



Groundwater & Environmental Services, Inc.

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Pawling, NY 12564

T. 866.839.5195

January 12, 2022

Mr. Michael Squire
Division of Environmental Remediation, Remedial Bureau C
New York State Department of Environmental Conservation
625 Broadway
Albany, New York 12233

**Re: Soil Vapor Intrusion Summary
1-45 Orangetown Shopping Center
Orangeburg, New York
Site #C344066**

Dear Mr. Squire:

Enclosed is the *Soil Vapor Intrusion Summary Report* for the above referenced site prepared by Groundwater & Environmental Services, Inc. (GES) on behalf of UB Orangeburg, LLC. The report summarizes the results of the soil vapor and indoor air quality investigation performed at a portion of the Orangetown Shopping Center located at 1-45 Orangetown Road, Orangeburg, New York during the 2021-2022 heating season.

If you have any questions or comments regarding this submittal, please contact Michael DeGloria of GES at (866) 839-5195 at extension 3839.

Sincerely,

Groundwater & Environmental Services, Inc.

A handwritten signature in black ink, appearing to read 'Jessica M. Thomas'.

Jessica M. Thomas
Staff Remediation Specialist

Michael DeGloria

Digitally signed by Michael
DeGloria
Date: 2022.01.12 10:37:51 -05'00'

Michael DeGloria, P.G.
Principal Project Manager

cc: Monica Roth, UB Orangeburg, LLC (mroth@ubproperties.com)
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UB Orangeburg, LLC

Soil Vapor Intrusion Summary

UB Orangeburg

1-45 Orangetown Shopping Center

NYSDEC Site Number C344066

January 12, 2022

Version 1



Soil Vapor Intrusion Summary

UB Orangeburg
1-45 Orangetown Shopping Center
Orangeburg, NY

Prepared for:
UB Orangeburg, LLC
321 Railroad Avenue
Greenwich, CT 06830

Prepared by:
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GES Project:
1102783

Date:
January 12, 2022

A handwritten signature in black ink, appearing to read "JMT", is positioned above a horizontal line.

Jessica M. Thomas
Staff Remediation Specialist

Michael DeGloria

Digitally signed by
Michael DeGloria
Date: 2022.01.12
10:36:25 -05'00'

Michael DeGloria, P.G.
Principal Project Manager

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Acronyms

BCA	Brownfield Cleanup Agreement
BASE	Building Assessment and Survey Evaluation
c12-DCE	cis-1,2-dichloroethylene
DUSR	data usability summary report
11-DCE	1,-dichloroethylene
EPA	Environmental Protection Agency
GES	Groundwater & Environmental Services, Inc.
$\mu\text{g}/\text{m}^3$	micrograms per cubic meter
NYSDEC	New York State Department of Environmental Conservation
NYSDOH	New York State Department of Health
ppb	parts per billion
PID	photoionization detector
SVI	soil vapor intrusion
SSD	sub-slab depressurization
PCE	tetrachloroethylene
111-TCA	1,1,1-trichloroethane
TCE	trichloroethylene
VOC	volatile organic compound

1 Objective

The objective of this report is to summarize the soil vapor and indoor air quality investigation for volatile organic compounds (VOCs) completed on December 6 and 7, 2021 at a portion of the Orangetown Shopping Center located at 1-45 Orangetown Road, Orangeburg, New York.

The investigation was completed in accordance with the New York State Department of Environmental Conservation (NYSDEC) approved Work Plan submitted to the NYSDEC on October 3, 2017 with subsequent modifications outlined in GES' *Soil Vapor Intrusion Summary Report* dated February 12, 2019. The investigation was also completed in accordance with the New York State Department of Health (NYSDOH) *Indoor Air Sampling and Analysis Guidance*, dated February 1, 2005, the NYSDOH *Guidance for Evaluating Soil Vapor Intrusion in the State of New York*, dated October 2006 and Updates to *Soil Vapor/Indoor Air Decision Matrices*, dated May 2017.

The investigation was conducted at the former Sparkle Cleaners tenant space (currently a Verizon store) located within Building #2 of the Orangetown Shopping Center (the "site"). The other (2) tenant spaces at the site (former Deli Spot and New China House) were not resampled based on previous soil vapor intrusion (SVI) investigation results which recommended *No Further Action* at all sampling locations within those tenant spaces. The modified scope of work, eliminating the former Deli Spot and New China House tenant spaces, was approved by the NYSDEC and NYSDOH in an email dated June 7, 2019. Correspondence with the NYSDEC and NYSDOH are included as **Appendix A**.

This investigation was conducted for the purpose of evaluating current sub-slab and ambient air quality and the potential for soil vapor intrusion subsequent to completion of various remedial actions. Furthermore, these results will be used to support the permanent removal of the remaining sub-slab depressurization (SSD) systems and cessation of additional sub-slab or ambient air testing.

A site location map and a site map indicating pertinent site features are presented as **Figures 1 and 2**.

1.1 Background Information

The subject site is a 1.2-acre portion of the shopping plaza, located near the southeast corner of the parcel. The shopping plaza is located at the southeast corner of Orangeburg and Dutch Hill Roads in Orangeburg, New York, and is comprised of an 11-acre parcel that contains several commercial buildings. The site has been utilized as farmland, a camp, an amphitheater, and the current retail shopping center. The plaza is situated in a suburban area of mixed land use, and is surrounded predominantly by commercial and residential properties. It is served by a public water supply system. There had previously been a dry cleaner operating at the shopping center since approximately 1966. The Sparkle Cleaners, which operated as a dry cleaning facility within Building #2, is currently a Verizon store. Historical investigations identified the presence of contamination caused by the release of dry cleaning fluids.



In January 2007, JLJ Management Company entered into Brownfield Cleanup Agreement (BCA) #A3-0563-0906BCA with the NYSDEC to remediate a 1.2-acre portion of the 11-acre parcel. This BCA required the Remedial Party, JLJ Management Group, to investigate and remediate contaminated media at the site.

An environmental easement for the site was executed by the NYSDEC on September 16, 2011. The site is currently managed by GES in accordance with an approved *Site Management Plan*, *Remedial Action Work Plan* and *Final Engineering Report* completed by Kleinfelder, Inc. and approved by the NYSDEC in December of 2011.

A property transfer of the shopping center was completed on March 28, 2012. UB Orangeburg, LLC acquired the property from JLJ Management Company, Inc. at that time.

2 Scope of Work

All activities described in this report were completed in accordance with published NYSDOH guidance for indoor air and vapor intrusion evaluation for a building. This effort was undertaken to determine the actions recommended to address current and potential exposures related to soil vapor intrusion as outlined in the May 2017 Soil Vapor/Indoor Air Matrices A through C. Field activities included pre-sampling inspections of the building slab and building inventory, a chemical inventory, and collection of sub-slab soil vapor and indoor air samples over an 8 hour period from designated sampling points and/or locations within the former Sparkle Cleaners tenant space. The remaining sub-slab depressurization system at the former Sparkle Cleaners has been idled since August 17, 2015. Laboratory analysis and reporting followed these field activities.

3 Pre-Sampling Requirements

3.1 Pre-sampling Inspection

A pre-sampling inspection was conducted on November 29, 2021 in accordance with a NYSDEC request received in the June 22, 2020 letter (**Appendix A**) approving the January 20, 2020 *Soil Vapor Intrusion Summary Report*. Additionally, the pre-sampling inspection was used to confirm the type of structure, floor layout and physical conditions of the building being studied and to identify conditions that may affect or interfere with the planned testing.

During the November 29, 2021 pre-sampling inspection, the GES technician inspected accessible areas of the building slab and the previously installed sampling points. The slab in the vicinity of sampling points VP-5 and VP-6 is covered with carpet and not visible with the exception of the immediate area (between 6 inches and 4.5 feet) around the sampling points. These accessible areas of the building slab and the previously installed sampling points were found to be in good condition with no repairs required at the time of the inspection.

3.2 Preparation of Sampling Points and Indoor Air Quality Questionnaire/Building Inventory

On December 6, 2021, GES confirmed the presence and integrity of the sampling points, VP-5

and VP-6. To verify the integrity of the sample vapor points, a tracer gas was used to test the seal. The sub-slab vapor points were first purged of three (3) times the volume of the sampling point using a GILIAN personal air sampling system and a flow module (vacuum pump) set at a maximum flow rate of 0.2 liters per minute. Helium tracer gas was then used to confirm an adequate seal was in place at each vapor point location prior to collection of the soil gas samples.

Prior to sampling on December 7, 2021, the NYSDOH Indoor Air Quality Questionnaire and Building Inventory Forms (**Appendix B**) was completed by the GES technician and the manager of the tenant space (Verizon store). The NYSDOH Indoor Air Quality Questionnaire and Building Inventory Forms summarize information regarding building characteristics, airflow, and occupancy use along with information on sources of potential indoor contamination. GES also utilized a photo-ionization detector (PID) ppbRAE 3000 equipped with a 10.6 eV bulb to evaluate and determine any potential interference during the sampling event. Items that were evaluated during the building inventory included but were not limited to the use or storage of chemical products. Potential interferences are noted on the NYSDOH Indoor Air Quality Questionnaire and Building Inventory Forms, which is included as **Appendix B**.

3.3 Product Inventories

Because some consumer products contain ingredients, which can contribute to levels of VOCs in the air, a product inventory was completed prior to completion of the air sampling activities on December 7, 2021 to provide an accurate assessment of the potential contribution of noted products. Each room in the former Sparkle Cleaners tenant space was inspected and the products containing or potentially containing VOCs were listed on the Product Inventory Form (**Appendix B**) along with PID readings obtained near such products. None of the items included on the Product Inventory Form registered a PID reading above 0.0 parts per billion (ppb). The product inventory is included on the attached NYSDOH Indoor Air Quality Questionnaire and Building Inventory Forms (**Appendix B**). Photographic documentation of the products included on the Product Inventory Form are included as **Appendix C**.

4 Soil Vapor Intrusion Investigation

4.1 Sampling Collection

To characterize contaminant concentration trends and potential exposures, indoor air and sub-slab vapor samples were collected over an 8-hour period from the approximate locations shown on the attached **Figure 3** and as summarized below in text and table format:

- Former Sparkle Cleaners (currently a Verizon store): Vapor points VP-5 and VP-6
- Ambient Outdoor Sample: Sample taken outside the building

Sample Location	Sample Identification	Sample Description
Former Sparkle Cleaners	VP-5 Soil Vapor	Sub-slab
Former Sparkle Cleaners	VP-5 Indoor	Indoor Air
Former Sparkle Cleaners	VP-6 Soil Vapor	Sub-slab
Former Sparkle Cleaners	VP-6 Indoor	Indoor Air
Outside (East of Building)	Outside Ambient	Ambient

4.2 Quality Assurance/Quality Control

Care was taken during all aspects of the sample collection to ensure that high quality data was obtained. Sub-slab samples were collected from the sub-slab vapor points at the approximate locations shown on **Figure 3**. To verify the quality and integrity of the sample vapor points, a helium tracer test was completed prior to sampling on December 6, 2021 as described in Section 3.2.

4.3 Sub-Slab and Ambient Air Sample Collection

After the helium tracer tests were completed on December 6, 2021 and it was confirmed that each point was adequately sealed, sub-slab vapor and ambient air samples were collected the following day (December 7, 2021) using SUMMA canisters equipped with 8-hour regulators. A total of five (5) air samples were collected on December 7, 2021. Upon completion of the 8-hour sampling period, each sample collection apparatus was stored according to the sample collection method protocol and delivered to SGS North America, Inc. of Dayton, New Jersey under proper chain of custody for analysis of VOCs via Environmental Protection Agency (EPA) Method TO-15.

4.4 Sample Analysis

Laboratory analytical results indicated the presence of individual VOCs above laboratory reporting limits and/or above regulatory guidelines in each sub-slab and indoor air samples collected. The analytical data is summarized on **Table 1** and the laboratory analytical report is included as **Appendix D**. In addition, a data usability summary report (DUSR) for all samples was completed by RemVer of Colchester, Connecticut and is provided as **Appendix E**. The DUSR found all results acceptable for use.

The following compounds exceeded regulatory guidelines in one (1) or more samples, based on the upper fence indoor air values in Appendix C of the NYSDOH Soil Vapor Intrusion Guidance document or the 90th percentile indoor air values from the EPA 2001 Building Assessment and Survey Evaluation (BASE) Database:

- Ethanol
- Ethyl Acetate
- Tetrachloroethylene (PCE)
- Trichloroethylene (TCE)
- Trichlorofluoromethane

Laboratory analytical results for the constituents of concern (COCs), carbon tetrachloride, 1,1-Dichloroethylene (11-DCE), c12-DCE, PCE, 1,1,1-trichloroethane (111-TCA), methyl chloride, vinyl chloride, and TCE, were then compared to the NYSDOH Guidance for Evaluating Soil Vapor Intrusion in the State of New York, section 3.4.2, Indoor Air Matrices A, B, and C (attached as **Appendix F**). Based on the comparison, a remedial action of “No Further Action” at the two (2) sampling locations (VP-5 and VP-6) within the former Sparkle Cleaner tenant space is recommended.

Refer to the Constituents of Concern Summary Comparison detailed on **Table 2**. A summary of the COCs and the matrix recommendation are detailed below:

- **TCE**
 - Sub-slab: 2.0 micrograms per cubic meter ($\mu\text{g}/\text{m}^3$) at sample location VP-6 to 2.1 $\mu\text{g}/\text{m}^3$ at sample location VP-5.
 - Indoor air: 0.59 $\mu\text{g}/\text{m}^3$ at sample location VP-5 to 0.64 $\mu\text{g}/\text{m}^3$ at sample location VP-6.
 - Recommendation: No Further Action (Matrix A).
- **c12-DCE**
 - Sub-slab: 0.44 $\mu\text{g}/\text{m}^3$ at sample location VP-6 to 0.48 $\mu\text{g}/\text{m}^3$ at sample location VP-5.
 - Indoor air: 0.28 $\mu\text{g}/\text{m}^3$ at sample location VP-5 to 0.38 $\mu\text{g}/\text{m}^3$ at sample location VP-6.
 - Recommendation: No Further Action (Matrix A).
- **11-DCE**
 - Sub-slab: Non-detect in all samples.
 - Indoor air: Non-detect in all samples.
 - Recommendation: No Further Action (Matrix A).
- **Carbon tetrachloride**
 - Sub-slab: Non-detect at sample location VP-6 to 0.47 $\mu\text{g}/\text{m}^3$ at sample location VP-5.
 - Indoor air: 0.43 $\mu\text{g}/\text{m}^3$ at sample location VP-5 to 0.49 $\mu\text{g}/\text{m}^3$ at sample location VP-6.
 - Recommendation: No Further Action (Matrix A).
- **PCE**
 - Sub-slab: 9.5 $\mu\text{g}/\text{m}^3$ at sample location VP-6 to 10 $\mu\text{g}/\text{m}^3$ at sample location VP-5.
 - Indoor air: 6.5 $\mu\text{g}/\text{m}^3$ at sample location VP-5 to 8.1 $\mu\text{g}/\text{m}^3$ at sample location VP-6.
 - Recommendation: No Further Action (Matrix B).
- **1,1,1-TCA**
 - Sub-slab: Non-detect in all samples.
 - Indoor air: Non-detect in all samples.
 - Recommendation: No Further Action (Matrix B).

- **Methylene Chloride**
 - Sub-slab: 0.97 $\mu\text{g}/\text{m}^3$ at both sample locations VP-5 and VP-6.
 - Indoor air: 0.90 $\mu\text{g}/\text{m}^3$ at sample location VP-6 to 1.5 $\mu\text{g}/\text{m}^3$ at sample location VP-5.
 - Recommendation: No Further Action (Matrix B).
- **Vinyl Chloride**
 - Sub-slab: Non-detect in all samples.
 - Indoor air: Non-detect in all samples.
 - Recommendation: No Further Action (Matrix C)

5 Conclusions/Recommendations

On December 6 and 7, 2021 a SVI investigation was completed at former Sparkle Cleaners tenant space (currently and a Verizon store) located within Building #2 of the Orangetown Shopping Center. This investigation was conducted for the purpose of evaluating current soil vapor and indoor air quality and the potential for soil vapor intrusion in the tenant space located within Building #2.

Based on the NYSDOH Guidance for Evaluating Soil Vapor Intrusion in the State of New York, section 3.4.2, Indoor Air Matrices A, B, and C, a recommendation for No Further Action at the former Sparkle Cleaners is supported by the concentrations at sample locations VP-5 and VP-6. A No Further Action recommendation as illustrated in **Appendix F** requires the following results outcome:

- Matrix A compounds to have indoor air concentrations less than 1 $\mu\text{g}/\text{m}^3$ and sub-slab vapor concentrations less than 6 $\mu\text{g}/\text{m}^3$;
- Matrix B compounds to have indoor air concentrations less than 10 $\mu\text{g}/\text{m}^3$ and sub-slab vapor concentrations less than 100 $\mu\text{g}/\text{m}^3$; and,
- Matrix C compounds to have indoor air concentrations less than 0.2 $\mu\text{g}/\text{m}^3$ and sub-slab vapor concentrations less than 6 $\mu\text{g}/\text{m}^3$.

Indoor air and sub-slab samples collected at VP-5 and VP-6 were all below the concentrations outlined above.

The December 2021 SVI results were also compared to three (3) regulatory guidance values provided by the NYSDOH and EPA.

COC concentrations exceeded NYSDOH 2003 Soil Vapor Indoor 95th Percentile regulatory limits for PCE and/or TCE at the following locations:

- PCE: VP-5 Indoor (6.5 $\mu\text{g}/\text{m}^3$), VP-5 Sub-Slab (10 $\mu\text{g}/\text{m}^3$), VP-6 Indoor (8.1 $\mu\text{g}/\text{m}^3$), and VP-6 Sub-Slab (9.5 $\mu\text{g}/\text{m}^3$)
- NYSDOH 2003 Soil Vapor Indoor 95th Percentile regulatory limit for PCE is 4.1 $\mu\text{g}/\text{m}^3$
- TCE: VP-5 Sub-Slab (2.1 $\mu\text{g}/\text{m}^3$) and VP-6 Sub-Slab (2.0 $\mu\text{g}/\text{m}^3$)
- NYSDOH 2003 Soil Vapor Indoor 95th Percentile regulatory limit for TCE: 0.8 $\mu\text{g}/\text{m}^3$

COC concentrations only exceeded NYSDOH 2003 Soil Vapor Intrusion Air Guidance Value regulatory limits for TCE at the following locations:

- TCE: VP-5 Sub-Slab ($2.1 \mu\text{g}/\text{m}^3$) and VP-6 Sub-Slab ($2.0 \mu\text{g}/\text{m}^3$)
- NYSDOH 2003 Soil Vapor Intrusion Air Guidance Value regulatory limit for TCE: $2.0 \mu\text{g}/\text{m}^3$

COC concentrations did not exceed EPA 2001 BASE 90th Percentile regulatory limits at any sample location during the December 2021 SVI investigation.

COC concentrations that exceeded regulatory limits were below $10 \mu\text{g}/\text{m}^3$. Additionally, COC concentrations that exceeded regulatory limits during the December 2021 SVI investigation show decreasing trends from the prior January 2021 SVI investigation.

GES recommends permanent shutdown and decommissioning of the idled SSD systems and cessation of additional sub-slab or ambient air testing based on the following:

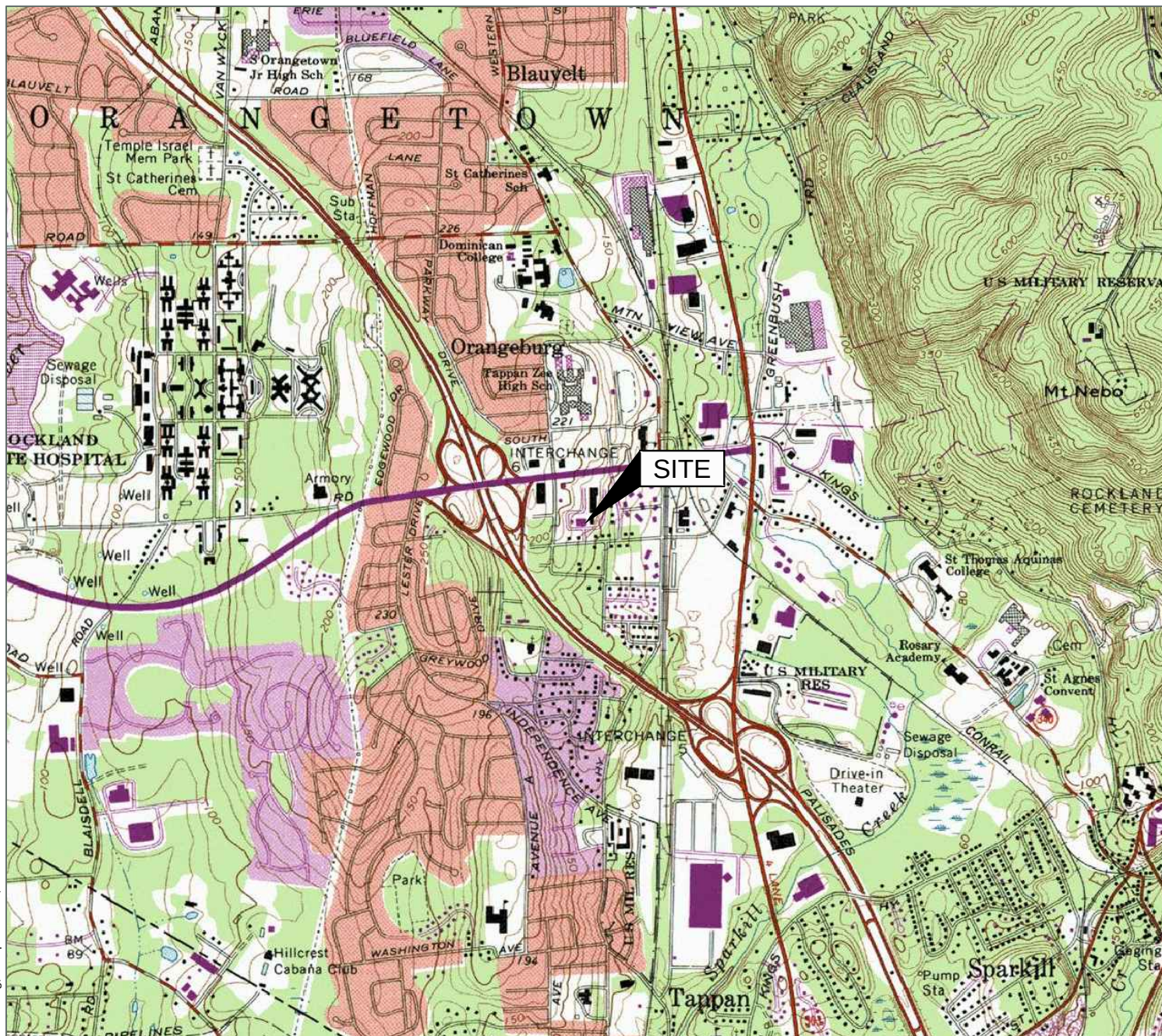
- Results meet the NYSDOH Guidance for Evaluating Soil Vapor Intrusion in the State of New York, section 3.4.2, Indoor Air Matrices A, B, and C, outcome recommendation for No Further Action.
- Results show decreasing trends from the prior January 2021 SVI investigation.
- The detections of PCE and TCE in samples, although above the NYSDOH 2003 Soil Vapor Indoor 95th Percentile regulatory limit, are well below established concentrations requiring continued monitoring and/or mitigation as determined by the NYSDOH Indoor Air Matrices outcome to address human exposures.

If approved, GES will provide a letter summarizing SSD system decommissioning activities to the NYSDEC.

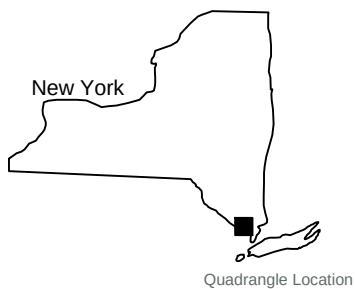




Figures



Source:
USGS 7.5 Minute Series
Topographic Quadrangle, 1979
Nyack, New York
Contour Interval = 10'



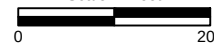
Site Location Map

UB Orangeburg, LLC
1-45 Orangetown Shopping Center
Orangeburg, New York

Drawn
W.G.S.
Designed
Approved
M.C.D



Scale In Feet



Groundwater & Environmental Services, Inc.

M:\Graphics\1100-Patterson-LHV\Misc\Urstadt Biddle Properties\Orangeburg\Engineering\Orangeburg (KLF-details).dwg, Template B, WSHEA

ONE STORY
STUCCO STORE
FRONT
(BUILDING #2)

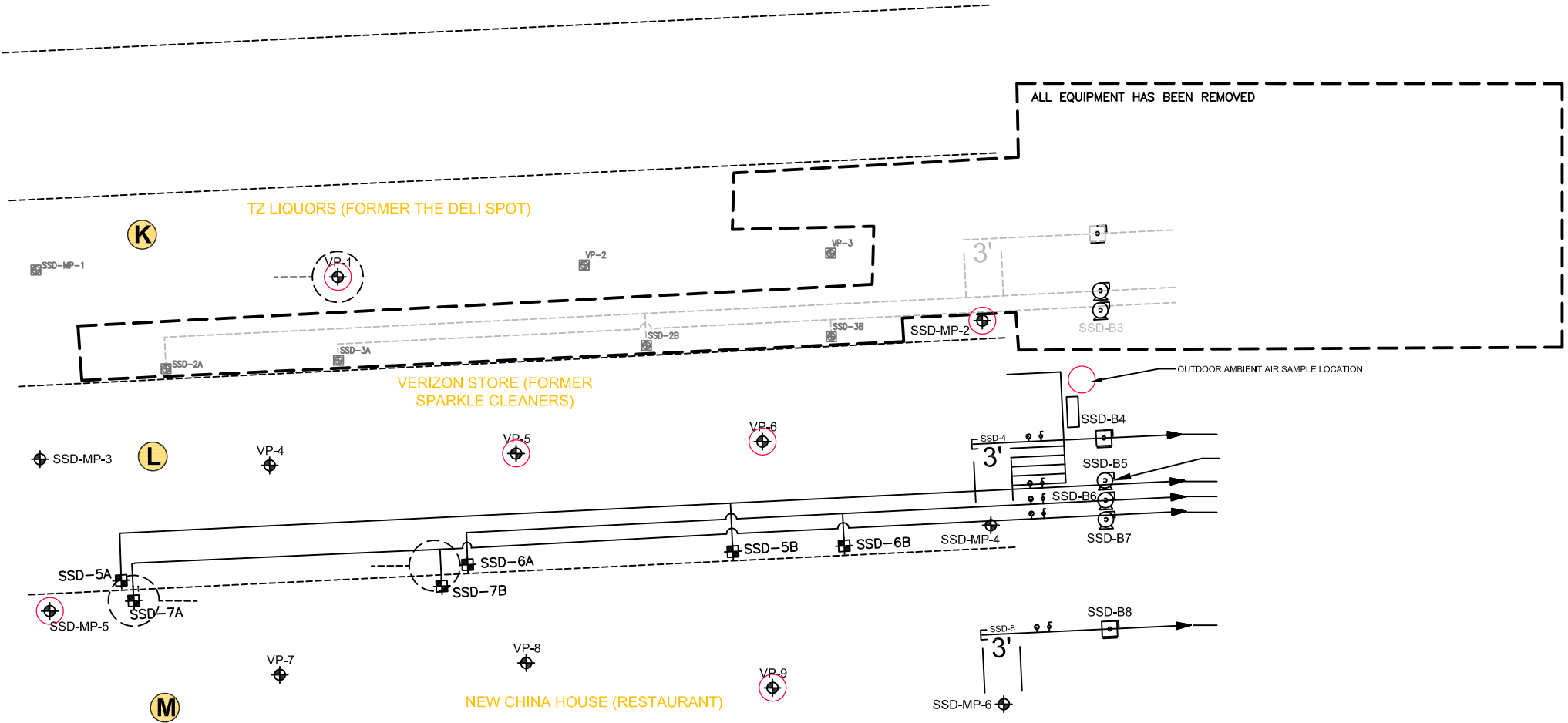
- SOURCE:
- 1. LAND LINK SURVEYORS P.C. SURVEY MAP DATED NOVEMBER 4, 2003.
 - 2. SURVEY AMENDED TO SHOW NEW CERTIFICATION JUNE 1, 2005.
 - 3. SURVEY AMENDED WELL LOCATION DECEMBER 19, 2007.
 - 4. ADDITIONAL WELLS MW10, MW12, AND MW13 LOCATED DECEMBER 27, 2007.
 - 5. FIGURE GENERATED FROM KLEINFELDER ENGINEERING FIGURE DATED JULY 15, 2011.

LEGEND

- SSD-MP-6
- SUB-SLAB MONITORING PORT
 - SUB-SLAB VAPOR EXTRACTION WELL
 - DETAIL NUMBER
PLATE NUMBER
 - SSD BLOWER (115 SCFM)
 - SSD BLOWER (200 SCFM)
 - VACUUM GAUGE
 - PLUGGED PORT
 - ABANDONED/DESTROYED WELL
 - Sub-slab and/or Ambient Air Sample Location

COMMERCIAL STORE ID TABLE (BUILDING #2)

- K TZ LIQUORS (FORMER THE DELI SPOT)
- L VERIZON STORE (FORMER SPARKLE CLEANERS)
- M NEW CHINA HOUSE



Sub-Slab and Ambient Air Sampling Map

UB Orangeburg, LLC
1-45 Orangetown Shopping Center
Orangeburg, New York

Drawn
W.G.S.
Designed
Approved
M.C.D

Date
7/2/19
Figure
3

Not to Scale





Tables

Table 1
GC/MS Volatiles (TO-15) - ug/m3



UB Orangeburg
1-45 Orangetown Shopping Center
Orangeburg, New York

Client Sample ID:	OUTSIDE	VP-6	VP-6	VP-5	VP-5	REGULATORY GUIDANCE		
Lab Sample ID:	JD36325-5	JD36325-3	JD36325-4	JD36325-1	JD36325-2	NYSDOH 2003 Soil Vapor Indoor 95th Percentile (1)	NYSDOH 2003 Soil Vapor Intrusion Air Guidance Value (2)	EPA 2001 BASE 90th Percentile (3)
Date Sampled:	12/7/2021	12/7/2021	12/7/2021	12/7/2021	12/7/2021			
Matrix:	Ambient Air Comp.	Soil Vapor Comp.	Ambient Air Comp.	Soil Vapor Comp.	Ambient Air Comp.			
Acetone	5.5	29.9	19	31.6	17	140	NS	98.9
1,3-Butadiene	ND<(0.35)	ND<(0.44)	ND<(0.35)	ND<(0.44)	ND<(0.35)	NS	NS	<3.0
Benzene	0.54	1.8	0.61	2.3	0.61	29	NS	9.4
Bromodichloromethane	ND<(0.54)	ND<(0.67)	ND<(0.54)	ND<(0.67)	ND<(0.54)	NS	NS	NS
Bromoform	ND<(0.33)	ND<(0.41)	ND<(0.33)	ND<(0.41)	ND<(0.33)	NS	NS	NS
Bromomethane	ND<(0.62)	ND<(0.78)	ND<(0.62)	ND<(0.78)	ND<(0.62)	0.9	NS	<1.7
Bromoethene	ND<(0.70)	ND<(0.87)	ND<(0.70)	ND<(0.87)	ND<(0.70)	NS	NS	NS
Benzyl Chloride	ND<(0.82)	ND<(1.0)	ND<(0.82)	ND<(1.0)	ND<(0.82)	NS	NS	<6.8
Carbon disulfide	ND<(0.50)	ND<(0.62)	ND<(0.50)	ND<(0.62)	ND<(0.50)	NS	NS	4.2
Chlorobenzene	ND<(0.74)	ND<(0.92)	ND<(0.74)	ND<(0.92)	ND<(0.74)	<0.25	NS	<0.9
Chloroethane	ND<(0.42)	ND<(0.53)	ND<(0.42)	ND<(0.53)	ND<(0.42)	0.6	NS	<1.1
Chloroform	ND<(0.78)	ND<(0.98)	ND<(0.78)	ND<(0.98)	ND<(0.78)	4.6	NS	1.1
Chloromethane	0.87	0.70	0.97	0.56	ND<(0.33)	5.2	NS	3.7
3-Chloropropene	ND<(0.50)	ND<(0.63)	ND<(0.50)	ND<(0.63)	ND<(0.50)	NS	NS	NS
2-Chlorotoluene	ND<(0.83)	ND<(1.0)	ND<(0.83)	ND<(1.0)	ND<(0.83)	NS	NS	NS
Carbon tetrachloride	0.50	ND<(0.25)	0.49	0.47	0.43	1.1	NS	<1.3
Cyclohexane	ND<(0.55)	ND<(0.69)	ND<(0.55)	ND<(0.69)	ND<(0.55)	19	NS	NS
1,1-Dichloroethane	ND<(0.65)	ND<(0.81)	ND<(0.65)	ND<(0.81)	ND<(0.65)	<0.25	NS	<0.7
1,1-Dichloroethylene	ND<(0.13)	ND<(0.16)	ND<(0.13)	ND<(0.16)	ND<(0.13)	<0.25	NS	<1.4
1,2-Dibromoethane	ND<(0.61)	ND<(0.77)	ND<(0.61)	ND<(0.77)	ND<(0.61)	<0.25	NS	<1.5
1,2-Dichloroethane	ND<(0.65)	ND<(0.81)	ND<(0.65)	ND<(0.81)	ND<(0.65)	<0.25	NS	<0.9
1,2-Dichloropropane	ND<(0.74)	ND<(0.92)	ND<(0.74)	ND<(0.92)	ND<(0.74)	<0.25	NS	<1.6
1,4-Dioxane	ND<(0.58)	ND<(0.72)	ND<(0.58)	ND<(0.72)	ND<(0.58)	NS	NS	NS
Dichlorodifluoromethane	1.9	1.9	1.8	1.9	1.8	26	NS	16.5
Dibromochloromethane	ND<(0.68)	ND<(0.85)	ND<(0.68)	ND<(0.85)	ND<(0.68)	NS	NS	NS
trans-1,2-Dichloroethylene	ND<(0.63)	ND<(0.79)	ND<(0.63)	ND<(0.79)	ND<(0.63)	NS	NS	NS
cis-1,2-Dichloroethylene	ND<(0.13)	0.44	0.38	0.48	0.28	1.2	NS	<1.9
cis-1,3-Dichloropropene	ND<(0.73)	ND<(0.91)	ND<(0.73)	ND<(0.91)	ND<(0.73)	<0.25	NS	<2.3
m-Dichlorobenzene	ND<(0.48)	ND<(0.60)	ND<(0.48)	ND<(0.60)	ND<(0.48)	1	NS	<2.4
o-Dichlorobenzene	ND<(0.19)	ND<(0.24)	ND<(0.19)	ND<(0.24)	ND<(0.19)	0.9	NS	<1.2
p-Dichlorobenzene	ND<(0.48)	ND<(0.60)	ND<(0.48)	ND<(0.60)	ND<(0.48)	2.6	NS	5.5
trans-1,3-Dichloropropene	ND<(0.73)	ND<(0.91)	ND<(0.73)	ND<(0.91)	ND<(0.73)	<0.25	NS	<1.3
Ethanol	7.3	269 a	163 E	349 a	169 E	NS	NS	210
Ethylbenzene	ND<(0.69)	ND<(0.87)	ND<(0.69)	ND<(0.87)	ND<(0.69)	13.0	NS	5.7
Ethyl Acetate	3.0	209 a	6.8	319 a	9.4	NS	NS	5.4
4-Ethyltoluene	ND<(0.79)	ND<(0.98)	ND<(0.79)	ND<(0.98)	ND<(0.79)	NS	NS	NS
Freon 113	ND<(0.61)	ND<(0.77)	ND<(0.61)	ND<(0.77)	ND<(0.61)	NS	NS	3.5
Freon 114	ND<(0.56)	ND<(0.70)	ND<(0.56)	ND<(0.70)	ND<(0.56)	NS	NS	NS
Heptane	ND<(0.66)	ND<(0.82)	ND<(0.66)	ND<(0.82)	ND<(0.66)	NS	NS	NS
Hexachlorobutadiene	ND<(0.77)	ND<(0.96)	ND<(0.77)	ND<(0.96)	ND<(0.77)	11.0	NS	<6.8
Hexane	ND<(0.56)	1.1	ND<(0.56)	1.4	ND<(0.56)	NS	NS	NS
2-Hexanone	ND<(0.65)	ND<(0.82)	ND<(0.65)	ND<(0.82)	ND<(0.65)	NS	NS	NS
Isopropyl Alcohol	3.2	122 a	208 E	124 a	189 E	NS	NS	250
Methylene chloride	0.69	0.97	0.90	0.97	1.5	45.0	60	10
Methyl ethyl ketone	ND<(0.47)	1.8	0.47	1.7	0.53	39.0	NS	NS
Methyl Isobutyl Ketone	ND<(0.66)	1.6	ND<(0.66)	2.5	ND<(0.66)	5.3	NS	NS
Methyl Tert Butyl Ether	ND<(0.58)	ND<(0.72)	ND<(0.58)	ND<(0.72)	ND<(0.58)	71.0	NS	11.5
Methylmethacrylate	ND<(0.66)	ND<(0.82)	ND<(0.66)	ND<(0.82)	ND<(0.66)	1.1	NS	NS
Propylene	ND<(0.69)	ND<(0.86)	ND<(0.69)	ND<(0.86)	ND<(0.69)	NS	NS	NS

Table 1
GC/MS Volatiles (TO-15) - ug/m3



UB Orangeburg
1-45 Orangetown Shopping Center
Orangeburg, New York

Client Sample ID:	OUTSIDE	VP-6	VP-6	VP-5	VP-5	REGULATORY GUIDANCE		
Lab Sample ID:	JD36325-5	JD36325-3	JD36325-4	JD36325-1	JD36325-2	NYSDOH 2003 Soil Vapor Indoor 95th Percentile (1)	NYSDOH 2003 Soil Vapor Intrusion Air Guidance Value (2)	EPA 2001 BASE 90th Percentile (3)
Date Sampled:	12/7/2021	12/7/2021	12/7/2021	12/7/2021	12/7/2021			
Matrix:	Ambient Air Comp.	Soil Vapor Comp.	Ambient Air Comp.	Soil Vapor Comp.	Ambient Air Comp.			
Styrene	ND<(0.68)	ND<(0.85)	ND<(0.68)	ND<(0.85)	ND<(0.68)	2.3	NS	1.9
1,1,1-Trichloroethane	ND<(0.44)	ND<(0.55)	ND<(0.44)	ND<(0.55)	ND<(0.44)	6.9	NS	20.6
1,1,2,2-Tetrachloroethane	ND<(0.55)	ND<(0.69)	ND<(0.55)	ND<(0.69)	ND<(0.55)	<0.25	NS	NS
1,1,2-Trichloroethane	ND<(0.44)	ND<(0.55)	ND<(0.44)	ND<(0.55)	ND<(0.44)	<0.25	NS	<1.5
1,2,4-Trichlorobenzene	ND<(0.59)	ND<(0.74)	ND<(0.59)	ND<(0.74)	ND<(0.59)	6.3	NS	<6.8
1,2,4-Trimethylbenzene	ND<(0.79)	ND<(0.98)	ND<(0.79)	ND<(0.98)	ND<(0.79)	18	NS	9.5
1,3,5-Trimethylbenzene	ND<(0.79)	ND<(0.98)	ND<(0.79)	ND<(0.98)	ND<(0.79)	6.5	NS	NS
2,2,4-Trimethylpentane	ND<(0.75)	ND<(0.93)	ND<(0.75)	ND<(0.93)	ND<(0.75)	NS	NS	NS
Tertiary Butyl Alcohol	ND<(0.49)	1.1	ND<(0.49)	1.4	ND<(0.49)	NS	NS	NS
Tetrachloroethylene	ND<(0.22)	9.5	8.1	10	6.5	4.1	30	15.9
Tetrahydrofuran	ND<(0.47)	ND<(0.59)	ND<(0.47)	ND<(0.59)	ND<(0.47)	9.4	NS	NS
Toluene	ND<(0.60)	4.9	0.87	6.4	0.90	110	NS	43
Trichloroethylene	ND<(0.17)	2.0	0.64	2.1	0.59	0.8	2	4.2
Trichlorofluoromethane	1.5	22	1.6	27	1.5	30	NS	18.1
Vinyl chloride	ND<(0.082)	ND<(0.10)	ND<(0.082)	ND<(0.10)	ND<(0.082)	<0.25	NS	<1.9
Vinyl Acetate	ND<(0.56)	2.9	ND<(0.56)	ND<(0.70)	ND<(0.56)	NS	NS	NS
m,p-Xylene	ND<(0.69)	ND<(0.87)	ND<(0.69)	ND<(0.87)	ND<(0.69)	21.0	NS	22.2
o-Xylene	ND<(0.69)	ND<(0.87)	ND<(0.69)	ND<(0.87)	ND<(0.69)	13.0	NS	7.9
Xylenes (total)	ND<(0.69)	ND<(0.87)	ND<(0.69)	ND<(0.87)	ND<(0.69)	NS	NS	NS

Note:

Results and Standards expressed in micrograms per cubic meter (µg/m3)

ND<# = Not detected, less than the laboratory reporting limit

NS = No Standard

E = The concentration indicated for this analyte is an estimated value above the calibration range of the instrument.

a = Result is from run #2.

