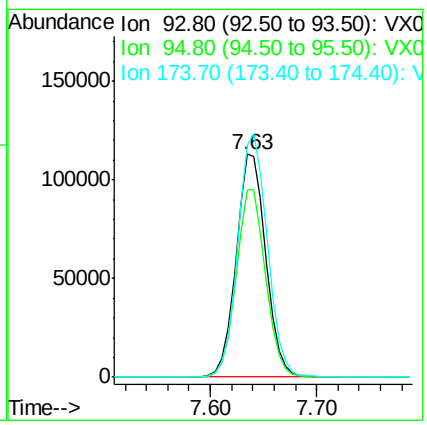
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:13:34 AM

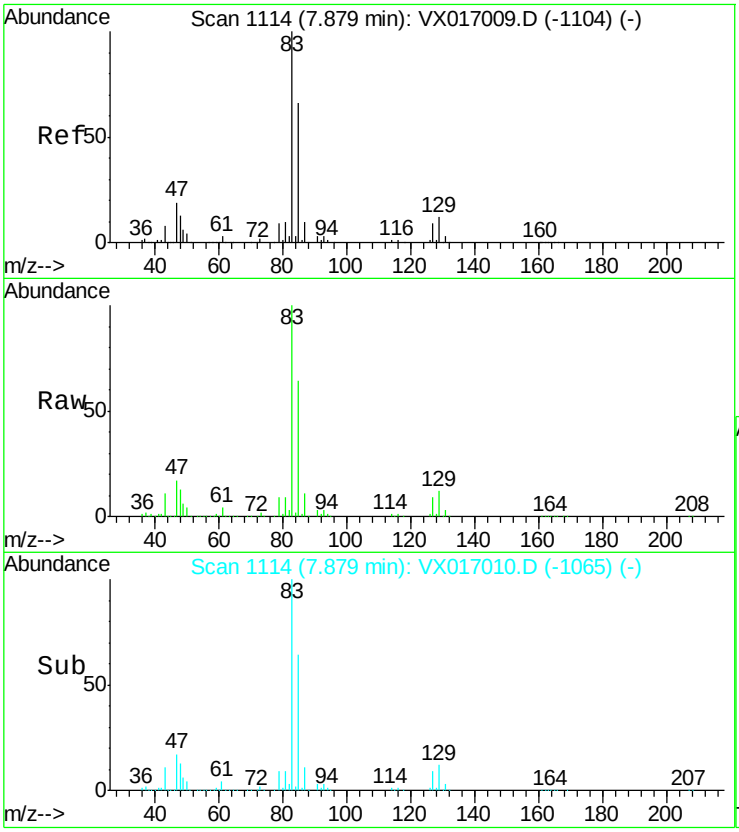


#46
Dibromomethane
Concen: 87.917 ug/l
RT: 7.63 min Scan# 1074
Delta R.T. -0.01 min
Lab File: VX017010.D
Acq: 29 Jun 2020 15:43

Tgt Ion: 93 Resp: 220760

Ion	Ratio	Lower	Upper
93	100		
95	83.4	67.4	101.0
174	108.5	84.3	126.5

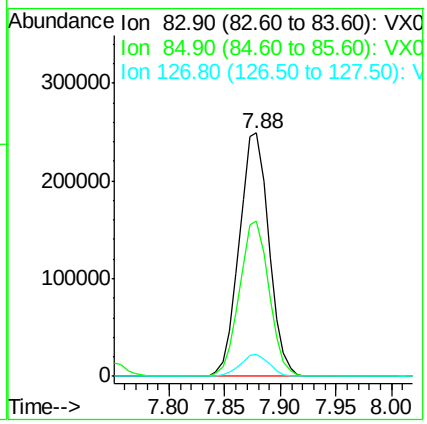


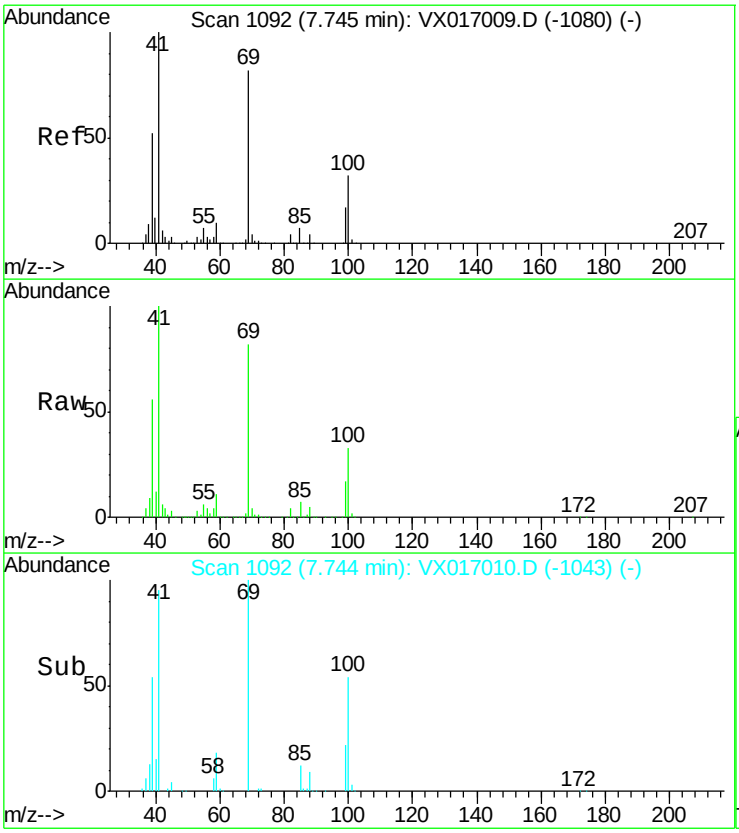


#47
Bromodichloromethane
Concen: 89.284 ug/l
RT: 7.88 min Scan# 1114
Delta R.T. -0.00 min
Lab File: VX017010.D
Acq: 29 Jun 2020 15:43

Tgt Ion: 83 Resp: 462021

Ion	Ratio	Lower	Upper
83	100		
85	63.7	53.0	79.4
127	9.0	7.5	11.3

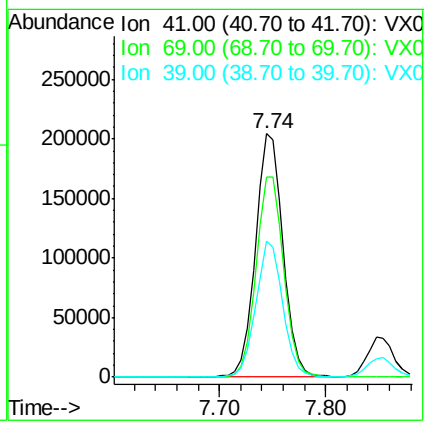




#48
Methyl methacrylate
Concen: 94.716 ug/l
RT: 7.74 min Scan# 1092
Delta R.T. -0.00 min
Lab File: VX017010.D
Acq: 29 Jun 2020 15:43

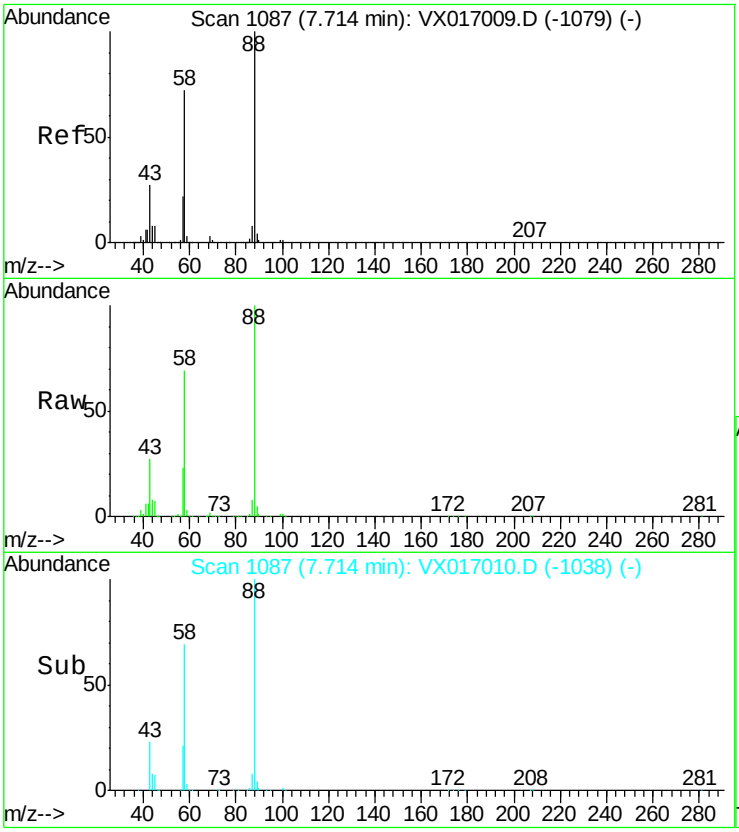
Tgt Ion: 41 Resp: 369760

Ion	Ratio	Lower	Upper
41	100		
69	82.8	65.8	98.8
39	54.4	42.5	63.7



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC100

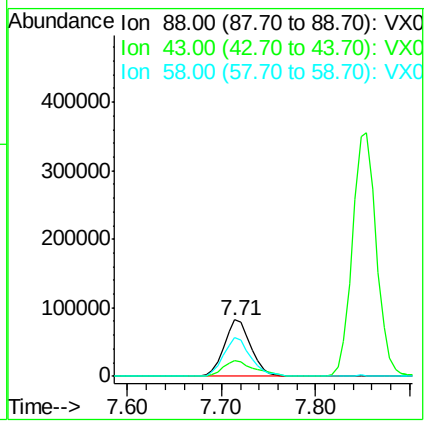
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:13:34 AM



#49
1,4-Dioxane
Concen: 1830.675 ug/l
RT: 7.71 min Scan# 1087
Delta R.T. -0.00 min
Lab File: VX017010.D
Acq: 29 Jun 2020 15:43

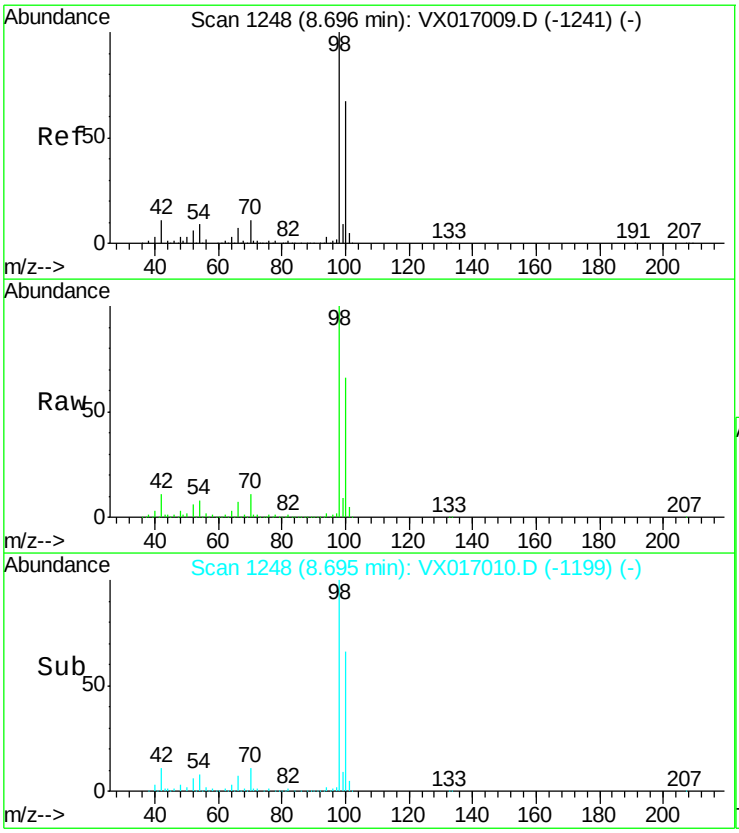
Tgt Ion: 88 Resp: 161907

Ion	Ratio	Lower	Upper
88	100		
43	32.9	25.8	38.8
58	69.9	54.8	82.2



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC100

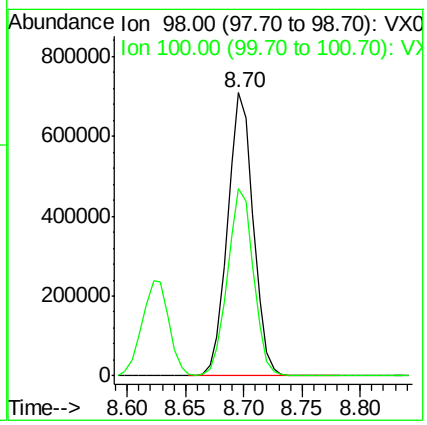
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:13:34 AM

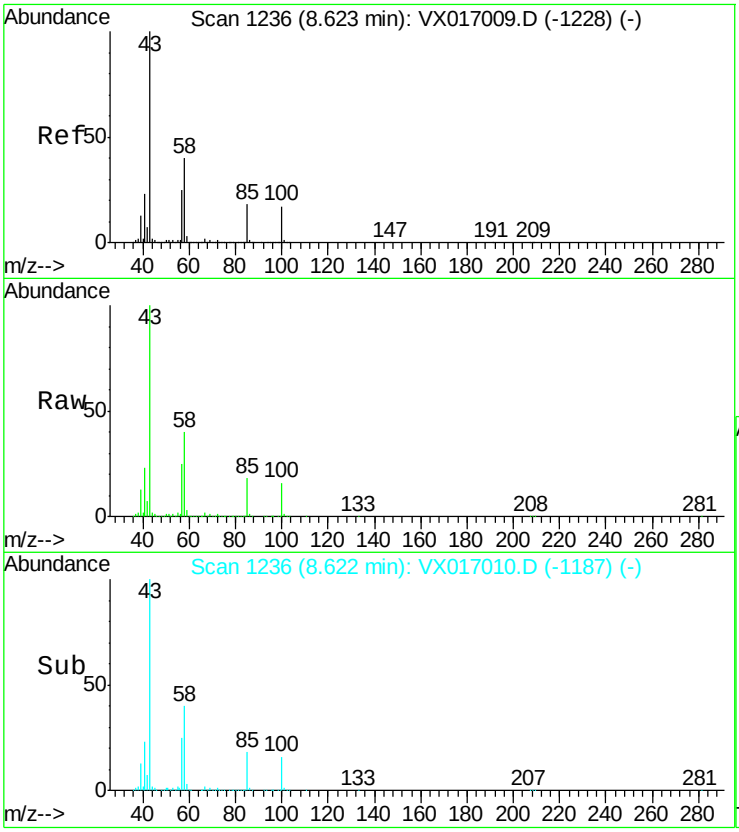


#50
Toluene-d8
Concen: 90.025 ug/l
RT: 8.70 min Scan# 1248
Delta R.T. -0.00 min
Lab File: VX017010.D
Acq: 29 Jun 2020 15:43

Tgt Ion: 98 Resp: 1085901

Ion	Ratio	Lower	Upper
98	100		
100	66.9	53.8	80.6

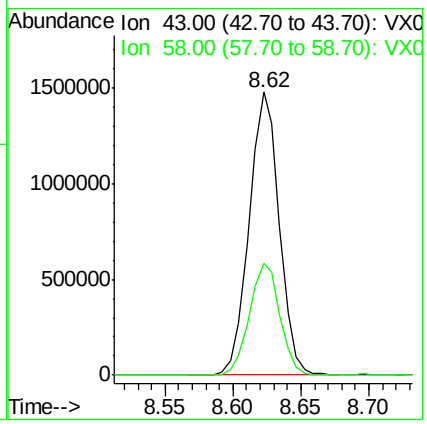




#51
4-Methyl-2-Pentanone
Concen: 468.977 ug/l
RT: 8.62 min Scan# 1236
Delta R.T. -0.00 min
Lab File: VX017010.D
Acq: 29 Jun 2020 15:43

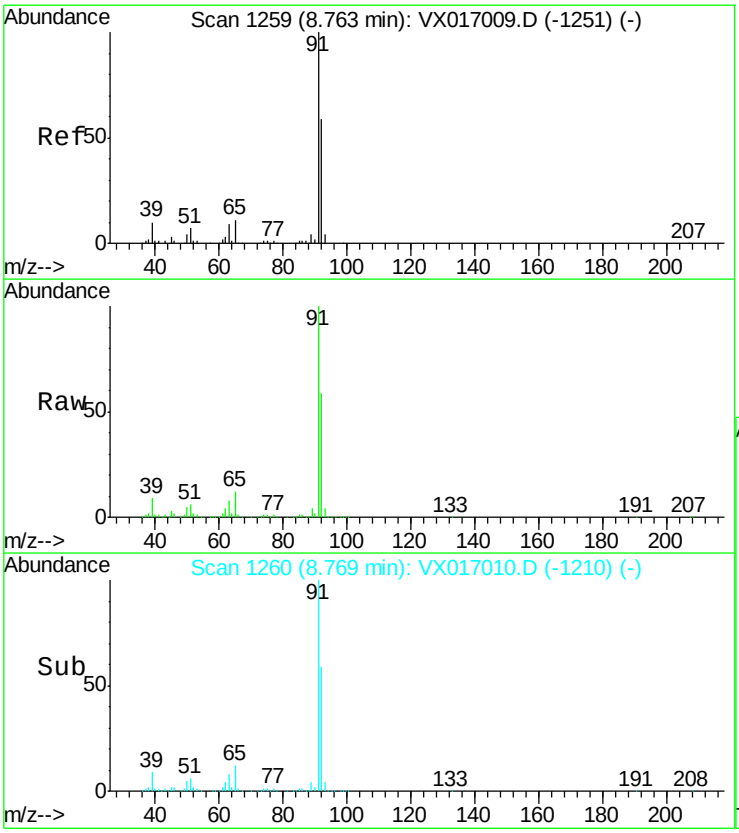
Tgt Ion: 43 Resp: 2297127

Ion	Ratio	Lower	Upper
43	100		
58	40.0	31.9	47.9



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC100

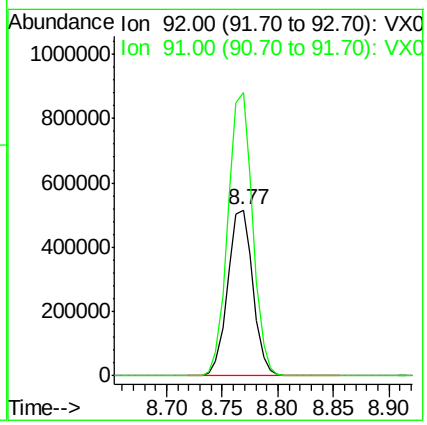
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:13:34 AM

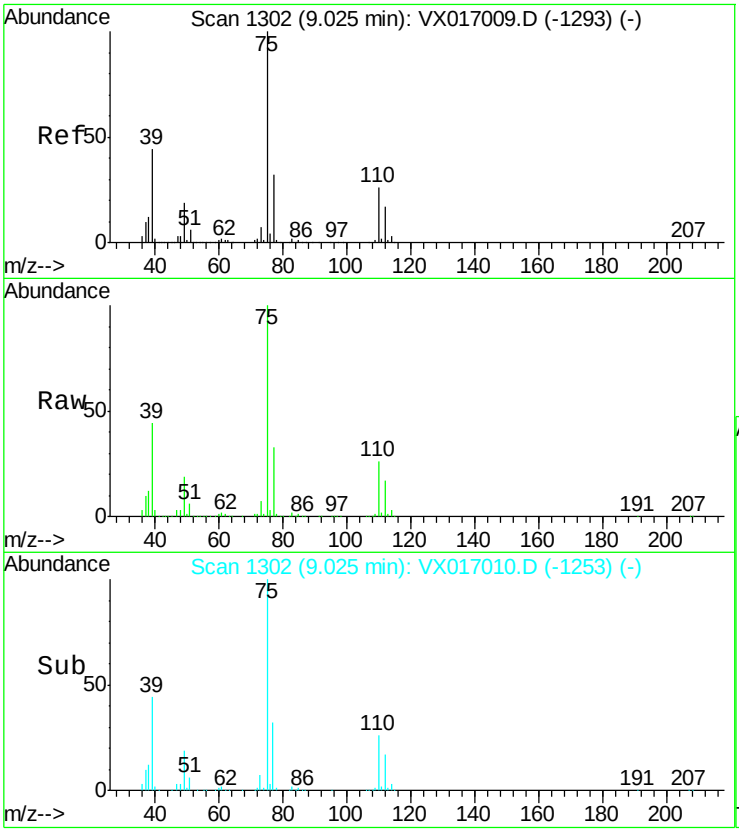


#52
Toluene
Concen: 89.783 ug/l
RT: 8.77 min Scan# 1260
Delta R.T. 0.01 min
Lab File: VX017010.D
Acq: 29 Jun 2020 15:43

Tgt Ion: 92 Resp: 802705

Ion	Ratio	Lower	Upper
92	100		
91	168.6	136.9	205.3

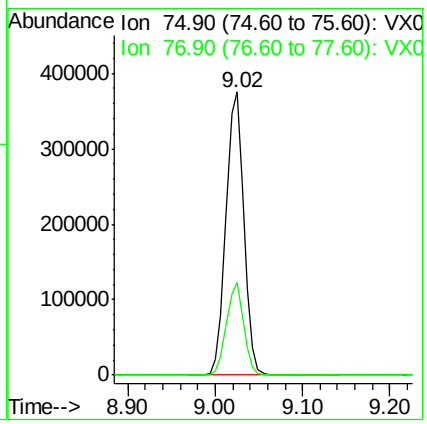




#53
t-1,3-Dichloropropene
Concen: 93.014 ug/l
RT: 9.02 min Scan# 1302
Delta R.T. -0.00 min
Lab File: VX017010.D
Acq: 29 Jun 2020 15:43

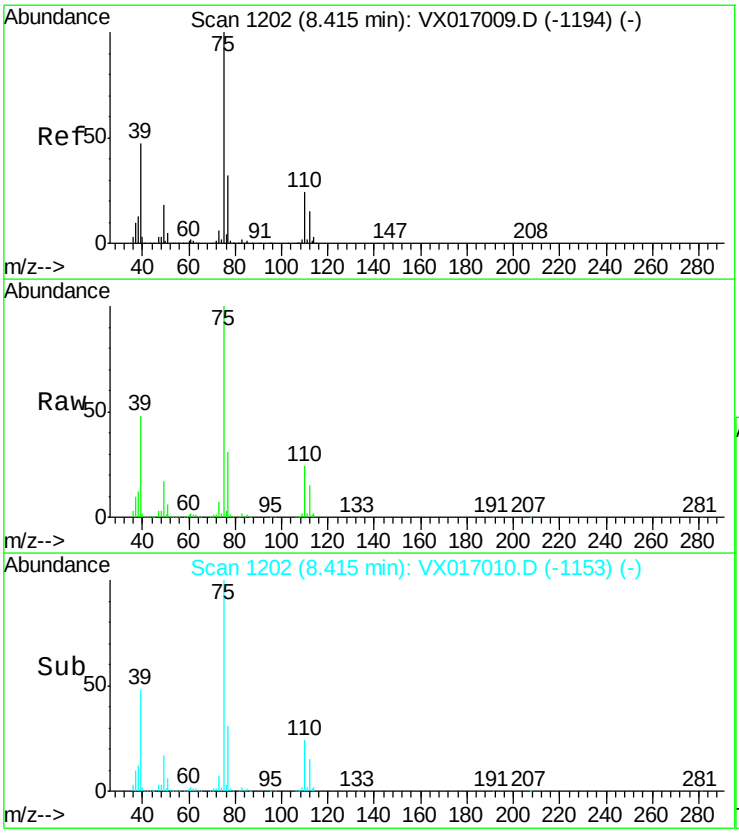
Tgt Ion: 75 Resp: 531059

Ion	Ratio	Lower	Upper
75	100		
77	32.5	25.6	38.4



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC100

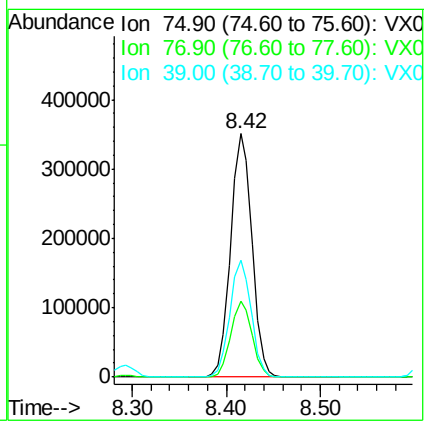
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:13:34 AM



#54
cis-1,3-Dichloropropene
Concen: 90.258 ug/l
RT: 8.42 min Scan# 1202
Delta R.T. -0.00 min
Lab File: VX017010.D
Acq: 29 Jun 2020 15:43

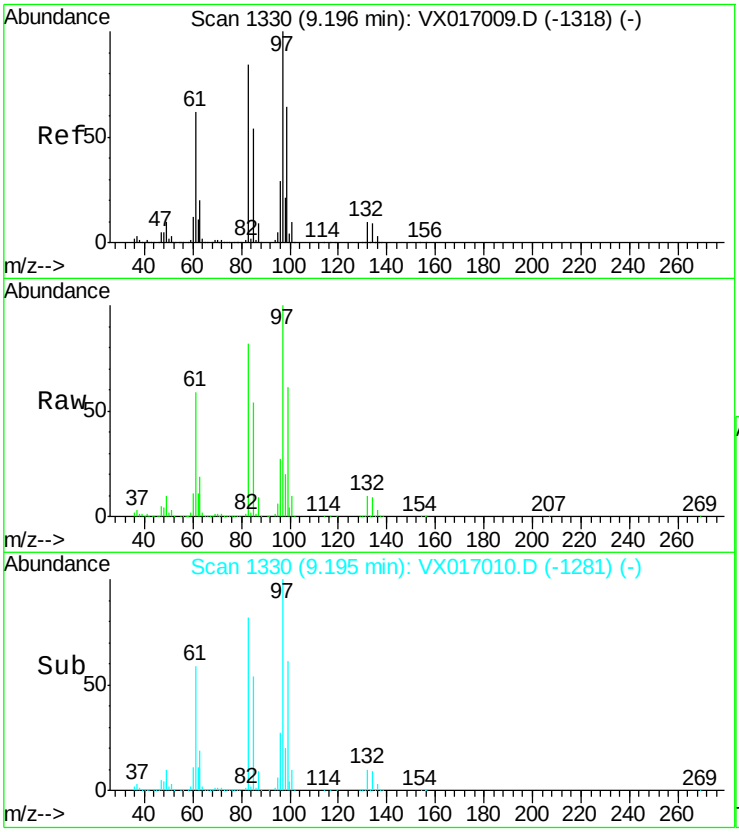
Tgt Ion: 75 Resp: 552420

Ion	Ratio	Lower	Upper
75	100		
77	31.0	25.2	37.8
39	48.1	37.4	56.2



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC100

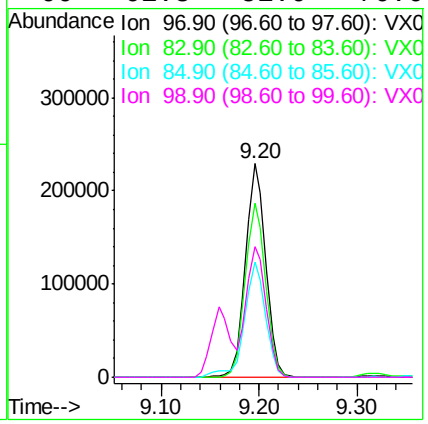
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:13:34 AM

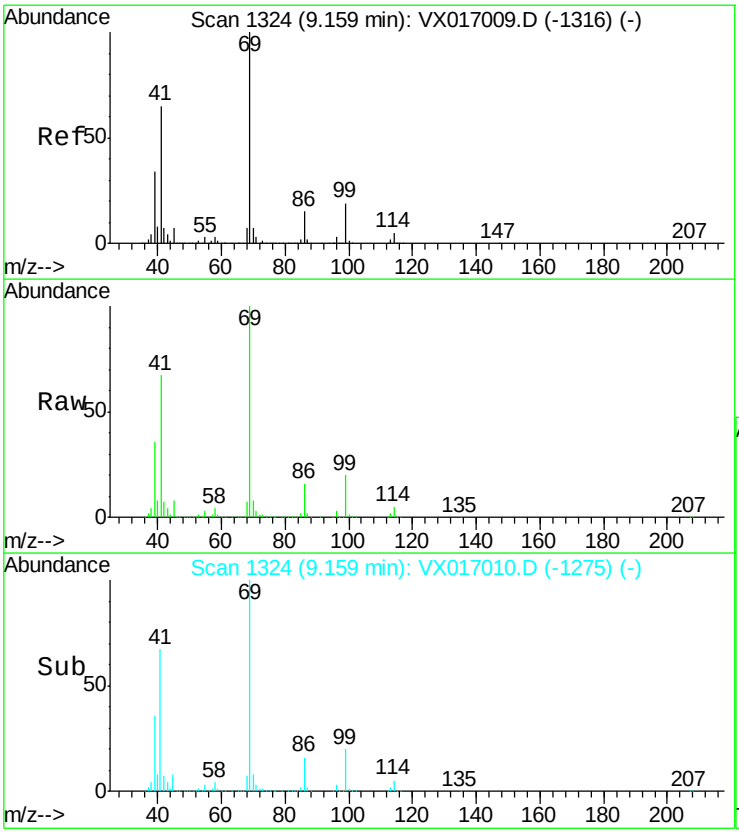


#55
1,1,2-Trichloroethane
Concen: 89.881 ug/l
RT: 9.20 min Scan# 1330
Delta R.T. -0.00 min
Lab File: VX017010.D
Acq: 29 Jun 2020 15:43

Tgt Ion: 97 Resp: 328321

Ion	Ratio	Lower	Upper
97	100		
83	81.7	67.0	100.6
85	54.2	43.5	65.3
99	61.3	51.0	76.6

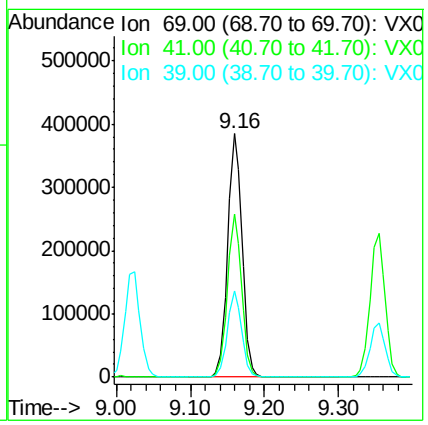


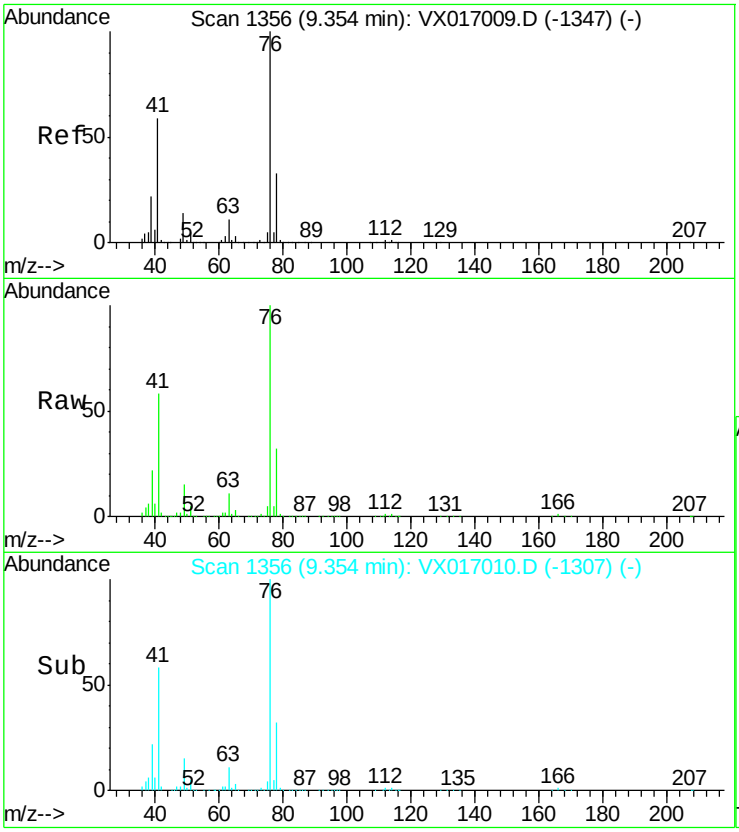


#56
Ethyl methacrylate
Concen: 99.980 ug/l
RT: 9.16 min Scan# 1324
Delta R.T. -0.00 min
Lab File: VX017010.D
Acq: 29 Jun 2020 15:43

Tgt Ion: 69 Resp: 519812

Ion	Ratio	Lower	Upper
69	100		
41	66.3	53.6	80.4
39	35.0	28.2	42.2

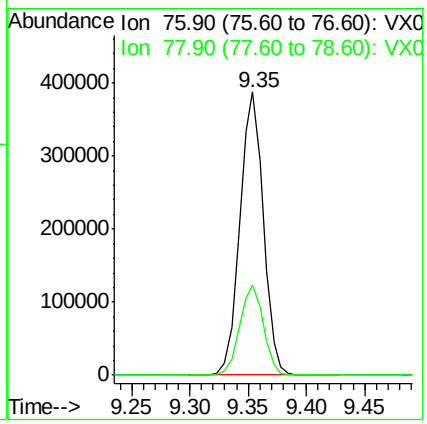




#57
1,3-Dichloropropane
Concen: 87.800 ug/l
RT: 9.35 min Scan# 1356
Delta R.T. -0.00 min
Lab File: VX017010.D
Acq: 29 Jun 2020 15:43

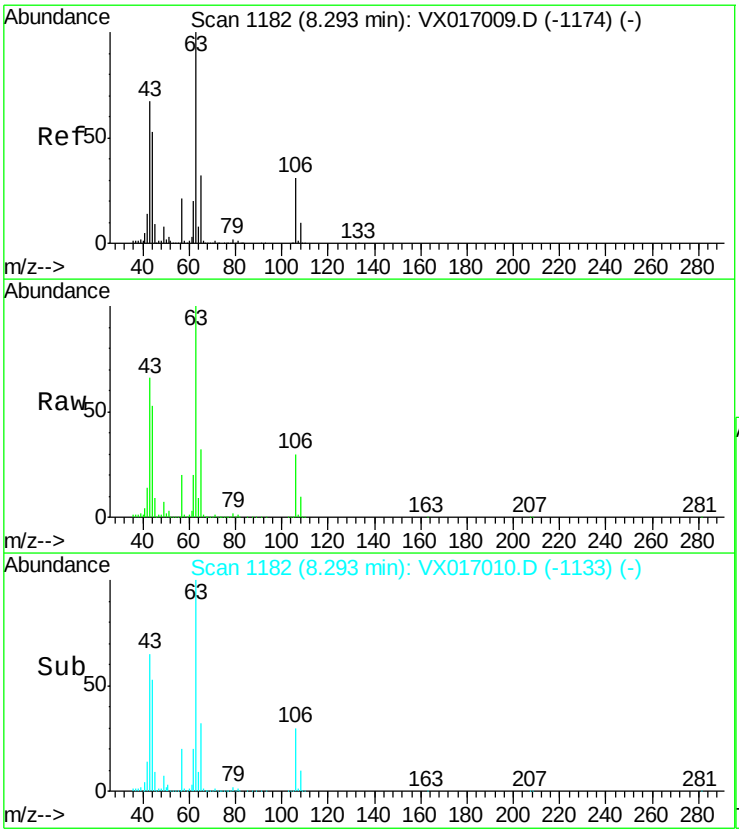
Tgt Ion: 76 Resp: 542690

Ion	Ratio	Lower	Upper
76	100		
78	32.1	25.9	38.9



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC100

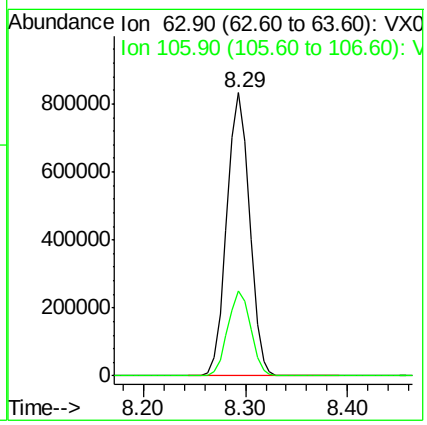
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:13:34 AM



#58
2-Chloroethyl Vinyl ether
Concen: 496.895 ug/l
RT: 8.29 min Scan# 1182
Delta R.T. -0.00 min
Lab File: VX017010.D
Acq: 29 Jun 2020 15:43

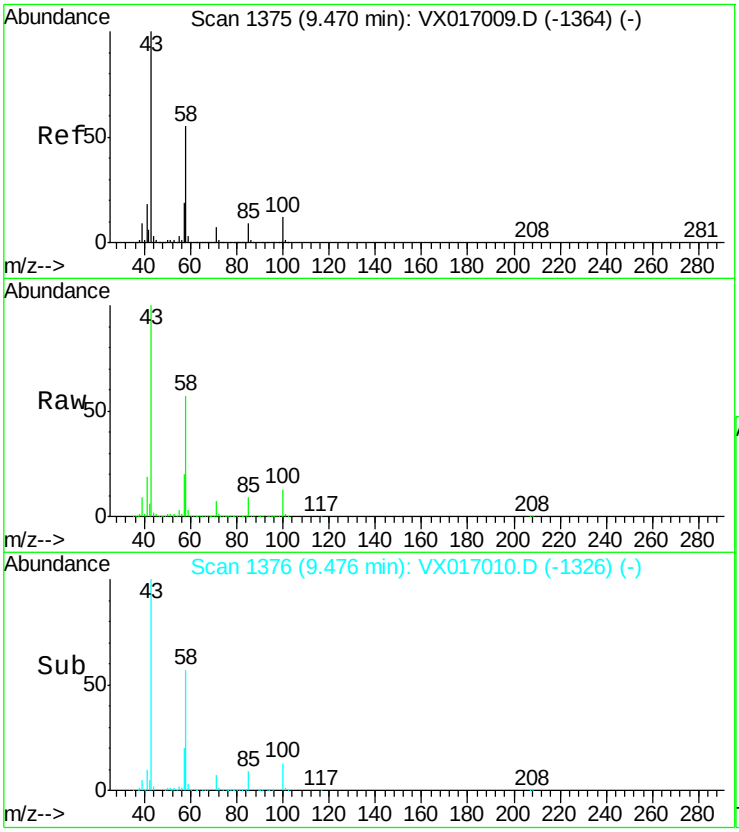
Tgt Ion: 63 Resp: 1285755

Ion	Ratio	Lower	Upper
63	100		
106	30.1	24.0	36.0



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC100

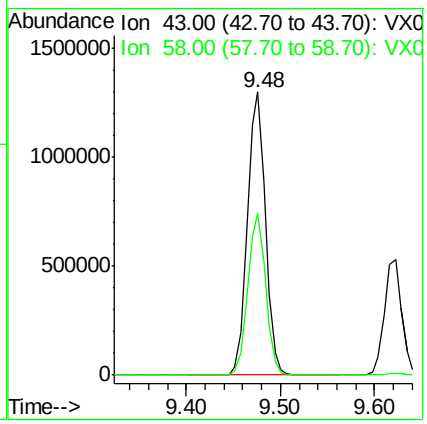
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:13:34 AM

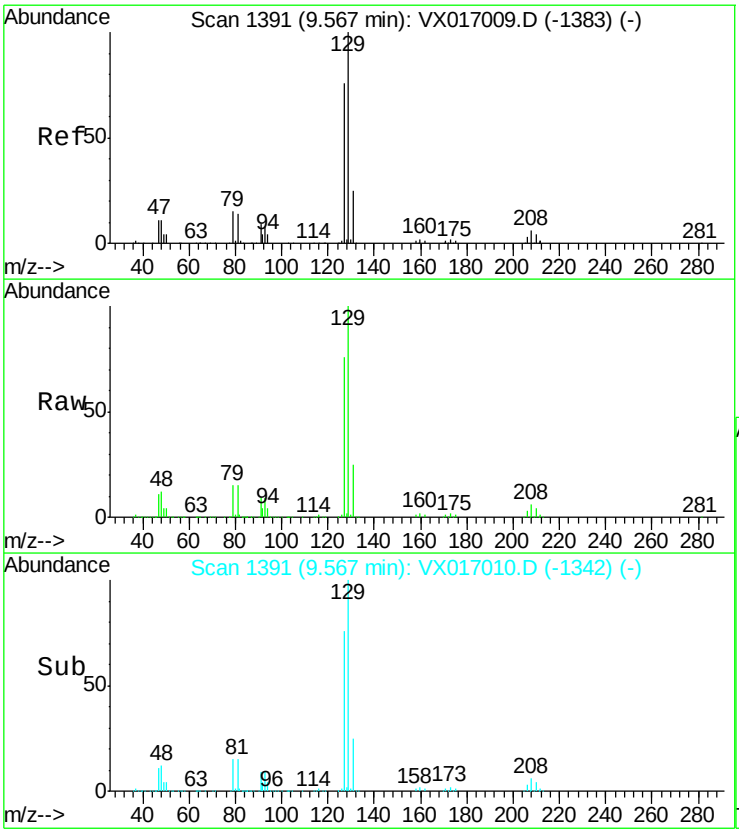


#59
2-Hexanone
Concen: 480.862 ug/l
RT: 9.48 min Scan# 1376
Delta R.T. 0.01 min
Lab File: VX017010.D
Acq: 29 Jun 2020 15:43

Tgt Ion: 43 Resp: 1720186

Ion	Ratio	Lower	Upper
43	100		
58	56.4	27.9	83.6

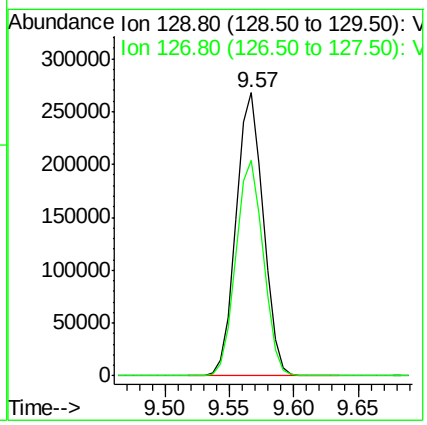




#60
Dibromochloromethane
Concen: 92.675 ug/l
RT: 9.57 min Scan# 1391
Delta R.T. -0.00 min
Lab File: VX017010.D
Acq: 29 Jun 2020 15:43

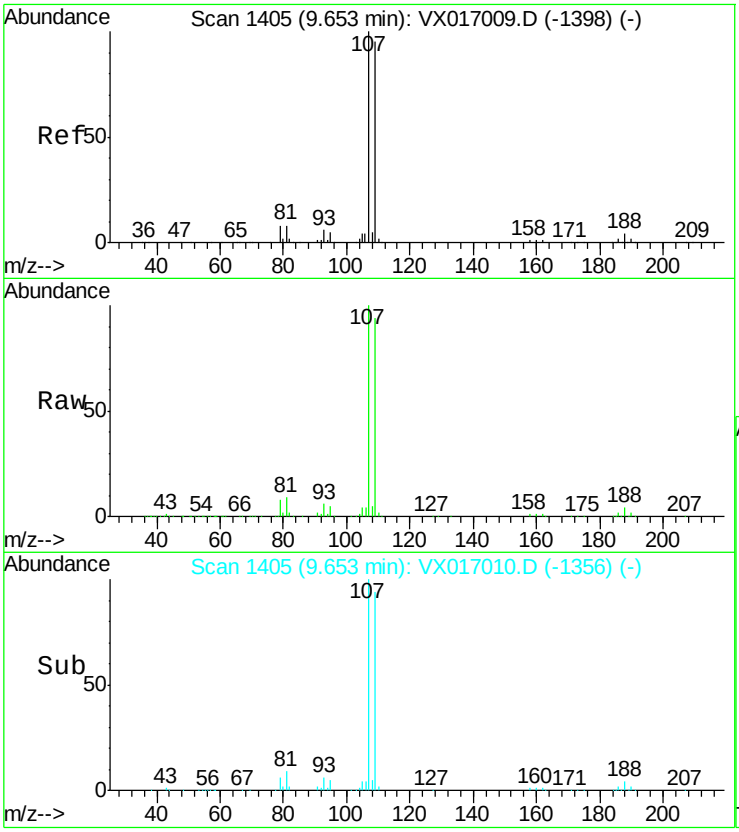
Tgt Ion:129 Resp: 393183

Ion	Ratio	Lower	Upper
129	100		
127	76.6	38.9	116.7



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC100

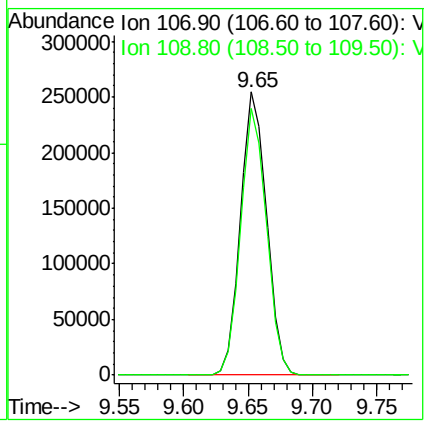
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:13:34 AM

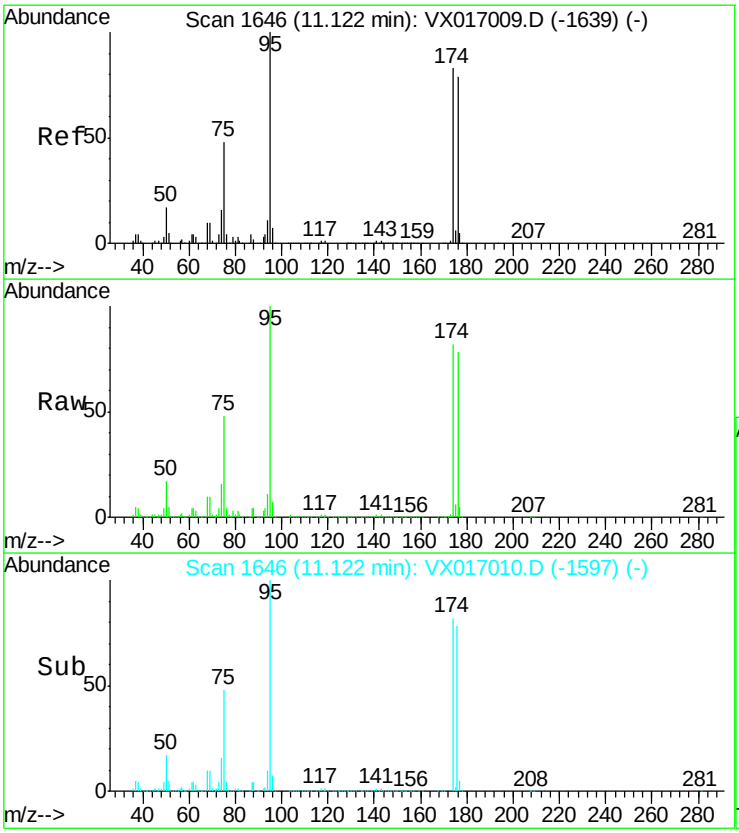


#61
1,2-Dibromoethane
Concen: 90.502 ug/l
RT: 9.65 min Scan# 1405
Delta R.T. -0.00 min
Lab File: VX017010.D
Acq: 29 Jun 2020 15:43

Tgt Ion:107 Resp: 355346

Ion	Ratio	Lower	Upper
107	100		
109	93.9	75.8	113.8

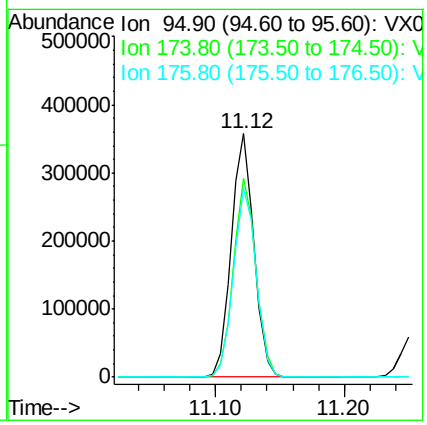


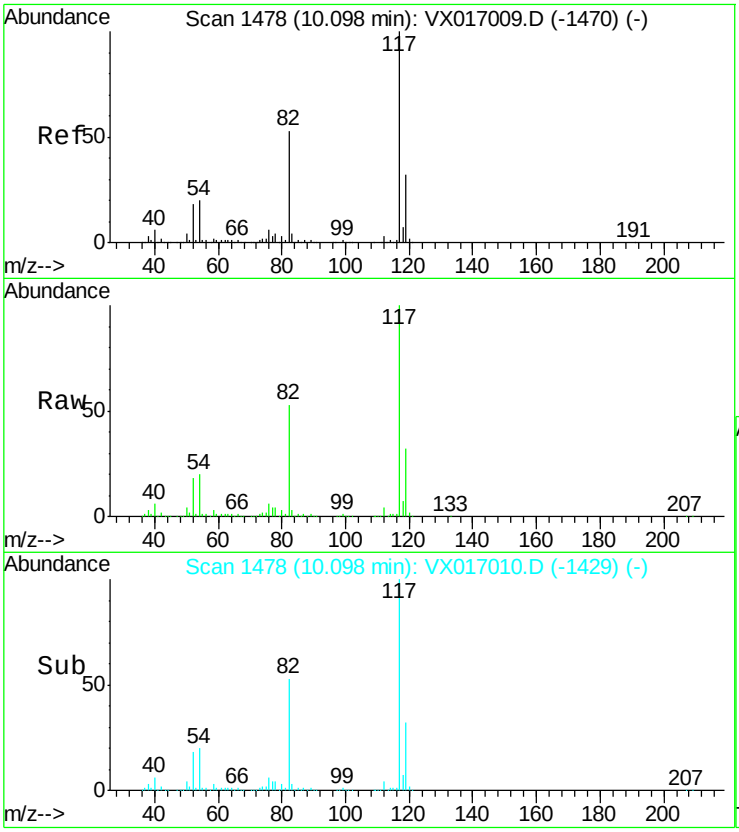


#62
4-Bromofluorobenzene
Concen: 93.163 ug/l
RT: 11.12 min Scan# 1646
Delta R.T. -0.00 min
Lab File: VX017010.D
Acq: 29 Jun 2020 15:43

Tgt Ion: 95 Resp: 439288

Ion	Ratio	Lower	Upper
95	100		
174	81.3	0.0	164.0
176	78.5	0.0	157.6

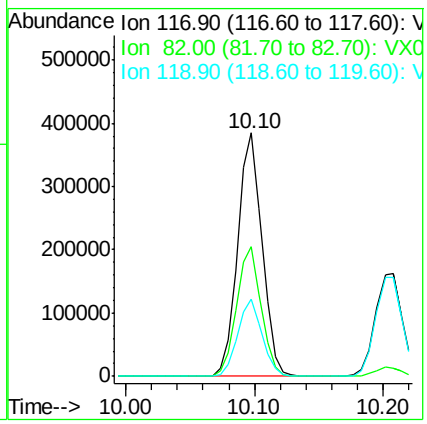


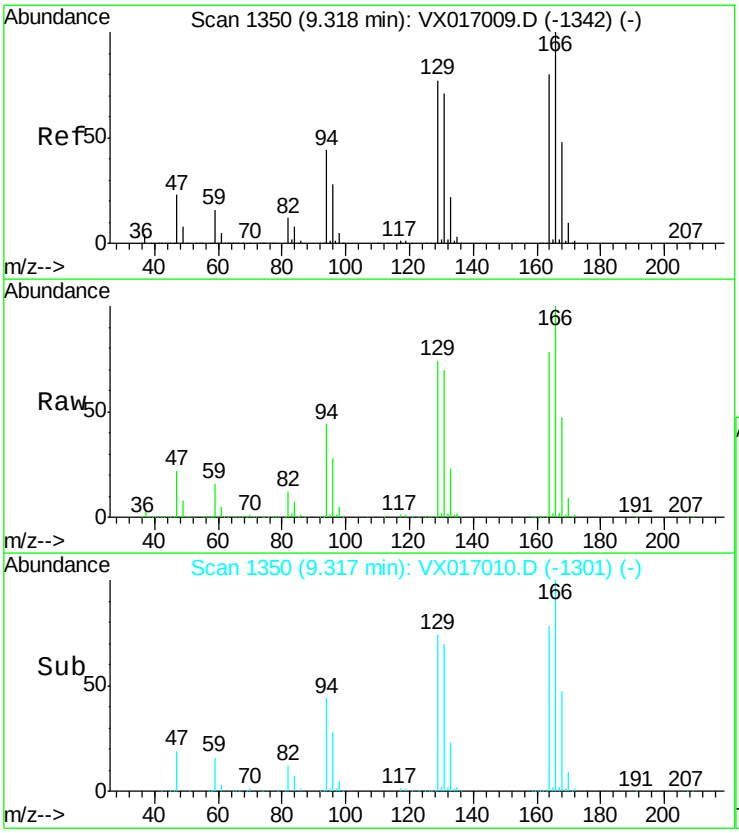


#63
Chlorobenzene-d5
Concen: 50.000 ug/l
RT: 10.10 min Scan# 1478
Delta R.T. -0.00 min
Lab File: VX017010.D
Acq: 29 Jun 2020 15:43

Tgt Ion:117 Resp: 504882

Ion	Ratio	Lower	Upper
117	100		
82	53.4	42.6	63.8
119	31.5	25.4	38.2

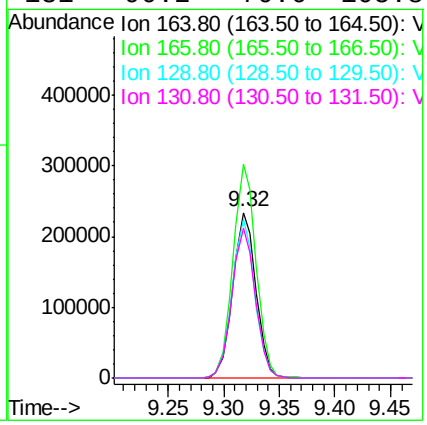




#64
Tetrachloroethene
Concen: 82.492 ug/l
RT: 9.32 min Scan# 1350
Delta R.T. -0.00 min
Lab File: VX017010.D
Acq: 29 Jun 2020 15:43

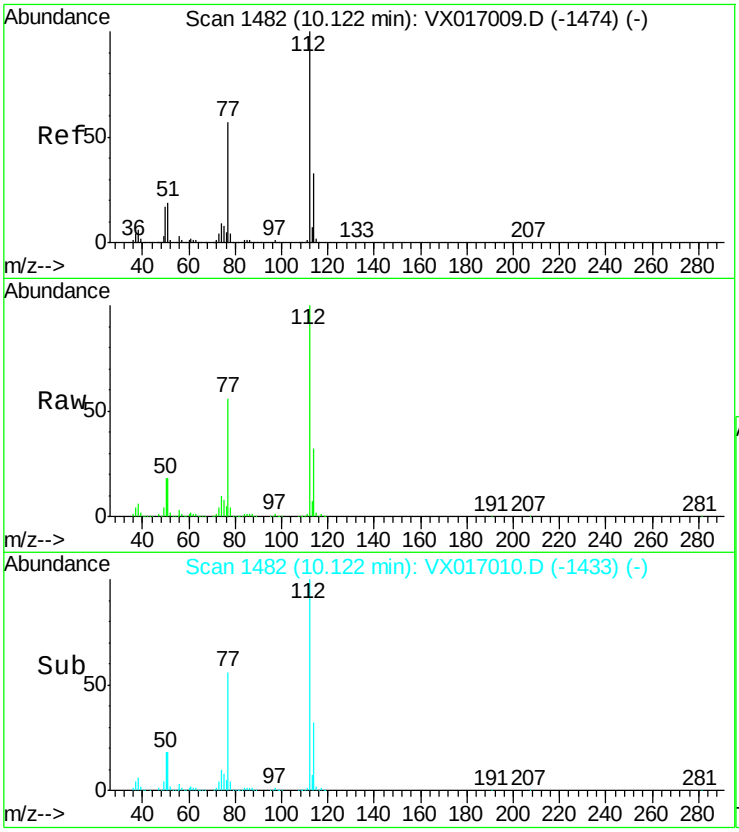
Tgt Ion:164 Resp: 336131

Ion	Ratio	Lower	Upper
164	100		
166	129.0	99.4	149.0
129	95.8	76.3	114.5
131	90.2	70.6	105.8



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC100

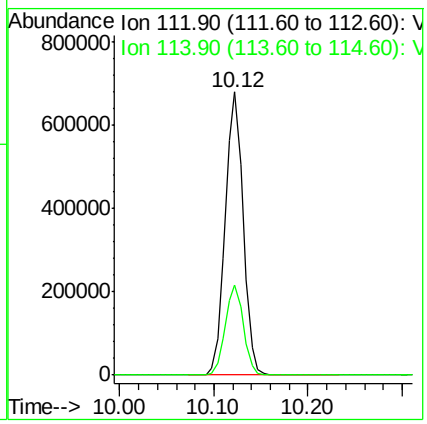
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:13:34 AM



#65
Chlorobenzene
Concen: 86.024 ug/l
RT: 10.12 min Scan# 1482
Delta R.T. -0.00 min
Lab File: VX017010.D
Acq: 29 Jun 2020 15:43

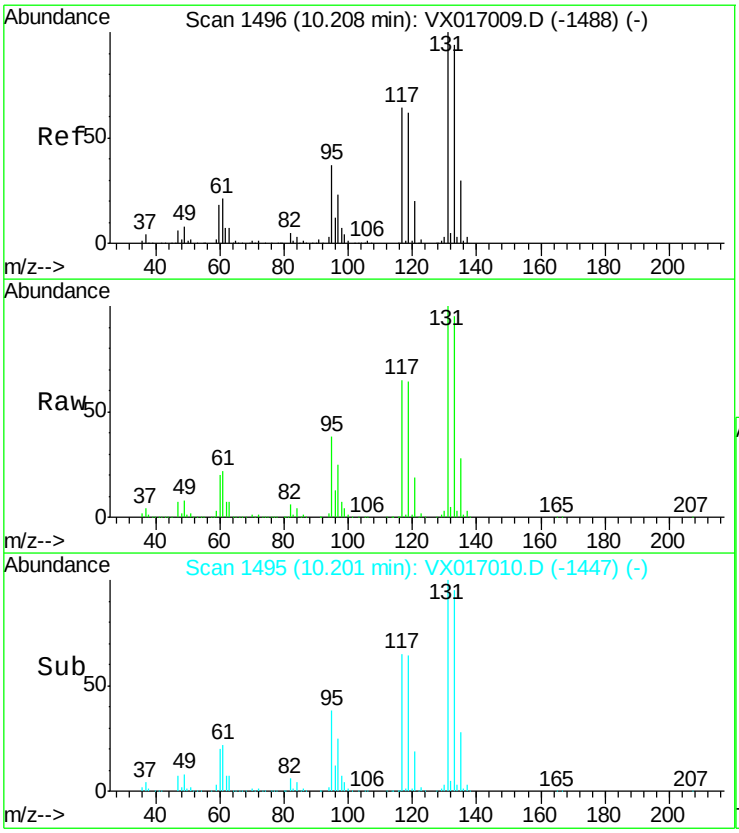
Tgt Ion:112 Resp: 896407

Ion	Ratio	Lower	Upper
112	100		
114	31.7	26.2	39.4



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC100

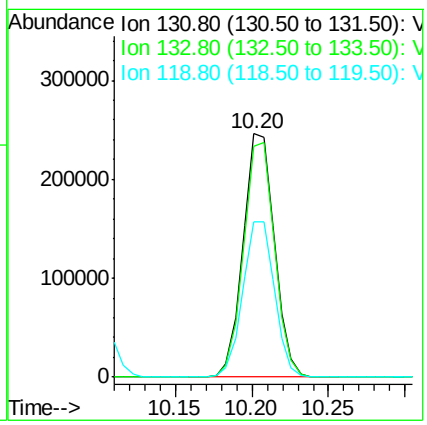
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:13:34 AM

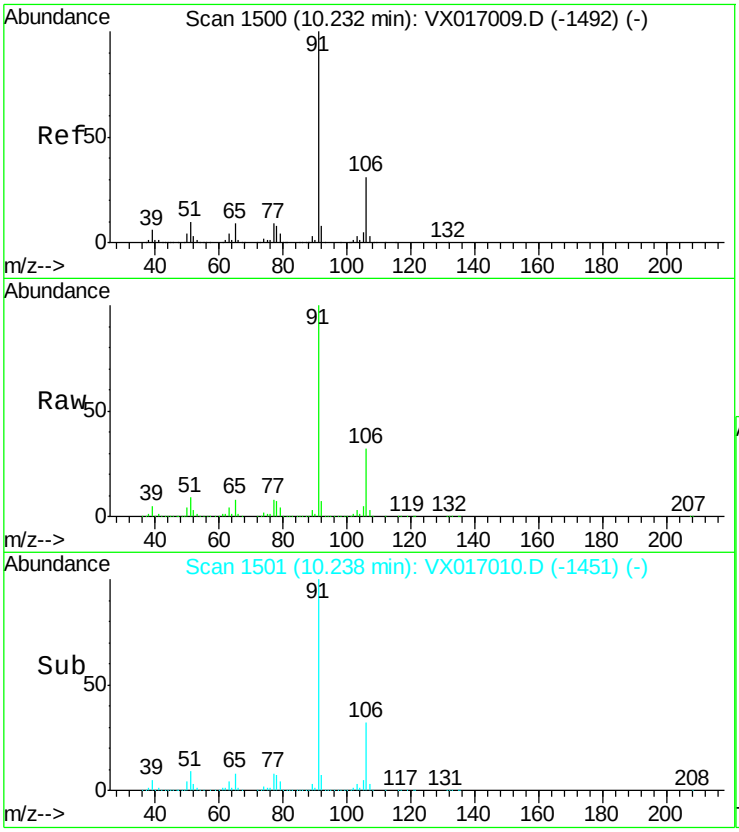


#66
1,1,1,2-Tetrachloroethane
Concen: 87.205 ug/l
RT: 10.20 min Scan# 1495
Delta R.T. -0.01 min
Lab File: VX017010.D
Acq: 29 Jun 2020 15:43

Tgt Ion:131 Resp: 350208

Ion	Ratio	Lower	Upper
131	100		
133	95.5	47.3	141.9
119	64.2	31.9	95.5

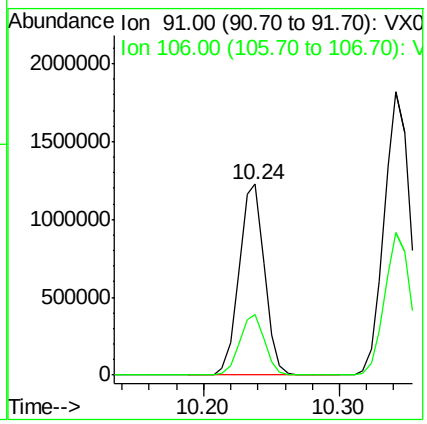


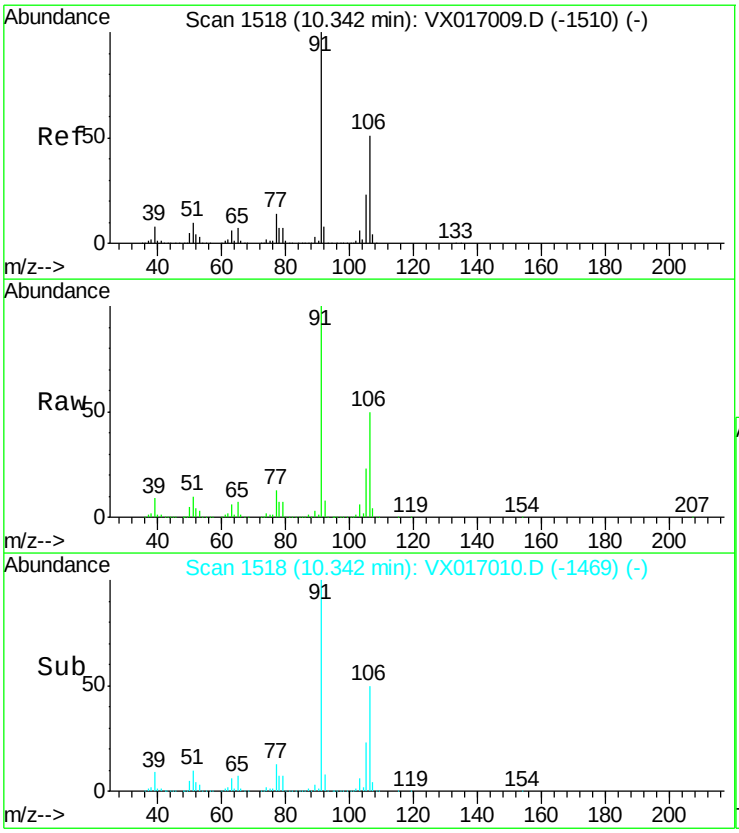


#67
Ethyl Benzene
Concen: 91.100 ug/l
RT: 10.24 min Scan# 1501
Delta R.T. 0.01 min
Lab File: VX017010.D
Acq: 29 Jun 2020 15:43

Tgt Ion: 91 Resp: 1585354

Ion	Ratio	Lower	Upper
91	100		
106	31.8	24.7	37.1

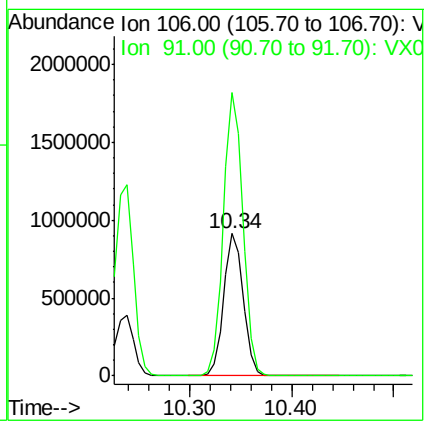




#68
m/p-Xylenes
Concen: 181.553 ug/l
RT: 10.34 min Scan# 1518
Delta R.T. -0.00 min
Lab File: VX017010.D
Acq: 29 Jun 2020 15:43

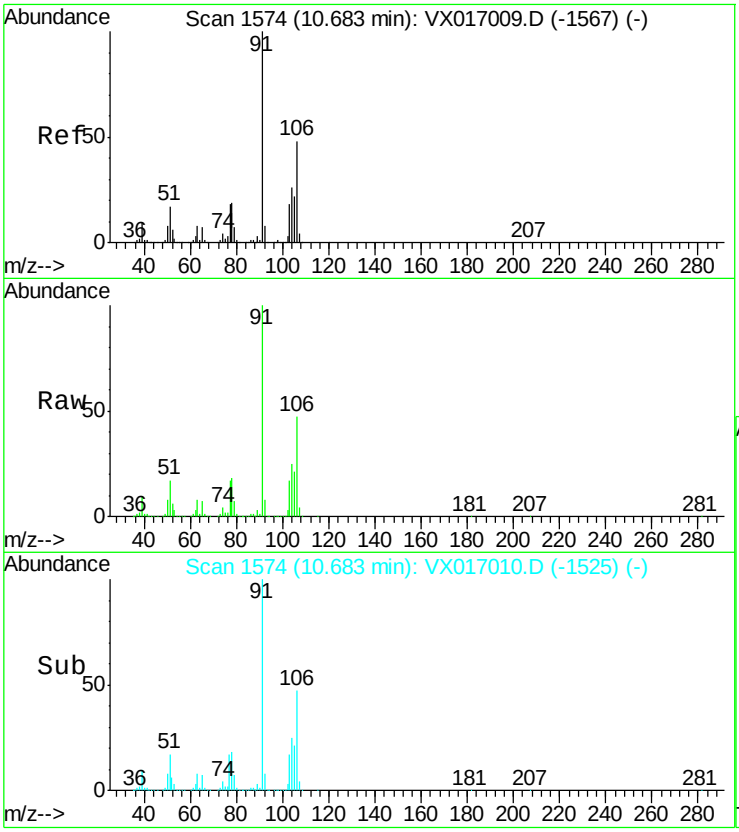
Tgt Ion:106 Resp: 1213121

Ion	Ratio	Lower	Upper
106	100		
91	199.9	158.6	238.0



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC100

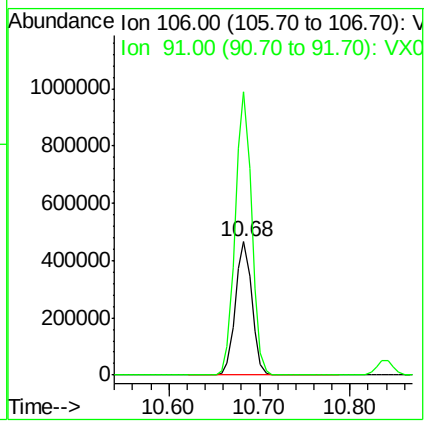
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:13:34 AM



#69
o-Xylene
Concen: 92.446 ug/l
RT: 10.68 min Scan# 1574
Delta R.T. -0.00 min
Lab File: VX017010.D
Acq: 29 Jun 2020 15:43

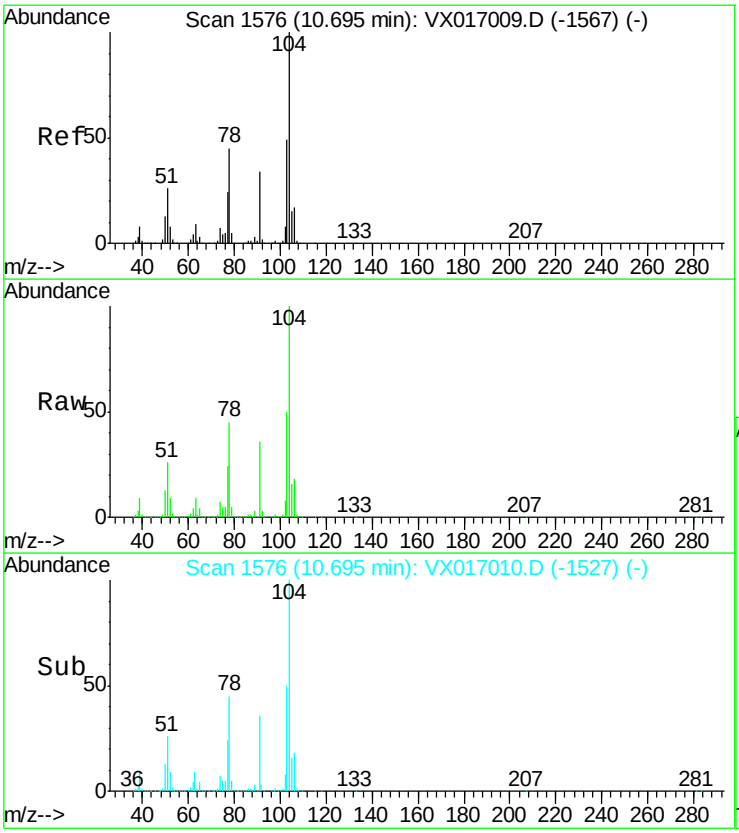
Tgt Ion:106 Resp: 587633

Ion	Ratio	Lower	Upper
106	100		
91	211.3	105.6	316.7



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC100

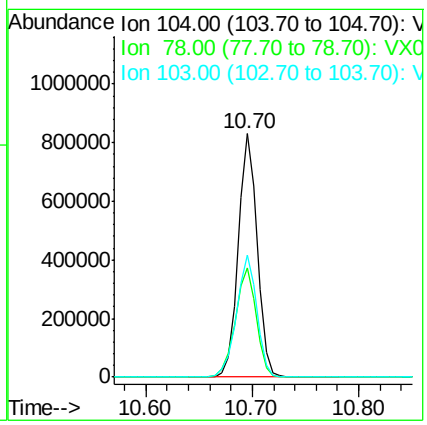
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:13:34 AM

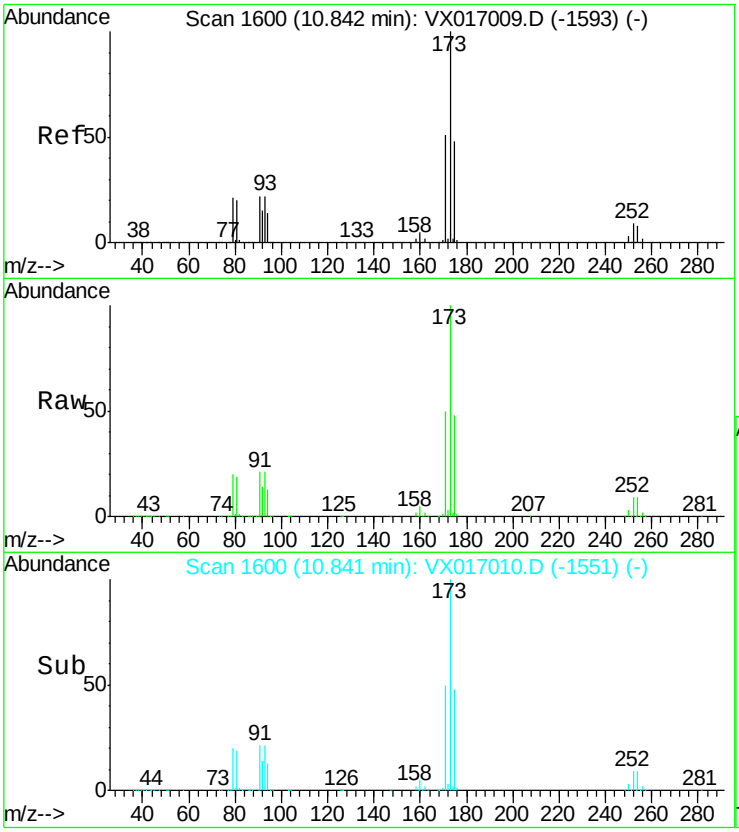


#70
Styrene
Concen: 95.995 ug/l
RT: 10.70 min Scan# 1576
Delta R.T. -0.00 min
Lab File: VX017010.D
Acq: 29 Jun 2020 15:43

Tgt Ion:104 Resp: 1039095

Ion	Ratio	Lower	Upper
104	100		
78	49.7	39.5	59.3
103	53.6	43.0	64.6

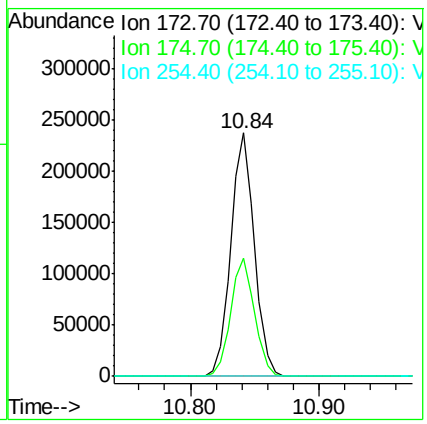




#71
Bromoform
Concen: 95.257 ug/l
RT: 10.84 min Scan# 1600
Delta R.T. -0.00 min
Lab File: VX017010.D
Acq: 29 Jun 2020 15:43

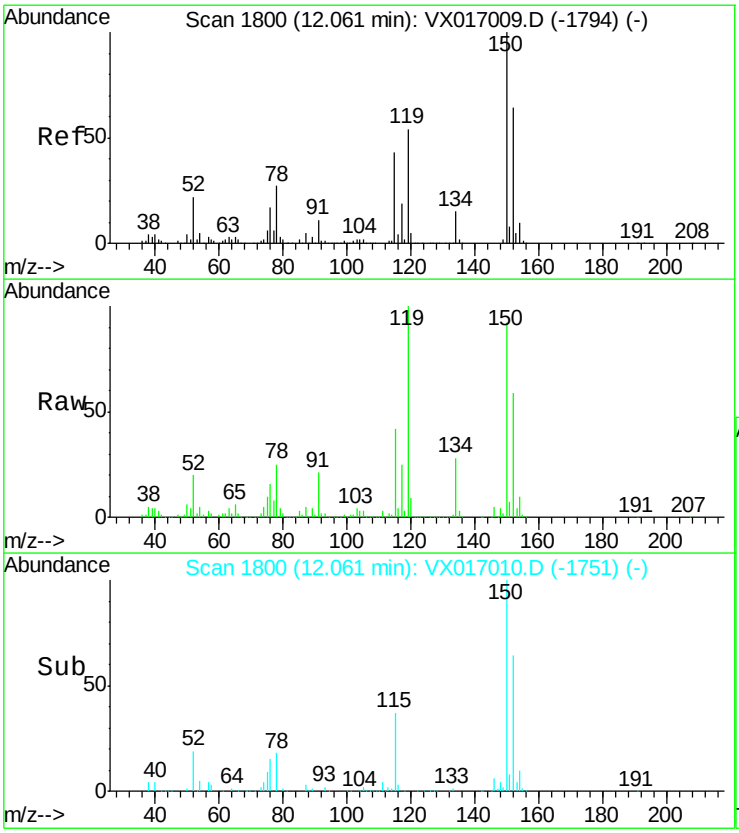
Tgt Ion:173 Resp: 303353

Ion	Ratio	Lower	Upper
173	100		
175	48.9	24.5	73.5
254	0.1	0.1	0.1



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC100

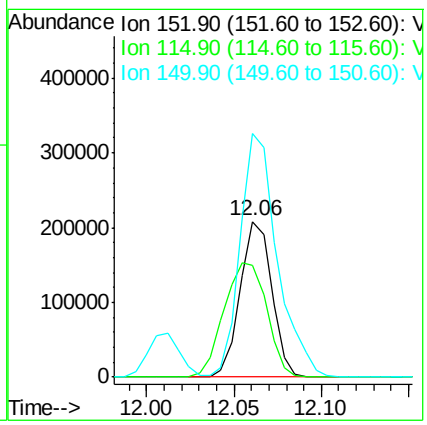
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:13:34 AM

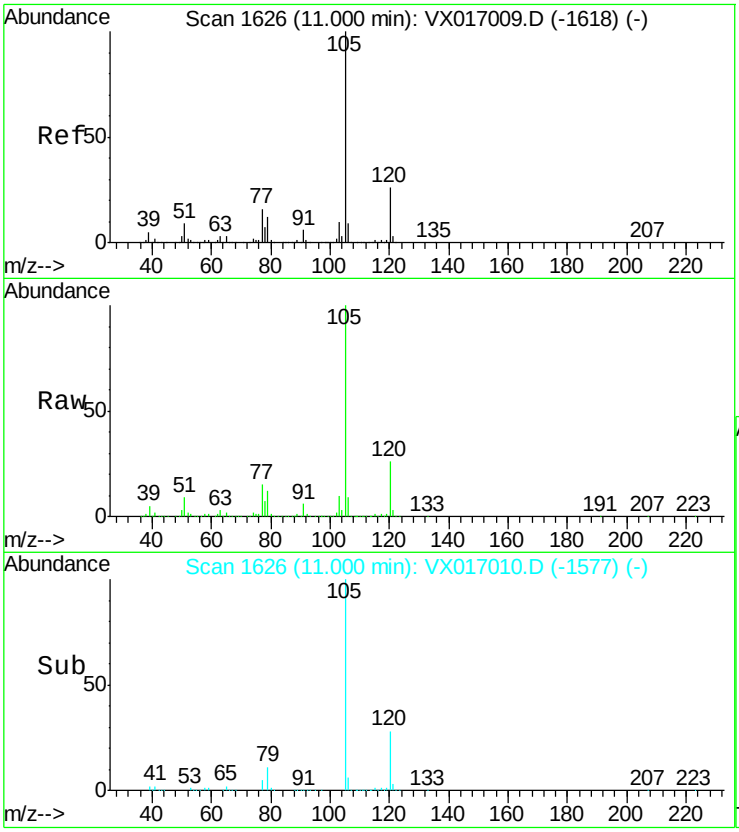


#72
1,4-Dichlorobenzene-d4
Concen: 50.000 ug/l
RT: 12.06 min Scan# 1800
Delta R.T. -0.00 min
Lab File: VX017010.D
Acq: 29 Jun 2020 15:43

Tgt Ion:152 Resp: 262944

Ion	Ratio	Lower	Upper
152	100		
115	98.8	40.9	122.7
150	183.4	0.0	351.6

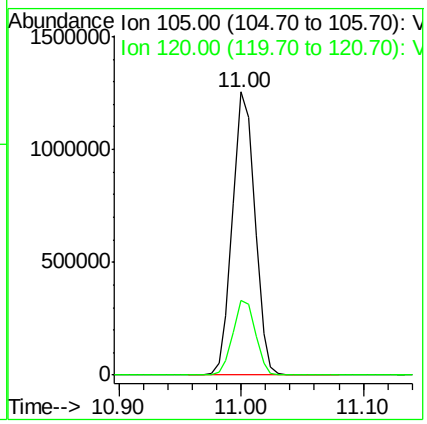




#73
Isopropylbenzene
Concen: 92.010 ug/l
RT: 11.00 min Scan# 1626
Delta R.T. -0.00 min
Lab File: VX017010.D
Acq: 29 Jun 2020 15:43

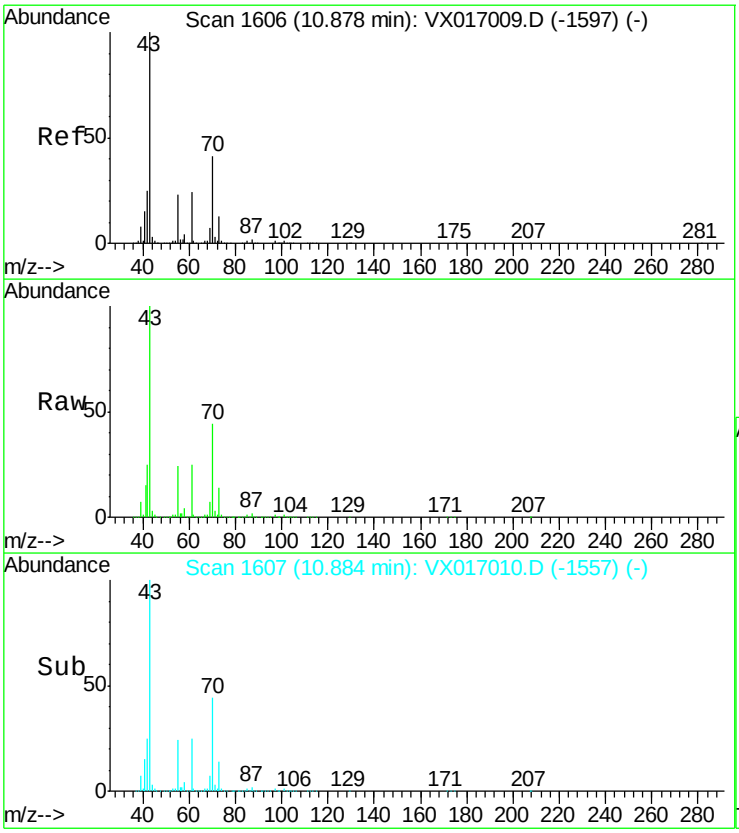
Tgt Ion:105 Resp: 1584699

Ion	Ratio	Lower	Upper
105	100		
120	26.7	13.4	40.2



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC100

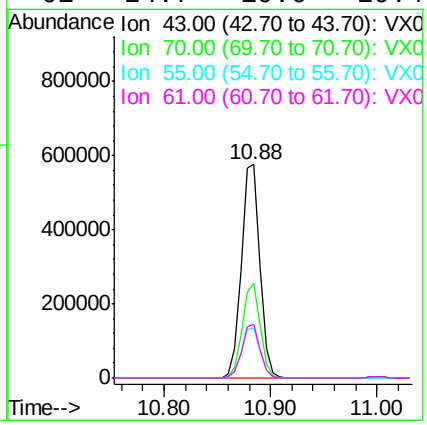
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:13:34 AM

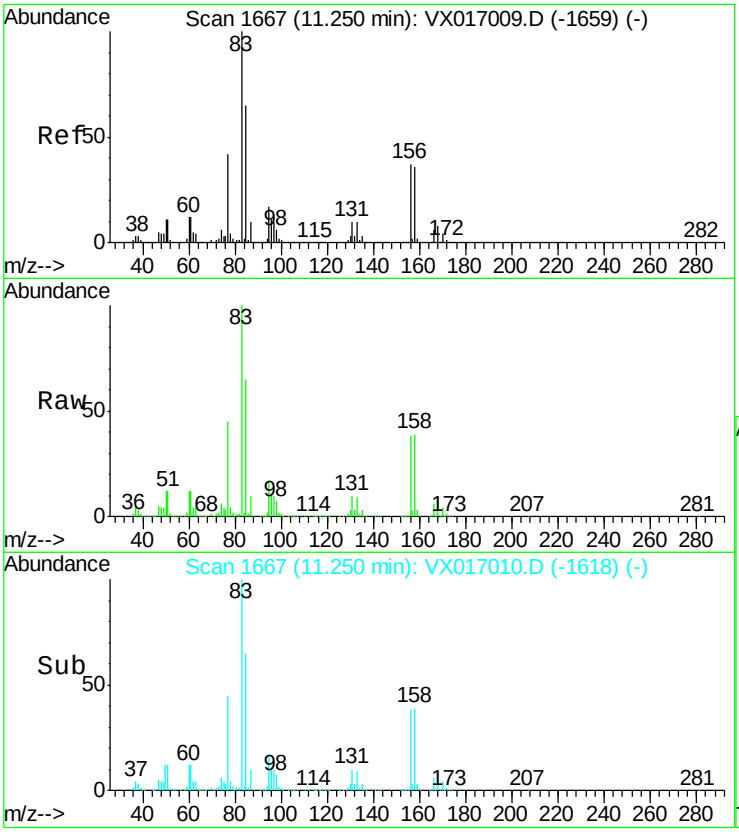


#74
N-amyl acetate
Concen: 95.498 ug/l
RT: 10.88 min Scan# 1607
Delta R.T. 0.01 min
Lab File: VX017010.D
Acq: 29 Jun 2020 15:43

Tgt Ion: 43 Resp: 701815

Ion	Ratio	Lower	Upper
43	100		
70	42.9	34.2	51.2
55	23.8	19.2	28.8
61	24.7	19.6	29.4

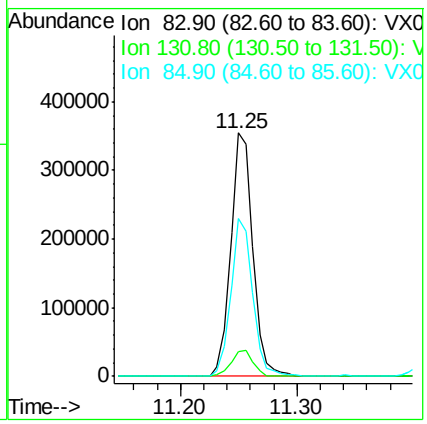




#75
1,1,2,2-Tetrachloroethane
Concen: 86.178 ug/l
RT: 11.25 min Scan# 1667
Delta R.T. -0.00 min
Lab File: VX017010.D
Acq: 29 Jun 2020 15:43

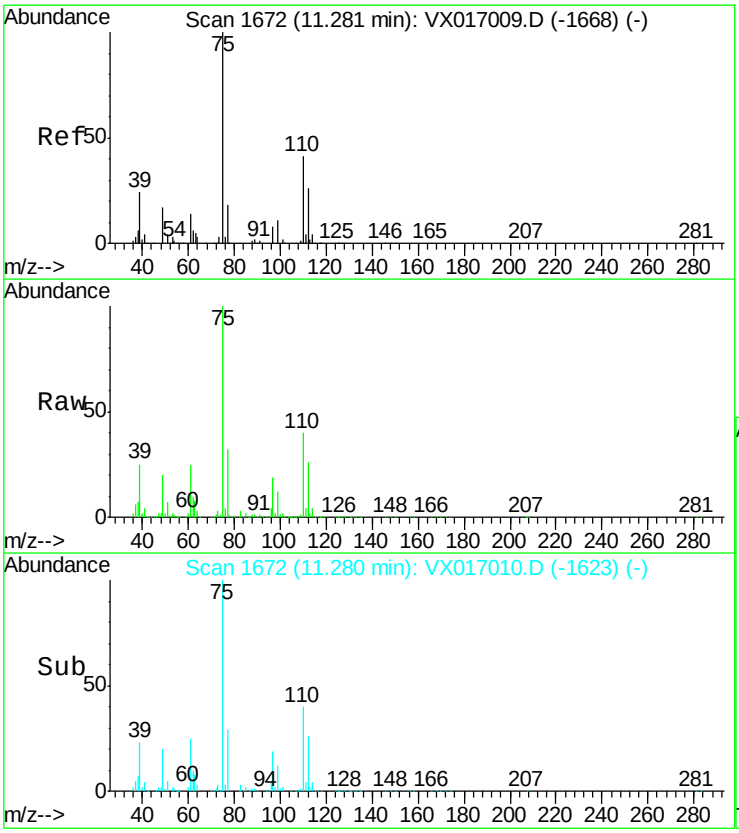
Tgt Ion: 83 Resp: 466883

Ion	Ratio	Lower	Upper
83	100		
131	10.7	5.4	16.2
85	64.3	31.9	95.9



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC100

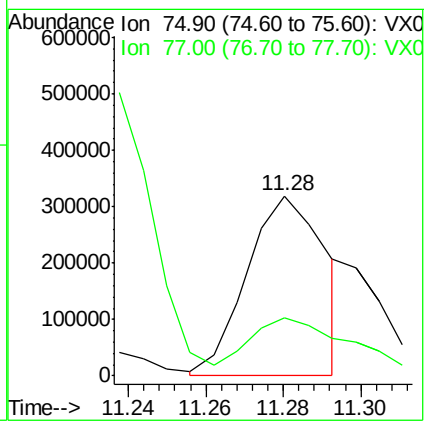
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:13:34 AM

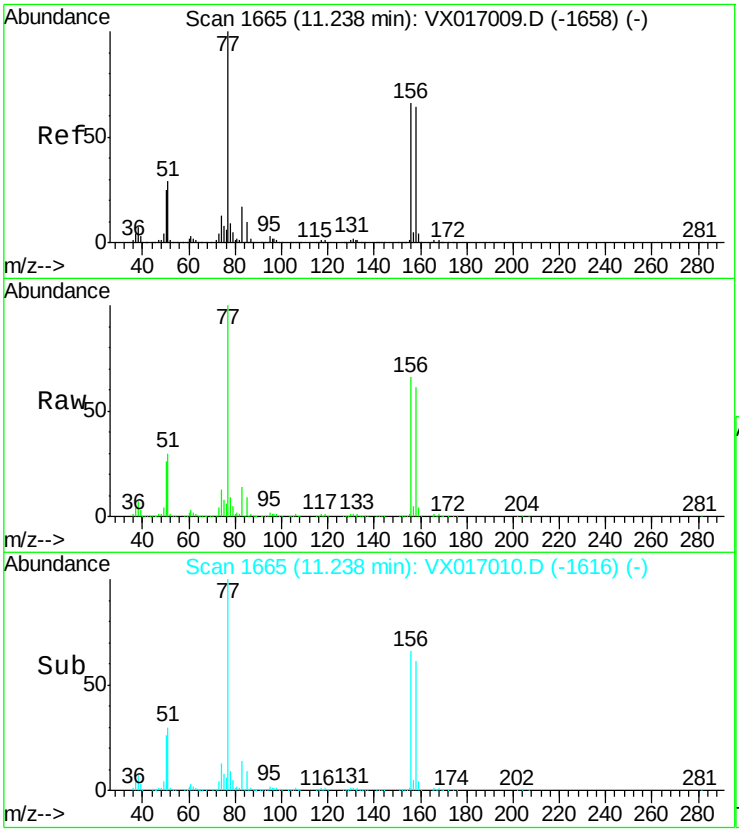


#76
1,2,3-Trichloropropane
Concen: 69.154 ug/l m
RT: 11.28 min Scan# 1672
Delta R.T. -0.00 min
Lab File: VX017010.D
Acq: 29 Jun 2020 15:43

Tgt Ion: 75 Resp: 447809

Ion	Ratio	Lower	Upper
75	100		
77	42.0	20.2	60.6

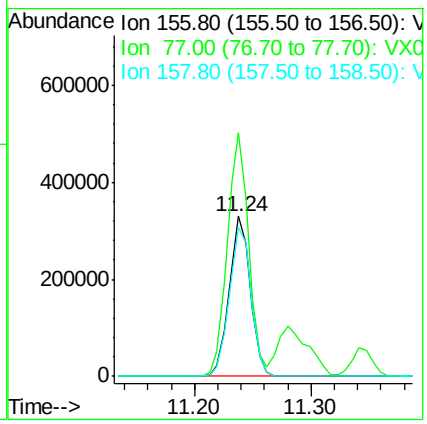




#77
Bromobenzene
Concen: 87.504 ug/l
RT: 11.24 min Scan# 1665
Delta R.T. -0.00 min
Lab File: VX017010.D
Acq: 29 Jun 2020 15:43

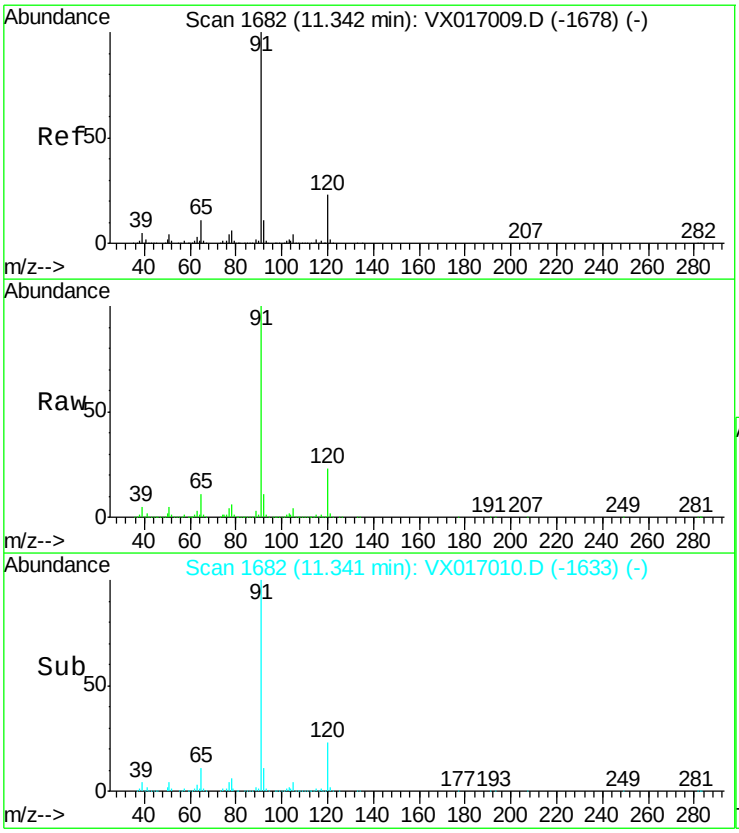
Tgt Ion:156 Resp: 414204

Ion	Ratio	Lower	Upper
156	100		
77	153.9	76.9	230.7
158	96.7	47.9	143.6



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC100

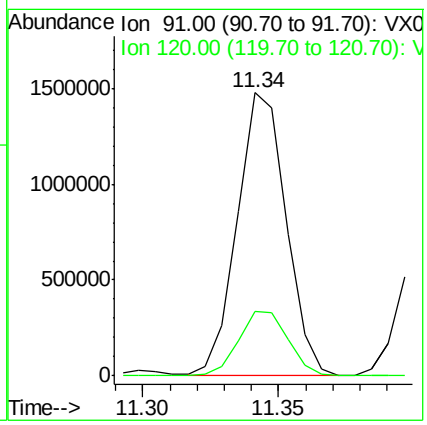
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:13:34 AM

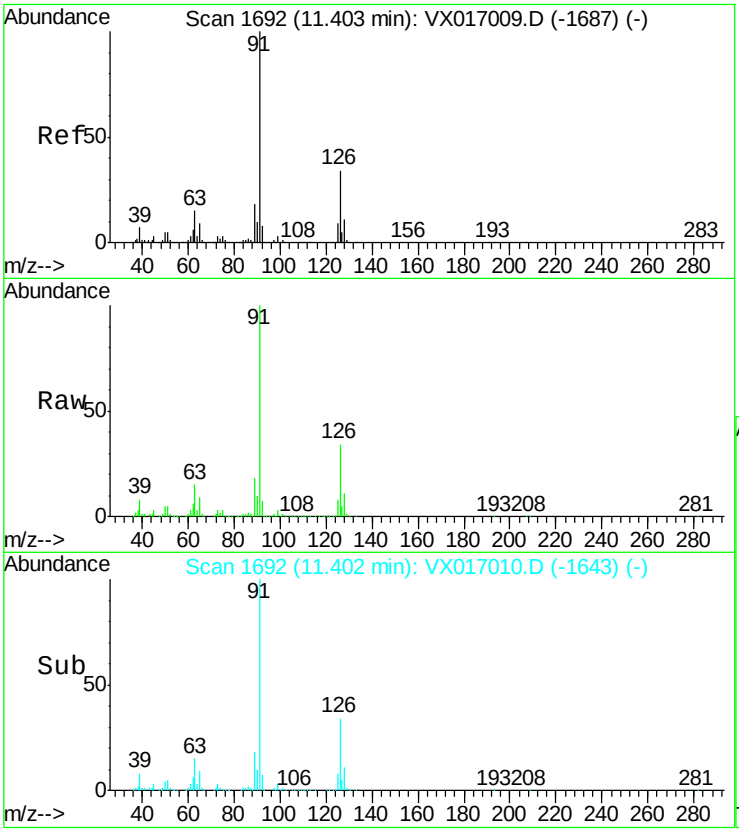


#78
n-propylbenzene
Concen: 93.533 ug/l
RT: 11.34 min Scan# 1682
Delta R.T. -0.00 min
Lab File: VX017010.D
Acq: 29 Jun 2020 15:43

Tgt Ion: 91 Resp: 1821687

Ion	Ratio	Lower	Upper
91	100		
120	23.7	11.9	35.9

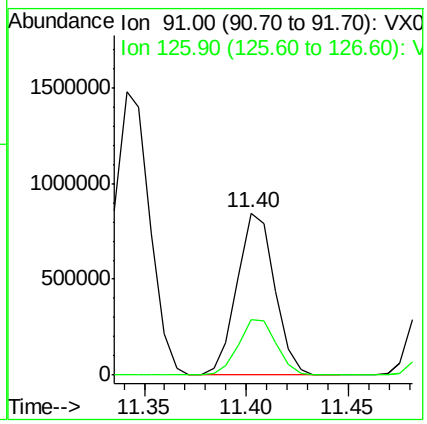


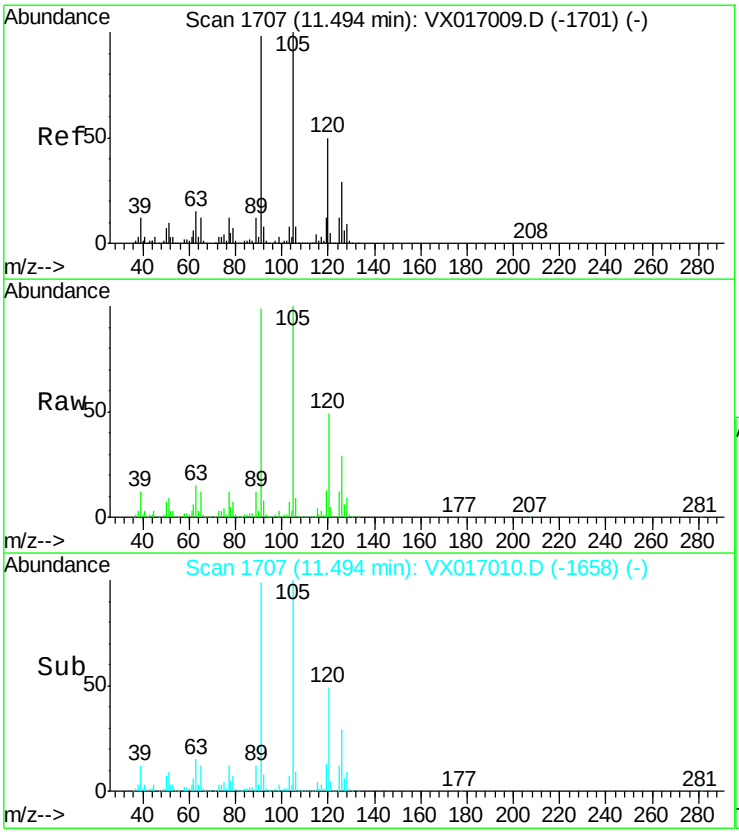


#79
2-Chlorotoluene
Concen: 91.672 ug/l
RT: 11.40 min Scan# 1692
Delta R.T. -0.00 min
Lab File: VX017010.D
Acq: 29 Jun 2020 15:43

Tgt Ion: 91 Resp: 1080579

Ion	Ratio	Lower	Upper
91	100		
126	35.0	17.4	52.3

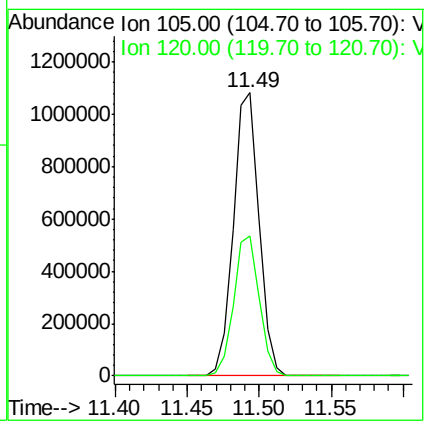




#80
1,3,5-Trimethylbenzene
Concen: 94.264 ug/l
RT: 11.49 min Scan# 1707
Delta R.T. -0.00 min
Lab File: VX017010.D
Acq: 29 Jun 2020 15:43

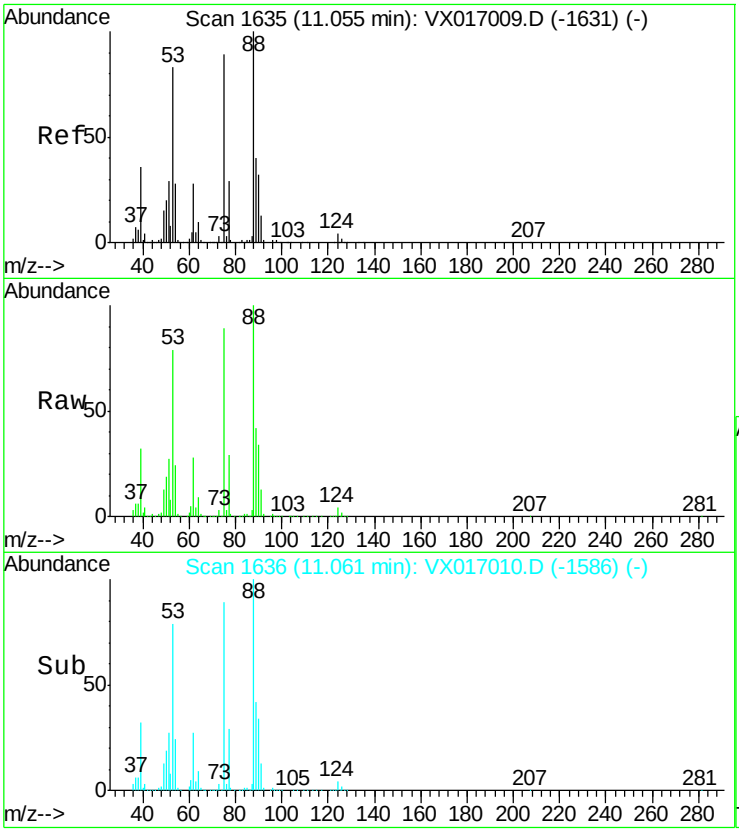
Tgt Ion:105 Resp: 1346667

Ion	Ratio	Lower	Upper
105	100		
120	49.4	24.9	74.6



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC100

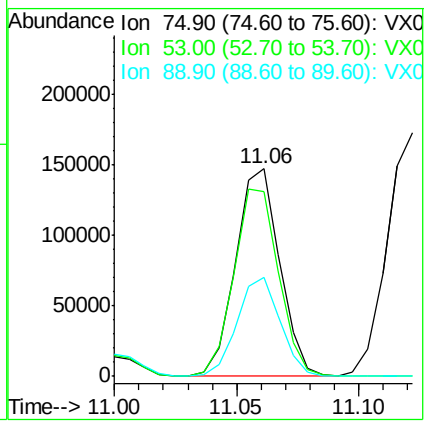
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:13:34 AM



#81
trans-1,4-Dichloro-2-butene
Concen: 92.048 ug/l
RT: 11.06 min Scan# 1636
Delta R.T. 0.01 min
Lab File: VX017010.D
Acq: 29 Jun 2020 15:43

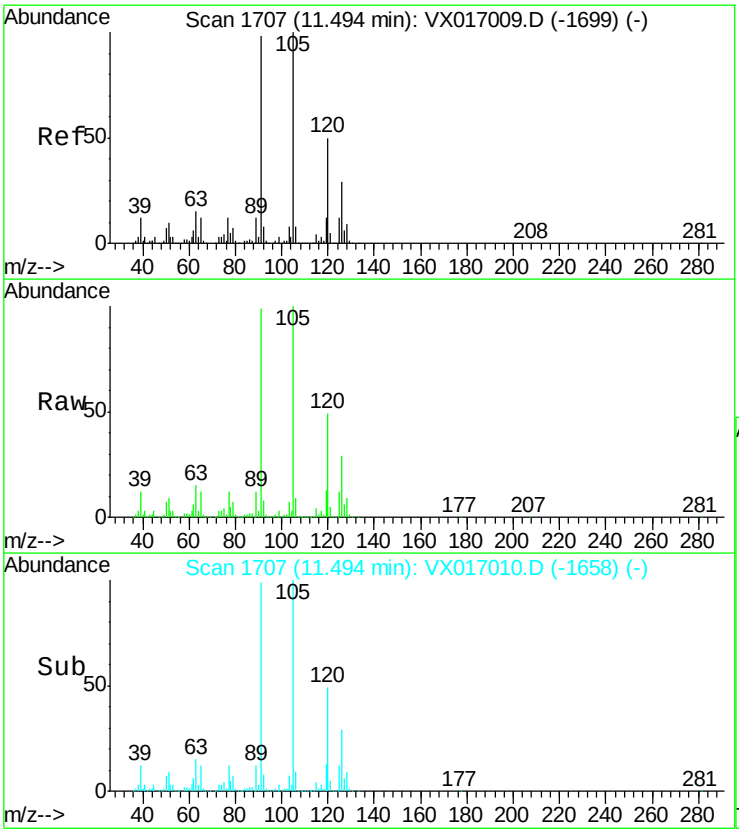
Tgt Ion: 75 Resp: 183789

Ion	Ratio	Lower	Upper
75	100		
53	92.0	72.4	108.6
89	47.1	37.0	55.4



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC100

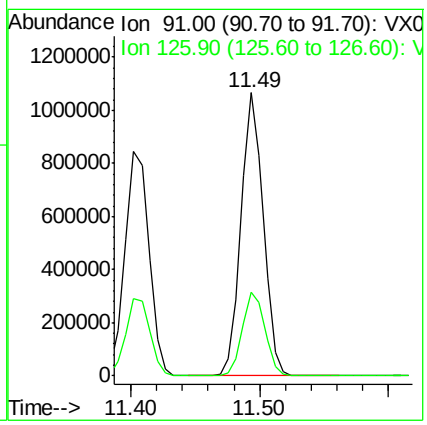
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:13:34 AM

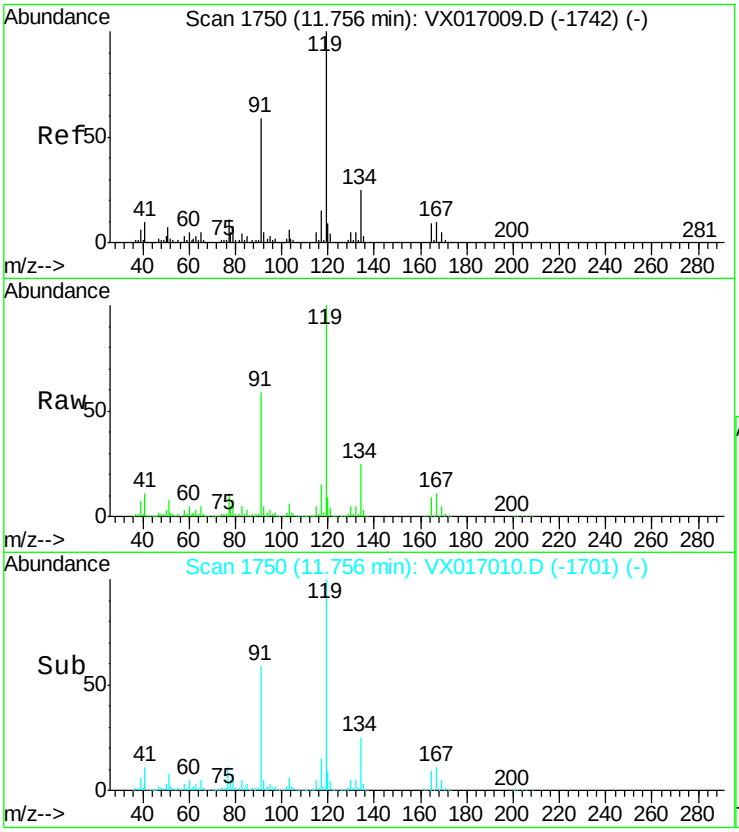


#82
4-Chlorotoluene
Concen: 90.790 ug/l
RT: 11.49 min Scan# 1707
Delta R.T. -0.00 min
Lab File: VX017010.D
Acq: 29 Jun 2020 15:43

Tgt Ion: 91 Resp: 1279324

Ion	Ratio	Lower	Upper
91	100		
126	30.1	15.2	45.5

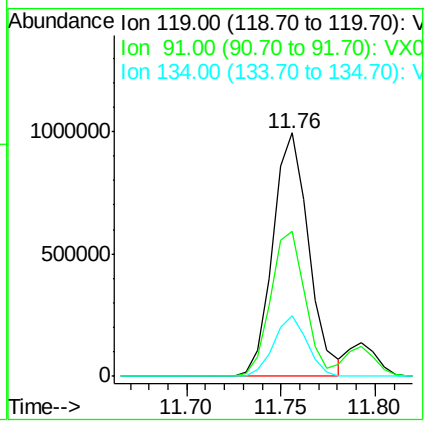




#83
tert-Butylbenzene
Concen: 93.443 ug/l
RT: 11.76 min Scan# 1750
Delta R.T. -0.00 min
Lab File: VX017010.D
Acq: 29 Jun 2020 15:43

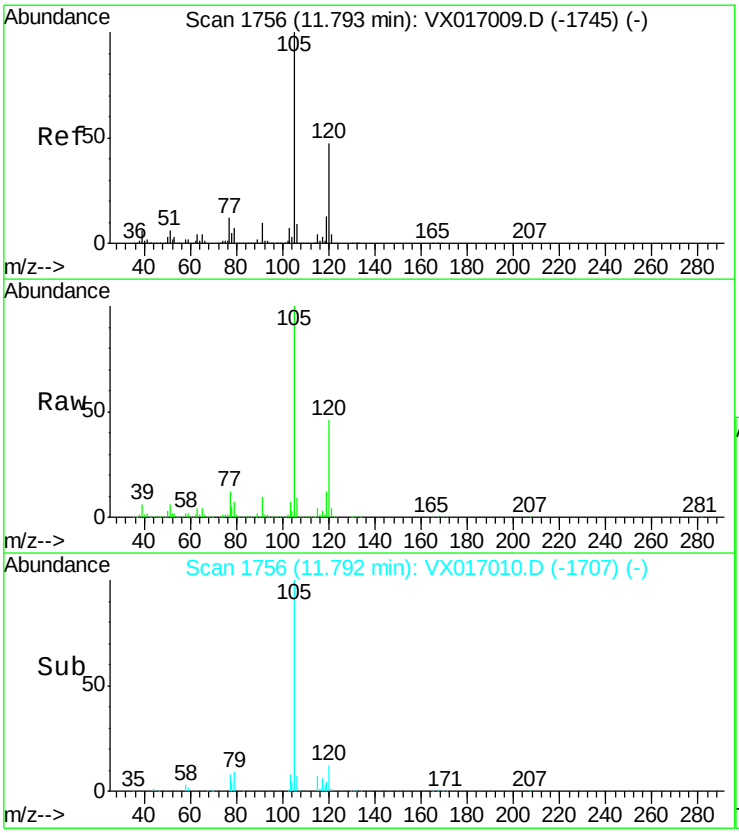
Tgt Ion:119 Resp: 1310444

Ion	Ratio	Lower	Upper
119	100		
91	57.1	28.3	84.9
134	23.3	11.7	35.1



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC100

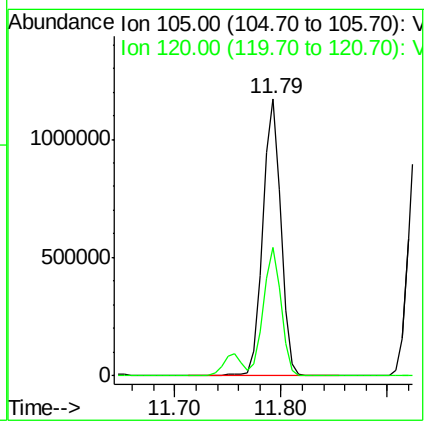
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:13:34 AM

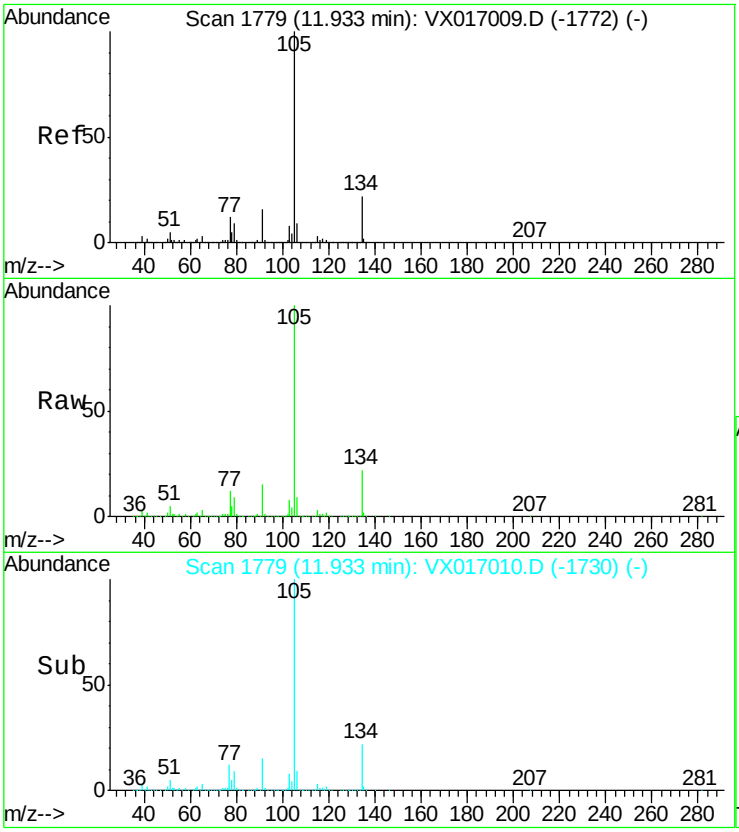


#84
1,2,4-Trimethylbenzene
Concen: 96.126 ug/l
RT: 11.79 min Scan# 1756
Delta R.T. -0.00 min
Lab File: VX017010.D
Acq: 29 Jun 2020 15:43

Tgt Ion:105 Resp: 1393190

Ion	Ratio	Lower	Upper
105	100		
120	45.6	22.9	68.5

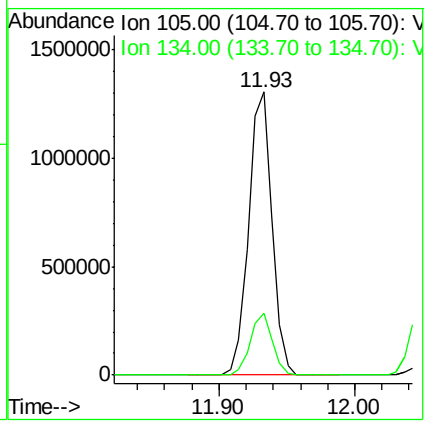




#85
sec-Butylbenzene
Concen: 95.030 ug/l
RT: 11.93 min Scan# 1779
Delta R.T. -0.00 min
Lab File: VX017010.D
Acq: 29 Jun 2020 15:43

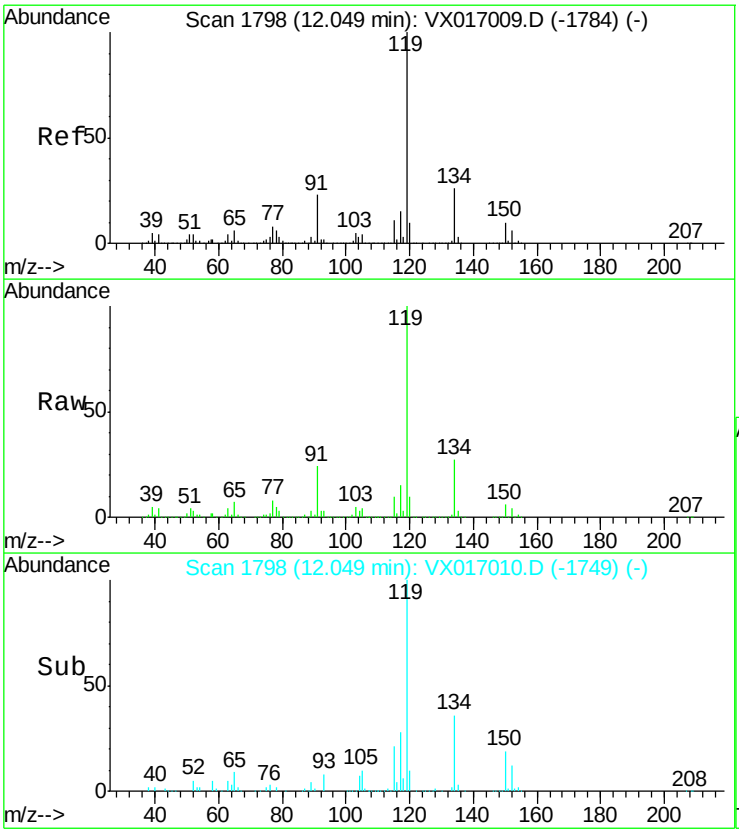
Tgt Ion:105 Resp: 1566555

Ion	Ratio	Lower	Upper
105	100		
134	20.9	10.5	31.6



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC100

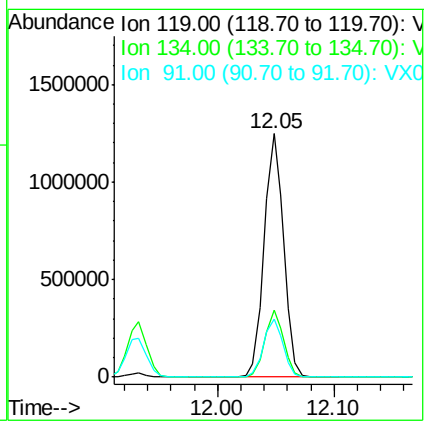
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:13:34 AM

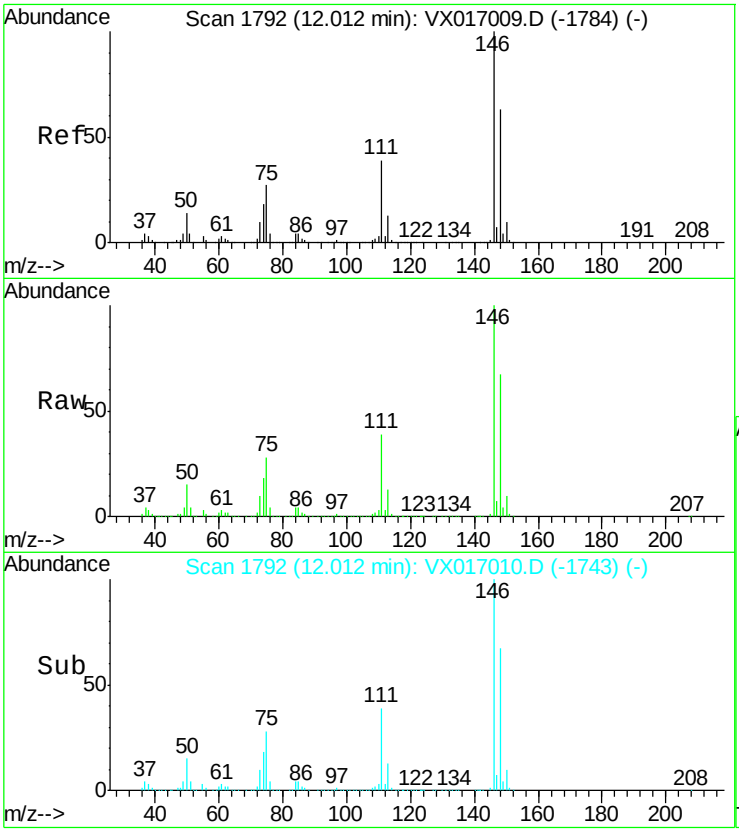


#86
p-Isopropyltoluene
Concen: 94.792 ug/l
RT: 12.05 min Scan# 1798
Delta R.T. -0.00 min
Lab File: VX017010.D
Acq: 29 Jun 2020 15:43

Tgt Ion:119 Resp: 1454687

Ion	Ratio	Lower	Upper
119	100		
134	26.7	13.2	39.5
91	23.7	11.8	35.4

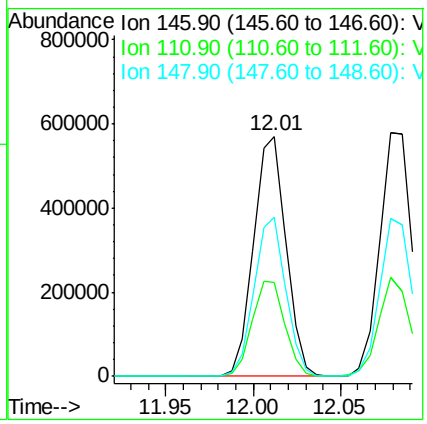




#87
1,3-Dichlorobenzene
Concen: 85.354 ug/l
RT: 12.01 min Scan# 1792
Delta R.T. -0.00 min
Lab File: VX017010.D
Acq: 29 Jun 2020 15:43

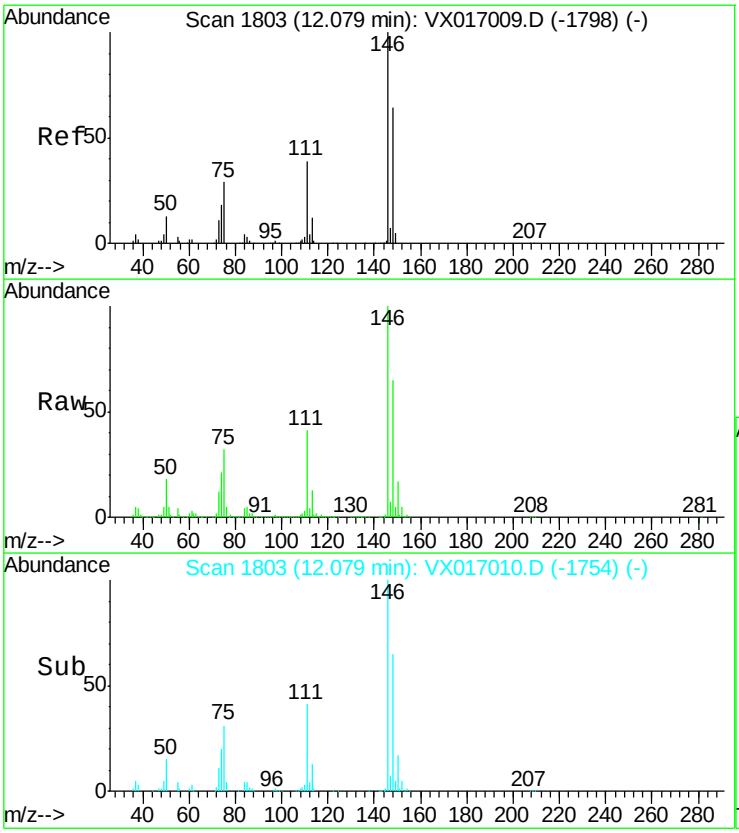
Tgt Ion:146 Resp: 733794

Ion	Ratio	Lower	Upper
146	100		
111	40.2	20.4	61.2
148	65.0	32.5	97.5



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC100

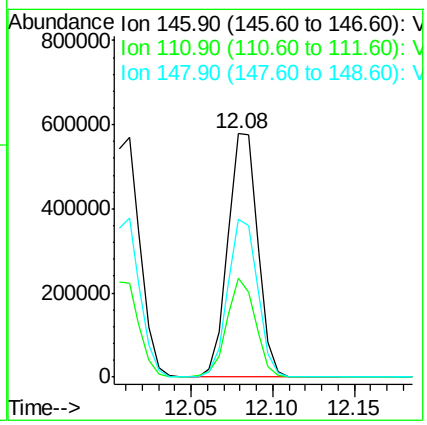
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:13:34 AM

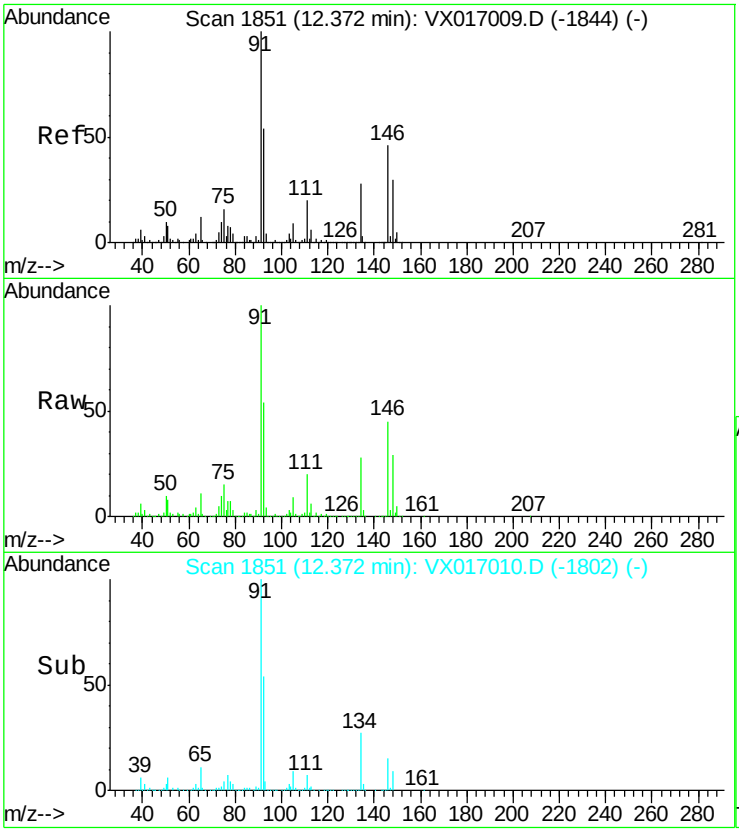


#88
1,4-Dichlorobenzene
Concen: 85.284 ug/l
RT: 12.08 min Scan# 1803
Delta R.T. -0.00 min
Lab File: VX017010.D
Acq: 29 Jun 2020 15:43

Tgt Ion:146 Resp: 737377

Ion	Ratio	Lower	Upper
146	100		
111	38.6	19.5	58.5
148	64.7	31.9	95.7

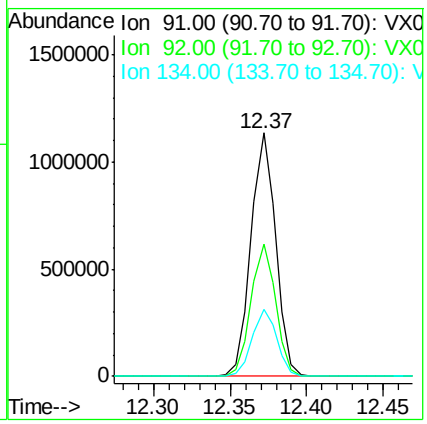




#89
n-Butylbenzene
Concen: 93.290 ug/l
RT: 12.37 min Scan# 1851
Delta R.T. -0.00 min
Lab File: VX017010.D
Acq: 29 Jun 2020 15:43

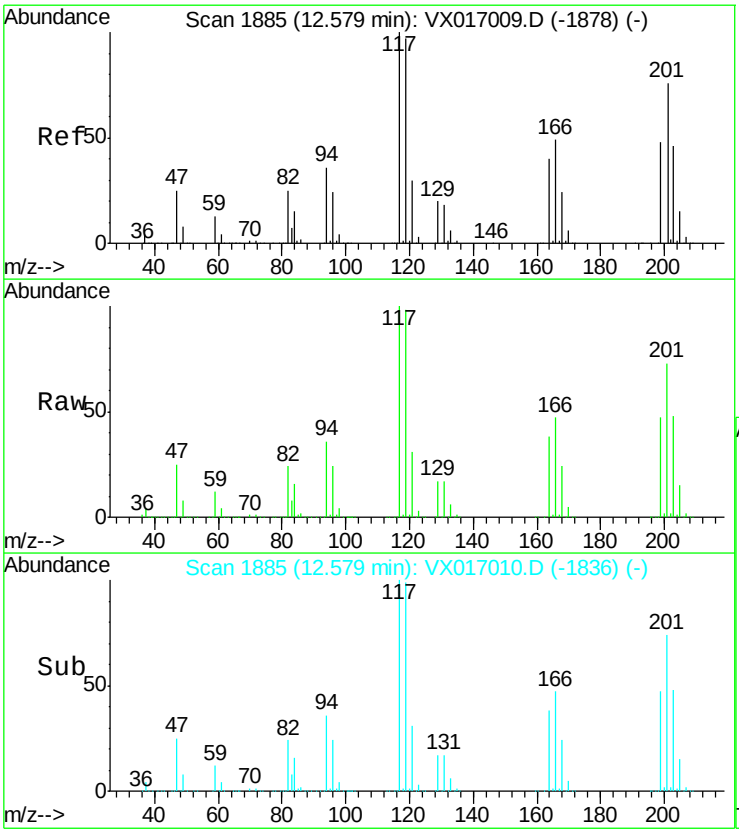
Tgt Ion: 91 Resp: 1278315

Ion	Ratio	Lower	Upper
91	100		
92	54.4	27.2	81.6
134	27.7	13.6	40.7



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC100

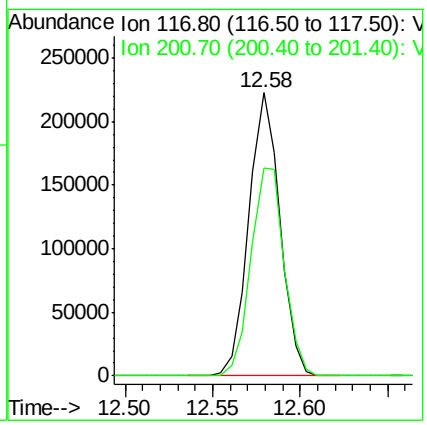
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:13:34 AM

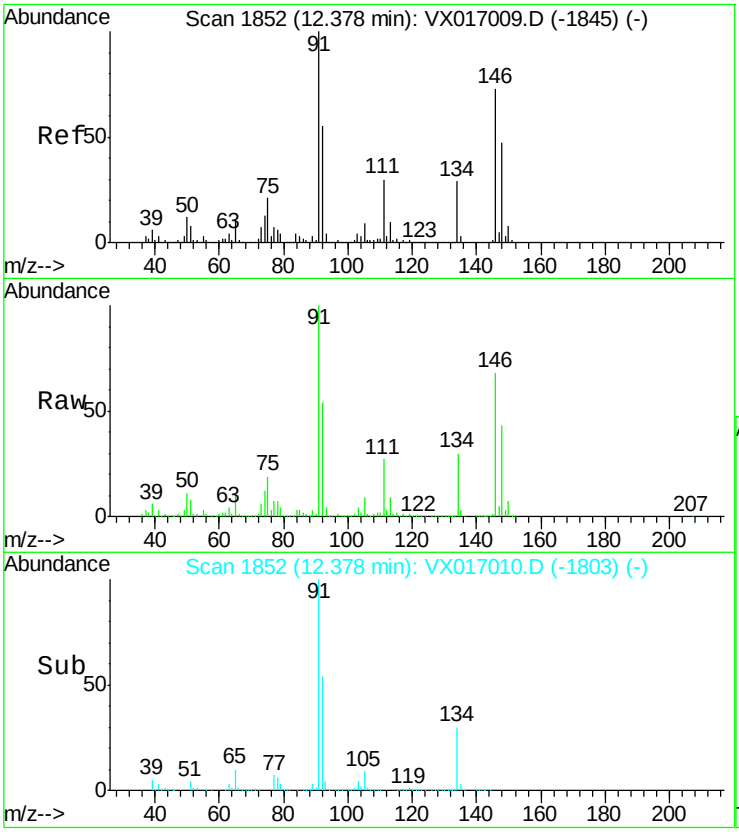


#90
Hexachloroethane
Concen: 90.900 ug/l
RT: 12.58 min Scan# 1885
Delta R.T. -0.00 min
Lab File: VX017010.D
Acq: 29 Jun 2020 15:43

Tgt Ion:117 Resp: 275090

Ion	Ratio	Lower	Upper
117	100		
201	78.6	39.4	118.2

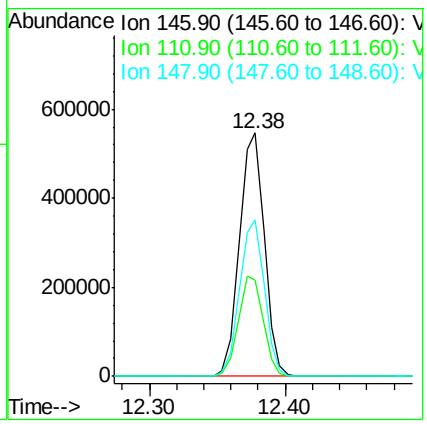




#91
1,2-Dichlorobenzene
Concen: 86.578 ug/l
RT: 12.38 min Scan# 1852
Delta R.T. -0.00 min
Lab File: VX017010.D
Acq: 29 Jun 2020 15:43

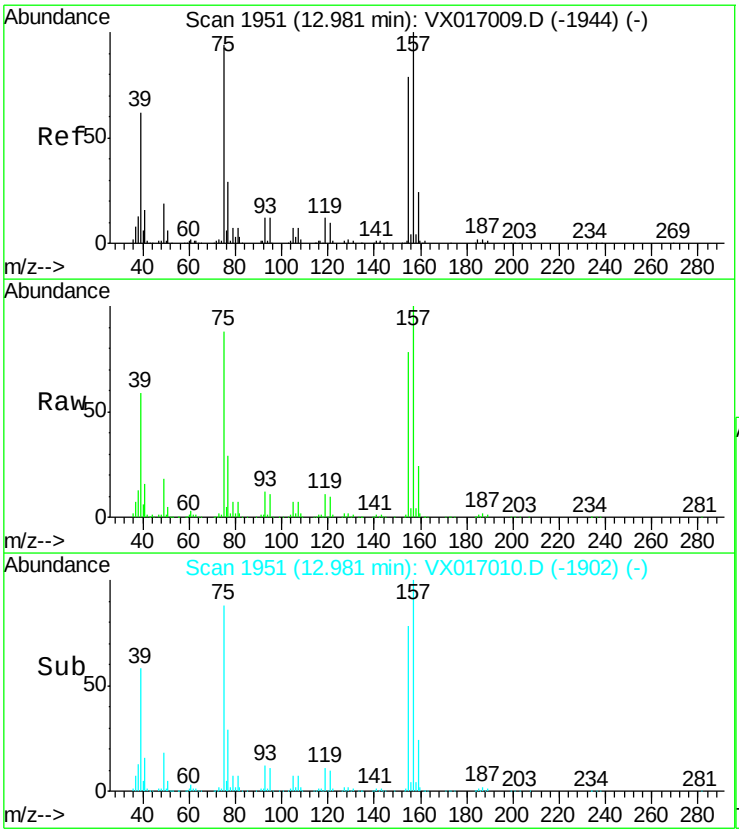
Tgt Ion:146 Resp: 695743

Ion	Ratio	Lower	Upper
146	100		
111	41.3	20.6	61.9
148	64.1	32.4	97.2



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC100

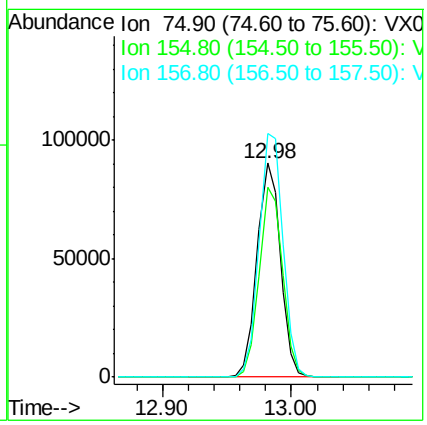
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:13:34 AM

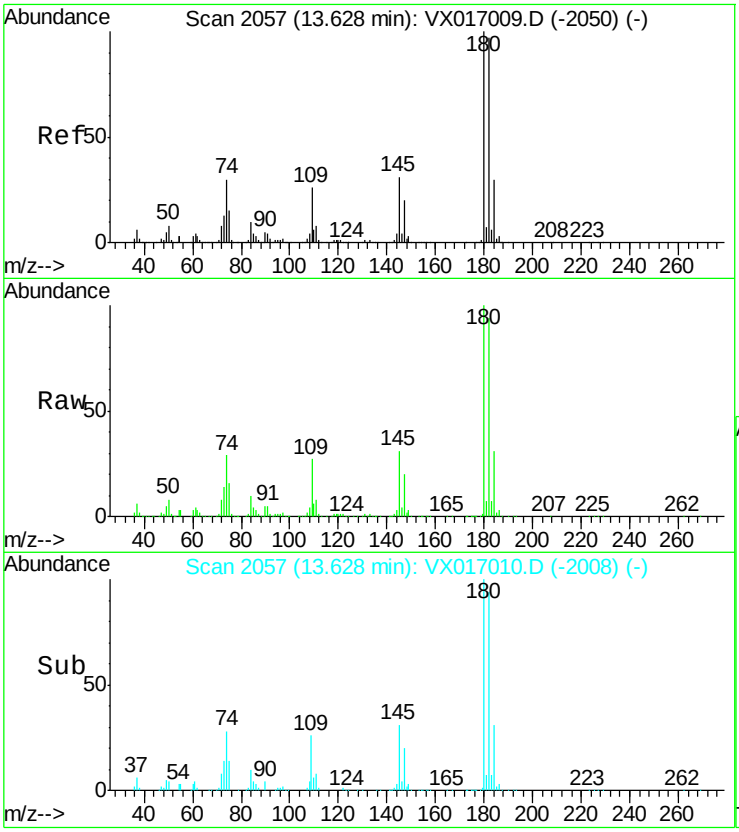


#92
1,2-Dibromo-3-Chloropropane
Concen: 87.201 ug/l
RT: 12.98 min Scan# 1951
Delta R.T. -0.00 min
Lab File: VX017010.D
Acq: 29 Jun 2020 15:43

Tgt Ion: 75 Resp: 112699

Ion	Ratio	Lower	Upper
75	100		
155	88.4	45.1	135.2
157	116.2	56.5	169.3

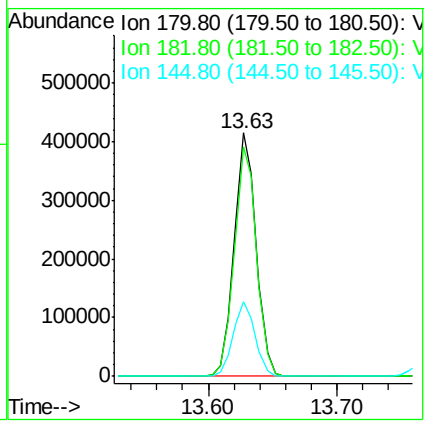


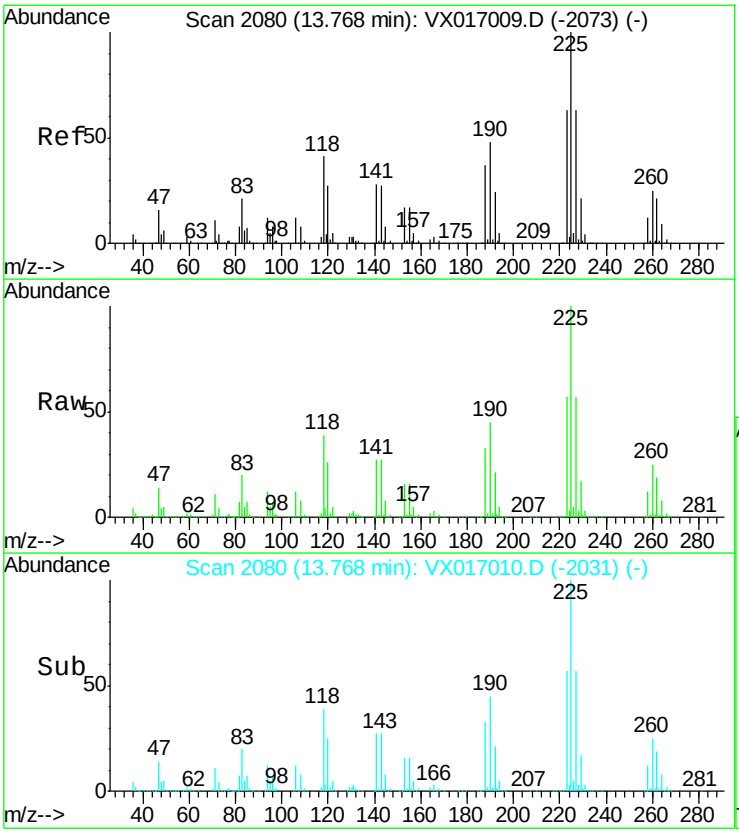


#93
1,2,4-Trichlorobenzene
Concen: 89.784 ug/l
RT: 13.63 min Scan# 2057
Delta R.T. -0.00 min
Lab File: VX017010.D
Acq: 29 Jun 2020 15:43

Tgt Ion:180 Resp: 492460

Ion	Ratio	Lower	Upper
180	100		
182	95.5	47.3	141.9
145	30.8	15.4	46.2

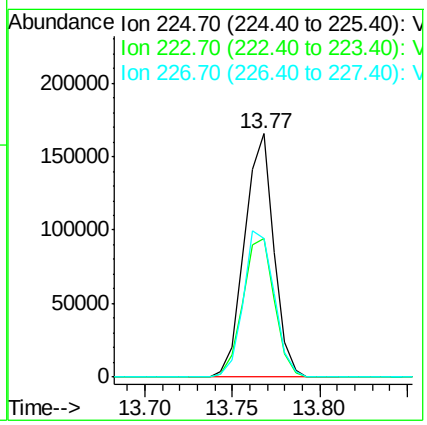




#94
Hexachlorobutadiene
Concen: 86.636 ug/l
RT: 13.77 min Scan# 2080
Delta R.T. 0.00 min
Lab File: VX017010.D
Acq: 29 Jun 2020 15:43

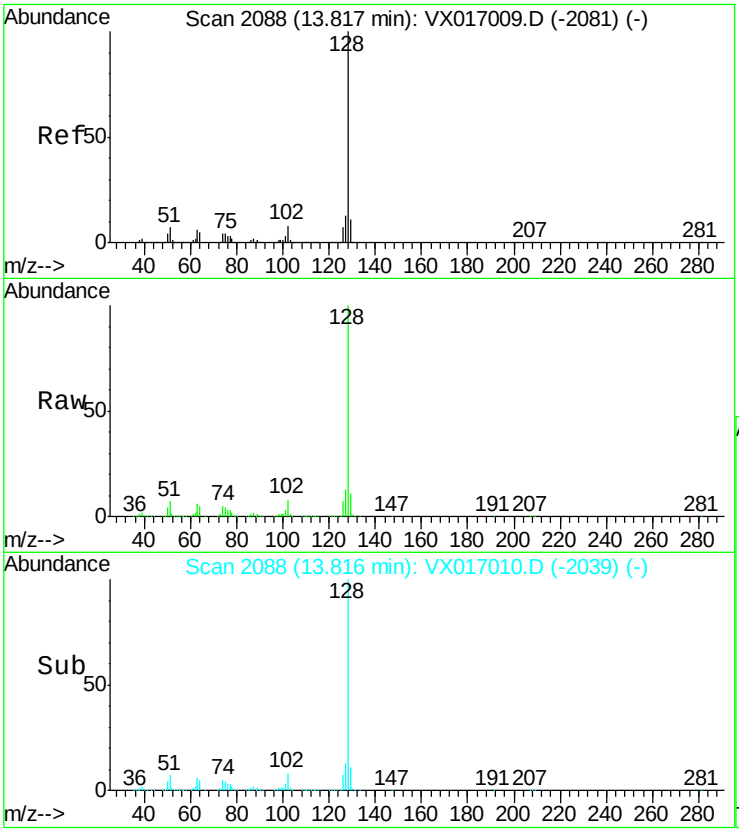
Tgt Ion:225 Resp: 192198

Ion	Ratio	Lower	Upper
225	100		
223	61.6	32.5	97.5
227	63.6	33.1	99.2



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC100

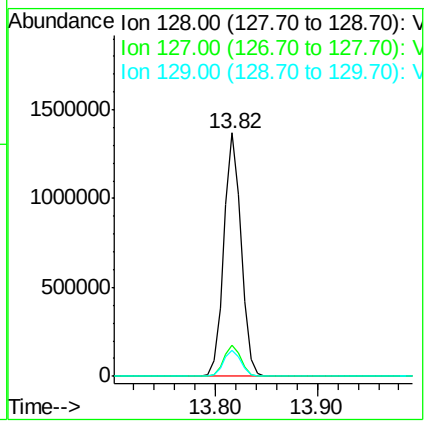
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:13:34 AM



#95
Naphthalene
Concen: 96.282 ug/l
RT: 13.82 min Scan# 2088
Delta R.T. -0.00 min
Lab File: VX017010.D
Acq: 29 Jun 2020 15:43

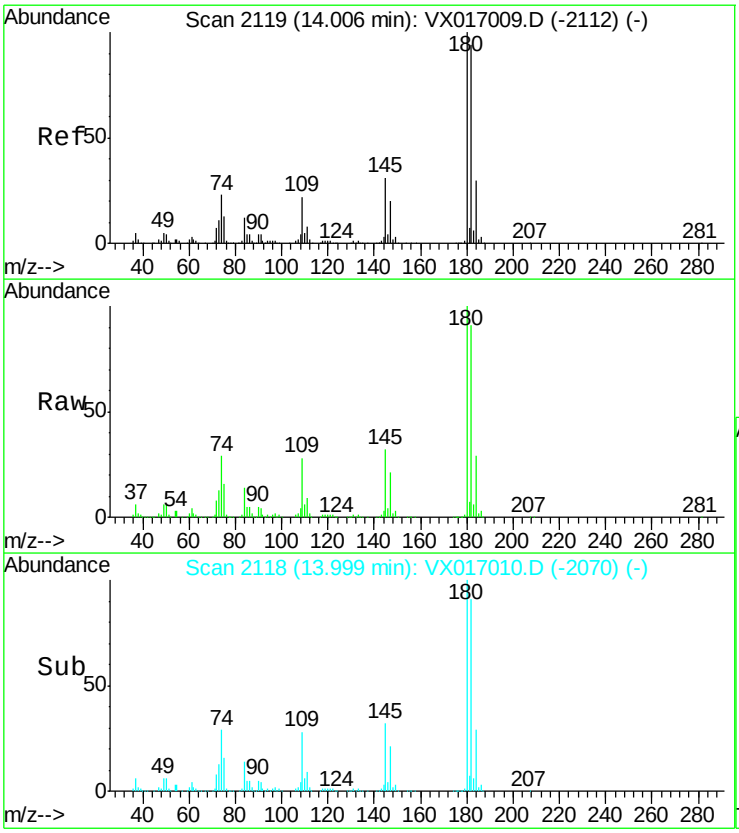
Tgt Ion:128 Resp: 1605517

Ion	Ratio	Lower	Upper
128	100		
127	12.9	10.2	15.4
129	11.0	8.7	13.1



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC100

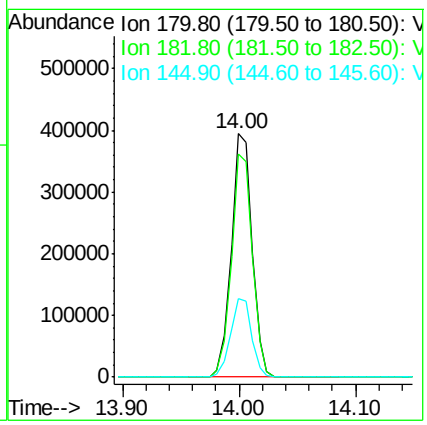
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:13:34 AM



#96
1,2,3-Trichlorobenzene
Concen: 92.221 ug/l
RT: 14.00 min Scan# 2118
Delta R.T. -0.01 min
Lab File: VX017010.D
Acq: 29 Jun 2020 15:43

Tgt Ion:180 Resp: 489523

Ion	Ratio	Lower	Upper
180	100		
182	92.7	47.1	141.4
145	32.7	16.6	49.7



Quantitation Report (QT Reviewed)

ICAL Form

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX062920\
Data File : VX017011.D
Acq On : 29 Jun 2020 16:06
Operator : JC/SP
Sample : VSTDICC150
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 9 Sample Multiplier: 1

Instrument : MSVOA_X
ClientSampleId : VSTDICC150

Manual Integrations APPROVED
MMDadoda
6/30/2020 10:12:24 AM

Quant Time: Jun 29 17:01:33 2020
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X062920W.M
Quant Title : SW846 8260
QLast Update : Mon Jun 29 16:54:07 2020
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	5.63	168	271979	50.00	ug/l	0.00
34) 1,4-Difluorobenzene	6.83	114	442208	50.00	ug/l	0.00
63) Chlorobenzene-d5	10.10	117	436046	50.00	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	12.06	152	225868	50.00	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	6.03	65	536009	159.86	ug/l	0.00
Spiked Amount 50.000			Recovery = 319.72%			
35) Dibromofluoromethane	5.47	113	439994	157.29	ug/l	0.00
Spiked Amount 50.000			Recovery = 314.58%			
50) Toluene-d8	8.70	98	1674031	161.84	ug/l	0.00
Spiked Amount 50.000			Recovery = 323.68%			
62) 4-Bromofluorobenzene	11.12	95	685857	169.62	ug/l	0.00
Spiked Amount 50.000			Recovery = 339.24%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.18	85	414302	157.455	ug/l	100
3) Chloromethane	1.31	50	503062	157.948	ug/l	100
4) Vinyl Chloride	1.39	62	446825	151.207	ug/l	99
5) Bromomethane	1.62	94	215693	138.155	ug/l	97
6) Chloroethane	1.69	64	254636	145.901	ug/l	100
7) Trichlorofluoromethane	1.90	101	648300	148.339	ug/l	99
8) Diethyl Ether	2.17	74	231189	144.905	ug/l	99
9) 1,1,2-Trichlorotrifluoroet	2.36	101	384904	146.944	ug/l	98
10) Methyl Iodide	2.48	142	548341	162.234	ug/l	99
11) Tert butyl alcohol	3.04	59	508125	794.386	ug/l	100
12) 1,1-Dichloroethene	2.35	96	390183	145.004	ug/l	99
13) Acrolein	2.28	56	309125	808.450	ug/l	100
14) Allyl chloride	2.70	41	730668	146.930	ug/l	100
15) Acrylonitrile	3.12	53	1169969	760.867	ug/l	100
16) Acetone	2.43	43	918609	732.362	ug/l	100
17) Carbon Disulfide	2.54	76	1171127	142.096	ug/l	100
18) Methyl Acetate	2.75	43	483942	147.796	ug/l	100
19) Methyl tert-butyl Ether	3.17	73	1384934	153.353	ug/l	100
20) Methylene Chloride	2.83	84	441232	137.630	ug/l	97
21) trans-1,2-Dichloroethene	3.14	96	438609	146.881	ug/l	98
22) Diisopropyl ether	3.83	45	1376849	149.592	ug/l	91
23) Vinyl Acetate	3.79	43	6137235	775.972	ug/l	100
24) 1,1-Dichloroethane	3.67	63	778786	148.708	ug/l	99
25) 2-Butanone	4.64	43	1621996	776.073	ug/l	100
26) 2,2-Dichloropropane	4.55	77	672693	144.665	ug/l	100
27) cis-1,2-Dichloroethene	4.56	96	496612	146.775	ug/l	99
28) Bromochloromethane	4.98	49	372226	146.060	ug/l	99
29) Tetrahydrofuran	5.09	42	1057491	765.793	ug/l	99
30) Chloroform	5.18	83	789706	147.100	ug/l	99
31) Cyclohexane	5.54	56	704219	155.568	ug/l	99
32) 1,1,1-Trichloroethane	5.46	97	736090	148.881	ug/l	99
36) 1,1-Dichloropropene	5.77	75	618300	147.940	ug/l	100
37) Ethyl Acetate	4.80	43	640525	151.050	ug/l	100
38) Carbon Tetrachloride	5.75	117	677378	147.150	ug/l	97

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX062920\
Data File : VX017011.D
Acq On : 29 Jun 2020 16:06
Operator : JC/SP
Sample : VSTDICC150
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 9 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
VSTDICC150

Manual Integrations APPROVED
MMDadoda
6/30/2020 10:12:24 AM

Quant Time: Jun 29 17:01:33 2020
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X062920W.M
Quant Title : SW846 8260
QLast Update : Mon Jun 29 16:54:07 2020
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
39) Methylcyclohexane	7.44	83	737813	158.665	ug/l		98
40) Benzene	6.11	78	1818354	148.077	ug/l		98
41) Methacrylonitrile	5.01	41	358772	150.325	ug/l		98
42) 1,2-Dichloroethane	6.17	62	653670	147.371	ug/l		100
43) Isopropyl Acetate	6.42	43	1110101	157.541	ug/l		100
44) Trichloroethene	7.19	130	522748	141.335	ug/l		99
45) 1,2-Dichloropropane	7.49	63	473460	150.116	ug/l		99
46) Dibromomethane	7.64	93	324659	150.774	ug/l		99
47) Bromodichloromethane	7.88	83	676569	152.466	ug/l		96
48) Methyl methacrylate	7.75	41	557335	166.482	ug/l		100
49) 1,4-Dioxane	7.72	88	237278	3128.600	ug/l		99
51) 4-Methyl-2-Pentanone	8.63	43	3358291	799.525	ug/l		100
52) Toluene	8.77	92	1172783	152.969	ug/l		98
53) t-1,3-Dichloropropene	9.02	75	796074	162.595	ug/l		100
54) cis-1,3-Dichloropropene	8.42	75	816439	155.556	ug/l		98
55) 1,1,2-Trichloroethane	9.20	97	477092	152.307	ug/l		98
56) Ethyl methacrylate	9.16	69	771575	173.057	ug/l		99
57) 1,3-Dichloropropane	9.35	76	802669	151.436	ug/l		100
58) 2-Chloroethyl Vinyl ether	8.29	63	1904806	858.429	ug/l		99
59) 2-Hexanone	9.48	43	2488072	811.064	ug/l		100
60) Dibromochloromethane	9.57	129	586372	161.171	ug/l		100
61) 1,2-Dibromoethane	9.65	107	527197	156.576	ug/l		100
64) Tetrachloroethene	9.32	164	471642	134.021	ug/l		98
65) Chlorobenzene	10.12	112	1336176	148.469	ug/l		99
66) 1,1,1,2-Tetrachloroethane	10.21	131	529117	152.555	ug/l		100
67) Ethyl Benzene	10.24	91	2342318	155.847	ug/l		98
68) m/p-Xylenes	10.34	106	1782481	308.874	ug/l		99
69) o-Xylene	10.68	106	880994	160.477	ug/l		99
70) Styrene	10.70	104	1524142	163.034	ug/l		99
71) Bromoform	10.84	173	443245	161.157	ug/l	#	99
73) Isopropylbenzene	11.00	105	2317443	156.641	ug/l		99
74) N-amyl acetate	10.88	43	1036535	164.197	ug/l		99
75) 1,1,2,2-Tetrachloroethane	11.25	83	694041	149.136	ug/l		99
76) 1,2,3-Trichloropropane	11.28	75	633375m	113.866	ug/l		
77) Bromobenzene	11.24	156	602789	148.248	ug/l		99
78) n-propylbenzene	11.35	91	2674096	159.837	ug/l		100
79) 2-Chlorotoluene	11.40	91	1548503	152.934	ug/l		99
80) 1,3,5-Trimethylbenzene	11.49	105	1965172	160.138	ug/l		100
81) trans-1,4-Dichloro-2-buten	11.06	75	273975	159.740	ug/l		99
82) 4-Chlorotoluene	11.49	91	1861452	153.786	ug/l		99
83) tert-Butylbenzene	11.76	119	1924999	159.796	ug/l		99
84) 1,2,4-Trimethylbenzene	11.79	105	2015080	161.858	ug/l		99
85) sec-Butylbenzene	11.93	105	2286150	161.447	ug/l		99
86) p-Isopropyltoluene	12.05	119	2114527	160.407	ug/l		100
87) 1,3-Dichlorobenzene	12.01	146	1075302	145.609	ug/l		99
88) 1,4-Dichlorobenzene	12.08	146	1075698	144.837	ug/l		99
89) n-Butylbenzene	12.37	91	1878449	159.590	ug/l		100
90) Hexachloroethane	12.58	117	406208	156.260	ug/l		97
91) 1,2-Dichlorobenzene	12.38	146	1017986	147.472	ug/l		100
92) 1,2-Dibromo-3-Chloropropan	12.98	75	170859	153.903	ug/l		100

ICAL Form

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX062920\
Data File : VX017011.D
Acq On : 29 Jun 2020 16:06
Operator : JC/SP
Sample : VSTDICC150
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 9 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
VSTDICC150

Manual Integrations APPROVED
MMDadoda
6/30/2020 10:12:24 AM

Quant Time: Jun 29 17:01:33 2020
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X062920W.M
Quant Title : SW846 8260
QLast Update : Mon Jun 29 16:54:07 2020
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
93) 1,2,4-Trichlorobenzene	13.63	180	743349	157.771	ug/l	99
94) Hexachlorobutadiene	13.77	225	280709	147.305	ug/l	96
95) Naphthalene	13.82	128	2414511	168.565	ug/l	100
96) 1,2,3-Trichlorobenzene	14.00	180	724131	158.812	ug/l	99

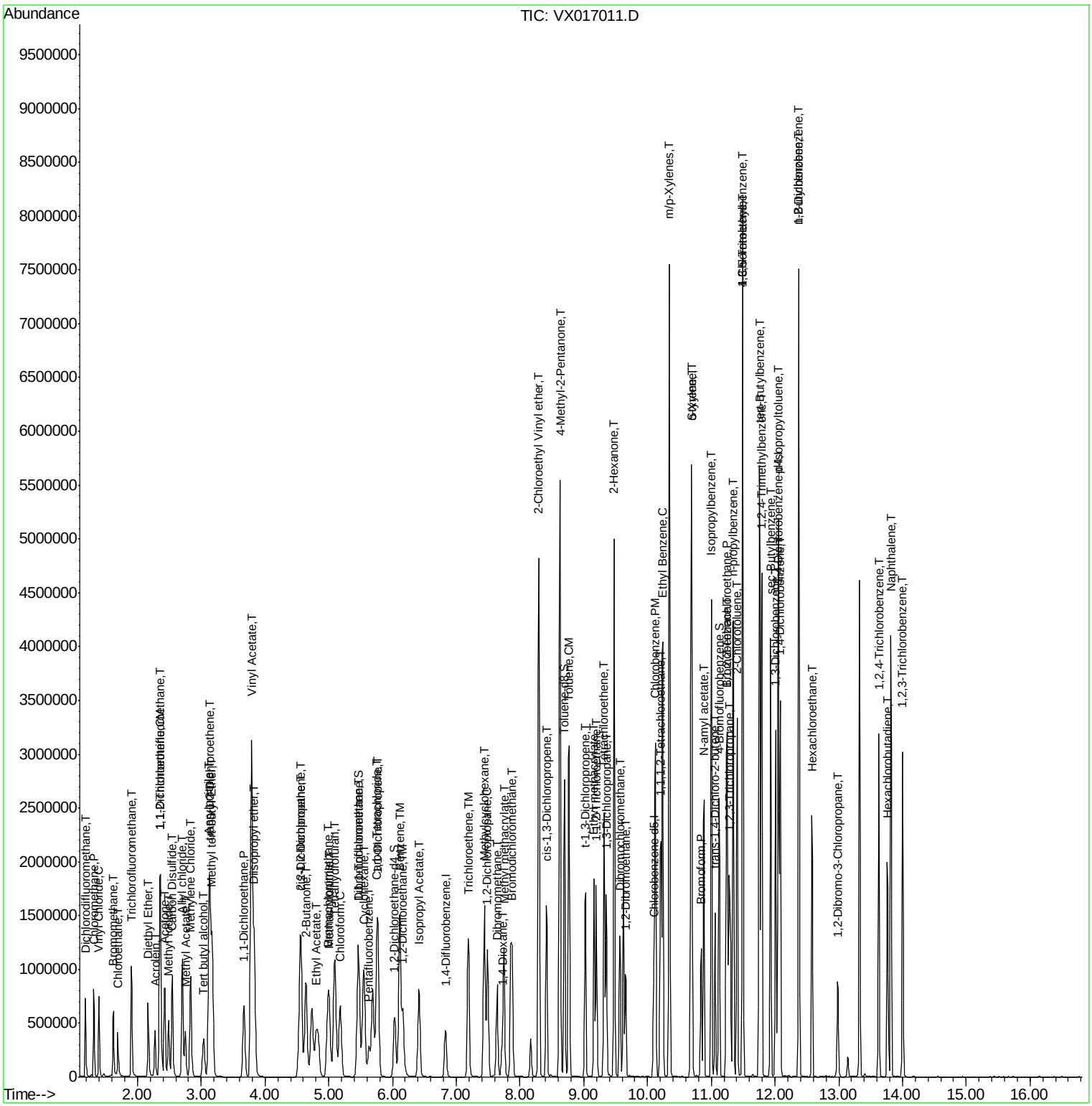
(#) = qualifier out of range (m) = manual integration (+) = signals summed

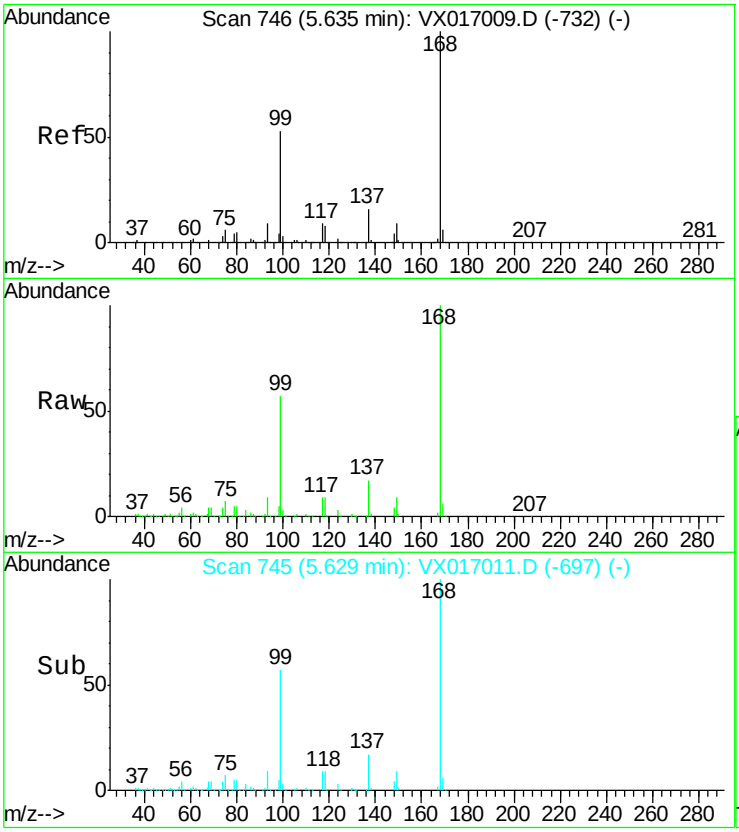
Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX062920\
Data File : VX017011.D
Acq On : 29 Jun 2020 16:06
Operator : JC/SP
Sample : VSTDICC150
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Jun 29 17:01:33 2020
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X062920W.M
Quant Title : SW846 8260
QLast Update : Mon Jun 29 16:54:07 2020
Response via : Initial Calibration

Instrument :
MSVOA_X
ClientSampleId :
VSTDICC150

Manual Integrations APPROVED
MMDadoda
6/30/2020 10:12:24 AM

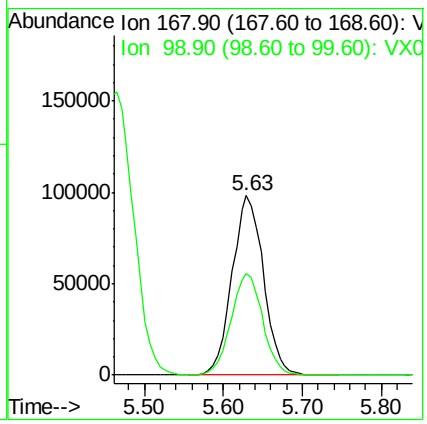


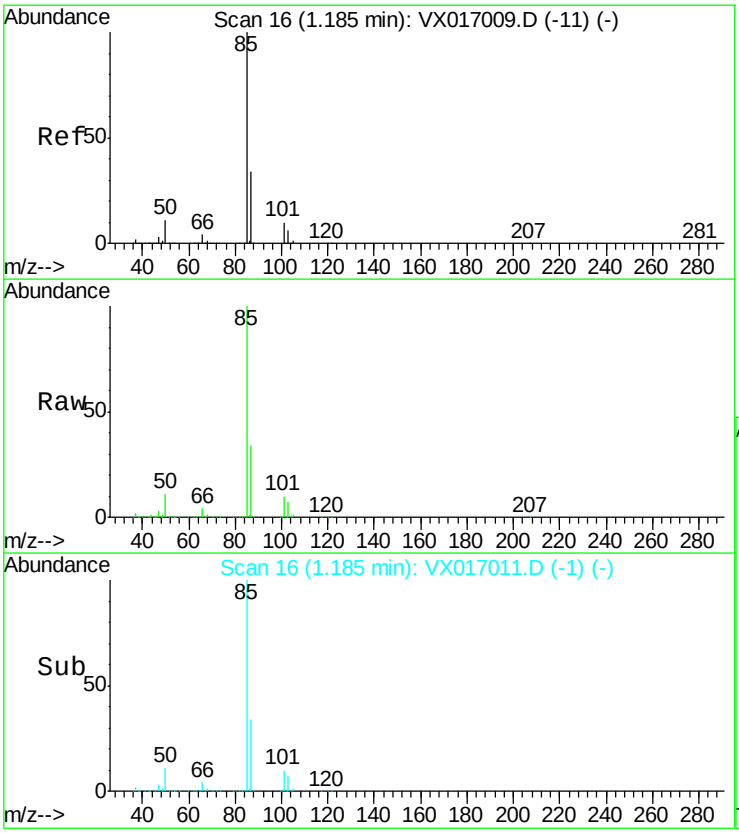


#1
Pentafluorobenzene
Concen: 50.000 ug/l
RT: 5.63 min Scan# 745
Delta R.T. -0.01 min
Lab File: VX017011.D
Acq: 29 Jun 2020 16:06

Tgt Ion:168 Resp: 271979

Ion	Ratio	Lower	Upper
168	100		
99	56.7	42.6	64.0

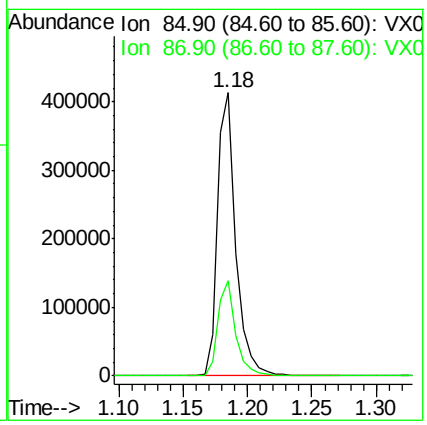




#2
Dichlorodifluoromethane
Concen: 157.455 ug/l
RT: 1.18 min Scan# 16
Delta R.T. 0.00 min
Lab File: VX017011.D
Acq: 29 Jun 2020 16:06

Tgt Ion: 85 Resp: 414302

Ion	Ratio	Lower	Upper
85	100		
87	33.5	16.8	50.4

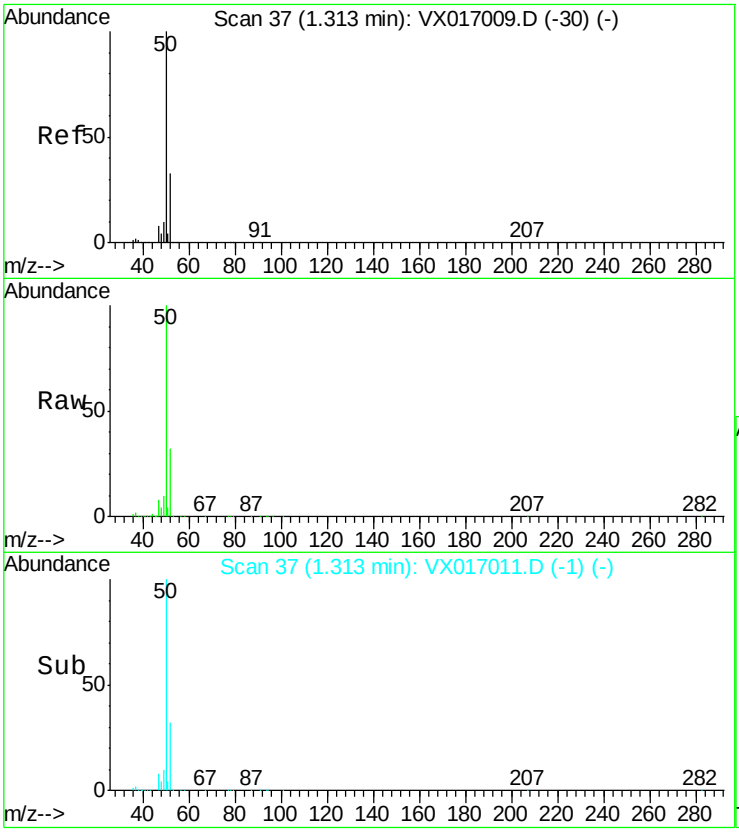


Instrument :
MSVOA_X
ClientSampleId :
VSTDICC150

Manual Integrations APPROVED
MMDadoda
6/30/2020 10:12:24 AM

Instrument :
MSVOA_X
ClientSampleId :
VSTDICC150

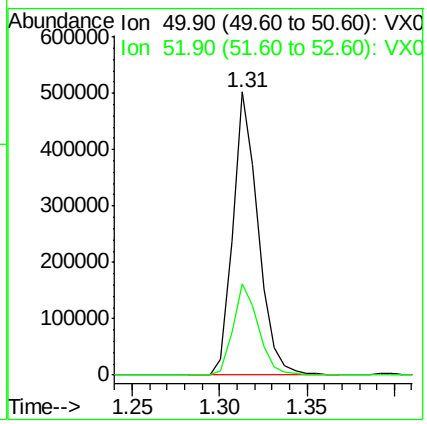
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:12:24 AM

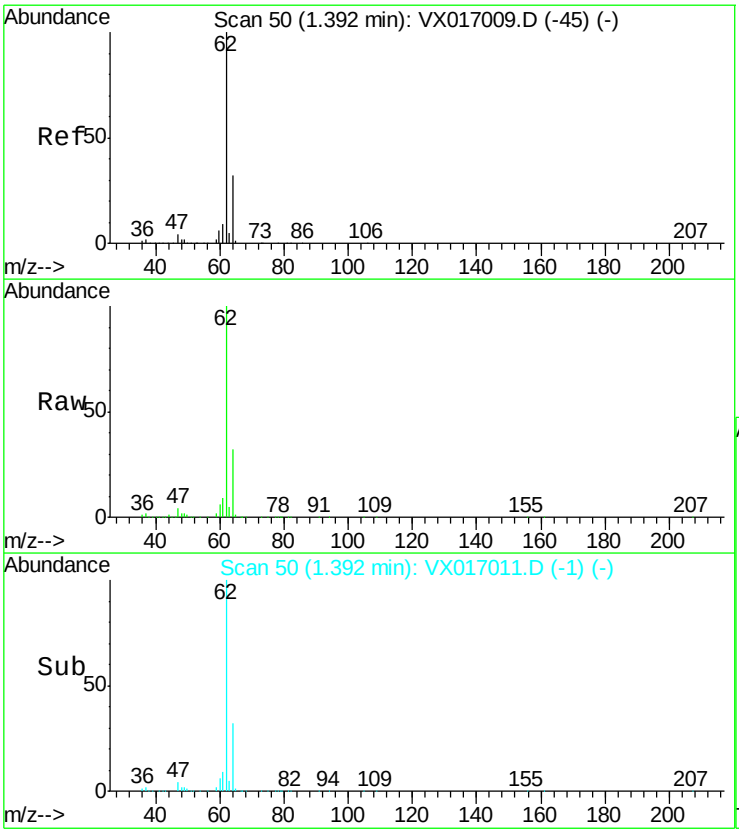


#3
Chloromethane
Concen: 157.948 ug/l
RT: 1.31 min Scan# 37
Delta R.T. 0.00 min
Lab File: VX017011.D
Acq: 29 Jun 2020 16:06

Tgt Ion: 50 Resp: 503062

Ion	Ratio	Lower	Upper
50	100		
52	32.4	26.1	39.1

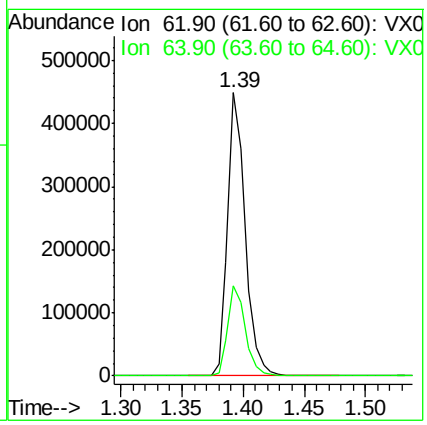


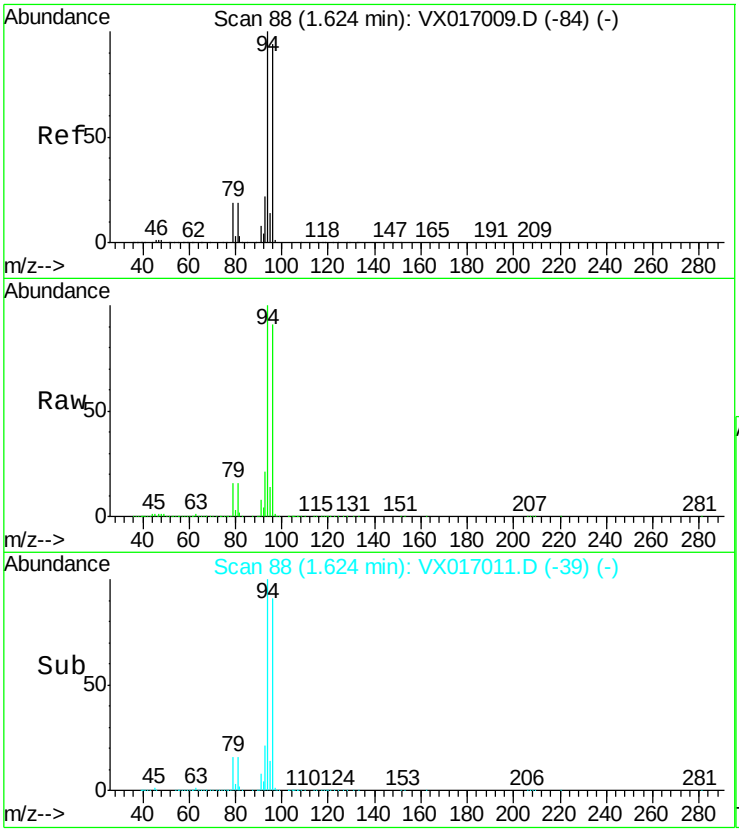


#4
Vinyl Chloride
Concen: 151.207 ug/l
RT: 1.39 min Scan# 50
Delta R.T. 0.00 min
Lab File: VX017011.D
Acq: 29 Jun 2020 16:06

Tgt Ion: 62 Resp: 446825

Ion	Ratio	Lower	Upper
62	100		
64	31.8	25.9	38.9

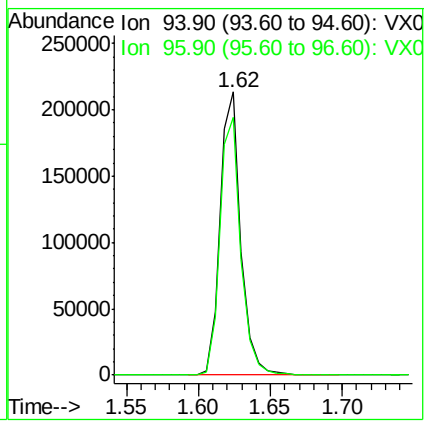




#5
Bromomethane
Concen: 138.155 ug/l
RT: 1.62 min Scan# 88
Delta R.T. 0.00 min
Lab File: VX017011.D
Acq: 29 Jun 2020 16:06

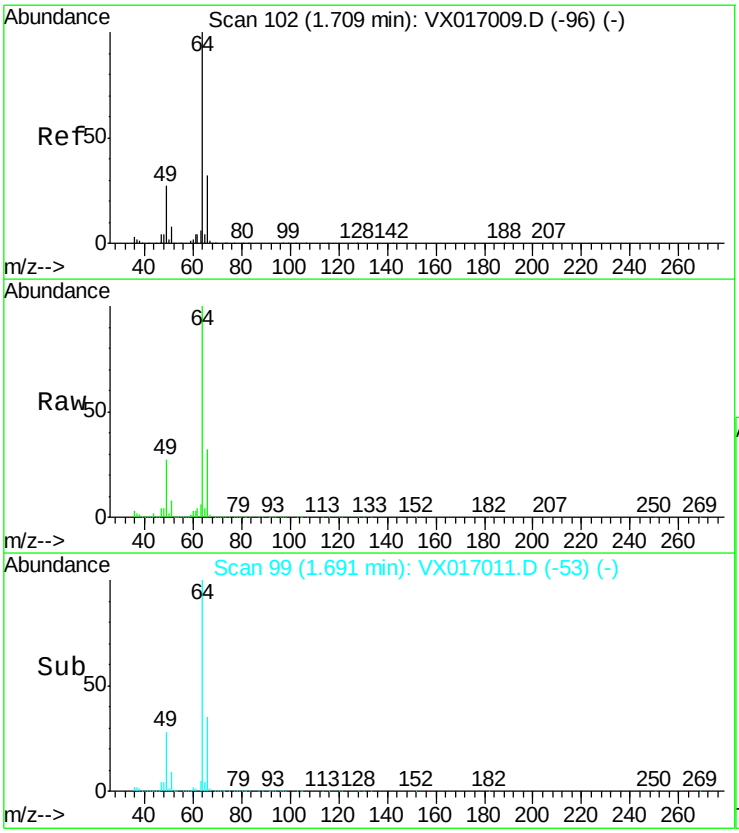
Tgt Ion: 94 Resp: 215693

Ion	Ratio	Lower	Upper
94	100		
96	91.1	75.0	112.4



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC150

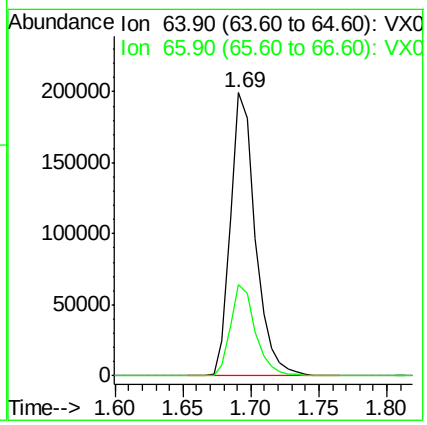
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:12:24 AM

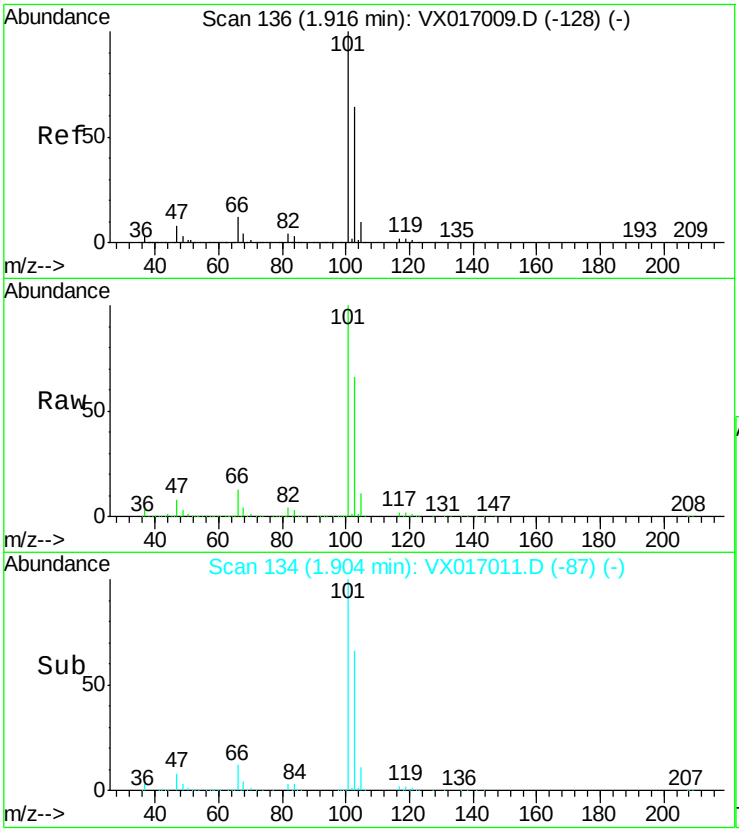


#6
Chloroethane
Concen: 145.901 ug/l
RT: 1.69 min Scan# 99
Delta R.T. -0.02 min
Lab File: VX017011.D
Acq: 29 Jun 2020 16:06

Tgt Ion: 64 Resp: 254636

Ion	Ratio	Lower	Upper
64	100		
66	32.2	25.5	38.3

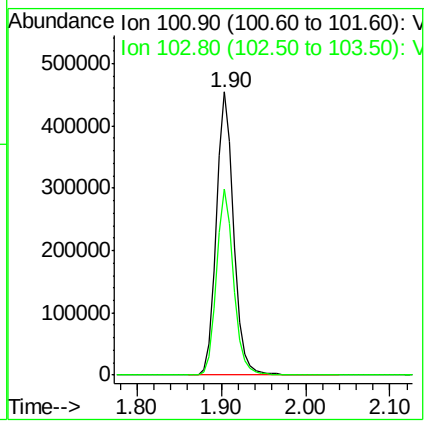




#7
Trichlorofluoromethane
Concen: 148.339 ug/l
RT: 1.90 min Scan# 134
Delta R.T. -0.01 min
Lab File: VX017011.D
Acq: 29 Jun 2020 16:06

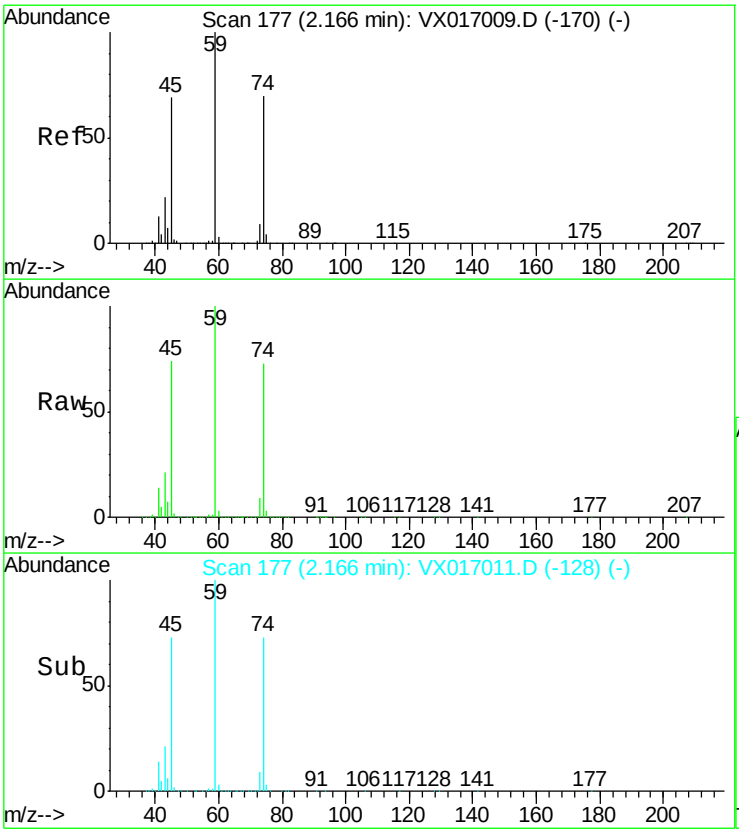
Tgt Ion:101 Resp: 648300

Ion	Ratio	Lower	Upper
101	100		
103	65.5	51.5	77.3



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC150

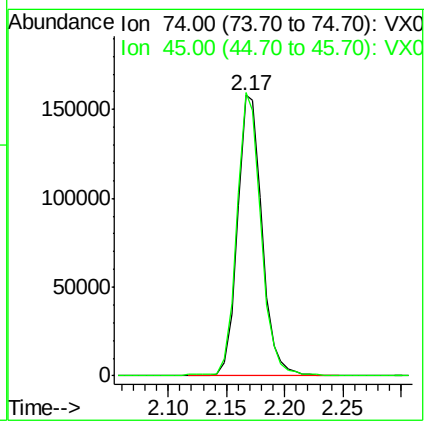
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:12:24 AM

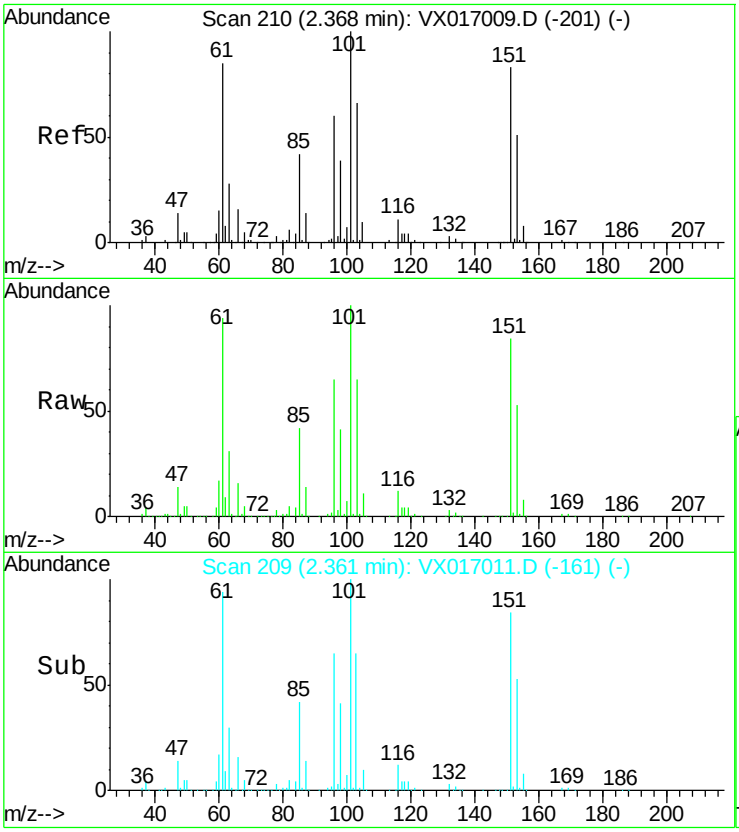


#8
Diethyl Ether
Concen: 144.905 ug/l
RT: 2.17 min Scan# 177
Delta R.T. 0.00 min
Lab File: VX017011.D
Acq: 29 Jun 2020 16:06

Tgt Ion: 74 Resp: 231189

Ion	Ratio	Lower	Upper
74	100		
45	98.7	49.8	149.3

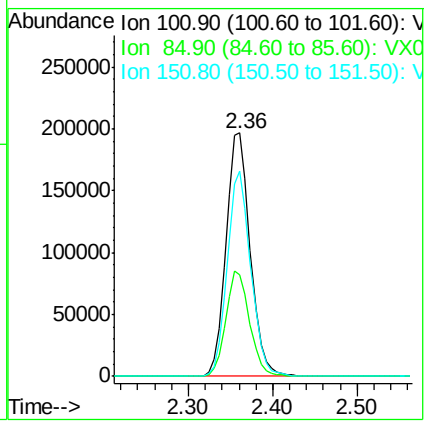




#9
1,1,2-Trichlorotrifluoroethane
Concen: 146.944 ug/l
RT: 2.36 min Scan# 209
Delta R.T. -0.01 min
Lab File: VX017011.D
Acq: 29 Jun 2020 16:06

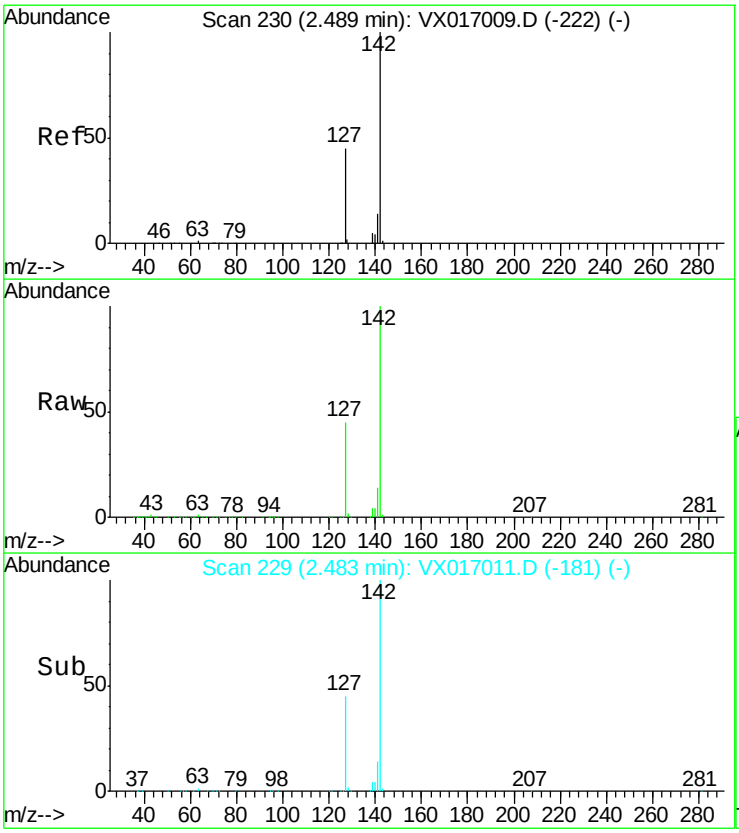
Tgt Ion:101 Resp: 384904

Ion	Ratio	Lower	Upper
101	100		
85	42.5	33.5	50.3
151	82.0	63.8	95.6



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC150

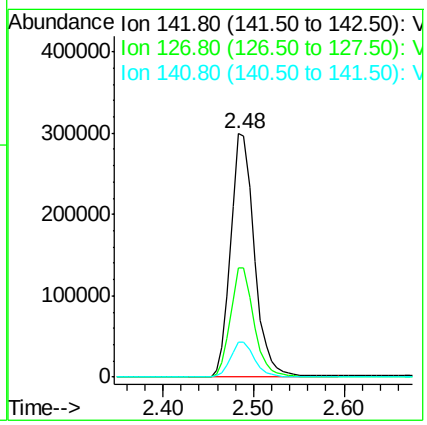
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:12:24 AM



#10
Methyl Iodide
Concen: 162.234 ug/l
RT: 2.48 min Scan# 229
Delta R.T. -0.01 min
Lab File: VX017011.D
Acq: 29 Jun 2020 16:06

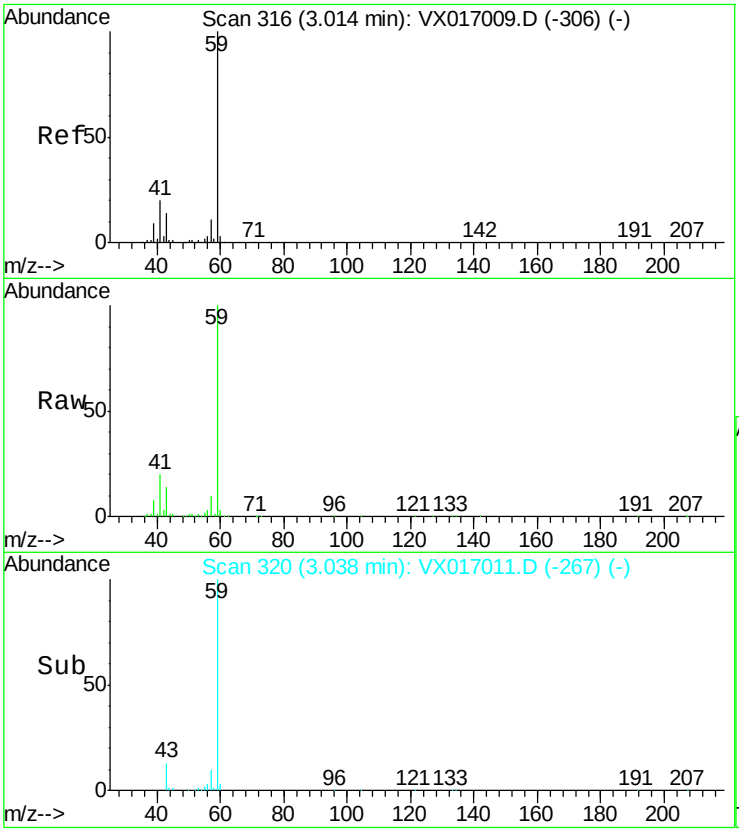
Tgt Ion:142 Resp: 548341

Ion	Ratio	Lower	Upper
142	100		
127	44.6	36.6	54.8
141	14.5	11.6	17.4



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC150

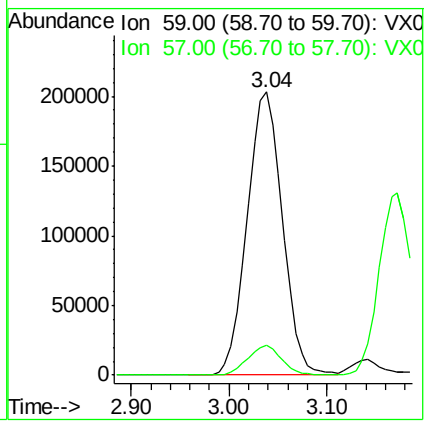
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:12:24 AM

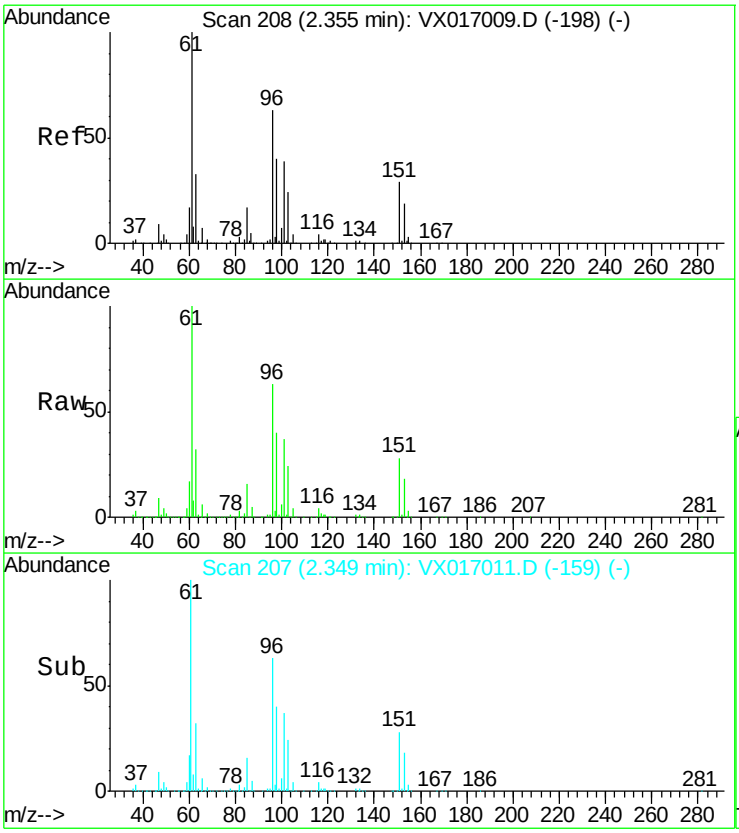


#11
Tert butyl alcohol
Concen: 794.386 ug/l
RT: 3.04 min Scan# 320
Delta R.T. 0.02 min
Lab File: VX017011.D
Acq: 29 Jun 2020 16:06

Tgt Ion: 59 Resp: 508125

Ion	Ratio	Lower	Upper
59	100		
57	10.1	8.2	12.2

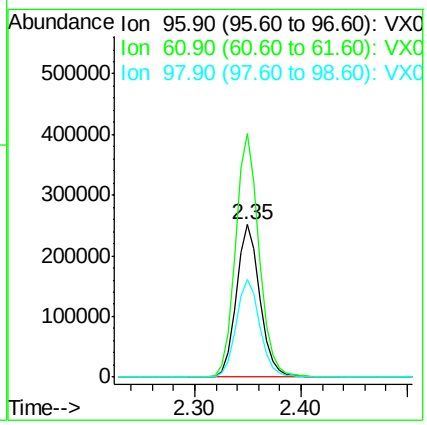




#12
1,1-Dichloroethene
Concen: 145.004 ug/l
RT: 2.35 min Scan# 207
Delta R.T. -0.01 min
Lab File: VX017011.D
Acq: 29 Jun 2020 16:06

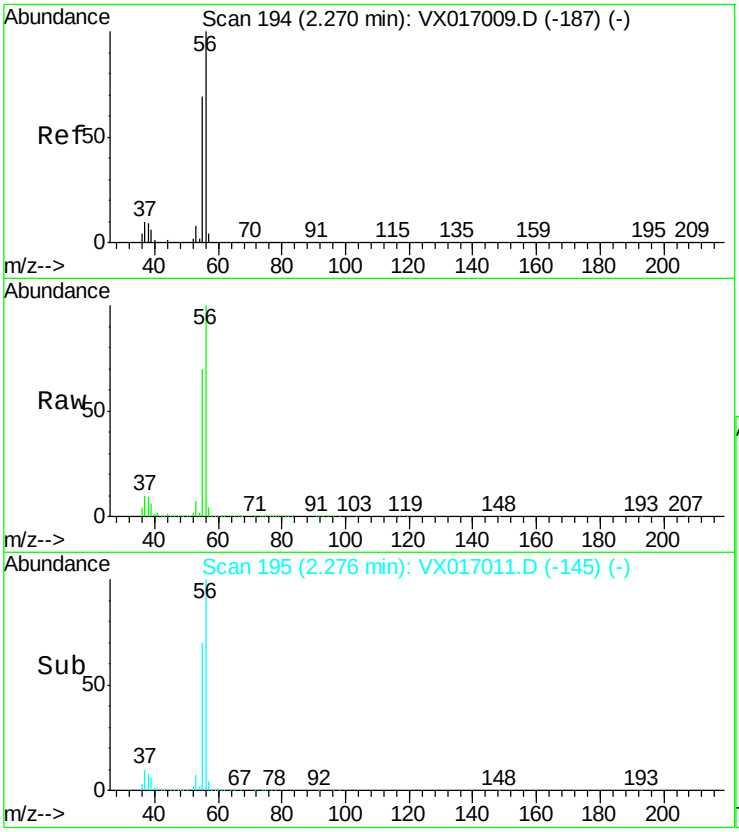
Tgt Ion: 96 Resp: 390183

Ion	Ratio	Lower	Upper
96	100		
61	159.8	126.3	189.5
98	64.2	51.0	76.6



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC150

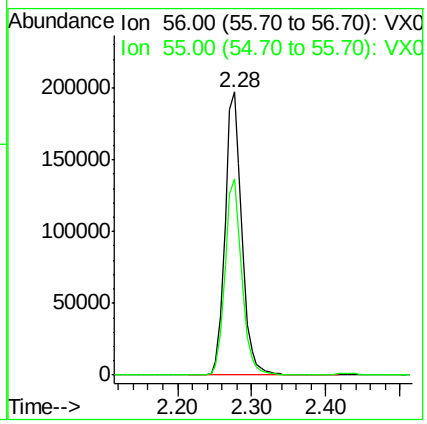
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:12:24 AM

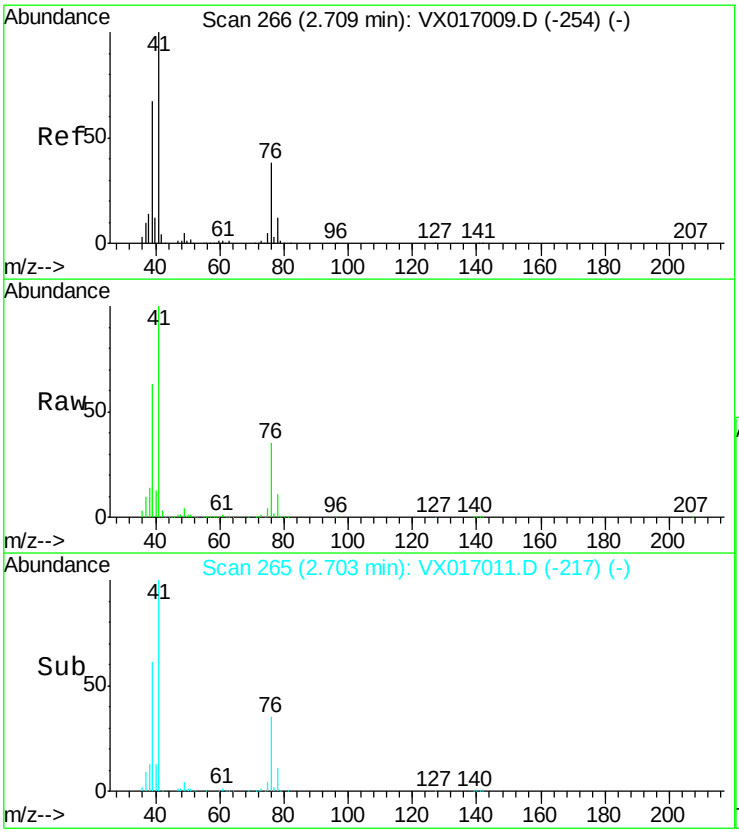


#13
Acrolein
Concen: 808.450 ug/l
RT: 2.28 min Scan# 195
Delta R.T. 0.01 min
Lab File: VX017011.D
Acq: 29 Jun 2020 16:06

Tgt Ion: 56 Resp: 309125

Ion	Ratio	Lower	Upper
56	100		
55	69.4	55.7	83.5

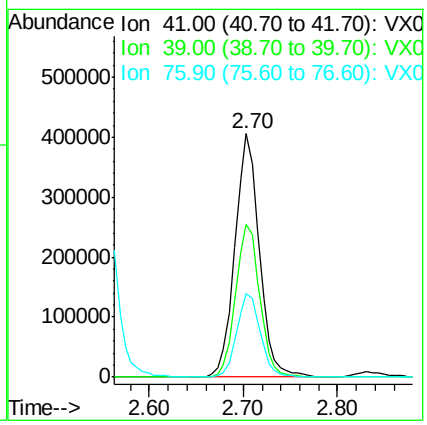




#14
Allyl chloride
Concen: 146.930 ug/l
RT: 2.70 min Scan# 265
Delta R.T. -0.01 min
Lab File: VX017011.D
Acq: 29 Jun 2020 16:06

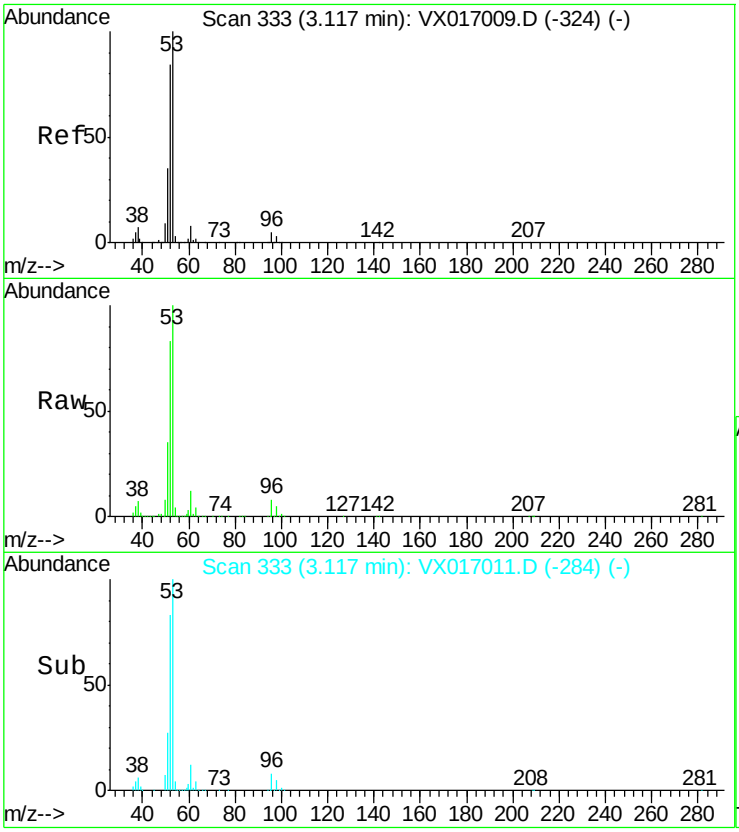
Tgt Ion: 41 Resp: 730668

Ion	Ratio	Lower	Upper
41	100		
39	61.9	49.4	74.2
76	33.2	26.8	40.2



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC150

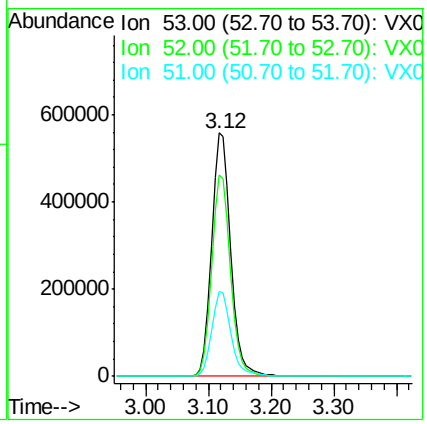
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:12:24 AM

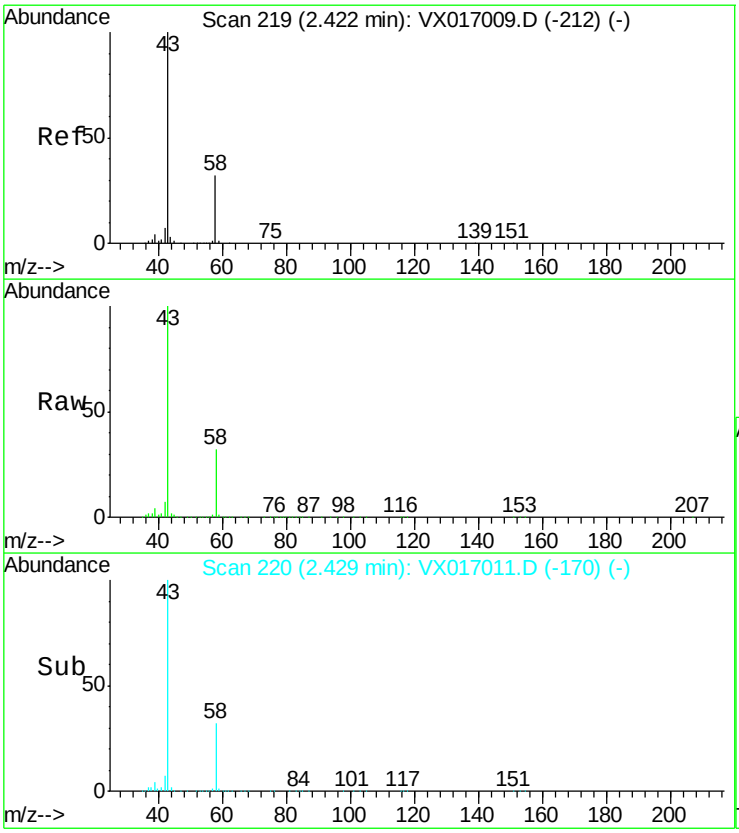


#15
Acrylonitrile
Concen: 760.867 ug/l
RT: 3.12 min Scan# 333
Delta R.T. 0.00 min
Lab File: VX017011.D
Acq: 29 Jun 2020 16:06

Tgt Ion: 53 Resp: 1169969

Ion	Ratio	Lower	Upper
53	100		
52	81.8	65.6	98.4
51	35.4	28.3	42.5

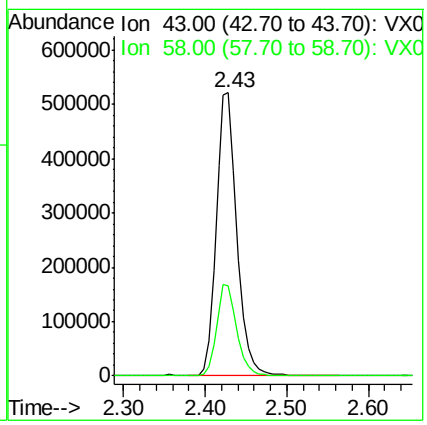




#16
Acetone
Concen: 732.362 ug/l
RT: 2.43 min Scan# 220
Delta R.T. 0.01 min
Lab File: VX017011.D
Acq: 29 Jun 2020 16:06

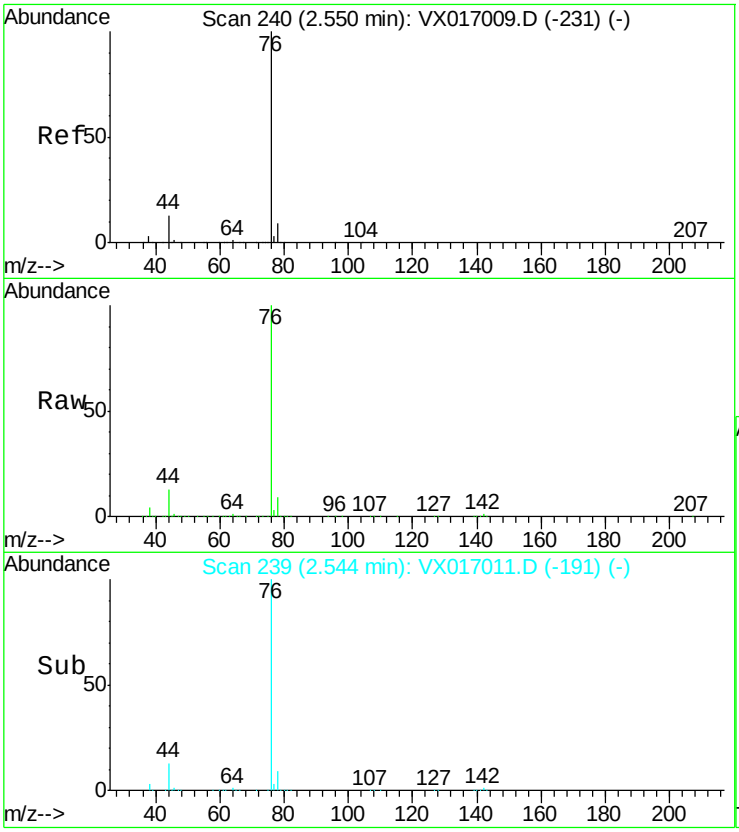
Tgt Ion: 43 Resp: 918609

Ion	Ratio	Lower	Upper
43	100		
58	31.9	25.7	38.5



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC150

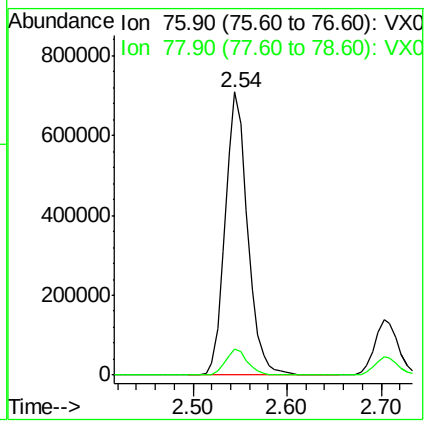
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:12:24 AM

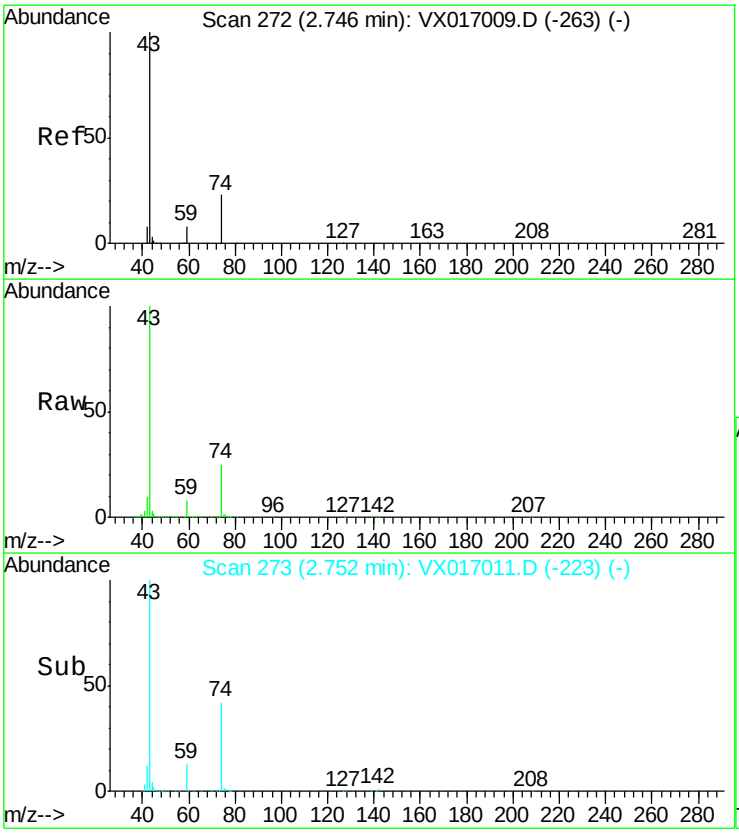


#17
Carbon Disulfide
Concen: 142.096 ug/l
RT: 2.54 min Scan# 239
Delta R.T. -0.01 min
Lab File: VX017011.D
Acq: 29 Jun 2020 16:06

Tgt Ion: 76 Resp: 1171127

Ion	Ratio	Lower	Upper
76	100		
78	9.1	7.2	10.8

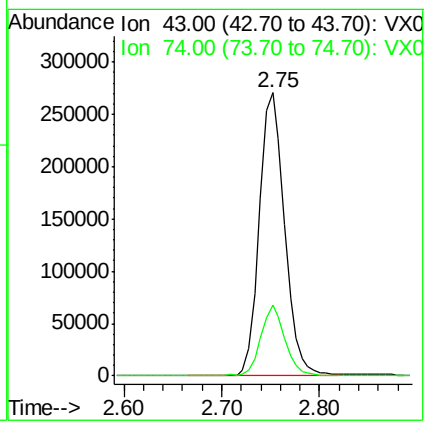




#18
Methyl Acetate
Concen: 147.796 ug/l
RT: 2.75 min Scan# 273
Delta R.T. 0.01 min
Lab File: VX017011.D
Acq: 29 Jun 2020 16:06

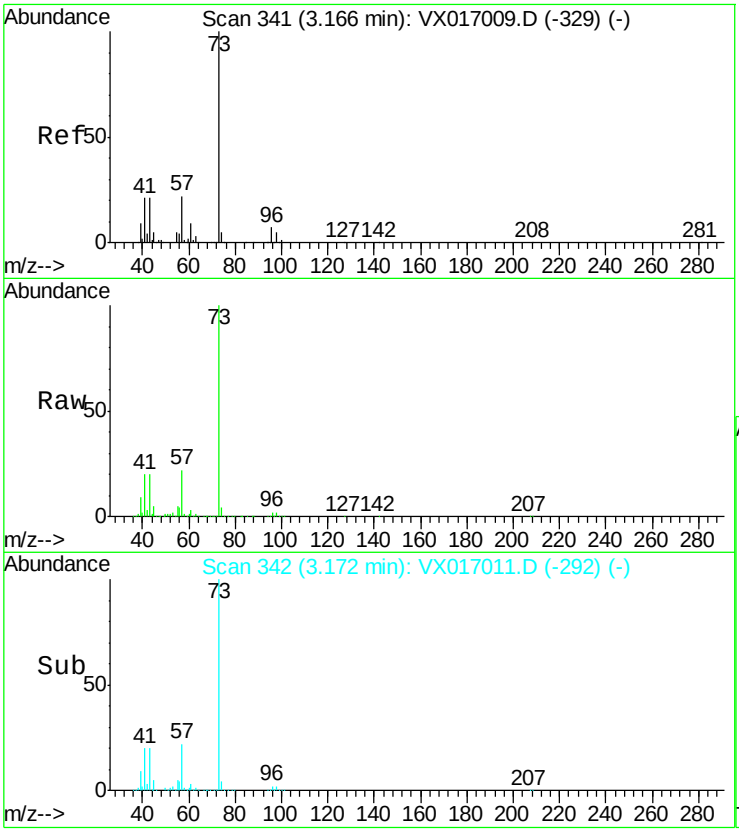
Tgt Ion: 43 Resp: 483942

Ion	Ratio	Lower	Upper
43	100		
74	24.1	19.3	28.9



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC150

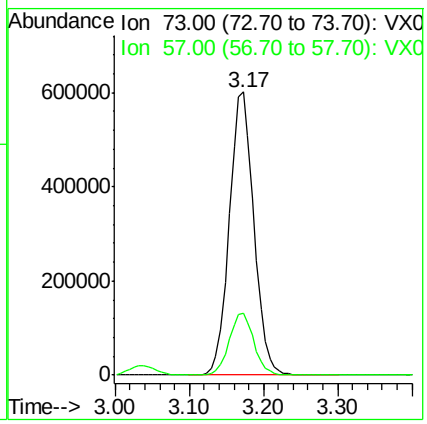
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:12:24 AM

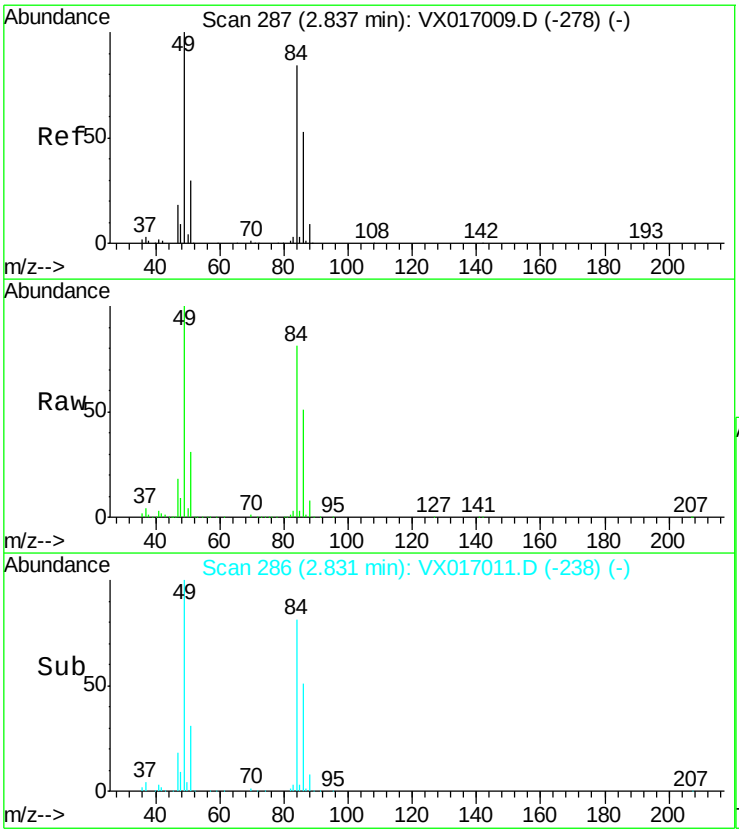


#19
Methyl tert-butyl Ether
Concen: 153.353 ug/l
RT: 3.17 min Scan# 342
Delta R.T. 0.01 min
Lab File: VX017011.D
Acq: 29 Jun 2020 16:06

Tgt Ion: 73 Resp: 1384934

Ion	Ratio	Lower	Upper
73	100		
57	21.8	17.6	26.4

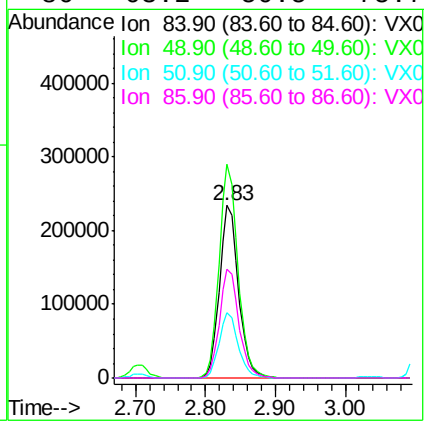


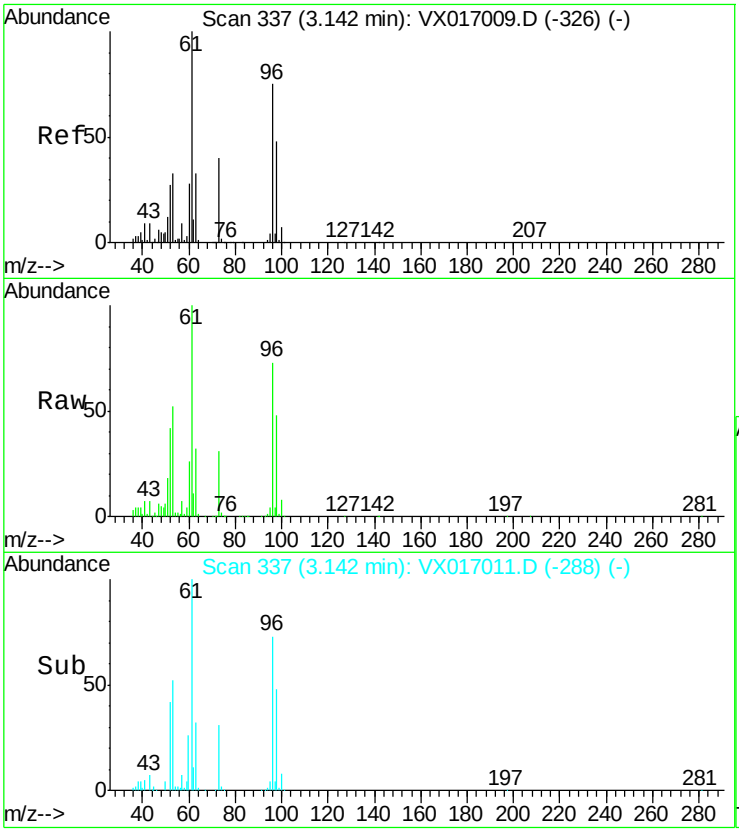


#20
Methylene Chloride
Concen: 137.630 ug/l
RT: 2.83 min Scan# 286
Delta R.T. -0.01 min
Lab File: VX017011.D
Acq: 29 Jun 2020 16:06

Tgt Ion: 84 Resp: 441232

Ion	Ratio	Lower	Upper
84	100		
49	123.7	94.7	142.1
51	38.0	28.6	42.8
86	63.2	50.5	75.7

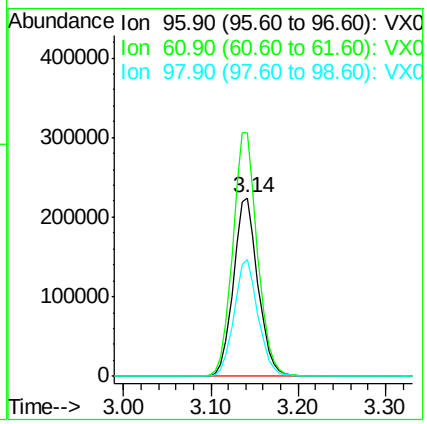




#21
trans-1,2-Dichloroethene
Concen: 146.881 ug/l
RT: 3.14 min Scan# 337
Delta R.T. 0.00 min
Lab File: VX017011.D
Acq: 29 Jun 2020 16:06

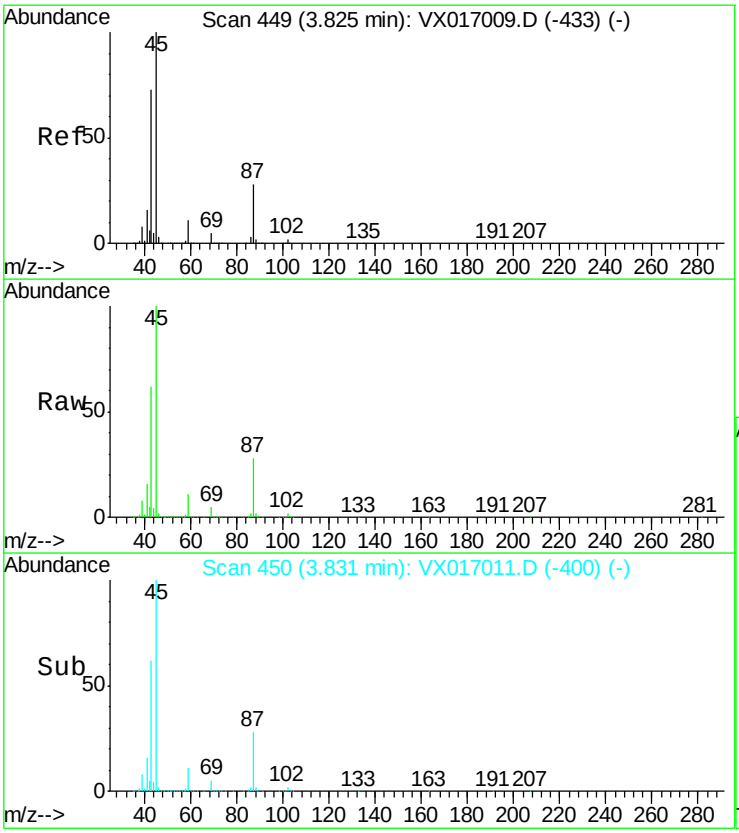
Tgt Ion: 96 Resp: 438609

Ion	Ratio	Lower	Upper
96	100		
61	136.4	107.0	160.6
98	65.4	51.6	77.4



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC150

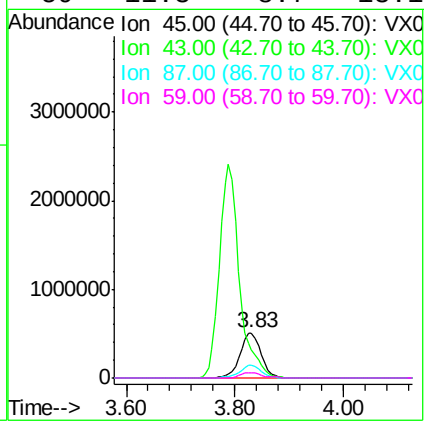
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:12:24 AM



#22
Diisopropyl ether
Concen: 149.592 ug/l
RT: 3.83 min Scan# 450
Delta R.T. 0.01 min
Lab File: VX017011.D
Acq: 29 Jun 2020 16:06

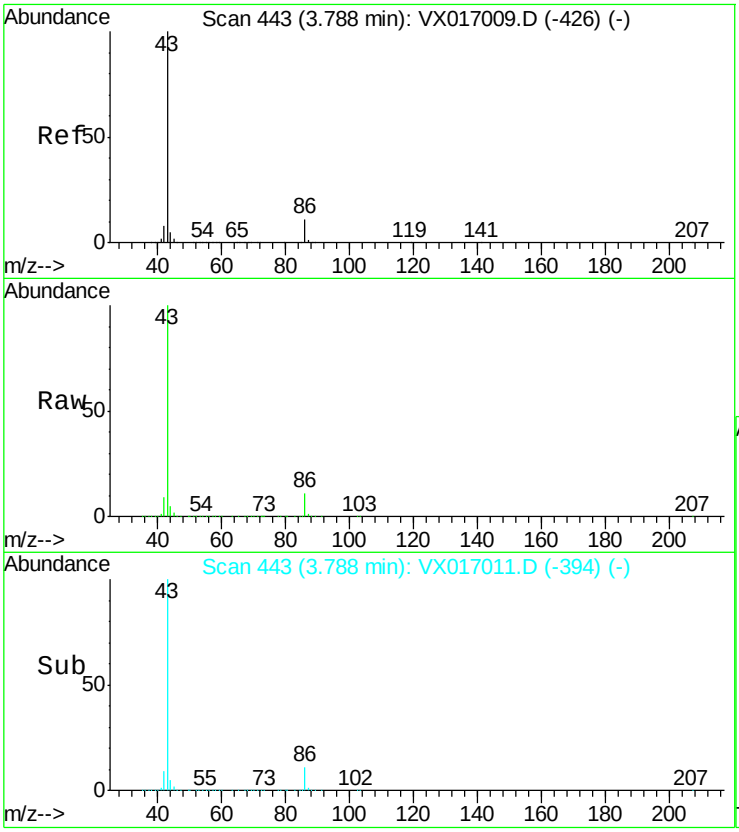
Tgt Ion: 45 Resp: 1376849

Ion	Ratio	Lower	Upper
45	100		
43	61.7	58.6	88.0
87	27.9	22.6	34.0
59	11.3	8.7	13.1



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC150

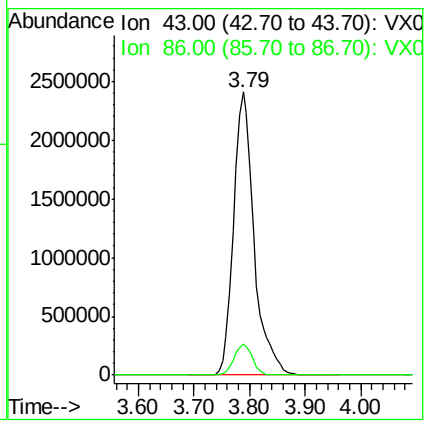
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:12:24 AM

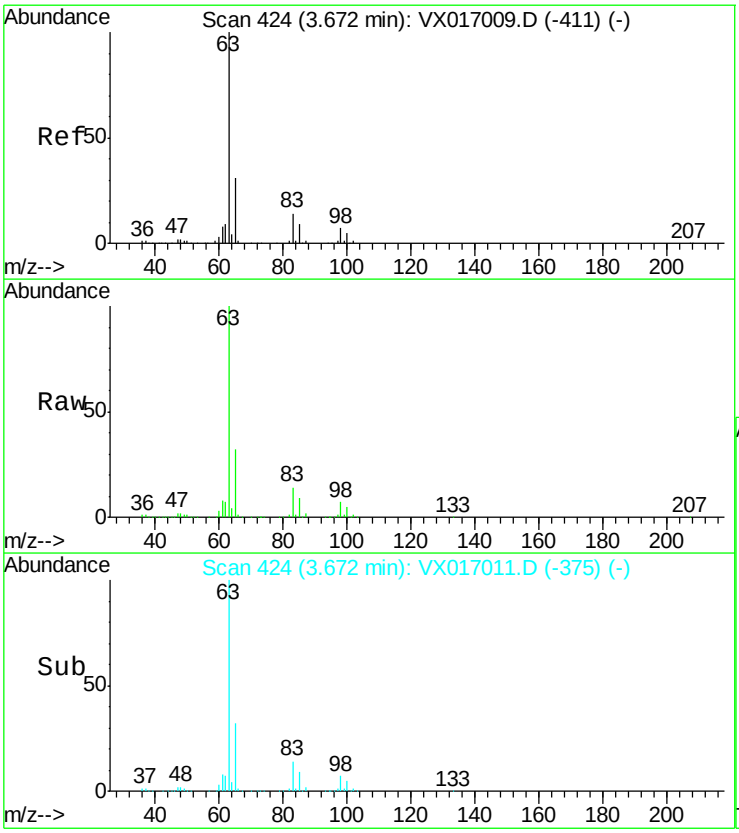


#23
Vinyl Acetate
Concen: 775.972 ug/l
RT: 3.79 min Scan# 443
Delta R.T. 0.00 min
Lab File: VX017011.D
Acq: 29 Jun 2020 16:06

Tgt Ion: 43 Resp: 6137235

Ion	Ratio	Lower	Upper
43	100		
86	10.9	8.6	13.0

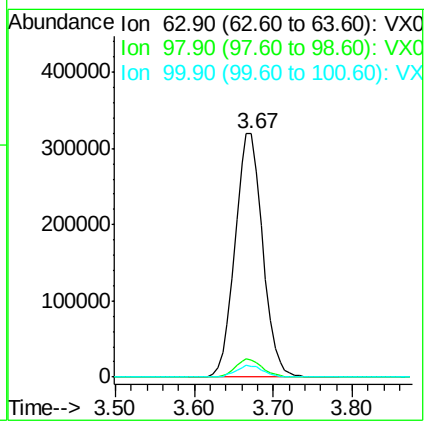




#24
1,1-Dichloroethane
Concen: 148.708 ug/l
RT: 3.67 min Scan# 424
Delta R.T. 0.00 min
Lab File: VX017011.D
Acq: 29 Jun 2020 16:06

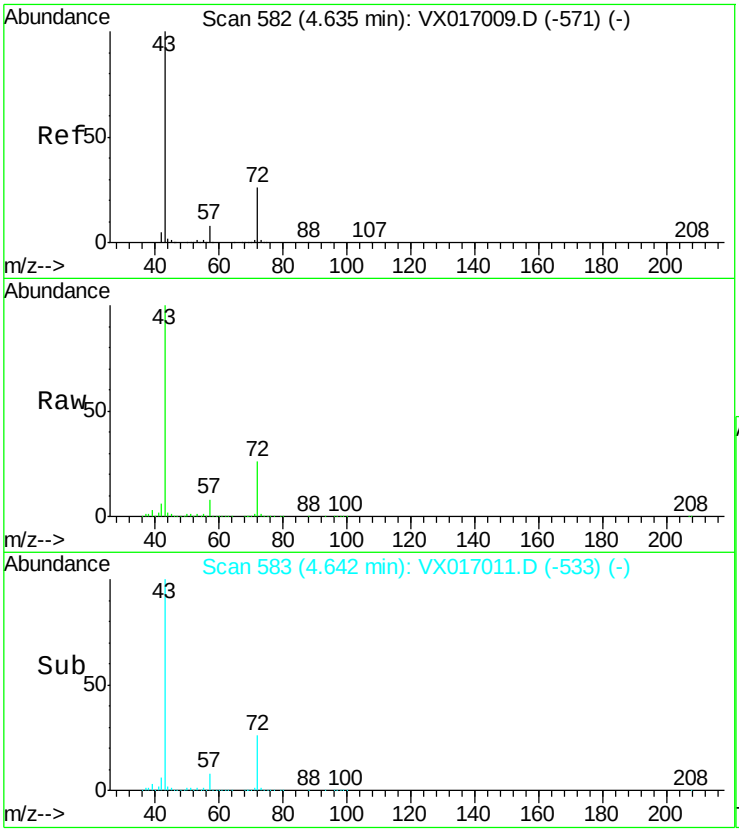
Tgt Ion: 63 Resp: 778786

Ion	Ratio	Lower	Upper
63	100		
98	6.8	3.6	10.8
100	4.5	2.4	7.1



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC150

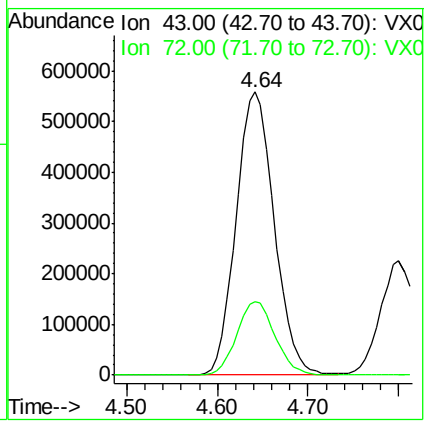
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:12:24 AM

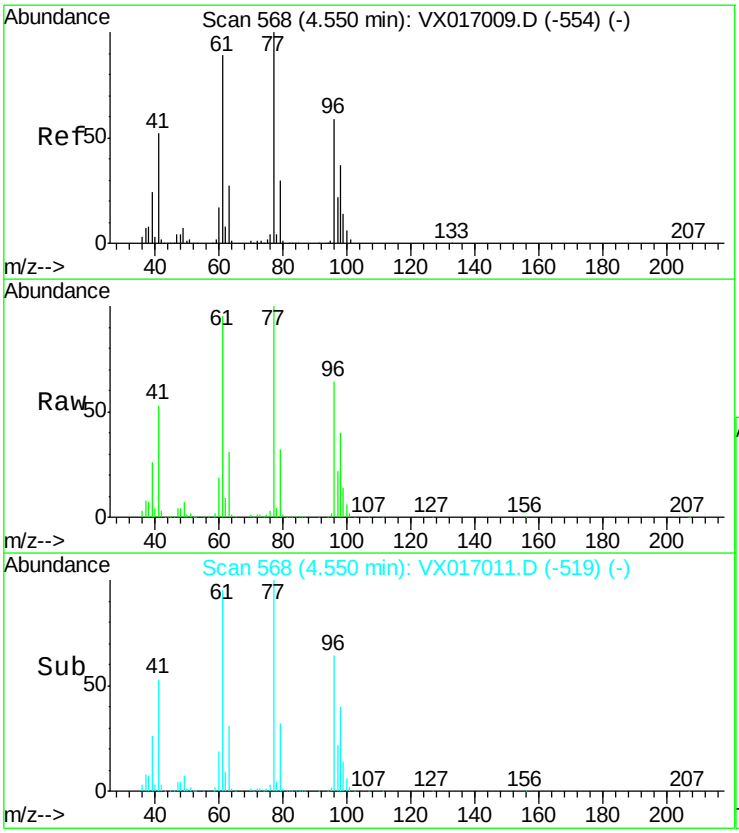


#25
2-Butanone
Concen: 776.073 ug/l
RT: 4.64 min Scan# 583
Delta R.T. 0.01 min
Lab File: VX017011.D
Acq: 29 Jun 2020 16:06

Tgt Ion: 43 Resp: 1621996

Ion	Ratio	Lower	Upper
43	100		
72	26.0	20.8	31.2

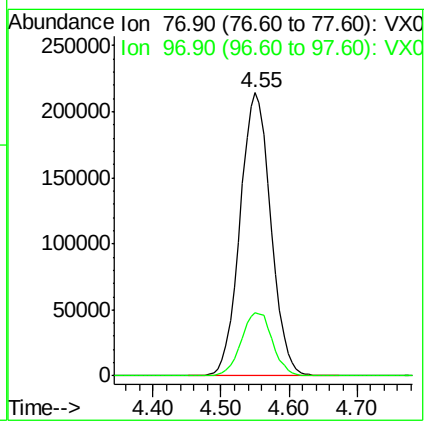




#26
2,2-Dichloropropane
Concen: 144.665 ug/l
RT: 4.55 min Scan# 568
Delta R.T. 0.00 min
Lab File: VX017011.D
Acq: 29 Jun 2020 16:06

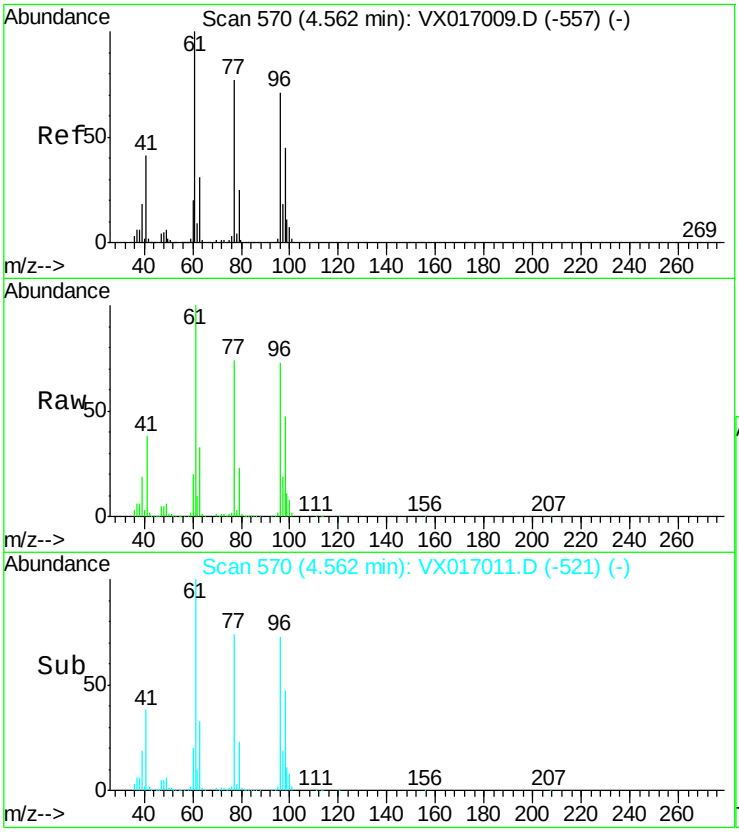
Tgt Ion: 77 Resp: 672693

Ion	Ratio	Lower	Upper
77	100		
97	22.8	11.4	34.2



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC150

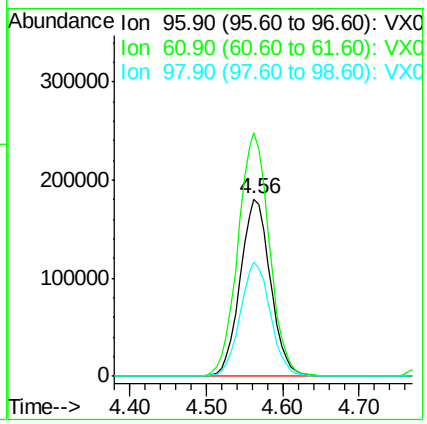
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:12:24 AM

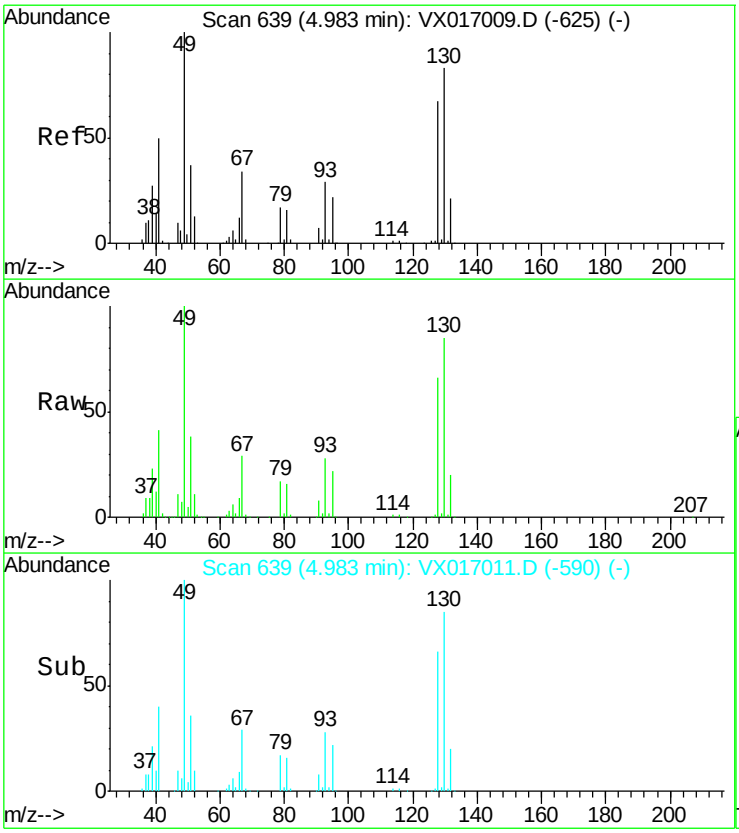


#27
cis-1,2-Dichloroethene
Concen: 146.775 ug/l
RT: 4.56 min Scan# 570
Delta R.T. 0.00 min
Lab File: VX017011.D
Acq: 29 Jun 2020 16:06

Tgt Ion: 96 Resp: 496612

Ion	Ratio	Lower	Upper
96	100		
61	142.5	0.0	282.8
98	64.7	0.0	127.6

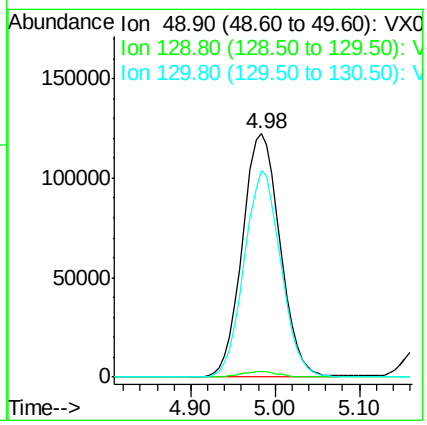




#28
Bromochloromethane
Concen: 146.060 ug/l
RT: 4.98 min Scan# 639
Delta R.T. 0.00 min
Lab File: VX017011.D
Acq: 29 Jun 2020 16:06

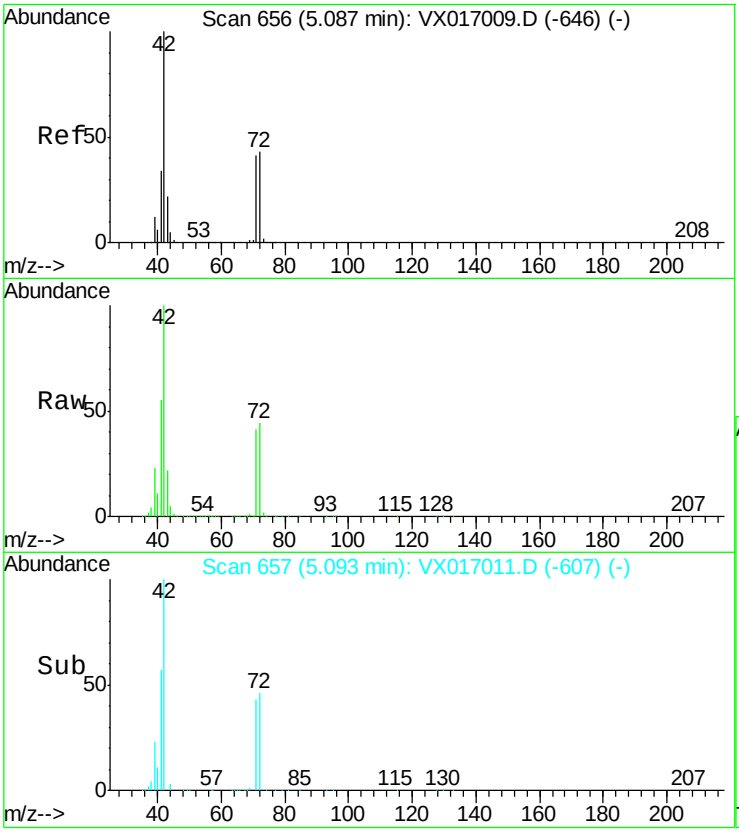
Tgt Ion: 49 Resp: 372226

Ion	Ratio	Lower	Upper
49	100		
129	2.3	0.0	4.2
130	82.6	66.6	100.0



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC150

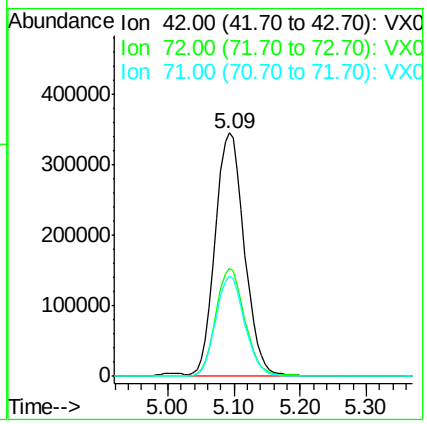
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:12:24 AM

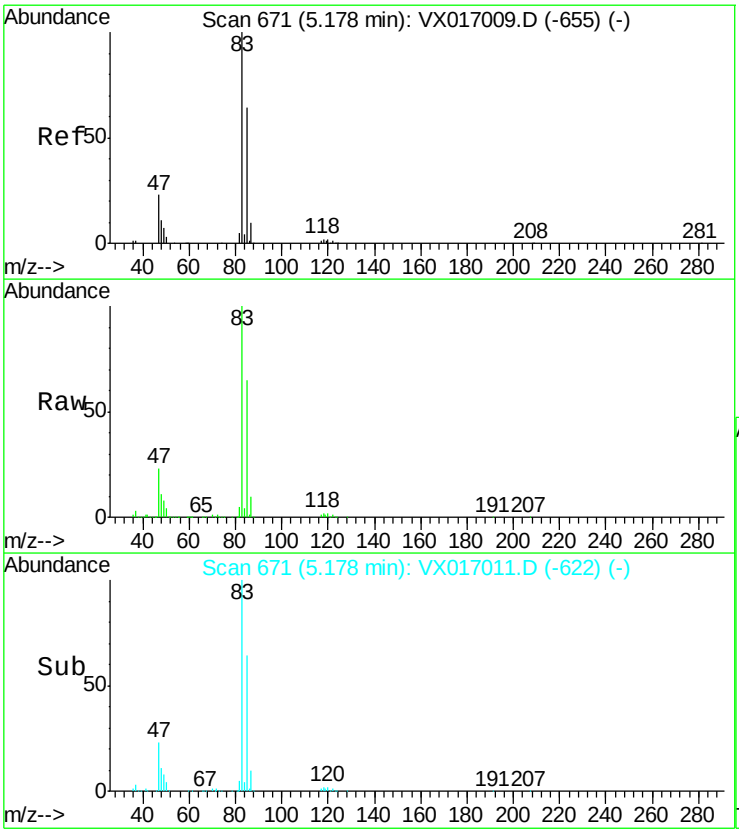


#29
Tetrahydrofuran
Concen: 765.793 ug/l
RT: 5.09 min Scan# 657
Delta R.T. 0.01 min
Lab File: VX017011.D
Acq: 29 Jun 2020 16:06

Tgt Ion: 42 Resp: 1057491

Ion	Ratio	Lower	Upper
42	100		
72	44.5	35.3	52.9
71	40.7	33.1	49.7

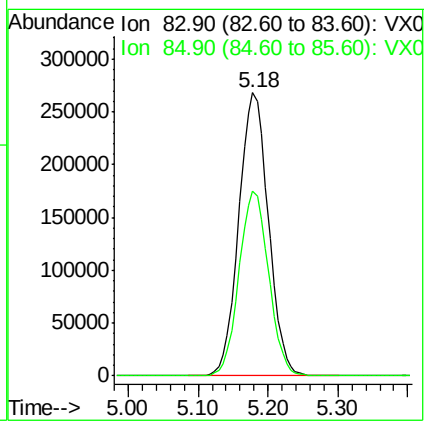




#30
Chloroform
Concen: 147.100 ug/l
RT: 5.18 min Scan# 671
Delta R.T. 0.00 min
Lab File: VX017011.D
Acq: 29 Jun 2020 16:06

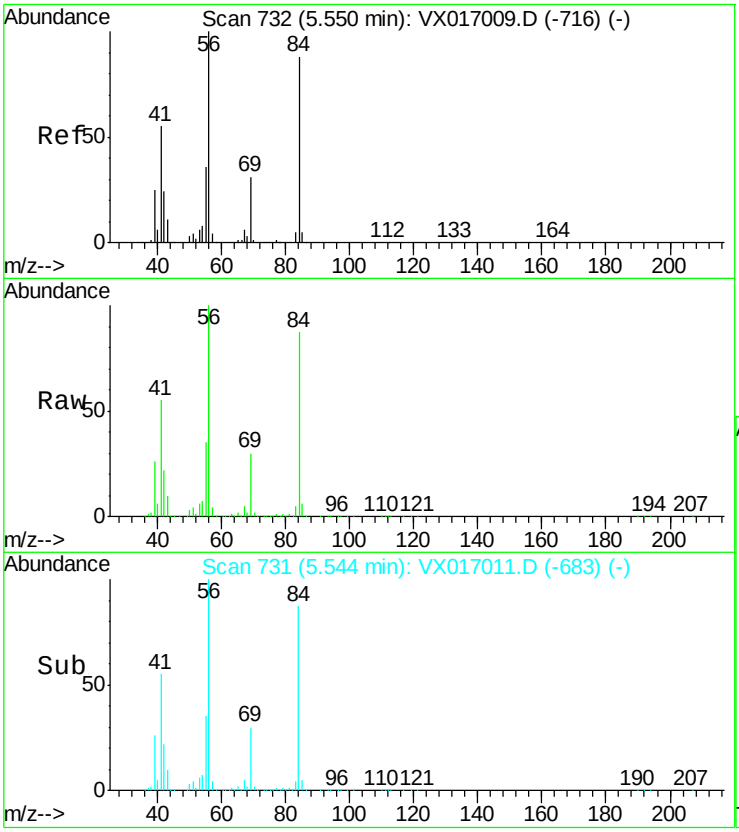
Tgt Ion: 83 Resp: 789706

Ion	Ratio	Lower	Upper
83	100		
85	65.1	51.4	77.2



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC150

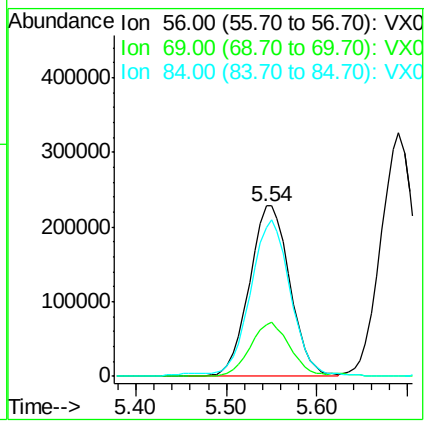
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:12:24 AM

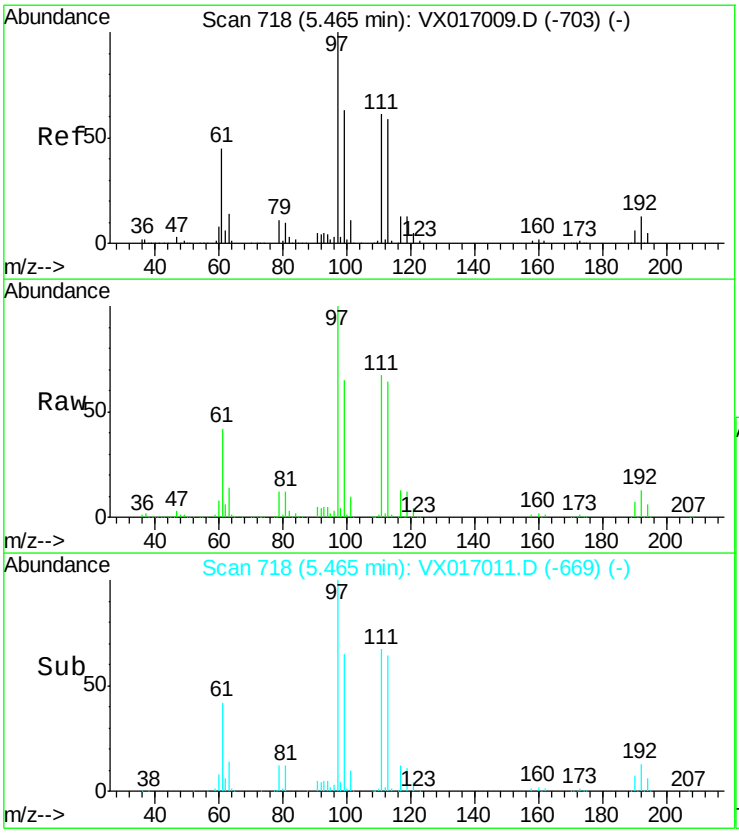


#31
Cyclohexane
Concen: 155.568 ug/l
RT: 5.54 min Scan# 731
Delta R.T. -0.01 min
Lab File: VX017011.D
Acq: 29 Jun 2020 16:06

Tgt Ion: 56 Resp: 704219

Ion	Ratio	Lower	Upper
56	100		
69	30.2	25.0	37.4
84	86.1	69.1	103.7

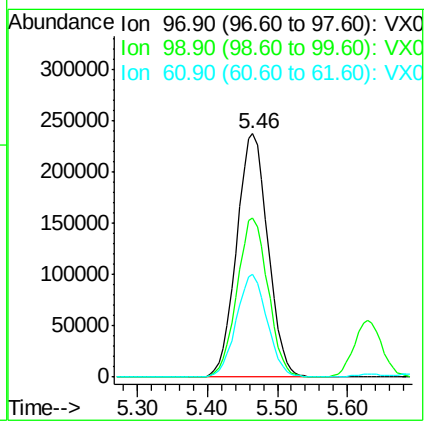


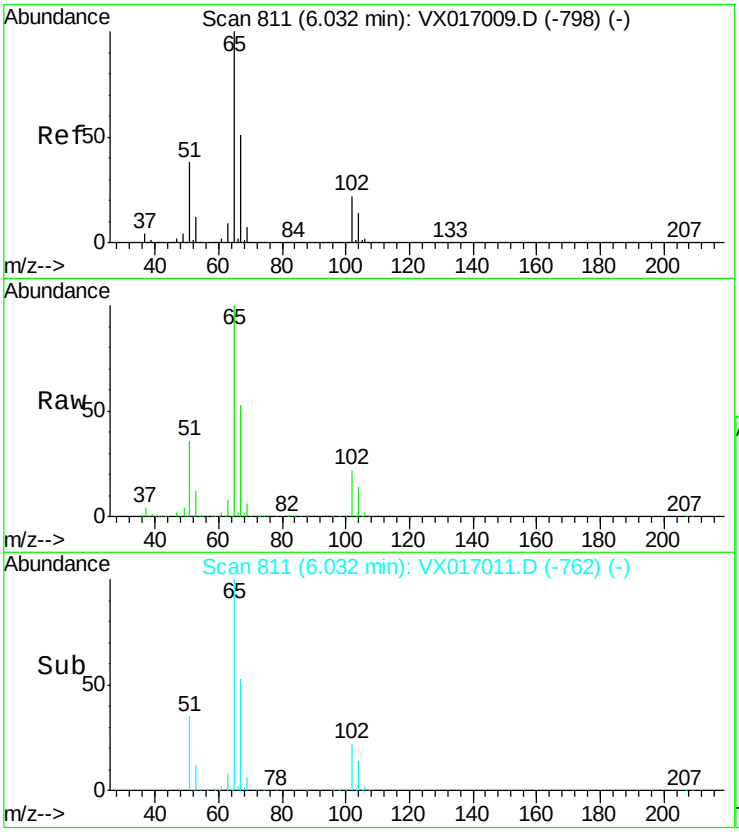


#32
1,1,1-Trichloroethane
Concen: 148.881 ug/l
RT: 5.46 min Scan# 718
Delta R.T. 0.00 min
Lab File: VX017011.D
Acq: 29 Jun 2020 16:06

Tgt Ion: 97 Resp: 736090

Ion	Ratio	Lower	Upper
97	100		
99	64.8	50.8	76.2
61	41.8	33.7	50.5

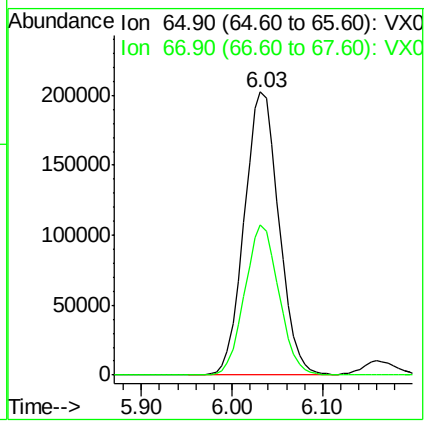




#33
1,2-Dichloroethane-d4
Concen: 159.862 ug/l
RT: 6.03 min Scan# 811
Delta R.T. 0.00 min
Lab File: VX017011.D
Acq: 29 Jun 2020 16:06

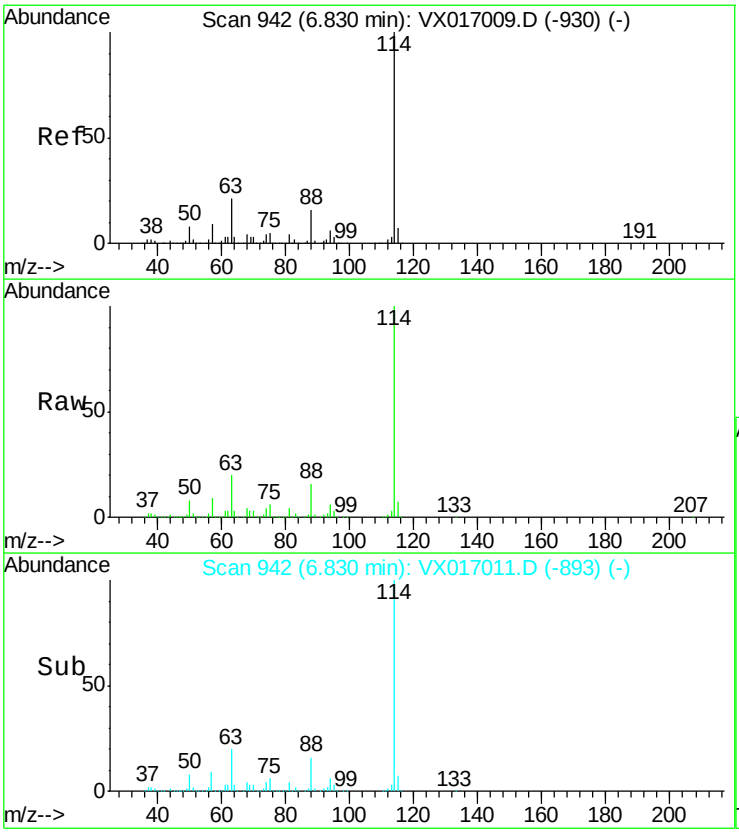
Tgt Ion: 65 Resp: 536009

Ion	Ratio	Lower	Upper
65	100		
67	52.2	0.0	103.8



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC150

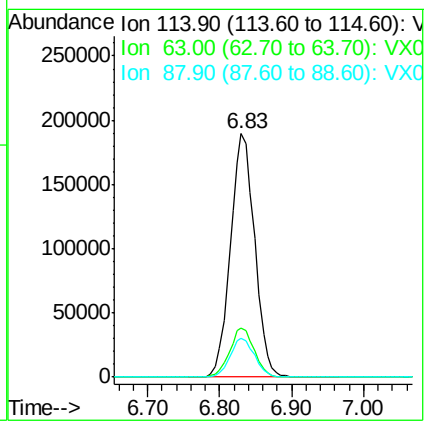
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:12:24 AM

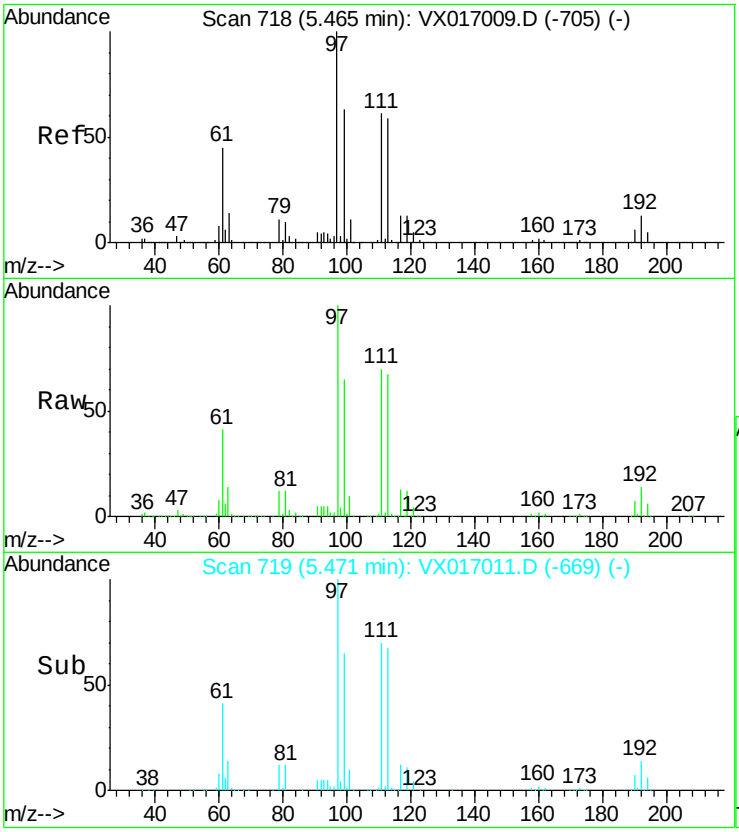


#34
1,4-Difluorobenzene
Concen: 50.000 ug/l
RT: 6.83 min Scan# 942
Delta R.T. 0.00 min
Lab File: VX017011.D
Acq: 29 Jun 2020 16:06

Tgt Ion:114 Resp: 442208

Ion	Ratio	Lower	Upper
114	100		
63	20.0	0.0	41.4
88	16.1	0.0	32.4

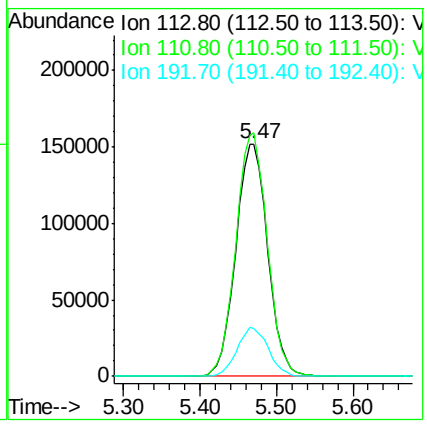




#35
Dibromofluoromethane
Concen: 157.294 ug/l
RT: 5.47 min Scan# 719
Delta R.T. 0.01 min
Lab File: VX017011.D
Acq: 29 Jun 2020 16:06

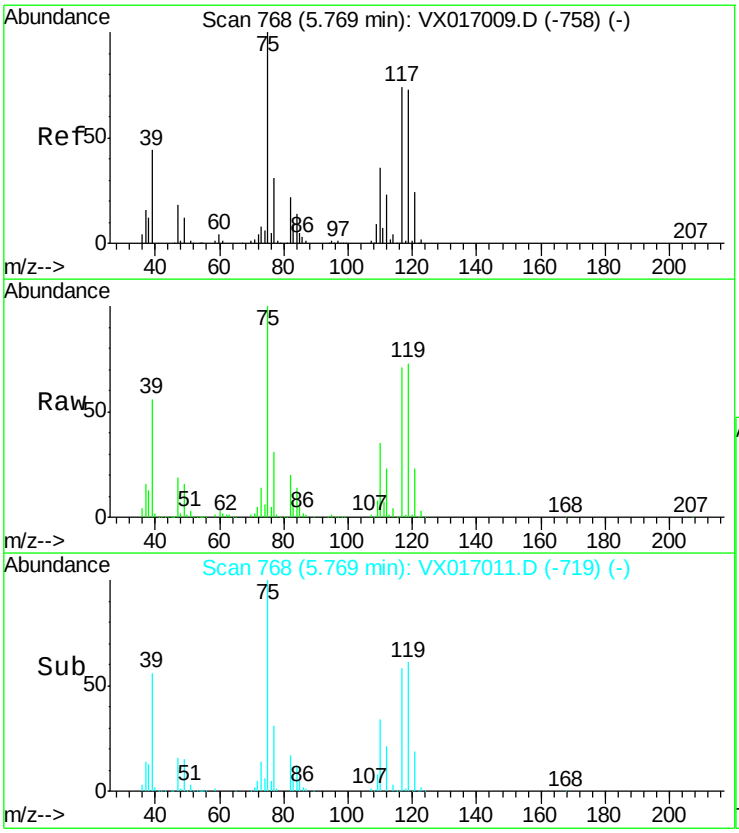
Tgt Ion:113 Resp: 439994

Ion	Ratio	Lower	Upper
113	100		
111	103.3	81.9	122.9
192	20.7	16.7	25.1



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC150

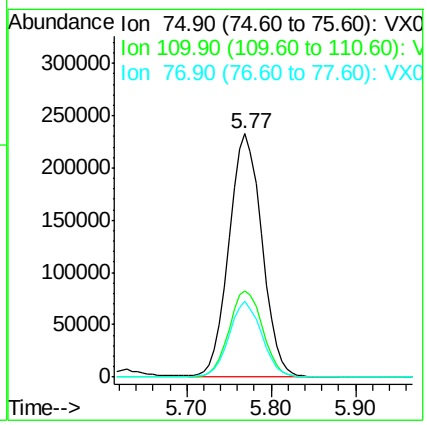
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:12:24 AM



#36
1,1-Dichloropropene
Concen: 147.940 ug/l
RT: 5.77 min Scan# 768
Delta R.T. 0.00 min
Lab File: VX017011.D
Acq: 29 Jun 2020 16:06

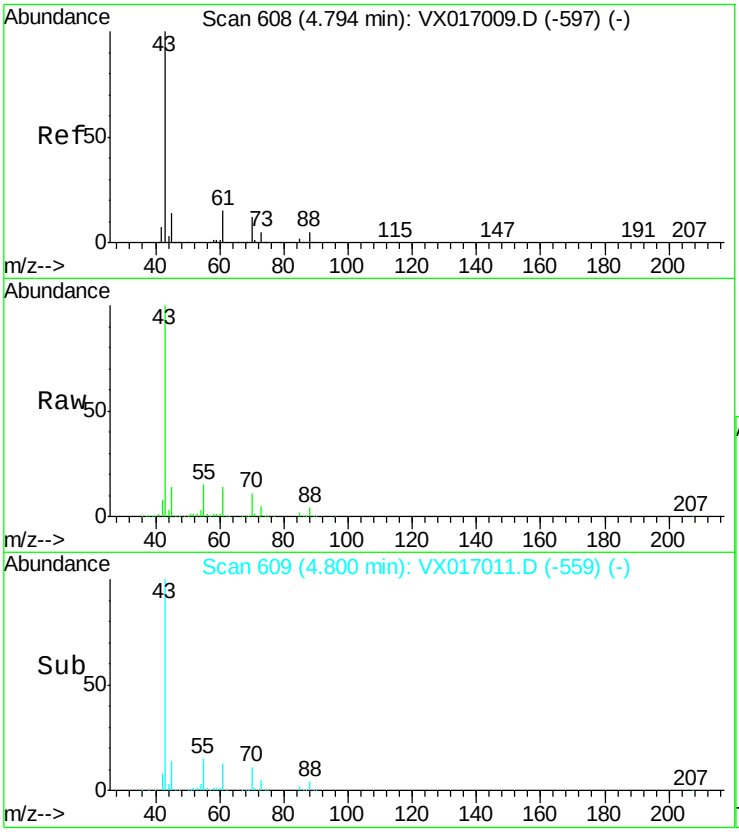
Tgt Ion: 75 Resp: 618300

Ion	Ratio	Lower	Upper
75	100		
110	36.2	18.1	54.1
77	30.6	24.6	37.0



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC150

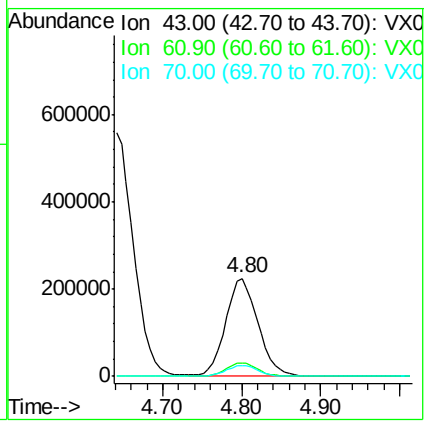
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:12:24 AM

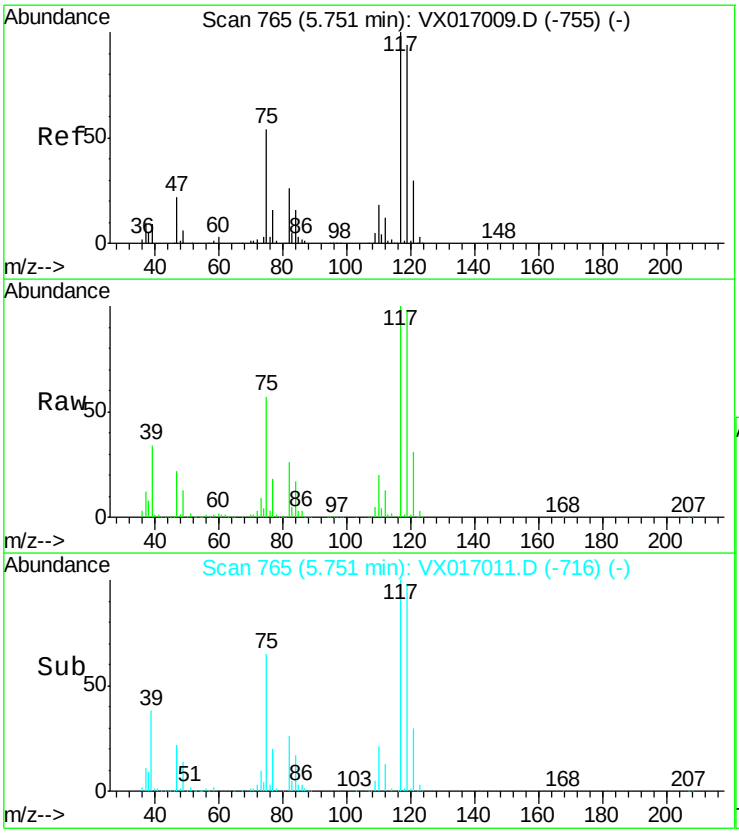


#37
Ethyl Acetate
Concen: 151.050 ug/l
RT: 4.80 min Scan# 609
Delta R.T. 0.01 min
Lab File: VX017011.D
Acq: 29 Jun 2020 16:06

Tgt Ion: 43 Resp: 640525

Ion	Ratio	Lower	Upper
43	100		
61	13.5	11.0	16.4
70	10.9	8.9	13.3

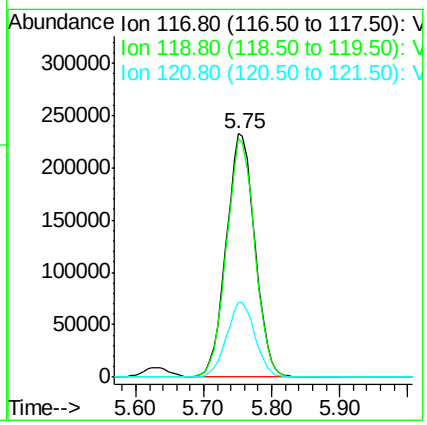




#38
Carbon Tetrachloride
Concen: 147.150 ug/l
RT: 5.75 min Scan# 765
Delta R.T. 0.00 min
Lab File: VX017011.D
Acq: 29 Jun 2020 16:06

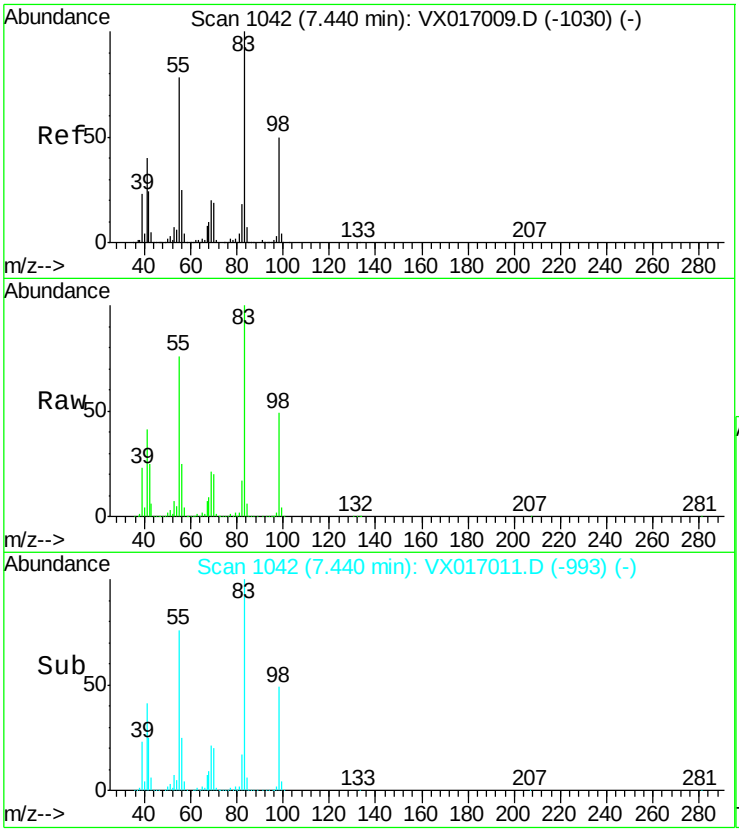
Tgt Ion:117 Resp: 677378

Ion	Ratio	Lower	Upper
117	100		
119	97.7	75.4	113.0
121	30.5	23.8	35.6



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC150

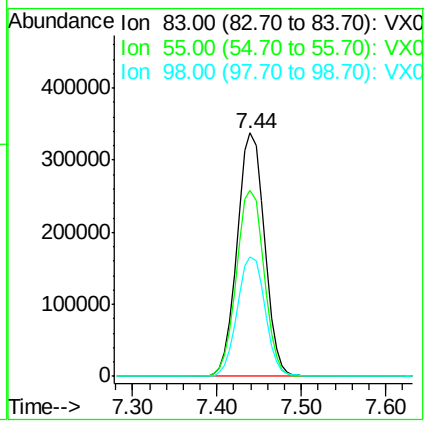
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:12:24 AM

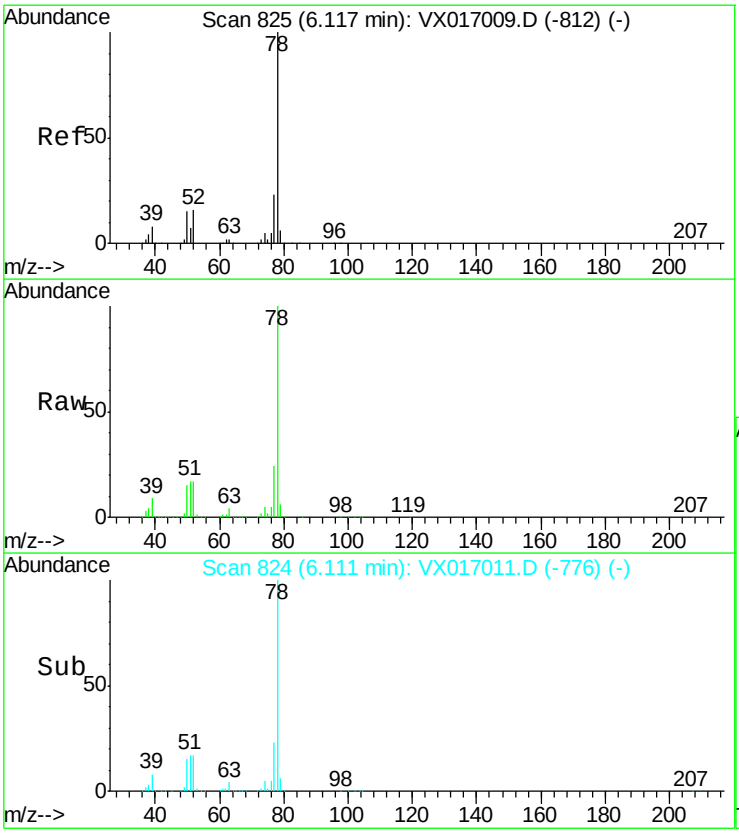


#39
Methylcyclohexane
Concen: 158.665 ug/l
RT: 7.44 min Scan# 1042
Delta R.T. 0.00 min
Lab File: VX017011.D
Acq: 29 Jun 2020 16:06

Tgt Ion: 83 Resp: 737813

Ion	Ratio	Lower	Upper
83	100		
55	76.4	62.5	93.7
98	49.0	40.1	60.1

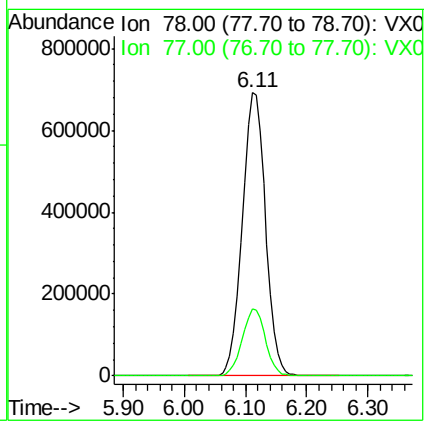




#40
Benzene
Concen: 148.077 ug/l
RT: 6.11 min Scan# 824
Delta R.T. -0.01 min
Lab File: VX017011.D
Acq: 29 Jun 2020 16:06

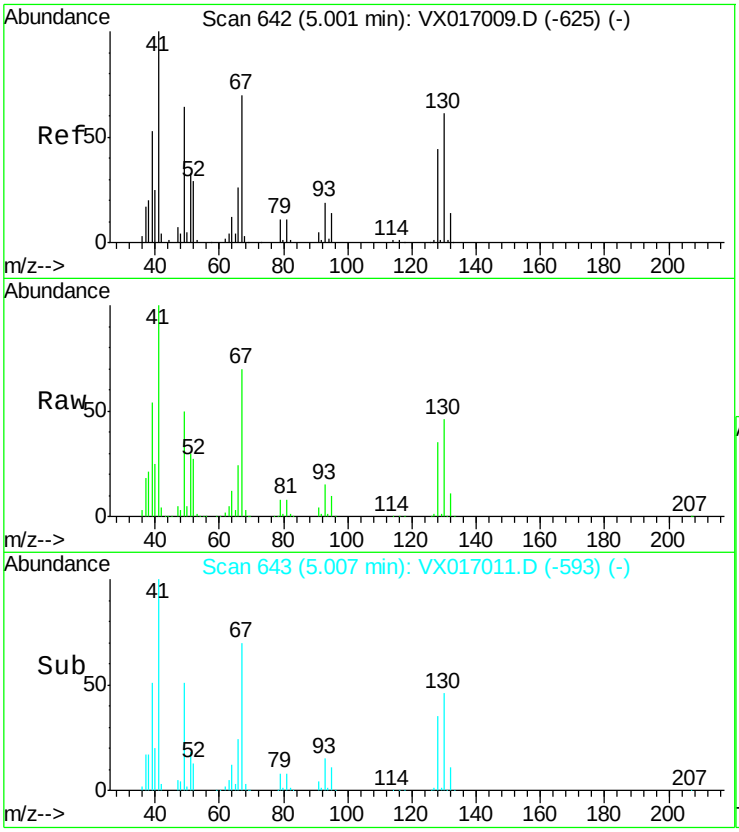
Tgt Ion: 78 Resp: 1818354

Ion	Ratio	Lower	Upper
78	100		
77	23.8	18.3	27.5



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC150

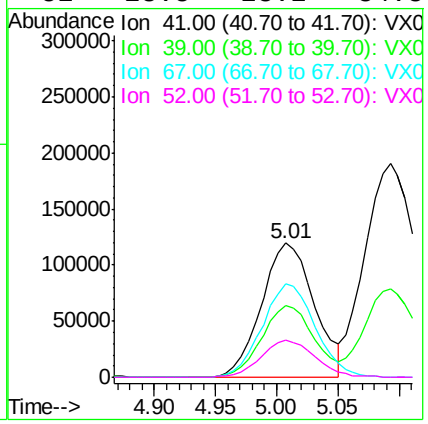
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:12:24 AM

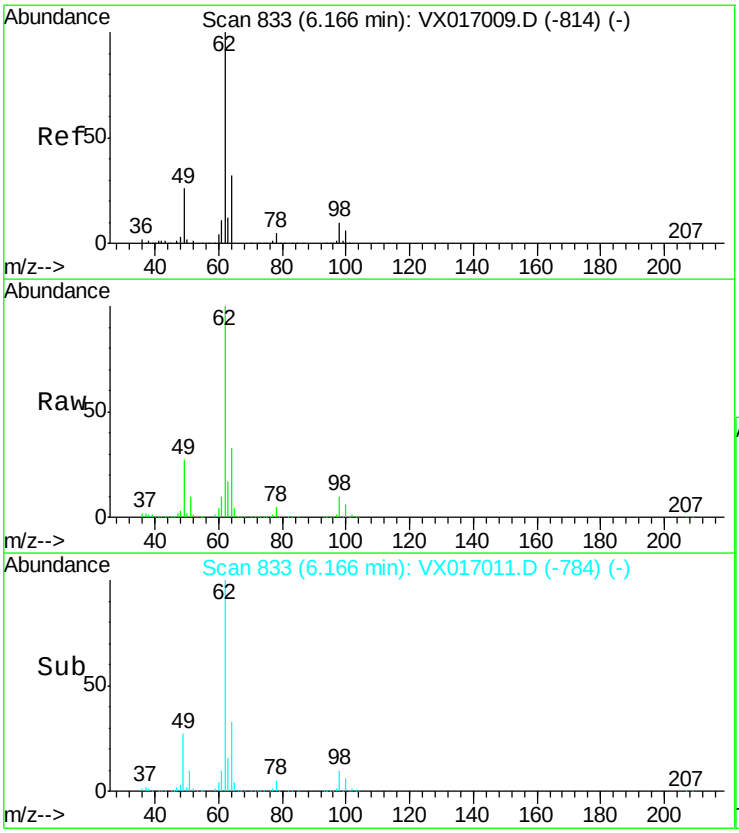


#41
Methacrylonitrile
Concen: 150.325 ug/l
RT: 5.01 min Scan# 643
Delta R.T. 0.01 min
Lab File: VX017011.D
Acq: 29 Jun 2020 16:06

Tgt Ion: 41 Resp: 358772

Ion	Ratio	Lower	Upper
41	100		
39	53.1	44.4	66.6
67	70.4	57.1	85.7
52	28.5	23.2	34.8

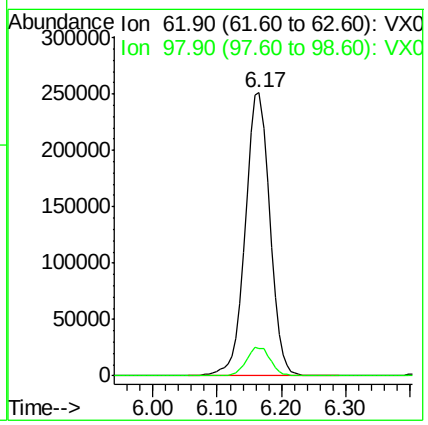




#42
1,2-Dichloroethane
Concen: 147.371 ug/l
RT: 6.17 min Scan# 833
Delta R.T. 0.00 min
Lab File: VX017011.D
Acq: 29 Jun 2020 16:06

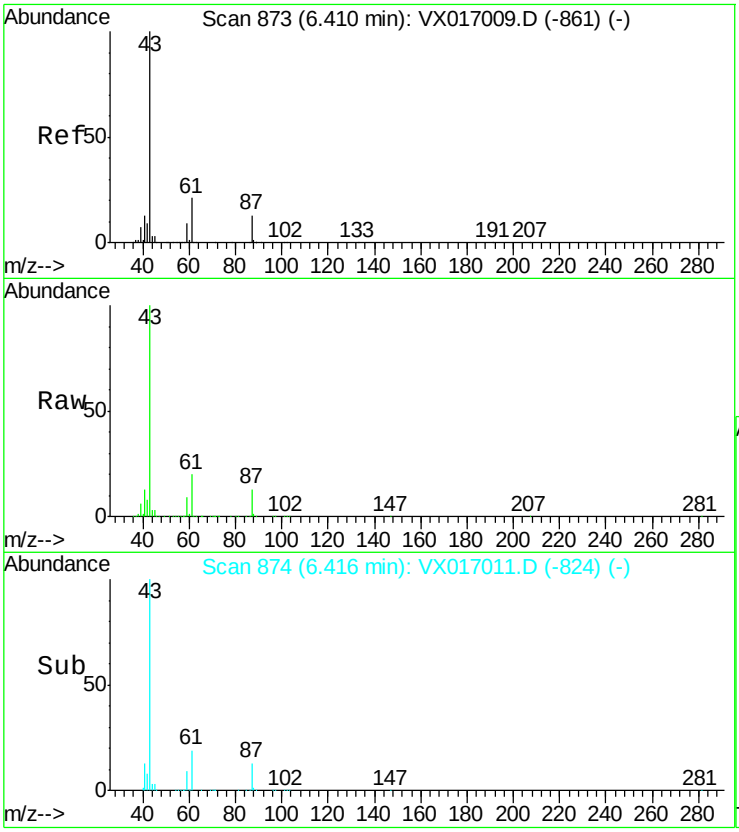
Tgt Ion: 62 Resp: 653670

Ion	Ratio	Lower	Upper
62	100		
98	9.8	0.0	19.2



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC150

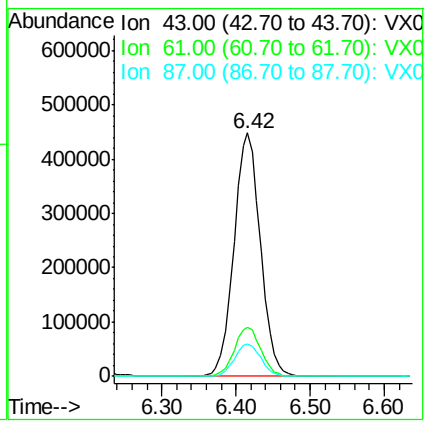
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:12:24 AM

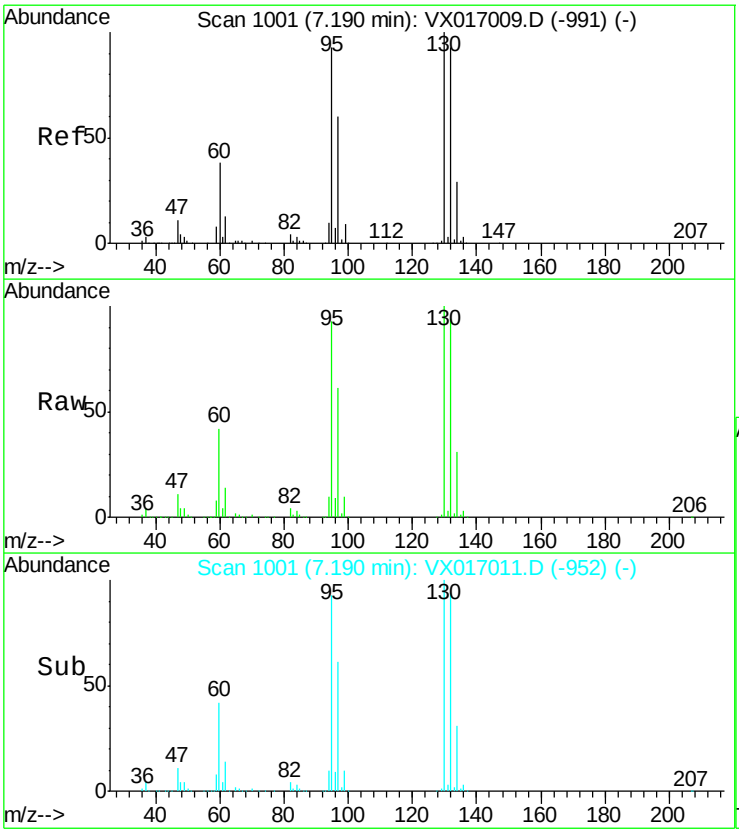


#43
Isopropyl Acetate
Concen: 157.541 ug/l
RT: 6.42 min Scan# 874
Delta R.T. 0.01 min
Lab File: VX017011.D
Acq: 29 Jun 2020 16:06

Tgt Ion: 43 Resp: 1110101

Ion	Ratio	Lower	Upper
43	100		
61	20.4	16.2	24.2
87	13.5	10.7	16.1

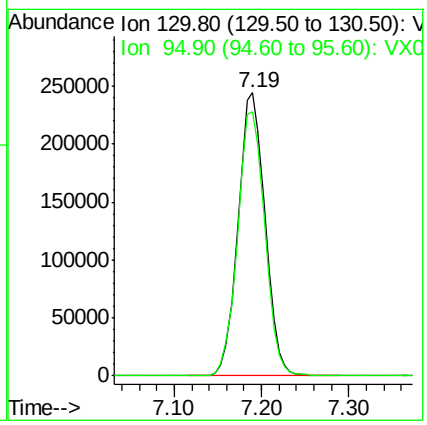


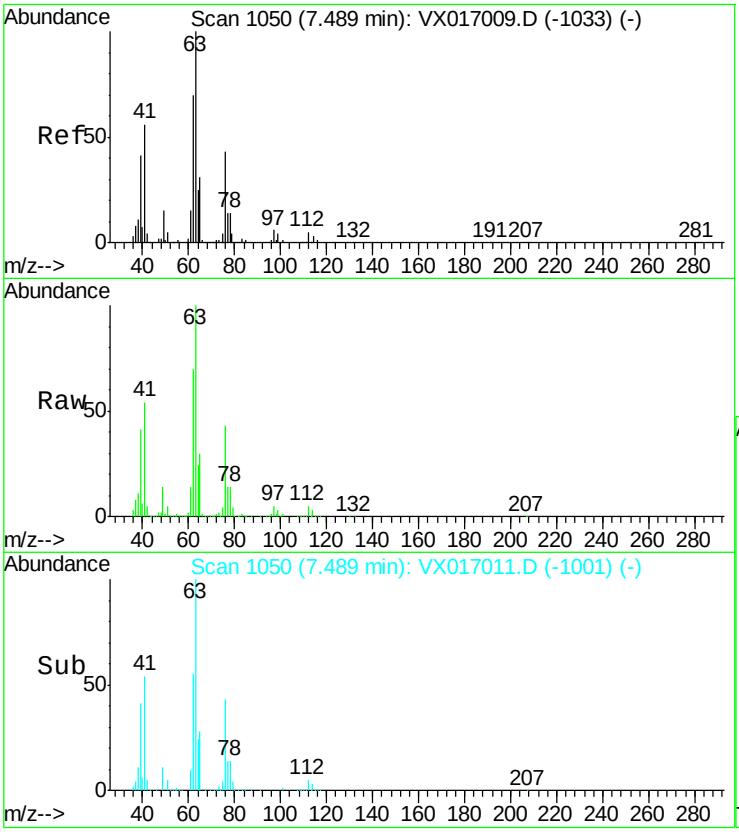


#44
Trichloroethene
Concen: 141.335 ug/l
RT: 7.19 min Scan# 1001
Delta R.T. 0.00 min
Lab File: VX017011.D
Acq: 29 Jun 2020 16:06

Tgt Ion:130 Resp: 522748

Ion	Ratio	Lower	Upper
130	100		
95	93.4	0.0	185.0

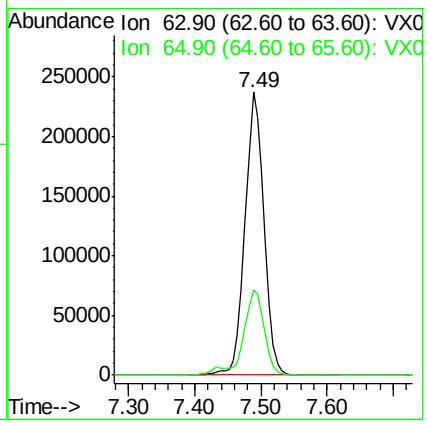




#45
1,2-Dichloropropane
Concen: 150.116 ug/l
RT: 7.49 min Scan# 1050
Delta R.T. 0.00 min
Lab File: VX017011.D
Acq: 29 Jun 2020 16:06

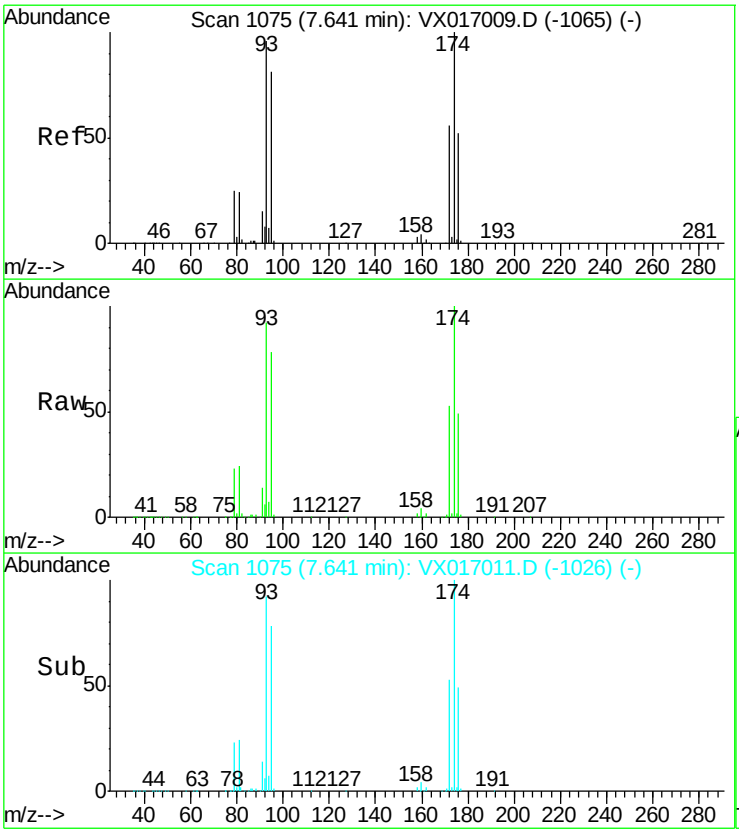
Tgt Ion: 63 Resp: 473460

Ion	Ratio	Lower	Upper
63	100		
65	29.9	24.6	36.8



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC150

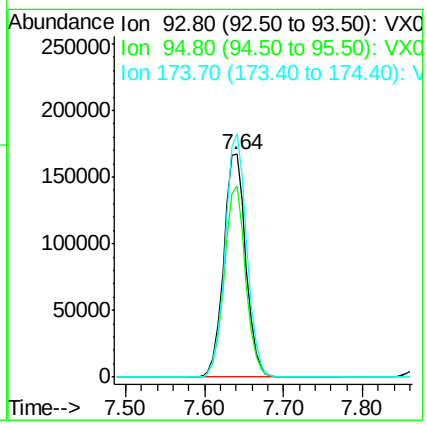
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:12:24 AM

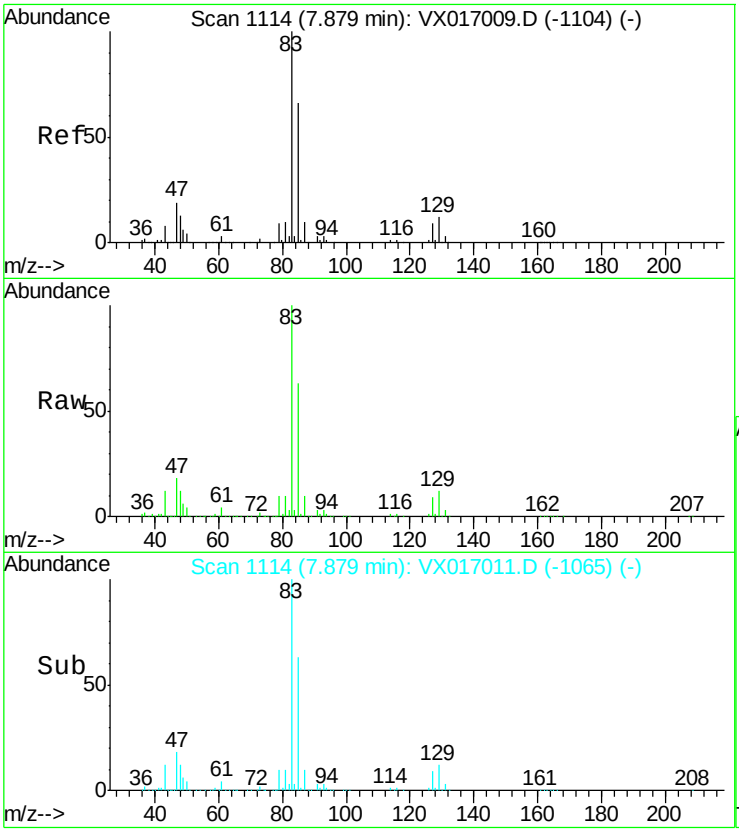


#46
Dibromomethane
Concen: 150.774 ug/l
RT: 7.64 min Scan# 1075
Delta R.T. 0.00 min
Lab File: VX017011.D
Acq: 29 Jun 2020 16:06

Tgt Ion: 93 Resp: 324659

Ion	Ratio	Lower	Upper
93	100		
95	83.3	67.4	101.0
174	106.9	84.3	126.5

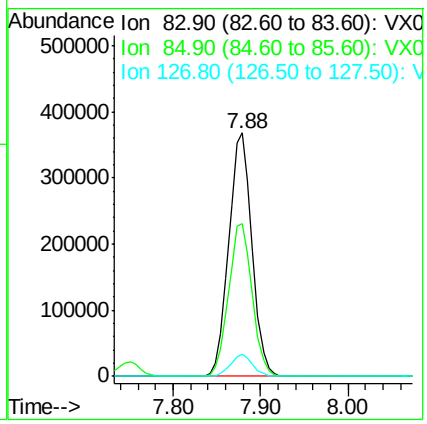




#47
Bromodichloromethane
Concen: 152.466 ug/l
RT: 7.88 min Scan# 1114
Delta R.T. 0.00 min
Lab File: VX017011.D
Acq: 29 Jun 2020 16:06

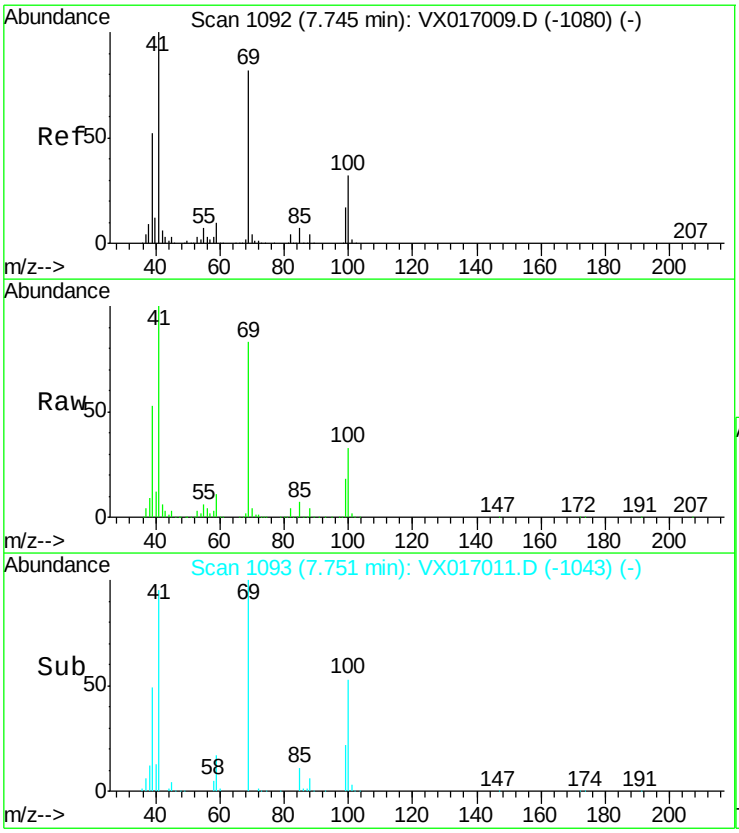
Tgt Ion: 83 Resp: 676569

Ion	Ratio	Lower	Upper
83	100		
85	63.0	53.0	79.4
127	9.0	7.5	11.3



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC150

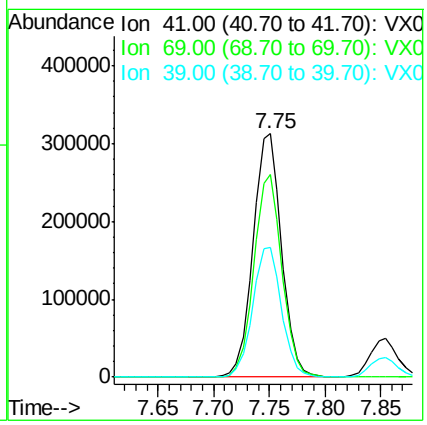
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:12:24 AM

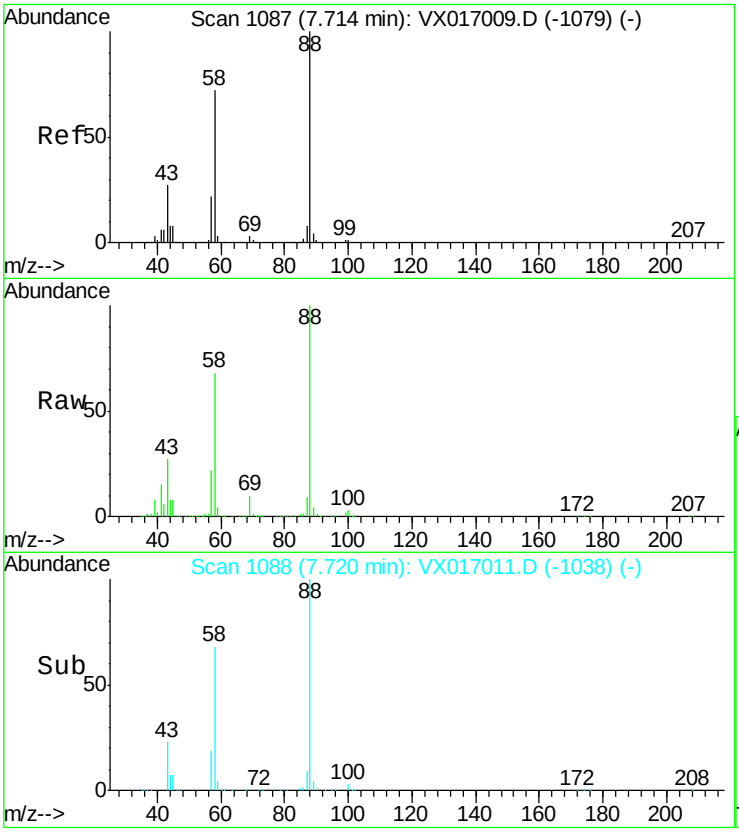


#48
Methyl methacrylate
Concen: 166.482 ug/l
RT: 7.75 min Scan# 1093
Delta R.T. 0.01 min
Lab File: VX017011.D
Acq: 29 Jun 2020 16:06

Tgt Ion: 41 Resp: 557335

Ion	Ratio	Lower	Upper
41	100		
69	82.2	65.8	98.8
39	53.8	42.5	63.7

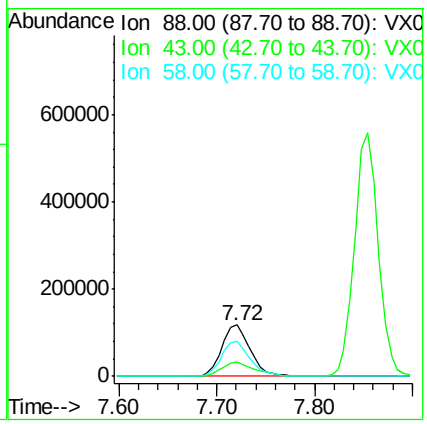




#49
1,4-Dioxane
Concen: 3128.600 ug/l
RT: 7.72 min Scan# 1088
Delta R.T. 0.01 min
Lab File: VX017011.D
Acq: 29 Jun 2020 16:06

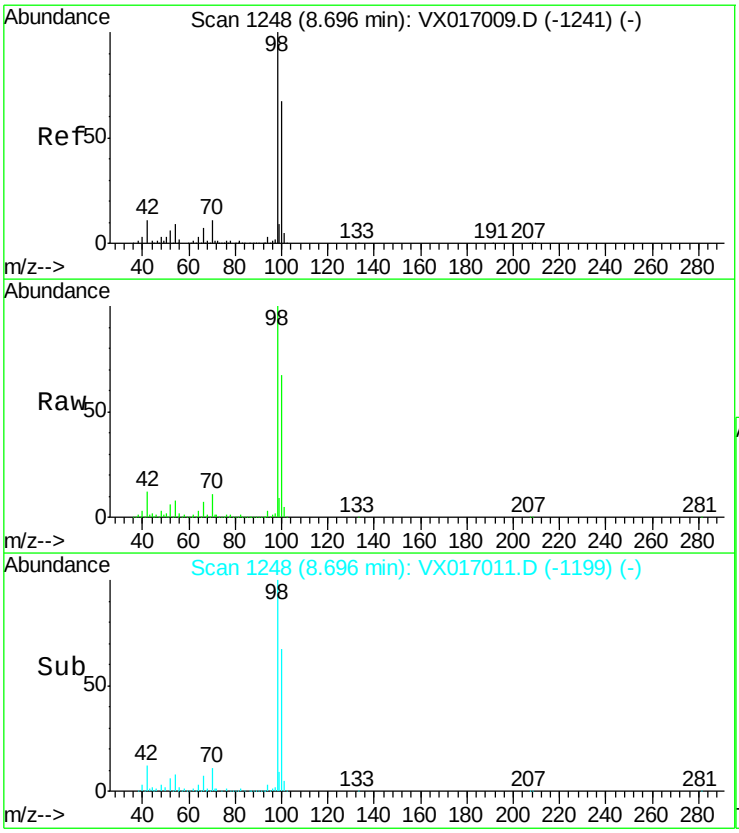
Tgt Ion: 88 Resp: 237278

Ion	Ratio	Lower	Upper
88	100		
43	32.3	25.8	38.8
58	70.0	54.8	82.2



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC150

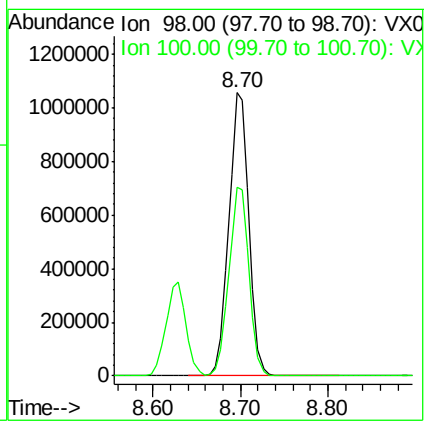
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:12:24 AM

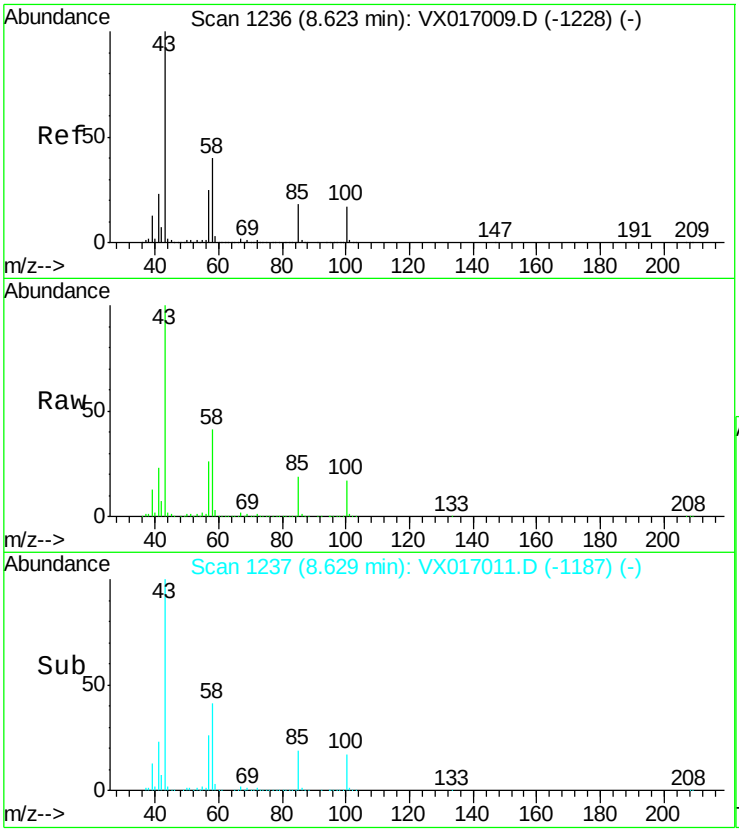


#50
Toluene-d8
Concen: 161.840 ug/l
RT: 8.70 min Scan# 1248
Delta R.T. 0.00 min
Lab File: VX017011.D
Acq: 29 Jun 2020 16:06

Tgt Ion: 98 Resp: 1674031

Ion	Ratio	Lower	Upper
98	100		
100	67.3	53.8	80.6

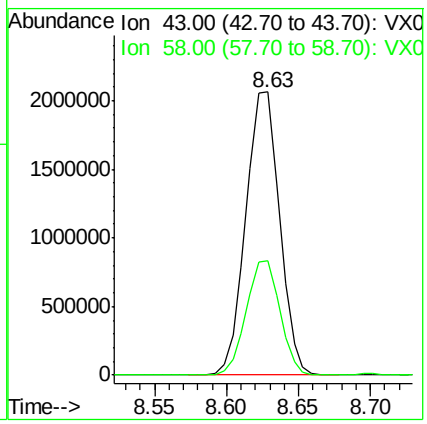




#51
4-Methyl-2-Pentanone
Concen: 799.525 ug/l
RT: 8.63 min Scan# 1237
Delta R.T. 0.01 min
Lab File: VX017011.D
Acq: 29 Jun 2020 16:06

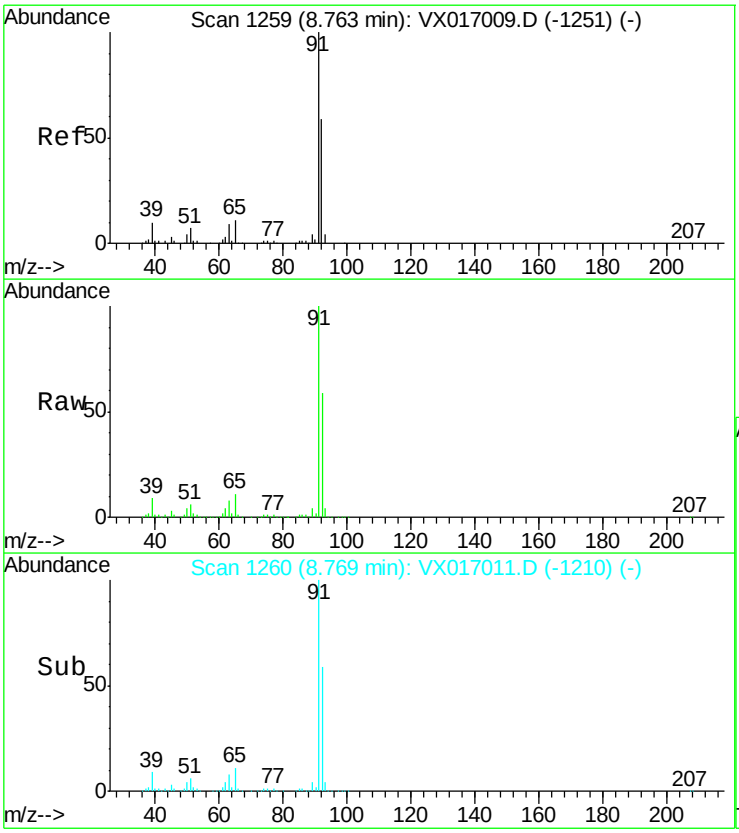
Tgt Ion: 43 Resp: 3358291

Ion	Ratio	Lower	Upper
43	100		
58	40.2	31.9	47.9



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC150

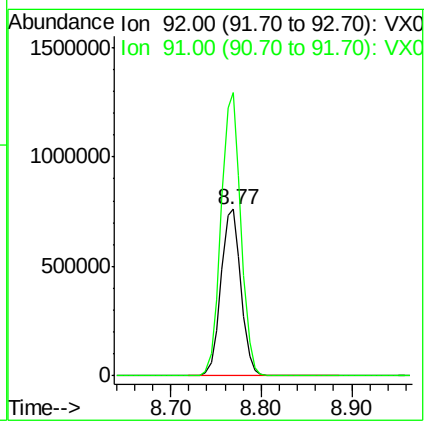
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:12:24 AM

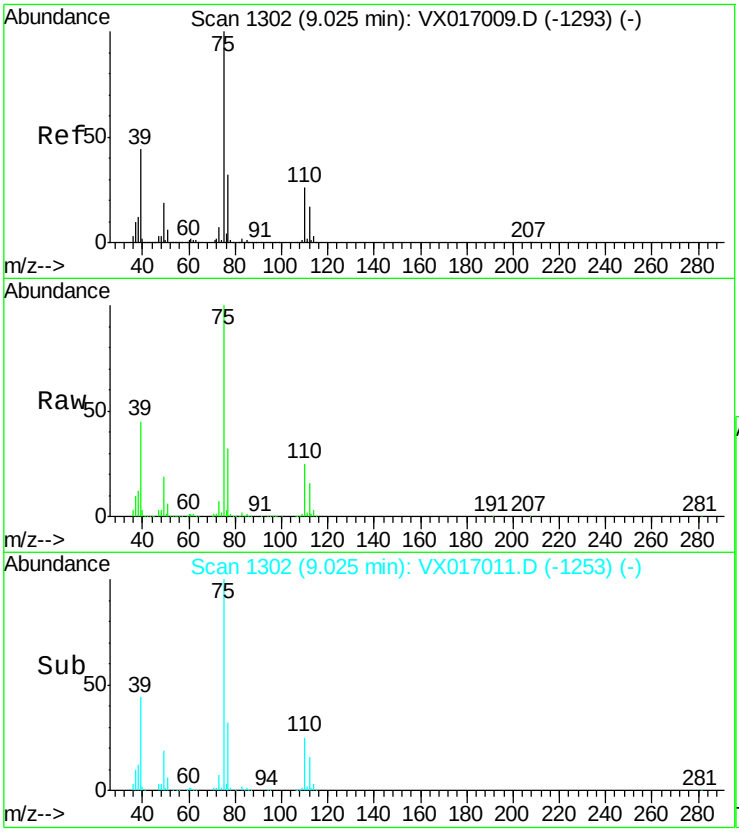


#52
Toluene
Concen: 152.969 ug/l
RT: 8.77 min Scan# 1260
Delta R.T. 0.01 min
Lab File: VX017011.D
Acq: 29 Jun 2020 16:06

Tgt Ion: 92 Resp: 1172783

Ion	Ratio	Lower	Upper
92	100		
91	168.2	136.9	205.3

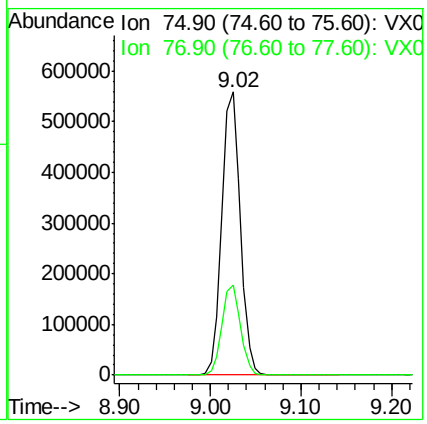




#53
t-1,3-Dichloropropene
Concen: 162.595 ug/l
RT: 9.02 min Scan# 1302
Delta R.T. 0.00 min
Lab File: VX017011.D
Acq: 29 Jun 2020 16:06

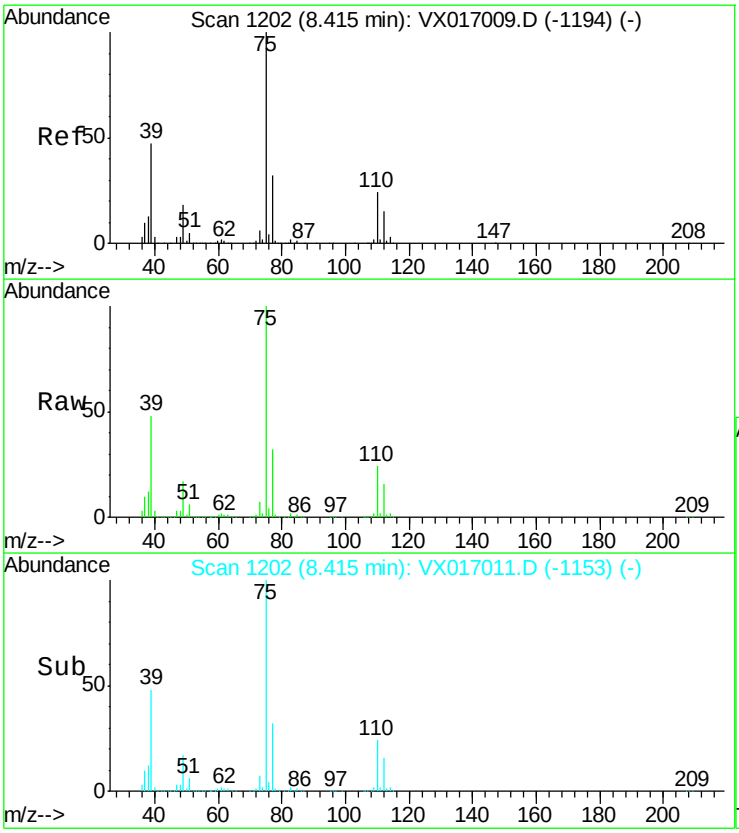
Tgt Ion: 75 Resp: 796074

Ion	Ratio	Lower	Upper
75	100		
77	31.9	25.6	38.4



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC150

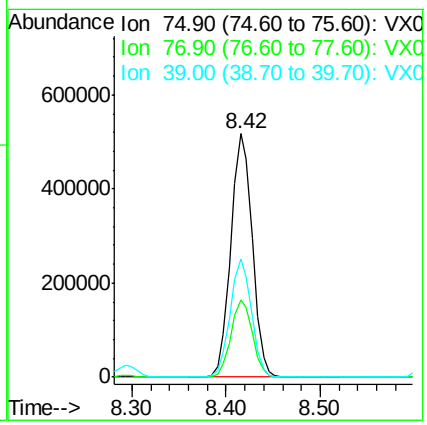
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:12:24 AM

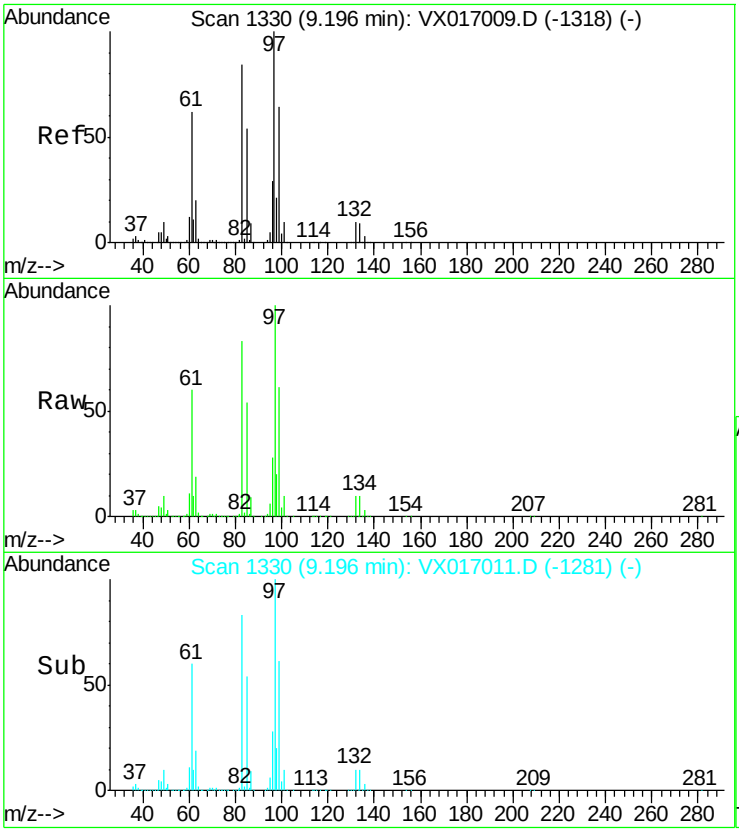


#54
cis-1,3-Dichloropropene
Concen: 155.556 ug/l
RT: 8.42 min Scan# 1202
Delta R.T. 0.00 min
Lab File: VX017011.D
Acq: 29 Jun 2020 16:06

Tgt Ion: 75 Resp: 816439

Ion	Ratio	Lower	Upper
75	100		
77	31.9	25.2	37.8
39	48.4	37.4	56.2

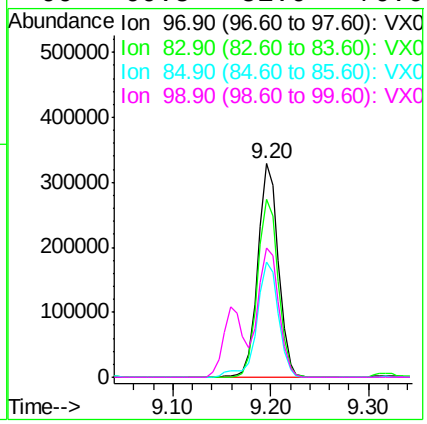




#55
1,1,2-Trichloroethane
Concen: 152.307 ug/l
RT: 9.20 min Scan# 1330
Delta R.T. 0.00 min
Lab File: VX017011.D
Acq: 29 Jun 2020 16:06

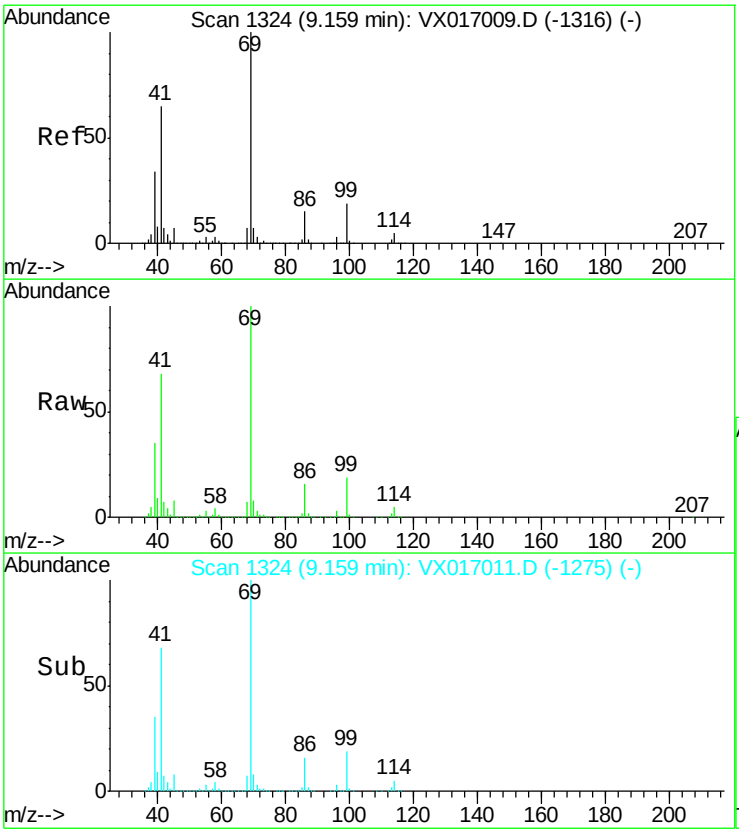
Tgt Ion: 97 Resp: 477092

Ion	Ratio	Lower	Upper
97	100		
83	83.5	67.0	100.6
85	53.7	43.5	65.3
99	60.5	51.0	76.6



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC150

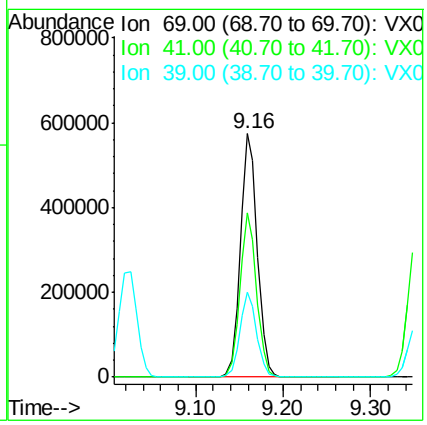
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:12:24 AM

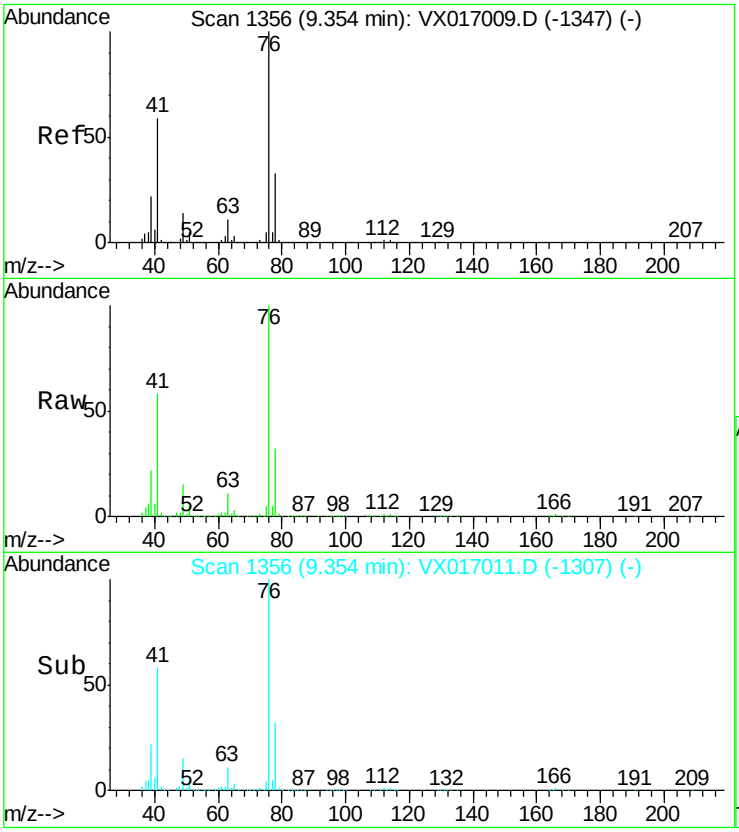


#56
Ethyl methacrylate
Concen: 173.057 ug/l
RT: 9.16 min Scan# 1324
Delta R.T. 0.00 min
Lab File: VX017011.D
Acq: 29 Jun 2020 16:06

Tgt Ion: 69 Resp: 771575

Ion	Ratio	Lower	Upper
69	100		
41	66.6	53.6	80.4
39	34.5	28.2	42.2

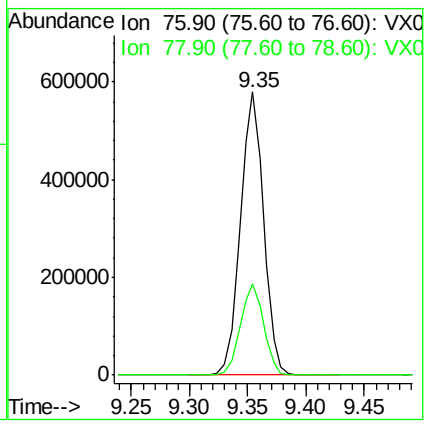




#57
1,3-Dichloropropane
Concen: 151.436 ug/l
RT: 9.35 min Scan# 1356
Delta R.T. 0.00 min
Lab File: VX017011.D
Acq: 29 Jun 2020 16:06

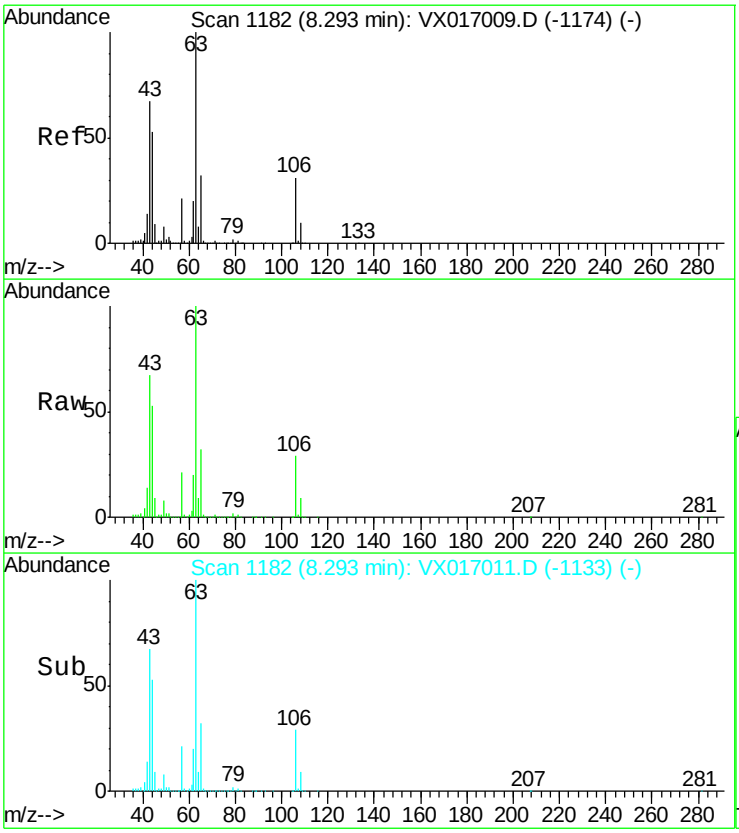
Tgt Ion: 76 Resp: 802669

Ion	Ratio	Lower	Upper
76	100		
78	32.4	25.9	38.9



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC150

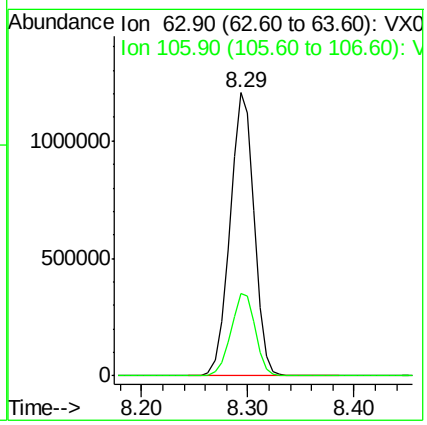
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:12:24 AM

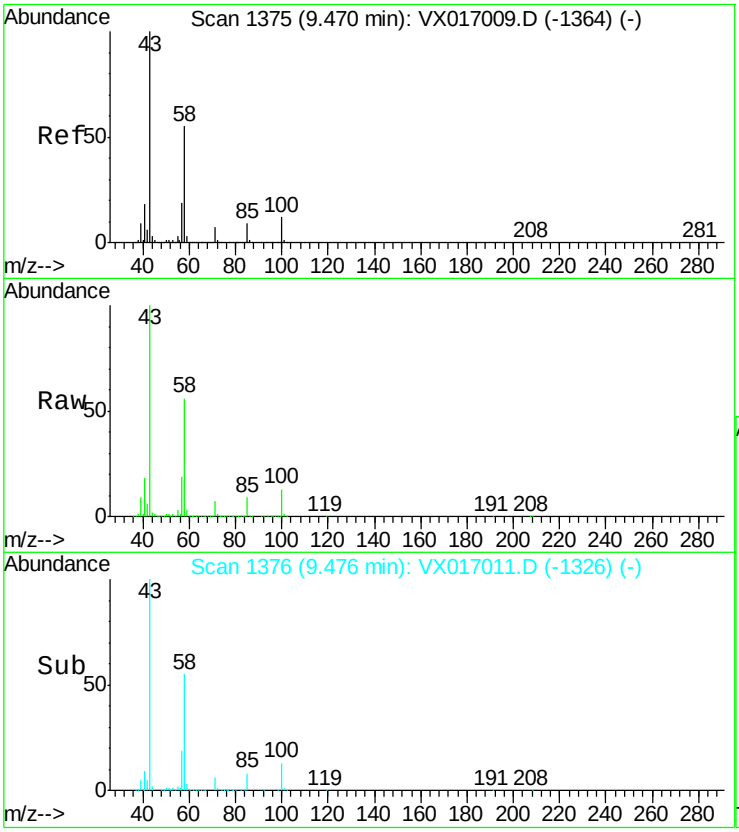


#58
2-Chloroethyl Vinyl ether
Concen: 858.429 ug/l
RT: 8.29 min Scan# 1182
Delta R.T. 0.00 min
Lab File: VX017011.D
Acq: 29 Jun 2020 16:06

Tgt Ion: 63 Resp: 1904806

Ion	Ratio	Lower	Upper
63	100		
106	29.7	24.0	36.0

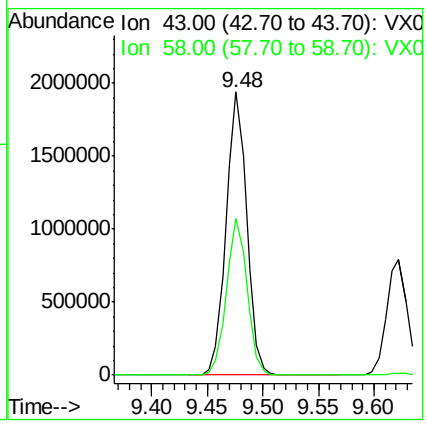




#59
2-Hexanone
Concen: 811.064 ug/l
RT: 9.48 min Scan# 1376
Delta R.T. 0.01 min
Lab File: VX017011.D
Acq: 29 Jun 2020 16:06

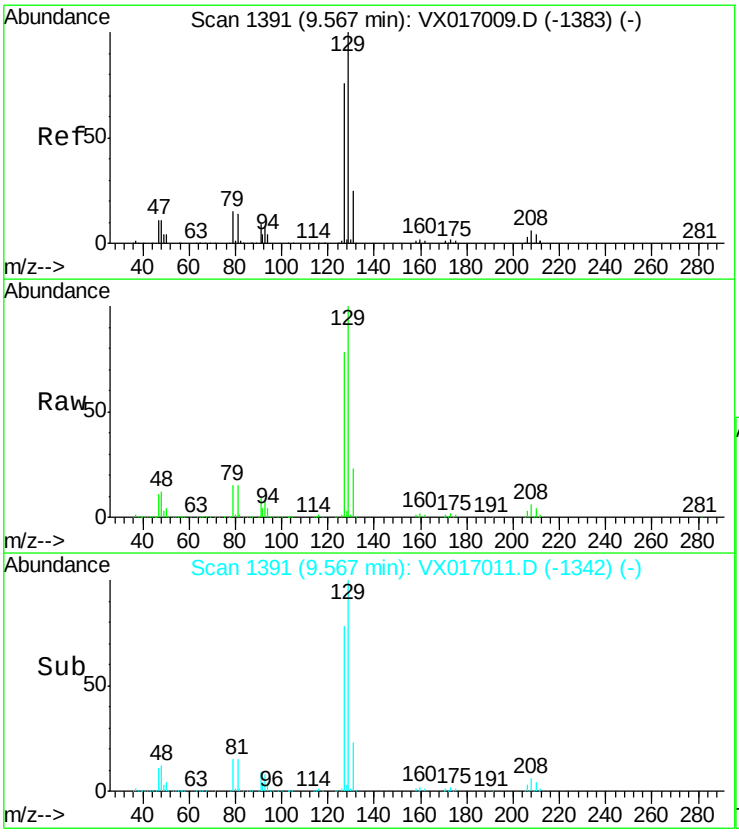
Tgt Ion: 43 Resp: 2488072

Ion	Ratio	Lower	Upper
43	100		
58	55.4	27.9	83.6



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC150

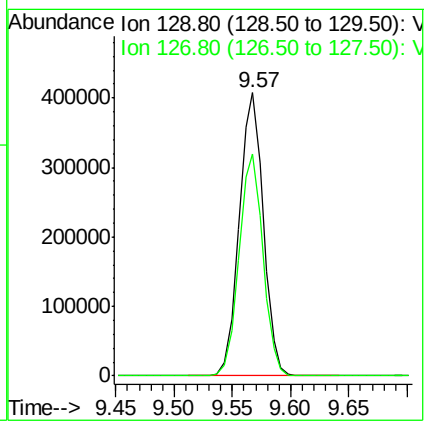
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:12:24 AM

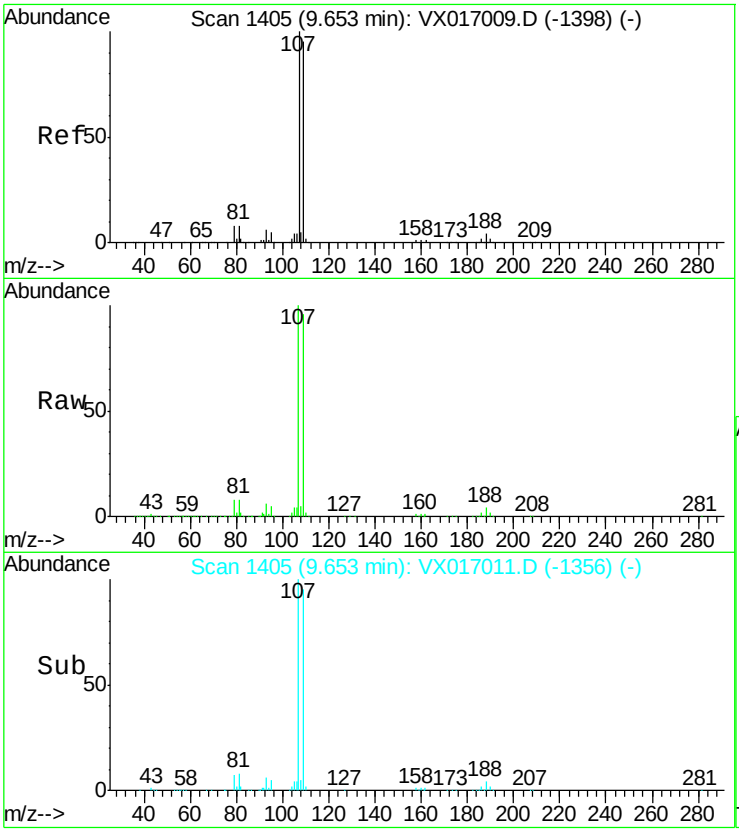


#60
Dibromochloromethane
Concen: 161.171 ug/l
RT: 9.57 min Scan# 1391
Delta R.T. 0.00 min
Lab File: VX017011.D
Acq: 29 Jun 2020 16:06

Tgt Ion:129 Resp: 586372

Ion	Ratio	Lower	Upper
129	100		
127	77.9	38.9	116.7

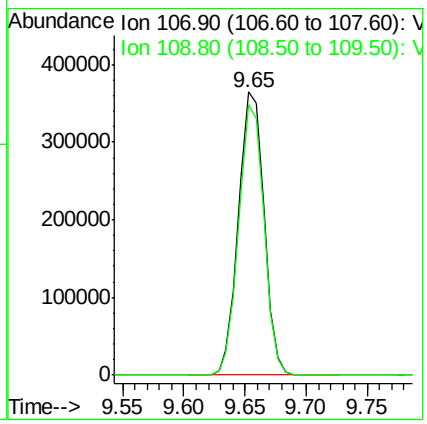




#61
1,2-Dibromoethane
Concen: 156.576 ug/l
RT: 9.65 min Scan# 1405
Delta R.T. 0.00 min
Lab File: VX017011.D
Acq: 29 Jun 2020 16:06

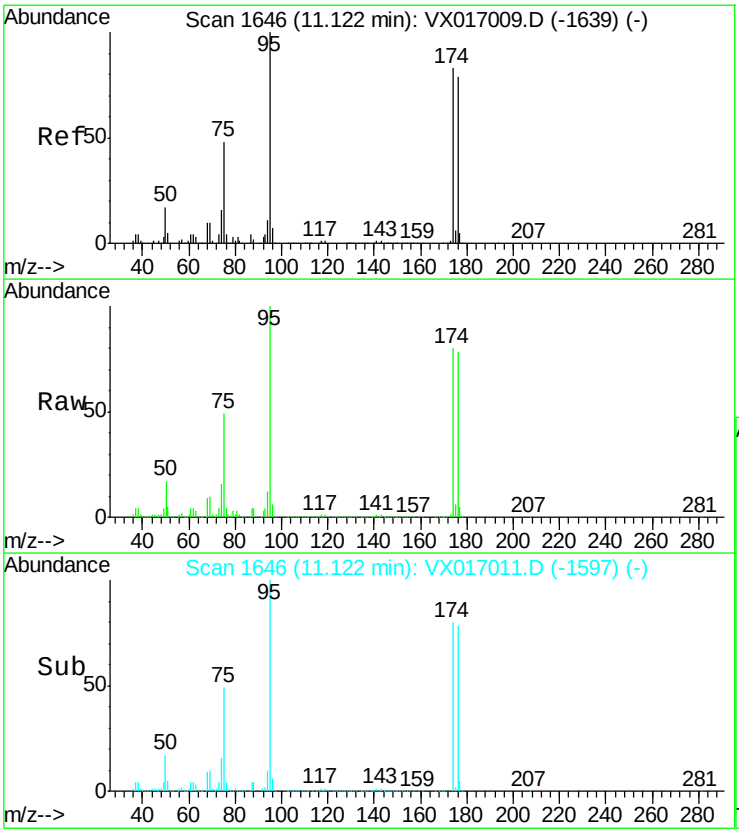
Tgt Ion:107 Resp: 527197

Ion	Ratio	Lower	Upper
107	100		
109	94.6	75.8	113.8



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC150

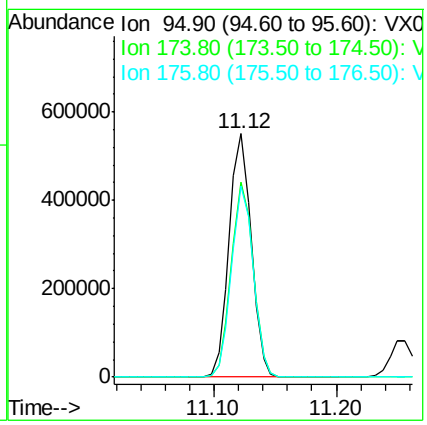
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:12:24 AM

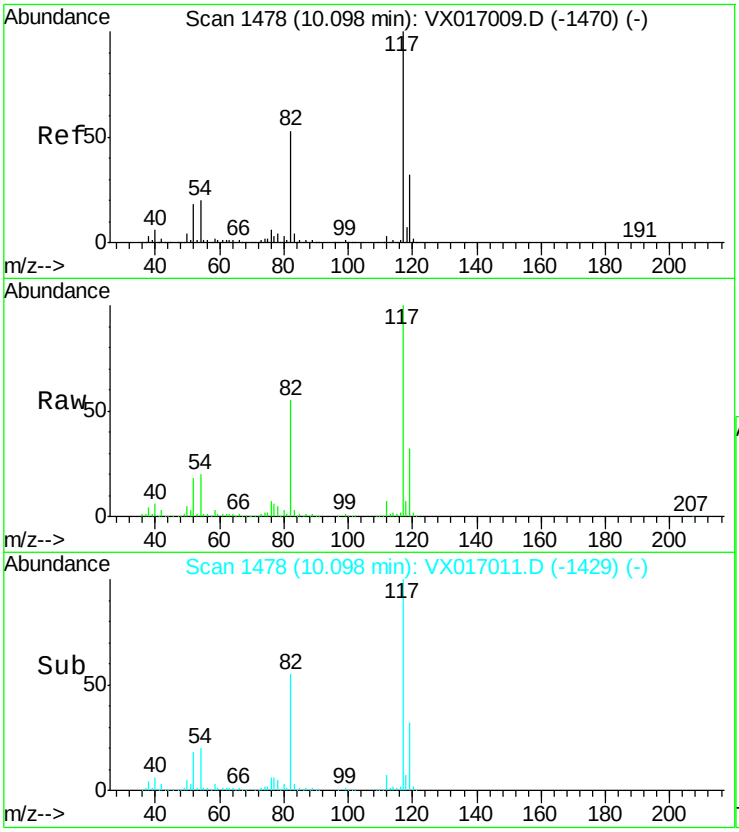


#62
4-Bromofluorobenzene
Concen: 169.620 ug/l
RT: 11.12 min Scan# 1646
Delta R.T. 0.00 min
Lab File: VX017011.D
Acq: 29 Jun 2020 16:06

Tgt Ion: 95 Resp: 685857

Ion	Ratio	Lower	Upper
95	100		
174	79.7	0.0	164.0
176	77.7	0.0	157.6

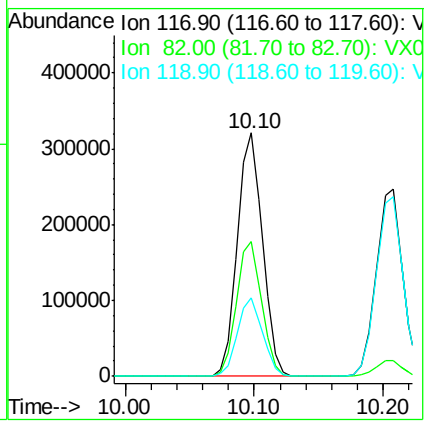




#63
Chlorobenzene-d5
Concen: 50.000 ug/l
RT: 10.10 min Scan# 1478
Delta R.T. 0.00 min
Lab File: VX017011.D
Acq: 29 Jun 2020 16:06

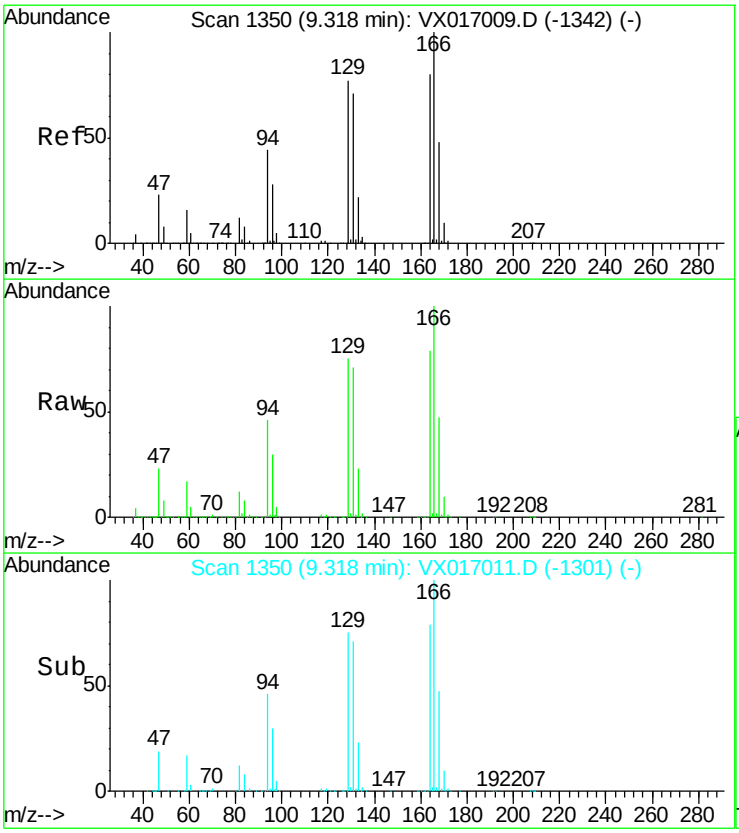
Tgt Ion:117 Resp: 436046

Ion	Ratio	Lower	Upper
117	100		
82	55.2	42.6	63.8
119	32.1	25.4	38.2



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC150

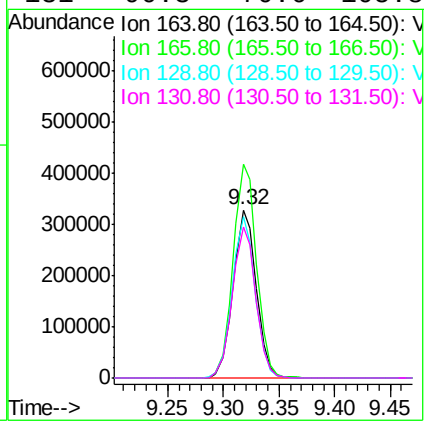
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:12:24 AM

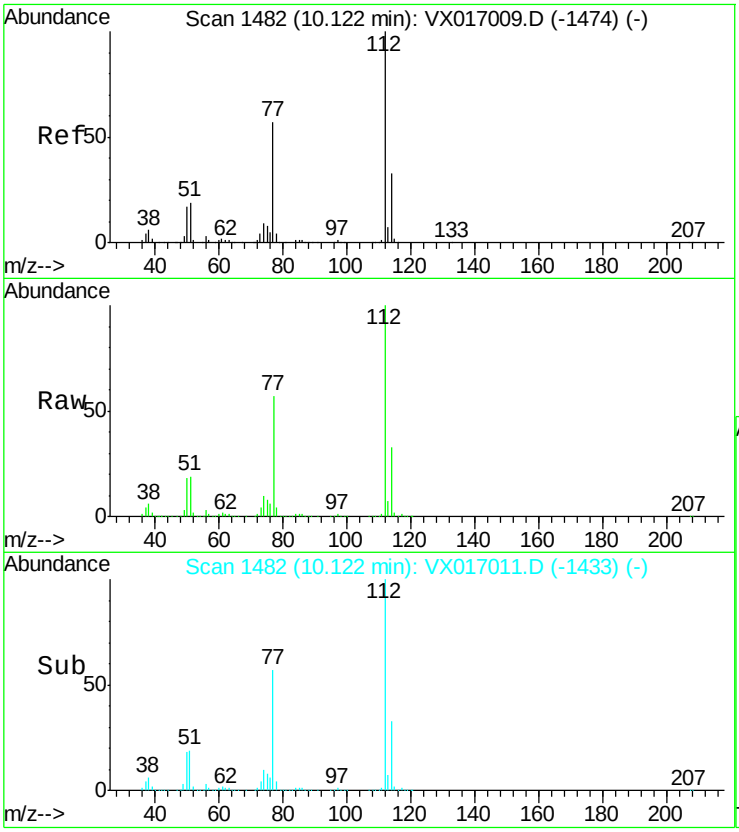


#64
Tetrachloroethene
Concen: 134.021 ug/l
RT: 9.32 min Scan# 1350
Delta R.T. 0.00 min
Lab File: VX017011.D
Acq: 29 Jun 2020 16:06

Tgt Ion:164 Resp: 471642

Ion	Ratio	Lower	Upper
164	100		
166	127.2	99.4	149.0
129	95.9	76.3	114.5
131	90.3	70.6	105.8

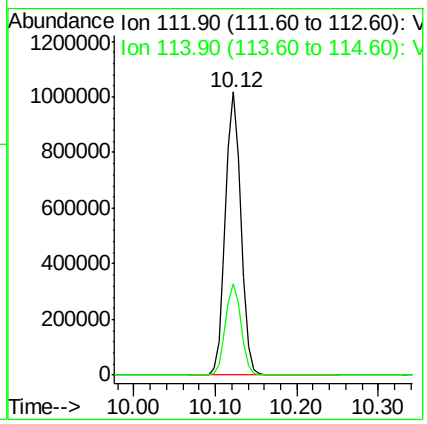




#65
Chlorobenzene
Concen: 148.469 ug/l
RT: 10.12 min Scan# 1482
Delta R.T. 0.00 min
Lab File: VX017011.D
Acq: 29 Jun 2020 16:06

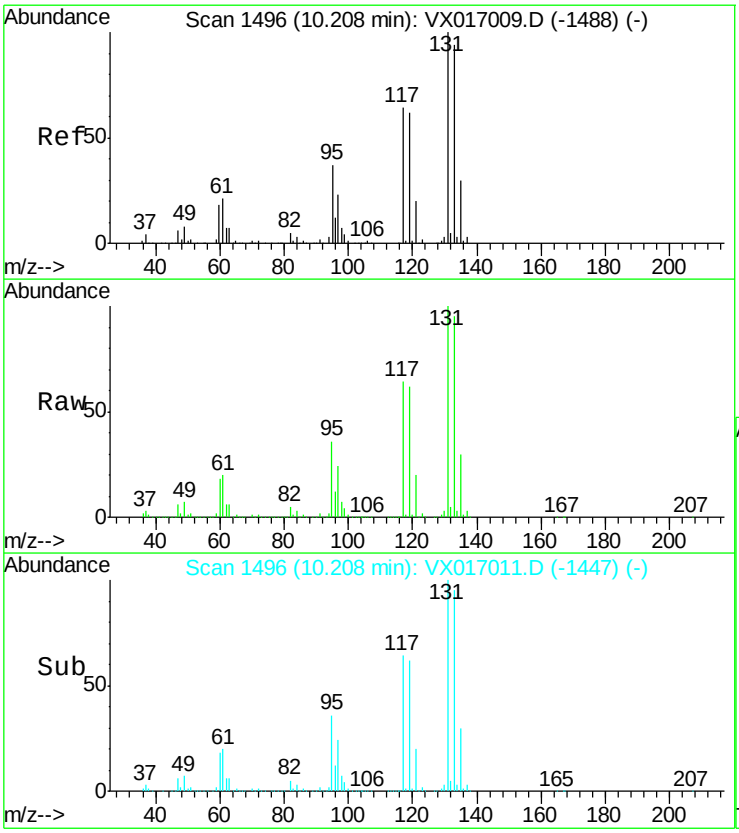
Tgt Ion:112 Resp: 1336176

Ion	Ratio	Lower	Upper
112	100		
114	32.5	26.2	39.4



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC150

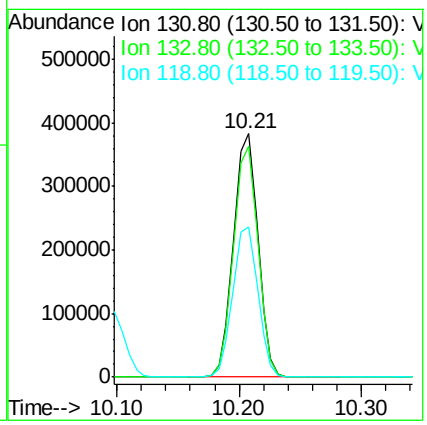
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:12:24 AM

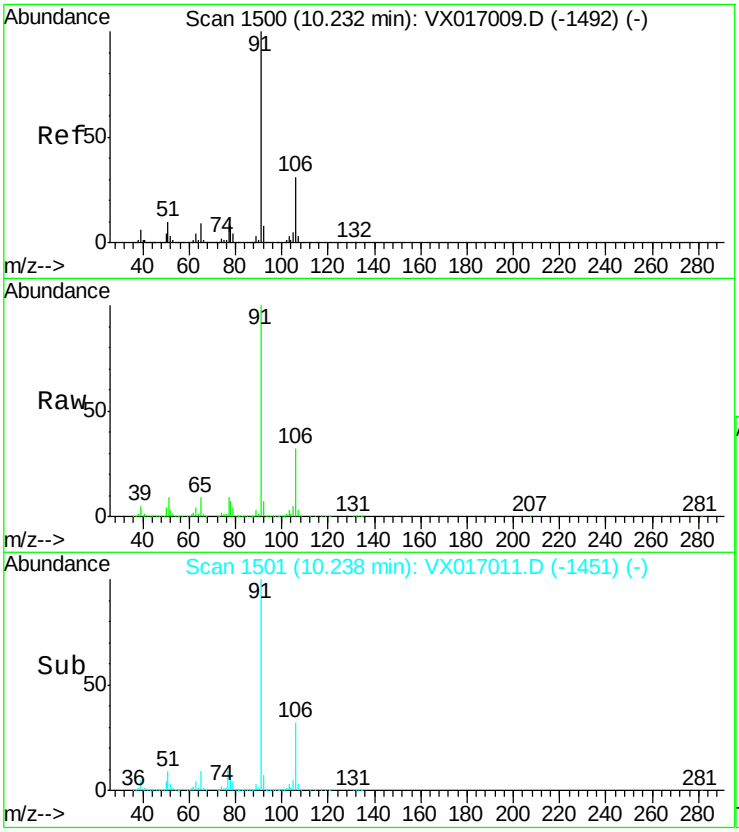


#66
1,1,1,2-Tetrachloroethane
Concen: 152.555 ug/l
RT: 10.21 min Scan# 1496
Delta R.T. 0.00 min
Lab File: VX017011.D
Acq: 29 Jun 2020 16:06

Tgt Ion:131 Resp: 529117

Ion	Ratio	Lower	Upper
131	100		
133	95.1	47.3	141.9
119	63.5	31.9	95.5

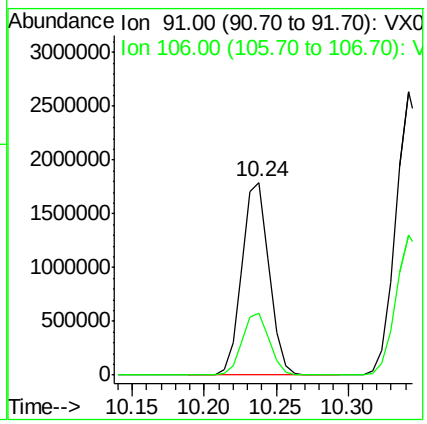




#67
Ethyl Benzene
Concen: 155.847 ug/l
RT: 10.24 min Scan# 1501
Delta R.T. 0.01 min
Lab File: VX017011.D
Acq: 29 Jun 2020 16:06

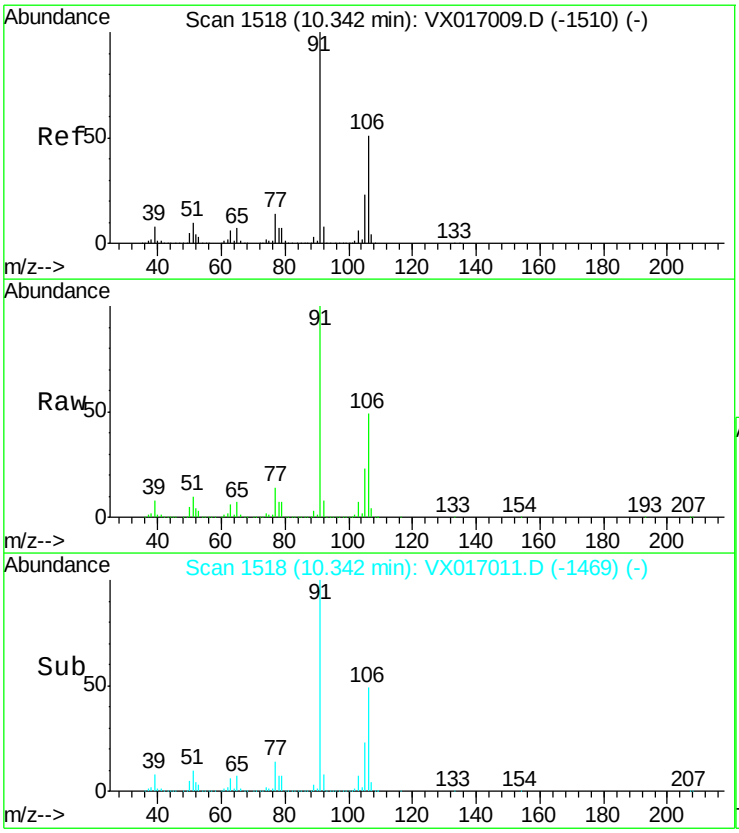
Tgt Ion: 91 Resp: 2342318

Ion	Ratio	Lower	Upper
91	100		
106	32.0	24.7	37.1



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC150

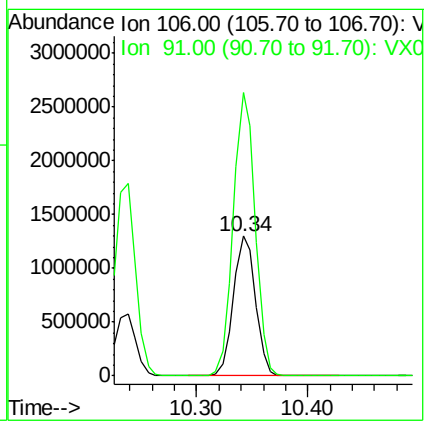
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:12:24 AM

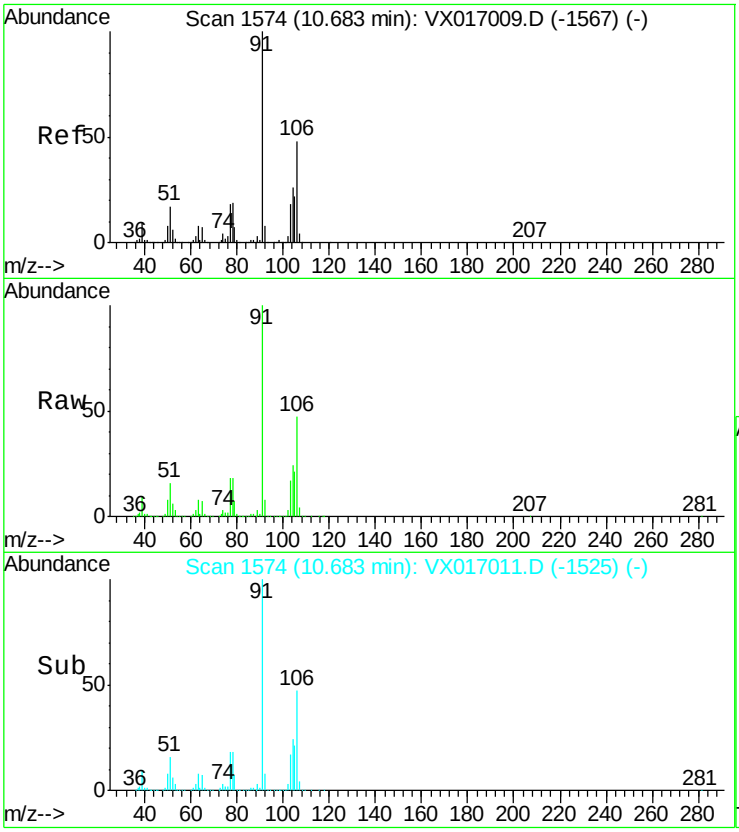


#68
m/p-Xylenes
Concen: 308.874 ug/l
RT: 10.34 min Scan# 1518
Delta R.T. 0.00 min
Lab File: VX017011.D
Acq: 29 Jun 2020 16:06

Tgt Ion:106 Resp: 1782481

Ion	Ratio	Lower	Upper
106	100		
91	200.6	158.6	238.0

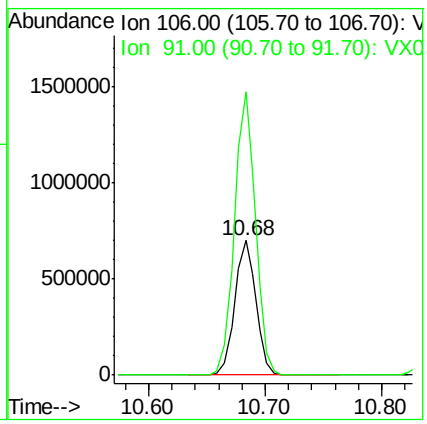




#69
o-Xylene
Concen: 160.477 ug/l
RT: 10.68 min Scan# 1574
Delta R.T. 0.00 min
Lab File: VX017011.D
Acq: 29 Jun 2020 16:06

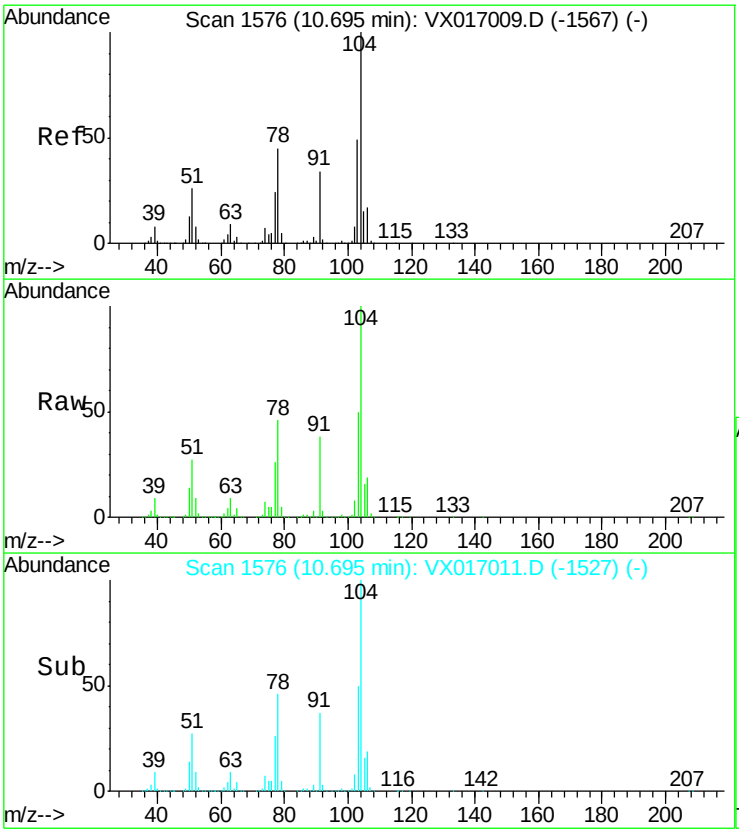
Tgt Ion:106 Resp: 880994

Ion	Ratio	Lower	Upper
106	100		
91	209.6	105.6	316.7



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC150

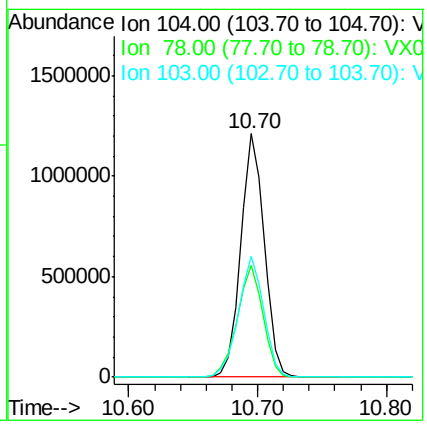
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:12:24 AM

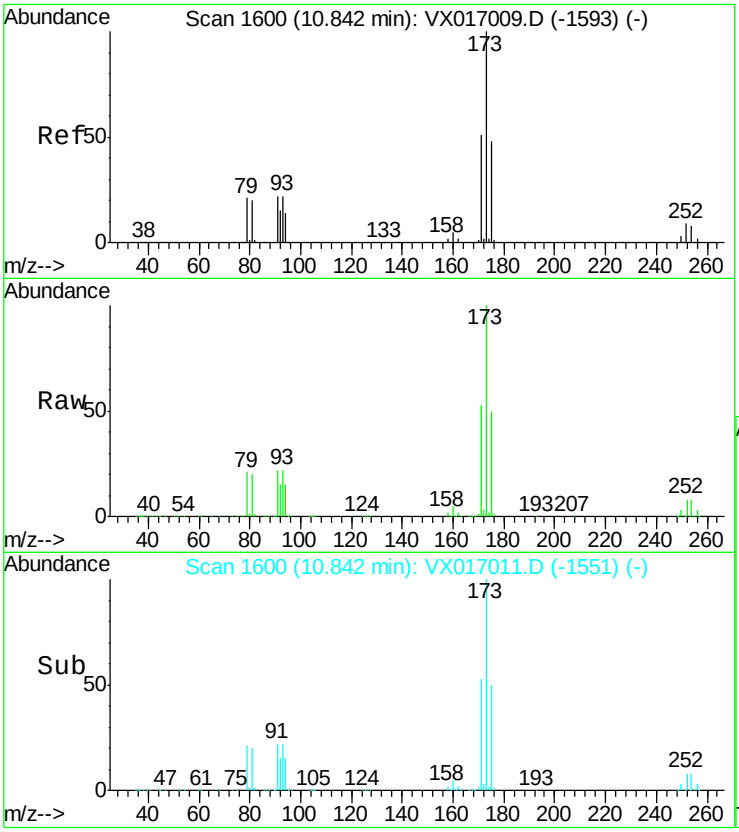


#70
Styrene
Concen: 163.034 ug/l
RT: 10.70 min Scan# 1576
Delta R.T. 0.00 min
Lab File: VX017011.D
Acq: 29 Jun 2020 16:06

Tgt Ion:104 Resp: 1524142

Ion	Ratio	Lower	Upper
104	100		
78	50.4	39.5	59.3
103	53.6	43.0	64.6

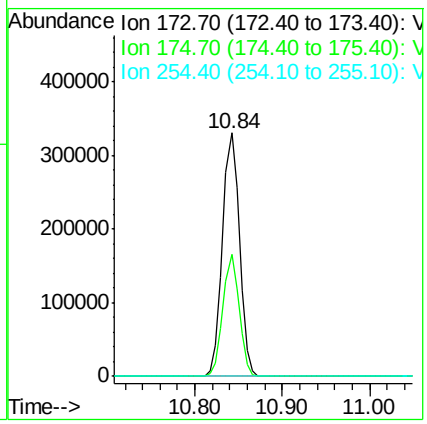




#71
Bromoform
Concen: 161.157 ug/l
RT: 10.84 min Scan# 1600
Delta R.T. 0.00 min
Lab File: VX017011.D
Acq: 29 Jun 2020 16:06

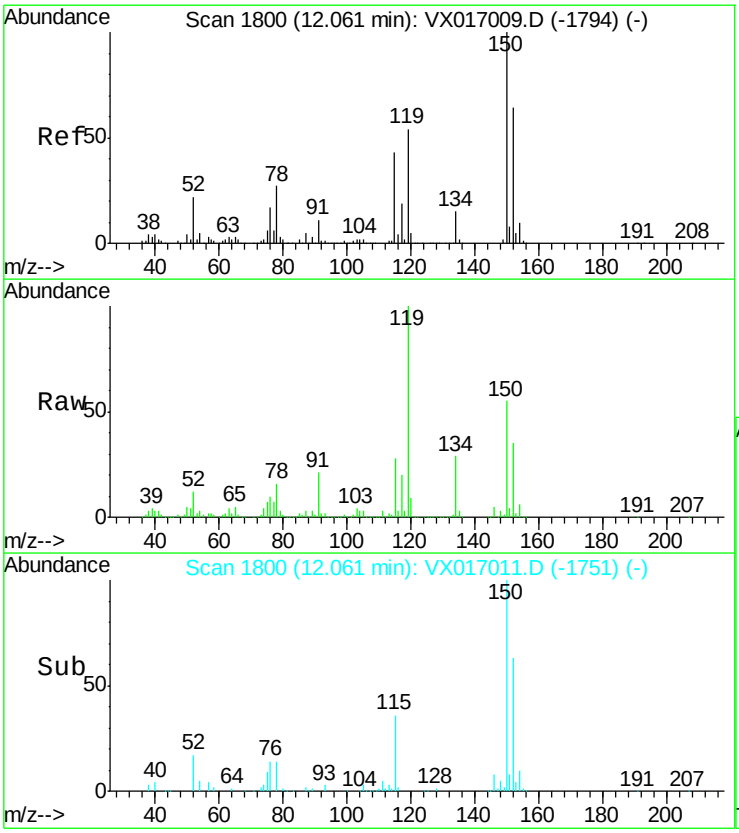
Tgt Ion:173 Resp: 443245

Ion	Ratio	Lower	Upper
173	100		
175	48.0	24.5	73.5
254	0.1	0.1	0.1#



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC150

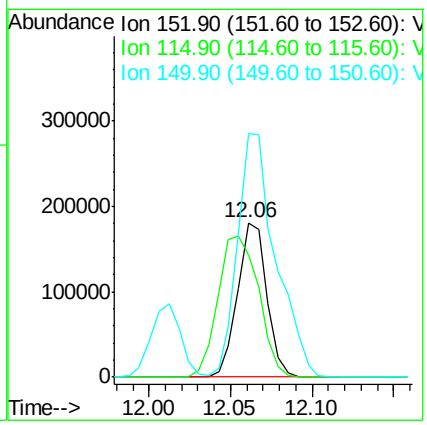
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:12:24 AM

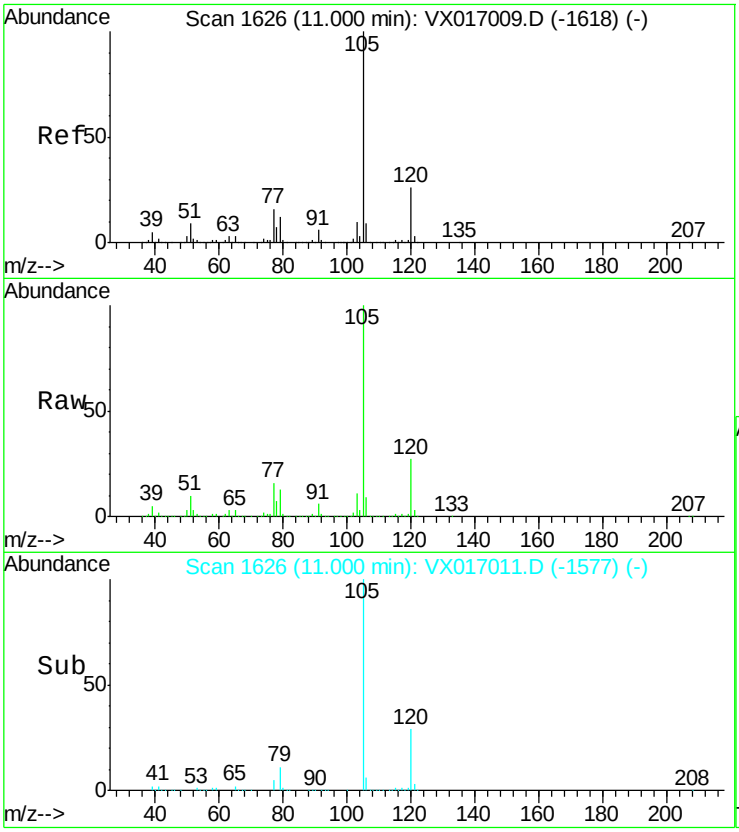


#72
1,4-Dichlorobenzene-d4
Concen: 50.000 ug/l
RT: 12.06 min Scan# 1800
Delta R.T. 0.00 min
Lab File: VX017011.D
Acq: 29 Jun 2020 16:06

Tgt Ion:152 Resp: 225868

Ion	Ratio	Lower	Upper
152	100		
115	126.8	40.9	122.7#
150	205.4	0.0	351.6

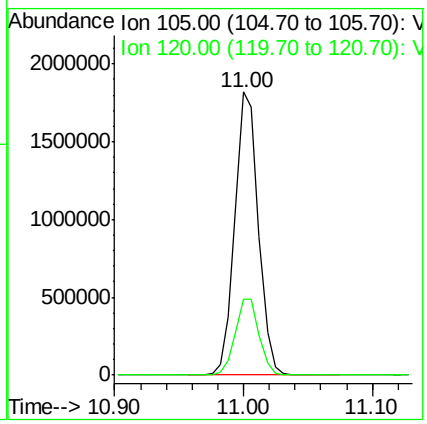




#73
Isopropylbenzene
Concen: 156.641 ug/l
RT: 11.00 min Scan# 1626
Delta R.T. 0.00 min
Lab File: VX017011.D
Acq: 29 Jun 2020 16:06

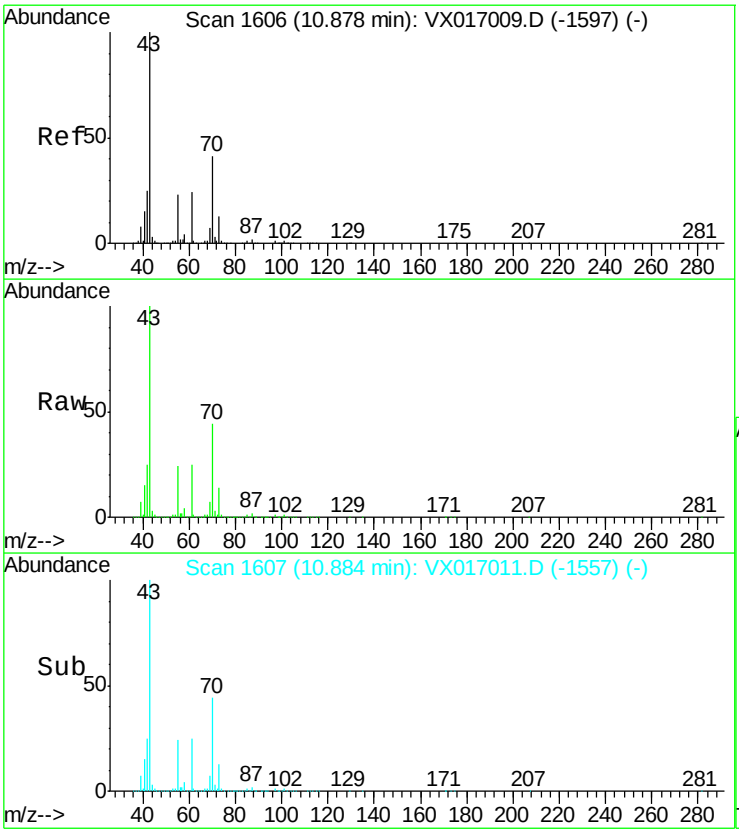
Tgt Ion:105 Resp: 2317443

Ion	Ratio	Lower	Upper
105	100		
120	27.4	13.4	40.2



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC150

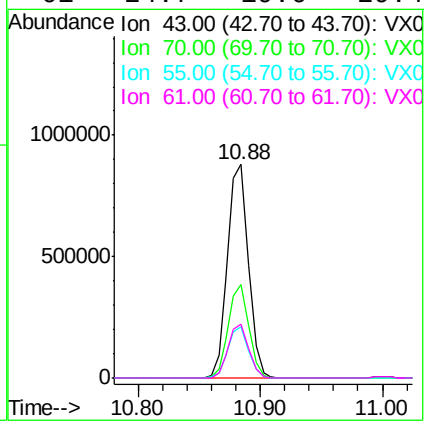
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:12:24 AM

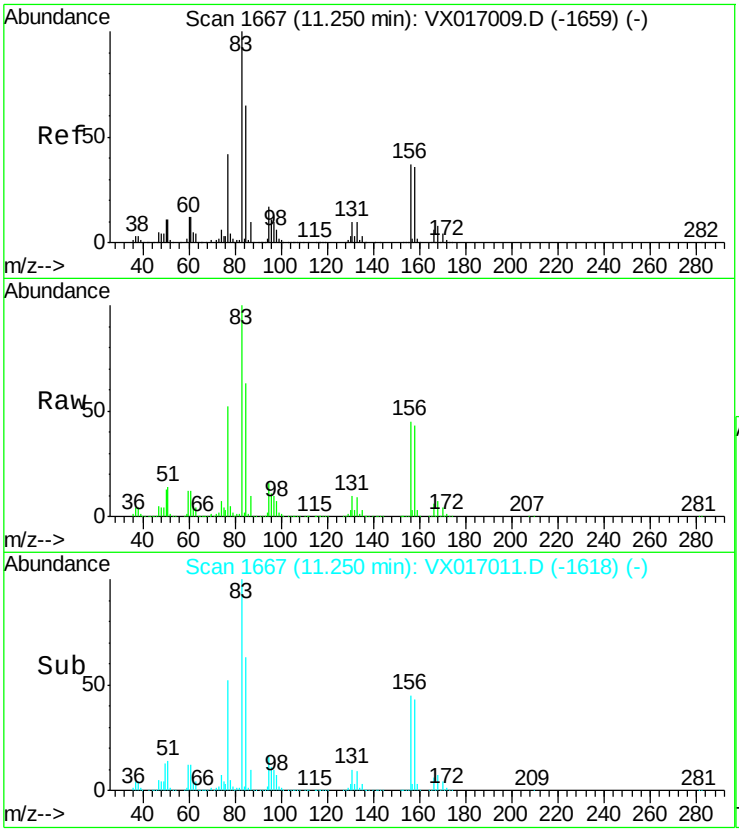


#74
N-amyl acetate
Concen: 164.197 ug/l
RT: 10.88 min Scan# 1607
Delta R.T. 0.01 min
Lab File: VX017011.D
Acq: 29 Jun 2020 16:06

Tgt Ion: 43 Resp: 1036535

Ion	Ratio	Lower	Upper
43	100		
70	43.0	34.2	51.2
55	23.7	19.2	28.8
61	24.7	19.6	29.4

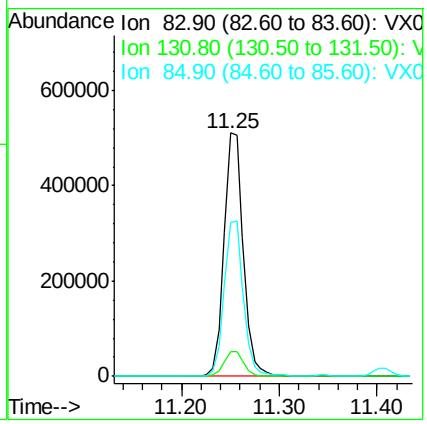




#75
1,1,2,2-Tetrachloroethane
Concen: 149.136 ug/l
RT: 11.25 min Scan# 1667
Delta R.T. 0.00 min
Lab File: VX017011.D
Acq: 29 Jun 2020 16:06

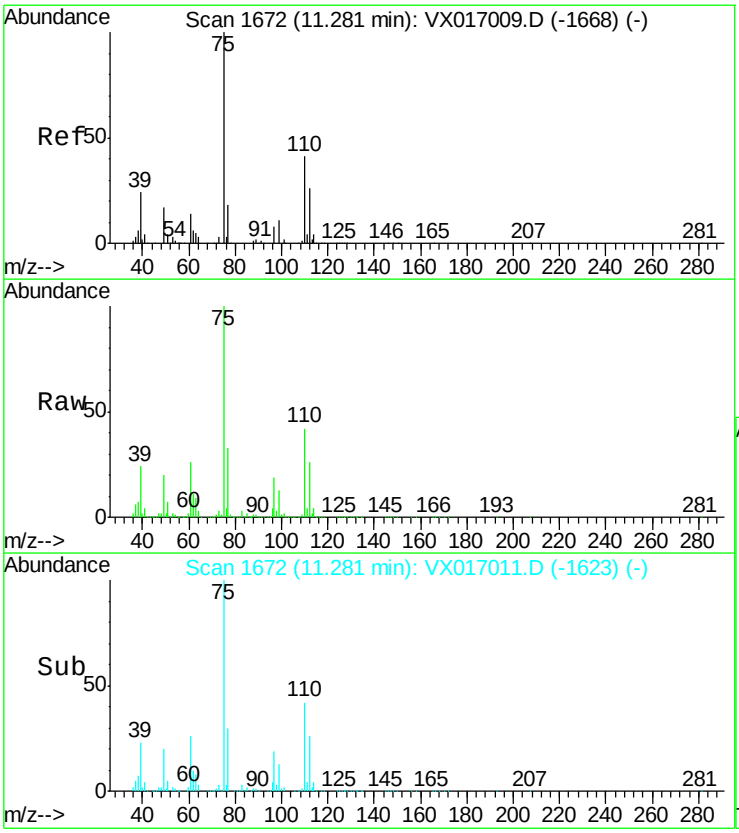
Tgt Ion: 83 Resp: 694041

Ion	Ratio	Lower	Upper
83	100		
131	10.5	5.4	16.2
85	64.4	31.9	95.9



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC150

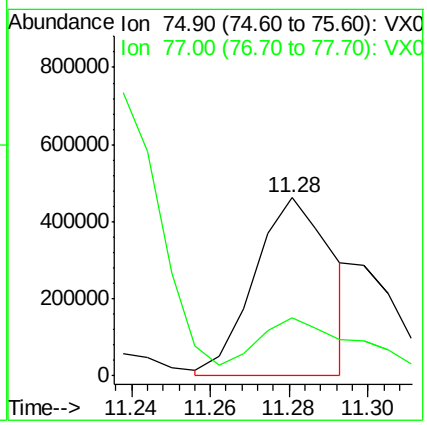
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:12:24 AM

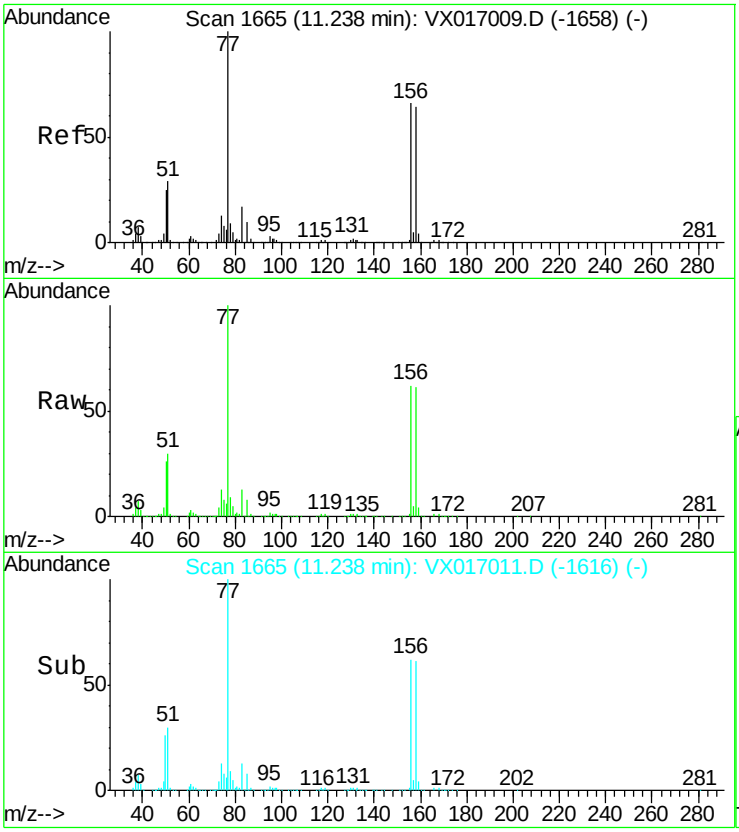


#76
1,2,3-Trichloropropane
Concen: 113.866 ug/l m
RT: 11.28 min Scan# 1672
Delta R.T. 0.00 min
Lab File: VX017011.D
Acq: 29 Jun 2020 16:06

Tgt Ion: 75 Resp: 633375

Ion	Ratio	Lower	Upper
75	100		
77	43.1	20.2	60.6

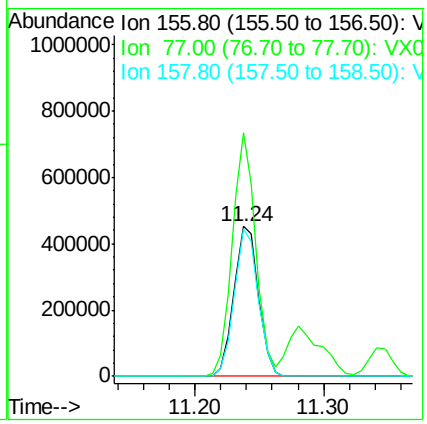


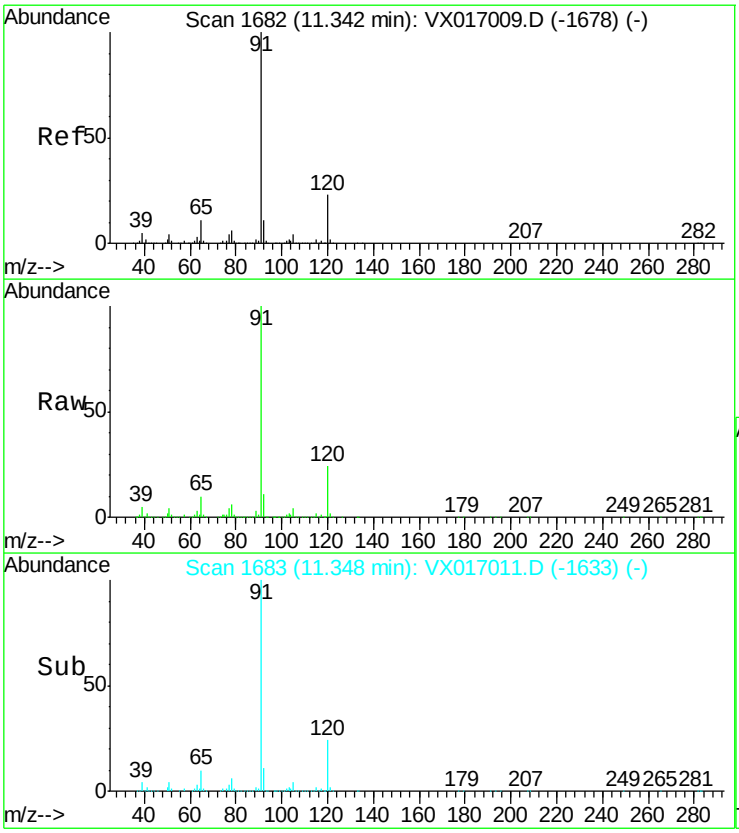


#77
Bromobenzene
Concen: 148.248 ug/l
RT: 11.24 min Scan# 1665
Delta R.T. 0.00 min
Lab File: VX017011.D
Acq: 29 Jun 2020 16:06

Tgt Ion:156 Resp: 602789

Ion	Ratio	Lower	Upper
156	100		
77	154.8	76.9	230.7
158	95.7	47.9	143.6

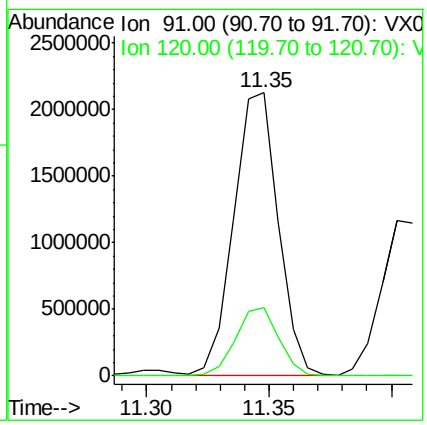




#78
n-propylbenzene
Concen: 159.837 ug/l
RT: 11.35 min Scan# 1683
Delta R.T. 0.01 min
Lab File: VX017011.D
Acq: 29 Jun 2020 16:06

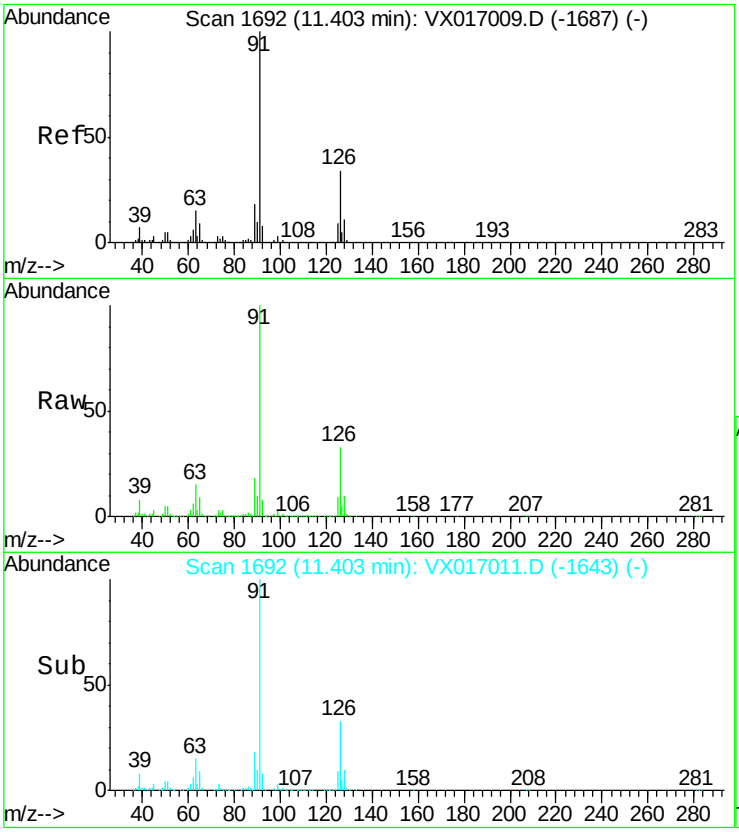
Tgt Ion: 91 Resp: 2674096

Ion	Ratio	Lower	Upper
91	100		
120	23.7	11.9	35.9



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC150

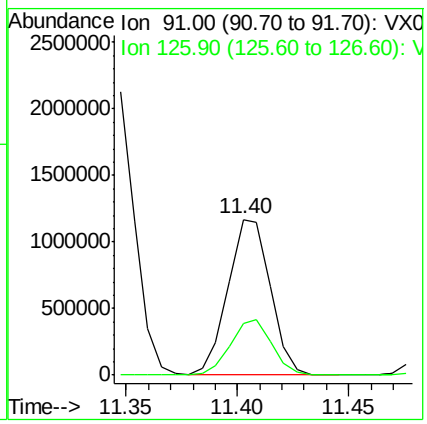
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:12:24 AM

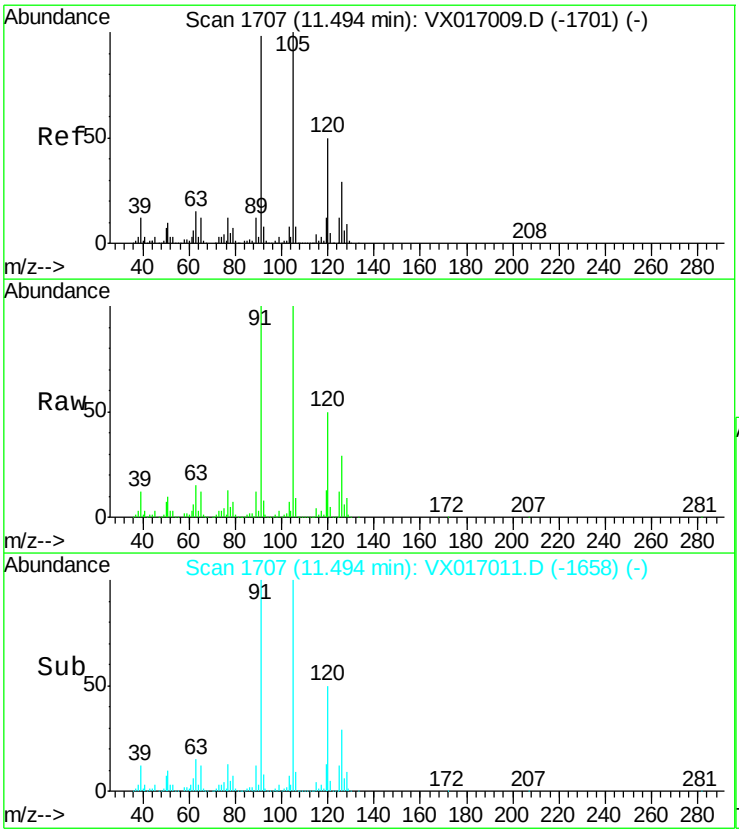


#79
2-Chlorotoluene
Concen: 152.934 ug/l
RT: 11.40 min Scan# 1692
Delta R.T. 0.00 min
Lab File: VX017011.D
Acq: 29 Jun 2020 16:06

Tgt Ion: 91 Resp: 1548503

Ion	Ratio	Lower	Upper
91	100		
126	34.6	17.4	52.3

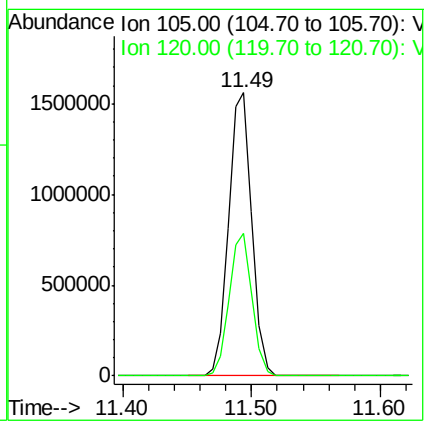




#80
1,3,5-Trimethylbenzene
Concen: 160.138 ug/l
RT: 11.49 min Scan# 1707
Delta R.T. 0.00 min
Lab File: VX017011.D
Acq: 29 Jun 2020 16:06