BOLD = results exceed NYSDOH 2003 Soil Vapor Indoor Upper Fence (1) standard

ITALIC = results exceed NYSDOH 2003 Soil Vapor Intrusion Air Guidance Value (2) standard

"Gray" = results exceed EPA 2001 BASE 90th Percentile (3) standard

BOLD, *ITALIC*, or "Gray" indicators in the Regulatory Guidance columns indicate at least one historic exceedance was observed.

(1) Upper fence indoor air values from "Table C1. NYSDOH 2003: Study of Volatile Organic Chemicals in Air of Fuel Oil Heated Homes", published in the NYSDOH Soil Vapor Intrusion Guidance Document, Appendix C" (October 2006)

(2) NYSDOH Air Guideline Values (AGVs) from "Table 3.1 Air guideline values derived by the NYSDOH" presented in the Final Guidance for evaluating Soil Vapor Intrusion in the State of New York, dated October 2006 ("NYSDOH Vapor Intrusion Guidance Document")

(3) 90th percentile indoor air values from "Table C-2. EPA 2001: Building Assessment and Survey Evaluation (BASE) Database, SUMMA canister method" published in the NYSDOH Soil Vapor Intrusion Guidance Document, Appendix C" (October 2006)

Table 2
Constituents of Concern Summary Comparison

UB Orangeburg
 1-45 Orangetown Shopping Center
 Orangeburg, New York

Samples			Chemical Compound								Action Required		
Sample Date	Sample Location	Sample Type	TCE	c12-DCE	11 - DCE	Carbon Tetrachloride	PCE	1,1,1-TCA	Methylene Chloride	Vinyl Chloride	Matrix A (TCE, c12-DCE, 11-DCE, Carbon Tetrachloride)	Matrix B (PCE, 111-TCA, Methylene Chloride)	Matrix C (Vinyl Chloride)
12/7/2021	VP-6	Indoor Air	0.64	0.38	ND (<0.13)	0.49	8.1	ND (<0.44)	0.90	ND (<0.082)	No Further Action	No Further Action	No Further Action
		Sub-slab	2.0	0.44	ND (<0.16)	ND (<0.25)	9.5	ND (<0.55)	0.97	ND (<0.10)			
12/7/2021	VP-5	Indoor Air	0.59	0.28	ND (<0.13)	0.43	6.5	ND (<0.44)	1.5	ND (<0.082)	No Further Action	No Further Action	No Further Action
		Sub-slab	2.1	0.48	ND (<0.16)	0.47	10	ND (<0.55)	0.97	ND (<0.10)			

Notes:

Results and Standards expressed in micrograms per cubic meter (µg/m3)

TCE= Trichloroethene (Trichloroethylene)

c12-DCE= cis-1,2-Dichloroethene

11-DCE= 1,1-Dichloroethene (1,1-dichloroethylene)

PCE= Tetrachloroethene (Tetrachloroethylene)

1,1,1-TCA= 1,1,1-trichloroethane



Appendix A – NYSDEC Correspondences

Jessica Thomas

Subject: FW: Soil Vapor Intrusion Summary for C344066 Orangeburg Shopping Center

From: Squire, Michael H (DEC) <Michael.Squire@dec.ny.gov>
Sent: Friday, June 7, 2019 12:06 PM
To: Michael C. DeGloria <MDeGloria@gesonline.com>
Subject: Soil Vapor Intrusion Summary for C344066 Orangeburg Shopping Center

Michael,

I've looked over the Q1 2019 Progress Report and 2019 Soil Vapor Intrusion Summary for C344066 Orangeburg Shopping Center. DOH has sent me a letter stating they have no comments for the Q1 2019 report, and I don't either. I concur with the recommendation in the SVI summary to monitor the former Sparkle Cleaners space based on the results for TCE and PCE at VP-6.

Michael Squire

Assistant Engineer
Division of Environmental Remediation, Remedial Bureau C

New York State Department of Environmental Conservation
625 Broadway, Albany, NY 12233
P: (518) 402-9546 | michael.squire@dec.ny.gov

TAKE NOTE: This E-Mail came from outside of GES. Please consider the sender and nature of email before responding back to, clicking on any links or opening any attachments. If it appears suspicious delete it immediately.

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Division of Environmental Remediation, Remedial Bureau C

625 Broadway, 12th Floor, Albany, NY 12233-7014

P: (518) 402-9662 | F: (518) 402-9679

www.dec.ny.gov

June 22, 2020

Michael DeGloria, PG
Groundwater & Environmental Services, Inc.
63 E Main Street, Suite 3
Pawling, New York 12564

RE: Soil Vapor Intrusion Summary Report
NYSDEC Site No. C344066
Orangeburg (Orangetown) Shopping Center
Orangeburg, New York

Dear Mr. DeGloria,

The New York State Department of Environmental Conservation (NYSDEC) and Department of Health (NYSDOH) have reviewed the Soil Vapor Intrusion Summary Report (SVIR) for the Orangeburg (Orangetown) Shopping Center site (the site), dated January 20, 2020.

The NYSDEC and NYSDOH agree with the recommendation that an additional annual soil vapor intrusion sampling event take place for the former Sparkle Cleaners during the next heating season.

Section 3.1 of the SVIR describes a floor crack in the vicinity of sample location VP-5 that was filled in the day prior to the 2019 sampling event. A pre-sampling inspection and any subsequent needed repairs should be conducted prior to collecting sub-slab soil vapor and indoor air samples in the future.

Please provide the NYSDEC and NYSDOH with a notice at least 5 business days before starting the soil vapor intrusion sampling event. Should you have any questions, please contact me at michael.squire@dec.ny.gov or at 518-402-9662.

Sincerely,



Michael Squire,
Project Manager,
Remedial Bureau C



Department of
Environmental
Conservation



Ec: Amen Omorogbe, NYSDEC
Renata Ockerby, NYSDOH
Maureen Schuck, NYSDOH
DECDocs



Appendix B – NYSDOH Indoor Air Quality Questionnaire and Building Inventory Form

**NEW YORK STATE DEPARTMENT OF HEALTH
INDOOR AIR QUALITY QUESTIONNAIRE AND BUILDING INVENTORY
CENTER FOR ENVIRONMENTAL HEALTH**

This form must be completed for each residence involved in indoor air testing.

Preparer's Name Rich Brown Date/Time Prepared 12-07-2021

Preparer's Affiliation GES Phone No.

Purpose of Investigation Heating season SVI

1. OCCUPANT:

Interviewed: Y/N

Last Name: Verizon Store worker First Name: N/A

Address: Orangetown Shopping Center

County: Rockland County

Home Phone: N/A Office Phone: 845-680-8800

Number of Occupants/persons at this location 1 Age of Occupants 32

2. OWNER OR LANDLORD: (Check if same as occupant)

Interviewed: Y / N

Last Name: First Name:

Address:

County:

Home Phone: Office Phone:

3. BUILDING CHARACTERISTICS

Type of Building: (Circle appropriate response)

Residential
Industrial

School
Church

Commercial/Multi-use
Other:

If the property is residential, type? (Circle appropriate response)

Ranch	2-Family	3-Family
Raised Ranch	Split Level	Colonial
Cape Cod	Contemporary	Mobile Home
Duplex	Apartment House	Townhouses/Condos
Modular	Log Home	Other: <u>Strip mall (built on slab)</u>

If multiple units, how many? N/A

If the property is commercial, type?

Business Type(s) Verizon Store

Does it include residences (i.e., multi-use)? Y / (N) If yes, how many? _____

Other characteristics:

Number of floors 1

Building age N/A

Is the building insulated? (Y) N

How air tight? Tight / Average / Not Tight

4. AIRFLOW

Use air current tubes or tracer smoke to evaluate airflow patterns and qualitatively describe:

Airflow between floors

Not applicable

Airflow near source

Out from supply into return.

Outdoor air infiltration

Infiltrates in through front and back door.

Infiltration into air ducts

Infiltrates up into the return duct and down around supply vents.

5. BASEMENT AND CONSTRUCTION CHARACTERISTICS (Circle all that apply)

- a. Above grade construction: wood frame concrete stone brick
- b. Basement type: full crawlspace slab other not applicable
- c. Basement floor: concrete dirt stone other not applicable
- d. Basement floor: uncovered covered covered with not applicable
- e. Concrete floor: unsealed sealed sealed with carpet/carpet tiles
- f. Foundation walls: poured block stone other _____
- g. Foundation walls: unsealed sealed sealed with paint
- h. The basement is: wet damp dry moldy not applicable
- i. The basement is: finished unfinished partially finished not applicable
- j. Sump present? Y / N
- k. Water in sump? Y / N / not applicable

 Basement/Lowest level depth below grade: N/A (feet)

Identify potential soil vapor entry points and approximate size (e.g., cracks, utility ports, drains)

 None

6. HEATING, VENTING and AIR CONDITIONING (Circle all that apply)

Type of heating system(s) used in this building: (circle all that apply – note primary)

<u>Hot air circulation</u>	Heat pump	Hot water baseboard
Space Heaters	Stream radiation	Radiant floor
Electric baseboard	Wood stove	Outdoor wood boiler
		Other _____

The primary type of fuel used is:

<u>Natural Gas</u>	Fuel Oil	Kerosene
Electric	Propane	Solar
Wood	Coal	

 Domestic hot water tank fueled by: Electric

 Boiler/furnace located in: Basement Outdoors Main Floor Other roof

 Air conditioning: Central Air Window units Open Windows None

Are there air distribution ducts present? ☒ Y ☐ N

Describe the supply and cold air return ductwork, and its condition where visible, including whether there is a cold air return and the tightness of duct joints. Indicate the locations on the floor plan diagram.

Duct work is not visible. There are six (6) supply vents and one (1) return vent in the ceiling.

7. OCCUPANCY

Is basement/lowest level occupied? Full-time ☒ Occasionally ☐ Seldom ☐ Almost Never

Level **General Use of Each Floor (e.g., familyroom, bedroom, laundry, workshop, storage)**

Basement	Not applicable
1 st Floor	Verizon Store
2 nd Floor	Not applicable
3 rd Floor	Not applicable
4 th Floor	Not applicable

8. FACTORS THAT MAY INFLUENCE INDOOR AIR QUALITY

- a. Is there an attached garage? Y ☒ N ☐
- b. Does the garage have a separate heating unit? Y / N / ☒ NA
- c. Are petroleum-powered machines or vehicles stored in the garage (e.g., lawnmower, atv, car) Y / N / ☒ NA
Please specify _____
- d. Has the building ever had a fire? Y / ☒ N When? _____
- e. Is a kerosene or unvented gas space heater present? Y ☒ N Where? _____
- f. Is there a workshop or hobby/craft area? Y / ☒ N Where & Type? _____
- g. Is there smoking in the building? Y ☒ N How frequently? _____
- h. Have cleaning products been used recently? Y ☒ N When & Type? _____
- i. Have cosmetic products been used recently? Y ☒ N When & Type? _____

- j. Has painting/staining been done in the last 6 months? Y ☒ N Where & When? _____
- k. Is there new carpet, drapes or other textiles? Y ☒ N Where & When? _____
- l. Have air fresheners been used recently? ☒ Y N When & Type? Daily, febreeze
- m. Is there a kitchen exhaust fan? Y ☒ N If yes, where vented? _____
- n. Is there a bathroom exhaust fan? ☒ Y N If yes, where vented? roof
- o. Is there a clothes dryer? Y ☒ N If yes, is it vented outside? Y / N
- p. Has there been a pesticide application? ☒ Y N When & Type? approximately 2 weeks ago
exterminator sprayed
building interior
- Are there odors in the building? Y ☒ N
If yes, please describe: _____

Do any of the building occupants use solvents at work? ☒ Y N
(e.g., chemical manufacturing or laboratory, auto mechanic or auto body shop, painting, fuel oil delivery, boiler mechanic, pesticide application, cosmetologist)

If yes, what types of solvents are used? Alcohol wipes for phone screen

If yes, are their clothes washed at work? Y ☒ N

Do any of the building occupants regularly use or work at a dry-cleaning service? (Circle appropriate response)

Yes, use dry-cleaning regularly (weekly) ☒ No
Yes, use dry-cleaning infrequently (monthly or less) Unknown
Yes, work at a dry-cleaning service

Is there a radon mitigation system for the building/structure? Y / ☒ N Date of Installation: _____
Is the system active or passive? Active/Passive

9. WATER AND SEWAGE

Water Supply: ☒ Public Water Drilled Well Driven Well Dug Well Other: _____
Sewage Disposal: ☒ Public Sewer Septic Tank Leach Field Dry Well Other: _____

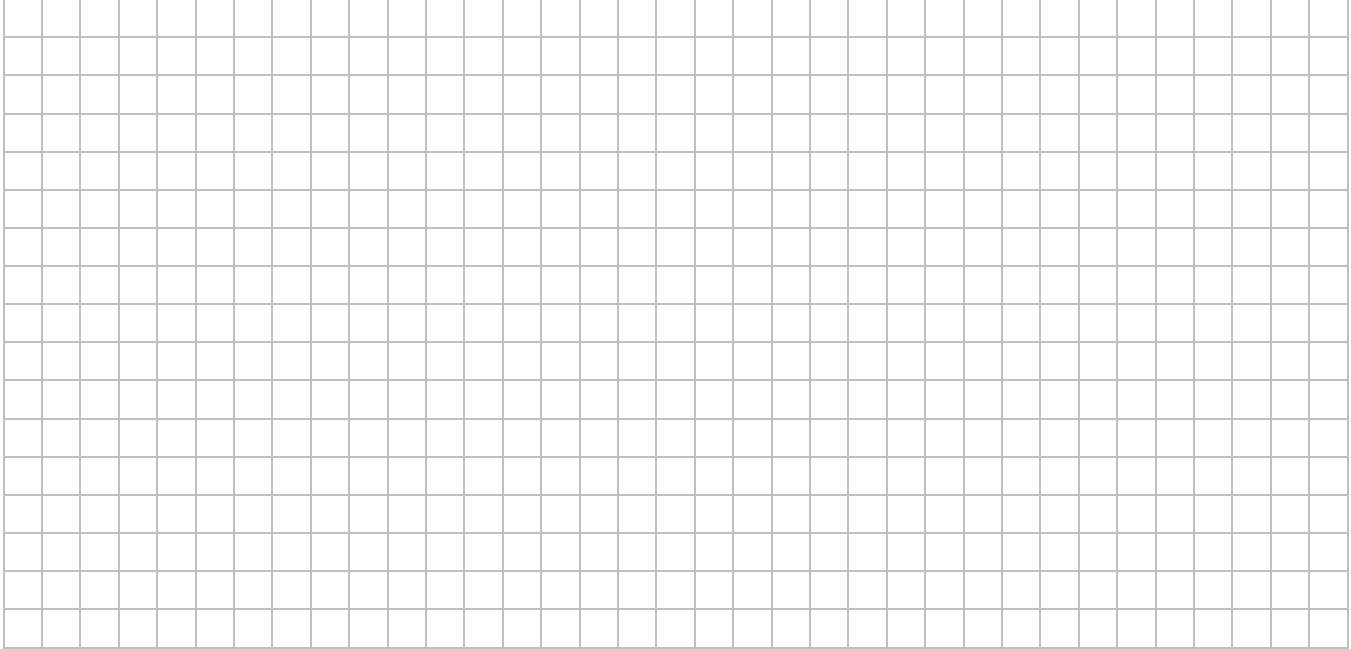
10. RELOCATION INFORMATION (for oil spill residential emergency)

- a. Provide reasons why relocation is recommended: Not applicable.
- b. Residents choose to: remain in home relocate to friends/family relocate to hotel/motel
- c. Responsibility for costs associated with reimbursement explained? Y / N
- d. Relocation package provided and explained to residents? Y / N

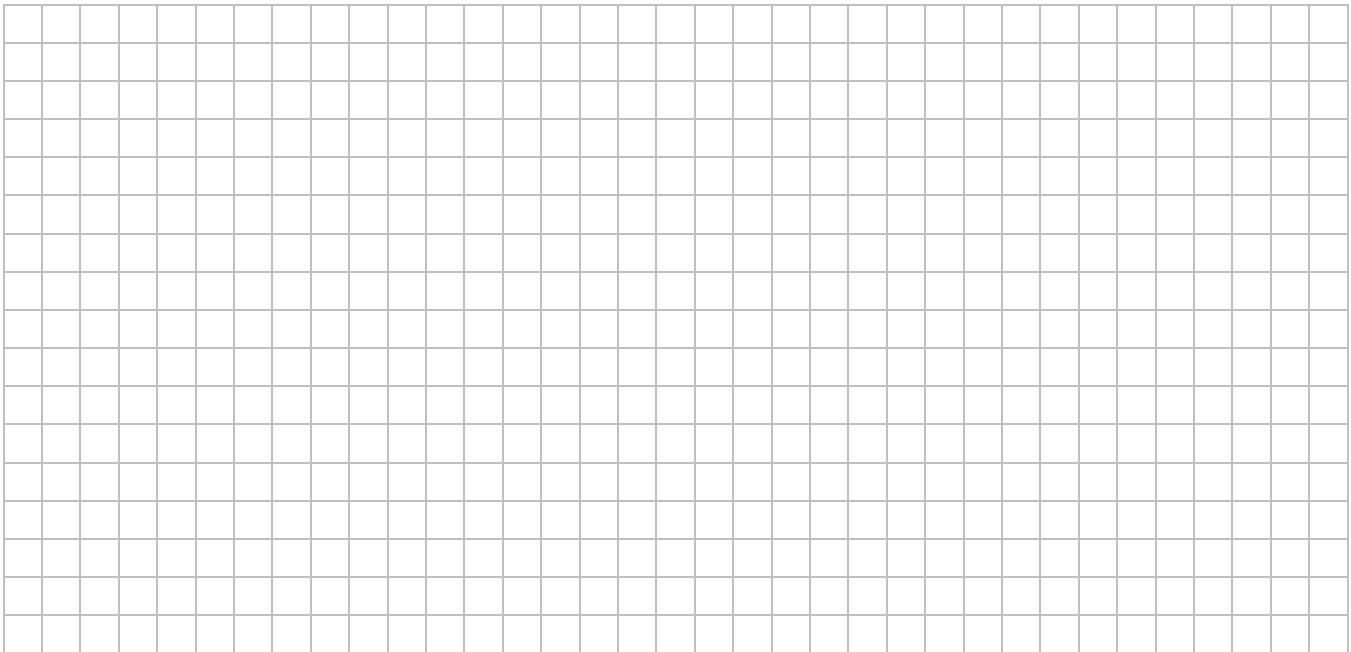
11. FLOOR PLANS

Draw a plan view sketch of the basement and first floor of the building. Indicate air sampling locations, possible indoor air pollution sources and PID meter readings. If the building does not have a basement, please note.

Basement: Not applicable.



First Floor: Refer to attached Figures for Floor Plans.

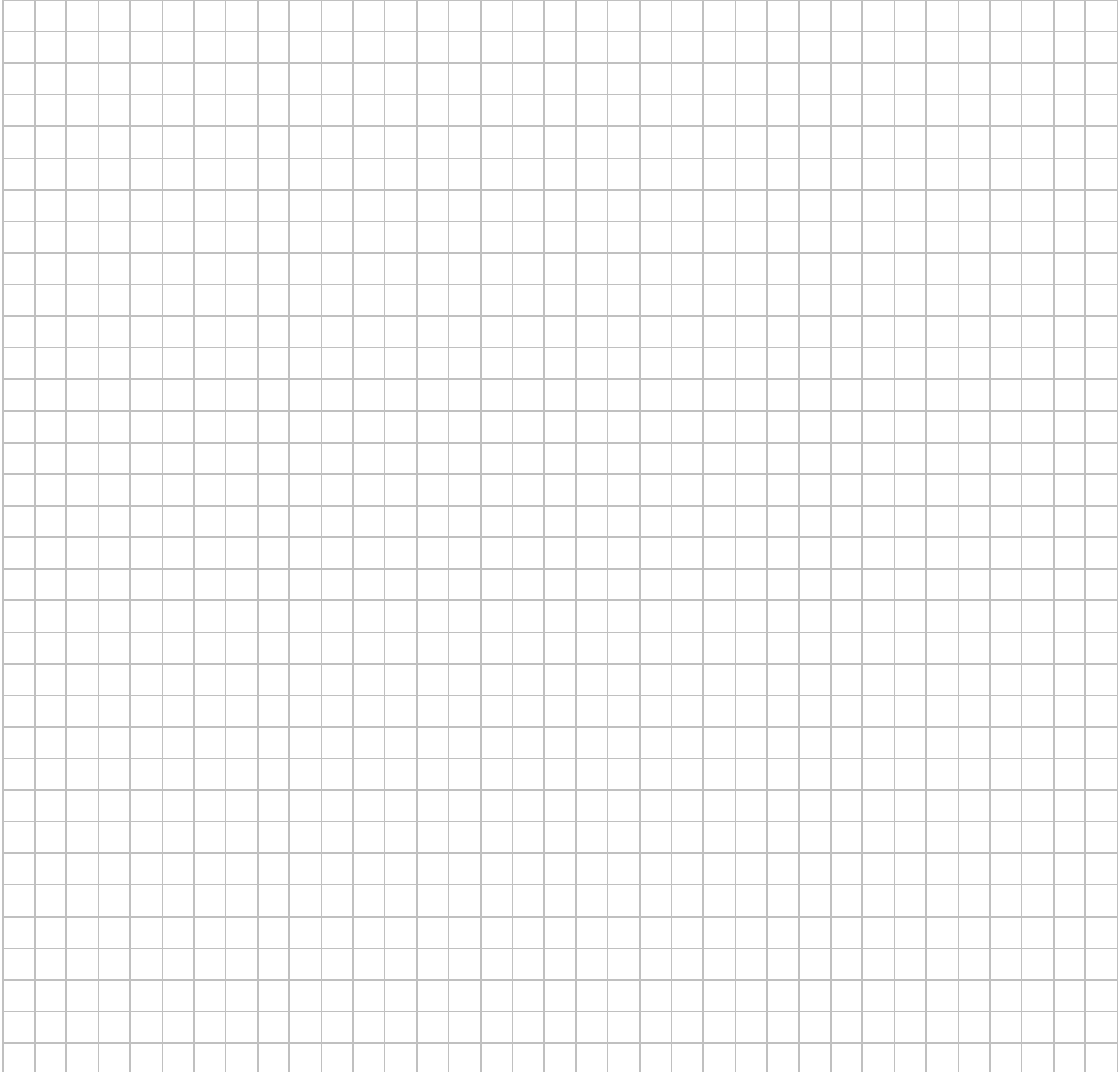


12. OUTDOOR PLOT

Draw a sketch of the area surrounding the building being sampled. If applicable, provide information on spill locations, potential air contamination sources (industries, gas stations, repair shops, landfills, etc.), outdoor air sampling location(s) and PID meter readings.

Also indicate compass direction, wind direction and speed during sampling, the locations of the well and septic system, if applicable, and a qualifying statement to help locate the site on a topographic map.

Refer to attached Figures for Outdoor Plot



13. PRODUCT INVENTORY FORM

Make & Model of field instrument used: miniRAE ppbRAE meter

List specific products found in the residence that have the potential to affect indoor air quality.

Location	Product Description	Size (units)	Condition *	Chemical Ingredients	Field Instrument Reading (units)	Photo ** <u>Y / N</u>
Storage	All purpose cleaner	32 Oz.	Used	See Photos	0.0	Y
	Lysol toilet	24 Oz.	Used			
	Clorox Bleach cleaner	27 Oz.	New			
	Comet Classic	32 Oz.	Used			
	Clorox toilet	24 Oz.	New			
	Mr. Clean	5.2 L	Used			
	Lysol multi-purpose	22 Oz.	Used			
	Clorox Bleach Gel	24 Oz.	Used			
	Insignia spray	38.8 Oz.	Used			
	DG Home Multi-surface	24 Oz.	Used			
	Glade spray	8 Oz.	Used			
	Febreeze	17.6 Oz.	New			
	Febreeze	8.8 Oz.	Used			
	Dawn Soap	7 Oz.	Used			
	Dial Soap	52 Oz.	New			
	Solimo liquid hand soap	56 Oz.	Used			
✓	Windex	1 QT	Used	✓	✓	✓

* Describe the condition of the product containers as **Unopened (UO)**, **Used (U)**, or **Deteriorated (D)**

** Photographs of the **front and back** of product containers can replace the handwritten list of chemical ingredients. However, the photographs must be of good quality and ingredient labels must be legible.



Appendix C – Product Inventory Photographs

Product Inventory Photographs

UB Orangeburg

1-45 Orangetown Shopping Center
Orangeburg, New York

Photo #:

1

Date:

December 7,
2021

Description:

Consumer product with potential VOCs located in tenant space. Field instrument reading as measured with a multiRAE ppbRAE meter was 0.0 ppb.



Photo #:

2

Date:

December 7,
2021

Description:

Consumer products with potential VOCs located in tenant space. Field instrument reading as measured with a multiRAE ppbRAE meter was 0.0 ppb.



Photo #:

3

Date:

December 7,
2021

Description:

Consumer product with potential VOCs located in tenant space. Field instrument reading as measured with a multiRAE ppbRAE meter was 0.0 ppb.





Appendix D – Laboratory Analytical Results

The results set forth herein are provided by SGS North America Inc.

e-Hardcopy 2.0
Automated Report

Technical Report for

Groundwater & Environmental Services

Orangeburg UB, Orangeburg, NY

1102783/02/210

SGS Job Number: JD36325

Sampling Date: 12/07/21

Report to:

Groundwater & Environmental Services
63 East Street Suite 3
Pawling, NY 12564
MDeGloria@GESOnline.com; jthomas@gesonline.com;
neregion@gesonline.com
ATTN: Michael DeGloria

Total number of pages in report: **474**



Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.

A handwritten signature in black ink, appearing to read "Mike Earp".

Mike Earp
General Manager

Client Service contact: Marie Meidhof 732-329-0200

Certifications: NJ(12129), NY(10983), CA, CT, FL, IL, IN, KS, KY, LA, MA, MD, ME, MN, NC, OH VAP (CL0056), AK (UST-103), AZ (AZ0786), PA, RI, SC, TX, UT, VA, WV, DoD ELAP (ANAB L2248)

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Test results relate only to samples analyzed.

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Sample Summary

Groundwater & Environmental Services

Job No: JD36325

Orangeburg UB, Orangeburg, NY
Project No: 1102783/02/210

Sample Number	Collected Date	Time By	Received	Matrix Code	Type	Client Sample ID

This report contains results reported as ND = Not detected. The following applies:
Organics ND = Not detected above the RL

JD36325-1	12/07/21	16:00	RB	12/08/21	AIR	Soil Vapor Comp.	VP-5 SOIL VAPOR
JD36325-2	12/07/21	16:01	RB	12/08/21	AIR	Indoor Air Comp.	VP-5 INDOOR
JD36325-3	12/07/21	16:05	RB	12/08/21	AIR	Soil Vapor Comp.	VP-6 SOIL VAPOR
JD36325-4	12/07/21	16:06	RB	12/08/21	AIR	Indoor Air Comp.	VP-6 INDOOR
JD36325-5	12/07/21	16:10	RB	12/08/21	AIR	Ambient Air Comp.	OUTSIDE AMBIENT

CASE NARRATIVE / CONFORMANCE SUMMARY

Client: Groundwater & Environmental Services

Job No JD36325

Site: Orangeburg UB, Orangeburg, NY

Report Date 12/17/2021 10:18:44 A

On 12/08/2021, 5 Sample(s), 0 Trip Blank(s) and 0 Field Blank(s) were received at SGS North America Inc. A SGS North America Inc. Job Number of JD36325 was assigned to the project. Laboratory sample ID, client sample ID and dates of sample collection are detailed in the report's Results Summary Section.

Specified quality control criteria were achieved for this job except as noted below. For more information, please refer to the analytical results and QC summary pages.

Compounds qualified as out of range in the continuing calibration summary report are acceptable as per method requirements when there is a high bias but the sample result is non-detect.

MS Volatiles By Method TO-15

Matrix: AIR

Batch ID: V5W1935

- All samples were analyzed within the recommended method holding time.
- Sample(s) JD36248-1DUP were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JD36325-2, JD36325-4 have compounds reported with "E" qualifiers indicating estimated value exceeding calibration range.

Matrix: AIR

Batch ID: V5W1936

- All samples were analyzed within the recommended method holding time.
- Sample(s) JD36496-1DUP were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.

SGS North America Inc. certifies that data reported for samples received, listed on the associated custody chain or analytical task order, were produced to specifications meeting the Quality System precision, accuracy and completeness objectives except as noted.

Estimated non-standard method measurement uncertainty data is available on request, based on quality control bias and implicit for standard methods. Acceptable uncertainty requires tested parameter quality control data to meet method criteria.

SGS North America Inc. is not responsible for data quality assumptions if partial reports are used and recommends that this report be used in its entirety. Data release is authorized by SGS North America Inc indicated via signature on the report cover

Friday, December 17, 2021

Page 1 of 1

Summary of Hits

Job Number: JD36325
Account: Groundwater & Environmental Services
Project: Orangeburg UB, Orangeburg, NY
Collected: 12/07/21



Lab Sample ID	Client Sample ID	Result/ Qual	RL	MDL	Units	Method

JD36325-1 VP-5 SOIL VAPOR

Acetone (2-Propanone)	13.3	0.20	ppbv	TO-15
Benzene	0.73	0.20	ppbv	TO-15
Chloromethane	0.27	0.20	ppbv	TO-15
Carbon tetrachloride	0.075	0.040	ppbv	TO-15
Dichlorodifluoromethane	0.38	0.20	ppbv	TO-15
cis-1,2-Dichloroethylene	0.12	0.040	ppbv	TO-15
Ethanol	185	2.0	ppbv	TO-15
Ethyl Acetate	88.6	0.80	ppbv	TO-15
Hexane	0.41	0.20	ppbv	TO-15
Isopropyl Alcohol	50.5	0.80	ppbv	TO-15
Methylene chloride	0.28	0.20	ppbv	TO-15
Methyl ethyl ketone	0.58	0.20	ppbv	TO-15
Methyl Isobutyl Ketone	0.61	0.20	ppbv	TO-15
Tertiary Butyl Alcohol	0.46	0.20	ppbv	TO-15
Tetrachloroethylene	1.5	0.040	ppbv	TO-15
Toluene	1.7	0.20	ppbv	TO-15
Trichloroethylene	0.39	0.040	ppbv	TO-15
Trichlorofluoromethane	4.8	0.10	ppbv	TO-15
Acetone (2-Propanone)	31.6	0.48	ug/m3	TO-15
Benzene	2.3	0.64	ug/m3	TO-15
Chloromethane	0.56	0.41	ug/m3	TO-15
Carbon tetrachloride	0.47	0.25	ug/m3	TO-15
Dichlorodifluoromethane	1.9	0.99	ug/m3	TO-15
cis-1,2-Dichloroethylene	0.48	0.16	ug/m3	TO-15
Ethanol	349	3.8	ug/m3	TO-15
Ethyl Acetate	319	2.9	ug/m3	TO-15
Hexane	1.4	0.70	ug/m3	TO-15
Isopropyl Alcohol	124	2.0	ug/m3	TO-15
Methylene chloride	0.97	0.69	ug/m3	TO-15
Methyl ethyl ketone	1.7	0.59	ug/m3	TO-15
Methyl Isobutyl Ketone	2.5	0.82	ug/m3	TO-15
Tertiary Butyl Alcohol	1.4	0.61	ug/m3	TO-15
Tetrachloroethylene	10	0.27	ug/m3	TO-15
Toluene	6.4	0.75	ug/m3	TO-15
Trichloroethylene	2.1	0.21	ug/m3	TO-15
Trichlorofluoromethane	27	0.56	ug/m3	TO-15

JD36325-2 VP-5 INDOOR

Acetone (2-Propanone)	7.1	0.16	ppbv	TO-15
Benzene	0.19	0.16	ppbv	TO-15
Carbon tetrachloride	0.068	0.032	ppbv	TO-15
Dichlorodifluoromethane	0.37	0.16	ppbv	TO-15

Summary of Hits

Job Number: JD36325
Account: Groundwater & Environmental Services
Project: Orangeburg UB, Orangeburg, NY
Collected: 12/07/21



Lab Sample ID Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
cis-1,2-Dichloroethylene		0.070	0.032		ppbv	TO-15
Ethanol		89.7 E	0.40		ppbv	TO-15
Ethyl Acetate		2.6	0.16		ppbv	TO-15
Isopropyl Alcohol		76.8 E	0.16		ppbv	TO-15
Methylene chloride		0.42	0.16		ppbv	TO-15
Methyl ethyl ketone		0.18	0.16		ppbv	TO-15
Tetrachloroethylene		0.96	0.032		ppbv	TO-15
Toluene		0.24	0.16		ppbv	TO-15
Trichloroethylene		0.11	0.032		ppbv	TO-15
Trichlorofluoromethane		0.27	0.080		ppbv	TO-15
Acetone (2-Propanone)		17	0.38		ug/m3	TO-15
Benzene		0.61	0.51		ug/m3	TO-15
Carbon tetrachloride		0.43	0.20		ug/m3	TO-15
Dichlorodifluoromethane		1.8	0.79		ug/m3	TO-15
cis-1,2-Dichloroethylene		0.28	0.13		ug/m3	TO-15
Ethanol		169 E	0.75		ug/m3	TO-15
Ethyl Acetate		9.4	0.58		ug/m3	TO-15
Isopropyl Alcohol		189 E	0.39		ug/m3	TO-15
Methylene chloride		1.5	0.56		ug/m3	TO-15
Methyl ethyl ketone		0.53	0.47		ug/m3	TO-15
Tetrachloroethylene		6.5	0.22		ug/m3	TO-15
Toluene		0.90	0.60		ug/m3	TO-15
Trichloroethylene		0.59	0.17		ug/m3	TO-15
Trichlorofluoromethane		1.5	0.45		ug/m3	TO-15

JD36325-3 VP-6 SOIL VAPOR

Acetone (2-Propanone)	12.6	0.20	ppbv	TO-15
Benzene	0.56	0.20	ppbv	TO-15
Chloromethane	0.34	0.20	ppbv	TO-15
Dichlorodifluoromethane	0.38	0.20	ppbv	TO-15
cis-1,2-Dichloroethylene	0.11	0.040	ppbv	TO-15
Ethanol	143	2.0	ppbv	TO-15
Ethyl Acetate	58.0	0.80	ppbv	TO-15
Hexane	0.32	0.20	ppbv	TO-15
Isopropyl Alcohol	49.6	0.80	ppbv	TO-15
Methylene chloride	0.28	0.20	ppbv	TO-15
Methyl ethyl ketone	0.61	0.20	ppbv	TO-15
Methyl Isobutyl Ketone	0.39	0.20	ppbv	TO-15
Tertiary Butyl Alcohol	0.37	0.20	ppbv	TO-15
Tetrachloroethylene	1.4	0.040	ppbv	TO-15
Toluene	1.3	0.20	ppbv	TO-15
Trichloroethylene	0.38	0.040	ppbv	TO-15
Trichlorofluoromethane	4.0	0.10	ppbv	TO-15
Vinyl Acetate	0.82	0.20	ppbv	TO-15

Summary of Hits

Job Number: JD36325
Account: Groundwater & Environmental Services
Project: Orangeburg UB, Orangeburg, NY
Collected: 12/07/21



Lab Sample ID Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
Acetone (2-Propanone)		29.9	0.48		ug/m3	TO-15
Benzene		1.8	0.64		ug/m3	TO-15
Chloromethane		0.70	0.41		ug/m3	TO-15
Dichlorodifluoromethane		1.9	0.99		ug/m3	TO-15
cis-1,2-Dichloroethylene		0.44	0.16		ug/m3	TO-15
Ethanol		269	3.8		ug/m3	TO-15
Ethyl Acetate		209	2.9		ug/m3	TO-15
Hexane		1.1	0.70		ug/m3	TO-15
Isopropyl Alcohol		122	2.0		ug/m3	TO-15
Methylene chloride		0.97	0.69		ug/m3	TO-15
Methyl ethyl ketone		1.8	0.59		ug/m3	TO-15
Methyl Isobutyl Ketone		1.6	0.82		ug/m3	TO-15
Tertiary Butyl Alcohol		1.1	0.61		ug/m3	TO-15
Tetrachloroethylene		9.5	0.27		ug/m3	TO-15
Toluene		4.9	0.75		ug/m3	TO-15
Trichloroethylene		2.0	0.21		ug/m3	TO-15
Trichlorofluoromethane		22	0.56		ug/m3	TO-15
Vinyl Acetate		2.9	0.70		ug/m3	TO-15

JD36325-4 VP-6 INDOOR

Acetone (2-Propanone)	7.9	0.16	ppbv	TO-15
Benzene	0.19	0.16	ppbv	TO-15
Chloromethane	0.47	0.16	ppbv	TO-15
Carbon tetrachloride	0.078	0.032	ppbv	TO-15
Dichlorodifluoromethane	0.37	0.16	ppbv	TO-15
cis-1,2-Dichloroethylene	0.096	0.032	ppbv	TO-15
Ethanol	86.6 E	0.40	ppbv	TO-15
Ethyl Acetate	1.9	0.16	ppbv	TO-15
Isopropyl Alcohol	84.8 E	0.16	ppbv	TO-15
Methylene chloride	0.26	0.16	ppbv	TO-15
Methyl ethyl ketone	0.16	0.16	ppbv	TO-15
Tetrachloroethylene	1.2	0.032	ppbv	TO-15
Toluene	0.23	0.16	ppbv	TO-15
Trichloroethylene	0.12	0.032	ppbv	TO-15
Trichlorofluoromethane	0.28	0.080	ppbv	TO-15
Acetone (2-Propanone)	19	0.38	ug/m3	TO-15
Benzene	0.61	0.51	ug/m3	TO-15
Chloromethane	0.97	0.33	ug/m3	TO-15
Carbon tetrachloride	0.49	0.20	ug/m3	TO-15
Dichlorodifluoromethane	1.8	0.79	ug/m3	TO-15
cis-1,2-Dichloroethylene	0.38	0.13	ug/m3	TO-15
Ethanol	163 E	0.75	ug/m3	TO-15
Ethyl Acetate	6.8	0.58	ug/m3	TO-15
Isopropyl Alcohol	208 E	0.39	ug/m3	TO-15

Summary of Hits

Job Number: JD36325
Account: Groundwater & Environmental Services
Project: Orangeburg UB, Orangeburg, NY
Collected: 12/07/21



Lab Sample ID	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
Analyte						
Methylene chloride		0.90	0.56		ug/m3	TO-15
Methyl ethyl ketone		0.47	0.47		ug/m3	TO-15
Tetrachloroethylene		8.1	0.22		ug/m3	TO-15
Toluene		0.87	0.60		ug/m3	TO-15
Trichloroethylene		0.64	0.17		ug/m3	TO-15
Trichlorofluoromethane		1.6	0.45		ug/m3	TO-15

JD36325-5 OUTSIDE AMBIENT

Acetone (2-Propanone)	2.3	0.16		ppbv	TO-15
Benzene	0.17	0.16		ppbv	TO-15
Chloromethane	0.42	0.16		ppbv	TO-15
Carbon tetrachloride	0.080	0.032		ppbv	TO-15
Dichlorodifluoromethane	0.38	0.16		ppbv	TO-15
Ethanol	3.9	0.40		ppbv	TO-15
Ethyl Acetate	0.84	0.16		ppbv	TO-15
Isopropyl Alcohol	1.3	0.16		ppbv	TO-15
Methylene chloride	0.20	0.16		ppbv	TO-15
Trichlorofluoromethane	0.26	0.080		ppbv	TO-15
Acetone (2-Propanone)	5.5	0.38		ug/m3	TO-15
Benzene	0.54	0.51		ug/m3	TO-15
Chloromethane	0.87	0.33		ug/m3	TO-15
Carbon tetrachloride	0.50	0.20		ug/m3	TO-15
Dichlorodifluoromethane	1.9	0.79		ug/m3	TO-15
Ethanol	7.3	0.75		ug/m3	TO-15
Ethyl Acetate	3.0	0.58		ug/m3	TO-15
Isopropyl Alcohol	3.2	0.39		ug/m3	TO-15
Methylene chloride	0.69	0.56		ug/m3	TO-15
Trichlorofluoromethane	1.5	0.45		ug/m3	TO-15

Sample Results

Report of Analysis

SGS North America Inc.