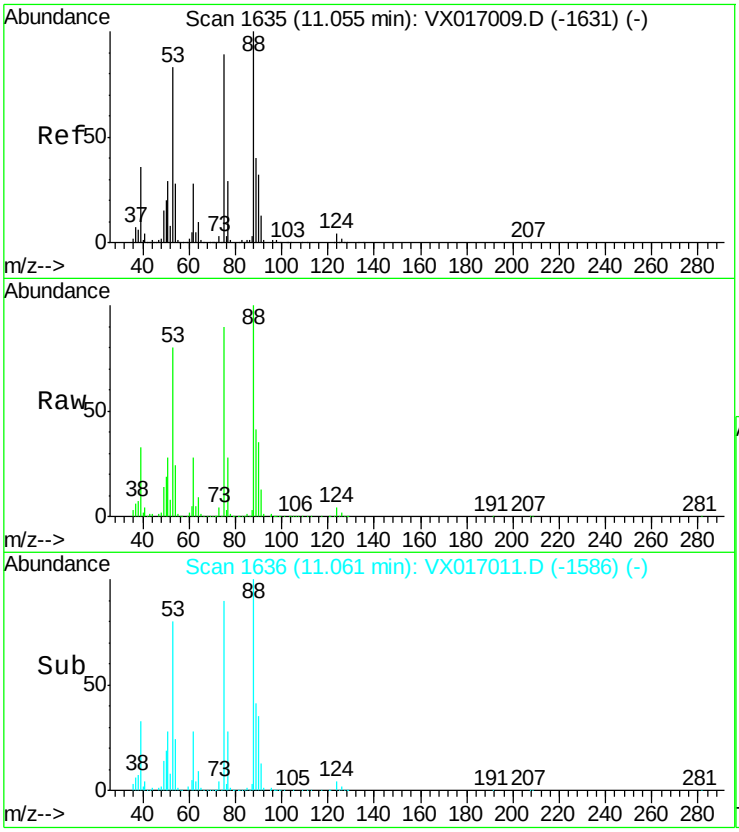
Tgt Ion:105 Resp: 1965172

Ion	Ratio	Lower	Upper
105	100		
120	49.7	24.9	74.6



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC150

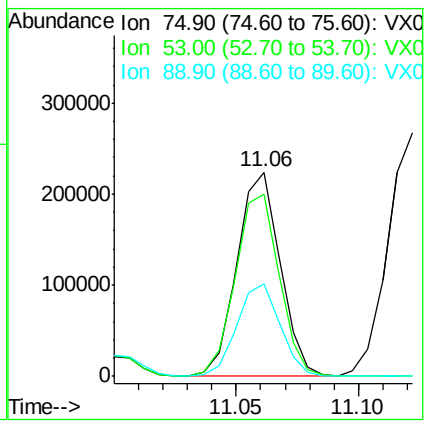
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:12:24 AM



#81
trans-1,4-Dichloro-2-butene
Concen: 159.740 ug/l
RT: 11.06 min Scan# 1636
Delta R.T. 0.01 min
Lab File: VX017011.D
Acq: 29 Jun 2020 16:06

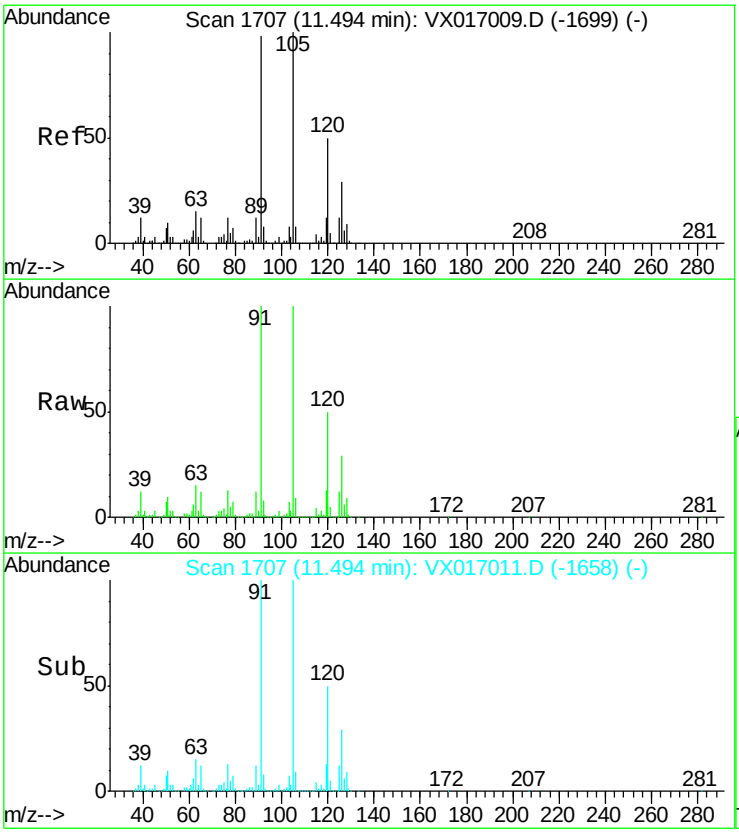
Tgt Ion: 75 Resp: 273975

Ion	Ratio	Lower	Upper
75	100		
53	91.1	72.4	108.6
89	45.6	37.0	55.4



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC150

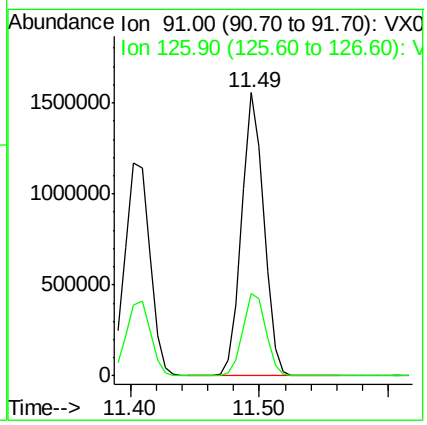
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:12:24 AM

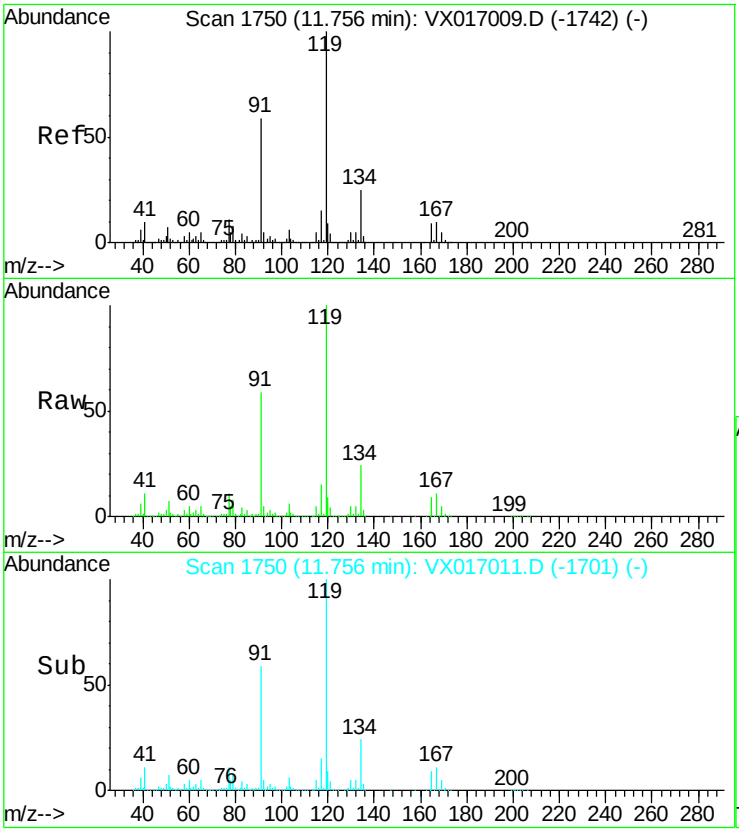


#82
4-Chlorotoluene
Concen: 153.786 ug/l
RT: 11.49 min Scan# 1707
Delta R.T. 0.00 min
Lab File: VX017011.D
Acq: 29 Jun 2020 16:06

Tgt Ion: 91 Resp: 1861452

Ion	Ratio	Lower	Upper
91	100		
126	30.0	15.2	45.5

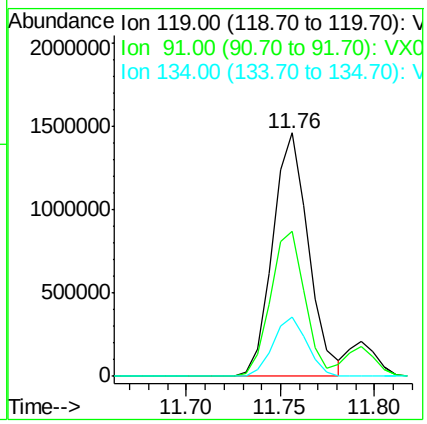




#83
tert-Butylbenzene
Concen: 159.796 ug/l
RT: 11.76 min Scan# 1750
Delta R.T. 0.00 min
Lab File: VX017011.D
Acq: 29 Jun 2020 16:06

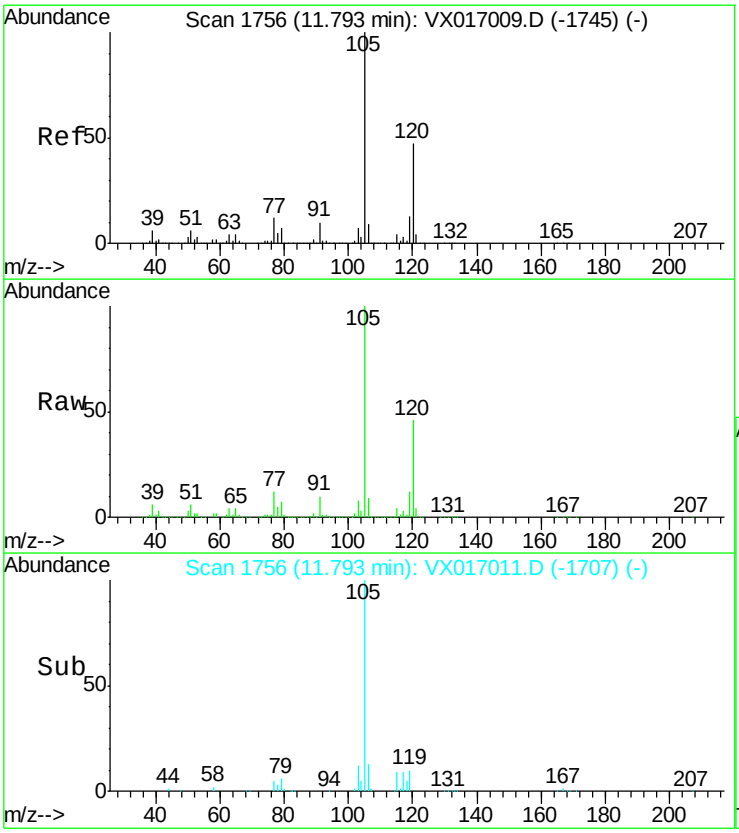
Tgt Ion:119 Resp: 1924999

Ion	Ratio	Lower	Upper
119	100		
91	57.2	28.3	84.9
134	23.4	11.7	35.1



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC150

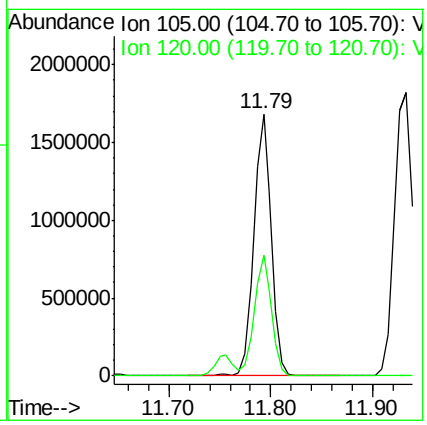
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:12:24 AM

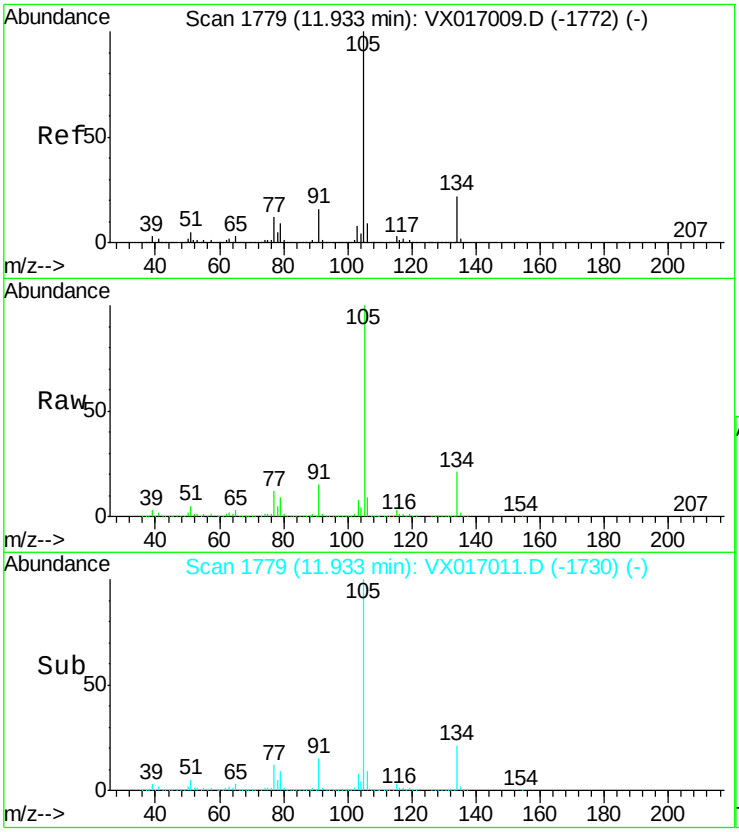


#84
1,2,4-Trimethylbenzene
Concen: 161.858 ug/l
RT: 11.79 min Scan# 1756
Delta R.T. 0.00 min
Lab File: VX017011.D
Acq: 29 Jun 2020 16:06

Tgt Ion:105 Resp: 2015080

Ion	Ratio	Lower	Upper
105	100		
120	45.3	22.9	68.5

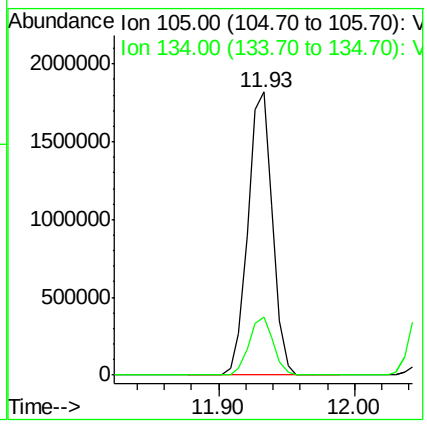


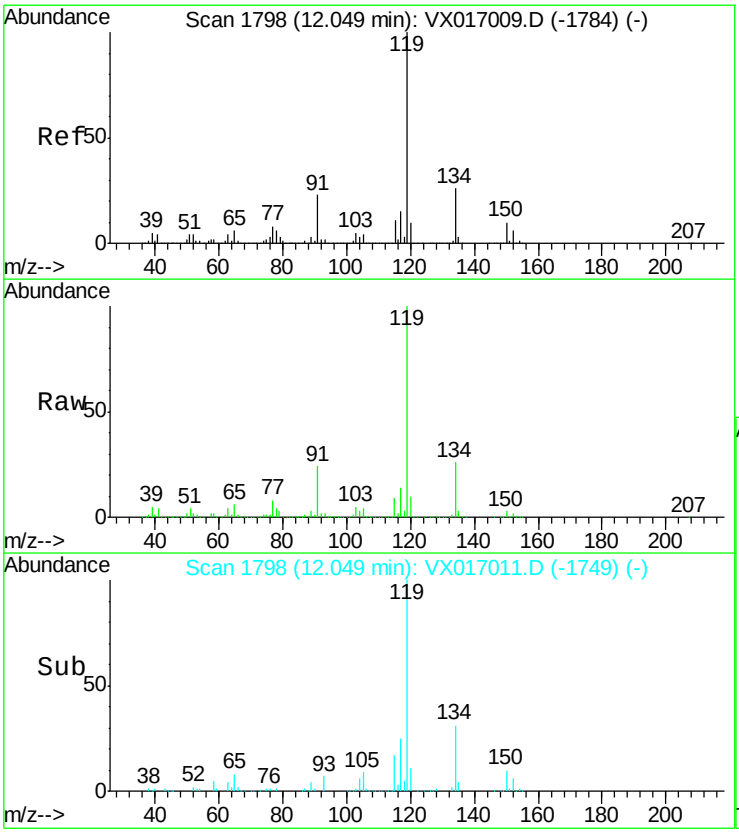


#85
sec-Butylbenzene
Concen: 161.447 ug/l
RT: 11.93 min Scan# 1779
Delta R.T. 0.00 min
Lab File: VX017011.D
Acq: 29 Jun 2020 16:06

Tgt Ion:105 Resp: 2286150

Ion	Ratio	Lower	Upper
105	100		
134	20.4	10.5	31.6

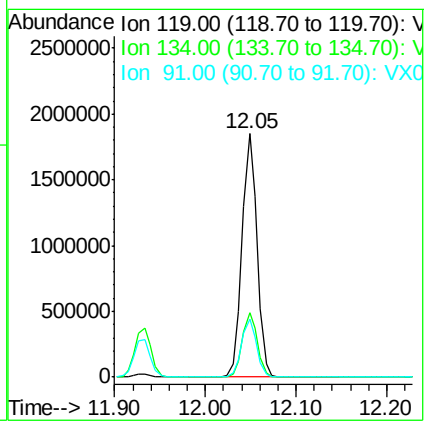




#86
p-Isopropyltoluene
Concen: 160.407 ug/l
RT: 12.05 min Scan# 1798
Delta R.T. 0.00 min
Lab File: VX017011.D
Acq: 29 Jun 2020 16:06

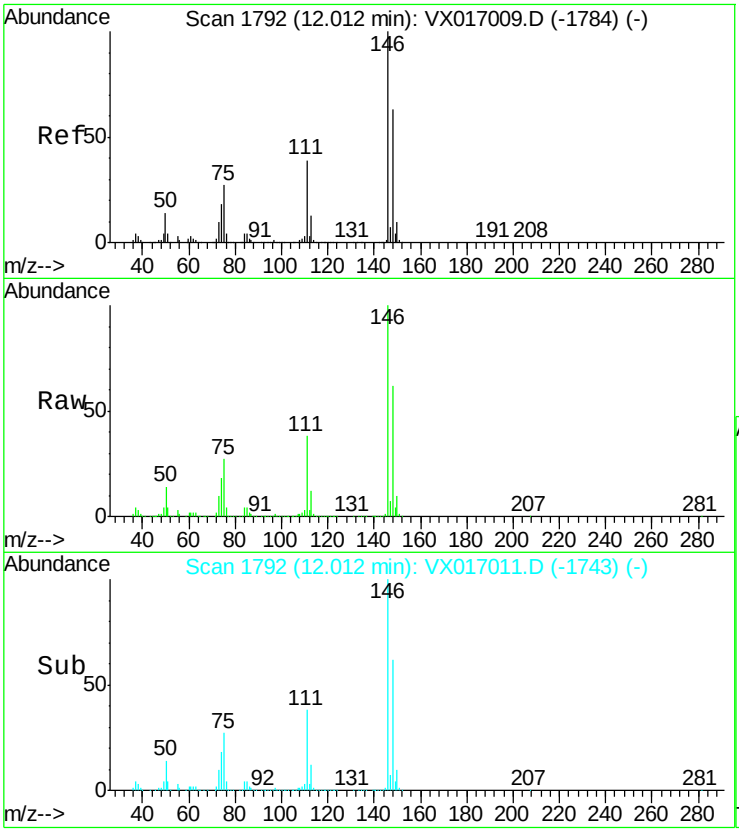
Tgt Ion:119 Resp: 2114527

Ion	Ratio	Lower	Upper
119	100		
134	26.5	13.2	39.5
91	23.8	11.8	35.4



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC150

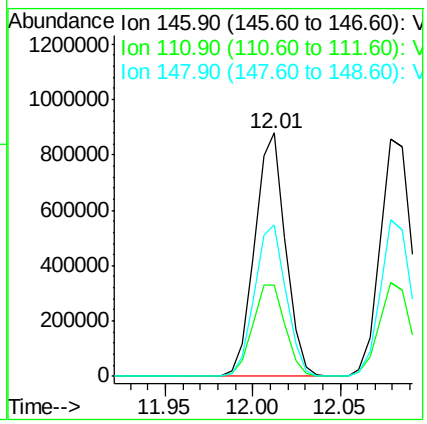
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:12:24 AM



#87
1,3-Dichlorobenzene
Concen: 145.609 ug/l
RT: 12.01 min Scan# 1792
Delta R.T. 0.00 min
Lab File: VX017011.D
Acq: 29 Jun 2020 16:06

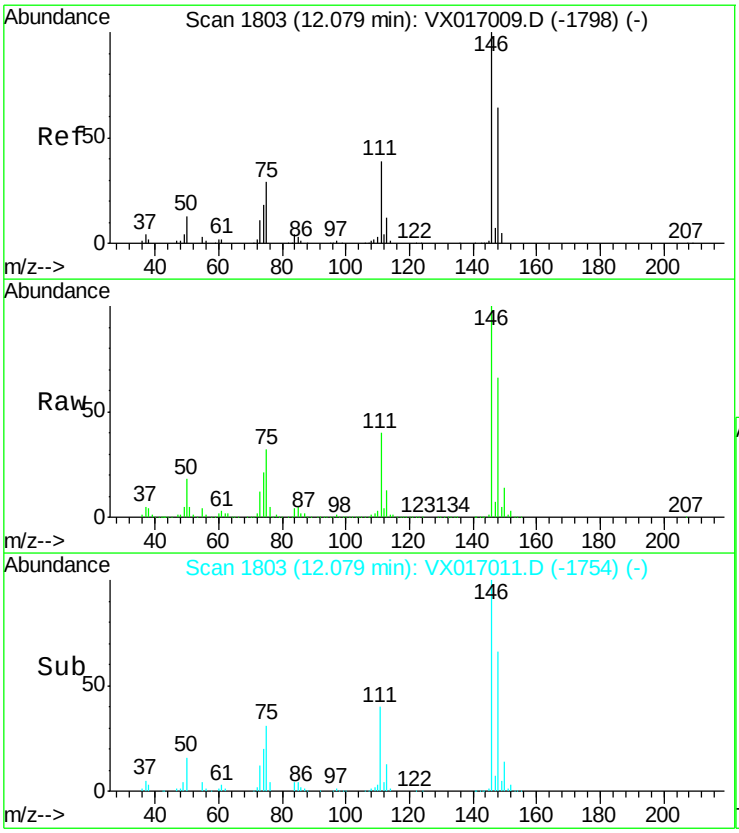
Tgt Ion:146 Resp: 1075302

Ion	Ratio	Lower	Upper
146	100		
111	39.9	20.4	61.2
148	63.8	32.5	97.5



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC150

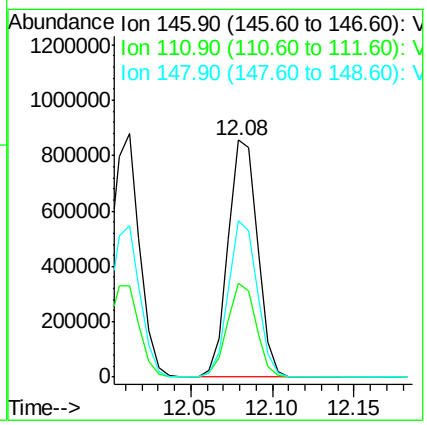
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:12:24 AM

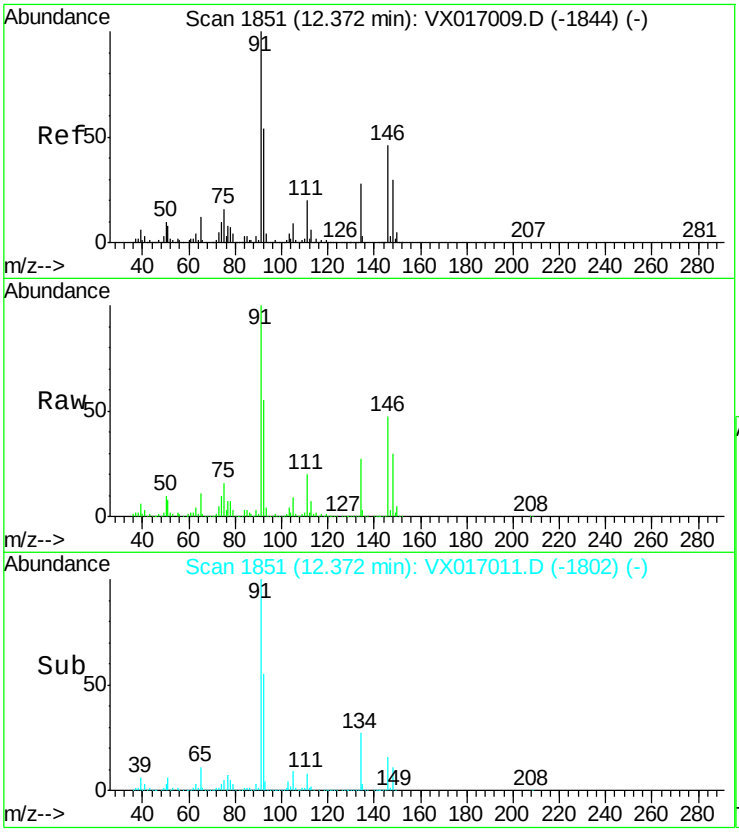


#88
1,4-Dichlorobenzene
Concen: 144.837 ug/l
RT: 12.08 min Scan# 1803
Delta R.T. 0.00 min
Lab File: VX017011.D
Acq: 29 Jun 2020 16:06

Tgt Ion:146 Resp: 1075698

Ion	Ratio	Lower	Upper
146	100		
111	38.7	19.5	58.5
148	64.2	31.9	95.7

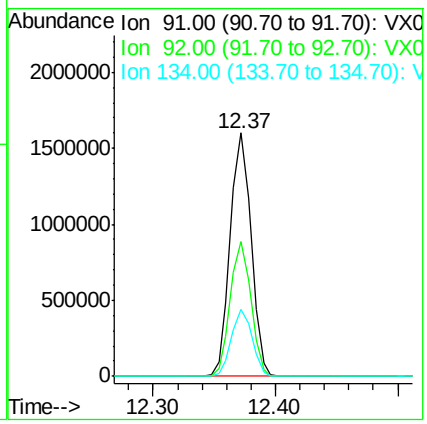




#89
n-Butylbenzene
Concen: 159.590 ug/l
RT: 12.37 min Scan# 1851
Delta R.T. 0.00 min
Lab File: VX017011.D
Acq: 29 Jun 2020 16:06

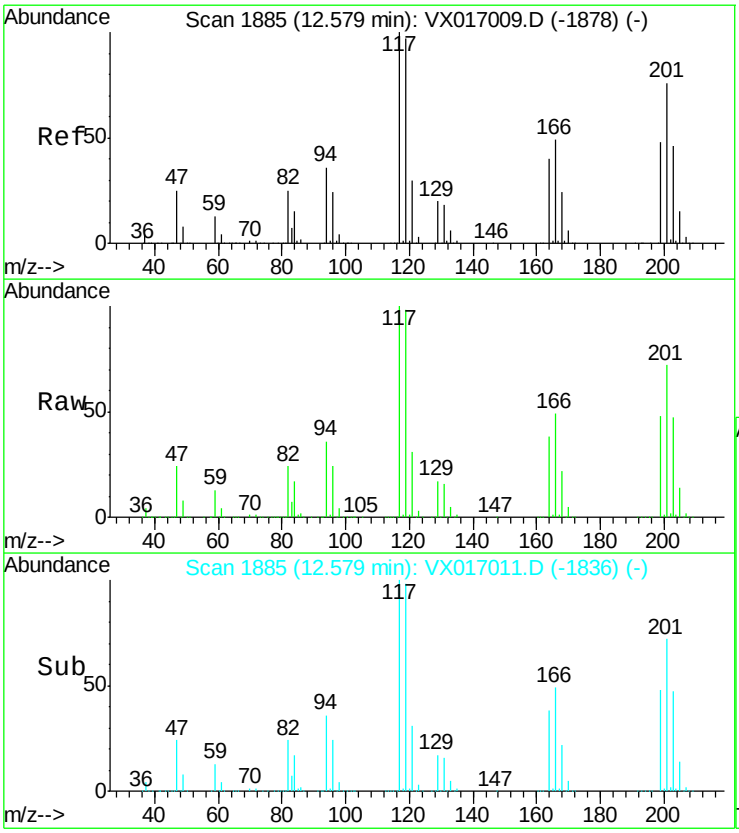
Tgt Ion: 91 Resp: 1878449

Ion	Ratio	Lower	Upper
91	100		
92	54.7	27.2	81.6
134	27.0	13.6	40.7



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC150

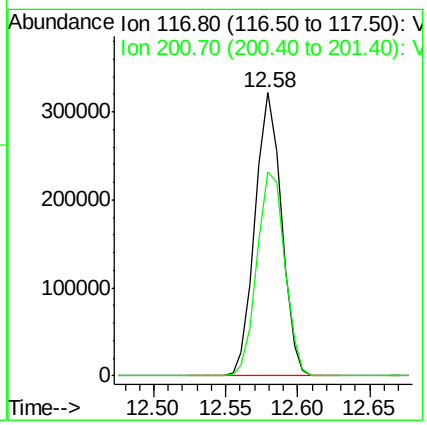
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:12:24 AM

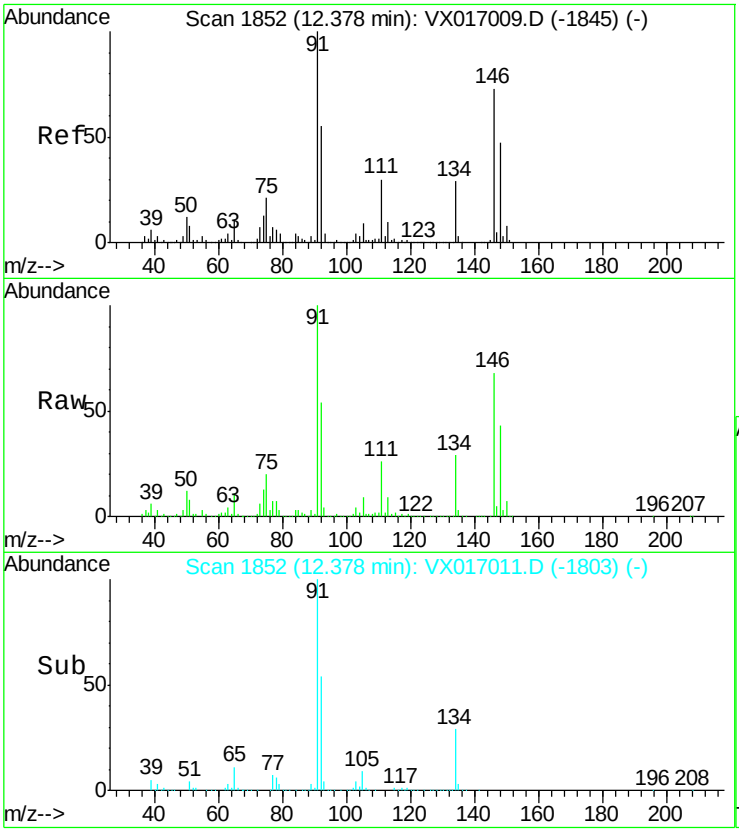


#90
Hexachloroethane
Concen: 156.260 ug/l
RT: 12.58 min Scan# 1885
Delta R.T. 0.00 min
Lab File: VX017011.D
Acq: 29 Jun 2020 16:06

Tgt Ion:117 Resp: 406208

Ion	Ratio	Lower	Upper
117	100		
201	76.0	39.4	118.2

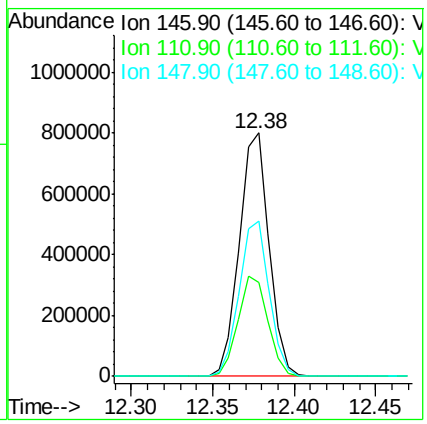




#91
1,2-Dichlorobenzene
Concen: 147.472 ug/l
RT: 12.38 min Scan# 1852
Delta R.T. 0.00 min
Lab File: VX017011.D
Acq: 29 Jun 2020 16:06

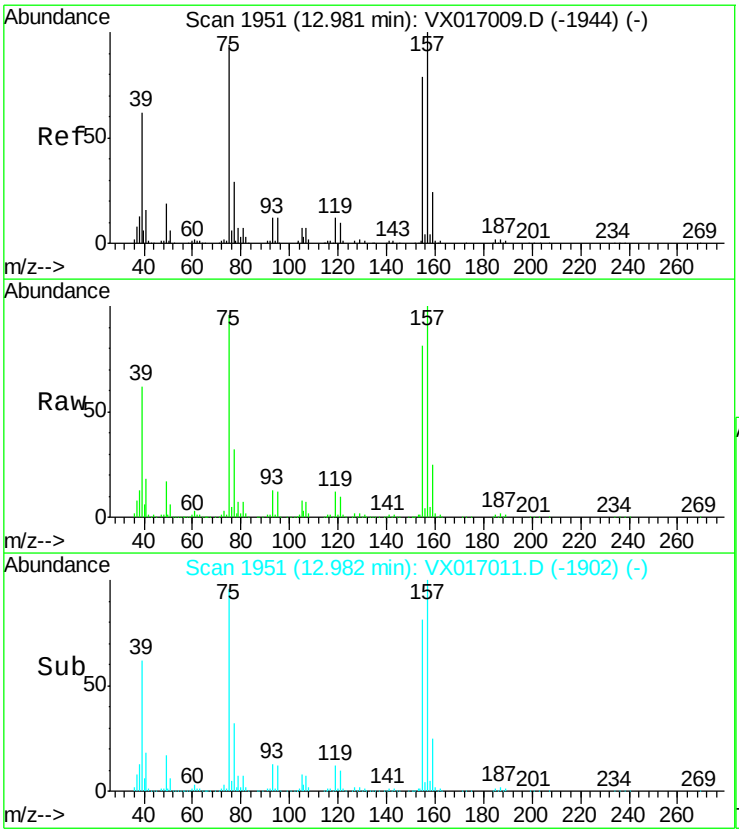
Tgt Ion:146 Resp: 1017986

Ion	Ratio	Lower	Upper
146	100		
111	41.3	20.6	61.9
148	64.5	32.4	97.2



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC150

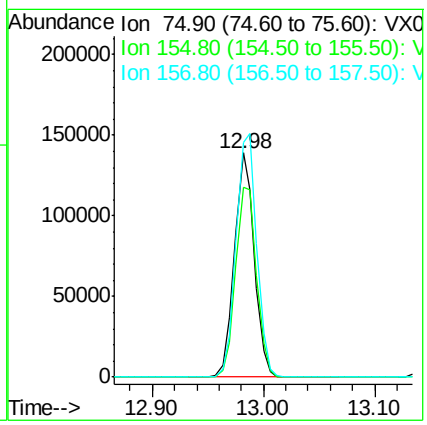
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:12:24 AM

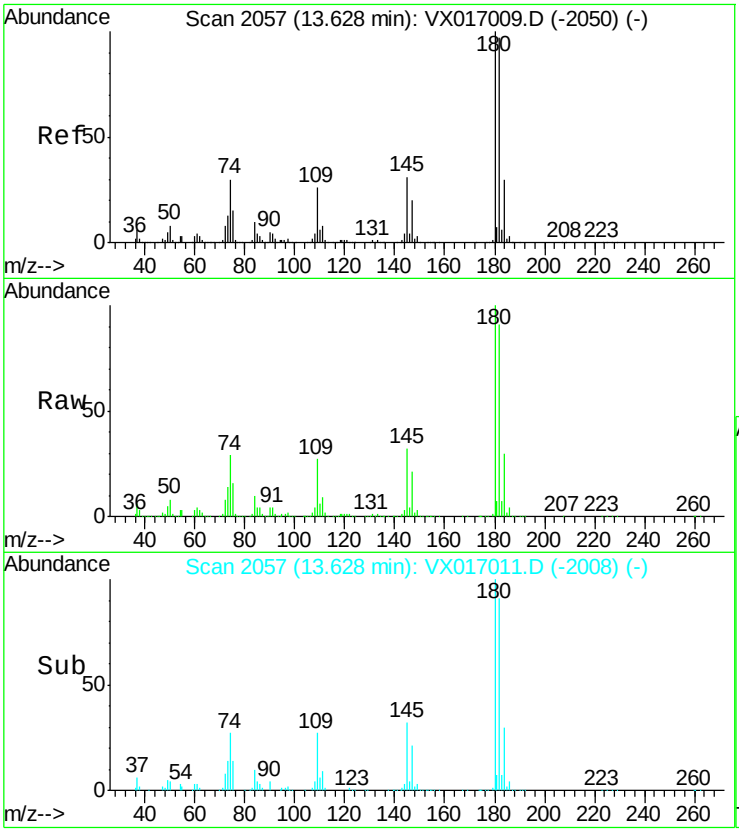


#92
1,2-Dibromo-3-Chloropropane
Concen: 153.903 ug/l
RT: 12.98 min Scan# 1951
Delta R.T. 0.00 min
Lab File: VX017011.D
Acq: 29 Jun 2020 16:06

Tgt Ion: 75 Resp: 170859

Ion	Ratio	Lower	Upper
75	100		
155	89.8	45.1	135.2
157	113.3	56.5	169.3

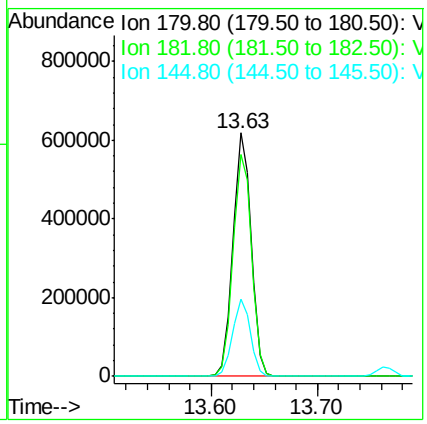




#93
1,2,4-Trichlorobenzene
Concen: 157.771 ug/l
RT: 13.63 min Scan# 2057
Delta R.T. 0.00 min
Lab File: VX017011.D
Acq: 29 Jun 2020 16:06

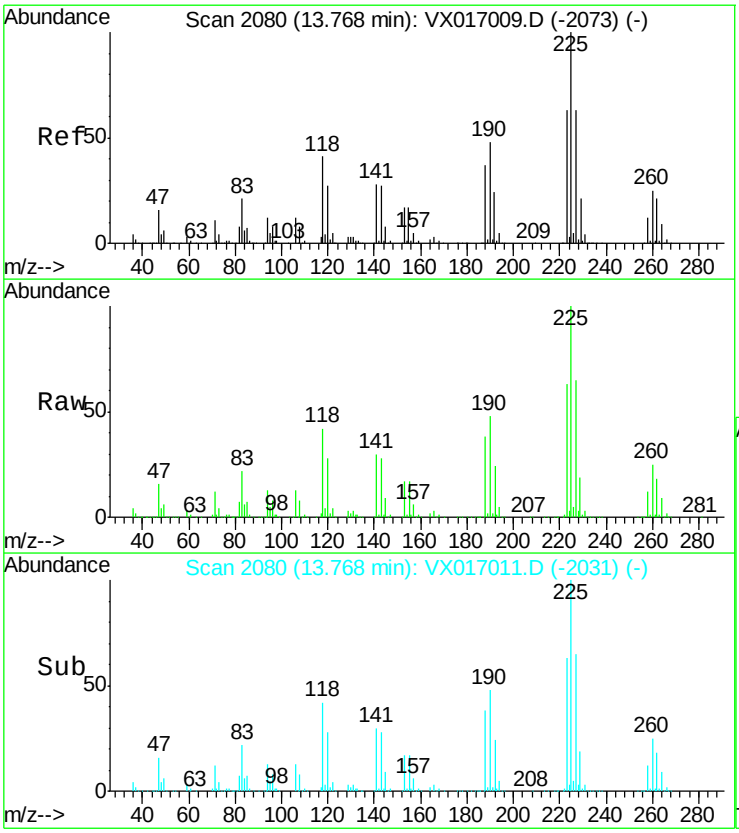
Tgt Ion:180 Resp: 743349

Ion	Ratio	Lower	Upper
180	100		
182	93.2	47.3	141.9
145	31.0	15.4	46.2



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC150

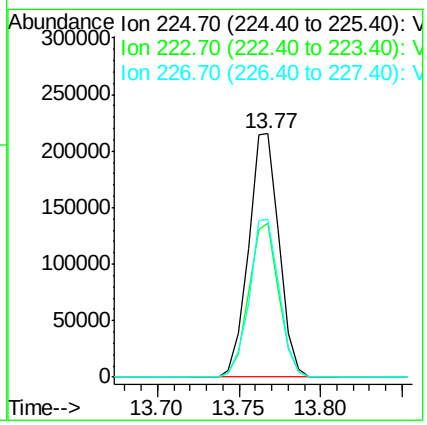
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:12:24 AM

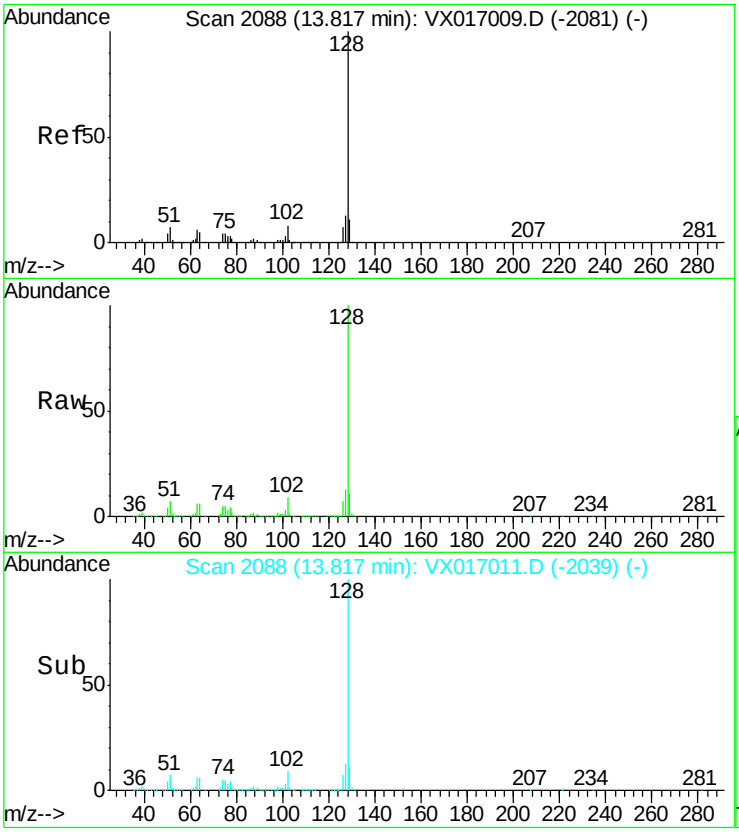


#94
Hexachlorobutadiene
Concen: 147.305 ug/l
RT: 13.77 min Scan# 2080
Delta R.T. 0.00 min
Lab File: VX017011.D
Acq: 29 Jun 2020 16:06

Tgt Ion:225 Resp: 280709

Ion	Ratio	Lower	Upper
225	100		
223	61.9	32.5	97.5
227	63.1	33.1	99.2

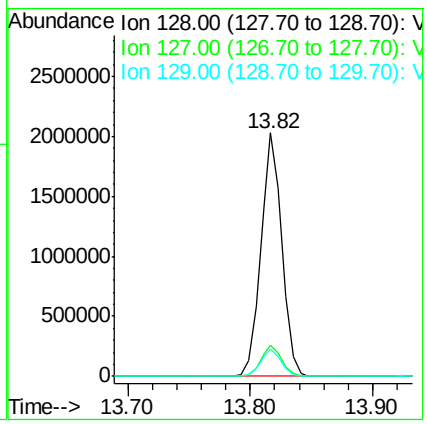


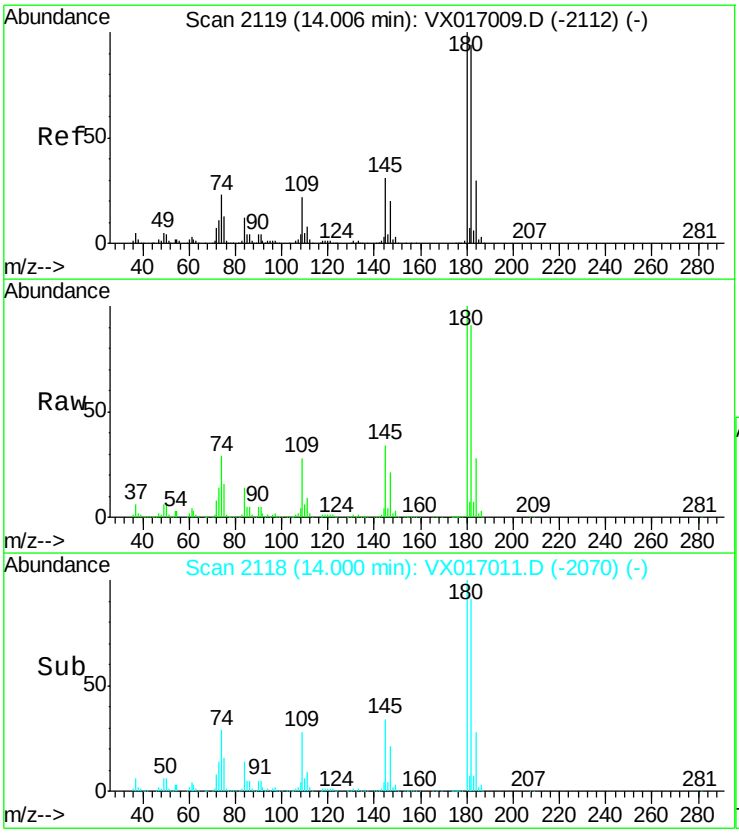


#95
Naphthalene
Concen: 168.565 ug/l
RT: 13.82 min Scan# 2088
Delta R.T. 0.00 min
Lab File: VX017011.D
Acq: 29 Jun 2020 16:06

Tgt Ion:128 Resp: 2414511

Ion	Ratio	Lower	Upper
128	100		
127	12.7	10.2	15.4
129	11.0	8.7	13.1

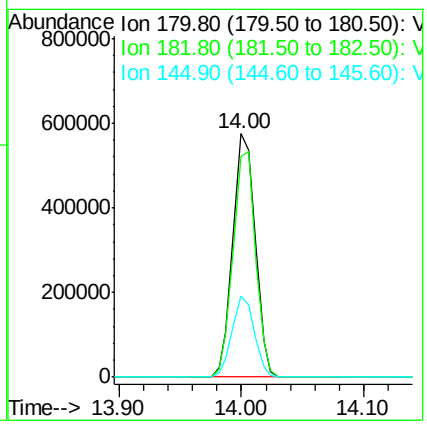




#96
1,2,3-Trichlorobenzene
Concen: 158.812 ug/l
RT: 14.00 min Scan# 2118
Delta R.T. -0.01 min
Lab File: VX017011.D
Acq: 29 Jun 2020 16:06

Tgt Ion:180 Resp: 724131

Ion	Ratio	Lower	Upper
180	100		
182	93.4	47.1	141.4
145	32.9	16.6	49.7



Instrument :
MSVOA_X
ClientSampleId :
VSTDICC150

Manual Integrations APPROVED
MMDadoda
6/30/2020 10:12:24 AM

Quantitation Report (QT Reviewed)

ICAL Form

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX062920\
Data File : VX017012.D
Acq On : 29 Jun 2020 16:53
Operator : JC/SP
Sample : VSTDICV050
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 11 Sample Multiplier: 1

Instrument : MSVOA_X
ClientSampleId : ICVVX062920

Manual Integrations APPROVED
MMDadoda
6/30/2020 10:12:17 AM

Quant Time: Jun 30 05:43:26 2020
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X062920W.M
Quant Title : SW846 8260
QLast Update : Mon Jun 29 17:10:38 2020
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	5.63	168	320884	50.00	ug/l	0.00
34) 1,4-Difluorobenzene	6.83	114	488290	50.00	ug/l	0.00
63) Chlorobenzene-d5	10.10	117	458996	50.00	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	12.06	152	238880	50.00	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	6.03	65	182972	46.25	ug/l	0.00
Spiked Amount 50.000			Recovery = 92.50%			
35) Dibromofluoromethane	5.46	113	152483	49.37	ug/l	0.00
Spiked Amount 50.000			Recovery = 98.74%			
50) Toluene-d8	8.70	98	567900	49.72	ug/l	0.00
Spiked Amount 50.000			Recovery = 99.44%			
62) 4-Bromofluorobenzene	11.12	95	226498	50.73	ug/l	0.00
Spiked Amount 50.000			Recovery = 101.46%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.18	85	158066	50.917	ug/l	98
3) Chloromethane	1.32	50	177809	47.319	ug/l	99
4) Vinyl Chloride	1.39	62	166287	47.696	ug/l	99
5) Bromomethane	1.62	94	92170	50.039	ug/l	99
6) Chloroethane	1.71	64	93701	45.506	ug/l	97
7) Trichlorofluoromethane	1.92	101	241970	46.928	ug/l	99
8) Diethyl Ether	2.17	74	86691	49.969	ug/l	99
9) 1,1,2-Trichlorotrifluoroet	2.36	101	152138	49.229	ug/l	99
10) Methyl Iodide	2.49	142	191507	48.025	ug/l	98
11) Tert butyl alcohol	3.01	59	185205	245.415	ug/l	99
12) 1,1-Dichloroethene	2.36	96	148930	46.912	ug/l	98
13) Acrolein	2.28	56	101735	225.516	ug/l	100
14) Allyl chloride	2.71	41	283929	48.394	ug/l	98
15) Acrylonitrile	3.12	53	437875	241.364	ug/l	99
16) Acetone	2.42	43	350578	236.901	ug/l	99
17) Carbon Disulfide	2.55	76	450195	50.817	ug/l	100
18) Methyl Acetate	2.75	43	186751	48.342	ug/l	100
19) Methyl tert-butyl Ether	3.17	73	516449	48.471	ug/l	99
20) Methylene Chloride	2.84	84	170852	50.345	ug/l	99
21) trans-1,2-Dichloroethene	3.14	96	169231	48.035	ug/l	99
22) Diisopropyl ether	3.82	45	526684	48.502	ug/l	98
23) Vinyl Acetate	3.78	43	2362896	253.224	ug/l	100
24) 1,1-Dichloroethane	3.67	63	294257	47.624	ug/l	99
25) 2-Butanone	4.64	43	598737	242.815	ug/l	98
26) 2,2-Dichloropropane	4.55	77	265521	48.399	ug/l	100
27) cis-1,2-Dichloroethene	4.56	96	186990	46.842	ug/l	98
28) Bromochloromethane	4.98	49	134462	44.721	ug/l	97
29) Tetrahydrofuran	5.09	42	399749	245.363	ug/l	99
30) Chloroform	5.18	83	298207	47.082	ug/l	96
31) Cyclohexane	5.55	56	265147	49.646	ug/l	99
32) 1,1,1-Trichloroethane	5.46	97	271873	46.608	ug/l	99
36) 1,1-Dichloropropene	5.77	75	227253	49.243	ug/l	99
37) Ethyl Acetate	4.79	43	237043	50.625	ug/l	99
38) Carbon Tetrachloride	5.75	117	250001	49.184	ug/l	98

ICAL Form

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX062920\
Data File : VX017012.D
Acq On : 29 Jun 2020 16:53
Operator : JC/SP
Sample : VSTDICV050
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 11 Sample Multiplier: 1

Instrument : MSVOA_X
ClientSampleId : ICVVX062920

Manual Integrations APPROVED
MMDadoda
6/30/2020 10:12:17 AM

Quant Time: Jun 30 05:43:26 2020
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X062920W.M
Quant Title : SW846 8260
QLast Update : Mon Jun 29 17:10:38 2020
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
39) Methylcyclohexane	7.44	83	274241	53.409	ug/l	98
40) Benzene	6.11	78	667541	49.231	ug/l	99
41) Methacrylonitrile	5.00	41	131405	49.863	ug/l	99
42) 1,2-Dichloroethane	6.16	62	237814	48.556	ug/l	100
43) Isopropyl Acetate	6.42	43	389692	50.084	ug/l	100
44) Trichloroethene	7.19	130	192249	51.389	ug/l	99
45) 1,2-Dichloropropane	7.49	63	171644	49.286	ug/l	100
46) Dibromomethane	7.64	93	117020	49.216	ug/l	98
47) Bromodichloromethane	7.87	83	239632	48.905	ug/l	95
48) Methyl methacrylate	7.74	41	191211	51.727	ug/l	99
49) 1,4-Dioxane	7.71	88	84460	1008.538	ug/l	99
51) 4-Methyl-2-Pentanone	8.62	43	1198673	258.442	ug/l	99
52) Toluene	8.76	92	420780	49.704	ug/l	99
53) t-1,3-Dichloropropene	9.02	75	273754	50.636	ug/l	99
54) cis-1,3-Dichloropropene	8.42	75	293388	50.624	ug/l	99
55) 1,1,2-Trichloroethane	9.20	97	170005	49.151	ug/l	98
56) Ethyl methacrylate	9.16	69	260770	52.969	ug/l	100
57) 1,3-Dichloropropane	9.35	76	285760	48.825	ug/l	100
58) 2-Chloroethyl Vinyl ether	8.29	63	644815	263.171	ug/l	99
59) 2-Hexanone	9.47	43	895300	264.307	ug/l	100
60) Dibromochloromethane	9.57	129	198572	49.429	ug/l	99
61) 1,2-Dibromoethane	9.65	107	182537	49.097	ug/l	100
64) Tetrachloroethene	9.32	164	177797	47.996	ug/l	95
65) Chlorobenzene	10.12	112	459786	48.535	ug/l	99
66) 1,1,1,2-Tetrachloroethane	10.21	131	177333	48.572	ug/l	99
67) Ethyl Benzene	10.24	91	819255	51.784	ug/l	98
68) m/p-Xylenes	10.34	106	629662	103.654	ug/l	98
69) o-Xylene	10.68	106	296631	51.331	ug/l	99
70) Styrene	10.70	104	522891	53.136	ug/l	100
71) Bromoform	10.84	173	148338	51.237	ug/l	100
73) Isopropylbenzene	11.00	105	814178	52.034	ug/l	99
74) N-amyl acetate	10.88	43	357006	53.473	ug/l	100
75) 1,1,2,2-Tetrachloroethane	11.25	83	243500	49.473	ug/l	99
76) 1,2,3-Trichloropropane	11.28	75	237707m	50.604	ug/l	
77) Bromobenzene	11.24	156	209108	48.626	ug/l	99
78) n-propylbenzene	11.34	91	933635	52.766	ug/l	100
79) 2-Chlorotoluene	11.40	91	551761	51.525	ug/l	99
80) 1,3,5-Trimethylbenzene	11.49	105	682180	52.562	ug/l	100
81) trans-1,4-Dichloro-2-buten	11.05	75	94341	52.009	ug/l	97
82) 4-Chlorotoluene	11.49	91	657492	51.360	ug/l	100
83) tert-Butylbenzene	11.76	119	667462	52.389	ug/l	100
84) 1,2,4-Trimethylbenzene	11.79	105	703368	53.419	ug/l	99
85) sec-Butylbenzene	11.93	105	796551	53.188	ug/l	99
86) p-Isopropyltoluene	12.05	119	752785	53.995	ug/l	100
87) 1,3-Dichlorobenzene	12.01	146	377493	48.333	ug/l	98
88) 1,4-Dichlorobenzene	12.08	146	385171	52.303	ug/l	99
89) n-Butylbenzene	12.37	91	659700	52.994	ug/l	99
90) Hexachloroethane	12.58	117	139407	50.706	ug/l	97
91) 1,2-Dichlorobenzene	12.38	146	352565	48.293	ug/l	98
92) 1,2-Dibromo-3-Chloropropan	12.98	75	55854	47.571	ug/l	98

ICAL Form

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX062920\
Data File : VX017012.D
Acq On : 29 Jun 2020 16:53
Operator : JC/SP
Sample : VSTDICV050
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 11 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
ICVVX062920

Manual Integrations APPROVED
MMDadoda
6/30/2020 10:12:17 AM

Quant Time: Jun 30 05:43:26 2020
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X062920W.M
Quant Title : SW846 8260
QLast Update : Mon Jun 29 17:10:38 2020
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
93) 1,2,4-Trichlorobenzene	13.63	180	238945	47.952	ug/l	97
94) Hexachlorobutadiene	13.77	225	98994	52.307	ug/l	96
95) Naphthalene	13.82	128	800112	52.816	ug/l	100
96) 1,2,3-Trichlorobenzene	14.01	180	246597	51.136	ug/l	99

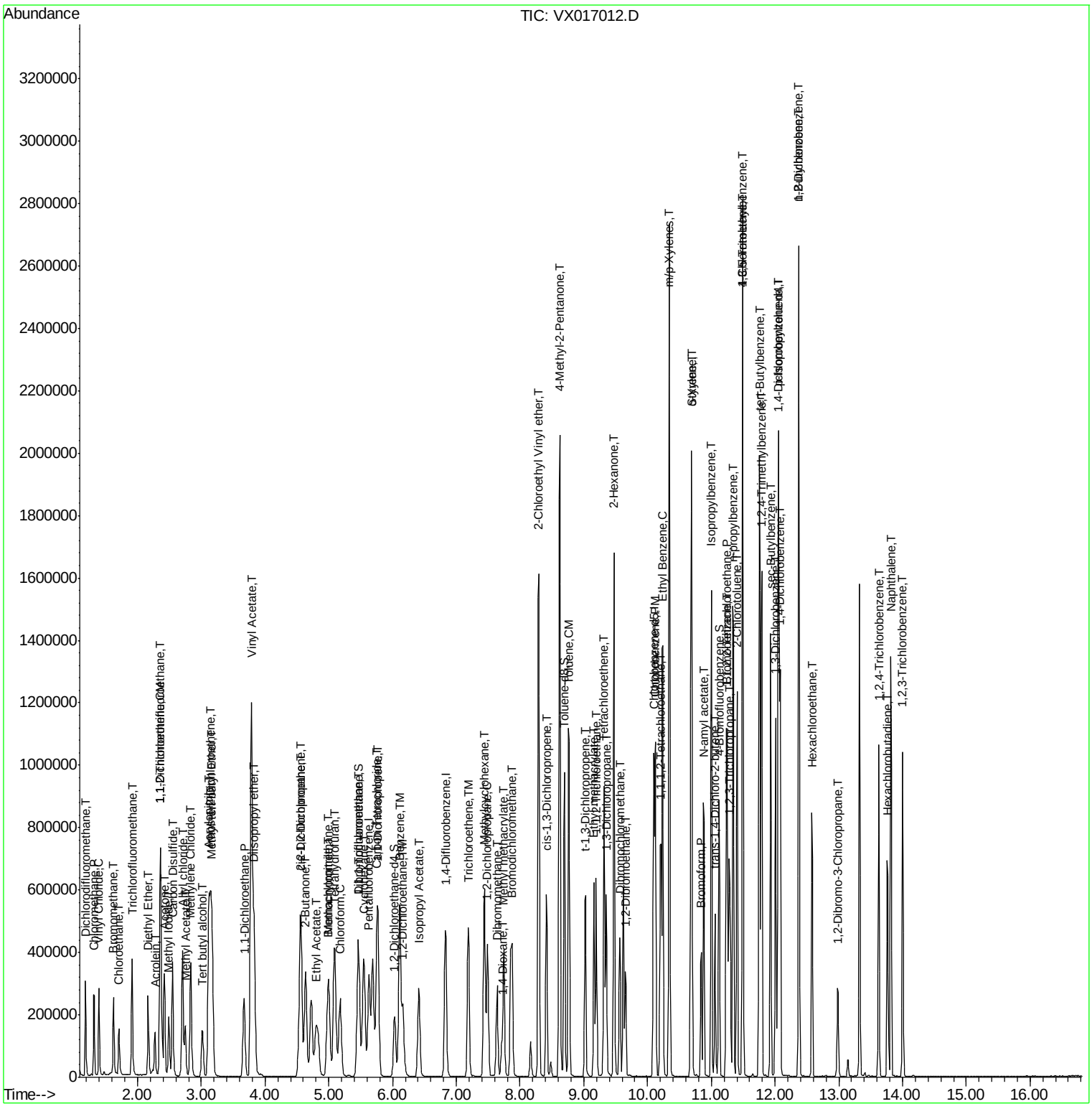
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX062920\
Data File : VX017012.D
Acq On : 29 Jun 2020 16:53
Operator : JC/SP
Sample : VSTDICV050
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Jun 30 05:43:26 2020
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X062920W.M
Quant Title : SW846 8260
QLast Update : Mon Jun 29 17:10:38 2020
Response via : Initial Calibration

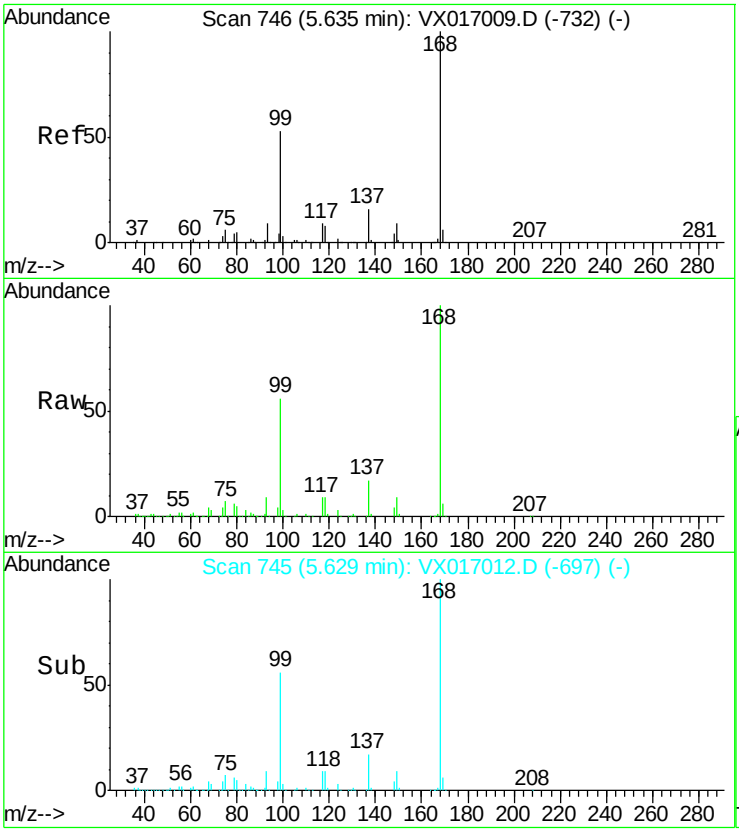
Instrument :
MSVOA_X
ClientSampleId :
ICVVX062920

Manual Integrations APPROVED
MMDadoda
6/30/2020 10:12:17 AM



Instrument :
MSVOA_X
ClientSampleId :
ICVVX062920

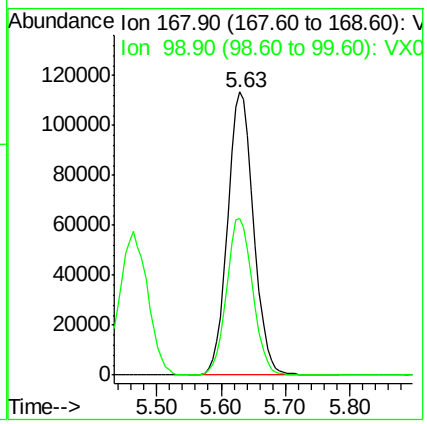
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:12:17 AM

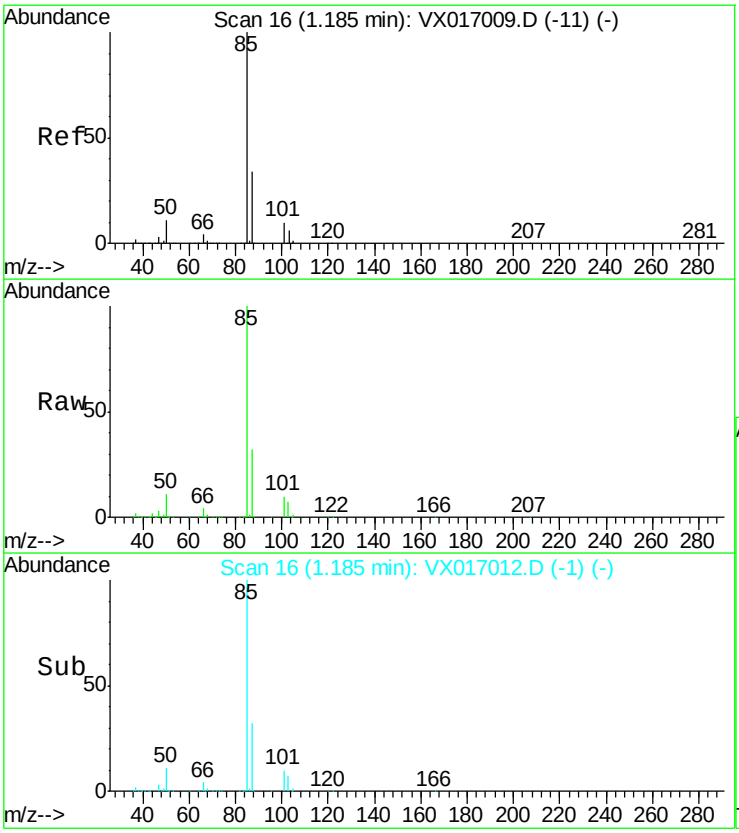


#1
Pentafluorobenzene
Concen: 50.000 ug/l
RT: 5.63 min Scan# 745
Delta R.T. -0.01 min
Lab File: VX017012.D
Acq: 29 Jun 2020 16:53

Tgt Ion:168 Resp: 320884

Ion	Ratio	Lower	Upper
168	100		
99	55.4	42.6	64.0

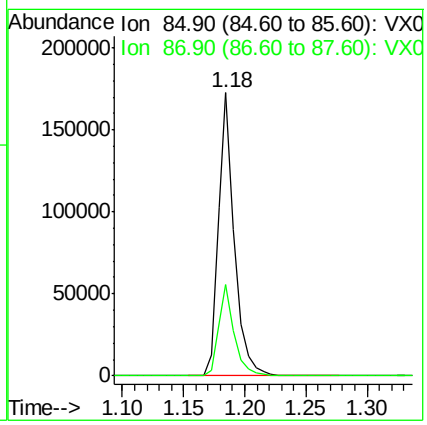




#2
Dichlorodifluoromethane
Concen: 50.917 ug/l
RT: 1.18 min Scan# 16
Delta R.T. -0.00 min
Lab File: VX017012.D
Acq: 29 Jun 2020 16:53

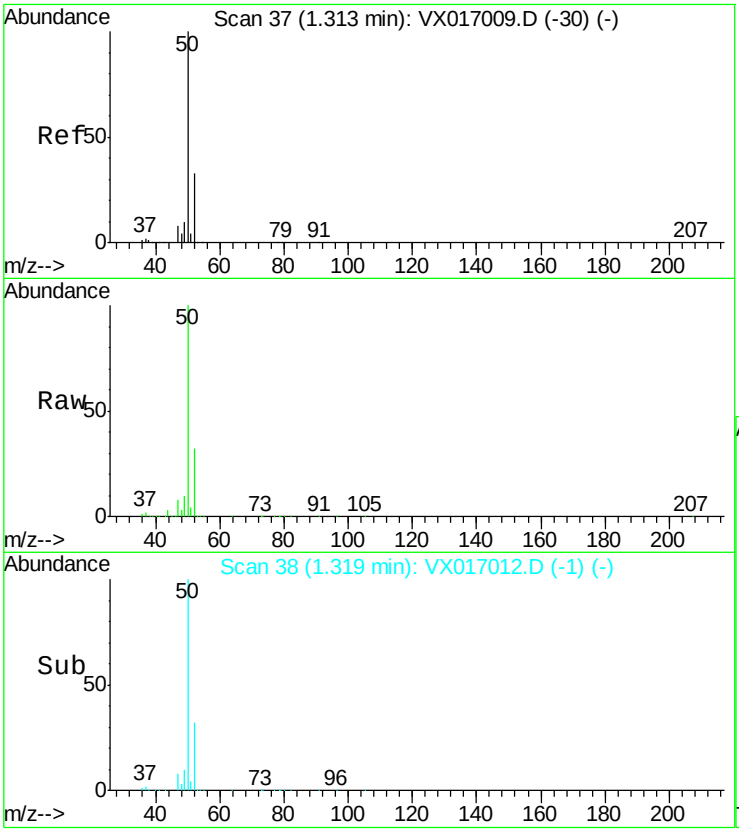
Tgt Ion: 85 Resp: 158066

Ion	Ratio	Lower	Upper
85	100		
87	32.5	16.8	50.4



Instrument :
MSVOA_X
ClientSampleId :
ICVVX062920

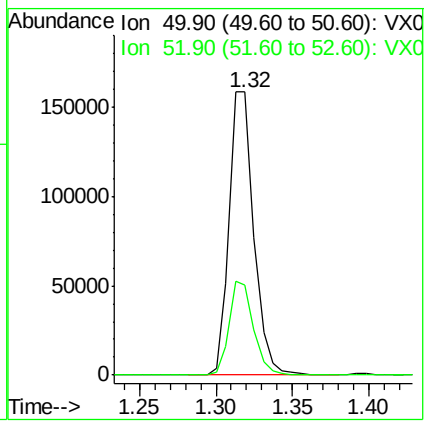
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:12:17 AM

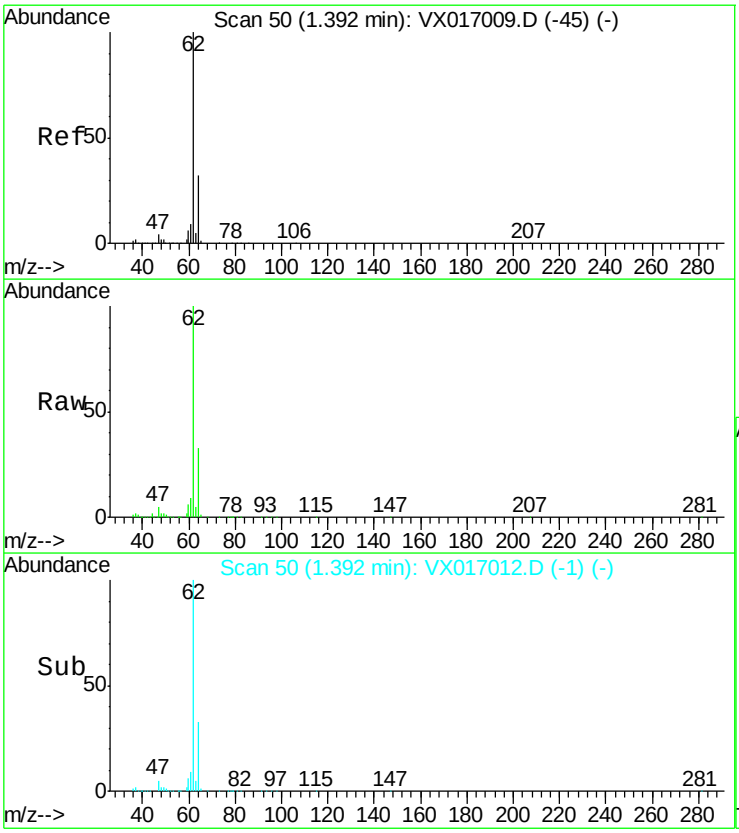


#3
Chloromethane
Concen: 47.319 ug/l
RT: 1.32 min Scan# 38
Delta R.T. 0.01 min
Lab File: VX017012.D
Acq: 29 Jun 2020 16:53

Tgt Ion: 50 Resp: 177809

Ion	Ratio	Lower	Upper
50	100		
52	32.0	26.1	39.1

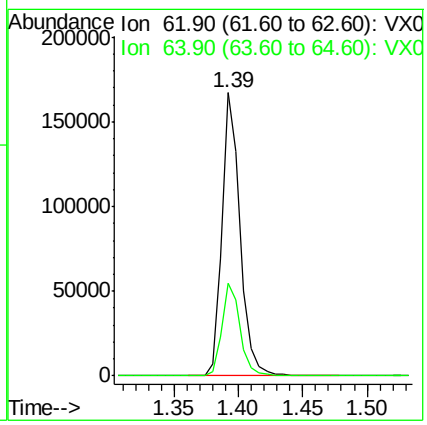


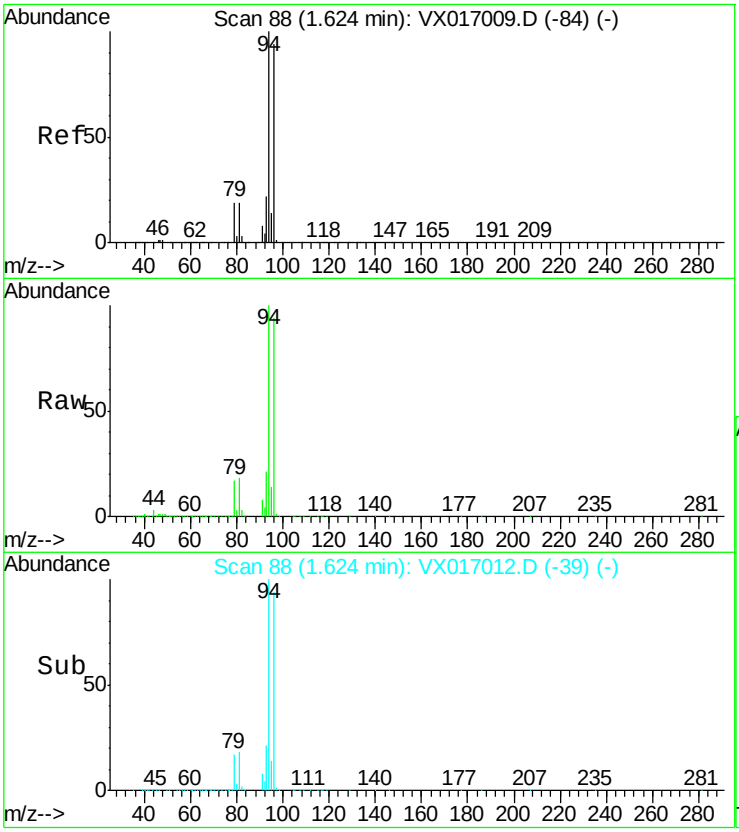


#4
Vinyl Chloride
Concen: 47.696 ug/l
RT: 1.39 min Scan# 50
Delta R.T. -0.00 min
Lab File: VX017012.D
Acq: 29 Jun 2020 16:53

Tgt Ion: 62 Resp: 166287

Ion	Ratio	Lower	Upper
62	100		
64	32.7	25.9	38.9

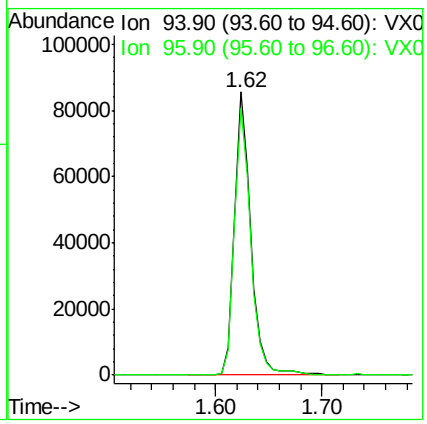




#5
Bromomethane
Concen: 50.039 ug/l
RT: 1.62 min Scan# 88
Delta R.T. 0.00 min
Lab File: VX017012.D
Acq: 29 Jun 2020 16:53

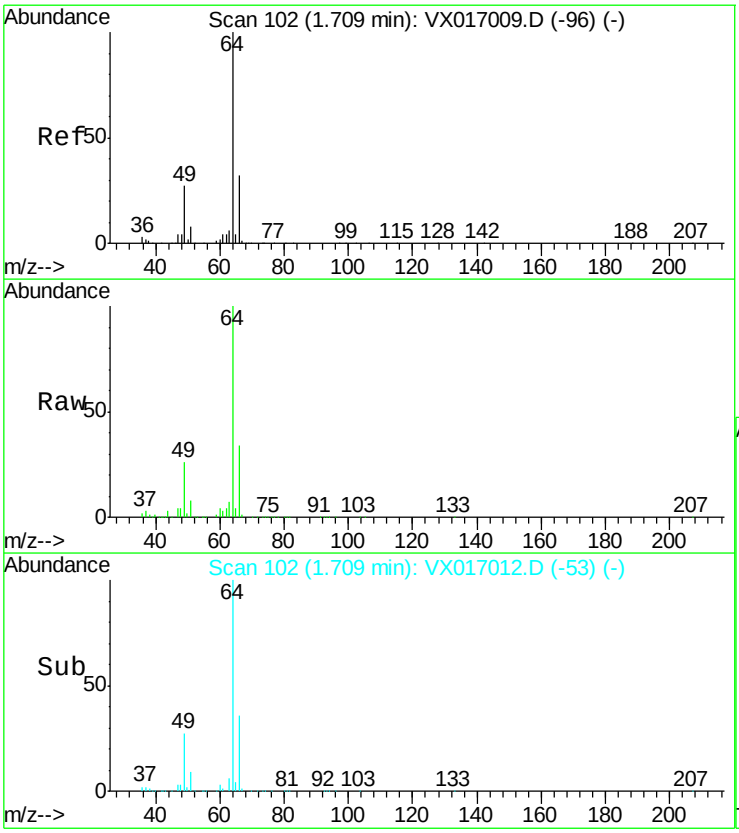
Tgt Ion: 94 Resp: 92170

Ion	Ratio	Lower	Upper
94	100		
96	94.4	75.0	112.4



Instrument :
MSVOA_X
ClientSampleId :
ICVVX062920

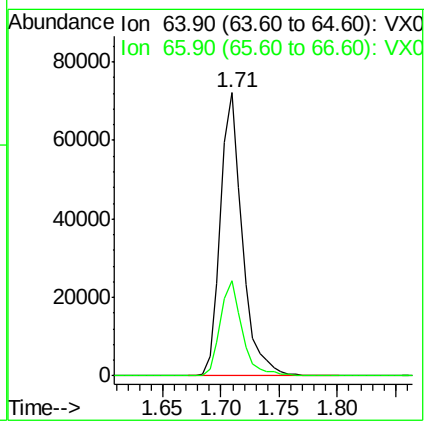
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:12:17 AM



#6
Chloroethane
Concen: 45.506 ug/l
RT: 1.71 min Scan# 102
Delta R.T. -0.00 min
Lab File: VX017012.D
Acq: 29 Jun 2020 16:53

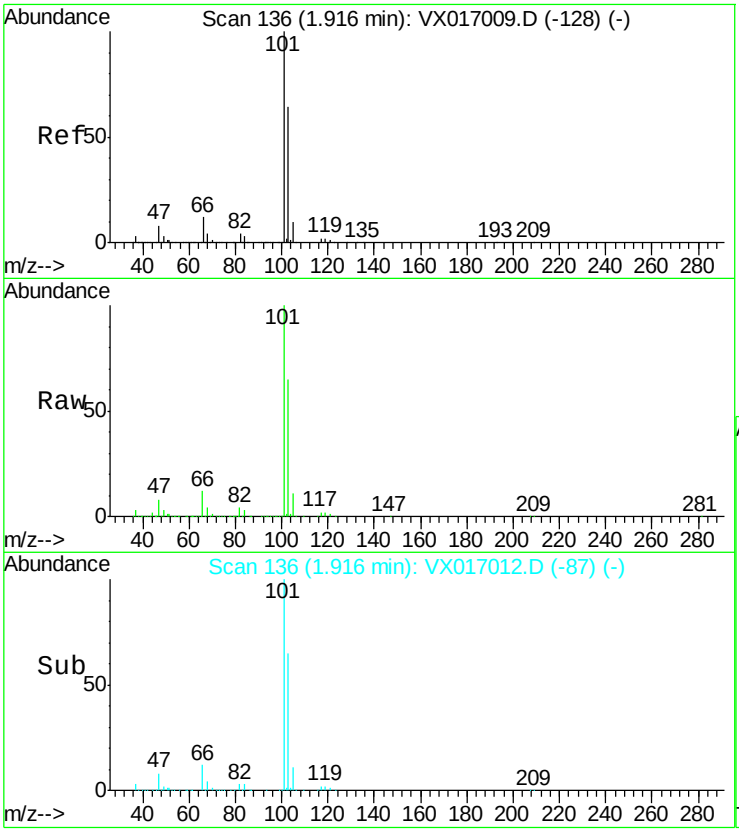
Tgt Ion: 64 Resp: 93701

Ion	Ratio	Lower	Upper
64	100		
66	33.5	25.5	38.3



Instrument :
MSVOA_X
ClientSampleId :
ICVVX062920

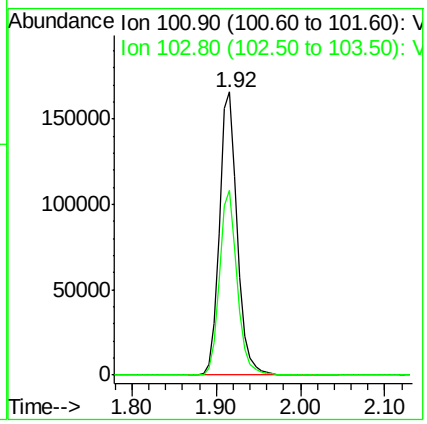
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:12:17 AM

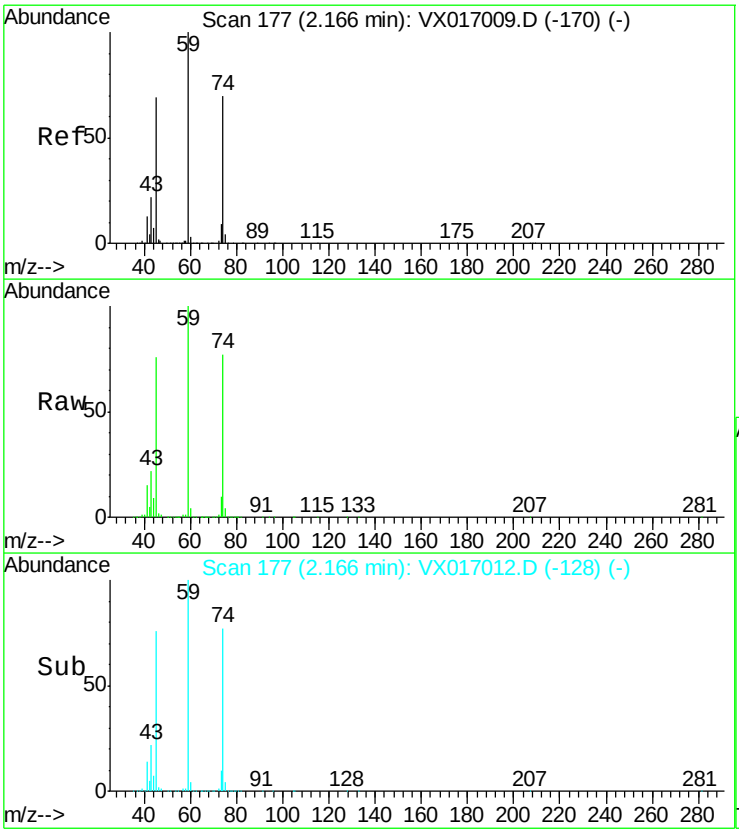


#7
Trichlorofluoromethane
Concen: 46.928 ug/l
RT: 1.92 min Scan# 136
Delta R.T. -0.00 min
Lab File: VX017012.D
Acq: 29 Jun 2020 16:53

Tgt Ion:101 Resp: 241970

Ion	Ratio	Lower	Upper
101	100		
103	65.2	51.5	77.3

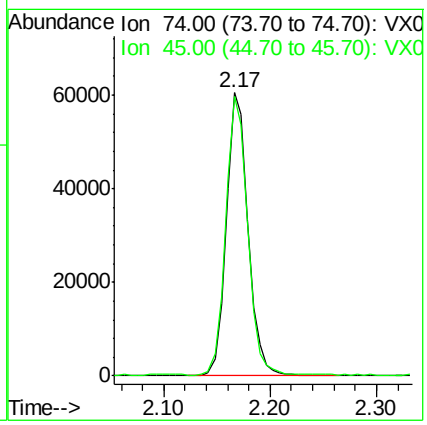


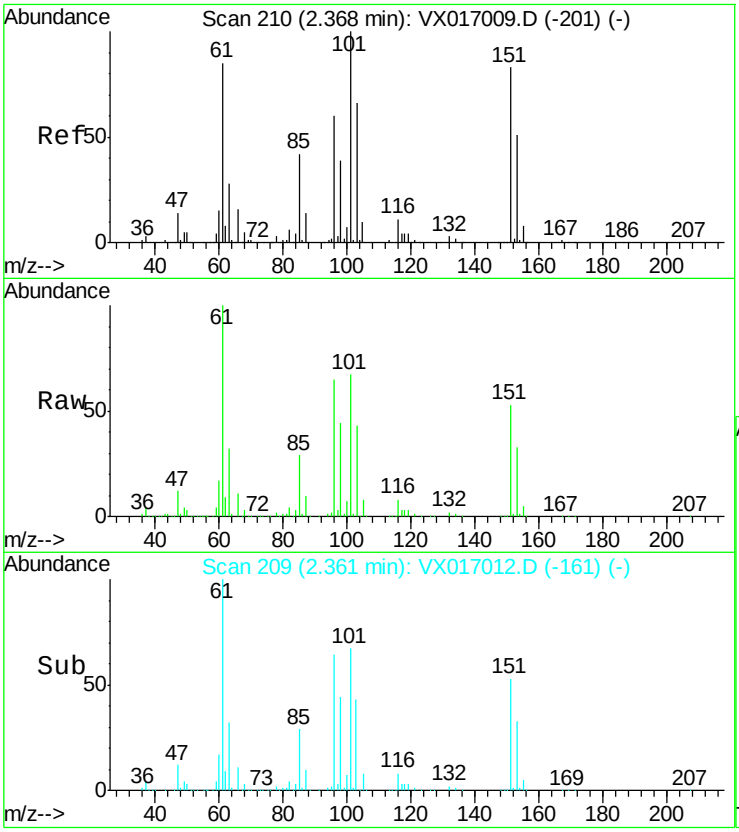


#8
Diethyl Ether
Concen: 49.969 ug/l
RT: 2.17 min Scan# 177
Delta R.T. 0.00 min
Lab File: VX017012.D
Acq: 29 Jun 2020 16:53

Tgt Ion: 74 Resp: 86691

Ion	Ratio	Lower	Upper
74	100		
45	98.5	49.8	149.3

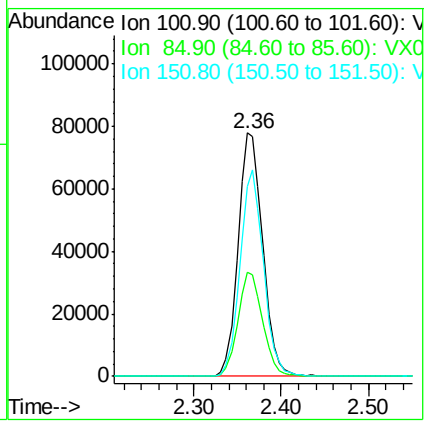




#9
1,1,2-Trichlorotrifluoroethane
Concen: 49.229 ug/l
RT: 2.36 min Scan# 209
Delta R.T. -0.01 min
Lab File: VX017012.D
Acq: 29 Jun 2020 16:53

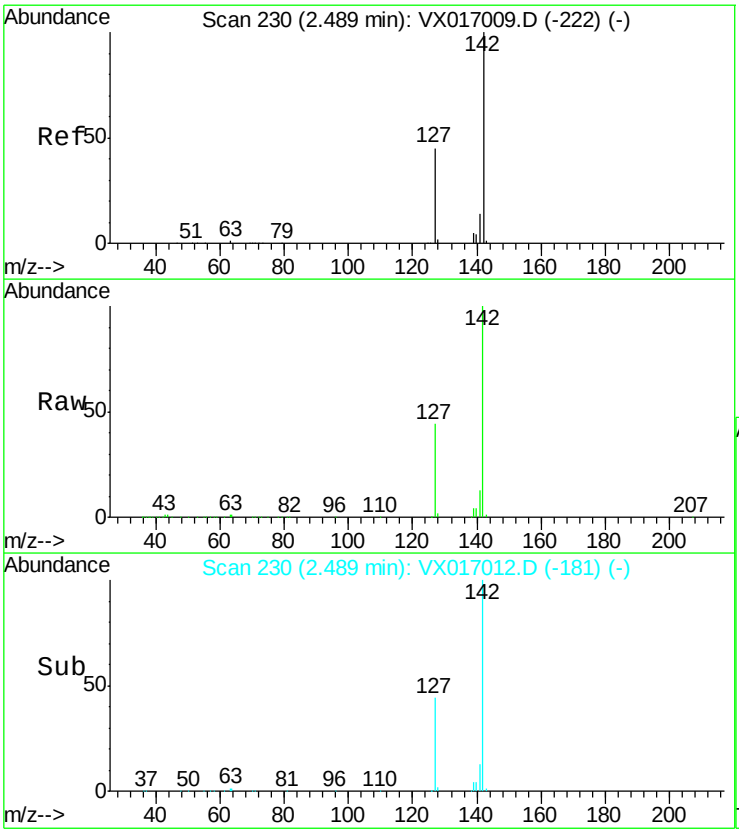
Tgt Ion:101 Resp: 152138

Ion	Ratio	Lower	Upper
101	100		
85	43.0	33.5	50.3
151	80.6	63.8	95.6



Instrument :
MSVOA_X
ClientSampleId :
ICVVX062920

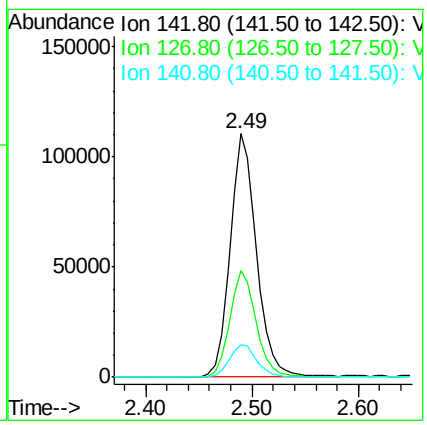
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:12:17 AM

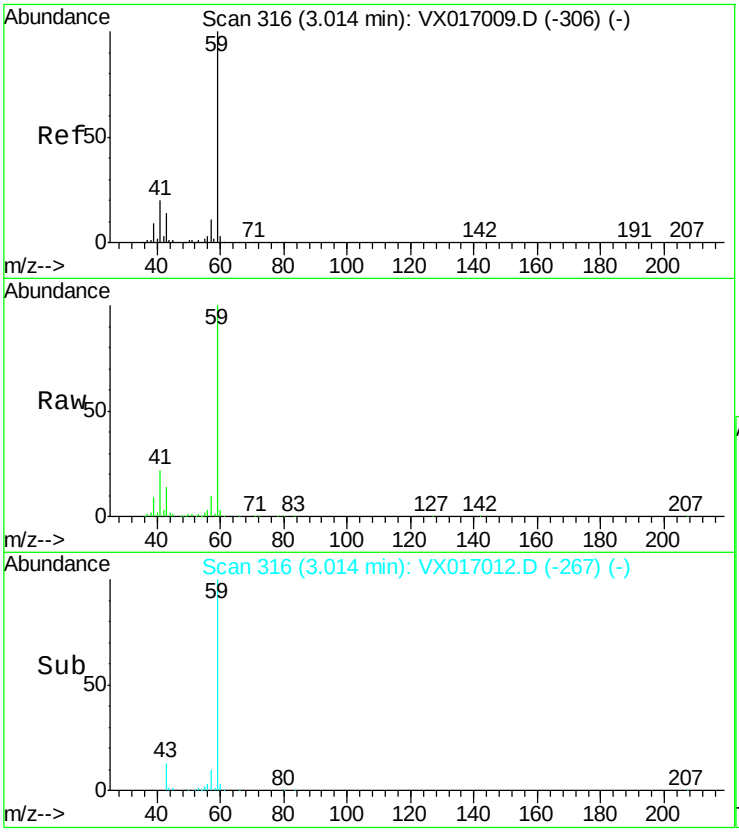


#10
Methyl Iodide
Concen: 48.025 ug/l
RT: 2.49 min Scan# 230
Delta R.T. -0.00 min
Lab File: VX017012.D
Acq: 29 Jun 2020 16:53

Tgt Ion:142 Resp: 191507

Ion	Ratio	Lower	Upper
142	100		
127	43.8	36.6	54.8
141	14.0	11.6	17.4

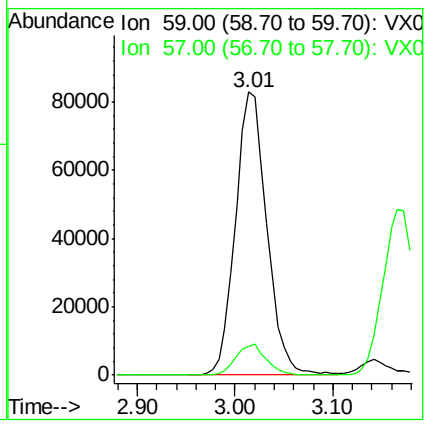




#11
Tert butyl alcohol
Concen: 245.415 ug/l
RT: 3.01 min Scan# 316
Delta R.T. -0.00 min
Lab File: VX017012.D
Acq: 29 Jun 2020 16:53

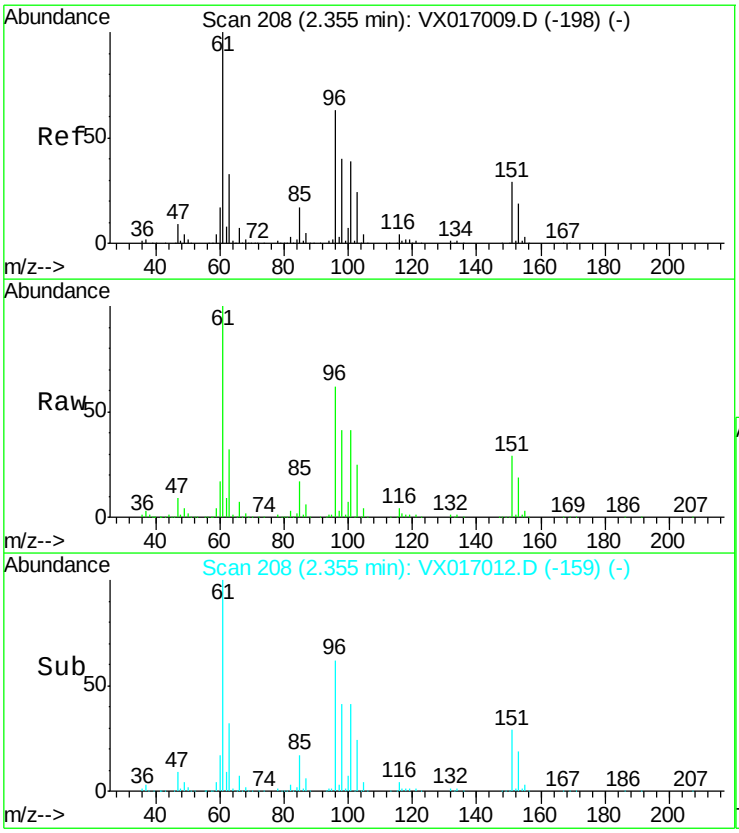
Tgt Ion: 59 Resp: 185205

Ion	Ratio	Lower	Upper
59	100		
57	10.6	8.2	12.2



Instrument :
MSVOA_X
ClientSampleId :
ICVVX062920

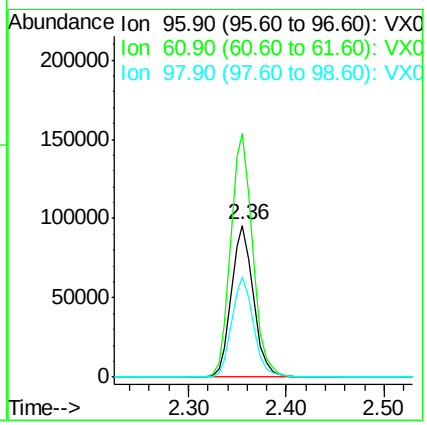
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:12:17 AM

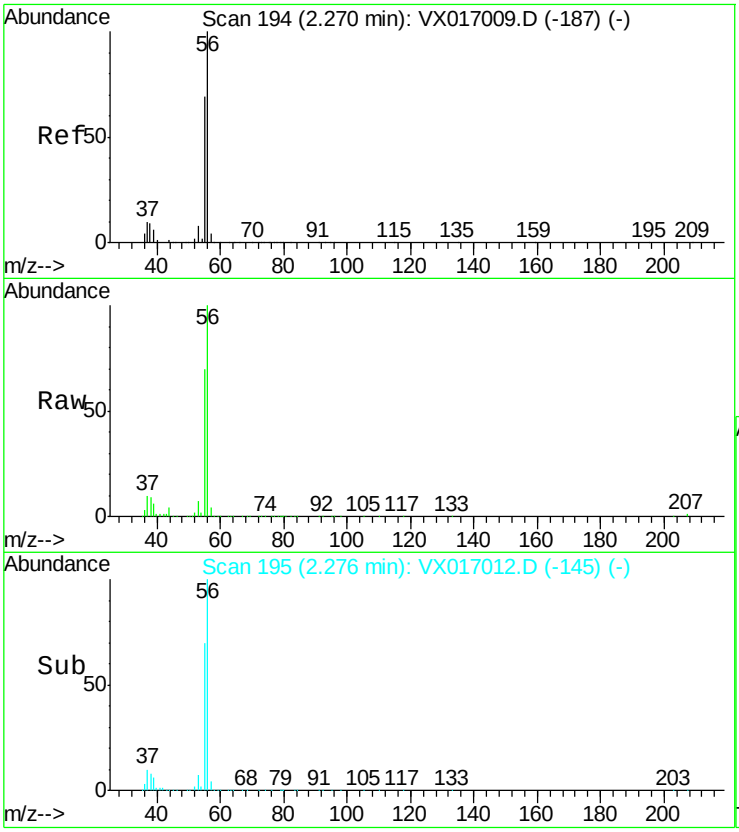


#12
1,1-Dichloroethene
Concen: 46.912 ug/l
RT: 2.36 min Scan# 208
Delta R.T. -0.00 min
Lab File: VX017012.D
Acq: 29 Jun 2020 16:53

Tgt Ion: 96 Resp: 148930

Ion	Ratio	Lower	Upper
96	100		
61	160.8	126.3	189.5
98	66.1	51.0	76.6

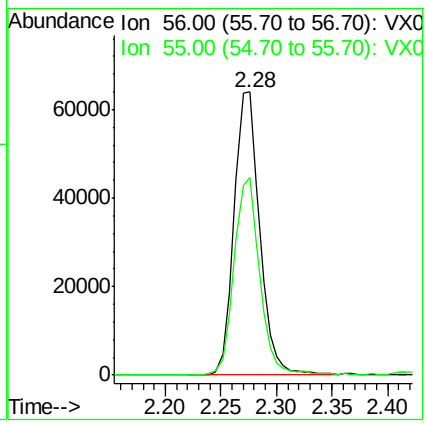




#13
Acrolein
Concen: 225.516 ug/l
RT: 2.28 min Scan# 195
Delta R.T. 0.01 min
Lab File: VX017012.D
Acq: 29 Jun 2020 16:53

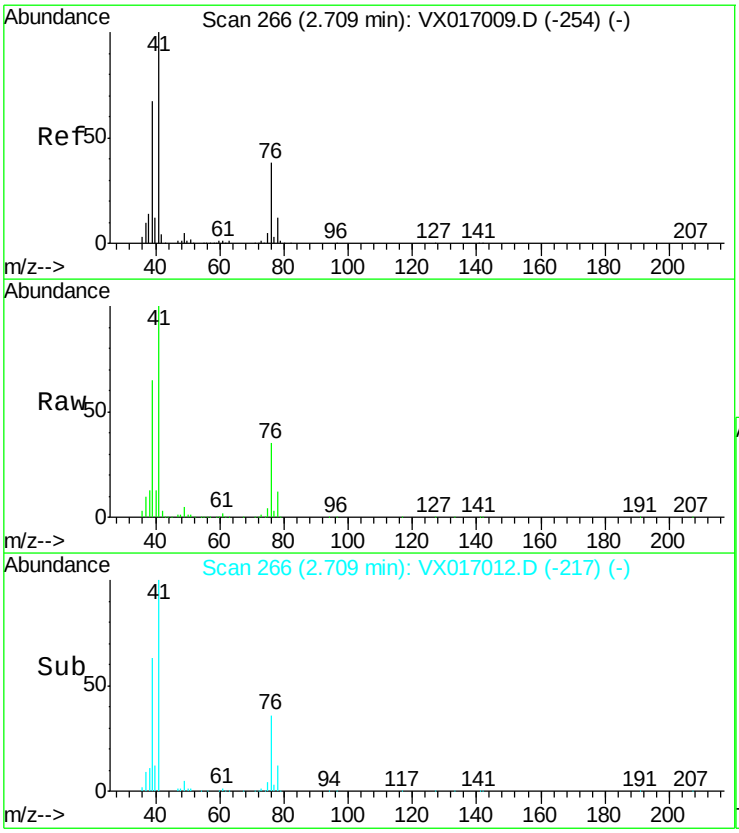
Tgt Ion: 56 Resp: 101735

Ion	Ratio	Lower	Upper
56	100		
55	69.6	55.7	83.5



Instrument :
MSVOA_X
ClientSampleId :
ICVVX062920

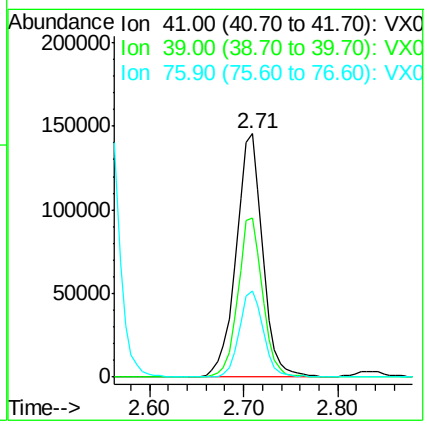
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:12:17 AM



#14
Allyl chloride
Concen: 48.394 ug/l
RT: 2.71 min Scan# 266
Delta R.T. -0.00 min
Lab File: VX017012.D
Acq: 29 Jun 2020 16:53

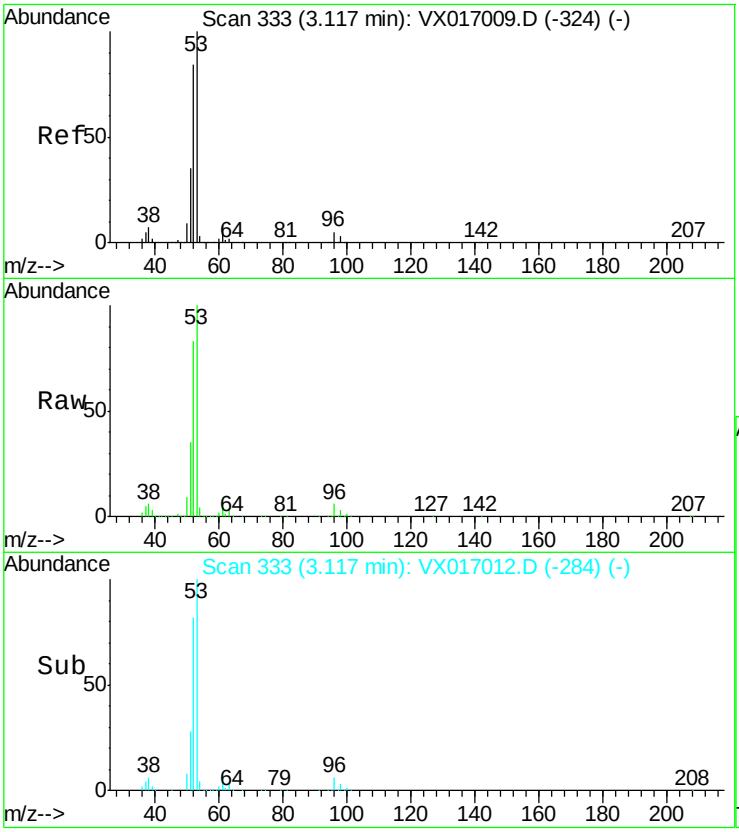
Tgt Ion: 41 Resp: 283929

Ion	Ratio	Lower	Upper
41	100		
39	60.7	49.4	74.2
76	32.1	26.8	40.2



Instrument :
MSVOA_X
ClientSampleId :
ICVVX062920

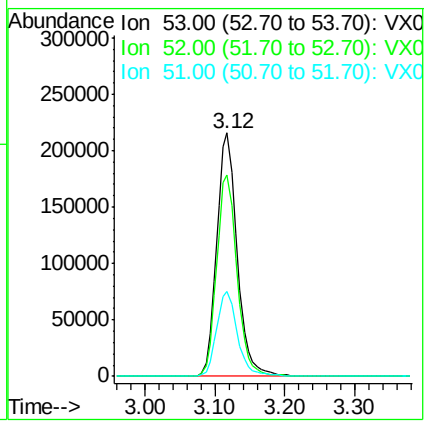
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:12:17 AM

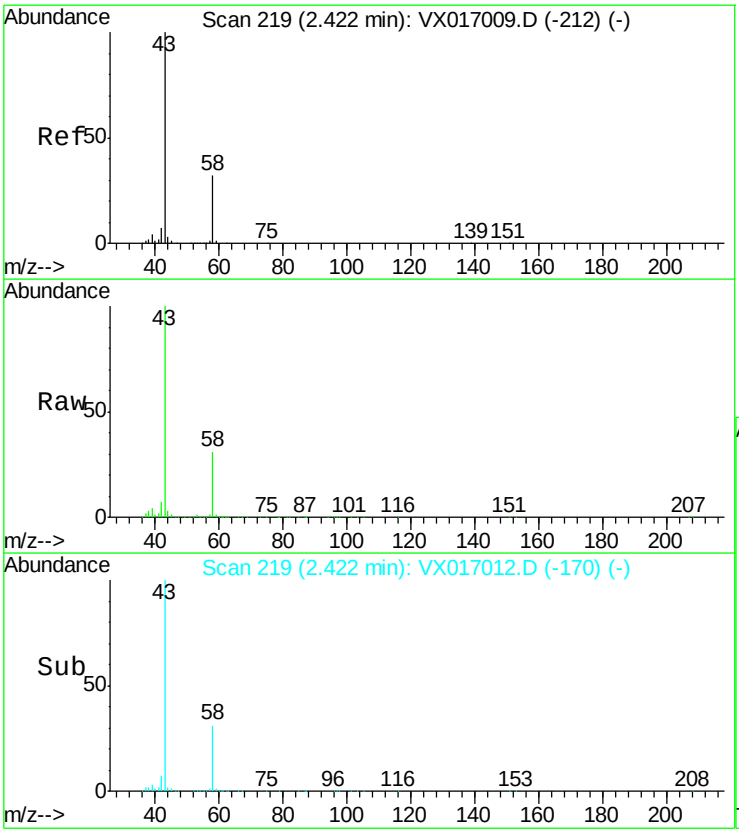


#15
Acrylonitrile
Concen: 241.364 ug/l
RT: 3.12 min Scan# 333
Delta R.T. -0.00 min
Lab File: VX017012.D
Acq: 29 Jun 2020 16:53

Tgt Ion: 53 Resp: 437875

Ion	Ratio	Lower	Upper
53	100		
52	82.7	65.6	98.4
51	35.6	28.3	42.5

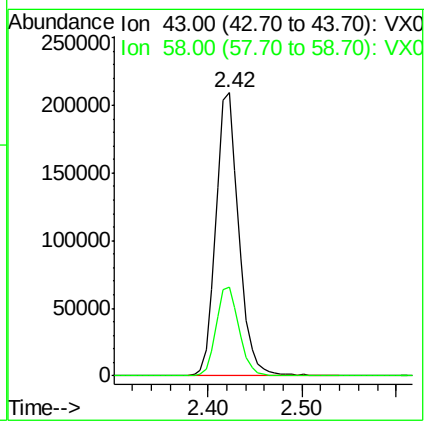


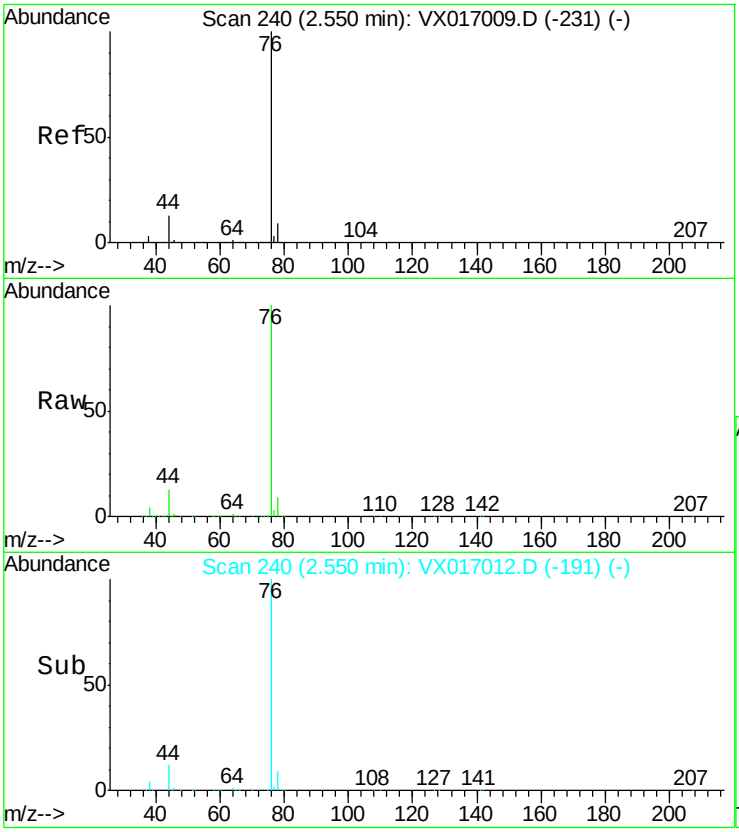


#16
Acetone
Concen: 236.901 ug/l
RT: 2.42 min Scan# 219
Delta R.T. -0.00 min
Lab File: VX017012.D
Acq: 29 Jun 2020 16:53

Tgt Ion: 43 Resp: 350578

Ion	Ratio	Lower	Upper
43	100		
58	31.4	25.7	38.5

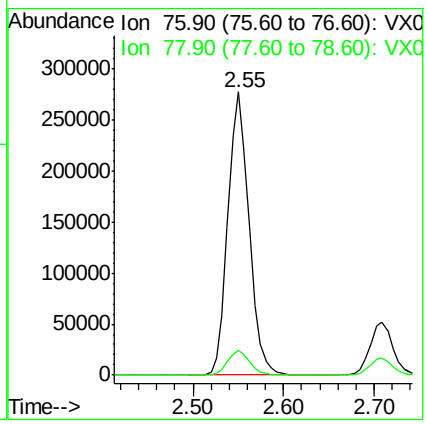




#17
Carbon Disulfide
Concen: 50.817 ug/l
RT: 2.55 min Scan# 240
Delta R.T. 0.00 min
Lab File: VX017012.D
Acq: 29 Jun 2020 16:53

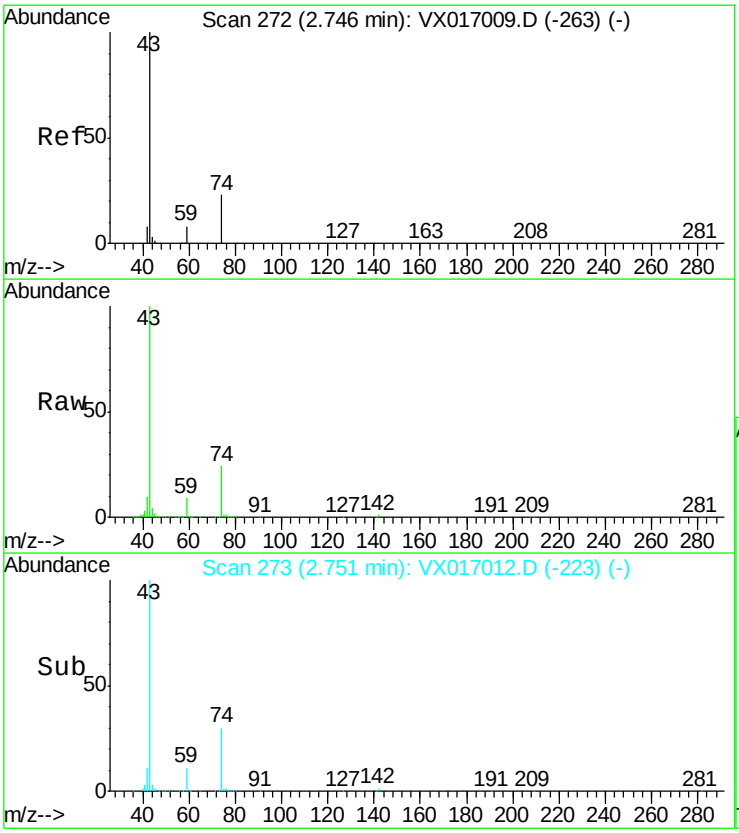
Tgt Ion: 76 Resp: 450195

Ion	Ratio	Lower	Upper
76	100		
78	8.9	7.2	10.8



Instrument :
MSVOA_X
ClientSampleId :
ICVVX062920

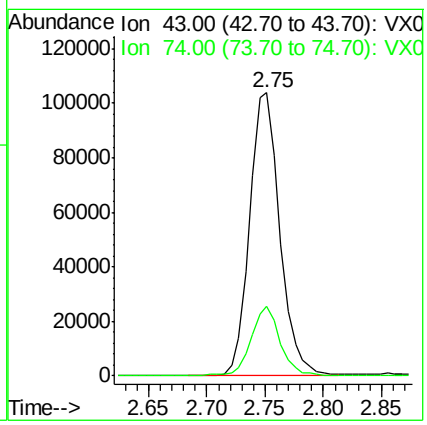
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:12:17 AM

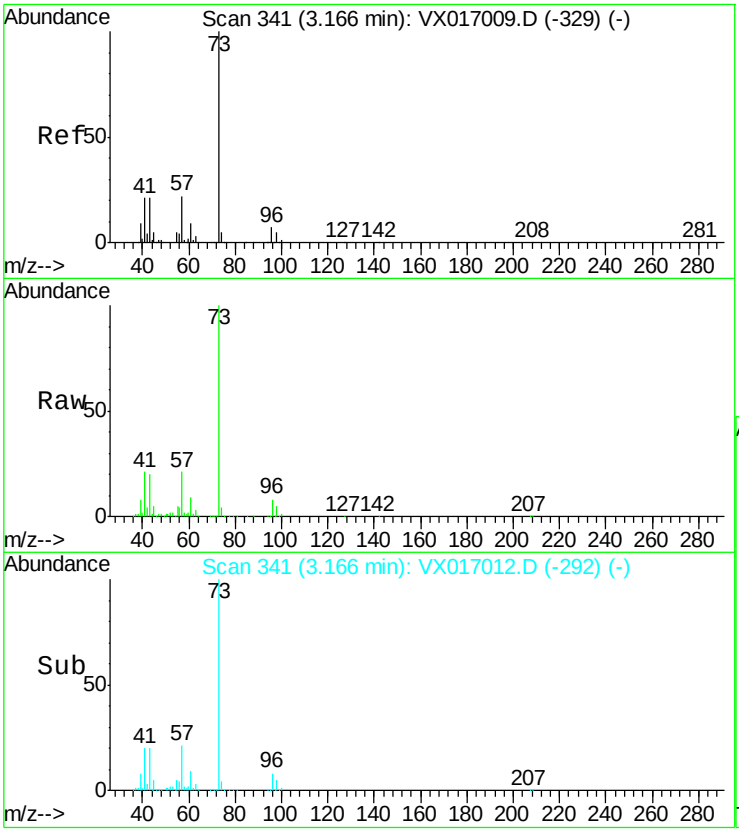


#18
Methyl Acetate
Concen: 48.342 ug/l
RT: 2.75 min Scan# 273
Delta R.T. 0.01 min
Lab File: VX017012.D
Acq: 29 Jun 2020 16:53

Tgt Ion: 43 Resp: 186751

Ion	Ratio	Lower	Upper
43	100		
74	23.9	19.3	28.9

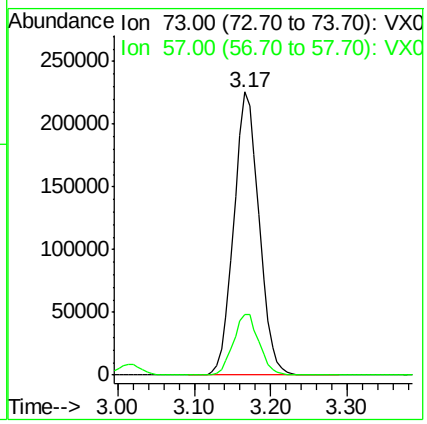




#19
Methyl tert-butyl Ether
Concen: 48.471 ug/l
RT: 3.17 min Scan# 341
Delta R.T. -0.00 min
Lab File: VX017012.D
Acq: 29 Jun 2020 16:53

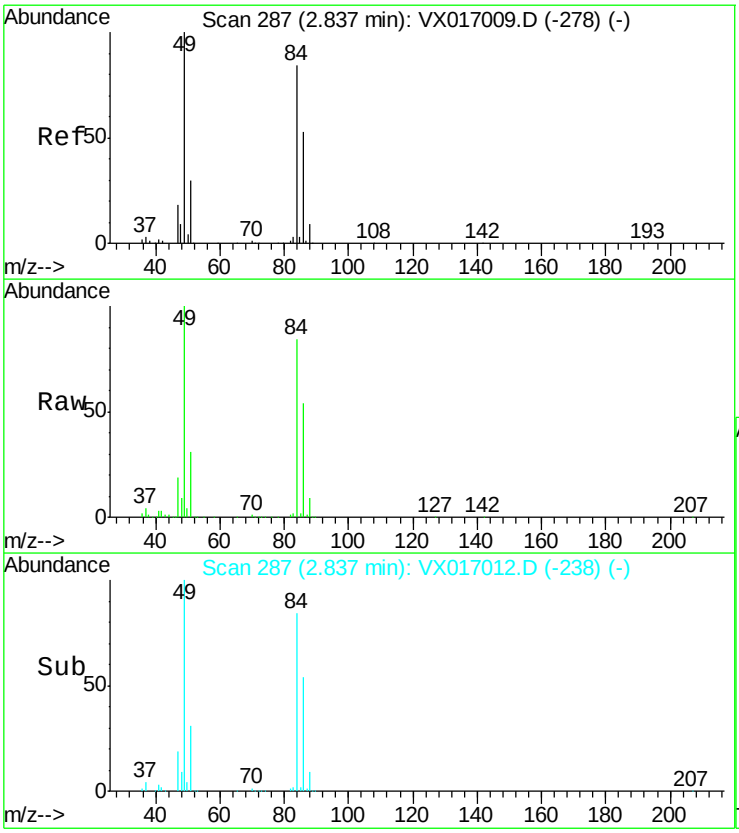
Tgt Ion: 73 Resp: 516449

Ion	Ratio	Lower	Upper
73	100		
57	21.5	17.6	26.4



Instrument :
MSVOA_X
ClientSampleId :
ICVVX062920

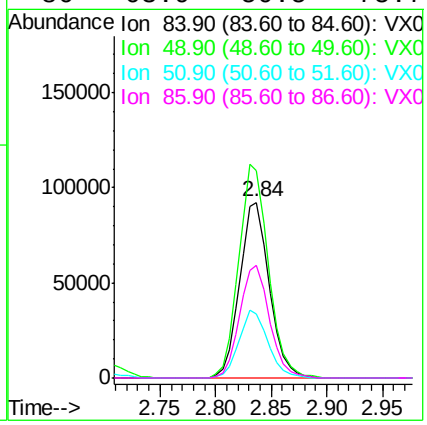
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:12:17 AM

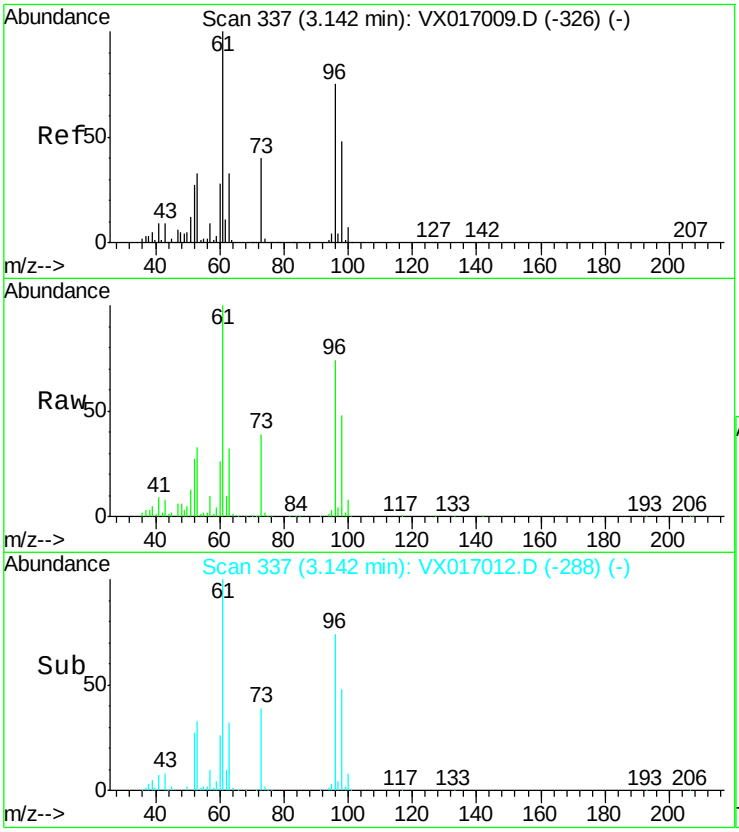


#20
Methylene Chloride
Concen: 50.345 ug/l
RT: 2.84 min Scan# 287
Delta R.T. 0.00 min
Lab File: VX017012.D
Acq: 29 Jun 2020 16:53

Tgt Ion: 84 Resp: 170852

Ion	Ratio	Lower	Upper
84	100		
49	118.4	94.7	142.1
51	36.8	28.6	42.8
86	63.9	50.5	75.7

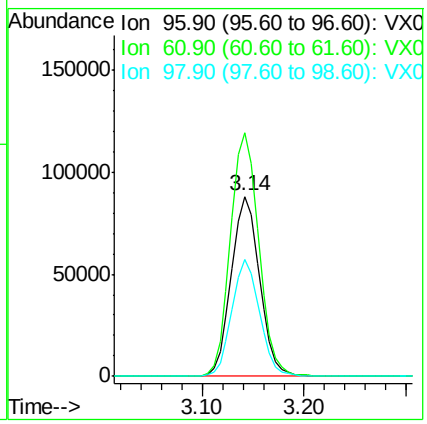




#21
trans-1,2-Dichloroethene
Concen: 48.035 ug/l
RT: 3.14 min Scan# 337
Delta R.T. -0.00 min
Lab File: VX017012.D
Acq: 29 Jun 2020 16:53

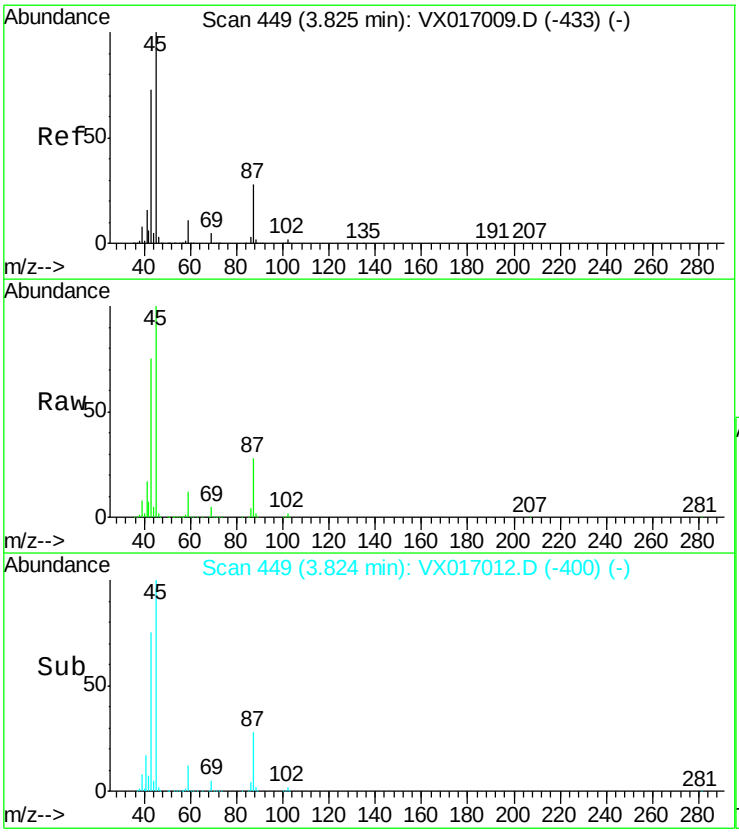
Tgt Ion: 96 Resp: 169231

Ion	Ratio	Lower	Upper
96	100		
61	135.2	107.0	160.6
98	65.2	51.6	77.4



Instrument :
MSVOA_X
ClientSampleId :
ICVVX062920

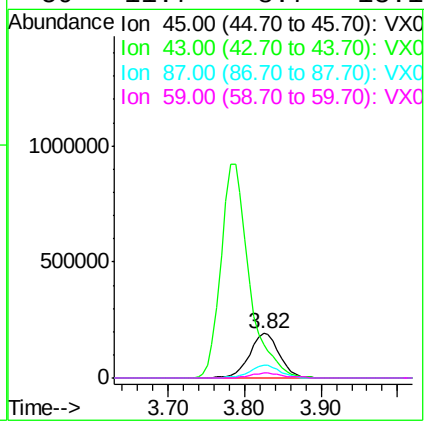
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:12:17 AM

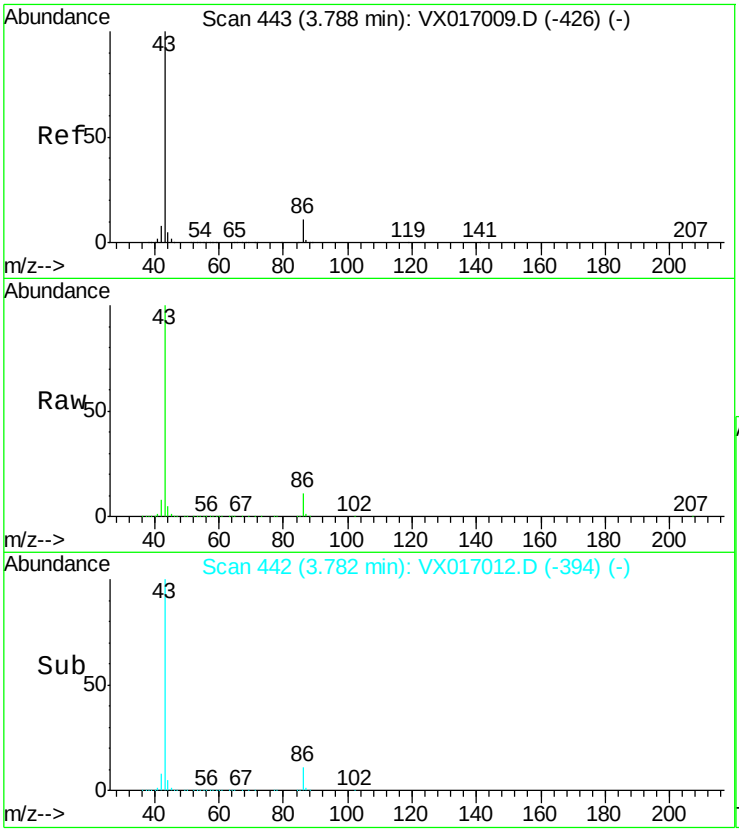


#22
Diisopropyl ether
Concen: 48.502 ug/l
RT: 3.82 min Scan# 449
Delta R.T. -0.00 min
Lab File: VX017012.D
Acq: 29 Jun 2020 16:53

Tgt Ion: 45 Resp: 526684

Ion	Ratio	Lower	Upper
45	100		
43	75.2	58.6	88.0
87	27.8	22.6	34.0
59	11.7	8.7	13.1

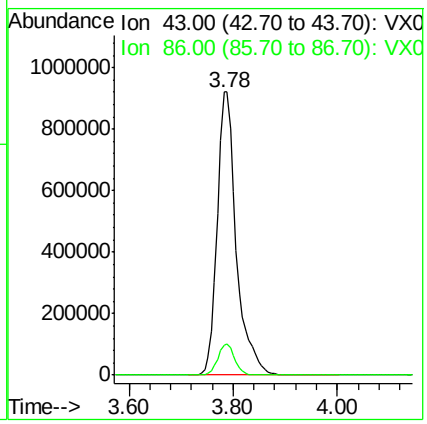




#23
Vinyl Acetate
Concen: 253.224 ug/l
RT: 3.78 min Scan# 442
Delta R.T. -0.01 min
Lab File: VX017012.D
Acq: 29 Jun 2020 16:53

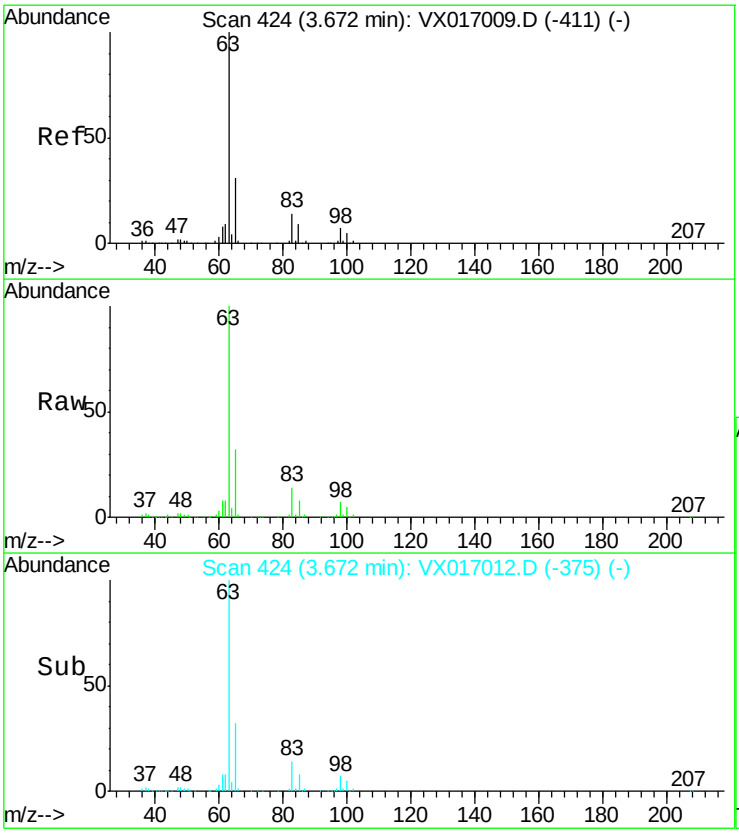
Tgt Ion: 43 Resp: 2362896

Ion	Ratio	Lower	Upper
43	100		
86	10.6	8.6	13.0



Instrument :
MSVOA_X
ClientSampleId :
ICVVX062920

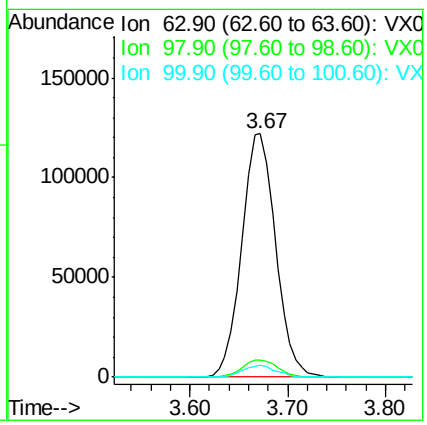
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:12:17 AM



#24
1,1-Dichloroethane
Concen: 47.624 ug/l
RT: 3.67 min Scan# 424
Delta R.T. -0.00 min
Lab File: VX017012.D
Acq: 29 Jun 2020 16:53

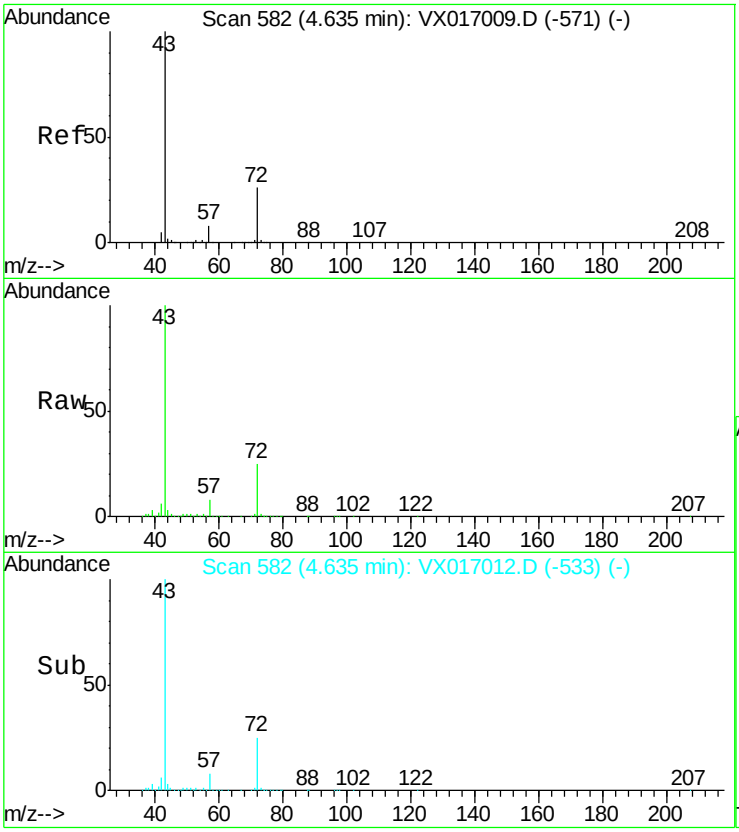
Tgt Ion: 63 Resp: 294257

Ion	Ratio	Lower	Upper
63	100		
98	6.8	3.6	10.8
100	4.9	2.4	7.1



Instrument :
MSVOA_X
ClientSampleId :
ICVVX062920

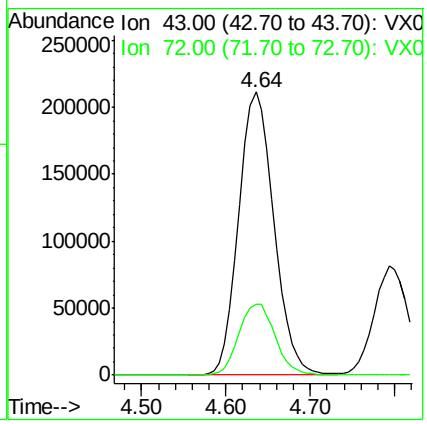
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:12:17 AM

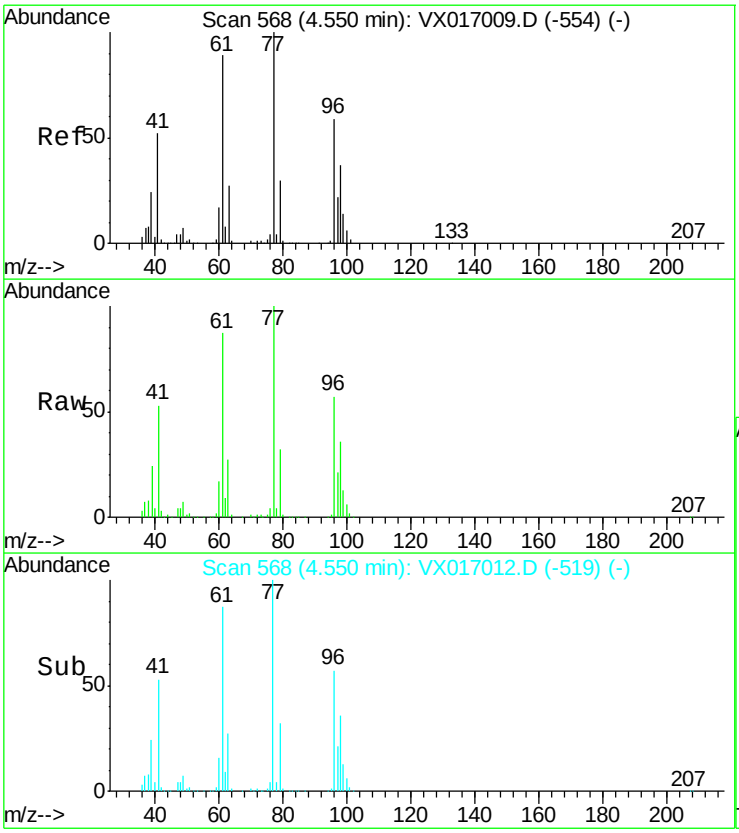


#25
2-Butanone
Concen: 242.815 ug/l
RT: 4.64 min Scan# 582
Delta R.T. -0.00 min
Lab File: VX017012.D
Acq: 29 Jun 2020 16:53

Tgt Ion: 43 Resp: 598737

Ion	Ratio	Lower	Upper
43	100		
72	24.8	20.8	31.2

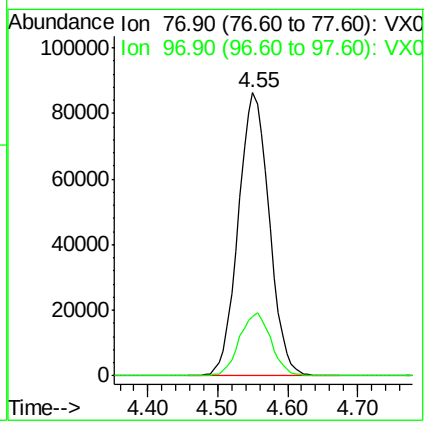




#26
2,2-Dichloropropane
Concen: 48.399 ug/l
RT: 4.55 min Scan# 568
Delta R.T. -0.00 min
Lab File: VX017012.D
Acq: 29 Jun 2020 16:53

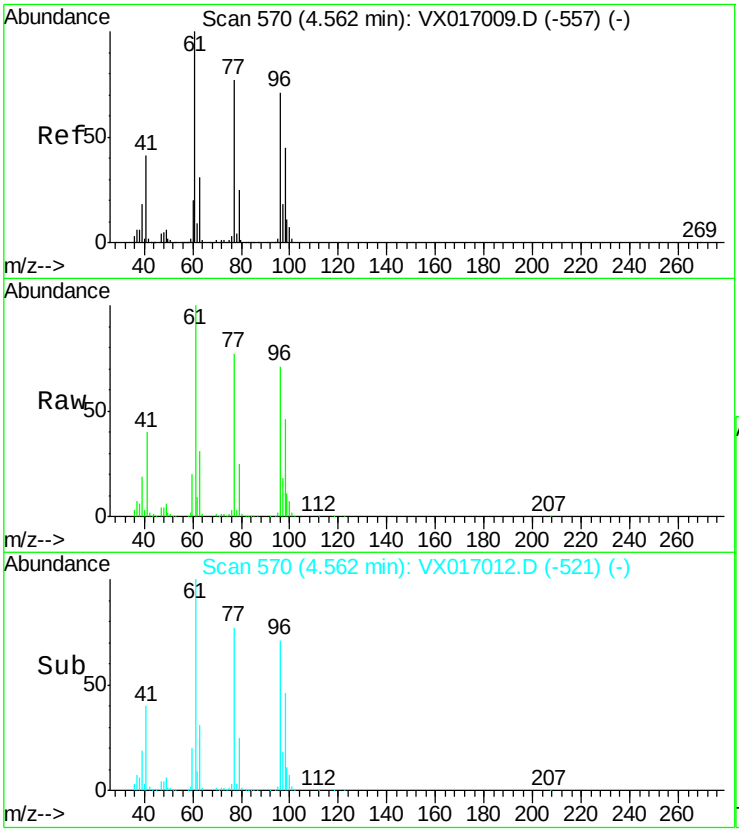
Tgt Ion: 77 Resp: 265521

Ion	Ratio	Lower	Upper
77	100		
97	22.7	11.4	34.2



Instrument :
MSVOA_X
ClientSampleId :
ICVVX062920

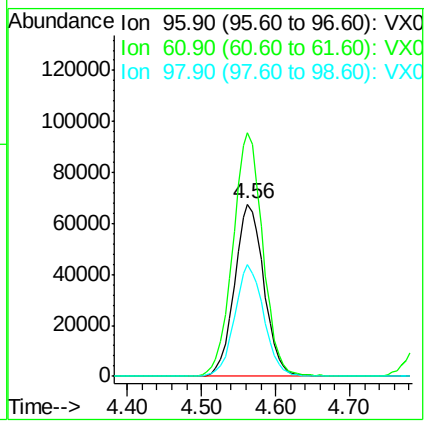
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:12:17 AM

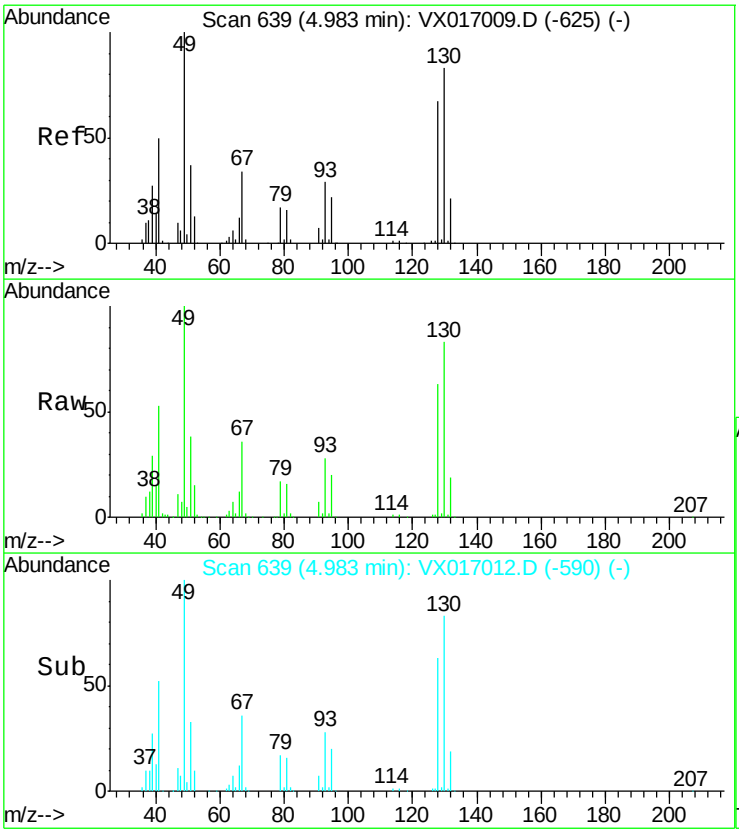


#27
cis-1,2-Dichloroethene
Concen: 46.842 ug/l
RT: 4.56 min Scan# 570
Delta R.T. -0.00 min
Lab File: VX017012.D
Acq: 29 Jun 2020 16:53

Tgt Ion: 96 Resp: 186990

Ion	Ratio	Lower	Upper
96	100		
61	144.0	0.0	282.8
98	64.2	0.0	127.6

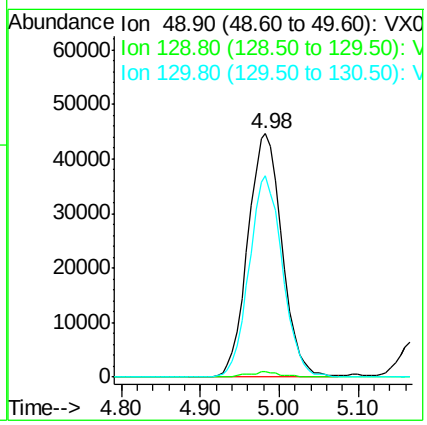




#28
Bromochloromethane
Concen: 44.721 ug/l
RT: 4.98 min Scan# 639
Delta R.T. -0.00 min
Lab File: VX017012.D
Acq: 29 Jun 2020 16:53

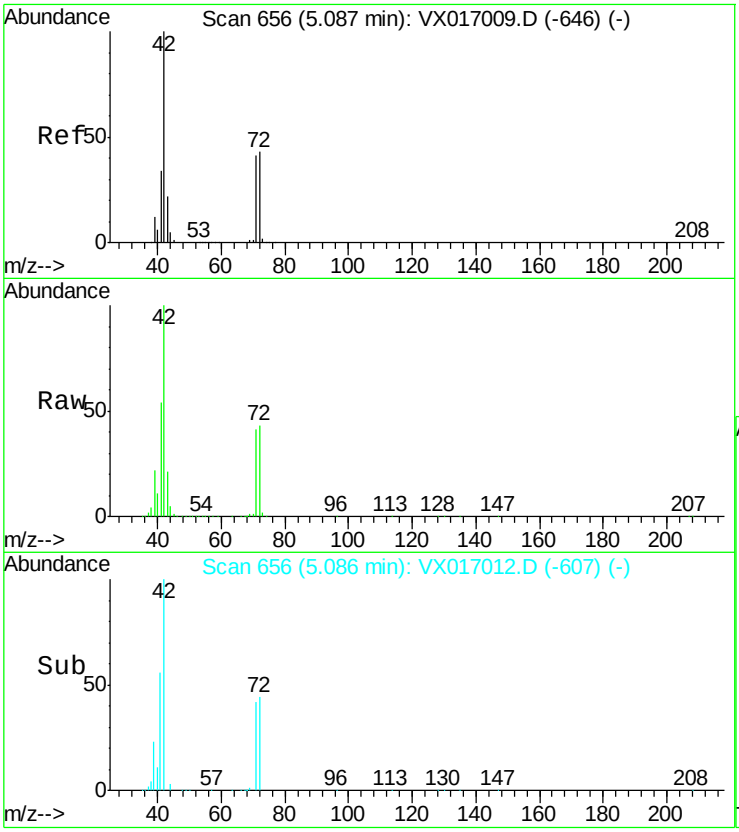
Tgt Ion: 49 Resp: 134462

Ion	Ratio	Lower	Upper
49	100		
129	2.0	0.0	4.2
130	80.7	66.6	100.0



Instrument :
MSVOA_X
ClientSampleId :
ICVVX062920

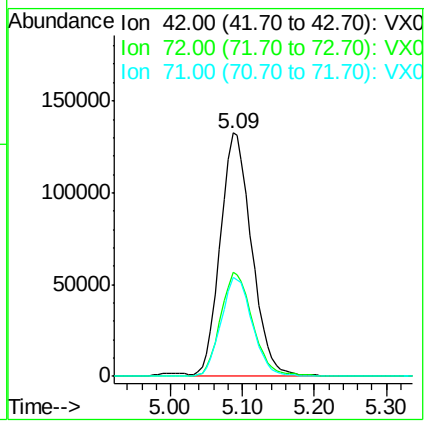
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:12:17 AM

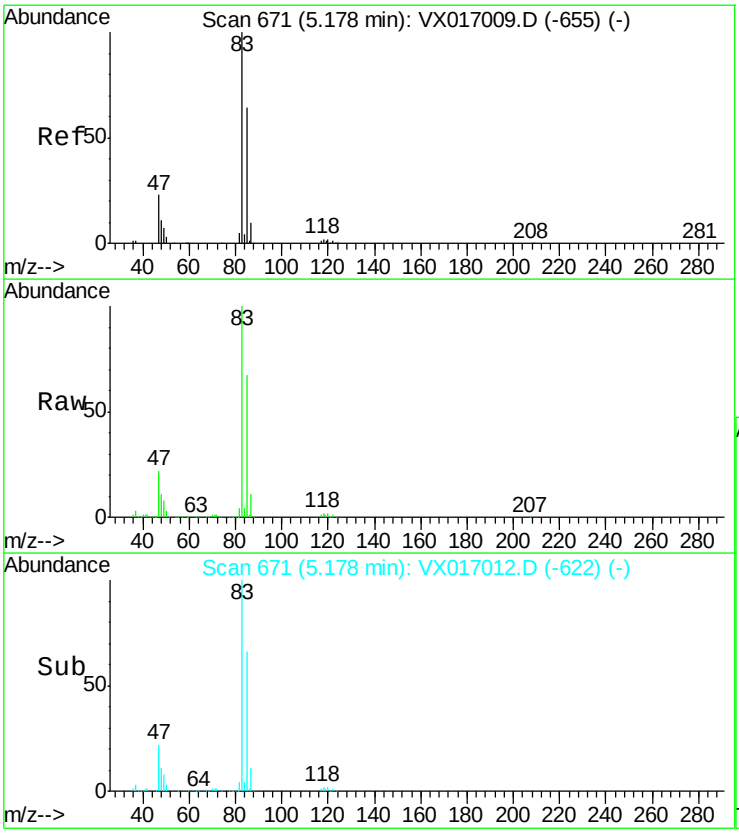


#29
Tetrahydrofuran
Concen: 245.363 ug/l
RT: 5.09 min Scan# 656
Delta R.T. -0.00 min
Lab File: VX017012.D
Acq: 29 Jun 2020 16:53

Tgt Ion: 42 Resp: 399749

Ion	Ratio	Lower	Upper
42	100		
72	43.9	35.3	52.9
71	40.8	33.1	49.7

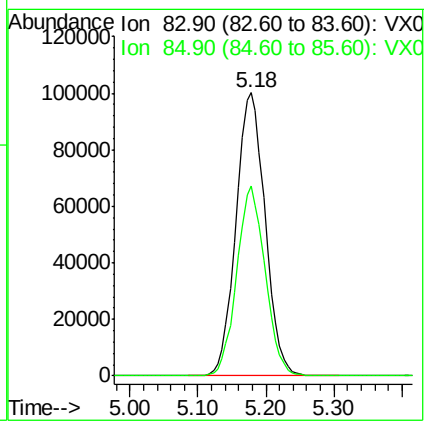


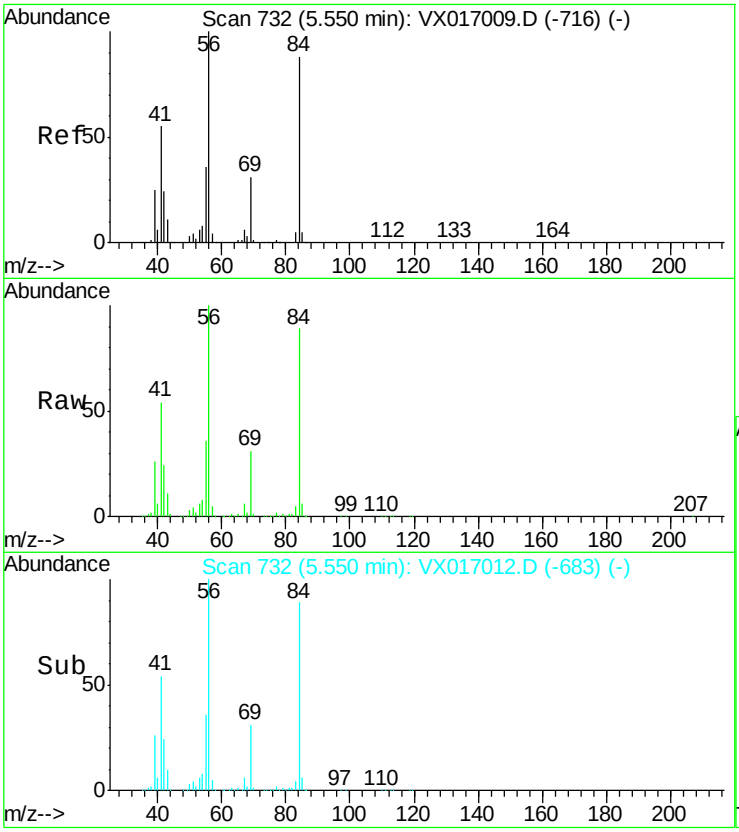


#30
Chloroform
Concen: 47.082 ug/l
RT: 5.18 min Scan# 671
Delta R.T. -0.00 min
Lab File: VX017012.D
Acq: 29 Jun 2020 16:53

Tgt Ion: 83 Resp: 298207

Ion	Ratio	Lower	Upper
83	100		
85	67.2	51.4	77.2

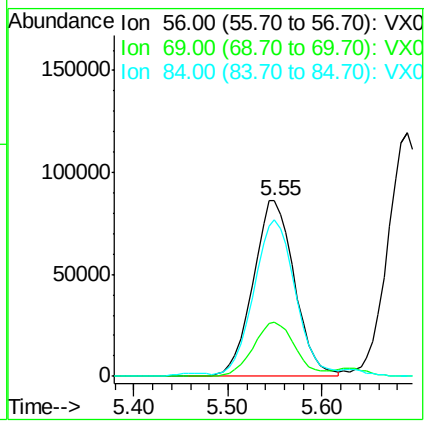




#31
Cyclohexane
Concen: 49.646 ug/l
RT: 5.55 min Scan# 732
Delta R.T. -0.00 min
Lab File: VX017012.D
Acq: 29 Jun 2020 16:53

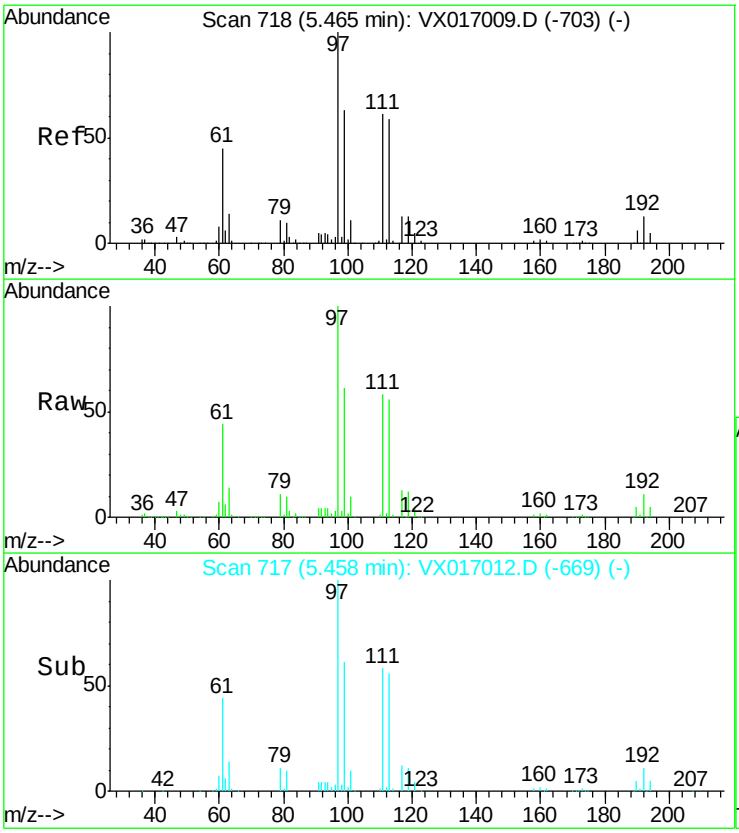
Tgt Ion: 56 Resp: 265147

Ion	Ratio	Lower	Upper
56	100		
69	31.0	25.0	37.4
84	87.4	69.1	103.7



Instrument :
MSVOA_X
ClientSampleId :
ICVVX062920

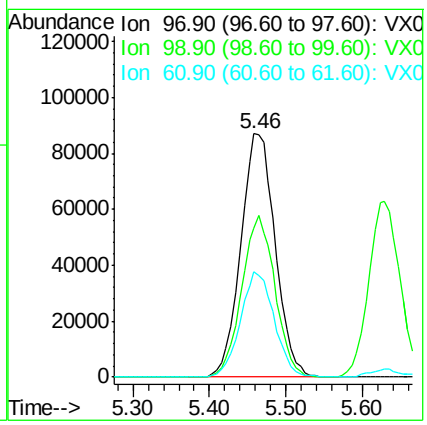
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:12:17 AM



#32
1,1,1-Trichloroethane
Concen: 46.608 ug/l
RT: 5.46 min Scan# 717
Delta R.T. -0.01 min
Lab File: VX017012.D
Acq: 29 Jun 2020 16:53

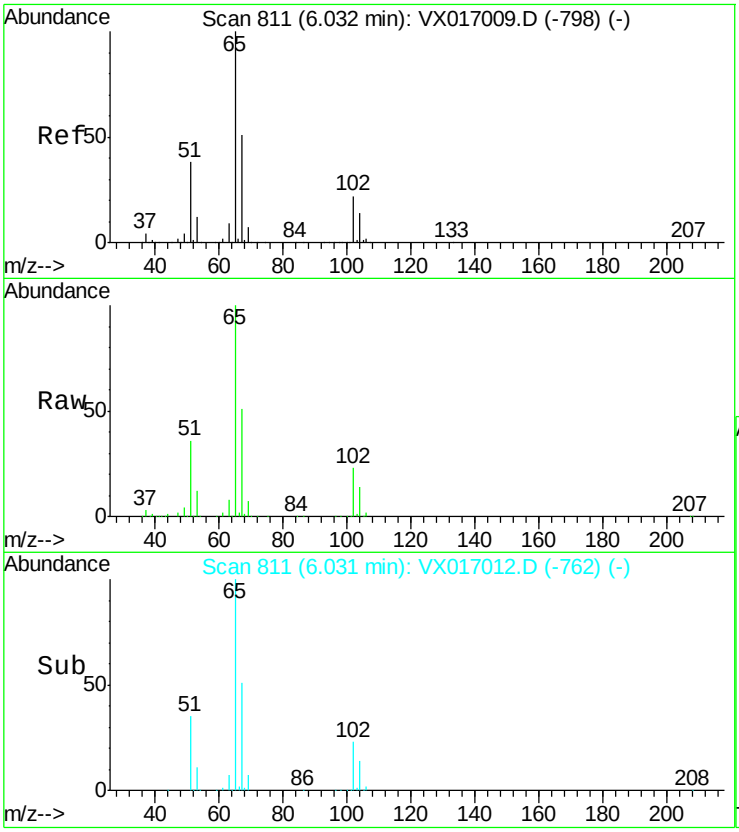
Tgt Ion: 97 Resp: 271873

Ion	Ratio	Lower	Upper
97	100		
99	64.1	50.8	76.2
61	42.6	33.7	50.5



Instrument :
MSVOA_X
ClientSampleId :
ICVVX062920

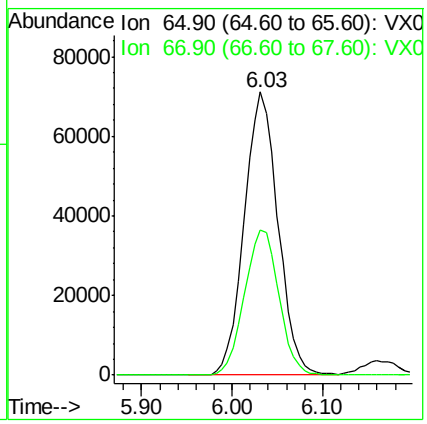
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:12:17 AM

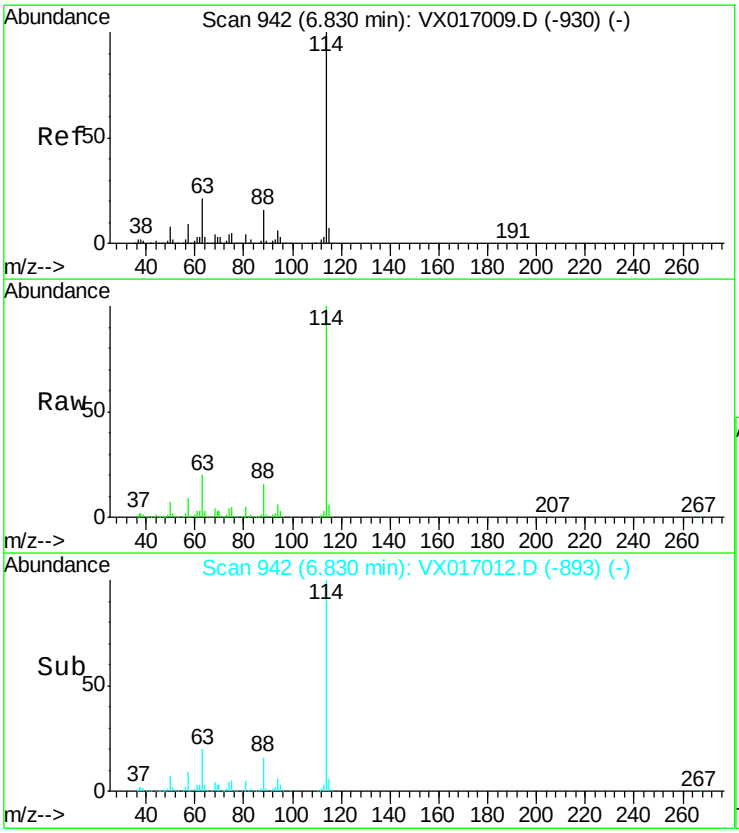


#33
1,2-Dichloroethane-d4
Concen: 46.253 ug/l
RT: 6.03 min Scan# 811
Delta R.T. -0.00 min
Lab File: VX017012.D
Acq: 29 Jun 2020 16:53

Tgt Ion: 65 Resp: 182972

Ion	Ratio	Lower	Upper
65	100		
67	52.4	0.0	103.8

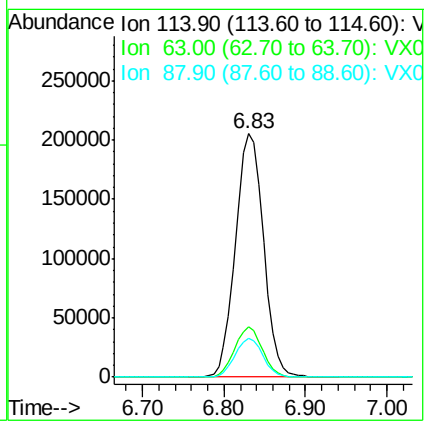


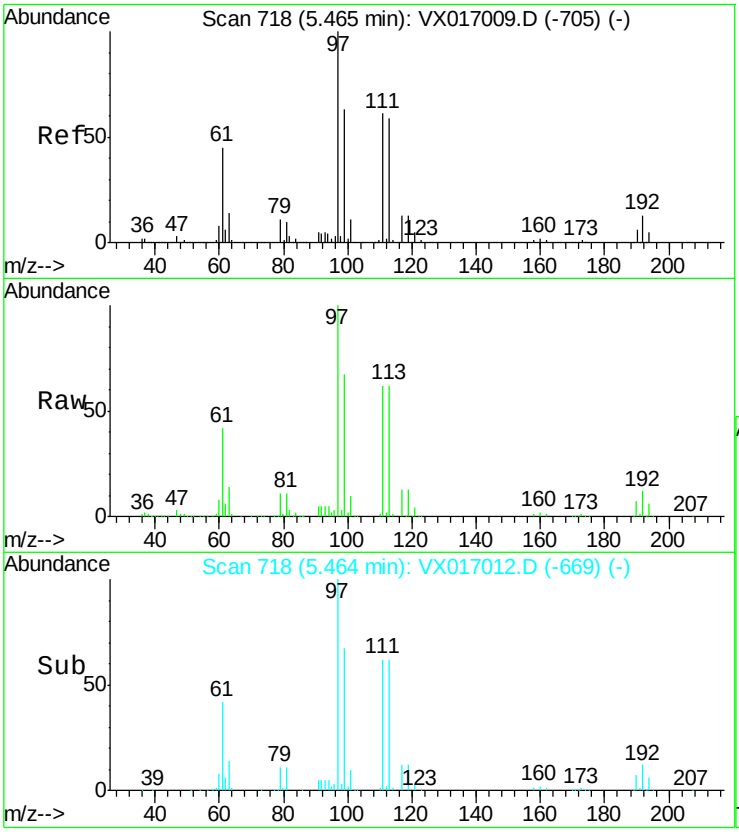


#34
1,4-Difluorobenzene
Concen: 50.000 ug/l
RT: 6.83 min Scan# 942
Delta R.T. -0.00 min
Lab File: VX017012.D
Acq: 29 Jun 2020 16:53

Tgt Ion:114 Resp: 488290

Ion	Ratio	Lower	Upper
114	100		
63	20.5	0.0	41.4
88	15.7	0.0	32.4

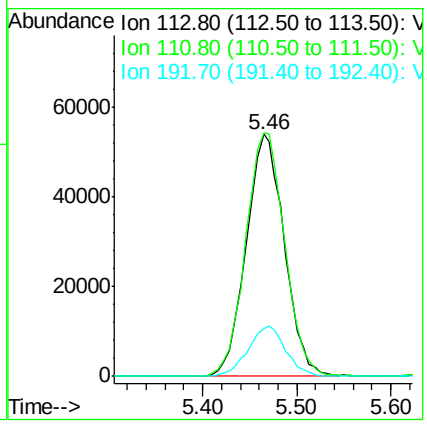




#35
Dibromofluoromethane
Concen: 49.367 ug/l
RT: 5.46 min Scan# 718
Delta R.T. -0.00 min
Lab File: VX017012.D
Acq: 29 Jun 2020 16:53

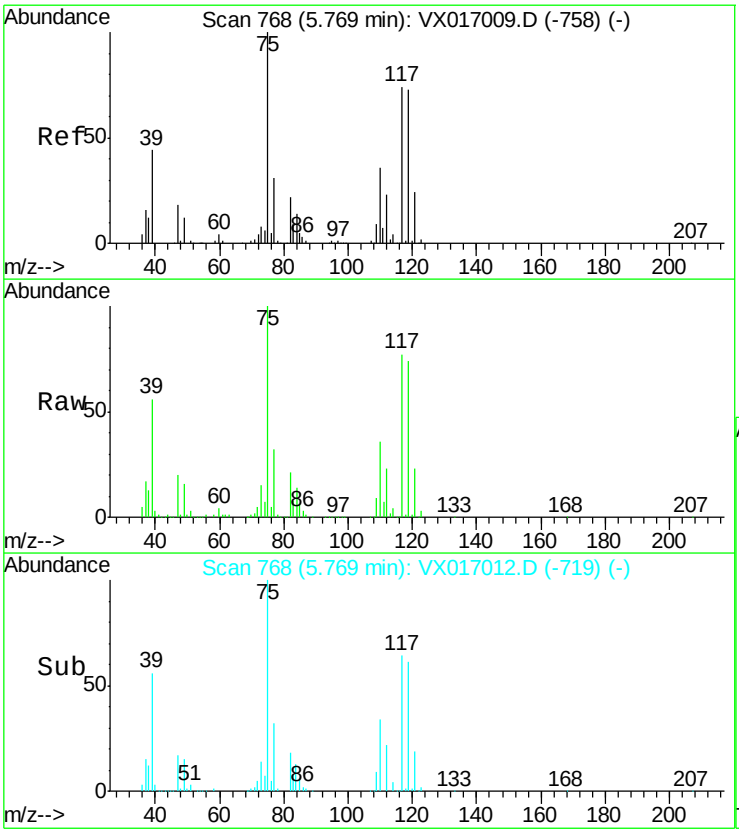
Tgt Ion:113 Resp: 152483

Ion	Ratio	Lower	Upper
113	100		
111	103.1	81.9	122.9
192	20.6	16.7	25.1



Instrument :
MSVOA_X
ClientSampleId :
ICVVX062920

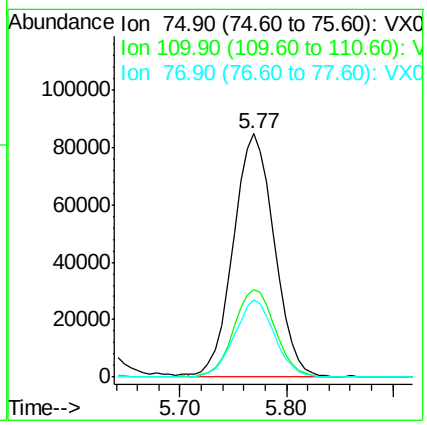
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:12:17 AM



#36
1,1-Dichloropropene
Concen: 49.243 ug/l
RT: 5.77 min Scan# 768
Delta R.T. -0.00 min
Lab File: VX017012.D
Acq: 29 Jun 2020 16:53

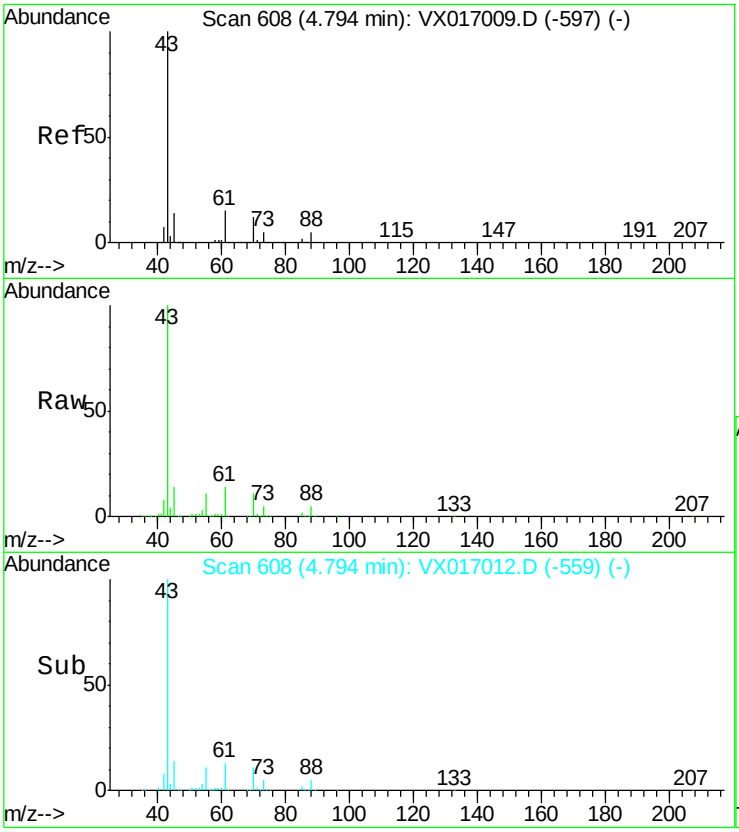
Tgt Ion: 75 Resp: 227253

Ion	Ratio	Lower	Upper
75	100		
110	36.8	18.1	54.1
77	31.3	24.6	37.0



Instrument :
MSVOA_X
ClientSampleId :
ICVVX062920

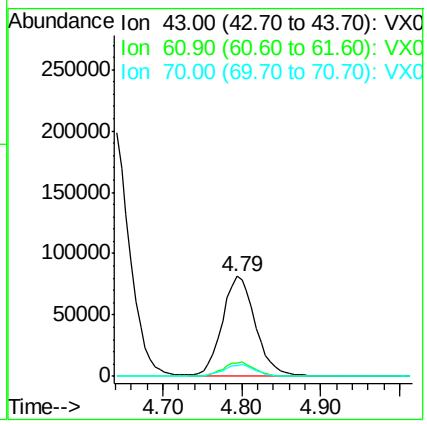
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:12:17 AM

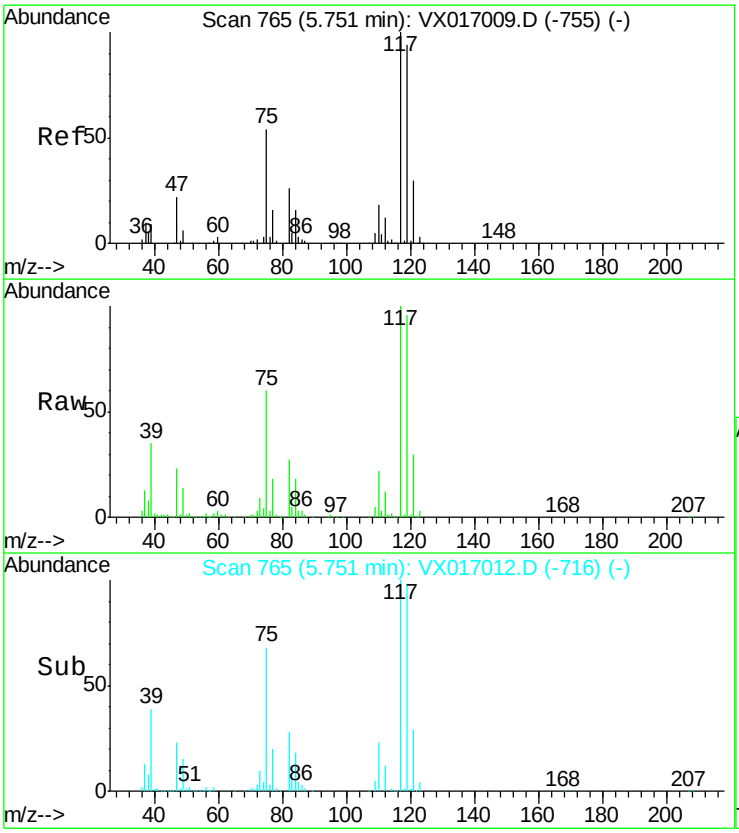


#37
Ethyl Acetate
Concen: 50.625 ug/l
RT: 4.79 min Scan# 608
Delta R.T. -0.00 min
Lab File: VX017012.D
Acq: 29 Jun 2020 16:53

Tgt Ion: 43 Resp: 237043

Ion	Ratio	Lower	Upper
43	100		
61	14.2	11.0	16.4
70	11.3	8.9	13.3

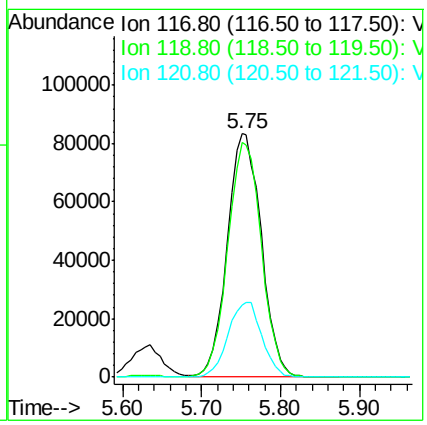




#38
Carbon Tetrachloride
Concen: 49.184 ug/l
RT: 5.75 min Scan# 765
Delta R.T. -0.00 min
Lab File: VX017012.D
Acq: 29 Jun 2020 16:53

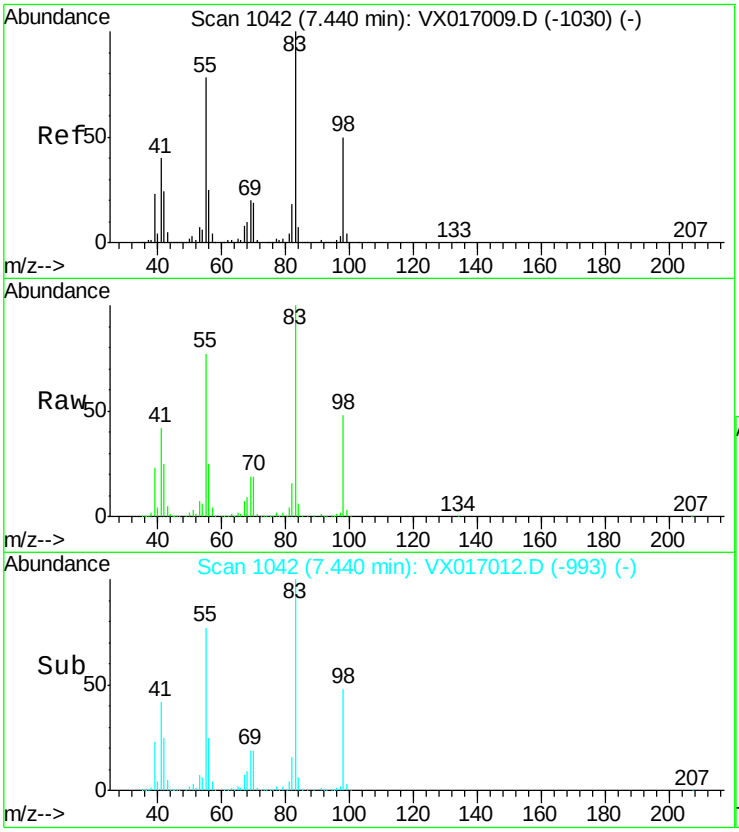
Tgt Ion:117 Resp: 250001

Ion	Ratio	Lower	Upper
117	100		
119	96.3	75.4	113.0
121	29.9	23.8	35.6



Instrument :
MSVOA_X
ClientSampleId :
ICVVX062920

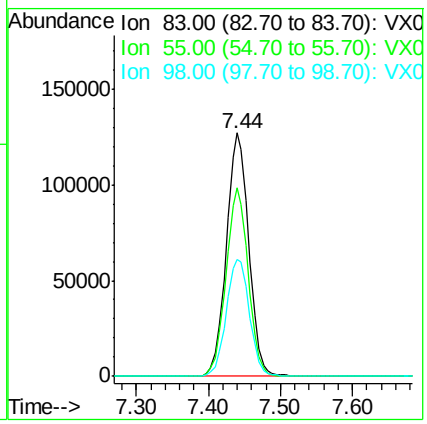
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:12:17 AM

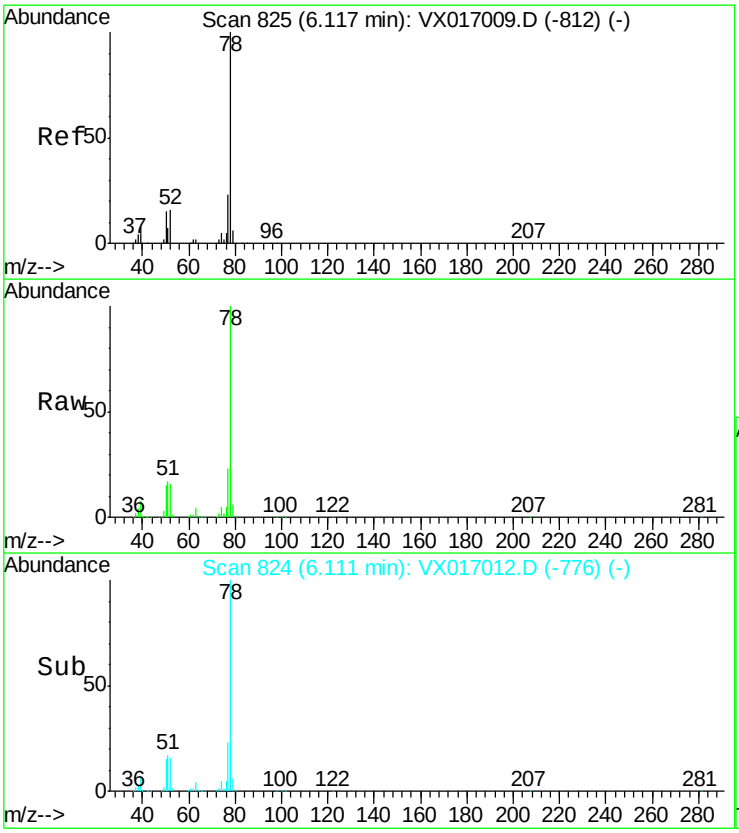


#39
Methylcyclohexane
Concen: 53.409 ug/l
RT: 7.44 min Scan# 1042
Delta R.T. -0.00 min
Lab File: VX017012.D
Acq: 29 Jun 2020 16:53

Tgt Ion: 83 Resp: 274241

Ion	Ratio	Lower	Upper
83	100		
55	77.4	62.5	93.7
98	47.8	40.1	60.1

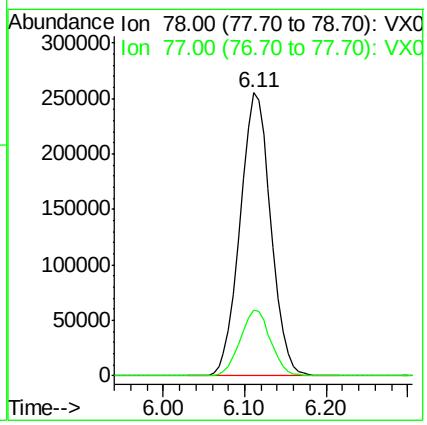




#40
Benzene
Concen: 49.231 ug/l
RT: 6.11 min Scan# 824
Delta R.T. -0.01 min
Lab File: VX017012.D
Acq: 29 Jun 2020 16:53

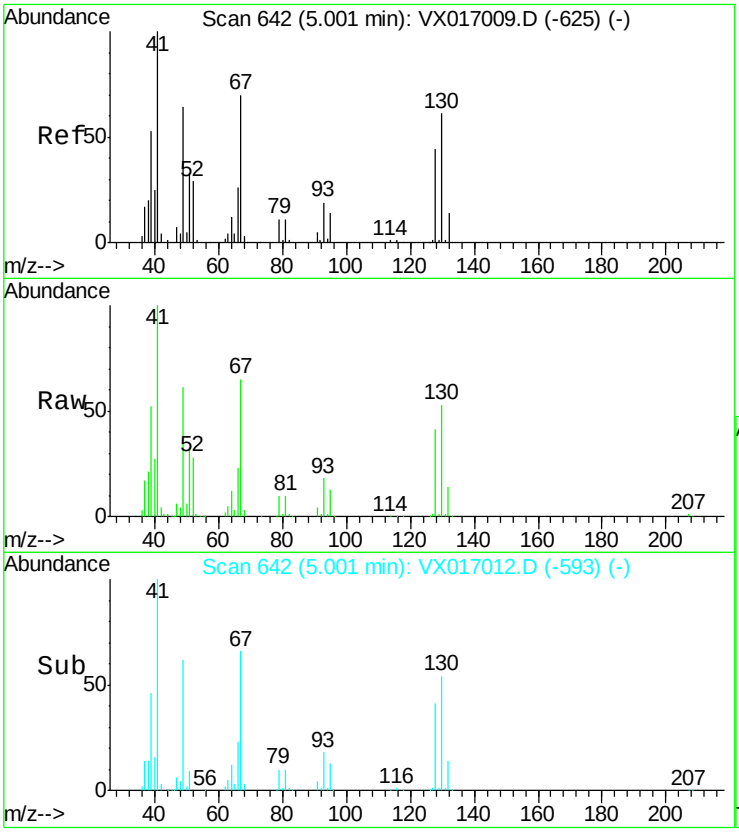
Tgt Ion: 78 Resp: 667541

Ion	Ratio	Lower	Upper
78	100		
77	23.4	18.3	27.5



Instrument :
MSVOA_X
ClientSampleId :
ICVVX062920

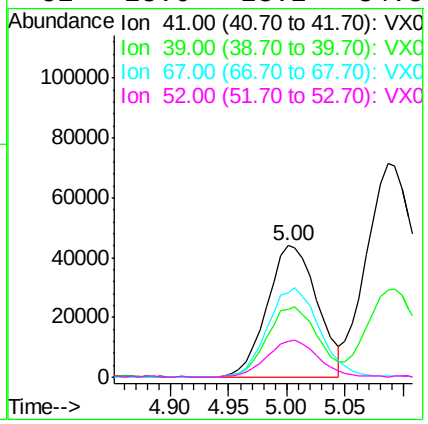
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:12:17 AM

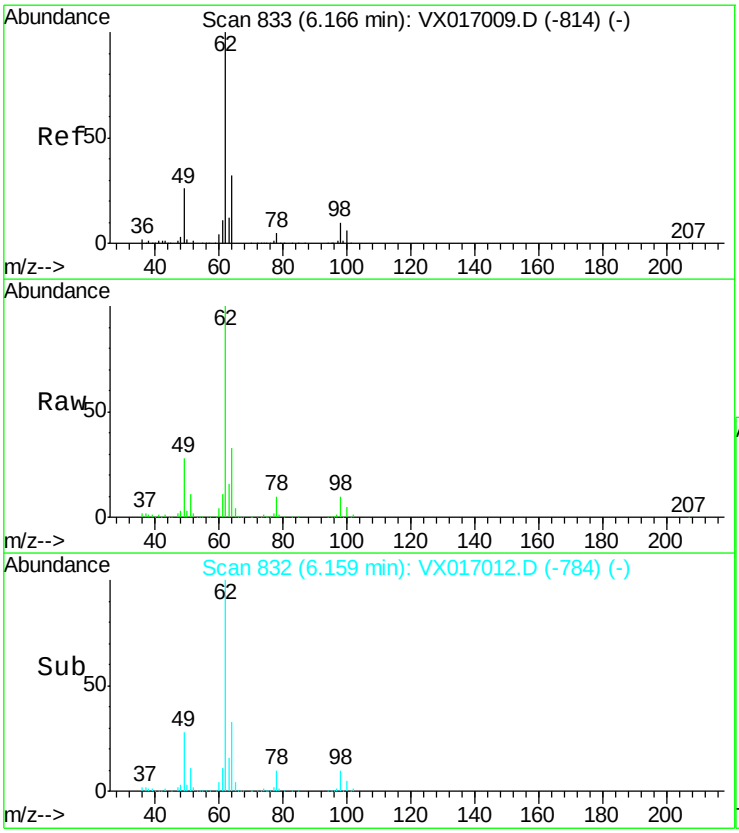


#41
Methacrylonitrile
Concen: 49.863 ug/l
RT: 5.00 min Scan# 642
Delta R.T. -0.00 min
Lab File: VX017012.D
Acq: 29 Jun 2020 16:53

Tgt Ion: 41 Resp: 131405

Ion	Ratio	Lower	Upper
41	100		
39	55.3	44.4	66.6
67	70.6	57.1	85.7
52	28.6	23.2	34.8

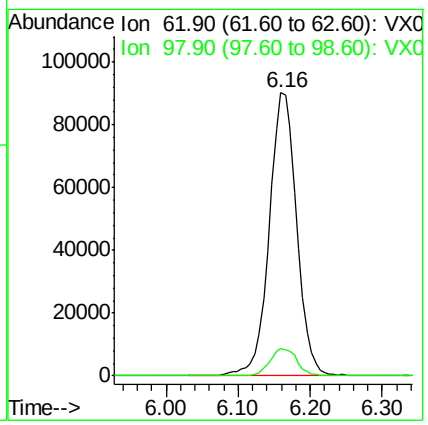


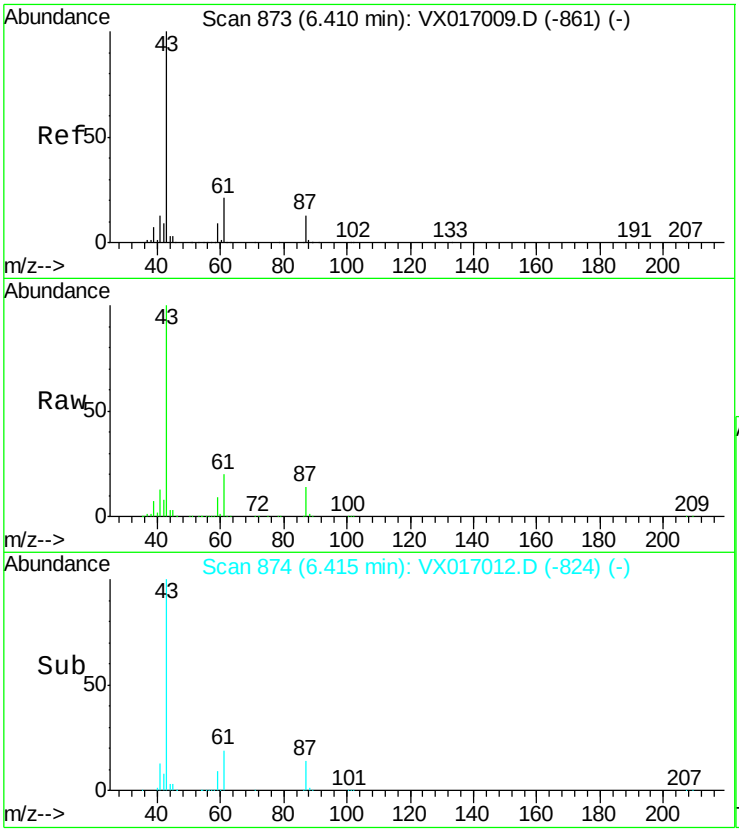


#42
1,2-Dichloroethane
Concen: 48.556 ug/l
RT: 6.16 min Scan# 832
Delta R.T. -0.01 min
Lab File: VX017012.D
Acq: 29 Jun 2020 16:53

Tgt Ion: 62 Resp: 237814

Ion	Ratio	Lower	Upper
62	100		
98	9.7	0.0	19.2

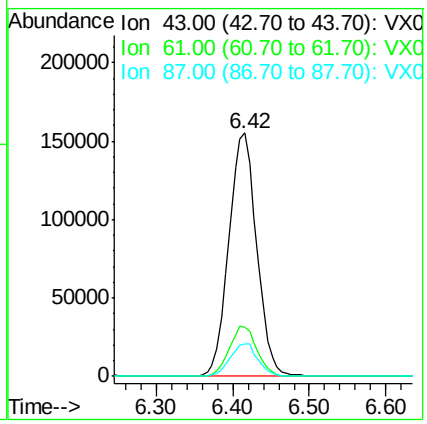




#43
Isopropyl Acetate
Concen: 50.084 ug/l
RT: 6.42 min Scan# 874
Delta R.T. 0.01 min
Lab File: VX017012.D
Acq: 29 Jun 2020 16:53

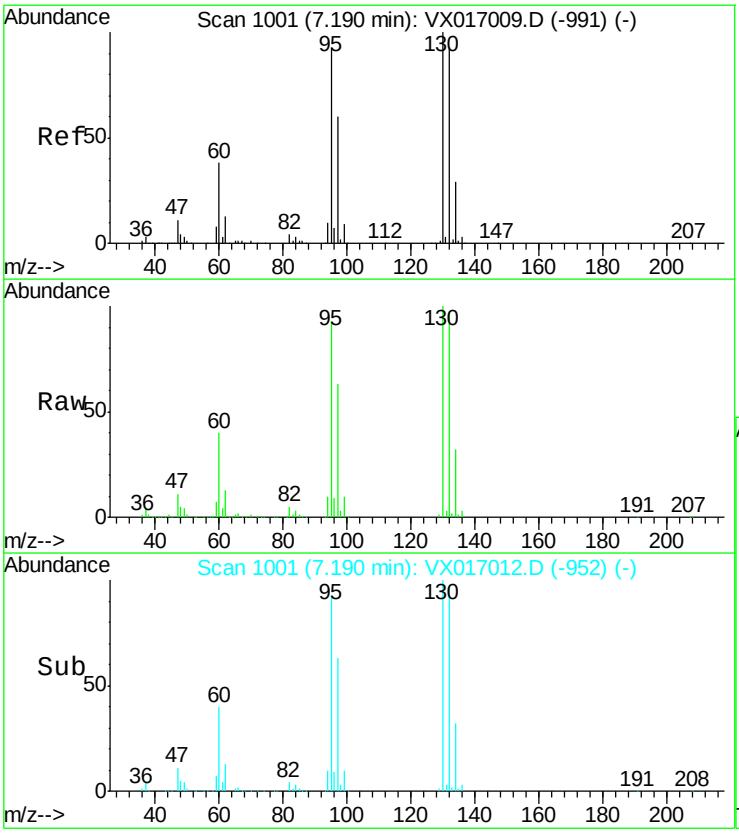
Tgt Ion: 43 Resp: 389692

Ion	Ratio	Lower	Upper
43	100		
61	20.4	16.2	24.2
87	13.5	10.7	16.1



Instrument :
MSVOA_X
ClientSampleId :
ICVVX062920

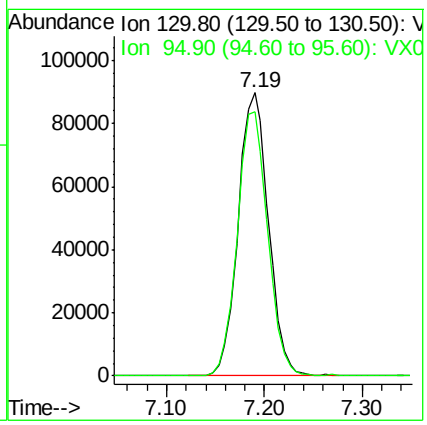
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:12:17 AM



#44
Trichloroethene
Concen: 51.389 ug/l
RT: 7.19 min Scan# 1001
Delta R.T. 0.00 min
Lab File: VX017012.D
Acq: 29 Jun 2020 16:53

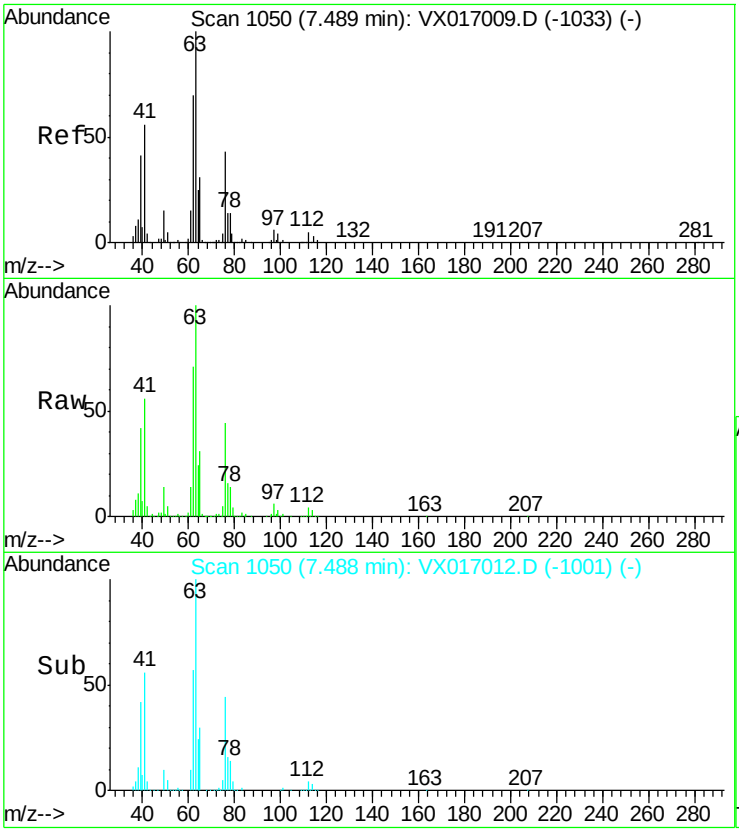
Tgt Ion:130 Resp: 192249

Ion	Ratio	Lower	Upper
130	100		
95	93.4	0.0	185.0



Instrument :
MSVOA_X
ClientSampleId :
ICVVX062920

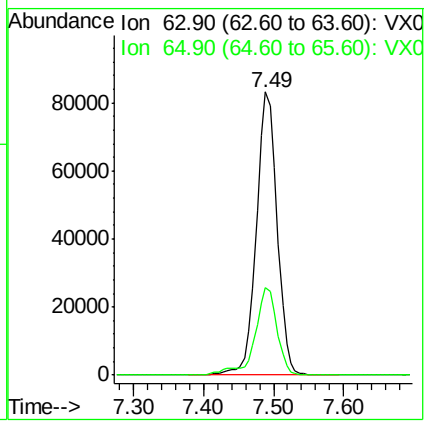
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:12:17 AM

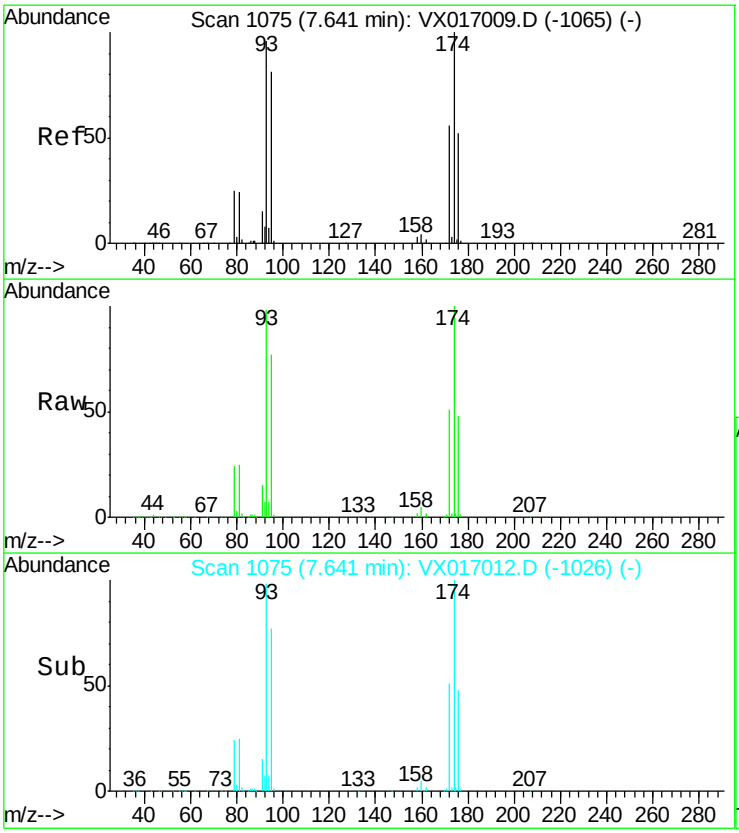


#45
1,2-Dichloropropane
Concen: 49.286 ug/l
RT: 7.49 min Scan# 1050
Delta R.T. -0.00 min
Lab File: VX017012.D
Acq: 29 Jun 2020 16:53

Tgt Ion: 63 Resp: 171644

Ion	Ratio	Lower	Upper
63	100		
65	30.9	24.6	36.8

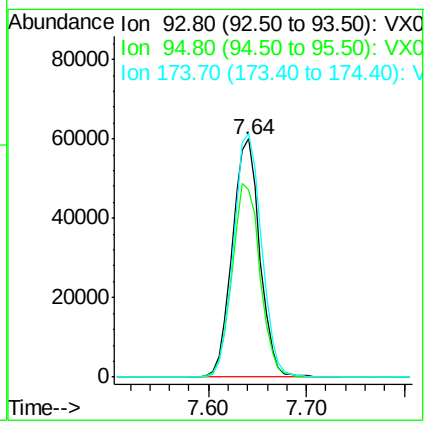




#46
Dibromomethane
Concen: 49.216 ug/l
RT: 7.64 min Scan# 1075
Delta R.T. -0.00 min
Lab File: VX017012.D
Acq: 29 Jun 2020 16:53

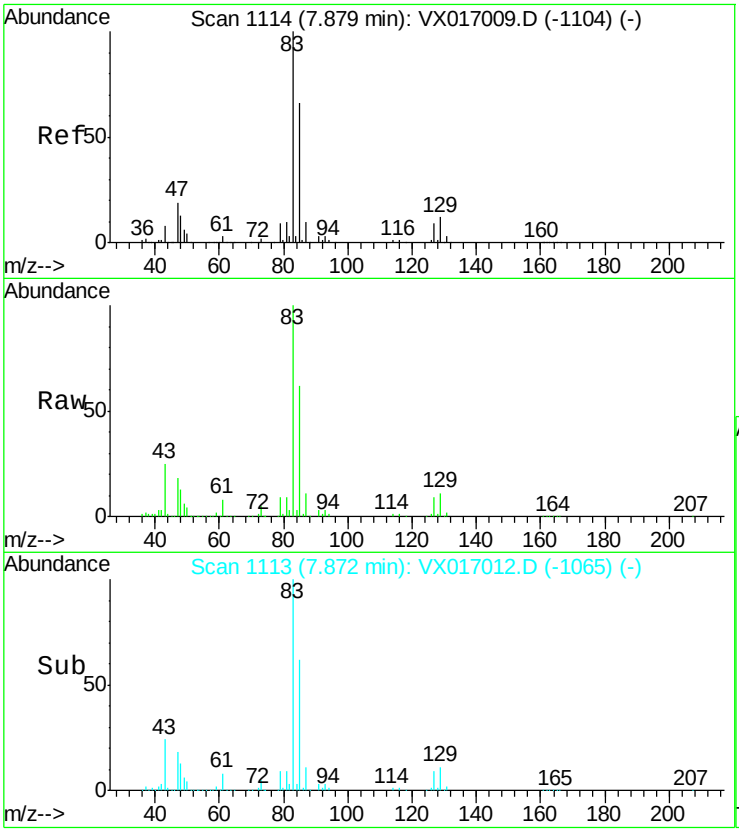
Tgt Ion: 93 Resp: 117020

Ion	Ratio	Lower	Upper
93	100		
95	82.5	67.4	101.0
174	103.9	84.3	126.5



Instrument :
MSVOA_X
ClientSampleId :
ICVVX062920

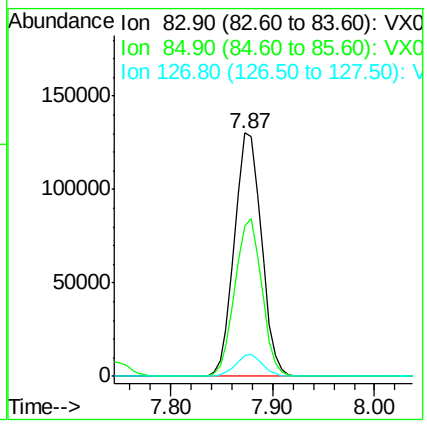
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:12:17 AM

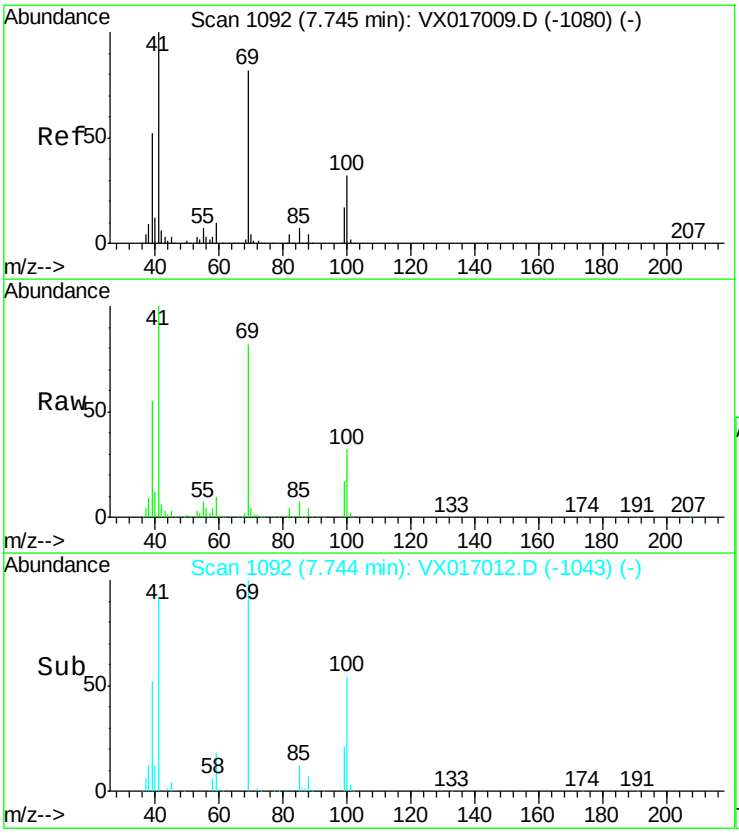


#47
Bromodichloromethane
Concen: 48.905 ug/l
RT: 7.87 min Scan# 1113
Delta R.T. -0.01 min
Lab File: VX017012.D
Acq: 29 Jun 2020 16:53

Tgt Ion: 83 Resp: 239632

Ion	Ratio	Lower	Upper
83	100		
85	61.7	53.0	79.4
127	8.6	7.5	11.3

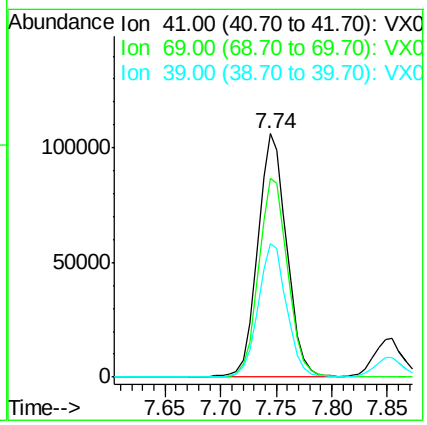


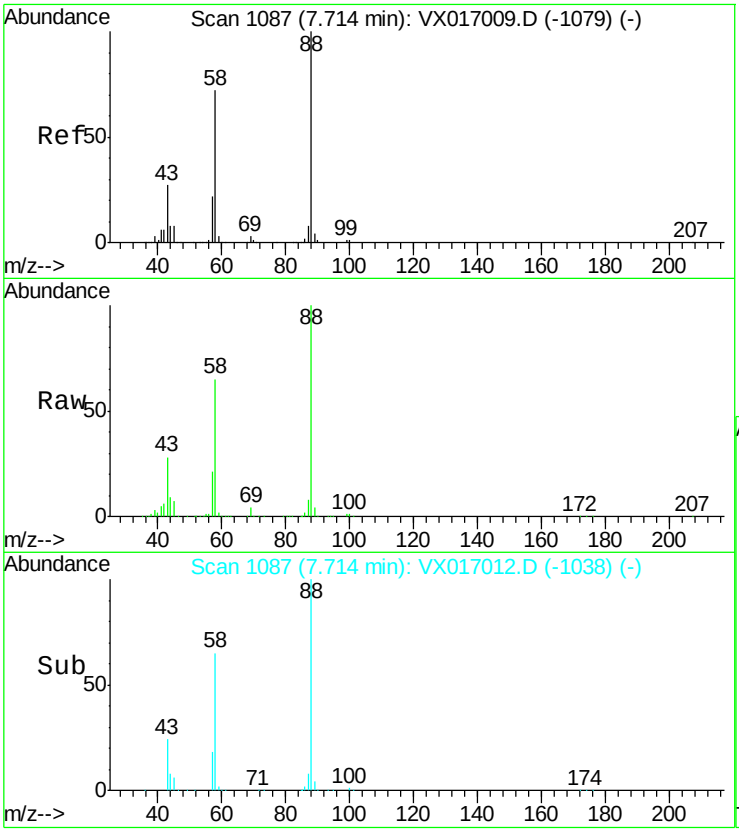


#48
Methyl methacrylate
Concen: 51.727 ug/l
RT: 7.74 min Scan# 1092
Delta R.T. -0.00 min
Lab File: VX017012.D
Acq: 29 Jun 2020 16:53

Tgt Ion: 41 Resp: 191211

Ion	Ratio	Lower	Upper
41	100		
69	82.5	65.8	98.8
39	53.8	42.5	63.7

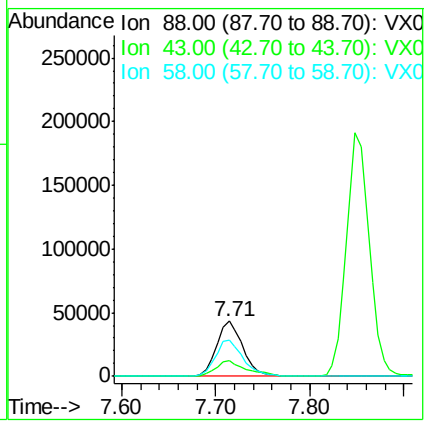




#49
1,4-Dioxane
Concen: 1008.538 ug/l
RT: 7.71 min Scan# 1087
Delta R.T. -0.00 min
Lab File: VX017012.D
Acq: 29 Jun 2020 16:53

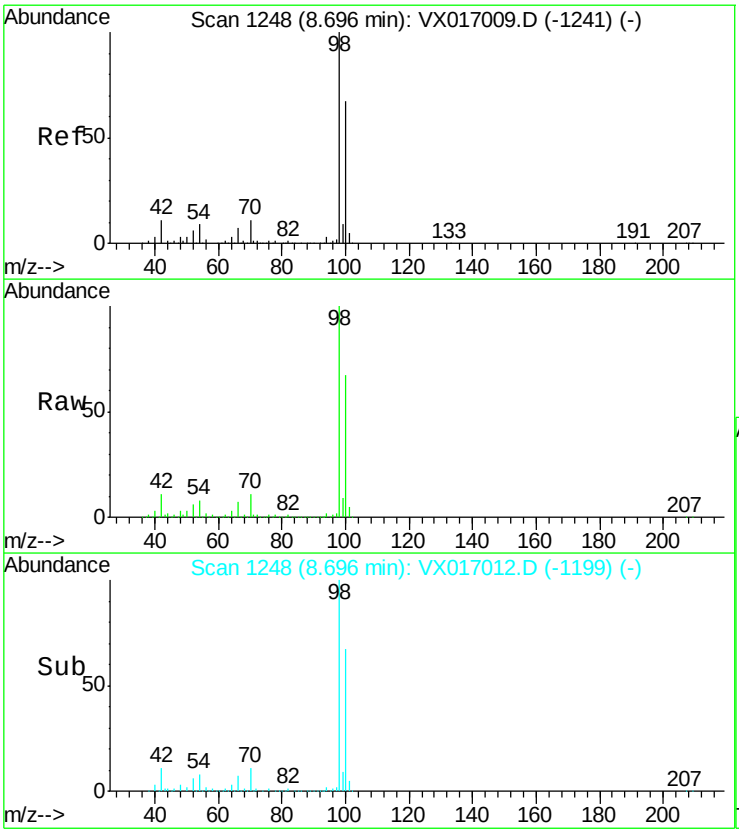
Tgt Ion: 88 Resp: 84460

Ion	Ratio	Lower	Upper
88	100		
43	31.7	25.8	38.8
58	69.2	54.8	82.2



Instrument :
MSVOA_X
ClientSampleId :
ICVVX062920

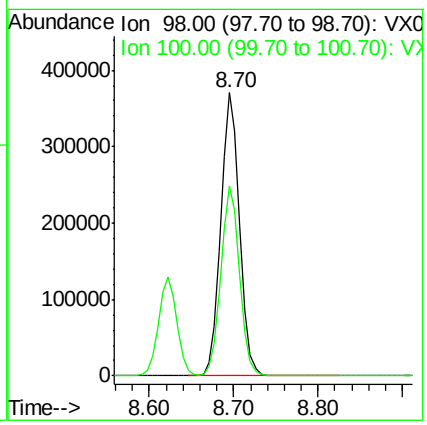
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:12:17 AM

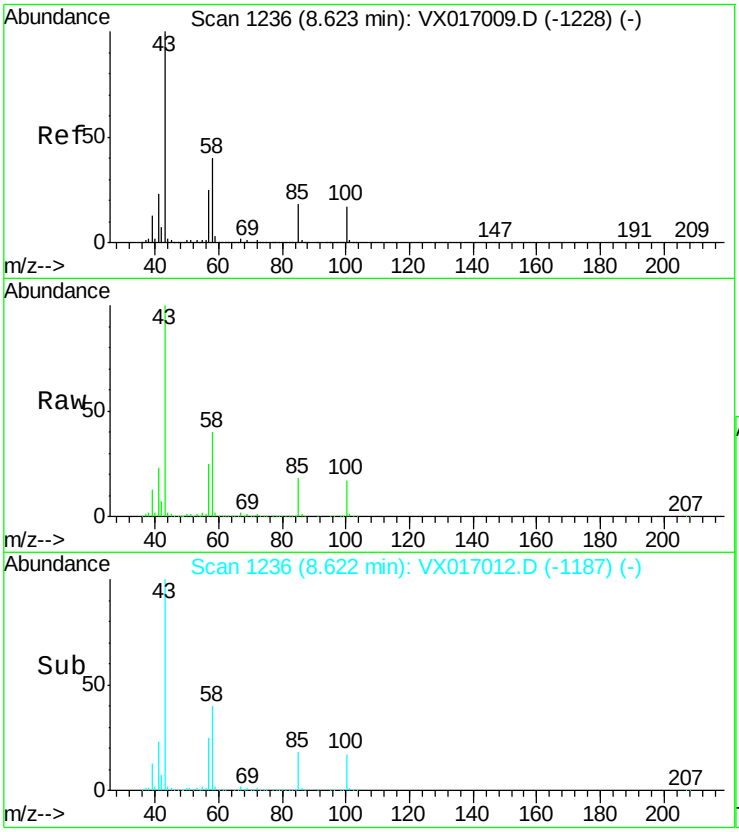


#50
Toluene-d8
Concen: 49.721 ug/l
RT: 8.70 min Scan# 1248
Delta R.T. -0.00 min
Lab File: VX017012.D
Acq: 29 Jun 2020 16:53

Tgt Ion: 98 Resp: 567900

Ion	Ratio	Lower	Upper
98	100		
100	67.0	53.8	80.6

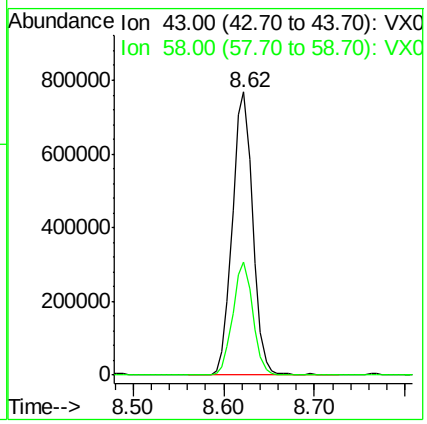




#51
4-Methyl-2-Pentanone
Concen: 258.442 ug/l
RT: 8.62 min Scan# 1236
Delta R.T. -0.00 min
Lab File: VX017012.D
Acq: 29 Jun 2020 16:53

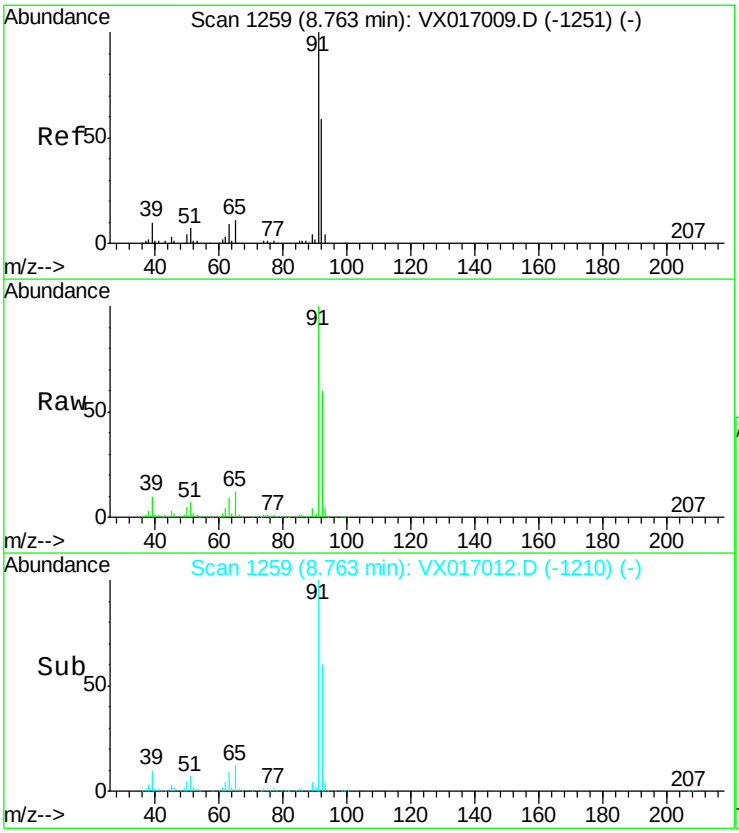
Tgt Ion: 43 Resp: 1198673

Ion	Ratio	Lower	Upper
43	100		
58	39.2	31.9	47.9



Instrument :
MSVOA_X
ClientSampleId :
ICVVX062920

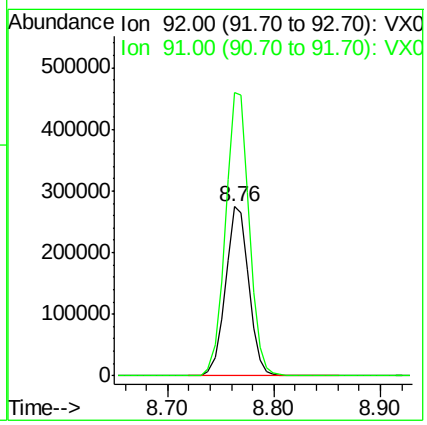
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:12:17 AM

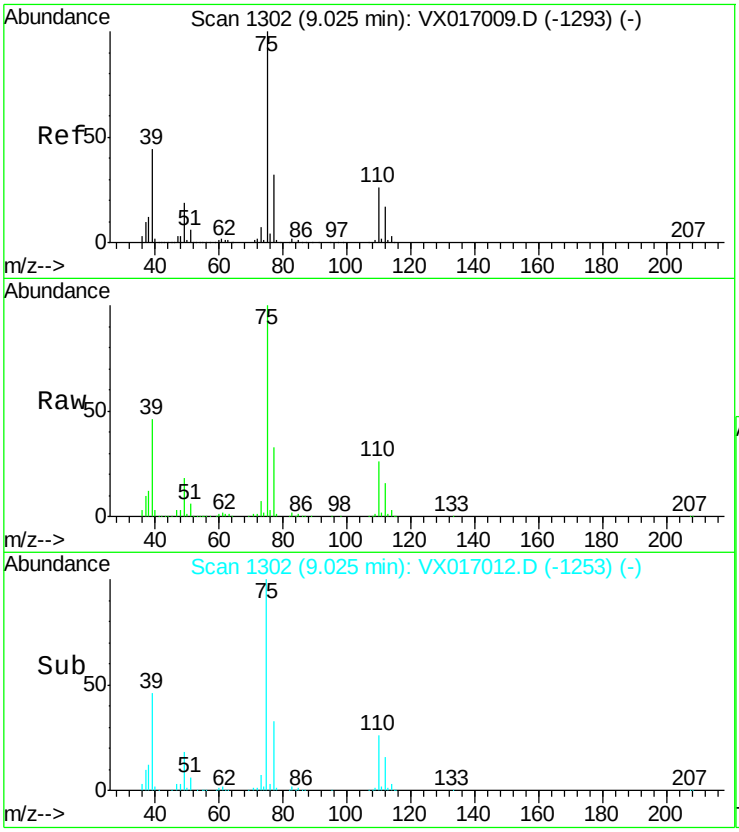


#52
Toluene
Concen: 49.704 ug/l
RT: 8.76 min Scan# 1259
Delta R.T. -0.00 min
Lab File: VX017012.D
Acq: 29 Jun 2020 16:53

Tgt Ion: 92 Resp: 420780

Ion	Ratio	Lower	Upper
92	100		
91	170.0	136.9	205.3

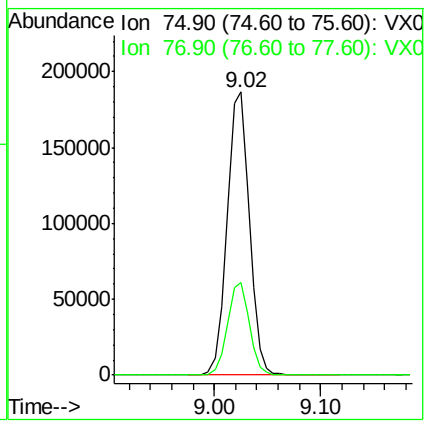




#53
t-1,3-Dichloropropene
Concen: 50.636 ug/l
RT: 9.02 min Scan# 1302
Delta R.T. -0.00 min
Lab File: VX017012.D
Acq: 29 Jun 2020 16:53

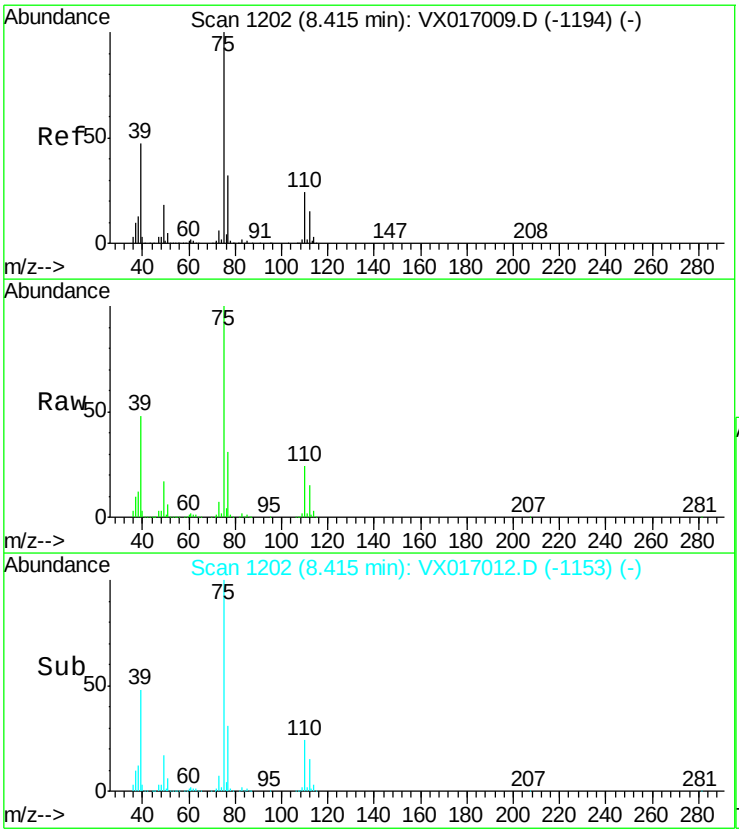
Tgt Ion: 75 Resp: 273754

Ion	Ratio	Lower	Upper
75	100		
77	32.6	25.6	38.4



Instrument :
MSVOA_X
ClientSampleId :
ICVVX062920

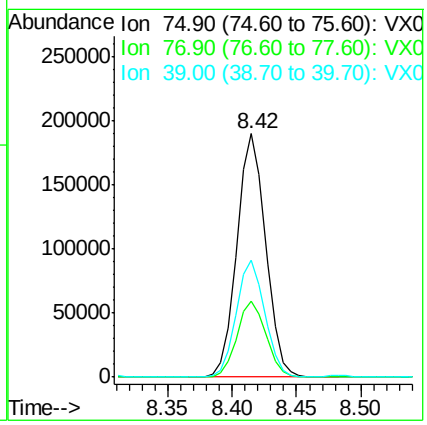
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:12:17 AM



#54
cis-1,3-Dichloropropene
Concen: 50.624 ug/l
RT: 8.42 min Scan# 1202
Delta R.T. -0.00 min
Lab File: VX017012.D
Acq: 29 Jun 2020 16:53

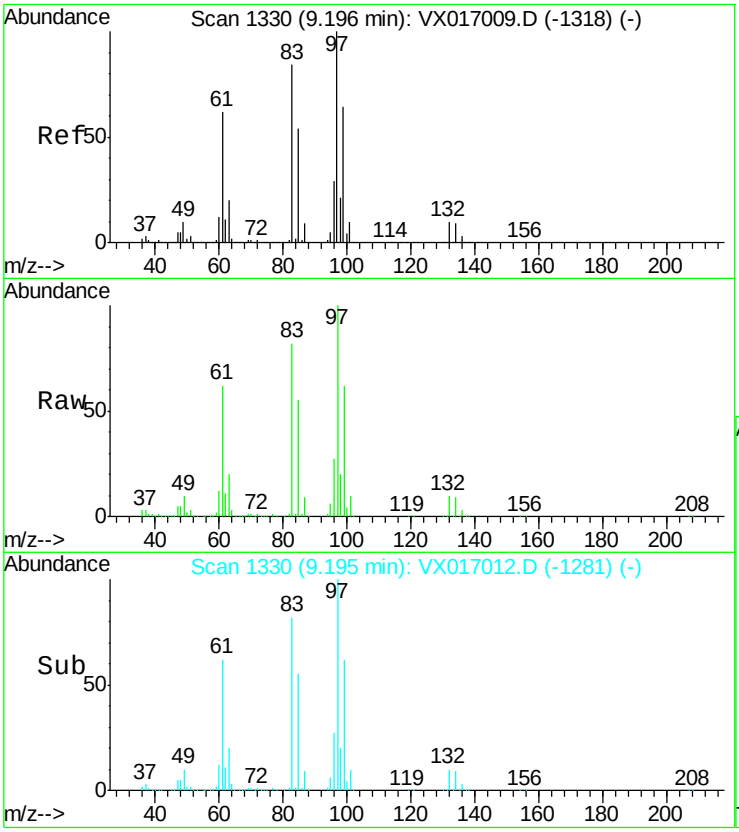
Tgt Ion: 75 Resp: 293388

Ion	Ratio	Lower	Upper
75	100		
77	30.9	25.2	37.8
39	47.8	37.4	56.2



Instrument :
MSVOA_X
ClientSampleId :
ICVVX062920

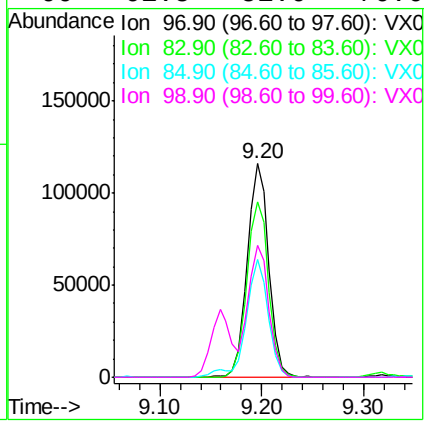
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:12:17 AM

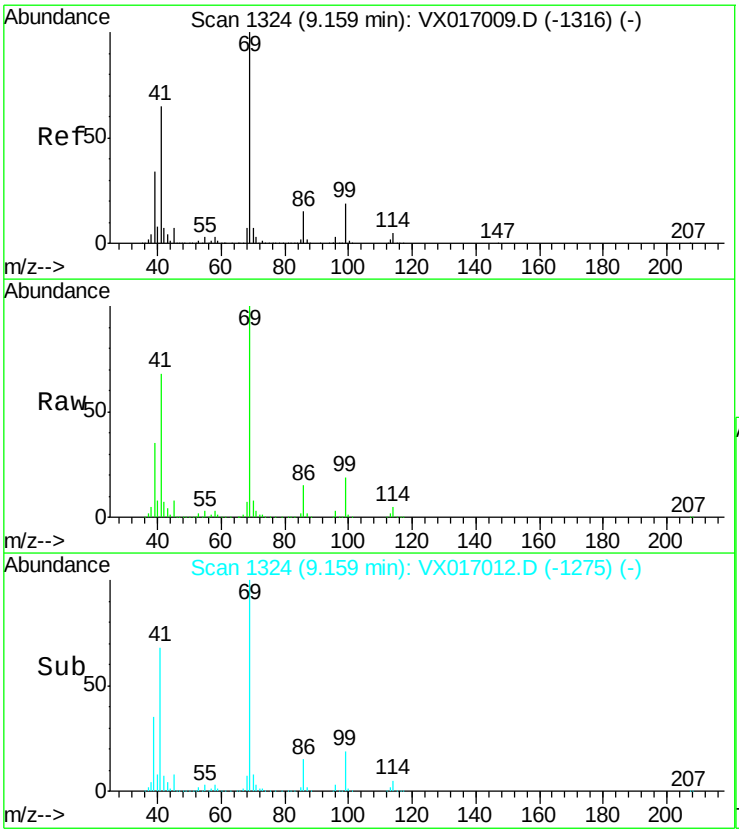


#55
1,1,2-Trichloroethane
Concen: 49.151 ug/l
RT: 9.20 min Scan# 1330
Delta R.T. -0.00 min
Lab File: VX017012.D
Acq: 29 Jun 2020 16:53

Tgt Ion: 97 Resp: 170005

Ion	Ratio	Lower	Upper
97	100		
83	82.0	67.0	100.6
85	55.2	43.5	65.3
99	61.5	51.0	76.6

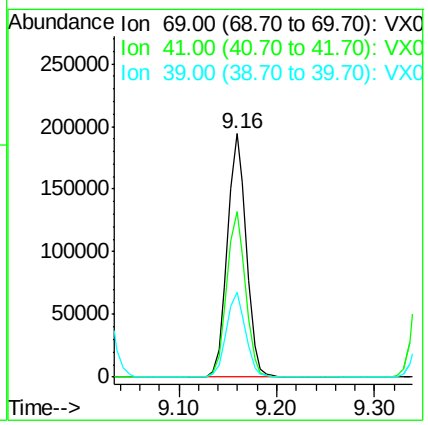


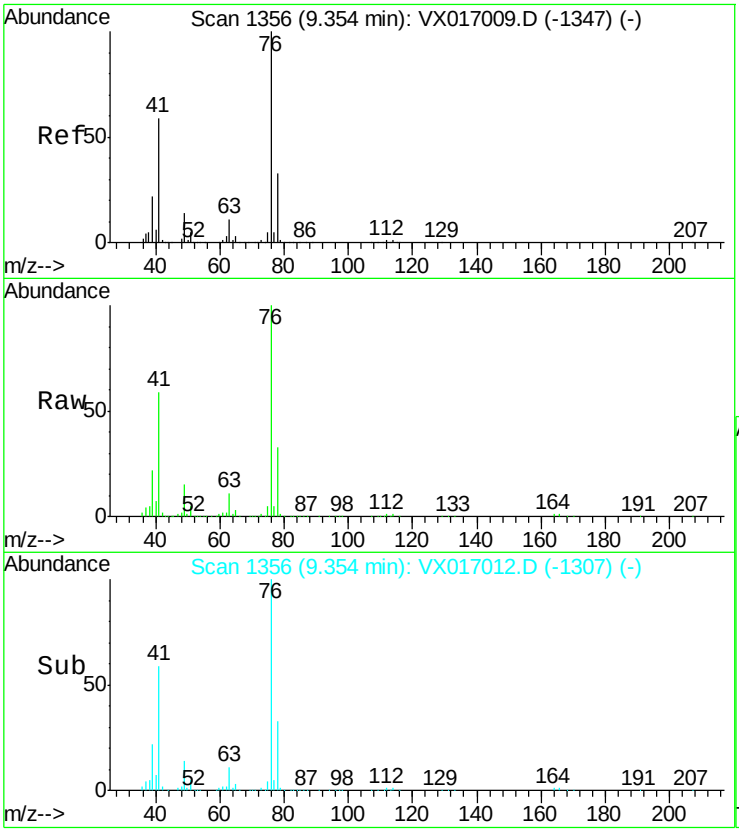


#56
Ethyl methacrylate
Concen: 52.969 ug/l
RT: 9.16 min Scan# 1324
Delta R.T. -0.00 min
Lab File: VX017012.D
Acq: 29 Jun 2020 16:53

Tgt Ion: 69 Resp: 260770

Ion	Ratio	Lower	Upper
69	100		
41	67.3	53.6	80.4
39	35.0	28.2	42.2

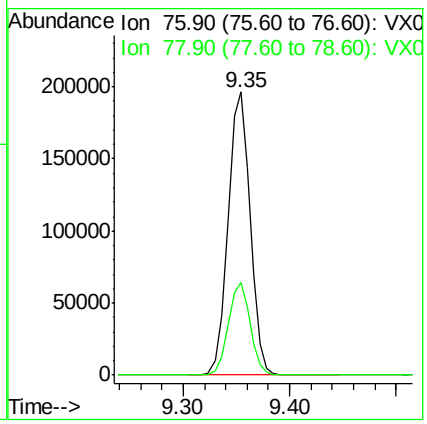




#57
1,3-Dichloropropane
Concen: 48.825 ug/l
RT: 9.35 min Scan# 1356
Delta R.T. -0.00 min
Lab File: VX017012.D
Acq: 29 Jun 2020 16:53

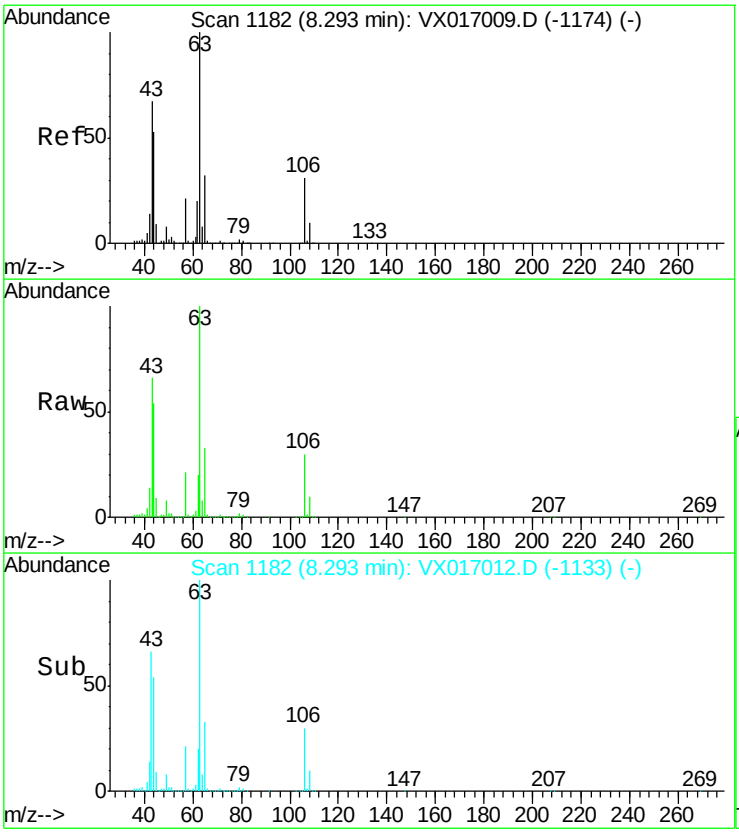
Tgt Ion: 76 Resp: 285760

Ion	Ratio	Lower	Upper
76	100		
78	32.3	25.9	38.9



Instrument :
MSVOA_X
ClientSampleId :
ICVVX062920

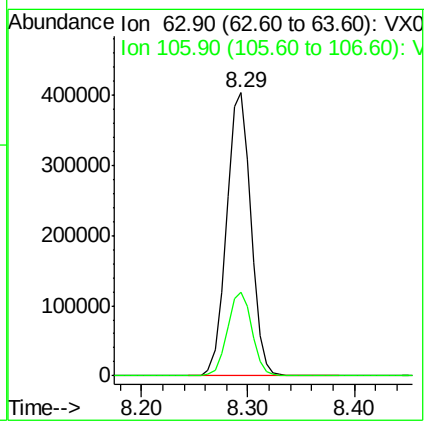
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:12:17 AM



#58
2-Chloroethyl Vinyl ether
Concen: 263.171 ug/l
RT: 8.29 min Scan# 1182
Delta R.T. -0.00 min
Lab File: VX017012.D
Acq: 29 Jun 2020 16:53

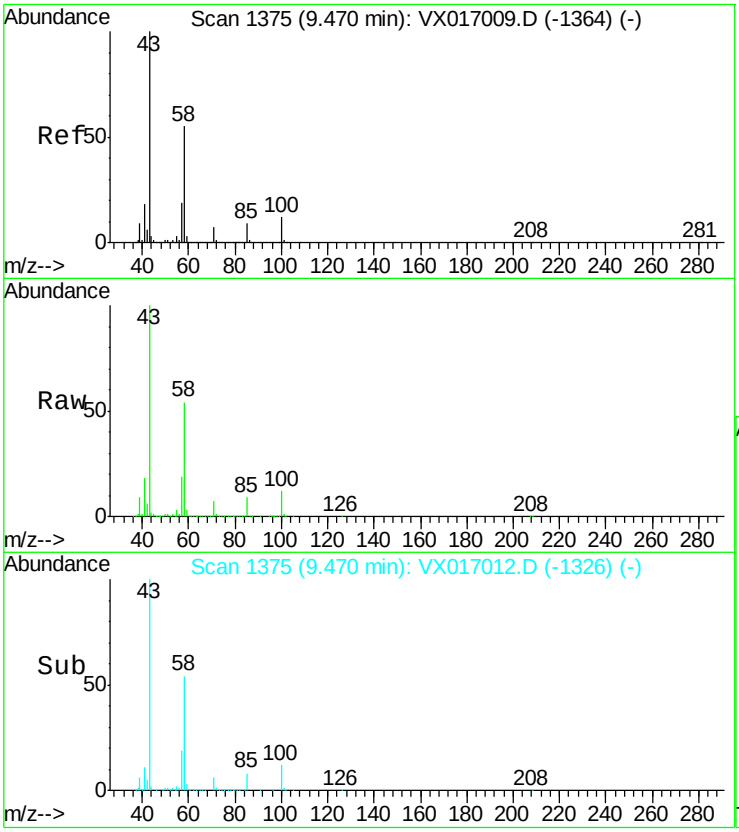
Tgt Ion: 63 Resp: 644815

Ion	Ratio	Lower	Upper
63	100		
106	29.7	24.0	36.0



Instrument :
MSVOA_X
ClientSampleId :
ICVVX062920

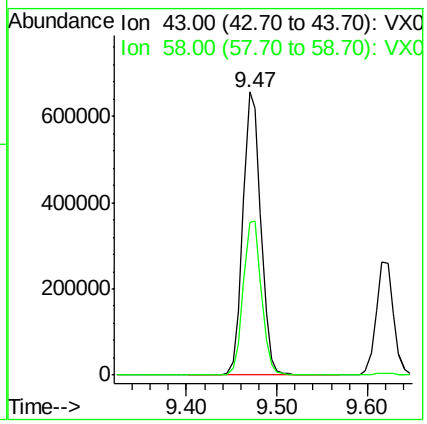
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:12:17 AM

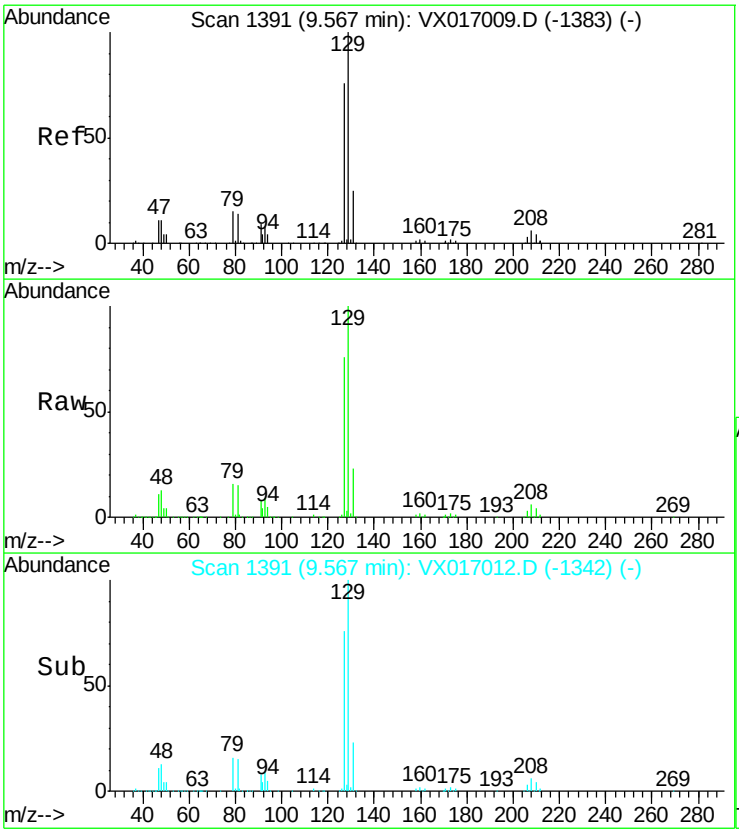


#59
2-Hexanone
Concen: 264.307 ug/l
RT: 9.47 min Scan# 1375
Delta R.T. -0.00 min
Lab File: VX017012.D
Acq: 29 Jun 2020 16:53

Tgt Ion: 43 Resp: 895300

Ion	Ratio	Lower	Upper
43	100		
58	55.5	27.9	83.6

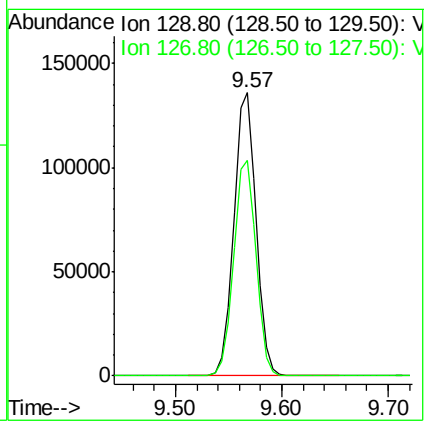


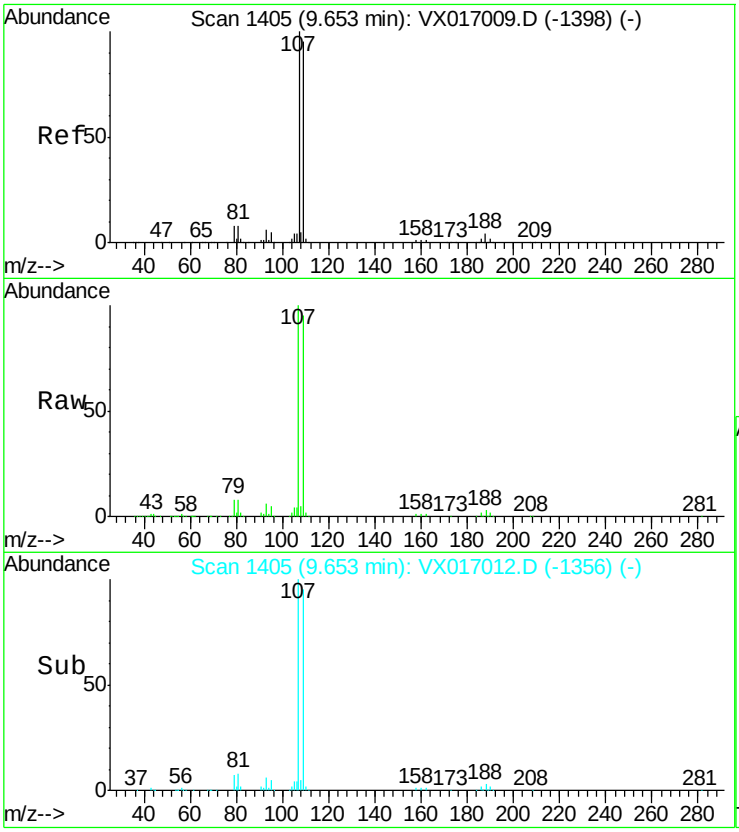


#60
Dibromochloromethane
Concen: 49.429 ug/l
RT: 9.57 min Scan# 1391
Delta R.T. -0.00 min
Lab File: VX017012.D
Acq: 29 Jun 2020 16:53

Tgt Ion:129 Resp: 198572

Ion	Ratio	Lower	Upper
129	100		
127	76.8	38.9	116.7

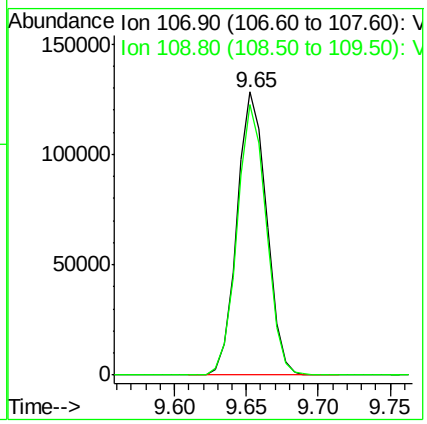




#61
1,2-Dibromoethane
Concen: 49.097 ug/l
RT: 9.65 min Scan# 1405
Delta R.T. -0.00 min
Lab File: VX017012.D
Acq: 29 Jun 2020 16:53

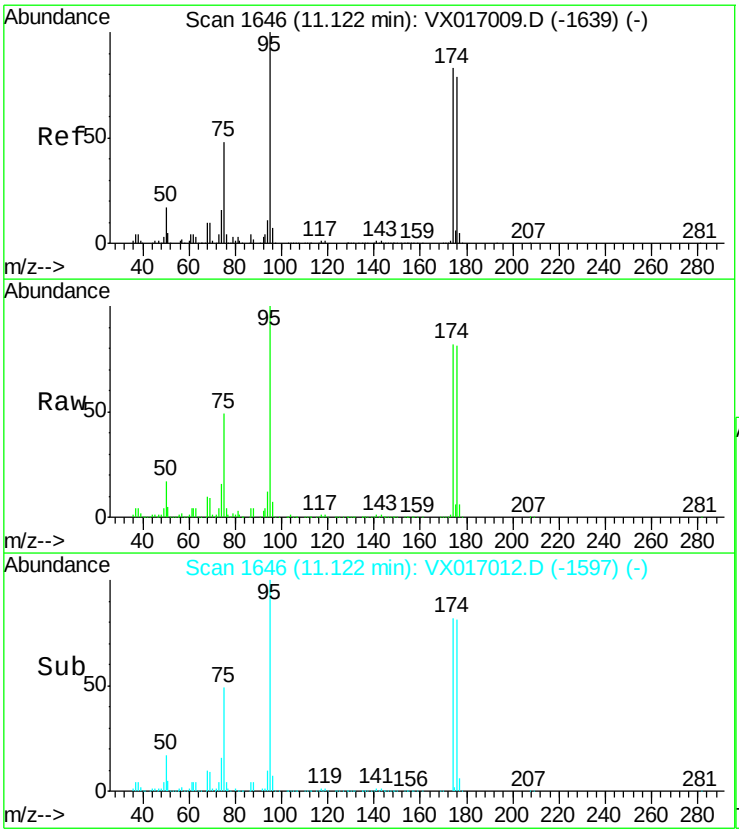
Tgt Ion:107 Resp: 182537

Ion	Ratio	Lower	Upper
107	100		
109	94.5	75.8	113.8



Instrument :
MSVOA_X
ClientSampleId :
ICVVX062920

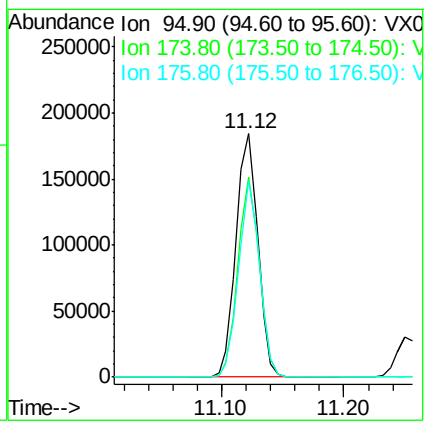
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:12:17 AM



#62
4-Bromofluorobenzene
Concen: 50.729 ug/l
RT: 11.12 min Scan# 1646
Delta R.T. -0.00 min
Lab File: VX017012.D
Acq: 29 Jun 2020 16:53

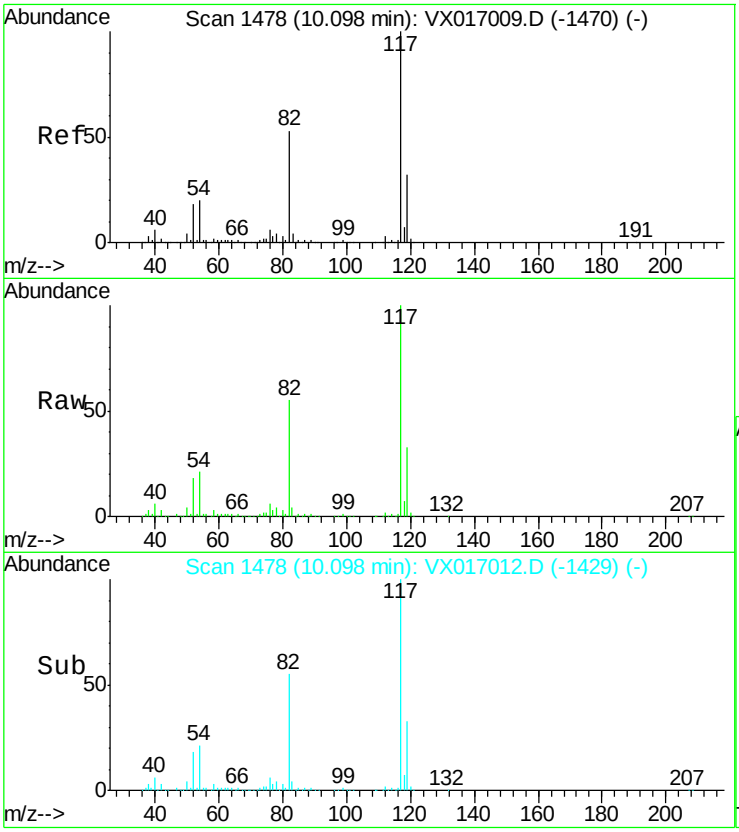
Tgt Ion: 95 Resp: 226498

Ion	Ratio	Lower	Upper
95	100		
174	80.5	0.0	164.0
176	77.8	0.0	157.6



Instrument :
MSVOA_X
ClientSampleId :
ICVVX062920

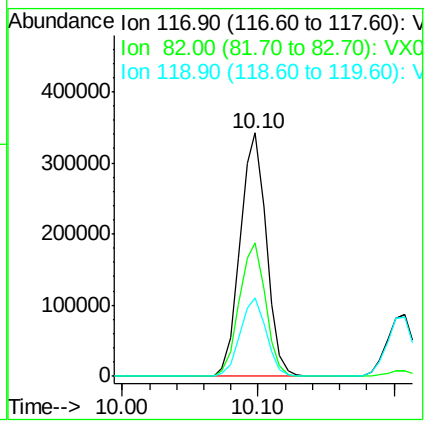
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:12:17 AM

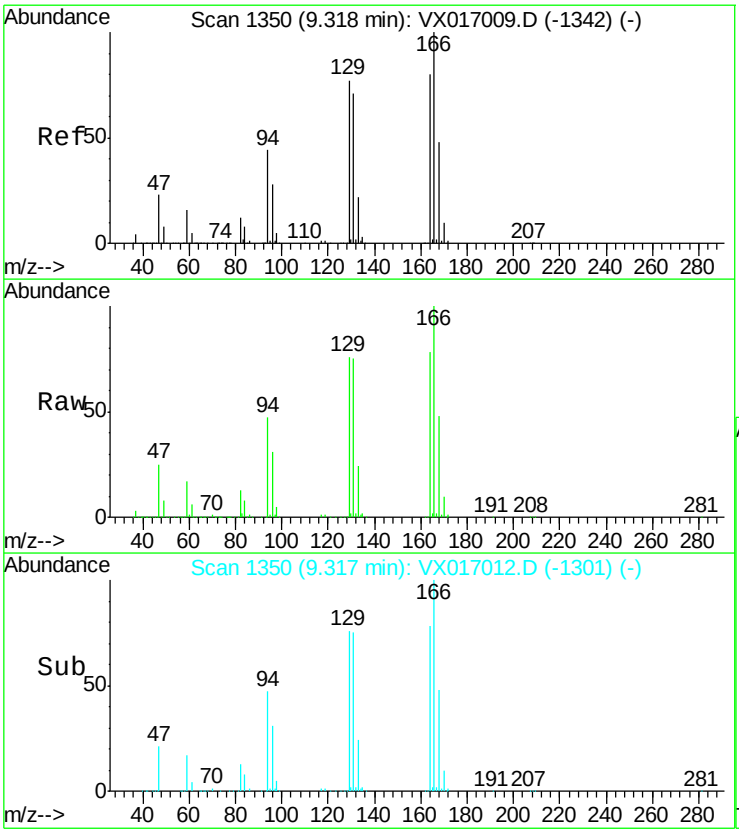


#63
Chlorobenzene-d5
Concen: 50.000 ug/l
RT: 10.10 min Scan# 1478
Delta R.T. -0.00 min
Lab File: VX017012.D
Acq: 29 Jun 2020 16:53

Tgt Ion:117 Resp: 458996

Ion	Ratio	Lower	Upper
117	100		
82	55.1	42.6	63.8
119	32.5	25.4	38.2

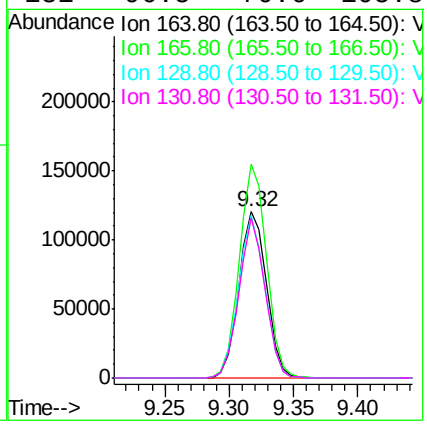




#64
Tetrachloroethene
Concen: 47.996 ug/l
RT: 9.32 min Scan# 1350
Delta R.T. -0.00 min
Lab File: VX017012.D
Acq: 29 Jun 2020 16:53

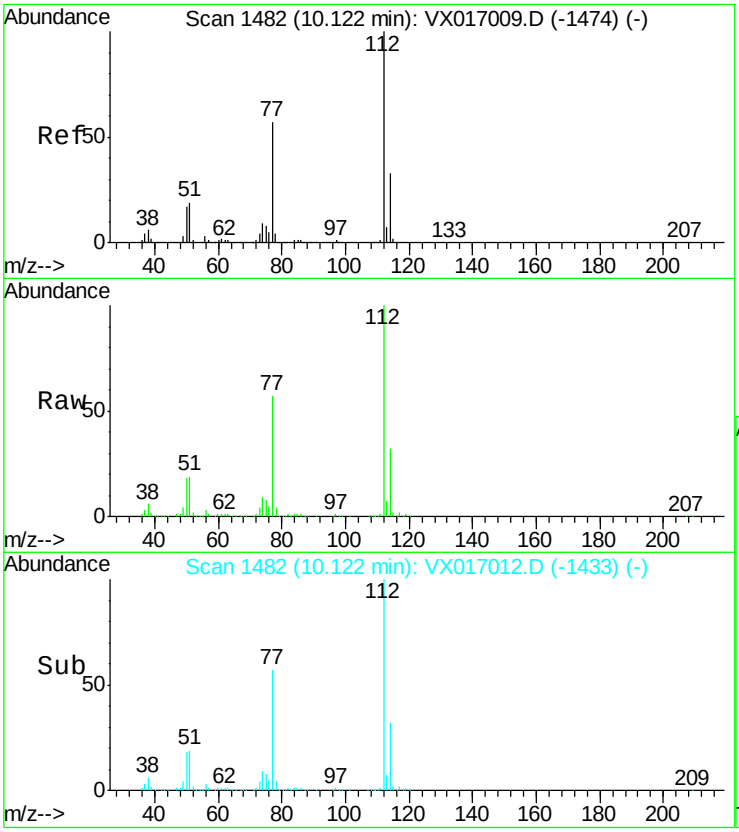
Tgt Ion:164 Resp: 177797

Ion	Ratio	Lower	Upper
164	100		
166	128.7	99.4	149.0
129	98.3	76.3	114.5
131	96.5	70.6	105.8



Instrument :
MSVOA_X
ClientSampleId :
ICVVX062920

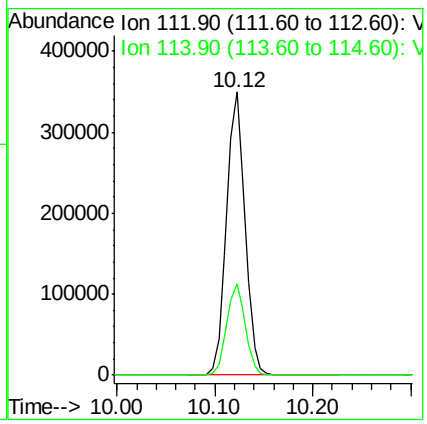
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:12:17 AM

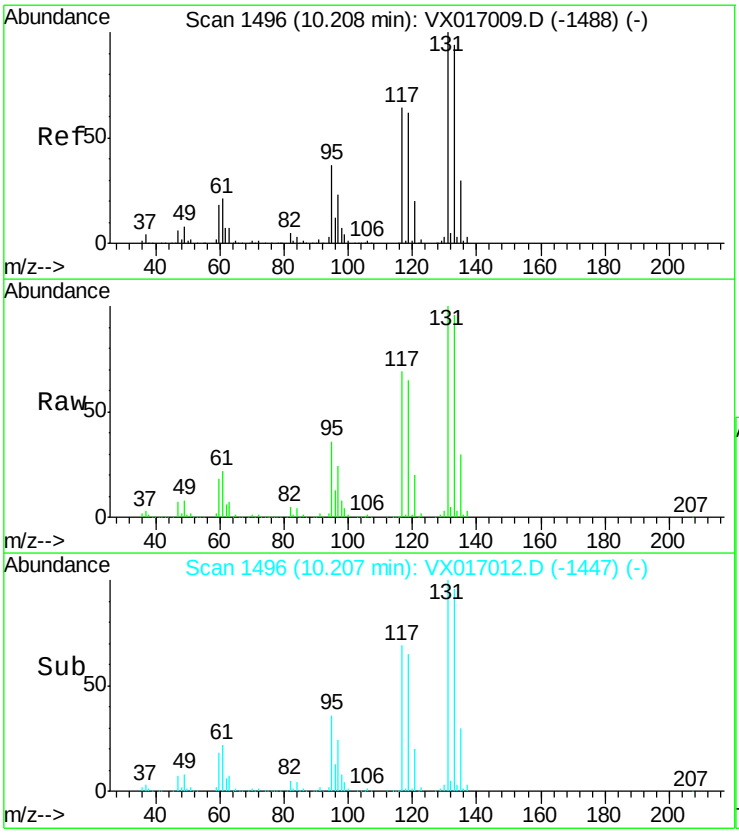


#65
Chlorobenzene
Concen: 48.535 ug/l
RT: 10.12 min Scan# 1482
Delta R.T. -0.00 min
Lab File: VX017012.D
Acq: 29 Jun 2020 16:53

Tgt Ion:112 Resp: 459786

Ion	Ratio	Lower	Upper
112	100		
114	32.3	26.2	39.4

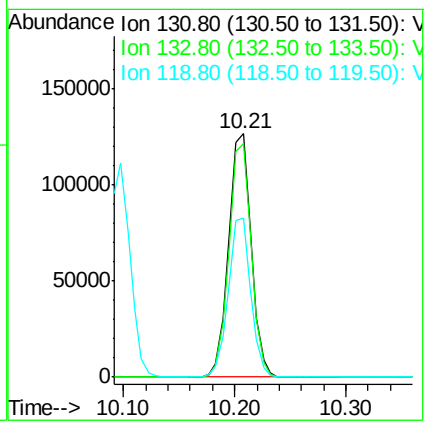




#66
1,1,1,2-Tetrachloroethane
Concen: 48.572 ug/l
RT: 10.21 min Scan# 1496
Delta R.T. -0.00 min
Lab File: VX017012.D
Acq: 29 Jun 2020 16:53

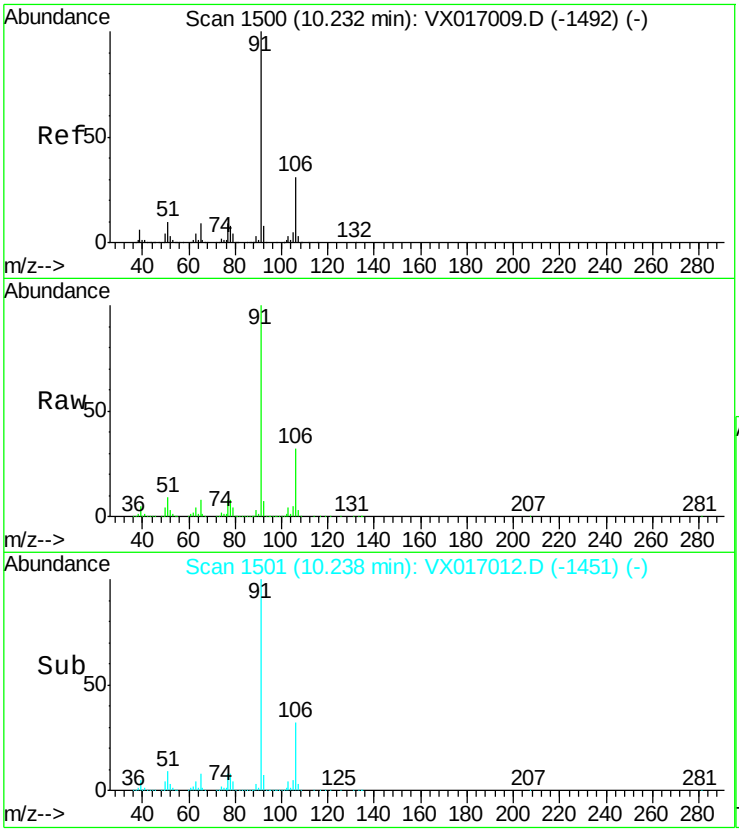
Tgt Ion:131 Resp: 177333

Ion	Ratio	Lower	Upper
131	100		
133	95.4	47.3	141.9
119	64.7	31.9	95.5



Instrument :
MSVOA_X
ClientSampleId :
ICVVX062920

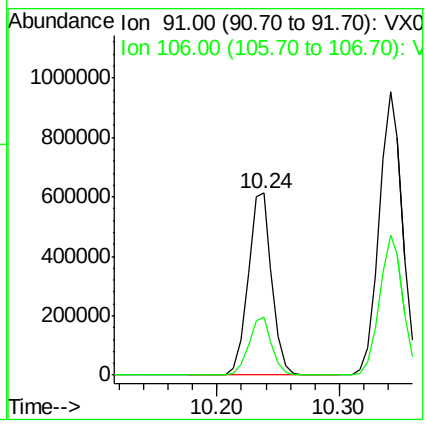
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:12:17 AM

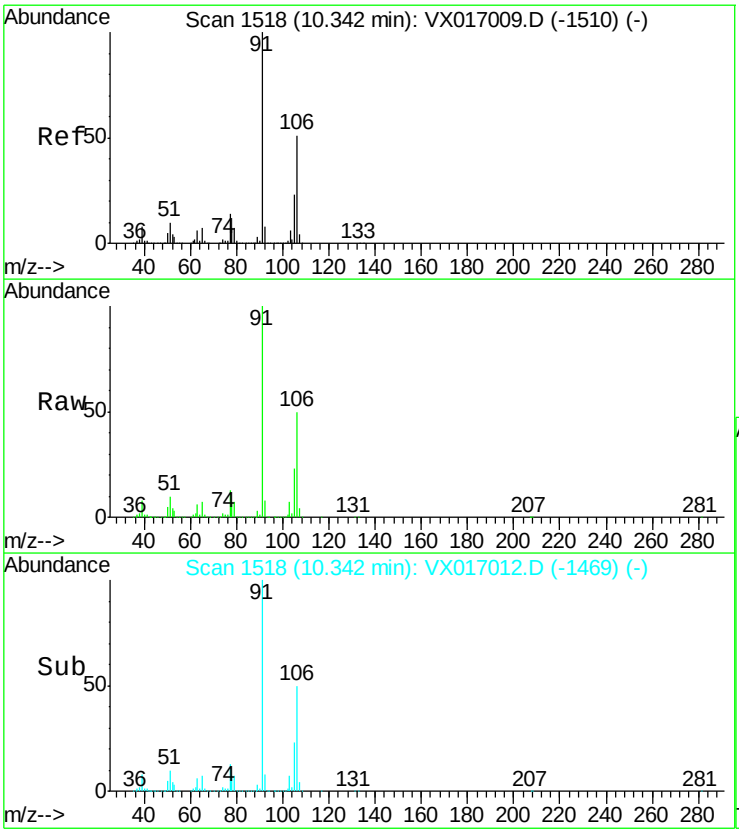


#67
Ethyl Benzene
Concen: 51.784 ug/l
RT: 10.24 min Scan# 1501
Delta R.T. 0.01 min
Lab File: VX017012.D
Acq: 29 Jun 2020 16:53

Tgt Ion: 91 Resp: 819255

Ion	Ratio	Lower	Upper
91	100		
106	32.2	24.7	37.1

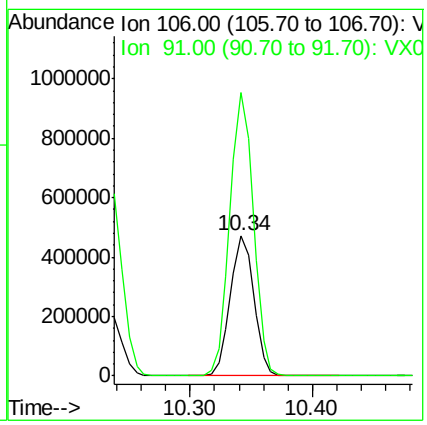




#68
m/p-Xylenes
Concen: 103.654 ug/l
RT: 10.34 min Scan# 1518
Delta R.T. -0.00 min
Lab File: VX017012.D
Acq: 29 Jun 2020 16:53

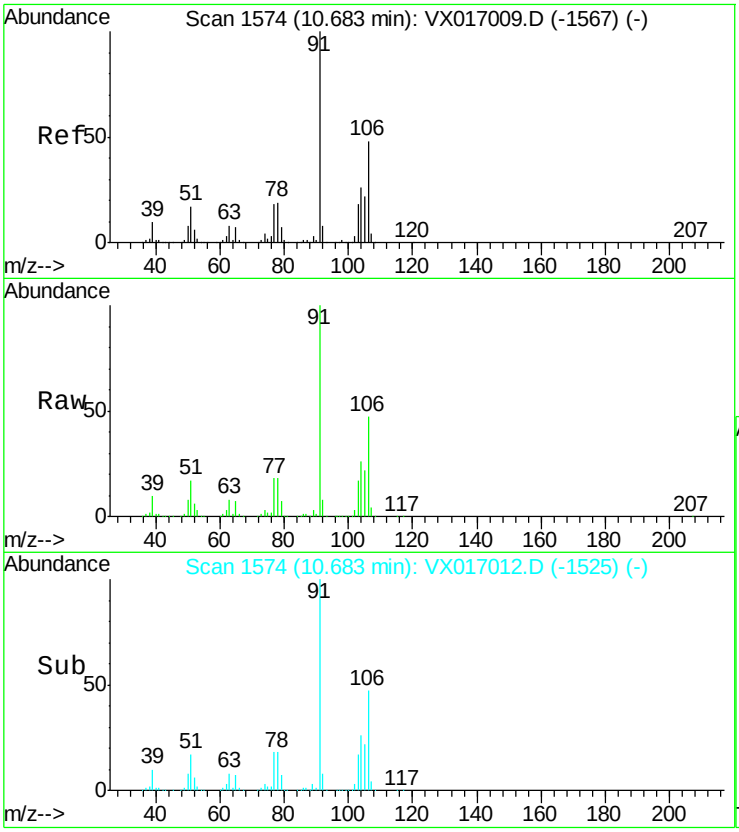
Tgt Ion:106 Resp: 629662

Ion	Ratio	Lower	Upper
106	100		
91	201.6	158.6	238.0



Instrument :
MSVOA_X
ClientSampleId :
ICVVX062920

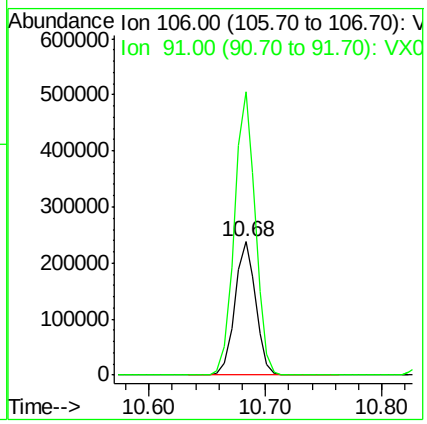
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:12:17 AM

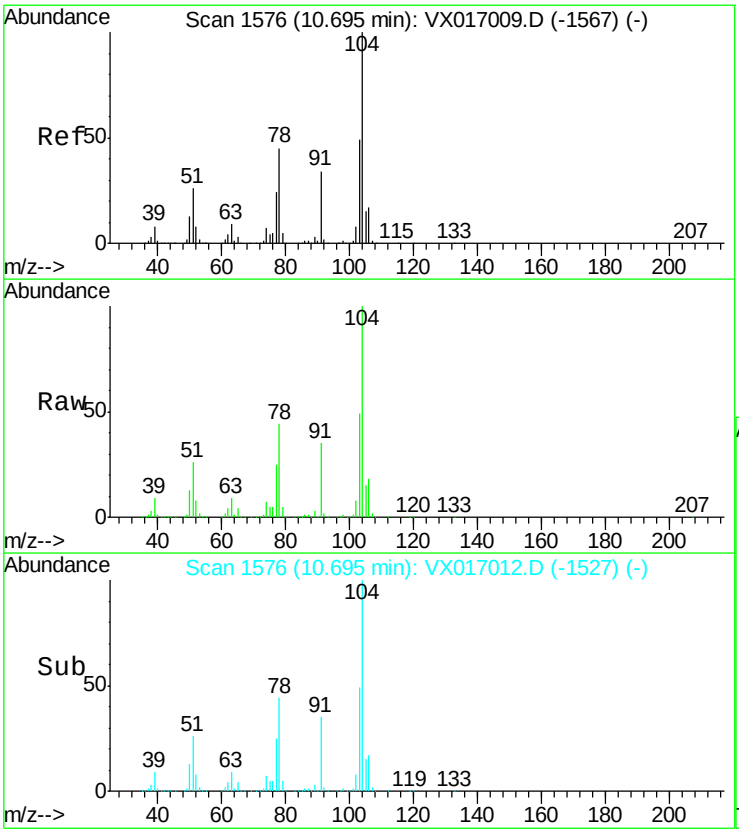


#69
o-Xylene
Concen: 51.331 ug/l
RT: 10.68 min Scan# 1574
Delta R.T. -0.00 min
Lab File: VX017012.D
Acq: 29 Jun 2020 16:53

Tgt Ion:106 Resp: 296631

Ion	Ratio	Lower	Upper
106	100		
91	213.1	105.6	316.7

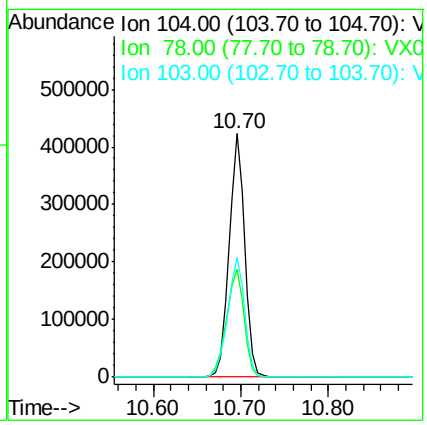


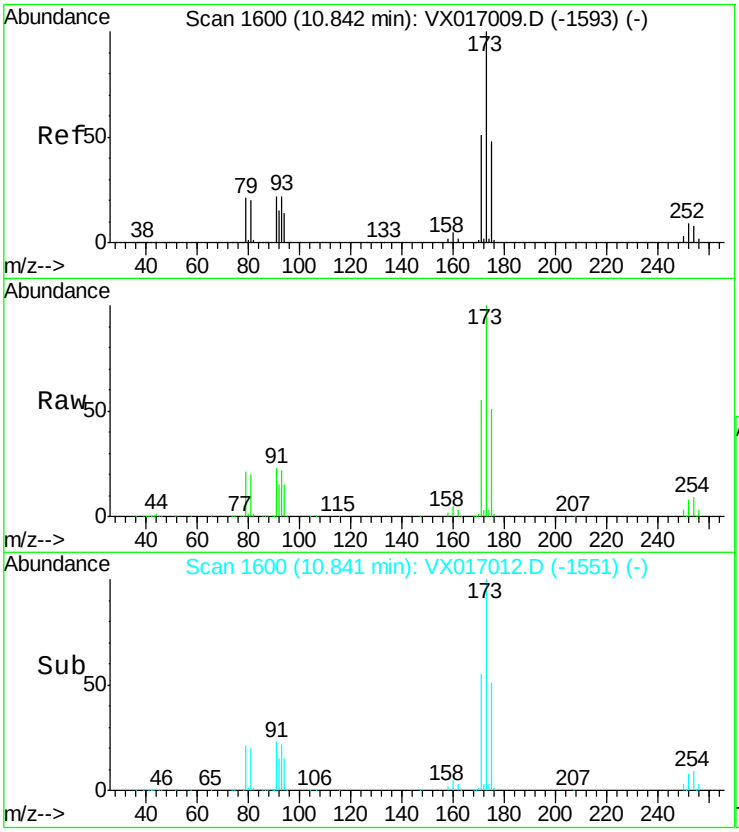


#70
Styrene
Concen: 53.136 ug/l
RT: 10.70 min Scan# 1576
Delta R.T. -0.00 min
Lab File: VX017012.D
Acq: 29 Jun 2020 16:53

Tgt Ion:104 Resp: 522891

Ion	Ratio	Lower	Upper
104	100		
78	49.8	39.5	59.3
103	53.6	43.0	64.6

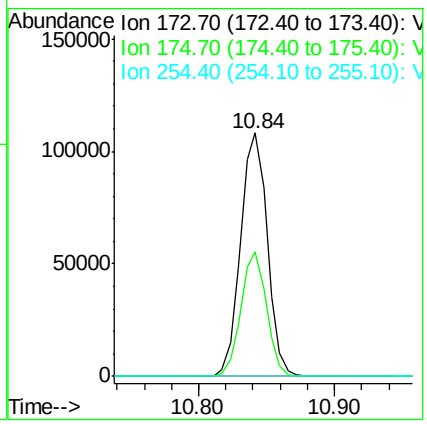




#71
Bromoform
Concen: 51.237 ug/l
RT: 10.84 min Scan# 1600
Delta R.T. -0.00 min
Lab File: VX017012.D
Acq: 29 Jun 2020 16:53

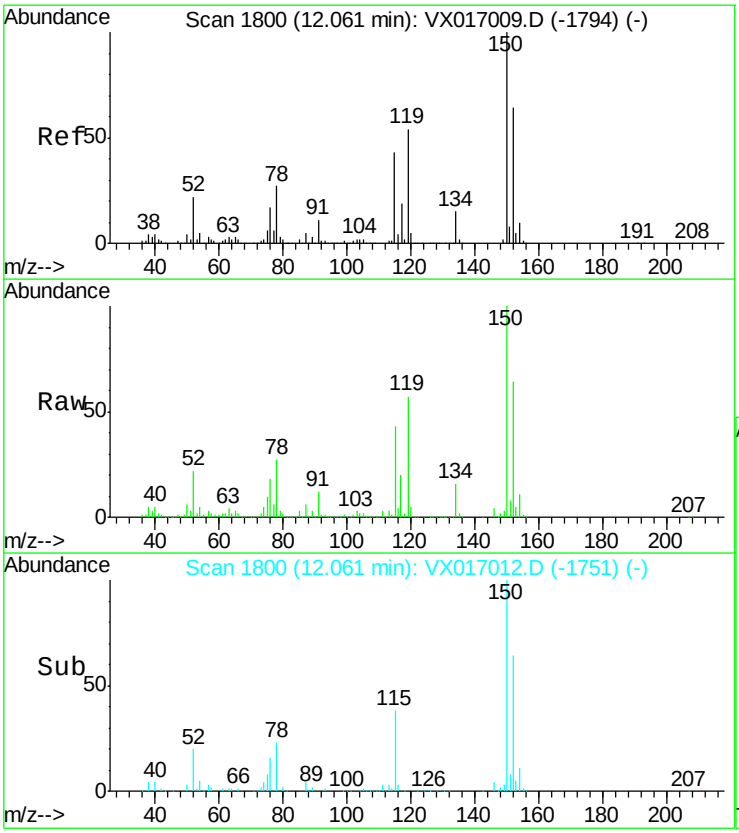
Tgt Ion:173 Resp: 148338

Ion	Ratio	Lower	Upper
173	100		
175	48.8	24.5	73.5
254	0.1	0.1	0.1



Instrument :
MSVOA_X
ClientSampleId :
ICVVX062920

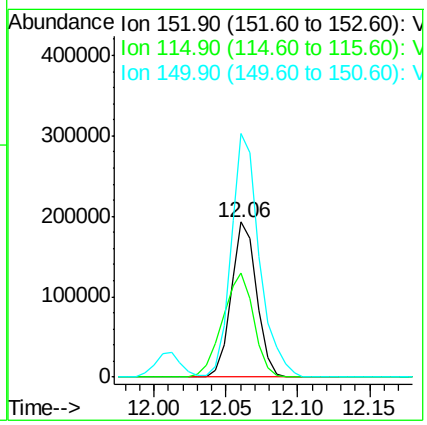
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:12:17 AM

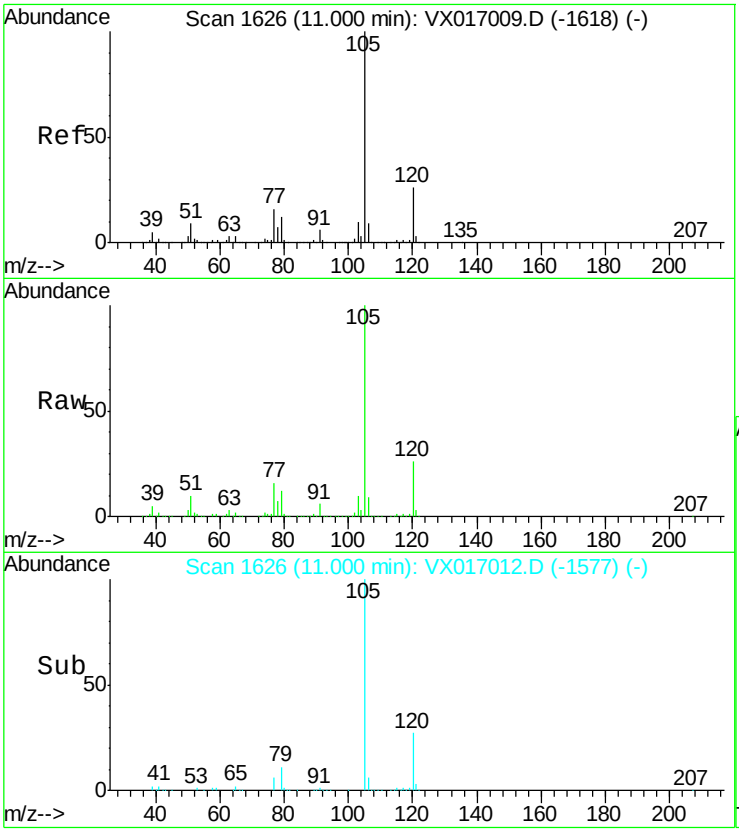


#72
1,4-Dichlorobenzene-d4
Concen: 50.000 ug/l
RT: 12.06 min Scan# 1800
Delta R.T. -0.00 min
Lab File: VX017012.D
Acq: 29 Jun 2020 16:53

Tgt Ion:152 Resp: 238880

Ion	Ratio	Lower	Upper
152	100		
115	82.3	40.9	122.7
150	173.5	0.0	351.6

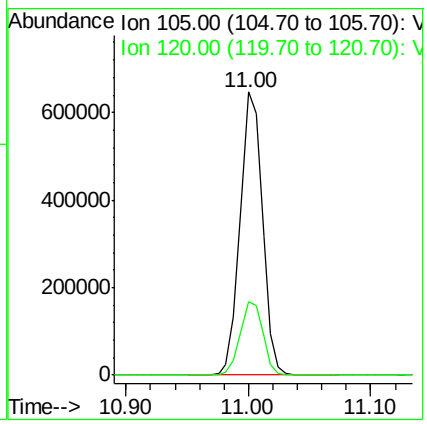




#73
Isopropylbenzene
Concen: 52.034 ug/l
RT: 11.00 min Scan# 1626
Delta R.T. -0.00 min
Lab File: VX017012.D
Acq: 29 Jun 2020 16:53

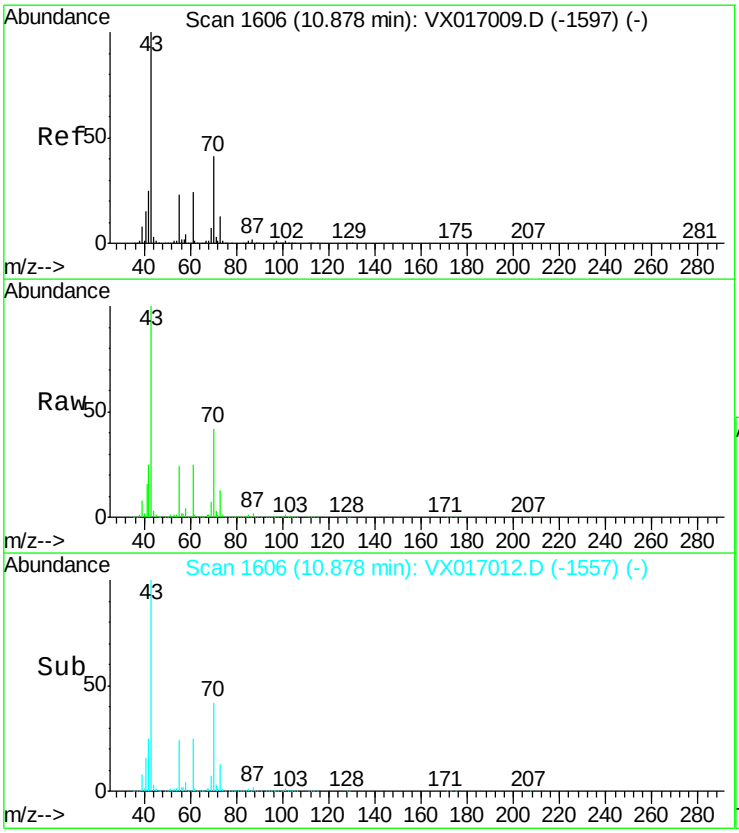
Tgt Ion:105 Resp: 814178

Ion	Ratio	Lower	Upper
105	100		
120	26.4	13.4	40.2



Instrument :
MSVOA_X
ClientSampleId :
ICVVX062920

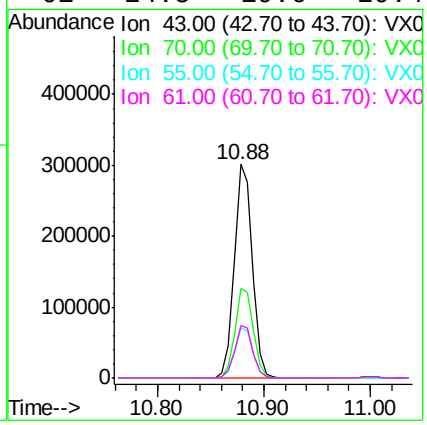
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:12:17 AM

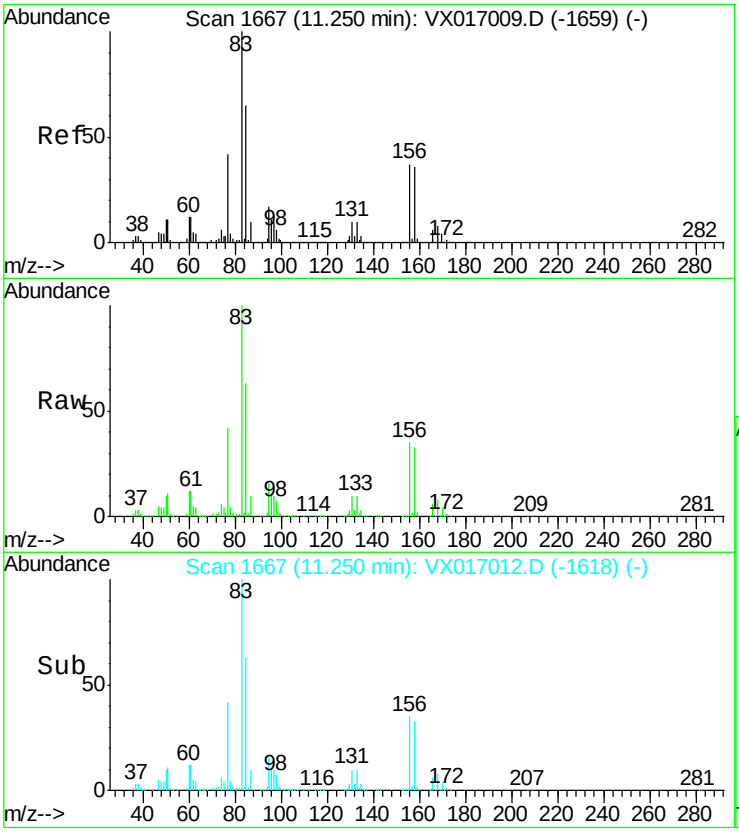


#74
N-amyl acetate
Concen: 53.473 ug/l
RT: 10.88 min Scan# 1606
Delta R.T. -0.00 min
Lab File: VX017012.D
Acq: 29 Jun 2020 16:53

Tgt Ion: 43 Resp: 357006

Ion	Ratio	Lower	Upper
43	100		
70	42.7	34.2	51.2
55	23.7	19.2	28.8
61	24.5	19.6	29.4

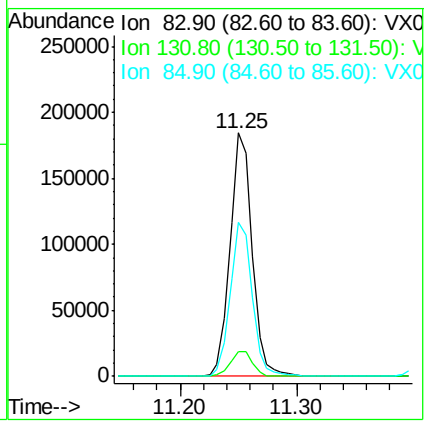




#75
1,1,2,2-Tetrachloroethane
Concen: 49.473 ug/l
RT: 11.25 min Scan# 1667
Delta R.T. -0.00 min
Lab File: VX017012.D
Acq: 29 Jun 2020 16:53

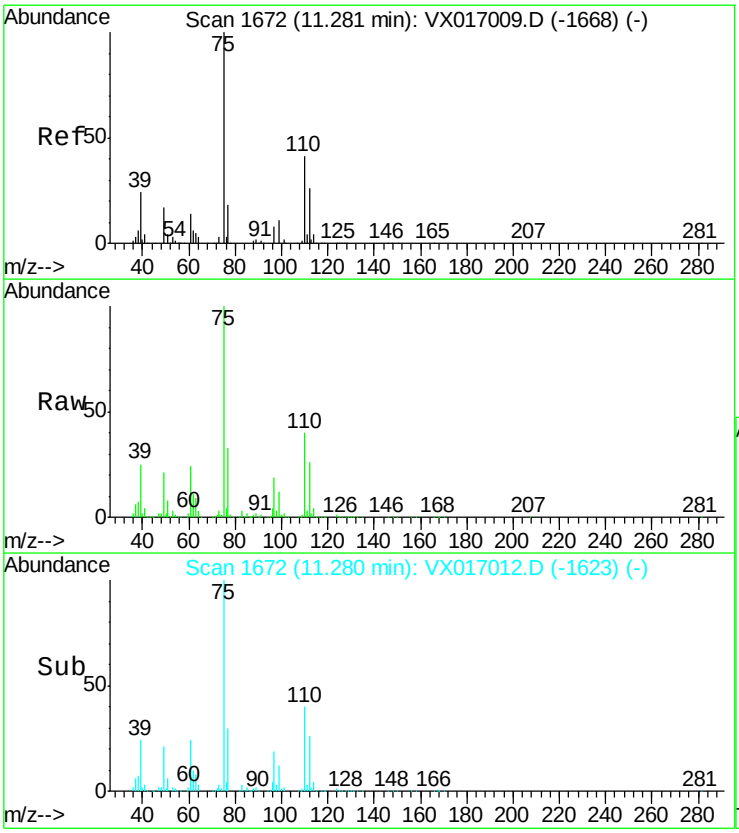
Tgt Ion: 83 Resp: 243500

Ion	Ratio	Lower	Upper
83	100		
131	10.6	5.4	16.2
85	63.3	31.9	95.9



Instrument :
MSVOA_X
ClientSampleId :
ICVVX062920

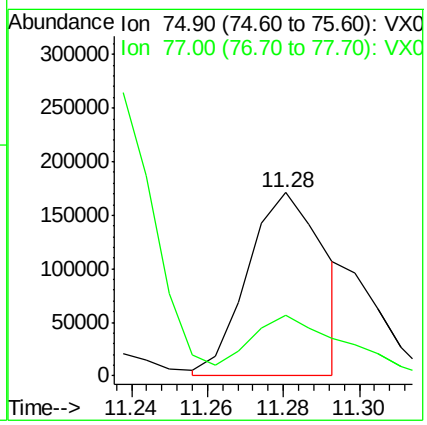
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:12:17 AM

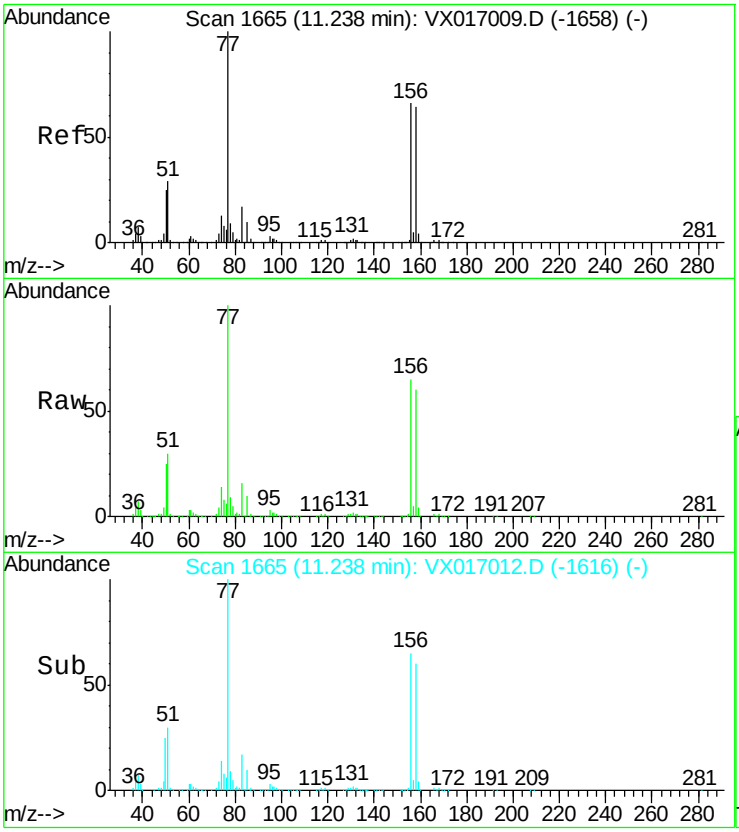


#76
1,2,3-Trichloropropane
Concen: 50.604 ug/l m
RT: 11.28 min Scan# 1672
Delta R.T. -0.00 min
Lab File: VX017012.D
Acq: 29 Jun 2020 16:53

Tgt Ion: 75 Resp: 237707

Ion	Ratio	Lower	Upper
75	100		
77	40.9	20.2	60.6

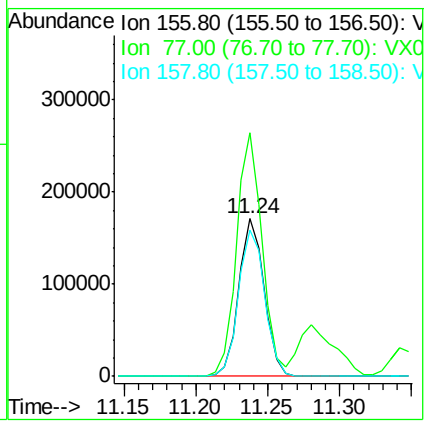


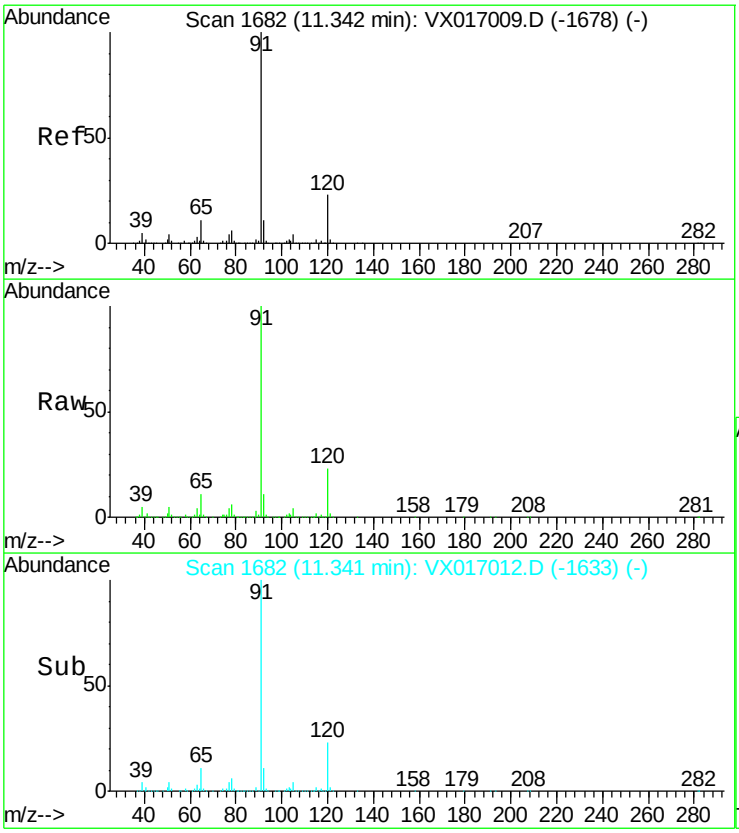


#77
Bromobenzene
Concen: 48.626 ug/l
RT: 11.24 min Scan# 1665
Delta R.T. -0.00 min
Lab File: VX017012.D
Acq: 29 Jun 2020 16:53

Tgt Ion:156 Resp: 209108

Ion	Ratio	Lower	Upper
156	100		
77	156.2	76.9	230.7
158	96.0	47.9	143.6

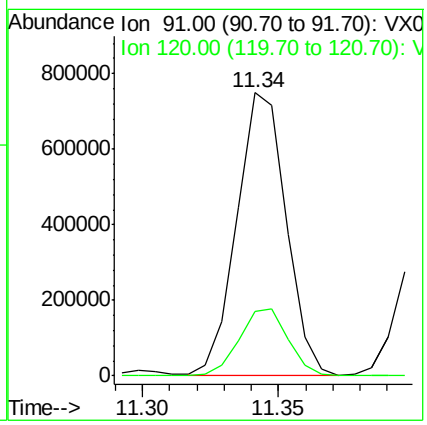




#78
n-propylbenzene
Concen: 52.766 ug/l
RT: 11.34 min Scan# 1682
Delta R.T. -0.00 min
Lab File: VX017012.D
Acq: 29 Jun 2020 16:53

Tgt Ion: 91 Resp: 933635

Ion	Ratio	Lower	Upper
91	100		
120	23.8	11.9	35.9

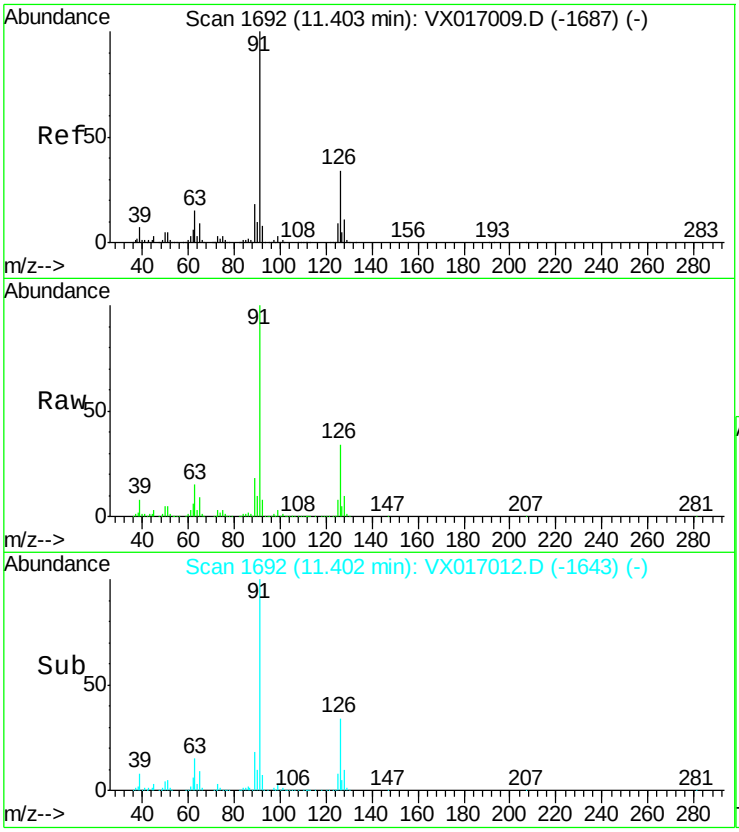


Instrument :
MSVOA_X
ClientSampleId :
ICVVX062920

Manual Integrations APPROVED
MMDadoda
6/30/2020 10:12:17 AM

Instrument :
MSVOA_X
ClientSampleId :
ICVVX062920

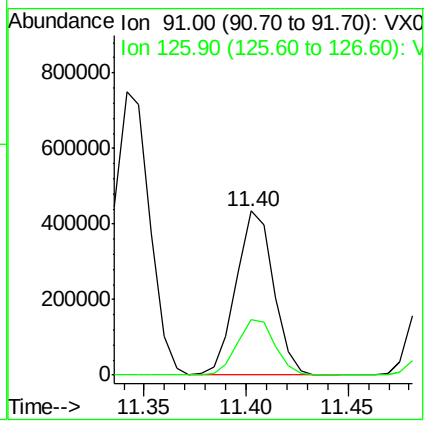
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:12:17 AM

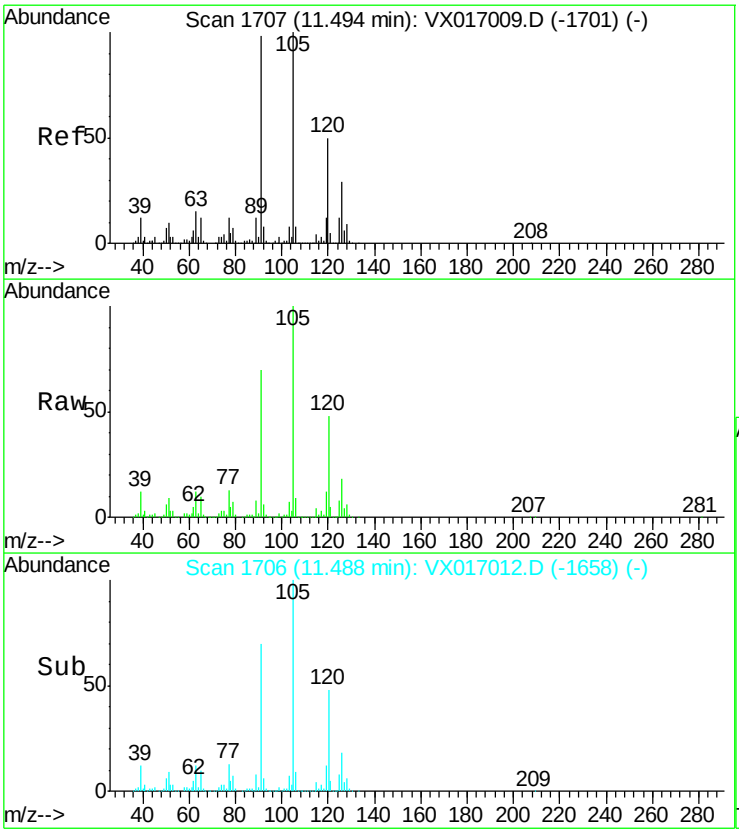


#79
2-Chlorotoluene
Concen: 51.525 ug/l
RT: 11.40 min Scan# 1692
Delta R.T. -0.00 min
Lab File: VX017012.D
Acq: 29 Jun 2020 16:53

Tgt Ion: 91 Resp: 551761

Ion	Ratio	Lower	Upper
91	100		
126	34.5	17.4	52.3

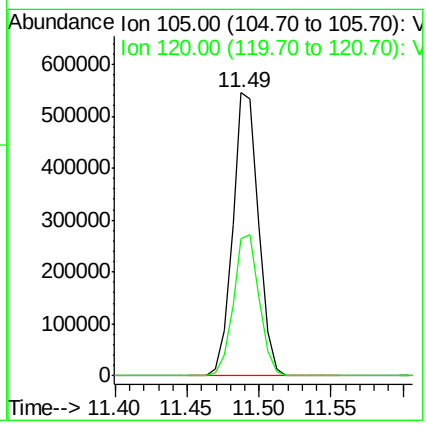


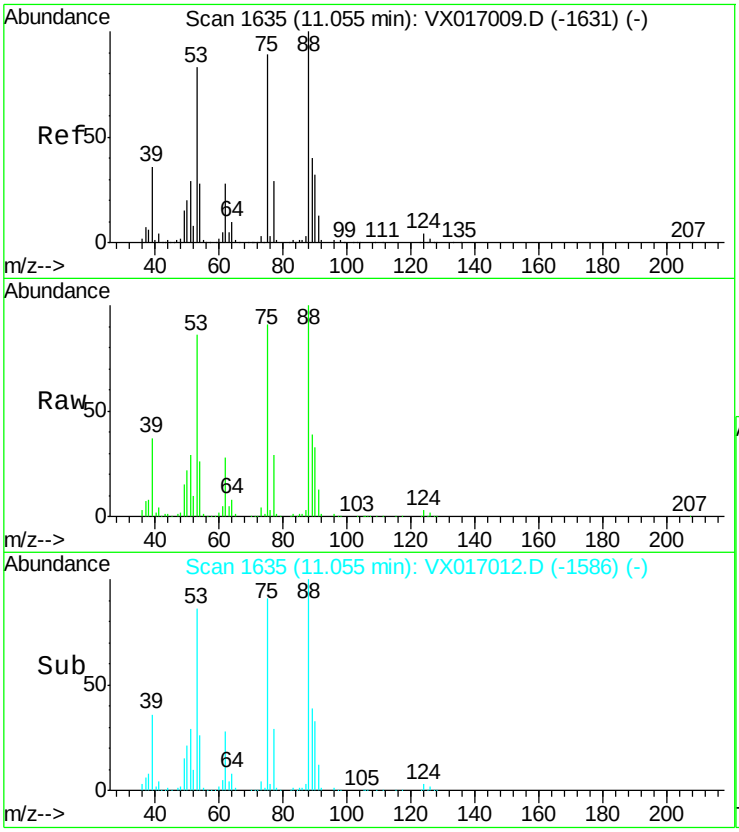


#80
1,3,5-Trimethylbenzene
Concen: 52.562 ug/l
RT: 11.49 min Scan# 1706
Delta R.T. -0.01 min
Lab File: VX017012.D
Acq: 29 Jun 2020 16:53

Tgt Ion:105 Resp: 682180

Ion	Ratio	Lower	Upper
105	100		
120	49.8	24.9	74.6

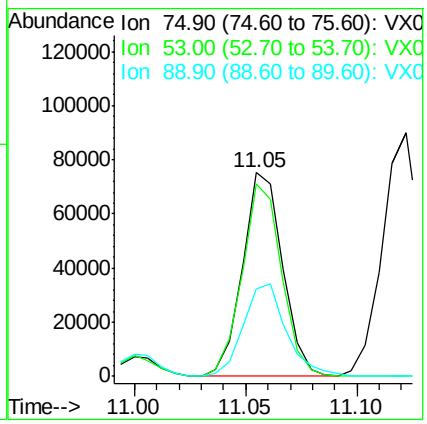




#81
trans-1,4-Dichloro-2-butene
Concen: 52.009 ug/l
RT: 11.05 min Scan# 1635
Delta R.T. -0.00 min
Lab File: VX017012.D
Acq: 29 Jun 2020 16:53

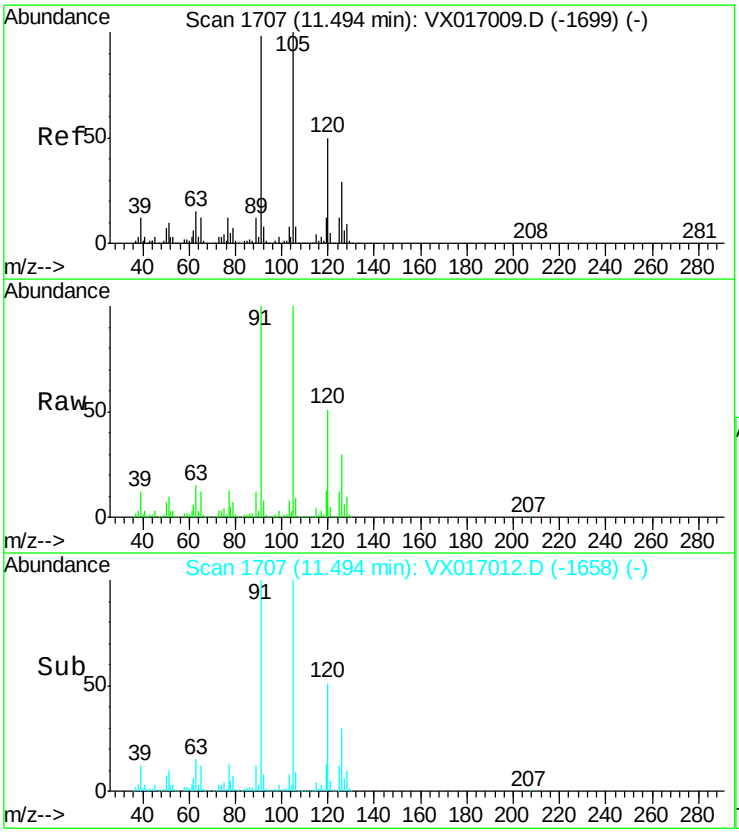
Tgt Ion: 75 Resp: 94341

Ion	Ratio	Lower	Upper
75	100		
53	93.1	72.4	108.6
89	49.3	37.0	55.4



Instrument :
MSVOA_X
ClientSampleId :
ICVVX062920

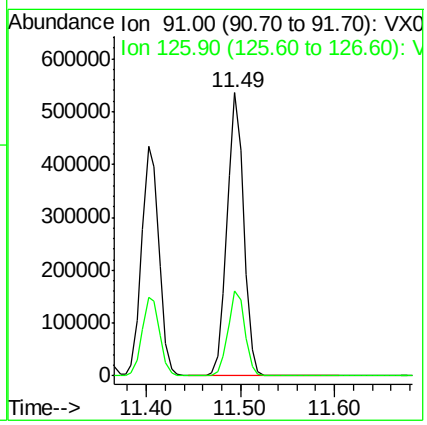
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:12:17 AM

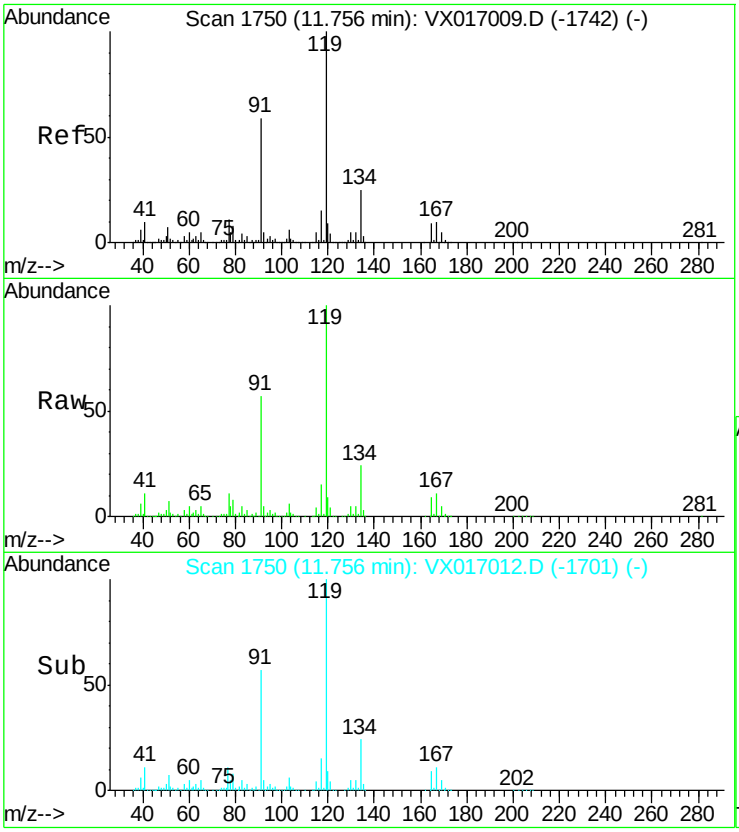


#82
4-Chlorotoluene
Concen: 51.360 ug/l
RT: 11.49 min Scan# 1707
Delta R.T. -0.00 min
Lab File: VX017012.D
Acq: 29 Jun 2020 16:53

Tgt Ion: 91 Resp: 657492

Ion	Ratio	Lower	Upper
91	100		
126	30.4	15.2	45.5

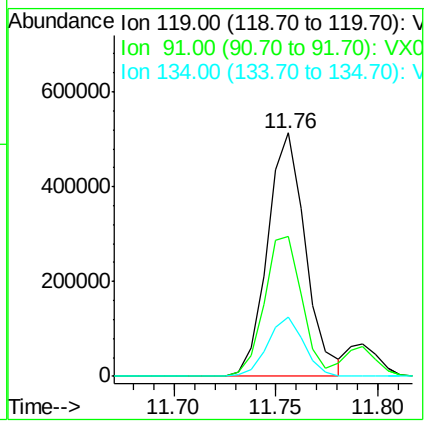




#83
tert-Butylbenzene
Concen: 52.389 ug/l
RT: 11.76 min Scan# 1750
Delta R.T. -0.00 min
Lab File: VX017012.D
Acq: 29 Jun 2020 16:53

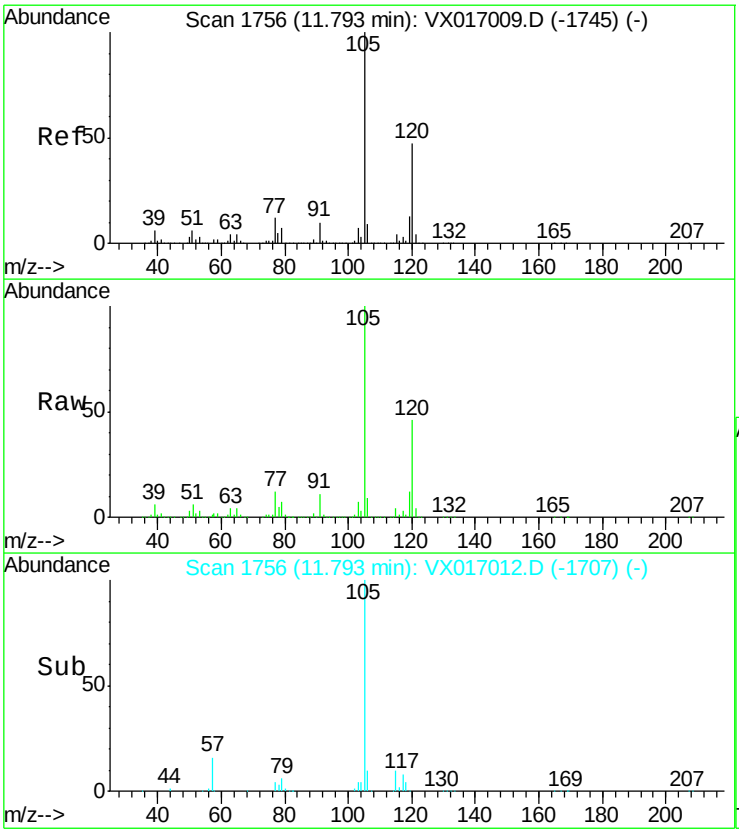
Tgt Ion:119 Resp: 667462

Ion	Ratio	Lower	Upper
119	100		
91	56.9	28.3	84.9
134	23.2	11.7	35.1



Instrument :
MSVOA_X
ClientSampleId :
ICVVX062920

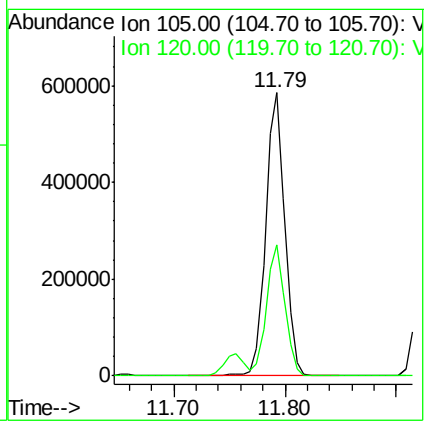
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:12:17 AM

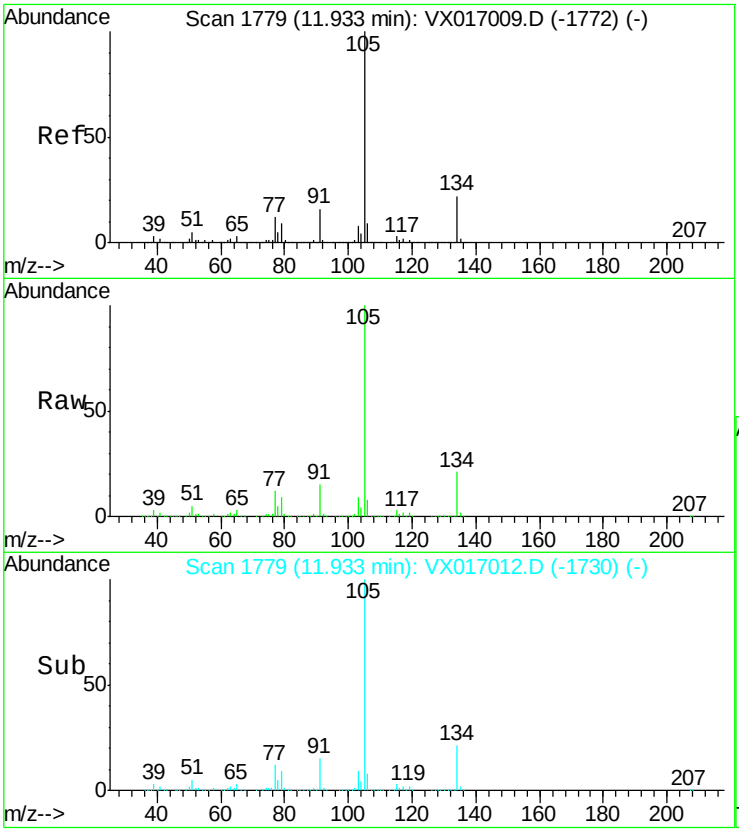


#84
1,2,4-Trimethylbenzene
Concen: 53.419 ug/l
RT: 11.79 min Scan# 1756
Delta R.T. -0.00 min
Lab File: VX017012.D
Acq: 29 Jun 2020 16:53

Tgt Ion:105 Resp: 703368

Ion	Ratio	Lower	Upper
105	100		
120	45.1	22.9	68.5

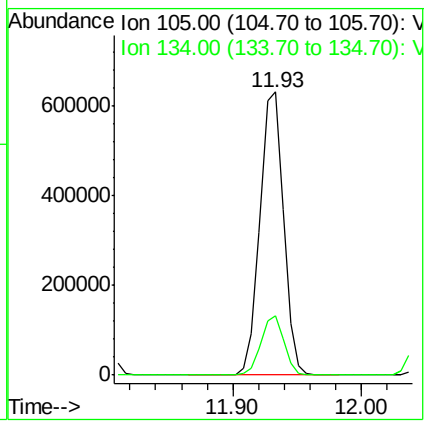




#85
sec-Butylbenzene
Concen: 53.188 ug/l
RT: 11.93 min Scan# 1779
Delta R.T. -0.00 min
Lab File: VX017012.D
Acq: 29 Jun 2020 16:53

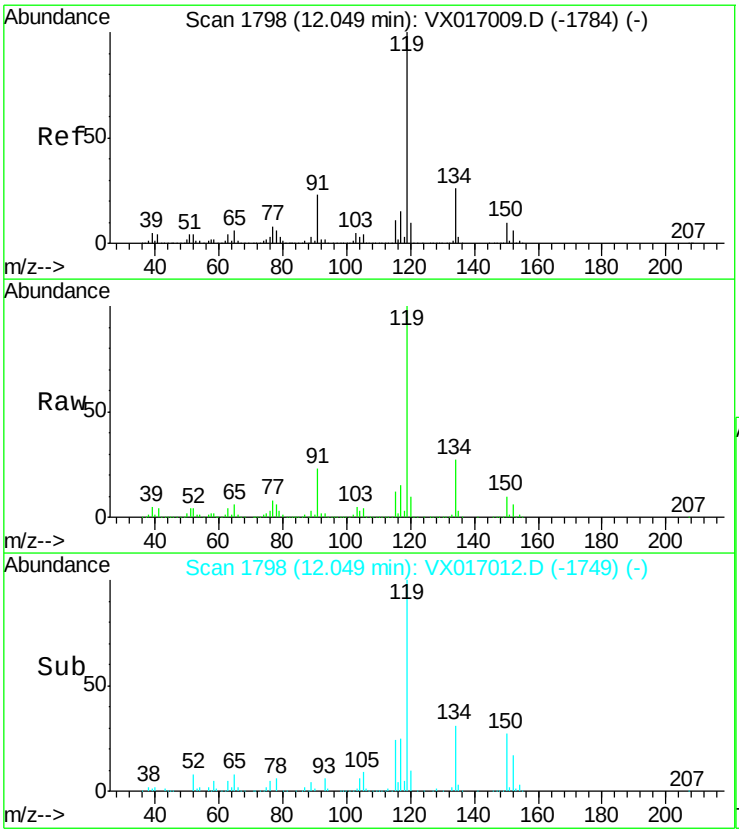
Tgt Ion:105 Resp: 796551

Ion	Ratio	Lower	Upper
105	100		
134	20.6	10.5	31.6



Instrument :
MSVOA_X
ClientSampleId :
ICVVX062920

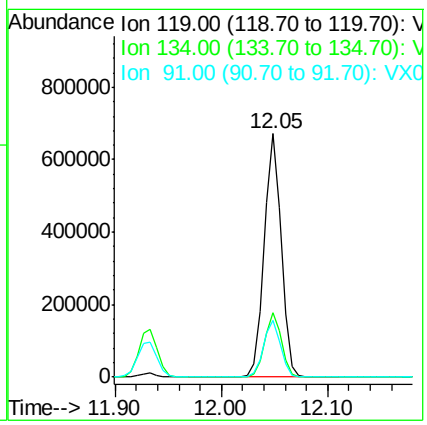
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:12:17 AM

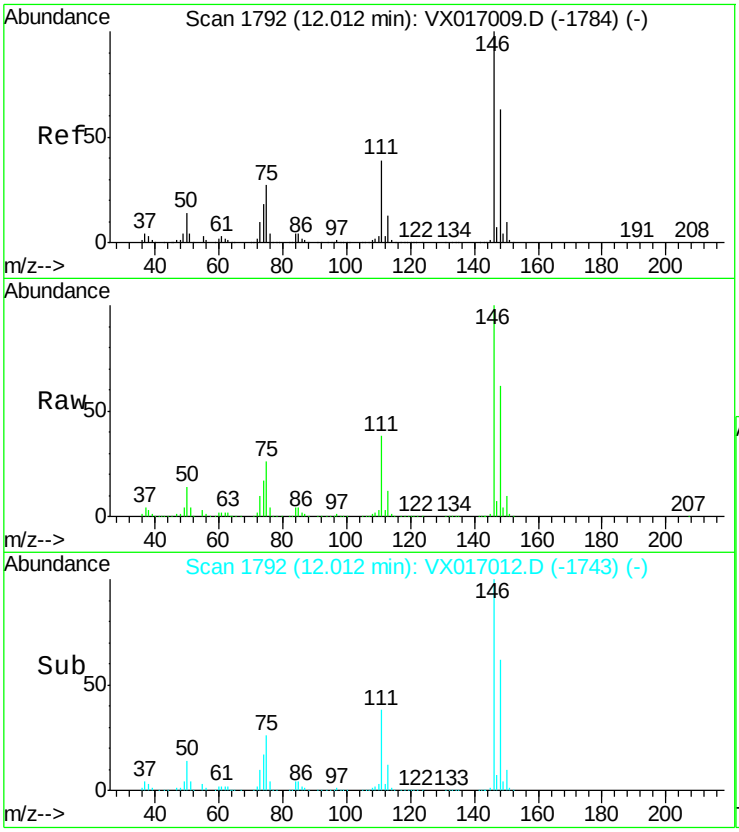


#86
p-Isopropyltoluene
Concen: 53.995 ug/l
RT: 12.05 min Scan# 1798
Delta R.T. -0.00 min
Lab File: VX017012.D
Acq: 29 Jun 2020 16:53

Tgt Ion:119 Resp: 752785

Ion	Ratio	Lower	Upper
119	100		
134	26.5	13.2	39.5
91	23.5	11.8	35.4

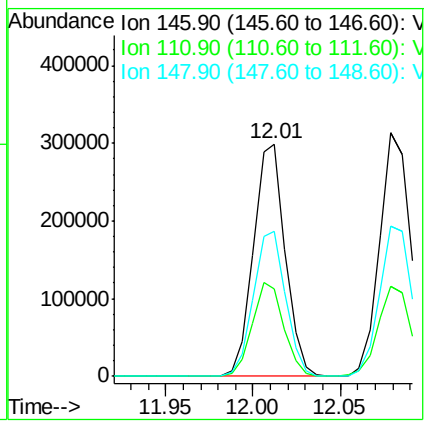




#87
1,3-Dichlorobenzene
Concen: 48.333 ug/l
RT: 12.01 min Scan# 1792
Delta R.T. -0.00 min
Lab File: VX017012.D
Acq: 29 Jun 2020 16:53

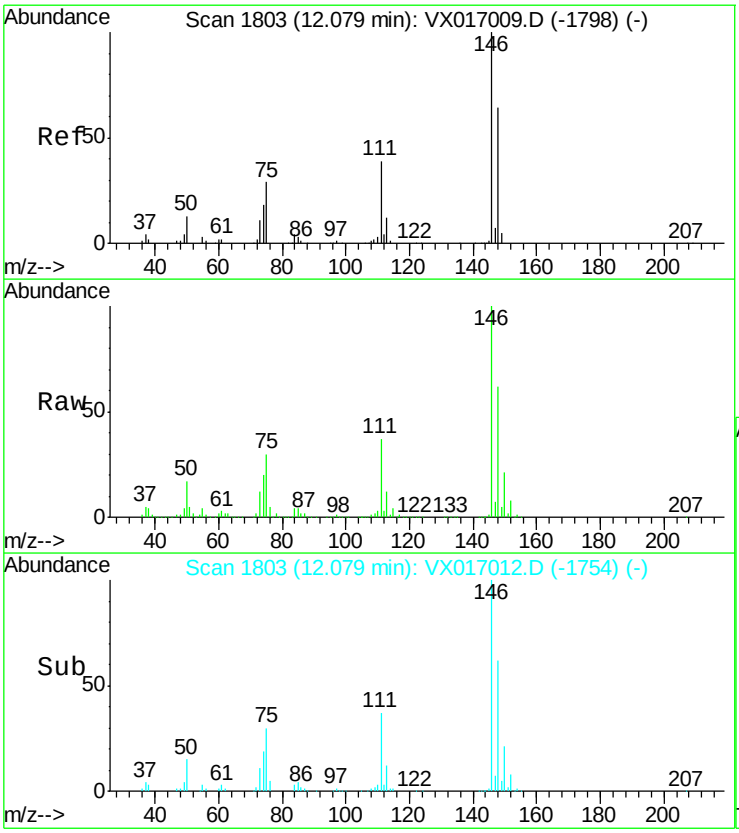
Tgt Ion:146 Resp: 377493

Ion	Ratio	Lower	Upper
146	100		
111	39.9	20.4	61.2
148	63.5	32.5	97.5



Instrument :
MSVOA_X
ClientSampleId :
ICVVX062920

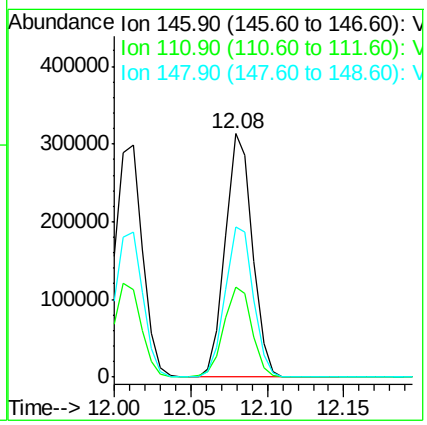
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:12:17 AM

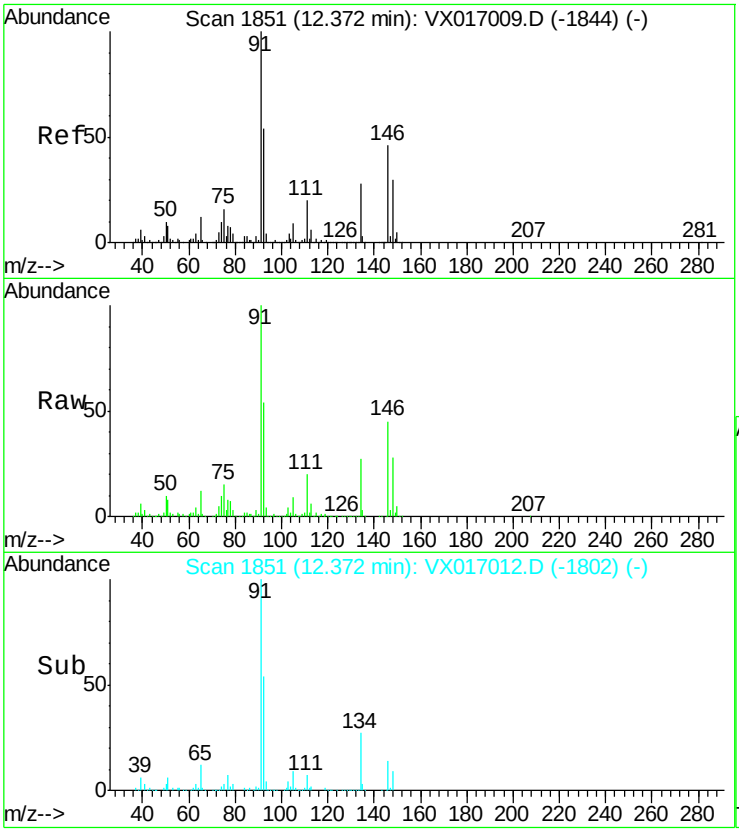


#88
1,4-Dichlorobenzene
Concen: 52.303 ug/l
RT: 12.08 min Scan# 1803
Delta R.T. 0.00 min
Lab File: VX017012.D
Acq: 29 Jun 2020 16:53

Tgt Ion:146 Resp: 385171

Ion	Ratio	Lower	Upper
146	100		
111	38.3	19.5	58.5
148	63.7	31.9	95.7

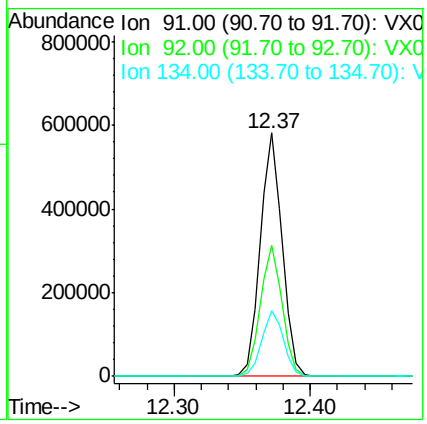


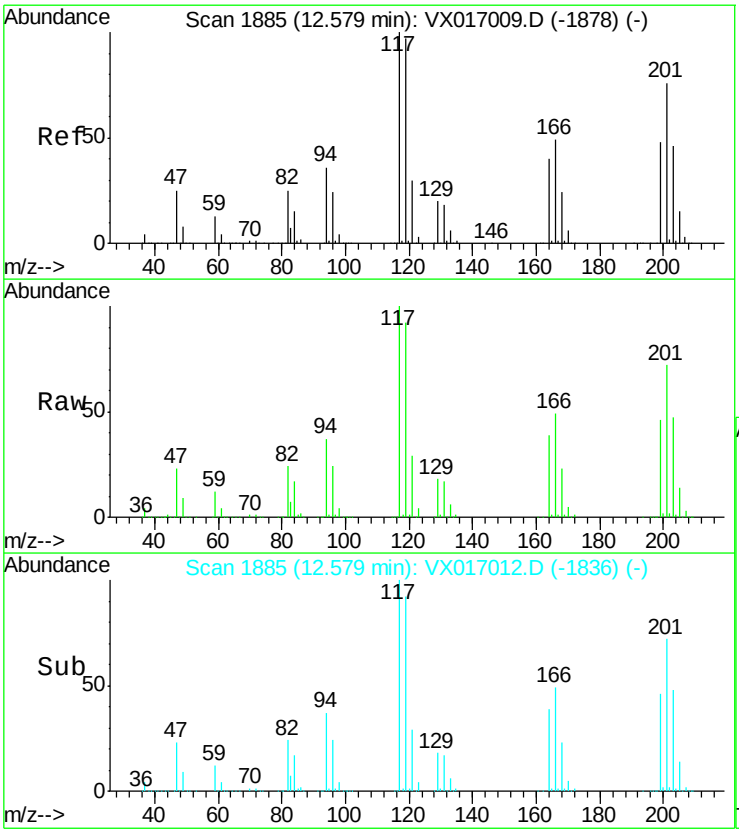


#89
n-Butylbenzene
Concen: 52.994 ug/l
RT: 12.37 min Scan# 1851
Delta R.T. -0.00 min
Lab File: VX017012.D
Acq: 29 Jun 2020 16:53

Tgt Ion: 91 Resp: 659700

Ion	Ratio	Lower	Upper
91	100		
92	53.9	27.2	81.6
134	26.8	13.6	40.7

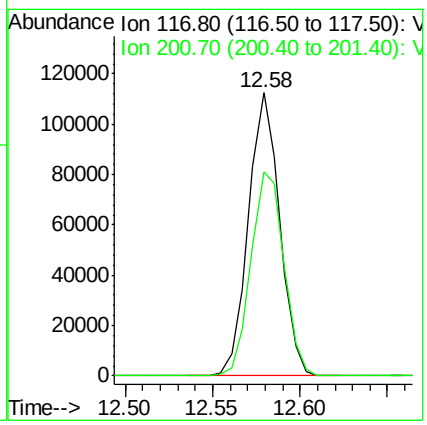




#90
Hexachloroethane
Concen: 50.706 ug/l
RT: 12.58 min Scan# 1885
Delta R.T. -0.00 min
Lab File: VX017012.D
Acq: 29 Jun 2020 16:53

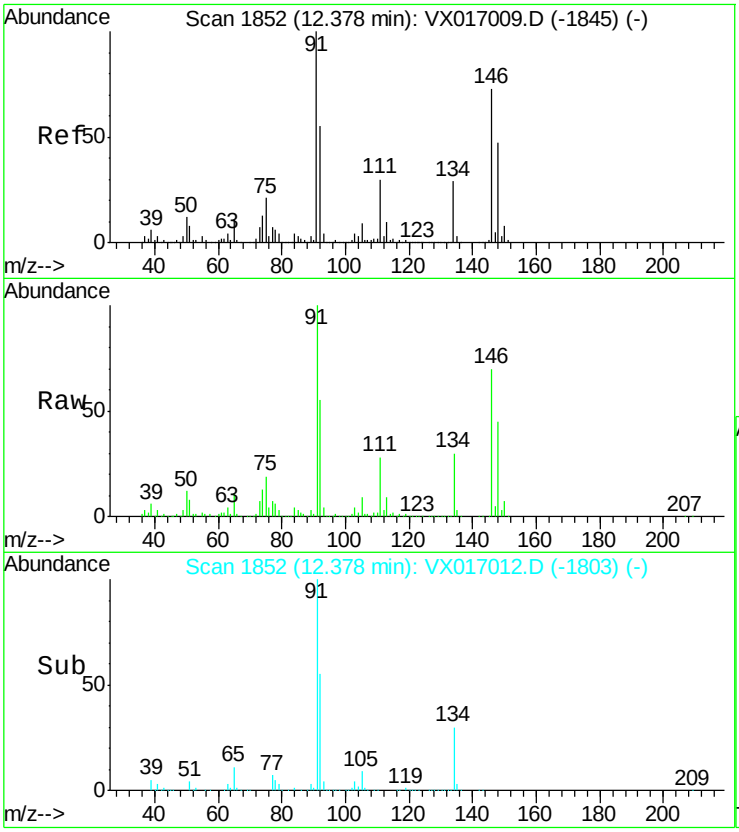
Tgt Ion:117 Resp: 139407

Ion	Ratio	Lower	Upper
117	100		
201	76.3	39.4	118.2



Instrument :
MSVOA_X
ClientSampleId :
ICVVX062920

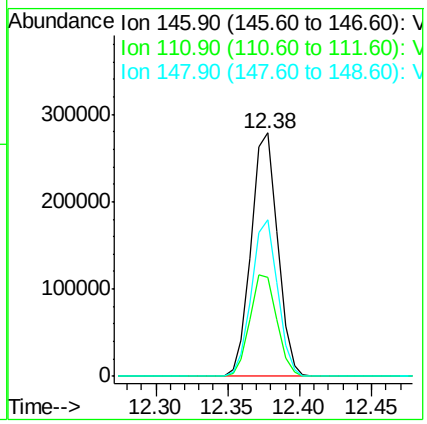
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:12:17 AM



#91
1,2-Dichlorobenzene
Concen: 48.293 ug/l
RT: 12.38 min Scan# 1852
Delta R.T. -0.00 min
Lab File: VX017012.D
Acq: 29 Jun 2020 16:53

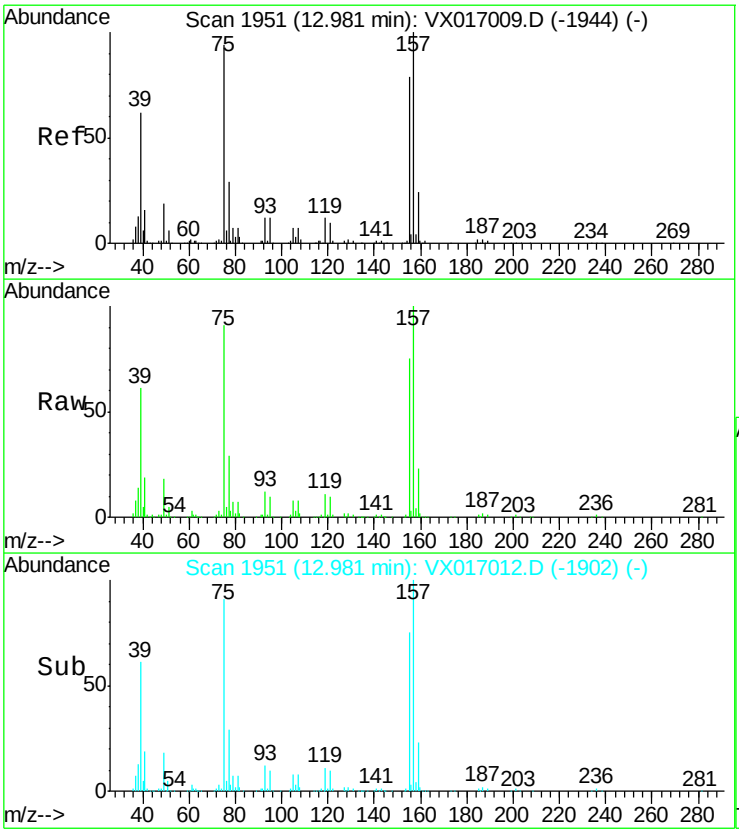
Tgt Ion:146 Resp: 352565

Ion	Ratio	Lower	Upper
146	100		
111	42.5	20.6	61.9
148	63.6	32.4	97.2



Instrument :
MSVOA_X
ClientSampleId :
ICVVX062920

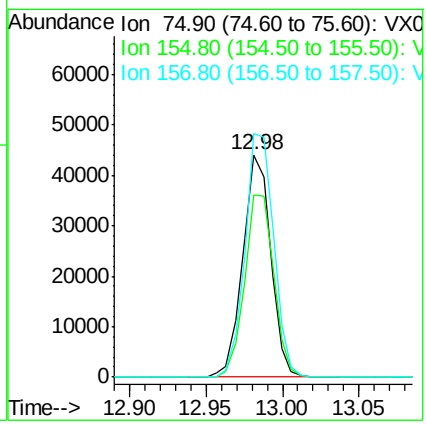
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:12:17 AM

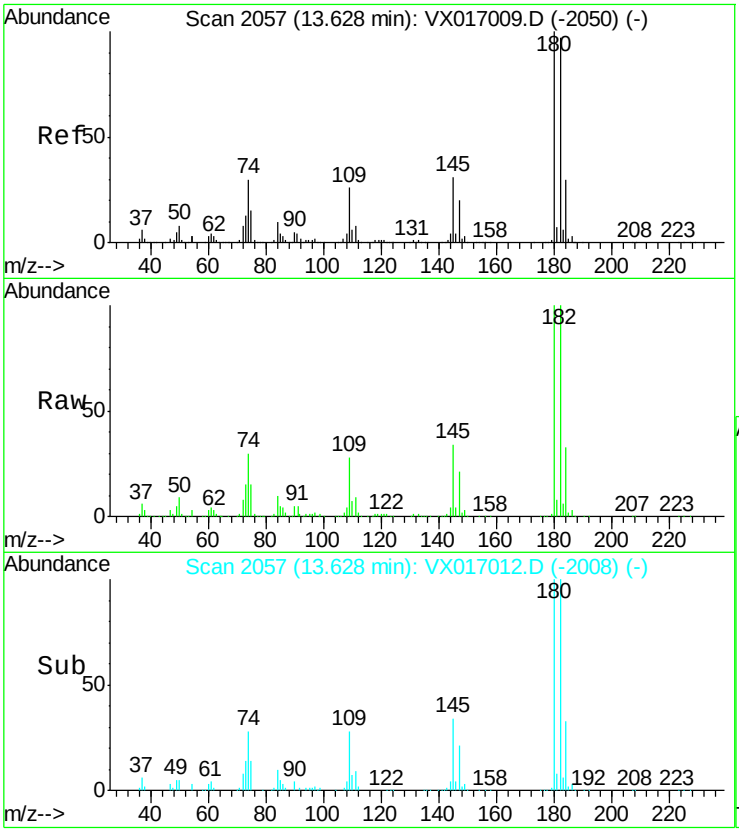


#92
1,2-Dibromo-3-Chloropropane
Concen: 47.571 ug/l
RT: 12.98 min Scan# 1951
Delta R.T. -0.00 min
Lab File: VX017012.D
Acq: 29 Jun 2020 16:53

Tgt Ion: 75 Resp: 55854

Ion	Ratio	Lower	Upper
75	100		
155	85.4	45.1	135.2
157	112.9	56.5	169.3

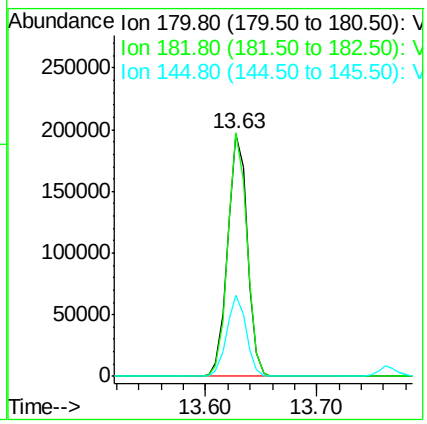


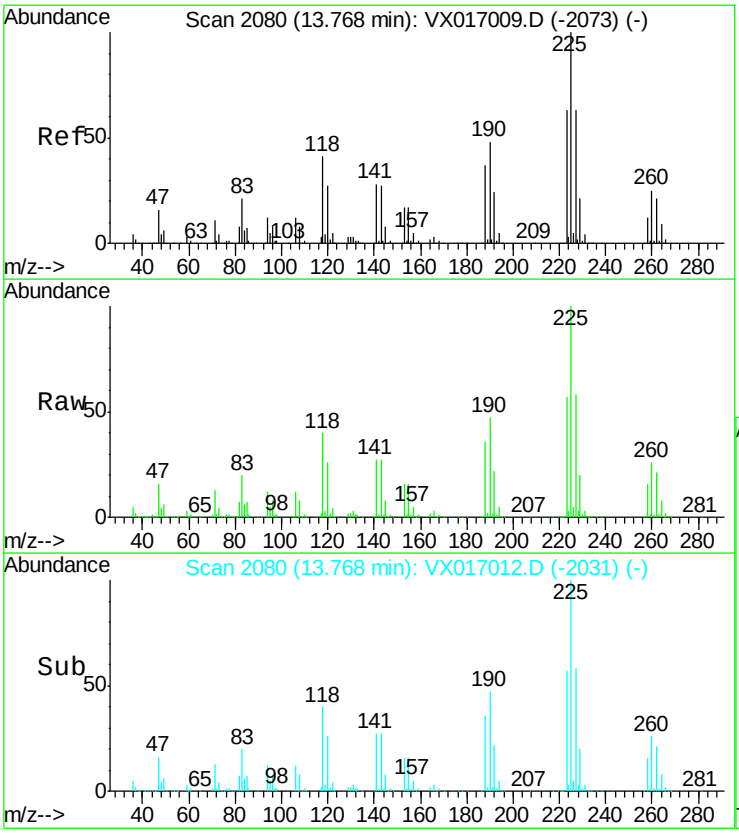


#93
1,2,4-Trichlorobenzene
Concen: 47.952 ug/l
RT: 13.63 min Scan# 2057
Delta R.T. -0.00 min
Lab File: VX017012.D
Acq: 29 Jun 2020 16:53

Tgt Ion:180 Resp: 238945

Ion	Ratio	Lower	Upper
180	100		
182	97.6	47.3	141.9
145	33.0	15.4	46.2

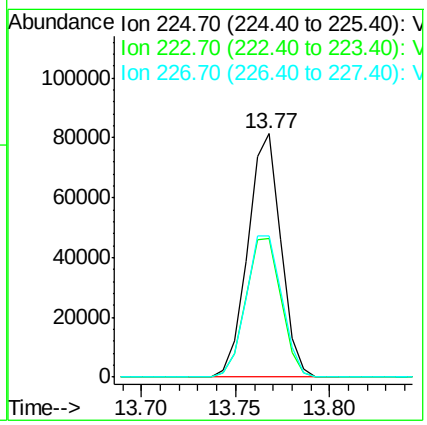




#94
Hexachlorobutadiene
Concen: 52.307 ug/l
RT: 13.77 min Scan# 2080
Delta R.T. 0.00 min
Lab File: VX017012.D
Acq: 29 Jun 2020 16:53

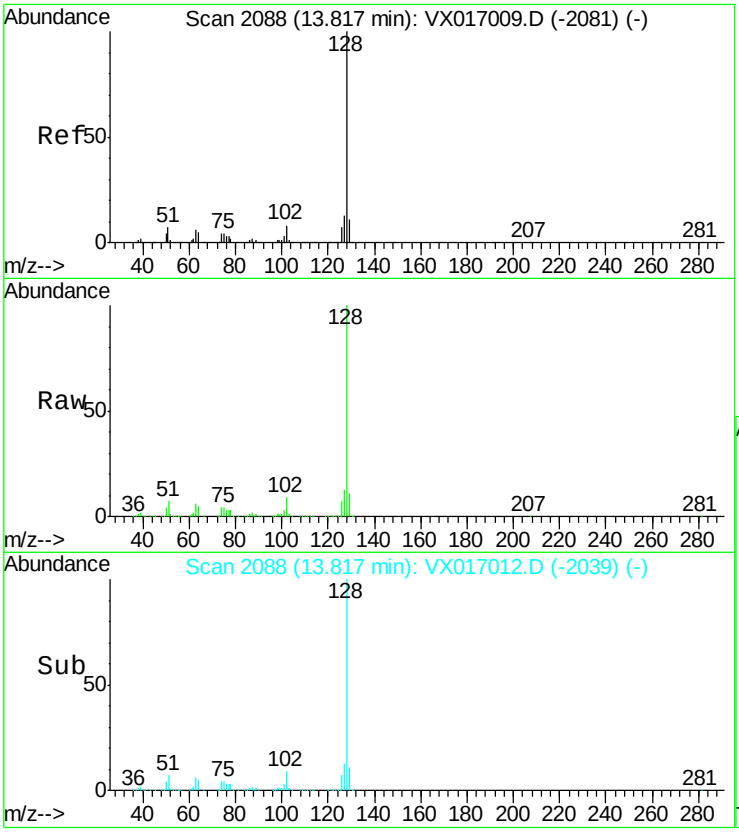
Tgt Ion:225 Resp: 98994

Ion	Ratio	Lower	Upper
225	100		
223	61.2	32.5	97.5
227	63.0	33.1	99.2



Instrument :
MSVOA_X
ClientSampleId :
ICVVX062920

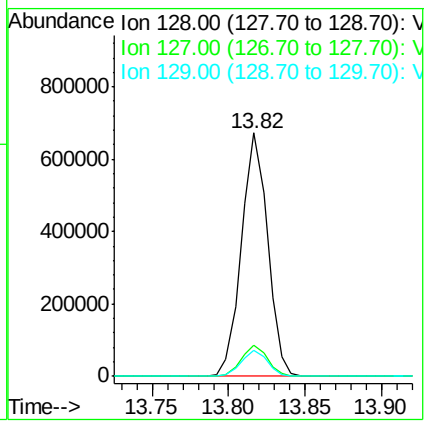
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:12:17 AM



#95
Naphthalene
Concen: 52.816 ug/l
RT: 13.82 min Scan# 2088
Delta R.T. -0.00 min
Lab File: VX017012.D
Acq: 29 Jun 2020 16:53

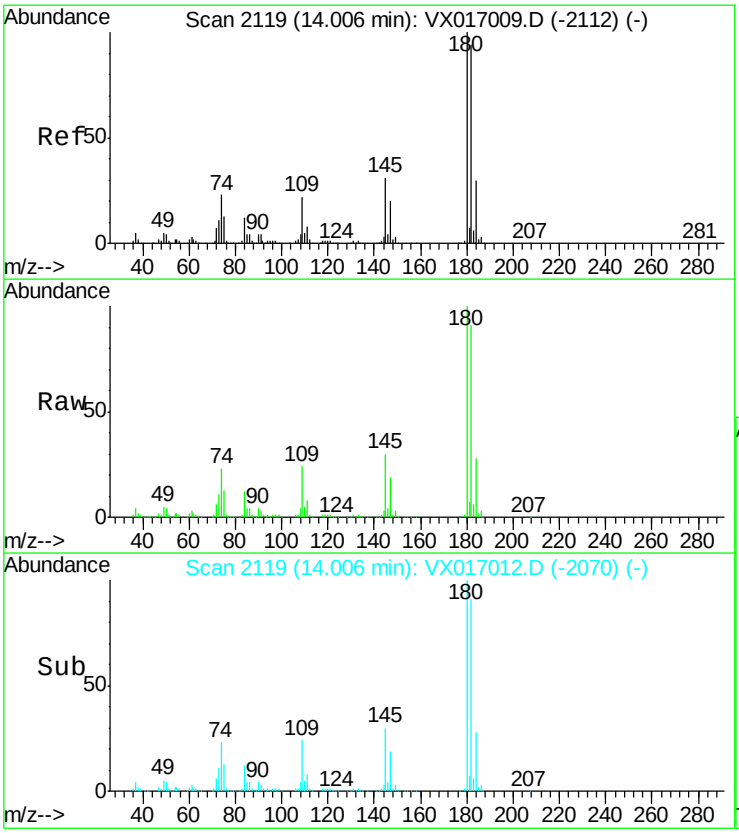
Tgt Ion:128 Resp: 800112

Ion	Ratio	Lower	Upper
128	100		
127	12.8	10.2	15.4
129	10.9	8.7	13.1



Instrument :
MSVOA_X
ClientSampleId :
ICVVX062920

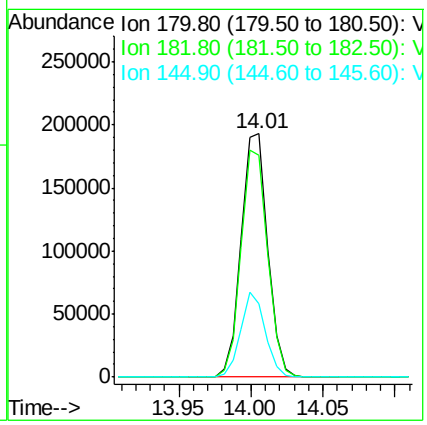
Manual Integrations APPROVED
MMDadoda
6/30/2020 10:12:17 AM



#96
1,2,3-Trichlorobenzene
Concen: 51.136 ug/l
RT: 14.01 min Scan# 2119
Delta R.T. -0.00 min
Lab File: VX017012.D
Acq: 29 Jun 2020 16:53

Tgt Ion:180 Resp: 246597

Ion	Ratio	Lower	Upper
180	100		
182	93.3	47.1	141.4
145	32.3	16.6	49.7



Evaluate Continuing Calibration Report

ICAL Form

Data Path : Z:\voasrv\HPCHEM1\MSVOA X\Data\VX062920\
Data File : VX017012.D
Acq On : 29 Jun 2020 16:53
Operator : JC/SP
Sample : VSTDICV050
Misc : 5.0mL/MSVOA X/WATER
ALS Vial : 11 Sample Multiplier: 1

Instrument : MSVOA_X
ClientSampleId : ICVVX062920

Quant Time: Jun 30 05:43:26 2020
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X062920W.M
Quant Title : SW846 8260
QLast Update : Mon Jun 29 17:10:38 2020
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	Pentafluorobenzene	50.000	50.000	0.0	112	0.00
2	T	Dichlorodifluoromethane	50.000	50.917	-1.8	113	0.00
3	P	Chloromethane	50.000	47.319	5.4	109	0.00
4	C	Vinyl Chloride	50.000	47.696	4.6#	108	0.00
5	T	Bromomethane	50.000	50.039	-0.1	112	0.00
6	T	Chloroethane	50.000	45.506	9.0	105	0.00
7	T	Trichlorofluoromethane	50.000	46.928	6.1	107	0.00
8	T	Diethyl Ether	50.000	49.969	0.1	109	0.00
9	T	1,1,2-Trichlorotrifluoroeth	50.000	49.229	1.5	109	0.00
10	T	Methyl Iodide	50.000	48.025	4.0	100	0.00
11	T	Tert butyl alcohol	250.000	245.415	1.8	108	0.00
12	CM	1,1-Dichloroethene	50.000	46.912	6.2#	106	0.00
13	T	Acrolein	250.000	225.516	9.8	101	0.00
14	T	Allyl chloride	50.000	48.394	3.2	110	0.00
15	T	Acrylonitrile	250.000	241.364	3.5	107	0.00
16	T	Acetone	250.000	236.901	5.2	107	0.00
17	T	Carbon Disulfide	50.000	50.817	-1.6	108	0.00
18	T	Methyl Acetate	50.000	48.342	3.3	108	0.00
19	T	Methyl tert-butyl Ether	50.000	48.471	3.1	107	0.00
20	T	Methylene Chloride	50.000	50.345	-0.7	105	0.00
21	T	trans-1,2-Dichloroethene	50.000	48.035	3.9	108	0.00
22	T	Diisopropyl ether	50.000	48.502	3.0	105	0.00
23	T	Vinyl Acetate	250.000	253.224	-1.3	107	0.00
24	P	1,1-Dichloroethane	50.000	47.624	4.8	106	0.00
25	T	2-Butanone	250.000	242.815	2.9	106	0.00
26	T	2,2-Dichloropropane	50.000	48.399	3.2	109	0.00
27	T	cis-1,2-Dichloroethene	50.000	46.842	6.3	105	0.00
28	T	Bromochloromethane	50.000	44.721	10.6	101	0.00
29	T	Tetrahydrofuran	250.000	245.363	1.9	105	0.00
30	C	Chloroform	50.000	47.082	5.8#	105	0.00
31	T	Cyclohexane	50.000	49.646	0.7	108	0.00
32	T	1,1,1-Trichloroethane	50.000	46.608	6.8	104	0.00
33	S	1,2-Dichloroethane-d4	50.000	46.253	7.5	110	0.00
34	I	1,4-Difluorobenzene	50.000	50.000	0.0	107	0.00
35	S	Dibromofluoromethane	50.000	49.367	1.3	110	0.00
36	T	1,1-Dichloropropene	50.000	49.243	1.5	106	0.00
37	T	Ethyl Acetate	50.000	50.625	-1.3	104	0.00
38	T	Carbon Tetrachloride	50.000	49.184	1.6	105	0.00
39	T	Methylcyclohexane	50.000	53.409	-6.8	112	0.00
40	TM	Benzene	50.000	49.231	1.5	106	0.00
41	T	Methacrylonitrile	50.000	49.863	0.3	106	0.00
42	TM	1,2-Dichloroethane	50.000	48.556	2.9	104	0.00
43	T	Isopropyl Acetate	50.000	50.084	-0.2	106	0.00
44	TM	Trichloroethene	50.000	51.389	-2.8	105	0.00
45	C	1,2-Dichloropropane	50.000	49.286	1.4#	107	0.00

Evaluate Continuing Calibration Report

Data Path : Z:\voasrv\HPCHEM1\MSVOA X\Data\VX062920\
Data File : VX017012.D
Acq On : 29 Jun 2020 16:53
Operator : JC/SP
Sample : VSTDICV050
Misc : 5.0mL/MSVOA X/WATER
ALS Vial : 11 Sample Multiplier: 1

Instrument : MSVOA_X
ClientSampleId : ICVVX062920

Quant Time: Jun 30 05:43:26 2020
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X062920W.M
Quant Title : SW846 8260
QLast Update : Mon Jun 29 17:10:38 2020
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
46	T	Dibromomethane	50.000	49.216	1.6	106	0.00
47	T	Bromodichloromethane	50.000	48.905	2.2	103	0.00
48	T	Methyl methacrylate	50.000	51.727	-3.5	104	0.00
49	T	1,4-Dioxane	1000.000	1008.538	-0.9	106	0.00
50	S	Toluene-d8	50.000	49.721	0.6	112	0.00
51	T	4-Methyl-2-Pentanone	250.000	258.442	-3.4	106	0.00
52	CM	Toluene	50.000	49.704	0.6#	105	0.00
53	T	t-1,3-Dichloropropene	50.000	50.636	-1.3	107	0.00
54	T	cis-1,3-Dichloropropene	50.000	50.624	-1.2	107	0.00
55	T	1,1,2-Trichloroethane	50.000	49.151	1.7	106	0.00
56	T	Ethyl methacrylate	50.000	52.969	-5.9	106	0.00
57	T	1,3-Dichloropropane	50.000	48.825	2.3	105	0.00
58	T	2-Chloroethyl Vinyl ether	250.000	263.171	-5.3	103	0.00
59	T	2-Hexanone	250.000	264.307	-5.7	107	0.00
60	T	Dibromochloromethane	50.000	49.429	1.1	105	0.00
61	T	1,2-Dibromoethane	50.000	49.097	1.8	105	0.00
62	S	4-Bromofluorobenzene	50.000	50.729	-1.5	114	0.00
63	I	Chlorobenzene-d5	50.000	50.000	0.0	107	0.00
64	T	Tetrachloroethene	50.000	47.996	4.0	103	0.00
65	PM	Chlorobenzene	50.000	48.535	2.9	105	0.00
66	T	1,1,1,2-Tetrachloroethane	50.000	48.572	2.9	104	0.00
67	C	Ethyl Benzene	50.000	51.784	-3.6#	107	0.00
68	T	m/p-Xylenes	100.000	103.654	-3.7	106	0.00
69	T	o-Xylene	50.000	51.331	-2.7	106	0.00
70	T	Styrene	50.000	53.136	-6.3	106	0.00
71	P	Bromoform	50.000	51.237	-2.5	103	0.00
72	I	1,4-Dichlorobenzene-d4	50.000	50.000	0.0	109	0.00
73	T	Isopropylbenzene	50.000	52.034	-4.1	107	0.00
74	T	N-amyl acetate	50.000	53.473	-6.9	106	0.00
75	P	1,1,2,2-Tetrachloroethane	50.000	49.473	1.1	107	0.00
76	T	1,2,3-Trichloropropane	50.000	50.604	-1.2	105	0.00
77	T	Bromobenzene	50.000	48.626	2.7	105	0.00
78	T	n-propylbenzene	50.000	52.766	-5.5	108	0.00
79	T	2-Chlorotoluene	50.000	51.525	-3.0	107	0.00
80	T	1,3,5-Trimethylbenzene	50.000	52.562	-5.1	107	0.00
81	T	trans-1,4-Dichloro-2-butene	50.000	52.009	-4.0	106	0.00
82	T	4-Chlorotoluene	50.000	51.360	-2.7	107	0.00
83	T	tert-Butylbenzene	50.000	52.389	-4.8	107	0.00
84	T	1,2,4-Trimethylbenzene	50.000	53.419	-6.8	107	0.00
85	T	sec-Butylbenzene	50.000	53.188	-6.4	108	0.00
86	T	p-Isopropyltoluene	50.000	53.995	-8.0	108	0.00
87	T	1,3-Dichlorobenzene	50.000	48.333	3.3	108	0.00
88	T	1,4-Dichlorobenzene	50.000	52.303	-4.6	108	0.00
89	T	n-Butylbenzene	50.000	52.994	-6.0	110	0.00

Evaluate Continuing Calibration Report

Data Path : Z:\voasrv\HPCHEM1\MSVOA X\Data\VX062920\
Data File : VX017012.D
Acq On : 29 Jun 2020 16:53
Operator : JC/SP
Sample : VSTDICV050
Misc : 5.0mL/MSVOA X/WATER
ALS Vial : 11 Sample Multiplier: 1

Instrument : MSVOA_X
ClientSampleId : ICVVX062920

Quant Time: Jun 30 05:43:26 2020
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X062920W.M
Quant Title : SW846 8260
QLast Update : Mon Jun 29 17:10:38 2020
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
90 T	Hexachloroethane	50.000	50.706	-1.4	106	0.00
91 T	1,2-Dichlorobenzene	50.000	48.293	3.4	104	0.00
92 T	1,2-Dibromo-3-Chloropropane	50.000	47.571	4.9	105	0.00
93 T	1,2,4-Trichlorobenzene	50.000	47.952	4.1	103	0.00
94 T	Hexachlorobutadiene	50.000	52.307	-4.6	111	0.00
95 T	Naphthalene	50.000	52.816	-5.6	105	0.00
96 T	1,2,3-Trichlorobenzene	50.000	51.136	-2.3	108	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 6

Evaluate Continuing Calibration Report

ICAL Form

Data Path : Z:\voasrv\HPCHEM1\MSVOA X\Data\VX062920\
Data File : VX017012.D
Acq On : 29 Jun 2020 16:53
Operator : JC/SP
Sample : VSTDICV050
Misc : 5.0mL/MSVOA X/WATER
ALS Vial : 11 Sample Multiplier: 1

Instrument : MSVOA_X
ClientSampleId : ICVVX062920

Quant Time: Jun 30 05:43:26 2020
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X062920W.M
Quant Title : SW846 8260
QLast Update : Mon Jun 29 17:10:38 2020
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	Pentafluorobenzene	1.000	1.000	0.0	112	0.00
2	T	Dichlorodifluoromethane	0.484	0.493	-1.9	113	0.00
3	P	Chloromethane	0.586	0.554	5.5	109	0.00
4	C	Vinyl Chloride	0.543	0.518	4.6#	108	0.00
5	T	Bromomethane	0.287	0.287	0.0	112	0.00
6	T	Chloroethane	0.321	0.292	9.0	105	0.00
7	T	Trichlorofluoromethane	0.803	0.754	6.1	107	0.00
8	T	Diethyl Ether	0.293	0.270	7.8	109	0.00
9	T	1,1,2-Trichlorotrifluoroeth	0.482	0.474	1.7	109	0.00
10	T	Methyl Iodide	0.621	0.597	3.9	100	0.00
11	T	Tert butyl alcohol	0.118	0.115	2.5	108	0.00
12	CM	1,1-Dichloroethene	0.495	0.464	6.3#	106	0.00
13	T	Acrolein	0.070	0.063	10.0	101	0.00
14	T	Allyl chloride	0.914	0.885	3.2	110	0.00
15	T	Acrylonitrile	0.283	0.273	3.5	107	0.00
16	T	Acetone	0.231	0.219	5.2	107	0.00
17	T	Carbon Disulfide	1.515	1.403	7.4	108	0.00
18	T	Methyl Acetate	0.602	0.582	3.3	108	0.00
19	T	Methyl tert-butyl Ether	1.660	1.609	3.1	107	0.00
20	T	Methylene Chloride	0.589	0.532	9.7	105	0.00
21	T	trans-1,2-Dichloroethene	0.549	0.527	4.0	108	0.00
22	T	Diisopropyl ether	1.692	1.641	3.0	105	0.00
23	T	Vinyl Acetate	1.454	1.473	-1.3	107	0.00
24	P	1,1-Dichloroethane	0.963	0.917	4.8	106	0.00
25	T	2-Butanone	0.384	0.373	2.9	106	0.00
26	T	2,2-Dichloropropane	0.855	0.827	3.3	109	0.00
27	T	cis-1,2-Dichloroethene	0.622	0.583	6.3	105	0.00
28	T	Bromochloromethane	0.468	0.419	10.5	101	0.00
29	T	Tetrahydrofuran	0.254	0.249	2.0	105	0.00
30	C	Chloroform	0.987	0.929	5.9#	105	0.00
31	T	Cyclohexane	0.832	0.826	0.7	108	0.00
32	T	1,1,1-Trichloroethane	0.909	0.847	6.8	104	0.00
33	S	1,2-Dichloroethane-d4	0.616	0.570	7.5	110	0.00
34	I	1,4-Difluorobenzene	1.000	1.000	0.0	107	0.00
35	S	Dibromofluoromethane	0.316	0.312	1.3	110	0.00
36	T	1,1-Dichloropropene	0.473	0.465	1.7	106	0.00
37	T	Ethyl Acetate	0.479	0.485	-1.3	104	0.00
38	T	Carbon Tetrachloride	0.520	0.512	1.5	105	0.00
39	T	Methylcyclohexane	0.526	0.562	-6.8	112	0.00
40	TM	Benzene	1.388	1.367	1.5	106	0.00
41	T	Methacrylonitrile	0.270	0.269	0.4	106	0.00
42	TM	1,2-Dichloroethane	0.502	0.487	3.0	104	0.00
43	T	Isopropyl Acetate	0.797	0.798	-0.1	106	0.00
44	TM	Trichloroethene	0.418	0.394	5.7	105	0.00
45	C	1,2-Dichloropropane	0.357	0.352	1.4#	107	0.00

Evaluate Continuing Calibration Report

Data Path : Z:\voasrv\HPCHEM1\MSVOA X\Data\VX062920\
Data File : VX017012.D
Acq On : 29 Jun 2020 16:53
Operator : JC/SP
Sample : VSTDICV050
Misc : 5.0mL/MSVOA X/WATER
ALS Vial : 11 Sample Multiplier: 1

Instrument : MSVOA_X
ClientSampleId : ICVVX062920

Quant Time: Jun 30 05:43:26 2020
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X062920W.M
Quant Title : SW846 8260
QLast Update : Mon Jun 29 17:10:38 2020
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
46	T	Dibromomethane	0.243	0.240	1.2	106	0.00
47	T	Bromodichloromethane	0.502	0.491	2.2	103	0.00
48	T	Methyl methacrylate	0.379	0.392	-3.4	104	0.00
49	T	1,4-Dioxane	0.009	0.009	0.0	106	0.00
50	S	Toluene-d8	1.170	1.163	0.6	112	0.00
51	T	4-Methyl-2-Pentanone	0.475	0.491	-3.4	106	0.00
52	CM	Toluene	0.867	0.862	0.6#	105	0.00
53	T	t-1,3-Dichloropropene	0.554	0.561	-1.3	107	0.00
54	T	cis-1,3-Dichloropropene	0.593	0.601	-1.3	107	0.00
55	T	1,1,2-Trichloroethane	0.354	0.348	1.7	106	0.00
56	T	Ethyl methacrylate	0.504	0.534	-6.0	106	0.00
57	T	1,3-Dichloropropane	0.599	0.585	2.3	105	0.00
58	T	2-Chloroethyl Vinyl ether	0.251	0.264	-5.2	103	0.00
59	T	2-Hexanone	0.347	0.367	-5.8	107	0.00
60	T	Dibromochloromethane	0.411	0.407	1.0	105	0.00
61	T	1,2-Dibromoethane	0.381	0.374	1.8	105	0.00
62	S	4-Bromofluorobenzene	0.457	0.464	-1.5	114	0.00
63	I	Chlorobenzene-d5	1.000	1.000	0.0	107	0.00
64	T	Tetrachloroethene	0.404	0.387	4.2	103	0.00
65	PM	Chlorobenzene	1.032	1.002	2.9	105	0.00
66	T	1,1,1,2-Tetrachloroethane	0.398	0.386	3.0	104	0.00
67	C	Ethyl Benzene	1.723	1.785	-3.6#	107	0.00
68	T	m/p-Xylenes	0.662	0.686	-3.6	106	0.00
69	T	o-Xylene	0.630	0.646	-2.5	106	0.00
70	T	Styrene	1.072	1.139	-6.2	106	0.00
71	P	Bromoform	0.315	0.323	-2.5	103	0.00
72	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	109	0.00
73	T	Isopropylbenzene	3.275	3.408	-4.1	107	0.00
74	T	N-amyl acetate	1.397	1.494	-6.9	106	0.00
75	P	1,1,2,2-Tetrachloroethane	1.030	1.019	1.1	107	0.00
76	T	1,2,3-Trichloropropane	0.983	0.995	-1.2	105	0.00
77	T	Bromobenzene	0.900	0.875	2.8	105	0.00
78	T	n-propylbenzene	3.704	3.908	-5.5	108	0.00
79	T	2-Chlorotoluene	2.241	2.310	-3.1	107	0.00
80	T	1,3,5-Trimethylbenzene	2.717	2.856	-5.1	107	0.00
81	T	trans-1,4-Dichloro-2-butene	0.380	0.395	-3.9	106	0.00
82	T	4-Chlorotoluene	2.679	2.752	-2.7	107	0.00
83	T	tert-Butylbenzene	2.667	2.794	-4.8	107	0.00
84	T	1,2,4-Trimethylbenzene	2.756	2.944	-6.8	107	0.00
85	T	sec-Butylbenzene	3.135	3.335	-6.4	108	0.00
86	T	p-Isopropyltoluene	2.918	3.151	-8.0	108	0.00
87	T	1,3-Dichlorobenzene	1.635	1.580	3.4	108	0.00
88	T	1,4-Dichlorobenzene	1.675	1.612	3.8	108	0.00
89	T	n-Butylbenzene	2.606	2.762	-6.0	110	0.00

Evaluate Continuing Calibration Report

Data Path : Z:\voasrv\HPCHEM1\MSVOA X\Data\VX062920\
Data File : VX017012.D
Acq On : 29 Jun 2020 16:53
Operator : JC/SP
Sample : VSTDICV050
Misc : 5.0mL/MSVOA X/WATER
ALS Vial : 11 Sample Multiplier: 1

Instrument : MSVOA_X
ClientSampleId : ICVVX062920

Quant Time: Jun 30 05:43:26 2020
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X062920W.M
Quant Title : SW846 8260
QLast Update : Mon Jun 29 17:10:38 2020
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
90 T	Hexachloroethane	0.575	0.584	-1.6	106	0.00
91 T	1,2-Dichlorobenzene	1.528	1.476	3.4	104	0.00
92 T	1,2-Dibromo-3-Chloropropane	0.246	0.234	4.9	105	0.00
93 T	1,2,4-Trichlorobenzene	1.043	1.000	4.1	103	0.00
94 T	Hexachlorobutadiene	0.422	0.414	1.9	111	0.00
95 T	Naphthalene	3.171	3.349	-5.6	105	0.00
96 T	1,2,3-Trichlorobenzene	1.009	1.032	-2.3	108	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 6

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: DAYE01

Lab Code: CHEM Case No.: L3232 SAS No.: L3232 SDG No.: L3232

Instrument ID: MSVOA_X Calibration Date/Time: 07/07/2020 21:33

Lab File ID: VX017219.D Init. Calib. Date(s): 06/29/2020 06/29/2020

Heated Purge: (Y/N) N Init. Calib. Time(s): 14:13 16:06

GC Column: DB-624UI ID: 0.18 (mm)

COMPOUND	RRF	RRF050	MIN RRF	%D	MAX%D
Dichlorodifluoromethane	0.484	0.462		-4.55	20
Chloromethane	0.586	0.480	0.1	-18.09	20
Vinyl Chloride	0.543	0.485		-10.68	20
Bromomethane	0.287	0.247		-13.94	20
Chloroethane	0.321	0.312		-2.8	20
Trichlorofluoromethane	0.803	0.867		7.97	20
1,1,2-Trichlorotrifluoroethane	0.482	0.500		3.73	20
1,1-Dichloroethene	0.495	0.484		-2.22	20
Acetone	0.231	0.236		2.16	20
Carbon Disulfide	1.515	1.294		-14.59	20
Methyl tert-butyl Ether	1.660	1.763		6.2	20
Methyl Acetate	0.602	0.644		6.98	20
Methylene Chloride	0.589	0.561		-4.75	20
trans-1,2-Dichloroethene	0.549	0.548		-0.18	20
1,1-Dichloroethane	0.963	0.980	0.1	1.76	20
Cyclohexane	0.832	0.788		-5.29	20
2-Butanone	0.384	0.388		1.04	20
Carbon Tetrachloride	0.520	0.586		12.69	20
cis-1,2-Dichloroethene	0.622	0.604		-2.89	20
Bromochloromethane	0.469	0.392		-16.42	20
Chloroform	0.987	1.033		4.66	20
1,1,1-Trichloroethane	0.909	0.944		3.85	20
Methylcyclohexane	0.526	0.529		0.57	20
Benzene	1.388	1.445		4.11	20
1,2-Dichloroethane	0.502	0.554		10.36	20
Trichloroethene	0.418	0.424		1.43	20
1,2-Dichloropropane	0.357	0.376		5.32	20
Bromodichloromethane	0.502	0.561		11.75	20
4-Methyl-2-Pentanone	0.475	0.521		9.68	20
Toluene	0.867	0.925		6.69	20
t-1,3-Dichloropropene	0.554	0.600		8.3	20
cis-1,3-Dichloropropene	0.593	0.622		4.89	20
1,1,2-Trichloroethane	0.354	0.388		9.6	20
2-Hexanone	0.347	0.394		13.55	20
Dibromochloromethane	0.411	0.475		15.57	20
1,2-Dibromoethane	0.381	0.422		10.76	20
Tetrachloroethene	0.404	0.423		4.7	20
Chlorobenzene	1.032	1.084	0.3	5.04	20
Ethyl Benzene	1.723	1.881		9.17	20

All other compounds must meet a minimum RRF of 0.010.
RRF of 1,4-Dioxane = Value should be divide by 1000.

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: DAYE01

Lab Code: CHEM Case No.: L3232 SAS No.: L3232 SDG No.: L3232

Instrument ID: MSVOA_X Calibration Date/Time: 07/07/2020 21:33

Lab File ID: VX017219.D Init. Calib. Date(s): 06/29/2020 06/29/2020

Heated Purge: (Y/N) N Init. Calib. Time(s): 14:13 16:06

GC Column: DB-624UI ID: 0.18 (mm)

COMPOUND	RRF	RRF050	MIN RRF	%D	MAX%D
m/p-Xylenes	0.662	0.728		9.97	20
o-Xylene	0.630	0.691		9.68	20
Styrene	1.072	1.230		14.74	20
Bromoform	0.315	0.390	0.1	23.81	20
Isopropylbenzene	3.275	3.234		-1.25	20
1,1,2,2-Tetrachloroethane	1.030	1.015	0.3	-1.46	20
1,3-Dichlorobenzene	1.635	1.637		0.12	20
1,4-Dichlorobenzene	1.675	1.650		-1.49	20
1,2-Dichlorobenzene	1.528	1.541		0.85	20
1,2-Dibromo-3-Chloropropane	0.246	0.237		-3.66	20
1,2,4-Trichlorobenzene	1.043	1.043		0	20
1,2,3-Trichlorobenzene	1.009	1.030		2.08	20
1,2-Dichloroethane-d4	0.616	0.603		-2.11	20
Dibromofluoromethane	0.316	0.330		4.43	20
Toluene-d8	1.170	1.172		0.17	20
4-Bromofluorobenzene	0.457	0.477		4.38	20

All other compounds must meet a minimum RRF of 0.010.
RRF of 1,4-Dioxane = Value should be divide by 1000.

Quantitation Report (QT Reviewed)

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX070720\
Data File : VX017219.D
Acq On : 07 Jul 2020 21:33
Operator : JC/SP
Sample : VSTDCCC050
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 31 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

Manual Integrations APPROVED
MMDadoda
7/8/2020 9:31:49 AM

Quant Time: Jul 08 03:36:25 2020
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X062920W.M
Quant Title : SW846 8260
QLast Update : Mon Jun 29 17:10:38 2020
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	5.63	168	284508	50.00	ug/l	0.00
34) 1,4-Difluorobenzene	6.83	114	426532	50.00	ug/l	0.00
63) Chlorobenzene-d5	10.10	117	403331	50.00	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	12.06	152	235111	50.00	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	6.03	65	171696	48.95	ug/l	0.00
Spiked Amount 50.000			Recovery = 97.90%			
35) Dibromofluoromethane	5.46	113	140672	52.14	ug/l	0.00
Spiked Amount 50.000			Recovery = 104.28%			
50) Toluene-d8	8.70	98	499720	50.09	ug/l	0.00
Spiked Amount 50.000			Recovery = 100.18%			
62) 4-Bromofluorobenzene	11.12	95	203312	52.13	ug/l	0.00
Spiked Amount 50.000			Recovery = 104.26%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.18	85	131411	47.743	ug/l	98
3) Chloromethane	1.31	50	136454	40.956	ug/l	99
4) Vinyl Chloride	1.39	62	138103	44.677	ug/l	99
5) Bromomethane	1.62	94	70213	42.992	ug/l	99
6) Chloroethane	1.70	64	88713	48.592	ug/l	99
7) Trichlorofluoromethane	1.91	101	246751	53.973	ug/l	98
8) Diethyl Ether	2.17	74	81767	53.133	ug/l	96
9) 1,1,2-Trichlorotrifluoroet	2.36	101	142340	51.948	ug/l	97
10) Methyl Iodide	2.49	142	131785	37.273	ug/l	99
11) Tert butyl alcohol	3.02	59	169699	253.619	ug/l	98
12) 1,1-Dichloroethene	2.36	96	137667	48.908	ug/l	99
13) Acrolein	2.27	56	130417	326.057	ug/l	98
14) Allyl chloride	2.70	41	242767	46.668	ug/l	98
15) Acrylonitrile	3.12	53	406289	252.587	ug/l	99
16) Acetone	2.42	43	335649	255.812	ug/l	97
17) Carbon Disulfide	2.55	76	368019	46.854	ug/l	99
18) Methyl Acetate	2.75	43	183344	53.528	ug/l	98
19) Methyl tert-butyl Ether	3.17	73	501610	53.097	ug/l	98
20) Methylene Chloride	2.83	84	159622	53.093	ug/l	97
21) trans-1,2-Dichloroethene	3.14	96	156015	49.945	ug/l	98
22) Diisopropyl ether	3.82	45	490325	50.927	ug/l	100
23) Vinyl Acetate	3.78	43	2152527	260.173	ug/l	99
24) 1,1-Dichloroethane	3.67	63	278679	50.870	ug/l	100
25) 2-Butanone	4.64	43	552198	252.574	ug/l	100
26) 2,2-Dichloropropane	4.55	77	223558	45.960	ug/l	99
27) cis-1,2-Dichloroethene	4.56	96	171958	48.584	ug/l	99
28) Bromochloromethane	4.98	49	111499	41.825	ug/l	96
29) Tetrahydrofuran	5.09	42	356779	246.987	ug/l	98
30) Chloroform	5.18	83	293924	52.339	ug/l	98
31) Cyclohexane	5.55	56	224290	47.366	ug/l	98
32) 1,1,1-Trichloroethane	5.46	97	268689	51.952	ug/l	99
36) 1,1-Dichloropropene	5.77	75	208032	51.605	ug/l	99
37) Ethyl Acetate	4.80	43	216292	52.881	ug/l	99
38) Carbon Tetrachloride	5.76	117	249815	56.263	ug/l	99

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX070720\
Data File : VX017219.D
Acq On : 07 Jul 2020 21:33
Operator : JC/SP
Sample : VSTDCCC050
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 31 Sample Multiplier: 1

Quant Time: Jul 08 03:36:25 2020
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X062920W.M
Quant Title : SW846 8260
QLast Update : Mon Jun 29 17:10:38 2020
Response via : Initial Calibration

Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

Manual Integrations APPROVED
MMDadoda
7/8/2020 9:31:49 AM

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
39) Methylcyclohexane	7.44	83	225675	50.315 ug/l	98
40) Benzene	6.11	78	616183	52.023 ug/l	98
41) Methacrylonitrile	5.01	41	120135	52.187 ug/l	98
42) 1,2-Dichloroethane	6.17	62	236128	55.192 ug/l	99
43) Isopropyl Acetate	6.42	43	350698	51.599 ug/l	99
44) Trichloroethene	7.19	130	180696	55.317 ug/l	97
45) 1,2-Dichloropropane	7.49	63	160412	52.730 ug/l	97
46) Dibromomethane	7.64	93	112656	54.241 ug/l	96
47) Bromodichloromethane	7.88	83	239173	55.879 ug/l	99
48) Methyl methacrylate	7.74	41	174598	54.071 ug/l	95
49) 1,4-Dioxane	7.71	88	77415	1058.261 ug/l	99
51) 4-Methyl-2-Pentanone	8.62	43	1111682	274.391 ug/l	100
52) Toluene	8.76	92	394723	53.377 ug/l	98
53) t-1,3-Dichloropropene	9.02	75	255943	54.196 ug/l	99
54) cis-1,3-Dichloropropene	8.42	75	265180	52.382 ug/l	99
55) 1,1,2-Trichloroethane	9.20	97	165604	54.811 ug/l	99
56) Ethyl methacrylate	9.16	69	240164	55.846 ug/l	99
57) 1,3-Dichloropropane	9.35	76	271977	53.198 ug/l	99
58) 2-Chloroethyl Vinyl ether	8.29	63	564341	263.676 ug/l	98
59) 2-Hexanone	9.48	43	839333	283.662 ug/l	100
60) Dibromochloromethane	9.57	129	202555	57.721 ug/l	99
61) 1,2-Dibromoethane	9.65	107	179789	55.359 ug/l	99
64) Tetrachloroethene	9.32	164	170729	52.449 ug/l	96
65) Chlorobenzene	10.12	112	437364	52.540 ug/l	98
66) 1,1,1,2-Tetrachloroethane	10.21	131	178826	55.741 ug/l	99
67) Ethyl Benzene	10.23	91	758812	54.583 ug/l	99
68) m/p-Xylenes	10.34	106	587498	110.061 ug/l	98
69) o-Xylene	10.68	106	278648	54.874 ug/l	99
70) Styrene	10.70	104	496124	57.374 ug/l	99
71) Bromoform	10.84	173	157262	61.816 ug/l	99
73) Isopropylbenzene	11.00	105	760319	49.371 ug/l	99
74) N-amyl acetate	10.88	43	322603	49.094 ug/l	98
75) 1,1,2,2-Tetrachloroethane	11.25	83	238711	49.278 ug/l	100
76) 1,2,3-Trichloropropane	11.28	75	230642m	49.887 ug/l	
77) Bromobenzene	11.24	156	214309	50.634 ug/l	95
78) n-propylbenzene	11.34	91	870135	49.965 ug/l	99
79) 2-Chlorotoluene	11.40	91	530970	50.378 ug/l	100
80) 1,3,5-Trimethylbenzene	11.49	105	661053	51.750 ug/l	100
81) trans-1,4-Dichloro-2-buten	11.06	75	85753	48.032 ug/l	96
82) 4-Chlorotoluene	11.49	91	637139	50.568 ug/l	99
83) tert-Butylbenzene	11.76	119	652887	52.066 ug/l	99
84) 1,2,4-Trimethylbenzene	11.79	105	681386	52.579 ug/l	100
85) sec-Butylbenzene	11.93	105	747440	50.709 ug/l	100
86) p-Isopropyltoluene	12.05	119	723871	52.754 ug/l	100
87) 1,3-Dichlorobenzene	12.01	146	384882	50.069 ug/l	97
88) 1,4-Dichlorobenzene	12.08	146	387868	53.518 ug/l	99
89) n-Butylbenzene	12.37	91	598597	48.857 ug/l	100
90) Hexachloroethane	12.58	117	137770	50.914 ug/l	96
91) 1,2-Dichlorobenzene	12.38	146	362322	50.425 ug/l	100
92) 1,2-Dibromo-3-Chloropropan	12.98	75	55717	48.215 ug/l	95

Data Path : Z:\VOASRV\HPCHEM1\MSVOA X\DATA\VX070720\
Data File : VX017219.D
Acq On : 07 Jul 2020 21:33
Operator : JC/SP
Sample : VSTDCCC050
Misc : 5.0mL/MSVOA X/WATER
ALS Vial : 31 Sample Multiplier: 1

Quant Time: Jul 08 03:36:25 2020
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X062920W.M
Quant Title : SW846 8260
QLast Update : Mon Jun 29 17:10:38 2020
Response via : Initial Calibration

Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

Manual Integrations APPROVED
MMDadoda
7/8/2020 9:31:49 AM

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
93) 1,2,4-Trichlorobenzene	13.63	180	245317	50.020	ug/l	99
94) Hexachlorobutadiene	13.76	225	90917	48.865	ug/l	98
95) Naphthalene	13.82	128	787236	52.799	ug/l	100
96) 1,2,3-Trichlorobenzene	14.00	180	242253	51.041	ug/l	99

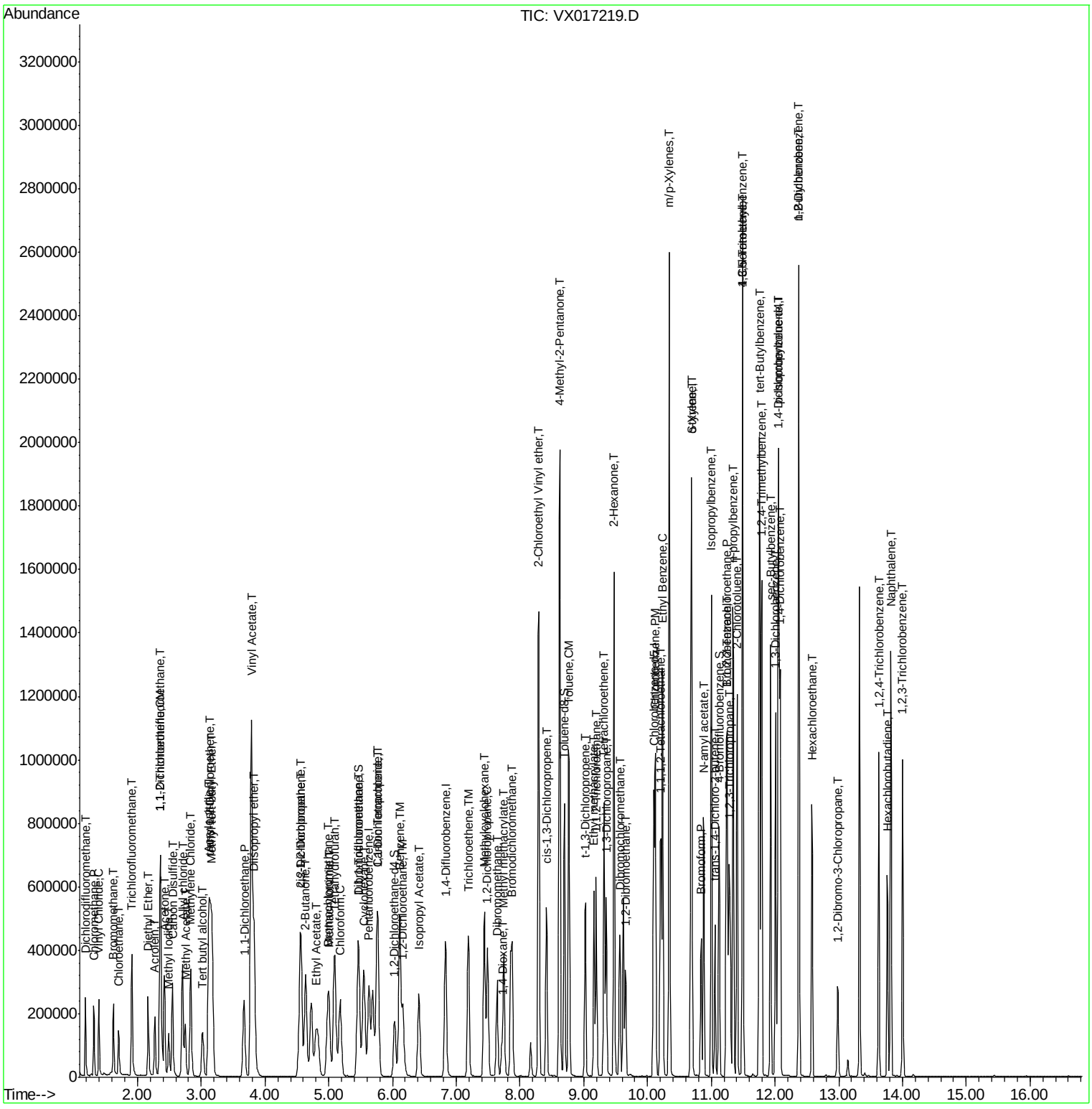
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX070720\
Data File : VX017219.D
Acq On : 07 Jul 2020 21:33
Operator : JC/SP
Sample : VSTDCCC050
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 31 Sample Multiplier: 1

Quant Time: Jul 08 03:36:25 2020
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X062920W.M
Quant Title : SW846 8260
QLast Update : Mon Jun 29 17:10:38 2020
Response via : Initial Calibration

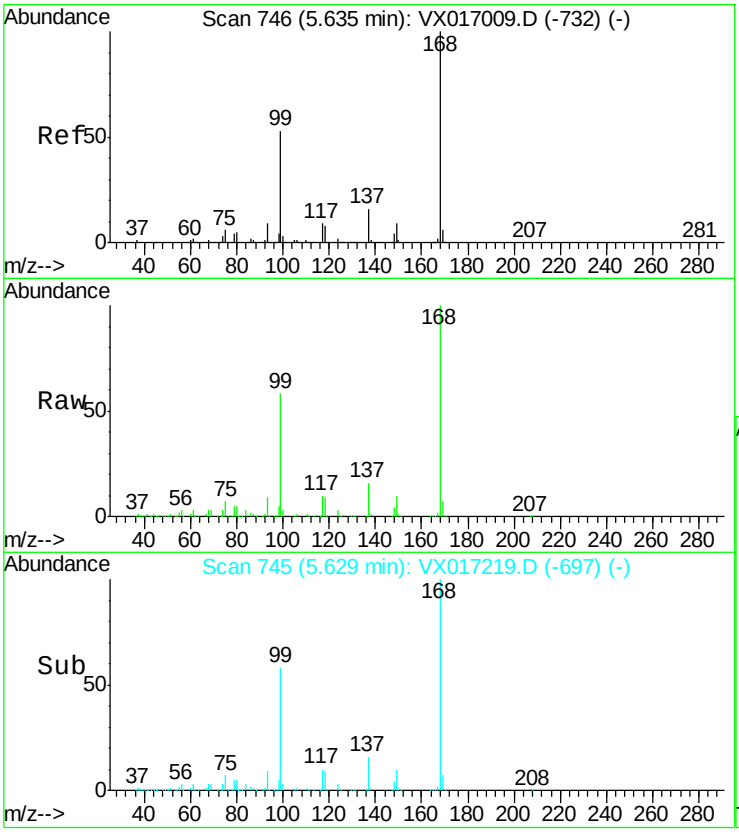
Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

Manual Integrations APPROVED
MMDadoda
7/8/2020 9:31:49 AM



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

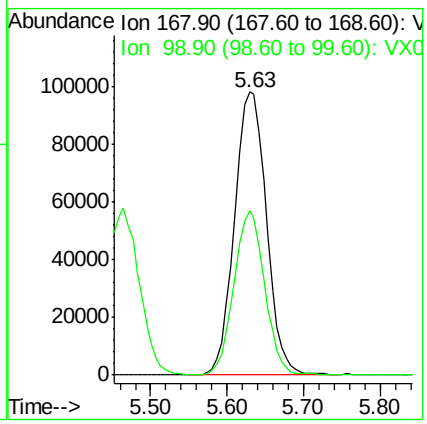
Manual Integrations APPROVED
MMDadoda
7/8/2020 9:31:49 AM

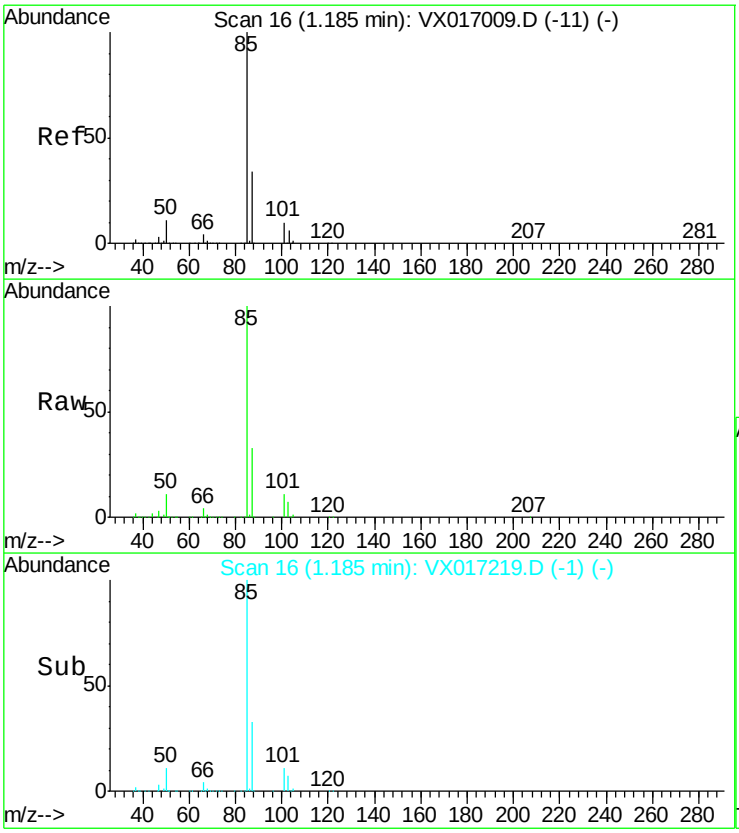


#1
Pentafluorobenzene
Concen: 50.000 ug/l
RT: 5.63 min Scan# 745
Delta R.T. -0.01 min
Lab File: VX017219.D
Acq: 07 Jul 2020 21:33

Tgt Ion:168 Resp: 284508

Ion	Ratio	Lower	Upper
168	100		
99	58.1	42.6	64.0

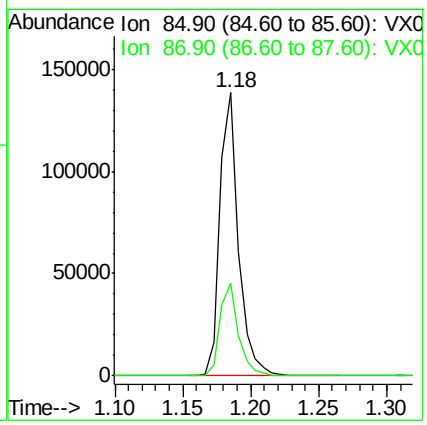




#2
Dichlorodifluoromethane
Concen: 47.743 ug/l
RT: 1.18 min Scan# 16
Delta R.T. 0.00 min
Lab File: VX017219.D
Acq: 07 Jul 2020 21:33

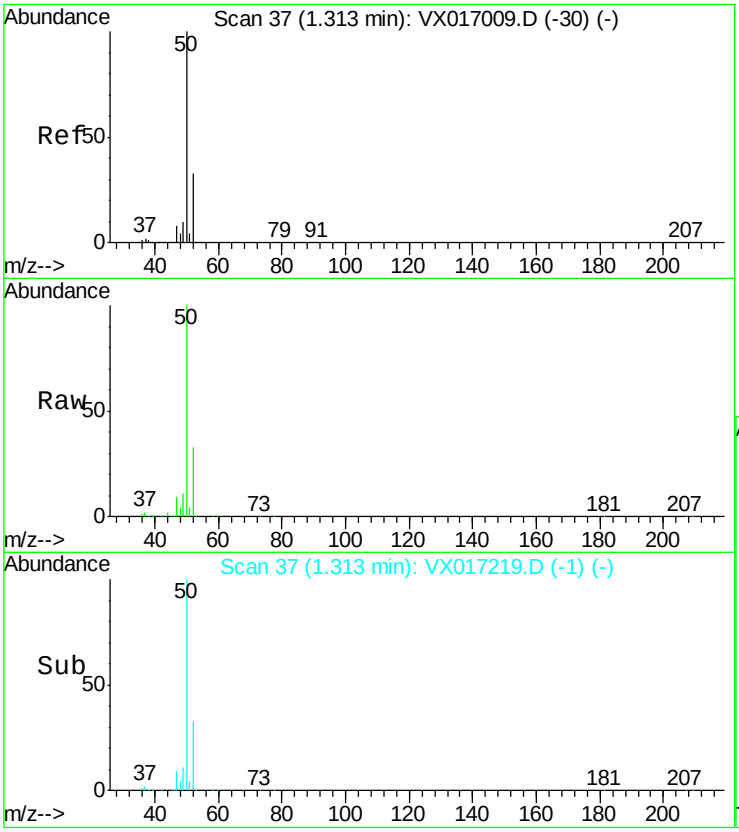
Tgt Ion: 85 Resp: 131411

Ion	Ratio	Lower	Upper
85	100		
87	32.7	16.8	50.4



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

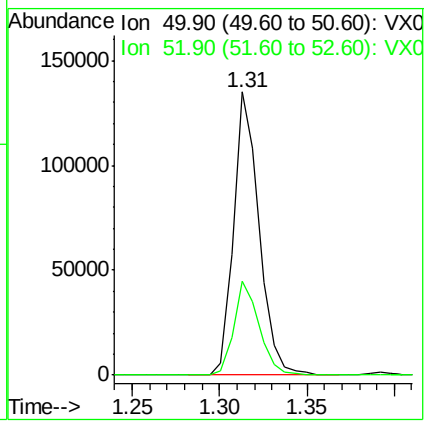
Manual Integrations APPROVED
MMDadoda
7/8/2020 9:31:49 AM

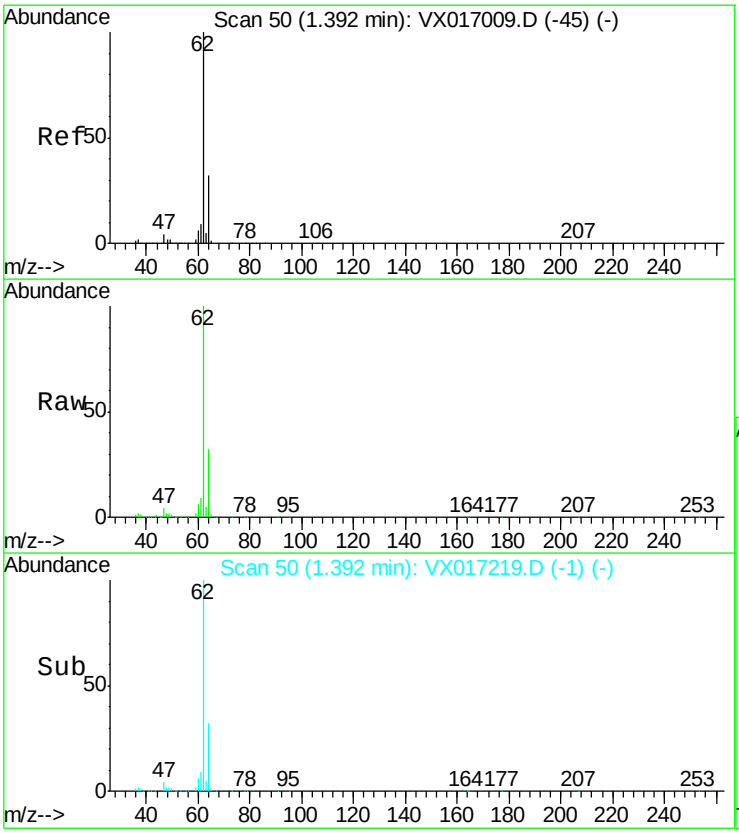


#3
Chloromethane
Concen: 40.956 ug/l
RT: 1.31 min Scan# 37
Delta R.T. 0.00 min
Lab File: VX017219.D
Acq: 07 Jul 2020 21:33

Tgt Ion: 50 Resp: 136454

Ion	Ratio	Lower	Upper
50	100		
52	33.3	26.1	39.1

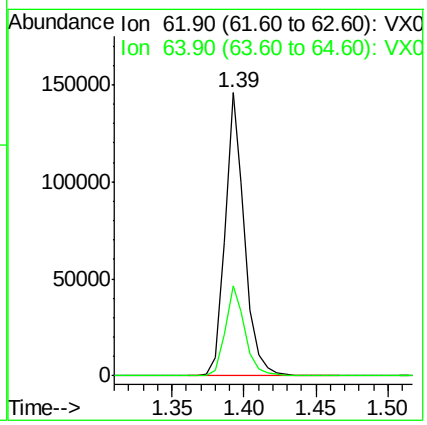




#4
Vinyl Chloride
Concen: 44.677 ug/l
RT: 1.39 min Scan# 50
Delta R.T. 0.00 min
Lab File: VX017219.D
Acq: 07 Jul 2020 21:33

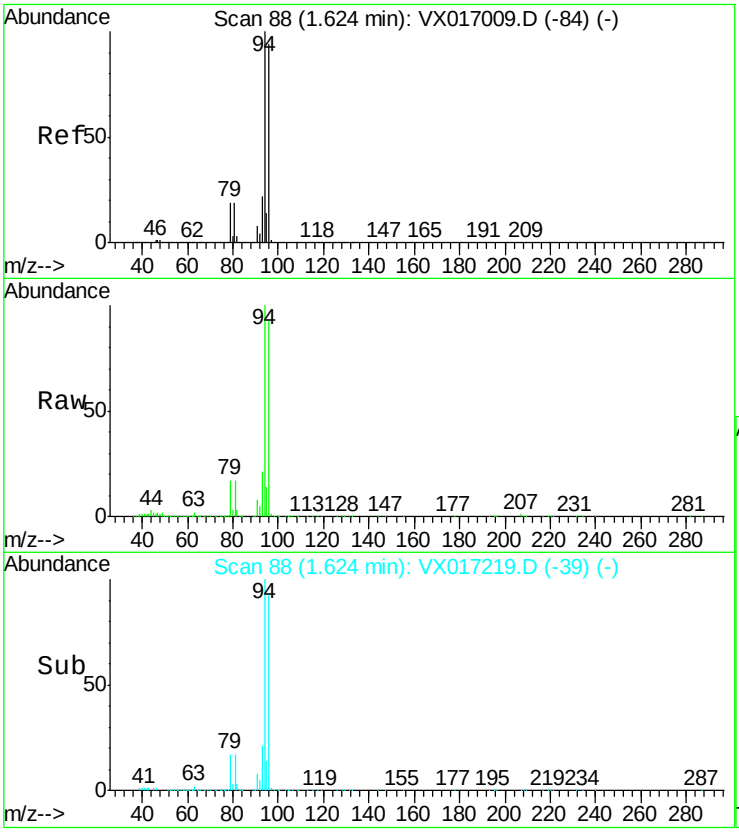
Tgt Ion: 62 Resp: 138103

Ion	Ratio	Lower	Upper
62	100		
64	31.6	25.9	38.9



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

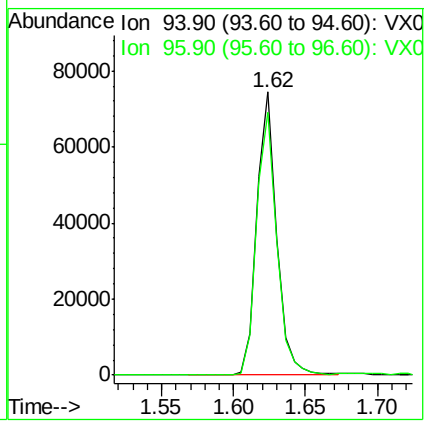
Manual Integrations APPROVED
MMDadoda
7/8/2020 9:31:49 AM

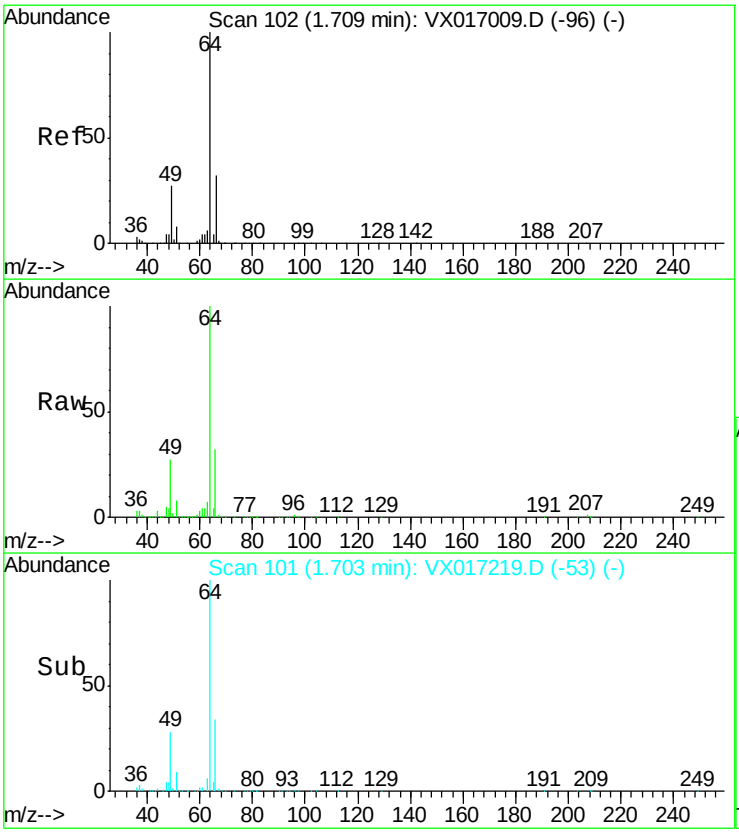


#5
Bromomethane
Concen: 42.992 ug/l
RT: 1.62 min Scan# 88
Delta R.T. 0.00 min
Lab File: VX017219.D
Acq: 07 Jul 2020 21:33

Tgt Ion: 94 Resp: 70213

Ion	Ratio	Lower	Upper
94	100		
96	93.0	75.0	112.4

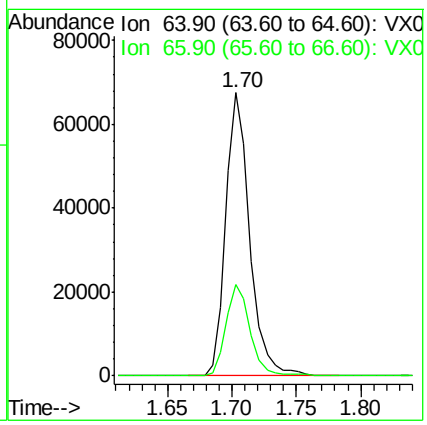




#6
Chloroethane
Concen: 48.592 ug/l
RT: 1.70 min Scan# 101
Delta R.T. -0.01 min
Lab File: VX017219.D
Acq: 07 Jul 2020 21:33

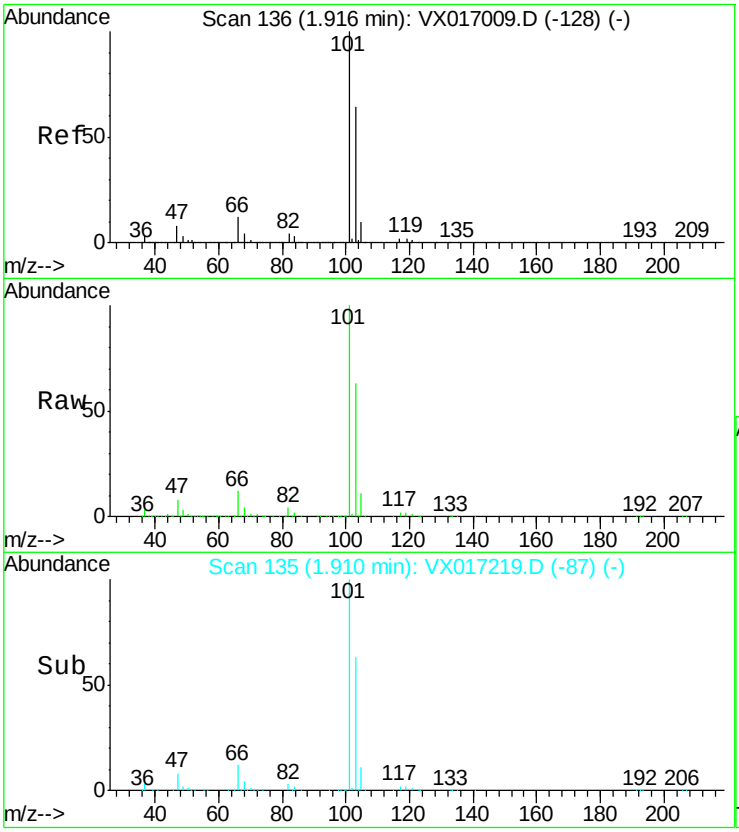
Tgt Ion: 64 Resp: 88713

Ion	Ratio	Lower	Upper
64	100		
66	32.4	25.5	38.3



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

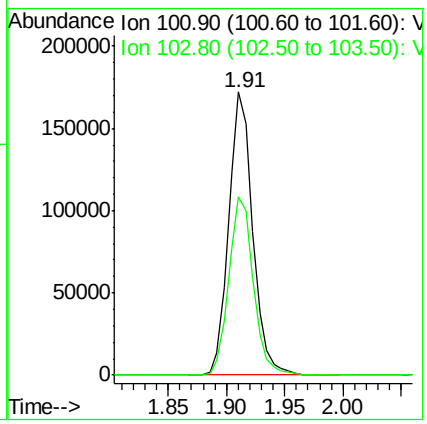
Manual Integrations APPROVED
MMDadoda
7/8/2020 9:31:49 AM

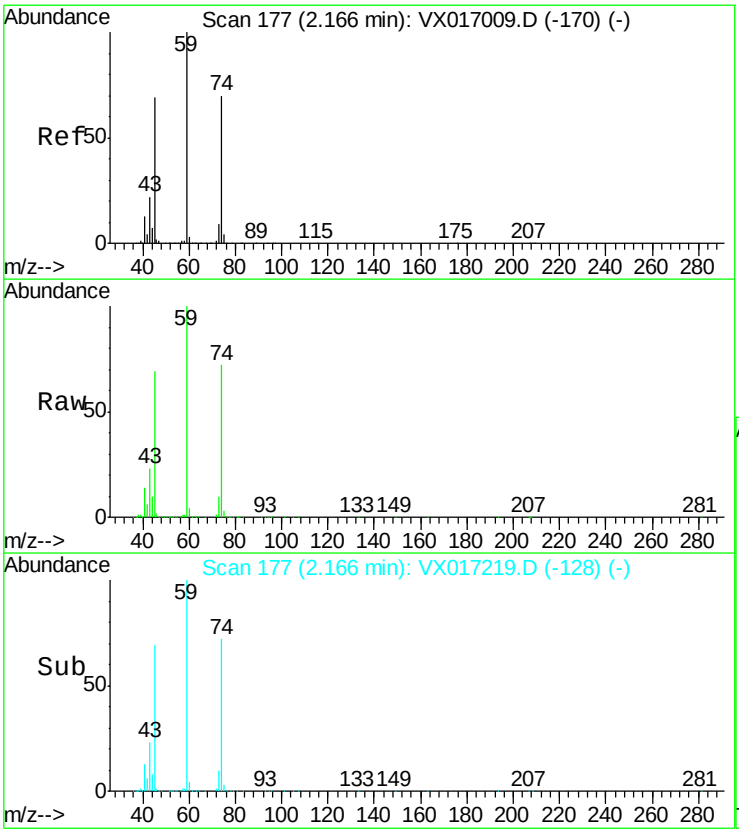


#7
Trichlorofluoromethane
Concen: 53.973 ug/l
RT: 1.91 min Scan# 135
Delta R.T. -0.01 min
Lab File: VX017219.D
Acq: 07 Jul 2020 21:33

Tgt Ion:101 Resp: 246751

Ion	Ratio	Lower	Upper
101	100		
103	63.2	51.5	77.3

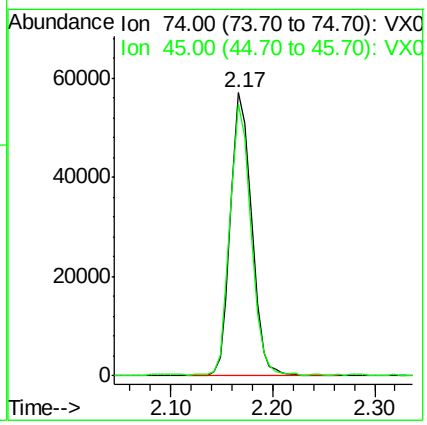




#8
Diethyl Ether
Concen: 53.133 ug/l
RT: 2.17 min Scan# 177
Delta R.T. 0.00 min
Lab File: VX017219.D
Acq: 07 Jul 2020 21:33

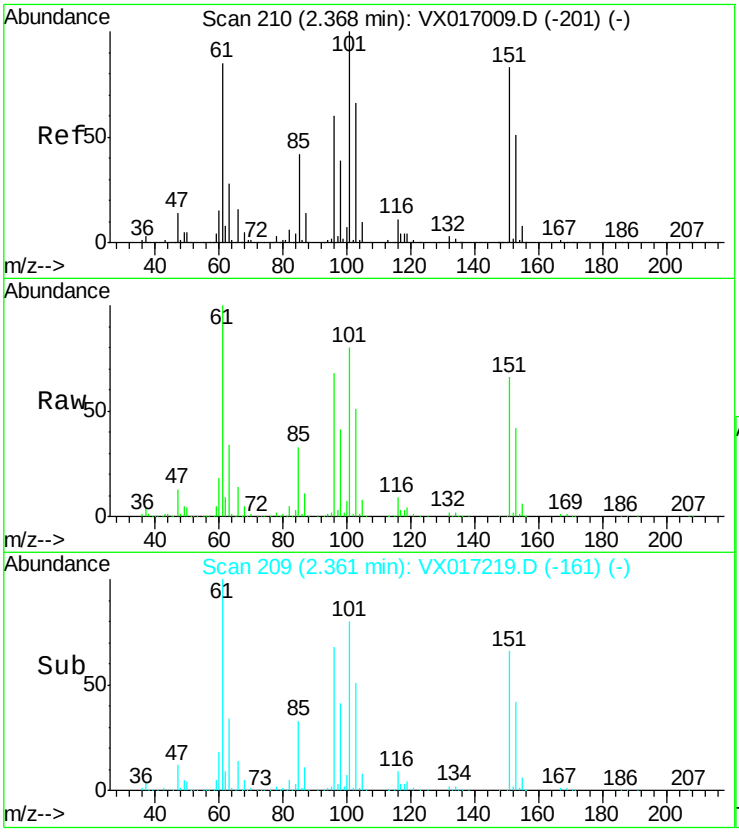
Tgt Ion: 74 Resp: 81767

Ion	Ratio	Lower	Upper
74	100		
45	95.1	49.8	149.3



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

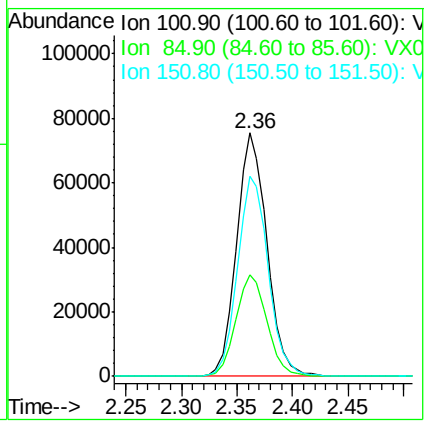
Manual Integrations APPROVED
MMDadoda
7/8/2020 9:31:49 AM

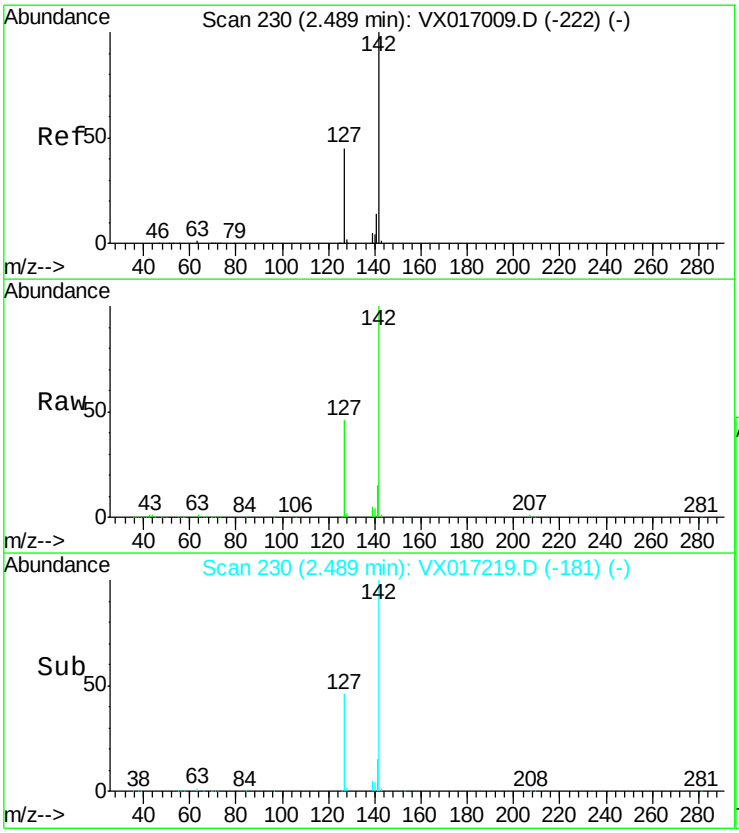


#9
1,1,2-Trichlorotrifluoroethane
Concen: 51.948 ug/l
RT: 2.36 min Scan# 209
Delta R.T. -0.01 min
Lab File: VX017219.D
Acq: 07 Jul 2020 21:33

Tgt Ion:101 Resp: 142340

Ion	Ratio	Lower	Upper
101	100		
85	42.9	33.5	50.3
151	83.2	63.8	95.6

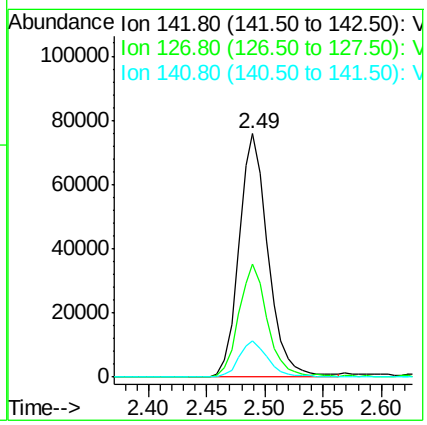




#10
Methyl Iodide
Concen: 37.273 ug/l
RT: 2.49 min Scan# 230
Delta R.T. 0.00 min
Lab File: VX017219.D
Acq: 07 Jul 2020 21:33

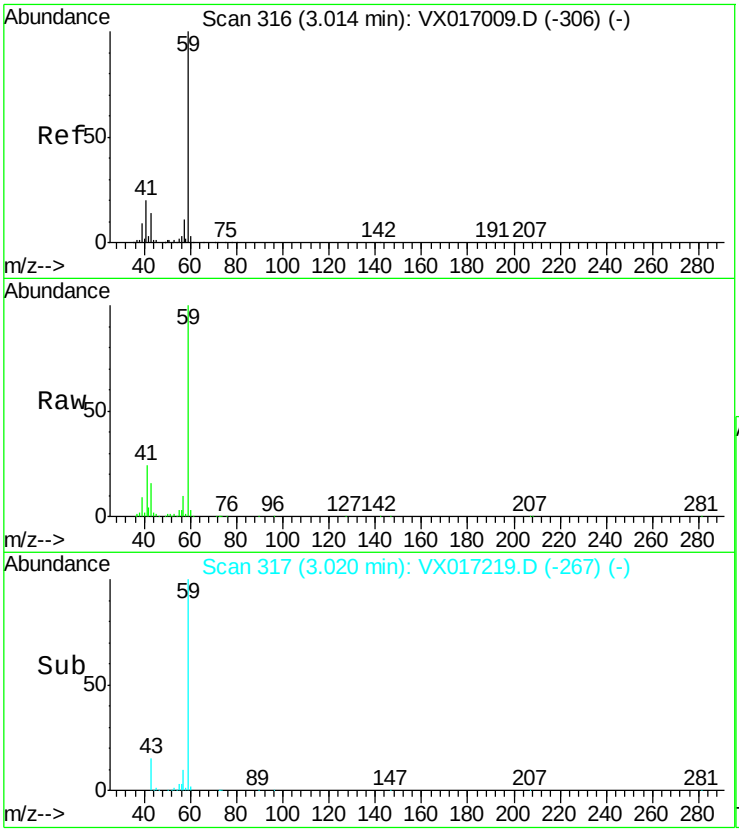
Tgt Ion:142 Resp: 131785

Ion	Ratio	Lower	Upper
142	100		
127	46.2	36.6	54.8
141	14.4	11.6	17.4



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

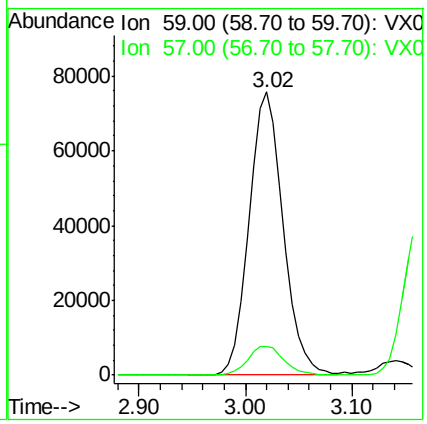
Manual Integrations APPROVED
MMDadoda
7/8/2020 9:31:49 AM

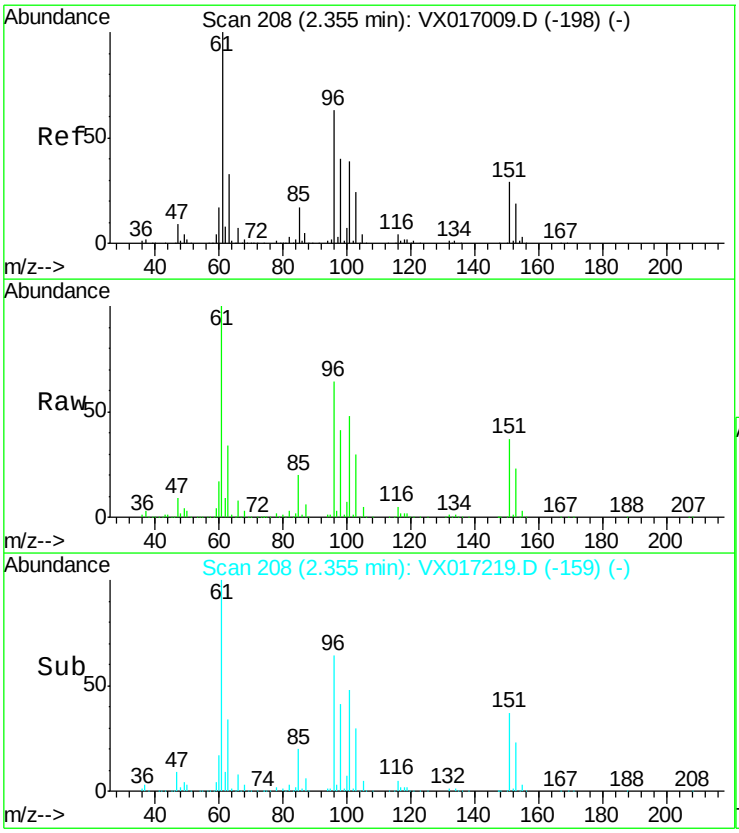


#11
Tert butyl alcohol
Concen: 253.619 ug/l
RT: 3.02 min Scan# 317
Delta R.T. 0.01 min
Lab File: VX017219.D
Acq: 07 Jul 2020 21:33

Tgt Ion: 59 Resp: 169699

Ion	Ratio	Lower	Upper
59	100		
57	10.9	8.2	12.2

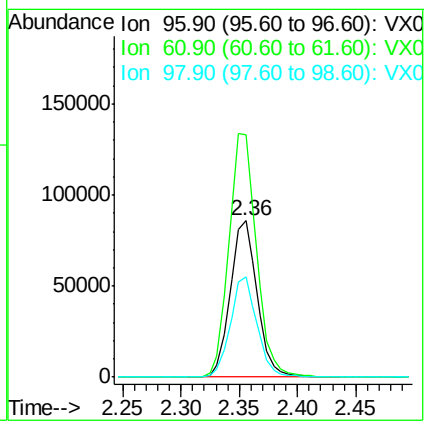




#12
1,1-Dichloroethene
Concen: 48.908 ug/l
RT: 2.36 min Scan# 208
Delta R.T. 0.00 min
Lab File: VX017219.D
Acq: 07 Jul 2020 21:33

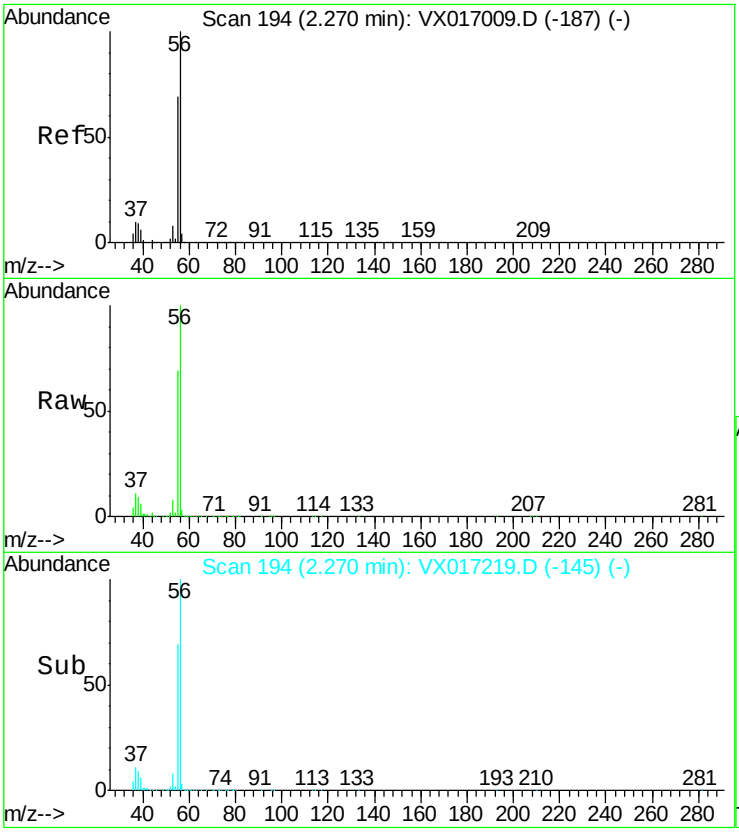
Tgt Ion: 96 Resp: 137667

Ion	Ratio	Lower	Upper
96	100		
61	155.7	126.3	189.5
98	64.5	51.0	76.6



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

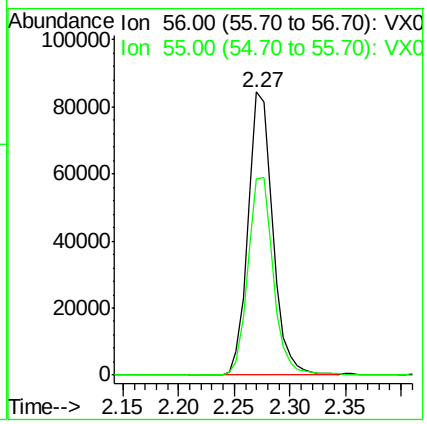
Manual Integrations APPROVED
MMDadoda
7/8/2020 9:31:49 AM

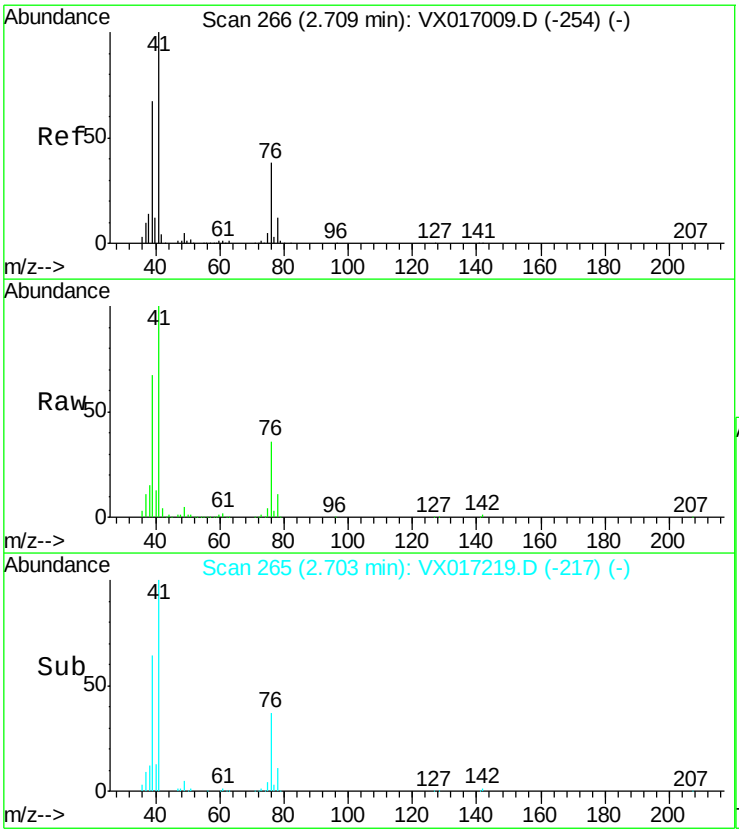


#13
Acrolein
Concen: 326.057 ug/l
RT: 2.27 min Scan# 194
Delta R.T. 0.00 min
Lab File: VX017219.D
Acq: 07 Jul 2020 21:33

Tgt Ion: 56 Resp: 130417

Ion	Ratio	Lower	Upper
56	100		
55	71.2	55.7	83.5

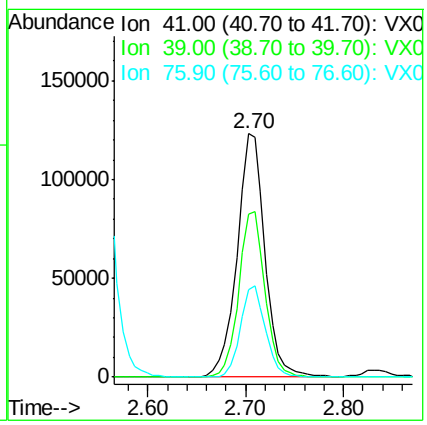




#14
Allyl chloride
Concen: 46.668 ug/l
RT: 2.70 min Scan# 265
Delta R.T. -0.01 min
Lab File: VX017219.D
Acq: 07 Jul 2020 21:33

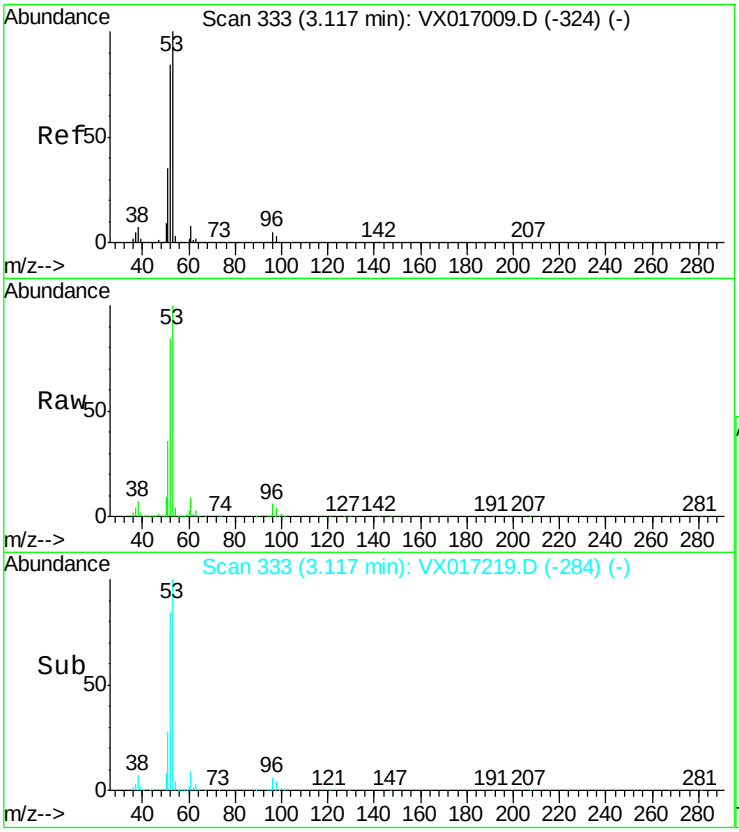
Tgt Ion: 41 Resp: 242767

Ion	Ratio	Lower	Upper
41	100		
39	64.4	49.4	74.2
76	33.6	26.8	40.2



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

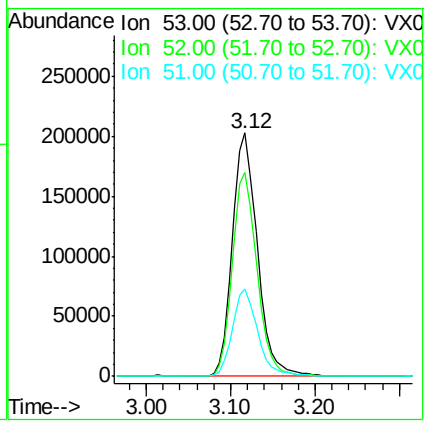
Manual Integrations APPROVED
MMDadoda
7/8/2020 9:31:49 AM

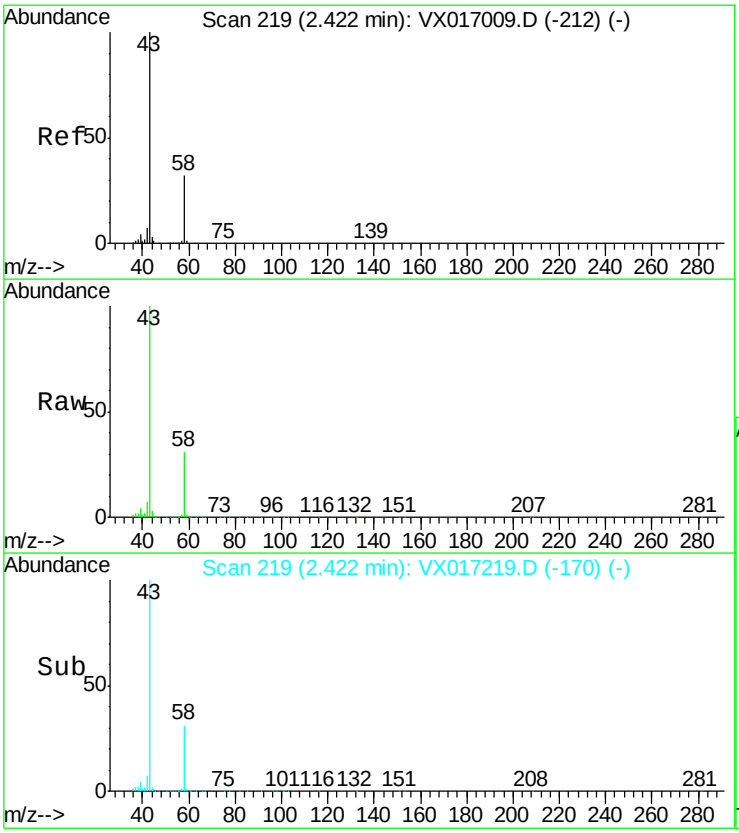


#15
Acrylonitrile
Concen: 252.587 ug/l
RT: 3.12 min Scan# 333
Delta R.T. 0.00 min
Lab File: VX017219.D
Acq: 07 Jul 2020 21:33

Tgt Ion: 53 Resp: 406289

Ion	Ratio	Lower	Upper
53	100		
52	82.7	65.6	98.4
51	36.2	28.3	42.5

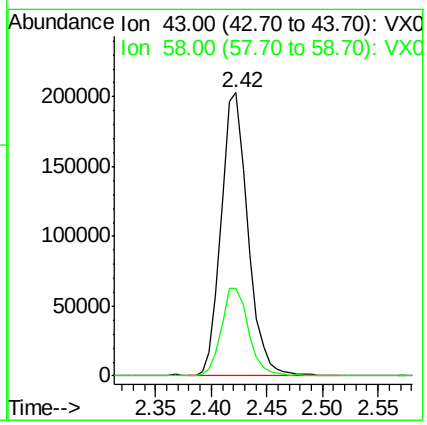




#16
Acetone
Concen: 255.812 ug/l
RT: 2.42 min Scan# 219
Delta R.T. 0.00 min
Lab File: VX017219.D
Acq: 07 Jul 2020 21:33

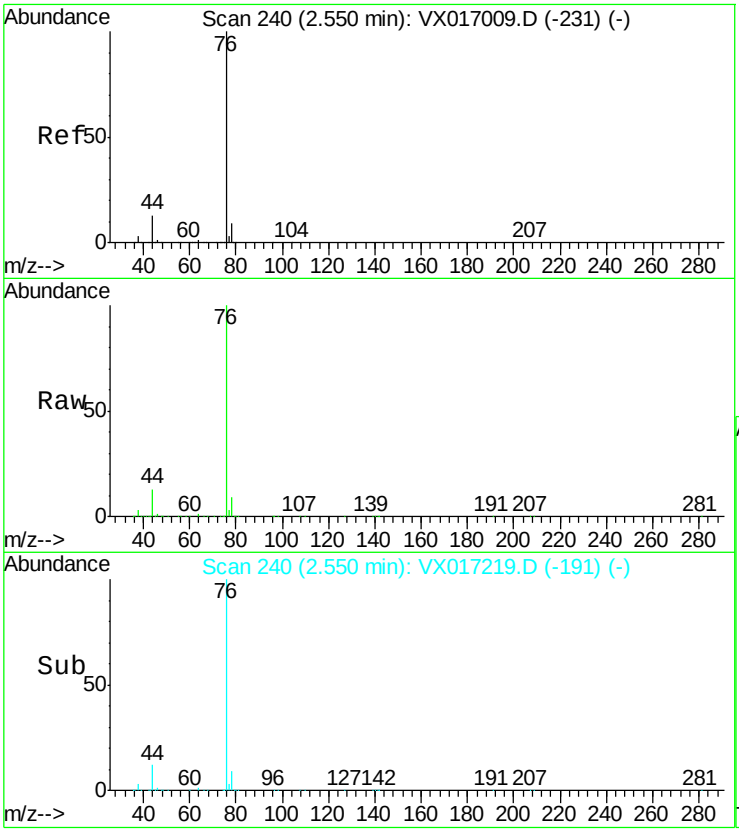
Tgt Ion: 43 Resp: 335649

Ion	Ratio	Lower	Upper
43	100		
58	30.7	25.7	38.5



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

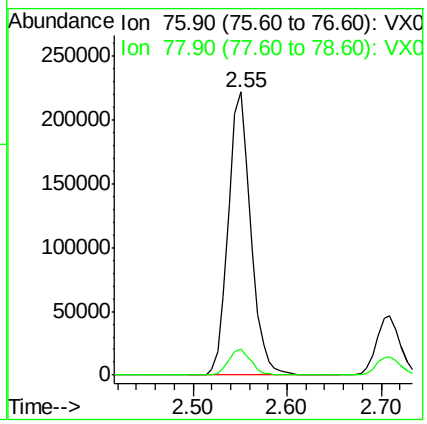
Manual Integrations APPROVED
MMDadoda
7/8/2020 9:31:49 AM

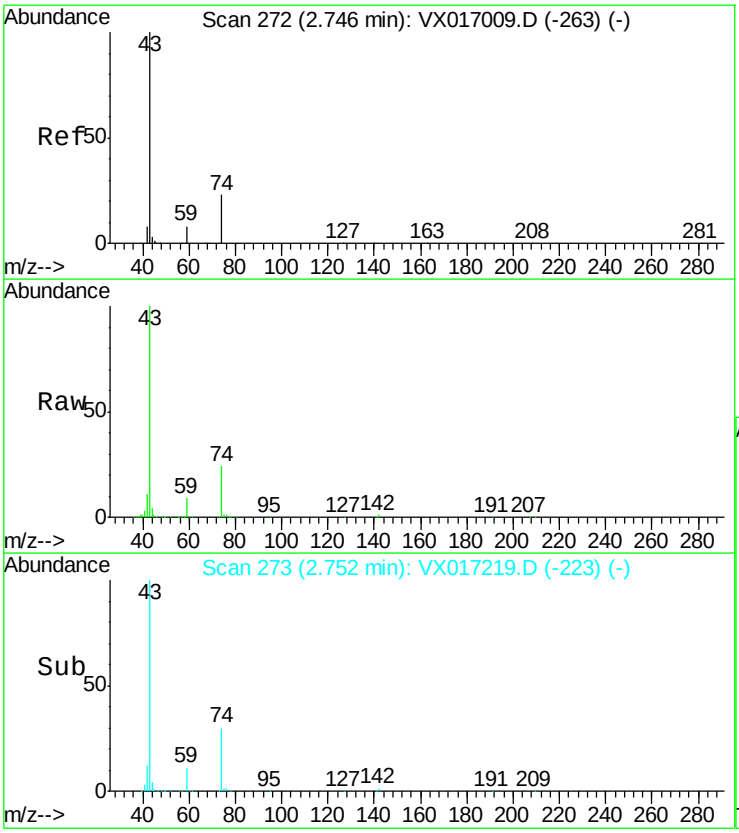


#17
Carbon Disulfide
Concen: 46.854 ug/l
RT: 2.55 min Scan# 240
Delta R.T. 0.00 min
Lab File: VX017219.D
Acq: 07 Jul 2020 21:33

Tgt Ion: 76 Resp: 368019

Ion	Ratio	Lower	Upper
76	100		
78	9.3	7.2	10.8

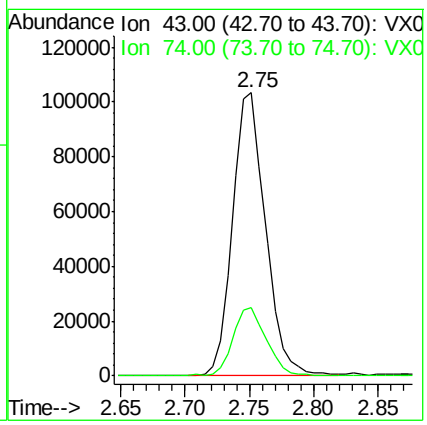




#18
Methyl Acetate
Concen: 53.528 ug/l
RT: 2.75 min Scan# 273
Delta R.T. 0.01 min
Lab File: VX017219.D
Acq: 07 Jul 2020 21:33

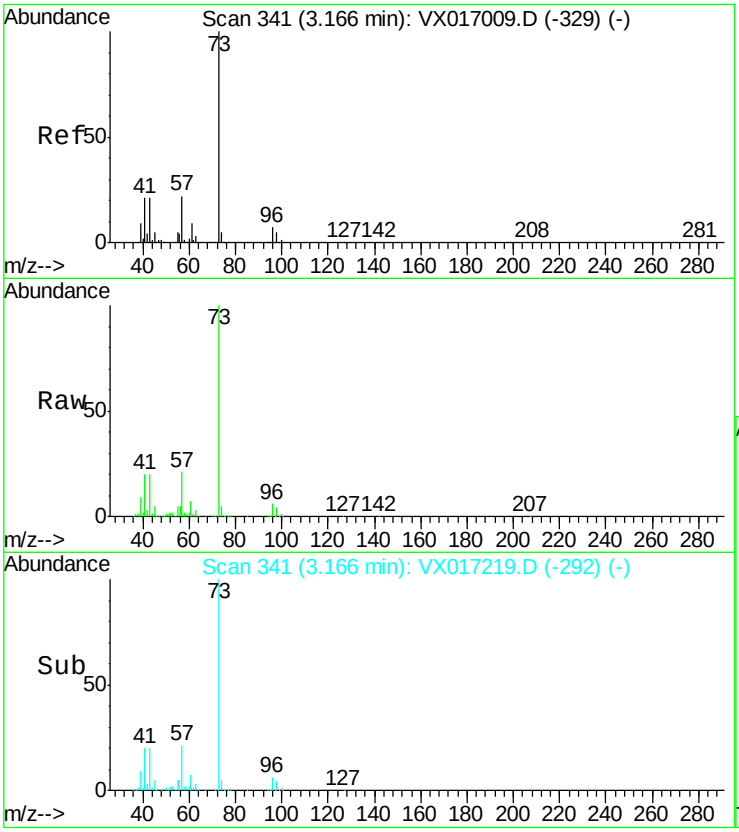
Tgt Ion: 43 Resp: 183344

Ion	Ratio	Lower	Upper
43	100		
74	25.1	19.3	28.9



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

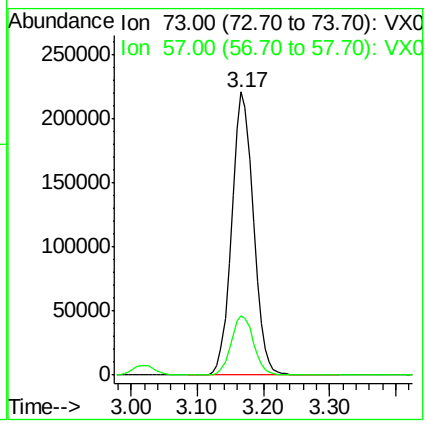
Manual Integrations APPROVED
MMDadoda
7/8/2020 9:31:49 AM

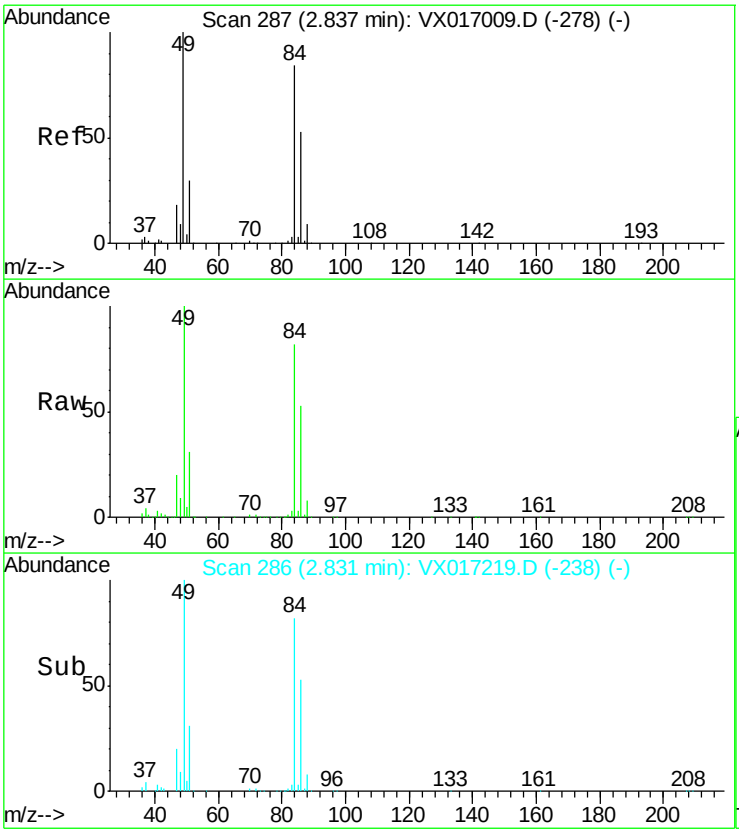


#19
Methyl tert-butyl Ether
Concen: 53.097 ug/l
RT: 3.17 min Scan# 341
Delta R.T. 0.00 min
Lab File: VX017219.D
Acq: 07 Jul 2020 21:33

Tgt Ion: 73 Resp: 501610

Ion	Ratio	Lower	Upper
73	100		
57	20.9	17.6	26.4

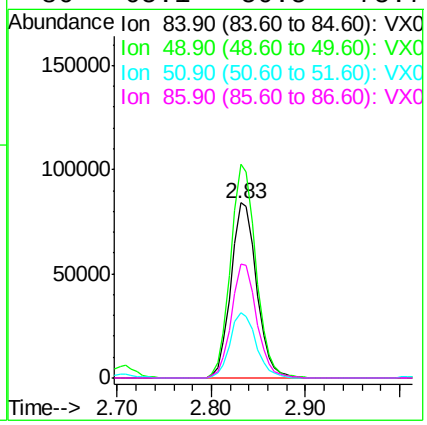




#20
Methylene Chloride
Concen: 53.093 ug/l
RT: 2.83 min Scan# 286
Delta R.T. -0.01 min
Lab File: VX017219.D
Acq: 07 Jul 2020 21:33

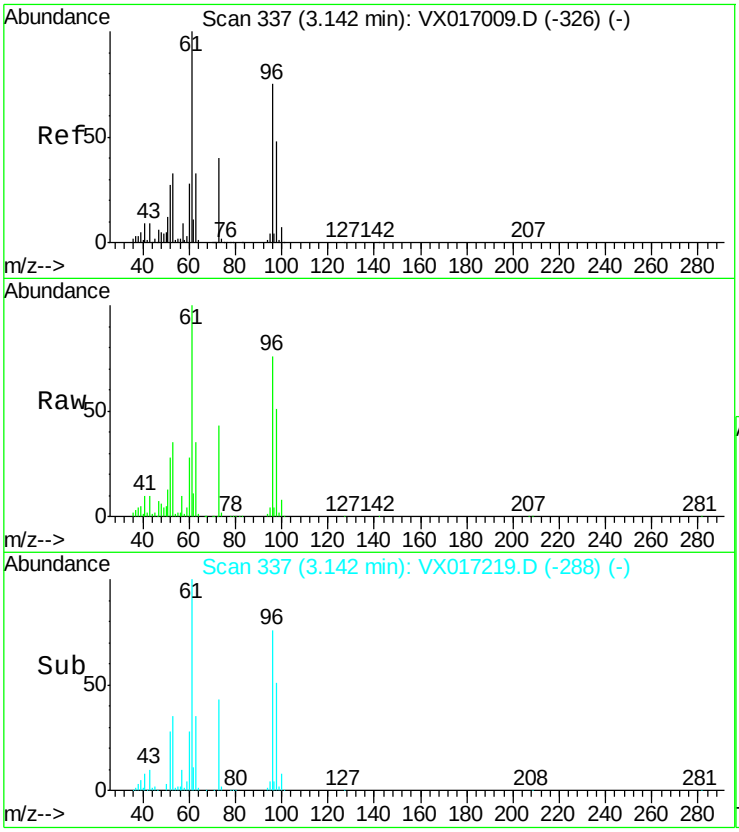
Tgt Ion: 84 Resp: 159622

Ion	Ratio	Lower	Upper
84	100		
49	121.9	94.7	142.1
51	37.6	28.6	42.8
86	65.1	50.5	75.7



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

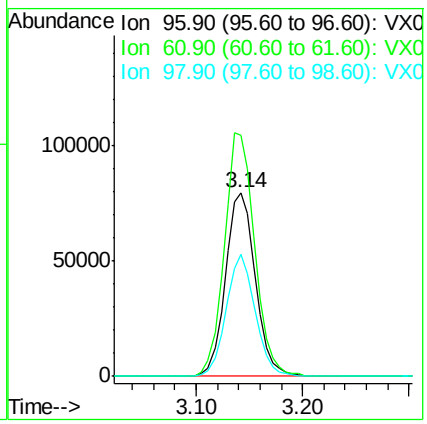
Manual Integrations APPROVED
MMDadoda
7/8/2020 9:31:49 AM

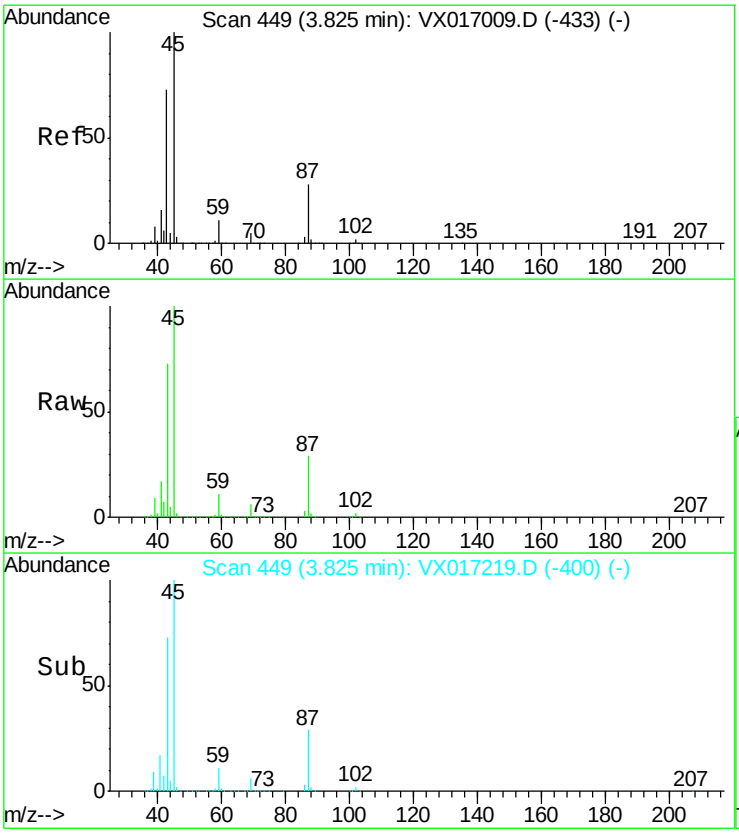


#21
trans-1,2-Dichloroethene
Concen: 49.945 ug/l
RT: 3.14 min Scan# 337
Delta R.T. 0.00 min
Lab File: VX017219.D
Acq: 07 Jul 2020 21:33

Tgt Ion: 96 Resp: 156015

Ion	Ratio	Lower	Upper
96	100		
61	131.3	107.0	160.6
98	66.5	51.6	77.4

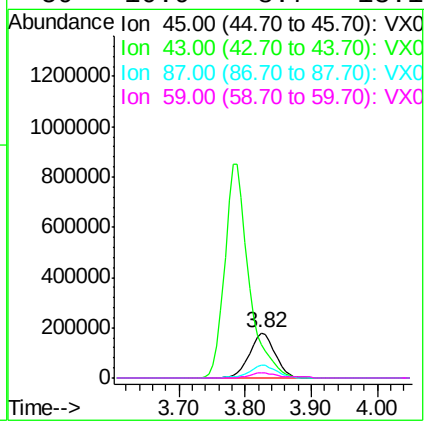




#22
Diisopropyl ether
Concen: 50.927 ug/l
RT: 3.82 min Scan# 449
Delta R.T. 0.00 min
Lab File: VX017219.D
Acq: 07 Jul 2020 21:33

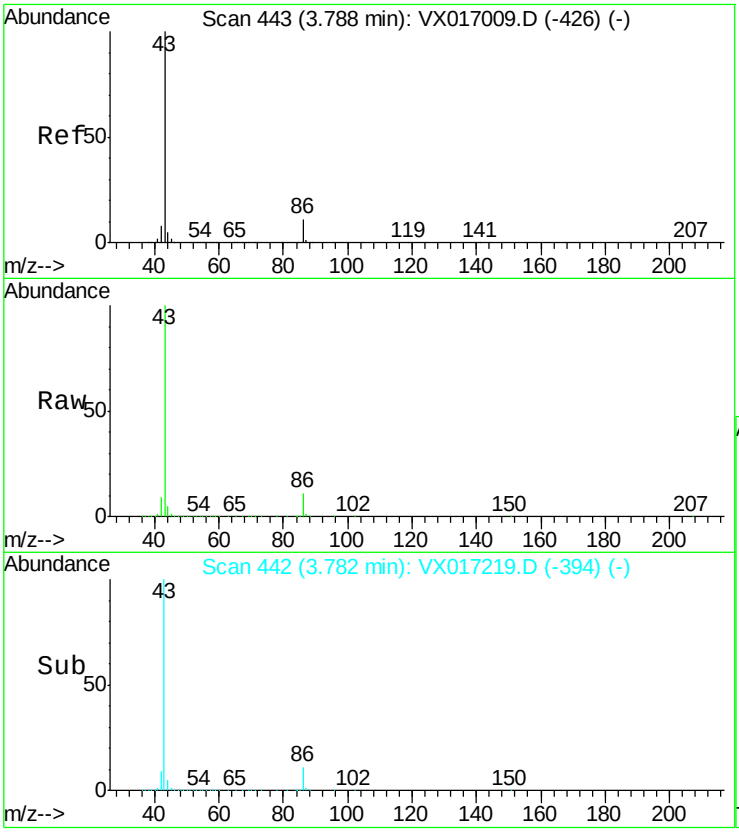
Tgt Ion: 45 Resp: 490325

Ion	Ratio	Lower	Upper
45	100		
43	73.0	58.6	88.0
87	28.7	22.6	34.0
59	10.9	8.7	13.1



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

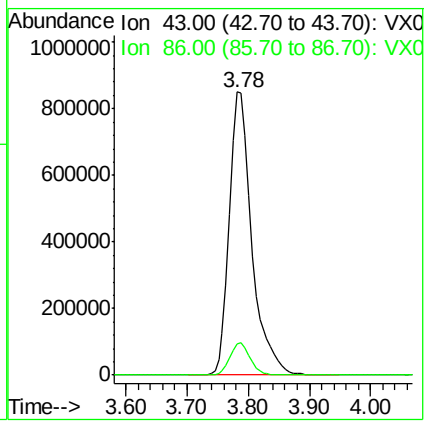
Manual Integrations APPROVED
MMDadoda
7/8/2020 9:31:49 AM

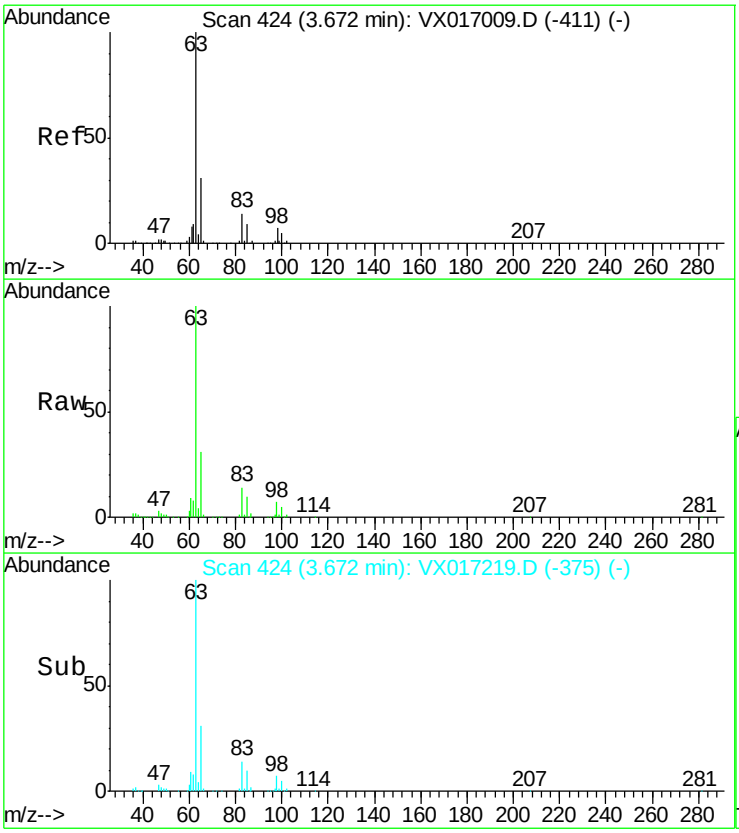


#23
Vinyl Acetate
Concen: 260.173 ug/l
RT: 3.78 min Scan# 442
Delta R.T. -0.01 min
Lab File: VX017219.D
Acq: 07 Jul 2020 21:33

Tgt Ion: 43 Resp: 2152527

Ion	Ratio	Lower	Upper
43	100		
86	11.1	8.6	13.0

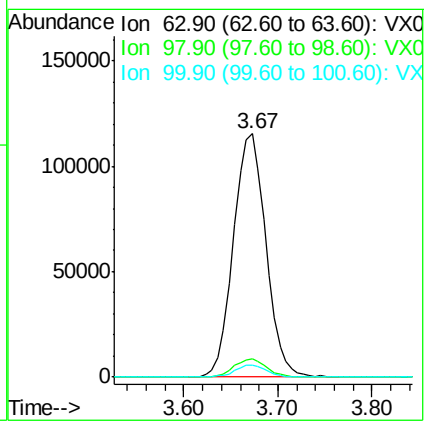




#24
1,1-Dichloroethane
Concen: 50.870 ug/l
RT: 3.67 min Scan# 424
Delta R.T. 0.00 min
Lab File: VX017219.D
Acq: 07 Jul 2020 21:33

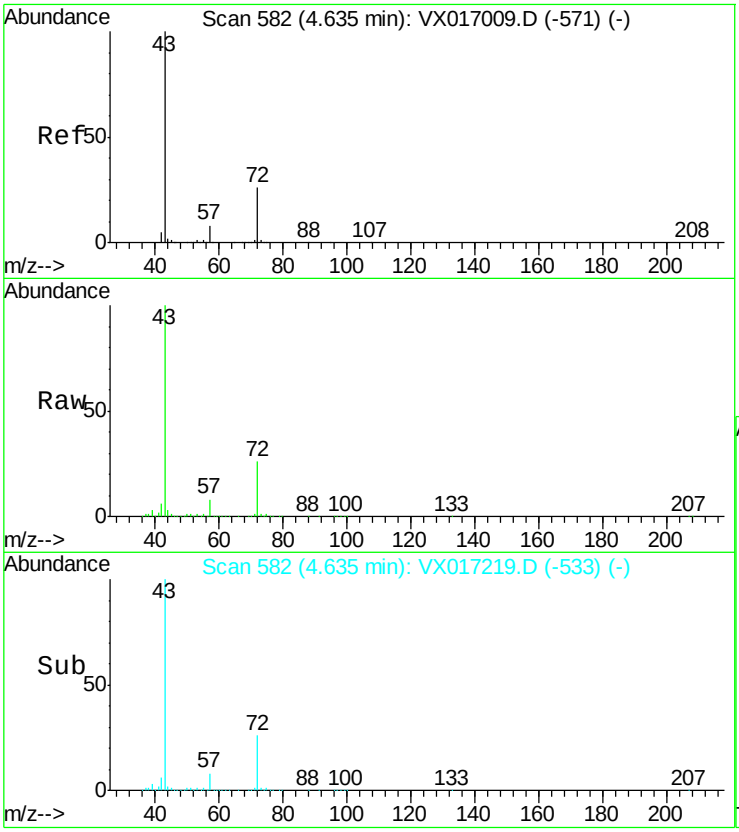
Tgt Ion: 63 Resp: 278679

Ion	Ratio	Lower	Upper
63	100		
98	7.5	3.6	10.8
100	4.7	2.4	7.1



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

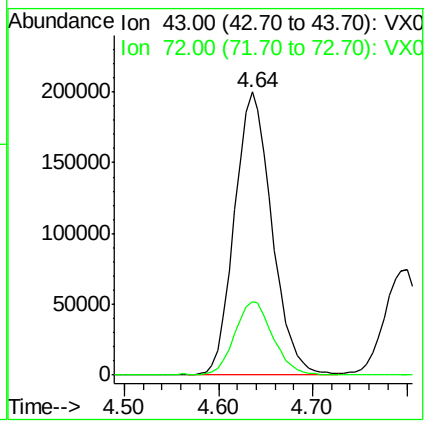
Manual Integrations APPROVED
MMDadoda
7/8/2020 9:31:49 AM

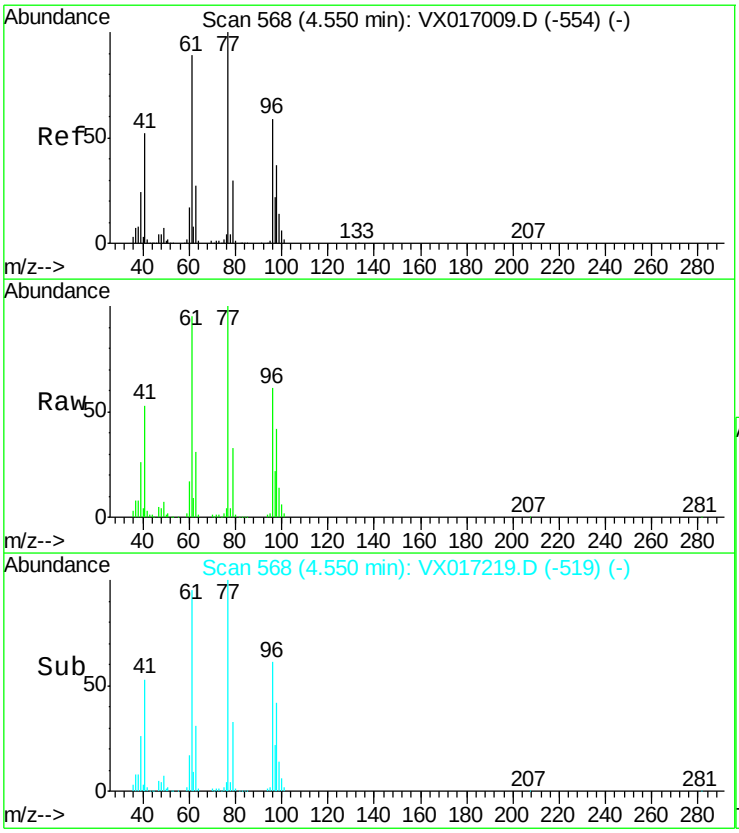


#25
2-Butanone
Concen: 252.574 ug/l
RT: 4.64 min Scan# 582
Delta R.T. 0.00 min
Lab File: VX017219.D
Acq: 07 Jul 2020 21:33

Tgt Ion: 43 Resp: 552198

Ion	Ratio	Lower	Upper
43	100		
72	25.9	20.8	31.2

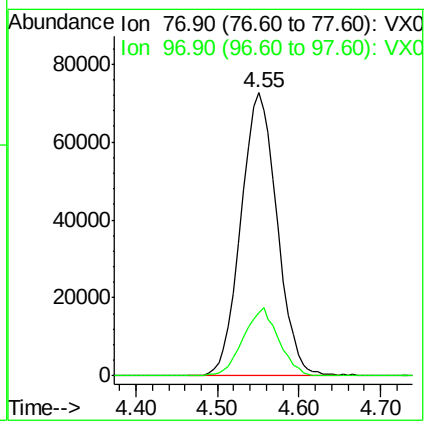




#26
2,2-Dichloropropane
Concen: 45.960 ug/l
RT: 4.55 min Scan# 568
Delta R.T. 0.00 min
Lab File: VX017219.D
Acq: 07 Jul 2020 21:33

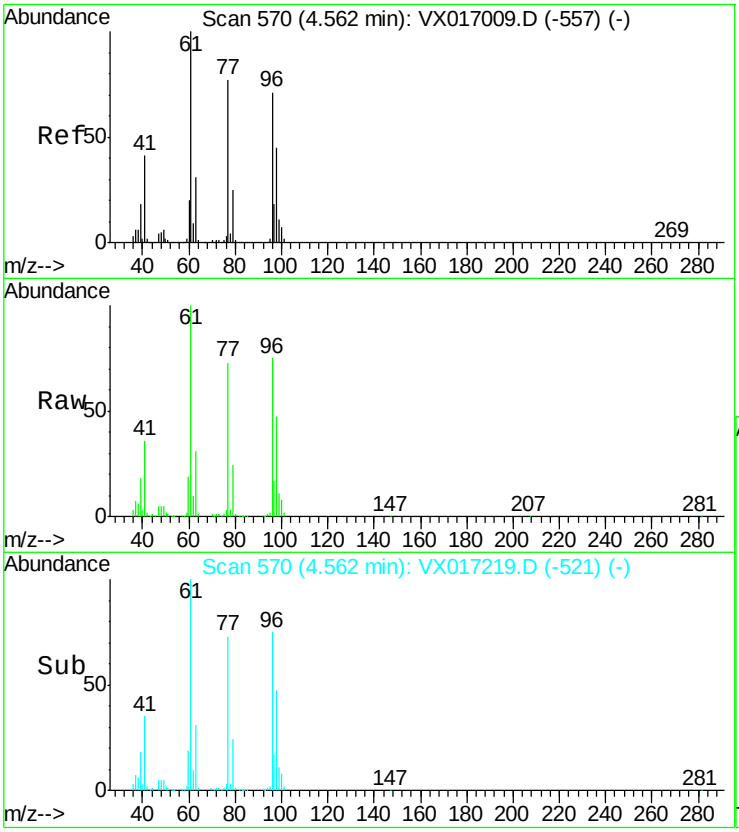
Tgt Ion: 77 Resp: 223558

Ion	Ratio	Lower	Upper
77	100		
97	23.5	11.4	34.2



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

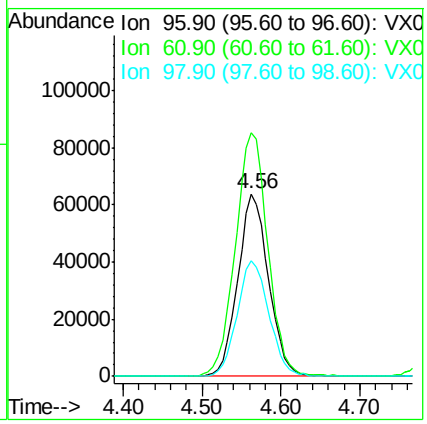
Manual Integrations APPROVED
MMDadoda
7/8/2020 9:31:49 AM

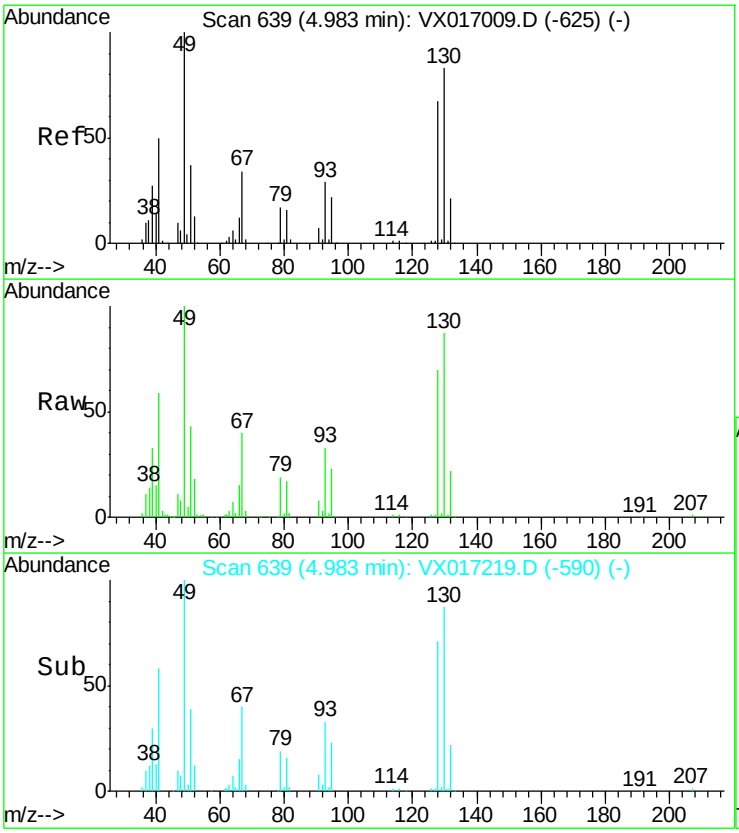


#27
cis-1,2-Dichloroethene
Concen: 48.584 ug/l
RT: 4.56 min Scan# 570
Delta R.T. 0.00 min
Lab File: VX017219.D
Acq: 07 Jul 2020 21:33

Tgt Ion: 96 Resp: 171958

Ion	Ratio	Lower	Upper
96	100		
61	141.7	0.0	282.8
98	66.1	0.0	127.6

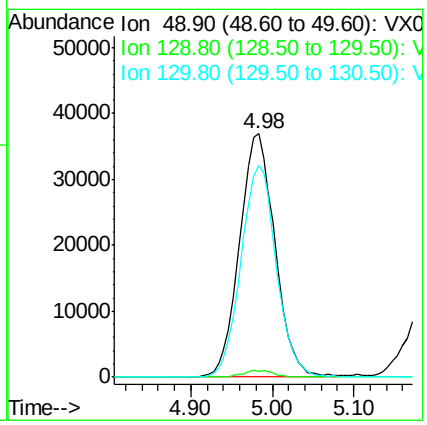




#28
Bromochloromethane
Concen: 41.825 ug/l
RT: 4.98 min Scan# 639
Delta R.T. 0.00 min
Lab File: VX017219.D
Acq: 07 Jul 2020 21:33

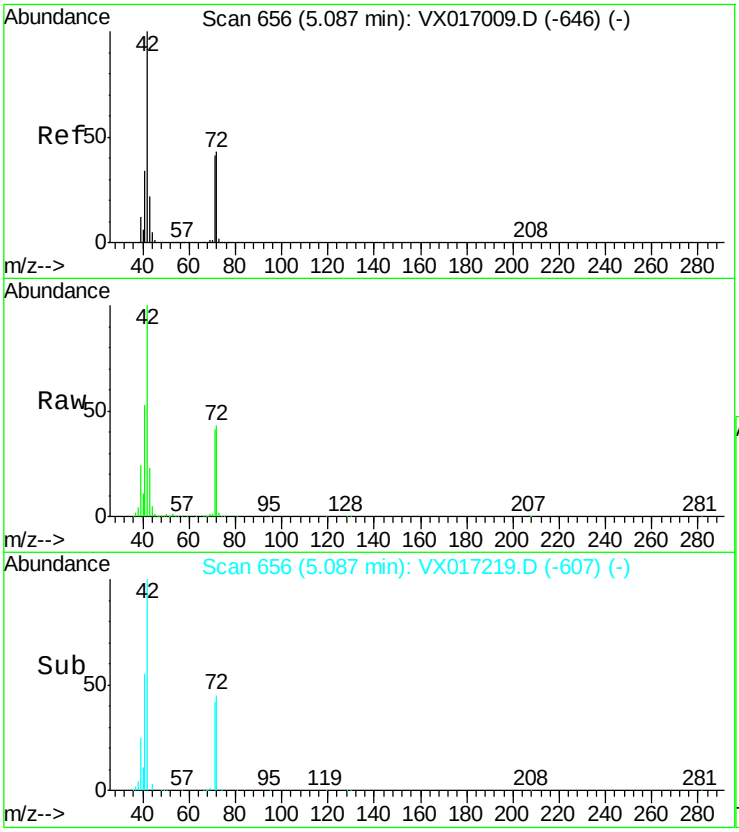
Tgt Ion: 49 Resp: 111499

Ion	Ratio	Lower	Upper
49	100		
129	2.4	0.0	4.2
130	86.8	66.6	100.0



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

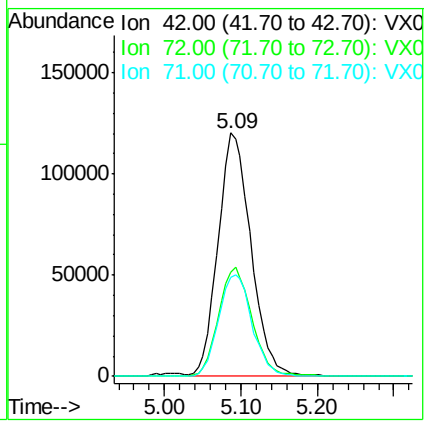
Manual Integrations APPROVED
MMDadoda
7/8/2020 9:31:49 AM

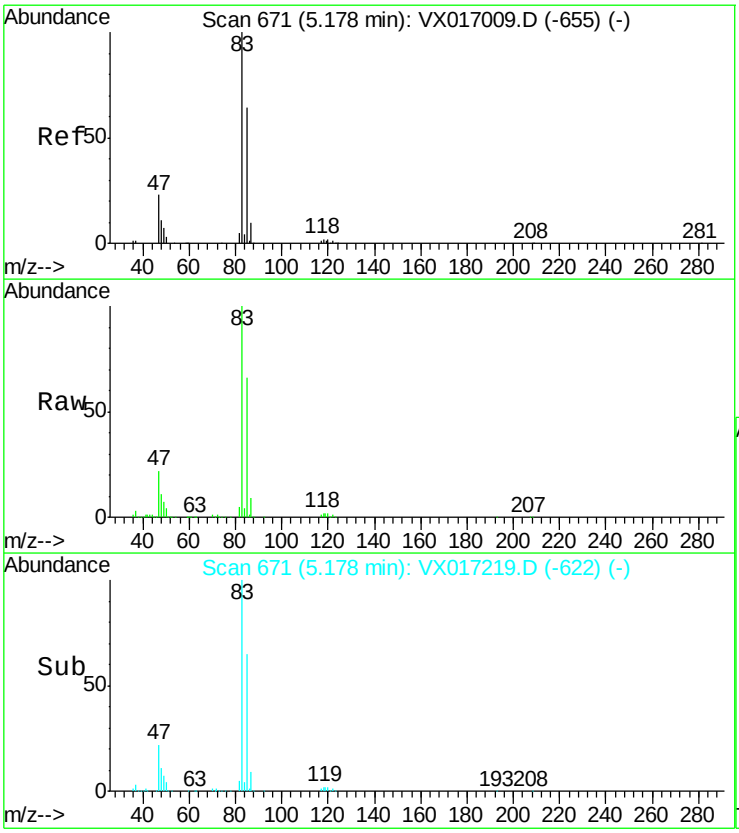


#29
Tetrahydrofuran
Concen: 246.987 ug/l
RT: 5.09 min Scan# 656
Delta R.T. 0.00 min
Lab File: VX017219.D
Acq: 07 Jul 2020 21:33

Tgt Ion: 42 Resp: 356779

Ion	Ratio	Lower	Upper
42	100		
72	46.0	35.3	52.9
71	42.7	33.1	49.7

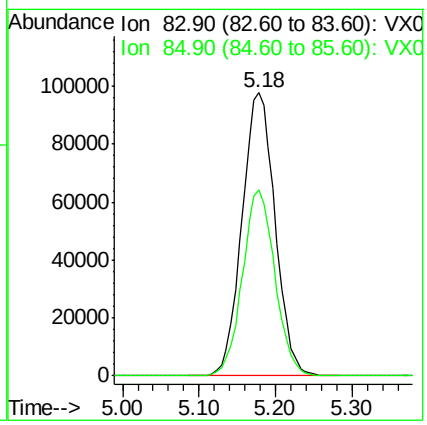




#30
Chloroform
Concen: 52.339 ug/l
RT: 5.18 min Scan# 671
Delta R.T. 0.00 min
Lab File: VX017219.D
Acq: 07 Jul 2020 21:33

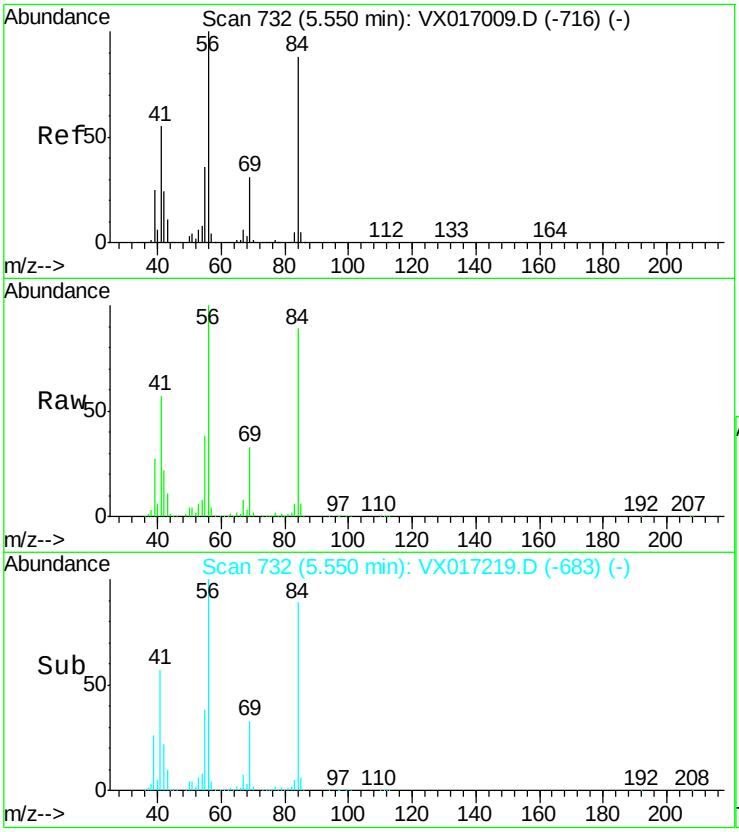
Tgt Ion: 83 Resp: 293924

Ion	Ratio	Lower	Upper
83	100		
85	65.8	51.4	77.2



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

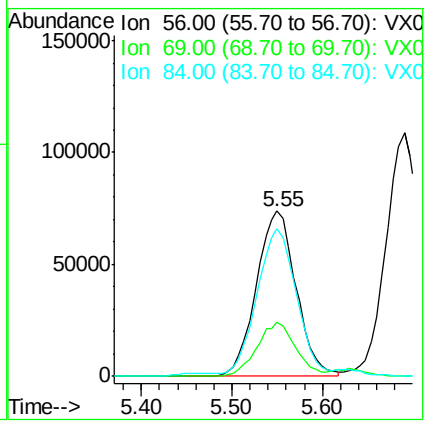
Manual Integrations APPROVED
MMDadoda
7/8/2020 9:31:49 AM

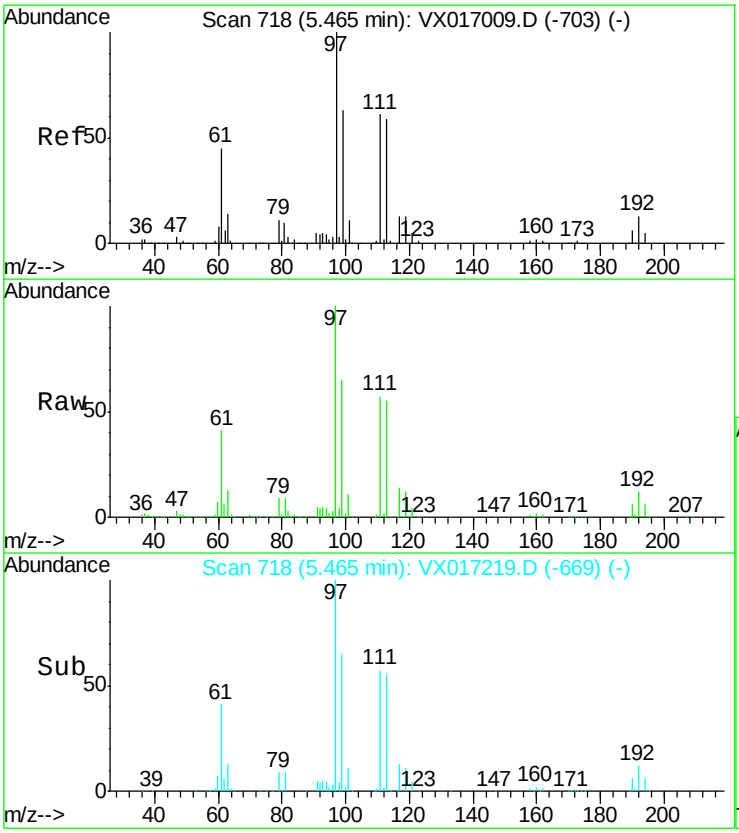


#31
Cyclohexane
Concen: 47.366 ug/l
RT: 5.55 min Scan# 732
Delta R.T. 0.00 min
Lab File: VX017219.D
Acq: 07 Jul 2020 21:33

Tgt Ion: 56 Resp: 224290

Ion	Ratio	Lower	Upper
56	100		
69	32.7	25.0	37.4
84	87.5	69.1	103.7

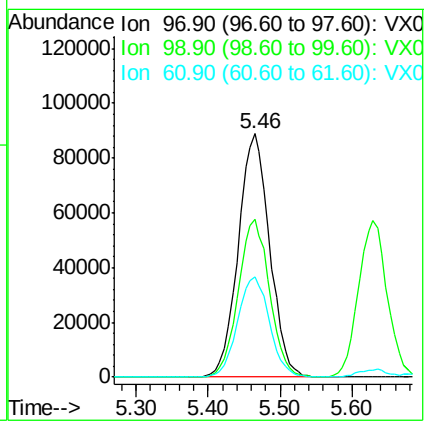




#32
1,1,1-Trichloroethane
Concen: 51.952 ug/l
RT: 5.46 min Scan# 718
Delta R.T. 0.00 min
Lab File: VX017219.D
Acq: 07 Jul 2020 21:33

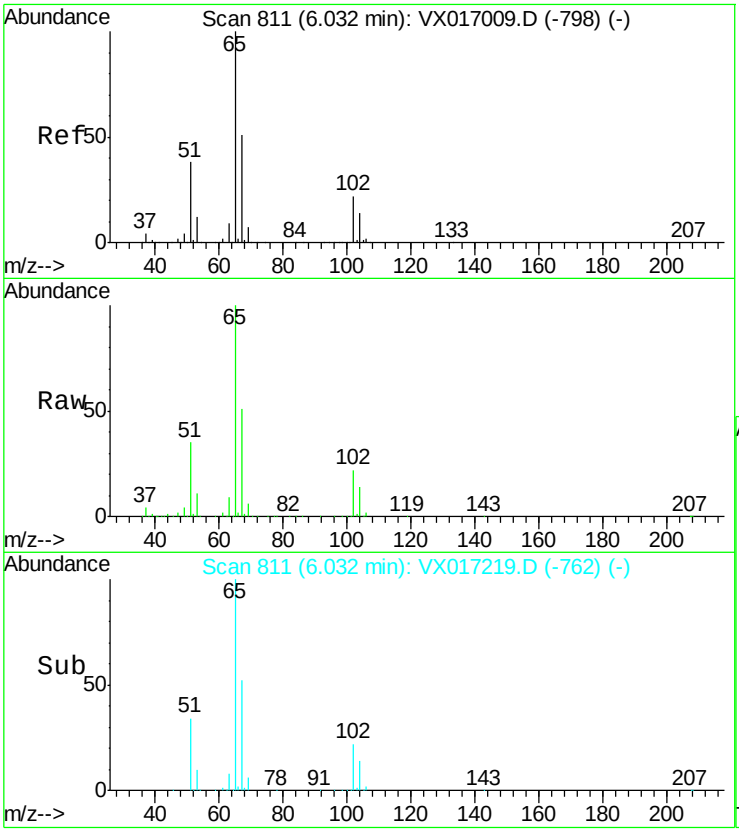
Tgt Ion: 97 Resp: 268689

Ion	Ratio	Lower	Upper
97	100		
99	64.6	50.8	76.2
61	41.8	33.7	50.5



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

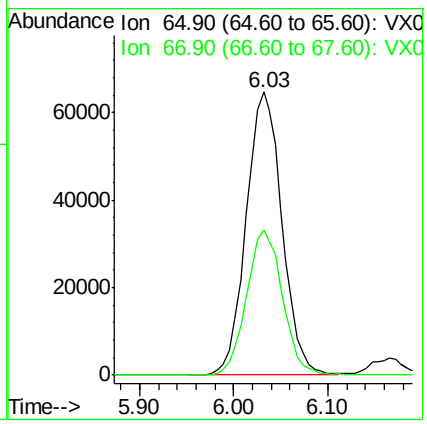
Manual Integrations APPROVED
MMDadoda
7/8/2020 9:31:49 AM

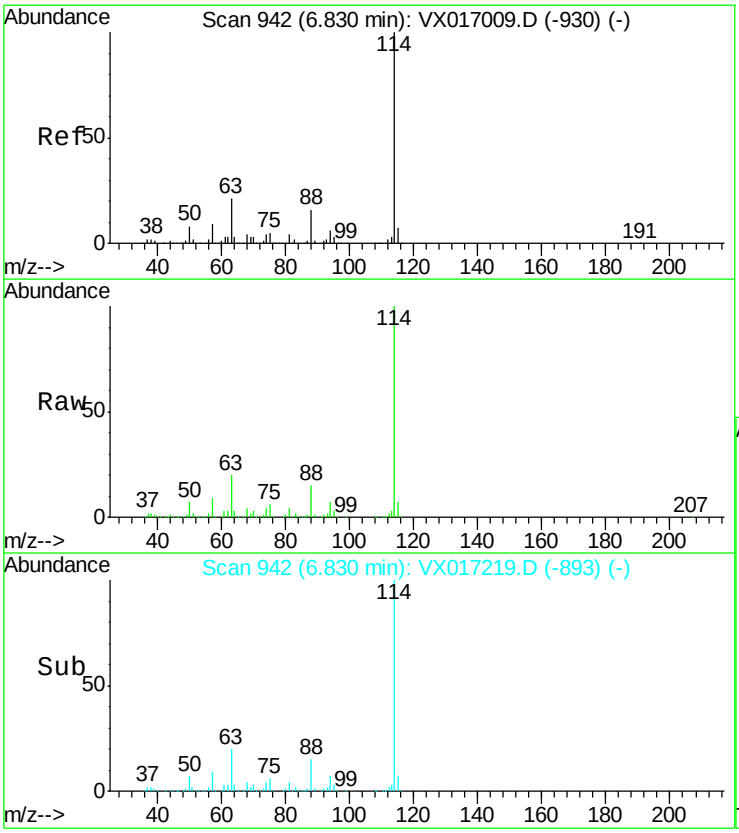


#33
1,2-Dichloroethane-d4
Concen: 48.952 ug/l
RT: 6.03 min Scan# 811
Delta R.T. 0.00 min
Lab File: VX017219.D
Acq: 07 Jul 2020 21:33

Tgt Ion: 65 Resp: 171696

Ion	Ratio	Lower	Upper
65	100		
67	51.4	0.0	103.8

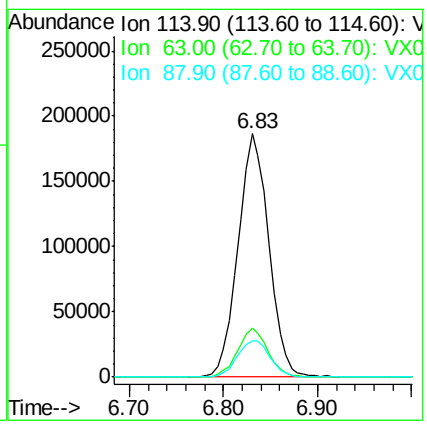




#34
1,4-Difluorobenzene
Concen: 50.000 ug/l
RT: 6.83 min Scan# 942
Delta R.T. 0.00 min
Lab File: VX017219.D
Acq: 07 Jul 2020 21:33

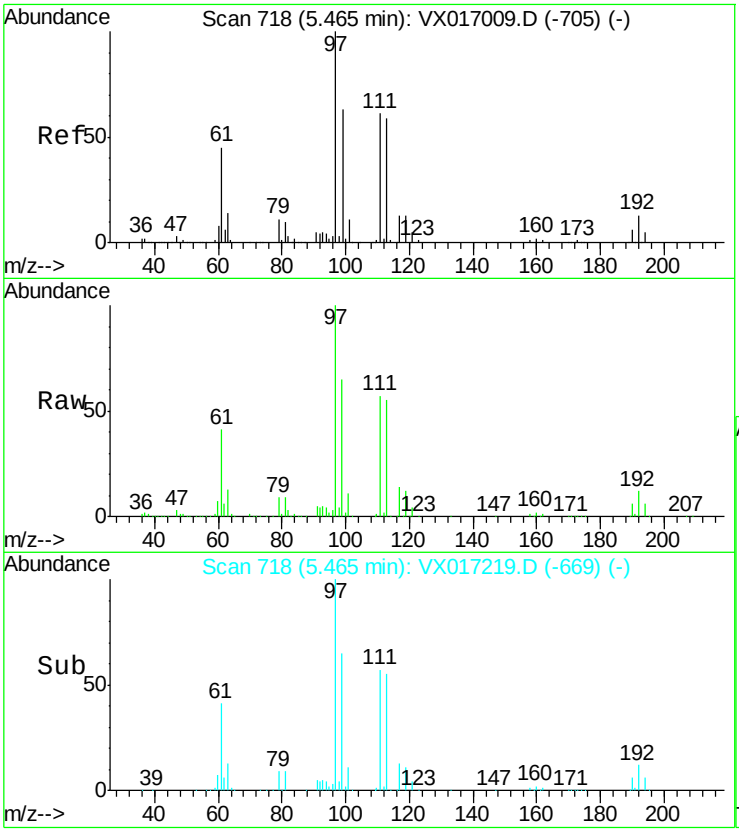
Tgt Ion:114 Resp: 426532

Ion	Ratio	Lower	Upper
114	100		
63	20.3	0.0	41.4
88	15.0	0.0	32.4



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

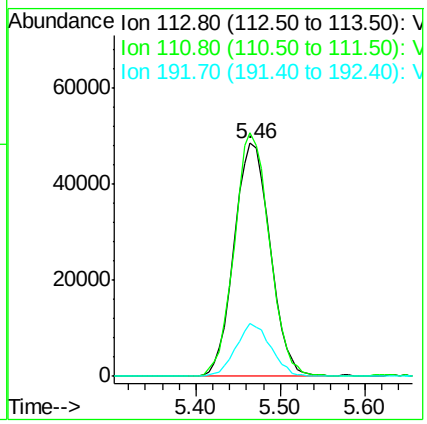
Manual Integrations APPROVED
MMDadoda
7/8/2020 9:31:49 AM

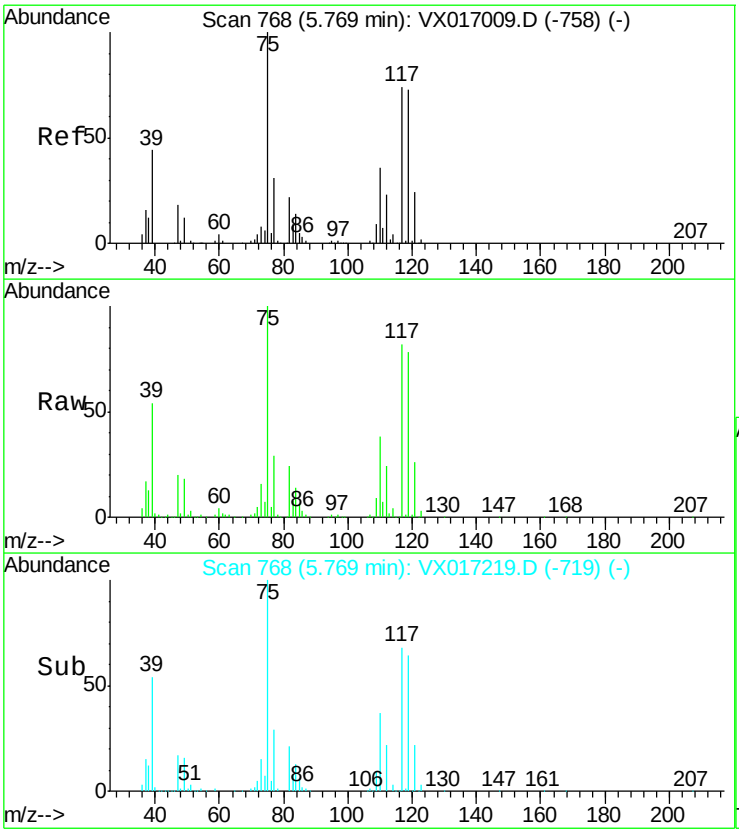


#35
Dibromofluoromethane
Concen: 52.137 ug/l
RT: 5.46 min Scan# 718
Delta R.T. 0.00 min
Lab File: VX017219.D
Acq: 07 Jul 2020 21:33

Tgt Ion:113 Resp: 140672

Ion	Ratio	Lower	Upper
113	100		
111	101.9	81.9	122.9
192	22.0	16.7	25.1

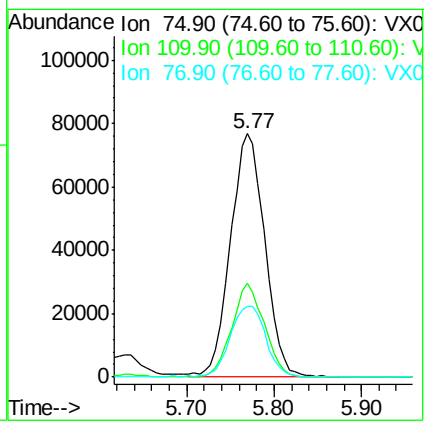




#36
1,1-Dichloropropene
Concen: 51.605 ug/l
RT: 5.77 min Scan# 768
Delta R.T. 0.00 min
Lab File: VX017219.D
Acq: 07 Jul 2020 21:33

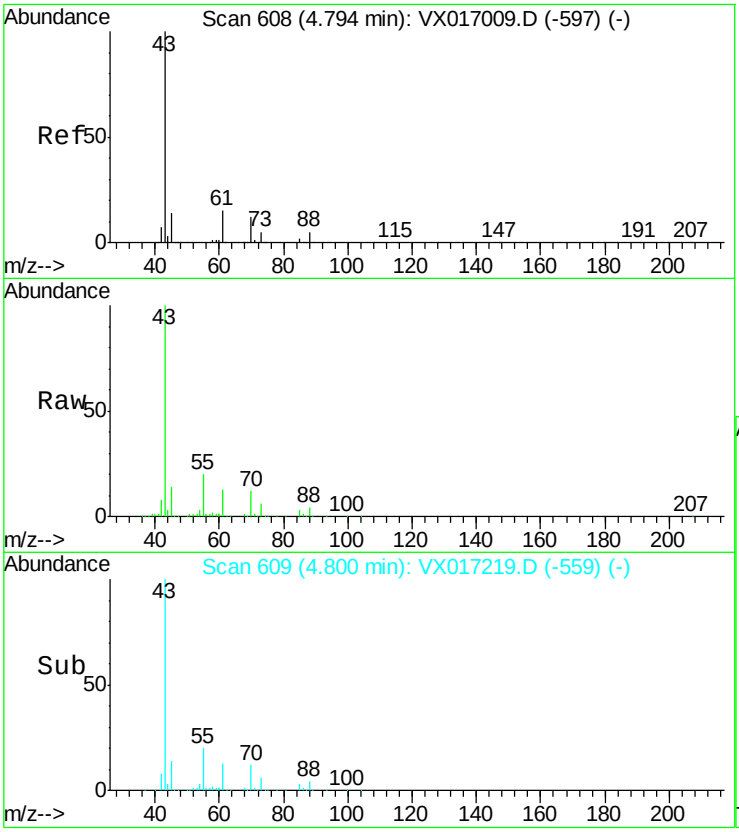
Tgt Ion: 75 Resp: 208032

Ion	Ratio	Lower	Upper
75	100		
110	36.7	18.1	54.1
77	30.4	24.6	37.0



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

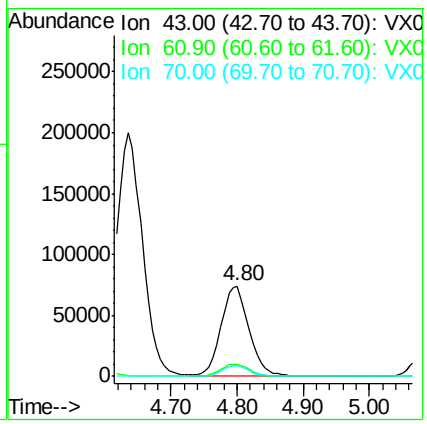
Manual Integrations APPROVED
MMDadoda
7/8/2020 9:31:49 AM

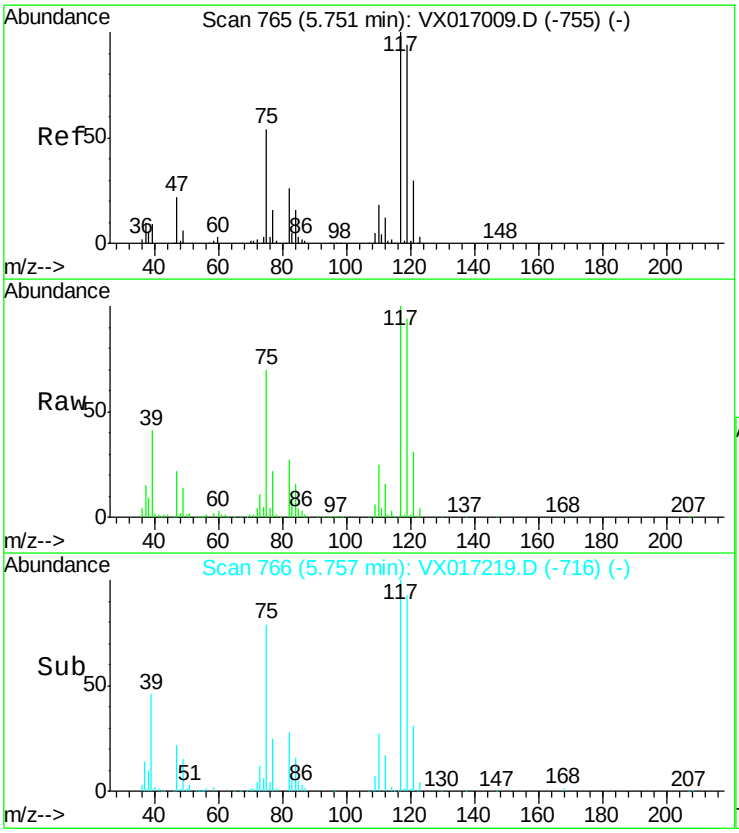


#37
Ethyl Acetate
Concen: 52.881 ug/l
RT: 4.80 min Scan# 609
Delta R.T. 0.01 min
Lab File: VX017219.D
Acq: 07 Jul 2020 21:33

Tgt Ion: 43 Resp: 216292

Ion	Ratio	Lower	Upper
43	100		
61	13.9	11.0	16.4
70	11.5	8.9	13.3

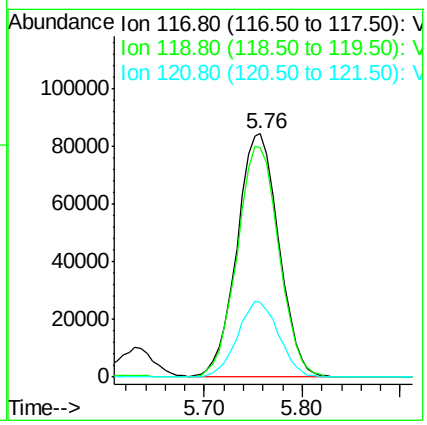




#38
Carbon Tetrachloride
Concen: 56.263 ug/l
RT: 5.76 min Scan# 766
Delta R.T. 0.01 min
Lab File: VX017219.D
Acq: 07 Jul 2020 21:33

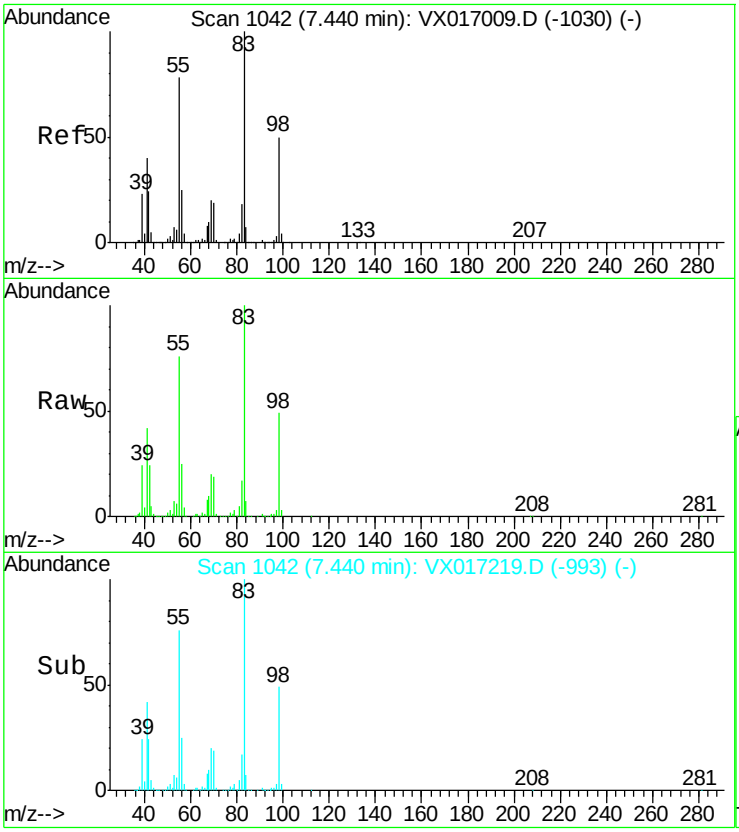
Tgt Ion:117 Resp: 249815

Ion	Ratio	Lower	Upper
117	100		
119	94.1	75.4	113.0
121	30.7	23.8	35.6



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

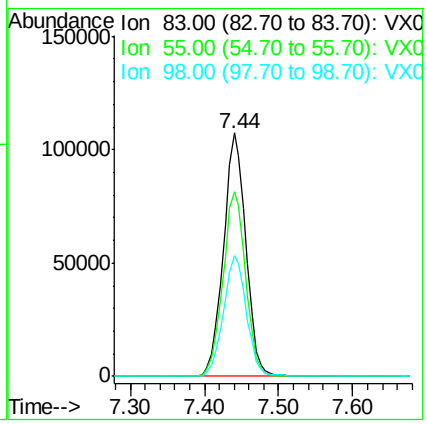
Manual Integrations APPROVED
MMDadoda
7/8/2020 9:31:49 AM

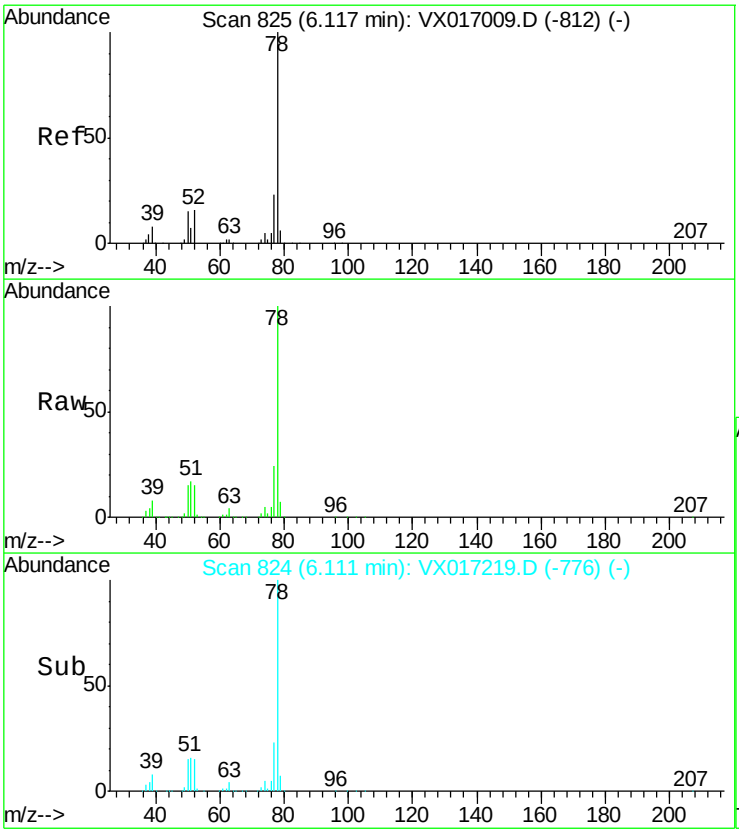


#39
Methylcyclohexane
Concen: 50.315 ug/l
RT: 7.44 min Scan# 1042
Delta R.T. 0.00 min
Lab File: VX017219.D
Acq: 07 Jul 2020 21:33

Tgt Ion: 83 Resp: 225675

Ion	Ratio	Lower	Upper
83	100		
55	76.0	62.5	93.7
98	49.5	40.1	60.1

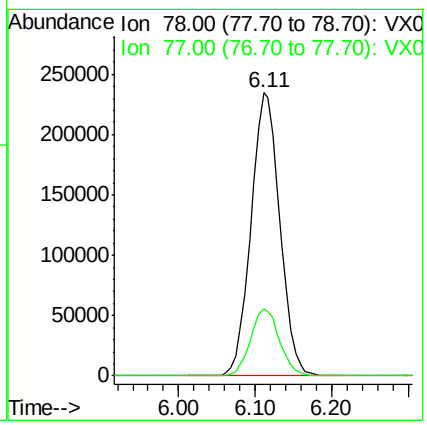




#40
Benzene
Concen: 52.023 ug/l
RT: 6.11 min Scan# 824
Delta R.T. -0.01 min
Lab File: VX017219.D
Acq: 07 Jul 2020 21:33

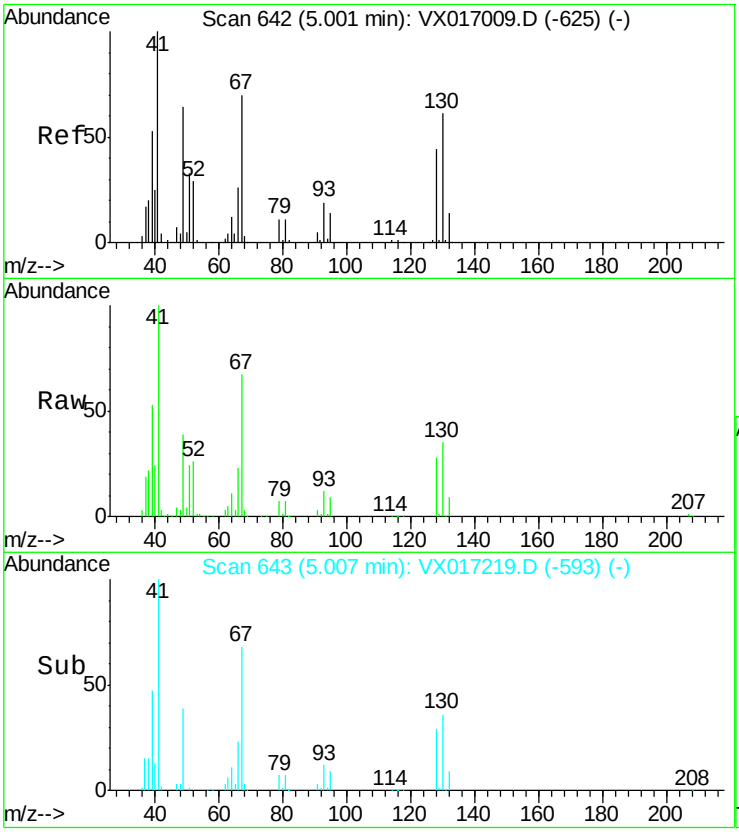
Tgt Ion: 78 Resp: 616183

Ion	Ratio	Lower	Upper
78	100		
77	23.8	18.3	27.5



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

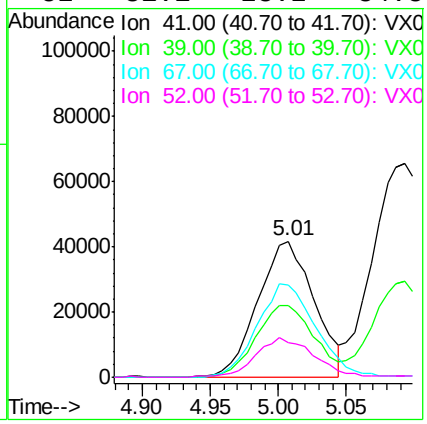
Manual Integrations APPROVED
MMDadoda
7/8/2020 9:31:49 AM

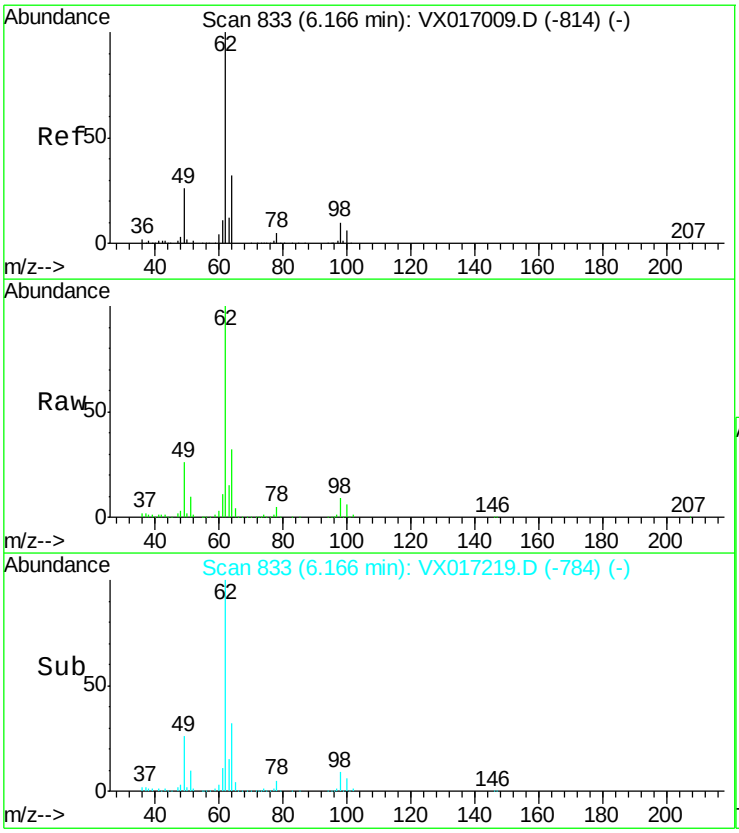


#41
Methacrylonitrile
Concen: 52.187 ug/l
RT: 5.01 min Scan# 643
Delta R.T. 0.01 min
Lab File: VX017219.D
Acq: 07 Jul 2020 21:33

Tgt Ion: 41 Resp: 120135

Ion	Ratio	Lower	Upper
41	100		
39	54.3	44.4	66.6
67	72.3	57.1	85.7
52	31.1	23.2	34.8

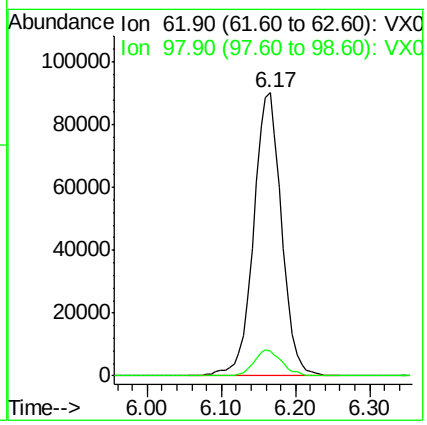




#42
1,2-Dichloroethane
Concen: 55.192 ug/l
RT: 6.17 min Scan# 833
Delta R.T. 0.00 min
Lab File: VX017219.D
Acq: 07 Jul 2020 21:33

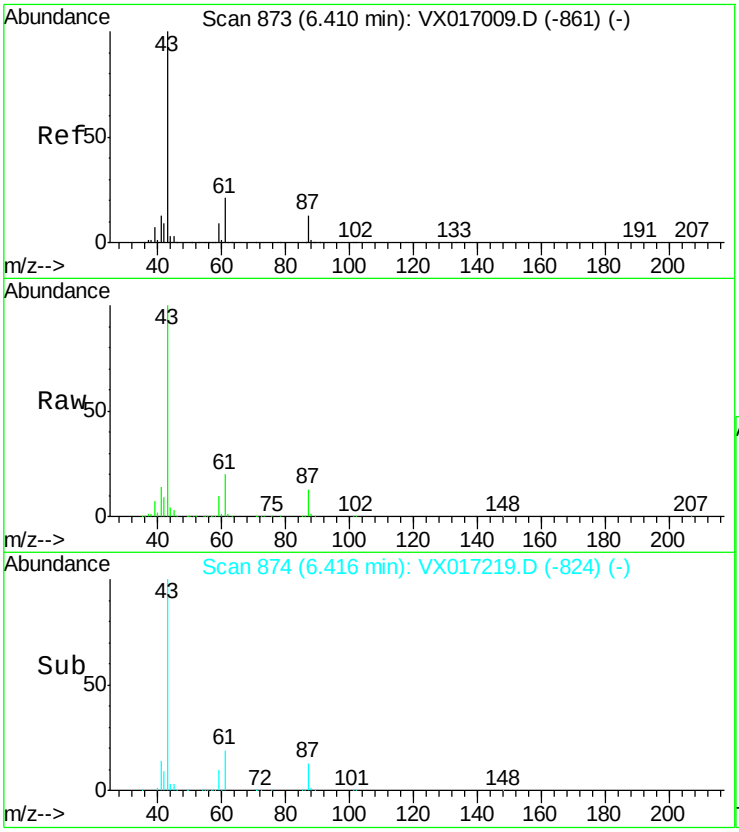
Tgt Ion: 62 Resp: 236128

Ion	Ratio	Lower	Upper
62	100		
98	9.3	0.0	19.2



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

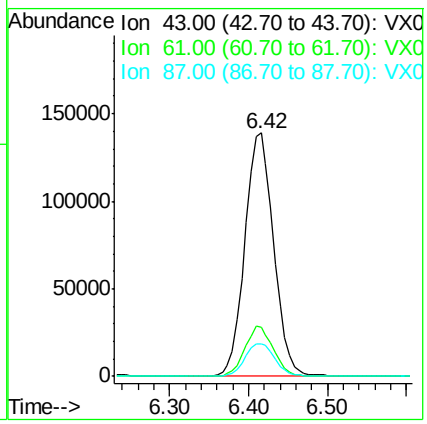
Manual Integrations APPROVED
MMDadoda
7/8/2020 9:31:49 AM

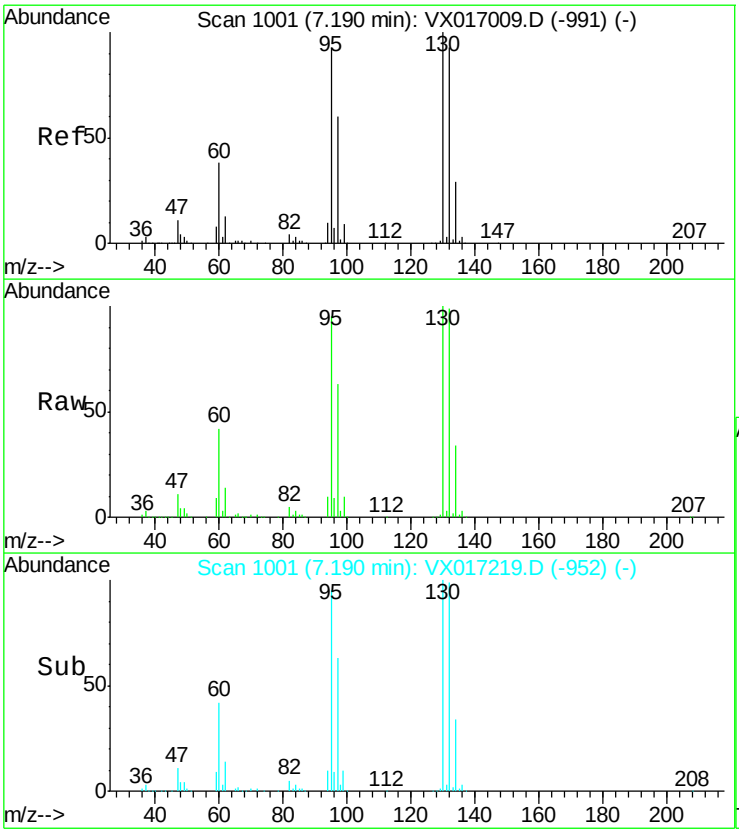


#43
Isopropyl Acetate
Concen: 51.599 ug/l
RT: 6.42 min Scan# 874
Delta R.T. 0.01 min
Lab File: VX017219.D
Acq: 07 Jul 2020 21:33

Tgt Ion: 43 Resp: 350698

Ion	Ratio	Lower	Upper
43	100		
61	20.5	16.2	24.2
87	14.1	10.7	16.1

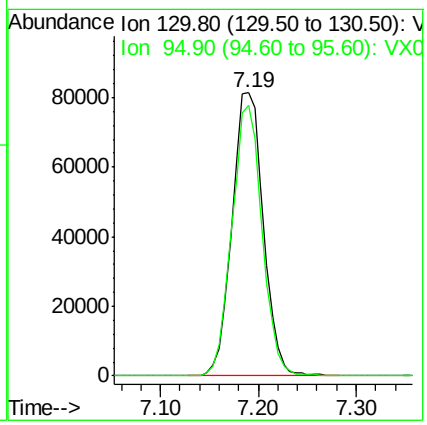




#44
Trichloroethene
Concen: 55.317 ug/l
RT: 7.19 min Scan# 1001
Delta R.T. 0.00 min
Lab File: VX017219.D
Acq: 07 Jul 2020 21:33

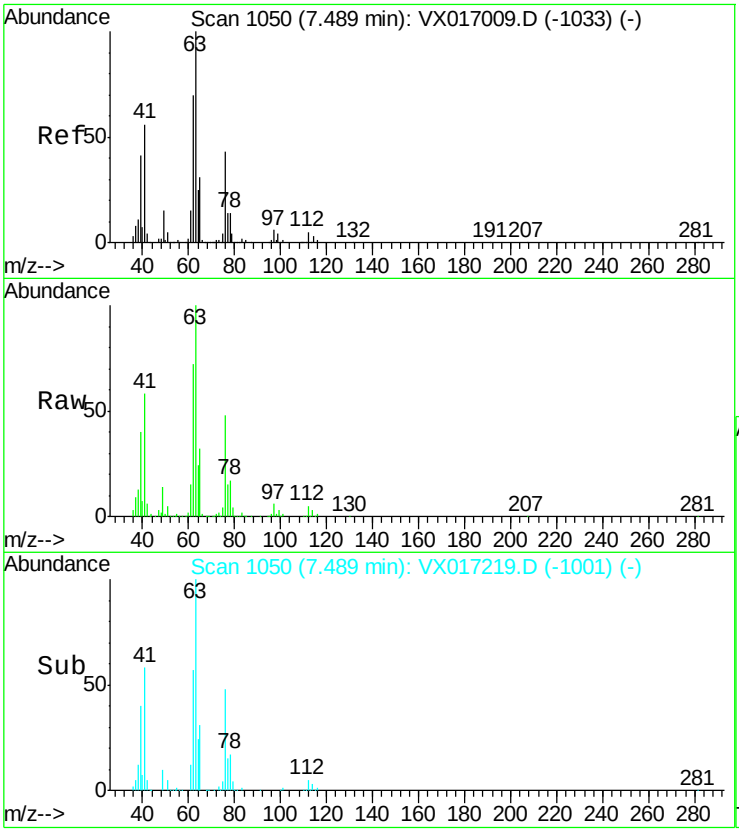
Tgt Ion:130 Resp: 180696

Ion	Ratio	Lower	Upper
130	100		
95	95.5	0.0	185.0



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

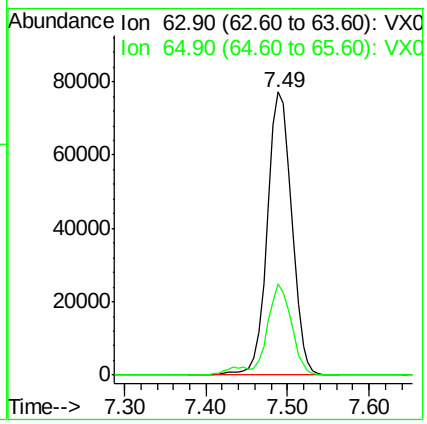
Manual Integrations APPROVED
MMDadoda
7/8/2020 9:31:49 AM

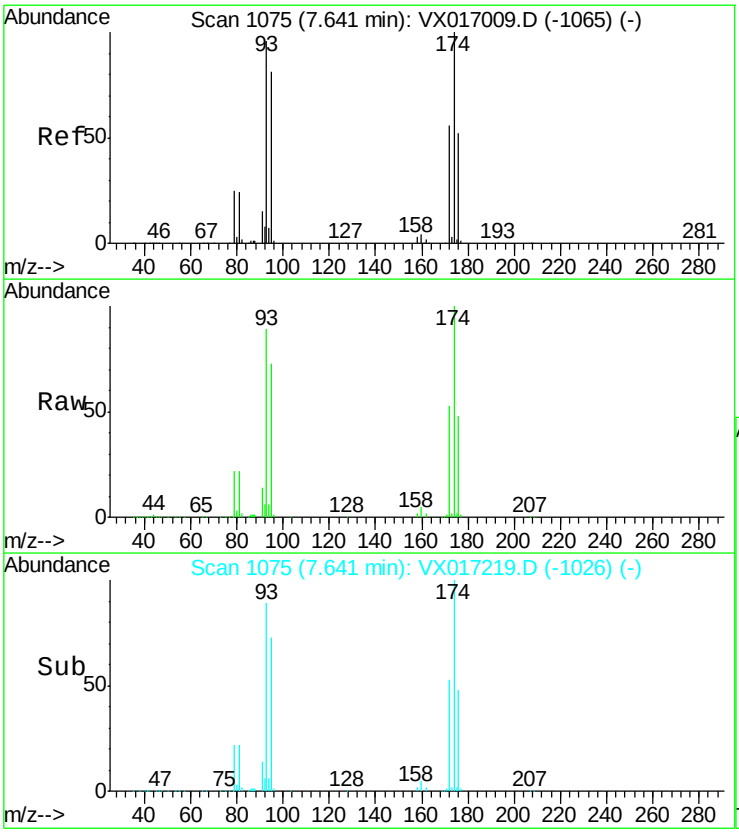


#45
1,2-Dichloropropane
Concen: 52.730 ug/l
RT: 7.49 min Scan# 1050
Delta R.T. 0.00 min
Lab File: VX017219.D
Acq: 07 Jul 2020 21:33

Tgt Ion: 63 Resp: 160412

Ion	Ratio	Lower	Upper
63	100		
65	32.3	24.6	36.8

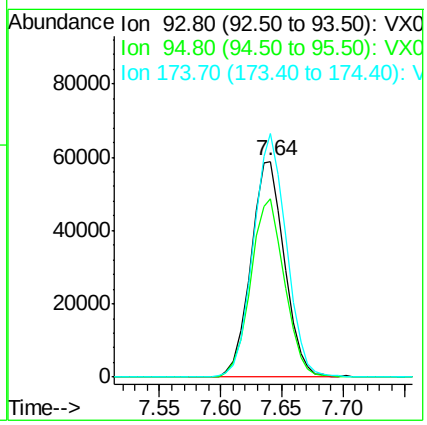




#46
Dibromomethane
Concen: 54.241 ug/l
RT: 7.64 min Scan# 1075
Delta R.T. 0.00 min
Lab File: VX017219.D
Acq: 07 Jul 2020 21:33

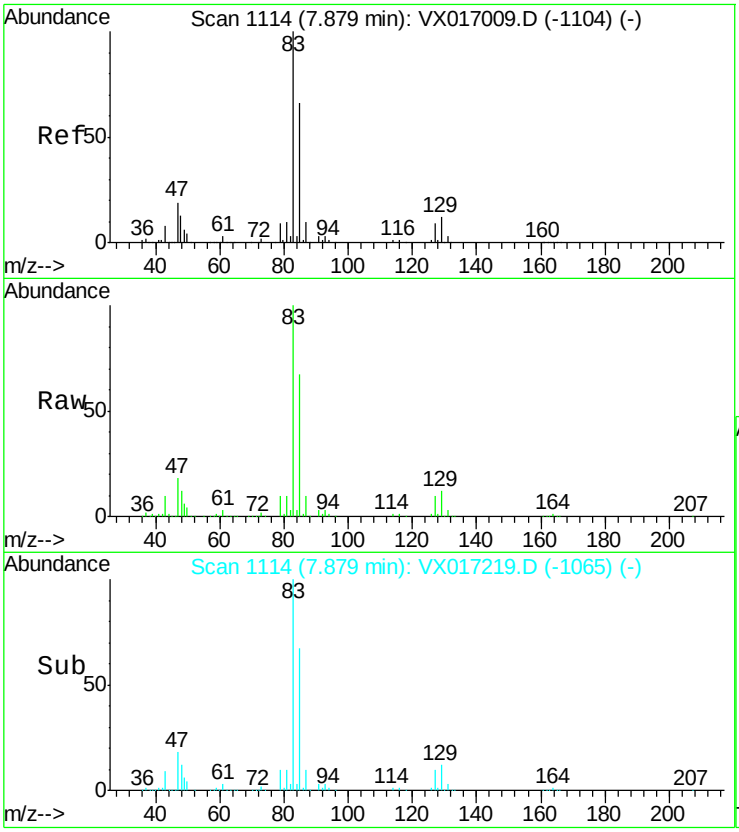
Tgt Ion: 93 Resp: 112656

Ion	Ratio	Lower	Upper
93	100		
95	83.4	67.4	101.0
174	111.4	84.3	126.5



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

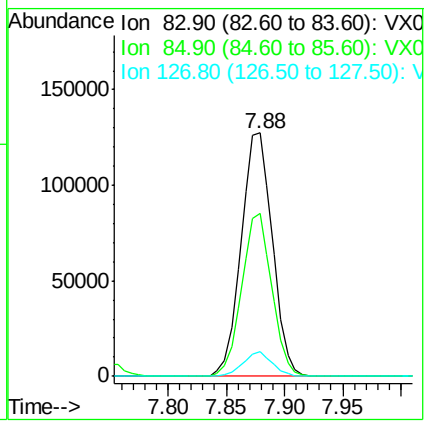
Manual Integrations APPROVED
MMDadoda
7/8/2020 9:31:49 AM

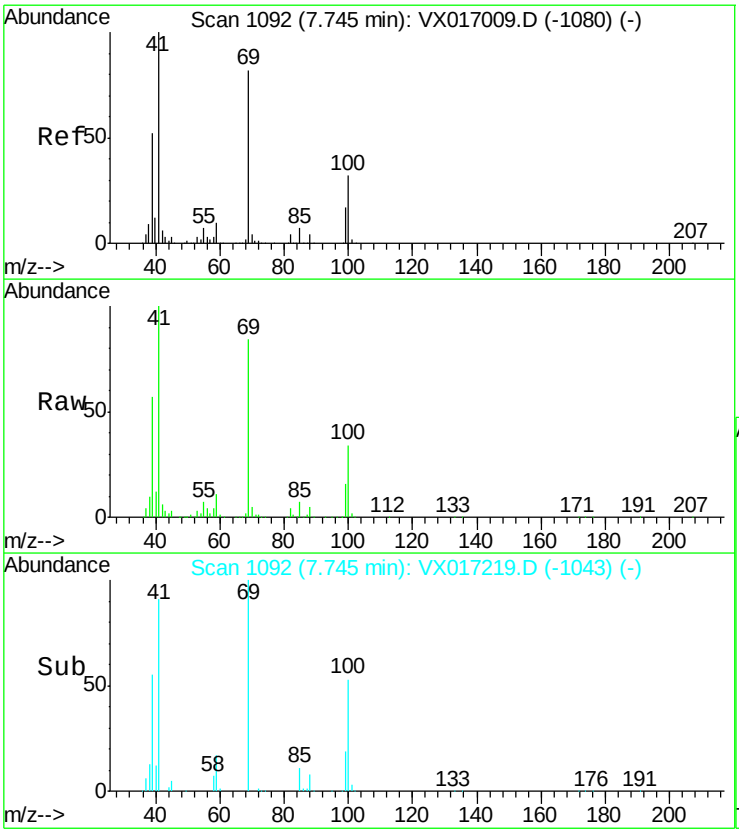


#47
Bromodichloromethane
Concen: 55.879 ug/l
RT: 7.88 min Scan# 1114
Delta R.T. 0.00 min
Lab File: VX017219.D
Acq: 07 Jul 2020 21:33

Tgt Ion: 83 Resp: 239173

Ion	Ratio	Lower	Upper
83	100		
85	66.7	53.0	79.4
127	10.3	7.5	11.3

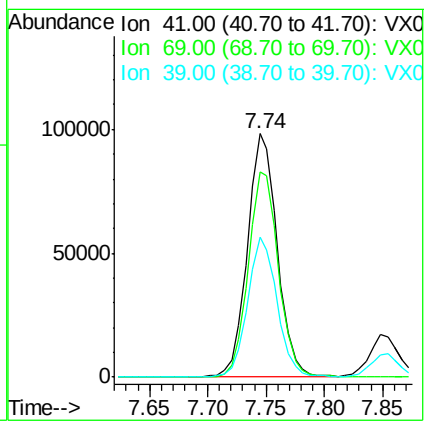




#48
Methyl methacrylate
Concen: 54.071 ug/l
RT: 7.74 min Scan# 1092
Delta R.T. 0.00 min
Lab File: VX017219.D
Acq: 07 Jul 2020 21:33

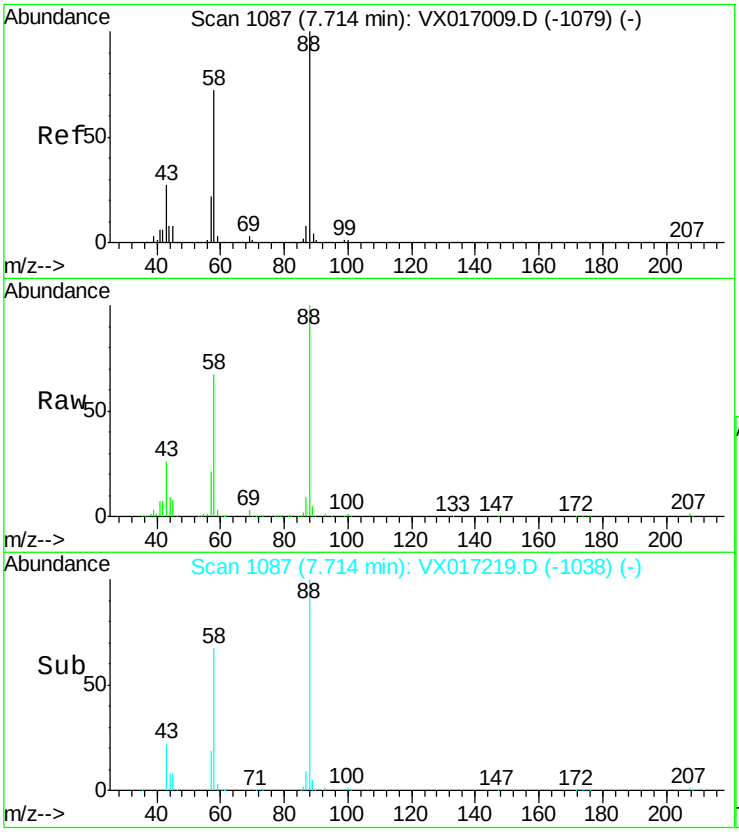
Tgt Ion: 41 Resp: 174598

Ion	Ratio	Lower	Upper
41	100		
69	86.2	65.8	98.8
39	56.8	42.5	63.7



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

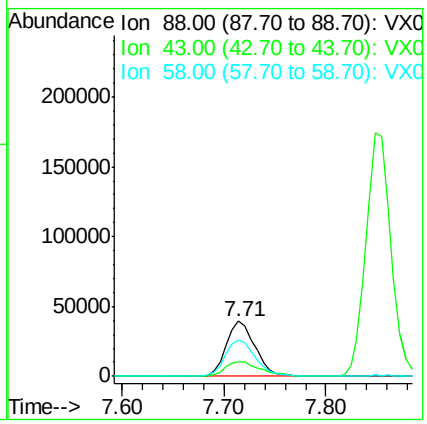
Manual Integrations APPROVED
MMDadoda
7/8/2020 9:31:49 AM

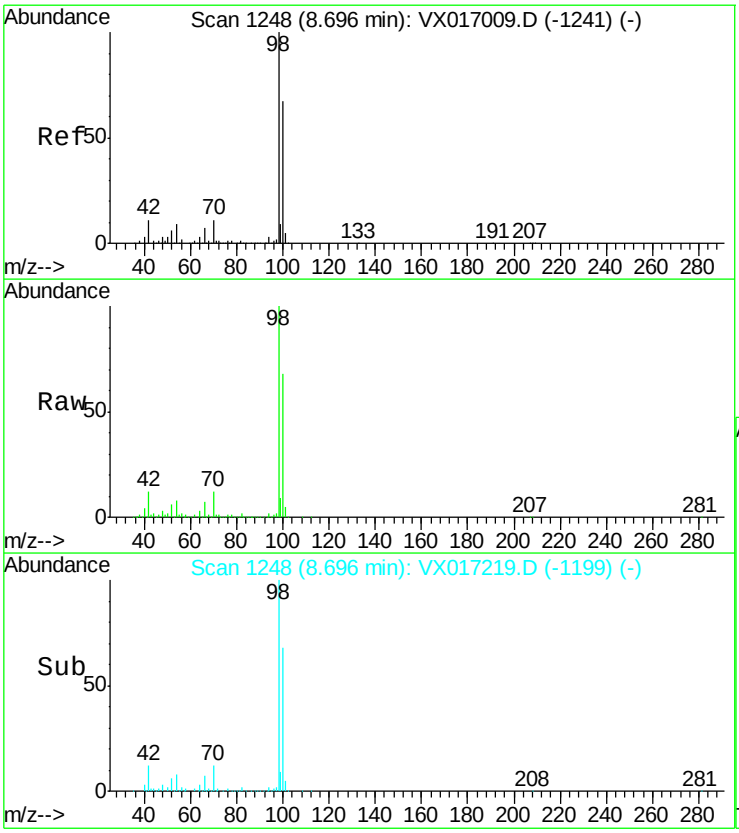


#49
1,4-Dioxane
Concen: 1058.261 ug/l
RT: 7.71 min Scan# 1087
Delta R.T. 0.00 min
Lab File: VX017219.D
Acq: 07 Jul 2020 21:33

Tgt Ion: 88 Resp: 77415

Ion	Ratio	Lower	Upper
88	100		
43	32.3	25.8	38.8
58	70.1	54.8	82.2

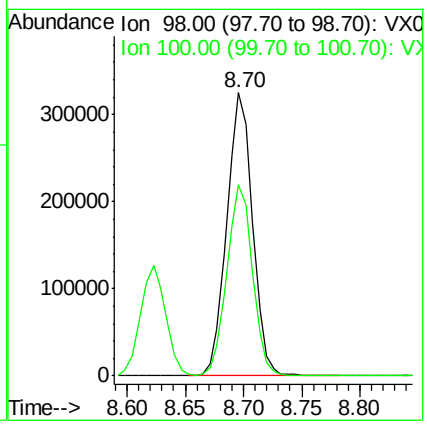




#50
Toluene-d8
Concen: 50.087 ug/l
RT: 8.70 min Scan# 1248
Delta R.T. 0.00 min
Lab File: VX017219.D
Acq: 07 Jul 2020 21:33

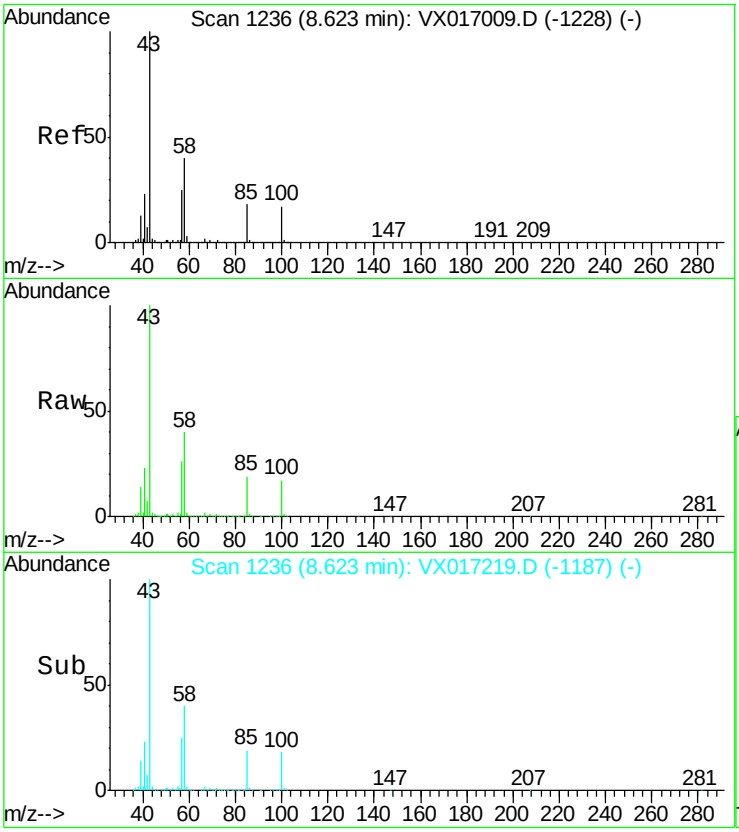
Tgt Ion: 98 Resp: 499720

Ion	Ratio	Lower	Upper
98	100		
100	67.5	53.8	80.6



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

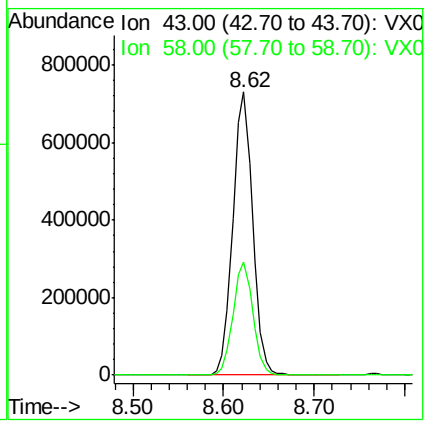
Manual Integrations APPROVED
MMDadoda
7/8/2020 9:31:49 AM

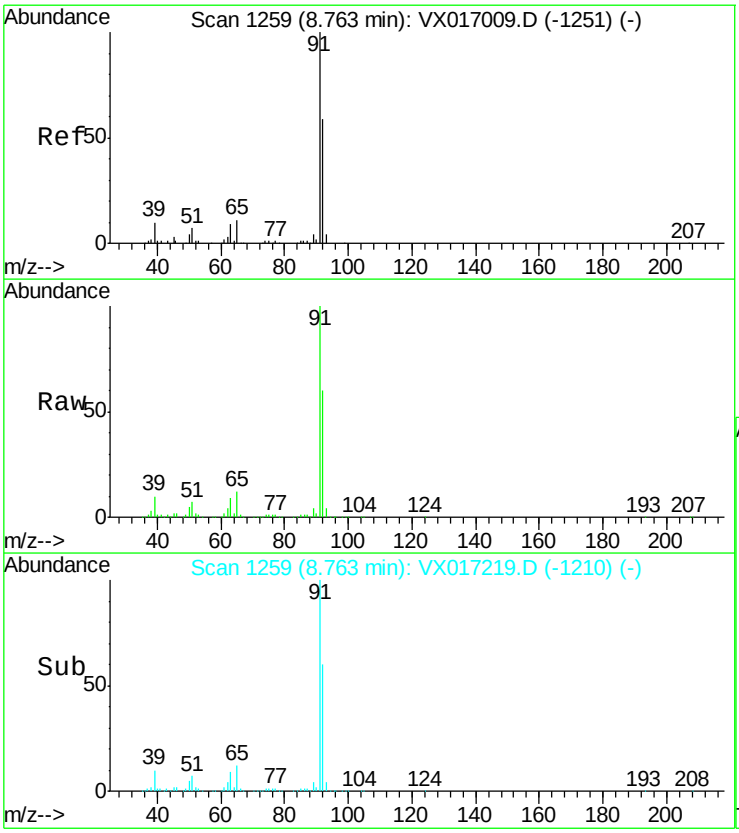


#51
4-Methyl-2-Pentanone
Concen: 274.391 ug/l
RT: 8.62 min Scan# 1236
Delta R.T. 0.00 min
Lab File: VX017219.D
Acq: 07 Jul 2020 21:33

Tgt Ion: 43 Resp: 1111682

Ion	Ratio	Lower	Upper
43	100		
58	39.8	31.9	47.9

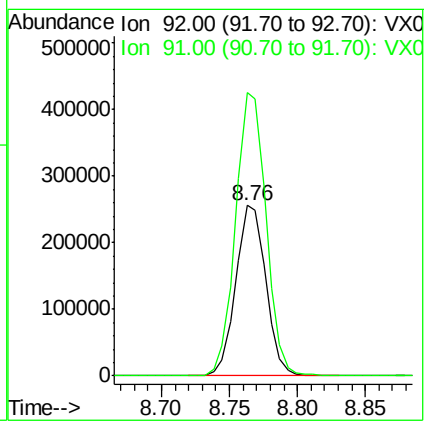




#52
Toluene
Concen: 53.377 ug/l
RT: 8.76 min Scan# 1259
Delta R.T. 0.00 min
Lab File: VX017219.D
Acq: 07 Jul 2020 21:33

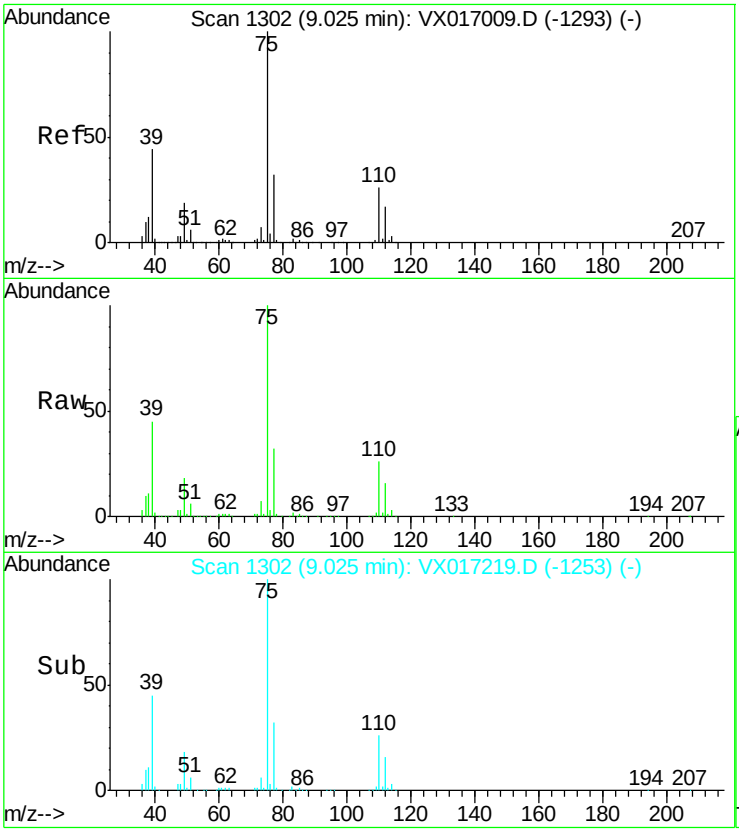
Tgt Ion: 92 Resp: 394723

Ion	Ratio	Lower	Upper
92	100		
91	168.3	136.9	205.3



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

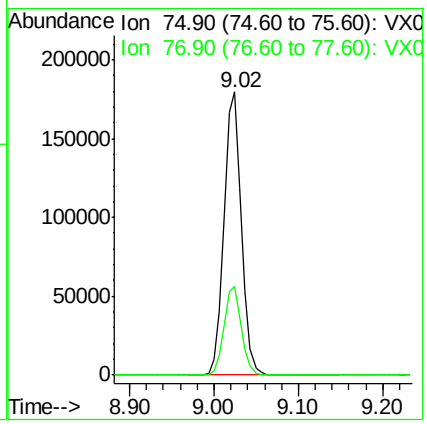
Manual Integrations APPROVED
MMDadoda
7/8/2020 9:31:49 AM

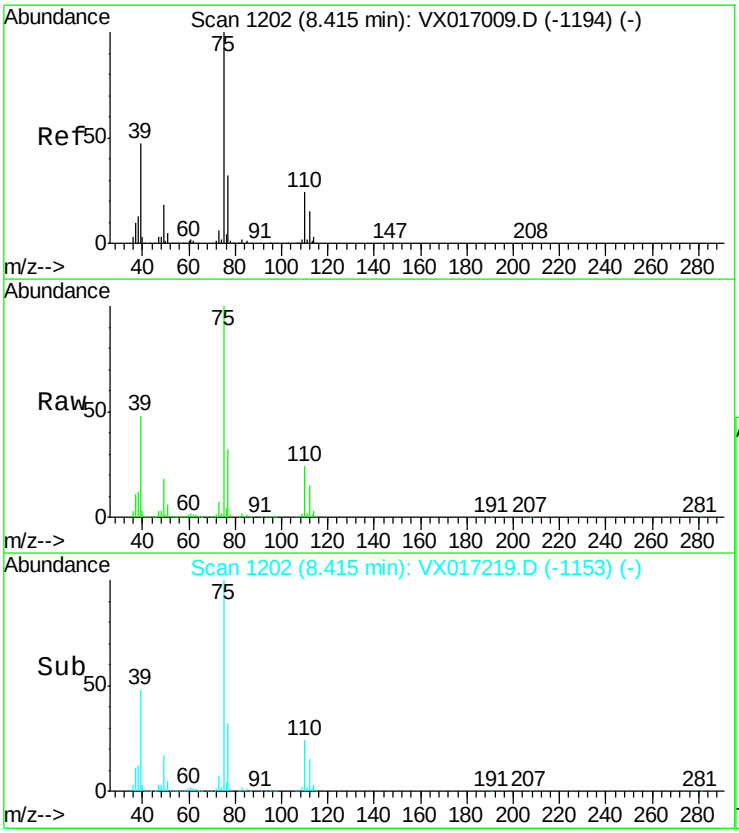


#53
t-1,3-Dichloropropene
Concen: 54.196 ug/l
RT: 9.02 min Scan# 1302
Delta R.T. 0.00 min
Lab File: VX017219.D
Acq: 07 Jul 2020 21:33

Tgt Ion: 75 Resp: 255943

Ion	Ratio	Lower	Upper
75	100		
77	31.6	25.6	38.4

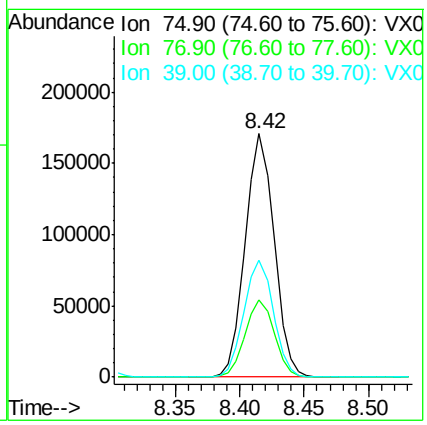




#54
cis-1,3-Dichloropropene
Concen: 52.382 ug/l
RT: 8.42 min Scan# 1202
Delta R.T. 0.00 min
Lab File: VX017219.D
Acq: 07 Jul 2020 21:33

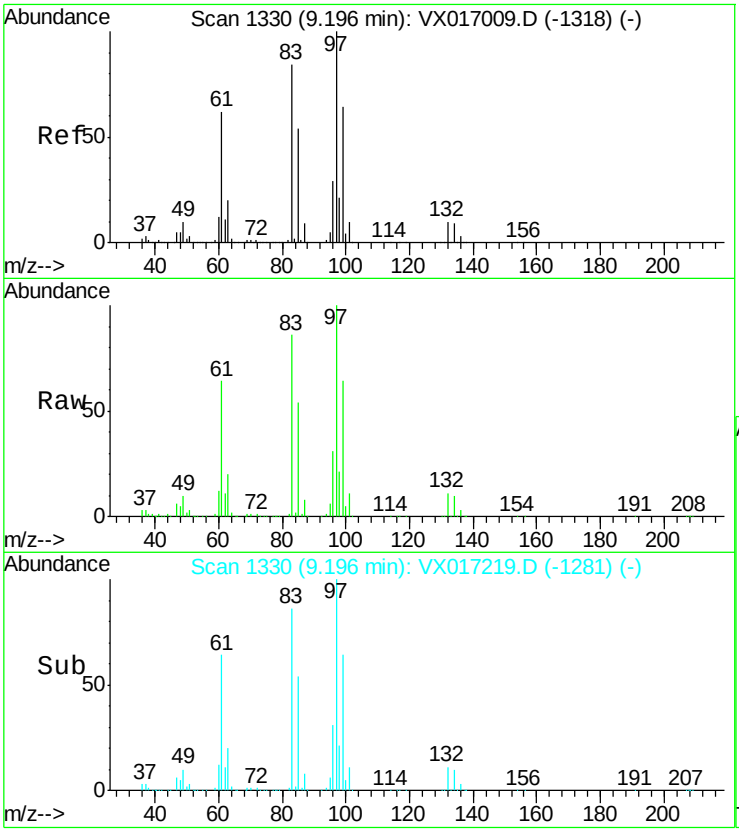
Tgt Ion: 75 Resp: 265180

Ion	Ratio	Lower	Upper
75	100		
77	31.9	25.2	37.8
39	48.1	37.4	56.2



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

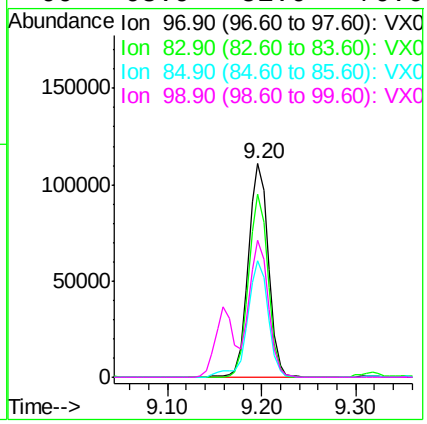
Manual Integrations APPROVED
MMDadoda
7/8/2020 9:31:49 AM

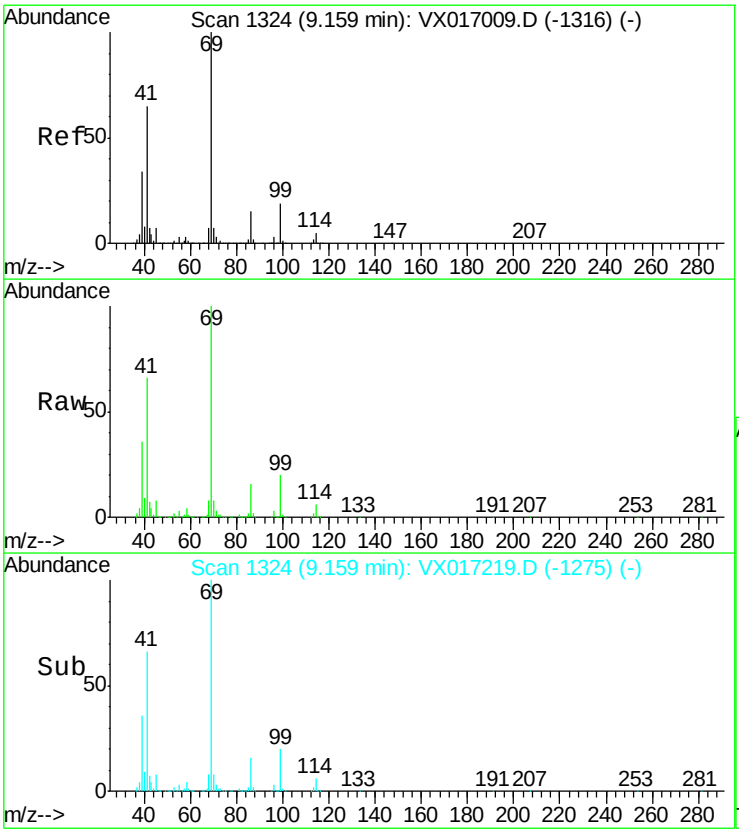


#55
1,1,2-Trichloroethane
Concen: 54.811 ug/l
RT: 9.20 min Scan# 1330
Delta R.T. 0.00 min
Lab File: VX017219.D
Acq: 07 Jul 2020 21:33

Tgt Ion: 97 Resp: 165604

Ion	Ratio	Lower	Upper
97	100		
83	85.9	67.0	100.6
85	54.3	43.5	65.3
99	63.9	51.0	76.6

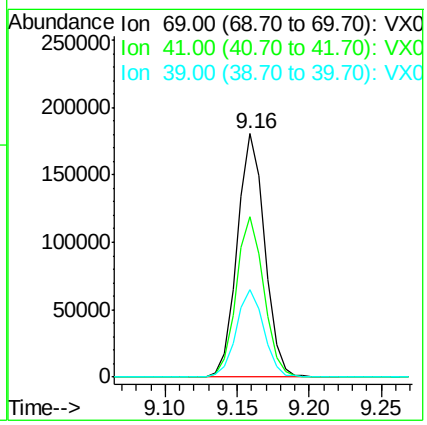




#56
Ethyl methacrylate
Concen: 55.846 ug/l
RT: 9.16 min Scan# 1324
Delta R.T. 0.00 min
Lab File: VX017219.D
Acq: 07 Jul 2020 21:33

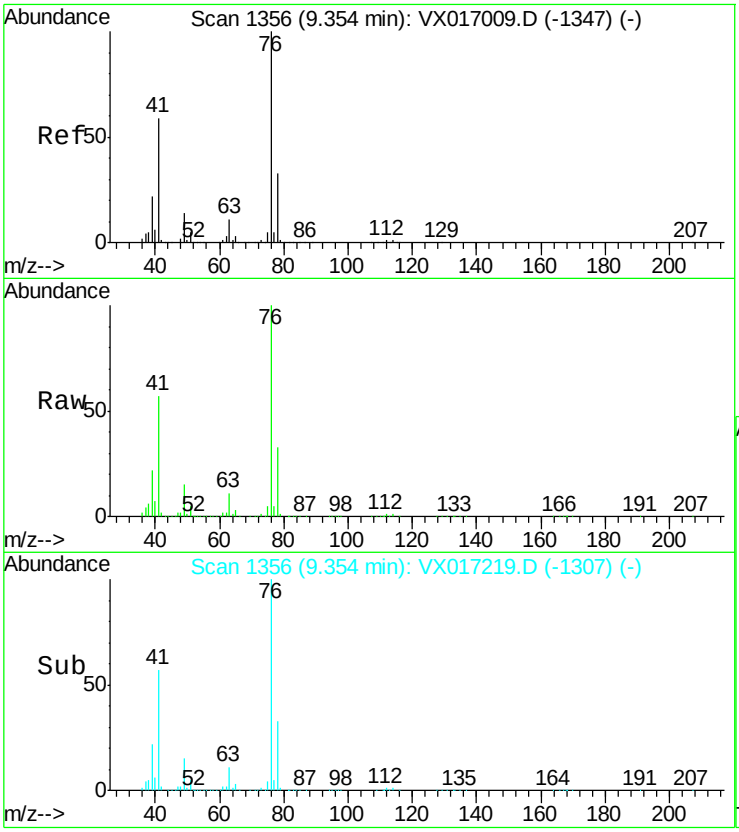
Tgt Ion: 69 Resp: 240164

Ion	Ratio	Lower	Upper
69	100		
41	66.1	53.6	80.4
39	36.1	28.2	42.2



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

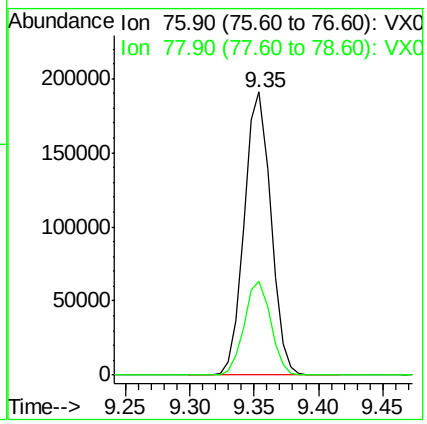
Manual Integrations APPROVED
MMDadoda
7/8/2020 9:31:49 AM

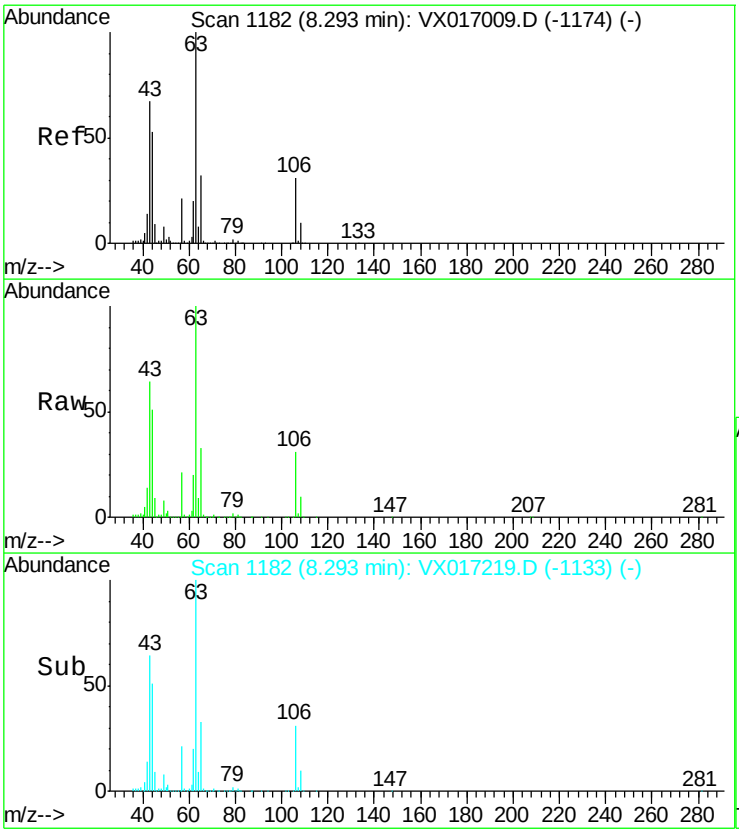


#57
1,3-Dichloropropane
Concen: 53.198 ug/l
RT: 9.35 min Scan# 1356
Delta R.T. 0.00 min
Lab File: VX017219.D
Acq: 07 Jul 2020 21:33

Tgt Ion: 76 Resp: 271977

Ion	Ratio	Lower	Upper
76	100		
78	33.1	25.9	38.9

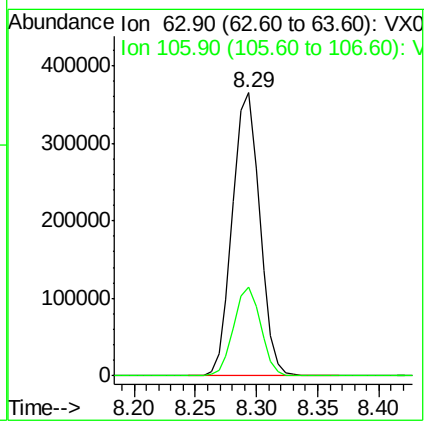




#58
2-Chloroethyl Vinyl ether
Concen: 263.676 ug/l
RT: 8.29 min Scan# 1182
Delta R.T. 0.00 min
Lab File: VX017219.D
Acq: 07 Jul 2020 21:33

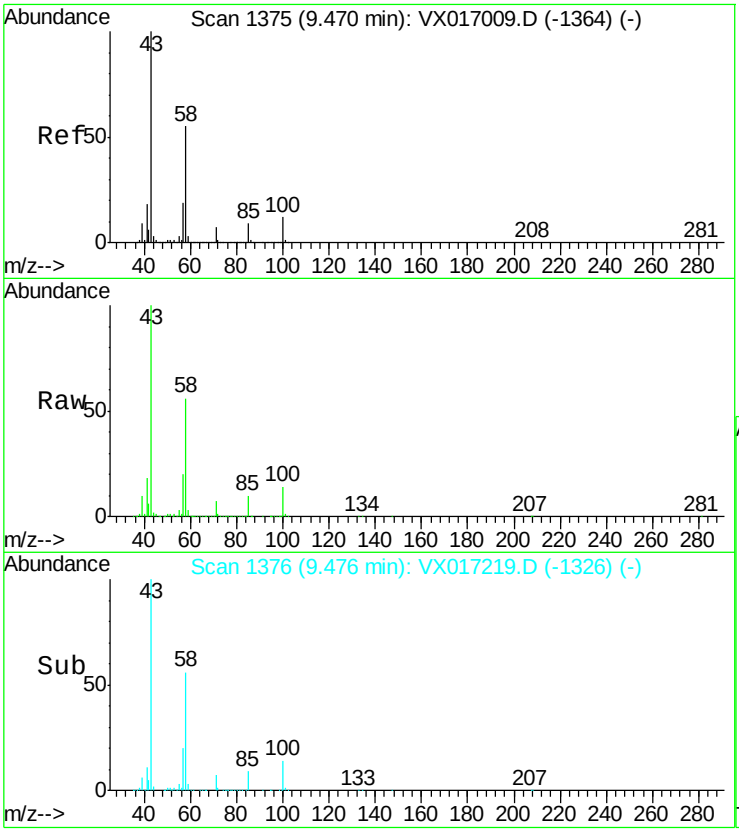
Tgt Ion: 63 Resp: 564341

Ion	Ratio	Lower	Upper
63	100		
106	30.9	24.0	36.0



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

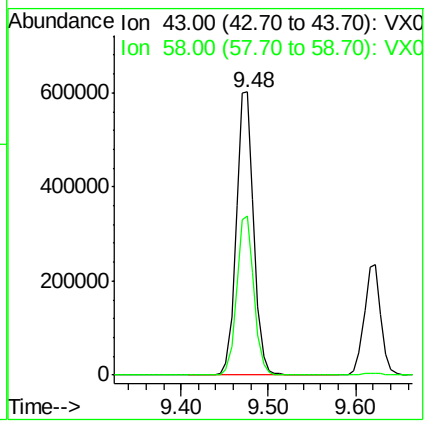
Manual Integrations APPROVED
MMDadoda
7/8/2020 9:31:49 AM

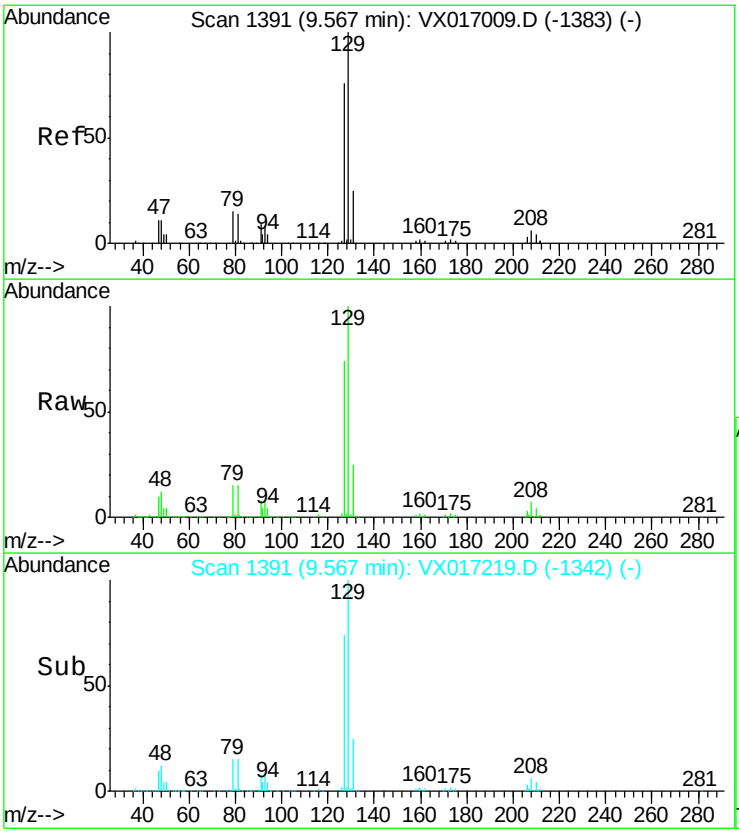


#59
2-Hexanone
Concen: 283.662 ug/l
RT: 9.48 min Scan# 1376
Delta R.T. 0.01 min
Lab File: VX017219.D
Acq: 07 Jul 2020 21:33

Tgt Ion: 43 Resp: 839333

Ion	Ratio	Lower	Upper
43	100		
58	55.6	27.9	83.6

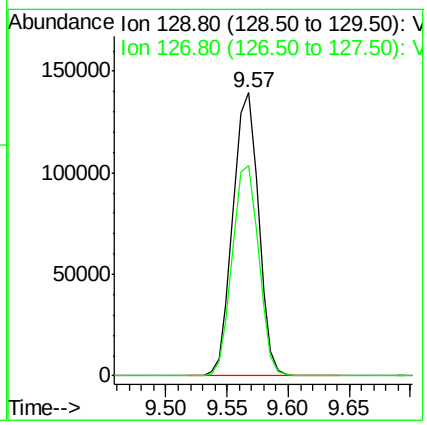




#60
Dibromochloromethane
Concen: 57.721 ug/l
RT: 9.57 min Scan# 1391
Delta R.T. 0.00 min
Lab File: VX017219.D
Acq: 07 Jul 2020 21:33

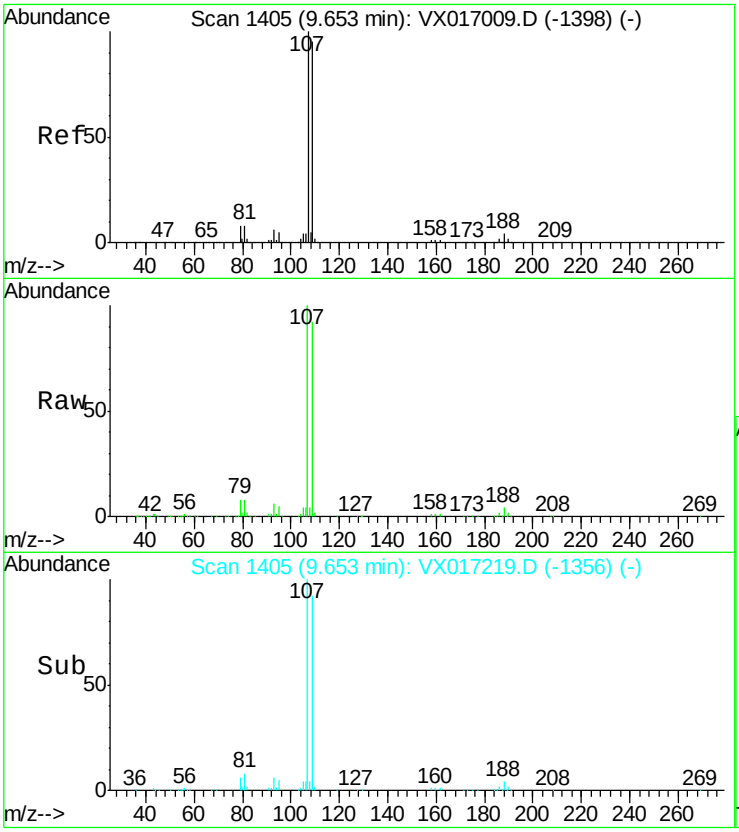
Tgt Ion:129 Resp: 202555

Ion	Ratio	Lower	Upper
129	100		
127	76.7	38.9	116.7



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

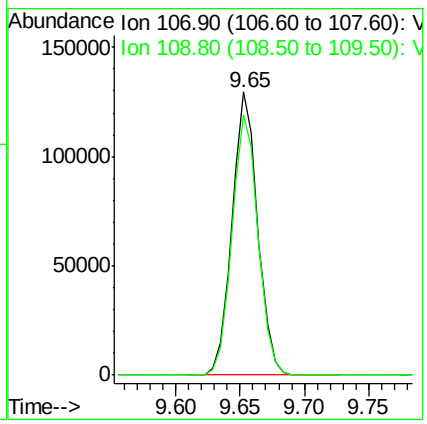
Manual Integrations APPROVED
MMDadoda
7/8/2020 9:31:49 AM

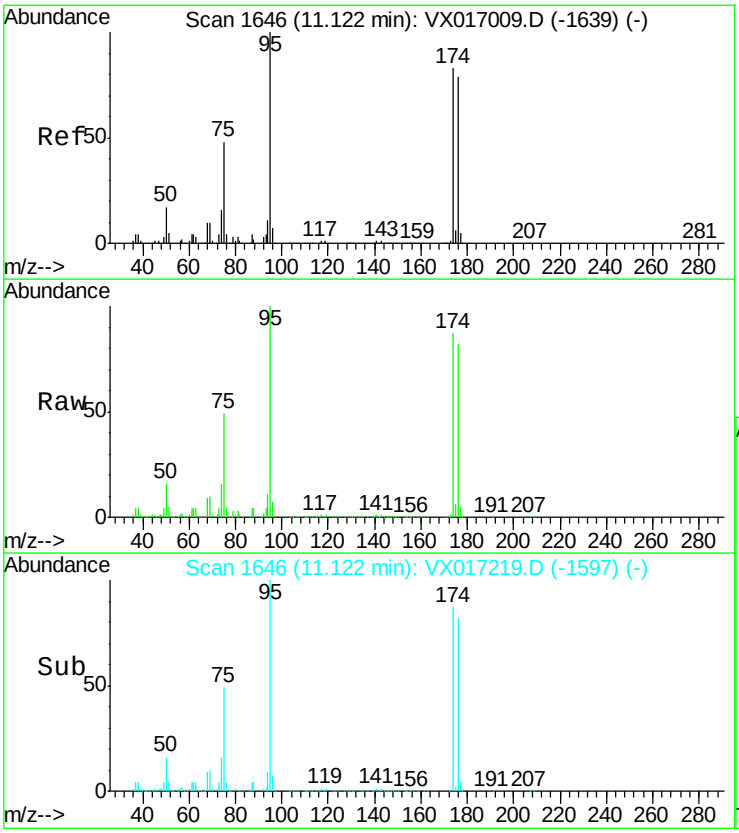


#61
1,2-Dibromoethane
Concen: 55.359 ug/l
RT: 9.65 min Scan# 1405
Delta R.T. 0.00 min
Lab File: VX017219.D
Acq: 07 Jul 2020 21:33

Tgt Ion:107 Resp: 179789

Ion	Ratio	Lower	Upper
107	100		
109	93.5	75.8	113.8

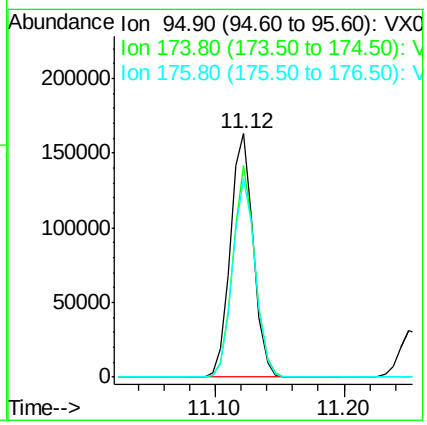




#62
4-Bromofluorobenzene
Concen: 52.129 ug/l
RT: 11.12 min Scan# 1646
Delta R.T. 0.00 min
Lab File: VX017219.D
Acq: 07 Jul 2020 21:33

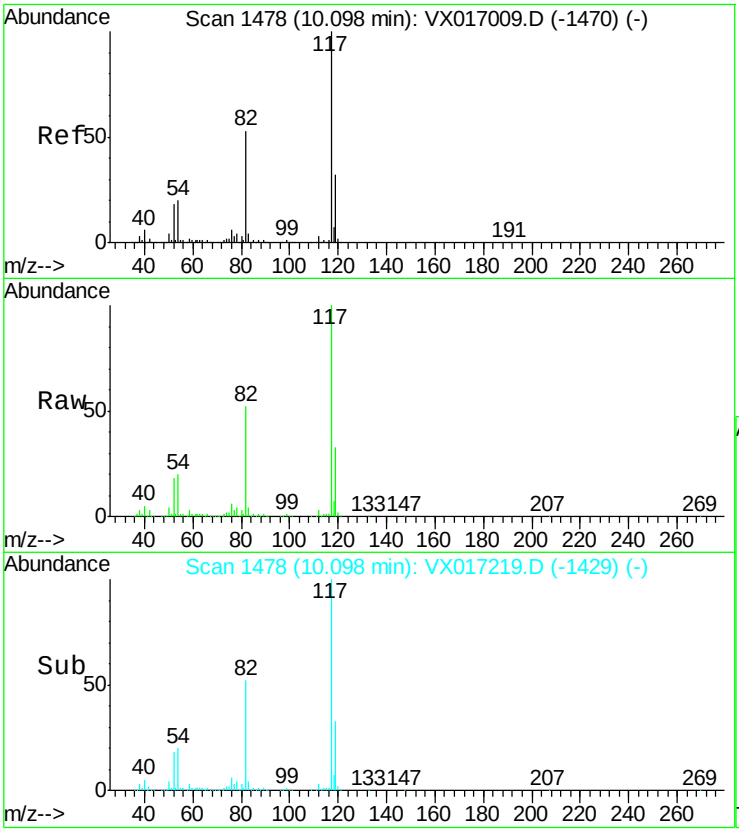
Tgt Ion: 95 Resp: 203312

Ion	Ratio	Lower	Upper
95	100		
174	83.7	0.0	164.0
176	80.6	0.0	157.6



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

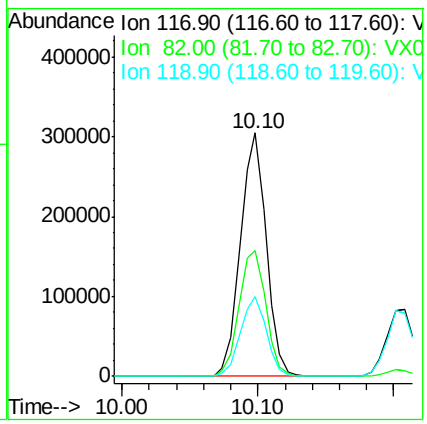
Manual Integrations APPROVED
MMDadoda
7/8/2020 9:31:49 AM

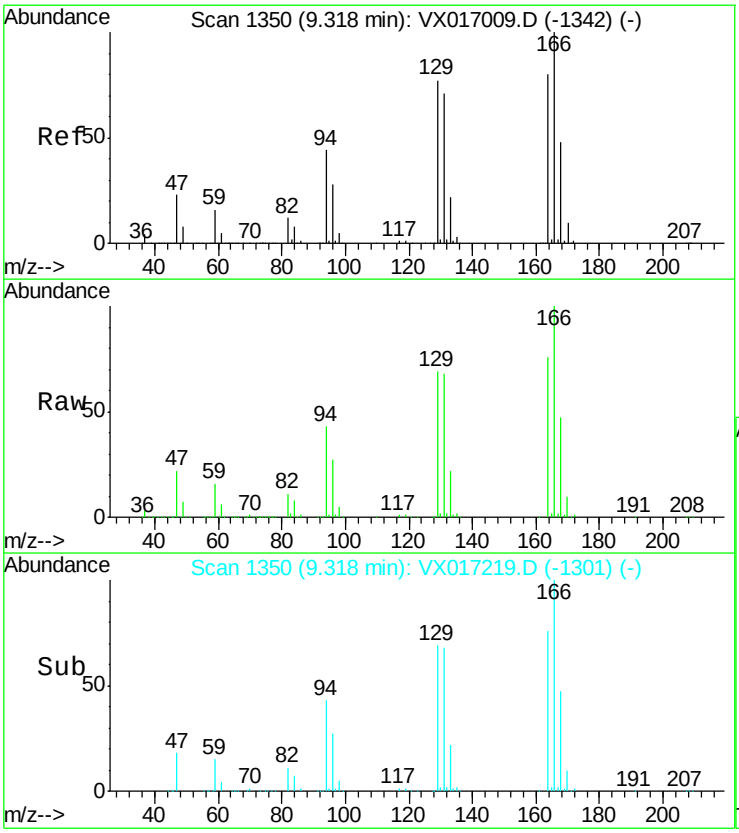


#63
Chlorobenzene-d5
Concen: 50.000 ug/l
RT: 10.10 min Scan# 1478
Delta R.T. 0.00 min
Lab File: VX017219.D
Acq: 07 Jul 2020 21:33

Tgt Ion:117 Resp: 403331

Ion	Ratio	Lower	Upper
117	100		
82	51.8	42.6	63.8
119	32.7	25.4	38.2

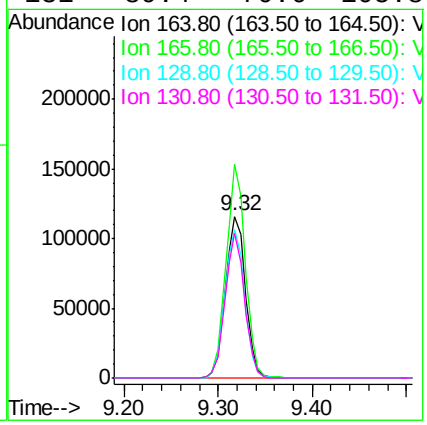




#64
Tetrachloroethene
Concen: 52.449 ug/l
RT: 9.32 min Scan# 1350
Delta R.T. 0.00 min
Lab File: VX017219.D
Acq: 07 Jul 2020 21:33

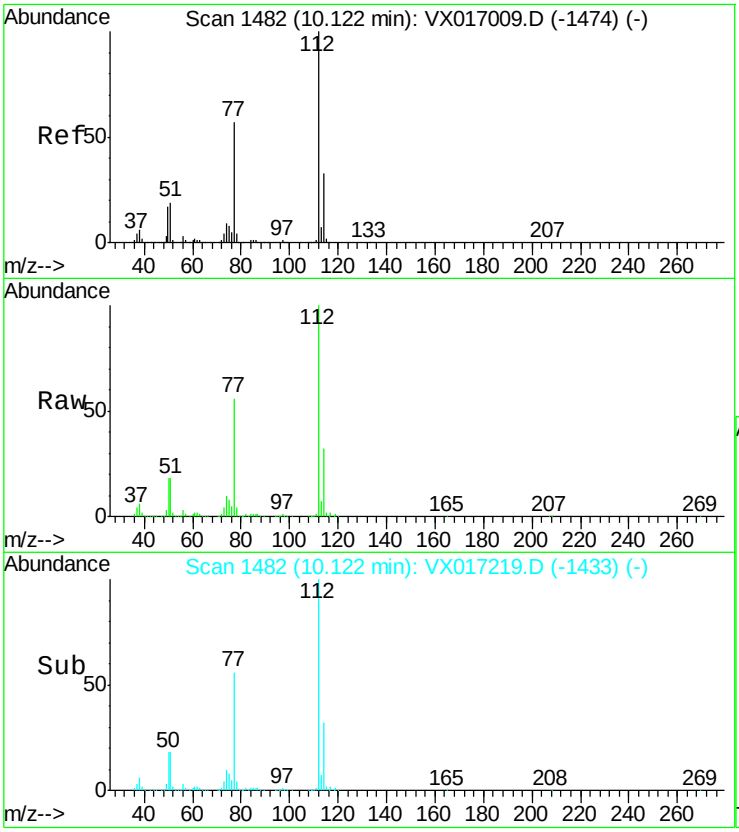
Tgt Ion:164 Resp: 170729

Ion	Ratio	Lower	Upper
164	100		
166	132.2	99.4	149.0
129	91.6	76.3	114.5
131	89.4	70.6	105.8



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

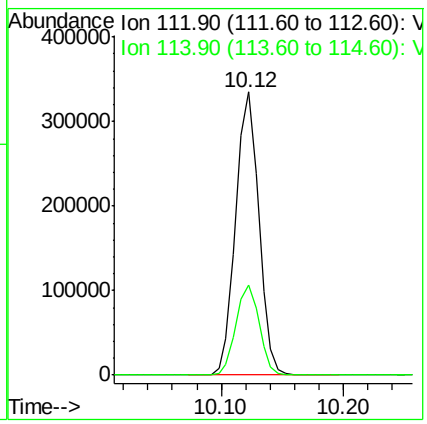
Manual Integrations APPROVED
MMDadoda
7/8/2020 9:31:49 AM

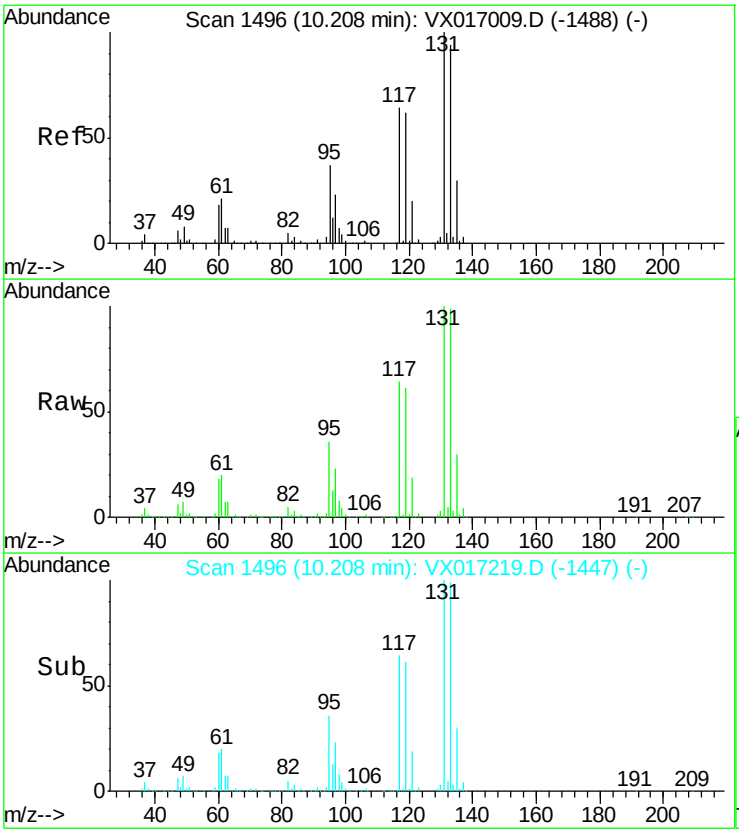


#65
Chlorobenzene
Concen: 52.540 ug/l
RT: 10.12 min Scan# 1482
Delta R.T. 0.00 min
Lab File: VX017219.D
Acq: 07 Jul 2020 21:33

Tgt Ion:112 Resp: 437364

Ion	Ratio	Lower	Upper
112	100		
114	31.9	26.2	39.4

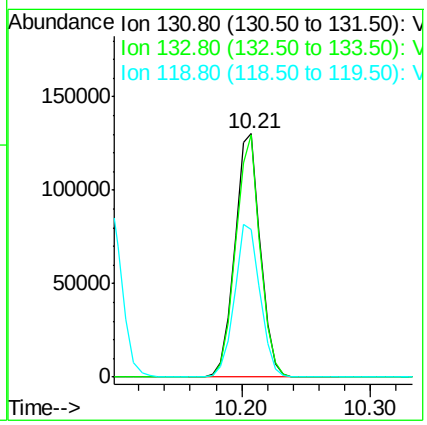




#66
1,1,1,2-Tetrachloroethane
Concen: 55.741 ug/l
RT: 10.21 min Scan# 1496
Delta R.T. 0.00 min
Lab File: VX017219.D
Acq: 07 Jul 2020 21:33

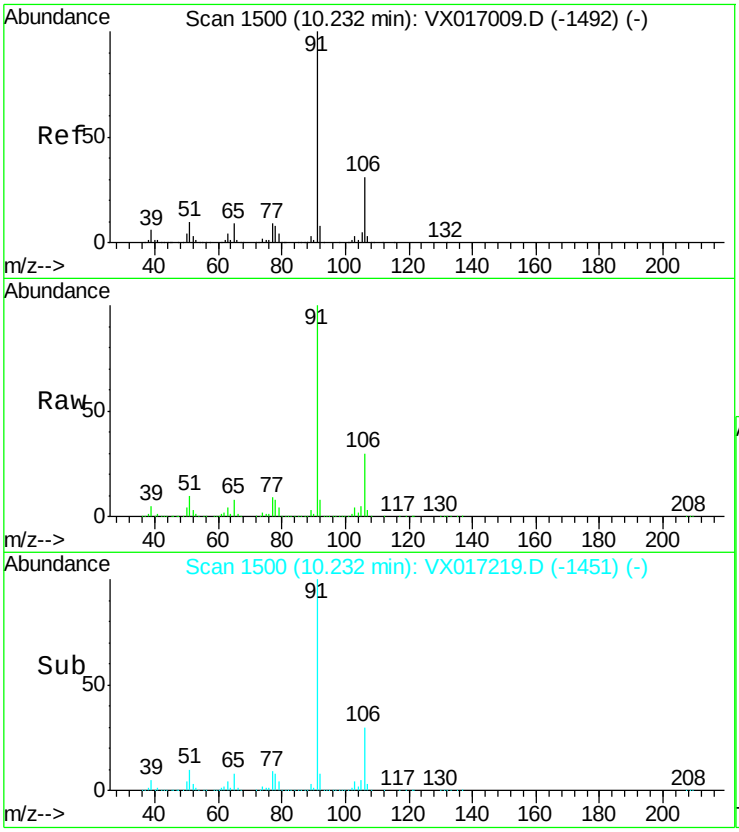
Tgt Ion:131 Resp: 178826

Ion	Ratio	Lower	Upper
131	100		
133	95.6	47.3	141.9
119	62.9	31.9	95.5



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

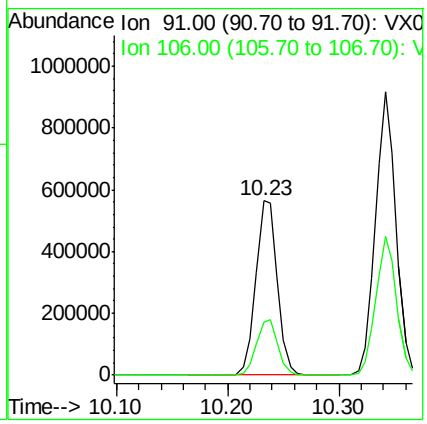
Manual Integrations APPROVED
MMDadoda
7/8/2020 9:31:49 AM

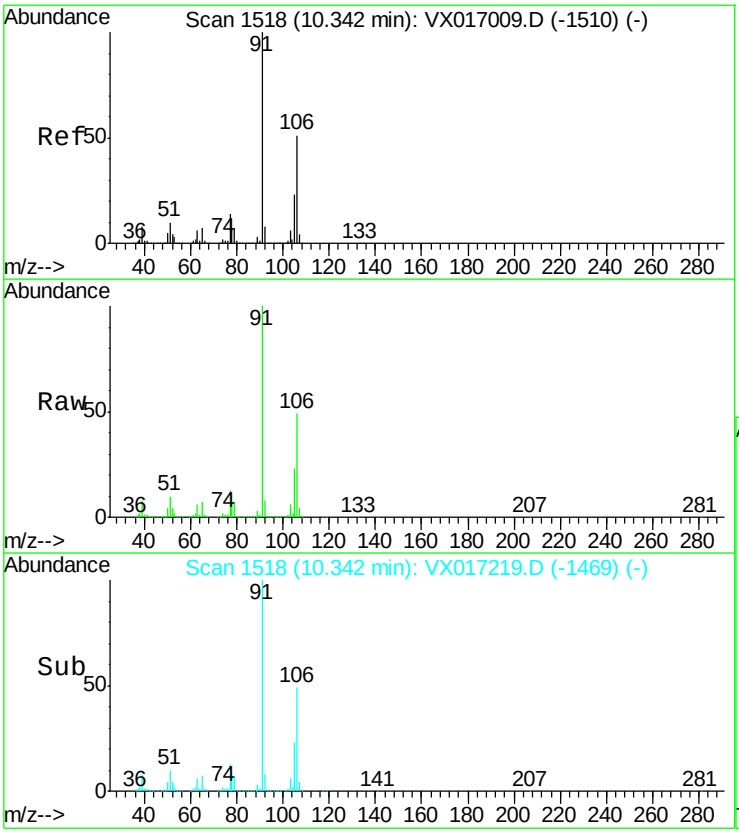


#67
Ethyl Benzene
Concen: 54.583 ug/l
RT: 10.23 min Scan# 1500
Delta R.T. 0.00 min
Lab File: VX017219.D
Acq: 07 Jul 2020 21:33

Tgt Ion: 91 Resp: 758812

Ion	Ratio	Lower	Upper
91	100		
106	30.4	24.7	37.1

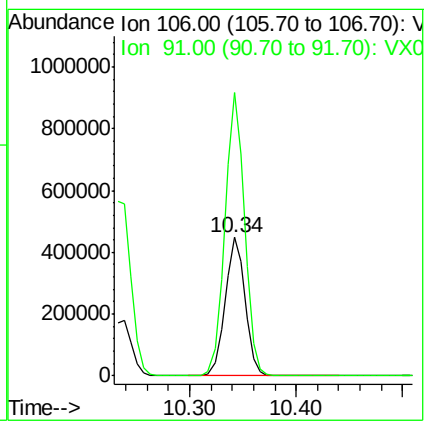




#68
m/p-Xylenes
Concen: 110.061 ug/l
RT: 10.34 min Scan# 1518
Delta R.T. 0.00 min
Lab File: VX017219.D
Acq: 07 Jul 2020 21:33

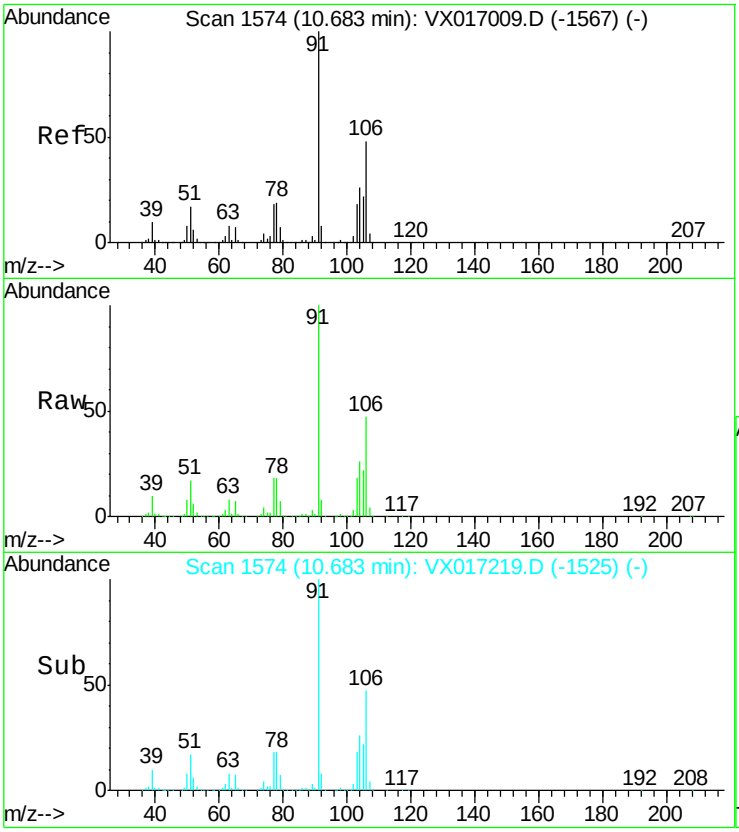
Tgt Ion:106 Resp: 587498

Ion	Ratio	Lower	Upper
106	100		
91	201.2	158.6	238.0



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

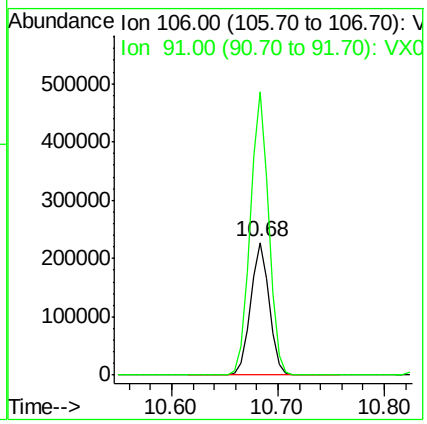
Manual Integrations APPROVED
MMDadoda
7/8/2020 9:31:49 AM

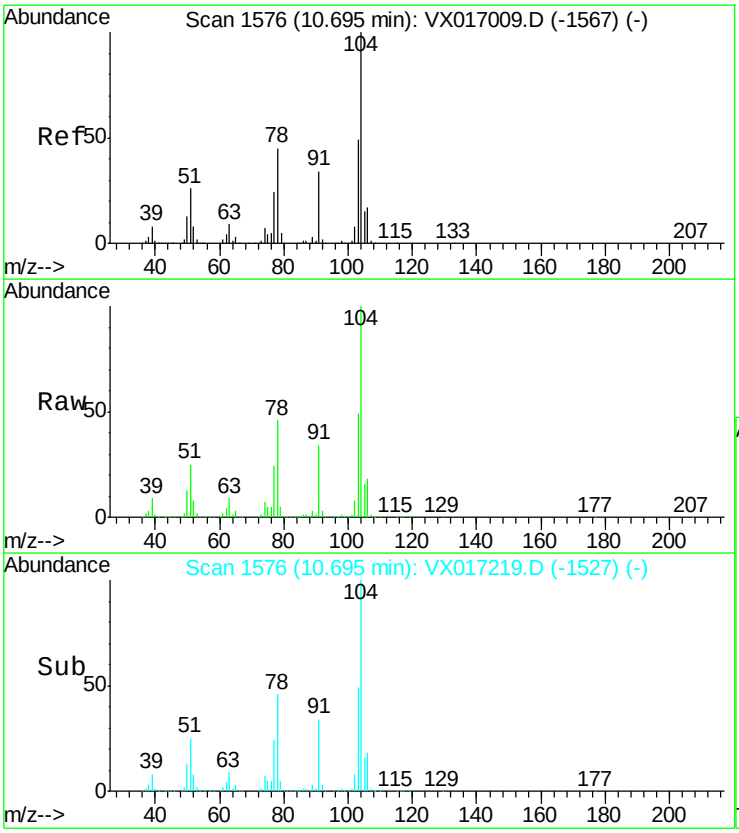


#69
o-Xylene
Concen: 54.874 ug/l
RT: 10.68 min Scan# 1574
Delta R.T. 0.00 min
Lab File: VX017219.D
Acq: 07 Jul 2020 21:33

Tgt Ion:106 Resp: 278648

Ion	Ratio	Lower	Upper
106	100		
91	212.3	105.6	316.7

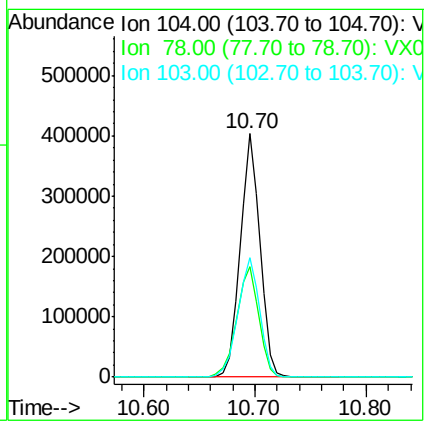




#70
Styrene
Concen: 57.374 ug/l
RT: 10.70 min Scan# 1576
Delta R.T. 0.00 min
Lab File: VX017219.D
Acq: 07 Jul 2020 21:33

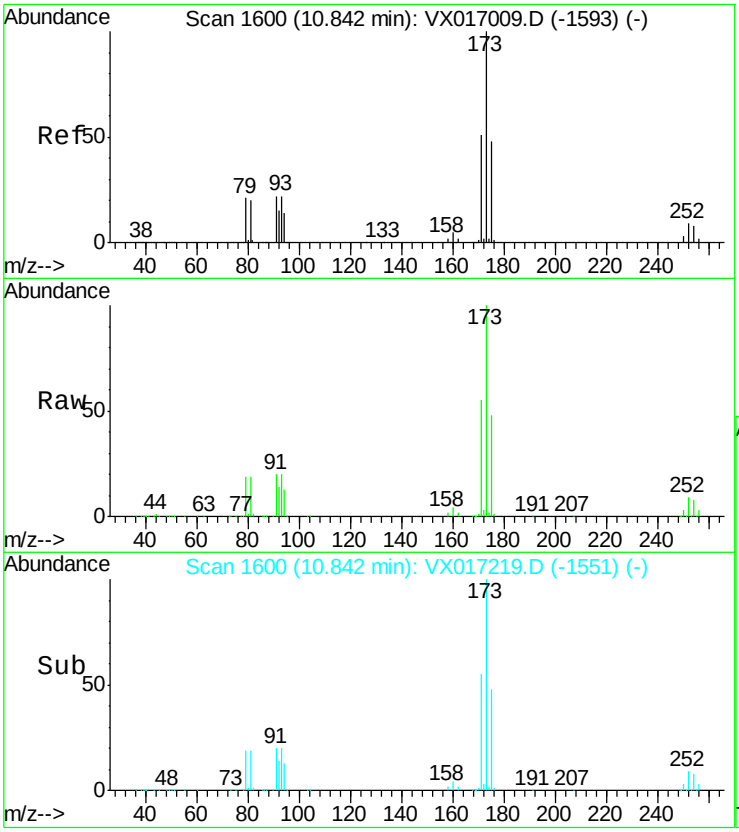
Tgt Ion:104 Resp: 496124

Ion	Ratio	Lower	Upper
104	100		
78	50.8	39.5	59.3
103	54.1	43.0	64.6



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

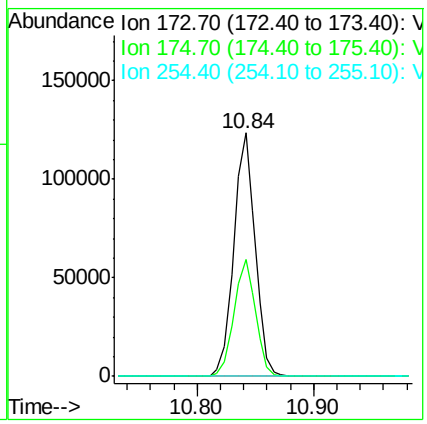
Manual Integrations APPROVED
MMDadoda
7/8/2020 9:31:49 AM

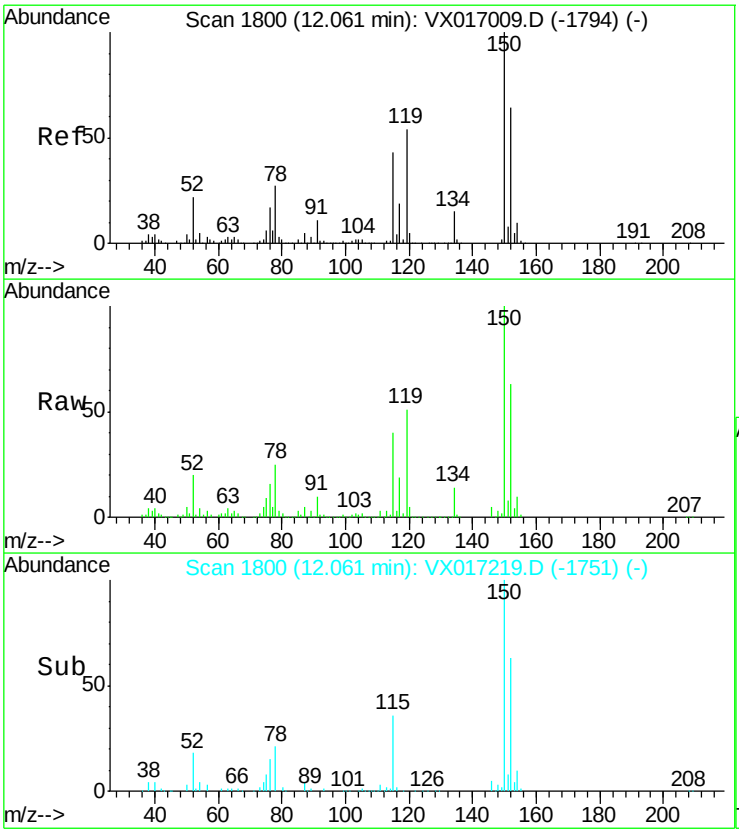


#71
Bromoform
Concen: 61.816 ug/l
RT: 10.84 min Scan# 1600
Delta R.T. 0.00 min
Lab File: VX017219.D
Acq: 07 Jul 2020 21:33

Tgt Ion:173 Resp: 157262

Ion	Ratio	Lower	Upper
173	100		
175	48.5	24.5	73.5
254	0.1	0.1	0.1

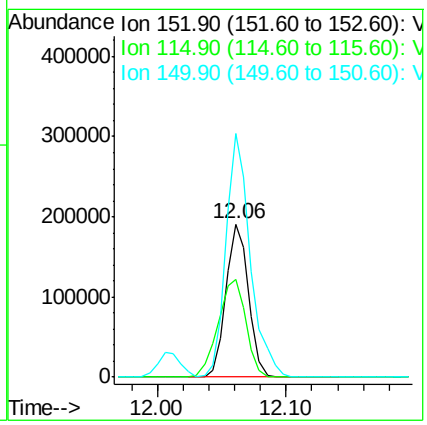




#72
1,4-Dichlorobenzene-d4
Concen: 50.000 ug/l
RT: 12.06 min Scan# 1800
Delta R.T. 0.00 min
Lab File: VX017219.D
Acq: 07 Jul 2020 21:33

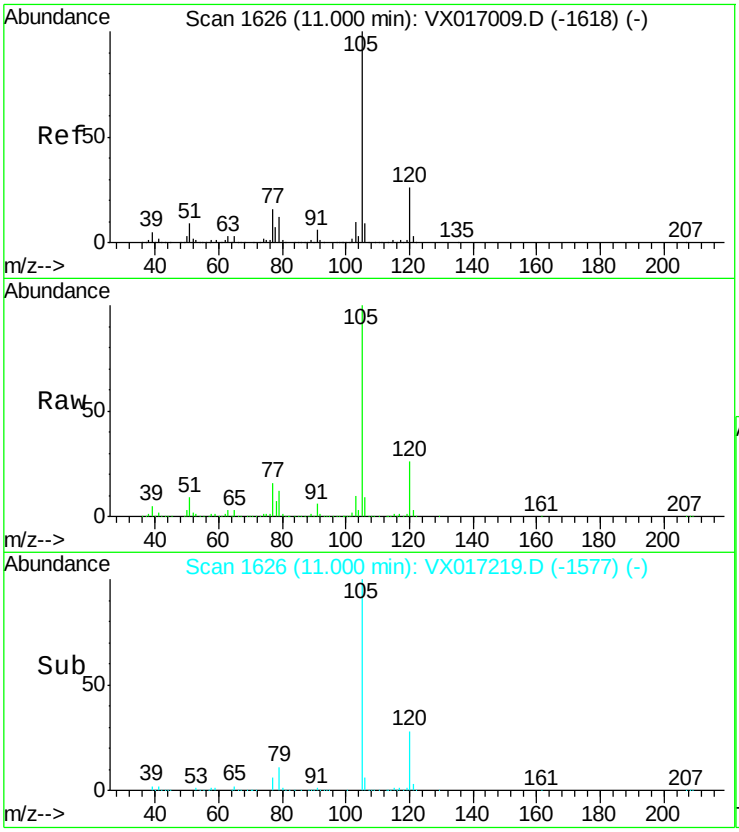
Tgt Ion:152 Resp: 235111

Ion	Ratio	Lower	Upper
152	100		
115	79.3	40.9	122.7
150	171.4	0.0	351.6



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

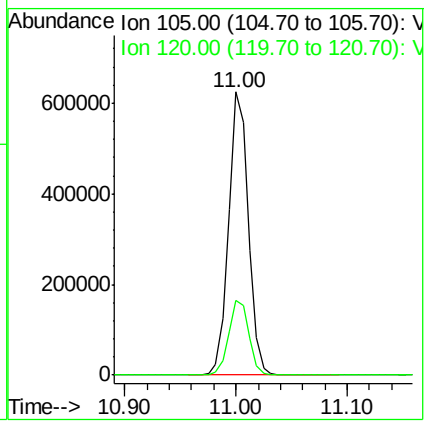
Manual Integrations APPROVED
MMDadoda
7/8/2020 9:31:49 AM

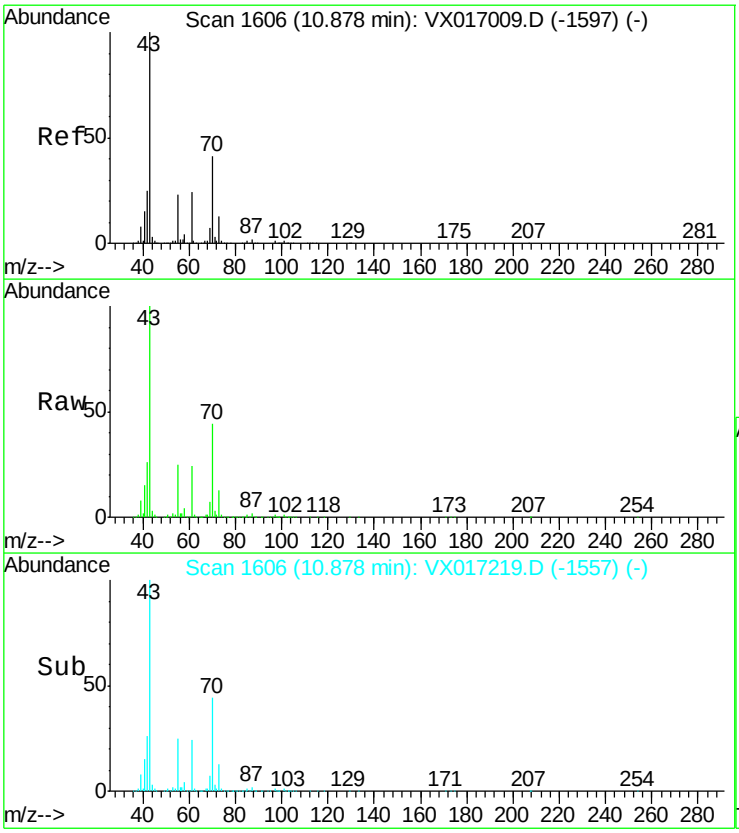


#73
Isopropylbenzene
Concen: 49.371 ug/l
RT: 11.00 min Scan# 1626
Delta R.T. 0.00 min
Lab File: VX017219.D
Acq: 07 Jul 2020 21:33

Tgt Ion:105 Resp: 760319

Ion	Ratio	Lower	Upper
105	100		
120	27.2	13.4	40.2

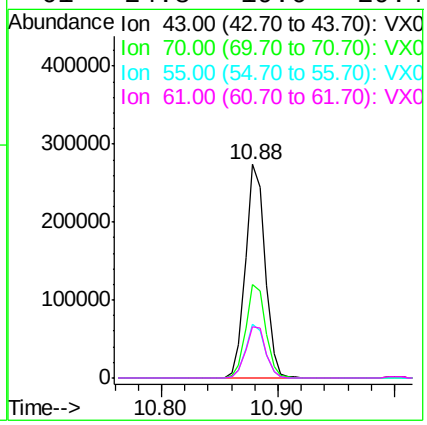




#74
N-amyl acetate
Concen: 49.094 ug/l
RT: 10.88 min Scan# 1606
Delta R.T. 0.00 min
Lab File: VX017219.D
Acq: 07 Jul 2020 21:33

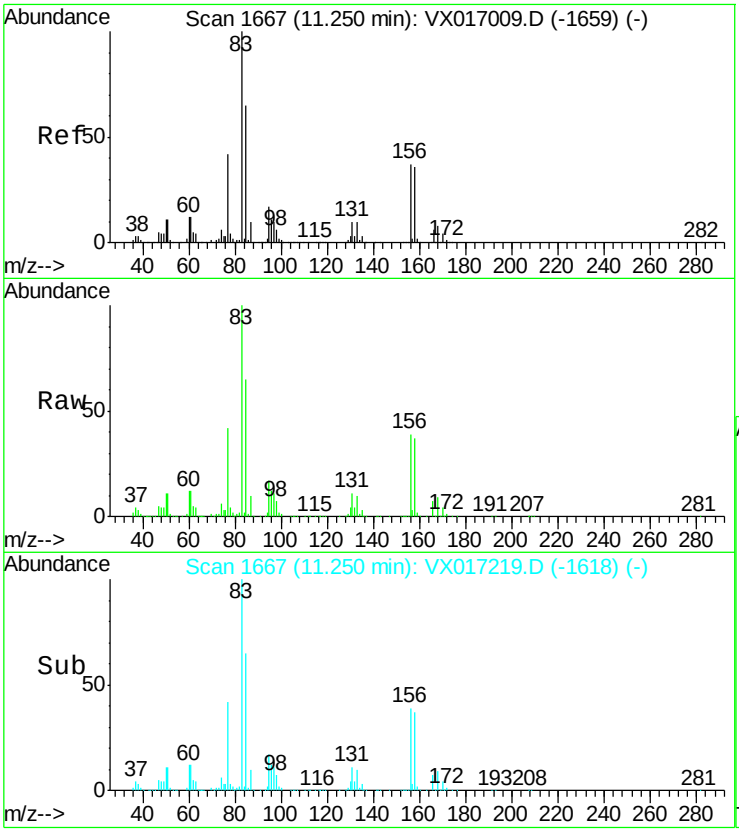
Tgt Ion: 43 Resp: 322603

Ion	Ratio	Lower	Upper
43	100		
70	44.5	34.2	51.2
55	25.0	19.2	28.8
61	24.8	19.6	29.4



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

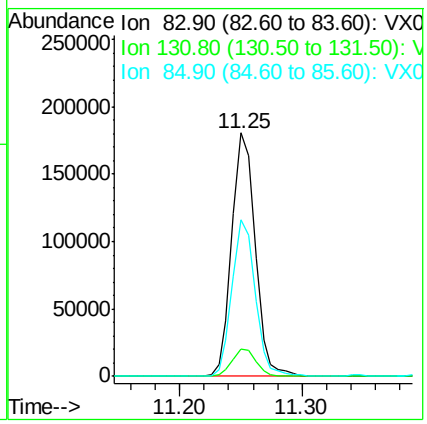
Manual Integrations APPROVED
MMDadoda
7/8/2020 9:31:49 AM

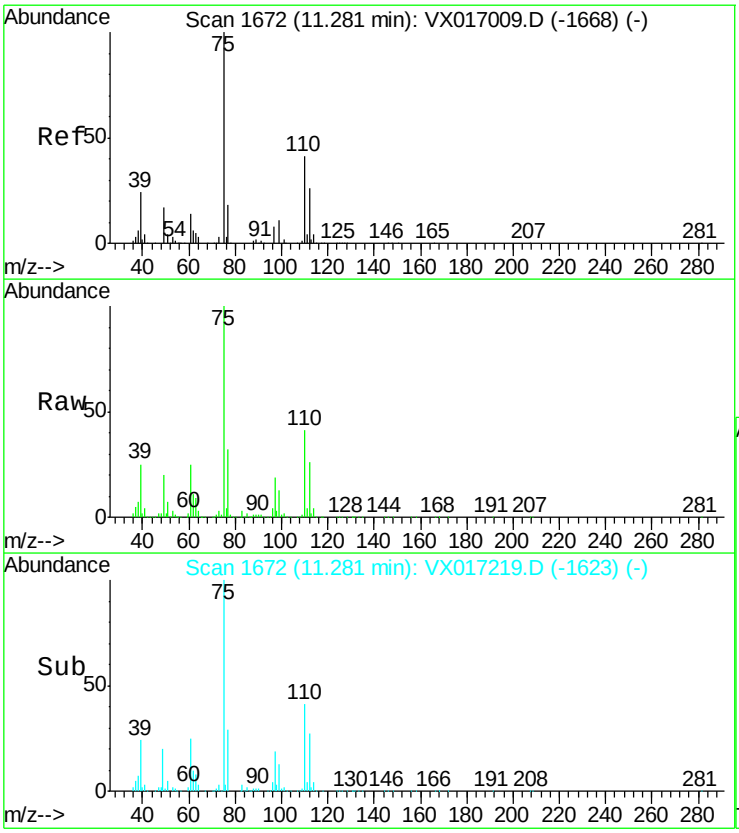


#75
1,1,2,2-Tetrachloroethane
Concen: 49.278 ug/l
RT: 11.25 min Scan# 1667
Delta R.T. 0.00 min
Lab File: VX017219.D
Acq: 07 Jul 2020 21:33

Tgt Ion: 83 Resp: 238711

Ion	Ratio	Lower	Upper
83	100		
131	11.4	5.4	16.2
85	64.1	31.9	95.9

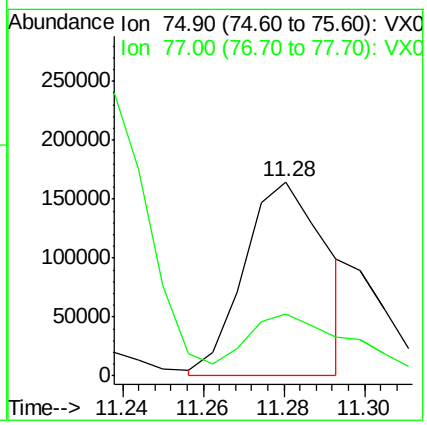




#76
1,2,3-Trichloropropane
Concen: 49.887 ug/l m
RT: 11.28 min Scan# 1672
Delta R.T. 0.00 min
Lab File: VX017219.D
Acq: 07 Jul 2020 21:33

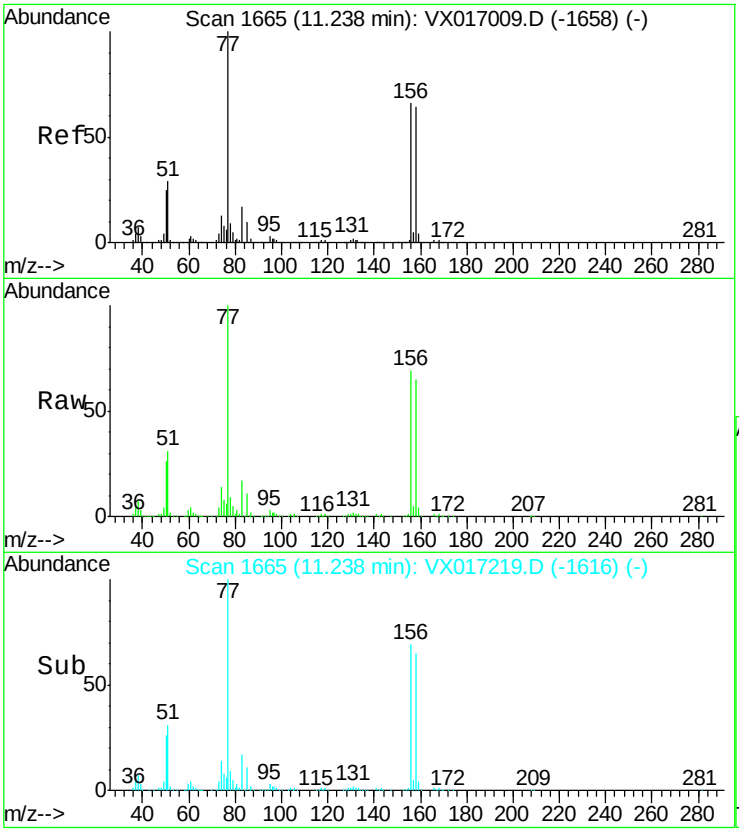
Tgt Ion: 75 Resp: 230642

Ion	Ratio	Lower	Upper
75	100		
77	40.6	20.2	60.6



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

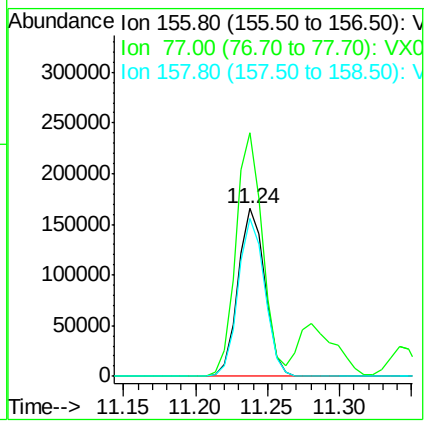
Manual Integrations APPROVED
MMDadoda
7/8/2020 9:31:49 AM

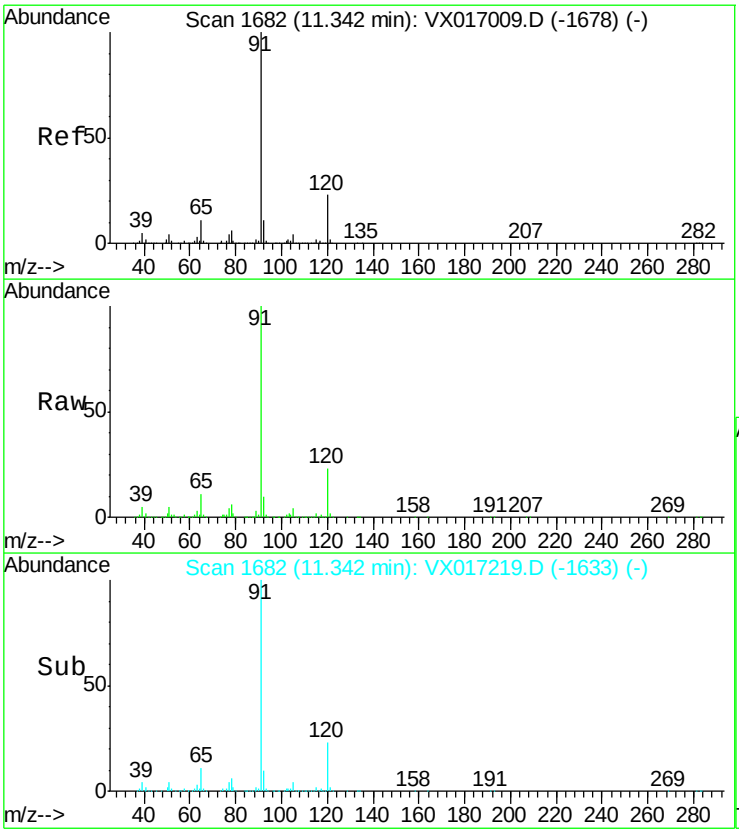


#77
Bromobenzene
Concen: 50.634 ug/l
RT: 11.24 min Scan# 1665
Delta R.T. 0.00 min
Lab File: VX017219.D
Acq: 07 Jul 2020 21:33

Tgt Ion:156 Resp: 214309

Ion	Ratio	Lower	Upper
156	100		
77	145.1	76.9	230.7
158	93.5	47.9	143.6

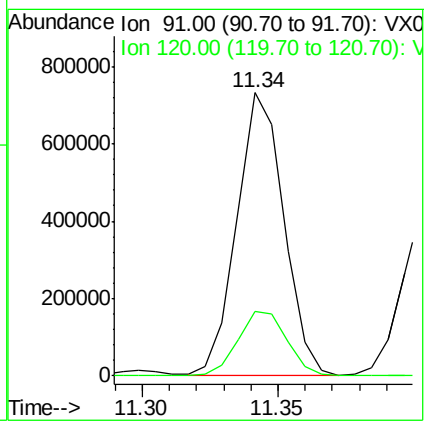




#78
n-propylbenzene
Concen: 49.965 ug/l
RT: 11.34 min Scan# 1682
Delta R.T. 0.00 min
Lab File: VX017219.D
Acq: 07 Jul 2020 21:33

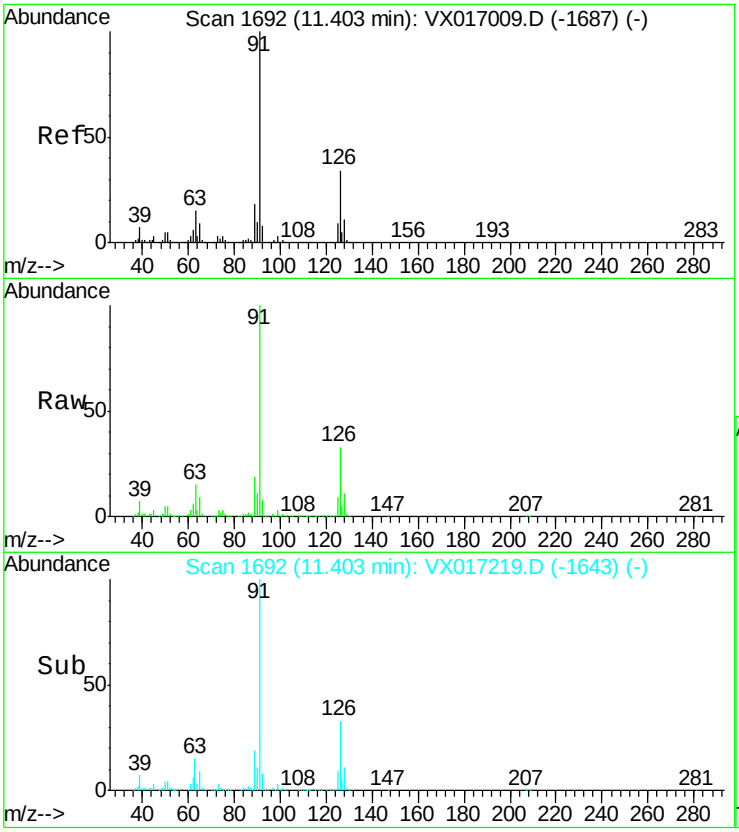
Tgt Ion: 91 Resp: 870135

Ion	Ratio	Lower	Upper
91	100		
120	24.2	11.9	35.9



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

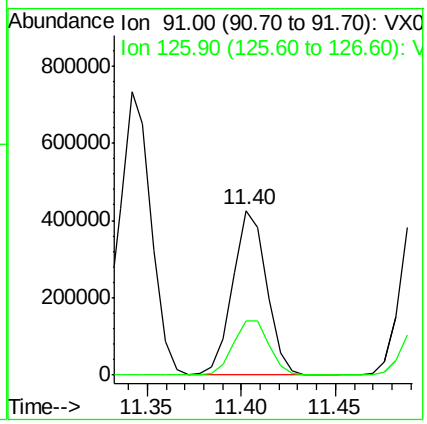
Manual Integrations APPROVED
MMDadoda
7/8/2020 9:31:49 AM

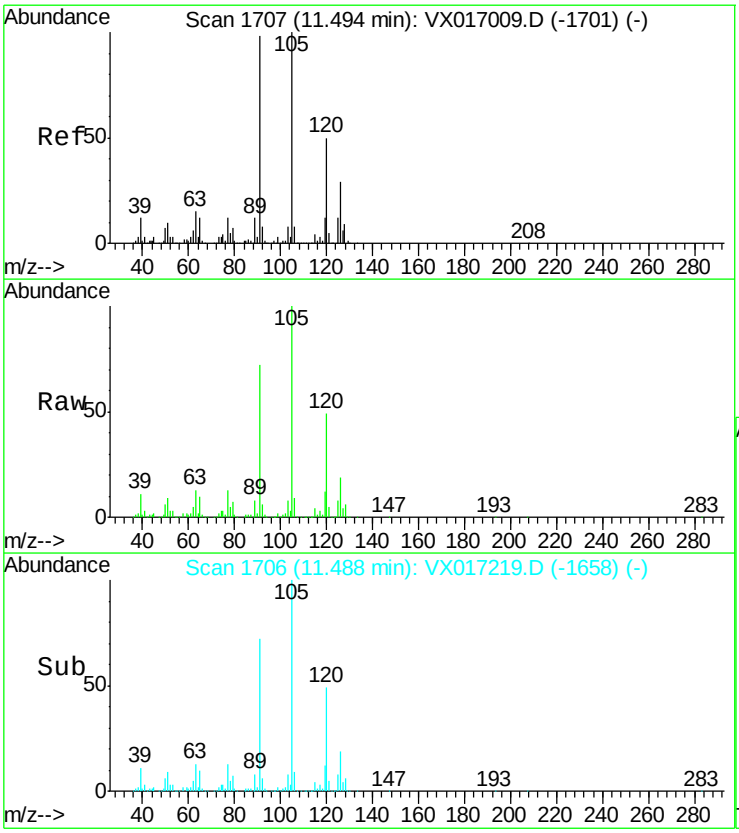


#79
2-Chlorotoluene
Concen: 50.378 ug/l
RT: 11.40 min Scan# 1692
Delta R.T. 0.00 min
Lab File: VX017219.D
Acq: 07 Jul 2020 21:33

Tgt Ion: 91 Resp: 530970

Ion	Ratio	Lower	Upper
91	100		
126	35.1	17.4	52.3

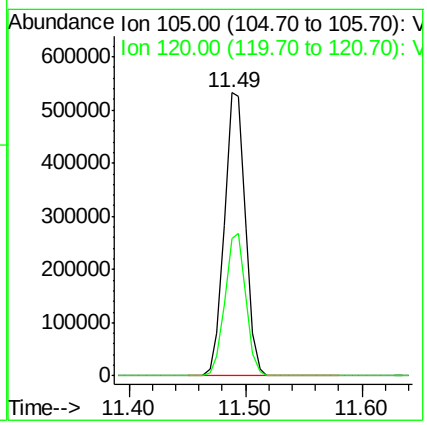


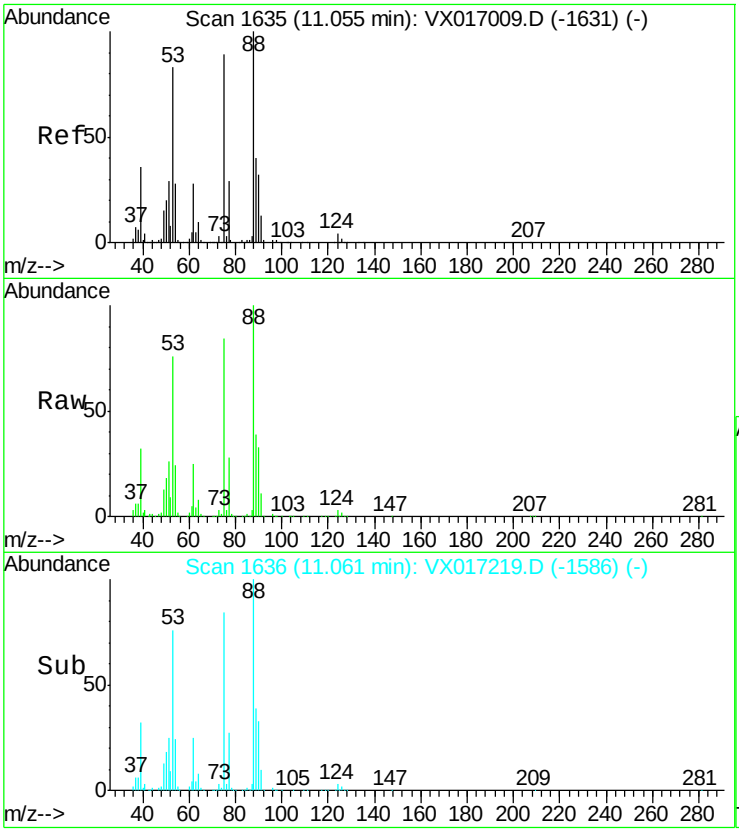


#80
1,3,5-Trimethylbenzene
Concen: 51.750 ug/l
RT: 11.49 min Scan# 1706
Delta R.T. -0.01 min
Lab File: VX017219.D
Acq: 07 Jul 2020 21:33

Tgt Ion:105 Resp: 661053

Ion	Ratio	Lower	Upper
105	100		
120	49.7	24.9	74.6

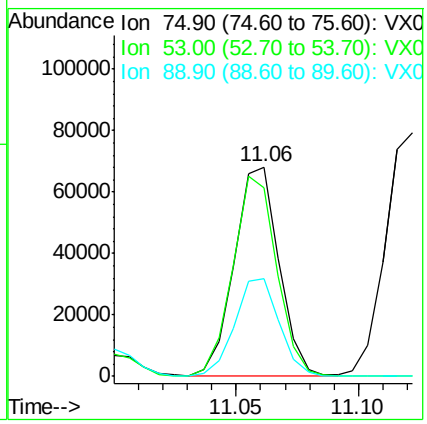




#81
trans-1,4-Dichloro-2-butene
Concen: 48.032 ug/l
RT: 11.06 min Scan# 1636
Delta R.T. 0.01 min
Lab File: VX017219.D
Acq: 07 Jul 2020 21:33

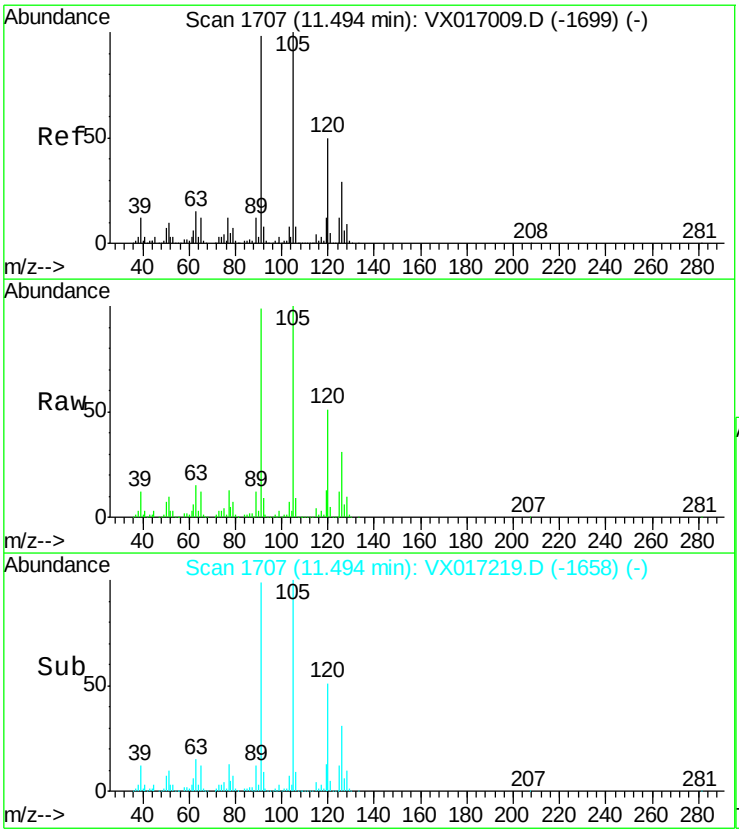
Tgt Ion: 75 Resp: 85753

Ion	Ratio	Lower	Upper
75	100		
53	95.5	72.4	108.6
89	47.0	37.0	55.4



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

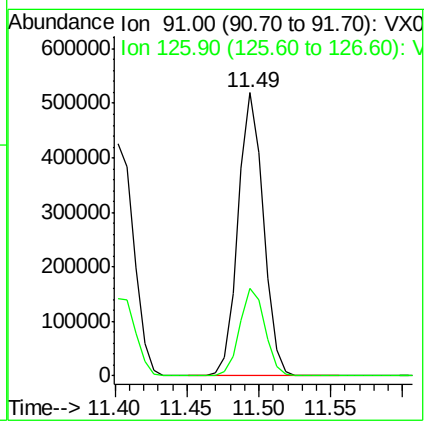
Manual Integrations APPROVED
MMDadoda
7/8/2020 9:31:49 AM

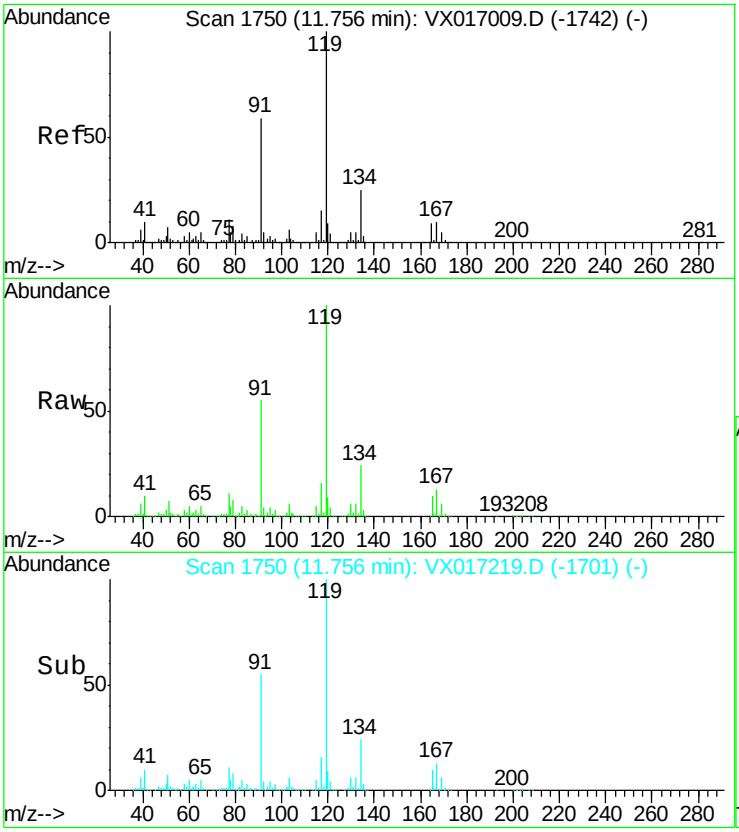


#82
4-Chlorotoluene
Concen: 50.568 ug/l
RT: 11.49 min Scan# 1707
Delta R.T. 0.00 min
Lab File: VX017219.D
Acq: 07 Jul 2020 21:33

Tgt Ion: 91 Resp: 637139

Ion	Ratio	Lower	Upper
91	100		
126	30.9	15.2	45.5

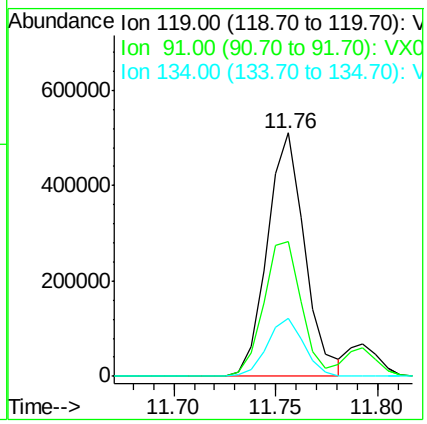




#83
tert-Butylbenzene
Concen: 52.066 ug/l
RT: 11.76 min Scan# 1750
Delta R.T. 0.00 min
Lab File: VX017219.D
Acq: 07 Jul 2020 21:33

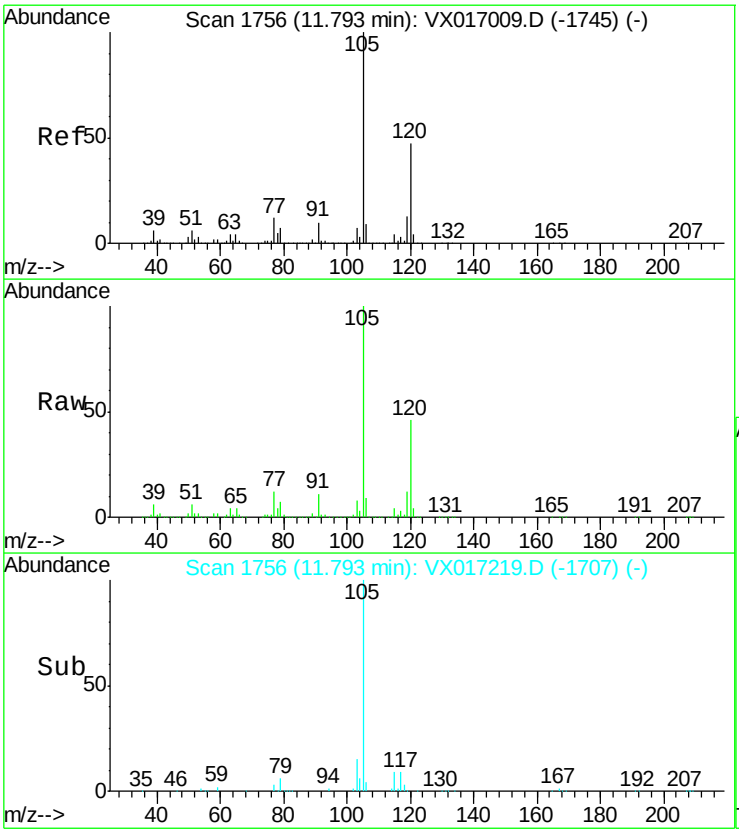
Tgt Ion:119 Resp: 652887

Ion	Ratio	Lower	Upper
119	100		
91	55.7	28.3	84.9
134	23.2	11.7	35.1



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

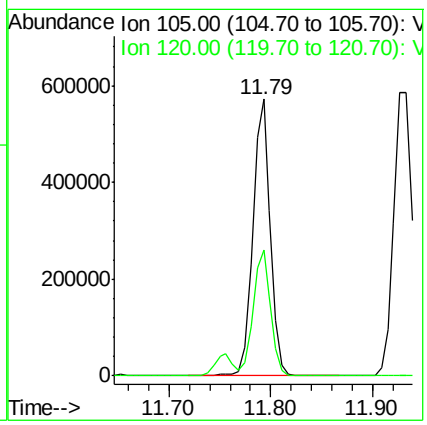
Manual Integrations APPROVED
MMDadoda
7/8/2020 9:31:49 AM



#84
1,2,4-Trimethylbenzene
Concen: 52.579 ug/l
RT: 11.79 min Scan# 1756
Delta R.T. 0.00 min
Lab File: VX017219.D
Acq: 07 Jul 2020 21:33

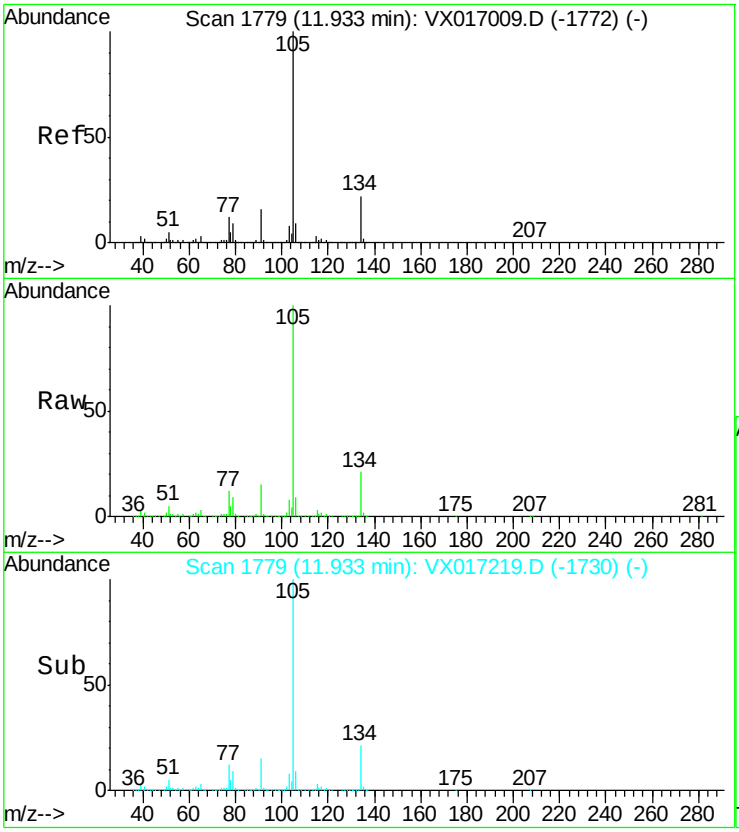
Tgt Ion:105 Resp: 681386

Ion	Ratio	Lower	Upper
105	100		
120	45.5	22.9	68.5



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

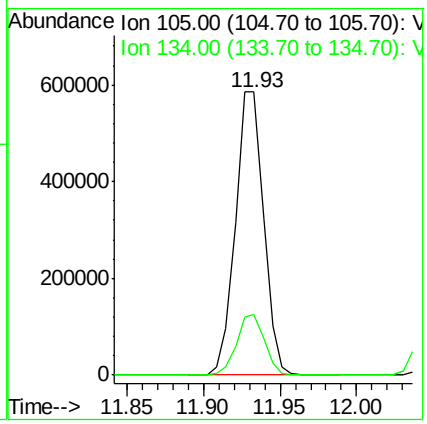
Manual Integrations APPROVED
MMDadoda
7/8/2020 9:31:49 AM

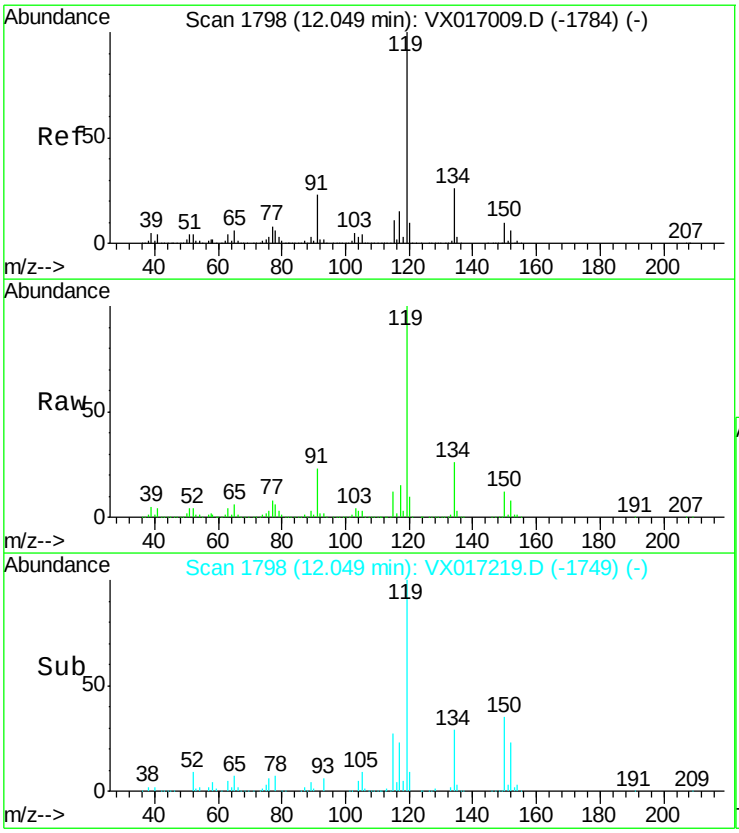


#85
sec-Butylbenzene
Concen: 50.709 ug/l
RT: 11.93 min Scan# 1779
Delta R.T. 0.00 min
Lab File: VX017219.D
Acq: 07 Jul 2020 21:33

Tgt Ion:105 Resp: 747440

Ion	Ratio	Lower	Upper
105	100		
134	21.1	10.5	31.6

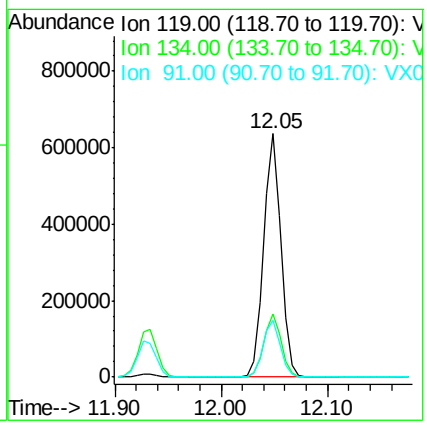




#86
p-Isopropyltoluene
Concen: 52.754 ug/l
RT: 12.05 min Scan# 1798
Delta R.T. 0.00 min
Lab File: VX017219.D
Acq: 07 Jul 2020 21:33

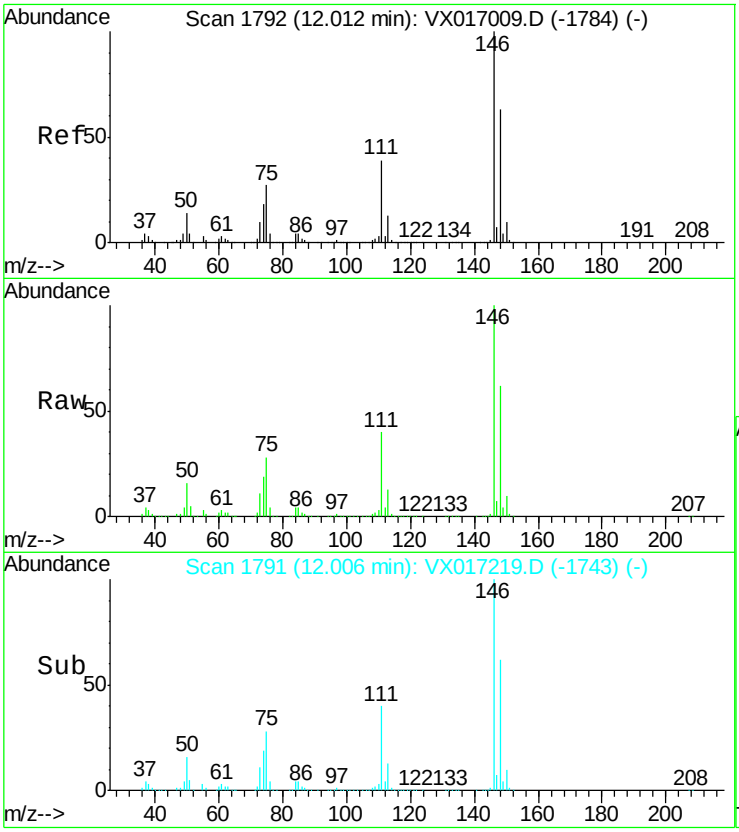
Tgt Ion:119 Resp: 723871

Ion	Ratio	Lower	Upper
119	100		
134	26.2	13.2	39.5
91	23.5	11.8	35.4



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

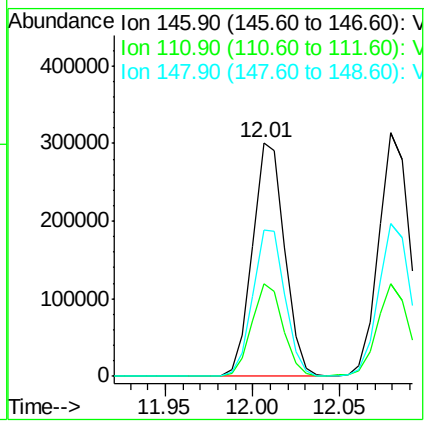
Manual Integrations APPROVED
MMDadoda
7/8/2020 9:31:49 AM

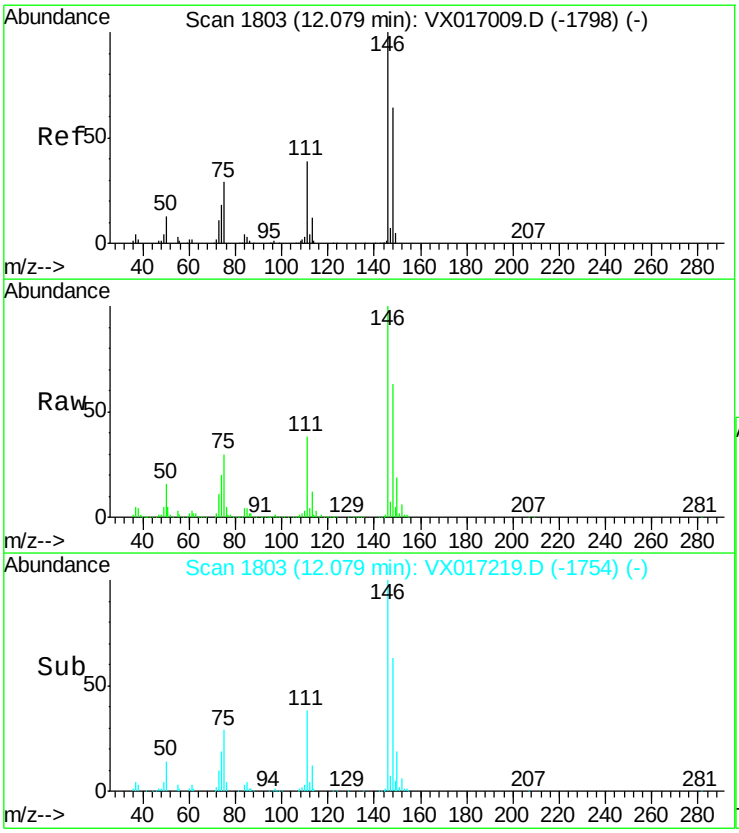


#87
1,3-Dichlorobenzene
Concen: 50.069 ug/l
RT: 12.01 min Scan# 1791
Delta R.T. -0.01 min
Lab File: VX017219.D
Acq: 07 Jul 2020 21:33

Tgt Ion:146 Resp: 384882

Ion	Ratio	Lower	Upper
146	100		
111	39.0	20.4	61.2
148	63.1	32.5	97.5

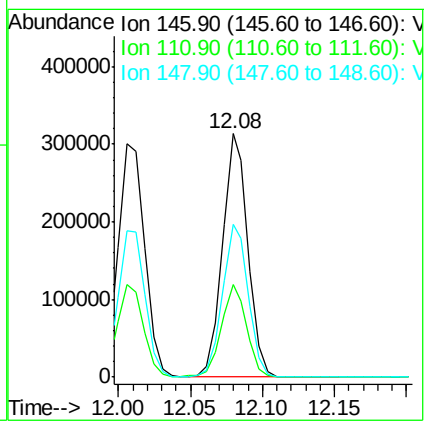




#88
1,4-Dichlorobenzene
Concen: 53.518 ug/l
RT: 12.08 min Scan# 1803
Delta R.T. 0.00 min
Lab File: VX017219.D
Acq: 07 Jul 2020 21:33

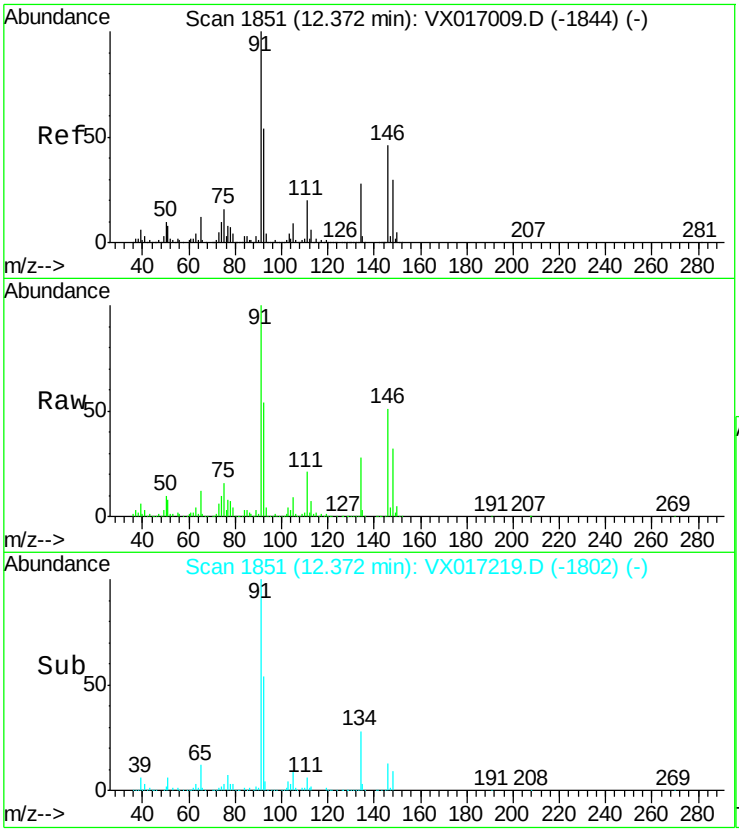
Tgt Ion:146 Resp: 387868

Ion	Ratio	Lower	Upper
146	100		
111	38.0	19.5	58.5
148	63.8	31.9	95.7



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

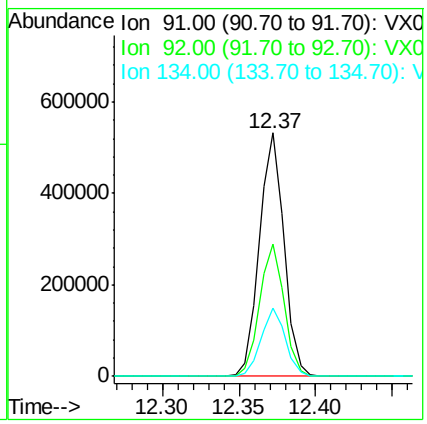
Manual Integrations APPROVED
MMDadoda
7/8/2020 9:31:49 AM

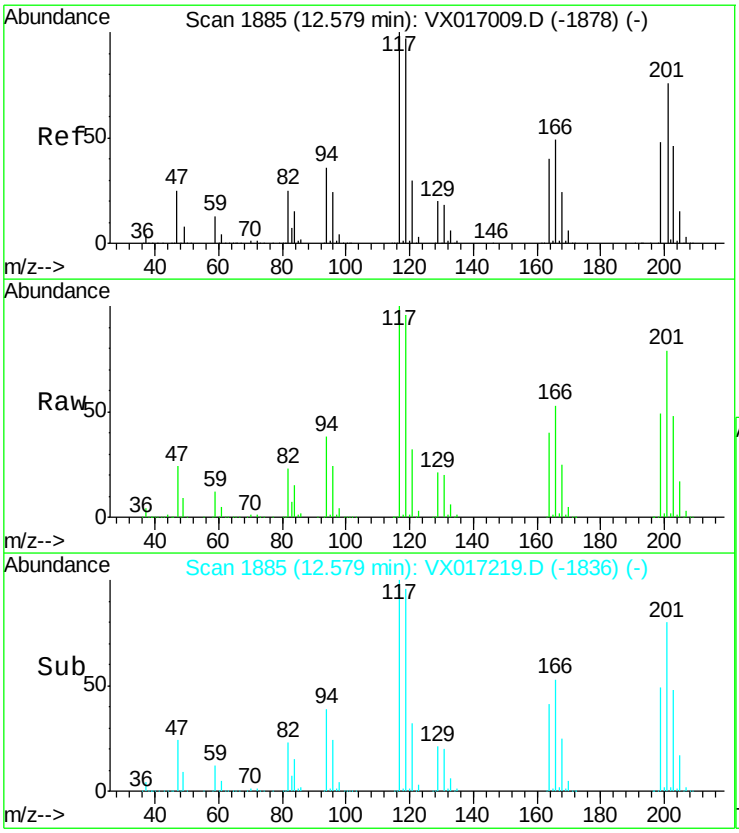


#89
n-Butylbenzene
Concen: 48.857 ug/l
RT: 12.37 min Scan# 1851
Delta R.T. 0.00 min
Lab File: VX017219.D
Acq: 07 Jul 2020 21:33

Tgt Ion: 91 Resp: 598597

Ion	Ratio	Lower	Upper
91	100		
92	54.2	27.2	81.6
134	27.5	13.6	40.7

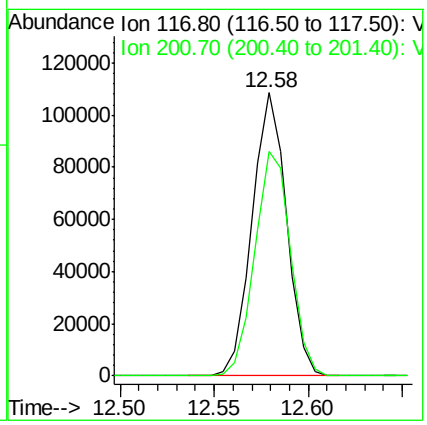




#90
Hexachloroethane
Concen: 50.914 ug/l
RT: 12.58 min Scan# 1885
Delta R.T. 0.00 min
Lab File: VX017219.D
Acq: 07 Jul 2020 21:33

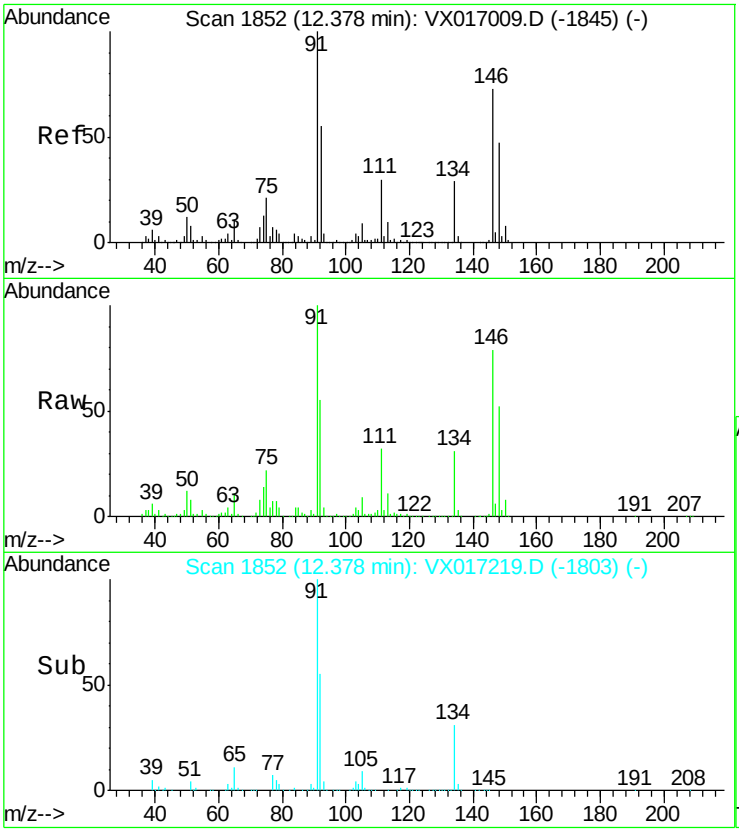
Tgt Ion:117 Resp: 137770

Ion	Ratio	Lower	Upper
117	100		
201	81.9	39.4	118.2



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

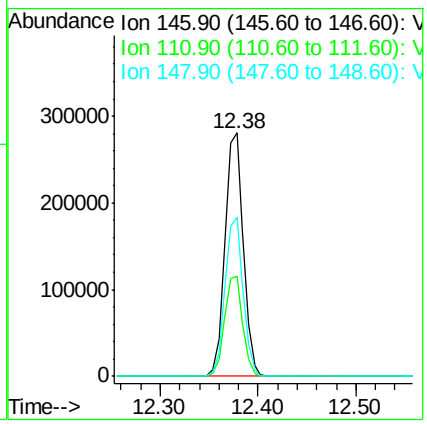
Manual Integrations APPROVED
MMDadoda
7/8/2020 9:31:49 AM

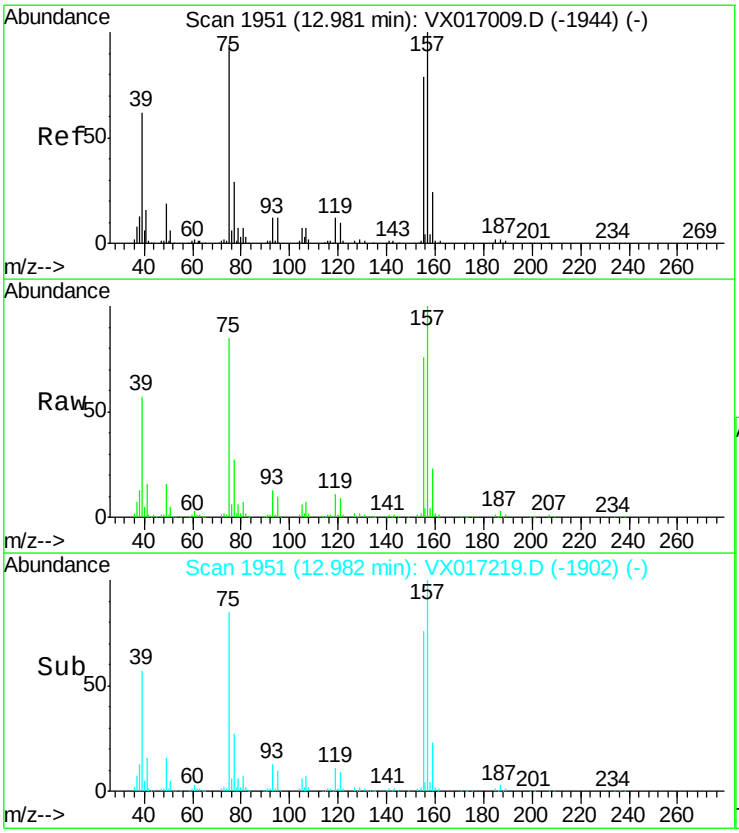


#91
1,2-Dichlorobenzene
Concen: 50.425 ug/l
RT: 12.38 min Scan# 1852
Delta R.T. 0.00 min
Lab File: VX017219.D
Acq: 07 Jul 2020 21:33

Tgt Ion:146 Resp: 362322

Ion	Ratio	Lower	Upper
146	100		
111	40.9	20.6	61.9
148	64.5	32.4	97.2

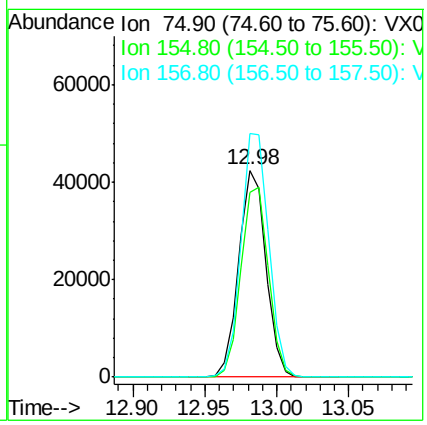


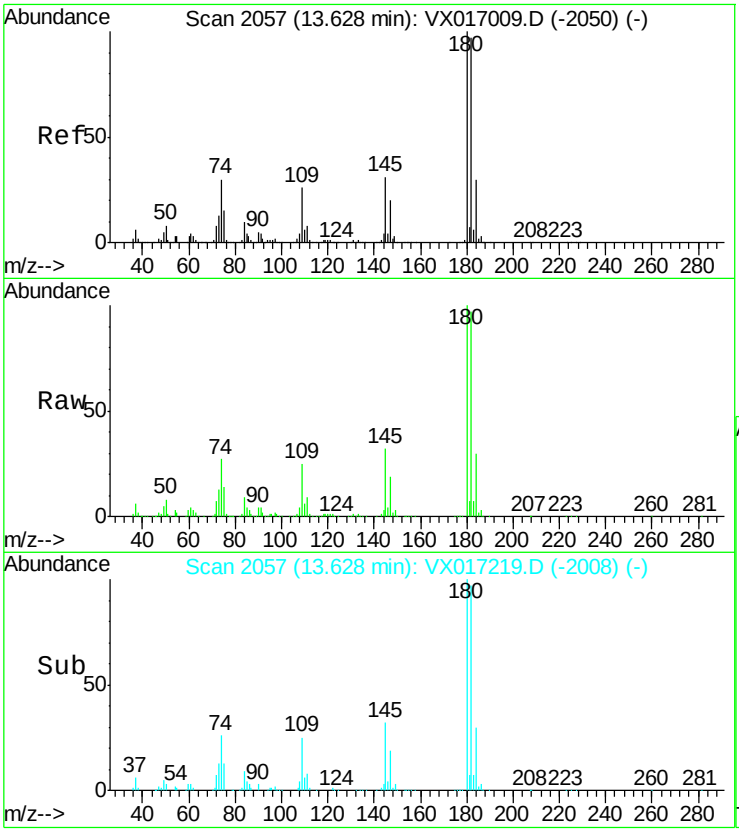


#92
1,2-Dibromo-3-Chloropropane
Concen: 48.215 ug/l
RT: 12.98 min Scan# 1951
Delta R.T. 0.00 min
Lab File: VX017219.D
Acq: 07 Jul 2020 21:33

Tgt Ion: 75 Resp: 55717

Ion	Ratio	Lower	Upper
75	100		
155	92.5	45.1	135.2
157	119.7	56.5	169.3

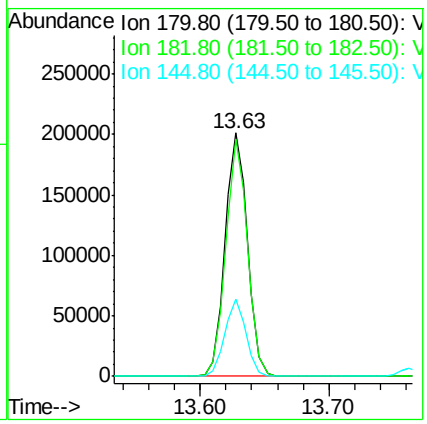




#93
1,2,4-Trichlorobenzene
Concen: 50.020 ug/l
RT: 13.63 min Scan# 2057
Delta R.T. 0.00 min
Lab File: VX017219.D
Acq: 07 Jul 2020 21:33

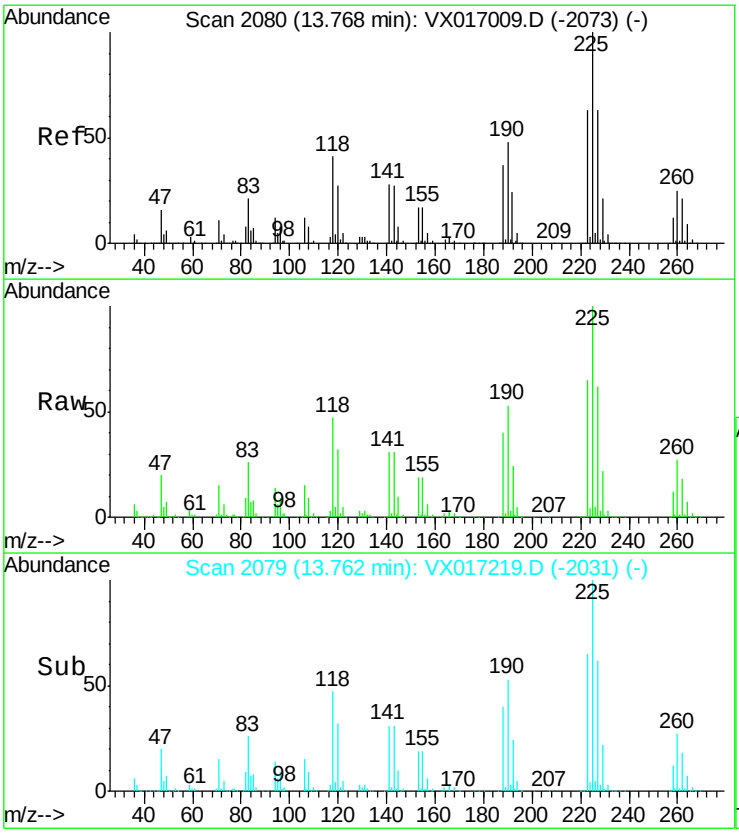
Tgt Ion:180 Resp: 245317

Ion	Ratio	Lower	Upper
180	100		
182	95.1	47.3	141.9
145	30.3	15.4	46.2



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

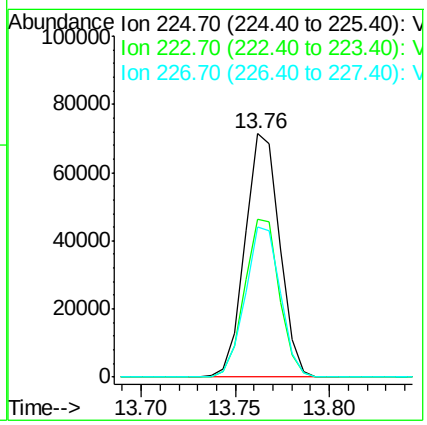
Manual Integrations APPROVED
MMDadoda
7/8/2020 9:31:49 AM



#94
Hexachlorobutadiene
Concen: 48.865 ug/l
RT: 13.76 min Scan# 2079
Delta R.T. -0.01 min
Lab File: VX017219.D
Acq: 07 Jul 2020 21:33

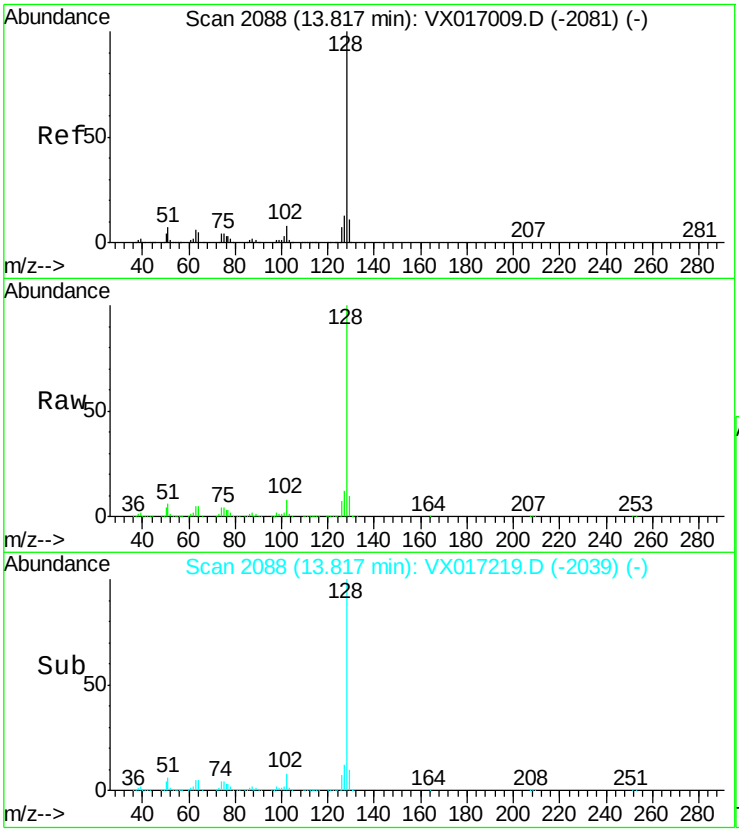
Tgt Ion:225 Resp: 90917

Ion	Ratio	Lower	Upper
225	100		
223	64.8	32.5	97.5
227	62.6	33.1	99.2



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

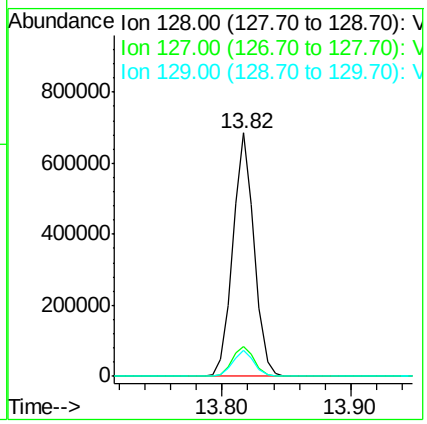
Manual Integrations APPROVED
MMDadoda
7/8/2020 9:31:49 AM

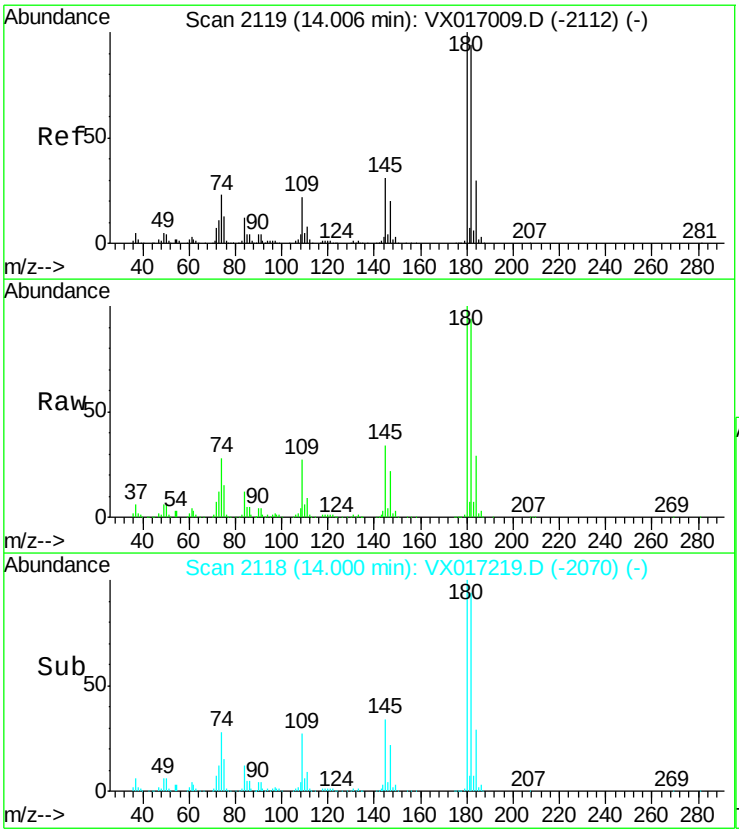


#95
Naphthalene
Concen: 52.799 ug/l
RT: 13.82 min Scan# 2088
Delta R.T. 0.00 min
Lab File: VX017219.D
Acq: 07 Jul 2020 21:33

Tgt Ion:128 Resp: 787236

Ion	Ratio	Lower	Upper
128	100		
127	12.8	10.2	15.4
129	10.6	8.7	13.1

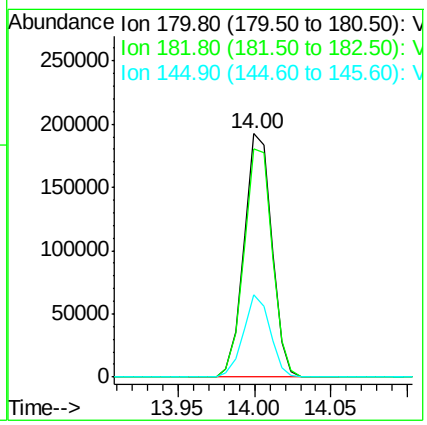




#96
1,2,3-Trichlorobenzene
Concen: 51.041 ug/l
RT: 14.00 min Scan# 2118
Delta R.T. -0.01 min
Lab File: VX017219.D
Acq: 07 Jul 2020 21:33

Tgt Ion:180 Resp: 242253

Ion	Ratio	Lower	Upper
180	100		
182	95.7	47.1	141.4
145	32.6	16.6	49.7



Evaluate Continuing Calibration Report

Data Path : Z:\voasrv\HPCHEM1\MSVOA X\Data\VX070720\
Data File : VX017219.D
Acq On : 07 Jul 2020 21:33
Operator : JC/SP
Sample : VSTDCCC050
Misc : 5.0mL/MSVOA X/WATER
ALS Vial : 31 Sample Multiplier: 1

Instrument : MSVOA_X
LabSampleId : VSTDCCC050

Quant Time: Jul 08 03:36:25 2020
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X062920W.M
Quant Title : SW846 8260
QLast Update : Mon Jun 29 17:10:38 2020
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	Pentafluorobenzene	1.000	1.000	0.0	99	0.00
2	T	Dichlorodifluoromethane	0.484	0.462	4.5	94	0.00
3	P	Chloromethane	0.586	0.480	18.1	83	0.00
4	C	Vinyl Chloride	0.543	0.485	10.7#	90	0.00
5	T	Bromomethane	0.287	0.247	13.9	85	0.00
6	T	Chloroethane	0.321	0.312	2.8	99	0.00
7	T	Trichlorofluoromethane	0.803	0.867	-8.0	109	0.00
8	T	Diethyl Ether	0.293	0.287	2.0	103	0.00
9	T	1,1,2-Trichlorotrifluoroeth	0.482	0.500	-3.7	102	0.00
10	T	Methyl Iodide	0.621	0.463	25.4#	69	0.00
11	T	Tert butyl alcohol	0.118	0.119	-0.8	99	0.00
12	CM	1,1-Dichloroethene	0.495	0.484	2.2#	98	0.00
13	T	Acrolein	0.070	0.092	-31.4#	130	0.00
14	T	Allyl chloride	0.914	0.853	6.7	94	0.00
15	T	Acrylonitrile	0.283	0.286	-1.1	99	0.00
16	T	Acetone	0.231	0.236	-2.2	102	0.00
17	T	Carbon Disulfide	1.515	1.294	14.6	89	0.00
18	T	Methyl Acetate	0.602	0.644	-7.0	106	0.00
19	T	Methyl tert-butyl Ether	1.660	1.763	-6.2	104	0.00
20	T	Methylene Chloride	0.589	0.561	4.8	98	0.00
21	T	trans-1,2-Dichloroethene	0.549	0.548	0.2	100	0.00
22	T	Diisopropyl ether	1.692	1.723	-1.8	98	0.00
23	T	Vinyl Acetate	1.454	1.513	-4.1	97	0.00
24	P	1,1-Dichloroethane	0.963	0.980	-1.8	100	0.00
25	T	2-Butanone	0.384	0.388	-1.0	97	0.00
26	T	2,2-Dichloropropane	0.855	0.786	8.1	92	0.00
27	T	cis-1,2-Dichloroethene	0.622	0.604	2.9	97	0.00
28	T	Bromochloromethane	0.468	0.392	16.2	84	0.00
29	T	Tetrahydrofuran	0.254	0.251	1.2	94	0.00
30	C	Chloroform	0.987	1.033	-4.7#	103	0.00
31	T	Cyclohexane	0.832	0.788	5.3	91	0.00
32	T	1,1,1-Trichloroethane	0.909	0.944	-3.9	103	0.00
33	S	1,2-Dichloroethane-d4	0.616	0.603	2.1	103	0.00
34	I	1,4-Difluorobenzene	1.000	1.000	0.0	94	0.00
35	S	Dibromofluoromethane	0.316	0.330	-4.4	101	0.00
36	T	1,1-Dichloropropene	0.473	0.488	-3.2	97	0.00
37	T	Ethyl Acetate	0.479	0.507	-5.8	95	0.00
38	T	Carbon Tetrachloride	0.520	0.586	-12.7	105	0.00
39	T	Methylcyclohexane	0.526	0.529	-0.6	92	0.00
40	TM	Benzene	1.388	1.445	-4.1	98	0.00
41	T	Methacrylonitrile	0.270	0.282	-4.4	97	0.00
42	TM	1,2-Dichloroethane	0.502	0.554	-10.4	104	0.00
43	T	Isopropyl Acetate	0.797	0.822	-3.1	96	0.00
44	TM	Trichloroethene	0.418	0.424	-1.4	99	0.00
45	C	1,2-Dichloropropane	0.357	0.376	-5.3#	100	0.00

Evaluate Continuing Calibration Report

Data Path : Z:\voasrv\HPCHEM1\MSVOA X\Data\VX070720\
Data File : VX017219.D
Acq On : 07 Jul 2020 21:33
Operator : JC/SP
Sample : VSTDCCC050
Misc : 5.0mL/MSVOA X/WATER
ALS Vial : 31 Sample Multiplier: 1

Instrument : MSVOA_X
LabSampleId : VSTDCCC050

Quant Time: Jul 08 03:36:25 2020
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X062920W.M
Quant Title : SW846 8260
QLast Update : Mon Jun 29 17:10:38 2020
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
46	T	Dibromomethane	0.243	0.264	-8.6	102	0.00
47	T	Bromodichloromethane	0.502	0.561	-11.8	103	0.00
48	T	Methyl methacrylate	0.379	0.409	-7.9	95	0.00
49	T	1,4-Dioxane	0.009	0.009	0.0	97	0.00
50	S	Toluene-d8	1.170	1.172	-0.2	99	0.00
51	T	4-Methyl-2-Pentanone	0.475	0.521	-9.7	98	0.00
52	CM	Toluene	0.867	0.925	-6.7#	99	0.00
53	T	t-1,3-Dichloropropene	0.554	0.600	-8.3	100	0.00
54	T	cis-1,3-Dichloropropene	0.593	0.622	-4.9	96	0.00
55	T	1,1,2-Trichloroethane	0.354	0.388	-9.6	103	0.00
56	T	Ethyl methacrylate	0.504	0.563	-11.7	98	0.00
57	T	1,3-Dichloropropane	0.599	0.638	-6.5	100	0.00
58	T	2-Chloroethyl Vinyl ether	0.251	0.265	-5.6	90	0.00
59	T	2-Hexanone	0.347	0.394	-13.5	100	0.00
60	T	Dibromochloromethane	0.411	0.475	-15.6	107	0.00
61	T	1,2-Dibromoethane	0.381	0.422	-10.8	103	0.00
62	S	4-Bromofluorobenzene	0.457	0.477	-4.4	102	0.00
63	I	Chlorobenzene-d5	1.000	1.000	0.0	94	0.00
64	T	Tetrachloroethene	0.404	0.423	-4.7	99	0.00
65	PM	Chlorobenzene	1.032	1.084	-5.0	100	0.00
66	T	1,1,1,2-Tetrachloroethane	0.398	0.443	-11.3	105	0.00
67	C	Ethyl Benzene	1.723	1.881	-9.2#	99	0.00
68	T	m/p-Xylenes	0.662	0.728	-10.0	99	0.00
69	T	o-Xylene	0.630	0.691	-9.7	99	0.00
70	T	Styrene	1.072	1.230	-14.7	100	0.00
71	P	Bromoform	0.315	0.390	-23.8#	109	0.00
72	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	107	0.00
73	T	Isopropylbenzene	3.275	3.234	1.3	100	0.00
74	T	N-amyl acetate	1.397	1.372	1.8	96	0.00
75	P	1,1,2,2-Tetrachloroethane	1.030	1.015	1.5	105	0.00
76	T	1,2,3-Trichloropropane	0.983	0.981	0.2	102	0.00
77	T	Bromobenzene	0.900	0.912	-1.3	107	0.00
78	T	n-propylbenzene	3.704	3.701	0.1	101	0.00
79	T	2-Chlorotoluene	2.241	2.258	-0.8	103	0.00
80	T	1,3,5-Trimethylbenzene	2.717	2.812	-3.5	103	0.00
81	T	trans-1,4-Dichloro-2-butene	0.380	0.365	3.9	96	0.00
82	T	4-Chlorotoluene	2.679	2.710	-1.2	104	0.00
83	T	tert-Butylbenzene	2.667	2.777	-4.1	104	0.00
84	T	1,2,4-Trimethylbenzene	2.756	2.898	-5.2	104	0.00
85	T	sec-Butylbenzene	3.135	3.179	-1.4	102	0.00
86	T	p-Isopropyltoluene	2.918	3.079	-5.5	103	0.00
87	T	1,3-Dichlorobenzene	1.635	1.637	-0.1	110	0.00
88	T	1,4-Dichlorobenzene	1.675	1.650	1.5	108	0.00
89	T	n-Butylbenzene	2.606	2.546	2.3	100	0.00

Evaluate Continuing Calibration Report

Data Path : Z:\voasrv\HPCHEM1\MSVOA X\Data\VX070720\
Data File : VX017219.D
Acq On : 07 Jul 2020 21:33
Operator : JC/SP
Sample : VSTDCCC050
Misc : 5.0mL/MSVOA X/WATER
ALS Vial : 31 Sample Multiplier: 1

Instrument : MSVOA_X
LabSampleId : VSTDCCC050

Quant Time: Jul 08 03:36:25 2020
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X062920W.M
Quant Title : SW846 8260
QLast Update : Mon Jun 29 17:10:38 2020
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
90 T	Hexachloroethane	0.575	0.586	-1.9	105	0.00
91 T	1,2-Dichlorobenzene	1.528	1.541	-0.9	107	0.00
92 T	1,2-Dibromo-3-Chloropropane	0.246	0.237	3.7	105	0.00
93 T	1,2,4-Trichlorobenzene	1.043	1.043	0.0	106	0.00
94 T	Hexachlorobutadiene	0.422	0.387	8.3	102	0.00
95 T	Naphthalene	3.171	3.348	-5.6	104	0.00
96 T	1,2,3-Trichlorobenzene	1.009	1.030	-2.1	107	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 6

Evaluate Continuing Calibration Report

Data Path : Z:\voasrv\HPCHEM1\MSVOA X\Data\VX070720\
Data File : VX017219.D
Acq On : 07 Jul 2020 21:33
Operator : JC/SP
Sample : VSTDCCC050
Misc : 5.0mL/MSVOA X/WATER
ALS Vial : 31 Sample Multiplier: 1

Instrument : MSVOA_X
LabSampleId : VSTDCCC050

Quant Time: Jul 08 03:36:25 2020
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X062920W.M
Quant Title : SW846 8260
QLast Update : Mon Jun 29 17:10:38 2020
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	Pentafluorobenzene	50.000	50.000	0.0	99	0.00
2	T	Dichlorodifluoromethane	50.000	47.743	4.5	94	0.00
3	P	Chloromethane	50.000	40.956	18.1	83	0.00
4	C	Vinyl Chloride	50.000	44.677	10.6#	90	0.00
5	T	Bromomethane	50.000	42.992	14.0	85	0.00
6	T	Chloroethane	50.000	48.592	2.8	99	0.00
7	T	Trichlorofluoromethane	50.000	53.973	-7.9	109	0.00
8	T	Diethyl Ether	50.000	53.133	-6.3	103	0.00
9	T	1,1,2-Trichlorotrifluoroeth	50.000	51.948	-3.9	102	0.00
10	T	Methyl Iodide	50.000	37.273	25.5#	69	0.00
11	T	Tert butyl alcohol	250.000	253.619	-1.4	99	0.00
12	CM	1,1-Dichloroethene	50.000	48.908	2.2#	98	0.00
13	T	Acrolein	250.000	326.057	-30.4#	130	0.00
14	T	Allyl chloride	50.000	46.668	6.7	94	0.00
15	T	Acrylonitrile	250.000	252.587	-1.0	99	0.00
16	T	Acetone	250.000	255.812	-2.3	102	0.00
17	T	Carbon Disulfide	50.000	46.854	6.3	89	0.00
18	T	Methyl Acetate	50.000	53.528	-7.1	106	0.00
19	T	Methyl tert-butyl Ether	50.000	53.097	-6.2	104	0.00
20	T	Methylene Chloride	50.000	53.093	-6.2	98	0.00
21	T	trans-1,2-Dichloroethene	50.000	49.945	0.1	100	0.00
22	T	Diisopropyl ether	50.000	50.927	-1.9	98	0.00
23	T	Vinyl Acetate	250.000	260.173	-4.1	97	0.00
24	P	1,1-Dichloroethane	50.000	50.870	-1.7	100	0.00
25	T	2-Butanone	250.000	252.574	-1.0	97	0.00
26	T	2,2-Dichloropropane	50.000	45.960	8.1	92	0.00
27	T	cis-1,2-Dichloroethene	50.000	48.584	2.8	97	0.00
28	T	Bromochloromethane	50.000	41.825	16.3	84	0.00
29	T	Tetrahydrofuran	250.000	246.987	1.2	94	0.00
30	C	Chloroform	50.000	52.339	-4.7#	103	0.00
31	T	Cyclohexane	50.000	47.366	5.3	91	0.00
32	T	1,1,1-Trichloroethane	50.000	51.952	-3.9	103	0.00
33	S	1,2-Dichloroethane-d4	50.000	48.952	2.1	103	0.00
34	I	1,4-Difluorobenzene	50.000	50.000	0.0	94	0.00
35	S	Dibromofluoromethane	50.000	52.137	-4.3	101	0.00
36	T	1,1-Dichloropropene	50.000	51.605	-3.2	97	0.00
37	T	Ethyl Acetate	50.000	52.881	-5.8	95	0.00
38	T	Carbon Tetrachloride	50.000	56.263	-12.5	105	0.00
39	T	Methylcyclohexane	50.000	50.315	-0.6	92	0.00
40	TM	Benzene	50.000	52.023	-4.0	98	0.00
41	T	Methacrylonitrile	50.000	52.187	-4.4	97	0.00
42	TM	1,2-Dichloroethane	50.000	55.192	-10.4	104	0.00
43	T	Isopropyl Acetate	50.000	51.599	-3.2	96	0.00
44	TM	Trichloroethene	50.000	55.317	-10.6	99	0.00
45	C	1,2-Dichloropropane	50.000	52.730	-5.5#	100	0.00

Evaluate Continuing Calibration Report

Data Path : Z:\voasrv\HPCHEM1\MSVOA X\Data\VX070720\
Data File : VX017219.D
Acq On : 07 Jul 2020 21:33
Operator : JC/SP
Sample : VSTDCCC050
Misc : 5.0mL/MSVOA X/WATER
ALS Vial : 31 Sample Multiplier: 1

Instrument : MSVOA_X
LabSampleId : VSTDCCC050

Quant Time: Jul 08 03:36:25 2020
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X062920W.M
Quant Title : SW846 8260
QLast Update : Mon Jun 29 17:10:38 2020
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
46	T	Dibromomethane	50.000	54.241	-8.5	102	0.00
47	T	Bromodichloromethane	50.000	55.879	-11.8	103	0.00
48	T	Methyl methacrylate	50.000	54.071	-8.1	95	0.00
49	T	1,4-Dioxane	1000.000	1058.261	-5.8	97	0.00
50	S	Toluene-d8	50.000	50.087	-0.2	99	0.00
51	T	4-Methyl-2-Pentanone	250.000	274.391	-9.8	98	0.00
52	CM	Toluene	50.000	53.377	-6.8#	99	0.00
53	T	t-1,3-Dichloropropene	50.000	54.196	-8.4	100	0.00
54	T	cis-1,3-Dichloropropene	50.000	52.382	-4.8	96	0.00
55	T	1,1,2-Trichloroethane	50.000	54.811	-9.6	103	0.00
56	T	Ethyl methacrylate	50.000	55.846	-11.7	98	0.00
57	T	1,3-Dichloropropane	50.000	53.198	-6.4	100	0.00
58	T	2-Chloroethyl Vinyl ether	250.000	263.676	-5.5	90	0.00
59	T	2-Hexanone	250.000	283.662	-13.5	100	0.00
60	T	Dibromochloromethane	50.000	57.721	-15.4	107	0.00
61	T	1,2-Dibromoethane	50.000	55.359	-10.7	103	0.00
62	S	4-Bromofluorobenzene	50.000	52.129	-4.3	102	0.00
63	I	Chlorobenzene-d5	50.000	50.000	0.0	94	0.00
64	T	Tetrachloroethene	50.000	52.449	-4.9	99	0.00
65	PM	Chlorobenzene	50.000	52.540	-5.1	100	0.00
66	T	1,1,1,2-Tetrachloroethane	50.000	55.741	-11.5	105	0.00
67	C	Ethyl Benzene	50.000	54.583	-9.2#	99	0.00
68	T	m/p-Xylenes	100.000	110.061	-10.1	99	0.00
69	T	o-Xylene	50.000	54.874	-9.7	99	0.00
70	T	Styrene	50.000	57.374	-14.7	100	0.00
71	P	Bromoform	50.000	61.816	-23.6#	109	0.00
72	I	1,4-Dichlorobenzene-d4	50.000	50.000	0.0	107	0.00
73	T	Isopropylbenzene	50.000	49.371	1.3	100	0.00
74	T	N-amyl acetate	50.000	49.094	1.8	96	0.00
75	P	1,1,2,2-Tetrachloroethane	50.000	49.278	1.4	105	0.00
76	T	1,2,3-Trichloropropane	50.000	49.887	0.2	102	0.00
77	T	Bromobenzene	50.000	50.634	-1.3	107	0.00
78	T	n-propylbenzene	50.000	49.965	0.1	101	0.00
79	T	2-Chlorotoluene	50.000	50.378	-0.8	103	0.00
80	T	1,3,5-Trimethylbenzene	50.000	51.750	-3.5	103	0.00
81	T	trans-1,4-Dichloro-2-butene	50.000	48.032	3.9	96	0.00
82	T	4-Chlorotoluene	50.000	50.568	-1.1	104	0.00
83	T	tert-Butylbenzene	50.000	52.066	-4.1	104	0.00
84	T	1,2,4-Trimethylbenzene	50.000	52.579	-5.2	104	0.00
85	T	sec-Butylbenzene	50.000	50.709	-1.4	102	0.00
86	T	p-Isopropyltoluene	50.000	52.754	-5.5	103	0.00
87	T	1,3-Dichlorobenzene	50.000	50.069	-0.1	110	0.00
88	T	1,4-Dichlorobenzene	50.000	53.518	-7.0	108	0.00
89	T	n-Butylbenzene	50.000	48.857	2.3	100	0.00

Evaluate Continuing Calibration Report

Data Path : Z:\voasrv\HPCHEM1\MSVOA X\Data\VX070720\
Data File : VX017219.D
Acq On : 07 Jul 2020 21:33
Operator : JC/SP
Sample : VSTDCCC050
Misc : 5.0mL/MSVOA X/WATER
ALS Vial : 31 Sample Multiplier: 1

Instrument : MSVOA_X
LabSampleId : VSTDCCC050

Quant Time: Jul 08 03:36:25 2020
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X062920W.M
Quant Title : SW846 8260
QLast Update : Mon Jun 29 17:10:38 2020
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
90 T	Hexachloroethane	50.000	50.914	-1.8	105	0.00
91 T	1,2-Dichlorobenzene	50.000	50.425	-0.8	107	0.00
92 T	1,2-Dibromo-3-Chloropropane	50.000	48.215	3.6	105	0.00
93 T	1,2,4-Trichlorobenzene	50.000	50.020	-0.0	106	0.00
94 T	Hexachlorobutadiene	50.000	48.865	2.3	102	0.00
95 T	Naphthalene	50.000	52.799	-5.6	104	0.00
96 T	1,2,3-Trichlorobenzene	50.000	51.041	-2.1	107	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 6

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: DAYE01

Lab Code: CHEM Case No.: L3232 SAS No.: L3232 SDG No.: L3232

Instrument ID: MSVOA_X Calibration Date/Time: 07/08/2020 10:24

Lab File ID: VX017244.D Init. Calib. Date(s): 06/29/2020 06/29/2020

Heated Purge: (Y/N) N Init. Calib. Time(s): 14:13 16:06

GC Column: DB-624UI ID: 0.18 (mm)

COMPOUND	RRF	RRF050	MIN RRF	%D	MAX%D
Dichlorodifluoromethane	0.484	0.441		-8.88	20
Chloromethane	0.586	0.467	0.1	-20.31	20
Vinyl Chloride	0.543	0.460		-15.28	20
Bromomethane	0.287	0.260		-9.41	20
Chloroethane	0.321	0.299		-6.85	20
Trichlorofluoromethane	0.803	0.837		4.23	20
1,1,2-Trichlorotrifluoroethane	0.482	0.444		-7.88	20
1,1-Dichloroethene	0.495	0.416		-15.96	20
Acetone	0.231	0.222		-3.9	20
Carbon Disulfide	1.515	1.182		-21.98	20
Methyl tert-butyl Ether	1.660	1.661		0.06	20
Methyl Acetate	0.602	0.577		-4.15	20
Methylene Chloride	0.589	0.517		-12.22	20
trans-1,2-Dichloroethene	0.549	0.496		-9.65	20
1,1-Dichloroethane	0.963	0.891	0.1	-7.48	20
Cyclohexane	0.832	0.741		-10.94	20
2-Butanone	0.384	0.352		-8.33	20
Carbon Tetrachloride	0.520	0.564		8.46	20
cis-1,2-Dichloroethene	0.622	0.575		-7.56	20
Bromochloromethane	0.469	0.375		-20.04	20
Chloroform	0.987	0.973		-1.42	20
1,1,1-Trichloroethane	0.909	0.881		-3.08	20
Methylcyclohexane	0.526	0.547		3.99	20
Benzene	1.388	1.394		0.43	20
1,2-Dichloroethane	0.502	0.555		10.56	20
Trichloroethene	0.418	0.418		0	20
1,2-Dichloropropane	0.357	0.359		0.56	20
Bromodichloromethane	0.502	0.549		9.36	20
4-Methyl-2-Pentanone	0.475	0.498		4.84	20
Toluene	0.867	0.906		4.5	20
t-1,3-Dichloropropene	0.554	0.614		10.83	20
cis-1,3-Dichloropropene	0.593	0.642		8.26	20
1,1,2-Trichloroethane	0.354	0.386		9.04	20
2-Hexanone	0.347	0.380		9.51	20
Dibromochloromethane	0.411	0.474		15.33	20
1,2-Dibromoethane	0.381	0.414		8.66	20
Tetrachloroethene	0.404	0.420		3.96	20
Chlorobenzene	1.032	1.053	0.3	2.04	20
Ethyl Benzene	1.723	1.801		4.53	20

All other compounds must meet a minimum RRF of 0.010.
RRF of 1,4-Dioxane = Value should be divide by 1000.

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: CHEMTECH Contract: DAYE01

Lab Code: CHEM Case No.: L3232 SAS No.: L3232 SDG No.: L3232

Instrument ID: MSVOA_X Calibration Date/Time: 07/08/2020 10:24

Lab File ID: VX017244.D Init. Calib. Date(s): 06/29/2020 06/29/2020

Heated Purge: (Y/N) N Init. Calib. Time(s): 14:13 16:06

GC Column: DB-624UI ID: 0.18 (mm)

COMPOUND	RRF	RRF050	MIN RRF	%D	MAX%D
m/p-Xylenes	0.662	0.707		6.8	20
o-Xylene	0.630	0.671		6.51	20
Styrene	1.072	1.199		11.85	20
Bromoform	0.315	0.377	0.1	19.68	20
Isopropylbenzene	3.275	3.291		0.49	20
1,1,2,2-Tetrachloroethane	1.030	0.998	0.3	-3.11	20
1,3-Dichlorobenzene	1.635	1.639		0.25	20
1,4-Dichlorobenzene	1.675	1.697		1.31	20
1,2-Dichlorobenzene	1.528	1.583		3.6	20
1,2-Dibromo-3-Chloropropane	0.246	0.239		-2.85	20
1,2,4-Trichlorobenzene	1.043	1.112		6.62	20
1,2,3-Trichlorobenzene	1.009	1.088		7.83	20
1,2-Dichloroethane-d4	0.616	0.566		-8.12	20
Dibromofluoromethane	0.316	0.325		2.85	20
Toluene-d8	1.170	1.165		-0.43	20
4-Bromofluorobenzene	0.457	0.485		6.13	20

All other compounds must meet a minimum RRF of 0.010.
RRF of 1,4-Dioxane = Value should be divide by 1000.

Quantitation Report (QT Reviewed)

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX070820\
Data File : VX017244.D
Acq On : 08 Jul 2020 10:24
Operator : JC/SP
Sample : VSTDCCC050
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jul 08 15:49:53 2020
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X062920W.M
Quant Title : SW846 8260
QLast Update : Mon Jun 29 17:10:38 2020
Response via : Initial Calibration

Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

Manual Integrations APPROVED
MMDadoda
7/9/2020 10:59:45 AM

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	5.62	168	288935	50.00	ug/l	-0.01
34) 1,4-Difluorobenzene	6.83	114	412579	50.00	ug/l	0.00
63) Chlorobenzene-d5	10.10	117	404180	50.00	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	12.06	152	225987	50.00	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	6.03	65	163474	45.89	ug/l	0.00
Spiked Amount 50.000			Recovery = 91.78%			
35) Dibromofluoromethane	5.46	113	134240	51.44	ug/l	0.00
Spiked Amount 50.000			Recovery = 102.88%			
50) Toluene-d8	8.70	98	480574	49.80	ug/l	0.00
Spiked Amount 50.000			Recovery = 99.60%			
62) 4-Bromofluorobenzene	11.12	95	200050	53.03	ug/l	0.00
Spiked Amount 50.000			Recovery = 106.06%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.18	85	127384	45.571	ug/l	100
3) Chloromethane	1.31	50	134927	39.877	ug/l	100
4) Vinyl Chloride	1.39	62	132786	42.298	ug/l	99
5) Bromomethane	1.62	94	75157	45.314	ug/l	98
6) Chloroethane	1.70	64	86293	46.542	ug/l	100
7) Trichlorofluoromethane	1.91	101	241754	52.070	ug/l	100
8) Diethyl Ether	2.17	74	83046	53.137	ug/l	96
9) 1,1,2-Trichlorotrifluoroet	2.36	101	128277	46.098	ug/l	95
10) Methyl Iodide	2.49	142	138644	38.613	ug/l	99
11) Tert butyl alcohol	3.01	59	156591	230.443	ug/l	99
12) 1,1-Dichloroethene	2.36	96	120308	42.086	ug/l	96
13) Acrolein	2.27	56	133220	327.962	ug/l	99
14) Allyl chloride	2.70	41	226806	42.932	ug/l	97
15) Acrylonitrile	3.11	53	369927	226.457	ug/l	98
16) Acetone	2.42	43	321000	240.899	ug/l	93
17) Carbon Disulfide	2.55	76	341395	42.801	ug/l	99
18) Methyl Acetate	2.75	43	166584	47.889	ug/l	99
19) Methyl tert-butyl Ether	3.17	73	479909	50.022	ug/l	98
20) Methylene Chloride	2.83	84	149370	48.859	ug/l	99
21) trans-1,2-Dichloroethene	3.14	96	143438	45.215	ug/l	99
22) Diisopropyl ether	3.82	45	467979	47.861	ug/l	94
23) Vinyl Acetate	3.78	43	2041617	242.987	ug/l	100
24) 1,1-Dichloroethane	3.67	63	257572	46.297	ug/l	100
25) 2-Butanone	4.63	43	507992	228.794	ug/l	99
26) 2,2-Dichloropropane	4.54	77	241008	48.788	ug/l	99
27) cis-1,2-Dichloroethene	4.56	96	166191	46.236	ug/l	99
28) Bromochloromethane	4.98	49	108343	40.019	ug/l	96
29) Tetrahydrofuran	5.09	42	325753	222.054	ug/l	98
30) Chloroform	5.17	83	281017	49.274	ug/l	100
31) Cyclohexane	5.54	56	214055	44.512	ug/l	97
32) 1,1,1-Trichloroethane	5.46	97	254667	48.486	ug/l	98
36) 1,1-Dichloropropene	5.76	75	198619	50.936	ug/l	99
37) Ethyl Acetate	4.79	43	197782	49.991	ug/l	98
38) Carbon Tetrachloride	5.75	117	232580	54.153	ug/l	92

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX070820\
Data File : VX017244.D
Acq On : 08 Jul 2020 10:24
Operator : JC/SP
Sample : VSTDCCC050
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jul 08 15:49:53 2020
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X062920W.M
Quant Title : SW846 8260
QLast Update : Mon Jun 29 17:10:38 2020
Response via : Initial Calibration

Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

Manual Integrations APPROVED
MMDadoda
7/9/2020 10:59:45 AM

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
39) Methylcyclohexane	7.44	83	225800	52.045 ug/l	96
40) Benzene	6.11	78	575319	50.215 ug/l	96
41) Methacrylonitrile	5.00	41	115984	52.087 ug/l	99
42) 1,2-Dichloroethane	6.16	62	228992	55.334 ug/l	99
43) Isopropyl Acetate	6.41	43	334337	50.855 ug/l	99
44) Trichloroethene	7.18	130	172462	54.578 ug/l	96
45) 1,2-Dichloropropane	7.49	63	148200	50.363 ug/l	96
46) Dibromomethane	7.63	93	108181	53.848 ug/l	96
47) Bromodichloromethane	7.87	83	226695	54.755 ug/l	100
48) Methyl methacrylate	7.74	41	166919	53.441 ug/l	98
49) 1,4-Dioxane	7.71	88	71271	1007.221 ug/l	100
51) 4-Methyl-2-Pentanone	8.62	43	1027842	262.277 ug/l	100
52) Toluene	8.76	92	373968	52.280 ug/l	99
53) t-1,3-Dichloropropene	9.02	75	253427	55.479 ug/l	99
54) cis-1,3-Dichloropropene	8.42	75	264907	54.097 ug/l	100
55) 1,1,2-Trichloroethane	9.20	97	159267	54.496 ug/l	99
56) Ethyl methacrylate	9.16	69	234802	56.446 ug/l	98
57) 1,3-Dichloropropane	9.35	76	264059	53.396 ug/l	100
58) 2-Chloroethyl Vinyl ether	8.29	63	556174	268.648 ug/l	99
59) 2-Hexanone	9.47	43	784382	274.056 ug/l	100
60) Dibromochloromethane	9.56	129	195645	57.637 ug/l	99
61) 1,2-Dibromoethane	9.65	107	170986	54.429 ug/l	99
64) Tetrachloroethene	9.32	164	169561	51.981 ug/l	97
65) Chlorobenzene	10.12	112	425596	51.019 ug/l	98
66) 1,1,1,2-Tetrachloroethane	10.20	131	171423	53.321 ug/l	98
67) Ethyl Benzene	10.23	91	727936	52.252 ug/l	98
68) m/p-Xylenes	10.34	106	571840	106.903 ug/l	98
69) o-Xylene	10.68	106	271236	53.302 ug/l	98
70) Styrene	10.70	104	484655	55.930 ug/l	99
71) Bromoform	10.84	173	152396	59.777 ug/l	99
73) Isopropylbenzene	11.00	105	743666	50.240 ug/l	100
74) N-amyl acetate	10.88	43	309217	48.957 ug/l	98
75) 1,1,2,2-Tetrachloroethane	11.25	83	225431	48.415 ug/l	98
76) 1,2,3-Trichloropropane	11.28	75	224546m	50.529 ug/l	
77) Bromobenzene	11.24	156	205159	50.429 ug/l	96
78) n-propylbenzene	11.34	91	854816	51.067 ug/l	100
79) 2-Chlorotoluene	11.40	91	522662	51.592 ug/l	99
80) 1,3,5-Trimethylbenzene	11.49	105	648004	52.777 ug/l	100
81) trans-1,4-Dichloro-2-buten	11.05	75	85954	50.089 ug/l	96
82) 4-Chlorotoluene	11.49	91	624397	51.558 ug/l	99
83) tert-Butylbenzene	11.76	119	627738	52.082 ug/l	99
84) 1,2,4-Trimethylbenzene	11.79	105	662154	53.158 ug/l	99
85) sec-Butylbenzene	11.93	105	737499	52.054 ug/l	99
86) p-Isopropyltoluene	12.05	119	703216	53.317 ug/l	100
87) 1,3-Dichlorobenzene	12.01	146	370444	50.136 ug/l	99
88) 1,4-Dichlorobenzene	12.08	146	383433	55.047 ug/l	99
89) n-Butylbenzene	12.37	91	600317	50.975 ug/l	99
90) Hexachloroethane	12.58	117	134351	51.655 ug/l	98
91) 1,2-Dichlorobenzene	12.38	146	357824	51.809 ug/l	99
92) 1,2-Dibromo-3-Chloropropan	12.98	75	54019	48.633 ug/l	98

Data Path : Z:\VOASRV\HPCHEM1\MSVOA X\DATA\VX070820\
Data File : VX017244.D
Acq On : 08 Jul 2020 10:24
Operator : JC/SP
Sample : VSTDCCC050
Misc : 5.0mL/MSVOA X/WATER
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jul 08 15:49:53 2020
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X062920W.M
Quant Title : SW846 8260
QLast Update : Mon Jun 29 17:10:38 2020
Response via : Initial Calibration

Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

Manual Integrations APPROVED
MMDadoda
7/9/2020 10:59:45 AM

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
93) 1,2,4-Trichlorobenzene	13.63	180	251408	53.332	ug/l	100
94) Hexachlorobutadiene	13.77	225	93380	52.158	ug/l	97
95) Naphthalene	13.82	128	776545	54.185	ug/l	99
96) 1,2,3-Trichlorobenzene	14.00	180	245861	53.892	ug/l	99

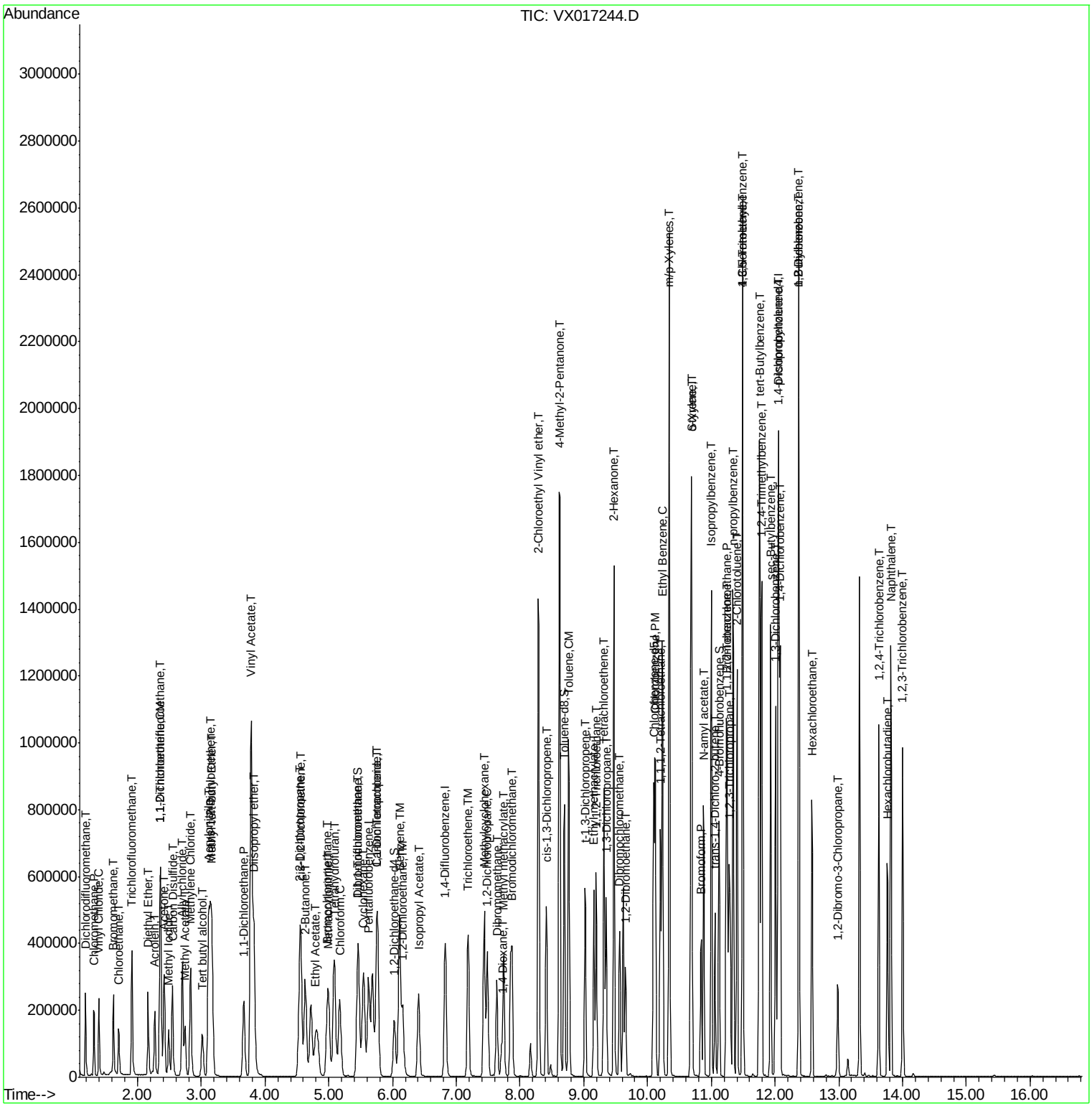
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX070820\
Data File : VX017244.D
Acq On : 08 Jul 2020 10:24
Operator : JC/SP
Sample : VSTDCCC050
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jul 08 15:49:53 2020
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X062920W.M
Quant Title : SW846 8260
QLast Update : Mon Jun 29 17:10:38 2020
Response via : Initial Calibration

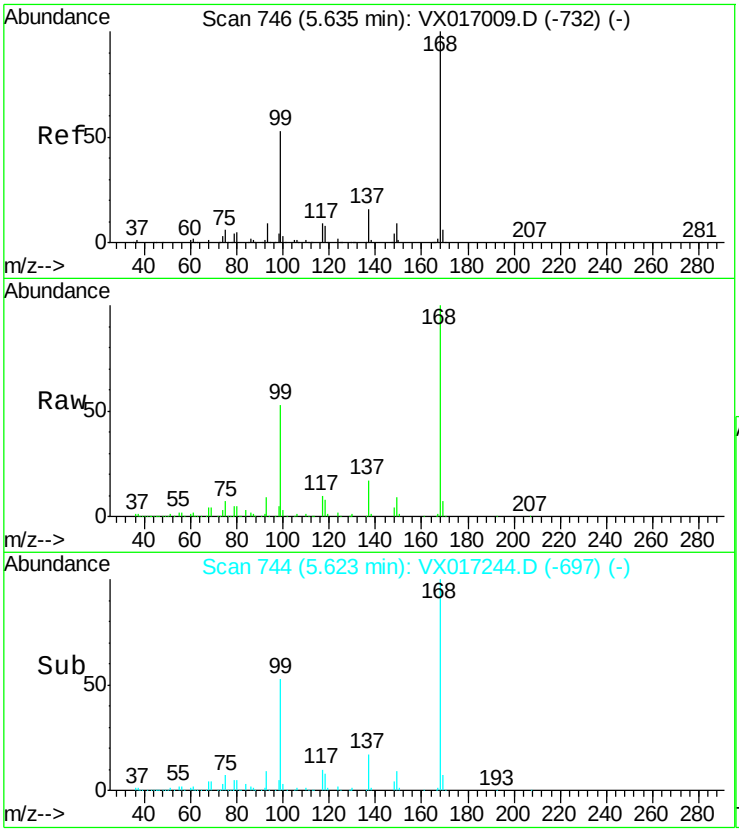
Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

Manual Integrations APPROVED
MMDadoda
7/9/2020 10:59:45 AM



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

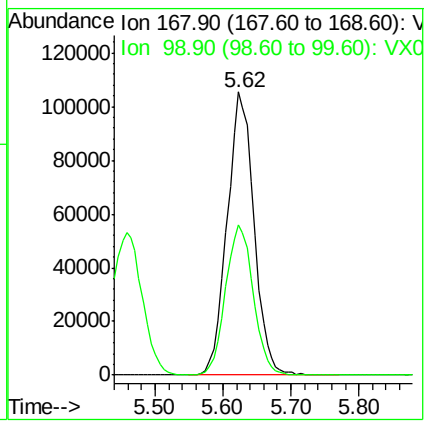
Manual Integrations APPROVED
MMDadoda
7/9/2020 10:59:45 AM

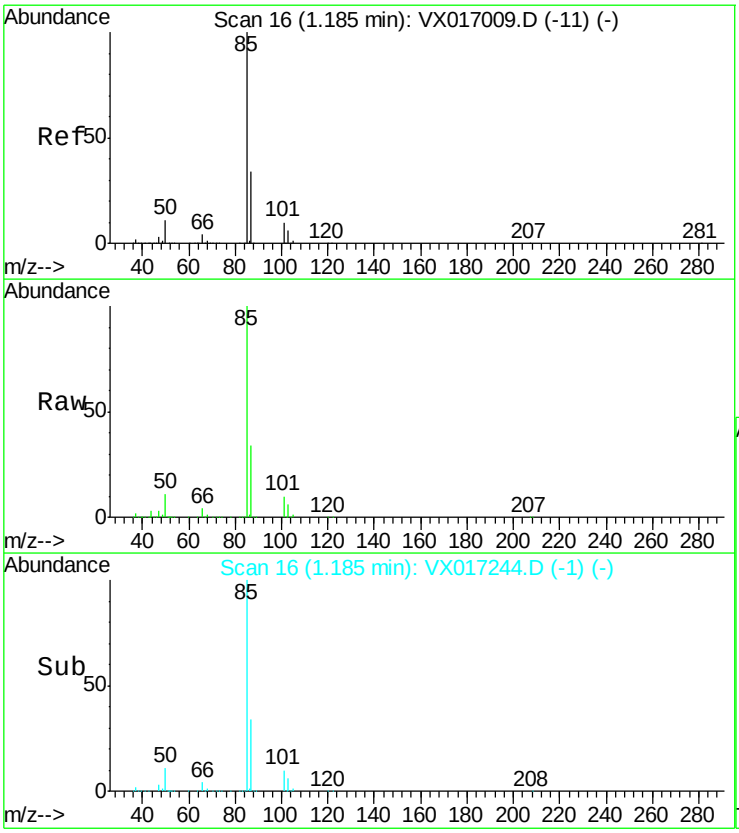


#1
Pentafluorobenzene
Concen: 50.000 ug/l
RT: 5.62 min Scan# 744
Delta R.T. -0.01 min
Lab File: VX017244.D
Acq: 08 Jul 2020 10:24

Tgt Ion:168 Resp: 288935

Ion	Ratio	Lower	Upper
168	100		
99	52.8	42.6	64.0

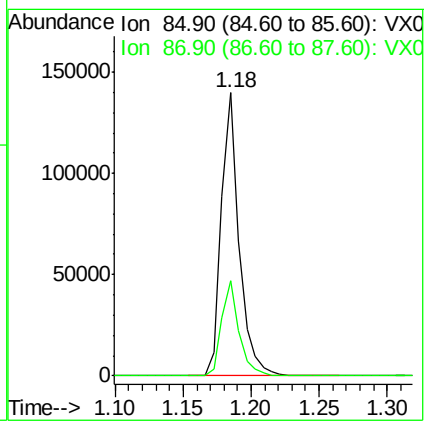




#2
Dichlorodifluoromethane
Concen: 45.571 ug/l
RT: 1.18 min Scan# 16
Delta R.T. -0.00 min
Lab File: VX017244.D
Acq: 08 Jul 2020 10:24

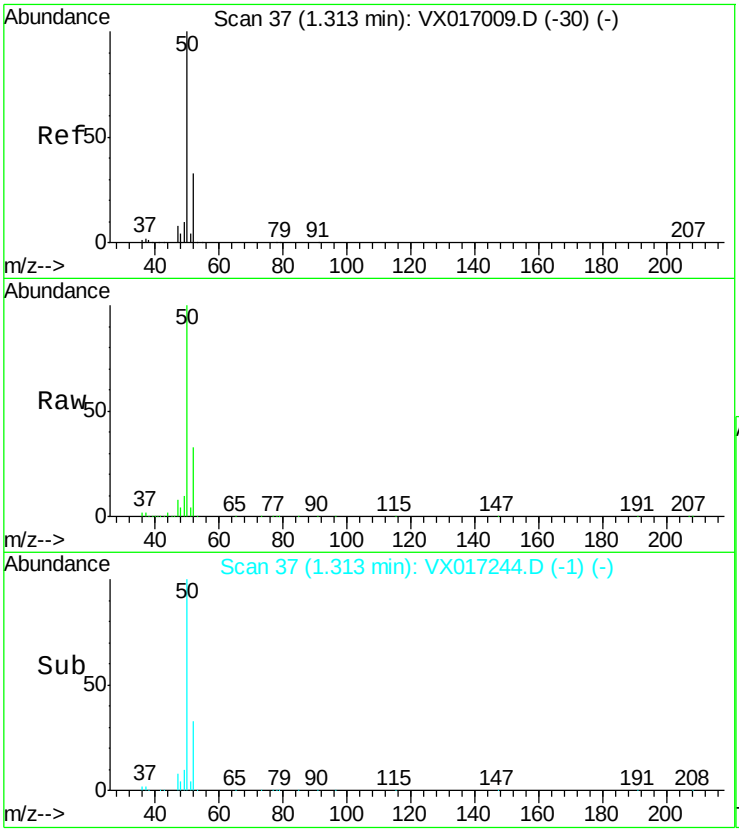
Tgt Ion: 85 Resp: 127384

Ion	Ratio	Lower	Upper
85	100		
87	33.8	16.8	50.4



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

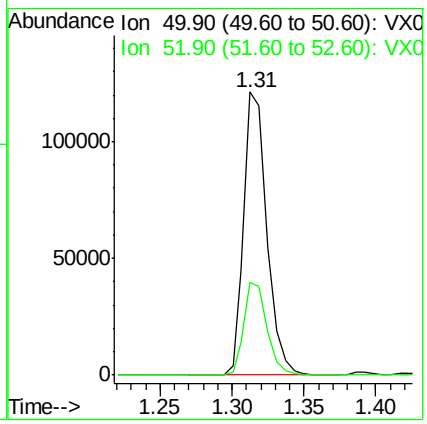
Manual Integrations APPROVED
MMDadoda
7/9/2020 10:59:45 AM

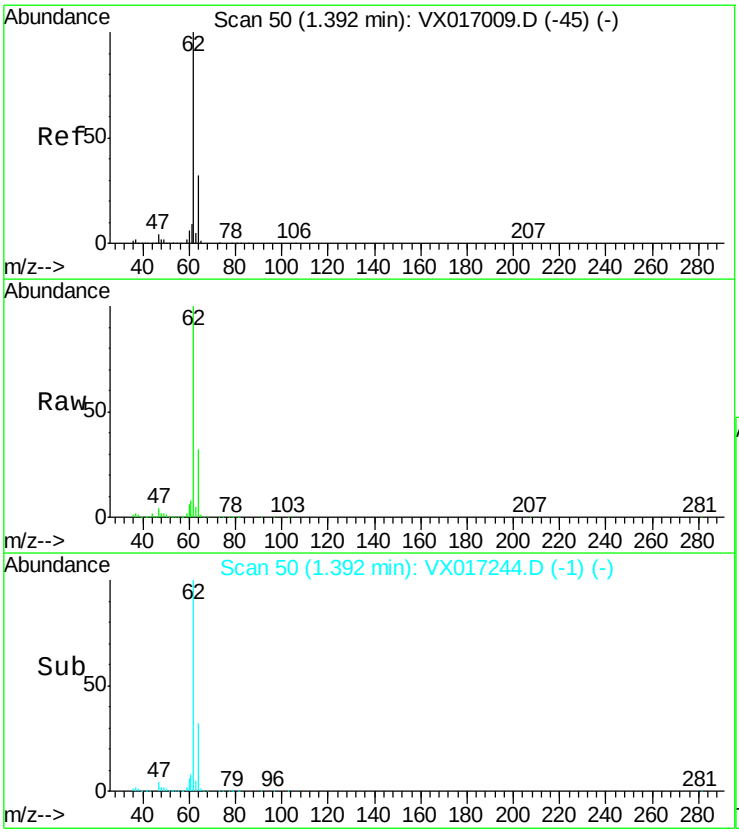


#3
Chloromethane
Concen: 39.877 ug/l
RT: 1.31 min Scan# 37
Delta R.T. -0.00 min
Lab File: VX017244.D
Acq: 08 Jul 2020 10:24

Tgt Ion: 50 Resp: 134927

Ion	Ratio	Lower	Upper
50	100		
52	32.5	26.1	39.1

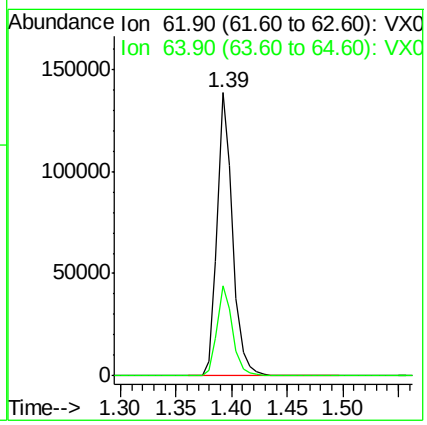




#4
Vinyl Chloride
Concen: 42.298 ug/l
RT: 1.39 min Scan# 50
Delta R.T. -0.00 min
Lab File: VX017244.D
Acq: 08 Jul 2020 10:24

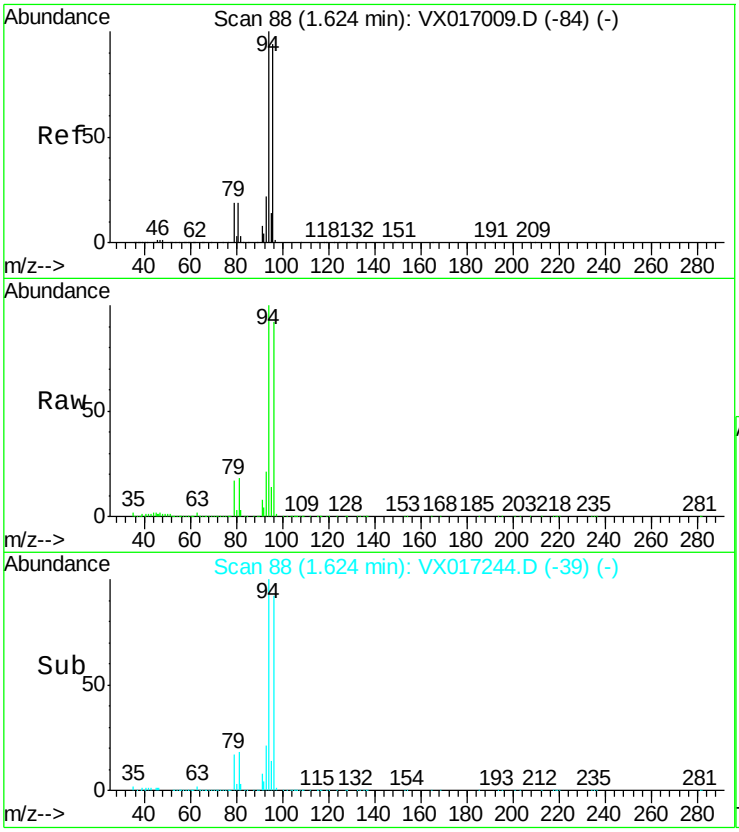
Tgt Ion: 62 Resp: 132786

Ion	Ratio	Lower	Upper
62	100		
64	31.7	25.9	38.9



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

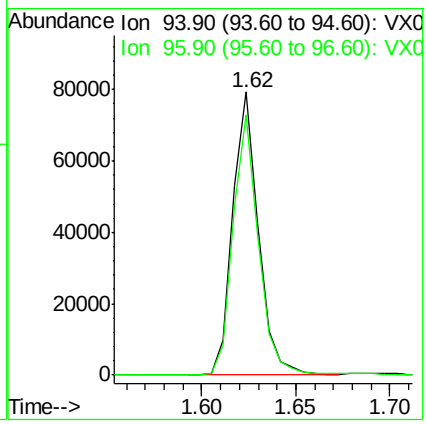
Manual Integrations APPROVED
MMDadoda
7/9/2020 10:59:45 AM

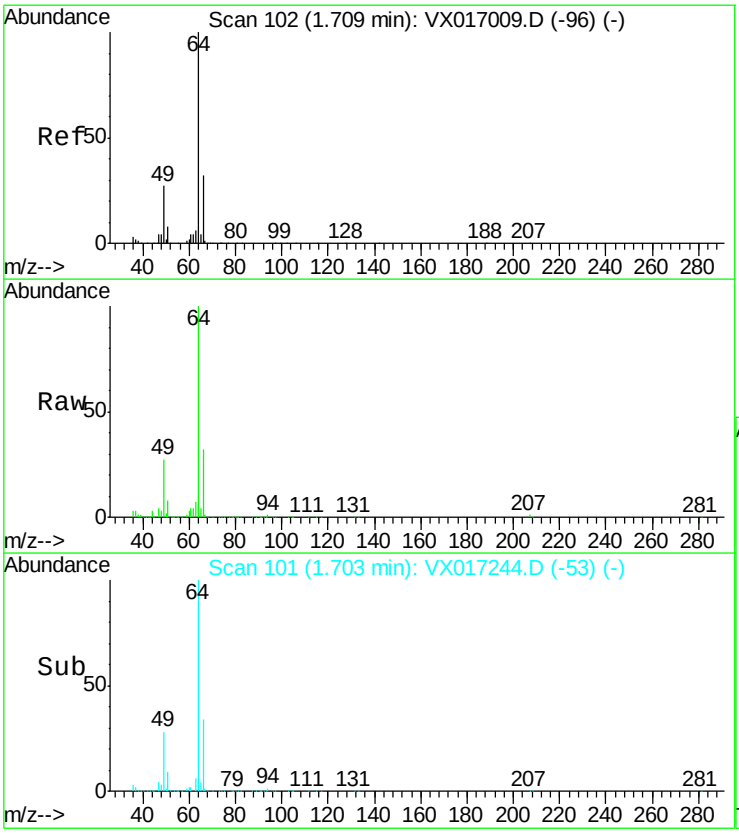


#5
Bromomethane
Concen: 45.314 ug/l
RT: 1.62 min Scan# 88
Delta R.T. 0.00 min
Lab File: VX017244.D
Acq: 08 Jul 2020 10:24

Tgt Ion: 94 Resp: 75157

Ion	Ratio	Lower	Upper
94	100		
96	92.1	75.0	112.4

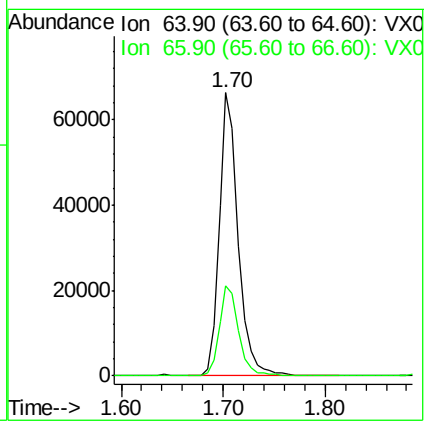




#6
Chloroethane
Concen: 46.542 ug/l
RT: 1.70 min Scan# 101
Delta R.T. -0.01 min
Lab File: VX017244.D
Acq: 08 Jul 2020 10:24

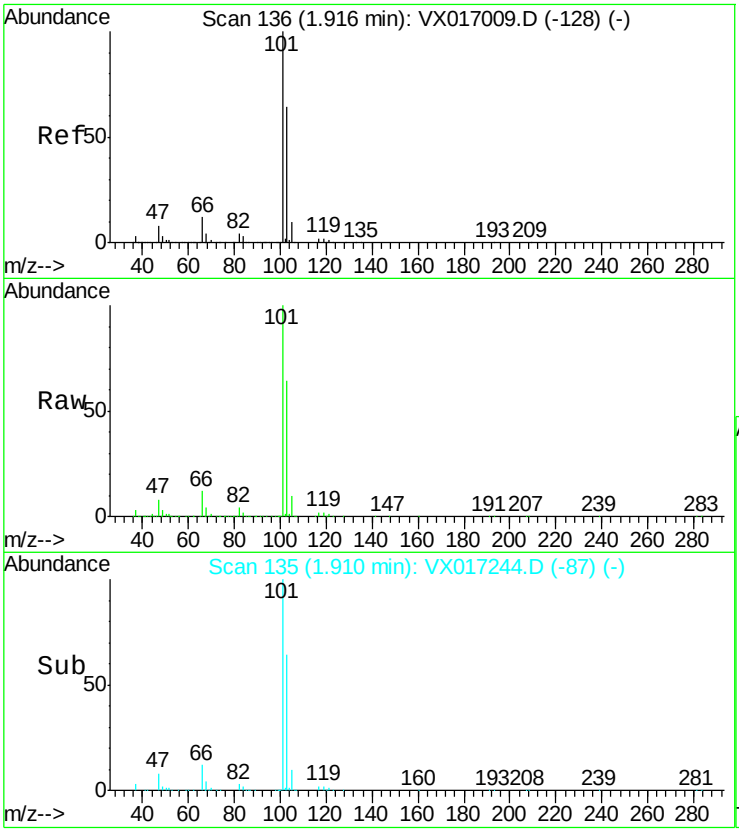
Tgt Ion: 64 Resp: 86293

Ion	Ratio	Lower	Upper
64	100		
66	31.9	25.5	38.3



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

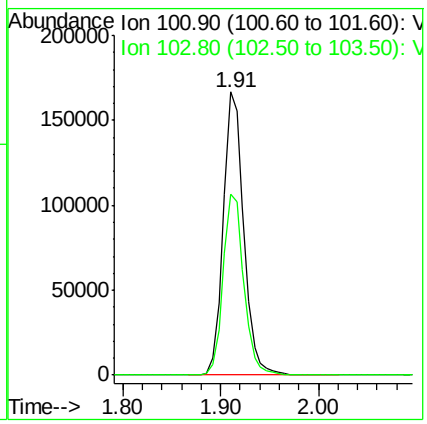
Manual Integrations APPROVED
MMDadoda
7/9/2020 10:59:45 AM

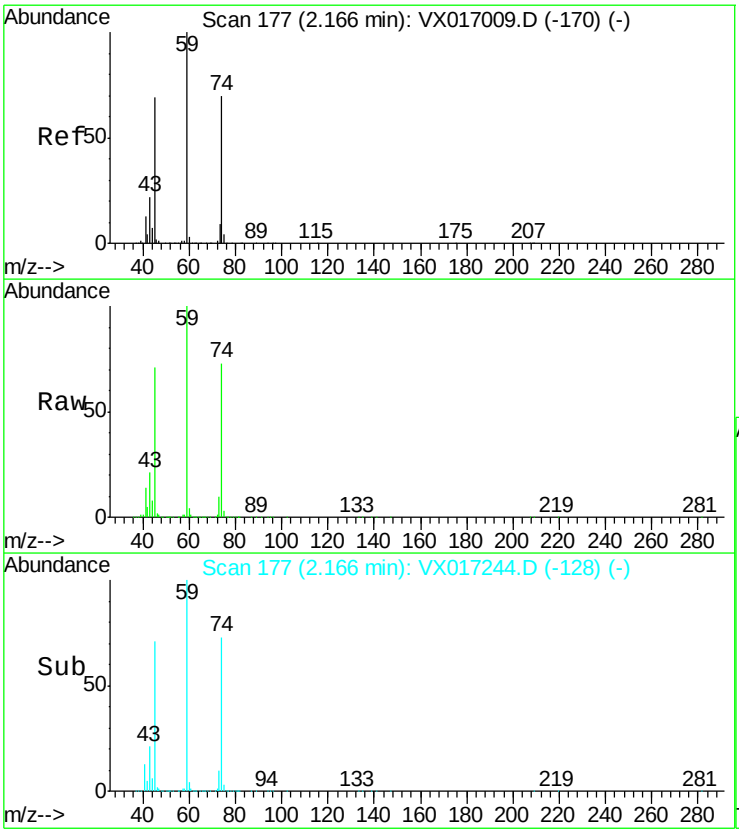


#7
Trichlorofluoromethane
Concen: 52.070 ug/l
RT: 1.91 min Scan# 135
Delta R.T. -0.01 min
Lab File: VX017244.D
Acq: 08 Jul 2020 10:24

Tgt Ion:101 Resp: 241754

Ion	Ratio	Lower	Upper
101	100		
103	64.1	51.5	77.3

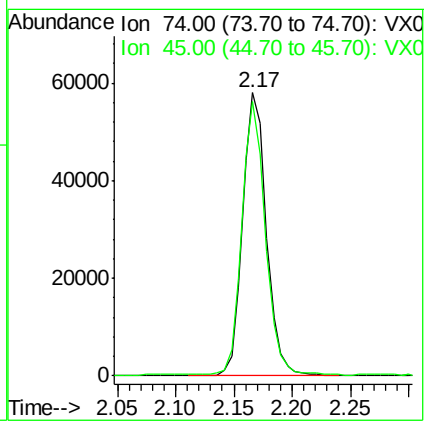




#8
Diethyl Ether
Concen: 53.137 ug/l
RT: 2.17 min Scan# 177
Delta R.T. 0.00 min
Lab File: VX017244.D
Acq: 08 Jul 2020 10:24

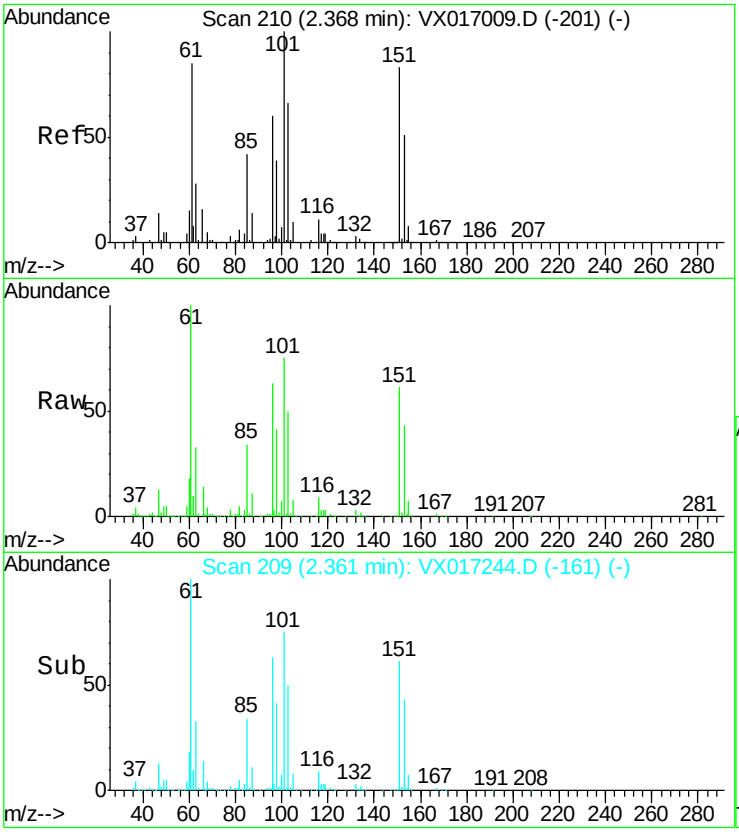
Tgt Ion: 74 Resp: 83046

Ion	Ratio	Lower	Upper
74	100		
45	95.1	49.8	149.3



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

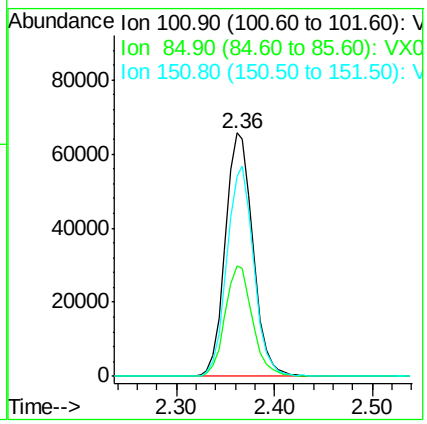
Manual Integrations APPROVED
MMDadoda
7/9/2020 10:59:45 AM

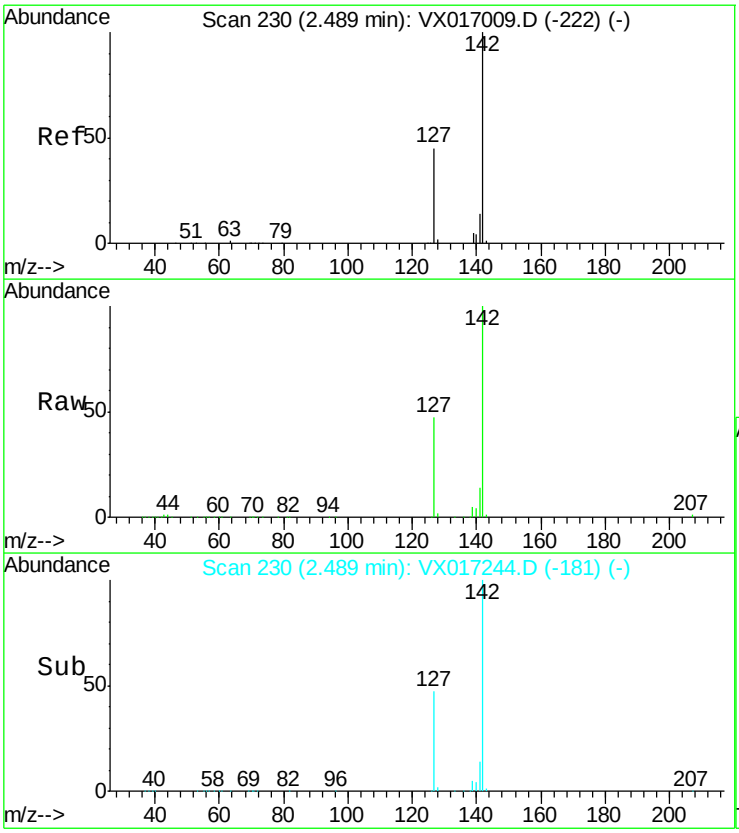


#9
1,1,2-Trichlorotrifluoroethane
Concen: 46.098 ug/l
RT: 2.36 min Scan# 209
Delta R.T. -0.01 min
Lab File: VX017244.D
Acq: 08 Jul 2020 10:24

Tgt Ion:101 Resp: 128277

Ion	Ratio	Lower	Upper
101	100		
85	45.0	33.5	50.3
151	84.2	63.8	95.6

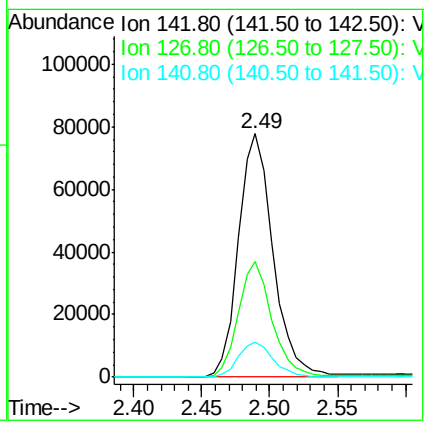




#10
Methyl Iodide
Concen: 38.613 ug/l
RT: 2.49 min Scan# 230
Delta R.T. -0.00 min
Lab File: VX017244.D
Acq: 08 Jul 2020 10:24

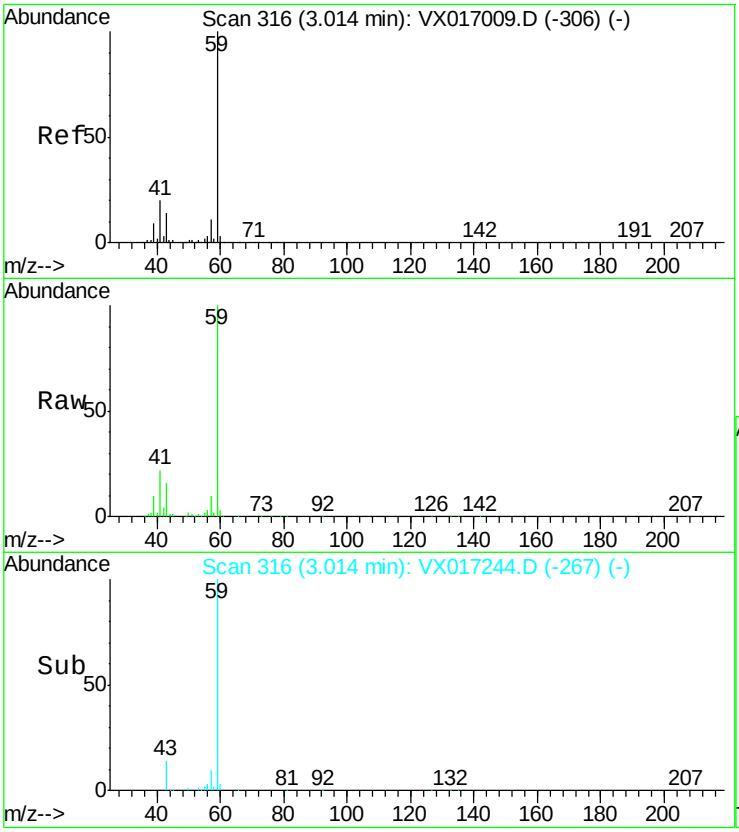
Tgt Ion:142 Resp: 138644

Ion	Ratio	Lower	Upper
142	100		
127	46.5	36.6	54.8
141	14.6	11.6	17.4



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

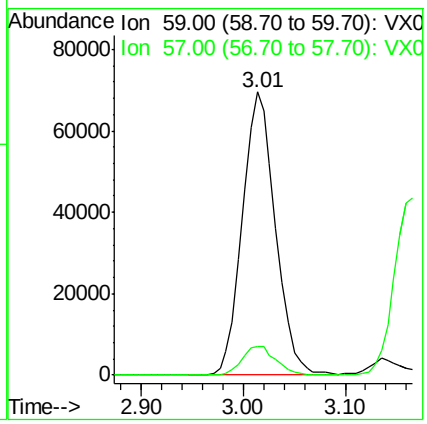
Manual Integrations APPROVED
MMDadoda
7/9/2020 10:59:45 AM

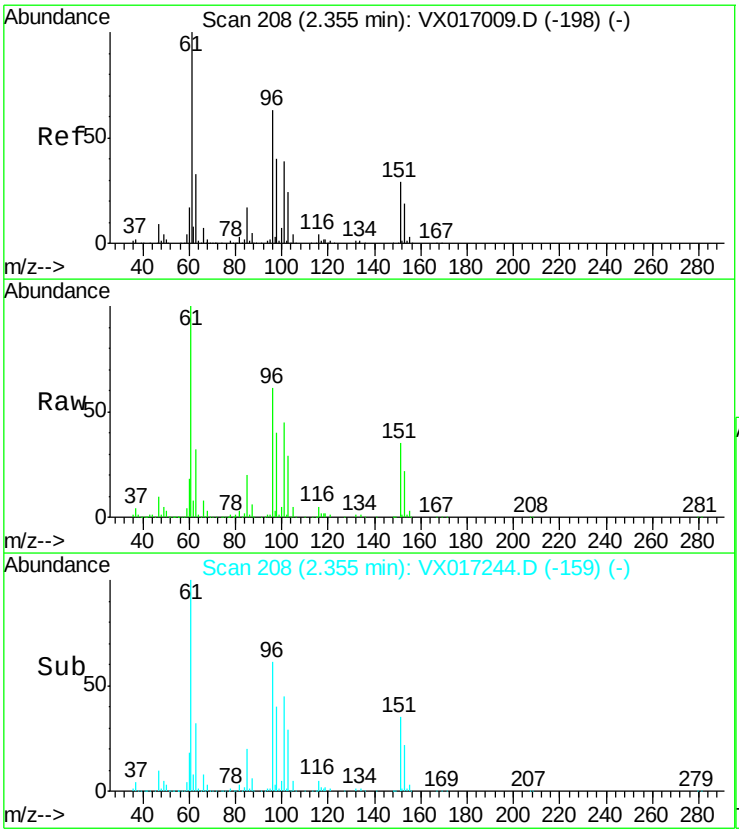


#11
Tert butyl alcohol
Concen: 230.443 ug/l
RT: 3.01 min Scan# 316
Delta R.T. -0.00 min
Lab File: VX017244.D
Acq: 08 Jul 2020 10:24

Tgt Ion: 59 Resp: 156591

Ion	Ratio	Lower	Upper
59	100		
57	10.5	8.2	12.2

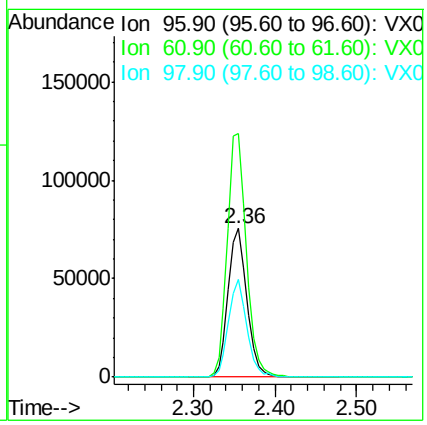




#12
1,1-Dichloroethene
Concen: 42.086 ug/l
RT: 2.36 min Scan# 208
Delta R.T. -0.00 min
Lab File: VX017244.D
Acq: 08 Jul 2020 10:24

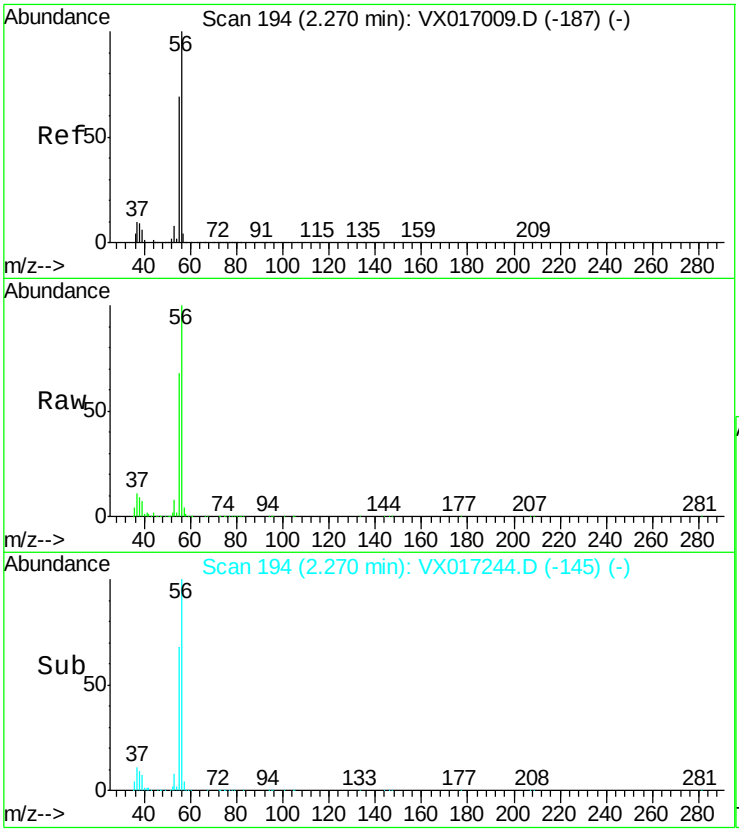
Tgt Ion: 96 Resp: 120308

Ion	Ratio	Lower	Upper
96	100		
61	163.8	126.3	189.5
98	65.7	51.0	76.6



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

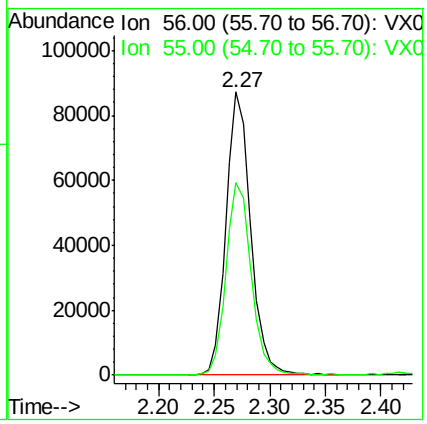
Manual Integrations APPROVED
MMDadoda
7/9/2020 10:59:45 AM

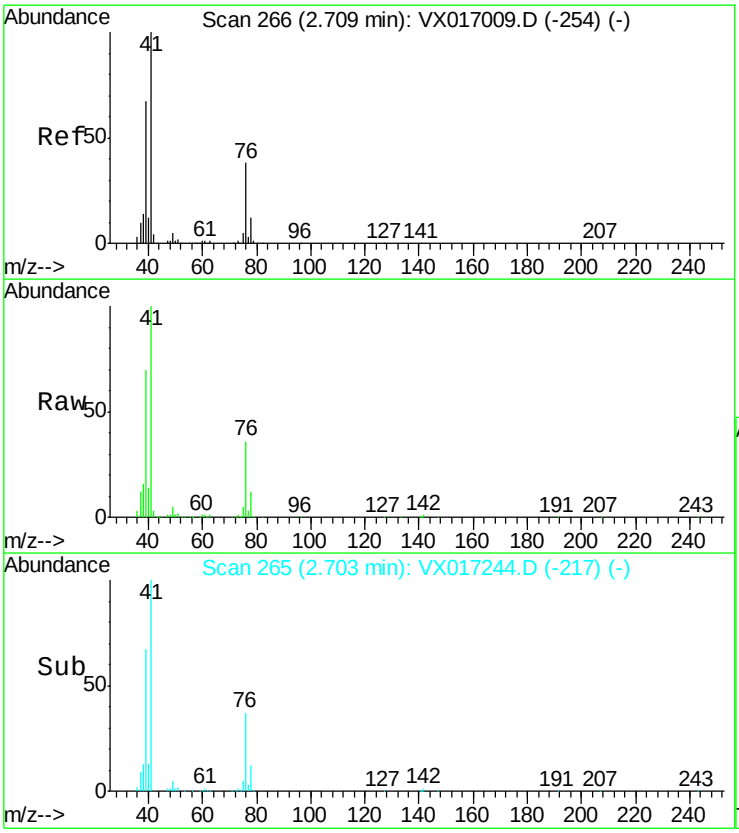


#13
Acrolein
Concen: 327.962 ug/l
RT: 2.27 min Scan# 194
Delta R.T. -0.00 min
Lab File: VX017244.D
Acq: 08 Jul 2020 10:24

Tgt Ion: 56 Resp: 133220

Ion	Ratio	Lower	Upper
56	100		
55	70.1	55.7	83.5

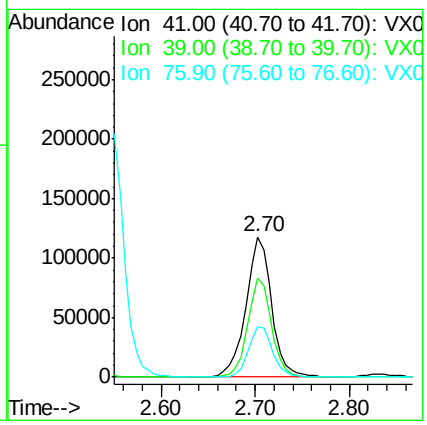




#14
Allyl chloride
Concen: 42.932 ug/l
RT: 2.70 min Scan# 265
Delta R.T. -0.01 min
Lab File: VX017244.D
Acq: 08 Jul 2020 10:24

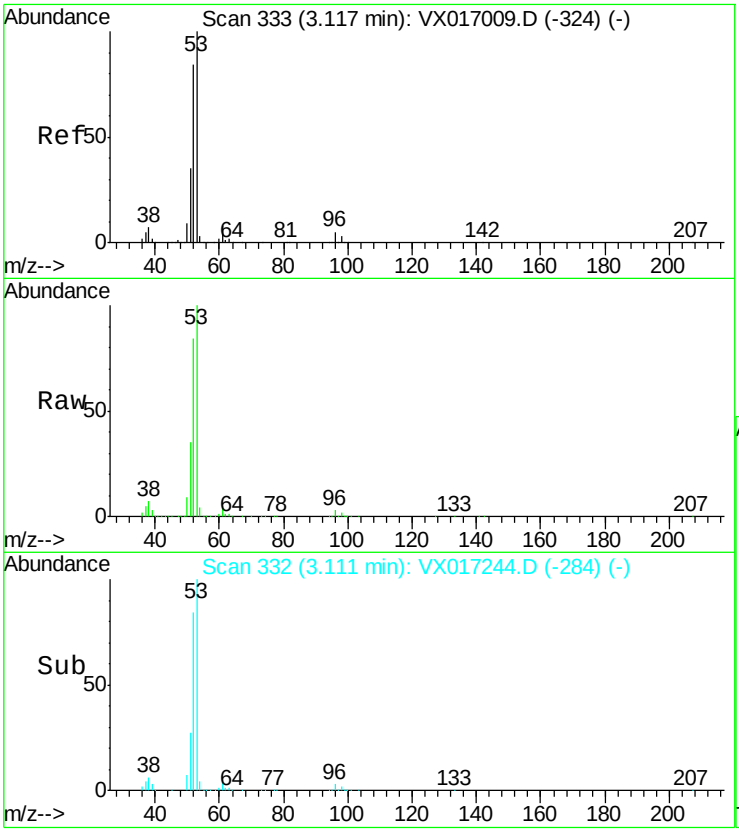
Tgt Ion: 41 Resp: 226806

Ion	Ratio	Lower	Upper
41	100		
39	65.5	49.4	74.2
76	33.7	26.8	40.2



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

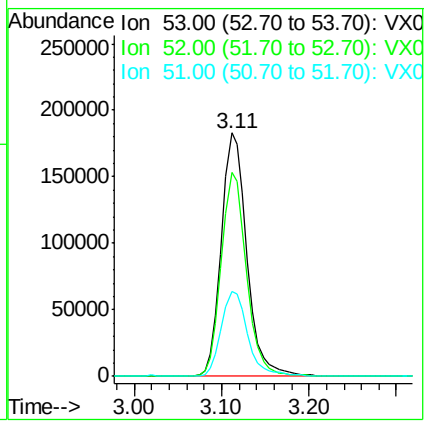
Manual Integrations APPROVED
MMDadoda
7/9/2020 10:59:45 AM

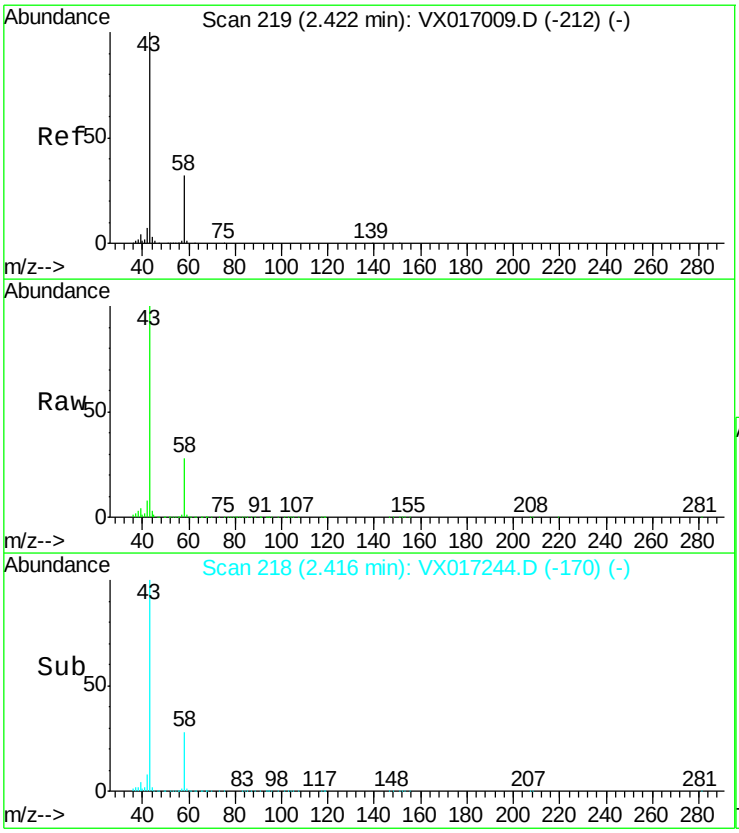


#15
Acrylonitrile
Concen: 226.457 ug/l
RT: 3.11 min Scan# 332
Delta R.T. -0.01 min
Lab File: VX017244.D
Acq: 08 Jul 2020 10:24

Tgt Ion: 53 Resp: 369927

Ion	Ratio	Lower	Upper
53	100		
52	83.2	65.6	98.4
51	36.7	28.3	42.5

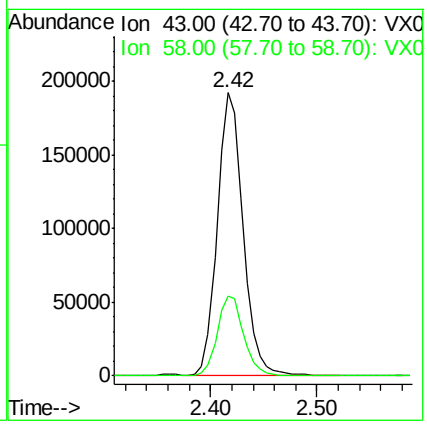




#16
Acetone
Concen: 240.899 ug/l
RT: 2.42 min Scan# 218
Delta R.T. -0.01 min
Lab File: VX017244.D
Acq: 08 Jul 2020 10:24

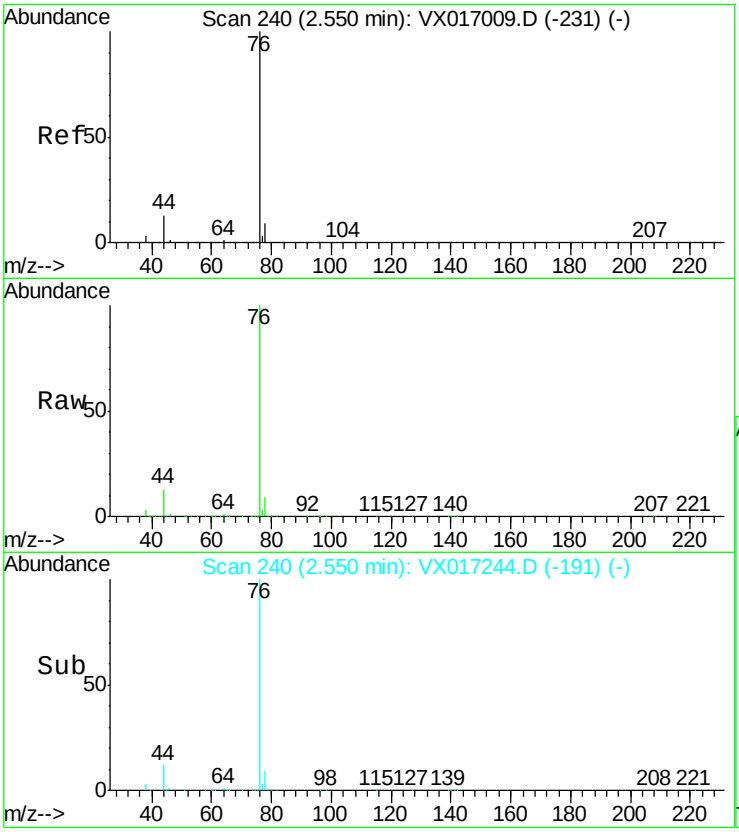
Tgt Ion: 43 Resp: 321000

Ion	Ratio	Lower	Upper
43	100		
58	28.2	25.7	38.5



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

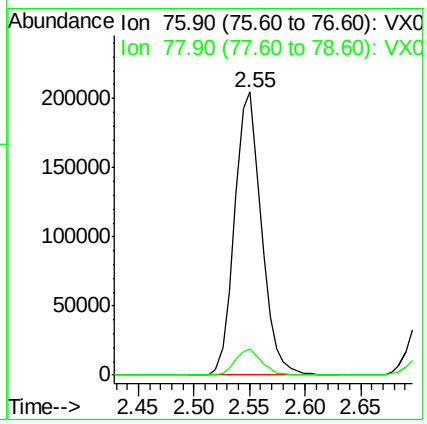
Manual Integrations APPROVED
MMDadoda
7/9/2020 10:59:45 AM

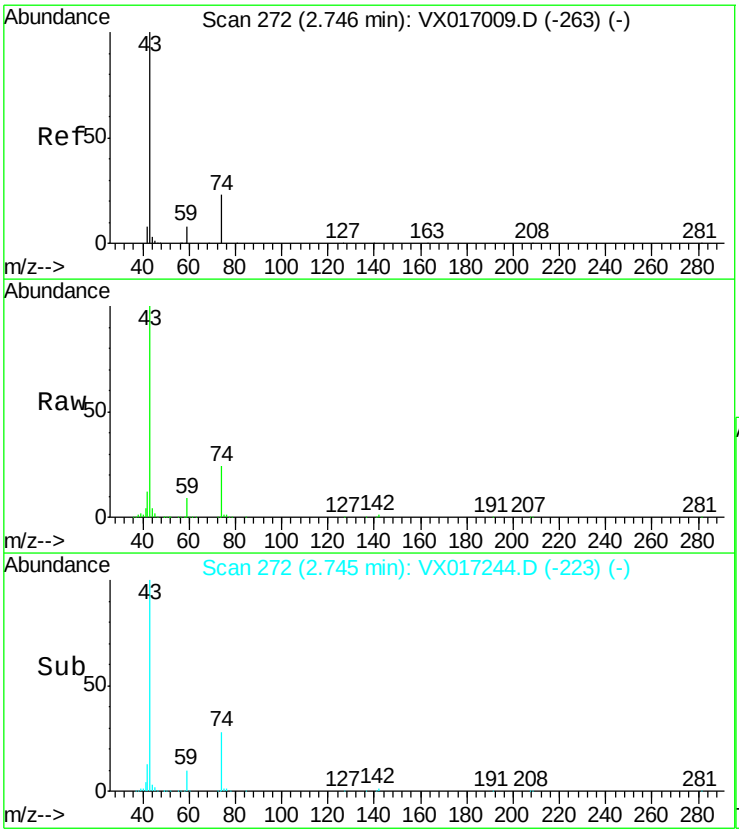


#17
Carbon Disulfide
Concen: 42.801 ug/l
RT: 2.55 min Scan# 240
Delta R.T. 0.00 min
Lab File: VX017244.D
Acq: 08 Jul 2020 10:24

Tgt Ion: 76 Resp: 341395

Ion	Ratio	Lower	Upper
76	100		
78	9.3	7.2	10.8

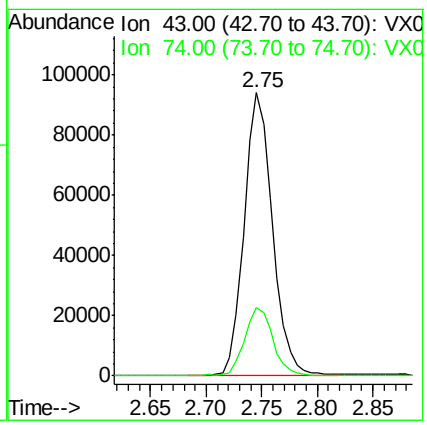




#18
Methyl Acetate
Concen: 47.889 ug/l
RT: 2.75 min Scan# 272
Delta R.T. -0.00 min
Lab File: VX017244.D
Acq: 08 Jul 2020 10:24

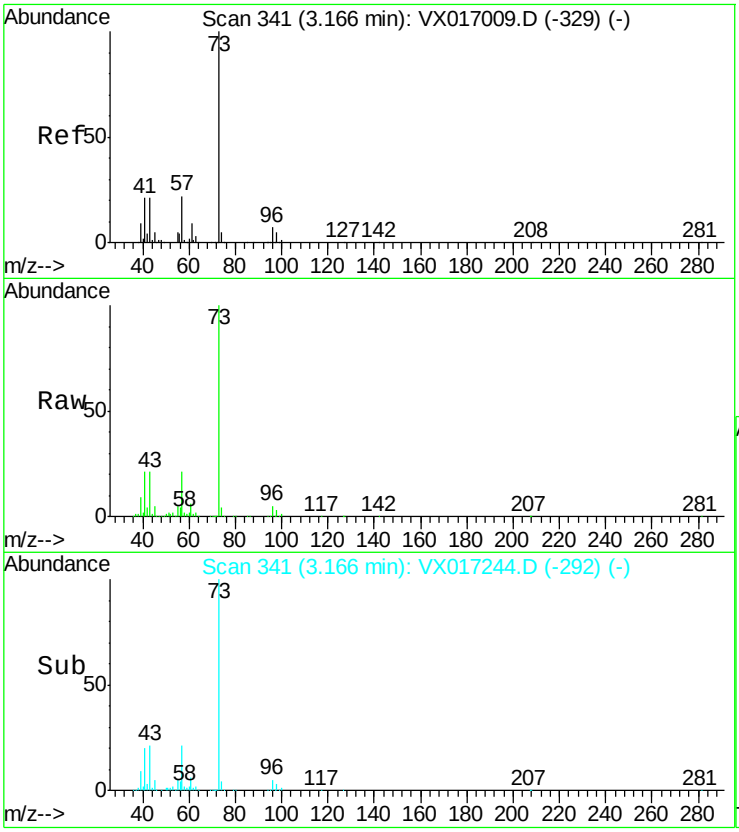
Tgt Ion: 43 Resp: 166584

Ion	Ratio	Lower	Upper
43	100		
74	24.6	19.3	28.9



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

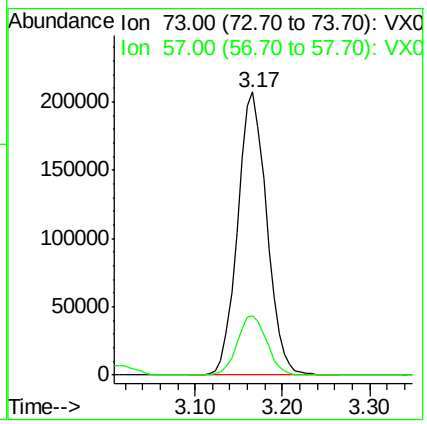
Manual Integrations APPROVED
MMDadoda
7/9/2020 10:59:45 AM

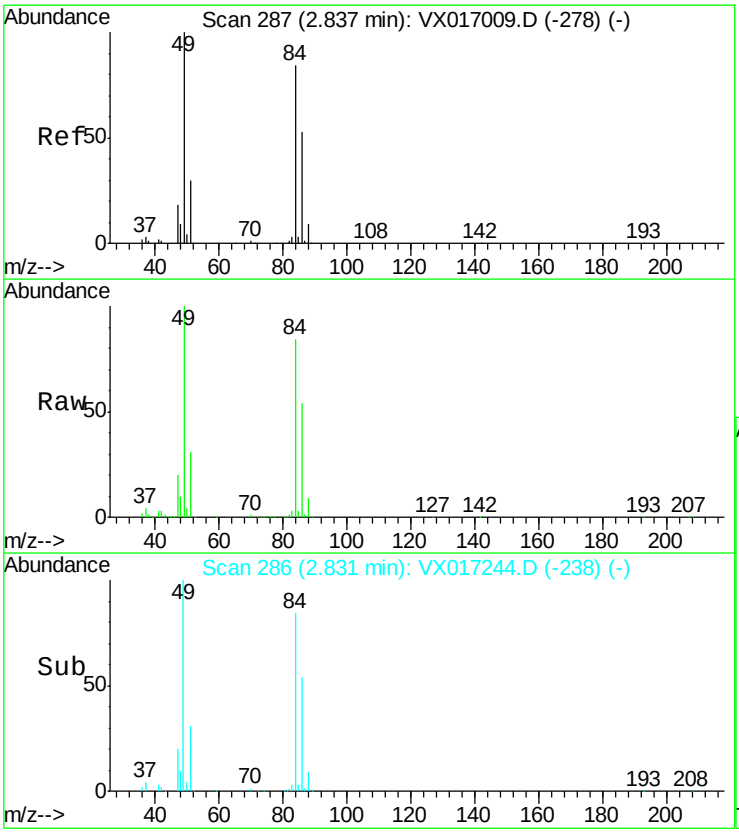


#19
Methyl tert-butyl Ether
Concen: 50.022 ug/l
RT: 3.17 min Scan# 341
Delta R.T. -0.00 min
Lab File: VX017244.D
Acq: 08 Jul 2020 10:24

Tgt Ion: 73 Resp: 479909

Ion	Ratio	Lower	Upper
73	100		
57	21.0	17.6	26.4

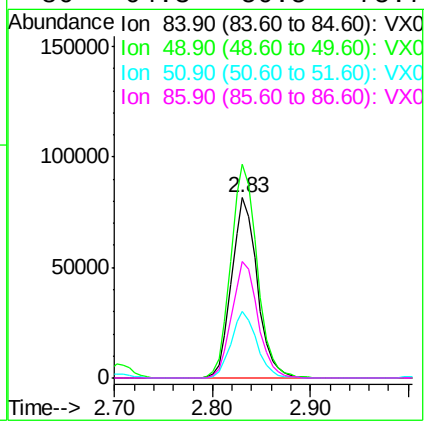




#20
Methylene Chloride
Concen: 48.859 ug/l
RT: 2.83 min Scan# 286
Delta R.T. -0.01 min
Lab File: VX017244.D
Acq: 08 Jul 2020 10:24

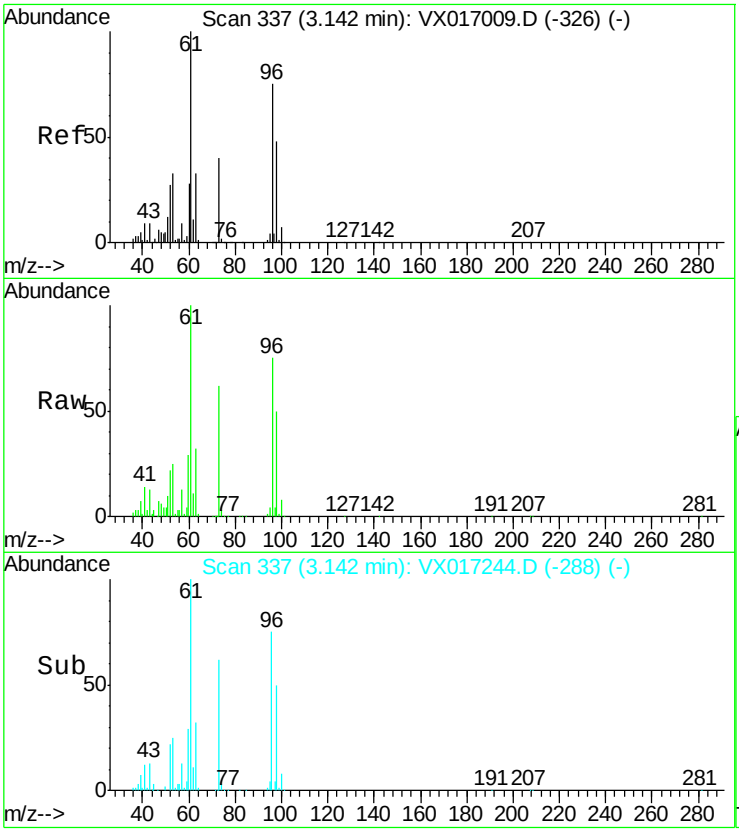
Tgt Ion: 84 Resp: 149370

Ion	Ratio	Lower	Upper
84	100		
49	118.5	94.7	142.1
51	37.1	28.6	42.8
86	64.3	50.5	75.7



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

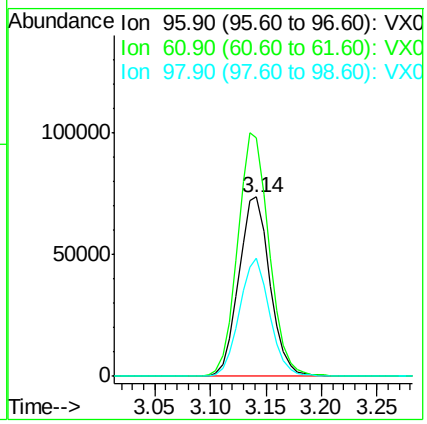
Manual Integrations APPROVED
MMDadoda
7/9/2020 10:59:45 AM

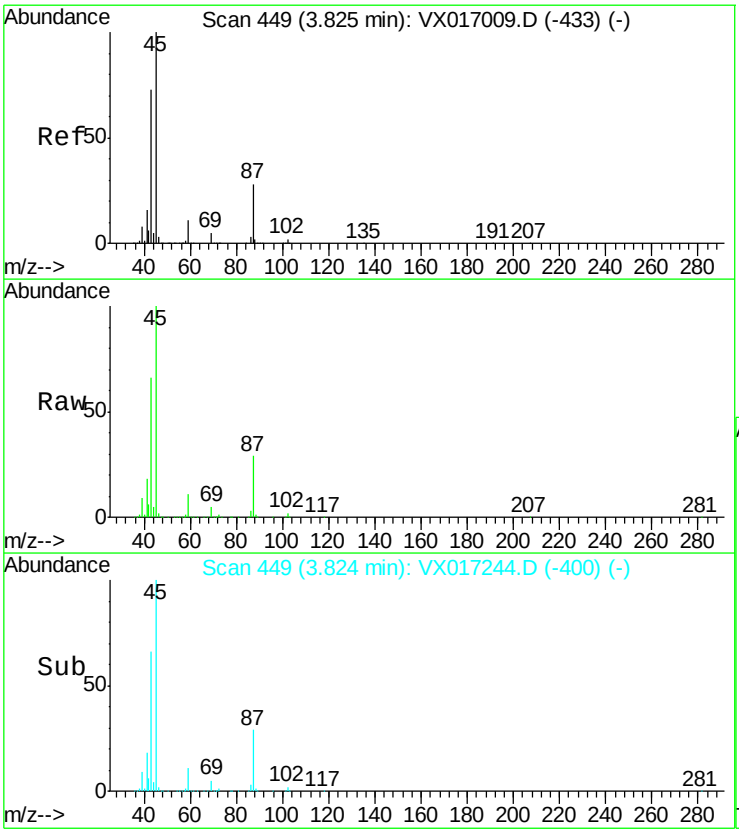


#21
trans-1,2-Dichloroethene
Concen: 45.215 ug/l
RT: 3.14 min Scan# 337
Delta R.T. -0.00 min
Lab File: VX017244.D
Acq: 08 Jul 2020 10:24

Tgt Ion: 96 Resp: 143438

Ion	Ratio	Lower	Upper
96	100		
61	133.2	107.0	160.6
98	66.2	51.6	77.4

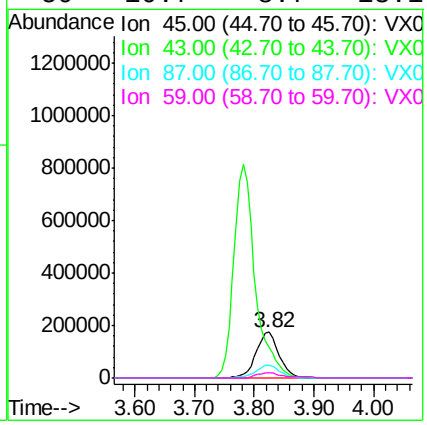




#22
Diisopropyl ether
Concen: 47.861 ug/l
RT: 3.82 min Scan# 449
Delta R.T. -0.00 min
Lab File: VX017244.D
Acq: 08 Jul 2020 10:24

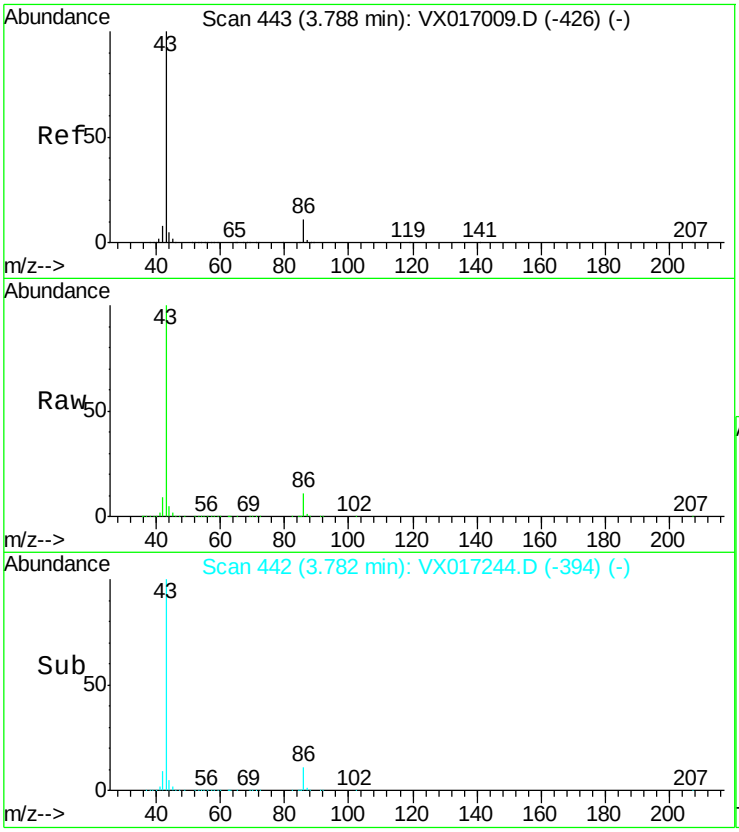
Tgt Ion: 45 Resp: 467979

Ion	Ratio	Lower	Upper
45	100		
43	66.0	58.6	88.0
87	28.7	22.6	34.0
59	10.7	8.7	13.1



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

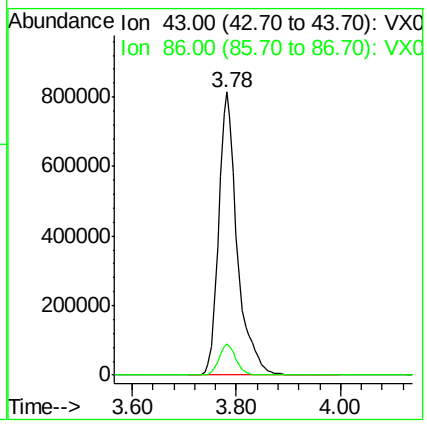
Manual Integrations APPROVED
MMDadoda
7/9/2020 10:59:45 AM

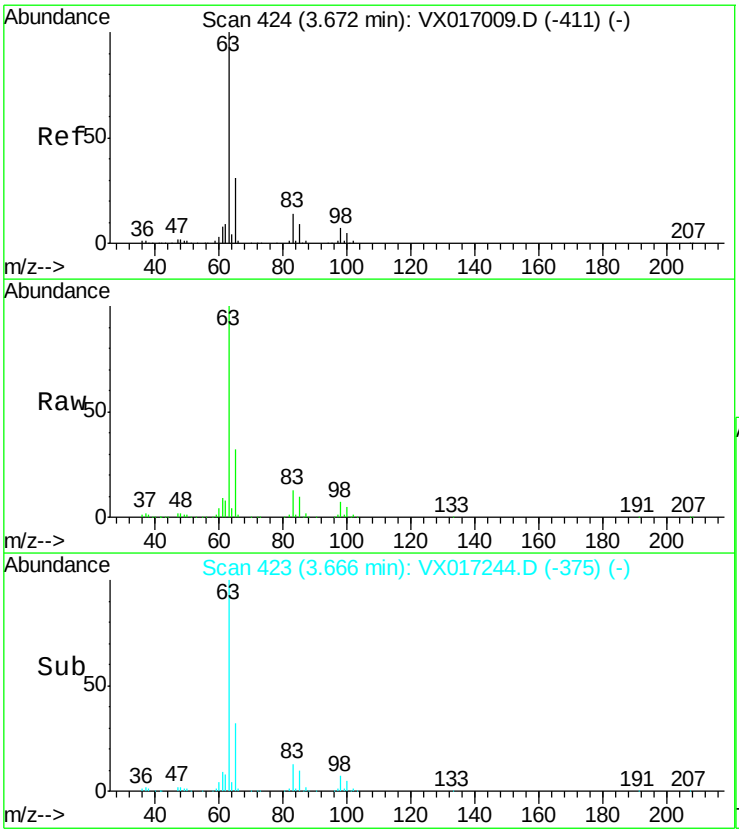


#23
Vinyl Acetate
Concen: 242.987 ug/l
RT: 3.78 min Scan# 442
Delta R.T. -0.01 min
Lab File: VX017244.D
Acq: 08 Jul 2020 10:24

Tgt Ion: 43 Resp: 2041617

Ion	Ratio	Lower	Upper
43	100		
86	11.0	8.6	13.0

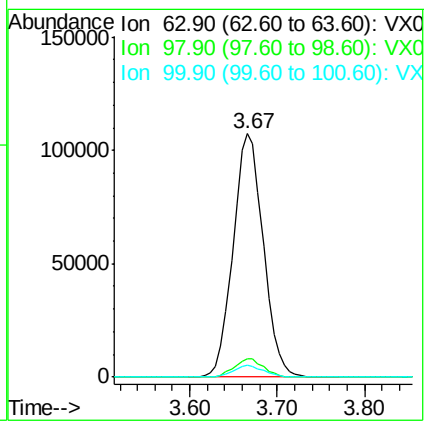




#24
1,1-Dichloroethane
Concen: 46.297 ug/l
RT: 3.67 min Scan# 423
Delta R.T. -0.01 min
Lab File: VX017244.D
Acq: 08 Jul 2020 10:24

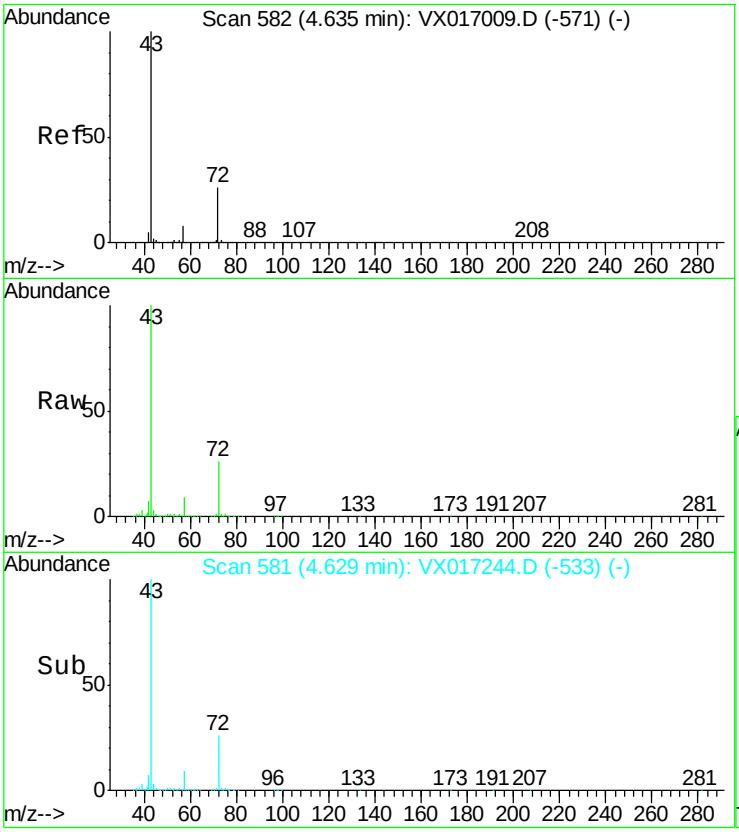
Tgt Ion: 63 Resp: 257572

Ion	Ratio	Lower	Upper
63	100		
98	7.4	3.6	10.8
100	4.7	2.4	7.1



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

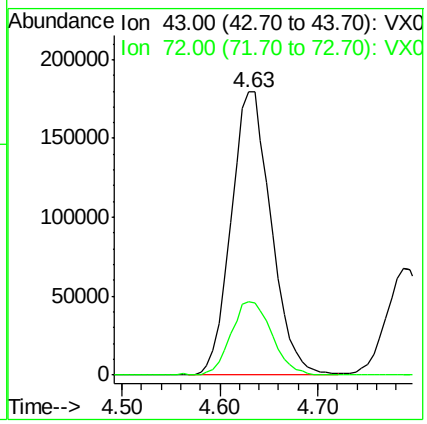
Manual Integrations APPROVED
MMDadoda
7/9/2020 10:59:45 AM

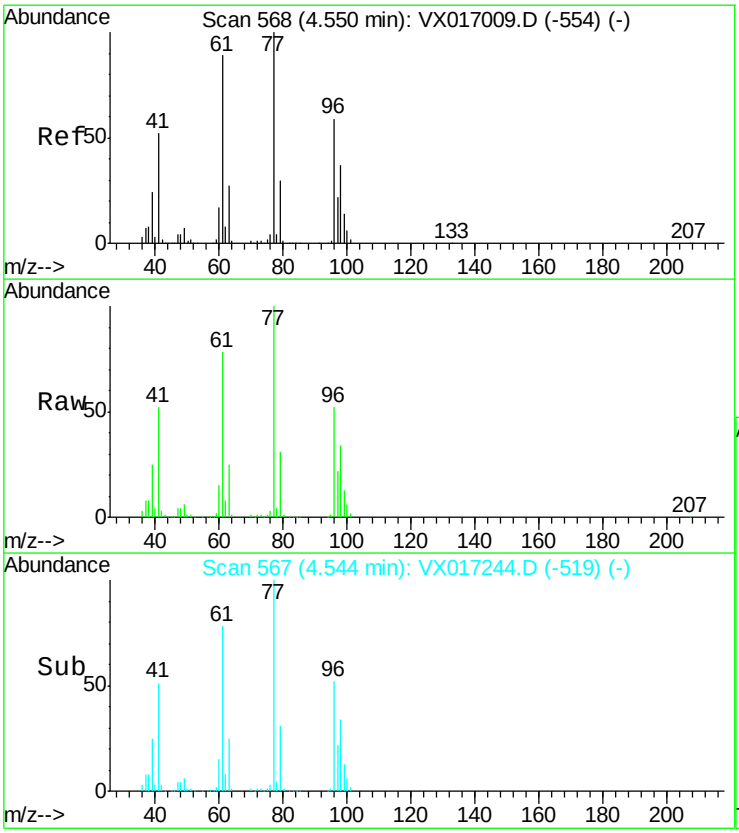


#25
2-Butanone
Concen: 228.794 ug/l
RT: 4.63 min Scan# 581
Delta R.T. -0.01 min
Lab File: VX017244.D
Acq: 08 Jul 2020 10:24

Tgt Ion: 43 Resp: 507992

Ion	Ratio	Lower	Upper
43	100		
72	25.6	20.8	31.2

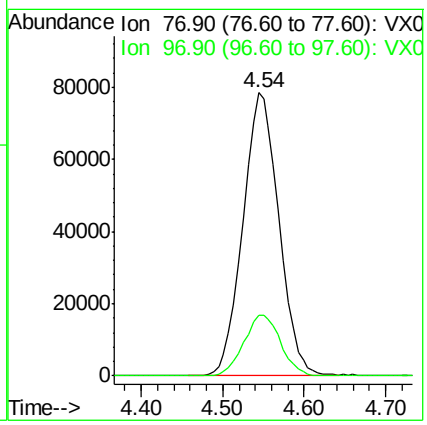




#26
2,2-Dichloropropane
Concen: 48.788 ug/l
RT: 4.54 min Scan# 567
Delta R.T. -0.01 min
Lab File: VX017244.D
Acq: 08 Jul 2020 10:24

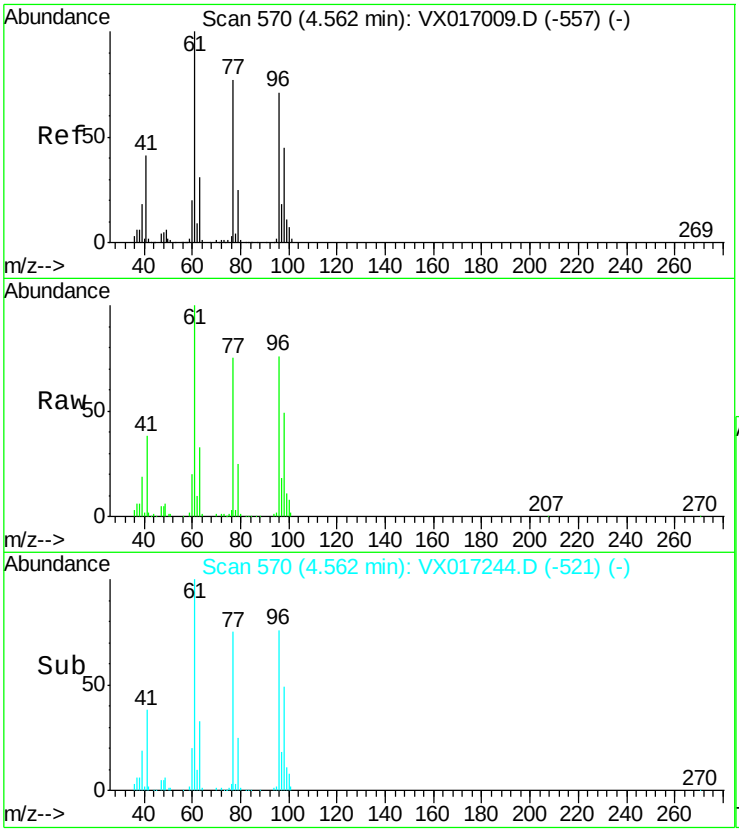
Tgt Ion: 77 Resp: 241008

Ion	Ratio	Lower	Upper
77	100		
97	22.1	11.4	34.2



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

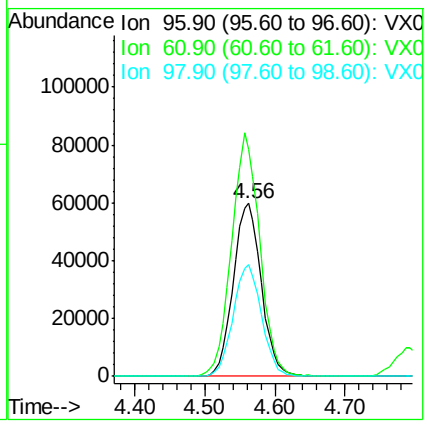
Manual Integrations APPROVED
MMDadoda
7/9/2020 10:59:45 AM

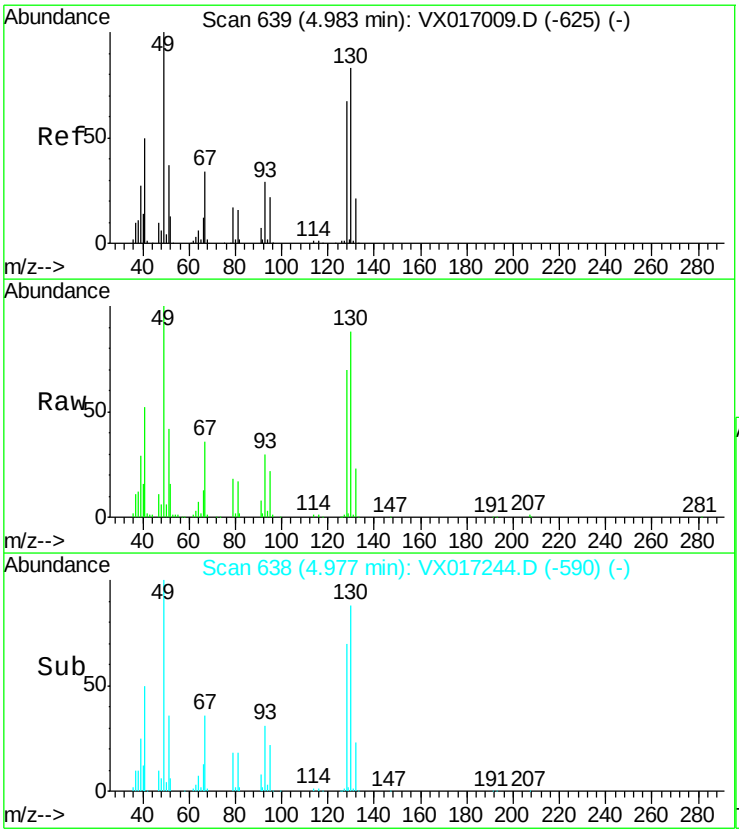


#27
cis-1,2-Dichloroethene
Concen: 46.236 ug/l
RT: 4.56 min Scan# 570
Delta R.T. -0.00 min
Lab File: VX017244.D
Acq: 08 Jul 2020 10:24

Tgt Ion: 96 Resp: 166191

Ion	Ratio	Lower	Upper
96	100		
61	141.7	0.0	282.8
98	65.3	0.0	127.6

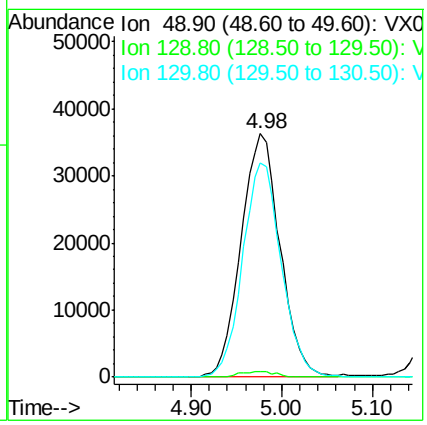




#28
Bromochloromethane
Concen: 40.019 ug/l
RT: 4.98 min Scan# 638
Delta R.T. -0.01 min
Lab File: VX017244.D
Acq: 08 Jul 2020 10:24

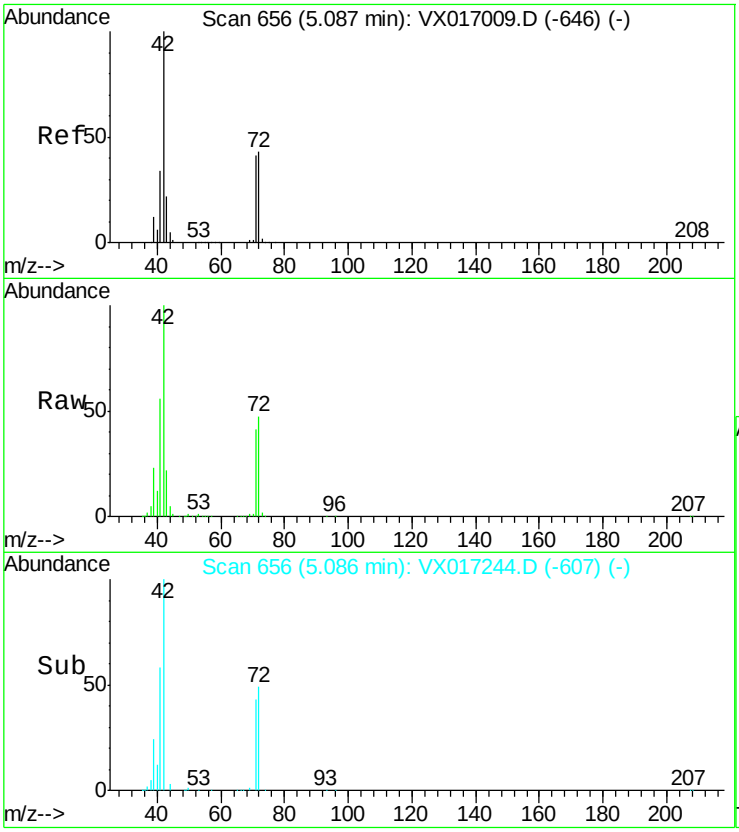
Tgt Ion: 49 Resp: 108343

Ion	Ratio	Lower	Upper
49	100		
129	2.2	0.0	4.2
130	86.7	66.6	100.0



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

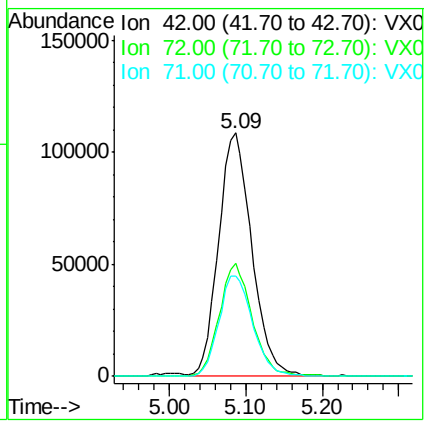
Manual Integrations APPROVED
MMDadoda
7/9/2020 10:59:45 AM

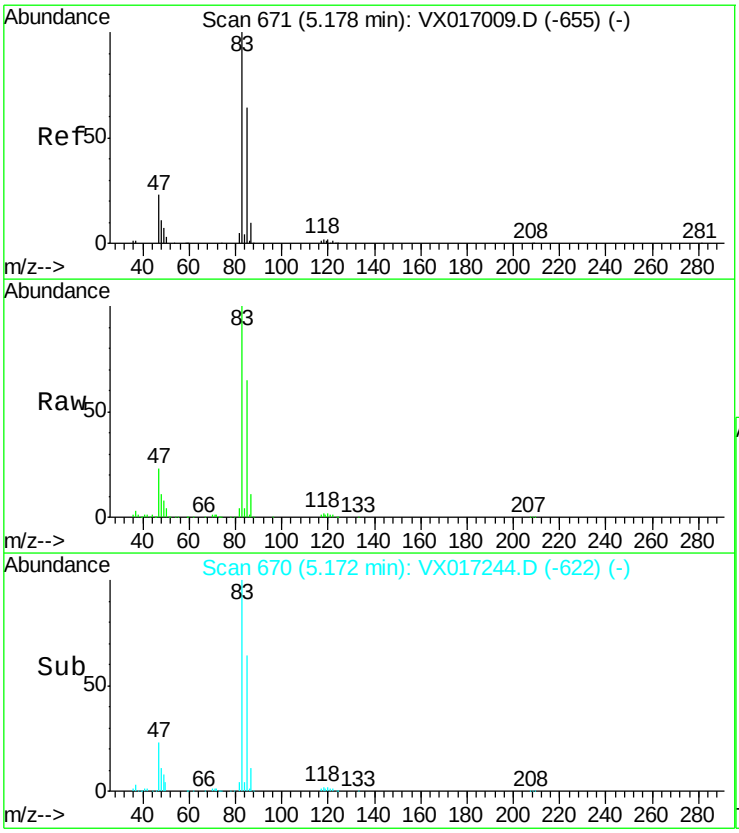


#29
Tetrahydrofuran
Concen: 222.054 ug/l
RT: 5.09 min Scan# 656
Delta R.T. -0.00 min
Lab File: VX017244.D
Acq: 08 Jul 2020 10:24

Tgt Ion: 42 Resp: 325753

Ion	Ratio	Lower	Upper
42	100		
72	46.2	35.3	52.9
71	42.2	33.1	49.7

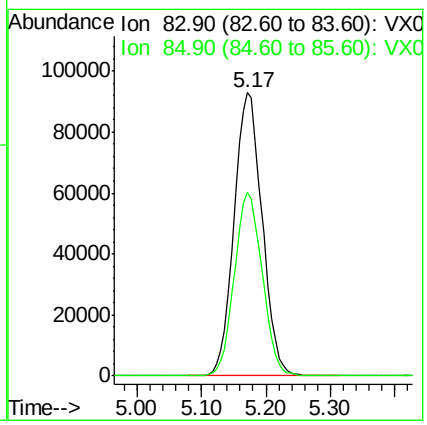




#30
Chloroform
Concen: 49.274 ug/l
RT: 5.17 min Scan# 670
Delta R.T. -0.01 min
Lab File: VX017244.D
Acq: 08 Jul 2020 10:24

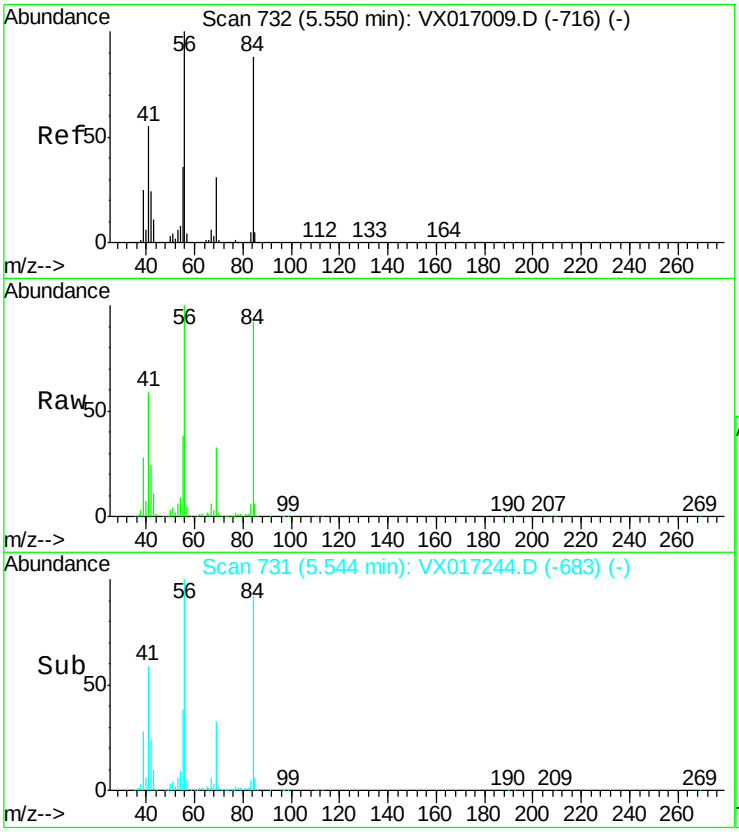
Tgt Ion: 83 Resp: 281017

Ion	Ratio	Lower	Upper
83	100		
85	64.6	51.4	77.2



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

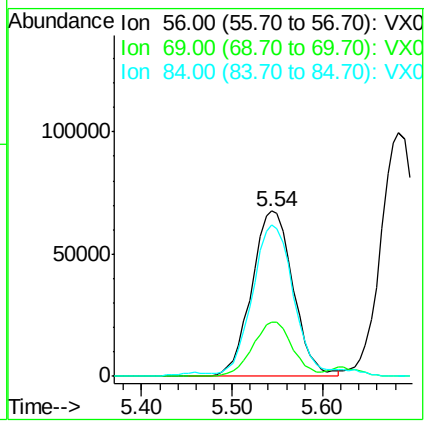
Manual Integrations APPROVED
MMDadoda
7/9/2020 10:59:45 AM