Report of Analysis

Page 1 of 3

Client Sample ID:	VP-5 SOIL VAPOR	Date Sampled:	12/07/21
Lab Sample ID:	JD36325-1	Date Received:	12/08/21
Matrix:	AIR - Soil Vapor Comp. Summa ID: A1329	Percent Solids:	n/a
Method:	TO-15		
Project:	Orangeburg UB, Orangeburg, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	5W46798.D	1	12/14/21 04:16	DFT	n/a	n/a	V5W1935
Run #2	5W46812.D	1	12/14/21 16:34	DFT	n/a	n/a	V5W1936

	Initial Volume
Run #1	400 ml
Run #2	100 ml

VOA TO15 List

CAS No.	MW	Compound	Result	RL	Units	Q	Result	RL	Units
67-64-1	58.08	Acetone (2-Propanone)	13.3	0.20	ppbv		31.6	0.48	ug/m3
106-99-0	54.09	1,3-Butadiene	ND	0.20	ppbv		ND	0.44	ug/m3
71-43-2	78.11	Benzene	0.73	0.20	ppbv		2.3	0.64	ug/m3
75-27-4	163.8	Bromodichloromethane	ND	0.10	ppbv		ND	0.67	ug/m3
75-25-2	252.8	Bromoform	ND	0.040	ppbv		ND	0.41	ug/m3
74-83-9	94.94	Bromomethane	ND	0.20	ppbv		ND	0.78	ug/m3
593-60-2	106.9	Bromoethene	ND	0.20	ppbv		ND	0.87	ug/m3
100-44-7	126	Benzyl Chloride	ND	0.20	ppbv		ND	1.0	ug/m3
75-15-0	76.14	Carbon disulfide	ND	0.20	ppbv		ND	0.62	ug/m3
108-90-7	112.6	Chlorobenzene	ND	0.20	ppbv		ND	0.92	ug/m3
75-00-3	64.52	Chloroethane	ND	0.20	ppbv		ND	0.53	ug/m3
67-66-3	119.4	Chloroform	ND	0.20	ppbv		ND	0.98	ug/m3
74-87-3	50.49	Chloromethane	0.27	0.20	ppbv		0.56	0.41	ug/m3
107-05-1	76.53	3-Chloropropene	ND	0.20	ppbv		ND	0.63	ug/m3
95-49-8	126.6	2-Chlorotoluene	ND	0.20	ppbv		ND	1.0	ug/m3
56-23-5	153.8	Carbon tetrachloride	0.075	0.040	ppbv		0.47	0.25	ug/m3
110-82-7	84.16	Cyclohexane	ND	0.20	ppbv		ND	0.69	ug/m3
75-34-3	98.96	1,1-Dichloroethane	ND	0.20	ppbv		ND	0.81	ug/m3
75-35-4	96.94	1,1-Dichloroethylene	ND	0.040	ppbv		ND	0.16	ug/m3
106-93-4	187.9	1,2-Dibromoethane (EDB)	ND	0.10	ppbv		ND	0.77	ug/m3
107-06-2	98.96	1,2-Dichloroethane	ND	0.20	ppbv		ND	0.81	ug/m3
78-87-5	113	1,2-Dichloropropane	ND	0.20	ppbv		ND	0.92	ug/m3
123-91-1	88.12	1,4-Dioxane	ND	0.20	ppbv		ND	0.72	ug/m3
75-71-8	120.9	Dichlorodifluoromethane	0.38	0.20	ppbv		1.9	0.99	ug/m3
124-48-1	208.3	Dibromochloromethane	ND	0.10	ppbv		ND	0.85	ug/m3
156-60-5	96.94	trans-1,2-Dichloroethylene	ND	0.20	ppbv		ND	0.79	ug/m3
156-59-2	96.94	cis-1,2-Dichloroethylene	0.12	0.040	ppbv		0.48	0.16	ug/m3
10061-01-5	111	cis-1,3-Dichloropropene	ND	0.20	ppbv		ND	0.91	ug/m3
541-73-1	147	m-Dichlorobenzene	ND	0.10	ppbv		ND	0.60	ug/m3
95-50-1	147	o-Dichlorobenzene	ND	0.040	ppbv		ND	0.24	ug/m3
106-46-7	147	p-Dichlorobenzene	ND	0.10	ppbv		ND	0.60	ug/m3
10061-02-6	111	trans-1,3-Dichloropropene	ND	0.20	ppbv		ND	0.91	ug/m3

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	VP-5 SOIL VAPOR	Date Sampled:	12/07/21
Lab Sample ID:	JD36325-1	Date Received:	12/08/21
Matrix:	AIR - Soil Vapor Comp. Summa ID: A1329	Percent Solids:	n/a
Method:	TO-15		
Project:	Orangeburg UB, Orangeburg, NY		

VOA TO15 List

CAS No.	MW	Compound	Result	RL	Units	Q	Result	RL	Units
64-17-5	46.07	Ethanol	185 ^a	2.0	ppbv		349 ^a	3.8	ug/m3
100-41-4	106.2	Ethylbenzene	ND	0.20	ppbv		ND	0.87	ug/m3
141-78-6	88	Ethyl Acetate	88.6 ^a	0.80	ppbv		319 ^a	2.9	ug/m3
622-96-8	120.19	4-Ethyltoluene	ND	0.20	ppbv		ND	0.98	ug/m3
76-13-1	187.4	Freon 113	ND	0.10	ppbv		ND	0.77	ug/m3
76-14-2	170.9	Freon 114	ND	0.10	ppbv		ND	0.70	ug/m3
142-82-5	100.2	Heptane	ND	0.20	ppbv		ND	0.82	ug/m3
87-68-3	260.8	Hexachlorobutadiene	ND	0.090	ppbv		ND	0.96	ug/m3
110-54-3	86.18	Hexane	0.41	0.20	ppbv		1.4	0.70	ug/m3
591-78-6	100	2-Hexanone	ND	0.20	ppbv		ND	0.82	ug/m3
67-63-0	60.1	Isopropyl Alcohol	50.5 ^a	0.80	ppbv		124 ^a	2.0	ug/m3
75-09-2	84.94	Methylene chloride	0.28	0.20	ppbv		0.97	0.69	ug/m3
78-93-3	72.11	Methyl ethyl ketone	0.58	0.20	ppbv		1.7	0.59	ug/m3
108-10-1	100.2	Methyl Isobutyl Ketone	0.61	0.20	ppbv		2.5	0.82	ug/m3
1634-04-4	88.15	Methyl Tert Butyl Ether	ND	0.20	ppbv		ND	0.72	ug/m3
80-62-6	100.12	Methylmethacrylate	ND	0.20	ppbv		ND	0.82	ug/m3
115-07-1	42	Propylene	ND	0.50	ppbv		ND	0.86	ug/m3
100-42-5	104.1	Styrene	ND	0.20	ppbv		ND	0.85	ug/m3
71-55-6	133.4	1,1,1-Trichloroethane	ND	0.10	ppbv		ND	0.55	ug/m3
79-34-5	167.85	1,1,2,2-Tetrachloroethane	ND	0.10	ppbv		ND	0.69	ug/m3
79-00-5	133.4	1,1,2-Trichloroethane	ND	0.10	ppbv		ND	0.55	ug/m3
120-82-1	181.5	1,2,4-Trichlorobenzene	ND	0.10	ppbv		ND	0.74	ug/m3
95-63-6	120.19	1,2,4-Trimethylbenzene	ND	0.20	ppbv		ND	0.98	ug/m3
108-67-8	120.19	1,3,5-Trimethylbenzene	ND	0.20	ppbv		ND	0.98	ug/m3
540-84-1	114.2	2,2,4-Trimethylpentane	ND	0.20	ppbv		ND	0.93	ug/m3
75-65-0	74.12	Tertiary Butyl Alcohol	0.46	0.20	ppbv		1.4	0.61	ug/m3
127-18-4	165.8	Tetrachloroethylene	1.5	0.040	ppbv		10	0.27	ug/m3
109-99-9	72.11	Tetrahydrofuran	ND	0.20	ppbv		ND	0.59	ug/m3
108-88-3	92.14	Toluene	1.7	0.20	ppbv		6.4	0.75	ug/m3
79-01-6	131.4	Trichloroethylene	0.39	0.040	ppbv		2.1	0.21	ug/m3
75-69-4	137.4	Trichlorofluoromethane	4.8	0.10	ppbv		27	0.56	ug/m3
75-01-4	62.5	Vinyl chloride	ND	0.040	ppbv		ND	0.10	ug/m3
108-05-4	86	Vinyl Acetate	ND	0.20	ppbv		ND	0.70	ug/m3
	106.2	m,p-Xylene	ND	0.20	ppbv		ND	0.87	ug/m3
95-47-6	106.2	o-Xylene	ND	0.20	ppbv		ND	0.87	ug/m3
1330-20-7	106.2	Xylenes (total)	ND	0.20	ppbv		ND	0.87	ug/m3

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	93%	95%	65-128%

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	VP-5 SOIL VAPOR			Date Sampled:	12/07/21
Lab Sample ID:	JD36325-1			Date Received:	12/08/21
Matrix:	AIR - Soil Vapor Comp. Summa ID: A1329			Percent Solids:	n/a
Method:	TO-15				
Project:	Orangeburg UB, Orangeburg, NY				

VOA TO15 List

CAS No.	MW	Compound	Result	RL	Units	Q	Result	RL	Units

(a) Result is from Run# 2

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

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Client Sample ID:	VP-5 INDOOR		
Lab Sample ID:	JD36325-2	Date Sampled:	12/07/21
Matrix:	AIR - Indoor Air Comp.	Date Received:	12/08/21
Method:	TO-15	Percent Solids:	n/a
Project:	Orangeburg UB, Orangeburg, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	5W46795.D	1	12/14/21 01:25	DFT	n/a	n/a	V5W1935
Run #2							

	Initial Volume
Run #1	500 ml
Run #2	

VOA TO15 List

CAS No.	MW	Compound	Result	RL	Units	Q	Result	RL	Units
67-64-1	58.08	Acetone (2-Propanone)	7.1	0.16	ppbv		17	0.38	ug/m3
106-99-0	54.09	1,3-Butadiene	ND	0.16	ppbv		ND	0.35	ug/m3
71-43-2	78.11	Benzene	0.19	0.16	ppbv		0.61	0.51	ug/m3
75-27-4	163.8	Bromodichloromethane	ND	0.080	ppbv		ND	0.54	ug/m3
75-25-2	252.8	Bromoform	ND	0.032	ppbv		ND	0.33	ug/m3
74-83-9	94.94	Bromomethane	ND	0.16	ppbv		ND	0.62	ug/m3
593-60-2	106.9	Bromoethene	ND	0.16	ppbv		ND	0.70	ug/m3
100-44-7	126	Benzyl Chloride	ND	0.16	ppbv		ND	0.82	ug/m3
75-15-0	76.14	Carbon disulfide	ND	0.16	ppbv		ND	0.50	ug/m3
108-90-7	112.6	Chlorobenzene	ND	0.16	ppbv		ND	0.74	ug/m3
75-00-3	64.52	Chloroethane	ND	0.16	ppbv		ND	0.42	ug/m3
67-66-3	119.4	Chloroform	ND	0.16	ppbv		ND	0.78	ug/m3
74-87-3	50.49	Chloromethane	ND	0.16	ppbv		ND	0.33	ug/m3
107-05-1	76.53	3-Chloropropene	ND	0.16	ppbv		ND	0.50	ug/m3
95-49-8	126.6	2-Chlorotoluene	ND	0.16	ppbv		ND	0.83	ug/m3
56-23-5	153.8	Carbon tetrachloride	0.068	0.032	ppbv		0.43	0.20	ug/m3
110-82-7	84.16	Cyclohexane	ND	0.16	ppbv		ND	0.55	ug/m3
75-34-3	98.96	1,1-Dichloroethane	ND	0.16	ppbv		ND	0.65	ug/m3
75-35-4	96.94	1,1-Dichloroethylene	ND	0.032	ppbv		ND	0.13	ug/m3
106-93-4	187.9	1,2-Dibromoethane (EDB)	ND	0.080	ppbv		ND	0.61	ug/m3
107-06-2	98.96	1,2-Dichloroethane	ND	0.16	ppbv		ND	0.65	ug/m3
78-87-5	113	1,2-Dichloropropane	ND	0.16	ppbv		ND	0.74	ug/m3
123-91-1	88.12	1,4-Dioxane	ND	0.16	ppbv		ND	0.58	ug/m3
75-71-8	120.9	Dichlorodifluoromethane	0.37	0.16	ppbv		1.8	0.79	ug/m3
124-48-1	208.3	Dibromochloromethane	ND	0.080	ppbv		ND	0.68	ug/m3
156-60-5	96.94	trans-1,2-Dichloroethylene	ND	0.16	ppbv		ND	0.63	ug/m3
156-59-2	96.94	cis-1,2-Dichloroethylene	0.070	0.032	ppbv		0.28	0.13	ug/m3
10061-01-5	111	cis-1,3-Dichloropropene	ND	0.16	ppbv		ND	0.73	ug/m3
541-73-1	147	m-Dichlorobenzene	ND	0.080	ppbv		ND	0.48	ug/m3
95-50-1	147	o-Dichlorobenzene	ND	0.032	ppbv		ND	0.19	ug/m3
106-46-7	147	p-Dichlorobenzene	ND	0.080	ppbv		ND	0.48	ug/m3
10061-02-6	111	trans-1,3-Dichloropropene	ND	0.16	ppbv		ND	0.73	ug/m3

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	VP-5 INDOOR	Date Sampled:	12/07/21
Lab Sample ID:	JD36325-2	Date Received:	12/08/21
Matrix:	AIR - Indoor Air Comp. Summa ID: A1324	Percent Solids:	n/a
Method:	TO-15		
Project:	Orangeburg UB, Orangeburg, NY		

VOA TO15 List

CAS No.	MW	Compound	Result	RL	Units	Q	Result	RL	Units
64-17-5	46.07	Ethanol	89.7	0.40	ppbv	E	169	0.75	ug/m3
100-41-4	106.2	Ethylbenzene	ND	0.16	ppbv		ND	0.69	ug/m3
141-78-6	88	Ethyl Acetate	2.6	0.16	ppbv		9.4	0.58	ug/m3
622-96-8	120.19	4-Ethyltoluene	ND	0.16	ppbv		ND	0.79	ug/m3
76-13-1	187.4	Freon 113	ND	0.080	ppbv		ND	0.61	ug/m3
76-14-2	170.9	Freon 114	ND	0.080	ppbv		ND	0.56	ug/m3
142-82-5	100.2	Heptane	ND	0.16	ppbv		ND	0.66	ug/m3
87-68-3	260.8	Hexachlorobutadiene	ND	0.072	ppbv		ND	0.77	ug/m3
110-54-3	86.18	Hexane	ND	0.16	ppbv		ND	0.56	ug/m3
591-78-6	100	2-Hexanone	ND	0.16	ppbv		ND	0.65	ug/m3
67-63-0	60.1	Isopropyl Alcohol	76.8	0.16	ppbv	E	189	0.39	ug/m3
75-09-2	84.94	Methylene chloride	0.42	0.16	ppbv		1.5	0.56	ug/m3
78-93-3	72.11	Methyl ethyl ketone	0.18	0.16	ppbv		0.53	0.47	ug/m3
108-10-1	100.2	Methyl Isobutyl Ketone	ND	0.16	ppbv		ND	0.66	ug/m3
1634-04-4	88.15	Methyl Tert Butyl Ether	ND	0.16	ppbv		ND	0.58	ug/m3
80-62-6	100.12	Methylmethacrylate	ND	0.16	ppbv		ND	0.66	ug/m3
115-07-1	42	Propylene	ND	0.40	ppbv		ND	0.69	ug/m3
100-42-5	104.1	Styrene	ND	0.16	ppbv		ND	0.68	ug/m3
71-55-6	133.4	1,1,1-Trichloroethane	ND	0.080	ppbv		ND	0.44	ug/m3
79-34-5	167.85	1,1,2,2-Tetrachloroethane	ND	0.080	ppbv		ND	0.55	ug/m3
79-00-5	133.4	1,1,2-Trichloroethane	ND	0.080	ppbv		ND	0.44	ug/m3
120-82-1	181.5	1,2,4-Trichlorobenzene	ND	0.080	ppbv		ND	0.59	ug/m3
95-63-6	120.19	1,2,4-Trimethylbenzene	ND	0.16	ppbv		ND	0.79	ug/m3
108-67-8	120.19	1,3,5-Trimethylbenzene	ND	0.16	ppbv		ND	0.79	ug/m3
540-84-1	114.2	2,2,4-Trimethylpentane	ND	0.16	ppbv		ND	0.75	ug/m3
75-65-0	74.12	Tertiary Butyl Alcohol	ND	0.16	ppbv		ND	0.49	ug/m3
127-18-4	165.8	Tetrachloroethylene	0.96	0.032	ppbv		6.5	0.22	ug/m3
109-99-9	72.11	Tetrahydrofuran	ND	0.16	ppbv		ND	0.47	ug/m3
108-88-3	92.14	Toluene	0.24	0.16	ppbv		0.90	0.60	ug/m3
79-01-6	131.4	Trichloroethylene	0.11	0.032	ppbv		0.59	0.17	ug/m3
75-69-4	137.4	Trichlorofluoromethane	0.27	0.080	ppbv		1.5	0.45	ug/m3
75-01-4	62.5	Vinyl chloride	ND	0.032	ppbv		ND	0.082	ug/m3
108-05-4	86	Vinyl Acetate	ND	0.16	ppbv		ND	0.56	ug/m3
	106.2	m,p-Xylene	ND	0.16	ppbv		ND	0.69	ug/m3
95-47-6	106.2	o-Xylene	ND	0.16	ppbv		ND	0.69	ug/m3
1330-20-7	106.2	Xylenes (total)	ND	0.16	ppbv		ND	0.69	ug/m3

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	97%		65-128%

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

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Client Sample ID:	VP-6 SOIL VAPOR	Date Sampled:	12/07/21
Lab Sample ID:	JD36325-3	Date Received:	12/08/21
Matrix:	AIR - Soil Vapor Comp. Summa ID: A086	Percent Solids:	n/a
Method:	TO-15		
Project:	Orangeburg UB, Orangeburg, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	5W46799.D	1	12/14/21 05:11	DFT	n/a	n/a	V5W1935
Run #2	5W46813.D	1	12/14/21 17:23	DFT	n/a	n/a	V5W1936

	Initial Volume
Run #1	400 ml
Run #2	100 ml

VOA TO15 List

CAS No.	MW	Compound	Result	RL	Units	Q	Result	RL	Units
67-64-1	58.08	Acetone (2-Propanone)	12.6	0.20	ppbv		29.9	0.48	ug/m3
106-99-0	54.09	1,3-Butadiene	ND	0.20	ppbv		ND	0.44	ug/m3
71-43-2	78.11	Benzene	0.56	0.20	ppbv		1.8	0.64	ug/m3
75-27-4	163.8	Bromodichloromethane	ND	0.10	ppbv		ND	0.67	ug/m3
75-25-2	252.8	Bromoform	ND	0.040	ppbv		ND	0.41	ug/m3
74-83-9	94.94	Bromomethane	ND	0.20	ppbv		ND	0.78	ug/m3
593-60-2	106.9	Bromoethene	ND	0.20	ppbv		ND	0.87	ug/m3
100-44-7	126	Benzyl Chloride	ND	0.20	ppbv		ND	1.0	ug/m3
75-15-0	76.14	Carbon disulfide	ND	0.20	ppbv		ND	0.62	ug/m3
108-90-7	112.6	Chlorobenzene	ND	0.20	ppbv		ND	0.92	ug/m3
75-00-3	64.52	Chloroethane	ND	0.20	ppbv		ND	0.53	ug/m3
67-66-3	119.4	Chloroform	ND	0.20	ppbv		ND	0.98	ug/m3
74-87-3	50.49	Chloromethane	0.34	0.20	ppbv		0.70	0.41	ug/m3
107-05-1	76.53	3-Chloropropene	ND	0.20	ppbv		ND	0.63	ug/m3
95-49-8	126.6	2-Chlorotoluene	ND	0.20	ppbv		ND	1.0	ug/m3
56-23-5	153.8	Carbon tetrachloride	ND	0.040	ppbv		ND	0.25	ug/m3
110-82-7	84.16	Cyclohexane	ND	0.20	ppbv		ND	0.69	ug/m3
75-34-3	98.96	1,1-Dichloroethane	ND	0.20	ppbv		ND	0.81	ug/m3
75-35-4	96.94	1,1-Dichloroethylene	ND	0.040	ppbv		ND	0.16	ug/m3
106-93-4	187.9	1,2-Dibromoethane (EDB)	ND	0.10	ppbv		ND	0.77	ug/m3
107-06-2	98.96	1,2-Dichloroethane	ND	0.20	ppbv		ND	0.81	ug/m3
78-87-5	113	1,2-Dichloropropane	ND	0.20	ppbv		ND	0.92	ug/m3
123-91-1	88.12	1,4-Dioxane	ND	0.20	ppbv		ND	0.72	ug/m3
75-71-8	120.9	Dichlorodifluoromethane	0.38	0.20	ppbv		1.9	0.99	ug/m3
124-48-1	208.3	Dibromochloromethane	ND	0.10	ppbv		ND	0.85	ug/m3
156-60-5	96.94	trans-1,2-Dichloroethylene	ND	0.20	ppbv		ND	0.79	ug/m3
156-59-2	96.94	cis-1,2-Dichloroethylene	0.11	0.040	ppbv		0.44	0.16	ug/m3
10061-01-5	111	cis-1,3-Dichloropropene	ND	0.20	ppbv		ND	0.91	ug/m3
541-73-1	147	m-Dichlorobenzene	ND	0.10	ppbv		ND	0.60	ug/m3
95-50-1	147	o-Dichlorobenzene	ND	0.040	ppbv		ND	0.24	ug/m3
106-46-7	147	p-Dichlorobenzene	ND	0.10	ppbv		ND	0.60	ug/m3
10061-02-6	111	trans-1,3-Dichloropropene	ND	0.20	ppbv		ND	0.91	ug/m3

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	VP-6 SOIL VAPOR	Date Sampled:	12/07/21
Lab Sample ID:	JD36325-3	Date Received:	12/08/21
Matrix:	AIR - Soil Vapor Comp. Summa ID: A086	Percent Solids:	n/a
Method:	TO-15		
Project:	Orangeburg UB, Orangeburg, NY		

VOA TO15 List

CAS No.	MW	Compound	Result	RL	Units	Q	Result	RL	Units
64-17-5	46.07	Ethanol	143 ^a	2.0	ppbv		269 ^a	3.8	ug/m3
100-41-4	106.2	Ethylbenzene	ND	0.20	ppbv		ND	0.87	ug/m3
141-78-6	88	Ethyl Acetate	58.0 ^a	0.80	ppbv		209 ^a	2.9	ug/m3
622-96-8	120.19	4-Ethyltoluene	ND	0.20	ppbv		ND	0.98	ug/m3
76-13-1	187.4	Freon 113	ND	0.10	ppbv		ND	0.77	ug/m3
76-14-2	170.9	Freon 114	ND	0.10	ppbv		ND	0.70	ug/m3
142-82-5	100.2	Heptane	ND	0.20	ppbv		ND	0.82	ug/m3
87-68-3	260.8	Hexachlorobutadiene	ND	0.090	ppbv		ND	0.96	ug/m3
110-54-3	86.18	Hexane	0.32	0.20	ppbv		1.1	0.70	ug/m3
591-78-6	100	2-Hexanone	ND	0.20	ppbv		ND	0.82	ug/m3
67-63-0	60.1	Isopropyl Alcohol	49.6 ^a	0.80	ppbv		122 ^a	2.0	ug/m3
75-09-2	84.94	Methylene chloride	0.28	0.20	ppbv		0.97	0.69	ug/m3
78-93-3	72.11	Methyl ethyl ketone	0.61	0.20	ppbv		1.8	0.59	ug/m3
108-10-1	100.2	Methyl Isobutyl Ketone	0.39	0.20	ppbv		1.6	0.82	ug/m3
1634-04-4	88.15	Methyl Tert Butyl Ether	ND	0.20	ppbv		ND	0.72	ug/m3
80-62-6	100.12	Methylmethacrylate	ND	0.20	ppbv		ND	0.82	ug/m3
115-07-1	42	Propylene	ND	0.50	ppbv		ND	0.86	ug/m3
100-42-5	104.1	Styrene	ND	0.20	ppbv		ND	0.85	ug/m3
71-55-6	133.4	1,1,1-Trichloroethane	ND	0.10	ppbv		ND	0.55	ug/m3
79-34-5	167.85	1,1,2,2-Tetrachloroethane	ND	0.10	ppbv		ND	0.69	ug/m3
79-00-5	133.4	1,1,2-Trichloroethane	ND	0.10	ppbv		ND	0.55	ug/m3
120-82-1	181.5	1,2,4-Trichlorobenzene	ND	0.10	ppbv		ND	0.74	ug/m3
95-63-6	120.19	1,2,4-Trimethylbenzene	ND	0.20	ppbv		ND	0.98	ug/m3
108-67-8	120.19	1,3,5-Trimethylbenzene	ND	0.20	ppbv		ND	0.98	ug/m3
540-84-1	114.2	2,2,4-Trimethylpentane	ND	0.20	ppbv		ND	0.93	ug/m3
75-65-0	74.12	Tertiary Butyl Alcohol	0.37	0.20	ppbv		1.1	0.61	ug/m3
127-18-4	165.8	Tetrachloroethylene	1.4	0.040	ppbv		9.5	0.27	ug/m3
109-99-9	72.11	Tetrahydrofuran	ND	0.20	ppbv		ND	0.59	ug/m3
108-88-3	92.14	Toluene	1.3	0.20	ppbv		4.9	0.75	ug/m3
79-01-6	131.4	Trichloroethylene	0.38	0.040	ppbv		2.0	0.21	ug/m3
75-69-4	137.4	Trichlorofluoromethane	4.0	0.10	ppbv		22	0.56	ug/m3
75-01-4	62.5	Vinyl chloride	ND	0.040	ppbv		ND	0.10	ug/m3
108-05-4	86	Vinyl Acetate	0.82	0.20	ppbv		2.9	0.70	ug/m3
	106.2	m,p-Xylene	ND	0.20	ppbv		ND	0.87	ug/m3
95-47-6	106.2	o-Xylene	ND	0.20	ppbv		ND	0.87	ug/m3
1330-20-7	106.2	Xylenes (total)	ND	0.20	ppbv		ND	0.87	ug/m3

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	96%	96%	65-128%

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	VP-6 SOIL VAPOR			Date Sampled:	12/07/21
Lab Sample ID:	JD36325-3			Date Received:	12/08/21
Matrix:	AIR - Soil Vapor Comp. Summa ID: A086			Percent Solids:	n/a
Method:	TO-15				
Project:	Orangeburg UB, Orangeburg, NY				

VOA TO15 List

CAS No.	MW	Compound	Result	RL	Units	Q	Result	RL	Units

(a) Result is from Run# 2

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

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Client Sample ID:	VP-6 INDOOR		
Lab Sample ID:	JD36325-4		
Matrix:	AIR - Indoor Air Comp.	Summa ID: A1302	Date Sampled: 12/07/21
Method:	TO-15		Date Received: 12/08/21
Project:	Orangeburg UB, Orangeburg, NY		Percent Solids: n/a

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	5W46796.D	1	12/14/21 02:22	DFT	n/a	n/a	V5W1935
Run #2							

	Initial Volume
Run #1	500 ml
Run #2	

VOA TO15 List

CAS No.	MW	Compound	Result	RL	Units	Q	Result	RL	Units
67-64-1	58.08	Acetone (2-Propanone)	7.9	0.16	ppbv		19	0.38	ug/m3
106-99-0	54.09	1,3-Butadiene	ND	0.16	ppbv		ND	0.35	ug/m3
71-43-2	78.11	Benzene	0.19	0.16	ppbv		0.61	0.51	ug/m3
75-27-4	163.8	Bromodichloromethane	ND	0.080	ppbv		ND	0.54	ug/m3
75-25-2	252.8	Bromoform	ND	0.032	ppbv		ND	0.33	ug/m3
74-83-9	94.94	Bromomethane	ND	0.16	ppbv		ND	0.62	ug/m3
593-60-2	106.9	Bromoethene	ND	0.16	ppbv		ND	0.70	ug/m3
100-44-7	126	Benzyl Chloride	ND	0.16	ppbv		ND	0.82	ug/m3
75-15-0	76.14	Carbon disulfide	ND	0.16	ppbv		ND	0.50	ug/m3
108-90-7	112.6	Chlorobenzene	ND	0.16	ppbv		ND	0.74	ug/m3
75-00-3	64.52	Chloroethane	ND	0.16	ppbv		ND	0.42	ug/m3
67-66-3	119.4	Chloroform	ND	0.16	ppbv		ND	0.78	ug/m3
74-87-3	50.49	Chloromethane	0.47	0.16	ppbv		0.97	0.33	ug/m3
107-05-1	76.53	3-Chloropropene	ND	0.16	ppbv		ND	0.50	ug/m3
95-49-8	126.6	2-Chlorotoluene	ND	0.16	ppbv		ND	0.83	ug/m3
56-23-5	153.8	Carbon tetrachloride	0.078	0.032	ppbv		0.49	0.20	ug/m3
110-82-7	84.16	Cyclohexane	ND	0.16	ppbv		ND	0.55	ug/m3
75-34-3	98.96	1,1-Dichloroethane	ND	0.16	ppbv		ND	0.65	ug/m3
75-35-4	96.94	1,1-Dichloroethylene	ND	0.032	ppbv		ND	0.13	ug/m3
106-93-4	187.9	1,2-Dibromoethane (EDB)	ND	0.080	ppbv		ND	0.61	ug/m3
107-06-2	98.96	1,2-Dichloroethane	ND	0.16	ppbv		ND	0.65	ug/m3
78-87-5	113	1,2-Dichloropropane	ND	0.16	ppbv		ND	0.74	ug/m3
123-91-1	88.12	1,4-Dioxane	ND	0.16	ppbv		ND	0.58	ug/m3
75-71-8	120.9	Dichlorodifluoromethane	0.37	0.16	ppbv		1.8	0.79	ug/m3
124-48-1	208.3	Dibromochloromethane	ND	0.080	ppbv		ND	0.68	ug/m3
156-60-5	96.94	trans-1,2-Dichloroethylene	ND	0.16	ppbv		ND	0.63	ug/m3
156-59-2	96.94	cis-1,2-Dichloroethylene	0.096	0.032	ppbv		0.38	0.13	ug/m3
10061-01-5	111	cis-1,3-Dichloropropene	ND	0.16	ppbv		ND	0.73	ug/m3
541-73-1	147	m-Dichlorobenzene	ND	0.080	ppbv		ND	0.48	ug/m3
95-50-1	147	o-Dichlorobenzene	ND	0.032	ppbv		ND	0.19	ug/m3
106-46-7	147	p-Dichlorobenzene	ND	0.080	ppbv		ND	0.48	ug/m3
10061-02-6	111	trans-1,3-Dichloropropene	ND	0.16	ppbv		ND	0.73	ug/m3

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	VP-6 INDOOR	Date Sampled:	12/07/21
Lab Sample ID:	JD36325-4	Date Received:	12/08/21
Matrix:	AIR - Indoor Air Comp. Summa ID: A1302	Percent Solids:	n/a
Method:	TO-15		
Project:	Orangeburg UB, Orangeburg, NY		

VOA TO15 List

CAS No.	MW	Compound	Result	RL	Units	Q	Result	RL	Units
64-17-5	46.07	Ethanol	86.6	0.40	ppbv	E	163	0.75	ug/m3
100-41-4	106.2	Ethylbenzene	ND	0.16	ppbv		ND	0.69	ug/m3
141-78-6	88	Ethyl Acetate	1.9	0.16	ppbv		6.8	0.58	ug/m3
622-96-8	120.19	4-Ethyltoluene	ND	0.16	ppbv		ND	0.79	ug/m3
76-13-1	187.4	Freon 113	ND	0.080	ppbv		ND	0.61	ug/m3
76-14-2	170.9	Freon 114	ND	0.080	ppbv		ND	0.56	ug/m3
142-82-5	100.2	Heptane	ND	0.16	ppbv		ND	0.66	ug/m3
87-68-3	260.8	Hexachlorobutadiene	ND	0.072	ppbv		ND	0.77	ug/m3
110-54-3	86.18	Hexane	ND	0.16	ppbv		ND	0.56	ug/m3
591-78-6	100	2-Hexanone	ND	0.16	ppbv		ND	0.65	ug/m3
67-63-0	60.1	Isopropyl Alcohol	84.8	0.16	ppbv	E	208	0.39	ug/m3
75-09-2	84.94	Methylene chloride	0.26	0.16	ppbv		0.90	0.56	ug/m3
78-93-3	72.11	Methyl ethyl ketone	0.16	0.16	ppbv		0.47	0.47	ug/m3
108-10-1	100.2	Methyl Isobutyl Ketone	ND	0.16	ppbv		ND	0.66	ug/m3
1634-04-4	88.15	Methyl Tert Butyl Ether	ND	0.16	ppbv		ND	0.58	ug/m3
80-62-6	100.12	Methylmethacrylate	ND	0.16	ppbv		ND	0.66	ug/m3
115-07-1	42	Propylene	ND	0.40	ppbv		ND	0.69	ug/m3
100-42-5	104.1	Styrene	ND	0.16	ppbv		ND	0.68	ug/m3
71-55-6	133.4	1,1,1-Trichloroethane	ND	0.080	ppbv		ND	0.44	ug/m3
79-34-5	167.85	1,1,2,2-Tetrachloroethane	ND	0.080	ppbv		ND	0.55	ug/m3
79-00-5	133.4	1,1,2-Trichloroethane	ND	0.080	ppbv		ND	0.44	ug/m3
120-82-1	181.5	1,2,4-Trichlorobenzene	ND	0.080	ppbv		ND	0.59	ug/m3
95-63-6	120.19	1,2,4-Trimethylbenzene	ND	0.16	ppbv		ND	0.79	ug/m3
108-67-8	120.19	1,3,5-Trimethylbenzene	ND	0.16	ppbv		ND	0.79	ug/m3
540-84-1	114.2	2,2,4-Trimethylpentane	ND	0.16	ppbv		ND	0.75	ug/m3
75-65-0	74.12	Tertiary Butyl Alcohol	ND	0.16	ppbv		ND	0.49	ug/m3
127-18-4	165.8	Tetrachloroethylene	1.2	0.032	ppbv		8.1	0.22	ug/m3
109-99-9	72.11	Tetrahydrofuran	ND	0.16	ppbv		ND	0.47	ug/m3
108-88-3	92.14	Toluene	0.23	0.16	ppbv		0.87	0.60	ug/m3
79-01-6	131.4	Trichloroethylene	0.12	0.032	ppbv		0.64	0.17	ug/m3
75-69-4	137.4	Trichlorofluoromethane	0.28	0.080	ppbv		1.6	0.45	ug/m3
75-01-4	62.5	Vinyl chloride	ND	0.032	ppbv		ND	0.082	ug/m3
108-05-4	86	Vinyl Acetate	ND	0.16	ppbv		ND	0.56	ug/m3
	106.2	m,p-Xylene	ND	0.16	ppbv		ND	0.69	ug/m3
95-47-6	106.2	o-Xylene	ND	0.16	ppbv		ND	0.69	ug/m3
1330-20-7	106.2	Xylenes (total)	ND	0.16	ppbv		ND	0.69	ug/m3

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	96%		65-128%

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Page 1 of 2

Client Sample ID:	OUTSIDE AMBIENT		
Lab Sample ID:	JD36325-5	Date Sampled:	12/07/21
Matrix:	AIR - Ambient Air Comp.	Date Received:	12/08/21
Method:	TO-15	Percent Solids:	n/a
Project:	Orangeburg UB, Orangeburg, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	5W46797.D	1	12/14/21 03:20	DFT	n/a	n/a	V5W1935
Run #2							