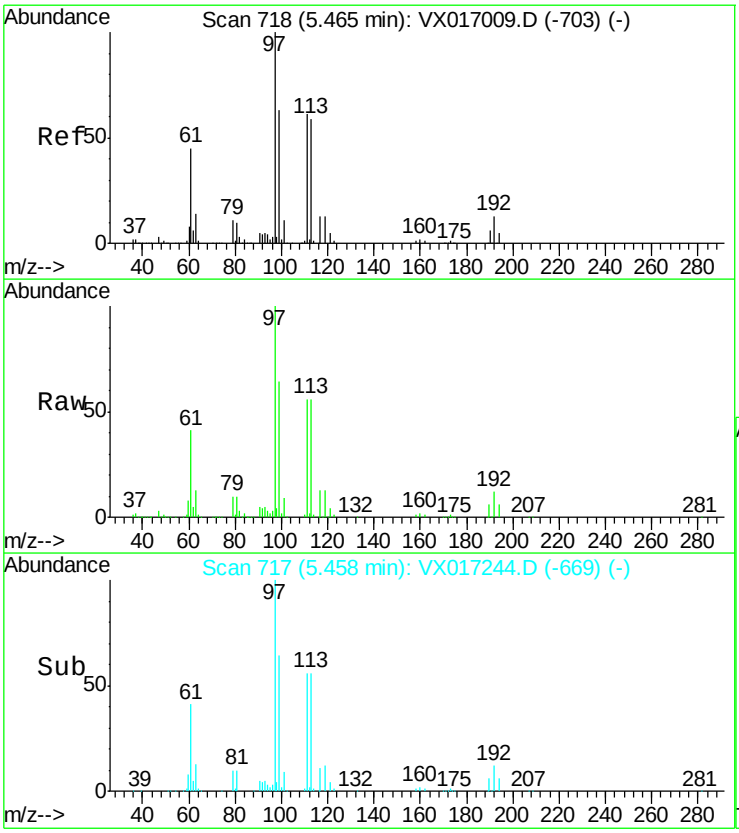


#31
Cyclohexane
Concen: 44.512 ug/l
RT: 5.54 min Scan# 731
Delta R.T. -0.01 min
Lab File: VX017244.D
Acq: 08 Jul 2020 10:24

Tgt Ion: 56 Resp: 214055

Ion	Ratio	Lower	Upper
56	100		
69	32.7	25.0	37.4
84	89.9	69.1	103.7

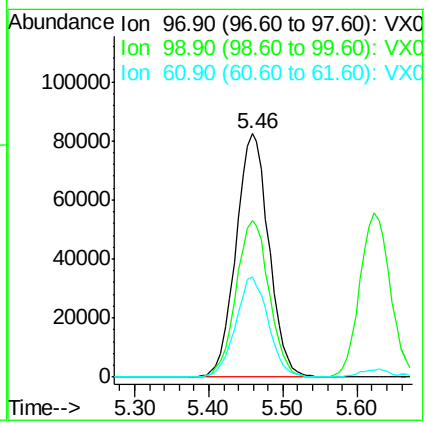




#32
1,1,1-Trichloroethane
Concen: 48.486 ug/l
RT: 5.46 min Scan# 717
Delta R.T. -0.01 min
Lab File: VX017244.D
Acq: 08 Jul 2020 10:24

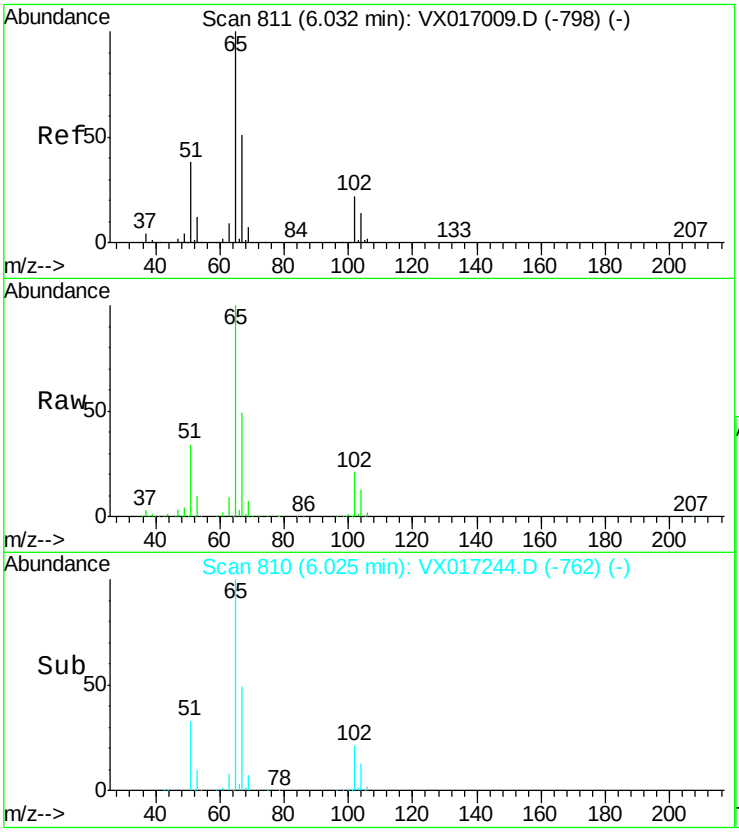
Tgt Ion: 97 Resp: 254667

Ion	Ratio	Lower	Upper
97	100		
99	65.1	50.8	76.2
61	40.9	33.7	50.5



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

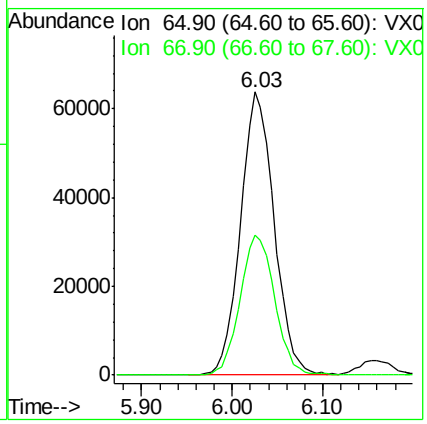
Manual Integrations APPROVED
MMDadoda
7/9/2020 10:59:45 AM

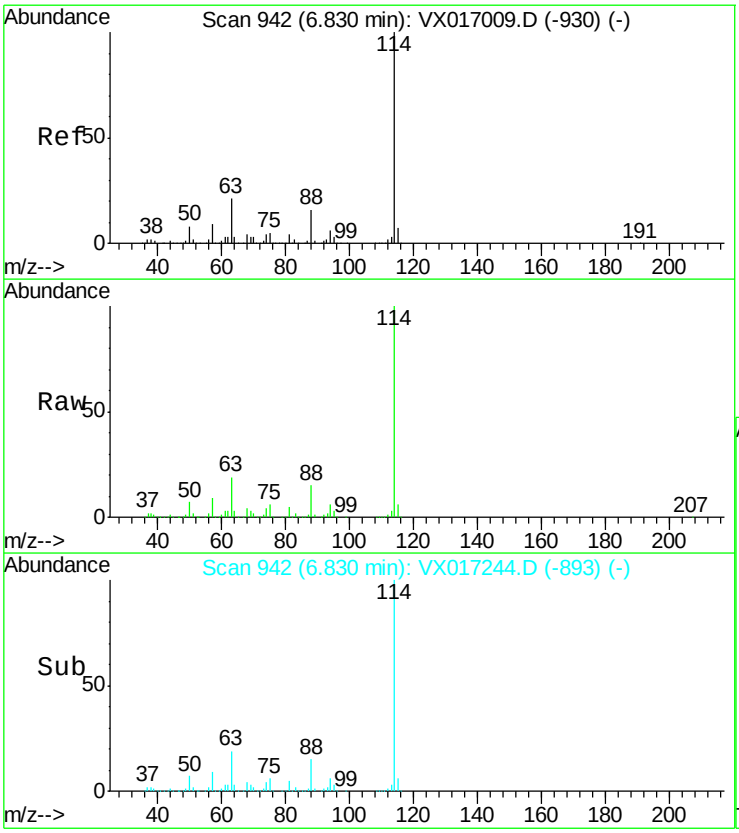


#33
1,2-Dichloroethane-d4
Concen: 45.894 ug/l
RT: 6.03 min Scan# 810
Delta R.T. -0.01 min
Lab File: VX017244.D
Acq: 08 Jul 2020 10:24

Tgt Ion: 65 Resp: 163474

Ion	Ratio	Lower	Upper
65	100		
67	51.3	0.0	103.8

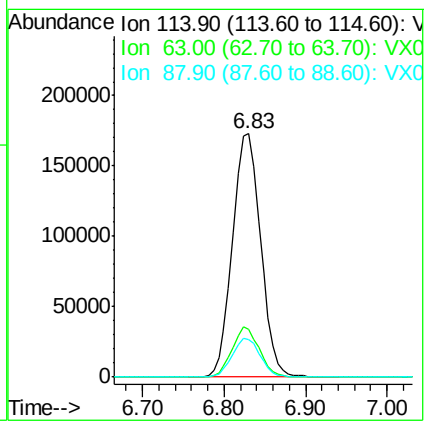




#34
1,4-Difluorobenzene
Concen: 50.000 ug/l
RT: 6.83 min Scan# 942
Delta R.T. -0.00 min
Lab File: VX017244.D
Acq: 08 Jul 2020 10:24

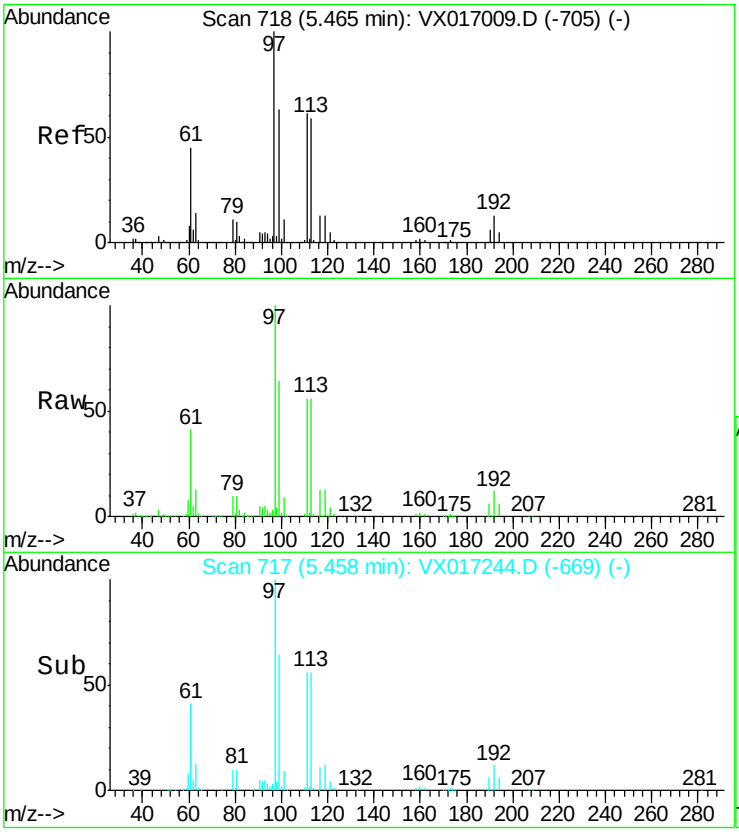
Tgt Ion:114 Resp: 412579

Ion	Ratio	Lower	Upper
114	100		
63	19.5	0.0	41.4
88	15.4	0.0	32.4



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

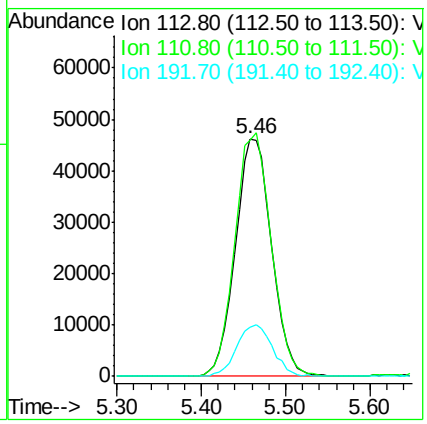
Manual Integrations APPROVED
MMDadoda
7/9/2020 10:59:45 AM

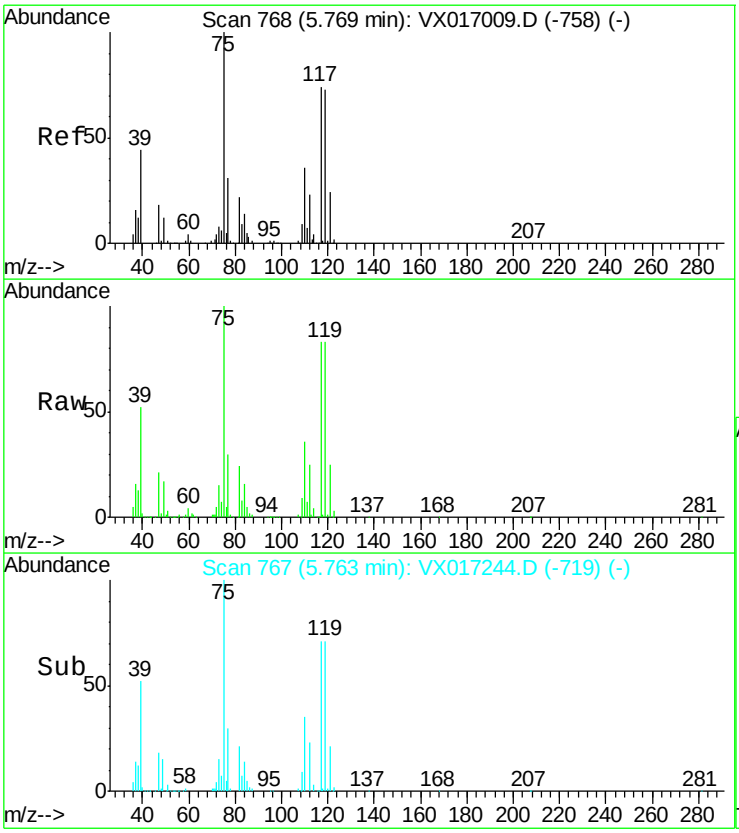


#35
Dibromofluoromethane
Concen: 51.436 ug/l
RT: 5.46 min Scan# 717
Delta R.T. -0.01 min
Lab File: VX017244.D
Acq: 08 Jul 2020 10:24

Tgt Ion:113 Resp: 134240

Ion	Ratio	Lower	Upper
113	100		
111	102.9	81.9	122.9
192	21.7	16.7	25.1

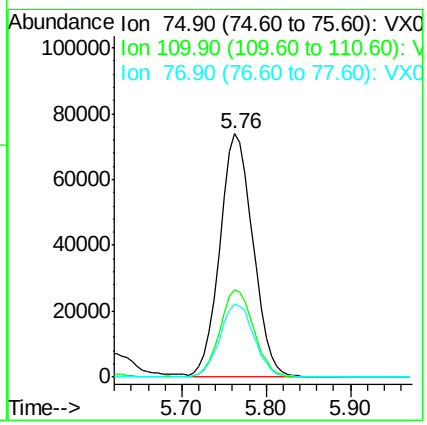




#36
1,1-Dichloropropene
Concen: 50.936 ug/l
RT: 5.76 min Scan# 767
Delta R.T. -0.01 min
Lab File: VX017244.D
Acq: 08 Jul 2020 10:24

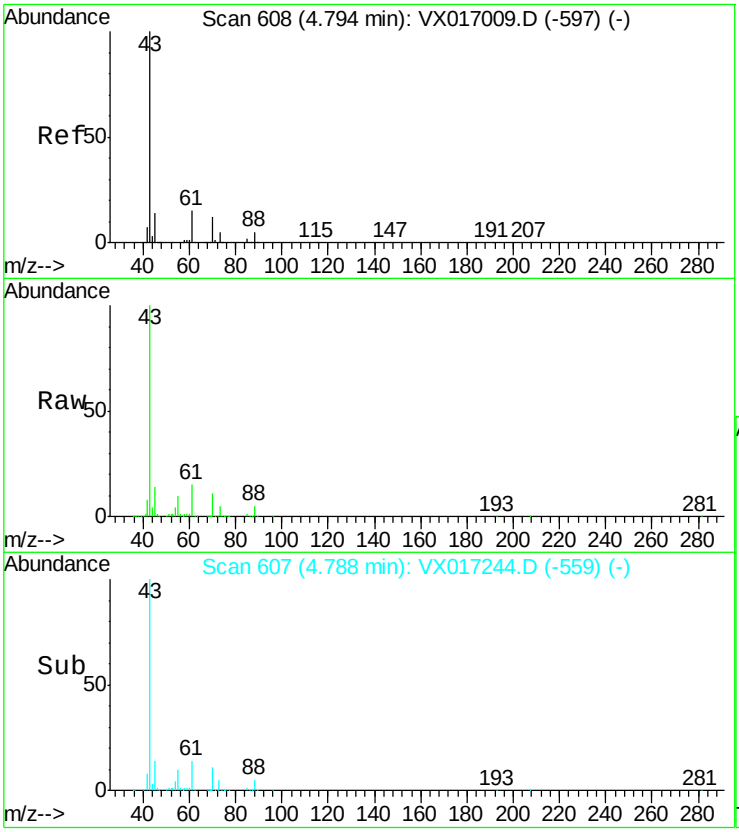
Tgt Ion: 75 Resp: 198619

Ion	Ratio	Lower	Upper
75	100		
110	36.7	18.1	54.1
77	31.2	24.6	37.0



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

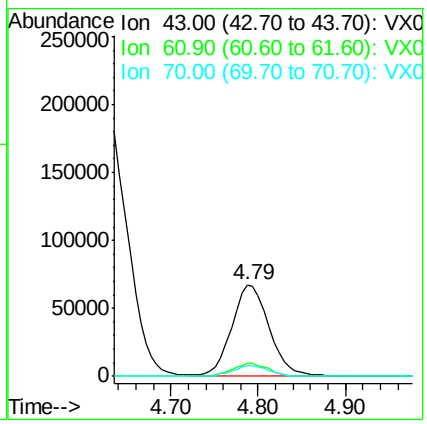
Manual Integrations APPROVED
MMDadoda
7/9/2020 10:59:45 AM

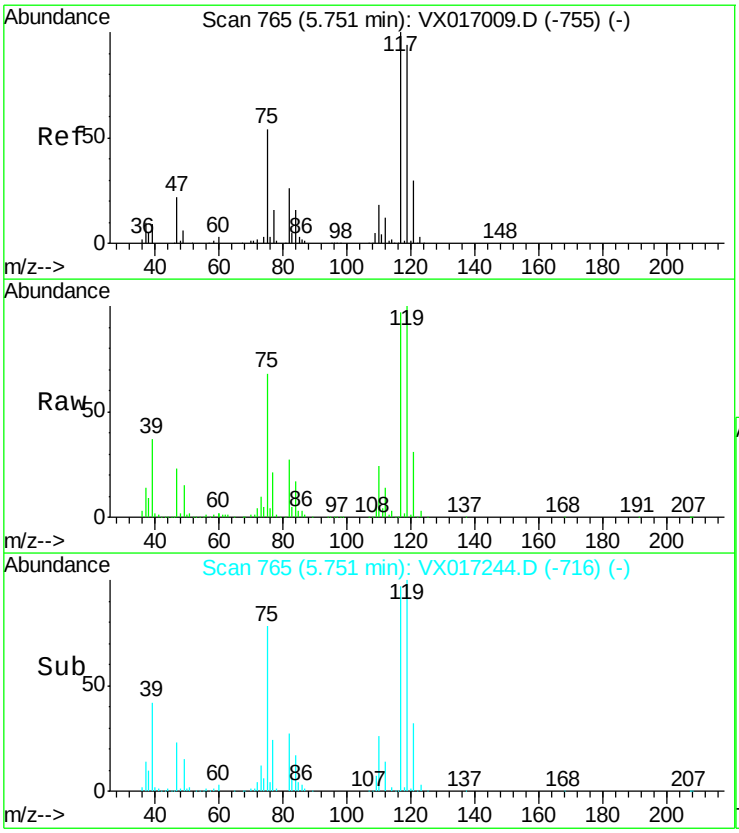


#37
Ethyl Acetate
Concen: 49.991 ug/l
RT: 4.79 min Scan# 607
Delta R.T. -0.01 min
Lab File: VX017244.D
Acq: 08 Jul 2020 10:24

Tgt Ion: 43 Resp: 197782

Ion	Ratio	Lower	Upper
43	100		
61	14.4	11.0	16.4
70	11.6	8.9	13.3

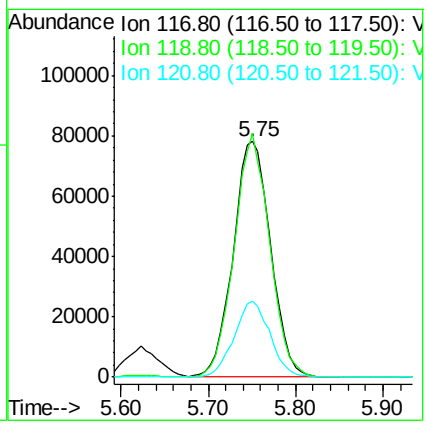




#38
Carbon Tetrachloride
Concen: 54.153 ug/l
RT: 5.75 min Scan# 765
Delta R.T. -0.00 min
Lab File: VX017244.D
Acq: 08 Jul 2020 10:24

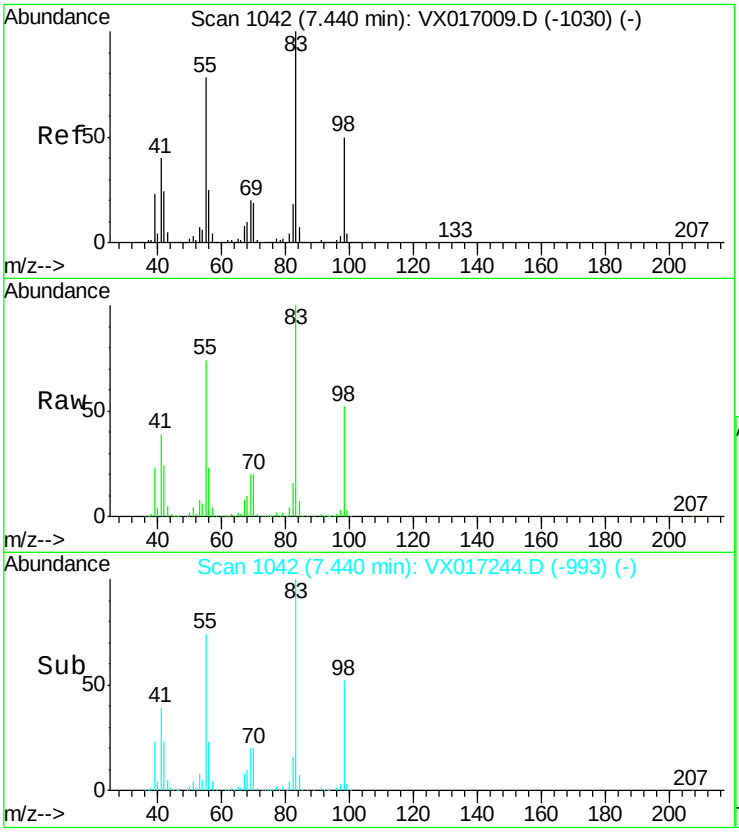
Tgt Ion:117 Resp: 232580

Ion	Ratio	Lower	Upper
117	100		
119	103.2	75.4	113.0
121	32.2	23.8	35.6



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

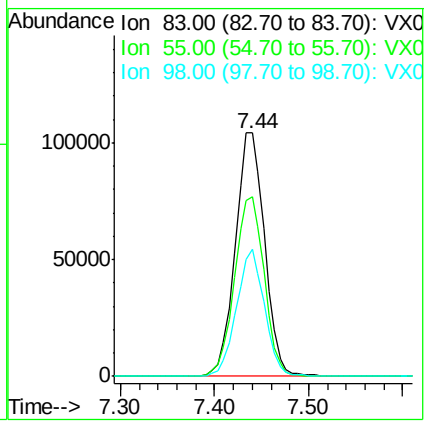
Manual Integrations APPROVED
MMDadoda
7/9/2020 10:59:45 AM

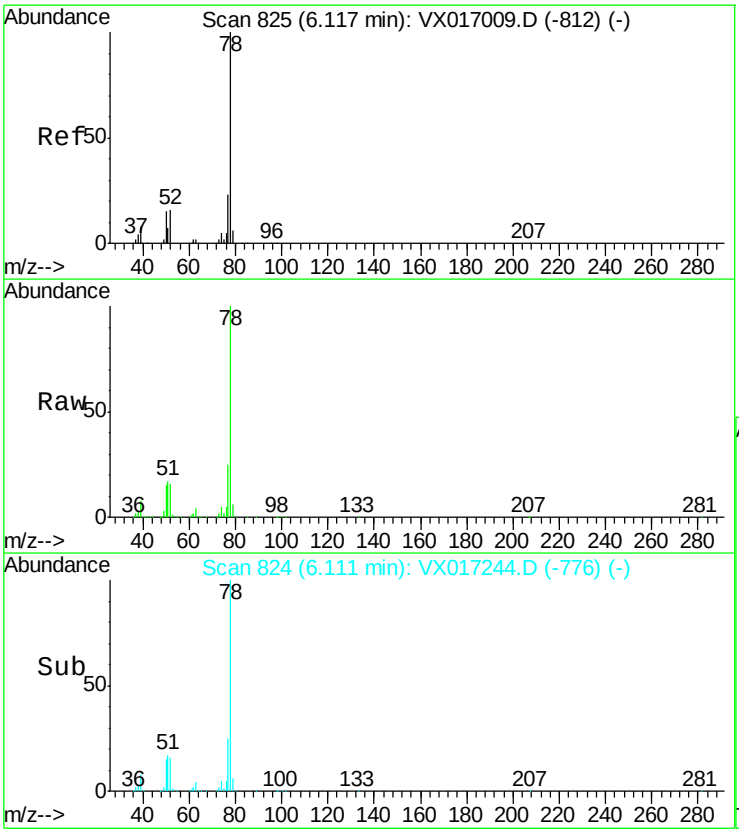


#39
Methylcyclohexane
Concen: 52.045 ug/l
RT: 7.44 min Scan# 1042
Delta R.T. -0.00 min
Lab File: VX017244.D
Acq: 08 Jul 2020 10:24

Tgt Ion: 83 Resp: 225800

Ion	Ratio	Lower	Upper
83	100		
55	73.6	62.5	93.7
98	52.0	40.1	60.1

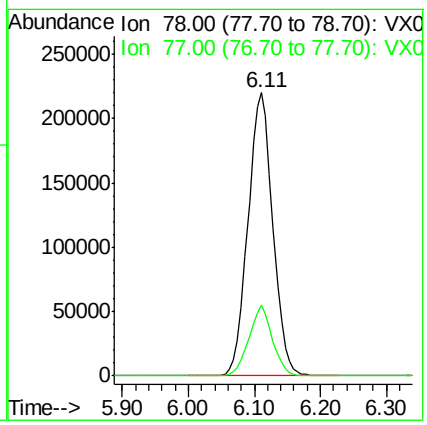




#40
Benzene
Concen: 50.215 ug/l
RT: 6.11 min Scan# 824
Delta R.T. -0.01 min
Lab File: VX017244.D
Acq: 08 Jul 2020 10:24

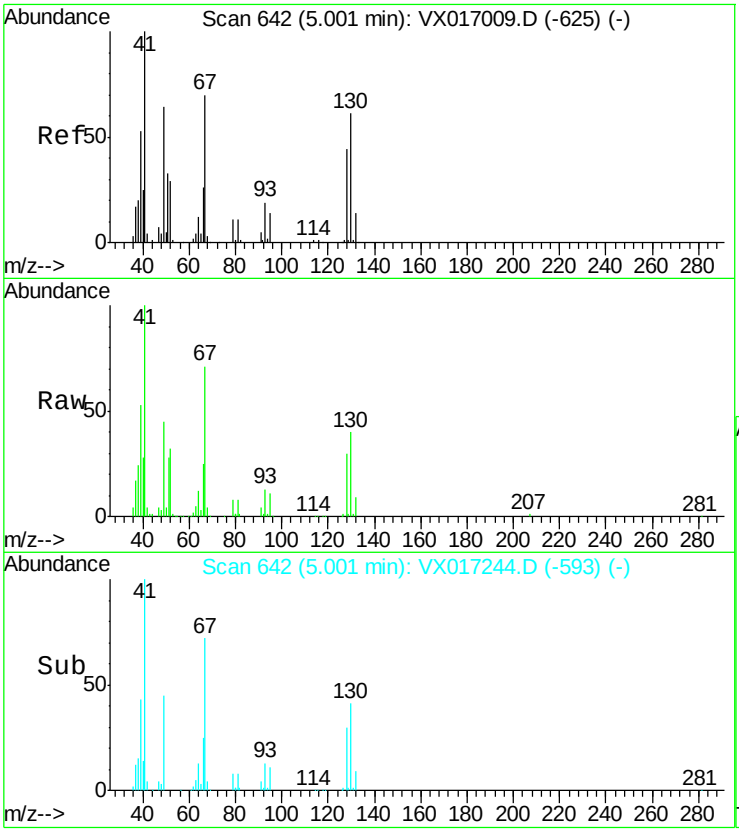
Tgt Ion: 78 Resp: 575319

Ion	Ratio	Lower	Upper
78	100		
77	24.9	18.3	27.5



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

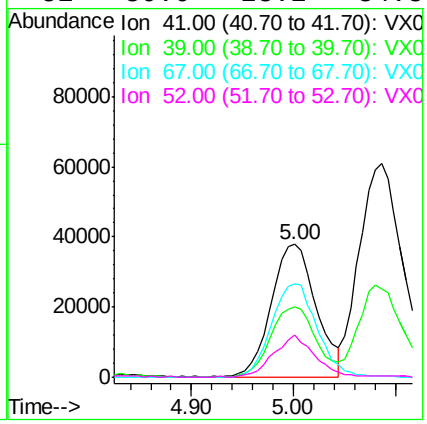
Manual Integrations APPROVED
MMDadoda
7/9/2020 10:59:45 AM

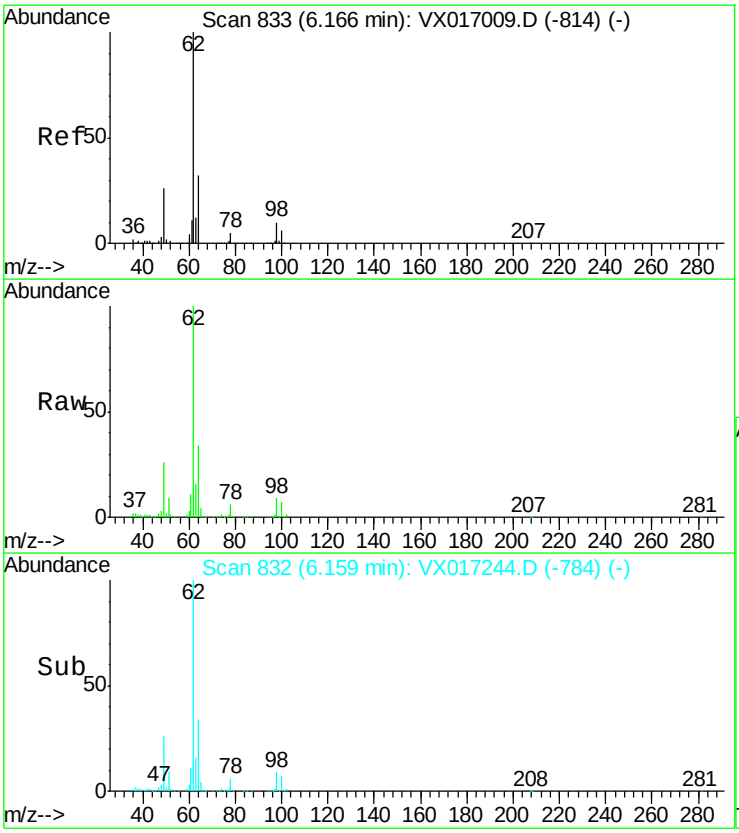


#41
Methacrylonitrile
Concen: 52.087 ug/l
RT: 5.00 min Scan# 642
Delta R.T. -0.00 min
Lab File: VX017244.D
Acq: 08 Jul 2020 10:24

Tgt Ion: 41 Resp: 115984

Ion	Ratio	Lower	Upper
41	100		
39	54.0	44.4	66.6
67	71.4	57.1	85.7
52	30.0	23.2	34.8

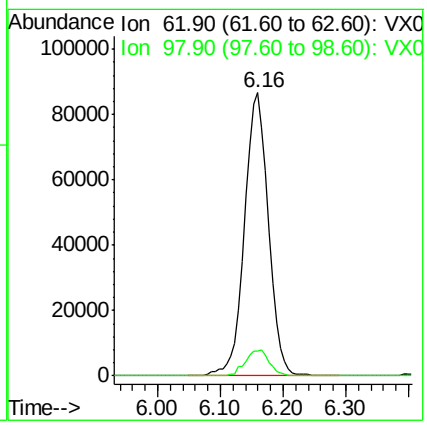




#42
1,2-Dichloroethane
Concen: 55.334 ug/l
RT: 6.16 min Scan# 832
Delta R.T. -0.01 min
Lab File: VX017244.D
Acq: 08 Jul 2020 10:24

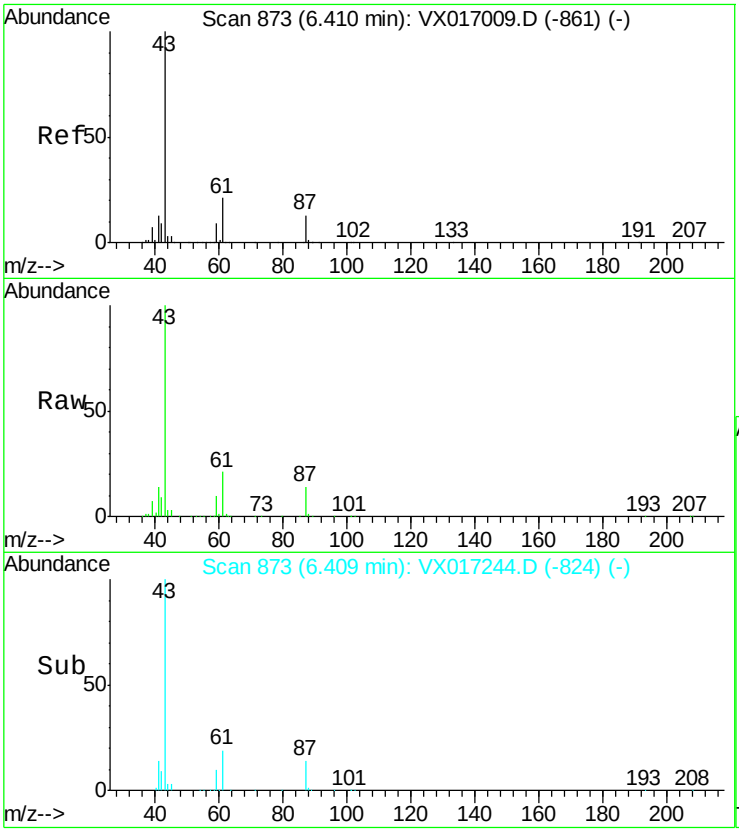
Tgt Ion: 62 Resp: 228992

Ion	Ratio	Lower	Upper
62	100		
98	9.3	0.0	19.2



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

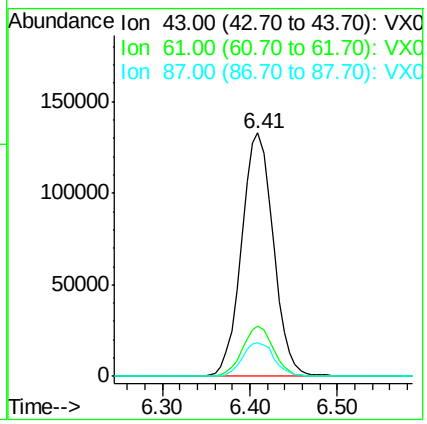
Manual Integrations APPROVED
MMDadoda
7/9/2020 10:59:45 AM

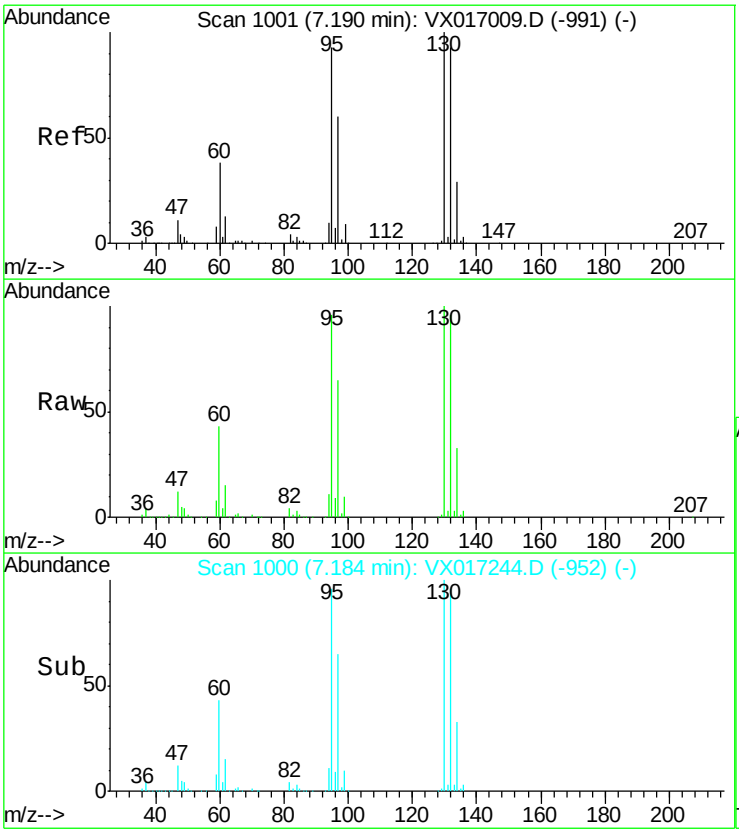


#43
Isopropyl Acetate
Concen: 50.855 ug/l
RT: 6.41 min Scan# 873
Delta R.T. -0.00 min
Lab File: VX017244.D
Acq: 08 Jul 2020 10:24

Tgt Ion: 43 Resp: 334337

Ion	Ratio	Lower	Upper
43	100		
61	20.4	16.2	24.2
87	14.1	10.7	16.1

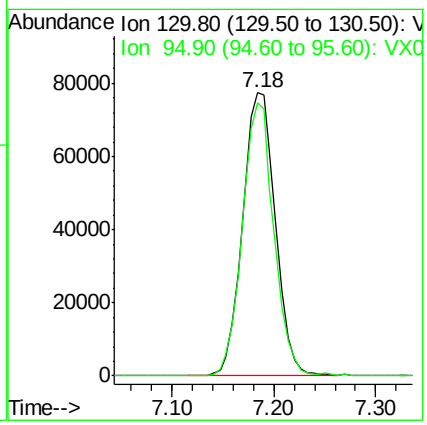




#44
Trichloroethene
Concen: 54.578 ug/l
RT: 7.18 min Scan# 1000
Delta R.T. -0.01 min
Lab File: VX017244.D
Acq: 08 Jul 2020 10:24

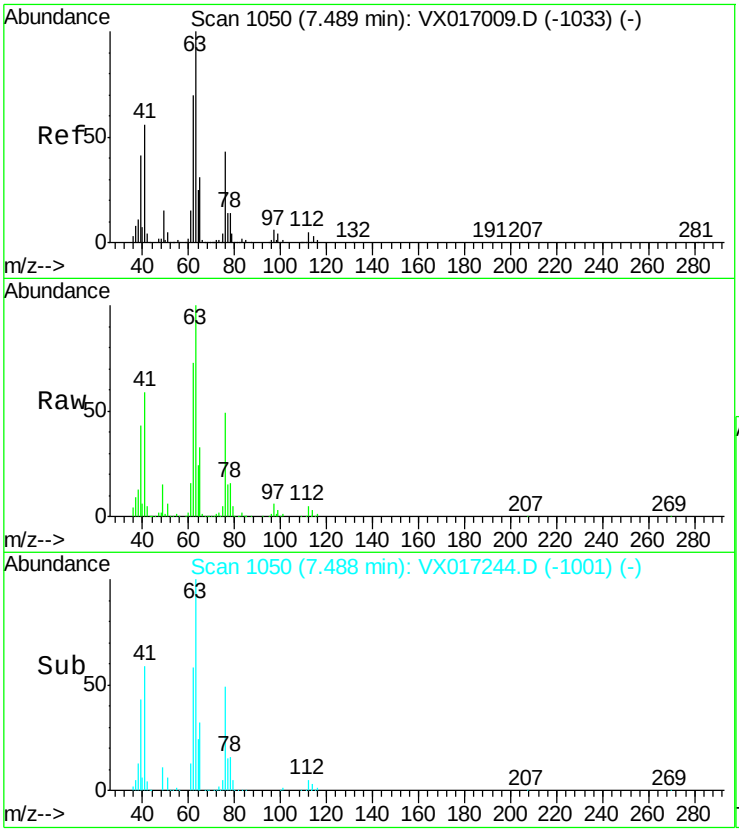
Tgt Ion:130 Resp: 172462

Ion	Ratio	Lower	Upper
130	100		
95	96.3	0.0	185.0



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

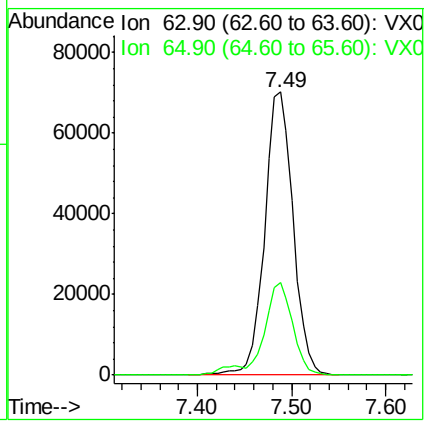
Manual Integrations APPROVED
MMDadoda
7/9/2020 10:59:45 AM

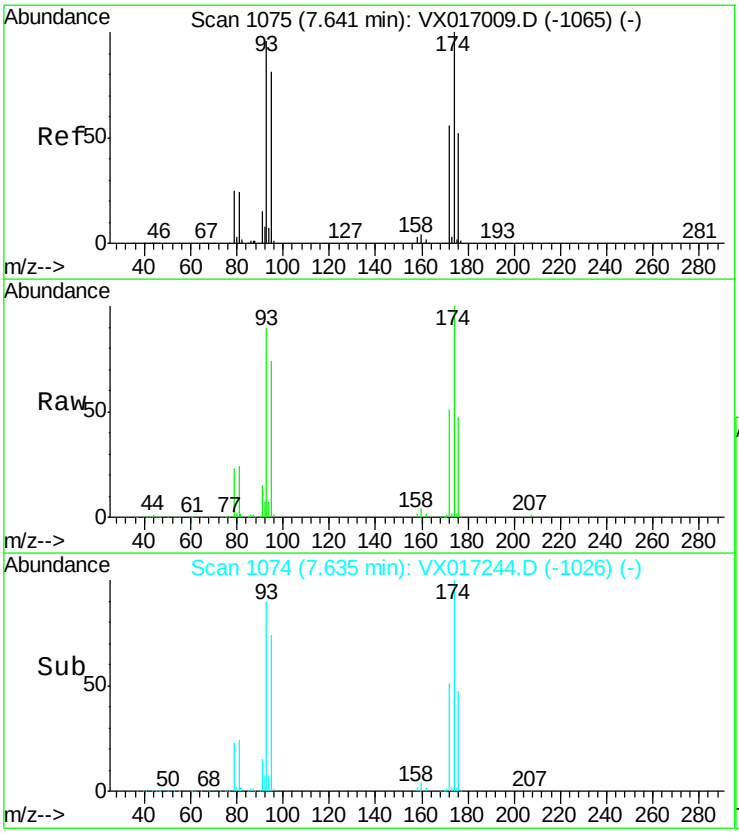


#45
1,2-Dichloropropane
Concen: 50.363 ug/l
RT: 7.49 min Scan# 1050
Delta R.T. -0.00 min
Lab File: VX017244.D
Acq: 08 Jul 2020 10:24

Tgt Ion: 63 Resp: 148200

Ion	Ratio	Lower	Upper
63	100		
65	32.8	24.6	36.8

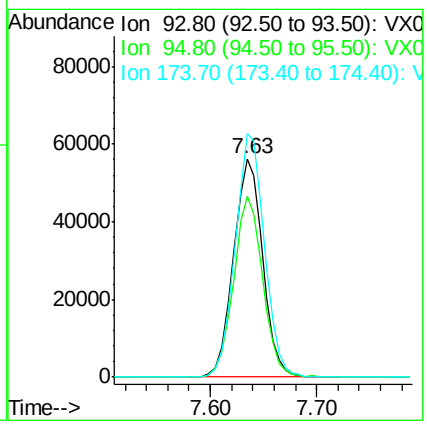




#46
Dibromomethane
Concen: 53.848 ug/l
RT: 7.63 min Scan# 1074
Delta R.T. -0.01 min
Lab File: VX017244.D
Acq: 08 Jul 2020 10:24

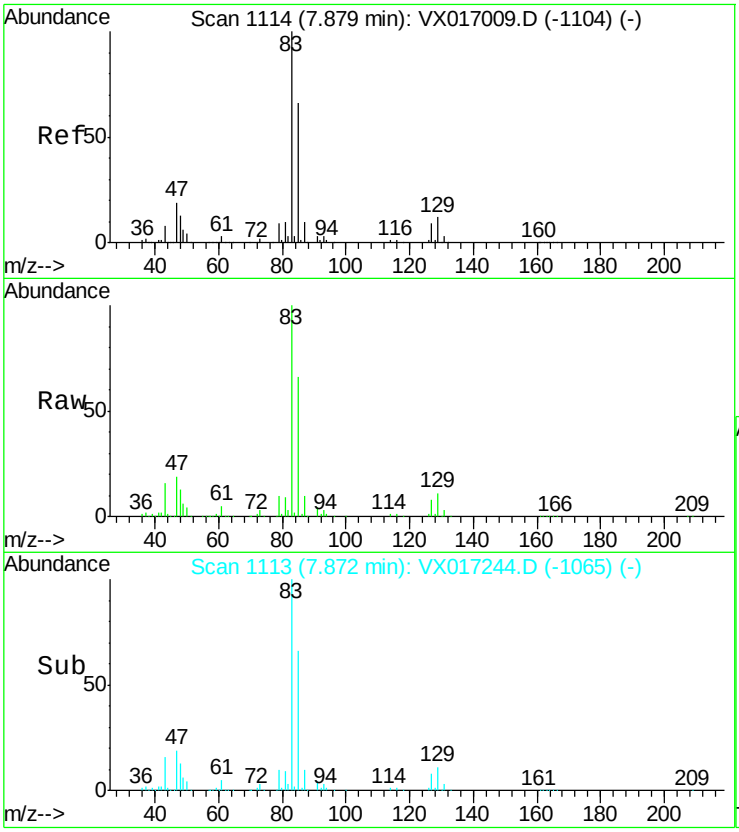
Tgt Ion: 93 Resp: 108181

Ion	Ratio	Lower	Upper
93	100		
95	82.4	67.4	101.0
174	112.0	84.3	126.5



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

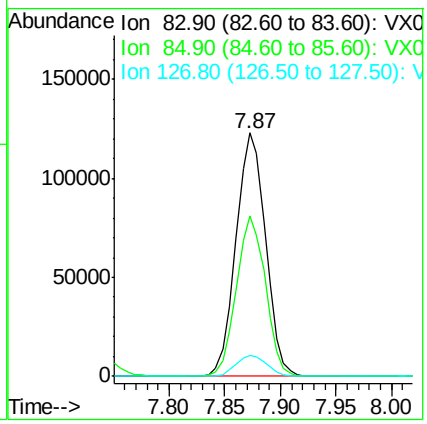
Manual Integrations APPROVED
MMDadoda
7/9/2020 10:59:45 AM

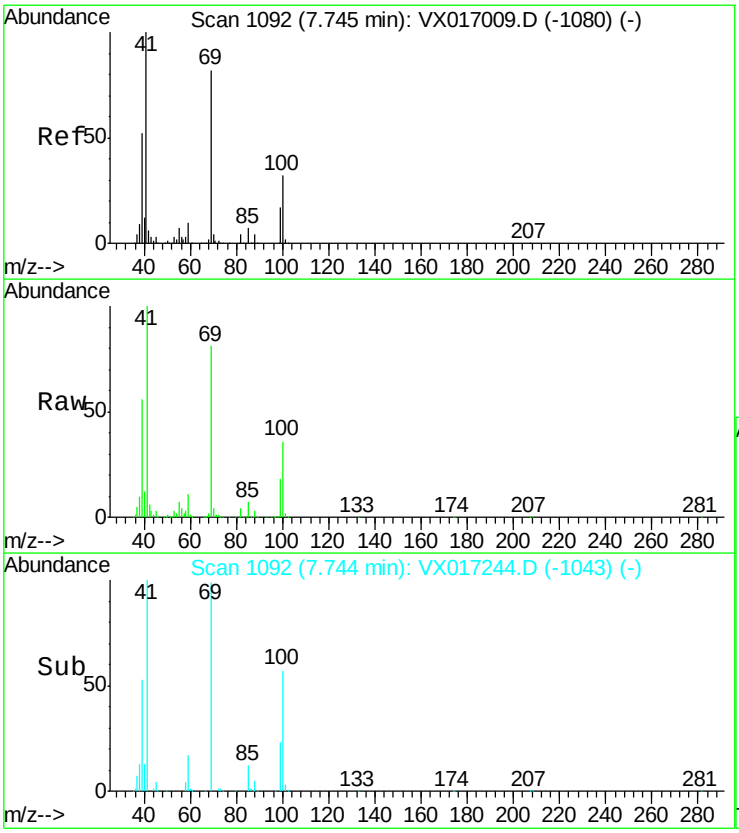


#47
Bromodichloromethane
Concen: 54.755 ug/l
RT: 7.87 min Scan# 1113
Delta R.T. -0.01 min
Lab File: VX017244.D
Acq: 08 Jul 2020 10:24

Tgt Ion: 83 Resp: 226695

Ion	Ratio	Lower	Upper
83	100		
85	66.1	53.0	79.4
127	8.4	7.5	11.3

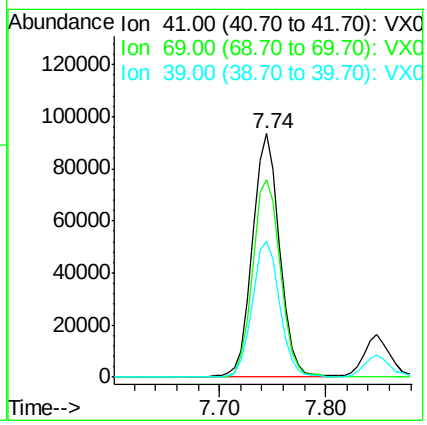




#48
Methyl methacrylate
Concen: 53.441 ug/l
RT: 7.74 min Scan# 1092
Delta R.T. -0.00 min
Lab File: VX017244.D
Acq: 08 Jul 2020 10:24

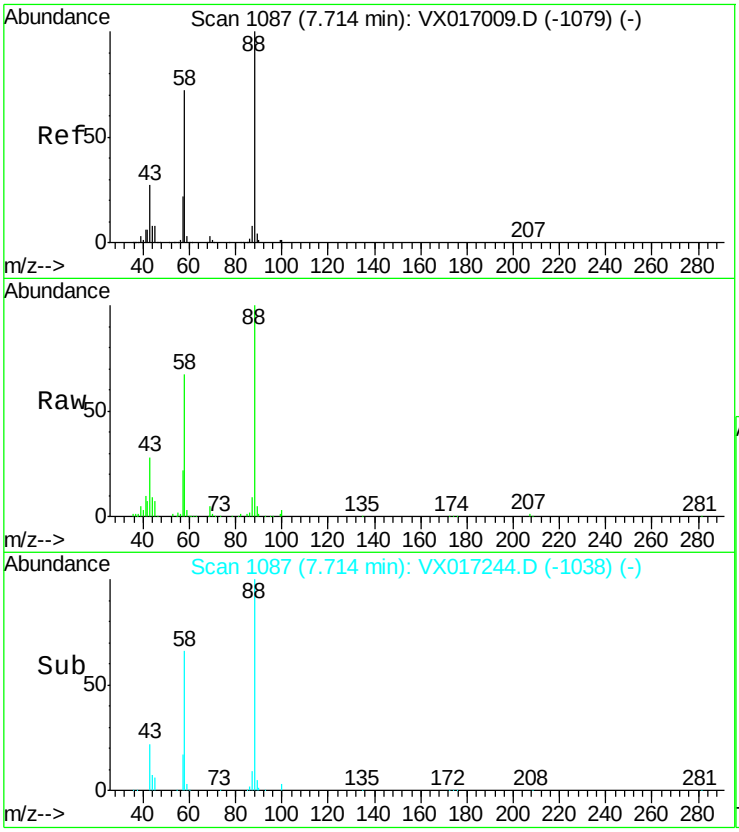
Tgt Ion: 41 Resp: 166919

Ion	Ratio	Lower	Upper
41	100		
69	83.1	65.8	98.8
39	56.2	42.5	63.7



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

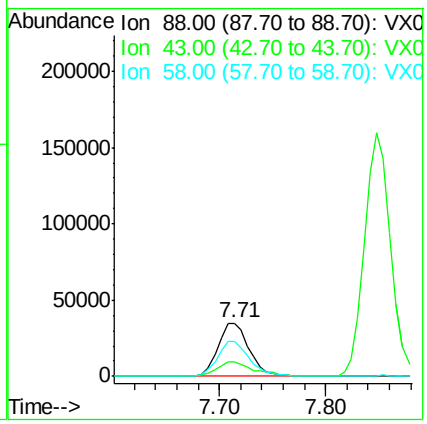
Manual Integrations APPROVED
MMDadoda
7/9/2020 10:59:45 AM

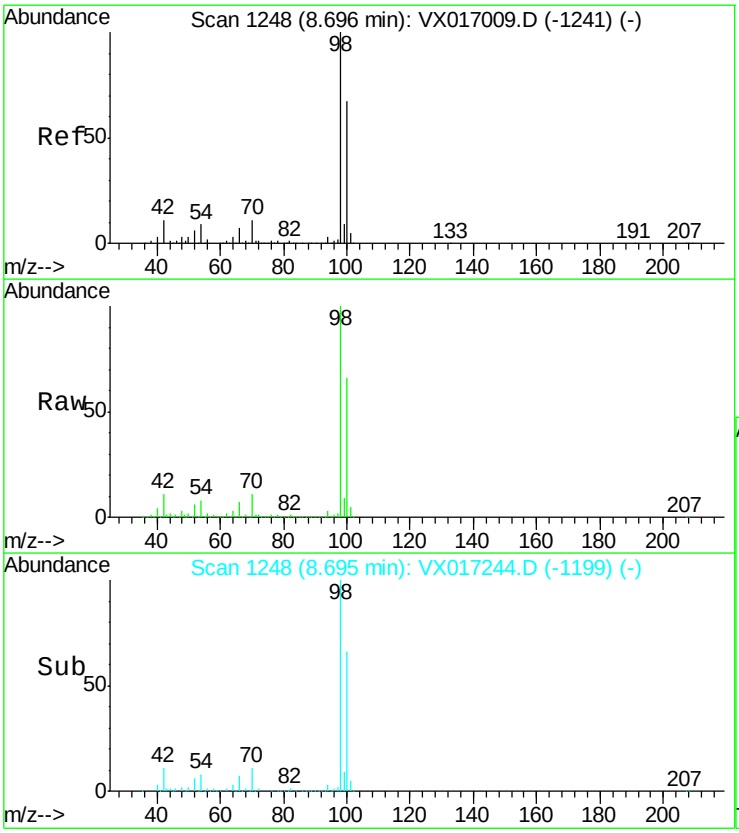


#49
1,4-Dioxane
Concen: 1007.221 ug/l
RT: 7.71 min Scan# 1087
Delta R.T. -0.00 min
Lab File: VX017244.D
Acq: 08 Jul 2020 10:24

Tgt Ion: 88 Resp: 71271

Ion	Ratio	Lower	Upper
88	100		
43	32.2	25.8	38.8
58	68.1	54.8	82.2

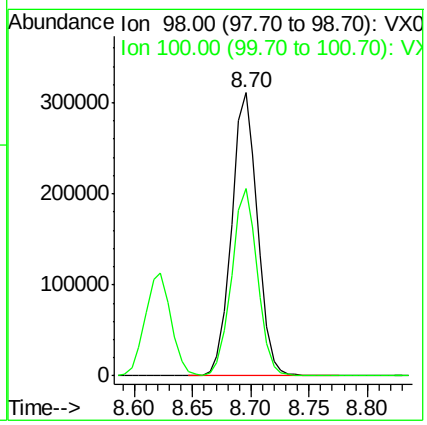




#50
Toluene-d8
Concen: 49.797 ug/l
RT: 8.70 min Scan# 1248
Delta R.T. -0.00 min
Lab File: VX017244.D
Acq: 08 Jul 2020 10:24

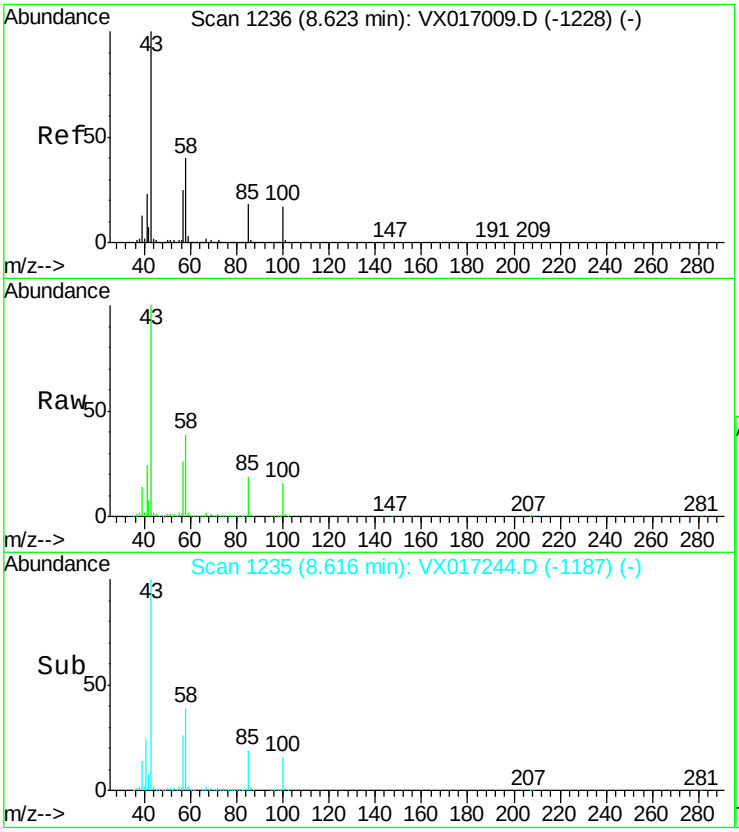
Tgt Ion: 98 Resp: 480574

Ion	Ratio	Lower	Upper
98	100		
100	66.4	53.8	80.6



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

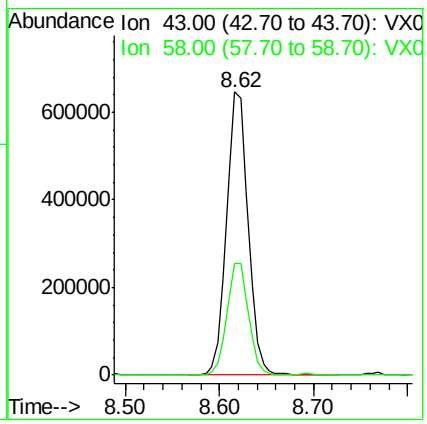
Manual Integrations APPROVED
MMDadoda
7/9/2020 10:59:45 AM

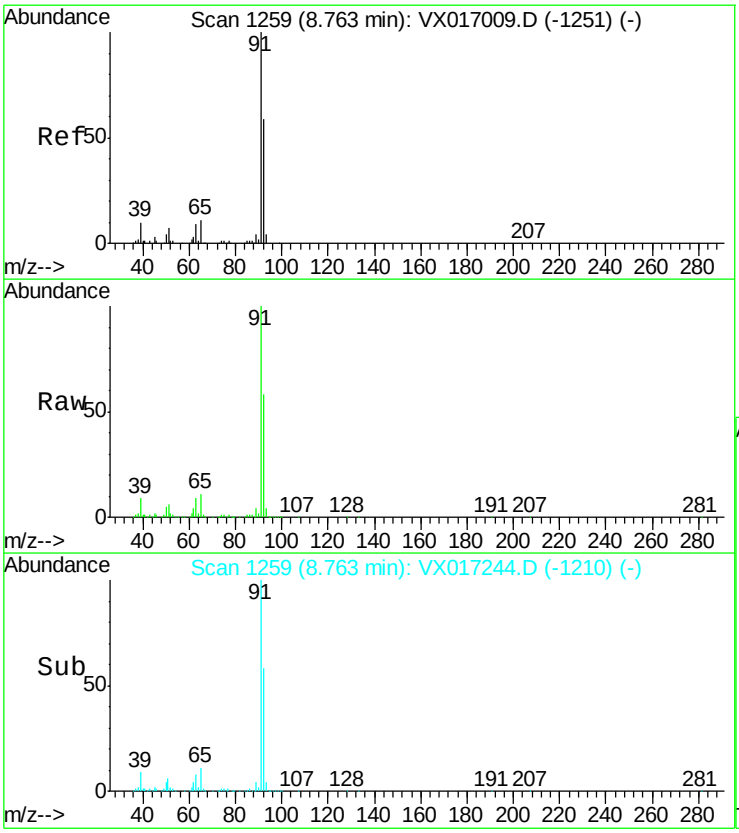


#51
4-Methyl-2-Pentanone
Concen: 262.277 ug/l
RT: 8.62 min Scan# 1235
Delta R.T. -0.01 min
Lab File: VX017244.D
Acq: 08 Jul 2020 10:24

Tgt Ion: 43 Resp: 1027842

Ion	Ratio	Lower	Upper
43	100		
58	39.7	31.9	47.9

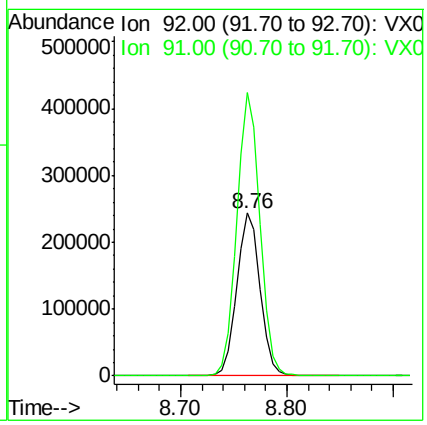




#52
Toluene
Concen: 52.280 ug/l
RT: 8.76 min Scan# 1259
Delta R.T. -0.00 min
Lab File: VX017244.D
Acq: 08 Jul 2020 10:24

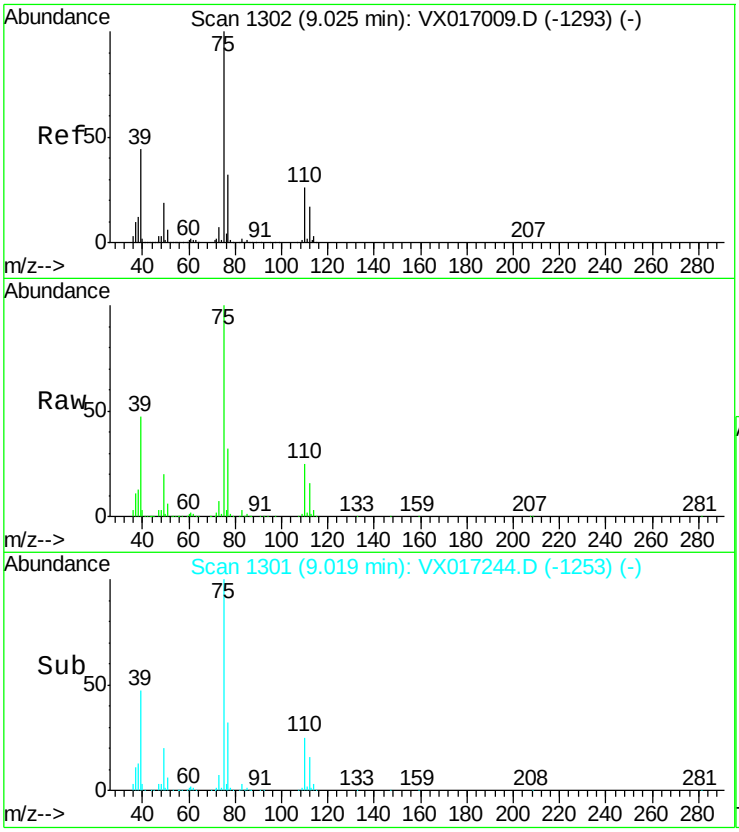
Tgt Ion: 92 Resp: 373968

Ion	Ratio	Lower	Upper
92	100		
91	172.8	136.9	205.3



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

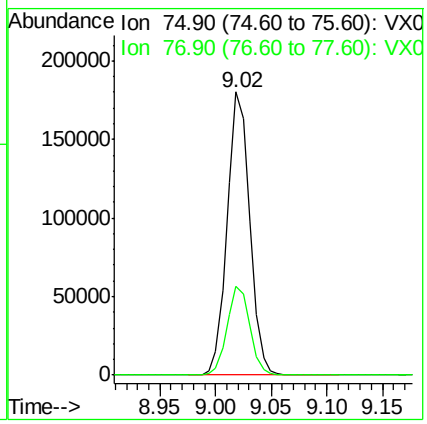
Manual Integrations APPROVED
MMDadoda
7/9/2020 10:59:45 AM

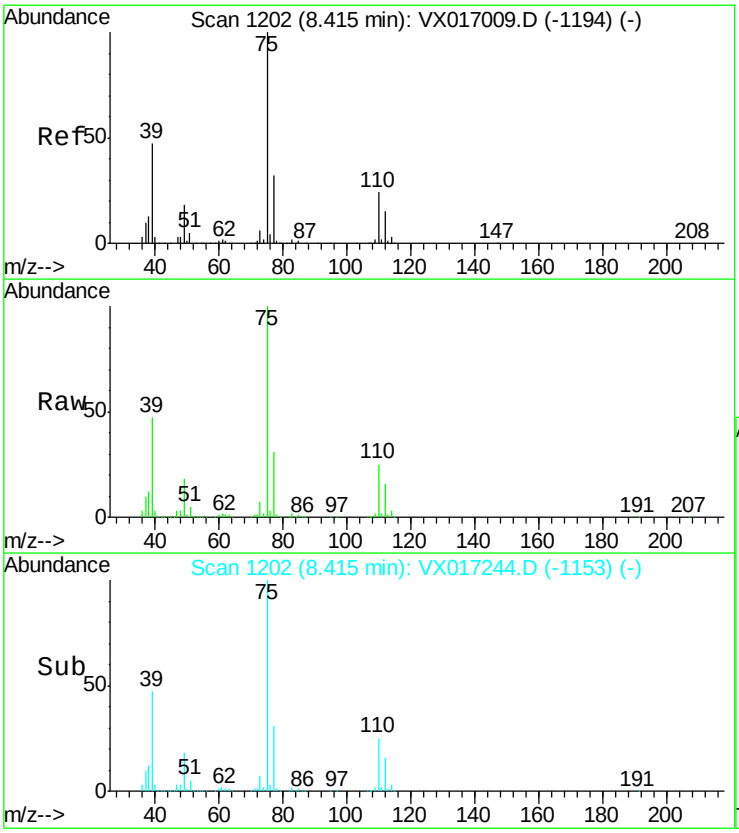


#53
t-1,3-Dichloropropene
Concen: 55.479 ug/l
RT: 9.02 min Scan# 1301
Delta R.T. -0.01 min
Lab File: VX017244.D
Acq: 08 Jul 2020 10:24

Tgt Ion: 75 Resp: 253427

Ion	Ratio	Lower	Upper
75	100		
77	31.6	25.6	38.4

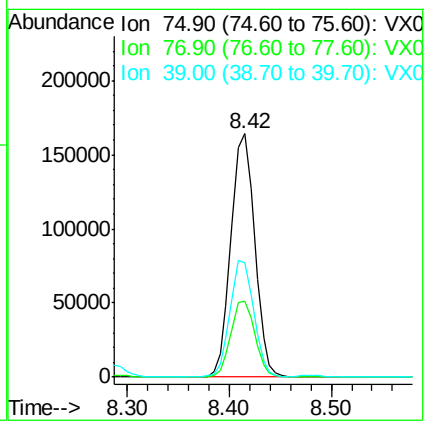




#54
cis-1,3-Dichloropropene
Concen: 54.097 ug/l
RT: 8.42 min Scan# 1202
Delta R.T. -0.00 min
Lab File: VX017244.D
Acq: 08 Jul 2020 10:24

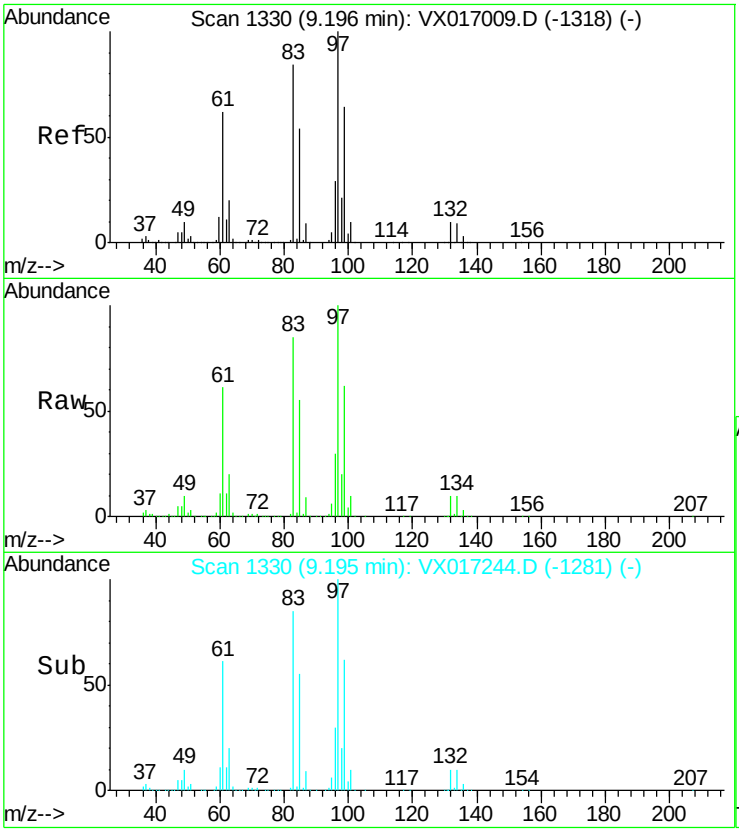
Tgt Ion: 75 Resp: 264907

Ion	Ratio	Lower	Upper
75	100		
77	31.3	25.2	37.8
39	47.0	37.4	56.2



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

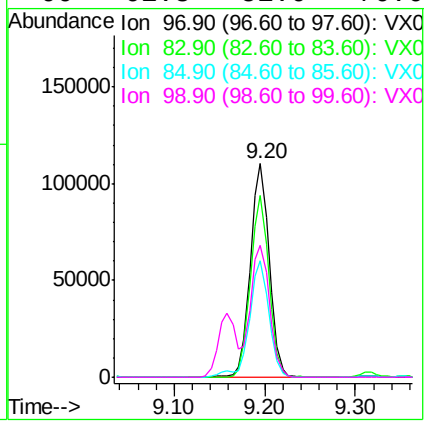
Manual Integrations APPROVED
MMDadoda
7/9/2020 10:59:45 AM

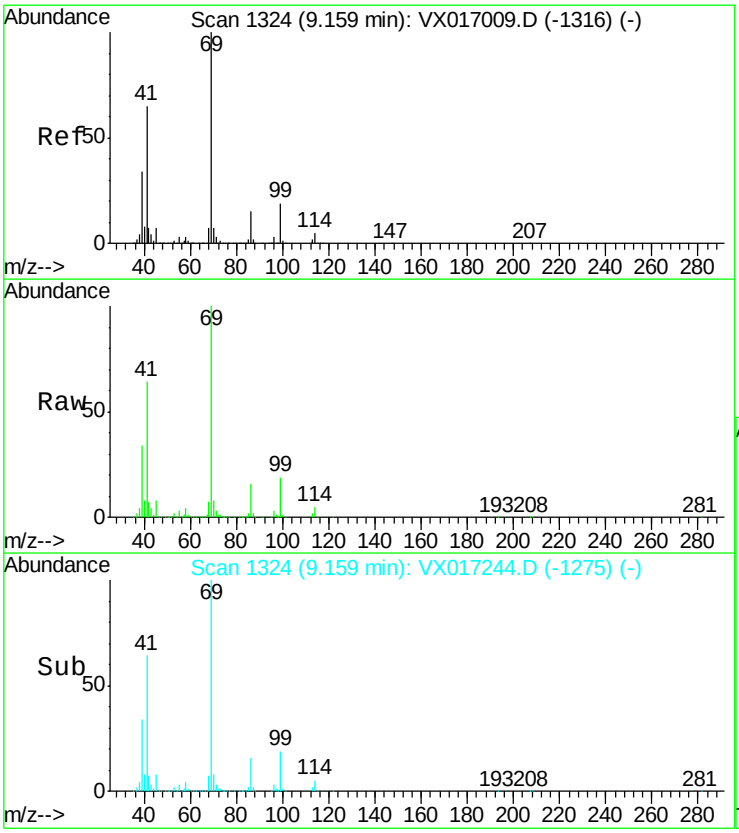


#55
1,1,2-Trichloroethane
Concen: 54.496 ug/l
RT: 9.20 min Scan# 1330
Delta R.T. -0.00 min
Lab File: VX017244.D
Acq: 08 Jul 2020 10:24

Tgt Ion: 97 Resp: 159267

Ion	Ratio	Lower	Upper
97	100		
83	84.8	67.0	100.6
85	54.7	43.5	65.3
99	61.8	51.0	76.6

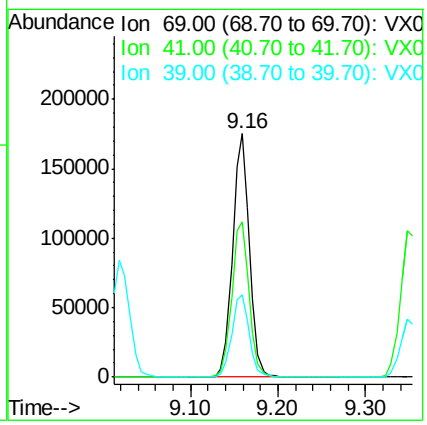




#56
Ethyl methacrylate
Concen: 56.446 ug/l
RT: 9.16 min Scan# 1324
Delta R.T. -0.00 min
Lab File: VX017244.D
Acq: 08 Jul 2020 10:24

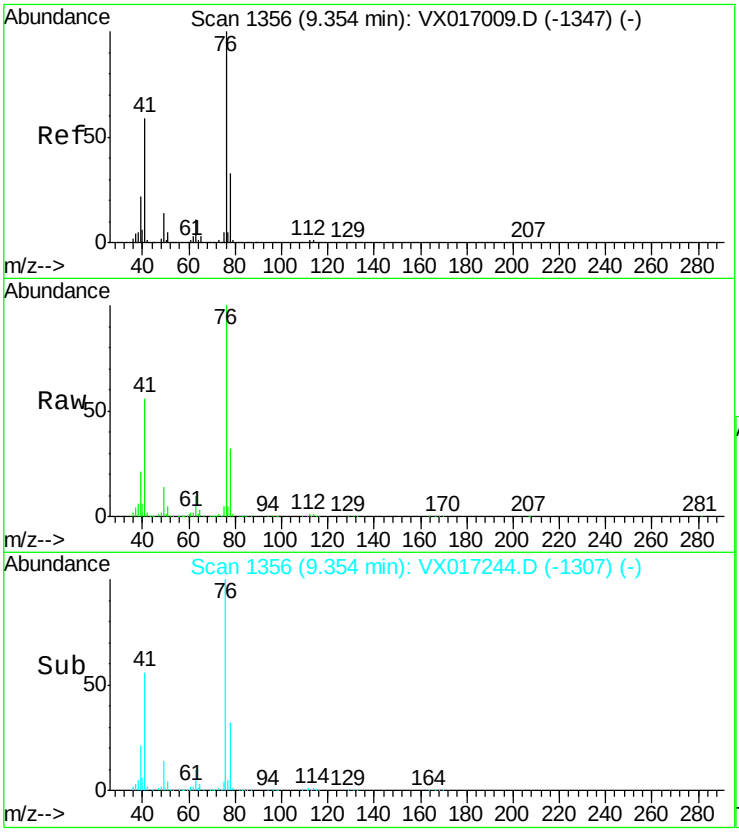
Tgt Ion: 69 Resp: 234802

Ion	Ratio	Lower	Upper
69	100		
41	65.4	53.6	80.4
39	34.8	28.2	42.2



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

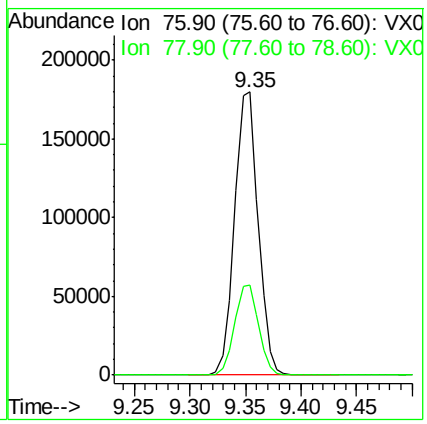
Manual Integrations APPROVED
MMDadoda
7/9/2020 10:59:45 AM

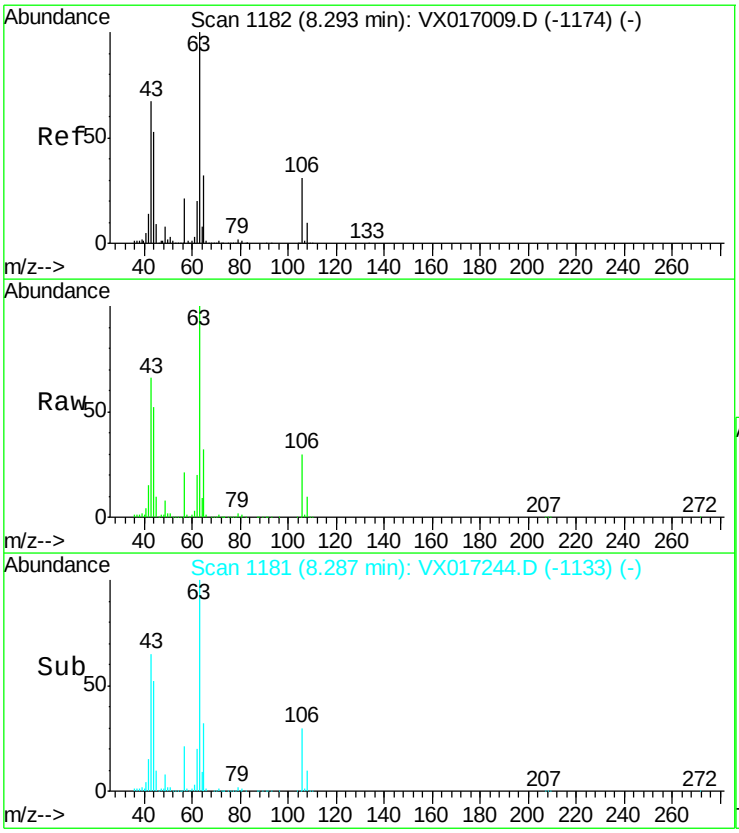


#57
1,3-Dichloropropane
Concen: 53.396 ug/l
RT: 9.35 min Scan# 1356
Delta R.T. -0.00 min
Lab File: VX017244.D
Acq: 08 Jul 2020 10:24

Tgt Ion: 76 Resp: 264059

Ion	Ratio	Lower	Upper
76	100		
78	32.3	25.9	38.9

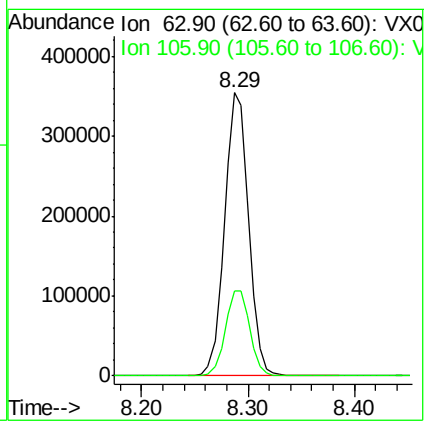




#58
2-Chloroethyl Vinyl ether
Concen: 268.648 ug/l
RT: 8.29 min Scan# 1181
Delta R.T. -0.01 min
Lab File: VX017244.D
Acq: 08 Jul 2020 10:24

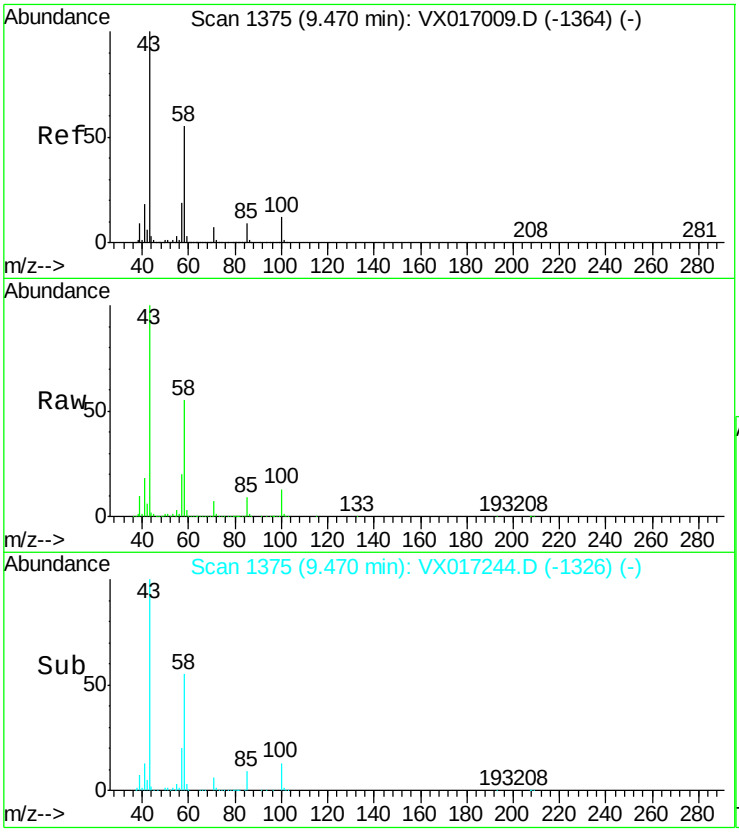
Tgt Ion: 63 Resp: 556174

Ion	Ratio	Lower	Upper
63	100		
106	30.8	24.0	36.0



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

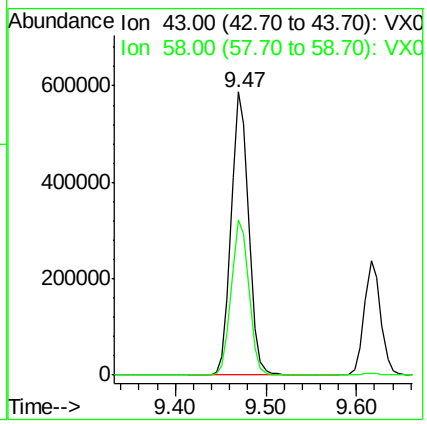
Manual Integrations APPROVED
MMDadoda
7/9/2020 10:59:45 AM

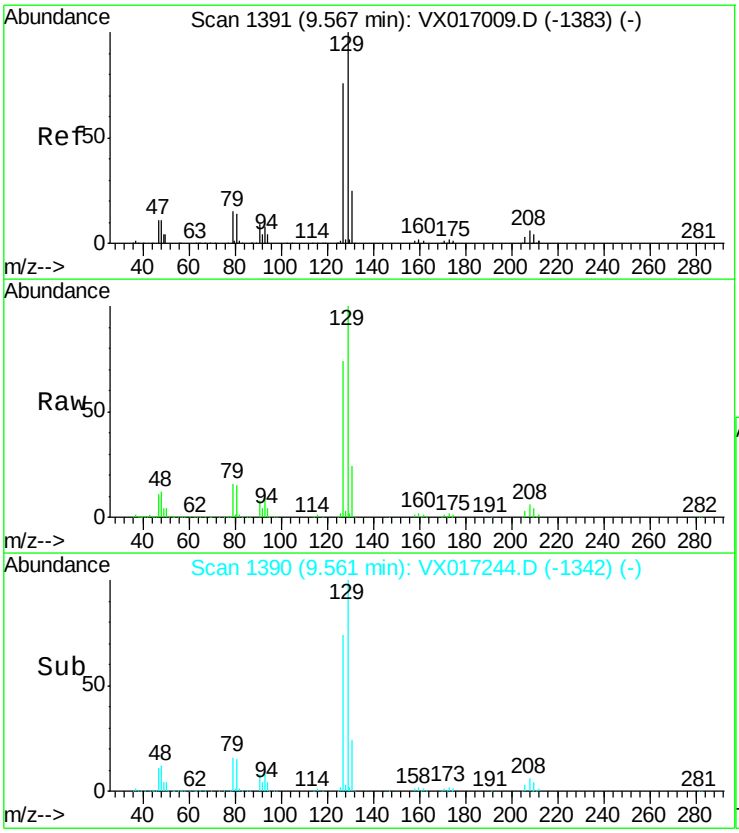


#59
2-Hexanone
Concen: 274.056 ug/l
RT: 9.47 min Scan# 1375
Delta R.T. -0.00 min
Lab File: VX017244.D
Acq: 08 Jul 2020 10:24

Tgt Ion: 43 Resp: 784382

Ion	Ratio	Lower	Upper
43	100		
58	55.5	27.9	83.6

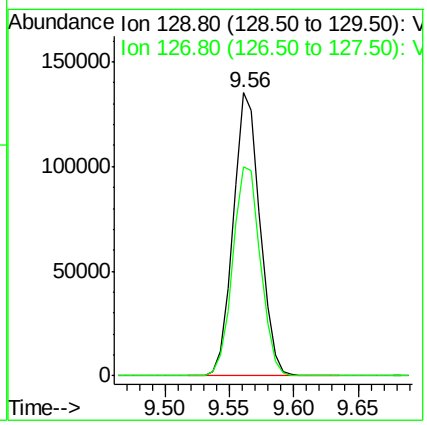




#60
Dibromochloromethane
Concen: 57.637 ug/l
RT: 9.56 min Scan# 1390
Delta R.T. -0.01 min
Lab File: VX017244.D
Acq: 08 Jul 2020 10:24

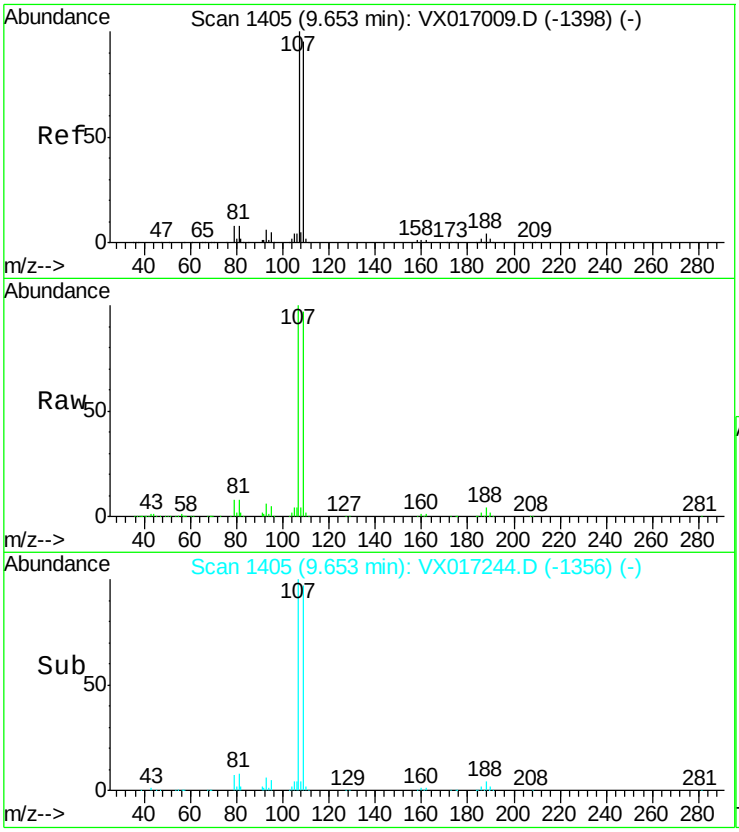
Tgt Ion:129 Resp: 195645

Ion	Ratio	Lower	Upper
129	100		
127	76.5	38.9	116.7



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

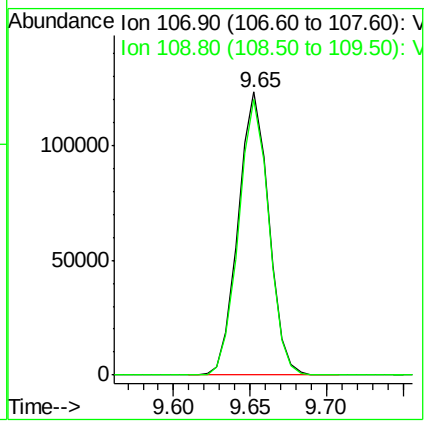
Manual Integrations APPROVED
MMDadoda
7/9/2020 10:59:45 AM

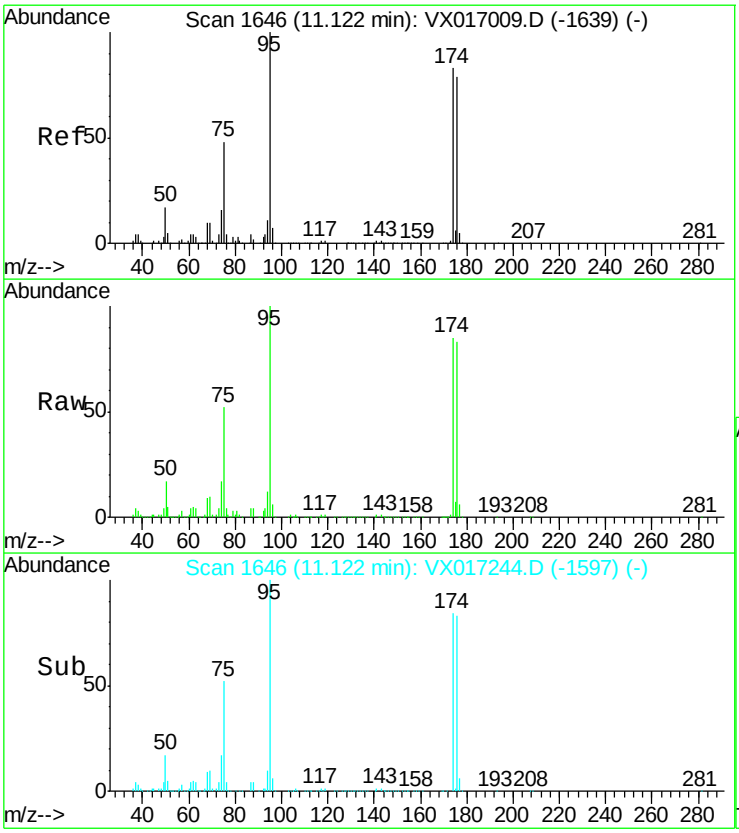


#61
1,2-Dibromoethane
Concen: 54.429 ug/l
RT: 9.65 min Scan# 1405
Delta R.T. -0.00 min
Lab File: VX017244.D
Acq: 08 Jul 2020 10:24

Tgt Ion:107 Resp: 170986

Ion	Ratio	Lower	Upper
107	100		
109	96.2	75.8	113.8

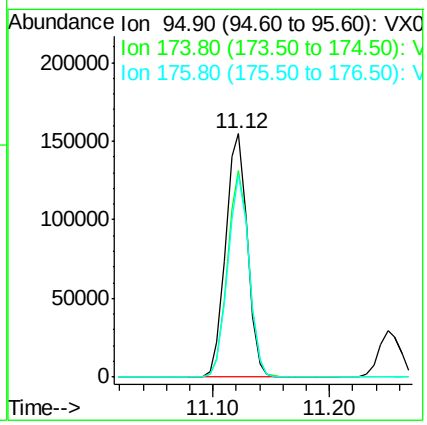




#62
4-Bromofluorobenzene
Concen: 53.027 ug/l
RT: 11.12 min Scan# 1646
Delta R.T. -0.00 min
Lab File: VX017244.D
Acq: 08 Jul 2020 10:24

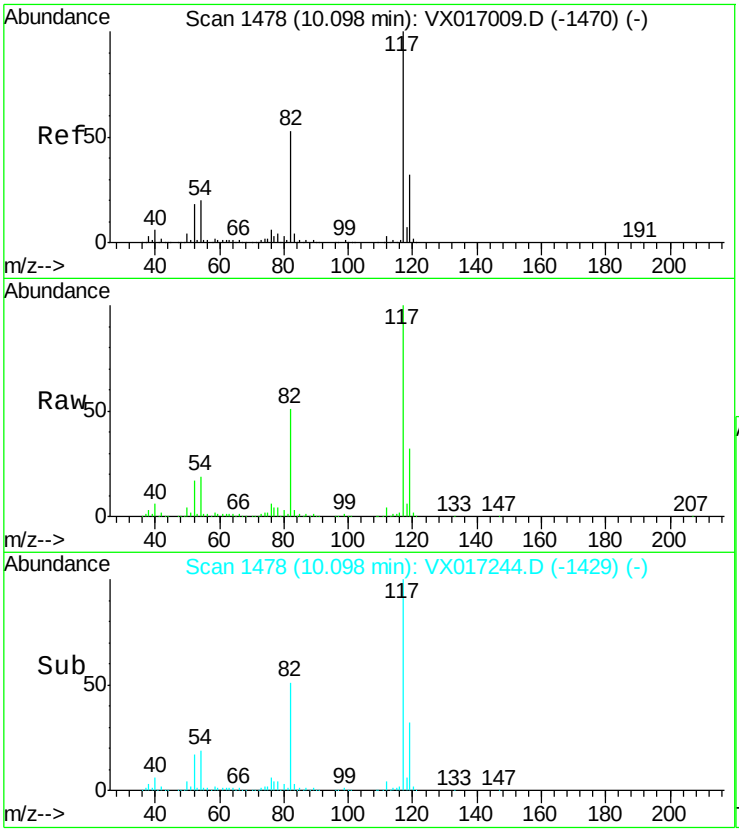
Tgt Ion: 95 Resp: 200050

Ion	Ratio	Lower	Upper
95	100		
174	84.0	0.0	164.0
176	81.4	0.0	157.6



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

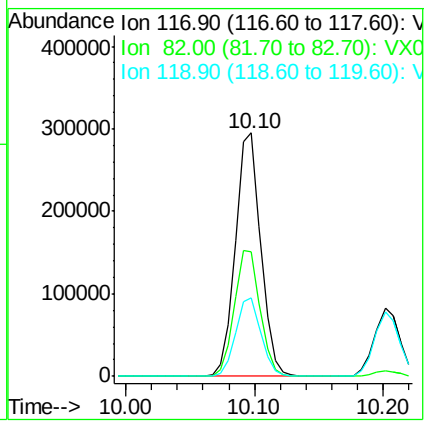
Manual Integrations APPROVED
MMDadoda
7/9/2020 10:59:45 AM

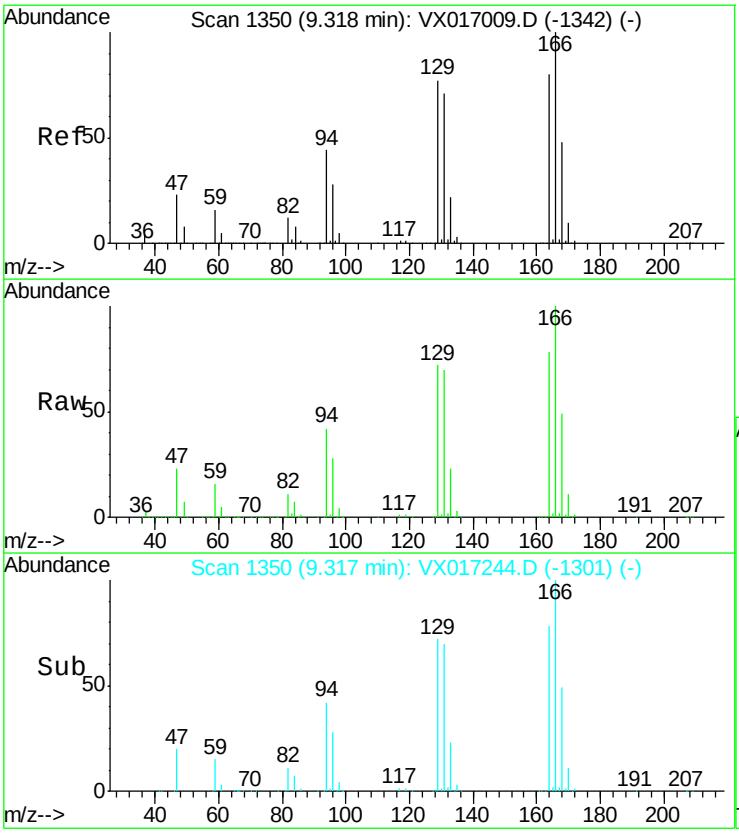


#63
Chlorobenzene-d5
Concen: 50.000 ug/l
RT: 10.10 min Scan# 1478
Delta R.T. -0.00 min
Lab File: VX017244.D
Acq: 08 Jul 2020 10:24

Tgt Ion:117 Resp: 404180

Ion	Ratio	Lower	Upper
117	100		
82	51.3	42.6	63.8
119	32.3	25.4	38.2

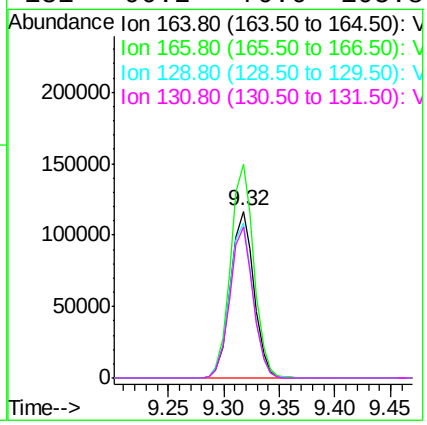




#64
Tetrachloroethene
Concen: 51.981 ug/l
RT: 9.32 min Scan# 1350
Delta R.T. -0.00 min
Lab File: VX017244.D
Acq: 08 Jul 2020 10:24

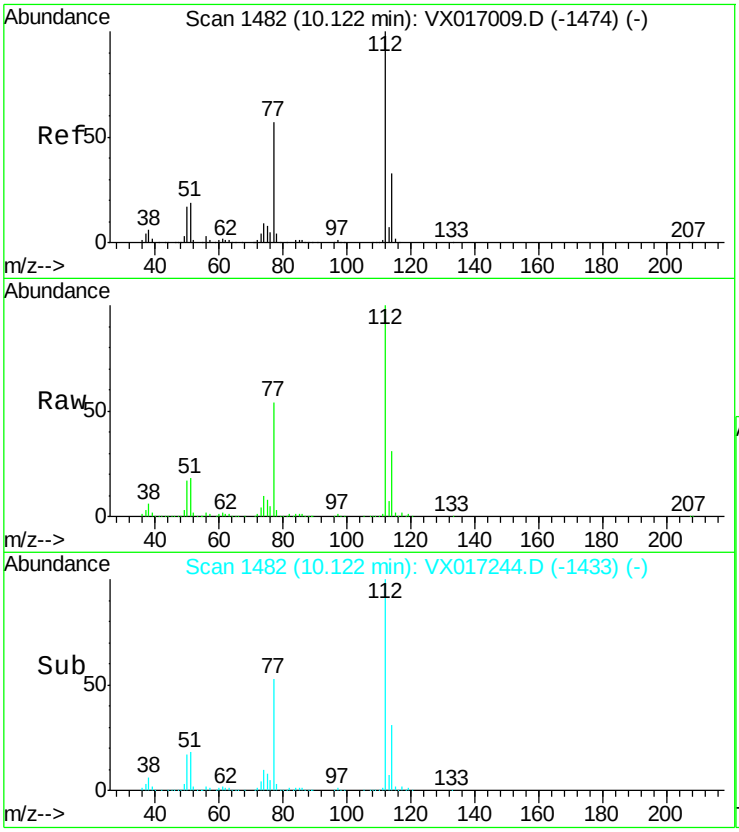
Tgt Ion:164 Resp: 169561

Ion	Ratio	Lower	Upper
164	100		
166	128.1	99.4	149.0
129	92.7	76.3	114.5
131	90.2	70.6	105.8



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

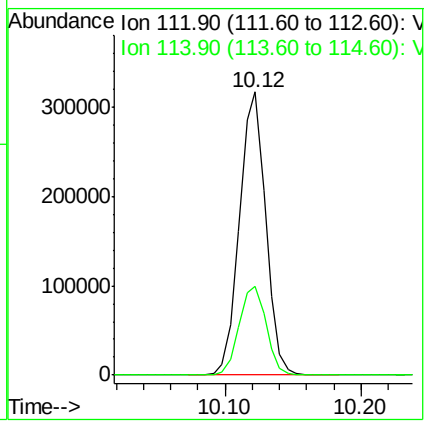
Manual Integrations APPROVED
MMDadoda
7/9/2020 10:59:45 AM

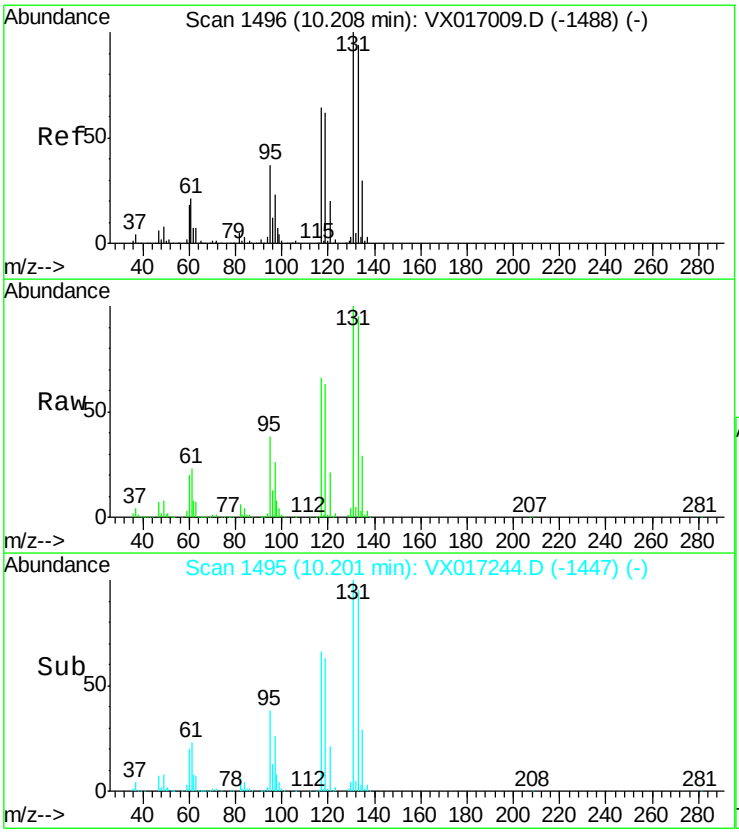


#65
Chlorobenzene
Concen: 51.019 ug/l
RT: 10.12 min Scan# 1482
Delta R.T. -0.00 min
Lab File: VX017244.D
Acq: 08 Jul 2020 10:24

Tgt Ion:112 Resp: 425596

Ion	Ratio	Lower	Upper
112	100		
114	31.4	26.2	39.4

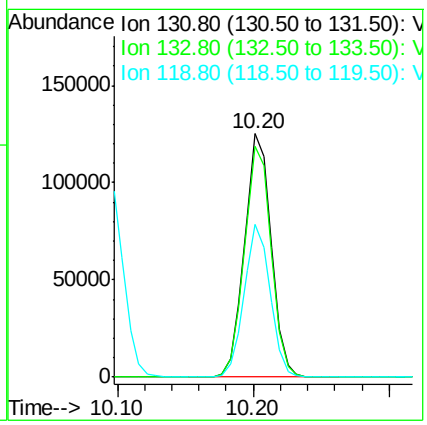




#66
1,1,1,2-Tetrachloroethane
Concen: 53.321 ug/l
RT: 10.20 min Scan# 1495
Delta R.T. -0.01 min
Lab File: VX017244.D
Acq: 08 Jul 2020 10:24

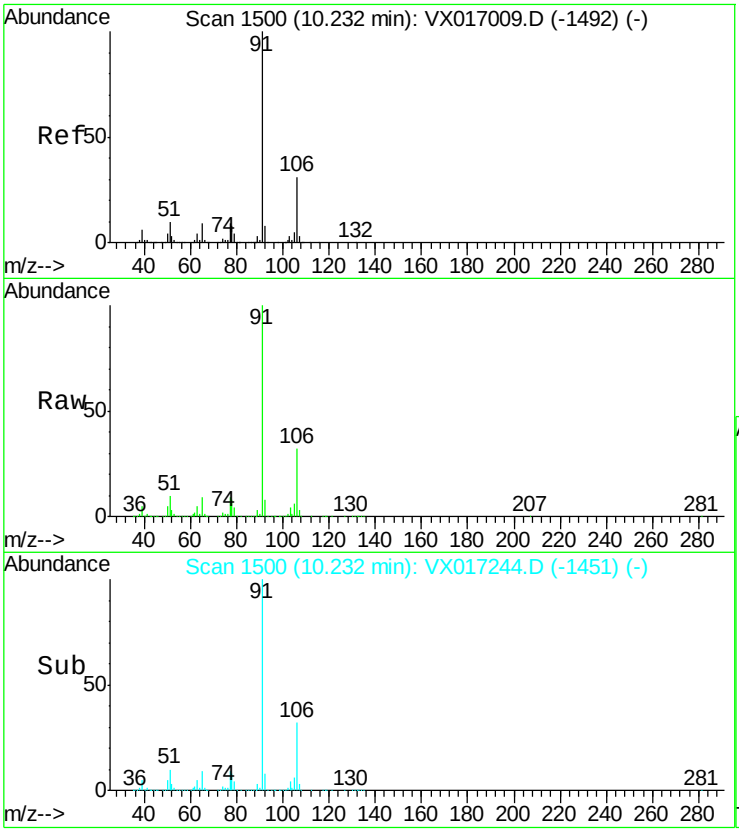
Tgt Ion:131 Resp: 171423

Ion	Ratio	Lower	Upper
131	100		
133	95.8	47.3	141.9
119	61.6	31.9	95.5



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

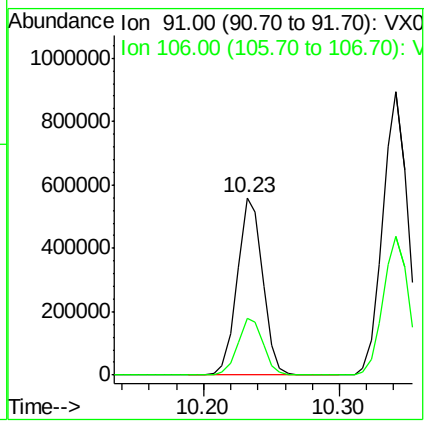
Manual Integrations APPROVED
MMDadoda
7/9/2020 10:59:45 AM

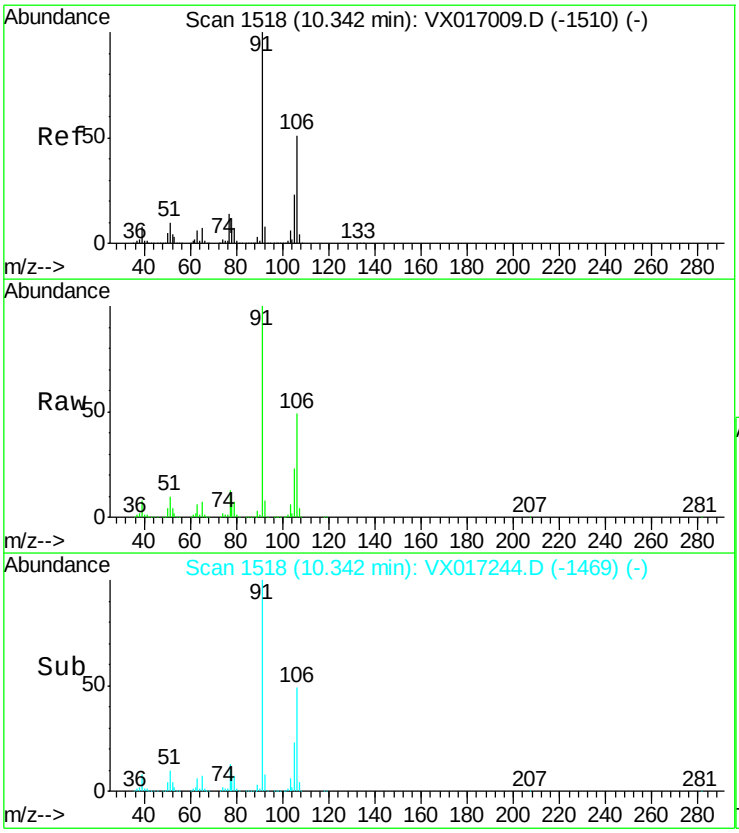


#67
Ethyl Benzene
Concen: 52.252 ug/l
RT: 10.23 min Scan# 1500
Delta R.T. -0.00 min
Lab File: VX017244.D
Acq: 08 Jul 2020 10:24

Tgt Ion: 91 Resp: 727936

Ion	Ratio	Lower	Upper
91	100		
106	31.9	24.7	37.1

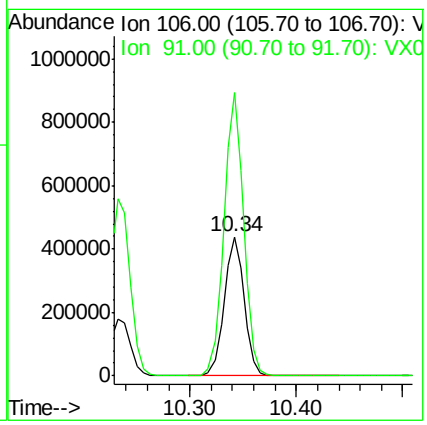




#68
m/p-Xylenes
Concen: 106.903 ug/l
RT: 10.34 min Scan# 1518
Delta R.T. -0.00 min
Lab File: VX017244.D
Acq: 08 Jul 2020 10:24

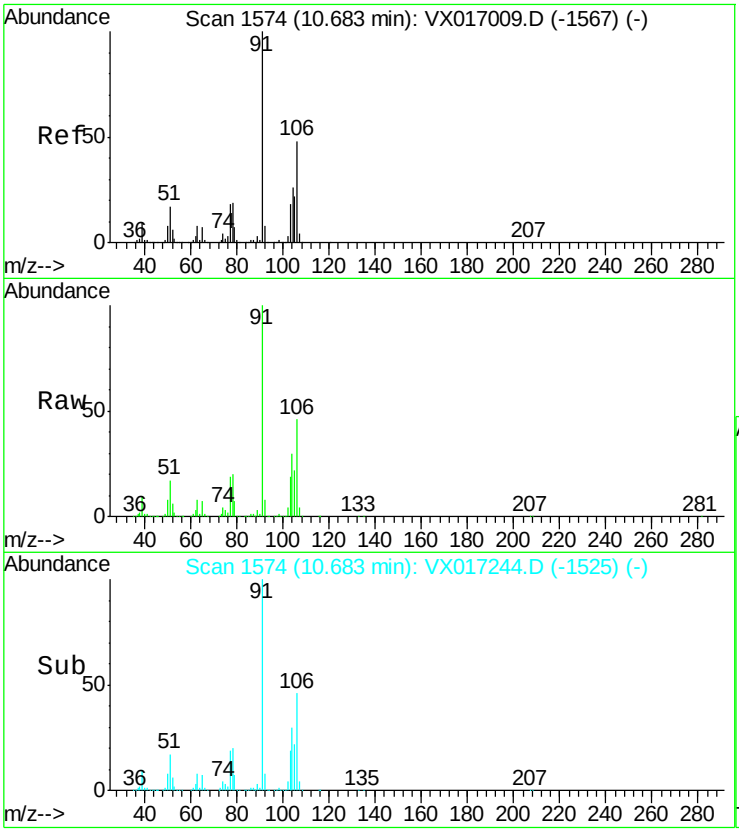
Tgt Ion:106 Resp: 571840

Ion	Ratio	Lower	Upper
106	100		
91	201.2	158.6	238.0



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

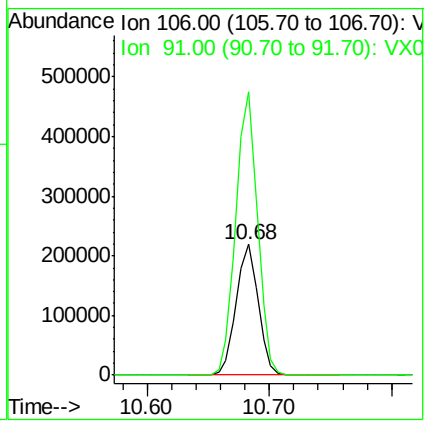
Manual Integrations APPROVED
MMDadoda
7/9/2020 10:59:45 AM

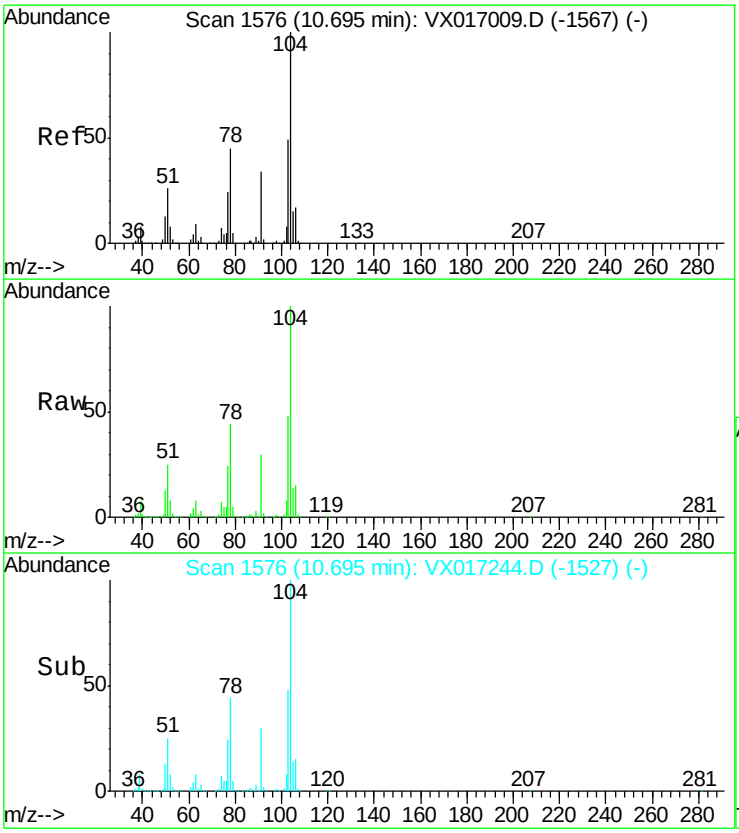


#69
o-Xylene
Concen: 53.302 ug/l
RT: 10.68 min Scan# 1574
Delta R.T. -0.00 min
Lab File: VX017244.D
Acq: 08 Jul 2020 10:24

Tgt Ion:106 Resp: 271236

Ion	Ratio	Lower	Upper
106	100		
91	214.6	105.6	316.7

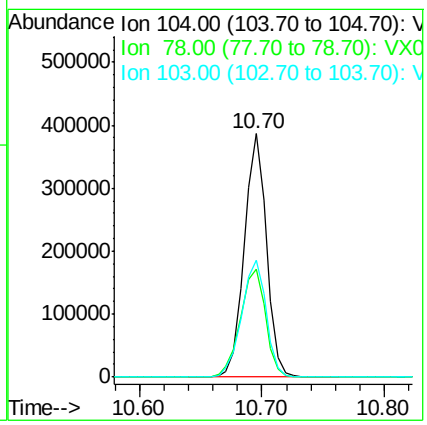




#70
Styrene
Concen: 55.930 ug/l
RT: 10.70 min Scan# 1576
Delta R.T. -0.00 min
Lab File: VX017244.D
Acq: 08 Jul 2020 10:24

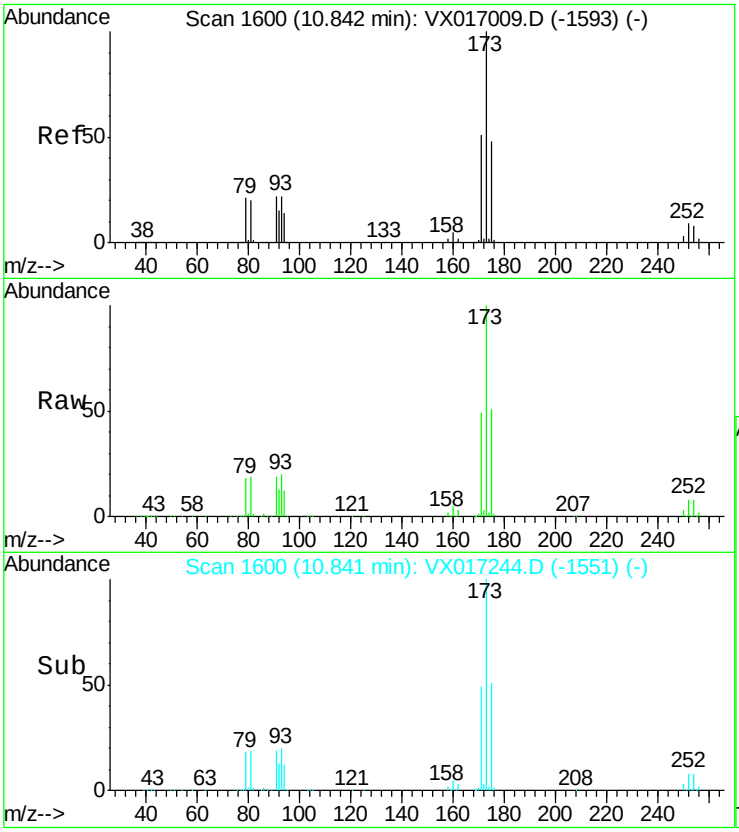
Tgt Ion:104 Resp: 484655

Ion	Ratio	Lower	Upper
104	100		
78	50.3	39.5	59.3
103	53.4	43.0	64.6



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

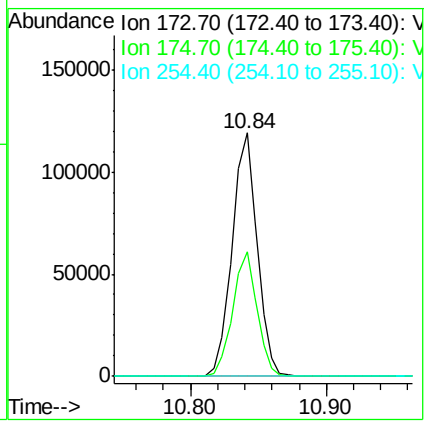
Manual Integrations APPROVED
MMDadoda
7/9/2020 10:59:45 AM

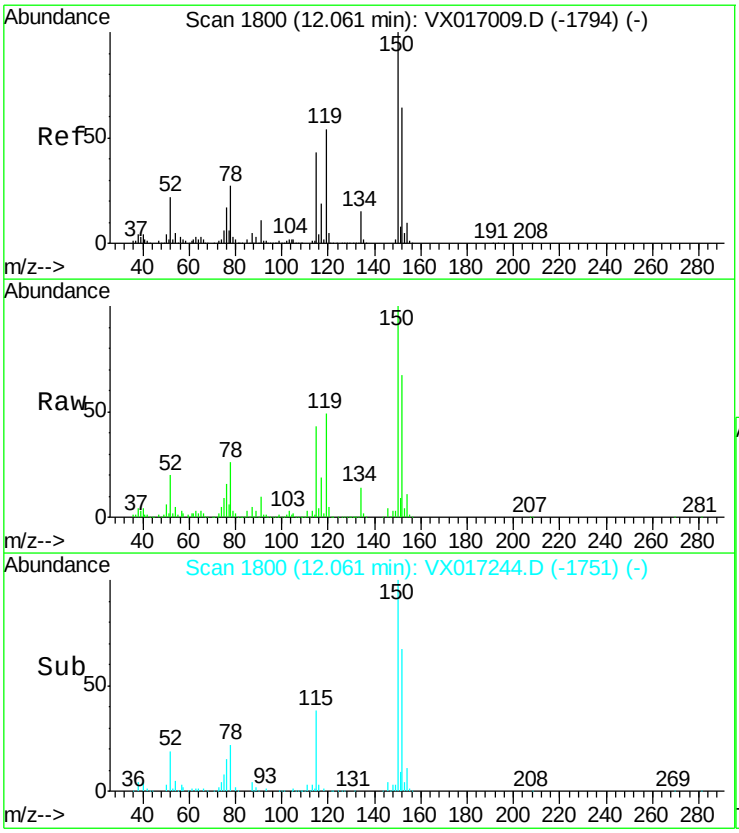


#71
Bromoform
Concen: 59.777 ug/l
RT: 10.84 min Scan# 1600
Delta R.T. -0.00 min
Lab File: VX017244.D
Acq: 08 Jul 2020 10:24

Tgt Ion:173 Resp: 152396

Ion	Ratio	Lower	Upper
173	100		
175	49.8	24.5	73.5
254	0.1	0.1	0.1

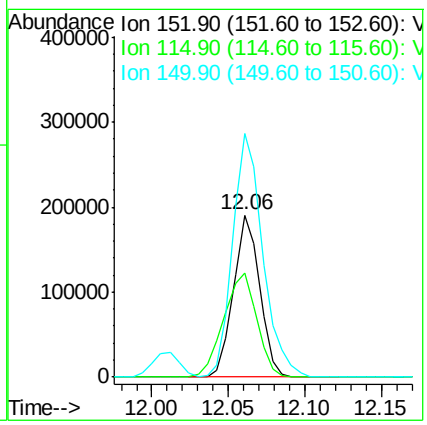




#72
1,4-Dichlorobenzene-d4
Concen: 50.000 ug/l
RT: 12.06 min Scan# 1800
Delta R.T. -0.00 min
Lab File: VX017244.D
Acq: 08 Jul 2020 10:24

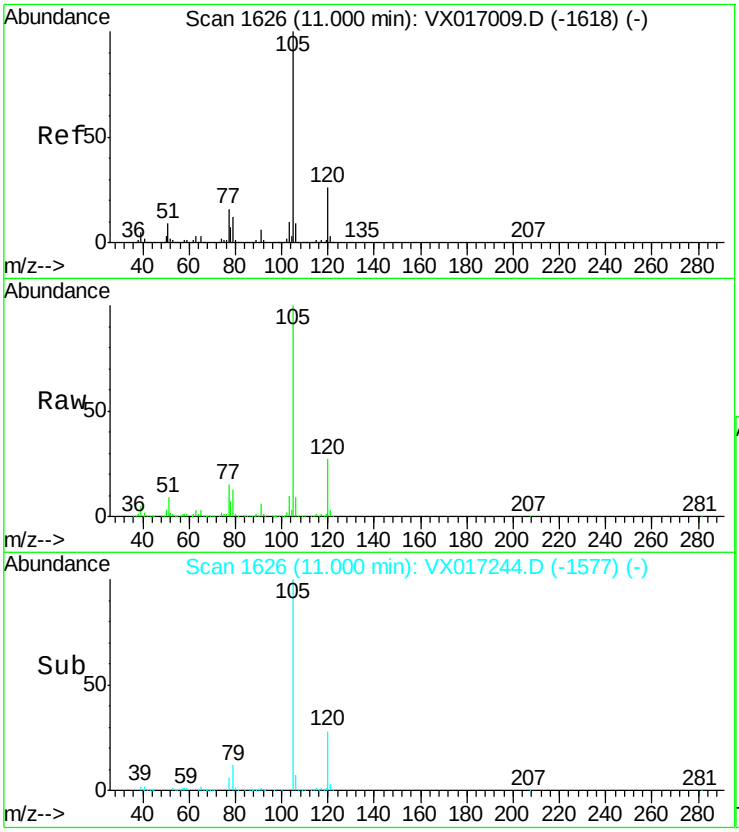
Tgt Ion:152 Resp: 225987

Ion	Ratio	Lower	Upper
152	100		
115	81.0	40.9	122.7
150	172.6	0.0	351.6



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

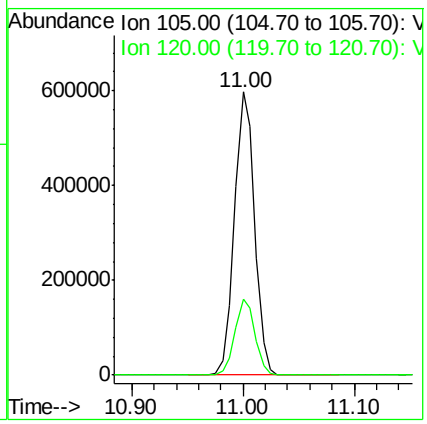
Manual Integrations APPROVED
MMDadoda
7/9/2020 10:59:45 AM

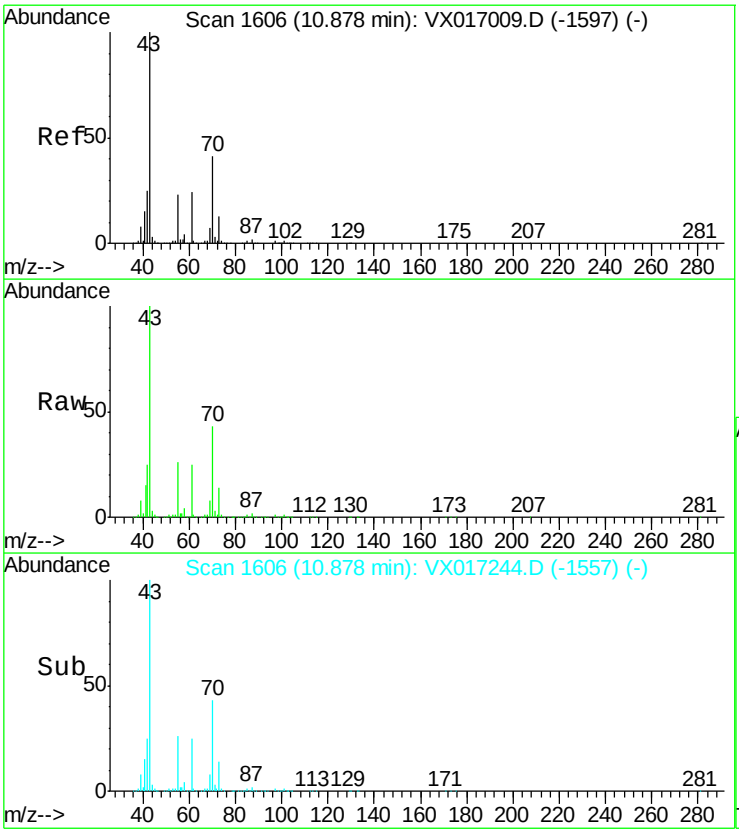


#73
Isopropylbenzene
Concen: 50.240 ug/l
RT: 11.00 min Scan# 1626
Delta R.T. -0.00 min
Lab File: VX017244.D
Acq: 08 Jul 2020 10:24

Tgt Ion:105 Resp: 743666

Ion	Ratio	Lower	Upper
105	100		
120	26.9	13.4	40.2

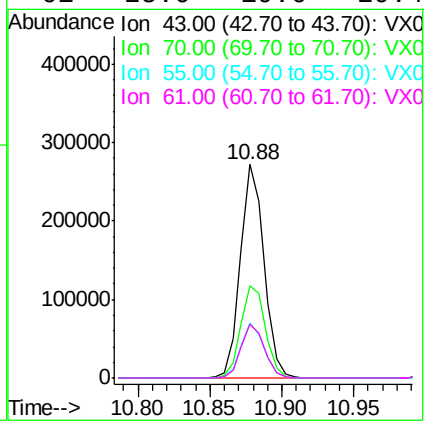




#74
N-amyl acetate
Concen: 48.957 ug/l
RT: 10.88 min Scan# 1606
Delta R.T. -0.00 min
Lab File: VX017244.D
Acq: 08 Jul 2020 10:24

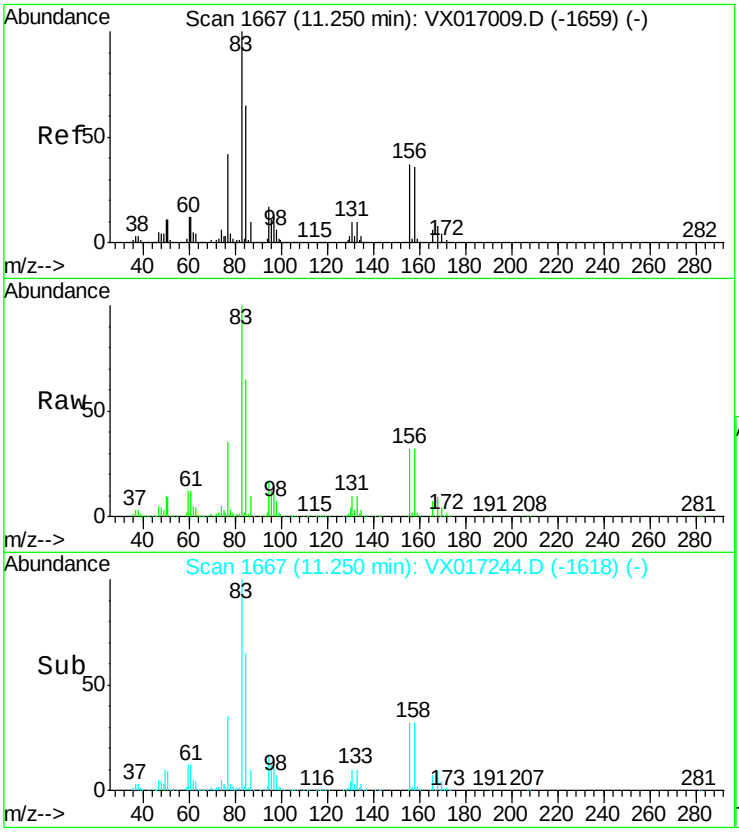
Tgt Ion: 43 Resp: 309217

Ion	Ratio	Lower	Upper
43	100		
70	44.5	34.2	51.2
55	25.4	19.2	28.8
61	25.0	19.6	29.4



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

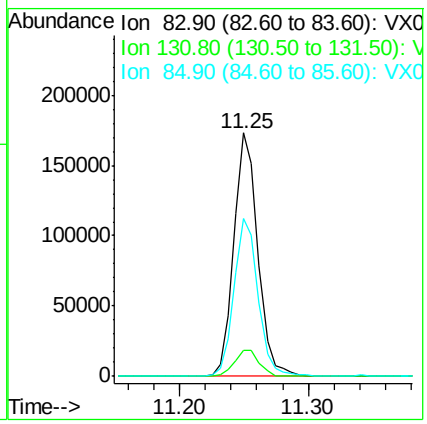
Manual Integrations APPROVED
MMDadoda
7/9/2020 10:59:45 AM

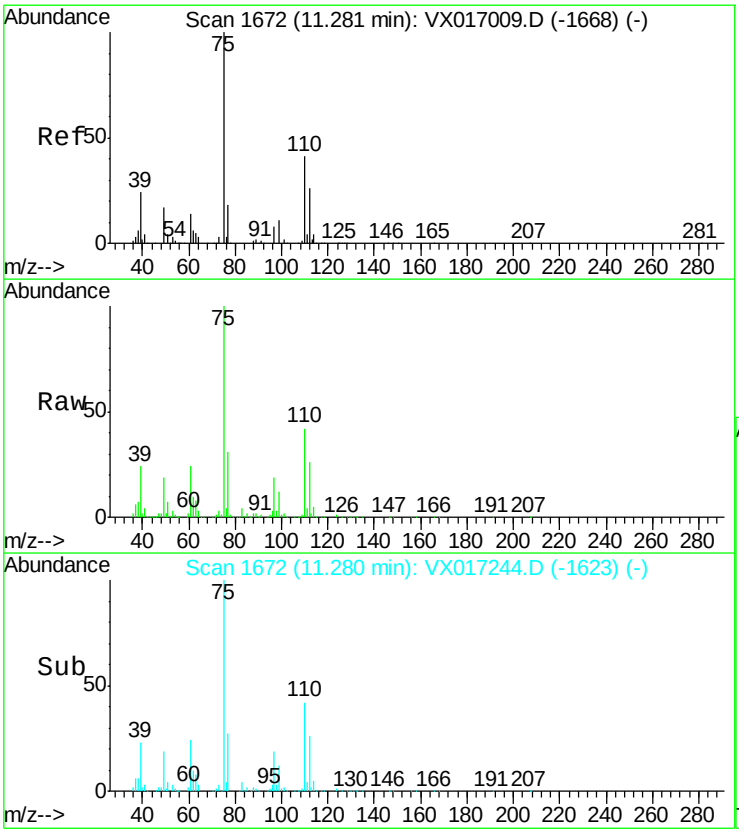


#75
1,1,2,2-Tetrachloroethane
Concen: 48.415 ug/l
RT: 11.25 min Scan# 1667
Delta R.T. -0.00 min
Lab File: VX017244.D
Acq: 08 Jul 2020 10:24

Tgt Ion: 83 Resp: 225431

Ion	Ratio	Lower	Upper
83	100		
131	11.1	5.4	16.2
85	65.3	31.9	95.9

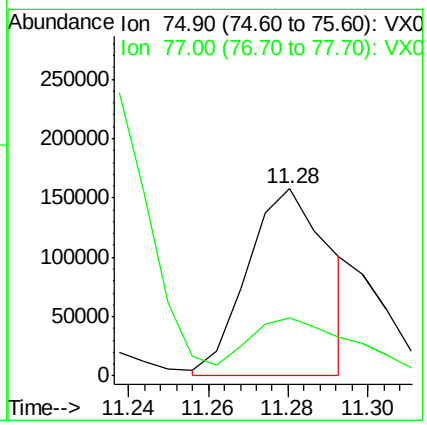




#76
1,2,3-Trichloropropane
Concen: 50.529 ug/l m
RT: 11.28 min Scan# 1672
Delta R.T. -0.00 min
Lab File: VX017244.D
Acq: 08 Jul 2020 10:24

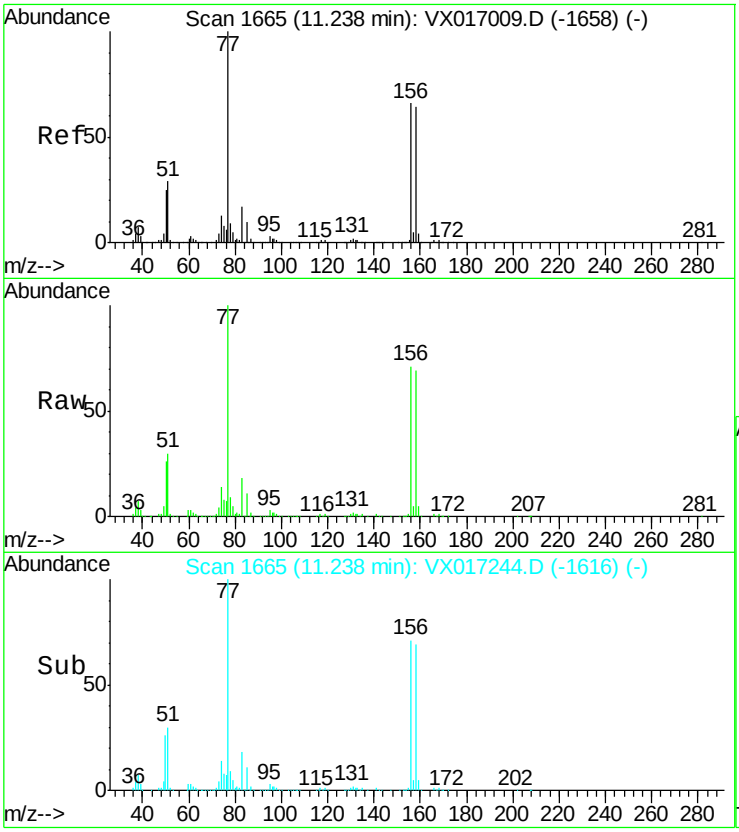
Tgt Ion: 75 Resp: 224546

Ion	Ratio	Lower	Upper
75	100		
77	40.0	20.2	60.6



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

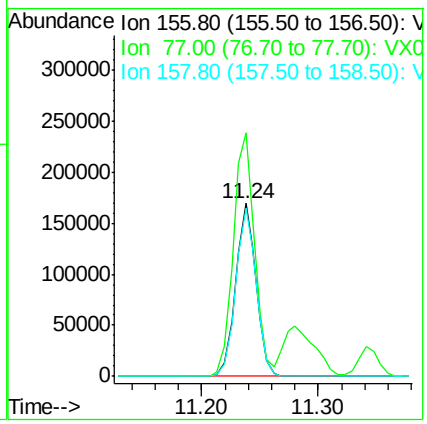
Manual Integrations APPROVED
MMDadoda
7/9/2020 10:59:45 AM

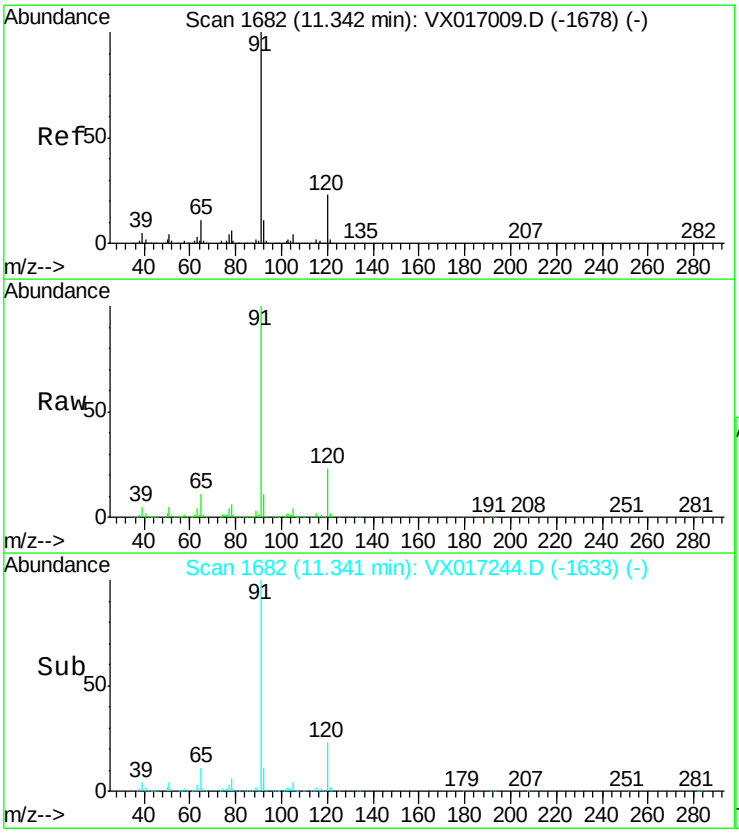


#77
Bromobenzene
Concen: 50.429 ug/l
RT: 11.24 min Scan# 1665
Delta R.T. -0.00 min
Lab File: VX017244.D
Acq: 08 Jul 2020 10:24

Tgt Ion:156 Resp: 205159

Ion	Ratio	Lower	Upper
156	100		
77	148.1	76.9	230.7
158	98.4	47.9	143.6

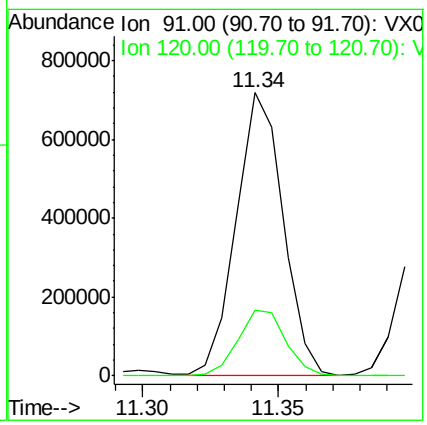




#78
n-propylbenzene
Concen: 51.067 ug/l
RT: 11.34 min Scan# 1682
Delta R.T. -0.00 min
Lab File: VX017244.D
Acq: 08 Jul 2020 10:24

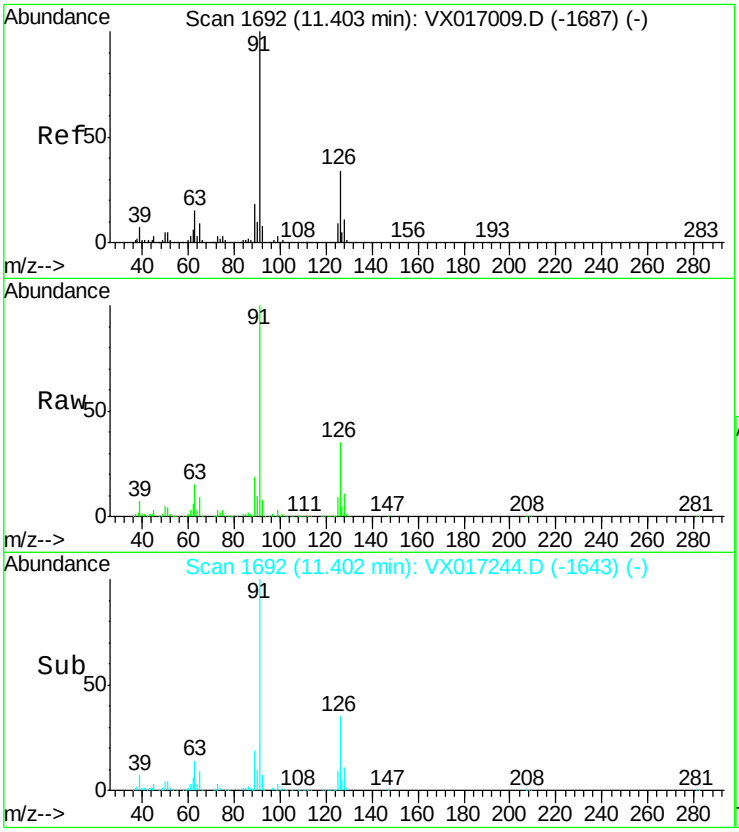
Tgt Ion: 91 Resp: 854816

Ion	Ratio	Lower	Upper
91	100		
120	24.1	11.9	35.9



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

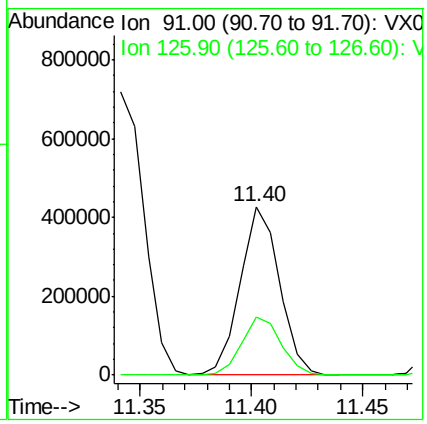
Manual Integrations APPROVED
MMDadoda
7/9/2020 10:59:45 AM

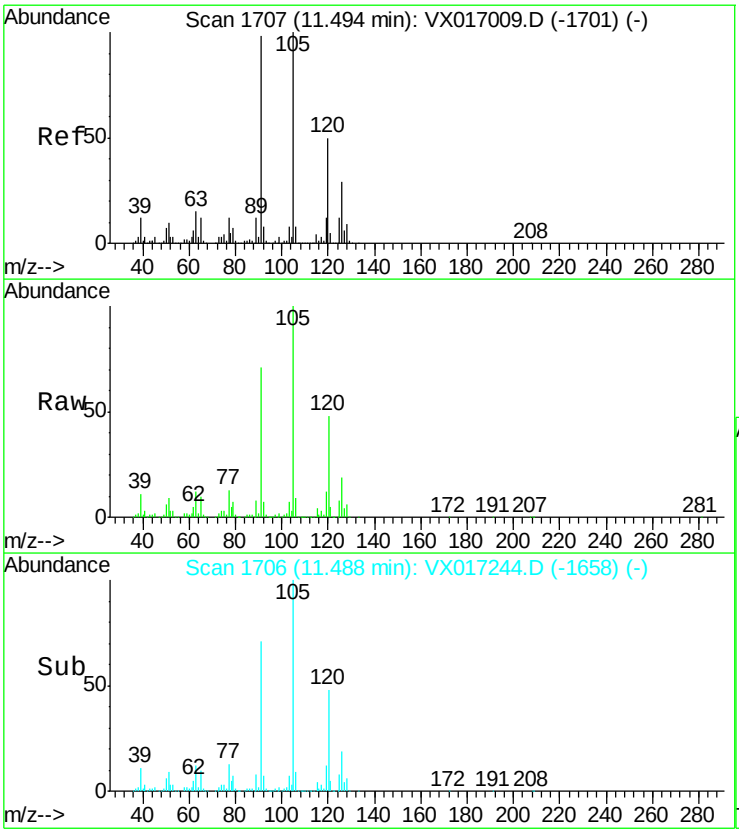


#79
2-Chlorotoluene
Concen: 51.592 ug/l
RT: 11.40 min Scan# 1692
Delta R.T. -0.00 min
Lab File: VX017244.D
Acq: 08 Jul 2020 10:24

Tgt Ion: 91 Resp: 522662

Ion	Ratio	Lower	Upper
91	100		
126	35.2	17.4	52.3

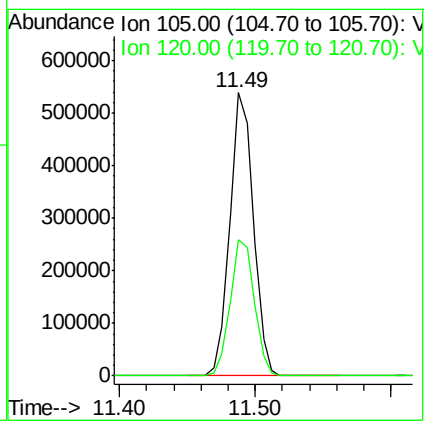


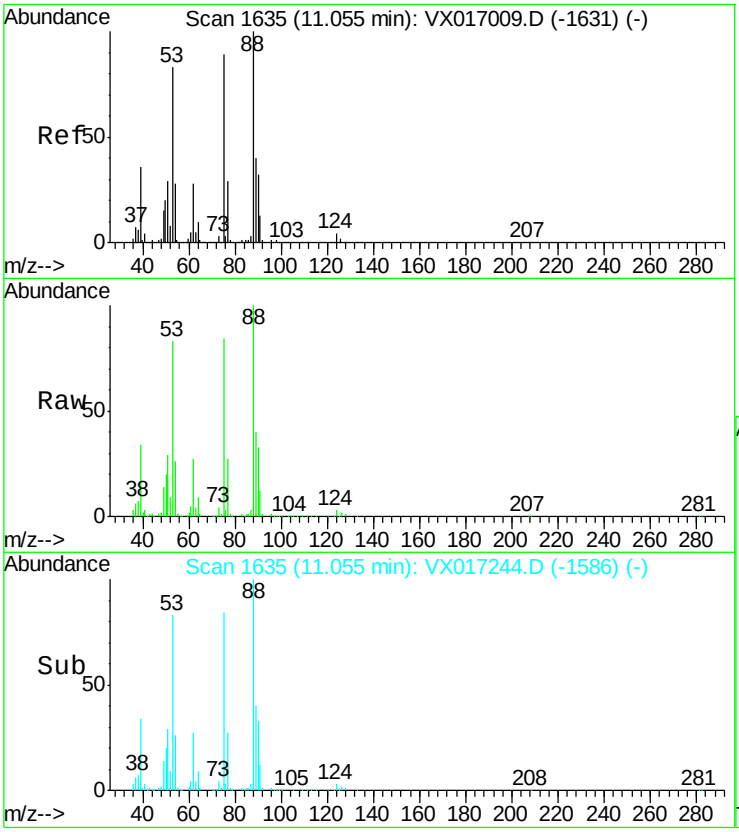


#80
1,3,5-Trimethylbenzene
Concen: 52.777 ug/l
RT: 11.49 min Scan# 1706
Delta R.T. -0.01 min
Lab File: VX017244.D
Acq: 08 Jul 2020 10:24

Tgt Ion:105 Resp: 648004

Ion	Ratio	Lower	Upper
105	100		
120	49.5	24.9	74.6

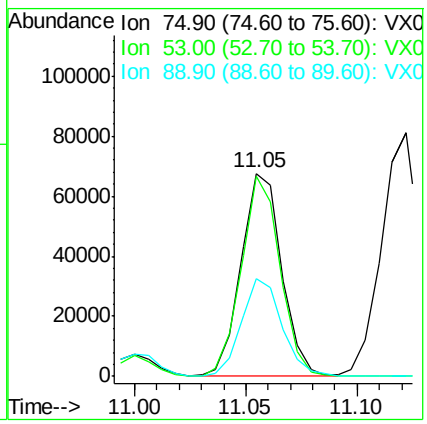




#81
trans-1,4-Dichloro-2-butene
Concen: 50.089 ug/l
RT: 11.05 min Scan# 1635
Delta R.T. -0.00 min
Lab File: VX017244.D
Acq: 08 Jul 2020 10:24

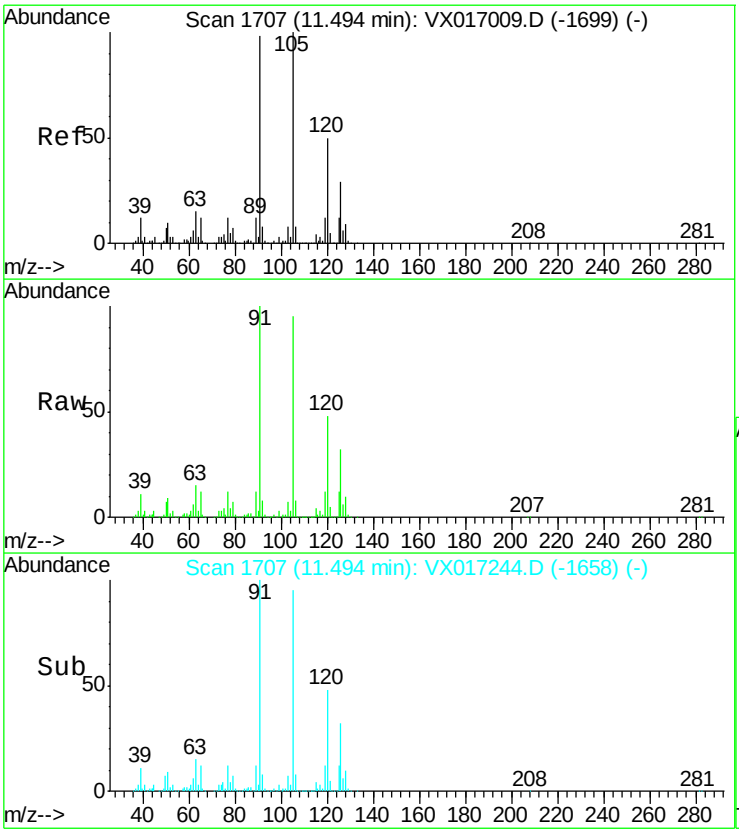
Tgt Ion: 75 Resp: 85954

Ion	Ratio	Lower	Upper
75	100		
53	94.0	72.4	108.6
89	48.6	37.0	55.4



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

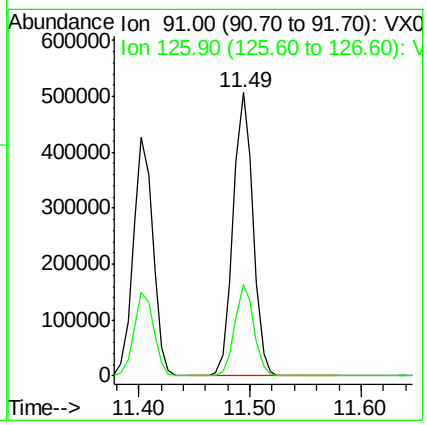
Manual Integrations APPROVED
MMDadoda
7/9/2020 10:59:45 AM



#82
4-Chlorotoluene
Concen: 51.558 ug/l
RT: 11.49 min Scan# 1707
Delta R.T. -0.00 min
Lab File: VX017244.D
Acq: 08 Jul 2020 10:24

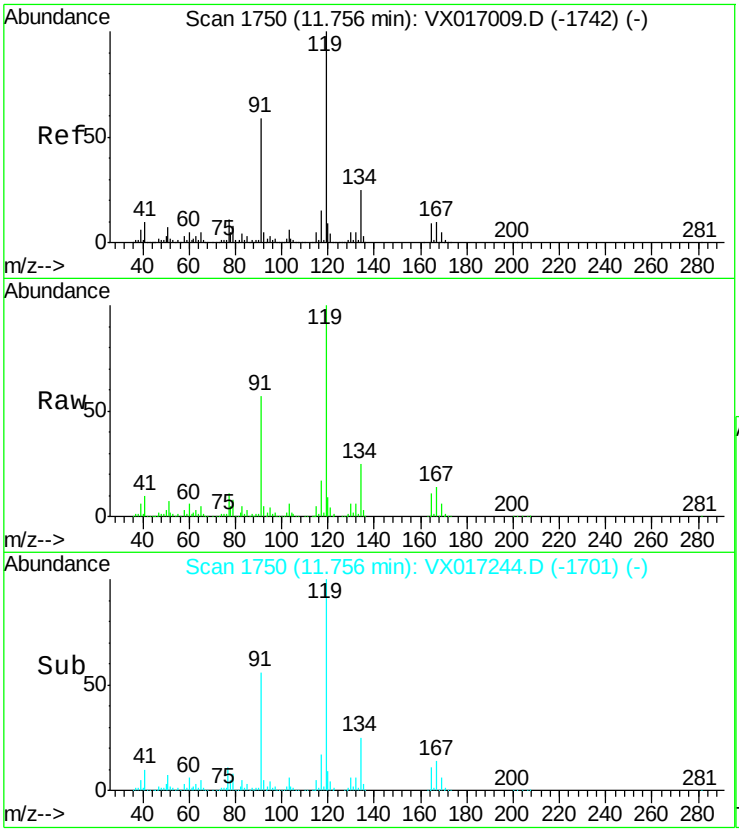
Tgt Ion: 91 Resp: 624397

Ion	Ratio	Lower	Upper
91	100		
126	30.9	15.2	45.5



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

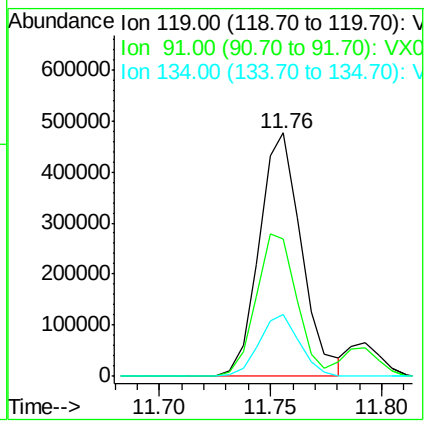
Manual Integrations APPROVED
MMDadoda
7/9/2020 10:59:45 AM

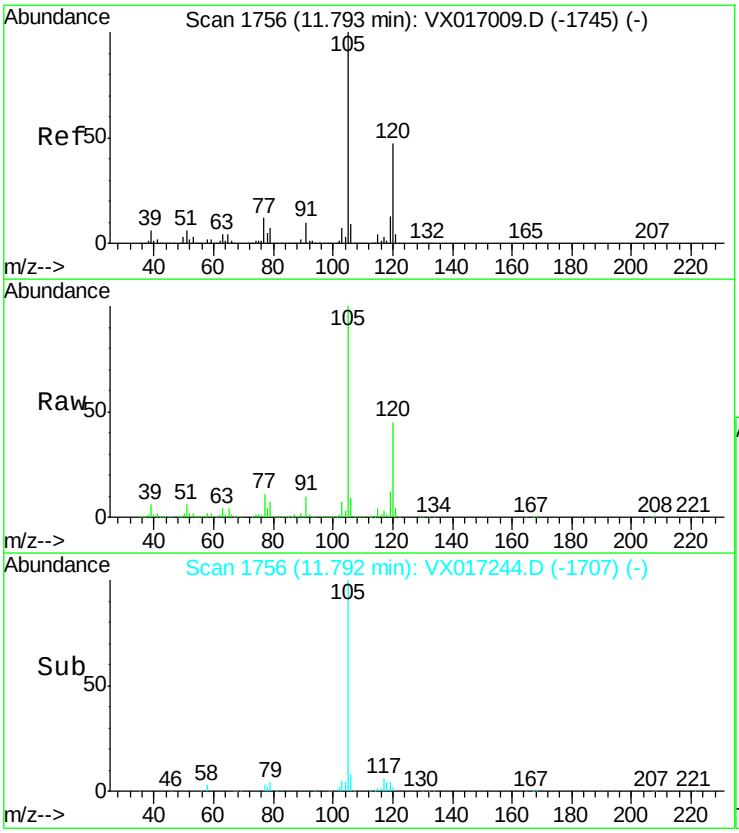


#83
tert-Butylbenzene
Concen: 52.082 ug/l
RT: 11.76 min Scan# 1750
Delta R.T. -0.00 min
Lab File: VX017244.D
Acq: 08 Jul 2020 10:24

Tgt Ion:119 Resp: 627738

Ion	Ratio	Lower	Upper
119	100		
91	56.3	28.3	84.9
134	24.0	11.7	35.1

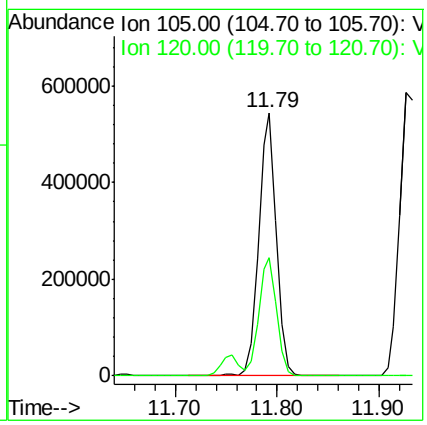




#84
1,2,4-Trimethylbenzene
Concen: 53.158 ug/l
RT: 11.79 min Scan# 1756
Delta R.T. -0.00 min
Lab File: VX017244.D
Acq: 08 Jul 2020 10:24

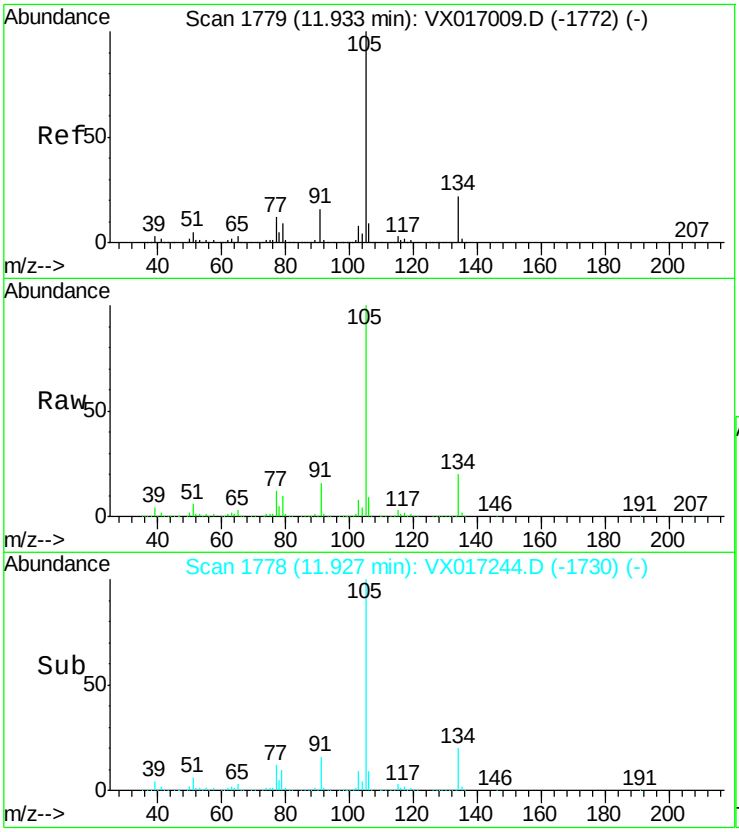
Tgt Ion:105 Resp: 662154

Ion	Ratio	Lower	Upper
105	100		
120	45.2	22.9	68.5



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

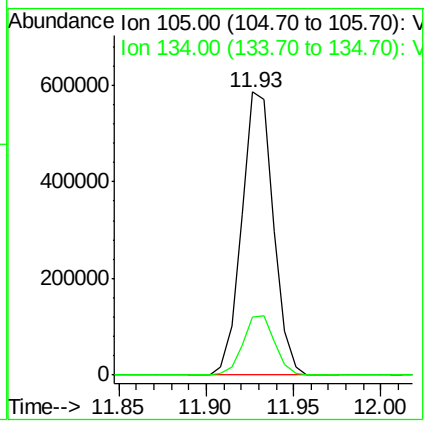
Manual Integrations APPROVED
MMDadoda
7/9/2020 10:59:45 AM

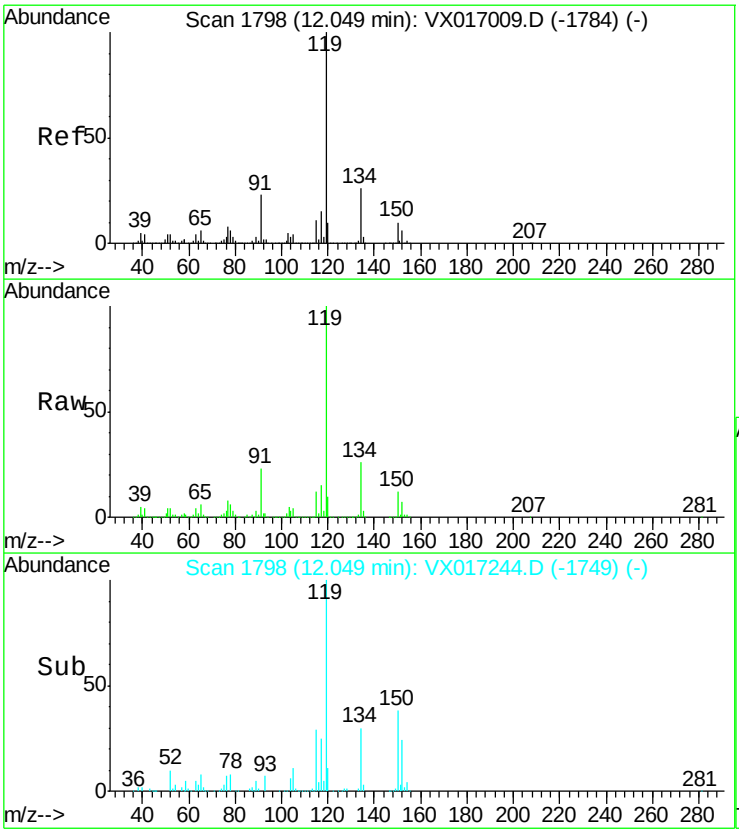


#85
sec-Butylbenzene
Concen: 52.054 ug/l
RT: 11.93 min Scan# 1778
Delta R.T. -0.01 min
Lab File: VX017244.D
Acq: 08 Jul 2020 10:24

Tgt Ion:105 Resp: 737499

Ion	Ratio	Lower	Upper
105	100		
134	20.9	10.5	31.6

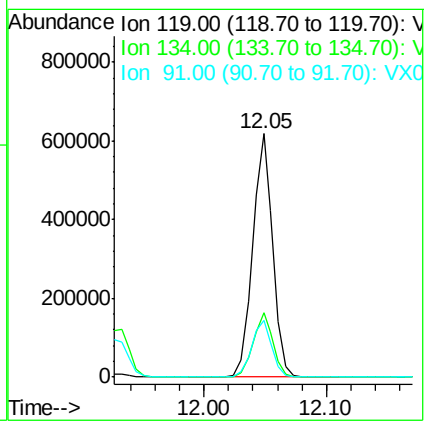




#86
p-Isopropyltoluene
Concen: 53.317 ug/l
RT: 12.05 min Scan# 1798
Delta R.T. -0.00 min
Lab File: VX017244.D
Acq: 08 Jul 2020 10:24

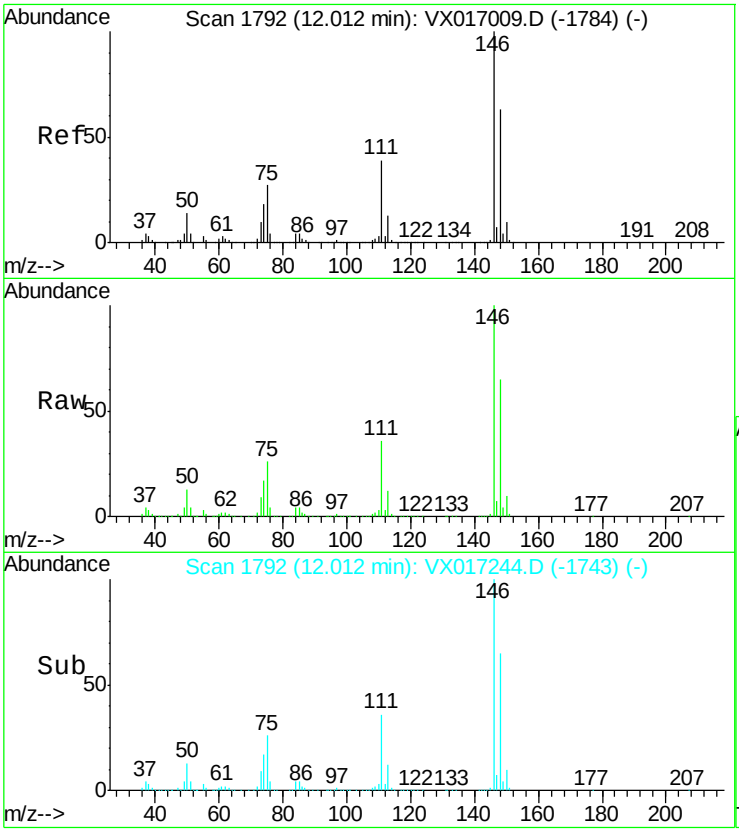
Tgt Ion:119 Resp: 703216

Ion	Ratio	Lower	Upper
119	100		
134	26.3	13.2	39.5
91	23.6	11.8	35.4



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

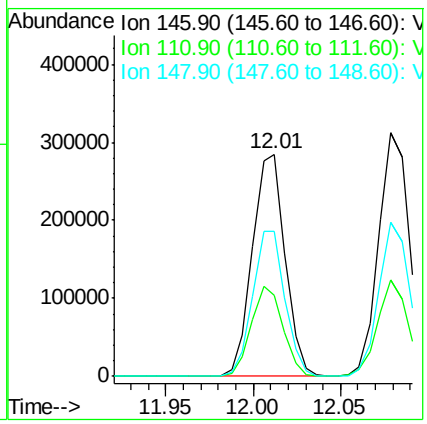
Manual Integrations APPROVED
MMDadoda
7/9/2020 10:59:45 AM

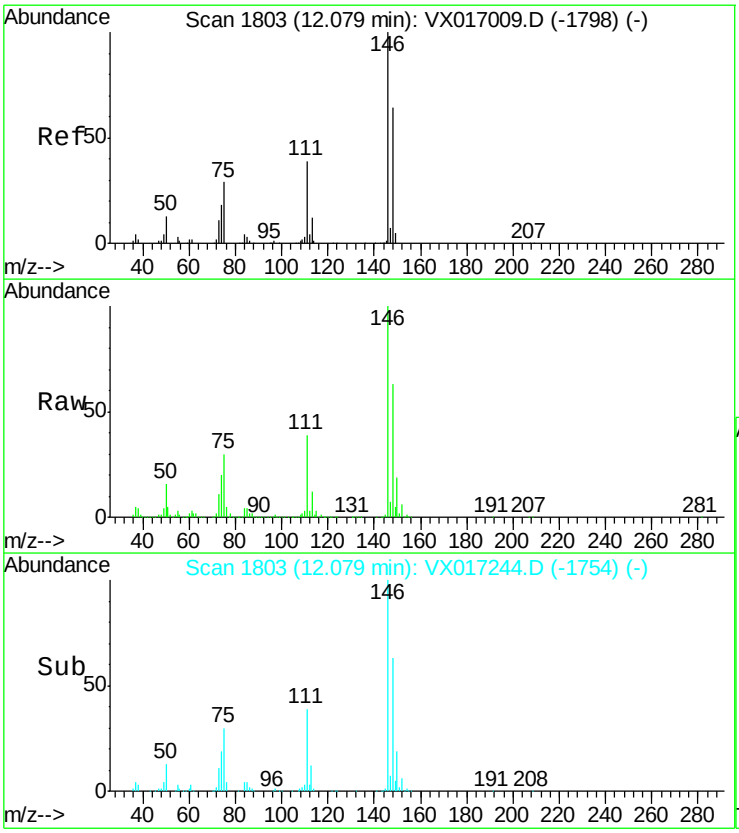


#87
1,3-Dichlorobenzene
Concen: 50.136 ug/l
RT: 12.01 min Scan# 1792
Delta R.T. -0.00 min
Lab File: VX017244.D
Acq: 08 Jul 2020 10:24

Tgt Ion:146 Resp: 370444

Ion	Ratio	Lower	Upper
146	100		
111	39.5	20.4	61.2
148	64.9	32.5	97.5

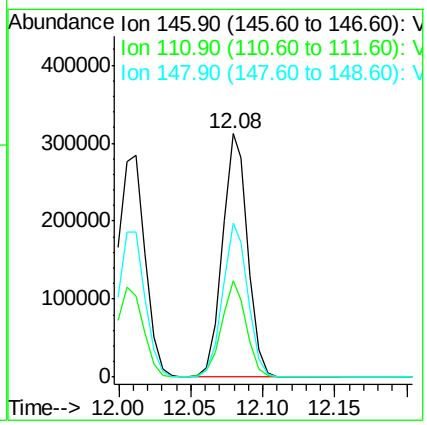




#88
1,4-Dichlorobenzene
Concen: 55.047 ug/l
RT: 12.08 min Scan# 1803
Delta R.T. 0.00 min
Lab File: VX017244.D
Acq: 08 Jul 2020 10:24

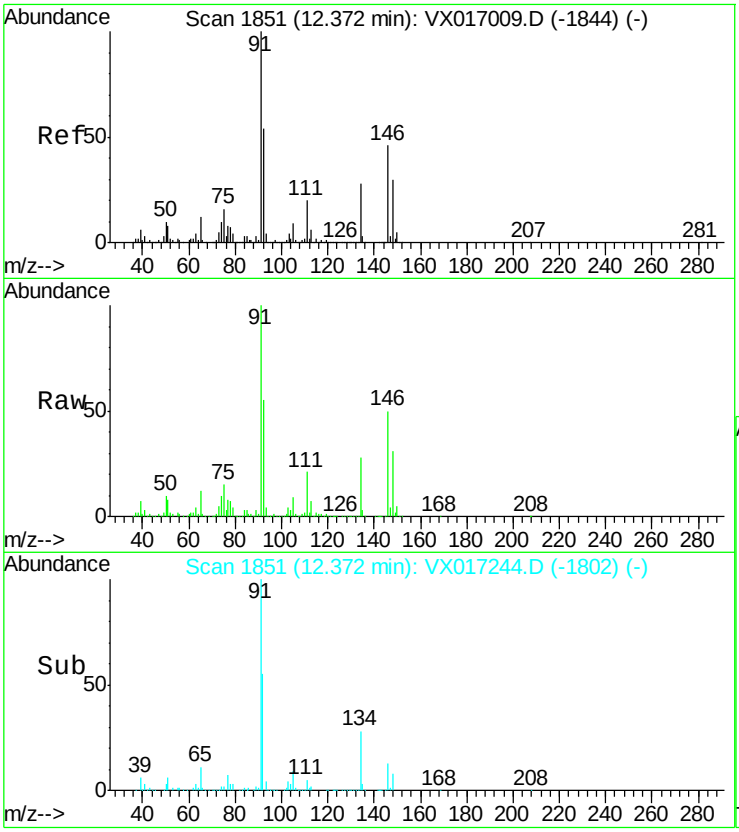
Tgt Ion:146 Resp: 383433

Ion	Ratio	Lower	Upper
146	100		
111	38.7	19.5	58.5
148	63.2	31.9	95.7



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

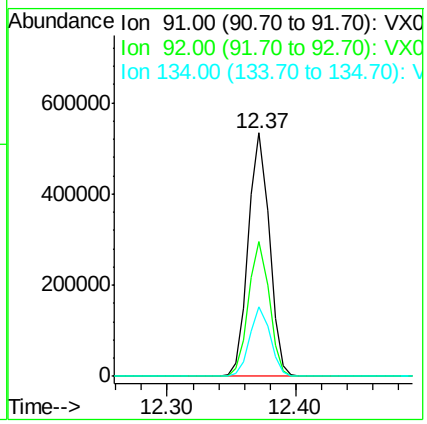
Manual Integrations APPROVED
MMDadoda
7/9/2020 10:59:45 AM

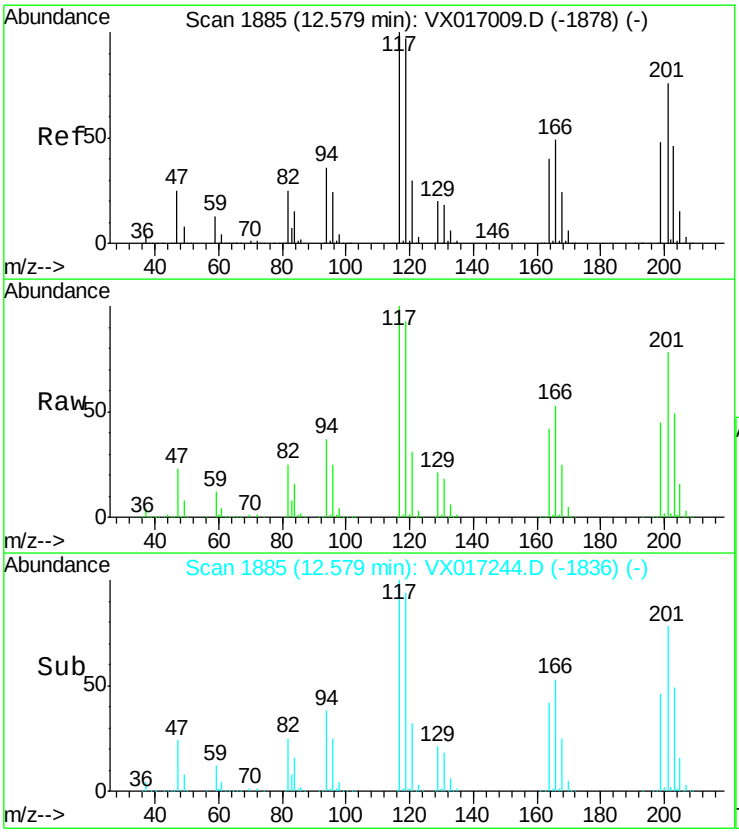


#89
n-Butylbenzene
Concen: 50.975 ug/l
RT: 12.37 min Scan# 1851
Delta R.T. -0.00 min
Lab File: VX017244.D
Acq: 08 Jul 2020 10:24

Tgt Ion: 91 Resp: 600317

Ion	Ratio	Lower	Upper
91	100		
92	54.7	27.2	81.6
134	27.7	13.6	40.7

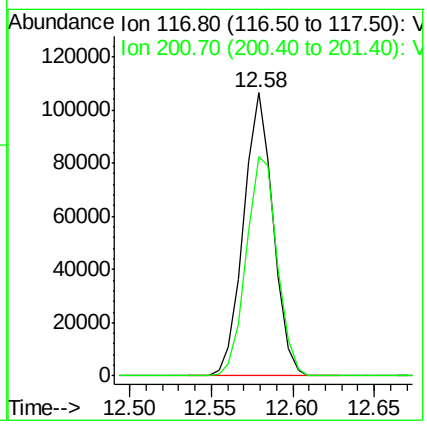




#90
Hexachloroethane
Concen: 51.655 ug/l
RT: 12.58 min Scan# 1885
Delta R.T. -0.00 min
Lab File: VX017244.D
Acq: 08 Jul 2020 10:24

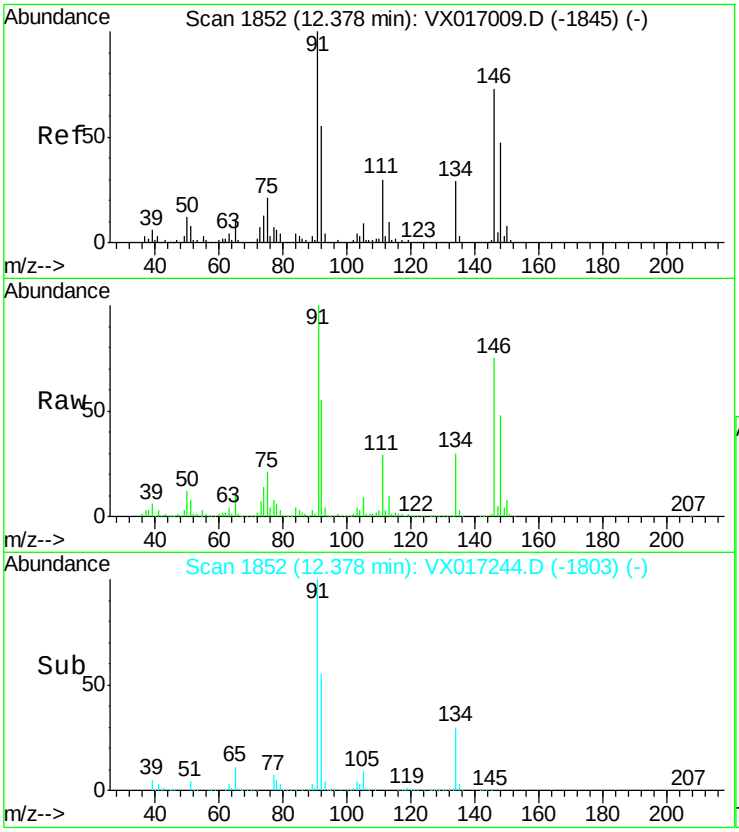
Tgt Ion:117 Resp: 134351

Ion	Ratio	Lower	Upper
117	100		
201	80.8	39.4	118.2



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

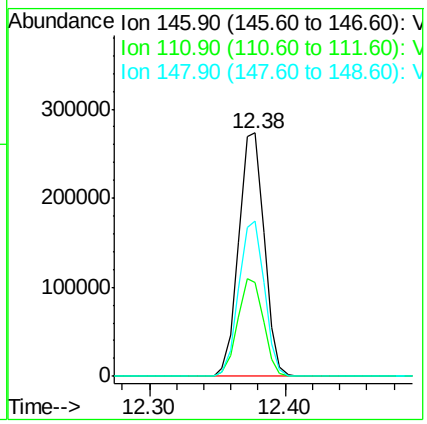
Manual Integrations APPROVED
MMDadoda
7/9/2020 10:59:45 AM

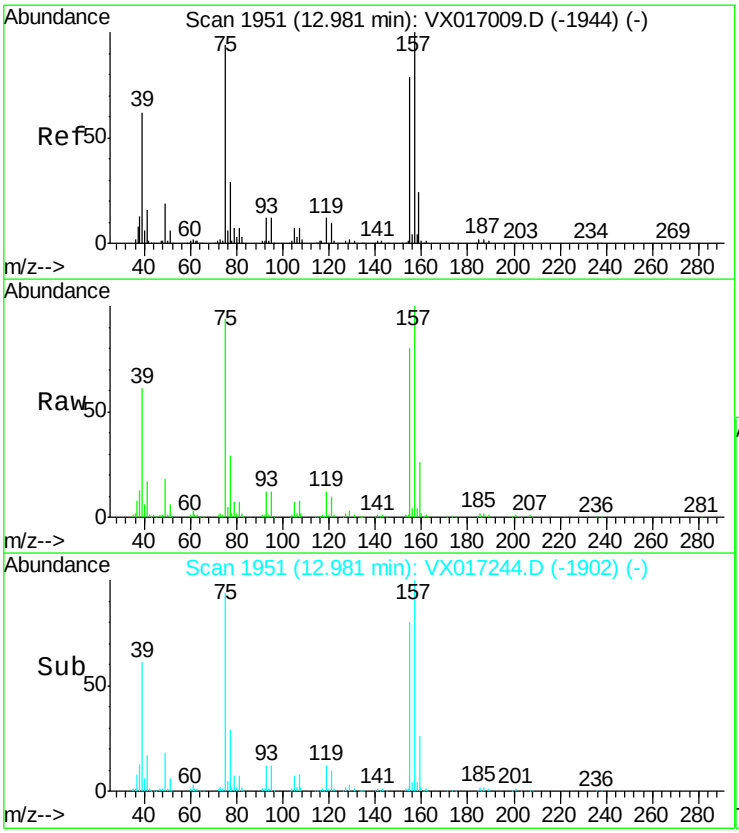


#91
1,2-Dichlorobenzene
Concen: 51.809 ug/l
RT: 12.38 min Scan# 1852
Delta R.T. -0.00 min
Lab File: VX017244.D
Acq: 08 Jul 2020 10:24

Tgt Ion:146 Resp: 357824

Ion	Ratio	Lower	Upper
146	100		
111	40.3	20.6	61.9
148	64.2	32.4	97.2

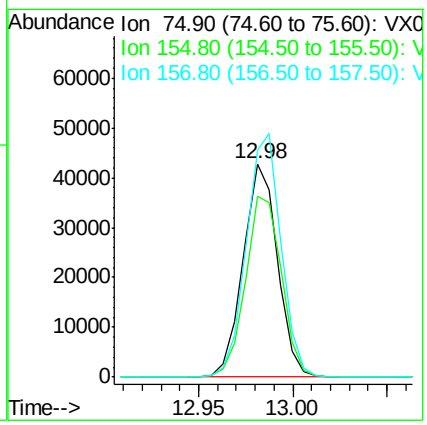


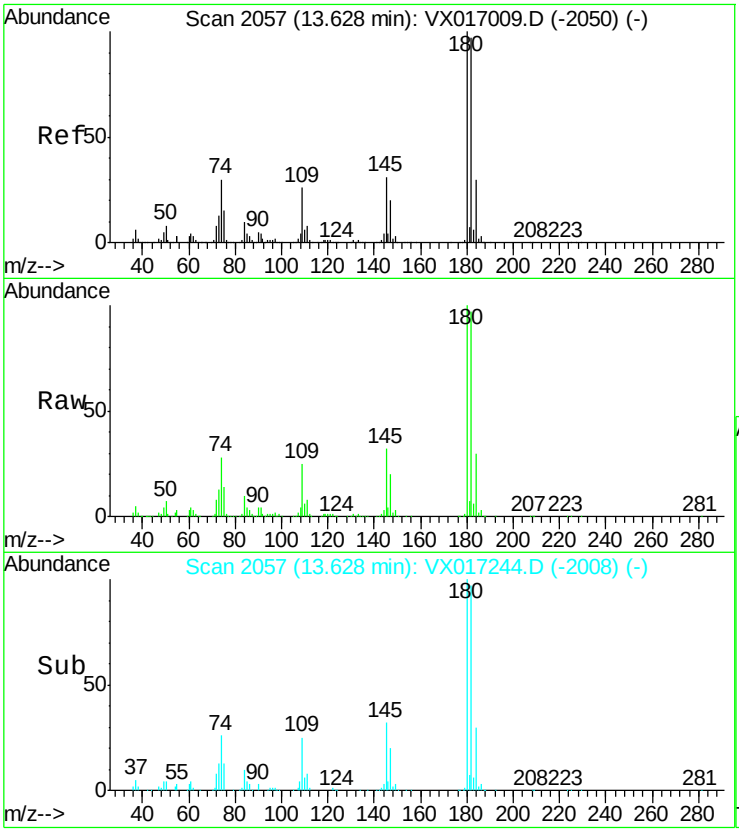


#92
1,2-Dibromo-3-Chloropropane
Concen: 48.633 ug/l
RT: 12.98 min Scan# 1951
Delta R.T. -0.00 min
Lab File: VX017244.D
Acq: 08 Jul 2020 10:24

Tgt Ion: 75 Resp: 54019

Ion	Ratio	Lower	Upper
75	100		
155	88.7	45.1	135.2
157	115.1	56.5	169.3

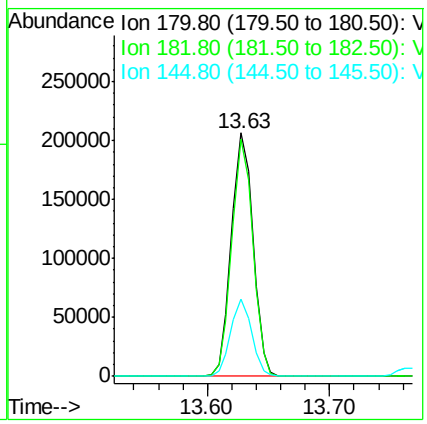




#93
1,2,4-Trichlorobenzene
Concen: 53.332 ug/l
RT: 13.63 min Scan# 2057
Delta R.T. -0.00 min
Lab File: VX017244.D
Acq: 08 Jul 2020 10:24

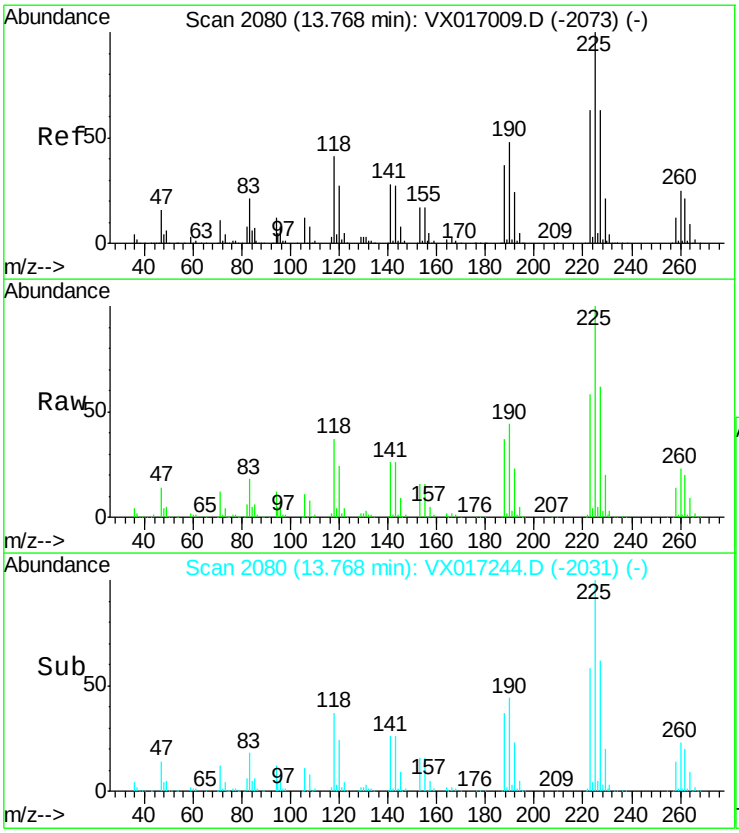
Tgt Ion:180 Resp: 251408

Ion	Ratio	Lower	Upper
180	100		
182	95.1	47.3	141.9
145	30.9	15.4	46.2



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

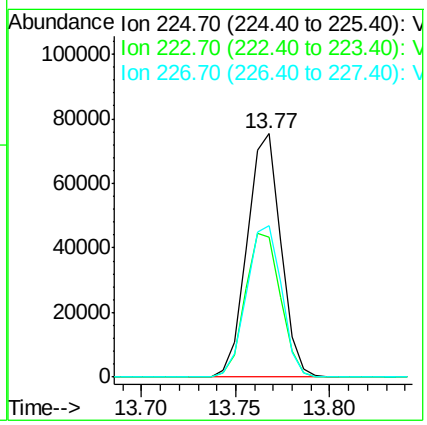
Manual Integrations APPROVED
MMDadoda
7/9/2020 10:59:45 AM



#94
Hexachlorobutadiene
Concen: 52.158 ug/l
RT: 13.77 min Scan# 2080
Delta R.T. 0.00 min
Lab File: VX017244.D
Acq: 08 Jul 2020 10:24

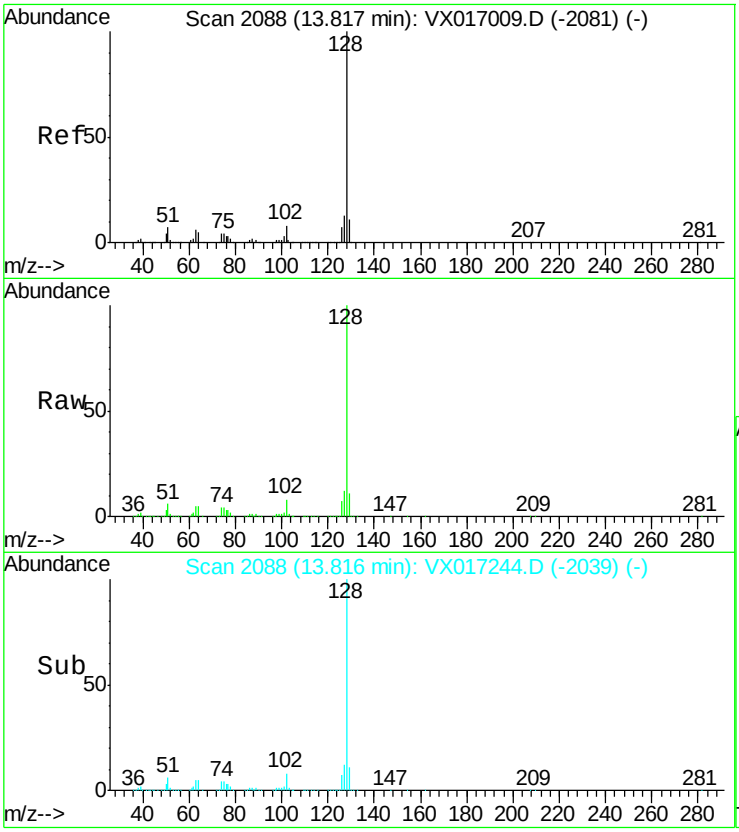
Tgt Ion:225 Resp: 93380

Ion	Ratio	Lower	Upper
225	100		
223	62.0	32.5	97.5
227	64.7	33.1	99.2



Instrument :
MSVOA_X
ClientSampleId :
VSTDCCC050

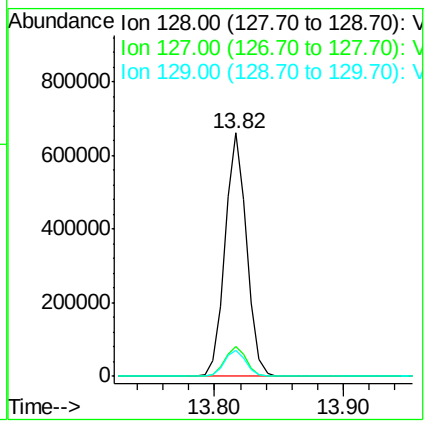
Manual Integrations APPROVED
MMDadoda
7/9/2020 10:59:45 AM

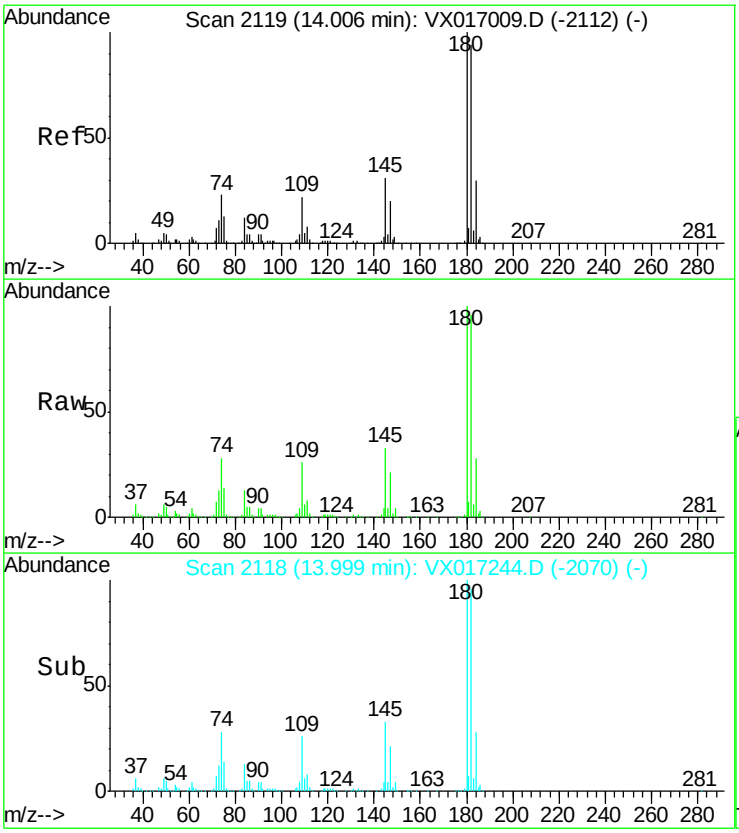


#95
Naphthalene
Concen: 54.185 ug/l
RT: 13.82 min Scan# 2088
Delta R.T. -0.00 min
Lab File: VX017244.D
Acq: 08 Jul 2020 10:24

Tgt Ion:128 Resp: 776545

Ion	Ratio	Lower	Upper
128	100		
127	12.3	10.2	15.4
129	10.8	8.7	13.1

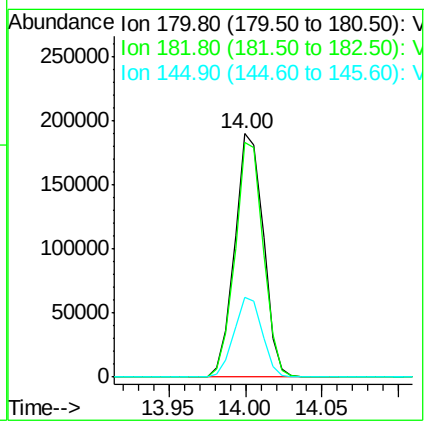




#96
1,2,3-Trichlorobenzene
Concen: 53.892 ug/l
RT: 14.00 min Scan# 2118
Delta R.T. -0.01 min
Lab File: VX017244.D
Acq: 08 Jul 2020 10:24

Tgt Ion:180 Resp: 245861

Ion	Ratio	Lower	Upper
180	100		
182	95.0	47.1	141.4
145	32.5	16.6	49.7



Evaluate Continuing Calibration Report

Data Path : Z:\voasrv\HPCHEM1\MSVOA X\Data\VX070820\
Data File : VX017244.D
Acq On : 08 Jul 2020 10:24
Operator : JC/SP
Sample : VSTDCCC050
Misc : 5.0mL/MSVOA X/WATER
ALS Vial : 2 Sample Multiplier: 1

Instrument : MSVOA_X
LabSampleId : VSTDCCC050

Quant Time: Jul 08 15:49:53 2020
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X062920W.M
Quant Title : SW846 8260
QLast Update : Mon Jun 29 17:10:38 2020
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	Pentafluorobenzene	1.000	1.000	0.0	100	-0.01
2	T	Dichlorodifluoromethane	0.484	0.441	8.9	91	0.00
3	P	Chloromethane	0.586	0.467	20.3#	82	0.00
4	C	Vinyl Chloride	0.543	0.460	15.3#	87	0.00
5	T	Bromomethane	0.287	0.260	9.4	92	0.00
6	T	Chloroethane	0.321	0.299	6.9	97	0.00
7	T	Trichlorofluoromethane	0.803	0.837	-4.2	107	0.00
8	T	Diethyl Ether	0.293	0.287	2.0	105	0.00
9	T	1,1,2-Trichlorotrifluoroeth	0.482	0.444	7.9	92	0.00
10	T	Methyl Iodide	0.621	0.480	22.7#	73	0.00
11	T	Tert butyl alcohol	0.118	0.108	8.5	91	0.00
12	CM	1,1-Dichloroethene	0.495	0.416	16.0#	85	0.00
13	T	Acrolein	0.070	0.092	-31.4#	133	0.00
14	T	Allyl chloride	0.914	0.785	14.1	88	0.00
15	T	Acrylonitrile	0.283	0.256	9.5	90	0.00
16	T	Acetone	0.231	0.222	3.9	98	0.00
17	T	Carbon Disulfide	1.515	1.182	22.0#	82	0.00
18	T	Methyl Acetate	0.602	0.577	4.2	96	0.00
19	T	Methyl tert-butyl Ether	1.660	1.661	-0.1	99	0.00
20	T	Methylene Chloride	0.589	0.517	12.2	92	0.00
21	T	trans-1,2-Dichloroethene	0.549	0.496	9.7	92	0.00
22	T	Diisopropyl ether	1.692	1.620	4.3	94	0.00
23	T	Vinyl Acetate	1.454	1.413	2.8	92	0.00
24	P	1,1-Dichloroethane	0.963	0.891	7.5	93	0.00
25	T	2-Butanone	0.384	0.352	8.3	90	0.00
26	T	2,2-Dichloropropane	0.855	0.834	2.5	99	0.00
27	T	cis-1,2-Dichloroethene	0.622	0.575	7.6	93	0.00
28	T	Bromochloromethane	0.468	0.375	19.9	82	0.00
29	T	Tetrahydrofuran	0.254	0.225	11.4	86	0.00
30	C	Chloroform	0.987	0.973	1.4#	99	0.00
31	T	Cyclohexane	0.832	0.741	10.9	87	0.00
32	T	1,1,1-Trichloroethane	0.909	0.881	3.1	98	0.00
33	S	1,2-Dichloroethane-d4	0.616	0.566	8.1	98	0.00
34	I	1,4-Difluorobenzene	1.000	1.000	0.0	91	0.00
35	S	Dibromofluoromethane	0.316	0.325	-2.8	97	0.00
36	T	1,1-Dichloropropene	0.473	0.481	-1.7	93	0.00
37	T	Ethyl Acetate	0.479	0.479	0.0	87	0.00
38	T	Carbon Tetrachloride	0.520	0.564	-8.5	98	0.00
39	T	Methylcyclohexane	0.526	0.547	-4.0	92	0.00
40	TM	Benzene	1.388	1.394	-0.4	91	0.00
41	T	Methacrylonitrile	0.270	0.281	-4.1	94	0.00
42	TM	1,2-Dichloroethane	0.502	0.555	-10.6	101	0.00
43	T	Isopropyl Acetate	0.797	0.810	-1.6	91	0.00
44	TM	Trichloroethene	0.418	0.418	0.0	94	0.00
45	C	1,2-Dichloropropane	0.357	0.359	-0.6#	92	0.00

Evaluate Continuing Calibration Report

Data Path : Z:\voasrv\HPCHEM1\MSVOA X\Data\VX070820\
Data File : VX017244.D
Acq On : 08 Jul 2020 10:24
Operator : JC/SP
Sample : VSTDCCC050
Misc : 5.0mL/MSVOA X/WATER
ALS Vial : 2 Sample Multiplier: 1

Instrument : MSVOA_X
LabSampleId : VSTDCCC050

Quant Time: Jul 08 15:49:53 2020
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X062920W.M
Quant Title : SW846 8260
QLast Update : Mon Jun 29 17:10:38 2020
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
46	T	Dibromomethane	0.243	0.262	-7.8	98	0.00
47	T	Bromodichloromethane	0.502	0.549	-9.4	98	0.00
48	T	Methyl methacrylate	0.379	0.405	-6.9	91	0.00
49	T	1,4-Dioxane	0.009	0.009	0.0	89	0.00
50	S	Toluene-d8	1.170	1.165	0.4	95	0.00
51	T	4-Methyl-2-Pentanone	0.475	0.498	-4.8	91	0.00
52	CM	Toluene	0.867	0.906	-4.5#	94	0.00
53	T	t-1,3-Dichloropropene	0.554	0.614	-10.8	99	0.00
54	T	cis-1,3-Dichloropropene	0.593	0.642	-8.3	96	0.00
55	T	1,1,2-Trichloroethane	0.354	0.386	-9.0	99	0.00
56	T	Ethyl methacrylate	0.504	0.569	-12.9	96	0.00
57	T	1,3-Dichloropropane	0.599	0.640	-6.8	97	0.00
58	T	2-Chloroethyl Vinyl ether	0.251	0.270	-7.6	89	0.00
59	T	2-Hexanone	0.347	0.380	-9.5	93	0.00
60	T	Dibromochloromethane	0.411	0.474	-15.3	103	0.00
61	T	1,2-Dibromoethane	0.381	0.414	-8.7	98	0.00
62	S	4-Bromofluorobenzene	0.457	0.485	-6.1	101	0.00
63	I	Chlorobenzene-d5	1.000	1.000	0.0	94	0.00
64	T	Tetrachloroethene	0.404	0.420	-4.0	99	0.00
65	PM	Chlorobenzene	1.032	1.053	-2.0	97	0.00
66	T	1,1,1,2-Tetrachloroethane	0.398	0.424	-6.5	101	0.00
67	C	Ethyl Benzene	1.723	1.801	-4.5#	95	0.00
68	T	m/p-Xylenes	0.662	0.707	-6.8	96	0.00
69	T	o-Xylene	0.630	0.671	-6.5	97	0.00
70	T	Styrene	1.072	1.199	-11.8	98	0.00
71	P	Bromoform	0.315	0.377	-19.7	105	0.00
72	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	103	0.00
73	T	Isopropylbenzene	3.275	3.291	-0.5	98	0.00
74	T	N-amyl acetate	1.397	1.368	2.1	92	0.00
75	P	1,1,2,2-Tetrachloroethane	1.030	0.998	3.1	99	0.00
76	T	1,2,3-Trichloropropane	0.983	0.994	-1.1	99	0.00
77	T	Bromobenzene	0.900	0.908	-0.9	103	0.00
78	T	n-propylbenzene	3.704	3.783	-2.1	99	0.00
79	T	2-Chlorotoluene	2.241	2.313	-3.2	101	0.00
80	T	1,3,5-Trimethylbenzene	2.717	2.867	-5.5	101	0.00
81	T	trans-1,4-Dichloro-2-butene	0.380	0.380	0.0	96	0.00
82	T	4-Chlorotoluene	2.679	2.763	-3.1	102	0.00
83	T	tert-Butylbenzene	2.667	2.778	-4.2	100	0.00
84	T	1,2,4-Trimethylbenzene	2.756	2.930	-6.3	101	0.00
85	T	sec-Butylbenzene	3.135	3.263	-4.1	100	0.00
86	T	p-Isopropyltoluene	2.918	3.112	-6.6	101	0.00
87	T	1,3-Dichlorobenzene	1.635	1.639	-0.2	106	0.00
88	T	1,4-Dichlorobenzene	1.675	1.697	-1.3	107	0.00
89	T	n-Butylbenzene	2.606	2.656	-1.9	100	0.00

Evaluate Continuing Calibration Report

Data Path : Z:\voasrv\HPCHEM1\MSVOA X\Data\VX070820\
Data File : VX017244.D
Acq On : 08 Jul 2020 10:24
Operator : JC/SP
Sample : VSTDCCC050
Misc : 5.0mL/MSVOA X/WATER
ALS Vial : 2 Sample Multiplier: 1

Instrument : MSVOA_X
LabSampleId : VSTDCCC050

Quant Time: Jul 08 15:49:53 2020
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X062920W.M
Quant Title : SW846 8260
QLast Update : Mon Jun 29 17:10:38 2020
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
90 T	Hexachloroethane	0.575	0.595	-3.5	103	0.00
91 T	1,2-Dichlorobenzene	1.528	1.583	-3.6	106	0.00
92 T	1,2-Dibromo-3-Chloropropane	0.246	0.239	2.8	102	0.00
93 T	1,2,4-Trichlorobenzene	1.043	1.112	-6.6	109	0.00
94 T	Hexachlorobutadiene	0.422	0.413	2.1	105	0.00
95 T	Naphthalene	3.171	3.436	-8.4	102	0.00
96 T	1,2,3-Trichlorobenzene	1.009	1.088	-7.8	108	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 6

Evaluate Continuing Calibration Report

Data Path : Z:\voasrv\HPCHEM1\MSVOA X\Data\VX070820\
Data File : VX017244.D
Acq On : 08 Jul 2020 10:24
Operator : JC/SP
Sample : VSTDCCC050
Misc : 5.0mL/MSVOA X/WATER
ALS Vial : 2 Sample Multiplier: 1

Instrument : MSVOA_X
LabSampleId : VSTDCCC050

Quant Time: Jul 08 15:49:53 2020
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X062920W.M
Quant Title : SW846 8260
QLast Update : Mon Jun 29 17:10:38 2020
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	Pentafluorobenzene	50.000	50.000	0.0	100	-0.01
2	T	Dichlorodifluoromethane	50.000	45.571	8.9	91	0.00
3	P	Chloromethane	50.000	39.877	20.2#	82	0.00
4	C	Vinyl Chloride	50.000	42.298	15.4#	87	0.00
5	T	Bromomethane	50.000	45.314	9.4	92	0.00
6	T	Chloroethane	50.000	46.542	6.9	97	0.00
7	T	Trichlorofluoromethane	50.000	52.070	-4.1	107	0.00
8	T	Diethyl Ether	50.000	53.137	-6.3	105	0.00
9	T	1,1,2-Trichlorotrifluoroeth	50.000	46.098	7.8	92	0.00
10	T	Methyl Iodide	50.000	38.613	22.8#	73	0.00
11	T	Tert butyl alcohol	250.000	230.443	7.8	91	0.00
12	CM	1,1-Dichloroethene	50.000	42.086	15.8#	85	0.00
13	T	Acrolein	250.000	327.962	-31.2#	133	0.00
14	T	Allyl chloride	50.000	42.932	14.1	88	0.00
15	T	Acrylonitrile	250.000	226.457	9.4	90	0.00
16	T	Acetone	250.000	240.899	3.6	98	0.00
17	T	Carbon Disulfide	50.000	42.801	14.4	82	0.00
18	T	Methyl Acetate	50.000	47.889	4.2	96	0.00
19	T	Methyl tert-butyl Ether	50.000	50.022	-0.0	99	0.00
20	T	Methylene Chloride	50.000	48.859	2.3	92	0.00
21	T	trans-1,2-Dichloroethene	50.000	45.215	9.6	92	0.00
22	T	Diisopropyl ether	50.000	47.861	4.3	94	0.00
23	T	Vinyl Acetate	250.000	242.987	2.8	92	0.00
24	P	1,1-Dichloroethane	50.000	46.297	7.4	93	0.00
25	T	2-Butanone	250.000	228.794	8.5	90	0.00
26	T	2,2-Dichloropropane	50.000	48.788	2.4	99	0.00
27	T	cis-1,2-Dichloroethene	50.000	46.236	7.5	93	0.00
28	T	Bromochloromethane	50.000	40.019	20.0	82	0.00
29	T	Tetrahydrofuran	250.000	222.054	11.2	86	0.00
30	C	Chloroform	50.000	49.274	1.5#	99	0.00
31	T	Cyclohexane	50.000	44.512	11.0	87	0.00
32	T	1,1,1-Trichloroethane	50.000	48.486	3.0	98	0.00
33	S	1,2-Dichloroethane-d4	50.000	45.894	8.2	98	0.00
34	I	1,4-Difluorobenzene	50.000	50.000	0.0	91	0.00
35	S	Dibromofluoromethane	50.000	51.436	-2.9	97	0.00
36	T	1,1-Dichloropropene	50.000	50.936	-1.9	93	0.00
37	T	Ethyl Acetate	50.000	49.991	0.0	87	0.00
38	T	Carbon Tetrachloride	50.000	54.153	-8.3	98	0.00
39	T	Methylcyclohexane	50.000	52.045	-4.1	92	0.00
40	TM	Benzene	50.000	50.215	-0.4	91	0.00
41	T	Methacrylonitrile	50.000	52.087	-4.2	94	0.00
42	TM	1,2-Dichloroethane	50.000	55.334	-10.7	101	0.00
43	T	Isopropyl Acetate	50.000	50.855	-1.7	91	0.00
44	TM	Trichloroethene	50.000	54.578	-9.2	94	0.00
45	C	1,2-Dichloropropane	50.000	50.363	-0.7#	92	0.00

Evaluate Continuing Calibration Report

Data Path : Z:\voasrv\HPCHEM1\MSVOA X\Data\VX070820\
Data File : VX017244.D
Acq On : 08 Jul 2020 10:24
Operator : JC/SP
Sample : VSTDCCC050
Misc : 5.0mL/MSVOA X/WATER
ALS Vial : 2 Sample Multiplier: 1

Instrument : MSVOA_X
LabSampleId : VSTDCCC050

Quant Time: Jul 08 15:49:53 2020
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X062920W.M
Quant Title : SW846 8260
QLast Update : Mon Jun 29 17:10:38 2020
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
46	T	Dibromomethane	50.000	53.848	-7.7	98	0.00
47	T	Bromodichloromethane	50.000	54.755	-9.5	98	0.00
48	T	Methyl methacrylate	50.000	53.441	-6.9	91	0.00
49	T	1,4-Dioxane	1000.000	1007.221	-0.7	89	0.00
50	S	Toluene-d8	50.000	49.797	0.4	95	0.00
51	T	4-Methyl-2-Pentanone	250.000	262.277	-4.9	91	0.00
52	CM	Toluene	50.000	52.280	-4.6#	94	0.00
53	T	t-1,3-Dichloropropene	50.000	55.479	-11.0	99	0.00
54	T	cis-1,3-Dichloropropene	50.000	54.097	-8.2	96	0.00
55	T	1,1,2-Trichloroethane	50.000	54.496	-9.0	99	0.00
56	T	Ethyl methacrylate	50.000	56.446	-12.9	96	0.00
57	T	1,3-Dichloropropane	50.000	53.396	-6.8	97	0.00
58	T	2-Chloroethyl Vinyl ether	250.000	268.648	-7.5	89	0.00
59	T	2-Hexanone	250.000	274.056	-9.6	93	0.00
60	T	Dibromochloromethane	50.000	57.637	-15.3	103	0.00
61	T	1,2-Dibromoethane	50.000	54.429	-8.9	98	0.00
62	S	4-Bromofluorobenzene	50.000	53.027	-6.1	101	0.00
63	I	Chlorobenzene-d5	50.000	50.000	0.0	94	0.00
64	T	Tetrachloroethene	50.000	51.981	-4.0	99	0.00
65	PM	Chlorobenzene	50.000	51.019	-2.0	97	0.00
66	T	1,1,1,2-Tetrachloroethane	50.000	53.321	-6.6	101	0.00
67	C	Ethyl Benzene	50.000	52.252	-4.5#	95	0.00
68	T	m/p-Xylenes	100.000	106.903	-6.9	96	0.00
69	T	o-Xylene	50.000	53.302	-6.6	97	0.00
70	T	Styrene	50.000	55.930	-11.9	98	0.00
71	P	Bromoform	50.000	59.777	-19.6	105	0.00
72	I	1,4-Dichlorobenzene-d4	50.000	50.000	0.0	103	0.00
73	T	Isopropylbenzene	50.000	50.240	-0.5	98	0.00
74	T	N-amyl acetate	50.000	48.957	2.1	92	0.00
75	P	1,1,2,2-Tetrachloroethane	50.000	48.415	3.2	99	0.00
76	T	1,2,3-Trichloropropane	50.000	50.529	-1.1	99	0.00
77	T	Bromobenzene	50.000	50.429	-0.9	103	0.00
78	T	n-propylbenzene	50.000	51.067	-2.1	99	0.00
79	T	2-Chlorotoluene	50.000	51.592	-3.2	101	0.00
80	T	1,3,5-Trimethylbenzene	50.000	52.777	-5.6	101	0.00
81	T	trans-1,4-Dichloro-2-butene	50.000	50.089	-0.2	96	0.00
82	T	4-Chlorotoluene	50.000	51.558	-3.1	102	0.00
83	T	tert-Butylbenzene	50.000	52.082	-4.2	100	0.00
84	T	1,2,4-Trimethylbenzene	50.000	53.158	-6.3	101	0.00
85	T	sec-Butylbenzene	50.000	52.054	-4.1	100	0.00
86	T	p-Isopropyltoluene	50.000	53.317	-6.6	101	0.00
87	T	1,3-Dichlorobenzene	50.000	50.136	-0.3	106	0.00
88	T	1,4-Dichlorobenzene	50.000	55.047	-10.1	107	0.00
89	T	n-Butylbenzene	50.000	50.975	-2.0	100	0.00

Evaluate Continuing Calibration Report

Data Path : Z:\voasrv\HPCHEM1\MSVOA X\Data\VX070820\
Data File : VX017244.D
Acq On : 08 Jul 2020 10:24
Operator : JC/SP
Sample : VSTDCCC050
Misc : 5.0mL/MSVOA X/WATER
ALS Vial : 2 Sample Multiplier: 1

Instrument : MSVOA_X
LabSampleId : VSTDCCC050

Quant Time: Jul 08 15:49:53 2020
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X062920W.M
Quant Title : SW846 8260
QLast Update : Mon Jun 29 17:10:38 2020
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
90 T	Hexachloroethane	50.000	51.655	-3.3	103	0.00
91 T	1,2-Dichlorobenzene	50.000	51.809	-3.6	106	0.00
92 T	1,2-Dibromo-3-Chloropropane	50.000	48.633	2.7	102	0.00
93 T	1,2,4-Trichlorobenzene	50.000	53.332	-6.7	109	0.00
94 T	Hexachlorobutadiene	50.000	52.158	-4.3	105	0.00
95 T	Naphthalene	50.000	54.185	-8.4	102	0.00
96 T	1,2,3-Trichlorobenzene	50.000	53.892	-7.8	108	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 6

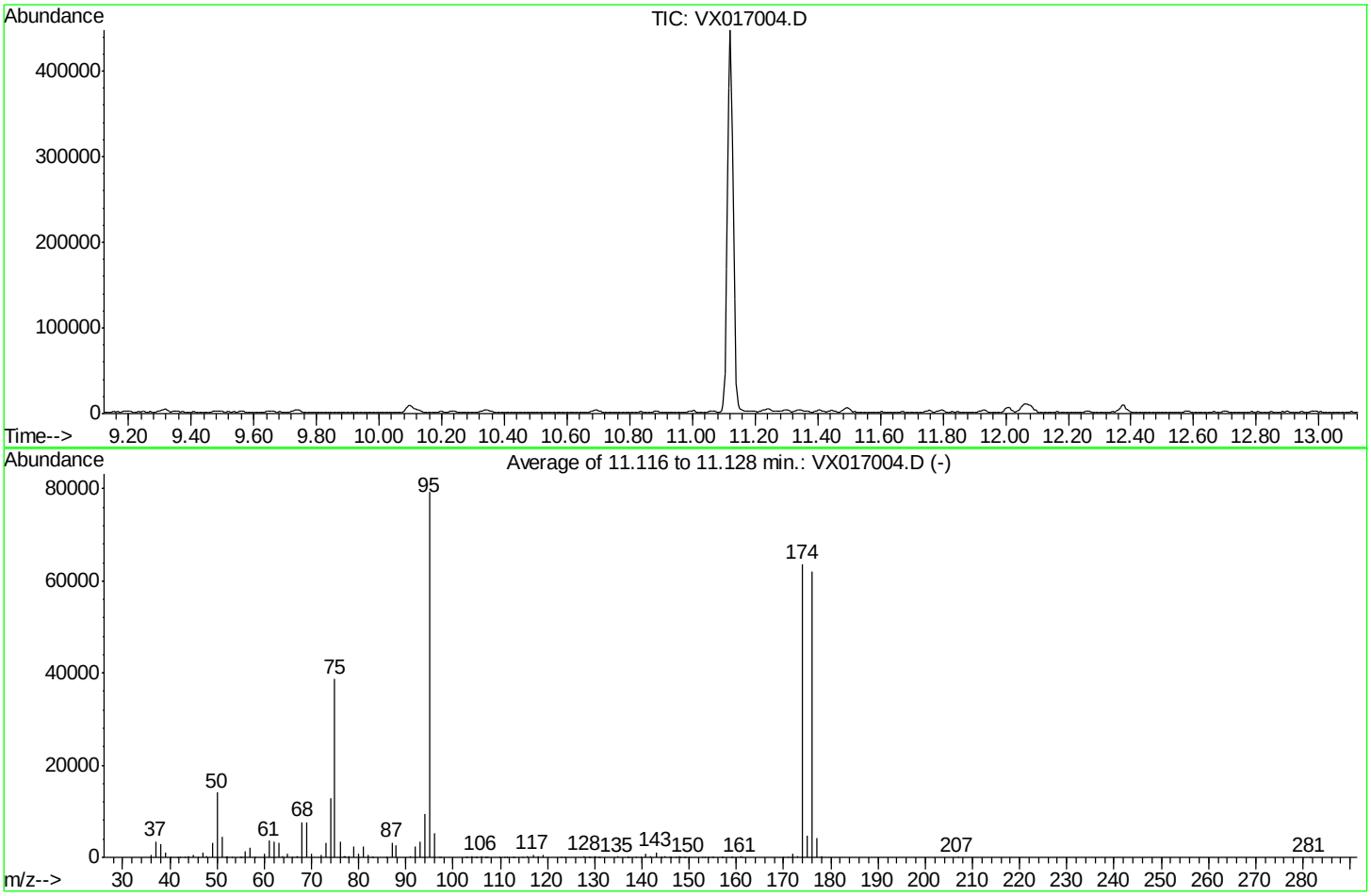
QC SAMPLE DATA

Data Path : Z:\voasrv\HPCHEM1\MSVOA X\Data\VX062920\
Data File : VX017004.D
Acq On : 29 Jun 2020 12:32
Operator : JC/SP
Sample : BFB
Misc : 5.0mL/MSVOA X/WATER
ALS Vial : 1 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
BFB

Integration File: RTEINT.P

Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X062920W.M
Title : SW846 8260
Last Update : Mon Jun 29 17:10:38 2020



AutoFind: Scans 1645, 1646, 1647; Background Corrected with Scan 1638

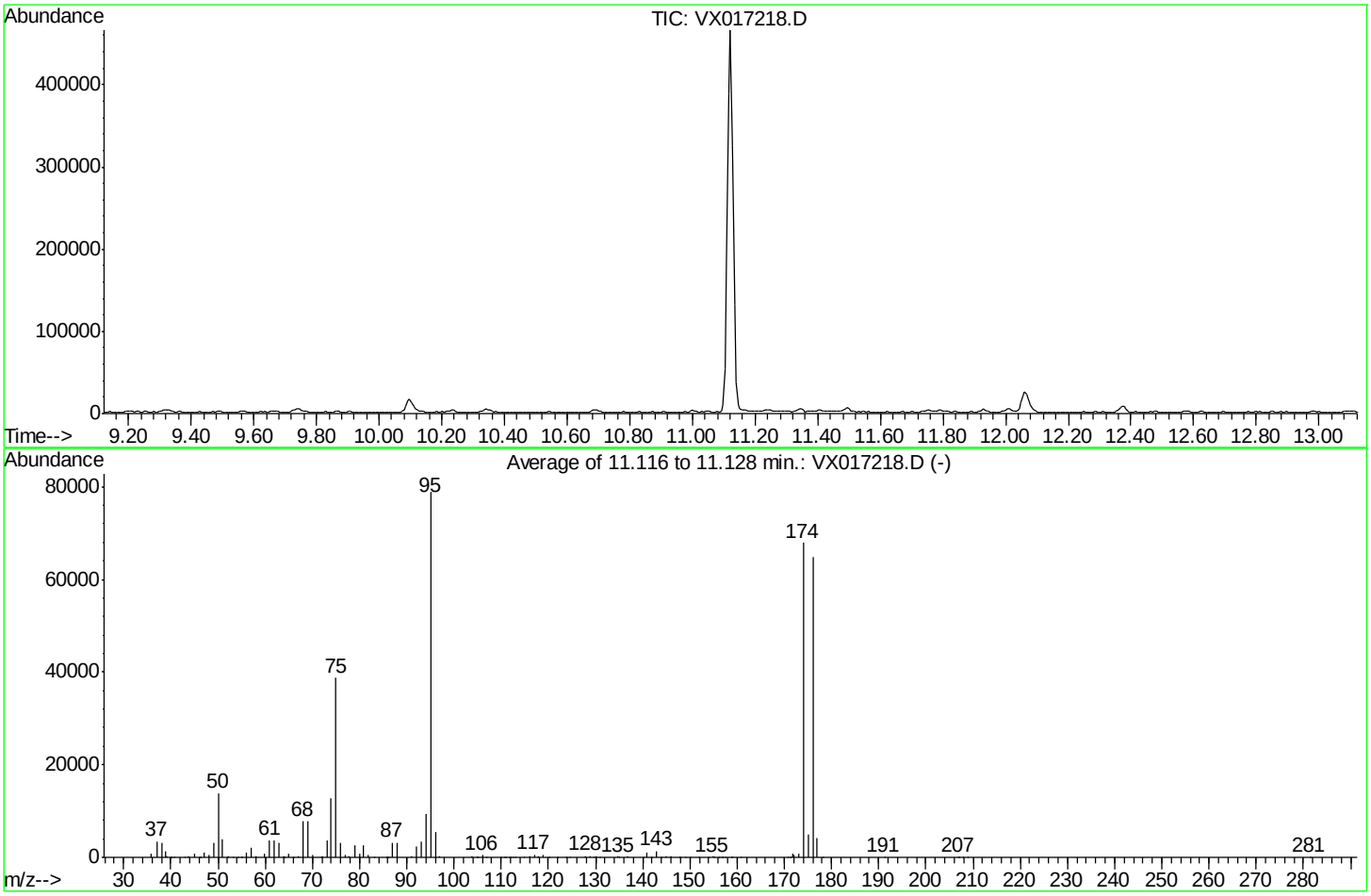
Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	17.8	14103	PASS
75	95	30	60	48.8	38708	PASS
95	95	100	100	100.0	79272	PASS
96	95	5	9	6.7	5273	PASS
173	174	0.00	2	0.5	336	PASS
174	95	50	100	80.3	63616	PASS
175	174	5	9	7.5	4793	PASS
176	174	95	101	97.6	62104	PASS
177	176	5	9	6.8	4218	PASS

Data Path : Z:\voasrv\HPCHEM1\MSVOA X\Data\VX070720\
Data File : VX017218.D
Acq On : 07 Jul 2020 20:48
Operator : JC/SP
Sample : BFB
Misc : 5.0mL/MSVOA X/WATER
ALS Vial : 29 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
BFB

Integration File: RTEINT.P

Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X062920W.M
Title : SW846 8260
Last Update : Mon Jun 29 17:10:38 2020



AutoFind: Scans 1645, 1646, 1647; Background Corrected with Scan 1638

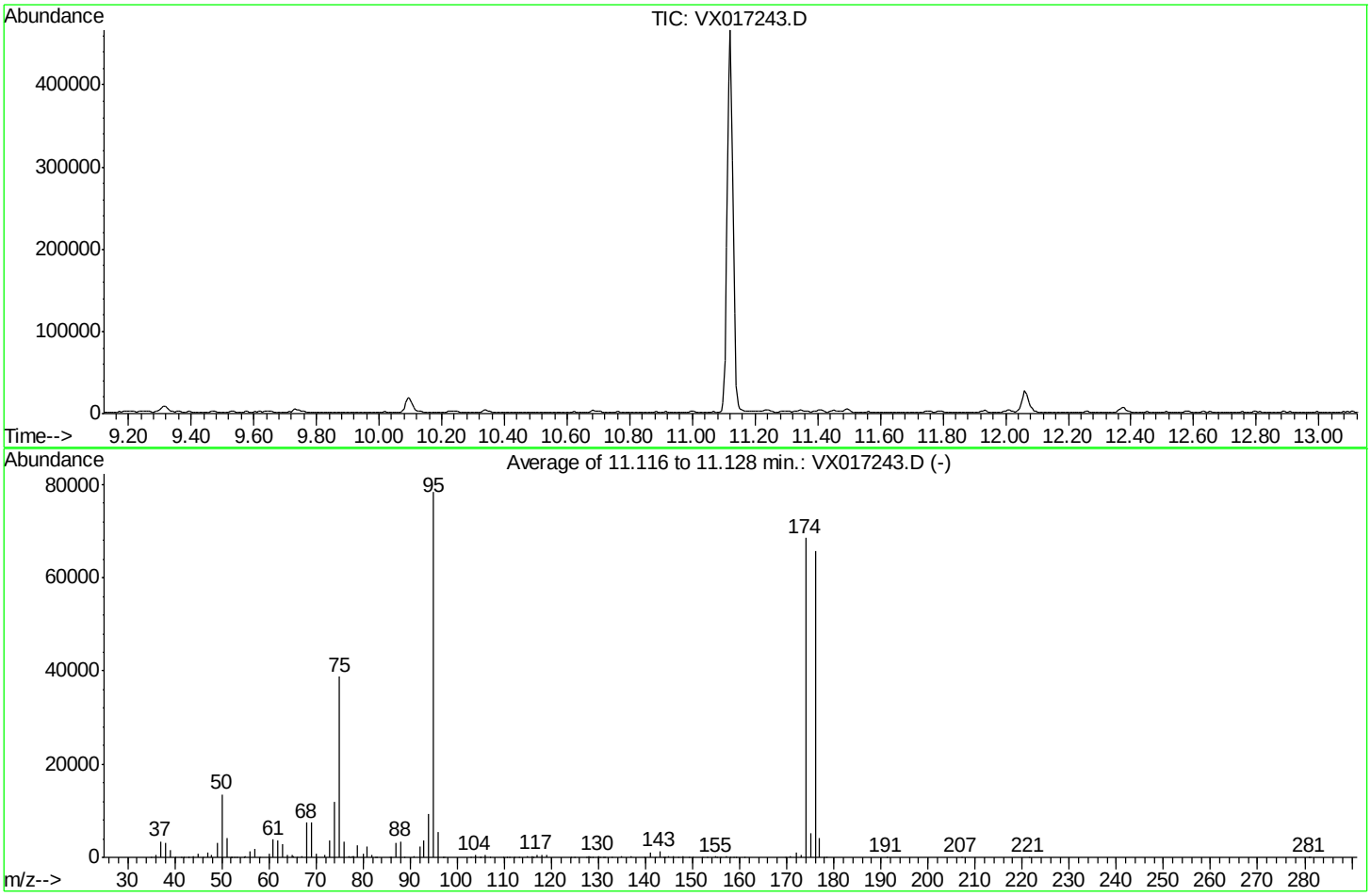
Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	17.6	13910	PASS
75	95	30	60	49.1	38752	PASS
95	95	100	100	100.0	78853	PASS
96	95	5	9	6.8	5357	PASS
173	174	0.00	2	1.2	802	PASS
174	95	50	100	86.1	67898	PASS
175	174	5	9	7.3	4948	PASS
176	174	95	101	95.6	64885	PASS
177	176	5	9	6.5	4201	PASS

Data Path : Z:\voasrv\HPCHEM1\MSVOA X\Data\VX070820\
Data File : VX017243.D
Acq On : 08 Jul 2020 09:17
Operator : JC/SP
Sample : BFB
Misc : 5.0mL/MSVOA X/WATER
ALS Vial : 1 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
BFB

Integration File: RTEINT.P

Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X062920W.M
Title : SW846 8260
Last Update : Mon Jun 29 17:10:38 2020



AutoFind: Scans 1645, 1646, 1647; Background Corrected with Scan 1638

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	17.3	13542	PASS
75	95	30	60	49.5	38784	PASS
95	95	100	100	100.0	78365	PASS
96	95	5	9	7.0	5464	PASS
173	174	0.00	2	0.9	596	PASS
174	95	50	100	87.4	68474	PASS
175	174	5	9	7.5	5136	PASS
176	174	95	101	95.9	65672	PASS
177	176	5	9	6.4	4193	PASS

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Day Environmental, Inc.	Date Collected:	
Project:	Andrew St. RI	Date Received:	
Client Sample ID:	VX0707WBL02	SDG No.:	L3232
Lab Sample ID:	VX0707WBL02	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	DB-624UI ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX017220.D	1		07/07/20 22:41	VX070720

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
75-71-8	Dichlorodifluoromethane	1.00	U	0.22	1.00	ug/L
74-87-3	Chloromethane	1.00	U	0.30	1.00	ug/L
75-01-4	Vinyl Chloride	1.00	U	0.16	1.00	ug/L
74-83-9	Bromomethane	5.00	U	2.10	5.00	ug/L
75-00-3	Chloroethane	1.00	U	0.34	1.00	ug/L
75-69-4	Trichlorofluoromethane	1.00	U	0.16	1.00	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	1.00	U	0.21	1.00	ug/L
75-35-4	1,1-Dichloroethene	1.00	U	0.18	1.00	ug/L
67-64-1	Acetone	5.00	U	0.90	5.00	ug/L
75-15-0	Carbon Disulfide	1.00	U	0.23	1.00	ug/L
1634-04-4	Methyl tert-butyl Ether	1.00	U	0.070	1.00	ug/L
79-20-9	Methyl Acetate	1.00	U	0.65	1.00	ug/L
75-09-2	Methylene Chloride	1.00	U	0.33	1.00	ug/L
156-60-5	trans-1,2-Dichloroethene	1.00	U	0.24	1.00	ug/L
75-34-3	1,1-Dichloroethane	1.00	U	0.17	1.00	ug/L
110-82-7	Cyclohexane	5.00	U	1.20	5.00	ug/L
78-93-3	2-Butanone	5.00	U	0.71	5.00	ug/L
56-23-5	Carbon Tetrachloride	1.00	U	0.22	1.00	ug/L
156-59-2	cis-1,2-Dichloroethene	1.00	U	0.30	1.00	ug/L
74-97-5	Bromochloromethane	1.00	U	0.31	1.00	ug/L
67-66-3	Chloroform	1.00	U	0.14	1.00	ug/L
71-55-6	1,1,1-Trichloroethane	1.00	U	0.12	1.00	ug/L
108-87-2	Methylcyclohexane	1.00	U	0.17	1.00	ug/L
71-43-2	Benzene	1.00	U	0.10	1.00	ug/L
107-06-2	1,2-Dichloroethane	1.00	U	0.13	1.00	ug/L
79-01-6	Trichloroethene	1.00	U	0.27	1.00	ug/L
78-87-5	1,2-Dichloropropane	1.00	U	0.14	1.00	ug/L
75-27-4	Bromodichloromethane	1.00	U	0.10	1.00	ug/L
108-10-1	4-Methyl-2-Pentanone	5.00	U	0.85	5.00	ug/L
108-88-3	Toluene	1.00	U	0.12	1.00	ug/L
10061-02-6	t-1,3-Dichloropropene	1.00	U	0.19	1.00	ug/L
10061-01-5	cis-1,3-Dichloropropene	1.00	U	0.16	1.00	ug/L

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Day Environmental, Inc.	Date Collected:	
Project:	Andrew St. RI	Date Received:	
Client Sample ID:	VX0707WBL02	SDG No.:	L3232
Lab Sample ID:	VX0707WBL02	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	DB-624UI ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX017220.D	1		07/07/20 22:41	VX070720

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
79-00-5	1,1,2-Trichloroethane	1.00	U	0.12	1.00	ug/L
591-78-6	2-Hexanone	5.00	U	1.40	5.00	ug/L
124-48-1	Dibromochloromethane	1.00	U	0.16	1.00	ug/L
106-93-4	1,2-Dibromoethane	1.00	U	0.14	1.00	ug/L
127-18-4	Tetrachloroethene	1.00	U	0.15	1.00	ug/L
108-90-7	Chlorobenzene	1.00	U	0.080	1.00	ug/L
100-41-4	Ethyl Benzene	1.00	U	0.080	1.00	ug/L
179601-23-1	m/p-Xylenes	2.00	U	0.20	2.00	ug/L
95-47-6	o-Xylene	1.00	U	0.13	1.00	ug/L
100-42-5	Styrene	1.00	U	0.11	1.00	ug/L
75-25-2	Bromoform	1.00	U	0.15	1.00	ug/L
98-82-8	Isopropylbenzene	1.00	U	0.13	1.00	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	1.00	U	0.15	1.00	ug/L
541-73-1	1,3-Dichlorobenzene	1.00	U	0.14	1.00	ug/L
106-46-7	1,4-Dichlorobenzene	1.00	U	0.20	1.00	ug/L
95-50-1	1,2-Dichlorobenzene	1.00	U	0.12	1.00	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	1.00	U	0.54	1.00	ug/L
120-82-1	1,2,4-Trichlorobenzene	1.00	U	0.24	1.00	ug/L
87-61-6	1,2,3-Trichlorobenzene	1.00	U	0.26	1.00	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	53.4		61 - 141	107%	SPK: 50
1868-53-7	Dibromofluoromethane	53.7		69 - 133	107%	SPK: 50
2037-26-5	Toluene-d8	52.8		65 - 126	106%	SPK: 50
460-00-4	4-Bromofluorobenzene	56.9		58 - 135	114%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	255000	5.64			
540-36-3	1,4-Difluorobenzene	424000	6.83			
3114-55-4	Chlorobenzene-d5	438000	10.1			
3855-82-1	1,4-Dichlorobenzene-d4	242000	12.06			

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Day Environmental, Inc.	Date Collected:	
Project:	Andrew St. RI	Date Received:	
Client Sample ID:	VX0707WBL02	SDG No.:	L3232
Lab Sample ID:	VX0707WBL02	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	DB-624UI ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX017220.D	1		07/07/20 22:41	VX070720

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit
A = Aldol-Condensation Reaction Products

Quantitation Report (QT Reviewed)

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX070720\
Data File : VX017220.D
Acq On : 07 Jul 2020 22:41
Operator : JC/SP
Sample : VX0707WBL02
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 34 Sample Multiplier: 1

Instrument : MSVOA_X
ClientSampleId : VX0707WBL02

Quant Time: Jul 08 03:40:46 2020
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X062920W.M
Quant Title : SW846 8260
QLast Update : Mon Jun 29 17:10:38 2020
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	5.64	168	254589	50.00	ug/l	0.00
34) 1,4-Difluorobenzene	6.83	114	423760	50.00	ug/l	0.00
63) Chlorobenzene-d5	10.10	117	437810	50.00	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	12.06	152	242010	50.00	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	6.03	65	167747	53.45	ug/l	0.00
Spiked Amount 50.000			Recovery =	106.90%		
35) Dibromofluoromethane	5.47	113	144036	53.73	ug/l	0.00
Spiked Amount 50.000			Recovery =	107.46%		
50) Toluene-d8	8.70	98	523580	52.82	ug/l	0.00
Spiked Amount 50.000			Recovery =	105.64%		
62) 4-Bromofluorobenzene	11.12	95	220640	56.94	ug/l	0.00
Spiked Amount 50.000			Recovery =	113.88%		

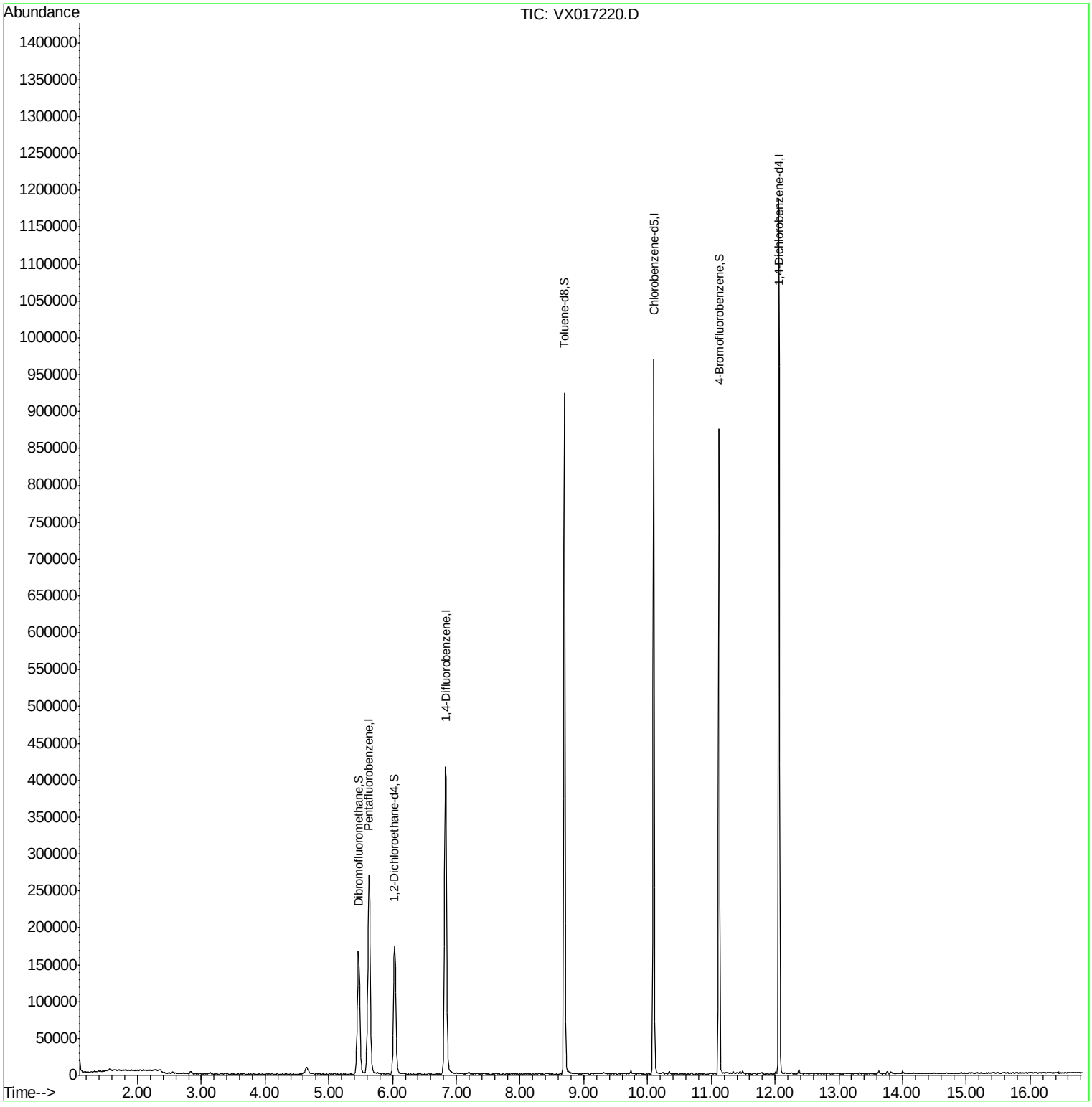
Target Compounds	Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

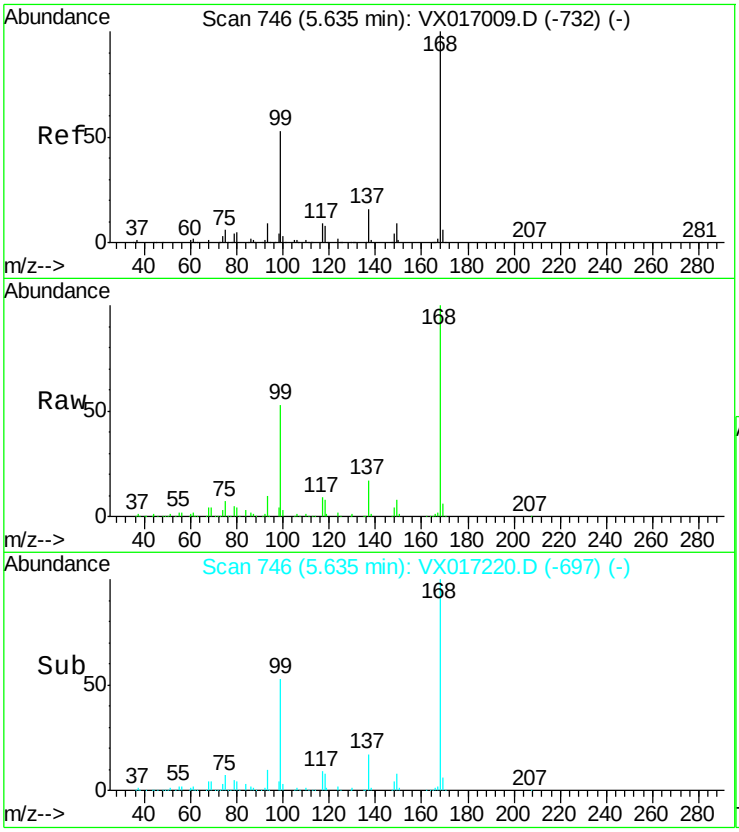
Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX070720\
Data File : VX017220.D
Acq On : 07 Jul 2020 22:41
Operator : JC/SP
Sample : VX0707WBL02
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 34 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
VX0707WBL02

Quant Time: Jul 08 03:40:46 2020
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X062920W.M
Quant Title : SW846 8260
QLast Update : Mon Jun 29 17:10:38 2020
Response via : Initial Calibration



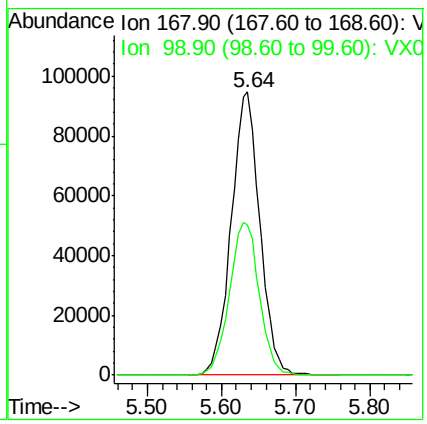
Instrument :
MSVOA_X
ClientSampleId :
VX0707WBL02

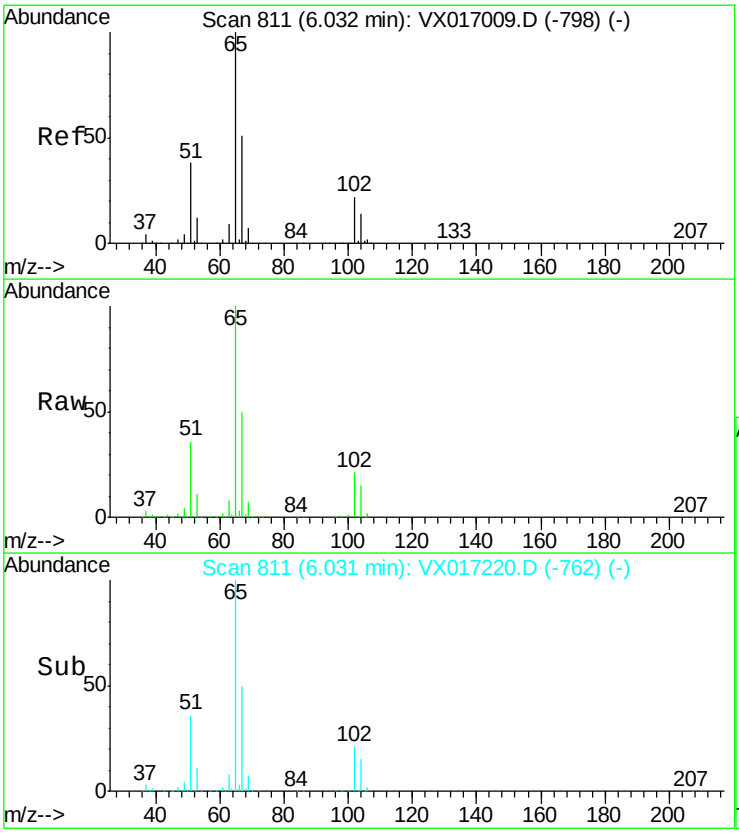


#1
Pentafluorobenzene
Concen: 50.000 ug/l
RT: 5.64 min Scan# 746
Delta R.T. -0.00 min
Lab File: VX017220.D
Acq: 07 Jul 2020 22:41

Tgt Ion:168 Resp: 254589

Ion	Ratio	Lower	Upper
168	100		
99	53.1	42.6	64.0

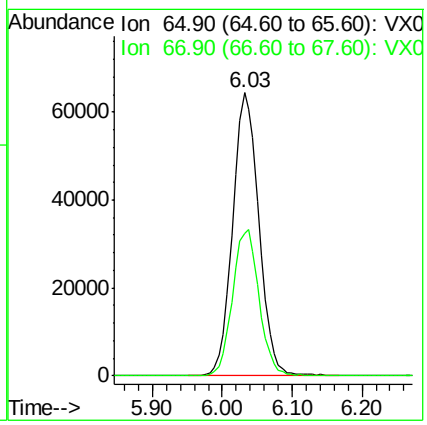




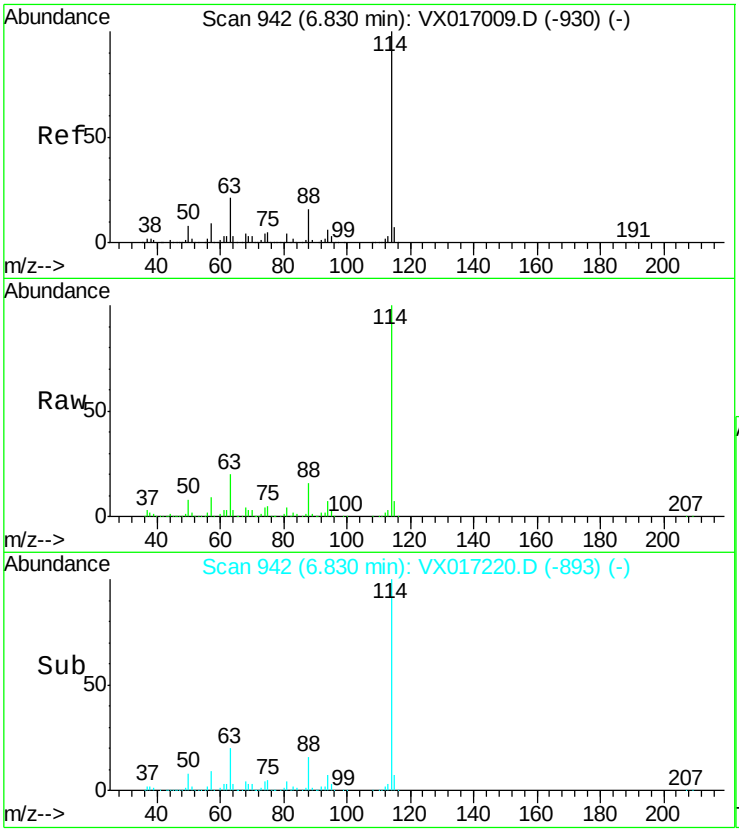
#33
1,2-Dichloroethane-d4
Concen: 53.447 ug/l
RT: 6.03 min Scan# 811
Delta R.T. -0.00 min
Lab File: VX017220.D
Acq: 07 Jul 2020 22:41

Tgt Ion: 65 Resp: 167747

Ion	Ratio	Lower	Upper
65	100		
67	52.1	0.0	103.8



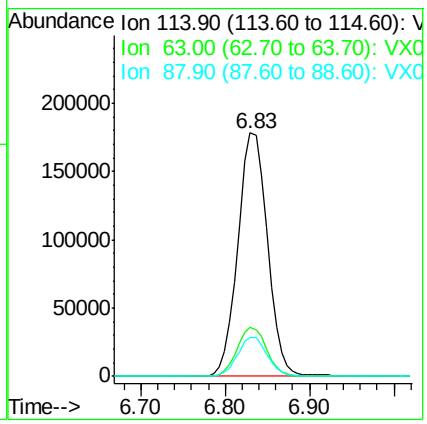
Instrument :
MSVOA_X
ClientSampleId :
VX0707WBL02

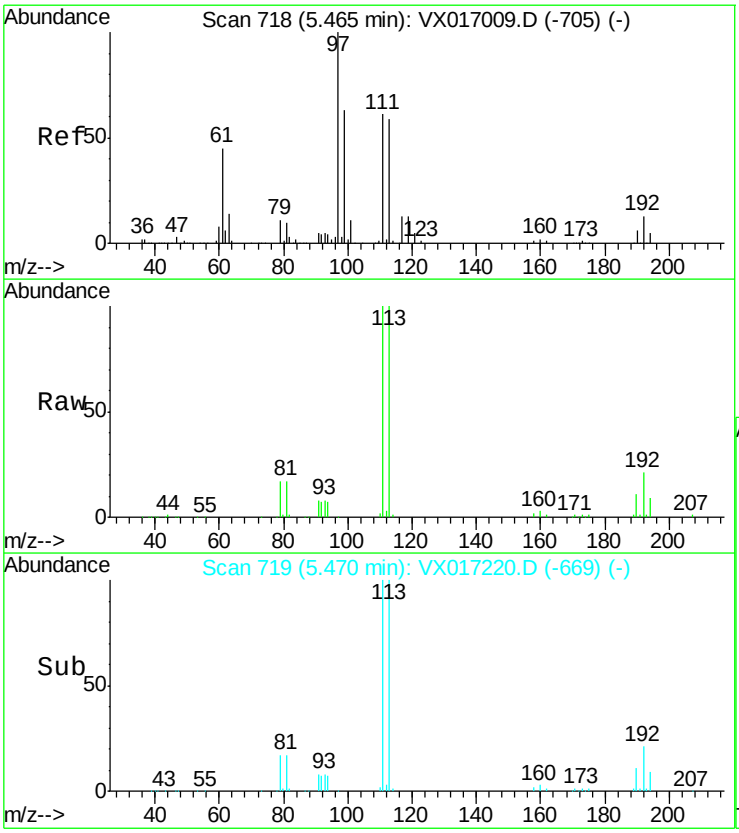


#34
1,4-Difluorobenzene
Concen: 50.000 ug/l
RT: 6.83 min Scan# 942
Delta R.T. -0.00 min
Lab File: VX017220.D
Acq: 07 Jul 2020 22:41

Tgt Ion:114 Resp: 423760

Ion	Ratio	Lower	Upper
114	100		
63	20.0	0.0	41.4
88	16.0	0.0	32.4

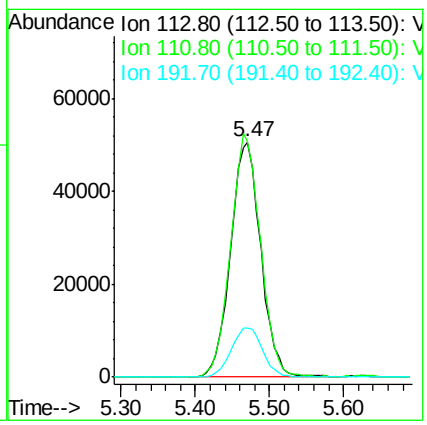




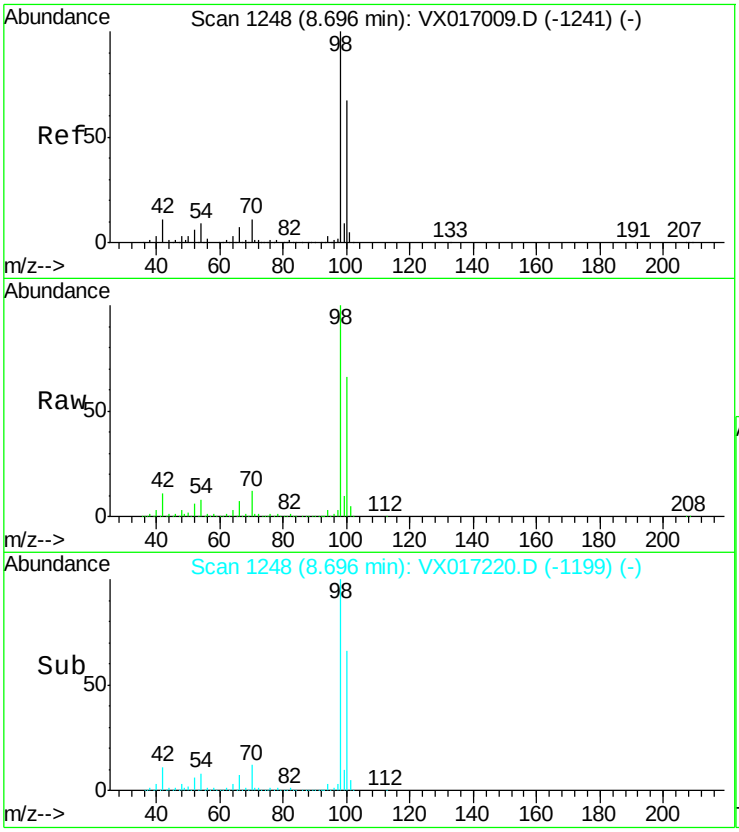
#35
Dibromofluoromethane
Concen: 53.733 ug/l
RT: 5.47 min Scan# 719
Delta R.T. 0.01 min
Lab File: VX017220.D
Acq: 07 Jul 2020 22:41

Tgt Ion:113 Resp: 144036

Ion	Ratio	Lower	Upper
113	100		
111	101.8	81.9	122.9
192	21.6	16.7	25.1



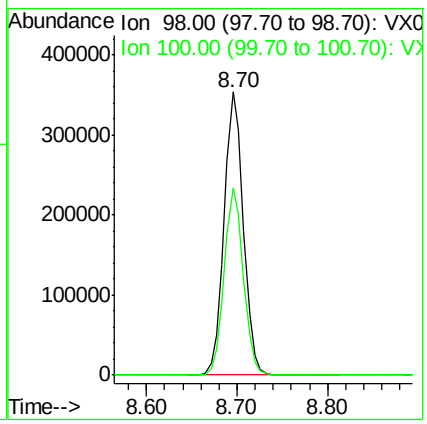
Instrument :
MSVOA_X
ClientSampleId :
VX0707WBL02

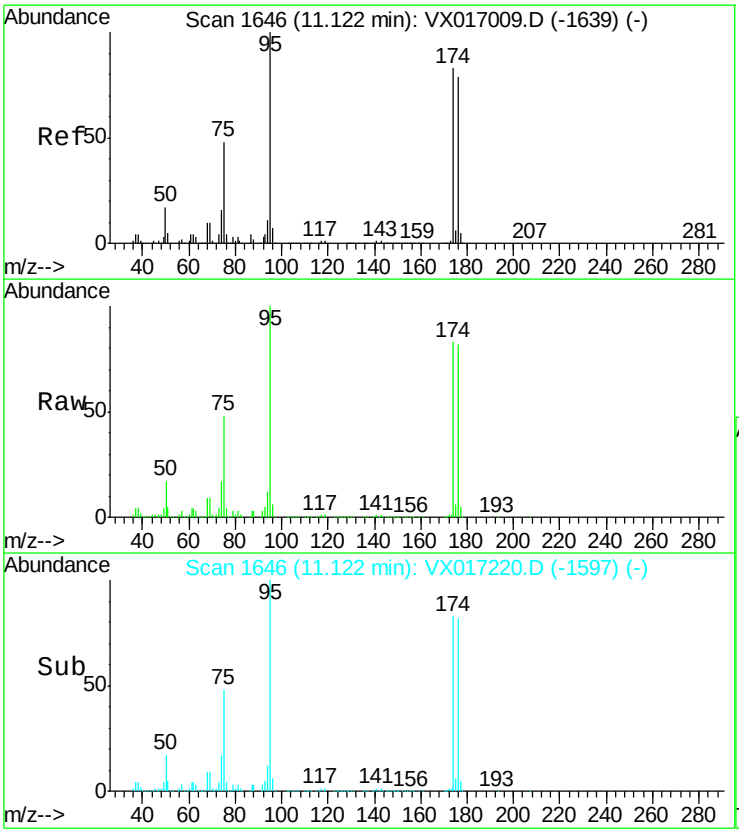


#50
Toluene-d8
Concen: 52.822 ug/l
RT: 8.70 min Scan# 1248
Delta R.T. -0.00 min
Lab File: VX017220.D
Acq: 07 Jul 2020 22:41

Tgt Ion: 98 Resp: 523580

Ion	Ratio	Lower	Upper
98	100		
100	65.8	53.8	80.6

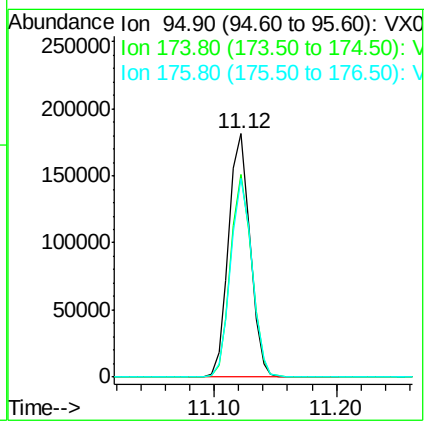




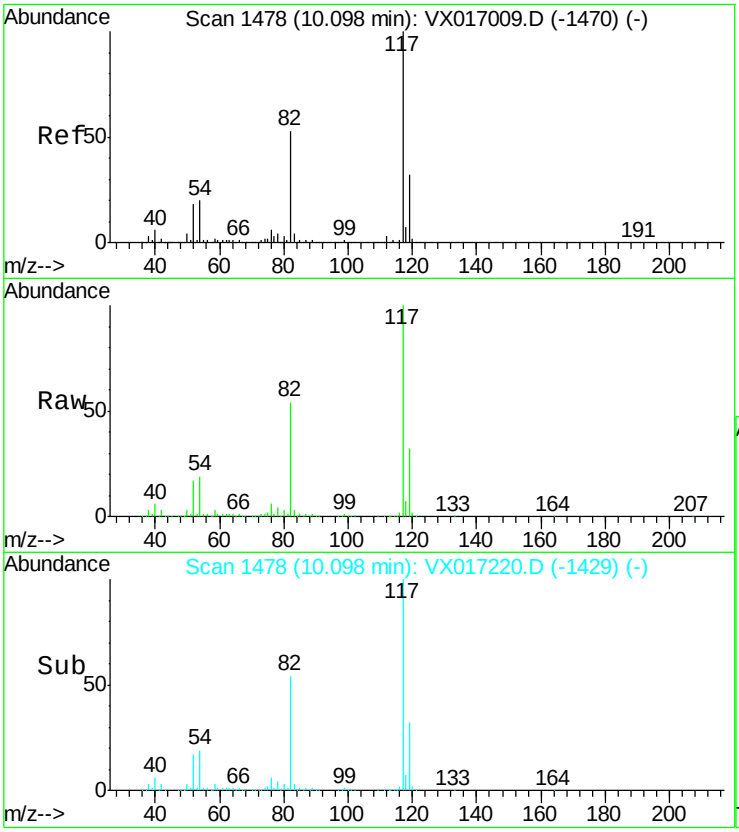
#62
4-Bromofluorobenzene
Concen: 56.942 ug/l
RT: 11.12 min Scan# 1646
Delta R.T. -0.00 min
Lab File: VX017220.D
Acq: 07 Jul 2020 22:41

Tgt Ion: 95 Resp: 220640

Ion	Ratio	Lower	Upper
95	100		
174	82.1	0.0	164.0
176	80.9	0.0	157.6



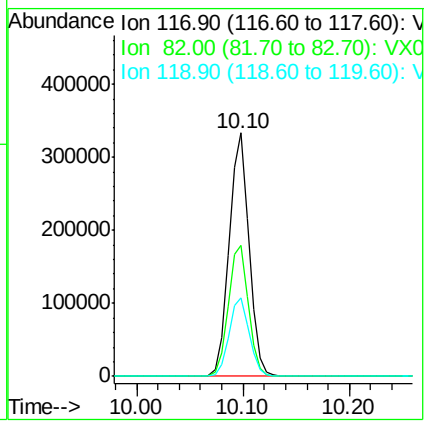
Instrument :
MSVOA_X
ClientSampleId :
VX0707WBL02

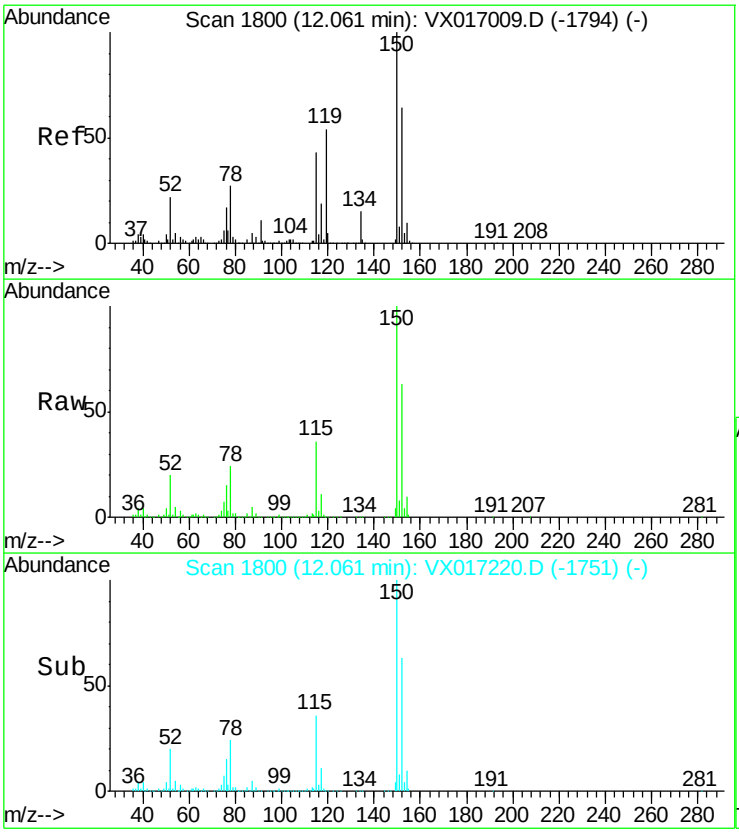


#63
Chlorobenzene-d5
Concen: 50.000 ug/l
RT: 10.10 min Scan# 1478
Delta R.T. -0.00 min
Lab File: VX017220.D
Acq: 07 Jul 2020 22:41

Tgt Ion:117 Resp: 437810

Ion	Ratio	Lower	Upper
117	100		
82	53.9	42.6	63.8
119	32.4	25.4	38.2

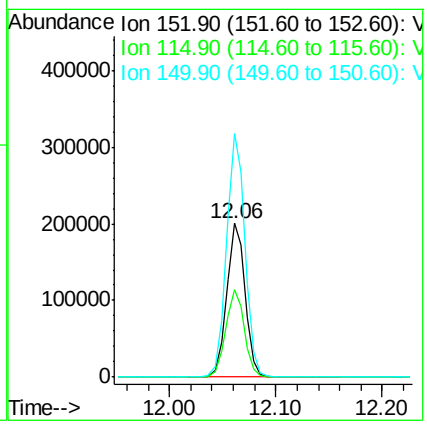




#72
1,4-Dichlorobenzene-d4
Concen: 50.000 ug/l
RT: 12.06 min Scan# 1800
Delta R.T. -0.00 min
Lab File: VX017220.D
Acq: 07 Jul 2020 22:41

Tgt Ion:152 Resp: 242010

Ion	Ratio	Lower	Upper
152	100		
115	57.4	40.9	122.7
150	158.4	0.0	351.6



LSC Area Percent Report

Instrument :
MSVOA_X
ClientSampleId :
VX0707WBL02

Data Path : Z:\VOASRV\HPCHEM1\MSVOA X\DATA\VX070720\
Data File : VX017220.D
Acq On : 07 Jul 2020 22:41
Operator : JC/SP
Sample : VX0707WBL02
Misc : 5.0mL/MSVOA X/WATER
ALS Vial : 34 Sample Multiplier: 1

Integration Parameters: RTEINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 3 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X062920W.M
Title : SW846 8260

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	5.464	706	718	733	rBV	167465	486000	33.63%	6.143%
2	5.629	733	745	760	rVB	268018	746897	51.68%	9.441%
3	6.031	801	811	824	rBV	174215	461354	31.92%	5.832%
4	6.830	928	942	953	rBV	417737	993364	68.74%	12.557%
5	8.696	1240	1248	1256	rBV	924079	1386999	95.97%	17.533%
6	10.098	1470	1478	1486	rBV	969936	1308131	90.52%	16.536%
7	11.122	1640	1646	1656	rBV	874505	1082933	74.93%	13.689%
8	12.061	1794	1800	1810	rBV	1186643	1445202	100.00%	18.269%

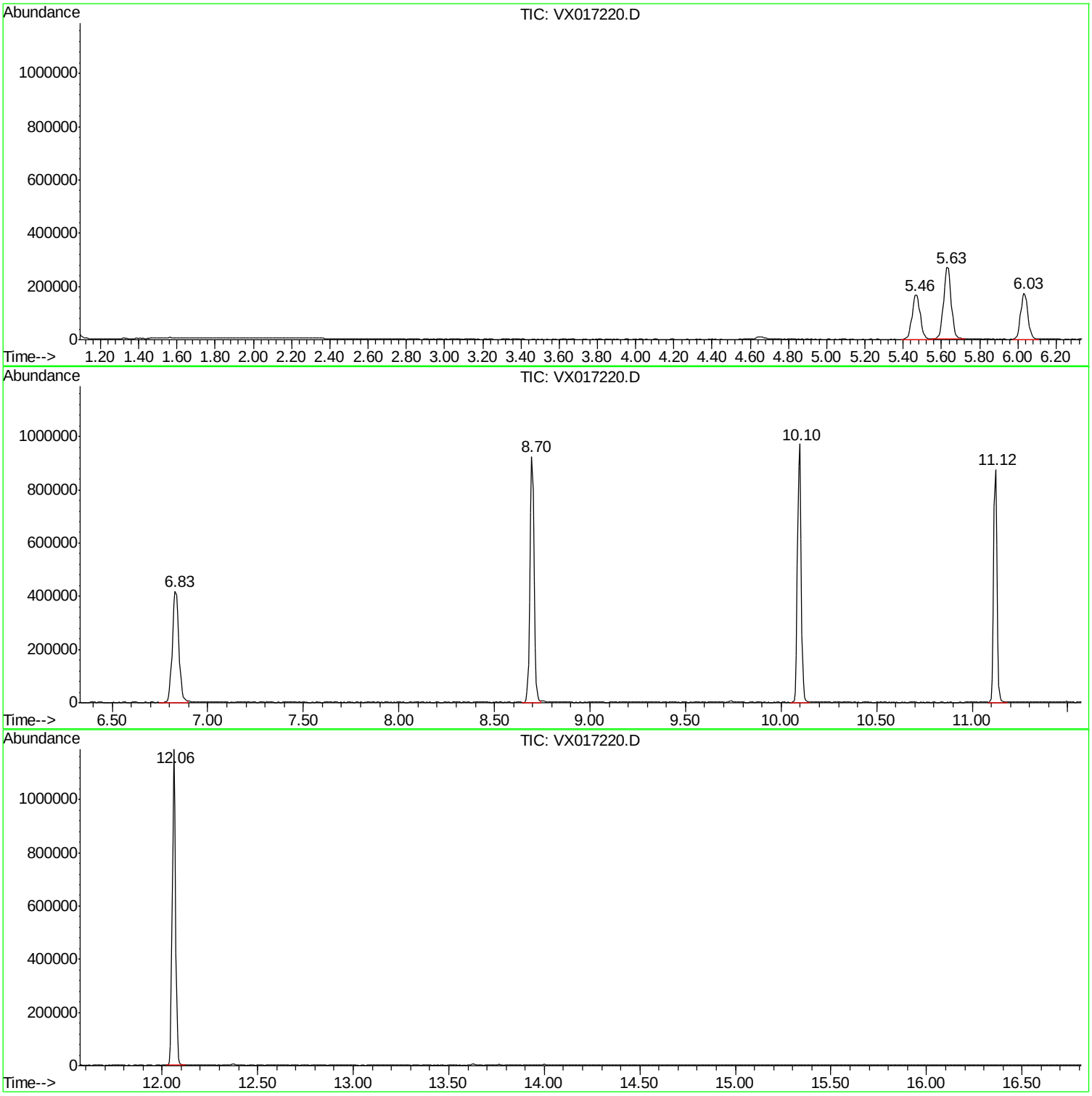
Sum of corrected areas: 7910880

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX070720\
Data File : VX017220.D
Acq On : 07 Jul 2020 22:41
Operator : JC/SP
Sample : VX0707WBL02
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 34 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
VX0707WBL02

Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X062920W.M
Quant Title : SW846 8260

TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P



Library Search Compound Report

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX070720\
Data File : VX017220.D
Acq On : 07 Jul 2020 22:41
Operator : JC/SP
Sample : VX0707WBL02
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 34 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
VX0707WBL02

Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X062920W.M
Quant Title : SW846 8260

TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

No Library Search Compounds Detected

****

Tentatively Identified Compound (LSC) summary

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX070720\
Data File : VX017220.D
Acq On : 07 Jul 2020 22:41
Operator : JC/SP
Sample : VX0707WBL02
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 34 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
VX0707WBL02

Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X062920W.M
Quant Title : SW846 8260

TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

					Internal Standard		
TIC Top Hit name	RT	EstConc	Units	Response	#	RT	Resp	Conc

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Day Environmental, Inc.	Date Collected:	
Project:	Andrew St. RI	Date Received:	
Client Sample ID:	VX0708WBL01	SDG No.:	L3232
Lab Sample ID:	VX0708WBL01	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	DB-624UI ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX017245.D	1		07/08/20 10:59	VX070820

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
75-71-8	Dichlorodifluoromethane	1.00	U	0.22	1.00	ug/L
74-87-3	Chloromethane	1.00	U	0.30	1.00	ug/L
75-01-4	Vinyl Chloride	1.00	U	0.16	1.00	ug/L
74-83-9	Bromomethane	5.00	U	2.10	5.00	ug/L
75-00-3	Chloroethane	1.00	U	0.34	1.00	ug/L
75-69-4	Trichlorofluoromethane	1.00	U	0.16	1.00	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	1.00	U	0.21	1.00	ug/L
75-35-4	1,1-Dichloroethene	1.00	U	0.18	1.00	ug/L
67-64-1	Acetone	5.00	U	0.90	5.00	ug/L
75-15-0	Carbon Disulfide	1.00	U	0.23	1.00	ug/L
1634-04-4	Methyl tert-butyl Ether	1.00	U	0.070	1.00	ug/L
79-20-9	Methyl Acetate	1.00	U	0.65	1.00	ug/L
75-09-2	Methylene Chloride	1.00	U	0.33	1.00	ug/L
156-60-5	trans-1,2-Dichloroethene	1.00	U	0.24	1.00	ug/L
75-34-3	1,1-Dichloroethane	1.00	U	0.17	1.00	ug/L
110-82-7	Cyclohexane	5.00	U	1.20	5.00	ug/L
78-93-3	2-Butanone	5.00	U	0.71	5.00	ug/L
56-23-5	Carbon Tetrachloride	1.00	U	0.22	1.00	ug/L
156-59-2	cis-1,2-Dichloroethene	1.00	U	0.30	1.00	ug/L
74-97-5	Bromochloromethane	1.00	U	0.31	1.00	ug/L
67-66-3	Chloroform	1.00	U	0.14	1.00	ug/L
71-55-6	1,1,1-Trichloroethane	1.00	U	0.12	1.00	ug/L
108-87-2	Methylcyclohexane	1.00	U	0.17	1.00	ug/L
71-43-2	Benzene	1.00	U	0.10	1.00	ug/L
107-06-2	1,2-Dichloroethane	1.00	U	0.13	1.00	ug/L
79-01-6	Trichloroethene	1.00	U	0.27	1.00	ug/L
78-87-5	1,2-Dichloropropane	1.00	U	0.14	1.00	ug/L
75-27-4	Bromodichloromethane	1.00	U	0.10	1.00	ug/L
108-10-1	4-Methyl-2-Pentanone	5.00	U	0.85	5.00	ug/L
108-88-3	Toluene	1.00	U	0.12	1.00	ug/L
10061-02-6	t-1,3-Dichloropropene	1.00	U	0.19	1.00	ug/L
10061-01-5	cis-1,3-Dichloropropene	1.00	U	0.16	1.00	ug/L

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Day Environmental, Inc.	Date Collected:	
Project:	Andrew St. RI	Date Received:	
Client Sample ID:	VX0708WBL01	SDG No.:	L3232
Lab Sample ID:	VX0708WBL01	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	DB-624UI ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX017245.D	1		07/08/20 10:59	VX070820

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
79-00-5	1,1,2-Trichloroethane	1.00	U	0.12	1.00	ug/L
591-78-6	2-Hexanone	5.00	U	1.40	5.00	ug/L
124-48-1	Dibromochloromethane	1.00	U	0.16	1.00	ug/L
106-93-4	1,2-Dibromoethane	1.00	U	0.14	1.00	ug/L
127-18-4	Tetrachloroethene	1.00	U	0.15	1.00	ug/L
108-90-7	Chlorobenzene	1.00	U	0.080	1.00	ug/L
100-41-4	Ethyl Benzene	1.00	U	0.080	1.00	ug/L
179601-23-1	m/p-Xylenes	2.00	U	0.20	2.00	ug/L
95-47-6	o-Xylene	1.00	U	0.13	1.00	ug/L
100-42-5	Styrene	1.00	U	0.11	1.00	ug/L
75-25-2	Bromoform	1.00	U	0.15	1.00	ug/L
98-82-8	Isopropylbenzene	1.00	U	0.13	1.00	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	1.00	U	0.15	1.00	ug/L
541-73-1	1,3-Dichlorobenzene	1.00	U	0.14	1.00	ug/L
106-46-7	1,4-Dichlorobenzene	1.00	U	0.20	1.00	ug/L
95-50-1	1,2-Dichlorobenzene	1.00	U	0.12	1.00	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	1.00	U	0.54	1.00	ug/L
120-82-1	1,2,4-Trichlorobenzene	1.00	U	0.24	1.00	ug/L
87-61-6	1,2,3-Trichlorobenzene	1.00	U	0.26	1.00	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	51.8		61 - 141	104%	SPK: 50
1868-53-7	Dibromofluoromethane	53.2		69 - 133	106%	SPK: 50
2037-26-5	Toluene-d8	51.3		65 - 126	103%	SPK: 50
460-00-4	4-Bromofluorobenzene	52.0		58 - 135	104%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	261000	5.63			
540-36-3	1,4-Difluorobenzene	425000	6.83			
3114-55-4	Chlorobenzene-d5	429000	10.1			
3855-82-1	1,4-Dichlorobenzene-d4	213000	12.06			

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Day Environmental, Inc.	Date Collected:	
Project:	Andrew St. RI	Date Received:	
Client Sample ID:	VX0708WBL01	SDG No.:	L3232
Lab Sample ID:	VX0708WBL01	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	DB-624UI ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX017245.D	1		07/08/20 10:59	VX070820

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit
A = Aldol-Condensation Reaction Products

Quantitation Report (QT Reviewed)

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX070820\
Data File : VX017245.D
Acq On : 08 Jul 2020 10:59
Operator : JC/SP
Sample : VX0708WBL01
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 3 Sample Multiplier: 1

Instrument : MSVOA_X
ClientSampleId : VX0708WBL01

Quant Time: Jul 08 15:52:48 2020
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X062920W.M
Quant Title : SW846 8260
QLast Update : Mon Jun 29 17:10:38 2020
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	5.63	168	260962	50.00	ug/l	0.00
34) 1,4-Difluorobenzene	6.83	114	424665	50.00	ug/l	0.00
63) Chlorobenzene-d5	10.10	117	429336	50.00	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	12.06	152	213234	50.00	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	6.03	65	166767	51.84	ug/l	0.00
Spiked Amount 50.000			Recovery =	103.68%		
35) Dibromofluoromethane	5.46	113	142941	53.21	ug/l	0.00
Spiked Amount 50.000			Recovery =	106.42%		
50) Toluene-d8	8.70	98	509860	51.33	ug/l	0.00
Spiked Amount 50.000			Recovery =	102.66%		
62) 4-Bromofluorobenzene	11.12	95	202097	52.05	ug/l	0.00
Spiked Amount 50.000			Recovery =	104.10%		

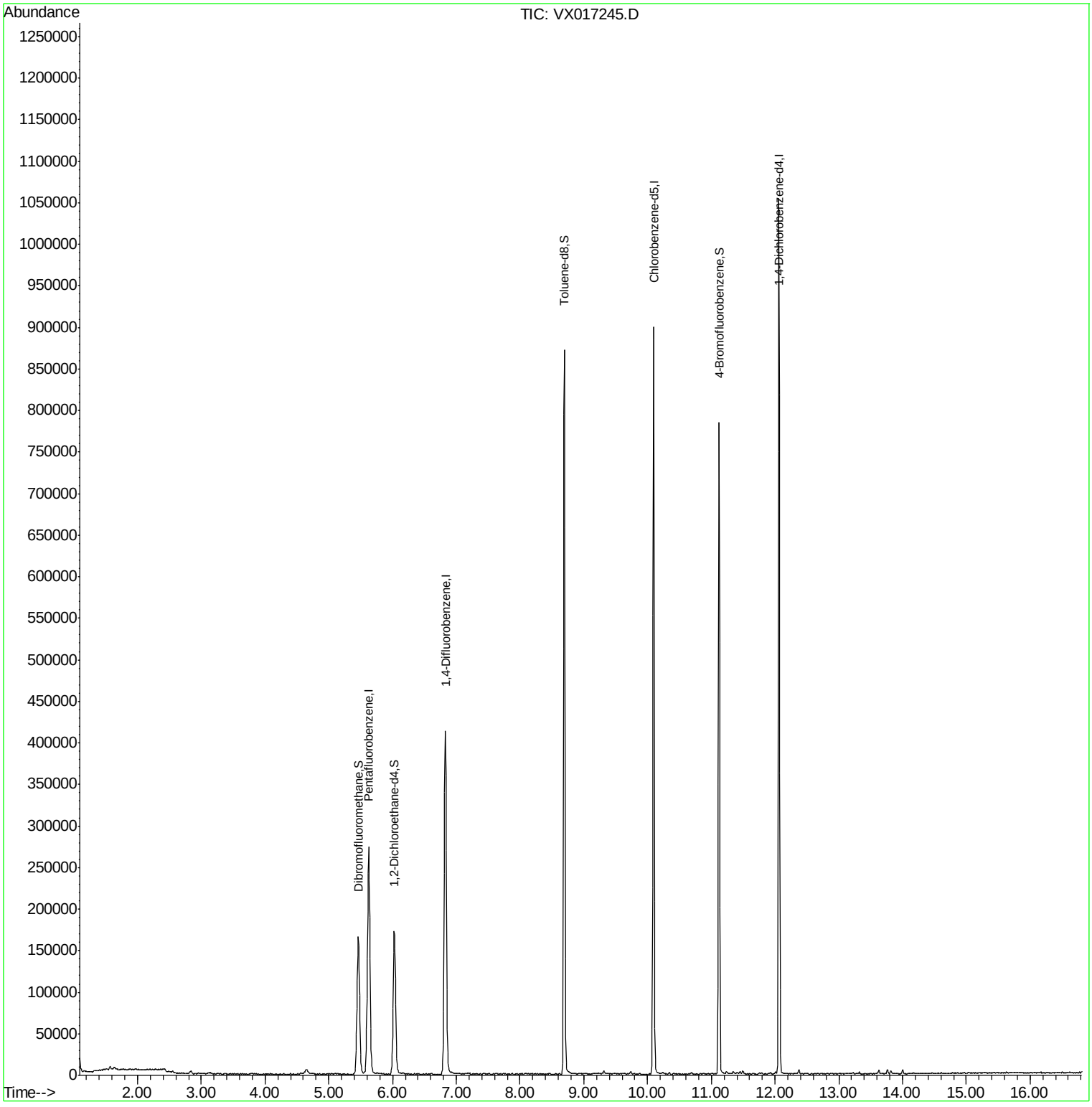
Target Compounds	Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

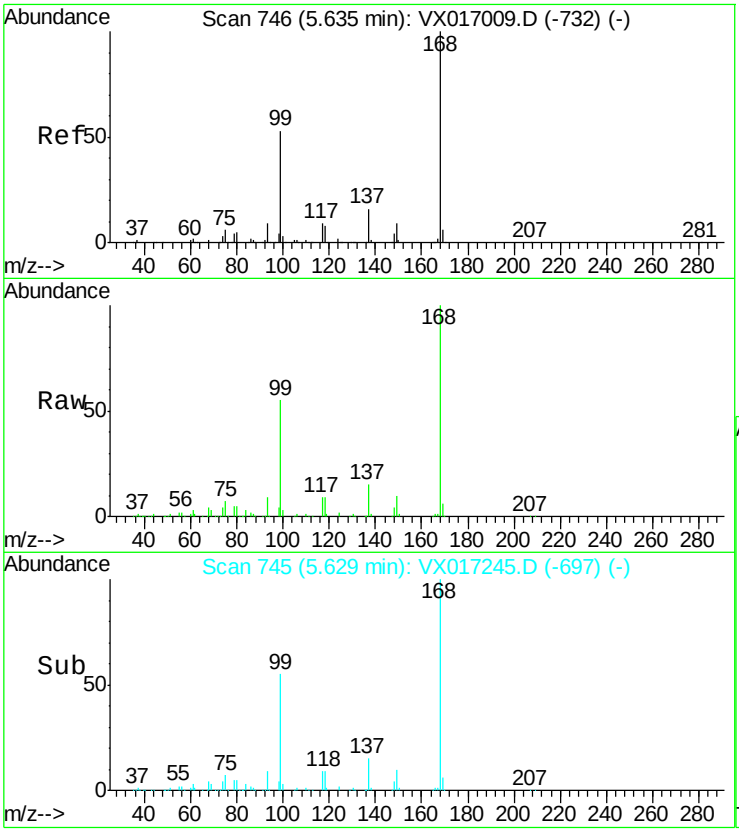
Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX070820\
Data File : VX017245.D
Acq On : 08 Jul 2020 10:59
Operator : JC/SP
Sample : VX0708WBL01
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 3 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
VX0708WBL01

Quant Time: Jul 08 15:52:48 2020
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X062920W.M
Quant Title : SW846 8260
QLast Update : Mon Jun 29 17:10:38 2020
Response via : Initial Calibration



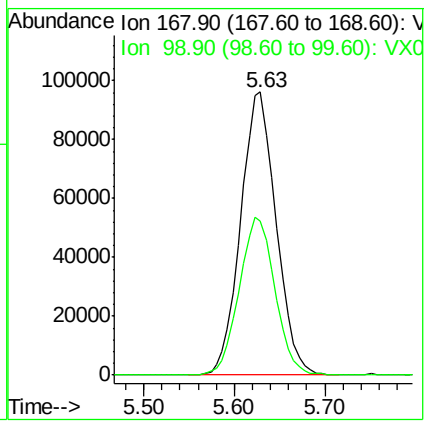
Instrument :
MSVOA_X
ClientSampleId :
VX0708WBL01

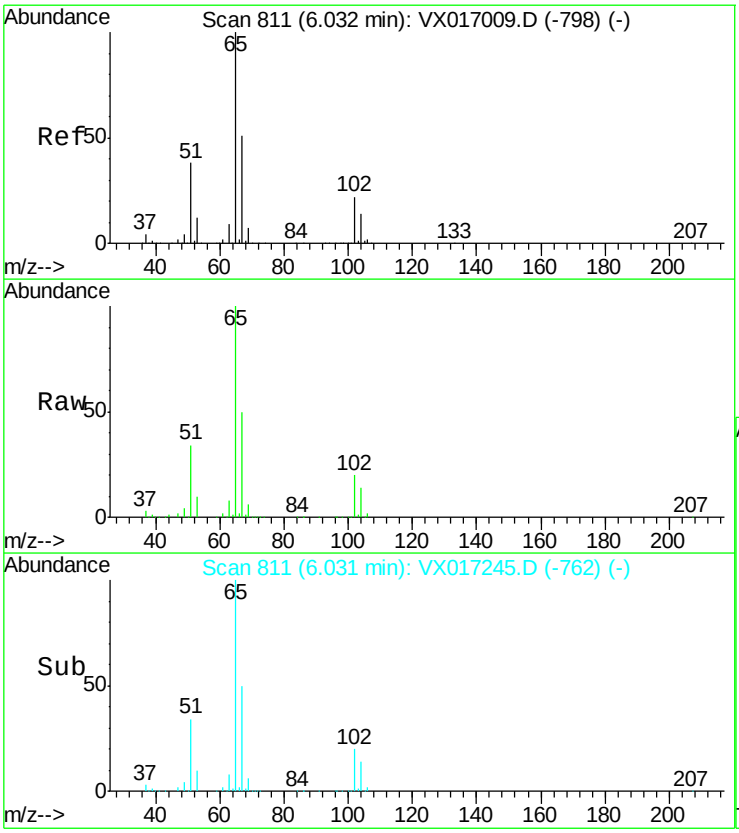


#1
Pentafluorobenzene
Concen: 50.000 ug/l
RT: 5.63 min Scan# 745
Delta R.T. -0.01 min
Lab File: VX017245.D
Acq: 08 Jul 2020 10:59

Tgt Ion:168 Resp: 260962

Ion	Ratio	Lower	Upper
168	100		
99	54.5	42.6	64.0

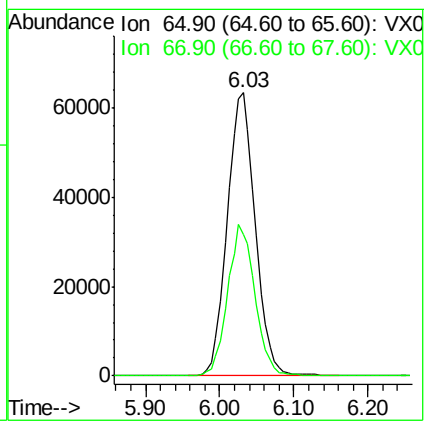




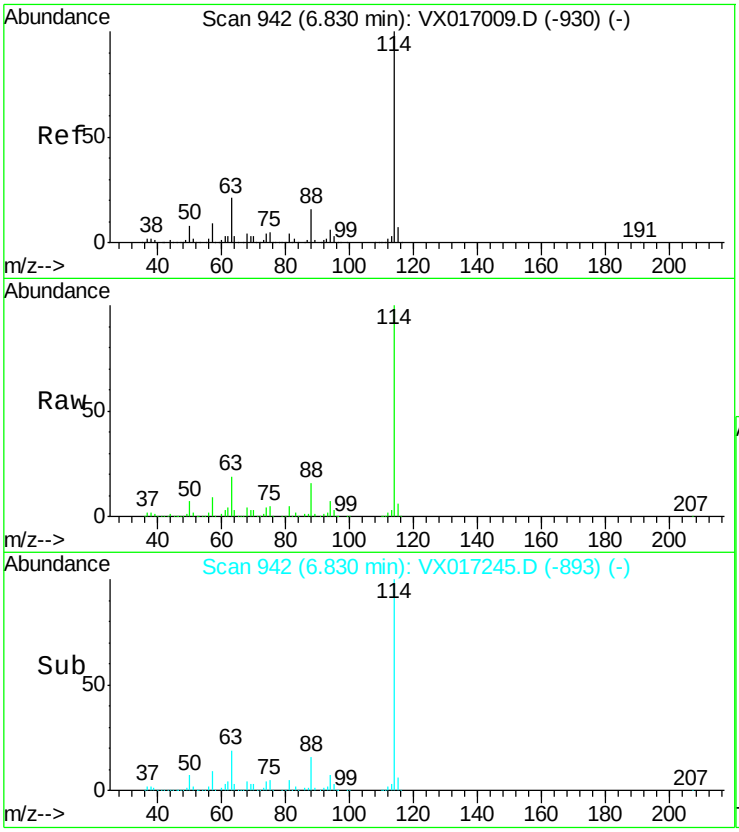
#33
1,2-Dichloroethane-d4
Concen: 51.837 ug/l
RT: 6.03 min Scan# 811
Delta R.T. -0.00 min
Lab File: VX017245.D
Acq: 08 Jul 2020 10:59

Tgt Ion: 65 Resp: 166767

Ion	Ratio	Lower	Upper
65	100		
67	52.0	0.0	103.8



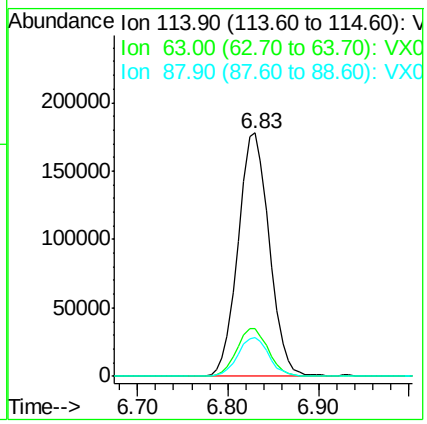
Instrument :
MSVOA_X
ClientSampleId :
VX0708WBL01

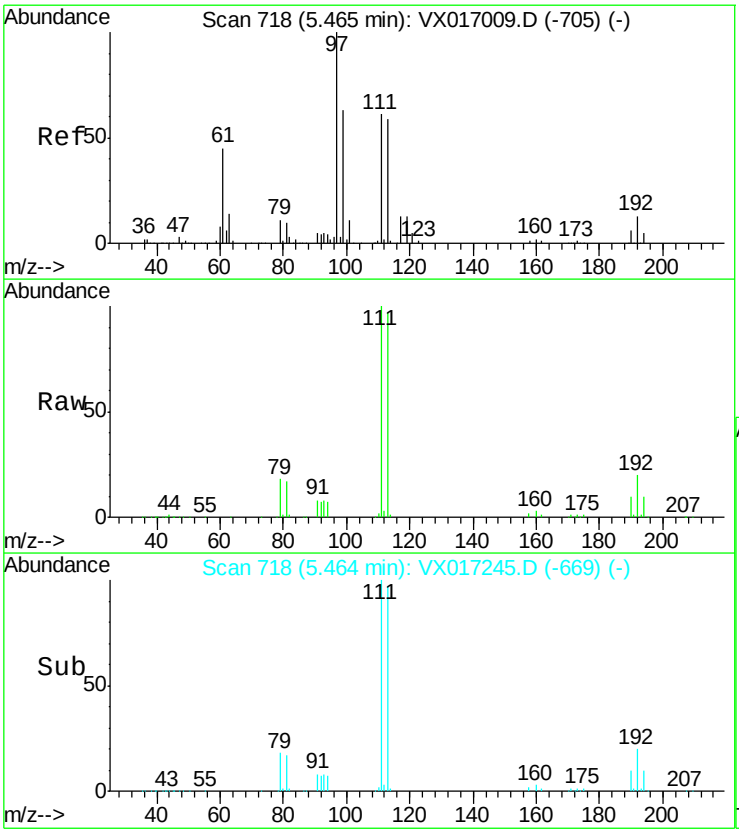


#34
1,4-Difluorobenzene
Concen: 50.000 ug/l
RT: 6.83 min Scan# 942
Delta R.T. -0.00 min
Lab File: VX017245.D
Acq: 08 Jul 2020 10:59

Tgt Ion:114 Resp: 424665

Ion	Ratio	Lower	Upper
114	100		
63	19.4	0.0	41.4
88	16.0	0.0	32.4

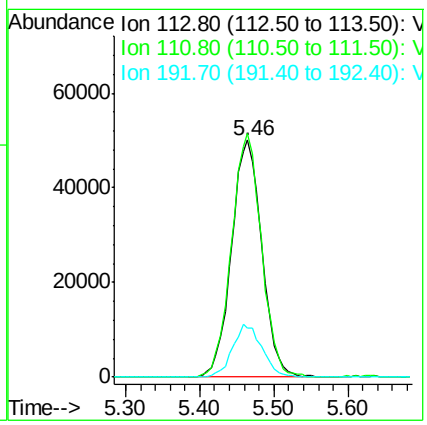




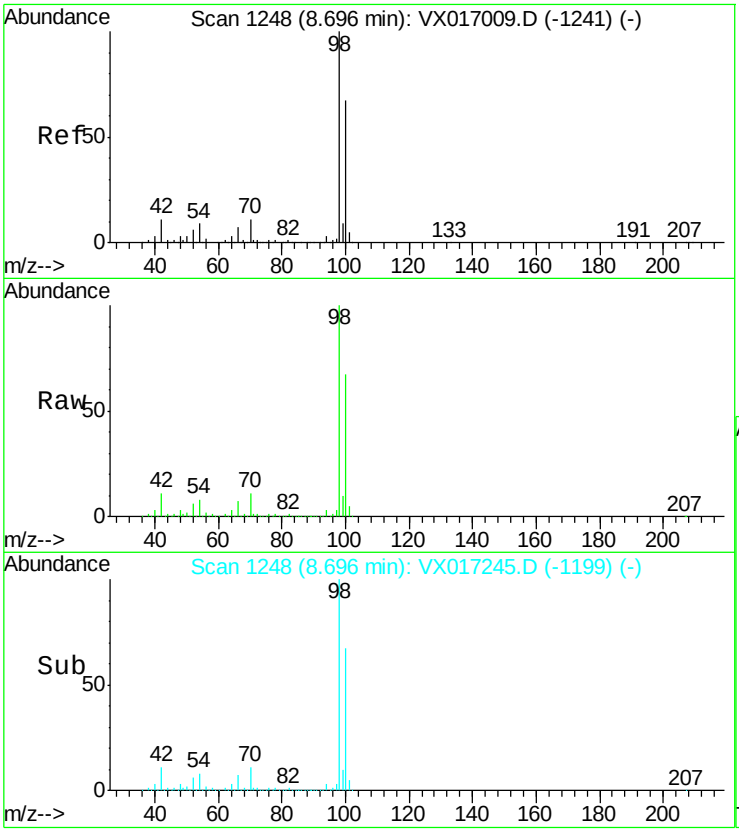
#35
Dibromofluoromethane
Concen: 53.211 ug/l
RT: 5.46 min Scan# 718
Delta R.T. -0.00 min
Lab File: VX017245.D
Acq: 08 Jul 2020 10:59

Tgt Ion:113 Resp: 142941

Ion	Ratio	Lower	Upper
113	100		
111	101.8	81.9	122.9
192	21.7	16.7	25.1



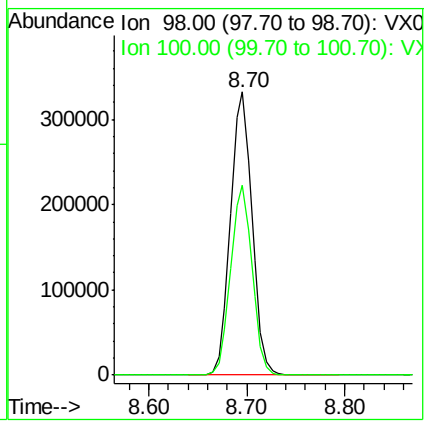
Instrument :
MSVOA_X
ClientSampleId :
VX0708WBL01

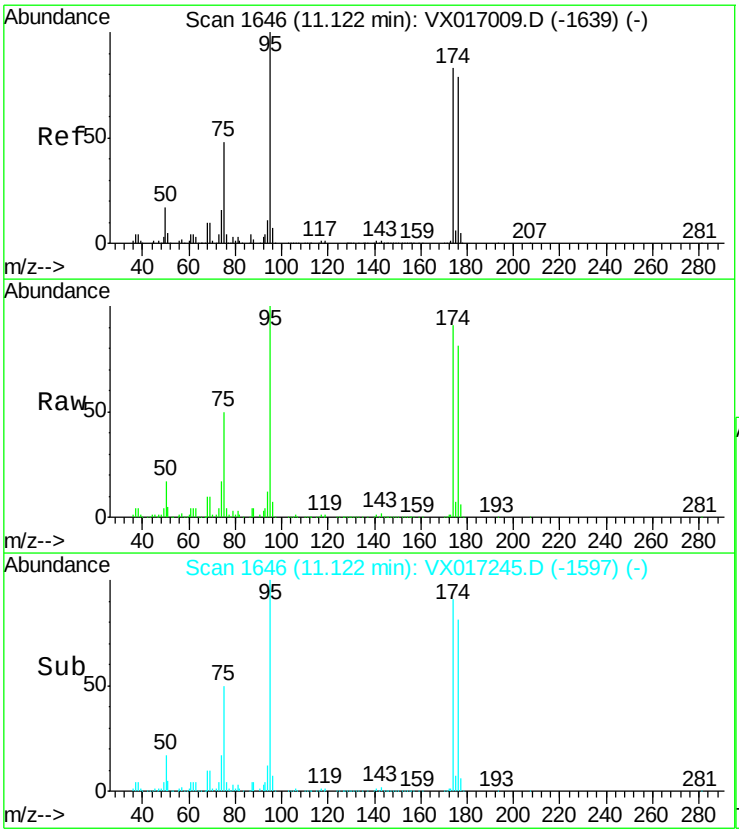


#50
Toluene-d8
Concen: 51.328 ug/l
RT: 8.70 min Scan# 1248
Delta R.T. -0.00 min
Lab File: VX017245.D
Acq: 08 Jul 2020 10:59

Tgt Ion: 98 Resp: 509860

Ion	Ratio	Lower	Upper
98	100		
100	66.7	53.8	80.6

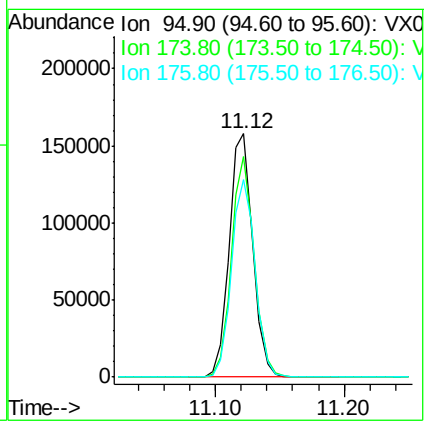




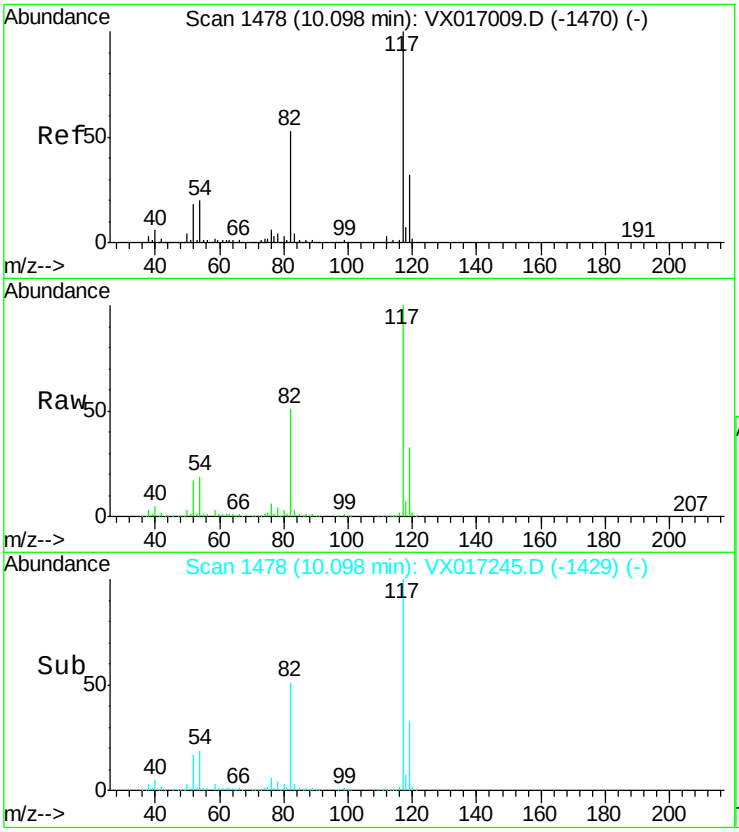
#62
4-Bromofluorobenzene
Concen: 52.045 ug/l
RT: 11.12 min Scan# 1646
Delta R.T. -0.00 min
Lab File: VX017245.D
Acq: 08 Jul 2020 10:59

Tgt Ion: 95 Resp: 202097

Ion	Ratio	Lower	Upper
95	100		
174	87.6	0.0	164.0
176	81.5	0.0	157.6



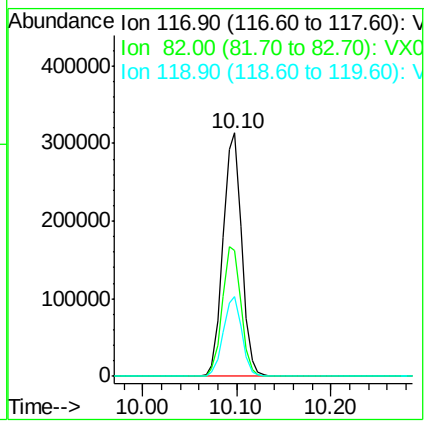
Instrument :
MSVOA_X
ClientSampleId :
VX0708WBL01

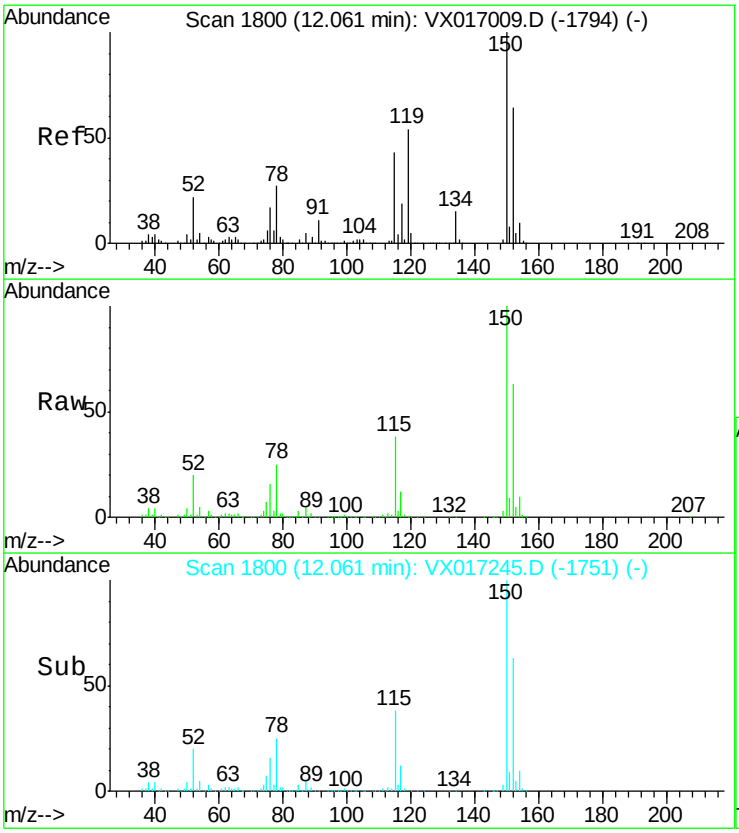


#63
Chlorobenzene-d5
Concen: 50.000 ug/l
RT: 10.10 min Scan# 1478
Delta R.T. -0.00 min
Lab File: VX017245.D
Acq: 08 Jul 2020 10:59

Tgt Ion:117 Resp: 429336

Ion	Ratio	Lower	Upper
117	100		
82	51.4	42.6	63.8
119	33.0	25.4	38.2

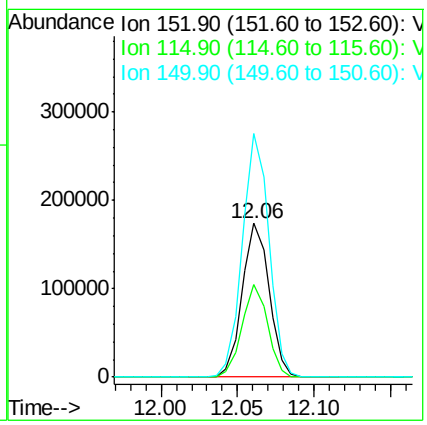




#72
1,4-Dichlorobenzene-d4
Concen: 50.000 ug/l
RT: 12.06 min Scan# 1800
Delta R.T. -0.00 min
Lab File: VX017245.D
Acq: 08 Jul 2020 10:59

Tgt Ion:152 Resp: 213234

Ion	Ratio	Lower	Upper
152	100		
115	57.8	40.9	122.7
150	155.9	0.0	351.6



Instrument :
MSVOA_X
ClientSampleId :
VX0708WBL01

LSC Area Percent Report

Data Path : Z:\VOASRV\HPCHEM1\MSVOA X\DATA\VX070820\
Data File : VX017245.D
Acq On : 08 Jul 2020 10:59
Operator : JC/SP
Sample : VX0708WBL01
Misc : 5.0mL/MSVOA X/WATER
ALS Vial : 3 Sample Multiplier: 1

Integration Parameters: RTEINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 3 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X062920W.M
Title : SW846 8260

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	5.464	702	718	731	rBV	166134	481504	35.49%	6.332%
2	5.629	731	745	761	rVB	273671	766804	56.51%	10.084%
3	6.025	800	810	822	rBV2	171846	454815	33.52%	5.981%
4	6.830	932	942	955	rBV	412886	991617	73.08%	13.040%
5	8.696	1240	1248	1258	rBV	871537	1356857	100.00%	17.843%
6	10.098	1470	1478	1487	rBV	898720	1264080	93.16%	16.623%
7	11.122	1639	1646	1653	rBV	784065	1010112	74.44%	13.283%
8	12.061	1794	1800	1815	rBV	1053371	1278562	94.23%	16.814%

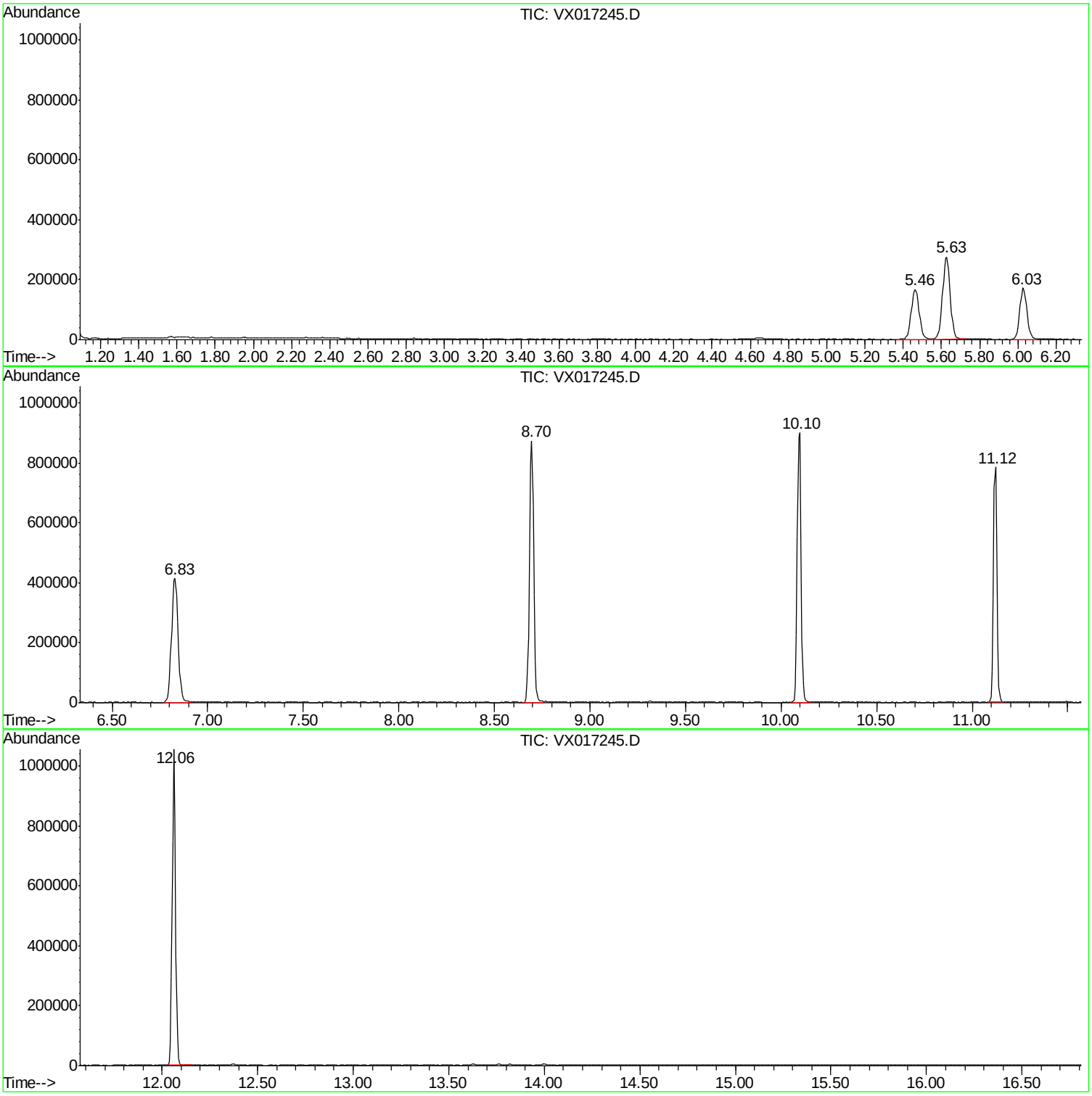
Sum of corrected areas: 7604351

Data Path : Z:\VOASRV\HPCHEM1\MSVOA X\DATA\VX070820\
Data File : VX017245.D
Acq On : 08 Jul 2020 10:59
Operator : JC/SP
Sample : VX0708WBL01
Misc : 5.0mL/MSVOA X/WATER
ALS Vial : 3 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
VX0708WBL01

Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X062920W.M
Quant Title : SW846 8260

TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P



Library Search Compound Report

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX070820\
Data File : VX017245.D
Acq On : 08 Jul 2020 10:59
Operator : JC/SP
Sample : VX0708WBL01
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 3 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
VX0708WBL01

Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X062920W.M
Quant Title : SW846 8260

TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

No Library Search Compounds Detected

****

Tentatively Identified Compound (LSC) summary

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX070820\
Data File : VX017245.D
Acq On : 08 Jul 2020 10:59
Operator : JC/SP
Sample : VX0708WBL01
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 3 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
VX0708WBL01

Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X062920W.M
Quant Title : SW846 8260

TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

					Internal Standard		
TIC Top Hit name	RT	EstConc	Units	Response	#	RT	Resp	Conc

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Day Environmental, Inc.	Date Collected:	
Project:	Andrew St. RI	Date Received:	
Client Sample ID:	VX0707WBS02	SDG No.:	L3232
Lab Sample ID:	VX0707WBS02	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	DB-624UI ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX017221.D	1		07/07/20 23:04	VX070720

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
75-71-8	Dichlorodifluoromethane	17.0		0.22	1.00	ug/L
74-87-3	Chloromethane	14.7		0.30	1.00	ug/L
75-01-4	Vinyl Chloride	16.5		0.16	1.00	ug/L
74-83-9	Bromomethane	20.1		2.10	5.00	ug/L
75-00-3	Chloroethane	17.7		0.34	1.00	ug/L
75-69-4	Trichlorofluoromethane	19.4		0.16	1.00	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	18.4		0.21	1.00	ug/L
75-35-4	1,1-Dichloroethene	18.1		0.18	1.00	ug/L
67-64-1	Acetone	97.2		0.90	5.00	ug/L
75-15-0	Carbon Disulfide	17.3		0.23	1.00	ug/L
1634-04-4	Methyl tert-butyl Ether	19.1		0.070	1.00	ug/L
79-20-9	Methyl Acetate	19.3		0.65	1.00	ug/L
75-09-2	Methylene Chloride	19.5		0.33	1.00	ug/L
156-60-5	trans-1,2-Dichloroethene	18.0		0.24	1.00	ug/L
75-34-3	1,1-Dichloroethane	18.8		0.17	1.00	ug/L
110-82-7	Cyclohexane	16.6		1.20	5.00	ug/L
78-93-3	2-Butanone	94.1		0.71	5.00	ug/L
56-23-5	Carbon Tetrachloride	19.2		0.22	1.00	ug/L
156-59-2	cis-1,2-Dichloroethene	18.0		0.30	1.00	ug/L
74-97-5	Bromochloromethane	17.1		0.31	1.00	ug/L
67-66-3	Chloroform	19.1		0.14	1.00	ug/L
71-55-6	1,1,1-Trichloroethane	19.2		0.12	1.00	ug/L
108-87-2	Methylcyclohexane	16.4		0.17	1.00	ug/L
71-43-2	Benzene	18.3		0.10	1.00	ug/L
107-06-2	1,2-Dichloroethane	19.8		0.13	1.00	ug/L
79-01-6	Trichloroethene	19.2		0.27	1.00	ug/L
78-87-5	1,2-Dichloropropane	18.8		0.14	1.00	ug/L
75-27-4	Bromodichloromethane	19.4		0.10	1.00	ug/L
108-10-1	4-Methyl-2-Pentanone	96.3		0.85	5.00	ug/L
108-88-3	Toluene	18.7		0.12	1.00	ug/L
10061-02-6	t-1,3-Dichloropropene	18.2		0.19	1.00	ug/L
10061-01-5	cis-1,3-Dichloropropene	17.8		0.16	1.00	ug/L

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Day Environmental, Inc.	Date Collected:	
Project:	Andrew St. RI	Date Received:	
Client Sample ID:	VX0707WBS02	SDG No.:	L3232
Lab Sample ID:	VX0707WBS02	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	DB-624UI ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX017221.D	1		07/07/20 23:04	VX070720

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
79-00-5	1,1,2-Trichloroethane	19.5		0.12	1.00	ug/L
591-78-6	2-Hexanone	96.7		1.40	5.00	ug/L
124-48-1	Dibromochloromethane	19.9		0.16	1.00	ug/L
106-93-4	1,2-Dibromoethane	19.3		0.14	1.00	ug/L
127-18-4	Tetrachloroethene	18.7		0.15	1.00	ug/L
108-90-7	Chlorobenzene	18.2		0.080	1.00	ug/L
100-41-4	Ethyl Benzene	18.3		0.080	1.00	ug/L
179601-23-1	m/p-Xylenes	37.3		0.20	2.00	ug/L
95-47-6	o-Xylene	17.9		0.13	1.00	ug/L
100-42-5	Styrene	18.6		0.11	1.00	ug/L
75-25-2	Bromoform	20.6		0.15	1.00	ug/L
98-82-8	Isopropylbenzene	17.3		0.13	1.00	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	18.7		0.15	1.00	ug/L
541-73-1	1,3-Dichlorobenzene	17.5		0.14	1.00	ug/L
106-46-7	1,4-Dichlorobenzene	18.9		0.20	1.00	ug/L
95-50-1	1,2-Dichlorobenzene	18.0		0.12	1.00	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	17.3		0.54	1.00	ug/L
120-82-1	1,2,4-Trichlorobenzene	17.0		0.24	1.00	ug/L
87-61-6	1,2,3-Trichlorobenzene	17.6		0.26	1.00	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	49.9		61 - 141	100%	SPK: 50
1868-53-7	Dibromofluoromethane	51.1		69 - 133	102%	SPK: 50
2037-26-5	Toluene-d8	48.6		65 - 126	97%	SPK: 50
460-00-4	4-Bromofluorobenzene	49.0		58 - 135	98%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	280000	5.63			
540-36-3	1,4-Difluorobenzene	438000	6.84			
3114-55-4	Chlorobenzene-d5	416000	10.1			
3855-82-1	1,4-Dichlorobenzene-d4	228000	12.06			

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Day Environmental, Inc.	Date Collected:	
Project:	Andrew St. RI	Date Received:	
Client Sample ID:	VX0707WBS02	SDG No.:	L3232
Lab Sample ID:	VX0707WBS02	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	DB-624UI ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX017221.D	1		07/07/20 23:04	VX070720

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit
A = Aldol-Condensation Reaction Products

Quantitation Report (QT Reviewed)

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX070720\
Data File : VX017221.D
Acq On : 07 Jul 2020 23:04
Operator : JC/SP
Sample : VX0707WBS02
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 35 Sample Multiplier: 1

Quant Time: Jul 08 03:42:15 2020
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X062920W.M
Quant Title : SW846 8260
QLast Update : Mon Jun 29 17:10:38 2020
Response via : Initial Calibration

Instrument :
MSVOA_X
ClientSampleId :
VX0707WBS02

Manual Integrations APPROVED
MMDadoda
7/8/2020 9:31:54 AM

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	5.63	168	279895	50.00	ug/l	0.00
34) 1,4-Difluorobenzene	6.84	114	437536	50.00	ug/l	0.00
63) Chlorobenzene-d5	10.10	117	415831	50.00	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	12.06	152	227553	50.00	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	6.03	65	172044	49.86	ug/l	0.00
Spiked Amount 50.000			Recovery = 99.72%			
35) Dibromofluoromethane	5.46	113	141528	51.14	ug/l	0.00
Spiked Amount 50.000			Recovery = 102.28%			
50) Toluene-d8	8.70	98	496954	48.56	ug/l	0.00
Spiked Amount 50.000			Recovery = 97.12%			
62) 4-Bromofluorobenzene	11.12	95	196054	49.00	ug/l	0.00
Spiked Amount 50.000			Recovery = 98.00%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.18	85	46104	17.026	ug/l	100
3) Chloromethane	1.31	50	48287	14.732	ug/l	99
4) Vinyl Chloride	1.39	62	50064	16.463	ug/l	94
5) Bromomethane	1.63	94	32309	20.109	ug/l	97
6) Chloroethane	1.72	64	31858	17.738	ug/l	99
7) Trichlorofluoromethane	1.92	101	87260	19.401	ug/l	97
8) Diethyl Ether	2.17	74	30465	20.350	ug/l	96
9) 1,1,2-Trichlorotrifluoroet	2.37	101	49663	18.423	ug/l	96
10) Methyl Iodide	2.49	142	40720	11.707	ug/l	98
11) Tert butyl alcohol	3.01	59	63987	97.206	ug/l	98
12) 1,1-Dichloroethene	2.36	96	50043	18.071	ug/l	98
13) Acrolein	2.27	56	41666	105.887	ug/l	99
14) Allyl chloride	2.71	41	86306	16.864	ug/l	98
15) Acrylonitrile	3.12	53	146999	92.894	ug/l	100
16) Acetone	2.42	43	125477	97.207	ug/l	98
17) Carbon Disulfide	2.55	76	133249	17.259	ug/l	99
18) Methyl Acetate	2.75	43	64930	19.269	ug/l	98
19) Methyl tert-butyl Ether	3.17	73	177264	19.073	ug/l	98
20) Methylene Chloride	2.84	84	59160	19.506	ug/l	99
21) trans-1,2-Dichloroethene	3.14	96	55369	18.017	ug/l	96
22) Diisopropyl ether	3.82	45	181179	19.128	ug/l	99
23) Vinyl Acetate	3.79	43	761015	93.499	ug/l	99
24) 1,1-Dichloroethane	3.67	63	101107	18.760	ug/l	98
25) 2-Butanone	4.64	43	202427	94.116	ug/l	99
26) 2,2-Dichloropropane	4.56	77	71222	14.883	ug/l	98
27) cis-1,2-Dichloroethene	4.56	96	62771	18.027	ug/l	97
28) Bromochloromethane	4.98	49	44715	17.050	ug/l	97
29) Tetrahydrofuran	5.09	42	128773	90.615	ug/l	98
30) Chloroform	5.18	83	105371	19.073	ug/l	98
31) Cyclohexane	5.55	56	77543	16.645	ug/l	98
32) 1,1,1-Trichloroethane	5.46	97	97808	19.223	ug/l	98
36) 1,1-Dichloropropene	5.78	75	74537	18.025	ug/l	99
37) Ethyl Acetate	4.79	43	78504	18.711	ug/l	97
38) Carbon Tetrachloride	5.76	117	87619	19.237	ug/l	98

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX070720\
Data File : VX017221.D
Acq On : 07 Jul 2020 23:04
Operator : JC/SP
Sample : VX0707WBS02
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 35 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
VX0707WBS02

Manual Integrations APPROVED
MMDadoda
7/8/2020 9:31:54 AM

Quant Time: Jul 08 03:42:15 2020
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X062920W.M
Quant Title : SW846 8260
QLast Update : Mon Jun 29 17:10:38 2020
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
39) Methylcyclohexane	7.44	83	75675	16.448	ug/l	98
40) Benzene	6.12	78	221785	18.254	ug/l	96
41) Methacrylonitrile	5.01	41	44106	18.678	ug/l	97
42) 1,2-Dichloroethane	6.17	62	87092	19.845	ug/l	100
43) Isopropyl Acetate	6.42	43	126539	18.150	ug/l	99
44) Trichloroethene	7.19	130	65093	19.224	ug/l	99
45) 1,2-Dichloropropane	7.49	63	58564	18.767	ug/l	97
46) Dibromomethane	7.64	93	41356	19.411	ug/l	96
47) Bromodichloromethane	7.88	83	84984	19.356	ug/l	96
48) Methyl methacrylate	7.74	41	60079	18.138	ug/l	97
49) 1,4-Dioxane	7.71	88	27605	367.869	ug/l	99
51) 4-Methyl-2-Pentanone	8.62	43	400267	96.311	ug/l	99
52) Toluene	8.76	92	141625	18.670	ug/l	98
53) t-1,3-Dichloropropene	9.02	75	88198	18.206	ug/l	100
54) cis-1,3-Dichloropropene	8.42	75	92669	17.845	ug/l	98
55) 1,1,2-Trichloroethane	9.20	97	60338	19.468	ug/l	98
56) Ethyl methacrylate	9.16	69	82393	18.677	ug/l	99
57) 1,3-Dichloropropane	9.35	76	98638	18.808	ug/l	100
58) 2-Chloroethyl Vinyl ether	8.29	63	200973	91.539	ug/l	99
59) 2-Hexanone	9.47	43	293566	96.719	ug/l	99
60) Dibromochloromethane	9.57	129	71792	19.944	ug/l	98
61) 1,2-Dibromoethane	9.65	107	64189	19.268	ug/l	96
64) Tetrachloroethene	9.32	164	62731	18.692	ug/l	97
65) Chlorobenzene	10.12	112	156157	18.195	ug/l	96
66) 1,1,1,2-Tetrachloroethane	10.20	131	63945	19.333	ug/l	99
67) Ethyl Benzene	10.24	91	262106	18.287	ug/l	98
68) m/p-Xylenes	10.34	106	205118	37.271	ug/l	100
69) o-Xylene	10.68	106	93650	17.888	ug/l	98
70) Styrene	10.70	104	165760	18.593	ug/l	99
71) Bromoform	10.84	173	54031	20.600	ug/l	99
73) Isopropylbenzene	11.00	105	257882	17.302	ug/l	99
74) N-amyl acetate	10.88	43	105502	16.589	ug/l	98
75) 1,1,2,2-Tetrachloroethane	11.25	83	87779	18.722	ug/l	99
76) 1,2,3-Trichloropropane	11.28	75	81673m	18.252	ug/l	
77) Bromobenzene	11.24	156	73378	17.913	ug/l	98
78) n-propylbenzene	11.34	91	289070	17.150	ug/l	99
79) 2-Chlorotoluene	11.40	91	180153	17.661	ug/l	99
80) 1,3,5-Trimethylbenzene	11.49	105	220252	17.815	ug/l	99
81) trans-1,4-Dichloro-2-buten	11.05	75	26630	15.412	ug/l	93
82) 4-Chlorotoluene	11.49	91	217648	17.848	ug/l	100
83) tert-Butylbenzene	11.76	119	211408	17.419	ug/l	98
84) 1,2,4-Trimethylbenzene	11.79	105	226908	18.091	ug/l	99
85) sec-Butylbenzene	11.93	105	244485	17.138	ug/l	100
86) p-Isopropyltoluene	12.05	119	232206	17.485	ug/l	99
87) 1,3-Dichlorobenzene	12.01	146	130109	17.488	ug/l	98
88) 1,4-Dichlorobenzene	12.08	146	133352	18.887	ug/l	100
89) n-Butylbenzene	12.37	91	189619	15.990	ug/l	98
90) Hexachloroethane	12.58	117	44801	17.106	ug/l	98
91) 1,2-Dichlorobenzene	12.38	146	125342	18.023	ug/l	100
92) 1,2-Dibromo-3-Chloropropan	12.98	75	19342	17.293	ug/l	97

Data Path : Z:\VOASRV\HPCHEM1\MSVOA X\DATA\VX070720\
Data File : VX017221.D
Acq On : 07 Jul 2020 23:04
Operator : JC/SP
Sample : VX0707WBS02
Misc : 5.0mL/MSVOA X/WATER
ALS Vial : 35 Sample Multiplier: 1

Quant Time: Jul 08 03:42:15 2020
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X062920W.M
Quant Title : SW846 8260
QLast Update : Mon Jun 29 17:10:38 2020
Response via : Initial Calibration

Instrument :
MSVOA_X
ClientSampleId :
VX0707WBS02

Manual Integrations APPROVED
MMDadoda
7/8/2020 9:31:54 AM

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
93) 1,2,4-Trichlorobenzene	13.63	180	80891	17.041 ug/l	99
94) Hexachlorobutadiene	13.77	225	32446	18.551 ug/l	94
95) Naphthalene	13.82	128	250832	17.382 ug/l	99
96) 1,2,3-Trichlorobenzene	14.00	180	81035	17.640 ug/l	99

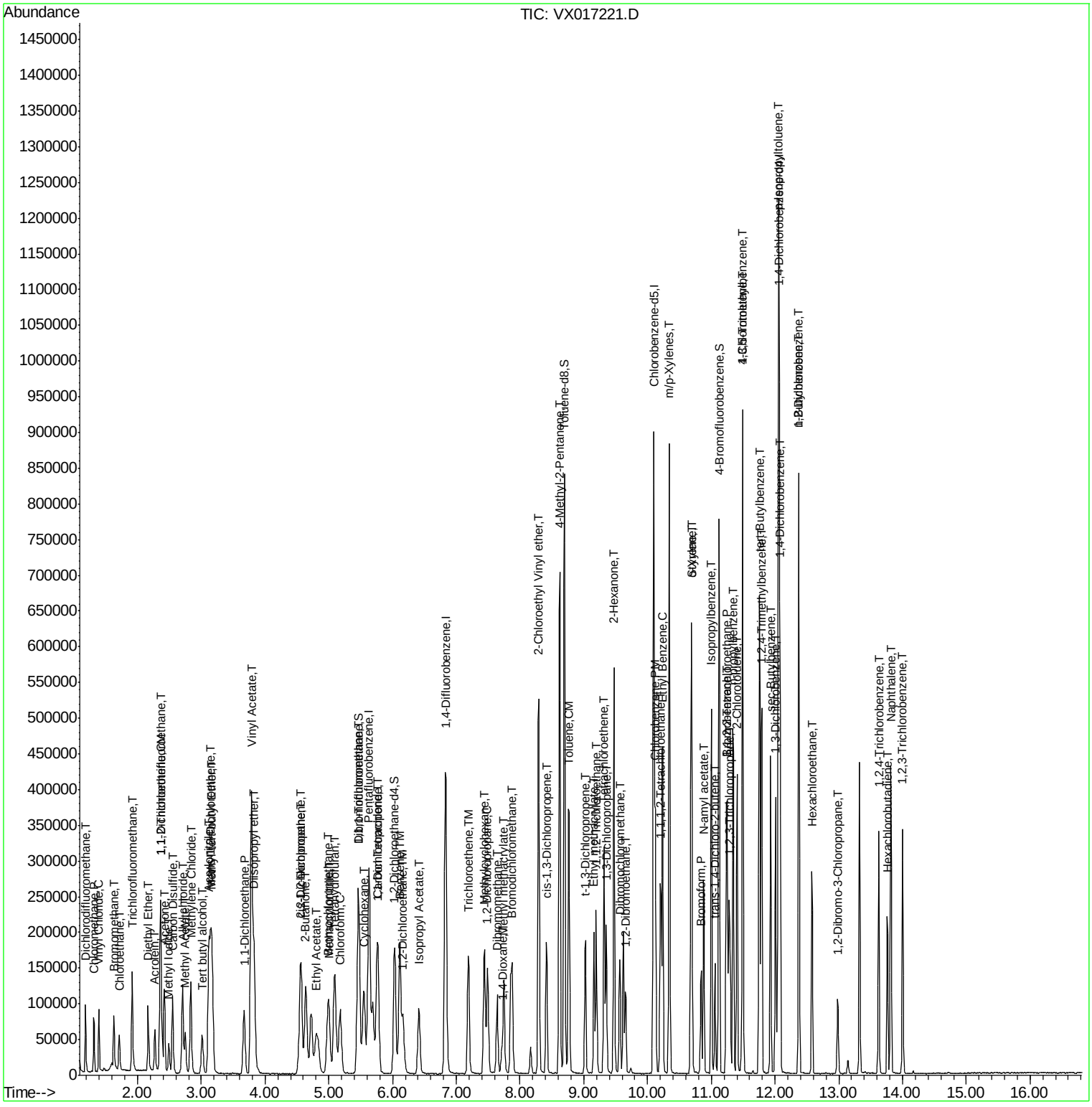
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX070720\
Data File : VX017221.D
Acq On : 07 Jul 2020 23:04
Operator : JC/SP
Sample : VX0707WBS02
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 35 Sample Multiplier: 1

Quant Time: Jul 08 03:42:15 2020
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X062920W.M
Quant Title : SW846 8260
QLast Update : Mon Jun 29 17:10:38 2020
Response via : Initial Calibration

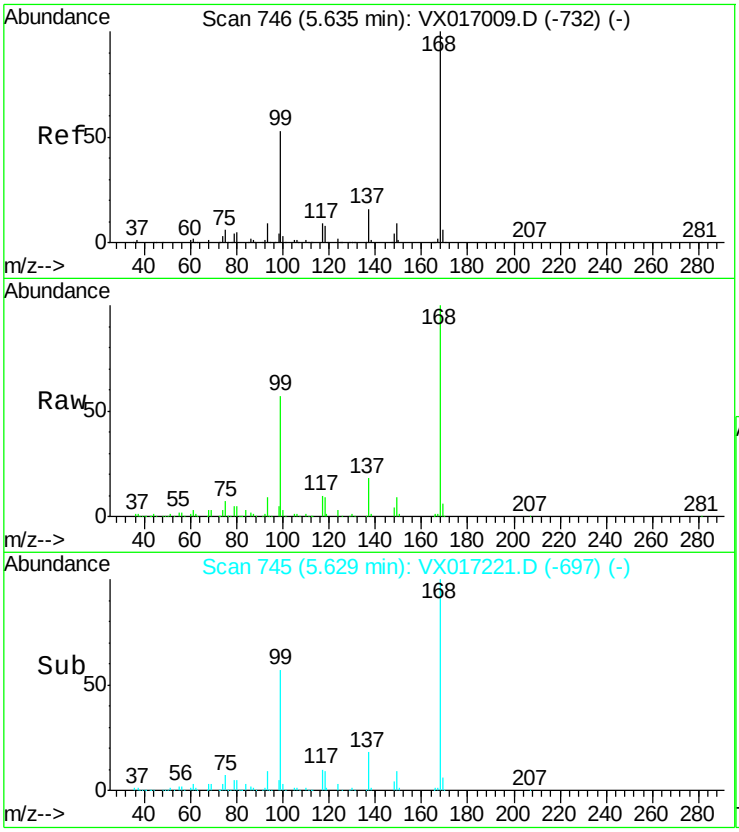
Instrument :
MSVOA_X
ClientSampleId :
VX0707WBS02

Manual Integrations APPROVED
MMDadoda
7/8/2020 9:31:54 AM



Instrument :
MSVOA_X
ClientSampleId :
VX0707WBS02

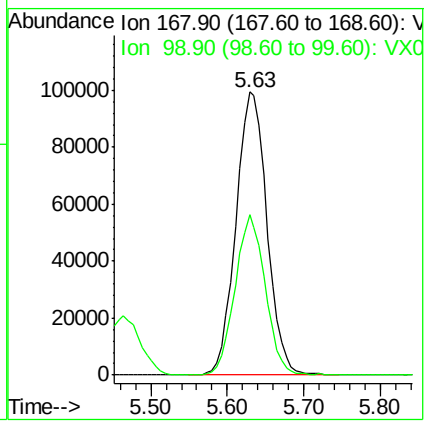
Manual Integrations APPROVED
MMDadoda
7/8/2020 9:31:54 AM

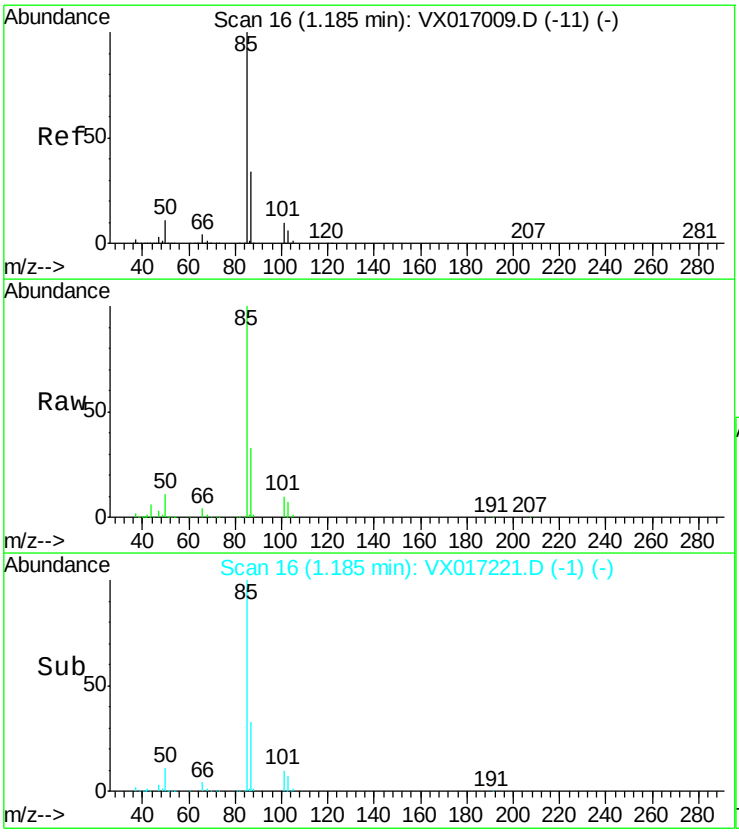


#1
Pentafluorobenzene
Concen: 50.000 ug/l
RT: 5.63 min Scan# 745
Delta R.T. -0.01 min
Lab File: VX017221.D
Acq: 07 Jul 2020 23:04

Tgt Ion:168 Resp: 279895

Ion	Ratio	Lower	Upper
168	100		
99	56.7	42.6	64.0

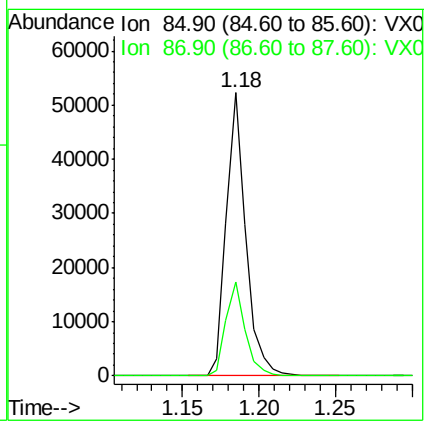




#2
Dichlorodifluoromethane
Concen: 17.026 ug/l
RT: 1.18 min Scan# 16
Delta R.T. -0.00 min
Lab File: VX017221.D
Acq: 07 Jul 2020 23:04

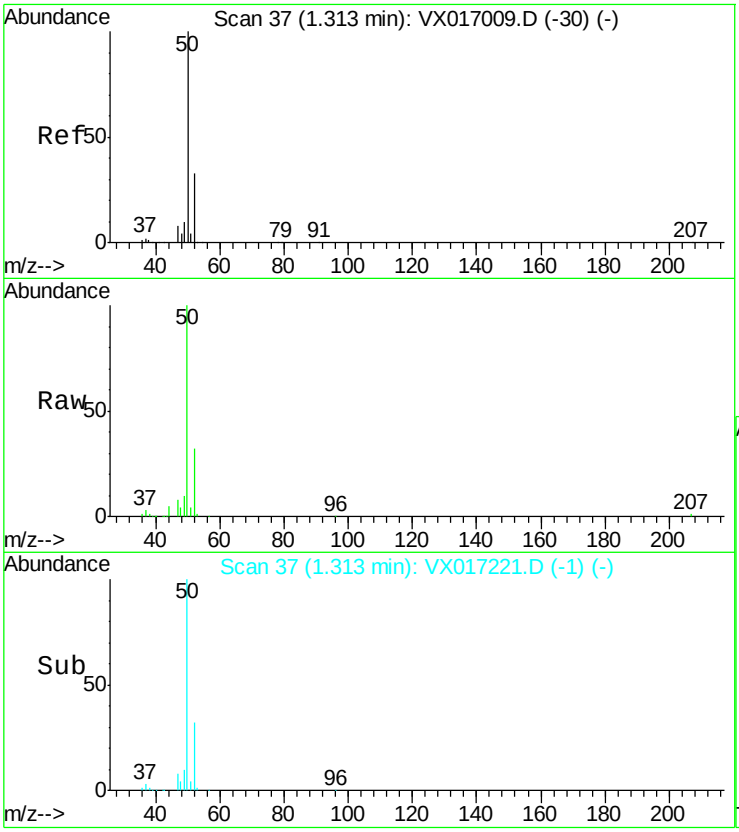
Tgt Ion: 85 Resp: 46104

Ion	Ratio	Lower	Upper
85	100		
87	33.4	16.8	50.4



Instrument :
MSVOA_X
ClientSampleId :
VX0707WBS02

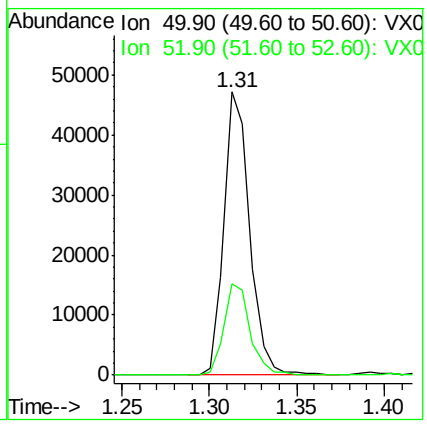
Manual Integrations APPROVED
MMDadoda
7/8/2020 9:31:54 AM

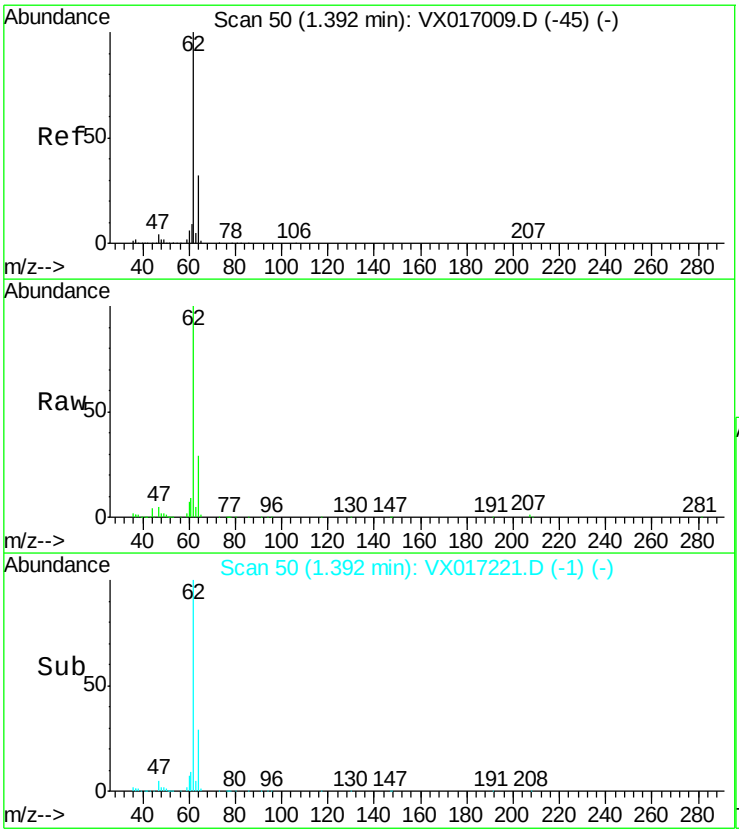


#3
Chloromethane
Concen: 14.732 ug/l
RT: 1.31 min Scan# 37
Delta R.T. -0.00 min
Lab File: VX017221.D
Acq: 07 Jul 2020 23:04

Tgt Ion: 50 Resp: 48287

Ion	Ratio	Lower	Upper
50	100		
52	32.3	26.1	39.1

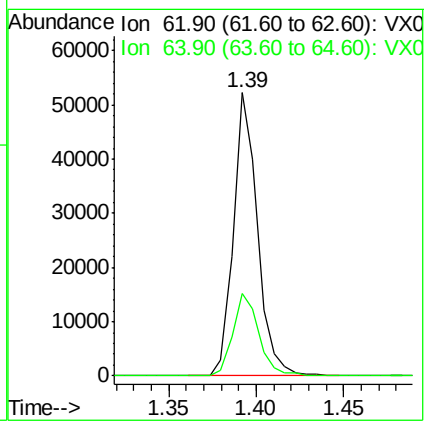




#4
Vinyl Chloride
Concen: 16.463 ug/l
RT: 1.39 min Scan# 50
Delta R.T. -0.00 min
Lab File: VX017221.D
Acq: 07 Jul 2020 23:04

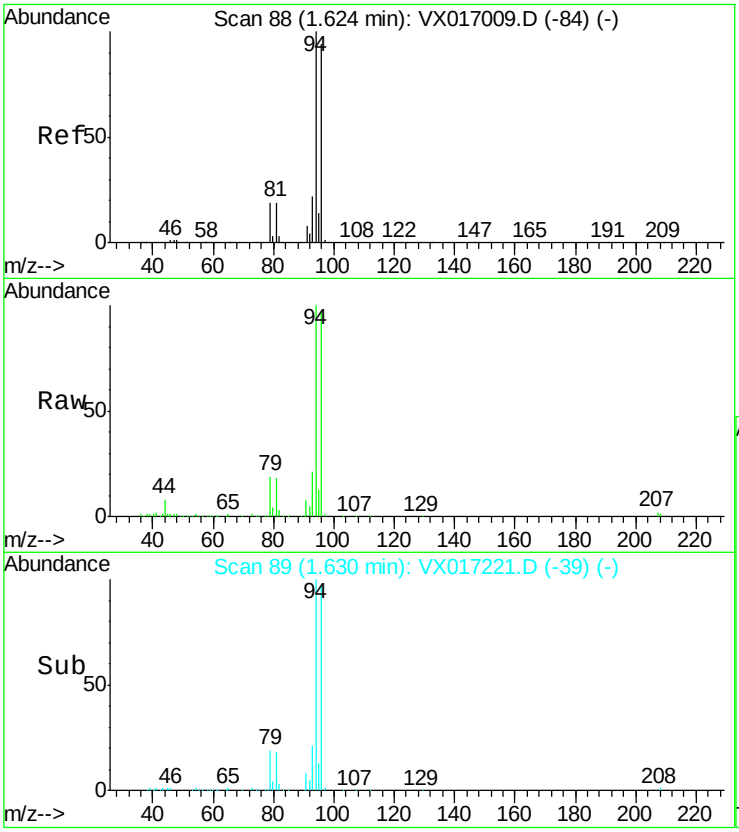
Tgt Ion: 62 Resp: 50064

Ion	Ratio	Lower	Upper
62	100		
64	29.1	25.9	38.9



Instrument :
MSVOA_X
ClientSampleId :
VX0707WBS02

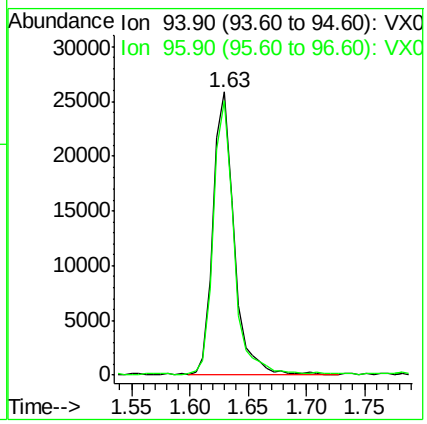
Manual Integrations APPROVED
MMDadoda
7/8/2020 9:31:54 AM

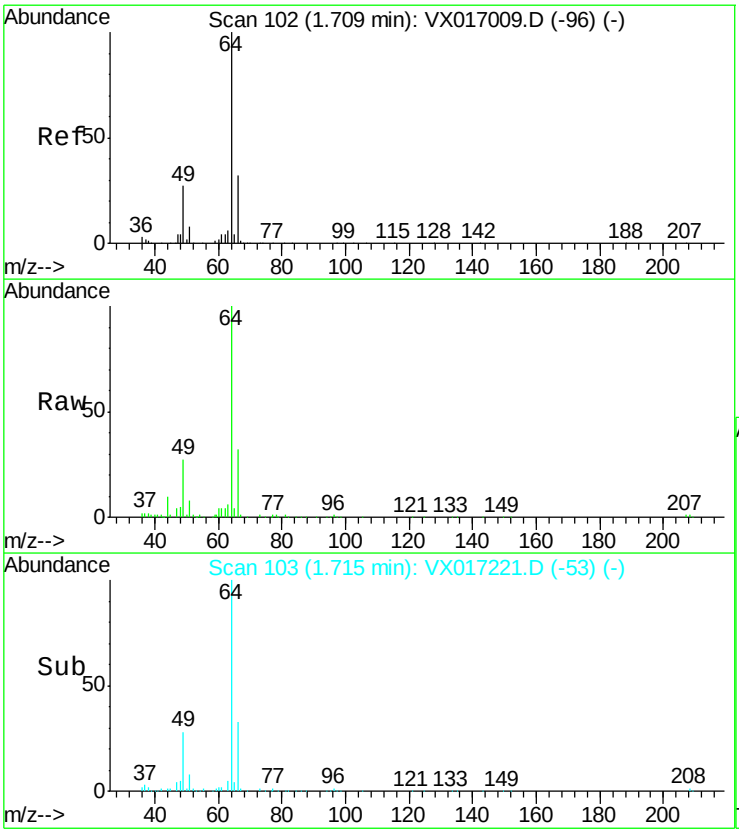


#5
Bromomethane
Concen: 20.109 ug/l
RT: 1.63 min Scan# 89
Delta R.T. 0.01 min
Lab File: VX017221.D
Acq: 07 Jul 2020 23:04

Tgt Ion: 94 Resp: 32309

Ion	Ratio	Lower	Upper
94	100		
96	96.3	75.0	112.4

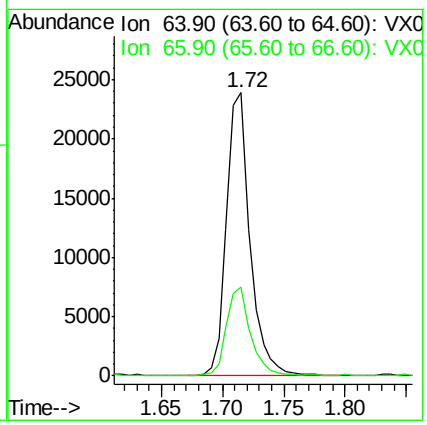




#6
Chloroethane
Concen: 17.738 ug/l
RT: 1.72 min Scan# 103
Delta R.T. 0.01 min
Lab File: VX017221.D
Acq: 07 Jul 2020 23:04

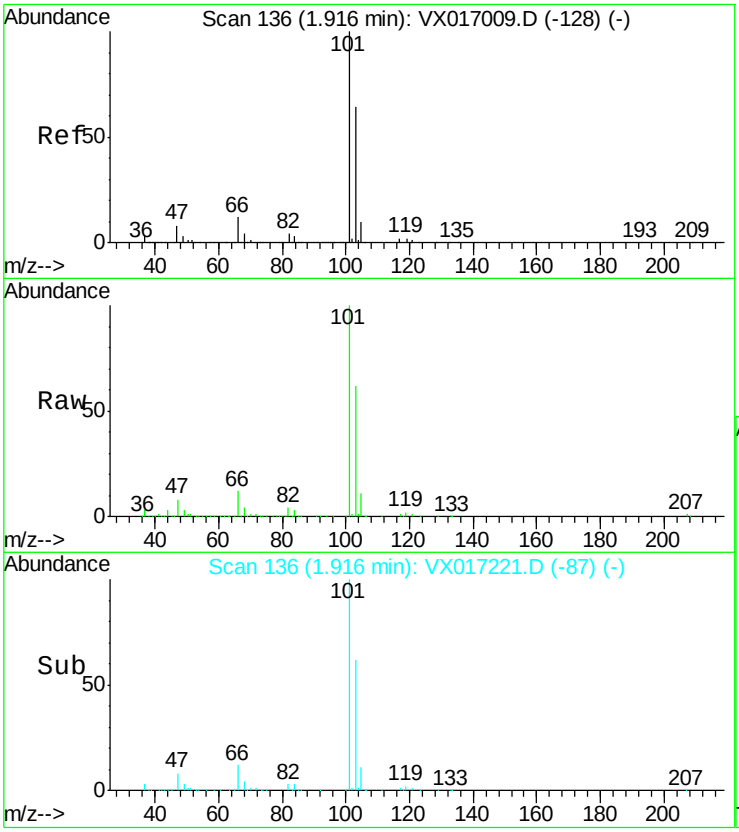
Tgt Ion: 64 Resp: 31858

Ion	Ratio	Lower	Upper
64	100		
66	31.5	25.5	38.3



Instrument :
MSVOA_X
ClientSampleId :
VX0707WBS02

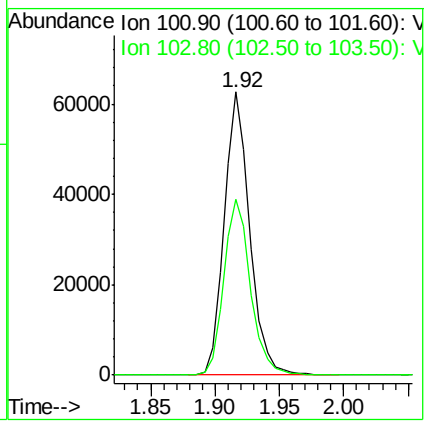
Manual Integrations APPROVED
MMDadoda
7/8/2020 9:31:54 AM

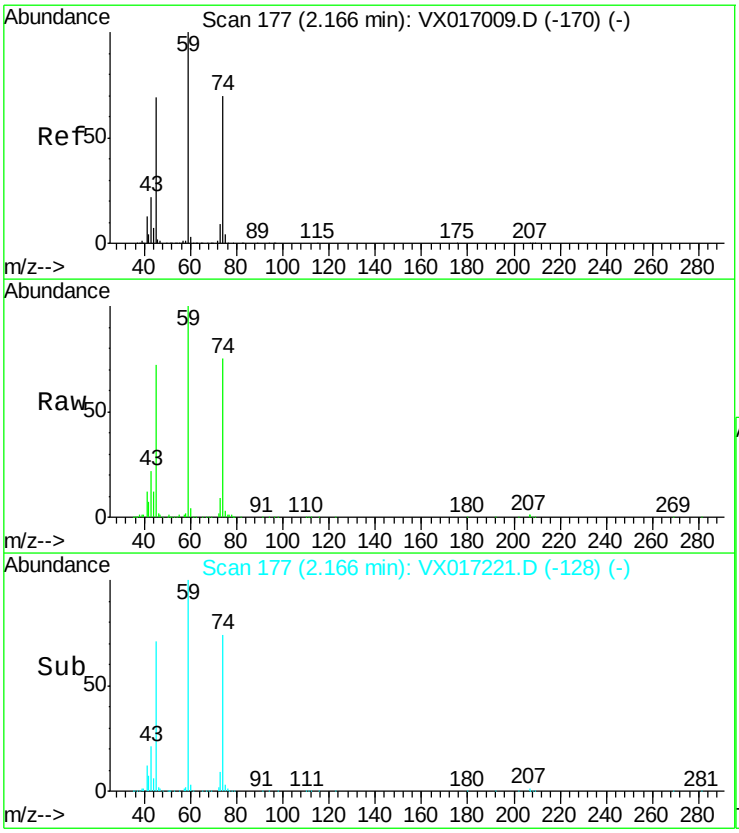


#7
Trichlorofluoromethane
Concen: 19.401 ug/l
RT: 1.92 min Scan# 136
Delta R.T. -0.00 min
Lab File: VX017221.D
Acq: 07 Jul 2020 23:04

Tgt Ion:101 Resp: 87260

Ion	Ratio	Lower	Upper
101	100		
103	62.0	51.5	77.3

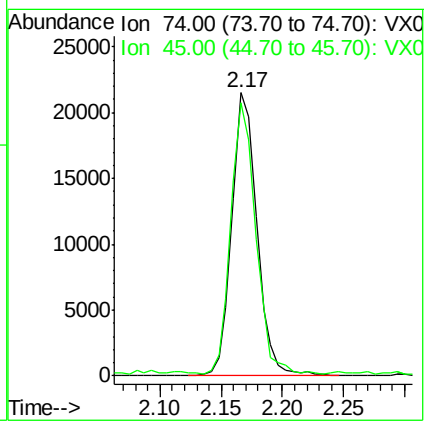


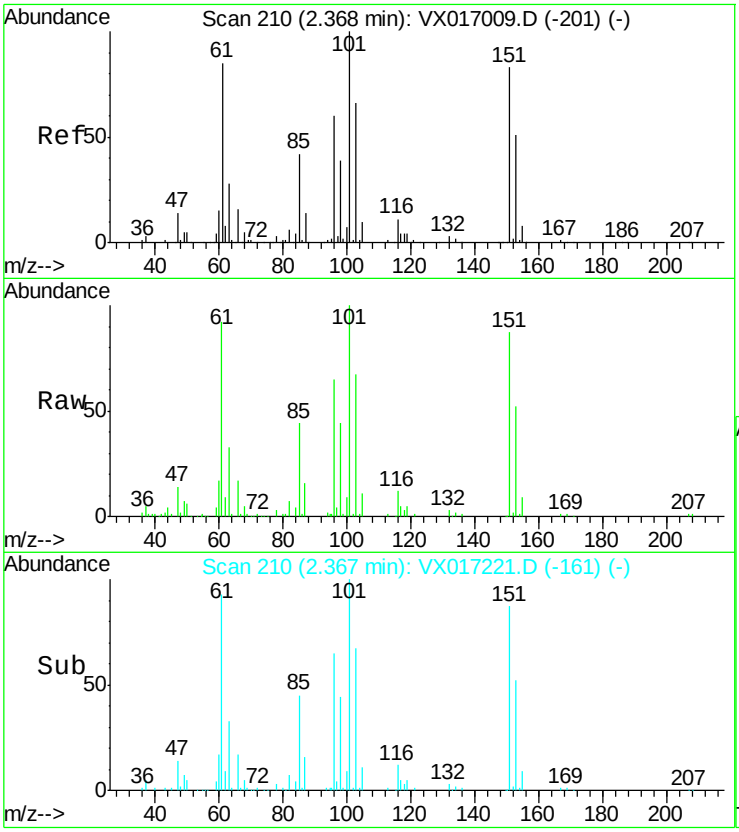


#8
Diethyl Ether
Concen: 20.350 ug/l
RT: 2.17 min Scan# 177
Delta R.T. 0.00 min
Lab File: VX017221.D
Acq: 07 Jul 2020 23:04

Tgt Ion: 74 Resp: 30465

Ion	Ratio	Lower	Upper
74	100		
45	95.3	49.8	149.3

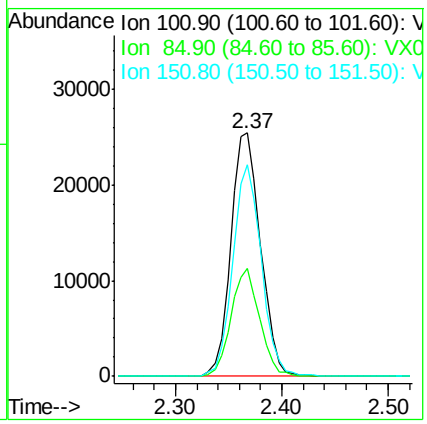




#9
1,1,2-Trichlorotrifluoroethane
Concen: 18.423 ug/l
RT: 2.37 min Scan# 210
Delta R.T. -0.00 min
Lab File: VX017221.D
Acq: 07 Jul 2020 23:04

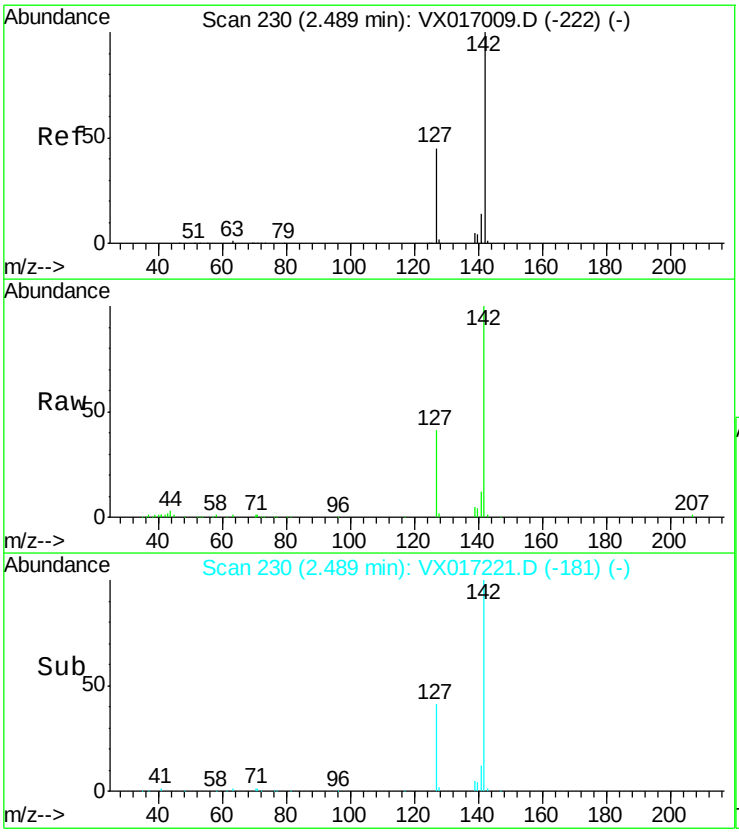
Tgt Ion:101 Resp: 49663

Ion	Ratio	Lower	Upper
101	100		
85	43.0	33.5	50.3
151	83.8	63.8	95.6



Instrument :
MSVOA_X
ClientSampleId :
VX0707WBS02

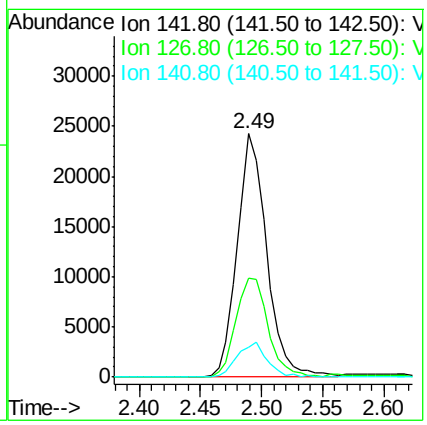
Manual Integrations APPROVED
MMDadoda
7/8/2020 9:31:54 AM



#10
Methyl Iodide
Concen: 11.707 ug/l
RT: 2.49 min Scan# 230
Delta R.T. -0.00 min
Lab File: VX017221.D
Acq: 07 Jul 2020 23:04

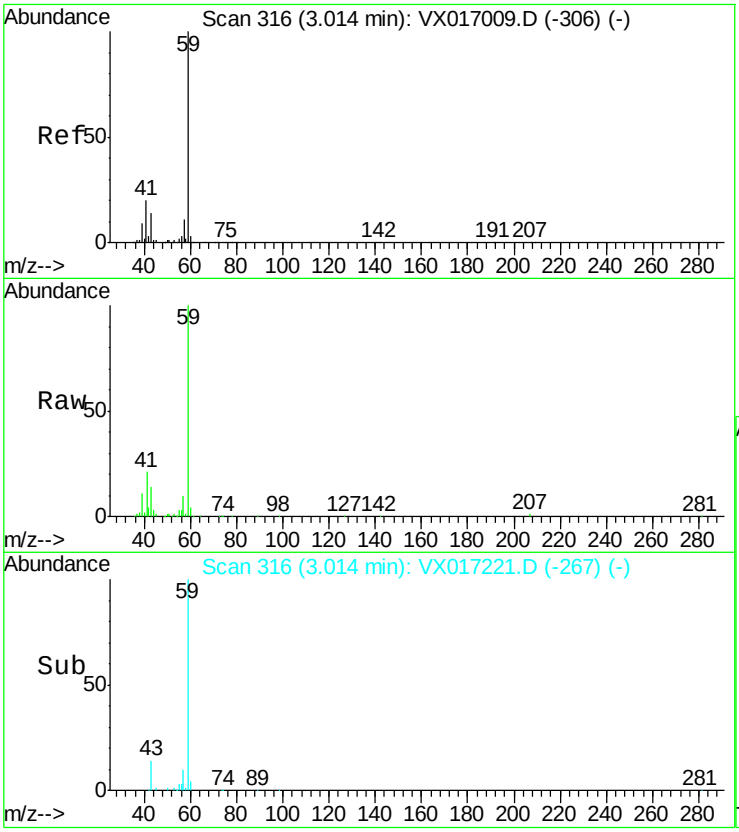
Tgt Ion:142 Resp: 40720

Ion	Ratio	Lower	Upper
142	100		
127	44.3	36.6	54.8
141	14.8	11.6	17.4



Instrument :
MSVOA_X
ClientSampleId :
VX0707WBS02

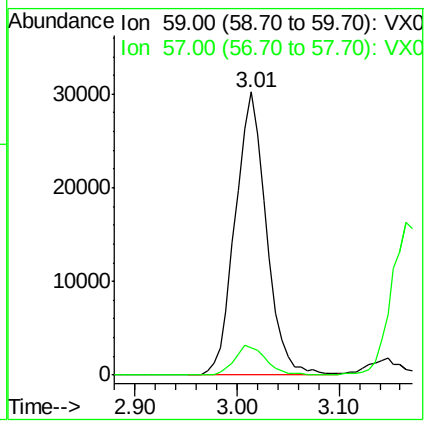
Manual Integrations APPROVED
MMDadoda
7/8/2020 9:31:54 AM

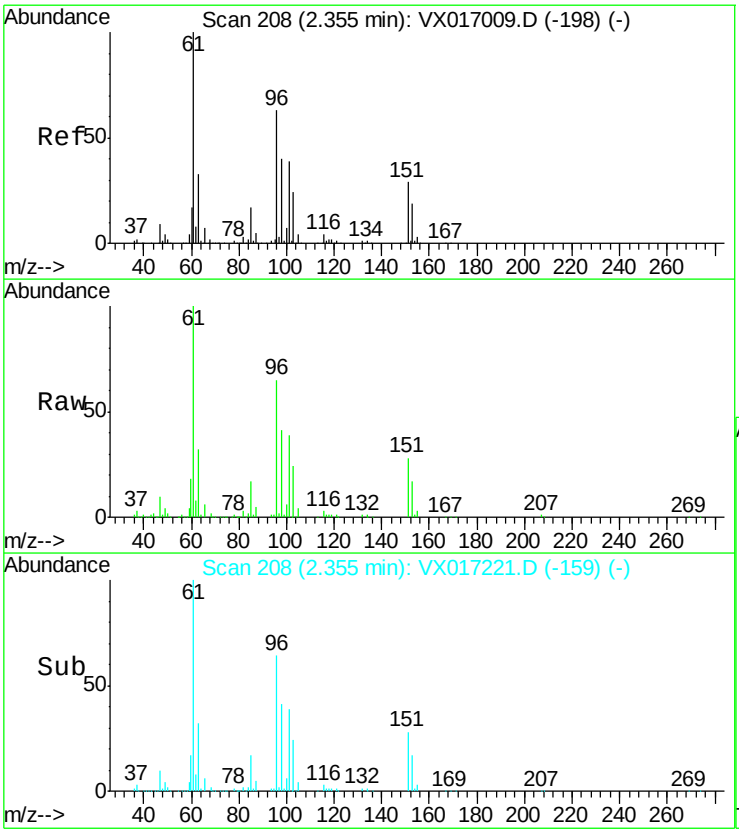


#11
Tert butyl alcohol
Concen: 97.206 ug/l
RT: 3.01 min Scan# 316
Delta R.T. -0.00 min
Lab File: VX017221.D
Acq: 07 Jul 2020 23:04

Tgt Ion: 59 Resp: 63987

Ion	Ratio	Lower	Upper
59	100		
57	11.0	8.2	12.2

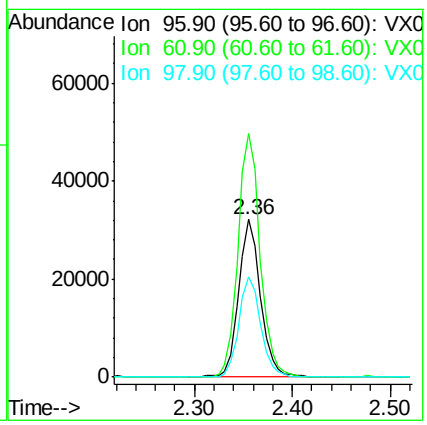




#12
1,1-Dichloroethene
Concen: 18.071 ug/l
RT: 2.36 min Scan# 208
Delta R.T. -0.00 min
Lab File: VX017221.D
Acq: 07 Jul 2020 23:04

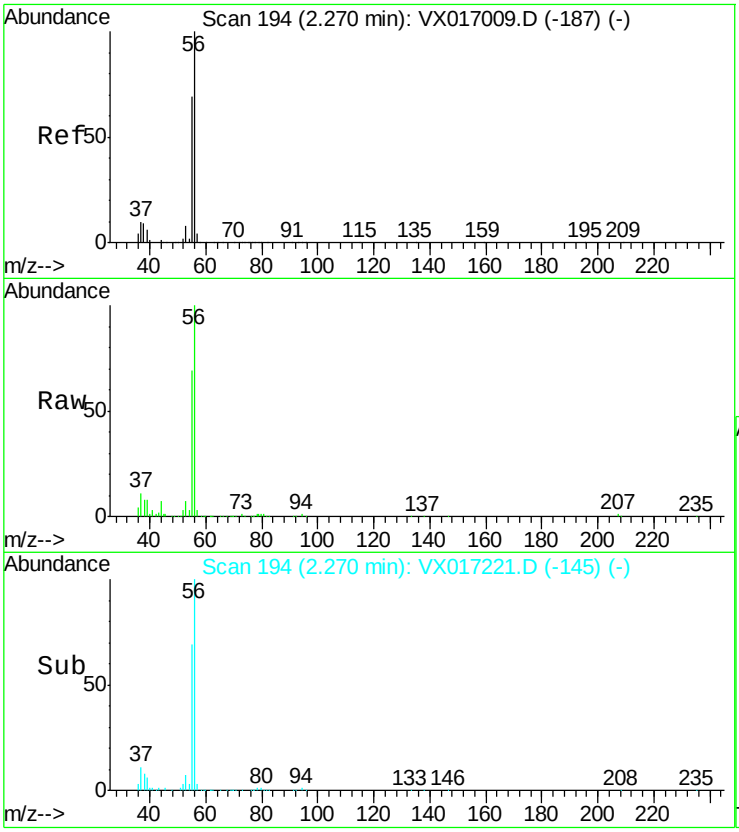
Tgt Ion: 96 Resp: 50043

Ion	Ratio	Lower	Upper
96	100		
61	154.1	126.3	189.5
98	63.9	51.0	76.6



Instrument :
MSVOA_X
ClientSampleId :
VX0707WBS02

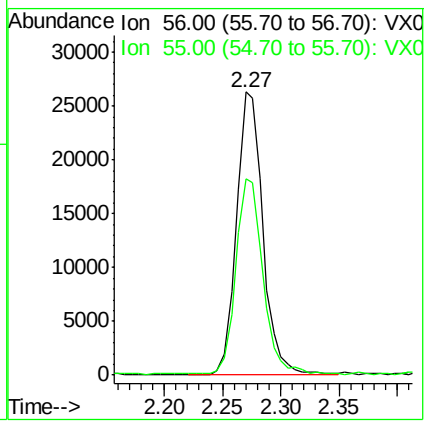
Manual Integrations APPROVED
MMDadoda
7/8/2020 9:31:54 AM

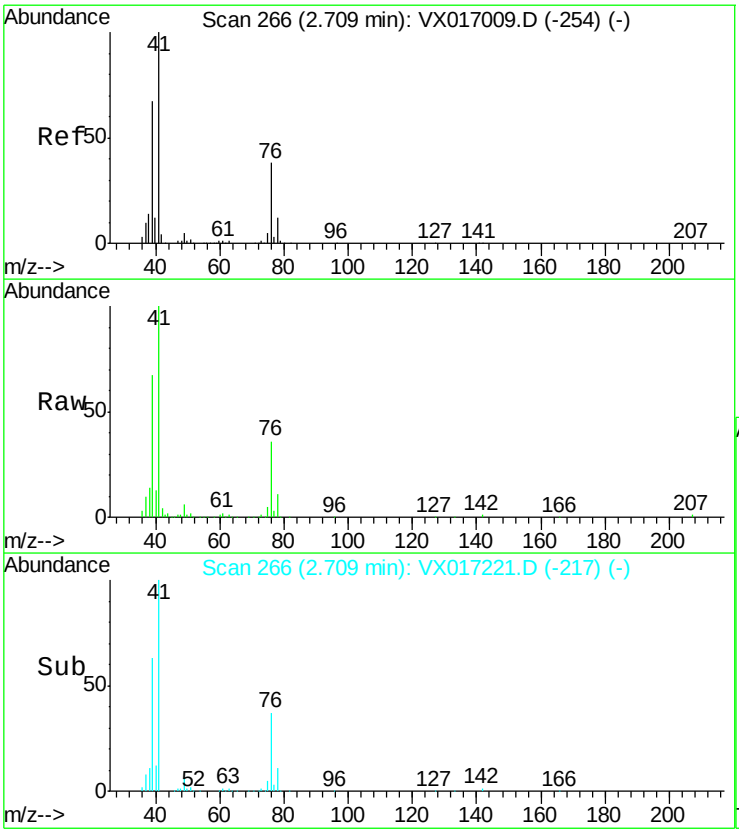


#13
Acrolein
Concen: 105.887 ug/l
RT: 2.27 min Scan# 194
Delta R.T. -0.00 min
Lab File: VX017221.D
Acq: 07 Jul 2020 23:04

Tgt Ion: 56 Resp: 41666

Ion	Ratio	Lower	Upper
56	100		
55	70.3	55.7	83.5

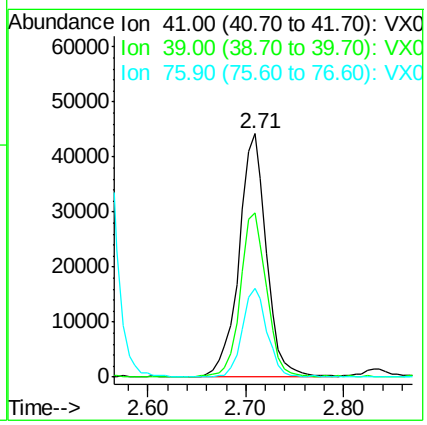




#14
Allyl chloride
Concen: 16.864 ug/l
RT: 2.71 min Scan# 266
Delta R.T. -0.00 min
Lab File: VX017221.D
Acq: 07 Jul 2020 23:04

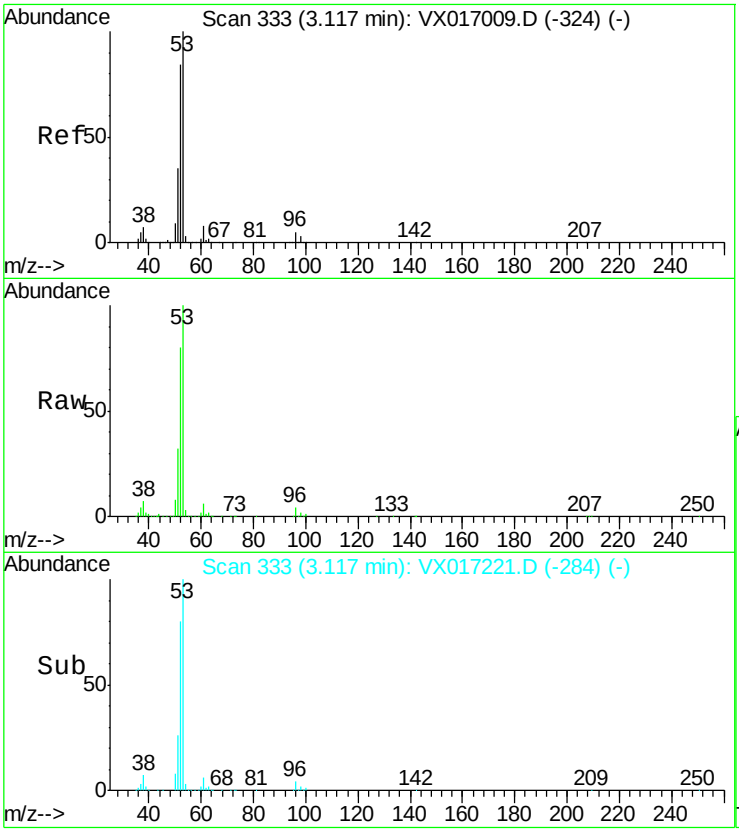
Tgt Ion: 41 Resp: 86306

Ion	Ratio	Lower	Upper
41	100		
39	64.2	49.4	74.2
76	33.1	26.8	40.2



Instrument :
MSVOA_X
ClientSampleId :
VX0707WBS02

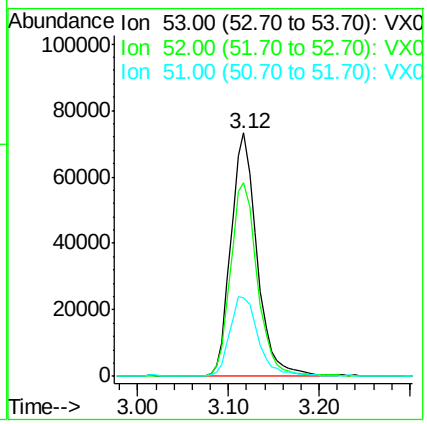
Manual Integrations APPROVED
MMDadoda
7/8/2020 9:31:54 AM

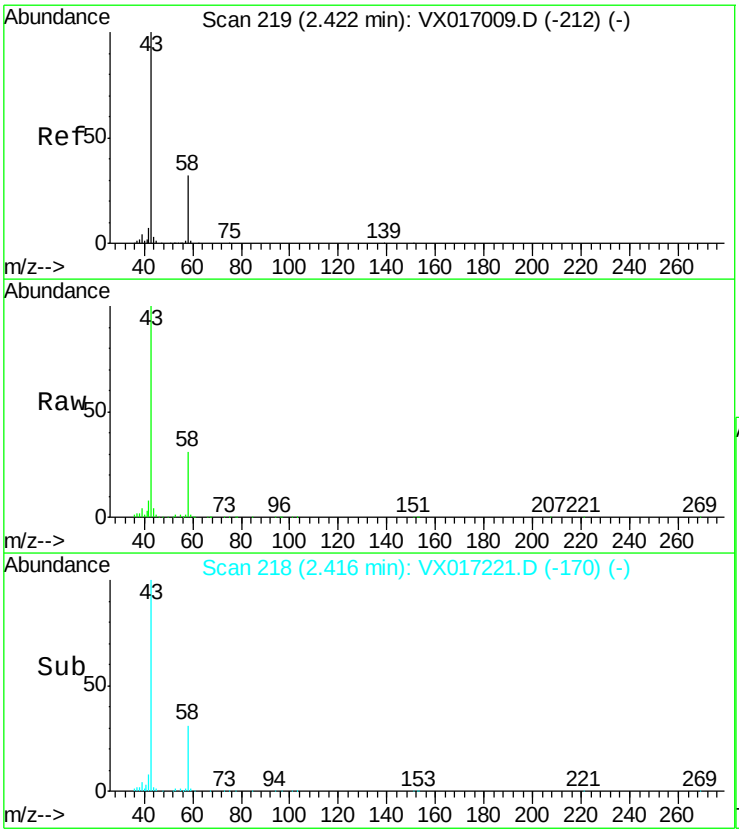


#15
Acrylonitrile
Concen: 92.894 ug/l
RT: 3.12 min Scan# 333
Delta R.T. -0.00 min
Lab File: VX017221.D
Acq: 07 Jul 2020 23:04

Tgt Ion: 53 Resp: 146999

Ion	Ratio	Lower	Upper
53	100		
52	81.9	65.6	98.4
51	36.0	28.3	42.5

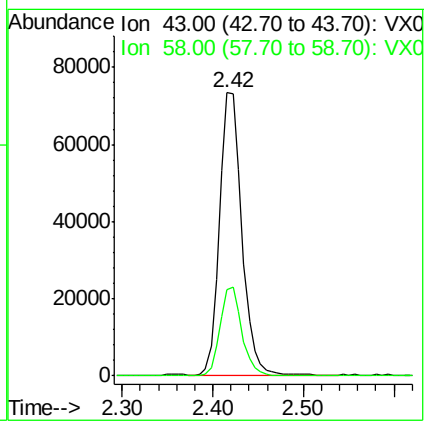




#16
Acetone
Concen: 97.207 ug/l
RT: 2.42 min Scan# 218
Delta R.T. -0.01 min
Lab File: VX017221.D
Acq: 07 Jul 2020 23:04

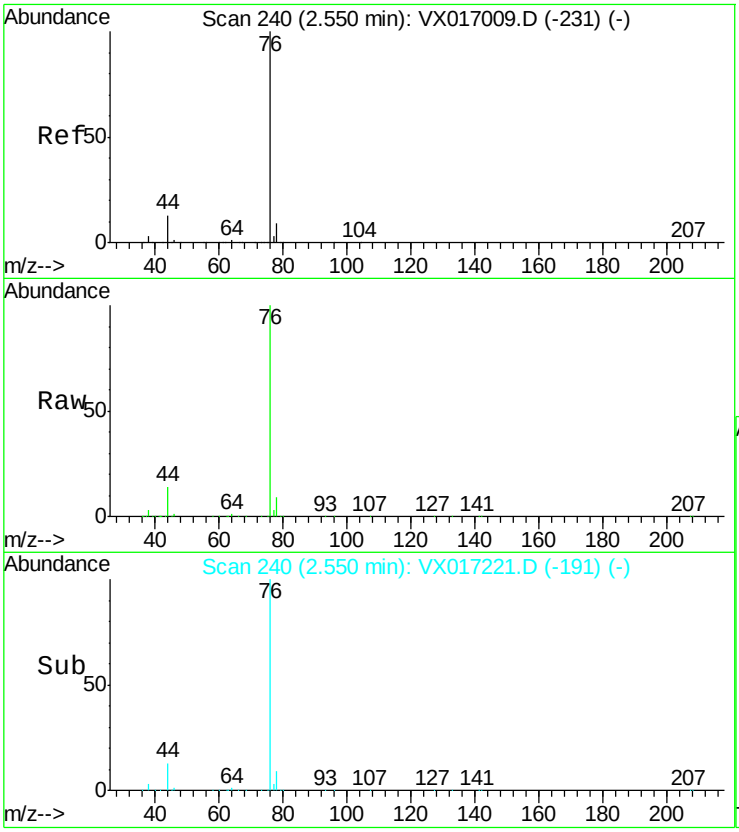
Tgt Ion: 43 Resp: 125477

Ion	Ratio	Lower	Upper
43	100		
58	30.8	25.7	38.5



Instrument :
MSVOA_X
ClientSampleId :
VX0707WBS02

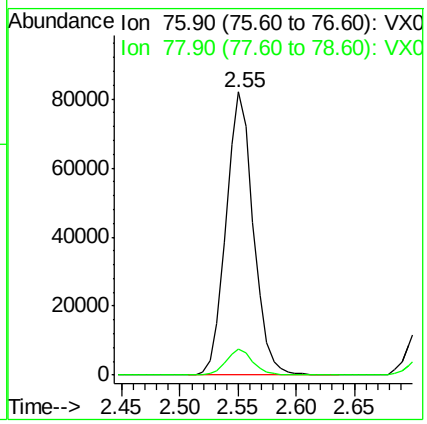
Manual Integrations APPROVED
MMDadoda
7/8/2020 9:31:54 AM

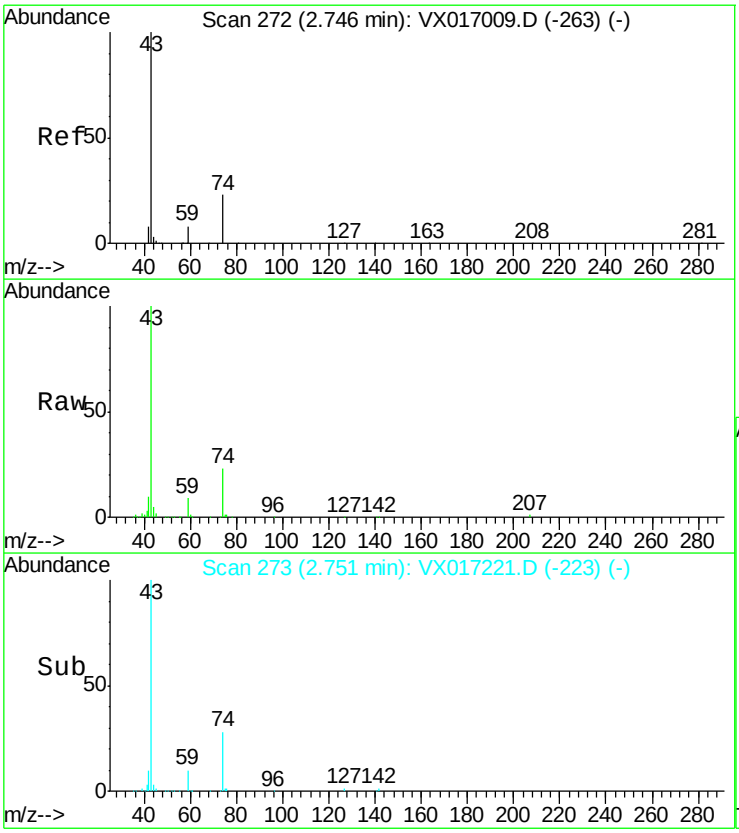


#17
Carbon Disulfide
Concen: 17.259 ug/l
RT: 2.55 min Scan# 240
Delta R.T. 0.00 min
Lab File: VX017221.D
Acq: 07 Jul 2020 23:04

Tgt Ion: 76 Resp: 133249

Ion	Ratio	Lower	Upper
76	100		
78	9.3	7.2	10.8

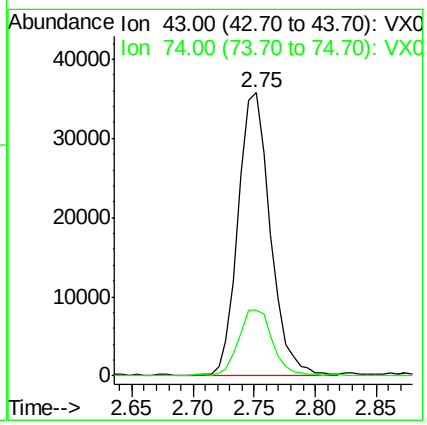




#18
Methyl Acetate
Concen: 19.269 ug/l
RT: 2.75 min Scan# 273
Delta R.T. 0.01 min
Lab File: VX017221.D
Acq: 07 Jul 2020 23:04

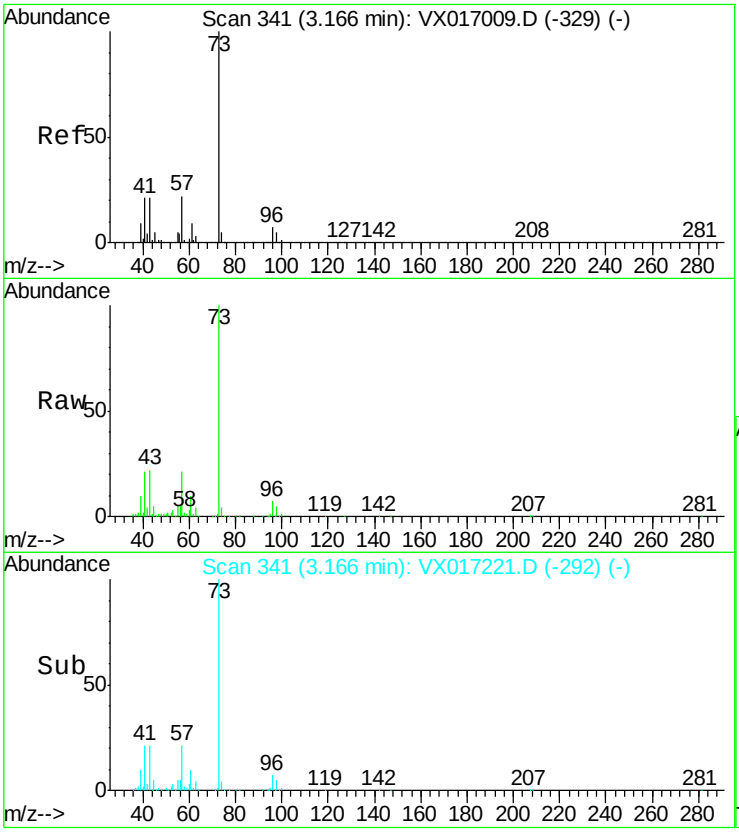
Tgt Ion: 43 Resp: 64930

Ion	Ratio	Lower	Upper
43	100		
74	25.3	19.3	28.9



Instrument :
MSVOA_X
ClientSampleId :
VX0707WBS02

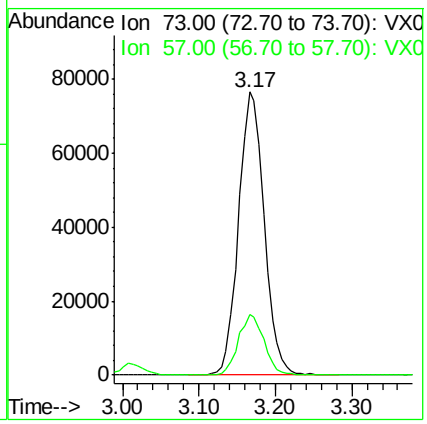
Manual Integrations APPROVED
MMDadoda
7/8/2020 9:31:54 AM

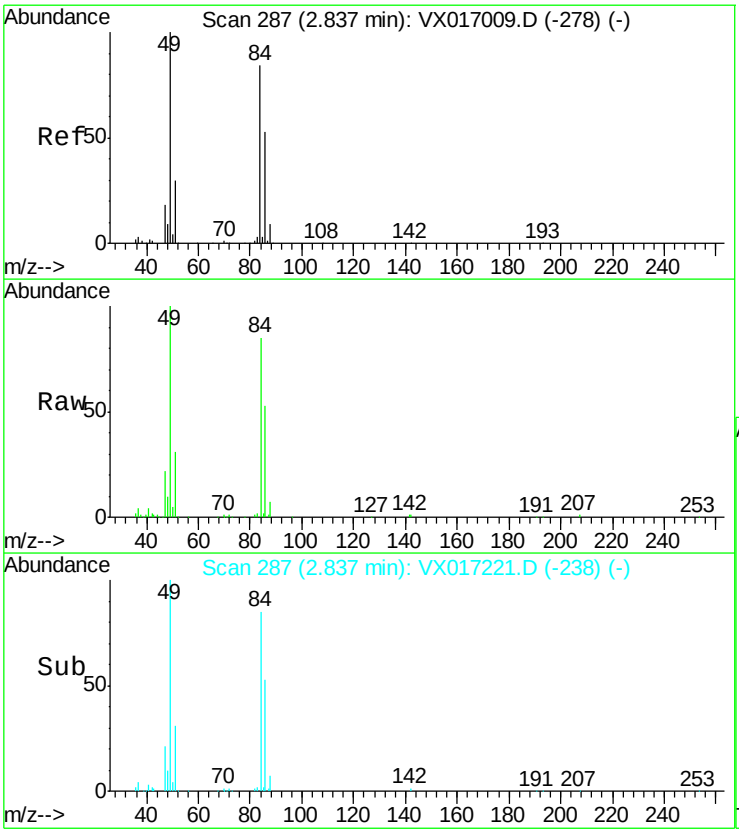


#19
Methyl tert-butyl Ether
Concen: 19.073 ug/l
RT: 3.17 min Scan# 341
Delta R.T. -0.00 min
Lab File: VX017221.D
Acq: 07 Jul 2020 23:04

Tgt Ion: 73 Resp: 177264

Ion	Ratio	Lower	Upper
73	100		
57	21.3	17.6	26.4

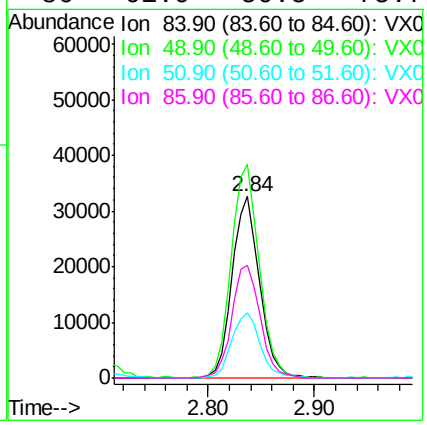




#20
Methylene Chloride
Concen: 19.506 ug/l
RT: 2.84 min Scan# 287
Delta R.T. 0.00 min
Lab File: VX017221.D
Acq: 07 Jul 2020 23:04

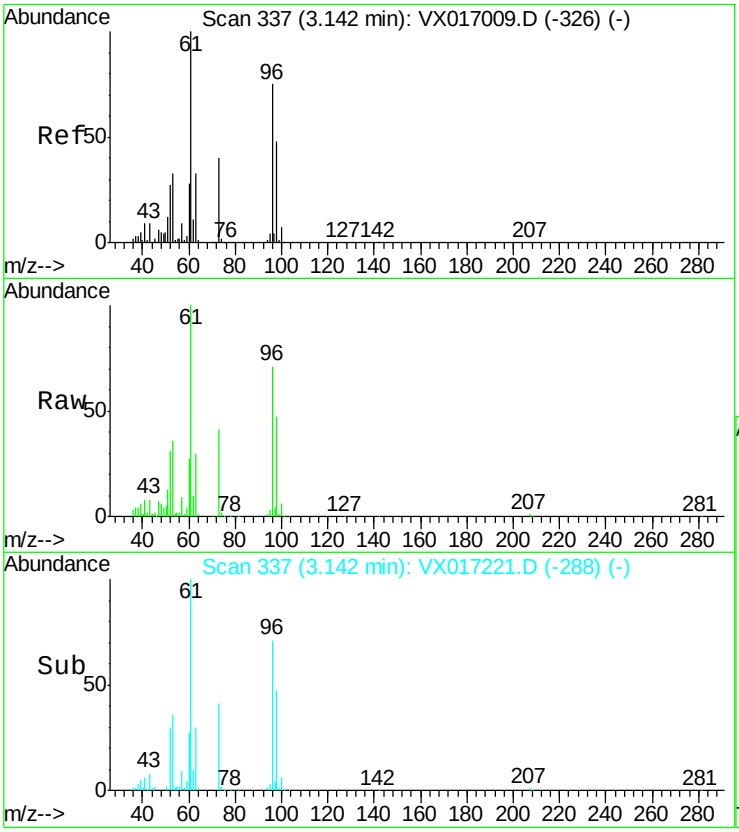
Tgt Ion: 84 Resp: 59160

Ion	Ratio	Lower	Upper
84	100		
49	117.6	94.7	142.1
51	36.2	28.6	42.8
86	61.9	50.5	75.7



Instrument :
MSVOA_X
ClientSampleId :
VX0707WBS02

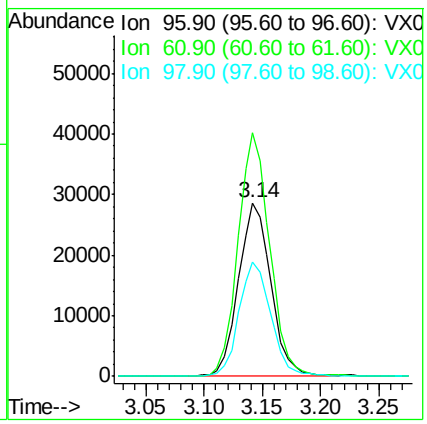
Manual Integrations APPROVED
MMDadoda
7/8/2020 9:31:54 AM

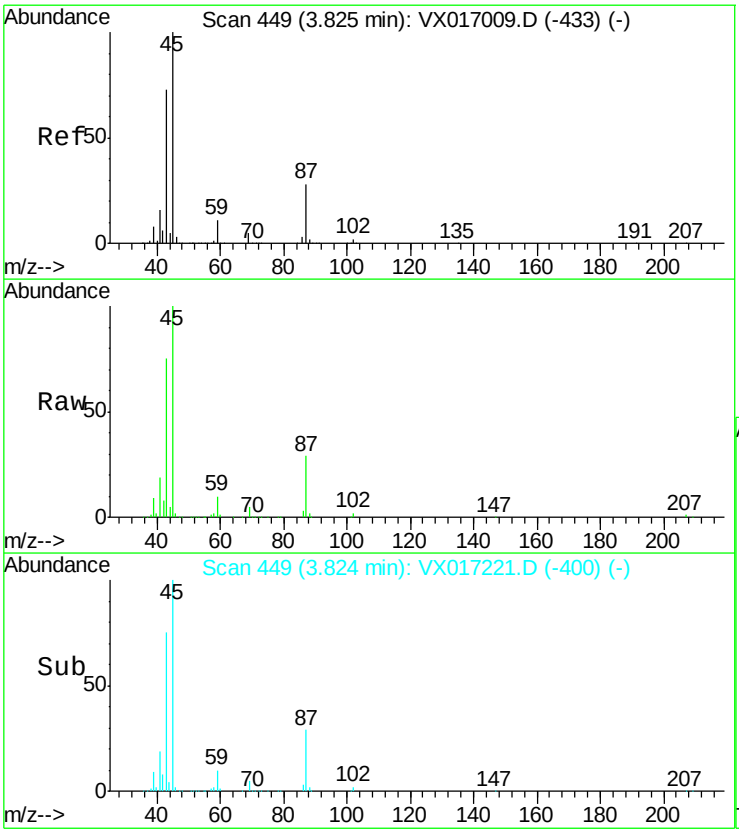


#21
trans-1,2-Dichloroethene
Concen: 18.017 ug/l
RT: 3.14 min Scan# 337
Delta R.T. -0.00 min
Lab File: VX017221.D
Acq: 07 Jul 2020 23:04

Tgt Ion: 96 Resp: 55369

Ion	Ratio	Lower	Upper
96	100		
61	140.2	107.0	160.6
98	65.8	51.6	77.4

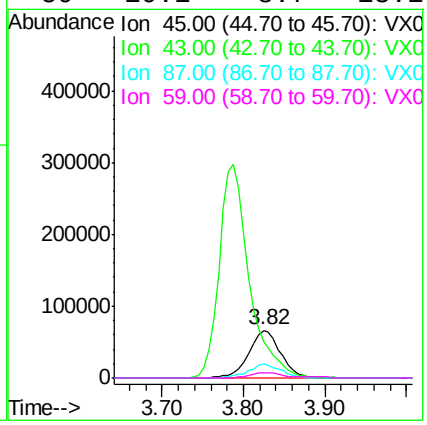




#22
Diisopropyl ether
Concen: 19.128 ug/l
RT: 3.82 min Scan# 449
Delta R.T. -0.00 min
Lab File: VX017221.D
Acq: 07 Jul 2020 23:04

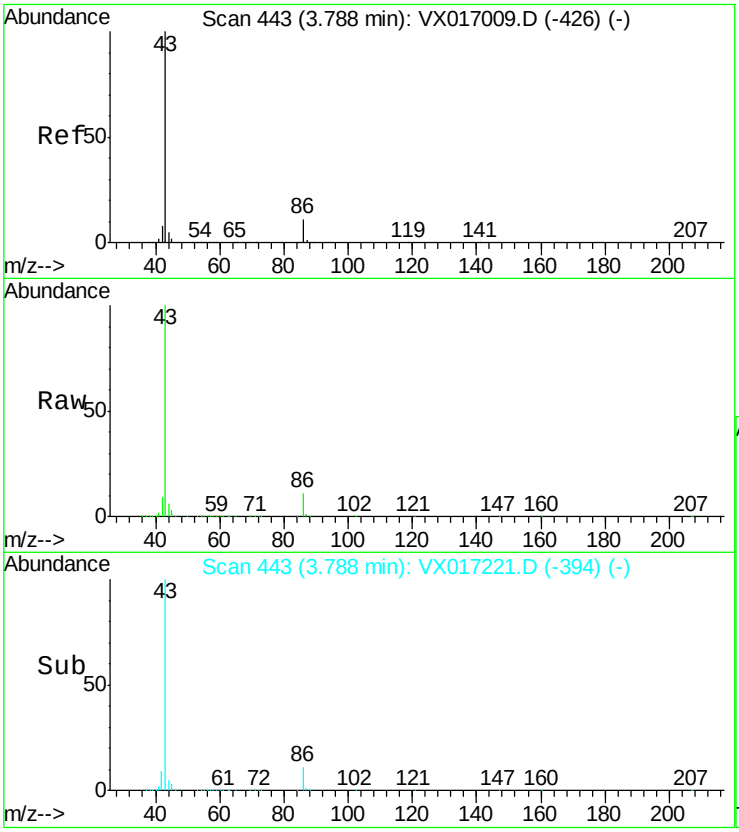
Tgt Ion: 45 Resp: 181179

Ion	Ratio	Lower	Upper
45	100		
43	74.4	58.6	88.0
87	29.2	22.6	34.0
59	10.1	8.7	13.1



Instrument :
MSVOA_X
ClientSampleId :
VX0707WBS02

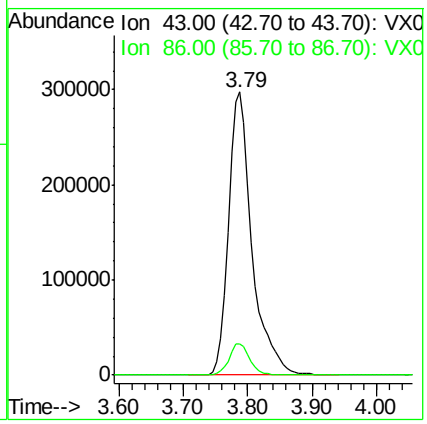
Manual Integrations APPROVED
MMDadoda
7/8/2020 9:31:54 AM

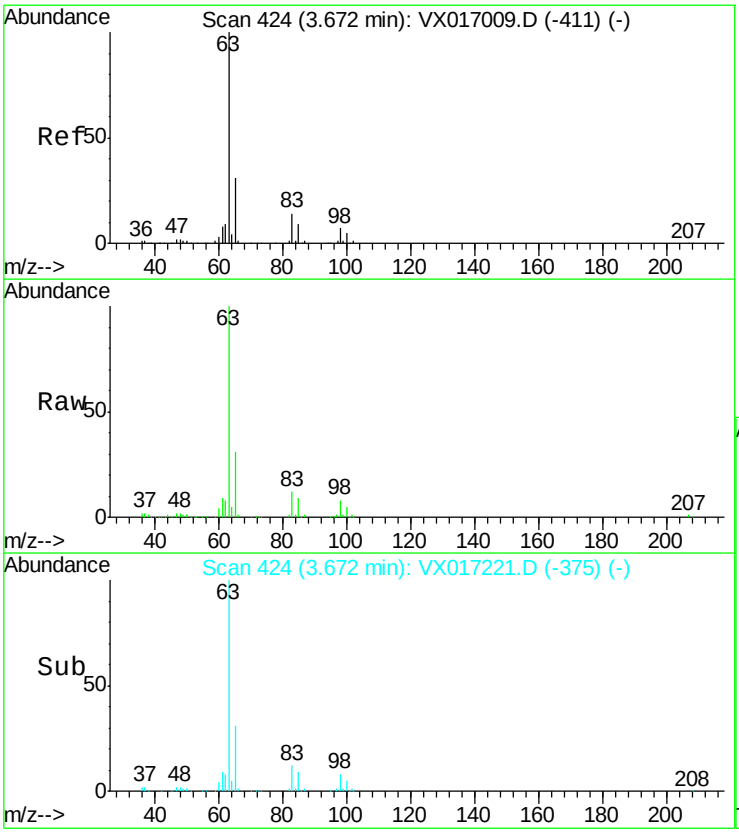


#23
Vinyl Acetate
Concen: 93.499 ug/l
RT: 3.79 min Scan# 443
Delta R.T. -0.00 min
Lab File: VX017221.D
Acq: 07 Jul 2020 23:04