	Initial Volume
Run #1	500 ml
Run #2	

VOA TO15 List

CAS No.	MW	Compound	Result	RL	Units	Q	Result	RL	Units
67-64-1	58.08	Acetone (2-Propanone)	2.3	0.16	ppbv		5.5	0.38	ug/m3
106-99-0	54.09	1,3-Butadiene	ND	0.16	ppbv		ND	0.35	ug/m3
71-43-2	78.11	Benzene	0.17	0.16	ppbv		0.54	0.51	ug/m3
75-27-4	163.8	Bromodichloromethane	ND	0.080	ppbv		ND	0.54	ug/m3
75-25-2	252.8	Bromoform	ND	0.032	ppbv		ND	0.33	ug/m3
74-83-9	94.94	Bromomethane	ND	0.16	ppbv		ND	0.62	ug/m3
593-60-2	106.9	Bromoethene	ND	0.16	ppbv		ND	0.70	ug/m3
100-44-7	126	Benzyl Chloride	ND	0.16	ppbv		ND	0.82	ug/m3
75-15-0	76.14	Carbon disulfide	ND	0.16	ppbv		ND	0.50	ug/m3
108-90-7	112.6	Chlorobenzene	ND	0.16	ppbv		ND	0.74	ug/m3
75-00-3	64.52	Chloroethane	ND	0.16	ppbv		ND	0.42	ug/m3
67-66-3	119.4	Chloroform	ND	0.16	ppbv		ND	0.78	ug/m3
74-87-3	50.49	Chloromethane	0.42	0.16	ppbv		0.87	0.33	ug/m3
107-05-1	76.53	3-Chloropropene	ND	0.16	ppbv		ND	0.50	ug/m3
95-49-8	126.6	2-Chlorotoluene	ND	0.16	ppbv		ND	0.83	ug/m3
56-23-5	153.8	Carbon tetrachloride	0.080	0.032	ppbv		0.50	0.20	ug/m3
110-82-7	84.16	Cyclohexane	ND	0.16	ppbv		ND	0.55	ug/m3
75-34-3	98.96	1,1-Dichloroethane	ND	0.16	ppbv		ND	0.65	ug/m3
75-35-4	96.94	1,1-Dichloroethylene	ND	0.032	ppbv		ND	0.13	ug/m3
106-93-4	187.9	1,2-Dibromoethane (EDB)	ND	0.080	ppbv		ND	0.61	ug/m3
107-06-2	98.96	1,2-Dichloroethane	ND	0.16	ppbv		ND	0.65	ug/m3
78-87-5	113	1,2-Dichloropropane	ND	0.16	ppbv		ND	0.74	ug/m3
123-91-1	88.12	1,4-Dioxane	ND	0.16	ppbv		ND	0.58	ug/m3
75-71-8	120.9	Dichlorodifluoromethane	0.38	0.16	ppbv		1.9	0.79	ug/m3
124-48-1	208.3	Dibromochloromethane	ND	0.080	ppbv		ND	0.68	ug/m3
156-60-5	96.94	trans-1,2-Dichloroethylene	ND	0.16	ppbv		ND	0.63	ug/m3
156-59-2	96.94	cis-1,2-Dichloroethylene	ND	0.032	ppbv		ND	0.13	ug/m3
10061-01-5	111	cis-1,3-Dichloropropene	ND	0.16	ppbv		ND	0.73	ug/m3
541-73-1	147	m-Dichlorobenzene	ND	0.080	ppbv		ND	0.48	ug/m3
95-50-1	147	o-Dichlorobenzene	ND	0.032	ppbv		ND	0.19	ug/m3
106-46-7	147	p-Dichlorobenzene	ND	0.080	ppbv		ND	0.48	ug/m3
10061-02-6	111	trans-1,3-Dichloropropene	ND	0.16	ppbv		ND	0.73	ug/m3

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	OUTSIDE AMBIENT	Date Sampled:	12/07/21
Lab Sample ID:	JD36325-5	Date Received:	12/08/21
Matrix:	AIR - Ambient Air Comp. Summa ID: A1305	Percent Solids:	n/a
Method:	TO-15		
Project:	Orangeburg UB, Orangeburg, NY		

VOA TO15 List

CAS No.	MW	Compound	Result	RL	Units	Q	Result	RL	Units
64-17-5	46.07	Ethanol	3.9	0.40	ppbv		7.3	0.75	ug/m3
100-41-4	106.2	Ethylbenzene	ND	0.16	ppbv		ND	0.69	ug/m3
141-78-6	88	Ethyl Acetate	0.84	0.16	ppbv		3.0	0.58	ug/m3
622-96-8	120.19	4-Ethyltoluene	ND	0.16	ppbv		ND	0.79	ug/m3
76-13-1	187.4	Freon 113	ND	0.080	ppbv		ND	0.61	ug/m3
76-14-2	170.9	Freon 114	ND	0.080	ppbv		ND	0.56	ug/m3
142-82-5	100.2	Heptane	ND	0.16	ppbv		ND	0.66	ug/m3
87-68-3	260.8	Hexachlorobutadiene	ND	0.072	ppbv		ND	0.77	ug/m3
110-54-3	86.18	Hexane	ND	0.16	ppbv		ND	0.56	ug/m3
591-78-6	100	2-Hexanone	ND	0.16	ppbv		ND	0.65	ug/m3
67-63-0	60.1	Isopropyl Alcohol	1.3	0.16	ppbv		3.2	0.39	ug/m3
75-09-2	84.94	Methylene chloride	0.20	0.16	ppbv		0.69	0.56	ug/m3
78-93-3	72.11	Methyl ethyl ketone	ND	0.16	ppbv		ND	0.47	ug/m3
108-10-1	100.2	Methyl Isobutyl Ketone	ND	0.16	ppbv		ND	0.66	ug/m3
1634-04-4	88.15	Methyl Tert Butyl Ether	ND	0.16	ppbv		ND	0.58	ug/m3
80-62-6	100.12	Methylmethacrylate	ND	0.16	ppbv		ND	0.66	ug/m3
115-07-1	42	Propylene	ND	0.40	ppbv		ND	0.69	ug/m3
100-42-5	104.1	Styrene	ND	0.16	ppbv		ND	0.68	ug/m3
71-55-6	133.4	1,1,1-Trichloroethane	ND	0.080	ppbv		ND	0.44	ug/m3
79-34-5	167.85	1,1,2,2-Tetrachloroethane	ND	0.080	ppbv		ND	0.55	ug/m3
79-00-5	133.4	1,1,2-Trichloroethane	ND	0.080	ppbv		ND	0.44	ug/m3
120-82-1	181.5	1,2,4-Trichlorobenzene	ND	0.080	ppbv		ND	0.59	ug/m3
95-63-6	120.19	1,2,4-Trimethylbenzene	ND	0.16	ppbv		ND	0.79	ug/m3
108-67-8	120.19	1,3,5-Trimethylbenzene	ND	0.16	ppbv		ND	0.79	ug/m3
540-84-1	114.2	2,2,4-Trimethylpentane	ND	0.16	ppbv		ND	0.75	ug/m3
75-65-0	74.12	Tertiary Butyl Alcohol	ND	0.16	ppbv		ND	0.49	ug/m3
127-18-4	165.8	Tetrachloroethylene	ND	0.032	ppbv		ND	0.22	ug/m3
109-99-9	72.11	Tetrahydrofuran	ND	0.16	ppbv		ND	0.47	ug/m3
108-88-3	92.14	Toluene	ND	0.16	ppbv		ND	0.60	ug/m3
79-01-6	131.4	Trichloroethylene	ND	0.032	ppbv		ND	0.17	ug/m3
75-69-4	137.4	Trichlorofluoromethane	0.26	0.080	ppbv		1.5	0.45	ug/m3
75-01-4	62.5	Vinyl chloride	ND	0.032	ppbv		ND	0.082	ug/m3
108-05-4	86	Vinyl Acetate	ND	0.16	ppbv		ND	0.56	ug/m3
	106.2	m,p-Xylene	ND	0.16	ppbv		ND	0.69	ug/m3
95-47-6	106.2	o-Xylene	ND	0.16	ppbv		ND	0.69	ug/m3
1330-20-7	106.2	Xylenes (total)	ND	0.16	ppbv		ND	0.69	ug/m3

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	94%		65-128%

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Misc. Forms

5

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody
- Summa Canister and Flow Controller Log
- Sample Tracking Chronicle
- Internal Chain of Custody

SGS North America Inc. - Dayton
2235 Route 130, Dayton, NJ 08810
TEL. 732-329-0200 FAX 732-329-3499
www.sgs.com/ehsusa

FED-EX Tracking #
5272 0636 6451
SGS Quote #

Boiler Order Control #	MM-111921-59
SGS Job #	JD 36325

Client / Project Information				Project Name: Larsen & Oransekun Stepping				Temperature (Fahrenheit) Start: 41 () Maximum: Minimum:				Requested Analysis UTAH'S NPL UTAH'S NPL														
Company Name: GSS				Street: 145 Wagon Wheel Rd																						
Address: 63 East Main St. Unit 3				City: Orderville																						
City: Pawling NY				State: NY				Zip: 12564																		
Phone #: 866-839-5195				E-mail: m.degler@sesonline.com				Project #: 1102783 / 02/210																		
Sample(s) Name(s): Rubeum				Client Purchase Order #				Atmospheric Pressure (inches of Hg) Start: 30.16 Maximum: Stop: 30.14 Minimum:																		
Other weather comment: Clear Skys																										
Lab Sample #		Field ID / Point of Collection	Air Type	Sampling Equipment Info		Start Sampling Information					Stop Sampling Information															
			Indoor (I) Soil Vap (SV) Ambient (A)	Canister Serial #	Canister Size 6L or 1L	Flow Controller Serial #	Date	Time (24hr clock)	Canister Pressure (*Hg)	Interior Temp (F)	Sampler Init.	Date	Time (24hr clock)	Canister Pressure (*Hg)	Interior Temp (F)	Sampler Init.										
1		UP-5 Soil Vapor	SV	A1329	6	FLC937	12-7-11	0800	>30	70	103	12-7-11	16:00	1.5	18	103	X									
2		UP-5 Indoor	I	A1329		FLC937		0801	>30	70			16:01	6.25	13		X									
3		UP-6 Soil Vapor	SV	A086		M4216		0805	>30	70			16:05	1.0	13		X									
4		UP-6 Indoor	I	A1329		FLC937		0806	30	70			16:06	5.0	13		X									
5		Outside Ambient	A	A1305		FLC207		0810	>30	41			16:10	6.25	40		X									
Turnaround Time (Business days)																	Data Deliverable Information					Comments / Remarks				
☒ Standard - 15 Days 10 Day _____ 5 Day _____ 3 Day _____ 2 Day _____ 1 Day _____ Other _____																	All NJDEP TO-15 is mandatory Full T1 Comm A _____ Comm B _____ Reduced T2 _____ Full T1 _____ Other: _____ DKQP reporting _____					Sent Lab Report to: Indoterra STHomas NE Resion e sesonline.com				
Sample Custody must be documented below each time samples change possession, including courier delivery.																										
Relinquished by Laboratory		Date Time:		Received By:		Date Time:		Relinquished by:		Date Time:		Received By:		Date Time:		Relinquished by:										
1 K. O'Neil		12/7/11		K. O'Neil		12-7-11		2 Rubeum		12-7-11		Rubeum		12-7-11		Rubeum										
3		12/7/11		3		12/7/11		4 Feltex		12/7/11		4		12/7/11		4										
5				5				Custody Seal #																		



AIR SAMPLING EQUIPMENT RETURN FORM

CLIENT: GES

PROJECT: Orangeburg

CONTROL# MM-111921-54

JOB # JD 36325

ADDITIONAL SUMMA CANISTERS

6 A1303

ADDITIONAL CONTROLLERS

FC929

RELINQUISHED BY: 1 <u>Feeler</u>	DATE & TIME: 11/08/12 11:10	RECEIVED BY: 2 <u>Permit Patel</u>	DATE & TIME:
RELINQUISHED BY: 3	DATE & TIME:	RECEIVED BY: 4	DATE & TIME:
CUSTODY SEAL #S:		# OF BOXES OR PIECES IN DELIVERY	

NOTES:

SM086-03
Pub date: 3/12/18

SGS Sample Receipt Summary

Job Number: JD36325

Client: GROUNDWATER & ENVIRONMENTAL S

Project: ORANGEBURG UB, ORANGEBURG, NY

Date / Time Received: 12/8/2021 11:10:00 AM

Delivery Method: _____

Airbill #'s: _____

Cooler Temps (Raw Measured) °C:

Cooler Temps (Corrected) °C:

Cooler Security

Y or N

1. Custody Seals Present:	☒	☐	3. COC Present:	☒	☐
2. Custody Seals Intact:	☒	☐	4. Smpl Dates/Time OK	☒	☐

Cooler Temperature

Y or N

1. Temp criteria achieved:	☐	☐
2. Cooler temp verification:	N/A	
3. Cooler media:	N/A	
4. No. Coolers:	N/A	

Quality Control Preservation

Y or N N/A

1. Trip Blank present / cooler:	☐	☐	☒
2. Trip Blank listed on COC:	☐	☐	☒
3. Samples preserved properly:	☒	☐	
4. VOCs headspace free:	☐	☐	☒

Sample Integrity - Documentation

Y or N

1. Sample labels present on bottles:	☒	☐
2. Container labeling complete:	☒	☐
3. Sample container label / COC agree:	☒	☐

Sample Integrity - Condition

Y or N

1. Sample recvd within HT:	☒	☐
2. All containers accounted for:	☒	☐
3. Condition of sample:	Intact	

Sample Integrity - Instructions

Y or N N/A

1. Analysis requested is clear:	☒	☐	
2. Bottles received for unspecified tests	☐	☒	
3. Sufficient volume recvd for analysis:	☒	☐	
4. Compositing instructions clear:	☐	☐	☒
5. Filtering instructions clear:	☐	☐	☒

Test Strip Lot #s: pH 1-12: 231619 pH 12+: 203117A Other: (Specify) _____

Comments

SM089-03
Rev. Date 12/7/17

JD36325: Chain of Custody

Page 3 of 3

Summa Canister and Flow Controller Log

Page 1 of 1

Job Number: JD36325
Account: GESNYP Groundwater & Environmental Services
Project: Orangeburg UB, Orangeburg, NY
Received: 12/08/21

SUMMA CANISTERS													
Shipping							Receiving						
Summa ID	L	Vac " Hg	Date Out	By	SCC Batch	SCC FileID	Sample Number	Date In	By	Vac " Hg	Pres psig	Final psig	Dil Fact
A1329	6	29.4	11/29/21	MJ	CP114062W55993.D		JD36325-1	12/10/21	SG	5.5			1
A1324	6	29.4	11/29/21	MJ	CP114062W55993.D		JD36325-2	12/10/21	SG	6.5			1
A086	6	29.4	11/29/21	MJ	CP114092W56011.D		JD36325-3	12/10/21	SG	4.5			1
A1302	6	29.4	11/29/21	MJ	CP114102W56079.D		JD36325-4	12/10/21	SG	6			1
A1305	6	29.4	11/29/21	MJ	CP114102W56079.D		JD36325-5	12/10/21	SG	4			1

FLOW CONTROLLERS / OTHER										
Shipping					Receiving					
Flow Ctrl ID	Date Out	By	cc/ min	Time hrs.	Date In	By	cc/ min	Flow RPD	Equipment Type	
FC131	11/29/21	MJ	10.9	8	12/09/21	MJ	11.6	6.2	Flow Controller	
FC196	11/29/21	MJ	10.8	8	12/09/21	MJ	10.8	0	Flow Controller	
FC227	11/29/21	MJ	10.9	8	12/09/21	MJ	11	0.9	Flow Controller	
FC437	11/29/21	MJ	10.9	8	12/09/21	MJ	10.8	0.9	Flow Controller	
FC929	11/29/21	MJ	10.7	8	12/09/21	MJ	11	2.8	Flow Controller	
MC216	11/29/21	MJ	11	8	12/09/21	MJ	11.7	6.2	Flow Controller	

SGS Bottle Order(s):

MM-111921-59

Prep Date 11/29/21 **Room Temp(F)** 70 **Bar Pres "Hg** 29.92

Internal Sample Tracking Chronicle

Groundwater & Environmental Services

Job No: JD36325

Orangeburg UB, Orangeburg, NY

Project No: 1102783/02/210

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
JD36325-1 Collected: 07-DEC-21 16:00 By: RB Received: 08-DEC-21 By: JP VP-5 SOIL VAPOR						
JD36325-1	TO-15	14-DEC-21 04:16	DFT			VTO15NYSVLL
JD36325-1	TO-15	14-DEC-21 16:34	DFT			VTO15NYSVLL
JD36325-2 Collected: 07-DEC-21 16:01 By: RB Received: 08-DEC-21 By: JP VP-5 INDOOR						
JD36325-2	TO-15	14-DEC-21 01:25	DFT			VTO15NYLL
JD36325-3 Collected: 07-DEC-21 16:05 By: RB Received: 08-DEC-21 By: JP VP-6 SOIL VAPOR						
JD36325-3	TO-15	14-DEC-21 05:11	DFT			VTO15NYSVLL
JD36325-3	TO-15	14-DEC-21 17:23	DFT			VTO15NYSVLL
JD36325-4 Collected: 07-DEC-21 16:06 By: RB Received: 08-DEC-21 By: JP VP-6 INDOOR						
JD36325-4	TO-15	14-DEC-21 02:22	DFT			VTO15NYLL
JD36325-5 Collected: 07-DEC-21 16:10 By: RB Received: 08-DEC-21 By: JP OUTSIDE AMBIENT						
JD36325-5	TO-15	14-DEC-21 03:20	DFT			VTO15NYLL

SGS Internal Chain of Custody

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Job Number: JD36325
Account: GESNYP Groundwater & Environmental Services
Project: Orangeburg UB, Orangeburg, NY
Received: 12/08/21

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JD36325-1.1	James Kwon	Air Storage	12/08/21 17:27	Return to Storage
JD36325-1.2	James Kwon	Air Storage	12/08/21 17:27	Return to Storage
JD36325-2.1	James Kwon	Air Storage	12/08/21 17:27	Return to Storage
JD36325-2.2	James Kwon	Air Storage	12/08/21 17:27	Return to Storage
JD36325-3.1	James Kwon	Air Storage	12/08/21 17:27	Return to Storage
JD36325-3.2	James Kwon	Air Storage	12/08/21 17:27	Return to Storage
JD36325-4.1	James Kwon	Air Storage	12/08/21 17:27	Return to Storage
JD36325-4.2	James Kwon	Air Storage	12/08/21 17:27	Return to Storage
JD36325-5.1	James Kwon	Air Storage	12/08/21 17:27	Return to Storage
JD36325-5.2	James Kwon	Air Storage	12/08/21 17:27	Return to Storage

5.4

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MS Volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Instrument Performance Checks (BFB)
- Internal Standard Area Summaries
- Initial Calibration RT/ISTD Area Summaries
- Surrogate Recovery Summaries
- Initial and Continuing Calibration Summaries
- Run Sequence Reports

Method Blank Summary**Job Number:** JD36325**Account:** GESNYP Groundwater & Environmental Services**Project:** Orangeburg UB, Orangeburg, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V5W1935-MB	5W46781.D	1	12/13/21	DFT	n/a	n/a	V5W1935

The QC reported here applies to the following samples:**Method:** TO-15

JD36325-1, JD36325-2, JD36325-3, JD36325-4, JD36325-5

CAS No.	Compound	Result	RL	Units	Q	Result	RL	Units
67-64-1	Acetone (2-Propanone)	ND	0.20	ppbv		ND	0.48	ug/m3
106-99-0	1,3-Butadiene	ND	0.20	ppbv		ND	0.44	ug/m3
71-43-2	Benzene	ND	0.20	ppbv		ND	0.64	ug/m3
75-27-4	Bromodichloromethane	ND	0.20	ppbv		ND	1.3	ug/m3
75-25-2	Bromoform	ND	0.20	ppbv		ND	2.1	ug/m3
74-83-9	Bromomethane	ND	0.20	ppbv		ND	0.78	ug/m3
593-60-2	Bromoethene	ND	0.20	ppbv		ND	0.87	ug/m3
100-44-7	Benzyl Chloride	ND	0.20	ppbv		ND	1.0	ug/m3
75-15-0	Carbon disulfide	ND	0.20	ppbv		ND	0.62	ug/m3
108-90-7	Chlorobenzene	ND	0.20	ppbv		ND	0.92	ug/m3
75-00-3	Chloroethane	ND	0.20	ppbv		ND	0.53	ug/m3
67-66-3	Chloroform	ND	0.20	ppbv		ND	0.98	ug/m3
74-87-3	Chloromethane	ND	0.20	ppbv		ND	0.41	ug/m3
107-05-1	3-Chloropropene	ND	0.20	ppbv		ND	0.63	ug/m3
95-49-8	2-Chlorotoluene	ND	0.20	ppbv		ND	1.0	ug/m3
56-23-5	Carbon tetrachloride	ND	0.20	ppbv		ND	1.3	ug/m3
110-82-7	Cyclohexane	ND	0.20	ppbv		ND	0.69	ug/m3
75-34-3	1,1-Dichloroethane	ND	0.20	ppbv		ND	0.81	ug/m3
75-35-4	1,1-Dichloroethylene	ND	0.20	ppbv		ND	0.79	ug/m3
106-93-4	1,2-Dibromoethane (EDB)	ND	0.20	ppbv		ND	1.5	ug/m3
107-06-2	1,2-Dichloroethane	ND	0.20	ppbv		ND	0.81	ug/m3
78-87-5	1,2-Dichloropropane	ND	0.20	ppbv		ND	0.92	ug/m3
123-91-1	1,4-Dioxane	ND	0.20	ppbv		ND	0.72	ug/m3
75-71-8	Dichlorodifluoromethane	ND	0.20	ppbv		ND	0.99	ug/m3
124-48-1	Dibromochloromethane	ND	0.20	ppbv		ND	1.7	ug/m3
156-60-5	trans-1,2-Dichloroethylene	ND	0.20	ppbv		ND	0.79	ug/m3
156-59-2	cis-1,2-Dichloroethylene	ND	0.20	ppbv		ND	0.79	ug/m3
10061-01-5	cis-1,3-Dichloropropene	ND	0.20	ppbv		ND	0.91	ug/m3
541-73-1	m-Dichlorobenzene	ND	0.20	ppbv		ND	1.2	ug/m3
95-50-1	o-Dichlorobenzene	ND	0.20	ppbv		ND	1.2	ug/m3
106-46-7	p-Dichlorobenzene	ND	0.20	ppbv		ND	1.2	ug/m3
10061-02-6	trans-1,3-Dichloropropene	ND	0.20	ppbv		ND	0.91	ug/m3
64-17-5	Ethanol	ND	0.50	ppbv		ND	0.94	ug/m3
100-41-4	Ethylbenzene	ND	0.20	ppbv		ND	0.87	ug/m3
141-78-6	Ethyl Acetate	ND	0.20	ppbv		ND	0.72	ug/m3
622-96-8	4-Ethyltoluene	ND	0.20	ppbv		ND	0.98	ug/m3

Method Blank Summary

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Job Number: JD36325**Account:** GESNYP Groundwater & Environmental Services**Project:** Orangeburg UB, Orangeburg, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V5W1935-MB	5W46781.D	1	12/13/21	DFT	n/a	n/a	V5W1935

The QC reported here applies to the following samples:**Method:** TO-15

JD36325-1, JD36325-2, JD36325-3, JD36325-4, JD36325-5

CAS No.	Compound	Result	RL	Units	Q	Result	RL	Units
76-13-1	Freon 113	ND	0.20	ppbv		ND	1.5	ug/m3
76-14-2	Freon 114	ND	0.20	ppbv		ND	1.4	ug/m3
142-82-5	Heptane	ND	0.20	ppbv		ND	0.82	ug/m3
87-68-3	Hexachlorobutadiene	ND	0.20	ppbv		ND	2.1	ug/m3
110-54-3	Hexane	ND	0.20	ppbv		ND	0.70	ug/m3
591-78-6	2-Hexanone	ND	0.20	ppbv		ND	0.82	ug/m3
67-63-0	Isopropyl Alcohol	ND	0.20	ppbv		ND	0.49	ug/m3
75-09-2	Methylene chloride	ND	0.20	ppbv		ND	0.69	ug/m3
78-93-3	Methyl ethyl ketone	ND	0.20	ppbv		ND	0.59	ug/m3
108-10-1	Methyl Isobutyl Ketone	ND	0.20	ppbv		ND	0.82	ug/m3
1634-04-4	Methyl Tert Butyl Ether	ND	0.20	ppbv		ND	0.72	ug/m3
80-62-6	Methylmethacrylate	ND	0.20	ppbv		ND	0.82	ug/m3
115-07-1	Propylene	ND	0.50	ppbv		ND	0.86	ug/m3
100-42-5	Styrene	ND	0.20	ppbv		ND	0.85	ug/m3
71-55-6	1,1,1-Trichloroethane	ND	0.20	ppbv		ND	1.1	ug/m3
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.20	ppbv		ND	1.4	ug/m3
79-00-5	1,1,2-Trichloroethane	ND	0.20	ppbv		ND	1.1	ug/m3
120-82-1	1,2,4-Trichlorobenzene	ND	0.20	ppbv		ND	1.5	ug/m3
95-63-6	1,2,4-Trimethylbenzene	ND	0.20	ppbv		ND	0.98	ug/m3
108-67-8	1,3,5-Trimethylbenzene	ND	0.20	ppbv		ND	0.98	ug/m3
540-84-1	2,2,4-Trimethylpentane	ND	0.20	ppbv		ND	0.93	ug/m3
75-65-0	Tertiary Butyl Alcohol	ND	0.20	ppbv		ND	0.61	ug/m3
127-18-4	Tetrachloroethylene	ND	0.040	ppbv		ND	0.27	ug/m3
109-99-9	Tetrahydrofuran	ND	0.20	ppbv		ND	0.59	ug/m3
108-88-3	Toluene	ND	0.20	ppbv		ND	0.75	ug/m3
79-01-6	Trichloroethylene	ND	0.040	ppbv		ND	0.21	ug/m3
75-69-4	Trichlorofluoromethane	ND	0.20	ppbv		ND	1.1	ug/m3
75-01-4	Vinyl chloride	ND	0.20	ppbv		ND	0.51	ug/m3
108-05-4	Vinyl Acetate	ND	0.20	ppbv		ND	0.70	ug/m3
	m,p-Xylene	ND	0.20	ppbv		ND	0.87	ug/m3
95-47-6	o-Xylene	ND	0.20	ppbv		ND	0.87	ug/m3
1330-20-7	Xylenes (total)	ND	0.20	ppbv		ND	0.87	ug/m3

Method Blank Summary

Job Number: JD36325
Account: GESNYP Groundwater & Environmental Services
Project: Orangeburg UB, Orangeburg, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V5W1935-MB	5W46781.D	1	12/13/21	DFT	n/a	n/a	V5W1935

The QC reported here applies to the following samples: Method: TO-15
JD36325-1, JD36325-2, JD36325-3, JD36325-4, JD36325-5

CAS No.	Surrogate Recoveries	Limits
460-00-4	4-Bromofluorobenzene	93% 65-128%

6.1.1
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Method Blank Summary

Job Number: JD36325
Account: GESNYP Groundwater & Environmental Services
Project: Orangeburg UB, Orangeburg, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V5W1936-MB	5W46808.D	1	12/14/21	DFT	n/a	n/a	V5W1936

The QC reported here applies to the following samples: Method: TO-15

JD36325-1, JD36325-3

CAS No.	Compound	Result	RL	Units	Q	Result	RL	Units
64-17-5	Ethanol	ND	0.50	ppbv		ND	0.94	ug/m3
141-78-6	Ethyl Acetate	ND	0.20	ppbv		ND	0.72	ug/m3
67-63-0	Isopropyl Alcohol	ND	0.20	ppbv		ND	0.49	ug/m3

CAS No.	Surrogate Recoveries	Limits
460-00-4	4-Bromofluorobenzene	95% 65-128%

Method Blank Summary

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Job Number: JD36325

Account: GESNYP Groundwater & Environmental Services

Project: Orangeburg UB, Orangeburg, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V2W2494-MB	2W55985.D	1	11/01/21	TCH	n/a	n/a	V2W2494

The QC reported here applies to the following samples:

Method: TO-15

V2W2494-SCC

CAS No.	Compound	Result	RL	Units	Q	Result	RL	Units
67-64-1	Acetone (2-Propanone)	ND	0.20	ppbv		ND	0.48	ug/m3
106-99-0	1,3-Butadiene	ND	0.20	ppbv		ND	0.44	ug/m3
71-43-2	Benzene	ND	0.20	ppbv		ND	0.64	ug/m3
75-27-4	Bromodichloromethane	ND	0.20	ppbv		ND	1.3	ug/m3
75-25-2	Bromoform	ND	0.20	ppbv		ND	2.1	ug/m3
74-83-9	Bromomethane	ND	0.20	ppbv		ND	0.78	ug/m3
593-60-2	Bromoethene	ND	0.20	ppbv		ND	0.87	ug/m3
100-44-7	Benzyl Chloride	ND	0.20	ppbv		ND	1.0	ug/m3
75-15-0	Carbon disulfide	ND	0.20	ppbv		ND	0.62	ug/m3
108-90-7	Chlorobenzene	ND	0.20	ppbv		ND	0.92	ug/m3
75-00-3	Chloroethane	ND	0.20	ppbv		ND	0.53	ug/m3
67-66-3	Chloroform	ND	0.20	ppbv		ND	0.98	ug/m3
74-87-3	Chloromethane	ND	0.20	ppbv		ND	0.41	ug/m3
107-05-1	3-Chloropropene	ND	0.20	ppbv		ND	0.63	ug/m3
95-49-8	2-Chlorotoluene	ND	0.20	ppbv		ND	1.0	ug/m3
56-23-5	Carbon tetrachloride	ND	0.20	ppbv		ND	1.3	ug/m3
110-82-7	Cyclohexane	ND	0.20	ppbv		ND	0.69	ug/m3
75-34-3	1,1-Dichloroethane	ND	0.20	ppbv		ND	0.81	ug/m3
75-35-4	1,1-Dichloroethylene	ND	0.20	ppbv		ND	0.79	ug/m3
106-93-4	1,2-Dibromoethane (EDB)	ND	0.20	ppbv		ND	1.5	ug/m3
107-06-2	1,2-Dichloroethane	ND	0.20	ppbv		ND	0.81	ug/m3
78-87-5	1,2-Dichloropropane	ND	0.20	ppbv		ND	0.92	ug/m3
123-91-1	1,4-Dioxane	ND	0.20	ppbv		ND	0.72	ug/m3
75-71-8	Dichlorodifluoromethane	ND	0.20	ppbv		ND	0.99	ug/m3
124-48-1	Dibromochloromethane	ND	0.20	ppbv		ND	1.7	ug/m3
156-60-5	trans-1,2-Dichloroethylene	ND	0.20	ppbv		ND	0.79	ug/m3
156-59-2	cis-1,2-Dichloroethylene	ND	0.20	ppbv		ND	0.79	ug/m3
10061-01-5	cis-1,3-Dichloropropene	ND	0.20	ppbv		ND	0.91	ug/m3
541-73-1	m-Dichlorobenzene	ND	0.20	ppbv		ND	1.2	ug/m3
95-50-1	o-Dichlorobenzene	ND	0.20	ppbv		ND	1.2	ug/m3
106-46-7	p-Dichlorobenzene	ND	0.20	ppbv		ND	1.2	ug/m3
10061-02-6	trans-1,3-Dichloropropene	ND	0.20	ppbv		ND	0.91	ug/m3
64-17-5	Ethanol	ND	0.50	ppbv		ND	0.94	ug/m3
100-41-4	Ethylbenzene	ND	0.20	ppbv		ND	0.87	ug/m3
141-78-6	Ethyl Acetate	ND	0.20	ppbv		ND	0.72	ug/m3
622-96-8	4-Ethyltoluene	ND	0.20	ppbv		ND	0.98	ug/m3

Method Blank Summary

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Job Number: JD36325**Account:** GESNYP Groundwater & Environmental Services**Project:** Orangeburg UB, Orangeburg, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V2W2494-MB	2W55985.D	1	11/01/21	TCH	n/a	n/a	V2W2494

The QC reported here applies to the following samples:**Method:** TO-15

V2W2494-SCC

CAS No.	Compound	Result	RL	Units	Q	Result	RL	Units
76-13-1	Freon 113	ND	0.20	ppbv		ND	1.5	ug/m3
76-14-2	Freon 114	ND	0.20	ppbv		ND	1.4	ug/m3
142-82-5	Heptane	ND	0.20	ppbv		ND	0.82	ug/m3
87-68-3	Hexachlorobutadiene	ND	0.20	ppbv		ND	2.1	ug/m3
110-54-3	Hexane	ND	0.20	ppbv		ND	0.70	ug/m3
591-78-6	2-Hexanone	ND	0.20	ppbv		ND	0.82	ug/m3
67-63-0	Isopropyl Alcohol	ND	0.20	ppbv		ND	0.49	ug/m3
75-09-2	Methylene chloride	ND	0.20	ppbv		ND	0.69	ug/m3
78-93-3	Methyl ethyl ketone	ND	0.20	ppbv		ND	0.59	ug/m3
108-10-1	Methyl Isobutyl Ketone	ND	0.20	ppbv		ND	0.82	ug/m3
1634-04-4	Methyl Tert Butyl Ether	ND	0.20	ppbv		ND	0.72	ug/m3
80-62-6	Methylmethacrylate	ND	0.20	ppbv		ND	0.82	ug/m3
115-07-1	Propylene	ND	0.50	ppbv		ND	0.86	ug/m3
100-42-5	Styrene	ND	0.20	ppbv		ND	0.85	ug/m3
71-55-6	1,1,1-Trichloroethane	ND	0.20	ppbv		ND	1.1	ug/m3
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.20	ppbv		ND	1.4	ug/m3
79-00-5	1,1,2-Trichloroethane	ND	0.20	ppbv		ND	1.1	ug/m3
120-82-1	1,2,4-Trichlorobenzene	ND	0.20	ppbv		ND	1.5	ug/m3
95-63-6	1,2,4-Trimethylbenzene	ND	0.20	ppbv		ND	0.98	ug/m3
108-67-8	1,3,5-Trimethylbenzene	ND	0.20	ppbv		ND	0.98	ug/m3
540-84-1	2,2,4-Trimethylpentane	ND	0.20	ppbv		ND	0.93	ug/m3
75-65-0	Tertiary Butyl Alcohol	ND	0.20	ppbv		ND	0.61	ug/m3
127-18-4	Tetrachloroethylene	ND	0.040	ppbv		ND	0.27	ug/m3
109-99-9	Tetrahydrofuran	ND	0.20	ppbv		ND	0.59	ug/m3
108-88-3	Toluene	ND	0.20	ppbv		ND	0.75	ug/m3
79-01-6	Trichloroethylene	ND	0.040	ppbv		ND	0.21	ug/m3
75-69-4	Trichlorofluoromethane	ND	0.20	ppbv		ND	1.1	ug/m3
75-01-4	Vinyl chloride	ND	0.20	ppbv		ND	0.51	ug/m3
108-05-4	Vinyl Acetate	ND	0.20	ppbv		ND	0.70	ug/m3
	m,p-Xylene	ND	0.20	ppbv		ND	0.87	ug/m3
95-47-6	o-Xylene	ND	0.20	ppbv		ND	0.87	ug/m3
1330-20-7	Xylenes (total)	ND	0.20	ppbv		ND	0.87	ug/m3

Method Blank Summary

Job Number: JD36325
Account: GESNYP Groundwater & Environmental Services
Project: Orangeburg UB, Orangeburg, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V2W2494-MB	2W55985.D	1	11/01/21	TCH	n/a	n/a	V2W2494

The QC reported here applies to the following samples: Method: TO-15

V2W2494-SCC

CAS No.	Surrogate Recoveries	Limits
460-00-4	4-Bromofluorobenzene	92% 65-128%

Method Blank Summary

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Job Number: JD36325

Account: GESNYP Groundwater & Environmental Services

Project: Orangeburg UB, Orangeburg, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V2W2495-MB	2W56010.D	1	11/02/21	TCH	n/a	n/a	V2W2495

The QC reported here applies to the following samples:

Method: TO-15

V2W2495-SCC

CAS No.	Compound	Result	RL	Units	Q	Result	RL	Units
67-64-1	Acetone (2-Propanone)	ND	0.20	ppbv		ND	0.48	ug/m3
106-99-0	1,3-Butadiene	ND	0.20	ppbv		ND	0.44	ug/m3
71-43-2	Benzene	ND	0.20	ppbv		ND	0.64	ug/m3
75-27-4	Bromodichloromethane	ND	0.20	ppbv		ND	1.3	ug/m3
75-25-2	Bromoform	ND	0.20	ppbv		ND	2.1	ug/m3
74-83-9	Bromomethane	ND	0.20	ppbv		ND	0.78	ug/m3
593-60-2	Bromoethene	ND	0.20	ppbv		ND	0.87	ug/m3
100-44-7	Benzyl Chloride	ND	0.20	ppbv		ND	1.0	ug/m3
75-15-0	Carbon disulfide	ND	0.20	ppbv		ND	0.62	ug/m3
108-90-7	Chlorobenzene	ND	0.20	ppbv		ND	0.92	ug/m3
75-00-3	Chloroethane	ND	0.20	ppbv		ND	0.53	ug/m3
67-66-3	Chloroform	ND	0.20	ppbv		ND	0.98	ug/m3
74-87-3	Chloromethane	ND	0.20	ppbv		ND	0.41	ug/m3
107-05-1	3-Chloropropene	ND	0.20	ppbv		ND	0.63	ug/m3
95-49-8	2-Chlorotoluene	ND	0.20	ppbv		ND	1.0	ug/m3
56-23-5	Carbon tetrachloride	ND	0.20	ppbv		ND	1.3	ug/m3
110-82-7	Cyclohexane	ND	0.20	ppbv		ND	0.69	ug/m3
75-34-3	1,1-Dichloroethane	ND	0.20	ppbv		ND	0.81	ug/m3
75-35-4	1,1-Dichloroethylene	ND	0.20	ppbv		ND	0.79	ug/m3
106-93-4	1,2-Dibromoethane (EDB)	ND	0.20	ppbv		ND	1.5	ug/m3
107-06-2	1,2-Dichloroethane	ND	0.20	ppbv		ND	0.81	ug/m3
78-87-5	1,2-Dichloropropane	ND	0.20	ppbv		ND	0.92	ug/m3
123-91-1	1,4-Dioxane	ND	0.20	ppbv		ND	0.72	ug/m3
75-71-8	Dichlorodifluoromethane	ND	0.20	ppbv		ND	0.99	ug/m3
124-48-1	Dibromochloromethane	ND	0.20	ppbv		ND	1.7	ug/m3
156-60-5	trans-1,2-Dichloroethylene	ND	0.20	ppbv		ND	0.79	ug/m3
156-59-2	cis-1,2-Dichloroethylene	ND	0.20	ppbv		ND	0.79	ug/m3
10061-01-5	cis-1,3-Dichloropropene	ND	0.20	ppbv		ND	0.91	ug/m3
541-73-1	m-Dichlorobenzene	ND	0.20	ppbv		ND	1.2	ug/m3
95-50-1	o-Dichlorobenzene	ND	0.20	ppbv		ND	1.2	ug/m3
106-46-7	p-Dichlorobenzene	ND	0.20	ppbv		ND	1.2	ug/m3
10061-02-6	trans-1,3-Dichloropropene	ND	0.20	ppbv		ND	0.91	ug/m3
64-17-5	Ethanol	ND	0.50	ppbv		ND	0.94	ug/m3
100-41-4	Ethylbenzene	ND	0.20	ppbv		ND	0.87	ug/m3
141-78-6	Ethyl Acetate	ND	0.20	ppbv		ND	0.72	ug/m3
622-96-8	4-Ethyltoluene	ND	0.20	ppbv		ND	0.98	ug/m3

Method Blank Summary

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Job Number: JD36325**Account:** GESNYP Groundwater & Environmental Services**Project:** Orangeburg UB, Orangeburg, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V2W2495-MB	2W56010.D	1	11/02/21	TCH	n/a	n/a	V2W2495

The QC reported here applies to the following samples:**Method:** TO-15

V2W2495-SCC

CAS No.	Compound	Result	RL	Units	Q	Result	RL	Units
76-13-1	Freon 113	ND	0.20	ppbv		ND	1.5	ug/m3
76-14-2	Freon 114	ND	0.20	ppbv		ND	1.4	ug/m3
142-82-5	Heptane	ND	0.20	ppbv		ND	0.82	ug/m3
87-68-3	Hexachlorobutadiene	ND	0.20	ppbv		ND	2.1	ug/m3
110-54-3	Hexane	ND	0.20	ppbv		ND	0.70	ug/m3
591-78-6	2-Hexanone	ND	0.20	ppbv		ND	0.82	ug/m3
67-63-0	Isopropyl Alcohol	ND	0.20	ppbv		ND	0.49	ug/m3
75-09-2	Methylene chloride	ND	0.20	ppbv		ND	0.69	ug/m3
78-93-3	Methyl ethyl ketone	ND	0.20	ppbv		ND	0.59	ug/m3
108-10-1	Methyl Isobutyl Ketone	ND	0.20	ppbv		ND	0.82	ug/m3
1634-04-4	Methyl Tert Butyl Ether	ND	0.20	ppbv		ND	0.72	ug/m3
80-62-6	Methylmethacrylate	ND	0.20	ppbv		ND	0.82	ug/m3
115-07-1	Propylene	ND	0.50	ppbv		ND	0.86	ug/m3
100-42-5	Styrene	ND	0.20	ppbv		ND	0.85	ug/m3
71-55-6	1,1,1-Trichloroethane	ND	0.20	ppbv		ND	1.1	ug/m3
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.20	ppbv		ND	1.4	ug/m3
79-00-5	1,1,2-Trichloroethane	ND	0.20	ppbv		ND	1.1	ug/m3
120-82-1	1,2,4-Trichlorobenzene	ND	0.20	ppbv		ND	1.5	ug/m3
95-63-6	1,2,4-Trimethylbenzene	ND	0.20	ppbv		ND	0.98	ug/m3
108-67-8	1,3,5-Trimethylbenzene	ND	0.20	ppbv		ND	0.98	ug/m3
540-84-1	2,2,4-Trimethylpentane	ND	0.20	ppbv		ND	0.93	ug/m3
75-65-0	Tertiary Butyl Alcohol	ND	0.20	ppbv		ND	0.61	ug/m3
127-18-4	Tetrachloroethylene	ND	0.040	ppbv		ND	0.27	ug/m3
109-99-9	Tetrahydrofuran	ND	0.20	ppbv		ND	0.59	ug/m3
108-88-3	Toluene	ND	0.20	ppbv		ND	0.75	ug/m3
79-01-6	Trichloroethylene	ND	0.040	ppbv		ND	0.21	ug/m3
75-69-4	Trichlorofluoromethane	ND	0.20	ppbv		ND	1.1	ug/m3
75-01-4	Vinyl chloride	ND	0.20	ppbv		ND	0.51	ug/m3
108-05-4	Vinyl Acetate	ND	0.20	ppbv		ND	0.70	ug/m3
	m,p-Xylene	ND	0.20	ppbv		ND	0.87	ug/m3
95-47-6	o-Xylene	ND	0.20	ppbv		ND	0.87	ug/m3
1330-20-7	Xylenes (total)	ND	0.20	ppbv		ND	0.87	ug/m3

Method Blank Summary

Job Number: JD36325
Account: GESNYP Groundwater & Environmental Services
Project: Orangeburg UB, Orangeburg, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V2W2495-MB	2W56010.D	1	11/02/21	TCH	n/a	n/a	V2W2495

The QC reported here applies to the following samples: Method: TO-15

V2W2495-SCC

CAS No.	Surrogate Recoveries	Limits
460-00-4	4-Bromofluorobenzene	93% 65-128%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
124-38-9	Carbon dioxide	1.80	20	ppbv	JN
	Total TIC, Volatile		0	ppbv	

Method Blank Summary

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Job Number: JD36325

Account: GESNYP Groundwater & Environmental Services

Project: Orangeburg UB, Orangeburg, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V2W2497-MB	2W56058.D	1	11/04/21	TCH	n/a	n/a	V2W2497

The QC reported here applies to the following samples:

Method: TO-15

V2W2497-SCC

CAS No.	Compound	Result	RL	Units	Q	Result	RL	Units
67-64-1	Acetone (2-Propanone)	ND	0.20	ppbv		ND	0.48	ug/m3
106-99-0	1,3-Butadiene	ND	0.20	ppbv		ND	0.44	ug/m3
71-43-2	Benzene	ND	0.20	ppbv		ND	0.64	ug/m3
75-27-4	Bromodichloromethane	ND	0.20	ppbv		ND	1.3	ug/m3
75-25-2	Bromoform	ND	0.20	ppbv		ND	2.1	ug/m3
74-83-9	Bromomethane	ND	0.20	ppbv		ND	0.78	ug/m3
593-60-2	Bromoethene	ND	0.20	ppbv		ND	0.87	ug/m3
100-44-7	Benzyl Chloride	ND	0.20	ppbv		ND	1.0	ug/m3
75-15-0	Carbon disulfide	ND	0.20	ppbv		ND	0.62	ug/m3
108-90-7	Chlorobenzene	ND	0.20	ppbv		ND	0.92	ug/m3
75-00-3	Chloroethane	ND	0.20	ppbv		ND	0.53	ug/m3
67-66-3	Chloroform	ND	0.20	ppbv		ND	0.98	ug/m3
74-87-3	Chloromethane	ND	0.20	ppbv		ND	0.41	ug/m3
107-05-1	3-Chloropropene	ND	0.20	ppbv		ND	0.63	ug/m3
95-49-8	2-Chlorotoluene	ND	0.20	ppbv		ND	1.0	ug/m3
56-23-5	Carbon tetrachloride	ND	0.20	ppbv		ND	1.3	ug/m3
110-82-7	Cyclohexane	ND	0.20	ppbv		ND	0.69	ug/m3
75-34-3	1,1-Dichloroethane	ND	0.20	ppbv		ND	0.81	ug/m3
75-35-4	1,1-Dichloroethylene	ND	0.20	ppbv		ND	0.79	ug/m3
106-93-4	1,2-Dibromoethane (EDB)	ND	0.20	ppbv		ND	1.5	ug/m3
107-06-2	1,2-Dichloroethane	ND	0.20	ppbv		ND	0.81	ug/m3
78-87-5	1,2-Dichloropropane	ND	0.20	ppbv		ND	0.92	ug/m3
123-91-1	1,4-Dioxane	ND	0.20	ppbv		ND	0.72	ug/m3
75-71-8	Dichlorodifluoromethane	ND	0.20	ppbv		ND	0.99	ug/m3
124-48-1	Dibromochloromethane	ND	0.20	ppbv		ND	1.7	ug/m3
156-60-5	trans-1,2-Dichloroethylene	ND	0.20	ppbv		ND	0.79	ug/m3
156-59-2	cis-1,2-Dichloroethylene	ND	0.20	ppbv		ND	0.79	ug/m3
10061-01-5	cis-1,3-Dichloropropene	ND	0.20	ppbv		ND	0.91	ug/m3
541-73-1	m-Dichlorobenzene	ND	0.20	ppbv		ND	1.2	ug/m3
95-50-1	o-Dichlorobenzene	ND	0.20	ppbv		ND	1.2	ug/m3
106-46-7	p-Dichlorobenzene	ND	0.20	ppbv		ND	1.2	ug/m3
10061-02-6	trans-1,3-Dichloropropene	ND	0.20	ppbv		ND	0.91	ug/m3
64-17-5	Ethanol	ND	0.50	ppbv		ND	0.94	ug/m3
100-41-4	Ethylbenzene	ND	0.20	ppbv		ND	0.87	ug/m3
141-78-6	Ethyl Acetate	ND	0.20	ppbv		ND	0.72	ug/m3
622-96-8	4-Ethyltoluene	ND	0.20	ppbv		ND	0.98	ug/m3

Method Blank Summary

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Job Number: JD36325**Account:** GESNYP Groundwater & Environmental Services**Project:** Orangeburg UB, Orangeburg, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V2W2497-MB	2W56058.D	1	11/04/21	TCH	n/a	n/a	V2W2497

The QC reported here applies to the following samples:**Method:** TO-15

V2W2497-SCC

CAS No.	Compound	Result	RL	Units	Q	Result	RL	Units
76-13-1	Freon 113	ND	0.20	ppbv		ND	1.5	ug/m3
76-14-2	Freon 114	ND	0.20	ppbv		ND	1.4	ug/m3
142-82-5	Heptane	ND	0.20	ppbv		ND	0.82	ug/m3
87-68-3	Hexachlorobutadiene	ND	0.20	ppbv		ND	2.1	ug/m3
110-54-3	Hexane	ND	0.20	ppbv		ND	0.70	ug/m3
591-78-6	2-Hexanone	ND	0.20	ppbv		ND	0.82	ug/m3
67-63-0	Isopropyl Alcohol	ND	0.20	ppbv		ND	0.49	ug/m3
75-09-2	Methylene chloride	ND	0.20	ppbv		ND	0.69	ug/m3
78-93-3	Methyl ethyl ketone	ND	0.20	ppbv		ND	0.59	ug/m3
108-10-1	Methyl Isobutyl Ketone	ND	0.20	ppbv		ND	0.82	ug/m3
1634-04-4	Methyl Tert Butyl Ether	ND	0.20	ppbv		ND	0.72	ug/m3
80-62-6	Methylmethacrylate	ND	0.20	ppbv		ND	0.82	ug/m3
115-07-1	Propylene	ND	0.50	ppbv		ND	0.86	ug/m3
100-42-5	Styrene	ND	0.20	ppbv		ND	0.85	ug/m3
71-55-6	1,1,1-Trichloroethane	ND	0.20	ppbv		ND	1.1	ug/m3
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.20	ppbv		ND	1.4	ug/m3
79-00-5	1,1,2-Trichloroethane	ND	0.20	ppbv		ND	1.1	ug/m3
120-82-1	1,2,4-Trichlorobenzene	ND	0.20	ppbv		ND	1.5	ug/m3
95-63-6	1,2,4-Trimethylbenzene	ND	0.20	ppbv		ND	0.98	ug/m3
108-67-8	1,3,5-Trimethylbenzene	ND	0.20	ppbv		ND	0.98	ug/m3
540-84-1	2,2,4-Trimethylpentane	ND	0.20	ppbv		ND	0.93	ug/m3
75-65-0	Tertiary Butyl Alcohol	ND	0.20	ppbv		ND	0.61	ug/m3
127-18-4	Tetrachloroethylene	ND	0.040	ppbv		ND	0.27	ug/m3
109-99-9	Tetrahydrofuran	ND	0.20	ppbv		ND	0.59	ug/m3
108-88-3	Toluene	ND	0.20	ppbv		ND	0.75	ug/m3
79-01-6	Trichloroethylene	ND	0.040	ppbv		ND	0.21	ug/m3
75-69-4	Trichlorofluoromethane	ND	0.20	ppbv		ND	1.1	ug/m3
75-01-4	Vinyl chloride	ND	0.20	ppbv		ND	0.51	ug/m3
108-05-4	Vinyl Acetate	ND	0.20	ppbv		ND	0.70	ug/m3
	m,p-Xylene	ND	0.20	ppbv		ND	0.87	ug/m3
95-47-6	o-Xylene	ND	0.20	ppbv		ND	0.87	ug/m3
1330-20-7	Xylenes (total)	ND	0.20	ppbv		ND	0.87	ug/m3

Method Blank Summary

Job Number: JD36325
Account: GESNYP Groundwater & Environmental Services
Project: Orangeburg UB, Orangeburg, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V2W2497-MB	2W56058.D	1	11/04/21	TCH	n/a	n/a	V2W2497

The QC reported here applies to the following samples: Method: TO-15

V2W2497-SCC

CAS No.	Surrogate Recoveries	Limits
460-00-4	4-Bromofluorobenzene	91% 65-128%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
124-38-9	Carbon dioxide	1.81	20	ppbv	JN
	Total TIC, Volatile		0	ppbv	

Blank Spike/Blank Spike Duplicate Summary

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Job Number: JD36325**Account:** GESNYP Groundwater & Environmental Services**Project:** Orangeburg UB, Orangeburg, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V5W1935-BS	5W46777.D	1	12/13/21	DFT	n/a	n/a	V5W1935
V5W1935-BSD	5W46778.D	1	12/13/21	DFT	n/a	n/a	V5W1935

The QC reported here applies to the following samples:**Method:** TO-15

JD36325-1, JD36325-2, JD36325-3, JD36325-4, JD36325-5

CAS No.	Compound	Spike ppbv	BSP ppbv	BSP %	BSD ppbv	BSD %	RPD	Limits Rec/RPD
67-64-1	Acetone (2-Propanone)	10	9.6	96	9.5	95	1	70-130/30
106-99-0	1,3-Butadiene	10	10.2	102	10.4	104	2	70-130/30
71-43-2	Benzene	10	10.0	100	10.0	100	0	70-130/30
75-27-4	Bromodichloromethane	10	10.3	103	10.5	105	2	70-130/30
75-25-2	Bromoform	10	9.9	99	10.1	101	2	70-130/30
74-83-9	Bromomethane	10	10.3	103	10.3	103	0	70-130/30
593-60-2	Bromoethene	10	10.2	102	10.1	101	1	70-130/30
100-44-7	Benzyl Chloride	10	9.7	97	9.9	99	2	70-130/30
75-15-0	Carbon disulfide	10	10.0	100	9.8	98	2	70-130/30
108-90-7	Chlorobenzene	10	9.3	93	9.6	96	3	70-130/30
75-00-3	Chloroethane	10	10.2	102	10.1	101	1	70-130/30
67-66-3	Chloroform	10	10.1	101	10.2	102	1	70-130/30
74-87-3	Chloromethane	10	9.2	92	9.3	93	1	70-130/30
107-05-1	3-Chloropropene	10	10.6	106	10.6	106	0	70-130/30
95-49-8	2-Chlorotoluene	10	9.4	94	9.7	97	3	70-130/30
56-23-5	Carbon tetrachloride	10	10.5	105	10.6	106	1	70-130/30
110-82-7	Cyclohexane	10	9.8	98	10.0	100	2	70-130/30
75-34-3	1,1-Dichloroethane	10	10.0	100	9.9	99	1	70-130/30
75-35-4	1,1-Dichloroethylene	10	10.4	104	10.3	103	1	70-130/30
106-93-4	1,2-Dibromoethane (EDB)	10	9.8	98	10	100	2	70-130/30
107-06-2	1,2-Dichloroethane	10	10.5	105	10.6	106	1	70-130/30
78-87-5	1,2-Dichloropropane	10	10.2	102	10.4	104	2	70-130/30
123-91-1	1,4-Dioxane	10	10.9	109	11.1	111	2	70-130/30
75-71-8	Dichlorodifluoromethane	10	10.7	107	10.6	106	1	70-130/30
124-48-1	Dibromochloromethane	10	10.5	105	10.6	106	1	70-130/30
156-60-5	trans-1,2-Dichloroethylene	10	10.3	103	10.2	102	1	70-130/30
156-59-2	cis-1,2-Dichloroethylene	10	10.2	102	10.3	103	1	70-130/30
10061-01-5	cis-1,3-Dichloropropene	10	9.9	99	10.1	101	2	70-130/30
541-73-1	m-Dichlorobenzene	10	9.6	96	9.7	97	1	70-130/30
95-50-1	o-Dichlorobenzene	10	9.2	92	9.4	94	2	70-130/30
106-46-7	p-Dichlorobenzene	10	9.3	93	9.6	96	3	70-130/30
10061-02-6	trans-1,3-Dichloropropene	10	9.6	96	9.7	97	1	70-130/30
64-17-5	Ethanol	10	10.0	100	9.9	99	1	70-130/30
100-41-4	Ethylbenzene	10	9.6	96	9.7	97	1	70-130/30
141-78-6	Ethyl Acetate	10	11.4	114	11.2	112	2	70-130/30
622-96-8	4-Ethyltoluene	10	10.0	100	10.3	103	3	70-130/30

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

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Job Number: JD36325

Account: GESNYP Groundwater & Environmental Services

Project: Orangeburg UB, Orangeburg, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V5W1935-BS	5W46777.D	1	12/13/21	DFT	n/a	n/a	V5W1935
V5W1935-BSD	5W46778.D	1	12/13/21	DFT	n/a	n/a	V5W1935

The QC reported here applies to the following samples:

Method: TO-15

JD36325-1, JD36325-2, JD36325-3, JD36325-4, JD36325-5

CAS No.	Compound	Spike ppbv	BSP ppbv	BSP %	BSD ppbv	BSD %	RPD	Limits Rec/RPD
76-13-1	Freon 113	10	10.0	100	10	100	0	70-130/30
76-14-2	Freon 114	10	9.7	97	9.8	98	1	70-130/30
142-82-5	Heptane	10	10.5	105	10.5	105	0	70-130/30
87-68-3	Hexachlorobutadiene	10	9.3	93	9.1	91	2	70-130/30
110-54-3	Hexane	10	10.3	103	10.4	104	1	70-130/30
591-78-6	2-Hexanone	10	9.9	99	10	100	1	70-130/30
67-63-0	Isopropyl Alcohol	10	11.1	111	11.1	111	0	70-130/30
75-09-2	Methylene chloride	10	9.7	97	9.8	98	1	70-130/30
78-93-3	Methyl ethyl ketone	10	11.0	110	11.0	110	0	70-130/30
108-10-1	Methyl Isobutyl Ketone	10	11.3	113	11.3	113	0	70-130/30
1634-04-4	Methyl Tert Butyl Ether	10	10.7	107	10.7	107	0	70-130/30
80-62-6	Methylmethacrylate	10	11.0	110	11.2	112	2	70-130/30
115-07-1	Propylene	10	9.7	97	9.7	97	0	70-130/30
100-42-5	Styrene	10	9.6	96	9.9	99	3	70-130/30
71-55-6	1,1,1-Trichloroethane	10	10.1	101	10.1	101	0	70-130/30
79-34-5	1,1,2,2-Tetrachloroethane	10	9.4	94	9.7	97	3	70-130/30
79-00-5	1,1,2-Trichloroethane	10	10.0	100	10.1	101	1	70-130/30
120-82-1	1,2,4-Trichlorobenzene	10	9.7	97	9.7	97	0	70-130/30
95-63-6	1,2,4-Trimethylbenzene	10	10.2	102	10.5	105	3	70-130/30
108-67-8	1,3,5-Trimethylbenzene	10	10.1	101	10.4	104	3	70-130/30
540-84-1	2,2,4-Trimethylpentane	10	9.9	99	10.0	100	1	70-130/30
75-65-0	Tertiary Butyl Alcohol	10	11.2	112	11.3	113	1	70-130/30
127-18-4	Tetrachloroethylene	10	9.9	99	10	100	1	70-130/30
109-99-9	Tetrahydrofuran	10	11.1	111	11.1	111	0	70-130/30
108-88-3	Toluene	10	9.9	99	9.9	99	0	70-130/30
79-01-6	Trichloroethylene	10	10.1	101	10.2	102	1	70-130/30
75-69-4	Trichlorofluoromethane	10	10.0	100	10	100	0	70-130/30
75-01-4	Vinyl chloride	10	9.9	99	9.9	99	0	70-130/30
108-05-4	Vinyl Acetate	10	10.1	101	9.9	99	2	70-130/30
	m,p-Xylene	20	19.1	96	19.6	98	3	70-130/30
95-47-6	o-Xylene	10	9.5	95	9.8	98	3	70-130/30
1330-20-7	Xylenes (total)	30	28.6	95	29.4	98	3	70-130/30

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: JD36325
Account: GESNYP Groundwater & Environmental Services
Project: Orangeburg UB, Orangeburg, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V5W1935-BS	5W46777.D	1	12/13/21	DFT	n/a	n/a	V5W1935
V5W1935-BSD	5W46778.D	1	12/13/21	DFT	n/a	n/a	V5W1935

The QC reported here applies to the following samples: Method: TO-15

JD36325-1, JD36325-2, JD36325-3, JD36325-4, JD36325-5

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
460-00-4	4-Bromofluorobenzene	97%	99%	65-128%

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: JD36325
Account: GESNYP Groundwater & Environmental Services
Project: Orangeburg UB, Orangeburg, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V5W1936-BS	5W46804.D	1	12/14/21	DFT	n/a	n/a	V5W1936
V5W1936-BSD	5W46805.D	1	12/14/21	DFT	n/a	n/a	V5W1936

The QC reported here applies to the following samples: Method: TO-15

JD36325-1, JD36325-3

CAS No.	Compound	Spike ppbv	BSP ppbv	BSP %	BSD ppbv	BSD %	RPD	Limits Rec/RPD
64-17-5	Ethanol	10	9.5	95	9.8	98	3	70-130/30
141-78-6	Ethyl Acetate	10	10.8	108	11.0	110	2	70-130/30
67-63-0	Isopropyl Alcohol	10	10.8	108	10.8	108	0	70-130/30

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
460-00-4	4-Bromofluorobenzene	100%	100%	65-128%

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Page 1 of 3

Job Number: JD36325**Account:** GESNYP Groundwater & Environmental Services**Project:** Orangeburg UB, Orangeburg, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V2W2494-BS	2W55982.D	1	11/01/21	TCH	n/a	n/a	V2W2494
V2W2494-BSD	2W55983.D	1	11/01/21	TCH	n/a	n/a	V2W2494

The QC reported here applies to the following samples:**Method:** TO-15

V2W2494-SCC

CAS No.	Compound	Spike ppbv	BSP ppbv	BSP %	BSD ppbv	BSD %	RPD	Limits Rec/RPD
67-64-1	Acetone (2-Propanone)	10	10	100	10	100	0	70-130/30
106-99-0	1,3-Butadiene	10	11.9	119	11.8	118	1	70-130/30
71-43-2	Benzene	10	10.8	108	10.7	107	1	70-130/30
75-27-4	Bromodichloromethane	10	8.6	86	8.5	85	1	70-130/30
75-25-2	Bromoform	10	9.8	98	9.8	98	0	70-130/30
74-83-9	Bromomethane	10	10.7	107	10.7	107	0	70-130/30
593-60-2	Bromoethene	10	10.1	101	10.1	101	0	70-130/30
100-44-7	Benzyl Chloride	10	12.9	129	12.8	128	1	70-130/30
75-15-0	Carbon disulfide	10	10.2	102	10.2	102	0	70-130/30
108-90-7	Chlorobenzene	10	9.6	96	9.7	97	1	70-130/30
75-00-3	Chloroethane	10	11.6	116	11.5	115	1	70-130/30
67-66-3	Chloroform	10	8.8	88	8.8	88	0	70-130/30
74-87-3	Chloromethane	10	11.1	111	11.2	112	1	70-130/30
107-05-1	3-Chloropropene	10	10.8	108	10.8	108	0	70-130/30
95-49-8	2-Chlorotoluene	10	10.3	103	10.4	104	1	70-130/30
56-23-5	Carbon tetrachloride	10	8.3	83	8.2	82	1	70-130/30
110-82-7	Cyclohexane	10	10.6	106	10.4	104	2	70-130/30
75-34-3	1,1-Dichloroethane	10	10.4	104	10.4	104	0	70-130/30
75-35-4	1,1-Dichloroethylene	10	9.6	96	9.5	95	1	70-130/30
106-93-4	1,2-Dibromoethane (EDB)	10	10.1	101	9.9	99	2	70-130/30
107-06-2	1,2-Dichloroethane	10	7.5	75	7.5	75	0	70-130/30
78-87-5	1,2-Dichloropropane	10	11.0	110	10.8	108	2	70-130/30
123-91-1	1,4-Dioxane	10	10.2	102	10.1	101	1	70-130/30
75-71-8	Dichlorodifluoromethane	10	9.9	99	10	100	1	70-130/30
124-48-1	Dibromochloromethane	10	9.1	91	8.9	89	2	70-130/30
156-60-5	trans-1,2-Dichloroethylene	10	10.3	103	10.3	103	0	70-130/30
156-59-2	cis-1,2-Dichloroethylene	10	10.7	107	10.5	105	2	70-130/30
10061-01-5	cis-1,3-Dichloropropene	10	10.5	105	10.3	103	2	70-130/30
541-73-1	m-Dichlorobenzene	10	9.9	99	9.9	99	0	70-130/30
95-50-1	o-Dichlorobenzene	10	10.5	105	10.6	106	1	70-130/30
106-46-7	p-Dichlorobenzene	10	9.9	99	9.9	99	0	70-130/30
10061-02-6	trans-1,3-Dichloropropene	10	10.0	100	9.9	99	1	70-130/30
64-17-5	Ethanol	10	10.1	101	10	100	1	70-130/30
100-41-4	Ethylbenzene	10	9.6	96	9.7	97	1	70-130/30
141-78-6	Ethyl Acetate	10	12.5	125	12.9	129	3	70-130/30
622-96-8	4-Ethyltoluene	10	10.2	102	10.1	101	1	70-130/30

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

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Job Number: JD36325

Account: GESNYP Groundwater & Environmental Services

Project: Orangeburg UB, Orangeburg, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V2W2494-BS	2W55982.D	1	11/01/21	TCH	n/a	n/a	V2W2494
V2W2494-BSD	2W55983.D	1	11/01/21	TCH	n/a	n/a	V2W2494

The QC reported here applies to the following samples:

Method: TO-15

V2W2494-SCC

CAS No.	Compound	Spike ppbv	BSP ppbv	BSP %	BSD ppbv	BSD %	RPD	Limits Rec/RPD
76-13-1	Freon 113	10	9.3	93	9.2	92	1	70-130/30
76-14-2	Freon 114	10	10.1	101	10	100	1	70-130/30
142-82-5	Heptane	10	10.1	101	10.1	101	0	70-130/30
87-68-3	Hexachlorobutadiene	10	11.3	113	11.2	112	1	70-130/30
110-54-3	Hexane	10	11.1	111	11.1	111	0	70-130/30
591-78-6	2-Hexanone	10	10.8	108	10.7	107	1	70-130/30
67-63-0	Isopropyl Alcohol	10	8.7	87	9.0	90	3	70-130/30
75-09-2	Methylene chloride	10	9.5	95	9.4	94	1	70-130/30
78-93-3	Methyl ethyl ketone	10	11.3	113	11.3	113	0	70-130/30
108-10-1	Methyl Isobutyl Ketone	10	10.9	109	10.9	109	0	70-130/30
1634-04-4	Methyl Tert Butyl Ether	10	10.0	100	10.0	100	0	70-130/30
80-62-6	Methylmethacrylate	10	11.6	116	11.5	115	1	70-130/30
115-07-1	Propylene	10	11.3	113	11.1	111	2	70-130/30
100-42-5	Styrene	10	10.3	103	10.4	104	1	70-130/30
71-55-6	1,1,1-Trichloroethane	10	8.3	83	8.3	83	0	70-130/30
79-34-5	1,1,2,2-Tetrachloroethane	10	11.3	113	11.3	113	0	70-130/30
79-00-5	1,1,2-Trichloroethane	10	10.5	105	10.4	104	1	70-130/30
120-82-1	1,2,4-Trichlorobenzene	10	10.0	100	9.9	99	1	70-130/30
95-63-6	1,2,4-Trimethylbenzene	10	10.2	102	10.2	102	0	70-130/30
108-67-8	1,3,5-Trimethylbenzene	10	9.7	97	9.7	97	0	70-130/30
540-84-1	2,2,4-Trimethylpentane	10	10.9	109	10.8	108	1	70-130/30
75-65-0	Tertiary Butyl Alcohol	10	8.8	88	9.3	93	6	70-130/30
127-18-4	Tetrachloroethylene	10	9.8	98	9.7	97	1	70-130/30
109-99-9	Tetrahydrofuran	10	11.8	118	11.7	117	1	70-130/30
108-88-3	Toluene	10	10.1	101	10.0	100	1	70-130/30
79-01-6	Trichloroethylene	10	9.6	96	9.5	95	1	70-130/30
75-69-4	Trichlorofluoromethane	10	8.2	82	8.1	81	1	70-130/30
75-01-4	Vinyl chloride	10	11.4	114	11.1	111	3	70-130/30
108-05-4	Vinyl Acetate	10	11.4	114	11.5	115	1	70-130/30
	m,p-Xylene	20	19.2	96	19.3	97	1	70-130/30
95-47-6	o-Xylene	10	9.4	94	9.4	94	0	70-130/30
1330-20-7	Xylenes (total)	30	28.5	95	28.7	96	1	70-130/30

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: JD36325
Account: GESNYP Groundwater & Environmental Services
Project: Orangeburg UB, Orangeburg, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V2W2494-BS	2W55982.D	1	11/01/21	TCH	n/a	n/a	V2W2494
V2W2494-BSD	2W55983.D	1	11/01/21	TCH	n/a	n/a	V2W2494

The QC reported here applies to the following samples: Method: TO-15

V2W2494-SCC

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
460-00-4	4-Bromofluorobenzene	95%	96%	65-128%

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

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Job Number: JD36325**Account:** GESNYP Groundwater & Environmental Services**Project:** Orangeburg UB, Orangeburg, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V2W2495-BS	2W56007.D	1	11/02/21	TCH	n/a	n/a	V2W2495
V2W2495-BSD	2W56008.D	1	11/02/21	TCH	n/a	n/a	V2W2495

The QC reported here applies to the following samples:**Method:** TO-15

V2W2495-SCC

CAS No.	Compound	Spike ppbv	BSP ppbv	BSP %	BSD ppbv	BSD %	RPD	Limits Rec/RPD
67-64-1	Acetone (2-Propanone)	10	10.0	100	9.7	97	3	70-130/30
106-99-0	1,3-Butadiene	10	11.5	115	11.4	114	1	70-130/30
71-43-2	Benzene	10	10.5	105	10.5	105	0	70-130/30
75-27-4	Bromodichloromethane	10	8.2	82	8.3	83	1	70-130/30
75-25-2	Bromoform	10	9.4	94	9.7	97	3	70-130/30
74-83-9	Bromomethane	10	10.6	106	10.6	106	0	70-130/30
593-60-2	Bromoethene	10	9.9	99	9.9	99	0	70-130/30
100-44-7	Benzyl Chloride	10	12.0	120	12.3	123	2	70-130/30
75-15-0	Carbon disulfide	10	12.3	123	10	100	21	70-130/30
108-90-7	Chlorobenzene	10	9.4	94	9.6	96	2	70-130/30
75-00-3	Chloroethane	10	11.3	113	11.2	112	1	70-130/30
67-66-3	Chloroform	10	8.5	85	8.7	87	2	70-130/30
74-87-3	Chloromethane	10	10.9	109	11.0	110	1	70-130/30
107-05-1	3-Chloropropene	10	13.6	136* a	10.4	104	27	70-130/30
95-49-8	2-Chlorotoluene	10	9.9	99	10.3	103	4	70-130/30
56-23-5	Carbon tetrachloride	10	8.1	81	8.1	81	0	70-130/30
110-82-7	Cyclohexane	10	9.9	99	10.2	102	3	70-130/30
75-34-3	1,1-Dichloroethane	10	12.2	122	10.0	100	20	70-130/30
75-35-4	1,1-Dichloroethylene	10	11.0	110	9.5	95	15	70-130/30
106-93-4	1,2-Dibromoethane (EDB)	10	9.5	95	9.8	98	3	70-130/30
107-06-2	1,2-Dichloroethane	10	7.2	72	7.2	72	0	70-130/30
78-87-5	1,2-Dichloropropane	10	10.5	105	10.7	107	2	70-130/30
123-91-1	1,4-Dioxane	10	9.7	97	9.9	99	2	70-130/30
75-71-8	Dichlorodifluoromethane	10	9.6	96	9.8	98	2	70-130/30
124-48-1	Dibromochloromethane	10	8.6	86	8.8	88	2	70-130/30
156-60-5	trans-1,2-Dichloroethylene	10	11.7	117	10.1	101	15	70-130/30
156-59-2	cis-1,2-Dichloroethylene	10	10.3	103	10.4	104	1	70-130/30
10061-01-5	cis-1,3-Dichloropropene	10	9.9	99	10.1	101	2	70-130/30
541-73-1	m-Dichlorobenzene	10	9.4	94	9.7	97	3	70-130/30
95-50-1	o-Dichlorobenzene	10	10.0	100	10.3	103	3	70-130/30
106-46-7	p-Dichlorobenzene	10	9.5	95	9.7	97	2	70-130/30
10061-02-6	trans-1,3-Dichloropropene	10	9.5	95	9.7	97	2	70-130/30
64-17-5	Ethanol	10	10.2	102	9.9	99	3	70-130/30
100-41-4	Ethylbenzene	10	9.3	93	9.5	95	2	70-130/30
141-78-6	Ethyl Acetate	10	12.3	123	12.2	122	1	70-130/30
622-96-8	4-Ethyltoluene	10	9.7	97	10.1	101	4	70-130/30

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

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Job Number: JD36325

Account: GESNYP Groundwater & Environmental Services

Project: Orangeburg UB, Orangeburg, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V2W2495-BS	2W56007.D	1	11/02/21	TCH	n/a	n/a	V2W2495
V2W2495-BSD	2W56008.D	1	11/02/21	TCH	n/a	n/a	V2W2495

The QC reported here applies to the following samples:

Method: TO-15

V2W2495-SCC

CAS No.	Compound	Spike ppbv	BSP ppbv	BSP %	BSD ppbv	BSD %	RPD	Limits Rec/RPD
76-13-1	Freon 113	10	10.1	101	9.2	92	9	70-130/30
76-14-2	Freon 114	10	9.8	98	9.8	98	0	70-130/30
142-82-5	Heptane	10	9.6	96	9.8	98	2	70-130/30
87-68-3	Hexachlorobutadiene	10	10.9	109	11.2	112	3	70-130/30
110-54-3	Hexane	10	10.8	108	10.8	108	0	70-130/30
591-78-6	2-Hexanone	10	10.1	101	10.3	103	2	70-130/30
67-63-0	Isopropyl Alcohol	10	8.9	89	8.5	85	5	70-130/30
75-09-2	Methylene chloride	10	11.7	117	9.3	93	23	70-130/30
78-93-3	Methyl ethyl ketone	10	10.9	109	11.0	110	1	70-130/30
108-10-1	Methyl Isobutyl Ketone	10	10.4	104	10.6	106	2	70-130/30
1634-04-4	Methyl Tert Butyl Ether	10	11.0	110	9.7	97	13	70-130/30
80-62-6	Methylmethacrylate	10	10.9	109	10.9	109	0	70-130/30
115-07-1	Propylene	10	10.8	108	10.7	107	1	70-130/30
100-42-5	Styrene	10	9.9	99	10.2	102	3	70-130/30
71-55-6	1,1,1-Trichloroethane	10	8.1	81	8.1	81	0	70-130/30
79-34-5	1,1,2,2-Tetrachloroethane	10	10.9	109	11.2	112	3	70-130/30
79-00-5	1,1,2-Trichloroethane	10	10.0	100	10.1	101	1	70-130/30
120-82-1	1,2,4-Trichlorobenzene	10	9.6	96	9.8	98	2	70-130/30
95-63-6	1,2,4-Trimethylbenzene	10	9.7	97	9.9	99	2	70-130/30
108-67-8	1,3,5-Trimethylbenzene	10	9.3	93	9.6	96	3	70-130/30
540-84-1	2,2,4-Trimethylpentane	10	10.4	104	10.5	105	1	70-130/30
75-65-0	Tertiary Butyl Alcohol	10	10.7	107	8.5	85	23	70-130/30
127-18-4	Tetrachloroethylene	10	9.3	93	9.5	95	2	70-130/30
109-99-9	Tetrahydrofuran	10	11.4	114	11.7	117	3	70-130/30
108-88-3	Toluene	10	9.6	96	9.9	99	3	70-130/30
79-01-6	Trichloroethylene	10	9.1	91	9.2	92	1	70-130/30
75-69-4	Trichlorofluoromethane	10	8.0	80	8.0	80	0	70-130/30
75-01-4	Vinyl chloride	10	11.0	110	11.0	110	0	70-130/30
108-05-4	Vinyl Acetate	10	13.0	130	11.2	112	15	70-130/30
	m,p-Xylene	20	18.4	92	18.9	95	3	70-130/30
95-47-6	o-Xylene	10	9.0	90	9.4	94	4	70-130/30
1330-20-7	Xylenes (total)	30	27.4	91	28.3	94	3	70-130/30

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: JD36325
Account: GESNYP Groundwater & Environmental Services
Project: Orangeburg UB, Orangeburg, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V2W2495-BS	2W56007.D	1	11/02/21	TCH	n/a	n/a	V2W2495
V2W2495-BSD	2W56008.D	1	11/02/21	TCH	n/a	n/a	V2W2495

The QC reported here applies to the following samples: Method: TO-15

V2W2495-SCC

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
460-00-4	4-Bromofluorobenzene	94%	96%	65-128%

(a) High percent recovery and no associated positive reported in the QC batch.