Tgt Ion: 43 Resp: 761015

Ion	Ratio	Lower	Upper
43	100		
86	11.1	8.6	13.0

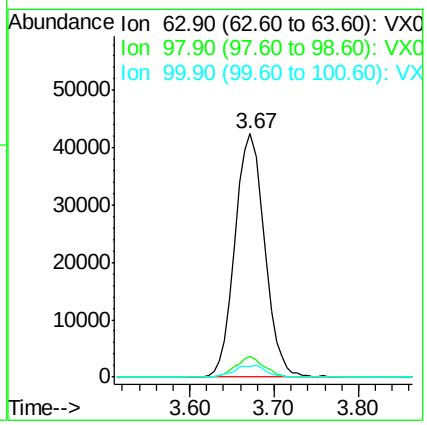




#24
1,1-Dichloroethane
Concen: 18.760 ug/l
RT: 3.67 min Scan# 424
Delta R.T. -0.00 min
Lab File: VX017221.D
Acq: 07 Jul 2020 23:04

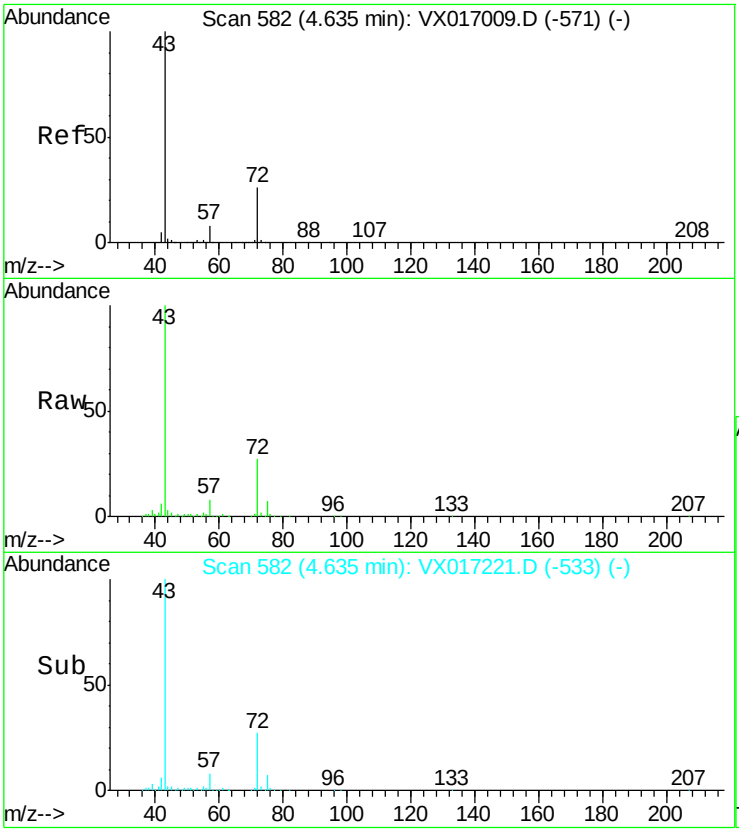
Tgt Ion: 63 Resp: 101107

Ion	Ratio	Lower	Upper
63	100		
98	8.5	3.6	10.8
100	4.5	2.4	7.1



Instrument :
MSVOA_X
ClientSampleId :
VX0707WBS02

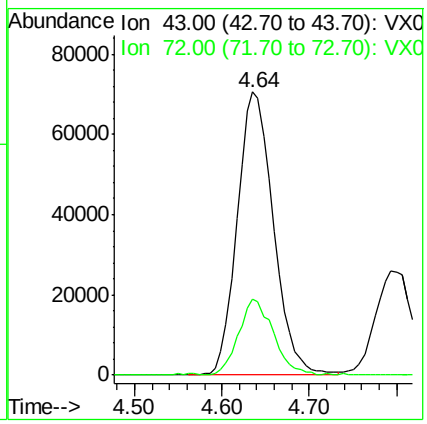
Manual Integrations APPROVED
MMDadoda
7/8/2020 9:31:54 AM

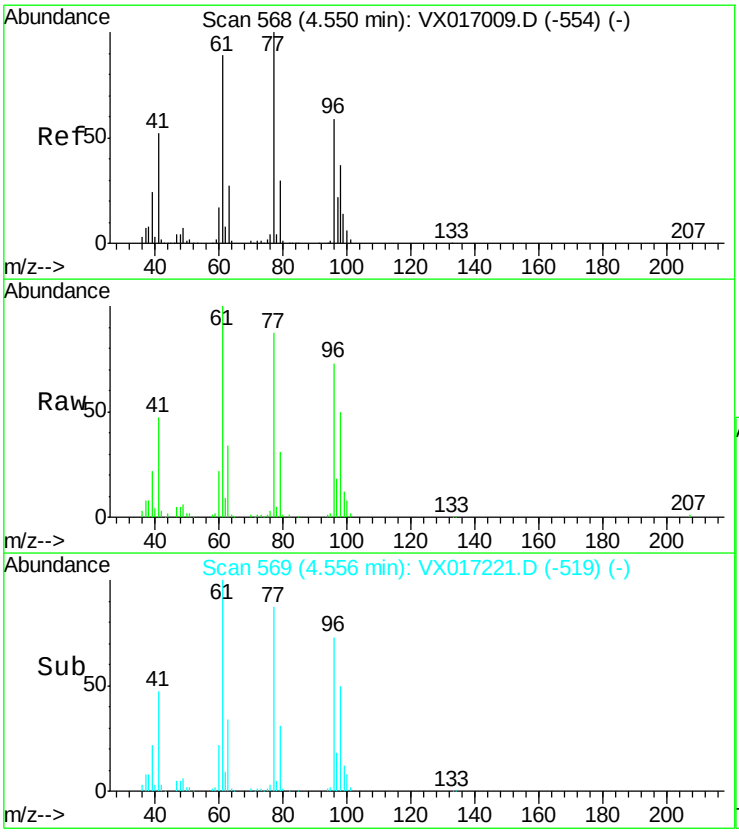


#25
2-Butanone
Concen: 94.116 ug/l
RT: 4.64 min Scan# 582
Delta R.T. -0.00 min
Lab File: VX017221.D
Acq: 07 Jul 2020 23:04

Tgt Ion: 43 Resp: 202427

Ion	Ratio	Lower	Upper
43	100		
72	26.5	20.8	31.2

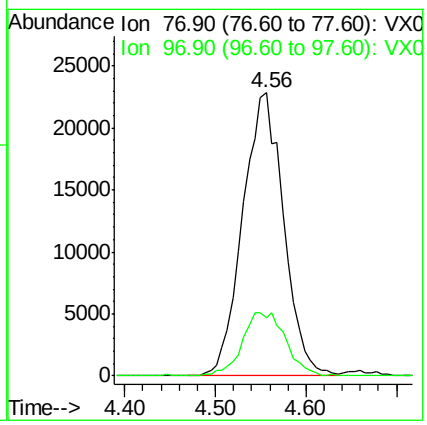




#26
2,2-Dichloropropane
Concen: 14.883 ug/l
RT: 4.56 min Scan# 569
Delta R.T. 0.01 min
Lab File: VX017221.D
Acq: 07 Jul 2020 23:04

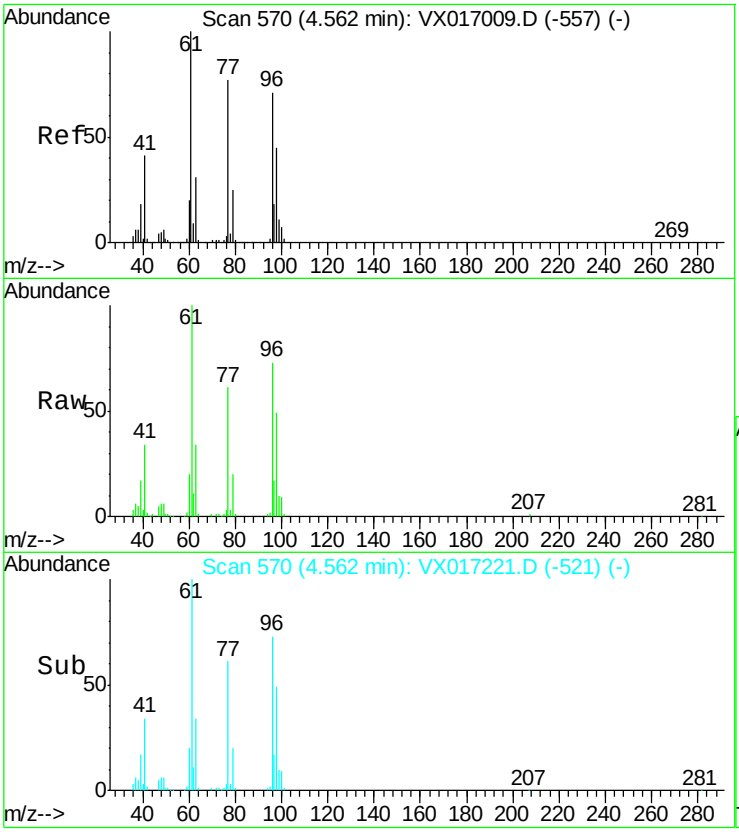
Tgt Ion: 77 Resp: 71222

Ion	Ratio	Lower	Upper
77	100		
97	23.7	11.4	34.2



Instrument :
MSVOA_X
ClientSampleId :
VX0707WBS02

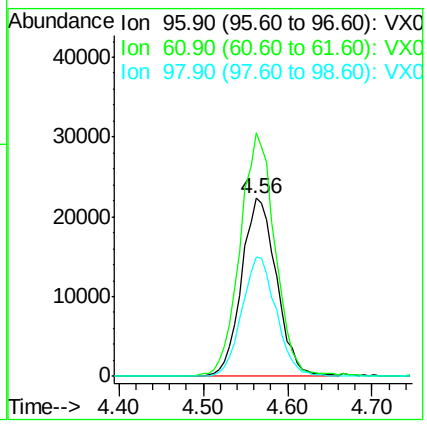
Manual Integrations APPROVED
MMDadoda
7/8/2020 9:31:54 AM

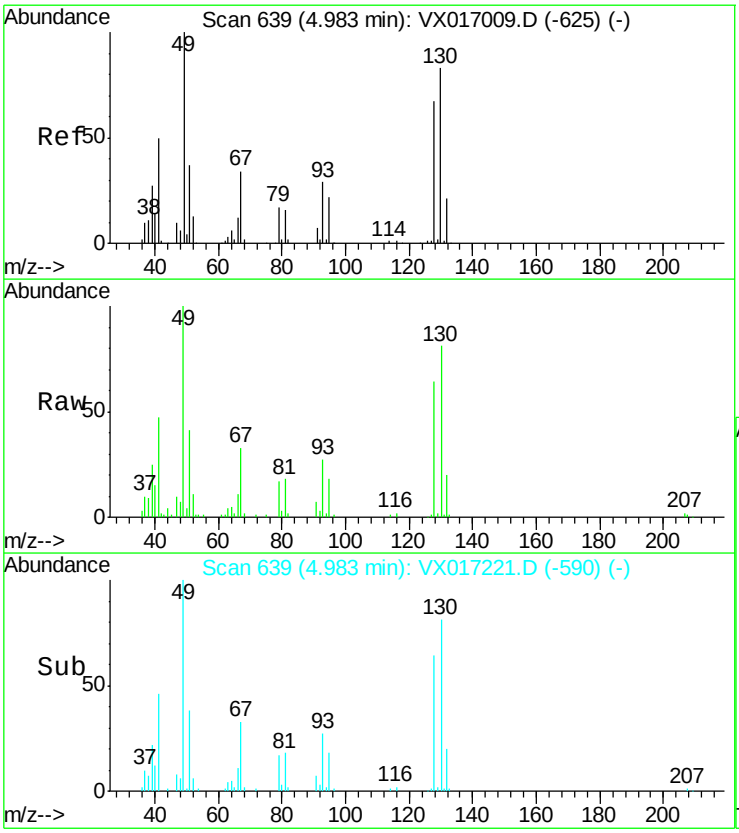


#27
cis-1,2-Dichloroethene
Concen: 18.027 ug/l
RT: 4.56 min Scan# 570
Delta R.T. -0.00 min
Lab File: VX017221.D
Acq: 07 Jul 2020 23:04

Tgt Ion: 96 Resp: 62771

Ion	Ratio	Lower	Upper
96	100		
61	136.5	0.0	282.8
98	65.4	0.0	127.6

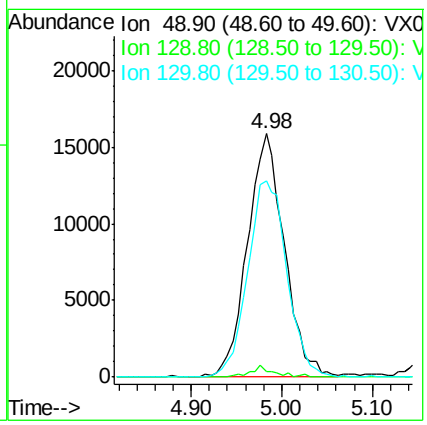




#28
Bromochloromethane
Concen: 17.050 ug/l
RT: 4.98 min Scan# 639
Delta R.T. -0.00 min
Lab File: VX017221.D
Acq: 07 Jul 2020 23:04

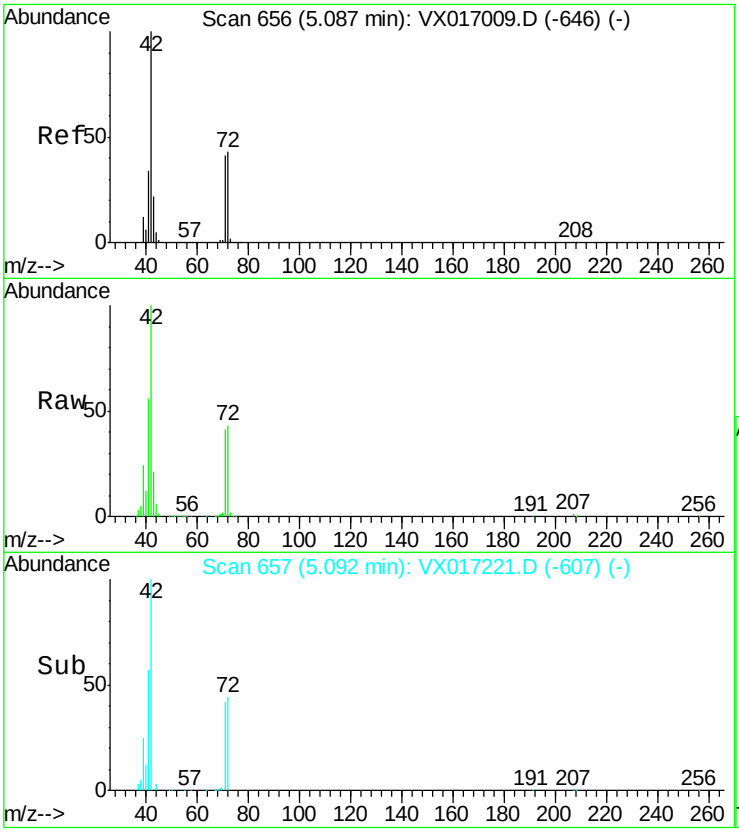
Tgt Ion: 49 Resp: 44715

Ion	Ratio	Lower	Upper
49	100		
129	2.8	0.0	4.2
130	85.7	66.6	100.0



Instrument :
MSVOA_X
ClientSampleId :
VX0707WBS02

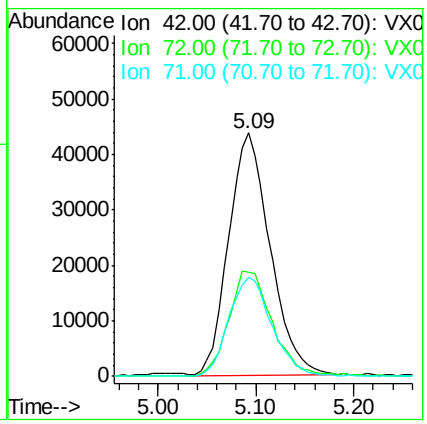
Manual Integrations APPROVED
MMDadoda
7/8/2020 9:31:54 AM

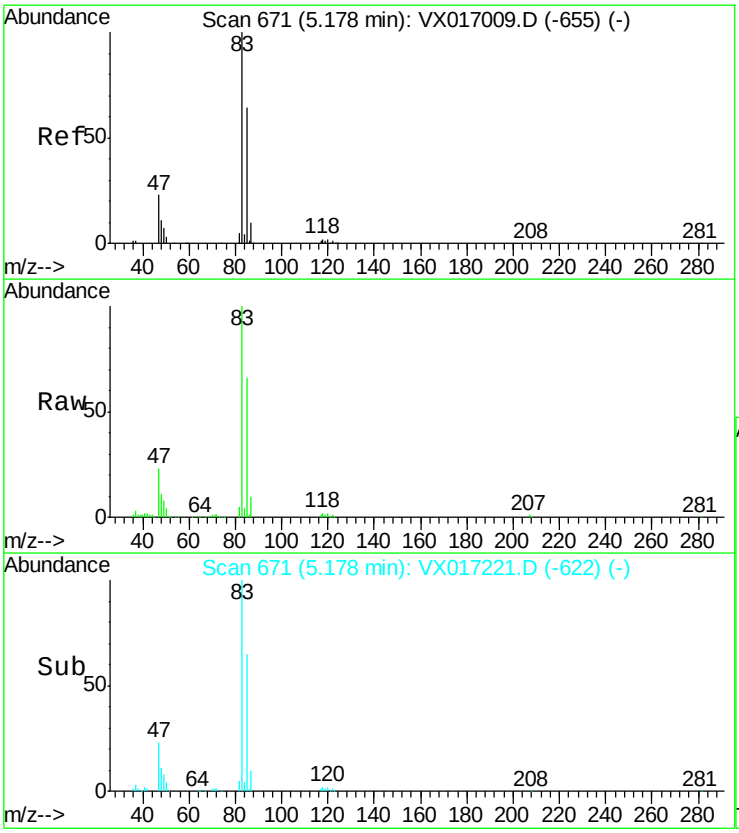


#29
Tetrahydrofuran
Concen: 90.615 ug/l
RT: 5.09 min Scan# 657
Delta R.T. 0.01 min
Lab File: VX017221.D
Acq: 07 Jul 2020 23:04

Tgt Ion: 42 Resp: 128773

Ion	Ratio	Lower	Upper
42	100		
72	45.9	35.3	52.9
71	42.5	33.1	49.7

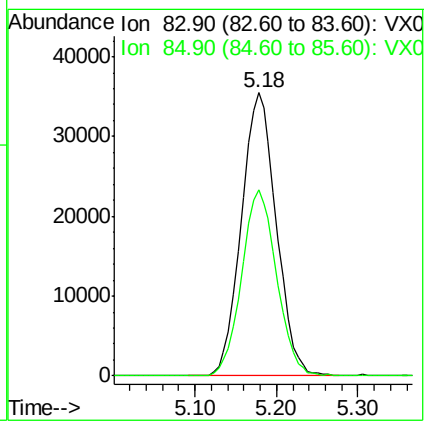




#30
Chloroform
Concen: 19.073 ug/l
RT: 5.18 min Scan# 671
Delta R.T. -0.00 min
Lab File: VX017221.D
Acq: 07 Jul 2020 23:04

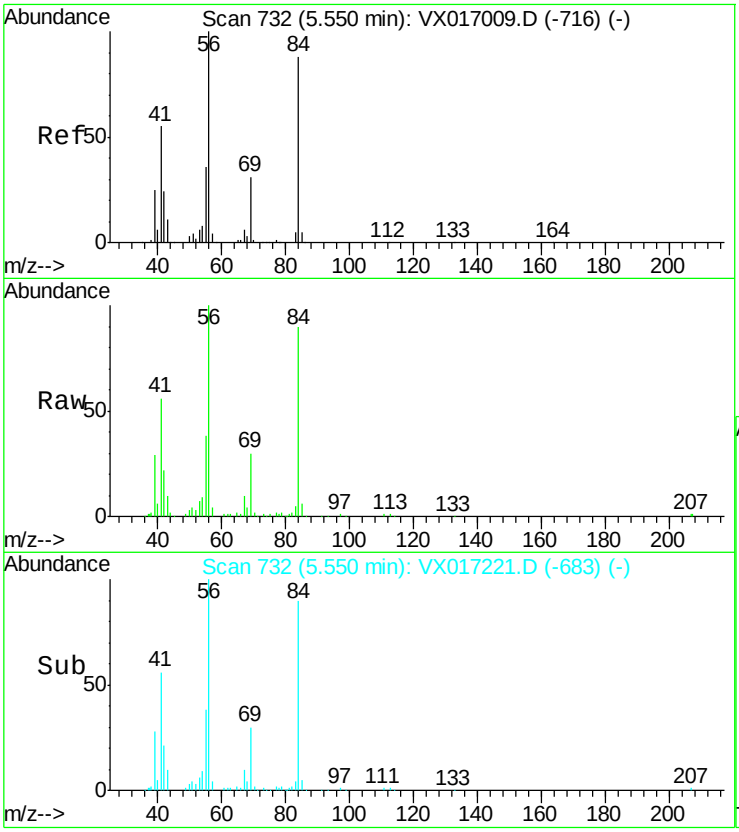
Tgt Ion: 83 Resp: 105371

Ion	Ratio	Lower	Upper
83	100		
85	65.9	51.4	77.2



Instrument :
MSVOA_X
ClientSampleId :
VX0707WBS02

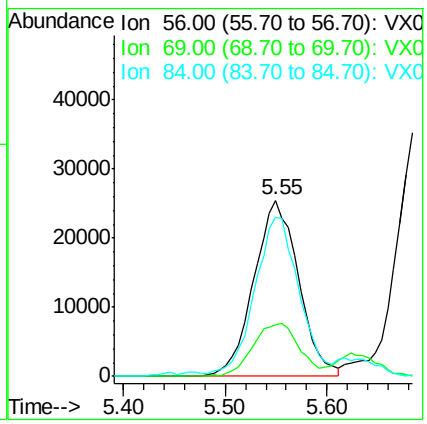
Manual Integrations APPROVED
MMDadoda
7/8/2020 9:31:54 AM

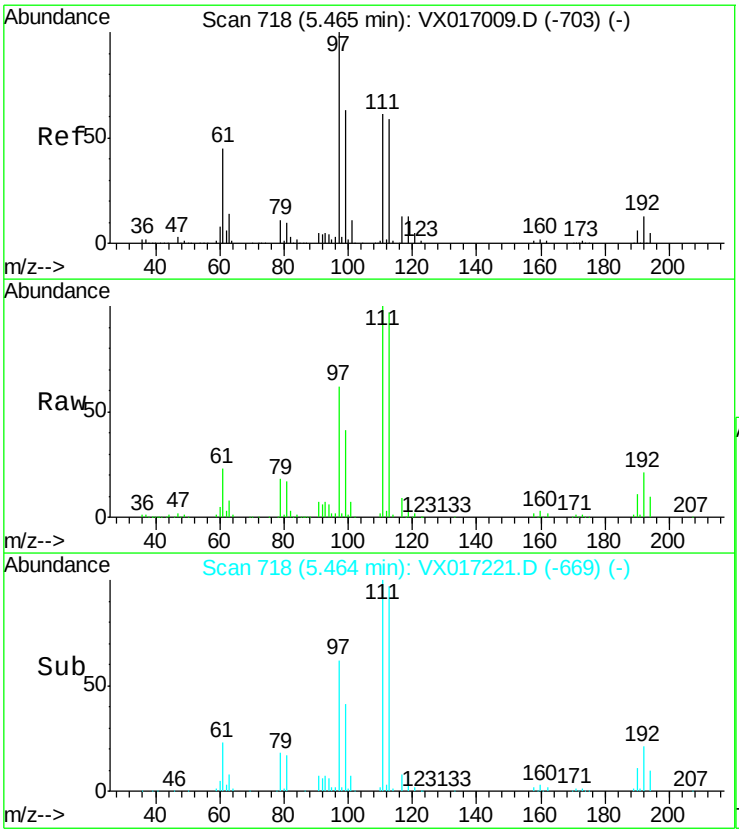


#31
Cyclohexane
Concen: 16.645 ug/l
RT: 5.55 min Scan# 732
Delta R.T. -0.00 min
Lab File: VX017221.D
Acq: 07 Jul 2020 23:04

Tgt Ion: 56 Resp: 77543

Ion	Ratio	Lower	Upper
56	100		
69	29.4	25.0	37.4
84	87.8	69.1	103.7

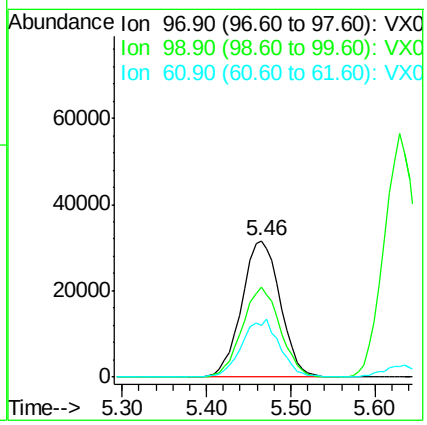




#32
1,1,1-Trichloroethane
Concen: 19.223 ug/l
RT: 5.46 min Scan# 718
Delta R.T. -0.00 min
Lab File: VX017221.D
Acq: 07 Jul 2020 23:04

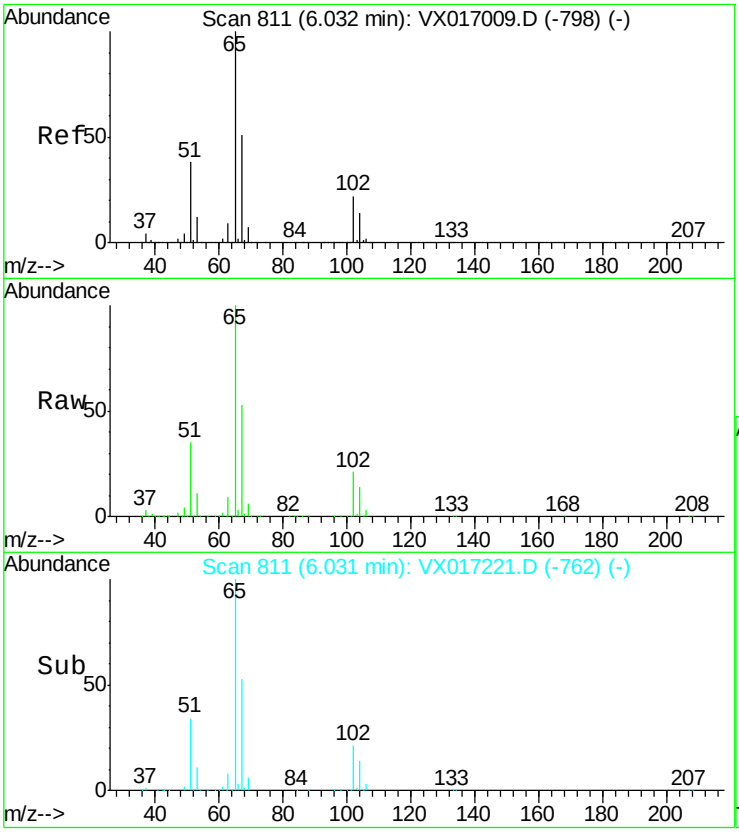
Tgt Ion: 97 Resp: 97808

Ion	Ratio	Lower	Upper
97	100		
99	65.2	50.8	76.2
61	41.5	33.7	50.5



Instrument :
MSVOA_X
ClientSampleId :
VX0707WBS02

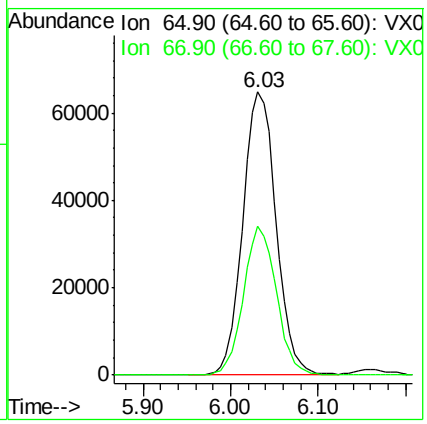
Manual Integrations APPROVED
MMDadoda
7/8/2020 9:31:54 AM

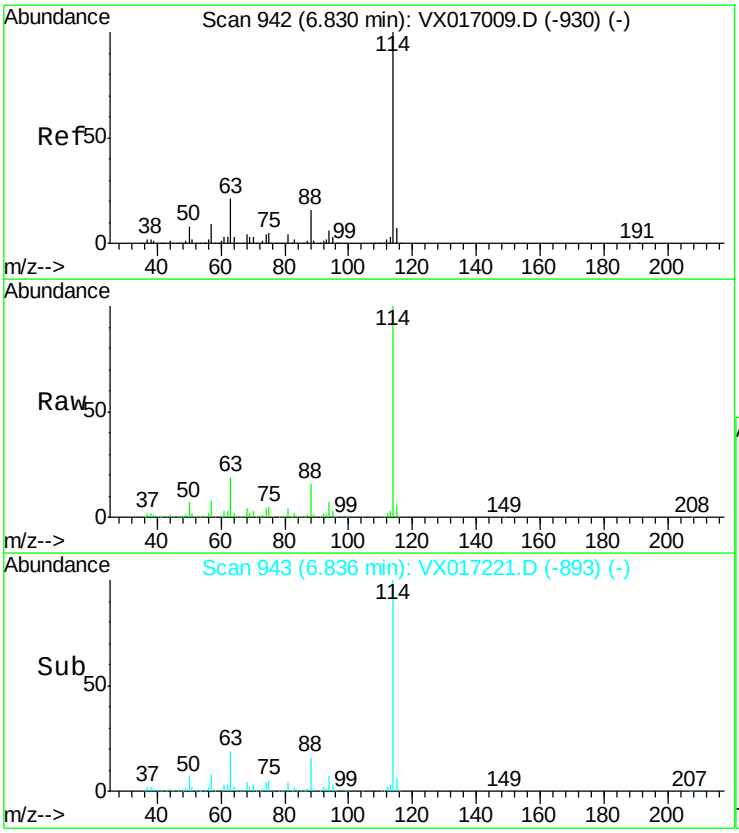


#33
1,2-Dichloroethane-d4
Concen: 49.860 ug/l
RT: 6.03 min Scan# 811
Delta R.T. -0.00 min
Lab File: VX017221.D
Acq: 07 Jul 2020 23:04

Tgt Ion: 65 Resp: 172044

Ion	Ratio	Lower	Upper
65	100		
67	51.7	0.0	103.8

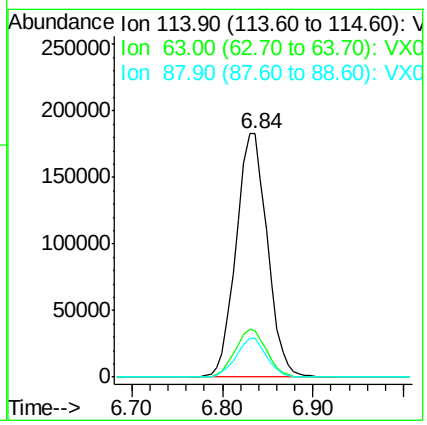




#34
1,4-Difluorobenzene
Concen: 50.000 ug/l
RT: 6.84 min Scan# 943
Delta R.T. 0.01 min
Lab File: VX017221.D
Acq: 07 Jul 2020 23:04

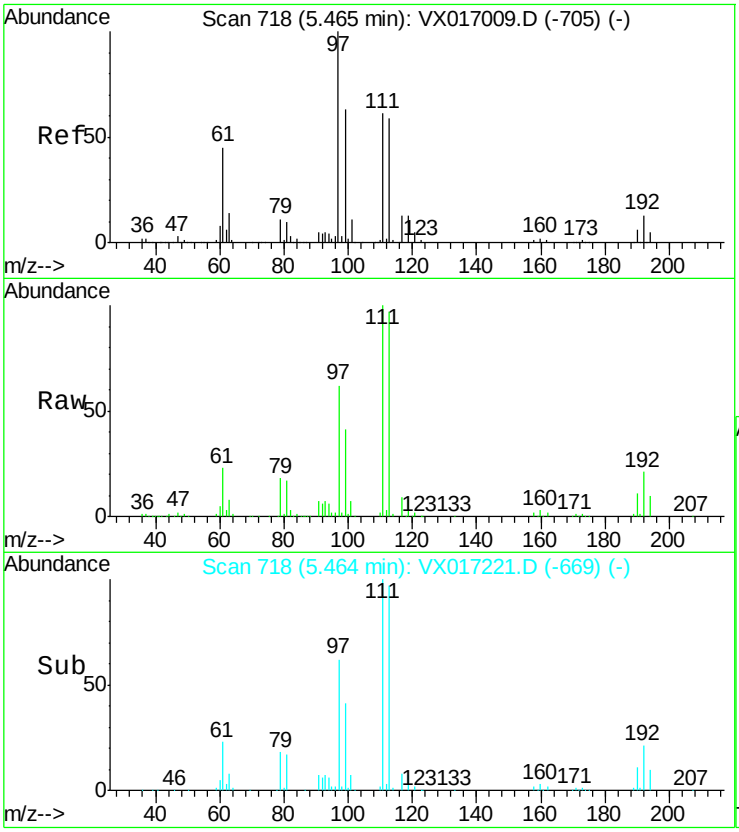
Tgt Ion:114 Resp: 437536

Ion	Ratio	Lower	Upper
114	100		
63	19.1	0.0	41.4
88	15.7	0.0	32.4



Instrument :
MSVOA_X
ClientSampleId :
VX0707WBS02

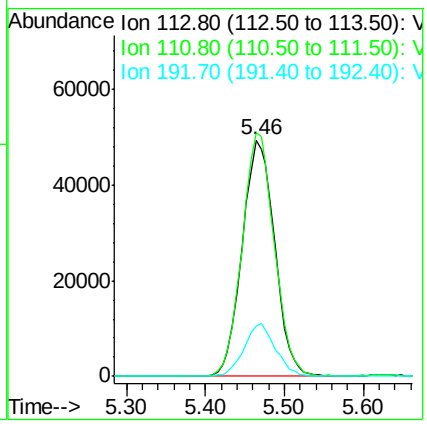
Manual Integrations APPROVED
MMDadoda
7/8/2020 9:31:54 AM

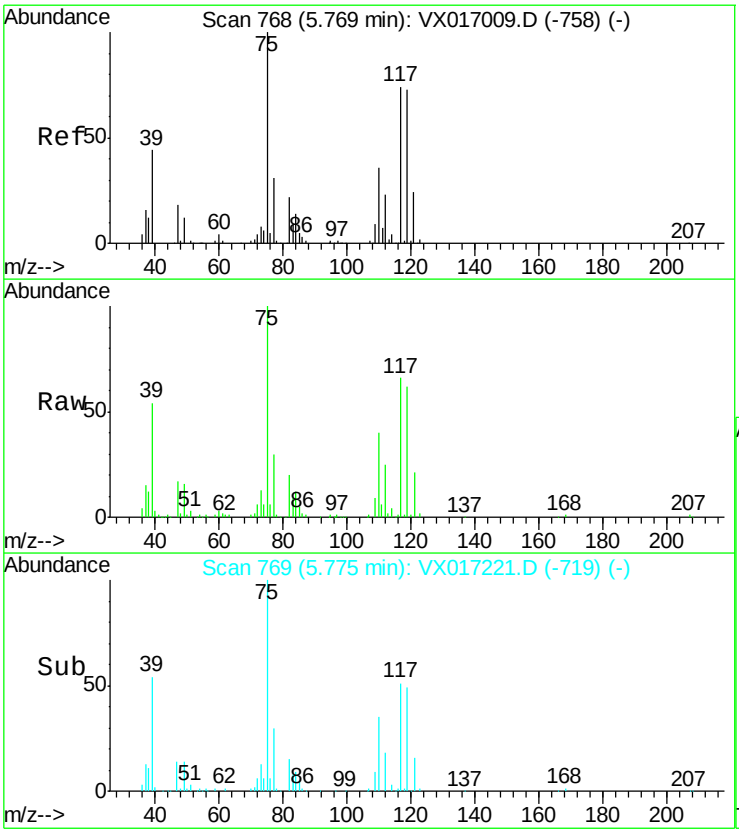


#35
Dibromofluoromethane
Concen: 51.135 ug/l
RT: 5.46 min Scan# 718
Delta R.T. -0.00 min
Lab File: VX017221.D
Acq: 07 Jul 2020 23:04

Tgt Ion:113 Resp: 141528

Ion	Ratio	Lower	Upper
113	100		
111	102.1	81.9	122.9
192	21.5	16.7	25.1

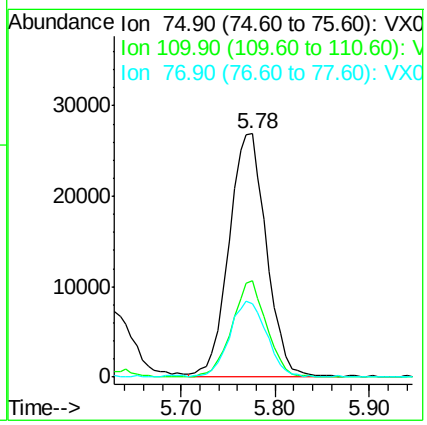




#36
1,1-Dichloropropene
Concen: 18.025 ug/l
RT: 5.78 min Scan# 769
Delta R.T. 0.01 min
Lab File: VX017221.D
Acq: 07 Jul 2020 23:04

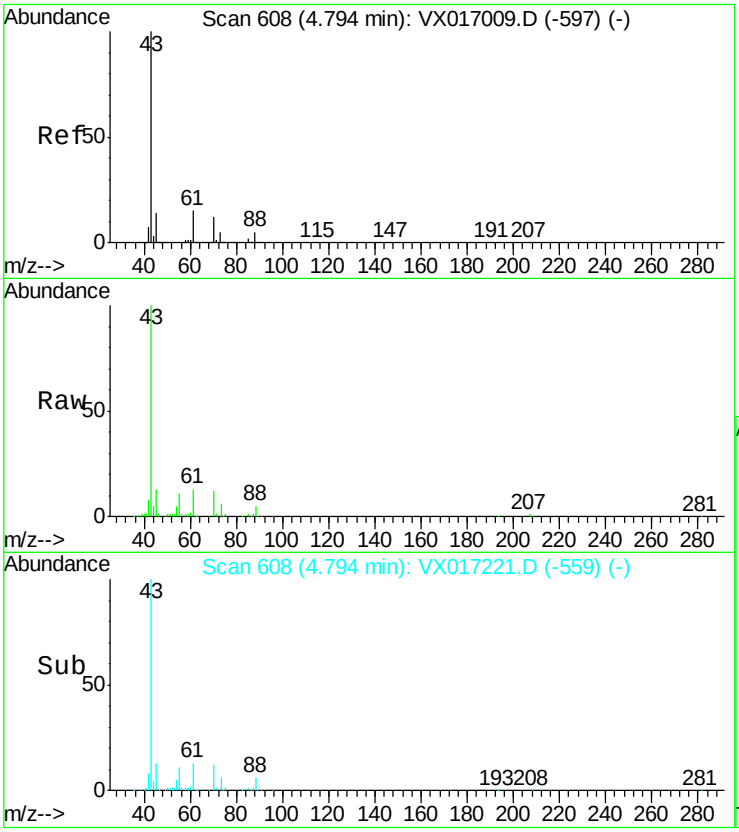
Tgt Ion: 75 Resp: 74537

Ion	Ratio	Lower	Upper
75	100		
110	36.7	18.1	54.1
77	31.1	24.6	37.0



Instrument :
MSVOA_X
ClientSampleId :
VX0707WBS02

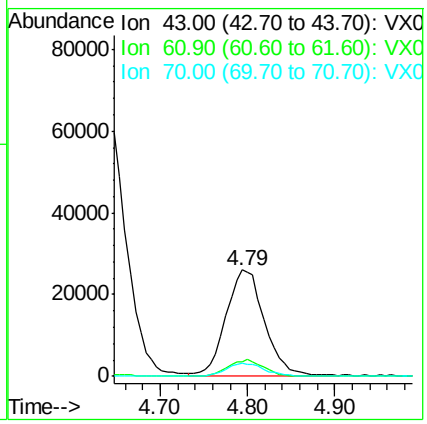
Manual Integrations APPROVED
MMDadoda
7/8/2020 9:31:54 AM

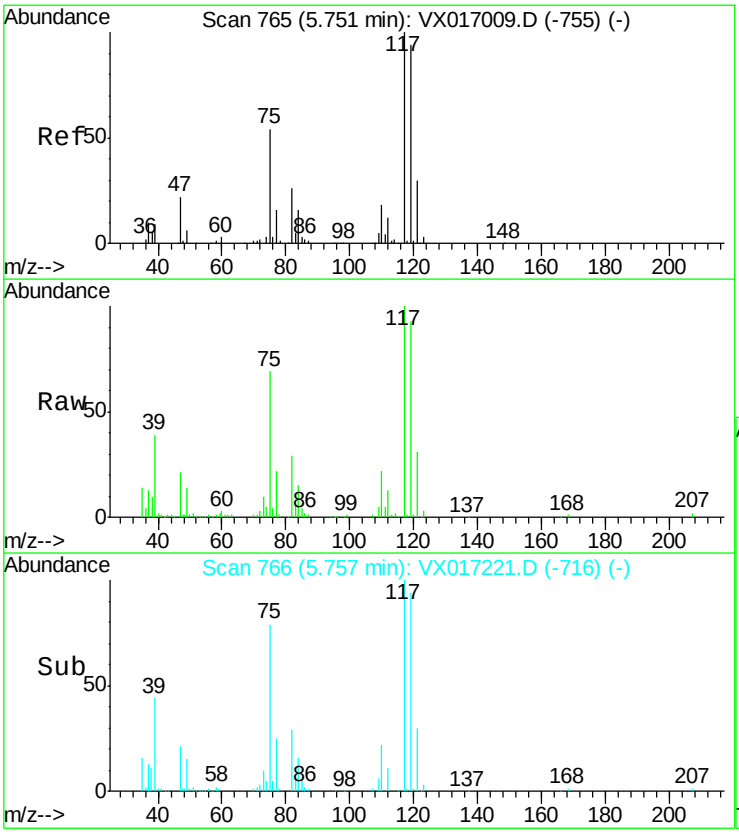


#37
Ethyl Acetate
Concen: 18.711 ug/l
RT: 4.79 min Scan# 608
Delta R.T. -0.00 min
Lab File: VX017221.D
Acq: 07 Jul 2020 23:04

Tgt Ion: 43 Resp: 78504

Ion	Ratio	Lower	Upper
43	100		
61	14.7	11.0	16.4
70	12.3	8.9	13.3

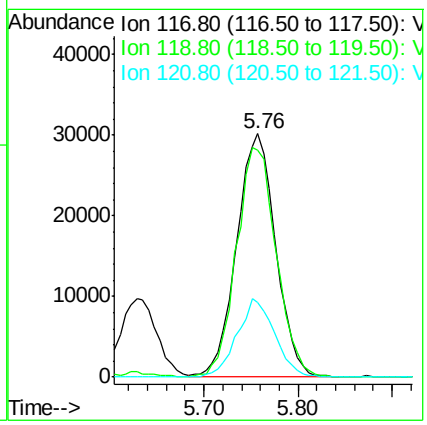




#38
Carbon Tetrachloride
Concen: 19.237 ug/l
RT: 5.76 min Scan# 766
Delta R.T. 0.01 min
Lab File: VX017221.D
Acq: 07 Jul 2020 23:04

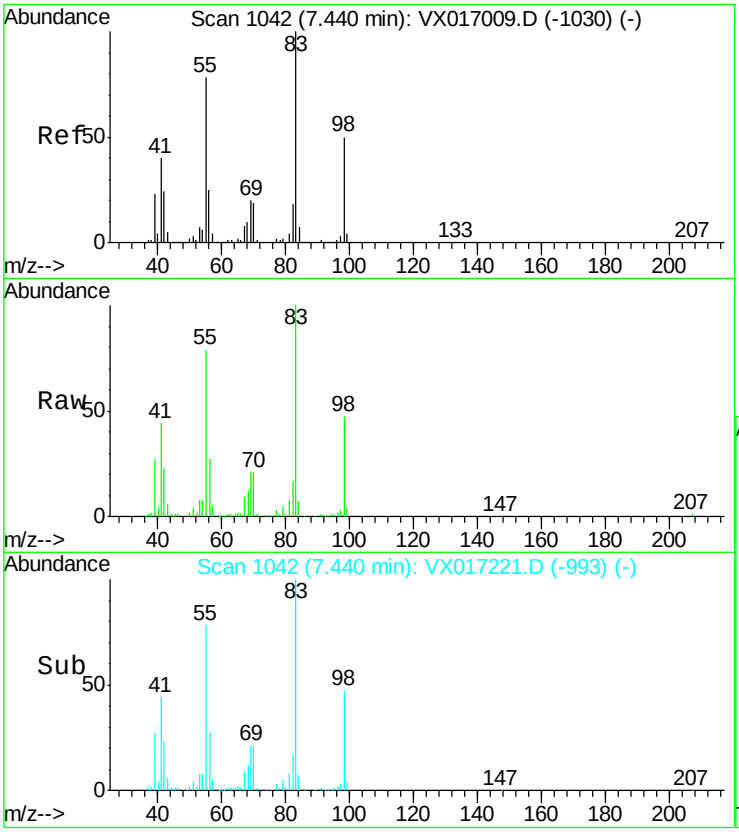
Tgt Ion:117 Resp: 87619

Ion	Ratio	Lower	Upper
117	100		
119	92.8	75.4	113.0
121	30.8	23.8	35.6



Instrument :
MSVOA_X
ClientSampleId :
VX0707WBS02

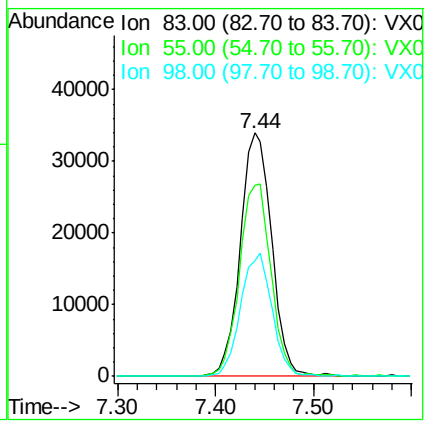
Manual Integrations APPROVED
MMDadoda
7/8/2020 9:31:54 AM

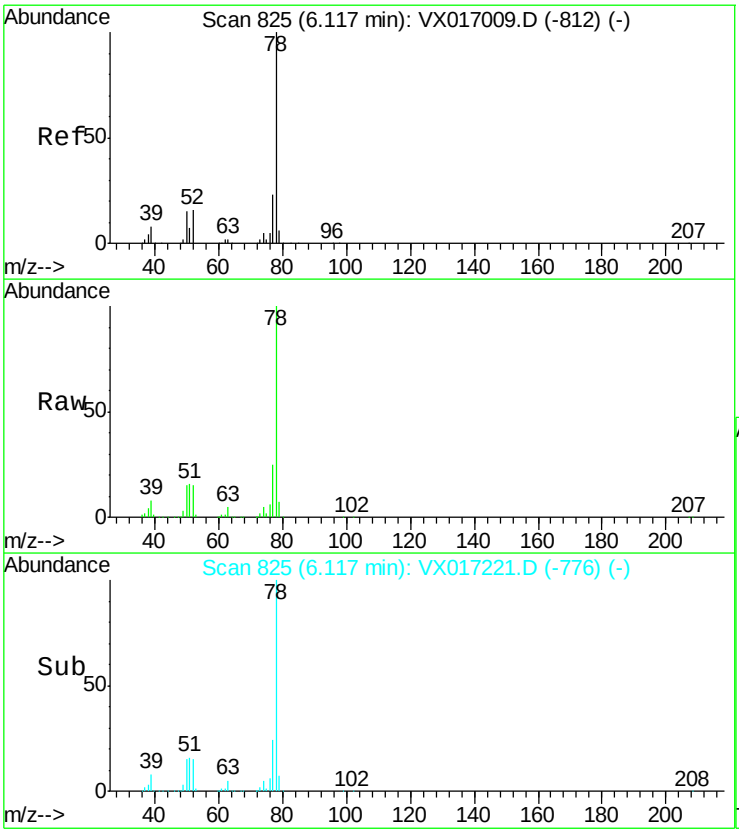


#39
Methylcyclohexane
Concen: 16.448 ug/l
RT: 7.44 min Scan# 1042
Delta R.T. -0.00 min
Lab File: VX017221.D
Acq: 07 Jul 2020 23:04

Tgt Ion: 83 Resp: 75675

Ion	Ratio	Lower	Upper
83	100		
55	78.7	62.5	93.7
98	47.4	40.1	60.1

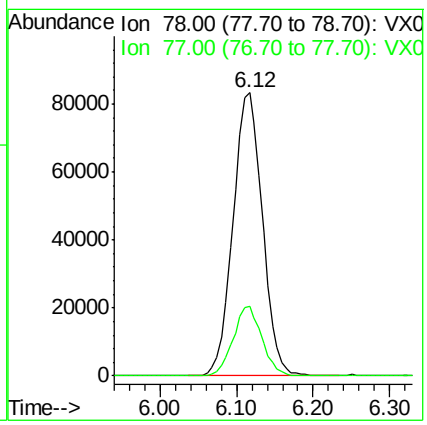




#40
Benzene
Concen: 18.254 ug/l
RT: 6.12 min Scan# 825
Delta R.T. -0.00 min
Lab File: VX017221.D
Acq: 07 Jul 2020 23:04

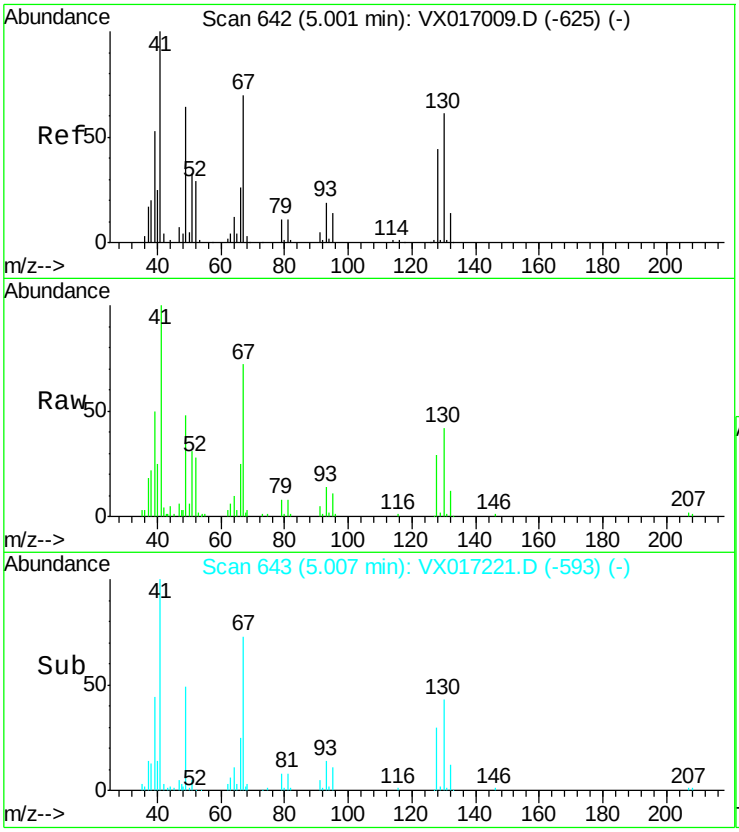
Tgt Ion: 78 Resp: 221785

Ion	Ratio	Lower	Upper
78	100		
77	24.8	18.3	27.5



Instrument :
MSVOA_X
ClientSampleId :
VX0707WBS02

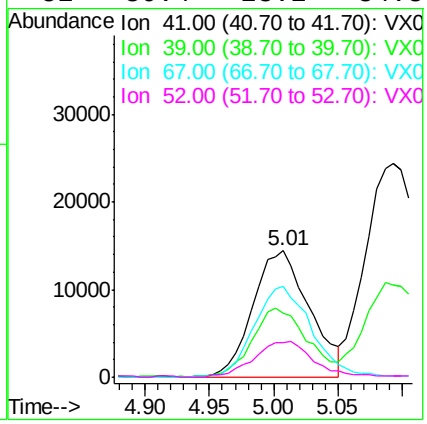
Manual Integrations APPROVED
MMDadoda
7/8/2020 9:31:54 AM

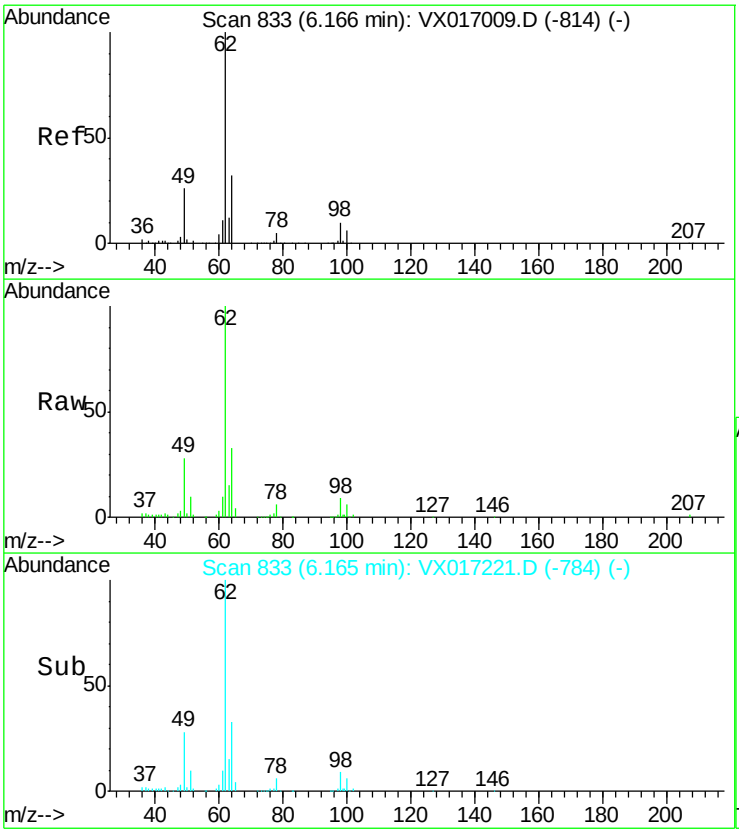


#41
Methacrylonitrile
Concen: 18.678 ug/l
RT: 5.01 min Scan# 643
Delta R.T. 0.01 min
Lab File: VX017221.D
Acq: 07 Jul 2020 23:04

Tgt Ion: 41 Resp: 44106

Ion	Ratio	Lower	Upper
41	100		
39	52.2	44.4	66.6
67	72.9	57.1	85.7
52	30.4	23.2	34.8

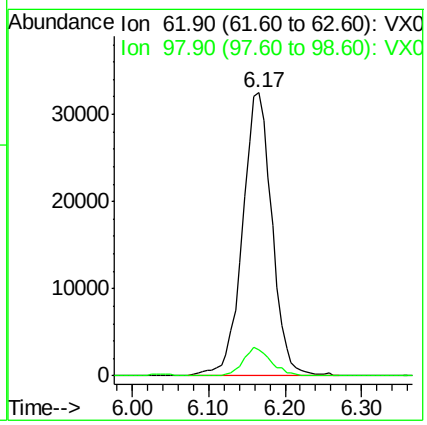




#42
1,2-Dichloroethane
Concen: 19.845 ug/l
RT: 6.17 min Scan# 833
Delta R.T. -0.00 min
Lab File: VX017221.D
Acq: 07 Jul 2020 23:04

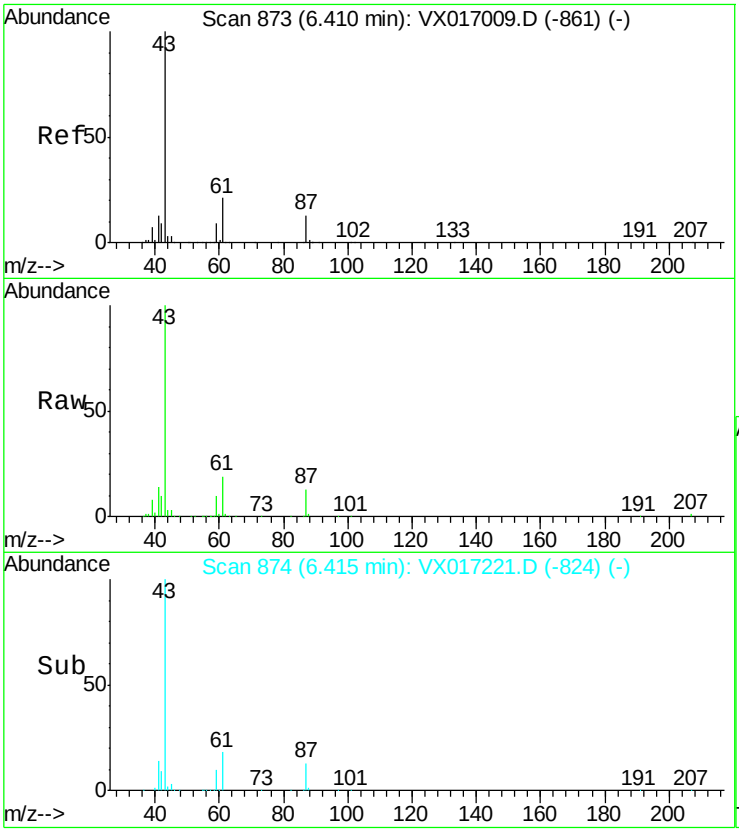
Tgt Ion: 62 Resp: 87092

Ion	Ratio	Lower	Upper
62	100		
98	9.5	0.0	19.2



Instrument :
MSVOA_X
ClientSampleId :
VX0707WBS02

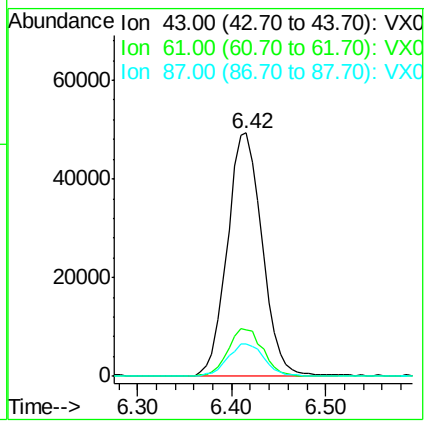
Manual Integrations APPROVED
MMDadoda
7/8/2020 9:31:54 AM

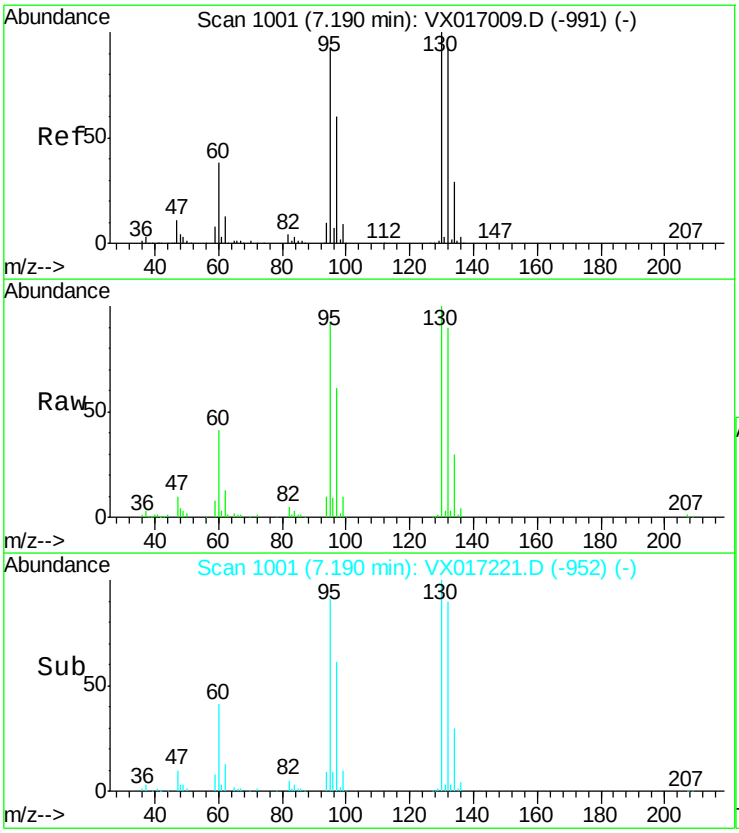


#43
Isopropyl Acetate
Concen: 18.150 ug/l
RT: 6.42 min Scan# 874
Delta R.T. 0.01 min
Lab File: VX017221.D
Acq: 07 Jul 2020 23:04

Tgt Ion: 43 Resp: 126539

Ion	Ratio	Lower	Upper
43	100		
61	19.8	16.2	24.2
87	14.1	10.7	16.1

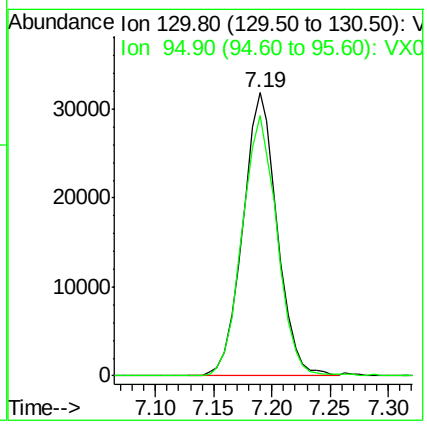




#44
Trichloroethene
Concen: 19.224 ug/l
RT: 7.19 min Scan# 1001
Delta R.T. 0.00 min
Lab File: VX017221.D
Acq: 07 Jul 2020 23:04

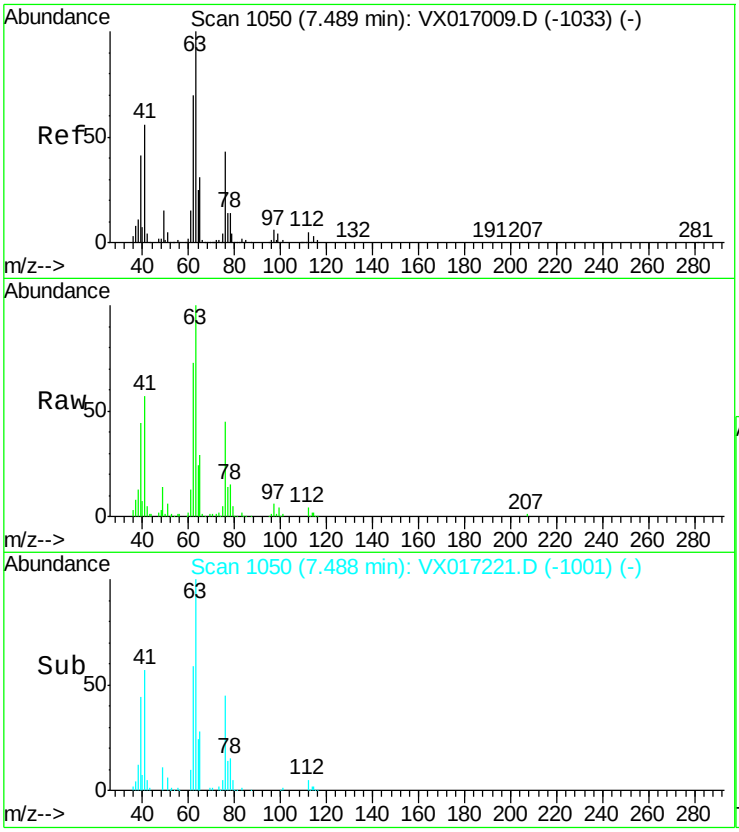
Tgt Ion:130 Resp: 65093

Ion	Ratio	Lower	Upper
130	100		
95	91.8	0.0	185.0



Instrument :
MSVOA_X
ClientSampleId :
VX0707WBS02

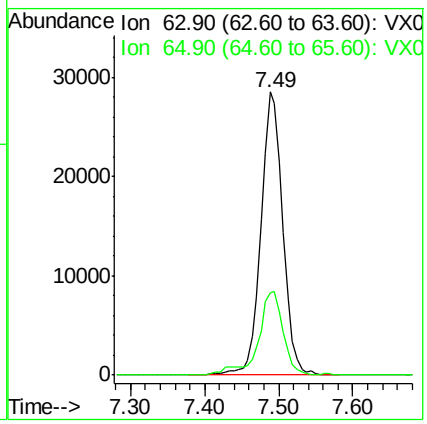
Manual Integrations APPROVED
MMDadoda
7/8/2020 9:31:54 AM

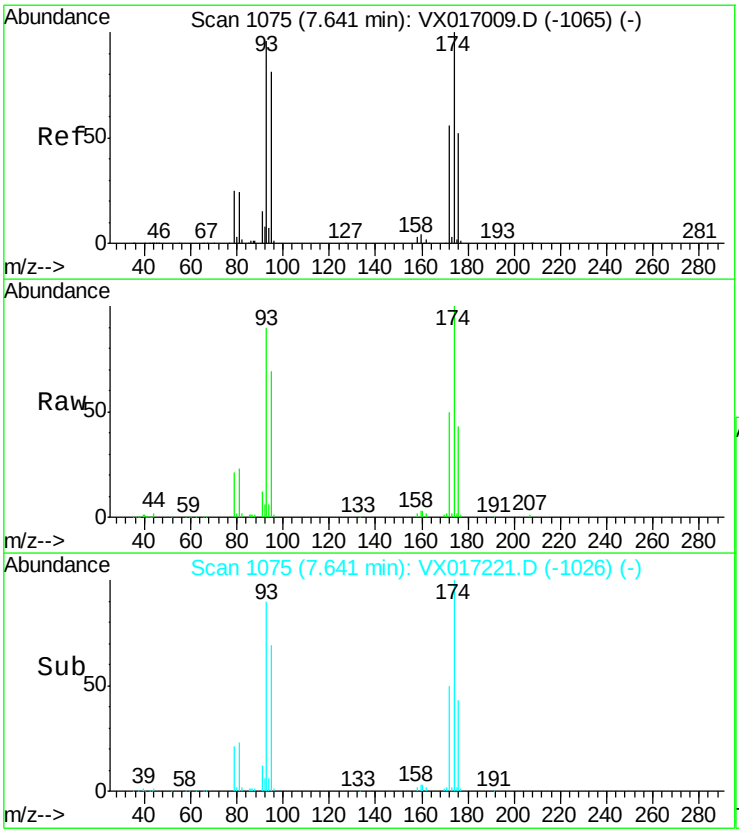


#45
1,2-Dichloropropane
Concen: 18.767 ug/l
RT: 7.49 min Scan# 1050
Delta R.T. -0.00 min
Lab File: VX017221.D
Acq: 07 Jul 2020 23:04

Tgt Ion: 63 Resp: 58564

Ion	Ratio	Lower	Upper
63	100		
65	29.1	24.6	36.8

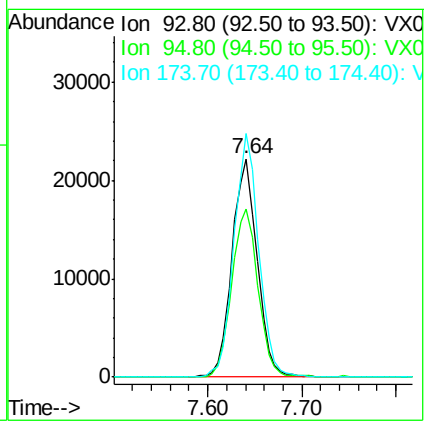




#46
Dibromomethane
Concen: 19.411 ug/l
RT: 7.64 min Scan# 1075
Delta R.T. -0.00 min
Lab File: VX017221.D
Acq: 07 Jul 2020 23:04

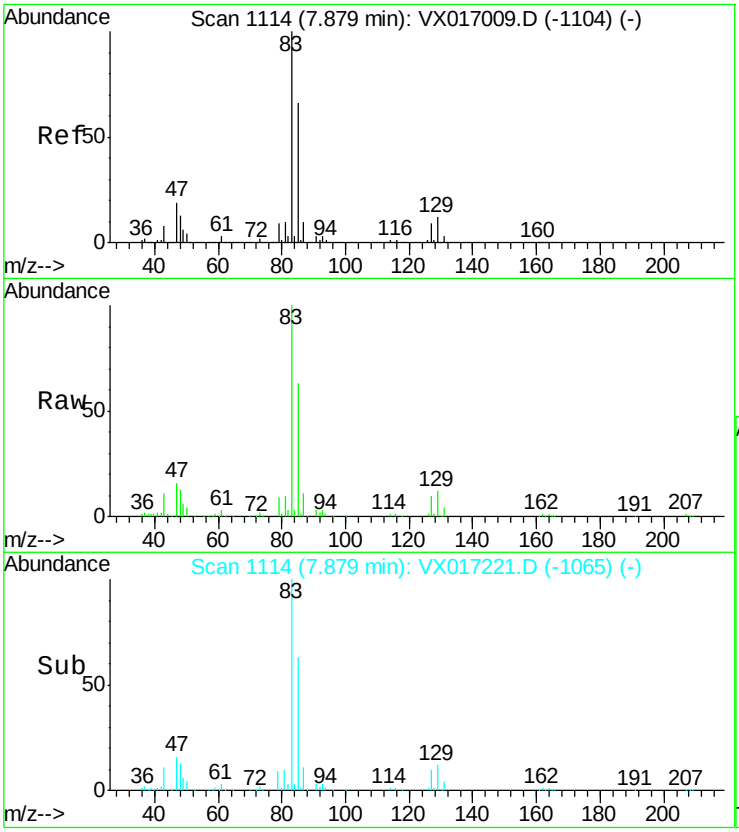
Tgt Ion: 93 Resp: 41356

Ion	Ratio	Lower	Upper
93	100		
95	79.7	67.4	101.0
174	109.4	84.3	126.5



Instrument :
MSVOA_X
ClientSampleId :
VX0707WBS02

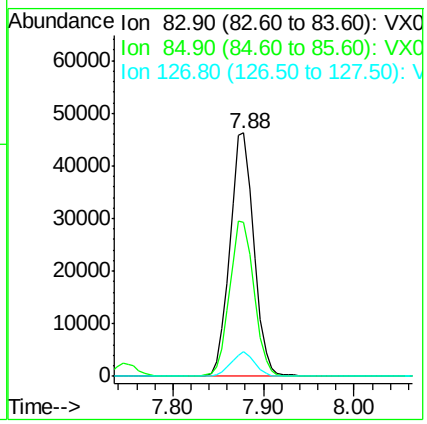
Manual Integrations APPROVED
MMDadoda
7/8/2020 9:31:54 AM

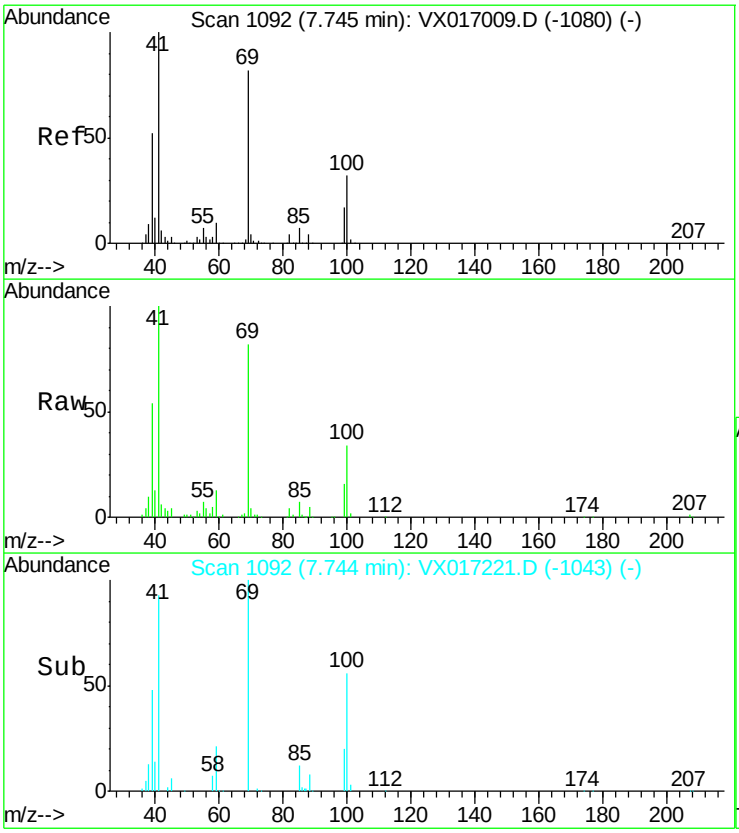


#47
Bromodichloromethane
Concen: 19.356 ug/l
RT: 7.88 min Scan# 1114
Delta R.T. -0.00 min
Lab File: VX017221.D
Acq: 07 Jul 2020 23:04

Tgt Ion: 83 Resp: 84984

Ion	Ratio	Lower	Upper
83	100		
85	63.1	53.0	79.4
127	10.3	7.5	11.3

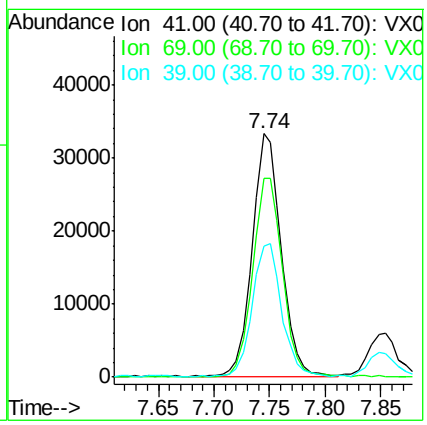




#48
Methyl methacrylate
Concen: 18.138 ug/l
RT: 7.74 min Scan# 1092
Delta R.T. -0.00 min
Lab File: VX017221.D
Acq: 07 Jul 2020 23:04

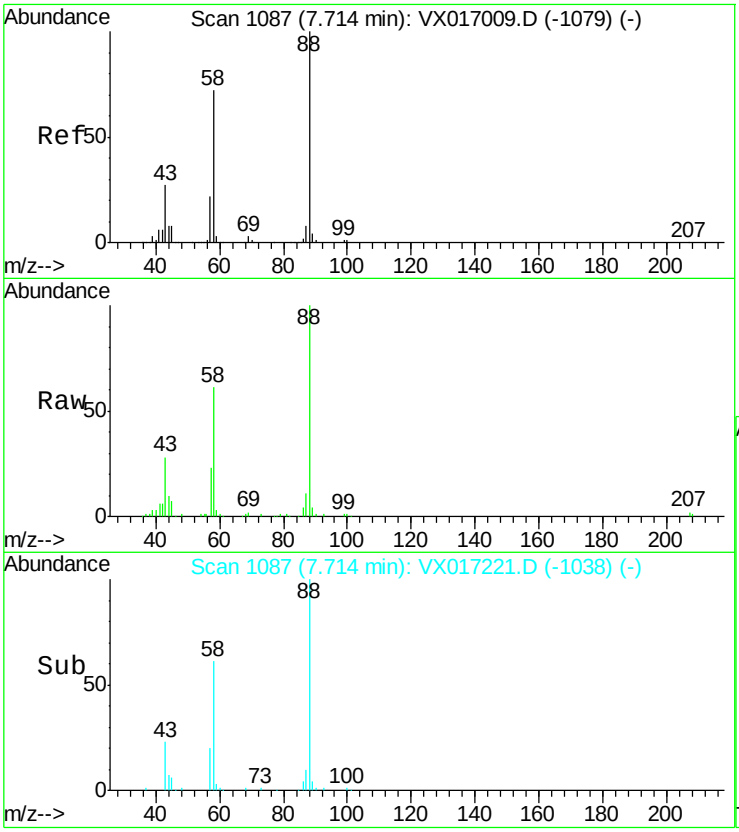
Tgt Ion: 41 Resp: 60079

Ion	Ratio	Lower	Upper
41	100		
69	84.8	65.8	98.8
39	55.6	42.5	63.7



Instrument :
MSVOA_X
ClientSampleId :
VX0707WBS02

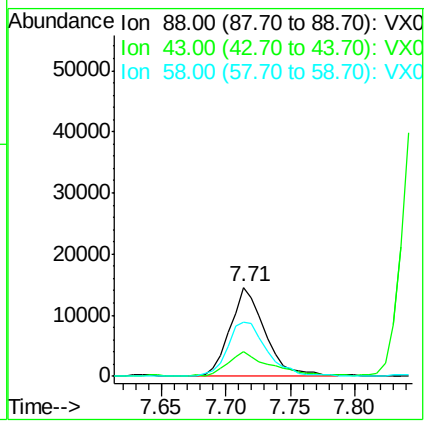
Manual Integrations APPROVED
MMDadoda
7/8/2020 9:31:54 AM

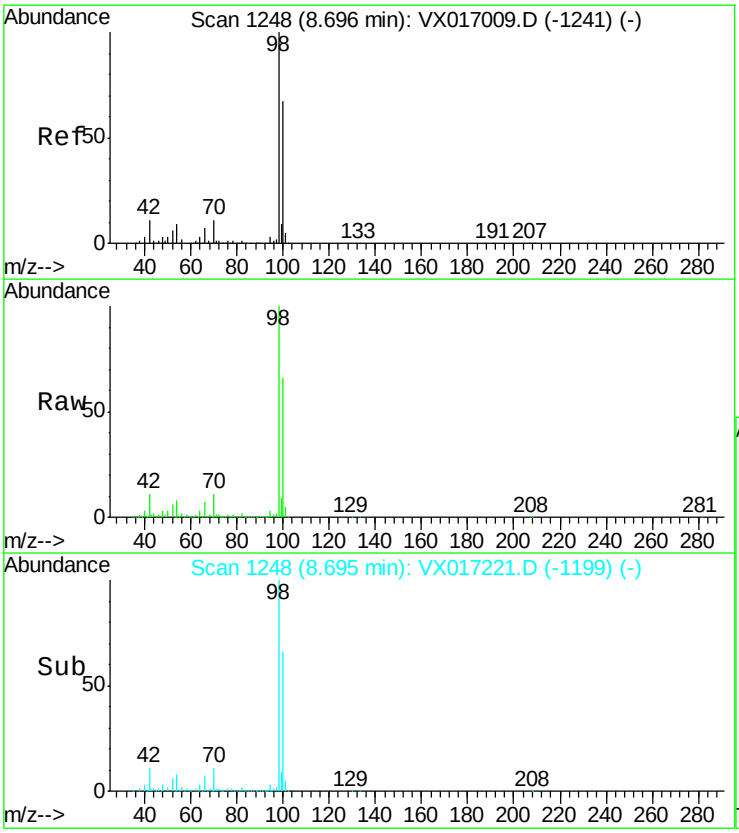


#49
1,4-Dioxane
Concen: 367.869 ug/l
RT: 7.71 min Scan# 1087
Delta R.T. -0.00 min
Lab File: VX017221.D
Acq: 07 Jul 2020 23:04

Tgt Ion: 88 Resp: 27605

Ion	Ratio	Lower	Upper
88	100		
43	31.1	25.8	38.8
58	69.4	54.8	82.2

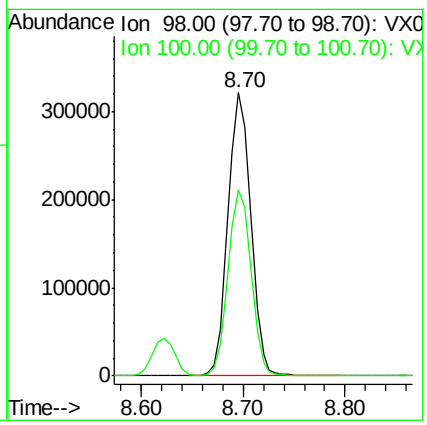




#50
Toluene-d8
Concen: 48.557 ug/l
RT: 8.70 min Scan# 1248
Delta R.T. -0.00 min
Lab File: VX017221.D
Acq: 07 Jul 2020 23:04

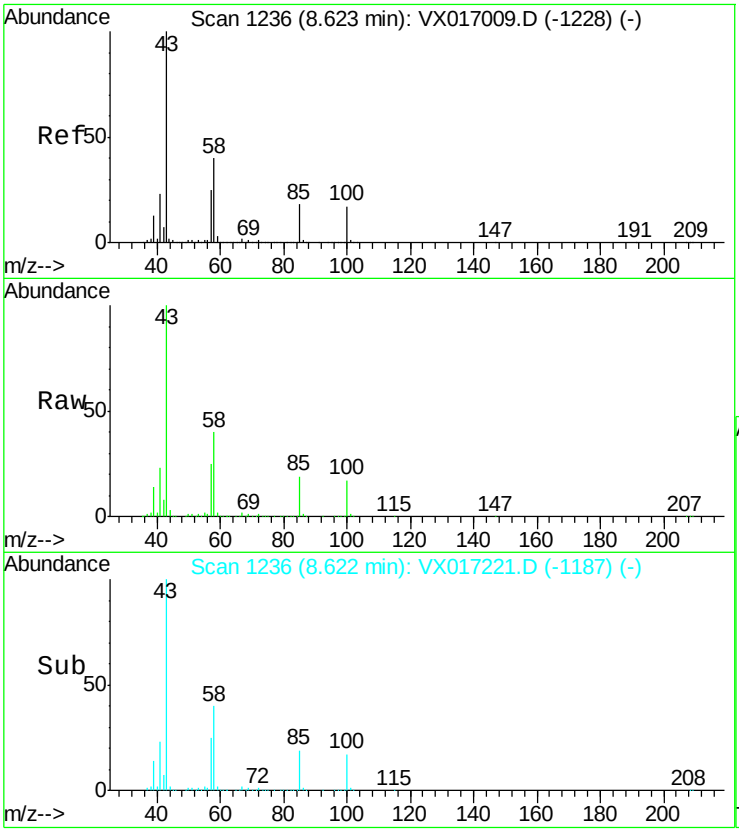
Tgt Ion: 98 Resp: 496954

Ion	Ratio	Lower	Upper
98	100		
100	66.5	53.8	80.6



Instrument :
MSVOA_X
ClientSampleId :
VX0707WBS02

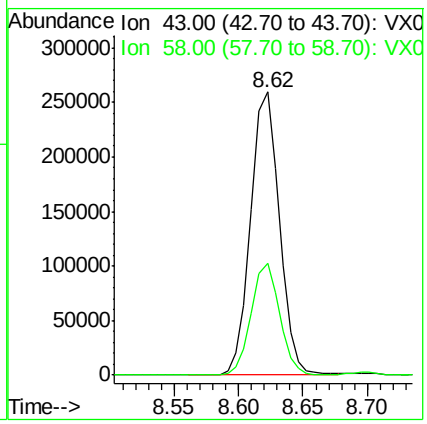
Manual Integrations APPROVED
MMDadoda
7/8/2020 9:31:54 AM

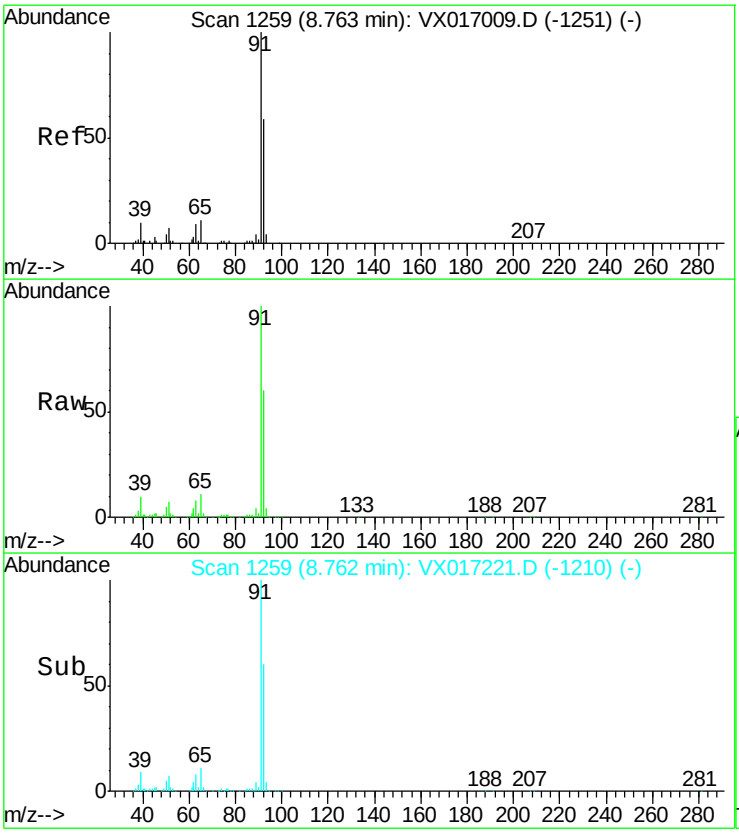


#51
4-Methyl-2-Pentanone
Concen: 96.311 ug/l
RT: 8.62 min Scan# 1236
Delta R.T. -0.00 min
Lab File: VX017221.D
Acq: 07 Jul 2020 23:04

Tgt Ion: 43 Resp: 400267

Ion	Ratio	Lower	Upper
43	100		
58	39.3	31.9	47.9

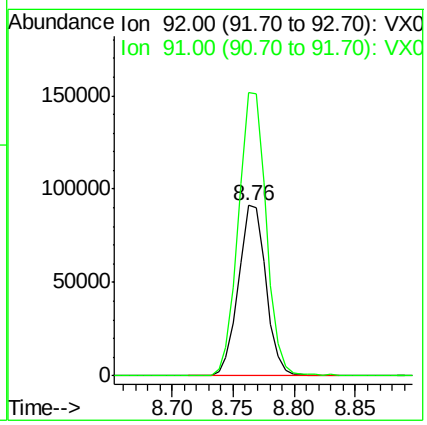




#52
Toluene
Concen: 18.670 ug/l
RT: 8.76 min Scan# 1259
Delta R.T. -0.00 min
Lab File: VX017221.D
Acq: 07 Jul 2020 23:04

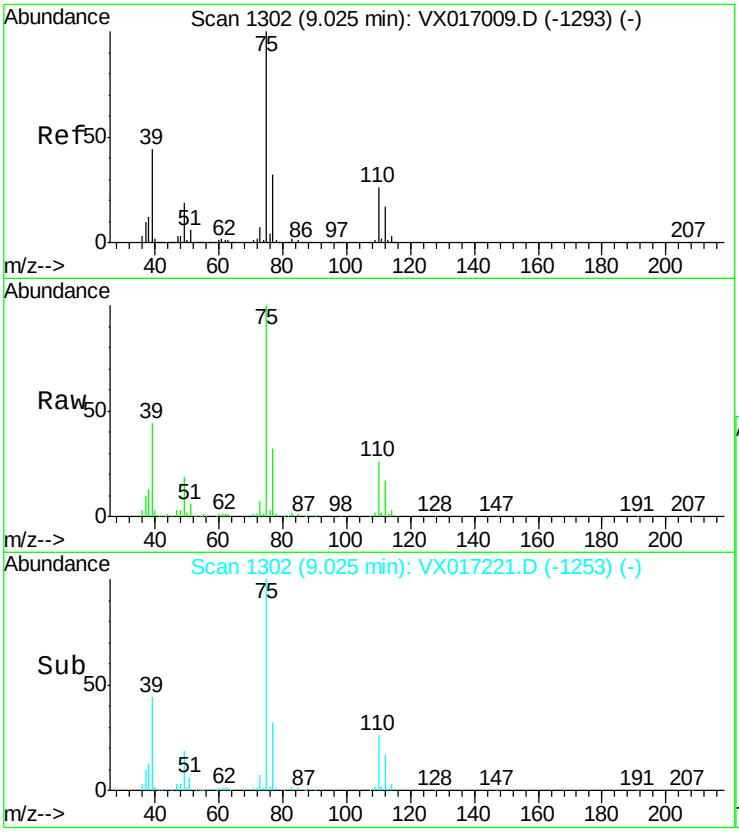
Tgt Ion: 92 Resp: 141625

Ion	Ratio	Lower	Upper
92	100		
91	168.8	136.9	205.3



Instrument :
MSVOA_X
ClientSampleId :
VX0707WBS02

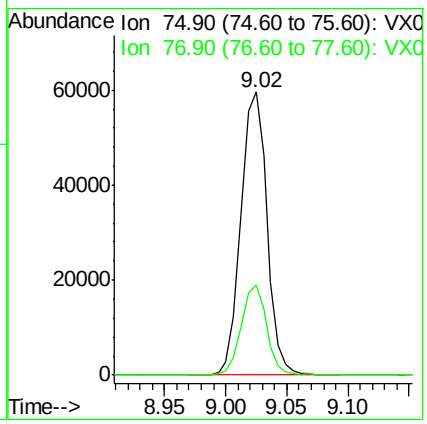
Manual Integrations APPROVED
MMDadoda
7/8/2020 9:31:54 AM

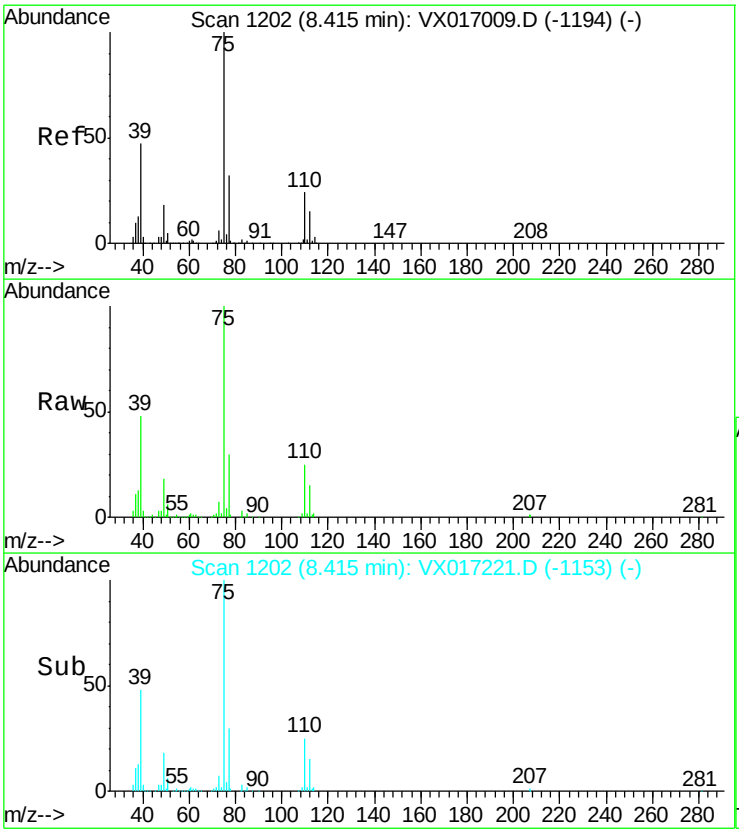


#53
t-1,3-Dichloropropene
Concen: 18.206 ug/l
RT: 9.02 min Scan# 1302
Delta R.T. -0.00 min
Lab File: VX017221.D
Acq: 07 Jul 2020 23:04

Tgt Ion: 75 Resp: 88198

Ion	Ratio	Lower	Upper
75	100		
77	31.8	25.6	38.4

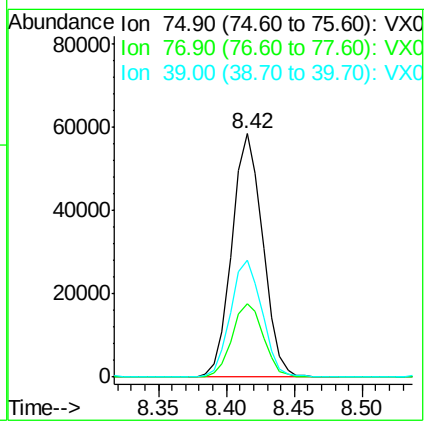




#54
cis-1,3-Dichloropropene
Concen: 17.845 ug/l
RT: 8.42 min Scan# 1202
Delta R.T. -0.00 min
Lab File: VX017221.D
Acq: 07 Jul 2020 23:04

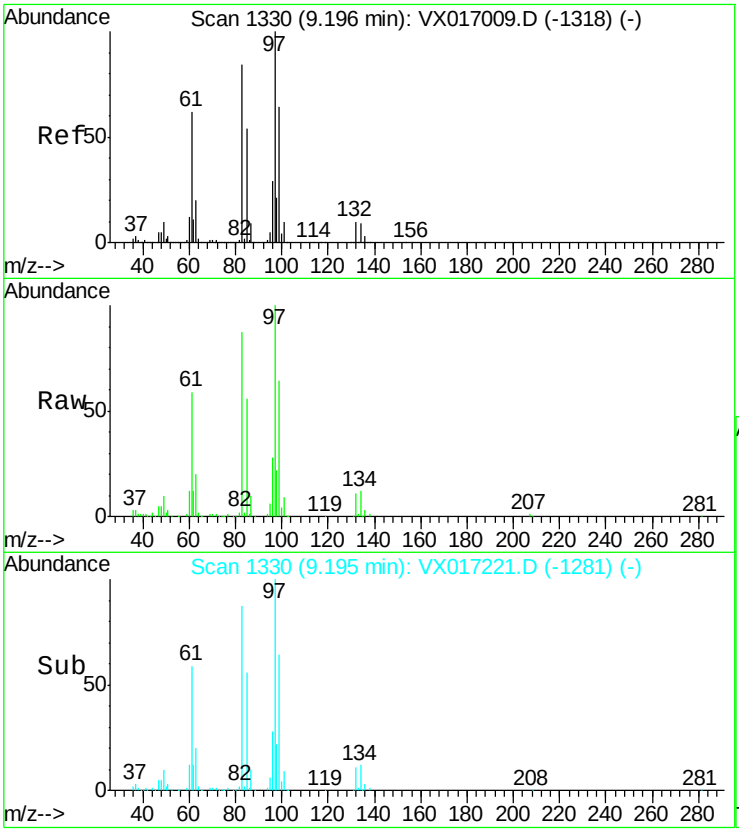
Tgt Ion: 75 Resp: 92669

Ion	Ratio	Lower	Upper
75	100		
77	30.1	25.2	37.8
39	47.9	37.4	56.2



Instrument :
MSVOA_X
ClientSampleId :
VX0707WBS02

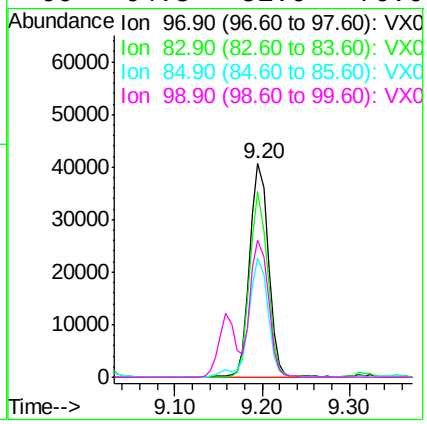
Manual Integrations APPROVED
MMDadoda
7/8/2020 9:31:54 AM

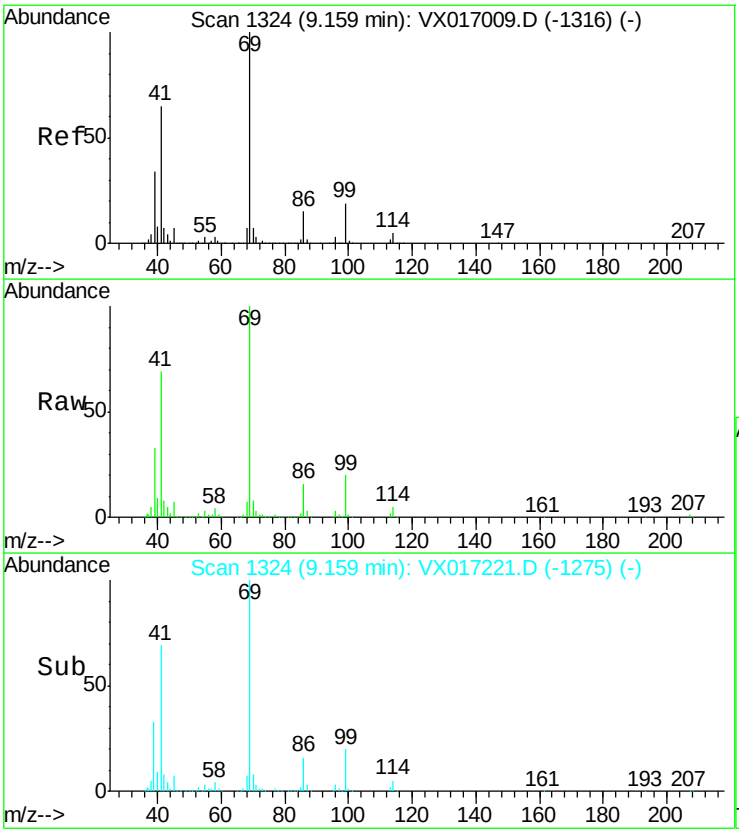


#55
1,1,2-Trichloroethane
Concen: 19.468 ug/l
RT: 9.20 min Scan# 1330
Delta R.T. -0.00 min
Lab File: VX017221.D
Acq: 07 Jul 2020 23:04

Tgt Ion: 97 Resp: 60338

Ion	Ratio	Lower	Upper
97	100		
83	86.9	67.0	100.6
85	55.6	43.5	65.3
99	64.3	51.0	76.6

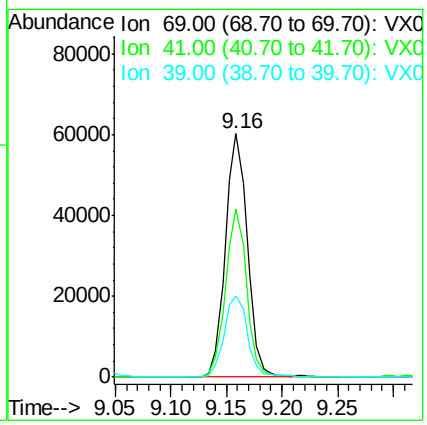




#56
Ethyl methacrylate
Concen: 18.677 ug/l
RT: 9.16 min Scan# 1324
Delta R.T. -0.00 min
Lab File: VX017221.D
Acq: 07 Jul 2020 23:04

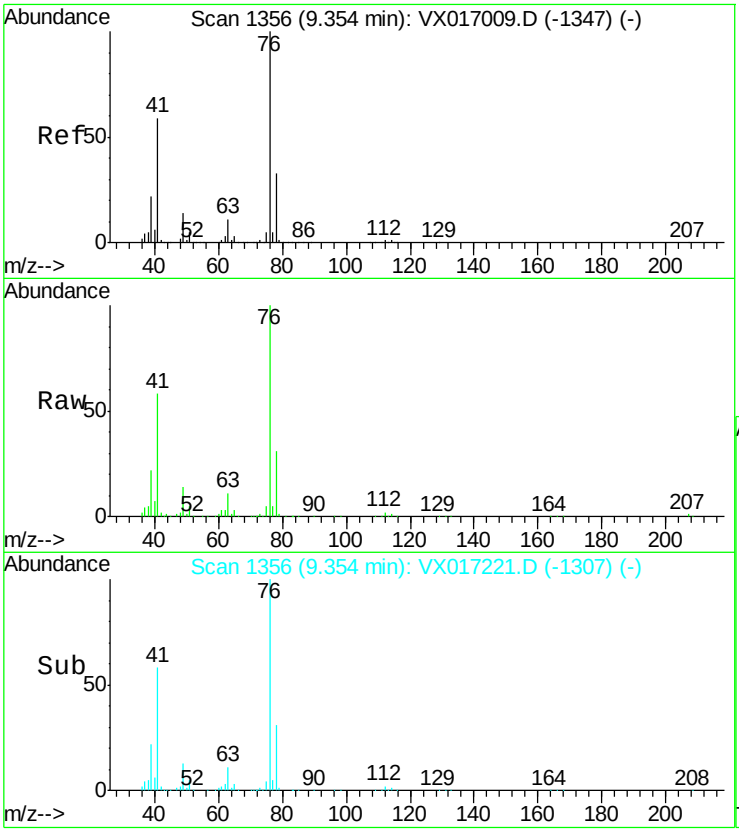
Tgt Ion: 69 Resp: 82393

Ion	Ratio	Lower	Upper
69	100		
41	66.0	53.6	80.4
39	35.4	28.2	42.2



Instrument :
MSVOA_X
ClientSampleId :
VX0707WBS02

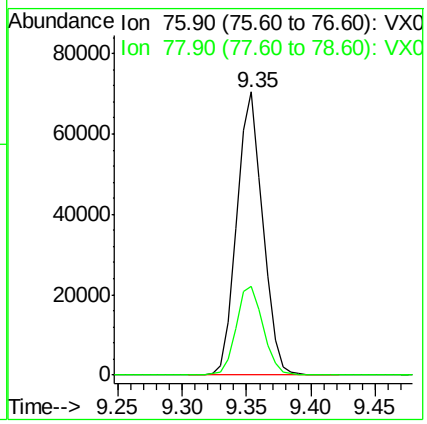
Manual Integrations APPROVED
MMDadoda
7/8/2020 9:31:54 AM

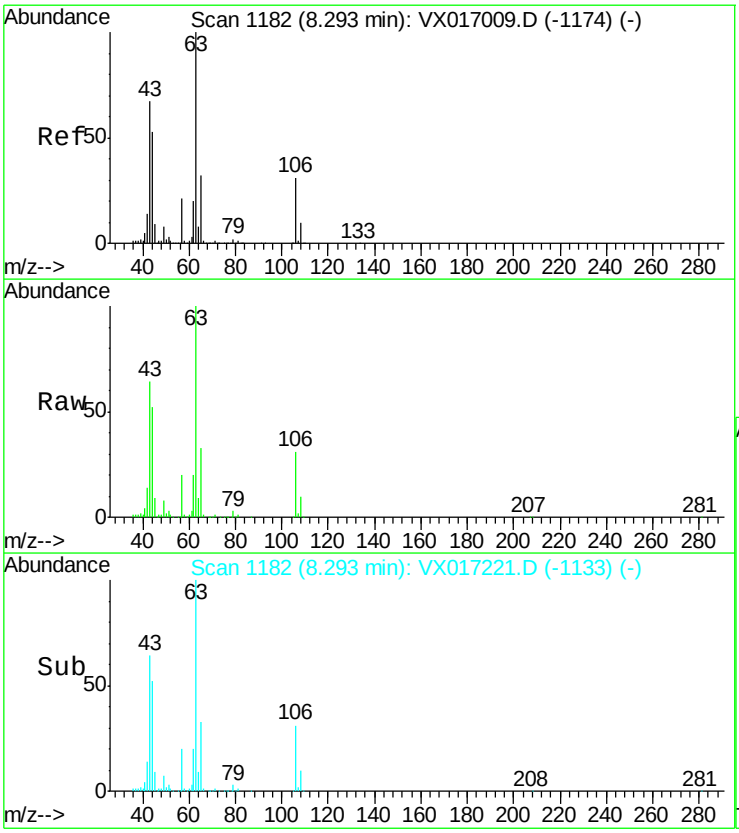


#57
1,3-Dichloropropane
Concen: 18.808 ug/l
RT: 9.35 min Scan# 1356
Delta R.T. -0.00 min
Lab File: VX017221.D
Acq: 07 Jul 2020 23:04

Tgt Ion: 76 Resp: 98638

Ion	Ratio	Lower	Upper
76	100		
78	32.6	25.9	38.9

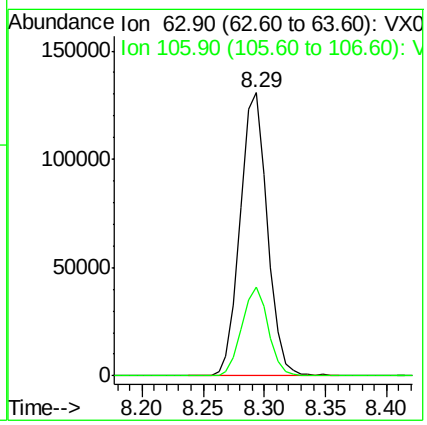




#58
2-Chloroethyl Vinyl ether
Concen: 91.539 ug/l
RT: 8.29 min Scan# 1182
Delta R.T. -0.00 min
Lab File: VX017221.D
Acq: 07 Jul 2020 23:04

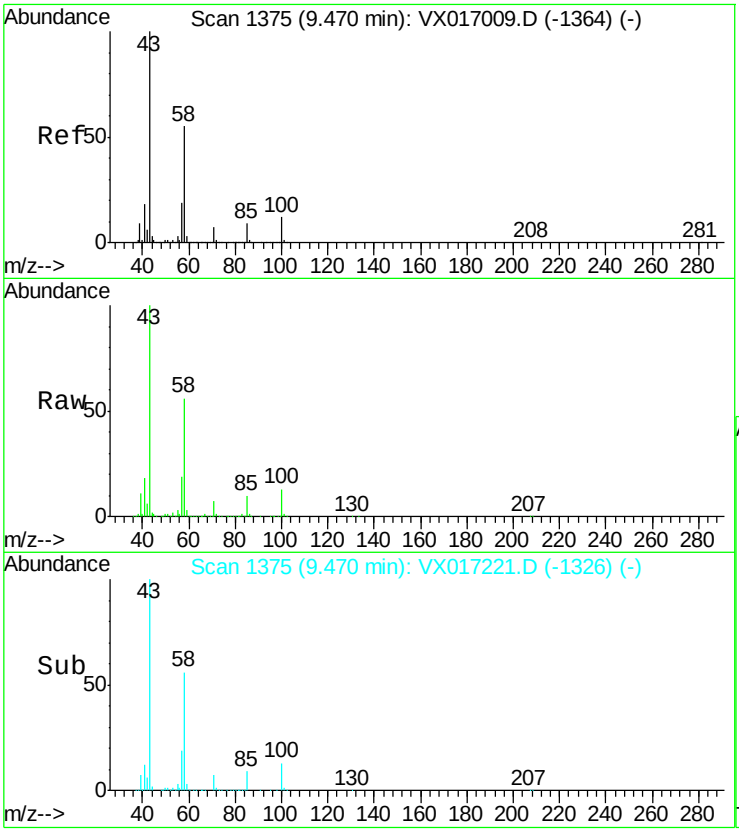
Tgt Ion: 63 Resp: 200973

Ion	Ratio	Lower	Upper
63	100		
106	30.8	24.0	36.0



Instrument :
MSVOA_X
ClientSampleId :
VX0707WBS02

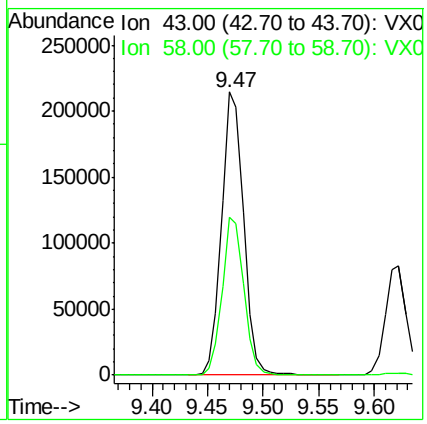
Manual Integrations APPROVED
MMDadoda
7/8/2020 9:31:54 AM

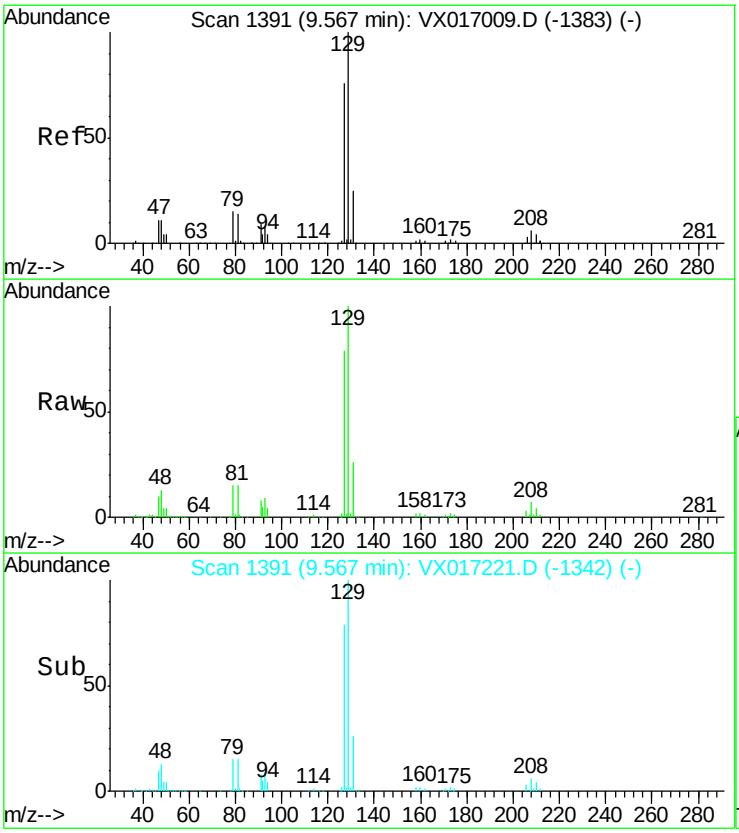


#59
2-Hexanone
Concen: 96.719 ug/l
RT: 9.47 min Scan# 1375
Delta R.T. -0.00 min
Lab File: VX017221.D
Acq: 07 Jul 2020 23:04

Tgt Ion: 43 Resp: 293566

Ion	Ratio	Lower	Upper
43	100		
58	55.1	27.9	83.6

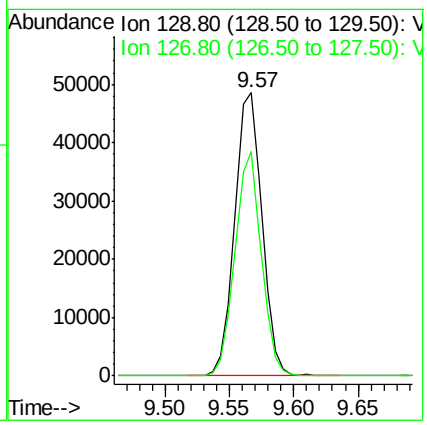




#60
Dibromochloromethane
Concen: 19.944 ug/l
RT: 9.57 min Scan# 1391
Delta R.T. -0.00 min
Lab File: VX017221.D
Acq: 07 Jul 2020 23:04

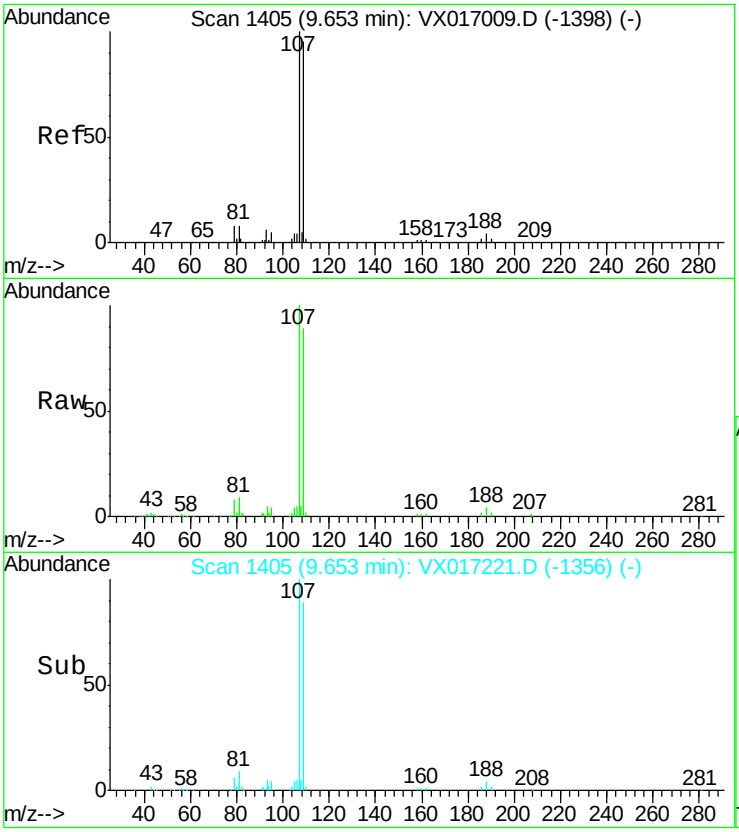
Tgt Ion:129 Resp: 71792

Ion	Ratio	Lower	Upper
129	100		
127	76.5	38.9	116.7



Instrument :
MSVOA_X
ClientSampleId :
VX0707WBS02

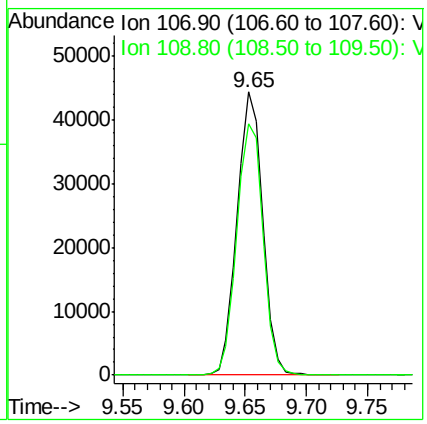
Manual Integrations APPROVED
MMDadoda
7/8/2020 9:31:54 AM

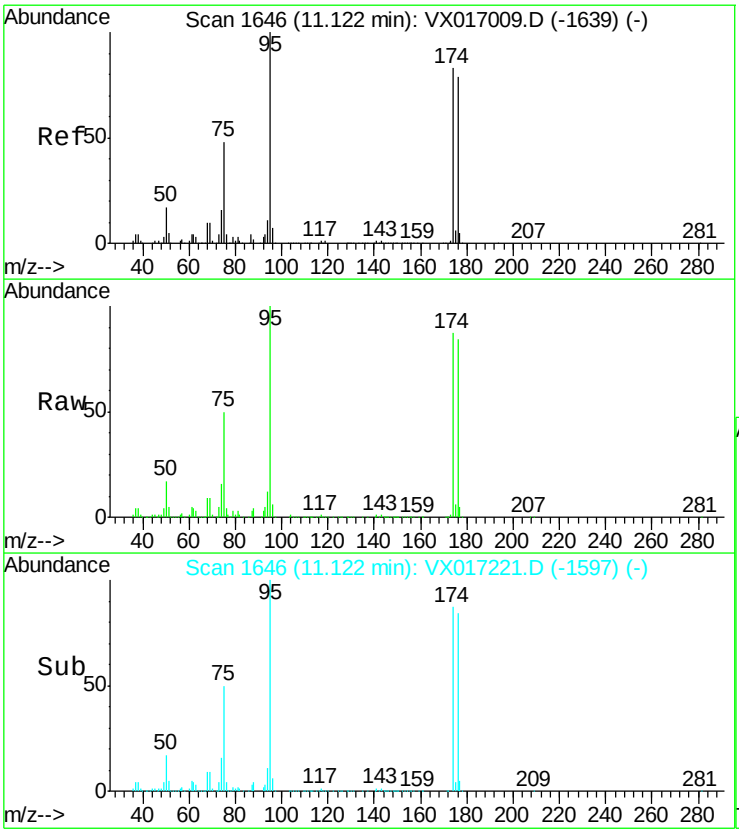


#61
1,2-Dibromoethane
Concen: 19.268 ug/l
RT: 9.65 min Scan# 1405
Delta R.T. -0.00 min
Lab File: VX017221.D
Acq: 07 Jul 2020 23:04

Tgt Ion:107 Resp: 64189

Ion	Ratio	Lower	Upper
107	100		
109	91.2	75.8	113.8

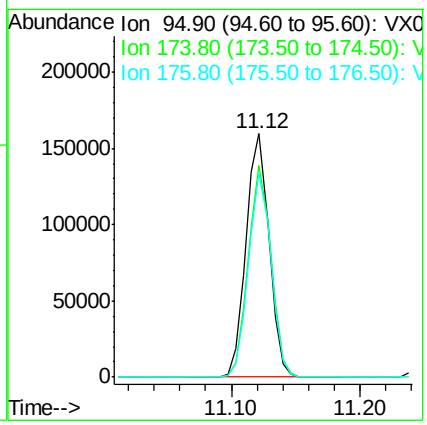




#62
4-Bromofluorobenzene
Concen: 49.004 ug/l
RT: 11.12 min Scan# 1646
Delta R.T. -0.00 min
Lab File: VX017221.D
Acq: 07 Jul 2020 23:04

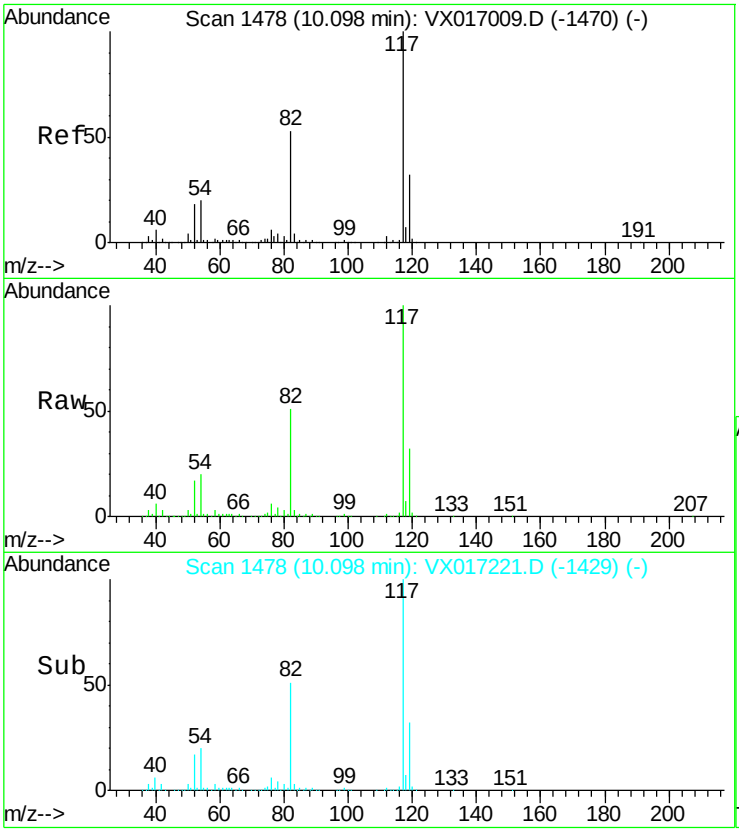
Tgt Ion: 95 Resp: 196054

Ion	Ratio	Lower	Upper
95	100		
174	85.7	0.0	164.0
176	82.2	0.0	157.6



Instrument :
MSVOA_X
ClientSampleId :
VX0707WBS02

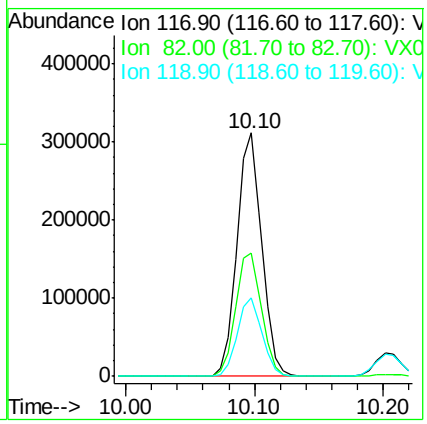
Manual Integrations APPROVED
MMDadoda
7/8/2020 9:31:54 AM

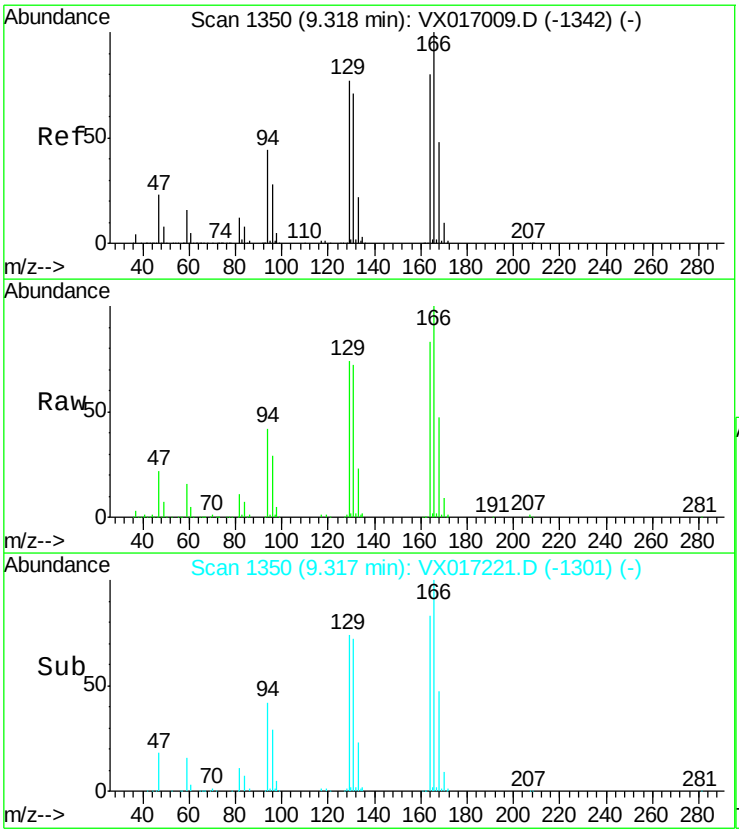


#63
Chlorobenzene-d5
Concen: 50.000 ug/l
RT: 10.10 min Scan# 1478
Delta R.T. -0.00 min
Lab File: VX017221.D
Acq: 07 Jul 2020 23:04

Tgt Ion:117 Resp: 415831

Ion	Ratio	Lower	Upper
117	100		
82	50.8	42.6	63.8
119	32.1	25.4	38.2

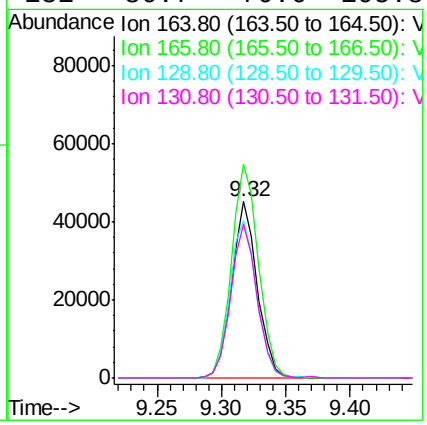




#64
Tetrachloroethene
Concen: 18.692 ug/l
RT: 9.32 min Scan# 1350
Delta R.T. -0.00 min
Lab File: VX017221.D
Acq: 07 Jul 2020 23:04

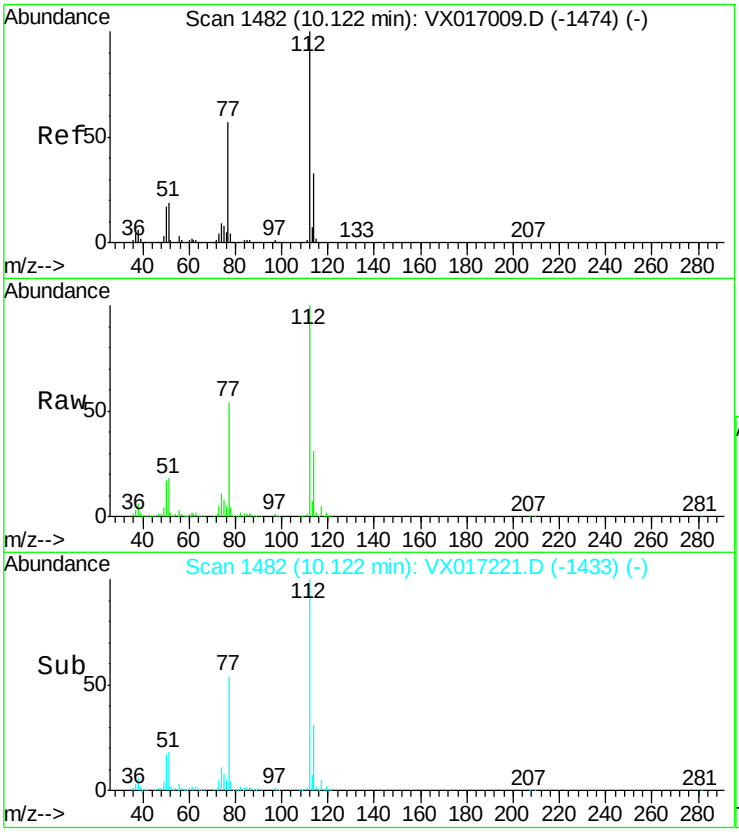
Tgt Ion:164 Resp: 62731

Ion	Ratio	Lower	Upper
164	100		
166	121.1	99.4	149.0
129	89.5	76.3	114.5
131	86.7	70.6	105.8



Instrument :
MSVOA_X
ClientSampleId :
VX0707WBS02

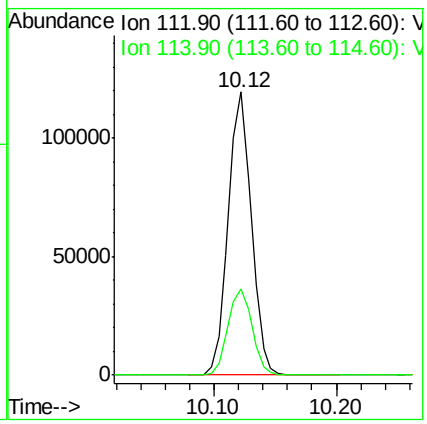
Manual Integrations APPROVED
MMDadoda
7/8/2020 9:31:54 AM

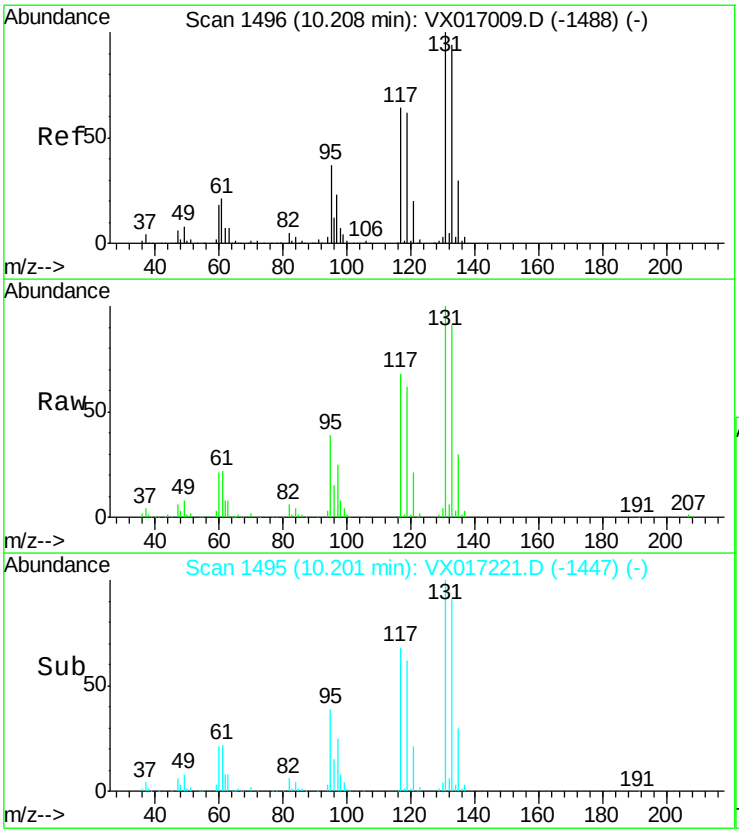


#65
Chlorobenzene
Concen: 18.195 ug/l
RT: 10.12 min Scan# 1482
Delta R.T. -0.00 min
Lab File: VX017221.D
Acq: 07 Jul 2020 23:04

Tgt Ion:112 Resp: 156157

Ion	Ratio	Lower	Upper
112	100		
114	30.6	26.2	39.4

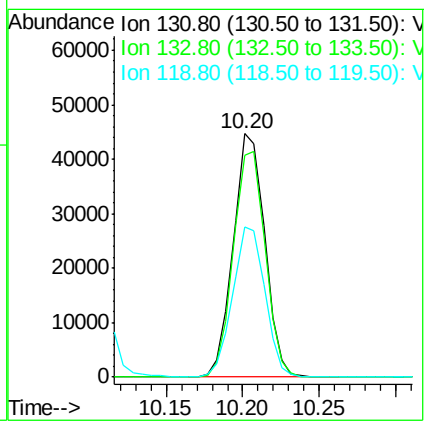




#66
1,1,1,2-Tetrachloroethane
Concen: 19.333 ug/l
RT: 10.20 min Scan# 1495
Delta R.T. -0.01 min
Lab File: VX017221.D
Acq: 07 Jul 2020 23:04

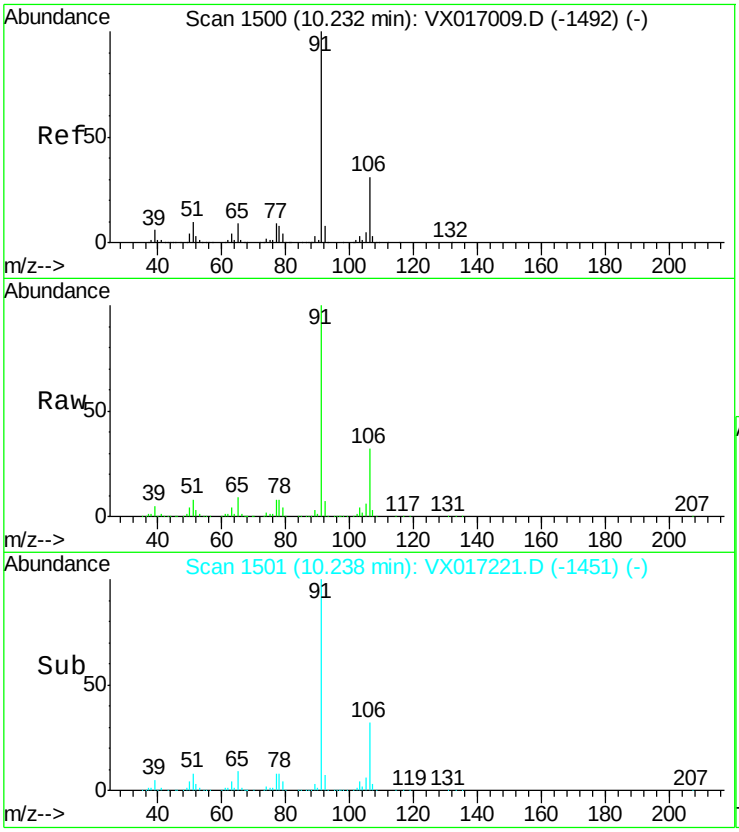
Tgt Ion:131 Resp: 63945

Ion	Ratio	Lower	Upper
131	100		
133	94.0	47.3	141.9
119	63.3	31.9	95.5



Instrument :
MSVOA_X
ClientSampleId :
VX0707WBS02

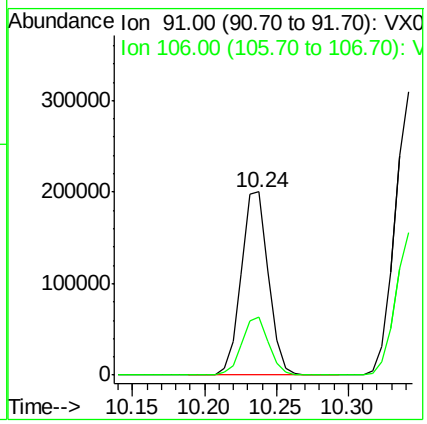
Manual Integrations APPROVED
MMDadoda
7/8/2020 9:31:54 AM

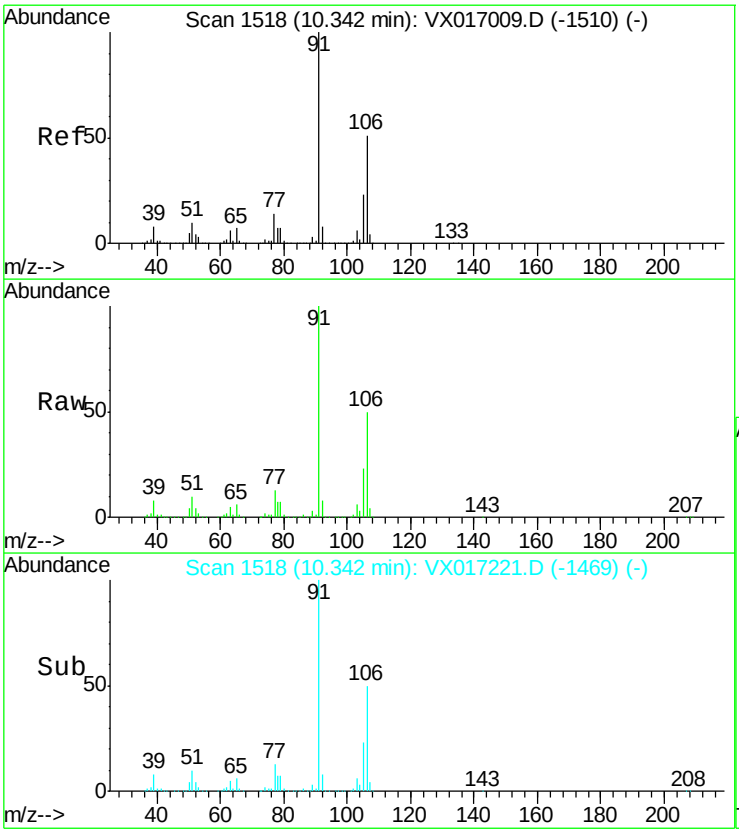


#67
Ethyl Benzene
Concen: 18.287 ug/l
RT: 10.24 min Scan# 1501
Delta R.T. 0.01 min
Lab File: VX017221.D
Acq: 07 Jul 2020 23:04

Tgt Ion: 91 Resp: 262106

Ion	Ratio	Lower	Upper
91	100		
106	31.8	24.7	37.1

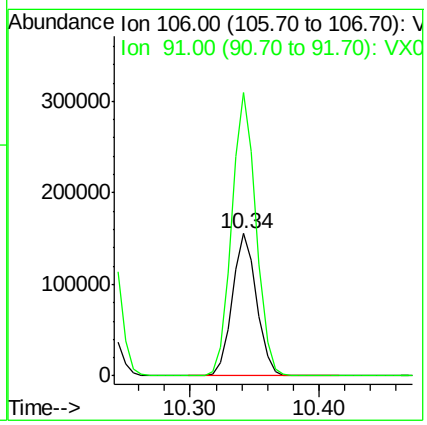




#68
m/p-Xylenes
Concen: 37.271 ug/l
RT: 10.34 min Scan# 1518
Delta R.T. -0.00 min
Lab File: VX017221.D
Acq: 07 Jul 2020 23:04

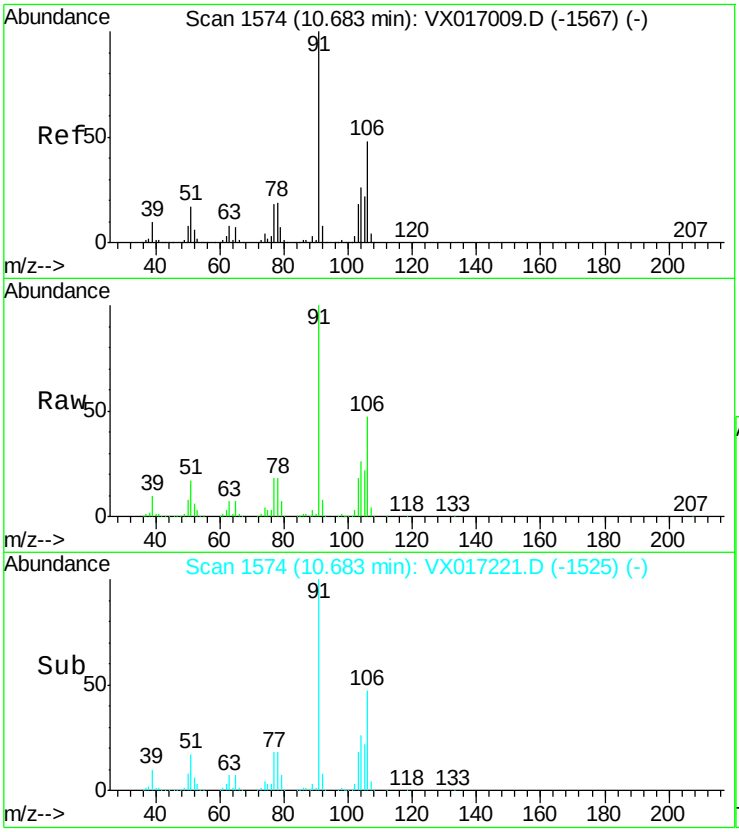
Tgt Ion:106 Resp: 205118

Ion	Ratio	Lower	Upper
106	100		
91	199.0	158.6	238.0



Instrument :
MSVOA_X
ClientSampleId :
VX0707WBS02

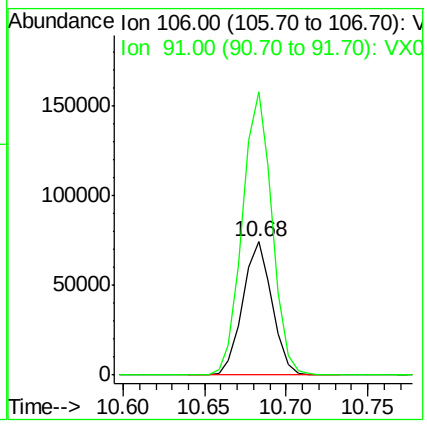
Manual Integrations APPROVED
MMDadoda
7/8/2020 9:31:54 AM

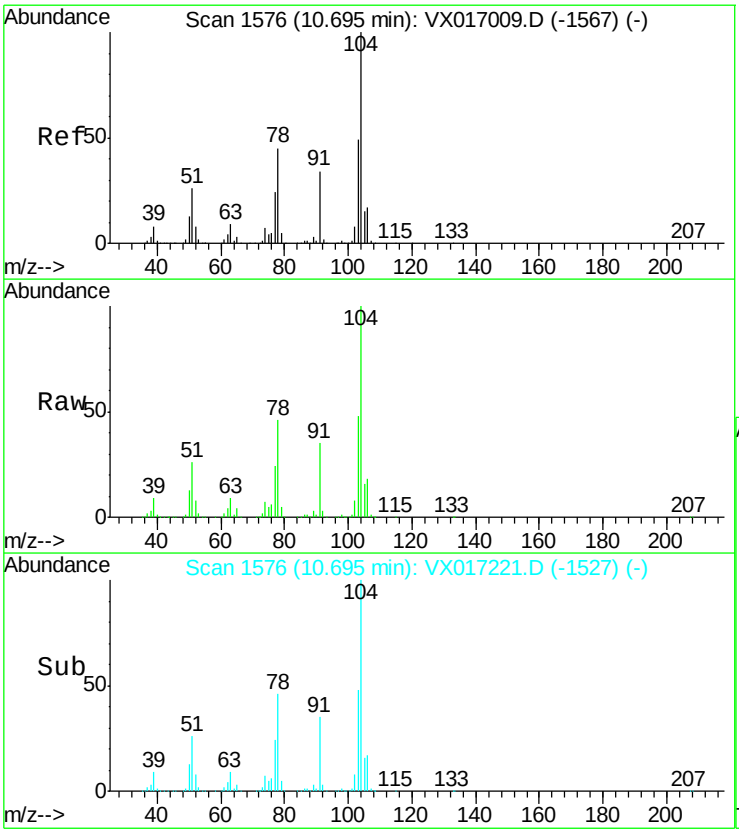


#69
o-Xylene
Concen: 17.888 ug/l
RT: 10.68 min Scan# 1574
Delta R.T. -0.00 min
Lab File: VX017221.D
Acq: 07 Jul 2020 23:04

Tgt Ion:106 Resp: 93650

Ion	Ratio	Lower	Upper
106	100		
91	214.5	105.6	316.7

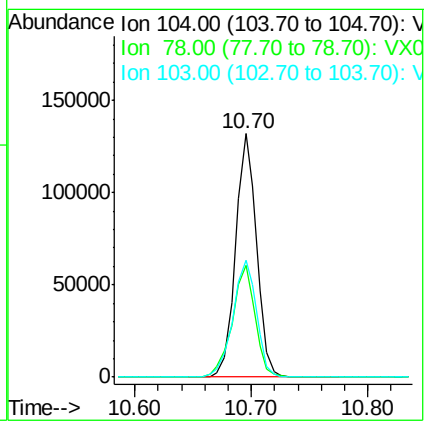




#70
Styrene
Concen: 18.593 ug/l
RT: 10.70 min Scan# 1576
Delta R.T. -0.00 min
Lab File: VX017221.D
Acq: 07 Jul 2020 23:04

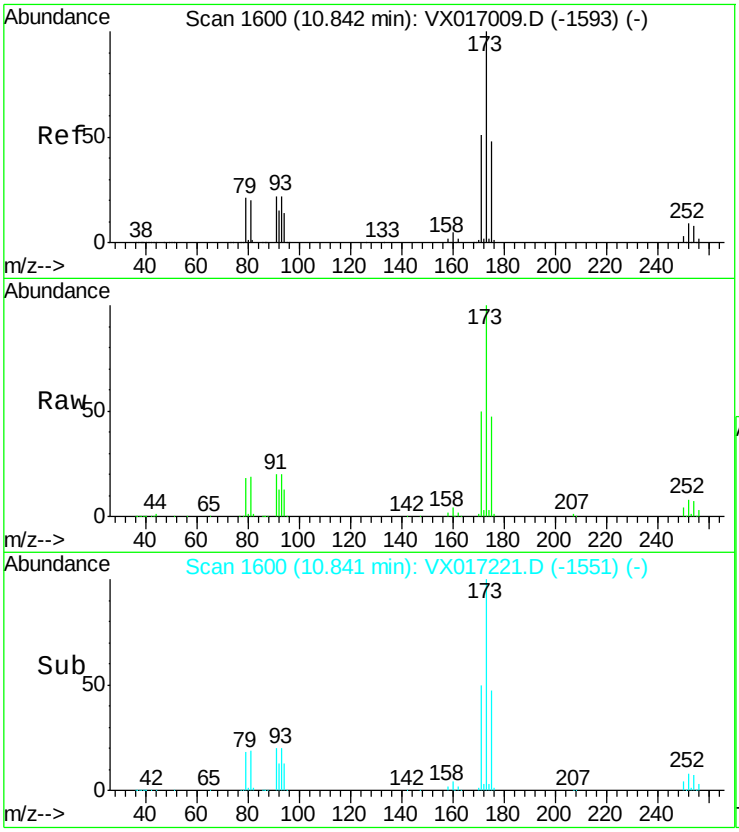
Tgt Ion:104 Resp: 165760

Ion	Ratio	Lower	Upper
104	100		
78	50.4	39.5	59.3
103	54.2	43.0	64.6



Instrument :
MSVOA_X
ClientSampleId :
VX0707WBS02

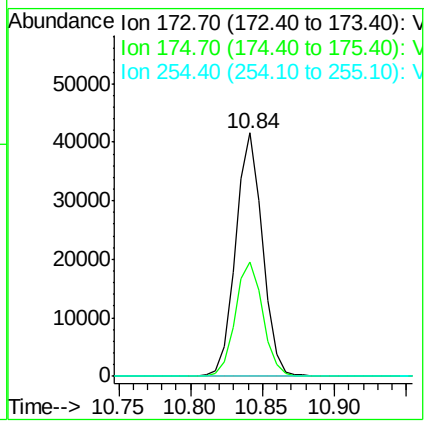
Manual Integrations APPROVED
MMDadoda
7/8/2020 9:31:54 AM

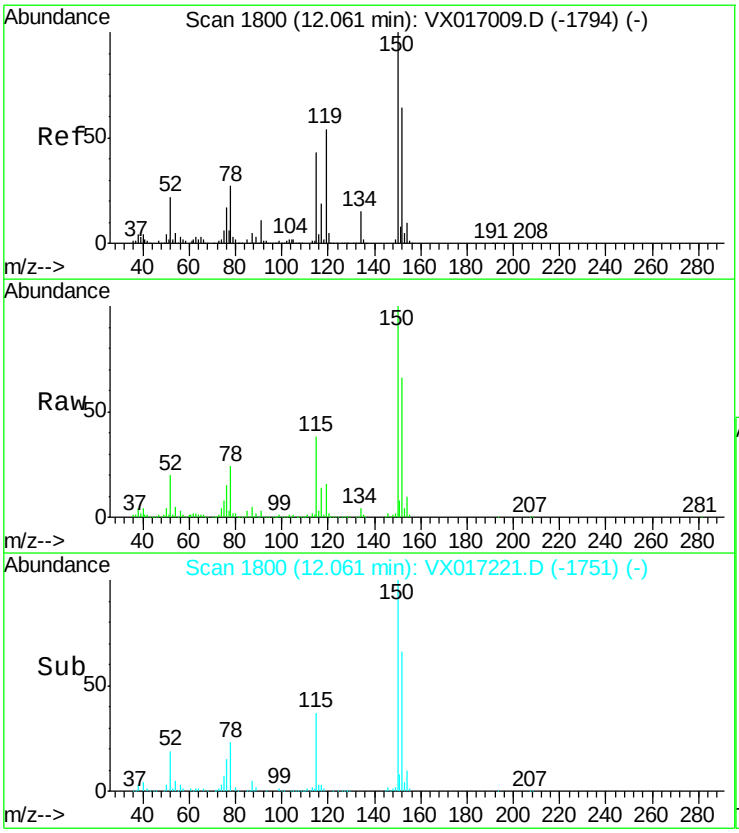


#71
Bromoform
Concen: 20.600 ug/l
RT: 10.84 min Scan# 1600
Delta R.T. -0.00 min
Lab File: VX017221.D
Acq: 07 Jul 2020 23:04

Tgt Ion:173 Resp: 54031

Ion	Ratio	Lower	Upper
173	100		
175	48.3	24.5	73.5
254	0.1	0.1	0.1

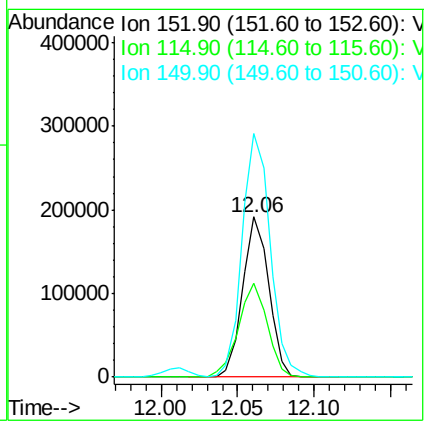


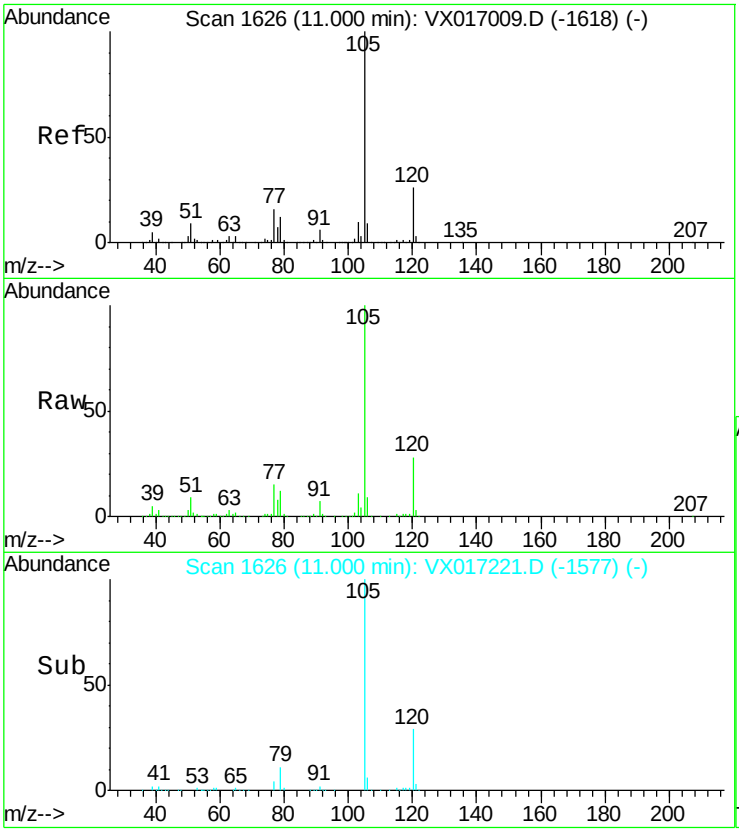


#72
1,4-Dichlorobenzene-d4
Concen: 50.000 ug/l
RT: 12.06 min Scan# 1800
Delta R.T. -0.00 min
Lab File: VX017221.D
Acq: 07 Jul 2020 23:04

Tgt Ion:152 Resp: 227553

Ion	Ratio	Lower	Upper
152	100		
115	64.6	40.9	122.7
150	163.3	0.0	351.6

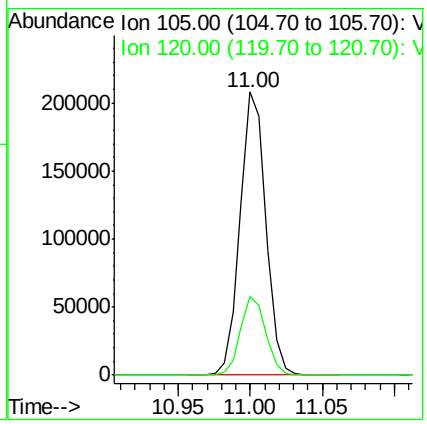




#73
Isopropylbenzene
Concen: 17.302 ug/l
RT: 11.00 min Scan# 1626
Delta R.T. -0.00 min
Lab File: VX017221.D
Acq: 07 Jul 2020 23:04

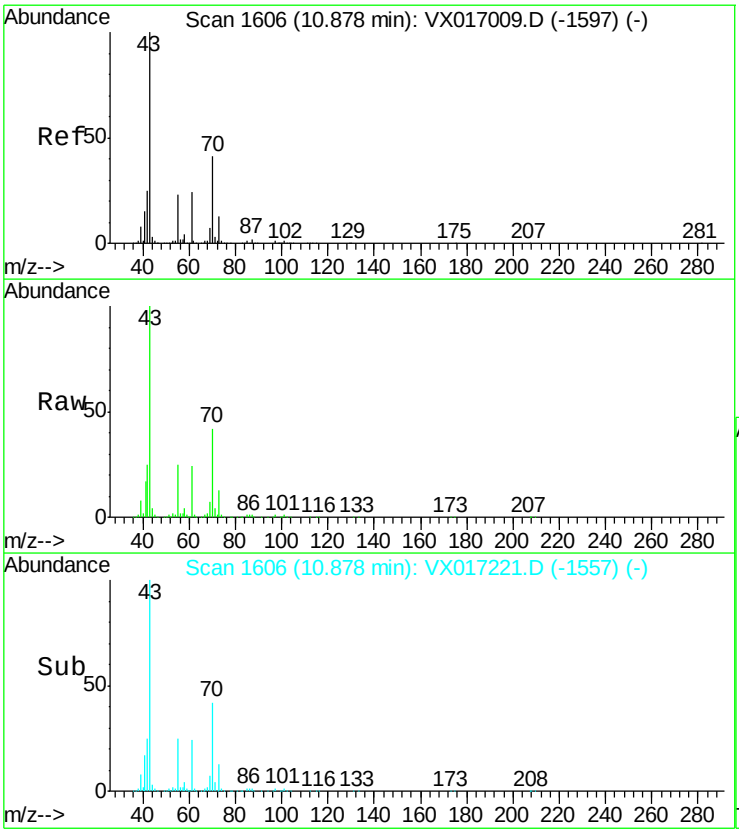
Tgt Ion:105 Resp: 257882

Ion	Ratio	Lower	Upper
105	100		
120	27.4	13.4	40.2



Instrument :
MSVOA_X
ClientSampleId :
VX0707WBS02

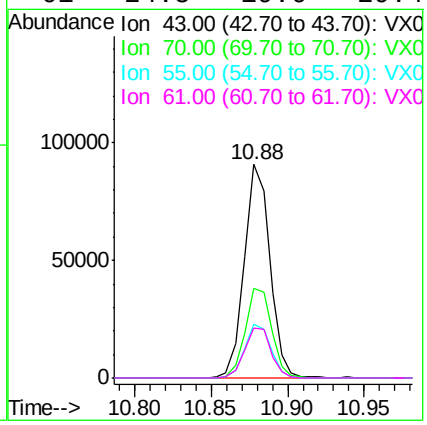
Manual Integrations APPROVED
MMDadoda
7/8/2020 9:31:54 AM

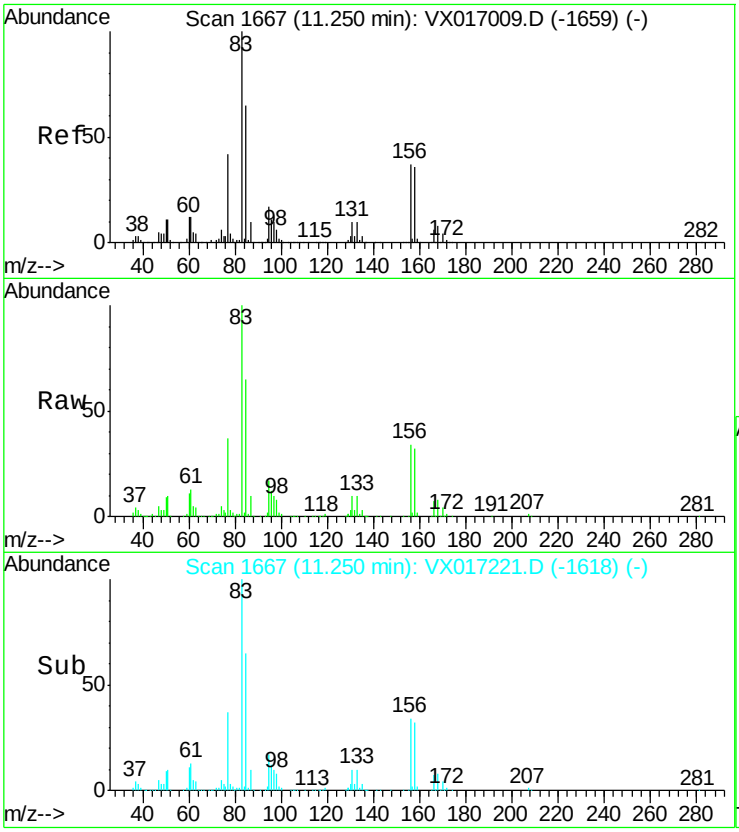


#74
N-amyl acetate
Concen: 16.589 ug/l
RT: 10.88 min Scan# 1606
Delta R.T. -0.00 min
Lab File: VX017221.D
Acq: 07 Jul 2020 23:04

Tgt Ion: 43 Resp: 105502

Ion	Ratio	Lower	Upper
43	100		
70	43.6	34.2	51.2
55	25.9	19.2	28.8
61	24.5	19.6	29.4

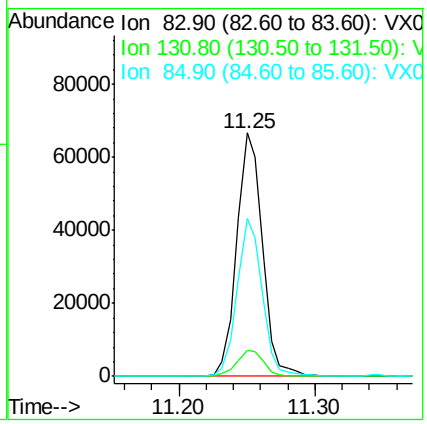


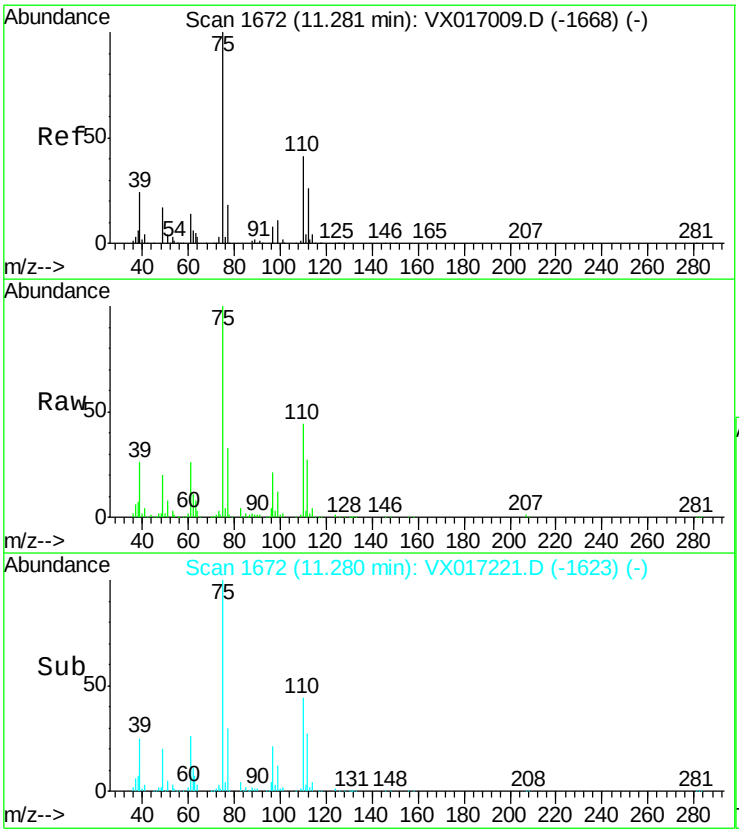


#75
1,1,2,2-Tetrachloroethane
Concen: 18.722 ug/l
RT: 11.25 min Scan# 1667
Delta R.T. -0.00 min
Lab File: VX017221.D
Acq: 07 Jul 2020 23:04

Tgt Ion: 83 Resp: 87779

Ion	Ratio	Lower	Upper
83	100		
131	10.9	5.4	16.2
85	63.4	31.9	95.9

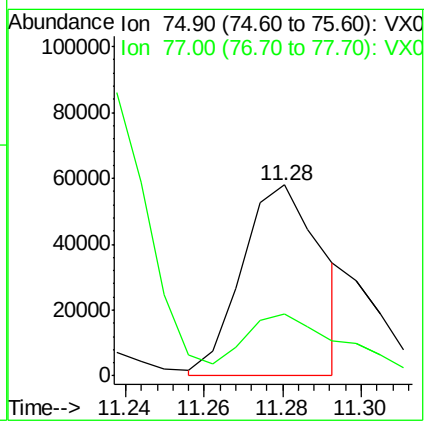




#76
1,2,3-Trichloropropane
Concen: 18.252 ug/l m
RT: 11.28 min Scan# 1672
Delta R.T. -0.00 min
Lab File: VX017221.D
Acq: 07 Jul 2020 23:04

Tgt Ion: 75 Resp: 81673

Ion	Ratio	Lower	Upper
75	100		
77	39.9	20.2	60.6

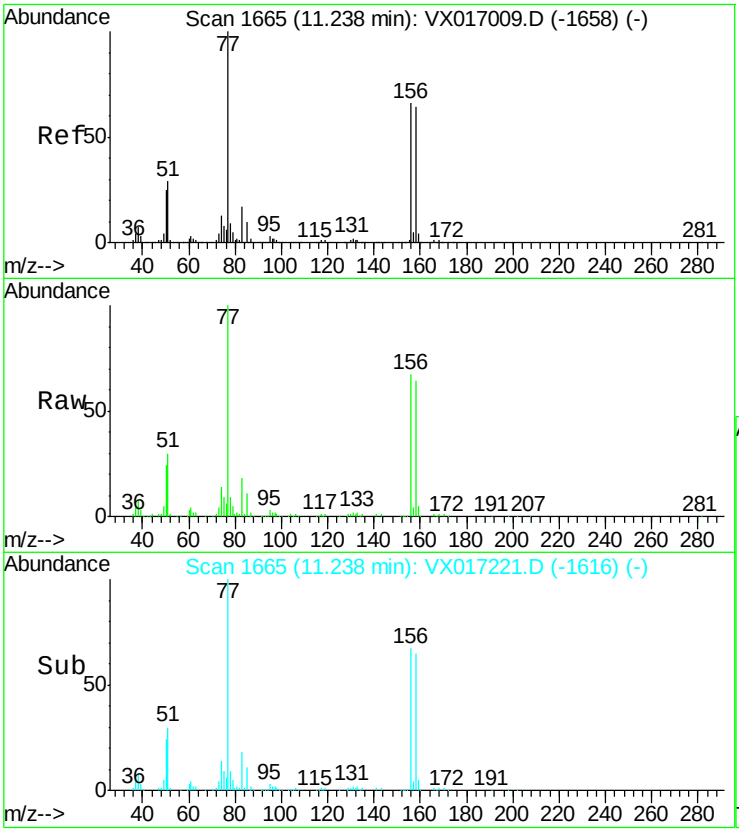


Instrument :
MSVOA_X
ClientSampleId :
VX0707WBS02

Manual Integrations APPROVED
MMDadoda
7/8/2020 9:31:54 AM

Instrument :
MSVOA_X
ClientSampleId :
VX0707WBS02

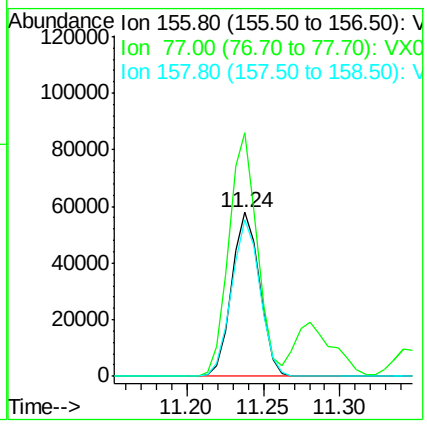
Manual Integrations APPROVED
MMDadoda
7/8/2020 9:31:54 AM

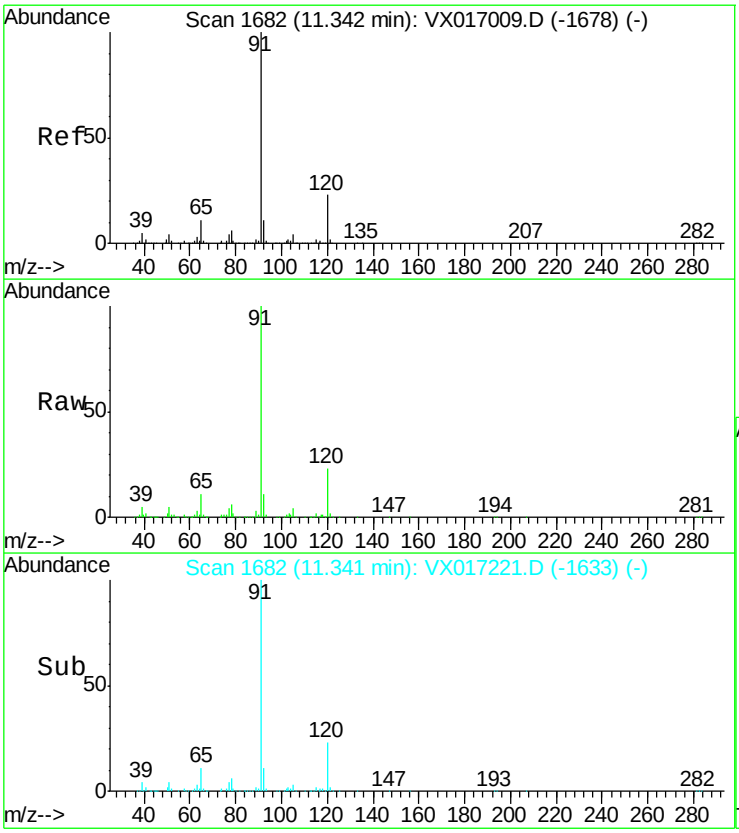


#77
Bromobenzene
Concen: 17.913 ug/l
RT: 11.24 min Scan# 1665
Delta R.T. -0.00 min
Lab File: VX017221.D
Acq: 07 Jul 2020 23:04

Tgt Ion:156 Resp: 73378

Ion	Ratio	Lower	Upper
156	100		
77	150.5	76.9	230.7
158	97.2	47.9	143.6

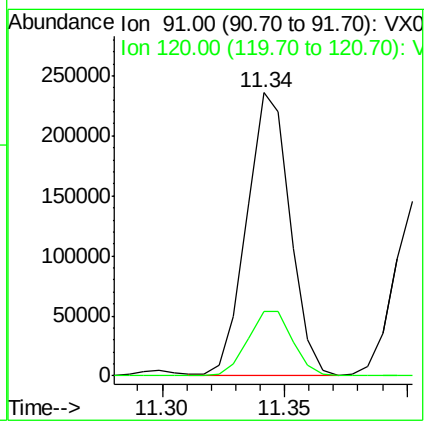




#78
n-propylbenzene
Concen: 17.150 ug/l
RT: 11.34 min Scan# 1682
Delta R.T. -0.00 min
Lab File: VX017221.D
Acq: 07 Jul 2020 23:04

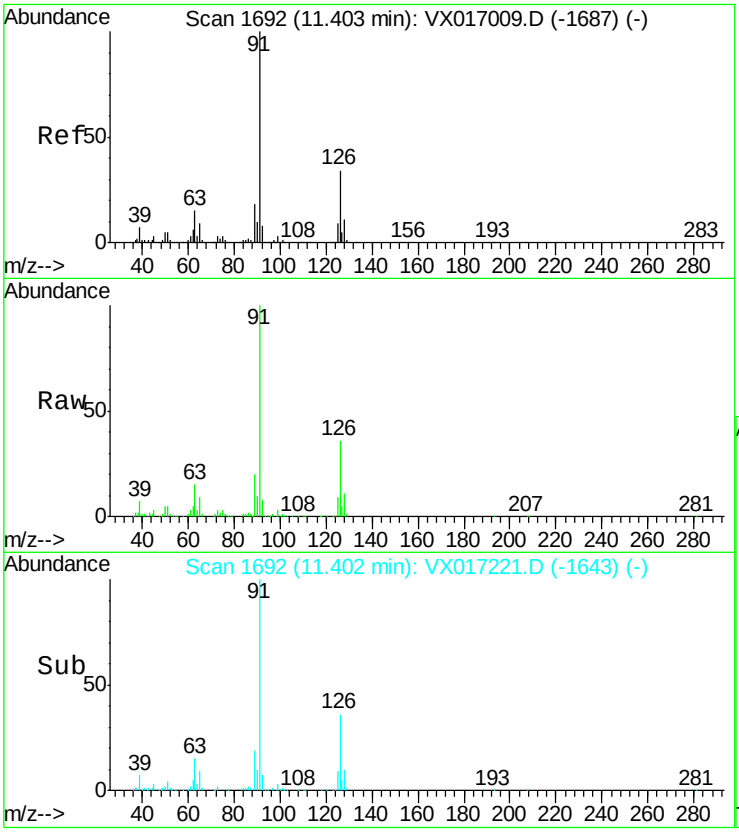
Tgt Ion: 91 Resp: 289070

Ion	Ratio	Lower	Upper
91	100		
120	24.2	11.9	35.9



Instrument :
MSVOA_X
ClientSampleId :
VX0707WBS02

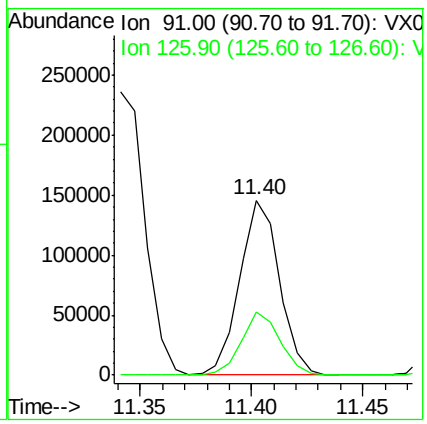
Manual Integrations APPROVED
MMDadoda
7/8/2020 9:31:54 AM

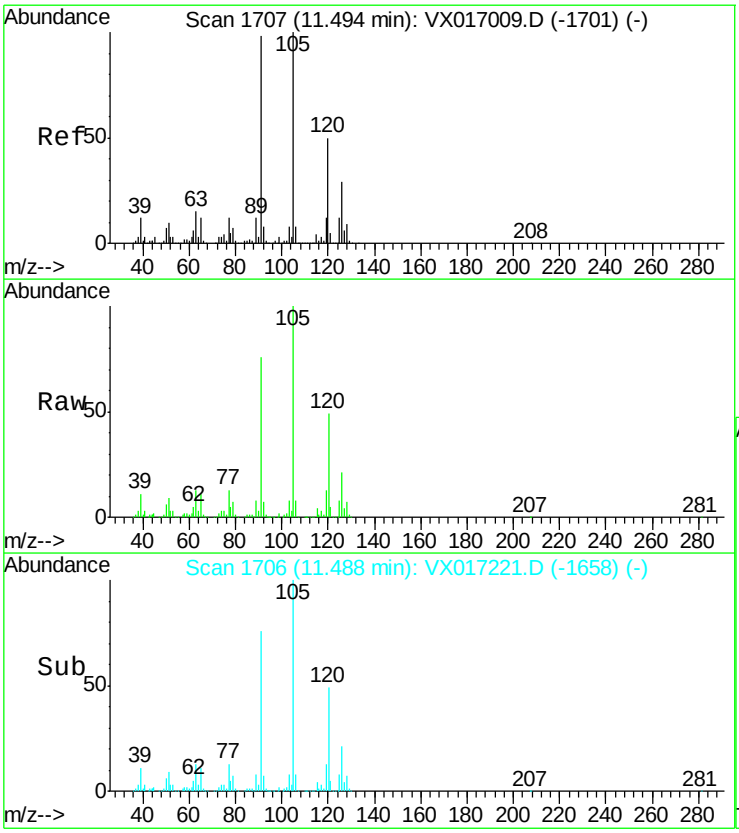


#79
2-Chlorotoluene
Concen: 17.661 ug/l
RT: 11.40 min Scan# 1692
Delta R.T. -0.00 min
Lab File: VX017221.D
Acq: 07 Jul 2020 23:04

Tgt Ion: 91 Resp: 180153

Ion	Ratio	Lower	Upper
91	100		
126	35.5	17.4	52.3

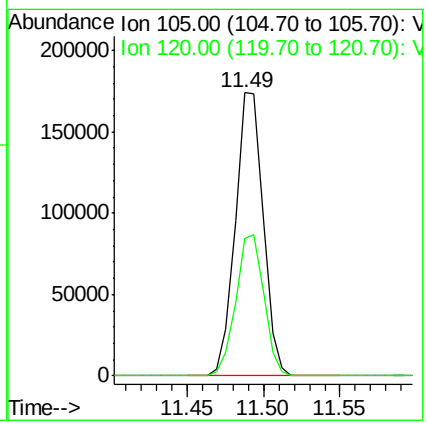


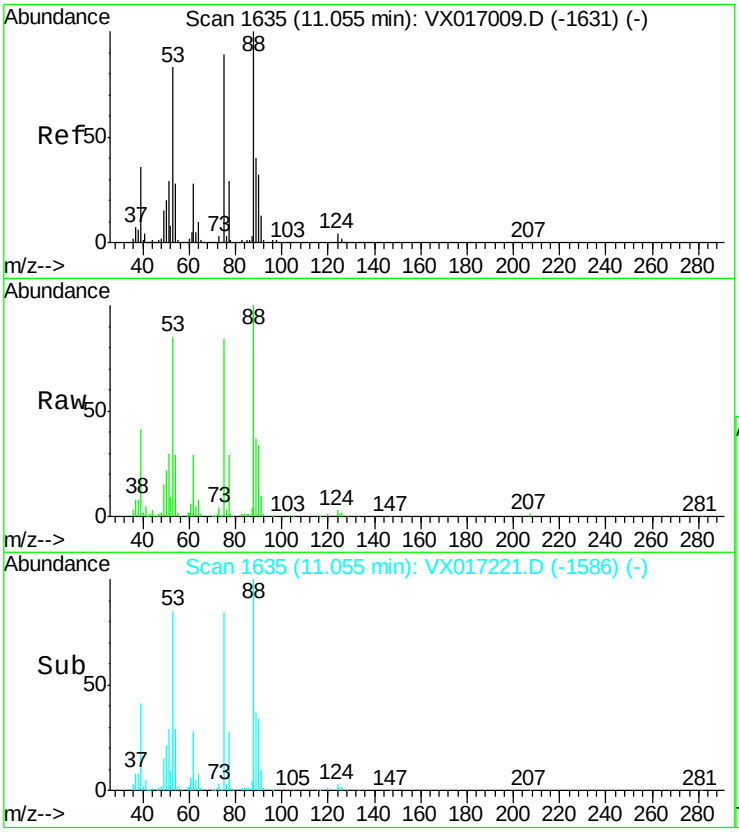


#80
1,3,5-Trimethylbenzene
Concen: 17.815 ug/l
RT: 11.49 min Scan# 1706
Delta R.T. -0.01 min
Lab File: VX017221.D
Acq: 07 Jul 2020 23:04

Tgt Ion:105 Resp: 220252

Ion	Ratio	Lower	Upper
105	100		
120	50.1	24.9	74.6

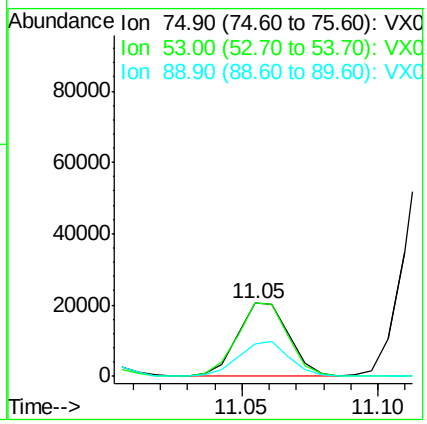




#81
trans-1,4-Dichloro-2-butene
Concen: 15.412 ug/l
RT: 11.05 min Scan# 1635
Delta R.T. -0.00 min
Lab File: VX017221.D
Acq: 07 Jul 2020 23:04

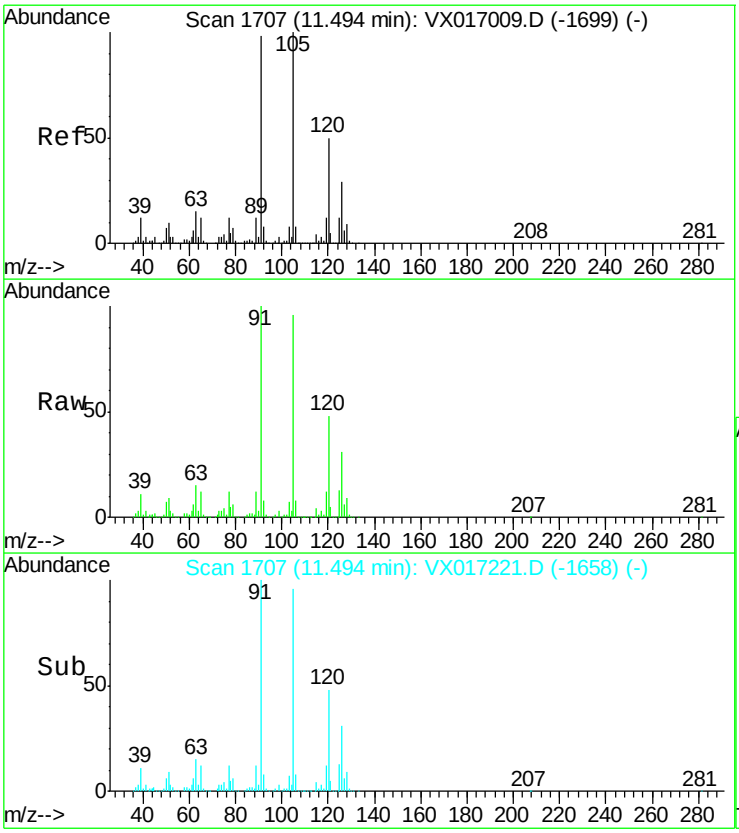
Tgt Ion: 75 Resp: 26630

Ion	Ratio	Lower	Upper
75	100		
53	99.9	72.4	108.6
89	47.7	37.0	55.4



Instrument :
MSVOA_X
ClientSampleId :
VX0707WBS02

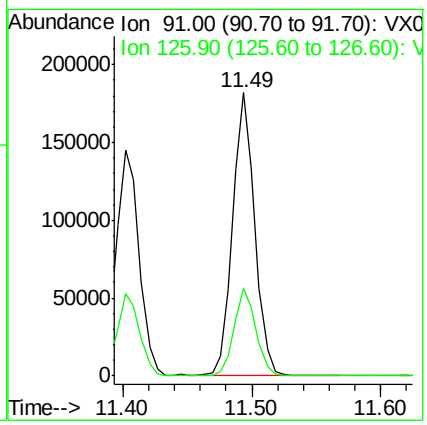
Manual Integrations APPROVED
MMDadoda
7/8/2020 9:31:54 AM



#82
4-Chlorotoluene
Concen: 17.848 ug/l
RT: 11.49 min Scan# 1707
Delta R.T. -0.00 min
Lab File: VX017221.D
Acq: 07 Jul 2020 23:04

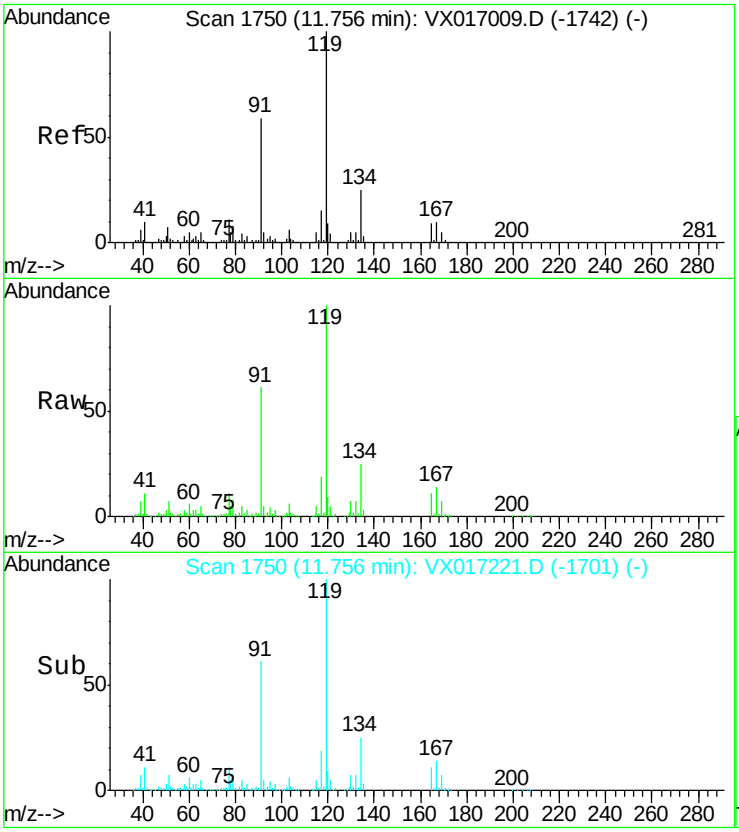
Tgt Ion: 91 Resp: 217648

Ion	Ratio	Lower	Upper
91	100		
126	30.5	15.2	45.5



Instrument :
MSVOA_X
ClientSampleId :
VX0707WBS02

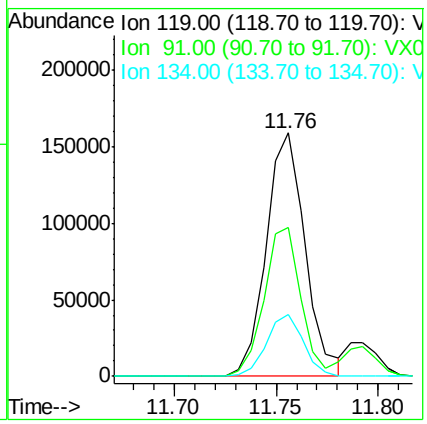
Manual Integrations APPROVED
MMDadoda
7/8/2020 9:31:54 AM

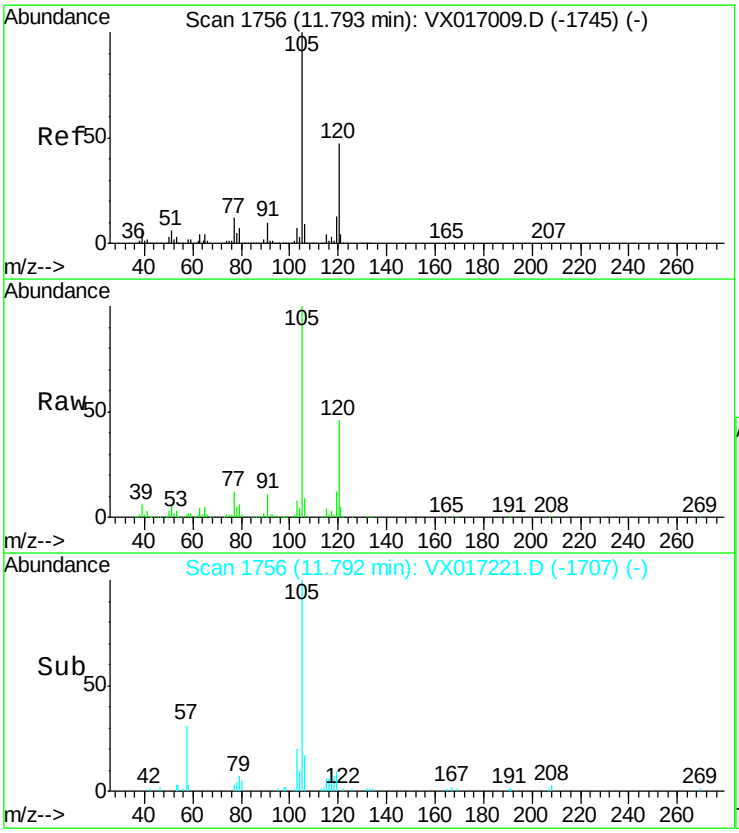


#83
tert-Butylbenzene
Concen: 17.419 ug/l
RT: 11.76 min Scan# 1750
Delta R.T. -0.00 min
Lab File: VX017221.D
Acq: 07 Jul 2020 23:04

Tgt Ion:119 Resp: 211408

Ion	Ratio	Lower	Upper
119	100		
91	57.8	28.3	84.9
134	24.1	11.7	35.1

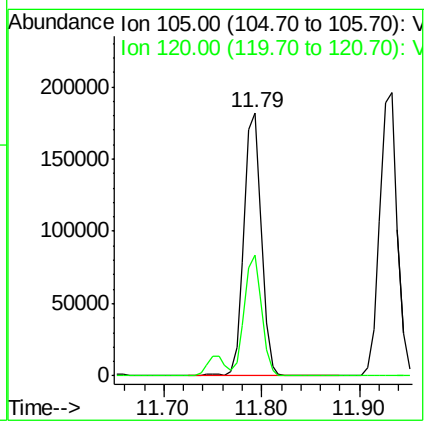




#84
1,2,4-Trimethylbenzene
Concen: 18.091 ug/l
RT: 11.79 min Scan# 1756
Delta R.T. -0.00 min
Lab File: VX017221.D
Acq: 07 Jul 2020 23:04

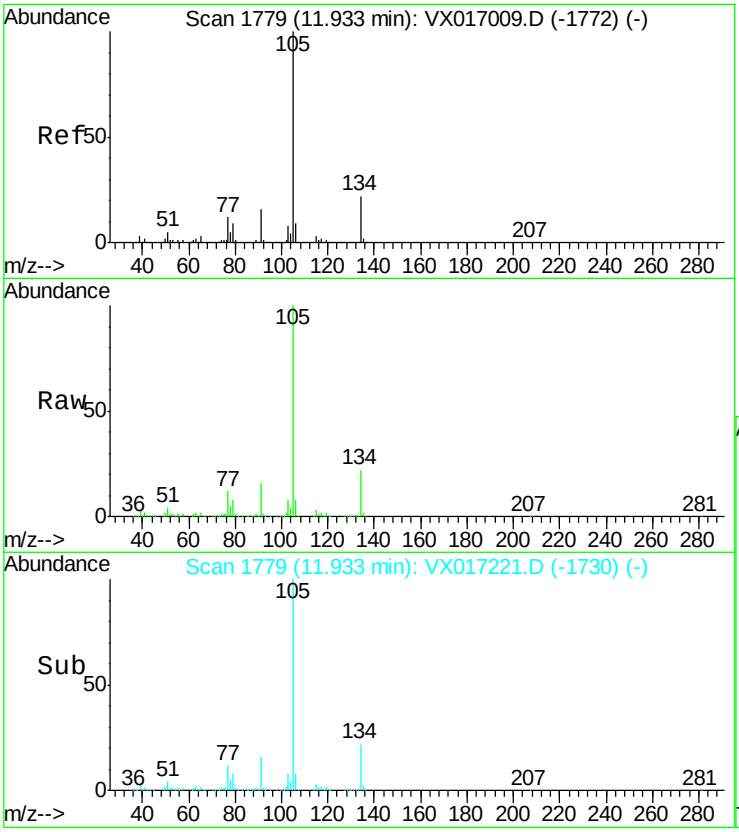
Tgt Ion:105 Resp: 226908

Ion	Ratio	Lower	Upper
105	100		
120	45.2	22.9	68.5



Instrument :
MSVOA_X
ClientSampleId :
VX0707WBS02

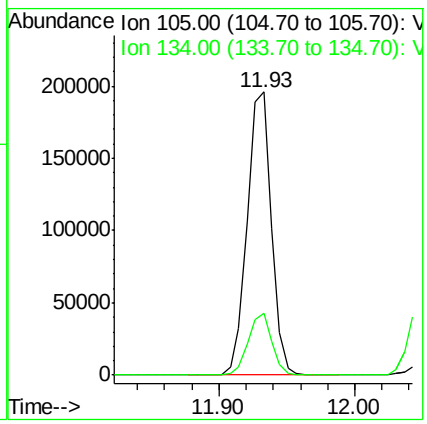
Manual Integrations APPROVED
MMDadoda
7/8/2020 9:31:54 AM

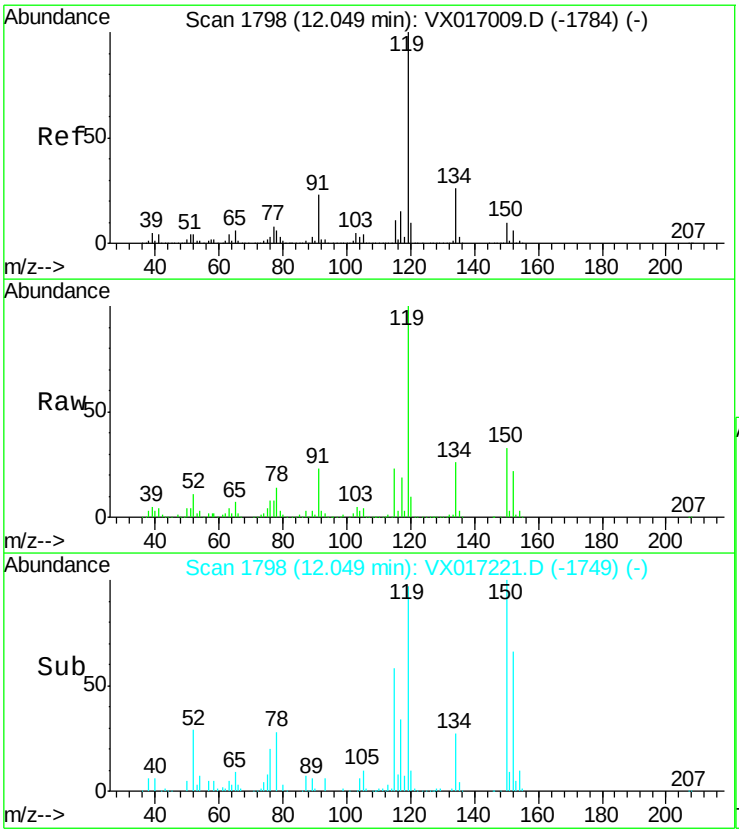


#85
sec-Butylbenzene
Concen: 17.138 ug/l
RT: 11.93 min Scan# 1779
Delta R.T. -0.00 min
Lab File: VX017221.D
Acq: 07 Jul 2020 23:04

Tgt Ion:105 Resp: 244485

Ion	Ratio	Lower	Upper
105	100		
134	21.3	10.5	31.6

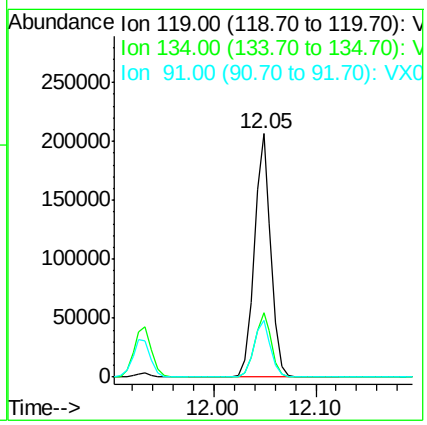




#86
p-Isopropyltoluene
Concen: 17.485 ug/l
RT: 12.05 min Scan# 1798
Delta R.T. -0.00 min
Lab File: VX017221.D
Acq: 07 Jul 2020 23:04

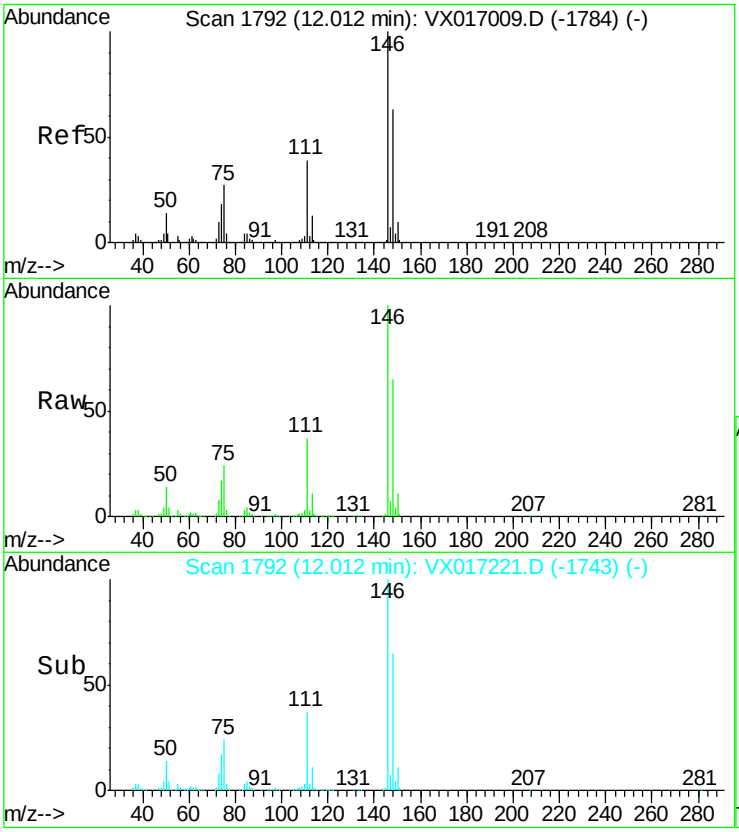
Tgt Ion:119 Resp: 232206

Ion	Ratio	Lower	Upper
119	100		
134	26.8	13.2	39.5
91	23.9	11.8	35.4



Instrument :
MSVOA_X
ClientSampleId :
VX0707WBS02

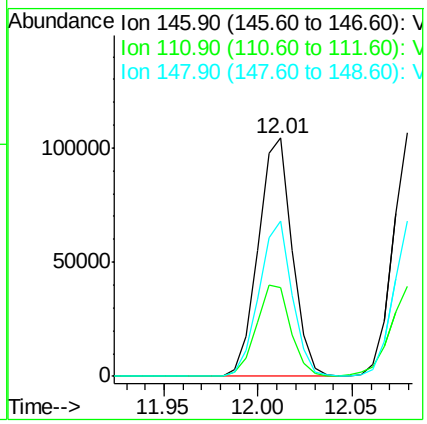
Manual Integrations APPROVED
MMDadoda
7/8/2020 9:31:54 AM

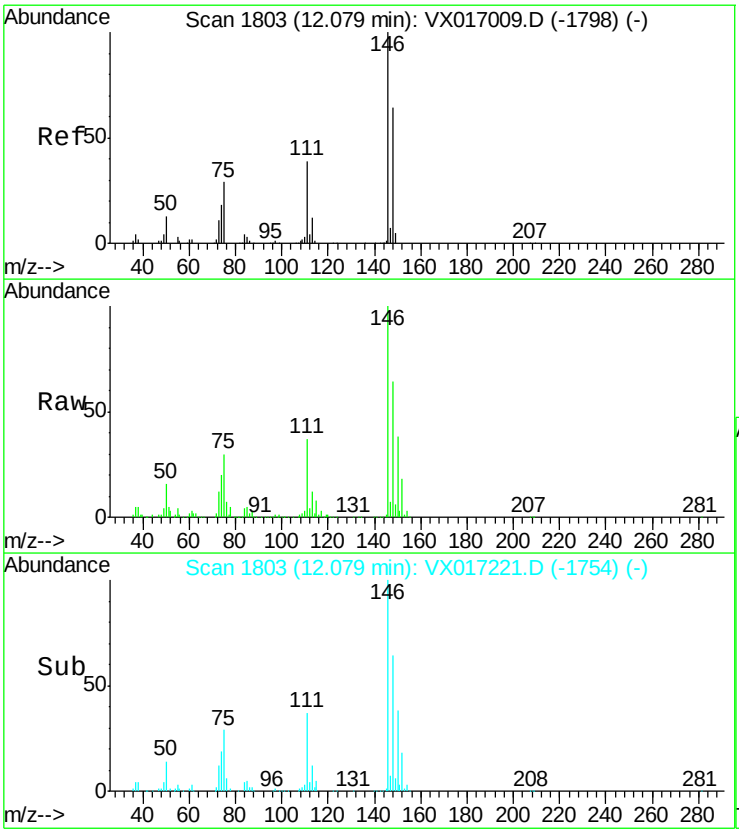


#87
1,3-Dichlorobenzene
Concen: 17.488 ug/l
RT: 12.01 min Scan# 1792
Delta R.T. -0.00 min
Lab File: VX017221.D
Acq: 07 Jul 2020 23:04

Tgt Ion:146 Resp: 130109

Ion	Ratio	Lower	Upper
146	100		
111	39.1	20.4	61.2
148	63.6	32.5	97.5

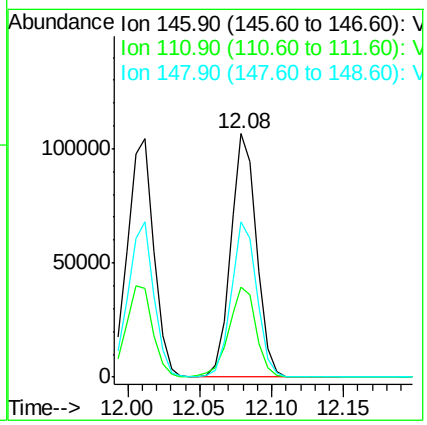




#88
1,4-Dichlorobenzene
Concen: 18.887 ug/l
RT: 12.08 min Scan# 1803
Delta R.T. -0.00 min
Lab File: VX017221.D
Acq: 07 Jul 2020 23:04

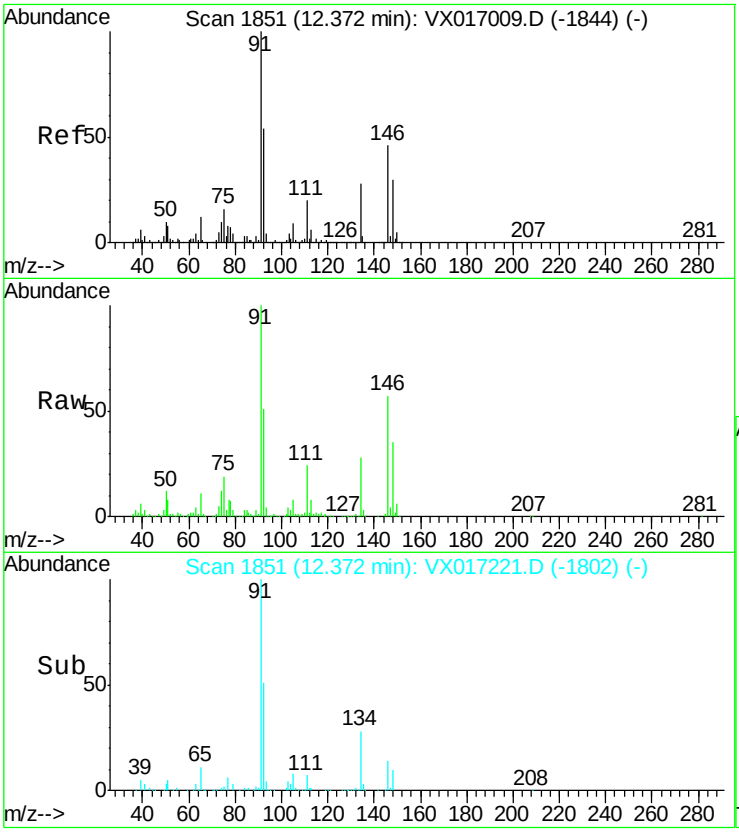
Tgt Ion:146 Resp: 133352

Ion	Ratio	Lower	Upper
146	100		
111	39.6	19.5	58.5
148	63.9	31.9	95.7



Instrument :
MSVOA_X
ClientSampleId :
VX0707WBS02

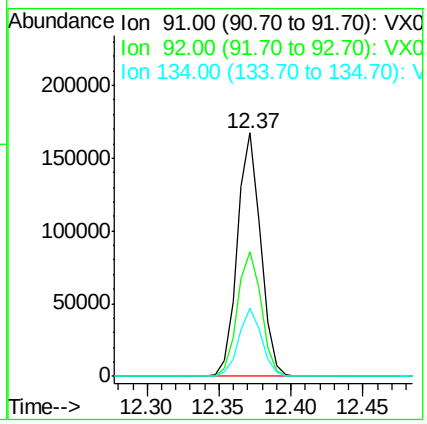
Manual Integrations APPROVED
MMDadoda
7/8/2020 9:31:54 AM

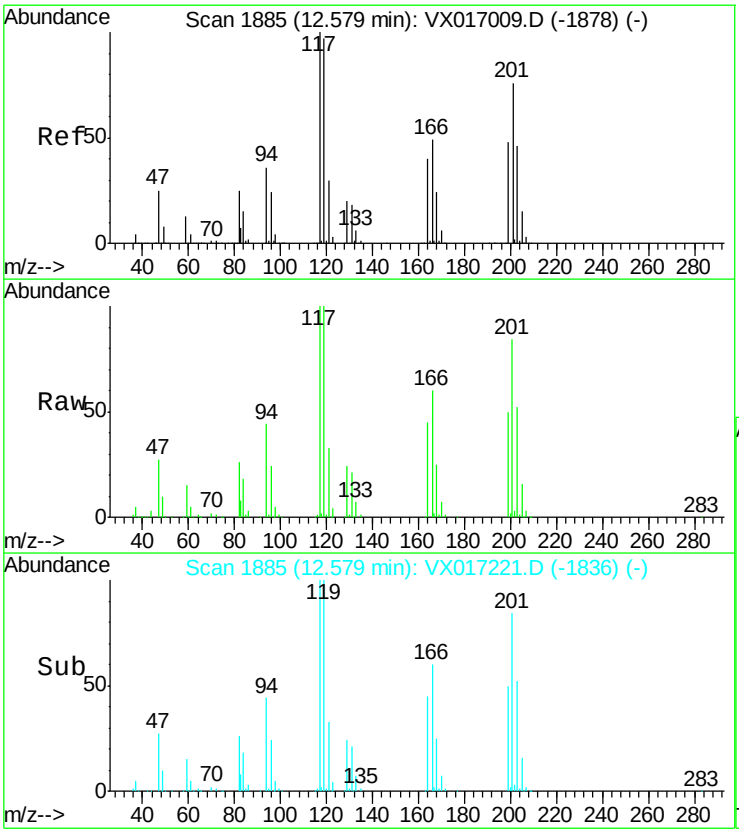


#89
n-Butylbenzene
Concen: 15.990 ug/l
RT: 12.37 min Scan# 1851
Delta R.T. -0.00 min
Lab File: VX017221.D
Acq: 07 Jul 2020 23:04

Tgt Ion: 91 Resp: 189619

Ion	Ratio	Lower	Upper
91	100		
92	52.3	27.2	81.6
134	27.4	13.6	40.7

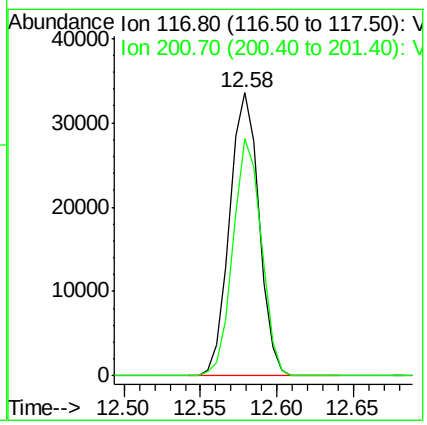




#90
Hexachloroethane
Concen: 17.106 ug/l
RT: 12.58 min Scan# 1885
Delta R.T. -0.00 min
Lab File: VX017221.D
Acq: 07 Jul 2020 23:04

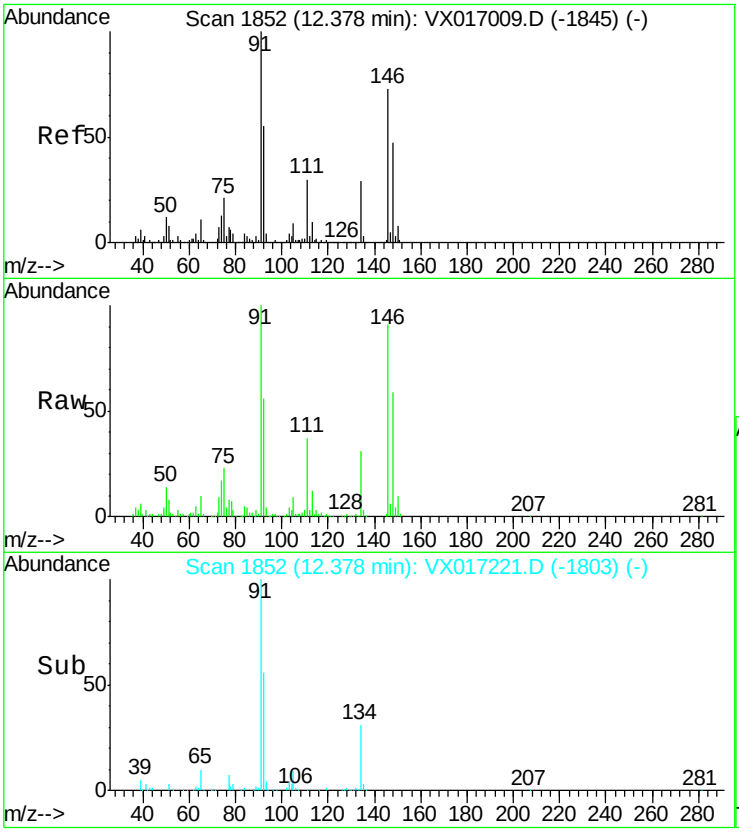
Tgt Ion:117 Resp: 44801

Ion	Ratio	Lower	Upper
117	100		
201	80.8	39.4	118.2



Instrument :
MSVOA_X
ClientSampleId :
VX0707WBS02

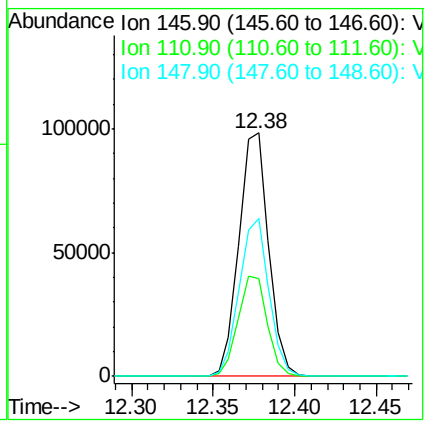
Manual Integrations APPROVED
MMDadoda
7/8/2020 9:31:54 AM

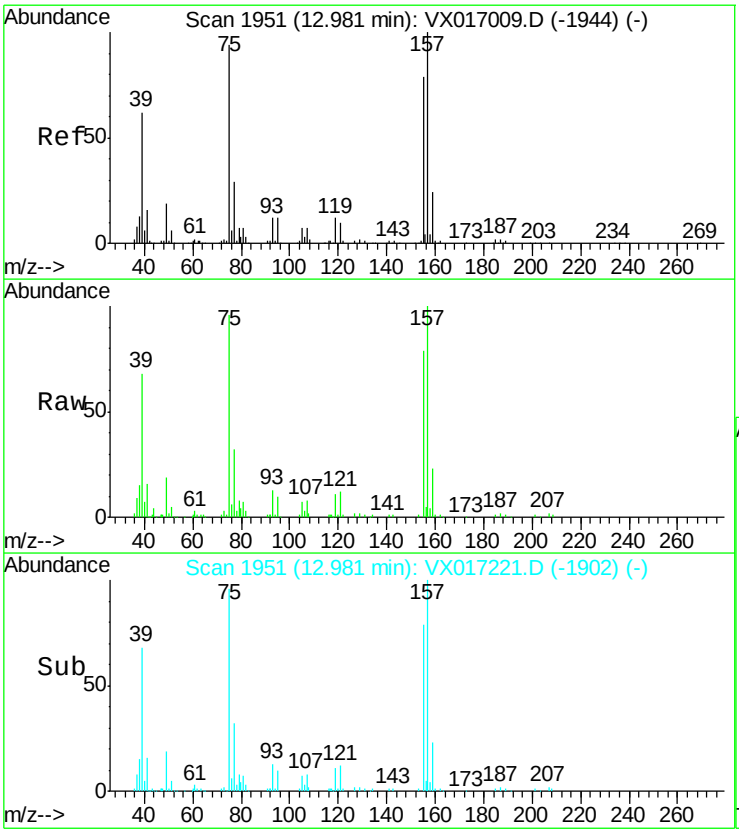


#91
1,2-Dichlorobenzene
Concen: 18.023 ug/l
RT: 12.38 min Scan# 1852
Delta R.T. -0.00 min
Lab File: VX017221.D
Acq: 07 Jul 2020 23:04

Tgt Ion:146 Resp: 125342

Ion	Ratio	Lower	Upper
146	100		
111	40.7	20.6	61.9
148	64.9	32.4	97.2

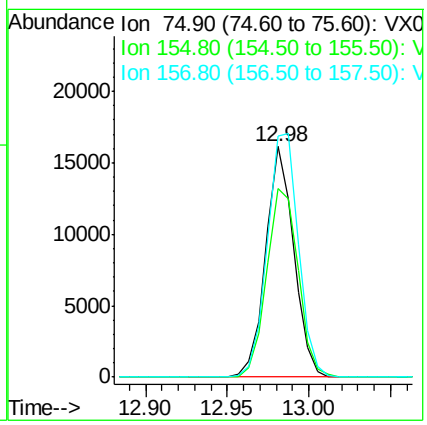




#92
1,2-Dibromo-3-Chloropropane
Concen: 17.293 ug/l
RT: 12.98 min Scan# 1951
Delta R.T. -0.00 min
Lab File: VX017221.D
Acq: 07 Jul 2020 23:04

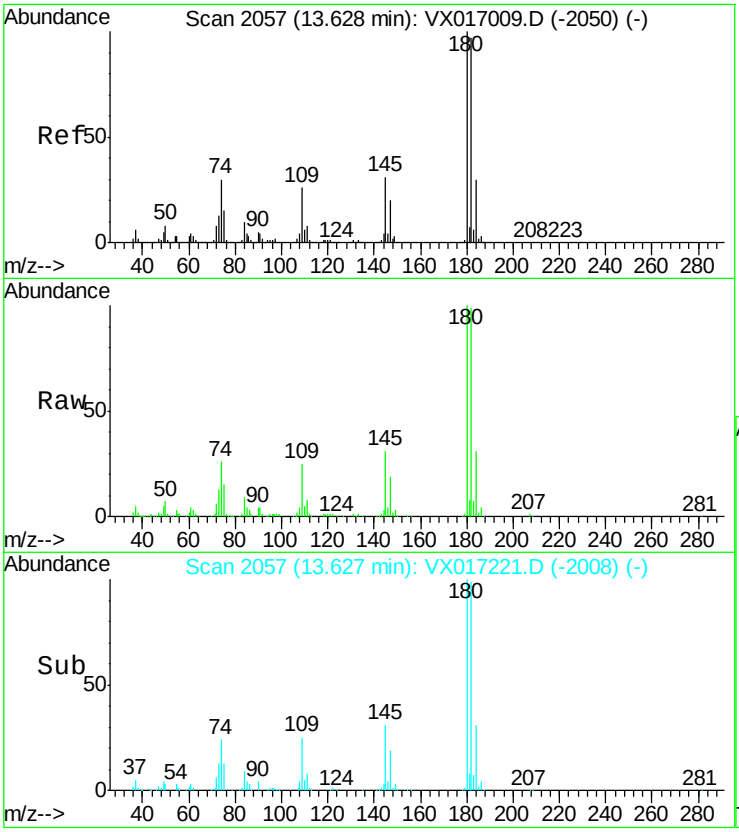
Tgt Ion: 75 Resp: 19342

Ion	Ratio	Lower	Upper
75	100		
155	91.5	45.1	135.2
157	116.6	56.5	169.3



Instrument :
MSVOA_X
ClientSampleId :
VX0707WBS02

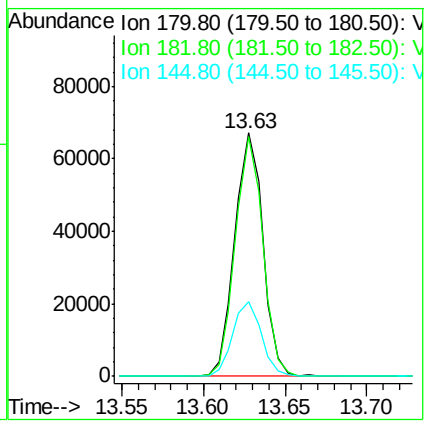
Manual Integrations APPROVED
MMDadoda
7/8/2020 9:31:54 AM

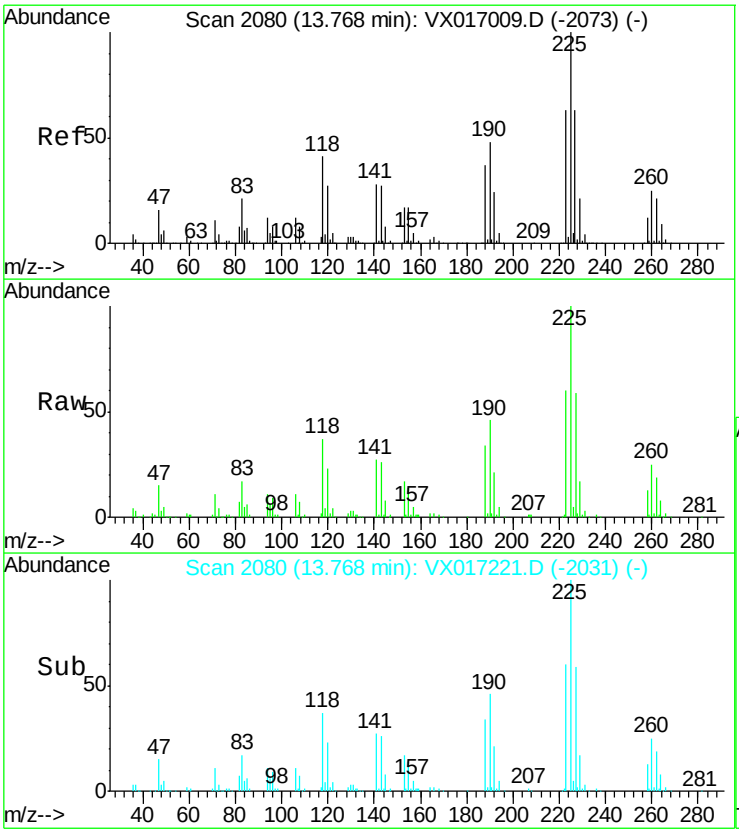


#93
1,2,4-Trichlorobenzene
Concen: 17.041 ug/l
RT: 13.63 min Scan# 2057
Delta R.T. -0.00 min
Lab File: VX017221.D
Acq: 07 Jul 2020 23:04

Tgt Ion:180 Resp: 80891

Ion	Ratio	Lower	Upper
180	100		
182	96.2	47.3	141.9
145	31.2	15.4	46.2

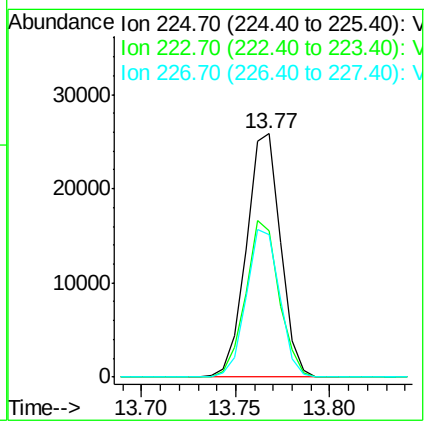




#94
Hexachlorobutadiene
Concen: 18.551 ug/l
RT: 13.77 min Scan# 2080
Delta R.T. 0.00 min
Lab File: VX017221.D
Acq: 07 Jul 2020 23:04

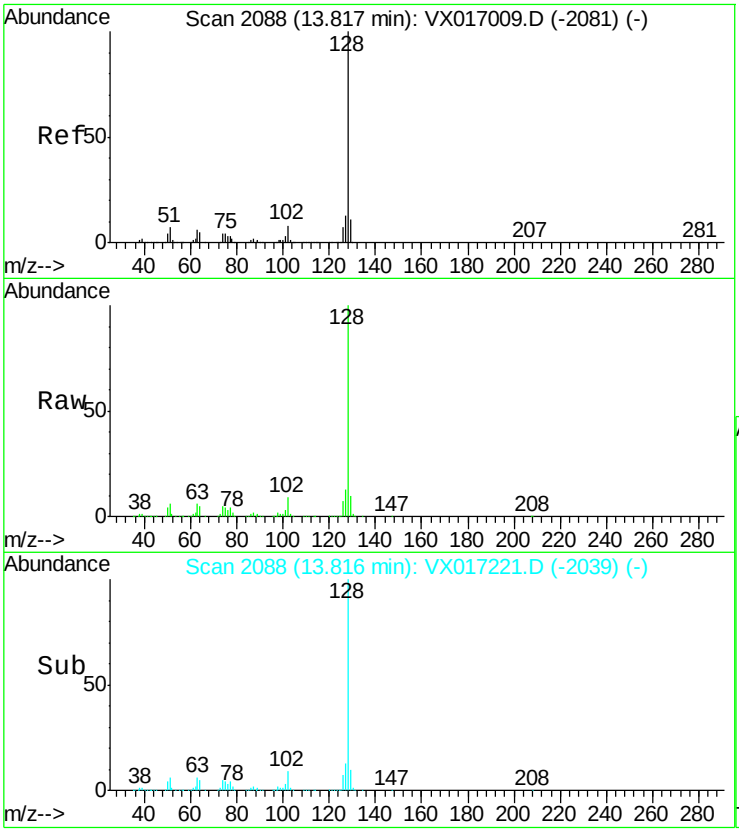
Tgt Ion:225 Resp: 32446

Ion	Ratio	Lower	Upper
225	100		
223	62.7	32.5	97.5
227	59.3	33.1	99.2



Instrument :
MSVOA_X
ClientSampleId :
VX0707WBS02

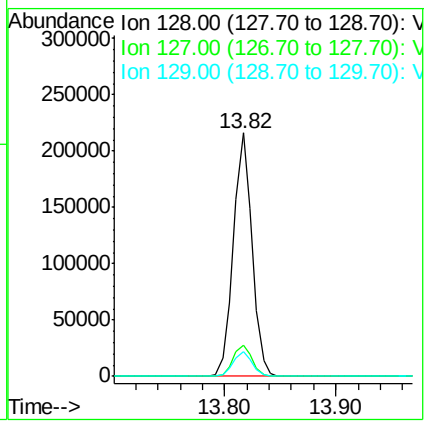
Manual Integrations APPROVED
MMDadoda
7/8/2020 9:31:54 AM

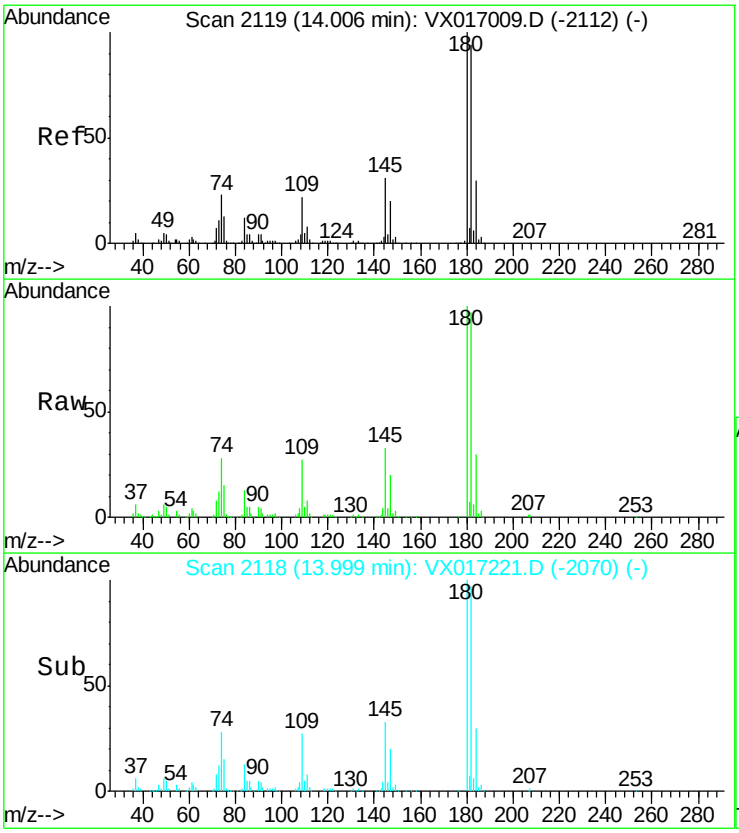


#95
Naphthalene
Concen: 17.382 ug/l
RT: 13.82 min Scan# 2088
Delta R.T. -0.00 min
Lab File: VX017221.D
Acq: 07 Jul 2020 23:04

Tgt Ion:128 Resp: 250832

Ion	Ratio	Lower	Upper
128	100		
127	13.2	10.2	15.4
129	10.5	8.7	13.1

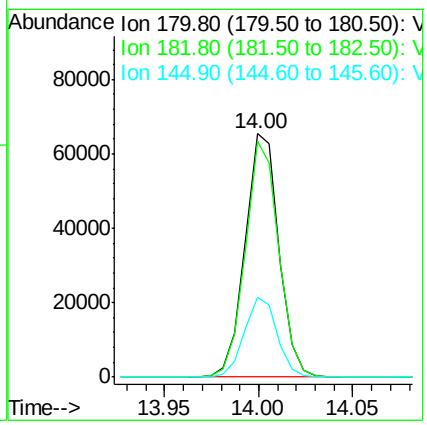




#96
1,2,3-Trichlorobenzene
Concen: 17.640 ug/l
RT: 14.00 min Scan# 2118
Delta R.T. -0.01 min
Lab File: VX017221.D
Acq: 07 Jul 2020 23:04

Tgt Ion:180 Resp: 81035

Ion	Ratio	Lower	Upper
180	100		
182	95.7	47.1	141.4
145	32.2	16.6	49.7



CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Day Environmental, Inc.	Date Collected:	
Project:	Andrew St. RI	Date Received:	
Client Sample ID:	VX0708WBS01	SDG No.:	L3232
Lab Sample ID:	VX0708WBS01	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	DB-624UI ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX017246.D	1		07/08/20 11:32	VX070820

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
75-71-8	Dichlorodifluoromethane	17.5		0.22	1.00	ug/L
74-87-3	Chloromethane	14.4		0.30	1.00	ug/L
75-01-4	Vinyl Chloride	16.1		0.16	1.00	ug/L
74-83-9	Bromomethane	21.0		2.10	5.00	ug/L
75-00-3	Chloroethane	17.4		0.34	1.00	ug/L
75-69-4	Trichlorofluoromethane	19.7		0.16	1.00	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	17.9		0.21	1.00	ug/L
75-35-4	1,1-Dichloroethene	15.9		0.18	1.00	ug/L
67-64-1	Acetone	88.6		0.90	5.00	ug/L
75-15-0	Carbon Disulfide	16.6		0.23	1.00	ug/L
1634-04-4	Methyl tert-butyl Ether	18.4		0.070	1.00	ug/L
79-20-9	Methyl Acetate	18.0		0.65	1.00	ug/L
75-09-2	Methylene Chloride	18.2		0.33	1.00	ug/L
156-60-5	trans-1,2-Dichloroethene	17.7		0.24	1.00	ug/L
75-34-3	1,1-Dichloroethane	17.9		0.17	1.00	ug/L
110-82-7	Cyclohexane	16.6		1.20	5.00	ug/L
78-93-3	2-Butanone	82.6		0.71	5.00	ug/L
56-23-5	Carbon Tetrachloride	19.8		0.22	1.00	ug/L
156-59-2	cis-1,2-Dichloroethene	17.5		0.30	1.00	ug/L
74-97-5	Bromochloromethane	16.9		0.31	1.00	ug/L
67-66-3	Chloroform	18.6		0.14	1.00	ug/L
71-55-6	1,1,1-Trichloroethane	18.9		0.12	1.00	ug/L
108-87-2	Methylcyclohexane	18.5		0.17	1.00	ug/L
71-43-2	Benzene	18.6		0.10	1.00	ug/L
107-06-2	1,2-Dichloroethane	20.0		0.13	1.00	ug/L
79-01-6	Trichloroethene	20.5		0.27	1.00	ug/L
78-87-5	1,2-Dichloropropane	18.9		0.14	1.00	ug/L
75-27-4	Bromodichloromethane	19.9		0.10	1.00	ug/L
108-10-1	4-Methyl-2-Pentanone	91.2		0.85	5.00	ug/L
108-88-3	Toluene	19.0		0.12	1.00	ug/L
10061-02-6	t-1,3-Dichloropropene	19.0		0.19	1.00	ug/L
10061-01-5	cis-1,3-Dichloropropene	18.9		0.16	1.00	ug/L

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Day Environmental, Inc.	Date Collected:	
Project:	Andrew St. RI	Date Received:	
Client Sample ID:	VX0708WBS01	SDG No.:	L3232
Lab Sample ID:	VX0708WBS01	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	DB-624UI ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX017246.D	1		07/08/20 11:32	VX070820

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
79-00-5	1,1,2-Trichloroethane	19.6		0.12	1.00	ug/L
591-78-6	2-Hexanone	91.6		1.40	5.00	ug/L
124-48-1	Dibromochloromethane	20.2		0.16	1.00	ug/L
106-93-4	1,2-Dibromoethane	19.4		0.14	1.00	ug/L
127-18-4	Tetrachloroethene	20.8		0.15	1.00	ug/L
108-90-7	Chlorobenzene	19.4		0.080	1.00	ug/L
100-41-4	Ethyl Benzene	19.5		0.080	1.00	ug/L
179601-23-1	m/p-Xylenes	39.7		0.20	2.00	ug/L
95-47-6	o-Xylene	19.3		0.13	1.00	ug/L
100-42-5	Styrene	19.5		0.11	1.00	ug/L
75-25-2	Bromoform	20.8		0.15	1.00	ug/L
98-82-8	Isopropylbenzene	18.4		0.13	1.00	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	17.8		0.15	1.00	ug/L
541-73-1	1,3-Dichlorobenzene	18.3		0.14	1.00	ug/L
106-46-7	1,4-Dichlorobenzene	19.9		0.20	1.00	ug/L
95-50-1	1,2-Dichlorobenzene	19.2		0.12	1.00	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	16.6		0.54	1.00	ug/L
120-82-1	1,2,4-Trichlorobenzene	17.4		0.24	1.00	ug/L
87-61-6	1,2,3-Trichlorobenzene	17.8		0.26	1.00	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	46.1		61 - 141	92%	SPK: 50
1868-53-7	Dibromofluoromethane	50.2		69 - 133	100%	SPK: 50
2037-26-5	Toluene-d8	48.3		65 - 126	97%	SPK: 50
460-00-4	4-Bromofluorobenzene	47.7		58 - 135	95%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	293000	5.63			
540-36-3	1,4-Difluorobenzene	434000	6.83			
3114-55-4	Chlorobenzene-d5	402000	10.1			
3855-82-1	1,4-Dichlorobenzene-d4	225000	12.06			

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Day Environmental, Inc.	Date Collected:	
Project:	Andrew St. RI	Date Received:	
Client Sample ID:	VX0708WBS01	SDG No.:	L3232
Lab Sample ID:	VX0708WBS01	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	DB-624UI ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX017246.D	1		07/08/20 11:32	VX070820

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit
A = Aldol-Condensation Reaction Products

Quantitation Report (QT Reviewed)

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX070820\
Data File : VX017246.D
Acq On : 08 Jul 2020 11:32
Operator : JC/SP
Sample : VX0708WBS01
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jul 08 15:53:57 2020
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X062920W.M
Quant Title : SW846 8260
QLast Update : Mon Jun 29 17:10:38 2020
Response via : Initial Calibration

Instrument :
MSVOA_X
ClientSampleId :
VX0708WBS01

Manual Integrations APPROVED
MMDadoda
7/9/2020 10:59:47 AM

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Pentafluorobenzene	5.63	168	293066	50.00	ug/l		0.00
34) 1,4-Difluorobenzene	6.83	114	433898	50.00	ug/l		0.00
63) Chlorobenzene-d5	10.10	117	401634	50.00	ug/l		0.00
72) 1,4-Dichlorobenzene-d4	12.06	152	224720	50.00	ug/l		0.00
System Monitoring Compounds							
33) 1,2-Dichloroethane-d4	6.03	65	166597	46.11	ug/l		0.00
Spiked Amount 50.000			Recovery = 92.22%				
35) Dibromofluoromethane	5.46	113	137667	50.16	ug/l		0.00
Spiked Amount 50.000			Recovery = 100.32%				
50) Toluene-d8	8.70	98	490310	48.31	ug/l		0.00
Spiked Amount 50.000			Recovery = 96.62%				
62) 4-Bromofluorobenzene	11.12	95	189114	47.67	ug/l		0.00
Spiked Amount 50.000			Recovery = 95.34%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.18	85	49577	17.486	ug/l		96
3) Chloromethane	1.31	50	49304	14.366	ug/l		98
4) Vinyl Chloride	1.39	62	51192	16.077	ug/l		98
5) Bromomethane	1.63	94	35356	21.017	ug/l		98
6) Chloroethane	1.71	64	32703	17.390	ug/l		90
7) Trichlorofluoromethane	1.92	101	92629	19.670	ug/l		98
8) Diethyl Ether	2.17	74	31458	20.074	ug/l		95
9) 1,1,2-Trichlorotrifluoroet	2.37	101	50394	17.854	ug/l		96
10) Methyl Iodide	2.49	142	50011	13.732	ug/l		99
11) Tert butyl alcohol	3.01	59	57585	83.549	ug/l		98
12) 1,1-Dichloroethene	2.35	96	45972	15.855	ug/l		97
13) Acrolein	2.27	56	36492	88.570	ug/l		96
14) Allyl chloride	2.71	41	86222	16.091	ug/l		95
15) Acrylonitrile	3.11	53	136537	82.405	ug/l		98
16) Acetone	2.42	43	119756	88.606	ug/l		98
17) Carbon Disulfide	2.55	76	134149	16.595	ug/l		99
18) Methyl Acetate	2.75	43	63336	17.951	ug/l		99
19) Methyl tert-butyl Ether	3.17	73	178816	18.376	ug/l		98
20) Methylene Chloride	2.83	84	57806	18.150	ug/l		94
21) trans-1,2-Dichloroethene	3.14	96	56905	17.685	ug/l		99
22) Diisopropyl ether	3.82	45	178755	18.024	ug/l	#	93
23) Vinyl Acetate	3.78	43	749211	87.912	ug/l		100
24) 1,1-Dichloroethane	3.67	63	101002	17.898	ug/l		98
25) 2-Butanone	4.63	43	186082	82.628	ug/l		100
26) 2,2-Dichloropropane	4.54	77	94085	18.777	ug/l		100
27) cis-1,2-Dichloroethene	4.56	96	63730	17.480	ug/l		99
28) Bromochloromethane	4.98	49	46513	16.938	ug/l		95
29) Tetrahydrofuran	5.08	42	119223	80.124	ug/l		98
30) Chloroform	5.17	83	107618	18.604	ug/l		99
31) Cyclohexane	5.54	56	81149	16.637	ug/l		94
32) 1,1,1-Trichloroethane	5.46	97	100439	18.853	ug/l		100
36) 1,1-Dichloropropene	5.76	75	74665	18.207	ug/l		98
37) Ethyl Acetate	4.79	43	74277	17.852	ug/l		98
38) Carbon Tetrachloride	5.75	117	89328	19.777	ug/l		96

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX070820\
Data File : VX017246.D
Acq On : 08 Jul 2020 11:32
Operator : JC/SP
Sample : VX0708WBS01
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jul 08 15:53:57 2020
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X062920W.M
Quant Title : SW846 8260
QLast Update : Mon Jun 29 17:10:38 2020
Response via : Initial Calibration

Instrument :
MSVOA_X
ClientSampleId :
VX0708WBS01

Manual Integrations APPROVED
MMDadoda
7/9/2020 10:59:47 AM

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
39) Methylcyclohexane	7.43	83	84247	18.464	ug/l		96
40) Benzene	6.11	78	224486	18.631	ug/l		96
41) Methacrylonitrile	5.00	41	41885	17.886	ug/l		98
42) 1,2-Dichloroethane	6.16	62	86928	19.973	ug/l		100
43) Isopropyl Acetate	6.41	43	123232	17.824	ug/l		99
44) Trichloroethene	7.18	130	68649	20.464	ug/l		98
45) 1,2-Dichloropropane	7.49	63	58494	18.901	ug/l		97
46) Dibromomethane	7.63	93	40603	19.217	ug/l		97
47) Bromodichloromethane	7.87	83	86515	19.870	ug/l		95
48) Methyl methacrylate	7.74	41	59792	18.203	ug/l		98
49) 1,4-Dioxane	7.71	88	24668	331.486	ug/l		95
51) 4-Methyl-2-Pentanone	8.62	43	375887	91.203	ug/l		99
52) Toluene	8.76	92	143023	19.012	ug/l		99
53) t-1,3-Dichloropropene	9.02	75	91479	19.042	ug/l		99
54) cis-1,3-Dichloropropene	8.41	75	97188	18.872	ug/l		98
55) 1,1,2-Trichloroethane	9.20	97	60336	19.631	ug/l		98
56) Ethyl methacrylate	9.16	69	81754	18.688	ug/l		99
57) 1,3-Dichloropropane	9.35	76	98431	18.926	ug/l		100
58) 2-Chloroethyl Vinyl ether	8.29	63	209546	96.244	ug/l		99
59) 2-Hexanone	9.47	43	275667	91.583	ug/l		99
60) Dibromochloromethane	9.56	129	72134	20.207	ug/l		99
61) 1,2-Dibromoethane	9.65	107	64185	19.428	ug/l		99
64) Tetrachloroethene	9.32	164	67527	20.832	ug/l		98
65) Chlorobenzene	10.12	112	161123	19.437	ug/l		98
66) 1,1,1,2-Tetrachloroethane	10.20	131	64916	20.320	ug/l		98
67) Ethyl Benzene	10.23	91	269857	19.493	ug/l		99
68) m/p-Xylenes	10.34	106	211109	39.716	ug/l		99
69) o-Xylene	10.68	106	97631	19.308	ug/l		99
70) Styrene	10.69	104	168017	19.512	ug/l		98
71) Bromoform	10.84	173	52646	20.781	ug/l	#	99
73) Isopropylbenzene	11.00	105	271364	18.436	ug/l		99
74) N-amyl acetate	10.88	43	105994	16.876	ug/l		99
75) 1,1,2,2-Tetrachloroethane	11.25	83	82466	17.811	ug/l		98
76) 1,2,3-Trichloropropane	11.28	75	80931m	18.314	ug/l		
77) Bromobenzene	11.24	156	75537	18.672	ug/l		96
78) n-propylbenzene	11.34	91	307365	18.466	ug/l		99
79) 2-Chlorotoluene	11.40	91	186150	18.478	ug/l		99
80) 1,3,5-Trimethylbenzene	11.49	105	231430	18.955	ug/l		100
81) trans-1,4-Dichloro-2-buten	11.06	75	29194	17.108	ug/l		95
82) 4-Chlorotoluene	11.49	91	219387	18.217	ug/l		97
83) tert-Butylbenzene	11.76	119	225474	18.812	ug/l		99
84) 1,2,4-Trimethylbenzene	11.79	105	235479	19.011	ug/l		100
85) sec-Butylbenzene	11.93	105	259182	18.397	ug/l		99
86) p-Isopropyltoluene	12.05	119	248105	18.917	ug/l		99
87) 1,3-Dichlorobenzene	12.01	146	134146	18.258	ug/l		99
88) 1,4-Dichlorobenzene	12.08	146	138612	19.890	ug/l		100
89) n-Butylbenzene	12.37	91	202122	17.260	ug/l		99
90) Hexachloroethane	12.58	117	47264	18.274	ug/l		98
91) 1,2-Dichlorobenzene	12.38	146	132189	19.248	ug/l		99
92) 1,2-Dibromo-3-Chloropropan	12.98	75	18324	16.590	ug/l		99

Data Path : Z:\VOASRV\HPCHEM1\MSVOA X\DATA\VX070820\
Data File : VX017246.D
Acq On : 08 Jul 2020 11:32
Operator : JC/SP
Sample : VX0708WBS01
Misc : 5.0mL/MSVOA X/WATER
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jul 08 15:53:57 2020
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X062920W.M
Quant Title : SW846 8260
QLast Update : Mon Jun 29 17:10:38 2020
Response via : Initial Calibration

Instrument :
MSVOA_X
ClientSampleId :
VX0708WBS01

Manual Integrations APPROVED
MMDadoda
7/9/2020 10:59:47 AM

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
93) 1,2,4-Trichlorobenzene	13.63	180	81707	17.430 ug/l	99
94) Hexachlorobutadiene	13.77	225	34345	19.824 ug/l	99
95) Naphthalene	13.82	128	244119	17.130 ug/l	100
96) 1,2,3-Trichlorobenzene	14.00	180	80658	17.780 ug/l	96

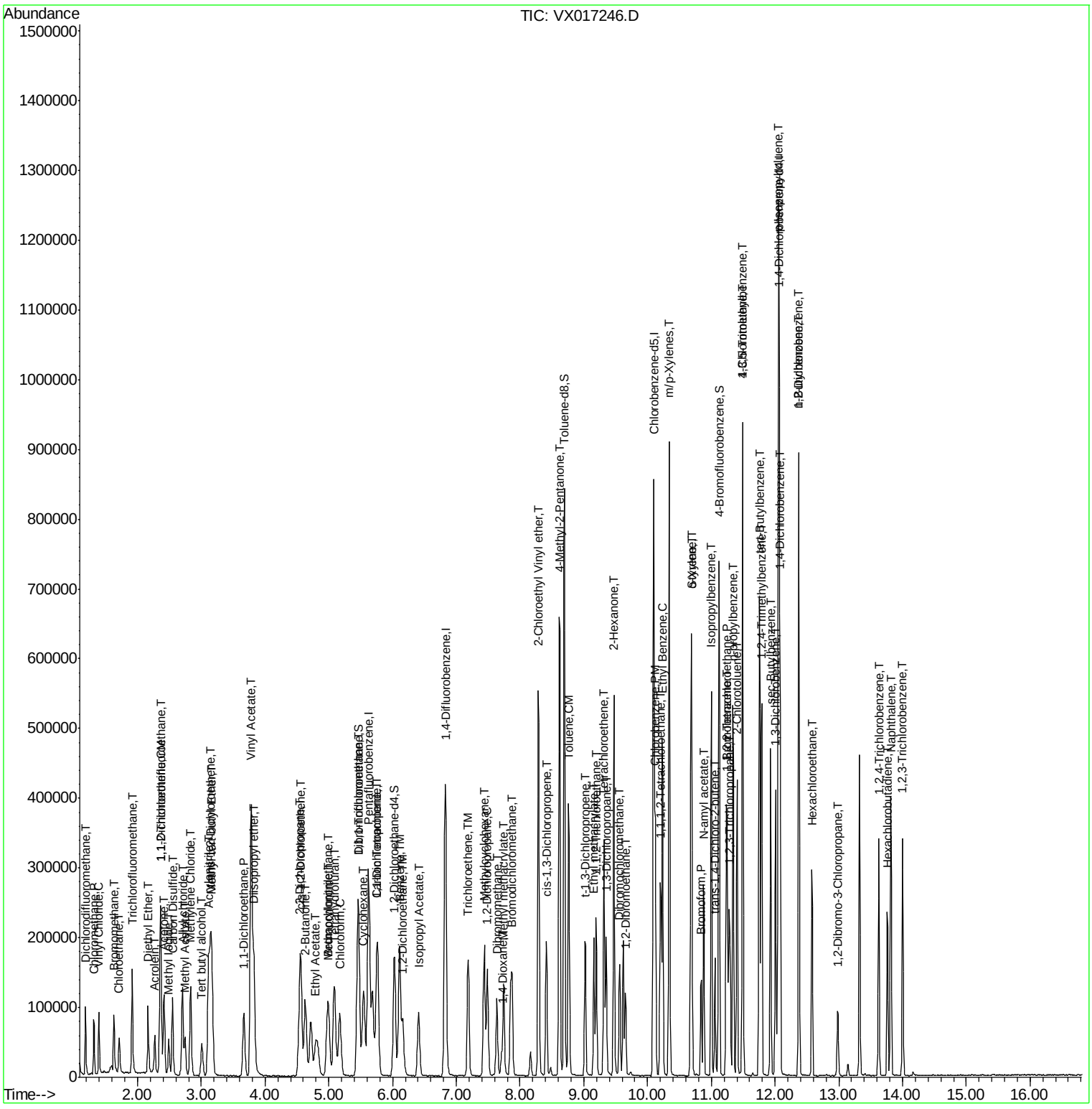
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX070820\
Data File : VX017246.D
Acq On : 08 Jul 2020 11:32
Operator : JC/SP
Sample : VX0708WBS01
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jul 08 15:53:57 2020
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X062920W.M
Quant Title : SW846 8260
QLast Update : Mon Jun 29 17:10:38 2020
Response via : Initial Calibration

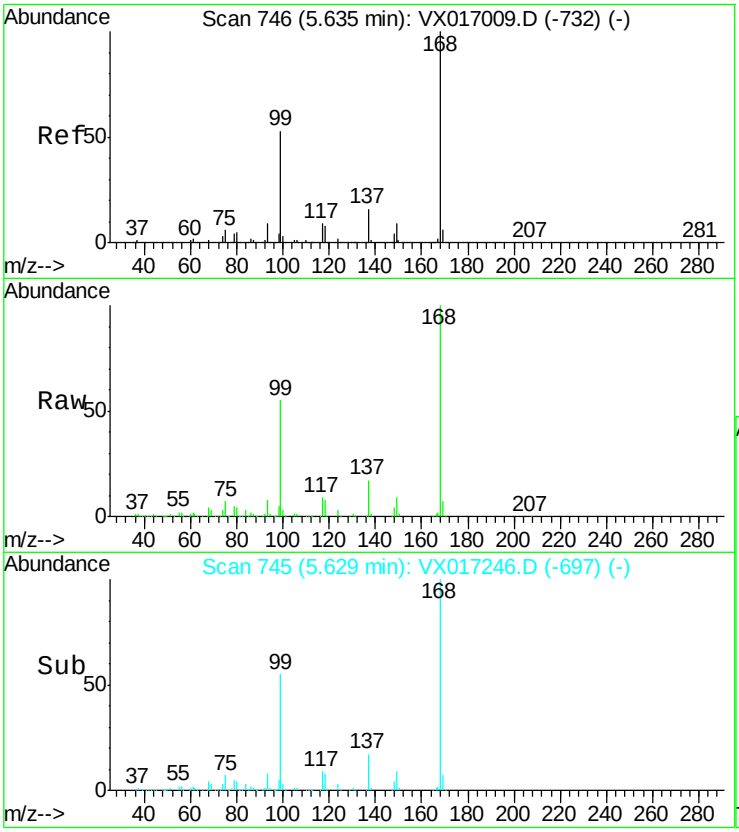
Instrument :
MSVOA_X
ClientSampleId :
VX0708WBS01

Manual Integrations APPROVED
MMDadoda
7/9/2020 10:59:47 AM



Instrument :
MSVOA_X
ClientSampleId :
VX0708WBS01

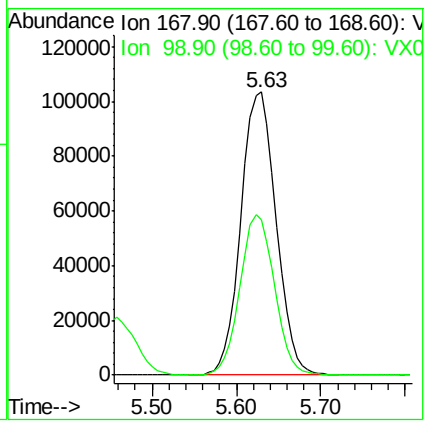
Manual Integrations APPROVED
MMDadoda
7/9/2020 10:59:47 AM

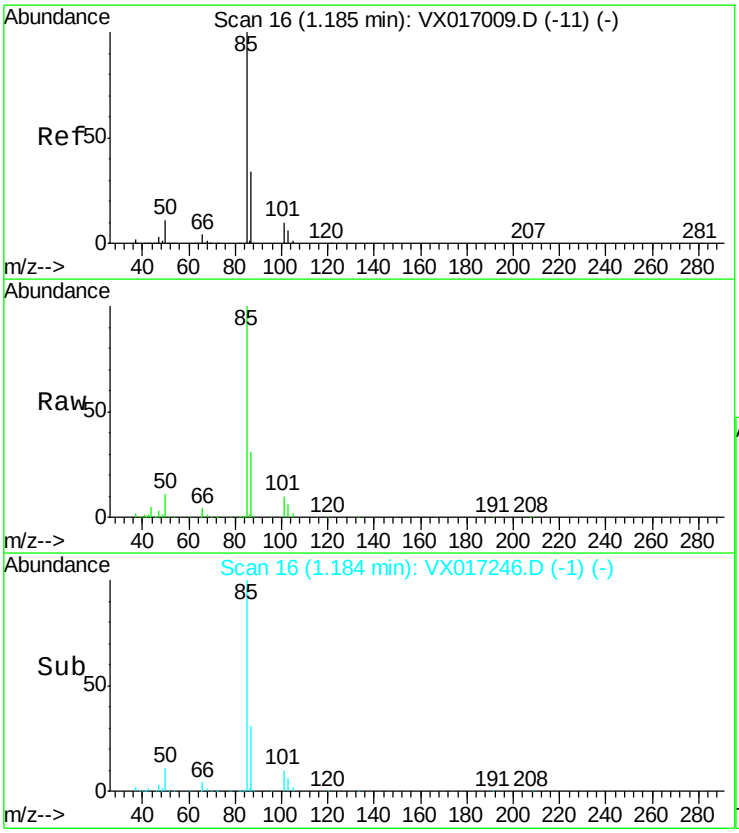


#1
Pentafluorobenzene
Concen: 50.000 ug/l
RT: 5.63 min Scan# 745
Delta R.T. -0.01 min
Lab File: VX017246.D
Acq: 08 Jul 2020 11:32

Tgt Ion:168 Resp: 293066

Ion	Ratio	Lower	Upper
168	100		
99	55.0	42.6	64.0

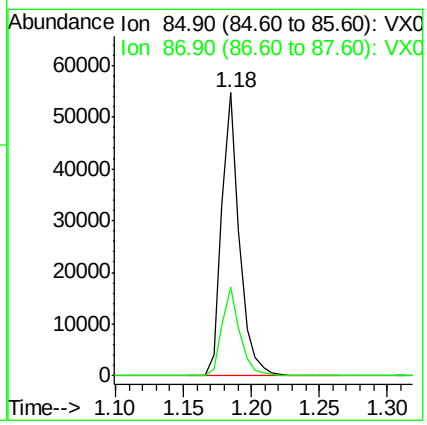




#2
Dichlorodifluoromethane
Concen: 17.486 ug/l
RT: 1.18 min Scan# 16
Delta R.T. -0.00 min
Lab File: VX017246.D
Acq: 08 Jul 2020 11:32

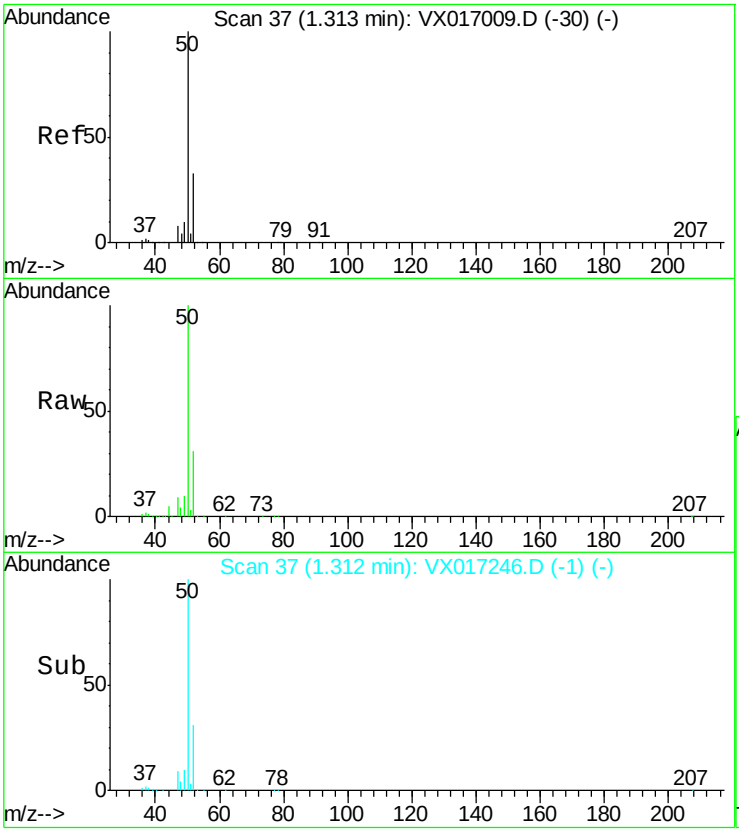
Tgt Ion: 85 Resp: 49577

Ion	Ratio	Lower	Upper
85	100		
87	31.2	16.8	50.4



Instrument :
MSVOA_X
ClientSampleId :
VX0708WBS01

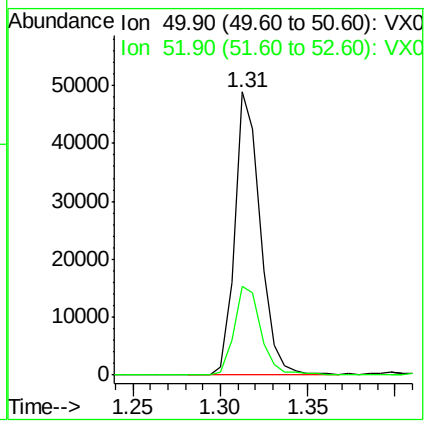
Manual Integrations APPROVED
MMDadoda
7/9/2020 10:59:47 AM

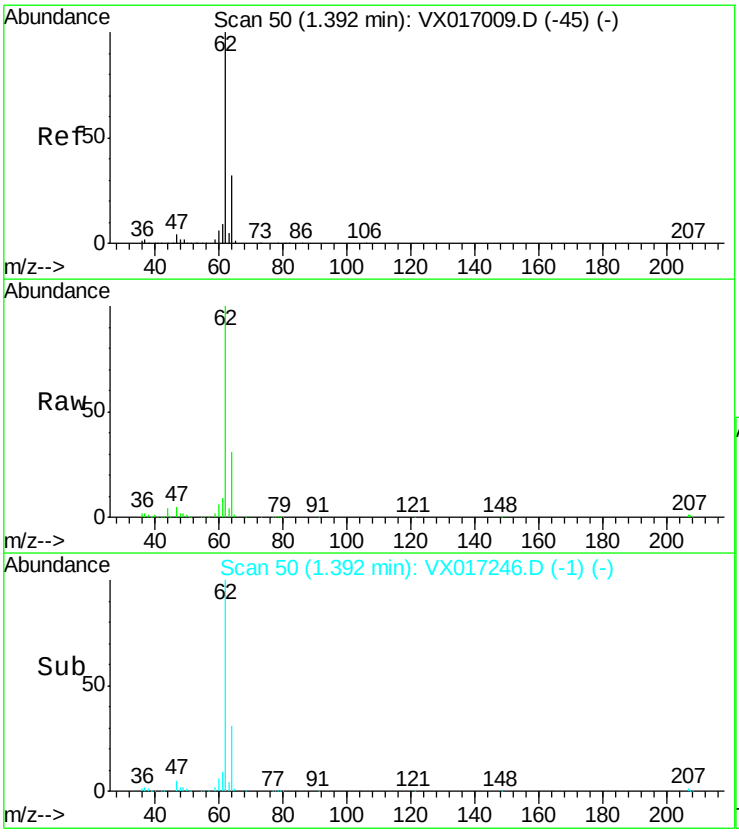


#3
Chloromethane
Concen: 14.366 ug/l
RT: 1.31 min Scan# 37
Delta R.T. -0.00 min
Lab File: VX017246.D
Acq: 08 Jul 2020 11:32

Tgt Ion: 50 Resp: 49304

Ion	Ratio	Lower	Upper
50	100		
52	31.3	26.1	39.1

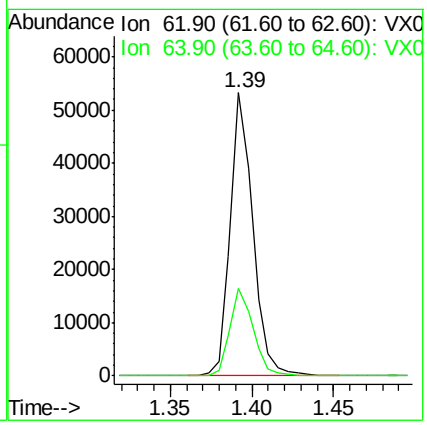




#4
Vinyl Chloride
Concen: 16.077 ug/l
RT: 1.39 min Scan# 50
Delta R.T. -0.00 min
Lab File: VX017246.D
Acq: 08 Jul 2020 11:32

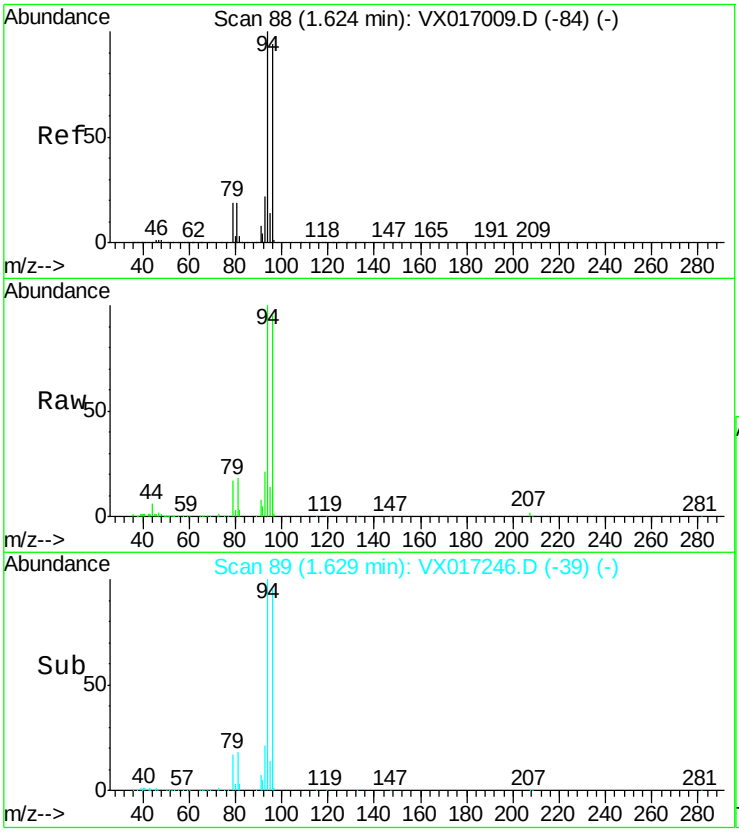
Tgt Ion: 62 Resp: 51192

Ion	Ratio	Lower	Upper
62	100		
64	31.0	25.9	38.9



Instrument :
MSVOA_X
ClientSampleId :
VX0708WBS01

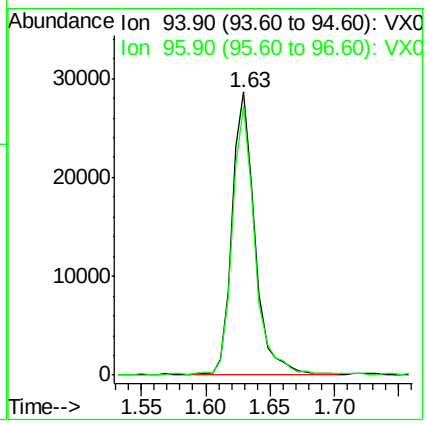
Manual Integrations APPROVED
MMDadoda
7/9/2020 10:59:47 AM

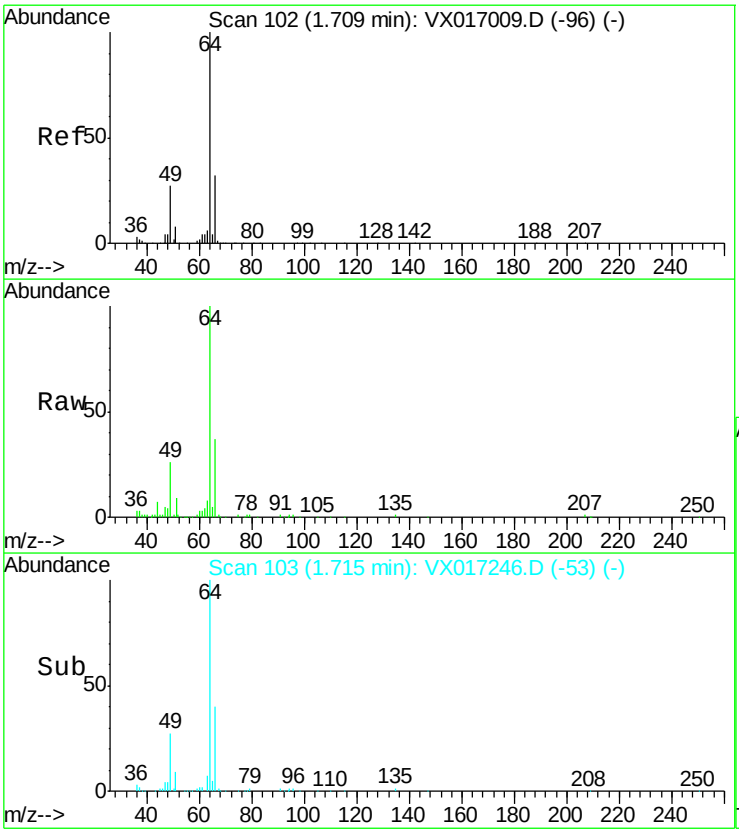


#5
Bromomethane
Concen: 21.017 ug/l
RT: 1.63 min Scan# 89
Delta R.T. 0.01 min
Lab File: VX017246.D
Acq: 08 Jul 2020 11:32

Tgt Ion: 94 Resp: 35356

Ion	Ratio	Lower	Upper
94	100		
96	95.2	75.0	112.4

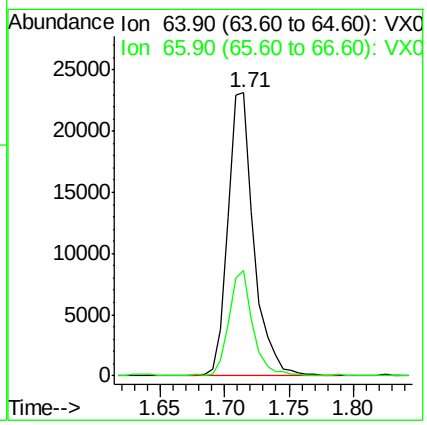




#6
Chloroethane
Concen: 17.390 ug/l
RT: 1.71 min Scan# 103
Delta R.T. 0.01 min
Lab File: VX017246.D
Acq: 08 Jul 2020 11:32

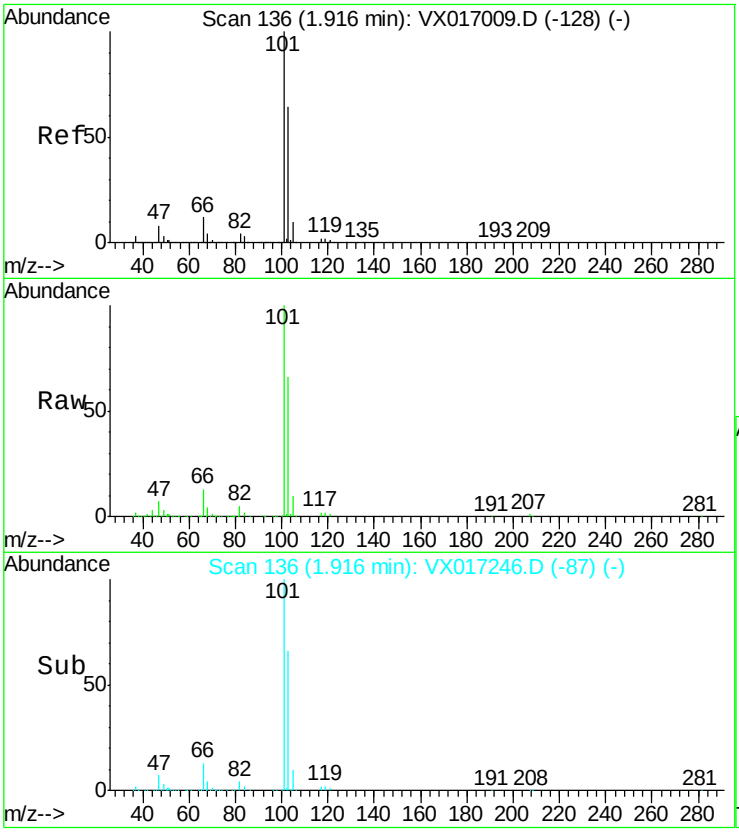
Tgt Ion: 64 Resp: 32703

Ion	Ratio	Lower	Upper
64	100		
66	37.2	25.5	38.3



Instrument :
MSVOA_X
ClientSampleId :
VX0708WBS01

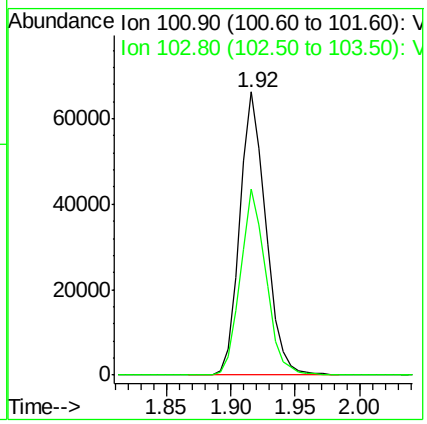
Manual Integrations APPROVED
MMDadoda
7/9/2020 10:59:47 AM

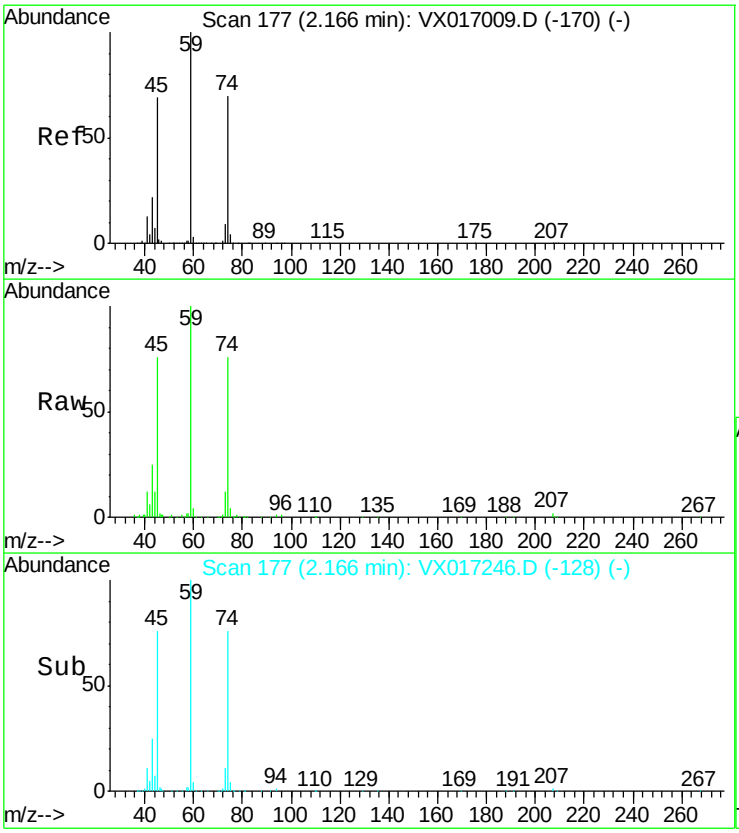


#7
Trichlorofluoromethane
Concen: 19.670 ug/l
RT: 1.92 min Scan# 136
Delta R.T. -0.00 min
Lab File: VX017246.D
Acq: 08 Jul 2020 11:32

Tgt Ion:101 Resp: 92629

Ion	Ratio	Lower	Upper
101	100		
103	65.6	51.5	77.3

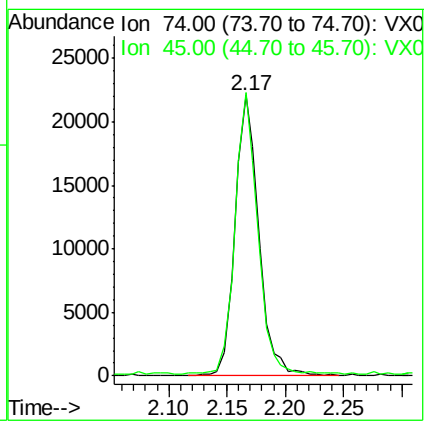


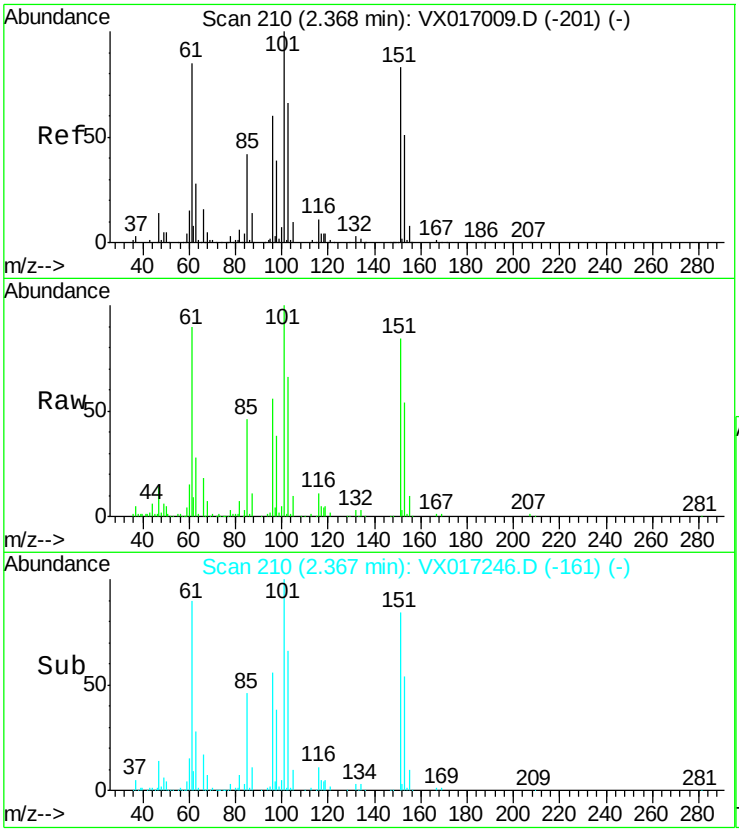


#8
Diethyl Ether
Concen: 20.074 ug/l
RT: 2.17 min Scan# 177
Delta R.T. 0.00 min
Lab File: VX017246.D
Acq: 08 Jul 2020 11:32

Tgt Ion: 74 Resp: 31458

Ion	Ratio	Lower	Upper
74	100		
45	95.0	49.8	149.3

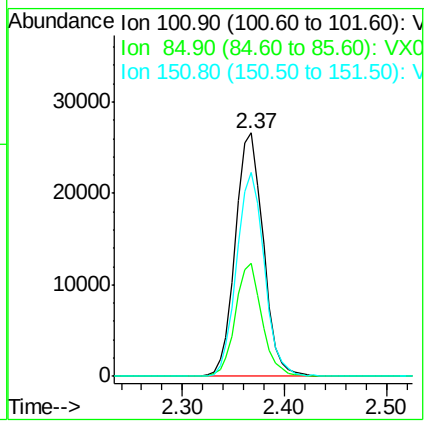




#9
1,1,2-Trichlorotrifluoroethane
Concen: 17.854 ug/l
RT: 2.37 min Scan# 210
Delta R.T. -0.00 min
Lab File: VX017246.D
Acq: 08 Jul 2020 11:32

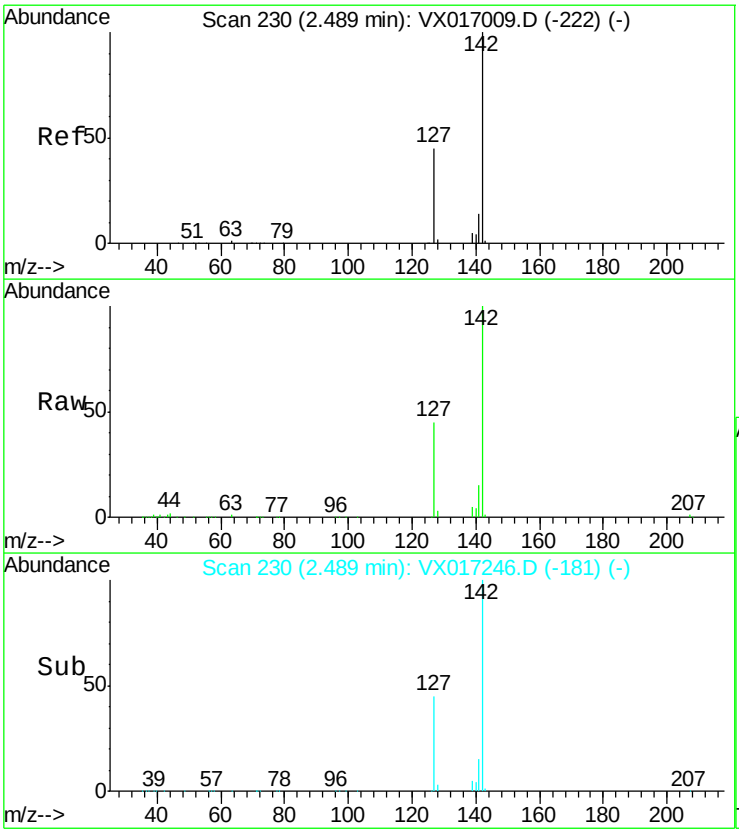
Tgt Ion:101 Resp: 50394

Ion	Ratio	Lower	Upper
101	100		
85	43.8	33.5	50.3
151	83.0	63.8	95.6



Instrument :
MSVOA_X
ClientSampleId :
VX0708WBS01

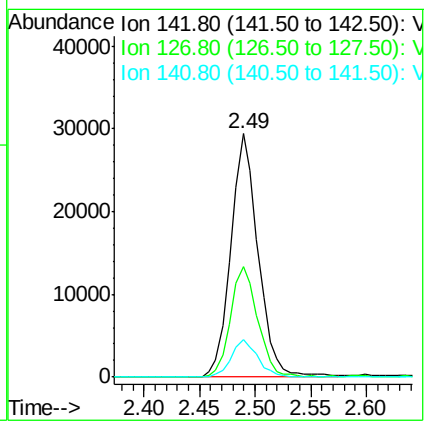
Manual Integrations APPROVED
MMDadoda
7/9/2020 10:59:47 AM



#10
Methyl Iodide
Concen: 13.732 ug/l
RT: 2.49 min Scan# 230
Delta R.T. -0.00 min
Lab File: VX017246.D
Acq: 08 Jul 2020 11:32

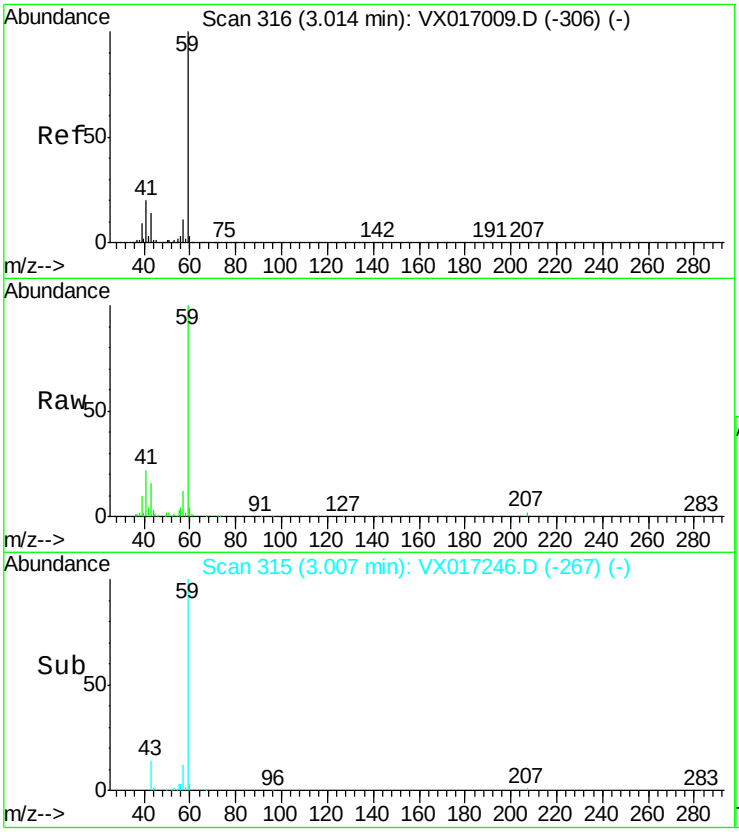
Tgt Ion:142 Resp: 50011

Ion	Ratio	Lower	Upper
142	100		
127	45.2	36.6	54.8
141	14.7	11.6	17.4



Instrument :
MSVOA_X
ClientSampleId :
VX0708WBS01

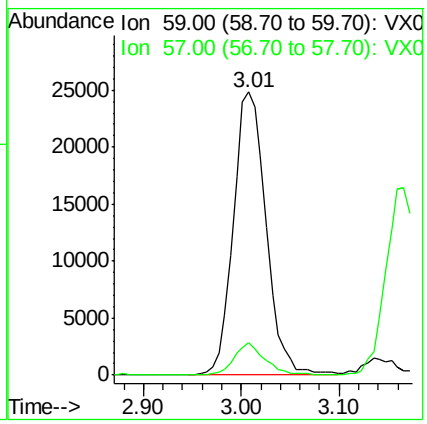
Manual Integrations APPROVED
MMDadoda
7/9/2020 10:59:47 AM

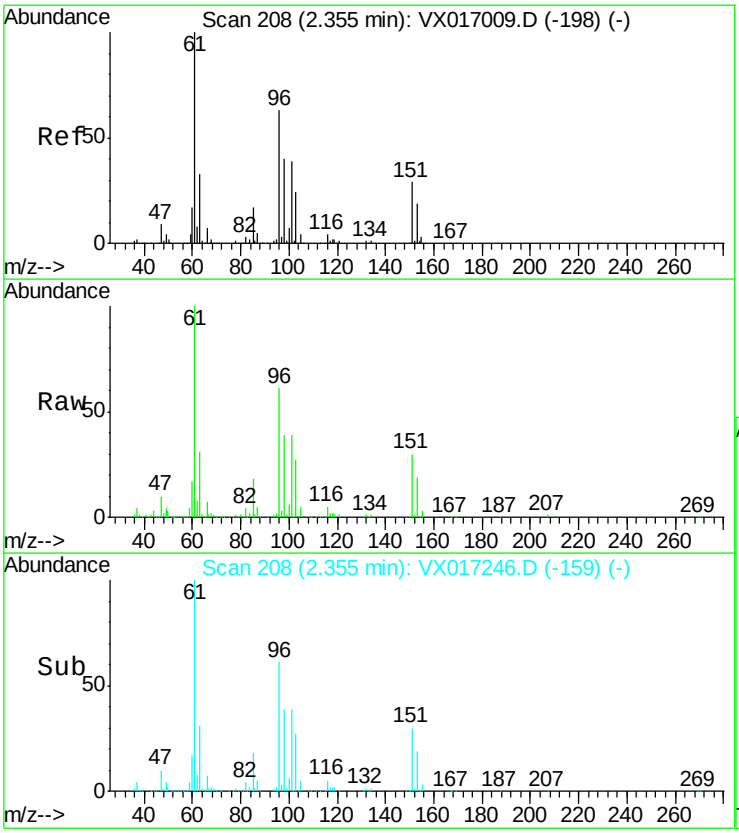


#11
Tert butyl alcohol
Concen: 83.549 ug/l
RT: 3.01 min Scan# 315
Delta R.T. -0.01 min
Lab File: VX017246.D
Acq: 08 Jul 2020 11:32

Tgt Ion: 59 Resp: 57585

Ion	Ratio	Lower	Upper
59	100		
57	10.9	8.2	12.2

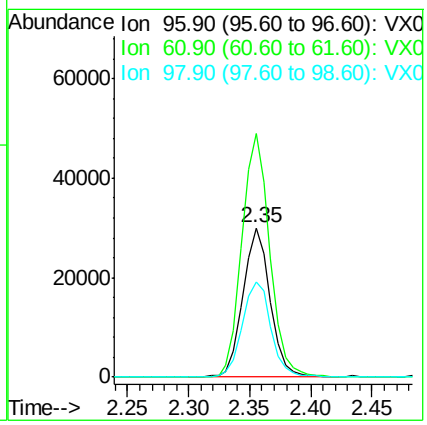




#12
1,1-Dichloroethene
Concen: 15.855 ug/l
RT: 2.35 min Scan# 208
Delta R.T. -0.00 min
Lab File: VX017246.D
Acq: 08 Jul 2020 11:32

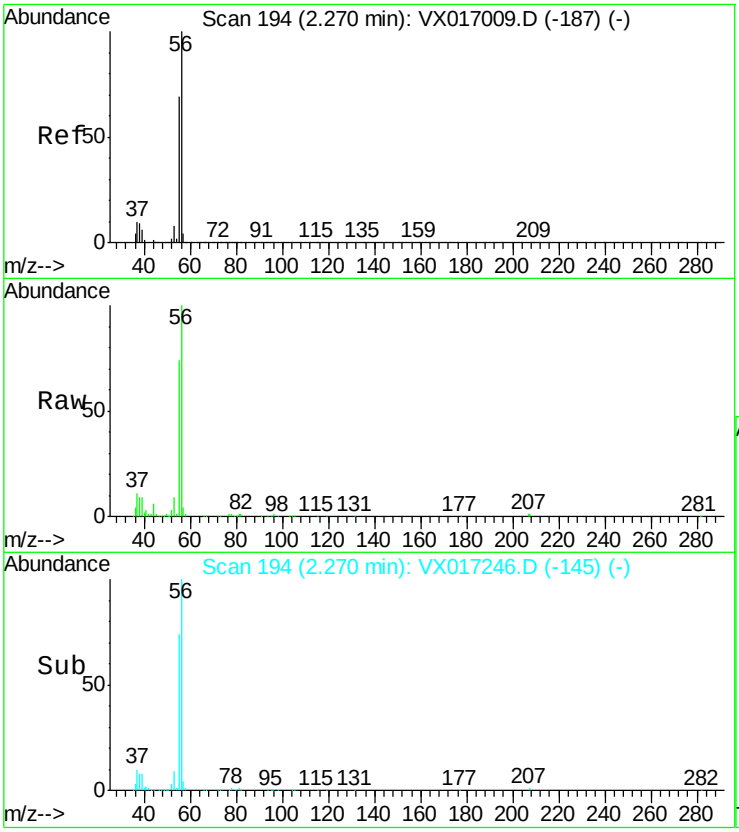
Tgt Ion: 96 Resp: 45972

Ion	Ratio	Lower	Upper
96	100		
61	163.6	126.3	189.5
98	64.3	51.0	76.6



Instrument :
MSVOA_X
ClientSampleId :
VX0708WBS01

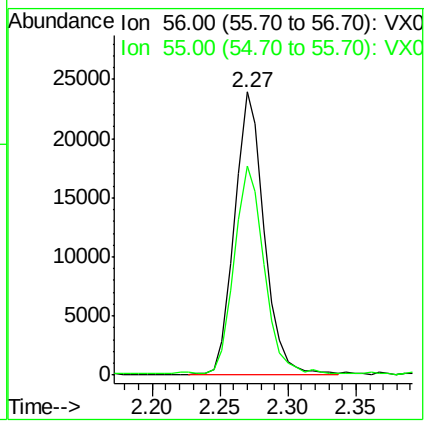
Manual Integrations APPROVED
MMDadoda
7/9/2020 10:59:47 AM

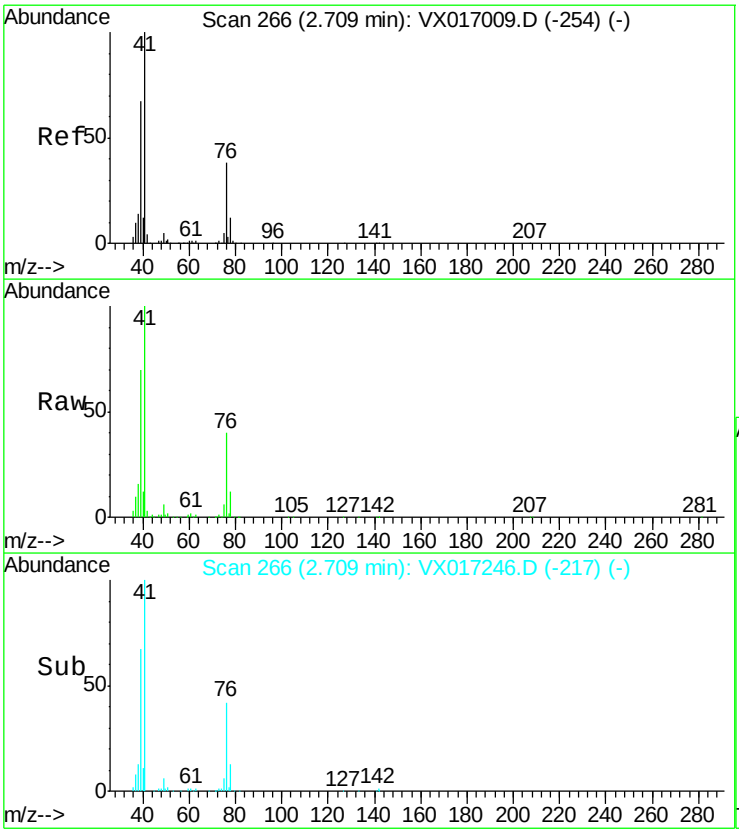


#13
Acrolein
Concen: 88.570 ug/l
RT: 2.27 min Scan# 194
Delta R.T. -0.00 min
Lab File: VX017246.D
Acq: 08 Jul 2020 11:32

Tgt Ion: 56 Resp: 36492

Ion	Ratio	Lower	Upper
56	100		
55	73.0	55.7	83.5

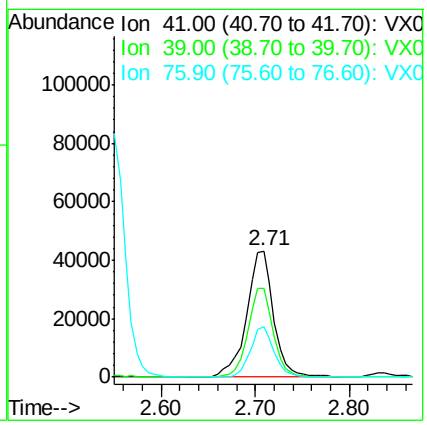




#14
Allyl chloride
Concen: 16.091 ug/l
RT: 2.71 min Scan# 266
Delta R.T. -0.00 min
Lab File: VX017246.D
Acq: 08 Jul 2020 11:32

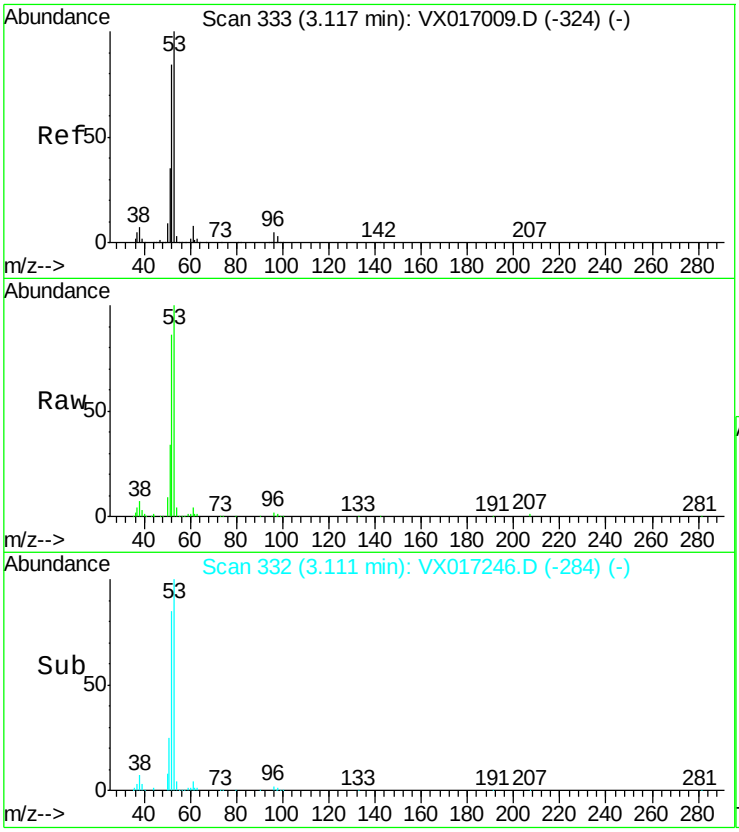
Tgt Ion: 41 Resp: 86222

Ion	Ratio	Lower	Upper
41	100		
39	66.2	49.4	74.2
76	35.5	26.8	40.2



Instrument :
MSVOA_X
ClientSampleId :
VX0708WBS01

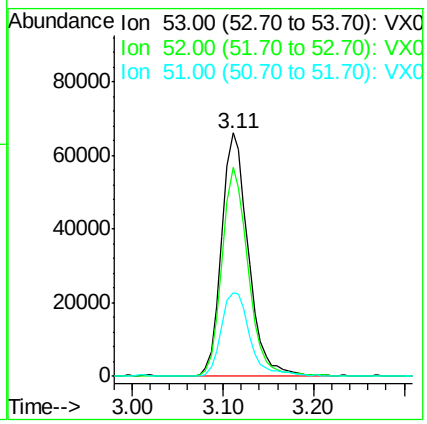
Manual Integrations APPROVED
MMDadoda
7/9/2020 10:59:47 AM

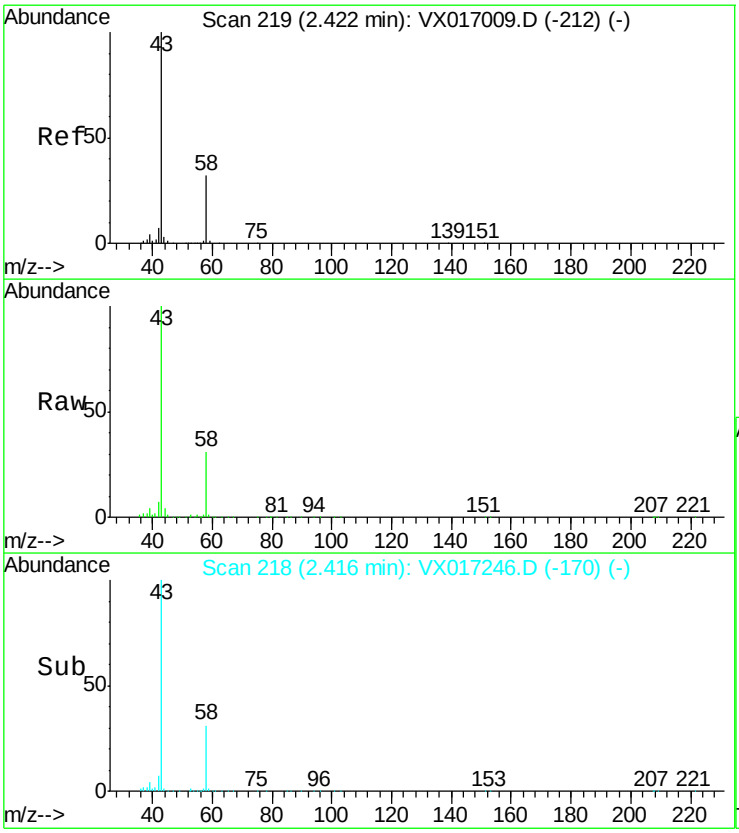


#15
Acrylonitrile
Concen: 82.405 ug/l
RT: 3.11 min Scan# 332
Delta R.T. -0.01 min
Lab File: VX017246.D
Acq: 08 Jul 2020 11:32

Tgt Ion: 53 Resp: 136537

Ion	Ratio	Lower	Upper
53	100		
52	83.8	65.6	98.4
51	36.7	28.3	42.5

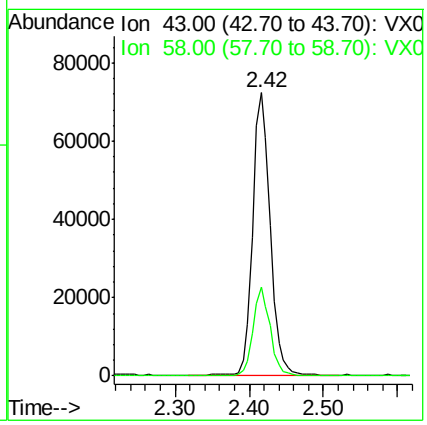




#16
Acetone
Concen: 88.606 ug/l
RT: 2.42 min Scan# 218
Delta R.T. -0.01 min
Lab File: VX017246.D
Acq: 08 Jul 2020 11:32

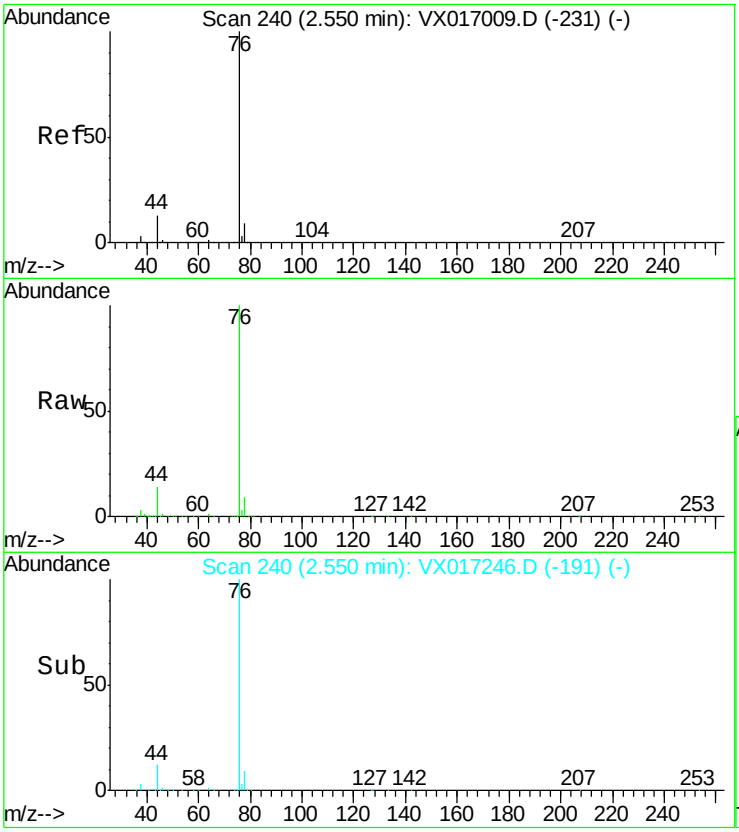
Tgt Ion: 43 Resp: 119756

Ion	Ratio	Lower	Upper
43	100		
58	31.1	25.7	38.5



Instrument :
MSVOA_X
ClientSampleId :
VX0708WBS01

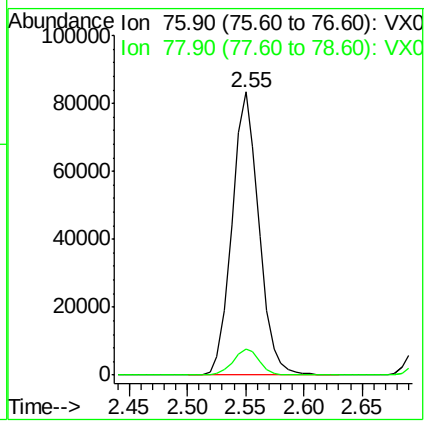
Manual Integrations APPROVED
MMDadoda
7/9/2020 10:59:47 AM

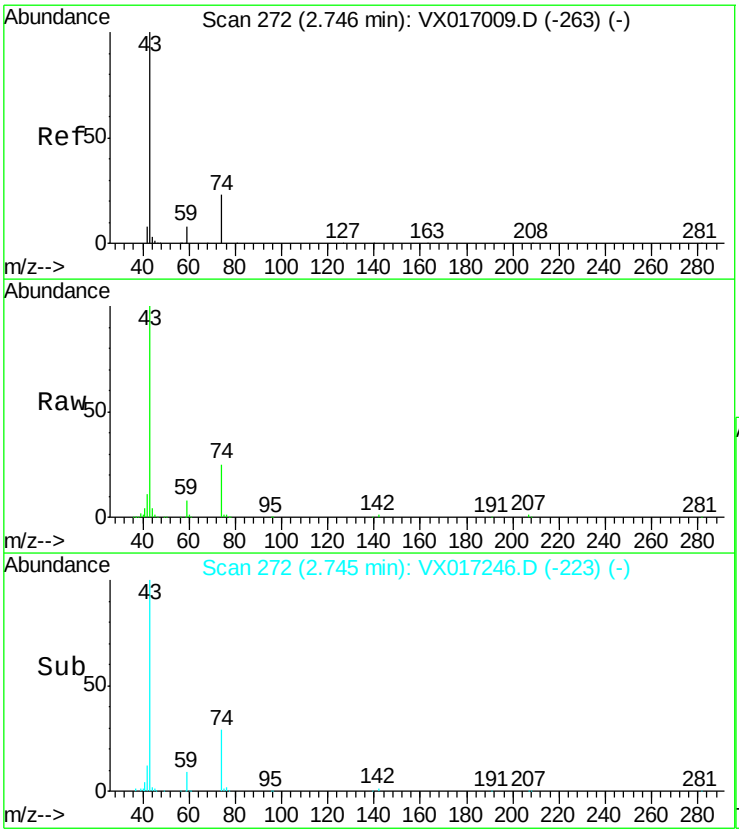


#17
Carbon Disulfide
Concen: 16.595 ug/l
RT: 2.55 min Scan# 240
Delta R.T. 0.00 min
Lab File: VX017246.D
Acq: 08 Jul 2020 11:32

Tgt Ion: 76 Resp: 134149

Ion	Ratio	Lower	Upper
76	100		
78	9.4	7.2	10.8

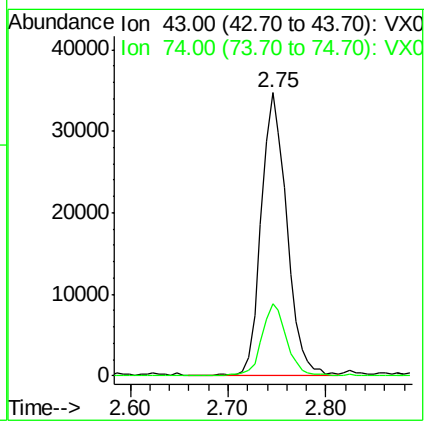




#18
Methyl Acetate
Concen: 17.951 ug/l
RT: 2.75 min Scan# 272
Delta R.T. -0.00 min
Lab File: VX017246.D
Acq: 08 Jul 2020 11:32

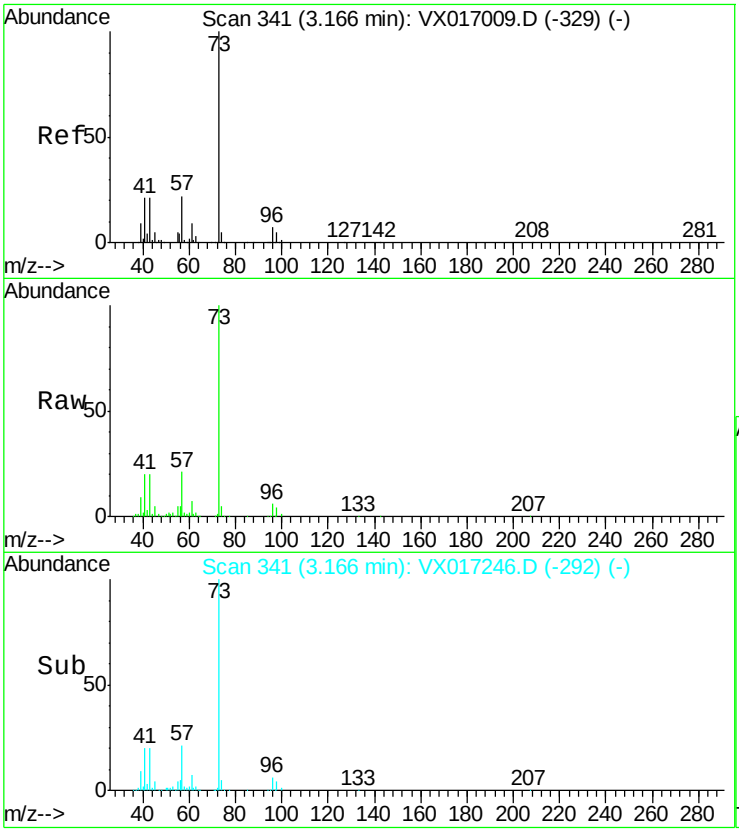
Tgt Ion: 43 Resp: 63336

Ion	Ratio	Lower	Upper
43	100		
74	24.8	19.3	28.9



Instrument :
MSVOA_X
ClientSampleId :
VX0708WBS01

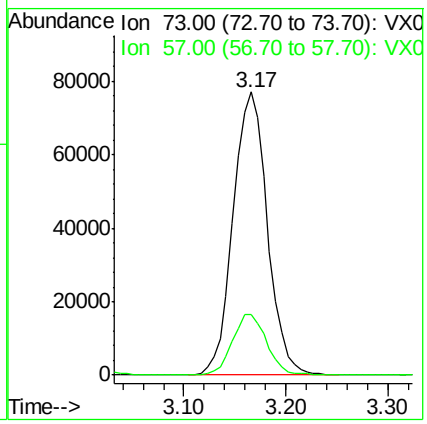
Manual Integrations APPROVED
MMDadoda
7/9/2020 10:59:47 AM

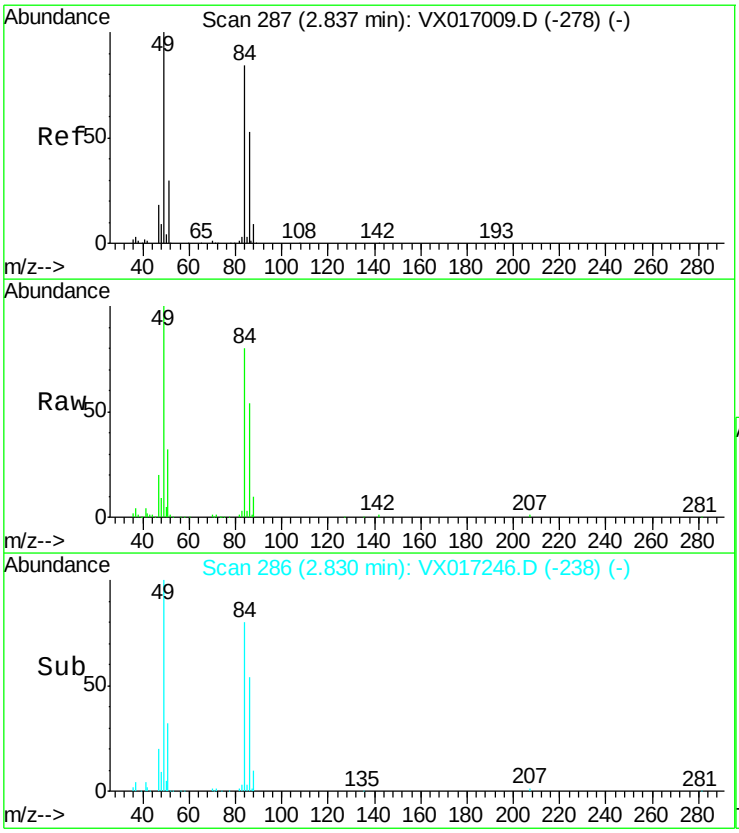


#19
Methyl tert-butyl Ether
Concen: 18.376 ug/l
RT: 3.17 min Scan# 341
Delta R.T. -0.00 min
Lab File: VX017246.D
Acq: 08 Jul 2020 11:32

Tgt Ion: 73 Resp: 178816

Ion	Ratio	Lower	Upper
73	100		
57	21.2	17.6	26.4

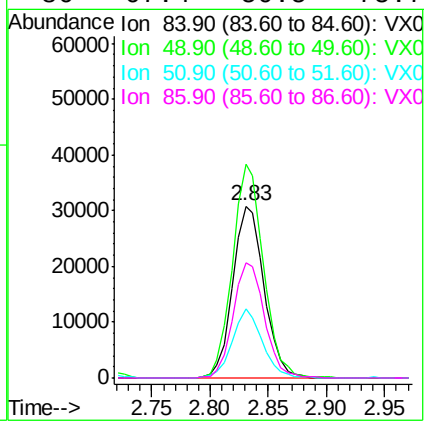




#20
Methylene Chloride
Concen: 18.150 ug/l
RT: 2.83 min Scan# 286
Delta R.T. -0.01 min
Lab File: VX017246.D
Acq: 08 Jul 2020 11:32

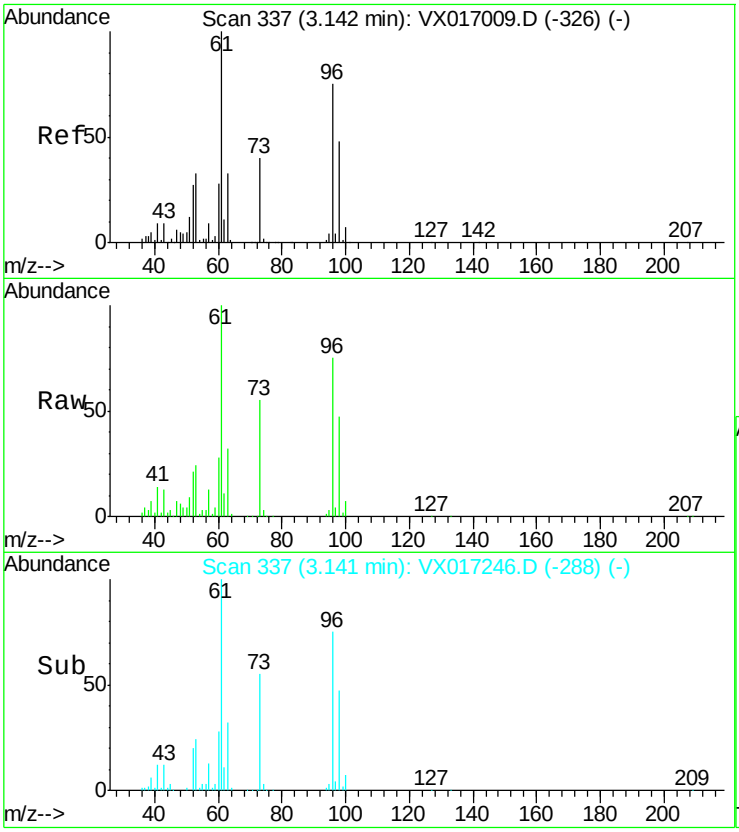
Tgt Ion: 84 Resp: 57806

Ion	Ratio	Lower	Upper
84	100		
49	124.3	94.7	142.1
51	40.0	28.6	42.8
86	67.4	50.5	75.7



Instrument :
MSVOA_X
ClientSampleId :
VX0708WBS01

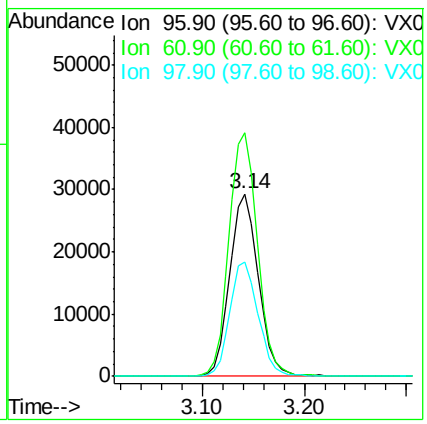
Manual Integrations APPROVED
MMDadoda
7/9/2020 10:59:47 AM

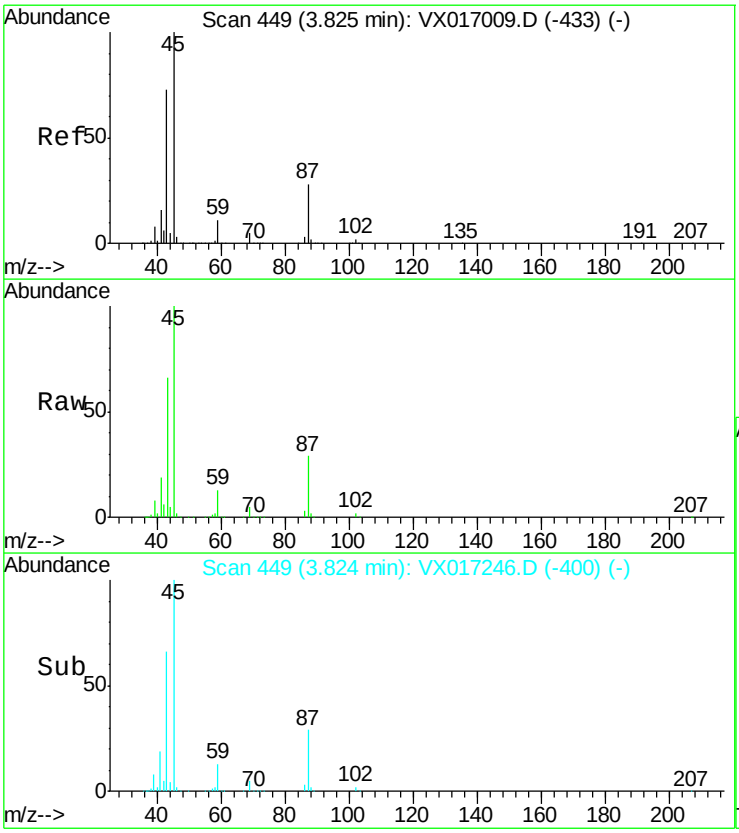


#21
trans-1,2-Dichloroethene
Concen: 17.685 ug/l
RT: 3.14 min Scan# 337
Delta R.T. -0.00 min
Lab File: VX017246.D
Acq: 08 Jul 2020 11:32

Tgt Ion: 96 Resp: 56905

Ion	Ratio	Lower	Upper
96	100		
61	133.5	107.0	160.6
98	62.8	51.6	77.4

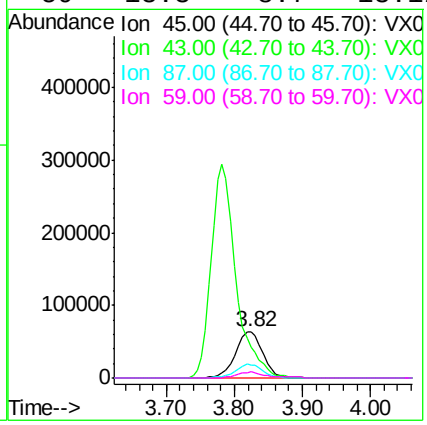




#22
Diisopropyl ether
Concen: 18.024 ug/l
RT: 3.82 min Scan# 449
Delta R.T. -0.00 min
Lab File: VX017246.D
Acq: 08 Jul 2020 11:32

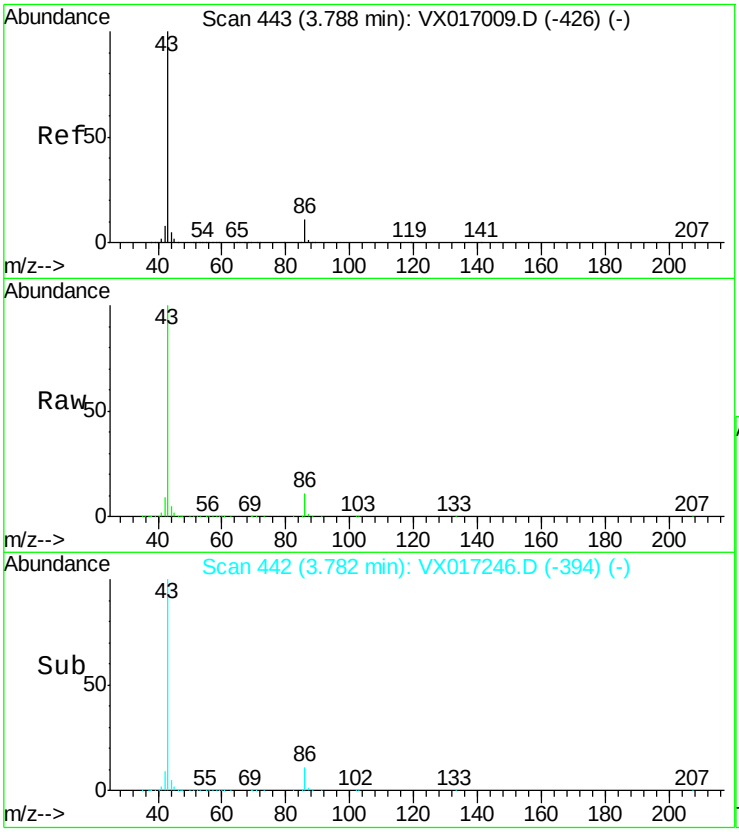
Tgt Ion: 45 Resp: 178755

Ion	Ratio	Lower	Upper
45	100		
43	65.7	58.6	88.0
87	28.6	22.6	34.0
59	13.3	8.7	13.1#



Instrument :
MSVOA_X
ClientSampleId :
VX0708WBS01

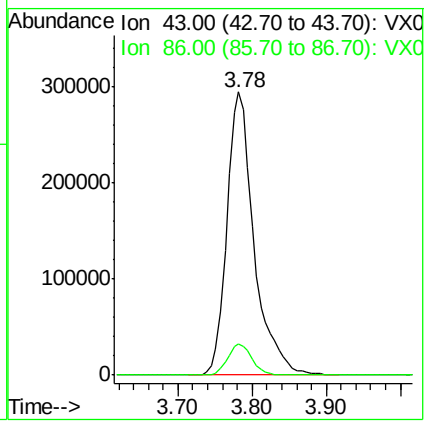
Manual Integrations APPROVED
MMDadoda
7/9/2020 10:59:47 AM

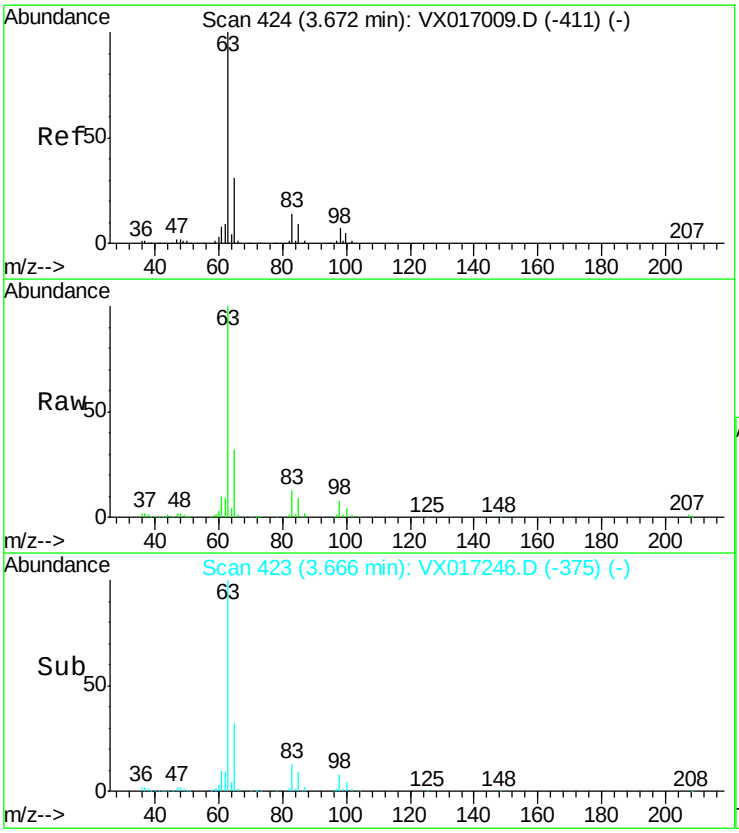


#23
Vinyl Acetate
Concen: 87.912 ug/l
RT: 3.78 min Scan# 442
Delta R.T. -0.01 min
Lab File: VX017246.D
Acq: 08 Jul 2020 11:32

Tgt Ion: 43 Resp: 749211

Ion	Ratio	Lower	Upper
43	100		
86	10.9	8.6	13.0

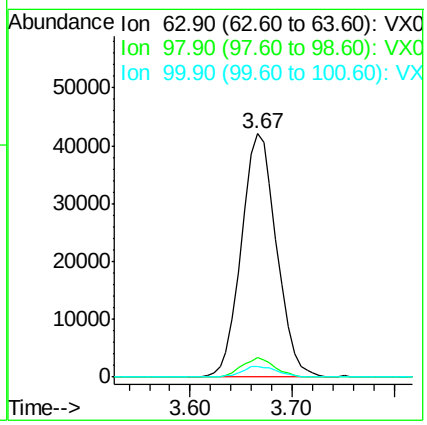




#24
1,1-Dichloroethane
Concen: 17.898 ug/l
RT: 3.67 min Scan# 423
Delta R.T. -0.01 min
Lab File: VX017246.D
Acq: 08 Jul 2020 11:32

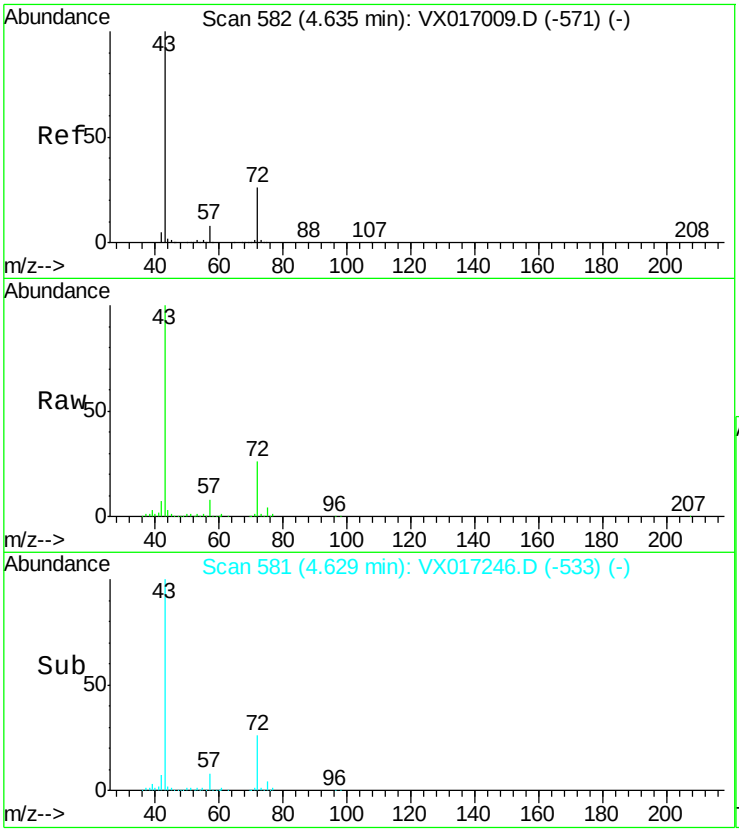
Tgt Ion: 63 Resp: 101002

Ion	Ratio	Lower	Upper
63	100		
98	8.2	3.6	10.8
100	4.5	2.4	7.1



Instrument :
MSVOA_X
ClientSampleId :
VX0708WBS01

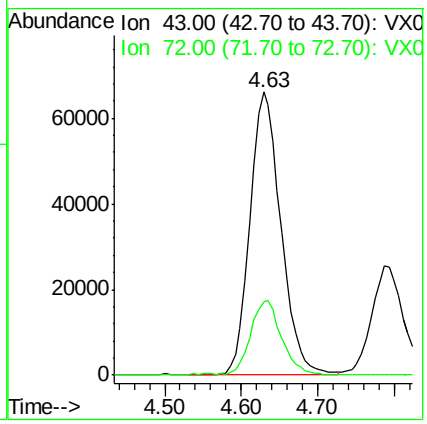
Manual Integrations APPROVED
MMDadoda
7/9/2020 10:59:47 AM

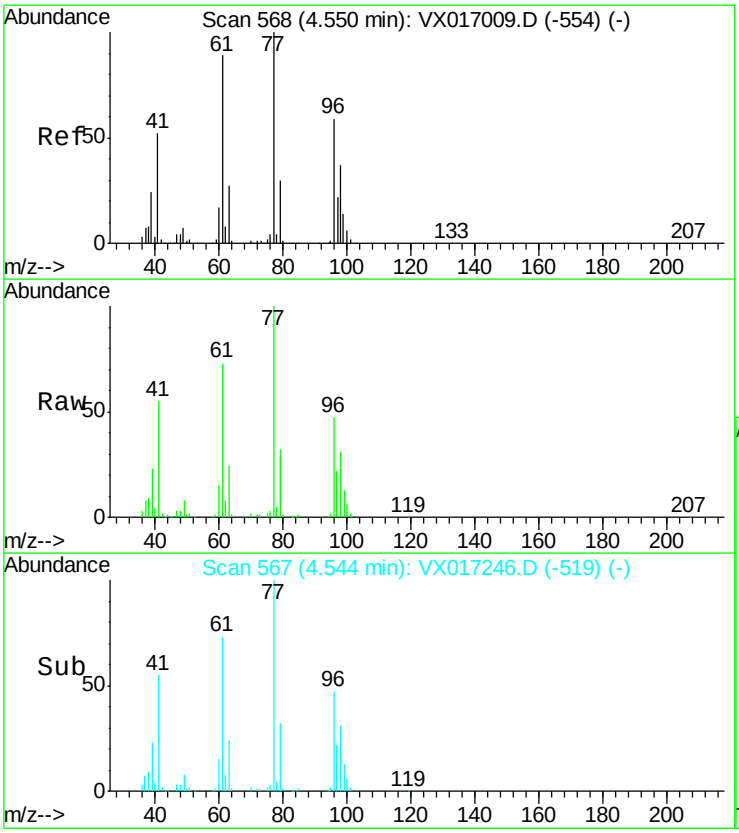


#25
2-Butanone
Concen: 82.628 ug/l
RT: 4.63 min Scan# 581
Delta R.T. -0.01 min
Lab File: VX017246.D
Acq: 08 Jul 2020 11:32

Tgt Ion: 43 Resp: 186082

Ion	Ratio	Lower	Upper
43	100		
72	25.8	20.8	31.2

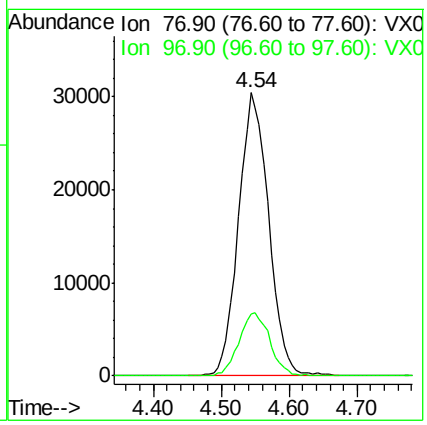




#26
2,2-Dichloropropane
Concen: 18.777 ug/l
RT: 4.54 min Scan# 567
Delta R.T. -0.01 min
Lab File: VX017246.D
Acq: 08 Jul 2020 11:32

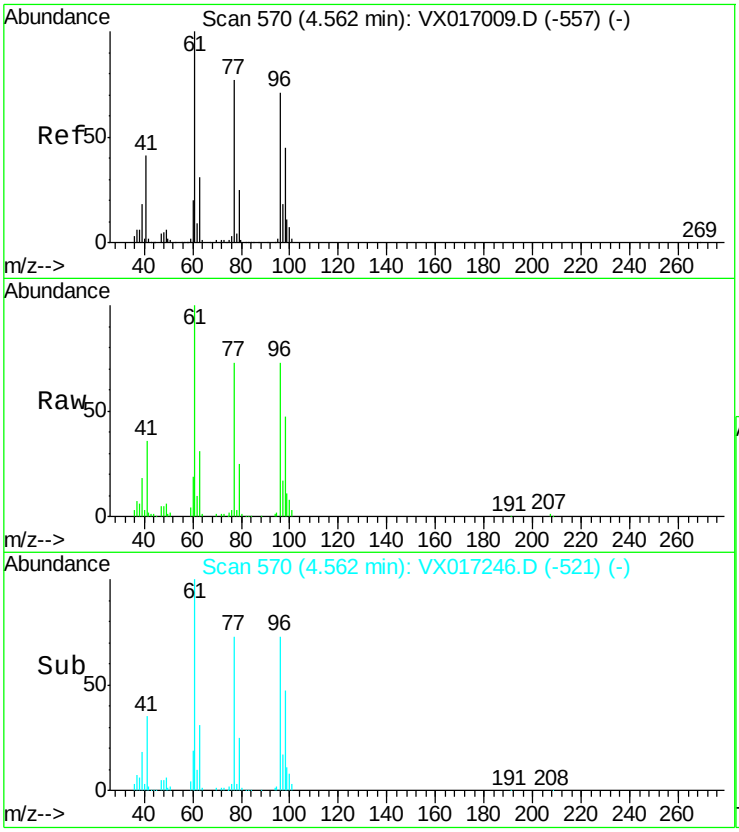
Tgt Ion: 77 Resp: 94085

Ion	Ratio	Lower	Upper
77	100		
97	22.7	11.4	34.2



Instrument :
MSVOA_X
ClientSampleId :
VX0708WBS01

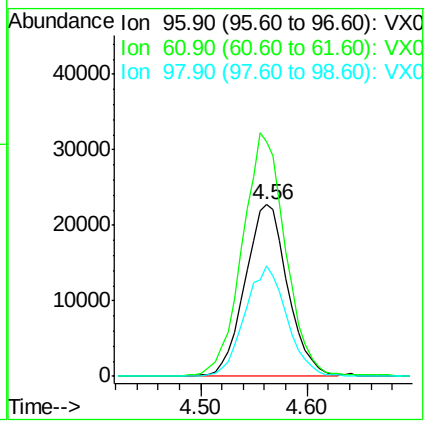
Manual Integrations APPROVED
MMDadoda
7/9/2020 10:59:47 AM

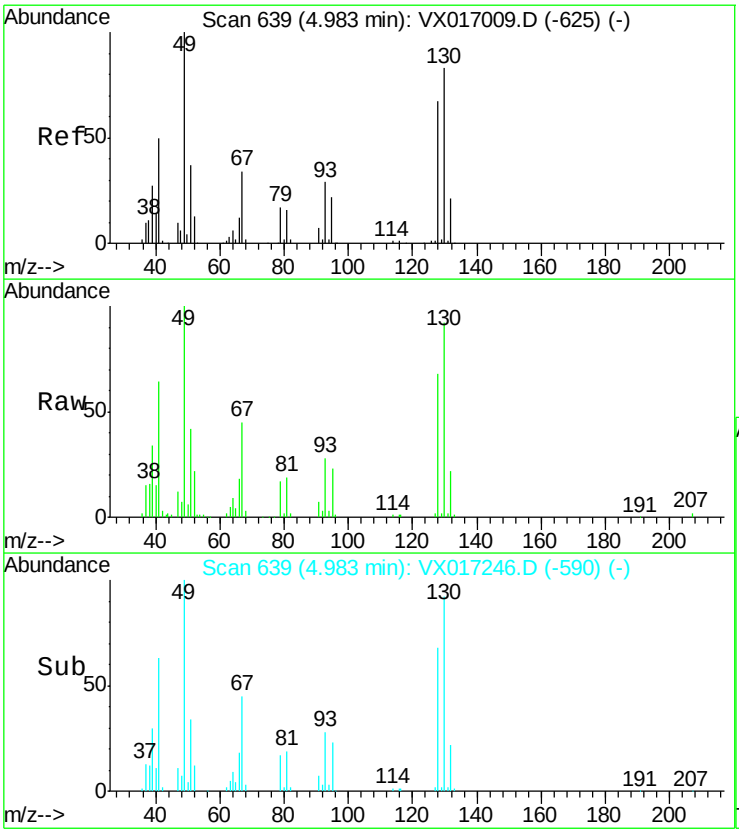


#27
cis-1,2-Dichloroethene
Concen: 17.480 ug/l
RT: 4.56 min Scan# 570
Delta R.T. -0.00 min
Lab File: VX017246.D
Acq: 08 Jul 2020 11:32

Tgt Ion: 96 Resp: 63730

Ion	Ratio	Lower	Upper
96	100		
61	143.8	0.0	282.8
98	63.7	0.0	127.6

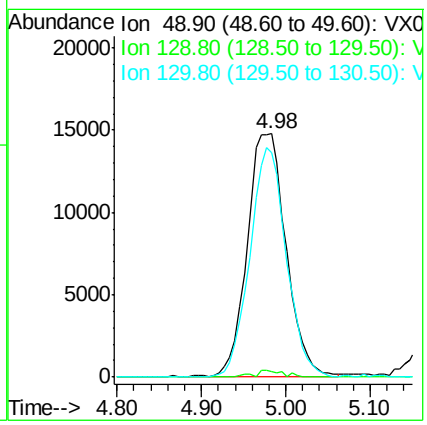




#28
Bromochloromethane
Concen: 16.938 ug/l
RT: 4.98 min Scan# 639
Delta R.T. -0.00 min
Lab File: VX017246.D
Acq: 08 Jul 2020 11:32

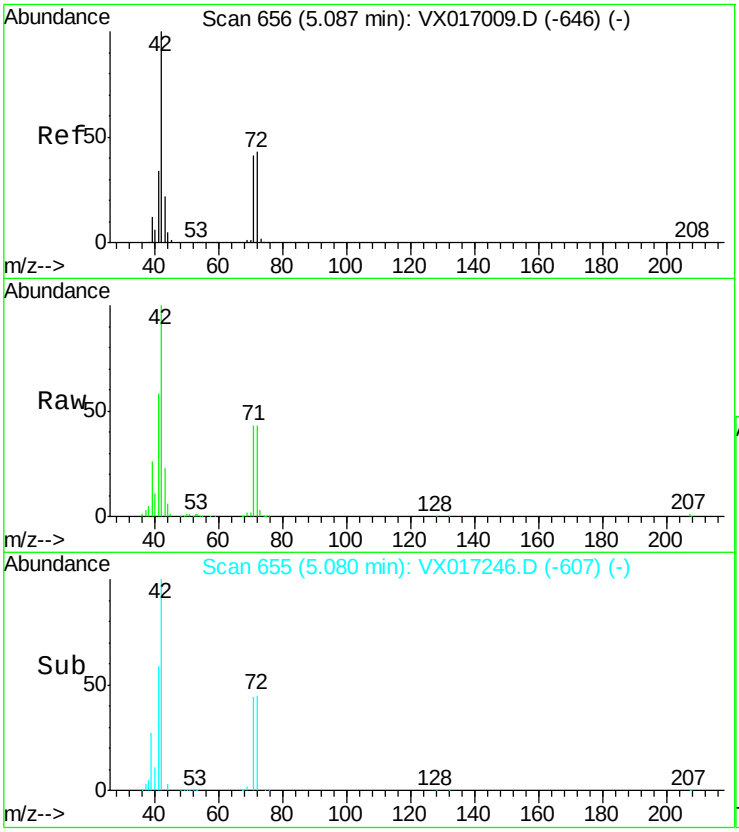
Tgt Ion: 49 Resp: 46513

Ion	Ratio	Lower	Upper
49	100		
129	1.7	0.0	4.2
130	88.1	66.6	100.0



Instrument :
MSVOA_X
ClientSampleId :
VX0708WBS01

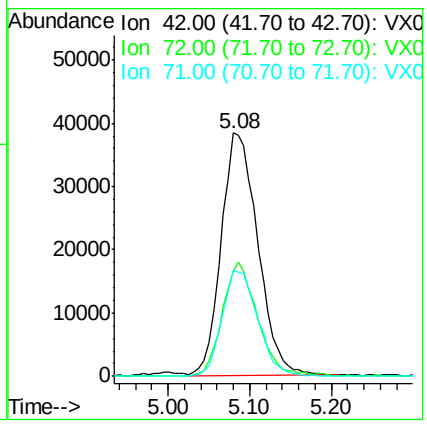
Manual Integrations APPROVED
MMDadoda
7/9/2020 10:59:47 AM

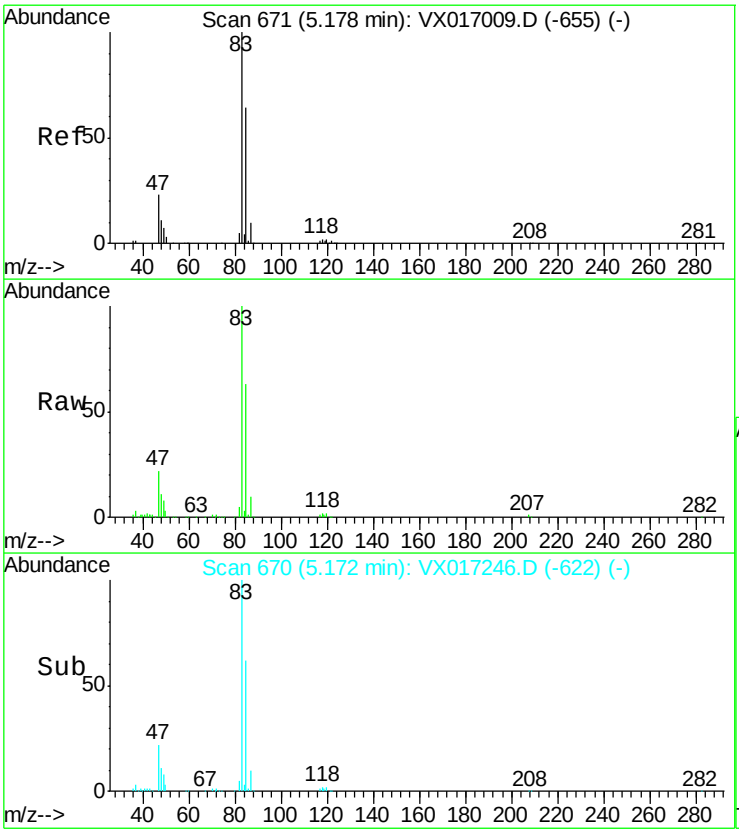


#29
Tetrahydrofuran
Concen: 80.124 ug/l
RT: 5.08 min Scan# 655
Delta R.T. -0.01 min
Lab File: VX017246.D
Acq: 08 Jul 2020 11:32

Tgt Ion: 42 Resp: 119223

Ion	Ratio	Lower	Upper
42	100		
72	45.1	35.3	52.9
71	42.7	33.1	49.7

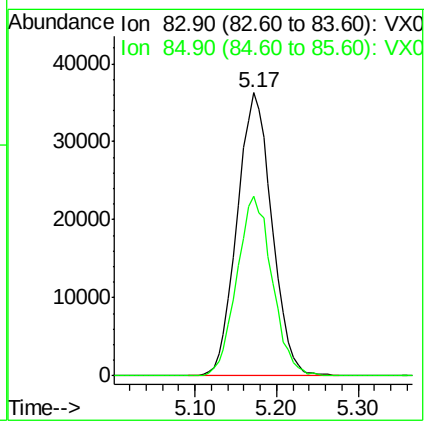




#30
Chloroform
Concen: 18.604 ug/l
RT: 5.17 min Scan# 670
Delta R.T. -0.01 min
Lab File: VX017246.D
Acq: 08 Jul 2020 11:32

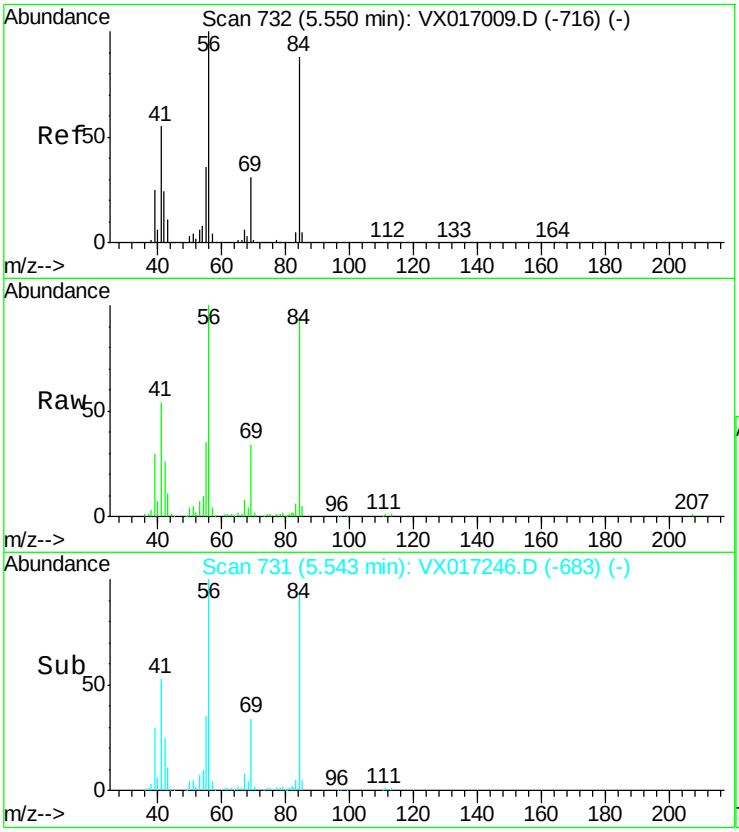
Tgt Ion: 83 Resp: 107618

Ion	Ratio	Lower	Upper
83	100		
85	63.3	51.4	77.2



Instrument :
MSVOA_X
ClientSampleId :
VX0708WBS01

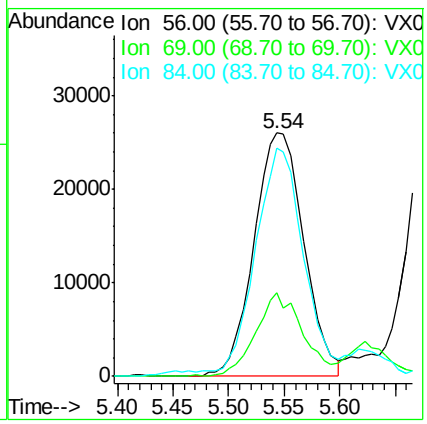
Manual Integrations APPROVED
MMDadoda
7/9/2020 10:59:47 AM

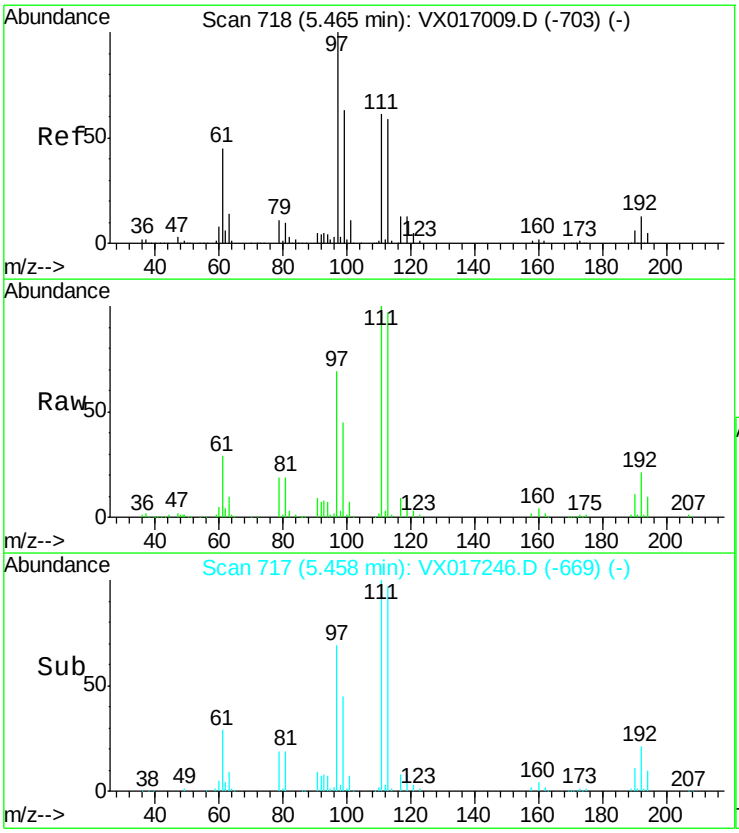


#31
Cyclohexane
Concen: 16.637 ug/l
RT: 5.54 min Scan# 731
Delta R.T. -0.01 min
Lab File: VX017246.D
Acq: 08 Jul 2020 11:32

Tgt Ion: 56 Resp: 81149

Ion	Ratio	Lower	Upper
56	100		
69	34.2	25.0	37.4
84	91.7	69.1	103.7

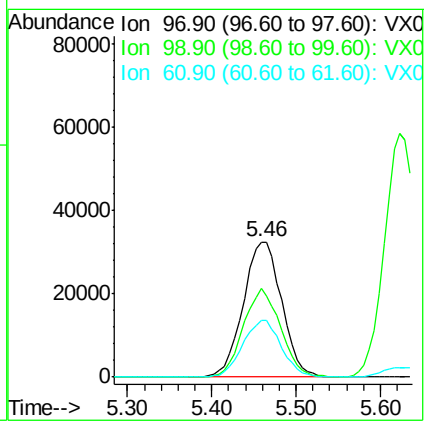




#32
1,1,1-Trichloroethane
Concen: 18.853 ug/l
RT: 5.46 min Scan# 717
Delta R.T. -0.01 min
Lab File: VX017246.D
Acq: 08 Jul 2020 11:32

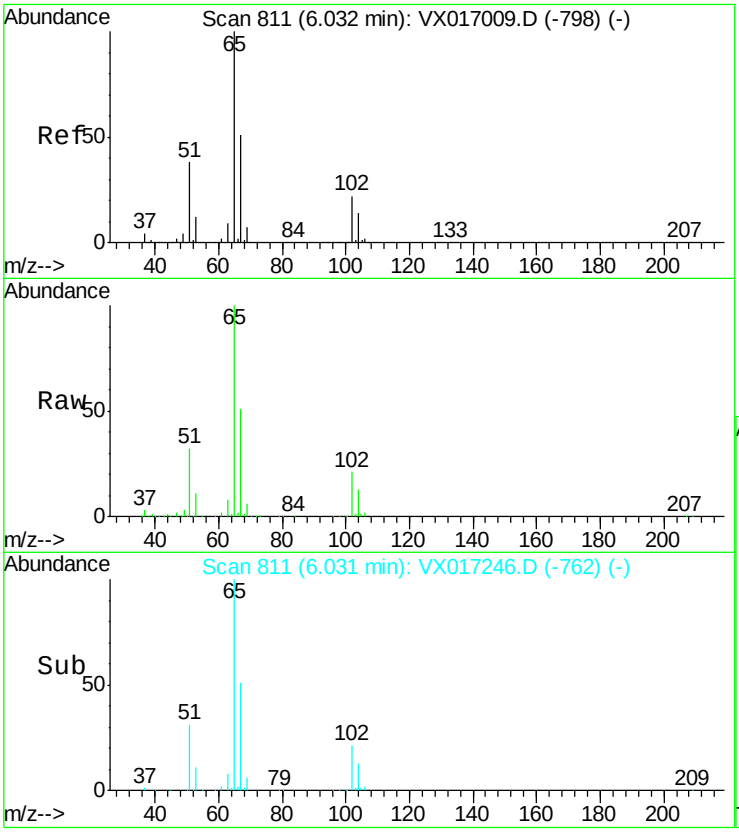
Tgt Ion: 97 Resp: 100439

Ion	Ratio	Lower	Upper
97	100		
99	63.5	50.8	76.2
61	42.5	33.7	50.5



Instrument :
MSVOA_X
ClientSampleId :
VX0708WBS01

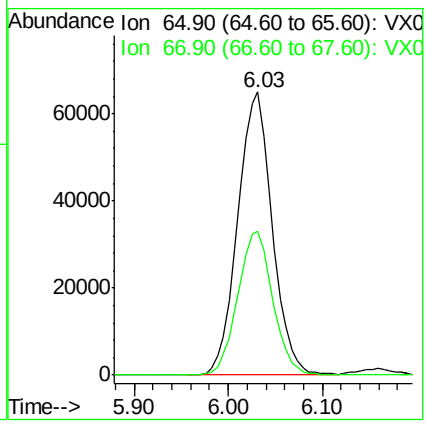
Manual Integrations APPROVED
MMDadoda
7/9/2020 10:59:47 AM

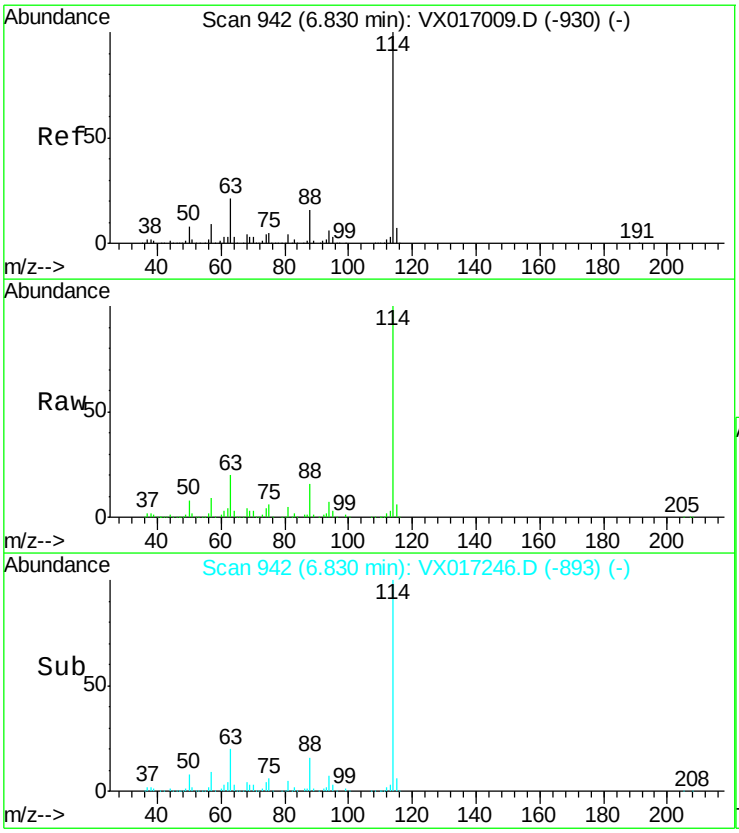


#33
1,2-Dichloroethane-d4
Concen: 46.112 ug/l
RT: 6.03 min Scan# 811
Delta R.T. -0.00 min
Lab File: VX017246.D
Acq: 08 Jul 2020 11:32

Tgt Ion: 65 Resp: 166597

Ion	Ratio	Lower	Upper
65	100		
67	51.6	0.0	103.8

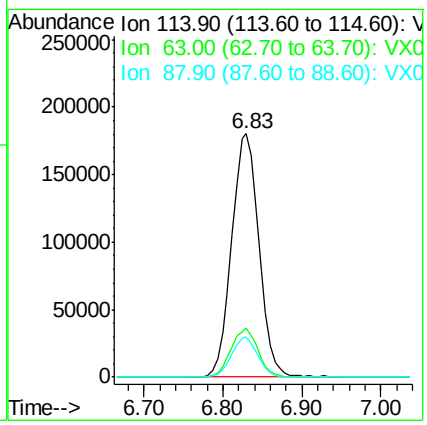




#34
1,4-Difluorobenzene
Concen: 50.000 ug/l
RT: 6.83 min Scan# 942
Delta R.T. -0.00 min
Lab File: VX017246.D
Acq: 08 Jul 2020 11:32

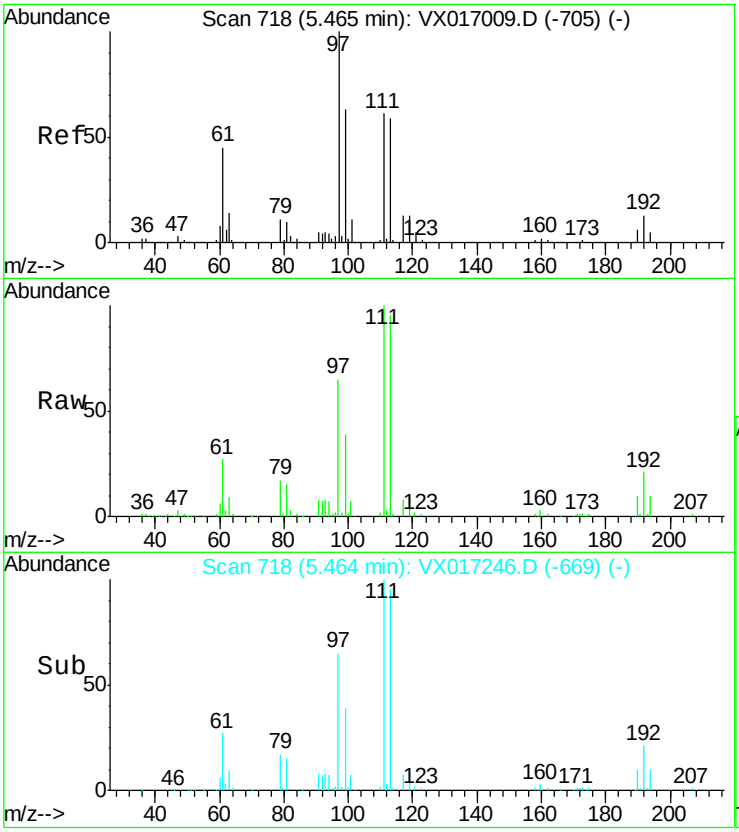
Tgt Ion:114 Resp: 433898

Ion	Ratio	Lower	Upper
114	100		
63	20.0	0.0	41.4
88	16.4	0.0	32.4



Instrument :
MSVOA_X
ClientSampleId :
VX0708WBS01

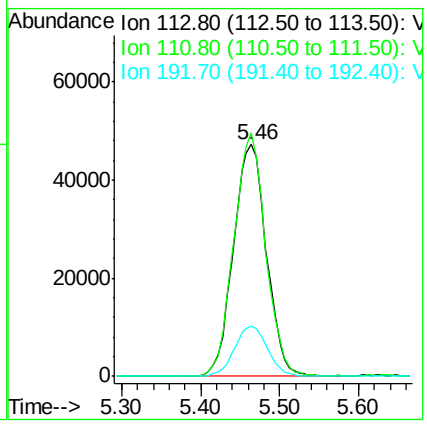
Manual Integrations APPROVED
MMDadoda
7/9/2020 10:59:47 AM

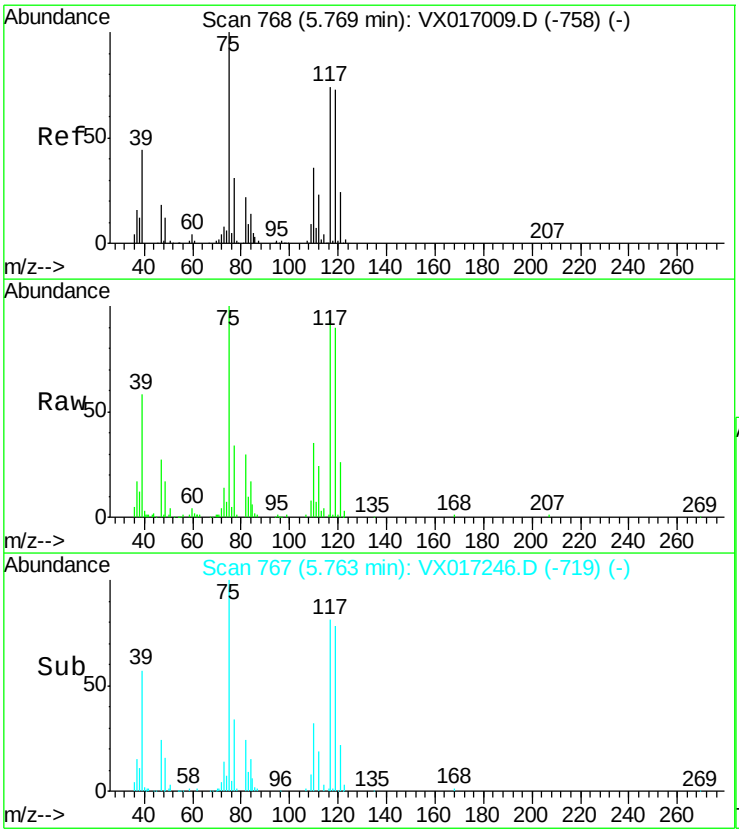


#35
Dibromofluoromethane
Concen: 50.157 ug/l
RT: 5.46 min Scan# 718
Delta R.T. -0.00 min
Lab File: VX017246.D
Acq: 08 Jul 2020 11:32

Tgt Ion:113 Resp: 137667

Ion	Ratio	Lower	Upper
113	100		
111	101.3	81.9	122.9
192	21.6	16.7	25.1

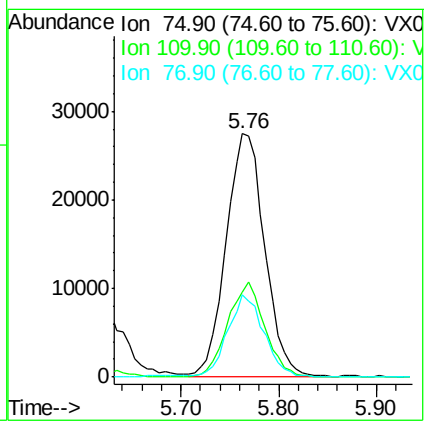




#36
1,1-Dichloropropene
Concen: 18.207 ug/l
RT: 5.76 min Scan# 767
Delta R.T. -0.01 min
Lab File: VX017246.D
Acq: 08 Jul 2020 11:32

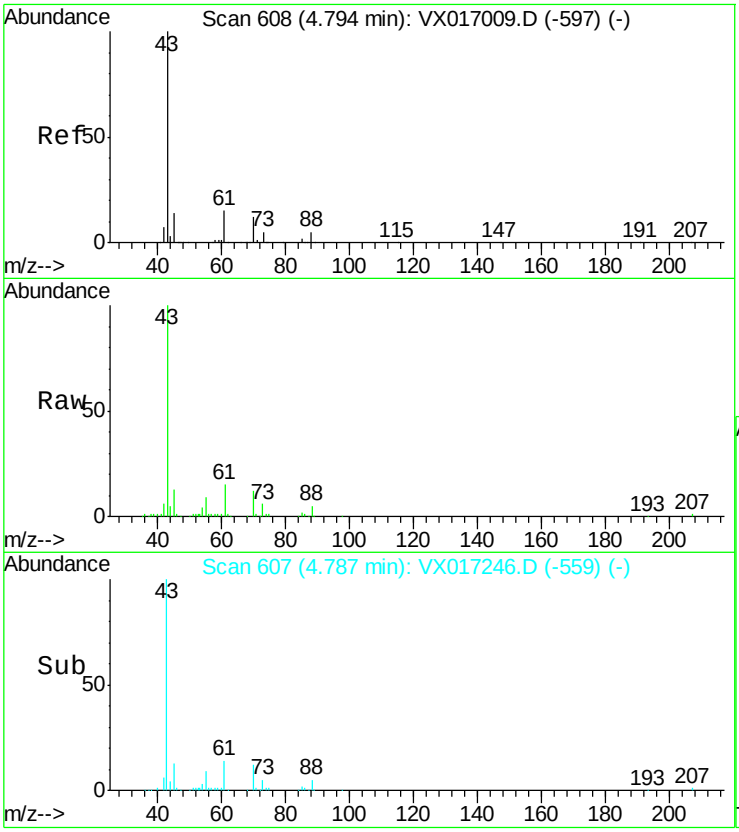
Tgt Ion: 75 Resp: 74665

Ion	Ratio	Lower	Upper
75	100		
110	37.6	18.1	54.1
77	32.2	24.6	37.0



Instrument :
MSVOA_X
ClientSampleId :
VX0708WBS01

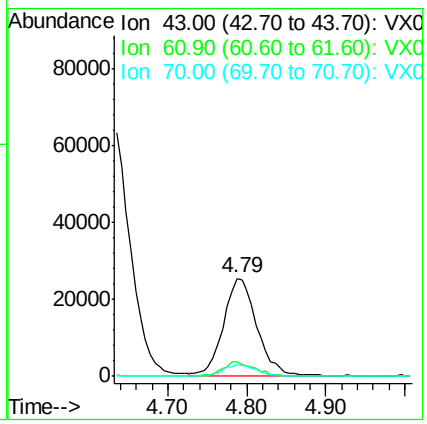
Manual Integrations APPROVED
MMDadoda
7/9/2020 10:59:47 AM

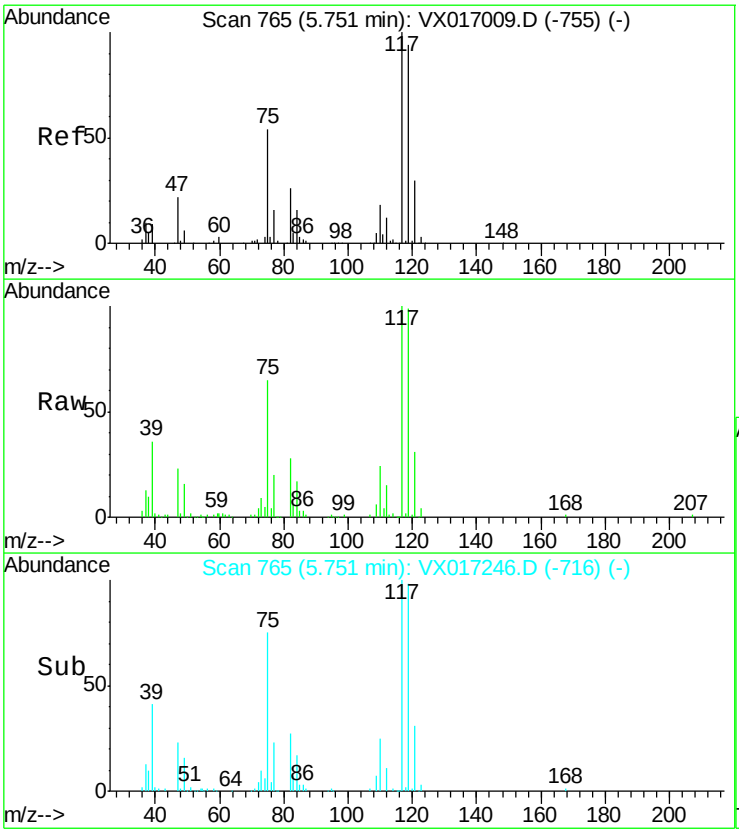


#37
Ethyl Acetate
Concen: 17.852 ug/l
RT: 4.79 min Scan# 607
Delta R.T. -0.01 min
Lab File: VX017246.D
Acq: 08 Jul 2020 11:32

Tgt Ion: 43 Resp: 74277

Ion	Ratio	Lower	Upper
43	100		
61	14.7	11.0	16.4
70	11.6	8.9	13.3

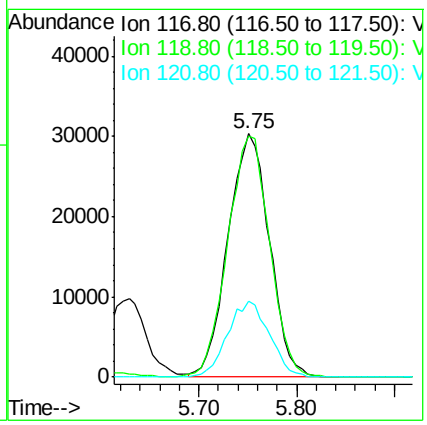




#38
Carbon Tetrachloride
Concen: 19.777 ug/l
RT: 5.75 min Scan# 765
Delta R.T. -0.00 min
Lab File: VX017246.D
Acq: 08 Jul 2020 11:32

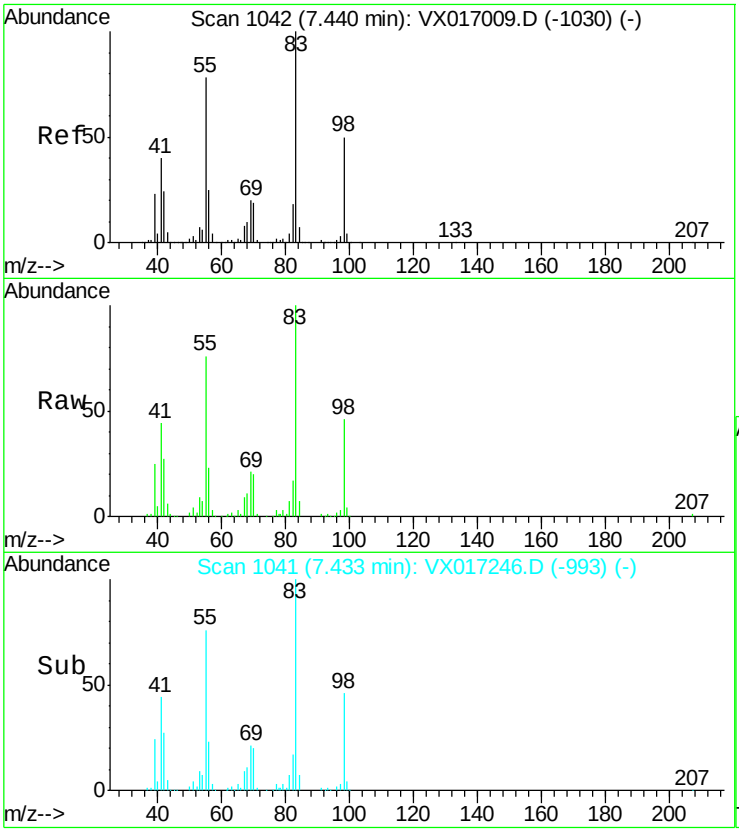
Tgt Ion:117 Resp: 89328

Ion	Ratio	Lower	Upper
117	100		
119	98.6	75.4	113.0
121	31.1	23.8	35.6



Instrument :
MSVOA_X
ClientSampleId :
VX0708WBS01

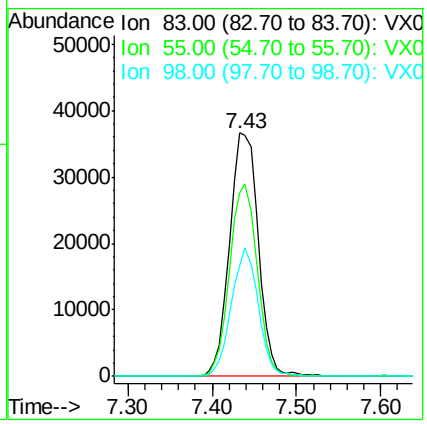
Manual Integrations APPROVED
MMDadoda
7/9/2020 10:59:47 AM

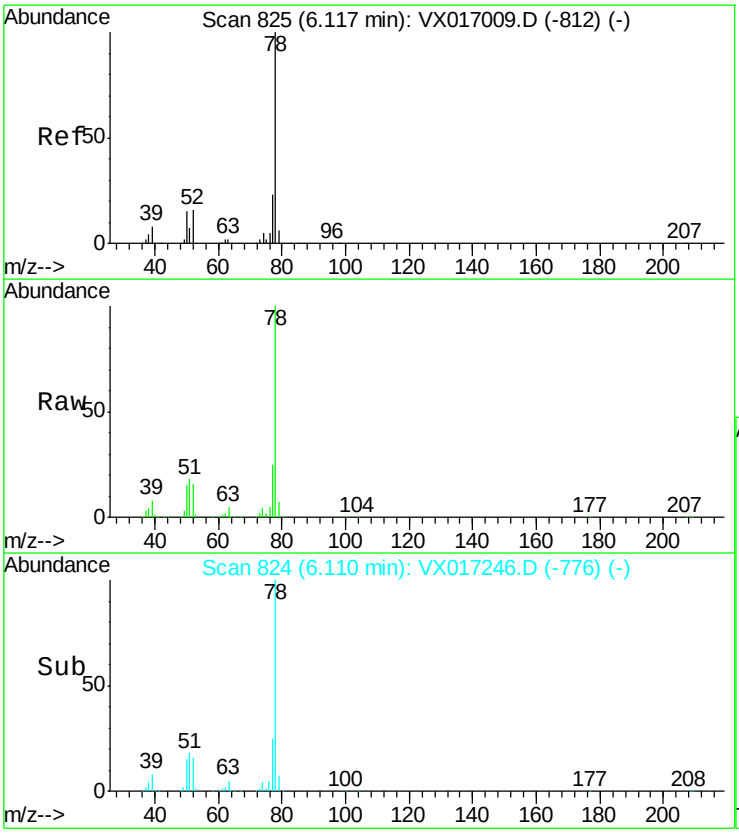


#39
Methylcyclohexane
Concen: 18.464 ug/l
RT: 7.43 min Scan# 1041
Delta R.T. -0.01 min
Lab File: VX017246.D
Acq: 08 Jul 2020 11:32

Tgt Ion: 83 Resp: 84247

Ion	Ratio	Lower	Upper
83	100		
55	75.6	62.5	93.7
98	45.6	40.1	60.1

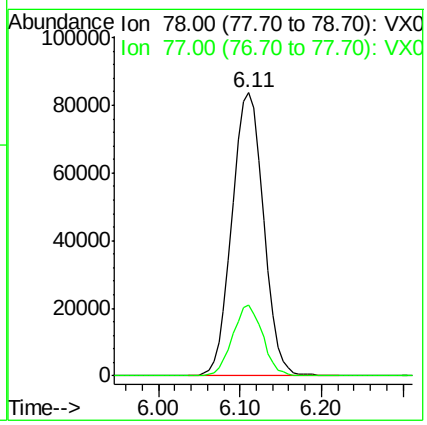




#40
Benzene
Concen: 18.631 ug/l
RT: 6.11 min Scan# 824
Delta R.T. -0.01 min
Lab File: VX017246.D
Acq: 08 Jul 2020 11:32

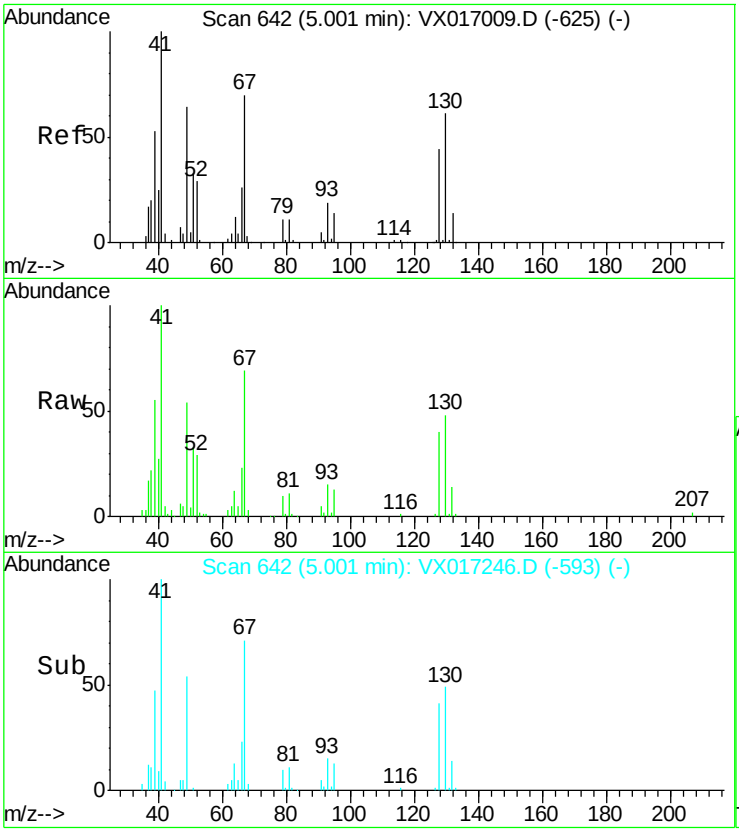
Tgt Ion: 78 Resp: 224486

Ion	Ratio	Lower	Upper
78	100		
77	25.0	18.3	27.5



Instrument :
MSVOA_X
ClientSampleId :
VX0708WBS01

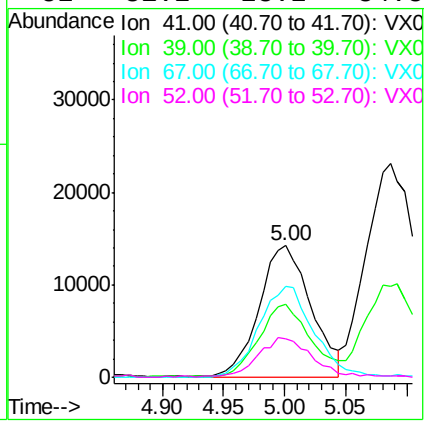
Manual Integrations APPROVED
MMDadoda
7/9/2020 10:59:47 AM

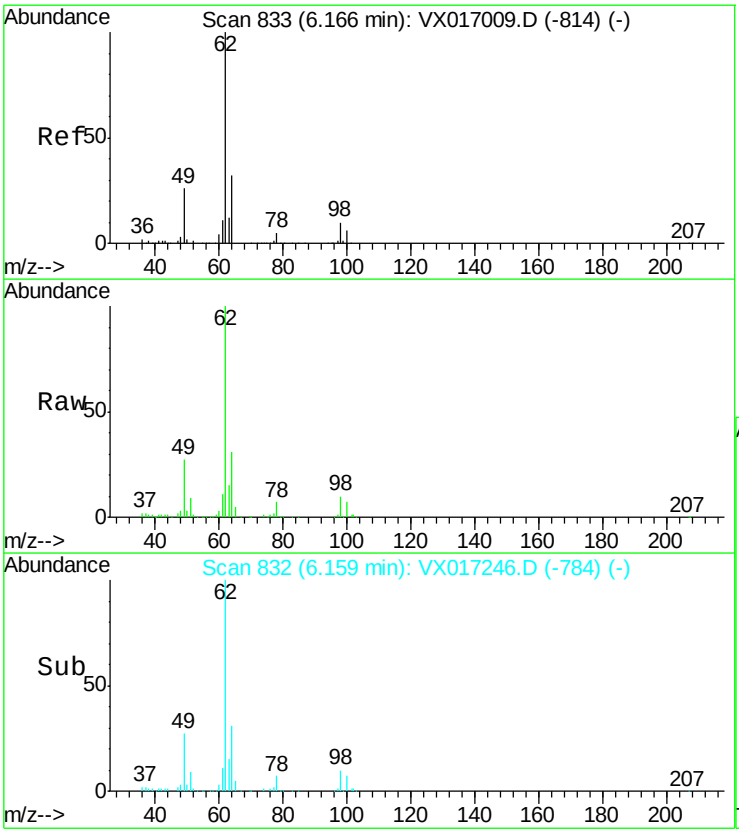


#41
Methacrylonitrile
Concen: 17.886 ug/l
RT: 5.00 min Scan# 642
Delta R.T. -0.00 min
Lab File: VX017246.D
Acq: 08 Jul 2020 11:32

Tgt Ion: 41 Resp: 41885

Ion	Ratio	Lower	Upper
41	100		
39	57.5	44.4	66.6
67	72.8	57.1	85.7
52	31.2	23.2	34.8

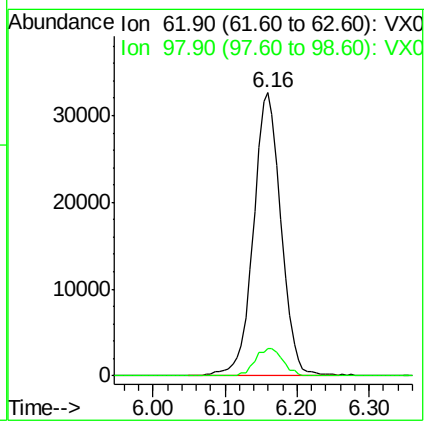




#42
1,2-Dichloroethane
Concen: 19.973 ug/l
RT: 6.16 min Scan# 832
Delta R.T. -0.01 min
Lab File: VX017246.D
Acq: 08 Jul 2020 11:32

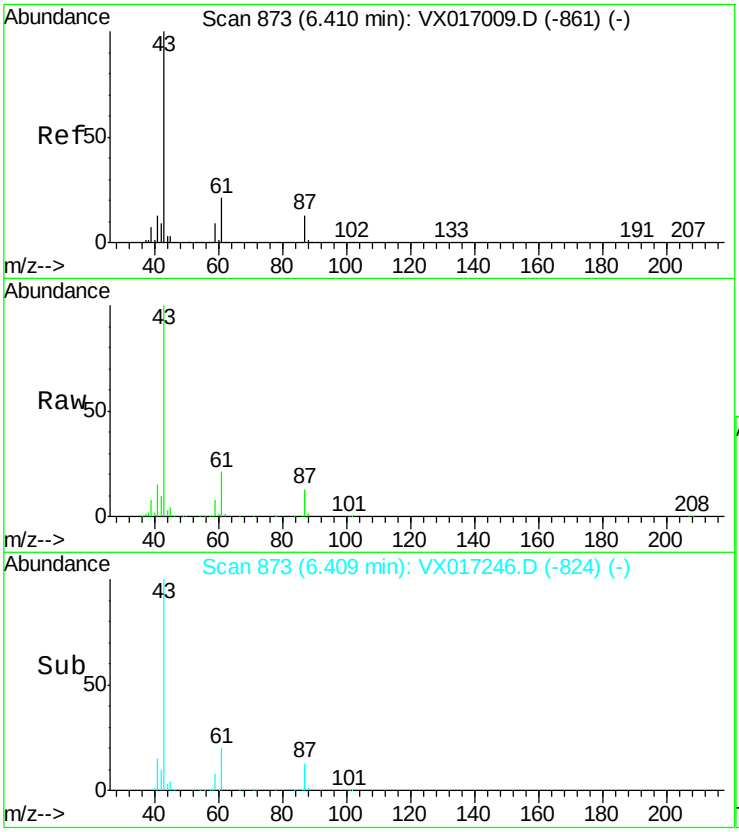
Tgt Ion: 62 Resp: 86928

Ion	Ratio	Lower	Upper
62	100		
98	9.8	0.0	19.2



Instrument :
MSVOA_X
ClientSampleId :
VX0708WBS01

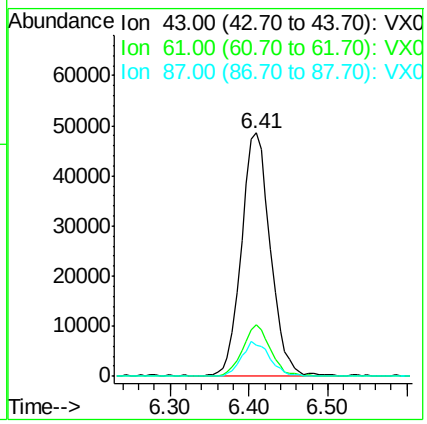
Manual Integrations APPROVED
MMDadoda
7/9/2020 10:59:47 AM

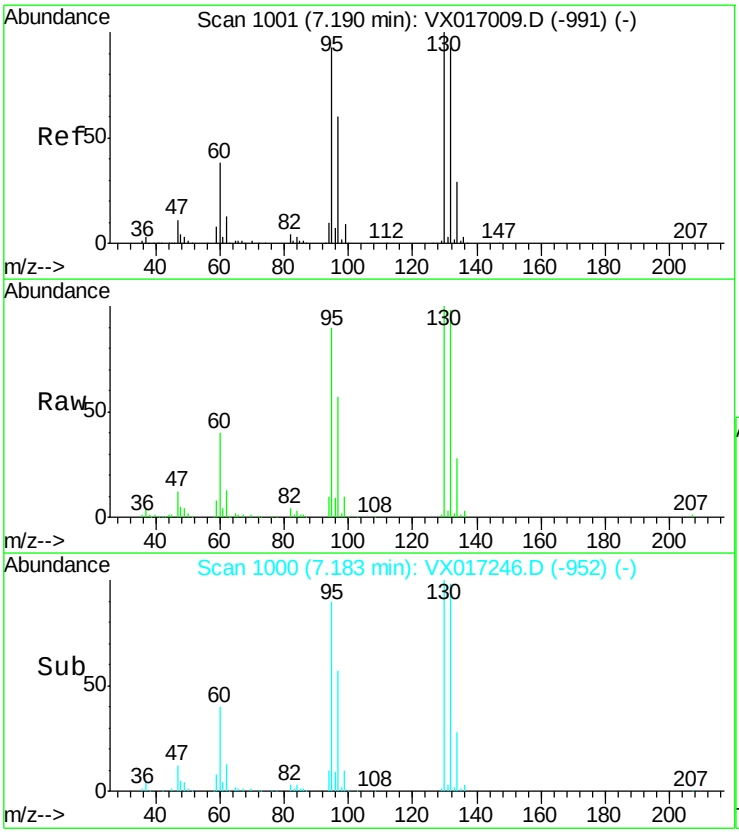


#43
Isopropyl Acetate
Concen: 17.824 ug/l
RT: 6.41 min Scan# 873
Delta R.T. -0.00 min
Lab File: VX017246.D
Acq: 08 Jul 2020 11:32

Tgt Ion: 43 Resp: 123232

Ion	Ratio	Lower	Upper
43	100		
61	20.4	16.2	24.2
87	13.8	10.7	16.1

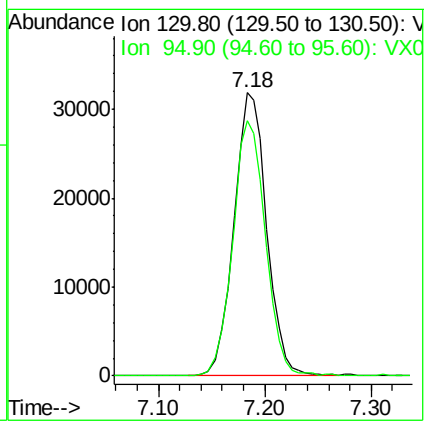




#44
Trichloroethene
Concen: 20.464 ug/l
RT: 7.18 min Scan# 1000
Delta R.T. -0.01 min
Lab File: VX017246.D
Acq: 08 Jul 2020 11:32

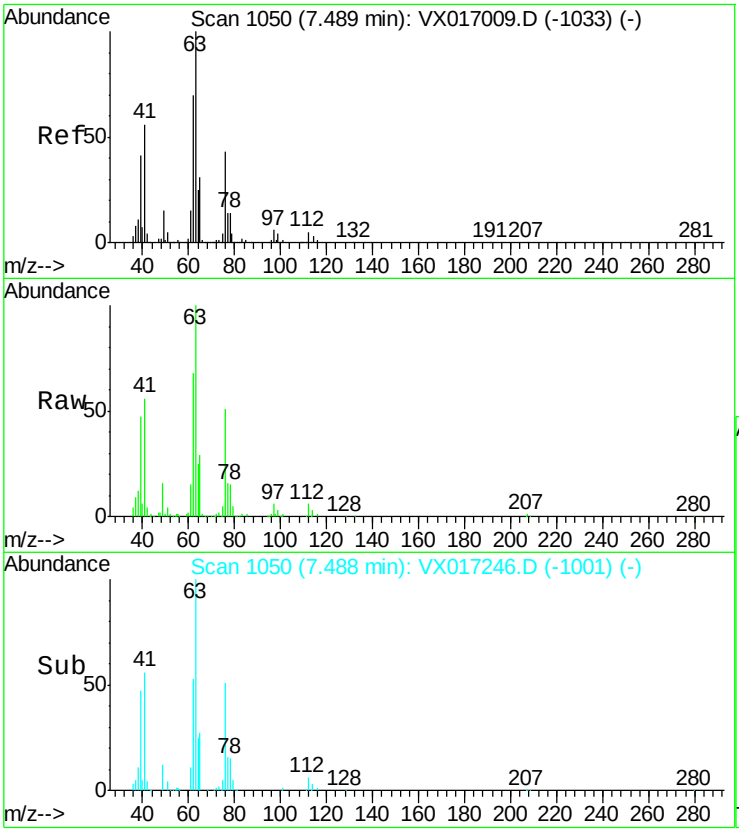
Tgt Ion:130 Resp: 68649

Ion	Ratio	Lower	Upper
130	100		
95	90.2	0.0	185.0



Instrument :
MSVOA_X
ClientSampleId :
VX0708WBS01

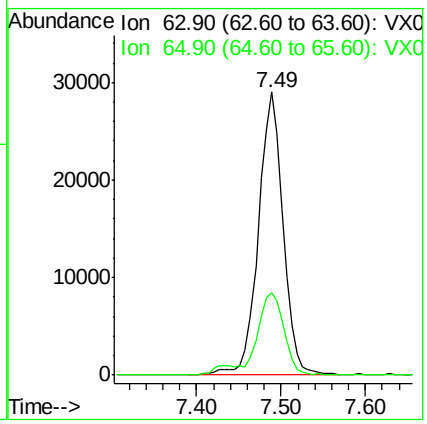
Manual Integrations APPROVED
MMDadoda
7/9/2020 10:59:47 AM

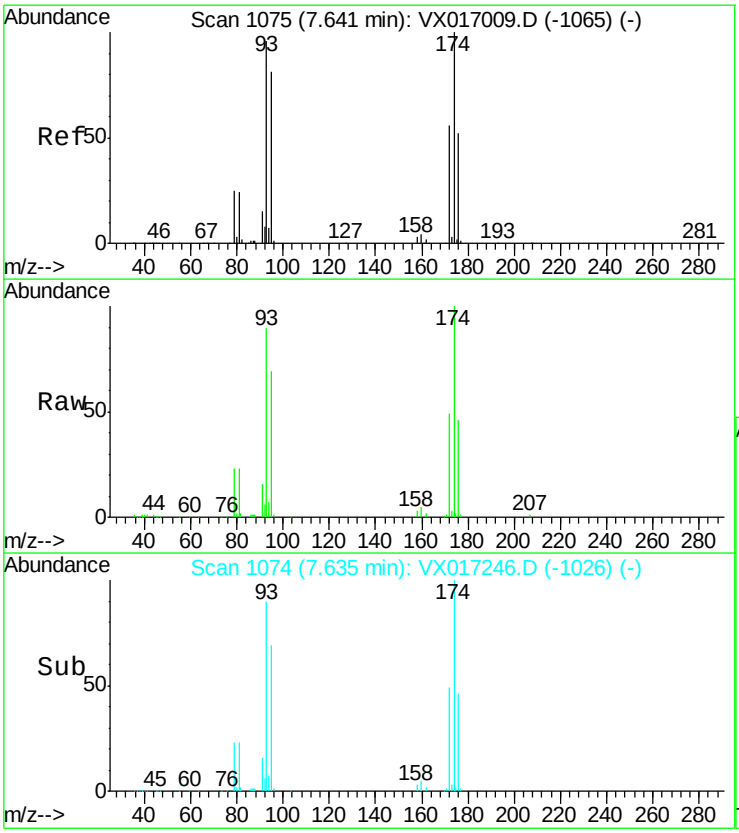


#45
1,2-Dichloropropane
Concen: 18.901 ug/l
RT: 7.49 min Scan# 1050
Delta R.T. -0.00 min
Lab File: VX017246.D
Acq: 08 Jul 2020 11:32

Tgt Ion: 63 Resp: 58494

Ion	Ratio	Lower	Upper
63	100		
65	29.1	24.6	36.8

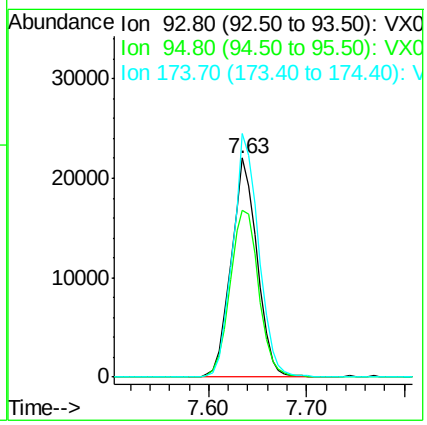




#46
Dibromomethane
Concen: 19.217 ug/l
RT: 7.63 min Scan# 1074
Delta R.T. -0.01 min
Lab File: VX017246.D
Acq: 08 Jul 2020 11:32

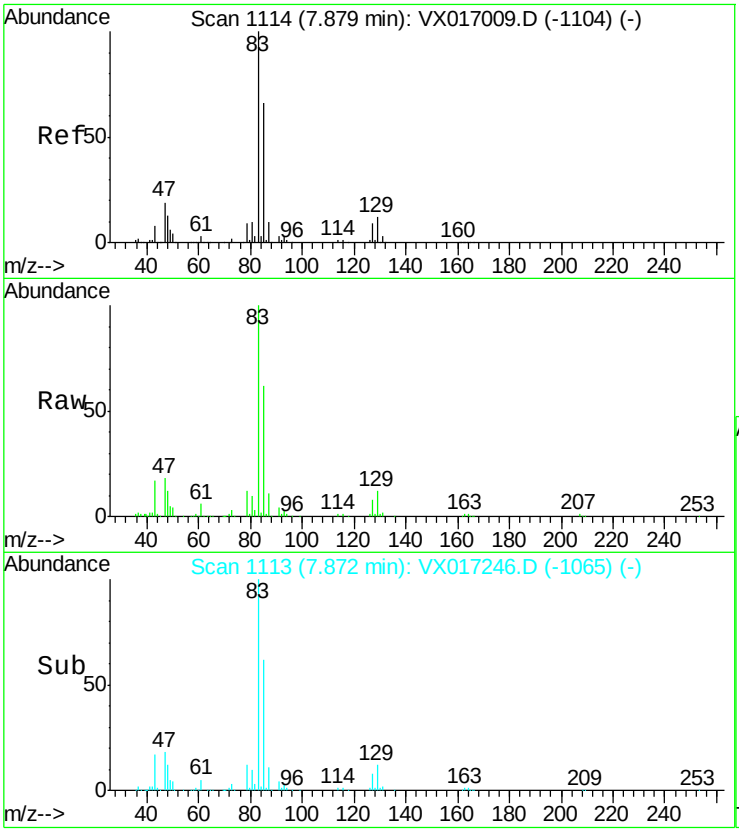
Tgt Ion: 93 Resp: 40603

Ion	Ratio	Lower	Upper
93	100		
95	84.1	67.4	101.0
174	111.1	84.3	126.5



Instrument :
MSVOA_X
ClientSampleId :
VX0708WBS01

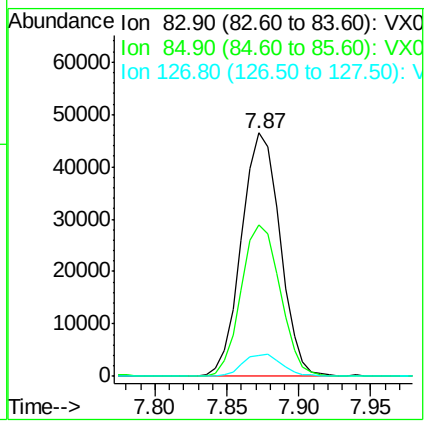
Manual Integrations APPROVED
MMDadoda
7/9/2020 10:59:47 AM

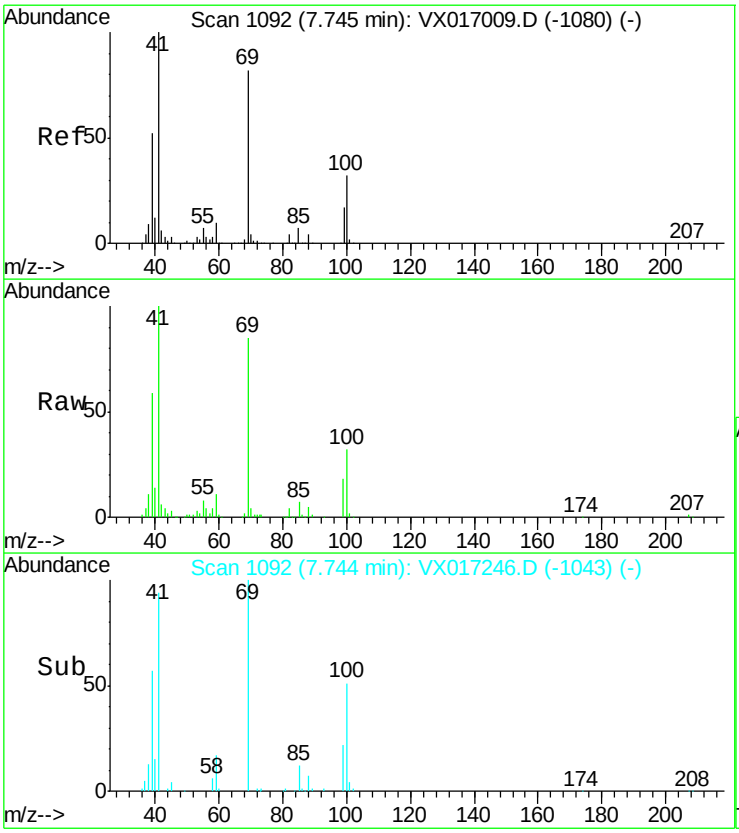


#47
Bromodichloromethane
Concen: 19.870 ug/l
RT: 7.87 min Scan# 1113
Delta R.T. -0.01 min
Lab File: VX017246.D
Acq: 08 Jul 2020 11:32

Tgt Ion: 83 Resp: 86515

Ion	Ratio	Lower	Upper
83	100		
85	62.1	53.0	79.4
127	8.4	7.5	11.3

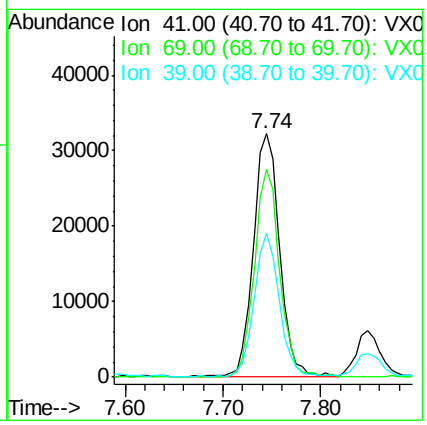




#48
Methyl methacrylate
Concen: 18.203 ug/l
RT: 7.74 min Scan# 1092
Delta R.T. -0.00 min
Lab File: VX017246.D
Acq: 08 Jul 2020 11:32

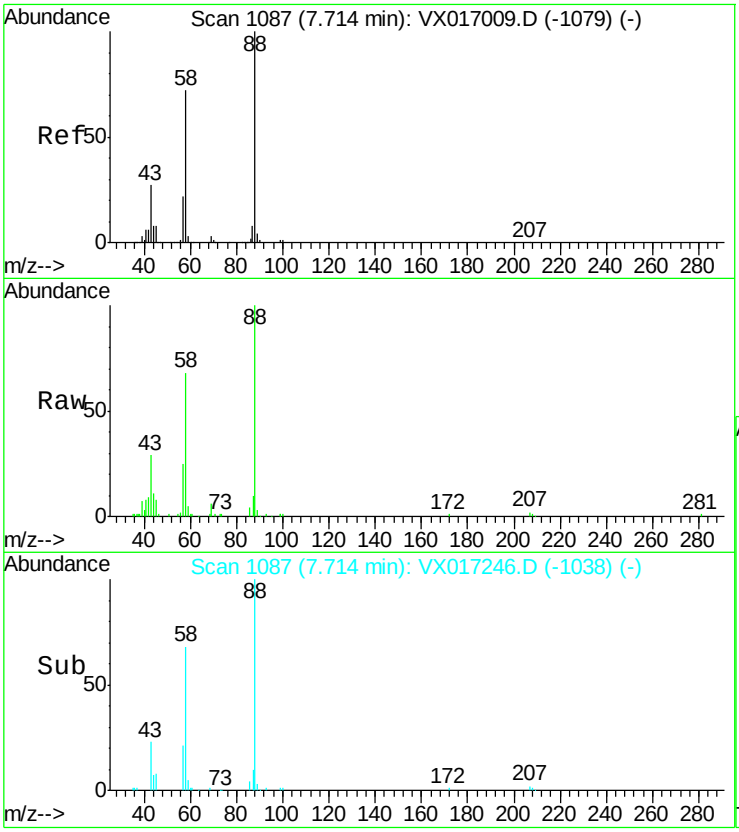
Tgt Ion: 41 Resp: 59792

Ion	Ratio	Lower	Upper
41	100		
69	82.5	65.8	98.8
39	56.1	42.5	63.7



Instrument :
MSVOA_X
ClientSampleId :
VX0708WBS01

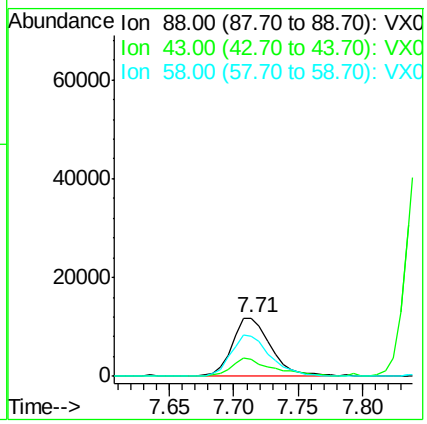
Manual Integrations APPROVED
MMDadoda
7/9/2020 10:59:47 AM

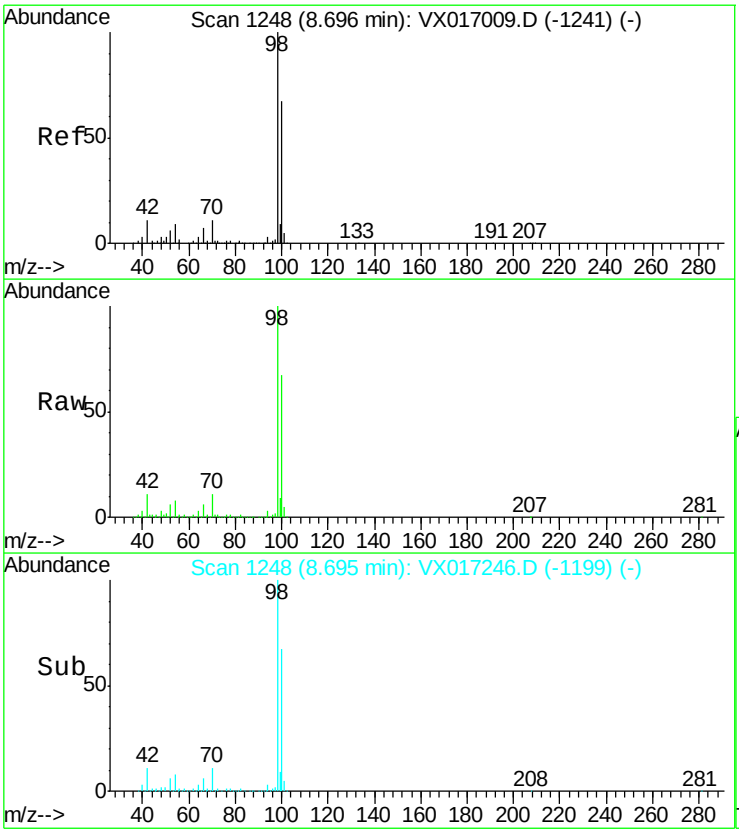


#49
1,4-Dioxane
Concen: 331.486 ug/l
RT: 7.71 min Scan# 1087
Delta R.T. -0.00 min
Lab File: VX017246.D
Acq: 08 Jul 2020 11:32

Tgt Ion: 88 Resp: 24668

Ion	Ratio	Lower	Upper
88	100		
43	35.3	25.8	38.8
58	72.2	54.8	82.2

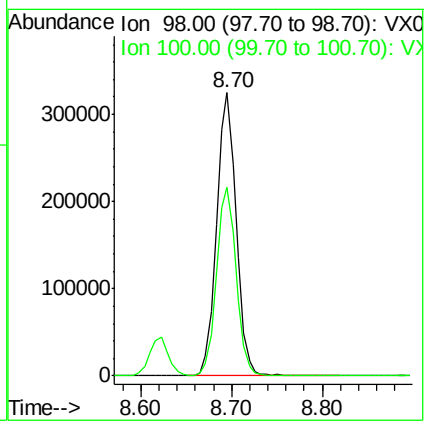




#50
Toluene-d8
Concen: 48.309 ug/l
RT: 8.70 min Scan# 1248
Delta R.T. -0.00 min
Lab File: VX017246.D
Acq: 08 Jul 2020 11:32

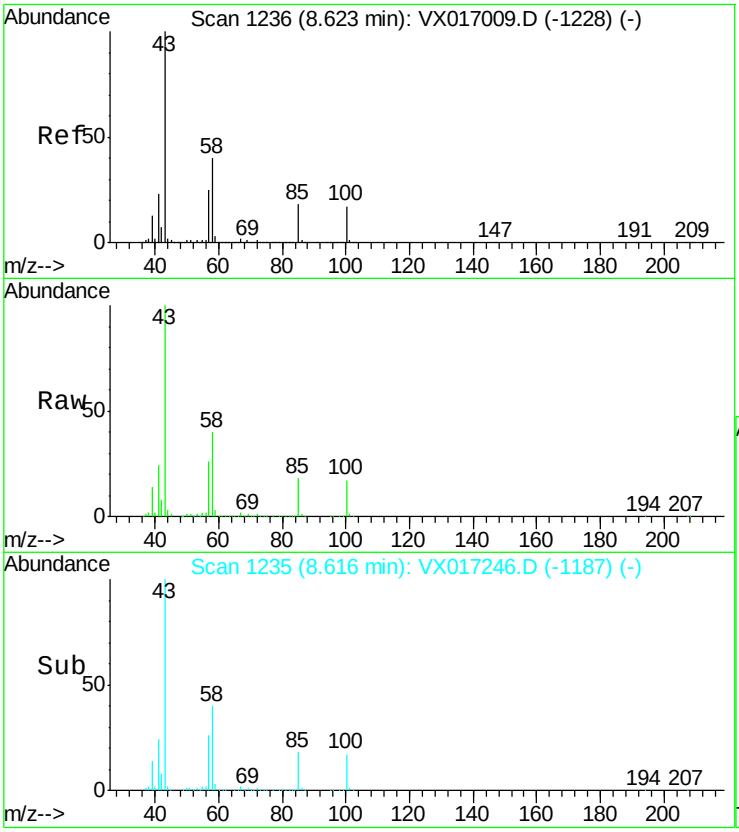
Tgt Ion: 98 Resp: 490310

Ion	Ratio	Lower	Upper
98	100		
100	66.9	53.8	80.6



Instrument :
MSVOA_X
ClientSampleId :
VX0708WBS01

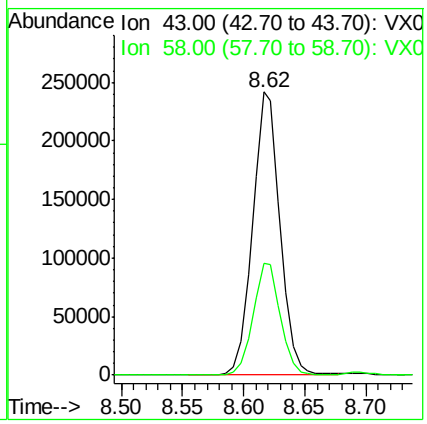
Manual Integrations APPROVED
MMDadoda
7/9/2020 10:59:47 AM

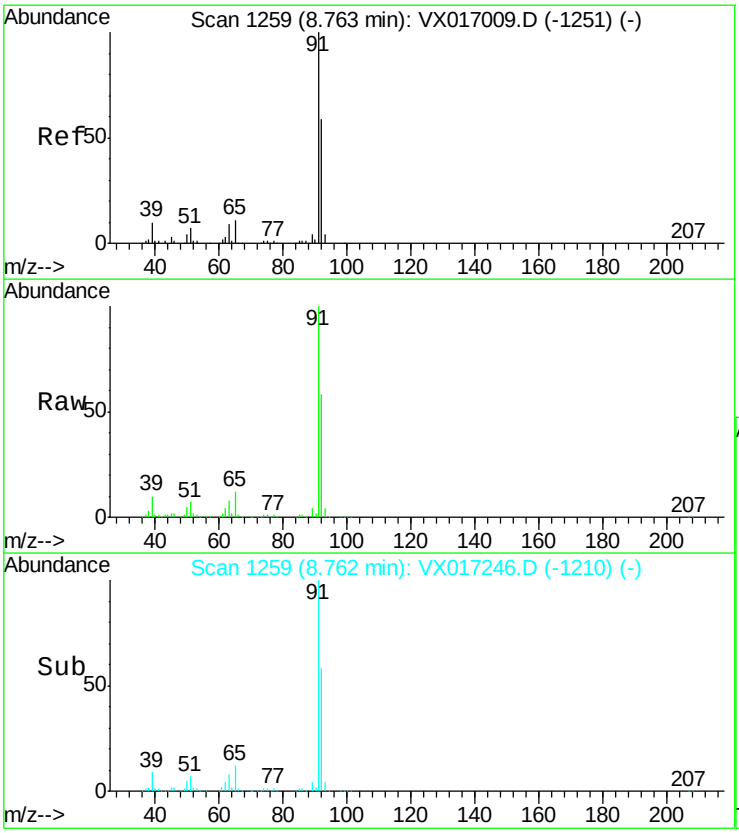


#51
4-Methyl-2-Pentanone
Concen: 91.203 ug/l
RT: 8.62 min Scan# 1235
Delta R.T. -0.01 min
Lab File: VX017246.D
Acq: 08 Jul 2020 11:32

Tgt Ion: 43 Resp: 375887

Ion	Ratio	Lower	Upper
43	100		
58	39.6	31.9	47.9

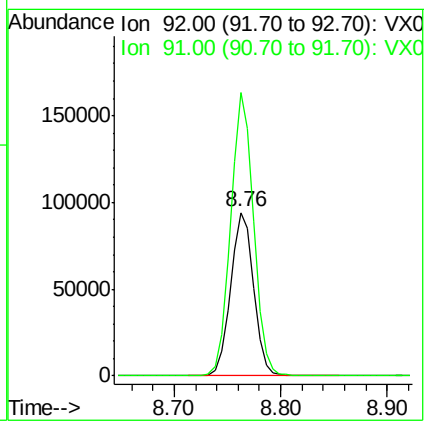




#52
Toluene
Concen: 19.012 ug/l
RT: 8.76 min Scan# 1259
Delta R.T. -0.00 min
Lab File: VX017246.D
Acq: 08 Jul 2020 11:32

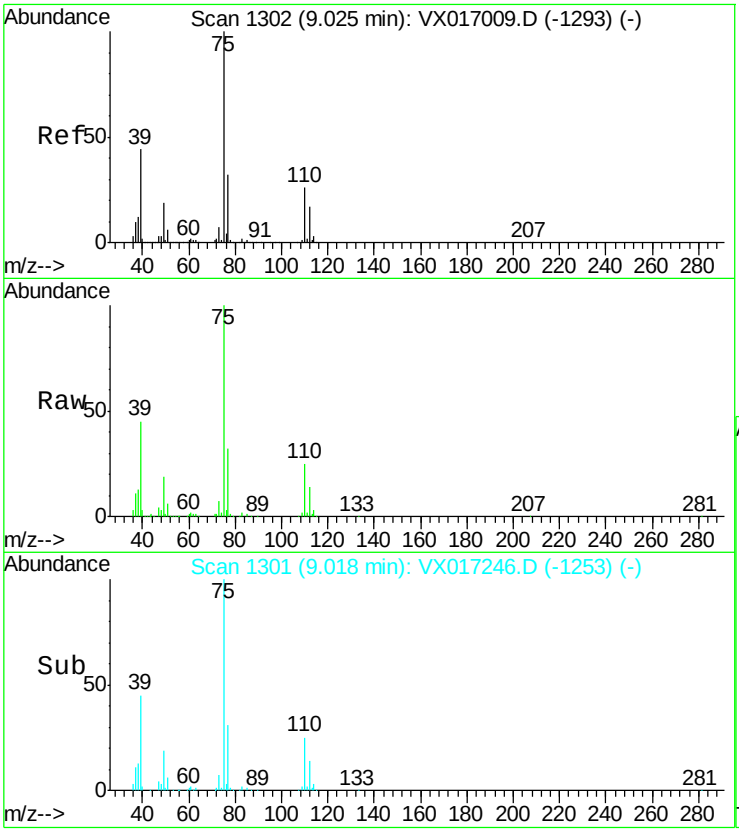
Tgt Ion: 92 Resp: 143023

Ion	Ratio	Lower	Upper
92	100		
91	172.9	136.9	205.3



Instrument :
MSVOA_X
ClientSampleId :
VX0708WBS01

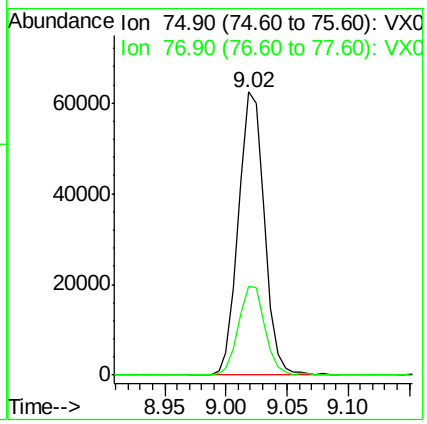
Manual Integrations APPROVED
MMDadoda
7/9/2020 10:59:47 AM

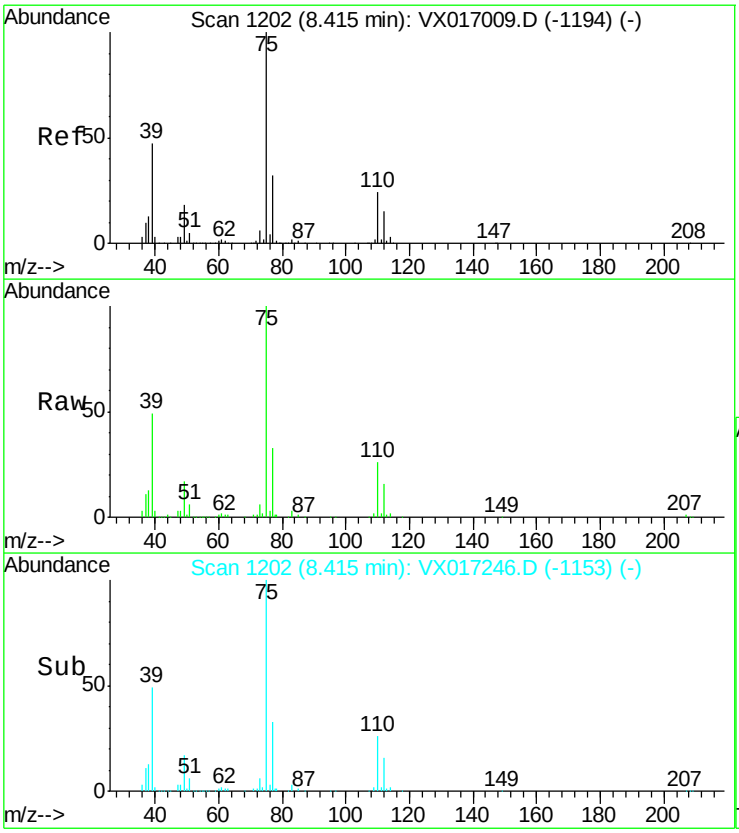


#53
t-1,3-Dichloropropene
Concen: 19.042 ug/l
RT: 9.02 min Scan# 1301
Delta R.T. -0.01 min
Lab File: VX017246.D
Acq: 08 Jul 2020 11:32

Tgt Ion: 75 Resp: 91479

Ion	Ratio	Lower	Upper
75	100		
77	31.5	25.6	38.4

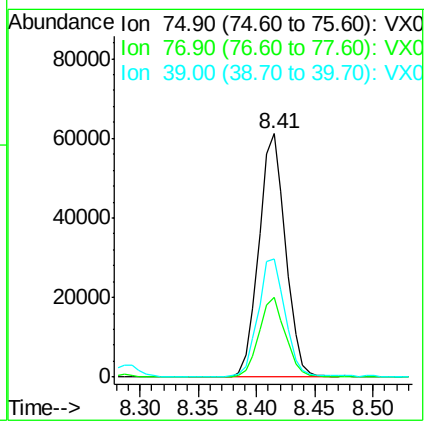




#54
cis-1,3-Dichloropropene
Concen: 18.872 ug/l
RT: 8.41 min Scan# 1202
Delta R.T. -0.00 min
Lab File: VX017246.D
Acq: 08 Jul 2020 11:32