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

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Job Number: JD36325**Account:** GESNYP Groundwater & Environmental Services**Project:** Orangeburg UB, Orangeburg, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V2W2497-BS	2W56054.D	1	11/04/21	TCH	n/a	n/a	V2W2497
V2W2497-BSD	2W56056.D	1	11/04/21	TCH	n/a	n/a	V2W2497

The QC reported here applies to the following samples:**Method:** TO-15

V2W2497-SCC

CAS No.	Compound	Spike ppbv	BSP ppbv	BSP %	BSD ppbv	BSD %	RPD	Limits Rec/RPD
67-64-1	Acetone (2-Propanone)	10	9.3	93	9.5	95	2	70-130/30
106-99-0	1,3-Butadiene	10	11.1	111	11.4	114	3	70-130/30
71-43-2	Benzene	10	10.2	102	10.6	106	4	70-130/30
75-27-4	Bromodichloromethane	10	8.1	81	8.3	83	2	70-130/30
75-25-2	Bromoform	10	9.6	96	9.9	99	3	70-130/30
74-83-9	Bromomethane	10	10.3	103	10.6	106	3	70-130/30
593-60-2	Bromoethene	10	9.6	96	9.9	99	3	70-130/30
100-44-7	Benzyl Chloride	10	12.5	125	12.9	129	3	70-130/30
75-15-0	Carbon disulfide	10	9.7	97	9.9	99	2	70-130/30
108-90-7	Chlorobenzene	10	9.2	92	9.6	96	4	70-130/30
75-00-3	Chloroethane	10	10.9	109	11.1	111	2	70-130/30
67-66-3	Chloroform	10	8.3	83	8.6	86	4	70-130/30
74-87-3	Chloromethane	10	10.3	103	10.8	108	5	70-130/30
107-05-1	3-Chloropropene	10	10.1	101	10.5	105	4	70-130/30
95-49-8	2-Chlorotoluene	10	9.7	97	10.1	101	4	70-130/30
56-23-5	Carbon tetrachloride	10	7.9	79	8.2	82	4	70-130/30
110-82-7	Cyclohexane	10	9.7	97	10.1	101	4	70-130/30
75-34-3	1,1-Dichloroethane	10	9.8	98	10.2	102	4	70-130/30
75-35-4	1,1-Dichloroethylene	10	9.2	92	9.5	95	3	70-130/30
106-93-4	1,2-Dibromoethane (EDB)	10	9.3	93	9.7	97	4	70-130/30
107-06-2	1,2-Dichloroethane	10	7.0	70	7.1	71	1	70-130/30
78-87-5	1,2-Dichloropropane	10	10.3	103	10.6	106	3	70-130/30
123-91-1	1,4-Dioxane	10	9.3	93	9.7	97	4	70-130/30
75-71-8	Dichlorodifluoromethane	10	9.4	94	9.7	97	3	70-130/30
124-48-1	Dibromochloromethane	10	8.6	86	8.9	89	3	70-130/30
156-60-5	trans-1,2-Dichloroethylene	10	9.7	97	10.2	102	5	70-130/30
156-59-2	cis-1,2-Dichloroethylene	10	10.0	100	10.5	105	5	70-130/30
10061-01-5	cis-1,3-Dichloropropene	10	9.7	97	10.1	101	4	70-130/30
541-73-1	m-Dichlorobenzene	10	9.3	93	9.6	96	3	70-130/30
95-50-1	o-Dichlorobenzene	10	9.7	97	10.0	100	3	70-130/30
106-46-7	p-Dichlorobenzene	10	9.3	93	9.6	96	3	70-130/30
10061-02-6	trans-1,3-Dichloropropene	10	9.4	94	9.8	98	4	70-130/30
64-17-5	Ethanol	10	9.0	90	9.2	92	2	70-130/30
100-41-4	Ethylbenzene	10	9.1	91	9.5	95	4	70-130/30
141-78-6	Ethyl Acetate	10	11.9	119	12.2	122	2	70-130/30
622-96-8	4-Ethyltoluene	10	9.5	95	9.9	99	4	70-130/30

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Page 2 of 3

Job Number: JD36325

Account: GESNYP Groundwater & Environmental Services

Project: Orangeburg UB, Orangeburg, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V2W2497-BS	2W56054.D	1	11/04/21	TCH	n/a	n/a	V2W2497
V2W2497-BSD	2W56056.D	1	11/04/21	TCH	n/a	n/a	V2W2497

The QC reported here applies to the following samples:

Method: TO-15

V2W2497-SCC

CAS No.	Compound	Spike ppbv	BSP ppbv	BSP %	BSD ppbv	BSD %	RPD	Limits Rec/RPD
76-13-1	Freon 113	10	8.9	89	9.1	91	2	70-130/30
76-14-2	Freon 114	10	9.5	95	9.8	98	3	70-130/30
142-82-5	Heptane	10	9.4	94	9.7	97	3	70-130/30
87-68-3	Hexachlorobutadiene	10	9.6	96	9.9	99	3	70-130/30
110-54-3	Hexane	10	10.5	105	10.8	108	3	70-130/30
591-78-6	2-Hexanone	10	9.8	98	10.3	103	5	70-130/30
67-63-0	Isopropyl Alcohol	10	8.0	80	8.3	83	4	70-130/30
75-09-2	Methylene chloride	10	9.0	90	9.3	93	3	70-130/30
78-93-3	Methyl ethyl ketone	10	10.5	105	10.9	109	4	70-130/30
108-10-1	Methyl Isobutyl Ketone	10	10.2	102	10.4	104	2	70-130/30
1634-04-4	Methyl Tert Butyl Ether	10	9.3	93	9.7	97	4	70-130/30
80-62-6	Methylmethacrylate	10	10.6	106	11.1	111	5	70-130/30
115-07-1	Propylene	10	10.2	102	10.5	105	3	70-130/30
100-42-5	Styrene	10	9.8	98	10.2	102	4	70-130/30
71-55-6	1,1,1-Trichloroethane	10	7.9	79	8.1	81	2	70-130/30
79-34-5	1,1,2,2-Tetrachloroethane	10	10.5	105	10.9	109	4	70-130/30
79-00-5	1,1,2-Trichloroethane	10	9.7	97	10.0	100	3	70-130/30
120-82-1	1,2,4-Trichlorobenzene	10	8.9	89	9.3	93	4	70-130/30
95-63-6	1,2,4-Trimethylbenzene	10	9.4	94	9.8	98	4	70-130/30
108-67-8	1,3,5-Trimethylbenzene	10	9.0	90	9.3	93	3	70-130/30
540-84-1	2,2,4-Trimethylpentane	10	10.1	101	10.5	105	4	70-130/30
75-65-0	Tertiary Butyl Alcohol	10	8.8	88	9.1	91	3	70-130/30
127-18-4	Tetrachloroethylene	10	8.8	88	9.1	91	3	70-130/30
109-99-9	Tetrahydrofuran	10	11.0	110	11.5	115	4	70-130/30
108-88-3	Toluene	10	9.5	95	9.8	98	3	70-130/30
79-01-6	Trichloroethylene	10	9.0	90	9.3	93	3	70-130/30
75-69-4	Trichlorofluoromethane	10	7.8	78	8.0	80	3	70-130/30
75-01-4	Vinyl chloride	10	10.6	106	10.9	109	3	70-130/30
108-05-4	Vinyl Acetate	10	11.1	111	11.4	114	3	70-130/30
	m,p-Xylene	20	18.1	91	18.8	94	4	70-130/30
95-47-6	o-Xylene	10	8.9	89	9.2	92	3	70-130/30
1330-20-7	Xylenes (total)	30	27.1	90	28.0	93	3	70-130/30

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: JD36325
Account: GESNYP Groundwater & Environmental Services
Project: Orangeburg UB, Orangeburg, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V2W2497-BS	2W56054.D	1	11/04/21	TCH	n/a	n/a	V2W2497
V2W2497-BSD	2W56056.D	1	11/04/21	TCH	n/a	n/a	V2W2497

The QC reported here applies to the following samples: Method: TO-15

V2W2497-SCC

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
460-00-4	4-Bromofluorobenzene	94%	95%	65-128%

* = Outside of Control Limits.

Duplicate Summary

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Job Number: JD36325

Account: GESNYP Groundwater & Environmental Services

Project: Orangeburg UB, Orangeburg, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JD36248-1DUP	5W46786.D	1	12/13/21	DFT	n/a	n/a	V5W1935
JD36248-1	5W46785.D	1	12/13/21	DFT	n/a	n/a	V5W1935

The QC reported here applies to the following samples:

Method: TO-15

JD36325-1, JD36325-2, JD36325-3, JD36325-4, JD36325-5

CAS No.	Compound	JD36248-1 ppbv	DUP Q	ppbv	Q	RPD	Limits
67-64-1	Acetone (2-Propanone)	169		167		1	25
106-99-0	1,3-Butadiene	ND		ND		nc	25
71-43-2	Benzene	ND		ND		nc	25
75-27-4	Bromodichloromethane	ND		ND		nc	25
75-25-2	Bromoform	ND		ND		nc	25
74-83-9	Bromomethane	ND		ND		nc	25
593-60-2	Bromoethene	ND		ND		nc	25
100-44-7	Benzyl Chloride	ND		ND		nc	25
75-15-0	Carbon disulfide	ND		ND		nc	25
108-90-7	Chlorobenzene	ND		ND		nc	25
75-00-3	Chloroethane	ND		ND		nc	25
67-66-3	Chloroform	ND		ND		nc	25
74-87-3	Chloromethane	ND		ND		nc	25
107-05-1	3-Chloropropene	ND		ND		nc	25
95-49-8	2-Chlorotoluene	ND		ND		nc	25
56-23-5	Carbon tetrachloride	ND		ND		nc	25
110-82-7	Cyclohexane	ND		ND		nc	25
75-34-3	1,1-Dichloroethane	ND		ND		nc	25
75-35-4	1,1-Dichloroethylene	ND		ND		nc	25
106-93-4	1,2-Dibromoethane (EDB)	ND		ND		nc	25
107-06-2	1,2-Dichloroethane	ND		ND		nc	25
78-87-5	1,2-Dichloropropane	ND		ND		nc	25
123-91-1	1,4-Dioxane	ND		ND		nc	25
75-71-8	Dichlorodifluoromethane	ND		ND		nc	25
124-48-1	Dibromochloromethane	ND		ND		nc	25
156-60-5	trans-1,2-Dichloroethylene	ND		ND		nc	25
156-59-2	cis-1,2-Dichloroethylene	ND		ND		nc	25
10061-01-5	cis-1,3-Dichloropropene	ND		ND		nc	25
541-73-1	m-Dichlorobenzene	ND		ND		nc	25
95-50-1	o-Dichlorobenzene	ND		ND		nc	25
106-46-7	p-Dichlorobenzene	ND		ND		nc	25
10061-02-6	trans-1,3-Dichloropropene	ND		ND		nc	25
64-17-5	Ethanol	20.1		20.1		0	25
100-41-4	Ethylbenzene	1.3		1.3		0	25
141-78-6	Ethyl Acetate	11.0		11.2		2	25
622-96-8	4-Ethyltoluene	ND		ND		nc	25

* = Outside of Control Limits.

Duplicate Summary

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Job Number: JD36325
Account: GESNYP Groundwater & Environmental Services
Project: Orangeburg UB, Orangeburg, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JD36248-1DUP	5W46786.D	1	12/13/21	DFT	n/a	n/a	V5W1935
JD36248-1	5W46785.D	1	12/13/21	DFT	n/a	n/a	V5W1935

The QC reported here applies to the following samples:

Method: TO-15

JD36325-1, JD36325-2, JD36325-3, JD36325-4, JD36325-5

CAS No.	Compound	JD36248-1 ppbv	DUP Q	ppbv	Q	RPD	Limits
76-13-1	Freon 113	ND		ND		nc	25
76-14-2	Freon 114	ND		ND		nc	25
142-82-5	Heptane	0.70	J	0.66	J	6	25
87-68-3	Hexachlorobutadiene	ND		ND		nc	25
110-54-3	Hexane	ND		ND		nc	25
591-78-6	2-Hexanone	ND		ND		nc	25
67-63-0	Isopropyl Alcohol	10.4		10.2		2	25
75-09-2	Methylene chloride	1.1		1.1		0	25
78-93-3	Methyl ethyl ketone	1.6		1.5		6	25
108-10-1	Methyl Isobutyl Ketone	ND		ND		nc	25
1634-04-4	Methyl Tert Butyl Ether	ND		ND		nc	25
80-62-6	Methylmethacrylate	ND		ND		nc	25
115-07-1	Propylene	ND		ND		nc	25
100-42-5	Styrene	1.1		1.1		0	25
71-55-6	1,1,1-Trichloroethane	ND		ND		nc	25
79-34-5	1,1,2,2-Tetrachloroethane	ND		ND		nc	25
79-00-5	1,1,2-Trichloroethane	ND		ND		nc	25
120-82-1	1,2,4-Trichlorobenzene	ND		ND		nc	25
95-63-6	1,2,4-Trimethylbenzene	4.0		3.8		5	25
108-67-8	1,3,5-Trimethylbenzene	0.98		0.99		1	25
540-84-1	2,2,4-Trimethylpentane	ND		ND		nc	25
75-65-0	Tertiary Butyl Alcohol	ND		ND		nc	25
127-18-4	Tetrachloroethylene	ND		ND		nc	25
109-99-9	Tetrahydrofuran	ND		ND		nc	25
108-88-3	Toluene	11.2		11.0		2	25
79-01-6	Trichloroethylene	ND		ND		nc	25
75-69-4	Trichlorofluoromethane	ND		ND		nc	25
75-01-4	Vinyl chloride	ND		ND		nc	25
108-05-4	Vinyl Acetate	ND		ND		nc	25
	m,p-Xylene	2.5		2.4		4	25
95-47-6	o-Xylene	1.1		1.1		0	25
1330-20-7	Xylenes (total)	3.6		3.6		0	25

* = Outside of Control Limits.

Duplicate Summary

Job Number: JD36325
Account: GESNYP Groundwater & Environmental Services
Project: Orangeburg UB, Orangeburg, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JD36248-1DUP	5W46786.D	1	12/13/21	DFT	n/a	n/a	V5W1935
JD36248-1	5W46785.D	1	12/13/21	DFT	n/a	n/a	V5W1935

The QC reported here applies to the following samples: Method: TO-15

JD36325-1, JD36325-2, JD36325-3, JD36325-4, JD36325-5

CAS No.	Surrogate Recoveries	DUP	JD36248-1	Limits
460-00-4	4-Bromofluorobenzene	93%	94%	65-128%

* = Outside of Control Limits.

Duplicate Summary

Job Number: JD36325
Account: GESNYP Groundwater & Environmental Services
Project: Orangeburg UB, Orangeburg, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JD36496-1DUP	5W46816.D	1	12/14/21	DFT	n/a	n/a	V5W1936
JD36496-1	5W46815.D	1	12/14/21	DFT	n/a	n/a	V5W1936

The QC reported here applies to the following samples: Method: TO-15

JD36325-1, JD36325-3

CAS No.	Compound	JD36496-1 ppbv	DUP Q	ppbv	Q	RPD	Limits
64-17-5	Ethanol	28.2		27.5		3	25
141-78-6	Ethyl Acetate	6.0		5.6		7	25
67-63-0	Isopropyl Alcohol	0.80 U		ND		nc	25

CAS No.	Surrogate Recoveries	DUP	JD36496-1	Limits
460-00-4	4-Bromofluorobenzene	84%	82%	65-128%

* = Outside of Control Limits.

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Job Number: JD36325

Account: GESNYP Groundwater & Environmental Services

Project: Orangeburg UB, Orangeburg, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V2W2494-SCC	2W55993.D	1	11/01/21	TCH	n/a	n/a	V2W2494

The QC reported here (Summa A1332) applies to the following samples:

Method: TO-15

Batch CP11406 cleaned 10/29/21: JD36325-1(A1329), JD36325-2(A1324)

CAS No.	Compound	Result	RL	Units	Q	Result	RL	Units
67-64-1	Acetone (2-Propanone)	ND	0.20	ppbv		ND	0.48	ug/m3
106-99-0	1,3-Butadiene	ND	0.20	ppbv		ND	0.44	ug/m3
71-43-2	Benzene	ND	0.20	ppbv		ND	0.64	ug/m3
75-27-4	Bromodichloromethane	ND	0.20	ppbv		ND	1.3	ug/m3
75-25-2	Bromoform	ND	0.20	ppbv		ND	2.1	ug/m3
74-83-9	Bromomethane	ND	0.20	ppbv		ND	0.78	ug/m3
593-60-2	Bromoethene	ND	0.20	ppbv		ND	0.87	ug/m3
100-44-7	Benzyl Chloride	ND	0.20	ppbv		ND	1.0	ug/m3
75-15-0	Carbon disulfide	ND	0.20	ppbv		ND	0.62	ug/m3
108-90-7	Chlorobenzene	ND	0.20	ppbv		ND	0.92	ug/m3
75-00-3	Chloroethane	ND	0.20	ppbv		ND	0.53	ug/m3
67-66-3	Chloroform	ND	0.20	ppbv		ND	0.98	ug/m3
74-87-3	Chloromethane	ND	0.20	ppbv		ND	0.41	ug/m3
107-05-1	3-Chloropropene	ND	0.20	ppbv		ND	0.63	ug/m3
95-49-8	2-Chlorotoluene	ND	0.20	ppbv		ND	1.0	ug/m3
56-23-5	Carbon tetrachloride	ND	0.20	ppbv		ND	1.3	ug/m3
110-82-7	Cyclohexane	ND	0.20	ppbv		ND	0.69	ug/m3
75-34-3	1,1-Dichloroethane	ND	0.20	ppbv		ND	0.81	ug/m3
75-35-4	1,1-Dichloroethylene	ND	0.20	ppbv		ND	0.79	ug/m3
106-93-4	1,2-Dibromoethane (EDB)	ND	0.20	ppbv		ND	1.5	ug/m3
107-06-2	1,2-Dichloroethane	ND	0.20	ppbv		ND	0.81	ug/m3
78-87-5	1,2-Dichloropropane	ND	0.20	ppbv		ND	0.92	ug/m3
123-91-1	1,4-Dioxane	ND	0.20	ppbv		ND	0.72	ug/m3
75-71-8	Dichlorodifluoromethane	ND	0.20	ppbv		ND	0.99	ug/m3
124-48-1	Dibromochloromethane	ND	0.20	ppbv		ND	1.7	ug/m3
156-60-5	trans-1,2-Dichloroethylene	ND	0.20	ppbv		ND	0.79	ug/m3
156-59-2	cis-1,2-Dichloroethylene	ND	0.20	ppbv		ND	0.79	ug/m3
10061-01-5	cis-1,3-Dichloropropene	ND	0.20	ppbv		ND	0.91	ug/m3
541-73-1	m-Dichlorobenzene	ND	0.20	ppbv		ND	1.2	ug/m3
95-50-1	o-Dichlorobenzene	ND	0.20	ppbv		ND	1.2	ug/m3
106-46-7	p-Dichlorobenzene	ND	0.20	ppbv		ND	1.2	ug/m3
10061-02-6	trans-1,3-Dichloropropene	ND	0.20	ppbv		ND	0.91	ug/m3
64-17-5	Ethanol	ND	0.50	ppbv		ND	0.94	ug/m3
100-41-4	Ethylbenzene	ND	0.20	ppbv		ND	0.87	ug/m3
141-78-6	Ethyl Acetate	ND	0.20	ppbv		ND	0.72	ug/m3
622-96-8	4-Ethyltoluene	ND	0.20	ppbv		ND	0.98	ug/m3

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Job Number: JD36325

Account: GESNYP Groundwater & Environmental Services

Project: Orangeburg UB, Orangeburg, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V2W2494-SCC	2W55993.D	1	11/01/21	TCH	n/a	n/a	V2W2494

The QC reported here (Summa A1332) applies to the following samples:

Method: TO-15

Batch CP11406 cleaned 10/29/21: JD36325-1(A1329), JD36325-2(A1324)

CAS No.	Compound	Result	RL	Units	Q	Result	RL	Units
76-13-1	Freon 113	ND	0.20	ppbv		ND	1.5	ug/m3
76-14-2	Freon 114	ND	0.20	ppbv		ND	1.4	ug/m3
142-82-5	Heptane	ND	0.20	ppbv		ND	0.82	ug/m3
87-68-3	Hexachlorobutadiene	ND	0.20	ppbv		ND	2.1	ug/m3
110-54-3	Hexane	ND	0.20	ppbv		ND	0.70	ug/m3
591-78-6	2-Hexanone	ND	0.20	ppbv		ND	0.82	ug/m3
67-63-0	Isopropyl Alcohol	ND	0.20	ppbv		ND	0.49	ug/m3
75-09-2	Methylene chloride	ND	0.20	ppbv		ND	0.69	ug/m3
78-93-3	Methyl ethyl ketone	ND	0.20	ppbv		ND	0.59	ug/m3
108-10-1	Methyl Isobutyl Ketone	ND	0.20	ppbv		ND	0.82	ug/m3
1634-04-4	Methyl Tert Butyl Ether	ND	0.20	ppbv		ND	0.72	ug/m3
80-62-6	Methylmethacrylate	ND	0.20	ppbv		ND	0.82	ug/m3
115-07-1	Propylene	ND	0.50	ppbv		ND	0.86	ug/m3
100-42-5	Styrene	ND	0.20	ppbv		ND	0.85	ug/m3
71-55-6	1,1,1-Trichloroethane	ND	0.20	ppbv		ND	1.1	ug/m3
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.20	ppbv		ND	1.4	ug/m3
79-00-5	1,1,2-Trichloroethane	ND	0.20	ppbv		ND	1.1	ug/m3
120-82-1	1,2,4-Trichlorobenzene	ND	0.20	ppbv		ND	1.5	ug/m3
95-63-6	1,2,4-Trimethylbenzene	ND	0.20	ppbv		ND	0.98	ug/m3
108-67-8	1,3,5-Trimethylbenzene	ND	0.20	ppbv		ND	0.98	ug/m3
540-84-1	2,2,4-Trimethylpentane	ND	0.20	ppbv		ND	0.93	ug/m3
75-65-0	Tertiary Butyl Alcohol	ND	0.20	ppbv		ND	0.61	ug/m3
127-18-4	Tetrachloroethylene	ND	0.040	ppbv		ND	0.27	ug/m3
109-99-9	Tetrahydrofuran	ND	0.20	ppbv		ND	0.59	ug/m3
108-88-3	Toluene	ND	0.20	ppbv		ND	0.75	ug/m3
79-01-6	Trichloroethylene	ND	0.040	ppbv		ND	0.21	ug/m3
75-69-4	Trichlorofluoromethane	ND	0.20	ppbv		ND	1.1	ug/m3
75-01-4	Vinyl chloride	ND	0.20	ppbv		ND	0.51	ug/m3
108-05-4	Vinyl Acetate	ND	0.20	ppbv		ND	0.70	ug/m3
	m,p-Xylene	ND	0.20	ppbv		ND	0.87	ug/m3
95-47-6	o-Xylene	ND	0.20	ppbv		ND	0.87	ug/m3
1330-20-7	Xylenes (total)	ND	0.20	ppbv		ND	0.87	ug/m3

Summa Cleaning Certification

Job Number: JD36325
Account: GESNYP Groundwater & Environmental Services
Project: Orangeburg UB, Orangeburg, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V2W2494-SCC	2W55993.D	1	11/01/21	TCH	n/a	n/a	V2W2494

The QC reported here (Summa A1332) applies to the following samples: Method: TO-15

Batch CP11406 cleaned 10/29/21: JD36325-1(A1329), JD36325-2(A1324)

CAS No.	Surrogate Recoveries	Limits
460-00-4	4-Bromofluorobenzene	92% 65-128%

6.4.1
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Job Number: JD36325

Account: GESNYP Groundwater & Environmental Services

Project: Orangeburg UB, Orangeburg, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V2W2495-SCC	2W56011.D	1	11/02/21	TCH	n/a	n/a	V2W2495

The QC reported here (Summa M162) applies to the following samples:

Method: TO-15

Batch CP11409 cleaned 10/29/21: JD36325-3(A086)

CAS No.	Compound	Result	RL	Units	Q	Result	RL	Units
67-64-1	Acetone (2-Propanone)	ND	0.20	ppbv		ND	0.48	ug/m3
106-99-0	1,3-Butadiene	ND	0.20	ppbv		ND	0.44	ug/m3
71-43-2	Benzene	ND	0.20	ppbv		ND	0.64	ug/m3
75-27-4	Bromodichloromethane	ND	0.20	ppbv		ND	1.3	ug/m3
75-25-2	Bromoform	ND	0.20	ppbv		ND	2.1	ug/m3
74-83-9	Bromomethane	ND	0.20	ppbv		ND	0.78	ug/m3
593-60-2	Bromoethene	ND	0.20	ppbv		ND	0.87	ug/m3
100-44-7	Benzyl Chloride	ND	0.20	ppbv		ND	1.0	ug/m3
75-15-0	Carbon disulfide	ND	0.20	ppbv		ND	0.62	ug/m3
108-90-7	Chlorobenzene	ND	0.20	ppbv		ND	0.92	ug/m3
75-00-3	Chloroethane	ND	0.20	ppbv		ND	0.53	ug/m3
67-66-3	Chloroform	ND	0.20	ppbv		ND	0.98	ug/m3
74-87-3	Chloromethane	ND	0.20	ppbv		ND	0.41	ug/m3
107-05-1	3-Chloropropene	ND	0.20	ppbv		ND	0.63	ug/m3
95-49-8	2-Chlorotoluene	ND	0.20	ppbv		ND	1.0	ug/m3
56-23-5	Carbon tetrachloride	ND	0.20	ppbv		ND	1.3	ug/m3
110-82-7	Cyclohexane	ND	0.20	ppbv		ND	0.69	ug/m3
75-34-3	1,1-Dichloroethane	ND	0.20	ppbv		ND	0.81	ug/m3
75-35-4	1,1-Dichloroethylene	ND	0.20	ppbv		ND	0.79	ug/m3
106-93-4	1,2-Dibromoethane (EDB)	ND	0.20	ppbv		ND	1.5	ug/m3
107-06-2	1,2-Dichloroethane	ND	0.20	ppbv		ND	0.81	ug/m3
78-87-5	1,2-Dichloropropane	ND	0.20	ppbv		ND	0.92	ug/m3
123-91-1	1,4-Dioxane	ND	0.20	ppbv		ND	0.72	ug/m3
75-71-8	Dichlorodifluoromethane	ND	0.20	ppbv		ND	0.99	ug/m3
124-48-1	Dibromochloromethane	ND	0.20	ppbv		ND	1.7	ug/m3
156-60-5	trans-1,2-Dichloroethylene	ND	0.20	ppbv		ND	0.79	ug/m3
156-59-2	cis-1,2-Dichloroethylene	ND	0.20	ppbv		ND	0.79	ug/m3
10061-01-5	cis-1,3-Dichloropropene	ND	0.20	ppbv		ND	0.91	ug/m3
541-73-1	m-Dichlorobenzene	ND	0.20	ppbv		ND	1.2	ug/m3
95-50-1	o-Dichlorobenzene	ND	0.20	ppbv		ND	1.2	ug/m3
106-46-7	p-Dichlorobenzene	ND	0.20	ppbv		ND	1.2	ug/m3
10061-02-6	trans-1,3-Dichloropropene	ND	0.20	ppbv		ND	0.91	ug/m3
64-17-5	Ethanol	ND	0.50	ppbv		ND	0.94	ug/m3
100-41-4	Ethylbenzene	ND	0.20	ppbv		ND	0.87	ug/m3
141-78-6	Ethyl Acetate	ND	0.20	ppbv		ND	0.72	ug/m3
622-96-8	4-Ethyltoluene	ND	0.20	ppbv		ND	0.98	ug/m3

Summa Cleaning Certification

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Job Number: JD36325**Account:** GESNYP Groundwater & Environmental Services**Project:** Orangeburg UB, Orangeburg, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V2W2495-SCC	2W56011.D	1	11/02/21	TCH	n/a	n/a	V2W2495

The QC reported here (Summa M162) applies to the following samples:**Method:** TO-15

Batch CP11409 cleaned 10/29/21: JD36325-3(A086)

CAS No.	Compound	Result	RL	Units	Q	Result	RL	Units
76-13-1	Freon 113	ND	0.20	ppbv		ND	1.5	ug/m3
76-14-2	Freon 114	ND	0.20	ppbv		ND	1.4	ug/m3
142-82-5	Heptane	ND	0.20	ppbv		ND	0.82	ug/m3
87-68-3	Hexachlorobutadiene	ND	0.20	ppbv		ND	2.1	ug/m3
110-54-3	Hexane	ND	0.20	ppbv		ND	0.70	ug/m3
591-78-6	2-Hexanone	ND	0.20	ppbv		ND	0.82	ug/m3
67-63-0	Isopropyl Alcohol	ND	0.20	ppbv		ND	0.49	ug/m3
75-09-2	Methylene chloride	ND	0.20	ppbv		ND	0.69	ug/m3
78-93-3	Methyl ethyl ketone	ND	0.20	ppbv		ND	0.59	ug/m3
108-10-1	Methyl Isobutyl Ketone	ND	0.20	ppbv		ND	0.82	ug/m3
1634-04-4	Methyl Tert Butyl Ether	ND	0.20	ppbv		ND	0.72	ug/m3
80-62-6	Methylmethacrylate	ND	0.20	ppbv		ND	0.82	ug/m3
115-07-1	Propylene	ND	0.50	ppbv		ND	0.86	ug/m3
100-42-5	Styrene	ND	0.20	ppbv		ND	0.85	ug/m3
71-55-6	1,1,1-Trichloroethane	ND	0.20	ppbv		ND	1.1	ug/m3
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.20	ppbv		ND	1.4	ug/m3
79-00-5	1,1,2-Trichloroethane	ND	0.20	ppbv		ND	1.1	ug/m3
120-82-1	1,2,4-Trichlorobenzene	ND	0.20	ppbv		ND	1.5	ug/m3
95-63-6	1,2,4-Trimethylbenzene	ND	0.20	ppbv		ND	0.98	ug/m3
108-67-8	1,3,5-Trimethylbenzene	ND	0.20	ppbv		ND	0.98	ug/m3
540-84-1	2,2,4-Trimethylpentane	ND	0.20	ppbv		ND	0.93	ug/m3
75-65-0	Tertiary Butyl Alcohol	ND	0.20	ppbv		ND	0.61	ug/m3
127-18-4	Tetrachloroethylene	ND	0.040	ppbv		ND	0.27	ug/m3
109-99-9	Tetrahydrofuran	ND	0.20	ppbv		ND	0.59	ug/m3
108-88-3	Toluene	ND	0.20	ppbv		ND	0.75	ug/m3
79-01-6	Trichloroethylene	ND	0.040	ppbv		ND	0.21	ug/m3
75-69-4	Trichlorofluoromethane	ND	0.20	ppbv		ND	1.1	ug/m3
75-01-4	Vinyl chloride	ND	0.20	ppbv		ND	0.51	ug/m3
108-05-4	Vinyl Acetate	ND	0.20	ppbv		ND	0.70	ug/m3
	m,p-Xylene	ND	0.20	ppbv		ND	0.87	ug/m3
95-47-6	o-Xylene	ND	0.20	ppbv		ND	0.87	ug/m3
1330-20-7	Xylenes (total)	ND	0.20	ppbv		ND	0.87	ug/m3

Summa Cleaning Certification

Job Number: JD36325
Account: GESNYP Groundwater & Environmental Services
Project: Orangeburg UB, Orangeburg, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V2W2495-SCC	2W56011.D	1	11/02/21	TCH	n/a	n/a	V2W2495

The QC reported here (Summa M162) applies to the following samples: Method: TO-15

Batch CP11409 cleaned 10/29/21: JD36325-3(A086)

CAS No.	Surrogate Recoveries	Limits
460-00-4	4-Bromofluorobenzene	91% 65-128%

Summa Cleaning Certification

Job Number: JD36325

Account: GESNYP Groundwater & Environmental Services

Project: Orangeburg UB, Orangeburg, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V2W2497-SCC	2W56079.D	1	11/05/21	TCH	n/a	n/a	V2W2497

The QC reported here (Summa A1334) applies to the following samples:

Method: TO-15

Batch CP11410 cleaned 11/01/21: JD36325-4(A1302), JD36325-5(A1305)

CAS No.	Compound	Result	RL	Units	Q	Result	RL	Units
67-64-1	Acetone (2-Propanone)	ND	0.20	ppbv		ND	0.48	ug/m3
106-99-0	1,3-Butadiene	ND	0.20	ppbv		ND	0.44	ug/m3
71-43-2	Benzene	ND	0.20	ppbv		ND	0.64	ug/m3
75-27-4	Bromodichloromethane	ND	0.20	ppbv		ND	1.3	ug/m3
75-25-2	Bromoform	ND	0.20	ppbv		ND	2.1	ug/m3
74-83-9	Bromomethane	ND	0.20	ppbv		ND	0.78	ug/m3
593-60-2	Bromoethene	ND	0.20	ppbv		ND	0.87	ug/m3
100-44-7	Benzyl Chloride	ND	0.20	ppbv		ND	1.0	ug/m3
75-15-0	Carbon disulfide	ND	0.20	ppbv		ND	0.62	ug/m3
108-90-7	Chlorobenzene	ND	0.20	ppbv		ND	0.92	ug/m3
75-00-3	Chloroethane	ND	0.20	ppbv		ND	0.53	ug/m3
67-66-3	Chloroform	ND	0.20	ppbv		ND	0.98	ug/m3
74-87-3	Chloromethane	ND	0.20	ppbv		ND	0.41	ug/m3
107-05-1	3-Chloropropene	ND	0.20	ppbv		ND	0.63	ug/m3
95-49-8	2-Chlorotoluene	ND	0.20	ppbv		ND	1.0	ug/m3
56-23-5	Carbon tetrachloride	ND	0.20	ppbv		ND	1.3	ug/m3
110-82-7	Cyclohexane	ND	0.20	ppbv		ND	0.69	ug/m3
75-34-3	1,1-Dichloroethane	ND	0.20	ppbv		ND	0.81	ug/m3
75-35-4	1,1-Dichloroethylene	ND	0.20	ppbv		ND	0.79	ug/m3
106-93-4	1,2-Dibromoethane (EDB)	ND	0.20	ppbv		ND	1.5	ug/m3
107-06-2	1,2-Dichloroethane	ND	0.20	ppbv		ND	0.81	ug/m3
78-87-5	1,2-Dichloropropane	ND	0.20	ppbv		ND	0.92	ug/m3
123-91-1	1,4-Dioxane	ND	0.20	ppbv		ND	0.72	ug/m3
75-71-8	Dichlorodifluoromethane	ND	0.20	ppbv		ND	0.99	ug/m3
124-48-1	Dibromochloromethane	ND	0.20	ppbv		ND	1.7	ug/m3
156-60-5	trans-1,2-Dichloroethylene	ND	0.20	ppbv		ND	0.79	ug/m3
156-59-2	cis-1,2-Dichloroethylene	ND	0.20	ppbv		ND	0.79	ug/m3
10061-01-5	cis-1,3-Dichloropropene	ND	0.20	ppbv		ND	0.91	ug/m3
541-73-1	m-Dichlorobenzene	ND	0.20	ppbv		ND	1.2	ug/m3
95-50-1	o-Dichlorobenzene	ND	0.20	ppbv		ND	1.2	ug/m3
106-46-7	p-Dichlorobenzene	ND	0.20	ppbv		ND	1.2	ug/m3
10061-02-6	trans-1,3-Dichloropropene	ND	0.20	ppbv		ND	0.91	ug/m3
64-17-5	Ethanol	ND	0.50	ppbv		ND	0.94	ug/m3
100-41-4	Ethylbenzene	ND	0.20	ppbv		ND	0.87	ug/m3
141-78-6	Ethyl Acetate	ND	0.20	ppbv		ND	0.72	ug/m3
622-96-8	4-Ethyltoluene	ND	0.20	ppbv		ND	0.98	ug/m3

Summa Cleaning Certification

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Job Number: JD36325

Account: GESNYP Groundwater & Environmental Services

Project: Orangeburg UB, Orangeburg, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V2W2497-SCC	2W56079.D	1	11/05/21	TCH	n/a	n/a	V2W2497

The QC reported here (Summa A1334) applies to the following samples:

Method: TO-15

Batch CP11410 cleaned 11/01/21: JD36325-4(A1302), JD36325-5(A1305)

CAS No.	Compound	Result	RL	Units	Q	Result	RL	Units
76-13-1	Freon 113	ND	0.20	ppbv		ND	1.5	ug/m3
76-14-2	Freon 114	ND	0.20	ppbv		ND	1.4	ug/m3
142-82-5	Heptane	ND	0.20	ppbv		ND	0.82	ug/m3
87-68-3	Hexachlorobutadiene	ND	0.20	ppbv		ND	2.1	ug/m3
110-54-3	Hexane	ND	0.20	ppbv		ND	0.70	ug/m3
591-78-6	2-Hexanone	ND	0.20	ppbv		ND	0.82	ug/m3
67-63-0	Isopropyl Alcohol	ND	0.20	ppbv		ND	0.49	ug/m3
75-09-2	Methylene chloride	ND	0.20	ppbv		ND	0.69	ug/m3
78-93-3	Methyl ethyl ketone	ND	0.20	ppbv		ND	0.59	ug/m3
108-10-1	Methyl Isobutyl Ketone	ND	0.20	ppbv		ND	0.82	ug/m3
1634-04-4	Methyl Tert Butyl Ether	ND	0.20	ppbv		ND	0.72	ug/m3
80-62-6	Methylmethacrylate	ND	0.20	ppbv		ND	0.82	ug/m3
115-07-1	Propylene	ND	0.50	ppbv		ND	0.86	ug/m3
100-42-5	Styrene	ND	0.20	ppbv		ND	0.85	ug/m3
71-55-6	1,1,1-Trichloroethane	ND	0.20	ppbv		ND	1.1	ug/m3
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.20	ppbv		ND	1.4	ug/m3
79-00-5	1,1,2-Trichloroethane	ND	0.20	ppbv		ND	1.1	ug/m3
120-82-1	1,2,4-Trichlorobenzene	ND	0.20	ppbv		ND	1.5	ug/m3
95-63-6	1,2,4-Trimethylbenzene	ND	0.20	ppbv		ND	0.98	ug/m3
108-67-8	1,3,5-Trimethylbenzene	ND	0.20	ppbv		ND	0.98	ug/m3
540-84-1	2,2,4-Trimethylpentane	ND	0.20	ppbv		ND	0.93	ug/m3
75-65-0	Tertiary Butyl Alcohol	ND	0.20	ppbv		ND	0.61	ug/m3
127-18-4	Tetrachloroethylene	ND	0.040	ppbv		ND	0.27	ug/m3
109-99-9	Tetrahydrofuran	ND	0.20	ppbv		ND	0.59	ug/m3
108-88-3	Toluene	ND	0.20	ppbv		ND	0.75	ug/m3
79-01-6	Trichloroethylene	ND	0.040	ppbv		ND	0.21	ug/m3
75-69-4	Trichlorofluoromethane	ND	0.20	ppbv		ND	1.1	ug/m3
75-01-4	Vinyl chloride	ND	0.20	ppbv		ND	0.51	ug/m3
108-05-4	Vinyl Acetate	ND	0.20	ppbv		ND	0.70	ug/m3
	m,p-Xylene	ND	0.20	ppbv		ND	0.87	ug/m3
95-47-6	o-Xylene	ND	0.20	ppbv		ND	0.87	ug/m3
1330-20-7	Xylenes (total)	ND	0.20	ppbv		ND	0.87	ug/m3

Summa Cleaning Certification

Job Number: JD36325
Account: GESNYP Groundwater & Environmental Services
Project: Orangeburg UB, Orangeburg, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V2W2497-SCC	2W56079.D	1	11/05/21	TCH	n/a	n/a	V2W2497

The QC reported here (Summa A1334) applies to the following samples: Method: TO-15

Batch CP11410 cleaned 11/01/21: JD36325-4(A1302), JD36325-5(A1305)

CAS No.	Surrogate Recoveries	Limits
460-00-4	4-Bromofluorobenzene	92% 65-128%

Instrument Performance Check (BFB)

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Job Number: JD36325
Account: GESNYP Groundwater & Environmental Services
Project: Orangeburg UB, Orangeburg, NY

Sample: V2W2424-BFB	Injection Date: 07/27/21
Lab File ID: 2W54653.D	Injection Time: 11:06
Instrument ID: GCMS2W	

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance	Pass/Fail
50	8.0 - 40.0% of mass 95	17344	20.4	Pass
75	30.0 - 66.0% of mass 95	49021	57.7	Pass
95	Base peak, 100% relative abundance	84973	100.0	Pass
96	5.0 - 9.0% of mass 95	5881	6.92	Pass
173	Less than 2.0% of mass 174	215	0.25 (0.29) ^a	Pass
174	50.0 - 120.0% of mass 95	74597	87.8	Pass
175	4.0 - 9.01% of mass 174	5828	6.86 (7.81) ^a	Pass
176	93.0 - 101.0% of mass 174	72717	85.6 (97.5) ^a	Pass
177	5.0 - 9.0% of mass 176	4763	5.61 (6.55) ^b	Pass

(a) Value is % of mass 174

(b) Value is % of mass 176

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
V2W2424-IC2424	2W54654.D	07/27/21	11:38	00:32	Initial cal 0.5
V2W2424-IC2424	2W54655.D	07/27/21	12:10	01:04	Initial cal 0.2
V2W2424-IC2424	2W54656.D	07/27/21	12:41	01:35	Initial cal 0.1
V2W2424-IC2424	2W54657.D	07/27/21	13:13	02:07	Initial cal 0.04
V2W2424-IC2424	2W54658.D	07/27/21	13:44	02:38	Initial cal 5
V2W2424-ICC2424	2W54659.D	07/27/21	14:15	03:09	Initial cal 10
V2W2424-IC2424	2W54660.D	07/27/21	14:47	03:41	Initial cal 20
V2W2424-IC2424	2W54661.D	07/27/21	15:21	04:15	Initial cal 40
V2W2424-ICV2424	2W54663.D	07/27/21	16:24	05:18	Initial cal verification 10

Instrument Performance Check (BFB)

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Job Number: JD36325
Account: GESNYP Groundwater & Environmental Services
Project: Orangeburg UB, Orangeburg, NY

Sample: V2W2494-BFB	Injection Date: 11/01/21
Lab File ID: 2W55978.D	Injection Time: 06:59
Instrument ID: GCMS2W	

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance	Pass/Fail
50	8.0 - 40.0% of mass 95	13139	14.5	Pass
75	30.0 - 66.0% of mass 95	41240	45.4	Pass
95	Base peak, 100% relative abundance	90861	100.0	Pass
96	5.0 - 9.0% of mass 95	5649	6.22	Pass
173	Less than 2.0% of mass 174	499	0.55 (0.60) ^a	Pass
174	50.0 - 120.0% of mass 95	83824	92.3	Pass
175	4.0 - 9.01% of mass 174	6272	6.90 (7.48) ^a	Pass
176	93.0 - 101.0% of mass 174	81173	89.3 (96.8) ^a	Pass
177	5.0 - 9.0% of mass 176	5145	5.66 (6.34) ^b	Pass