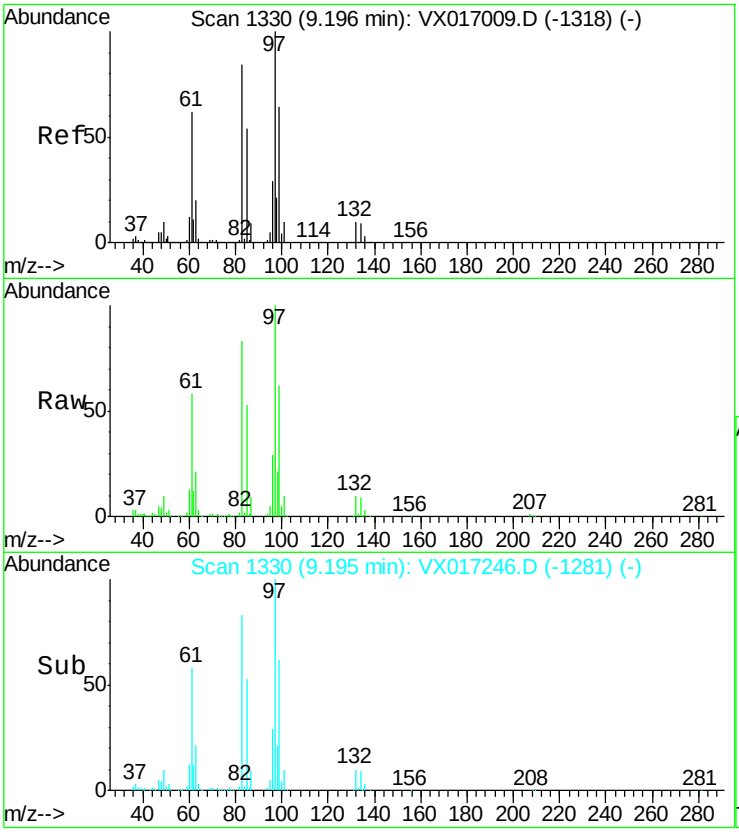
Tgt Ion: 75 Resp: 97188

Ion	Ratio	Lower	Upper
75	100		
77	32.8	25.2	37.8
39	48.4	37.4	56.2



Instrument :
MSVOA_X
ClientSampleId :
VX0708WBS01

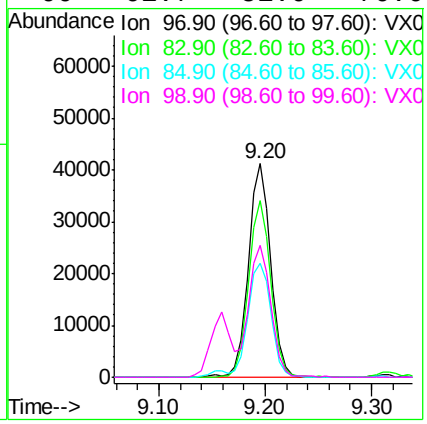
Manual Integrations APPROVED
MMDadoda
7/9/2020 10:59:47 AM

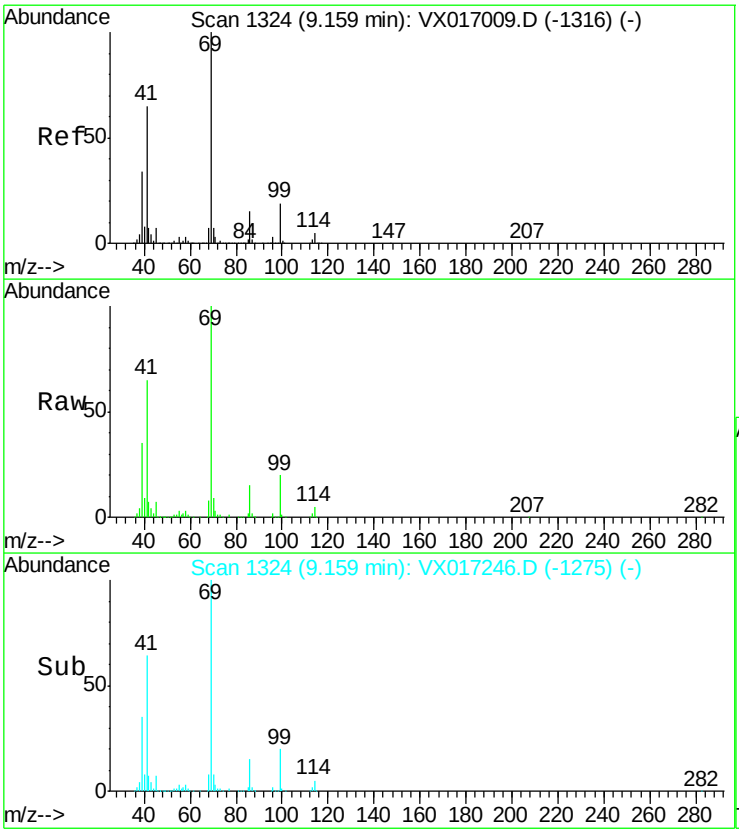


#55
1,1,2-Trichloroethane
Concen: 19.631 ug/l
RT: 9.20 min Scan# 1330
Delta R.T. -0.00 min
Lab File: VX017246.D
Acq: 08 Jul 2020 11:32

Tgt Ion: 97 Resp: 60336

Ion	Ratio	Lower	Upper
97	100		
83	82.8	67.0	100.6
85	53.3	43.5	65.3
99	61.7	51.0	76.6

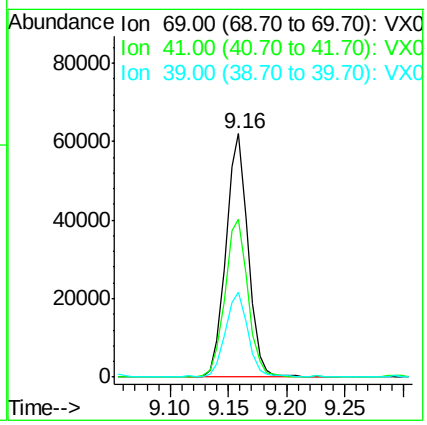




#56
Ethyl methacrylate
Concen: 18.688 ug/l
RT: 9.16 min Scan# 1324
Delta R.T. -0.00 min
Lab File: VX017246.D
Acq: 08 Jul 2020 11:32

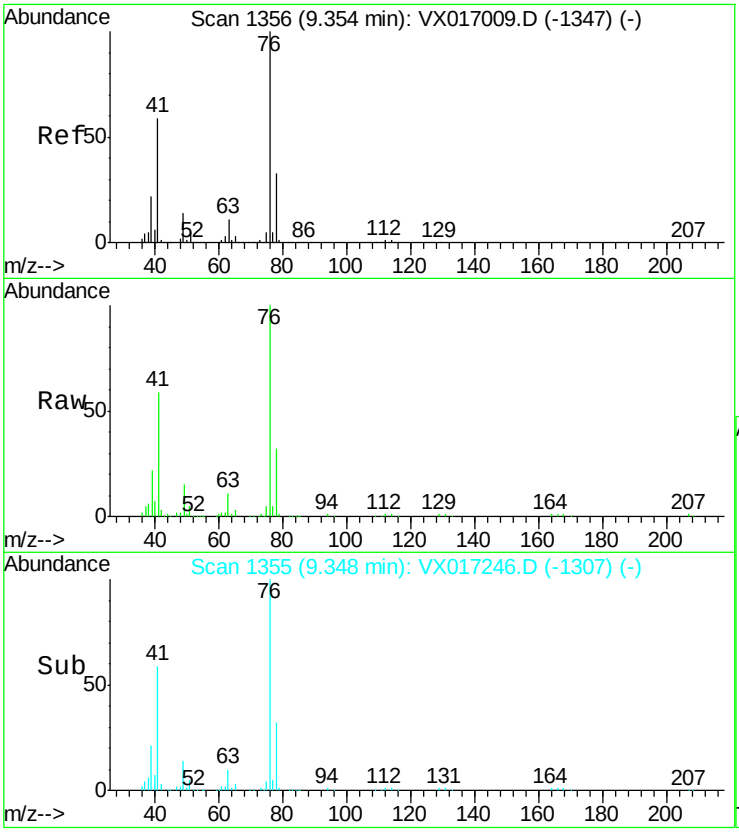
Tgt Ion: 69 Resp: 81754

Ion	Ratio	Lower	Upper
69	100		
41	66.5	53.6	80.4
39	35.4	28.2	42.2



Instrument :
MSVOA_X
ClientSampleId :
VX0708WBS01

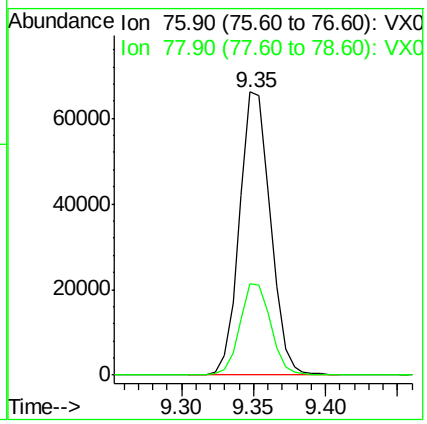
Manual Integrations APPROVED
MMDadoda
7/9/2020 10:59:47 AM

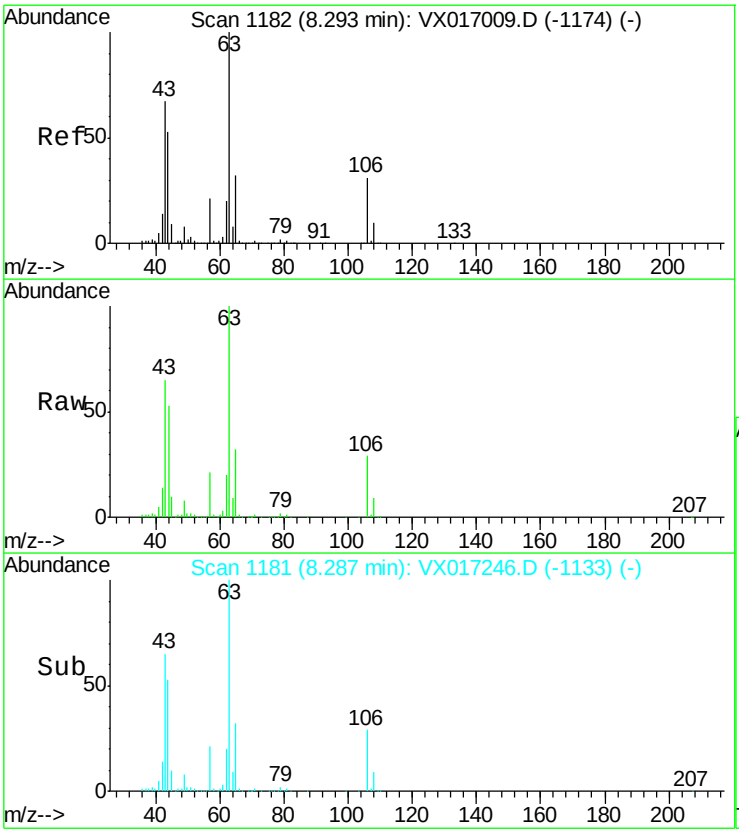


#57
1,3-Dichloropropane
Concen: 18.926 ug/l
RT: 9.35 min Scan# 1355
Delta R.T. -0.01 min
Lab File: VX017246.D
Acq: 08 Jul 2020 11:32

Tgt Ion: 76 Resp: 98431

Ion	Ratio	Lower	Upper
76	100		
78	32.3	25.9	38.9

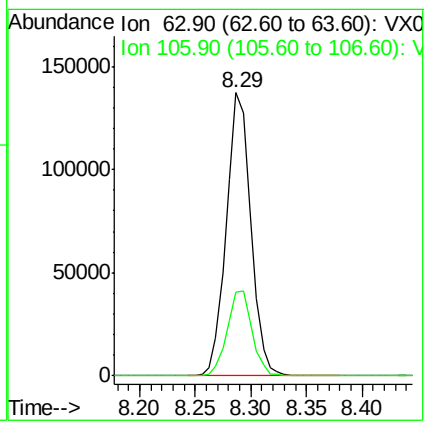




#58
2-Chloroethyl Vinyl ether
Concen: 96.244 ug/l
RT: 8.29 min Scan# 1181
Delta R.T. -0.01 min
Lab File: VX017246.D
Acq: 08 Jul 2020 11:32

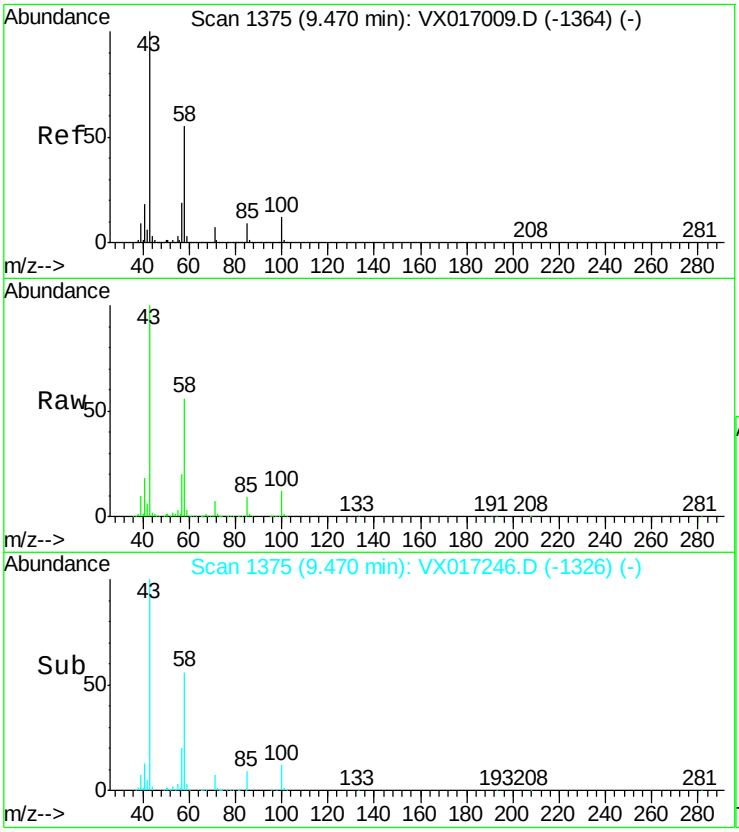
Tgt Ion: 63 Resp: 209546

Ion	Ratio	Lower	Upper
63	100		
106	30.4	24.0	36.0



Instrument :
MSVOA_X
ClientSampleId :
VX0708WBS01

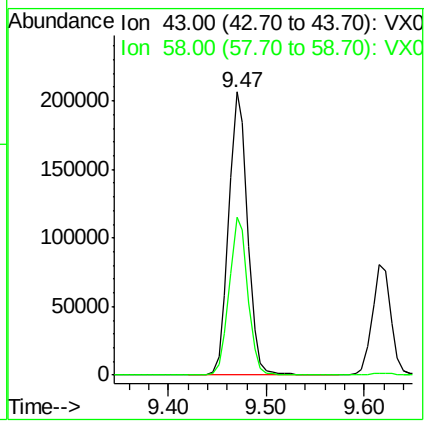
Manual Integrations APPROVED
MMDadoda
7/9/2020 10:59:47 AM

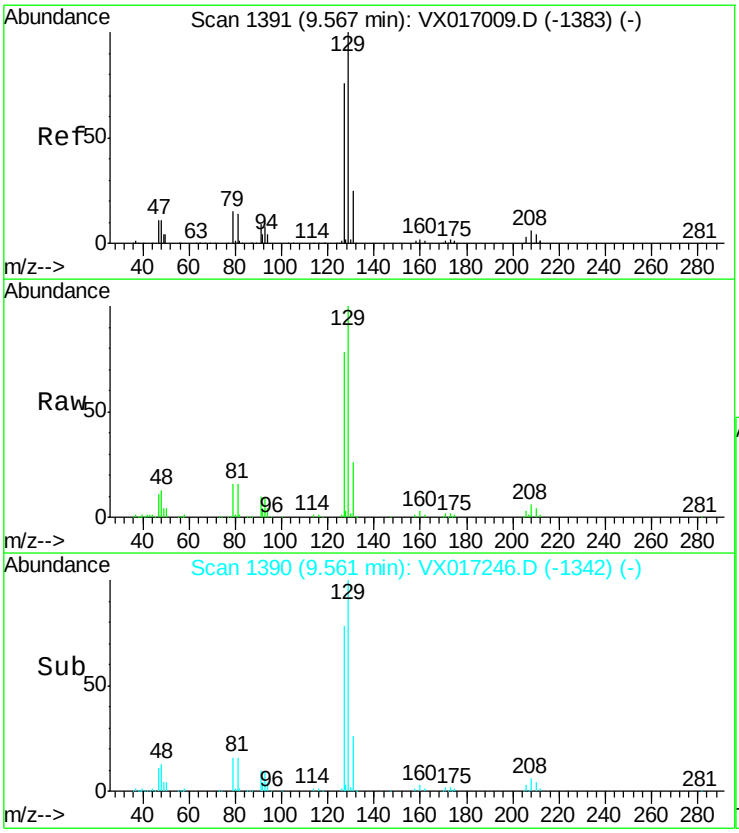


#59
2-Hexanone
Concen: 91.583 ug/l
RT: 9.47 min Scan# 1375
Delta R.T. -0.00 min
Lab File: VX017246.D
Acq: 08 Jul 2020 11:32

Tgt Ion: 43 Resp: 275667

Ion	Ratio	Lower	Upper
43	100		
58	55.2	27.9	83.6

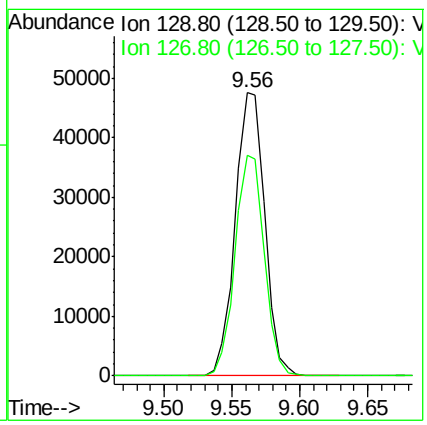




#60
Dibromochloromethane
Concen: 20.207 ug/l
RT: 9.56 min Scan# 1390
Delta R.T. -0.01 min
Lab File: VX017246.D
Acq: 08 Jul 2020 11:32

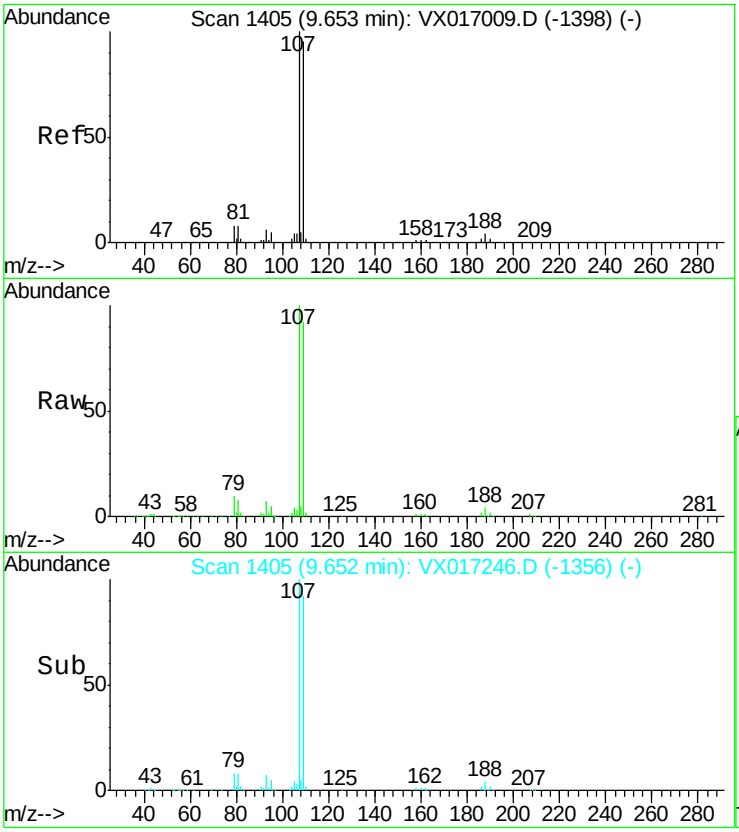
Tgt Ion:129 Resp: 72134

Ion	Ratio	Lower	Upper
129	100		
127	77.2	38.9	116.7



Instrument :
MSVOA_X
ClientSampleId :
VX0708WBS01

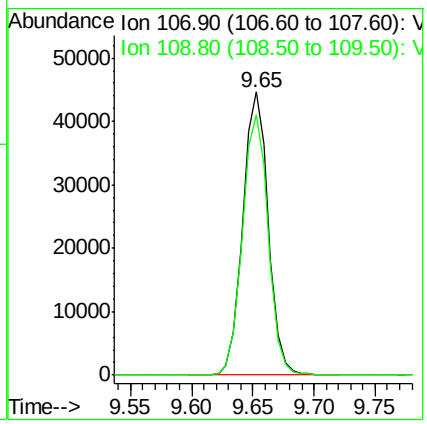
Manual Integrations APPROVED
MMDadoda
7/9/2020 10:59:47 AM

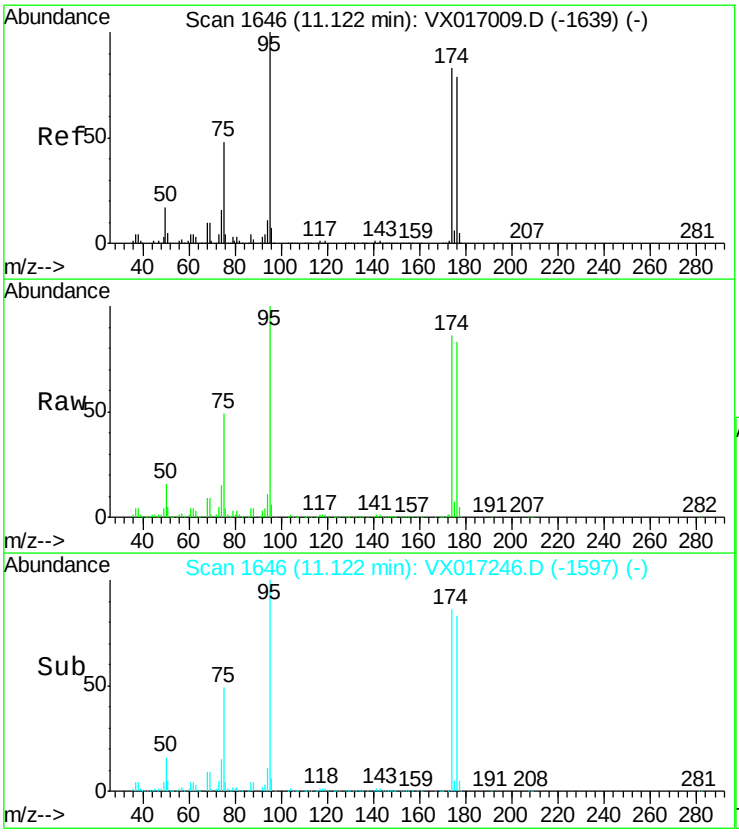


#61
1,2-Dibromoethane
Concen: 19.428 ug/l
RT: 9.65 min Scan# 1405
Delta R.T. -0.00 min
Lab File: VX017246.D
Acq: 08 Jul 2020 11:32

Tgt Ion:107 Resp: 64185

Ion	Ratio	Lower	Upper
107	100		
109	93.4	75.8	113.8

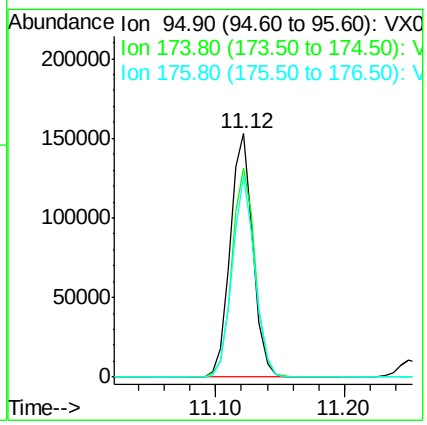




#62
4-Bromofluorobenzene
Concen: 47.666 ug/l
RT: 11.12 min Scan# 1646
Delta R.T. -0.00 min
Lab File: VX017246.D
Acq: 08 Jul 2020 11:32

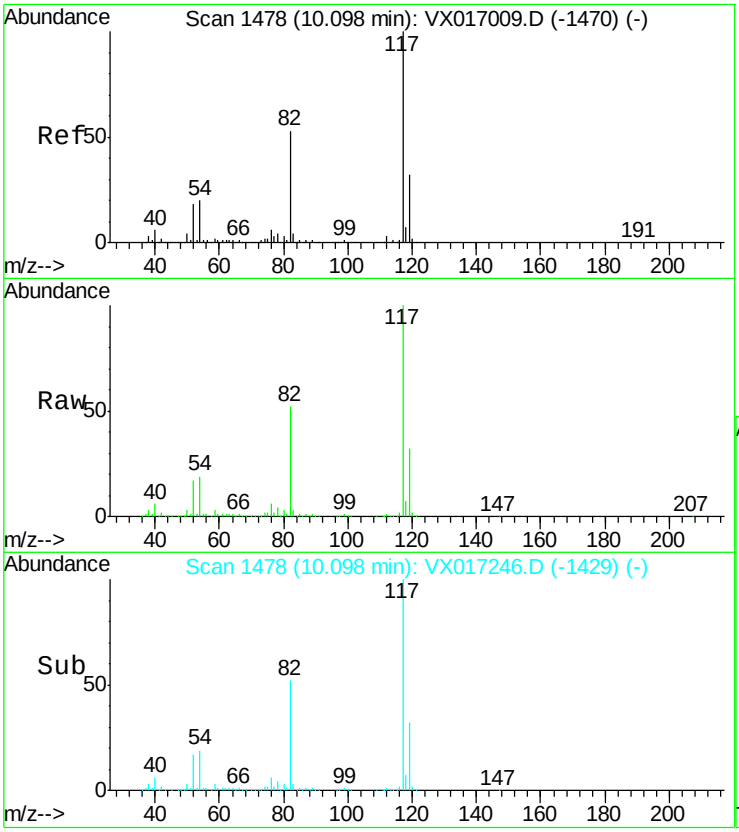
Tgt Ion: 95 Resp: 189114

Ion	Ratio	Lower	Upper
95	100		
174	87.1	0.0	164.0
176	81.5	0.0	157.6



Instrument :
MSVOA_X
ClientSampleId :
VX0708WBS01

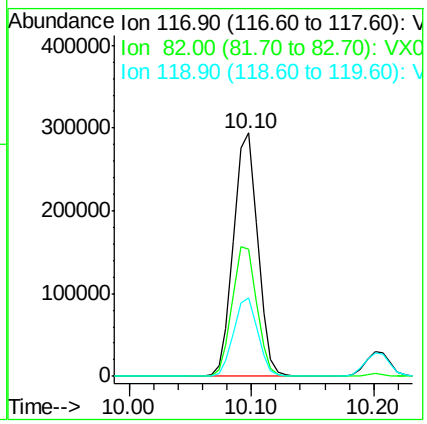
Manual Integrations APPROVED
MMDadoda
7/9/2020 10:59:47 AM

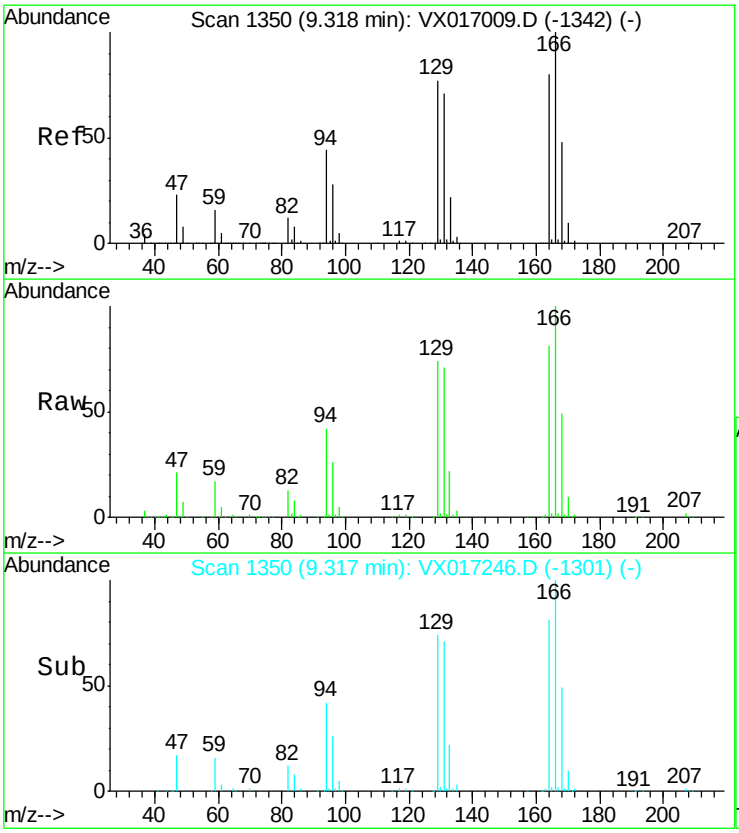


#63
Chlorobenzene-d5
Concen: 50.000 ug/l
RT: 10.10 min Scan# 1478
Delta R.T. -0.00 min
Lab File: VX017246.D
Acq: 08 Jul 2020 11:32

Tgt Ion:117 Resp: 401634

Ion	Ratio	Lower	Upper
117	100		
82	52.1	42.6	63.8
119	32.5	25.4	38.2

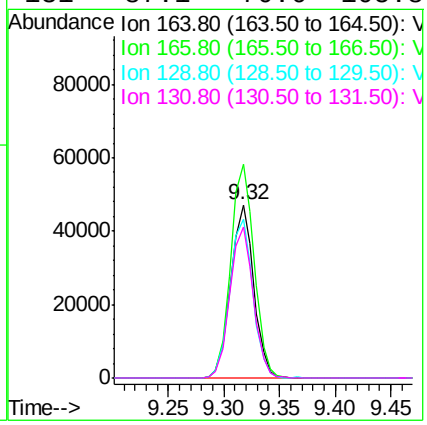




#64
Tetrachloroethene
Concen: 20.832 ug/l
RT: 9.32 min Scan# 1350
Delta R.T. -0.00 min
Lab File: VX017246.D
Acq: 08 Jul 2020 11:32

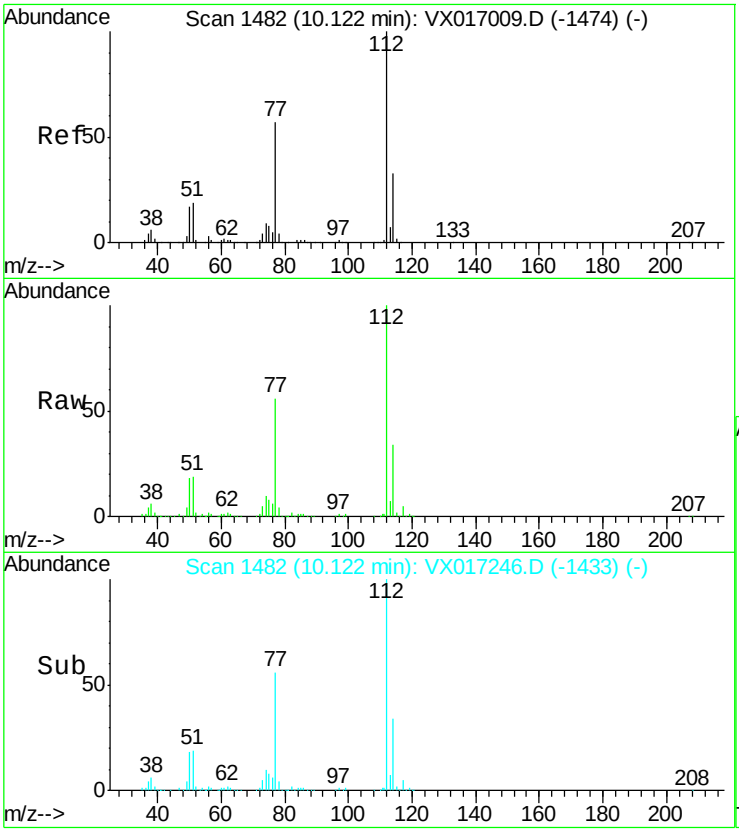
Tgt Ion:164 Resp: 67527

Ion	Ratio	Lower	Upper
164	100		
166	123.4	99.4	149.0
129	91.7	76.3	114.5
131	87.1	70.6	105.8



Instrument :
MSVOA_X
ClientSampleId :
VX0708WBS01

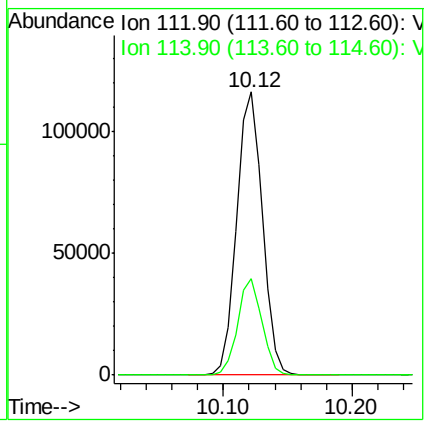
Manual Integrations APPROVED
MMDadoda
7/9/2020 10:59:47 AM

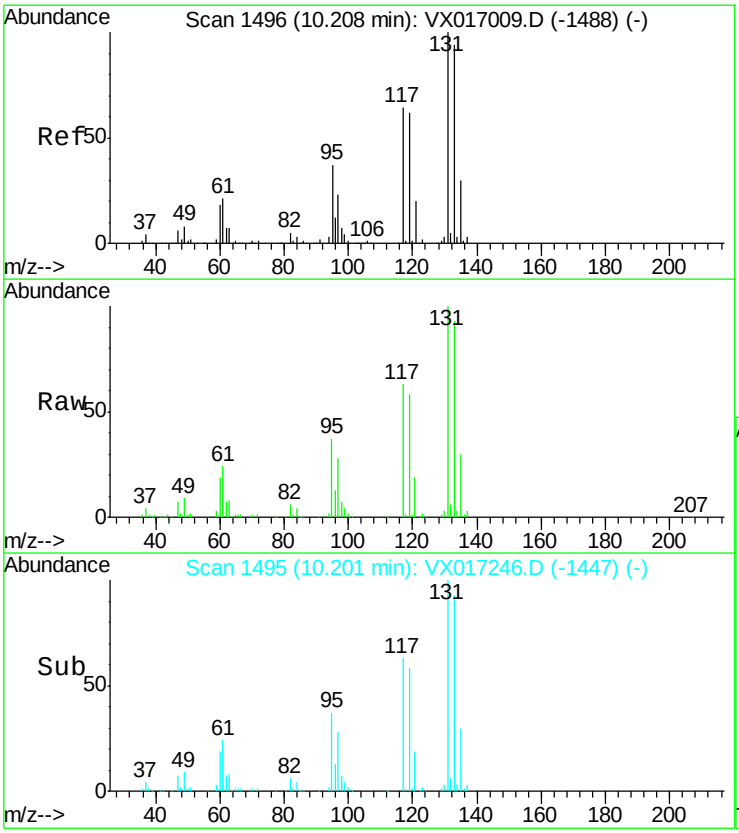


#65
Chlorobenzene
Concen: 19.437 ug/l
RT: 10.12 min Scan# 1482
Delta R.T. -0.00 min
Lab File: VX017246.D
Acq: 08 Jul 2020 11:32

Tgt Ion:112 Resp: 161123

Ion	Ratio	Lower	Upper
112	100		
114	34.2	26.2	39.4

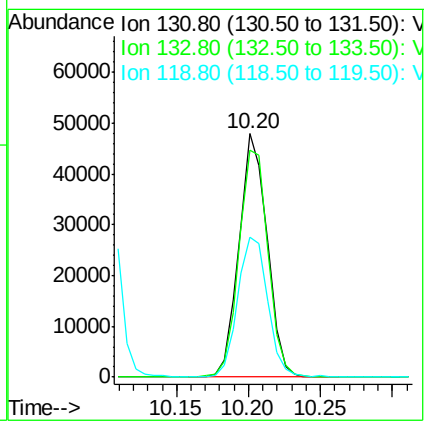




#66
1,1,1,2-Tetrachloroethane
Concen: 20.320 ug/l
RT: 10.20 min Scan# 1495
Delta R.T. -0.01 min
Lab File: VX017246.D
Acq: 08 Jul 2020 11:32

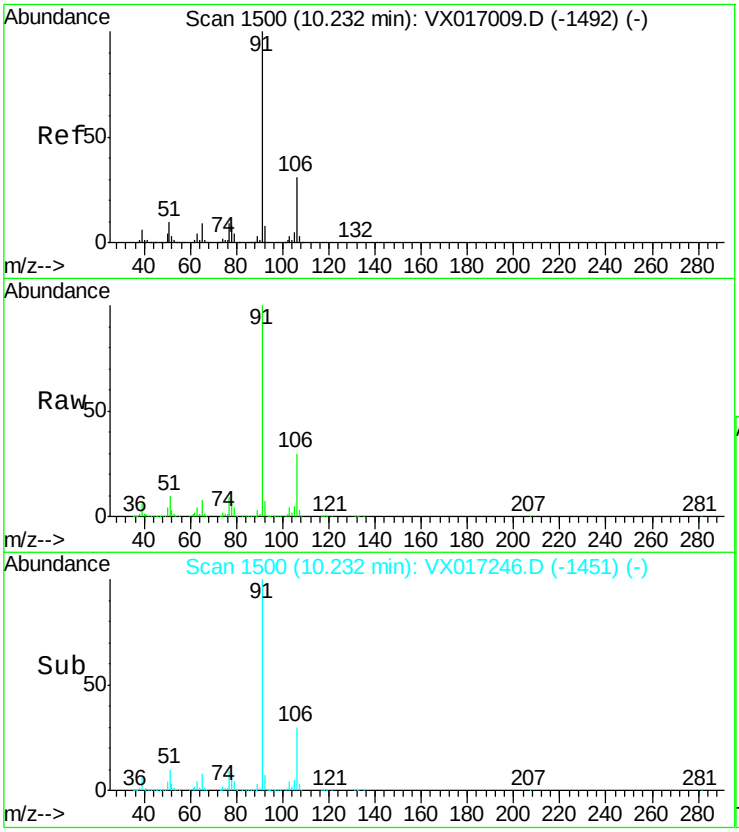
Tgt Ion:131 Resp: 64916

Ion	Ratio	Lower	Upper
131	100		
133	96.7	47.3	141.9
119	61.8	31.9	95.5



Instrument :
MSVOA_X
ClientSampleId :
VX0708WBS01

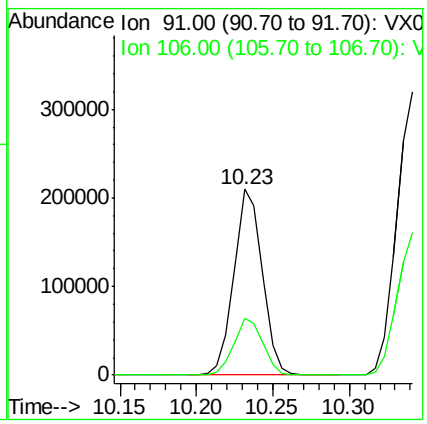
Manual Integrations APPROVED
MMDadoda
7/9/2020 10:59:47 AM

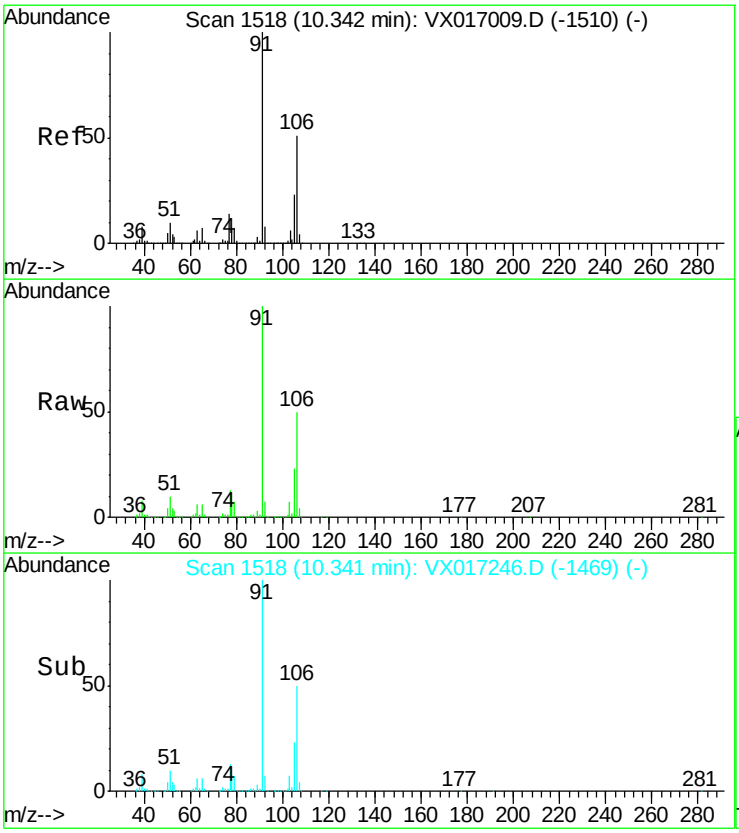


#67
Ethyl Benzene
Concen: 19.493 ug/l
RT: 10.23 min Scan# 1500
Delta R.T. -0.00 min
Lab File: VX017246.D
Acq: 08 Jul 2020 11:32

Tgt Ion: 91 Resp: 269857

Ion	Ratio	Lower	Upper
91	100		
106	30.3	24.7	37.1

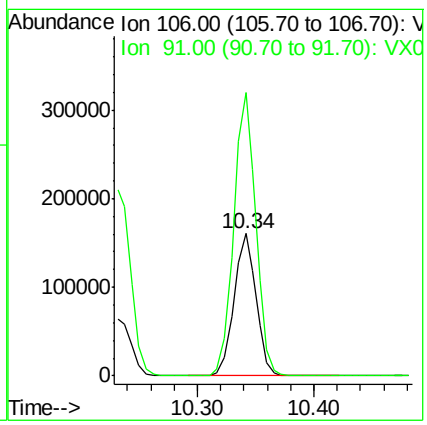




#68
m/p-Xylenes
Concen: 39.716 ug/l
RT: 10.34 min Scan# 1518
Delta R.T. -0.00 min
Lab File: VX017246.D
Acq: 08 Jul 2020 11:32

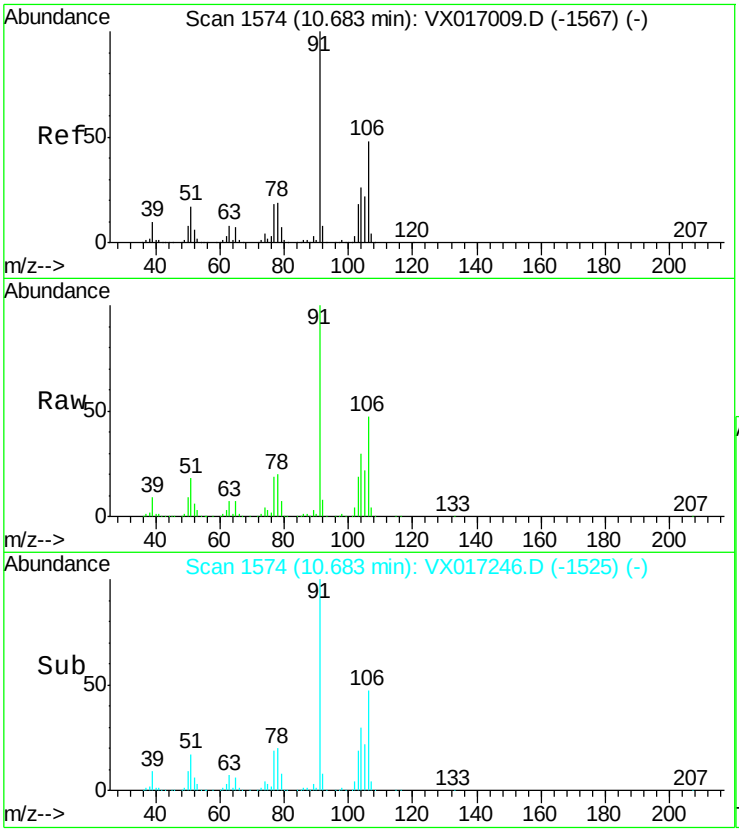
Tgt Ion:106 Resp: 211109

Ion	Ratio	Lower	Upper
106	100		
91	199.3	158.6	238.0



Instrument :
MSVOA_X
ClientSampleId :
VX0708WBS01

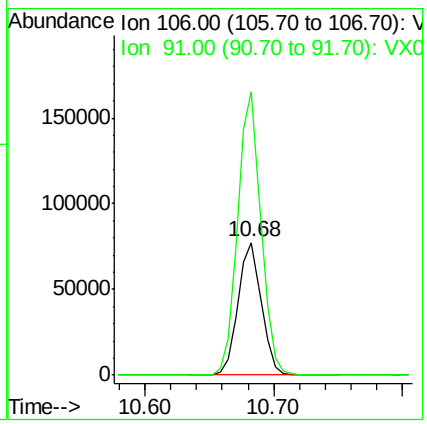
Manual Integrations APPROVED
MMDadoda
7/9/2020 10:59:47 AM

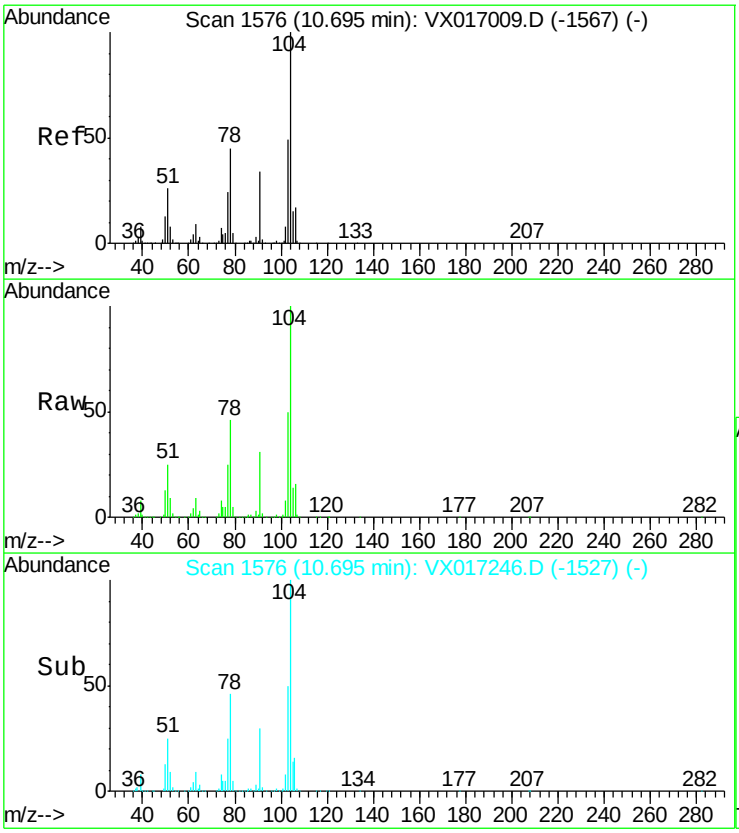


#69
o-Xylene
Concen: 19.308 ug/l
RT: 10.68 min Scan# 1574
Delta R.T. -0.00 min
Lab File: VX017246.D
Acq: 08 Jul 2020 11:32

Tgt Ion:106 Resp: 97631

Ion	Ratio	Lower	Upper
106	100		
91	212.5	105.6	316.7

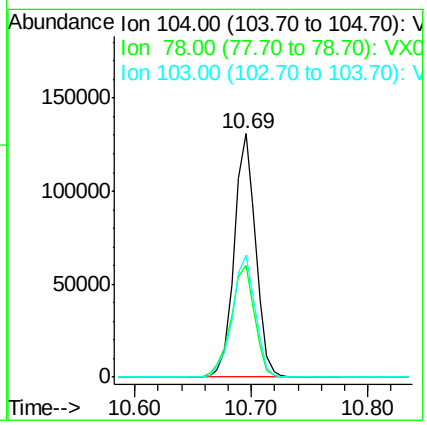


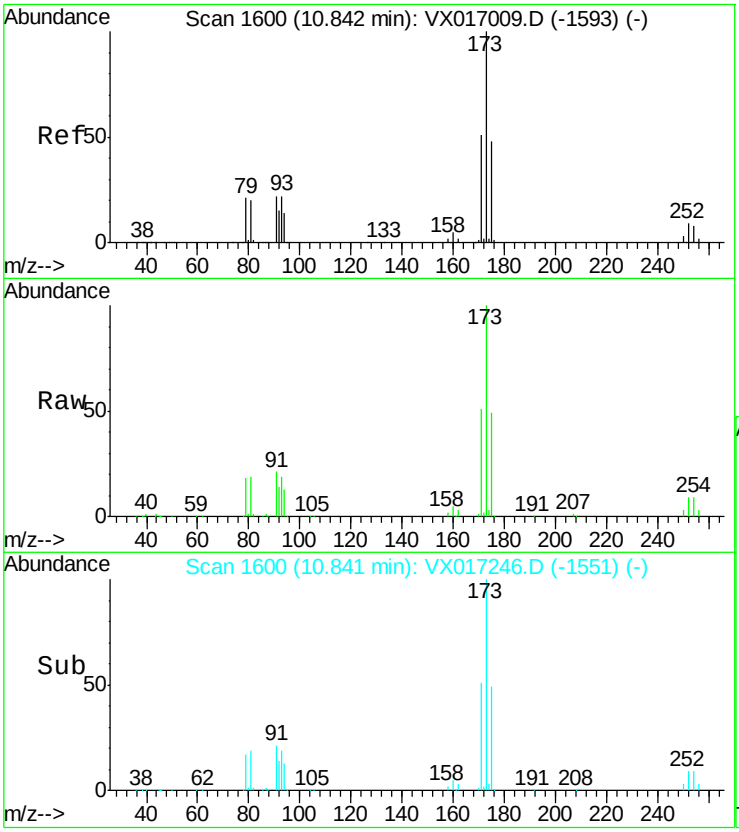


#70
Styrene
Concen: 19.512 ug/l
RT: 10.69 min Scan# 1576
Delta R.T. -0.00 min
Lab File: VX017246.D
Acq: 08 Jul 2020 11:32

Tgt Ion:104 Resp: 168017

Ion	Ratio	Lower	Upper
104	100		
78	51.4	39.5	59.3
103	53.6	43.0	64.6

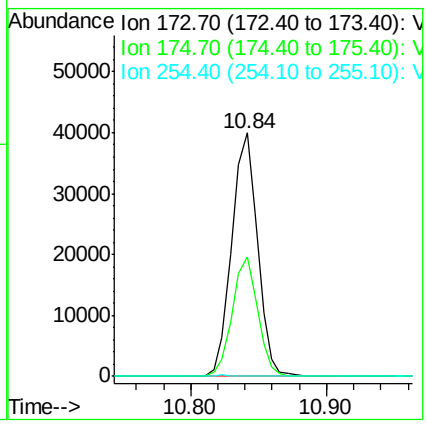


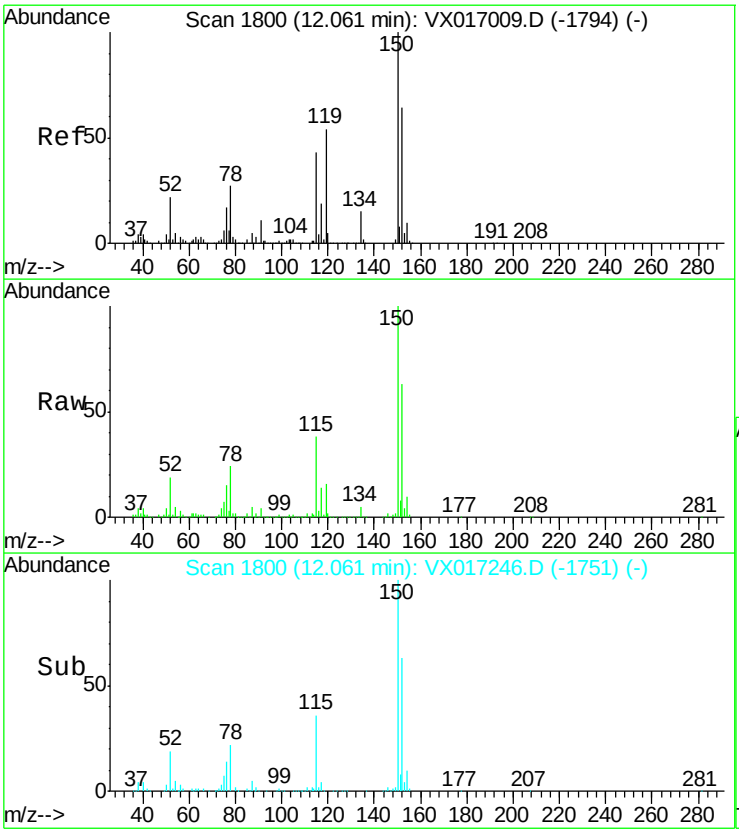


#71
Bromoform
Concen: 20.781 ug/l
RT: 10.84 min Scan# 1600
Delta R.T. -0.00 min
Lab File: VX017246.D
Acq: 08 Jul 2020 11:32

Tgt Ion:173 Resp: 52646

Ion	Ratio	Lower	Upper
173	100		
175	48.6	24.5	73.5
254	0.2	0.1	0.1#

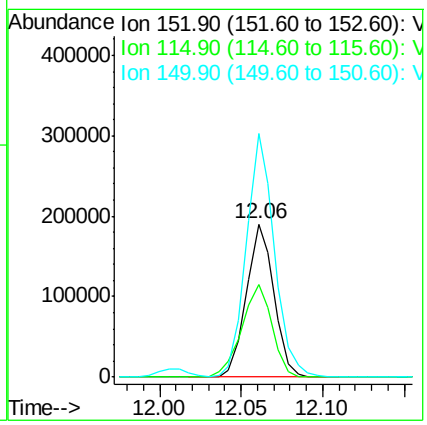




#72
1,4-Dichlorobenzene-d4
Concen: 50.000 ug/l
RT: 12.06 min Scan# 1800
Delta R.T. -0.00 min
Lab File: VX017246.D
Acq: 08 Jul 2020 11:32

Tgt Ion:152 Resp: 224720

Ion	Ratio	Lower	Upper
152	100		
115	66.4	40.9	122.7
150	161.8	0.0	351.6

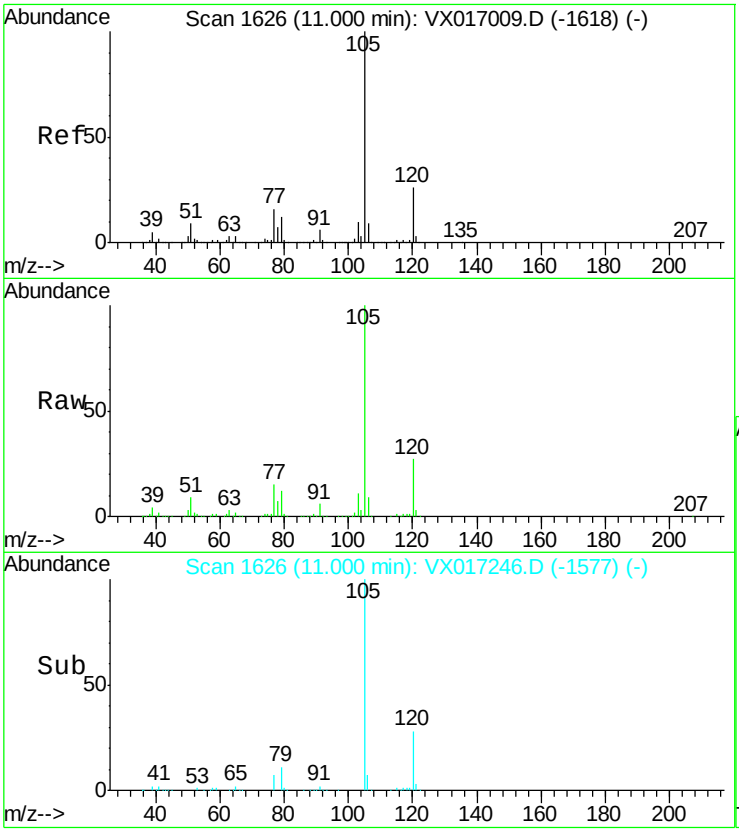


Instrument :
MSVOA_X
ClientSampleId :
VX0708WBS01

Manual Integrations APPROVED
MMDadoda
7/9/2020 10:59:47 AM

Instrument :
MSVOA_X
ClientSampleId :
VX0708WBS01

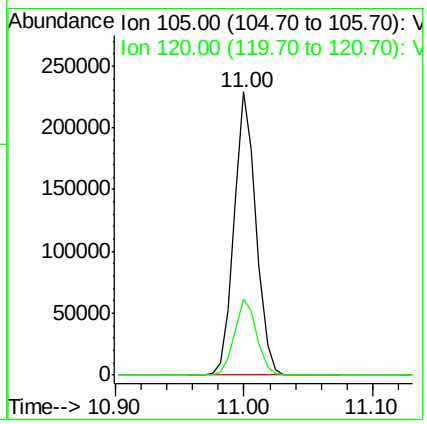
Manual Integrations APPROVED
MMDadoda
7/9/2020 10:59:47 AM

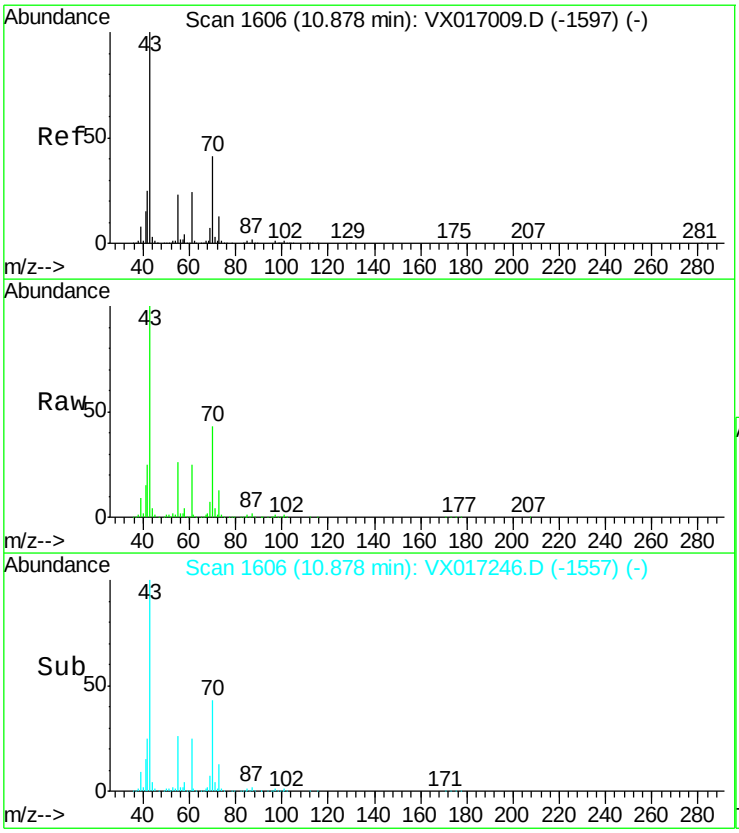


#73
Isopropylbenzene
Concen: 18.436 ug/l
RT: 11.00 min Scan# 1626
Delta R.T. -0.00 min
Lab File: VX017246.D
Acq: 08 Jul 2020 11:32

Tgt Ion:105 Resp: 271364

Ion	Ratio	Lower	Upper
105	100		
120	27.2	13.4	40.2

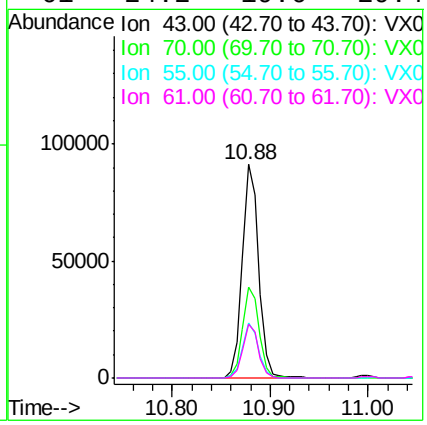




#74
N-amyl acetate
Concen: 16.876 ug/l
RT: 10.88 min Scan# 1606
Delta R.T. -0.00 min
Lab File: VX017246.D
Acq: 08 Jul 2020 11:32

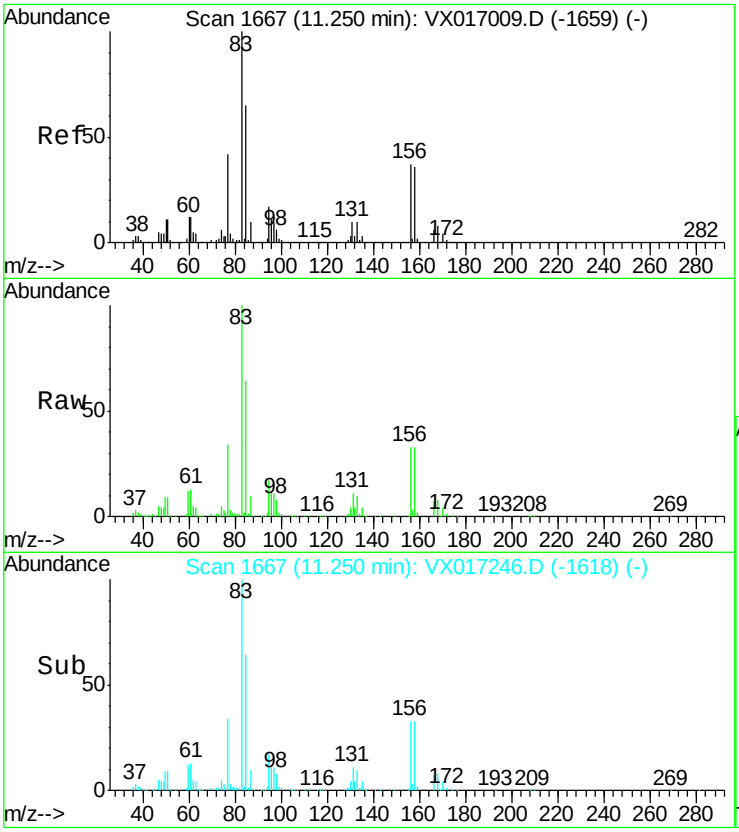
Tgt Ion: 43 Resp: 105994

Ion	Ratio	Lower	Upper
43	100		
70	43.2	34.2	51.2
55	25.7	19.2	28.8
61	24.2	19.6	29.4



Instrument :
MSVOA_X
ClientSampleId :
VX0708WBS01

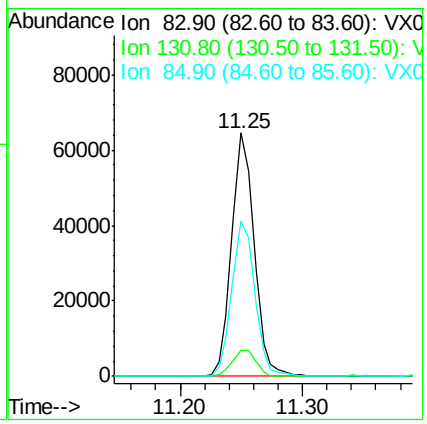
Manual Integrations APPROVED
MMDadoda
7/9/2020 10:59:47 AM

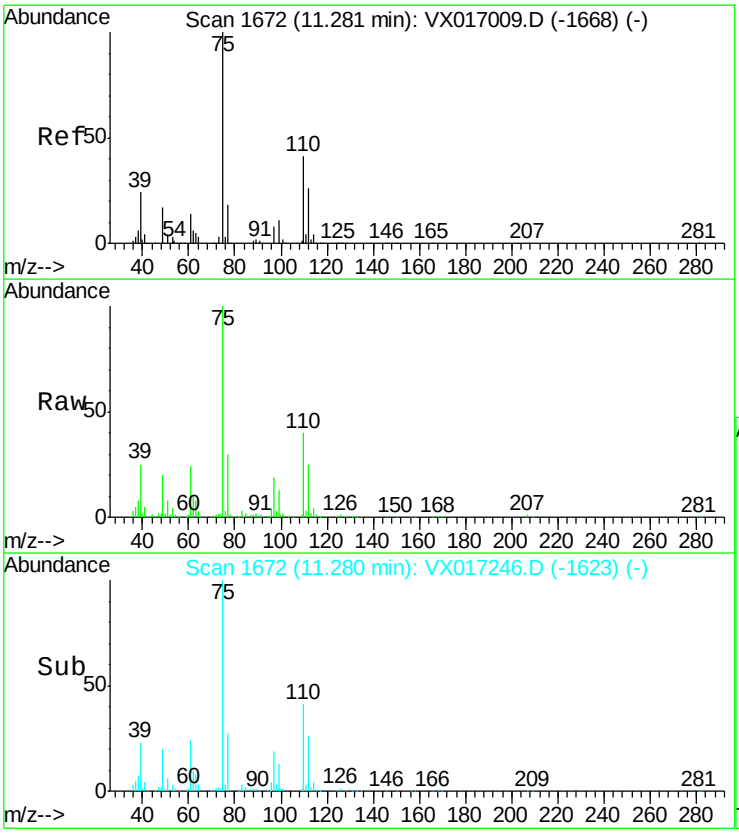


#75
1,1,2,2-Tetrachloroethane
Concen: 17.811 ug/l
RT: 11.25 min Scan# 1667
Delta R.T. -0.00 min
Lab File: VX017246.D
Acq: 08 Jul 2020 11:32

Tgt Ion: 83 Resp: 82466

Ion	Ratio	Lower	Upper
83	100		
131	11.7	5.4	16.2
85	65.5	31.9	95.9

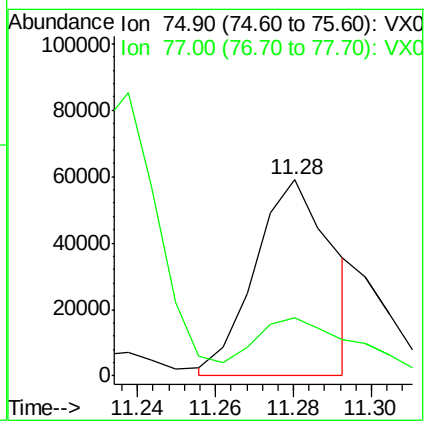




#76
1,2,3-Trichloropropane
Concen: 18.314 ug/l m
RT: 11.28 min Scan# 1672
Delta R.T. -0.00 min
Lab File: VX017246.D
Acq: 08 Jul 2020 11:32

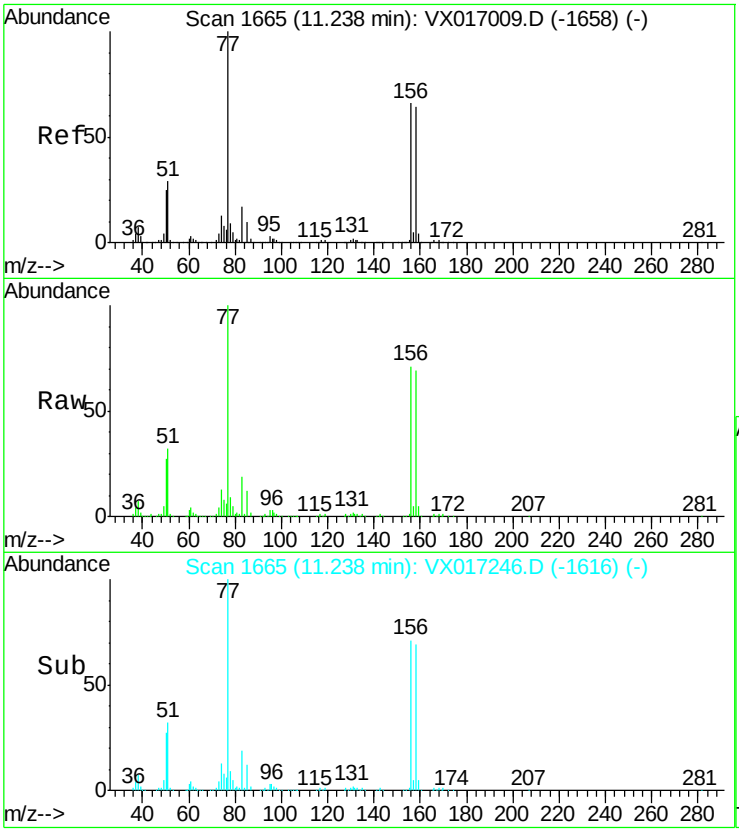
Tgt Ion: 75 Resp: 80931

Ion	Ratio	Lower	Upper
75	100		
77	38.6	20.2	60.6



Instrument :
MSVOA_X
ClientSampleId :
VX0708WBS01

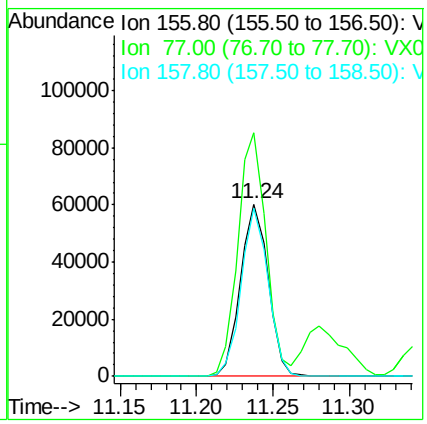
Manual Integrations APPROVED
MMDadoda
7/9/2020 10:59:47 AM

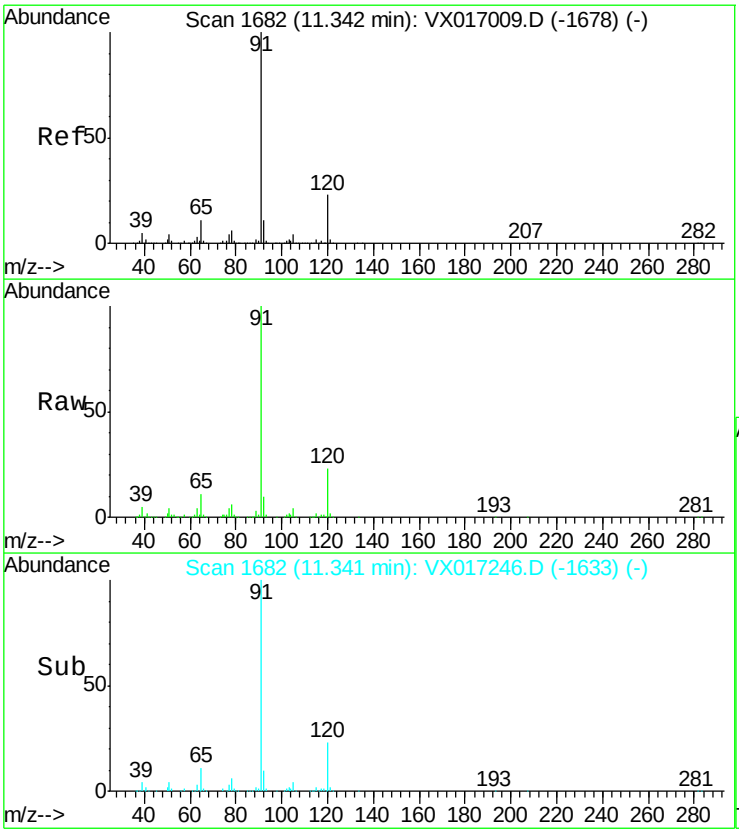


#77
Bromobenzene
Concen: 18.672 ug/l
RT: 11.24 min Scan# 1665
Delta R.T. -0.00 min
Lab File: VX017246.D
Acq: 08 Jul 2020 11:32

Tgt Ion:156 Resp: 75537

Ion	Ratio	Lower	Upper
156	100		
77	145.1	76.9	230.7
158	95.9	47.9	143.6

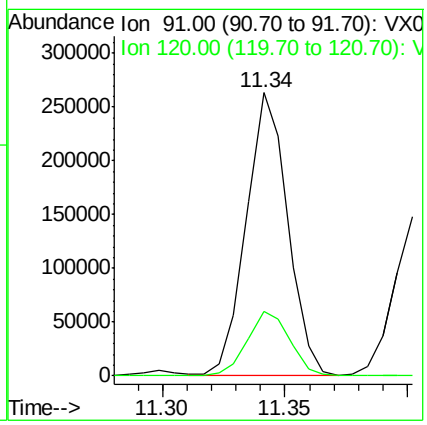




#78
n-propylbenzene
Concen: 18.466 ug/l
RT: 11.34 min Scan# 1682
Delta R.T. -0.00 min
Lab File: VX017246.D
Acq: 08 Jul 2020 11:32

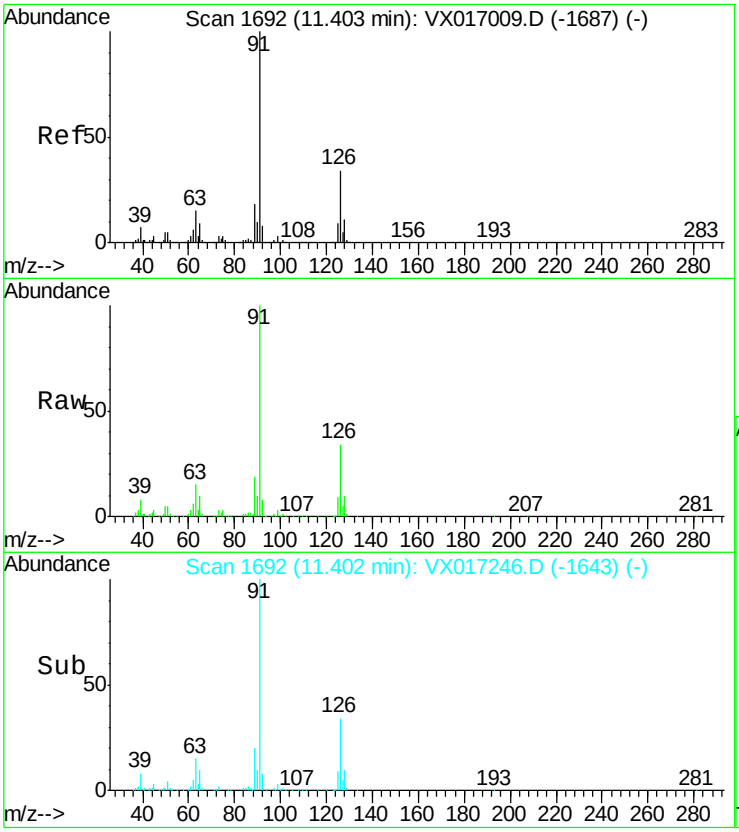
Tgt Ion: 91 Resp: 307365

Ion	Ratio	Lower	Upper
91	100		
120	23.6	11.9	35.9



Instrument :
MSVOA_X
ClientSampleId :
VX0708WBS01

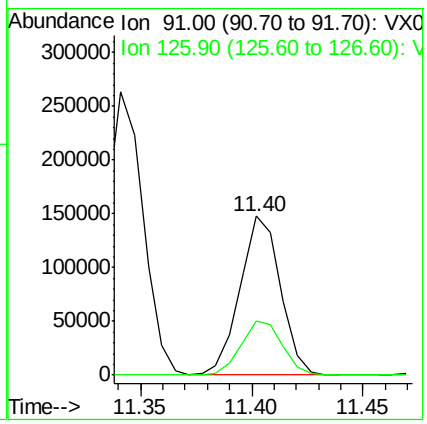
Manual Integrations APPROVED
MMDadoda
7/9/2020 10:59:47 AM

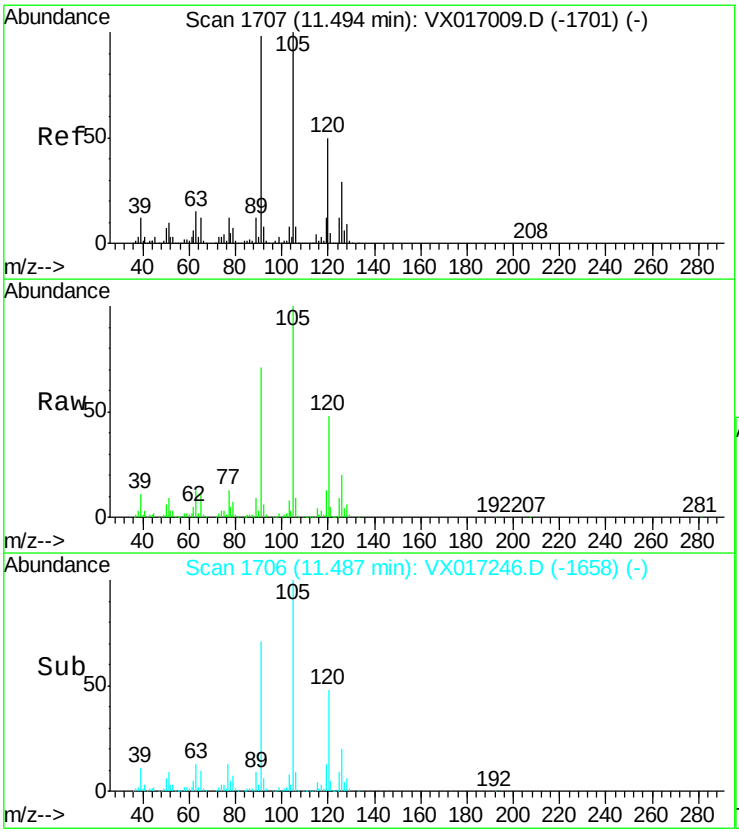


#79
2-Chlorotoluene
Concen: 18.478 ug/l
RT: 11.40 min Scan# 1692
Delta R.T. -0.00 min
Lab File: VX017246.D
Acq: 08 Jul 2020 11:32

Tgt Ion: 91 Resp: 186150

Ion	Ratio	Lower	Upper
91	100		
126	35.3	17.4	52.3

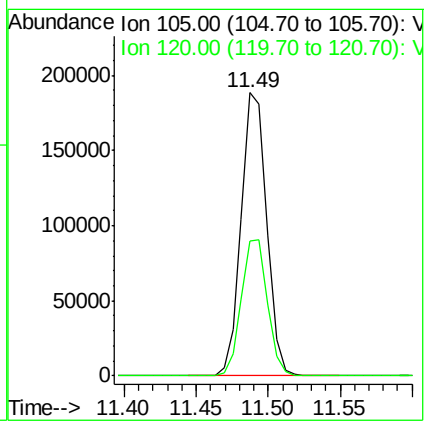


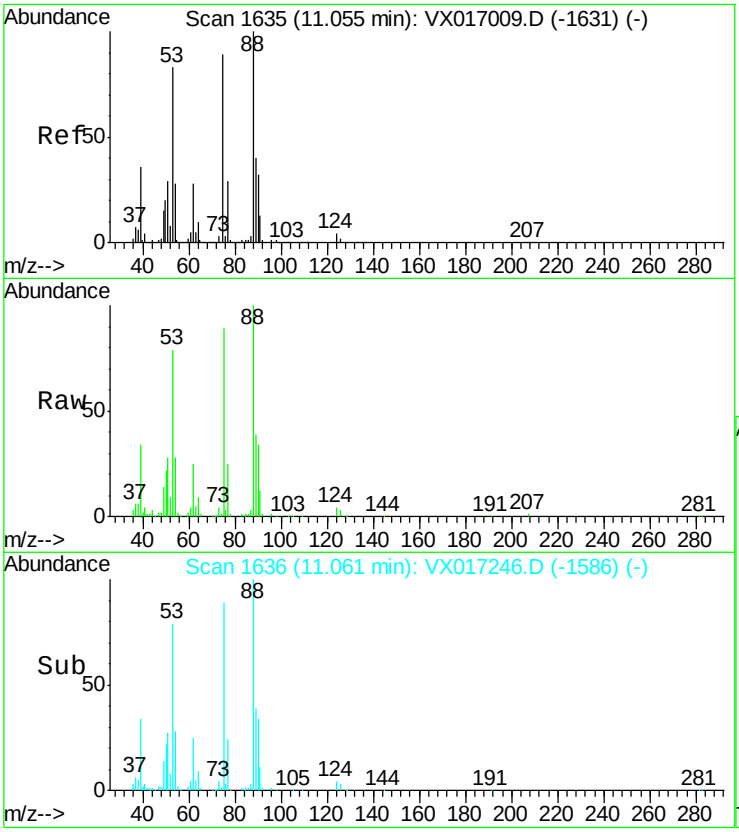


#80
1,3,5-Trimethylbenzene
Concen: 18.955 ug/l
RT: 11.49 min Scan# 1706
Delta R.T. -0.01 min
Lab File: VX017246.D
Acq: 08 Jul 2020 11:32

Tgt Ion:105 Resp: 231430

Ion	Ratio	Lower	Upper
105	100		
120	49.5	24.9	74.6

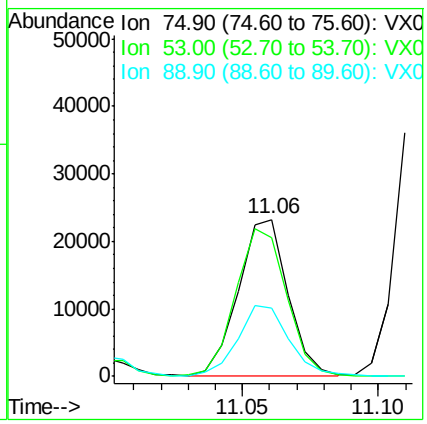




#81
trans-1,4-Dichloro-2-butene
Concen: 17.108 ug/l
RT: 11.06 min Scan# 1636
Delta R.T. 0.01 min
Lab File: VX017246.D
Acq: 08 Jul 2020 11:32

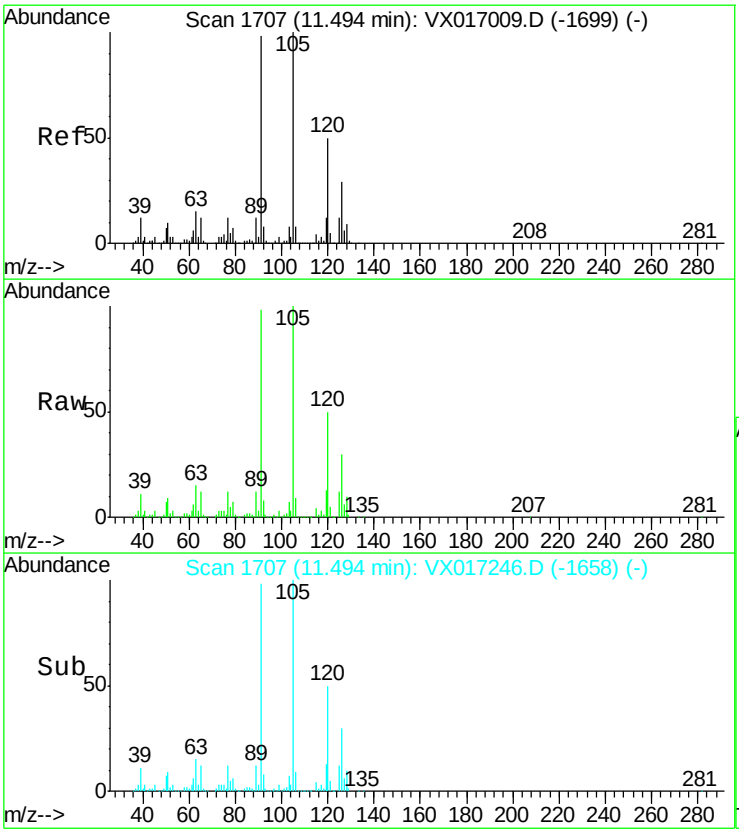
Tgt Ion: 75 Resp: 29194

Ion	Ratio	Lower	Upper
75	100		
53	96.7	72.4	108.6
89	47.3	37.0	55.4



Instrument :
MSVOA_X
ClientSampleId :
VX0708WBS01

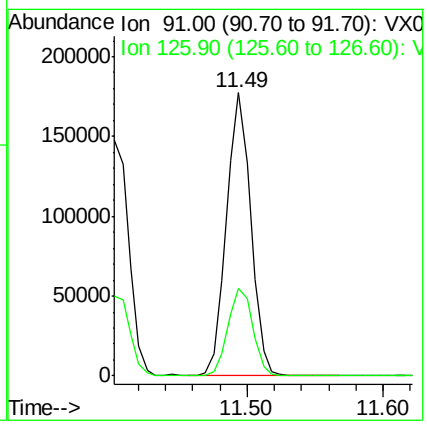
Manual Integrations APPROVED
MMDadoda
7/9/2020 10:59:47 AM



#82
4-Chlorotoluene
Concen: 18.217 ug/l
RT: 11.49 min Scan# 1707
Delta R.T. -0.00 min
Lab File: VX017246.D
Acq: 08 Jul 2020 11:32

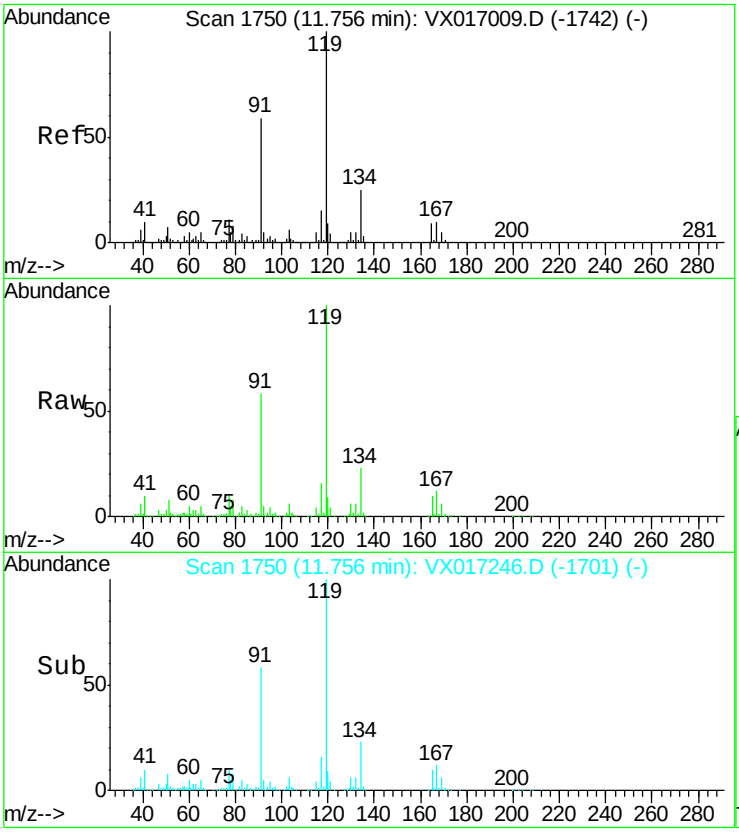
Tgt Ion: 91 Resp: 219387

Ion	Ratio	Lower	Upper
91	100		
126	31.8	15.2	45.5



Instrument :
MSVOA_X
ClientSampleId :
VX0708WBS01

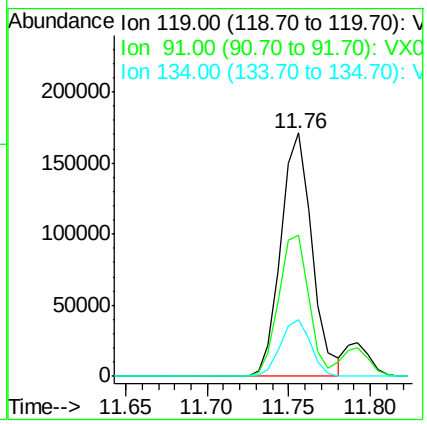
Manual Integrations APPROVED
MMDadoda
7/9/2020 10:59:47 AM

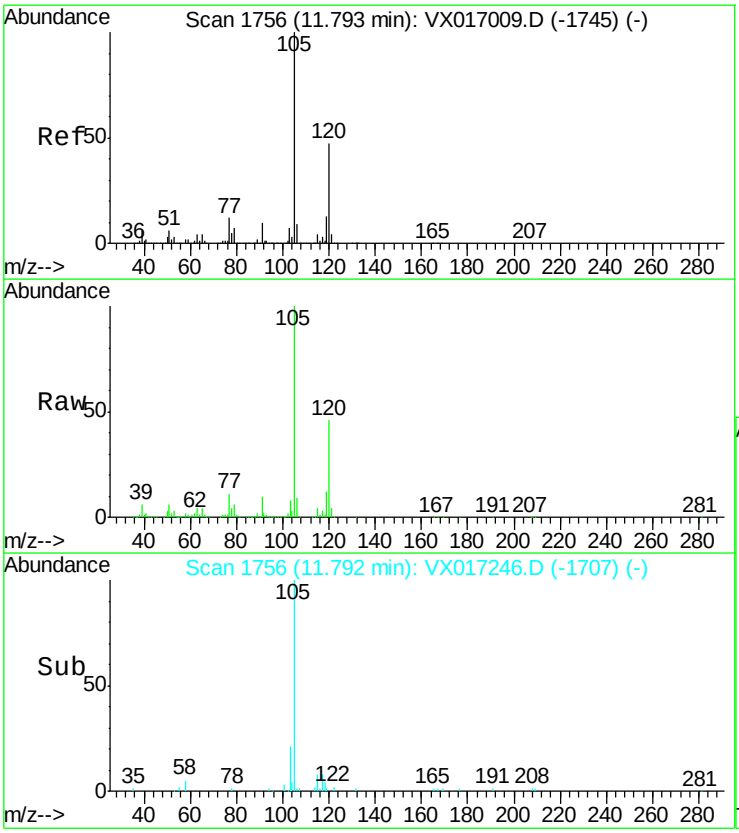


#83
tert-Butylbenzene
Concen: 18.812 ug/l
RT: 11.76 min Scan# 1750
Delta R.T. -0.00 min
Lab File: VX017246.D
Acq: 08 Jul 2020 11:32

Tgt Ion:119 Resp: 225474

Ion	Ratio	Lower	Upper
119	100		
91	56.3	28.3	84.9
134	22.6	11.7	35.1

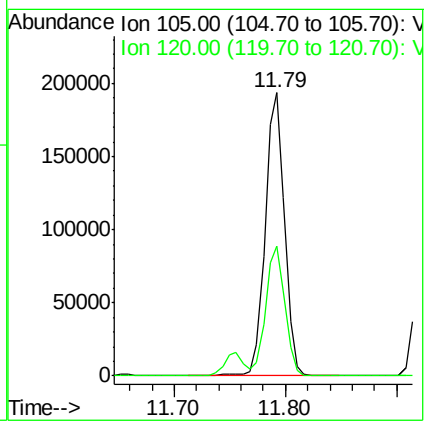


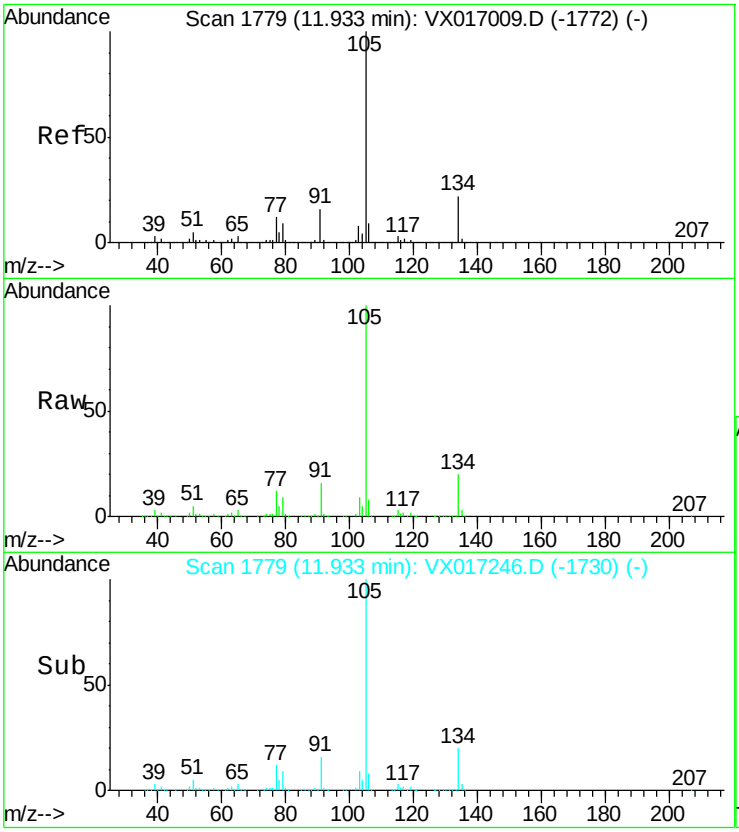


#84
1,2,4-Trimethylbenzene
Concen: 19.011 ug/l
RT: 11.79 min Scan# 1756
Delta R.T. -0.00 min
Lab File: VX017246.D
Acq: 08 Jul 2020 11:32

Tgt Ion:105 Resp: 235479

Ion	Ratio	Lower	Upper
105	100		
120	45.5	22.9	68.5

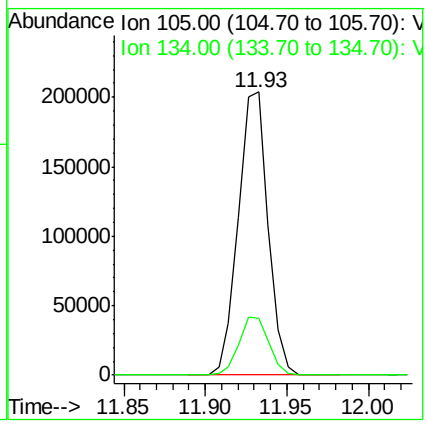




#85
sec-Butylbenzene
Concen: 18.397 ug/l
RT: 11.93 min Scan# 1779
Delta R.T. -0.00 min
Lab File: VX017246.D
Acq: 08 Jul 2020 11:32

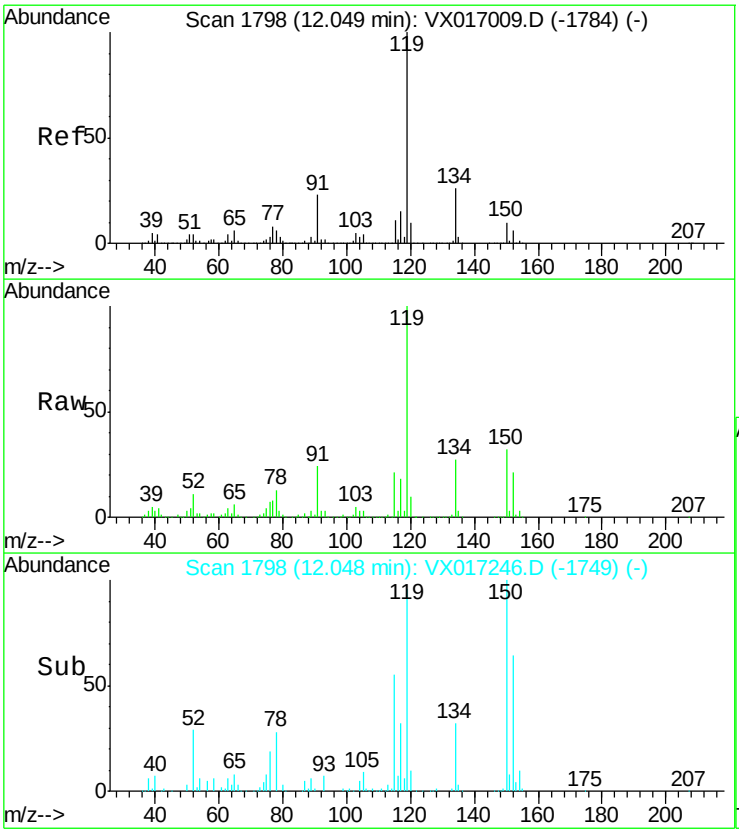
Tgt Ion:105 Resp: 259182

Ion	Ratio	Lower	Upper
105	100		
134	20.7	10.5	31.6



Instrument :
MSVOA_X
ClientSampleId :
VX0708WBS01

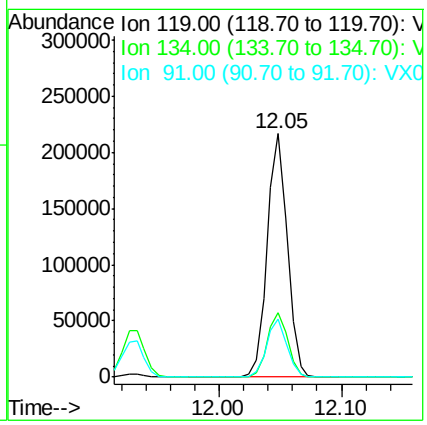
Manual Integrations APPROVED
MMDadoda
7/9/2020 10:59:47 AM



#86
p-Isopropyltoluene
Concen: 18.917 ug/l
RT: 12.05 min Scan# 1798
Delta R.T. -0.00 min
Lab File: VX017246.D
Acq: 08 Jul 2020 11:32

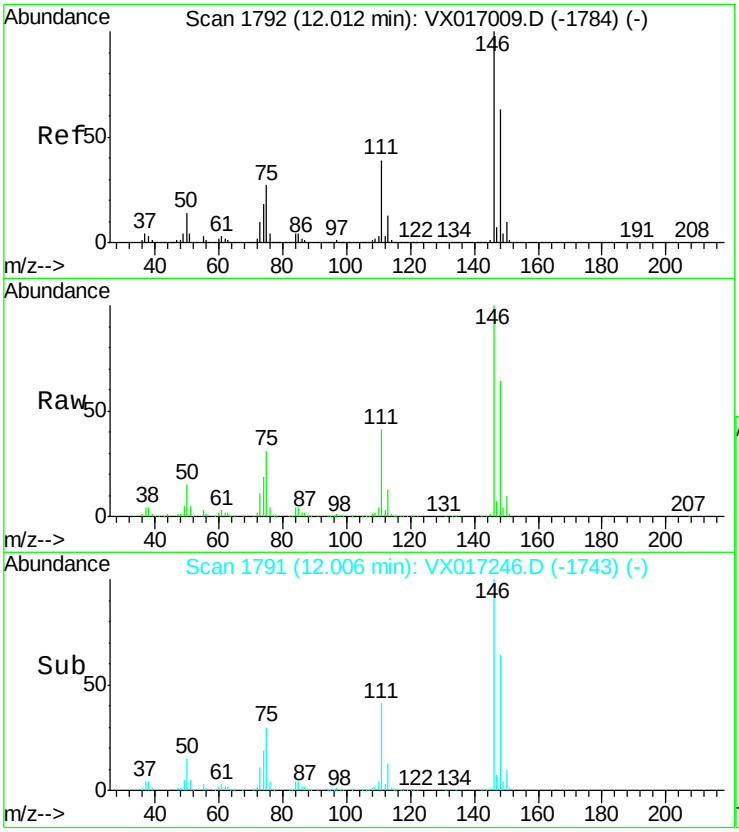
Tgt Ion:119 Resp: 248105

Ion	Ratio	Lower	Upper
119	100		
134	27.0	13.2	39.5
91	24.0	11.8	35.4



Instrument :
MSVOA_X
ClientSampleId :
VX0708WBS01

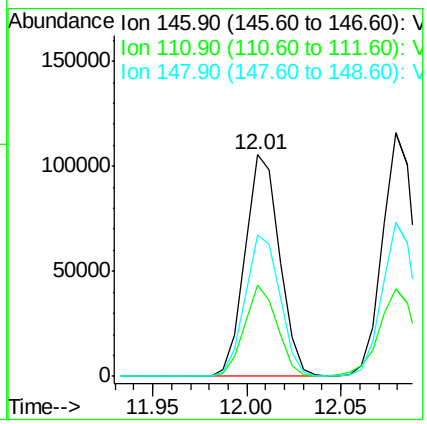
Manual Integrations APPROVED
MMDadoda
7/9/2020 10:59:47 AM

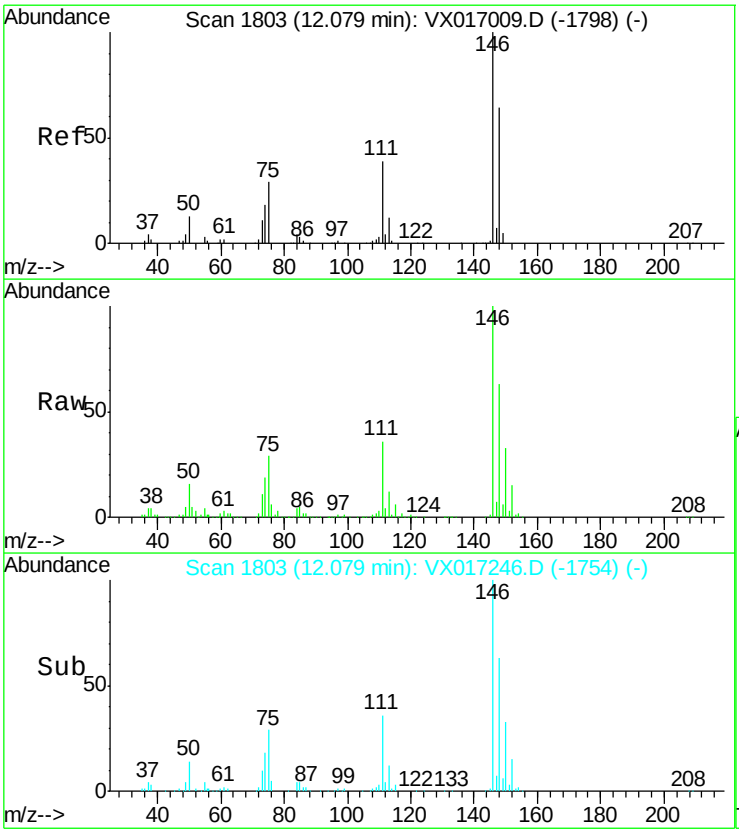


#87
1,3-Dichlorobenzene
Concen: 18.258 ug/l
RT: 12.01 min Scan# 1791
Delta R.T. -0.01 min
Lab File: VX017246.D
Acq: 08 Jul 2020 11:32

Tgt Ion:146 Resp: 134146

Ion	Ratio	Lower	Upper
146	100		
111	38.9	20.4	61.2
148	64.6	32.5	97.5

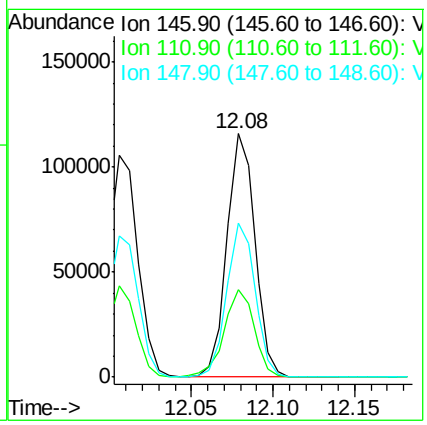




#88
1,4-Dichlorobenzene
Concen: 19.890 ug/l
RT: 12.08 min Scan# 1803
Delta R.T. -0.00 min
Lab File: VX017246.D
Acq: 08 Jul 2020 11:32

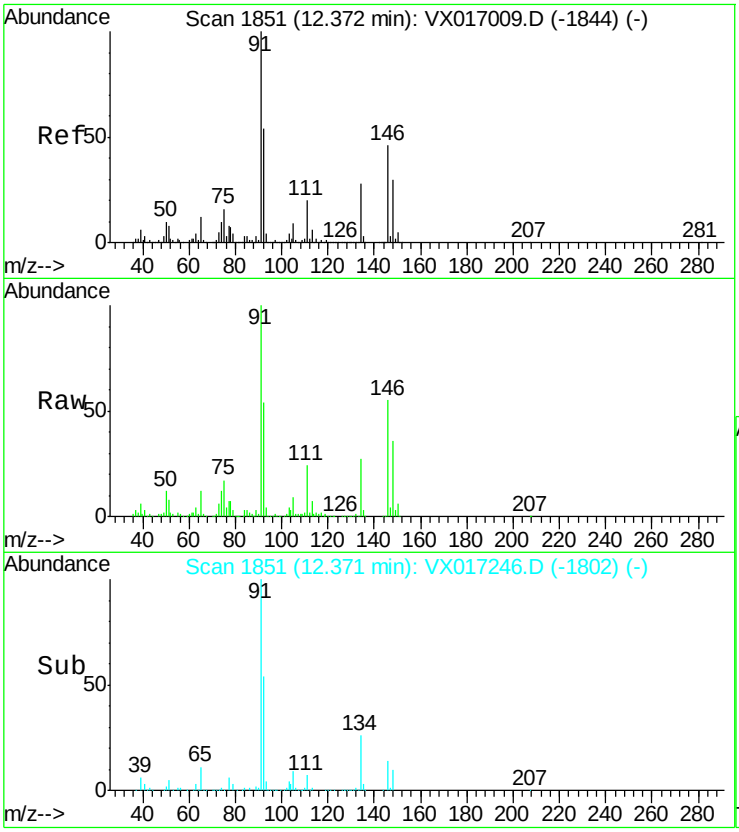
Tgt Ion:146 Resp: 138612

Ion	Ratio	Lower	Upper
146	100		
111	38.9	19.5	58.5
148	64.2	31.9	95.7



Instrument :
MSVOA_X
ClientSampleId :
VX0708WBS01

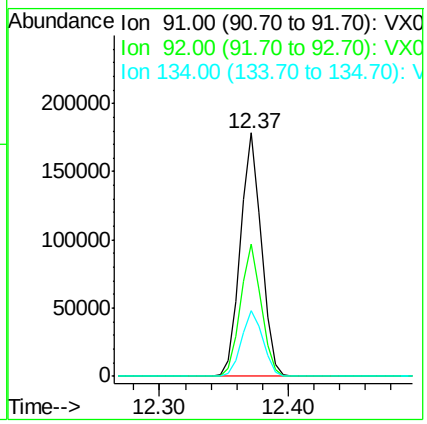
Manual Integrations APPROVED
MMDadoda
7/9/2020 10:59:47 AM

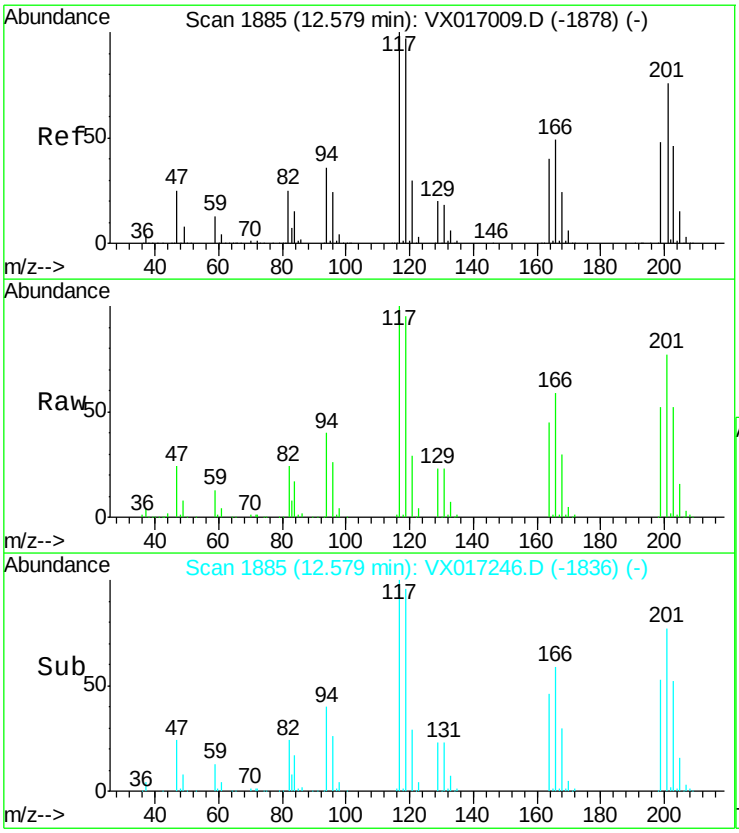


#89
n-Butylbenzene
Concen: 17.260 ug/l
RT: 12.37 min Scan# 1851
Delta R.T. -0.00 min
Lab File: VX017246.D
Acq: 08 Jul 2020 11:32

Tgt Ion: 91 Resp: 202122

Ion	Ratio	Lower	Upper
91	100		
92	53.5	27.2	81.6
134	27.2	13.6	40.7

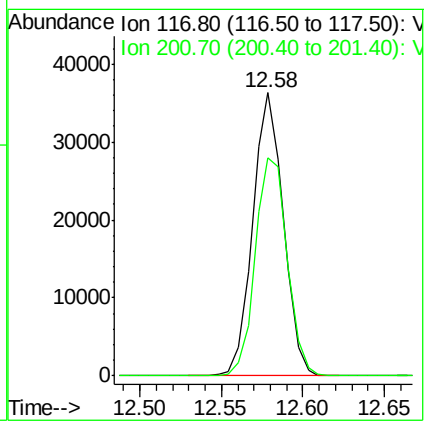




#90
Hexachloroethane
Concen: 18.274 ug/l
RT: 12.58 min Scan# 1885
Delta R.T. -0.00 min
Lab File: VX017246.D
Acq: 08 Jul 2020 11:32

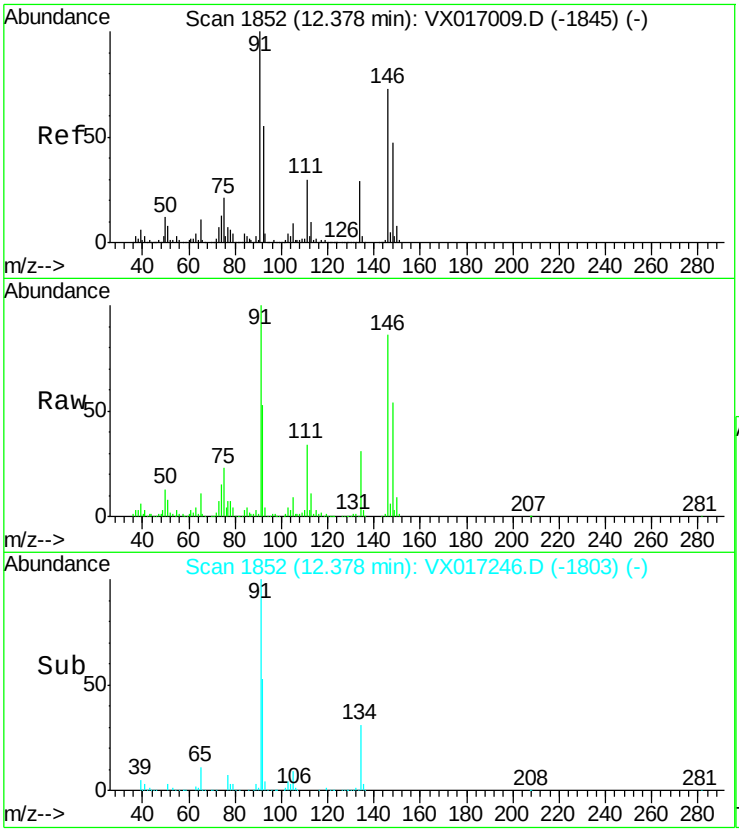
Tgt Ion:117 Resp: 47264

Ion	Ratio	Lower	Upper
117	100		
201	80.3	39.4	118.2



Instrument :
MSVOA_X
ClientSampleId :
VX0708WBS01

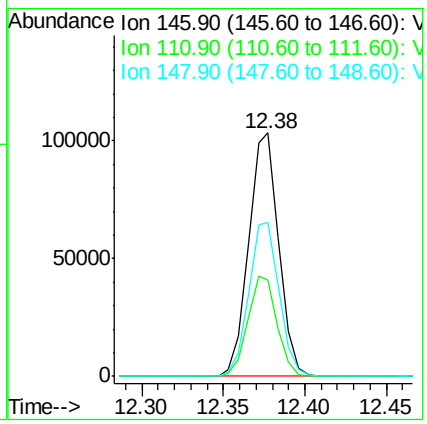
Manual Integrations APPROVED
MMDadoda
7/9/2020 10:59:47 AM

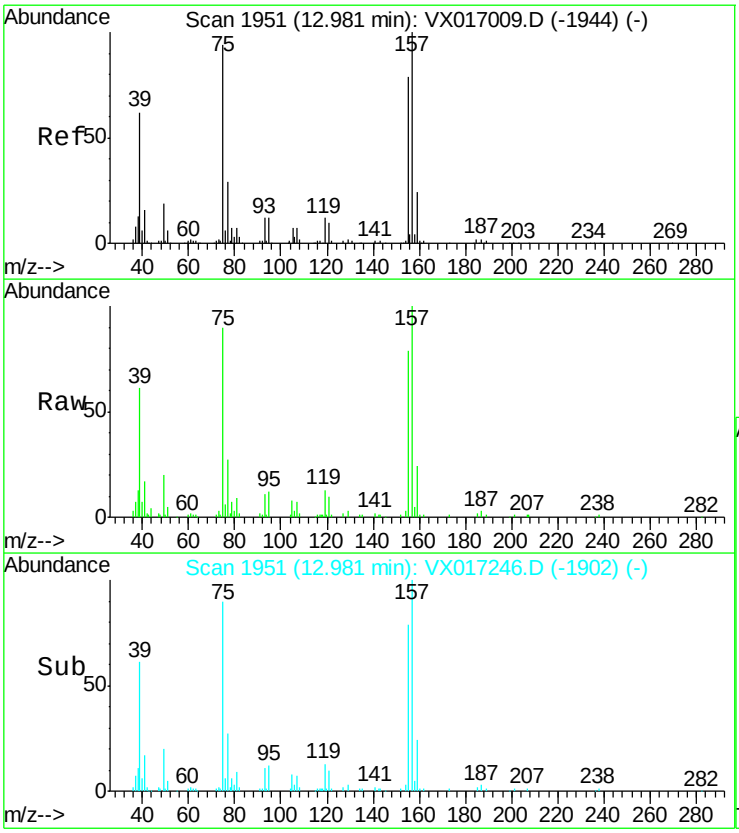


#91
1,2-Dichlorobenzene
Concen: 19.248 ug/l
RT: 12.38 min Scan# 1852
Delta R.T. -0.00 min
Lab File: VX017246.D
Acq: 08 Jul 2020 11:32

Tgt Ion:146 Resp: 132189

Ion	Ratio	Lower	Upper
146	100		
111	40.1	20.6	61.9
148	64.0	32.4	97.2

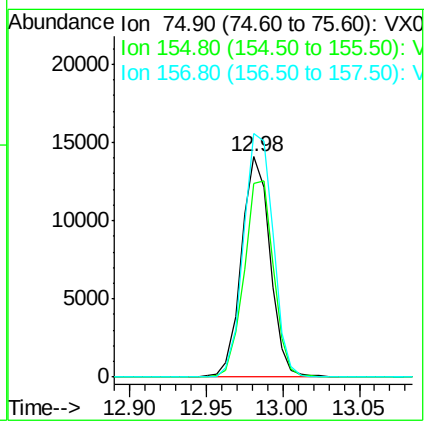




#92
1,2-Dibromo-3-Chloropropane
Concen: 16.590 ug/l
RT: 12.98 min Scan# 1951
Delta R.T. -0.00 min
Lab File: VX017246.D
Acq: 08 Jul 2020 11:32

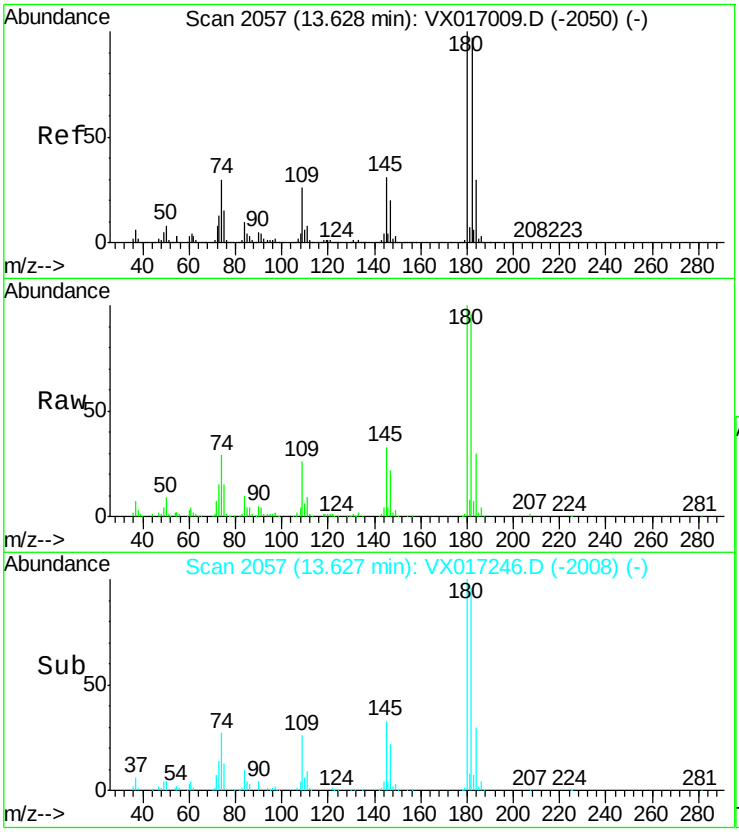
Tgt Ion: 75 Resp: 18324

Ion	Ratio	Lower	Upper
75	100		
155	91.2	45.1	135.2
157	114.0	56.5	169.3



Instrument :
MSVOA_X
ClientSampleId :
VX0708WBS01

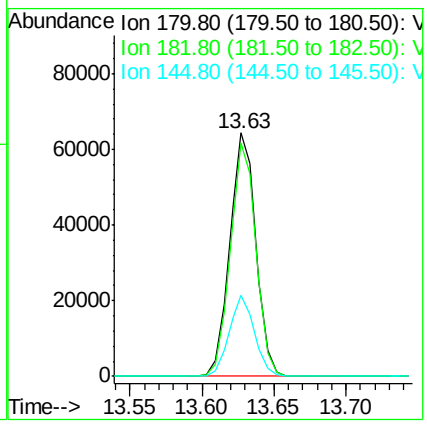
Manual Integrations APPROVED
MMDadoda
7/9/2020 10:59:47 AM

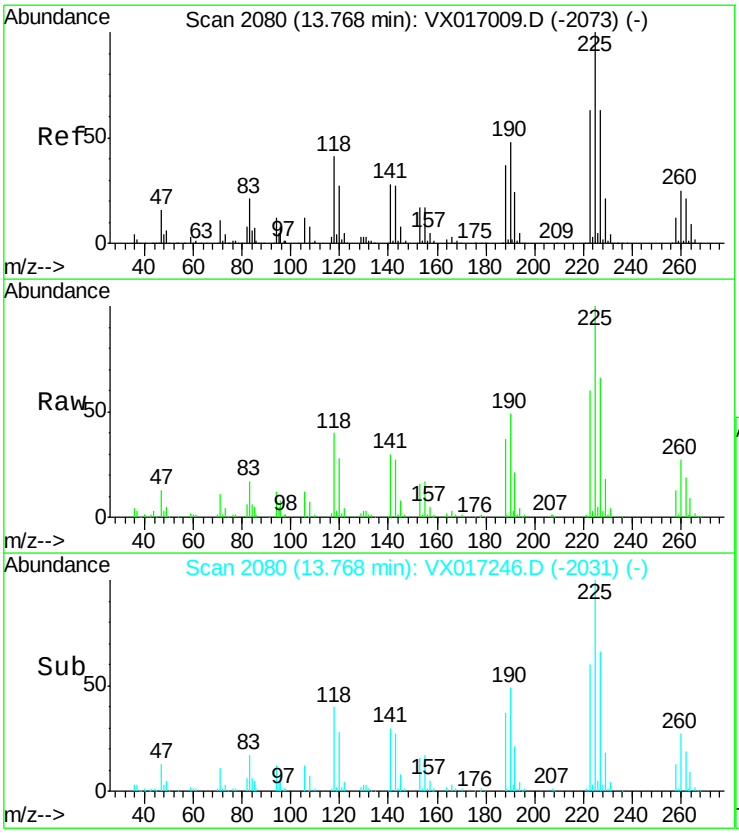


#93
1,2,4-Trichlorobenzene
Concen: 17.430 ug/l
RT: 13.63 min Scan# 2057
Delta R.T. -0.00 min
Lab File: VX017246.D
Acq: 08 Jul 2020 11:32

Tgt Ion:180 Resp: 81707

Ion	Ratio	Lower	Upper
180	100		
182	94.0	47.3	141.9
145	32.2	15.4	46.2

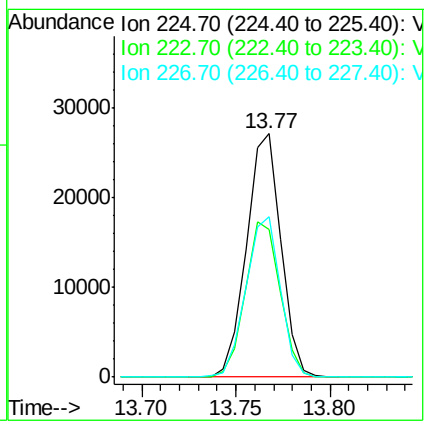




#94
Hexachlorobutadiene
Concen: 19.824 ug/l
RT: 13.77 min Scan# 2080
Delta R.T. 0.00 min
Lab File: VX017246.D
Acq: 08 Jul 2020 11:32

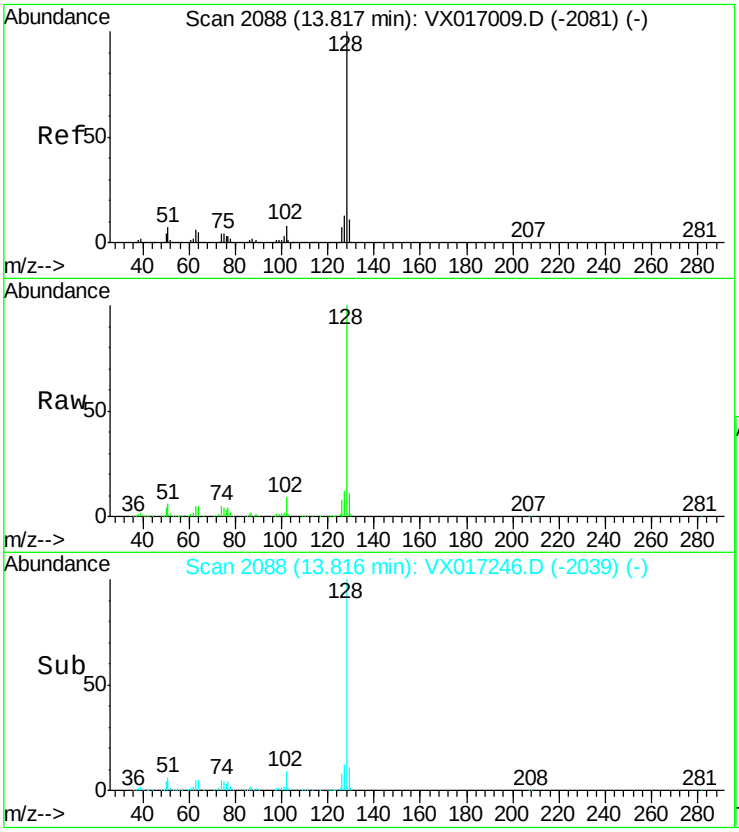
Tgt Ion:225 Resp: 34345

Ion	Ratio	Lower	Upper
225	100		
223	64.3	32.5	97.5
227	65.6	33.1	99.2



Instrument :
MSVOA_X
ClientSampleId :
VX0708WBS01

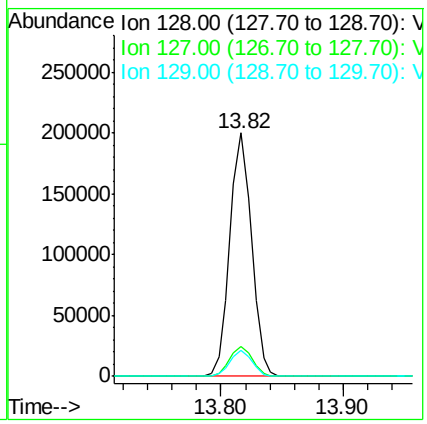
Manual Integrations APPROVED
MMDadoda
7/9/2020 10:59:47 AM

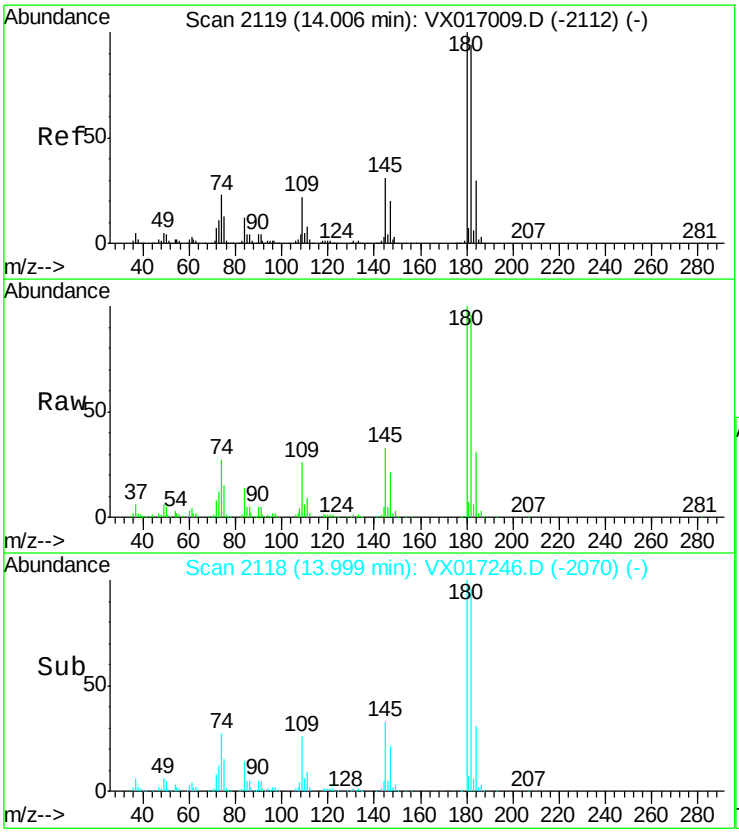


#95
Naphthalene
Concen: 17.130 ug/l
RT: 13.82 min Scan# 2088
Delta R.T. -0.00 min
Lab File: VX017246.D
Acq: 08 Jul 2020 11:32

Tgt Ion:128 Resp: 244119

Ion	Ratio	Lower	Upper
128	100		
127	12.8	10.2	15.4
129	10.8	8.7	13.1

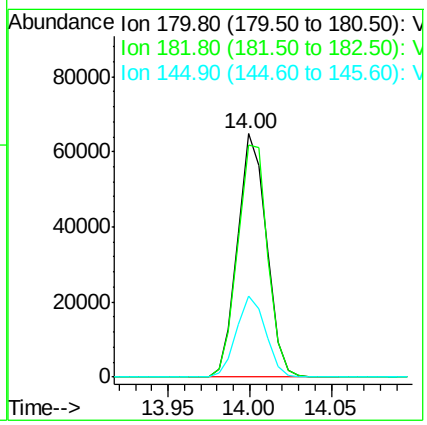




#96
1,2,3-Trichlorobenzene
Concen: 17.780 ug/l
RT: 14.00 min Scan# 2118
Delta R.T. -0.01 min
Lab File: VX017246.D
Acq: 08 Jul 2020 11:32

Tgt Ion:180 Resp: 80658

Ion	Ratio	Lower	Upper
180	100		
182	98.7	47.1	141.4
145	33.5	16.6	49.7



CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Day Environmental, Inc.	Date Collected:	07/06/20
Project:	Andrew St. RI	Date Received:	07/07/20
Client Sample ID:	1004-MW-02MS	SDG No.:	L3232
Lab Sample ID:	L3232-03MS	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	DB-624UI ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX017240.D	1		07/08/20 06:17	VX070720

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
75-71-8	Dichlorodifluoromethane	45.9		0.22	1.00	ug/L
74-87-3	Chloromethane	40.8		0.30	1.00	ug/L
75-01-4	Vinyl Chloride	47.3		0.16	1.00	ug/L
74-83-9	Bromomethane	42.6		2.10	5.00	ug/L
75-00-3	Chloroethane	46.6		0.34	1.00	ug/L
75-69-4	Trichlorofluoromethane	51.4		0.16	1.00	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	48.6		0.21	1.00	ug/L
75-35-4	1,1-Dichloroethene	47.3		0.18	1.00	ug/L
67-64-1	Acetone	270		0.90	5.00	ug/L
75-15-0	Carbon Disulfide	45.0		0.23	1.00	ug/L
1634-04-4	Methyl tert-butyl Ether	51.1		0.070	1.00	ug/L
79-20-9	Methyl Acetate	46.1		0.65	1.00	ug/L
75-09-2	Methylene Chloride	51.6		0.33	1.00	ug/L
156-60-5	trans-1,2-Dichloroethene	50.7		0.24	1.00	ug/L
75-34-3	1,1-Dichloroethane	49.2		0.17	1.00	ug/L
110-82-7	Cyclohexane	46.1		1.20	5.00	ug/L
78-93-3	2-Butanone	260		0.71	5.00	ug/L
56-23-5	Carbon Tetrachloride	53.0		0.22	1.00	ug/L
156-59-2	cis-1,2-Dichloroethene	96.8		0.30	1.00	ug/L
74-97-5	Bromochloromethane	47.3		0.31	1.00	ug/L
67-66-3	Chloroform	50.6		0.14	1.00	ug/L
71-55-6	1,1,1-Trichloroethane	50.3		0.12	1.00	ug/L
108-87-2	Methylcyclohexane	47.6		0.17	1.00	ug/L
71-43-2	Benzene	49.4		0.10	1.00	ug/L
107-06-2	1,2-Dichloroethane	52.8		0.13	1.00	ug/L
79-01-6	Trichloroethene	110		0.27	1.00	ug/L
78-87-5	1,2-Dichloropropane	50.7		0.14	1.00	ug/L
75-27-4	Bromodichloromethane	53.3		0.10	1.00	ug/L
108-10-1	4-Methyl-2-Pentanone	270		0.85	5.00	ug/L
108-88-3	Toluene	51.7		0.12	1.00	ug/L
10061-02-6	t-1,3-Dichloropropene	47.7		0.19	1.00	ug/L
10061-01-5	cis-1,3-Dichloropropene	46.9		0.16	1.00	ug/L

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Day Environmental, Inc.	Date Collected:	07/06/20
Project:	Andrew St. RI	Date Received:	07/07/20
Client Sample ID:	1004-MW-02MS	SDG No.:	L3232
Lab Sample ID:	L3232-03MS	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	DB-624UI ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX017240.D	1		07/08/20 06:17	VX070720

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
79-00-5	1,1,2-Trichloroethane	52.4		0.12	1.00	ug/L
591-78-6	2-Hexanone	280		1.40	5.00	ug/L
124-48-1	Dibromochloromethane	54.0		0.16	1.00	ug/L
106-93-4	1,2-Dibromoethane	52.4		0.14	1.00	ug/L
127-18-4	Tetrachloroethene	180	E	0.15	1.00	ug/L
108-90-7	Chlorobenzene	48.9		0.080	1.00	ug/L
100-41-4	Ethyl Benzene	50.4		0.080	1.00	ug/L
179601-23-1	m/p-Xylenes	100		0.20	2.00	ug/L
95-47-6	o-Xylene	51.0		0.13	1.00	ug/L
100-42-5	Styrene	53.3		0.11	1.00	ug/L
75-25-2	Bromoform	57.6		0.15	1.00	ug/L
98-82-8	Isopropylbenzene	47.2		0.13	1.00	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	47.7		0.15	1.00	ug/L
541-73-1	1,3-Dichlorobenzene	46.7		0.14	1.00	ug/L
106-46-7	1,4-Dichlorobenzene	50.5		0.20	1.00	ug/L
95-50-1	1,2-Dichlorobenzene	48.6		0.12	1.00	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	46.8		0.54	1.00	ug/L
120-82-1	1,2,4-Trichlorobenzene	46.1		0.24	1.00	ug/L
87-61-6	1,2,3-Trichlorobenzene	48.2		0.26	1.00	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	50.7		61 - 141	101%	SPK: 50
1868-53-7	Dibromofluoromethane	52.7		69 - 133	105%	SPK: 50
2037-26-5	Toluene-d8	50.9		65 - 126	102%	SPK: 50
460-00-4	4-Bromofluorobenzene	53.2		58 - 135	106%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	267000	5.64			
540-36-3	1,4-Difluorobenzene	407000	6.83			
3114-55-4	Chlorobenzene-d5	398000	10.1			
3855-82-1	1,4-Dichlorobenzene-d4	224000	12.06			

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Day Environmental, Inc.	Date Collected:	07/06/20
Project:	Andrew St. RI	Date Received:	07/07/20
Client Sample ID:	1004-MW-02MS	SDG No.:	L3232
Lab Sample ID:	L3232-03MS	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	DB-624UI ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX017240.D	1		07/08/20 06:17	VX070720

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit
A = Aldol-Condensation Reaction Products

Quantitation Report (QT Reviewed)

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX070720\
Data File : VX017240.D
Acq On : 08 Jul 2020 06:17
Operator : JC/SP
Sample : L3232-03MS
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 54 Sample Multiplier: 1

Quant Time: Jul 08 07:18:21 2020
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X062920W.M
Quant Title : SW846 8260
QLast Update : Mon Jun 29 17:10:38 2020
Response via : Initial Calibration

Instrument :
MSVOA_X
ClientSampleId :
1004-MW-02MS

Manual Integrations APPROVED
MMDadoda
7/8/2020 9:32:02 AM

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	5.64	168	267056	50.00	ug/l	0.00
34) 1,4-Difluorobenzene	6.83	114	407434	50.00	ug/l	0.00
63) Chlorobenzene-d5	10.10	117	397720	50.00	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	12.06	152	223912	50.00	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	6.03	65	166809	50.67	ug/l	0.00
Spiked Amount 50.000			Recovery = 101.34%			
35) Dibromofluoromethane	5.46	113	135916	52.74	ug/l	0.00
Spiked Amount 50.000			Recovery = 105.48%			
50) Toluene-d8	8.70	98	485260	50.92	ug/l	0.00
Spiked Amount 50.000			Recovery = 101.84%			
62) 4-Bromofluorobenzene	11.12	95	198290	53.22	ug/l	0.00
Spiked Amount 50.000			Recovery = 106.44%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.18	85	118709	45.947	ug/l	98
3) Chloromethane	1.31	50	127594	40.800	ug/l	98
4) Vinyl Chloride	1.39	62	137301	47.320	ug/l	99
5) Bromomethane	1.62	94	65378	42.648	ug/l	99
6) Chloroethane	1.70	64	79772	46.550	ug/l	100
7) Trichlorofluoromethane	1.91	101	220711	51.432	ug/l	99
8) Diethyl Ether	2.17	74	75437	52.229	ug/l	96
9) 1,1,2-Trichlorotrifluoroet	2.36	101	125119	48.647	ug/l	97
10) Methyl Iodide	2.49	142	115108	34.684	ug/l	100
11) Tert butyl alcohol	3.02	59	175290	279.095	ug/l	99
12) 1,1-Dichloroethene	2.36	96	124992	47.307	ug/l	99
13) Acrolein	2.27	56	117701	313.496	ug/l	99
14) Allyl chloride	2.71	41	214787	43.988	ug/l	99
15) Acrylonitrile	3.12	53	381493	252.670	ug/l	100
16) Acetone	2.42	43	337647	274.152	ug/l	99
17) Carbon Disulfide	2.55	76	331764	45.000	ug/l	99
18) Methyl Acetate	2.75	43	148210	46.098	ug/l	99
19) Methyl tert-butyl Ether	3.17	73	452743	51.056	ug/l	99
20) Methylene Chloride	2.84	84	145687	51.602	ug/l	98
21) trans-1,2-Dichloroethene	3.14	96	148798	50.748	ug/l	96
22) Diisopropyl ether	3.82	45	451025	49.906	ug/l	97
23) Vinyl Acetate	3.79	43	1685190	216.998	ug/l	99
24) 1,1-Dichloroethane	3.67	63	252878	49.177	ug/l	99
25) 2-Butanone	4.64	43	528120	257.347	ug/l	100
26) 2,2-Dichloropropane	4.55	77	148166	32.451	ug/l	90
27) cis-1,2-Dichloroethene	4.56	96	321492	96.769	ug/l	93
28) Bromochloromethane	4.98	49	118408	47.319	ug/l	95
29) Tetrahydrofuran	5.09	42	339681	250.518	ug/l	99
30) Chloroform	5.18	83	266597	50.575	ug/l	98
31) Cyclohexane	5.55	56	205116	46.147	ug/l	98
32) 1,1,1-Trichloroethane	5.46	97	244069	50.275	ug/l	99
36) 1,1-Dichloropropene	5.77	75	189031	49.089	ug/l	98
37) Ethyl Acetate	4.79	43	176633	45.209	ug/l	100
38) Carbon Tetrachloride	5.76	117	224678	52.974	ug/l	98

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX070720\
Data File : VX017240.D
Acq On : 08 Jul 2020 06:17
Operator : JC/SP
Sample : L3232-03MS
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 54 Sample Multiplier: 1

Quant Time: Jul 08 07:18:21 2020
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X062920W.M
Quant Title : SW846 8260
QLast Update : Mon Jun 29 17:10:38 2020
Response via : Initial Calibration

Instrument :
MSVOA_X
ClientSampleId :
1004-MW-02MS

Manual Integrations APPROVED
MMDadoda
7/8/2020 9:32:02 AM

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
39) Methylcyclohexane	7.44	83	204091	47.635	ug/l		99
40) Benzene	6.12	78	558735	49.384	ug/l		98
41) Methacrylonitrile	5.01	41	111895	50.885	ug/l		98
42) 1,2-Dichloroethane	6.16	62	215809	52.807	ug/l		100
43) Isopropyl Acetate	6.42	43	297856	45.878	ug/l		99
44) Trichloroethene	7.19	130	355864	114.380	ug/l		100
45) 1,2-Dichloropropane	7.49	63	147205	50.656	ug/l		100
46) Dibromomethane	7.64	93	102857	51.844	ug/l		97
47) Bromodichloromethane	7.88	83	218064	53.335	ug/l		96
48) Methyl methacrylate	7.74	41	162097	52.553	ug/l		97
49) 1,4-Dioxane	7.71	88	81697	1169.144	ug/l		99
51) 4-Methyl-2-Pentanone	8.62	43	1029153	265.927	ug/l		100
52) Toluene	8.76	92	364905	51.658	ug/l		97
53) t-1,3-Dichloropropene	9.02	75	215182	47.701	ug/l		99
54) cis-1,3-Dichloropropene	8.42	75	226601	46.859	ug/l		99
55) 1,1,2-Trichloroethane	9.20	97	151306	52.426	ug/l		100
56) Ethyl methacrylate	9.16	69	216895	52.800	ug/l		99
57) 1,3-Dichloropropane	9.35	76	255286	52.274	ug/l		100
59) 2-Hexanone	9.47	43	799625	282.910	ug/l		99
60) Dibromochloromethane	9.57	129	180974	53.988	ug/l		99
61) 1,2-Dibromoethane	9.65	107	162569	52.403	ug/l		100
64) Tetrachloroethene	9.32	164	589213	183.564	ug/l		97
65) Chlorobenzene	10.12	112	401545	48.917	ug/l		99
66) 1,1,1,2-Tetrachloroethane	10.21	131	162705	51.432	ug/l		99
67) Ethyl Benzene	10.23	91	690985	50.405	ug/l		99
68) m/p-Xylenes	10.34	106	530617	100.808	ug/l		97
69) o-Xylene	10.68	106	255382	51.002	ug/l		99
70) Styrene	10.70	104	454124	53.258	ug/l		99
71) Bromoform	10.84	173	144531	57.613	ug/l	#	99
73) Isopropylbenzene	11.00	105	691579	47.154	ug/l		99
74) N-amyl acetate	10.88	43	254887	40.729	ug/l		98
75) 1,1,2,2-Tetrachloroethane	11.25	83	220087	47.706	ug/l		99
76) 1,2,3-Trichloropropane	11.28	75	207884m	47.213	ug/l		
77) Bromobenzene	11.24	156	193284	47.951	ug/l		96
78) n-propylbenzene	11.34	91	794280	47.891	ug/l		100
79) 2-Chlorotoluene	11.40	91	483041	48.123	ug/l		100
80) 1,3,5-Trimethylbenzene	11.49	105	604638	49.701	ug/l		99
81) trans-1,4-Dichloro-2-buten	11.05	75	69807	41.056	ug/l		94
82) 4-Chlorotoluene	11.49	91	578979	48.251	ug/l		99
83) tert-Butylbenzene	11.76	119	587453	49.191	ug/l		99
84) 1,2,4-Trimethylbenzene	11.79	105	618898	50.146	ug/l		100
85) sec-Butylbenzene	11.93	105	672281	47.891	ug/l		100
86) p-Isopropyltoluene	12.05	119	640889	49.042	ug/l		99
87) 1,3-Dichlorobenzene	12.01	146	341820	46.691	ug/l		99
88) 1,4-Dichlorobenzene	12.08	146	348538	50.486	ug/l		100
89) n-Butylbenzene	12.37	91	528582	45.300	ug/l		99
90) Hexachloroethane	12.58	117	121797	47.262	ug/l		98
91) 1,2-Dichlorobenzene	12.38	146	332402	48.574	ug/l		99
92) 1,2-Dibromo-3-Chloropropan	12.98	75	51487	46.783	ug/l		99
93) 1,2,4-Trichlorobenzene	13.63	180	215220	46.078	ug/l		100

Data Path : Z:\VOASRV\HPCHEM1\MSVOA X\DATA\VX070720\
Data File : VX017240.D
Acq On : 08 Jul 2020 06:17
Operator : JC/SP
Sample : L3232-03MS
Misc : 5.0mL/MSVOA X/WATER
ALS Vial : 54 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
1004-MW-02MS

Manual Integrations APPROVED
MMDadoda
7/8/2020 9:32:02 AM

Quant Time: Jul 08 07:18:21 2020
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X062920W.M
Quant Title : SW846 8260
QLast Update : Mon Jun 29 17:10:38 2020
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
94) Hexachlorobutadiene	13.76	225	77404	43.773	ug/l	98
95) Naphthalene	13.82	128	695636	48.989	ug/l	100
96) 1,2,3-Trichlorobenzene	14.01	180	218035	48.236	ug/l	99

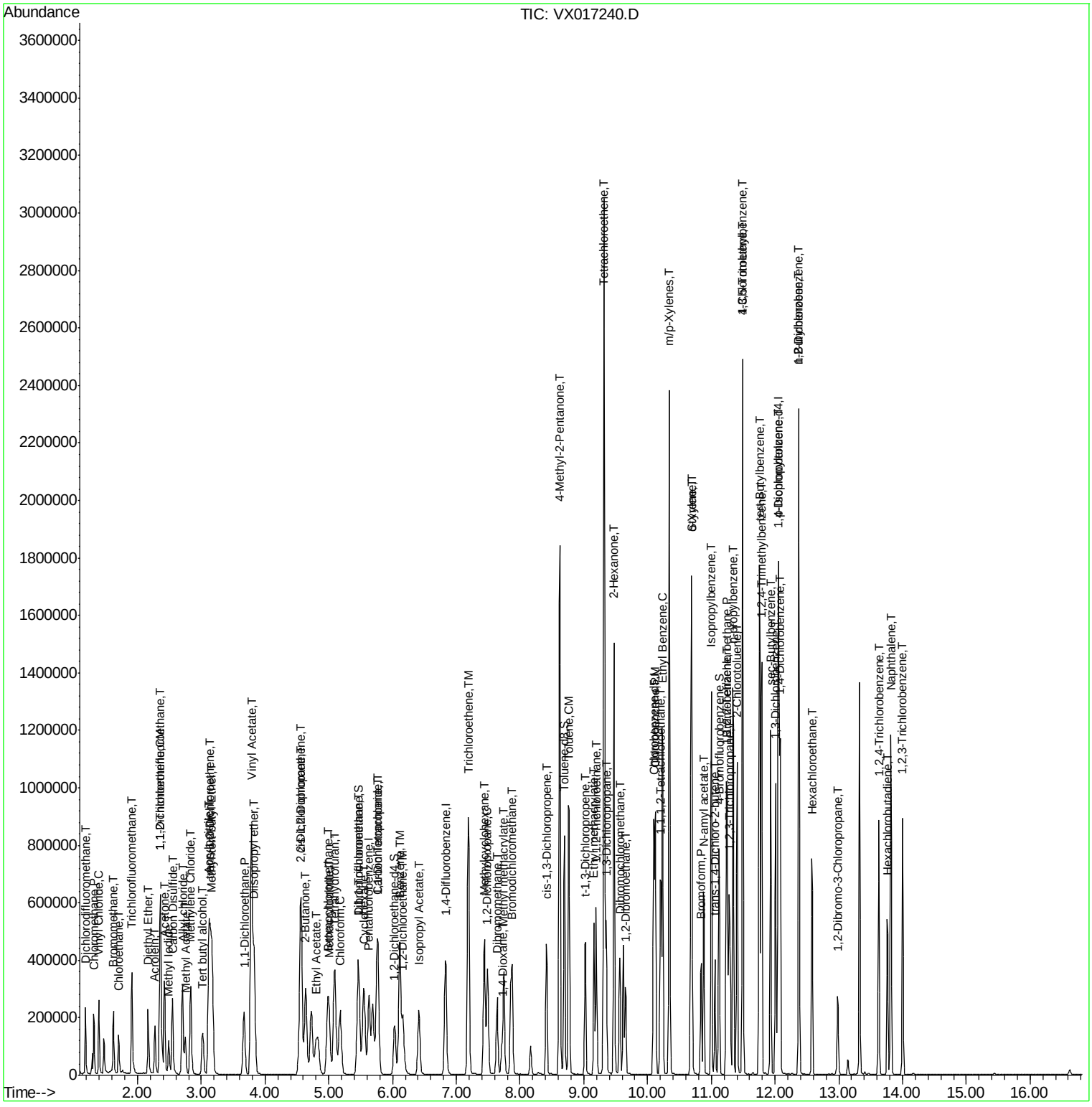
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX070720\
Data File : VX017240.D
Acq On : 08 Jul 2020 06:17
Operator : JC/SP
Sample : L3232-03MS
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 54 Sample Multiplier: 1

Quant Time: Jul 08 07:18:21 2020
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X062920W.M
Quant Title : SW846 8260
QLast Update : Mon Jun 29 17:10:38 2020
Response via : Initial Calibration

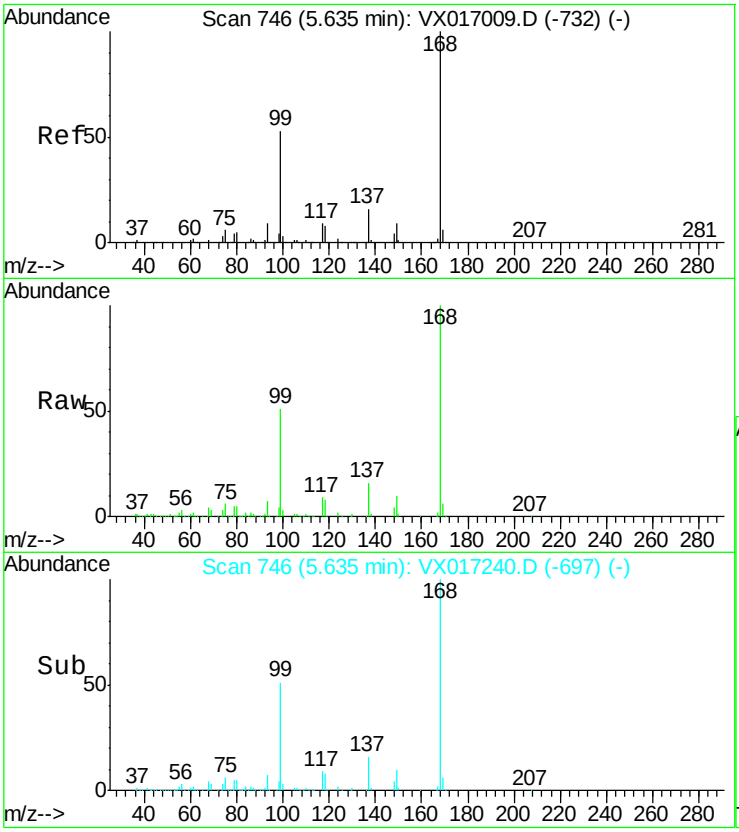
Instrument :
MSVOA_X
ClientSampleId :
1004-MW-02MS

Manual Integrations APPROVED
MMDadoda
7/8/2020 9:32:02 AM



Instrument :
MSVOA_X
ClientSampleId :
1004-MW-02MS

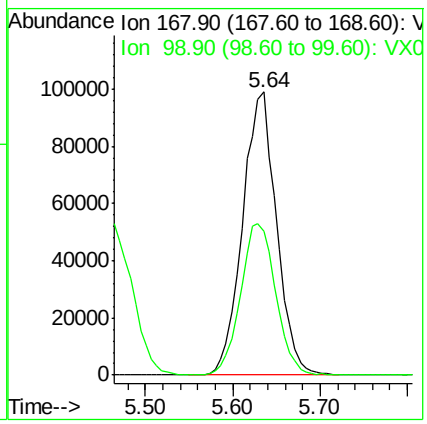
Manual Integrations APPROVED
MMDadoda
7/8/2020 9:32:02 AM

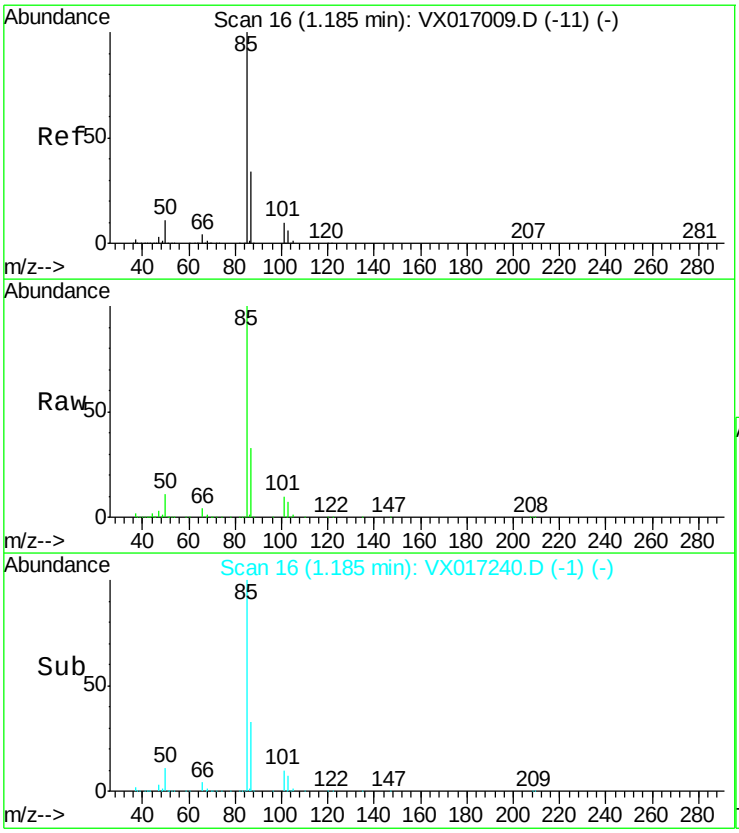


#1
Pentafluorobenzene
Concen: 50.000 ug/l
RT: 5.64 min Scan# 746
Delta R.T. -0.00 min
Lab File: VX017240.D
Acq: 08 Jul 2020 06:17

Tgt Ion:168 Resp: 267056

Ion	Ratio	Lower	Upper
168	100		
99	50.6	42.6	64.0

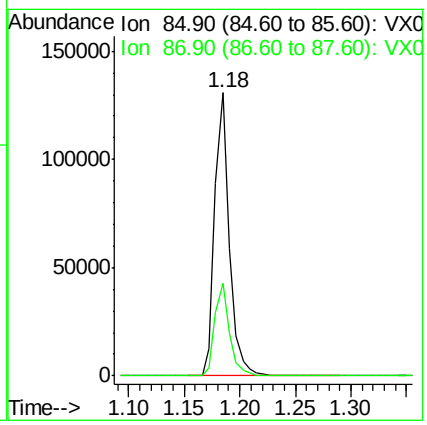




#2
Dichlorodifluoromethane
Concen: 45.947 ug/l
RT: 1.18 min Scan# 16
Delta R.T. -0.00 min
Lab File: VX017240.D
Acq: 08 Jul 2020 06:17

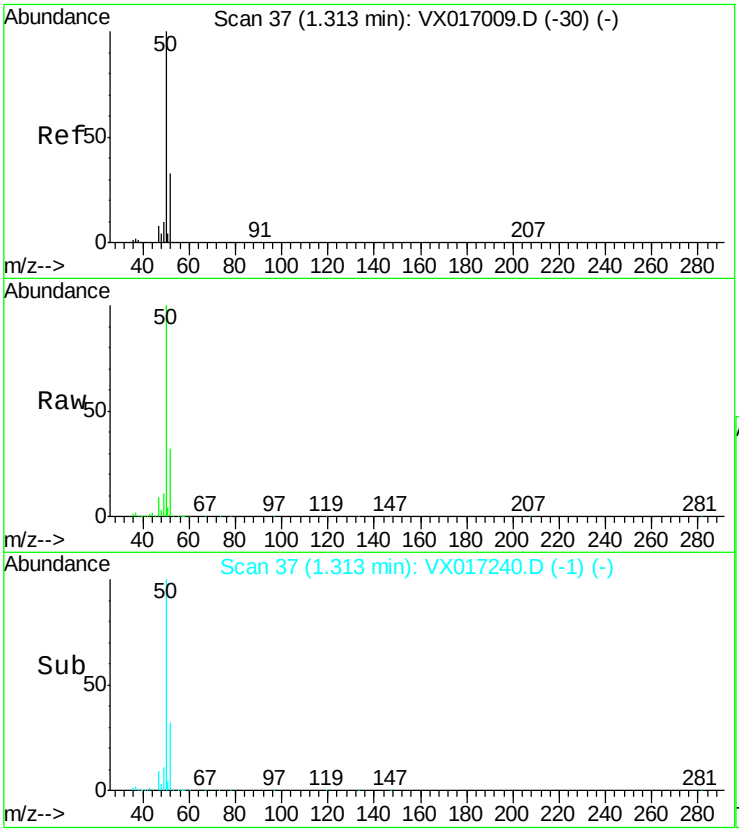
Tgt Ion: 85 Resp: 118709

Ion	Ratio	Lower	Upper
85	100		
87	32.6	16.8	50.4



Instrument :
MSVOA_X
ClientSampleId :
1004-MW-02MS

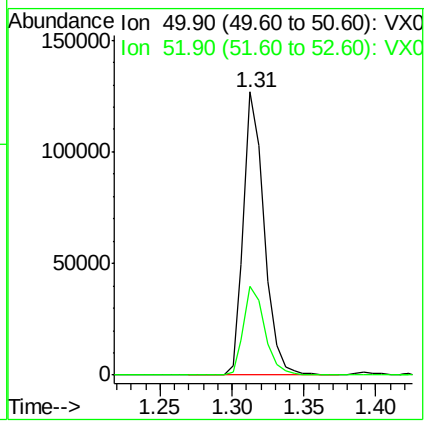
Manual Integrations APPROVED
MMDadoda
7/8/2020 9:32:02 AM

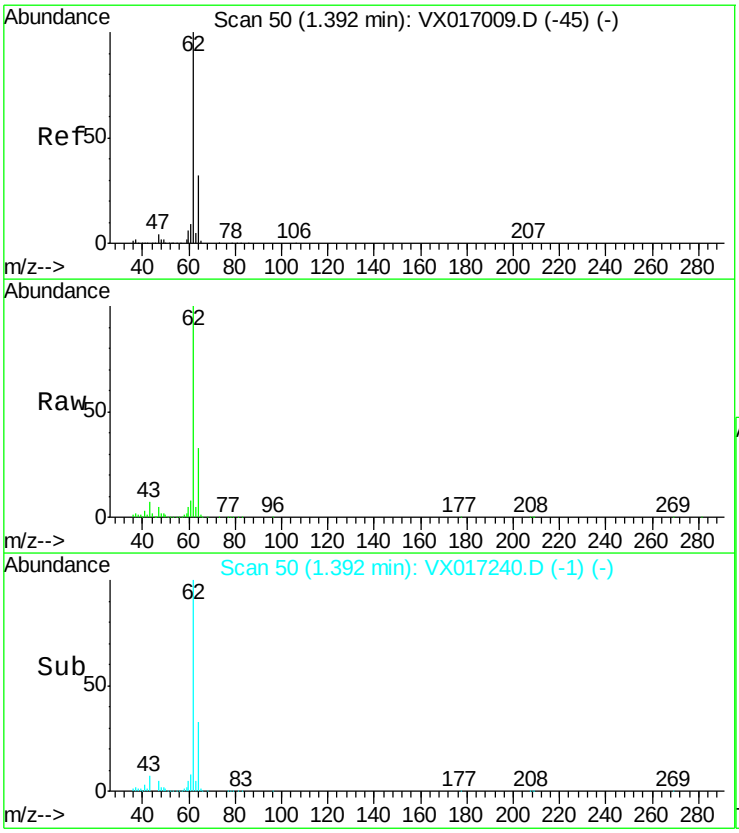


#3
Chloromethane
Concen: 40.800 ug/l
RT: 1.31 min Scan# 37
Delta R.T. -0.00 min
Lab File: VX017240.D
Acq: 08 Jul 2020 06:17

Tgt Ion: 50 Resp: 127594

Ion	Ratio	Lower	Upper
50	100		
52	31.5	26.1	39.1

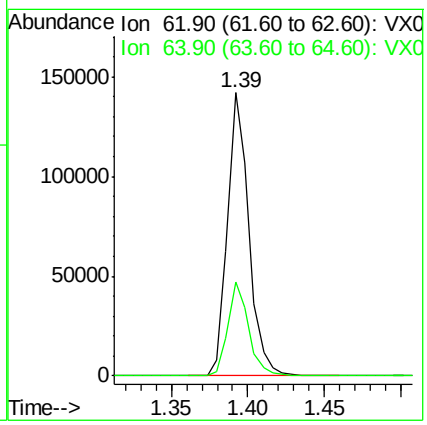




#4
Vinyl Chloride
Concen: 47.320 ug/l
RT: 1.39 min Scan# 50
Delta R.T. -0.00 min
Lab File: VX017240.D
Acq: 08 Jul 2020 06:17

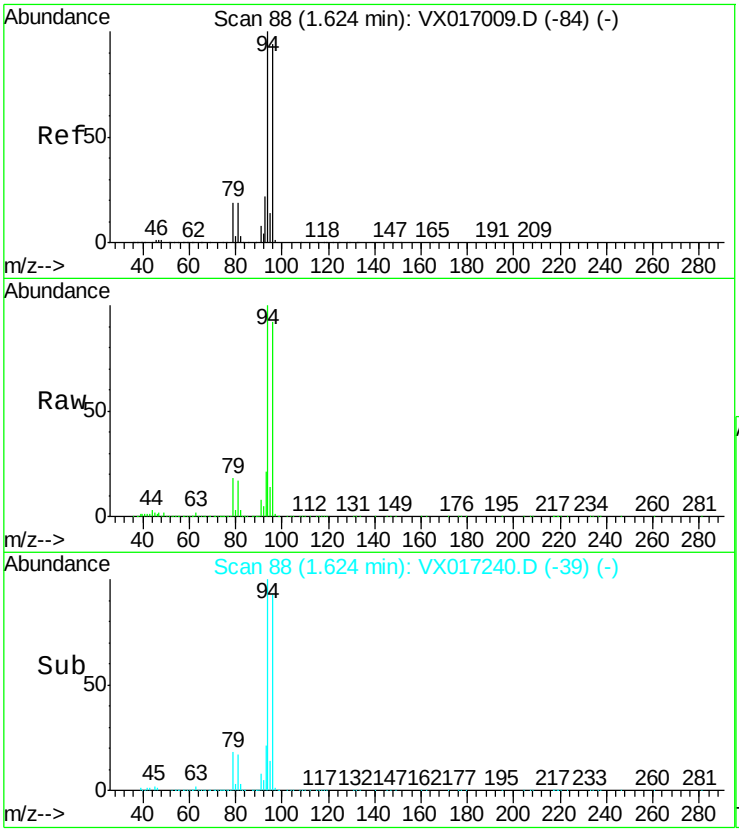
Tgt Ion: 62 Resp: 137301

Ion	Ratio	Lower	Upper
62	100		
64	33.0	25.9	38.9



Instrument :
MSVOA_X
ClientSampleId :
1004-MW-02MS

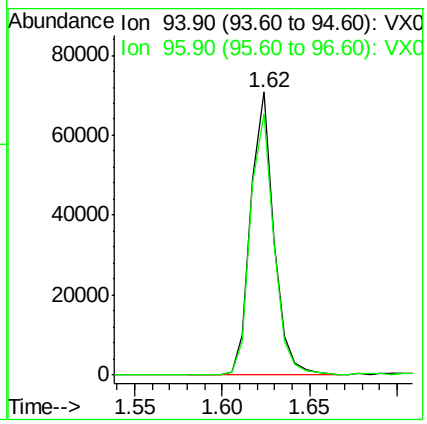
Manual Integrations APPROVED
MMDadoda
7/8/2020 9:32:02 AM

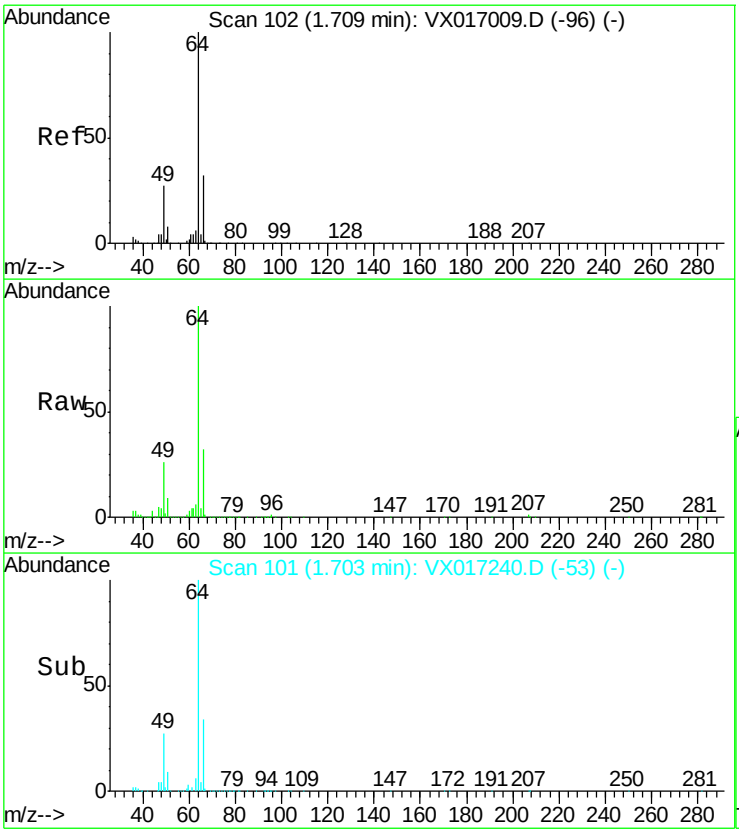


#5
Bromomethane
Concen: 42.648 ug/l
RT: 1.62 min Scan# 88
Delta R.T. 0.00 min
Lab File: VX017240.D
Acq: 08 Jul 2020 06:17

Tgt Ion: 94 Resp: 65378

Ion	Ratio	Lower	Upper
94	100		
96	92.3	75.0	112.4

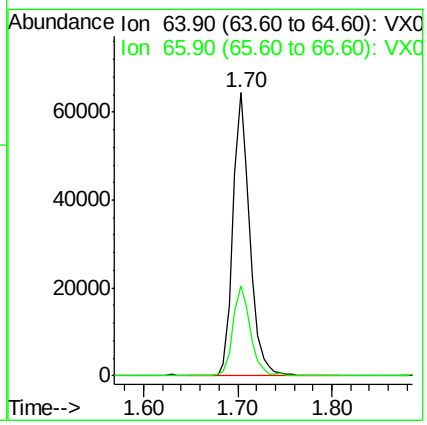




#6
Chloroethane
Concen: 46.550 ug/l
RT: 1.70 min Scan# 101
Delta R.T. -0.01 min
Lab File: VX017240.D
Acq: 08 Jul 2020 06:17

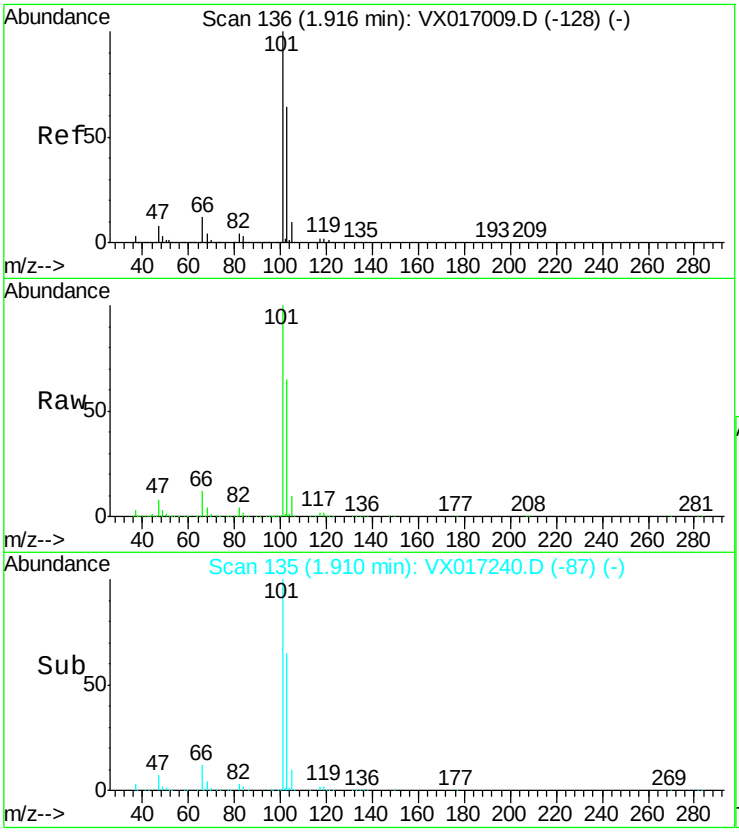
Tgt Ion: 64 Resp: 79772

Ion	Ratio	Lower	Upper
64	100		
66	31.7	25.5	38.3



Instrument :
MSVOA_X
ClientSampleId :
1004-MW-02MS

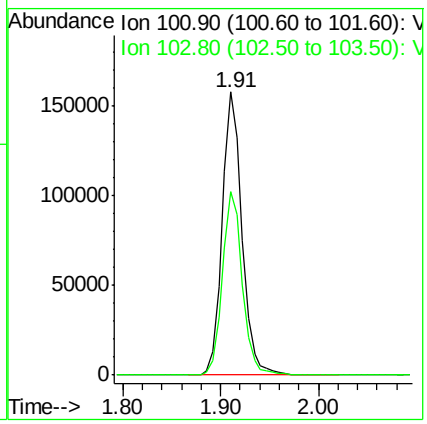
Manual Integrations APPROVED
MMDadoda
7/8/2020 9:32:02 AM

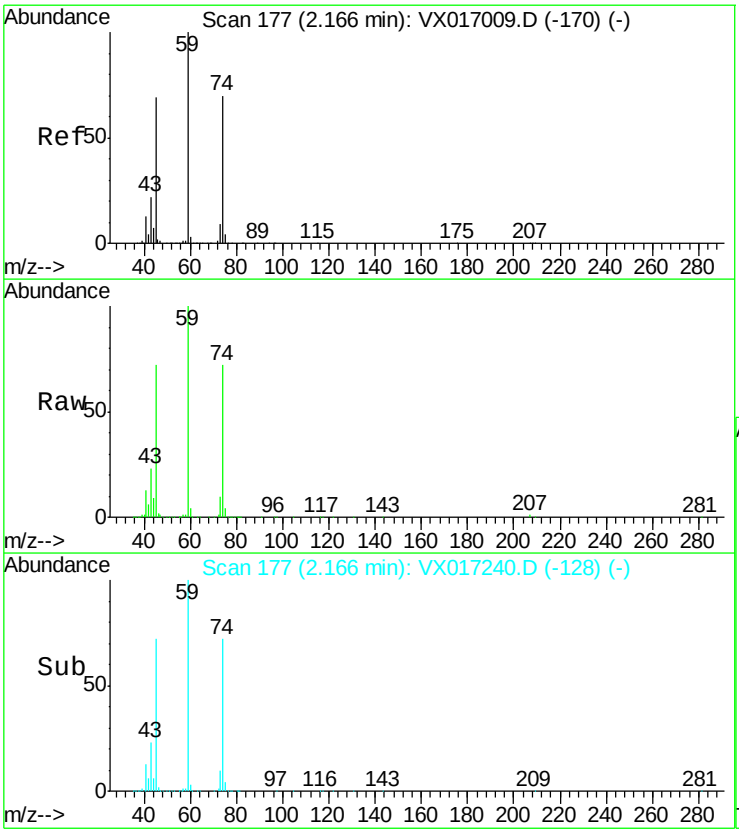


#7
Trichlorofluoromethane
Concen: 51.432 ug/l
RT: 1.91 min Scan# 135
Delta R.T. -0.01 min
Lab File: VX017240.D
Acq: 08 Jul 2020 06:17

Tgt Ion:101 Resp: 220711

Ion	Ratio	Lower	Upper
101	100		
103	64.9	51.5	77.3

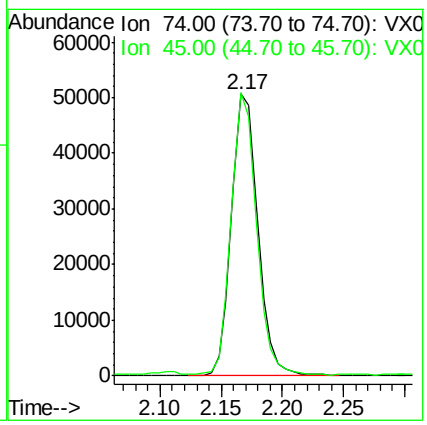


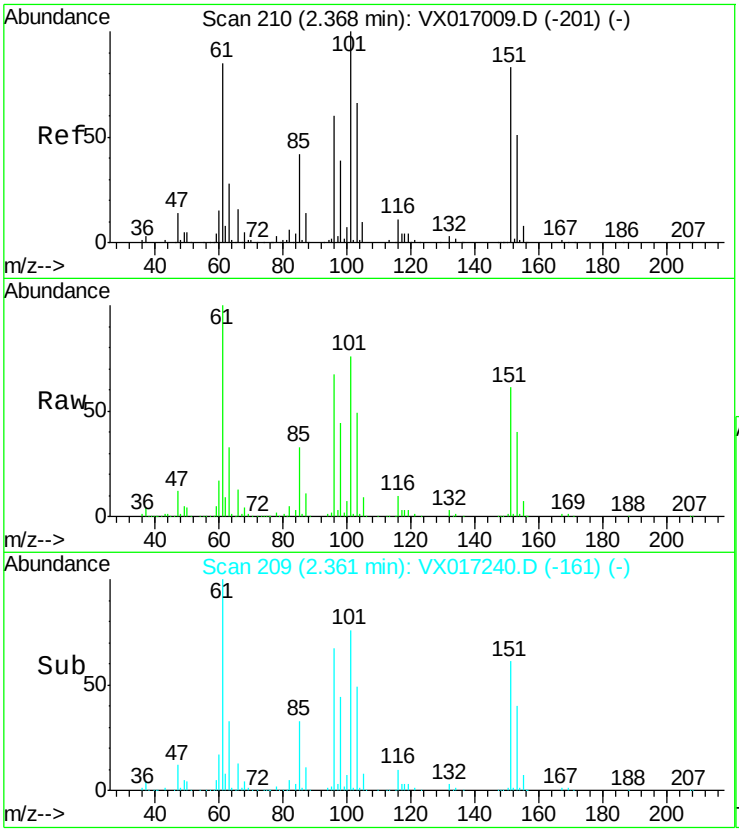


#8
Diethyl Ether
Concen: 52.229 ug/l
RT: 2.17 min Scan# 177
Delta R.T. 0.00 min
Lab File: VX017240.D
Acq: 08 Jul 2020 06:17

Tgt Ion: 74 Resp: 75437

Ion	Ratio	Lower	Upper
74	100		
45	95.5	49.8	149.3

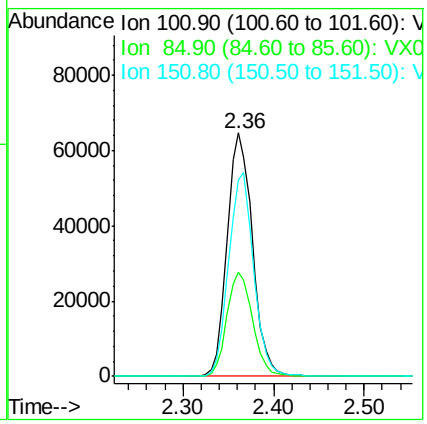




#9
1,1,2-Trichlorotrifluoroethane
Concen: 48.647 ug/l
RT: 2.36 min Scan# 209
Delta R.T. -0.01 min
Lab File: VX017240.D
Acq: 08 Jul 2020 06:17

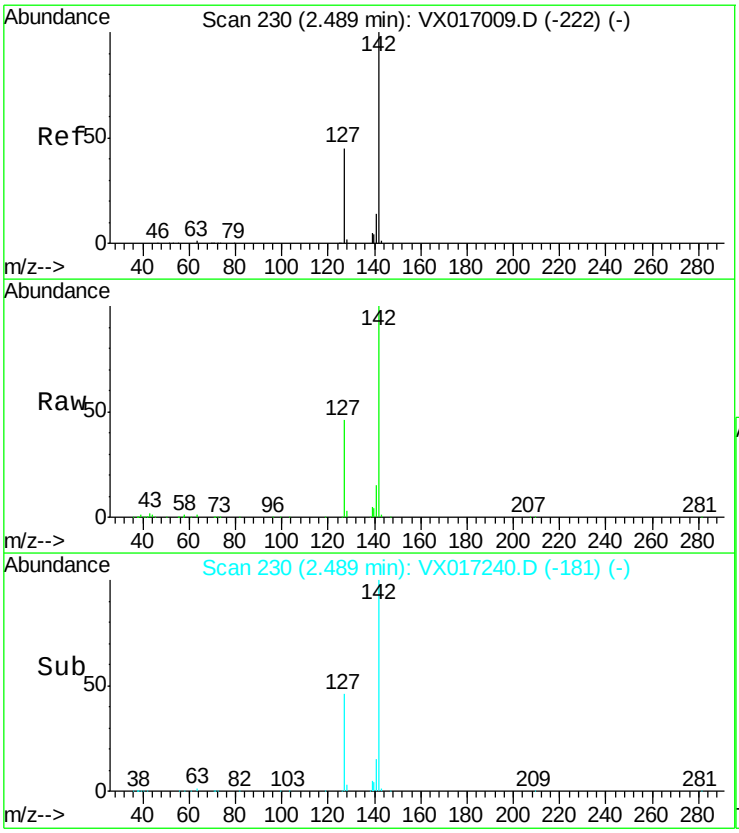
Tgt Ion:101 Resp: 125119

Ion	Ratio	Lower	Upper
101	100		
85	43.6	33.5	50.3
151	82.9	63.8	95.6



Instrument :
MSVOA_X
ClientSampleId :
1004-MW-02MS

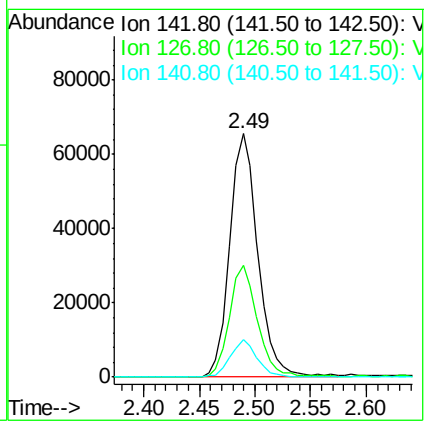
Manual Integrations APPROVED
MMDadoda
7/8/2020 9:32:02 AM



#10
Methyl Iodide
Concen: 34.684 ug/l
RT: 2.49 min Scan# 230
Delta R.T. -0.00 min
Lab File: VX017240.D
Acq: 08 Jul 2020 06:17

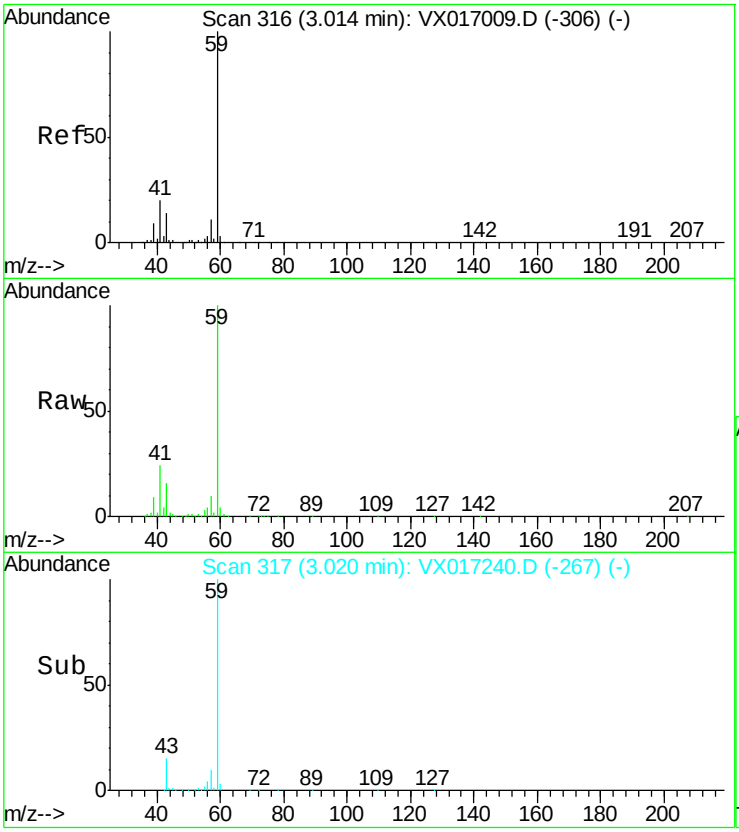
Tgt Ion:142 Resp: 115108

Ion	Ratio	Lower	Upper
142	100		
127	45.9	36.6	54.8
141	14.5	11.6	17.4



Instrument :
MSVOA_X
ClientSampleId :
1004-MW-02MS

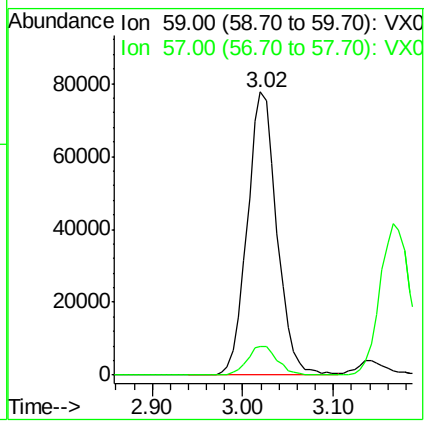
Manual Integrations APPROVED
MMDadoda
7/8/2020 9:32:02 AM

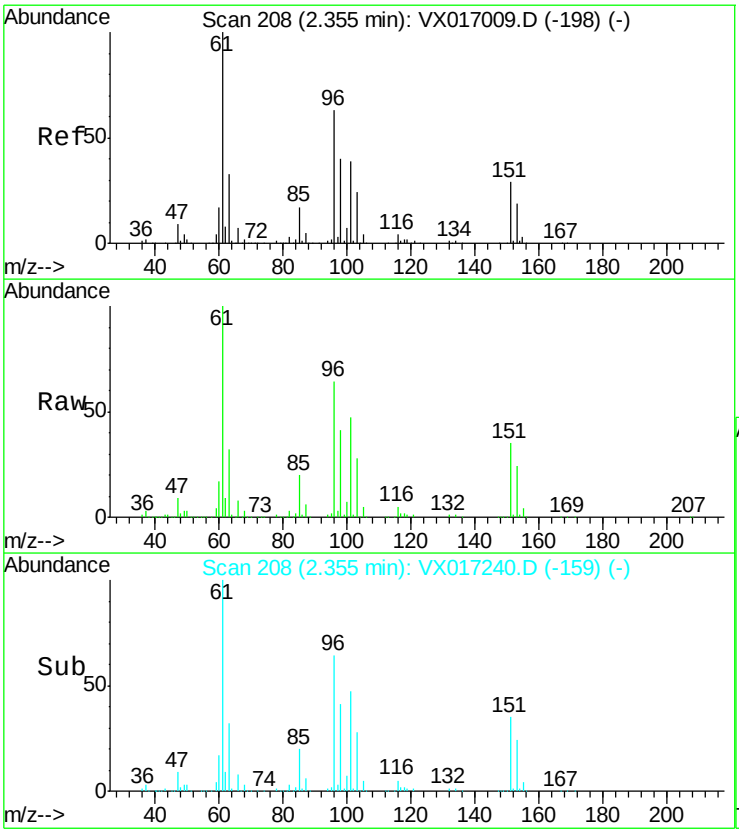


#11
Tert butyl alcohol
Concen: 279.095 ug/l
RT: 3.02 min Scan# 317
Delta R.T. 0.01 min
Lab File: VX017240.D
Acq: 08 Jul 2020 06:17

Tgt Ion: 59 Resp: 175290

Ion	Ratio	Lower	Upper
59	100		
57	10.6	8.2	12.2

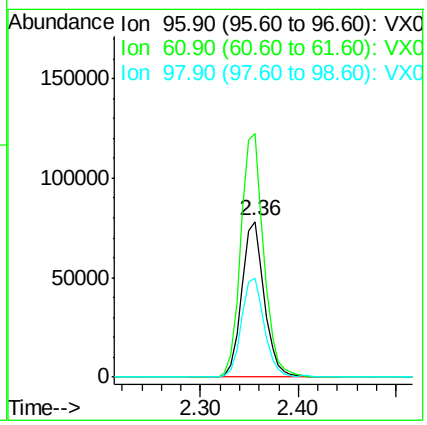




#12
1,1-Dichloroethene
Concen: 47.307 ug/l
RT: 2.36 min Scan# 208
Delta R.T. -0.00 min
Lab File: VX017240.D
Acq: 08 Jul 2020 06:17

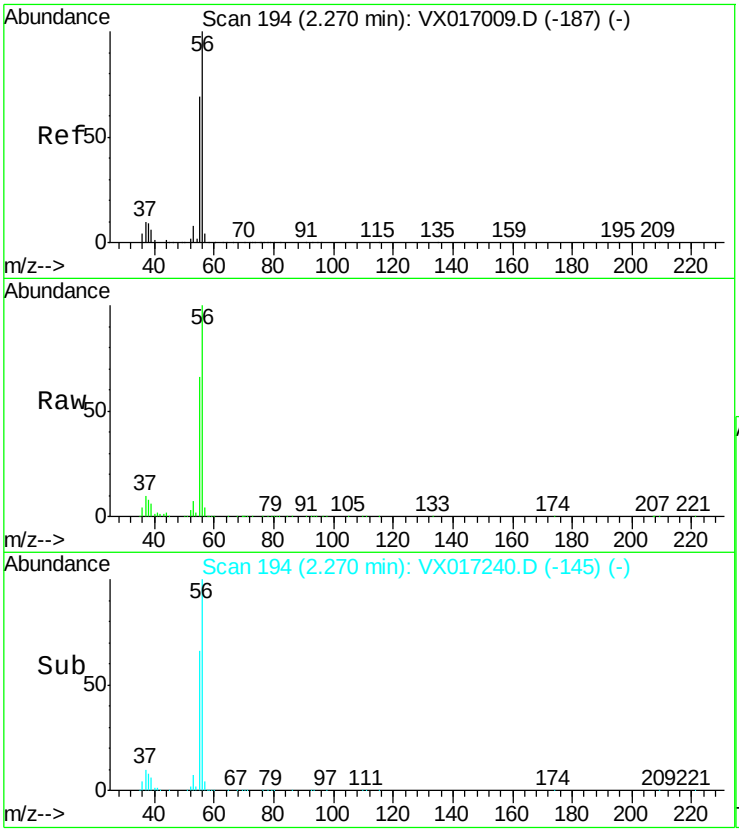
Tgt Ion: 96 Resp: 124992

Ion	Ratio	Lower	Upper
96	100		
61	156.5	126.3	189.5
98	63.5	51.0	76.6



Instrument :
MSVOA_X
ClientSampleId :
1004-MW-02MS

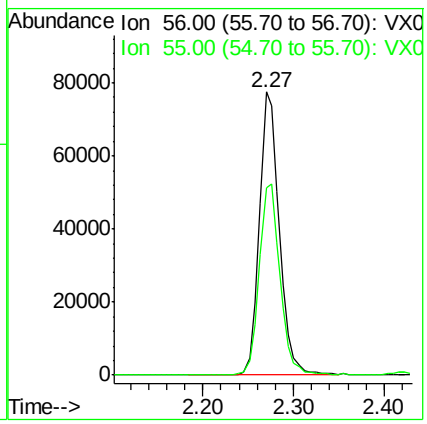
Manual Integrations APPROVED
MMDadoda
7/8/2020 9:32:02 AM

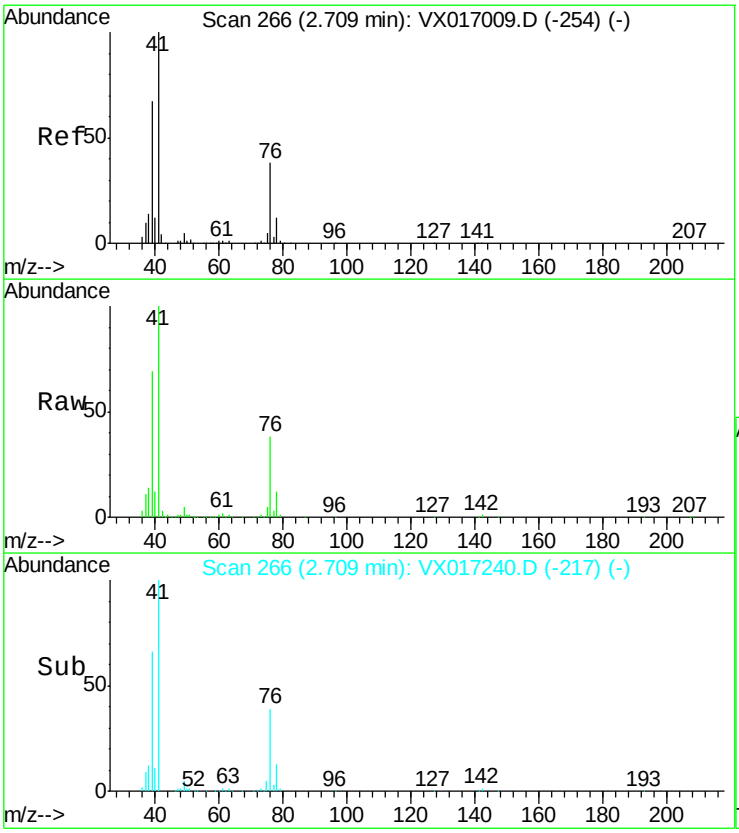


#13
Acrolein
Concen: 313.496 ug/l
RT: 2.27 min Scan# 194
Delta R.T. -0.00 min
Lab File: VX017240.D
Acq: 08 Jul 2020 06:17

Tgt Ion: 56 Resp: 117701

Ion	Ratio	Lower	Upper
56	100		
55	70.4	55.7	83.5

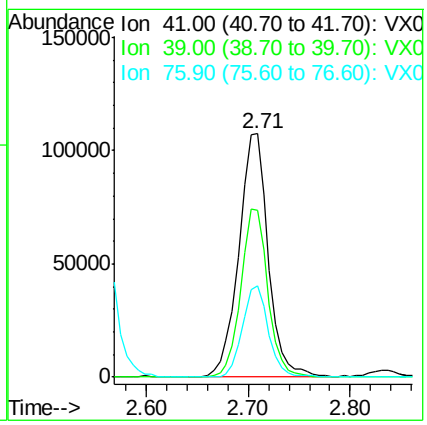




#14
Allyl chloride
Concen: 43.988 ug/l
RT: 2.71 min Scan# 266
Delta R.T. -0.00 min
Lab File: VX017240.D
Acq: 08 Jul 2020 06:17

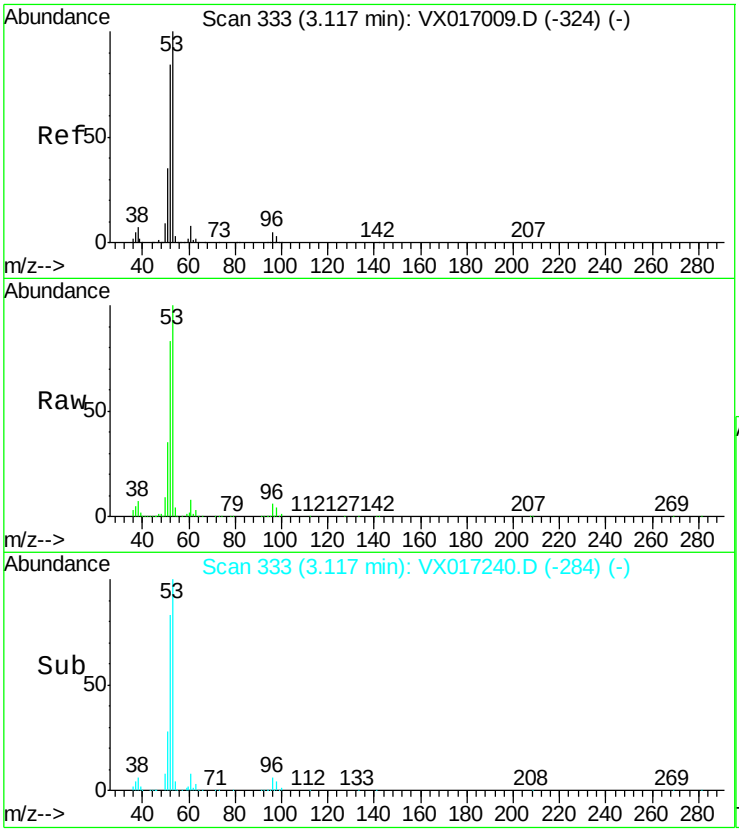
Tgt Ion: 41 Resp: 214787

Ion	Ratio	Lower	Upper
41	100		
39	63.4	49.4	74.2
76	33.4	26.8	40.2



Instrument :
MSVOA_X
ClientSampleId :
1004-MW-02MS

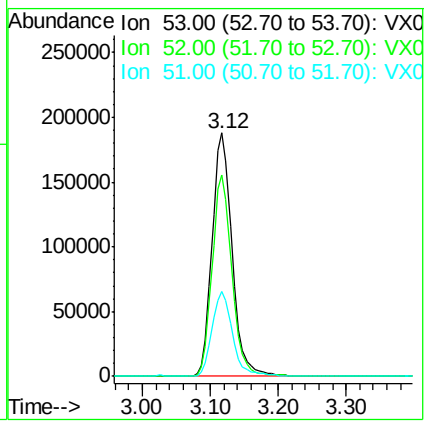
Manual Integrations APPROVED
MMDadoda
7/8/2020 9:32:02 AM

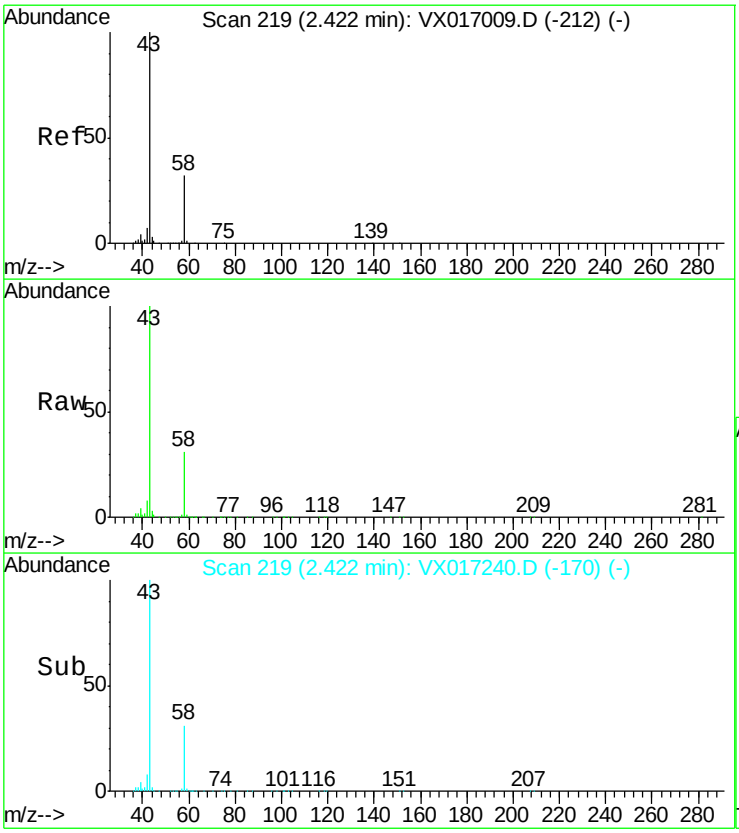


#15
Acrylonitrile
Concen: 252.670 ug/l
RT: 3.12 min Scan# 333
Delta R.T. -0.00 min
Lab File: VX017240.D
Acq: 08 Jul 2020 06:17

Tgt Ion: 53 Resp: 381493

Ion	Ratio	Lower	Upper
53	100		
52	82.0	65.6	98.4
51	35.9	28.3	42.5

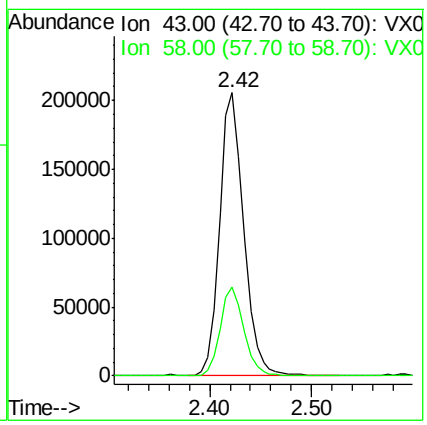




#16
Acetone
Concen: 274.152 ug/l
RT: 2.42 min Scan# 219
Delta R.T. -0.00 min
Lab File: VX017240.D
Acq: 08 Jul 2020 06:17

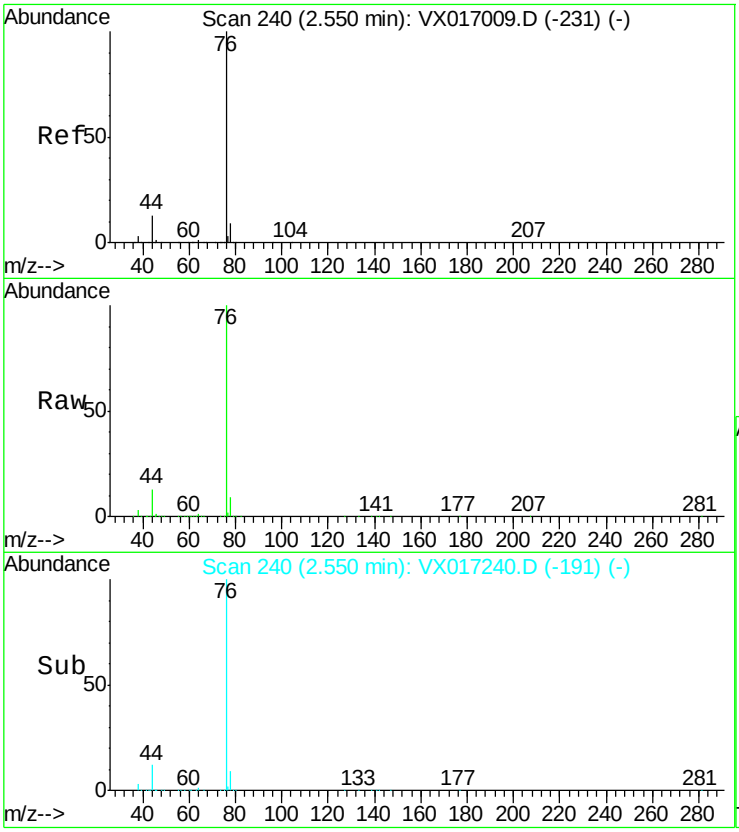
Tgt Ion: 43 Resp: 337647

Ion	Ratio	Lower	Upper
43	100		
58	31.3	25.7	38.5



Instrument :
MSVOA_X
ClientSampleId :
1004-MW-02MS

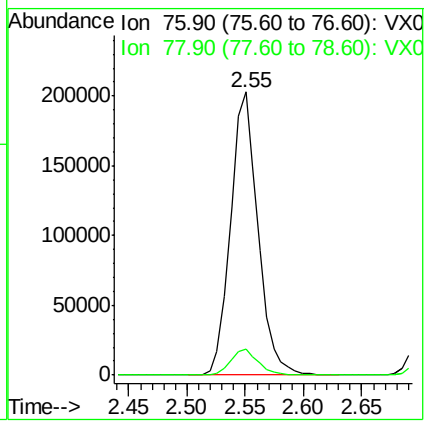
Manual Integrations APPROVED
MMDadoda
7/8/2020 9:32:02 AM

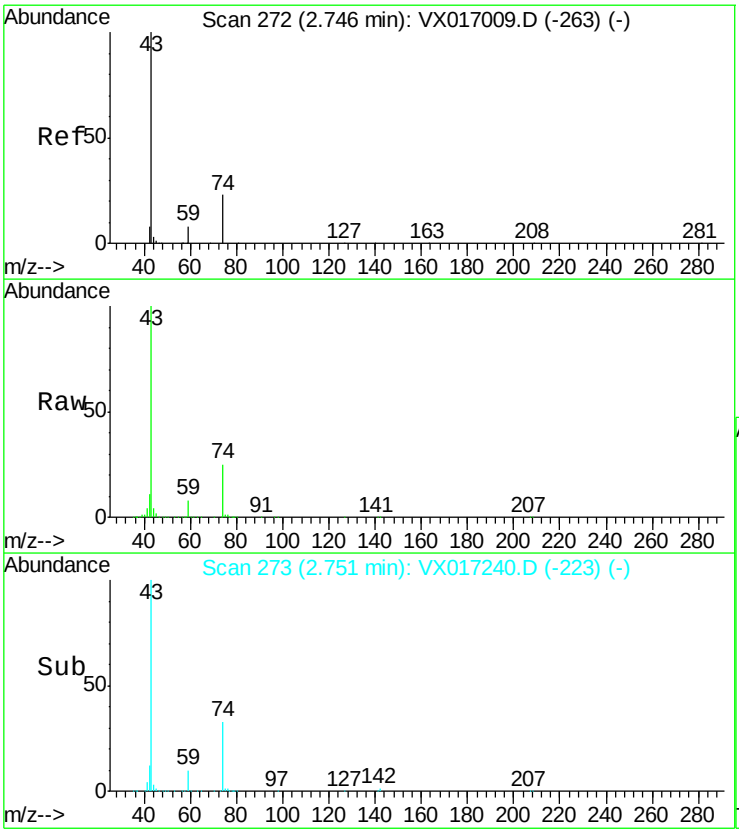


#17
Carbon Disulfide
Concen: 45.000 ug/l
RT: 2.55 min Scan# 240
Delta R.T. 0.00 min
Lab File: VX017240.D
Acq: 08 Jul 2020 06:17

Tgt Ion: 76 Resp: 331764

Ion	Ratio	Lower	Upper
76	100		
78	9.2	7.2	10.8

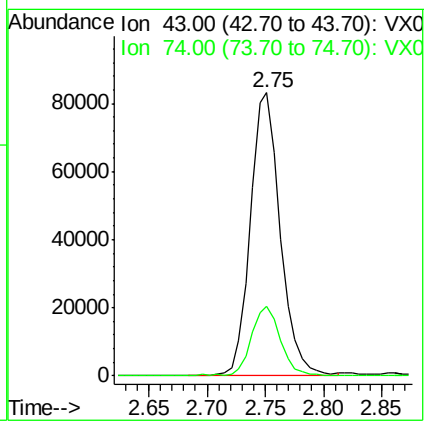




#18
Methyl Acetate
Concen: 46.098 ug/l
RT: 2.75 min Scan# 273
Delta R.T. 0.01 min
Lab File: VX017240.D
Acq: 08 Jul 2020 06:17

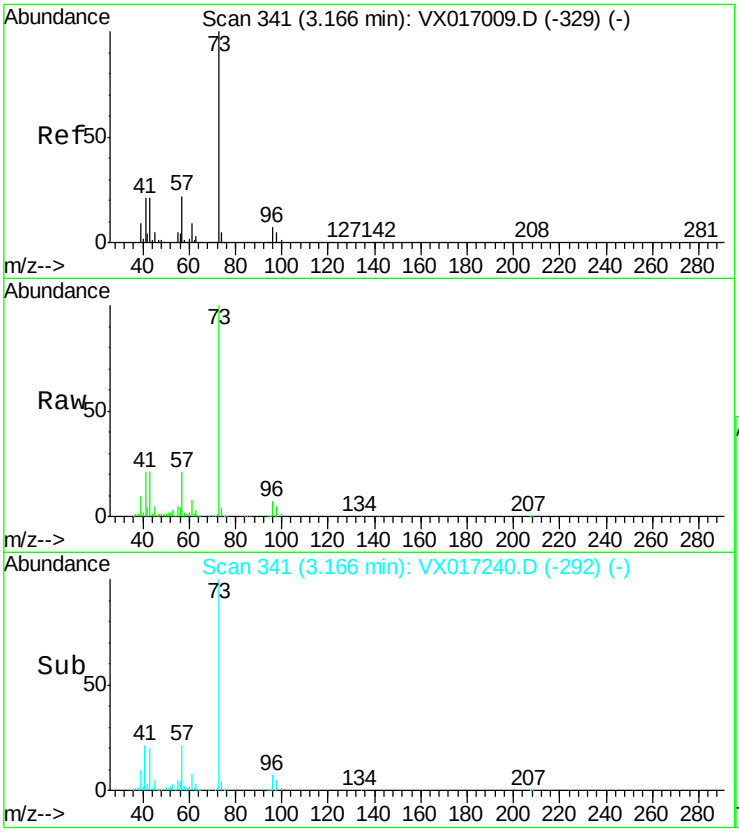
Tgt Ion: 43 Resp: 148210

Ion	Ratio	Lower	Upper
43	100		
74	24.4	19.3	28.9



Instrument :
MSVOA_X
ClientSampleId :
1004-MW-02MS

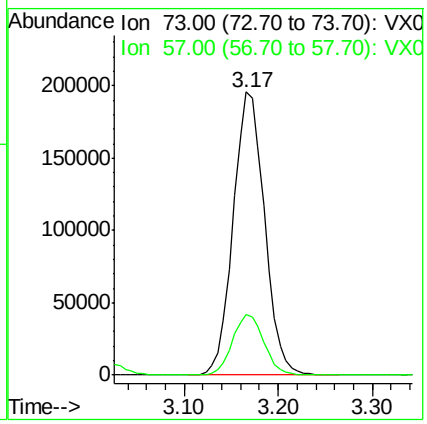
Manual Integrations APPROVED
MMDadoda
7/8/2020 9:32:02 AM

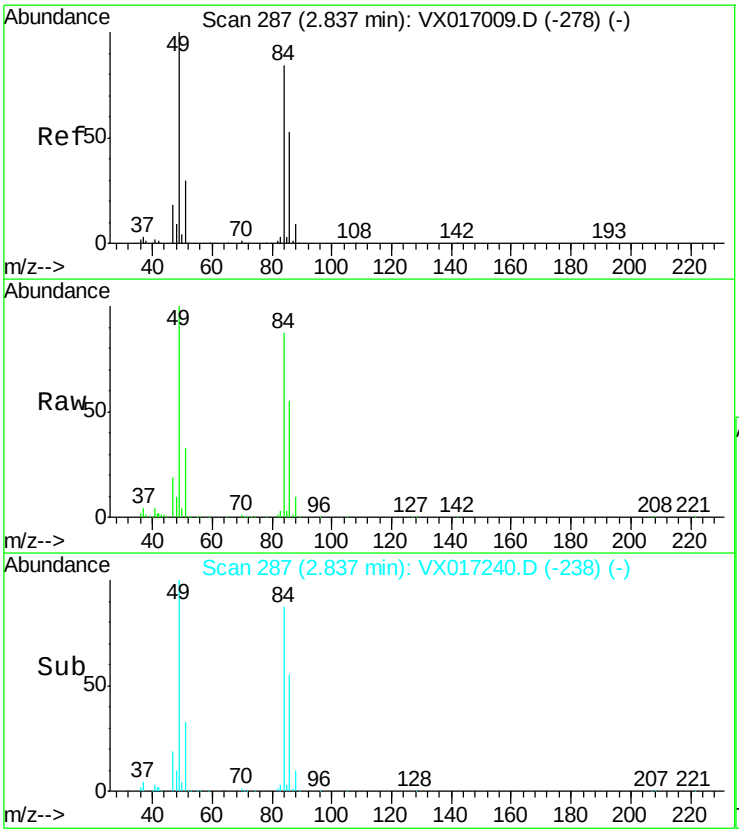


#19
Methyl tert-butyl Ether
Concen: 51.056 ug/l
RT: 3.17 min Scan# 341
Delta R.T. -0.00 min
Lab File: VX017240.D
Acq: 08 Jul 2020 06:17

Tgt Ion: 73 Resp: 452743

Ion	Ratio	Lower	Upper
73	100		
57	21.3	17.6	26.4

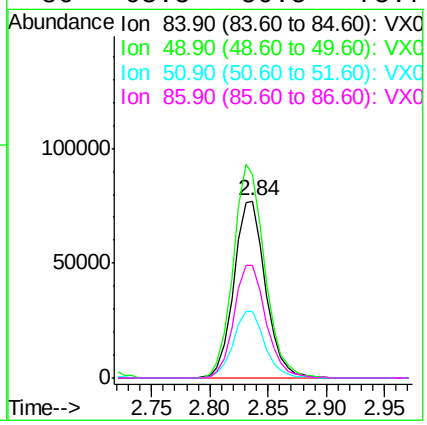




#20
Methylene Chloride
Concen: 51.602 ug/l
RT: 2.84 min Scan# 287
Delta R.T. 0.00 min
Lab File: VX017240.D
Acq: 08 Jul 2020 06:17

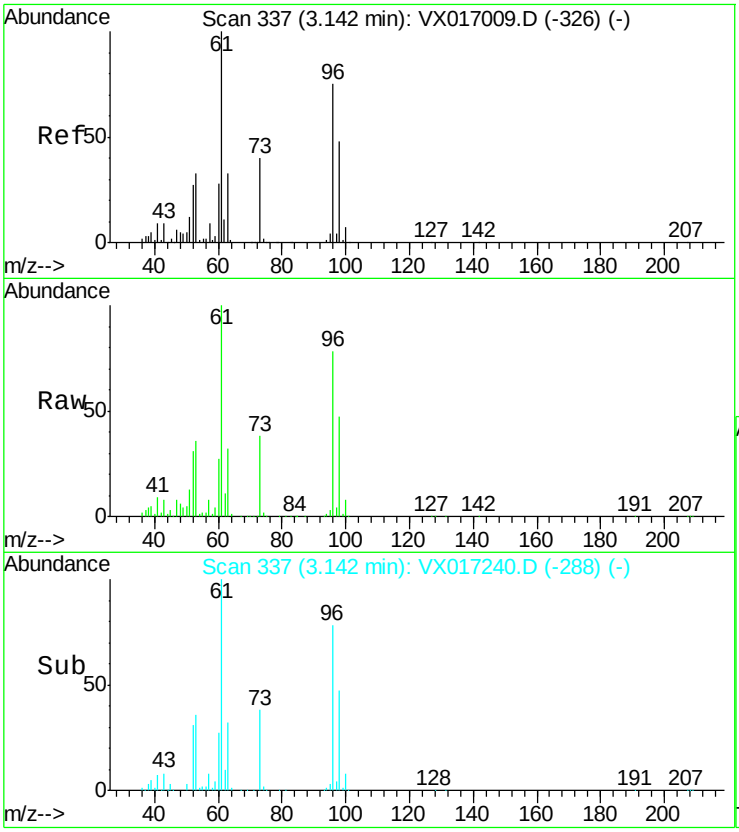
Tgt Ion: 84 Resp: 145687

Ion	Ratio	Lower	Upper
84	100		
49	115.2	94.7	142.1
51	37.4	28.6	42.8
86	63.5	50.5	75.7



Instrument :
MSVOA_X
ClientSampleId :
1004-MW-02MS

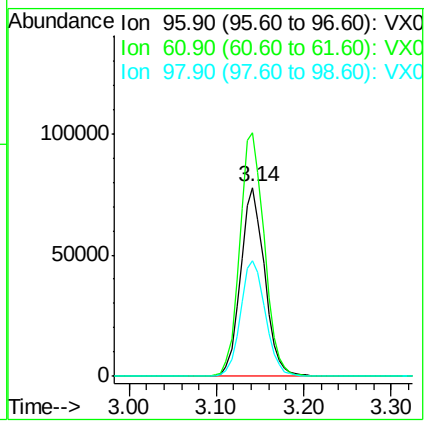
Manual Integrations APPROVED
MMDadoda
7/8/2020 9:32:02 AM

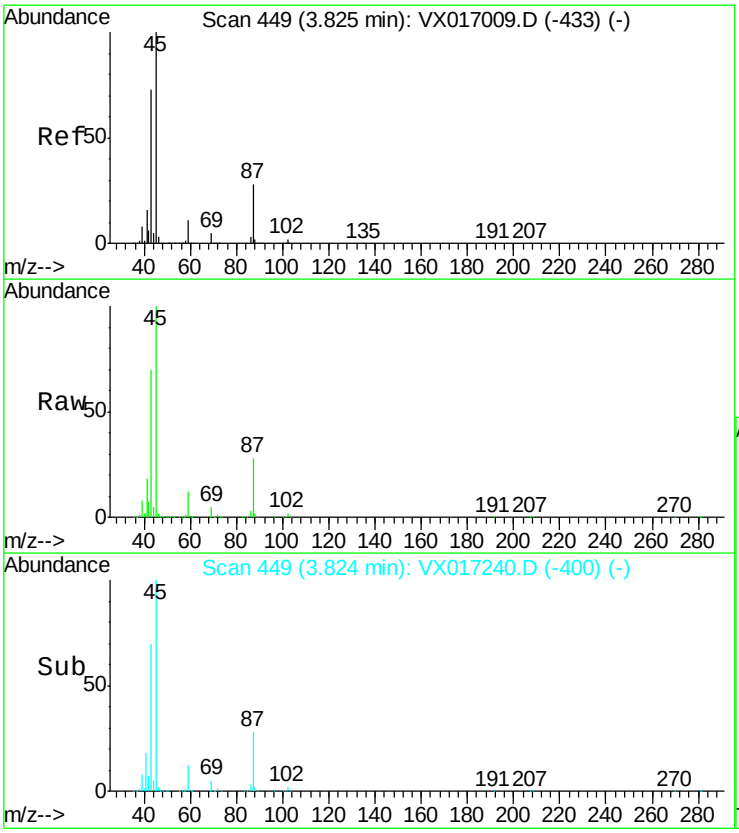


#21
trans-1,2-Dichloroethene
Concen: 50.748 ug/l
RT: 3.14 min Scan# 337
Delta R.T. -0.00 min
Lab File: VX017240.D
Acq: 08 Jul 2020 06:17

Tgt Ion: 96 Resp: 148798

Ion	Ratio	Lower	Upper
96	100		
61	128.9	107.0	160.6
98	61.0	51.6	77.4

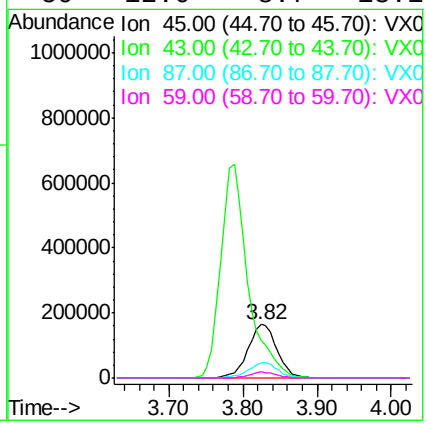




#22
Diisopropyl ether
Concen: 49.906 ug/l
RT: 3.82 min Scan# 449
Delta R.T. -0.00 min
Lab File: VX017240.D
Acq: 08 Jul 2020 06:17

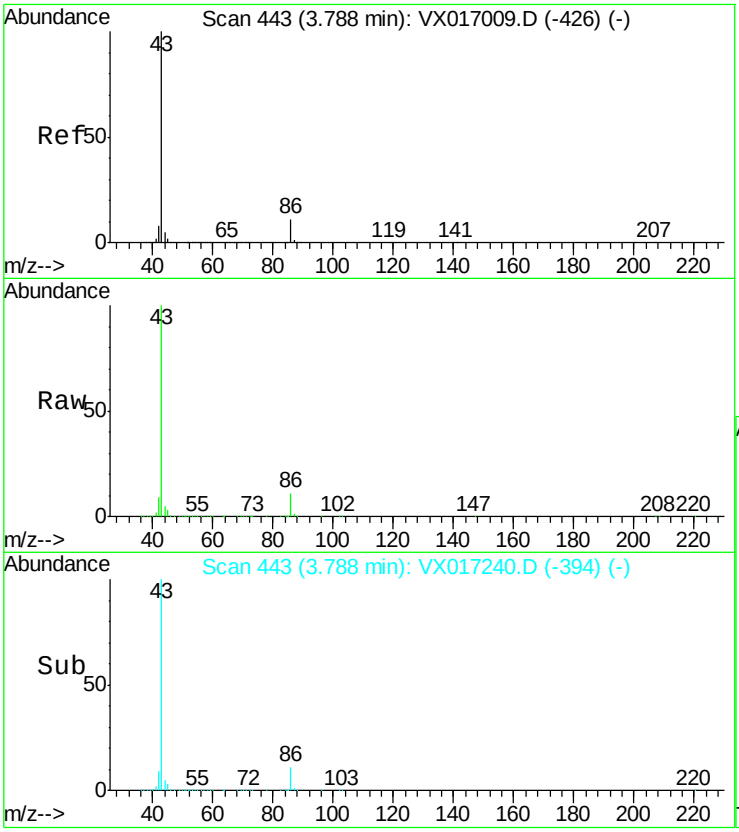
Tgt Ion: 45 Resp: 451025

Ion	Ratio	Lower	Upper
45	100		
43	69.9	58.6	88.0
87	28.4	22.6	34.0
59	12.0	8.7	13.1



Instrument :
MSVOA_X
ClientSampleId :
1004-MW-02MS

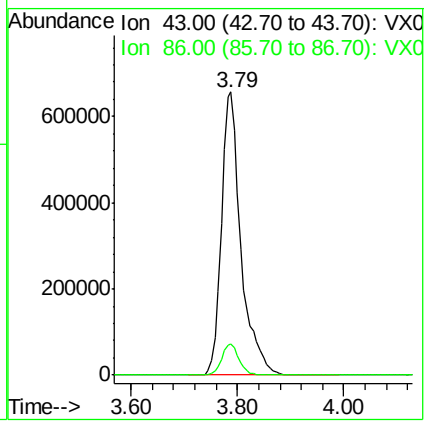
Manual Integrations APPROVED
MMDadoda
7/8/2020 9:32:02 AM

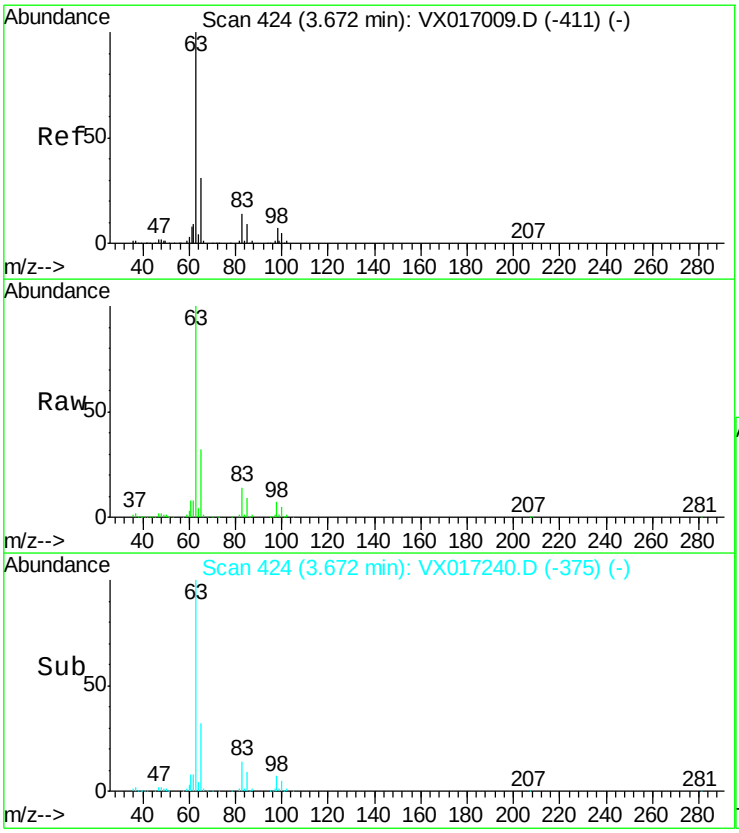


#23
Vinyl Acetate
Concen: 216.998 ug/l
RT: 3.79 min Scan# 443
Delta R.T. -0.00 min
Lab File: VX017240.D
Acq: 08 Jul 2020 06:17

Tgt Ion: 43 Resp: 1685190

Ion	Ratio	Lower	Upper
43	100		
86	11.0	8.6	13.0

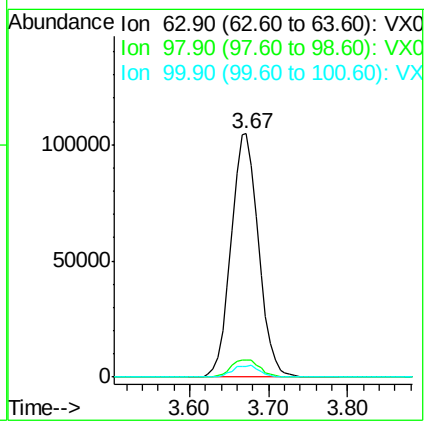




#24
1,1-Dichloroethane
Concen: 49.177 ug/l
RT: 3.67 min Scan# 424
Delta R.T. -0.00 min
Lab File: VX017240.D
Acq: 08 Jul 2020 06:17

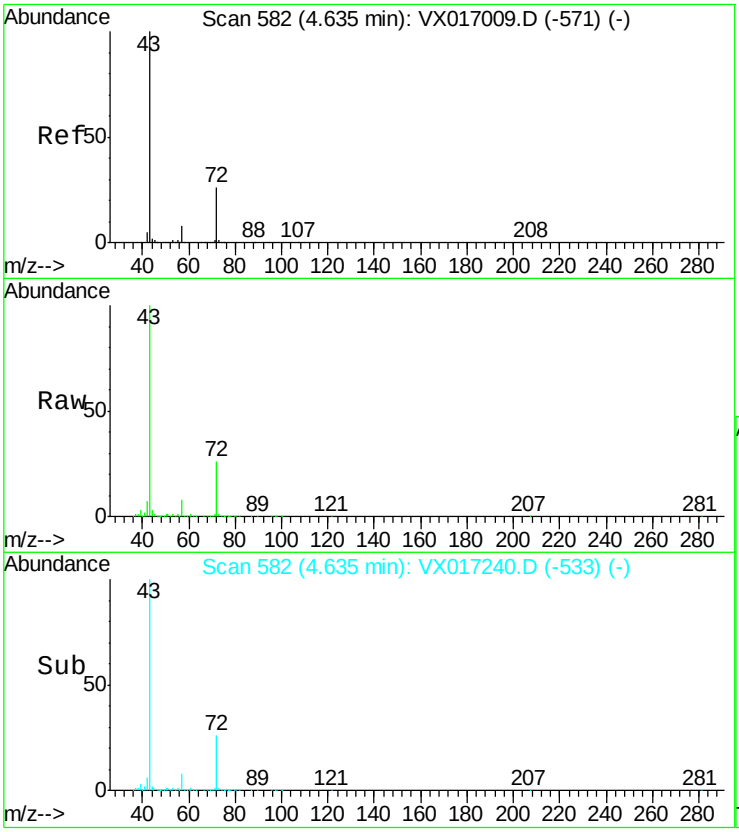
Tgt Ion: 63 Resp: 252878

Ion	Ratio	Lower	Upper
63	100		
98	6.7	3.6	10.8
100	4.6	2.4	7.1



Instrument :
MSVOA_X
ClientSampleId :
1004-MW-02MS

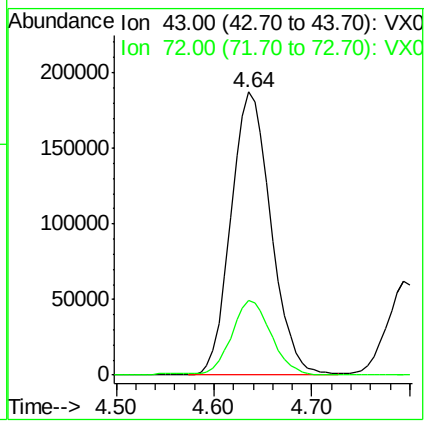
Manual Integrations APPROVED
MMDadoda
7/8/2020 9:32:02 AM

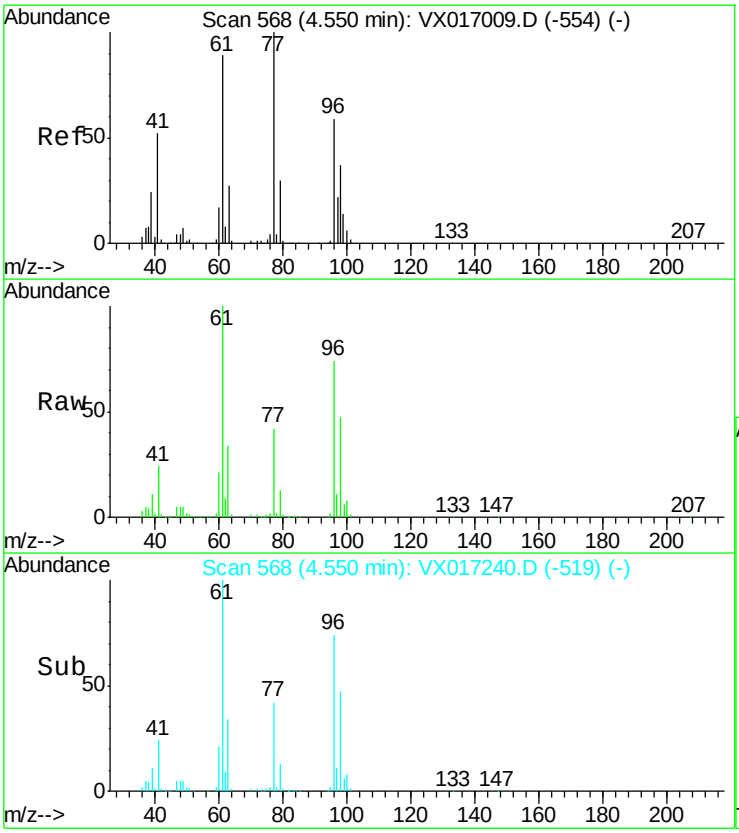


#25
2-Butanone
Concen: 257.347 ug/l
RT: 4.64 min Scan# 582
Delta R.T. -0.00 min
Lab File: VX017240.D
Acq: 08 Jul 2020 06:17

Tgt Ion: 43 Resp: 528120

Ion	Ratio	Lower	Upper
43	100		
72	26.2	20.8	31.2

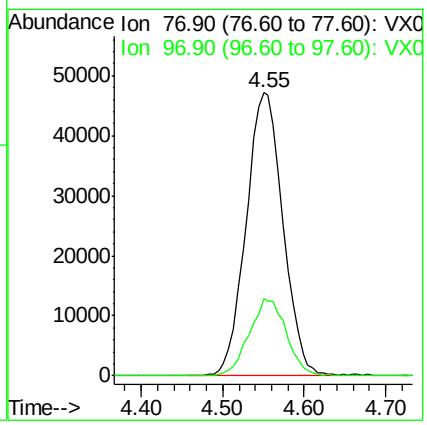




#26
2,2-Dichloropropane
Concen: 32.451 ug/l
RT: 4.55 min Scan# 568
Delta R.T. -0.00 min
Lab File: VX017240.D
Acq: 08 Jul 2020 06:17

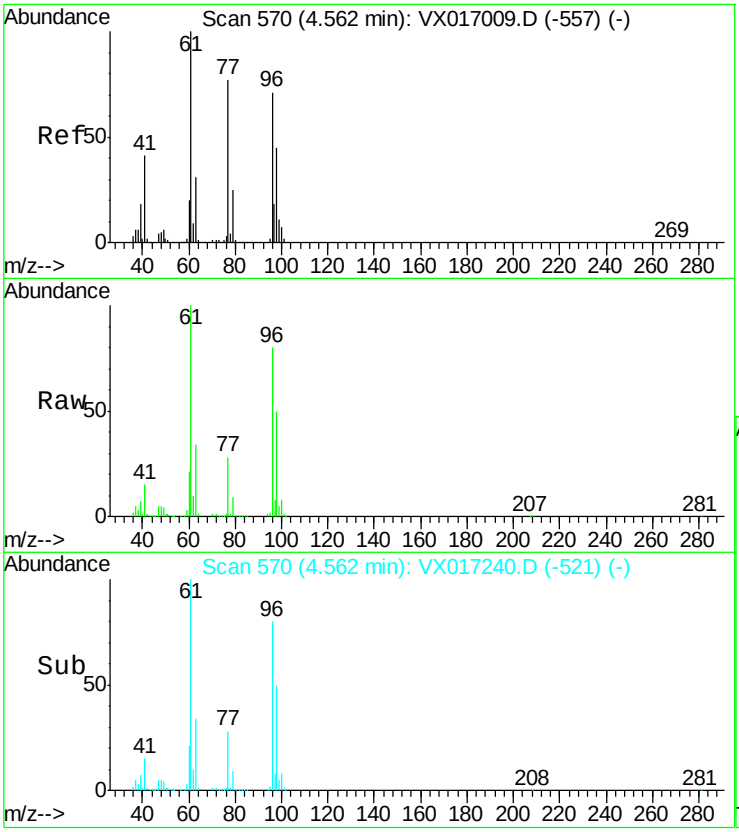
Tgt Ion: 77 Resp: 148166

Ion	Ratio	Lower	Upper
77	100		
97	27.5	11.4	34.2



Instrument :
MSVOA_X
ClientSampleId :
1004-MW-02MS

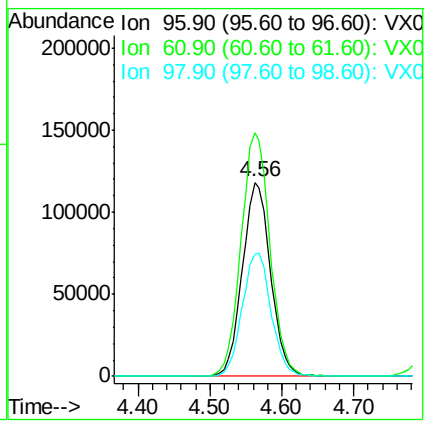
Manual Integrations APPROVED
MMDadoda
7/8/2020 9:32:02 AM

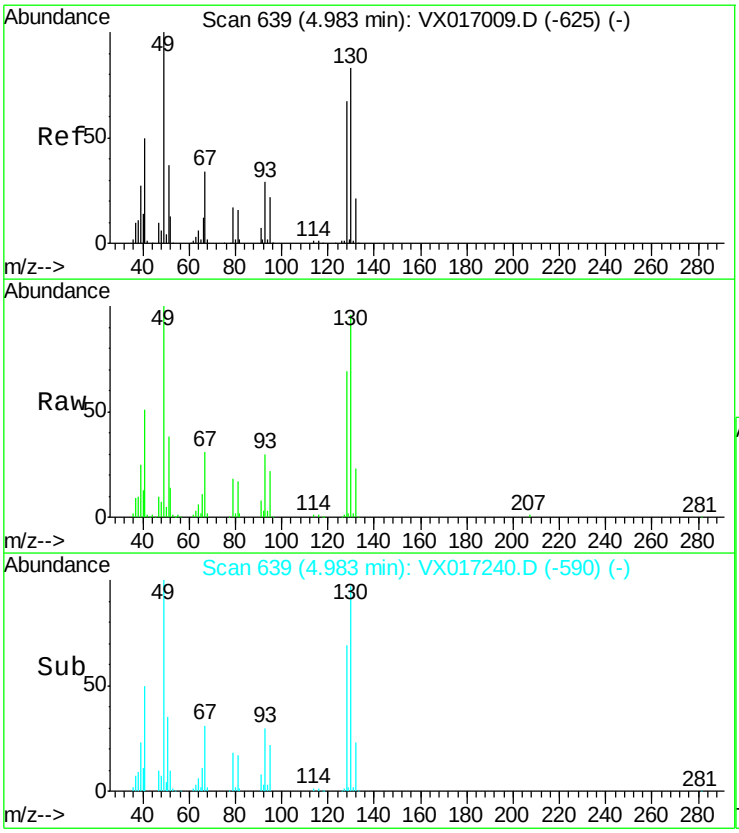


#27
cis-1,2-Dichloroethene
Concen: 96.769 ug/l
RT: 4.56 min Scan# 570
Delta R.T. -0.00 min
Lab File: VX017240.D
Acq: 08 Jul 2020 06:17

Tgt Ion: 96 Resp: 321492

Ion	Ratio	Lower	Upper
96	100		
61	129.3	0.0	282.8
98	64.9	0.0	127.6

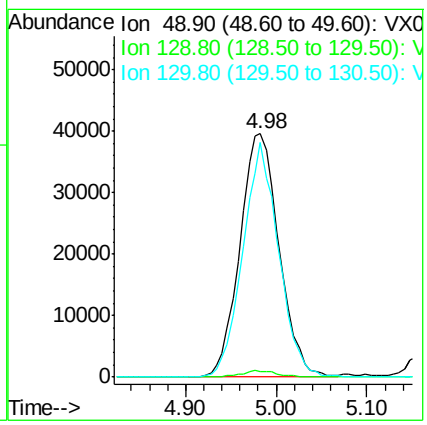




#28
Bromochloromethane
Concen: 47.319 ug/l
RT: 4.98 min Scan# 639
Delta R.T. -0.00 min
Lab File: VX017240.D
Acq: 08 Jul 2020 06:17

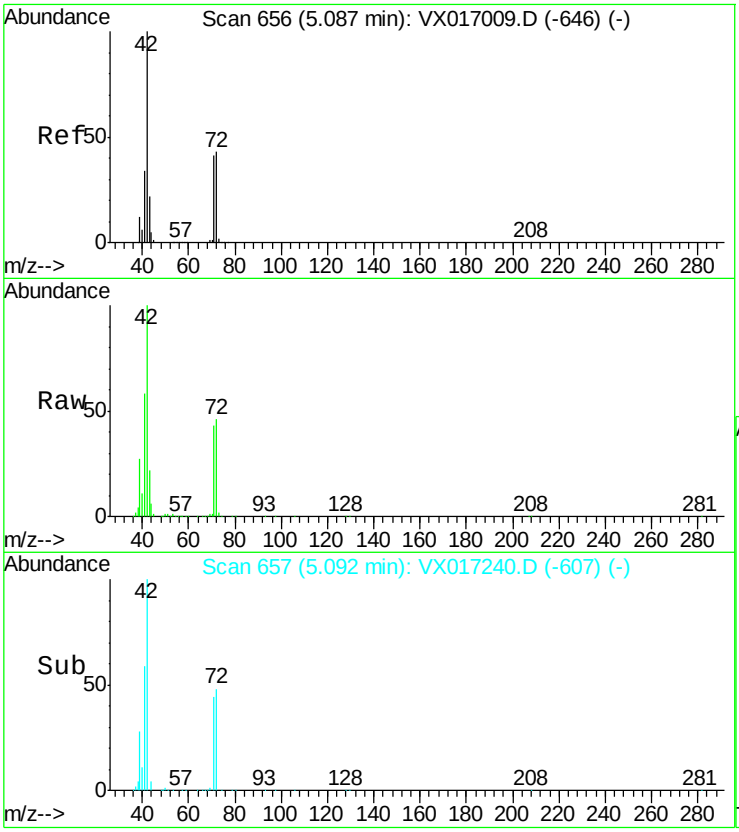
Tgt Ion: 49 Resp: 118408

Ion	Ratio	Lower	Upper
49	100		
129	2.4	0.0	4.2
130	87.8	66.6	100.0



Instrument :
MSVOA_X
ClientSampleId :
1004-MW-02MS

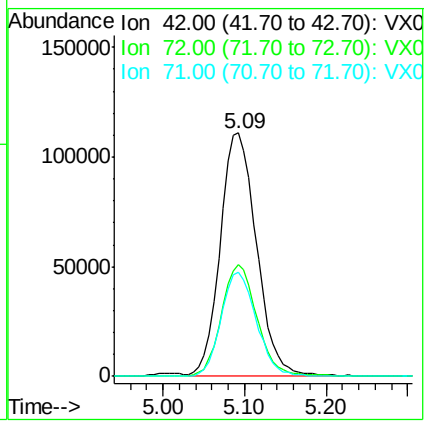
Manual Integrations APPROVED
MMDadoda
7/8/2020 9:32:02 AM

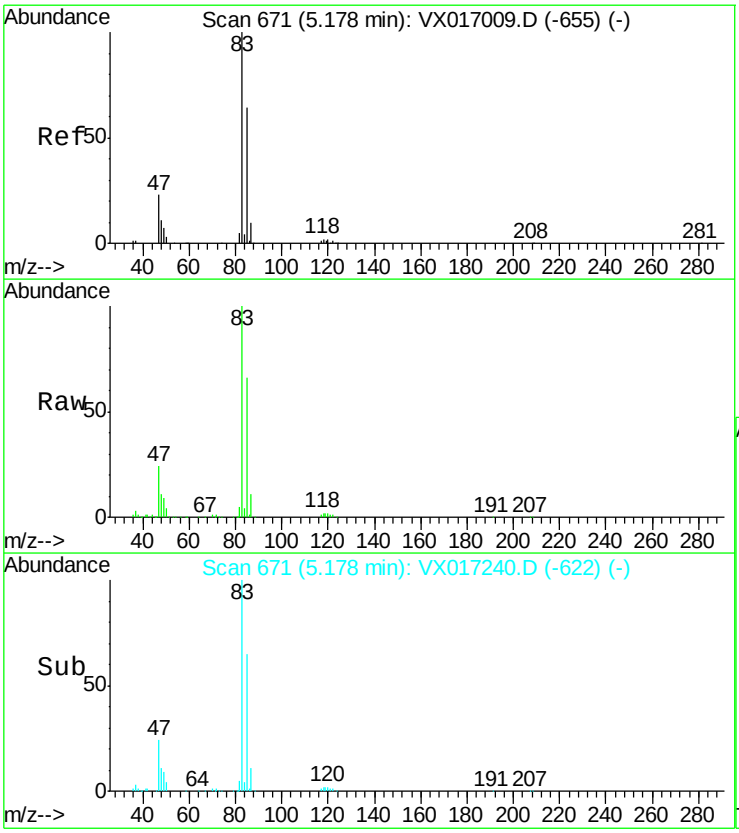


#29
Tetrahydrofuran
Concen: 250.518 ug/l
RT: 5.09 min Scan# 657
Delta R.T. 0.01 min
Lab File: VX017240.D
Acq: 08 Jul 2020 06:17

Tgt Ion: 42 Resp: 339681

Ion	Ratio	Lower	Upper
42	100		
72	45.4	35.3	52.9
71	41.9	33.1	49.7

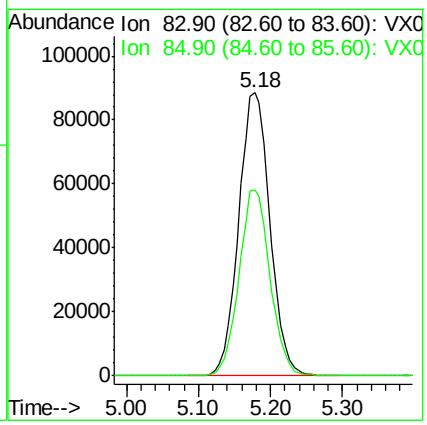




#30
Chloroform
Concen: 50.575 ug/l
RT: 5.18 min Scan# 671
Delta R.T. -0.00 min
Lab File: VX017240.D
Acq: 08 Jul 2020 06:17

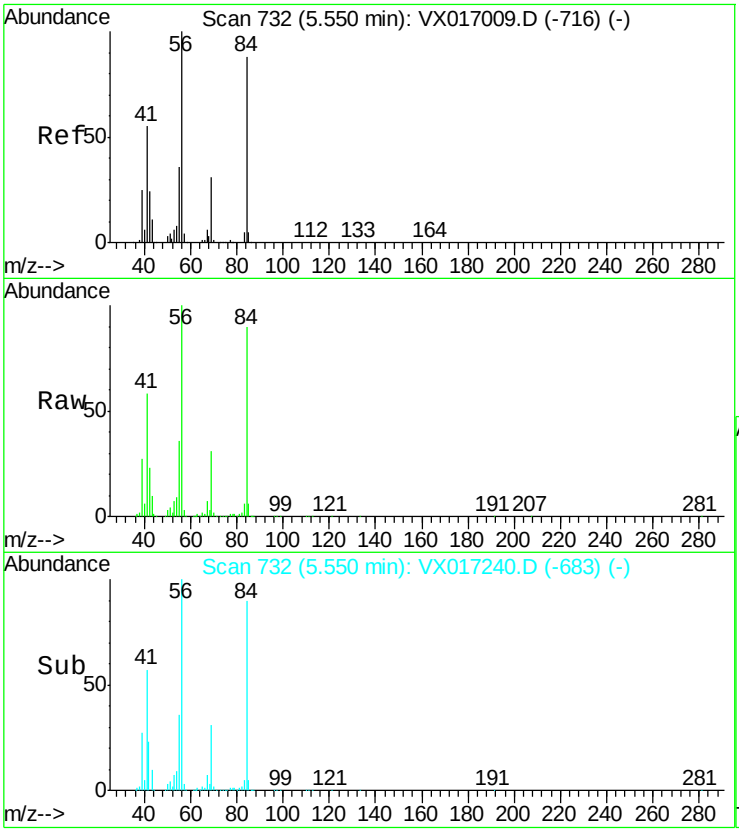
Tgt Ion: 83 Resp: 266597

Ion	Ratio	Lower	Upper
83	100		
85	65.9	51.4	77.2



Instrument :
MSVOA_X
ClientSampleId :
1004-MW-02MS

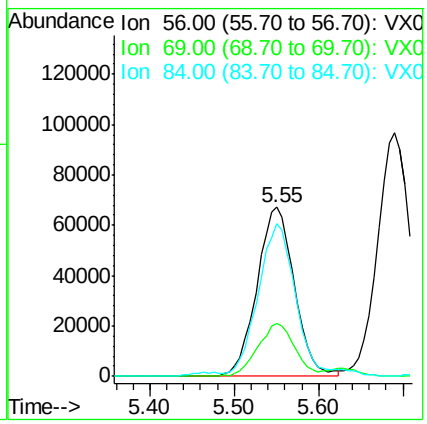
Manual Integrations APPROVED
MMDadoda
7/8/2020 9:32:02 AM

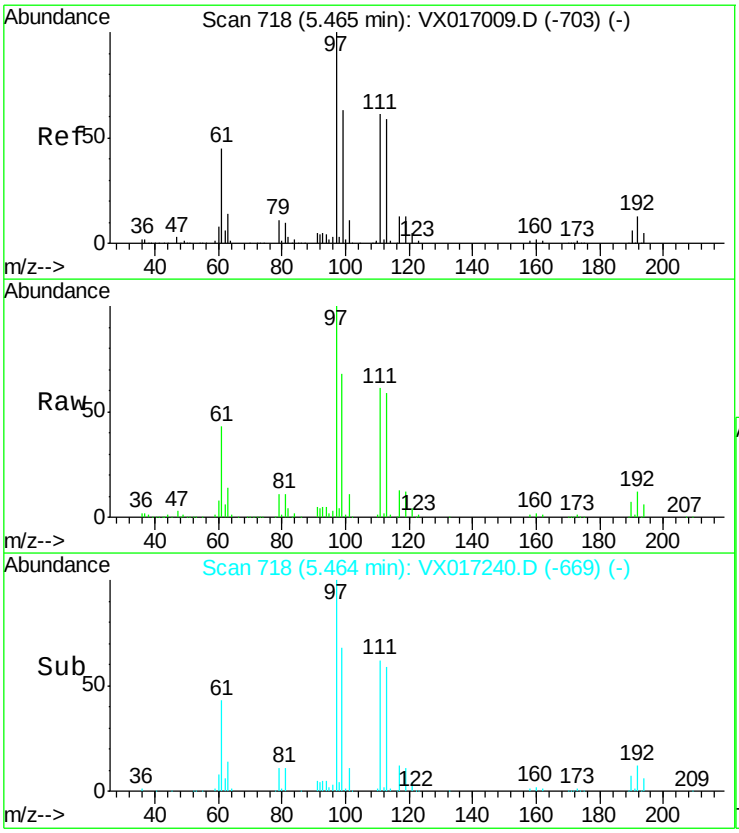


#31
Cyclohexane
Concen: 46.147 ug/l
RT: 5.55 min Scan# 732
Delta R.T. -0.00 min
Lab File: VX017240.D
Acq: 08 Jul 2020 06:17

Tgt Ion: 56 Resp: 205116

Ion	Ratio	Lower	Upper
56	100		
69	31.0	25.0	37.4
84	89.1	69.1	103.7

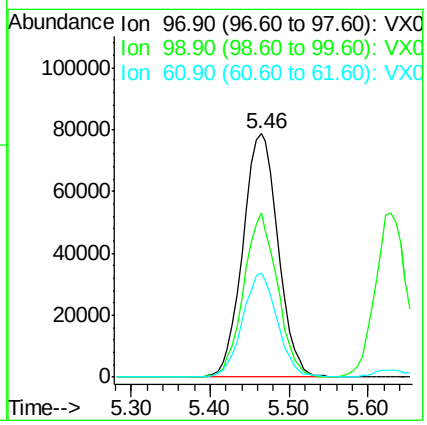




#32
1,1,1-Trichloroethane
Concen: 50.275 ug/l
RT: 5.46 min Scan# 718
Delta R.T. -0.00 min
Lab File: VX017240.D
Acq: 08 Jul 2020 06:17

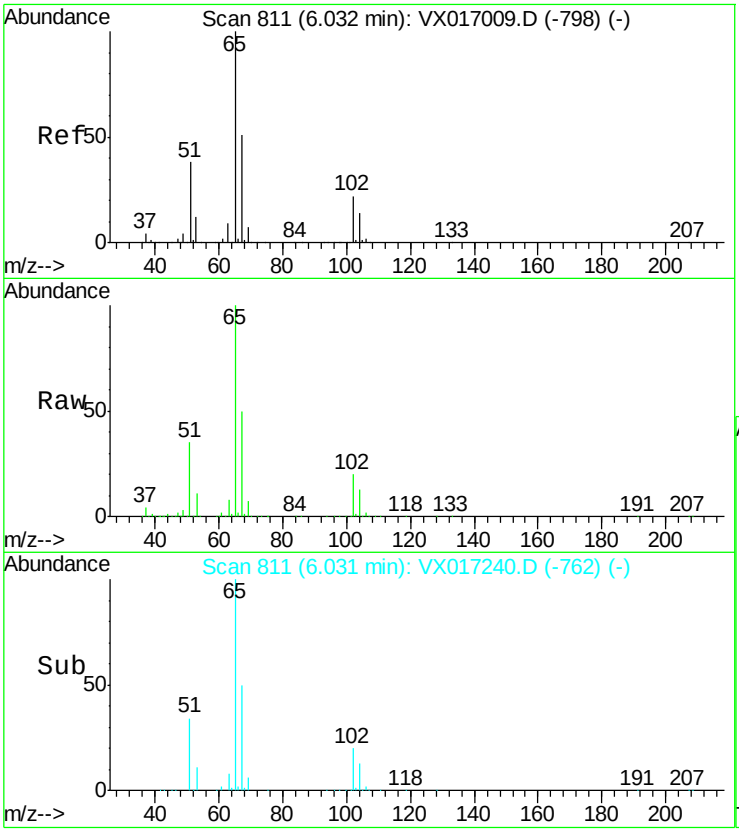
Tgt Ion: 97 Resp: 244069

Ion	Ratio	Lower	Upper
97	100		
99	64.4	50.8	76.2
61	42.0	33.7	50.5



Instrument :
MSVOA_X
ClientSampleId :
1004-MW-02MS

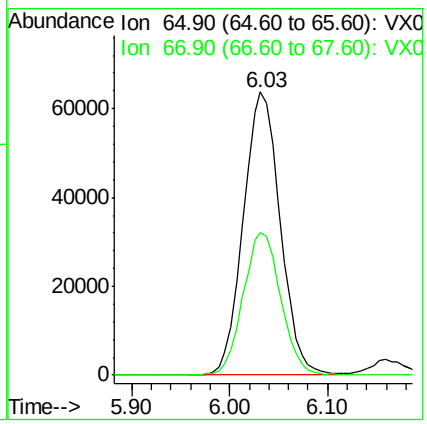
Manual Integrations APPROVED
MMDadoda
7/8/2020 9:32:02 AM

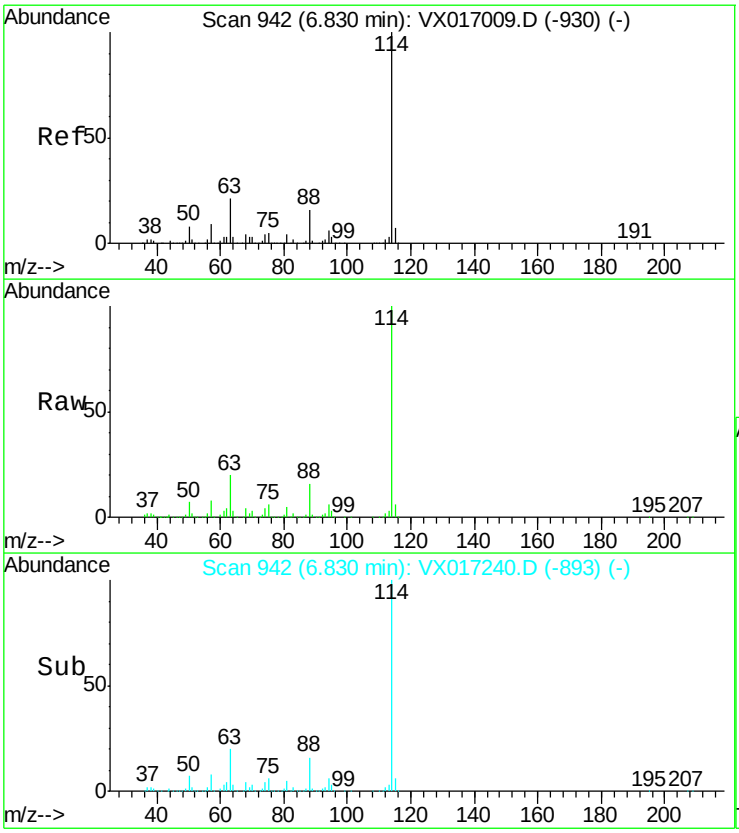


#33
1,2-Dichloroethane-d4
Concen: 50.667 ug/l
RT: 6.03 min Scan# 811
Delta R.T. -0.00 min
Lab File: VX017240.D
Acq: 08 Jul 2020 06:17

Tgt Ion: 65 Resp: 166809

Ion	Ratio	Lower	Upper
65	100		
67	51.5	0.0	103.8

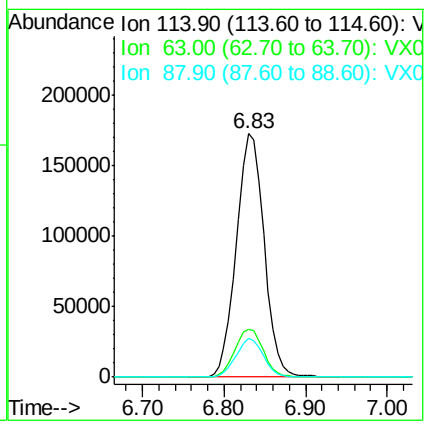




#34
1,4-Difluorobenzene
Concen: 50.000 ug/l
RT: 6.83 min Scan# 942
Delta R.T. -0.00 min
Lab File: VX017240.D
Acq: 08 Jul 2020 06:17

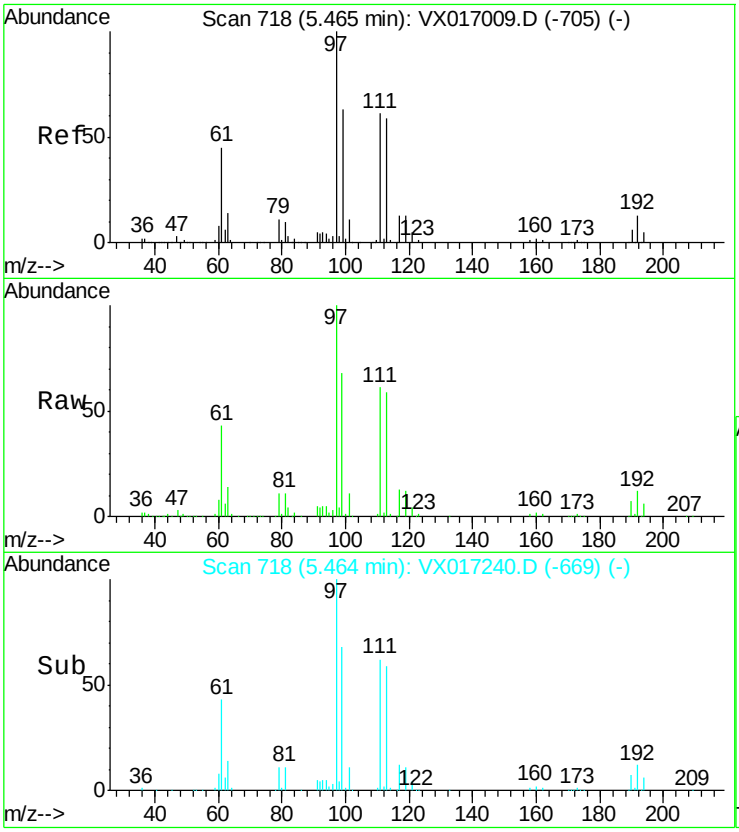
Tgt Ion:114 Resp: 407434

Ion	Ratio	Lower	Upper
114	100		
63	19.7	0.0	41.4
88	15.9	0.0	32.4



Instrument :
MSVOA_X
ClientSampleId :
1004-MW-02MS

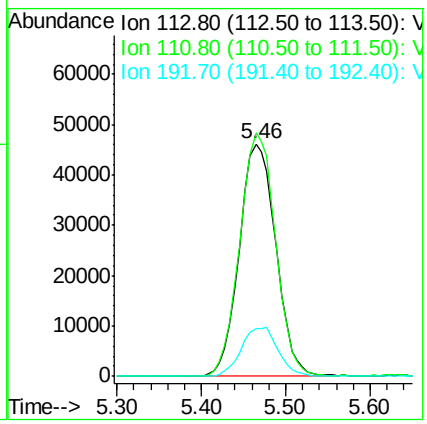
Manual Integrations APPROVED
MMDadoda
7/8/2020 9:32:02 AM

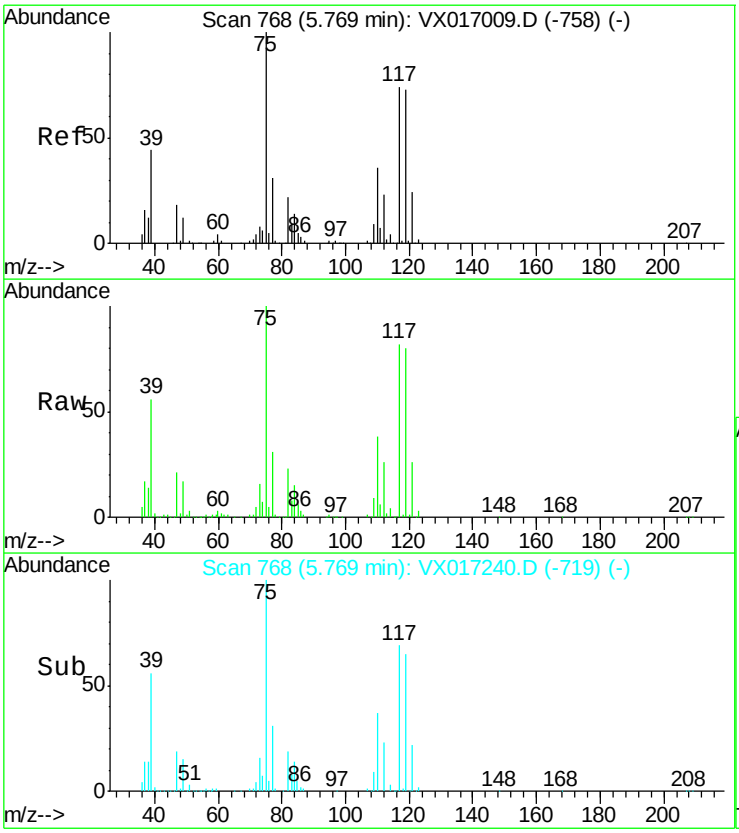


#35
Dibromofluoromethane
Concen: 52.736 ug/l
RT: 5.46 min Scan# 718
Delta R.T. -0.00 min
Lab File: VX017240.D
Acq: 08 Jul 2020 06:17

Tgt Ion:113 Resp: 135916

Ion	Ratio	Lower	Upper
113	100		
111	102.4	81.9	122.9
192	21.1	16.7	25.1

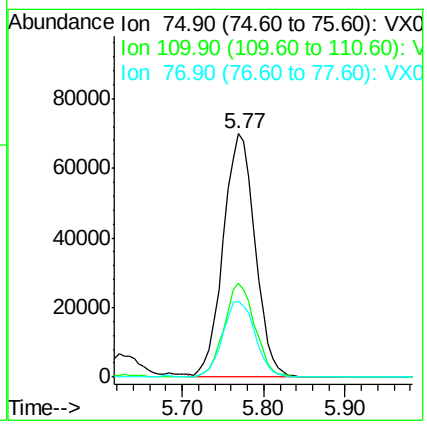




#36
1,1-Dichloropropene
Concen: 49.089 ug/l
RT: 5.77 min Scan# 768
Delta R.T. -0.00 min
Lab File: VX017240.D
Acq: 08 Jul 2020 06:17

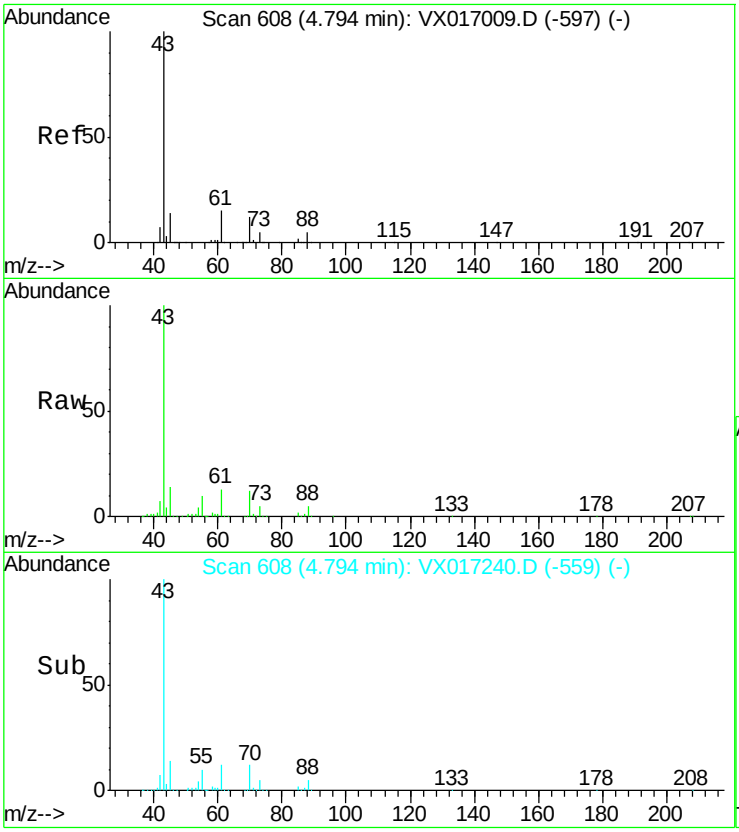
Tgt Ion: 75 Resp: 189031

Ion	Ratio	Lower	Upper
75	100		
110	37.4	18.1	54.1
77	31.7	24.6	37.0



Instrument :
MSVOA_X
ClientSampleId :
1004-MW-02MS

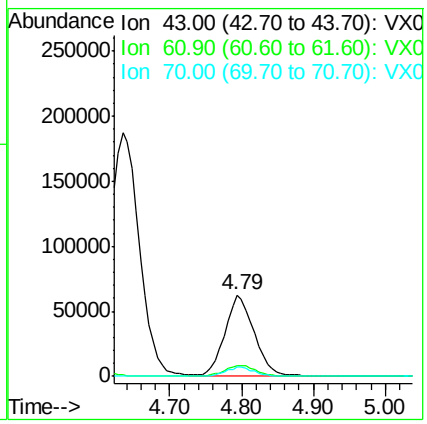
Manual Integrations APPROVED
MMDadoda
7/8/2020 9:32:02 AM

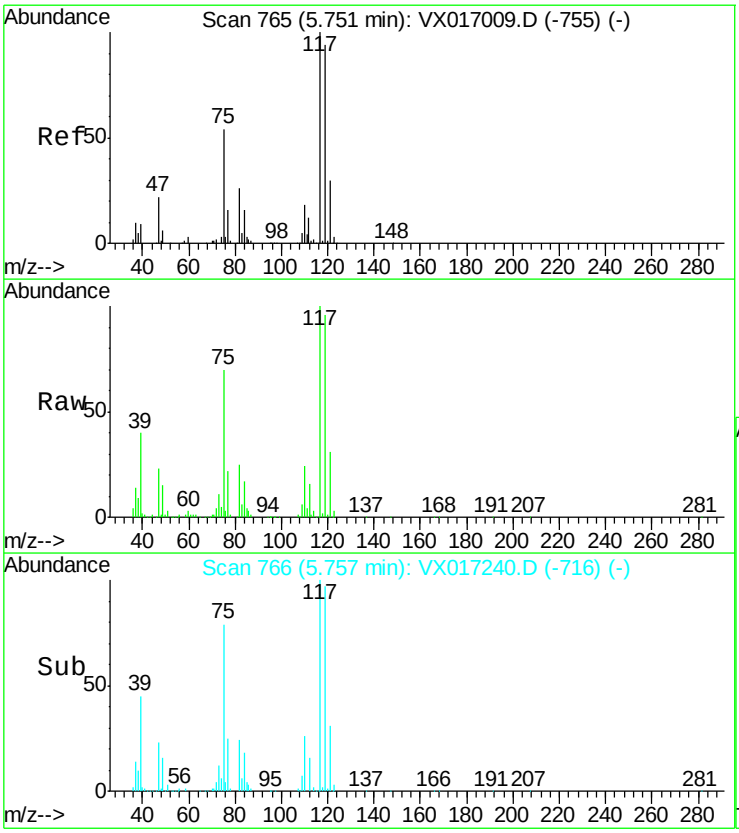


#37
Ethyl Acetate
Concen: 45.209 ug/l
RT: 4.79 min Scan# 608
Delta R.T. -0.00 min
Lab File: VX017240.D
Acq: 08 Jul 2020 06:17

Tgt Ion: 43 Resp: 176633

Ion	Ratio	Lower	Upper
43	100		
61	13.8	11.0	16.4
70	11.2	8.9	13.3

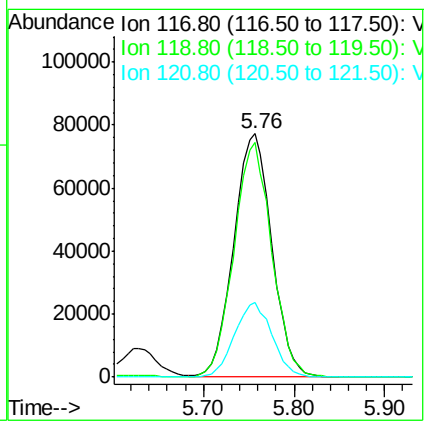




#38
Carbon Tetrachloride
Concen: 52.974 ug/l
RT: 5.76 min Scan# 766
Delta R.T. 0.01 min
Lab File: VX017240.D
Acq: 08 Jul 2020 06:17

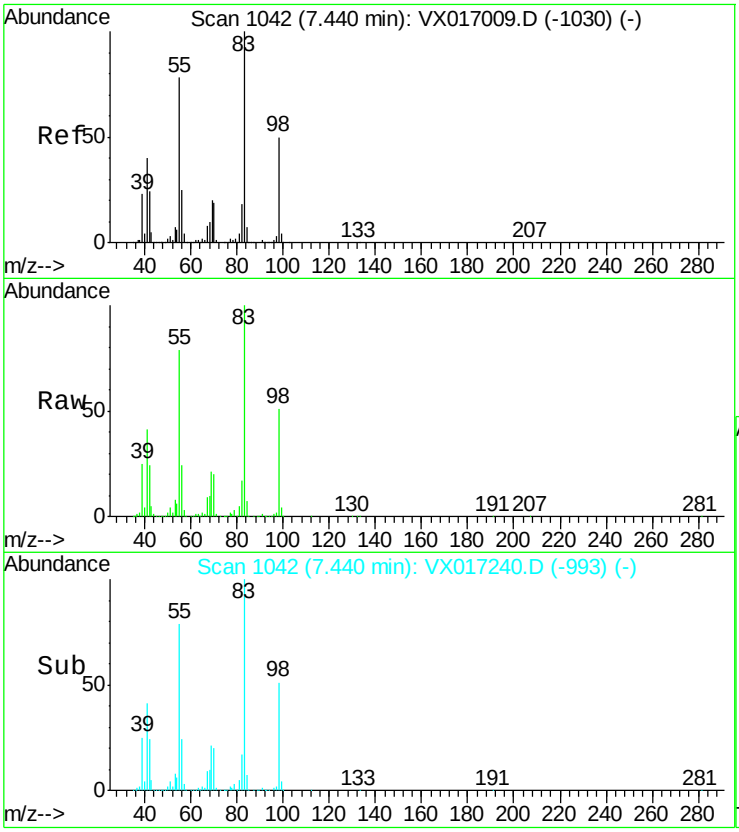
Tgt Ion:117 Resp: 224678

Ion	Ratio	Lower	Upper
117	100		
119	96.2	75.4	113.0
121	30.6	23.8	35.6



Instrument :
MSVOA_X
ClientSampleId :
1004-MW-02MS

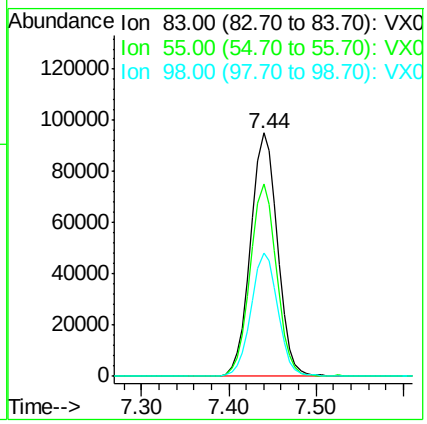
Manual Integrations APPROVED
MMDadoda
7/8/2020 9:32:02 AM

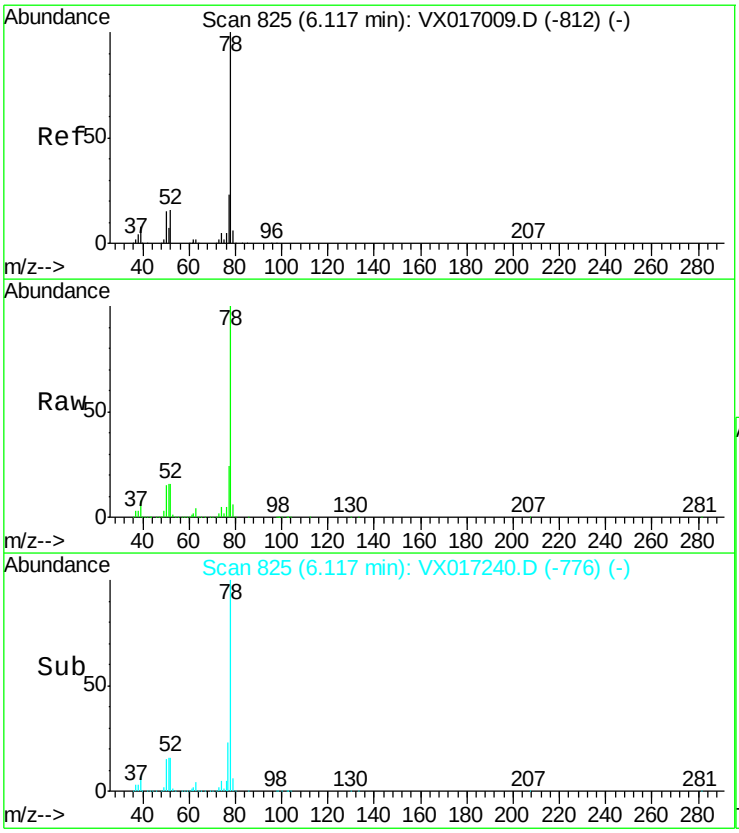


#39
Methylcyclohexane
Concen: 47.635 ug/l
RT: 7.44 min Scan# 1042
Delta R.T. -0.00 min
Lab File: VX017240.D
Acq: 08 Jul 2020 06:17

Tgt Ion: 83 Resp: 204091

Ion	Ratio	Lower	Upper
83	100		
55	78.7	62.5	93.7
98	50.9	40.1	60.1

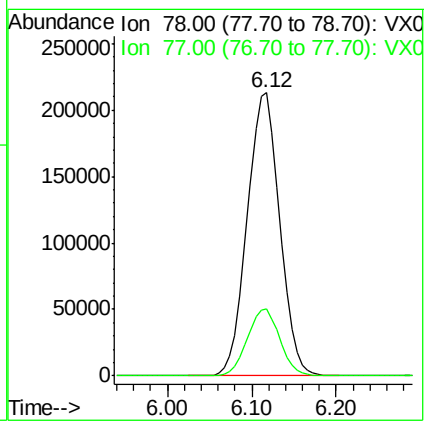




#40
Benzene
Concen: 49.384 ug/l
RT: 6.12 min Scan# 825
Delta R.T. -0.00 min
Lab File: VX017240.D
Acq: 08 Jul 2020 06:17

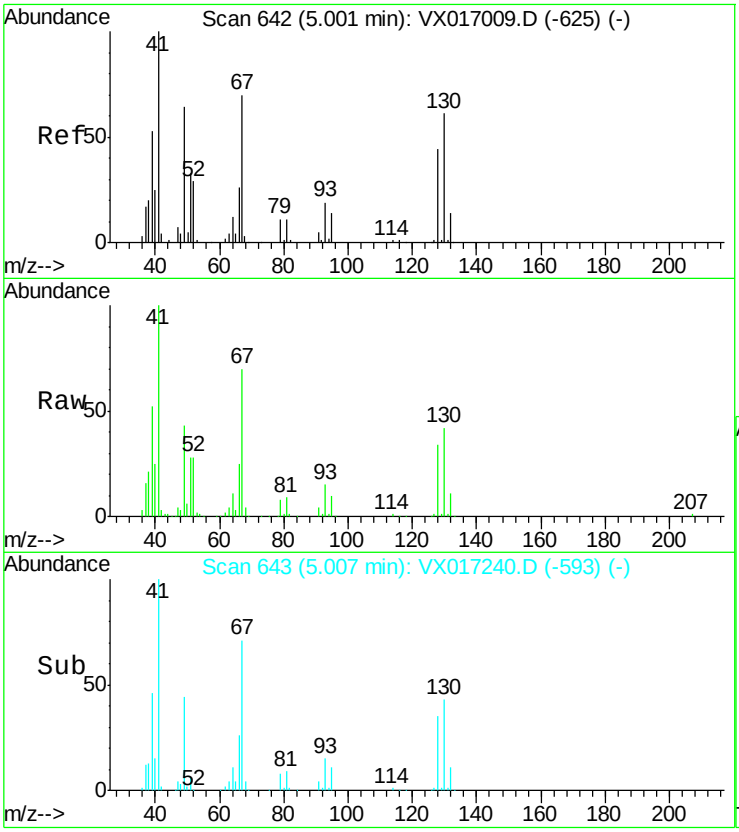
Tgt Ion: 78 Resp: 558735

Ion	Ratio	Lower	Upper
78	100		
77	23.8	18.3	27.5



Instrument :
MSVOA_X
ClientSampleId :
1004-MW-02MS

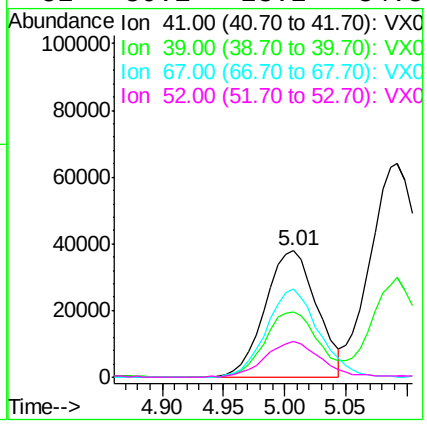
Manual Integrations APPROVED
MMDadoda
7/8/2020 9:32:02 AM

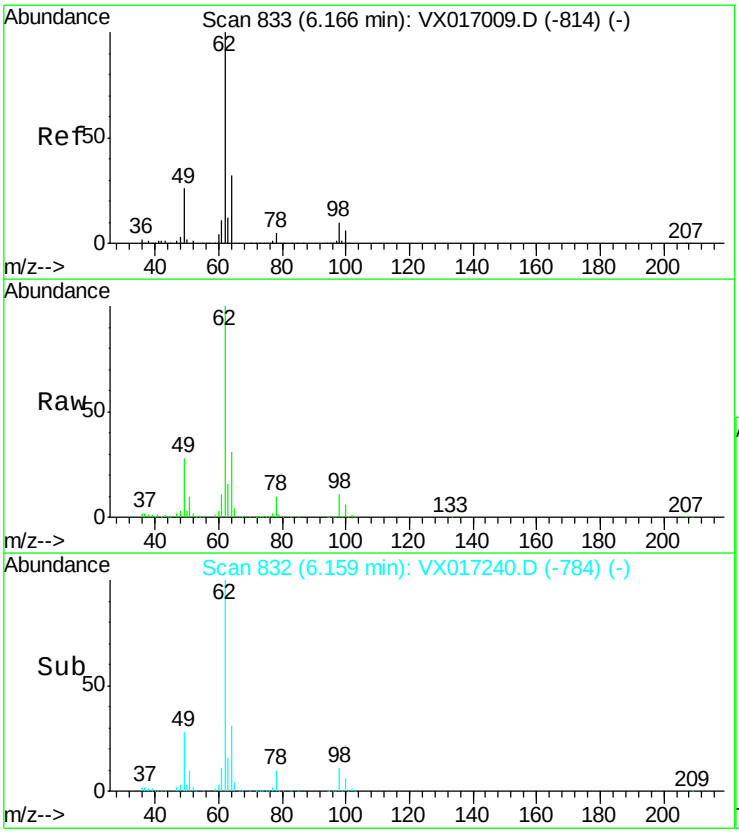


#41
Methacrylonitrile
Concen: 50.885 ug/l
RT: 5.01 min Scan# 643
Delta R.T. 0.01 min
Lab File: VX017240.D
Acq: 08 Jul 2020 06:17

Tgt Ion: 41 Resp: 111895

Ion	Ratio	Lower	Upper
41	100		
39	52.4	44.4	66.6
67	70.8	57.1	85.7
52	30.1	23.2	34.8

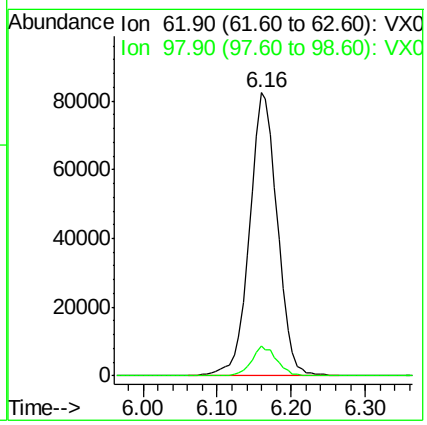




#42
1,2-Dichloroethane
Concen: 52.807 ug/l
RT: 6.16 min Scan# 832
Delta R.T. -0.01 min
Lab File: VX017240.D
Acq: 08 Jul 2020 06:17

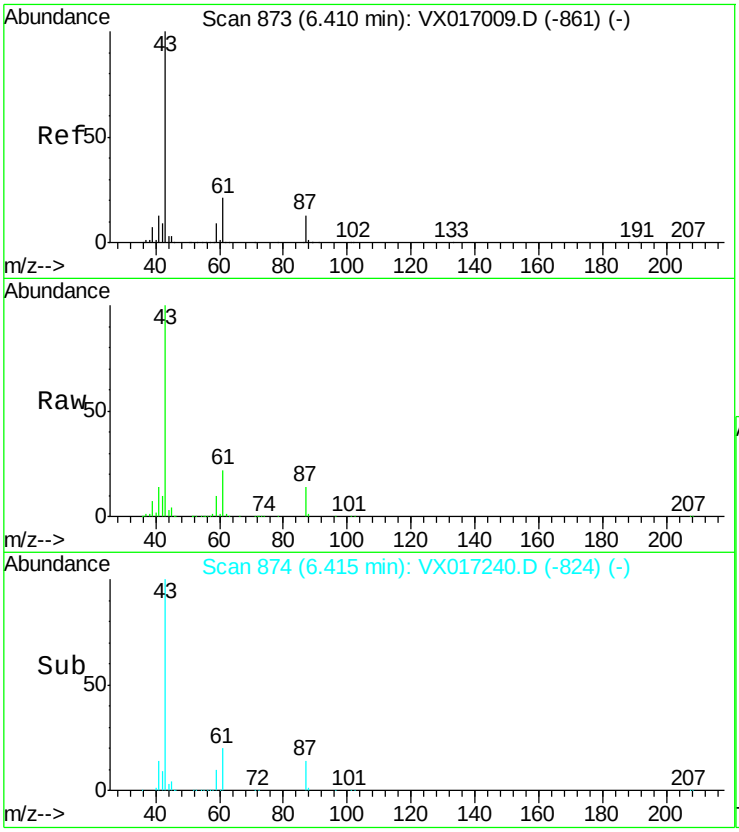
Tgt Ion: 62 Resp: 215809

Ion	Ratio	Lower	Upper
62	100		
98	9.5	0.0	19.2



Instrument :
MSVOA_X
ClientSampleId :
1004-MW-02MS

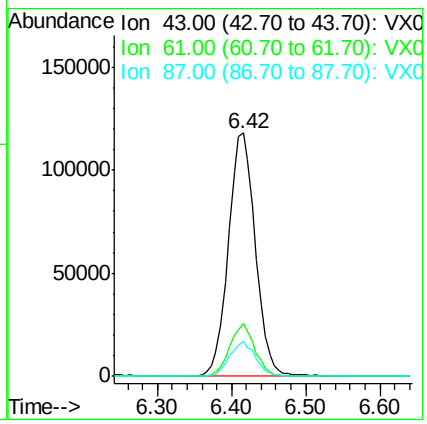
Manual Integrations APPROVED
MMDadoda
7/8/2020 9:32:02 AM

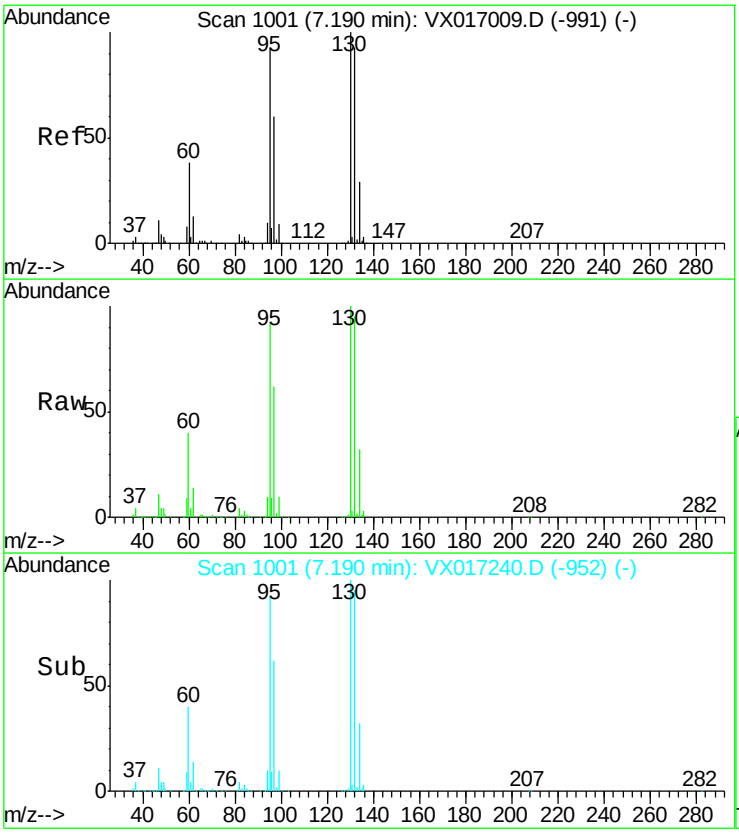


#43
Isopropyl Acetate
Concen: 45.878 ug/l
RT: 6.42 min Scan# 874
Delta R.T. 0.01 min
Lab File: VX017240.D
Acq: 08 Jul 2020 06:17

Tgt Ion: 43 Resp: 297856

Ion	Ratio	Lower	Upper
43	100		
61	20.5	16.2	24.2
87	13.9	10.7	16.1

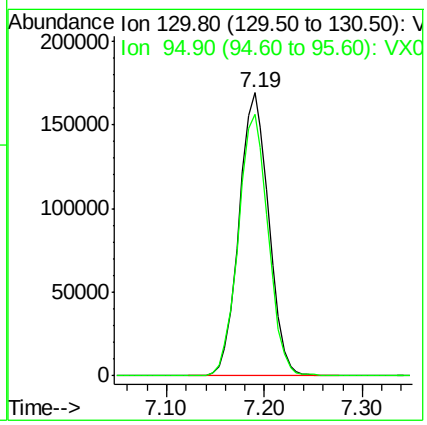




#44
Trichloroethene
Concen: 114.380 ug/l
RT: 7.19 min Scan# 1001
Delta R.T. 0.00 min
Lab File: VX017240.D
Acq: 08 Jul 2020 06:17

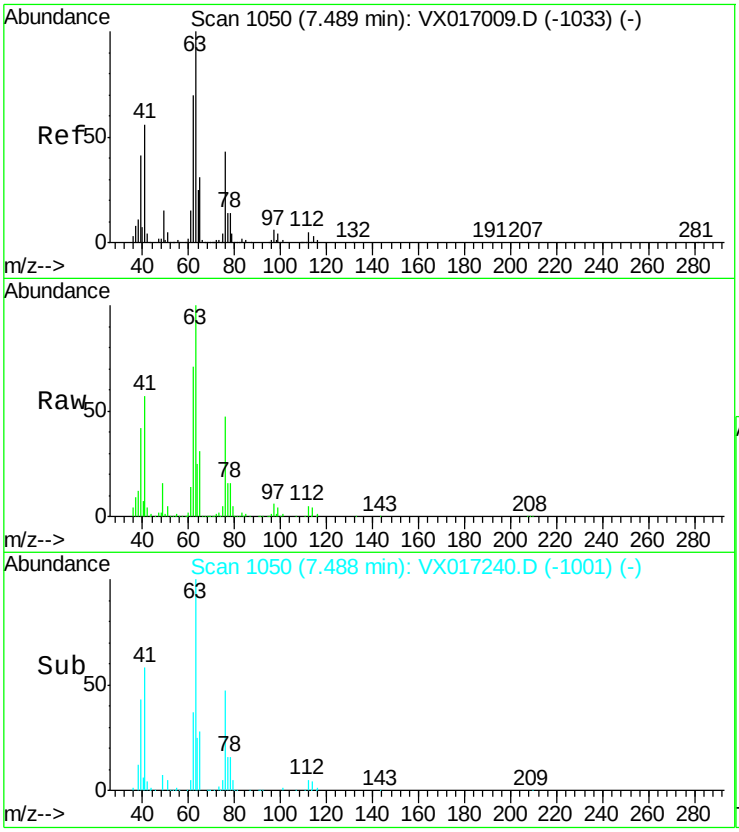
Tgt Ion:130 Resp: 355864

Ion	Ratio	Lower	Upper
130	100		
95	92.4	0.0	185.0



Instrument :
MSVOA_X
ClientSampleId :
1004-MW-02MS

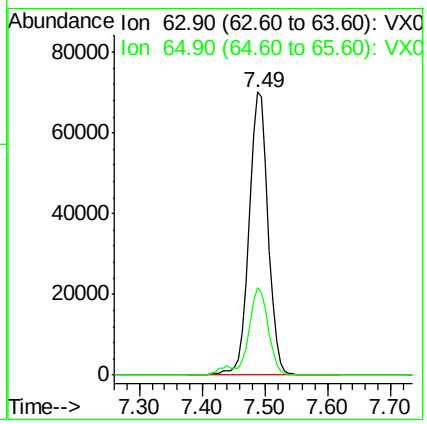
Manual Integrations APPROVED
MMDadoda
7/8/2020 9:32:02 AM

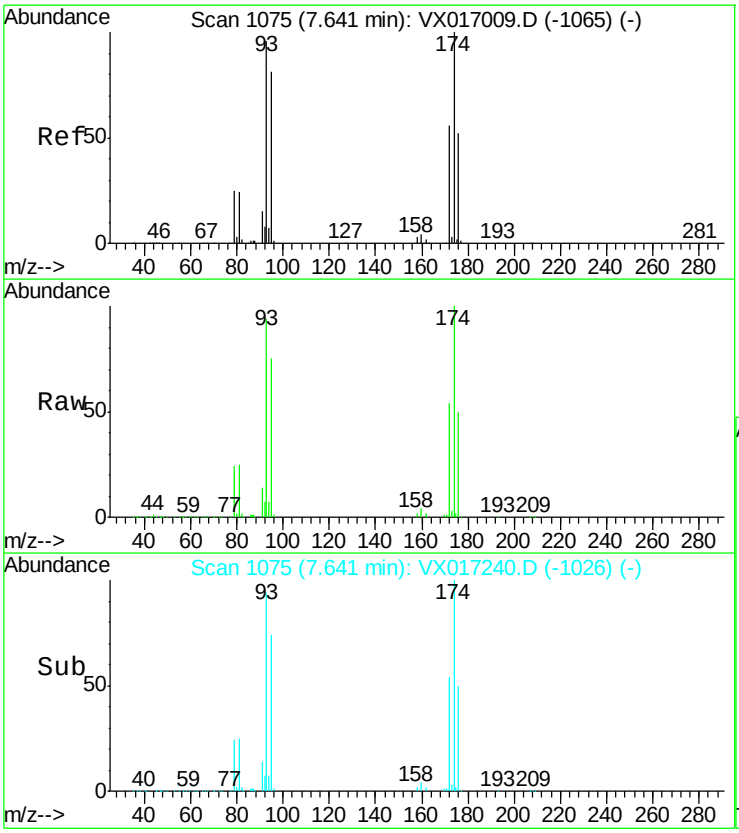


#45
1,2-Dichloropropane
Concen: 50.656 ug/l
RT: 7.49 min Scan# 1050
Delta R.T. -0.00 min
Lab File: VX017240.D
Acq: 08 Jul 2020 06:17

Tgt Ion: 63 Resp: 147205

Ion	Ratio	Lower	Upper
63	100		
65	30.8	24.6	36.8

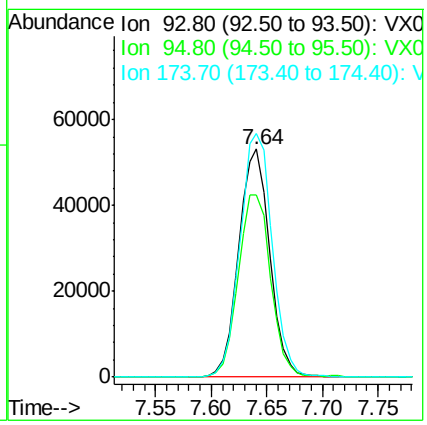




#46
Dibromomethane
Concen: 51.844 ug/l
RT: 7.64 min Scan# 1075
Delta R.T. -0.00 min
Lab File: VX017240.D
Acq: 08 Jul 2020 06:17

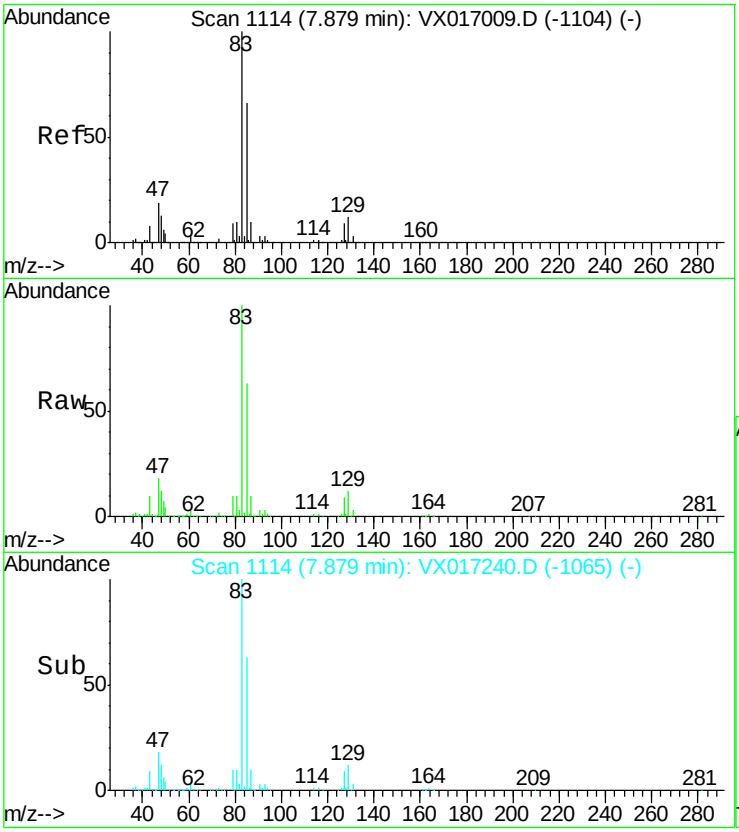
Tgt Ion: 93 Resp: 102857

Ion	Ratio	Lower	Upper
93	100		
95	83.8	67.4	101.0
174	111.1	84.3	126.5



Instrument :
MSVOA_X
ClientSampleId :
1004-MW-02MS

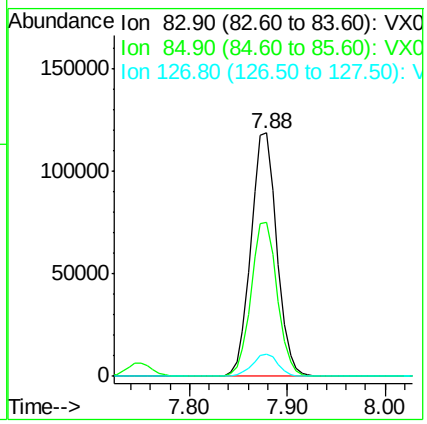
Manual Integrations APPROVED
MMDadoda
7/8/2020 9:32:02 AM

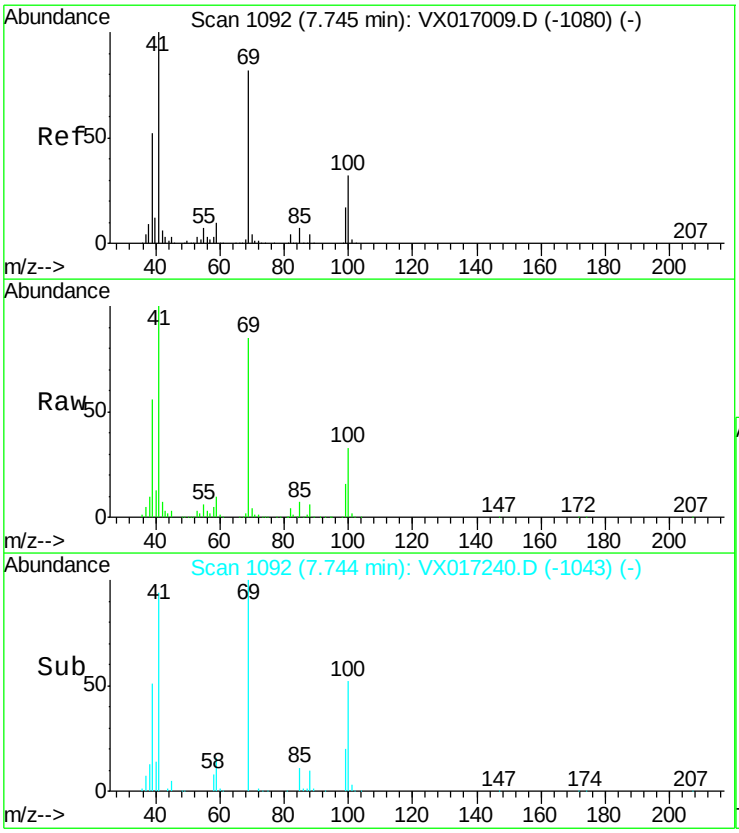


#47
Bromodichloromethane
Concen: 53.335 ug/l
RT: 7.88 min Scan# 1114
Delta R.T. -0.00 min
Lab File: VX017240.D
Acq: 08 Jul 2020 06:17

Tgt Ion: 83 Resp: 218064

Ion	Ratio	Lower	Upper
83	100		
85	63.0	53.0	79.4
127	9.1	7.5	11.3

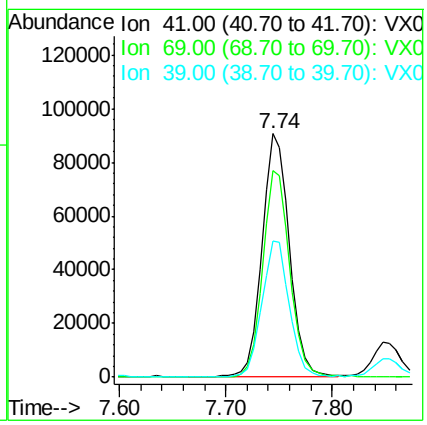




#48
Methyl methacrylate
Concen: 52.553 ug/l
RT: 7.74 min Scan# 1092
Delta R.T. -0.00 min
Lab File: VX017240.D
Acq: 08 Jul 2020 06:17

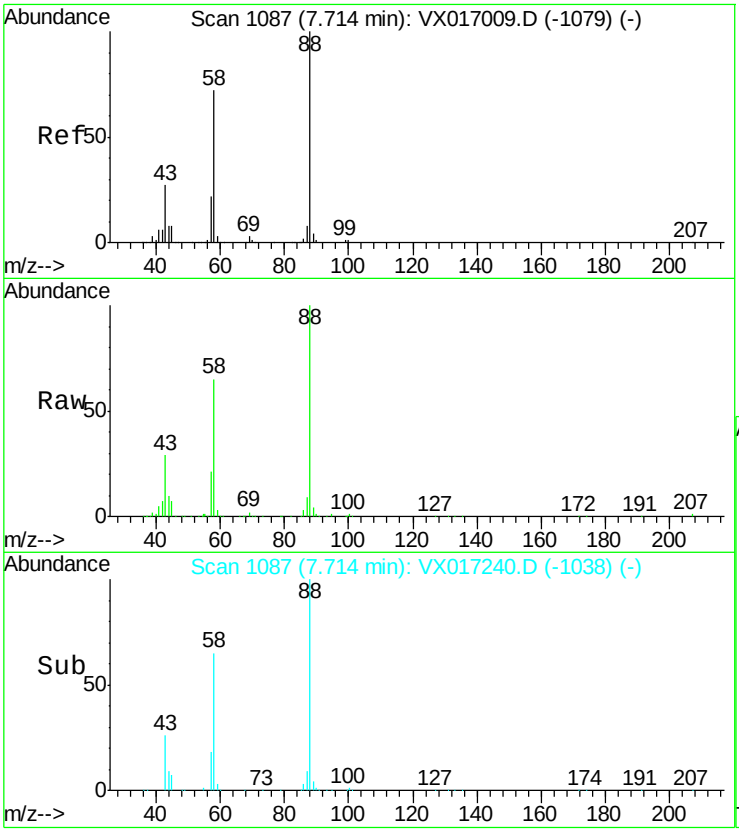
Tgt Ion: 41 Resp: 162097

Ion	Ratio	Lower	Upper
41	100		
69	84.7	65.8	98.8
39	56.0	42.5	63.7



Instrument :
MSVOA_X
ClientSampleId :
1004-MW-02MS

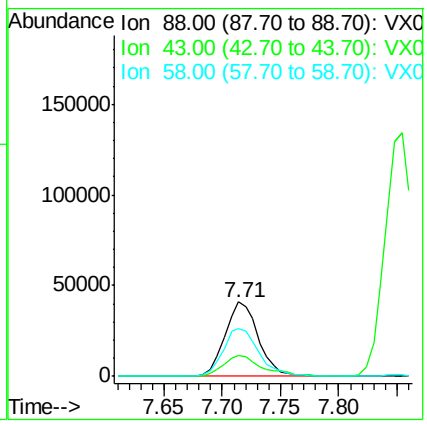
Manual Integrations APPROVED
MMDadoda
7/8/2020 9:32:02 AM

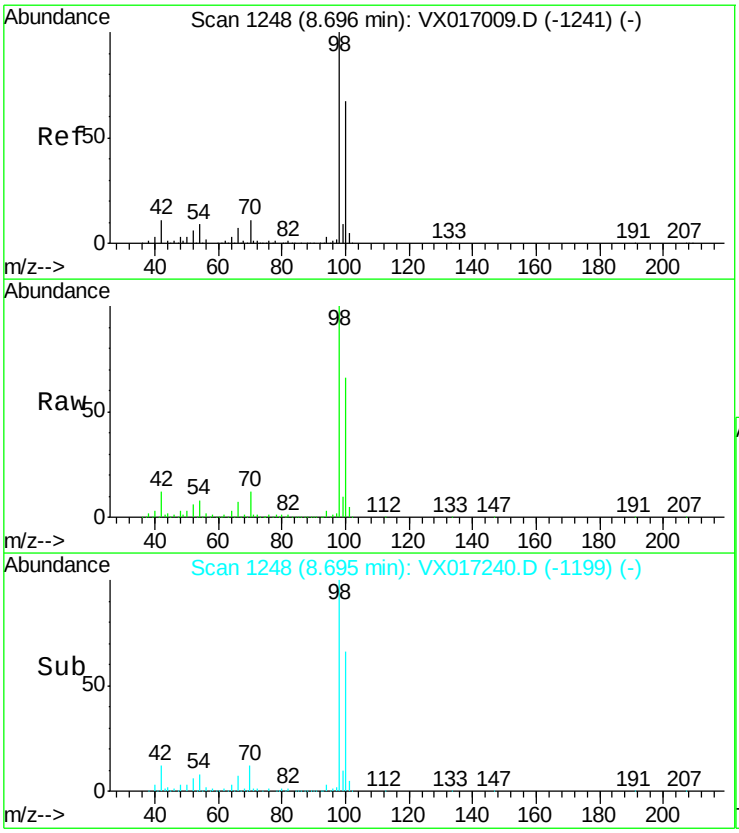


#49
1,4-Dioxane
Concen: 1169.144 ug/l
RT: 7.71 min Scan# 1087
Delta R.T. -0.00 min
Lab File: VX017240.D
Acq: 08 Jul 2020 06:17

Tgt Ion: 88 Resp: 81697

Ion	Ratio	Lower	Upper
88	100		
43	32.2	25.8	38.8
58	69.4	54.8	82.2

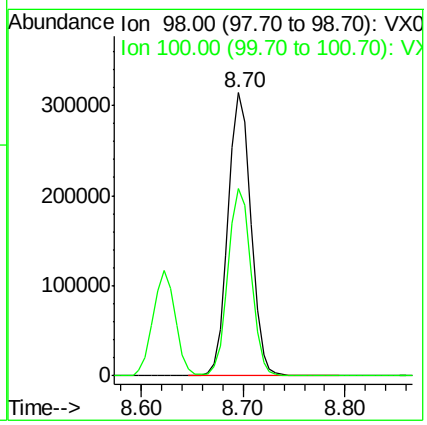




#50
Toluene-d8
Concen: 50.917 ug/l
RT: 8.70 min Scan# 1248
Delta R.T. -0.00 min
Lab File: VX017240.D
Acq: 08 Jul 2020 06:17

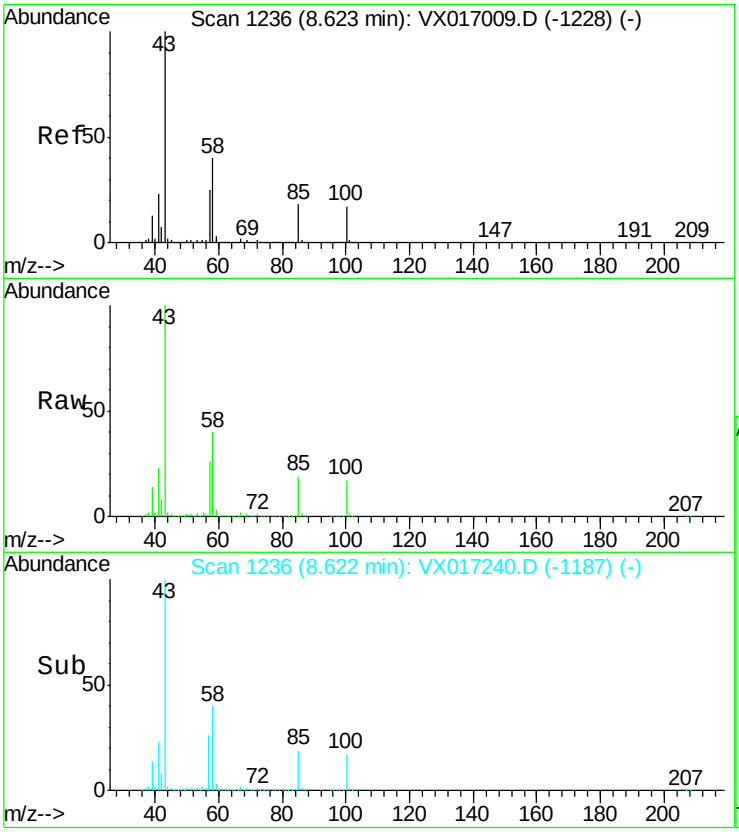
Tgt Ion: 98 Resp: 485260

Ion	Ratio	Lower	Upper
98	100		
100	67.0	53.8	80.6



Instrument :
MSVOA_X
ClientSampleId :
1004-MW-02MS

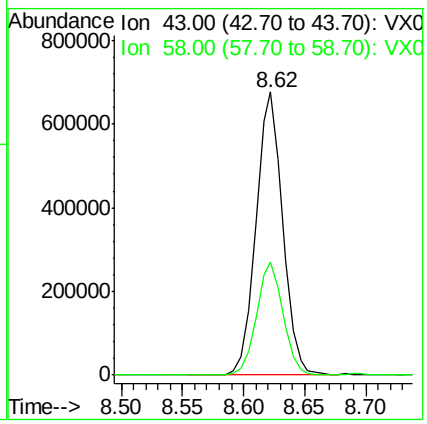
Manual Integrations APPROVED
MMDadoda
7/8/2020 9:32:02 AM

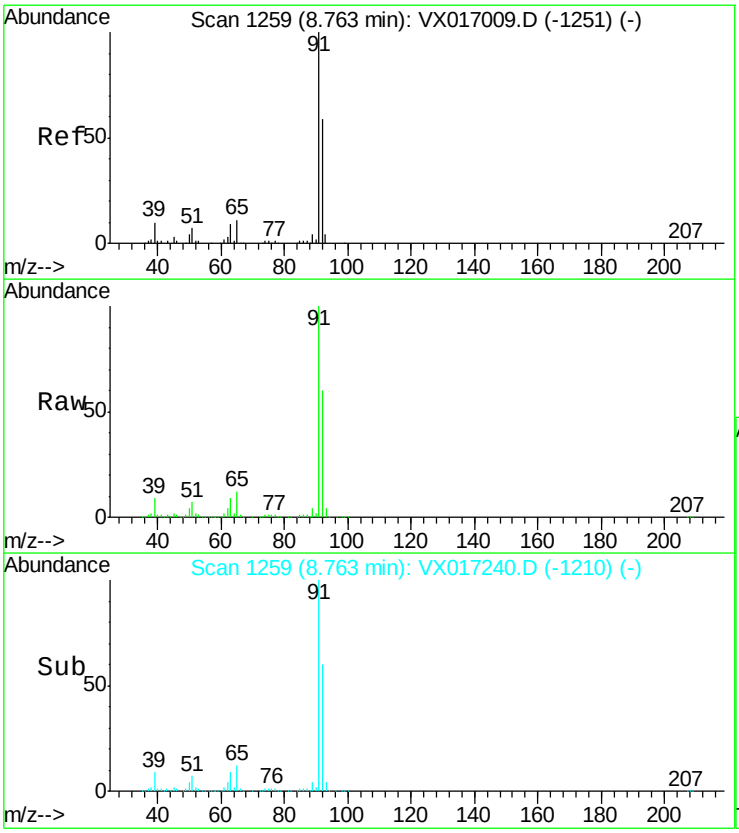


#51
4-Methyl-2-Pentanone
Concen: 265.927 ug/l
RT: 8.62 min Scan# 1236
Delta R.T. -0.00 min
Lab File: VX017240.D
Acq: 08 Jul 2020 06:17

Tgt Ion: 43 Resp: 1029153

Ion	Ratio	Lower	Upper
43	100		
58	39.8	31.9	47.9

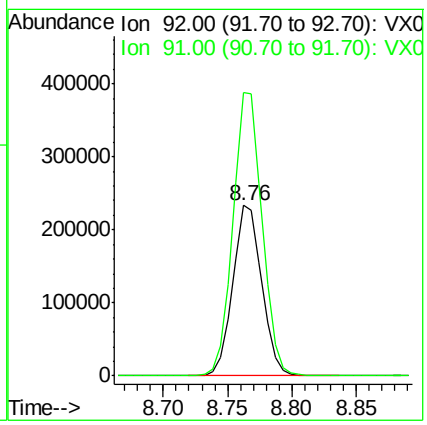




#52
Toluene
Concen: 51.658 ug/l
RT: 8.76 min Scan# 1259
Delta R.T. -0.00 min
Lab File: VX017240.D
Acq: 08 Jul 2020 06:17

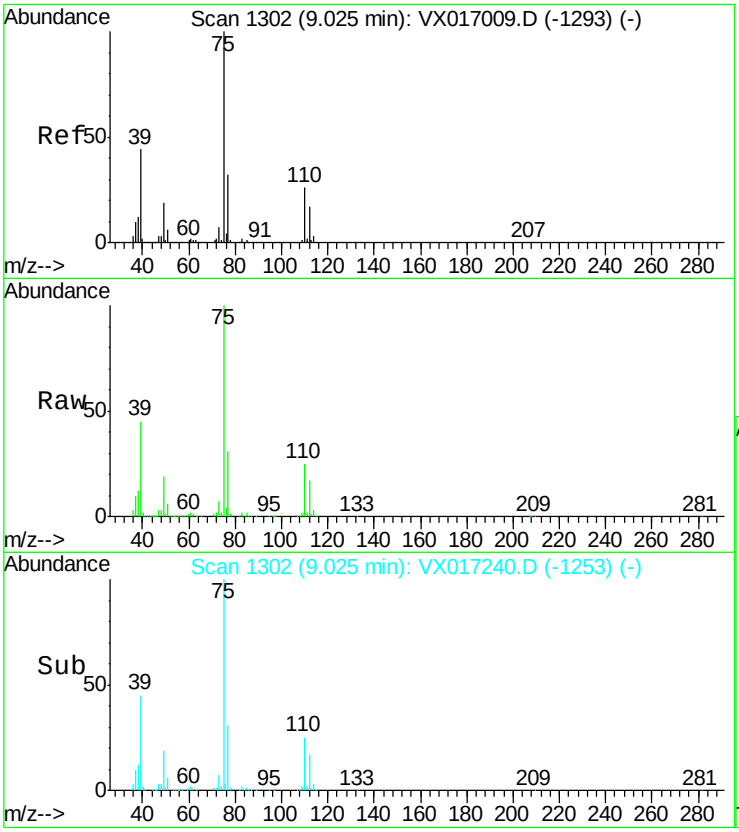
Tgt Ion: 92 Resp: 364905

Ion	Ratio	Lower	Upper
92	100		
91	167.5	136.9	205.3



Instrument :
MSVOA_X
ClientSampleId :
1004-MW-02MS

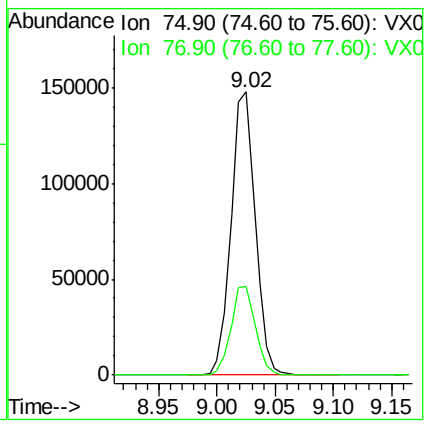
Manual Integrations APPROVED
MMDadoda
7/8/2020 9:32:02 AM

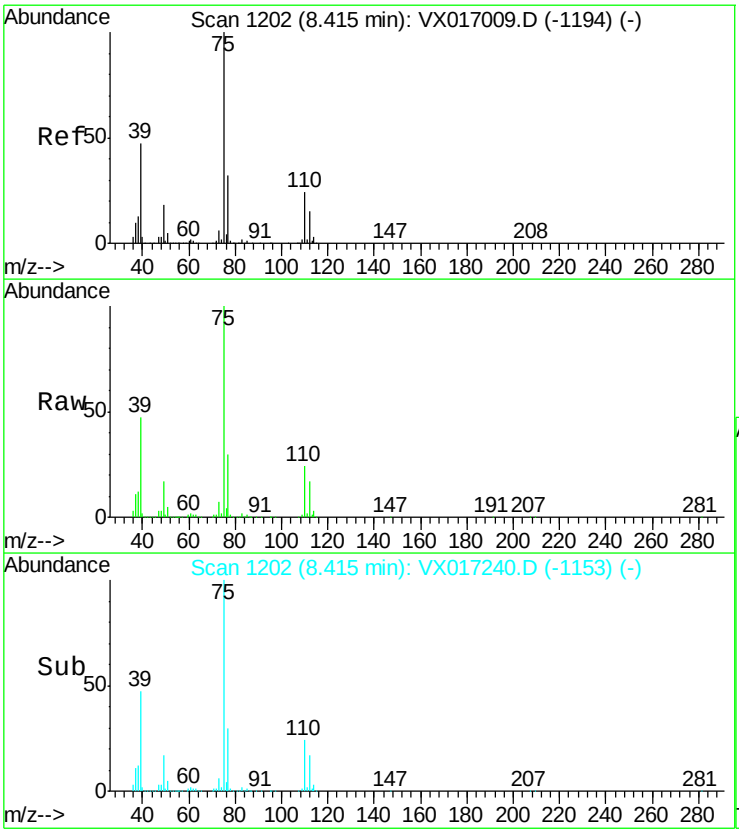


#53
t-1,3-Dichloropropene
Concen: 47.701 ug/l
RT: 9.02 min Scan# 1302
Delta R.T. -0.00 min
Lab File: VX017240.D
Acq: 08 Jul 2020 06:17

Tgt Ion: 75 Resp: 215182

Ion	Ratio	Lower	Upper
75	100		
77	31.5	25.6	38.4

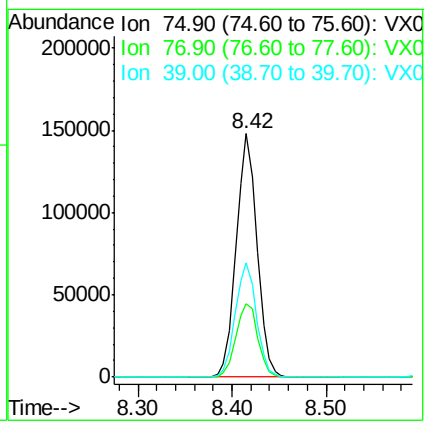




#54
cis-1,3-Dichloropropene
Concen: 46.859 ug/l
RT: 8.42 min Scan# 1202
Delta R.T. -0.00 min
Lab File: VX017240.D
Acq: 08 Jul 2020 06:17

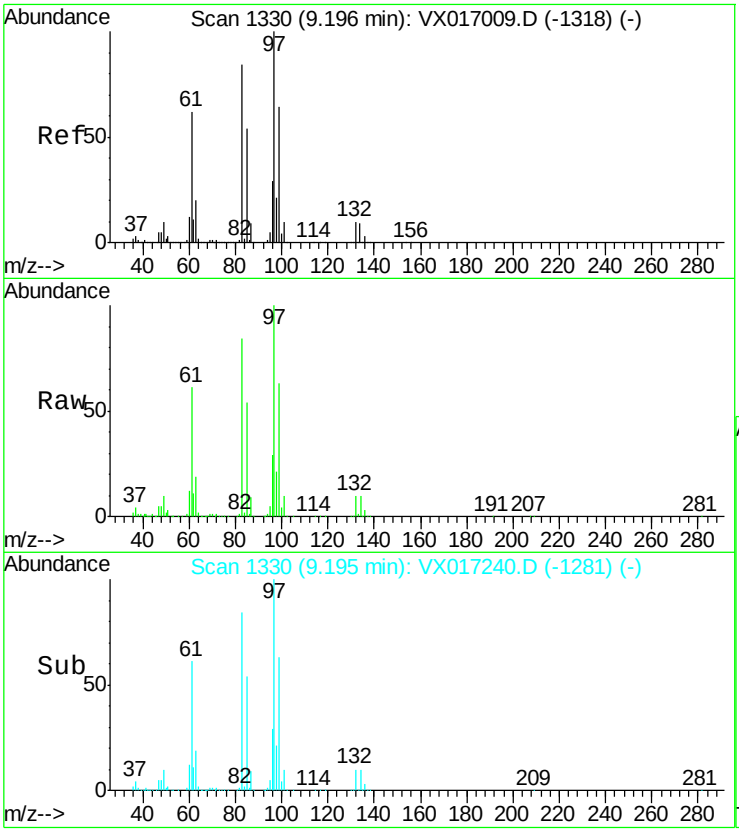
Tgt Ion: 75 Resp: 226601

Ion	Ratio	Lower	Upper
75	100		
77	30.3	25.2	37.8
39	46.9	37.4	56.2



Instrument :
MSVOA_X
ClientSampleId :
1004-MW-02MS

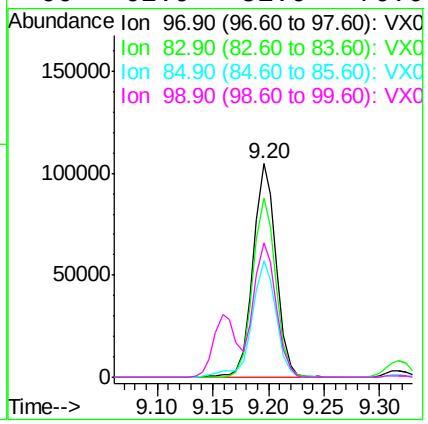
Manual Integrations APPROVED
MMDadoda
7/8/2020 9:32:02 AM

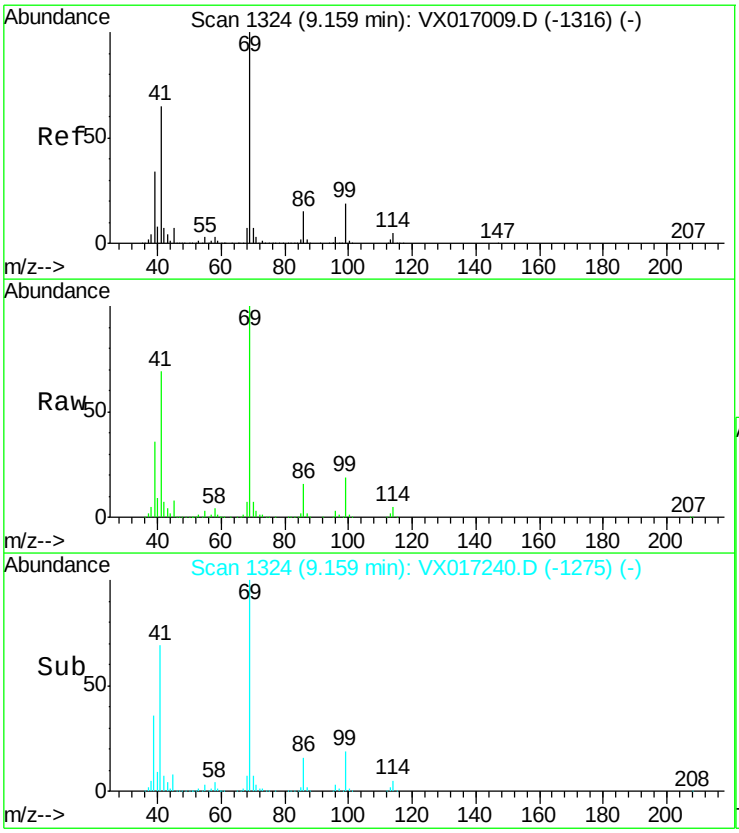


#55
1,1,2-Trichloroethane
Concen: 52.426 ug/l
RT: 9.20 min Scan# 1330
Delta R.T. -0.00 min
Lab File: VX017240.D
Acq: 08 Jul 2020 06:17

Tgt Ion: 97 Resp: 151306

Ion	Ratio	Lower	Upper
97	100		
83	83.7	67.0	100.6
85	54.4	43.5	65.3
99	62.9	51.0	76.6

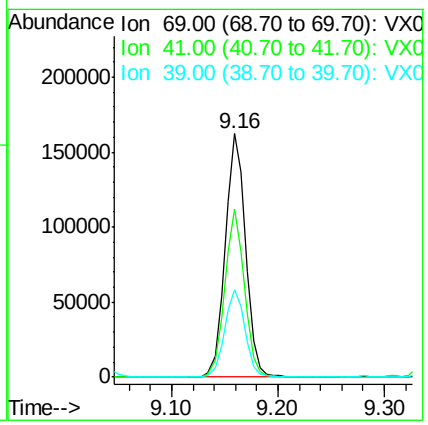




#56
Ethyl methacrylate
Concen: 52.800 ug/l
RT: 9.16 min Scan# 1324
Delta R.T. -0.00 min
Lab File: VX017240.D
Acq: 08 Jul 2020 06:17

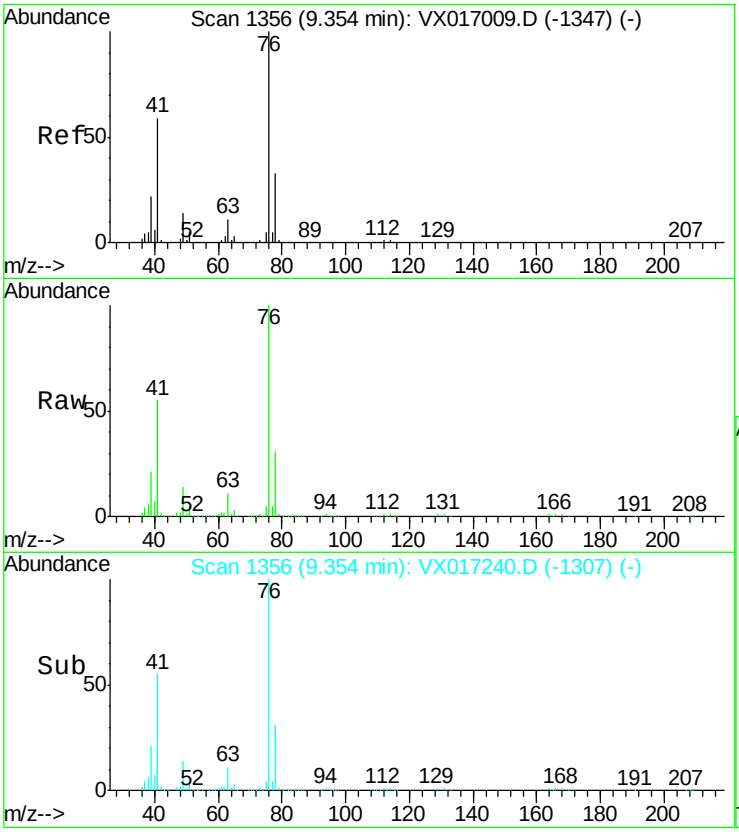
Tgt Ion: 69 Resp: 216895

Ion	Ratio	Lower	Upper
69	100		
41	66.6	53.6	80.4
39	35.9	28.2	42.2



Instrument :
MSVOA_X
ClientSampleId :
1004-MW-02MS

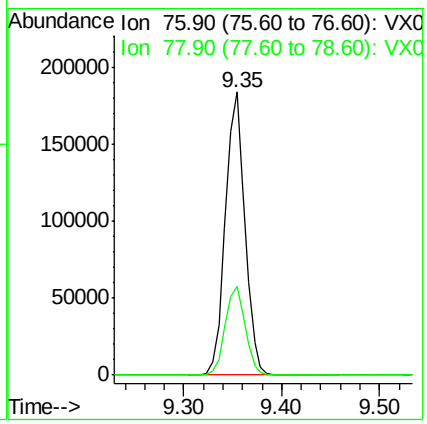
Manual Integrations APPROVED
MMDadoda
7/8/2020 9:32:02 AM

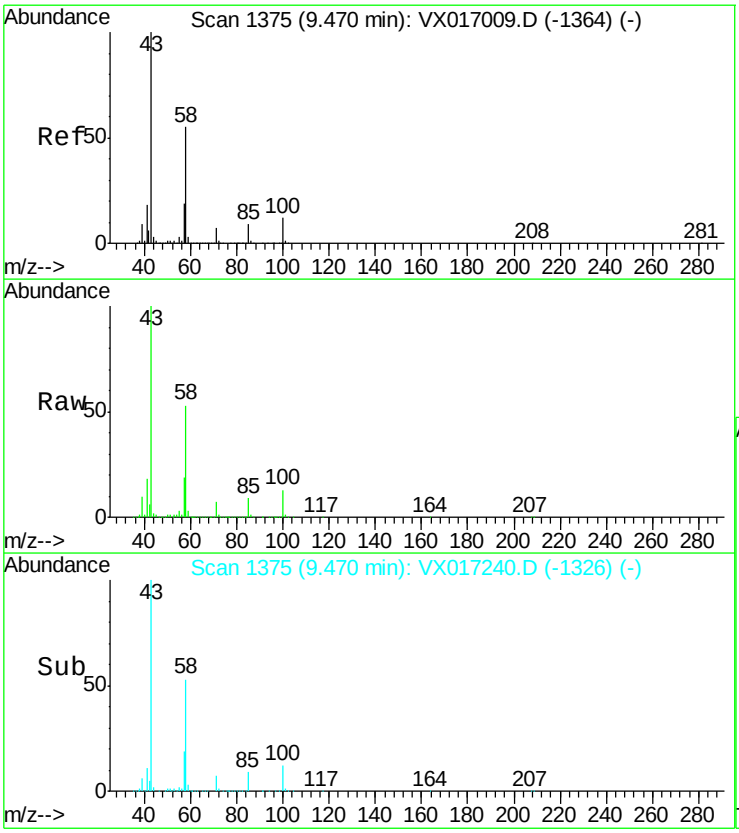


#57
1,3-Dichloropropane
Concen: 52.274 ug/l
RT: 9.35 min Scan# 1356
Delta R.T. -0.00 min
Lab File: VX017240.D
Acq: 08 Jul 2020 06:17

Tgt Ion: 76 Resp: 255286

Ion	Ratio	Lower	Upper
76	100		
78	32.2	25.9	38.9

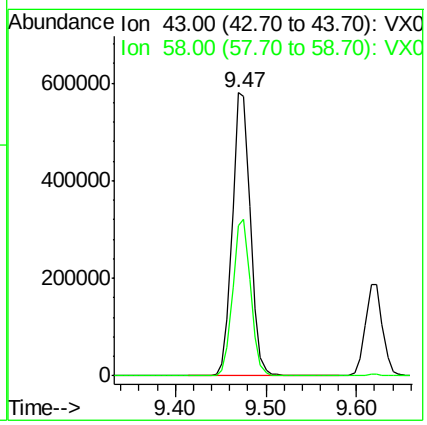




#59
2-Hexanone
Concen: 282.910 ug/l
RT: 9.47 min Scan# 1375
Delta R.T. -0.00 min
Lab File: VX017240.D
Acq: 08 Jul 2020 06:17

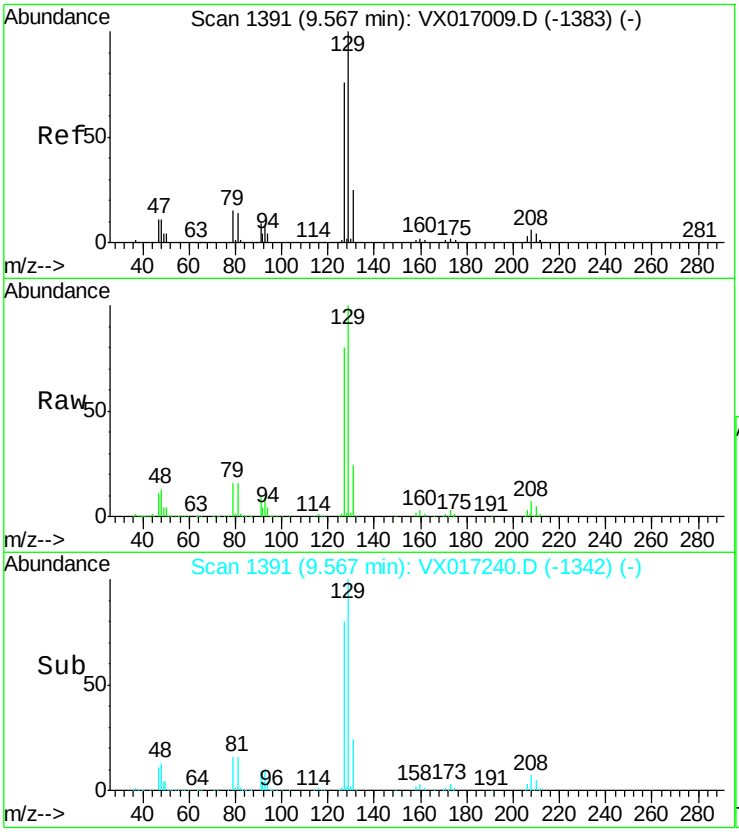
Tgt Ion: 43 Resp: 799625

Ion	Ratio	Lower	Upper
43	100		
58	54.6	27.9	83.6



Instrument :
MSVOA_X
ClientSampleId :
1004-MW-02MS

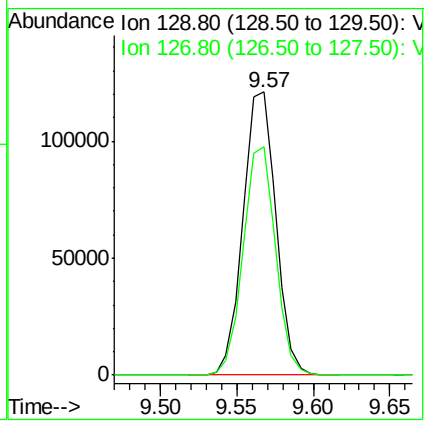
Manual Integrations APPROVED
MMDadoda
7/8/2020 9:32:02 AM

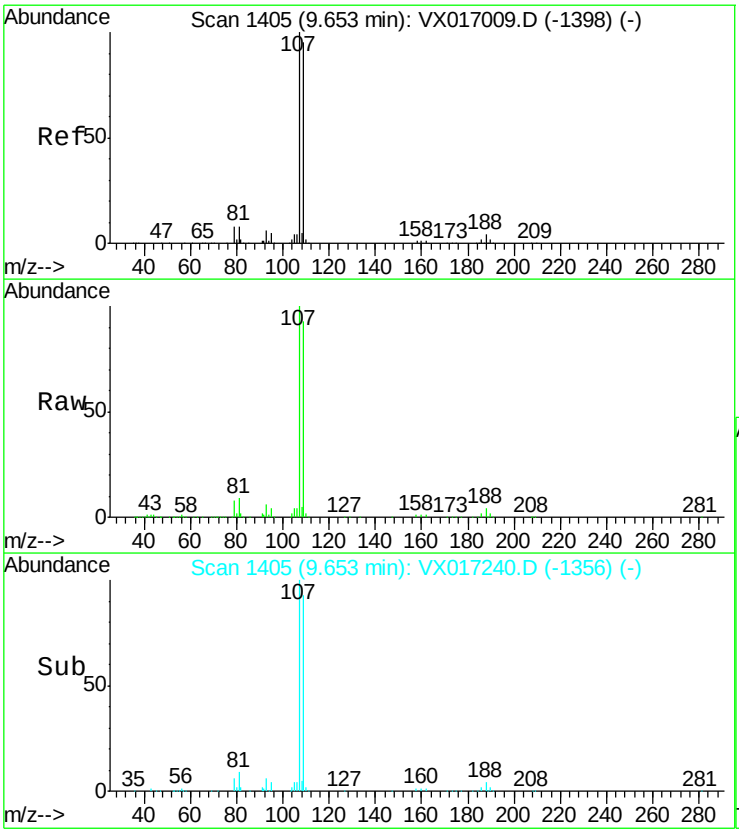


#60
Dibromochloromethane
Concen: 53.988 ug/l
RT: 9.57 min Scan# 1391
Delta R.T. -0.00 min
Lab File: VX017240.D
Acq: 08 Jul 2020 06:17

Tgt Ion:129 Resp: 180974

Ion	Ratio	Lower	Upper
129	100		
127	79.1	38.9	116.7

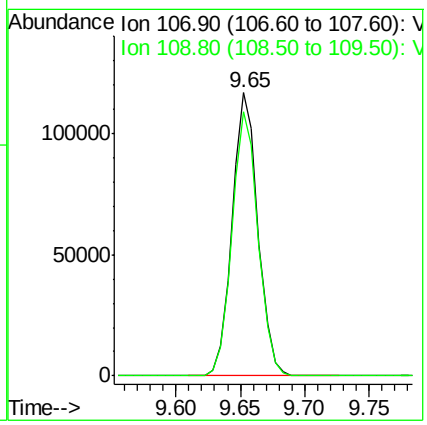




#61
1,2-Dibromoethane
Concen: 52.403 ug/l
RT: 9.65 min Scan# 1405
Delta R.T. -0.00 min
Lab File: VX017240.D
Acq: 08 Jul 2020 06:17

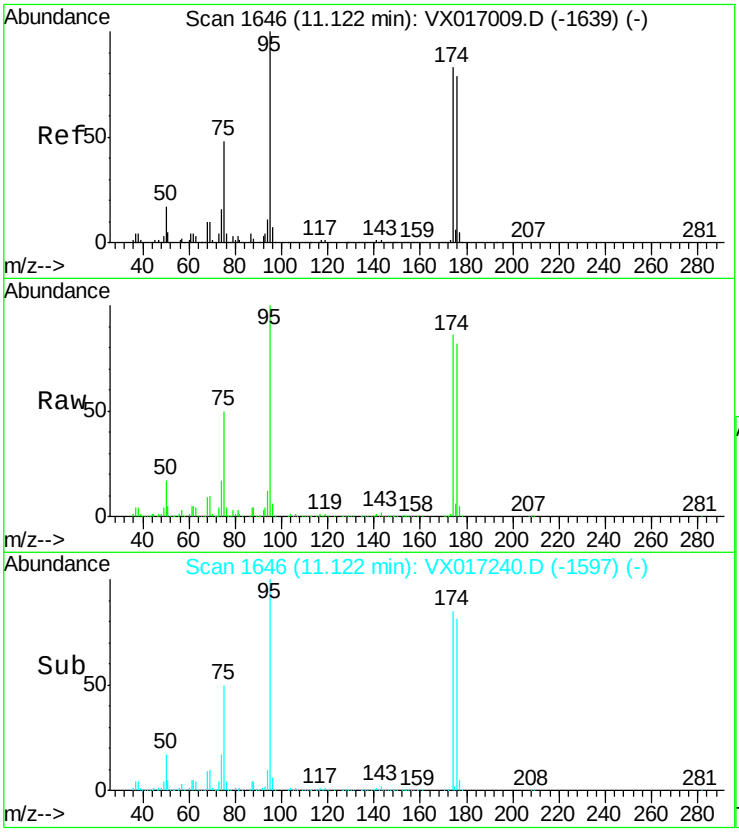
Tgt Ion:107 Resp: 162569

Ion	Ratio	Lower	Upper
107	100		
109	94.5	75.8	113.8



Instrument :
MSVOA_X
ClientSampleId :
1004-MW-02MS

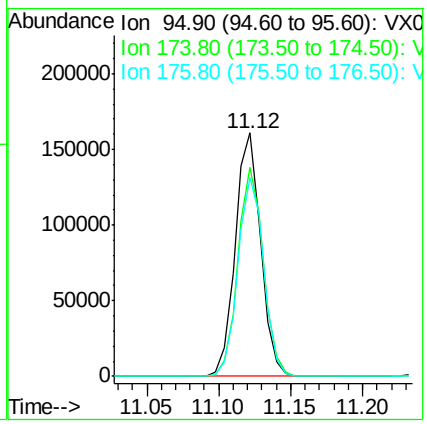
Manual Integrations APPROVED
MMDadoda
7/8/2020 9:32:02 AM

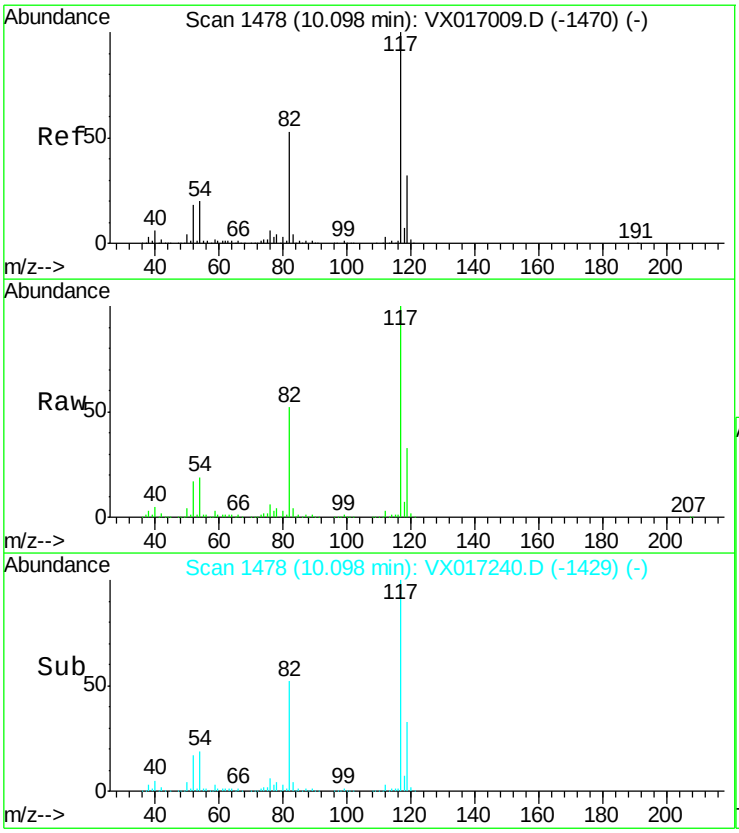


#62
4-Bromofluorobenzene
Concen: 53.225 ug/l
RT: 11.12 min Scan# 1646
Delta R.T. -0.00 min
Lab File: VX017240.D
Acq: 08 Jul 2020 06:17

Tgt Ion: 95 Resp: 198290

Ion	Ratio	Lower	Upper
95	100		
174	85.5	0.0	164.0
176	82.3	0.0	157.6

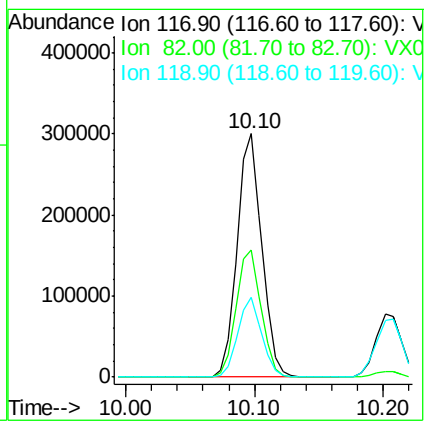




#63
Chlorobenzene-d5
Concen: 50.000 ug/l
RT: 10.10 min Scan# 1478
Delta R.T. -0.00 min
Lab File: VX017240.D
Acq: 08 Jul 2020 06:17

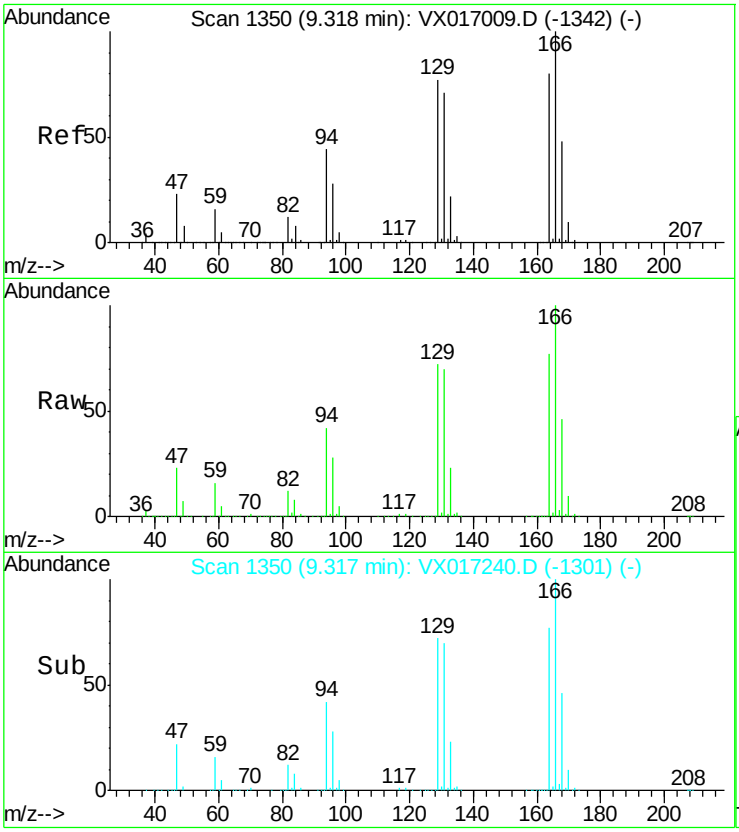
Tgt Ion:117 Resp: 397720

Ion	Ratio	Lower	Upper
117	100		
82	52.4	42.6	63.8
119	32.9	25.4	38.2



Instrument :
MSVOA_X
ClientSampleId :
1004-MW-02MS

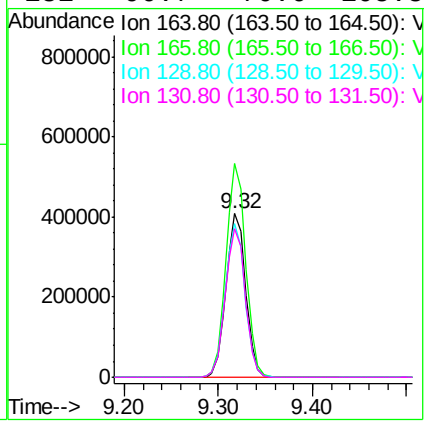
Manual Integrations APPROVED
MMDadoda
7/8/2020 9:32:02 AM

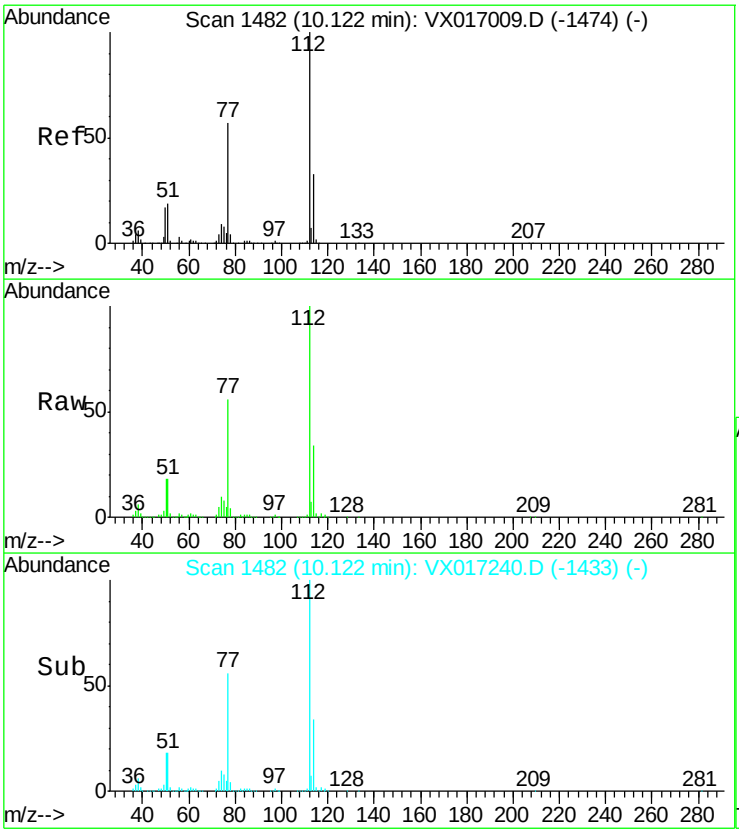


#64
Tetrachloroethene
Concen: 183.564 ug/l
RT: 9.32 min Scan# 1350
Delta R.T. -0.00 min
Lab File: VX017240.D
Acq: 08 Jul 2020 06:17

Tgt Ion:164 Resp: 589213

Ion	Ratio	Lower	Upper
164	100		
166	130.5	99.4	149.0
129	94.1	76.3	114.5
131	90.7	70.6	105.8

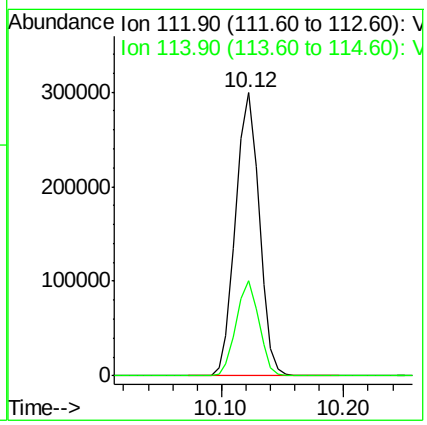




#65
Chlorobenzene
Concen: 48.917 ug/l
RT: 10.12 min Scan# 1482
Delta R.T. -0.00 min
Lab File: VX017240.D
Acq: 08 Jul 2020 06:17

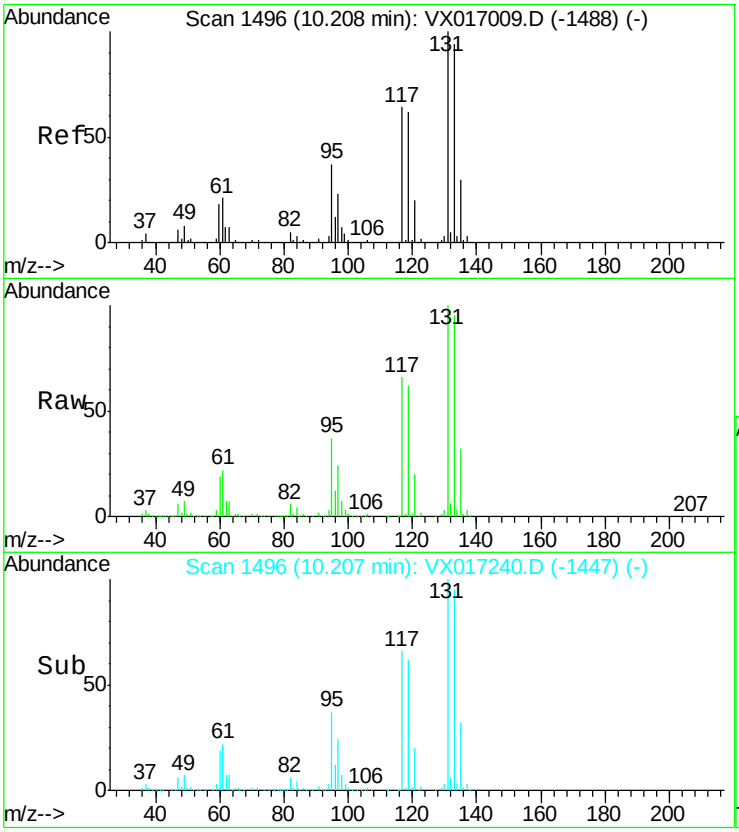
Tgt Ion:112 Resp: 401545

Ion	Ratio	Lower	Upper
112	100		
114	33.6	26.2	39.4



Instrument :
MSVOA_X
ClientSampleId :
1004-MW-02MS

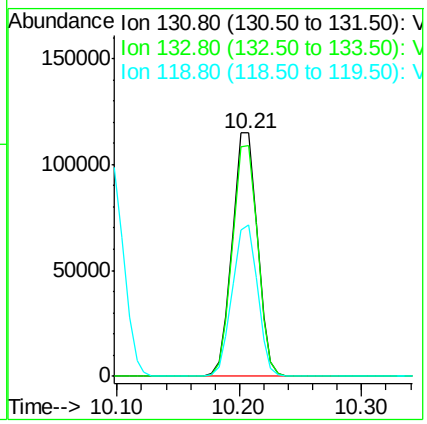
Manual Integrations APPROVED
MMDadoda
7/8/2020 9:32:02 AM

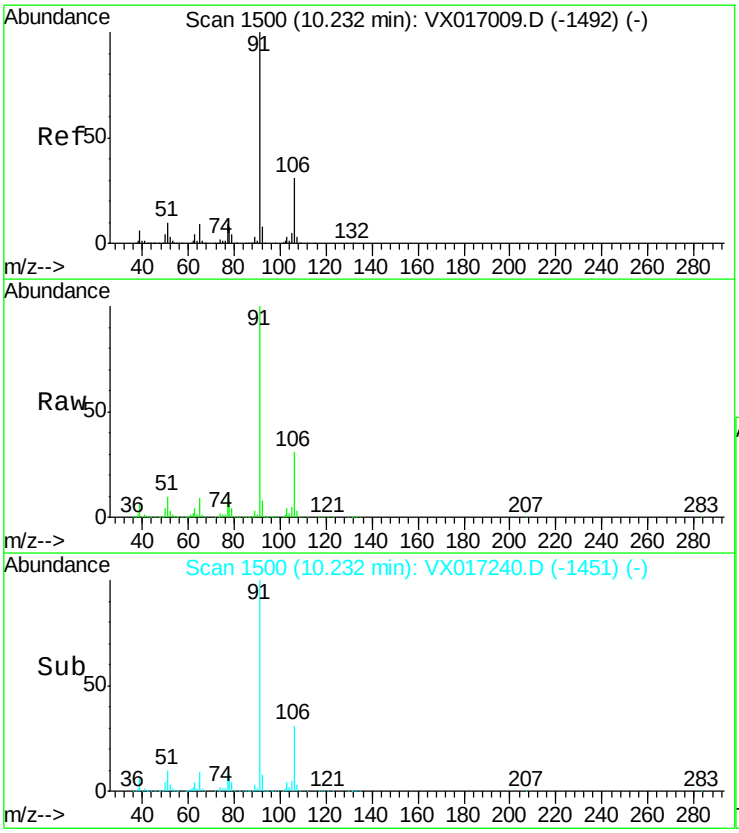


#66
1,1,1,2-Tetrachloroethane
Concen: 51.432 ug/l
RT: 10.21 min Scan# 1496
Delta R.T. -0.00 min
Lab File: VX017240.D
Acq: 08 Jul 2020 06:17

Tgt Ion:131 Resp: 162705

Ion	Ratio	Lower	Upper
131	100		
133	95.8	47.3	141.9
119	62.6	31.9	95.5

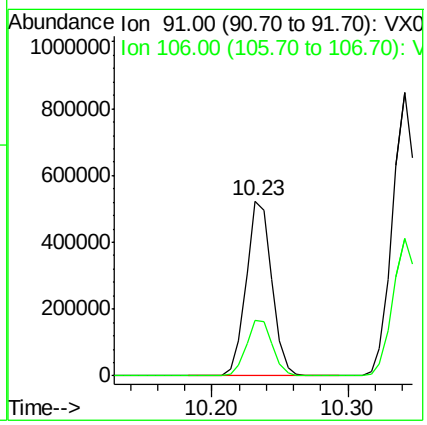




#67
Ethyl Benzene
Concen: 50.405 ug/l
RT: 10.23 min Scan# 1500
Delta R.T. -0.00 min
Lab File: VX017240.D
Acq: 08 Jul 2020 06:17

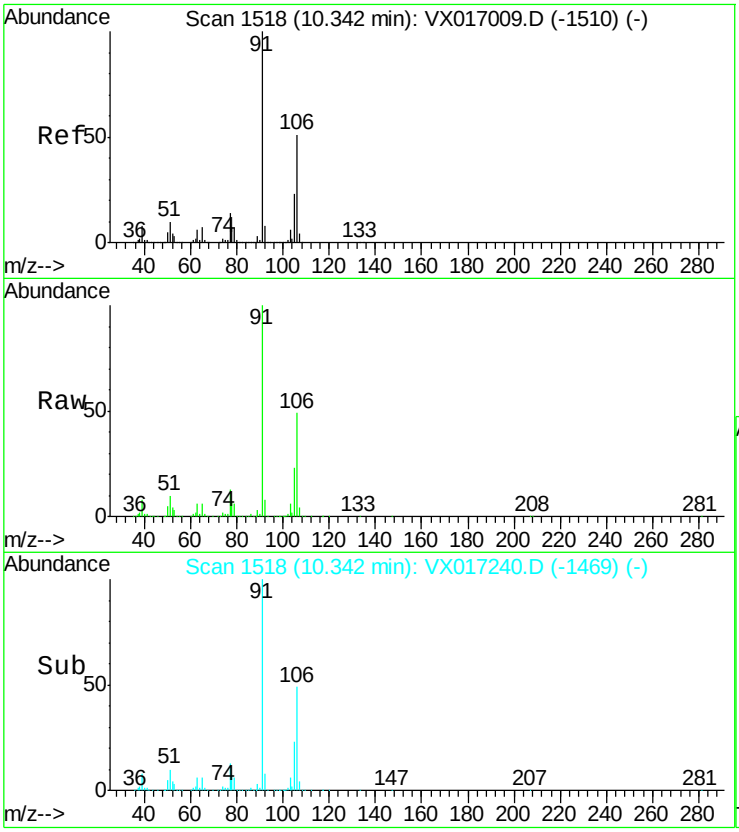
Tgt Ion: 91 Resp: 690985

Ion	Ratio	Lower	Upper
91	100		
106	31.4	24.7	37.1



Instrument :
MSVOA_X
ClientSampleId :
1004-MW-02MS

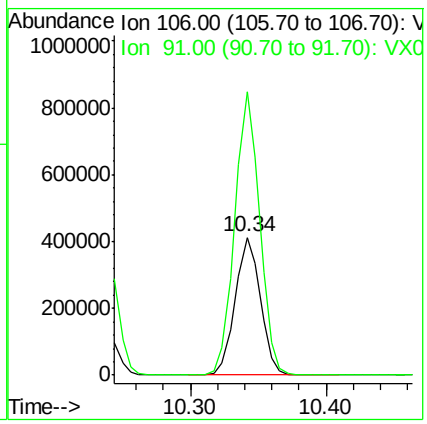
Manual Integrations APPROVED
MMDadoda
7/8/2020 9:32:02 AM

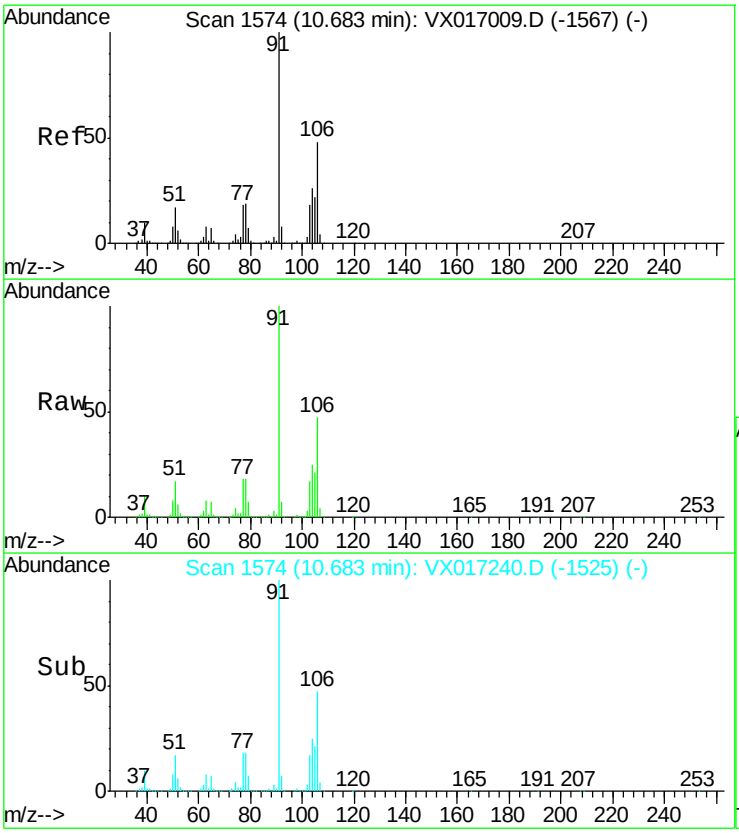


#68
m/p-Xylenes
Concen: 100.808 ug/l
RT: 10.34 min Scan# 1518
Delta R.T. -0.00 min
Lab File: VX017240.D
Acq: 08 Jul 2020 06:17

Tgt Ion:106 Resp: 530617

Ion	Ratio	Lower	Upper
106	100		
91	203.5	158.6	238.0

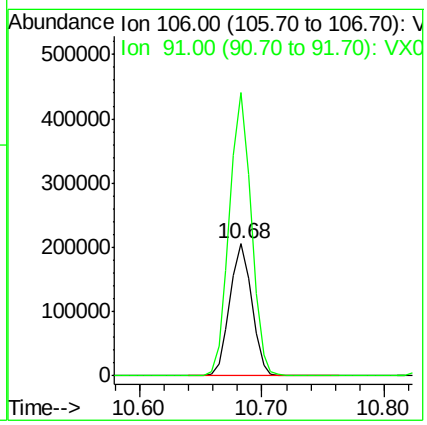




#69
o-Xylene
Concen: 51.002 ug/l
RT: 10.68 min Scan# 1574
Delta R.T. -0.00 min
Lab File: VX017240.D
Acq: 08 Jul 2020 06:17

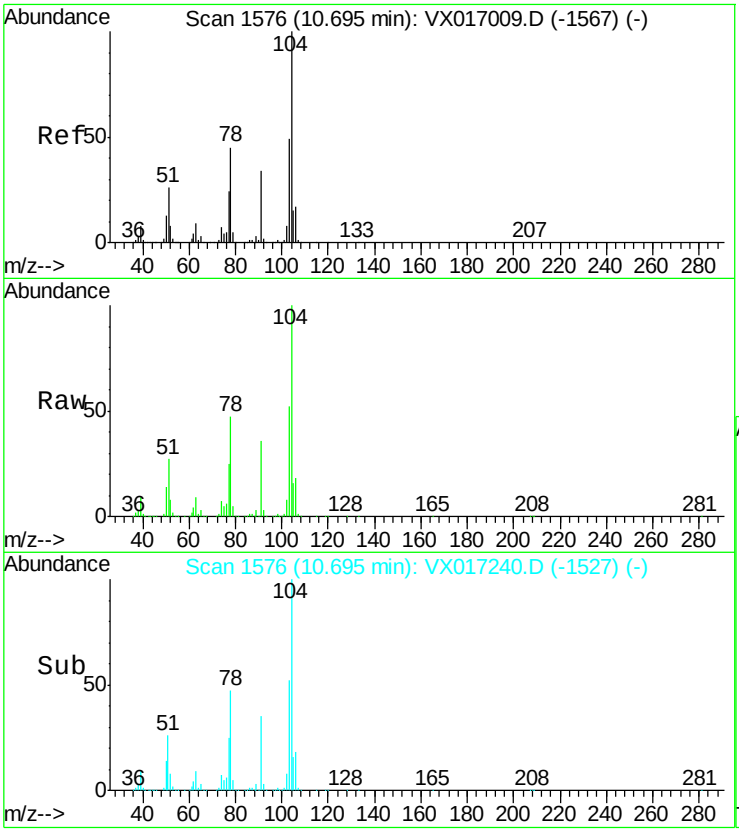
Tgt Ion:106 Resp: 255382

Ion	Ratio	Lower	Upper
106	100		
91	213.1	105.6	316.7



Instrument :
MSVOA_X
ClientSampleId :
1004-MW-02MS

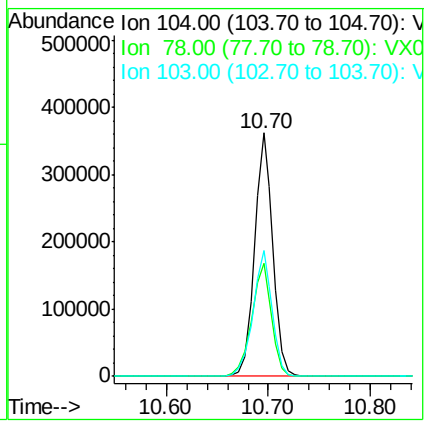
Manual Integrations APPROVED
MMDadoda
7/8/2020 9:32:02 AM

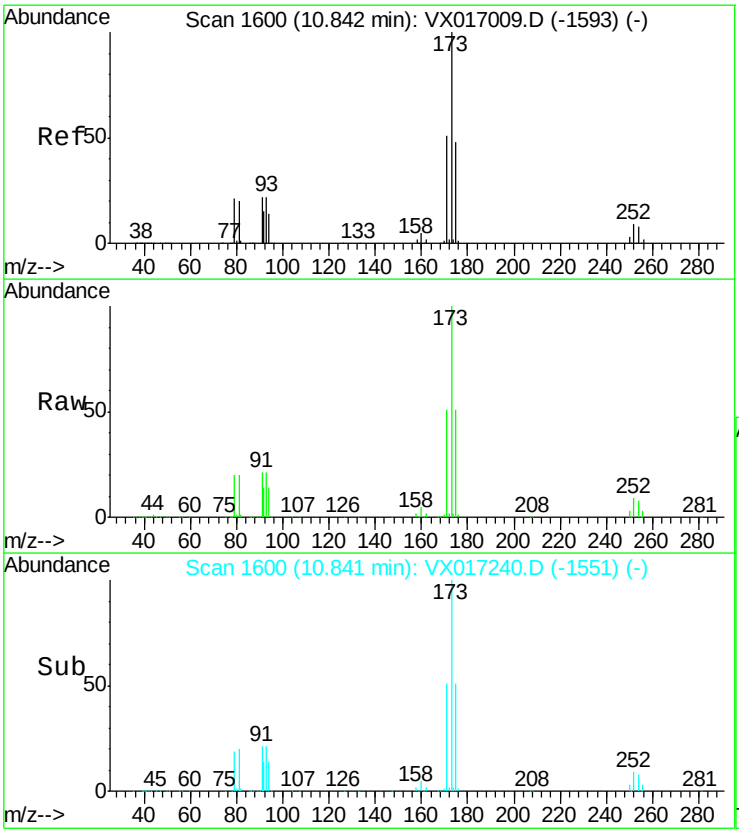


#70
Stvrene
Concen: 53.258 ug/l
RT: 10.70 min Scan# 1576
Delta R.T. -0.00 min
Lab File: VX017240.D
Acq: 08 Jul 2020 06:17

Tgt Ion:104 Resp: 454124

Ion	Ratio	Lower	Upper
104	100		
78	50.5	39.5	59.3
103	54.2	43.0	64.6

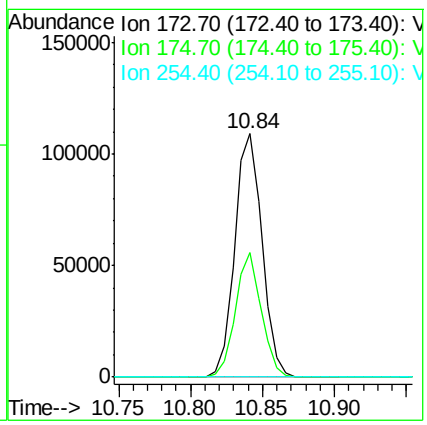




#71
Bromoform
Concen: 57.613 ug/l
RT: 10.84 min Scan# 1600
Delta R.T. -0.00 min
Lab File: VX017240.D
Acq: 08 Jul 2020 06:17

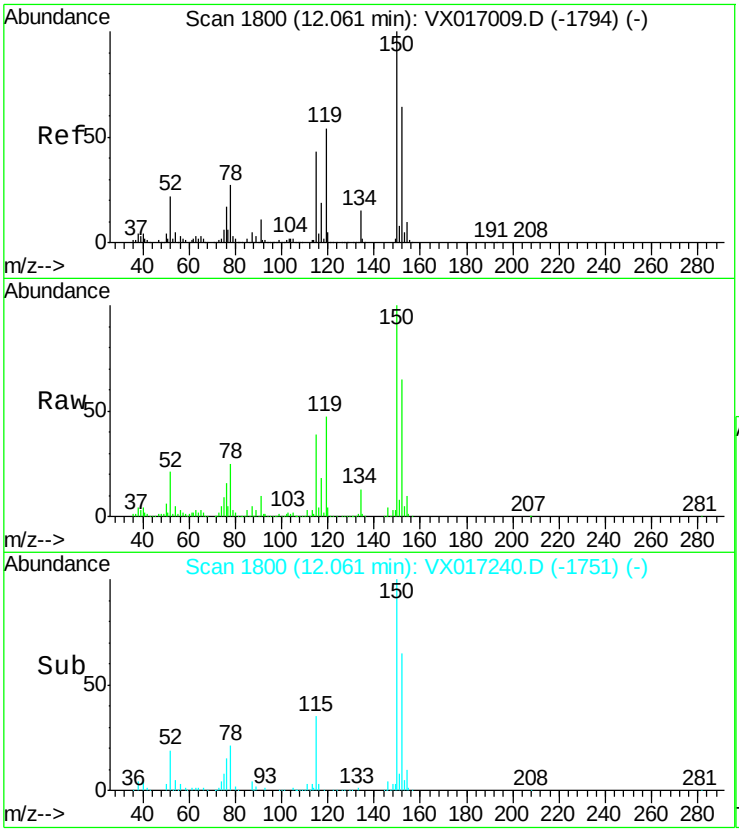
Tgt Ion:173 Resp: 144531

Ion	Ratio	Lower	Upper
173	100		
175	48.6	24.5	73.5
254	0.1	0.1	0.1#



Instrument :
MSVOA_X
ClientSampleId :
1004-MW-02MS

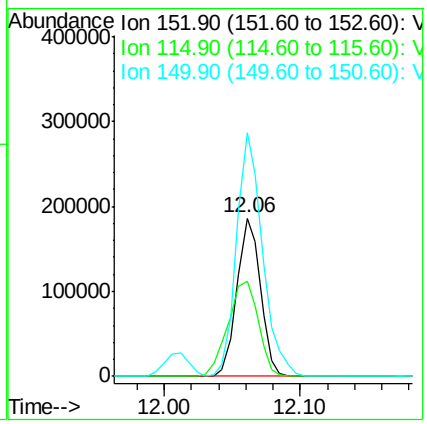
Manual Integrations APPROVED
MMDadoda
7/8/2020 9:32:02 AM

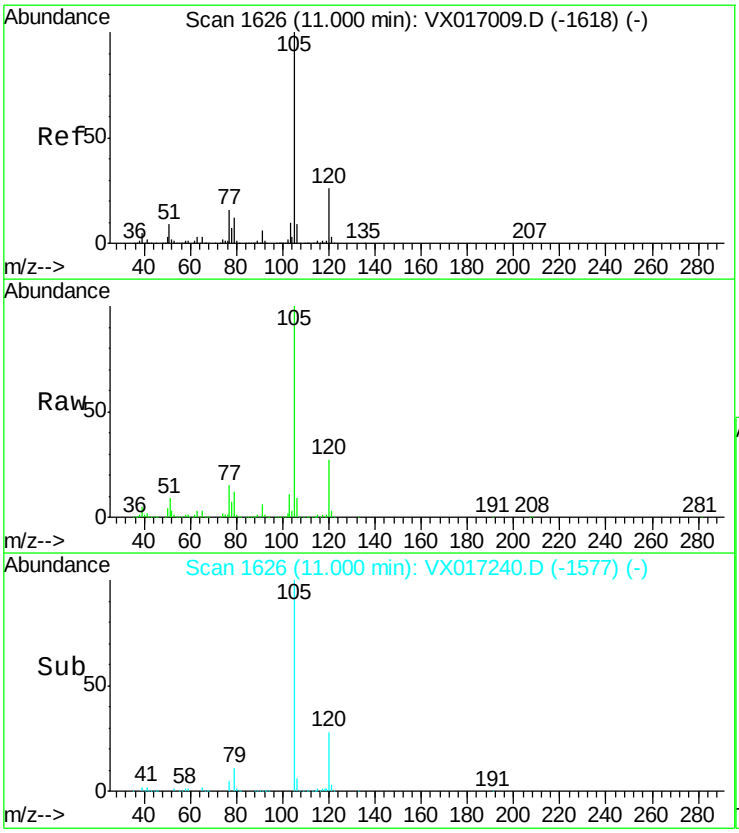


#72
1,4-Dichlorobenzene-d4
Concen: 50.000 ug/l
RT: 12.06 min Scan# 1800
Delta R.T. -0.00 min
Lab File: VX017240.D
Acq: 08 Jul 2020 06:17

Tgt Ion:152 Resp: 223912

Ion	Ratio	Lower	Upper
152	100		
115	77.8	40.9	122.7
150	170.2	0.0	351.6

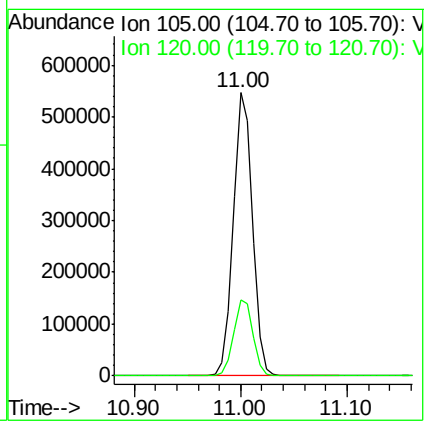




#73
Isopropylbenzene
Concen: 47.154 ug/l
RT: 11.00 min Scan# 1626
Delta R.T. -0.00 min
Lab File: VX017240.D
Acq: 08 Jul 2020 06:17

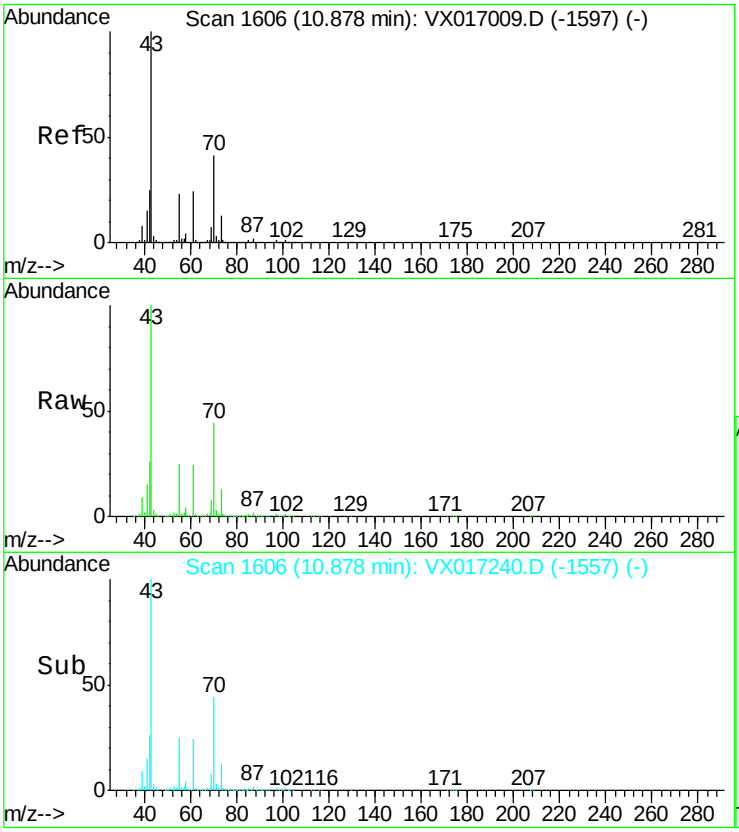
Tgt Ion:105 Resp: 691579

Ion	Ratio	Lower	Upper
105	100		
120	27.2	13.4	40.2



Instrument :
MSVOA_X
ClientSampleId :
1004-MW-02MS

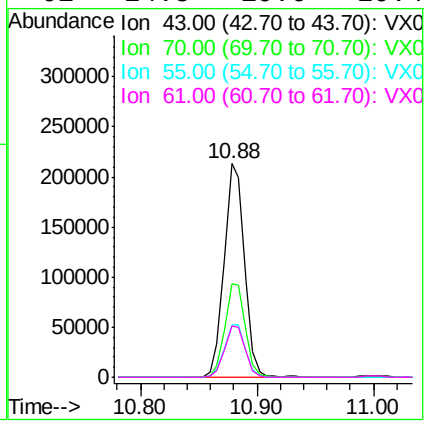
Manual Integrations APPROVED
MMDadoda
7/8/2020 9:32:02 AM

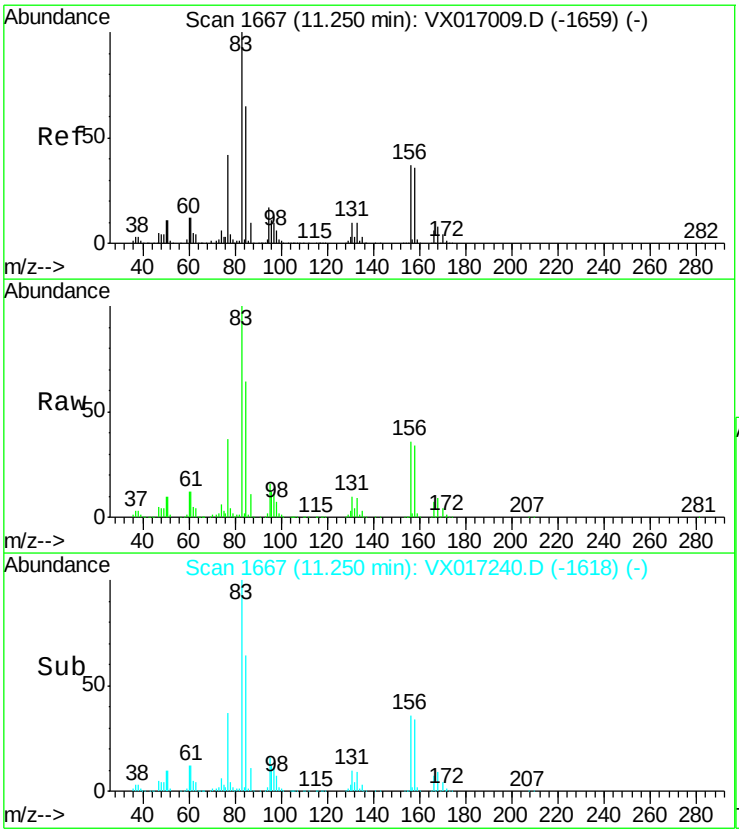


#74
N-amyl acetate
Concen: 40.729 ug/l
RT: 10.88 min Scan# 1606
Delta R.T. -0.00 min
Lab File: VX017240.D
Acq: 08 Jul 2020 06:17

Tgt Ion: 43 Resp: 254887

Ion	Ratio	Lower	Upper
43	100		
70	44.3	34.2	51.2
55	25.9	19.2	28.8
61	24.5	19.6	29.4

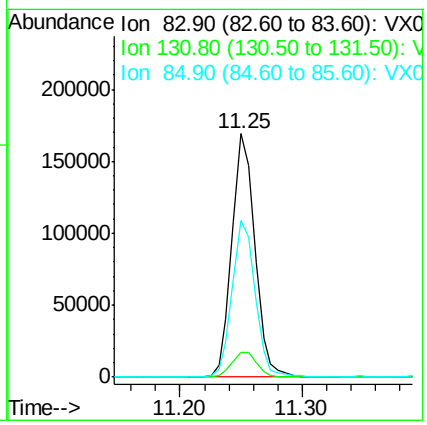




#75
1,1,2,2-Tetrachloroethane
Concen: 47.706 ug/l
RT: 11.25 min Scan# 1667
Delta R.T. -0.00 min
Lab File: VX017240.D
Acq: 08 Jul 2020 06:17

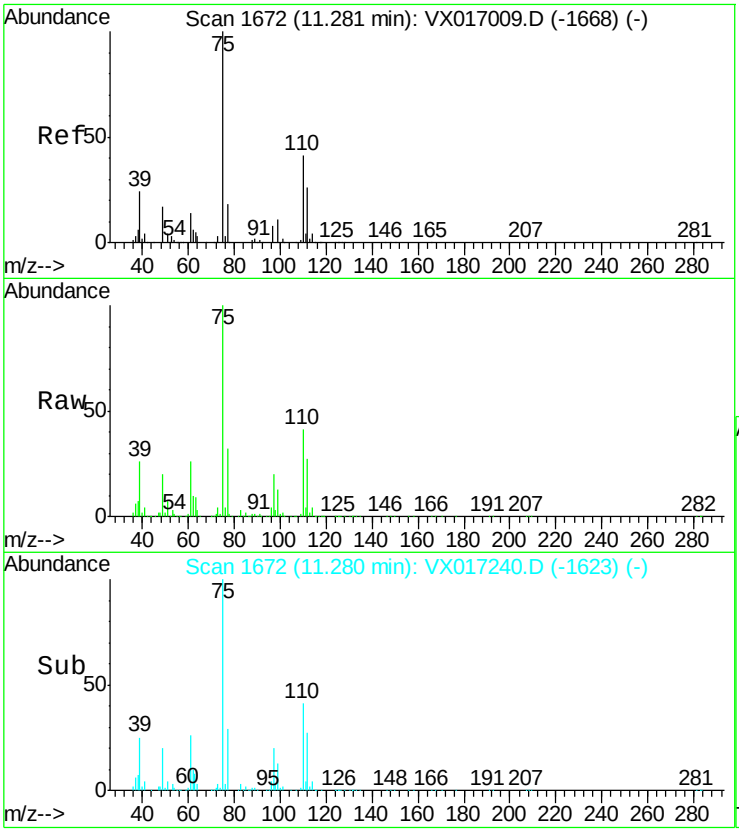
Tgt Ion: 83 Resp: 220087

Ion	Ratio	Lower	Upper
83	100		
131	11.2	5.4	16.2
85	64.5	31.9	95.9



Instrument :
MSVOA_X
ClientSampleId :
1004-MW-02MS

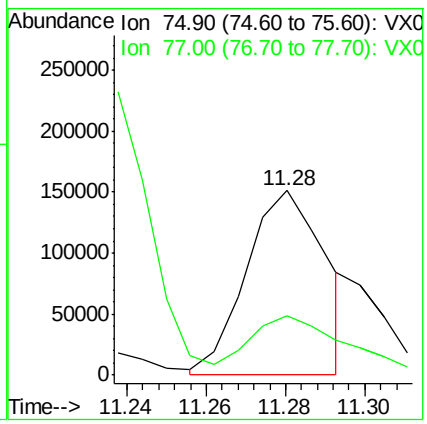
Manual Integrations APPROVED
MMDadoda
7/8/2020 9:32:02 AM

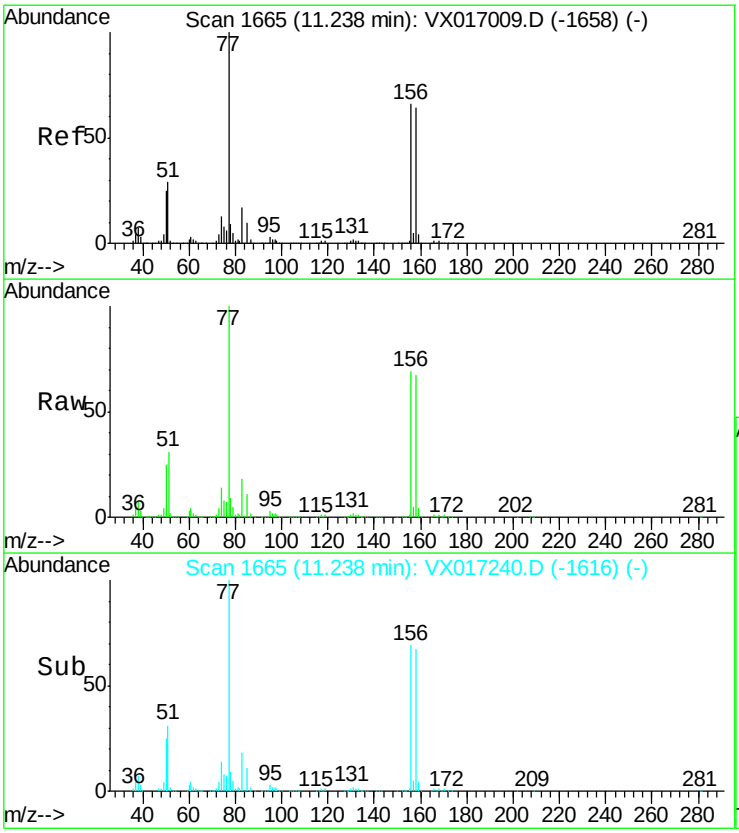


#76
1,2,3-Trichloropropane
Concen: 47.213 ug/l m
RT: 11.28 min Scan# 1672
Delta R.T. -0.00 min
Lab File: VX017240.D
Acq: 08 Jul 2020 06:17

Tgt Ion: 75 Resp: 207884

Ion	Ratio	Lower	Upper
75	100		
77	39.6	20.2	60.6

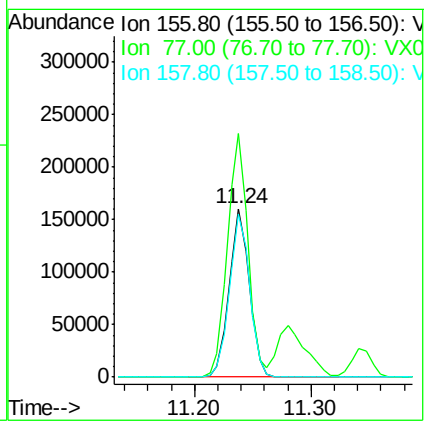




#77
Bromobenzene
Concen: 47.951 ug/l
RT: 11.24 min Scan# 1665
Delta R.T. -0.00 min
Lab File: VX017240.D
Acq: 08 Jul 2020 06:17

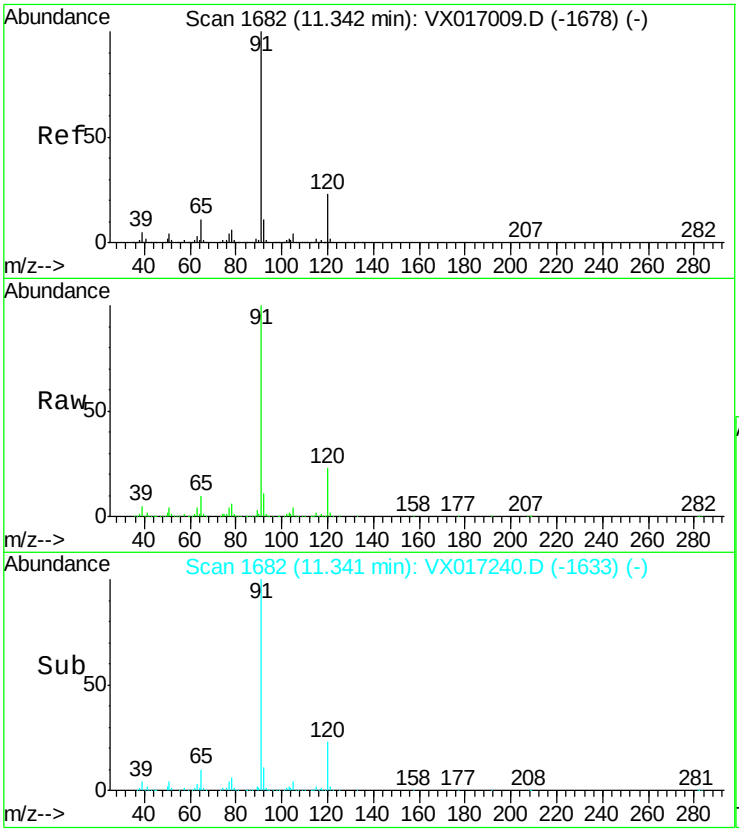
Tgt Ion:156 Resp: 193284

Ion	Ratio	Lower	Upper
156	100		
77	147.0	76.9	230.7
158	97.5	47.9	143.6



Instrument :
MSVOA_X
ClientSampleId :
1004-MW-02MS

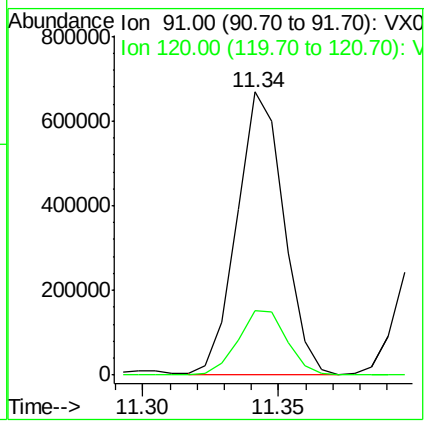
Manual Integrations APPROVED
MMDadoda
7/8/2020 9:32:02 AM

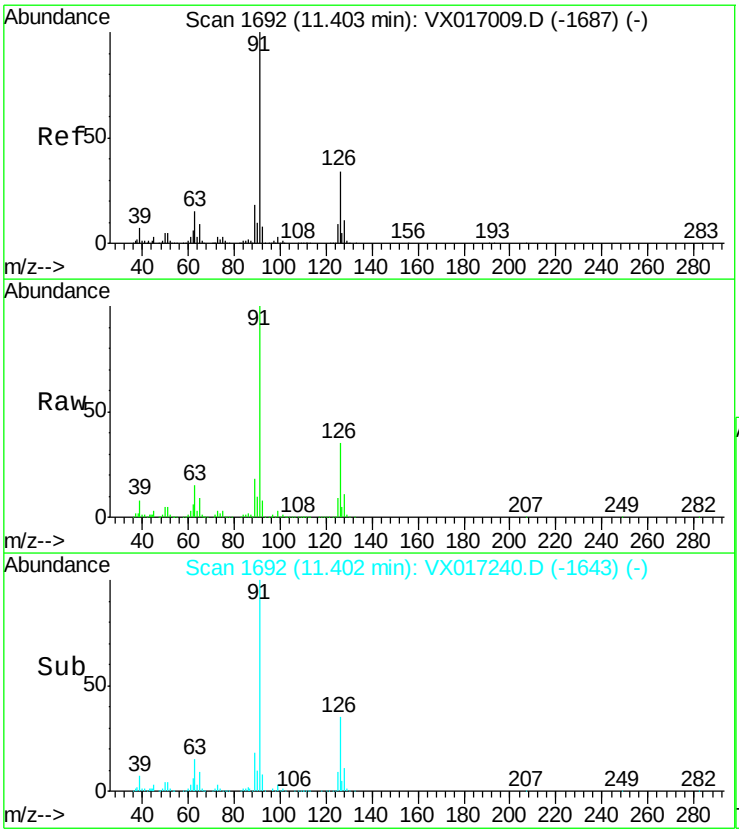


#78
n-propylbenzene
Concen: 47.891 ug/l
RT: 11.34 min Scan# 1682
Delta R.T. -0.00 min
Lab File: VX017240.D
Acq: 08 Jul 2020 06:17

Tgt Ion: 91 Resp: 794280

Ion	Ratio	Lower	Upper
91	100		
120	24.0	11.9	35.9

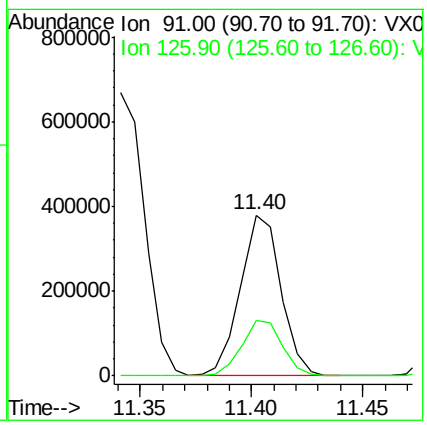


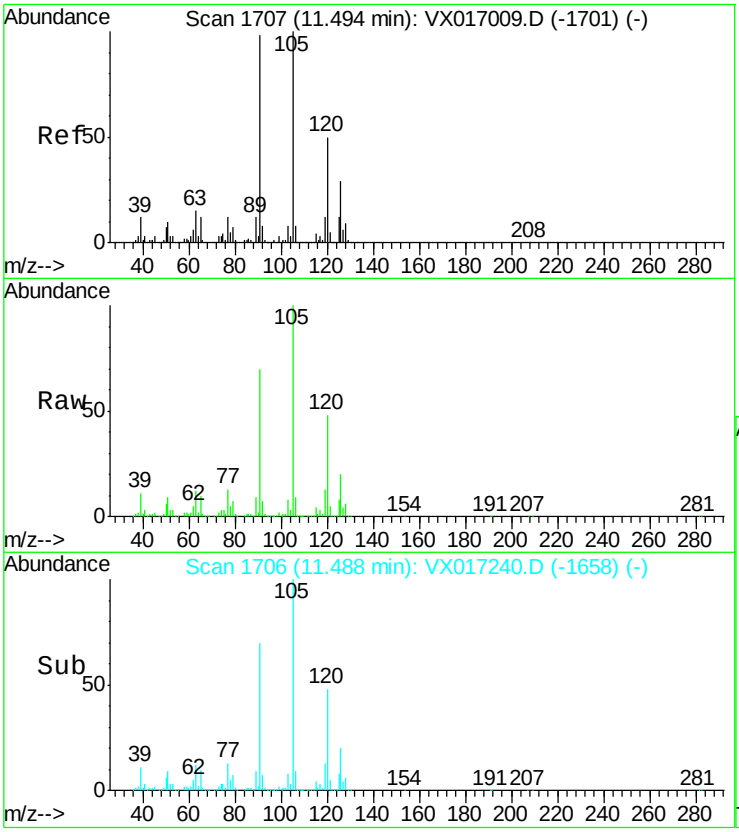


#79
2-Chlorotoluene
Concen: 48.123 ug/l
RT: 11.40 min Scan# 1692
Delta R.T. -0.00 min
Lab File: VX017240.D
Acq: 08 Jul 2020 06:17

Tgt Ion: 91 Resp: 483041

Ion	Ratio	Lower	Upper
91	100		
126	34.9	17.4	52.3

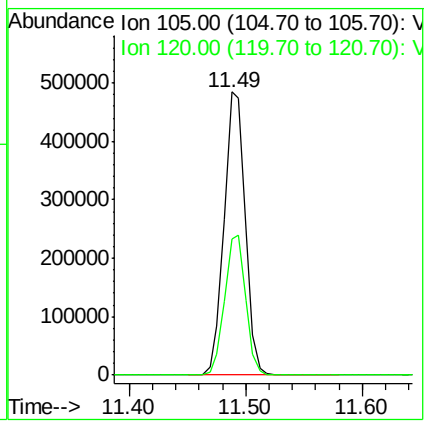




#80
1,3,5-Trimethylbenzene
Concen: 49.701 ug/l
RT: 11.49 min Scan# 1706
Delta R.T. -0.01 min
Lab File: VX017240.D
Acq: 08 Jul 2020 06:17

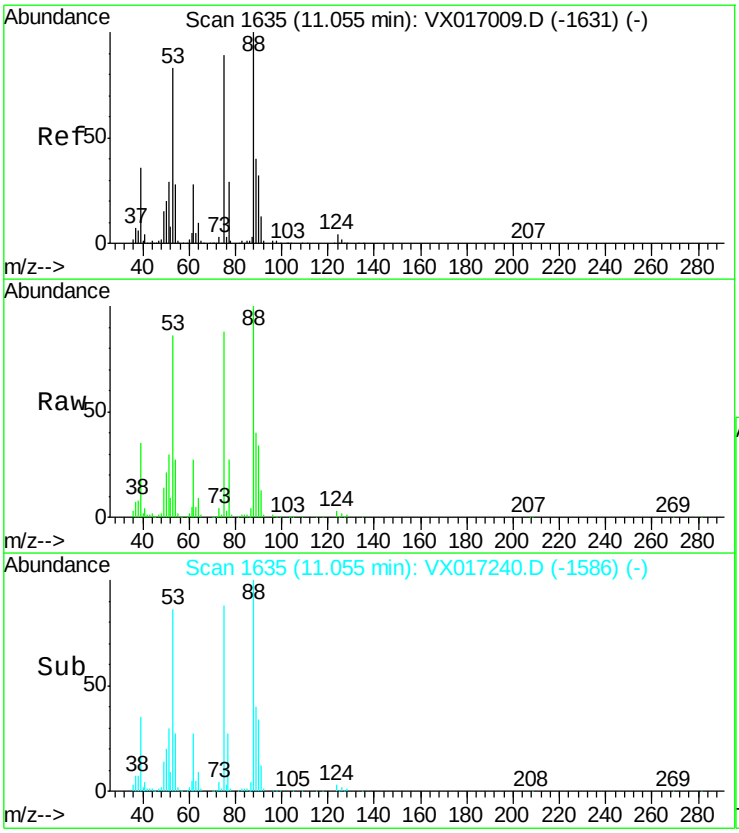
Tgt Ion:105 Resp: 604638

Ion	Ratio	Lower	Upper
105	100		
120	49.2	24.9	74.6



Instrument :
MSVOA_X
ClientSampleId :
1004-MW-02MS

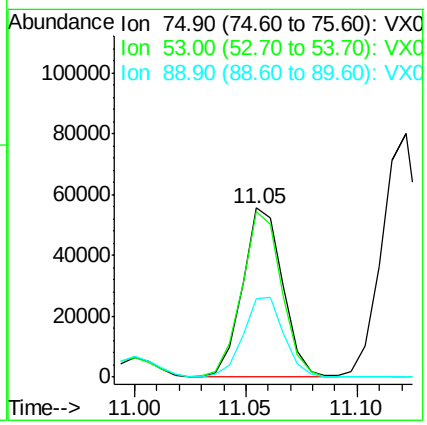
Manual Integrations APPROVED
MMDadoda
7/8/2020 9:32:02 AM



#81
trans-1,4-Dichloro-2-butene
Concen: 41.056 ug/l
RT: 11.05 min Scan# 1635
Delta R.T. -0.00 min
Lab File: VX017240.D
Acq: 08 Jul 2020 06:17

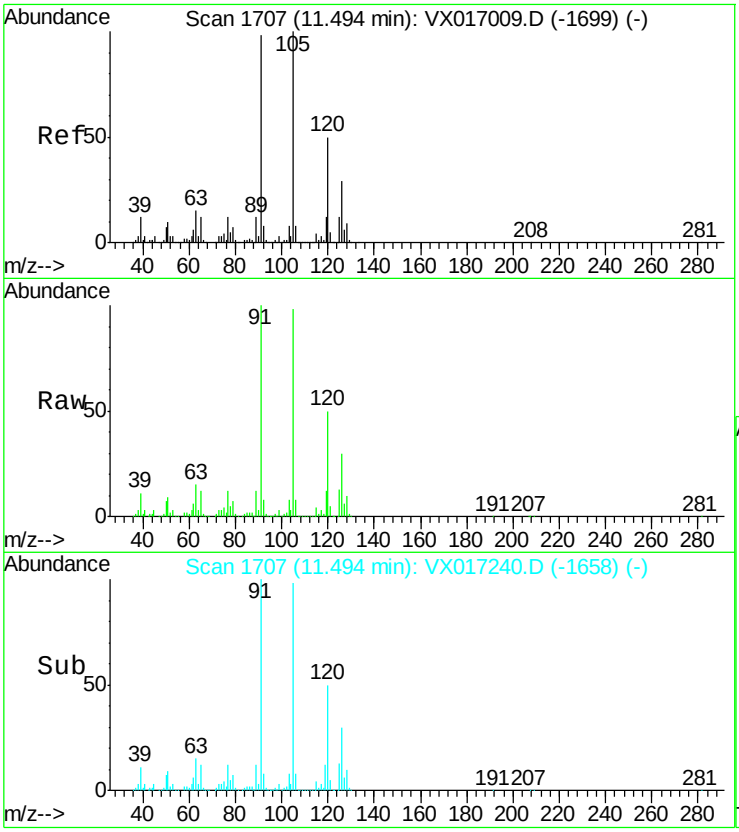
Tgt Ion: 75 Resp: 69807

Ion	Ratio	Lower	Upper
75	100		
53	97.8	72.4	108.6
89	47.5	37.0	55.4



Instrument :
MSVOA_X
ClientSampleId :
1004-MW-02MS

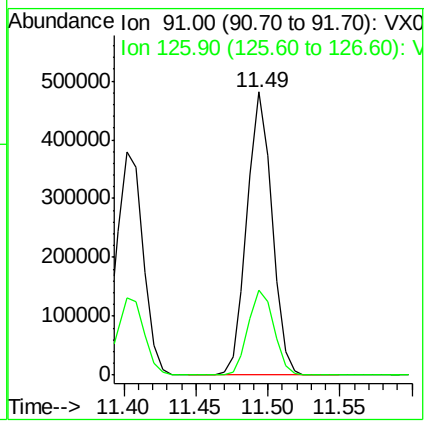
Manual Integrations APPROVED
MMDadoda
7/8/2020 9:32:02 AM

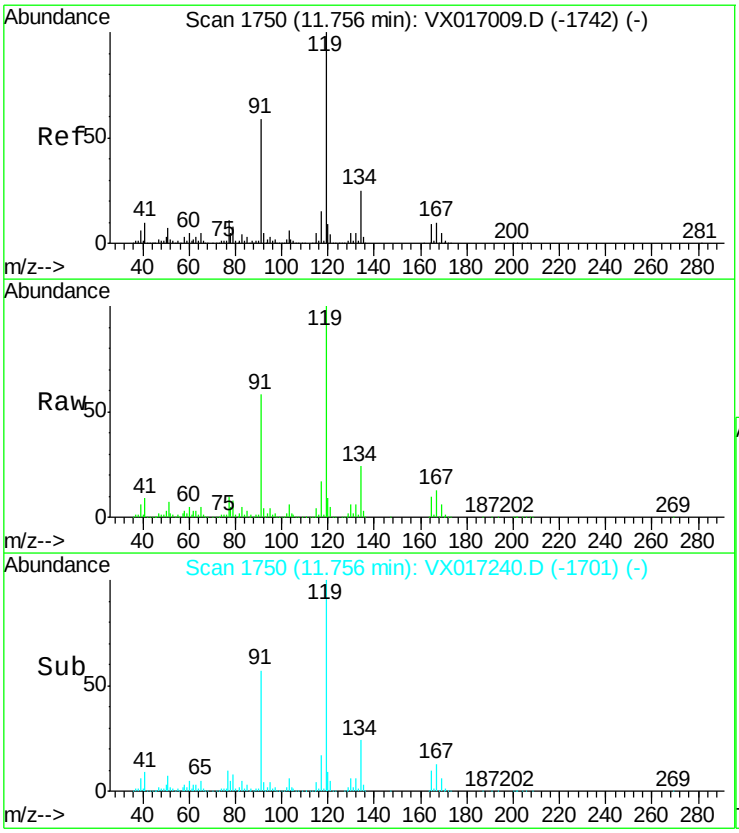


#82
4-Chlorotoluene
Concen: 48.251 ug/l
RT: 11.49 min Scan# 1707
Delta R.T. -0.00 min
Lab File: VX017240.D
Acq: 08 Jul 2020 06:17

Tgt Ion: 91 Resp: 578979

Ion	Ratio	Lower	Upper
91	100		
126	30.9	15.2	45.5

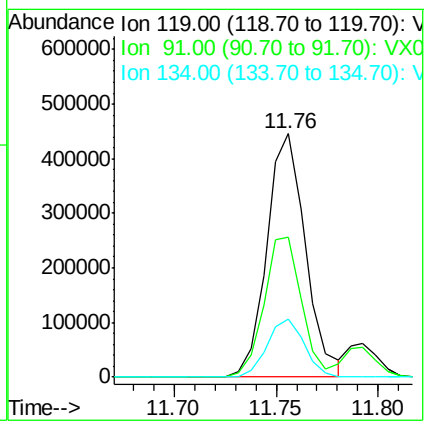




#83
tert-Butylbenzene
Concen: 49.191 ug/l
RT: 11.76 min Scan# 1750
Delta R.T. -0.00 min
Lab File: VX017240.D
Acq: 08 Jul 2020 06:17

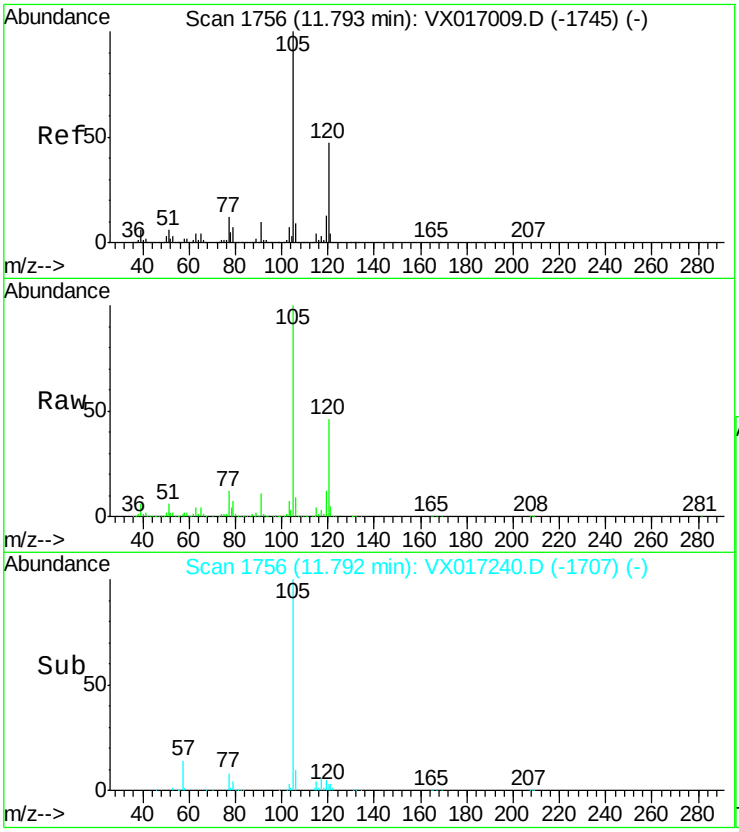
Tgt Ion:119 Resp: 587453

Ion	Ratio	Lower	Upper
119	100		
91	55.8	28.3	84.9
134	23.2	11.7	35.1



Instrument :
MSVOA_X
ClientSampleId :
1004-MW-02MS

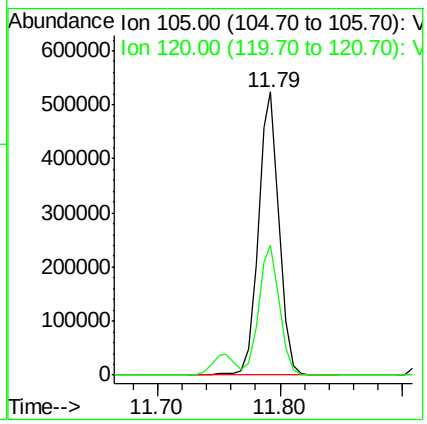
Manual Integrations APPROVED
MMDadoda
7/8/2020 9:32:02 AM

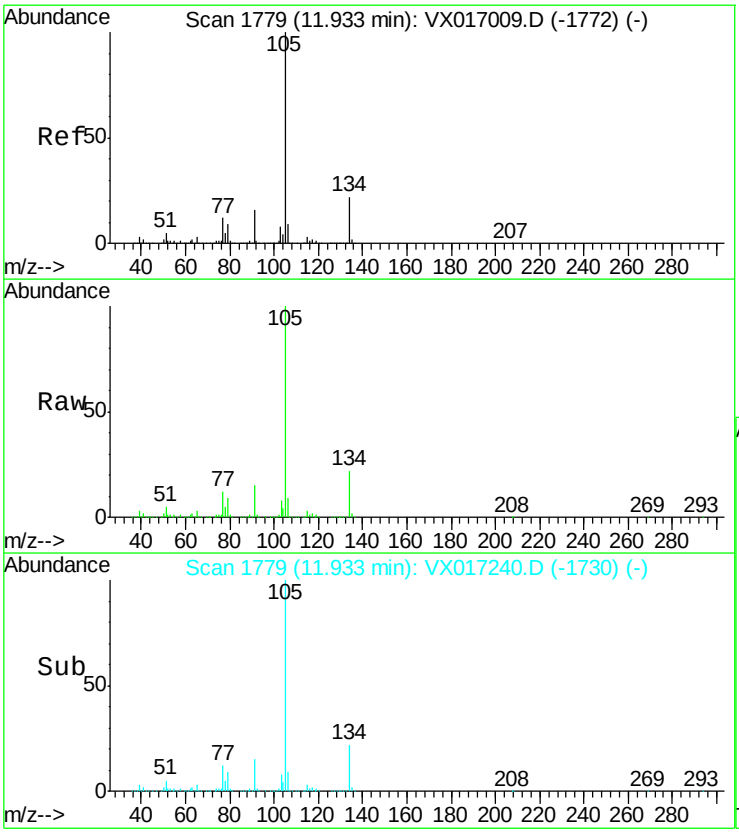


#84
1,2,4-Trimethylbenzene
Concen: 50.146 ug/l
RT: 11.79 min Scan# 1756
Delta R.T. -0.00 min
Lab File: VX017240.D
Acq: 08 Jul 2020 06:17

Tgt Ion:105 Resp: 618898

Ion	Ratio	Lower	Upper
105	100		
120	45.8	22.9	68.5

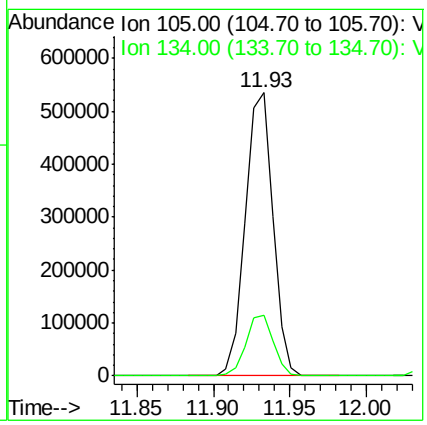




#85
sec-Butylbenzene
Concen: 47.891 ug/l
RT: 11.93 min Scan# 1779
Delta R.T. -0.00 min
Lab File: VX017240.D
Acq: 08 Jul 2020 06:17

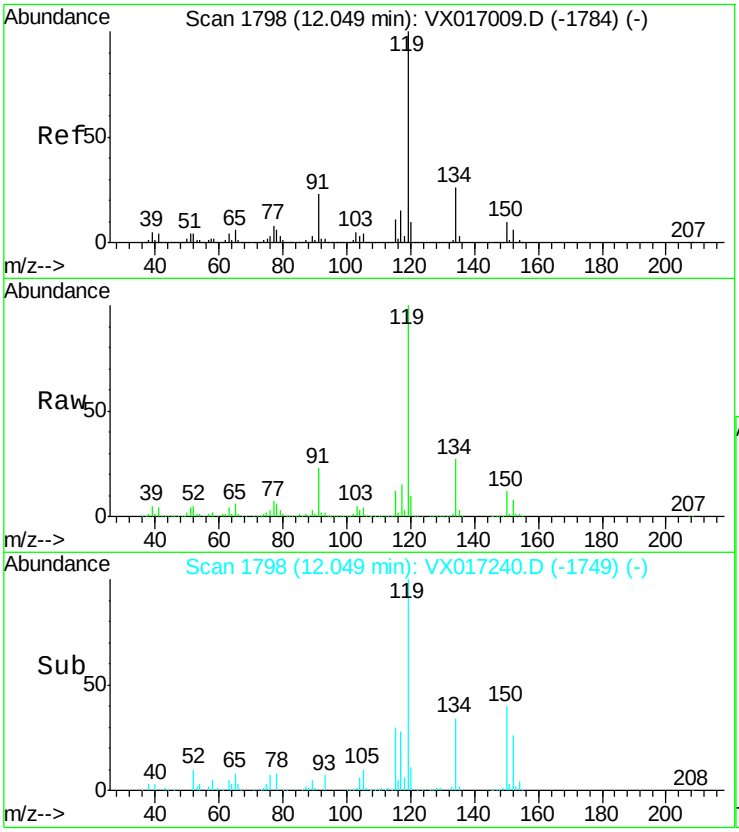
Tgt Ion:105 Resp: 672281

Ion	Ratio	Lower	Upper
105	100		
134	21.3	10.5	31.6



Instrument :
MSVOA_X
ClientSampleId :
1004-MW-02MS

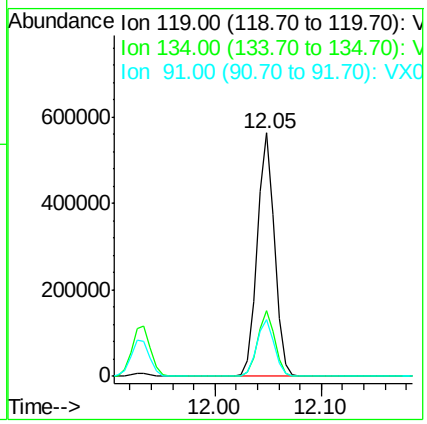
Manual Integrations APPROVED
MMDadoda
7/8/2020 9:32:02 AM

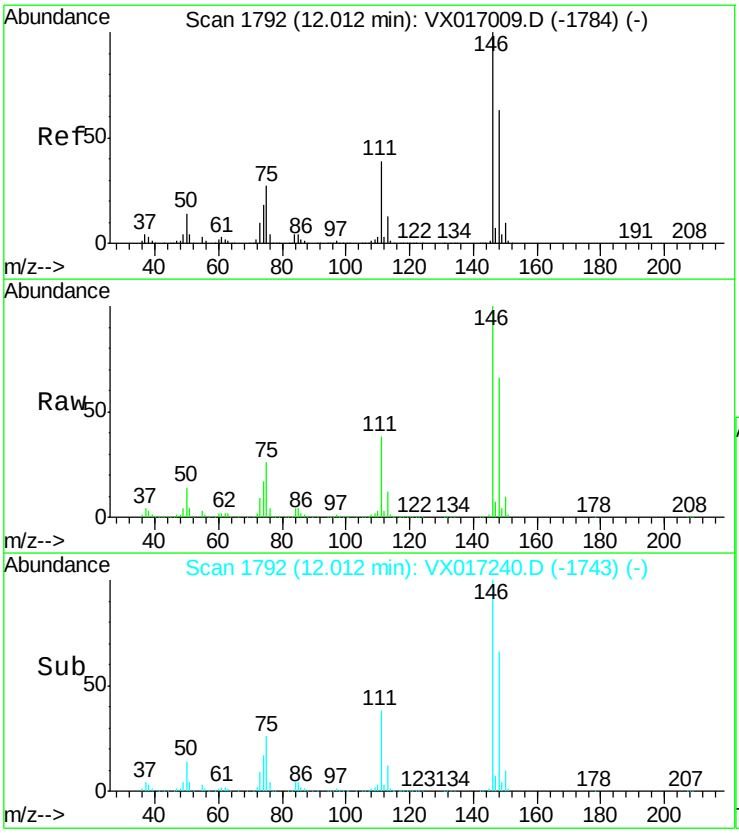


#86
p-Isopropyltoluene
Concen: 49.042 ug/l
RT: 12.05 min Scan# 1798
Delta R.T. -0.00 min
Lab File: VX017240.D
Acq: 08 Jul 2020 06:17

Tgt Ion:119 Resp: 640889

Ion	Ratio	Lower	Upper
119	100		
134	26.8	13.2	39.5
91	23.7	11.8	35.4

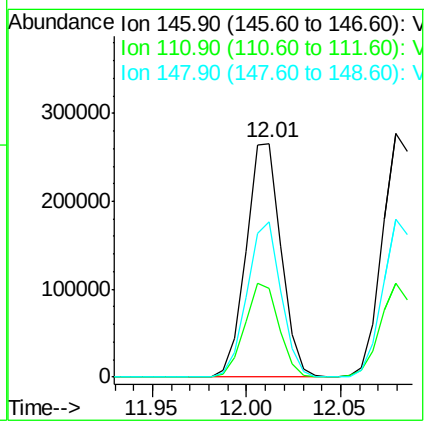




#87
1,3-Dichlorobenzene
Concen: 46.691 ug/l
RT: 12.01 min Scan# 1792
Delta R.T. -0.00 min
Lab File: VX017240.D
Acq: 08 Jul 2020 06:17

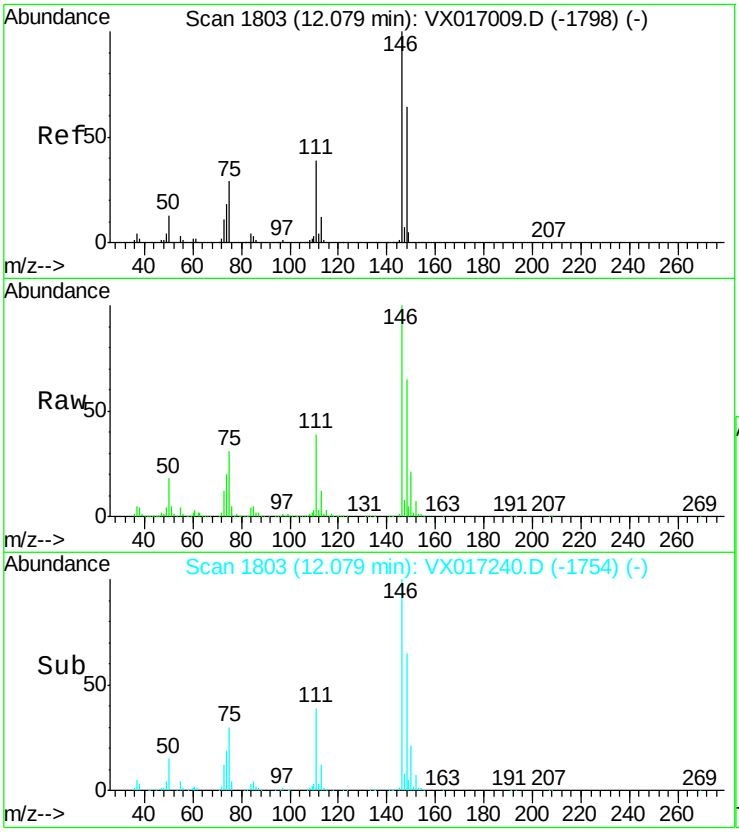
Tgt Ion:146 Resp: 341820

Ion	Ratio	Lower	Upper
146	100		
111	39.2	20.4	61.2
148	64.4	32.5	97.5



Instrument :
MSVOA_X
ClientSampleId :
1004-MW-02MS

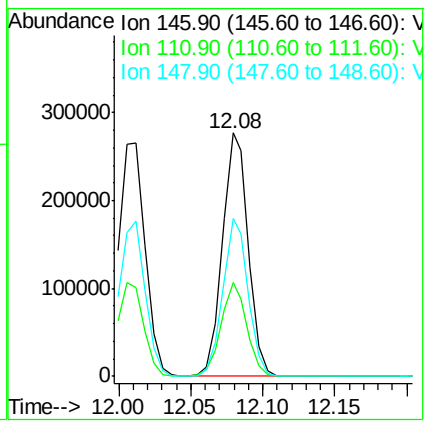
Manual Integrations APPROVED
MMDadoda
7/8/2020 9:32:02 AM

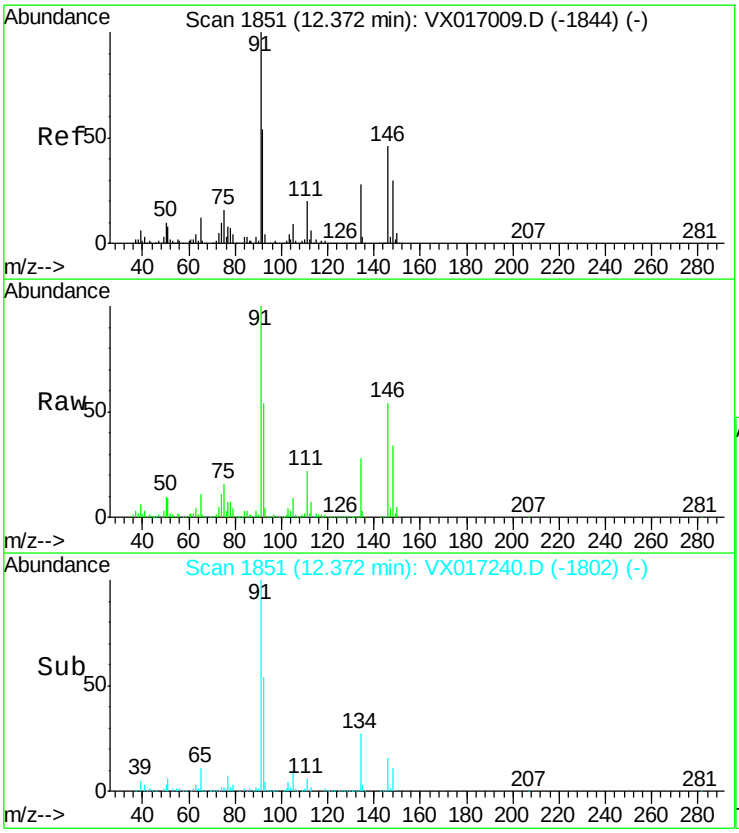


#88
1,4-Dichlorobenzene
Concen: 50.486 ug/l
RT: 12.08 min Scan# 1803
Delta R.T. -0.00 min
Lab File: VX017240.D
Acq: 08 Jul 2020 06:17

Tgt Ion:146 Resp: 348538

Ion	Ratio	Lower	Upper
146	100		
111	38.4	19.5	58.5
148	63.6	31.9	95.7

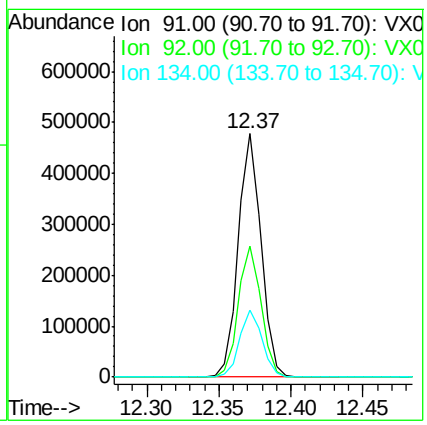




#89
n-Butylbenzene
Concen: 45.300 ug/l
RT: 12.37 min Scan# 1851
Delta R.T. -0.00 min
Lab File: VX017240.D
Acq: 08 Jul 2020 06:17

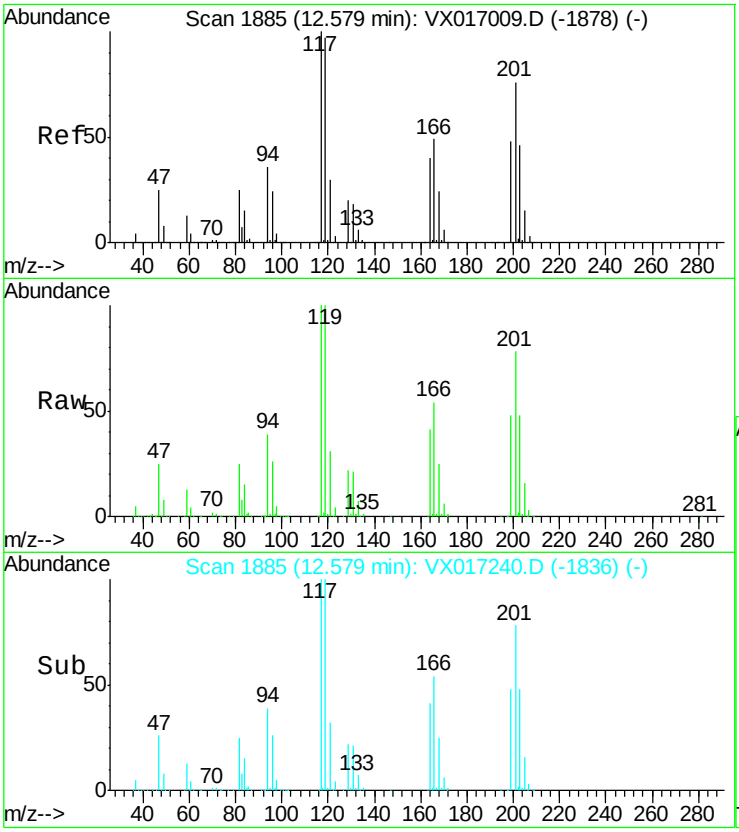
Tgt Ion: 91 Resp: 528582

Ion	Ratio	Lower	Upper
91	100		
92	53.8	27.2	81.6
134	27.3	13.6	40.7



Instrument :
MSVOA_X
ClientSampleId :
1004-MW-02MS

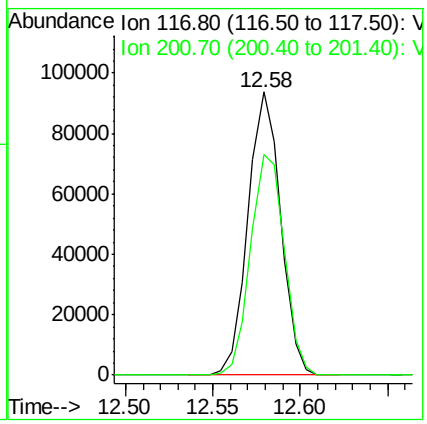
Manual Integrations APPROVED
MMDadoda
7/8/2020 9:32:02 AM

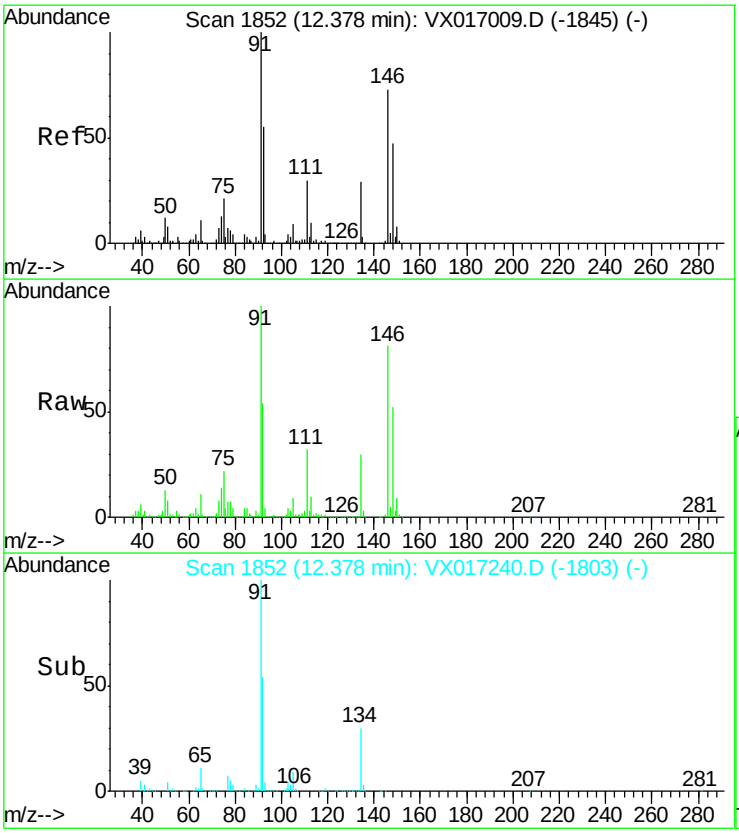


#90
Hexachloroethane
Concen: 47.262 ug/l
RT: 12.58 min Scan# 1885
Delta R.T. -0.00 min
Lab File: VX017240.D
Acq: 08 Jul 2020 06:17

Tgt Ion:117 Resp: 121797

Ion	Ratio	Lower	Upper
117	100		
201	80.6	39.4	118.2

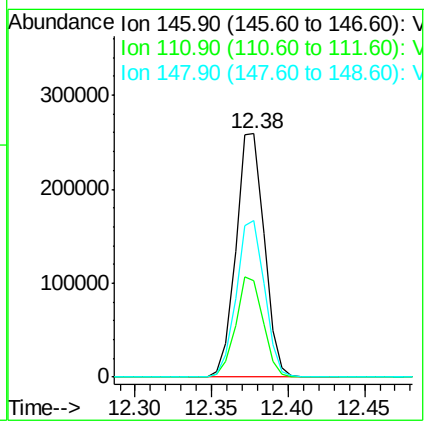


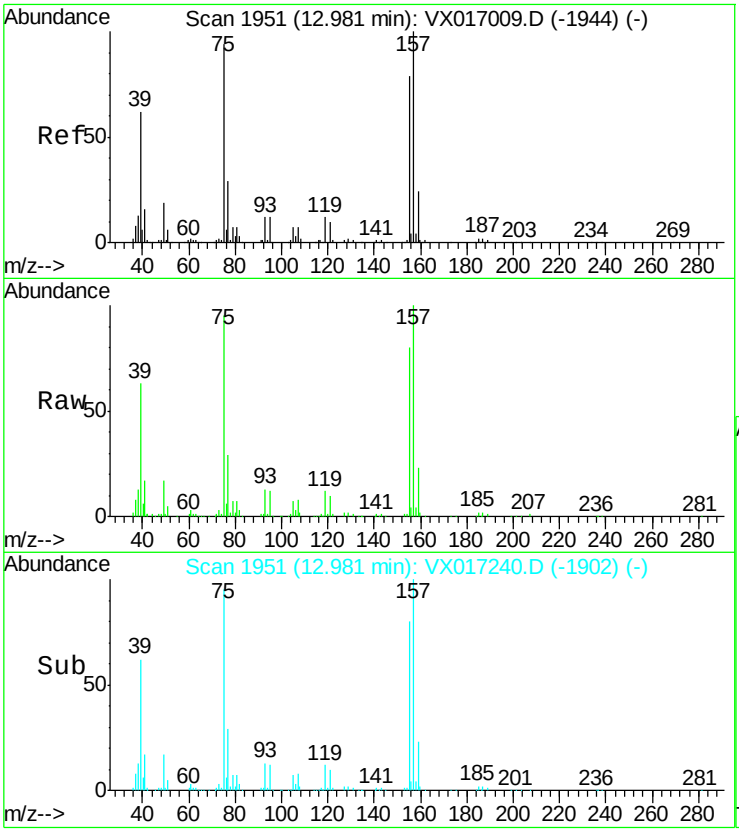


#91
1,2-Dichlorobenzene
Concen: 48.574 ug/l
RT: 12.38 min Scan# 1852
Delta R.T. -0.00 min
Lab File: VX017240.D
Acq: 08 Jul 2020 06:17

Tgt Ion:146 Resp: 332402

Ion	Ratio	Lower	Upper
146	100		
111	40.0	20.6	61.9
148	64.1	32.4	97.2

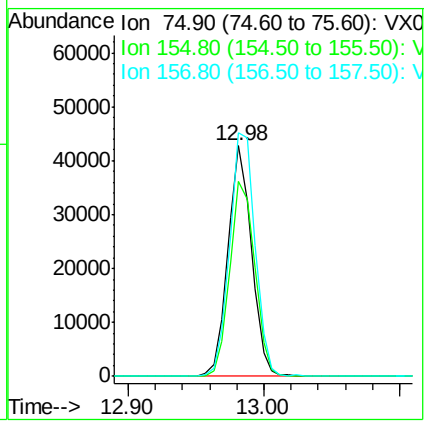




#92
1,2-Dibromo-3-Chloropropane
Concen: 46.783 ug/l
RT: 12.98 min Scan# 1951
Delta R.T. -0.00 min
Lab File: VX017240.D
Acq: 08 Jul 2020 06:17

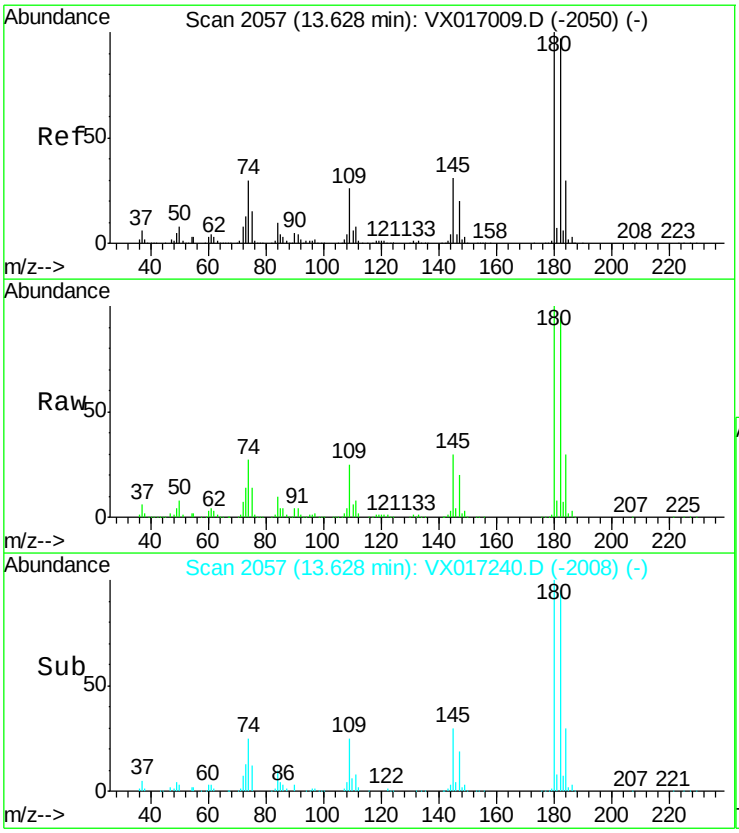
Tgt Ion: 75 Resp: 51487

Ion	Ratio	Lower	Upper
75	100		
155	89.8	45.1	135.2
157	114.4	56.5	169.3



Instrument :
MSVOA_X
ClientSampleId :
1004-MW-02MS

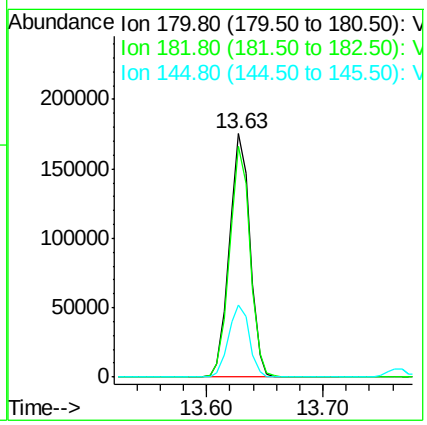
Manual Integrations APPROVED
MMDadoda
7/8/2020 9:32:02 AM



#93
1,2,4-Trichlorobenzene
Concen: 46.078 ug/l
RT: 13.63 min Scan# 2057
Delta R.T. -0.00 min
Lab File: VX017240.D
Acq: 08 Jul 2020 06:17

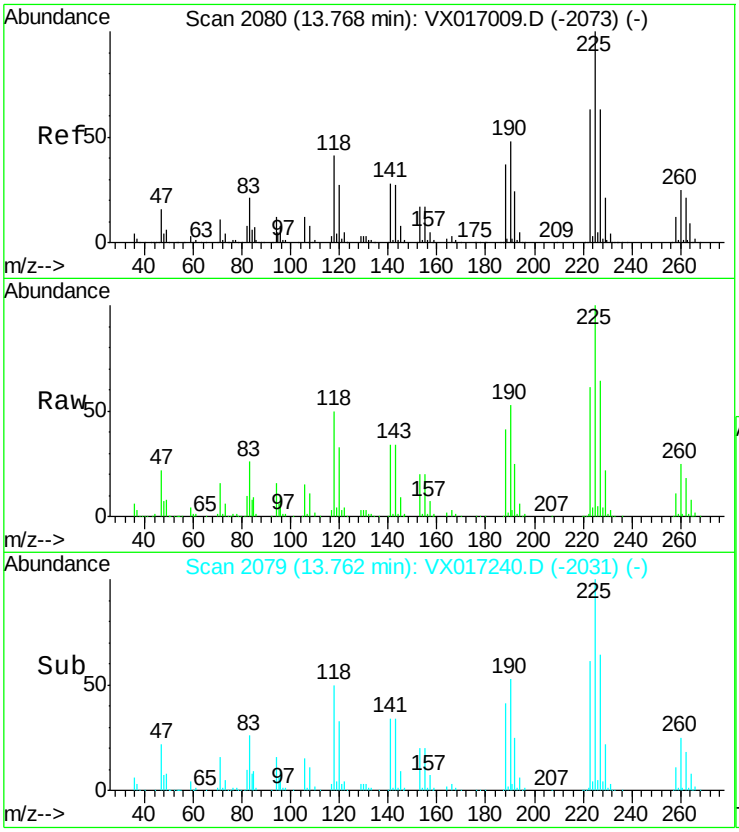
Tgt Ion:180 Resp: 215220

Ion	Ratio	Lower	Upper
180	100		
182	94.4	47.3	141.9
145	30.1	15.4	46.2



Instrument :
MSVOA_X
ClientSampleId :
1004-MW-02MS

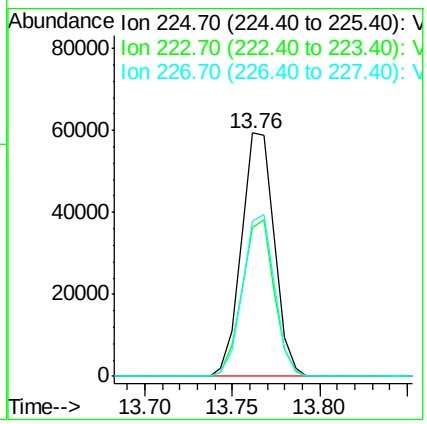
Manual Integrations APPROVED
MMDadoda
7/8/2020 9:32:02 AM

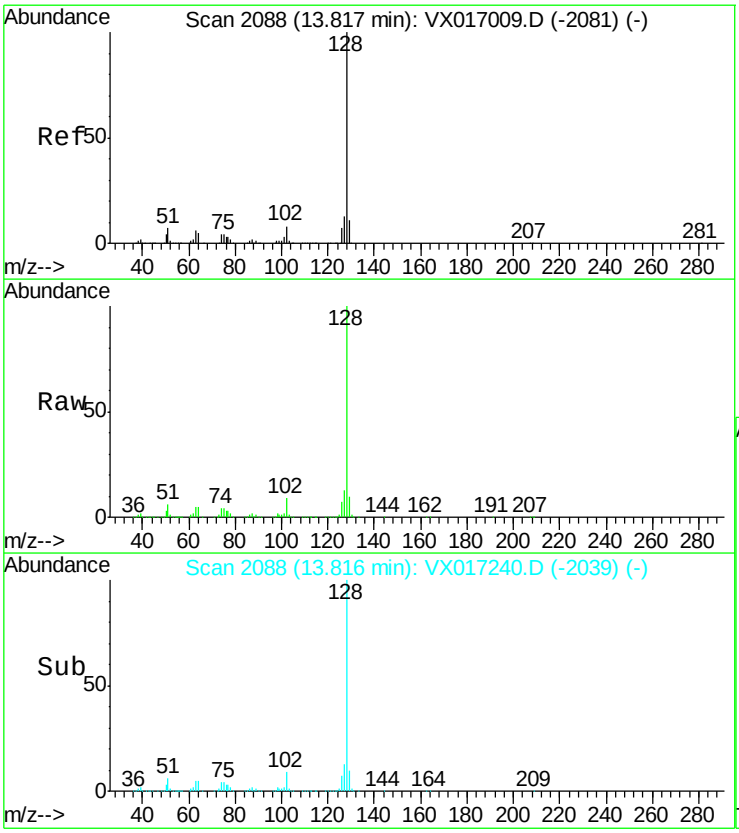


#94
Hexachlorobutadiene
Concen: 43.773 ug/l
RT: 13.76 min Scan# 2079
Delta R.T. -0.01 min
Lab File: VX017240.D
Acq: 08 Jul 2020 06:17

Tgt Ion:225 Resp: 77404

Ion	Ratio	Lower	Upper
225	100		
223	63.0	32.5	97.5
227	64.4	33.1	99.2

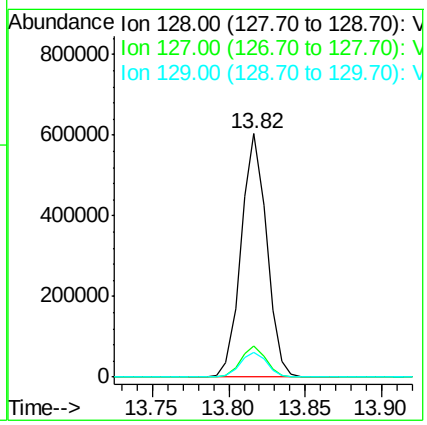


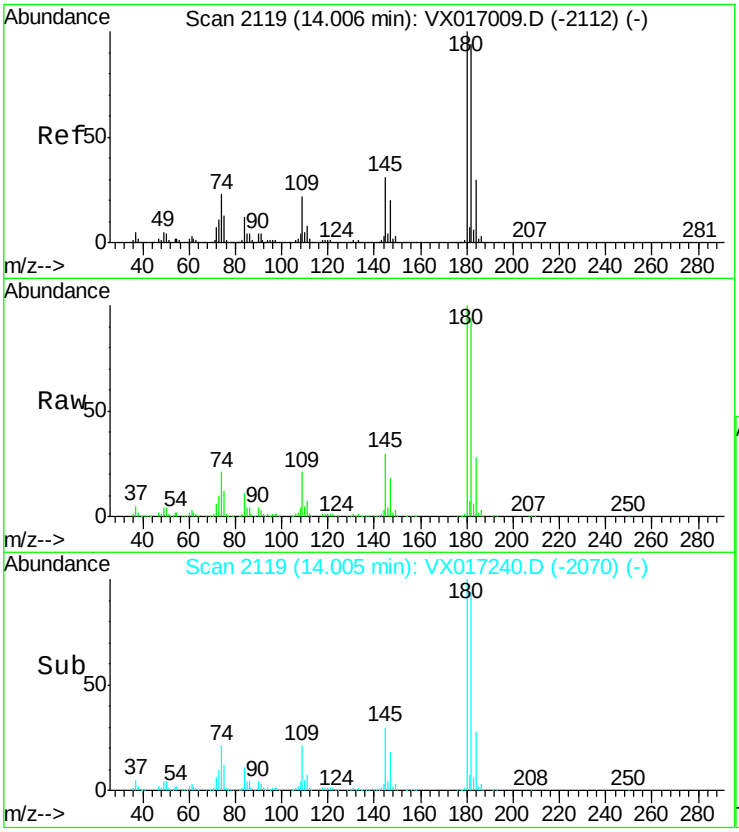


#95
Naphthalene
Concen: 48.989 ug/l
RT: 13.82 min Scan# 2088
Delta R.T. -0.00 min
Lab File: VX017240.D
Acq: 08 Jul 2020 06:17

Tgt Ion:128 Resp: 695636

Ion	Ratio	Lower	Upper
128	100		
127	12.7	10.2	15.4
129	10.6	8.7	13.1

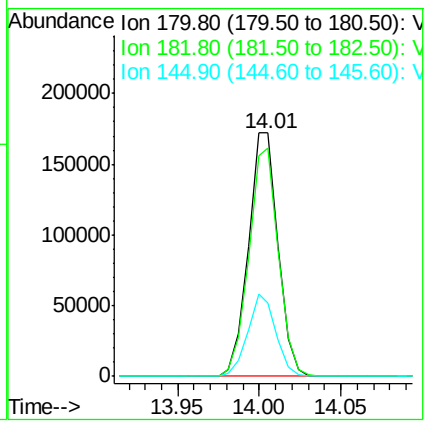




#96
1,2,3-Trichlorobenzene
Concen: 48.236 ug/l
RT: 14.01 min Scan# 2119
Delta R.T. -0.00 min
Lab File: VX017240.D
Acq: 08 Jul 2020 06:17

Tgt Ion:180 Resp: 218035

Ion	Ratio	Lower	Upper
180	100		
182	93.4	47.1	141.4
145	32.0	16.6	49.7



Instrument :
MSVOA_X
ClientSampleId :
1004-MW-02MS

Manual Integrations APPROVED
MMDadoda
7/8/2020 9:32:02 AM

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Day Environmental, Inc.	Date Collected:	07/06/20
Project:	Andrew St. RI	Date Received:	07/07/20
Client Sample ID:	1004-MW-02MSD	SDG No.:	L3232
Lab Sample ID:	L3232-04MSD	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	DB-624UI ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX017241.D	1		07/08/20 06:39	VX070720

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
TARGETS						
75-71-8	Dichlorodifluoromethane	48.4		0.22	1.00	ug/L
74-87-3	Chloromethane	41.6		0.30	1.00	ug/L
75-01-4	Vinyl Chloride	49.8		0.16	1.00	ug/L
74-83-9	Bromomethane	48.2		2.10	5.00	ug/L
75-00-3	Chloroethane	51.1		0.34	1.00	ug/L
75-69-4	Trichlorofluoromethane	55.6		0.16	1.00	ug/L
76-13-1	1,1,2-Trichlorotrifluoroethane	51.3		0.21	1.00	ug/L
75-35-4	1,1-Dichloroethene	49.9		0.18	1.00	ug/L
67-64-1	Acetone	290		0.90	5.00	ug/L
75-15-0	Carbon Disulfide	47.9		0.23	1.00	ug/L
1634-04-4	Methyl tert-butyl Ether	53.7		0.070	1.00	ug/L
79-20-9	Methyl Acetate	47.3		0.65	1.00	ug/L
75-09-2	Methylene Chloride	52.3		0.33	1.00	ug/L
156-60-5	trans-1,2-Dichloroethene	51.8		0.24	1.00	ug/L
75-34-3	1,1-Dichloroethane	50.6		0.17	1.00	ug/L
110-82-7	Cyclohexane	47.9		1.20	5.00	ug/L
78-93-3	2-Butanone	270		0.71	5.00	ug/L
56-23-5	Carbon Tetrachloride	56.5		0.22	1.00	ug/L
156-59-2	cis-1,2-Dichloroethene	100		0.30	1.00	ug/L
74-97-5	Bromochloromethane	46.8		0.31	1.00	ug/L
67-66-3	Chloroform	52.6		0.14	1.00	ug/L
71-55-6	1,1,1-Trichloroethane	53.1		0.12	1.00	ug/L
108-87-2	Methylcyclohexane	50.0		0.17	1.00	ug/L
71-43-2	Benzene	52.7		0.10	1.00	ug/L
107-06-2	1,2-Dichloroethane	56.4		0.13	1.00	ug/L
79-01-6	Trichloroethene	120		0.27	1.00	ug/L
78-87-5	1,2-Dichloropropane	53.1		0.14	1.00	ug/L
75-27-4	Bromodichloromethane	56.7		0.10	1.00	ug/L
108-10-1	4-Methyl-2-Pentanone	280		0.85	5.00	ug/L
108-88-3	Toluene	54.1		0.12	1.00	ug/L
10061-02-6	t-1,3-Dichloropropene	51.0		0.19	1.00	ug/L
10061-01-5	cis-1,3-Dichloropropene	49.5		0.16	1.00	ug/L

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Day Environmental, Inc.	Date Collected:	07/06/20
Project:	Andrew St. RI	Date Received:	07/07/20
Client Sample ID:	1004-MW-02MSD	SDG No.:	L3232
Lab Sample ID:	L3232-04MSD	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	DB-624UI ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX017241.D	1		07/08/20 06:39	VX070720

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units
79-00-5	1,1,2-Trichloroethane	56.8		0.12	1.00	ug/L
591-78-6	2-Hexanone	300		1.40	5.00	ug/L
124-48-1	Dibromochloromethane	59.4		0.16	1.00	ug/L
106-93-4	1,2-Dibromoethane	56.5		0.14	1.00	ug/L
127-18-4	Tetrachloroethene	200	E	0.15	1.00	ug/L
108-90-7	Chlorobenzene	52.5		0.080	1.00	ug/L
100-41-4	Ethyl Benzene	53.8		0.080	1.00	ug/L
179601-23-1	m/p-Xylenes	110		0.20	2.00	ug/L
95-47-6	o-Xylene	54.9		0.13	1.00	ug/L
100-42-5	Styrene	57.7		0.11	1.00	ug/L
75-25-2	Bromoform	62.9		0.15	1.00	ug/L
98-82-8	Isopropylbenzene	51.7		0.13	1.00	ug/L
79-34-5	1,1,2,2-Tetrachloroethane	51.7		0.15	1.00	ug/L
541-73-1	1,3-Dichlorobenzene	52.1		0.14	1.00	ug/L
106-46-7	1,4-Dichlorobenzene	54.8		0.20	1.00	ug/L
95-50-1	1,2-Dichlorobenzene	53.1		0.12	1.00	ug/L
96-12-8	1,2-Dibromo-3-Chloropropane	52.0		0.54	1.00	ug/L
120-82-1	1,2,4-Trichlorobenzene	50.9		0.24	1.00	ug/L
87-61-6	1,2,3-Trichlorobenzene	52.0		0.26	1.00	ug/L
SURROGATES						
17060-07-0	1,2-Dichloroethane-d4	49.6		61 - 141	99%	SPK: 50
1868-53-7	Dibromofluoromethane	51.8		69 - 133	104%	SPK: 50
2037-26-5	Toluene-d8	50.2		65 - 126	100%	SPK: 50
460-00-4	4-Bromofluorobenzene	52.8		58 - 135	106%	SPK: 50
INTERNAL STANDARDS						
363-72-4	Pentafluorobenzene	253000	5.63			
540-36-3	1,4-Difluorobenzene	381000	6.83			
3114-55-4	Chlorobenzene-d5	370000	10.1			
3855-82-1	1,4-Dichlorobenzene-d4	207000	12.06			

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Report of Analysis

Client:	Day Environmental, Inc.	Date Collected:	07/06/20
Project:	Andrew St. RI	Date Received:	07/07/20
Client Sample ID:	1004-MW-02MSD	SDG No.:	L3232
Lab Sample ID:	L3232-04MSD	Matrix:	Water
Analytical Method:	SW8260	% Moisture:	100
Sample Wt/Vol:	5 Units: mL	Final Vol:	5000 uL
Soil Aliquot Vol:	uL	Test:	VOC-TCLVOA-10
GC Column:	DB-624UI ID : 0.18	Level :	LOW

File ID/Qc Batch:	Dilution:	Prep Date	Date Analyzed	Prep Batch ID
VX017241.D	1		07/08/20 06:39	VX070720

CAS Number	Parameter	Conc.	Qualifier	MDL	LOQ / CRQL	Units

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
E = Value Exceeds Calibration Range
Q = indicates LCS control criteria did not meet requirements
M = MS/MSD acceptance criteria did not meet requirements

J = Estimated Value
B = Analyte Found in Associated Method Blank
N = Presumptive Evidence of a Compound
* = Values outside of QC limits
D = Dilution
() = Laboratory InHouse Limit
A = Aldol-Condensation Reaction Products

Quantitation Report (QT Reviewed)

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX070720\
Data File : VX017241.D
Acq On : 08 Jul 2020 06:39
Operator : JC/SP
Sample : L3232-04MSD
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 55 Sample Multiplier: 1

Quant Time: Jul 08 07:21:42 2020
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X062920W.M
Quant Title : SW846 8260
QLast Update : Mon Jun 29 17:10:38 2020
Response via : Initial Calibration

Instrument :
MSVOA_X
ClientSampleId :
1004-MW-02MSD

Manual Integrations APPROVED
MMDadoda
7/8/2020 9:32:07 AM

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	5.63	168	253387	50.00	ug/l	0.00
34) 1,4-Difluorobenzene	6.83	114	381377	50.00	ug/l	0.00
63) Chlorobenzene-d5	10.10	117	370137	50.00	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	12.06	152	207249	50.00	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	6.03	65	154862	49.58	ug/l	0.00
Spiked Amount 50.000			Recovery = 99.16%			
35) Dibromofluoromethane	5.46	113	124919	51.78	ug/l	0.00
Spiked Amount 50.000			Recovery = 103.56%			
50) Toluene-d8	8.70	98	447900	50.21	ug/l	0.00
Spiked Amount 50.000			Recovery = 100.42%			
62) 4-Bromofluorobenzene	11.12	95	184018	52.77	ug/l	0.00
Spiked Amount 50.000			Recovery = 105.54%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.18	85	118715	48.428	ug/l	100
3) Chloromethane	1.31	50	123565	41.643	ug/l	100
4) Vinyl Chloride	1.39	62	137153	49.819	ug/l	99
5) Bromomethane	1.62	94	70051	48.161	ug/l	100
6) Chloroethane	1.70	64	83150	51.139	ug/l	100
7) Trichlorofluoromethane	1.91	101	226494	55.627	ug/l	99
8) Diethyl Ether	2.17	74	77765	56.714	ug/l	97
9) 1,1,2-Trichlorotrifluoroet	2.36	101	125174	51.294	ug/l	96
10) Methyl Iodide	2.49	142	127911	40.621	ug/l	99
11) Tert butyl alcohol	3.02	59	172019	288.661	ug/l	99
12) 1,1-Dichloroethene	2.35	96	125184	49.936	ug/l	97
13) Acrolein	2.27	56	115444	324.072	ug/l	96
14) Allyl chloride	2.70	41	210271	45.386	ug/l	97
15) Acrylonitrile	3.12	53	374996	261.765	ug/l	100
16) Acetone	2.42	43	334680	286.402	ug/l	97
17) Carbon Disulfide	2.55	76	335298	47.931	ug/l	100
18) Methyl Acetate	2.75	43	144155	47.255	ug/l	99
19) Methyl tert-butyl Ether	3.17	73	452008	53.723	ug/l	99
20) Methylene Chloride	2.84	84	139992	52.270	ug/l	97
21) trans-1,2-Dichloroethene	3.14	96	144226	51.842	ug/l	99
22) Diisopropyl ether	3.82	45	437268	50.994	ug/l	98
23) Vinyl Acetate	3.79	43	1611146	218.655	ug/l	100
24) 1,1-Dichloroethane	3.67	63	246963	50.617	ug/l	99
25) 2-Butanone	4.63	43	521218	267.684	ug/l	100
26) 2,2-Dichloropropane	4.55	77	149360	34.477	ug/l	89
27) cis-1,2-Dichloroethene	4.56	96	316249	100.326	ug/l	93
28) Bromochloromethane	4.98	49	111205	46.838	ug/l	94
29) Tetrahydrofuran	5.09	42	336786	261.782	ug/l	99
30) Chloroform	5.18	83	263226	52.629	ug/l	97
31) Cyclohexane	5.55	56	202178	47.940	ug/l	98
32) 1,1,1-Trichloroethane	5.46	97	244387	53.056	ug/l	99
36) 1,1-Dichloropropene	5.77	75	187887	52.126	ug/l	99
37) Ethyl Acetate	4.79	43	172610	47.198	ug/l	99
38) Carbon Tetrachloride	5.76	117	224271	56.490	ug/l	98

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX070720\
Data File : VX017241.D
Acq On : 08 Jul 2020 06:39
Operator : JC/SP
Sample : L3232-04MSD
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 55 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
1004-MW-02MSD

Manual Integrations APPROVED
MMDadoda
7/8/2020 9:32:07 AM

Quant Time: Jul 08 07:21:42 2020
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X062920W.M
Quant Title : SW846 8260
QLast Update : Mon Jun 29 17:10:38 2020
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
39) Methylcyclohexane	7.44	83	200454	49.983	ug/l		98
40) Benzene	6.11	78	557604	52.651	ug/l		100
41) Methacrylonitrile	5.01	41	112692	54.749	ug/l		99
42) 1,2-Dichloroethane	6.16	62	215798	56.412	ug/l		99
43) Isopropyl Acetate	6.42	43	293351	48.272	ug/l		99
44) Trichloroethene	7.19	130	354412	121.716	ug/l		99
45) 1,2-Dichloropropane	7.49	63	144314	53.055	ug/l		99
46) Dibromomethane	7.64	93	102425	55.154	ug/l		97
47) Bromodichloromethane	7.88	83	216810	56.652	ug/l		97
48) Methyl methacrylate	7.74	41	161462	55.923	ug/l		98
49) 1,4-Dioxane	7.71	88	79986	1222.865	ug/l		100
51) 4-Methyl-2-Pentanone	8.62	43	1018230	281.081	ug/l		100
52) Toluene	8.76	92	358038	54.149	ug/l		99
53) t-1,3-Dichloropropene	9.02	75	215395	51.011	ug/l		99
54) cis-1,3-Dichloropropene	8.41	75	223961	49.477	ug/l		98
55) 1,1,2-Trichloroethane	9.20	97	153519	56.827	ug/l		97
56) Ethyl methacrylate	9.16	69	217440	56.549	ug/l		99
57) 1,3-Dichloropropane	9.35	76	252725	55.286	ug/l		99
59) 2-Hexanone	9.48	43	789145	298.278	ug/l		100
60) Dibromochloromethane	9.57	129	186379	59.399	ug/l		99
61) 1,2-Dibromoethane	9.65	107	164081	56.504	ug/l		100
64) Tetrachloroethene	9.32	164	596525	199.691	ug/l		98
65) Chlorobenzene	10.12	112	400722	52.455	ug/l		99
66) 1,1,1,2-Tetrachloroethane	10.21	131	162101	55.059	ug/l		99
67) Ethyl Benzene	10.23	91	685916	53.764	ug/l		99
68) m/p-Xylenes	10.34	106	540248	110.286	ug/l		98
69) o-Xylene	10.68	106	255657	54.861	ug/l		99
70) Styrene	10.69	104	457912	57.704	ug/l		99
71) Bromoform	10.84	173	146788	62.873	ug/l	#	99
73) Isopropylbenzene	11.00	105	701938	51.708	ug/l		99
74) N-amyl acetate	10.88	43	253056	43.688	ug/l		99
75) 1,1,2,2-Tetrachloroethane	11.25	83	220708	51.687	ug/l		99
76) 1,2,3-Trichloropropane	11.28	75	209270m	51.349	ug/l		
77) Bromobenzene	11.24	156	194048	52.011	ug/l		97
78) n-propylbenzene	11.34	91	803177	52.321	ug/l		99
79) 2-Chlorotoluene	11.40	91	486282	52.341	ug/l		100
80) 1,3,5-Trimethylbenzene	11.49	105	604172	53.656	ug/l		99
81) trans-1,4-Dichloro-2-buten	11.06	75	71182	45.231	ug/l		96
82) 4-Chlorotoluene	11.49	91	587450	52.893	ug/l		99
83) tert-Butylbenzene	11.76	119	600768	54.351	ug/l		99
84) 1,2,4-Trimethylbenzene	11.79	105	623312	54.564	ug/l		99
85) sec-Butylbenzene	11.93	105	673381	51.826	ug/l		99
86) p-Isopropyltoluene	12.05	119	648885	53.646	ug/l		100
87) 1,3-Dichlorobenzene	12.01	146	352735	52.056	ug/l		98
88) 1,4-Dichlorobenzene	12.08	146	350001	54.790	ug/l		99
89) n-Butylbenzene	12.37	91	533554	49.402	ug/l		100
90) Hexachloroethane	12.58	117	124511	52.200	ug/l		100
91) 1,2-Dichlorobenzene	12.38	146	336392	53.110	ug/l		98
92) 1,2-Dibromo-3-Chloropropan	12.98	75	52934	51.964	ug/l		97
93) 1,2,4-Trichlorobenzene	13.63	180	219980	50.884	ug/l		99

Data Path : Z:\VOASRV\HPCHEM1\MSVOA X\DATA\VX070720\
Data File : VX017241.D
Acq On : 08 Jul 2020 06:39
Operator : JC/SP
Sample : L3232-04MSD
Misc : 5.0mL/MSVOA X/WATER
ALS Vial : 55 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
1004-MW-02MSD

Manual Integrations APPROVED
MMDadoda
7/8/2020 9:32:07 AM

Quant Time: Jul 08 07:21:42 2020
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X062920W.M
Quant Title : SW846 8260
QLast Update : Mon Jun 29 17:10:38 2020
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
94) Hexachlorobutadiene	13.76	225	83563	50.915 ug/l	98
95) Naphthalene	13.82	128	716166	54.490 ug/l	99
96) 1,2,3-Trichlorobenzene	14.00	180	217545	51.997 ug/l	98

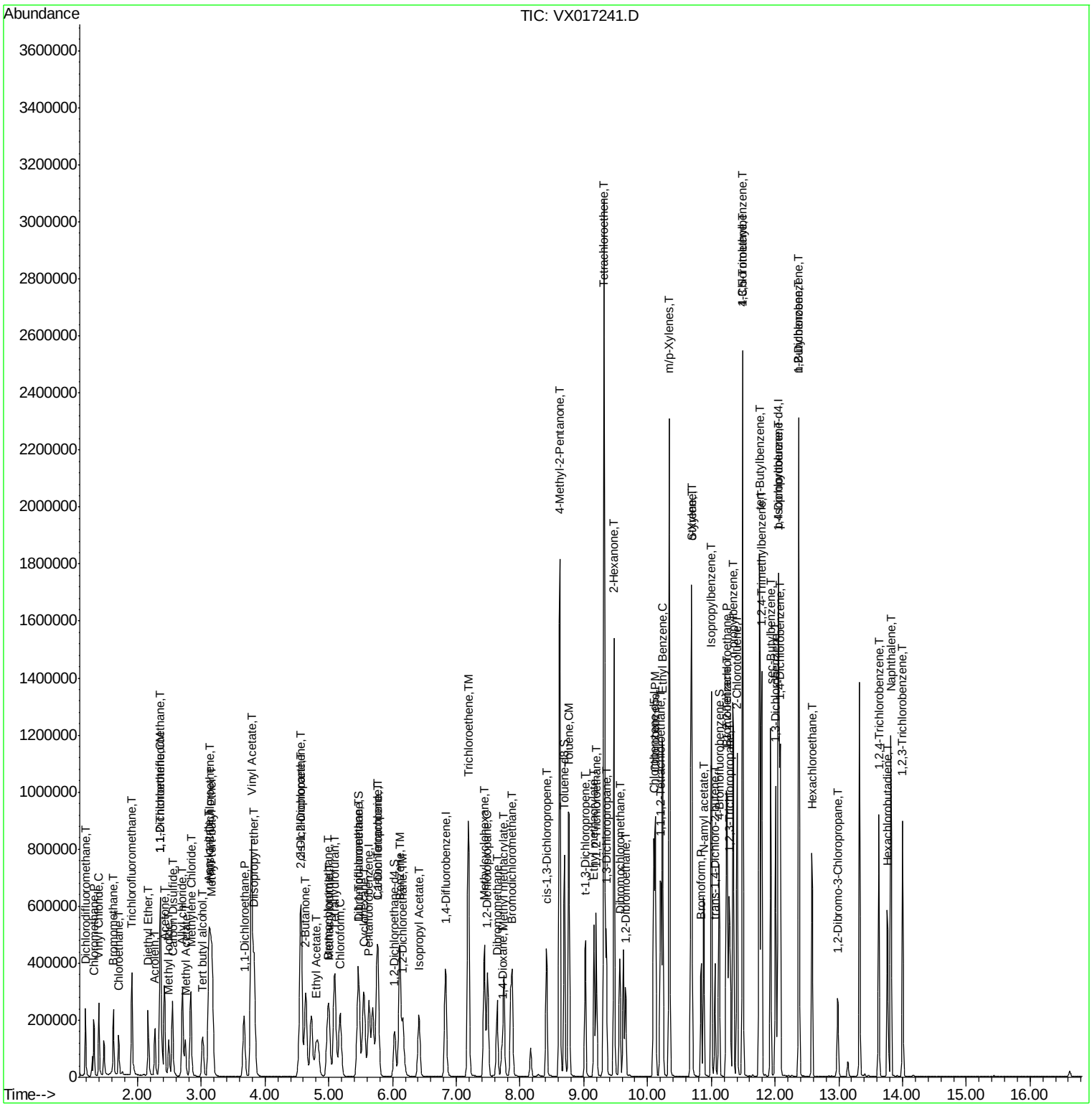
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX070720\
Data File : VX017241.D
Acq On : 08 Jul 2020 06:39
Operator : JC/SP
Sample : L3232-04MSD
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 55 Sample Multiplier: 1

Quant Time: Jul 08 07:21:42 2020
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X062920W.M
Quant Title : SW846 8260
QLast Update : Mon Jun 29 17:10:38 2020
Response via : Initial Calibration

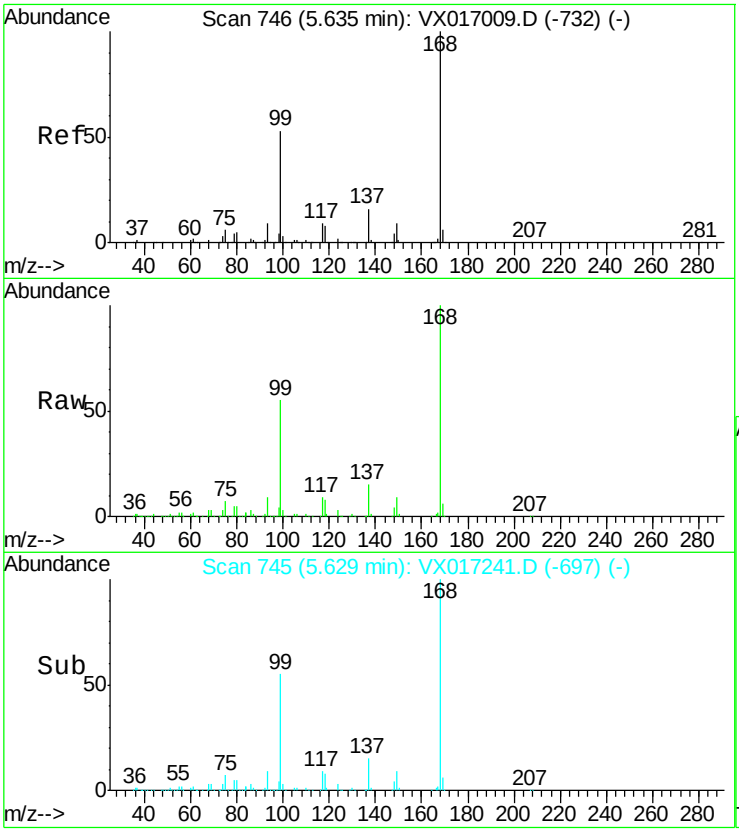
Instrument :
MSVOA_X
ClientSampleId :
1004-MW-02MSD

Manual Integrations APPROVED
MMDadoda
7/8/2020 9:32:07 AM



Instrument :
MSVOA_X
ClientSampleId :
1004-MW-02MSD

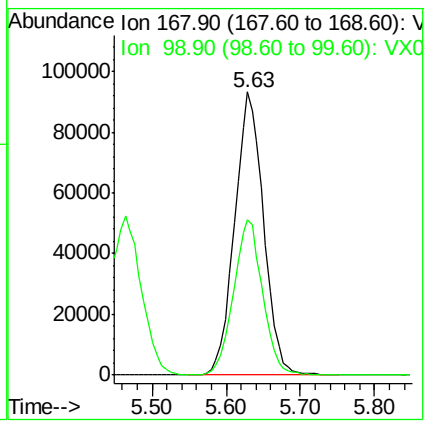
Manual Integrations APPROVED
MMDadoda
7/8/2020 9:32:07 AM

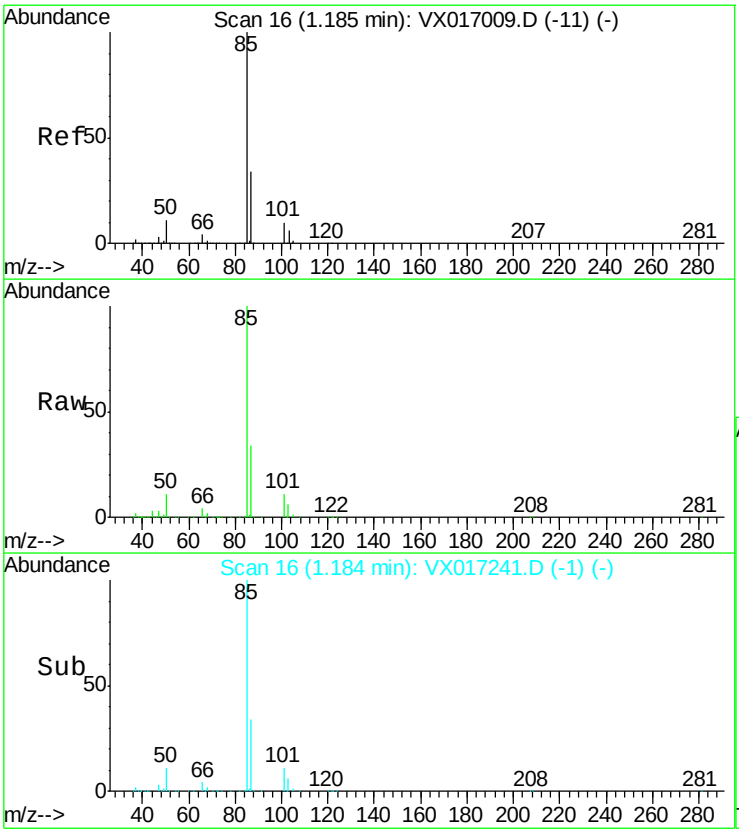


#1
Pentafluorobenzene
Concen: 50.000 ug/l
RT: 5.63 min Scan# 745
Delta R.T. -0.01 min
Lab File: VX017241.D
Acq: 08 Jul 2020 06:39

Tgt Ion:168 Resp: 253387

Ion	Ratio	Lower	Upper
168	100		
99	54.6	42.6	64.0

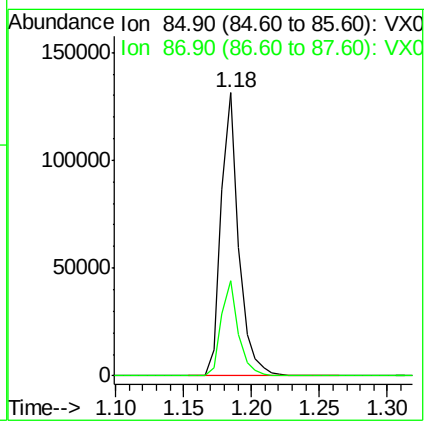




#2
Dichlorodifluoromethane
Concen: 48.428 ug/l
RT: 1.18 min Scan# 16
Delta R.T. -0.00 min
Lab File: VX017241.D
Acq: 08 Jul 2020 06:39

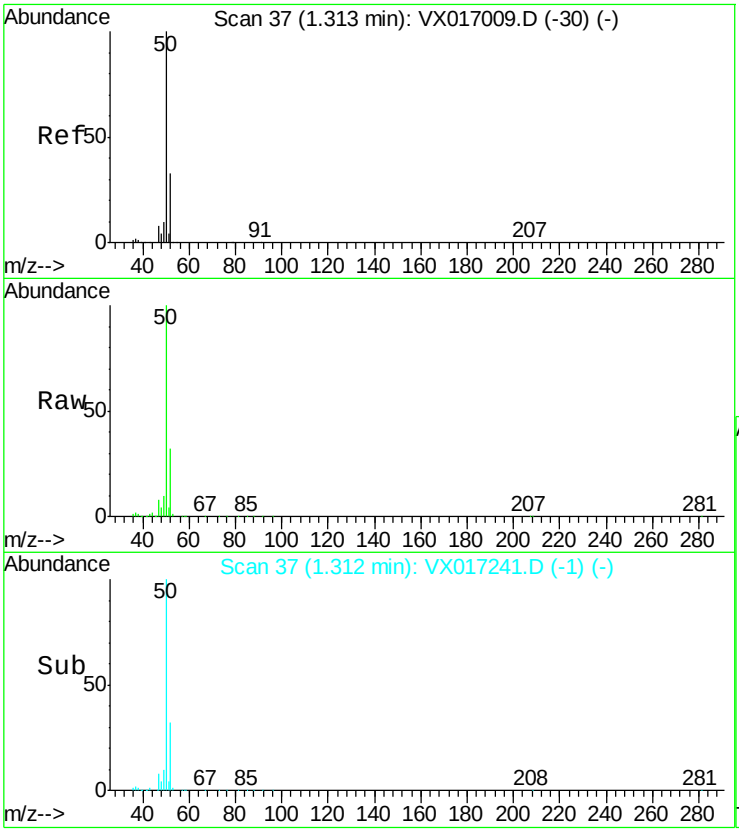
Tgt Ion: 85 Resp: 118715

Ion	Ratio	Lower	Upper
85	100		
87	33.7	16.8	50.4



Instrument :
MSVOA_X
ClientSampleId :
1004-MW-02MSD

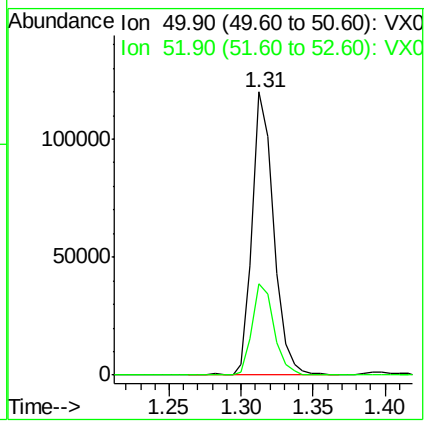
Manual Integrations APPROVED
MMDadoda
7/8/2020 9:32:07 AM

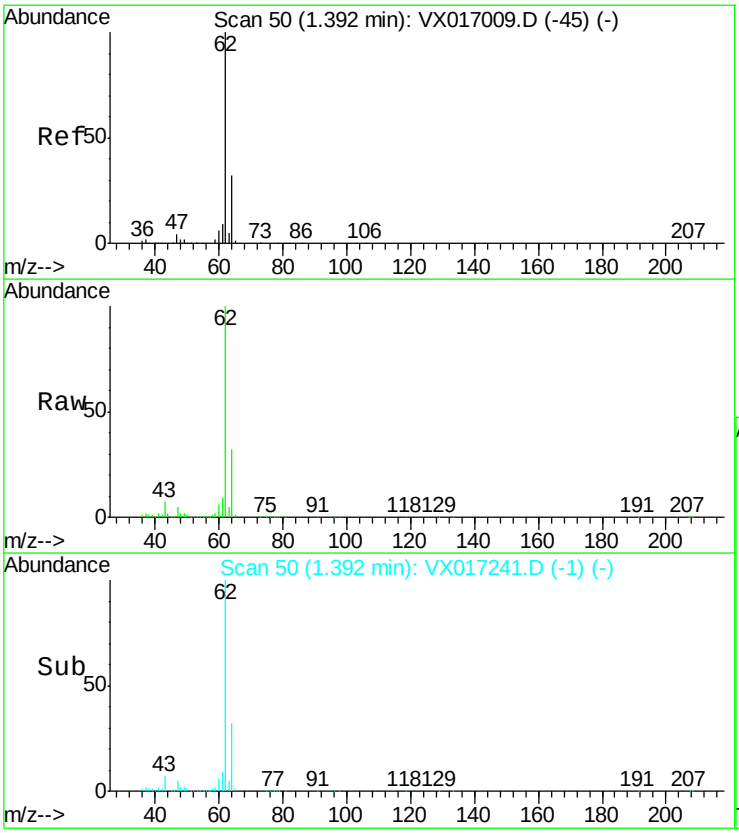


#3
Chloromethane
Concen: 41.643 ug/l
RT: 1.31 min Scan# 37
Delta R.T. -0.00 min
Lab File: VX017241.D
Acq: 08 Jul 2020 06:39

Tgt Ion: 50 Resp: 123565

Ion	Ratio	Lower	Upper
50	100		
52	32.3	26.1	39.1

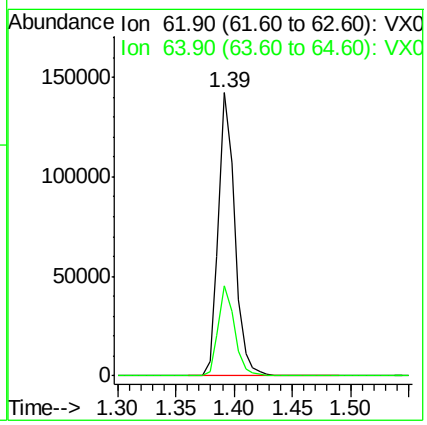




#4
Vinyl Chloride
Concen: 49.819 ug/l
RT: 1.39 min Scan# 50
Delta R.T. -0.00 min
Lab File: VX017241.D
Acq: 08 Jul 2020 06:39

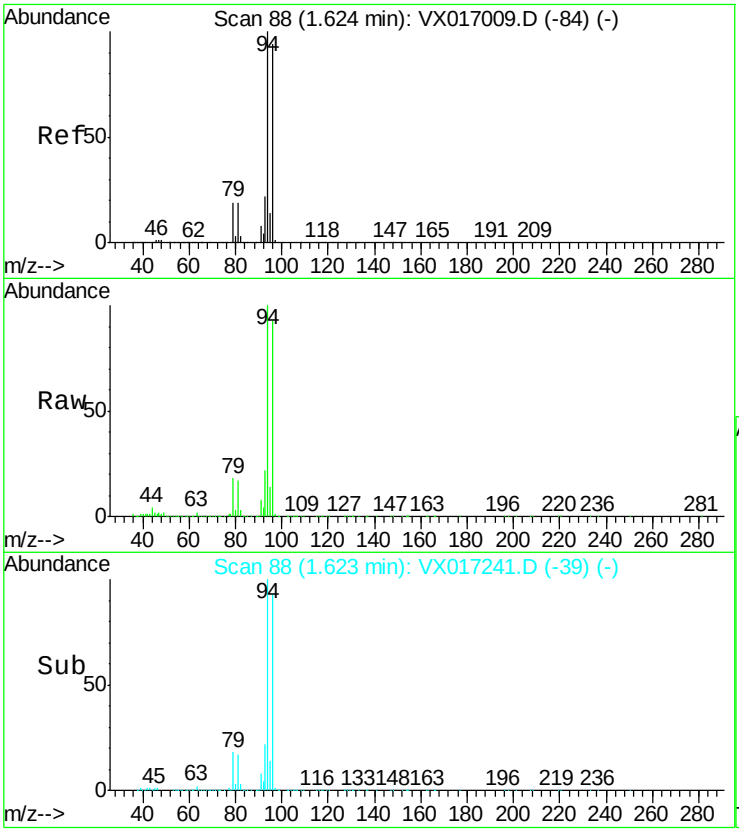
Tgt Ion: 62 Resp: 137153

Ion	Ratio	Lower	Upper
62	100		
64	31.6	25.9	38.9



Instrument :
MSVOA_X
ClientSampleId :
1004-MW-02MSD

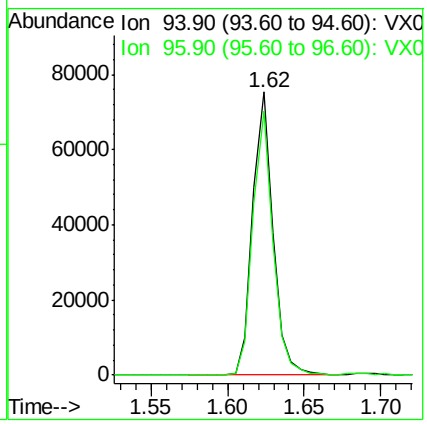
Manual Integrations APPROVED
MMDadoda
7/8/2020 9:32:07 AM

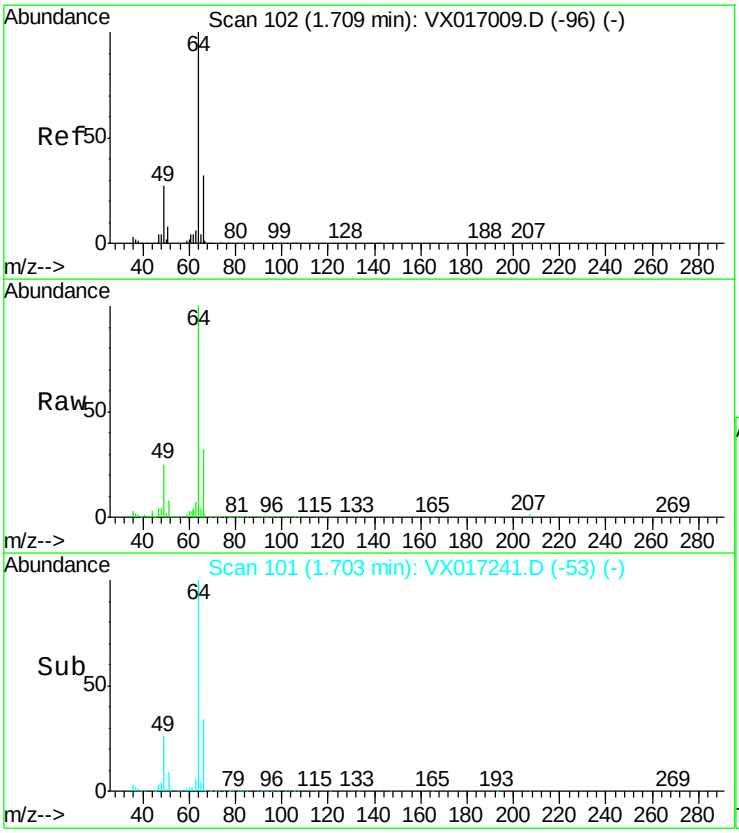


#5
Bromomethane
Concen: 48.161 ug/l
RT: 1.62 min Scan# 88
Delta R.T. 0.00 min
Lab File: VX017241.D
Acq: 08 Jul 2020 06:39

Tgt Ion: 94 Resp: 70051

Ion	Ratio	Lower	Upper
94	100		
96	93.3	75.0	112.4

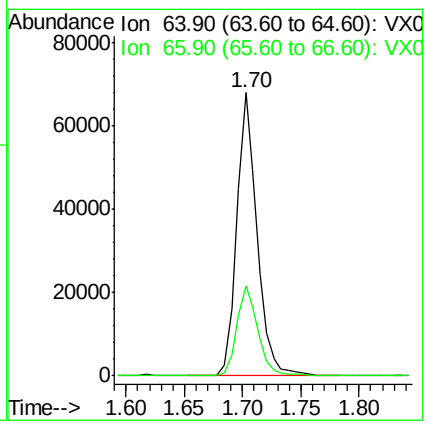




#6
Chloroethane
Concen: 51.139 ug/l
RT: 1.70 min Scan# 101
Delta R.T. -0.01 min
Lab File: VX017241.D
Acq: 08 Jul 2020 06:39

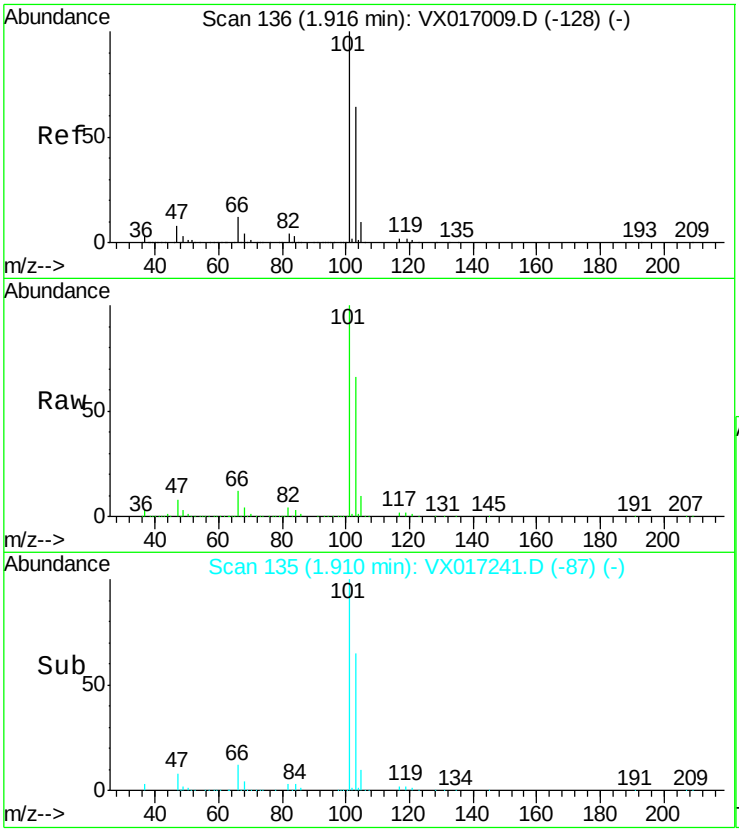
Tgt Ion: 64 Resp: 83150

Ion	Ratio	Lower	Upper
64	100		
66	31.8	25.5	38.3



Instrument :
MSVOA_X
ClientSampleId :
1004-MW-02MSD

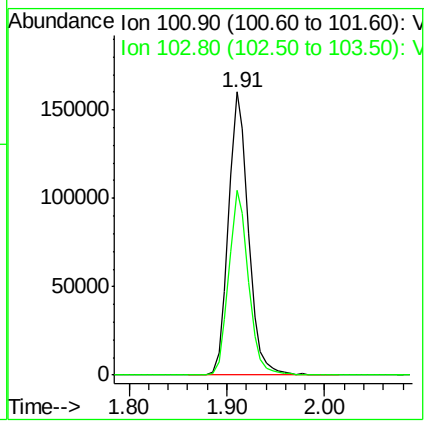
Manual Integrations APPROVED
MMDadoda
7/8/2020 9:32:07 AM

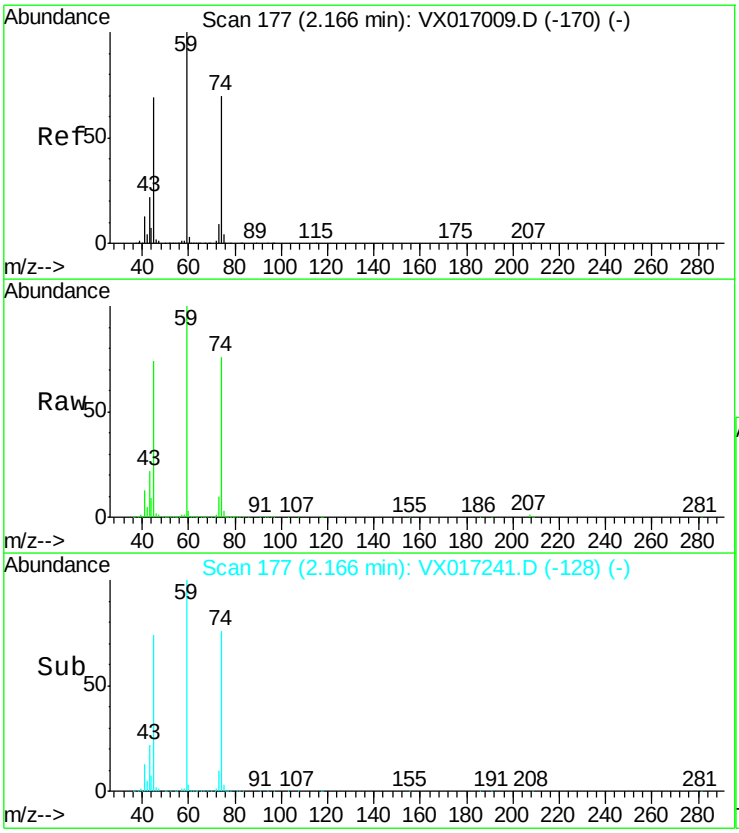


#7
Trichlorofluoromethane
Concen: 55.627 ug/l
RT: 1.91 min Scan# 135
Delta R.T. -0.01 min
Lab File: VX017241.D
Acq: 08 Jul 2020 06:39

Tgt Ion:101 Resp: 226494

Ion	Ratio	Lower	Upper
101	100		
103	65.5	51.5	77.3

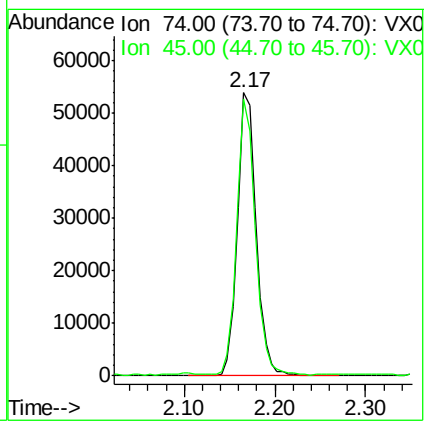




#8
Diethyl Ether
Concen: 56.714 ug/l
RT: 2.17 min Scan# 177
Delta R.T. -0.00 min
Lab File: VX017241.D
Acq: 08 Jul 2020 06:39

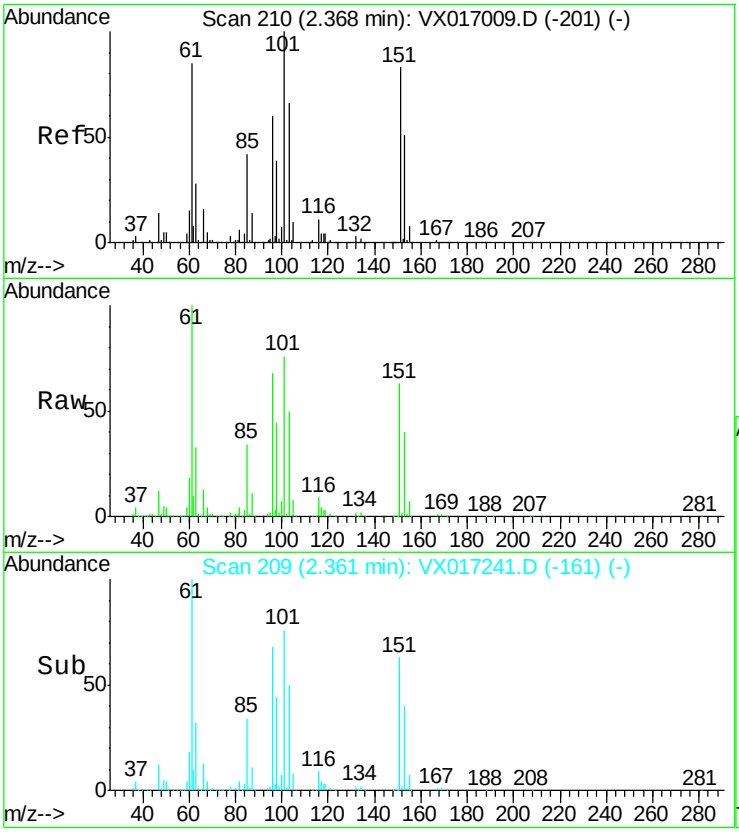
Tgt Ion: 74 Resp: 77765

Ion	Ratio	Lower	Upper
74	100		
45	96.4	49.8	149.3



Instrument :
MSVOA_X
ClientSampleId :
1004-MW-02MSD

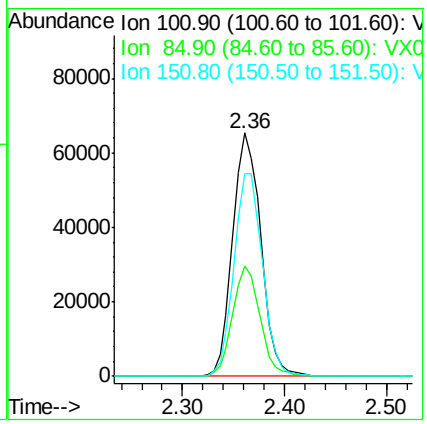
Manual Integrations APPROVED
MMDadoda
7/8/2020 9:32:07 AM

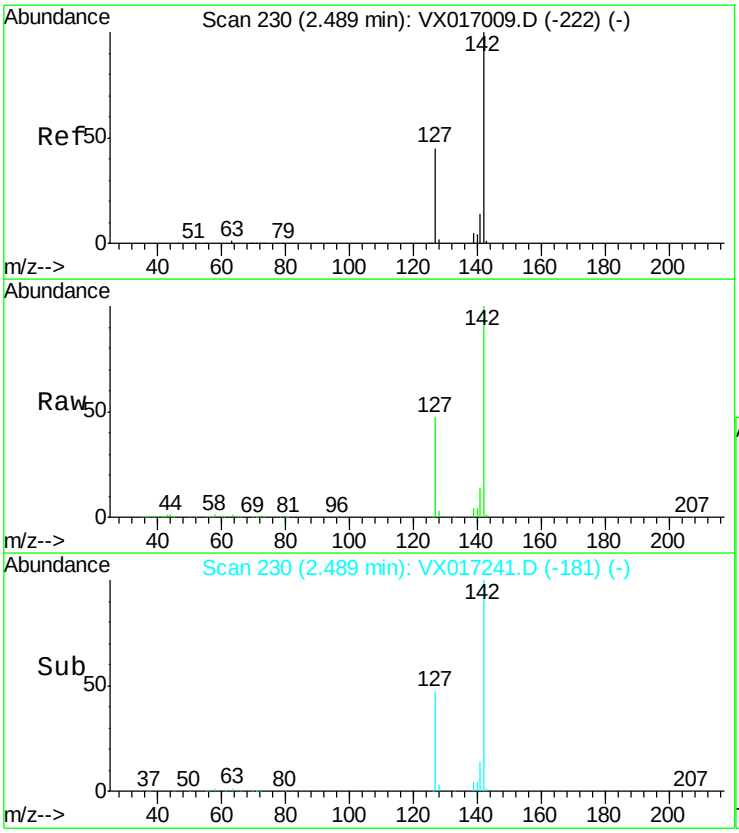


#9
1,1,2-Trichlorotrifluoroethane
Concen: 51.294 ug/l
RT: 2.36 min Scan# 209
Delta R.T. -0.01 min
Lab File: VX017241.D
Acq: 08 Jul 2020 06:39

Tgt Ion:101 Resp: 125174

Ion	Ratio	Lower	Upper
101	100		
85	44.0	33.5	50.3
151	84.2	63.8	95.6

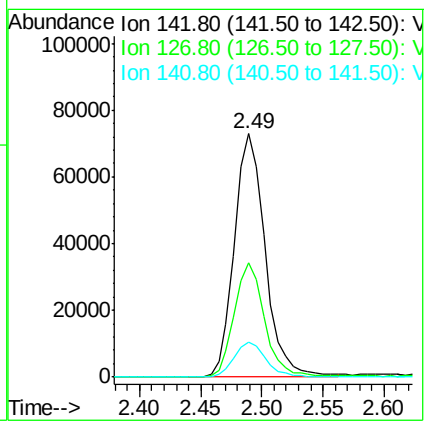




#10
Methyl Iodide
Concen: 40.621 ug/l
RT: 2.49 min Scan# 230
Delta R.T. -0.00 min
Lab File: VX017241.D
Acq: 08 Jul 2020 06:39

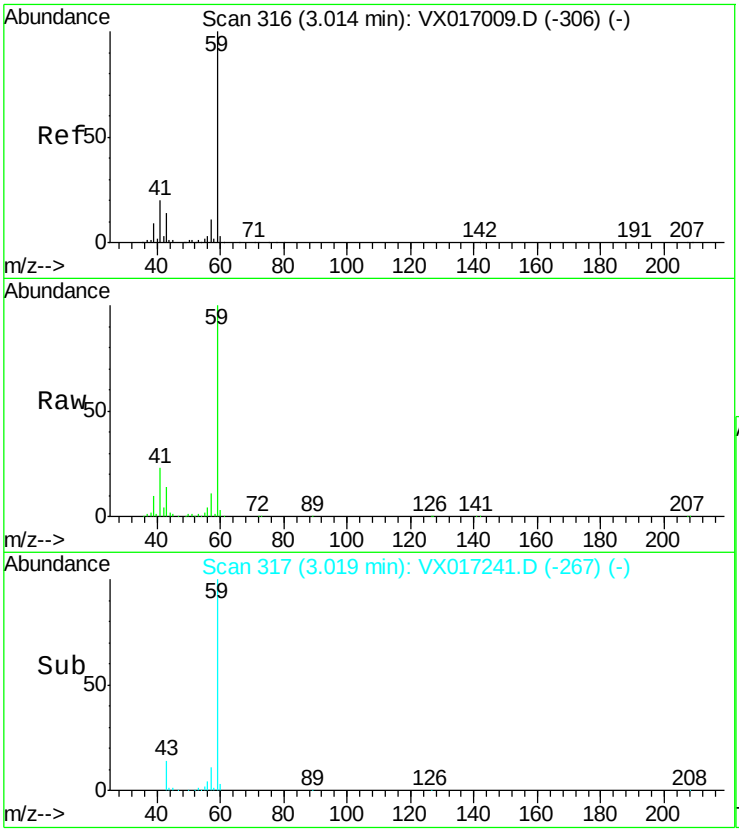
Tgt Ion:142 Resp: 127911

Ion	Ratio	Lower	Upper
142	100		
127	46.1	36.6	54.8
141	14.7	11.6	17.4



Instrument :
MSVOA_X
ClientSampleId :
1004-MW-02MSD

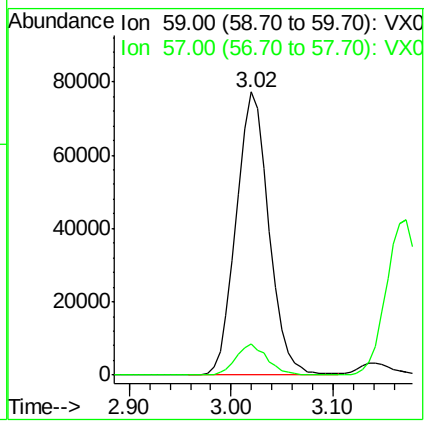
Manual Integrations APPROVED
MMDadoda
7/8/2020 9:32:07 AM

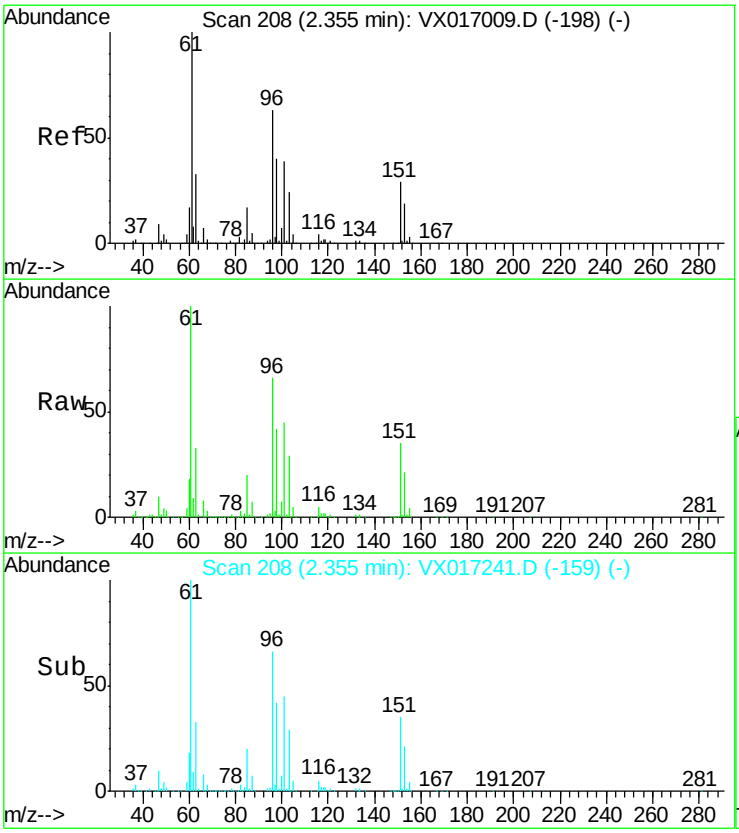


#11
Tert butyl alcohol
Concen: 288.661 ug/l
RT: 3.02 min Scan# 317
Delta R.T. 0.01 min
Lab File: VX017241.D
Acq: 08 Jul 2020 06:39

Tgt Ion: 59 Resp: 172019

Ion	Ratio	Lower	Upper
59	100		
57	10.6	8.2	12.2

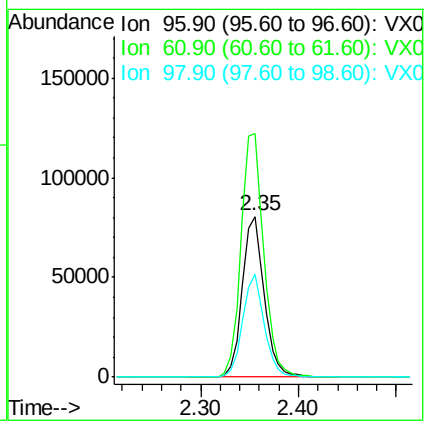




#12
1,1-Dichloroethene
Concen: 49.936 ug/l
RT: 2.35 min Scan# 208
Delta R.T. -0.00 min
Lab File: VX017241.D
Acq: 08 Jul 2020 06:39

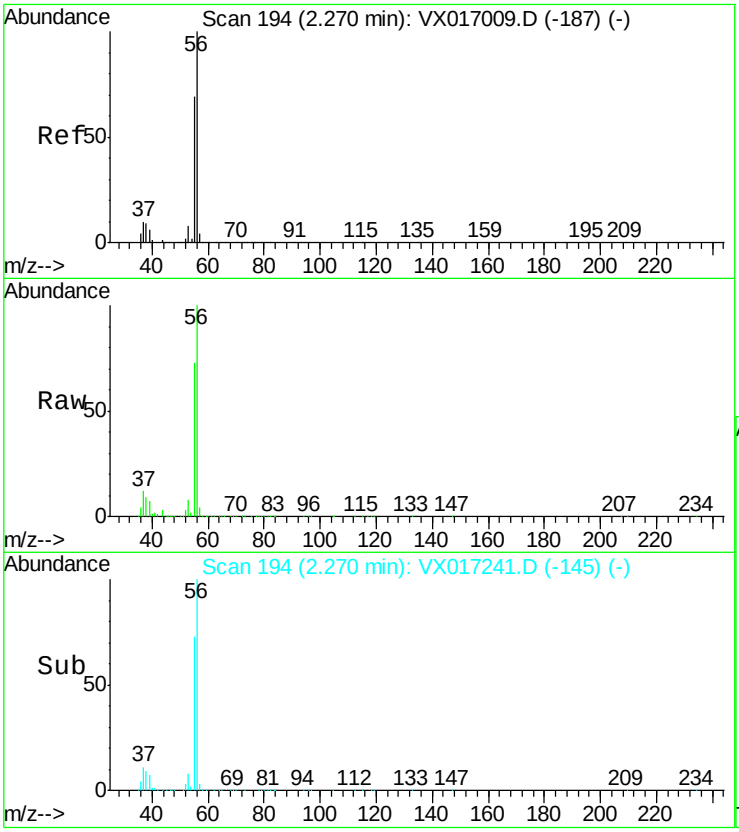
Tgt Ion: 96 Resp: 125184

Ion	Ratio	Lower	Upper
96	100		
61	151.6	126.3	189.5
98	63.7	51.0	76.6



Instrument :
MSVOA_X
ClientSampleId :
1004-MW-02MSD

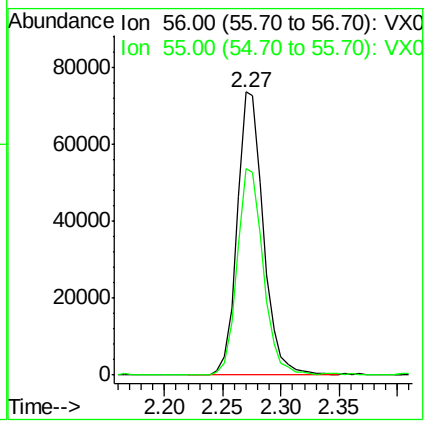
Manual Integrations APPROVED
MMDadoda
7/8/2020 9:32:07 AM

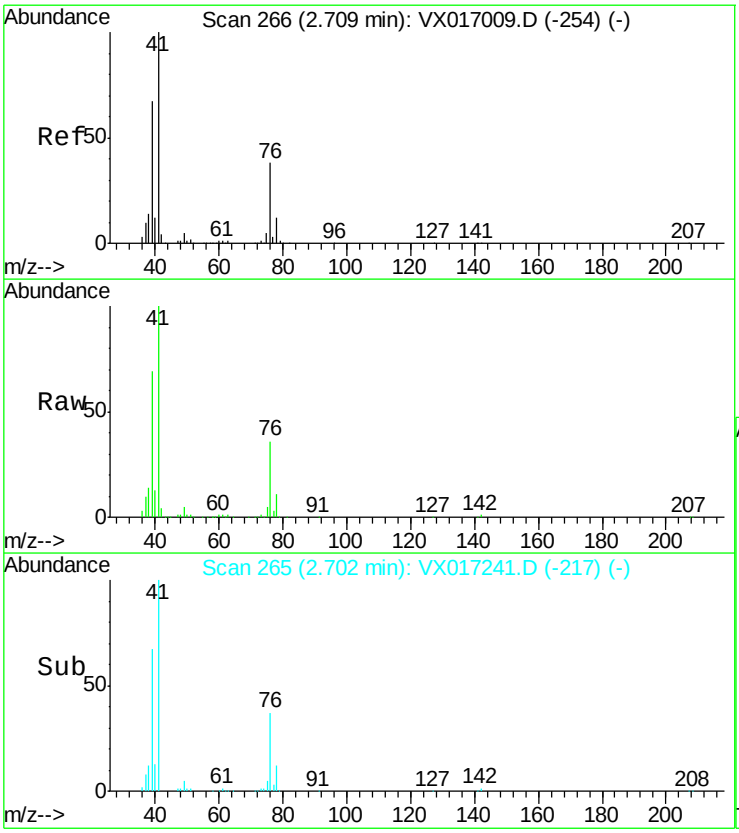


#13
Acrolein
Concen: 324.072 ug/l
RT: 2.27 min Scan# 194
Delta R.T. -0.00 min
Lab File: VX017241.D
Acq: 08 Jul 2020 06:39

Tgt Ion: 56 Resp: 115444

Ion	Ratio	Lower	Upper
56	100		
55	72.6	55.7	83.5

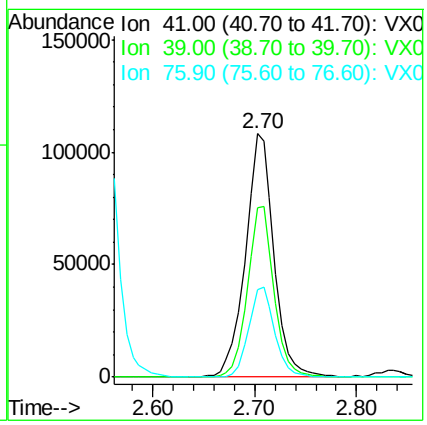




#14
Allyl chloride
Concen: 45.386 ug/l
RT: 2.70 min Scan# 265
Delta R.T. -0.01 min
Lab File: VX017241.D
Acq: 08 Jul 2020 06:39

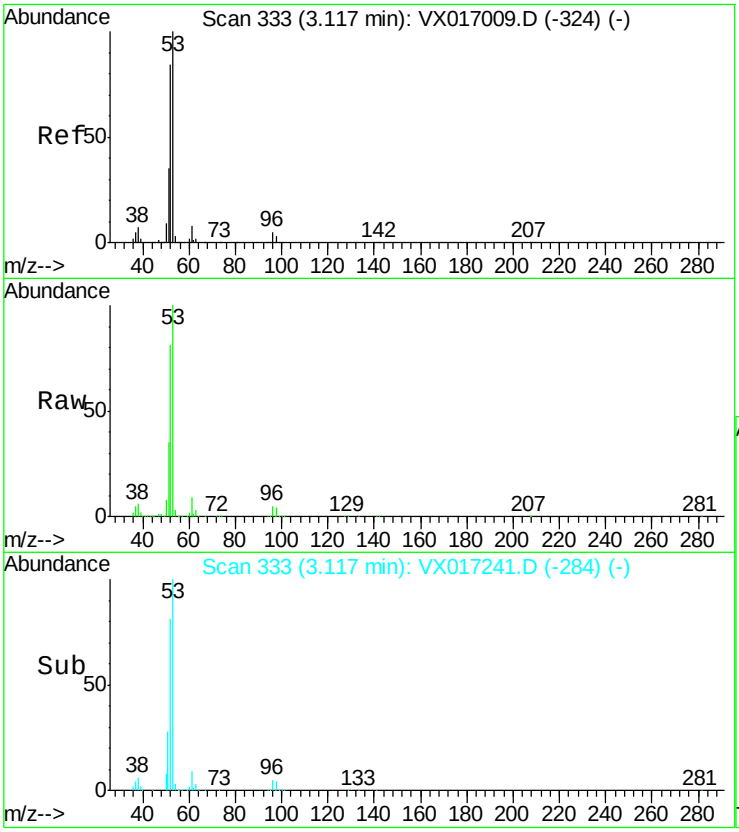
Tgt Ion: 41 Resp: 210271

Ion	Ratio	Lower	Upper
41	100		
39	65.6	49.4	74.2
76	33.9	26.8	40.2



Instrument :
MSVOA_X
ClientSampleId :
1004-MW-02MSD

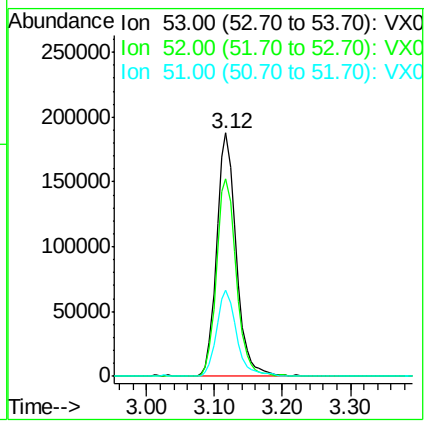
Manual Integrations APPROVED
MMDadoda
7/8/2020 9:32:07 AM

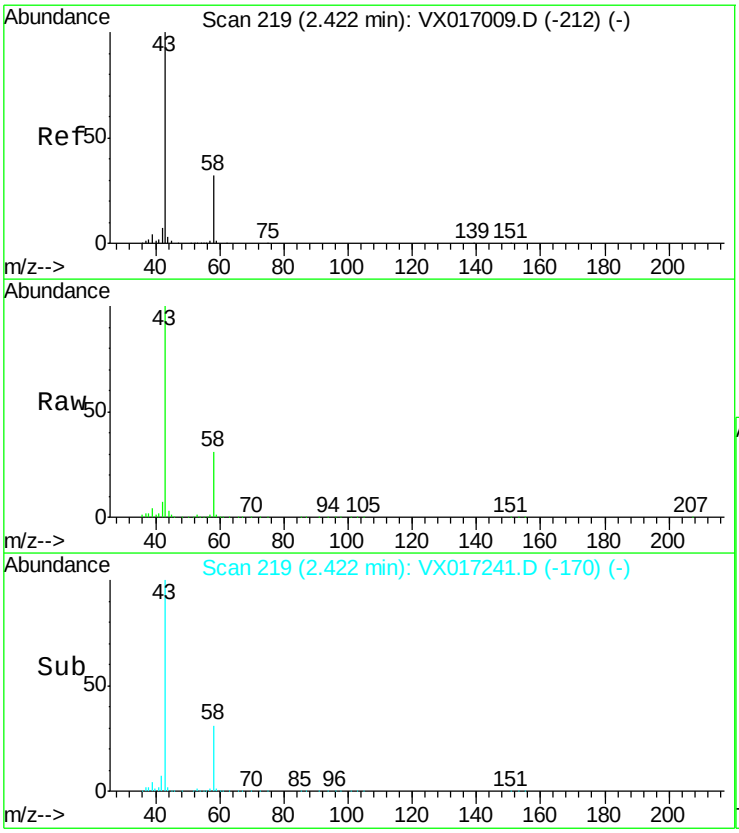


#15
Acrylonitrile
Concen: 261.765 ug/l
RT: 3.12 min Scan# 333
Delta R.T. -0.00 min
Lab File: VX017241.D
Acq: 08 Jul 2020 06:39

Tgt Ion: 53 Resp: 374996

Ion	Ratio	Lower	Upper
53	100		
52	82.1	65.6	98.4
51	36.0	28.3	42.5

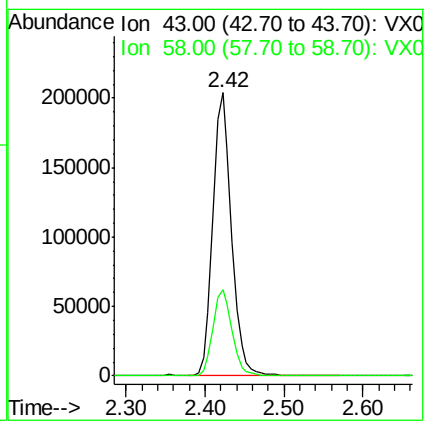




#16
Acetone
Concen: 286.402 ug/l
RT: 2.42 min Scan# 219
Delta R.T. -0.00 min
Lab File: VX017241.D
Acq: 08 Jul 2020 06:39

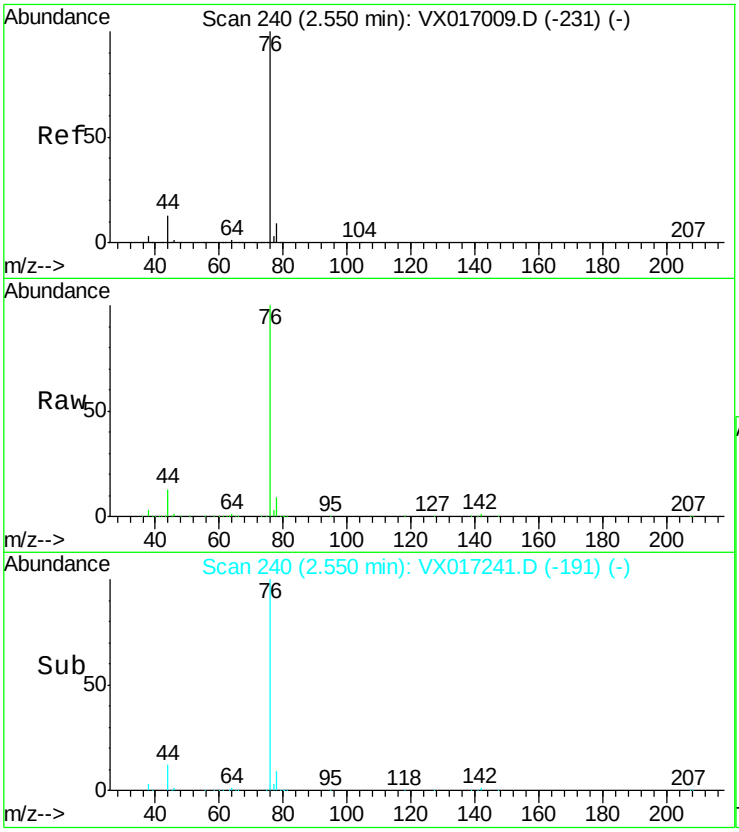
Tgt Ion: 43 Resp: 334680

Ion	Ratio	Lower	Upper
43	100		
58	30.6	25.7	38.5



Instrument :
MSVOA_X
ClientSampleId :
1004-MW-02MSD

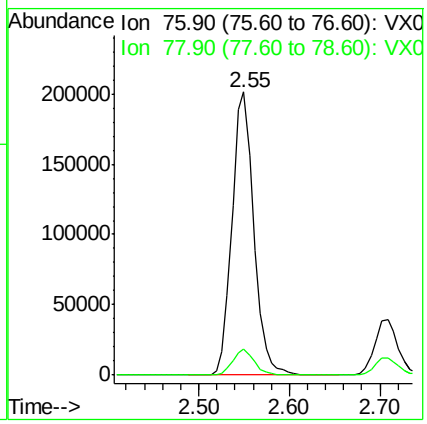
Manual Integrations APPROVED
MMDadoda
7/8/2020 9:32:07 AM

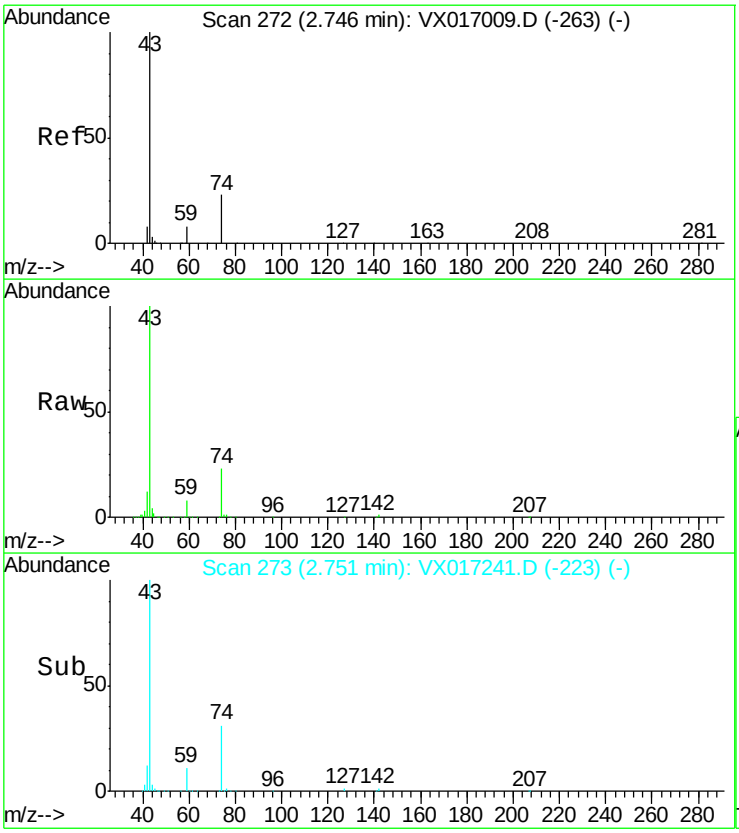


#17
Carbon Disulfide
Concen: 47.931 ug/l
RT: 2.55 min Scan# 240
Delta R.T. -0.00 min
Lab File: VX017241.D
Acq: 08 Jul 2020 06:39

Tgt Ion: 76 Resp: 335298

Ion	Ratio	Lower	Upper
76	100		
78	9.1	7.2	10.8

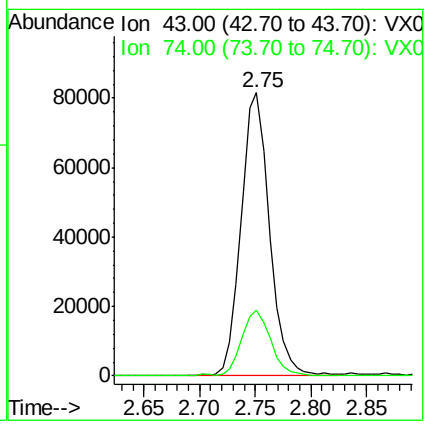




#18
Methyl Acetate
Concen: 47.255 ug/l
RT: 2.75 min Scan# 273
Delta R.T. 0.01 min
Lab File: VX017241.D
Acq: 08 Jul 2020 06:39

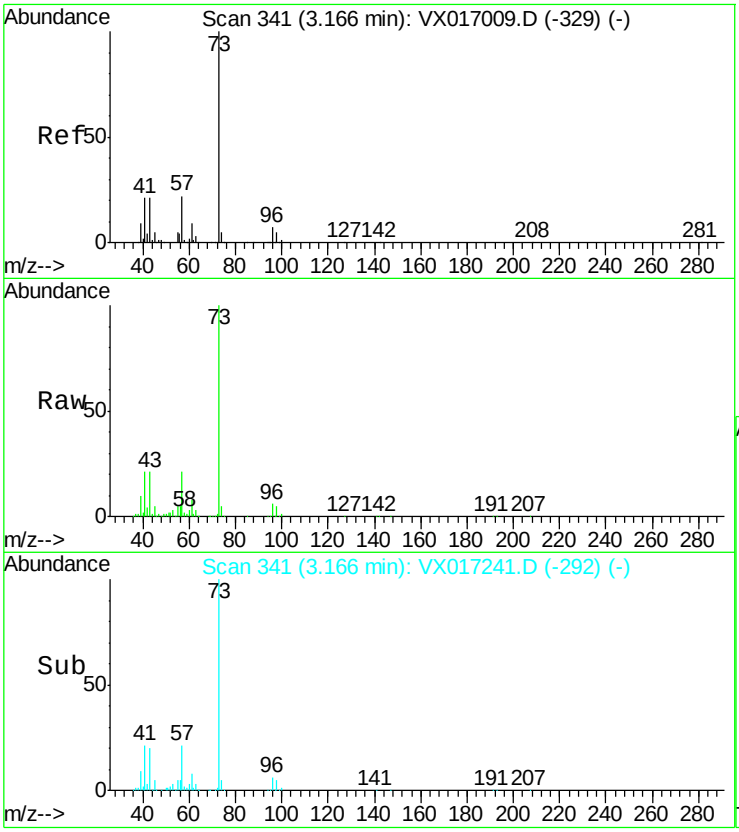
Tgt Ion: 43 Resp: 144155

Ion	Ratio	Lower	Upper
43	100		
74	24.3	19.3	28.9



Instrument :
MSVOA_X
ClientSampleId :
1004-MW-02MSD

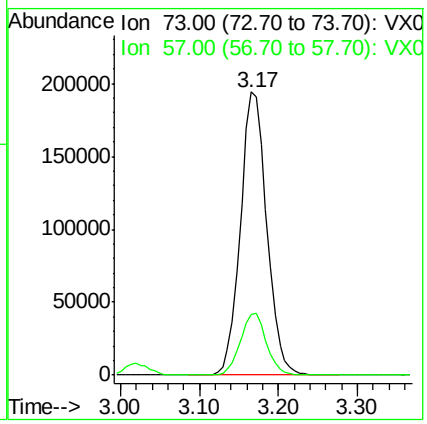
Manual Integrations APPROVED
MMDadoda
7/8/2020 9:32:07 AM

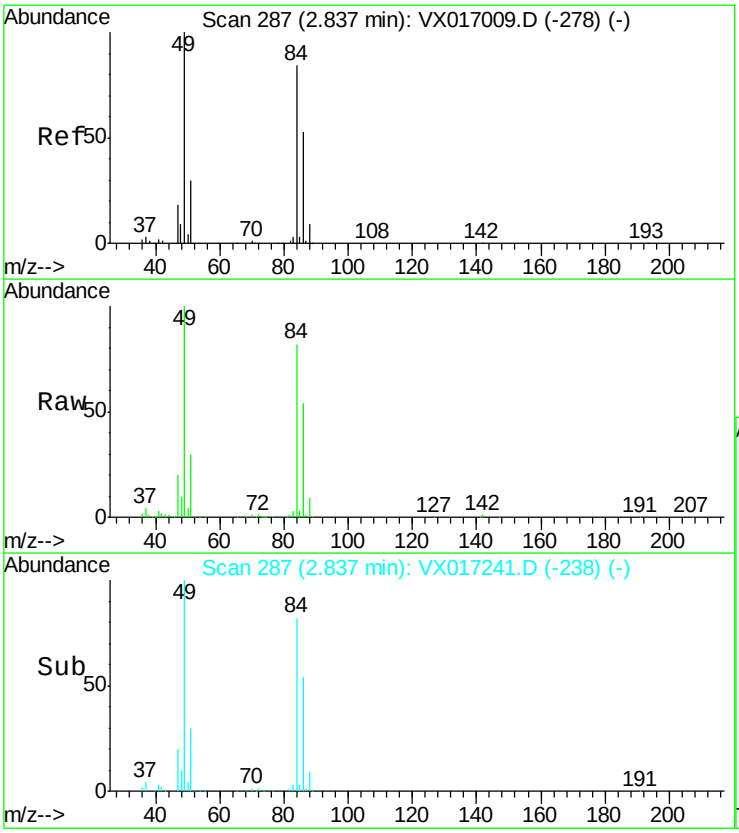


#19
Methyl tert-butyl Ether
Concen: 53.723 ug/l
RT: 3.17 min Scan# 341
Delta R.T. -0.00 min
Lab File: VX017241.D
Acq: 08 Jul 2020 06:39

Tgt Ion: 73 Resp: 452008

Ion	Ratio	Lower	Upper
73	100		
57	21.3	17.6	26.4

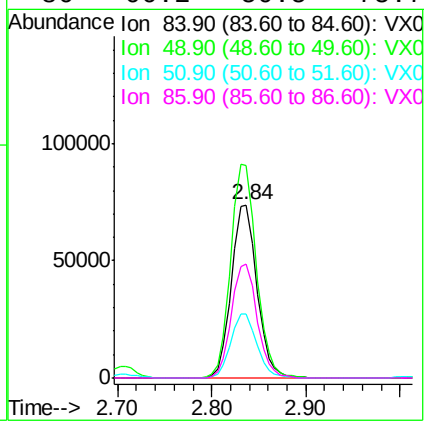




#20
Methylene Chloride
Concen: 52.270 ug/l
RT: 2.84 min Scan# 287
Delta R.T. 0.00 min
Lab File: VX017241.D
Acq: 08 Jul 2020 06:39

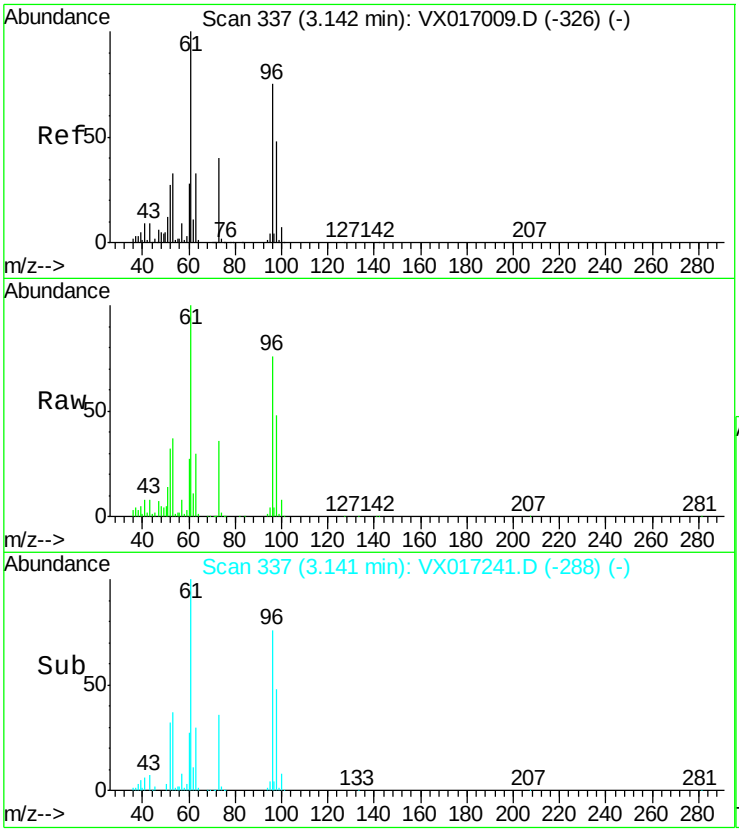
Tgt Ion: 84 Resp: 139992

Ion	Ratio	Lower	Upper
84	100		
49	122.4	94.7	142.1
51	36.7	28.6	42.8
86	66.2	50.5	75.7



Instrument :
MSVOA_X
ClientSampleId :
1004-MW-02MSD

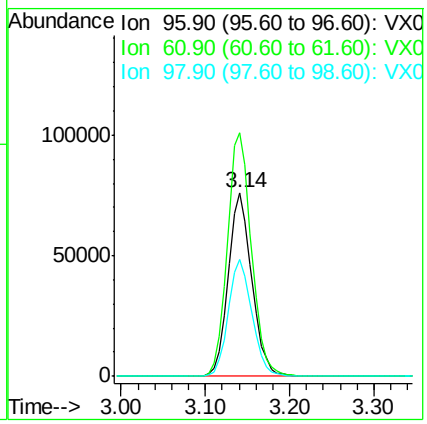
Manual Integrations APPROVED
MMDadoda
7/8/2020 9:32:07 AM

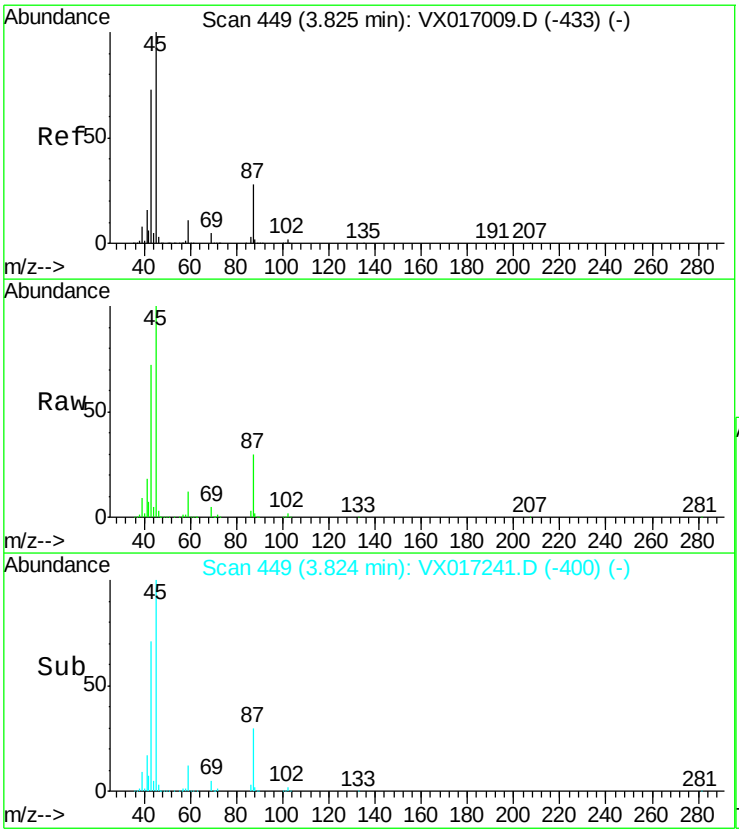


#21
trans-1,2-Dichloroethene
Concen: 51.842 ug/l
RT: 3.14 min Scan# 337
Delta R.T. -0.00 min
Lab File: VX017241.D
Acq: 08 Jul 2020 06:39

Tgt Ion: 96 Resp: 144226

Ion	Ratio	Lower	Upper
96	100		
61	132.3	107.0	160.6
98	63.8	51.6	77.4

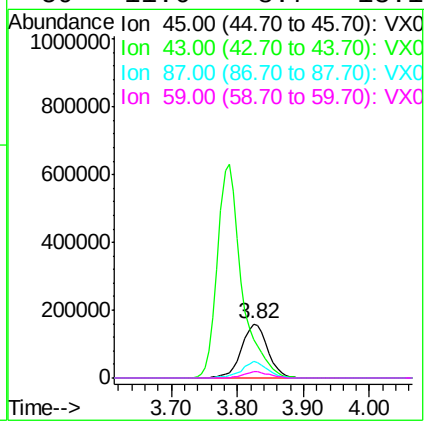




#22
Diisopropyl ether
Concen: 50.994 ug/l
RT: 3.82 min Scan# 449
Delta R.T. -0.00 min
Lab File: VX017241.D
Acq: 08 Jul 2020 06:39

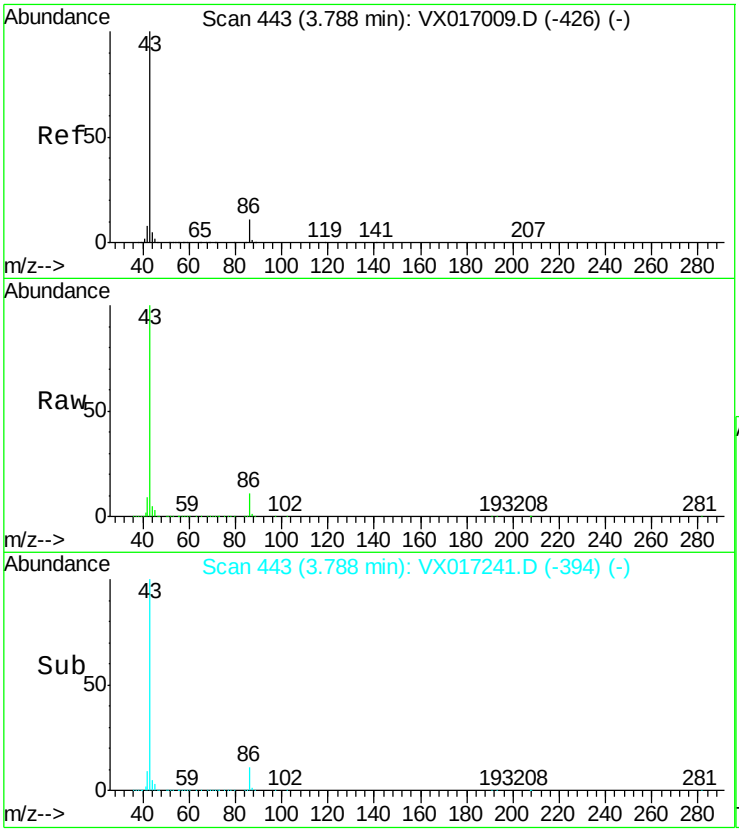
Tgt Ion: 45 Resp: 437268

Ion	Ratio	Lower	Upper
45	100		
43	71.4	58.6	88.0
87	29.8	22.6	34.0
59	11.6	8.7	13.1



Instrument :
MSVOA_X
ClientSampleId :
1004-MW-02MSD

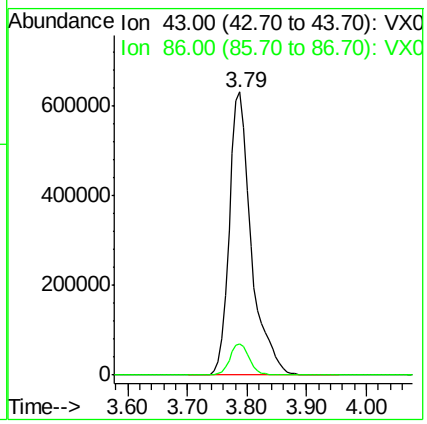
Manual Integrations APPROVED
MMDadoda
7/8/2020 9:32:07 AM

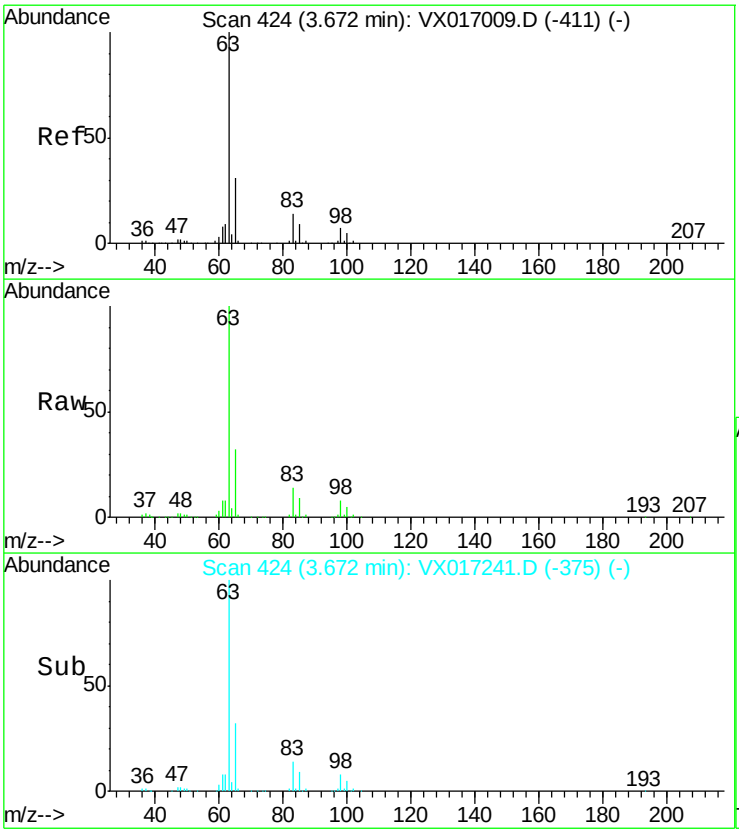


#23
Vinyl Acetate
Concen: 218.655 ug/l
RT: 3.79 min Scan# 443
Delta R.T. -0.00 min
Lab File: VX017241.D
Acq: 08 Jul 2020 06:39

Tgt Ion: 43 Resp: 1611146

Ion	Ratio	Lower	Upper
43	100		
86	10.9	8.6	13.0

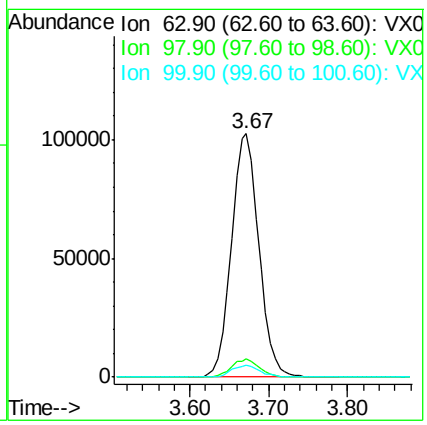




#24
1,1-Dichloroethane
Concen: 50.617 ug/l
RT: 3.67 min Scan# 424
Delta R.T. -0.00 min
Lab File: VX017241.D
Acq: 08 Jul 2020 06:39

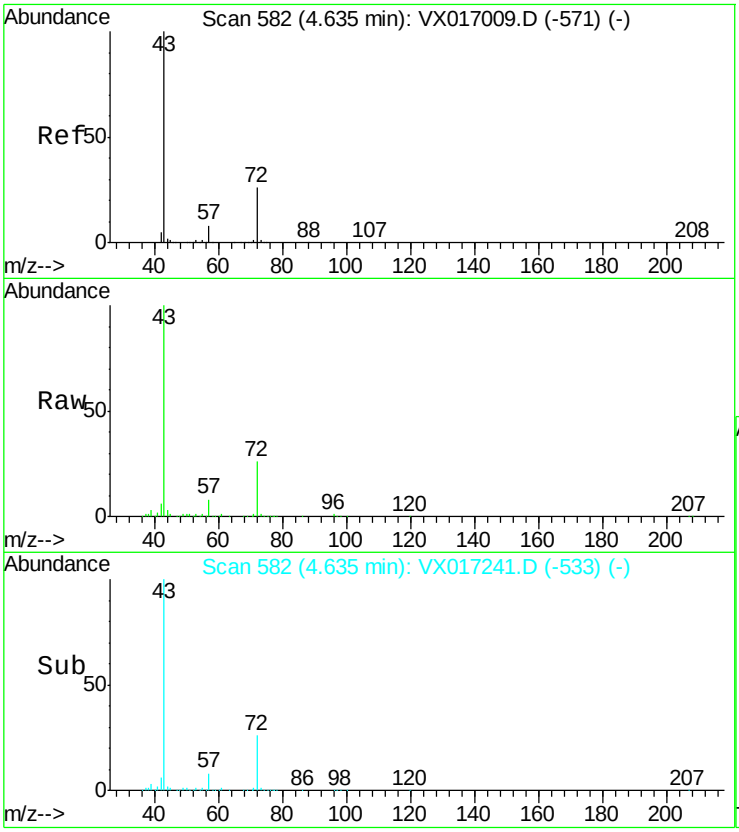
Tgt Ion: 63 Resp: 246963

Ion	Ratio	Lower	Upper
63	100		
98	7.7	3.6	10.8
100	5.0	2.4	7.1



Instrument :
MSVOA_X
ClientSampleId :
1004-MW-02MSD

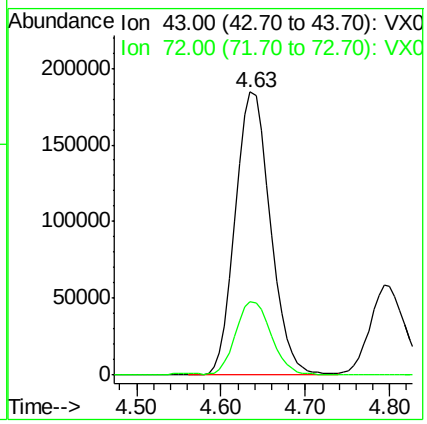
Manual Integrations APPROVED
MMDadoda
7/8/2020 9:32:07 AM

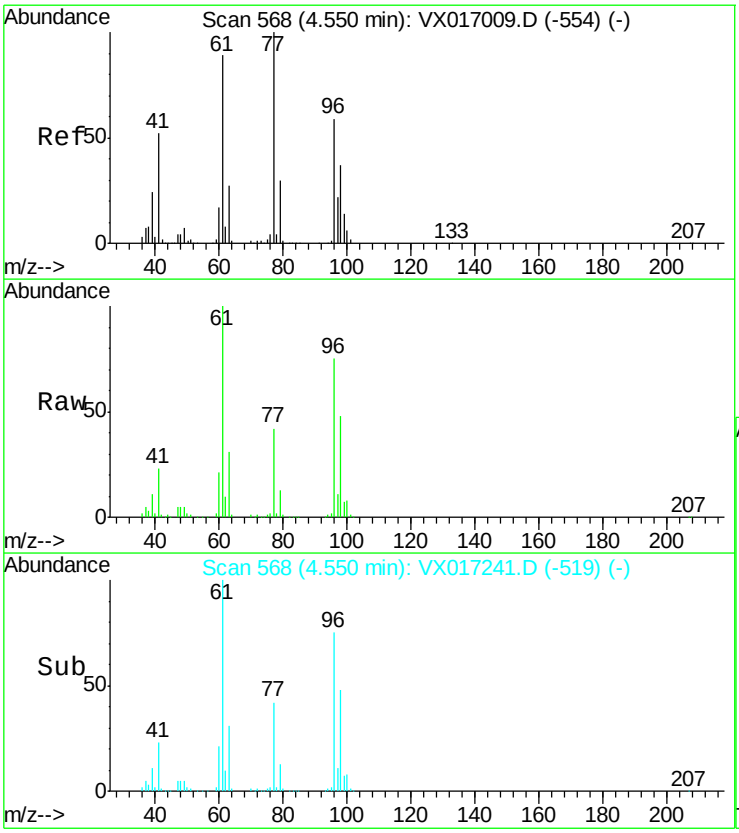


#25
2-Butanone
Concen: 267.684 ug/l
RT: 4.63 min Scan# 582
Delta R.T. -0.00 min
Lab File: VX017241.D
Acq: 08 Jul 2020 06:39

Tgt Ion: 43 Resp: 521218

Ion	Ratio	Lower	Upper
43	100		
72	25.9	20.8	31.2

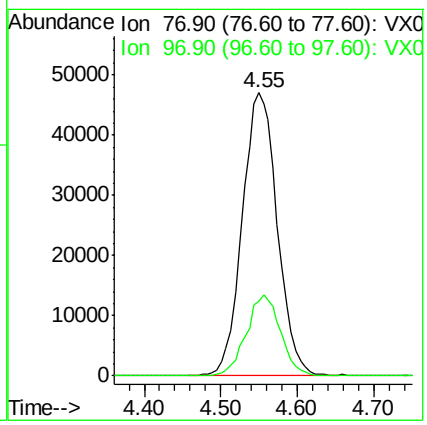




#26
2,2-Dichloropropane
Concen: 34.477 ug/l
RT: 4.55 min Scan# 568
Delta R.T. -0.00 min
Lab File: VX017241.D
Acq: 08 Jul 2020 06:39

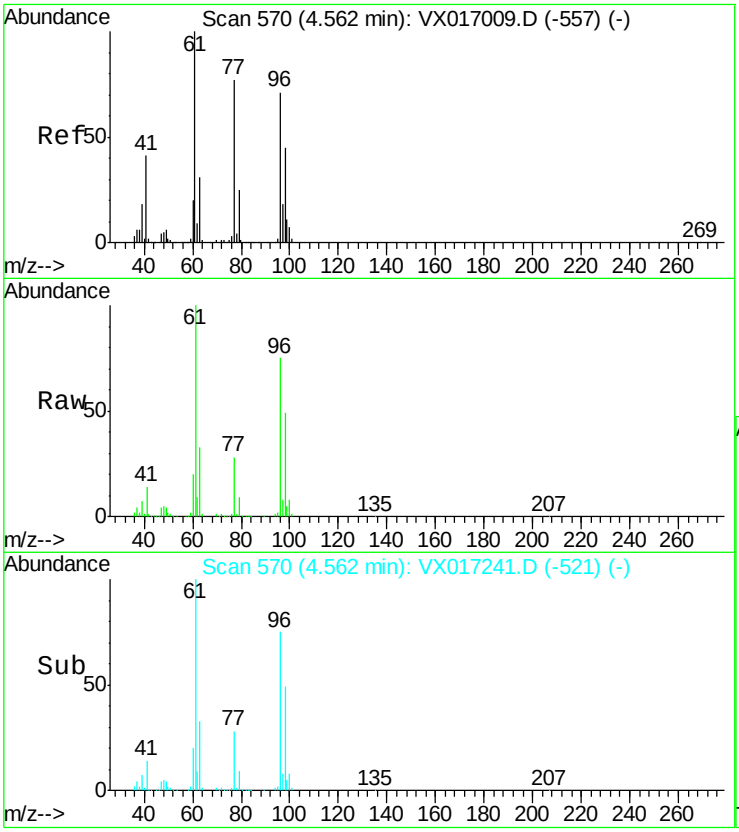
Tgt Ion: 77 Resp: 149360

Ion	Ratio	Lower	Upper
77	100		
97	28.0	11.4	34.2



Instrument :
MSVOA_X
ClientSampleId :
1004-MW-02MSD

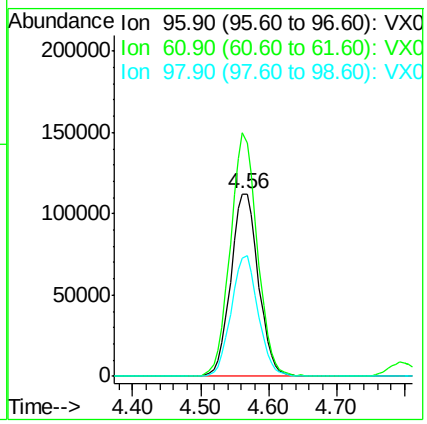
Manual Integrations APPROVED
MMDadoda
7/8/2020 9:32:07 AM

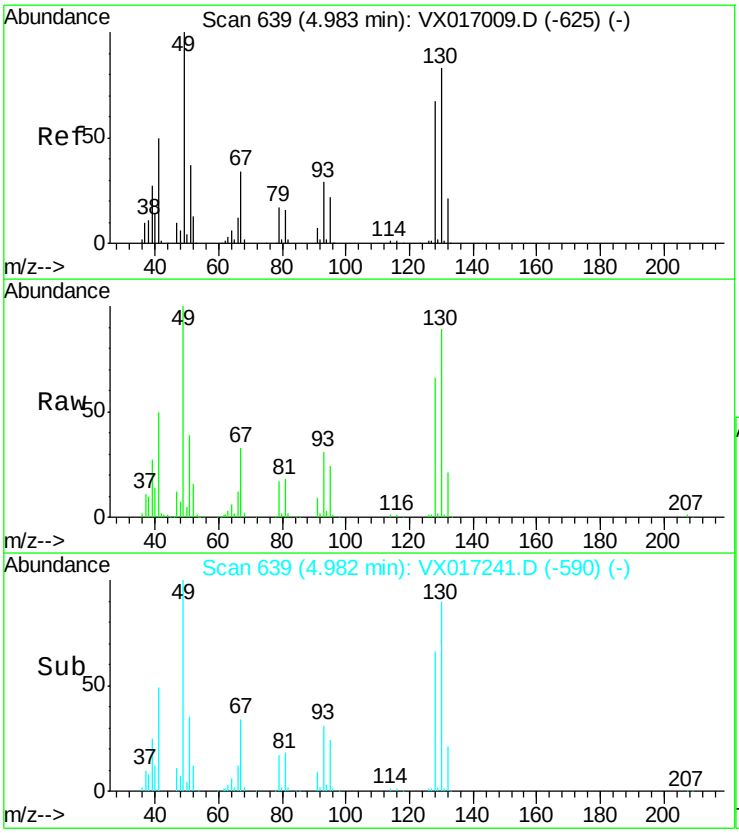


#27
cis-1,2-Dichloroethene
Concen: 100.326 ug/l
RT: 4.56 min Scan# 570
Delta R.T. -0.00 min
Lab File: VX017241.D
Acq: 08 Jul 2020 06:39

Tgt Ion: 96 Resp: 316249

Ion	Ratio	Lower	Upper
96	100		
61	130.5	0.0	282.8
98	64.7	0.0	127.6

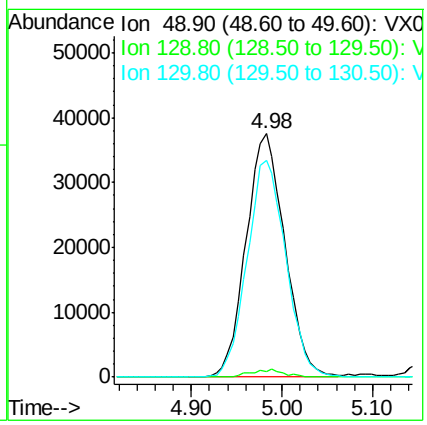




#28
Bromochloromethane
Concen: 46.838 ug/l
RT: 4.98 min Scan# 639
Delta R.T. -0.00 min
Lab File: VX017241.D
Acq: 08 Jul 2020 06:39

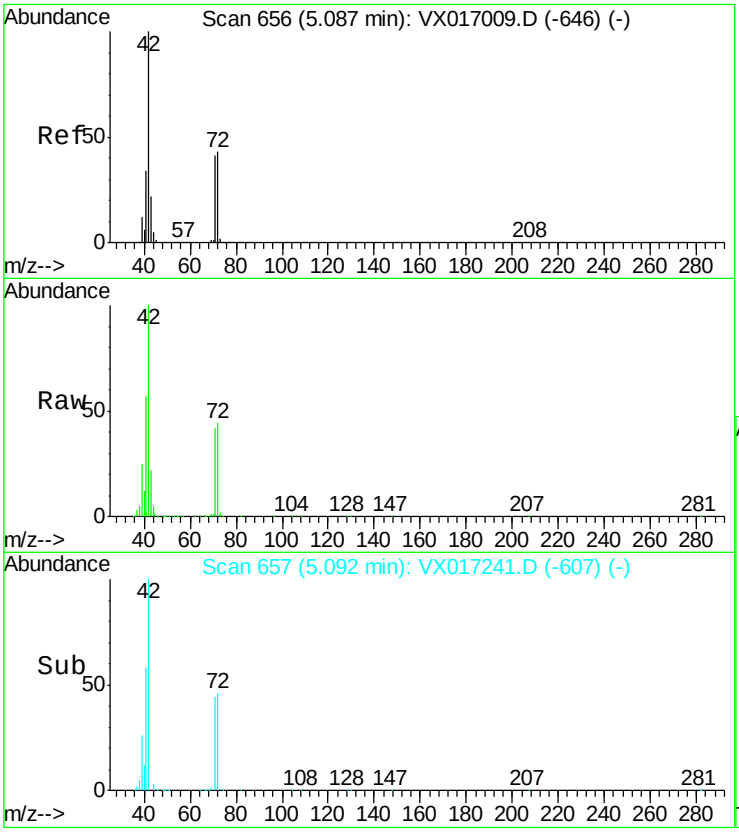
Tgt Ion: 49 Resp: 111205

Ion	Ratio	Lower	Upper
49	100		
129	2.6	0.0	4.2
130	89.0	66.6	100.0



Instrument :
MSVOA_X
ClientSampleId :
1004-MW-02MSD

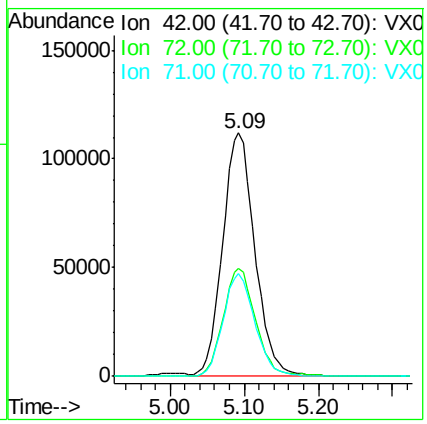
Manual Integrations APPROVED
MMDadoda
7/8/2020 9:32:07 AM

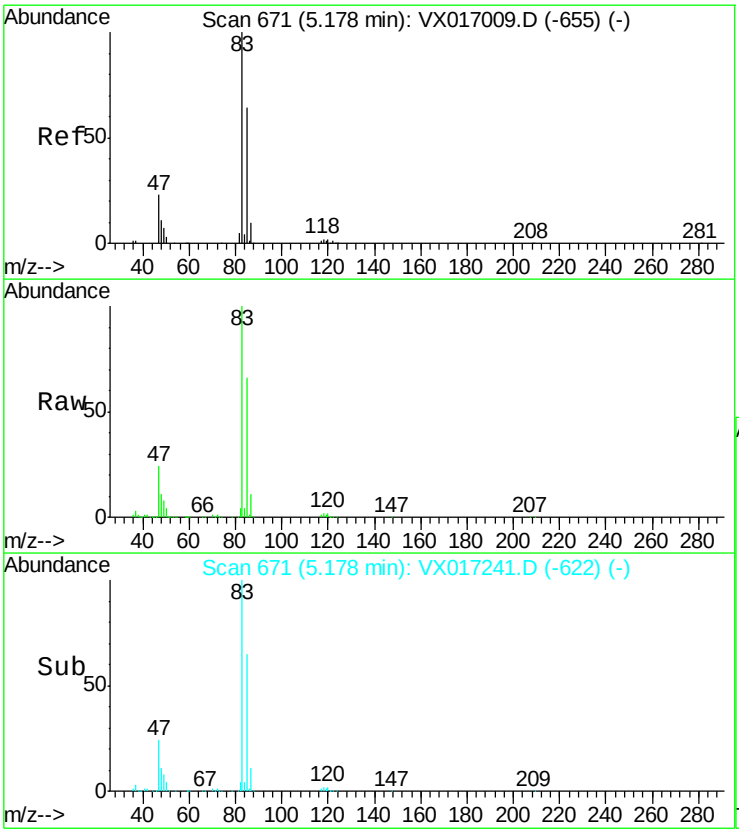


#29
Tetrahydrofuran
Concen: 261.782 ug/l
RT: 5.09 min Scan# 657
Delta R.T. 0.01 min
Lab File: VX017241.D
Acq: 08 Jul 2020 06:39

Tgt Ion: 42 Resp: 336786

Ion	Ratio	Lower	Upper
42	100		
72	44.9	35.3	52.9
71	41.9	33.1	49.7

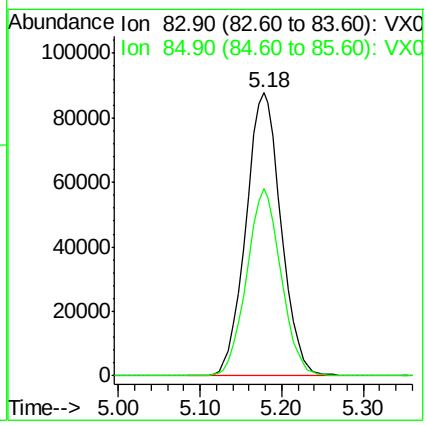




#30
Chloroform
Concen: 52.629 ug/l
RT: 5.18 min Scan# 671
Delta R.T. -0.00 min
Lab File: VX017241.D
Acq: 08 Jul 2020 06:39

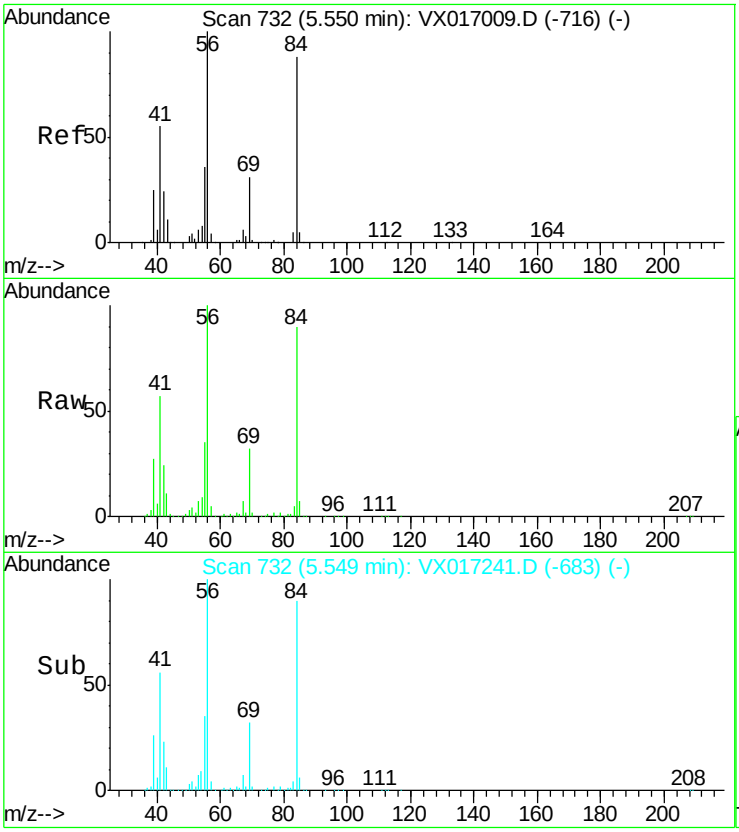
Tgt Ion: 83 Resp: 263226

Ion	Ratio	Lower	Upper
83	100		
85	66.4	51.4	77.2



Instrument :
MSVOA_X
ClientSampleId :
1004-MW-02MSD

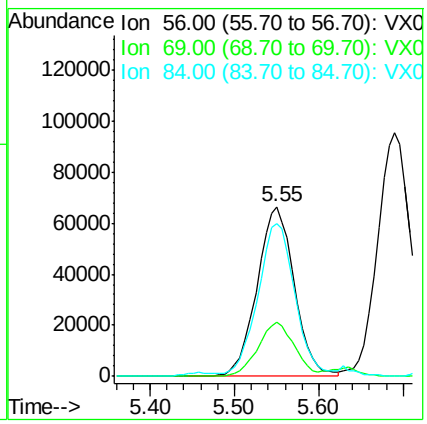
Manual Integrations APPROVED
MMDadoda
7/8/2020 9:32:07 AM

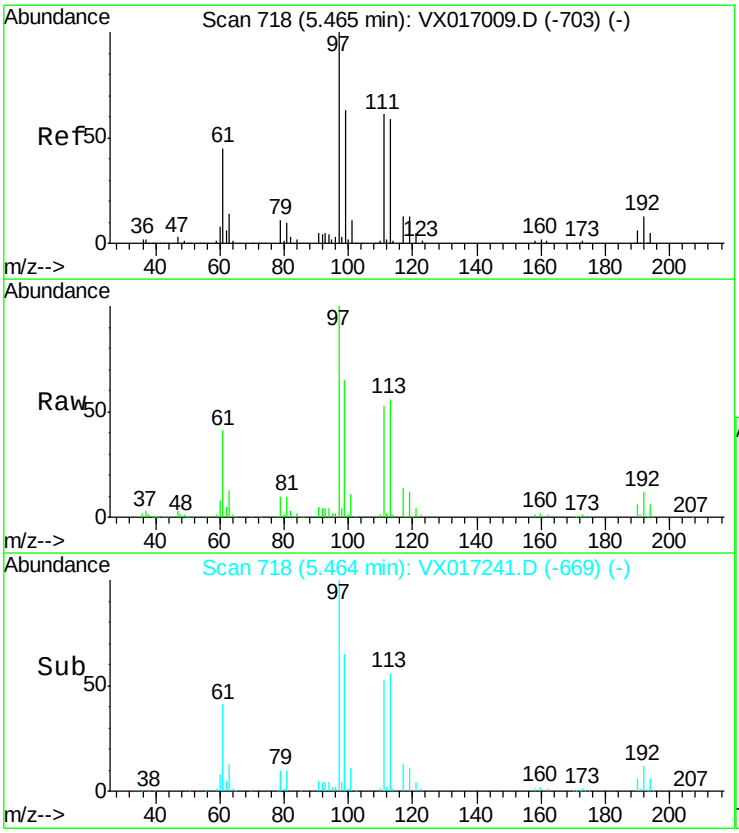


#31
Cyclohexane
Concen: 47.940 ug/l
RT: 5.55 min Scan# 732
Delta R.T. -0.00 min
Lab File: VX017241.D
Acq: 08 Jul 2020 06:39

Tgt Ion: 56 Resp: 202178

Ion	Ratio	Lower	Upper
56	100		
69	32.1	25.0	37.4
84	88.5	69.1	103.7

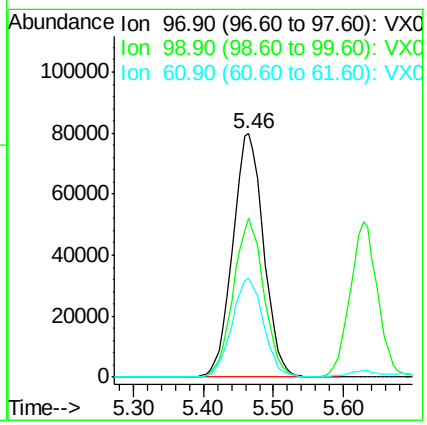




#32
1,1,1-Trichloroethane
Concen: 53.056 ug/l
RT: 5.46 min Scan# 718
Delta R.T. -0.00 min
Lab File: VX017241.D
Acq: 08 Jul 2020 06:39

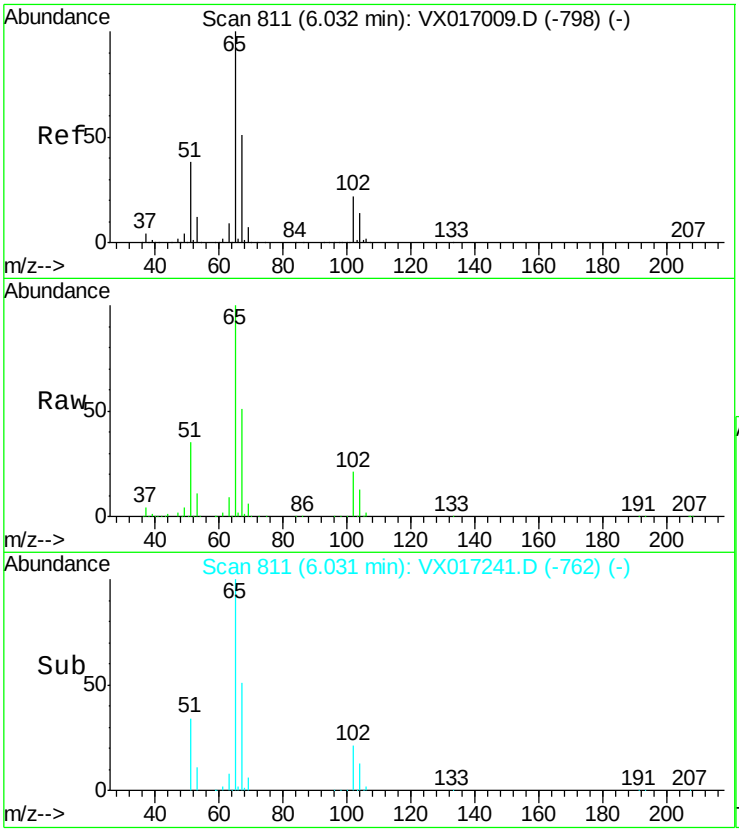
Tgt Ion: 97 Resp: 244387

Ion	Ratio	Lower	Upper
97	100		
99	64.1	50.8	76.2
61	41.6	33.7	50.5



Instrument :
MSVOA_X
ClientSampleId :
1004-MW-02MSD

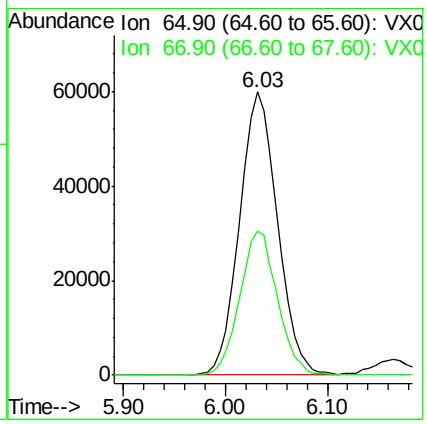
Manual Integrations APPROVED
MMDadoda
7/8/2020 9:32:07 AM

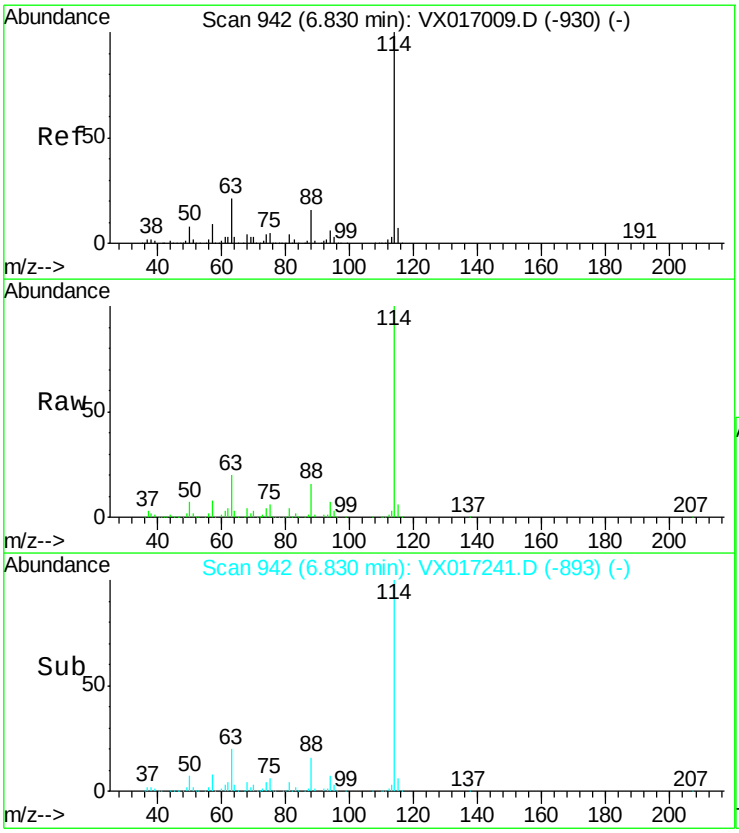


#33
1,2-Dichloroethane-d4
Concen: 49.576 ug/l
RT: 6.03 min Scan# 811
Delta R.T. -0.00 min
Lab File: VX017241.D
Acq: 08 Jul 2020 06:39

Tgt Ion: 65 Resp: 154862

Ion	Ratio	Lower	Upper
65	100		
67	50.5	0.0	103.8

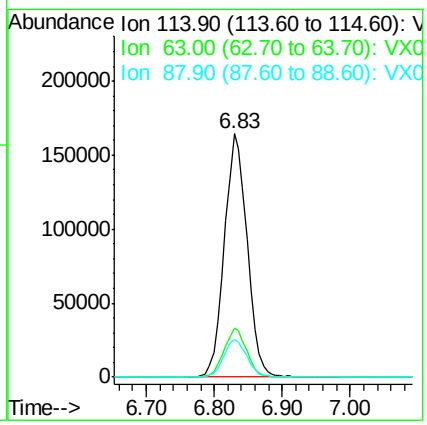




#34
1,4-Difluorobenzene
Concen: 50.000 ug/l
RT: 6.83 min Scan# 942
Delta R.T. -0.00 min
Lab File: VX017241.D
Acq: 08 Jul 2020 06:39

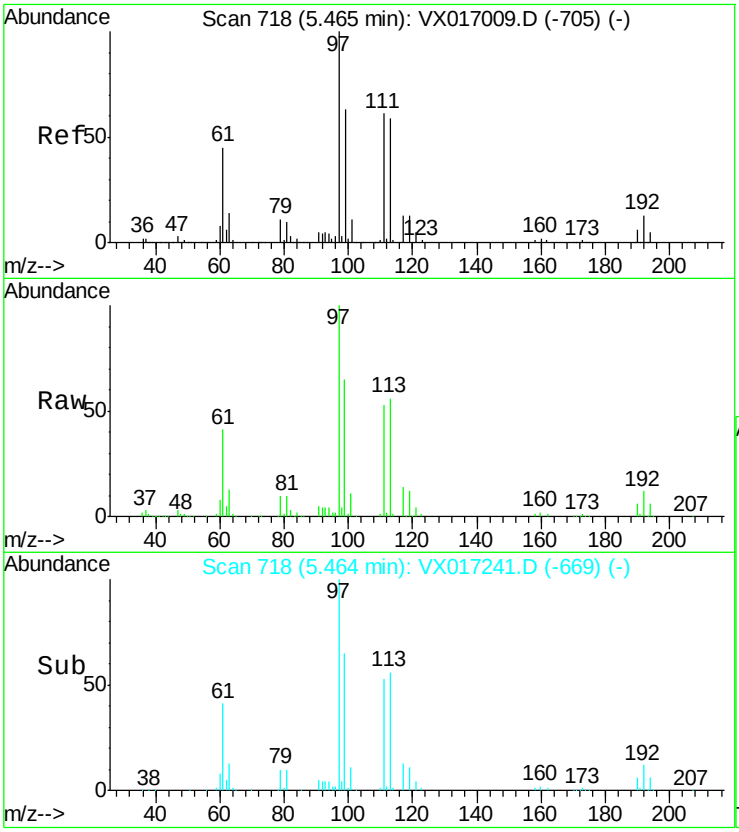
Tgt Ion:114 Resp: 381377

Ion	Ratio	Lower	Upper
114	100		
63	20.0	0.0	41.4
88	15.6	0.0	32.4



Instrument :
MSVOA_X
ClientSampleId :
1004-MW-02MSD

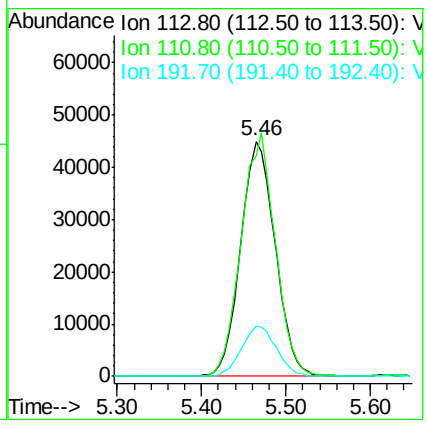
Manual Integrations APPROVED
MMDadoda
7/8/2020 9:32:07 AM

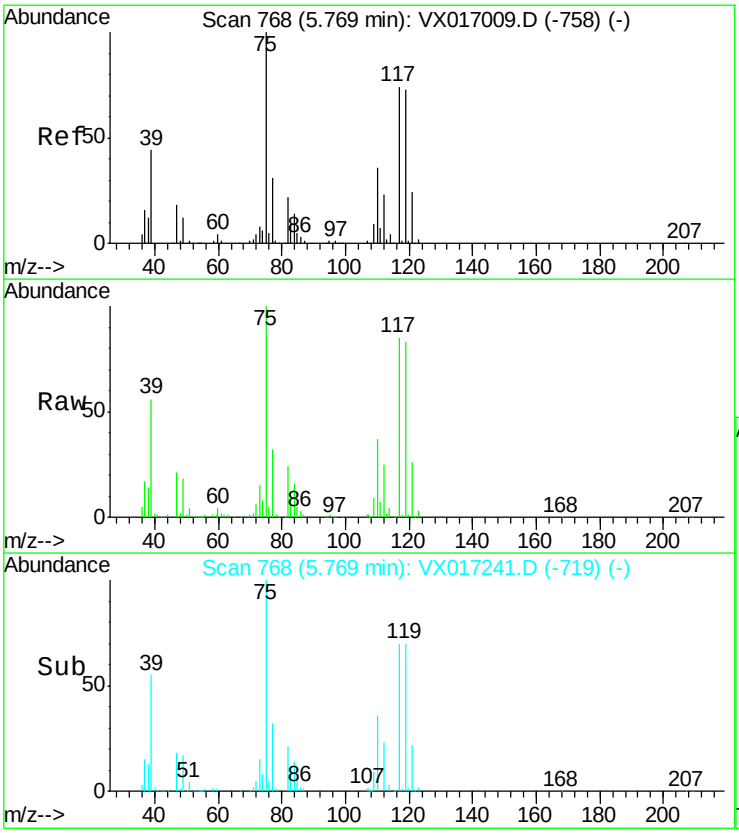


#35
Dibromofluoromethane
Concen: 51.780 ug/l
RT: 5.46 min Scan# 718
Delta R.T. -0.00 min
Lab File: VX017241.D
Acq: 08 Jul 2020 06:39

Tgt Ion:113 Resp: 124919

Ion	Ratio	Lower	Upper
113	100		
111	102.6	81.9	122.9
192	21.7	16.7	25.1

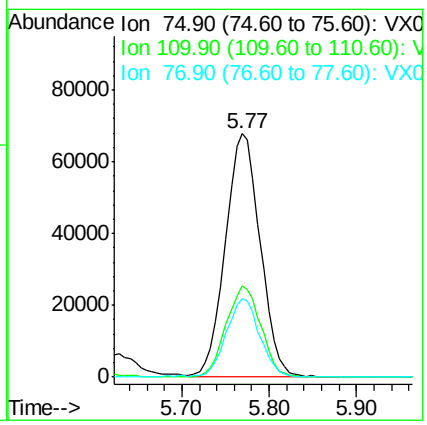




#36
1,1-Dichloropropene
Concen: 52.126 ug/l
RT: 5.77 min Scan# 768
Delta R.T. -0.00 min
Lab File: VX017241.D
Acq: 08 Jul 2020 06:39

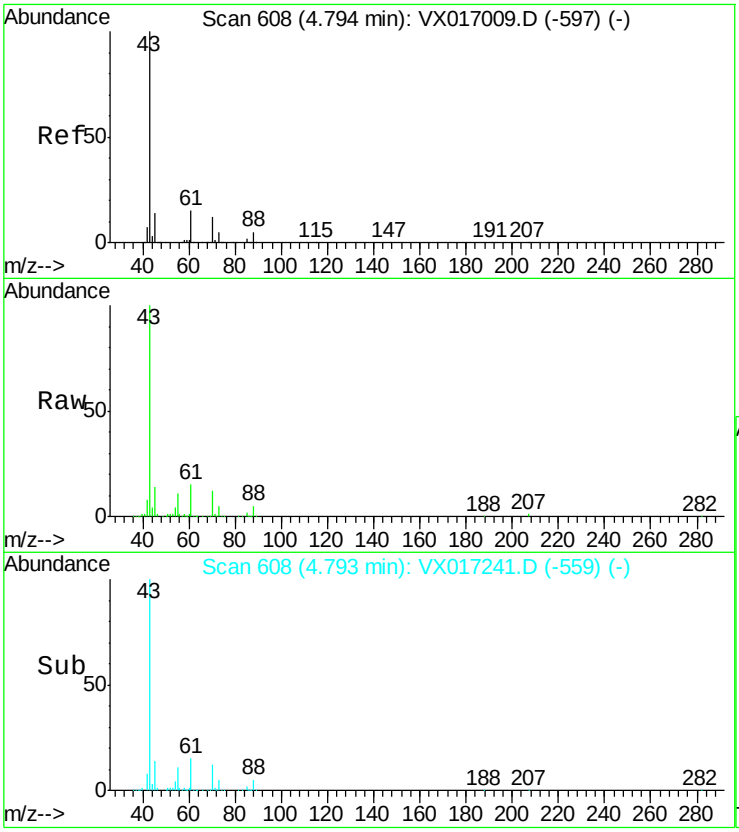
Tgt Ion: 75 Resp: 187887

Ion	Ratio	Lower	Upper
75	100		
110	37.3	18.1	54.1
77	31.1	24.6	37.0



Instrument :
MSVOA_X
ClientSampleId :
1004-MW-02MSD

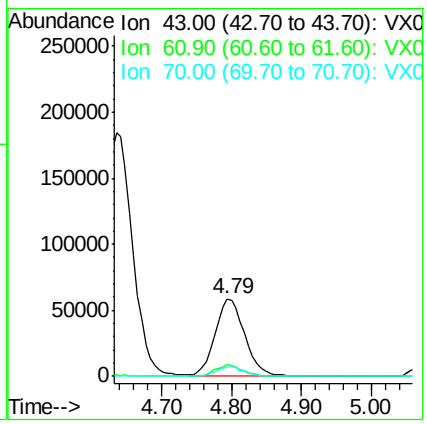
Manual Integrations APPROVED
MMDadoda
7/8/2020 9:32:07 AM

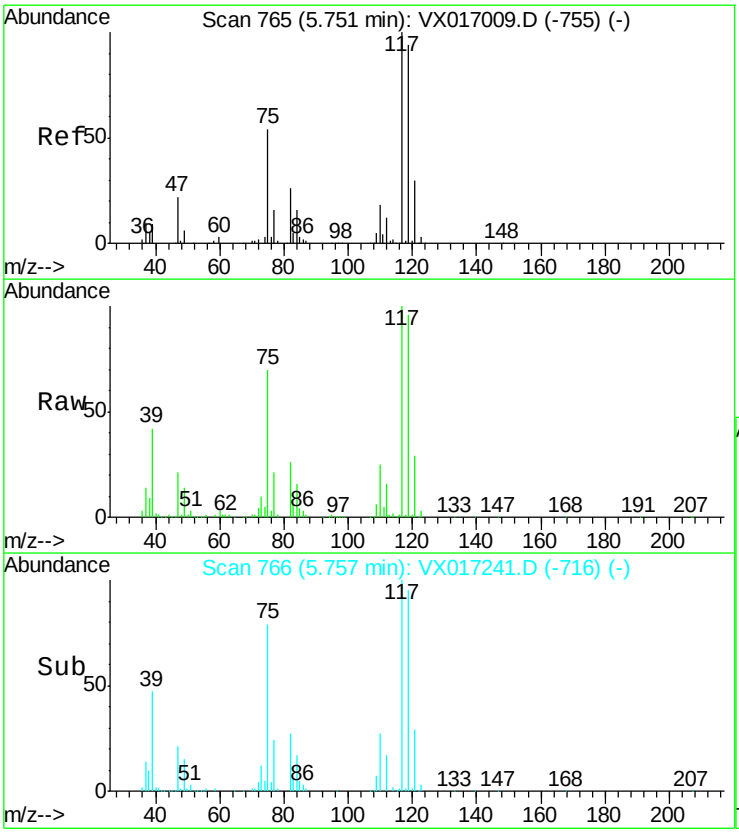


#37
Ethyl Acetate
Concen: 47.198 ug/l
RT: 4.79 min Scan# 608
Delta R.T. -0.00 min
Lab File: VX017241.D
Acq: 08 Jul 2020 06:39

Tgt Ion: 43 Resp: 172610

Ion	Ratio	Lower	Upper
43	100		
61	14.0	11.0	16.4
70	12.0	8.9	13.3

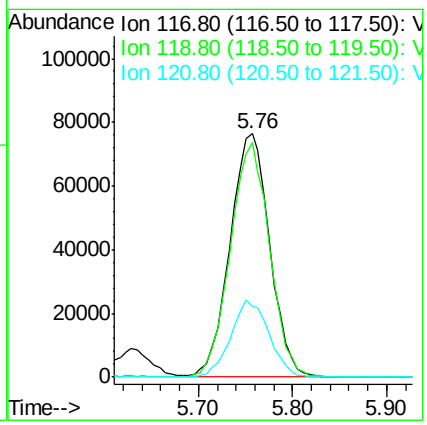




#38
Carbon Tetrachloride
Concen: 56.490 ug/l
RT: 5.76 min Scan# 766
Delta R.T. 0.01 min
Lab File: VX017241.D
Acq: 08 Jul 2020 06:39

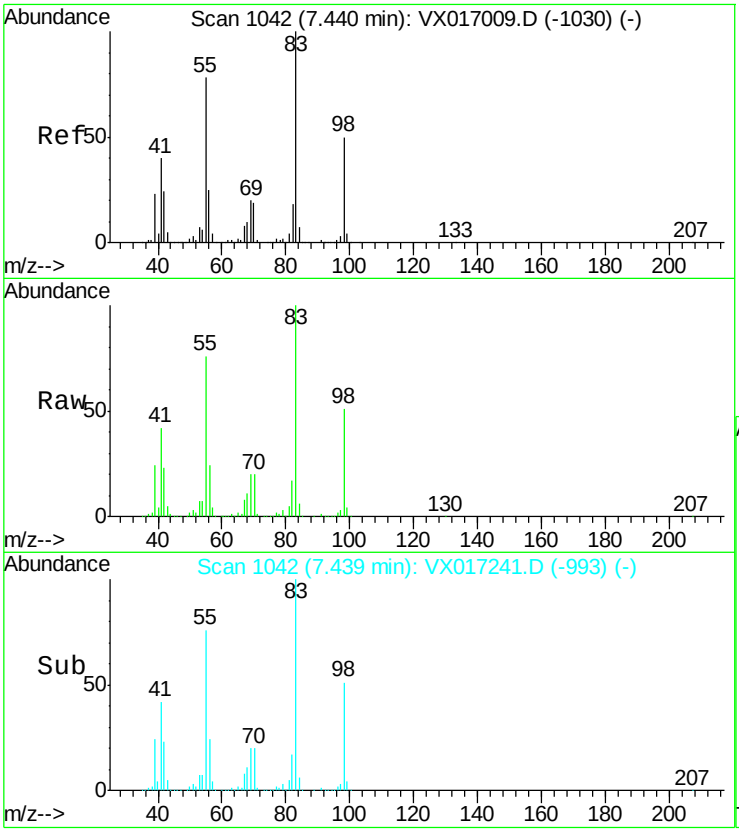
Tgt Ion:117 Resp: 224271

Ion	Ratio	Lower	Upper
117	100		
119	96.1	75.4	113.0
121	29.2	23.8	35.6



Instrument :
MSVOA_X
ClientSampleId :
1004-MW-02MSD

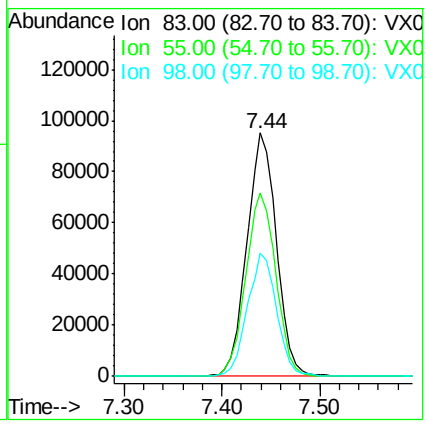
Manual Integrations APPROVED
MMDadoda
7/8/2020 9:32:07 AM

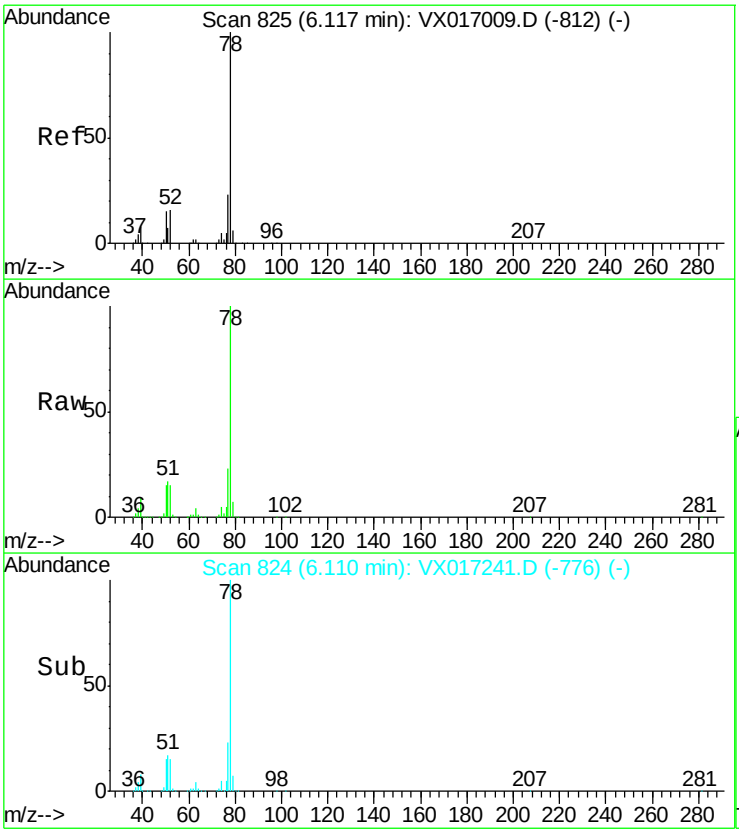


#39
Methylcyclohexane
Concen: 49.983 ug/l
RT: 7.44 min Scan# 1042
Delta R.T. -0.00 min
Lab File: VX017241.D
Acq: 08 Jul 2020 06:39

Tgt Ion: 83 Resp: 200454

Ion	Ratio	Lower	Upper
83	100		
55	75.6	62.5	93.7
98	50.7	40.1	60.1

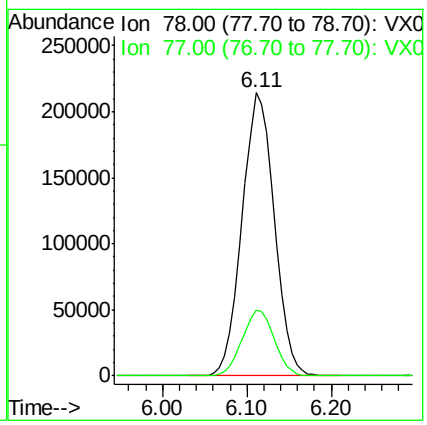




#40
Benzene
Concen: 52.651 ug/l
RT: 6.11 min Scan# 824
Delta R.T. -0.01 min
Lab File: VX017241.D
Acq: 08 Jul 2020 06:39

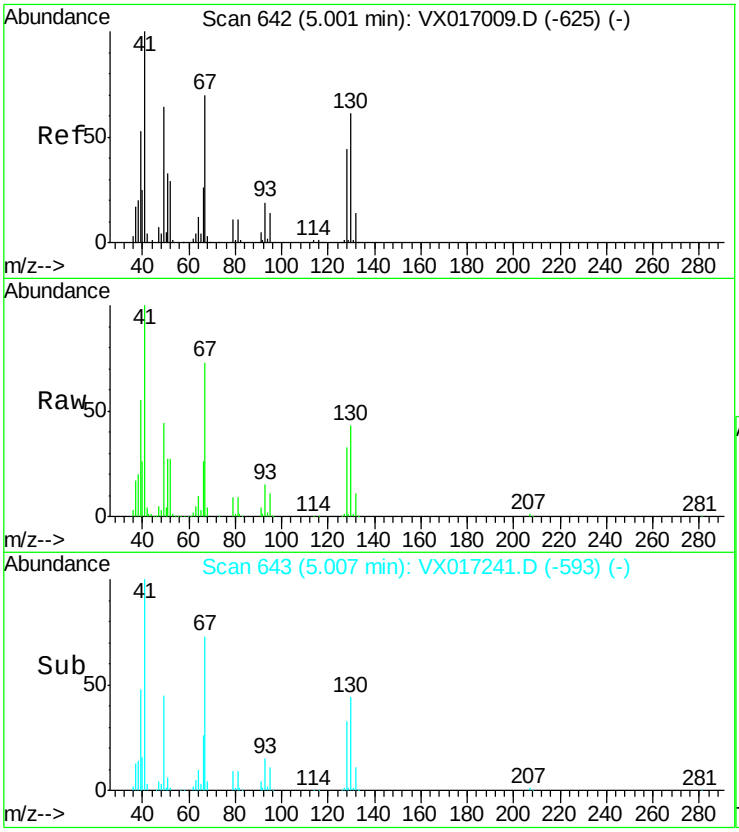
Tgt Ion: 78 Resp: 557604

Ion	Ratio	Lower	Upper
78	100		
77	23.1	18.3	27.5



Instrument :
MSVOA_X
ClientSampleId :
1004-MW-02MSD

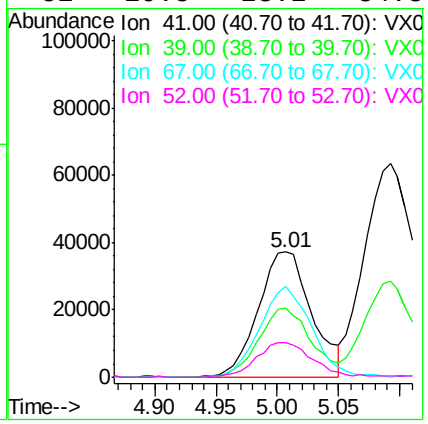
Manual Integrations APPROVED
MMDadoda
7/8/2020 9:32:07 AM

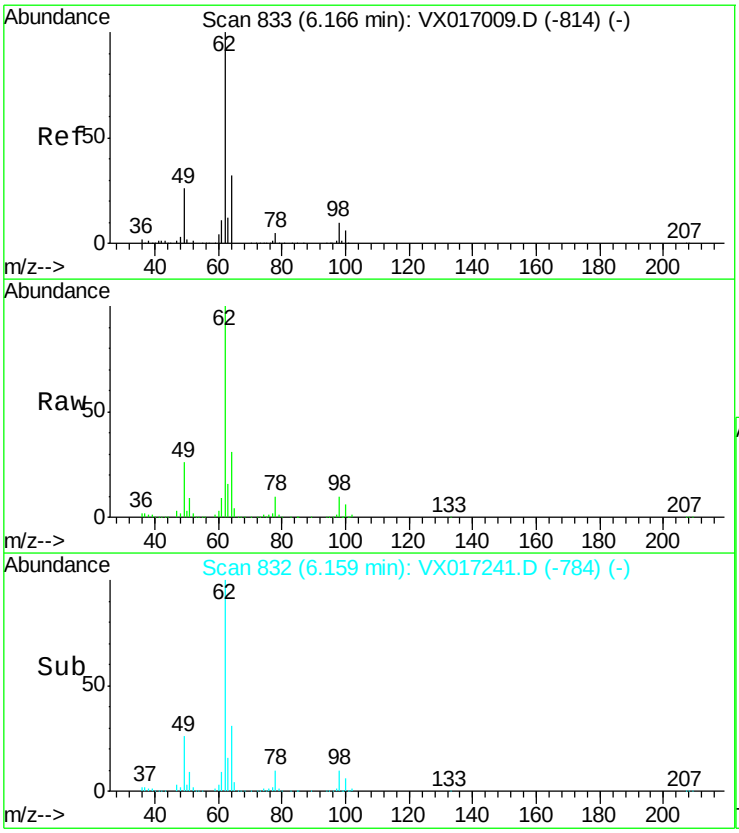


#41
Methacrylonitrile
Concen: 54.749 ug/l
RT: 5.01 min Scan# 643
Delta R.T. 0.01 min
Lab File: VX017241.D
Acq: 08 Jul 2020 06:39

Tgt Ion: 41 Resp: 112692

Ion	Ratio	Lower	Upper
41	100		
39	54.1	44.4	66.6
67	71.1	57.1	85.7
52	29.5	23.2	34.8

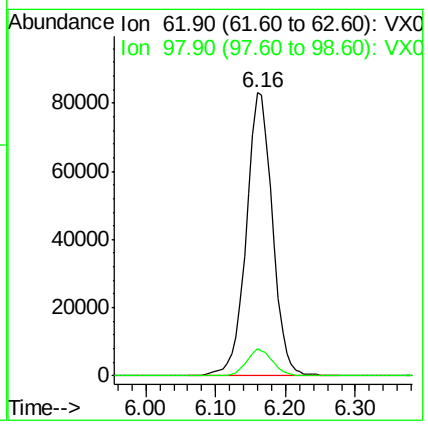




#42
1,2-Dichloroethane
Concen: 56.412 ug/l
RT: 6.16 min Scan# 832
Delta R.T. -0.01 min
Lab File: VX017241.D
Acq: 08 Jul 2020 06:39

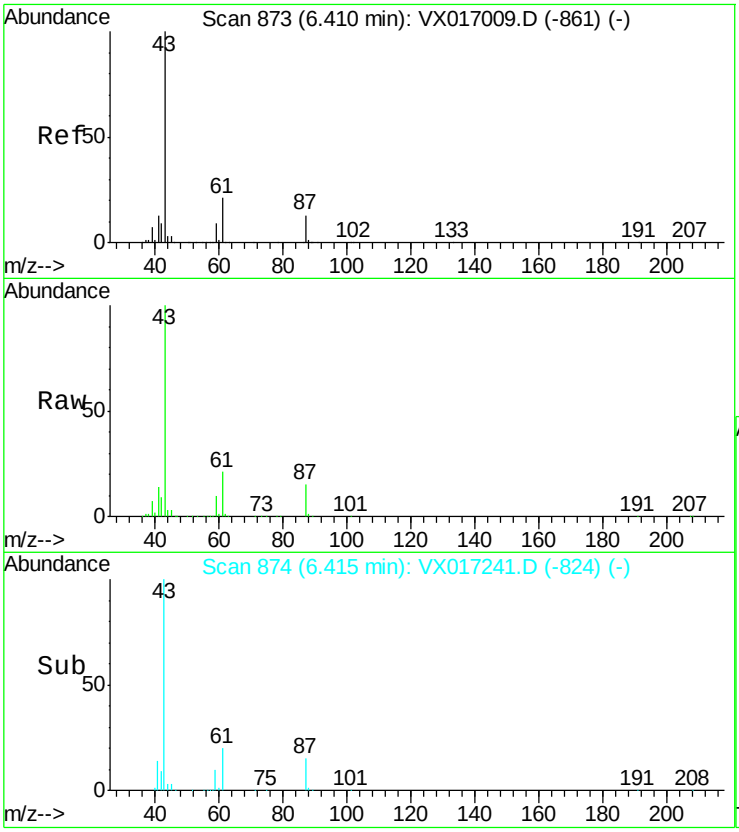
Tgt Ion: 62 Resp: 215798

Ion	Ratio	Lower	Upper
62	100		
98	9.4	0.0	19.2



Instrument :
MSVOA_X
ClientSampleId :
1004-MW-02MSD

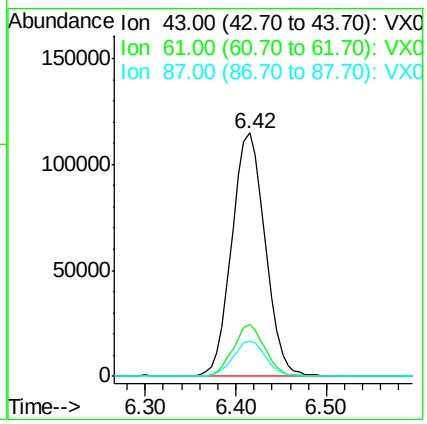
Manual Integrations APPROVED
MMDadoda
7/8/2020 9:32:07 AM

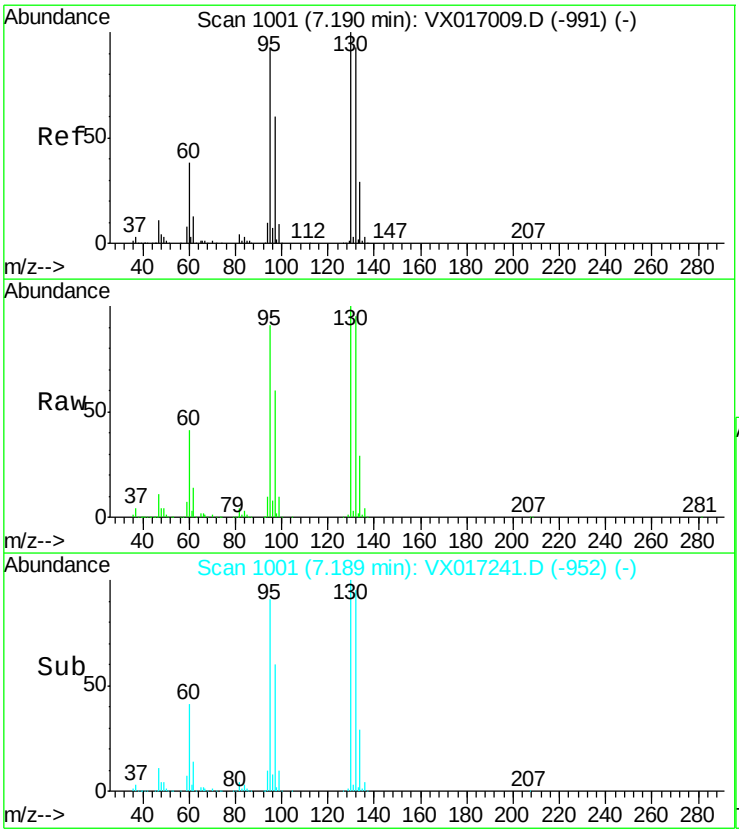


#43
Isopropyl Acetate
Concen: 48.272 ug/l
RT: 6.42 min Scan# 874
Delta R.T. 0.01 min
Lab File: VX017241.D
Acq: 08 Jul 2020 06:39

Tgt Ion: 43 Resp: 293351

Ion	Ratio	Lower	Upper
43	100		
61	20.4	16.2	24.2
87	14.2	10.7	16.1

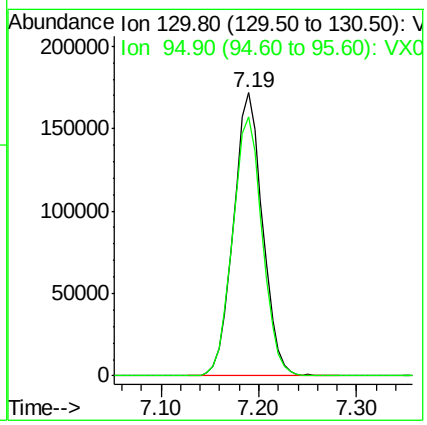




#44
Trichloroethene
Concen: 121.716 ug/l
RT: 7.19 min Scan# 1001
Delta R.T. 0.00 min
Lab File: VX017241.D
Acq: 08 Jul 2020 06:39

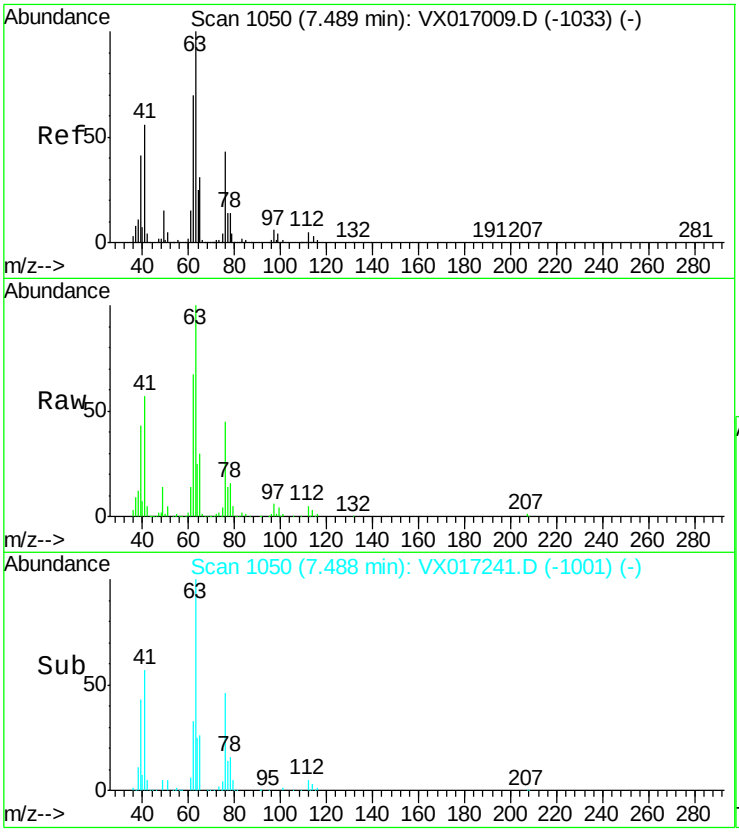
Tgt Ion:130 Resp: 354412

Ion	Ratio	Lower	Upper
130	100		
95	91.3	0.0	185.0



Instrument :
MSVOA_X
ClientSampleId :
1004-MW-02MSD

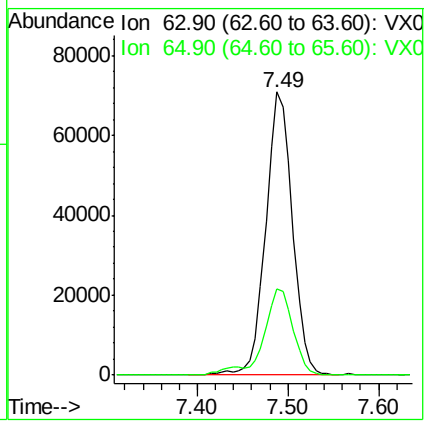
Manual Integrations APPROVED
MMDadoda
7/8/2020 9:32:07 AM

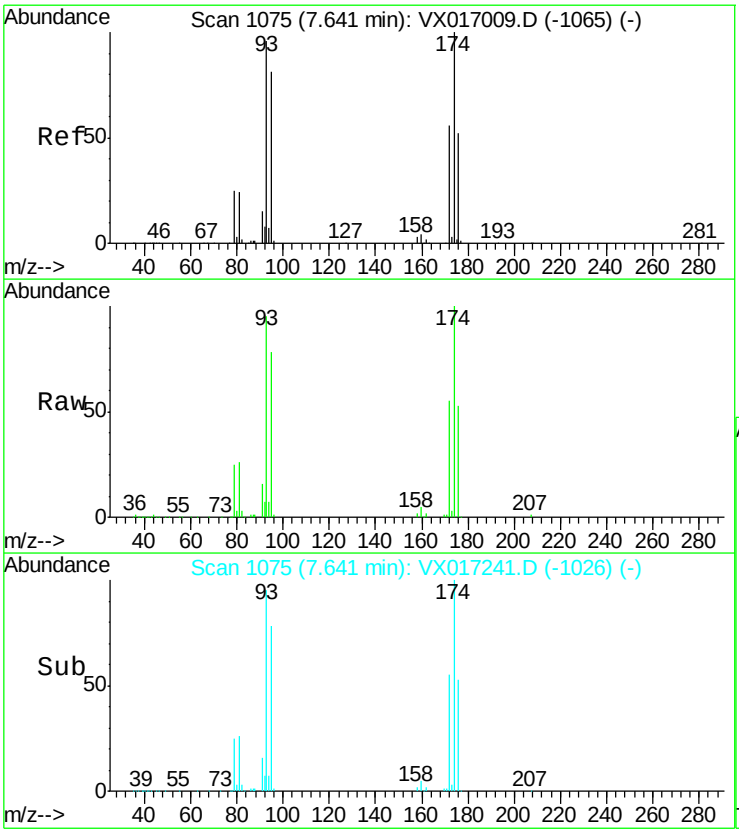


#45
1,2-Dichloropropane
Concen: 53.055 ug/l
RT: 7.49 min Scan# 1050
Delta R.T. -0.00 min
Lab File: VX017241.D
Acq: 08 Jul 2020 06:39

Tgt Ion: 63 Resp: 144314

Ion	Ratio	Lower	Upper
63	100		
65	30.4	24.6	36.8

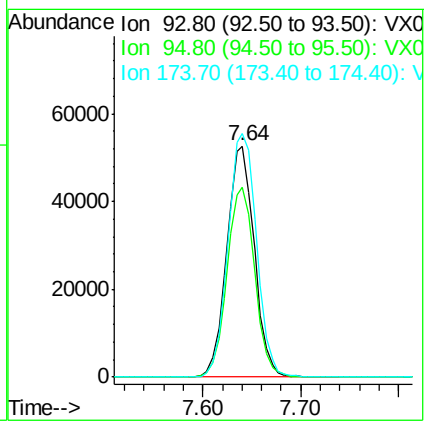




#46
Dibromomethane
Concen: 55.154 ug/l
RT: 7.64 min Scan# 1075
Delta R.T. -0.00 min
Lab File: VX017241.D
Acq: 08 Jul 2020 06:39

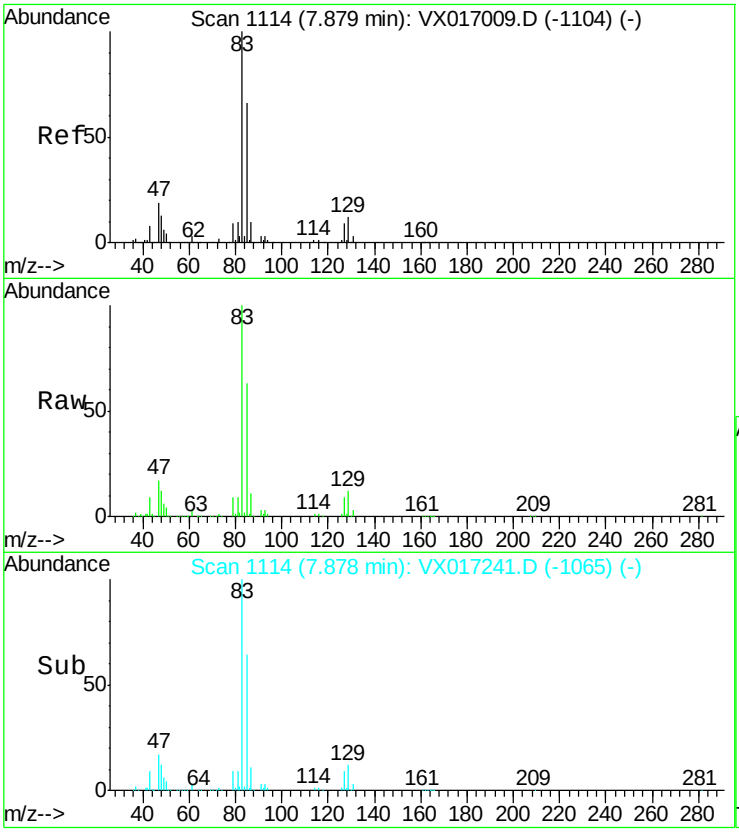
Tgt Ion: 93 Resp: 102425

Ion	Ratio	Lower	Upper
93	100		
95	83.2	67.4	101.0
174	109.4	84.3	126.5



Instrument :
MSVOA_X
ClientSampleId :
1004-MW-02MSD

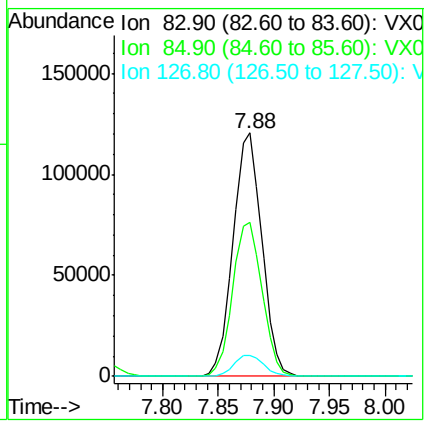
Manual Integrations APPROVED
MMDadoda
7/8/2020 9:32:07 AM

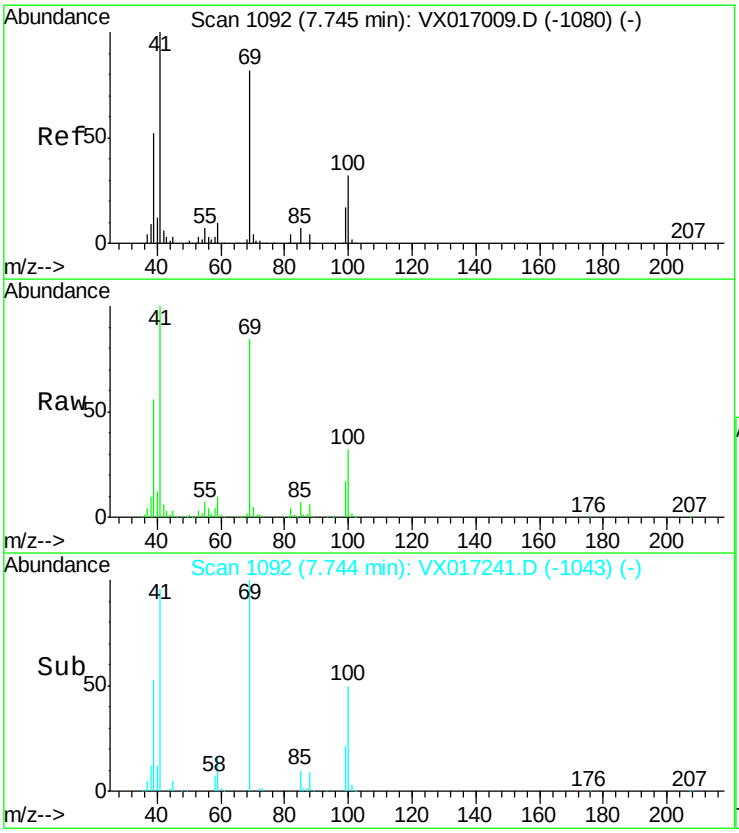


#47
Bromodichloromethane
Concen: 56.652 ug/l
RT: 7.88 min Scan# 1114
Delta R.T. -0.00 min
Lab File: VX017241.D
Acq: 08 Jul 2020 06:39

Tgt Ion: 83 Resp: 216810

Ion	Ratio	Lower	Upper
83	100		
85	63.5	53.0	79.4
127	8.8	7.5	11.3

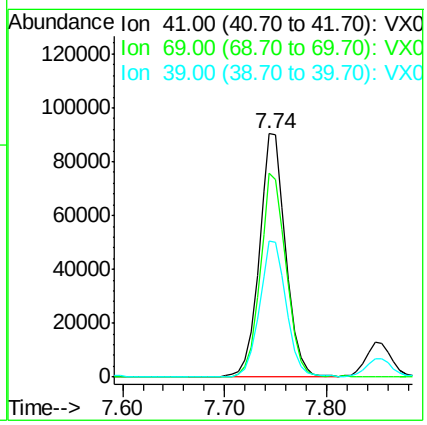




#48
Methyl methacrylate
Concen: 55.923 ug/l
RT: 7.74 min Scan# 1092
Delta R.T. -0.00 min
Lab File: VX017241.D
Acq: 08 Jul 2020 06:39

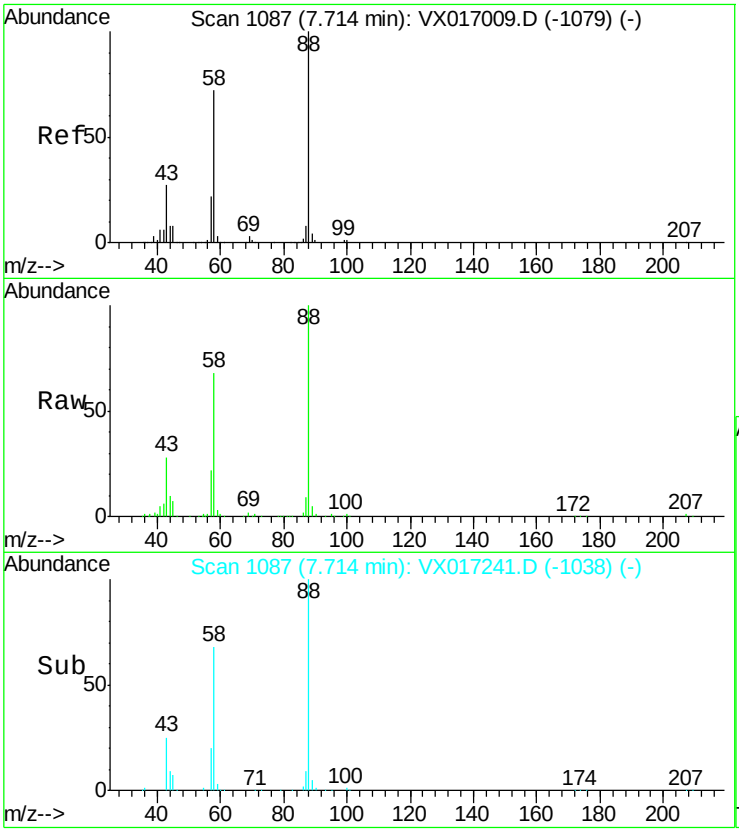
Tgt Ion: 41 Resp: 161462

Ion	Ratio	Lower	Upper
41	100		
69	82.7	65.8	98.8
39	56.6	42.5	63.7



Instrument :
MSVOA_X
ClientSampleId :
1004-MW-02MSD

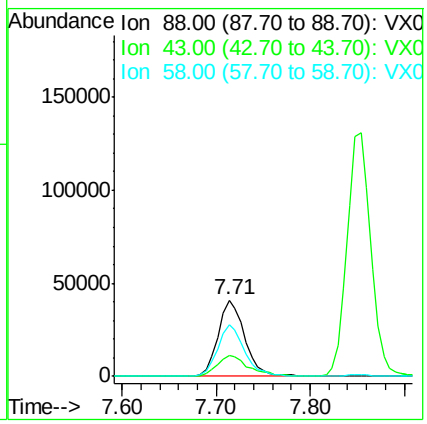
Manual Integrations APPROVED
MMDadoda
7/8/2020 9:32:07 AM

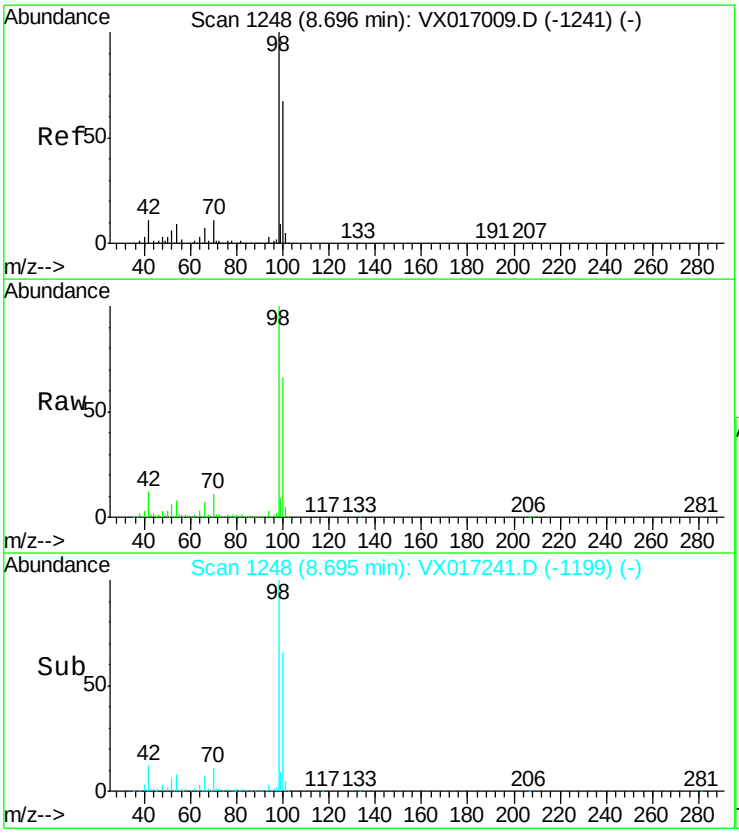


#49
1,4-Dioxane
Concen: 1222.865 ug/l
RT: 7.71 min Scan# 1087
Delta R.T. -0.00 min
Lab File: VX017241.D
Acq: 08 Jul 2020 06:39

Tgt Ion: 88 Resp: 79986

Ion	Ratio	Lower	Upper
88	100		
43	32.3	25.8	38.8
58	69.0	54.8	82.2

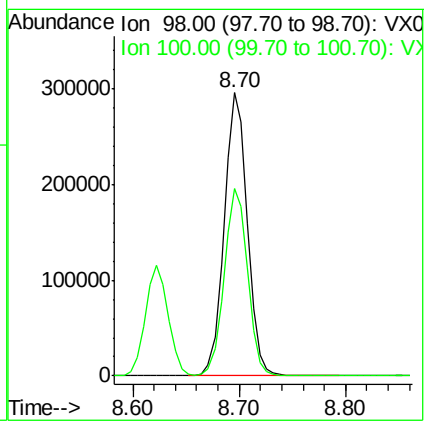




#50
Toluene-d8
Concen: 50.208 ug/l
RT: 8.70 min Scan# 1248
Delta R.T. -0.00 min
Lab File: VX017241.D
Acq: 08 Jul 2020 06:39

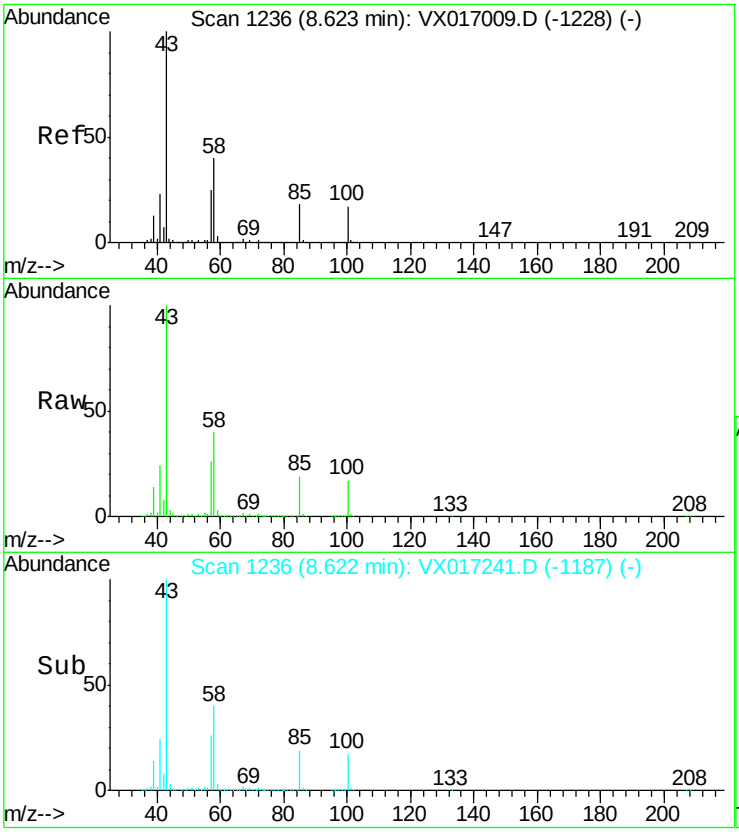
Tgt Ion: 98 Resp: 447900

Ion	Ratio	Lower	Upper
98	100		
100	67.1	53.8	80.6



Instrument :
MSVOA_X
ClientSampleId :
1004-MW-02MSD

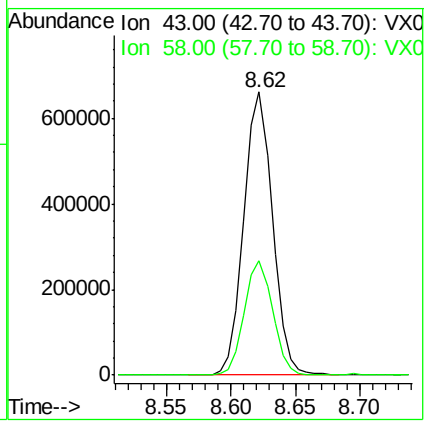
Manual Integrations APPROVED
MMDadoda
7/8/2020 9:32:07 AM

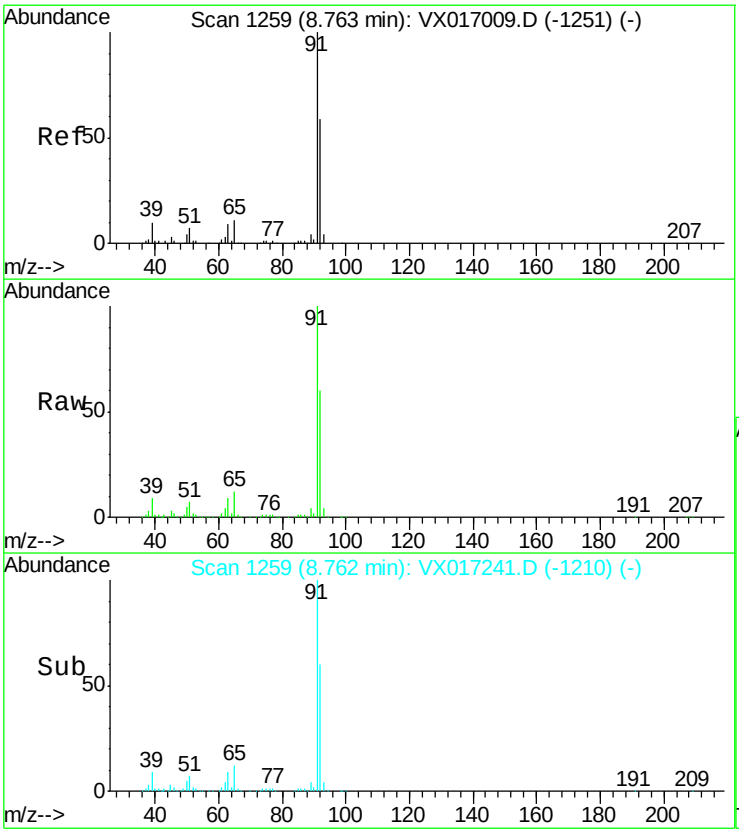


#51
4-Methyl-2-Pentanone
Concen: 281.081 ug/l
RT: 8.62 min Scan# 1236
Delta R.T. -0.00 min
Lab File: VX017241.D
Acq: 08 Jul 2020 06:39

Tgt Ion: 43 Resp: 1018230

Ion	Ratio	Lower	Upper
43	100		
58	39.9	31.9	47.9

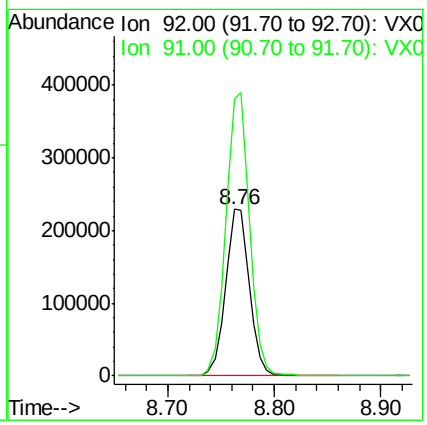




#52
Toluene
Concen: 54.149 ug/l
RT: 8.76 min Scan# 1259
Delta R.T. -0.00 min
Lab File: VX017241.D
Acq: 08 Jul 2020 06:39

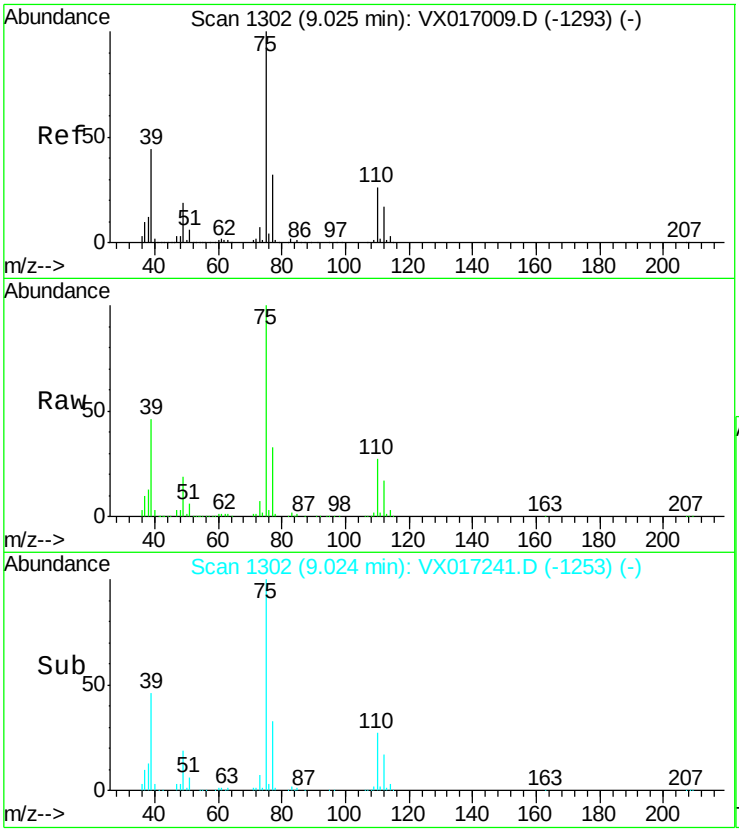
Tgt Ion: 92 Resp: 358038

Ion	Ratio	Lower	Upper
92	100		
91	169.1	136.9	205.3



Instrument :
MSVOA_X
ClientSampleId :
1004-MW-02MSD

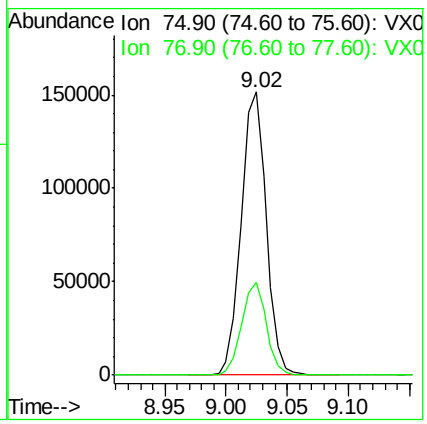
Manual Integrations APPROVED
MMDadoda
7/8/2020 9:32:07 AM

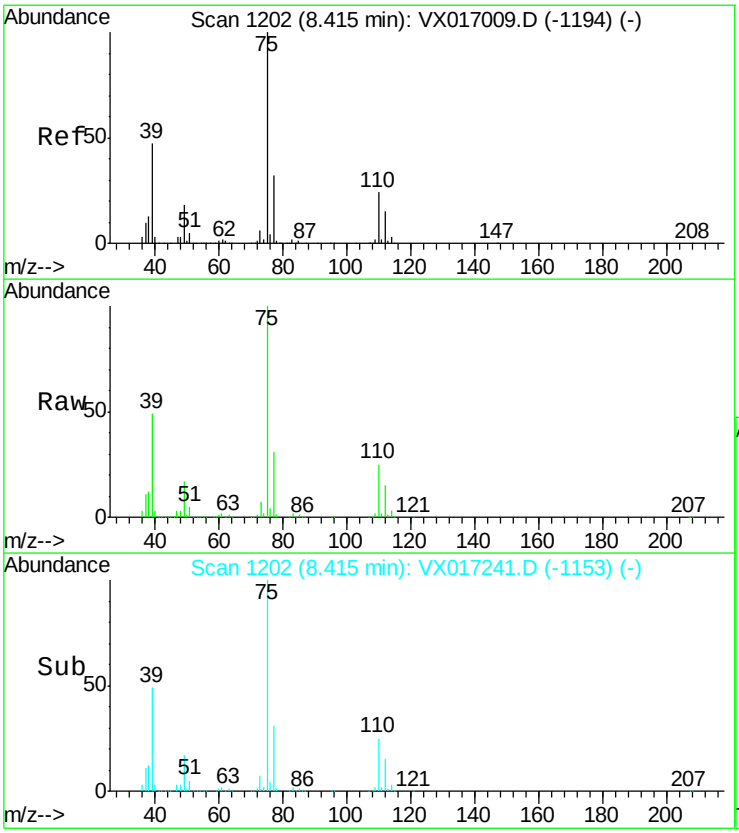


#53
t-1,3-Dichloropropene
Concen: 51.011 ug/l
RT: 9.02 min Scan# 1302
Delta R.T. -0.00 min
Lab File: VX017241.D
Acq: 08 Jul 2020 06:39

Tgt Ion: 75 Resp: 215395

Ion	Ratio	Lower	Upper
75	100		
77	32.6	25.6	38.4

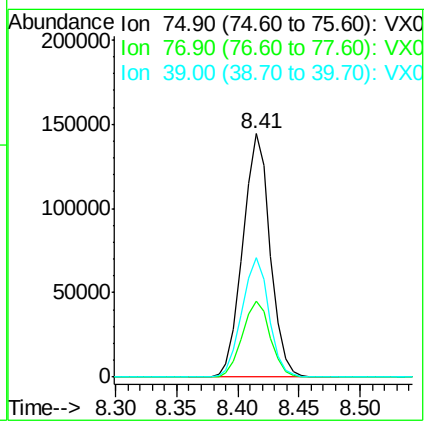




#54
cis-1,3-Dichloropropene
Concen: 49.477 ug/l
RT: 8.41 min Scan# 1202
Delta R.T. -0.00 min
Lab File: VX017241.D
Acq: 08 Jul 2020 06:39

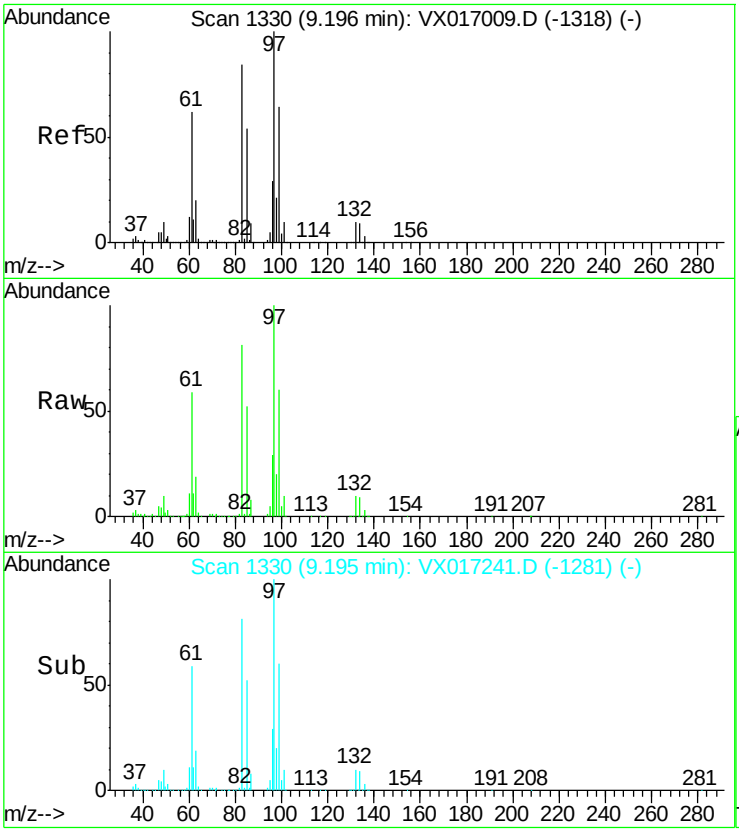
Tgt Ion: 75 Resp: 223961

Ion	Ratio	Lower	Upper
75	100		
77	31.1	25.2	37.8
39	48.9	37.4	56.2



Instrument :
MSVOA_X
ClientSampleId :
1004-MW-02MSD

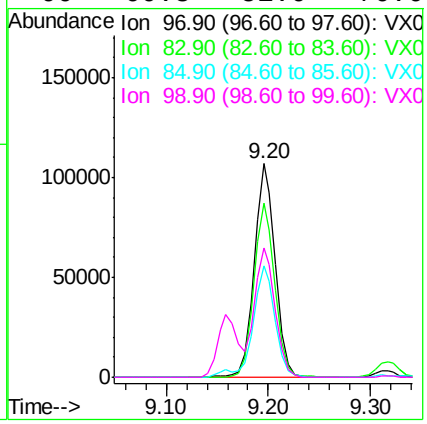
Manual Integrations APPROVED
MMDadoda
7/8/2020 9:32:07 AM

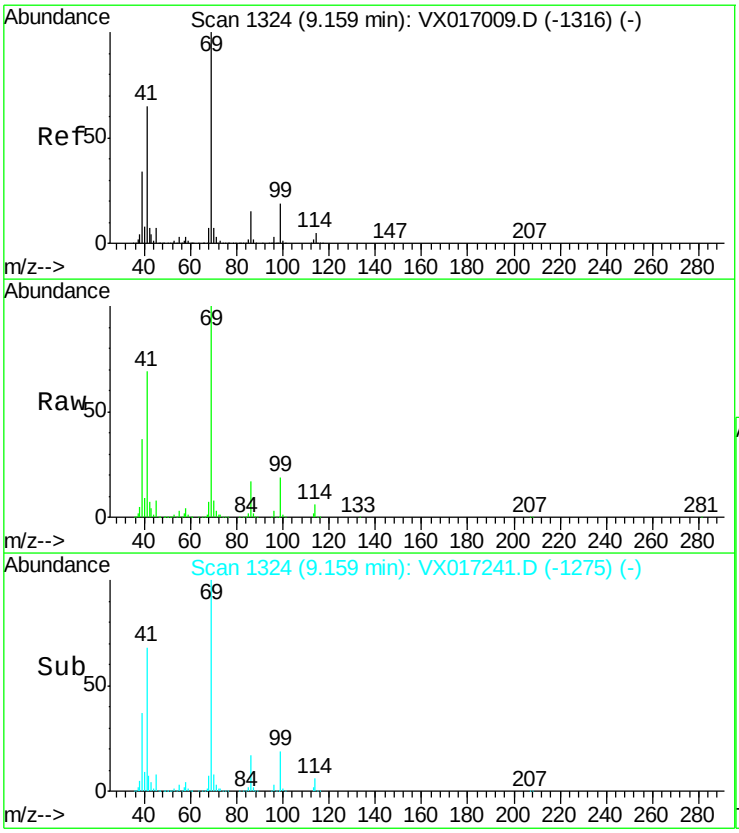


#55
1,1,2-Trichloroethane
Concen: 56.827 ug/l
RT: 9.20 min Scan# 1330
Delta R.T. -0.00 min
Lab File: VX017241.D
Acq: 08 Jul 2020 06:39

Tgt Ion: 97 Resp: 153519

Ion	Ratio	Lower	Upper
97	100		
83	81.4	67.0	100.6
85	52.1	43.5	65.3
99	60.3	51.0	76.6

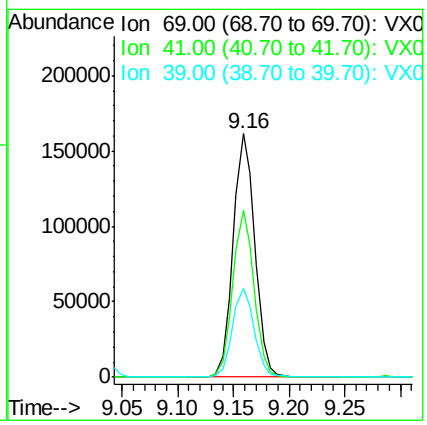




#56
Ethyl methacrylate
Concen: 56.549 ug/l
RT: 9.16 min Scan# 1324
Delta R.T. -0.00 min
Lab File: VX017241.D
Acq: 08 Jul 2020 06:39

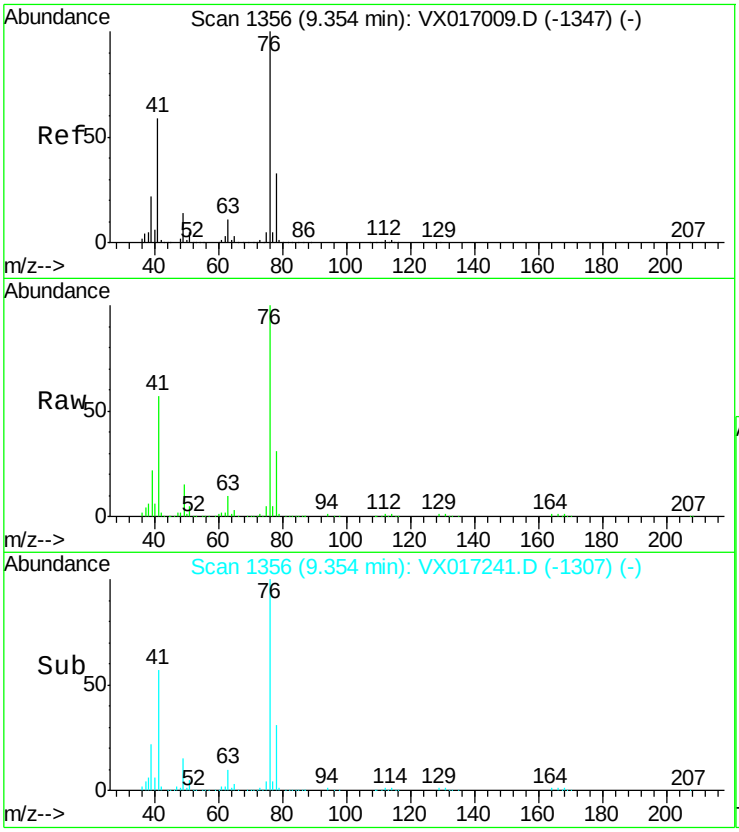
Tgt Ion: 69 Resp: 217440

Ion	Ratio	Lower	Upper
69	100		
41	67.0	53.6	80.4
39	36.5	28.2	42.2



Instrument :
MSVOA_X
ClientSampleId :
1004-MW-02MSD

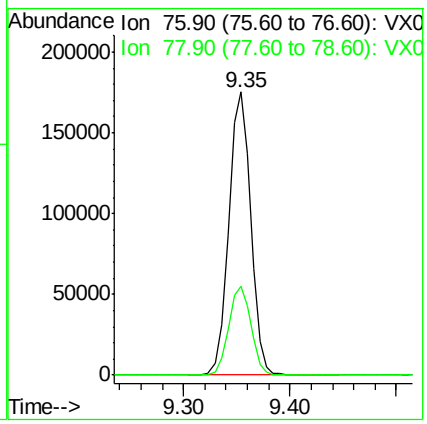
Manual Integrations APPROVED
MMDadoda
7/8/2020 9:32:07 AM

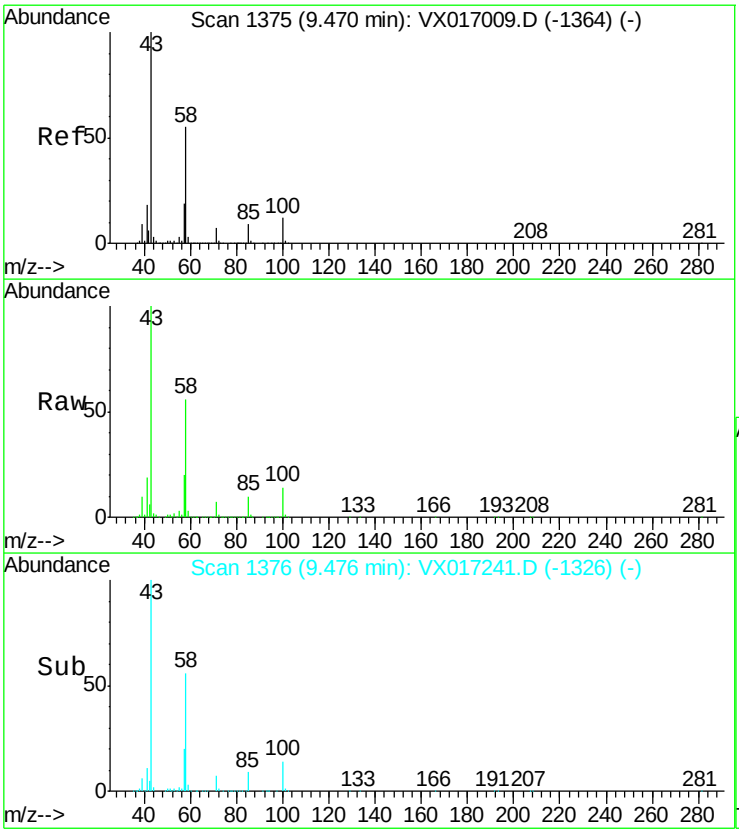


#57
1,3-Dichloropropane
Concen: 55.286 ug/l
RT: 9.35 min Scan# 1356
Delta R.T. -0.00 min
Lab File: VX017241.D
Acq: 08 Jul 2020 06:39

Tgt Ion: 76 Resp: 252725

Ion	Ratio	Lower	Upper
76	100		
78	31.9	25.9	38.9

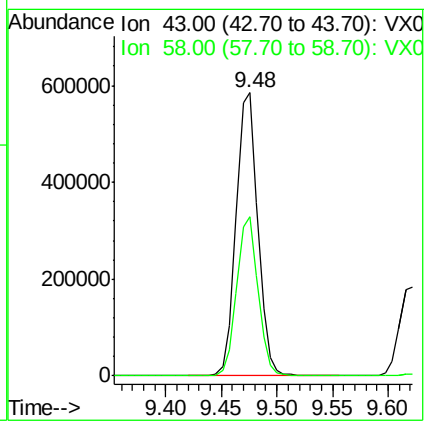




#59
2-Hexanone
Concen: 298.278 ug/l
RT: 9.48 min Scan# 1376
Delta R.T. 0.01 min
Lab File: VX017241.D
Acq: 08 Jul 2020 06:39

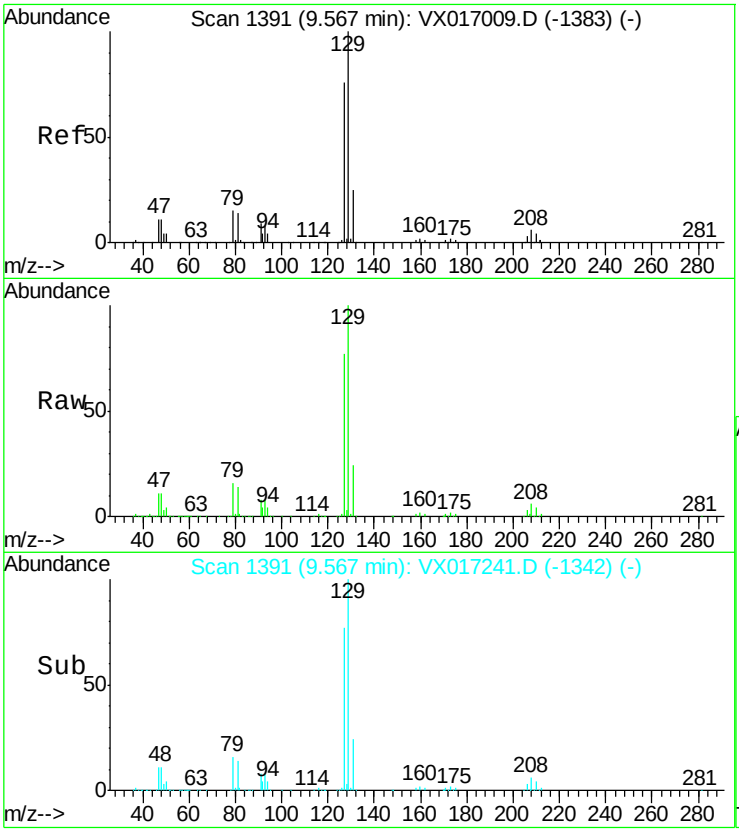
Tgt Ion: 43 Resp: 789145

Ion	Ratio	Lower	Upper
43	100		
58	55.6	27.9	83.6



Instrument :
MSVOA_X
ClientSampleId :
1004-MW-02MSD

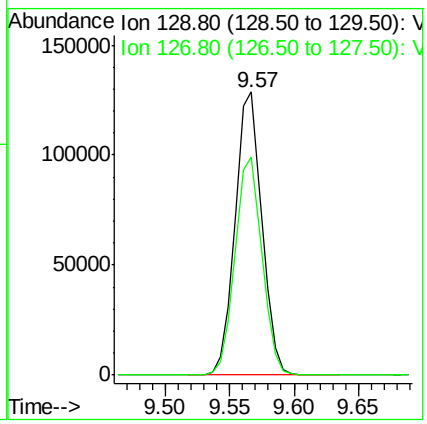
Manual Integrations APPROVED
MMDadoda
7/8/2020 9:32:07 AM

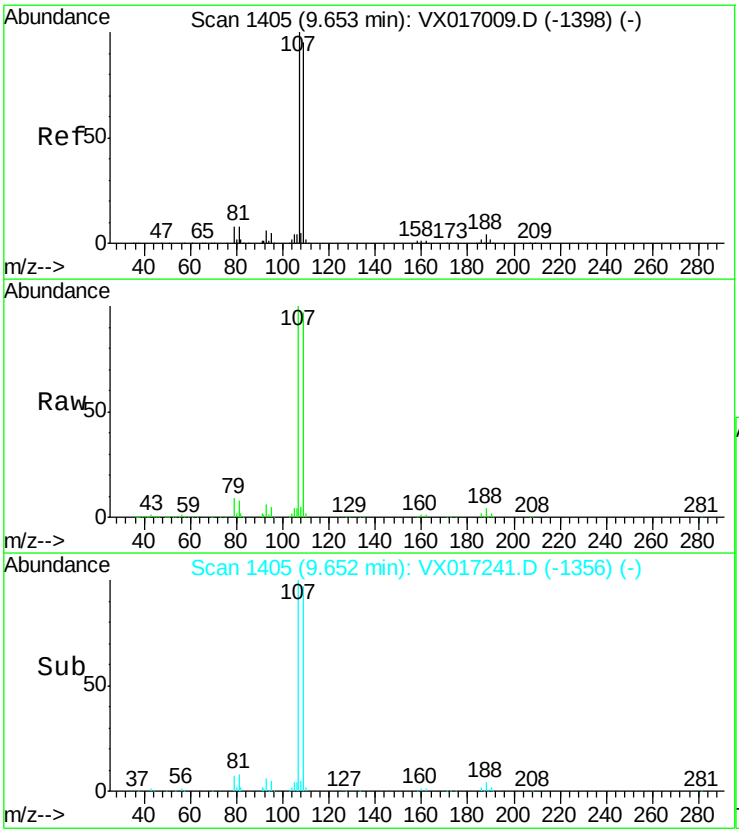


#60
Dibromochloromethane
Concen: 59.399 ug/l
RT: 9.57 min Scan# 1391
Delta R.T. -0.00 min
Lab File: VX017241.D
Acq: 08 Jul 2020 06:39

Tgt Ion:129 Resp: 186379

Ion	Ratio	Lower	Upper
129	100		
127	77.2	38.9	116.7

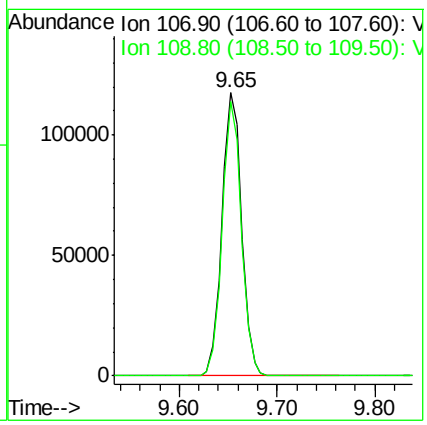




#61
1,2-Dibromoethane
Concen: 56.504 ug/l
RT: 9.65 min Scan# 1405
Delta R.T. -0.00 min
Lab File: VX017241.D
Acq: 08 Jul 2020 06:39

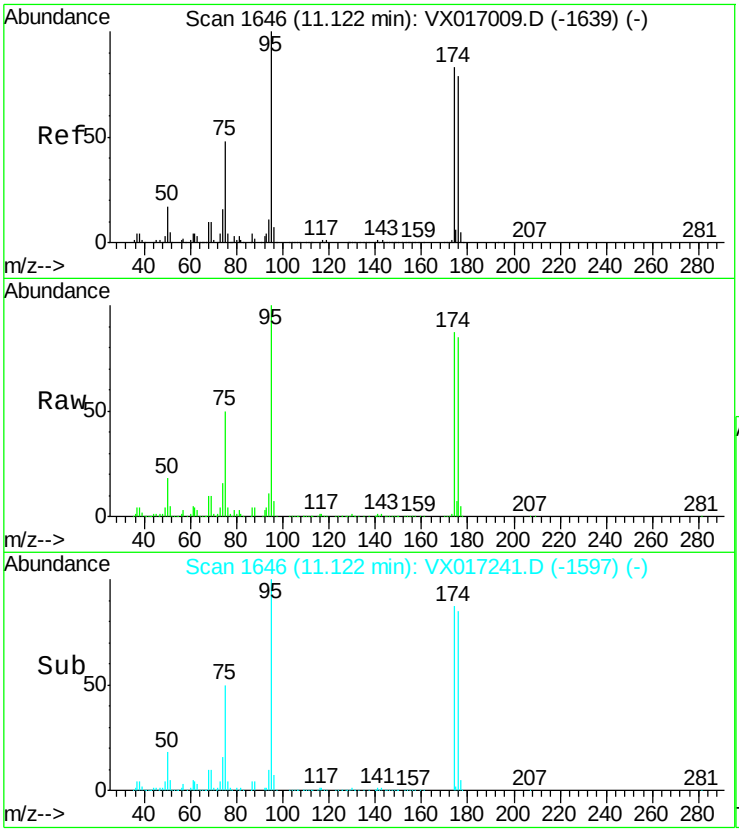
Tgt Ion:107 Resp: 164081

Ion	Ratio	Lower	Upper
107	100		
109	94.8	75.8	113.8



Instrument :
MSVOA_X
ClientSampleId :
1004-MW-02MSD

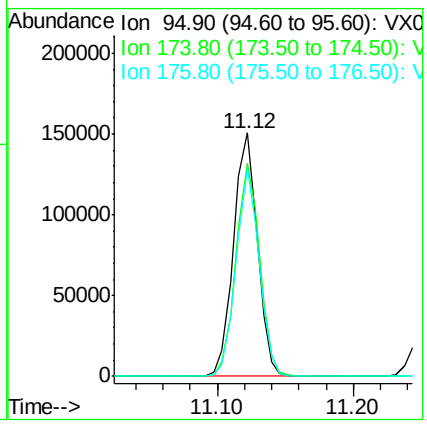
Manual Integrations APPROVED
MMDadoda
7/8/2020 9:32:07 AM

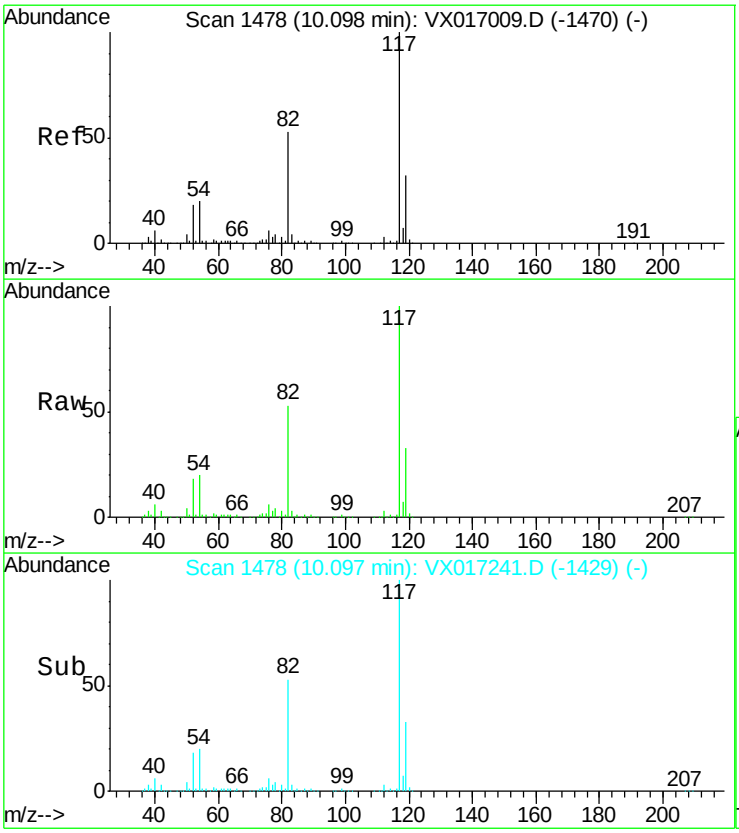


#62
4-Bromofluorobenzene
Concen: 52.769 ug/l
RT: 11.12 min Scan# 1646
Delta R.T. -0.00 min
Lab File: VX017241.D
Acq: 08 Jul 2020 06:39

Tgt Ion: 95 Resp: 184018

Ion	Ratio	Lower	Upper
95	100		
174	87.2	0.0	164.0
176	82.9	0.0	157.6

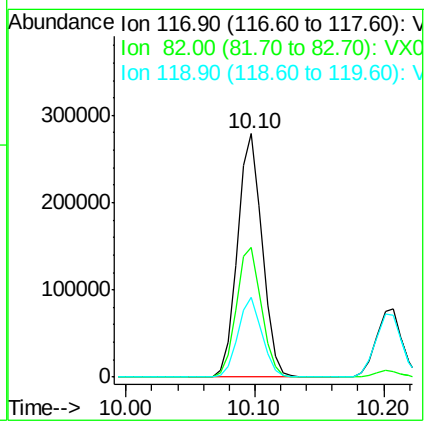




#63
Chlorobenzene-d5
Concen: 50.000 ug/l
RT: 10.10 min Scan# 1478
Delta R.T. -0.00 min
Lab File: VX017241.D
Acq: 08 Jul 2020 06:39

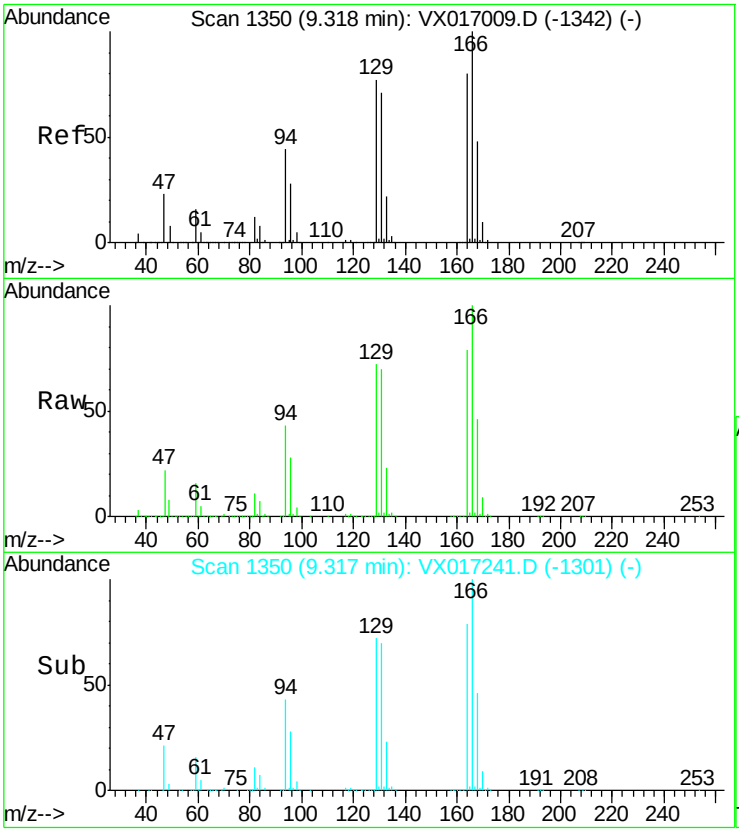
Tgt Ion:117 Resp: 370137

Ion	Ratio	Lower	Upper
117	100		
82	53.3	42.6	63.8
119	32.8	25.4	38.2



Instrument :
MSVOA_X
ClientSampleId :
1004-MW-02MSD

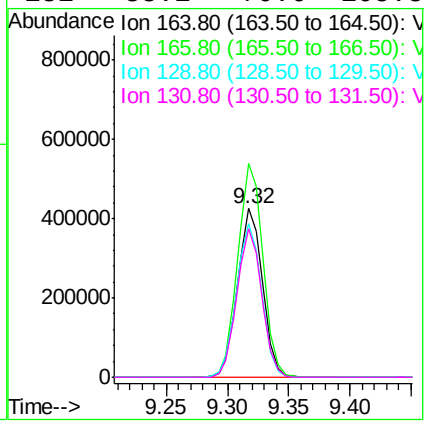
Manual Integrations APPROVED
MMDadoda
7/8/2020 9:32:07 AM

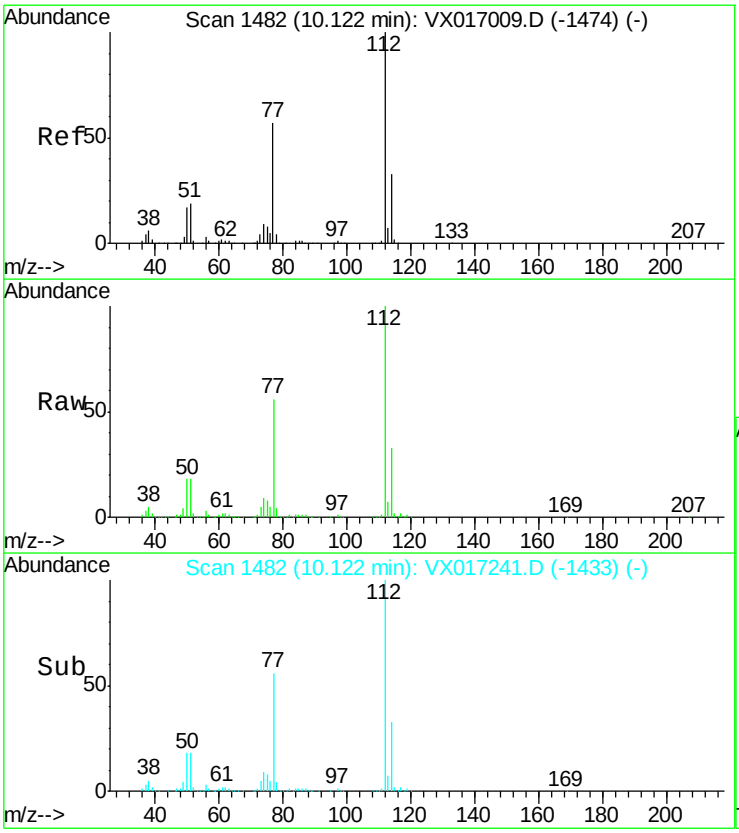


#64
Tetrachloroethene
Concen: 199.691 ug/l
RT: 9.32 min Scan# 1350
Delta R.T. -0.00 min
Lab File: VX017241.D
Acq: 08 Jul 2020 06:39

Tgt Ion:164 Resp: 596525

Ion	Ratio	Lower	Upper
164	100		
166	126.8	99.4	149.0
129	91.1	76.3	114.5
131	88.1	70.6	105.8

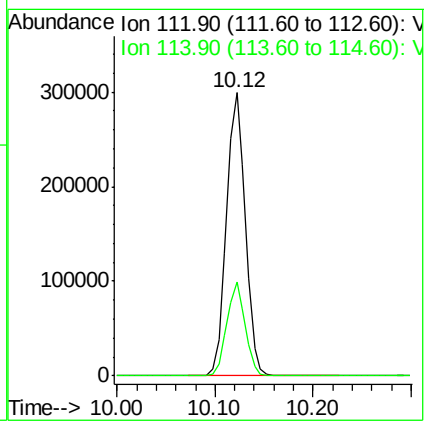




#65
Chlorobenzene
Concen: 52.455 ug/l
RT: 10.12 min Scan# 1482
Delta R.T. -0.00 min
Lab File: VX017241.D
Acq: 08 Jul 2020 06:39

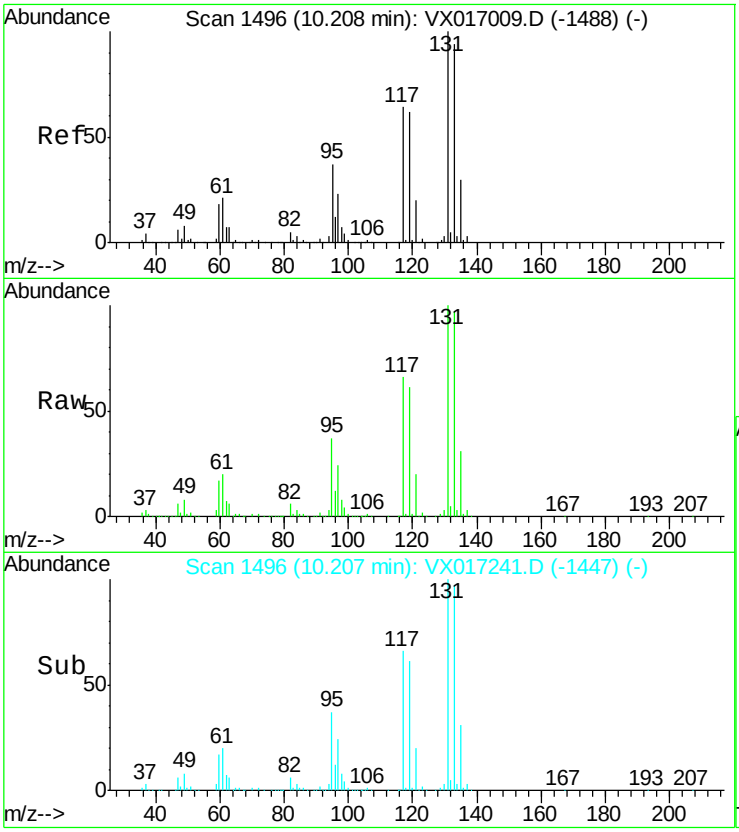
Tgt Ion:112 Resp: 400722

Ion	Ratio	Lower	Upper
112	100		
114	33.2	26.2	39.4



Instrument :
MSVOA_X
ClientSampleId :
1004-MW-02MSD

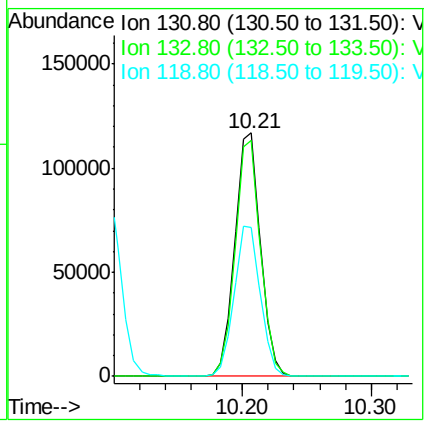
Manual Integrations APPROVED
MMDadoda
7/8/2020 9:32:07 AM

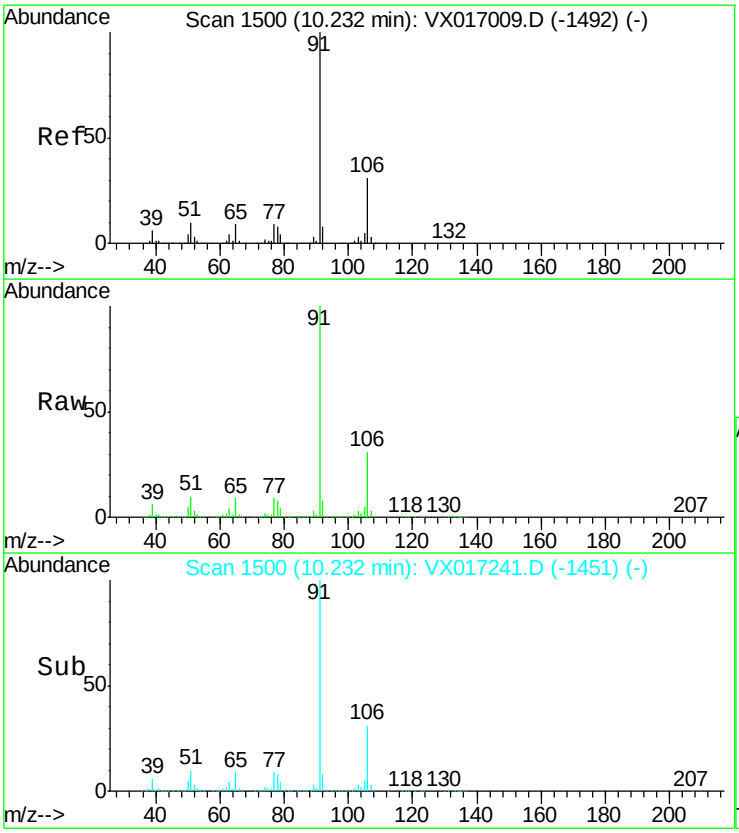


#66
1,1,1,2-Tetrachloroethane
Concen: 55.059 ug/l
RT: 10.21 min Scan# 1496
Delta R.T. -0.00 min
Lab File: VX017241.D
Acq: 08 Jul 2020 06:39

Tgt Ion:131 Resp: 162101

Ion	Ratio	Lower	Upper
131	100		
133	96.0	47.3	141.9
119	62.9	31.9	95.5

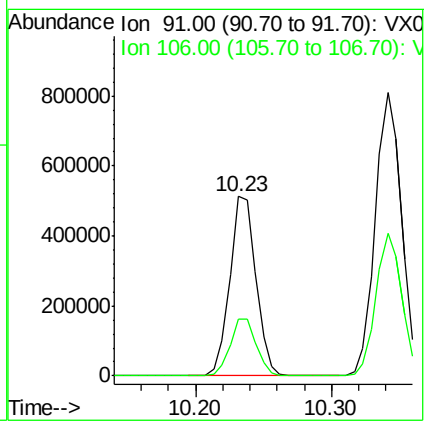




#67
Ethyl Benzene
Concen: 53.764 ug/l
RT: 10.23 min Scan# 1500
Delta R.T. -0.00 min
Lab File: VX017241.D
Acq: 08 Jul 2020 06:39

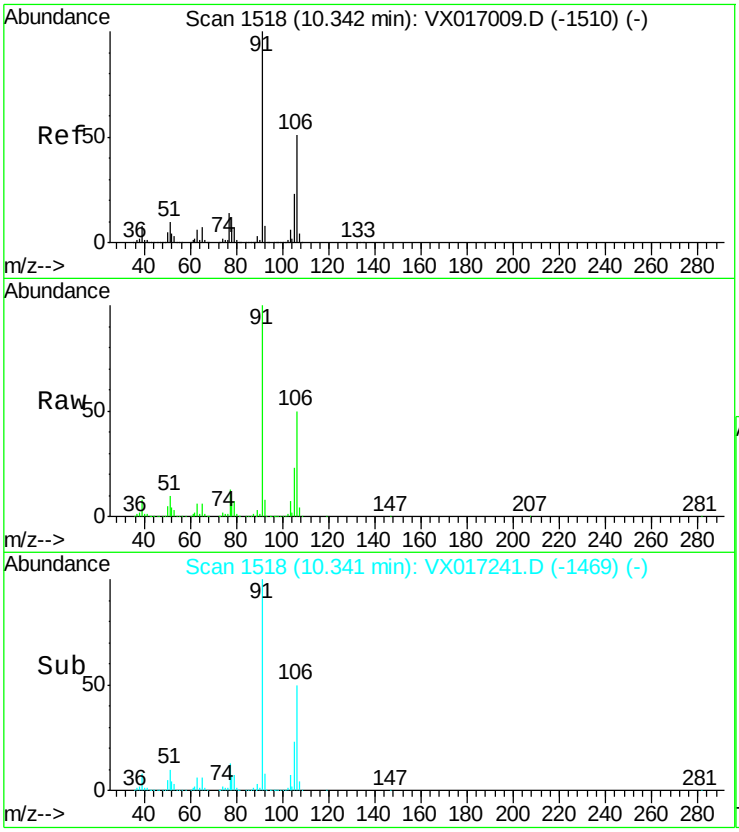
Tgt Ion: 91 Resp: 685916

Ion	Ratio	Lower	Upper
91	100		
106	31.4	24.7	37.1



Instrument :
MSVOA_X
ClientSampleId :
1004-MW-02MSD

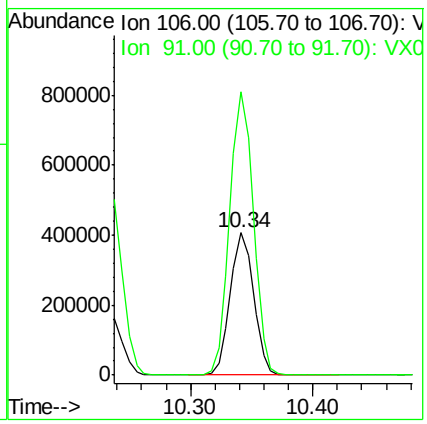
Manual Integrations APPROVED
MMDadoda
7/8/2020 9:32:07 AM

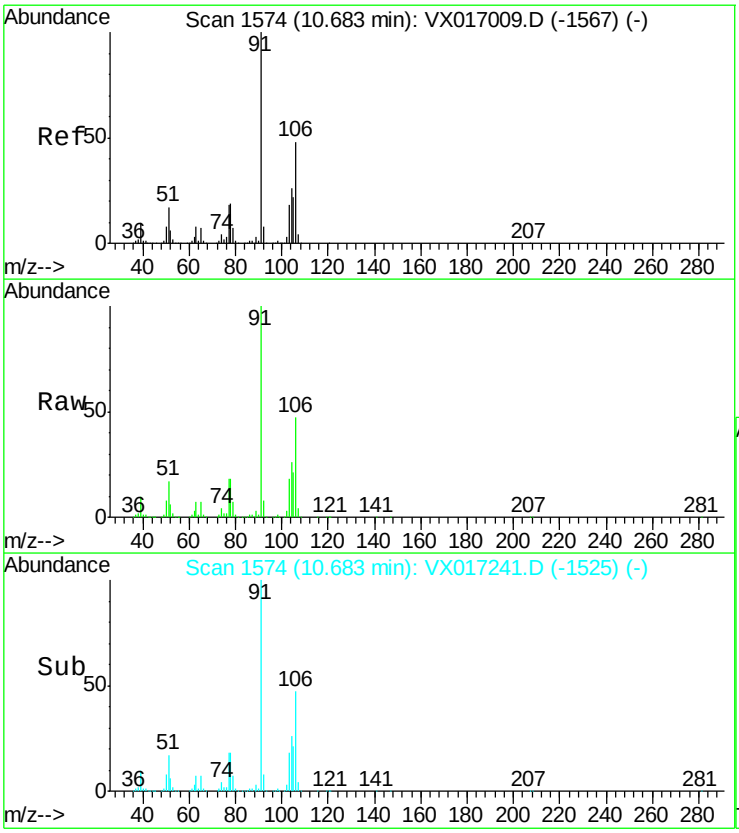


#68
m/p-Xylenes
Concen: 110.286 ug/l
RT: 10.34 min Scan# 1518
Delta R.T. -0.00 min
Lab File: VX017241.D
Acq: 08 Jul 2020 06:39

Tgt Ion:106 Resp: 540248

Ion	Ratio	Lower	Upper
106	100		
91	201.1	158.6	238.0

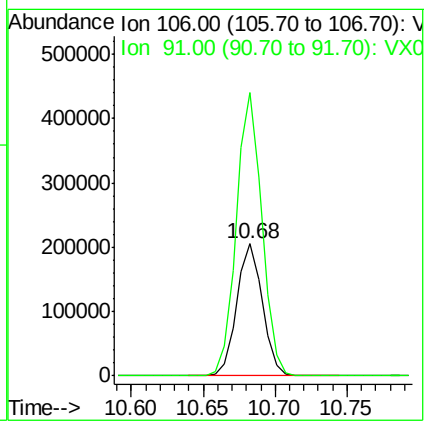




#69
o-Xylene
Concen: 54.861 ug/l
RT: 10.68 min Scan# 1574
Delta R.T. -0.00 min
Lab File: VX017241.D
Acq: 08 Jul 2020 06:39

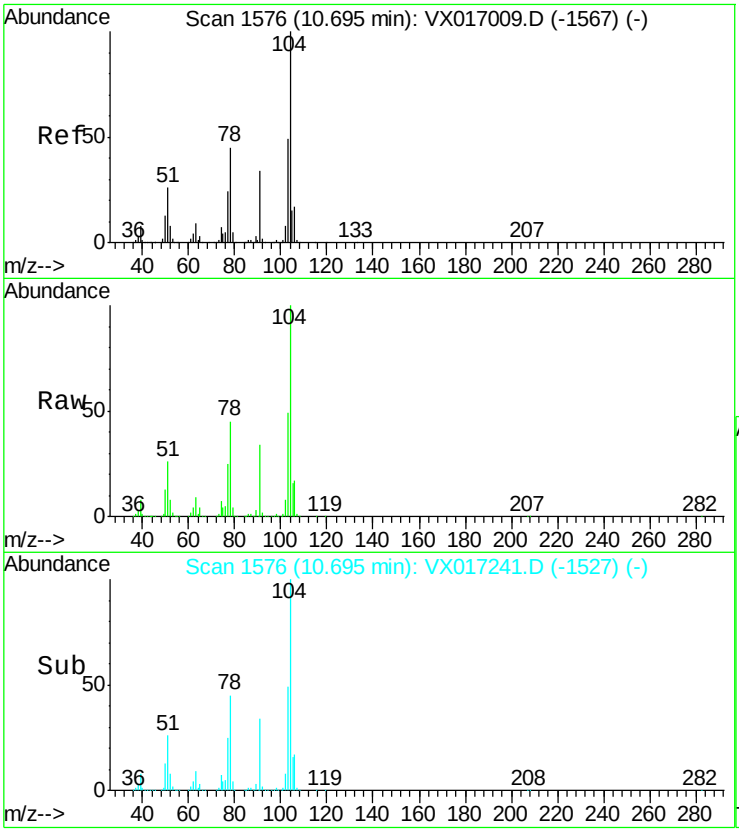
Tgt Ion:106 Resp: 255657

Ion	Ratio	Lower	Upper
106	100		
91	213.2	105.6	316.7



Instrument :
MSVOA_X
ClientSampleId :
1004-MW-02MSD

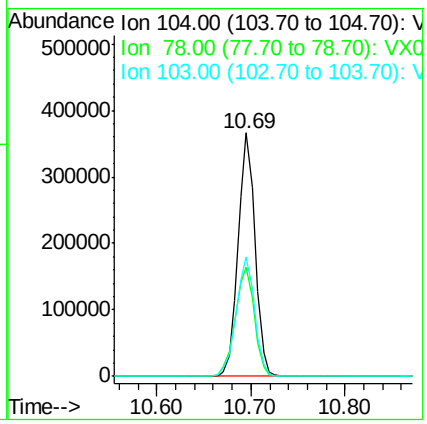
Manual Integrations APPROVED
MMDadoda
7/8/2020 9:32:07 AM

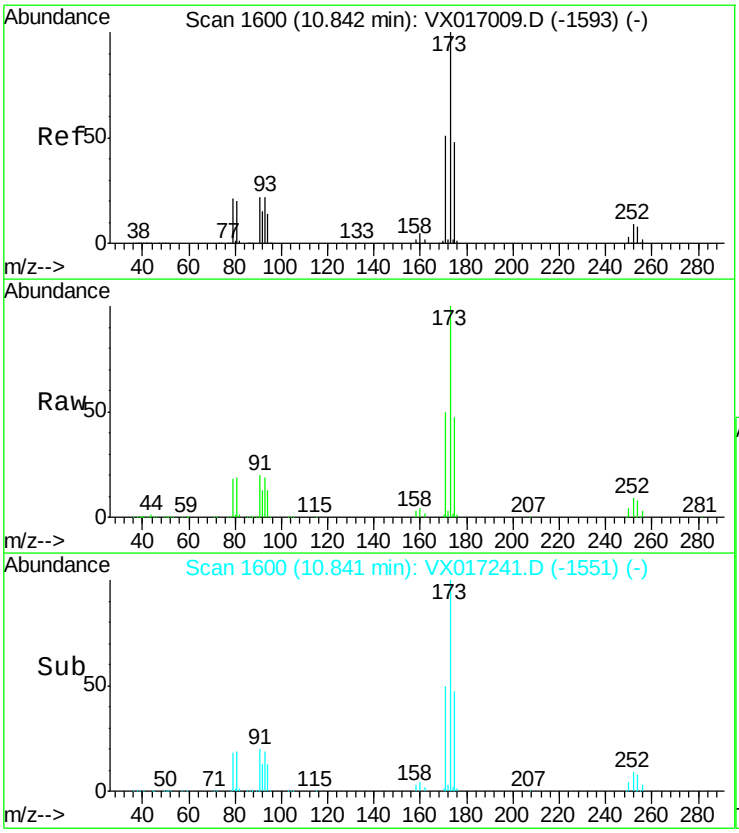


#70
Stvrene
Concen: 57.704 ug/l
RT: 10.69 min Scan# 1576
Delta R.T. -0.00 min
Lab File: VX017241.D
Acq: 08 Jul 2020 06:39

Tgt Ion:104 Resp: 457912

Ion	Ratio	Lower	Upper
104	100		
78	50.4	39.5	59.3
103	53.3	43.0	64.6

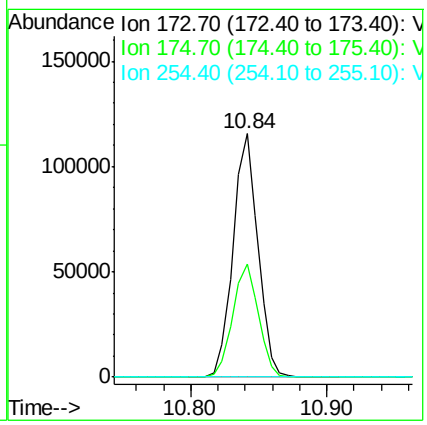




#71
Bromoform
Concen: 62.873 ug/l
RT: 10.84 min Scan# 1600
Delta R.T. -0.00 min
Lab File: VX017241.D
Acq: 08 Jul 2020 06:39

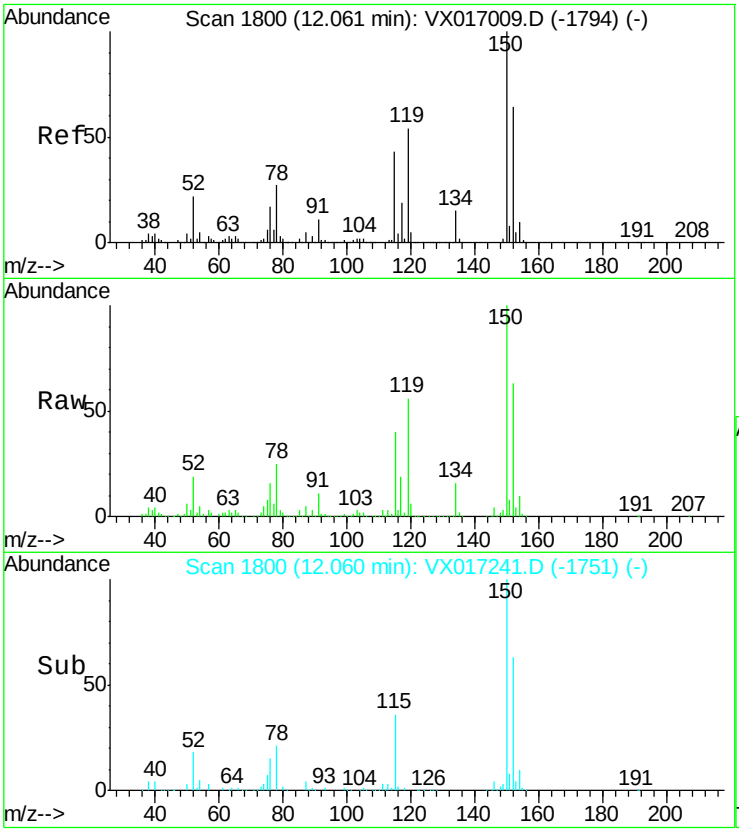
Tgt Ion:173 Resp: 146788

Ion	Ratio	Lower	Upper
173	100		
175	48.1	24.5	73.5
254	0.2	0.1	0.1#



Instrument :
MSVOA_X
ClientSampleId :
1004-MW-02MSD

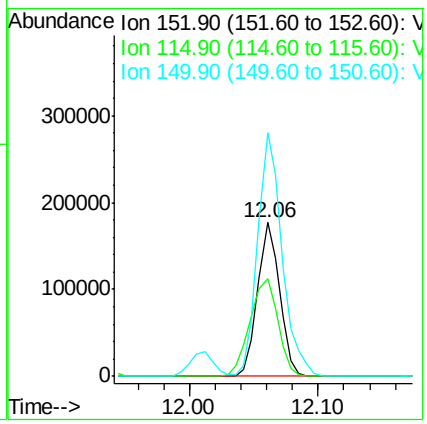
Manual Integrations APPROVED
MMDadoda
7/8/2020 9:32:07 AM

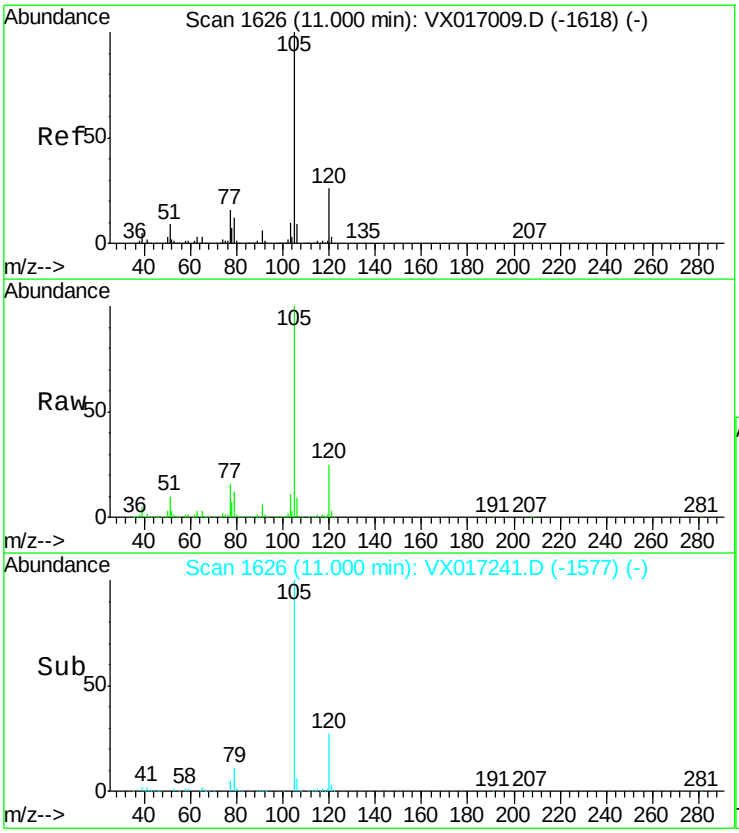


#72
1,4-Dichlorobenzene-d4
Concen: 50.000 ug/l
RT: 12.06 min Scan# 1800
Delta R.T. -0.00 min
Lab File: VX017241.D
Acq: 08 Jul 2020 06:39

Tgt Ion:152 Resp: 207249

Ion	Ratio	Lower	Upper
152	100		
115	80.9	40.9	122.7
150	176.1	0.0	351.6

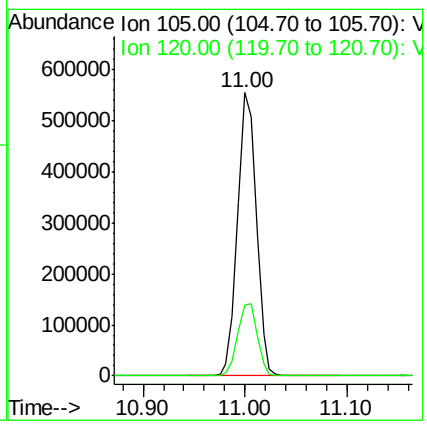




#73
Isopropylbenzene
Concen: 51.708 ug/l
RT: 11.00 min Scan# 1626
Delta R.T. -0.00 min
Lab File: VX017241.D
Acq: 08 Jul 2020 06:39

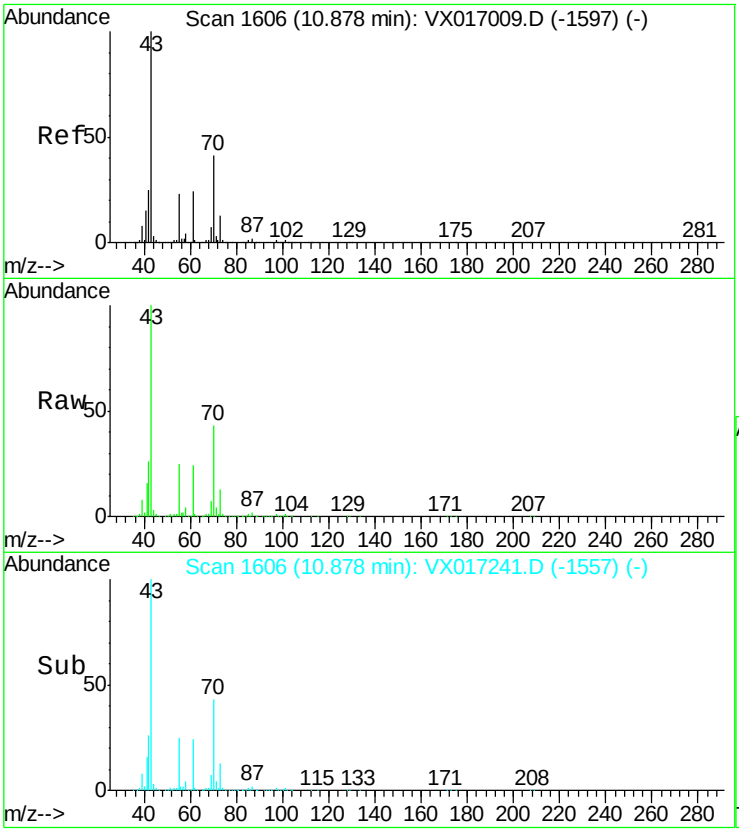
Tgt Ion:105 Resp: 701938

Ion	Ratio	Lower	Upper
105	100		
120	26.5	13.4	40.2



Instrument :
MSVOA_X
ClientSampleId :
1004-MW-02MSD

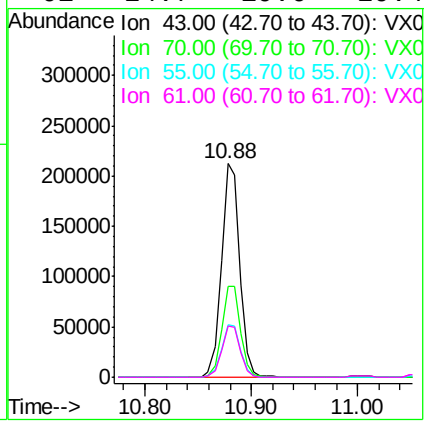
Manual Integrations APPROVED
MMDadoda
7/8/2020 9:32:07 AM

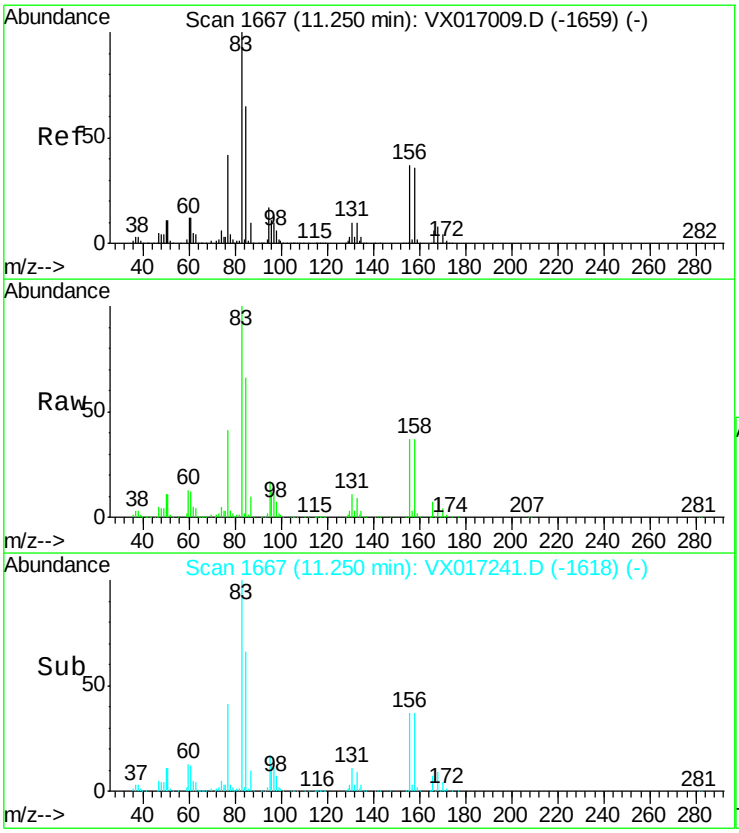


#74
N-amyl acetate
Concen: 43.688 ug/l
RT: 10.88 min Scan# 1606
Delta R.T. -0.00 min
Lab File: VX017241.D
Acq: 08 Jul 2020 06:39

Tgt Ion: 43 Resp: 253056

Ion	Ratio	Lower	Upper
43	100		
70	43.5	34.2	51.2
55	25.5	19.2	28.8
61	24.7	19.6	29.4

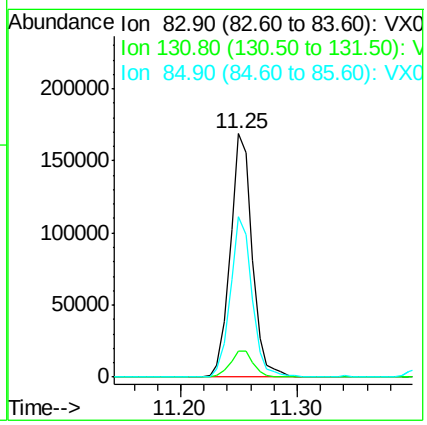




#75
1,1,2,2-Tetrachloroethane
Concen: 51.687 ug/l
RT: 11.25 min Scan# 1667
Delta R.T. -0.00 min
Lab File: VX017241.D
Acq: 08 Jul 2020 06:39

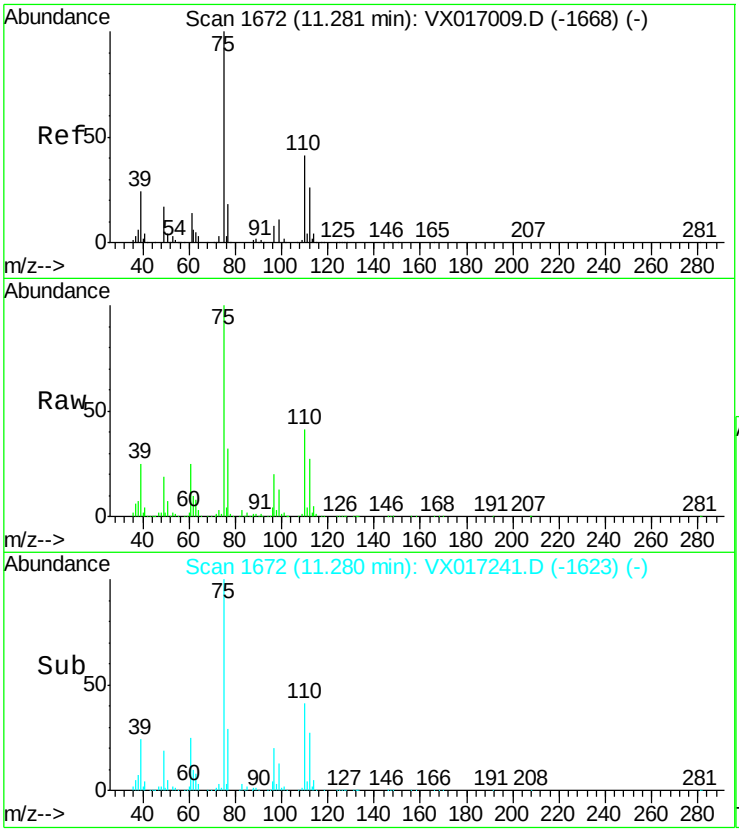
Tgt Ion: 83 Resp: 220708

Ion	Ratio	Lower	Upper
83	100		
131	11.1	5.4	16.2
85	65.1	31.9	95.9



Instrument :
MSVOA_X
ClientSampleId :
1004-MW-02MSD

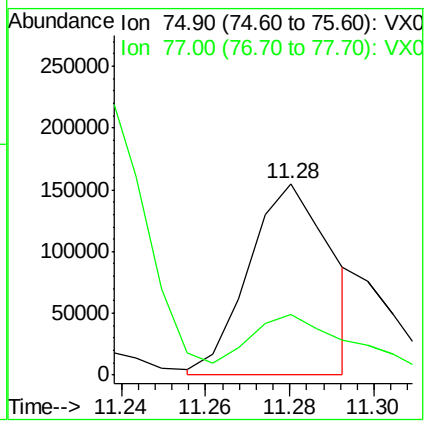
Manual Integrations APPROVED
MMDadoda
7/8/2020 9:32:07 AM

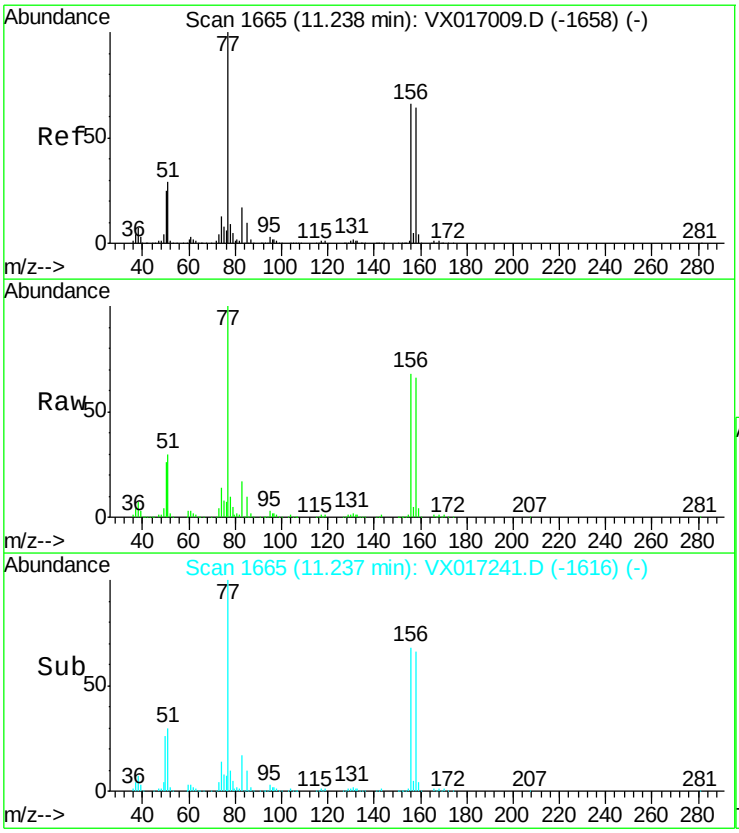


#76
1,2,3-Trichloropropane
Concen: 51.349 ug/l m
RT: 11.28 min Scan# 1672
Delta R.T. -0.00 min
Lab File: VX017241.D
Acq: 08 Jul 2020 06:39

Tgt Ion: 75 Resp: 209270

Ion	Ratio	Lower	Upper
75	100		
77	39.9	20.2	60.6

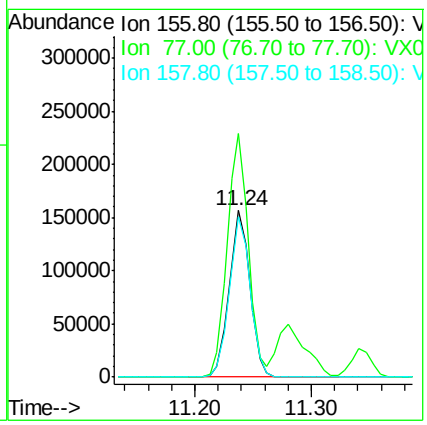




#77
Bromobenzene
Concen: 52.011 ug/l
RT: 11.24 min Scan# 1665
Delta R.T. -0.00 min
Lab File: VX017241.D
Acq: 08 Jul 2020 06:39

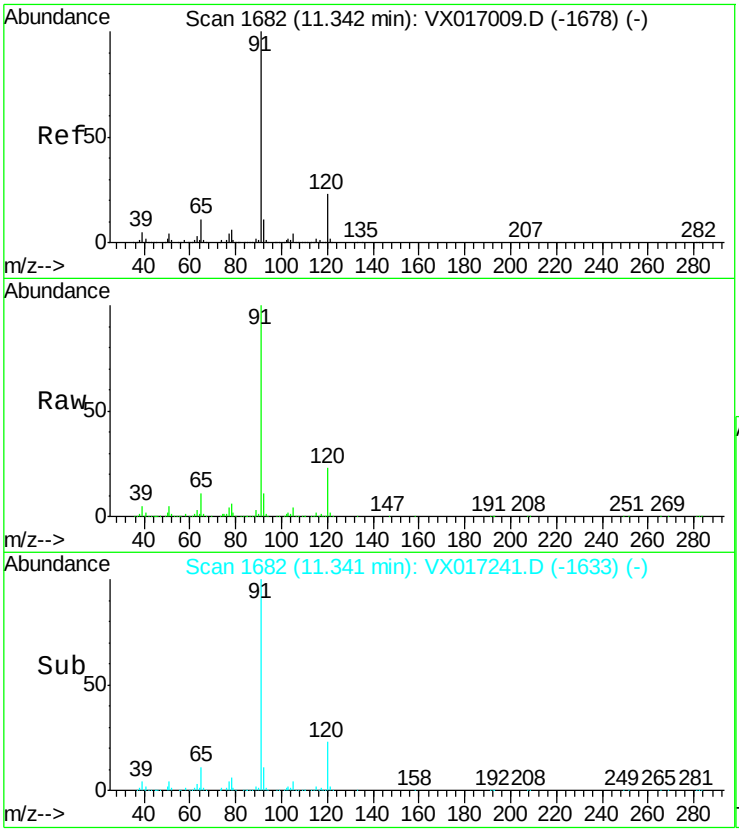
Tgt Ion:156 Resp: 194048

Ion	Ratio	Lower	Upper
156	100		
77	148.9	76.9	230.7
158	97.4	47.9	143.6



Instrument :
MSVOA_X
ClientSampleId :
1004-MW-02MSD

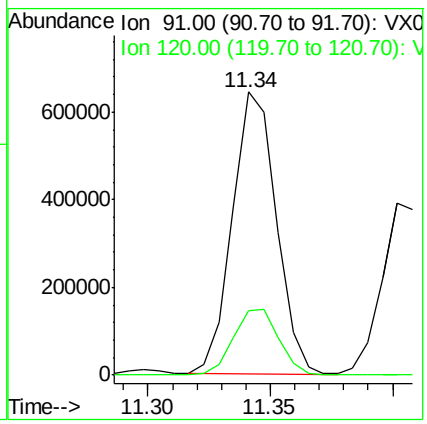
Manual Integrations APPROVED
MMDadoda
7/8/2020 9:32:07 AM

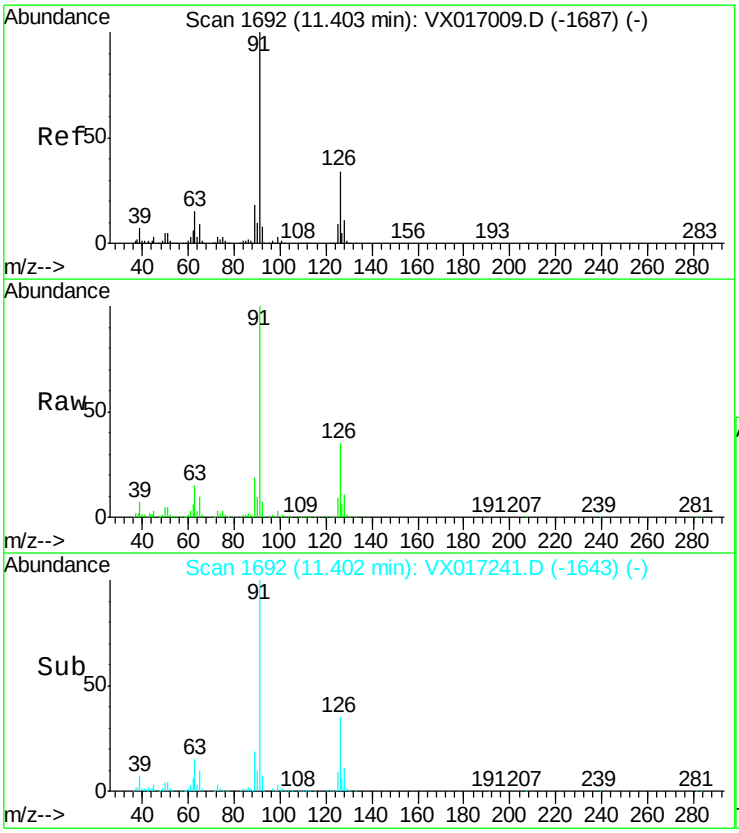


#78
n-propylbenzene
Concen: 52.321 ug/l
RT: 11.34 min Scan# 1682
Delta R.T. -0.00 min
Lab File: VX017241.D
Acq: 08 Jul 2020 06:39

Tgt Ion: 91 Resp: 803177

Ion	Ratio	Lower	Upper
91	100		
120	24.3	11.9	35.9

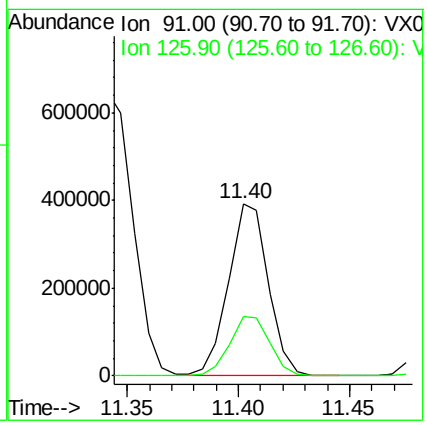


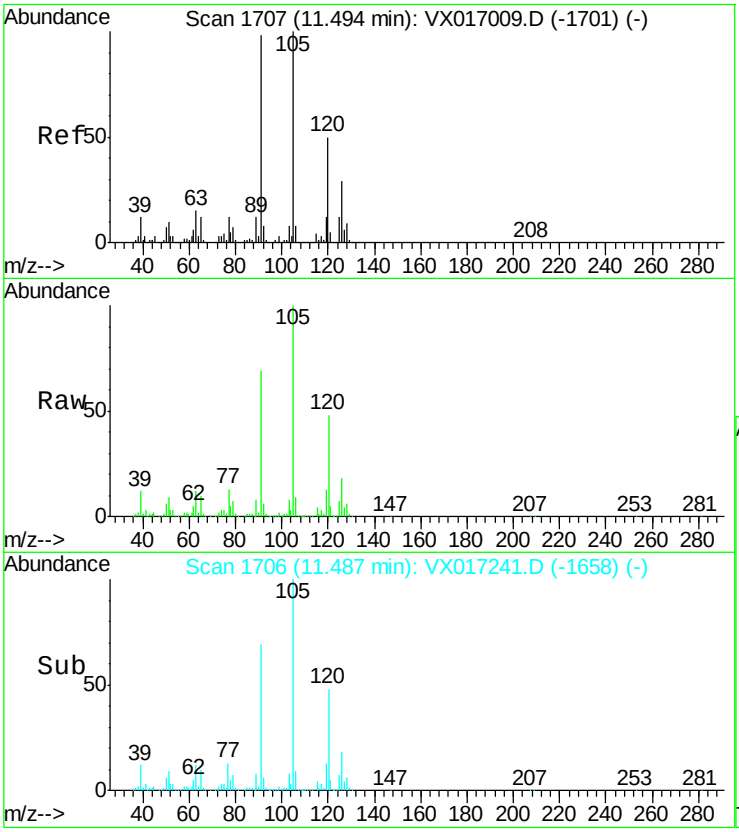


#79
2-Chlorotoluene
Concen: 52.341 ug/l
RT: 11.40 min Scan# 1692
Delta R.T. -0.00 min
Lab File: VX017241.D
Acq: 08 Jul 2020 06:39

Tgt Ion: 91 Resp: 486282

Ion	Ratio	Lower	Upper
91	100		
126	35.1	17.4	52.3

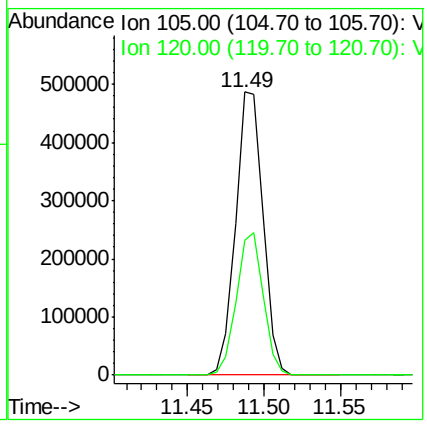




#80
1,3,5-Trimethylbenzene
Concen: 53.656 ug/l
RT: 11.49 min Scan# 1706
Delta R.T. -0.01 min
Lab File: VX017241.D
Acq: 08 Jul 2020 06:39

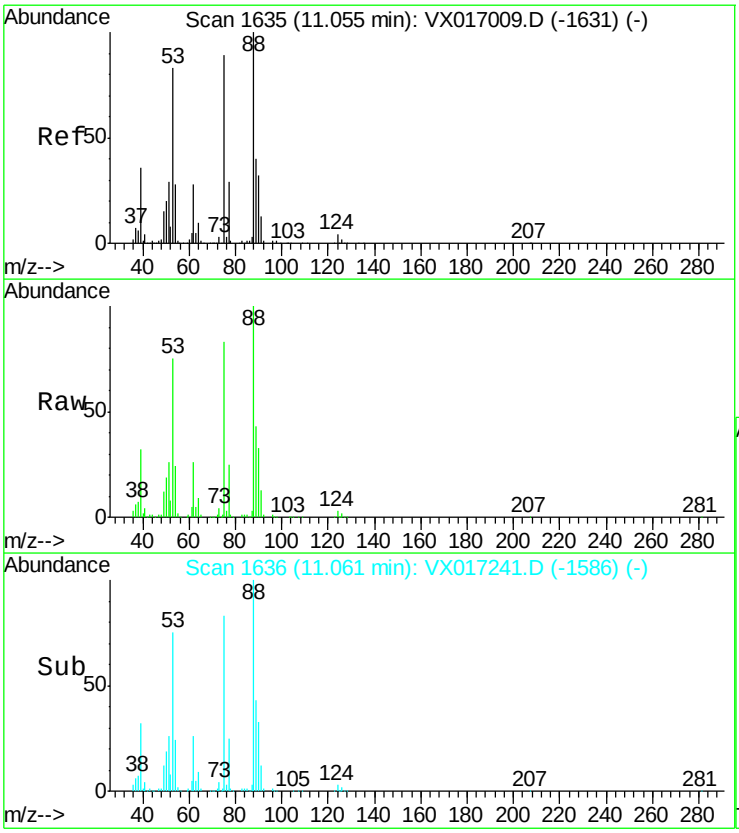
Tgt Ion:105 Resp: 604172

Ion	Ratio	Lower	Upper
105	100		
120	49.3	24.9	74.6



Instrument :
MSVOA_X
ClientSampleId :
1004-MW-02MSD

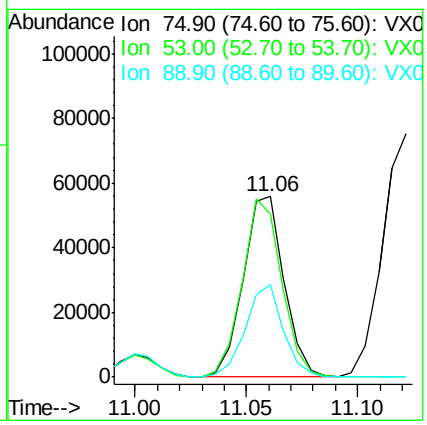
Manual Integrations APPROVED
MMDadoda
7/8/2020 9:32:07 AM



#81
trans-1,4-Dichloro-2-butene
Concen: 45.231 ug/l
RT: 11.06 min Scan# 1636
Delta R.T. 0.01 min
Lab File: VX017241.D
Acq: 08 Jul 2020 06:39

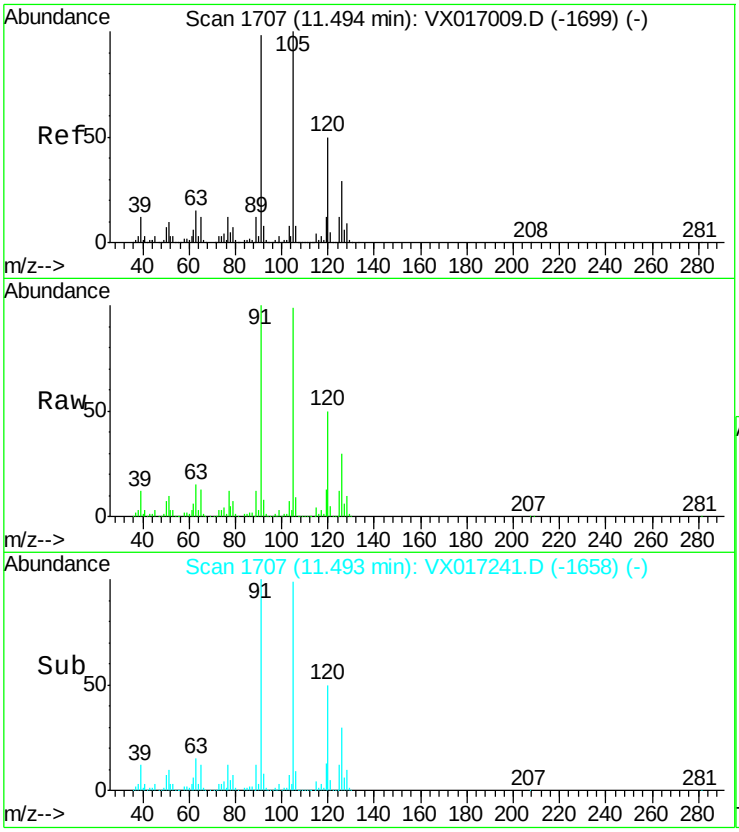
Tgt Ion: 75 Resp: 71182

Ion	Ratio	Lower	Upper
75	100		
53	95.0	72.4	108.6
89	47.8	37.0	55.4



Instrument :
MSVOA_X
ClientSampleId :
1004-MW-02MSD

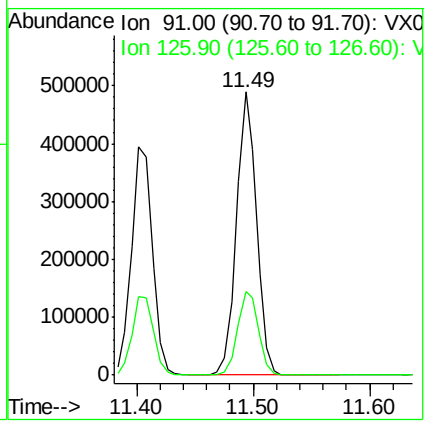
Manual Integrations APPROVED
MMDadoda
7/8/2020 9:32:07 AM

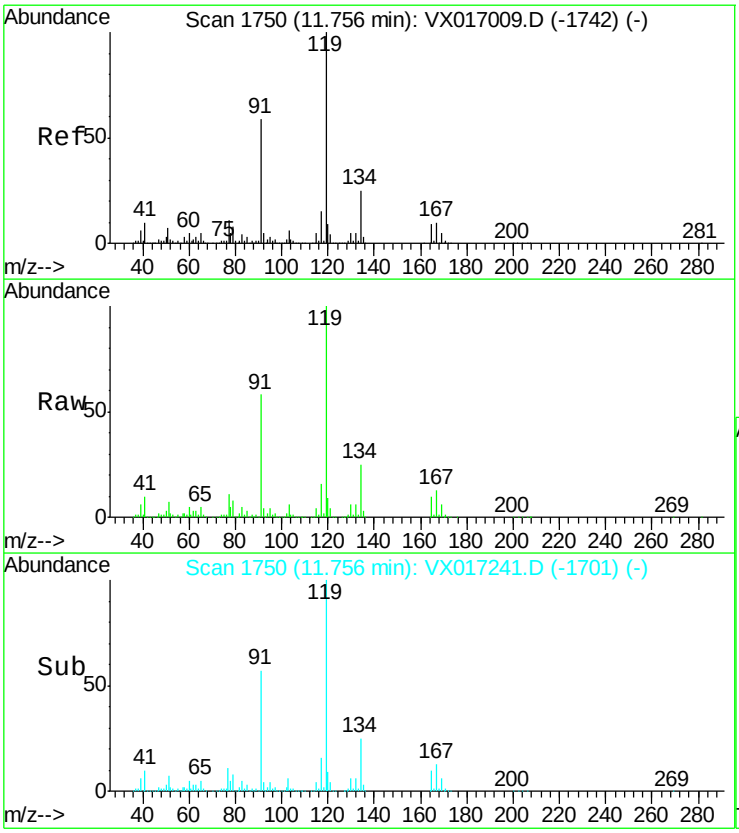


#82
4-Chlorotoluene
Concen: 52.893 ug/l
RT: 11.49 min Scan# 1707
Delta R.T. -0.00 min
Lab File: VX017241.D
Acq: 08 Jul 2020 06:39

Tgt Ion: 91 Resp: 587450

Ion	Ratio	Lower	Upper
91	100		
126	30.7	15.2	45.5

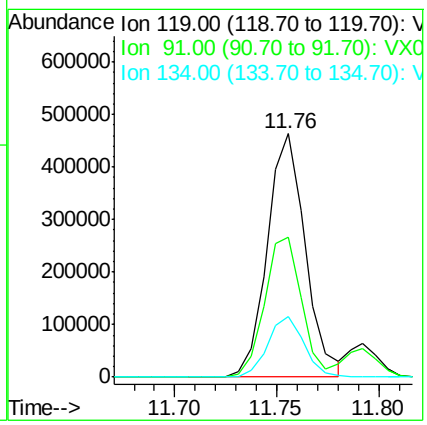




#83
tert-Butylbenzene
Concen: 54.351 ug/l
RT: 11.76 min Scan# 1750
Delta R.T. -0.00 min
Lab File: VX017241.D
Acq: 08 Jul 2020 06:39

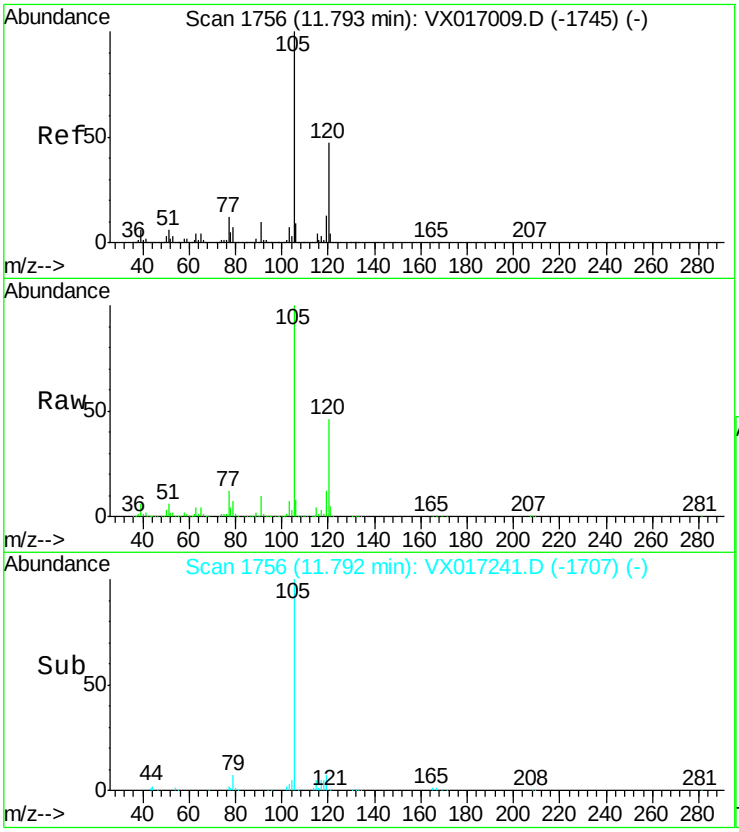
Tgt Ion:119 Resp: 600768

Ion	Ratio	Lower	Upper
119	100		
91	55.9	28.3	84.9
134	23.7	11.7	35.1



Instrument :
MSVOA_X
ClientSampleId :
1004-MW-02MSD

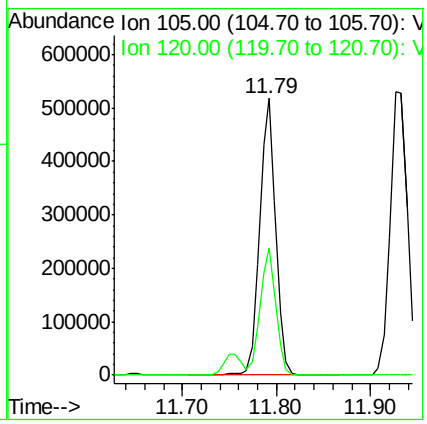
Manual Integrations APPROVED
MMDadoda
7/8/2020 9:32:07 AM

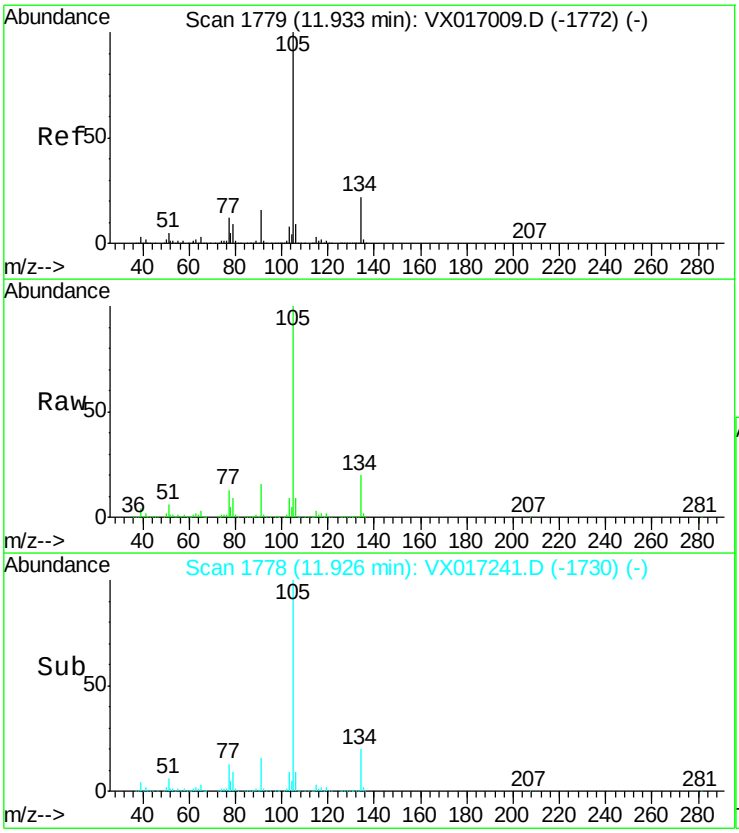


#84
1,2,4-Trimethylbenzene
Concen: 54.564 ug/l
RT: 11.79 min Scan# 1756
Delta R.T. -0.00 min
Lab File: VX017241.D
Acq: 08 Jul 2020 06:39

Tgt Ion:105 Resp: 623312

Ion	Ratio	Lower	Upper
105	100		
120	45.1	22.9	68.5

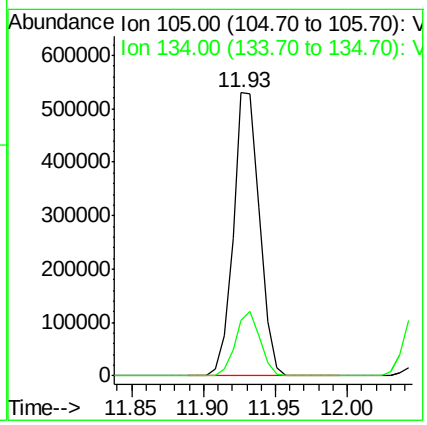




#85
sec-Butylbenzene
Concen: 51.826 ug/l
RT: 11.93 min Scan# 1778
Delta R.T. -0.01 min
Lab File: VX017241.D
Acq: 08 Jul 2020 06:39

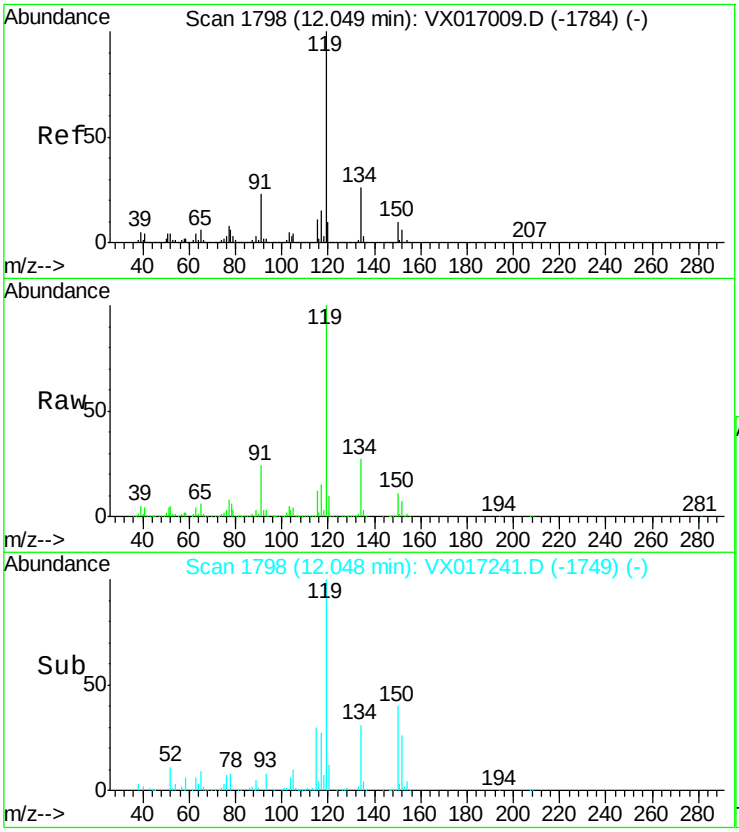
Tgt Ion:105 Resp: 673381

Ion	Ratio	Lower	Upper
105	100		
134	21.4	10.5	31.6



Instrument :
MSVOA_X
ClientSampleId :
1004-MW-02MSD

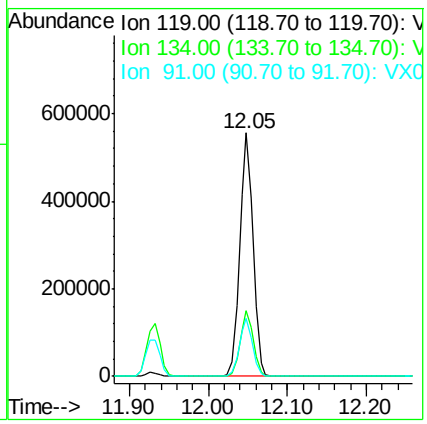
Manual Integrations APPROVED
MMDadoda
7/8/2020 9:32:07 AM

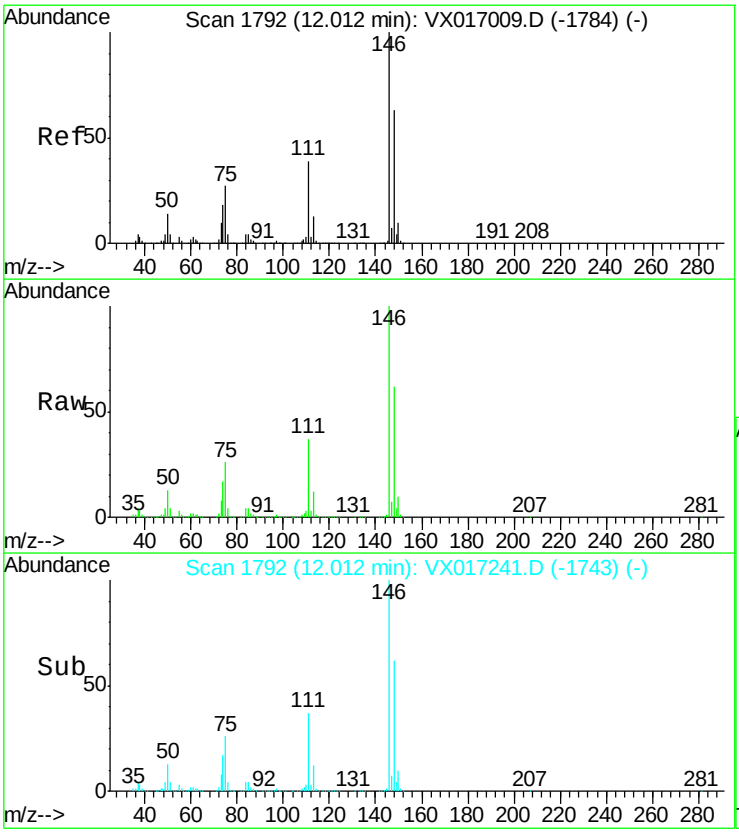


#86
p-Isopropyltoluene
Concen: 53.646 ug/l
RT: 12.05 min Scan# 1798
Delta R.T. -0.00 min
Lab File: VX017241.D
Acq: 08 Jul 2020 06:39

Tgt Ion:119 Resp: 648885

Ion	Ratio	Lower	Upper
119	100		
134	26.4	13.2	39.5
91	23.4	11.8	35.4

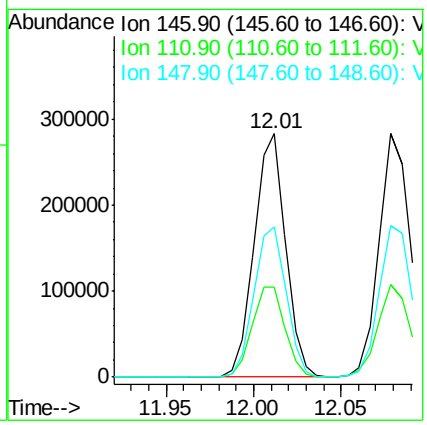




#87
1,3-Dichlorobenzene
Concen: 52.056 ug/l
RT: 12.01 min Scan# 1792
Delta R.T. -0.00 min
Lab File: VX017241.D
Acq: 08 Jul 2020 06:39

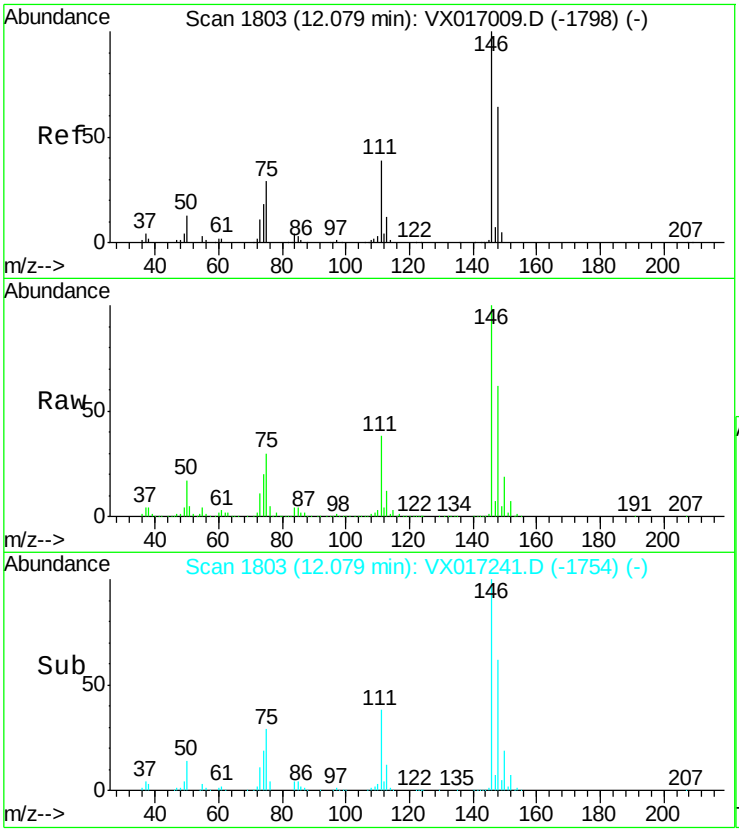
Tgt Ion:146 Resp: 352735

Ion	Ratio	Lower	Upper
146	100		
111	38.9	20.4	61.2
148	63.7	32.5	97.5



Instrument :
MSVOA_X
ClientSampleId :
1004-MW-02MSD

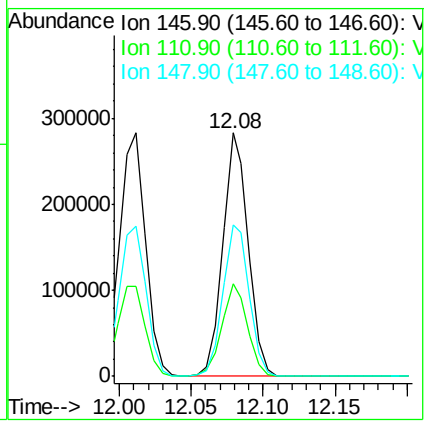
Manual Integrations APPROVED
MMDadoda
7/8/2020 9:32:07 AM

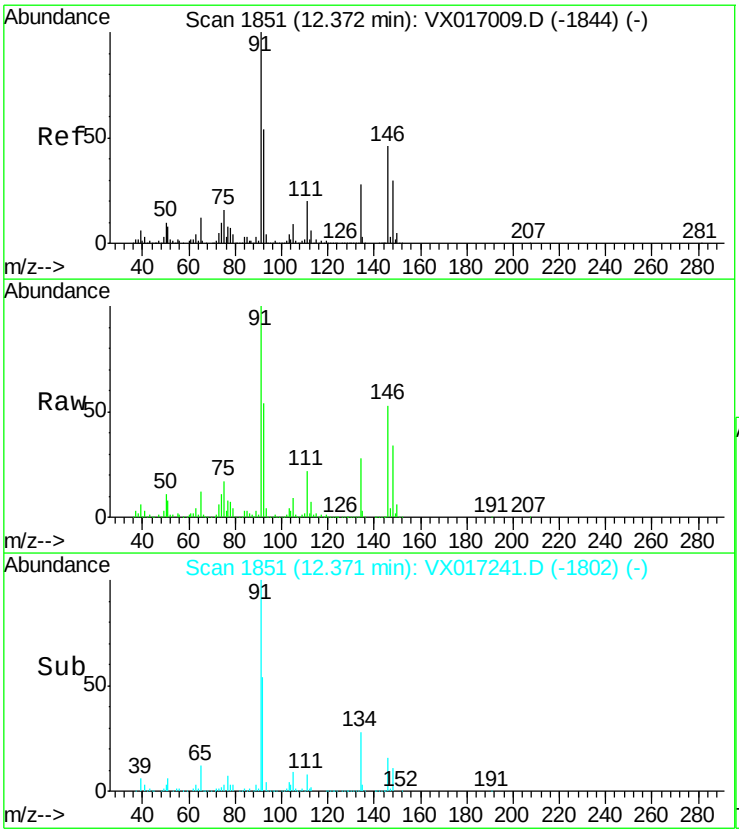


#88
1,4-Dichlorobenzene
Concen: 54.790 ug/l
RT: 12.08 min Scan# 1803
Delta R.T. -0.00 min
Lab File: VX017241.D
Acq: 08 Jul 2020 06:39

Tgt Ion:146 Resp: 350001

Ion	Ratio	Lower	Upper
146	100		
111	38.7	19.5	58.5
148	65.1	31.9	95.7

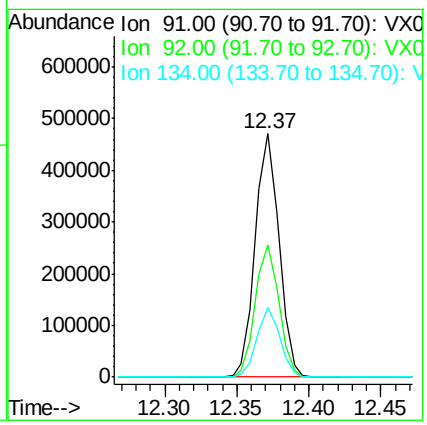




#89
n-Butylbenzene
Concen: 49.402 ug/l
RT: 12.37 min Scan# 1851
Delta R.T. -0.00 min
Lab File: VX017241.D
Acq: 08 Jul 2020 06:39

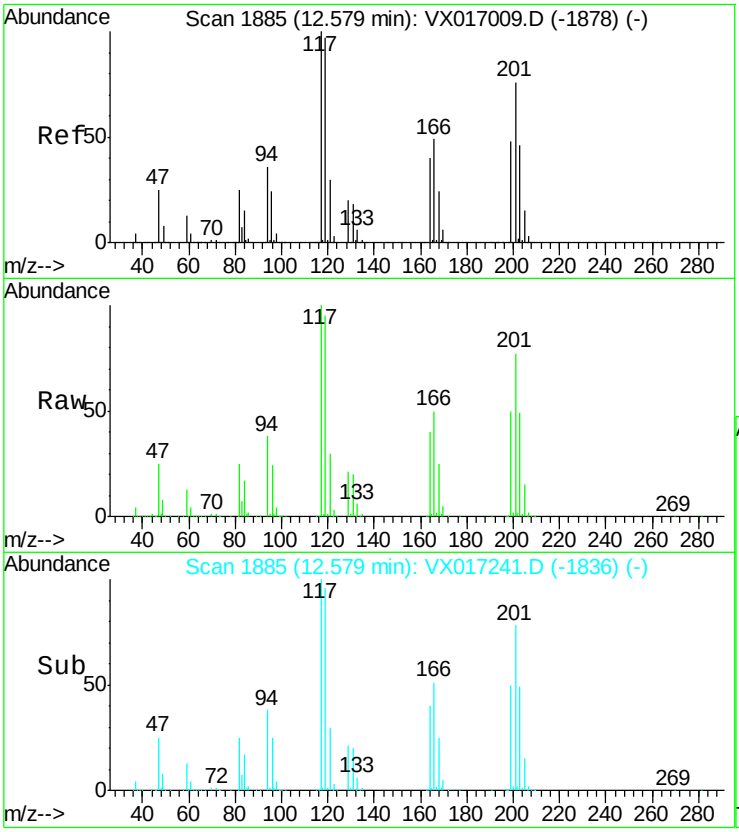
Tgt Ion: 91 Resp: 533554

Ion	Ratio	Lower	Upper
91	100		
92	54.2	27.2	81.6
134	27.5	13.6	40.7



Instrument :
MSVOA_X
ClientSampleId :
1004-MW-02MSD

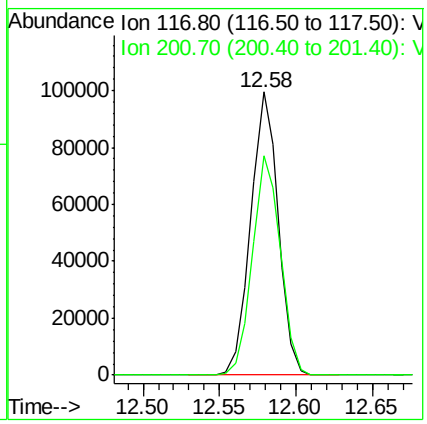
Manual Integrations APPROVED
MMDadoda
7/8/2020 9:32:07 AM

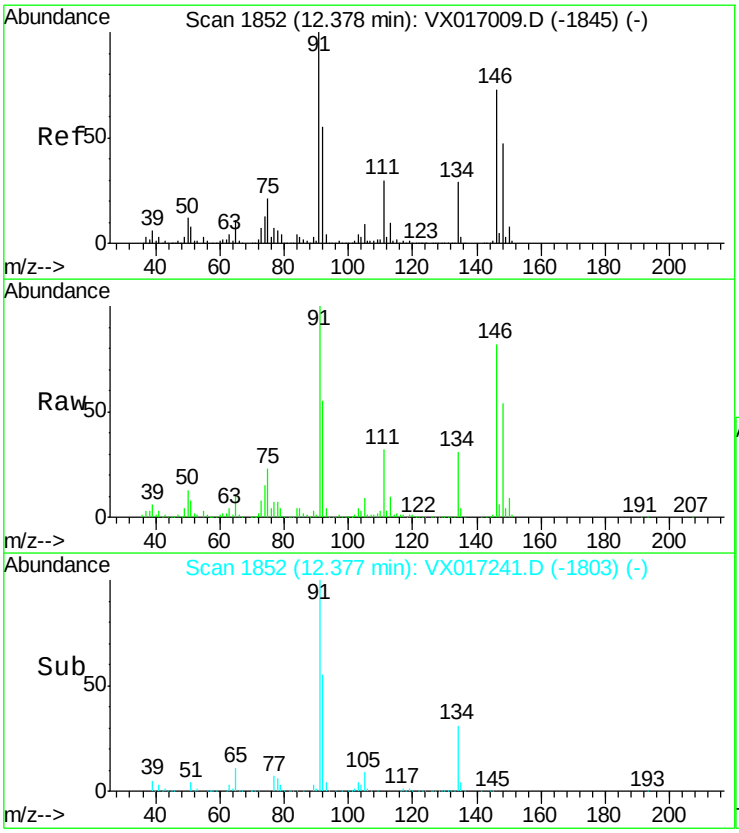


#90
Hexachloroethane
Concen: 52.200 ug/l
RT: 12.58 min Scan# 1885
Delta R.T. -0.00 min
Lab File: VX017241.D
Acq: 08 Jul 2020 06:39

Tgt Ion:117 Resp: 124511

Ion	Ratio	Lower	Upper
117	100		
201	78.7	39.4	118.2

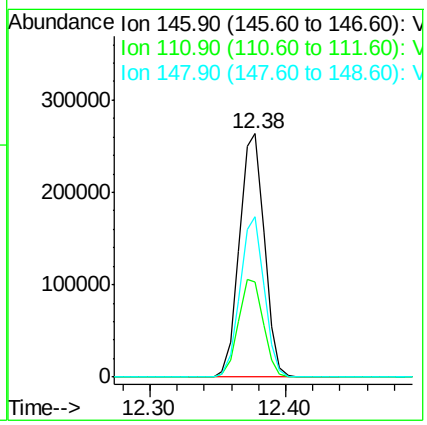


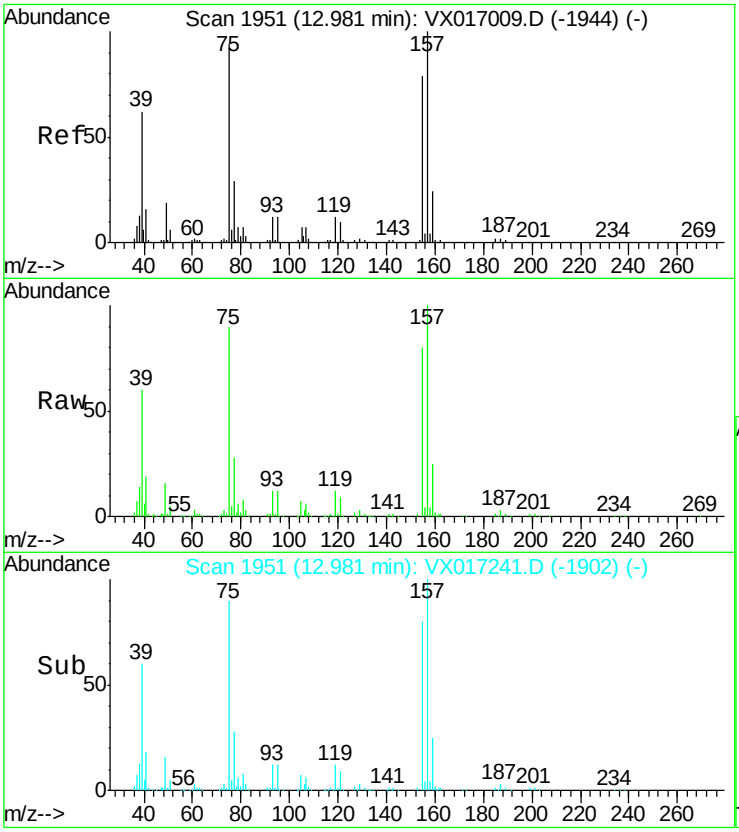


#91
1,2-Dichlorobenzene
Concen: 53.110 ug/l
RT: 12.38 min Scan# 1852
Delta R.T. -0.00 min
Lab File: VX017241.D
Acq: 08 Jul 2020 06:39

Tgt Ion:146 Resp: 336392

Ion	Ratio	Lower	Upper
146	100		
111	40.1	20.6	61.9
148	63.8	32.4	97.2

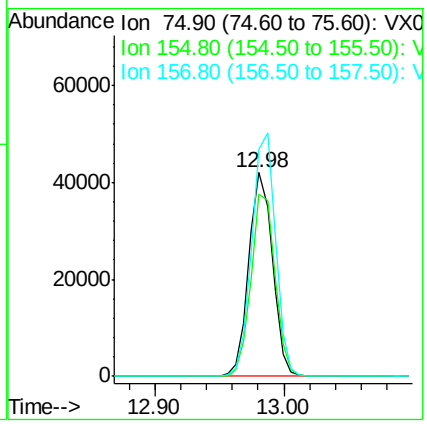




#92
1,2-Dibromo-3-Chloropropane
Concen: 51.964 ug/l
RT: 12.98 min Scan# 1951
Delta R.T. -0.00 min
Lab File: VX017241.D
Acq: 08 Jul 2020 06:39

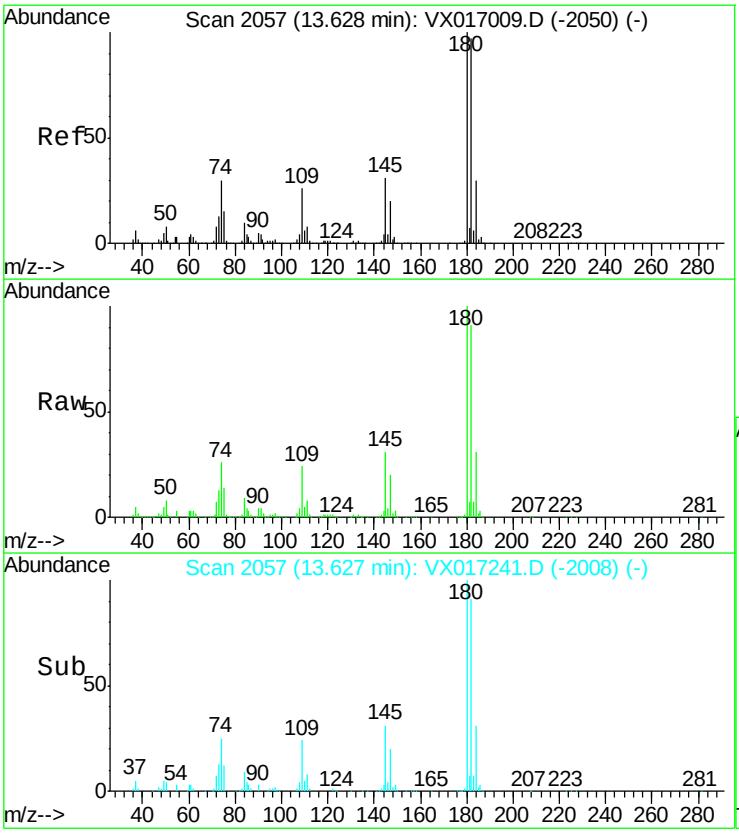
Tgt Ion: 75 Resp: 52934

Ion	Ratio	Lower	Upper
75	100		
155	90.4	45.1	135.2
157	119.0	56.5	169.3



Instrument :
MSVOA_X
ClientSampleId :
1004-MW-02MSD

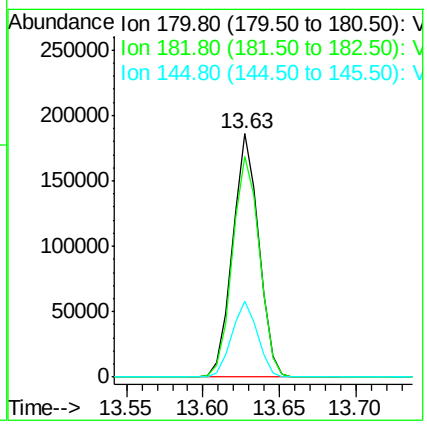
Manual Integrations APPROVED
MMDadoda
7/8/2020 9:32:07 AM



#93
1,2,4-Trichlorobenzene
Concen: 50.884 ug/l
RT: 13.63 min Scan# 2057
Delta R.T. -0.00 min
Lab File: VX017241.D
Acq: 08 Jul 2020 06:39

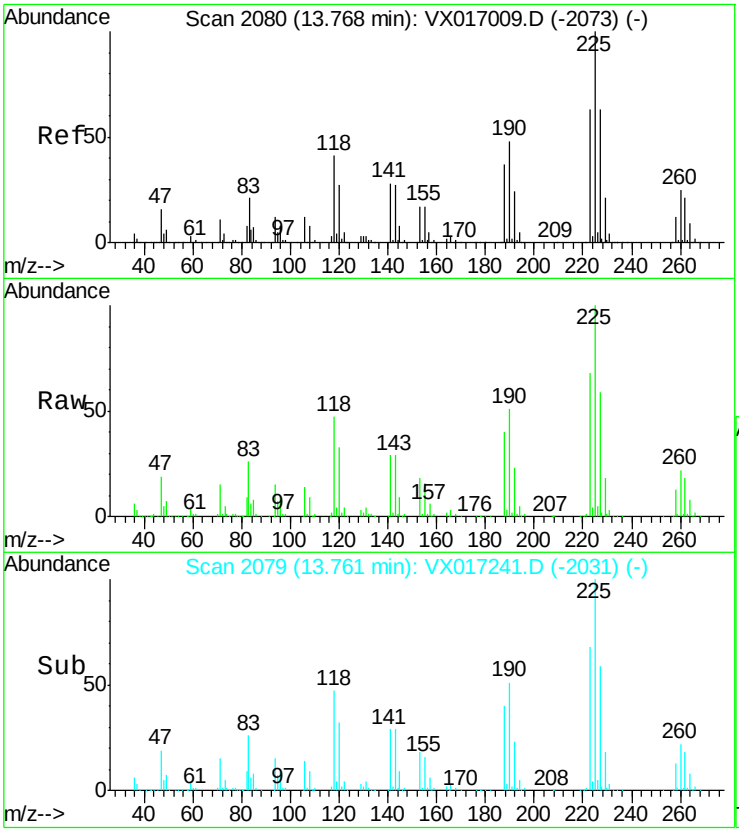
Tgt Ion:180 Resp: 219980

Ion	Ratio	Lower	Upper
180	100		
182	93.6	47.3	141.9
145	30.6	15.4	46.2



Instrument :
MSVOA_X
ClientSampleId :
1004-MW-02MSD

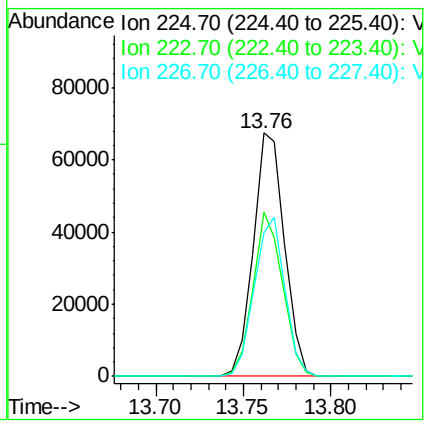
Manual Integrations APPROVED
MMDadoda
7/8/2020 9:32:07 AM

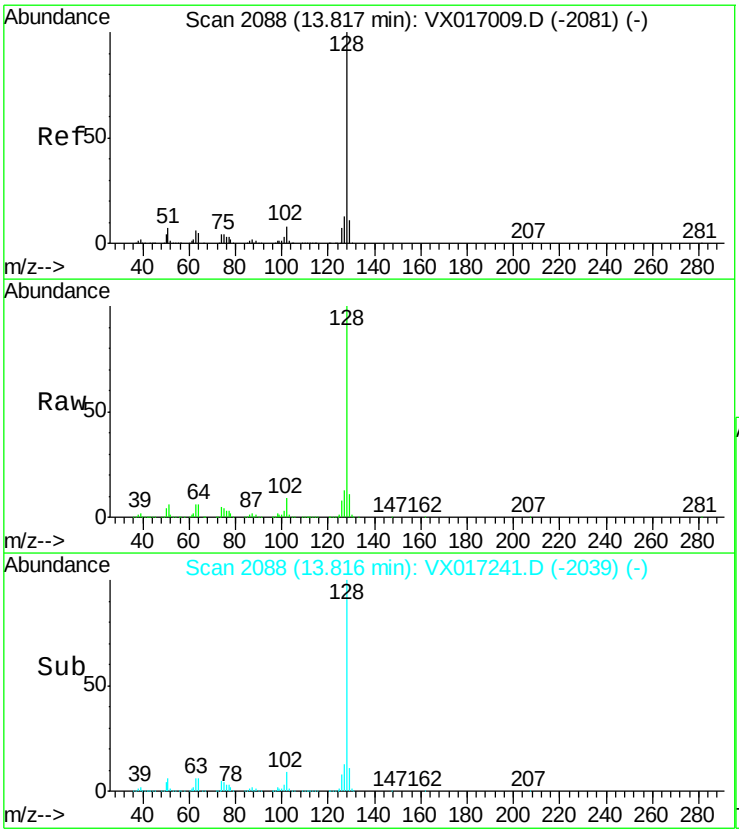


#94
Hexachlorobutadiene
Concen: 50.915 ug/l
RT: 13.76 min Scan# 2079
Delta R.T. -0.01 min
Lab File: VX017241.D
Acq: 08 Jul 2020 06:39

Tgt Ion:225 Resp: 83563

Ion	Ratio	Lower	Upper
225	100		
223	64.0	32.5	97.5
227	64.2	33.1	99.2

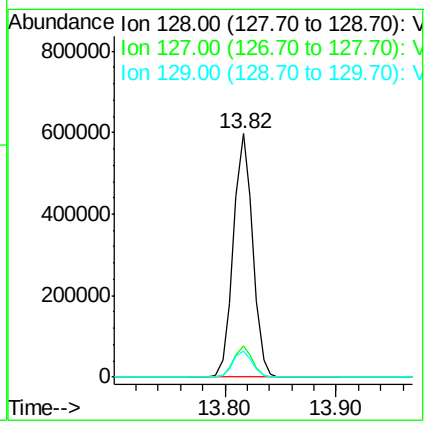


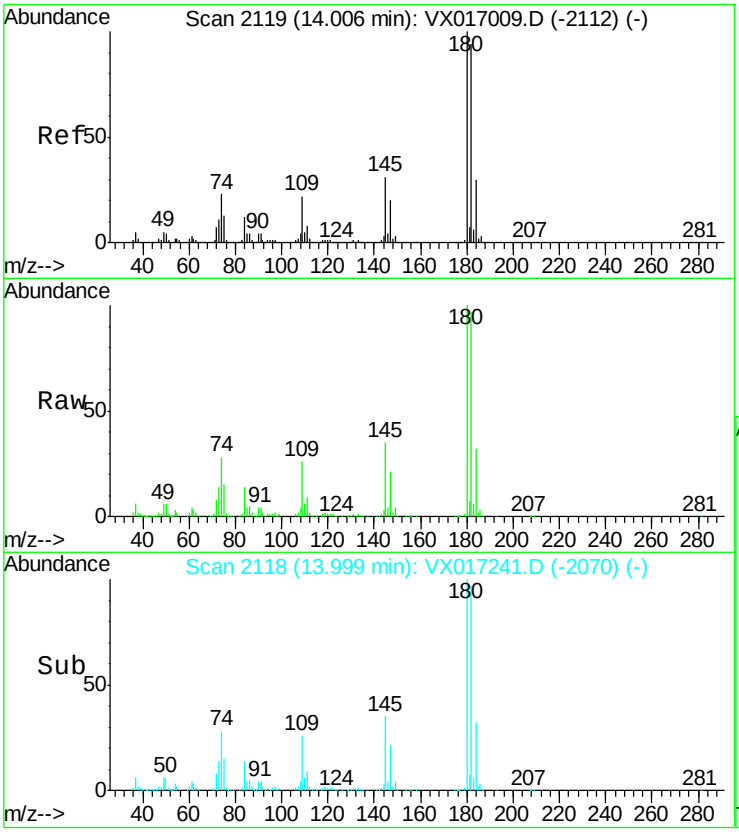


#95
Naphthalene
Concen: 54.490 ug/l
RT: 13.82 min Scan# 2088
Delta R.T. -0.00 min
Lab File: VX017241.D
Acq: 08 Jul 2020 06:39

Tgt Ion:128 Resp: 716166

Ion	Ratio	Lower	Upper
128	100		
127	12.3	10.2	15.4
129	10.6	8.7	13.1

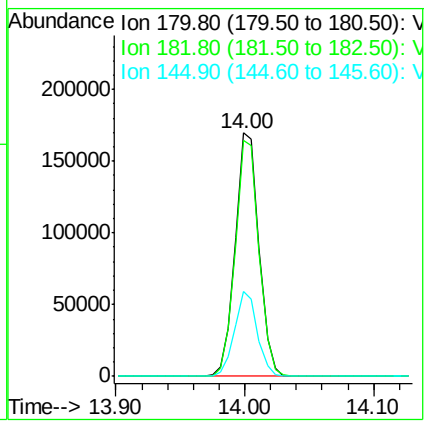




#96
1,2,3-Trichlorobenzene
Concen: 51.997 ug/l
RT: 14.00 min Scan# 2118
Delta R.T. -0.01 min
Lab File: VX017241.D
Acq: 08 Jul 2020 06:39

Tgt Ion:180 Resp: 217545

Ion	Ratio	Lower	Upper
180	100		
182	96.9	47.1	141.4
145	33.4	16.6	49.7



Instrument :
MSVOA_X
ClientSampleId :
1004-MW-02MSD

Manual Integrations APPROVED
MMDadoda
7/8/2020 9:32:07 AM

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Manual Integration Report

Sequence:	VX062920	Instrument	MSVOA_x

Sample ID	File ID	Parameter	Review By	Review On	Supervised By	Supervised On	Reason
VSTDICC001	VX017006.D	1,2,3-Trichloropropane	john	6/30/2020 9:04:06 AM	MMDadoda	6/30/2020 10:12:40 AM	Peak Integrated by Software incorrectly
VSTDICC001	VX017006.D	1,4-Dichlorobenzene	john	6/30/2020 9:04:06 AM	MMDadoda	6/30/2020 10:12:40 AM	Peak Integrated by Software incorrectly
VSTDICC005	VX017007.D	1,2,3-Trichloropropane	john	6/30/2020 9:04:10 AM	MMDadoda	6/30/2020 10:12:44 AM	Peak Integrated by Software incorrectly
VSTDICC020	VX017008.D	1,2,3-Trichloropropane	john	6/30/2020 9:04:15 AM	MMDadoda	6/30/2020 10:12:50 AM	Peak Integrated by Software incorrectly
VSTDICCC050	VX017009.D	1,2,3-Trichloropropane	john	6/30/2020 9:04:19 AM	MMDadoda	6/30/2020 10:13:30 AM	Peak Integrated by Software incorrectly
VSTDICC100	VX017010.D	1,2,3-Trichloropropane	john	6/30/2020 9:04:23 AM	MMDadoda	6/30/2020 10:13:34 AM	Peak Integrated by Software incorrectly
VSTDICC150	VX017011.D	1,2,3-Trichloropropane	john	6/30/2020 9:04:27 AM	MMDadoda	6/30/2020 10:12:24 AM	Peak Integrated by Software incorrectly
VSTDICV050	VX017012.D	1,2,3-Trichloropropane	john	6/30/2020 9:04:31 AM	MMDadoda	6/30/2020 10:12:17 AM	Peak Integrated by Software incorrectly
VSTDCCC050	VX017030.D	1,2,3-Trichloropropane	john	6/30/2020 9:04:48 AM	MMDadoda	6/30/2020 9:47:30 AM	Peak Integrated by Software incorrectly

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Manual Integration Report

Sequence:	VX070720	Instrument	MSVOA_x

Sample ID	File ID	Parameter	Review By	Review On	Supervised By	Supervised On	Reason
VSTDCCC050	VX017191.D	1,2,3-Trichloropropane	john	7/8/2020 9:08:41 AM	MMDadoda	7/8/2020 9:31:23 AM	Peak Integrated by Software incorrectly
VSTDCCC050	VX017217.D	1,2,3-Trichloropropane	john	7/8/2020 9:09:08 AM	MMDadoda	7/8/2020 9:31:43 AM	Peak Integrated by Software incorrectly
VSTDCCC050	VX017219.D	1,2,3-Trichloropropane	john	7/8/2020 9:09:12 AM	MMDadoda	7/8/2020 9:31:49 AM	Peak Integrated by Software incorrectly
VX0707WBS02	VX017221.D	1,2,3-Trichloropropane	john	7/8/2020 9:09:30 AM	MMDadoda	7/8/2020 9:31:54 AM	Peak Integrated by Software incorrectly
L3232-03MS	VX017240.D	1,2,3-Trichloropropane	john	7/8/2020 9:09:35 AM	MMDadoda	7/8/2020 9:32:02 AM	Peak Integrated by Software incorrectly
L3232-04MSD	VX017241.D	1,2,3-Trichloropropane	john	7/8/2020 9:09:39 AM	MMDadoda	7/8/2020 9:32:07 AM	Peak Integrated by Software incorrectly
VSTDCCC050	VX017242.D	1,2,3-Trichloropropane	john	7/8/2020 9:09:43 AM	MMDadoda	7/8/2020 9:32:12 AM	Peak Integrated by Software incorrectly

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Manual Integration Report

Sequence:	VX070820	Instrument	MSVOA_x

Sample ID	File ID	Parameter	Review By	Review On	Supervised By	Supervised On	Reason
VSTDCCC050	VX017244.D	1,2,3-Trichloropropane	john	7/9/2020 9:04:34 AM	MMDadoda	7/9/2020 10:59:45 AM	Peak Integrated by Software incorrectly
VX0708WBS01	VX017246.D	1,2,3-Trichloropropane	john	7/9/2020 9:04:38 AM	MMDadoda	7/9/2020 10:59:47 AM	Peak Integrated by Software incorrectly
VSTDCCC050	VX017270.D	1,2,3-Trichloropropane	john	7/9/2020 9:09:34 AM	MMDadoda	7/9/2020 10:59:54 AM	Peak Integrated by Software incorrectly
VSTDCCC020	VX017272.D	1,2,3-Trichloropropane	john	7/9/2020 9:09:39 AM	MMDadoda	7/9/2020 10:59:56 AM	Peak Integrated by Software incorrectly
VSTDCCC050	VX017273.D	1,2,3-Trichloropropane	john	7/9/2020 9:09:42 AM	MMDadoda	7/9/2020 10:59:57 AM	Peak Integrated by Software incorrectly
VSTDCCC050	VX017294.D	1,2,3-Trichloropropane	john	7/9/2020 9:10:14 AM	MMDadoda	7/9/2020 11:00:08 AM	Peak Integrated by Software incorrectly
VSTDCCC020	VX017295.D	1,2,3-Trichloropropane	john	7/9/2020 9:10:19 AM	MMDadoda	7/9/2020 11:00:10 AM	Peak Integrated by Software incorrectly

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Instrument ID: MSVOA_X

Daily Analysis Runlog For Sequence/QCBatch ID # VX062920

Review By	john	Review On	6/30/2020 9:17:36 AM		
Supervise By	MMDadoda	Supervise On	6/30/2020 4:21:49 PM		
SubDirectory	VX062920	HP Acquire Method	MSVOA_X	HP Processing Method	82X062920W.M

STD. NAME	STD REF.#
Tune/Reschk	VP94071
Initial Calibration Stds	VP94115,VP94116,VP94117,VP94118,VP94119,VP94120
CCC	VP94072,VP94073
Internal Standard/PEM	VP90441
ICV/I.BLK	VP94121

Sr#	SampleId	Data File Name	Date-Time	Operator	Status
1	BFB	VX017004.D	29 Jun 2020 12:32	JC/SP	Ok
2	VSTDCCC050	VX017005.D	29 Jun 2020 13:02	JC/SP	Not Ok
3	VSTDICC001	VX017006.D	29 Jun 2020 14:13	JC/SP	Ok,M
4	VSTDICC005	VX017007.D	29 Jun 2020 14:35	JC/SP	Ok,M
5	VSTDICC020	VX017008.D	29 Jun 2020 14:58	JC/SP	Ok,M
6	VSTDICCC050	VX017009.D	29 Jun 2020 15:21	JC/SP	Ok,M
7	VSTDICC100	VX017010.D	29 Jun 2020 15:43	JC/SP	Ok,M
8	VSTDICC150	VX017011.D	29 Jun 2020 16:06	JC/SP	Ok,M
9	VSTDICV050	VX017012.D	29 Jun 2020 16:53	JC/SP	Ok,M
10	VX0629WBL01	VX017013.D	29 Jun 2020 17:47	JC/SP	Ok
11	VX0629WBS01	VX017014.D	29 Jun 2020 18:09	JC/SP	Ok,M
12	VX0629WBSD01	VX017015.D	29 Jun 2020 18:32	JC/SP	Ok,M
13	L3020-15	VX017016.D	29 Jun 2020 18:55	JC/SP	Ok
14	L3094-05	VX017017.D	29 Jun 2020 19:17	JC/SP	Not Ok
15	L3112-01	VX017018.D	29 Jun 2020 19:40	JC/SP	Ok
16	L3112-02	VX017019.D	29 Jun 2020 20:03	JC/SP	Ok
17	L3112-09	VX017020.D	29 Jun 2020 20:26	JC/SP	Ok
18	L3112-10	VX017021.D	29 Jun 2020 20:49	JC/SP	Ok
19	L3143-01	VX017022.D	29 Jun 2020 21:11	JC/SP	Ok
20	L3146-02	VX017023.D	29 Jun 2020 21:34	JC/SP	Ok
21	L3146-01	VX017024.D	29 Jun 2020 21:57	JC/SP	ReRun
22	L3112-03	VX017025.D	29 Jun 2020 22:20	JC/SP	Not Ok
23	L3147-01	VX017026.D	29 Jun 2020 22:42	JC/SP	Not Ok
24	L3147-03	VX017027.D	29 Jun 2020 23:05	JC/SP	Not Ok
25	L3097-02DL	VX017028.D	29 Jun 2020 23:28	JC/SP	Ok
26	L3097-04DL	VX017029.D	29 Jun 2020 23:51	JC/SP	Ok

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Instrument ID: MSVOA_X

Daily Analysis Runlog For Sequence/QCBatch ID # VX062920

Review By	john	Review On	6/30/2020 9:17:36 AM		
Supervise By	MMDadoda	Supervise On	6/30/2020 4:21:49 PM		
SubDirectory	VX062920	HP Acquire Method	MSVOA_X	HP Processing Method	82X062920W.M

STD. NAME	STD REF.#
Tune/Reschk	VP94071
Initial Calibration Stds	VP94115,VP94116,VP94117,VP94118,VP94119,VP94120
CCC	VP94072,VP94073
Internal Standard/PEM	VP90441
ICV/I.BLK	VP94121

27	VSTDCCC050	VX017030.D	30 Jun 2020 00:13	JC/SP	Ok,M

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Instrument ID: MSVOA_X

Daily Analysis Runlog For Sequence/QCBatch ID # VX070720

Review By	john	Review On	7/8/2020 9:49:48 AM		
Supervise By	MMDadoda	Supervise On	7/8/2020 6:51:07 PM		
SubDirectory	VX070720	HP Acquire Method	MSVOA_X	HP Processing Method	82X062920W.M

STD. NAME	STD REF.#
Tune/Reschk	VP94246,VP94271
Initial Calibration Stds	VP94115,VP94116,VP94117,VP94118,VP94119,VP94120
CCC	VP94247,VP94248,VP94272,VP94273
Internal Standard/PEM	VP90441
ICV/I.BLK	VP94121

Sr#	SampleId	Data File Name	Date-Time	Operator	Status
1	BFB	VX017190.D	07 Jul 2020 09:15	JC/SP	Ok
2	VSTDCCC050	VX017191.D	07 Jul 2020 09:50	JC/SP	Ok,M
3	VX0707WBL01	VX017192.D	07 Jul 2020 10:37	JC/SP	Ok
4	VX0707WBS01	VX017193.D	07 Jul 2020 11:08	JC/SP	Ok,M
5	VX0707WBSD01	VX017194.D	07 Jul 2020 11:41	JC/SP	Ok,M
6	L3210-02	VX017195.D	07 Jul 2020 12:04	JC/SP	Ok
7	L3159-24	VX017196.D	07 Jul 2020 12:27	JC/SP	ReRun
8	L3159-25	VX017197.D	07 Jul 2020 12:50	JC/SP	Ok
9	L3159-01	VX017198.D	07 Jul 2020 13:13	JC/SP	Ok
10	L3159-03	VX017199.D	07 Jul 2020 13:35	JC/SP	Ok
11	L3159-06	VX017200.D	07 Jul 2020 13:58	JC/SP	Ok
12	L3159-09	VX017201.D	07 Jul 2020 14:21	JC/SP	Ok
13	L3159-13	VX017202.D	07 Jul 2020 14:44	JC/SP	Ok
14	L3159-21	VX017203.D	07 Jul 2020 15:07	JC/SP	Dilution
15	L3159-21DL	VX017204.D	07 Jul 2020 15:29	JC/SP	Ok
16	L3159-22	VX017205.D	07 Jul 2020 15:52	JC/SP	Dilution
17	L3159-22DL	VX017206.D	07 Jul 2020 16:15	JC/SP	Ok
18	L3159-05	VX017207.D	07 Jul 2020 16:38	JC/SP	Dilution
19	L3159-16	VX017208.D	07 Jul 2020 17:00	JC/SP	Dilution
20	L3159-16DL	VX017209.D	07 Jul 2020 17:23	JC/SP	Ok
21	IBLK	VX017210.D	07 Jul 2020 17:46	JC/SP	Ok
22	L3195-16	VX017211.D	07 Jul 2020 18:08	JC/SP	Ok
23	L3195-17	VX017212.D	07 Jul 2020 18:31	JC/SP	Ok
24	L3234-01	VX017213.D	07 Jul 2020 18:54	JC/SP	Ok,M
25	L3195-11	VX017214.D	07 Jul 2020 19:17	JC/SP	Ok
26	L3195-12	VX017215.D	07 Jul 2020 19:40	JC/SP	Ok

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Instrument ID: MSVOA_X

Daily Analysis Runlog For Sequence/QCBatch ID # VX070720

Review By	john	Review On	7/8/2020 9:49:48 AM		
Supervise By	MMDadoda	Supervise On	7/8/2020 6:51:07 PM		
SubDirectory	VX070720	HP Acquire Method	MSVOA_X	HP Processing Method	82X062920W.M

STD. NAME	STD REF.#
Tune/Reschk	VP94246,VP94271
Initial Calibration Stds	VP94115,VP94116,VP94117,VP94118,VP94119,VP94120
CCC	VP94247,VP94248,VP94272,VP94273
Internal Standard/PEM	VP90441
ICV/I.BLK	VP94121

27	L3195-13	VX017216.D	07 Jul 2020 20:02	JC/SP	Ok
28	VSTDCCC050	VX017217.D	07 Jul 2020 20:25	JC/SP	Ok,M
29	BFB	VX017218.D	07 Jul 2020 20:48	JC/SP	Ok
30	VSTDCCC050	VX017219.D	07 Jul 2020 21:33	JC/SP	Ok,M
31	VX0707WBL02	VX017220.D	07 Jul 2020 22:41	JC/SP	Ok
32	VX0707WBS02	VX017221.D	07 Jul 2020 23:04	JC/SP	Ok,M
33	VX0707WBSD02	VX017222.D	07 Jul 2020 23:27	JC/SP	Ok,M
34	L3195-14	VX017223.D	07 Jul 2020 23:50	JC/SP	Ok
35	L3195-15	VX017224.D	08 Jul 2020 00:12	JC/SP	Ok
36	L3192-09	VX017225.D	08 Jul 2020 00:35	JC/SP	ReRun
37	L3192-10	VX017226.D	08 Jul 2020 00:58	JC/SP	ReRun
38	L3192-11	VX017227.D	08 Jul 2020 01:21	JC/SP	ReRun
39	L3192-12	VX017228.D	08 Jul 2020 01:44	JC/SP	ReRun
40	L3232-13	VX017229.D	08 Jul 2020 02:06	JC/SP	ReRun
41	L3232-14	VX017230.D	08 Jul 2020 02:29	JC/SP	Ok
42	L3232-01DL	VX017231.D	08 Jul 2020 02:52	JC/SP	Ok
43	L3232-02	VX017232.D	08 Jul 2020 03:15	JC/SP	Ok
44	L3232-06	VX017233.D	08 Jul 2020 03:37	JC/SP	Ok
45	L3232-08	VX017234.D	08 Jul 2020 04:00	JC/SP	Ok
46	L3232-09	VX017235.D	08 Jul 2020 04:23	JC/SP	Ok
47	L3232-11	VX017236.D	08 Jul 2020 04:46	JC/SP	Ok
48	L3232-12	VX017237.D	08 Jul 2020 05:08	JC/SP	Ok
49	L3232-05	VX017238.D	08 Jul 2020 05:31	JC/SP	Dilution
50	L3232-07	VX017239.D	08 Jul 2020 05:54	JC/SP	Dilution
51	L3232-03MS	VX017240.D	08 Jul 2020 06:17	JC/SP	Ok,M
52	L3232-04MSD	VX017241.D	08 Jul 2020 06:39	JC/SP	Ok,M
53	VSTDCCC050	VX017242.D	08 Jul 2020 07:02	JC/SP	Ok,M

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Instrument ID: MSVOA_X

Daily Analysis Runlog For Sequence/QCBatch ID # VX070820

Review By	john	Review On	7/9/2020 10:53:39 AM		
Supervise By	MMDadoda	Supervise On	7/9/2020 11:00:30 AM		
SubDirectory	VX070820	HP Acquire Method	MSVOA_X	HP Processing Method	82X062920W.M

STD. NAME	STD REF.#
Tune/Reschk	VP94300,VP94341
Initial Calibration Stds	VP94115,VP94116,VP94117,VP94118,VP94119,VP94120
CCC	8260-VP94301,VP94302,624-VP94342,VP94343
Internal Standard/PEM	VP90441,VP90186
ICV/I.BLK	VP94121

Sr#	SampleId	Data File Name	Date-Time	Operator	Status
1	BFB	VX017243.D	08 Jul 2020 09:17	JC/SP	Ok
2	VSTDCCC050	VX017244.D	08 Jul 2020 10:24	JC/SP	Ok,M
3	VX0708WBL01	VX017245.D	08 Jul 2020 10:59	JC/SP	Ok
4	VX0708WBS01	VX017246.D	08 Jul 2020 11:32	JC/SP	Ok,M
5	VX0708WBSD01	VX017247.D	08 Jul 2020 12:05	JC/SP	Ok,M
6	L3232-07DL	VX017248.D	08 Jul 2020 12:28	JC/SP	Ok
7	L3232-05DL	VX017249.D	08 Jul 2020 12:51	JC/SP	Ok
8	L3232-13	VX017250.D	08 Jul 2020 13:14	JC/SP	Ok
9	L3159-24	VX017251.D	08 Jul 2020 13:36	JC/SP	Ok
10	L3239-01	VX017252.D	08 Jul 2020 13:59	JC/SP	Ok
11	IBLK	VX017253.D	08 Jul 2020 14:22	JC/SP	Ok
12	IBLK	VX017254.D	08 Jul 2020 14:45	JC/SP	Ok
13	L3207-01	VX017255.D	08 Jul 2020 15:07	JC/SP	Not Ok
14	L3239-02	VX017256.D	08 Jul 2020 15:30	JC/SP	Ok
15	L3207-01	VX017257.D	08 Jul 2020 15:53	JC/SP	Ok
16	L3232-01	VX017258.D	08 Jul 2020 16:16	JC/SP	Dilution
17	L3206-01	VX017259.D	08 Jul 2020 16:38	JC/SP	Not Ok
18	IBLK	VX017260.D	08 Jul 2020 17:01	JC/SP	Ok
19	L3217-13	VX017261.D	08 Jul 2020 17:24	JC/SP	Not Ok
20	L3217-11	VX017262.D	08 Jul 2020 17:47	JC/SP	Not Ok
21	L3217-12	VX017263.D	08 Jul 2020 18:09	JC/SP	Not Ok
22	L3217-14	VX017264.D	08 Jul 2020 18:32	JC/SP	Not Ok
23	L3217-17	VX017265.D	08 Jul 2020 18:52	JC/SP	Ok
24	L3232-10	VX017266.D	08 Jul 2020 19:15	JC/SP	Ok
25	L3195-08	VX017267.D	08 Jul 2020 19:38	JC/SP	Ok
26	L3195-09MS	VX017268.D	08 Jul 2020 20:00	JC/SP	Ok,M

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Instrument ID: MSVOA_X

Daily Analysis Runlog For Sequence/QCBatch ID # VX070820

Review By	john	Review On	7/9/2020 10:53:39 AM		
Supervise By	MMDadoda	Supervise On	7/9/2020 11:00:30 AM		
SubDirectory	VX070820	HP Acquire Method	MSVOA_X	HP Processing Method	82X062920W.M

STD. NAME	STD REF.#
Tune/Reschk	VP94300,VP94341
Initial Calibration Stds	VP94115,VP94116,VP94117,VP94118,VP94119,VP94120
CCC	8260-VP94301,VP94302,624-VP94342,VP94343
Internal Standard/PEM	VP90441,VP90186
ICV/I.BLK	VP94121

27	L3195-10MSD	VX017269.D	08 Jul 2020 20:23	JC/SP	Ok,M
28	VSTDCCC050	VX017270.D	08 Jul 2020 20:46	JC/SP	Ok,M
29	BFB	VX017271.D	08 Jul 2020 21:31	JC/SP	Ok
30	VSTDCCC020	VX017272.D	08 Jul 2020 21:53	JC/SP	Ok,M
31	VSTDCCC050	VX017273.D	08 Jul 2020 22:16	JC/SP	Ok,M
32	VX0708WBL02	VX017274.D	08 Jul 2020 22:39	JC/SP	Ok
33	VX0708WBL03	VX017275.D	08 Jul 2020 23:02	JC/SP	Ok
34	VX0708WBS02	VX017276.D	08 Jul 2020 23:24	JC/SP	Ok,M
35	VX0708WBSD02	VX017277.D	08 Jul 2020 23:47	JC/SP	Ok,M
36	VX0708WBS03	VX017278.D	09 Jul 2020 00:10	JC/SP	Ok,M
37	VX0708WBSD03	VX017279.D	09 Jul 2020 00:33	JC/SP	Ok,M
38	L3235-01	VX017280.D	09 Jul 2020 00:55	JC/SP	Not Ok
39	IBLK	VX017281.D	09 Jul 2020 01:18	JC/SP	Ok
40	L3235-03	VX017282.D	09 Jul 2020 01:41	JC/SP	Not Ok
41	IBLK	VX017283.D	09 Jul 2020 02:03	JC/SP	Ok
42	PB130017TB	VX017284.D	09 Jul 2020 02:26	JC/SP	Ok
43	PB130015TB	VX017285.D	09 Jul 2020 02:49	JC/SP	Ok
44	PB130015ZHE#01	VX017286.D	09 Jul 2020 03:12	JC/SP	Ok
45	PB130015ZHE#02	VX017287.D	09 Jul 2020 03:34	JC/SP	Ok
46	PB130015ZHE#03	VX017288.D	09 Jul 2020 03:57	JC/SP	Ok
47	PB130015ZHE#04	VX017289.D	09 Jul 2020 04:20	JC/SP	Ok
48	PB130015ZHE#05	VX017290.D	09 Jul 2020 04:43	JC/SP	Ok
49	PB130015ZHE#06	VX017291.D	09 Jul 2020 05:06	JC/SP	Ok
50	L3183-04	VX017292.D	09 Jul 2020 05:28	JC/SP	Ok
51	L3187-04	VX017293.D	09 Jul 2020 05:51	JC/SP	Ok
52	VSTDCCC050	VX017294.D	09 Jul 2020 06:14	JC/SP	Ok,M
53	VSTDCCC020	VX017295.D	09 Jul 2020 06:36	JC/SP	Ok,M

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Instrument ID: MSVOA_X

Daily Analysis Runlog For Sequence/QCBatch ID # VX062920

Review By	john	Review On	6/30/2020 9:17:36 AM		
Supervise By	MMDadoda	Supervise On	6/30/2020 4:21:49 PM		
SubDirectory	VX062920	HP Acquire Method	MSVOA_X	HP Processing Method	82X062920W.M

STD. NAME	STD REF.#
Tune/Reschk	VP94071
Initial Calibration Stds	VP94115,VP94116,VP94117,VP94118,VP94119,VP94120
CCC	VP94072,VP94073
Internal Standard/PEM	VP90441
ICV/I.BLK	VP94121

Sr#	SampleId	ClientID	Data File Name	Date-Time	Comment	Operator	Status
1	BFB	BFB	VX017004.D	29 Jun 2020 12:32		JC/SP	Ok
2	VSTDCCC050	VSTDCCC050	VX017005.D	29 Jun 2020 13:02	Need ICAL	JC/SP	Not Ok
3	VSTDICC001	VSTDICC001	VX017006.D	29 Jun 2020 14:13	Use for DOD short list	JC/SP	Ok,M
4	VSTDICC005	VSTDICC005	VX017007.D	29 Jun 2020 14:35	Fail for Comp #5 for DOD	JC/SP	Ok,M
5	VSTDICC020	VSTDICC020	VX017008.D	29 Jun 2020 14:58	LR= 8,17,20,44,88,94	JC/SP	Ok,M
6	VSTDICCC050	VSTDICCC050	VX017009.D	29 Jun 2020 15:21		JC/SP	Ok,M
7	VSTDICC100	VSTDICC100	VX017010.D	29 Jun 2020 15:43		JC/SP	Ok,M
8	VSTDICC150	VSTDICC150	VX017011.D	29 Jun 2020 16:06		JC/SP	Ok,M
9	VSTDICV050	ICVVX062920	VX017012.D	29 Jun 2020 16:53		JC/SP	Ok,M
10	VX0629WBL01	VX0629WBL01	VX017013.D	29 Jun 2020 17:47		JC/SP	Ok
11	VX0629WBS01	VX0629WBS01	VX017014.D	29 Jun 2020 18:09		JC/SP	Ok,M
12	VX0629WBSD01	VX0629WBSD01	VX017015.D	29 Jun 2020 18:32		JC/SP	Ok,M
13	L3020-15	MW-26	VX017016.D	29 Jun 2020 18:55	vial B pH<2	JC/SP	Ok
14	L3094-05	2020-06-22-TB03	VX017017.D	29 Jun 2020 19:17	TB,confirmation only	JC/SP	Not Ok
15	L3112-01	RB01-20200623	VX017018.D	29 Jun 2020 19:40	vial B pH<2 RB,	JC/SP	Ok
16	L3112-02	16BR-20200624	VX017019.D	29 Jun 2020 20:03	vial B pH<2	JC/SP	Ok
17	L3112-09	RB02-20200624	VX017020.D	29 Jun 2020 20:26	vial A pH<2 RB,	JC/SP	Ok
18	L3112-10	TB03-20200624	VX017021.D	29 Jun 2020 20:49	vial A pH<2 TB	JC/SP	Ok
19	L3143-01	WC-20200626	VX017022.D	29 Jun 2020 21:11	vial A pH<2	JC/SP	Ok
20	L3146-02	200624027-01-TRIP-BL	VX017023.D	29 Jun 2020 21:34	vial A pH#6.0 TB,	JC/SP	Ok
21	L3146-01	200624026-02-VOA	VX017024.D	29 Jun 2020 21:57	vial A pH#6.0 Surrogate fail	JC/SP	ReRun

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Instrument ID: MSVOA_X

Daily Analysis Runlog For Sequence/QCBatch ID # VX062920

Review By	john	Review On	6/30/2020 9:17:36 AM		
Supervise By	MMDadoda	Supervise On	6/30/2020 4:21:49 PM		
SubDirectory	VX062920	HP Acquire Method	MSVOA_X	HP Processing Method	82X062920W.M

STD. NAME	STD REF.#
Tune/Reschk	VP94071
Initial Calibration Stds	VP94115,VP94116,VP94117,VP94118,VP94119,VP94120
CCC	VP94072,VP94073
Internal Standard/PEM	VP90441
ICV/I.BLK	VP94121

22	L3112-03	61BR-20200624	VX017025.D	29 Jun 2020 22:20	Run straight,Surrogate fail	JC/SP	Not Ok
23	L3147-01	02BR-20200626	VX017026.D	29 Jun 2020 22:42	,Run straight	JC/SP	Not Ok
24	L3147-03	12BR-20200626	VX017027.D	29 Jun 2020 23:05	Run straight	JC/SP	Not Ok
25	L3097-02DL	25BR-20200623DL	VX017028.D	29 Jun 2020 23:28		JC/SP	Ok
26	L3097-04DL	24BR-20200623DL	VX017029.D	29 Jun 2020 23:51		JC/SP	Ok
27	VSTDCCC050	VSTDCCC050EC	VX017030.D	30 Jun 2020 00:13		JC/SP	Ok,M

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Instrument ID: MSVOA_X

Daily Analysis Runlog For Sequence/QCBatch ID # VX070720

Review By	john	Review On	7/8/2020 9:49:48 AM		
Supervise By	MMDadoda	Supervise On	7/8/2020 6:51:07 PM		
SubDirectory	VX070720	HP Acquire Method	MSVOA_X	HP Processing Method	82X062920W.M

STD. NAME	STD REF.#
Tune/Reschk	VP94246,VP94271
Initial Calibration Stds	VP94115,VP94116,VP94117,VP94118,VP94119,VP94120
CCC	VP94247,VP94248,VP94272,VP94273
Internal Standard/PEM	VP90441
ICV/I.BLK	VP94121

Sr#	SampleId	ClientID	Data File Name	Date-Time	Comment	Operator	Status
1	BFB	BFB	VX017190.D	07 Jul 2020 09:15		JC/SP	Ok
2	VSTDCCC050	VSTDCCC050	VX017191.D	07 Jul 2020 09:50	pH#Lot#V11020	JC/SP	Ok,M
3	VX0707WBL01	VX0707WBL01	VX017192.D	07 Jul 2020 10:37		JC/SP	Ok
4	VX0707WBS01	VX0707WBS01	VX017193.D	07 Jul 2020 11:08		JC/SP	Ok,M
5	VX0707WBSD01	VX0707WBSD01	VX017194.D	07 Jul 2020 11:41		JC/SP	Ok,M
6	L3210-02	TT-TB-20200701	VX017195.D	07 Jul 2020 12:04	vial B pH<2 TB	JC/SP	Ok
7	L3159-24	PDB-BLANK-20200629	VX017196.D	07 Jul 2020 12:27	vial A pH<2 Blank, HIT of comp# 27,44	JC/SP	ReRun
8	L3159-25	TB06-20200629	VX017197.D	07 Jul 2020 12:50	vial A pH<2 TB	JC/SP	Ok
9	L3159-01	50BR-20200629	VX017198.D	07 Jul 2020 13:13	vial B pH<2	JC/SP	Ok
10	L3159-03	63BR-20200629	VX017199.D	07 Jul 2020 13:35	vial B pH<2	JC/SP	Ok
11	L3159-06	23BR-20200629	VX017200.D	07 Jul 2020 13:58	vial A pH<2	JC/SP	Ok
12	L3159-09	31S-20200629	VX017201.D	07 Jul 2020 14:21	vial B pH<2	JC/SP	Ok
13	L3159-13	47BR-20200629	VX017202.D	07 Jul 2020 14:44	vial B pH<2	JC/SP	Ok
14	L3159-21	60BR-20200629	VX017203.D	07 Jul 2020 15:07	vial A pH<2 Need 10X	JC/SP	Dilution
15	L3159-21DL	60BR-20200629DL	VX017204.D	07 Jul 2020 15:29	Surrogate Fail	JC/SP	Ok
16	L3159-22	40BR-20200629	VX017205.D	07 Jul 2020 15:52	vial A pH<2 Need 10X	JC/SP	Dilution
17	L3159-22DL	40BR-20200629DL	VX017206.D	07 Jul 2020 16:15		JC/SP	Ok
18	L3159-05	07BR-20200629	VX017207.D	07 Jul 2020 16:38	vial B pH<2 ,need 100x	JC/SP	Dilution
19	L3159-16	46BR-20200629	VX017208.D	07 Jul 2020 17:00	vial B pH<2, Need 2X	JC/SP	Dilution
20	L3159-16DL	46BR-20200629DL	VX017209.D	07 Jul 2020 17:23	vial A pH<2	JC/SP	Ok
21	IBLK	IBLK	VX017210.D	07 Jul 2020 17:46		JC/SP	Ok

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Instrument ID: MSVOA_X

Daily Analysis Runlog For Sequence/QCBatch ID # VX070720

Review By	john	Review On	7/8/2020 9:49:48 AM		
Supervise By	MMDadoda	Supervise On	7/8/2020 6:51:07 PM		
SubDirectory	VX070720	HP Acquire Method	MSVOA_X	HP Processing Method	82X062920W.M

STD. NAME	STD REF.#
Tune/Reschk	VP94246,VP94271
Initial Calibration Stds	VP94115,VP94116,VP94117,VP94118,VP94119,VP94120
CCC	VP94247,VP94248,VP94272,VP94273
Internal Standard/PEM	VP90441
ICV/I.BLK	VP94121

22	L3195-16	TB01-20200630	VX017211.D	07 Jul 2020 18:08	vial A pH<2 TB	JC/SP	Ok
23	L3195-17	FB-01-20200630	VX017212.D	07 Jul 2020 18:31	vial A pH<2 FB	JC/SP	Ok
24	L3234-01	MW-3	VX017213.D	07 Jul 2020 18:54	vial A pH<2	JC/SP	Ok,M
25	L3195-11	MH-117T-20200630	VX017214.D	07 Jul 2020 19:17	vial A pH<2	JC/SP	Ok
26	L3195-12	MH-118.5N-20200630	VX017215.D	07 Jul 2020 19:40	vial A pH<2	JC/SP	Ok
27	L3195-13	GR-OF-20200630	VX017216.D	07 Jul 2020 20:02	vial A pH<2	JC/SP	Ok
28	VSTDCCC050	VSTDCCC050EC	VX017217.D	07 Jul 2020 20:25		JC/SP	Ok,M
29	BFB	BFB	VX017218.D	07 Jul 2020 20:48		JC/SP	Ok
30	VSTDCCC050	VSTDCCC050	VX017219.D	07 Jul 2020 21:33		JC/SP	Ok,M
31	VX0707WBL02	VX0707WBL02	VX017220.D	07 Jul 2020 22:41		JC/SP	Ok
32	VX0707WBS02	VX0707WBS02	VX017221.D	07 Jul 2020 23:04		JC/SP	Ok,M
33	VX0707WBSD02	VX0707WBSD02	VX017222.D	07 Jul 2020 23:27		JC/SP	Ok,M
34	L3195-14	DUP-01-20200630	VX017223.D	07 Jul 2020 23:50	vial A pH<2	JC/SP	Ok
35	L3195-15	INTERCEPTOR-SUMP	VX017224.D	08 Jul 2020 00:12	vial A pH<2	JC/SP	Ok
36	L3192-09	BP-MW180-SOIL-600-6	VX017225.D	08 Jul 2020 00:35	vial A pH#5.0 Surrogate Fail, Method fail for bromomethane	JC/SP	ReRun
37	L3192-10	BP-MW180-SOIL-604-6	VX017226.D	08 Jul 2020 00:58	vial A pH#5.0 Surrogate Fail, Method fail for bromomethane	JC/SP	ReRun
38	L3192-11	BP-MW180-SOIL-610-6	VX017227.D	08 Jul 2020 01:21	vial A pH#5.0 Surrogate Fail, Method fail for bromomethane	JC/SP	ReRun
39	L3192-12	BP-MW180-SOIL-614-6	VX017228.D	08 Jul 2020 01:44	vial A pH#5.0, Method fail for bromomethane	JC/SP	ReRun
40	L3232-13	1013-FB070620	VX017229.D	08 Jul 2020 02:06	vial A pH<2 FB, HIT of comp# 16	JC/SP	ReRun
41	L3232-14	1014-TB070620	VX017230.D	08 Jul 2020 02:29	vial A pH<2 TB	JC/SP	Ok
42	L3232-01DL	1003-MW-01DL	VX017231.D	08 Jul 2020 02:52	vial A pH<2	JC/SP	Ok

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Instrument ID: MSVOA_X

Daily Analysis Runlog For Sequence/QCBatch ID # VX070720

Review By	john	Review On	7/8/2020 9:49:48 AM		
Supervise By	MMDadoda	Supervise On	7/8/2020 6:51:07 PM		
SubDirectory	VX070720	HP Acquire Method	MSVOA_X	HP Processing Method	82X062920W.M

STD. NAME	STD REF.#
Tune/Reschk	VP94246,VP94271
Initial Calibration Stds	VP94115,VP94116,VP94117,VP94118,VP94119,VP94120
CCC	VP94247,VP94248,VP94272,VP94273
Internal Standard/PEM	VP90441
ICV/I.BLK	VP94121

43	L3232-02	1004-MW-02	VX017232.D	08 Jul 2020 03:15	vial A pH<2	JC/SP	Ok
44	L3232-06	1006-MW-05	VX017233.D	08 Jul 2020 03:37	vial A pH<2	JC/SP	Ok
45	L3232-08	1008-MW-15	VX017234.D	08 Jul 2020 04:00	vial A pH<2	JC/SP	Ok
46	L3232-09	1009-MW-16	VX017235.D	08 Jul 2020 04:23	vial A pH<2	JC/SP	Ok
47	L3232-11	1011-MW-18	VX017236.D	08 Jul 2020 04:46	vial A pH<2	JC/SP	Ok
48	L3232-12	1012-MW-19	VX017237.D	08 Jul 2020 05:08	vial A pH<2	JC/SP	Ok
49	L3232-05	1005-MW-03A	VX017238.D	08 Jul 2020 05:31	vial A pH<2 Need 5X	JC/SP	Dilution
50	L3232-07	1007-MW-11	VX017239.D	08 Jul 2020 05:54	vial A pH<2 Need 4X	JC/SP	Dilution
51	L3232-03MS	1004-MW-02MS	VX017240.D	08 Jul 2020 06:17	vial A pH<2	JC/SP	Ok,M
52	L3232-04MSD	1004-MW-02MSD	VX017241.D	08 Jul 2020 06:39	vial A pH<2	JC/SP	Ok,M
53	VSTDCCC050	VSTDCCC050EC	VX017242.D	08 Jul 2020 07:02		JC/SP	Ok,M

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Instrument ID: MSVOA_X

Daily Analysis Runlog For Sequence/QCBatch ID # VX070820

Review By	john	Review On	7/9/2020 10:53:39 AM		
Supervise By	MMDadoda	Supervise On	7/9/2020 11:00:30 AM		
SubDirectory	VX070820	HP Acquire Method	MSVOA_X	HP Processing Method	82X062920W.M

STD. NAME	STD REF.#
Tune/Reschk	VP94300,VP94341
Initial Calibration Stds	VP94115,VP94116,VP94117,VP94118,VP94119,VP94120
CCC	8260-VP94301,VP94302,624-VP94342,VP94343
Internal Standard/PEM	VP90441,VP90186
ICV/I.BLK	VP94121

Sr#	SampleId	ClientID	Data File Name	Date-Time	Comment	Operator	Status
1	BFB	BFB	VX017243.D	08 Jul 2020 09:17		JC/SP	Ok
2	VSTDCCC050	VSTDCCC050	VX017244.D	08 Jul 2020 10:24	pH#Lot#V11020	JC/SP	Ok,M
3	VX0708WBL01	VX0708WBL01	VX017245.D	08 Jul 2020 10:59		JC/SP	Ok
4	VX0708WBS01	VX0708WBS01	VX017246.D	08 Jul 2020 11:32		JC/SP	Ok,M
5	VX0708WBSD01	VX0708WBSD01	VX017247.D	08 Jul 2020 12:05		JC/SP	Ok,M
6	L3232-07DL	1007-MW-11DL	VX017248.D	08 Jul 2020 12:28		JC/SP	Ok
7	L3232-05DL	1005-MW-03ADL	VX017249.D	08 Jul 2020 12:51		JC/SP	Ok
8	L3232-13	1013-FB070620	VX017250.D	08 Jul 2020 13:14	vial B pH<2	JC/SP	Ok
9	L3159-24	PDB-BLANK-20200629	VX017251.D	08 Jul 2020 13:36	vial B pH<2	JC/SP	Ok
10	L3239-01	TB-01-200707	VX017252.D	08 Jul 2020 13:59	vial A pH<2	JC/SP	Ok
11	IBLK	IBLK	VX017253.D	08 Jul 2020 14:22		JC/SP	Ok
12	IBLK	IBLK	VX017254.D	08 Jul 2020 14:45		JC/SP	Ok
13	L3207-01	31063	VX017255.D	08 Jul 2020 15:07	Run @10X	JC/SP	Not Ok
14	L3239-02	OUTFALL001-200707	VX017256.D	08 Jul 2020 15:30	vial A pH<2	JC/SP	Ok
15	L3207-01	31063	VX017257.D	08 Jul 2020 15:53	vial A pH<2	JC/SP	Ok
16	L3232-01	1003-MW-01	VX017258.D	08 Jul 2020 16:16	Need 10X pH 1	JC/SP	Dilution
17	L3206-01	DRUM-COMP-1	VX017259.D	08 Jul 2020 16:38	vial A pH<2,run@20x	JC/SP	Not Ok
18	IBLK	IBLK	VX017260.D	08 Jul 2020 17:01		JC/SP	Ok
19	L3217-13	E3-41-VAT	VX017261.D	08 Jul 2020 17:24	run@20x	JC/SP	Not Ok
20	L3217-11	E3-41-NHS	VX017262.D	08 Jul 2020 17:47	run@20x	JC/SP	Not Ok
21	L3217-12	E3-41-COMP-1-FLOOR	VX017263.D	08 Jul 2020 18:09	run@20x	JC/SP	Not Ok

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Instrument ID: MSVOA_X

Daily Analysis Runlog For Sequence/QCBatch ID # VX070820

Review By	john	Review On	7/9/2020 10:53:39 AM		
Supervise By	MMDadoda	Supervise On	7/9/2020 11:00:30 AM		
SubDirectory	VX070820	HP Acquire Method	MSVOA_X	HP Processing Method	82X062920W.M

STD. NAME	STD REF.#
Tune/Reschk	VP94300,VP94341
Initial Calibration Stds	VP94115,VP94116,VP94117,VP94118,VP94119,VP94120
CCC	8260-VP94301,VP94302,624-VP94342,VP94343
Internal Standard/PEM	VP90441,VP90186
ICV/I.BLK	VP94121

22	L3217-14	E3-41-BOILER-ROOM	VX017264.D	08 Jul 2020 18:32	run@20x	JC/SP	Not Ok
23	L3217-17	E3-41-NHL	VX017265.D	08 Jul 2020 18:52	vial A pH#5.0	JC/SP	Ok
24	L3232-10	1010-MW-17A	VX017266.D	08 Jul 2020 19:15	vial A pH<2	JC/SP	Ok
25	L3195-08	MH-117N-20200630	VX017267.D	08 Jul 2020 19:38	vial A pH<2	JC/SP	Ok
26	L3195-09MS	MH-117N-20200630MS	VX017268.D	08 Jul 2020 20:00	vial A pH<2	JC/SP	Ok,M
27	L3195-10MSD	MH-117N-20200630MS	VX017269.D	08 Jul 2020 20:23	vial A pH<2	JC/SP	Ok,M
28	VSTDCCC050	VSTDCCC050EC	VX017270.D	08 Jul 2020 20:46		JC/SP	Ok,M
29	BFB	BFB	VX017271.D	08 Jul 2020 21:31		JC/SP	Ok
30	VSTDCCC020	VSTDCCC020	VX017272.D	08 Jul 2020 21:53		JC/SP	Ok,M
31	VSTDCCC050	VSTDCCC050	VX017273.D	08 Jul 2020 22:16		JC/SP	Ok,M
32	VX0708WBL02	VX0708WBL02	VX017274.D	08 Jul 2020 22:39	624	JC/SP	Ok
33	VX0708WBL03	VX0708WBL03	VX017275.D	08 Jul 2020 23:02		JC/SP	Ok
34	VX0708WBS02	VX0708WBS02	VX017276.D	08 Jul 2020 23:24		JC/SP	Ok,M
35	VX0708WBSD02	VX0708WBSD02	VX017277.D	08 Jul 2020 23:47	RPD fail for Tetrachloroethene	JC/SP	Ok,M
36	VX0708WBS03	VX0708WBS03	VX017278.D	09 Jul 2020 00:10		JC/SP	Ok,M
37	VX0708WBSD03	VX0708WBSD03	VX017279.D	09 Jul 2020 00:33		JC/SP	Ok,M
38	L3235-01	WGGM-20-WW-TSF-02	VX017280.D	09 Jul 2020 00:55	BSD failed	JC/SP	Not Ok
39	IBLK	IBLK	VX017281.D	09 Jul 2020 01:18	clean up	JC/SP	Ok
40	L3235-03	WGGM-20-WW-TSF-02	VX017282.D	09 Jul 2020 01:41	BSD failed	JC/SP	Not Ok
41	IBLK	IBLK	VX017283.D	09 Jul 2020 02:03	clean up	JC/SP	Ok
42	PB130017TB	PB130017TB	VX017284.D	09 Jul 2020 02:26		JC/SP	Ok
43	PB130015TB	PB130015TB	VX017285.D	09 Jul 2020 02:49		JC/SP	Ok

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Instrument ID: MSVOA_X

Daily Analysis Runlog For Sequence/QCBatch ID # VX070820

Review By	john	Review On	7/9/2020 10:53:39 AM		
Supervise By	MMDadoda	Supervise On	7/9/2020 11:00:30 AM		
SubDirectory	VX070820	HP Acquire Method	MSVOA_X	HP Processing Method	82X062920W.M

STD. NAME	STD REF.#
Tune/Reschk	VP94300,VP94341
Initial Calibration Stds	VP94115,VP94116,VP94117,VP94118,VP94119,VP94120
CCC	8260-VP94301,VP94302,624-VP94342,VP94343
Internal Standard/PEM	VP90441,VP90186
ICV/I.BLK	VP94121

44	PB130015ZHE#01	PB130015ZHE#01	VX017286.D	09 Jul 2020 03:12		JC/SP	Ok
45	PB130015ZHE#02	PB130015ZHE#02	VX017287.D	09 Jul 2020 03:34		JC/SP	Ok
46	PB130015ZHE#03	PB130015ZHE#03	VX017288.D	09 Jul 2020 03:57		JC/SP	Ok
47	PB130015ZHE#04	PB130015ZHE#04	VX017289.D	09 Jul 2020 04:20		JC/SP	Ok
48	PB130015ZHE#05	PB130015ZHE#05	VX017290.D	09 Jul 2020 04:43		JC/SP	Ok
49	PB130015ZHE#06	PB130015ZHE#06	VX017291.D	09 Jul 2020 05:06		JC/SP	Ok
50	L3183-04	OK-02-070720	VX017292.D	09 Jul 2020 05:28	vial A pH#5.0	JC/SP	Ok
51	L3187-04	SU-02-070720	VX017293.D	09 Jul 2020 05:51	vial A pH#5.0	JC/SP	Ok
52	VSTDCCC050	VSTDCCC050EC	VX017294.D	09 Jul 2020 06:14		JC/SP	Ok,M
53	VSTDCCC020	VSTDCCC020EC	VX017295.D	09 Jul 2020 06:36		JC/SP	Ok,M

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

Prep Standard - Chemical Standard Summary

Order ID : L3232

Test : VOC-TCLVOA-10

Prepbatch ID :

Sequence ID/Qc Batch ID: VX070720,vx070820,

Standard ID :
VP90186,VP90291,VP90292,VP90441,VP91191,VP91192,VP91244,VP91389,VP91390,VP91392,VP91394,VP92919,VP93370,VP93372,VP93411,VP93412,VP93718,VP93797,VP93799,VP93802,VP93804,VP93889,VP94115,VP94116,VP94117,VP94118,VP94119,VP94120,VP94121,VP94246,VP94247,VP94248,VP94271,VP94272,VP94273,VP94300,VP94302,VP94341,VP94343,

Chemical ID :
624-VP94342,8260-VP94301,V10069,V10074,V10175,V10185,V10186,V10213,V10214,V10216,V10223,V10260,V10407,V10408,V10424,V10455,V10557,V10559,V10563,V10564,V10565,V10574,V10588,V10589,V10596,V10705,V10766,V10804,V10810,V10827,V10828,V10830,V11004,V11012,V11015,V11021,V11022,V11023,V11024,V11025,V11026,V8281,V8282,V8725,V8737,V8740,V9167,V9169,V9170,V9171,V9176,V9520,V9521,V9522,V9703,V9708,V9728,V9739,V9844,V9849,W2606,

CHEMTECH

284, Sheffield Street, Mountainside NJ 07092 (908) 789 - 8900

VOC STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
466	624 Internal Standard and Surrogate Mix, 150PPM	VP90186	01/20/2020	07/20/2020	Semsettin Yesilyurt	None	None	Mahesh Dadoda 01/20/2020

FROM 0.300ml of V10069 + 0.300ml of V10074 + 49.640ml of V10557 = Final Quantity: 50.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
617	8260 Surrogate, 400PPM	VP90291	01/23/2020	07/23/2020	Semsettin Yesilyurt	None	None	Mahesh Dadoda 01/23/2020

FROM 0.800ml of V8737 + 49.200ml of V10565 = Final Quantity: 50.000 ml

CHEMTECH

284, Sheffield Street, Mountainside NJ 07092 (908) 789 - 8900

VOC STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1738	8260 surrogate 20 ppm	VP90292	01/23/2020	07/23/2020	Semsettin Yesilyurt	None	None	Mahesh Dadoda 01/23/2020

FROM 0.020ml of V8737 + 24.990ml of V10565 = Final Quantity: 25.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
247	8260 Internal Standard, 250PPM	VP90441	01/30/2020	07/30/2020	Semsettin Yesilyurt	None	None	Mahesh Dadoda 01/30/2020

FROM 0.500ml of V10260 + 49.500ml of V10564 = Final Quantity: 50.000 ml

CHEMTECH

284, Sheffield Street, Mountainside NJ 07092 (908) 789 - 8900

VOC STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
719	8260 Working STD (BCM)-First source, 400PPM	VP91191	03/03/2020	08/27/2020	Semsettin Yesilyurt	None	None	Mahesh Dadoda 03/03/2020

FROM 0.200ml of V9176 + 1.200ml of V9167 + 1.200ml of V9169 + 1.200ml of V9170 + 1.200ml of V9171 + 20.000ml of V10563 = Final Quantity: 25.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
253	8260 Working STD (BCM)-First source, 20PPM	VP91192	02/27/2020	08/27/2020	Semsettin Yesilyurt	None	None	Mahesh Dadoda 03/03/2020

FROM 0.250ml of V9176 + 24.750ml of V10574 = Final Quantity: 25.000 ml

CHEMTECH

284, Sheffield Street, Mountainside NJ 07092 (908) 789 - 8900

VOC STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
249	8260 Surrogate, 100PPM	VP91244	03/04/2020	09/03/2020	Semsettin Yesilyurt	None	None	Mahesh Dadoda 03/05/2020

FROM 0.200ml of V8740 + 49.800ml of V10563 = Final Quantity: 50.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1817	8260 Working Std(2-CVE)-SS, 800ppm	VP91389	03/10/2020	09/10/2020	Semsettin Yesilyurt	None	None	Mahesh Dadoda 03/11/2020

FROM 0.800ml of V8282 + 1.200ml of V8281 + 23.000ml of V10559 = Final Quantity: 25.000 ml

CHEMTECH

284, Sheffield Street, Mountainside NJ 07092 (908) 789 - 8900

VOC STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1819	8260 Working Std(2-CVE)-SS, 500ppm	VP91390	03/10/2020	09/10/2020	Semsettin Yesilyurt	None	None	Mahesh Dadoda 03/11/2020

FROM 3.750ml of V10559 + 6.250ml of VP91389 = Final Quantity: 10.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1810	8260 Working Std(2-CVE)-800ppm	VP91392	03/11/2020	09/10/2020	Semsettin Yesilyurt	None	None	Vimala Arumugam 03/11/2020

FROM 0.800ml of V9521 + 1.200ml of V9520 + 23.000ml of V10559 = Final Quantity: 25.000 ml

CHEMTECH

284, Sheffield Street, Mountainside NJ 07092 (908) 789 - 8900

VOC STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1812	8260 Working Std(2-CVE)-100ppm	VP91394	03/11/2020	09/10/2020	Semsettin Yesilyurt	None	None	Vimala Arumugam 03/11/2020

FROM 0.500ml of V9522 + 49.500ml of V10559 = Final Quantity: 50.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
252	8260 Working STD (BCM)-First source, 100PPM	VP92919	05/07/2020	11/07/2020	Semsettin Yesilyurt	None	None	Mahesh Dadoda 05/07/2020

FROM 1.250ml of V10705 + 23.750ml of V10810 = Final Quantity: 25.000 ml

CHEMTECH

284, Sheffield Street, Mountainside NJ 07092 (908) 789 - 8900

VOC STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
257	8260 Calibration Working STD Mix-First source, 160PPM	VP93370	06/01/2020	07/11/2020	Semsettin Yesilyurt	None	None	Mahesh Dadoda 06/01/2020

FROM 0.400ml of V10223 + 0.400ml of V9703 + 0.800ml of V10186 + 0.800ml of V10589 + 0.800ml of V10766 + 0.800ml of V10828 + 0.800ml of V9849 + 1.200ml of V10185 + 1.200ml of V10213 + 1.200ml of V10214 + 1.200ml of V10216 + 1.200ml of V10588 + 1.200ml of V10827 + 1.200ml of V9739 + 1.200ml of V9844 + 10.600ml of V10804 = Final Quantity: 25.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
245	8260 Calibration Working STD Mix-First source, 20PPM	VP93372	06/01/2020	07/11/2020	Semsettin Yesilyurt	None	None	Mahesh Dadoda 06/01/2020

FROM 17.500ml of V10804 + 2.500ml of VP93370 = Final Quantity: 20.000 ml

CHEMTECH

284, Sheffield Street, Mountainside NJ 07092 (908) 789 - 8900

VOC STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
259	8260 Calibration Working STD Mix-Second source, 160PPM	VP93411	06/02/2020	07/11/2020	Semsettin Yesilyurt	None	None	Mahesh Dadoda 06/02/2020

FROM 0.160ml of V9708 + 0.400ml of V10408 + 0.800ml of V10175 + 0.800ml of V10424 + 0.800ml of V10455 + 0.800ml of V10830 + 0.800ml of V9728 + 1.200ml of V10407 + 4.240ml of V10804 = Final Quantity: 10.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
260	8260 Calibration Working STD Mix-Second source, 100PPM	VP93412	06/02/2020	07/11/2020	Semsettin Yesilyurt	None	None	Mahesh Dadoda 06/02/2020

FROM 1.875ml of V10804 + 3.125ml of VP93411 = Final Quantity: 5.000 ml

CHEMTECH

284, Sheffield Street, Mountainside NJ 07092 (908) 789 - 8900

VOC STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
218	BFB, 25PPM	VP93718	06/16/2020	12/16/2020	Semsettin Yesilyurt	None	None	Mahesh Dadoda 06/17/2020

FROM 1.000ml of V10596 + 99.000ml of V11015 = Final Quantity: 100.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
263	8260 Working STD (Acrolein)-Second source, 800PPM	VP93797	06/19/2020	07/18/2020	Semsettin Yesilyurt	None	None	Mahesh Dadoda 06/19/2020

FROM 0.400ml of V11022 + 1.200ml of V11021 + 8.400ml of V11004 = Final Quantity: 10.000 ml

CHEMTECH

284, Sheffield Street, Mountainside NJ 07092 (908) 789 - 8900

VOC STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
264	8260 Working STD (Acrolein)-Second source, 500PPM	VP93799	06/19/2020	07/18/2020	Semsettin Yesilyurt	None	None	Mahesh Dadoda 06/19/2020

FROM 1.875ml of V11004 + 3.125ml of VP93797 = Final Quantity: 5.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
51	8260 Working STD (Acrolein) -first source, 800PPM	VP93802	06/19/2020	07/17/2020	Semsettin Yesilyurt	None	None	Mahesh Dadoda 06/19/2020

FROM 0.400ml of V11026 + 1.200ml of V11023 + 1.200ml of V11024 + 1.200ml of V11025 + 21.000ml of V11004 = Final Quantity: 25.000 ml

CHEMTECH

284, Sheffield Street, Mountainside NJ 07092 (908) 789 - 8900

VOC STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
180	8260 Working STD (Acrolein)-First source, 100PPM	VP93804	06/19/2020	07/17/2020	Semsettin Yesilyurt	None	None	Mahesh Dadoda 06/19/2020

FROM 17.500ml of V11004 + 2.500ml of VP93802 = Final Quantity: 20.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
262	8260 Working STD (BCM)-Second source, 100PPM	VP93889	06/23/2020	12/23/2020	Semsettin Yesilyurt	None	None	Mahesh Dadoda 06/23/2020

FROM 1.000ml of V8725 + 9.000ml of V11012 = Final Quantity: 10.000 ml

CHEMTECH

284, Sheffield Street, Mountainside NJ 07092 (908) 789 - 8900

VOC STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
334	1 PPB ICC, 8260-Water	VP94115	06/29/2020	06/30/2020	John Carlone	None	None	Mahesh Dadoda 07/01/2020

FROM 39.982ml of W2606 + 0.002ml of VP90292 + 0.002ml of VP91192 + 0.002ml of VP91394 + 0.002ml of VP93372 + 0.002ml of VP93804 + 0.008ml of VP90441 = Final Quantity: 40.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
335	5 PPB ICC, 8260-Water	VP94116	06/29/2020	06/30/2020	John Carlone	None	None	Mahesh Dadoda 07/01/2020

FROM 39.942ml of W2606 + 0.008ml of VP90441 + 0.010ml of VP90292 + 0.010ml of VP91192 + 0.010ml of VP91394 + 0.010ml of VP93372 + 0.010ml of VP93804 = Final Quantity: 40.000 ml

CHEMTECH

284, Sheffield Street, Mountainside NJ 07092 (908) 789 - 8900

VOC STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
337	20 PPB ICC, 8260-Water	VP94117	06/29/2020	06/30/2020	John Carlone	None	None	Mahesh Dadoda 07/01/2020

FROM 39.961ml of W2606 + 0.005ml of VP91392 + 0.005ml of VP93370 + 0.005ml of VP93802 + 0.008ml of VP90441 + 0.008ml of VP91244 + 0.008ml of VP92919 = Final Quantity: 40.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
380	50 PPB ICC, 8260-Water	VP94118	06/29/2020	06/30/2020	John Carlone	None	None	Mahesh Dadoda 07/01/2020

FROM 39.945ml of W2606 + 0.005ml of VP90291 + 0.005ml of VP91191 + 0.008ml of VP90441 + 0.013ml of VP91392 + 0.013ml of VP93370 + 0.013ml of VP93802 = Final Quantity: 40.000 ml

CHEMTECH

284, Sheffield Street, Mountainside NJ 07092 (908) 789 - 8900

VOC STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
381	100 PPB ICC, 8260-Water	VP94119	06/29/2020	06/30/2020	John Carlone	None	None	Mahesh Dadoda 07/01/2020

FROM 39.897ml of W2606 + 0.008ml of VP90441 + 0.010ml of VP90291 + 0.010ml of VP91191 + 0.025ml of VP91392 + 0.025ml of VP93370 + 0.025ml of VP93802 = Final Quantity: 40.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
382	150 PPB ICC, 8260-Water	VP94120	06/29/2020	06/30/2020	John Carlone	None	None	Mahesh Dadoda 07/01/2020

FROM 39.850ml of W2606 + 0.008ml of VP90441 + 0.015ml of VP90291 + 0.015ml of VP91191 + 0.038ml of VP91392 + 0.038ml of VP93370 + 0.038ml of VP93802 = Final Quantity: 40.000 ml

CHEMTECH

284, Sheffield Street, Mountainside NJ 07092 (908) 789 - 8900

VOC STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
385	50 PPB ICV, 8260-Water	VP94121	06/29/2020	06/30/2020	John Carlone	None	None	Mahesh Dadoda 07/01/2020

FROM 39.930ml of W2606 + 0.005ml of VP90291 + 0.008ml of VP90441 + 0.013ml of VP91389 + 0.013ml of VP93411 + 0.013ml of VP93797 + 0.020ml of VP93889 = Final Quantity: 40.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
589	BFB TUNE CHECK	VP94246	07/07/2020	07/08/2020	John Carlone	None	None	Mahesh Dadoda 07/07/2020

FROM 39.984ml of W2606 + 0.016ml of VP93718 = Final Quantity: 40.000 ml

CHEMTECH

284, Sheffield Street, Mountainside NJ 07092 (908) 789 - 8900

VOC STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
620	50 PPB CCC, 8260-Water	VP94247	07/07/2020	07/08/2020	John Carlone	None	None	Mahesh Dadoda 07/07/2020

FROM 39.945ml of W2606 + 0.005ml of VP90291 + 0.005ml of VP91191 + 0.008ml of VP90441 + 0.013ml of VP91392 + 0.013ml of VP93370 + 0.013ml of VP93802 = Final Quantity: 40.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
620	50 PPB CCC, 8260-Water	VP94248	07/07/2020	07/08/2020	John Carlone	None	None	Mahesh Dadoda 07/07/2020

FROM 39.945ml of W2606 + 0.005ml of VP90291 + 0.005ml of VP91191 + 0.008ml of VP90441 + 0.013ml of VP91392 + 0.013ml of VP93370 + 0.013ml of VP93802 = Final Quantity: 40.000 ml

CHEMTECH

284, Sheffield Street, Mountainside NJ 07092 (908) 789 - 8900

VOC STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
589	BFB TUNE CHECK	VP94271	07/07/2020	07/08/2020	John Carlone	None	None	Mahesh Dadoda 07/07/2020

FROM 39.984ml of W2606 + 0.016ml of VP93718 = Final Quantity: 40.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
620	50 PPB CCC, 8260-Water	VP94272	07/07/2020	07/08/2020	John Carlone	None	None	Mahesh Dadoda 07/07/2020

FROM 39.945ml of W2606 + 0.005ml of VP90291 + 0.005ml of VP91191 + 0.008ml of VP90441 + 0.013ml of VP91392 + 0.013ml of VP93370 + 0.013ml of VP93802 = Final Quantity: 40.000 ml

CHEMTECH

284, Sheffield Street, Mountainside NJ 07092 (908) 789 - 8900

VOC STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
620	50 PPB CCC, 8260-Water	VP94273	07/07/2020	07/08/2020	John Carlone	None	None	Mahesh Dadoda 07/07/2020

FROM 39.945ml of W2606 + 0.005ml of VP90291 + 0.005ml of VP91191 + 0.008ml of VP90441 + 0.013ml of VP91392 + 0.013ml of VP93370 + 0.013ml of VP93802 = Final Quantity: 40.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
589	BFB TUNE CHECK	VP94300	07/08/2020	07/09/2020	John Carlone	None	None	Mahesh Dadoda 07/08/2020

FROM 39.984ml of W2606 + 0.016ml of VP93718 = Final Quantity: 40.000 ml

CHEMTECH

284, Sheffield Street, Mountainside NJ 07092 (908) 789 - 8900

VOC STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
620	50 PPB CCC, 8260-Water	VP94302	07/08/2020	07/09/2020	John Carlone	None	None	Mahesh Dadoda 07/08/2020

FROM 39.945ml of W2606 + 0.005ml of VP90291 + 0.005ml of VP91191 + 0.008ml of VP90441 + 0.013ml of VP91392 + 0.013ml of VP93370 + 0.013ml of VP93802 = Final Quantity: 40.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
589	BFB TUNE CHECK	VP94341	07/08/2020	07/09/2020	John Carlone	None	None	Mahesh Dadoda 07/09/2020

FROM 39.984ml of W2606 + 0.016ml of VP93718 = Final Quantity: 40.000 ml

CHEMTECH

284, Sheffield Street, Mountainside NJ 07092 (908) 789 - 8900

VOC STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
645	20 PPB CCC, 624	VP94343	07/08/2020	07/09/2020	John Carlone	None	None	Mahesh Dadoda 07/09/2020

FROM 39.968ml of W2606 + 0.008ml of VP90186 + 0.008ml of VP91390 + 0.008ml of VP93412 + 0.008ml of VP93799 = Final Quantity: 40.000 ml

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	555583 / Custom Standard, CLP VOA Internal Std [CS 5179-3]	A0150960	07/20/2020	01/20/2020 / sam	07/25/2019 / sam	V10069

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	555584 / Custom Standard, CLP VOA SurrogateStd [CS 5179-4]	A0150958	07/20/2020	01/20/2020 / sam	07/25/2019 / sam	V10074

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	95317 / Universal VOA Mega Mix (Min order = 5)	010419	11/30/2020	05/30/2020 / sam	08/29/2019 / sam	V10175

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	95317 / Universal VOA Mega Mix (Min order = 5)	010719	11/30/2020	05/30/2020 / sam	08/29/2019 / sam	V10185

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	95317 / Universal VOA Mega Mix (Min order = 5)	010719	11/30/2020	05/30/2020 / sam	08/29/2019 / sam	V10186

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	30006 / VOA Mix, CLP method Calibration Std #1 ketones 5000uq/ml, PTM, 1ml	A0147569	11/30/2020	05/30/2020 / sam	09/13/2019 / sam	V10213

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	30006 / VOA Mix, CLP method Calibration Std #1 ketones 5000uq/ml, PTM, 1ml	A0147569	11/30/2020	05/30/2020 / sam	09/13/2019 / sam	V10214

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	30006 / VOA Mix, CLP method Calibration Std #1 ketones 5000uq/ml, PTM, 1ml	A0147569	11/30/2020	05/30/2020 / sam	09/13/2019 / sam	V10216

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	30006 / VOA Mix, CLP method Calibration Std #1 ketones 5000uq/ml, PTM, 1ml	A0147569	11/30/2020	05/30/2020 / sam	09/13/2019 / sam	V10223

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	555581 / Custom Standard, 8260 Internal Std [CS 5179-1]	A0153385	07/30/2020	01/30/2020 / sam	10/01/2019 / sam	V10260

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	30006 / VOA Mix, CLP method Calibration Std #1 ketones 5000uq/ml, PTM, 1ml	A0149957	11/30/2020	05/30/2020 / sam	11/11/2019 / sam	V10407

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	30006 / VOA Mix, CLP method Calibration Std #1 ketones 5000uq/ml, PTM, 1ml	A0149957	11/30/2020	05/30/2020 / sam	11/11/2019 / sam	V10408

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	30042 / VOA Mix,500 series method 502.2 Calibration Std #1 gases, 2000ug/ml, PTM, 1ml	A0152494	11/30/2020	05/30/2020 / sam	11/11/2019 / sam	V10424

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	30489 / VOA Mix, 8260B Acetates Mix, P&TM, 1mL	A0155147	11/30/2020	05/30/2020 / sam	11/26/2019 / sam	V10455

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA9077-02 / Methanol, Purge/Trap (cs=6x1L)	199507	07/20/2020	01/20/2020 / sam	01/08/2020 / sam	V10557

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA9077-02 / Methanol, Purge/Trap (cs=6x1L)	199507	09/10/2020	03/10/2020 / sam	01/08/2020 / sam	V10559

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA9077-02 / Methanol, Purge/Trap (cs=6x1L)	199507	09/03/2020	03/03/2020 / sam	01/08/2020 / sam	V10563

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA9077-02 / Methanol, Purge/Trap (cs=6x1L)	199507	07/30/2020	01/30/2020 / sam	01/08/2020 / sam	V10564

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA9077-02 / Methanol, Purge/Trap (cs=6x1L)	199507	07/23/2020	01/23/2020 / sam	01/08/2020 / sam	V10565

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA9077-02 / Methanol, Purge/Trap (cs=6x1L)	230446	08/28/2020	02/28/2020 / pedro	01/08/2020 / sam	V10574

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	30489 / VOA Mix, 8260B Acetates Mix, P&TM, 1mL	A0155430	11/30/2020	05/30/2020 / sam	01/09/2020 / sam	V10588

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	30489 / VOA Mix, 8260B Acetates Mix, P&TM, 1mL	A0155430	11/30/2020	05/30/2020 / sam	01/09/2020 / sam	V10589

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	30067 / BFB tuneing solution	A0147670	12/16/2020	06/16/2020 / sam	01/09/2020 / sam	V10596

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	30225 / VOA Mix, bromochloromethane, 2000ug/mL, P&TM, 1mL/ampul	A0155519	12/31/2024	05/07/2020 / sam	03/05/2020 / sam	V10705

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	95319 / Revised Additions Mix (Min = 5)	050219	11/30/2020	05/30/2020 / sam	03/18/2020 / sam	V10766

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA9077-02 / Methanol, Purge/Trap (cs=6x1L)	230446	11/29/2020	05/29/2020 / Vimala	04/15/2020 / sam	V10804

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA9077-02 / Methanol, Purge/Trap (cs=6x1L)	230446	11/07/2020	05/07/2020 / sam	04/15/2020 / sam	V10810

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	555408 / Custom Standard, Vinyl Acetate Standard w/ Grav [CS 5066-6] TWO SEPARATE LOTS	A0159543	11/30/2020	05/30/2020 / sam	04/10/2020 / sam	V10827

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	555408 / Custom Standard, Vinyl Acetate Standard w/ Grav [CS 5066-6] TWO SEPARATE LOTS	A0159543	11/30/2020	05/30/2020 / sam	04/10/2020 / sam	V10828

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	555408 / Custom Standard, Vinyl Acetate Standard w/ Grav [CS 5066-6] TWO SEPARATE LOTS	A0159529	11/30/2020	05/30/2020 / sam	04/10/2020 / sam	V10830

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA9077-02 / Methanol, Purge/Trap (cs=6x1L)	0000229971	12/18/2020	06/18/2020 / MMDadoda	06/11/2020 / sam	V11004

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA9077-02 / Methanol, Purge/Trap (cs=6x1L)	0000229971	12/23/2020	06/23/2020 / sam	06/11/2020 / sam	V11012

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA9077-02 / Methanol, Purge/Trap (cs=6x1L)	0000229971	12/16/2020	06/16/2020 / sam	06/11/2020 / sam	V11015

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	91980 / Acrolin Std (Min = 5)	061820	07/18/2020	06/19/2020 / sam	06/19/2020 / sam	V11021

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	91980 / Acrolin Std (Min = 5)	061820	07/18/2020	06/19/2020 / sam	06/19/2020 / sam	V11022

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	91980 / Acrolin Std (Min = 5)	061720	07/17/2020	06/19/2020 / sam	06/19/2020 / sam	V11023

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	91980 / Acrolin Std (Min = 5)	061720	07/17/2020	06/19/2020 / sam	06/19/2020 / sam	V11024

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	91980 / Acrolin Std (Min = 5)	061720	07/17/2020	06/19/2020 / sam	06/19/2020 / sam	V11025

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	91980 / Acrolin Std (Min = 5)	061720	07/17/2020	06/19/2020 / sam	06/19/2020 / sam	V11026

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	95318 / 2-Chloroethyl Vinyl Ether (Min = 5)	012218	09/10/2020	03/10/2020 / sam	01/23/2018 / sam	V8281

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	95318 / 2-Chloroethyl Vinyl Ether (Min = 5)	012218	09/10/2020	03/10/2020 / sam	01/23/2018 / sam	V8282

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	70046 / Bromochloromethane Std. sol/methanol 1000ppm	072918	12/23/2020	06/23/2020 / sam	07/27/2018 / sam	V8725

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	555582 / Custom Mixture, 8260 A/B Surrogate Mix [CS 5179-2]	A0140077	07/23/2020	01/23/2020 / sam	07/31/2018 / sam	V8737

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	555582 / Custom Mixture, 8260 A/B Surrogate Mix [CS 5179-2]	A0140077	09/04/2020	03/04/2020 / sam	07/31/2018 / sam	V8740

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	30225 / VOA Mix, bromochloromethane, 2000ug/mL, P&TM, 1mL/ampul	A0143315	08/27/2020	02/27/2020 / sam	11/21/2018 / sam	V9167

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	30225 / VOA Mix, bromochloromethane, 2000ug/mL, P&TM, 1mL/ampul	A0143315	08/27/2020	02/27/2020 / sam	11/21/2018 / sam	V9169

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	30225 / VOA Mix, bromochloromethane, 2000ug/mL, P&TM, 1mL/ampul	A0143315	08/27/2020	02/27/2020 / sam	11/21/2018 / sam	V9170

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	30225 / VOA Mix, bromochloromethane, 2000ug/mL, P&TM, 1mL/ampul	A0143315	08/27/2020	02/27/2020 / sam	11/21/2018 / sam	V9171

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	30225 / VOA Mix, bromochloromethane, 2000ug/mL, P&TM, 1mL/ampul	A0143315	08/27/2020	02/27/2020 / sam	11/21/2018 / sam	V9176

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	95318 / 2-Chloroethyl Vinyl Ether (Min = 5)	031419	09/10/2020	03/10/2020 / sam	03/15/2019 / sam	V9520

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	95318 / 2-Chloroethyl Vinyl Ether (Min = 5)	031419	09/10/2020	03/10/2020 / sam	03/15/2019 / sam	V9521

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	95318 / 2-Chloroethyl Vinyl Ether (Min = 5)	031419	09/10/2020	03/10/2020 / sam	03/15/2019 / sam	V9522

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	30470 / VOA Stock Solution, tert-butanol std, 1mL, P&TM	A0146062	10/30/2020	04/30/2020 / sam	05/03/2019 / sam	V9703

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	30470 / VOA Stock Solution, tert-butanol std, 1mL, P&TM	A0141192	10/30/2020	04/30/2020 / sam	05/03/2019 / sam	V9708

CHEMTECH 284 Sheffield Street, Mountainside, NJ 07092 Phone: 908 789 8900 Fax: 908 789 8922

CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	95319 / Revised Additions Mix (Min = 5)	050119	11/30/2020	05/30/2020 / sam	05/03/2019 / sam	V9728

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	95319 / Revised Additions Mix (Min = 5)	050219	11/30/2020	05/30/2020 / sam	05/06/2019 / sam	V9739

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	30042 / VOA Mix,500 series method 502.2 Calibration Std #1 gases, 2000ug/ml, PTM, 1ml	A0148931	11/30/2020	05/30/2020 / sam	06/24/2019 / Sam	V9844

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Restek	30042 / VOA Mix,500 series method 502.2 Calibration Std #1 gases, 2000ug/ml, PTM, 1ml	A0148931	11/30/2020	05/30/2020 / sam	06/24/2019 / Sam	V9849

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	DIW / DI Water	Daily Lab-Certified	10/24/2024	10/24/2019 / apatel	10/24/2019 / apatel	W2606

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Analytical Reference Material ARM

ISO 9001 QS Registered
ISO 17025-34-35-43 Accredited
Scopes: http://AbsoluteStandards.com

CERTIFIED WEIGHT REPORT

Part Number: 95318
Lot Number: 012218
Description: 2-Chloroethyl vinyl ether

Solvent(s): Methanol **Lot#** DS435

Expiration Date: 012221
Recommended Storage: Refrigerate (4 °C)
Nominal Concentration (µg/mL): 10000
NIST Test ID#: 2506734D

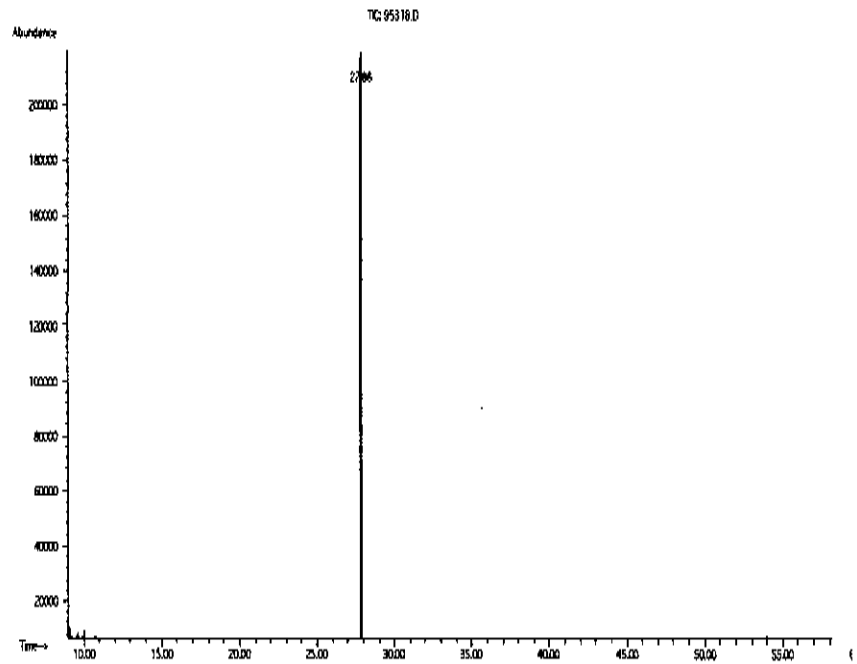
5E-05 Balance Uncertainty
Weight(s) shown below were combined and diluted to (mL): 25.0 0.002 Flask Uncertainty

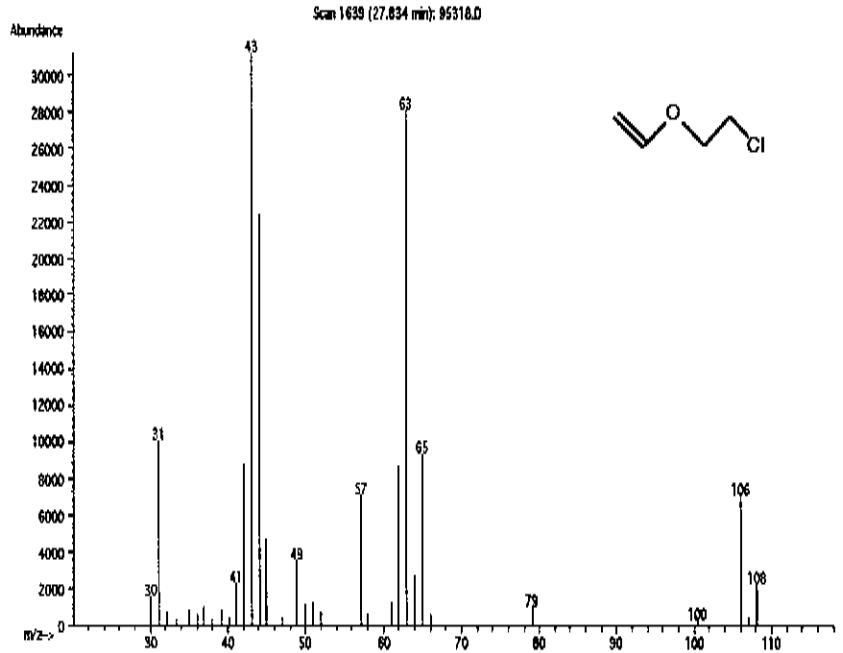
Formulated By: Mario Luis 012218 DATE

Reviewed By: Pedro L. Rentas 012218 DATE

Compound	RM#	Lot Number	Nominal Conc (µg/mL)	Purity (%)	Uncertainty Purity	Target Weight (g)	Actual Weight (g)	Actual Conc(µg/mL)	Expanded Uncertainty (+/-) (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50
1. 2-Chloroethyl vinyl ether	74	03206CI	10000	99	0.2	0.25256	0.02528	1000.9	5.7	110-75-8	N/A	orl-rat 250mg/kg

Method: GC6MSD-1.M. **Detector:** MSD. **Column:** (60m X 0.25mm X 1.5 µm). **Oven Profile:** Temp 1 = 35°C (Time 1=10min.), Temp 2 = 200°C (Time 2=8.75 min.), Rate = 4°C/min., Injector B Temp.= 200°C, Detector B Temp. = 220°C. **Analyst:** Candice Warren.