(a) Value is % of mass 174

(b) Value is % of mass 176

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
V2W2494-CC2424	2W55980.D	11/01/21	08:49	01:50	Continuing cal 10
V2W2494-BS	2W55982.D	11/01/21	10:21	03:22	Blank Spike
V2W2494-BSD	2W55983.D	11/01/21	11:03	04:04	Blank Spike Duplicate
V2W2494-MB	2W55985.D	11/01/21	12:25	05:26	Method Blank
JD34199-1	2W55986.D	11/01/21	13:13	06:14	(used for QC only; not part of job JD36325)
JD34199-1DUP	2W55987.D	11/01/21	13:50	06:51	Duplicate
ZZZZZZ	2W55988.D	11/01/21	14:26	07:27	(unrelated sample)
V2W2494-SCC	2W55990.D	11/01/21	15:44	08:45	Summa Cleaning Certification
V2W2494-SCC	2W55992.D	11/01/21	17:08	10:09	Summa Cleaning Certification
V2W2494-SCC	2W55993.D	11/01/21	17:48	10:49	Summa Cleaning Certification
V2W2494-SCC	2W55994.D	11/01/21	18:29	11:30	Summa Cleaning Certification
V2W2494-SCC	2W55995.D	11/01/21	19:05	12:06	Summa Cleaning Certification
V2W2494-SCC	2W55996.D	11/01/21	19:40	12:41	Summa Cleaning Certification
V2W2494-SCC	2W55997.D	11/01/21	20:15	13:16	Summa Cleaning Certification
JD34199-1	2W55998.D	11/01/21	20:51	13:52	(used for QC only; not part of job JD36325)
ZZZZZZ	2W55999.D	11/01/21	21:27	14:28	(unrelated sample)
ZZZZZZ	2W56000.D	11/01/21	22:03	15:04	(unrelated sample)
ZZZZZZ	2W56001.D	11/01/21	22:40	15:41	(unrelated sample)
ZZZZZZ	2W56002.D	11/01/21	23:16	16:17	(unrelated sample)
ZZZZZZ	2W56003.D	11/01/21	23:51	16:52	(unrelated sample)
ZZZZZZ	2W56004.D	11/02/21	00:28	17:29	(unrelated sample)

Instrument Performance Check (BFB)

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Job Number: JD36325
Account: GESNYP Groundwater & Environmental Services
Project: Orangeburg UB, Orangeburg, NY

Sample: V2W2495-BFB	Injection Date: 11/02/21
Lab File ID: 2W56005.D	Injection Time: 07:21
Instrument ID: GCMS2W	

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance	Pass/Fail
50	8.0 - 40.0% of mass 95	13711	14.9	Pass
75	30.0 - 66.0% of mass 95	43245	47.0	Pass
95	Base peak, 100% relative abundance	92005	100.0	Pass
96	5.0 - 9.0% of mass 95	5972	6.49	Pass
173	Less than 2.0% of mass 174	547	0.59 (0.62) ^a	Pass
174	50.0 - 120.0% of mass 95	87619	95.2	Pass
175	4.0 - 9.01% of mass 174	6070	6.60 (6.93) ^a	Pass
176	93.0 - 101.0% of mass 174	84699	92.1 (96.7) ^a	Pass
177	5.0 - 9.0% of mass 176	5455	5.93 (6.44) ^b	Pass

(a) Value is % of mass 174

(b) Value is % of mass 176

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
V2W2495-CC2424	2W56006.D	11/02/21	07:58	00:37	Continuing cal 10
V2W2495-BS	2W56007.D	11/02/21	08:47	01:26	Blank Spike
V2W2495-BS	2W56008.D	11/02/21	09:23	02:02	Blank Spike Duplicate
V2W2495-MB	2W56010.D	11/02/21	10:48	03:27	Method Blank
V2W2495-SCC	2W56011.D	11/02/21	13:05	05:44	Summa Cleaning Certification
V2W2495-SCC	2W56012.D	11/02/21	13:41	06:20	Summa Cleaning Certification
V2W2495-SCC	2W56013.D	11/02/21	14:15	06:54	Summa Cleaning Certification
V2W2495-SCC	2W56014.D	11/02/21	14:51	07:30	Summa Cleaning Certification
V2W2495-SCC	2W56015.D	11/02/21	15:27	08:06	Summa Cleaning Certification
ZZZZZZ	2W56016.D	11/02/21	16:03	08:42	(unrelated sample)
ZZZZZZ	2W56017.D	11/02/21	16:40	09:19	(unrelated sample)
ZZZZZZ	2W56018.D	11/02/21	17:15	09:54	(unrelated sample)
ZZZZZZ	2W56019.D	11/02/21	17:51	10:30	(unrelated sample)
ZZZZZZ	2W56020.D	11/02/21	18:27	11:06	(unrelated sample)
ZZZZZZ	2W56021.D	11/02/21	19:03	11:42	(unrelated sample)
ZZZZZZ	2W56022.D	11/02/21	19:39	12:18	(unrelated sample)
JD34484-3	2W56023.D	11/02/21	20:15	12:54	(used for QC only; not part of job JD36325)
JD34484-3DUP	2W56024.D	11/02/21	20:52	13:31	Duplicate
ZZZZZZ	2W56025.D	11/02/21	21:28	14:07	(unrelated sample)
ZZZZZZ	2W56026.D	11/02/21	22:04	14:43	(unrelated sample)
ZZZZZZ	2W56027.D	11/02/21	22:48	15:27	(unrelated sample)
ZZZZZZ	2W56028.D	11/02/21	23:30	16:09	(unrelated sample)
ZZZZZZ	2W56029.D	11/03/21	00:07	16:46	(unrelated sample)
ZZZZZZ	2W56030.D	11/03/21	00:44	17:23	(unrelated sample)

Instrument Performance Check (BFB)

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Job Number: JD36325
Account: GESNYP Groundwater & Environmental Services
Project: Orangeburg UB, Orangeburg, NY

Sample: V2W2497-BFB	Injection Date: 11/04/21
Lab File ID: 2W56052.D	Injection Time: 06:46
Instrument ID: GCMS2W	

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance	Pass/Fail
50	8.0 - 40.0% of mass 95	12982	14.7	Pass
75	30.0 - 66.0% of mass 95	41104	46.6	Pass
95	Base peak, 100% relative abundance	88184	100.0	Pass
96	5.0 - 9.0% of mass 95	5800	6.58	Pass
173	Less than 2.0% of mass 174	537	0.61 (0.65) ^a	Pass
174	50.0 - 120.0% of mass 95	82253	93.3	Pass
175	4.0 - 9.01% of mass 174	5735	6.50 (6.97) ^a	Pass
176	93.0 - 101.0% of mass 174	77688	88.1 (94.5) ^a	Pass
177	5.0 - 9.0% of mass 176	5127	5.81 (6.60) ^b	Pass

(a) Value is % of mass 174

(b) Value is % of mass 176

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
V2W2497-CC2424	2W56053.D	11/04/21	07:23	00:37	Continuing cal 10
V2W2497-BS	2W56054.D	11/04/21	08:14	01:28	Blank Spike
V2W2497-BSD	2W56056.D	11/04/21	09:45	02:59	Blank Spike Duplicate
V2W2497-MB	2W56058.D	11/04/21	11:09	04:23	Method Blank
JD34347-5	2W56059.D	11/04/21	12:02	05:16	(used for QC only; not part of job JD36325)
ZZZZZZ	2W56060.D	11/04/21	12:37	05:51	(unrelated sample)
ZZZZZZ	2W56062.D	11/04/21	13:54	07:08	(unrelated sample)
ZZZZZZ	2W56063.D	11/04/21	14:43	07:57	(unrelated sample)
JD34347-5DUP	2W56064.D	11/04/21	15:21	08:35	Duplicate
ZZZZZZ	2W56065.D	11/04/21	15:56	09:10	(unrelated sample)
ZZZZZZ	2W56066.D	11/04/21	16:32	09:46	(unrelated sample)
ZZZZZZ	2W56067.D	11/04/21	17:08	10:22	(unrelated sample)
ZZZZZZ	2W56068.D	11/04/21	17:45	10:59	(unrelated sample)
ZZZZZZ	2W56069.D	11/04/21	18:21	11:35	(unrelated sample)
ZZZZZZ	2W56070.D	11/04/21	18:57	12:11	(unrelated sample)
ZZZZZZ	2W56071.D	11/04/21	19:34	12:48	(unrelated sample)
ZZZZZZ	2W56072.D	11/04/21	20:09	13:23	(unrelated sample)
ZZZZZZ	2W56073.D	11/04/21	20:46	14:00	(unrelated sample)
ZZZZZZ	2W56074.D	11/04/21	21:30	14:44	(unrelated sample)
ZZZZZZ	2W56075.D	11/04/21	22:13	15:27	(unrelated sample)
V2W2497-SCC	2W56076.D	11/04/21	22:49	16:03	Summa Cleaning Certification
V2W2497-SCC	2W56078.D	11/05/21	00:12	17:26	Summa Cleaning Certification
V2W2497-SCC	2W56079.D	11/05/21	00:54	18:08	Summa Cleaning Certification
V2W2497-SCC	2W56080.D	11/05/21	01:36	18:50	Summa Cleaning Certification

Instrument Performance Check (BFB)

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Job Number: JD36325
Account: GESNYP Groundwater & Environmental Services
Project: Orangeburg UB, Orangeburg, NY

Sample: V5W1909-BFB	Injection Date: 11/04/21
Lab File ID: 5W46125.D	Injection Time: 09:52
Instrument ID: GCMS5W	

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance	Pass/Fail
50	8.0 - 40.0% of mass 95	29392	12.6	Pass
75	30.0 - 66.0% of mass 95	98379	42.1	Pass
95	Base peak, 100% relative abundance	233792	100.0	Pass
96	5.0 - 9.0% of mass 95	15532	6.64	Pass
173	Less than 2.0% of mass 174	0	0.00 (0.00) ^a	Pass
174	50.0 - 120.0% of mass 95	257152	110.0	Pass
175	4.0 - 9.0% of mass 174	18667	7.98 (7.26) ^a	Pass
176	93.0 - 101.0% of mass 174	253547	108.4 (98.6) ^a	Pass
177	5.0 - 9.0% of mass 176	16661	7.13 (6.57) ^b	Pass

(a) Value is % of mass 174

(b) Value is % of mass 176

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
V5W1909-IC1909	5W46126.D	11/04/21	10:43	00:51	Initial cal 0.5
V5W1909-IC1909	5W46127.D	11/04/21	11:32	01:40	Initial cal 0.2
V5W1909-IC1909	5W46128.D	11/04/21	12:20	02:28	Initial cal 0.1
V5W1909-IC1909	5W46129.D	11/04/21	13:08	03:16	Initial cal 0.04
V5W1909-IC1909	5W46130.D	11/04/21	13:56	04:04	Initial cal 5
V5W1909-ICC1909	5W46131.D	11/04/21	14:45	04:53	Initial cal 10
V5W1909-IC1909	5W46132.D	11/04/21	15:36	05:44	Initial cal 20
V5W1909-IC1909	5W46133.D	11/04/21	16:30	06:38	Initial cal 40
V5W1909-IC1909	5W46134.D	11/04/21	17:25	07:33	Initial cal 50
V5W1909-ICV1909	5W46137.D	11/04/21	19:52	10:00	Initial cal verification 10

Instrument Performance Check (BFB)

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Job Number: JD36325
Account: GESNYP Groundwater & Environmental Services
Project: Orangeburg UB, Orangeburg, NY

Sample: V5W1935-BFB	Injection Date: 12/13/21
Lab File ID: 5W46774.D	Injection Time: 07:49
Instrument ID: GCMS5W	

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance	Pass/Fail
50	8.0 - 40.0% of mass 95	24064	12.9	Pass
75	30.0 - 66.0% of mass 95	80693	43.3	Pass
95	Base peak, 100% relative abundance	186475	100.0	Pass
96	5.0 - 9.0% of mass 95	12167	6.52	Pass
173	Less than 2.0% of mass 174	0	0.00 (0.00) ^a	Pass
174	50.0 - 120.0% of mass 95	197483	105.9	Pass
175	4.0 - 9.0% of mass 174	14420	7.73 (7.30) ^a	Pass
176	93.0 - 101.0% of mass 174	192875	103.4 (97.7) ^a	Pass
177	5.0 - 9.0% of mass 176	12514	6.71 (6.49) ^b	Pass

(a) Value is % of mass 174

(b) Value is % of mass 176

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
V5W1935-CC1909	5W46775.D	12/13/21	08:38	00:49	Continuing cal 10
V5W1935-BS	5W46777.D	12/13/21	10:27	02:38	Blank Spike
V5W1935-BSD	5W46778.D	12/13/21	11:15	03:26	Blank Spike Duplicate
V5W1935-MB	5W46781.D	12/13/21	13:54	06:05	Method Blank
ZZZZZZ	5W46782.D	12/13/21	14:42	06:53	(unrelated sample)
ZZZZZZ	5W46783.D	12/13/21	15:30	07:41	(unrelated sample)
ZZZZZZ	5W46784.D	12/13/21	16:18	08:29	(unrelated sample)
JD36248-1	5W46785.D	12/13/21	17:07	09:18	(used for QC only; not part of job JD36325)
JD36248-1DUP	5W46786.D	12/13/21	17:56	10:07	Duplicate
ZZZZZZ	5W46787.D	12/13/21	18:45	10:56	(unrelated sample)
ZZZZZZ	5W46788.D	12/13/21	19:35	11:46	(unrelated sample)
ZZZZZZ	5W46789.D	12/13/21	20:23	12:34	(unrelated sample)
ZZZZZZ	5W46790.D	12/13/21	21:12	13:23	(unrelated sample)
ZZZZZZ	5W46791.D	12/13/21	22:01	14:12	(unrelated sample)
ZZZZZZ	5W46792.D	12/13/21	22:50	15:01	(unrelated sample)
ZZZZZZ	5W46793.D	12/13/21	23:38	15:49	(unrelated sample)
ZZZZZZ	5W46794.D	12/14/21	00:27	16:38	(unrelated sample)
JD36325-2	5W46795.D	12/14/21	01:25	17:36	VP-5 INDOOR
JD36325-4	5W46796.D	12/14/21	02:22	18:33	VP-6 INDOOR
JD36325-5	5W46797.D	12/14/21	03:20	19:31	OUTSIDE AMBIENT
JD36325-1	5W46798.D	12/14/21	04:16	20:27	VP-5 SOIL VAPOR
JD36325-3	5W46799.D	12/14/21	05:11	21:22	VP-6 SOIL VAPOR
V5W1935-SCC	5W46800.D	12/14/21	06:02	22:13	Summa Cleaning Certification
V5W1935-SCC	5W46801.D	12/14/21	06:51	23:02	Summa Cleaning Certification

Instrument Performance Check (BFB)

Job Number: JD36325
Account: GESNYP Groundwater & Environmental Services
Project: Orangeburg UB, Orangeburg, NY

Sample: V5W1936-BFB	Injection Date: 12/14/21
Lab File ID: 5W46802.D	Injection Time: 07:53
Instrument ID: GCMS5W	

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance	Pass/Fail
50	8.0 - 40.0% of mass 95	29408	13.3	Pass
75	30.0 - 66.0% of mass 95	95955	43.5	Pass
95	Base peak, 100% relative abundance	220459	100.0	Pass
96	5.0 - 9.0% of mass 95	14806	6.72	Pass
173	Less than 2.0% of mass 174	0	0.00 (0.00) ^a	Pass
174	50.0 - 120.0% of mass 95	221013	100.3	Pass
175	4.0 - 9.0% of mass 174	16793	7.62 (7.60) ^a	Pass
176	93.0 - 101.0% of mass 174	216213	98.1 (97.8) ^a	Pass
177	5.0 - 9.0% of mass 176	14867	6.74 (6.88) ^b	Pass

(a) Value is % of mass 174

(b) Value is % of mass 176

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
V5W1936-CC1909	5W46803.D	12/14/21	08:42	00:49	Continuing cal 10
V5W1936-BS	5W46804.D	12/14/21	09:34	01:41	Blank Spike
V5W1936-BSD	5W46805.D	12/14/21	10:23	02:30	Blank Spike Duplicate
V5W1936-MB	5W46808.D	12/14/21	13:06	05:13	Method Blank
V5W1936-SCC	5W46809.D	12/14/21	14:00	06:07	Summa Cleaning Certification
V5W1936-SCC	5W46810.D	12/14/21	14:49	06:56	Summa Cleaning Certification
V5W1936-SCC	5W46811.D	12/14/21	15:44	07:51	Summa Cleaning Certification
JD36325-1	5W46812.D	12/14/21	16:34	08:41	VP-5 SOIL VAPOR
JD36325-3	5W46813.D	12/14/21	17:23	09:30	VP-6 SOIL VAPOR
ZZZZZZ	5W46814.D	12/14/21	18:11	10:18	(unrelated sample)
JD36496-1	5W46815.D	12/14/21	19:00	11:07	(used for QC only; not part of job JD36325)
JD36496-1DUP	5W46816.D	12/14/21	19:49	11:56	Duplicate
ZZZZZZ	5W46817.D	12/14/21	20:37	12:44	(unrelated sample)
ZZZZZZ	5W46818.D	12/14/21	21:26	13:33	(unrelated sample)
ZZZZZZ	5W46819.D	12/14/21	22:21	14:28	(unrelated sample)
ZZZZZZ	5W46820.D	12/14/21	23:16	15:23	(unrelated sample)
ZZZZZZ	5W46821.D	12/15/21	00:11	16:18	(unrelated sample)
ZZZZZZ	5W46822.D	12/15/21	01:07	17:14	(unrelated sample)
ZZZZZZ	5W46823.D	12/15/21	02:03	18:10	(unrelated sample)
ZZZZZZ	5W46824.D	12/15/21	02:58	19:05	(unrelated sample)
ZZZZZZ	5W46825.D	12/15/21	03:55	20:02	(unrelated sample)
ZZZZZZ	5W46826.D	12/15/21	04:50	20:57	(unrelated sample)
ZZZZZZ	5W46827.D	12/15/21	05:45	21:52	(unrelated sample)
V5W1936-SCC	5W46828.D	12/15/21	06:39	22:46	Summa Cleaning Certification

Instrument Performance Check (BFB)

Job Number: JD36325
Account: GESNYP Groundwater & Environmental Services
Project: Orangeburg UB, Orangeburg, NY

Sample:	V5W1936-BFB	Injection Date:	12/14/21
Lab File ID:	5W46802.D	Injection Time:	07:53
Instrument ID:	GCMS5W		

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
ZZZZZZ	5W46829.D	12/15/21	07:33	23:40	(unrelated sample)

6.5.7
6

Internal Standard Area Summary

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Job Number: JD36325
Account: GESNYP Groundwater & Environmental Services
Project: Orangeburg UB, Orangeburg, NY

Check Std: V2W2494-CC2424	Injection Date: 11/01/21
Lab File ID: 2W55980.D	Injection Time: 08:49
Instrument ID: GCMS2W	Method: TO-15

	IS 1		IS 2		IS 3	
	AREA	RT	AREA	RT	AREA	RT
Check Std	89656	3.65	457587	4.99	394029	10.70
Upper Limit ^a	125518	3.98	640622	5.32	551641	11.03
Lower Limit ^b	53794	3.32	274552	4.66	236417	10.37

Lab Sample ID	IS 1		IS 2		IS 3	
	AREA	RT	AREA	RT	AREA	RT
V2W2494-BS	89182	3.65	453752	4.99	401508	10.70
V2W2494-BSD	90512	3.65	463945	4.99	402270	10.70
V2W2494-MB	91649	3.65	467691	4.99	412438	10.70
JD34199-1	89078	3.68	461997	5.01	410848	10.71
JD34199-1DUP	87605	3.68	456950	5.01	410124	10.71
ZZZZZZ	91205	3.67	467423	5.00	414802	10.71
V2W2494-SCC	92056	3.65	470690	4.99	413109	10.70
V2W2494-SCC	90420	3.65	462321	4.99	406905	10.70
V2W2494-SCC	88448	3.65	450541	4.99	397708	10.70
V2W2494-SCC	89568	3.65	453132	4.99	400923	10.70
V2W2494-SCC	86866	3.65	440556	4.99	391937	10.70
V2W2494-SCC	86524	3.65	443453	4.99	389204	10.70
V2W2494-SCC	86196	3.65	437809	4.99	387514	10.70
JD34199-1	81123	3.66	407293	5.00	363643	10.70
ZZZZZZ	78648	3.67	399410	5.01	356519	10.71
ZZZZZZ	85820	3.64	438403	4.98	385575	10.70
ZZZZZZ	85838	3.65	436242	4.99	384877	10.70
ZZZZZZ	85738	3.65	440453	4.99	392931	10.70
ZZZZZZ	86628	3.65	442709	4.99	391633	10.70
ZZZZZZ	90449	3.65	466191	4.99	412442	10.70

IS 1 = Bromochloromethane
IS 2 = 1,4-Difluorobenzene
IS 3 = Chlorobenzene-D5

(a) Upper Limit = + 40% of check standard area; Retention time + 0.33 minutes.

(b) Lower Limit = -40% of check standard area; Retention time -0.33 minutes.

Internal Standard Area Summary

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Job Number: JD36325
Account: GESNYP Groundwater & Environmental Services
Project: Orangeburg UB, Orangeburg, NY

Check Std: V2W2495-CC2424	Injection Date: 11/02/21
Lab File ID: 2W56006.D	Injection Time: 07:58
Instrument ID: GCMS2W	Method: TO-15

	IS 1		IS 2		IS 3	
	AREA	RT	AREA	RT	AREA	RT
Check Std	94236	3.65	479253	4.99	418699	10.70
Upper Limit ^a	131930	3.98	670954	5.32	586179	11.03
Lower Limit ^b	56542	3.32	287552	4.66	251219	10.37

Lab Sample ID	IS 1		IS 2		IS 3	
	AREA	RT	AREA	RT	AREA	RT
V2W2495-BS	91940	3.65	477772	4.99	413421	10.70
V2W2495-BSD	90138	3.65	462154	4.99	399940	10.70
V2W2495-MB	94907	3.64	480309	4.98	421088	10.70
V2W2495-SCC	94210	3.65	482607	4.99	423926	10.69
V2W2495-SCC	92720	3.65	471830	4.99	418514	10.70
V2W2495-SCC	89035	3.65	454665	4.99	404106	10.70
V2W2495-SCC	87626	3.65	445230	4.98	394222	10.70
V2W2495-SCC	87942	3.65	447842	4.99	394733	10.70
ZZZZZZ	86611	3.65	447575	4.99	393151	10.70
ZZZZZZ	87603	3.65	450946	4.99	393096	10.70
ZZZZZZ	85359	3.65	435894	4.99	383721	10.70
ZZZZZZ	83292	3.64	415244	4.99	366794	10.70
ZZZZZZ	86457	3.65	446871	4.98	392173	10.70
ZZZZZZ	88233	3.66	451179	5.00	395530	10.71
ZZZZZZ	90092	3.66	453764	5.00	400818	10.71
JD34484-3	85038	3.66	434662	4.99	382526	10.70
JD34484-3DUP	86606	3.66	440004	5.00	383914	10.70
ZZZZZZ	83257	3.66	429352	5.00	376392	10.70
ZZZZZZ	80118	3.65	411342	4.99	365420	10.70
ZZZZZZ	96067	3.65	438886	4.99	383311	10.70
ZZZZZZ	83064	3.65	427935	4.99	370009	10.70
ZZZZZZ	80876	3.65	410974	4.99	363048	10.70
ZZZZZZ	83132	3.65	422173	4.99	371044	10.70

IS 1 = Bromochloromethane
IS 2 = 1,4-Difluorobenzene
IS 3 = Chlorobenzene-D5

(a) Upper Limit = + 40% of check standard area; Retention time + 0.33 minutes.
(b) Lower Limit = -40% of check standard area; Retention time -0.33 minutes.

Internal Standard Area Summary

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Job Number: JD36325
Account: GESNYP Groundwater & Environmental Services
Project: Orangeburg UB, Orangeburg, NY

Check Std: V2W2497-CC2424	Injection Date: 11/04/21
Lab File ID: 2W56053.D	Injection Time: 07:23
Instrument ID: GCMS2W	Method: TO-15

	IS 1		IS 2		IS 3	
	AREA	RT	AREA	RT	AREA	RT
Check Std	92311	3.64	474122	4.98	412399	10.70
Upper Limit ^a	129235	3.97	663771	5.31	577359	11.03
Lower Limit ^b	55387	3.31	284473	4.65	247439	10.37

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT
V2W2497-BS	95032	3.64	489585	4.98	420511	10.70
V2W2497-BSD	93991	3.65	482617	4.99	413587	10.70
V2W2497-MB	90837	3.65	464779	4.99	406041	10.70
JD34347-5	95119	3.65	449771	4.99	392135	10.70
ZZZZZZ	94479	3.64	485768	4.99	432271	10.71
ZZZZZZ	96882	3.65	496420	4.99	431756	10.70
ZZZZZZ	95493	3.65	500533	4.98	430888	10.70
JD34347-5DUP	93711	3.65	487615	4.99	426143	10.70
ZZZZZZ	93563	3.65	477989	4.99	417016	10.70
ZZZZZZ	95811	3.66	488313	4.99	430436	10.70
ZZZZZZ	96267	3.65	496736	4.99	433905	10.70
ZZZZZZ	97326	3.66	499418	5.00	436635	10.70
ZZZZZZ	97600	3.65	496798	4.99	432434	10.70
ZZZZZZ	97244	3.65	500961	4.99	440100	10.70
ZZZZZZ	106941	3.66	491546	4.99	436768	10.70
ZZZZZZ	102738	3.67	540178	5.01	478889	10.71
ZZZZZZ	114857	3.67	560854	5.01	497570	10.71
ZZZZZZ	103078	3.65	532318	4.99	461491	10.70
ZZZZZZ	100200	3.65	516929	4.99	449374	10.70
V2W2497-SCC	96626	3.64	494956	4.98	431791	10.70
V2W2497-SCC	106412	3.64	549993	4.98	418574	10.69
V2W2497-SCC	92068	3.65	469952	4.99	407631	10.70
V2W2497-SCC	91611	3.65	468499	4.99	407025	10.70

IS 1 = Bromochloromethane
IS 2 = 1,4-Difluorobenzene
IS 3 = Chlorobenzene-D5

(a) Upper Limit = + 40% of check standard area; Retention time + 0.33 minutes.
(b) Lower Limit = -40% of check standard area; Retention time -0.33 minutes.

Internal Standard Area Summary

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Job Number: JD36325
Account: GESNYP Groundwater & Environmental Services
Project: Orangeburg UB, Orangeburg, NY

Check Std: V5W1935-CC1909	Injection Date: 12/13/21
Lab File ID: 5W46775.D	Injection Time: 08:38
Instrument ID: GCMS5W	Method: TO-15

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT
Check Std	190395	11.39	675967	13.58	285440	18.85
Upper Limit ^a	266553	11.72	946354	13.91	399616	19.18
Lower Limit ^b	114237	11.06	405580	13.25	171264	18.52

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT
V5W1935-BS	189248	11.39	670388	13.59	290464	18.85
V5W1935-BSD	188708	11.39	664857	13.59	285090	18.85
V5W1935-MB	190813	11.39	701273	13.58	282671	18.85
ZZZZZZ	185049	11.38	659603	13.58	272265	18.85
ZZZZZZ	189235	11.39	696767	13.58	278340	18.85
ZZZZZZ	187326	11.38	685453	13.57	275437	18.85
JD36248-1	186303	11.38	682625	13.58	282474	18.85
JD36248-1DUP	187871	11.39	679892	13.58	279427	18.85
ZZZZZZ	190676	11.39	702376	13.58	286855	18.85
ZZZZZZ	190070	11.39	705529	13.58	292297	18.85
ZZZZZZ	186903	11.39	676426	13.58	281990	18.85
ZZZZZZ	189586	11.39	697272	13.58	291354	18.85
ZZZZZZ	185942	11.39	685310	13.58	281654	18.85
ZZZZZZ	187607	11.38	682593	13.58	285702	18.85
ZZZZZZ	187429	11.38	658824	13.58	291908	18.85
ZZZZZZ	181755	11.38	664269	13.58	278850	18.85
JD36325-2	191603	11.38	702033	13.57	292401	18.85
JD36325-4	184204	11.38	685293	13.57	282439	18.85
JD36325-5	188610	11.38	697035	13.57	290766	18.85
JD36325-1	187182	11.39	686403	13.58	286708	18.85
JD36325-3	183983	11.38	672796	13.58	285155	18.85
V5W1935-SCC	187357	11.38	689350	13.58	279572	18.85
V5W1935-SCC	185070	11.38	679306	13.57	276402	18.85

IS 1 = Bromochloromethane
IS 2 = 1,4-Difluorobenzene
IS 3 = Chlorobenzene-D5

(a) Upper Limit = + 40% of check standard area; Retention time + 0.33 minutes.
(b) Lower Limit = -40% of check standard area; Retention time -0.33 minutes.

Internal Standard Area Summary

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Job Number: JD36325
Account: GESNYP Groundwater & Environmental Services
Project: Orangeburg UB, Orangeburg, NY

Check Std: V5W1936-CC1909	Injection Date: 12/14/21
Lab File ID: 5W46803.D	Injection Time: 08:42
Instrument ID: GCMS5W	Method: TO-15

	IS 1		IS 2		IS 3	
	AREA	RT	AREA	RT	AREA	RT
Check Std	189464	11.39	676287	13.58	291365	18.85
Upper Limit ^a	265250	11.72	946802	13.91	407911	19.18
Lower Limit ^b	113678	11.06	405772	13.25	174819	18.52

Lab Sample ID	IS 1		IS 2		IS 3	
	AREA	RT	AREA	RT	AREA	RT
V5W1936-BS	193407	11.39	687415	13.58	289766	18.85
V5W1936-BSD	187692	11.39	667037	13.58	284306	18.85
V5W1936-MB	189874	11.38	689528	13.57	284629	18.85
V5W1936-SCC	194626	11.38	710532	13.58	288452	18.85
V5W1936-SCC	190022	11.38	691050	13.58	283943	18.85
V5W1936-SCC	188489	11.38	693112	13.58	286513	18.85
JD36325-1	185519	11.38	666237	13.58	277889	18.85
JD36325-3	186602	11.38	678817	13.58	283240	18.85
ZZZZZZ	186109	11.38	677019	13.58	276623	18.85
JD36496-1	182785	11.38	673925	13.58	285332	18.85
JD36496-1DUP	183044	11.38	672143	13.58	280958	18.85
ZZZZZZ	180768	11.39	652847	13.58	275974	18.85
ZZZZZZ	183349	11.38	671488	13.58	277150	18.85
ZZZZZZ	179544	11.39	453284	13.59	255273	18.86
ZZZZZZ	188372	11.38	698509	13.57	296102	18.85
ZZZZZZ	190807	11.39	706651	13.58	299883	18.85
ZZZZZZ	186444	11.38	645008	13.58	306162	18.85
ZZZZZZ	177292	11.38	553710	13.58	375781	18.86
ZZZZZZ	190268	11.38	701570	13.57	291950	18.85
ZZZZZZ	194657	11.38	719919	13.57	299100	18.84
ZZZZZZ	185374	11.38	664385	13.57	285757	18.84
ZZZZZZ	185864	11.38	673650	13.58	270746	18.85
V5W1936-SCC	188506	11.38	690317	13.57	283459	18.84
ZZZZZZ	184328	11.38	664532	13.58	281324	18.85

IS 1 = Bromochloromethane
IS 2 = 1,4-Difluorobenzene
IS 3 = Chlorobenzene-D5

(a) Upper Limit = + 40% of check standard area; Retention time + 0.33 minutes.
(b) Lower Limit = -40% of check standard area; Retention time -0.33 minutes.

Initial Calibration Retention Time/Internal Standard Area Summary

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Job Number: JD36325

Account: GESNYP Groundwater & Environmental Services

Project: Orangeburg UB, Orangeburg, NY

Sample Number	Lab File ID	Injected	By	Level	Inst ID	Method	
V2W2424-IC2424	2W54654.D	07/27/21 11:38	DFT	0.5	GCMS2W	TO-15	Reporting this level
V2W2424-IC2424	2W54655.D	07/27/21 12:10	DFT	0.2	GCMS2W	TO-15	
V2W2424-IC2424	2W54656.D	07/27/21 12:41	DFT	0.1	GCMS2W	TO-15	
V2W2424-IC2424	2W54657.D	07/27/21 13:13	DFT	0.04	GCMS2W	TO-15	
V2W2424-IC2424	2W54658.D	07/27/21 13:44	DFT	5	GCMS2W	TO-15	
V2W2424-ICC2424	2W54659.D	07/27/21 14:15	DFT	10	GCMS2W	TO-15	
V2W2424-IC2424	2W54660.D	07/27/21 14:47	DFT	20	GCMS2W	TO-15	
V2W2424-IC2424	2W54661.D	07/27/21 15:21	DFT	40	GCMS2W	TO-15	

Target Compound	RT (min.)	Istd RT (min.)	Rel RT	Mean Rel RT	Rel RT Range (+ /- .06)
Acetone	2.47	3.64	0.679 ok	0.677	0.617-0.737
Acrolein	2.42	3.64	0.665 ok	0.665	0.605-0.725
Acrylonitrile	2.61	3.64	0.717 ok	0.716	0.656-0.776
Acetonitrile	2.38	3.64	0.654 ok	0.653	0.593-0.713
1,3-Butadiene	2.10	3.64	0.577 ok	0.576	0.516-0.636
Benzene	4.64	3.64	1.275 ok	1.276	1.216-1.336
Bromobenzene	14.44	10.70	1.350 ok	1.350	1.290-1.410
Bromodichloromethane	5.52	4.98	1.108 ok	1.109	1.049-1.169
Bromoform	11.92	10.70	1.114 ok	1.114	1.054-1.174
Bromomethane	2.20	3.64	0.604 ok	0.604	0.544-0.664
Bromoethene	2.39	3.64	0.657 ok	0.656	0.596-0.716
n-Butane	2.12	3.64	0.582 ok	0.582	0.522-0.642
Benzyl Chloride	16.90	10.70	1.579 ok	1.579	1.519-1.639
n-Butylbenzene	17.61	10.70	1.646 ok	1.646	1.586-1.706
sec-Butylbenzene	17.09	10.70	1.597 ok	1.597	1.537-1.657
tert-Butylbenzene	16.82	10.70	1.572 ok	1.571	1.511-1.631
Carbon disulfide	2.86	3.64	0.786 ok	0.786	0.726-0.846
Chlorobenzene	10.78	10.70	1.007 ok	1.007	0.947-1.067
Chlorodifluoromethane	1.87	3.64	0.514 ok	0.515	0.455-0.575
Chloroethane	2.26	3.64	0.621 ok	0.620	0.560-0.680
Chlorotrifluoroethene	1.88	3.64	0.516 ok	0.518	0.458-0.578
Chloroform	3.72	3.64	1.022 ok	1.022	0.962-1.082
Chloromethane	1.97	3.64	0.541 ok	0.540	0.480-0.600
3-Chloropropene	2.80	3.64	0.769 ok	0.769	0.709-0.829
2-Chlorotoluene	15.58	10.70	1.456 ok	1.456	1.396-1.516
Carbon tetrachloride	4.76	3.64	1.308 ok	1.309	1.249-1.369
Cyclohexane	4.87	4.98	0.978 ok	0.977	0.917-1.037
1,1-Dichloroethane	3.18	3.64	0.874 ok	0.873	0.813-0.933
1,1-Dichloroethylene	2.72	3.64	0.747 ok	0.748	0.688-0.808
1,2-Dibromoethane	8.69	4.98	1.745 ok	1.744	1.684-1.804
1,2-Dichloroethane	4.15	3.64	1.140 ok	1.140	1.080-1.200
1,2-Dichloropropane	5.34	4.98	1.072 ok	1.072	1.012-1.132
1,3-Dichloropropane	7.85	4.98	1.576 ok	1.576	1.516-1.636
1,4-Dioxane	5.61	4.98	1.127 ok	1.127	1.067-1.187
Dichlorodifluoromethane	1.91	3.64	0.525 ok	0.524	0.464-0.584
Dichlorofluoromethane	2.29	3.64	0.629 ok	0.629	0.569-0.689
Dibromochloromethane	8.34	4.98	1.675 ok	1.673	1.613-1.733
Dibromomethane	5.30	4.98	1.064 ok	1.064	1.004-1.124
trans-1,2-Dichloroethylene	3.10	3.64	0.852 ok	0.851	0.791-0.911
cis-1,2-Dichloroethylene	3.56	3.64	0.978 ok	0.979	0.919-1.039

Initial Calibration Retention Time/Internal Standard Area Summary

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Job Number: JD36325

Account: GESNYP Groundwater & Environmental Services

Project: Orangeburg UB, Orangeburg, NY

Sample Number	Lab File ID	Injected	By	Level	Inst ID	Method	
V2W2424-IC2424	2W54654.D	07/27/21 11:38	DFT	0.5	GCMS2W	TO-15	Reporting this level
V2W2424-IC2424	2W54655.D	07/27/21 12:10	DFT	0.2	GCMS2W	TO-15	
V2W2424-IC2424	2W54656.D	07/27/21 12:41	DFT	0.1	GCMS2W	TO-15	
V2W2424-IC2424	2W54657.D	07/27/21 13:13	DFT	0.04	GCMS2W	TO-15	
V2W2424-IC2424	2W54658.D	07/27/21 13:44	DFT	5	GCMS2W	TO-15	
V2W2424-ICC2424	2W54659.D	07/27/21 14:15	DFT	10	GCMS2W	TO-15	
V2W2424-IC2424	2W54660.D	07/27/21 14:47	DFT	20	GCMS2W	TO-15	
V2W2424-IC2424	2W54661.D	07/27/21 15:21	DFT	40	GCMS2W	TO-15	

Target Compound	RT (min.)	Istd RT (min.)	Rel RT	Mean Rel RT	Rel RT Range (+ /- .06)
cis-1,3-Dichloropropene	6.55	4.98	1.315 ok	1.315	1.255-1.375
m-Dichlorobenzene	16.88	10.70	1.578 ok	1.578	1.518-1.638
o-Dichlorobenzene	17.25	10.70	1.612 ok	1.612	1.552-1.672
p-Dichlorobenzene	16.96	10.70	1.585 ok	1.585	1.525-1.645
trans-1,3-Dichloropropene	7.25	4.98	1.456 ok	1.455	1.395-1.515
Di-Isopropyl ether	3.70	3.64	1.016 ok	1.017	0.957-1.077
2,3-Dimethylpentane	5.13	4.98	1.030 ok	1.030	0.970-1.090
2,4-Dimethylpentane	4.24	3.64	1.165 ok	1.164	1.104-1.224
Ethanol	2.30	3.64	0.632 ok	0.631	0.571-0.691
Ethylbenzene	11.67	10.70	1.091 ok	1.091	1.031-1.151
Ethyl Acetate	3.71	3.64	1.019 ok	1.018	0.958-1.078
Ethyl Acrylate	5.47	4.98	1.098 ok	1.097	1.037-1.157
4-Ethyltoluene	16.23	10.70	1.517 ok	1.517	1.457-1.577
Freon 113	2.86	3.64	0.786 ok	0.785	0.725-0.845
Freon 114	2.00	3.64	0.549 ok	0.551	0.491-0.611
Freon 123	2.44	3.64	0.670 ok	0.670	0.610-0.730
Freon 123A	2.46	3.64	0.676 ok	0.676	0.616-0.736
Freon 142B	1.96	3.64	0.538 ok	0.538	0.478-0.598
Freon 152A	1.86	3.64	0.511 ok	0.510	0.450-0.570
Heptane	6.01	4.98	1.207 ok	1.206	1.146-1.266
Hexachlorobutadiene	18.84	10.70	1.761 ok	1.761	1.701-1.821
Hexachloroethane	17.79	10.70	1.663 ok	1.663	1.603-1.723
Hexane	3.70	3.64	1.016 ok	1.015	0.955-1.075
2-Hexanone	8.36	4.98	1.679 ok	1.679	1.619-1.739
Iodomethane	2.70	3.64	0.742 ok	0.740	0.680-0.800
Isopropylbenzene	14.57	10.70	1.362 ok	1.362	1.302-1.422
Isopropyl Alcohol	2.55	3.64	0.701 ok	0.698	0.638-0.758
p-Isopropyltoluene	17.27	10.70	1.614 ok	1.614	1.554-1.674
Methylene chloride	2.76	3.64	0.758 ok	0.758	0.698-0.818
Methyl ethyl ketone	3.35	3.64	0.920 ok	0.922	0.862-0.982
Methyl Isobutyl Ketone	6.65	4.98	1.335 ok	1.335	1.275-1.395
Methyl Tert Butyl Ether	3.22	3.64	0.885 ok	0.883	0.823-0.943
Methylmethacrylate	5.90	4.98	1.185 ok	1.184	1.124-1.244
Naphthalene	18.58	10.70	1.736 ok	1.737	1.677-1.797
Nonane	14.15	10.70	1.322 ok	1.323	1.263-1.383
Octane	9.69	4.98	1.946 ok	1.946	1.886-2.006
Pentane	2.64	3.64	0.725 ok	0.725	0.665-0.785
n-Propylbenzene	15.91	10.70	1.487 ok	1.488	1.428-1.548
Propylene	1.88	3.64	0.516 ok	0.518	0.458-0.578
Styrene	12.83	10.70	1.199 ok	1.199	1.139-1.259