- The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
- Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
- Standards are certified (+/-) 0.5% of the stated value, unless otherwise stated.
- All Standards, after opening ampule, should be stored with caps tight and under appropriate laboratory conditions.
- Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, DC, (1994).

RESTEK®
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 30006 **Lot No.:** A0147569

Description : VOA Calibration Mix #1

VOA Calibration Mix #1 5,000µg/mL, P&T Methanol/Water(90:10), 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : June 30, 2022 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	Acetone **CAS #** 67-64-1 (Lot SHBJ7699) **Purity** 99%	5,000.5 µg/mL	+/- 29.0733 µg/mL +/- 301.7023 µg/mL +/- 302.4186 µg/mL	Gravimetric Unstressed Stressed
2	2-Butanone (MEK) **CAS #** 78-93-3 (Lot SHBJ8761) **Purity** 99%	5,000.3 µg/mL	+/- 29.0719 µg/mL +/- 301.6872 µg/mL +/- 302.4035 µg/mL	Gravimetric Unstressed Stressed
3	4-Methyl-2-pentanone (MIBK) **CAS #** 108-10-1 (Lot SHBK5017) **Purity** 99%	5,000.3 µg/mL	+/- 29.0719 µg/mL +/- 301.6872 µg/mL +/- 302.4035 µg/mL	Gravimetric Unstressed Stressed
4	2-Hexanone **CAS #** 591-78-6 (Lot MKCD9048) **Purity** 99%	5,000.6 µg/mL	+/- 29.0741 µg/mL +/- 301.7099 µg/mL +/- 302.4262 µg/mL	Gravimetric Unstressed Stressed

Solvent: P&T Methanol/Water (90:10)
CAS # 67-56-1/7732-18-5
Purity 99%

Column:
105m x 0.53mm x 3.0µm
Rtx-502.2 (cat.#10910)

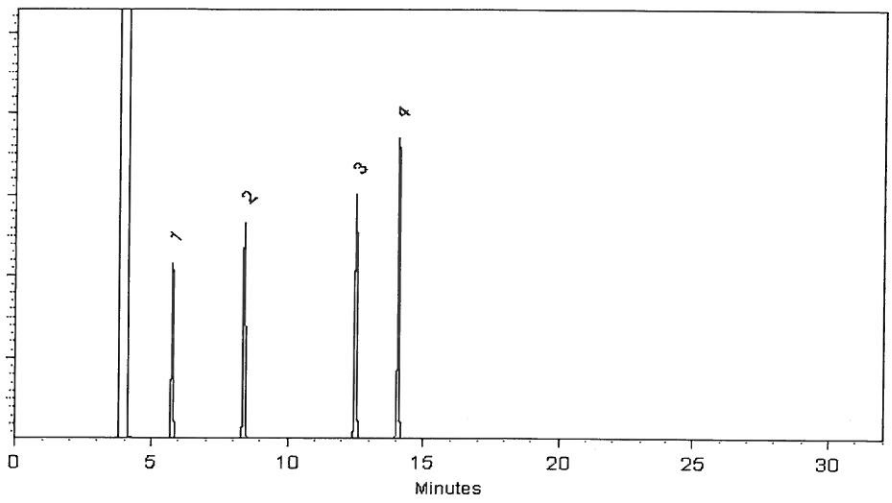
Carrier Gas:
hydrogen-constant pressure 11.0 psi.

Temp. Program:
40°C (hold 2 min.) to 240°C
@ 8°C/min. (hold 5 min.)

Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
FID



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Russ Bookhamer - Operations Technician I

Date Mixed: 28-Mar-2019 **Balance:** B707717271

Jennifer Pollino - Operations Tech-ARM QC

Date Passed: 01-Apr-2019

Manufactured under Restek's ISO 9001:2015 Registered Quality System Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k\sqrt{U^2_{gravimetric} + U^2_{homogeneity} + U^2_{storage\ stability} + U^2_{shipping\ stability}}$$

k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Methanol
ULTRA RESI-ANALYZED
For Purge and Trap Analysis

J.T.Baker® | avantor™

Material No.: 9077-02
Batch No.: 0000199507
Manufactured Date: 2018/06/25
Expiration Date: 2020/06/22
Revision No: 1

Certificate of Analysis

Test	Specification	Result
Assay (CH_3OH) (by GC, corrected for water)	>= 99.9 %	100.0
Residue after Evaporation	<= 1.0000 ppm	<0.1
Titrable Acid (µeq/g)	<= 0.3	< 0.1
Titrable Base (µeq/g)	<= 0.1	<0.01
Water (by KF, coulometric)	<= 0.08 %	< 0.01
Photoionization Detection (PID) Below CRQL	Passes Test	PT
Electroconductivity Detection (ELCD) Below CRQL	Passes Test	PT

For Laboratory, Research or Manufacturing Use
Performance Tested for Use in EPA Methods
500 Series for Drinking Water
600 Series for Wastewater
846 for Solid Waste

Country of Origin: US
Packaging Site: Phillipsburg Mfg Ctr & DC

ISO
Phillipsburg, NJ 9001:2015, FSSC 22000
Paris, KY 9001:2008
Mexico City, Mexico 9001:2008
Gliwice, Poland 9001:2008
Selangor, Malaysia 9001:2008
Dehradun, India 9001:2015, 14001:2015, 13485:2016
Mumbai, India 9001:2015
Panoli, India 9001:2015

James Ethier
Jamie Ethier
Vice President Global Quality

For questions on this Certificate of Analysis please contact Technical Services at 855.282.6867 or +1.610.573.2600
Avantor Performance Materials, LLC.
3477 Corporate Parkway. Center Valley, PA 18034. U.S.A. Phone: 610.573.2600 . Fax: 610.573.2610

Methanol
ULTRA RESI-ANALYZED
For Purge and Trap Analysis

avantor™ | J.T.Baker®

Material No.: 9077-02
Batch No.: 0000230446
Manufactured Date: 2019/04/11
Expiration Date: 2022/04/10
Revision No: 1

Certificate of Analysis

Test	Specification	Result
Assay (CH_3OH) (by GC, corrected for water)	>= 99.9 %	100.0
Residue after Evaporation	<= 1.0000 ppm	0.3000
Titrable Acid (µeq/g)	<= 0.3	0.2
Titrable Base (µeq/g)	<= 0.1	<0.01
Water (by KF, coulometric)	<= 0.08 %	< 0.01
Photoionization Detection (PID) Below CRQL	Passes Test	PT
Electroconductivity Detection (ELCD) Below CRQL	Passes Test	PT

For Laboratory, Research or Manufacturing Use
Performance Tested for Use in EPA Methods
500 Series for Drinking Water
600 Series for Wastewater
846 for Solid Waste

Country of Origin: US
Packaging Site: Phillipsburg Mfg Ctr & DC

James Ethier
Jamie Ethier
Vice President Global Quality

For questions on this Certificate of Analysis please contact Technical Services at 855.282.6867 or +1.610.386.1700
Avantor Performance Materials, LLC
100 Matsonford Rd, Suite 200, Radnor, PA 19087. U.S.A. Phone: 610.386.1700

CERTIFIED WEIGHT REPORT

Part Number: 95317
Lot Number: 010419
Description: Universal VOA Megamix
69 components
Expiration Date: 010422
Recommended Storage: Freezer (0 °C)
Nominal Concentration (µg/mL): 2000
NIST Test ID#: 2684186

Solvent(s): Lot#
Methanol DT140Q6

Formulated By: Eli Aliaga	010419 DATE
Reviewed By: Pedro L. Rentas	010419 DATE

5E-05 Balance Uncertainty

Weight(s) shown below were combined and diluted to (mL): 100.0 0.001 Flask Uncertainty

	Compound	(RM#) Part Number	Lot Number	Dil. Factor	Initial Vol. (mL)	Initial Conc (µg/mL)	Nominal Conc (µg/mL)	Purity (%)	Purity Uncertainty	Uncertainty Pipette (mL)	Target Weight(g)	Actual Weight(g)	Actual Conc (µg/mL)	Expanded Uncertainty (+/-) (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50
1.	Acetonitrile	(0324)	060812	NA	NA	NA	2000	99.9	0.2	NA	0.20022	0.20040	2001.8	8.1	75-05-8	40 ppm (70mg/m3/8H)	orl-rat 2460mg/kg
2.	Allyl chloride (3-Chloropropene)	(0325)	102396	NA	NA	NA	2000	99	0.2	NA	0.20204	0.20210	2000.6	8.1	107-05-1	1 ppm (3mg/m3/8H)	orl-rat 700mg/kg
3.	Carbon disulphide	(0080)	MKBZ8689V	NA	NA	NA	2000	99	0.2	NA	0.20204	0.20215	2001.1	8.1	75-15-0	4 ppm (12mg/m3) (skin)	orl-rat 1200mg/kg
4.	cis-1,4-Dichloro-2-butene	(1196)	14718EF	NA	NA	NA	2000	95	0.2	NA	0.21055	0.21060	2000.5	8.5	1476-11-5	N/A	N/A
5.	trans-1,4-Dichloro-2-butene	(0486)	MKBP5041V	NA	NA	NA	2000	96.5	0.2	NA	0.20728	0.20745	2001.7	8.4	110-57-6	N/A	N/A
6.	Diethyl ether	(0153)	209453	NA	NA	NA	2000	99	0.2	NA	0.20204	0.20210	2000.6	8.1	60-29-7	N/A	N/A
7.	Ethyl methacrylate	(0381)	06126PX	NA	NA	NA	2000	99	0.2	NA	0.20204	0.20220	2001.6	8.1	97-63-2	N/A	orl-rat 14800mg/kg
8.	Iodomethane	(0489)	SHBF8718V	NA	NA	NA	2000	99.5	0.2	NA	0.20103	0.20140	2003.7	8.1	74-88-4	5 ppm(28mg/m3/8H)(skin)	orl-rat 76mg/kg
9.	2-Methyl-1-propanol	(0445)	15241EB	NA	NA	NA	2000	99.5	0.2	NA	0.20103	0.20110	2000.7	8.1	78-83-1	50 ppm (150mg/m3/8H)	orl-rat 2460mg/kg
10.	Methacrylonitrile	(0442)	00427ET	NA	NA	NA	2000	99	0.2	NA	0.20204	0.20215	2001.1	8.1	126-98-7	1 ppm (3mg/m3/8H)(skin)	orl-rat 120mg/kg
11.	Methyl acrylate	(1075)	SHBK0679	NA	NA	NA	2000	99.9	0.2	NA	0.20022	0.20120	2009.8	8.1	96-33-3	10 ppm(35mg/m3/8H)(skin)	orl-rat 277mg/kg
12.	Methyl methacrylate	(0404)	03021BX	NA	NA	NA	2000	99	0.2	NA	0.20204	0.20225	2002.1	8.1	80-62-6	100 ppm (410mg/m3/8H)	orl-rat 7872mg/kg
13.	Nitrobenzene	(0228)	01213TV	NA	NA	NA	2000	99	0.2	NA	0.20204	0.20220	2001.6	8.1	98-95-3	1 ppm (5mg/m3/8H)(skin)	orl-rat 780mg/kg
14.	2-Nitropropane	(0461)	14002JX	NA	NA	NA	2000	95	0.2	NA	0.21055	0.21060	2000.5	8.5	79-46-9	10 ppm (35mg/m3/8H)	orl-rat 720mg/kg
15.	Pentachloroethane	(0450)	HGA01	NA	NA	NA	2000	98	0.2	NA	0.20410	0.20425	2001.4	8.2	76-01-7	N/A	N/A
16.	1,1,2-Trichlorotrifluoroethane	(0474)	18930	NA	NA	NA	2000	99	0.2	NA	0.20204	0.20215	2001.1	8.1	76-13-1	1000 ppm (7800mg/m3/8H)	orl-rat 43g/kg
17.	Bromodichloromethane	35171	051118	0.05	5.00	40001.7	2000	NA	NA	0.017	NA	NA	1999.9	15.9	75-27-4	N/A	orl-rat 916mg/kg
18.	Dibromochloromethane	35171	051118	0.05	5.00	40000.8	2000	NA	NA	0.017	NA	NA	1999.8	15.9	124-48-1	N/A	orl-rat 848mg/kg
19.	cis-1,2-Dichloroethene	35171	051118	0.05	5.00	40002.0	2000	NA	NA	0.017	NA	NA	1999.9	15.8	156-59-2	N/A	N/A
20.	trans-1,2-Dichloroethene	35171	051118	0.05	5.00	40000.8	2000	NA	NA	0.017	NA	NA	1999.8	15.9	156-60-5	N/A	orl-rat 1235mg/kg
21.	Methylene chloride	35171	051118	0.05	5.00	40003.2	2000	NA	NA	0.017	NA	NA	1999.9	15.8	75-09-2	500 ppm	orl-rat 820mg/kg
22.	1,1-Dichloroethene	32251	122818	0.10	10.00	20005.5	2000	NA	NA	0.042	NA	NA	2000.3	18.7	75-35-4	1 ppm (4mg/m3/8H)	orl-rat 200mg/kg
23.	Bromoform	95321	010419	0.10	10.00	20001.7	2000	NA	NA	0.042	NA	NA	2000.0	18.7	75-25-2	0.5 ppm (5mg/m3) (skin)	orl-rat 933mg/kg
24.	Carbon tetrachloride	95321	010419	0.10	10.00	20001.3	2000	NA	NA	0.042	NA	NA	1999.9	18.7	56-23-5	2 ppm (12.6mg/m3/8H)	orl-rat 2350mg/kg
25.	Chloroform	95321	010419	0.10	10.00	20001.8	2000	NA	NA	0.042	NA	NA	2000.0	18.7	67-66-3	50 ppm (240mg/m3) (CL)	orl-rat 908mg/kg
26.	Dibromomethane	95321	010419	0.10	10.00	20001.7	2000	NA	NA	0.042	NA	NA	2000.0	18.7	74-95-3	N/A	orl-rat 108mg/kg
27.	1,1-Dichloroethane	95321	010419	0.10	10.00	20000.8	2000	NA	NA	0.042	NA	NA	1999.9	18.7	75-34-3	100 ppm	orl-rat 725mg/kg
28.	2,2-Dichloropropane	95321	010419	0.10	10.00	20002.1	2000	NA	NA	0.042	NA	NA	2000.0	18.7	594-20-7	N/A	N/A
29.	Tetrachloroethene	95321	010419	0.10	10.00	20002.2	2000	NA	NA	0.042	NA	NA	2000.0	18.7	127-18-4	25 ppm (170mg/m3/8H)(final)	orl-rat 2629mg/kg
30.	1,1,1-Trichloroethane	95321	010419	0.10	10.00	20001.7	2000	NA	NA	0.042	NA	NA	2000.0	18.7	71-55-6	350 ppm (1900mg/m3/8H)	orl-rat 10300mg/kg
31.	1,2-Dibromo-3-chloropropane	35161	052418	0.05	5.00	40000.5	2000	NA	NA	0.017	NA	NA	1999.8	15.8	96-12-8	0.001 ppm	orl-rat 170mg/kg
32.	1,2-Dibromoethane	35161	052418	0.05	5.00	40001.5	2000	NA	NA	0.017	NA	NA	1999.9	15.8	106-93-4	20 ppm (8H)	orl-rat 108mg/kg
33.	1,2-Dichloroethane	35161	052418	0.05	5.00	40001.4	2000	NA	NA	0.017	NA	NA	1999.9	15.8	107-06-2	50 ppm (8H)	orl-rat 670mg/kg
34.	1,2-Dichloropropane	35161	052418	0.05	5.00	40001.5	2000	NA	NA	0.017	NA	NA	1999.9	15.8	78-87-5	75 ppm (350mg/m3/8H)	orl-rat 1947mg/kg
35.	1,3-Dichloropropane	35161	052418	0.05	5.00	40001.0	2000	NA	NA	0.017	NA	NA	1999.8	15.8	142-28-9	N/A	unr-mus 3600mg/kg
36.	1,1-Dichloropropene	35161	052418	0.05	5.00	39639.5	2000	NA	NA	0.017	NA	NA	1981.8	24.2	563-58-6	N/A	N/A
37.	cis-1,3-Dichloropropene	35161	052418	0.05	5.00	40001.2	2000	NA	NA	0.017	NA	NA	1999.8	15.9	10061-01-5	N/A	N/A
38.	trans-1,3-Dichloropropene	35161	052418	0.05	5.00	40000.7	2000	NA	NA	0.017	NA	NA	1999.8	16.0	10061-02-6	N/A	N/A
39.	Hexachloro-1,3-butadiene	35161	052418	0.05	5.00	40000.9	2000	NA	NA	0.017	NA	NA	1999.8	15.9	87-68-3	0.02 ppm (0.24mg/m3/8H)	orl-rat 82mg/kg
40.	1,1,1,2-Tetrachloroethane	35161	052418	0.05	5.00	40000.5	2000	NA	NA	0.017	NA	NA	1999.8	15.8	630-20-6	N/A	orl-rat 670mg/kg
41.	1,1,2,2-Tetrachloroethane	35161	052418	0.05	5.00	40001.5	2000	NA	NA	0.017	NA	NA	1999.9	15.8	79-34-5	5 ppm (35mg/m3/9H)(skin)	orl-rat 800mg/kg
42.	1,1,2-Trichloroethane	35161	052418	0.05	5.00	40000.7	2000	NA	NA	0.017	NA	NA	1999.8	15.9	79-00-5	10 ppm (45mg/m3/8H)(skin)	orl-rat 836mg/kg
43.	Trichloroethene	35161	052418	0.05	5.00	40000.6	2000	NA	NA	0.017	NA	NA	1999.8	15.8	79-01-6	50 ppm (270mg/m3/8H)	orl-mus 2402mg/kg
44.	1,2,3-Trichloropropane	35161	052418	0.05	5.00	40000.5	2000	NA	NA	0.017	NA	NA	1999.8	15.8	96-18-4	10 ppm (60mg/m3/8H)	orl-rat 149.6mg/kg
45.	Benzene	35162	060418	0.05	5.00	40000.4	2000	NA	NA	0.017	NA	NA	1999.8	15.8	71-43-2	1 ppm	orl-rat 4894mg/kg
46.	Bromobenzene	35162	060418	0.05	5.00	40000.5	2000	NA	NA	0.017	NA	NA	1999.8	15.8	108-86-1	N/A	orl-rat 2699mg/kg
47.	n-Butyl benzene	35162	060418	0.05	5.00	40001.5	2000	NA	NA	0.017	NA	NA	1999.9	15.8	104-51-8	N/A	N/A
48.	Ethyl benzene	35162	060418	0.05	5.00	40000.4	2000	NA	NA	0.017	NA	NA	1999.8	15.8	100-41-4	100 ppm (435mg/m3/8H)	orl-rat >2000mg/kg
49.	p-Isopropyl toluene	35162	060418	0.05	5.00	40001.0	2000	NA	NA	0.017	NA	NA	1999.8	15.8	99-87-6	N/A	orl-rat 4750mg/kg
50.	Naphthalene	35162	060418	0.05	5.00	40001.5	2000	NA	NA	0.017	NA	NA	1999.9	15.8	91-20-3	10 ppm (50mg/m3/8H)	orl-rat 490mg/kg
51.	Styrene	35162	060418	0.05	5.00	40000.5	2000	NA	NA	0.017	NA	NA	1999.8	15.8	100-42-5	100 ppm	orl-rat 5000mg/kg
52.	Toluene	35162	060418	0.05	5.00	40000.4	2000	NA	NA	0.017	NA	NA	1999.8	15.8	108-88-3	200 ppm	orl-rat 5000mg/kg
53.	1,2,3-Trichlorobenzene	35162	060418	0.05	5.00	40002.4	2000	NA	NA	0.017	NA	NA	1999.9	15.8	87-61-6	N/A	ipr-mus 1390mg/kg
54.	1,2,4-Trichlorobenzene	35162	060418	0.05	5.00	40001.0	2000	NA	NA	0.017	NA	NA	1999.8	15.8	120-82-1	5 ppm (CL) (40mg/m3)	orl-rat 756mg/kg
55.	1,2,4-Trimethylbenzene	35162	060418	0.05	5.00	40001.7	2000	NA	NA	0.017	NA	NA	1999.9	15.9	95-63-6	N/A	orl-rat 5g/kg
56.	1,3,5-Trimethylbenzene	35162	060418	0.05	5.00	40000.2	2000	NA	NA	0.017	NA	NA	1999.8	15.9	108-67-8	N/A	N/A
57.	m-Xylene	35162	060418	0.05	5.00	40001.0	2000	NA	NA	0.017	NA	NA	1999.8	15.8	108-38-3	100 ppm (435mg/m3/8H)	orl-rat 5g/kg
58.	tert-Butyl benzene	35163	051118	0.05	5.00	40001.5	2000	NA	NA	0.017	NA	NA	1999.9	15.8	98-06-6	N/A	N/A
59.	sec-Butyl benzene	35163	051118	0.05	5.00	40001.3	2000	NA	NA	0.017	NA	NA	1999.8	15.8	135-98-8	N/A	orl-rat 2240mg/kg
60.	Chlorobenzene	35163	051118	0.05	5.00	40001.6	2000	NA	NA	0.017	NA	NA	1999.9	15.8	108-90-7	75 ppm (350mg/m3/8H)	orl-rat 2290mg/kg
61.	2-Chlorotoluene	35163	051118	0.05	5.00	40001.0	2000	NA	NA	0.017	NA	NA	1999.8	15.8	95-49-8	50 ppm (250mg/m3/8H)	orl-rat 3900mg/kg
62.	4-Chlorotoluene	35163	051118	0.05	5.00	40001.4	2000	NA	NA	0.017	NA	NA	1999.8	15.9	106-43-4	N/A	orl-rat 2100mg/kg
63.	1,2-Dichlorobenzene	35163	051118	0.05	5.00	40002.3	2000	NA	NA	0.017	NA	NA	1999.9	15.8	95-50-1	50 ppm (300mg/m3) (CL)	orl-rat 500mg/kg
64.	1,3-Dichlorobenzene	35163	051118	0.05	5.00	40001.5	2000	NA	NA	0.017	NA	NA	1999.9	15.9	541-73-1	N/A	ipr-mus 1062mg/kg
65.	1,4-Dichlorobenzene	35163	051118	0.05	5.00	40001.3	2000	NA	NA	0.017	NA	NA	1999.8	15.8	106-46-7	75 ppm (450mg/m3/8H)	orl-rat 500mg/kg
66.	Isopropylbenzene	35163	051118	0.05	5.00	40001.7	2000	NA	NA	0.017	NA	NA	1999.9	15.9	98-82-8	50 ppm (245mg/m3/8H)	orl-rat 1400mg/kg
67.	n-Propylbenzene	35163	051118	0.05	5.00	40001.0	2000	NA	NA	0.017	NA	NA	1999.8	15.9	103-65-1	N/A	orl-rat 6040mg/kg
68.	o-Xylene	35163	051118	0.05	5.00	40001.1	2000	NA	NA	0.017	NA	NA	1999.8	15.8	95-47-6	100 ppm (435mg/m3/8H)	ipr-mus 1364mg/kg
69.	p-Xylene	35163	051118	0.05	5.00	40001.3	2000	NA	NA	0.017	NA	NA	1999.8	15.8	106-42-3	100 ppm (435mg/m3/8H)	orl-rat 5g/kg

- The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
- Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
- Standards are certified (+/-) 0.5% of the stated value, unless otherwise stated.
- All Standards, after opening ampule, should be stored with caps tight and under appropriate laboratory conditions.
- Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, DC, (1994).

Absolute Standards Inc.

PO Box 5585
Hamden, CT 06518-0585

Phone: 203-281-2917
FAX: 203-281-2922

Safety Data Sheet (SDS) GHS/OSHA Compliant

Section I Product and Company Identification

IDENTITY **ANALYTICAL STANDARD DISSOLVED IN METHANOL**

Manufacturer's Name	ABSOLUTE STANDARDS INC	Emergency Telephone USA & CANADA	**1-800-535-5053**
Address	44 Rossotto Dr. Hamden CT, 06514	Emergency Telephone International Date Prepared/Revised	**1-352-323-3500** May 1, 2018

Section II - Hazards Identification

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

H225	**Highly Flammable Liquid and Vapor**	**H301, 311, 331**	**Toxic if swallowed, skin contact, inhaled**
H370	**Cause damage to organs**	**H351**	**Suspected of causing cancer**
P271	**Use in ventilated area**	**P280**	**Use gloves, eye protection/face sheild**
P302,332	**If on skin, wash with soap and water**	**P305,351,338**	**If in eyes, remove contacts, rinse with water**

Signal Word: DANGER

Section III - Composition

Components (Specific Chemical Identity; Common Name(s))			% (optional)
Methanol	METHYL ALCOHOL	CAS#: 67-56-1	> 97

See Certified Weight Report For Other Analytes Present At Trace Quantities.

INTENDED USE: REFERENCE MATERIAL

Section IV. FIRST AID MEASURES

General advice	Consult a physician. Show this safety data sheet to the doctor in attendance.Move to safe area.
If inhaled	If inhaled, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.
In case of skin contact	Wash with soap and water. Consult a physician.
In case of eye contact	Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.
If swallowed	Do NOT induce vomiting. Rinse mouth with water. Consult a physician.

Section V. FIREFIGHTING MEASURES

Flammability	Flammable in the presence of a source of ignition when the temperature is above the flash point. Keep away from heat/sparks/open flame/hot surface. No smoking.
Suitable extinguishing media	Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Protective equipment for fire	Wear self contained breathing apparatus for fire fighting if necessary.

Section VI. ACCIDENTAL RELEASE MEASURES

Personal precautions	Wear respiratory protection. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Vapours accumulate to form explosive concentrations.
Environmental precautions	Prevent further leakage or spillage if safe to do so. Do not let product enter drains.
Clean up	Contain spillage, and then collect and place in container for disposal according to local regulations (see section 13).

Section VII. HANDLING AND STORAGE

Precautions for safe handling	Avoid contact with skin and eyes. Avoid inhalation of vapour or mist. Use ventilation Keep away from sources of ignition. No smoking. Prevent the build up of electrostatic charge.
Storage Conditions	Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

Section VIII. EXPOSURE CONTROLS/PERSONAL PROTECTION

Methanol 67-56-1 TWA 200 ppm
Skin notation TWA 200 ppm
Potential for skin absorption , ingestion and inhalation.
Personal protective equipment Respiratory protection Handle with gloves. Gloves must be inspected prior to use. Eye protection.
Avoid contact with skin, eyes and clothing. Wash hands thoroughly after handling the product.

Section IX - Physical/Chemical Characteristics

Boiling Point	65°C	Specific Gravity (H2O = 1)	0.79
Vapor Pressure (mm Hg)	96	Melting Point	-98°C
Vapor Density (AIR = 1)	1.11	Evaporation rate (Butyl Acetate = 1)	4.6

Solubility in Water COMPLETE

Appearance and Odor CLEAR, COLORLESS LIQUID WITH CHARACTERISTIC PUNGENT ODOR.

Section X. STABILITY AND REACTIVITY

Chemical stability Stable under recommended storage conditions.
Possibility of hazardous reactions Vapours may form explosive mixture with air.
Conditions to avoid Heat, flames, sparks, extreme temperature and sunlight.
Materials to avoid Acid chlorides, Acid anhydrides, Oxidizing agents, Alkali metals, Reducing agents, Acids
Hazardous decomposition products formed under fire conditions. - Carbon oxides

Section XI. TOXICOLOGICAL INFORMATION

LD50 Oral - rat - 5,628 mg/kg
LC50 Inhalation - rat - 4 h - 64000 ppm
LD50 Dermal - rabbit - 15,800 mg/kg
Toxic if absorbed through skin. Causes skin irritation.
Eye damage/eye irritation
Toxic if inhaled. Causes respiratory tract irritation.
Toxic if swallowed.

Section XII. ECOLOGICAL INFORMATION FOR REPORTABLE QUANTITY OF 5000 lbs.

LC50	15,400 mg/l - 96 h
EC50	24,500.00 mg/l - 48 h
EC100	10,000.00 mg/l - 24 h

Section XIII. DISPOSAL CONSIDERATIONS

Dispose with normal Laboratory Solvent Waste.

Section XIV. TRANSPORT INFORMATION

DOT (US)
UN number: 1230 Class: 3 Packing group: II
Proper shipping name: Methanol

IATA
UN number: 1230 Class: 3 Packing group: II
Proper shipping name: Methanol

Section XV. REGULATORY INFORMATION

OSHA Hazards Flammable liquid, Target Organ Effect, Toxic by inhalation., Toxic by ingestion, Toxic by skin absorption, Irritant
SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

Section XVI. Misc. INFORMATION

The information in this Material Safety Data Sheet meets the requirements of the United States Occupational Safety and Health Act and regulations promulgated thereunder (29 CFR 1910.1200 et. seq.) and Global Harmonized System (GHS). This document is intended only as a guide to the appropriate precautionary handling of the material by trained personnel, or supervised by a person trained in chemical handling. The user is responsible for determining the precautions and dangers of this chemical for his or her particular application. Depending on usage, protective clothing including eye and face guards and respirators must be used to avoid contact with material or breathing chemical vapors/fumes. Exposure to this product may have serious adverse health effects. This chemical may interact with other substances. Since the potential uses are so varied, ABSOLUTE STANDARDS INC. cannot warn of all the potential dangers of use or interaction with other chemicals or substances. ABSOLUTE STANDARDS INC. warrants that the chemical meets the specifications set forth on the label. ABSOLUTE STANDARDS INC DISCLAIMS ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED WITH REGARD TO THE PRODUCT SUPPLIED HEREUNDER, ITS MERCHANTABILITY OR ITS FITNESS FOR A PARTICULAR APPLICATION. The user should recognize that this product can cause severe injury or death, especially if improperly handled or the known dangers of use are not heeded. READ ALL PRECAUTIONARY INFORMATION. As new documented general safety information becomes available, Absolute Standards Inc. will periodically revise this Safety Data Sheet. If you have any questions, please call Technical Service at 1-203-281-2917 for assistance.

CERTIFIED WEIGHT REPORT

Part Number: 95317
Lot Number: 010719
Description: Universal VOA Megamix
69 components
Expiration Date: 010722
Recommended Storage: Freezer (0 °C)
Nominal Concentration (µg/mL): 2000
NIST Test ID#: 2684186

Solvent(s): Lot#
Methanol DT140Q6

5E-05 Balance Uncertainty
Weight(s) shown below were combined and diluted to (mL): 100.0 0.001 Flask Uncertainty

	010719
Formulated By: Justin Dippold	DATE
	010719
Reviewed By: Pedro L. Rentas	DATE

Compound	(RM#) Part Number	Lot Number	Dil. Factor	Initial Vol. (mL)	Initial Conc.(ug/mL)	Nominal Conc (µg/mL)	Purity (%)	Purity Uncertainty	Uncertainty Pipette (mL)	Target Weight(g)	Actual Weight(g)	Actual Conc (µg/mL)	Expanded Uncertainty (+/-) (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50
1. Acetonitrile	(0324)	060812	NA	NA	NA	2000	99.9	0.2	NA	0.20022	0.20050	2002.8	8.1	75-05-8	40 ppm (70mg/m3/8H)	orl-rat 2460mg/kg
2. Allyl chloride (3-Chloropropene)	(0325)	102396	NA	NA	NA	2000	99	0.2	NA	0.20204	0.20215	2001.1	8.1	107-05-1	1 ppm (3mg/m3/8H)	orl-rat 700mg/kg
3. Carbon disulphide	(0060)	MKBZ8689V	NA	NA	NA	2000	99	0.2	NA	0.20204	0.20215	2001.1	8.1	75-15-0	4 ppm (12mg/m3) (skin)	orl-rat 1200mg/kg
4. cis-1,4-Dichloro-2-butene	(1196)	14718EF	NA	NA	NA	2000	95	0.2	NA	0.21055	0.21075	2001.9	8.5	1476-11-5	N/A	N/A
5. trans-1,4-Dichloro-2-butene	(0486)	MKBP6041V	NA	NA	NA	2000	96.5	0.2	NA	0.20728	0.20750	2002.2	8.4	110-57-6	N/A	N/A
6. Diethyl ether	(0153)	209453	NA	NA	NA	2000	99	0.2	NA	0.20204	0.20230	2002.6	8.2	60-29-7	N/A	N/A
7. Ethyl methacrylate	(0381)	06126PX	NA	NA	NA	2000	99	0.2	NA	0.20204	0.20225	2002.1	8.1	97-63-2	N/A	orl-rat 14800mg/kg
8. Iodomethane	(0489)	SHBF8718V	NA	NA	NA	2000	99.5	0.2	NA	0.20103	0.20135	2003.2	8.1	74-88-4	5 ppm(28mg/m3/8H)(skin)	orl-rat 76mg/kg
9. 2-Methyl-1-propanol	(0445)	15241EB	NA	NA	NA	2000	99.5	0.2	NA	0.20103	0.20120	2001.7	8.1	78-83-1	50 ppm (150mg/m3/8H)	orl-rat 2460mg/kg
10. Methacrylonitrile	(0442)	00427ET	NA	NA	NA	2000	99	0.2	NA	0.20204	0.20215	2001.1	8.1	126-98-7	1 ppm (3mg/m3/8H)(skin)	orl-rat 120mg/kg
11. Methyl acrylate	(1075)	SHBK0679	NA	NA	NA	2000	99.9	0.2	NA	0.20022	0.20100	2007.8	8.1	96-33-3	10 ppm(35mg/m3/8H)(skin)	orl-rat 277mg/kg
12. Methyl methacrylate	(0404)	03021BX	NA	NA	NA	2000	99	0.2	NA	0.20204	0.20220	2001.6	8.1	80-62-6	100 ppm (410mg/m3/8H)	orl-rat 7872mg/kg
13. Nitrobenzene	(0228)	01213TV	NA	NA	NA	2000	99	0.2	NA	0.20204	0.20215	2001.1	8.1	98-95-3	1 ppm (5mg/m3/8H)(skin)	orl-rat 780mg/kg
14. 2-Nitropropane	(0461)	14002JX	NA	NA	NA	2000	95	0.2	NA	0.21055	0.21075	2001.9	8.5	79-46-9	10 ppm (35mg/m3/8H)	orl-rat 720mg/kg
15. Pentachloroethane	(0450)	HGA01	NA	NA	NA	2000	98	0.2	NA	0.20410	0.20430	2001.9	8.2	76-01-7	N/A	N/A
16. 1,1,2-Trichlorotrifluoroethane	(0474)	18930	NA	NA	NA	2000	99	0.2	NA	0.20204	0.20220	2001.6	8.1	76-13-1	1000 ppm (7600mg/m3/8H)	orl-rat 43g/kg
17. Bromodichloromethane	35171	051118	0.05	5.00	40001.7	2000	NA	NA	0.017	NA	NA	1999.9	15.9	75-27-4	N/A	orl-rat 916mg/kg
18. Dibromochloromethane	35171	051118	0.05	5.00	40000.8	2000	NA	NA	0.017	NA	NA	1999.8	15.9	124-48-1	N/A	orl-rat 848mg/kg
19. cis-1,2-Dichloroethene	35171	051118	0.05	5.00	40002.0	2000	NA	NA	0.017	NA	NA	1999.9	15.8	156-59-2	N/A	N/A
20. trans-1,2-Dichloroethene	35171	051118	0.05	5.00	40000.8	2000	NA	NA	0.017	NA	NA	1999.8	15.9	156-60-5	N/A	orl-rat 1235mg/kg
21. Methylene chloride	35171	051118	0.05	5.00	40003.2	2000	NA	NA	0.017	NA	NA	1999.9	15.8	75-09-2	500 ppm	orl-rat 820mg/kg
22. 1,1-Dichloroethene	32251	122818	0.10	10.00	20005.5	2000	NA	NA	0.042	NA	NA	2000.3	18.7	75-35-4	1 ppm (4mg/m3/8H)	orl-rat 200mg/kg
23. Bromoform	95321	010419	0.10	10.00	20001.7	2000	NA	NA	0.042	NA	NA	2000.0	18.7	75-25-2	0.5 ppm (5mg/m3) (skin)	orl-rat 933mg/kg
24. Carbon tetrachloride	95321	010419	0.10	10.00	20001.3	2000	NA	NA	0.042	NA	NA	1999.9	18.7	56-23-5	2 ppm (12.6mg/m3/8H)	orl-rat 2350mg/kg
25. Chloroform	95321	010419	0.10	10.00	20001.8	2000	NA	NA	0.042	NA	NA	2000.0	18.7	67-66-3	50 ppm (240mg/m3) (CL)	orl-rat 908mg/kg
26. Dibromomethane	95321	010419	0.10	10.00	20001.7	2000	NA	NA	0.042	NA	NA	2000.0	18.7	74-95-3	N/A	orl-rat 108mg/kg
27. 1,1-Dichloroethane	95321	010419	0.10	10.00	20000.8	2000	NA	NA	0.042	NA	NA	1999.9	18.7	75-34-3	100 ppm	orl-rat 725mg/kg
28. 2,2-Dichloropropane	95321	010419	0.10	10.00	20002.1	2000	NA	NA	0.042	NA	NA	2000.0	18.7	594-20-7	N/A	N/A
29. Tetrachloroethene	95321	010419	0.10	10.00	20002.2	2000	NA	NA	0.042	NA	NA	2000.0	18.7	127-18-4	25 ppm (170mg/m3/8H)(final)	orl-rat 2629mg/kg
30. 1,1,1-Trichloroethane	95321	010419	0.10	10.00	20001.7	2000	NA	NA	0.042	NA	NA	2000.0	18.7	71-55-6	350 ppm (1900mg/m3/8H)	orl-rat 10300mg/kg
31. 1,2-Dibromo-3-chloropropane	35161	052418	0.05	5.00	40000.5	2000	NA	NA	0.017	NA	NA	1999.8	15.8	96-12-8	0.001 ppm	orl-rat 170mg/kg
32. 1,2-Dibromoethane	35161	052418	0.05	5.00	40001.5	2000	NA	NA	0.017	NA	NA	1999.9	15.8	106-93-4	20 ppm (8H)	orl-rat 108mg/kg
33. 1,2-Dichloroethane	35161	052418	0.05	5.00	40001.4	2000	NA	NA	0.017	NA	NA	1999.9	15.8	107-06-2	50 ppm (8H)	orl-rat 670mg/kg
34. 1,2-Dichloropropane	35161	052418	0.05	5.00	40001.5	2000	NA	NA	0.017	NA	NA	1999.9	15.8	78-87-5	75 ppm (350mg/m3/8H)	orl-rat 1947mg/kg
35. 1,3-Dichloropropane	35161	052418	0.05	5.00	40001.0	2000	NA	NA	0.017	NA	NA	1999.8	15.8	142-28-9	N/A	unr-mus 3600mg/kg
36. 1,1-Dichloropropene	35161	052418	0.05	5.00	39639.5	2000	NA	NA	0.017	NA	NA	1981.8	24.2	563-58-6	N/A	N/A
37. cis-1,3-Dichloropropene	35161	052418	0.05	5.00	40001.2	2000	NA	NA	0.017	NA	NA	1999.8	15.9	10061-01-5	N/A	N/A
38. trans-1,3-Dichloropropene	35161	052418	0.05	5.00	40000.7	2000	NA	NA	0.017	NA	NA	1999.8	16.0	10061-02-6	N/A	N/A
39. Hexachloro-1,3-butadiene	35161	052418	0.05	5.00	40000.9	2000	NA	NA	0.017	NA	NA	1999.8	15.9	87-68-3	0.02 ppm (0.24mg/m3/8H)	orl-rat 82mg/kg
40. 1,1,1,2-Tetrachloroethane	35161	052418	0.05	5.00	40000.5	2000	NA	NA	0.017	NA	NA	1999.8	15.8	630-20-6	N/A	orl-rat 670mg/kg
41. 1,1,2,2-Tetrachloroethane	35161	052418	0.05	5.00	40001.5	2000	NA	NA	0.017	NA	NA	1999.9	15.8	79-34-5	5 ppm (35mg/m3/9H)(skin)	orl-rat 800mg/kg
42. 1,1,2-Trichloroethane	35161	052418	0.05	5.00	40000.7	2000	NA	NA	0.017	NA	NA	1999.8	15.9	79-00-5	10 ppm (45mg/m3/8H)(skin)	orl-rat 836mg/kg
43. Trichloroethene	35161	052418	0.05	5.00	40000.6	2000	NA	NA	0.017	NA	NA	1999.8	15.8	79-01-6	50 ppm (270mg/m3/8H)	orl-mus 2402mg/kg
44. 1,2,3-Trichloropropane	35161	052418	0.05	5.00	40000.5	2000	NA	NA	0.017	NA	NA	1999.8	15.8	96-18-4	10 ppm (60mg/m3/8H)	orl-rat 149.6mg/kg
45. Benzene	35162	060418	0.05	5.00	40000.4	2000	NA	NA	0.017	NA	NA	1999.8	15.8	71-43-2	1 ppm	orl-rat 4894mg/kg
46. Bromobenzene	35162	060418	0.05	5.00	40000.5	2000	NA	NA	0.017	NA	NA	1999.8	15.8	108-86-1	N/A	orl-rat 2699mg/kg
47. n-Butyl benzene	35162	060418	0.05	5.00	40001.5	2000	NA	NA	0.017	NA	NA	1999.9	15.8	104-51-8	N/A	N/A
48. Ethyl benzene	35162	060418	0.05	5.00	40000.4	2000	NA	NA	0.017	NA	NA	1999.8	15.8	100-41-4	100 ppm (435mg/m3/8H)	orl-rat >2000mg/kg
49. p-Isopropyl toluene	35162	060418	0.05	5.00	40001.0	2000	NA	NA	0.017	NA	NA	1999.8	15.8	99-87-6	N/A	orl-rat 4750mg/kg
50. Naphthalene	35162	060418	0.05	5.00	40001.5	2000	NA	NA	0.017	NA	NA	1999.9	15.8	91-20-3	10 ppm (50mg/m3/8H)	orl-rat 490mg/kg
51. Styrene	35162	060418	0.05	5.00	40000.5	2000	NA	NA	0.017	NA	NA	1999.8	15.8	100-42-5	100 ppm	orl-rat 5000mg/kg
52. Toluene	35162	060418	0.05	5.00	40000.4	2000	NA	NA	0.017	NA	NA	1999.8	15.8	108-88-3	200 ppm	orl-rat 5000mg/kg
53. 1,2,3-Trichlorobenzene	35162	060418	0.05	5.00	40002.4	2000	NA	NA	0.017	NA	NA	1999.9	15.8	87-61-6	N/A	ipr-mus 1390mg/kg
54. 1,2,4-Trichlorobenzene	35162	060418	0.05	5.00	40001.0	2000	NA	NA	0.017	NA	NA	1999.8	15.8	120-82-1	5 ppm (CL) (40mg/m3)	orl-rat 756mg/kg
55. 1,2,4-Trimethylbenzene	35162	060418	0.05	5.00	40001.7	2000	NA	NA	0.017	NA	NA	1999.9	15.9	95-63-6	N/A	orl-rat 5g/kg
56. 1,3,5-Trimethylbenzene	35162	060418	0.05	5.00	40000.2	2000	NA	NA	0.017	NA	NA	1999.8	15.9	108-67-8	N/A	N/A
57. m-Xylene	35162	060418	0.05	5.00	40001.0	2000	NA	NA	0.017	NA	NA	1999.8	15.8	108-38-3	100 ppm (435mg/m3/8H)	orl-rat 5g/kg
58. tert-Butyl benzene	35163	051118	0.05	5.00	40001.5	2000	NA	NA	0.017	NA	NA	1999.9	15.8	98-06-6	N/A	N/A
59. sec-Butyl benzene	35163	051118	0.05	5.00	40001.3	2000	NA	NA	0.017	NA	NA	1999.8	15.8	135-98-8	N/A	orl-rat 2240mg/kg
60. Chlorobenzene	35163	051118	0.05	5.00	40001.6	2000	NA	NA	0.017	NA	NA	1999.9	15.8	108-90-7	75 ppm (350mg/m3/8H)	orl-rat 2290mg/kg
61. 2-Chlorotoluene	35163	051118	0.05	5.00	40001.0	2000	NA	NA	0.017	NA	NA	1999.8	15.8	95-49-8	50 ppm (250mg/m3/8H)	orl-rat 3900mg/kg
62. 4-Chlorotoluene	35163	051118	0.05	5.00	40001.4	2000	NA	NA	0.017	NA	NA	1999.8	15.9	106-43-4	N/A	orl-rat 2100mg/kg
63. 1,2-Dichlorobenzene	35163	051118	0.05	5.00	40002.3	2000	NA	NA	0.017	NA	NA	1999.9	15.8	95-50-1	50 ppm (300mg/m3) (CL)	orl-rat 500mg/kg
64. 1,3-Dichlorobenzene	35163	051118	0.05	5.00	40001.5	2000	NA	NA	0.017	NA	NA	1999.9	15.9	541-73-1	N/A	ipr-mus 1062mg/kg
65. 1,4-Dichlorobenzene	35163	051118	0.05	5.00	40001.3	2000	NA	NA	0.017	NA	NA	1999.8	15.8	106-46-7	75 ppm (450mg/m3/8H)	orl-rat 500mg/kg
66. Isopropylbenzene	35163	051118	0.05	5.00	40001.7	2000	NA	NA	0.017	NA	NA	1999.9	15.9	98-82-8	50 ppm (245mg/m3/8H)	orl-rat 1400mg/kg
67. n-Propylbenzene	35163	051118	0.05	5.00	40001.0	2000	NA	NA	0.017	NA	NA	1999.8	15.9	103-65-1	N/A	orl-rat 6040mg/kg
68. o-Xylene	35163	051118	0.05	5.00	40001.1	2000	NA	NA	0.017	NA	NA	1999.8	15.8	95-47-6	100 ppm (435mg/m3/8H)	ipr-mus 1364mg/kg
69. p-Xylene	35163	051118	0.05	5.00	40001.3	2000	NA	NA	0.017	NA	NA	1999.8	15.8	106-42-3	100 ppm (435mg/m3/8H)	orl-rat 5g/kg

- The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
- Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
- Standards are certified (+/-) 0.5% of the stated value, unless otherwise stated.
- All Standards, after opening ampule, should be stored with caps tight and under appropriate laboratory conditions.
- Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, DC, (1994).

Absolute Standards Inc.
PO Box 5585
Hamden, CT 06518-0585
Phone: 203-281-2917
FAX: 203-281-2922

Safety Data Sheet (SDS) GHS/OSHA Compliant

Section I Product and Company Identification

IDENTITY **ANALYTICAL STANDARD DISSOLVED IN METHANOL**

Manufacturer's Name	ABSOLUTE STANDARDS INC	Emergency Telephone USA & CANADA	**1-800-535-5053**
Address	44 Rossotto Dr. Hamden CT, 06514	Emergency Telephone International Date Prepared/Revised	**1-352-323-3500** May 1, 2018

Section II - Hazards Identification

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

H225	**Highly Flammable Liquid and Vapor**	**H301, 311, 331**	**Toxic if swallowed, skin contact, inhaled**
H370	**Cause damage to organs**	**H351**	**Suspected of causing cancer**
P271	**Use in ventilated area**	**P280**	**Use gloves, eye protection/face sheild**
P302,332	**If on skin, wash with soap and water**	**P305,351,338**	**If in eyes, remove contacts, rinse with water**

Signal Word: DANGER

Section III - Composition

Components (Specific Chemical Identity; Common Name(s))			% (optional)
Methanol	METHYL ALCOHOL	CAS#: 67-56-1	> 97

See Certified Weight Report For Other Analytes Present At Trace Quantities.

INTENDED USE: REFERENCE MATERIAL

Section IV. FIRST AID MEASURES

General advice	Consult a physician. Show this safety data sheet to the doctor in attendance.Move to safe area.
If inhaled	If inhaled, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.
In case of skin contact	Wash with soap and water. Consult a physician.
In case of eye contact	Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.
If swallowed	Do NOT induce vomiting. Rinse mouth with water. Consult a physician.

Section V. FIREFIGHTING MEASURES

Flammability	Flammable in the presence of a source of ignition when the temperature is above the flash point. Keep away from heat/sparks/open flame/hot surface. No smoking.
Suitable extinguishing media	Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Protective equipment for fire	Wear self contained breathing apparatus for fire fighting if necessary.

Section VI. ACCIDENTAL RELEASE MEASURES

Personal precautions	Wear respiratory protection. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Vapours accumulate to form explosive concentrations.
Environmental precautions	Prevent further leakage or spillage if safe to do so. Do not let product enter drains.
Clean up	Contain spillage, and then collect and place in container for disposal according to local regulations (see section 13).

Section VII. HANDLING AND STORAGE

Precautions for safe handling	Avoid contact with skin and eyes. Avoid inhalation of vapour or mist. Use ventilation Keep away from sources of ignition. No smoking. Prevent the build up of electrostatic charge.
Storage Conditions	Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

Section VIII. EXPOSURE CONTROLS/PERSONAL PROTECTION

Methanol 67-56-1 TWA 200 ppm
Skin notation TWA 200 ppm
Potential for skin absorption , ingestion and inhalation.
Personal protective equipment Respiratory protection Handle with gloves. Gloves must be inspected prior to use. Eye protection.
Avoid contact with skin, eyes and clothing. Wash hands thoroughly after handling the product.

Section IX - Physical/Chemical Characteristics

Boiling Point	65°C	Specific Gravity (H2O = 1)	0.79
Vapor Pressure (mm Hg)	96	Melting Point	-98°C
Vapor Density (AIR = 1)	1.11	Evaporation rate (Butyl Acetate = 1)	4.6

Solubility in Water COMPLETE

Appearance and Odor CLEAR, COLORLESS LIQUID WITH CHARACTERISTIC PUNGENT ODOR.

Section X. STABILITY AND REACTIVITY

Chemical stability Stable under recommended storage conditions.
Possibility of hazardous reactions Vapours may form explosive mixture with air.
Conditions to avoid Heat, flames, sparks, extreme temperature and sunlight.
Materials to avoid Acid chlorides, Acid anhydrides, Oxidizing agents, Alkali metals, Reducing agents, Acids
Hazardous decomposition products formed under fire conditions. - Carbon oxides

Section XI. TOXICOLOGICAL INFORMATION

LD50 Oral - rat - 5,628 mg/kg
LC50 Inhalation - rat - 4 h - 64000 ppm
LD50 Dermal - rabbit - 15,800 mg/kg
Toxic if absorbed through skin. Causes skin irritation.
Eye damage/eye irritation
Toxic if inhaled. Causes respiratory tract irritation.
Toxic if swallowed.

Section XII. ECOLOGICAL INFORMATION FOR REPORTABLE QUANTITY OF 5000 lbs.

LC50	15,400 mg/l - 96 h
EC50	24,500.00 mg/l - 48 h
EC100	10,000.00 mg/l - 24 h

Section XIII. DISPOSAL CONSIDERATIONS

Dispose with normal Laboratory Solvent Waste.

Section XIV. TRANSPORT INFORMATION

DOT (US)
UN number: 1230 Class: 3 Packing group: II
Proper shipping name: Methanol

IATA
UN number: 1230 Class: 3 Packing group: II
Proper shipping name: Methanol

Section XV. REGULATORY INFORMATION

OSHA Hazards Flammable liquid, Target Organ Effect, Toxic by inhalation., Toxic by ingestion, Toxic by skin absorption, Irritant
SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

Section XVI. Misc. INFORMATION

The information in this Material Safety Data Sheet meets the requirements of the United States Occupational Safety and Health Act and regulations promulgated thereunder (29 CFR 1910.1200 et. seq.) and Global Harmonized System (GHS). This document is intended only as a guide to the appropriate precautionary handling of the material by trained personnel, or supervised by a person trained in chemical handling. The user is responsible for determining the precautions and dangers of this chemical for his or her particular application. Depending on usage, protective clothing including eye and face guards and respirators must be used to avoid contact with material or breathing chemical vapors/fumes. Exposure to this product may have serious adverse health effects. This chemical may interact with other substances. Since the potential uses are so varied, ABSOLUTE STANDARDS INC. cannot warn of all the potential dangers of use or interaction with other chemicals or substances. ABSOLUTE STANDARDS INC. warrants that the chemical meets the specifications set forth on the label. ABSOLUTE STANDARDS INC DISCLAIMS ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED WITH REGARD TO THE PRODUCT SUPPLIED HEREUNDER, ITS MERCHANTABILITY OR ITS FITNESS FOR A PARTICULAR APPLICATION. The user should recognize that this product can cause severe injury or death, especially if improperly handled or the known dangers of use are not heeded. READ ALL PRECAUTIONARY INFORMATION. As new documented general safety information becomes available, Absolute Standards Inc. will periodically revise this Safety Data Sheet. If you have any questions, please call Technical Service at 1-203-281-2917 for assistance.

Methanol
ULTRA RESI-ANALYZED
For Purge and Trap Analysis

avantor™ | J.T.Baker®

Material No.: 9077-02
Batch No.: 0000229971
Manufactured Date: 2019/04/11
Expiration Date: 2022/04/10
Revision No: 1

Certificate of Analysis

Test	Specification	Result
Assay (CH_3OH) (by GC, corrected for water)	>= 99.9 %	100.0
Residue after Evaporation	<= 1.0000 ppm	0.3000
Titrable Acid (µeq/g)	<= 0.3	0.3
Titrable Base (µeq/g)	<= 0.1	<0.01
Water (by KF, coulometric)	<= 0.08 %	0.01
Volatile Organic Trace Analysis - Below EPA 8260B CRQL	Conforms / Fails	Conforms

For Laboratory, Research or Manufacturing Use
Performance Tested for Use in EPA Methods
500 Series for Drinking Water
600 Series for Wastewater
846 for Solid Waste

Country of Origin: US
Packaging Site: Phillipsburg Mfg Ctr & DC

Jamie Ethier
Vice President Global Quality

For questions on this Certificate of Analysis please contact Technical Services at 855.282.6867 or +1.610.386.1700
Avantor Performance Materials, LLC
100 Matsonford Rd, Suite 200, Radnor, PA 19087. U.S.A. Phone: 610.386.1700

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT

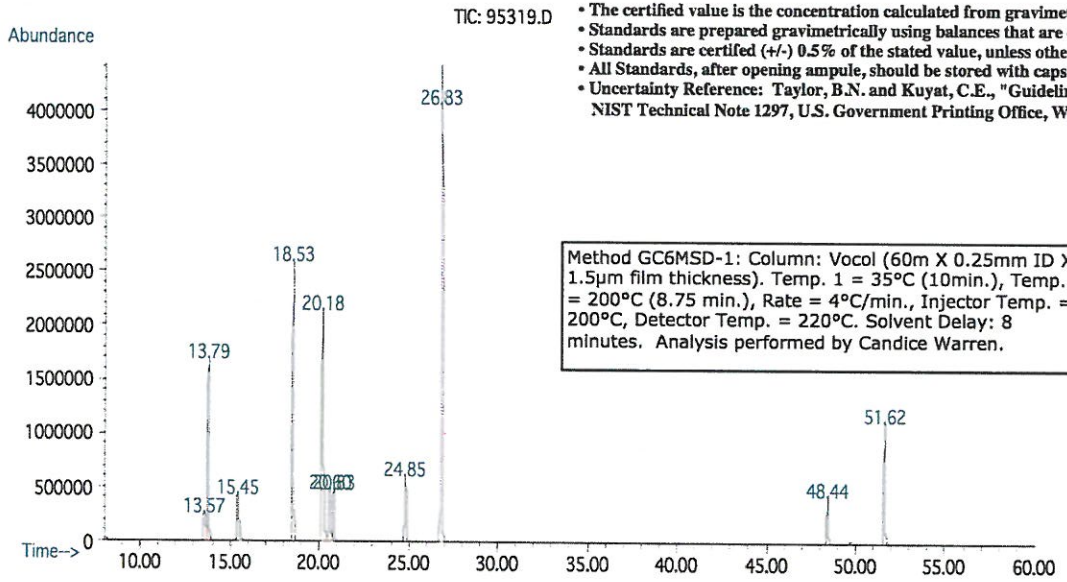
Part Number: 95319
Lot Number: 050219
Description: Revised Additions Mix
11 components
Expiration Date: 050222
Recommended Storage: Refrigerate (4 °C)
Nominal Concentration (µg/mL): Varied
NIST Test ID#: 6UTB

Solvent(s): **Lot#**
Methanol DU230-US

5E-05 Balance Uncertainty
Weight(s) shown below were combined and diluted to (mL): 100.0 0.001 Flask Uncertainty

Prashant Chauhan		050219
Formulated By:	Prashant Chauhan	DATE
Pedro Rentas		050219
Reviewed By:	Pedro L. Rentas	DATE

Compound	RM#	Lot Number	Nominal Conc (µg/mL)	Purity (%)	Uncertainty Purity	Target Weight(g)	Actual Weight(g)	Actual Conc (µg/mL)	Expanded Uncertainty (+/-) (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50
1. Acrylonitrile	7	4718CK	10000	99	0.2	1.01021	1.01061	10003.9	40.4	107-13-1	N/A	orl-rat 78 mg/kg
2. 1-Chlorobutane	1072	15538EZ	2000	99.5	0.2	0.20103	0.20120	2001.7	8.1	109-69-3	N/A	orl-rat 2670mg/kg
3. Cyclohexane	1023	SHBD2795V	2000	99.5	0.2	0.20103	0.20120	2001.7	8.1	110-82-7	300 ppm (1050mg/m3/8H)	orl-rat 12705mg/kg
4. Di-isopropyl ether (DIPE)	987	00412MX	2000	99	0.2	0.20204	0.20224	2002.0	8.1	108-20-3	500 ppm (2100mg/m3/8H)	orl-rat 8470mg/kg
5. 1,4-Dioxane	373	03853KE	40000	99	0.2	4.04085	4.04110	40002.5	161.6	123-91-1	25 ppm (90mg/m3/8H)(skin)	orl-mus 5700mg/kg
6. Hexachloroethane	199	12604HBV	2000	99	0.2	0.20204	0.20220	2001.6	8.1	67-72-1	1 ppm (10mg/m3/8H)(skin)	orl-gpg 4970mg/kg
7. Methylcyclohexane	1627	08046KN	2000	99	0.2	0.20204	0.20224	2002.0	8.1	108-87-2	N/A	N/A
8. Methyl tert-butyl ether (MTBE)	209	02197JJ	2000	99.8	0.2	0.20042	0.20062	2002.0	8.1	1634-04-4	N/A	orl-rat 4g/kg
9. Propionitrile	349	1395468	20000	99	0.2	2.02042	2.02082	20003.9	80.8	107-12-0	N/A	orl-rat 39mg/kg
10. Tetrahydrofuran	380	113886	10000	99.9	0.2	1.00111	1.00151	10004.0	40.1	109-99-9	20 ppm (590mg/m3/8H)	orl-rat 2500mg/kg
11. 1,2,3,4-Tetramethylbenzene	491	AP01	2000	93	0.2	0.21508	0.21540	2003.0	8.7	488-23-3	N/A	orl-rat 6408mg/kg



- **The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.**
- **Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).**
- **Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.**
- **All Standards, after opening ampule, should be stored with caps tight and under appropriate laboratory conditions.**
- **Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, DC, (1994).**

Method GC6MSD-1: Column: Vocol (60m X 0.25mm ID X 1.5µm film thickness). Temp. 1 = 35°C (10min.), Temp. 2 = 200°C (8.75 min.), Rate = 4°C/min., Injector Temp. = 200°C, Detector Temp. = 220°C. Solvent Delay: 8 minutes. Analysis performed by Candice Warren.

Name	MSD RT (min.)
Methyl tert-butyl ether (MTBE)	13.56
Acrylonitrile	13.79
Di-isopropyl ether	15.44
Propionitrile	18.53
Tetrahydrofuran	20.17
Cyclohexane	20.58
1-Chlorobutane	20.83
Methylcyclohexane	24.84
1,4-Dioxane	26.84
Hexachloroethane	48.44
1,2,3,4-Tetramethylbenzene	51.62

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

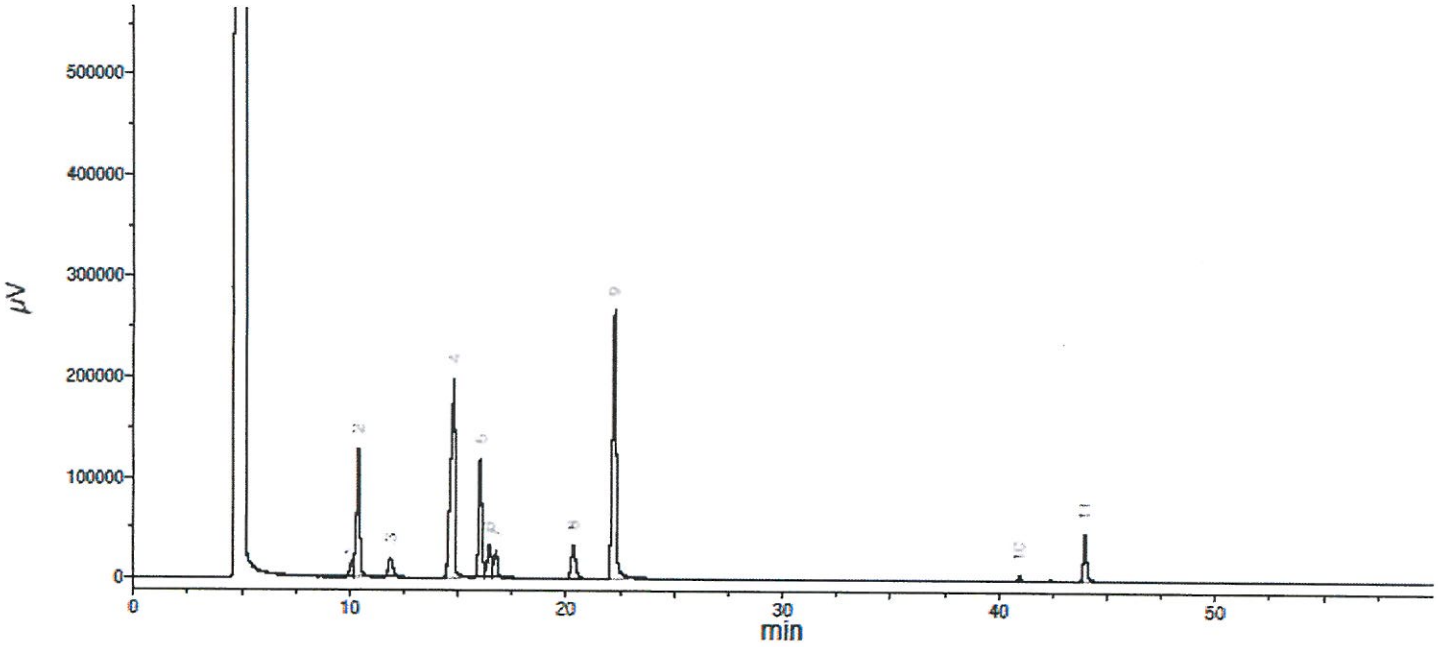
Run 4, "P95319 L050219 [Varied in MeOH]"

Run Length: 60.00 min, 36000 points at 10 points/second.
Created: Fri, May 3, 2019 at 9:08:02 PM.
Sampled: Sequence "050319-GC13M1", Method "GC13-M1".
Analyzed using Method "GC13-M1".

Comments

GC13-M1 Analysis by Candice Warren
Column ID SPB-Vocol 105 meter X 0.53mm X 3.0µm film thickness
Flow rates: Total flow=290mL/min., Helium (carrier)=10mL/min.,
Helium(make-up)=10mL/min., Hydogen(make-up)=40mL/min., Air(make-up)=230mL/min.
Oven Profile: Temp. 1=35°C (Time 1=10 min.), Temp 2=200°C (Time 2=8.75 min.),
Rate = 4°C/min., Total run time=60 min. Injector temp.=200°C, FID Temp.=200°C.
FID Signal = Edaq Channel 1
Standard injection = 0.5µL, Range=6

Name	FID RT (min.)
Methyl tert-butyl ether (MTBE)	9.97
Acrylonitrile	10.40
Di-isopropyl ether	11.87
Propionitrile	14.80
Tetrahydrofuran	16.02
Cyclohexane	16.45
1-Chlorobutane	16.73
Methylcyclohexane	20.34
1,4-Dioxane	22.22
Hexachloroethane	40.96
1,2,3,4-Tetramethylbenzene	43.97



Part # **95319** Lot # **050219**

Printed: 3/17/2020 12:15:25 PM

RESTEK®
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 30067 **Lot No.:** A0147670

Description : 4-Bromofluorobenzene Standard

4-Bromofluorobenzene Standard 2,500µg/mL, P&T Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : April 30, 2024 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	1-Bromo-4-fluorobenzene (BFB) **CAS #** 460-00-4 (Lot 20401KO) **Purity** 99%	2,511.0 µg/mL	+/- 14.7360 µg/mL +/- 140.8035 µg/mL +/- 144.0975 µg/mL		Gravimetric Unstressed Stressed

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

Column:
105m x 0.53mm x 3.0µm
Rtx-502.2 (cat.#10910)

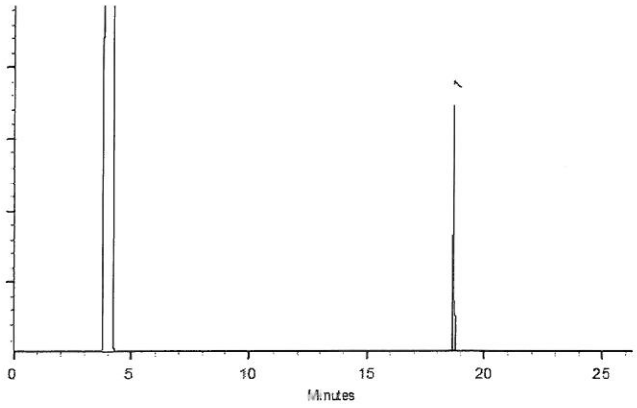
Carrier Gas:
hydrogen-constant pressure 11.0 psi.

Temp. Program:
40°C (hold 2 min.) to 240°C
@ 8°C/min. (hold 5 min.)

Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
FID



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Dustin J. Lidgett

Dustin Lidgett - Mix Technician

Date Mixed: 01-Apr-2019 **Balance:** 1127510105

Justine Albertson - Operations Tech-ARM QC

Date Passed: 04-Apr-2019

Manufactured under Restek's ISO 9001:2015
Registered Quality System
Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k\sqrt{U^2_{gravimetric} + U^2_{homogeneity} + U^2_{storage\ stability} + U^2_{shipping\ stability}}$$

k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

RESTEK®
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Gravimetric Certificate

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 555584 **Lot No.:** A0150958

Description : Custom CLP VOA Surrogate Standard Mix

Custom CLP VOA Surrogate Standard Mix 25,000µg/mL, P&T Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : July 31, 2022 **Storage:** 0°C or colder

CERTIFIED VALUES

Component #	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	1,2-Dichloroethane-d4 **CAS #** 17060-07-0 (Lot PR-29377) **Purity** 99%	25,092.0 µg/mL	+/- 232.206091 µg/mL +/- 1,418.435025 µg/mL +/- 1,451.092293 µg/mL	Gravimetric Unstressed Stressed
2	1-Bromo-4-fluorobenzene (BFB) **CAS #** 460-00-4 (Lot 20401KO) **Purity** 99%	25,076.0 µg/mL	+/- 232.058024 µg/mL +/- 1,417.530555 µg/mL +/- 1,450.166999 µg/mL	Gravimetric Unstressed Stressed
3	Toluene-d8 **CAS #** 2037-26-5 (Lot PR-30245) **Purity** 99%	25,204.0 µg/mL	+/- 233.242560 µg/mL +/- 1,424.766314 µg/mL +/- 1,457.569351 µg/mL	Gravimetric Unstressed Stressed

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

Cydnei L. Crust
Cydnei L. Crust - Mix Technician

Date Mixed: 17-Jul-2019 **Balance:** B707717271

Manufactured under Restek's ISO 9001:2008
Registered Quality System
Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k\sqrt{U^2_{gravimetric} + U^2_{homogeneity} + U^2_{storage\ stability} + U^2_{shipping\ stability}}$$

k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

RESTEK

Safety Data Sheet

Revision Date: 01/05/17
www.restek.com

1. IDENTIFICATION

Catalog Number / Product Name:	**555584 / Custom CLP VOA Surrogate Standard Mix**
Company:	Restek Corporation
Address:	110 Benner Circle Bellefonte, Pa. 16823
Phone#:	814-353-1300
Fax#:	814-353-1309
Emergency#:	800-424-9300 (CHEMTREC) 703-527-3887 (Outside the US)
Email:	www.restek.com
Revision Number:	5
Intended use:	For Laboratory use only

2. HAZARD(S)IDENTIFICATION

Emergency Overview:

GHS Hazard Symbols:

GHS Classification:	Specific Target Organ Systemic Toxicity (STOT) - Single Exposure Category 1 Flammable Liquid Category 2 Acute Toxicity - Dermal Category 3 Acute Toxicity - Oral Category 3
GHS Signal Word:	Danger
GHS Hazard:	Highly flammable liquid and vapour. Toxic if swallowed or in contact with skin. Causes damage to organs.
GHS Precautions:	
Safety Precautions:	Keep away from heat/sparks/open flames/hot surfaces. – No smoking. Keep container tightly closed. Ground/bond container and receiving equipment. Use explosion-proof electrical/ventilation and lighting equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Do not breathe dust/fume/gas/mist/vapours/spray. Wash hands and skin thoroughly after handling. Do not eat, drink or smoke when using this product. Wear protective gloves/protective clothing/eye protection/face protection.
First Aid Measures:	IF SWALLOWED: Immediately call a POISON CENTER/doctor/.... IF ON SKIN: Wash with plenty of soap and water. IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. IF exposed: Call a POISON CENTER or doctor/physician. Call a POISON CENTER or doctor/physician if you feel unwell. Specific treatment see section 4. Rinse mouth. Take off immediately all contaminated clothing and wash it before reuse. In case of fire: Use extinguishing media in section 5 for extinction.
Storage:	Store in a well-ventilated place. Keep cool. Store locked up.

Disposal: Dispose of contents/container according to section 13 of the SDS.

Single Exposure Target Organs: No data available.

Repeated Exposure Target Organs: No data available.

3. COMPOSITION / INFORMATION ON INGREDIENT

Chemical Name	CAS #	EINEC #	% Composition
methanol	67-56-1	200-659-6	92.500000
1,2-dichloroethane-d4	17060-07-0		2.500000
toluene-d8	2037-26-5	218-009-5	2.500000
1-bromo-4-fluorobenzene	460-00-4	207-300-2	2.500000

4. FIRST-AID MEASURES

Inhalation: Remove to fresh air. If breathing is difficult, have a trained individual administer oxygen. If not breathing, give artificial respiration and have a trained individual administer oxygen. Get medical attention immediately

Eyes: Flush eyes with plenty of water for at least 20 minutes retracting eyelids often. Tilt the head to prevent chemical from transferring to the uncontaminated eye. Get immediate medical attention.

Skin Contact: Wash with soap and water. Remove contaminated clothing and launder. Get medical attention if irritation develops or persists.

Ingestion: Do not induce vomiting and seek medical attention immediately. Drink two glasses of water or milk to dilute. Provide medical care provider with this SDS.

5. FIRE- FIGHTING MEASURES

Extinguishing Media: Use alcohol resistant foam, carbon dioxide, or dry chemical extinguishing agents. Water may be ineffective but water spray can be used extinguish a fire if swept across the base of the flames. Water can absorb heat and keep exposed material from being damaged by fire.

Fire and/or Explosion Hazards: Vapors may be ignited by heat, sparks, flames or other sources of ignition at or above the low flash point giving rise to a fire (Class B). Vapors are heavier than air and may travel to a source of ignition and flash back.

Fire Fighting Methods and Protection: Do not enter fire area without proper protection including self-contained breathing apparatus and full protective equipment. Fight fire from a safe distance and a protected location due to the potential of hazardous vapors and decomposition products. Flammable component(s) of this material may be lighter than water and burn while floating on the surface. Use water spray/fog for cooling.

Hazardous Combustion Products: Carbon dioxide, Carbon monoxide

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions and Equipment: Exposure to the spilled material may be severely irritating or toxic. Follow personal protective equipment recommendations found in Section 8 of this SDS. Personal protective equipment needs must be evaluated based on information provided on this sheet and the special circumstances created by the spill including; the material spilled, the quantity of the spill, the area in which the spill occurred, and the expertise of employees in the area responding to the spill. Never exceed any occupational exposure limits.

Methods for Clean-up: Prevent the spread of any spill to minimize harm to human health and the environment if safe to do so. Wear complete and proper personal protective equipment following the recommendation of Section 8 at a minimum. Dike with suitable absorbent material like granulated clay. Gather and store in a sealed container pending a waste disposal evaluation.

7. HANDLING AND STORAGE

Handling Technical Measures and Precautions:	Toxic or severely irritating material. Avoid contacting and avoid breathing the material. Use only in a well ventilated area. Use spark-proof tools and explosion-proof equipment
Storage Technical Measures and Conditions:	Store in a cool dry ventilated location. Isolate from incompatible materials and conditions. Keep container(s) closed. Keep away from sources of ignition

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

United States:

Chemical Name	CAS No.	IDLH	ACGIH STEL	ACGIH TLV-TWA	OSHA Exposure Limit
methanol	67-56-1	6000 ppm IDLH	250 ppm STEL	200 ppm TWA	200 ppm TWA; 260 mg/m3 TWA
1,2-dichloroethane-d4	17060-07-0	No data available.	No data available.	No data available.	No data available.
toluene-d8	2037-26-5	No data available.	No data available.	No data available.	No data available.
1-bromo-4-fluorobenzene	460-00-4	No data available.	No data available.	No data available.	No data available.

Personal Protection:

Engineering Measures:	Local exhaust ventilation is recommended when generating excessive levels of vapors from handling or thermal processing.
Respiratory Protection:	Respiratory protection may be required to avoid overexposure when handling this product. General or local exhaust ventilation is the preferred means of protection. Use a respirator if general room ventilation is not available or sufficient to eliminate symptoms.If an exposure limit is exceeded or if an operator is experiencing symptoms of inhalation overexposure as explained in Section 3, provide respiratory protection.
Eye Protection:	Wear chemically resistant safety glasses with side shields when handling this product. Do not wear contact lenses.
Skin Protection:	Wear protective gloves. Inspect gloves for chemical break-through and replace at regular intervals. Clean protective equipment regularly. Wash hands and other exposed areas with mild soap and water before eating, drinking, and when leaving work

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance, color:	No data available.
Odor:	Mild
Physical State:	No data available.
pH:	No data available.
Vapor Pressure:	No data available.
Vapor Density:	1.1 (air = 1)
Boiling Point:	No data available.
Melting Point:	-98 °C
Flash Point:	50
Flammability:	Highly Flammable
Upper Flammable/Explosive Limit, % in air:	36
Lower Flammable/Explosive Limit, % in air:	6
Autoignition Temperature:	464 deg C
Decomposition Temperature:	No data available.
Specific Gravity:	0.791 - 0.792 g/cm3 at 20 °C
Evaporation Rate:	No data available.
Odor Threshold:	No data available.
Solubility:	Moderate; 50-99%
Partition Coefficient: n-octanol in water:	No data available.
VOC % by weight:	92.5
Molecular Weight:	32.04

10. STABILITY AND REACTIVITY

Stability:	Stable under normal conditions.
Conditions to Avoid:	No data available.
Materials to Avoid / Chemical Incompatiability:	Strong oxidizing agents
Hazardous Decomposition Products:	Carbon dioxide Carbon monoxide

11. TOXICOLOGICAL INFORMATION

Routes of Entry:	Inhalation, Skin Contact, Eye Contact, Ingestion
Target Organs Potentially Affected By Exposure:	Eyes, Central nervous system stimulation, Skin, GI Tract, Respiratory Tract
Chemical Interactions That Change Toxicity:	None Known

Immediate (Acute) Health Effects by Route of Exposure:

Inhalation Irritation:	Can cause moderate respiratory irritation, dizziness, weakness, fatigue, nausea and headache.
Inhalation Toxicity:	Harmful! Can cause systemic damage (see "Target Organs)Methanol can cause central nervous system depression and overexposure can cause damage to the optic nerve resulting in visual impairment or blindness.
Skin Contact:	Can cause moderate skin irritation, defatting, and dermatitis. Not likely to cause permanent damage.
Eye Contact:	Can cause moderate irritation, tearing and reddening, but not likely to permanently injure eye tissue.
Ingestion Irritation:	Irritating to mouth, throat, and stomach. Can cause abdominal discomfort, nausea, vomiting and diarrhea.Highly toxic and may be fatal if swallowed.
Ingestion Toxicity:	Toxic if swallowed. May cause target organ failure and/or death.May be fatal if swallowed.

Long-Term (Chronic) Health Effects:

Carcinogenicity:	No data.
Reproductive and Developmental Toxicity:	Contains a known human reproductive and/or developmental hazard.
Inhalation:	Upon prolonged and/or repeated exposure, can cause moderate respiratory irritation, dizziness, weakness, fatigue, nausea and headache.Harmful! Can cause systemic damage upon prolonged and/or repeated exposure (see "Target Organs)
Skin Contact:	Upon prolonged or repeated contact, can cause moderate skin irritation, defatting, and dermatitis. Not likely to cause permanent damage.
Ingestion:	Toxic if swallowed. May cause target organ failure and/or death.

Component Toxicological Data:
NIOSH:

Chemical Name	CAS No.	LD50/LC50
Methanol	67-56-1	Inhalation LC50 Rat 22500 ppm 8 h
Benzene, 1-bromo-4-fluoro-	460-00-4	Oral LD50 Rat 2700 mg/kg

Component Carcinogenic Data:
OSHA:

Chemical Name	CAS No.
No data available.	

ACGIH:

Chemical Name	CAS No.
No data available.	

NIOSH:

Chemical Name	CAS No.
No data available.	

NTP:

Chemical Name	CAS No.
No data available.	

IARC:

Chemical Name	CAS No.	Group No.
No data.		Group 1
No data.		Group 2A
No data.		Group 2B

12. ECOLOGICAL INFORMATION

Overview:	Moderate ecological hazard. This product may be dangerous to plants and/or wildlife.
Mobility:	No data
Persistence:	No data
Bioaccumulation:	No data
Degradability:	Biodegrades slowly.
Ecological Toxicity Data:	No data available.

13. DISPOSAL CONSIDERATIONS

Waste Description of Spent Product:	Spent or discarded material is a hazardous waste.
Disposal Methods:	Dispose of by incineration following Federal, State, Local, or Provincial regulations.
Waste Disposal of Packaging:	Comply with all Local, State, Federal, and Provincial Environmental Regulations.

14. TRANSPORTATION INFORMATION

United States:	
DOT Proper Shipping Name:	Flammable liquids, n.o.s (Methanol, Toluene-d8)
UN Number:	UN1993
Hazard Class:	3
Packing Group:	II
International:	
IATA Proper Shipping Name:	Flammable liquids, n.o.s (Methanol, Toluene-d8)
UN Number:	UN1993
Hazard Class:	3
Packing Group:	II

Marine Pollutant: No

Chemical Name	CAS#	Marine Pollutant	Severe Marine Pollutant
No data available.			

15. REGULATORY INFORMATION

United States:

Chemical Name	CAS#	CERCLA	SARA 313	SARA EHS 313	TSCA
methanol	67-56-1	X	X	-	X
1,2-dichloroethane-d4	17060-07-0	-	-	-	-
toluene-d8	2037-26-5	-	-	-	-
1-bromo-4-fluorobenzene	460-00-4	-	-	-	X

The following chemicals are listed on CA Prop 65:

Chemical Name	CAS #	Regulation
Methanol	67-56-1	Prop 65 Devolop Tox

State Right To Know Listing:

Chemical Name	CAS#	New Jersey	Massachusetts	Pennsylvania	California
methanol	67-56-1	X	X	X	X
1,2-dichloroethane-d4	17060-07-0	-	-	-	-
toluene-d8	2037-26-5	-	-	-	-
1-bromo-4-fluorobenzene	460-00-4	-	-	-	-

16. OTHER INFORMATION

Prior Version Date:	02/24/14
Other Information:	Any changes to the SDS compared to previous versions are marked by a vertical line in front of the concerned paragraph.
References:	No data available.

Disclaimer:

Restek Corporation provides the descriptions, data and information contained herein in good faith but makes no representation as to its comprehensiveness or accuracy. It is provided for your guidance only. Because many factors may affect processing or application/use, Restek Corporation recommends you perform an assessment to determine the suitability of a product for your particular purpose prior to use. No warranties of any kind, either expressed or implied, including fitness for a particular purpose, are made regarding prodcuts described, data or information set forth. In no case shall the descriptions, information, or data provided be considered a part of our terms and conditions of sale. Further, the descriptions, data and information furnished hereunder are given gratis. No obligation or liability for the description, data and information given are assumed. All such being given and accepted at your risk.

RESTEK®
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Gravimetric Certificate

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ilac-MRA

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 555583 **Lot No.:** A0150960

Description : Custom CLP VOA Internal Standard Mix

Custom CLP VOA Internal Standard Mix 25,000µg/mL, P&T Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : July 31, 2022 **Storage:** 0°C or colder

CERTIFIED VALUES

Component #	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	1,4-Difluorobenzene **CAS #** 540-36-3 (Lot MKBN8571V) **Purity** 99%	25,028.0 µg/mL	+/- 231.613823 µg/mL +/- 1,414.817145 µg/mL +/- 1,447.391117 µg/mL	Gravimetric Unstressed Stressed
2	Bromochloromethane **CAS #** 74-97-5 (Lot 00008541) **Purity** 98%	25,021.4 µg/mL	+/- 231.552375 µg/mL +/- 1,414.441790 µg/mL +/- 1,447.007120 µg/mL	Gravimetric Unstressed Stressed
3	Chlorobenzene-d5 **CAS #** 3114-55-4 (Lot PR-23926) **Purity** 99%	25,152.0 µg/mL	+/- 232.761343 µg/mL +/- 1,421.826787 µg/mL +/- 1,454.562146 µg/mL	Gravimetric Unstressed Stressed

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

Cydnei L. Crust
Cydnei L. Crust - Mix Technician

Date Mixed: 17-Jul-2019 **Balance:** B707717271

Manufactured under Restek's ISO 9001:2008
Registered Quality System
Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k\sqrt{U^2_{gravimetric} + U^2_{homogeneity} + U^2_{storage\ stability} + U^2_{shipping\ stability}}$$

k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

RESTEK

Safety Data Sheet

Revision Date: 01/05/17
www.restek.com

1. IDENTIFICATION

Catalog Number / Product Name:	**555583 / Custom CLP VOA Internal Standard Mix**
Company:	Restek Corporation
Address:	110 Benner Circle Bellefonte, Pa. 16823
Phone#:	814-353-1300
Fax#:	814-353-1309
Emergency#:	800-424-9300 (CHEMTREC) 703-527-3887 (Outside the US)
Email:	www.restek.com
Revision Number:	5
Intended use:	For Laboratory use only

2. HAZARD(S)IDENTIFICATION

Emergency Overview:

GHS Hazard Symbols:

GHS Classification:	Specific Target Organ Systemic Toxicity (STOT) - Single Exposure Category 1 Hazardous for the ozone layer Flammable Liquid Category 2 Acute Toxicity - Dermal Category 3 Acute Toxicity - Oral Category 3
GHS Signal Word:	Danger
GHS Hazard:	Highly flammable liquid and vapour. Toxic if swallowed or in contact with skin. Causes damage to organs. Harms public health and the environment by destroying ozone in the upper atmosphere.
GHS Precautions:	
Safety Precautions:	Keep away from heat/sparks/open flames/hot surfaces. – No smoking. Keep container tightly closed. Ground/bond container and receiving equipment. Use explosion-proof electrical/ventilation and lighting equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Do not breathe dust/fume/gas/mist/vapours/spray. Wash hands and skin thoroughly after handling. Do not eat, drink or smoke when using this product. Wear protective gloves/protective clothing/eye protection/face protection.
First Aid Measures:	IF SWALLOWED: Immediately call a POISON CENTER/doctor/.... IF ON SKIN: Wash with plenty of soap and water. IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. IF exposed: Call a POISON CENTER or doctor/physician. Call a POISON CENTER or doctor/physician if you feel unwell. Specific treatment see section 4. Rinse mouth. Take off immediately all contaminated clothing and wash it before reuse. In case of fire: Use extinguishing media in section 5 for extinction.

Storage: Store in a well-ventilated place. Keep cool.
Store locked up.

Disposal: Dispose of contents/container according to section 13 of the SDS.
Refer to manufacturer/supplier for information on recovery/recycling.

Single Exposure Target Organs: No data available.

Repeated Exposure Target Organs: No data available.

3. COMPOSITION / INFORMATION ON INGREDIENT

Chemical Name	CAS #	EINEC #	% Composition
methanol	67-56-1	200-659-6	92.500000
1,4-difluorobenzene	540-36-3	208-742-9	2.500000
bromochloromethane	74-97-5	200-826-3	2.500000
chlorobenzene-d5	3114-55-4	221-482-0	2.500000

4. FIRST-AID MEASURES

Inhalation: Remove to fresh air. If breathing is difficult, have a trained individual administer oxygen. If not breathing, give artificial respiration and have a trained individual administer oxygen. Get medical attention immediately

Eyes: Flush eyes with plenty of water for at least 20 minutes retracting eyelids often. Tilt the head to prevent chemical from transferring to the uncontaminated eye. Get immediate medical attention.

Skin Contact: Wash with soap and water. Remove contaminated clothing and launder. Get medical attention if irritation develops or persists.

Ingestion: Do not induce vomiting and seek medical attention immediately. Drink two glasses of water or milk to dilute. Provide medical care provider with this SDS.

5. FIRE- FIGHTING MEASURES

Extinguishing Media: Use alcohol resistant foam, carbon dioxide, or dry chemical extinguishing agents. Water may be ineffective but water spray can be used extinguish a fire if swept across the base of the flames. Water can absorb heat and keep exposed material from being damaged by fire.

Fire and/or Explosion Hazards: Vapors may be ignited by heat, sparks, flames or other sources of ignition at or above the low flash point giving rise to a fire (Class B). Vapors are heavier than air and may travel to a source of ignition and flash back.

Fire Fighting Methods and Protection: Do not enter fire area without proper protection including self-contained breathing apparatus and full protective equipment. Fight fire from a safe distance and a protected location due to the potential of hazardous vapors and decomposition products. Flammable component(s) of this material may be lighter than water and burn while floating on the surface. Use water spray/fog for cooling.

Hazardous Combustion Products: Carbon dioxide, Carbon monoxide

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions and Equipment: Exposure to the spilled material may be severely irritating or toxic. Follow personal protective equipment recommendations found in Section 8 of this SDS. Personal protective equipment needs must be evaluated based on information provided on this sheet and the special circumstances created by the spill including; the material spilled, the quantity of the spill, the area in which the spill occurred, and the expertise of employees in the area responding to the spill. Never exceed any occupational exposure limits.

Methods for Clean-up: Prevent the spread of any spill to minimize harm to human health and the environment if safe to do so. Wear complete and proper personal protective equipment following the recommendation of Section 8 at a minimum. Dike with suitable absorbent material like granulated clay.

Gather and store in a sealed container pending a waste disposal evaluation.

7. HANDLING AND STORAGE

Handling Technical Measures and Precautions: Toxic or severely irritating material. Avoid contacting and avoid breathing the material. Use only in a well ventilated area. Use spark-proof tools and explosion-proof equipment

Storage Technical Measures and Conditions: Store in a cool dry ventilated location. Isolate from incompatible materials and conditions. Keep container(s) closed. Keep away from sources of ignition

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

United States:

Chemical Name	CAS No.	IDLH	ACGIH STEL	ACGIH TLV-TWA	OSHA Exposure Limit
methanol	67-56-1	6000 ppm IDLH	250 ppm STEL	200 ppm TWA	200 ppm TWA; 260 mg/m3 TWA
1,4-difluorobenzene	540-36-3	No data available.	No data available.	No data available.	No data available.
bromochloromethane	74-97-5	2000 ppm IDLH	No data available.	200 ppm TWA	200 ppm TWA; 1050 mg/m3 TWA
chlorobenzene-d5	3114-55-4	No data available.	No data available.	No data available.	No data available.

Personal Protection:

Engineering Measures: Local exhaust ventilation is recommended when generating excessive levels of vapors from handling or thermal processing.

Respiratory Protection: Respiratory protection may be required to avoid overexposure when handling this product. General or local exhaust ventilation is the preferred means of protection. Use a respirator if general room ventilation is not available or sufficient to eliminate symptoms.If an exposure limit is exceeded or if an operator is experiencing symptoms of inhalation overexposure as explained in Section 3, provide respiratory protection.

Eye Protection: Wear chemically resistant safety glasses with side shields when handling this product. Do not wear contact lenses.

Skin Protection: Wear protective gloves. Inspect gloves for chemical break-through and replace at regular intervals. Clean protective equipment regularly. Wash hands and other exposed areas with mild soap and water before eating, drinking, and when leaving work

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance, color:	No data available.
Odor:	Mild
Physical State:	No data available.
pH:	No data available.
Vapor Pressure:	No data available.
Vapor Density:	1.1 (air = 1)
Boiling Point:	No data available.
Melting Point:	-98 °C
Flash Point:	36
Flammability:	Highly Flammable
Upper Flammable/Explosive Limit, % in air:	36
Lower Flammable/Explosive Limit, % in air:	6
Autoignition Temperature:	464 deg C
Decomposition Temperature:	No data available.
Specific Gravity:	0.791 - 0.792 g/cm3 at 20 °C
Evaporation Rate:	No data available.
Odor Threshold:	No data available.
Solubility:	Moderate; 50-99%
Partition Coefficient: n-octanol in water:	No data available.
VOC % by weight:	92.5
Molecular Weight:	32.04

10. STABILITY AND REACTIVITY

Stability: Stable under normal conditions.

Conditions to Avoid:	No data available.
Materials to Avoid / Chemical Incompatiability:	Strong oxidizing agents
Hazardous Decomposition Products:	Carbon dioxide Carbon monoxide

11. TOXICOLOGICAL INFORMATION

Routes of Entry:	Inhalation, Skin Contact, Eye Contact, Ingestion
Target Organs Potentially Affected By Exposure:	Eyes, Central nervous system stimulation, Skin, GI Tract, Respiratory Tract, Liver
Chemical Interactions That Change Toxicity:	None Known

Immediate (Acute) Health Effects by Route of Exposure:

Inhalation Irritation:	Can cause moderate respiratory irritation, dizziness, weakness, fatigue, nausea and headache.
Inhalation Toxicity:	Harmful! Can cause systemic damage (see "Target Organs)Methanol can cause central nervous system depression and overexposure can cause damage to the optic nerve resulting in visual impairment or blindness.
Skin Contact:	Can cause moderate skin irritation, defatting, and dermatitis. Not likely to cause permanent damage.
Eye Contact:	Can cause moderate irritation, tearing and reddening, but not likely to permanently injure eye tissue.
Ingestion Irritation:	Irritating to mouth, throat, and stomach. Can cause abdominal discomfort, nausea, vomiting and diarrhea.Highly toxic and may be fatal if swallowed.
Ingestion Toxicity:	Toxic if swallowed. May cause target organ failure and/or death.May be fatal if swallowed.

Long-Term (Chronic) Health Effects:

Carcinogenicity:	No data.
Reproductive and Developmental Toxicity:	Contains a known human reproductive and/or developmental hazard.
Inhalation:	Upon prolonged and/or repeated exposure, can cause moderate respiratory irritation, dizziness, weakness, fatigue, nausea and headache.Harmful! Can cause systemic damage upon prolonged and/or repeated exposure (see "Target Organs)
Skin Contact:	Upon prolonged or repeated contact, can cause moderate skin irritation, defatting, and dermatitis. Not likely to cause permanent damage.
Skin Absorption:	Upon prolonged or repeated exposure, harmful if absorbed through the skin. May cause severe irritation and systemic damage
Ingestion:	Toxic if swallowed. May cause target organ failure and/or death.

Component Toxicological Data:
NIOSH:

Chemical Name	CAS No.	LD50/LC50
Methanol	67-56-1	Inhalation LC50 Rat 22500 ppm 8 h
Chlorobromomethane	74-97-5	Oral LD50 Rat 5000 mg/kg

Component Carcinogenic Data:
OSHA:

Chemical Name	CAS No.
No data available.	

ACGIH:

Chemical Name	CAS No.
No data available.	

NIOSH:

Chemical Name	CAS No.
No data available.	

NTP:

Chemical Name	CAS No.
No data available.	

IARC:

Chemical Name	CAS No.	Group No.
No data.		Group 1
No data.		Group 2A
No data.		Group 2B

12. ECOLOGICAL INFORMATION

Overview:	Moderate ecological hazard. This product may be dangerous to plants and/or wildlife.
Mobility:	No data
Persistence:	No data
Bioaccumulation:	No data
Degradability:	Biodegrades slowly.
Ecological Toxicity Data:	No data available.

13. DISPOSAL CONSIDERATIONS

Waste Description of Spent Product:	Spent or discarded material is a hazardous waste.
Disposal Methods:	Dispose of by incineration following Federal, State, Local, or Provincial regulations.
Waste Disposal of Packaging:	Comply with all Local, State, Federal, and Provincial Environmental Regulations.

14. TRANSPORTATION INFORMATION

United States:	
DOT Proper Shipping Name:	Flammable liquids, toxic, n.o.s. (Methanol, Bromochloromethane)
UN Number:	UN1992
Hazard Class:	3
Packing Group:	II
International:	
IATA Proper Shipping Name:	Flammable liquids, toxic, n.o.s. (Methanol, Bromochloromethane)
UN Number:	UN1992
Hazard Class:	3
Packing Group:	II

Marine Pollutant: No

Chemical Name	CAS#	Marine Pollutant	Severe Marine Pollutant
No data available.			

15. REGULATORY INFORMATION

United States:

Chemical Name	CAS#	CERCLA	SARA 313	SARA EHS 313	TSCA
methanol	67-56-1	X	X	-	X
1,4-difluorobenzene	540-36-3	-	-	-	-
bromochloromethane	74-97-5	-	-	-	X
chlorobenzene-d5	3114-55-4	-	-	-	-

The following chemicals are listed on CA Prop 65:

Chemical Name	CAS #	Regulation
Methanol	67-56-1	Prop 65 Devolop Tox

State Right To Know Listing:

Chemical Name	CAS#	New Jersey	Massachusetts	Pennsylvania	California
methanol	67-56-1	X	X	X	X
1,4-difluorobenzene	540-36-3	-	-	-	-
bromochloromethane	74-97-5	X	X	X	X
chlorobenzene-d5	3114-55-4	-	-	-	-

16. OTHER INFORMATION

Prior Version Date:	02/06/14
Other Information:	Any changes to the SDS compared to previous versions are marked by a vertical line in front of the concerned paragraph.
References:	No data available.
Disclaimer:	Restek Corporation provides the descriptions, data and information contained herein in good faith but makes no representation as to its comprehensiveness or accuracy. It is provided for your guidance only. Because many factors may affect processing or application/use, Restek Corporation recommends you perform an assessment to determine the suitability of a product for your particular purpose prior to use. No warranties of any kind, either expressed or implied, including fitness for a particular purpose, are made regarding prodcuts described, data or information set forth. In no case shall the descriptions, information, or data provided be considered a part of our terms and conditions of sale. Further, the descriptions, data and information furnished hereunder are given gratis. No obligation or liability for the description, data and information given are assumed. All such being given and accepted at your risk.

RESTEK®
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Gravimetric Certificate

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 555581 **Lot No.:** A0153385

Description : Custom 8260 Internal Standard Mix

Custom 8260 Internal Standard Mix 25,000µg/mL, P&T Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : September 30, 2022 **Storage:** 10°C or colder

CERTIFIED VALUES

Component #	Compound		Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	1,4-Dichlorobenzene-d4 **CAS #** 3855-82-1 **Purity** 99%	(Lot PR-18488)	25,060.0 µg/mL	+/- 231.9100 +/- 1,416.6261 +/- 1,449.2417	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
2	1,4-Difluorobenzene **CAS #** 540-36-3 **Purity** 99%	(Lot MKBN8571V)	25,092.0 µg/mL	+/- 232.2061 +/- 1,418.4350 +/- 1,451.0923	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
3	Chlorobenzene-d5 **CAS #** 3114-55-4 **Purity** 99%	(Lot PR-29571/02028CZ1)	25,056.0 µg/mL	+/- 231.8729 +/- 1,416.4000 +/- 1,449.0104	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
4	Pentafluorobenzene **CAS #** 363-72-4 **Purity** 99%	(Lot MKCH1850)	25,072.0 µg/mL	+/- 232.0210 +/- 1,417.3044 +/- 1,449.9357	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

Joseph Jaglowski - Mix Technician

Date Mixed: 27-Sep-2019 **Balance:** B707717271

Manufactured under Restek's ISO 9001:2008
Registered Quality System
Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k\sqrt{U^2_{gravimetric} + U^2_{homogeneity} + U^2_{storage\ stability} + U^2_{shipping\ stability}}$$

k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

RESTEK

Safety Data Sheet

Revision Date: 12/15/16
www.restek.com

1. IDENTIFICATION

Catalog Number / Product Name:	**555581 / Custom 8260 Internal Standard Mix**
Company:	Restek Corporation
Address:	110 Benner Circle Bellefonte, Pa. 16823
Phone#:	814-353-1300
Fax#:	814-353-1309
Emergency#:	800-424-9300 (CHEMTREC) 703-527-3887 (Outside the US)
Email:	www.restek.com
Revision Number:	7
Intended use:	For Laboratory use only

2. HAZARD(S)IDENTIFICATION

Emergency Overview:

GHS Hazard Symbols:

GHS Classification:	Specific Target Organ Systemic Toxicity (STOT) - Single Exposure Category 1 Flammable Liquid Category 2 Acute Toxicity - Dermal Category 3 Acute Toxicity - Oral Category 3
GHS Signal Word:	Danger
GHS Hazard:	Highly flammable liquid and vapour. Toxic if swallowed or in contact with skin. Causes damage to organs.
GHS Precautions:	
Safety Precautions:	Keep away from heat/sparks/open flames/hot surfaces. – No smoking. Keep container tightly closed. Ground/bond container and receiving equipment. Use explosion-proof electrical/ventilation and lighting equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Do not breathe dust/fume/gas/mist/vapours/spray. Wash hands and skin thoroughly after handling. Do not eat, drink or smoke when using this product. Wear protective gloves/protective clothing/eye protection/face protection.
First Aid Measures:	IF SWALLOWED: Immediately call a POISON CENTER/doctor/.... IF ON SKIN: Wash with plenty of soap and water. IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. IF exposed: Call a POISON CENTER or doctor/physician. Call a POISON CENTER or doctor/physician if you feel unwell. Specific treatment see section 4. Rinse mouth. Take off immediately all contaminated clothing and wash it before reuse. In case of fire: Use extinguishing media in section 5 for extinction.
Storage:	Store in a well-ventilated place. Keep cool. Store locked up.

Disposal: Dispose of contents/container according to section 13 of the SDS.

Single Exposure Target Organs: No data available.

Repeated Exposure Target Organs: No data available.

3. COMPOSITION / INFORMATION ON INGREDIENT

Chemical Name	CAS #	EINEC #	% Composition
methanol	67-56-1	200-659-6	90.000000
1,4-difluorobenzene	540-36-3	208-742-9	2.500000
pentafluorobenzene	363-72-4	206-658-7	2.500000
1,4-dichlorobenzene-d4	3855-82-1		2.500000
chlorobenzene-d5	3114-55-4	221-482-0	2.500000

4. FIRST-AID MEASURES

Inhalation: Remove to fresh air. If breathing is difficult, have a trained individual administer oxygen. If not breathing, give artificial respiration and have a trained individual administer oxygen. Get medical attention immediately

Eyes: Flush eyes with plenty of water for at least 20 minutes retracting eyelids often. Tilt the head to prevent chemical from transferring to the uncontaminated eye. Get immediate medical attention.

Skin Contact: Wash with soap and water. Remove contaminated clothing and launder. Get medical attention if irritation develops or persists.

Ingestion: Do not induce vomiting and seek medical attention immediately. Drink two glasses of water or milk to dilute. Provide medical care provider with this SDS.

5. FIRE- FIGHTING MEASURES

Extinguishing Media: Use alcohol resistant foam, carbon dioxide, or dry chemical extinguishing agents. Water may be ineffective but water spray can be used extinguish a fire if swept across the base of the flames. Water can absorb heat and keep exposed material from being damaged by fire.

Fire and/or Explosion Hazards: Vapors may be ignited by heat, sparks, flames or other sources of ignition at or above the low flash point giving rise to a fire (Class B). Vapors are heavier than air and may travel to a source of ignition and flash back.

Fire Fighting Methods and Protection: Do not enter fire area without proper protection including self-contained breathing apparatus and full protective equipment. Fight fire from a safe distance and a protected location due to the potential of hazardous vapors and decomposition products. Flammable component(s) of this material may be lighter than water and burn while floating on the surface. Use water spray/fog for cooling.

Hazardous Combustion Products: Carbon dioxide, Carbon monoxide

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions and Equipment: Exposure to the spilled material may be severely irritating or toxic. Follow personal protective equipment recommendations found in Section 8 of this SDS. Personal protective equipment needs must be evaluated based on information provided on this sheet and the special circumstances created by the spill including; the material spilled, the quantity of the spill, the area in which the spill occurred, and the expertise of employees in the area responding to the spill. Never exceed any occupational exposure limits.

Methods for Clean-up: Prevent the spread of any spill to minimize harm to human health and the environment if safe to do so. Wear complete and proper personal protective equipment following the recommendation of Section 8 at a minimum. Dike with suitable absorbent material like granulated clay. Gather and store in a sealed container pending a waste disposal

evaluation.

7. HANDLING AND STORAGE

Handling Technical Measures and Precautions: Toxic or severely irritating material. Avoid contacting and avoid breathing the material. Use only in a well ventilated area. Use spark-proof tools and explosion-proof equipment

Storage Technical Measures and Conditions: Store in a cool dry ventilated location. Isolate from incompatible materials and conditions. Keep container(s) closed. Keep away from sources of ignition

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

United States:

Chemical Name	CAS No.	IDLH	ACGIH STEL	ACGIH TLV-TWA	OSHA Exposure Limit
methanol	67-56-1	6000 ppm IDLH	250 ppm STEL	200 ppm TWA	200 ppm TWA; 260 mg/m3 TWA
1,4-difluorobenzene	540-36-3	ND		No TLV	No data available.
pentafluorobenzene	363-72-4	ND		No TLV	No data available.
1,4-dichlorobenzene-d4	3855-82-1	ND		No TLV	No data available.
chlorobenzene-d5	3114-55-4	ND		No TLV	No data available.

Personal Protection:

Engineering Measures: Local exhaust ventilation is recommended when generating excessive levels of vapors from handling or thermal processing.

Respiratory Protection: Respiratory protection may be required to avoid overexposure when handling this product. General or local exhaust ventilation is the preferred means of protection. Use a respirator if general room ventilation is not available or sufficient to eliminate symptoms.If an exposure limit is exceeded or if an operator is experiencing symptoms of inhalation overexposure as explained in Section 3, provide respiratory protection.

Eye Protection: Wear chemically resistant safety glasses with side shields when handling this product. Do not wear contact lenses.

Skin Protection: Wear protective gloves. Inspect gloves for chemical break-through and replace at regular intervals. Clean protective equipment regularly. Wash hands and other exposed areas with mild soap and water before eating, drinking, and when leaving work

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance, color:	No data available.
Odor:	Mild
Physical State:	No data available.
pH:	No data available.
Vapor Pressure:	No data available.
Vapor Density:	1.1 (air = 1)
Boiling Point:	No data available.
Melting Point:	-98 °C
Flash Point:	36
Flammability:	Highly Flammable
Upper Flammable/Explosive Limit, % in air:	36
Lower Flammable/Explosive Limit, % in air:	6
Autoignition Temperature:	464 deg C
Decomposition Temperature:	No data available.
Specific Gravity:	0.791 - 0.792 g/cm3 at 20 °C
Evaporation Rate:	No data available.
Odor Threshold:	No data available.
Solubility:	Moderate; 50-99%
Partition Coefficient: n-octanol in water:	No data available.
VOC % by weight:	90
Molecular Weight:	32.04

10. STABILITY AND REACTIVITY

Stability:	Stable under normal conditions.
Conditions to Avoid:	No data available.
Materials to Avoid / Chemical Incompatiability:	Strong oxidizing agents

Hazardous Decomposition Products: Carbon dioxide Carbon monoxide

11. TOXICOLOGICAL INFORMATION

Routes of Entry: Inhalation, Skin Contact, Eye Contact, Ingestion
Target Organs Potentially Affected By Exposure: Eyes, Central nervous system stimulation, Skin, GI Tract, Respiratory Tract
Chemical Interactions That Change Toxicity: None Known

Immediate (Acute) Health Effects by Route of Exposure:

Inhalation Irritation: Can cause moderate respiratory irritation, dizziness, weakness, fatigue, nausea and headache.

Inhalation Toxicity: Harmful! Can cause systemic damage (see "Target Organs)Methanol can cause central nervous system depression and overexposure can cause damage to the optic nerve resulting in visual impairment or blindness.

Skin Contact: Can cause moderate skin irritation, defatting, and dermatitis. Not likely to cause permanent damage.

Eye Contact: Can cause moderate irritation, tearing and reddening, but not likely to permanently injure eye tissue.

Ingestion Irritation: Irritating to mouth, throat, and stomach. Can cause abdominal discomfort, nausea, vomiting and diarrhea.Highly toxic and may be fatal if swallowed.

Ingestion Toxicity: Toxic if swallowed. May cause target organ failure and/or death.May be fatal if swallowed.

Long-Term (Chronic) Health Effects:

Carcinogenicity: No data.

Reproductive and Developmental Toxicity: Contains a known human reproductive and/or developmental hazard.

Inhalation: Upon prolonged and/or repeated exposure, can cause moderate respiratory irritation, dizziness, weakness, fatigue, nausea and headache.Harmful! Can cause systemic damage upon prolonged and/or repeated exposure (see "Target Organs)

Skin Contact: Upon prolonged or repeated contact, can cause moderate skin irritation, defatting, and dermatitis. Not likely to cause permanent damage.

Skin Absorption: Upon prolonged or repeated exposure, harmful if absorbed through the skin. May cause severe irritation and systemic damage

Ingestion: Toxic if swallowed. May cause target organ failure and/or death.

Component Toxicological Data:
NIOSH:

Chemical Name	CAS No.	LD50/LC50
Methanol	67-56-1	Inhalation LC50 Rat 22500 ppm 8 h
Benzene, 1,2,3,4,5-pentafluoro-	363-72-4	Oral LD50 Rat 2 g/kg

Component Carcinogenic Data:
OSHA:

Chemical Name	CAS No.
No data available.	

ACGIH:

Chemical Name	CAS No.
No data available.	

NIOSH:

Chemical Name	CAS No.
No data available.	

NTP:

Chemical Name	CAS No.
No data available.	

IARC:

Chemical Name	CAS No.	Group No.
No data.		Group 1

No data. Group 2A
No data. Group 2B

12. ECOLOGICAL INFORMATION

Overview: Moderate ecological hazard. This product may be dangerous to plants and/or wildlife.
Mobility: No data
Persistence: No data
Bioaccumulation: No data
Degradability: Biodegrades slowly.
Ecological Toxicity Data: No data available.

13. DISPOSAL CONSIDERATIONS

Waste Description of Spent Product: Spent or discarded material is a hazardous waste.
Disposal Methods: Dispose of by incineration following Federal, State, Local, or Provincial regulations.
Waste Disposal of Packaging: Comply with all Local, State, Federal, and Provincial Environmental Regulations.

14. TRANSPORTATION INFORMATION

United States:
DOT Proper Shipping Name: Flammable liquids, n.o.s. (Methanol, Pentafluorobenzene)
UN Number: UN1993
Hazard Class: 3
Packing Group: II

International:
IATA Proper Shipping Name: Flammable liquids, n.o.s. (Methanol, Pentafluorobenzene)
UN Number: UN1993
Hazard Class: 3
Packing Group: II

Marine Pollutant: No

Chemical Name	CAS#	Marine Pollutant	Severe Marine Pollutant
No data available.			

15. REGULATORY INFORMATION

United States:

Chemical Name	CAS#	CERCLA	SARA 313	SARA EHS 313	TSCA
methanol	67-56-1	X	X	-	X
1,4-difluorobenzene	540-36-3	-	-	-	-
pentafluorobenzene	363-72-4	-	-	-	X
1,4-dichlorobenzene-d4	3855-82-1	-	-	-	-
chlorobenzene-d5	3114-55-4	-	-	-	-

The following chemicals are listed on CA Prop 65:

Chemical Name	CAS #	Regulation
Methanol	67-56-1	Prop 65 Devolop Tox

State Right To Know Listing:

Chemical Name	CAS#	New Jersey	Massachusetts	Pennsylvania	California
methanol	67-56-1	X	X	X	X
1,4-difluorobenzene	540-36-3	-	-	-	-
pentafluorobenzene	363-72-4	-	-	-	-
1,4-dichlorobenzene-d4	3855-82-1	-	-	-	-
chlorobenzene-d5	3114-55-4	-	-	-	-

16. OTHER INFORMATION

Prior Version Date:	03/03/16
Other Information:	Any changes to the SDS compared to previous versions are marked by a vertical line in front of the concerned paragraph.
References:	No data available.
Disclaimer:	Restek Corporation provides the descriptions, data and information contained herein in good faith but makes no representation as to its comprehensiveness or accuracy. It is provided for your guidance only. Because many factors may affect processing or application/use, Restek Corporation recommends you perform an assessment to determine the suitability of a product for your particular purpose prior to use. No warranties of any kind, either expressed or implied, including fitness for a particular purpose, are made regarding prodcuts described, data or information set forth. In no case shall the descriptions, information, or data provided be considered a part of our terms and conditions of sale. Further, the descriptions, data and information furnished hereunder are given gratis. No obligation or liability for the description, data and information given are assumed. All such being given and accepted at your risk.

RESTEK®
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 30489 **Lot No.:** A0155430

Description : 8260B Acetates Mix

8260B Acetates Mix 2,000 µg/mL, P&T Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : June 30, 2021 **Storage:** 0°C or colder

Handling: This product is photosensitive.

CERTIFIED VALUES

Elution Order	Compound		Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	Methyl acetate		2,012.7 µg/mL	+/- 11.8115 µg/mL		Gravimetric
	CAS # 79-20-9	(Lot SHBK5436)		+/- 121.4437 µg/mL		Unstressed
	Purity 99%			+/- 121.7320 µg/mL		Stressed
2	Vinyl acetate		2,020.0 µg/mL	+/- 11.8545 µg/mL		Gravimetric
	CAS # 108-05-4	(Lot 192709KJ)		+/- 121.8862 µg/mL		Unstressed
	Purity 99%			+/- 122.1755 µg/mL		Stressed
3	Ethyl acetate		2,018.7 µg/mL	+/- 11.8467 µg/mL		Gravimetric
	CAS # 141-78-6	(Lot SHBK2184)		+/- 121.8058 µg/mL		Unstressed
	Purity 99%			+/- 122.0949 µg/mL		Stressed
4	Isopropyl acetate		2,012.7 µg/mL	+/- 11.8115 µg/mL		Gravimetric
	CAS # 108-21-4	(Lot BCBT9845)		+/- 121.4437 µg/mL		Unstressed
	Purity 99%			+/- 121.7320 µg/mL		Stressed
5	Propyl acetate		2,018.7 µg/mL	+/- 11.8467 µg/mL		Gravimetric
	CAS # 109-60-4	(Lot MUZQD)		+/- 121.8058 µg/mL		Unstressed
	Purity 99%			+/- 122.0949 µg/mL		Stressed
6	Butyl acetate		2,020.0 µg/mL	+/- 11.8545 µg/mL		Gravimetric
	CAS # 123-86-4	(Lot SHBK5137)		+/- 121.8862 µg/mL		Unstressed
	Purity 99%			+/- 122.1755 µg/mL		Stressed
7	Amyl acetate		2,017.3 µg/mL	+/- 11.8388 µg/mL		Gravimetric
	CAS # 628-63-7	(Lot 41325/1)		+/- 121.7253 µg/mL		Unstressed
	Purity 99%			+/- 122.0142 µg/mL		Stressed

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

Tech Tips:
Vinyl acetate is a volatile organic ester included in the target lists of several US EPA and other methods . Under acidic conditions, esters react with alcohols to form new esters (transesterification). Methanol-based mixes containing halogenated compounds are slightly acidic, so it is important to minimize exposure of vinyl acetate to mixes of halogenated compounds in methanol. For this reason, we offer vinyl acetate in individual solution, and suggest that it be introduced into the working level calibration solution immediately before use. This will minimize problems and ensure more consistent results.

Column:
105m x 0.53mm x 3.0µm
Rtx-502.2 (cat.#10910)

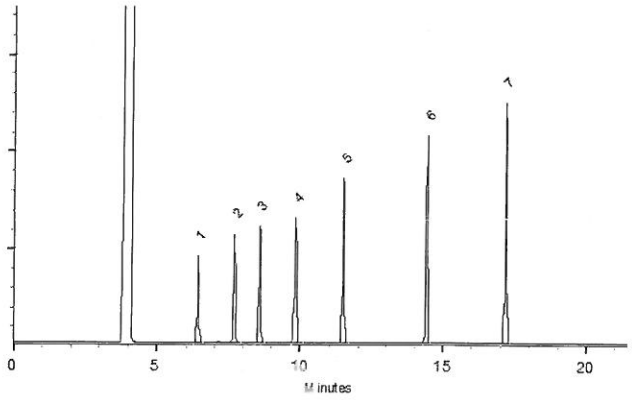
Carrier Gas:
hydrogen-constant pressure 11.0 psi.

Temp. Program:
40°C (hold 2 min.) to 240°C
@ 8°C/min. (hold 5 min.)

Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
FID



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Tom Suckar - Mix Technician

Date Mixed: 02-Dec-2019 **Balance:** B707717271

Justine Albertson - Operations Team-ARM QC

Date Passed: 04-Dec-2019

Manufactured under Restek's ISO 9001:2015
Registered Quality System
Certificate #FM 80397

RESTEK

Safety Data Sheet

Revision Date: 05/14/19
www.restek.com

2 Letter ISO country code/language code: US/EN

1. IDENTIFICATION

Catalog Number / Product Name:	**30489 / 8260B Acetates Mix**
Company:	Restek Corporation
Address:	110 Benner Circle Bellefonte, Pa. 16823
Phone#:	814-353-1300
Fax#:	814-353-1309
Emergency#:	800-424-9300 (CHEMTREC) 703-527-3887 (Outside the US)
Email:	www.restek.com
Revision Number:	14
Intended use:	For Laboratory use only

2. HAZARD(S)IDENTIFICATION

Emergency Overview:

GHS Hazard Symbols:

GHS Classification:	Specific Target Organ Systemic Toxicity (STOT) - Single Exposure Category 1 Flammable Liquid Category 2 Carcinogenicity Category 2 Acute Toxicity - Inhalation Dust / Mist Category 3 Acute Toxicity - Dermal Category 3 Acute Toxicity - Oral Category 3
GHS Signal Word:	Danger
GHS Hazard:	Highly flammable liquid and vapour. Toxic if swallowed, in contact with skin or if inhaled. Suspected of causing cancer. Causes damage to organs.
GHS Precautions:	
Safety Precautions:	Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Keep away from heat/sparks/open flames/hot surfaces. – No smoking. Ground/bond container and receiving equipment. Use explosion-proof electrical/ventilation and lighting equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Do not breathe dust/fume/gas/mist/vapours/spray. Wash hands and skin thoroughly after handling. Do not eat, drink or smoke when using this product. Use only outdoors or in a well-ventilated area. Wear protective gloves/protective clothing/eye protection/face protection.
First Aid Measures:	IF SWALLOWED: Immediately call a POISON CENTER/doctor/.... IF ON SKIN: Wash with plenty of soap and water. IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Specific treatment see section 4. Rinse mouth.

Take off immediately all contaminated clothing and wash it before reuse.
In case of fire: Use extinguishing media in section 5 for extinction.

Storage: Store in a well-ventilated place. Keep container tightly closed.
Store in a well-ventilated place. Keep cool.
Store locked up.

Disposal: Dispose of contents/container according to section 13 of the SDS.

Single Exposure Target Organs: Specific target organ toxicity - Single exposure - STOT SE 1: H370 Causes damage to organs. (C >= 10 %; No information to prove exclusion of certain routes of exposure); Specific target organ toxicity - Single exposure - STOT SE 2: H371 May cause damage to organs. (3 % <= C <10 %; Concentration limits for acute toxicity cannot be translated into GHS from the DSD especially when minimum classifications are given)

Repeated Exposure Target Organs: No data available

3. COMPOSITION / INFORMATION ON INGREDIENT

Chemical Name	CAS #	EINEC #	% Composition
methanol	67-56-1	200-659-6	98.6
pentyl acetate (n-amyl acetate)	628-63-7	211-047-3	0.2
Isopropyl acetate	108-21-4	203-561-1	0.2
n-Butyl acetate	123-86-4	204-658-1	0.2
Vinyl acetate	108-05-4	203-545-4	0.2
n-Propyl acetate	109-60-4	203-686-1	0.2
Methyl acetate	79-20-9	201-185-2	0.2
Ethyl acetate	141-78-6	205-500-4	0.2

4. FIRST-AID MEASURES

Inhalation: Remove to fresh air. If breathing is difficult, have a trained individual administer oxygen. If not breathing, give artificial respiration and have a trained individual administer oxygen. Get medical attention immediately

Eyes: Flush eyes with plenty of water for at least 20 minutes retracting eyelids often. Tilt the head to prevent chemical from transferring to the uncontaminated eye. Get immediate medical attention. Immediately flush eyes with plenty of water for at least 20 minutes retracting eyelids often. Tilt the head to prevent chemical from transferring to the uncontaminated eye. Get immediate medical attention and monitor the eye daily as advised by your physician.

Skin Contact: Wash with soap and water. Remove contaminated clothing and launder. Get medical attention if irritation develops or persists.

Ingestion: Minimal risk of harm if swallowed. Do not induce vomiting. Seek medical attention immediately. Provide medical care provider with this SDS.

5. FIRE- FIGHTING MEASURES

Extinguishing Media: Use alcohol resistant foam, carbon dioxide, or dry chemical extinguishing agents. Water may be ineffective but water spray can be used extinguish a fire if swept across the base of the flames. Water can absorb heat and keep exposed material from being damaged by fire. Use alcohol resistant foam, carbon dioxide, or dry chemical extinguishing agents. Water spray or fog may also be effective for extinguishing if swept across the base of the fire. Water can also be used to absorb heat and keep exposed material from being damaged by fire.

Fire and/or Explosion Hazards: Vapors may be ignited by heat, sparks, flames or other sources of ignition at or above the low flash point giving rise to a Class B fire. Vapors are heavier than air and may travel to a source of ignition and flash back

Fire Fighting Methods and Protection: Do not enter fire area without proper protection including self-contained breathing apparatus and full protective equipment. Fight fire from a safe distance and a protected location due to the potential of hazardous vapors and decomposition products. Flammable component(s) of this material may be lighter than water and burn while floating on the surface.

Hazardous Combustion Products: Carbon dioxide, Carbon monoxide

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions and Equipment: Exposure to the spilled material may be severely irritating or toxic. Follow personal protective equipment recommendations found in Section 8 of this SDS. Personal protective equipment needs must be evaluated based on information provided on this sheet and the special circumstances created by the spill including; the material spilled, the quantity of the spill, the area in which the spill occurred, and the expertise of employees in the area responding to the spill. Never exceed any occupational exposure limits.

Methods for Clean-up: Prevent the spread of any spill to minimize harm to human health and the environment if safe to do so. Wear complete and proper personal protective equipment following the recommendation of Section 8 at a minimum. Dike with suitable absorbent material like granulated clay. Gather and store in a sealed container pending a waste disposal evaluation.

7. HANDLING AND STORAGE

Handling Technical Measures and Precautions: Toxic or severely irritating material. Avoid contacting and avoid breathing the material. Use only in a well ventilated area. Use spark-proof tools and explosion-proof equipment Wash thoroughly after handling Avoid contact with material. Remove contaminated clothing and wash before reuse "Empty" containers retain product residue (liquid and/or vapor) and can be dangerous.

Storage Technical Measures and Conditions: Store in a cool dry ventilated location. Isolate from incompatible materials and conditions. Keep container(s) closed. Keep away from sources of ignition Keep away from heat, sparks, and flame

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

United States:

Chemical Name	CAS No.	IDLH	ACGIH STEL	ACGIH TLV-TWA	OSHA Exposure Limit
methanol	67-56-1	6000 ppm IDLH	250 ppm STEL	200 ppm TWA	200 ppm TWA; 260 mg/m3 TWA
Vinyl acetate	108-05-4	Not established	15 ppm STEL; 53 mg/m3 STEL	10 ppm TWA; 35 mg/m3 TWA	No data available

Personal Protection:

Engineering Measures: Local exhaust ventilation or other engineering controls are normally required when handling or using this product to avoid overexposure.

Respiratory Protection: No respiratory protection required under normal conditions of use. Provide general room exhaust ventilation if symptoms of overexposure occur as explained Section 3. A respirator is not normally required.If an exposure limit is exceeded or if an operator is experiencing symptoms of inhalation overexposure as explained in Section 3, provide respiratory protection.

Eye Protection: Wear chemically resistant safety glasses with side shields when handling this product. Do not wear contact lenses.

Skin Protection: Not normally considered a skin hazard. Where use can result in skin contact, practice good personal hygiene and wear a barrier cream and/or impervious surgical style gloves. Wash hands and other exposed areas with mild soap and water before eating, drinking, and when leaving work. Wear protective gloves. Inspect gloves for chemical break-through and replace at regular intervals. Clean protective equipment regularly. Wash hands and other exposed areas with mild soap and water before eating, drinking, and when leaving work

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance, color:	No data available
Odor:	Mild
Physical State:	Liquid
pH:	Not applicable
Vapor Pressure:	No data available
Vapor Density:	1.1 (air = 1)
Boiling Point (°C):	72.8 °C (HSDB) 64.7 °C at 760 mmHg (HSDB)

Melting Point (°C):	-98 °C
Flash Point (°F):	18
Flammability:	Highly Flammable Extremely Flammable
Upper Flammable/Explosive Limit, % in air:	36
Lower Flammable/Explosive Limit, % in air:	6
Autoignition Temperature (°C):	464 deg C
Decomposition Temperature (°C):	0
Specific Gravity:	0.791 - 0.792 g/cm3 at 20 °C
Evaporation Rate:	No data available
Odor Threshold:	No data available
Solubility:	Moderate; 50-99%
Partition Coefficient: n-octanol in water:	No data available
VOC % by weight:	99.8
Molecular Weight:	32.04

10. STABILITY AND REACTIVITY

Stability:	Stable under normal conditions.
Conditions to Avoid:	None known.Contamination
Materials to Avoid / Chemical Incompatiability:	Acids Oxidizing materials Peroxides Strong alkalies
Hazardous Decomposition Products:	Carbon dioxide Carbon monoxide

11. TOXICOLOGICAL INFORMATION

Routes of Entry:	Inhalation, Skin Contact, Eye Contact, Ingestion
Target Organs Potentially Affected By Exposure:	Eyes, Central nervous system stimulation, Skin, GI Tract, Respiratory Tract
Chemical Interactions That Change Toxicity:	None Known

Immediate (Acute) Health Effects by Route of Exposure:

Inhalation Irritation:	Can cause moderate respiratory irritation, dizziness, weakness, fatigue, nausea and headache.
Inhalation Toxicity:	Harmful! Can cause systemic damage (see "Target Organs)Methanol can cause central nervous system depression and overexposure can cause damage to the optic nerve resulting in visual impairment or blindness.
Skin Contact:	Can cause moderate skin irritation, defatting, and dermatitis. Not likely to cause permanent damage.
Eye Contact:	Can cause moderate irritation, tearing and reddening, but not likely to permanently injure eye tissue.
Ingestion Irritation:	Irritating to mouth, throat, and stomach. Can cause abdominal discomfort, nausea, vomiting and diarrhea.Highly toxic and may be fatal if swallowed.
Ingestion Toxicity:	Toxic if swallowed. May cause target organ failure and/or death.May be fatal if swallowed.

Long-Term (Chronic) Health Effects:

Carcinogenicity:	No data.
Reproductive and Developmental Toxicity:	No data available to indicate product or any components present at greater than 0.1% may cause birth defects.
Inhalation:	Upon prolonged and/or repeated exposure, can cause moderate respiratory irritation, dizziness, weakness, fatigue, nausea and headache.Harmful! Can cause systemic damage upon prolonged and/or repeated exposure (see "Target Organs)
Skin Contact:	Upon prolonged or repeated contact, can cause moderate skin irritation, defatting, and dermatitis. Not likely to cause permanent damage.
Skin Absorption:	Upon prolonged or repeated exposure, no hazard in normal industrial use.
Ingestion:	Toxic if swallowed. May cause target organ failure and/or death.

Component Toxicological Data:
NIOSH:

Chemical Name	CAS No.	LD50/LC50
Vinyl acetate Acetic acid, vinyl ester	108-05-4	Inhalation LC50 Rat : 11400 mg/m3/4H; Inhalation LC50 Mouse : 1550 ppm/4H; Oral LD50 Rat : 2920 mg/kg; Oral LD50 Mouse : 1613 mg/kg; Dermal LD50 Rabbit : 2335 mg/kg

Methanol	67-56-1	Inhalation LC50 Rat 22500 ppm 8 h

Component Carcinogenic Data:

OSHA:

Chemical Name	CAS No.	
Vinyl acetate	108-05-4	Present

ACGIH:

Chemical Name	CAS No.	
Vinyl acetate	108-05-4	A3 - Confirmed Animal Carcinogen with Unknown Relevance to Humans

NIOSH:

Chemical Name	CAS No.
No data available	

NTP:

Chemical Name	CAS No.
No data available	

IARC:

Chemical Name	CAS No.	Group No.
Monograph 63; 1995	108-05-4	Group 2B

12. ECOLOGICAL INFORMATION

Overview:	Moderate ecological hazard. This product may be dangerous to plants and/or wildlife.
Mobility:	No data
Persistence:	No data
Bioaccumulation:	No data
Degradability:	Biodegrades slowly.
Ecological Toxicity Data:	No data available

13. DISPOSAL CONSIDERATIONS

Waste Description of Spent Product:	Spent or discarded material is a hazardous waste.Mixing spent or discarded material with other materials may render the mixture hazardous. Perform a hazardous waste determination on mixtures.
Disposal Methods:	Dispose of by incineration following Federal, State, Local, or Provincial regulations.
Waste Disposal of Packaging:	Comply with all Local, State, Federal, and Provincial Environmental Regulations.

14. TRANSPORTATION INFORMATION

United States:

DOT Proper Shipping Name:	Flammable liquids, n.o.s. (Methanol, Ethyl acetate)
UN Number:	UN1993
Hazard Class:	3
Packing Group:	II

International:

IATA Proper Shipping Name:	Flammable liquids, n.o.s. (Methanol, Ethyl acetate)
UN Number:	UN1993
Hazard Class:	3
Packing Group:	II

Marine Pollutant: No

Chemical Name	CAS#	Marine Pollutant	Severe Marine Pollutant
No data available			

15. REGULATORY INFORMATION

United States:

Chemical Name	CAS#	CERCLA	SARA 313	SARA EHS 313	TSCA
methanol	67-56-1	X	X	-	X
Vinyl acetate	108-05-4	X	X	X	X

The following chemicals are listed on CA Prop 65:

Chemical Name	CAS #	Regulation
Methanol	67-56-1	Prop 65 Devolop Tox

State Right To Know Listing:

Chemical Name	CAS#	New Jersey	Massachusetts	Pennsylvania	California
methanol	67-56-1	X	X	X	X
pentyl acetate (n-amyl acetate)	628-63-7	X	X	X	X
Isopropyl acetate	108-21-4	X	X	X	X
n-Butyl acetate	123-86-4	X	X	X	X
Vinyl acetate	108-05-4	X	X	X	X
n-Propyl acetate	109-60-4	X	X	X	X
Methyl acetate	79-20-9	X	X	X	X
Ethyl acetate	141-78-6	X	X	X	X

16. OTHER INFORMATION

Prior Version Date: 01/17/18

Other Information: Any changes to the SDS compared to previous versions are marked by a vertical line in front of the concerned paragraph.

References: No data available

Disclaimer: Restek Corporation provides the descriptions, data and information contained herein in good faith but makes no representation as to its comprehensiveness or accuracy. It is provided for your guidance only. Because many factors may affect processing or application/use, Restek Corporation recommends you perform an assessment to determine the suitability of a product for your particular purpose prior to use. No warranties of any kind, either expressed or implied, including fitness for a particular purpose, are made regarding products described, data or information set forth. In no case shall the descriptions, information, or data provided be considered a part of our terms and conditions of sale. Further, the descriptions, data and information furnished hereunder are given gratis. No obligation or liability for the description, data and information given are assumed. All such being given and accepted at your risk.

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k\sqrt{U^2_{gravimetric} + U^2_{homogeneity} + U^2_{storage\ stability} + U^2_{shipping\ stability}}$$

k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

RESTEK®
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 30225 **Lot No.:** A0155519

Description : Bromochloromethane Standard

Bromochloromethane 2000µg/mL, P&T Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : December 31, 2024 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	Bromochloromethane **CAS #** 74-97-5 (Lot 00008541) **Purity** 98%	2,012.9 µg/mL	+/- 11.9561 µg/mL +/- 112.8889 µg/mL +/- 115.5292 µg/mL		Gravimetric Unstressed Stressed

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

Column:
105m x 0.53mm x 3.0µm
Rtx-502.2 (cat.#10910)

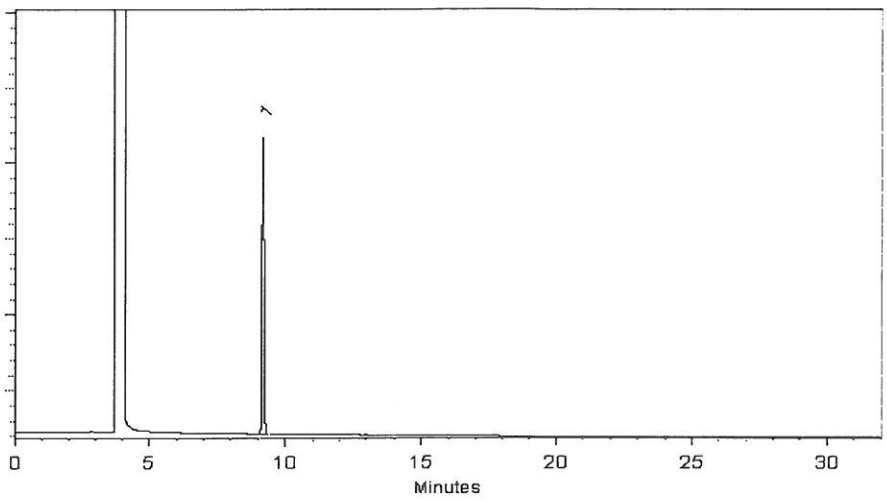
Carrier Gas:
hydrogen-constant pressure 11.0 psi.

Temp. Program:
40°C (hold 2 min.) to 240°C
@ 8°C/min. (hold 5 min.)

Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
FID



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Lane Kibe - Mix Technician

Date Mixed: 04-Dec-2019 **Balance:** 1128342314

Tyler Brown - Operations Tech-ARM QC

Date Passed: 05-Dec-2019

Manufactured under Restek's ISO 9001:2015
Registered Quality System
Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k\sqrt{U^2_{gravimetric} + U^2_{homogeneity} + U^2_{storage\ stability} + U^2_{shipping\ stability}}$$

k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

RESTEK

Safety Data Sheet

Revision Date: 08/22/19
www.restek.com

2 Letter ISO country code/language code: US/EN

1. IDENTIFICATION

Catalog Number / Product Name:	**30225 / Bromochloromethane Standard**
Company:	Restek Corporation
Address:	110 Benner Circle Bellefonte, Pa. 16823
Phone#:	814-353-1300
Fax#:	814-353-1309
Emergency#:	800-424-9300 (CHEMTREC) 703-527-3887 (Outside the US)
Email:	www.restek.com
Revision Number:	13
Intended use:	For Laboratory use only

2. HAZARD(S)IDENTIFICATION

Emergency Overview:

GHS Hazard Symbols:

GHS Classification:
Specific Target Organ Systemic Toxicity (STOT) - Single Exposure Category 1
Hazardous for the ozone layer
Flammable Liquid Category 2
Acute Toxicity - Inhalation Dust / Mist Category 3
Acute Toxicity - Dermal Category 3
Acute Toxicity - Oral Category 3

GHS Signal Word:
Danger

GHS Hazard:
Highly flammable liquid and vapour.
Toxic if swallowed, in contact with skin or if inhaled.
Causes damage to organs.
Harms public health and the environment by destroying ozone in the upper atmosphere.

GHS Precautions:

Safety Precautions:
Keep away from heat/sparks/open flames/hot surfaces. – No smoking.
Ground/bond container and receiving equipment.
Use explosion-proof electrical/ventilation and lighting equipment.
Use only non-sparking tools.
Take precautionary measures against static discharge.
Do not breathe dust/fume/gas/mist/vapours/spray.
Wash hands and skin thoroughly after handling.
Do not eat, drink or smoke when using this product.
Use only outdoors or in a well-ventilated area.
Wear protective gloves/protective clothing/eye protection/face protection.

First Aid Measures:
IF SWALLOWED: Immediately call a POISON CENTER/doctor/....
IF ON SKIN: Wash with plenty of soap and water.
IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
Specific treatment see section 4.
Rinse mouth.
Take off immediately all contaminated clothing and wash it before reuse.
In case of fire: Use extinguishing media in section 5 for extinction.

Storage:	Store in a well-ventilated place. Keep container tightly closed. Store in a well-ventilated place. Keep cool. Store locked up.
Disposal:	Dispose of contents/container according to section 13 of the SDS. Refer to manufacturer/supplier for information on recovery/recycling.
Single Exposure Target Organs:	Specific target organ toxicity - Single exposure - STOT SE 1: H370 Causes damage to organs. (C >= 10 %; No information to prove exclusion of certain routes of exposure); Specific target organ toxicity - Single exposure - STOT SE 2: H371 May cause damage to organs. (3 % <= C <10 %; Concentration limits for acute toxicity cannot be translated into GHS from the DSD especially when minimum classifications are given)
Repeated Exposure Target Organs:	No data available

3. COMPOSITION / INFORMATION ON INGREDIENT

Chemical Name	CAS #	EINEC #	% Composition
methanol	67-56-1	200-659-6	99.8
bromochloromethane	74-97-5	200-826-3	0.2

4. FIRST-AID MEASURES

Inhalation:	Remove to fresh air. If breathing is difficult, have a trained individual administer oxygen. If not breathing, give artificial respiration and have a trained individual administer oxygen. Get medical attention immediately
Eyes:	Flush eyes with plenty of water for at least 20 minutes retracting eyelids often. Tilt the head to prevent chemical from transferring to the uncontaminated eye. Get immediate medical attention.
Skin Contact:	Wash with soap and water. Remove contaminated clothing and launder. Get medical attention if irritation develops or persists.
Ingestion:	Do not induce vomiting and seek medical attention immediately. Drink two glasses of water or milk to dilute. Provide medical care provider with this SDS.

5. FIRE- FIGHTING MEASURES

Extinguishing Media:	Use alcohol resistant foam, carbon dioxide, or dry chemical extinguishing agents. Water may be ineffective but water spray can be used extinguish a fire if swept across the base of the flames. Water can absorb heat and keep exposed material from being damaged by fire.
Fire and/or Explosion Hazards:	Vapors may be ignited by sparks, flames or other sources of ignition if material is above the flash point giving rise to a fire (Class B). Vapors are heavier than air and may travel to a source of ignition and flash back.
Fire Fighting Methods and Protection:	Do not enter fire area without proper protection including self-contained breathing apparatus and full protective equipment. Fight fire from a safe distance and a protected location due to the potential of hazardous vapors and decomposition products. Flammable component(s) of this material may be lighter than water and burn while floating on the surface.
Hazardous Combustion Products:	Carbon dioxide, Carbon monoxide

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions and Equipment:	Exposure to the spilled material may be severely irritating or toxic. Follow personal protective equipment recommendations found in Section 8 of this SDS. Personal protective equipment needs must be evaluated based on information provided on this sheet and the special circumstances created by the spill including; the material spilled, the quantity of the spill, the area in which the spill occurred, and the expertise of employees in the area responding to the spill. Never exceed any occupational exposure limits.
Methods for Clean-up:	Prevent the spread of any spill to minimize harm to human health and the environment if safe to do so. Wear complete and proper personal protective equipment following the recommendation of Section 8 at a minimum. Dike with suitable absorbent material like granulated clay. Gather and store in a sealed container pending a waste disposal evaluation.

7. HANDLING AND STORAGE

Handling Technical Measures and Precautions:	Toxic or severely irritating material. Avoid contacting and avoid breathing the material. Use only in a well ventilated area. Use spark-proof tools and explosion-proof equipment
Storage Technical Measures and Conditions:	Store in a cool dry ventilated location. Isolate from incompatible materials and conditions. Keep container(s) closed. Keep away from sources of ignition

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

United States:

Chemical Name	CAS No.	IDLH	ACGIH STEL	ACGIH TLV-TWA	OSHA Exposure Limit
methanol	67-56-1	6000 ppm IDLH	250 ppm STEL	200 ppm TWA	200 ppm TWA; 260 mg/m3 TWA

Personal Protection:

Engineering Measures:	Local exhaust ventilation is recommended when generating excessive levels of vapours from handling or thermal processing.
Respiratory Protection:	Respiratory protection may be required to avoid overexposure when handling this product. General or local exhaust ventilation is the preferred means of protection. Use a respirator if general room ventilation is not available or sufficient to eliminate symptoms.If an exposure limit is exceeded or if an operator is experiencing symptoms of inhalation overexposure as explained in Section 3, provide respiratory protection.
Eye Protection:	Wear chemically resistant safety glasses with side shields when handling this product. Do not wear contact lenses.
Skin Protection:	Wear protective gloves. Inspect gloves for chemical break-through and replace at regular intervals. Clean protective equipment regularly. Wash hands and other exposed areas with mild soap and water before eating, drinking, and when leaving work

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance, color:	No data available
Odor:	Mild
Physical State:	Liquid
pH:	Not applicable
Vapor Pressure:	No data available
Vapor Density:	1.1 (air = 1)
Boiling Point (°C):	64.7 °C at 760 mmHg (HSDB)
Melting Point (°C):	-98 °C
Flash Point (°F):	52
Flammability:	Highly Flammable
Upper Flammable/Explosive Limit, % in air:	36
Lower Flammable/Explosive Limit, % in air:	6
Autoignition Temperature (°C):	464 deg C
Decomposition Temperature (°C):	No data available
Specific Gravity:	0.791 - 0.792 g/cm3 at 20 °C
Evaporation Rate:	No data available
Odor Threshold:	No data available
Solubility:	Moderate; 50-99%
Partition Coefficient: n-octanol in water:	No data available
VOC % by weight:	99.8
Molecular Weight:	32.04

10. STABILITY AND REACTIVITY

Stability:	Stable under normal conditions.
Conditions to Avoid:	None known.
Materials to Avoid / Chemical Incompatiability:	Strong oxidizing agents
Hazardous Decomposition Products:	Carbon dioxide Carbon monoxide

11. TOXICOLOGICAL INFORMATION

Routes of Entry:	Inhalation, Skin Contact, Eye Contact, Ingestion
Target Organs Potentially Affected By Exposure:	Eyes, Central nervous system stimulation, Skin, GI Tract, Respiratory Tract

Chemical Interactions That Change Toxicity: None Known

Immediate (Acute) Health Effects by Route of Exposure:

Inhalation Irritation:	Can cause moderate respiratory irritation, dizziness, weakness, fatigue, nausea and headache.
Inhalation Toxicity:	Harmful! Can cause systemic damage (see "Target Organs)Methanol can cause central nervous system depression and overexposure can cause damage to the optic nerve resulting in visual impairment or blindness.
Skin Contact:	Can cause moderate skin irritation, defatting, and dermatitis. Not likely to cause permanent damage.
Eye Contact:	Can cause moderate irritation, tearing and reddening, but not likely to permanently injure eye tissue.
Ingestion Irritation:	Irritating to mouth, throat, and stomach. Can cause abdominal discomfort, nausea, vomiting and diarrhea.Highly toxic and may be fatal if swallowed.
Ingestion Toxicity:	Toxic if swallowed. May cause target organ failure and/or death.May be fatal if swallowed.

Long-Term (Chronic) Health Effects:

Carcinogenicity:	No data.
Reproductive and Developmental Toxicity:	No data available to indicate product or any components present at greater than 0.1% may cause birth defects.
Inhalation:	Upon prolonged and/or repeated exposure, can cause moderate respiratory irritation, dizziness, weakness, fatigue, nausea and headache.Harmful! Can cause systemic damage upon prolonged and/or repeated exposure (see "Target Organs)
Skin Contact:	Upon prolonged or repeated contact, can cause moderate skin irritation, defatting, and dermatitis. Not likely to cause permanent damage.
Ingestion:	Toxic if swallowed. May cause target organ failure and/or death.

Component Toxicological Data:
NIOSH:

Chemical Name	CAS No.	LD50/LC50
Methanol	67-56-1	Inhalation LC50 Rat 22500 ppm 8 h

Component Carcinogenic Data:
OSHA:

Chemical Name	CAS No.
No data available	

ACGIH:

Chemical Name	CAS No.
No data available	

NIOSH:

Chemical Name	CAS No.
No data available	

NTP:

Chemical Name	CAS No.
No data available	

IARC:

Chemical Name	CAS No.	Group No.

12. ECOLOGICAL INFORMATION

Overview:	Moderate ecological hazard. This product may be dangerous to plants and/or wildlife.
Mobility:	No data
Persistence:	No data
Bioaccumulation:	No data
Degradability:	Biodegrades slowly.
Ecological Toxicity Data:	No data available

13. DISPOSAL CONSIDERATIONS

Waste Description of Spent Product:	Spent or discarded material is a hazardous waste.Mixing spent or discarded material with other materials may render the mixture hazardous. Perform a hazardous waste determination on mixtures.
Disposal Methods:	Dispose of by incineration following Federal, State, Local, or Provincial regulations.
Waste Disposal of Packaging:	Comply with all Local, State, Federal, and Provincial Environmental Regulations.

14. TRANSPORTATION INFORMATION

United States:	
DOT Proper Shipping Name:	Methanol
UN Number:	UN1230
Hazard Class:	3
Packing Group:	II
International:	
IATA Proper Shipping Name:	Methanol
UN Number:	UN1230
Hazard Class:	3(6.1)
Packing Group:	II

Marine Pollutant: No

Chemical Name	CAS#	Marine Pollutant	Severe Marine Pollutant
No data available			

15. REGULATORY INFORMATION

United States:

Chemical Name	CAS#	CERCLA	SARA 313	SARA EHS 313	TSCA
methanol	67-56-1	X	X	-	X

The following chemicals are listed on CA Prop 65:

Chemical Name	CAS #	Regulation
Methanol	67-56-1	Prop 65 Devolop Tox

State Right To Know Listing:

Chemical Name	CAS#	New Jersey	Massachusetts	Pennsylvania	California
methanol	67-56-1	X	X	X	X
bromochloromethane	74-97-5	X	X	X	X

16. OTHER INFORMATION

Prior Version Date:	11/08/18
Other Information:	Any changes to the SDS compared to previous versions are marked by a vertical line in front of the concerned paragraph.
References:	No data available
Disclaimer:	Restek Corporation provides the descriptions, data and information contained herein in good faith but makes no representation as to its comprehensiveness or accuracy. It is provided for your guidance only. Because many factors may affect processing or application/use, Restek Corporation recommends you perform an assessment to determine the suitability of a product for your particular purpose prior to use. No warranties of any kind, either expressed or implied, including fitness for a particular purpose, are made regarding products described, data or information set forth. In no case shall the descriptions, information, or data provided be considered a part of our terms and conditions of sale. Further, the descriptions, data and information furnished hereunder are given gratis. No obligation or liability for the description, data and information given are assumed. All such being given and accepted at your risk.

RESTEK®
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Composition

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 555408-FL **Lot No.:** A0159529

Description : Custom Vinyl Acetate Standard

Custom Vinyl Acetate Standard 8,000µg/mL, P&T Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : October 31, 2021 **Storage:** 0°C or colder

Handling: This product is photosensitive.

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	Vinyl acetate	8,052.0 µg/mL	+/- 47.2536	µg/mL	Gravimetric
	CAS # 108-05-4 (Lot 192709KJ)		+/- 485.8553	µg/mL	Unstressed
	Purity 99%		+/- 487.0086	µg/mL	Stressed

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

Tech Tips:

Vinyl acetate is a volatile organic ester included in the target lists of several US EPA and other methods . Under acidic conditions, esters react with alcohols to form new esters (transesterification). Methanol-based mixes containing halogenated compounds are slightly acidic, so it is important to minimize exposure of vinyl acetate to mixes of halogenated compounds in methanol. For this reason, we offer vinyl acetate in individual solution, and suggest that it be introduced into the working level calibration solution immediately before use. This will minimize problems and ensure more consistent results.

Column:
105m x 0.53mm x 3.0µm
Rtx-502.2 (cat.#10910)

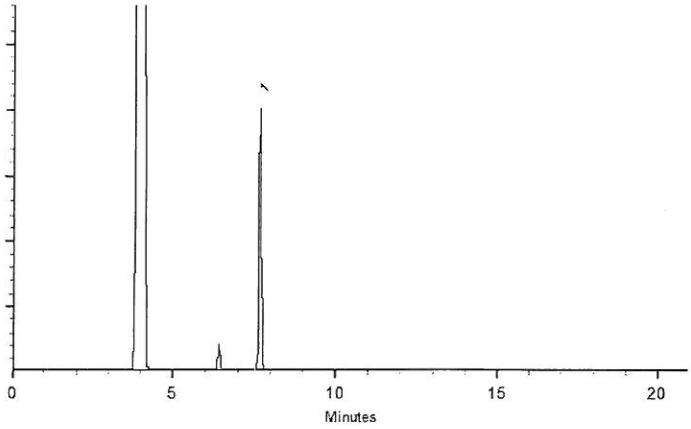
Carrier Gas:
hydrogen-constant pressure 11.0 psi.

Temp. Program:
40°C (hold 2 min.) to 240°C
@ 8°C/min. (hold 5 min.)

Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
FID



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Cydnei L. Crust - Mix Technician

Date Mixed: 01-Apr-2020 **Balance:** B707717271

Justine Albertson - Operations Tech-ARM QC

Date Passed: 06-Apr-2020

REVIEWED
By Jennifer Pelling at 6:05 am, Apr 07, 2020

Manufactured under Restek's ISO 9001:2015
Registered Quality System
Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k\sqrt{U^2_{gravimetric} + U^2_{homogeneity} + U^2_{storage\ stability} + U^2_{shipping\ stability}}$$

k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

RESTEK

Safety Data Sheet

Revision Date: 02/05/18
www.restek.com

2 Letter ISO country code/language code: US/EN

1. IDENTIFICATION

Catalog Number / Product Name:	**555408-SL / Custom Vinyl Acetate Standard**
Company:	Restek Corporation
Address:	110 Benner Circle Bellefonte, Pa. 16823
Phone#:	814-353-1300
Fax#:	814-353-1309
Emergency#:	800-424-9300 (CHEMTREC) 703-527-3887 (Outside the US)
Email:	www.restek.com
Revision Number:	3
Intended use:	For Laboratory use only

2. HAZARD(S)IDENTIFICATION

Emergency Overview:

GHS Hazard Symbols:

GHS Classification:
Specific Target Organ Systemic Toxicity (STOT) - Single Exposure Category 1
Flammable Liquid Category 2
Carcinogenicity Category 2
Acute Toxicity - Dermal Category 3
Acute Toxicity - Oral Category 3

GHS Signal Word:
Danger

GHS Hazard:
Highly flammable liquid and vapour.
Toxic if swallowed or in contact with skin.
Suspected of causing cancer.
Causes damage to organs.

GHS Precautions:

Safety Precautions:
Obtain special instructions before use.
Do not handle until all safety precautions have been read and understood.
Keep away from heat/sparks/open flames/hot surfaces. – No smoking.
Keep container tightly closed.
Ground/bond container and receiving equipment.
Use explosion-proof electrical/ventilation and lighting equipment.
Use only non-sparking tools.
Take precautionary measures against static discharge.
Do not breathe dust/fume/gas/mist/vapours/spray.
Wash hands and skin thoroughly after handling.
Do not eat, drink or smoke when using this product.
Wear protective gloves/protective clothing/eye protection/face protection.

First Aid Measures:
IF SWALLOWED: Immediately call a POISON CENTER/doctor/....
IF ON SKIN: Wash with plenty of soap and water.
IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
IF exposed: Call a POISON CENTER or doctor/physician.
IF exposed or concerned: Get medical advice/attention.
Call a POISON CENTER or doctor/physician if you feel unwell.
Specific treatment see section 4.

Rinse mouth.
Take off immediately all contaminated clothing and wash it before reuse.
In case of fire: Use extinguishing media in section 5 for extinction.

Storage: Keep container tightly closed.
Store in a well-ventilated place. Keep cool.
Store locked up.

Disposal: Dispose of contents/container according to section 13 of the SDS.

Single Exposure Target Organs: Specific target organ toxicity - Single exposure - STOT SE 1: H370 Causes damage to organs. (C >= 10 %; No information to prove exclusion of certain routes of exposure); Specific target organ toxicity - Single exposure - STOT SE 2: H371 May cause damage to organs. (3 % <= C <10 %; Concentration limits for acute toxicity cannot be translated into GHS from the DSD especially when minimum classifications are given)

Repeated Exposure Target Organs: No data available

3. COMPOSITION / INFORMATION ON INGREDIENT

Chemical Name	CAS #	EINEC #	% Composition
methanol	67-56-1	200-659-6	99.2
Vinyl acetate	108-05-4	203-545-4	0.8

4. FIRST-AID MEASURES

Inhalation: Remove to fresh air. If breathing is difficult, have a trained individual administer oxygen. If not breathing, give artificial respiration and have a trained individual administer oxygen. Get medical attention immediately

Eyes: Immediately flush eyes with plenty of water for at least 20 minutes retracting eyelids often. Tilt the head to prevent chemical from transferring to the uncontaminated eye. Get immediate medical attention and monitor the eye daily as advised by your physician.

Skin Contact: Wash with soap and water. Remove contaminated clothing and launder. Get medical attention if irritation develops or persists.

Ingestion: Do not induce vomiting and seek medical attention immediately. Drink two glasses of water or milk to dilute. Provide medical care provider with this SDS.

5. FIRE- FIGHTING MEASURES

Extinguishing Media: Use alcohol resistant foam, carbon dioxide, or dry chemical extinguishing agents. Water spray or fog may also be effective for extinguishing if swept across the base of the fire. Water can also be used to absorb heat and keep exposed material from being damaged by fire.

Fire and/or Explosion Hazards: Vapors may be ignited by heat, sparks, flames or other sources of ignition at or above the low flash point giving rise to a Class B fire. Vapors are heavier than air and may travel to a source of ignition and flash back

Fire Fighting Methods and Protection: Do not enter fire area without proper protection including self-contained toxic breathing apparatus and full protective equipment. Fight fire from a safe distance and a protected location due to the potential of hazardous vapors and decomposition products. Flammable component(s) of this material may be lighter than water and burn while floating on the surface. Use water spray/fog for cooling.

Hazardous Combustion Products: Carbon dioxide, Carbon monoxide

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions and Equipment: Exposure to the spilled material may be severely irritating or toxic. Follow personal protective equipment recommendations found in Section 8 of this SDS. Personal protective equipment needs must be evaluated based on information provided on this sheet and the special circumstances created by the spill including; the material spilled, the quantity of the spill, the area in which the spill occurred, and the expertise of employees in the area responding to the spill. Never exceed any occupational exposure limits.

Methods for Clean-up: Prevent the spread of any spill to minimize harm to human health and the environment if safe to do so. Wear complete and proper personal

protective equipment following the recommendation of Section 8 at a minimum. Dike with suitable absorbent material like granulated clay. Gather and store in a sealed container pending a waste disposal evaluation.

7. HANDLING AND STORAGE

Handling Technical Measures and Precautions: Toxic or severely irritating material. Avoid contacting and avoid breathing the material. Use only in a well ventilated area. Use spark-proof tools and explosion-proof equipment Wash thoroughly after handling Avoid contact with material. Remove contaminated clothing and wash before reuse "Empty" containers retain product residue (liquid and/or vapor) and can be dangerous.

Storage Technical Measures and Conditions: Store in a cool dry ventilated location. Isolate from incompatible materials and conditions. Keep container(s) closed. Keep away from sources of ignition Keep away from heat, sparks, and flame

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

United States:

Chemical Name	CAS No.	IDLH	ACGIH STEL	ACGIH TLV-TWA	OSHA Exposure Limit
methanol	67-56-1	6000 ppm IDLH	250 ppm STEL	200 ppm TWA	200 ppm TWA; 260 mg/m3 TWA
Vinyl acetate	108-05-4	Not established	15 ppm STEL; 53 mg/m3 STEL	10 ppm TWA; 35 mg/m3 TWA	No data available

Personal Protection:

Engineering Measures: Local exhaust ventilation or other engineering controls are normally required when handling or using this product to avoid overexposure. Explosion proof exhaust ventilation should be used.

Respiratory Protection: Respiratory protection may be required to avoid overexposure when handling this product. General or local exhaust ventilation is the preferred means of protection. Use a respirator if general room ventilation is not available or sufficient to eliminate symptoms.If an exposure limit is exceeded or if an operator is experiencing symptoms of inhalation overexposure as explained in Section 3, provide respiratory protection.

Eye Protection: Wear chemically resistant safety glasses with side shields when handling this product. Wear additional eye protection such as chemical splash goggles and/or face shield when the possibility exists for eye contact with splashing or spraying liquid, or airborne material. Do not wear contact lenses. Have an eye wash station available.

Skin Protection: Wear protective gloves. Inspect gloves for chemical break-through and replace at regular intervals. Clean protective equipment regularly. Wash hands and other exposed areas with mild soap and water before eating, drinking, and when leaving work

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance, color:	No data available
Odor:	Mild
Physical State:	No data available
pH:	Not applicable
Vapor Pressure:	No data available
Vapor Density:	1.1 (air = 1)
Boiling Point (°C):	72.8 °C (HSDB) 64.7 °C at 760 mmHg (HSDB)
Melting Point (°C):	-98 °C
Flash Point (°F):	18
Flammability:	Extremely Flammable
Upper Flammable/Explosive Limit, % in air:	36
Lower Flammable/Explosive Limit, % in air:	6
Autoignition Temperature (°C):	464 deg C
Decomposition Temperature (°C):	0
Specific Gravity:	0.791 - 0.792 g/cm3 at 20 °C
Evaporation Rate:	No data available
Odor Threshold:	No data available

Solubility:	Moderate; 50-99%
Partition Coefficient: n-octanol in water:	No data available
VOC % by weight:	0
Molecular Weight:	32.04

10. STABILITY AND REACTIVITY

Stability:	Stable under normal conditions.
Conditions to Avoid:	None known.Contamination
Materials to Avoid / Chemical Incompatiability:	Acids Oxidizing materials Peroxides Strong alkalies
Hazardous Decomposition Products:	Carbon dioxide Carbon monoxide

11. TOXICOLOGICAL INFORMATION

Routes of Entry:	Inhalation, Skin Contact, Eye Contact, Ingestion
Target Organs Potentially Affected By Exposure:	Eyes, Central nervous system stimulation, Skin, GI Tract, Respiratory Tract
Chemical Interactions That Change Toxicity:	None Known

Immediate (Acute) Health Effects by Route of Exposure:

Inhalation Irritation:	Can cause moderate respiratory irritation, dizziness, weakness, fatigue, nausea and headache.
Inhalation Toxicity:	Harmful! Can cause systemic damage (see "Target Organs)Methanol can cause central nervous system depression and overexposure can cause damage to the optic nerve resulting in visual impairment or blindness.
Skin Contact:	Can cause moderate skin irritation, defatting, and dermatitis. Not likely to cause permanent damage.
Eye Contact:	Can cause moderate irritation, tearing and reddening, but not likely to permanently injure eye tissue.
Ingestion Irritation:	Irritating to mouth, throat, and stomach. Can cause abdominal discomfort, nausea, vomiting and diarrhea.Highly toxic and may be fatal if swallowed.
Ingestion Toxicity:	Toxic if swallowed. May cause target organ failure and/or death.May be fatal if swallowed.

Long-Term (Chronic) Health Effects:

Carcinogenicity:	No data.
Reproductive and Developmental Toxicity:	No data available to indicate product or any components present at greater than 0.1% may cause birth defects.
Inhalation:	Upon prolonged and/or repeated exposure, can cause moderate respiratory irritation, dizziness, weakness, fatigue, nausea and headache.Harmful! Can cause systemic damage upon prolonged and/or repeated exposure (see "Target Organs)
Skin Contact:	Upon prolonged or repeated contact, can cause moderate skin irritation, defatting, and dermatitis. Not likely to cause permanent damage.
Skin Absorption:	Upon prolonged or repeated exposure, no hazard in normal industrial use.
Ingestion:	Toxic if swallowed. May cause target organ failure and/or death.

Component Toxicological Data:
NIOSH:

Chemical Name	CAS No.	LD50/LC50
Vinyl acetate Acetic acid, vinyl ester	108-05-4	Inhalation LC50 Rat : 11400 mg/m3/4H; Inhalation LC50 Mouse : 1550 ppm/4H; Oral LD50 Rat : 2920 mg/kg; Oral LD50 Mouse : 1613 mg/kg; Dermal LD50 Rabbit : 2335 mg/kg
Methanol	67-56-1	Inhalation LC50 Rat 22500 ppm 8 h

Component Carcinogenic Data:
OSHA:

Chemical Name	CAS No.	
Vinyl acetate	108-05-4	Present

ACGIH:

Chemical Name	CAS No.	
Vinyl acetate	108-05-4	A3 - Confirmed Animal Carcinogen with

Unknown Relevance to Humans

NIOSH:

Chemical Name	CAS No.
No data available	

NTP:

Chemical Name	CAS No.
No data available	

IARC:

Chemical Name	CAS No.	Group No.
Monograph 63; 1995	108-05-4	Group 2B

12. ECOLOGICAL INFORMATION

Overview:	Moderate ecological hazard. This product may be dangerous to plants and/or wildlife.
Mobility:	No data
Persistence:	No data
Bioaccumulation:	No data
Degradability:	Biodegrades slowly.
Ecological Toxicity Data:	No data available

13. DISPOSAL CONSIDERATIONS

Waste Description of Spent Product:	Spent or discarded material is a hazardous waste.Mixing spent or discarded material with other materials may render the mixture hazardous. Perform a hazardous waste determination on mixtures.
Disposal Methods:	Dispose of by incineration following Federal, State, Local, or Provincial regulations.
Waste Disposal of Packaging:	Comply with all Local, State, Federal, and Provincial Environmental Regulations.

14. TRANSPORTATION INFORMATION

United States:

DOT Proper Shipping Name:	Methanol
UN Number:	UN1230
Hazard Class:	3
Packing Group:	II

International:

IATA Proper Shipping Name:	Methanol
UN Number:	UN1230
Hazard Class:	3(6.1)
Packing Group:	II

Marine Pollutant: No

Chemical Name	CAS#	Marine Pollutant	Severe Marine Pollutant
No data available			

15. REGULATORY INFORMATION

United States:

Chemical Name	CAS#	CERCLA	SARA 313	SARA EHS 313	TSCA
methanol	67-56-1	X	X	-	X
Vinyl acetate	108-05-4	X	X	X	X

The following chemicals are listed on CA Prop 65:

Chemical Name	CAS #	Regulation
Methanol	67-56-1	Prop 65 Devolop Tox

State Right To Know Listing:

Chemical Name	CAS#	New Jersey	Massachusetts	Pennsylvania	California
methanol	67-56-1	X	X	X	X
Vinyl acetate	108-05-4	X	X	X	X

16. OTHER INFORMATION

Prior Version Date: 08/04/16

Other Information: Any changes to the SDS compared to previous versions are marked by a vertical line in front of the concerned paragraph.

References: No data available

Disclaimer: Restek Corporation provides the descriptions, data and information contained herein in good faith but makes no representation as to its comprehensiveness or accuracy. It is provided for your guidance only. Because many factors may affect processing or application/use, Restek Corporation recommends you perform an assessment to determine the suitability of a product for your particular purpose prior to use. No warranties of any kind, either expressed or implied, including fitness for a particular purpose, are made regarding products described, data or information set forth. In no case shall the descriptions, information, or data provided be considered a part of our terms and conditions of sale. Further, the descriptions, data and information furnished hereunder are given gratis. No obligation or liability for the description, data and information given are assumed. All such being given and accepted at your risk.

RESTEK
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Composition

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 555408-SL **Lot No.:** A0159543

Description : Custom Vinyl Acetate Standard

Custom Vinyl Acetate Standard 8,000µg/mL, P&T Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : October 31, 2021 **Storage:** 0°C or colder

Handling: This product is photosensitive.

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	Vinyl acetate	8,026.0 µg/mL	+/- 47.1011	µg/mL	Gravimetric
	CAS # 108-05-4 (Lot 192709KJ)		+/- 484.2865	µg/mL	Unstressed
	Purity 99%		+/- 485.4360	µg/mL	Stressed

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

Tech Tips:

Vinyl acetate is a volatile organic ester included in the target lists of several US EPA and other methods . Under acidic conditions, esters react with alcohols to form new esters (transesterification). Methanol-based mixes containing halogenated compounds are slightly acidic, so it is important to minimize exposure of vinyl acetate to mixes of halogenated compounds in methanol. For this reason, we offer vinyl acetate in individual solution, and suggest that it be introduced into the working level calibration solution immediately before use. This will minimize problems and ensure more consistent results.

Column:
105m x 0.53mm x 3.0µm
Rtx-502.2 (cat.#10910)

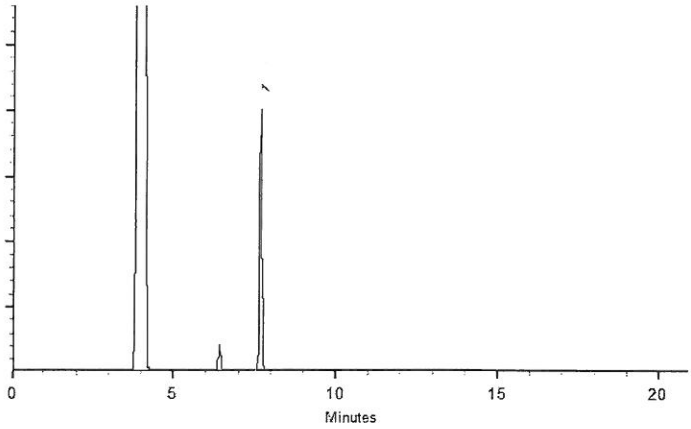
Carrier Gas:
hydrogen-constant pressure 11.0 psi.

Temp. Program:
40°C (hold 2 min.) to 240°C
@ 8°C/min. (hold 5 min.)

Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
FID



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Lane Kibe - Mix Technician

Date Mixed: 02-Apr-2020 **Balance:** 1127510105

Justine Albertson - Operations Tech-ARM QC

Date Passed: 06-Apr-2020

REVIEWED
By Jennifer Pollino at 9:19 am, Apr 07, 2020

Manufactured under Restek's ISO 9001:2015
Registered Quality System
Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k\sqrt{U^2_{gravimetric} + U^2_{homogeneity} + U^2_{storage\ stability} + U^2_{shipping\ stability}}$$

k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Analytical Reference Material ARM

ISO 17034 Accredited
Scopes: http://AbsoluteStandards.com

CERTIFIED WEIGHT REPORT

Part Number: 95318
Lot Number: 031419
Description: 2-Chloroethyl vinyl ether

Solvent(s): Methanol **Lot#** DU230-US

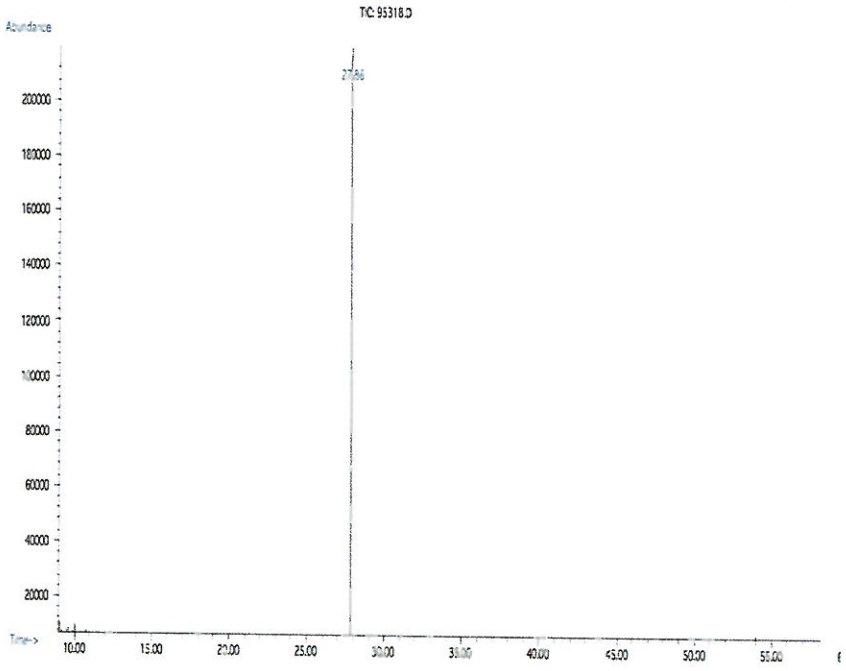
Expiration Date: 031422
Recommended Storage: Refrigerate (4 °C)
Nominal Concentration (µg/mL): 10000
NIST Test ID#: 2684186

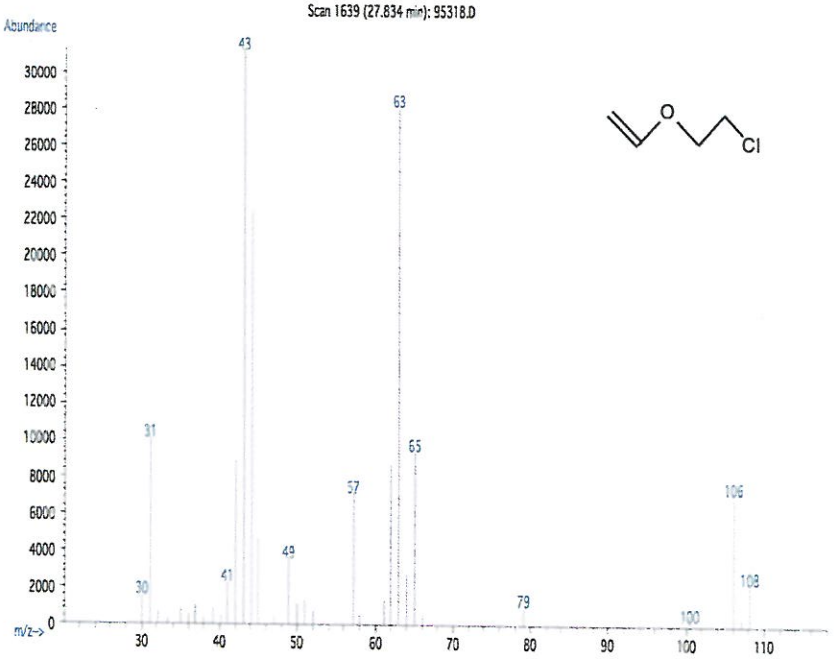
Weight(s) shown below were combined and diluted to (mL): 30.0 5E-05 Balance Uncertainty 0.002 Flask Uncertainty

Eli Aliaga		031419
Formulated By:	Eli Aliaga	DATE
Pedro Rentas		031419
Reviewed By:	Pedro L. Rentas	DATE

Compound	RM#	Lot Number	Nominal Conc (µg/mL)	Purity (%)	Uncertainty Purity	Target Weight (g)	Actual Weight (g)	Actual Conc(µg/mL)	Expanded Uncertainty (+/-) (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50
1. 2-Chloroethyl vinyl ether	74	MKCD0033	10000	99	0.2	0.30284	0.30292	10002.6	40.6	110-75-8	N/A	orl-rat 250mg/kg

Method: GC6MSD-1.M. **Detector:** MSD. **Column:** (60m X 0.25mm X 1.5 µm). **Oven Profile:** Temp 1 = 35°C (Time 1=10min.), Temp 2 = 200°C (Time 2=8.75 min.), Rate = 4°C/min., Injector B Temp.= 200°C, Detector B Temp. = 220°C. **Analyst:** Candice Warren.





- The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
- Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
- Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
- All Standards, after opening ampule, should be stored with caps tight and under appropriate laboratory conditions.
- Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, DC, (1994).

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Analytical Reference Material ARM

ISO 17034 Accredited
Scopes: http://AbsoluteStandards.com

CERTIFIED WEIGHT REPORT

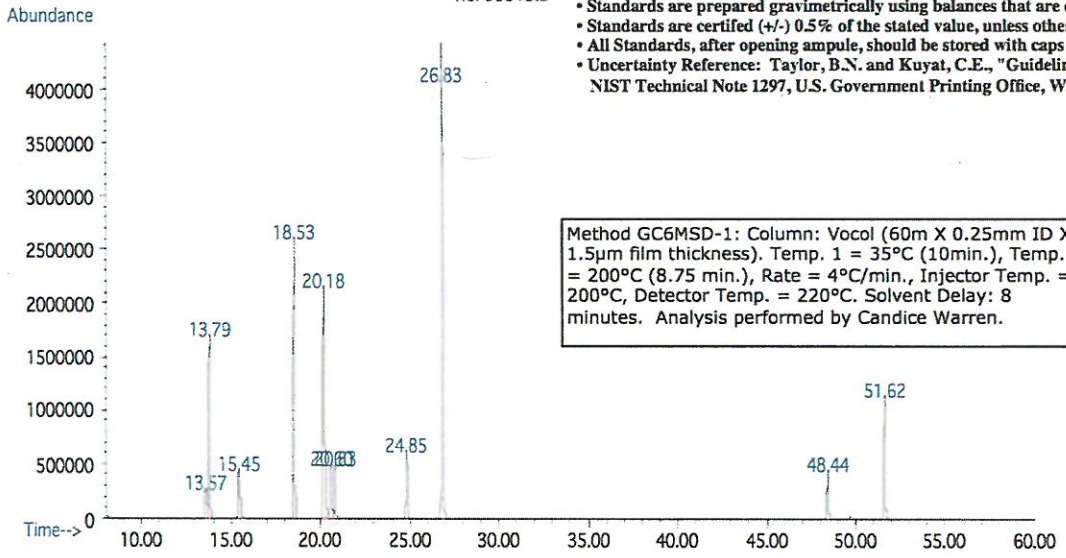
Part Number: 95319
Lot Number: 050119
Description: Revised Additions Mix
11 components
Expiration Date: 050122
Recommended Storage: Refrigerate (4 °C)
Nominal Concentration (µg/mL): Varied
NIST Test ID#: 6UTB

Solvent(s): Methanol **Lot#** DU230-US

5E-05 Balance Uncertainty
Weight(s) shown below were combined and diluted to (mL): 100.0 0.001 Flask Uncertainty

Justin Dippold	050119
Formulated By: Justin Dippold	DATE
Pedro Rentas	050119
Reviewed By: Pedro L. Rentas	DATE

Compound	RM#	Lot Number	Nominal Conc (µg/mL)	Purity (%)	Uncertainty Purity	Target Weight(g)	Actual Weight(g)	Actual Conc (µg/mL)	Expanded Uncertainty (+/-) (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50
1. Acrylonitrile	7	4718CK	10000	99	0.2	1.01021	1.01045	10002.4	40.4	107-13-1	N/A	orl-rat 78 mg/kg
2. 1-Chlorobutane	1072	15538EZ	2000	99.5	0.2	0.20103	0.20124	2002.1	8.1	109-69-3	N/A	orl-rat 2670mg/kg
3. Cyclohexane	1023	SHBD2795V	2000	99.5	0.2	0.20103	0.20118	2001.5	8.1	110-82-7	300 ppm (1050mg/m3/8H)	orl-rat 12705mg/kg
4. Di-isopropyl ether (DIPE)	987	00412MX	2000	99	0.2	0.20204	0.20222	2001.8	8.1	108-20-3	500 ppm (2100mg/m3/8H)	orl-rat 8470mg/kg
5. 1,4-Dioxane	373	03853KE	40000	99	0.2	4.04085	4.04123	40003.8	161.6	123-91-1	25 ppm (90mg/m3/8H)(skin)	orl-mus 5700mg/kg
6. Hexachloroethane	199	12604HBV	2000	99	0.2	0.20204	0.20223	2001.9	8.1	67-72-1	1 ppm (10mg/m3/8H)(skin)	orl-gpg 4970mg/kg
7. Methylcyclohexane	1627	08046KN	2000	99	0.2	0.20204	0.20219	2001.5	8.1	108-87-2	N/A	N/A
8. Methyl tert-butyl ether (MTBE)	209	02197JJ	2000	99.8	0.2	0.20042	0.20059	2001.7	8.1	1634-04-4	N/A	orl-rat 4g/kg
9. Propionitrile	349	1395468	20000	99	0.2	2.02042	2.02067	20002.4	80.8	107-12-0	N/A	orl-rat 39mg/kg
10. Tetrahydrofuran	380	113886	10000	99.9	0.2	1.00111	1.00139	10002.8	40.1	109-99-9	20 ppm (590mg/m3/8H)	orl-rat 2500mg/kg
11. 1,2,3,4-Tetramethylbenzene	491	AP01	2000	93	0.2	0.21508	0.21530	2002.1	8.7	488-23-3	N/A	orl-rat 6408mg/kg



- **The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.**
- **Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).**
- **Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.**
- **All Standards, after opening ampule, should be stored with caps tight and under appropriate laboratory conditions.**
- **Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, DC, (1994).**

Method GC6MSD-1: Column: Vocol (60m X 0.25mm ID X 1.5µm film thickness). Temp. 1 = 35°C (10min.), Temp. 2 = 200°C (8.75 min.), Rate = 4°C/min., Injector Temp. = 200°C, Detector Temp. = 220°C. Solvent Delay: 8 minutes. Analysis performed by Candice Warren.

Name	MSD RT (min.)
Methyl tert-butyl ether (MTBE)	13.56
Acrylonitrile	13.79
Di-isopropyl ether	15.44
Propionitrile	18.53
Tetrahydrofuran	20.17
Cyclohexane	20.58
1-Chlorobutane	20.83
Methylcyclohexane	24.84
1,4-Dioxane	26.84
Hexachloroethane	48.44
1,2,3,4-Tetramethylbenzene	51.62

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Analytical Reference Material ARM

ISO 17034 Accredited
Scopes: http://AbsoluteStandards.com

CERTIFIED WEIGHT REPORT

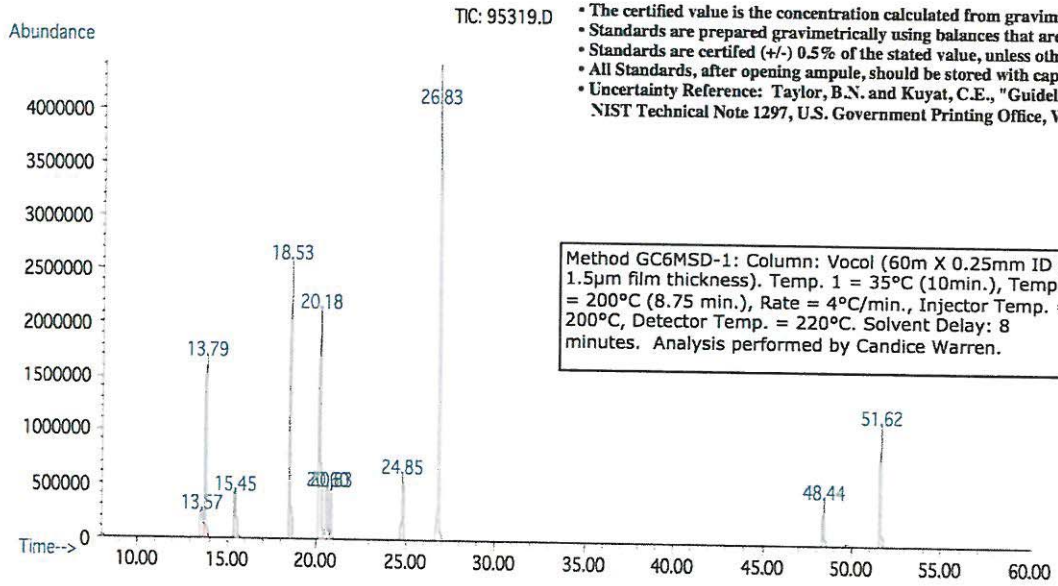
Part Number: 95319
Lot Number: 050219
Description: Revised Additions Mix
11 components
Expiration Date: 050222
Recommended Storage: Refrigerate (4 °C)
Nominal Concentration (µg/mL): Varied
NIST Test ID#: 6UTB

Solvent(s): Methanol **Lot#** DU230-US

Weight(s) shown below were combined and diluted to (mL): 100.0
5E-05 Balance Uncertainty
0.001 Flask Uncertainty

Formulated By:	Prashant Chauhan	050219 DATE
Reviewed By:	Pedro L. Rentas	050219 DATE

	Compound	RM#	Lot Number	Nominal Conc (µg/mL)	Purity (%)	Uncertainty Purity	Target Weight(g)	Actual Weight(g)	Actual Conc (µg/mL)	Expanded Uncertainty (+/-) (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50
1.	Acrylonitrile	7	4718CK	10000	99	0.2	1.01021	1.01061	10003.9	40.4	107-13-1	N/A	orl-rat 78 mg/kg
2.	1-Chlorobutane	1072	15538EZ	2000	99.5	0.2	0.20103	0.20120	2001.7	8.1	109-69-3	N/A	orl-rat 2670mg/kg
3.	Cyclohexane	1023	SHBD2795V	2000	99.5	0.2	0.20103	0.20120	2001.7	8.1	110-82-7	300 ppm (1050mg/m3/8H)	orl-rat 12705mg/kg
4.	Di-isopropyl ether (DIPE)	987	00412MX	2000	99	0.2	0.20204	0.20224	2002.0	8.1	108-20-3	500 ppm (2100mg/m3/8H)	orl-rat 8470mg/kg
5.	1,4-Dioxane	373	03853KE	40000	99	0.2	4.04085	4.04110	40002.5	161.6	123-91-1	25 ppm (90mg/m3/8H)(skin)	orl-mus 5700mg/kg
6.	Hexachloroethane	199	12604HBV	2000	99	0.2	0.20204	0.20220	2001.6	8.1	67-72-1	1 ppm (10mg/m3/8H)(skin)	orl-gpg 4970mg/kg
7.	Methylcyclohexane	1627	08046KN	2000	99	0.2	0.20204	0.20224	2002.0	8.1	108-87-2	N/A	N/A
8.	Methyl tert-butyl ether (MTBE)	209	02197JJ	2000	99.8	0.2	0.20042	0.20062	2002.0	8.1	1634-04-4	N/A	orl-rat 4g/kg
9.	Propionitrile	349	1395468	20000	99	0.2	2.02042	2.02082	20003.9	80.8	107-12-0	N/A	orl-rat 39mg/kg
10.	Tetrahydrofuran	380	113886	10000	99.9	0.2	1.00111	1.00151	10004.0	40.1	109-99-9	20 ppm (590mg/m3/8H)	orl-rat 2500mg/kg
11.	1,2,3,4-Tetramethylbenzene	491	AP01	2000	93	0.2	0.21508	0.21540	2003.0	8.7	488-23-3	N/A	orl-rat 6408mg/kg



- The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
- Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
- Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
- All Standards, after opening ampule, should be stored with caps tight and under appropriate laboratory conditions.
- Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, DC, (1994).

Method GC6MSD-1: Column: Vocol (60m X 0.25mm ID X 1.5µm film thickness). Temp. 1 = 35°C (10min.), Temp. 2 = 200°C (8.75 min.), Rate = 4°C/min., Injector Temp. = 200°C, Detector Temp. = 220°C. Solvent Delay: 8 minutes. Analysis performed by Candice Warren.

Name	MSD RT (min.)
Methyl tert-butyl ether (MTBE)	13.56
Acrylonitrile	13.79
Di-isopropyl ether	15.44
Propionitrile	18.53
Tetrahydrofuran	20.17
Cyclohexane	20.58
1-Chlorobutane	20.83
Methylcyclohexane	24.84
1,4-Dioxane	26.84
Hexachloroethane	48.44
1,2,3,4-Tetramethylbenzene	51.62

Absolute Standards Inc.

PO Box 5585
Hamden, CT 06518-0585

Phone: 203-281-2917
FAX: 203-281-2922

Safety Data Sheet (SDS) GHS/OSHA Compliant

Section I Product and Company Identification

IDENTITY **ANALYTICAL STANDARD DISSOLVED IN METHANOL**

Manufacturer's Name	ABSOLUTE STANDARDS INC	Emergency Telephone USA & CANADA	**1-800-535-5053**
Address	44 Rossotto Dr. Hamden CT, 06514	Emergency Telephone International	**1-352-323-3500**
		Date Prepared/Revised	May 1, 2018

Section II - Hazards Identification

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

H225	**Highly Flammable Liquid and Vapor**	**H301, 311, 331**	**Toxic if swallowed, skin contact, inhaled**
H370	**Cause damage to organs**	**H351**	**Suspected of causing cancer**
P271	**Use in ventilated area**	**P280**	**Use gloves, eye protection/face sheild**
P302,332	**If on skin, wash with soap and water**	**P305,351,338**	**If in eyes, remove contacts, rinse with water**

Signal Word: DANGER

Section III - Composition

Components (Specific Chemical Identity; Common Name(s))			
Methanol	METHYL ALCOHOL	CAS#: 67-56-1	% (optional) > 97

See Certified Weight Report For Other Analytes Present At Trace Quantities.

INTENDED USE: REFERENCE MATERIAL

Section IV. FIRST AID MEASURES

General advice	Consult a physician. Show this safety data sheet to the doctor in attendance.Move to safe area.
If inhaled	If inhaled, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.
In case of skin contact	Wash with soap and water. Consult a physician.
In case of eye contact	Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.
If swallowed	Do NOT induce vomiting. Rinse mouth with water. Consult a physician.

Section V. FIREFIGHTING MEASURES

Flammability	Flammable in the presence of a source of ignition when the temperature is above the flash point. Keep away from heat/sparks/open flame/hot surface. No smoking.
Suitable extinguishing media	Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Protective equipment for fire	Wear self contained breathing apparatus for fire fighting if necessary.

Section VI. ACCIDENTAL RELEASE MEASURES

Personal precautions	Wear respiratory protection. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Vapours accumulate to form explosive concentrations.
Environmental precautions	Prevent further leakage or spillage if safe to do so. Do not let product enter drains.
Clean up	Contain spillage, and then collect and place in container for disposal according to local regulations (see section 13).

Section VII. HANDLING AND STORAGE

Precautions for safe handling	Avoid contact with skin and eyes. Avoid inhalation of vapour or mist.
Storage Conditions	Use ventilation Keep away from sources of ignition. No smoking. Prevent the build up of electrostatic charge. Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

Section VIII. EXPOSURE CONTROLS/PERSONAL PROTECTION

Methanol 67-56-1 TWA 200 ppm
Skin notation TWA 200 ppm
Potential for skin absorption , ingestion and inhalation.
Personal protective equipment Respiratory protection Handle with gloves. Gloves must be inspected prior to use. Eye protection.
Avoid contact with skin, eyes and clothing. Wash hands thoroughly after handling the product.

Section IX - Physical/Chemical Characteristics

Boiling Point	65°C	Specific Gravity (H2O = 1)	0.79
Vapor Pressure (mm Hg)	96	Melting Point	-98°C
Vapor Density (AIR = 1)	1.11	Evaporation rate (Butyl Acetate = 1)	4.6

Solubility in Water COMPLETE

Appearance and Odor CLEAR, COLORLESS LIQUID WITH CHARACTERISTIC PUNGENT ODOR.

Section X. STABILITY AND REACTIVITY

Chemical stability Stable under recommended storage conditions.
Possibility of hazardous reactions Vapours may form explosive mixture with air.
Conditions to avoid Heat, flames, sparks, extreme temperature and sunlight.
Materials to avoid Acid chlorides, Acid anhydrides, Oxidizing agents, Alkali metals, Reducing agents, Acids
Hazardous decomposition products formed under fire conditions. - Carbon oxides

Section XI. TOXICOLOGICAL INFORMATION

LD50 Oral - rat - 5,628 mg/kg
LC50 Inhalation - rat - 4 h - 64000 ppm
LD50 Dermal - rabbit - 15,800 mg/kg
Toxic if absorbed through skin. Causes skin irritation.
Eye damage/eye irritation
Toxic if inhaled. Causes respiratory tract irritation.
Toxic if swallowed.

Section XII. ECOLOGICAL INFORMATION FOR REPORTABLE QUANTITY OF 5000 lbs.

LC50	15,400 mg/l - 96 h
EC50	24,500.00 mg/l - 48 h
EC100	10,000.00 mg/l - 24 h

Section XIII. DISPOSAL CONSIDERATIONS

Dispose with normal Laboratory Solvent Waste.

Section XIV. TRANSPORT INFORMATION

DOT (US)
UN number: 1230 Class: 3 Packing group: II
Proper shipping name: Methanol

IATA
UN number: 1230 Class: 3 Packing group: II
Proper shipping name: Methanol

Section XV. REGULATORY INFORMATION

OSHA Hazards Flammable liquid, Target Organ Effect, Toxic by inhalation., Toxic by ingestion, Toxic by skin absorption, Irritant
SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

Section XVI. Misc. INFORMATION

The information in this Material Safety Data Sheet meets the requirements of the United States Occupational Safety and Health Act and regulations promulgated thereunder (29 CFR 1910.1200 et. seq.) and Global Harmonized System (GHS). This document is intended only as a guide to the appropriate precautionary handling of the material by trained personnel, or supervised by a person trained in chemical handling. The user is responsible for determining the precautions and dangers of this chemical for his or her particular application. Depending on usage, protective clothing including eye and face guards and respirators must be used to avoid contact with material or breathing chemical vapors/fumes. Exposure to this product may have serious adverse health effects. This chemical may interact with other substances. Since the potential uses are so varied, ABSOLUTE STANDARDS INC. cannot warn of all the potential dangers of use or interaction with other chemicals or substances. ABSOLUTE STANDARDS INC. warrants that the chemical meets the specifications set forth on the label. ABSOLUTE STANDARDS INC DISCLAIMS ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED WITH REGARD TO THE PRODUCT SUPPLIED HEREUNDER, ITS MERCHANTABILITY OR ITS FITNESS FOR A PARTICULAR APPLICATION. The user should recognize that this product can cause severe injury or death, especially if improperly handled or the known dangers of use are not heeded. READ ALL PRECAUTIONARY INFORMATION. As new documented general safety information becomes available, Absolute Standards Inc. will periodically revise this Safety Data Sheet. If you have any questions, please call Technical Service at 1-203-281-2917 for assistance.

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT

Part Number: 91980
Lot Number: 061720
Description: Acrolein

Expiration Date: 071720
Recommended Storage: Refrigerate (4 °C)
Nominal Concentration (µg/mL): 5000
NIST Test ID#: 23060

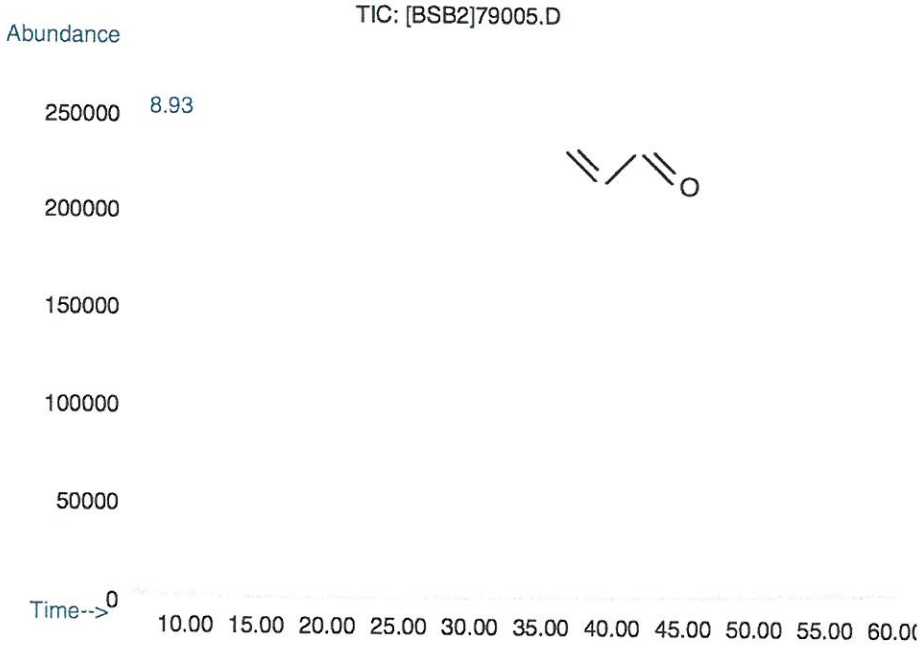
Solvent(s): **Lot#**
Water 33120Q

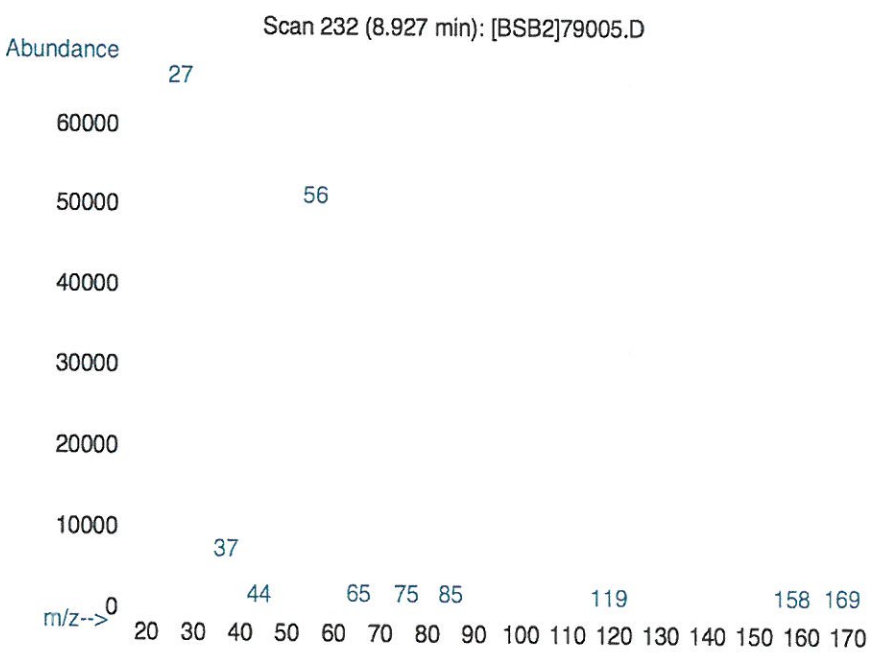
5E-05 Balance Uncertainty
Weight(s) shown below were combined and diluted to (mL): 20.0 0.002 Flask Uncertainty

		061720
Formulated By:	Benson Chan	DATE
		061720
Reviewed By:	Pedro L. Rentas	DATE

Compound	RM#	Lot Number	Nominal Conc (µg/mL)	Purity (%)	Uncertainty Purity	Target .Weight(g)	Actual Weight(g)	Actual Conc (µg/mL)	Expanded Uncertainty (+/-) (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50
1. Acrolein	5	07813BN	5000	97	0.2	0.10302	0.10315	5006.4	21.2	107-02-8	0.1 ppm	orl-rat 46mg/kg

Method: GC6MSD-1. **Detector:** Mass Selective Detector (Scan mode). **Column:** Vocol (60m X 0.25mm ID X 1.5µm film thickness). **Oven Profile:** Temp. 1 = 35°C (Time 1 = 10min.), Temp. 2=200°C (Time 2 = 8.75 min.). Rate = 4°C/min., Injector Temp. = 200°C, Detector Temp. = 220°C. **Analyst:** Pedro Rentas. **NOTE:** Due to the instability of acrolein in solution, all solutions of acrolein, and any dilutions thereof, should be used immediately Long term storage is not recommended. Please contact our technical department if further information is required.





- The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
- Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
- Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
- All Standards, after opening ampule, should be stored with caps tight and under appropriate laboratory conditions.
- Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, DC, (1994).

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT

Part Number: 91980
Lot Number: 061820
Description: Acrolein

Expiration Date: 071820
Recommended Storage: Refrigerate (4 °C)
Nominal Concentration (µg/mL): 5000
NIST Test ID#: 6UTB

Solvent(s): Water **Lot#** 33120Q

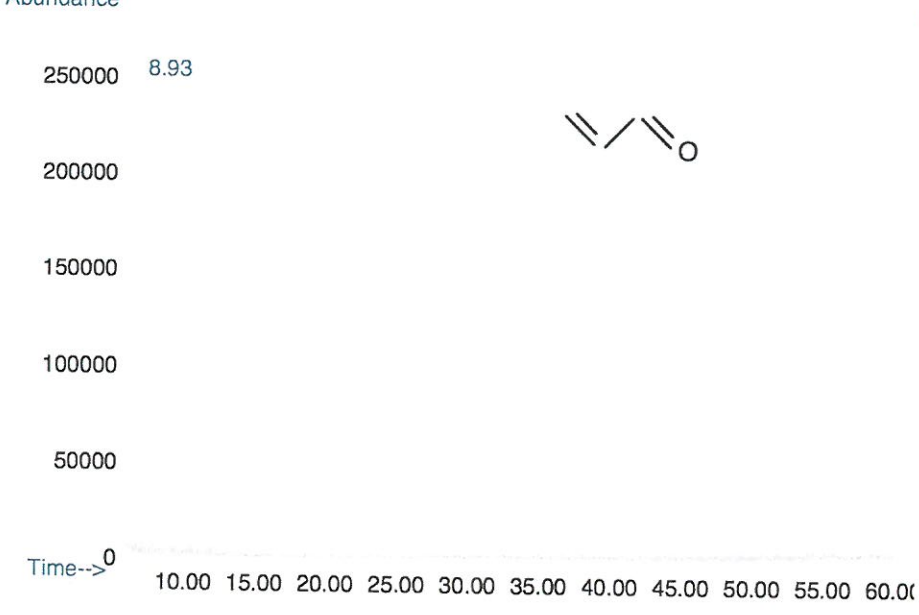
5E-05 Balance Uncertainty
Weight(s) shown below were combined and diluted to (mL): 10.0 0.007 Flask Uncertainty

Formulated By:	Justin Dippold	061820 DATE
Reviewed By:	Pedro L. Rentas	061820 DATE

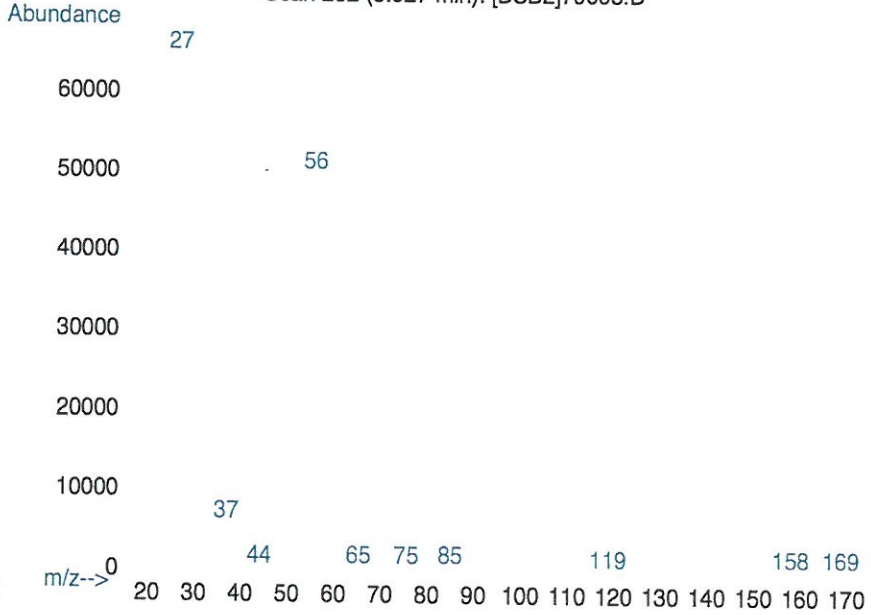
Compound	RM#	Lot Number	Nominal Conc (µg/mL)	Purity (%)	Uncertainty Purity	Target Weight(g)	Actual Weight(g)	Actual Conc (µg/mL)	Expanded Uncertainty (+/-) (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50
1. Acrolein	5	04715LL	5000	97	0.2	0.05157	0.05165	5008.1	23.8	107-02-8	0.1 ppm	orl-rat 46mg/kg

Method: GC6MSD-1. **Detector:** Mass Selective Detector (Scan mode). **Column:** Vocol (60m X 0.25mm ID X 1.5µm film thickness). **Oven Profile:** Temp. 1 = 35°C (Time 1 = 10min.), Temp. 2=200°C (Time 2 = 8.75 min.). Rate = 4°C/min., Injector Temp. = 200°C, Detector Temp. = 220°C. **Analyst:** Pedro Rentas. **NOTE:** Due to the instability of acrolein in solution, all solutions of acrolein, and any dilutions thereof, should be used immediately Long term storage is not recommended. Please contact our technical department if further information is required.

TIC: [BSB2]79005.D



Scan 232 (8.927 min): [BSB2]79005.D



- The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
- Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
- Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
- All Standards, after opening ampule, should be stored with caps tight and under appropriate laboratory conditions.
- Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, DC, (1994).

Absolute Standards Inc.
PO Box 5585
Hamden, CT 06518-0585
Phone: 203-281-2917
FAX: 203-281-2922

Safety Data Sheet (SDS) GHS/OSHA Compliant

Section I Product and Company Identification

IDENTITY **ANALYTICAL STANDARD DISSOLVED IN WATER**

Manufacturer's Name	ABSOLUTE STANDARDS INC	Emergency Telephone USA & CANADA	**1-800-535-5053**
Address	44 Rossotto Dr. Hamden CT, 06514	Emergency Telephone International	**1-352-323-3500**
		Date Prepared/Revised	May 1, 2019

Section II - Hazards Identification

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

P271	**Use in ventilated area**	**H315**	**Causes skin and eye irritation.**
P302,332	**If on skin, wash with soap and water**	**P280**	**Use gloves, eye protection/face sheild**
		P305,351,338	**If in eyes, remove contacts, rinse with water**

Signal Word: DANGER

Section III - Composition

Components (Specific Chemical Identity; Common Name(s))		% (optional)
Water	CAS#: 7732-18-5	> 97

See Certified Weight Report For Other Analytes Present At Trace Quantities.

INTENDED USE: REFERENCE MATERIAL

Section IV. FIRST AID MEASURES

General advice	Consult a physician. Show this safety data sheet to the doctor in attendance.Move to safe area.
If inhaled	If inhaled, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.
In case of skin contact	Wash with soap and water. Consult a physician.
In case of eye contact	Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.
If swallowed	Do NOT induce vomiting. Rinse mouth with water. Consult a physician.

Section V. FIREFIGHTING MEASURES

Suitable extinguishing media	Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Protective equipment for fire	Wear self contained breathing apparatus for fire fighting if necessary.
Hazardous Decomposition products	Carbon oxides

Section VI. ACCIDENTAL RELEASE MEASURES

Personal precautions	Wear respiratory protection. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Vapours accumulate to form explosive concentrations.
Environmental precautions	Prevent further leakage or spillage if safe to do so. Do not let product enter drains.
Clean up	Contain spillage, and then collect and place in container for disposal according to local regulations (see section 13).

Section VII. HANDLING AND STORAGE

Precautions for safe handling	Avoid contact with skin and eyes. Avoid inhalation of vapour or mist. Use ventilation Keep away from sources of ignition. No smoking. Prevent the build up of electrostatic charge.
Storage Conditions	Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

Section VIII. EXPOSURE CONTROLS/PERSONAL PROTECTION

Water CAS#: 7732-18-5 TWA: 500 ppm

Personal protective equipment Respiratory protection Handle with gloves. Gloves must be inspected prior to use. Eye protection.
Avoid contact with skin, eyes and clothing. Wash hands thoroughly after handling the product.

Section IX - PHYSICAL/CHEMICAL CHARACTERISTICS

Boiling Point	100°C	Specific Gravity (H2O = 1)	1
Vapor Pressure (mm Hg)		Melting Point	

	NA		0°C
Vapor Density (AIR = 1)	NA	Evaporation rate (Butyl Acetate = 1)	NA

Solubility in Water: Completely miscible

Appearance and Odor: CLEAR, COLORLESS LIQUID WITH SLIGHT CHEMICAL ODOR.

Section X. STABILITY AND REACTIVITY

Chemical stability: Stable under recommended storage conditions.
Possibility of hazardous reactions: NA
Conditions to avoid: NA
Materials to avoid: NA
Hazardous decomposition products - No data available

Section XI. TOXICOLOGICAL INFORMATION

LD50 Oral - Rat: NA
LC50 Inhalation - Rat: NA
LD50 Dermal - Guinea pig: NA
Causes skin irritation.
Eye irritation

Section XII. ECOLOGICAL INFORMATION

LC50: NA
EC50: NA

Section XIII. DISPOSAL CONSIDERATIONS

Dispose with normal Laboratory Solvent Waste.

Section XIV. TRANSPORT INFORMATION

DOT (US)
Not dangerous goods
Proper shipping name: Water

IATA
Not dangerous goods
Proper shipping name: Water

Section XV. REGULATORY INFORMATION

SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

Section XVI. Misc. INFORMATION

The information in this Material Safety Data Sheet meets the requirements of the United States Occupational Safety and Health Act and regulations promulgated thereunder (29 CFR 1910.1200 et. seq.) and Global Harmonized System (GHS). This document is intended only as a guide to the appropriate precautionary handling of the material by trained personnel, or supervised by a person trained in chemical handling. The user is responsible for determining the precautions and dangers of this chemical for his or her particular application. Depending on usage, protective clothing including eye and face guards and respirators must be used to avoid contact with material or breathing chemical vapors/fumes. Exposure to this product may have serious adverse health effects. This chemical may interact with other substances. Since the potential uses are so varied, ABSOLUTE STANDARDS INC. cannot warn of all the potential dangers of use or interaction with other chemicals or substances. ABSOLUTE STANDARDS INC. warrants that the chemical meets the specifications set forth on the label. ABSOLUTE STANDARDS INC DISCLAIMS ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED WITH REGARD TO THE PRODUCT SUPPLIED HEREUNDER, ITS MERCHANTABILITY OR ITS FITNESS FOR A PARTICULAR APPLICATION. The user should recognize that this product can cause severe injury or death, especially if improperly handled or the known dangers of use are not heeded. READ ALL PRECAUTIONARY INFORMATION. As new documented general safety information becomes available, Absolute Standards Inc. will periodically revise this Material Safety Data Sheet. If you have any questions, please call Technical Service at 1-203-281-2917 for assistance.

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Analytical Reference Material ARM

ISO 9001 QS Registered
ISO 17025-34-35-43 Accredited
Scopes: http://AbsoluteStandards.com

CERTIFIED WEIGHT REPORT

Part Number: 70046
Lot Number: 072618
Description: Bromochloromethane

Solvent(s): Methanol **Lot#** DS526

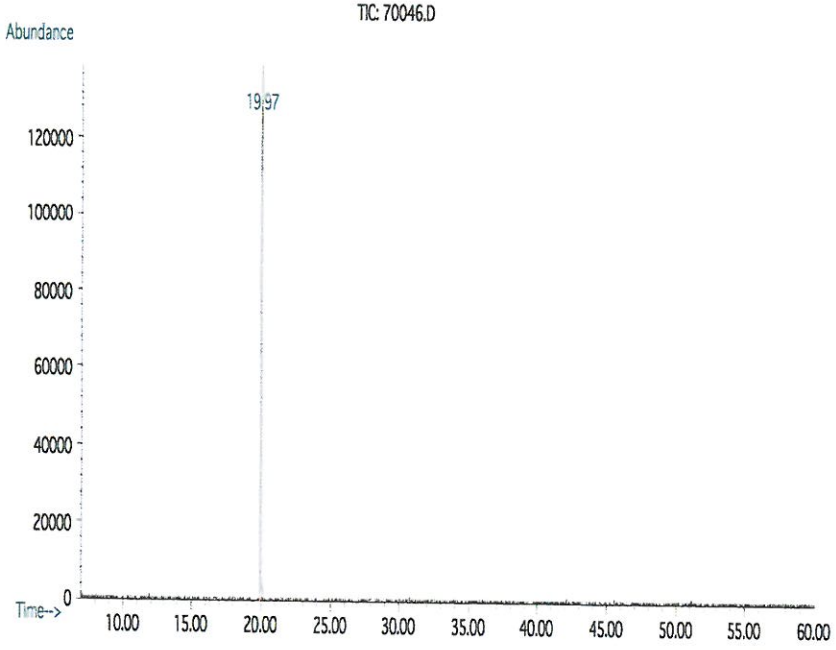
Expiration Date: 072623
Recommended Storage: Refrigerate (4 °C)
Nominal Concentration (µg/mL): 1000
NIST Test ID#: 822-275872-11

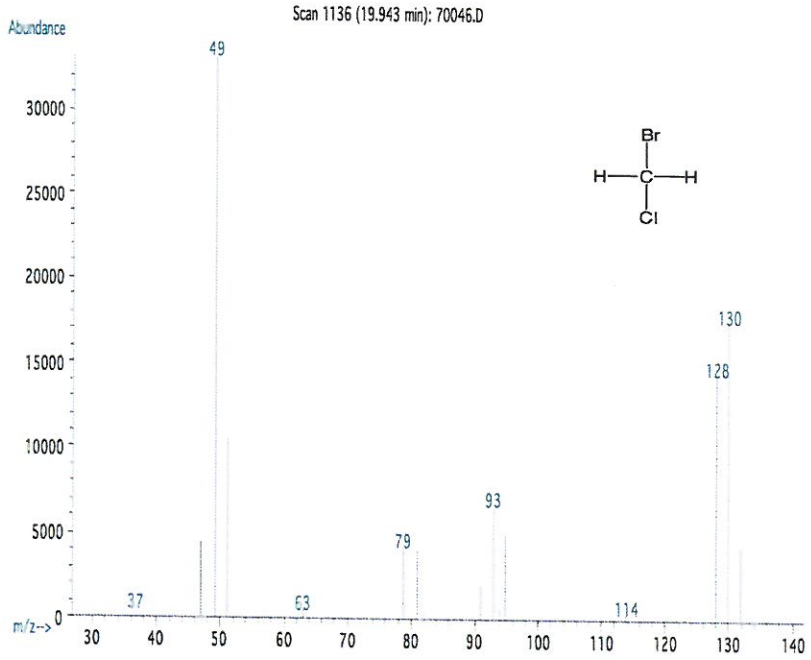
Weight(s) shown below were combined and diluted to (mL): 25.0 | 5E-05 Balance Uncertainty | 0.002 Flask Uncertainty

Eli Aliaga	072618
Formulated By: Eli Aliaga	DATE
Pedro Rentas	072618
Reviewed By: Pedro L. Rentas	DATE

Compound	RM#	Lot Number	Nominal Conc (µg/mL)	Purity (%)	Uncertainty Purity	Target Weight(g)	Actual Weight(g)	Actual Conc (µg/mL)	Expanded Uncertainty (+/-) (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50
1. Bromochloromethane	46	AY01	1000	99	0.2	0.02526	0.02540	1005.7	5.7	74-97-5	200 ppm (1050mg/m3/8H)	orl-rat 5000mg/kg

Method GC6MSD-1.M: Column : (60m X 0.25mm X 1.5 µm) Temp 1 = 35°C (10min.), Temp 2 = 200°C (8.75 min.), Rate = 4°C/min., Injector B= 200°C, Detector B = 220°C. Analyst: Candice Warren





- The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
- Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
- Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
- All Standards, after opening ampule, should be stored with caps tight and under appropriate laboratory conditions.
- Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, DC, (1994).

RESTEK
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Gravimetric Certificate

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ilac-MRA

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 555582 **Lot No.:** A0140077

Description : Custom 8260A/B Surrogate Mix

Custom 8260A/B Surrogate Mix 25,000µg/mL, P&T Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : July 31, 2021 **Storage:** 10°C or colder

CERTIFIED VALUES

Component #	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	1,2-Dichloroethane-d4 **CAS #** 17060-07-0 (Lot PR-29377) **Purity** 99%	25,008.0 µg/mL	+/- 231.4287 µg/mL +/- 1,413.6866 µg/mL +/- 1,446.2345 µg/mL	Gravimetric Unstressed Stressed
2	1-Bromo-4-fluorobenzene (BFB) **CAS #** 460-00-4 (Lot 20401KO) **Purity** 99%	25,028.0 µg/mL	+/- 231.6138 µg/mL +/- 1,414.8171 µg/mL +/- 1,447.3911 µg/mL	Gravimetric Unstressed Stressed
3	Dibromofluoromethane **CAS #** 1868-53-7 (Lot 0012017) **Purity** 99%	25,012.0 µg/mL	+/- 231.4658 µg/mL +/- 1,413.9127 µg/mL +/- 1,446.4658 µg/mL	Gravimetric Unstressed Stressed
4	Toluene-d8 **CAS #** 2037-26-5 (Lot PR-27311) **Purity** 99%	25,040.0 µg/mL	+/- 231.7249 µg/mL +/- 1,415.4955 µg/mL +/- 1,448.0851 µg/mL	Gravimetric Unstressed Stressed

RESTEK®
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 30470 **Lot No.:** A0141192

Description : tert-Butanol Standard

tert-Butanol Std 50,000µg/mL, P&T Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : August 31, 2021 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound		Grav. Conc. (weight/volume)		Expanded Uncertainty (95% C.L.; K=2)		
1	tert-Butanol (TBA)		50,085.8	µg/mL	+/- 293.2636	µg/mL	Gravimetric
	CAS # 75-65-0	(Lot SHBJ3142)			+/- 1,072.9051	µg/mL	Unstressed
	Purity 98%				+/- 1,104.0642	µg/mL	Stressed

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

Column:
105m x 0.53mm x 3.0µm
Rtx-502.2 (cat.#10910)

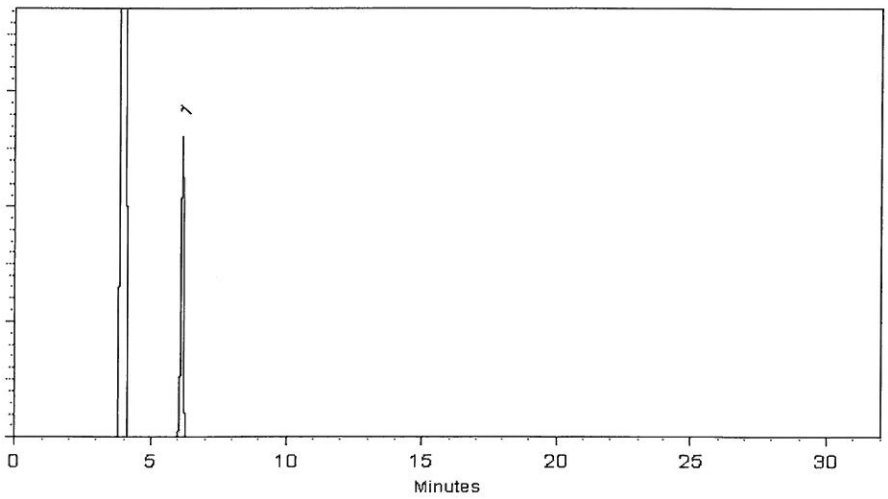
Carrier Gas:
hydrogen-constant pressure 11.0 psi.

Temp. Program:
40°C (hold 2 min.) to 240°C
@ 8°C/min. (hold 5 min.)

Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
FID



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Larry J. Moore - Mix Technician **Date Mixed:** 31-Aug-2018 **Balance:** 1128342314

Jennifer Pollino - Operations Tech-ARM QC **Date Passed:** 05-Sep-2018

Manufactured under Restek's ISO 9001:2015
Registered Quality System
Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k\sqrt{U^2_{gravimetric} + U^2_{homogeneity} + U^2_{storage\ stability} + U^2_{shipping\ stability}}$$

k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

RESTEK
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ilac-MRA

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 30225 **Lot No.:** A0143315

Description : Bromochloromethane Standard

Bromochloromethane 2000µg/mL, P&T Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : November 30, 2023 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	Bromochloromethane	2,003.1 µg/mL	+/- 11.8979	µg/mL	Gravimetric
	CAS # 74-97-5 (Lot 00008541)		+/- 112.3393	µg/mL	Unstressed
	Purity 98%		+/- 114.9667	µg/mL	Stressed

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

Column:
105m x 0.53mm x 3.0µm
Rtx-502.2 (cat.#10910)

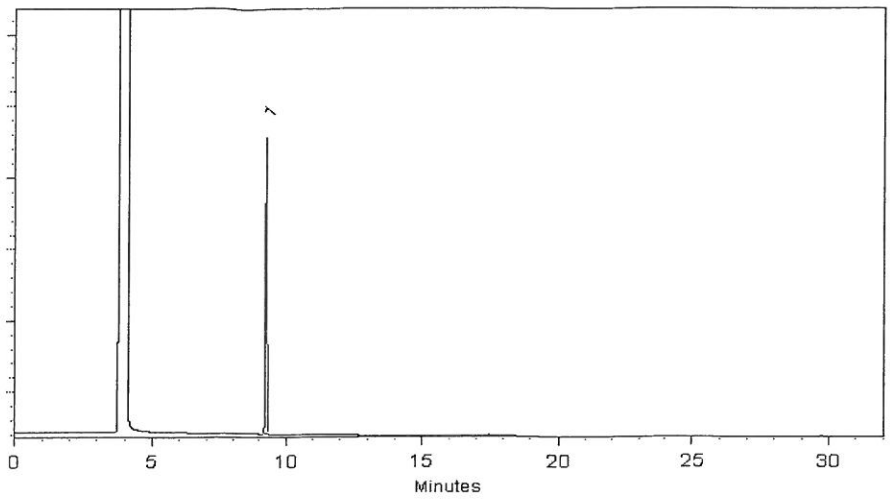
Carrier Gas:
hydrogen-constant pressure 11.0 psi.

Temp. Program:
40°C (hold 2 min.) to 240°C
@ 8°C/min. (hold 5 min.)

Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
FID



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Russ Bookhamer - Operations Technician I

Date Mixed: 15-Nov-2018 **Balance:** B707717271

Jennifer Pollino - Operations Tech-ARM QC

Date Passed: 20-Nov-2018

Manufactured under Restek's ISO 9001:2015
Registered Quality System
Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k\sqrt{U^2_{gravimetric} + U^2_{homogeneity} + U^2_{storage\ stability} + U^2_{shipping\ stability}}$$

k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

RESTEK

Safety Data Sheet

Revision Date: 11/08/18
www.restek.com

2 Letter ISO country code/language code: US/EN

1. IDENTIFICATION

Catalog Number / Product Name:	**30225 / Bromochloromethane Standard**
Company:	Restek Corporation
Address:	110 Benner Circle Bellefonte, Pa. 16823
Phone#:	814-353-1300
Fax#:	814-353-1309
Emergency#:	800-424-9300 (CHEMTREC) 703-527-3887 (Outside the US)
Email:	www.restek.com
Revision Number:	12
Intended use:	For Laboratory use only

2. HAZARD(S)IDENTIFICATION

Emergency Overview:

GHS Hazard Symbols:

GHS Classification:
Specific Target Organ Systemic Toxicity (STOT) - Single Exposure Category 1
Hazardous for the ozone layer
Flammable Liquid Category 2
Acute Toxicity - Inhalation Dust / Mist Category 3
Acute Toxicity - Dermal Category 3
Acute Toxicity - Oral Category 3

GHS Signal Word:
Danger

GHS Hazard:
Highly flammable liquid and vapour.
Toxic if swallowed, in contact with skin or if inhaled.
Causes damage to organs.
Harms public health and the environment by destroying ozone in the upper atmosphere.

GHS Precautions:

Safety Precautions:
Keep away from heat/sparks/open flames/hot surfaces. – No smoking.
Ground/bond container and receiving equipment.
Use explosion-proof electrical/ventilation and lighting equipment.
Use only non-sparking tools.
Take precautionary measures against static discharge.
Do not breathe dust/fume/gas/mist/vapours/spray.
Wash hands and skin thoroughly after handling.
Do not eat, drink or smoke when using this product.
Use only outdoors or in a well-ventilated area.
Wear protective gloves/protective clothing/eye protection/face protection.

First Aid Measures:
IF SWALLOWED: Immediately call a POISON CENTER/doctor/....
IF ON SKIN: Wash with plenty of soap and water.
IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
Specific treatment see section 4.
Rinse mouth.
Take off immediately all contaminated clothing and wash it before reuse.
In case of fire: Use extinguishing media in section 5 for extinction.

Storage:	Store in a well-ventilated place. Keep container tightly closed. Store in a well-ventilated place. Keep cool. Store locked up.
Disposal:	Dispose of contents/container according to section 13 of the SDS. Refer to manufacturer/supplier for information on recovery/recycling.
Single Exposure Target Organs:	Specific target organ toxicity - Single exposure - STOT SE 1: H370 Causes damage to organs. (C >= 10 %; No information to prove exclusion of certain routes of exposure); Specific target organ toxicity - Single exposure - STOT SE 2: H371 May cause damage to organs. (3 % <= C <10 %; Concentration limits for acute toxicity cannot be translated into GHS from the DSD especially when minimum classifications are given)
Repeated Exposure Target Organs:	No data available

3. COMPOSITION / INFORMATION ON INGREDIENT

Chemical Name	CAS #	EINEC #	% Composition
methanol	67-56-1	200-659-6	99.8
bromochloromethane	74-97-5	200-826-3	0.2

4. FIRST-AID MEASURES

Inhalation:	Remove to fresh air. If breathing is difficult, have a trained individual administer oxygen. If not breathing, give artificial respiration and have a trained individual administer oxygen. Get medical attention immediately
Eyes:	Flush eyes with plenty of water for at least 20 minutes retracting eyelids often. Tilt the head to prevent chemical from transferring to the uncontaminated eye. Get immediate medical attention.
Skin Contact:	Wash with soap and water. Remove contaminated clothing and launder. Get medical attention if irritation develops or persists.
Ingestion:	Do not induce vomiting and seek medical attention immediately. Drink two glasses of water or milk to dilute. Provide medical care provider with this SDS.

5. FIRE- FIGHTING MEASURES

Extinguishing Media:	Use alcohol resistant foam, carbon dioxide, or dry chemical extinguishing agents. Water may be ineffective but water spray can be used extinguish a fire if swept across the base of the flames. Water can absorb heat and keep exposed material from being damaged by fire.
Fire and/or Explosion Hazards:	Vapors may be ignited by sparks, flames or other sources of ignition if material is above the flash point giving rise to a fire (Class B). Vapors are heavier than air and may travel to a source of ignition and flash back.
Fire Fighting Methods and Protection:	Do not enter fire area without proper protection including self-contained breathing apparatus and full protective equipment. Fight fire from a safe distance and a protected location due to the potential of hazardous vapors and decomposition products. Flammable component(s) of this material may be lighter than water and burn while floating on the surface.
Hazardous Combustion Products:	Carbon dioxide, Carbon monoxide

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions and Equipment:	Exposure to the spilled material may be severely irritating or toxic. Follow personal protective equipment recommendations found in Section 8 of this SDS. Personal protective equipment needs must be evaluated based on information provided on this sheet and the special circumstances created by the spill including; the material spilled, the quantity of the spill, the area in which the spill occurred, and the expertise of employees in the area responding to the spill. Never exceed any occupational exposure limits.
Methods for Clean-up:	Prevent the spread of any spill to minimize harm to human health and the environment if safe to do so. Wear complete and proper personal protective equipment following the recommendation of Section 8 at a minimum. Dike with suitable absorbent material like granulated clay. Gather and store in a sealed container pending a waste disposal evaluation.

7. HANDLING AND STORAGE

Handling Technical Measures and Precautions: Toxic or severely irritating material. Avoid contacting and avoid breathing the material. Use only in a well ventilated area. Use spark-proof tools and explosion-proof equipment

Storage Technical Measures and Conditions: Store in a cool dry ventilated location. Isolate from incompatible materials and conditions. Keep container(s) closed. Keep away from sources of ignition

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

United States:

Chemical Name	CAS No.	IDLH	ACGIH STEL	ACGIH TLV-TWA	OSHA Exposure Limit
methanol	67-56-1	6000 ppm IDLH	250 ppm STEL	200 ppm TWA	200 ppm TWA; 260 mg/m3 TWA

Personal Protection:

Engineering Measures: Local exhaust ventilation is recommended when generating excessive levels of vapours from handling or thermal processing.

Respiratory Protection: Respiratory protection may be required to avoid overexposure when handling this product. General or local exhaust ventilation is the preferred means of protection. Use a respirator if general room ventilation is not available or sufficient to eliminate symptoms.If an exposure limit is exceeded or if an operator is experiencing symptoms of inhalation overexposure as explained in Section 3, provide respiratory protection.

Eye Protection: Wear chemically resistant safety glasses with side shields when handling this product. Do not wear contact lenses.

Skin Protection: Wear protective gloves. Inspect gloves for chemical break-through and replace at regular intervals. Clean protective equipment regularly. Wash hands and other exposed areas with mild soap and water before eating, drinking, and when leaving work

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance, color:	No data available
Odor:	Mild
Physical State:	Liquid
pH:	Not applicable
Vapor Pressure:	No data available
Vapor Density:	1.1 (air = 1)
Boiling Point (°C):	64.7 °C at 760 mmHg (HSDB)
Melting Point (°C):	-98 °C
Flash Point (°F):	52
Flammability:	Highly Flammable
Upper Flammable/Explosive Limit, % in air:	36
Lower Flammable/Explosive Limit, % in air:	6
Autoignition Temperature (°C):	464 deg C
Decomposition Temperature (°C):	No data available
Specific Gravity:	0.791 - 0.792 g/cm3 at 20 °C
Evaporation Rate:	No data available
Odor Threshold:	No data available
Solubility:	Moderate; 50-99%
Partition Coefficient: n-octanol in water:	No data available
VOC % by weight:	0
Molecular Weight:	32.04

10. STABILITY AND REACTIVITY

Stability:	Stable under normal conditions.
Conditions to Avoid:	None known.
Materials to Avoid / Chemical Incompatiability:	Strong oxidizing agents
Hazardous Decomposition Products:	Carbon dioxide Carbon monoxide

11. TOXICOLOGICAL INFORMATION

Routes of Entry:	Inhalation, Skin Contact, Eye Contact, Ingestion
Target Organs Potentially Affected By Exposure:	Eyes, Central nervous system stimulation, Skin, GI Tract, Respiratory Tract

Chemical Interactions That Change Toxicity: None Known

Immediate (Acute) Health Effects by Route of Exposure:

Inhalation Irritation:	Can cause moderate respiratory irritation, dizziness, weakness, fatigue, nausea and headache.
Inhalation Toxicity:	Harmful! Can cause systemic damage (see "Target Organs)Methanol can cause central nervous system depression and overexposure can cause damage to the optic nerve resulting in visual impairment or blindness.
Skin Contact:	Can cause moderate skin irritation, defatting, and dermatitis. Not likely to cause permanent damage.
Eye Contact:	Can cause moderate irritation, tearing and reddening, but not likely to permanently injure eye tissue.
Ingestion Irritation:	Irritating to mouth, throat, and stomach. Can cause abdominal discomfort, nausea, vomiting and diarrhea.Highly toxic and may be fatal if swallowed.
Ingestion Toxicity:	Toxic if swallowed. May cause target organ failure and/or death.May be fatal if swallowed.

Long-Term (Chronic) Health Effects:

Carcinogenicity:	No data.
Reproductive and Developmental Toxicity:	No data available to indicate product or any components present at greater than 0.1% may cause birth defects.
Inhalation:	Upon prolonged and/or repeated exposure, can cause moderate respiratory irritation, dizziness, weakness, fatigue, nausea and headache.Harmful! Can cause systemic damage upon prolonged and/or repeated exposure (see "Target Organs)
Skin Contact:	Upon prolonged or repeated contact, can cause moderate skin irritation, defatting, and dermatitis. Not likely to cause permanent damage.
Ingestion:	Toxic if swallowed. May cause target organ failure and/or death.

Component Toxicological Data:
NIOSH:

Chemical Name	CAS No.	LD50/LC50
Methanol	67-56-1	Inhalation LC50 Rat 22500 ppm 8 h

Component Carcinogenic Data:
OSHA:

Chemical Name	CAS No.
No data available	

ACGIH:

Chemical Name	CAS No.
No data available	

NIOSH:

Chemical Name	CAS No.
No data available	

NTP:

Chemical Name	CAS No.
No data available	

IARC:

Chemical Name	CAS No.	Group No.

12. ECOLOGICAL INFORMATION

Overview:	Moderate ecological hazard. This product may be dangerous to plants and/or wildlife.
Mobility:	No data
Persistence:	No data
Bioaccumulation:	No data
Degradability:	Biodegrades slowly.
Ecological Toxicity Data:	No data available

13. DISPOSAL CONSIDERATIONS

Waste Description of Spent Product:	Spent or discarded material is a hazardous waste. Mixing spent or discarded material with other materials may render the mixture hazardous. Perform a hazardous waste determination on mixtures.
Disposal Methods:	Dispose of by incineration following Federal, State, Local, or Provincial regulations.
Waste Disposal of Packaging:	Comply with all Local, State, Federal, and Provincial Environmental Regulations.

14. TRANSPORTATION INFORMATION

United States:	
DOT Proper Shipping Name:	Methanol
UN Number:	UN1230
Hazard Class:	3
Packing Group:	II
International:	
IATA Proper Shipping Name:	Methanol
UN Number:	UN1230
Hazard Class:	3(6.1)
Packing Group:	II

Marine Pollutant: No

Chemical Name	CAS#	Marine Pollutant	Severe Marine Pollutant
No data available			

15. REGULATORY INFORMATION

United States:

Chemical Name	CAS#	CERCLA	SARA 313	SARA EHS 313	TSCA
methanol	67-56-1	X	X	-	X

The following chemicals are listed on CA Prop 65:

Chemical Name	CAS #	Regulation
Methanol	67-56-1	Prop 65 Devolop Tox

State Right To Know Listing:

Chemical Name	CAS#	New Jersey	Massachusetts	Pennsylvania	California
methanol	67-56-1	X	X	X	X
bromochloromethane	74-97-5	X	X	X	X

16. OTHER INFORMATION

Prior Version Date:	05/24/18
Other Information:	Any changes to the SDS compared to previous versions are marked by a vertical line in front of the concerned paragraph.
References:	No data available
Disclaimer:	Restek Corporation provides the descriptions, data and information contained herein in good faith but makes no representation as to its comprehensiveness or accuracy. It is provided for your guidance only. Because many factors may affect processing or application/use, Restek Corporation recommends you perform an assessment to determine the suitability of a product for your particular purpose prior to use. No warranties of any kind, either expressed or implied, including fitness for a particular purpose, are made regarding products described, data or information set forth. In no case shall the descriptions, information, or data provided be considered a part of our terms and conditions of sale. Further, the descriptions, data and information furnished hereunder are given gratis. No obligation or liability for the description, data and information given are assumed. All such being given and accepted at your risk.

RESTEK®
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ilac-MRA

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 30470 **Lot No.:** A0146062

Description : tert-Butanol Standard

tert-Butanol Std 50,000µg/mL, P&T Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : February 28, 2022 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound		Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)			
1	tert-Butanol (TBA) **CAS #** 75-65-0 **Purity** 99%	(Lot SHBJ9404)	50,098.0 µg/mL	+/- 293.3348 +/- 1,073.1656 +/- 1,104.3322	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed	

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

Column:
105m x 0.53mm x 3.0µm
Rtx-502.2 (cat.#10910)

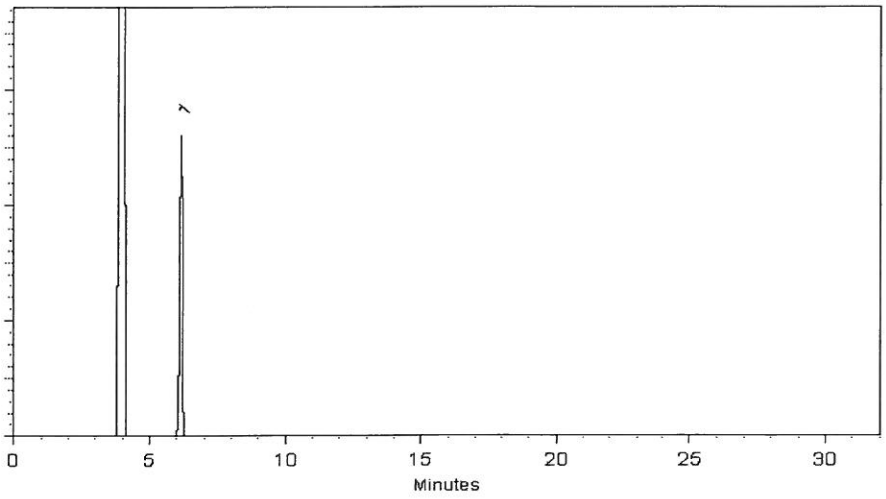
Carrier Gas:
hydrogen-constant pressure 11.0 psi.

Temp. Program:
40°C (hold 2 min.) to 240°C
@ 8°C/min. (hold 5 min.)

Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
FID



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Cathleen Soltis - Mix Technician

Date Mixed: 14-Feb-2019 **Balance:** B251644995

Justine Albertson - Operations Tech-ARM QC

Date Passed: 17-Feb-2019

Manufactured under Restek's ISO 9001:2015
Registered Quality System
Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k\sqrt{U^2_{gravimetric} + U^2_{homogeneity} + U^2_{storage\ stability} + U^2_{shipping\ stability}}$$

k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

RESTEK®
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ilac-MRA

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 30042 **Lot No.:** A0148931

Description : 502.2 Calibration Mix #1

502.2 Calibration Mix #1 2,000µg/mL, P&T Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : January 31, 2026 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	Dichlorodifluoromethane (CFC-12) **CAS #** 75-71-8 (Lot 00012554) **Purity** 99%	2,000.5 µg/mL	+/- 13.6025 µg/mL +/- 112.3898 µg/mL +/- 115.0093 µg/mL	Gravimetric Unstressed Stressed
2	Chloromethane (methyl chloride) **CAS #** 74-87-3 (Lot SHBJ6334) **Purity** 99%	2,000.7 µg/mL	+/- 13.9088 µg/mL +/- 112.4334 µg/mL +/- 115.0522 µg/mL	Gravimetric Unstressed Stressed
3	Vinyl chloride **CAS #** 75-01-4 (Lot 00015559) **Purity** 99%	2,000.4 µg/mL	+/- 13.0813 µg/mL +/- 112.3179 µg/mL +/- 114.9386 µg/mL	Gravimetric Unstressed Stressed
4	Bromomethane (methyl bromide) **CAS #** 74-83-9 (Lot 101604) **Purity** 99%	2,002.2 µg/mL	+/- 13.9072 µg/mL +/- 112.5195 µg/mL +/- 115.1404 µg/mL	Gravimetric Unstressed Stressed
5	Chloroethane (ethyl chloride) **CAS #** 75-00-3 (Lot 107-401039114-1) **Purity** 99%	2,001.6 µg/mL	+/- 16.8115 µg/mL +/- 112.8794 µg/mL +/- 115.4905 µg/mL	Gravimetric Unstressed Stressed
6	Trichlorofluoromethane (CFC-11) **CAS #** 75-69-4 (Lot SHBH4155V) **Purity** 99%	2,001.7 µg/mL	+/- 13.7194 µg/mL +/- 112.4699 µg/mL +/- 115.0907 µg/mL	Gravimetric Unstressed Stressed

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

Column:
60m x 0.25mm x 1.4µm
Rtx-502.2 (cat.#10916)

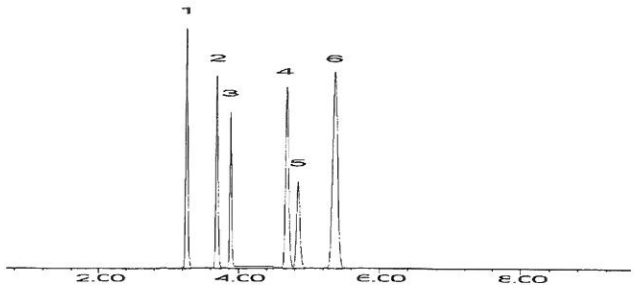
Carrier Gas:
helium-constant flow 2.0 mL/min.

Temp. Program:
40°C (hold 6 min.) to 100°C
@ 6°C/min.

Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
MSD



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Joseph Jaglowski - Mix Technician **Date Mixed:** 08-May-2019 **Balance:** B251644995

Jennifer Pollino - Operations Tech-ARM QC **Date Passed:** 24-May-2019

Manufactured under Restek's ISO 9001:2015
Registered Quality System
Certificate #FM 80397

RESTEK

Safety Data Sheet

Revision Date: 04/15/19
www.restek.com

2 Letter ISO country code/language code: US/EN

1. IDENTIFICATION

Catalog Number / Product Name:	**30042 / 502.2 Calibration Mix #1**
Company:	Restek Corporation
Address:	110 Benner Circle Bellefonte, Pa. 16823
Phone#:	814-353-1300
Fax#:	814-353-1309
Emergency#:	800-424-9300 (CHEMTREC) 703-527-3887 (Outside the US)
Email:	www.restek.com
Revision Number:	16
Intended use:	For Laboratory use only

2. HAZARD(S)IDENTIFICATION

Emergency Overview:

GHS Hazard Symbols:

GHS Classification:
Carcinogenicity Category 1A
Specific Target Organ Systemic Toxicity (STOT) - Single Exposure Category 1
Hazardous for the ozone layer
Flammable Liquid Category 2
Acute Toxicity - Dermal Category 3
Acute Toxicity - Oral Category 3

GHS Signal Word:
Danger

GHS Hazard:
Highly flammable liquid and vapour.
Toxic if swallowed or in contact with skin.
May cause cancer.
Causes damage to organs.
Harms public health and the environment by destroying ozone in the upper atmosphere.

GHS Precautions:

Safety Precautions:
Obtain special instructions before use.
Do not handle until all safety precautions have been read and understood.
Keep away from heat/sparks/open flames/hot surfaces. – No smoking.
Keep container tightly closed.
Ground/bond container and receiving equipment.
Use explosion-proof electrical/ventilation and lighting equipment.
Use only non-sparking tools.
Take precautionary measures against static discharge.
Do not breathe dust/fume/gas/mist/vapours/spray.
Wash hands and skin thoroughly after handling.
Do not eat, drink or smoke when using this product.
Wear protective gloves/protective clothing/eye protection/face protection.

First Aid Measures:
IF SWALLOWED: Immediately call a POISON CENTER/doctor/....
IF ON SKIN: Wash with plenty of soap and water.
IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
IF exposed: Call a POISON CENTER or doctor/physician.
IF exposed or concerned: Get medical advice/attention.

Call a POISON CENTER or doctor/physician if you feel unwell.
Specific treatment see section 4.
Rinse mouth.
Take off immediately all contaminated clothing and wash it before reuse.
In case of fire: Use extinguishing media in section 5 for extinction.

Storage: Keep container tightly closed.
Store in a well-ventilated place. Keep cool.
Store locked up.

Disposal: Dispose of contents/container according to section 13 of the SDS.
Refer to manufacturer/supplier for information on recovery/recycling.

Single Exposure Target Organs: Specific target organ toxicity - Single exposure - STOT SE 1: H370 Causes damage to organs. (C >= 10 %; No information to prove exclusion of certain routes of exposure); Specific target organ toxicity - Single exposure - STOT SE 2: H371 May cause damage to organs. (3 % <= C <10 %; Concentration limits for acute toxicity cannot be translated into GHS from the DSD especially when minimum classifications are given)

Repeated Exposure Target Organs: Specific target organ toxicity - Repeated exposure - STOT RE 2: H373 May cause damage to organs through prolonged or repeated exposure. (Minimum classification, No information to prove exclusion of certain routes of exposure)

3. COMPOSITION / INFORMATION ON INGREDIENT

Chemical Name	CAS #	EINEC #	% Composition
methanol	67-56-1	200-659-6	98.8
trichlorofluoromethane	75-69-4	200-892-3	0.2
chloroethane	75-00-3	200-830-5	0.2
Vinyl chloride	75-01-4	200-831-0	0.2
methyl bromide	74-83-9	200-813-2	0.2
chloromethane (methyl chloride)	74-87-3	200-817-4	0.2
dichlorodifluoromethane	75-71-8	200-893-9	0.2

4. FIRST-AID MEASURES

Inhalation: Remove to fresh air. If breathing is difficult, have a trained individual administer oxygen. If not breathing, give artificial respiration and have a trained individual administer oxygen. Get medical attention immediately.

Eyes: Flush eyes with plenty of water for at least 20 minutes retracting eyelids often. Tilt the head to prevent chemical from transferring to the uncontaminated eye. Get immediate medical attention. Immediately flush eyes with plenty of water for at least 20 minutes retracting eyelids often. Tilt the head to prevent chemical from transferring to the uncontaminated eye. Get immediate medical attention and monitor the eye daily as advised by your physician.

Skin Contact: Wash with soap and water. Remove contaminated clothing and launder. Get medical attention if irritation develops or persists.

Ingestion: Do not induce vomiting and seek medical attention immediately. Drink two glasses of water or milk to dilute. Provide medical care provider with this SDS. No hazard in normal industrial use. Do not induce vomiting. Seek medical attention if symptoms develop. Provide medical care provider with this SDS.

5. FIRE- FIGHTING MEASURES

Extinguishing Media: Use alcohol resistant foam, carbon dioxide, or dry chemical extinguishing agents. Water may be ineffective but water spray can be used extinguish a fire if swept across the base of the flames. Water can absorb heat and keep exposed material from being damaged by fire. Use alcohol resistant foam, carbon dioxide, or dry chemical extinguishing agents. Water spray or fog may also be effective for extinguishing if swept across the base of the fire. Water can also be used to absorb heat and keep exposed material from being damaged by fire.

Fire and/or Explosion Hazards: Vapors may be ignited by heat, sparks, flames or other sources of ignition at or above the low flash point giving rise to a Class B fire. Vapors are heavier than air and may travel to a source of ignition and flash back

Fire Fighting Methods and Protection: Do not enter fire area without proper protection including self-contained breathing apparatus and full protective equipment. Fight fire from a safe distance and a protected location due to the potential of hazardous vapors and decomposition products. Flammable component(s) of this material may be lighter than water and burn while floating on the surface.

Hazardous Combustion Products: Carbon dioxide, Carbon monoxide

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions and Equipment: Exposure to the spilled material may be severely irritating or toxic. Follow personal protective equipment recommendations found in Section 8 of this SDS. Personal protective equipment needs must be evaluated based on information provided on this sheet and the special circumstances created by the spill including; the material spilled, the quantity of the spill, the area in which the spill occurred, and the expertise of employees in the area responding to the spill. Never exceed any occupational exposure limits.

Methods for Clean-up: Prevent the spread of any spill to minimize harm to human health and the environment if safe to do so. Wear complete and proper personal protective equipment following the recommendation of Section 8 at a minimum. Dike with suitable absorbent material like granulated clay. Gather and store in a sealed container pending a waste disposal evaluation.

7. HANDLING AND STORAGE

Handling Technical Measures and Precautions: Toxic or severely irritating material. Avoid contacting and avoid breathing the material. Use only in a well ventilated area. Use spark-proof tools and explosion-proof equipment

Storage Technical Measures and Conditions: Store in a cool dry ventilated location. Isolate from incompatible materials and conditions. Keep container(s) closed. Keep away from sources of ignition Keep away from heat, sparks, and flame

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

United States:

Chemical Name	CAS No.	IDLH	ACGIH STEL	ACGIH TLV-TWA	OSHA Exposure Limit
methanol	67-56-1	6000 ppm IDLH	250 ppm STEL	200 ppm TWA	200 ppm TWA; 260 mg/m3 TWA
Vinyl chloride	75-01-4	Not established	None Known	(5) ppm TWA; (13) mg/m3 TWA	1 ppm TWA

Personal Protection:

Engineering Measures: Local exhaust ventilation or other engineering controls are normally required when handling or using this product to avoid overexposure.

Respiratory Protection: Respiratory protection may be required to avoid overexposure when handling this product. General or local exhaust ventilation is the preferred means of protection. Use a respirator if general room ventilation is not available or sufficient to eliminate symptoms. Respiratory protection will be required when handling this product. Use respirators only if ventilation cannot be used to eliminate symptoms or reduce the exposure to below acceptable levels. Conduct air monitoring to determine the effectiveness of ventilation. If an exposure limit is exceeded or if an operator is experiencing symptoms of inhalation overexposure as explained in Section 3, provide respiratory protection.

Eye Protection: Wear chemically resistant safety glasses with side shields when handling this product. Do not wear contact lenses.

Skin Protection: Not normally considered a skin hazard. Where use can result in skin contact, practice good personal hygiene. Wash hands and other exposed areas with mild soap and water before eating, drinking, and when leaving work. Wear protective gloves. Inspect gloves for chemical break-through and replace at regular intervals. Clean protective equipment regularly. Wash hands and other exposed areas with mild soap and water before eating, drinking, and when leaving work

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance, color: No data available

Odor: Mild

Physical State:	No data available
pH:	Not applicable
Vapor Pressure:	No data available
Vapor Density:	1.1 (air = 1)
Boiling Point (°C):	-13.8 °C (HSDB) 64.7 °C at 760 mmHg (HSDB)
Melting Point (°C):	-98 °C
Flash Point (°F):	-108
Flammability:	Highly Flammable Extremely Flammable
Upper Flammable/Explosive Limit, % in air:	36
Lower Flammable/Explosive Limit, % in air:	6
Autoignition Temperature (°C):	464 deg C
Decomposition Temperature (°C):	No data available
Specific Gravity:	0.791 - 0.792 g/cm3 at 20 °C
Evaporation Rate:	No data available
Odor Threshold:	No data available
Solubility:	Moderate; 50-99%
Partition Coefficient: n-octanol in water:	No data available
VOC % by weight:	100
Molecular Weight:	32.04

10. STABILITY AND REACTIVITY

Stability:	Stable under normal conditions.
Conditions to Avoid:	None known.High temperatures
Materials to Avoid / Chemical Incompatiability:	Strong oxidizing agents
Hazardous Decomposition Products:	Carbon dioxide Carbon monoxide

11. TOXICOLOGICAL INFORMATION

Routes of Entry:	Inhalation, Skin Contact, Eye Contact, Ingestion
Target Organs Potentially Affected By Exposure:	Eyes, Central nervous system stimulation, Skin, GI Tract, Respiratory Tract
Chemical Interactions That Change Toxicity:	None Known

Immediate (Acute) Health Effects by Route of Exposure:

Inhalation Irritation:	Can cause moderate respiratory irritation, dizziness, weakness, fatigue, nausea and headache.
Inhalation Toxicity:	Harmful! Can cause systemic damage (see "Target Organs)Methanol can cause central nervous system depression and overexposure can cause damage to the optic nerve resulting in visual impairment or blindness.
Skin Contact:	Can cause moderate skin irritation, defatting, and dermatitis. Not likely to cause permanent damage.
Eye Contact:	Can cause moderate irritation, tearing and reddening, but not likely to permanently injure eye tissue.
Ingestion Irritation:	Irritating to mouth, throat, and stomach. Can cause abdominal discomfort, nausea, vomiting and diarrhea.Highly toxic and may be fatal if swallowed.
Ingestion Toxicity:	Toxic if swallowed. May cause target organ failure and/or death.May be fatal if swallowed.

Long-Term (Chronic) Health Effects:

Carcinogenicity:	Contains a probable or known human carcinogen.
Reproductive and Developmental Toxicity:	Contains a known human reproductive and/or developmental hazard.
Inhalation:	Upon prolonged and/or repeated exposure, can cause severe respiratory irritation, dizziness, weakness, fatigue, nausea, headache and possible unconsciousness.Toxic! Can cause systemic damage upon prolonged and/or repeated exposure (see "Target Organs). Harmful! Can cause systemic damage upon prolonged and/or repeated exposure (see "Target Organs)
Skin Contact:	Upon prolonged or repeated contact, can cause minor skin irritation, defatting, and dermatitis. Upon prolonged or repeated contact, can cause moderate skin irritation, defatting, and dermatitis. Not likely to cause permanent damage.
Skin Absorption:	Upon prolonged or repeated exposure, harmful if absorbed through the skin. May cause severe irritation and systemic damage Upon prolonged or repeated

Ingestion:	exposure, no hazard in normal industrial use. Toxic if swallowed. May cause target organ failure and/or death.

Component Toxicological Data:
NIOSH:

Chemical Name	CAS No.	LD50/LC50
Vinyl chloride	75-01-4	Inhalation LC50 Rat : 18 pph/15M; Oral LD50 Rat : 500 mg/kg
Ethylene, chloro-		
Methanol	67-56-1	Inhalation LC50 Rat 22500 ppm 8 h

Component Carcinogenic Data:
OSHA:

Chemical Name	CAS No.	
Vinyl chloride	75-01-4	Present

ACGIH:

Chemical Name	CAS No.	
Vinyl chloride	75-01-4	A1-confirmed human carcinogen

NIOSH:

Chemical Name	CAS No.	
Vinyl chloride	75-01-4	potential occupational carcinogen

NTP:

Chemical Name	CAS No.	
Vinyl chloride	75-01-4	Known Carcinogen

IARC:

Chemical Name	CAS No.	Group No.
Monograph 100F [2012]; Monograph 97 [2008]; Supplement 7 [1987]; Monograph 19 [1979]	75-01-4	Group 1

12. ECOLOGICAL INFORMATION

Overview:	Moderate ecological hazard. This product may be dangerous to plants and/or wildlife.
Mobility:	No data
Persistence:	No data
Bioaccumulation:	No data
Degradability:	Biodegrades slowly.
Ecological Toxicity Data:	No data available

13. DISPOSAL CONSIDERATIONS

Waste Description of Spent Product:	Spent or discarded material is a hazardous waste.Mixing spent or discarded material with other materials may render the mixture hazardous. Perform a hazardous waste determination on mixtures.
Disposal Methods:	Dispose of by incineration following Federal, State, Local, or Provincial regulations.
Waste Disposal of Packaging:	Comply with all Local, State, Federal, and Provincial Environmental Regulations.

14. TRANSPORTATION INFORMATION

United States:

DOT Proper Shipping Name:	Flammable liquids, n.o.s. (Methanol)
UN Number:	UN1993
Hazard Class:	3
Packing Group:	II

International:

IATA Proper Shipping Name:	Flammable liquids, n.o.s. (Methanol)
UN Number:	UN1993
Hazard Class:	3
Packing Group:	II

Marine Pollutant: No

Chemical Name	CAS#	Marine Pollutant	Severe Marine Pollutant
No data available			

15. REGULATORY INFORMATION

United States:

Chemical Name	CAS#	CERCLA	SARA 313	SARA EHS 313	TSCA
methanol	67-56-1	X	X	-	X
Vinyl chloride	75-01-4	X	X	-	X

The following chemicals are listed on CA Prop 65:

Chemical Name	CAS #	Regulation
Chloroethane	75-00-3	Prop 65 Cancer
Vinyl chloride	75-01-4	Prop 65 Cancer
Methyl bromide	74-83-9	Prop 65 Devolop Tox
Methyl chloride	74-87-3	Prop 65 Devolop Tox
Methanol	67-56-1	Prop 65 Devolop Tox
Methyl chloride	74-87-3	Prop 65 Rep Male

State Right To Know Listing:

Chemical Name	CAS#	New Jersey	Massachusetts	Pennsylvania	California
methanol	67-56-1	X	X	X	X
trichlorofluoromethane	75-69-4	X	X	X	X
chloroethane	75-00-3	X	X	X	X
Vinyl chloride	75-01-4	X	X	X	X
methyl bromide	74-83-9	X	X	X	X
chloromethane (methyl chloride)	74-87-3	X	X	X	X
dichlorodifluoromethane	75-71-8	X	X	X	X

16. OTHER INFORMATION

Prior Version Date: 12/05/18

Other Information: Any changes to the SDS compared to previous versions are marked by a vertical line in front of the concerned paragraph.

References: No data available

Disclaimer: Restek Corporation provides the descriptions, data and information contained herein in good faith but makes no representation as to its comprehensiveness or accuracy. It is provided for your guidance only. Because many factors may affect processing or application/use, Restek Corporation recommends you perform an assessment to determine the suitability of a product for your particular purpose prior to use. No warranties of any kind, either expressed or implied, including fitness for a particular purpose, are made regarding products described, data or information set forth. In no case shall the descriptions, information, or data provided be considered a part of our terms and conditions of sale. Further, the descriptions, data and information furnished hereunder are given gratis. No obligation or liability for the description, data and information given are assumed. All such being given and accepted at your risk.

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k\sqrt{U^2_{gravimetric} + U^2_{homogeneity} + U^2_{storage\ stability} + U^2_{shipping\ stability}}$$

k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

RESTEK®
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 30006 **Lot No.:** A0149957

Description : VOA Calibration Mix #1

VOA Calibration Mix #1 5,000µg/mL, P&T Methanol/Water(90:10), 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : September 30, 2022 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	Acetone **CAS #** 67-64-1 (Lot SHBK6362) **Purity** 99%	5,000.1 µg/mL	+/- 29.0710 µg/mL +/- 301.6782 µg/mL +/- 302.3944 µg/mL	Gravimetric Unstressed Stressed
2	2-Butanone (MEK) **CAS #** 78-93-3 (Lot SHBK2537) **Purity** 99%	5,000.2 µg/mL	+/- 29.0716 µg/mL +/- 301.6842 µg/mL +/- 302.4005 µg/mL	Gravimetric Unstressed Stressed
3	4-Methyl-2-pentanone (MIBK) **CAS #** 108-10-1 (Lot SHBK5017) **Purity** 99%	5,000.3 µg/mL	+/- 29.0722 µg/mL +/- 301.6903 µg/mL +/- 302.4065 µg/mL	Gravimetric Unstressed Stressed
4	2-Hexanone **CAS #** 591-78-6 (Lot MKBW0198V) **Purity** 99%	5,000.5 µg/mL	+/- 29.0733 µg/mL +/- 301.7023 µg/mL +/- 302.4186 µg/mL	Gravimetric Unstressed Stressed

Solvent: P&T Methanol/Water (90:10)
CAS # 67-56-1/7732-18-5
Purity 99%

Column:
105m x 0.53mm x 3.0µm
Rtx-502.2 (cat.#10910)

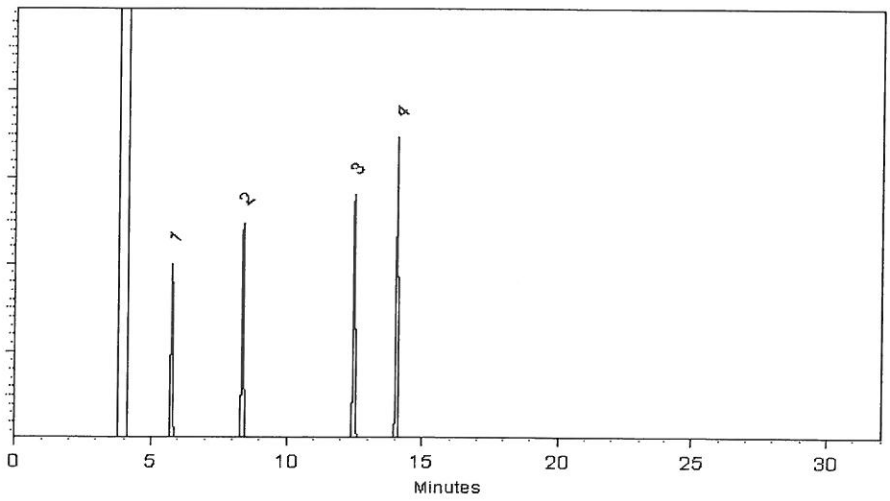
Carrier Gas:
hydrogen-constant pressure 11.0 psi.

Temp. Program:
40°C (hold 2 min.) to 240°C
@ 8°C/min. (hold 5 min.)

Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
FID



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Jessica McClenahan - Operations Technician I

Date Mixed: 10-Jun-2019 **Balance:** B251644995

Jennifer Pollino - Operations Tech-ARM QC

Date Passed: 12-Jun-2019

Manufactured under Restek's ISO 9001:2015
Registered Quality System
Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k\sqrt{U^2_{gravimetric} + U^2_{homogeneity} + U^2_{storage\ stability} + U^2_{shipping\ stability}}$$

k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

RESTEK

Safety Data Sheet

Revision Date: 06/12/19
www.restek.com

2 Letter ISO country code/language code: US/EN

1. IDENTIFICATION

Catalog Number / Product Name:	**30006 / VOA Calibration Mix #1**
Company:	Restek Corporation
Address:	110 Benner Circle Bellefonte, Pa. 16823
Phone#:	814-353-1300
Fax#:	814-353-1309
Emergency#:	800-424-9300 (CHEMTREC) 703-527-3887 (Outside the US)
Email:	www.restek.com
Revision Number:	14
Intended use:	For Laboratory use only

2. HAZARD(S)IDENTIFICATION

Emergency Overview:

GHS Hazard Symbols:

GHS Classification:	Specific Target Organ Systemic Toxicity (STOT) - Single Exposure Category 1 Flammable Liquid Category 2 Acute Toxicity - Inhalation Dust / Mist Category 3 Acute Toxicity - Dermal Category 3 Acute Toxicity - Oral Category 3
GHS Signal Word:	Danger
GHS Hazard:	Highly flammable liquid and vapour. Toxic if swallowed, in contact with skin or if inhaled. Causes damage to organs.
GHS Precautions:	
Safety Precautions:	Keep away from heat/sparks/open flames/hot surfaces. – No smoking. Ground/bond container and receiving equipment. Use explosion-proof electrical/ventilation and lighting equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Do not breathe dust/fume/gas/mist/vapours/spray. Wash hands and skin thoroughly after handling. Do not eat, drink or smoke when using this product. Use only outdoors or in a well-ventilated area. Wear protective gloves/protective clothing/eye protection/face protection.
First Aid Measures:	IF SWALLOWED: Immediately call a POISON CENTER/doctor/.... IF ON SKIN: Wash with plenty of soap and water. IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Specific treatment see section 4. Rinse mouth. Take off immediately all contaminated clothing and wash it before reuse. In case of fire: Use extinguishing media in section 5 for extinction.
Storage:	Store in a well-ventilated place. Keep container tightly closed.

Store in a well-ventilated place. Keep cool.
Store locked up.

Disposal: Dispose of contents/container according to section 13 of the SDS.

Single Exposure Target Organs: Specific target organ toxicity - Single exposure - STOT SE 1: H370 Causes damage to organs. (C >= 10 %; No information to prove exclusion of certain routes of exposure); Specific target organ toxicity - Single exposure - STOT SE 2: H371 May cause damage to organs. (3 % <= C <10 %; Concentration limits for acute toxicity cannot be translated into GHS from the DSD especially when minimum classifications are given)

Repeated Exposure Target Organs: Specific target organ toxicity - Repeated exposure - STOT RE 1: H372 Causes damage to organs through prolonged or repeated exposure. (No information to prove exclusion of certain routes of exposure)

3. COMPOSITION / INFORMATION ON INGREDIENT

Chemical Name	CAS #	EINEC #	% Composition
methanol	67-56-1	200-659-6	88.2
water	7732-18-5	231-791-2	9.8
Acetone	67-64-1	200-662-2	0.5
4-Methyl-2-pentanone	108-10-1	203-550-1	0.5
Methyl ethyl ketone	78-93-3	201-159-0	0.5
2-hexanone	591-78-6	209-731-1	0.5

4. FIRST-AID MEASURES

Inhalation: Remove to fresh air. If breathing is difficult, have a trained individual administer oxygen. If not breathing, give artificial respiration and have a trained individual administer oxygen. Get medical attention immediately Remove to fresh air.

Eyes: Flush eyes with plenty of water for at least 20 minutes retracting eyelids often. Tilt the head to prevent chemical from transferring to the uncontaminated eye. Get immediate medical attention. None expected to be needed, however, use an eye wash to remove a chemical from your eye regardless of the level of hazard.

Skin Contact: Wash with soap and water. Remove contaminated clothing and launder. Get medical attention if irritation develops or persists.

Ingestion: Do not induce vomiting and seek medical attention immediately. Drink two glasses of water or milk to dilute. Provide medical care provider with this SDS. No hazard in normal industrial use. Do not induce vomiting. Seek medical attention if symptoms develop. Provide medical care provider with this SDS.

5. FIRE- FIGHTING MEASURES

Extinguishing Media: Use alcohol resistant foam, carbon dioxide, or dry chemical extinguishing agents. Water may be ineffective but water spray can be used extinguish a fire if swept across the base of the flames. Water can absorb heat and keep exposed material from being damaged by fire.

Fire and/or Explosion Hazards: Vapors may be ignited by sparks, flames or other sources of ignition if material is above the flash point giving rise to a fire (Class B). Vapors are heavier than air and may travel to a source of ignition and flash back.

Fire Fighting Methods and Protection: Do not enter fire area without proper protection including self-contained breathing apparatus and full protective equipment. Fight fire from a safe distance and a protected location due to the potential of hazardous vapors and decomposition products. Flammable component(s) of this material may be lighter than water and burn while floating on the surface.

Hazardous Combustion Products: None Known, Carbon dioxide, Carbon monoxide

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions and Equipment: Exposure to the spilled material may be severely irritating or toxic. Follow personal protective equipment recommendations found in Section 8 of this SDS. Personal protective equipment needs must be evaluated based on information provided on this sheet and the special circumstances created by the spill including; the material spilled, the quantity of the spill, the area in which the spill occurred, and the expertise of employees in the area responding to the spill. Never exceed any occupational exposure limits.

Methods for Clean-up: Prevent the spread of any spill to minimize harm to human health and the

environment if safe to do so. Wear complete and proper personal protective equipment following the recommendation of Section 8 at a minimum. Dike with suitable absorbent material like granulated clay. Gather and store in a sealed container pending a waste disposal evaluation. Absorb spill with inert material (e.g., dry sand or earth), then place in a chemical waste container

7. HANDLING AND STORAGE

Handling Technical Measures and Precautions: Toxic or severely irritating material. Avoid contacting and avoid breathing the material. Use only in a well ventilated area. Use spark-proof tools and explosion-proof equipment

Storage Technical Measures and Conditions: Store in a cool dry ventilated location. Isolate from incompatible materials and conditions. Keep container(s) closed. Keep away from sources of ignition

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

United States:

Chemical Name	CAS No.	IDLH	ACGIH STEL	ACGIH TLV-TWA	OSHA Exposure Limit
methanol	67-56-1	6000 ppm IDLH	250 ppm STEL	200 ppm TWA	200 ppm TWA; 260 mg/m3 TWA
water	7732-18-5	Not established	None Known	Not established	No data available

Personal Protection:

Engineering Measures: Local exhaust ventilation is recommended when generating excessive levels of vapours from handling or thermal processing.

Respiratory Protection: Respiratory protection may be required to avoid overexposure when handling this product. General or local exhaust ventilation is the preferred means of protection. Use a respirator if general room ventilation is not available or sufficient to eliminate symptoms. No respiratory protection required under normal conditions of use.If an exposure limit is exceeded or if an operator is experiencing symptoms of inhalation overexposure as explained in Section 3, provide respiratory protection.

Eye Protection: Wear chemically resistant safety glasses with side shields when handling this product. Do not wear contact lenses.

Skin Protection: Wear protective gloves. Inspect gloves for chemical break-through and replace at regular intervals. Clean protective equipment regularly. Wash hands and other exposed areas with mild soap and water before eating, drinking, and when leaving work Not normally considered a skin hazard. Where use can result in skin contact, practice good personal hygiene. Wash hands and other exposed areas with mild soap and water before eating, drinking, and when leaving work.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance, color:	No data available
Odor:	Mild
Physical State:	Liquid
pH:	Not applicable
Vapor Pressure:	No data available
Vapor Density:	1.1 (air = 1)
Boiling Point (°C):	100 °C Boiling Point 64.7 °C at 760 mmHg (HSDB)
Melting Point (°C):	-98 °C
Flash Point (°F):	52
Flammability:	Highly Flammable
Upper Flammable/Explosive Limit, % in air:	36
Lower Flammable/Explosive Limit, % in air:	6
Autoignition Temperature (°C):	464 deg C
Decomposition Temperature (°C):	No data available
Specific Gravity:	0.791 - 0.792 g/cm3 at 20 °C
Evaporation Rate:	No data available
Odor Threshold:	No data available
Solubility:	Moderate; 50-99%
Partition Coefficient: n-octanol in water:	No data available
VOC % by weight:	89.7
Molecular Weight:	32.04

10. STABILITY AND REACTIVITY

Stability:	Stable under normal conditions.
Conditions to Avoid:	None known.
Materials to Avoid / Chemical Incompatiability:	None Known
Hazardous Decomposition Products:	Carbon dioxide Carbon monoxide None Known

11. TOXICOLOGICAL INFORMATION

Routes of Entry:	Inhalation, Skin Contact, Eye Contact, Ingestion
Target Organs Potentially Affected By Exposure:	Eyes, Central nervous system stimulation, Skin, GI Tract, Respiratory Tract
Chemical Interactions That Change Toxicity:	None Known

Immediate (Acute) Health Effects by Route of Exposure:

Inhalation Irritation:	Can cause moderate respiratory irritation, dizziness, weakness, fatigue, nausea and headache.
Inhalation Toxicity:	Harmful! Can cause systemic damage (see "Target Organs)Methanol can cause central nervous system depression and overexposure can cause damage to the optic nerve resulting in visual impairment or blindness.
Skin Contact:	Can cause moderate skin irritation, defatting, and dermatitis. Not likely to cause permanent damage.
Eye Contact:	Can cause moderate irritation, tearing and reddening, but not likely to permanently injure eye tissue.
Ingestion Irritation:	Irritating to mouth, throat, and stomach. Can cause abdominal discomfort, nausea, vomiting and diarrhea.Highly toxic and may be fatal if swallowed.
Ingestion Toxicity:	Toxic if swallowed. May cause target organ failure and/or death.May be fatal if swallowed.

Long-Term (Chronic) Health Effects:

Carcinogenicity:	Contains a probable or known human carcinogen.
Reproductive and Developmental Toxicity:	Contains a known human reproductive and/or developmental hazard.
Inhalation:	Upon prolonged and/or repeated exposure, can cause moderate respiratory irritation, dizziness, weakness, fatigue, nausea and headache.Harmful! Can cause systemic damage upon prolonged and/or repeated exposure (see "Target Organs)
Skin Contact:	Upon prolonged or repeated contact, can cause moderate skin irritation, defatting, and dermatitis. Not likely to cause permanent damage.
Ingestion:	Toxic if swallowed. May cause target organ failure and/or death.

Component Toxicological Data:
NIOSH:

Chemical Name	CAS No.	LD50/LC50
Water	7732-18-5	Oral LD50 Rat >90 mL/kg
Methanol	67-56-1	Inhalation LC50 Rat 22500 ppm 8 h

Component Carcinogenic Data:
OSHA:

Chemical Name	CAS No.
No data available	

ACGIH:

Chemical Name	CAS No.
No data available	

NIOSH:

Chemical Name	CAS No.
No data available	

NTP:

Chemical Name	CAS No.
No data available	

IARC:

Chemical Name	CAS No.	Group No.

12. ECOLOGICAL INFORMATION

Overview:	Moderate ecological hazard. This product may be dangerous to plants and/or wildlife.
Mobility:	No data
Persistence:	No data
Bioaccumulation:	No data
Degradability:	Biodegrades slowly.
Ecological Toxicity Data:	No data available

13. DISPOSAL CONSIDERATIONS

Waste Description of Spent Product:	Spent or discarded material is a hazardous waste.Mixing spent or discarded material with other materials may render the mixture hazardous. Perform a hazardous waste determination on mixtures.
Disposal Methods:	Dispose of by incineration following Federal, State, Local, or Provincial regulations. Dispose of by waste water treatment following Federal, State, Local, or Provincial regulations.
Waste Disposal of Packaging:	Comply with all Local, State, Federal, and Provincial Environmental Regulations.

14. TRANSPORTATION INFORMATION

United States:	
DOT Proper Shipping Name:	Flammable liquids, n.o.s. (Methanol, Acetone)
UN Number:	UN1993
Hazard Class:	3
Packing Group:	II
International:	
IATA Proper Shipping Name:	Flammable liquids, n.o.s. (Methanol, Acetone)
UN Number:	UN1993
Hazard Class:	3
Packing Group:	II

Marine Pollutant: No

Chemical Name	CAS#	Marine Pollutant	Severe Marine Pollutant
No data available			

15. REGULATORY INFORMATION

United States:

Chemical Name	CAS#	CERCLA	SARA 313	SARA EHS 313	TSCA
methanol	67-56-1	X	X	-	X
water	7732-18-5	-	-	-	X

The following chemicals are listed on CA Prop 65:

Chemical Name	CAS #	Regulation
Methyl isobutyl ketone	108-10-1	Prop 65 Cancer
Methyl isobutyl ketone	108-10-1	Prop 65 Devolop Tox
Methyl n-butyl ketone	591-78-6	Prop 65 Devolop Tox
Methanol	67-56-1	Prop 65 Devolop Tox
Methyl n-butyl ketone	591-78-6	Prop 65 Rep Male

State Right To Know Listing:

Chemical Name	CAS#	New Jersey	Massachusetts	Pennsylvania	California
methanol	67-56-1	X	X	X	X
water	7732-18-5	-	-	-	-
Acetone	67-64-1	X	X	X	X
4-Methyl-2-pentanone	108-10-1	X	X	X	X

Methyl ethyl ketone	78-93-3	X	X	X	X
2-hexanone	591-78-6	X	X	X	X

16. OTHER INFORMATION

Prior Version Date: 04/11/19

Other Information: Any changes to the SDS compared to previous versions are marked by a vertical line in front of the concerned paragraph.

References: No data available

Disclaimer: Restek Corporation provides the descriptions, data and information contained herein in good faith but makes no representation as to its comprehensiveness or accuracy. It is provided for your guidance only. Because many factors may affect processing or application/use, Restek Corporation recommends you perform an assessment to determine the suitability of a product for your particular purpose prior to use. No warranties of any kind, either expressed or implied, including fitness for a particular purpose, are made regarding products described, data or information set forth. In no case shall the descriptions, information, or data provided be considered a part of our terms and conditions of sale. Further, the descriptions, data and information furnished hereunder are given gratis. No obligation or liability for the description, data and information given are assumed. All such being given and accepted at your risk.

RESTEK
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 30042 **Lot No.:** A0152494

Description : 502.2 Calibration Mix #1

502.2 Calibration Mix #1 2,000µg/mL, P&T Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : May 31, 2026 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	Dichlorodifluoromethane (CFC-12) **CAS #** 75-71-8 (Lot 00012554) **Purity** 99%	2,001.7 µg/mL	+/- 13.9992 µg/mL +/- 112.5038 µg/mL +/- 115.1238 µg/mL	Gravimetric Unstressed Stressed
2	Chloromethane (methyl chloride) **CAS #** 74-87-3 (Lot SHBK6571) **Purity** 99%	2,002.5 µg/mL	+/- 13.7800 µg/mL +/- 112.5216 µg/mL +/- 115.1432 µg/mL	Gravimetric Unstressed Stressed
3	Vinyl chloride **CAS #** 75-01-4 (Lot 00015559) **Purity** 99%	2,000.9 µg/mL	+/- 13.1655 µg/mL +/- 112.3555 µg/mL +/- 114.9766 µg/mL	Gravimetric Unstressed Stressed
4	Bromomethane (methyl bromide) **CAS #** 74-83-9 (Lot 101604) **Purity** 99%	2,002.2 µg/mL	+/- 13.1564 µg/mL +/- 112.4258 µg/mL +/- 115.0487 µg/mL	Gravimetric Unstressed Stressed
5	Chloroethane (ethyl chloride) **CAS #** 75-00-3 (Lot 107-401039114-1) **Purity** 99%	2,000.6 µg/mL	+/- 13.7749 µg/mL +/- 112.4125 µg/mL +/- 115.0316 µg/mL	Gravimetric Unstressed Stressed
6	Trichlorofluoromethane (CFC-11) **CAS #** 75-69-4 (Lot 25931) **Purity** 99%	2,000.7 µg/mL	+/- 13.9693 µg/mL +/- 112.4442 µg/mL +/- 115.0629 µg/mL	Gravimetric Unstressed Stressed

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

Column:
60m x 0.25mm x 1.4µm
Rtx-502.2 (cat.#10916)

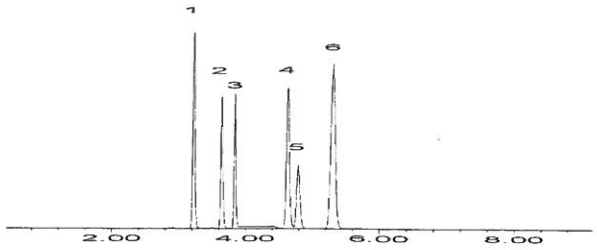
Carrier Gas:
helium-constant flow 2.0 mL/min.

Temp. Program:
40°C (hold 6 min.) to 100°C
@ 6°C/min.

Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
MSD



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Tom Suckar - Mix Technician

Date Mixed: 03-Sep-2019 **Balance:** B251644995

Jennifer Pollino - Operations Tech-ARM QC

Date Passed: 16-Sep-2019

Manufactured under Restek's ISO 9001:2015
Registered Quality System
Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k\sqrt{U^2_{gravimetric} + U^2_{homogeneity} + U^2_{storage\ stability} + U^2_{shipping\ stability}}$$

k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

RESTEK®
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

ACCREDITED
ISO 17034 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 30489 **Lot No.:** A0155147

Description : 8260B Acetates Mix

8260B Acetates Mix 2,000 µg/mL, P&T Methanol, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : May 31, 2021 **Storage:** 0°C or colder

Handling: This product is photosensitive.

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	Methyl acetate **CAS #** 79-20-9 (Lot SHBK5436) **Purity** 99%	2,010.0 µg/mL	+/- 11.7958 µg/mL +/- 121.2828 µg/mL +/- 121.5707 µg/mL	Gravimetric Unstressed Stressed
2	Vinyl acetate **CAS #** 108-05-4 (Lot 192709KJ) **Purity** 99%	2,018.7 µg/mL	+/- 11.8467 µg/mL +/- 121.8058 µg/mL +/- 122.0949 µg/mL	Gravimetric Unstressed Stressed
3	Ethyl acetate **CAS #** 141-78-6 (Lot SHBL1336) **Purity** 99%	2,014.0 µg/mL	+/- 11.8193 µg/mL +/- 121.5242 µg/mL +/- 121.8126 µg/mL	Gravimetric Unstressed Stressed
4	Isopropyl acetate **CAS #** 108-21-4 (Lot BCBT9845) **Purity** 99%	2,009.3 µg/mL	+/- 11.7919 µg/mL +/- 121.2426 µg/mL +/- 121.5304 µg/mL	Gravimetric Unstressed Stressed
5	Propyl acetate **CAS #** 109-60-4 (Lot MUZQD) **Purity** 99%	2,010.7 µg/mL	+/- 11.7997 µg/mL +/- 121.3230 µg/mL +/- 121.6110 µg/mL	Gravimetric Unstressed Stressed
6	Butyl acetate **CAS #** 123-86-4 (Lot SHBK5137) **Purity** 99%	2,016.7 µg/mL	+/- 11.8349 µg/mL +/- 121.6851 µg/mL +/- 121.9739 µg/mL	Gravimetric Unstressed Stressed
7	Amyl acetate **CAS #** 628-63-7 (Lot 41325/1) **Purity** 99%	2,015.3 µg/mL	+/- 11.8271 µg/mL +/- 121.6046 µg/mL +/- 121.8933 µg/mL	Gravimetric Unstressed Stressed

Solvent: P&T Methanol
CAS # 67-56-1
Purity 99%

Tech Tips:
Vinyl acetate is a volatile organic ester included in the target lists of several US EPA and other methods . Under acidic conditions, esters react with alcohols to form new esters (transesterification). Methanol-based mixes containing halogenated compounds are slightly acidic, so it is important to minimize exposure of vinyl acetate to mixes of halogenated compounds in methanol. For this reason, we offer vinyl acetate in individual solution, and suggest that it be introduced into the working level calibration solution immediately before use. This will minimize problems and ensure more consistent results.

Column:
105m x 0.53mm x 3.0µm
Rtx-502.2 (cat.#10910)

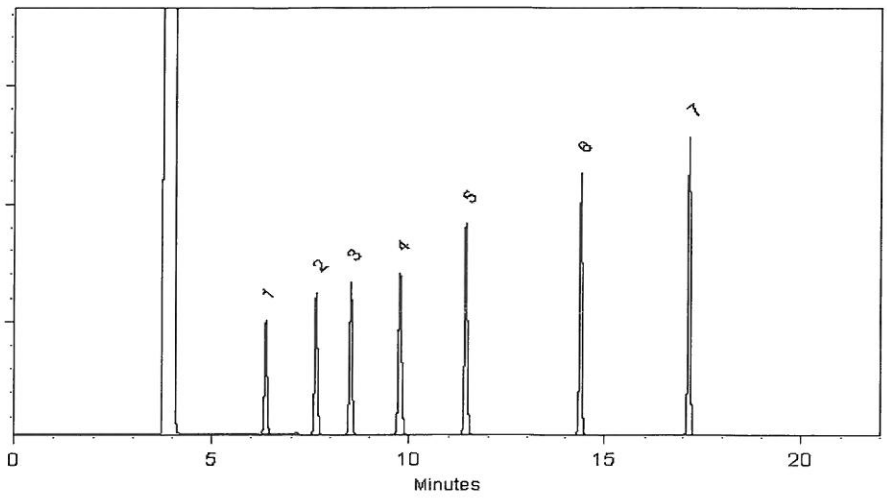
Carrier Gas:
hydrogen-constant pressure 11.0 psi.

Temp. Program:
40°C (hold 2 min.) to 240°C
@ 8°C/min. (hold 5 min.)

Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
FID



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Tom Suckar - Mix Technician **Date Mixed:** 18-Nov-2019 **Balance:** B251644995

Jennifer Pollino - Operations Tech-ARM QC **Date Passed:** 21-Nov-2019

Manufactured under Restek's ISO 9001:2015
Registered Quality System
Certificate #FM 80397

General Certified Reference Material Notes

Expiration Notes:

- Expiration date valid for unopened ampul stored in compliance with the recommended conditions.
- Uncertainty, concentration, and expiration of the CRM are based on the unopened product being stored according to the recommended condition found in the storage field.

Purity Notes:

- Purity and/or chemical identity are determined by one or more of the following techniques: GC/FID, HPLC, GC/μECD, GC/MS, LC/MS, RI, and/or melting point.
- Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities and/or salts. A correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution.
- Purity of isomeric compounds is reported as the sum of the isomers.
- Purity values are rounded to the nearest whole number.

Certified Uncertainty Value Notes:

- The uncertainties are determined in accordance with ISO 17034 and Guide 35. The certified combined stressed uncertainty value (includes gravimetric uncertainty, homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty and were combined using the following formula:

$$U_{combined\ stressed} = k\sqrt{U^2_{gravimetric} + U^2_{homogeneity} + U^2_{storage\ stability} + U^2_{shipping\ stability}}$$

k is a coverage factor of 2, which gives a level of confidence of approximately 95%.

- It is important to note that the shipping stability uncertainty was obtained under temperature extremes for specific time intervals; therefore, the certified combined stressed uncertainty value should only be applied to the product if it was stored at non-standard temperature conditions up to and including 7 days. Contact Restek Technical Service at www.restek.com/Contact-Us for use recommendations if your shipment was in-transit for more than 7 days at non-standard temperature conditions.
- Apply the certified combined unstressed uncertainty value if the product was received under standard shipping conditions. Apply the certified combined stressed uncertainty value if the product was received under non-standard conditions as specified below.

Label Conditions	Standard Conditions	Non-Standard Conditions
25°C Nominal (Room Temperature)	< 60°C	≥ 60°C up to 7 days
10°C or colder (Refrigerate)	< 40°C	≥ 40°C up to 7 days
0°C or colder (Freezer)	< 25°C	≥ 25°C up to 7 days

- Separate (not combined) uncertainty values for gravimetric uncertainty are also displayed on the certificate, if needed, separate homogeneity between-ampul uncertainty, storage stability uncertainty and shipping stability uncertainty values are available by contacting Restek Technical Service at www.restek.com/Contact-Us.
- The packaged amount is the minimum sample size for which uncertainty is valid. The ampules are over-filled to ensure that the minimum packaged amount can be sufficiently transferred.

Manufacturing Notes:

- Concentration is based upon gravimetric preparation using either a balance whose calibration has been verified daily using NIST traceable weights, and/or dilutions with Class A glassware.

Handling Notes:

- Stability of the unopened product, when stored in compliance with the recommended conditions, is guaranteed through the expiration displayed on the product label and certificate. Contact Restek for additional opened product stability information, with the knowledge/understanding that open product stability is subject to the specific handling and environmental conditions to which the product is exposed. For your convenience Restek supplies deactivated vials with most standards packed in 2mL ampules. Larger volume deactivated vials are available through Restek as a custom ordered item. Additionally, Restek sells DMDCS for the purpose of glassware deactivation as catalog number 31861, which includes complete instructions.
- If any undissolved material is visible inside the ampul, sonicate the unopened ampul until the material is completely dissolved.

Done! All 1 Order(s) of this packslip have(has) been processed.

*** Current Batch #: 2990 ***

RESTEK

Safety Data Sheet

Revision Date: 05/14/19
www.restek.com

2 Letter ISO country code/language code: US/EN

1. IDENTIFICATION

Catalog Number / Product Name:	**30489 / 8260B Acetates Mix**
Company:	Restek Corporation
Address:	110 Benner Circle Bellefonte, Pa. 16823
Phone#:	814-353-1300
Fax#:	814-353-1309
Emergency#:	800-424-9300 (CHEMTREC) 703-527-3887 (Outside the US)
Email:	www.restek.com
Revision Number:	14
Intended use:	For Laboratory use only

2. HAZARD(S)IDENTIFICATION

Emergency Overview:

GHS Hazard Symbols:

GHS Classification:	Specific Target Organ Systemic Toxicity (STOT) - Single Exposure Category 1 Flammable Liquid Category 2 Carcinogenicity Category 2 Acute Toxicity - Inhalation Dust / Mist Category 3 Acute Toxicity - Dermal Category 3 Acute Toxicity - Oral Category 3
GHS Signal Word:	Danger
GHS Hazard:	Highly flammable liquid and vapour. Toxic if swallowed, in contact with skin or if inhaled. Suspected of causing cancer. Causes damage to organs.
GHS Precautions:	
Safety Precautions:	Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Keep away from heat/sparks/open flames/hot surfaces. – No smoking. Ground/bond container and receiving equipment. Use explosion-proof electrical/ventilation and lighting equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Do not breathe dust/fume/gas/mist/vapours/spray. Wash hands and skin thoroughly after handling. Do not eat, drink or smoke when using this product. Use only outdoors or in a well-ventilated area. Wear protective gloves/protective clothing/eye protection/face protection.
First Aid Measures:	IF SWALLOWED: Immediately call a POISON CENTER/doctor/.... IF ON SKIN: Wash with plenty of soap and water. IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Specific treatment see section 4. Rinse mouth.

Take off immediately all contaminated clothing and wash it before reuse.
In case of fire: Use extinguishing media in section 5 for extinction.

Storage: Store in a well-ventilated place. Keep container tightly closed.
Store in a well-ventilated place. Keep cool.
Store locked up.

Disposal: Dispose of contents/container according to section 13 of the SDS.

Single Exposure Target Organs: Specific target organ toxicity - Single exposure - STOT SE 1: H370 Causes damage to organs. (C >= 10 %; No information to prove exclusion of certain routes of exposure); Specific target organ toxicity - Single exposure - STOT SE 2: H371 May cause damage to organs. (3 % <= C <10 %; Concentration limits for acute toxicity cannot be translated into GHS from the DSD especially when minimum classifications are given)

Repeated Exposure Target Organs: No data available

3. COMPOSITION / INFORMATION ON INGREDIENT

Chemical Name	CAS #	EINEC #	% Composition
methanol	67-56-1	200-659-6	98.6
pentyl acetate (n-amyl acetate)	628-63-7	211-047-3	0.2
Isopropyl acetate	108-21-4	203-561-1	0.2
n-Butyl acetate	123-86-4	204-658-1	0.2
Vinyl acetate	108-05-4	203-545-4	0.2
n-Propyl acetate	109-60-4	203-686-1	0.2
Methyl acetate	79-20-9	201-185-2	0.2
Ethyl acetate	141-78-6	205-500-4	0.2

4. FIRST-AID MEASURES

Inhalation: Remove to fresh air. If breathing is difficult, have a trained individual administer oxygen. If not breathing, give artificial respiration and have a trained individual administer oxygen. Get medical attention immediately

Eyes: Flush eyes with plenty of water for at least 20 minutes retracting eyelids often. Tilt the head to prevent chemical from transferring to the uncontaminated eye. Get immediate medical attention. Immediately flush eyes with plenty of water for at least 20 minutes retracting eyelids often. Tilt the head to prevent chemical from transferring to the uncontaminated eye. Get immediate medical attention and monitor the eye daily as advised by your physician.

Skin Contact: Wash with soap and water. Remove contaminated clothing and launder. Get medical attention if irritation develops or persists.

Ingestion: Minimal risk of harm if swallowed. Do not induce vomiting. Seek medical attention immediately. Provide medical care provider with this SDS.

5. FIRE- FIGHTING MEASURES

Extinguishing Media: Use alcohol resistant foam, carbon dioxide, or dry chemical extinguishing agents. Water may be ineffective but water spray can be used extinguish a fire if swept across the base of the flames. Water can absorb heat and keep exposed material from being damaged by fire. Use alcohol resistant foam, carbon dioxide, or dry chemical extinguishing agents. Water spray or fog may also be effective for extinguishing if swept across the base of the fire. Water can also be used to absorb heat and keep exposed material from being damaged by fire.

Fire and/or Explosion Hazards: Vapors may be ignited by heat, sparks, flames or other sources of ignition at or above the low flash point giving rise to a Class B fire. Vapors are heavier than air and may travel to a source of ignition and flash back

Fire Fighting Methods and Protection: Do not enter fire area without proper protection including self-contained breathing apparatus and full protective equipment. Fight fire from a safe distance and a protected location due to the potential of hazardous vapors and decomposition products. Flammable component(s) of this material may be lighter than water and burn while floating on the surface.

Hazardous Combustion Products: Carbon dioxide, Carbon monoxide

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions and Equipment: Exposure to the spilled material may be severely irritating or toxic. Follow personal protective equipment recommendations found in Section 8 of this SDS. Personal protective equipment needs must be evaluated based on information provided on this sheet and the special circumstances created by the spill including; the material spilled, the quantity of the spill, the area in which the spill occurred, and the expertise of employees in the area responding to the spill. Never exceed any occupational exposure limits.

Methods for Clean-up: Prevent the spread of any spill to minimize harm to human health and the environment if safe to do so. Wear complete and proper personal protective equipment following the recommendation of Section 8 at a minimum. Dike with suitable absorbent material like granulated clay. Gather and store in a sealed container pending a waste disposal evaluation.

7. HANDLING AND STORAGE

Handling Technical Measures and Precautions: Toxic or severely irritating material. Avoid contacting and avoid breathing the material. Use only in a well ventilated area. Use spark-proof tools and explosion-proof equipment Wash thoroughly after handling Avoid contact with material. Remove contaminated clothing and wash before reuse "Empty" containers retain product residue (liquid and/or vapor) and can be dangerous.

Storage Technical Measures and Conditions: Store in a cool dry ventilated location. Isolate from incompatible materials and conditions. Keep container(s) closed. Keep away from sources of ignition Keep away from heat, sparks, and flame

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

United States:

Chemical Name	CAS No.	IDLH	ACGIH STEL	ACGIH TLV-TWA	OSHA Exposure Limit
methanol	67-56-1	6000 ppm IDLH	250 ppm STEL	200 ppm TWA	200 ppm TWA; 260 mg/m3 TWA
Vinyl acetate	108-05-4	Not established	15 ppm STEL; 53 mg/m3 STEL	10 ppm TWA; 35 mg/m3 TWA	No data available

Personal Protection:

Engineering Measures: Local exhaust ventilation or other engineering controls are normally required when handling or using this product to avoid overexposure.

Respiratory Protection: No respiratory protection required under normal conditions of use. Provide general room exhaust ventilation if symptoms of overexposure occur as explained Section 3. A respirator is not normally required.If an exposure limit is exceeded or if an operator is experiencing symptoms of inhalation overexposure as explained in Section 3, provide respiratory protection.

Eye Protection: Wear chemically resistant safety glasses with side shields when handling this product. Do not wear contact lenses.

Skin Protection: Not normally considered a skin hazard. Where use can result in skin contact, practice good personal hygiene and wear a barrier cream and/or impervious surgical style gloves. Wash hands and other exposed areas with mild soap and water before eating, drinking, and when leaving work. Wear protective gloves. Inspect gloves for chemical break-through and replace at regular intervals. Clean protective equipment regularly. Wash hands and other exposed areas with mild soap and water before eating, drinking, and when leaving work

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance, color:	No data available
Odor:	Mild
Physical State:	Liquid
pH:	Not applicable
Vapor Pressure:	No data available
Vapor Density:	1.1 (air = 1)
Boiling Point (°C):	72.8 °C (HSDB) 64.7 °C at 760 mmHg (HSDB)

Melting Point (°C):	-98 °C
Flash Point (°F):	18
Flammability:	Highly Flammable Extremely Flammable
Upper Flammable/Explosive Limit, % in air:	36
Lower Flammable/Explosive Limit, % in air:	6
Autoignition Temperature (°C):	464 deg C
Decomposition Temperature (°C):	0
Specific Gravity:	0.791 - 0.792 g/cm3 at 20 °C
Evaporation Rate:	No data available
Odor Threshold:	No data available
Solubility:	Moderate; 50-99%
Partition Coefficient: n-octanol in water:	No data available
VOC % by weight:	99.8
Molecular Weight:	32.04

10. STABILITY AND REACTIVITY

Stability:	Stable under normal conditions.
Conditions to Avoid:	None known.Contamination
Materials to Avoid / Chemical Incompatiability:	Acids Oxidizing materials Peroxides Strong alkalies
Hazardous Decomposition Products:	Carbon dioxide Carbon monoxide

11. TOXICOLOGICAL INFORMATION

Routes of Entry:	Inhalation, Skin Contact, Eye Contact, Ingestion
Target Organs Potentially Affected By Exposure:	Eyes, Central nervous system stimulation, Skin, GI Tract, Respiratory Tract
Chemical Interactions That Change Toxicity:	None Known

Immediate (Acute) Health Effects by Route of Exposure:

Inhalation Irritation:	Can cause moderate respiratory irritation, dizziness, weakness, fatigue, nausea and headache.
Inhalation Toxicity:	Harmful! Can cause systemic damage (see "Target Organs)Methanol can cause central nervous system depression and overexposure can cause damage to the optic nerve resulting in visual impairment or blindness.
Skin Contact:	Can cause moderate skin irritation, defatting, and dermatitis. Not likely to cause permanent damage.
Eye Contact:	Can cause moderate irritation, tearing and reddening, but not likely to permanently injure eye tissue.
Ingestion Irritation:	Irritating to mouth, throat, and stomach. Can cause abdominal discomfort, nausea, vomiting and diarrhea.Highly toxic and may be fatal if swallowed.
Ingestion Toxicity:	Toxic if swallowed. May cause target organ failure and/or death.May be fatal if swallowed.

Long-Term (Chronic) Health Effects:

Carcinogenicity:	No data.
Reproductive and Developmental Toxicity:	No data available to indicate product or any components present at greater than 0.1% may cause birth defects.
Inhalation:	Upon prolonged and/or repeated exposure, can cause moderate respiratory irritation, dizziness, weakness, fatigue, nausea and headache.Harmful! Can cause systemic damage upon prolonged and/or repeated exposure (see "Target Organs)
Skin Contact:	Upon prolonged or repeated contact, can cause moderate skin irritation, defatting, and dermatitis. Not likely to cause permanent damage.
Skin Absorption:	Upon prolonged or repeated exposure, no hazard in normal industrial use.
Ingestion:	Toxic if swallowed. May cause target organ failure and/or death.

Component Toxicological Data:
NIOSH:

Chemical Name	CAS No.	LD50/LC50
Vinyl acetate Acetic acid, vinyl ester	108-05-4	Inhalation LC50 Rat : 11400 mg/m3/4H; Inhalation LC50 Mouse : 1550 ppm/4H; Oral LD50 Rat : 2920 mg/kg; Oral LD50 Mouse : 1613 mg/kg; Dermal LD50 Rabbit : 2335 mg/kg

Methanol	67-56-1	Inhalation LC50 Rat 22500 ppm 8 h

Component Carcinogenic Data:

OSHA:

Chemical Name	CAS No.	
Vinyl acetate	108-05-4	Present

ACGIH:

Chemical Name	CAS No.	
Vinyl acetate	108-05-4	A3 - Confirmed Animal Carcinogen with Unknown Relevance to Humans

NIOSH:

Chemical Name	CAS No.
No data available	

NTP:

Chemical Name	CAS No.
No data available	

IARC:

Chemical Name	CAS No.	Group No.
Monograph 63; 1995	108-05-4	Group 2B

12. ECOLOGICAL INFORMATION

Overview:	Moderate ecological hazard. This product may be dangerous to plants and/or wildlife.
Mobility:	No data
Persistence:	No data
Bioaccumulation:	No data
Degradability:	Biodegrades slowly.
Ecological Toxicity Data:	No data available

13. DISPOSAL CONSIDERATIONS

Waste Description of Spent Product:	Spent or discarded material is a hazardous waste.Mixing spent or discarded material with other materials may render the mixture hazardous. Perform a hazardous waste determination on mixtures.
Disposal Methods:	Dispose of by incineration following Federal, State, Local, or Provincial regulations.
Waste Disposal of Packaging:	Comply with all Local, State, Federal, and Provincial Environmental Regulations.

14. TRANSPORTATION INFORMATION

United States:

DOT Proper Shipping Name:	Flammable liquids, n.o.s. (Methanol, Ethyl acetate)
UN Number:	UN1993
Hazard Class:	3
Packing Group:	II

International:

IATA Proper Shipping Name:	Flammable liquids, n.o.s. (Methanol, Ethyl acetate)
UN Number:	UN1993
Hazard Class:	3
Packing Group:	II

Marine Pollutant: No

Chemical Name	CAS#	Marine Pollutant	Severe Marine Pollutant
No data available			

15. REGULATORY INFORMATION

United States:

Chemical Name	CAS#	CERCLA	SARA 313	SARA EHS 313	TSCA
methanol	67-56-1	X	X	-	X
Vinyl acetate	108-05-4	X	X	X	X

The following chemicals are listed on CA Prop 65:

Chemical Name	CAS #	Regulation
Methanol	67-56-1	Prop 65 Devolop Tox

State Right To Know Listing:

Chemical Name	CAS#	New Jersey	Massachusetts	Pennsylvania	California
methanol	67-56-1	X	X	X	X
pentyl acetate (n-amyl acetate)	628-63-7	X	X	X	X
Isopropyl acetate	108-21-4	X	X	X	X
n-Butyl acetate	123-86-4	X	X	X	X
Vinyl acetate	108-05-4	X	X	X	X
n-Propyl acetate	109-60-4	X	X	X	X
Methyl acetate	79-20-9	X	X	X	X
Ethyl acetate	141-78-6	X	X	X	X

16. OTHER INFORMATION

Prior Version Date: 01/17/18

Other Information: Any changes to the SDS compared to previous versions are marked by a vertical line in front of the concerned paragraph.

References: No data available

Disclaimer: Restek Corporation provides the descriptions, data and information contained herein in good faith but makes no representation as to its comprehensiveness or accuracy. It is provided for your guidance only. Because many factors may affect processing or application/use, Restek Corporation recommends you perform an assessment to determine the suitability of a product for your particular purpose prior to use. No warranties of any kind, either expressed or implied, including fitness for a particular purpose, are made regarding products described, data or information set forth. In no case shall the descriptions, information, or data provided be considered a part of our terms and conditions of sale. Further, the descriptions, data and information furnished hereunder are given gratis. No obligation or liability for the description, data and information given are assumed. All such being given and accepted at your risk.

Quantitation Report (LSC Reviewed)

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX070720\
Data File : VX017229.D
Acq On : 08 Jul 2020 02:06
Operator : JC/SP
Sample : L3232-13
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 43 Sample Multiplier: 1

Instrument : MSVOA_X
ClientSampleId : 1013-FB070620

Quant Time: Jul 08 04:16:45 2020
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X062920W.M
Quant Title : SW846 8260
QLast Update : Mon Jun 29 17:10:38 2020
Response via : Initial Calibration

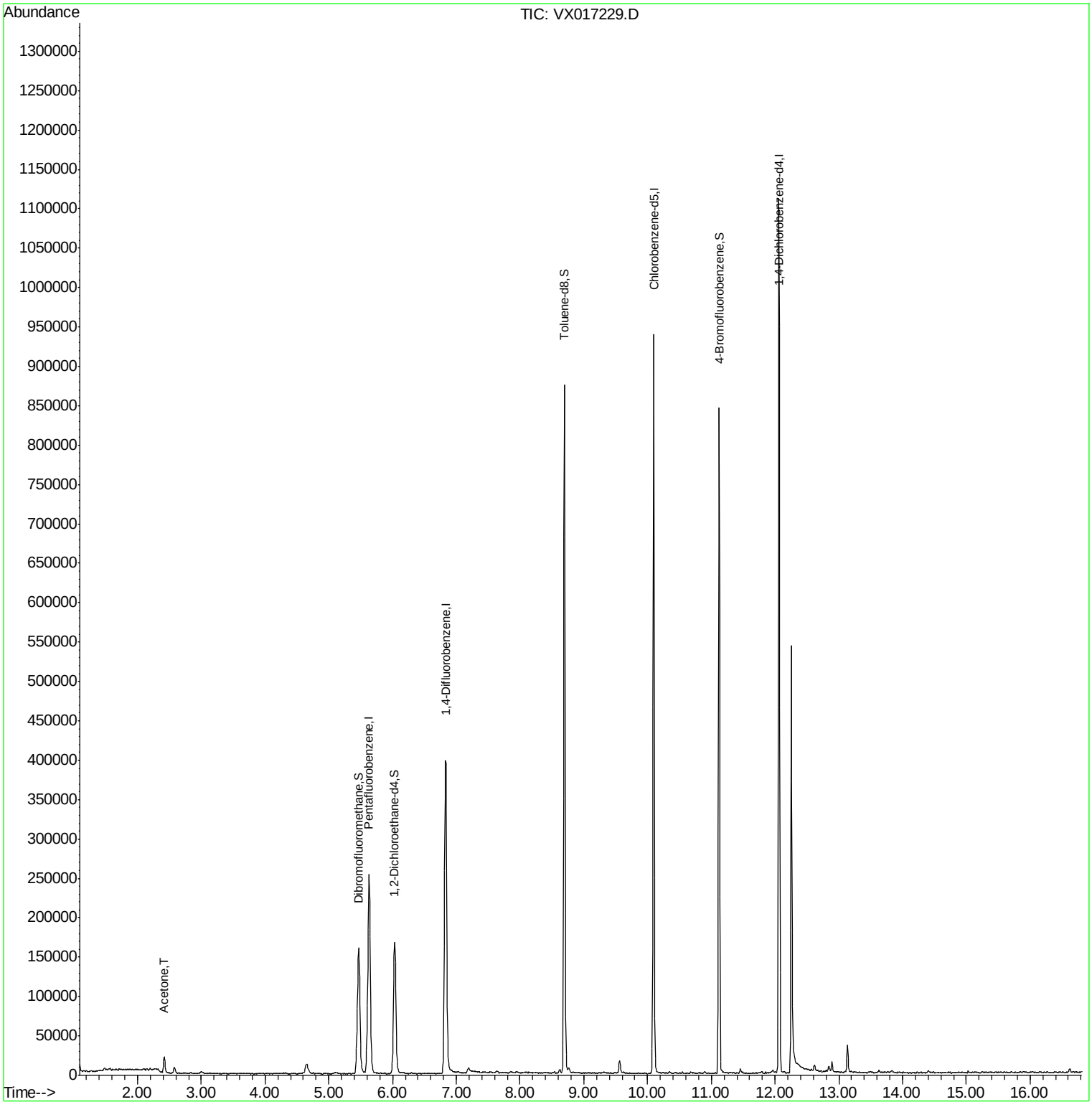
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	5.63	168	242357	50.00	ug/l	0.00
34) 1,4-Difluorobenzene	6.84	114	410015	50.00	ug/l	0.00
63) Chlorobenzene-d5	10.10	117	428331	50.00	ug/l	0.00
72) 1,4-Dichlorobenzene-d4	12.06	152	228119	50.00	ug/l	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4	6.04	65	164143	54.94	ug/l	0.00
Spiked Amount 50.000			Recovery = 109.88%			
35) Dibromofluoromethane	5.46	113	141223	54.45	ug/l	0.00
Spiked Amount 50.000			Recovery = 108.90%			
50) Toluene-d8	8.70	98	501594	52.30	ug/l	0.00
Spiked Amount 50.000			Recovery = 104.60%			
62) 4-Bromofluorobenzene	11.12	95	206005	54.95	ug/l	0.00
Spiked Amount 50.000			Recovery = 109.90%			
Target Compounds						Qvalue
16) Acetone	2.42	43	21583	19.310	ug/l	97

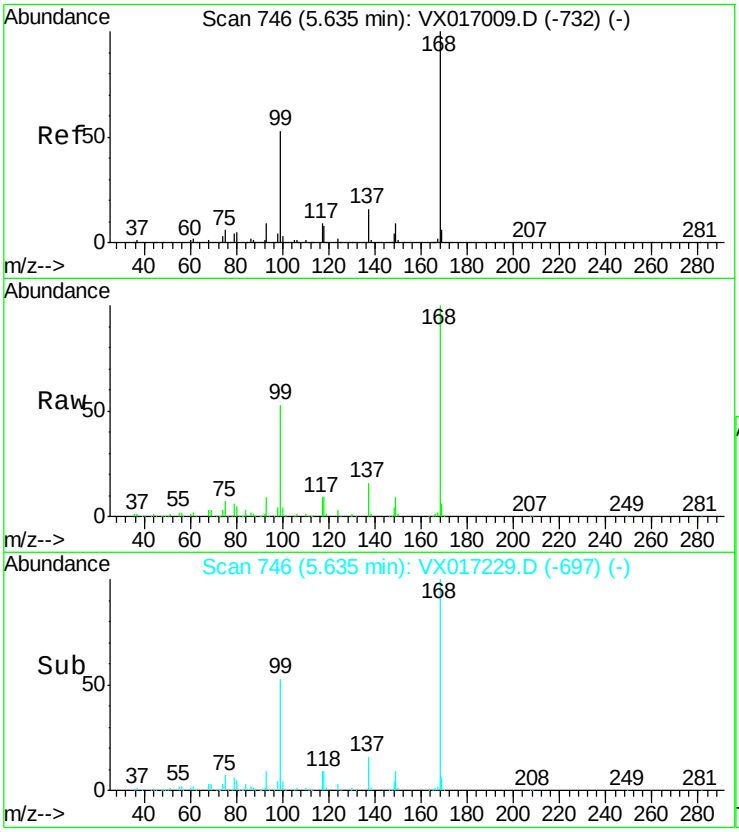
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX070720\
Data File : VX017229.D
Acq On : 08 Jul 2020 02:06
Operator : JC/SP
Sample : L3232-13
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 43 Sample Multiplier: 1

Instrument : MSVOA_X
ClientSampleId : 1013-FB070620

Quant Time: Jul 08 04:16:45 2020
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X062920W.M
Quant Title : SW846 8260
QLast Update : Mon Jun 29 17:10:38 2020
Response via : Initial Calibration

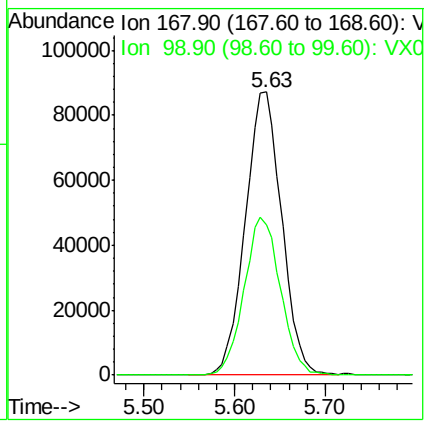




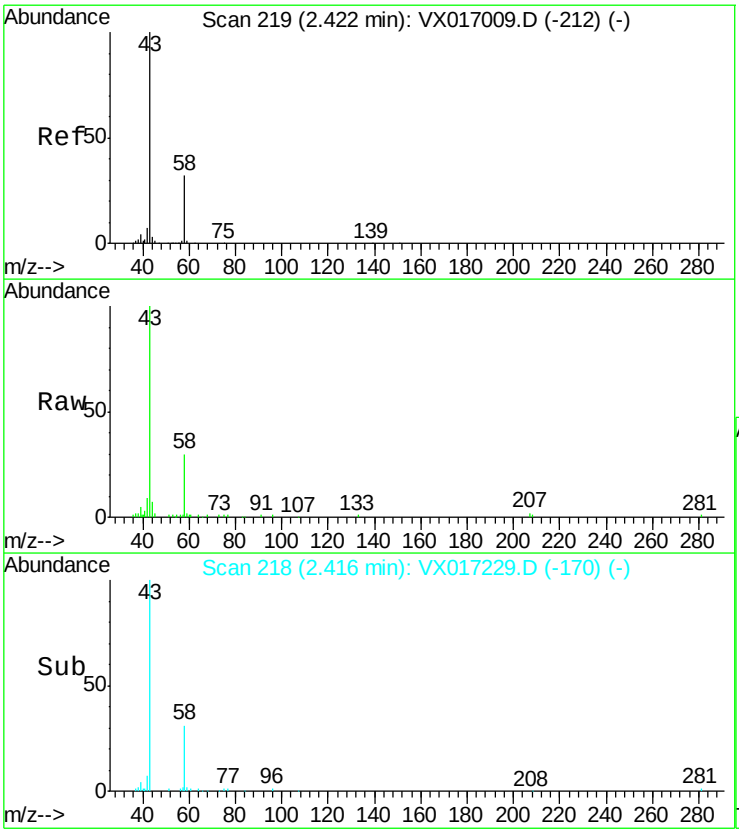
#1
Pentafluorobenzene
Concen: 50.000 ug/l
RT: 5.63 min Scan# 746
Delta R.T. -0.00 min
Lab File: VX017229.D
Acq: 08 Jul 2020 02:06

Tgt Ion:168 Resp: 242357

Ion	Ratio	Lower	Upper
168	100		
99	53.3	42.6	64.0



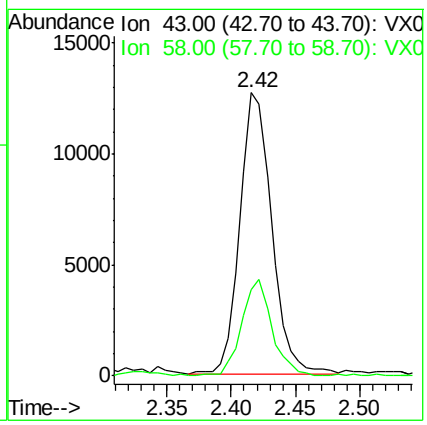
Instrument :
MSVOA_X
ClientSampleId :
1013-FB070620

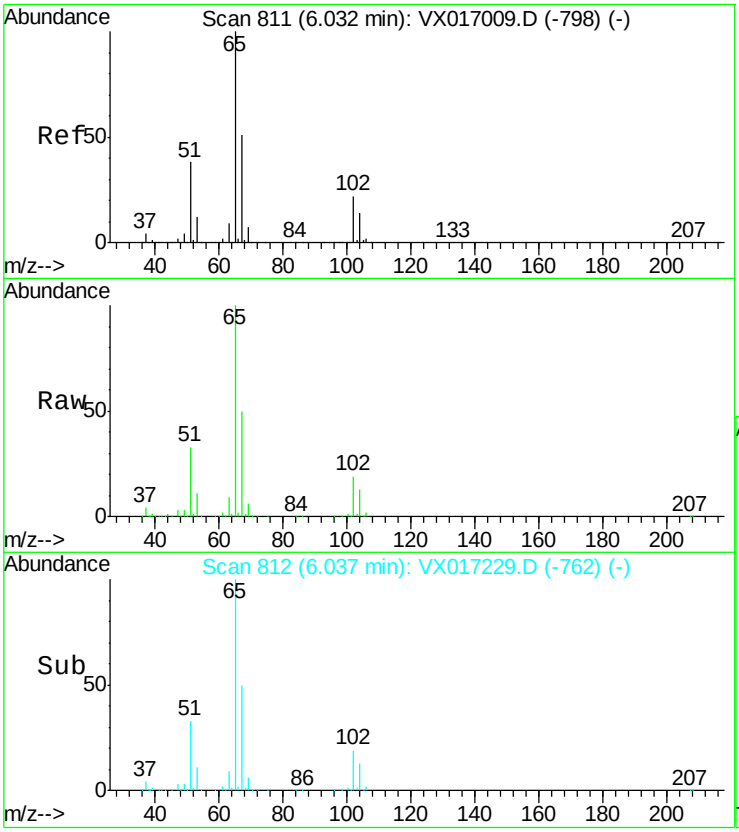


#16
Acetone
Concen: 19.310 ug/l
RT: 2.42 min Scan# 218
Delta R.T. -0.01 min
Lab File: VX017229.D
Acq: 08 Jul 2020 02:06

Tgt Ion: 43 Resp: 21583

Ion	Ratio	Lower	Upper
43	100		
58	30.7	25.7	38.5

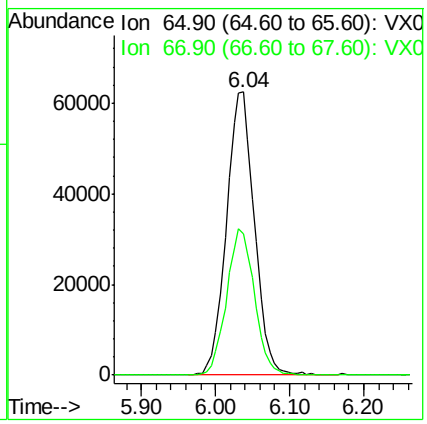




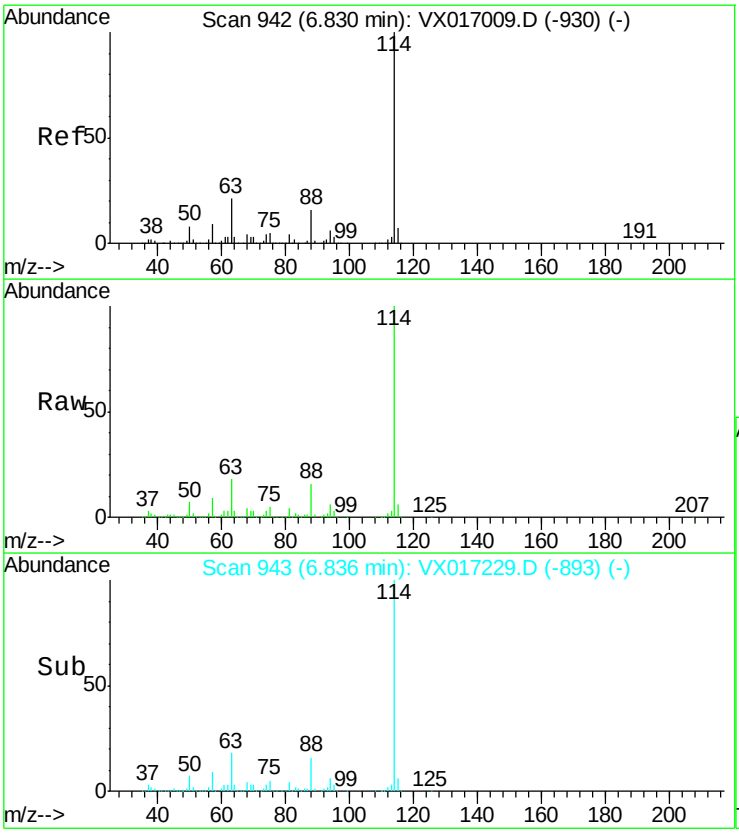
#33
1,2-Dichloroethane-d4
Concen: 54.938 ug/l
RT: 6.04 min Scan# 812
Delta R.T. 0.01 min
Lab File: VX017229.D
Acq: 08 Jul 2020 02:06

Tgt Ion: 65 Resp: 164143

Ion	Ratio	Lower	Upper
65	100		
67	51.5	0.0	103.8



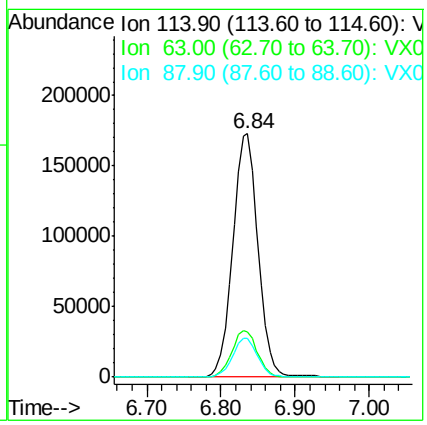
Instrument :
MSVOA_X
ClientSampleId :
1013-FB070620

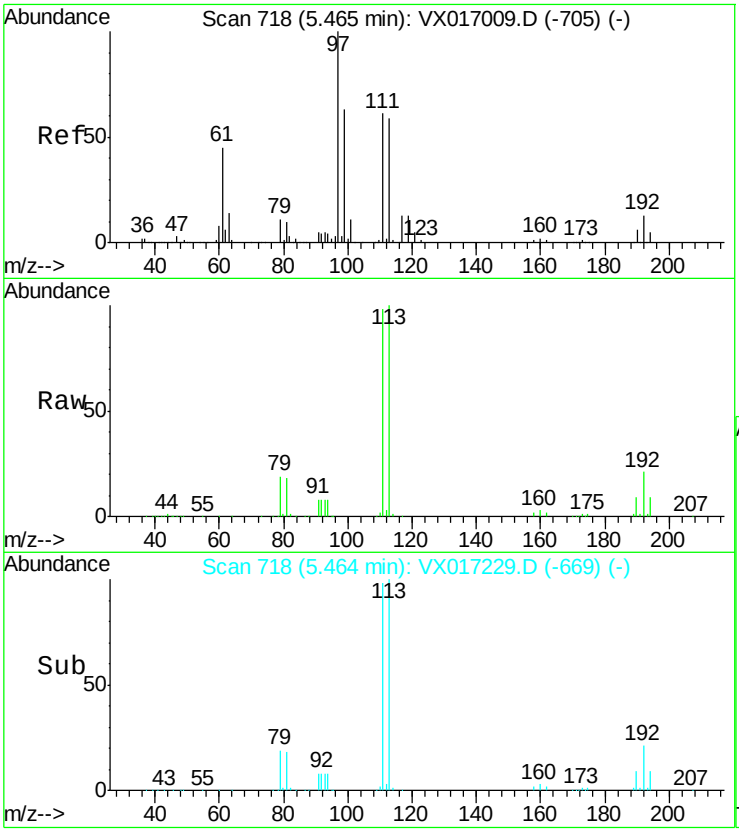


#34
1,4-Difluorobenzene
Concen: 50.000 ug/l
RT: 6.84 min Scan# 943
Delta R.T. 0.01 min
Lab File: VX017229.D
Acq: 08 Jul 2020 02:06

Tgt Ion:114 Resp: 410015

Ion	Ratio	Lower	Upper
114	100		
63	18.3	0.0	41.4
88	16.1	0.0	32.4

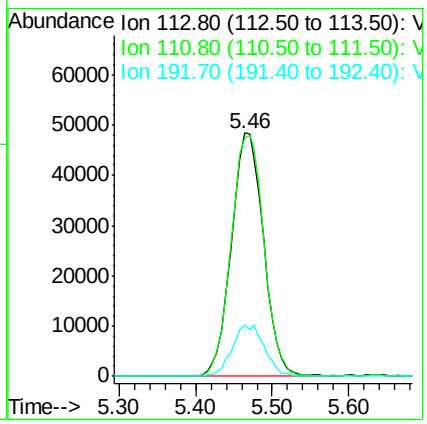




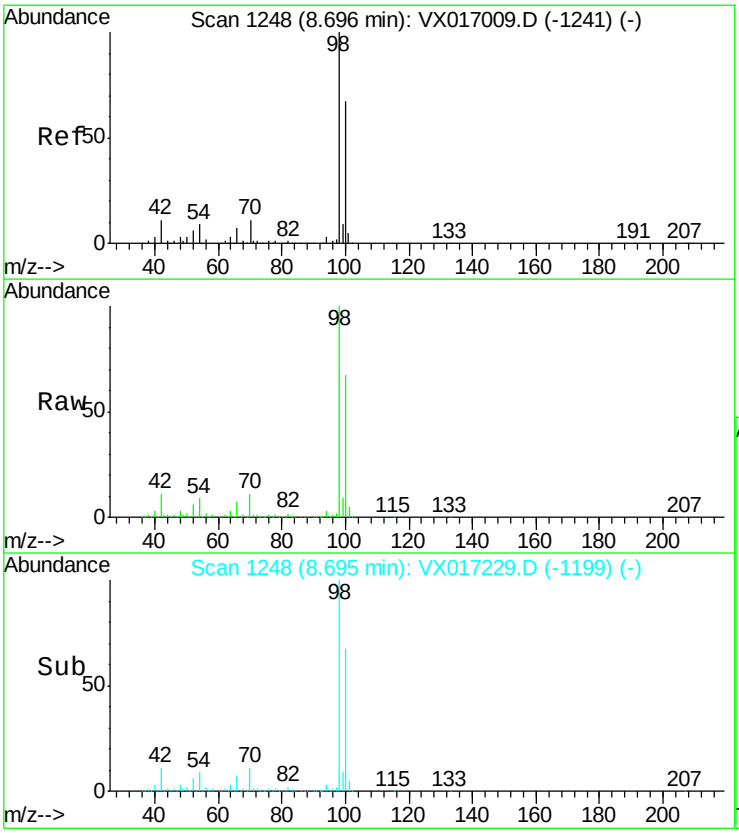
#35
Dibromofluoromethane
Concen: 54.450 ug/l
RT: 5.46 min Scan# 718
Delta R.T. -0.00 min
Lab File: VX017229.D
Acq: 08 Jul 2020 02:06

Tgt Ion:113 Resp: 141223

Ion	Ratio	Lower	Upper
113	100		
111	100.9	81.9	122.9
192	21.3	16.7	25.1



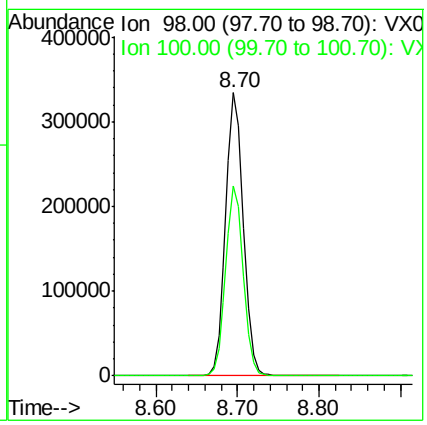
Instrument :
MSVOA_X
ClientSampleId :
1013-FB070620

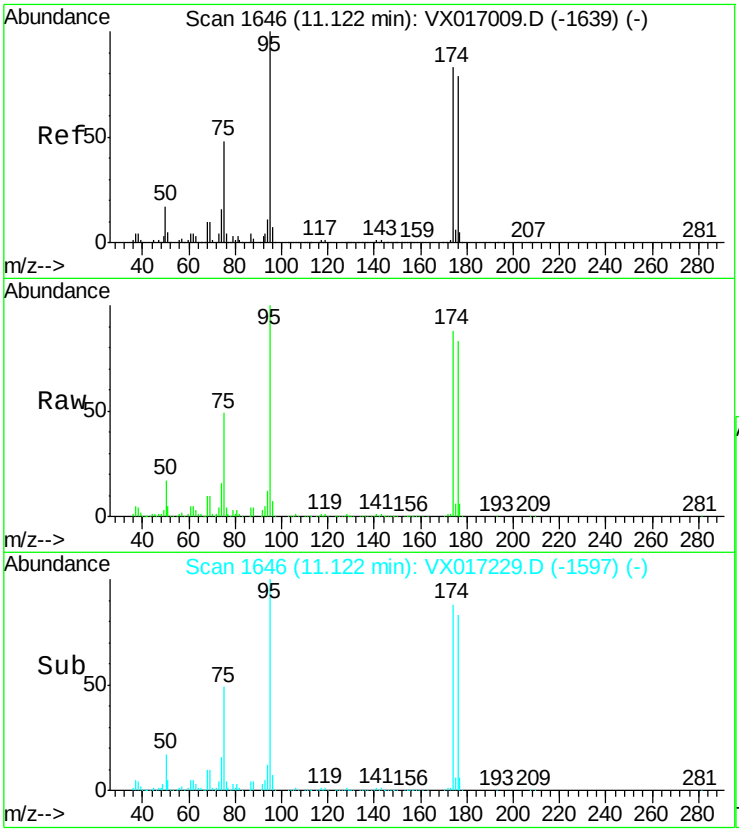


#50
Toluene-d8
Concen: 52.300 ug/l
RT: 8.70 min Scan# 1248
Delta R.T. -0.00 min
Lab File: VX017229.D
Acq: 08 Jul 2020 02:06

Tgt Ion: 98 Resp: 501594

Ion	Ratio	Lower	Upper
98	100		
100	66.5	53.8	80.6



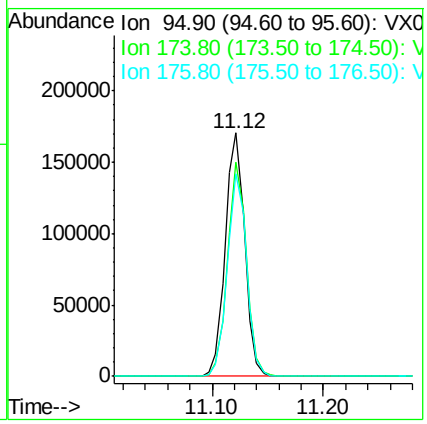


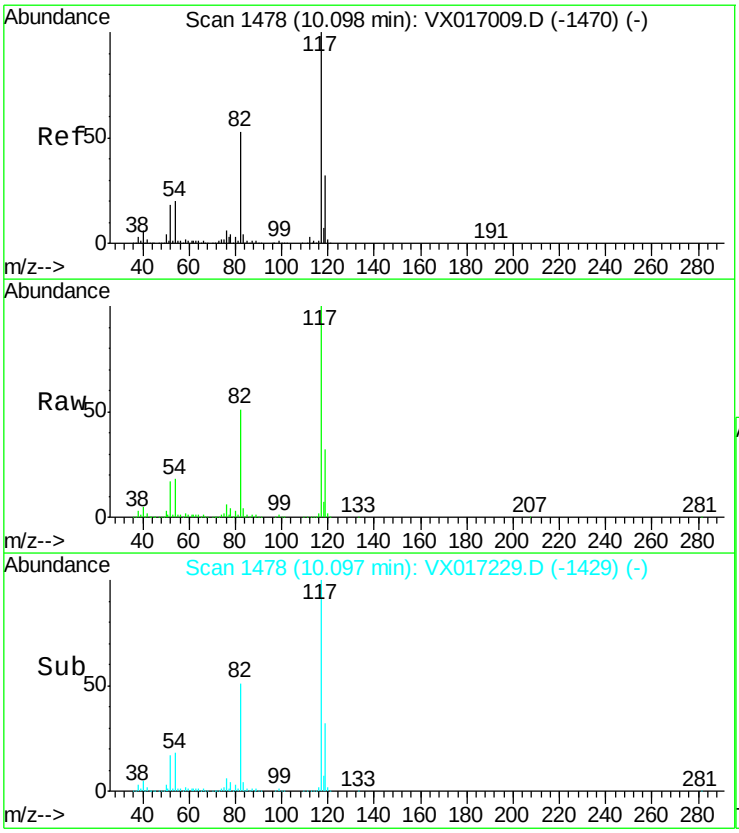
#62
4-Bromofluorobenzene
Concen: 54.947 ug/l
RT: 11.12 min Scan# 1646
Delta R.T. -0.00 min
Lab File: VX017229.D
Acq: 08 Jul 2020 02:06

Instrument :
MSVOA_X
ClientSampleId :
1013-FB070620

Tgt Ion: 95 Resp: 206005

Ion	Ratio	Lower	Upper
95	100		
174	85.7	0.0	164.0
176	82.6	0.0	157.6

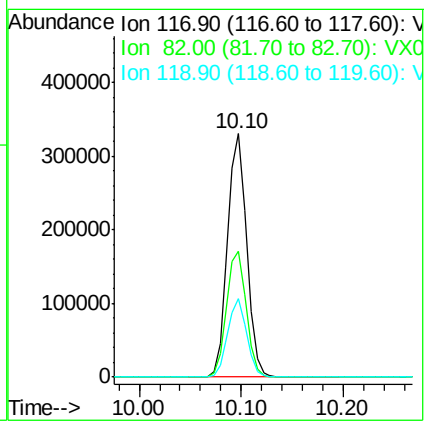


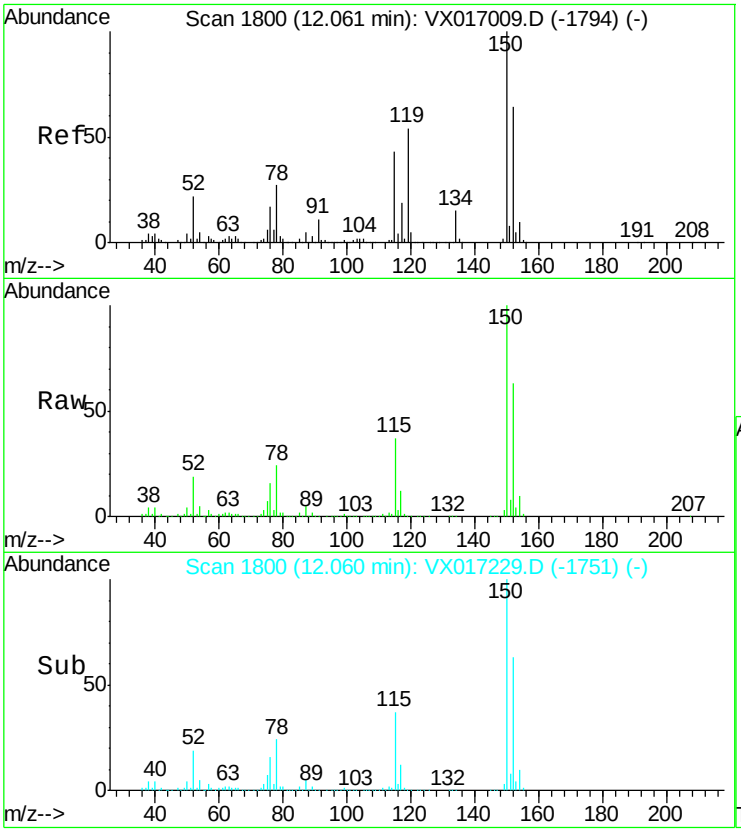


#63
Chlorobenzene-d5
Concen: 50.000 ug/l
RT: 10.10 min Scan# 1478
Delta R.T. -0.00 min
Lab File: VX017229.D
Acq: 08 Jul 2020 02:06

Tgt Ion:117 Resp: 428331

Ion	Ratio	Lower	Upper
117	100		
82	51.5	42.6	63.8
119	32.5	25.4	38.2



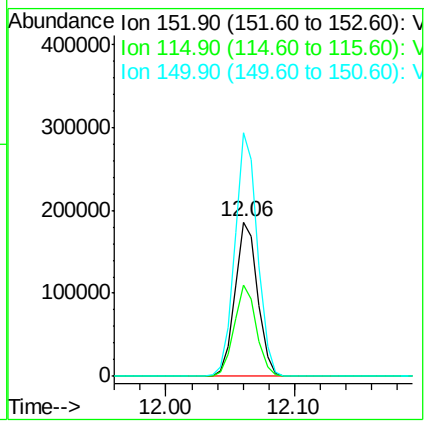


#72
1,4-Dichlorobenzene-d4
Concen: 50.000 ug/l
RT: 12.06 min Scan# 1800
Delta R.T. -0.00 min
Lab File: VX017229.D
Acq: 08 Jul 2020 02:06

Instrument :
MSVOA_X
ClientSampleId :
1013-FB070620

Tgt Ion:152 Resp: 228119

Ion	Ratio	Lower	Upper
152	100		
115	58.0	40.9	122.7
150	156.7	0.0	351.6



LSC Area Percent Report

Data Path : Z:\VOASRV\HPCHEM1\MSVOA X\DATA\VX070720\
Data File : VX017229.D
Acq On : 08 Jul 2020 02:06
Operator : JC/SP
Sample : L3232-13
Misc : 5.0mL/MSVOA X/WATER
ALS Vial : 43 Sample Multiplier: 1

Instrument : MSVOA_X
ClientSampleId : 1013-FB070620

Integration Parameters: RTEINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 3 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X062920W.M
Title : SW846 8260

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	2.416	213	218	225	rVB	20327	34082	2.51%	0.401%
2	2.574	238	244	253	rVB	7560	14667	1.08%	0.172%
3	4.647	572	584	598	rBV2	12285	42991	3.17%	0.505%
4	5.470	707	719	732	rBV2	160401	473103	34.86%	5.560%
5	5.629	735	745	761	rVB	252800	709685	52.30%	8.340%
6	6.031	800	811	823	rBV	167107	441752	32.55%	5.191%
7	6.830	932	942	954	rBV	398207	960791	70.80%	11.291%
8	7.189	996	1001	1006	rBV4	6539	15034	1.11%	0.177%
9	8.695	1241	1248	1256	rBV	873530	1326014	97.72%	15.582%
10	9.561	1381	1390	1396	rBV3	16218	27242	2.01%	0.320%
11	10.097	1471	1478	1491	rBV	938044	1255321	92.51%	14.752%
12	11.122	1640	1646	1653	rBV	844923	1027458	75.72%	12.074%
13	12.060	1794	1800	1807	rBV	1109451	1356989	100.00%	15.946%
14	12.256	1827	1832	1846	rBV	542622	762708	56.21%	8.963%
15	12.896	1933	1937	1947	rVB4	12962	18284	1.35%	0.215%
16	13.133	1972	1976	1983	rVB	34573	43598	3.21%	0.512%

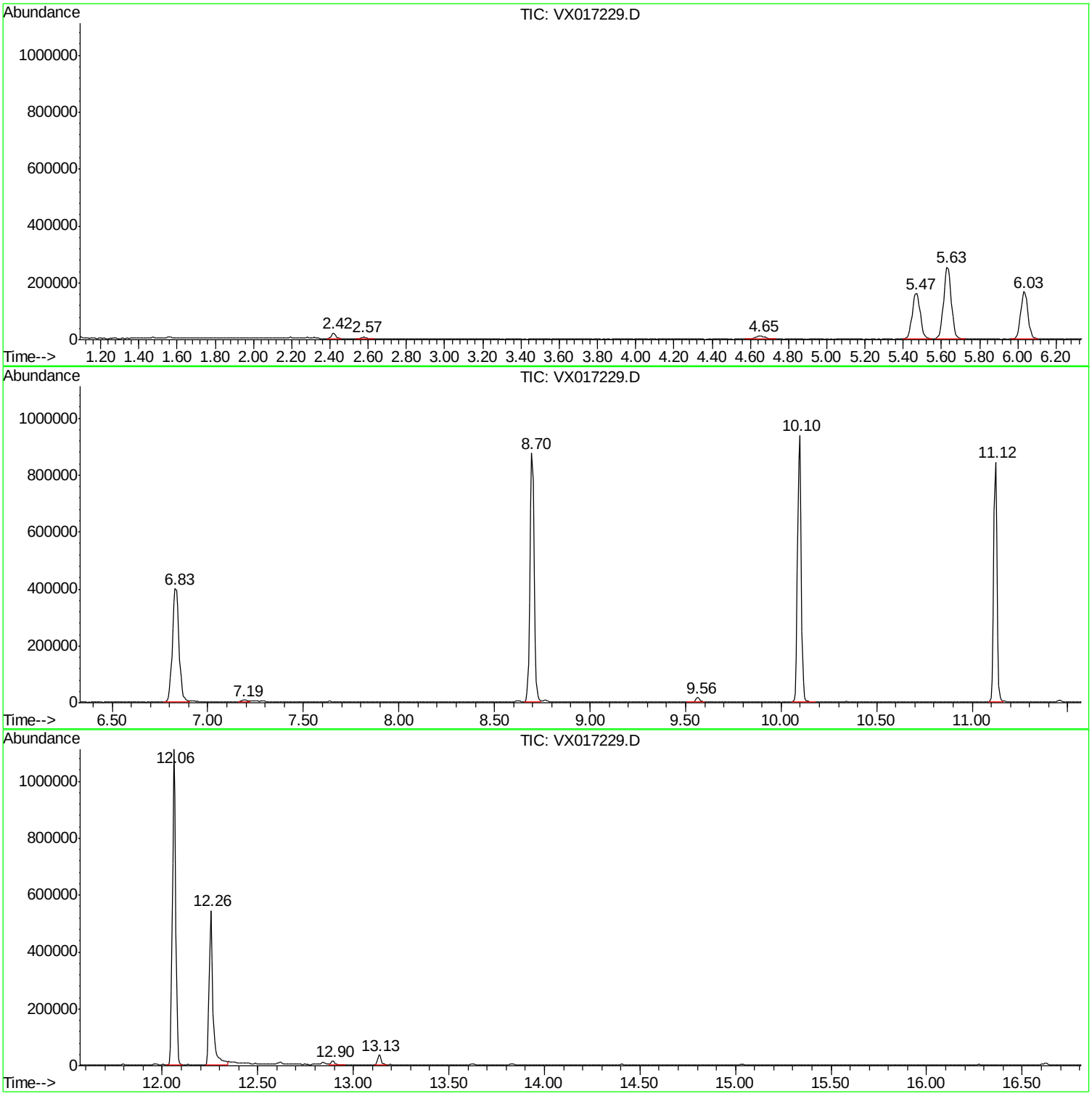
Sum of corrected areas: 8509719

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX070720\
Data File : VX017229.D
Acq On : 08 Jul 2020 02:06
Operator : JC/SP
Sample : L3232-13
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 43 Sample Multiplier: 1

Instrument :
MSVOA_X
ClientSampleId :
1013-FB070620

Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X062920W.M
Quant Title : SW846 8260

TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P



Library Search Compound Report

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX070720\
Data File : VX017229.D
Acq On : 08 Jul 2020 02:06
Operator : JC/SP
Sample : L3232-13
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 43 Sample Multiplier: 1

Instrument : MSVOA_X
ClientSampleId : 1013-FB070620

Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X062920W.M
Quant Title : SW846 8260

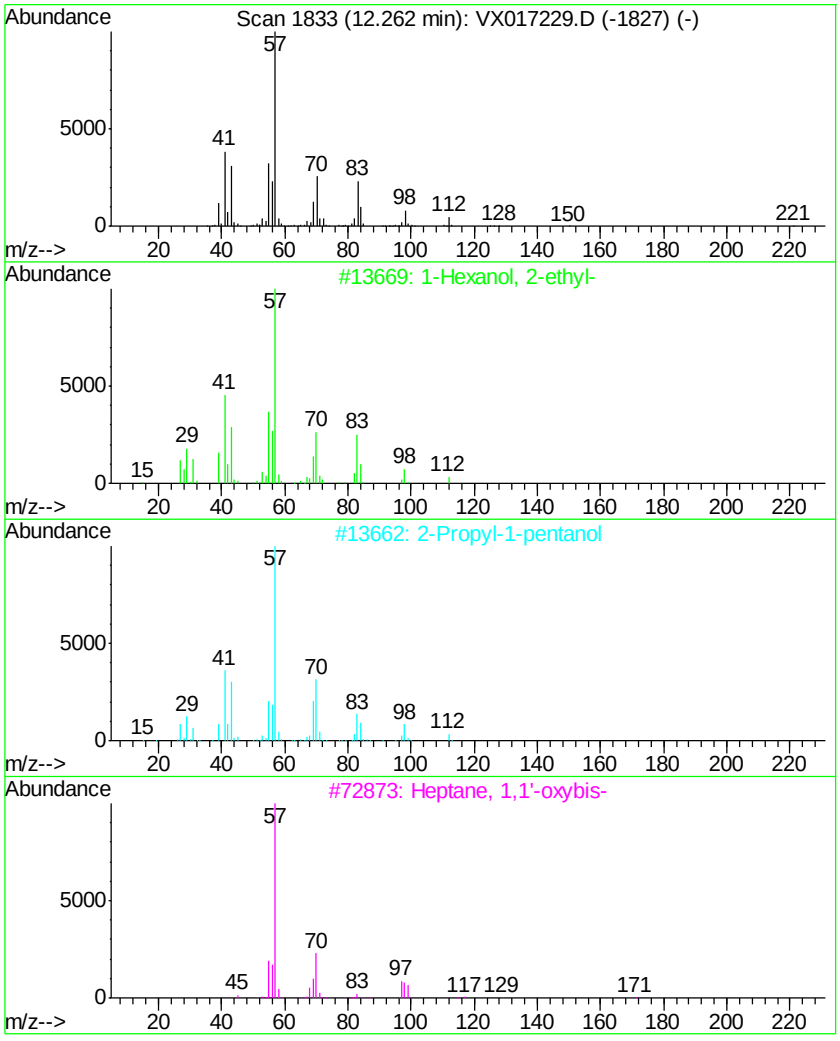
TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

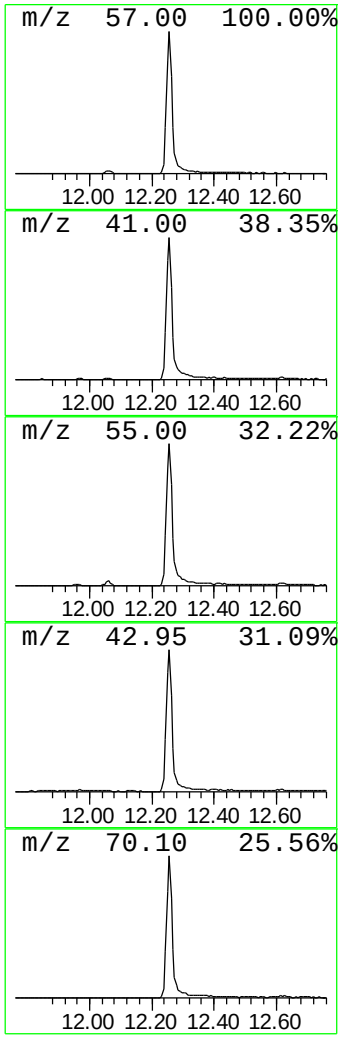
****

Peak Number 1 1-Hexanol, 2-ethyl- Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
12.26	28.10 ug/l	762708	1,4-Dichlorobenzene-d4	12.06

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	1-Hexanol, 2-ethyl-	130	C8H18O	000104-76-7	90
2	2-Propyl-1-pentanol	130	C8H18O	058175-57-8	50
3	Heptane, 1,1'-oxybis-	214	C14H30O	000629-64-1	50
4	Heptyl isobutyl carbonate	216	C12H24O3	959068-08-7	47
5	Decane, 5,6-dipropyl-	226	C16H34	119209-20-0	42





Tentatively Identified Compound (LSC) summary

Data Path : Z:\VOASRV\HPCHEM1\MSVOA_X\DATA\VX070720\
Data File : VX017229.D
Acq On : 08 Jul 2020 02:06
Operator : JC/SP
Sample : L3232-13
Misc : 5.0mL/MSVOA_X/WATER
ALS Vial : 43 Sample Multiplier: 1

Instrument : MSVOA_X
ClientSampleId : 1013-FB070620

Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_X\METHOD\82X062920W.M
Quant Title : SW846 8260

TIC Library : C:\DATABASE\NIST11.L
TIC Integration Parameters: LSCINT.P

					Internal Standard			
TIC Top Hit name	RT	EstConc	Units	Response	#	RT	Resp	Conc
1-Hexanol, 2-ethyl-	12.26	28.1	ug/l	762708	4	12.06	1356990	50.0

SHIPPING DOCUMENTS

CHEMTECH
CHAIN OF CUSTODY RECORD

284 Sheffield Street, Mountainside, NJ 07092
(908) 789-8900 • Fax (908) 789-8922
www.chemtech.net

CHEMTECH PROJECT NO.
QUOTE NO. L3232
COC Number 2030110

CLIENT INFORMATION

REPORT TO BE SENT TO:
COMPANY: Day Environmental, Inc
ADDRESS: 1563 Lyell Avenue
CITY Rochester STATE: NY ZIP: 14606
ATTENTION: Jeff Danzinger
PHONE: 585-454-0210 FAX: 585-454-0825

CLIENT PROJECT INFORMATION

PROJECT NAME: Andrews St. Site
PROJECT NO.: 5334$-17 LOCATION: Rochester, NY
PROJECT MANAGER: Jeff Danzinger
e-mail: jdanzinger@daymail.net
PHONE: 585-454-0210 FAX: 585-454-0825

CLIENT BILLING INFORMATION

BILL TO: Day Environmental, Inc. PO#: 5334$-17
ADDRESS: 1563 Lyell Avenue
CITY Rochester STATE: NY ZIP: 14606
ATTENTION: Jeff Danzinger PHONE: 585-454-0210

DATA TURNAROUND INFORMATION

FAX (RUSH) 5 DAYS*
HARDCOPY (DATA PACKAGE): DAYS*
EDD: 15 DAYS*
*TO BE APPROVED BY CHEMTECH
STANDARD HARDCOPY TURNAROUND TIME IS 10 BUSINESS DAYS

DATA DELIVERABLE INFORMATION

☐ Level 1 (Results Only) ☒ Level 4 (QC + Full Raw Data)
☐ Level 2 (Results + QC) ☐ NJ Reduced ☐ US EPA CLP
☐ Level 3 (Results + QC + Raw Data) ☐ NYS ASP A ☒ NYS ASP B
☐ Other
☒ EDD FORMAT NYSDEC Equis Excel

ANALYSIS

1 TCL VOCs + TICs 8260

CHEMTECH SAMPLE ID	PROJECT SAMPLE IDENTIFICATION	SAMPLE MATRIX	SAMPLE TYPE COMP	SAMPLE TYPE GRAB	SAMPLE COLLECTION DATE	SAMPLE COLLECTION TIME	# OF BOTTLES	A/E 1	2	3	4	5	6	7	8	9	COMMENTS
1.	1003-MW-01	GW		X	7/6/20	1101	2	X									
2.	1004-MW-02					1105	6	X									Also do MS/MSD
3.	1005-MW-03A					1110	2	X									
4.	1006-MW-05					1114	2	X									
5.	1007-MW-11					1120	2	X									
6.	1008-MW-15					1125	2	X									
7.	1009-MW-16					1130	2	X									
8.	1010-MW-17A					1134	2	X									
9.	1011-MW-18					1137	2	X									
10.	1012-MW-19					1140	2	X									

PRESERVATIVES

COMMENTS ← Specify Preservatives
A-HCl D-NaOH
B-HN03 E-ICE
C-H2SO4 F-OTHER

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION INCLUDING COURIER DELIVERY

RELINQUISHED BY SAMPLER:	DATE/TIME:	RECEIVED BY:
1.	7-6-20/1330	1. FED-EX
2. FED-EX	7/7/2020 1005	2.
3.		3.

Conditions of bottles or coolers at receipt: ☒ COMPLIANT ☐ NON COMPLIANT ☐ COOLER TEMP 2.1°C
Comments:

Page 1 of 2

CLIENT: ☐ Hand Delivered ☐ Other
CHEMTECH: ☐ Picked Up ☐ Field Sampling

Shipment Complete ☒ YES ☐ NO

CHEMTECH
CHAIN OF CUSTODY RECORD

284 Sheffield Street, Mountainside, NJ 07092
(908) 789-8900 • Fax (908) 789-8922
www.chemtech.net

CHEMTECH PROJECT NO.
QUOTE NO. L3232
COC Number 2030109

CLIENT INFORMATION

REPORT TO BE SENT TO:
COMPANY: Day Environmental, Inc.
ADDRESS: 1563 Lyell Avenue
CITY Rochester STATE: NY ZIP: 14606
ATTENTION: Jeff Danzinger
PHONE: 585-454-0210 FAX: 585-454-0825

CLIENT PROJECT INFORMATION

PROJECT NAME: Andrews St Site
PROJECT NO.: 5334J-17 LOCATION: Rochester, NY
PROJECT MANAGER: Jeff Danzinger
e-mail: jdanzinger@dayenvi.com
PHONE: 585-454-0210 FAX: 585-454-0825

CLIENT BILLING INFORMATION

BILL TO: DAY ENVIRONMENTAL, INC PO#: 5334J-17
ADDRESS: 1563 Lyell Avenue
CITY Rochester STATE: NY ZIP: 14606
ATTENTION: Jeff Danzinger PHONE: 585-454-0210

DATA TURNAROUND INFORMATION

FAX (RUSH) 5 DAYS*
HARDCOPY (DATA PACKAGE): DAYS*
EDD: 15 DAYS*
*TO BE APPROVED BY CHEMTECH
STANDARD HARDCOPY TURNAROUND TIME IS 10 BUSINESS DAYS

DATA DELIVERABLE INFORMATION

- ☐ Level 1 (Results Only)
- ☒ Level 4 (QC + Full Raw Data)
- ☐ Level 2 (Results + QC)
- ☐ NJ Reduced
- ☐ US EPA CLP
- ☐ Level 3 (Results + QC + Raw Data)
- ☐ NYS ASP A
- ☒ NYS ASP B
- ☐ Other
- ☒ EDD FORMAT NYSDEC EQuIS Excel

ANALYSIS

TCL VOCs + TICs 8260

CHEMTECH SAMPLE ID	PROJECT SAMPLE IDENTIFICATION	SAMPLE MATRIX	SAMPLE TYPE COMP	SAMPLE TYPE GRAB	SAMPLE COLLECTION DATE	SAMPLE COLLECTION TIME	# OF BOTTLES	PRESERVATIVES A/C 1	2	3	4	5	6	7	8	9	COMMENTS
1.	1013-FB070620	AQ		X	7/6/20	1142	2	X									
2.	1014-TB070620	AQ		X	7/6/20	—	2	X									
3.																	
4.																	
5.																	
6.																	
7.																	
8.																	
9.																	
10.																	

Specify Preservatives: A-HCl, B-HN03, C-H2SO4, D-NaOH, E-ICE, F-OTHER

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION INCLUDING COURIER DELIVERY

RELINQUISHED BY SAMPLER:	DATE/TIME:	RECEIVED BY:
1.	7-6-20/1330	1. FED-EX
2. FED-EX	DATE/TIME: 1005 7/7/2020	2.
3.		3.

Conditions of bottles or coolers at receipt: ☒ COMPLIANT ☐ NON COMPLIANT ☐ COOLER TEMP 21°C °C
Comments:

Page 2 of 2

CLIENT: ☐ Hand Delivered ☐ Other
CHEMTECH: ☐ Picked Up ☐ Field Sampling

Shipment Complete ☒ YES ☐ NO

1563 LYELL AVENUE
ROCHESTER, NY 14606
UNITED STATES US

TO CASS
CHEMTECH
284 SHEFFIELD ST

MOUNTAINSIDE NJ 07092
(908) 728-3144
REF: B2006037

RMA:

FedEx
Express

7/7/2020 1005

TRK# 0221 9004 3117 1055

RETURNS MON-FRI

FedEx
TRK# 0221 9004 3117 1055

TUE - 07 JUL 3:00P
STANDARD OVERNIGHT

XA KBCA

L3232 NJ-US

0709 EW

D 2 15:00 1055 07.07
RT 236

#52198 07/06 56BJ2/17B7/FE4A

Laboratory Certification

Certified By	License No.
CAS EPA CLP Contract	EP-W-14-030
Connecticut	PH-0649
DOD ELAP (L-A-B)	L2219
Maine	2018020
Maryland	296
New Hampshire	255419
New Jersey	20012
New York	11376
Pennsylvania	68-00548
Soil Permit	P330-18-00132
Texas	T104704488-20-13

CHEMTECH

LOGIN REPORT/SAMPLE TRANSFER

Order ID : L3232 DAYE01
Client Name : Day Environmental, Inc.
Client Contact : Jeff Danzinger
Invoice Name : Day Environmental, Inc.
Invoice Contact : Jeff Danzinger

Order Date : 7/7/2020 10:19:00 AM
Project Name : Andrew St. RI
Receive DateTime : 7/7/2020 10:05:00 AM
Purchase Order :

Project Mgr :
Report Type : NYS ASP B
EDD Type : Equis_EQNYDEC/Excel
Hard Copy Date :
Date Signoff :

LAB ID	CLIENT ID	MATRIX	SAMPLE DATE	SAMPLE TIME	TEST	TEST GROUP	METHOD	FAX DATE	DUE DATES
L3232-01	1003-MW-01	Water	07/06/2020	11:01					
					VOC-TCLVOA-10		8260-Low		5 Bus. Days
L3232-02	1004-MW-02	Water	07/06/2020	11:05					
					VOC-TCLVOA-10		8260-Low		5 Bus. Days
L3232-03	L3232-02MS	Water	07/06/2020	11:05					
					VOC-TCLVOA-10		8260-Low		5 Bus. Days
L3232-04	L3232-02MSD	Water	07/06/2020	11:05					
					VOC-TCLVOA-10		8260-Low		5 Bus. Days
L3232-05	1005-MW-03A	Water	07/06/2020	11:10					
					VOC-TCLVOA-10		8260-Low		5 Bus. Days
L3232-06	1006-MW-05	Water	07/06/2020	11:14					
					VOC-TCLVOA-10		8260-Low		5 Bus. Days
L3232-07	1007-MW-11	Water	07/06/2020	11:20					
					VOC-TCLVOA-10		8260-Low		5 Bus. Days
L3232-08	1008-MW-15	Water	07/06/2020	11:28					
					VOC-TCLVOA-10		8260-Low		5 Bus. Days
L3232-09	1009-MW-16	Water	07/06/2020	11:30					

CHEMTECH

LOGIN REPORT/SAMPLE TRANSFER

Order ID : L3232 DAYE01
Client Name : Day Environmental, Inc.
Client Contact : Jeff Danzinger
Invoice Name : Day Environmental, Inc.
Invoice Contact : Jeff Danzinger

Order Date : 7/7/2020 10:19:00 AM
Project Name : Andrew St. RI
Receive DateTime : 7/7/2020 10:05:00 AM
Purchase Order :

Project Mgr :
Report Type : NYS ASP B
EDD Type : Equis_EQNYDEC/Excel
Hard Copy Date :
Date Signoff :

LAB ID	CLIENT ID	MATRIX	SAMPLE DATE	SAMPLE TIME	TEST	TEST GROUP	METHOD	FAX DATE	DUE DATES
					VOC-TCLVOA-10		8260-Low		5 Bus. Days
L3232-10	1010-MW-17A	Water	07/06/2020	11:34					
					VOC-TCLVOA-10		8260-Low		5 Bus. Days
L3232-11	1011-MW-18	Water	07/06/2020	11:37					
					VOC-TCLVOA-10		8260-Low		5 Bus. Days
L3232-12	1012-MW-19	Water	07/06/2020	11:40					
					VOC-TCLVOA-10		8260-Low		5 Bus. Days
L3232-13	1013-FB070620	Water	07/06/2020	11:42					
					VOC-TCLVOA-10		8260-Low		5 Bus. Days
L3232-14	1014-TB070620	Water	07/06/2020	00:00					
					VOC-TCLVOA-10		8260-Low		5 Bus. Days

Relinguished By : DW
Date / Time : 7/7/2020 1210

Received By :
Date / Time : 7.7.2020 12:10

Storage Area : VOA Refridgerator Room

Data Usability Summary Report

Vali-Data of WNY, LLC
1514 Davis Rd.
West Falls, NY 14170

Andrew St. RI
Chemtech SDG#J6484
January 28, 2019
Sampling date: 12/18/2018

Prepared by:
Jodi Zimmerman
Vali-Data of WNY, LLC
1514 Davis Rd.
West Falls, NY 14170

DELIVERABLES

This Data Usability Summary Report (DUSR) was prepared by evaluating the analytical data package for Day Environmental, project located at Andrew St. RI, Chemtech, SDG#J6484 submitted to Vali-Data of WNY, LLC on January 17, 2019. This DUSR has been prepared in general compliance with NYSDEC Analytical Services Protocols and USEPA National Functional Guidelines. The laboratory performed the analysis using USEPA method Volatile Organics (8260C).

VOLATILE ORGANIC COMPOUNDS

The following items/criteria were reviewed for this analytical suite:

-Data Completeness
-Narrative and Data Reporting Forms
-Chain of Custody and Traffic Reports
-Holding Times
-Internal Standard (IS) Area Performance
-Surrogate Spike Recoveries
-Method Blank
-Field Duplicate Sample Precision
-Laboratory Control Samples
-MS/MSD
-Compound Quantitation
-Initial Calibration
-Continuing Calibration
-GC/MS Performance Check

The items listed above were technically in compliance with the method and SOP criteria with the exceptions discussed in the text below. The data have been reviewed according to the procedures outlined above and qualified accordingly.

OVERALL EVALUATION OF DATA AND POTENTIAL USABILITY ISSUES

The data are acceptable for use except where qualified below in Compound Quantitation and GC/MS Performance Check.

Sample; 973-MW-17(15.5), was diluted due to bad matrix.
Samples; 963-MW-01(23) and 965-MW-03A(17), were diluted due to high target analyte concentration.

DATA COMPLETENESS

All criteria were met.

NARRATIVE AND DATA REPORTING FORMS
All criteria were met.
The data was not reported to 3 significant figures. This does not affect the usability of the data.

CHAIN OF CUSTODY AND TRAFFIC REPORTS
All criteria were met.

HOLDING TIMES
All criteria were met.

INTERNAL STANDARD (IS)
All criteria were met.

SURROGATE SPIKE RECOVERIES
All criteria were met.

METHOD BLANK
All criteria were met.

FIELD DUPLICATE SAMPLE PRECISION
No field duplicate was acquired.

LABORATORY CONTROL SAMPLES
All criteria were met.

MS/MSD
All criteria were met.

COMPOUND QUANTITATION
All criteria were met except Acetone was detected above the reporting limit in 977-FB121818. This target analyte should be qualified as undetected at the reporting limit in the associated samples in which it was detected below the reporting limit. This target analyte should be qualified as undetected in the associated samples in which it was detected above the reporting limit and below the blank concentration. This target analyte should be qualified as estimated high in the associated samples in which it was detected above the blank concentration.
2-Butanone was detected above MDL, below the reporting limit and is qualified as estimated in 977-FB121818. This target analyte should be qualified as undetected at the reporting limit in the associated samples in which it was detected below the reporting limit. This target analyte should be qualified as estimated high in the associated samples in which it was detected above the reporting limit.

INITIAL CALIBRATION
All criteria were met.

Alternate forms of regression were used on target analytes whose %RSD>20.5%, with acceptable results.

CONTINUING CALIBRATION
All criteria were met.

GC/MS PERFORMANCE CHECK
All criteria were met except the %Relative abundance of m/e 176 was outside QC limits in the instrument performance check performed on 12/20/2018. Target analytes in the associated samples, blanks and spikes should be qualified as estimated.

Data Usability Summary Report

Vali-Data of WNY, LLC
1514 Davis Rd.
West Falls, NY 14170

Andrew St.
Chemtech SDG#K6405
February 10, 2020
Sampling date: 12/20/2019

Prepared by:
Jodi Zimmerman
Vali-Data of WNY, LLC
1514 Davis Rd.
West Falls, NY 14170

DELIVERABLES

This Data Usability Summary Report (DUSR) was prepared by evaluating the analytical data package for Day Environmental, project located at Andrew St., Chemtech, SDG#K6405 submitted to Vali-Data of WNY, LLC January 23, 2019. This DUSR has been prepared in general compliance with USEPA National Functional Guidelines and NYSDEC Analytical Services Protocols. The laboratory performed the analysis using USEPA method Volatile Organics (8260C).

VOLATILE ORGANIC COMPOUNDS

The following items/criteria were reviewed for this analytical suite:

-Data Completeness
-Narrative and Data Reporting Forms
-Chain of Custody and Traffic Reports
-Holding Times
-Internal Standard (IS) Area Performance
-Surrogate Spike Recoveries
-Method Blank
-Field Duplicate Sample Precision
-Laboratory Control Samples
-MS/MSD
-Compound Quantitation
-Initial Calibration
-Continuing Calibration
-GC/MS Performance Check

The items listed above were technically in compliance with the method and SOP criteria with the exceptions discussed in the text below. The data have been reviewed according to the procedures outlined above and qualified accordingly.

OVERALL EVALUATION OF DATA AND POTENTIAL USABILITY ISSUES
The data are acceptable for use except where qualified below in Compound Quantitation.

Sample; 991-MW-01(23), 993-MW-03A-(17) and 995-MW-11-(15) were diluted due to high target analyte concentration.

DATA COMPLETENESS
All criteria were met.

NARRATIVE AND DATA REPORTING FORMS
All criteria were met except the incorrect sample result was recorded on the MS/MSD summary

pages. Updated pages are attached.
The data was not reported to 3 significant figures. This does not affect the usability of the data.

CHAIN OF CUSTODY AND TRAFFIC REPORTS
All criteria were met.

HOLDING TIMES
All criteria were met.

INTERNAL STANDARD (IS)
All criteria were met.

SURROGATE SPIKE RECOVERIES
All criteria were met.

METHOD BLANK
All criteria were met.

FIELD DUPLICATE SAMPLE PRECISION
No field duplicate was acquired.

LABORATORY CONTROL SAMPLES
All criteria were met.

MS/MSD
All criteria were met.

COMPOUND QUANTITATION
All criteria were met except Acetone was detected above the reporting limit in 1001-FB122019. This target analyte should be qualified as undetected at the reporting limit in samples in which it was detected above the MDL, but below the reporting limit. This target analyte should be qualified as undetected in samples in which it was detected above the reporting limit but below the blank concentration. This target analyte should be qualified as estimated high in samples in which it was detected above the blank concentration.
A TIC was detected in 1001-FB122019. This TIC was not detected in the other samples, so no further action is required.

INITIAL CALIBRATION
All criteria were met.

CONTINUING CALIBRATION
All criteria were met.

GC/MS PERFORMANCE CHECK

All criteria were met.

CHEMTECH

Matrix Spike/Matrix Spike Duplicate Summary
SW-846

SDG No.: K6405

Client: Day Environmental, Inc.

Analytical Method: SW8260-Low

Parameter	Spike	Sample Result	Result	Units	Rec	Rec Qual	RPD	RPD Qual	Limits Low	Limits High	Limits RPD
Lab Sample ID : K6405-07MS		**Client Sample ID : 996-MW-15-(17)MS**						**Datafile :** VX014255.D			
Dichlorodifluoromethane	50	0	43.3	ug/L	87				47	161	
Chloromethane	50	0	46.8	ug/L	94				53	157	
Vinyl chloride	50	0	47.8	ug/L	96				57	149	
Bromomethane	50	0	44.6	ug/L	89				45	165	
Chloroethane	50	0	49.4	ug/L	99				47	166	
Trichlorofluoromethane	50	0	48.9	ug/L	98				51	165	
1,1,2-Trichlorotrifluoroethane	50	0	47.9	ug/L	96				61	145	
1,1-Dichloroethene	50	0	48.5	ug/L	97				55	148	
Acetone	250	4.00	180	ug/L	70				11	159	
Carbon disulfide	50	0	44.6	ug/L	89				13	149	
Methyl tert-butyl Ether	50	0	51.9	ug/L	104				60	145	
Methyl Acetate	50	0	49.1	ug/L	98				27	167	
Methylene Chloride	50	0	48.1	ug/L	96				56	146	
trans-1,2-Dichloroethene	50	0	48.4	ug/L	97				60	141	
1,1-Dichloroethane	50	0	50.5	ug/L	101				61	144	
Cyclohexane	50	0	49.3	ug/L	99				57	142	
2-Butanone	250	0	230	ug/L	92				42	145	
Carbon Tetrachloride	50	0	49.6	ug/L	99				60	140	
cis-1,2-Dichloroethene	50	0	50.5	ug/L	101				48	156	
Bromochloromethane	50	0	55.8	ug/L	112				59	146	
Chloroform	50	0	52.1	ug/L	104				63	140	
1,1,1-Trichloroethane	50	0	50.5	ug/L	101				65	140	
Methylcyclohexane	50	0	45.0	ug/L	90				62	128	
Benzene	50	0	49.1	ug/L	98				62	134	
1,2-Dichloroethane	50	0	49.5	ug/L	99				67	136	
Trichloroethene	50	0	47.3	ug/L	95				64	131	
1,2-Dichloropropane	50	0	50.5	ug/L	101				69	130	
Bromodichloromethane	50	0	50.3	ug/L	101				66	132	
4-Methyl-2-Pentanone	250	0	260	ug/L	104				57	148	
Toluene	50	0	48.2	ug/L	96				68	129	
t-1,3-Dichloropropene	50	0	50.1	ug/L	100				54	136	
cis-1,3-Dichloropropene	50	0	49.9	ug/L	100				56	133	
1,1,2-Trichloroethane	50	0	49.6	ug/L	99				68	134	
2-Hexanone	250	0	240	ug/L	96				46	158	
Dibromochloromethane	50	0	51.7	ug/L	103				59	136	
1,2-Dibromoethane	50	0	50.5	ug/L	101				65	138	
Tetrachloroethene	50	0.55	45.7	ug/L	90				29	137	
Chlorobenzene	50	0	48.8	ug/L	98				68	126	
Ethyl Benzene	50	0	49.5	ug/L	99				61	131	
m/p-Xylenes	100	0	97.1	ug/L	97				64	125	
o-Xylene	50	0	49.2	ug/L	98				65	126	
Styrene	50	0	49.3	ug/L	99				40	140	
Bromoform	50	0	51.4	ug/L	103				42	134	
Isopropylbenzene	50	0	51.0	ug/L	102				58	132	
1,1,2,2-Tetrachloroethane	50	0	51.3	ug/L	103				61	136	
1,3-Dichlorobenzene	50	0	47.4	ug/L	95				63	125	
1,4-Dichlorobenzene	50	0	46.4	ug/L	93				64	124	

CHEMTECH

Matrix Spike/Matrix Spike Duplicate Summary
SW-846

SDG No.: K6405

Client: Day Environmental, Inc.

Analytical Method: SW8260-Low

Parameter	Spike	Sample Result	Result	Units	Rec	Rec Qual	RPD	RPD Qual	Limits Low	Limits High	Limits RPD
1,2-Dichlorobenzene	50	0	48.0	ug/L	96				64	126	
1,2-Dibromo-3-Chloropropane	50	0	48.2	ug/L	96				57	139	
1,2,4-Trichlorobenzene	50	0	47.3	ug/L	95				57	130	
1,2,3-Trichlorobenzene	50	0	48.8	ug/L	98				57	131	

CHEMTECH

Matrix Spike/Matrix Spike Duplicate Summary
SW-846

SDG No.: K6405

Client: Day Environmental, Inc.

Analytical Method: SW8260-Low

Parameter	Spike	Sample Result	Result	Units	Rec	Rec Qual	RPD	RPD Qual	Limits Low	Limits High	Limits RPD
Lab Sample ID : K6405-08MSD	**Client Sample ID : 996-MW-15-(17)MSD**							**Datafile :** VX014256.D			
Dichlorodifluoromethane	50	0	43.8	ug/L	88		1		47	161	20
Chloromethane	50	0	46.8	ug/L	94		0		53	157	20
Vinyl chloride	50	0	47.3	ug/L	95		1		57	149	20
Bromomethane	50	0	46.2	ug/L	92		4		45	165	20
Chloroethane	50	0	49.5	ug/L	99		0		47	166	20
Trichlorofluoromethane	50	0	48.5	ug/L	97		1		51	165	20
1,1,2-Trichlorotrifluoroethane	50	0	48.0	ug/L	96		0		61	145	20
1,1-Dichloroethene	50	0	49.4	ug/L	99		2		55	148	20
Acetone	250	4.00	170	ug/L	66		6		11	159	20
Carbon disulfide	50	0	45.1	ug/L	90		1		13	149	20
Methyl tert-butyl Ether	50	0	52.2	ug/L	104		1		60	145	20
Methyl Acetate	50	0	49.7	ug/L	99		1		27	167	20
Methylene Chloride	50	0	48.4	ug/L	97		1		56	146	20
trans-1,2-Dichloroethene	50	0	48.5	ug/L	97		0		60	141	20
1,1-Dichloroethane	50	0	50.4	ug/L	101		0		61	144	20
Cyclohexane	50	0	49.7	ug/L	99		1		57	142	20
2-Butanone	250	0	240	ug/L	96		4		42	145	20
Carbon Tetrachloride	50	0	49.9	ug/L	100		1		60	140	20
cis-1,2-Dichloroethene	50	0	50.4	ug/L	101		0		48	156	20
Bromochloromethane	50	0	55.6	ug/L	111		0		59	146	20
Chloroform	50	0	51.3	ug/L	103		2		63	140	20
1,1,1-Trichloroethane	50	0	50.3	ug/L	101		0		65	140	20
Methylcyclohexane	50	0	46.1	ug/L	92		2		62	128	20
Benzene	50	0	48.7	ug/L	97		1		62	134	20
1,2-Dichloroethane	50	0	49.3	ug/L	99		0		67	136	20
Trichloroethene	50	0	47.7	ug/L	95		1		64	131	20
1,2-Dichloropropane	50	0	51.0	ug/L	102		1		69	130	20
Bromodichloromethane	50	0	50.9	ug/L	102		1		66	132	20
4-Methyl-2-Pentanone	250	0	260	ug/L	104		0		57	148	20
Toluene	50	0	48.1	ug/L	96		0		68	129	20
t-1,3-Dichloropropene	50	0	50.7	ug/L	101		1		54	136	20
cis-1,3-Dichloropropene	50	0	50.8	ug/L	102		2		56	133	20
1,1,2-Trichloroethane	50	0	50.0	ug/L	100		1		68	134	20
2-Hexanone	250	0	240	ug/L	96		0		46	158	20
Dibromochloromethane	50	0	52.4	ug/L	105		1		59	136	20
1,2-Dibromoethane	50	0	50.0	ug/L	100		1		65	138	20
Tetrachloroethene	50	0.55	45.3	ug/L	90		0		29	137	20
Chlorobenzene	50	0	47.8	ug/L	96		2		68	126	20
Ethyl Benzene	50	0	49.2	ug/L	98		1		61	131	20
m/p-Xylenes	100	0	97.7	ug/L	98		1		64	125	20
o-Xylene	50	0	48.5	ug/L	97		1		65	126	20
Styrene	50	0	49.4	ug/L	99		0		40	140	20
Bromoform	50	0	52.3	ug/L	105		2		42	134	20
Isopropylbenzene	50	0	50.9	ug/L	102		0		58	132	20
1,1,2,2-Tetrachloroethane	50	0	51.1	ug/L	102		0		61	136	20
1,3-Dichlorobenzene	50	0	46.9	ug/L	94		1		63	125	20
1,4-Dichlorobenzene	50	0	46.7	ug/L	93		1		64	124	20

CHEMTECH

Matrix Spike/Matrix Spike Duplicate Summary
SW-846

SDG No.: K6405

Client: Day Environmental, Inc.

Analytical Method: SW8260-Low

Parameter	Spike	Sample Result	Result	Units	Rec	Rec Qual	RPD	RPD Qual	Limits Low	Limits High	Limits RPD
1,2-Dichlorobenzene	50	0	47.5	ug/L	95		1		64	126	20
1,2-Dibromo-3-Chloropropane	50	0	48.1	ug/L	96		0		57	139	20
1,2,4-Trichlorobenzene	50	0	48.0	ug/L	96		1		57	130	20
1,2,3-Trichlorobenzene	50	0	49.5	ug/L	99		1		57	131	20

Data Usability Summary Report

Vali-Data of WNY, LLC
1514 Davis Rd.
West Falls, NY 14170

Andrew St.
Chemtech SDG#L3232
August 11, 2020
Sampling date: 7/6/2020

Prepared by:
Jodi Zimmerman
Vali-Data of WNY, LLC
1514 Davis Rd.
West Falls, NY 14170

DELIVERABLES

This Data Usability Summary Report (DUSR) was prepared by evaluating the analytical data package for Day Environmental, project located at Andrew St., Chemtech, SDG#L3232 submitted to Vali-Data of WNY, LLC on August 10, 2020. This DUSR has been prepared in general compliance with USEPA National Functional Guidelines and NYSDEC Analytical Services Protocols. The laboratory performed the analysis using USEPA method Volatile Organics (8260C).

VOLATILE ORGANIC COMPOUNDS

The following items/criteria were reviewed for this analytical suite:

-Data Completeness
-Narrative and Data Reporting Forms
-Chain of Custody and Traffic Reports
-Holding Times
-Internal Standard (IS) Area Performance
-Surrogate Spike Recoveries
-Method Blank
-Field Duplicate Sample Precision
-Laboratory Control Samples
-MS/MSD
-Compound Quantitation
-Initial Calibration
-Continuing Calibration
-GC/MS Performance Check

The items listed above were technically in compliance with the method and SOP criteria with the exceptions discussed in the text below. The data have been reviewed according to the procedures outlined above and qualified accordingly.

OVERALL EVALUATION OF DATA AND POTENTIAL USABILITY ISSUES

The data are acceptable for use except where qualified below in Compound Quantitation and MS/MSD.

Sample: 1003-MW-01, 1005-MW-03A and 1007-MS-11 were diluted due to high target analyte concentration.

DATA COMPLETENESS

All criteria were met.

NARRATIVE AND DATA REPORTING FORMS
All criteria were met.
The data was not reported to 3 significant figures. This does not affect the usability of the data.

CHAIN OF CUSTODY AND TRAFFIC REPORTS
All criteria were met.

HOLDING TIMES
All criteria were met.

INTERNAL STANDARD (IS)
All criteria were met.

SURROGATE SPIKE RECOVERIES
All criteria were met.

METHOD BLANK
All criteria were met.

FIELD DUPLICATE SAMPLE PRECISION
No field duplicate was acquired.

LABORATORY CONTROL SAMPLES
All criteria were met.

MS/MSD
All criteria were met except the %Rec of Tetrachloroethene was outside QC limits, high in 1004-MW-02MS/MSD and should be qualified as estimated. This target analyte should be qualified as estimated high in 1004-MW-02, if detected.
The RPD of Tetrachloroethene and Trichloroethene was outside QC limits between 1004-MW-02MS and 1004-MW-02MSD. These target analytes should be qualified as estimated in 1004-MW-02 and 1004-MW-02MS/MSD.
Tetrachloroethene was detected outside the calibration range and is qualified with an 'E' in 1004-MW-02MS/MSD.

COMPOUND QUANTITATION
All criteria were met except Tetrachloroethene was detected above the MDL, below the reporting limit and is qualified as estimated in 1013-FB070620. Associated samples in which this target analyte was detected above the MDL and below the reporting limit should be reported with the reporting limit and 'undetected'. Associated samples in which this target analyte was detected above the reporting limit should be qualified as estimated high.
Acetone was detected above the reporting limit in 1013-FB070620. This target analyte should be qualified as undetected at the reporting limit in associated samples in which it was detected below the reporting limit. This target analyte should be qualified as undetected in associated

samples in which it was detected above the reporting limit but below the blank concentration. This target analyte should be qualified as estimated high in associated samples in which it was detected above the blank concentration.
One TIC was detected in 1013-FB070620. This TIC was not detected in associated samples, so no further action is required.

INITIAL CALIBRATION
All criteria were met.
Alternate forms of regression were used on some of the target analytes, with acceptable results.

CONTINUING CALIBRATION
All criteria were met.

GC/MS PERFORMANCE CHECK
All criteria were met.

Attachment E

Site-Wide Inspection Forms

Site-Wide Inspection Form
300, 304-308 and 320 Andrews Street and 25 Evans Street
Rochester, New York
NYSDEC ERP Project #E828144

Date of Inspection Site Visit: December 4, 2018

Personnel Performing Inspection Site Visit: J. Danzinger and C. Demian

Affiliation of Personnel: Day Environmental, Inc.

---

1. Check integrity of impermeable portions (e.g., concrete) of cover system, including whether any sloughing, cracks, settlement, damage, etc.

Discuss observations and any corrective actions: Concrete slabs in good condition.

2. Check integrity of earthen portions (e.g., crusher run #2 stone) cover system, including whether any erosion, settlement, damage, etc.

Discuss observations and any corrective actions Crusher Run #2 stone cover material in good condition
No erosion, settlement or damage observed.

3. Check integrity of monitoring wells, including whether any damage, etc.

Discuss observations and any corrective actions Monitoring wells observed in good condition.

4. Provide any other notes or observations of interest

None

Site-Wide Inspection Form
300, 304-308 and 320 Andrews Street and 25 Evans Street
Rochester, New York
NYSDEC ERP Project #E828144

Date of Inspection Site Visit: December 6, 2019

Personnel Performing Inspection Site Visit: J. Danzinger and C. Demian

Affiliation of Personnel: Day Environmental, Inc.

---

1. Check integrity of impermeable portions (e.g., concrete) of cover system, including whether any sloughing, cracks, settlement, damage, etc.

Discuss observations and any corrective actions: Concrete slabs in good condition.

2. Check integrity of earthen portions (e.g., crusher run #2 stone) cover system, including whether any erosion, settlement, damage, etc.

Discuss observations and any corrective actions Crusher Run #2 stone cover material in good condition
No erosion, settlement or damage observed.

3. Check integrity of monitoring wells, including whether any damage, etc.

Discuss observations and any corrective actions Monitoring wells observed in good condition.

4. Provide any other notes or observations of interest

None

Site-Wide Inspection Form
300, 304-308 and 320 Andrews Street and 25 Evans Street
Rochester, New York
NYSDEC ERP Project #E828144

Date of Inspection Site Visit: June 22, 2020

Personnel Performing Inspection Site Visit: J. Danzinger and C. Demian

Affiliation of Personnel: Day Environmental, Inc.

---

1. Check integrity of impermeable portions (e.g., concrete) of cover system, including whether any sloughing, cracks, settlement, damage, etc.

Discuss observations and any corrective actions: Concrete slabs in good condition.

2. Check integrity of earthen portions (e.g., crusher run #2 stone) cover system, including whether any erosion, settlement, damage, etc.

Discuss observations and any corrective actions Crusher Run #2 stone cover material in good condition
No erosion, settlement or damage observed.

3. Check integrity of monitoring wells, including whether any damage, etc.

Discuss observations and any corrective actions Monitoring wells observed in good condition.

4. Provide any other notes or observations of interest

None

Attachment F

Institutional and Engineering Controls Certification Form

Enclosure 2
NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
Site Management Periodic Review Report Notice
Institutional and Engineering Controls Certification Form

Site Details **Box 1**

Site No. **E828144**

Site Name Andrews Street Site

Site Address: 300, 304-308, 320 Andrews St., 25 Evans St. Zip Code: 14604
City/Town: Rochester
County: Monroe
Site Acreage: 1.5

Reporting Period: September 1, 2018 to August 31, 2020

	YES	NO
1. Is the information above correct?	●	☐
If NO, include handwritten above or on a separate sheet.		
2. Has some or all of the site property been sold, subdivided, merged, or undergone a tax map amendment during this Reporting Period?	☐	●
3. Has there been any change of use at the site during this Reporting Period (see 6NYCRR 375-1.11(d))?	☐	●
4. Have any federal, state, and/or local permits (e.g., building, discharge) been issued for or at the property during this Reporting Period?	●	☐

Specialty Short Term Discharge Permit ST-371 included in SPPRA_CCR.E828144.2020-02-27

If you answered YES to questions 2 thru 4, include documentation or evidence that documentation has been previously submitted with this certification form.

5. Is the site currently undergoing development?	☐	●

Box 2

	YES	NO
6. Is the current site use consistent with the use(s) listed below? Restricted-Residential, Commercial, and Industrial	●	☐
7. Are all ICs/ECs in place and functioning as designed?	●	☐

IF THE ANSWER TO EITHER QUESTION 6 OR 7 IS NO, sign and date below and DO NOT COMPLETE THE REST OF THIS FORM. Otherwise continue.

A Corrective Measures Work Plan must be submitted along with this form to address these issues.

Signature of Owner, Remedial Party or Designated Representative Date

SITE NO. E828144 **Box 3**

Description of Institutional Controls

Parcel	Owner	Institutional Control
106.72-01-84	City of Rochester	
(320 Andrews Street)		Landuse Restriction Soil Management Plan Monitoring Plan Site Management Plan Ground Water Use Restriction IC/EC Plan

Imposition of an institutional control in the form of an environmental easement for the controlled property that:
- requires the remedial party or site owner to complete and submit to the Department a periodic certification of institutional and engineering controls in accordance with Part 375-1.8 (h)(3);
- allows the use and development of the controlled property for restricted residential as defined by Part 375 1.8(g), although land use is subject to local zoning laws;
- restricts the use of groundwater as a source of potable or process water, without necessary water quality treatment as determined by the NYSDOH; and
- requires compliance with the Department approved Site Management Plan.

106.72-01-85	City of Rochester	
(304-308 Andrews Street)		Ground Water Use Restriction Soil Management Plan Monitoring Plan Site Management Plan Landuse Restriction IC/EC Plan

Imposition of an institutional control in the form of an environmental easement for the controlled property that:
- requires the remedial party or site owner to complete and submit to the Department a periodic certification of institutional and engineering controls in accordance with Part 375-1.8 (h)(3);
- allows the use and development of the controlled property for restricted residential as defined by Part 375 1.8(g), although land use is subject to local zoning laws;
- restricts the use of groundwater as a source of potable or process water, without necessary water quality treatment as determined by the NYSDOH; and
- requires compliance with the Department approved Site Management Plan.

106.72-01-86	City of Rochester	
(300 Andrews Street)		Ground Water Use Restriction Soil Management Plan Landuse Restriction Site Management Plan Monitoring Plan IC/EC Plan

Imposition of an institutional control in the form of an environmental easement for the controlled property that:
- requires the remedial party or site owner to complete and submit to the Department a periodic certification of institutional and engineering controls in accordance with Part 375-1.8 (h)(3);
- allows the use and development of the controlled property for restricted residential as defined by Part 375 1.8(g), although land use is subject to local zoning laws;
- restricts the use of groundwater as a source of potable or process water, without necessary water quality treatment as determined by the NYSDOH; and
- requires compliance with the Department approved Site Management Plan.

106.72-01-87	City of Rochester	
(25 Evans Street)		Ground Water Use Restriction Soil Management Plan Landuse Restriction Monitoring Plan Site Management Plan IC/EC Plan

Imposition of an institutional control in the form of an environmental easement for the controlled property that:
- requires the remedial party or site owner to complete and submit to the Department a periodic

certification of institutional and engineering controls in accordance with Part 375-1.8 (h)(3);

- allows the use and development of the controlled property for restricted residential as defined by Part 375 1.8(g), although land use is subject to local zoning laws;
- restricts the use of groundwater as a source of potable or process water, without necessary water quality treatment as determined by the NYSDOH; and
- requires compliance with the Department approved Site Management Plan.

Box 4

Description of Engineering Controls

Parcel — Engineering Control

106.72-01-84 (320 Andrews Street)

Cover System

A site cover currently exists and will be maintained to allow for restricted residential use of the site. Any site redevelopment will maintain the existing site cover, which consists either of the structures such as buildings, pavement, sidewalks or soil where the upper one foot of exposed surface soil meets the applicable soil cleanup objectives (SCOs) for restricted residential use. Any fill material brought to the site will meet the requirements for the identified site use as set forth in 6NYCRR part 375-6.7(d).

106.72-01-85 (304-308 Andrews Street)

Cover System

A site cover currently exists and will be maintained to allow for restricted residential use of the site. Any site redevelopment will maintain the existing site cover, which consists either of the structures such as buildings, pavement, sidewalks or soil where the upper one foot of exposed surface soil meets the applicable soil cleanup objectives (SCOs) for restricted residential use. Any fill material brought to the site will meet the requirements for the identified site use as set forth in 6NYCRR part 375-6.7(d).

106.72-01-86 (300 Andrews Street)

Cover System

A site cover currently exists and will be maintained to allow for restricted residential use of the site. Any site redevelopment will maintain the existing site cover, which consists either of the structures such as buildings, pavement, sidewalks or soil where the upper one foot of exposed surface soil meets the applicable soil cleanup objectives (SCOs) for restricted residential use. Any fill material brought to the site will meet the requirements for the identified site use as set forth in 6NYCRR part 375-6.7(d).

106.72-01-87 (25 Evans Street)

Cover System

A site cover currently exists and will be maintained to allow for restricted residential use of the site. Any site redevelopment will maintain the existing site cover, which consists either of the structures such as buildings, pavement, sidewalks or soil where the upper one foot of exposed surface soil meets the applicable soil cleanup objectives (SCOs) for restricted residential use. Any fill material brought to the site will meet the requirements for the identified site use as set forth in 6NYCRR part 375-6.7(d).

Box 5

Periodic Review Report (PRR) Certification Statements

1. I certify by checking "YES" below that:

   a) the Periodic Review report and all attachments were prepared under the direction of, and reviewed by, the party making the certification;

   b) to the best of my knowledge and belief, the work and conclusions described in this certification are in accordance with the requirements of the site remedial program, and generally accepted engineering practices; and the information presented is accurate and compete.

YES	NO
●	☐

2. If this site has an IC/EC Plan (or equivalent as required in the Decision Document), for each Institutional or Engineering control listed in Boxes 3 and/or 4, I certify by checking "YES" below that all of the following statements are true:

   (a) the Institutional Control and/or Engineering Control(s) employed at this site is unchanged since the date that the Control was put in-place, or was last approved by the Department;

   (b) nothing has occurred that would impair the ability of such Control, to protect public health and the environment;

   (c) access to the site will continue to be provided to the Department, to evaluate the remedy, including access to evaluate the continued maintenance of this Control;

   (d) nothing has occurred that would constitute a violation or failure to comply with the Site Management Plan for this Control; and

   (e) if a financial assurance mechanism is required by the oversight document for the site, the mechanism remains valid and sufficient for its intended purpose established in the document.

YES	NO
●	☐

IF THE ANSWER TO QUESTION 2 IS NO, sign and date below and DO NOT COMPLETE THE REST OF THIS FORM. Otherwise continue.

A Corrective Measures Work Plan must be submitted along with this form to address these issues.

Signature of Owner, Remedial Party or Designated Representative

Date

IC CERTIFICATIONS
SITE NO. E828144

Box 6

SITE OWNER OR DESIGNATED REPRESENTATIVE SIGNATURE

I certify that all information and statements in Boxes 1,2, and 3 are true. I understand that a false statement made herein is punishable as a Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law.

I Joseph Biondolillo (print name) at 30 Church Street, Rochester, New York 14614 (print business address),

am certifying as Owner Represenative (Owner or Remedial Party)

for the Site named in the Site Details Section of this form.

Joseph Biondolillo
Signature of Owner, Remedial Party, or Designated Representative Rendering Certification

9-29-2020
Date

IC/EC CERTIFICATIONS

Box 7

Professional Engineer Signature

I certify that all information in Boxes 4 and 5 are true. I understand that a false statement made herein is punishable as a Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law.

I Nathan E. Simon (print name) at 1563 Lyell Avenue, Rochester, New York 14606 (print business address),

am certifying as a Professional Engineer for the Owner (Owner or Remedial Party)

9-22-2020

Signature of Professional Engineer, for the Owner or Remedial Party, Rendering Certification	Stamp (Required for PE)	Date