Initial Calibration Retention Time/Internal Standard Area Summary

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Job Number: JD36325

Account: GESNYP Groundwater & Environmental Services

Project: Orangeburg UB, Orangeburg, NY

Sample Number	Lab File ID	Injected	By	Level	Inst ID	Method	
V2W2424-IC2424	2W54654.D	07/27/21 11:38	DFT	0.5	GCMS2W	TO-15	Reporting this level
V2W2424-IC2424	2W54655.D	07/27/21 12:10	DFT	0.2	GCMS2W	TO-15	
V2W2424-IC2424	2W54656.D	07/27/21 12:41	DFT	0.1	GCMS2W	TO-15	
V2W2424-IC2424	2W54657.D	07/27/21 13:13	DFT	0.04	GCMS2W	TO-15	
V2W2424-IC2424	2W54658.D	07/27/21 13:44	DFT	5	GCMS2W	TO-15	
V2W2424-ICC2424	2W54659.D	07/27/21 14:15	DFT	10	GCMS2W	TO-15	
V2W2424-IC2424	2W54660.D	07/27/21 14:47	DFT	20	GCMS2W	TO-15	
V2W2424-IC2424	2W54661.D	07/27/21 15:21	DFT	40	GCMS2W	TO-15	

Target Compound	RT (min.)	Istd RT (min.)	Rel RT	Mean Rel RT	Rel RT Range (+ /- .06)
1,1,1-Trichloroethane	4.32	3.64	1.187 ok	1.187	1.127-1.247
1,1,1,2-Tetrachloroethane	10.79	10.70	1.008 ok	1.009	0.949-1.069
1,1,2,2-Tetrachloroethane	13.05	10.70	1.220 ok	1.220	1.160-1.280
1,1,2-Trichloroethane	7.40	4.98	1.486 ok	1.487	1.427-1.547
1,2,4-Trichlorobenzene	18.53	10.70	1.732 ok	1.732	1.672-1.792
1,2,3-Trichloropropane	13.33	10.70	1.246 ok	1.247	1.187-1.307
1,2,3-Trimethylbenzene	17.20	10.70	1.607 ok	1.607	1.547-1.667
1,2,4-Trimethylbenzene	16.82	10.70	1.572 ok	1.572	1.512-1.632
1,3,5-Trimethylbenzene	16.37	10.70	1.530 ok	1.530	1.470-1.590
2,2,4-Trimethylpentane	5.68	4.98	1.141 ok	1.140	1.080-1.200
Tertiary Butyl Alcohol	2.73	3.64	0.750 ok	0.750	0.690-0.810
Tetrachloroethylene	9.56	4.98	1.920 ok	1.918	1.858-1.978
Tetrahydrofuran	3.96	3.64	1.088 ok	1.085	1.025-1.145
Toluene	7.79	4.98	1.564 ok	1.564	1.504-1.624
Trichloroethylene	5.58	4.98	1.120 ok	1.121	1.061-1.181
Trichlorofluoromethane	2.53	3.64	0.695 ok	0.694	0.634-0.754
Vinyl chloride	2.04	3.64	0.560 ok	0.563	0.503-0.623
Vinyl Acetate	3.25	3.64	0.893 ok	0.893	0.833-0.953
m,p-Xylene	12.06	10.70	1.127 ok	1.130	1.070-1.190
o-Xylene	13.05	10.70	1.220 ok	1.219	1.159-1.279

Internal Standard	RT (min.)	Mean RT(min.)	RT Range (+ /- 0.33)	Area	Mean Area	Area Range (+ /- 40 %)
Bromochloromethane	3.64 ok	3.64	3.31-3.97	89424 ok	86057	51634-120480
1,4-Difluorobenzene	4.98 ok	4.98	4.65-5.31	437760 ok	425402	255241-595563
Chlorobenzene-D5	10.70 ok	10.70	10.37-11.03	380955 ok	368175	220905-515445

Initial Calibration Retention Time/Internal Standard Area Summary

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Job Number: JD36325

Account: GESNYP Groundwater & Environmental Services

Project: Orangeburg UB, Orangeburg, NY

Sample Number	Lab File ID	Injected	By	Level	Inst ID	Method
V2W2424-IC2424	2W54654.D	07/27/21 11:38	DFT	0.5	GCMS2W	TO-15
V2W2424-IC2424	2W54655.D	07/27/21 12:10	DFT	0.2	GCMS2W	TO-15 Reporting this level
V2W2424-IC2424	2W54656.D	07/27/21 12:41	DFT	0.1	GCMS2W	TO-15
V2W2424-IC2424	2W54657.D	07/27/21 13:13	DFT	0.04	GCMS2W	TO-15
V2W2424-IC2424	2W54658.D	07/27/21 13:44	DFT	5	GCMS2W	TO-15
V2W2424-ICC2424	2W54659.D	07/27/21 14:15	DFT	10	GCMS2W	TO-15
V2W2424-IC2424	2W54660.D	07/27/21 14:47	DFT	20	GCMS2W	TO-15
V2W2424-IC2424	2W54661.D	07/27/21 15:21	DFT	40	GCMS2W	TO-15

Target Compound	RT (min.)	Istd RT (min.)	Rel RT	Mean Rel RT	Rel RT Range (+ /- .06)
Acetone	2.46	3.64	0.676 ok	0.677	0.617-0.737
Acrolein	2.43	3.64	0.668 ok	0.665	0.605-0.725
Acrylonitrile	2.61	3.64	0.717 ok	0.716	0.656-0.776
Acetonitrile	2.38	3.64	0.654 ok	0.653	0.593-0.713
1,3-Butadiene	2.10	3.64	0.577 ok	0.576	0.516-0.636
Benzene	4.65	3.64	1.277 ok	1.276	1.216-1.336
Bromobenzene	14.44	10.70	1.350 ok	1.350	1.290-1.410
Bromodichloromethane	5.52	4.98	1.108 ok	1.109	1.049-1.169
Bromoform	11.92	10.70	1.114 ok	1.114	1.054-1.174
Bromomethane	2.20	3.64	0.604 ok	0.604	0.544-0.664
Bromoethene	2.39	3.64	0.657 ok	0.656	0.596-0.716
n-Butane	2.12	3.64	0.582 ok	0.582	0.522-0.642
Benzyl Chloride	16.90	10.70	1.579 ok	1.579	1.519-1.639
n-Butylbenzene	17.61	10.70	1.646 ok	1.646	1.586-1.706
sec-Butylbenzene	17.09	10.70	1.597 ok	1.597	1.537-1.657
tert-Butylbenzene	16.82	10.70	1.572 ok	1.571	1.511-1.631
Carbon disulfide	2.86	3.64	0.786 ok	0.786	0.726-0.846
Chlorobenzene	10.77	10.70	1.007 ok	1.007	0.947-1.067
Chlorodifluoromethane	1.87	3.64	0.514 ok	0.515	0.455-0.575
Chloroethane	2.26	3.64	0.621 ok	0.620	0.560-0.680
Chlorotrifluoroethene	1.89	3.64	0.519 ok	0.518	0.458-0.578
Chloroform	3.72	3.64	1.022 ok	1.022	0.962-1.082
Chloromethane	1.96	3.64	0.538 ok	0.540	0.480-0.600
3-Chloropropene	2.80	3.64	0.769 ok	0.769	0.709-0.829
2-Chlorotoluene	15.58	10.70	1.456 ok	1.456	1.396-1.516
Carbon tetrachloride	4.76	3.64	1.308 ok	1.309	1.249-1.369
Cyclohexane	4.86	4.98	0.976 ok	0.977	0.917-1.037
1,1-Dichloroethane	3.17	3.64	0.871 ok	0.873	0.813-0.933
1,1-Dichloroethylene	2.73	3.64	0.750 ok	0.748	0.688-0.808
1,2-Dibromoethane	8.69	4.98	1.745 ok	1.744	1.684-1.804
1,2-Dichloroethane	4.15	3.64	1.140 ok	1.140	1.080-1.200
1,2-Dichloropropane	5.34	4.98	1.072 ok	1.072	1.012-1.132
1,3-Dichloropropane	7.85	4.98	1.576 ok	1.576	1.516-1.636
1,4-Dioxane	5.63	4.98	1.131 ok	1.127	1.067-1.187
Dichlorodifluoromethane	1.91	3.64	0.525 ok	0.524	0.464-0.584
Dichlorofluoromethane	2.29	3.64	0.629 ok	0.629	0.569-0.689
Dibromochloromethane	8.33	4.98	1.673 ok	1.673	1.613-1.733
Dibromomethane	5.31	4.98	1.066 ok	1.064	1.004-1.124
trans-1,2-Dichloroethylene	3.10	3.64	0.852 ok	0.851	0.791-0.911
cis-1,2-Dichloroethylene	3.56	3.64	0.978 ok	0.979	0.919-1.039

Initial Calibration Retention Time/Internal Standard Area Summary

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Job Number: JD36325

Account: GESNYP Groundwater & Environmental Services

Project: Orangeburg UB, Orangeburg, NY

Sample Number	Lab File ID	Injected	By	Level	Inst ID	Method
V2W2424-IC2424	2W54654.D	07/27/21 11:38	DFT	0.5	GCMS2W	TO-15
V2W2424-IC2424	2W54655.D	07/27/21 12:10	DFT	0.2	GCMS2W	TO-15 Reporting this level
V2W2424-IC2424	2W54656.D	07/27/21 12:41	DFT	0.1	GCMS2W	TO-15
V2W2424-IC2424	2W54657.D	07/27/21 13:13	DFT	0.04	GCMS2W	TO-15
V2W2424-IC2424	2W54658.D	07/27/21 13:44	DFT	5	GCMS2W	TO-15
V2W2424-ICC2424	2W54659.D	07/27/21 14:15	DFT	10	GCMS2W	TO-15
V2W2424-IC2424	2W54660.D	07/27/21 14:47	DFT	20	GCMS2W	TO-15
V2W2424-IC2424	2W54661.D	07/27/21 15:21	DFT	40	GCMS2W	TO-15

Target Compound	RT (min.)	Istd RT (min.)	Rel RT		Mean Rel RT	Rel RT Range (+ /- .06)
cis-1,3-Dichloropropene	6.55	4.98	1.315	ok	1.315	1.255-1.375
m-Dichlorobenzene	16.88	10.70	1.578	ok	1.578	1.518-1.638
o-Dichlorobenzene	17.25	10.70	1.612	ok	1.612	1.552-1.672
p-Dichlorobenzene	16.96	10.70	1.585	ok	1.585	1.525-1.645
trans-1,3-Dichloropropene	7.25	4.98	1.456	ok	1.455	1.395-1.515
Di-Isopropyl ether	3.70	3.64	1.016	ok	1.017	0.957-1.077
2,3-Dimethylpentane	5.14	4.98	1.032	ok	1.030	0.970-1.090
2,4-Dimethylpentane	4.23	3.64	1.162	ok	1.164	1.104-1.224
Ethanol	2.30	3.64	0.632	ok	0.631	0.571-0.691
Ethylbenzene	11.67	10.70	1.091	ok	1.091	1.031-1.151
Ethyl Acetate	3.70	3.64	1.016	ok	1.018	0.958-1.078
Ethyl Acrylate	5.47	4.98	1.098	ok	1.097	1.037-1.157
4-Ethyltoluene	16.23	10.70	1.517	ok	1.517	1.457-1.577
Freon 113	2.85	3.64	0.783	ok	0.785	0.725-0.845
Freon 114	2.01	3.64	0.552	ok	0.551	0.491-0.611
Freon 123	2.44	3.64	0.670	ok	0.670	0.610-0.730
Freon 123A	2.46	3.64	0.676	ok	0.676	0.616-0.736
Freon 142B	1.96	3.64	0.538	ok	0.538	0.478-0.598
Freon 152A	1.86	3.64	0.511	ok	0.510	0.450-0.570
Heptane	6.01	4.98	1.207	ok	1.206	1.146-1.266
Hexachlorobutadiene	18.84	10.70	1.761	ok	1.761	1.701-1.821
Hexachloroethane	17.79	10.70	1.663	ok	1.663	1.603-1.723
Hexane	3.69	3.64	1.014	ok	1.015	0.955-1.075
2-Hexanone	8.38	4.98	1.683	ok	1.679	1.619-1.739
Iodomethane	2.69	3.64	0.739	ok	0.740	0.680-0.800
Isopropylbenzene	14.58	10.70	1.363	ok	1.362	1.302-1.422
Isopropyl Alcohol	2.54	3.64	0.698	ok	0.698	0.638-0.758
p-Isopropyltoluene	17.27	10.70	1.614	ok	1.614	1.554-1.674
Methylene chloride	2.76	3.64	0.758	ok	0.758	0.698-0.818
Methyl ethyl ketone	3.37	3.64	0.926	ok	0.922	0.862-0.982
Methyl Isobutyl Ketone	6.66	4.98	1.337	ok	1.335	1.275-1.395
Methyl Tert Butyl Ether	3.22	3.64	0.885	ok	0.883	0.823-0.943
Methylmethacrylate	5.90	4.98	1.185	ok	1.184	1.124-1.244
Naphthalene	18.58	10.70	1.736	ok	1.737	1.677-1.797
Nonane	14.16	10.70	1.323	ok	1.323	1.263-1.383
Octane	9.69	4.98	1.946	ok	1.946	1.886-2.006
Pentane	2.64	3.64	0.725	ok	0.725	0.665-0.785
n-Propylbenzene	15.91	10.70	1.487	ok	1.488	1.428-1.548
Propylene	1.89	3.64	0.519	ok	0.518	0.458-0.578
Styrene	12.83	10.70	1.199	ok	1.199	1.139-1.259

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Initial Calibration Retention Time/Internal Standard Area Summary

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Job Number: JD36325

Account: GESNYP Groundwater & Environmental Services

Project: Orangeburg UB, Orangeburg, NY

Sample Number	Lab File ID	Injected	By	Level	Inst ID	Method
V2W2424-IC2424	2W54654.D	07/27/21 11:38	DFT	0.5	GCMS2W	TO-15
V2W2424-IC2424	2W54655.D	07/27/21 12:10	DFT	0.2	GCMS2W	TO-15 Reporting this level
V2W2424-IC2424	2W54656.D	07/27/21 12:41	DFT	0.1	GCMS2W	TO-15
V2W2424-IC2424	2W54657.D	07/27/21 13:13	DFT	0.04	GCMS2W	TO-15
V2W2424-IC2424	2W54658.D	07/27/21 13:44	DFT	5	GCMS2W	TO-15
V2W2424-ICC2424	2W54659.D	07/27/21 14:15	DFT	10	GCMS2W	TO-15
V2W2424-IC2424	2W54660.D	07/27/21 14:47	DFT	20	GCMS2W	TO-15
V2W2424-IC2424	2W54661.D	07/27/21 15:21	DFT	40	GCMS2W	TO-15

Target Compound	RT (min.)	Istd RT (min.)	Rel RT	Mean Rel RT	Rel RT Range (+ /- .06)
1,1,1-Trichloroethane	4.32	3.64	1.187 ok	1.187	1.127-1.247
1,1,1,2-Tetrachloroethane	10.80	10.70	1.009 ok	1.009	0.949-1.069
1,1,2,2-Tetrachloroethane	13.06	10.70	1.221 ok	1.220	1.160-1.280
1,1,2-Trichloroethane	7.41	4.98	1.488 ok	1.487	1.427-1.547
1,2,4-Trichlorobenzene	18.53	10.70	1.732 ok	1.732	1.672-1.792
1,2,3-Trichloropropane	13.35	10.70	1.248 ok	1.247	1.187-1.307
1,2,3-Trimethylbenzene	17.20	10.70	1.607 ok	1.607	1.547-1.667
1,2,4-Trimethylbenzene	16.82	10.70	1.572 ok	1.572	1.512-1.632
1,3,5-Trimethylbenzene	16.37	10.70	1.530 ok	1.530	1.470-1.590
2,2,4-Trimethylpentane	5.68	4.98	1.141 ok	1.140	1.080-1.200
Tertiary Butyl Alcohol	2.73	3.64	0.750 ok	0.750	0.690-0.810
Tetrachloroethylene	9.55	4.98	1.918 ok	1.918	1.858-1.978
Tetrahydrofuran	3.96	3.64	1.088 ok	1.085	1.025-1.145
Toluene	7.80	4.98	1.566 ok	1.564	1.504-1.624
Trichloroethylene	5.58	4.98	1.120 ok	1.121	1.061-1.181
Trichlorofluoromethane	2.52	3.64	0.692 ok	0.694	0.634-0.754
Vinyl chloride	2.05	3.64	0.563 ok	0.563	0.503-0.623
Vinyl Acetate	3.25	3.64	0.893 ok	0.893	0.833-0.953
m,p-Xylene	12.10	10.70	1.131 ok	1.130	1.070-1.190
o-Xylene	13.04	10.70	1.219 ok	1.219	1.159-1.279

Internal Standard	RT (min.)	Mean RT(min.)	RT Range (+ /- 0.33)	Area	Mean Area	Area Range (+ /- 40 %)
Bromochloromethane	3.64 ok	3.64	3.31-3.97	86192 ok	86057	51634-120480
1,4-Difluorobenzene	4.98 ok	4.98	4.65-5.31	424800 ok	425402	255241-595563
Chlorobenzene-D5	10.70 ok	10.70	10.37-11.03	372550 ok	368175	220905-515445

Initial Calibration Retention Time/Internal Standard Area Summary

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Job Number: JD36325

Account: GESNYP Groundwater & Environmental Services

Project: Orangeburg UB, Orangeburg, NY

Sample Number	Lab File ID	Injected	By	Level	Inst ID	Method
V2W2424-IC2424	2W54654.D	07/27/21 11:38	DFT	0.5	GCMS2W	TO-15
V2W2424-IC2424	2W54655.D	07/27/21 12:10	DFT	0.2	GCMS2W	TO-15
V2W2424-IC2424	2W54656.D	07/27/21 12:41	DFT	0.1	GCMS2W	TO-15 Reporting this level
V2W2424-IC2424	2W54657.D	07/27/21 13:13	DFT	0.04	GCMS2W	TO-15
V2W2424-IC2424	2W54658.D	07/27/21 13:44	DFT	5	GCMS2W	TO-15
V2W2424-ICC2424	2W54659.D	07/27/21 14:15	DFT	10	GCMS2W	TO-15
V2W2424-IC2424	2W54660.D	07/27/21 14:47	DFT	20	GCMS2W	TO-15
V2W2424-IC2424	2W54661.D	07/27/21 15:21	DFT	40	GCMS2W	TO-15

Target Compound	RT (min.)	Istd RT (min.)	Rel RT	Mean Rel RT	Rel RT Range (+ /- .06)
Acrolein	2.42	3.64	0.665 ok	0.665	0.605-0.725
Acrylonitrile	2.60	3.64	0.714 ok	0.716	0.656-0.776
Acetonitrile	2.38	3.64	0.654 ok	0.653	0.593-0.713
1,3-Butadiene	2.10	3.64	0.577 ok	0.576	0.516-0.636
Benzene	4.64	3.64	1.275 ok	1.276	1.216-1.336
Bromobenzene	14.45	10.70	1.350 ok	1.350	1.290-1.410
Bromodichloromethane	5.52	4.98	1.108 ok	1.109	1.049-1.169
Bromoform	11.92	10.70	1.114 ok	1.114	1.054-1.174
Bromomethane	2.20	3.64	0.604 ok	0.604	0.544-0.664
Bromoethene	2.39	3.64	0.657 ok	0.656	0.596-0.716
n-Butane	2.12	3.64	0.582 ok	0.582	0.522-0.642
Benzyl Chloride	16.89	10.70	1.579 ok	1.579	1.519-1.639
n-Butylbenzene	17.61	10.70	1.646 ok	1.646	1.586-1.706
sec-Butylbenzene	17.09	10.70	1.597 ok	1.597	1.537-1.657
tert-Butylbenzene	16.81	10.70	1.571 ok	1.571	1.511-1.631
Carbon disulfide	2.86	3.64	0.786 ok	0.786	0.726-0.846
Chlorobenzene	10.77	10.70	1.007 ok	1.007	0.947-1.067
Chlorodifluoromethane	1.88	3.64	0.516 ok	0.515	0.455-0.575
Chloroethane	2.25	3.64	0.618 ok	0.620	0.560-0.680
Chlorotrifluoroethene	1.89	3.64	0.519 ok	0.518	0.458-0.578
Chloroform	3.72	3.64	1.022 ok	1.022	0.962-1.082
Chloromethane	1.97	3.64	0.541 ok	0.540	0.480-0.600
3-Chloropropene	2.80	3.64	0.769 ok	0.769	0.709-0.829
2-Chlorotoluene	15.58	10.70	1.456 ok	1.456	1.396-1.516
Carbon tetrachloride	4.77	3.64	1.310 ok	1.309	1.249-1.369
Cyclohexane	4.87	4.98	0.978 ok	0.977	0.917-1.037
1,1-Dichloroethane	3.18	3.64	0.874 ok	0.873	0.813-0.933
1,1-Dichloroethylene	2.72	3.64	0.747 ok	0.748	0.688-0.808
1,2-Dibromoethane	8.68	4.98	1.743 ok	1.744	1.684-1.804
1,2-Dichloroethane	4.15	3.64	1.140 ok	1.140	1.080-1.200
1,2-Dichloropropane	5.34	4.98	1.072 ok	1.072	1.012-1.132
1,3-Dichloropropane	7.85	4.98	1.576 ok	1.576	1.516-1.636
1,4-Dioxane	5.63	4.98	1.131 ok	1.127	1.067-1.187
Dichlorodifluoromethane	1.91	3.64	0.525 ok	0.524	0.464-0.584
Dichlorofluoromethane	2.29	3.64	0.629 ok	0.629	0.569-0.689
Dibromochloromethane	8.33	4.98	1.673 ok	1.673	1.613-1.733
Dibromomethane	5.30	4.98	1.064 ok	1.064	1.004-1.124
trans-1,2-Dichloroethylene	3.10	3.64	0.852 ok	0.851	0.791-0.911
cis-1,2-Dichloroethylene	3.57	3.64	0.981 ok	0.979	0.919-1.039
cis-1,3-Dichloropropene	6.55	4.98	1.315 ok	1.315	1.255-1.375

Initial Calibration Retention Time/Internal Standard Area Summary

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Job Number: JD36325

Account: GESNYP Groundwater & Environmental Services

Project: Orangeburg UB, Orangeburg, NY

Sample Number	Lab File ID	Injected	By	Level	Inst ID	Method
V2W2424-IC2424	2W54654.D	07/27/21 11:38	DFT	0.5	GCMS2W	TO-15
V2W2424-IC2424	2W54655.D	07/27/21 12:10	DFT	0.2	GCMS2W	TO-15
V2W2424-IC2424	2W54656.D	07/27/21 12:41	DFT	0.1	GCMS2W	TO-15 Reporting this level
V2W2424-IC2424	2W54657.D	07/27/21 13:13	DFT	0.04	GCMS2W	TO-15
V2W2424-IC2424	2W54658.D	07/27/21 13:44	DFT	5	GCMS2W	TO-15
V2W2424-ICC2424	2W54659.D	07/27/21 14:15	DFT	10	GCMS2W	TO-15
V2W2424-IC2424	2W54660.D	07/27/21 14:47	DFT	20	GCMS2W	TO-15
V2W2424-IC2424	2W54661.D	07/27/21 15:21	DFT	40	GCMS2W	TO-15

Target Compound	RT (min.)	Istd RT (min.)	Rel RT	Mean Rel RT	Rel RT Range (+/- .06)
m-Dichlorobenzene	16.88	10.70	1.578 ok	1.578	1.518-1.638
o-Dichlorobenzene	17.25	10.70	1.612 ok	1.612	1.552-1.672
p-Dichlorobenzene	16.96	10.70	1.585 ok	1.585	1.525-1.645
trans-1,3-Dichloropropene	7.25	4.98	1.456 ok	1.455	1.395-1.515
Di-Isopropyl ether	3.70	3.64	1.016 ok	1.017	0.957-1.077
2,3-Dimethylpentane	5.13	4.98	1.030 ok	1.030	0.970-1.090
2,4-Dimethylpentane	4.24	3.64	1.165 ok	1.164	1.104-1.224
Ethylbenzene	11.67	10.70	1.091 ok	1.091	1.031-1.151
Ethyl Acetate	3.72	3.64	1.022 ok	1.018	0.958-1.078
Ethyl Acrylate	5.47	4.98	1.098 ok	1.097	1.037-1.157
4-Ethyltoluene	16.23	10.70	1.517 ok	1.517	1.457-1.577
Freon 113	2.86	3.64	0.786 ok	0.785	0.725-0.845
Freon 114	2.01	3.64	0.552 ok	0.551	0.491-0.611
Freon 123	2.44	3.64	0.670 ok	0.670	0.610-0.730
Freon 123A	2.46	3.64	0.676 ok	0.676	0.616-0.736
Freon 142B	1.96	3.64	0.538 ok	0.538	0.478-0.598
Freon 152A	1.86	3.64	0.511 ok	0.510	0.450-0.570
Heptane	6.01	4.98	1.207 ok	1.206	1.146-1.266
Hexachlorobutadiene	18.84	10.70	1.761 ok	1.761	1.701-1.821
Hexachloroethane	17.79	10.70	1.663 ok	1.663	1.603-1.723
Hexane	3.69	3.64	1.014 ok	1.015	0.955-1.075
2-Hexanone	8.38	4.98	1.683 ok	1.679	1.619-1.739
Iodomethane	2.70	3.64	0.742 ok	0.740	0.680-0.800
Isopropylbenzene	14.57	10.70	1.362 ok	1.362	1.302-1.422
p-Isopropyltoluene	17.27	10.70	1.614 ok	1.614	1.554-1.674
Methyl ethyl ketone	3.36	3.64	0.923 ok	0.922	0.862-0.982
Methyl Isobutyl Ketone	6.66	4.98	1.337 ok	1.335	1.275-1.395
Methyl Tert Butyl Ether	3.22	3.64	0.885 ok	0.883	0.823-0.943
Methylmethacrylate	5.90	4.98	1.185 ok	1.184	1.124-1.244
Naphthalene	18.58	10.70	1.736 ok	1.737	1.677-1.797
Nonane	14.14	10.70	1.321 ok	1.323	1.263-1.383
Octane	9.69	4.98	1.946 ok	1.946	1.886-2.006
Pentane	2.64	3.64	0.725 ok	0.725	0.665-0.785
n-Propylbenzene	15.92	10.70	1.488 ok	1.488	1.428-1.548
Propylene	1.89	3.64	0.519 ok	0.518	0.458-0.578
Styrene	12.84	10.70	1.200 ok	1.199	1.139-1.259
1,1,1-Trichloroethane	4.32	3.64	1.187 ok	1.187	1.127-1.247
1,1,1,2-Tetrachloroethane	10.79	10.70	1.008 ok	1.009	0.949-1.069
1,1,2,2-Tetrachloroethane	13.06	10.70	1.221 ok	1.220	1.160-1.280
1,1,2-Trichloroethane	7.41	4.98	1.488 ok	1.487	1.427-1.547

Initial Calibration Retention Time/Internal Standard Area Summary

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Job Number: JD36325

Account: GESNYP Groundwater & Environmental Services

Project: Orangeburg UB, Orangeburg, NY

Sample Number	Lab File ID	Injected	By	Level	Inst ID	Method
V2W2424-IC2424	2W54654.D	07/27/21 11:38	DFT	0.5	GCMS2W	TO-15
V2W2424-IC2424	2W54655.D	07/27/21 12:10	DFT	0.2	GCMS2W	TO-15
V2W2424-IC2424	2W54656.D	07/27/21 12:41	DFT	0.1	GCMS2W	TO-15
V2W2424-IC2424	2W54657.D	07/27/21 13:13	DFT	0.04	GCMS2W	TO-15
V2W2424-IC2424	2W54658.D	07/27/21 13:44	DFT	5	GCMS2W	TO-15
V2W2424-ICC2424	2W54659.D	07/27/21 14:15	DFT	10	GCMS2W	TO-15
V2W2424-IC2424	2W54660.D	07/27/21 14:47	DFT	20	GCMS2W	TO-15
V2W2424-IC2424	2W54661.D	07/27/21 15:21	DFT	40	GCMS2W	TO-15

Reporting this level

Target Compound	RT (min.)	Istd RT (min.)	Rel RT	Mean Rel RT	Rel RT Range (+ /- .06)
1,2,4-Trichlorobenzene	18.53	10.70	1.732 ok	1.732	1.672-1.792
1,2,3-Trichloropropane	13.34	10.70	1.247 ok	1.247	1.187-1.307
1,2,3-Trimethylbenzene	17.20	10.70	1.607 ok	1.607	1.547-1.667
1,2,4-Trimethylbenzene	16.82	10.70	1.572 ok	1.572	1.512-1.632
1,3,5-Trimethylbenzene	16.38	10.70	1.531 ok	1.530	1.470-1.590
2,2,4-Trimethylpentane	5.68	4.98	1.141 ok	1.140	1.080-1.200
Tertiary Butyl Alcohol	2.73	3.64	0.750 ok	0.750	0.690-0.810
Tetrachloroethylene	9.56	4.98	1.920 ok	1.918	1.858-1.978
Tetrahydrofuran	3.96	3.64	1.088 ok	1.085	1.025-1.145
Toluene	7.80	4.98	1.566 ok	1.564	1.504-1.624
Trichloroethylene	5.58	4.98	1.120 ok	1.121	1.061-1.181
Trichlorofluoromethane	2.53	3.64	0.695 ok	0.694	0.634-0.754
Vinyl chloride	2.05	3.64	0.563 ok	0.563	0.503-0.623
Vinyl Acetate	3.25	3.64	0.893 ok	0.893	0.833-0.953
m,p-Xylene	12.10	10.70	1.131 ok	1.130	1.070-1.190
o-Xylene	13.04	10.70	1.219 ok	1.219	1.159-1.279

Internal Standard	RT (min.)	Mean RT(min.)	RT Range (+ /- 0.33)	Area	Mean Area	Area Range (+ /- 40 %)
Bromochloromethane	3.64 ok	3.64	3.31-3.97	83390 ok	86057	51634-120480
1,4-Difluorobenzene	4.98 ok	4.98	4.65-5.31	415863 ok	425402	255241-595563
Chlorobenzene-D5	10.70 ok	10.70	10.37-11.03	357247 ok	368175	220905-515445

Initial Calibration Retention Time/Internal Standard Area Summary

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Job Number: JD36325

Account: GESNYP Groundwater & Environmental Services

Project: Orangeburg UB, Orangeburg, NY

Sample Number	Lab File ID	Injected	By	Level	Inst ID	Method
V2W2424-IC2424	2W54654.D	07/27/21 11:38	DFT	0.5	GCMS2W	TO-15
V2W2424-IC2424	2W54655.D	07/27/21 12:10	DFT	0.2	GCMS2W	TO-15
V2W2424-IC2424	2W54656.D	07/27/21 12:41	DFT	0.1	GCMS2W	TO-15
V2W2424-IC2424	2W54657.D	07/27/21 13:13	DFT	0.04	GCMS2W	TO-15 Reporting this level
V2W2424-IC2424	2W54658.D	07/27/21 13:44	DFT	5	GCMS2W	TO-15
V2W2424-ICC2424	2W54659.D	07/27/21 14:15	DFT	10	GCMS2W	TO-15
V2W2424-IC2424	2W54660.D	07/27/21 14:47	DFT	20	GCMS2W	TO-15
V2W2424-IC2424	2W54661.D	07/27/21 15:21	DFT	40	GCMS2W	TO-15

Target Compound	RT (min.)	Istd RT (min.)	Rel RT	Mean Rel RT	Rel RT Range (+ /- .06)
Acrylonitrile	2.60	3.64	0.714 ok	0.716	0.656-0.776
1,3-Butadiene	2.10	3.64	0.577 ok	0.576	0.516-0.636
Benzene	4.64	3.64	1.275 ok	1.276	1.216-1.336
Bromobenzene	14.45	10.70	1.350 ok	1.350	1.290-1.410
Bromodichloromethane	5.53	4.98	1.110 ok	1.109	1.049-1.169
Bromoform	11.90	10.70	1.112 ok	1.114	1.054-1.174
Bromomethane	2.20	3.64	0.604 ok	0.604	0.544-0.664
Bromoethene	2.39	3.64	0.657 ok	0.656	0.596-0.716
n-Butane	2.12	3.64	0.582 ok	0.582	0.522-0.642
Benzyl Chloride	16.90	10.70	1.579 ok	1.579	1.519-1.639
n-Butylbenzene	17.61	10.70	1.646 ok	1.646	1.586-1.706
sec-Butylbenzene	17.10	10.70	1.598 ok	1.597	1.537-1.657
tert-Butylbenzene	16.80	10.70	1.570 ok	1.571	1.511-1.631
Carbon disulfide	2.86	3.64	0.786 ok	0.786	0.726-0.846
Chlorobenzene	10.77	10.70	1.007 ok	1.007	0.947-1.067
Chlorodifluoromethane	1.88	3.64	0.516 ok	0.515	0.455-0.575
Chloroethane	2.26	3.64	0.621 ok	0.620	0.560-0.680
Chlorotrifluoroethene	1.89	3.64	0.519 ok	0.518	0.458-0.578
Chloroform	3.72	3.64	1.022 ok	1.022	0.962-1.082
3-Chloropropene	2.80	3.64	0.769 ok	0.769	0.709-0.829
2-Chlorotoluene	15.59	10.70	1.457 ok	1.456	1.396-1.516
Carbon tetrachloride	4.76	3.64	1.308 ok	1.309	1.249-1.369
Cyclohexane	4.86	4.98	0.976 ok	0.977	0.917-1.037
1,1-Dichloroethane	3.18	3.64	0.874 ok	0.873	0.813-0.933
1,1-Dichloroethylene	2.73	3.64	0.750 ok	0.748	0.688-0.808
1,2-Dibromoethane	8.70	4.98	1.747 ok	1.744	1.684-1.804
1,2-Dichloroethane	4.16	3.64	1.143 ok	1.140	1.080-1.200
1,2-Dichloropropane	5.34	4.98	1.072 ok	1.072	1.012-1.132
1,3-Dichloropropane	7.85	4.98	1.576 ok	1.576	1.516-1.636
1,4-Dioxane	5.70	4.98	1.145 ok	1.127	1.067-1.187
Dichlorofluoromethane	2.29	3.64	0.629 ok	0.629	0.569-0.689
Dibromochloromethane	8.33	4.98	1.673 ok	1.673	1.613-1.733
Dibromomethane	5.31	4.98	1.066 ok	1.064	1.004-1.124
trans-1,2-Dichloroethylene	3.09	3.64	0.849 ok	0.851	0.791-0.911
cis-1,2-Dichloroethylene	3.57	3.64	0.981 ok	0.979	0.919-1.039
cis-1,3-Dichloropropene	6.56	4.98	1.317 ok	1.315	1.255-1.375
m-Dichlorobenzene	16.87	10.70	1.577 ok	1.578	1.518-1.638
o-Dichlorobenzene	17.25	10.70	1.612 ok	1.612	1.552-1.672
p-Dichlorobenzene	16.96	10.70	1.585 ok	1.585	1.525-1.645
trans-1,3-Dichloropropene	7.26	4.98	1.458 ok	1.455	1.395-1.515

Initial Calibration Retention Time/Internal Standard Area Summary

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Job Number: JD36325

Account: GESNYP Groundwater & Environmental Services

Project: Orangeburg UB, Orangeburg, NY

Sample Number	Lab File ID	Injected	By	Level	Inst ID	Method
V2W2424-IC2424	2W54654.D	07/27/21 11:38	DFT	0.5	GCMS2W	TO-15
V2W2424-IC2424	2W54655.D	07/27/21 12:10	DFT	0.2	GCMS2W	TO-15
V2W2424-IC2424	2W54656.D	07/27/21 12:41	DFT	0.1	GCMS2W	TO-15
V2W2424-IC2424	2W54657.D	07/27/21 13:13	DFT	0.04	GCMS2W	TO-15 Reporting this level
V2W2424-IC2424	2W54658.D	07/27/21 13:44	DFT	5	GCMS2W	TO-15
V2W2424-ICC2424	2W54659.D	07/27/21 14:15	DFT	10	GCMS2W	TO-15
V2W2424-IC2424	2W54660.D	07/27/21 14:47	DFT	20	GCMS2W	TO-15
V2W2424-IC2424	2W54661.D	07/27/21 15:21	DFT	40	GCMS2W	TO-15

Target Compound	RT (min.)	Istd RT (min.)	Rel RT	Mean Rel RT	Rel RT Range (+ /- .06)
Di-Isopropyl ether	3.71	3.64	1.019 ok	1.017	0.957-1.077
2,3-Dimethylpentane	5.13	4.98	1.030 ok	1.030	0.970-1.090
2,4-Dimethylpentane	4.24	3.64	1.165 ok	1.164	1.104-1.224
Ethylbenzene	11.69	10.70	1.093 ok	1.091	1.031-1.151
Ethyl Acrylate	5.47	4.98	1.098 ok	1.097	1.037-1.157
4-Ethyltoluene	16.23	10.70	1.517 ok	1.517	1.457-1.577
Freon 113	2.86	3.64	0.786 ok	0.785	0.725-0.845
Freon 114	2.01	3.64	0.552 ok	0.551	0.491-0.611
Freon 123	2.43	3.64	0.668 ok	0.670	0.610-0.730
Freon 123A	2.46	3.64	0.676 ok	0.676	0.616-0.736
Freon 142B	1.96	3.64	0.538 ok	0.538	0.478-0.598
Freon 152A	1.86	3.64	0.511 ok	0.510	0.450-0.570
Heptane	6.00	4.98	1.205 ok	1.206	1.146-1.266
Hexachlorobutadiene	18.84	10.70	1.761 ok	1.761	1.701-1.821
Hexachloroethane	17.79	10.70	1.663 ok	1.663	1.603-1.723
Hexane	3.70	3.64	1.016 ok	1.015	0.955-1.075
2-Hexanone	8.38	4.98	1.683 ok	1.679	1.619-1.739
Iodomethane	2.70	3.64	0.742 ok	0.740	0.680-0.800
Isopropylbenzene	14.57	10.70	1.362 ok	1.362	1.302-1.422
p-Isopropyltoluene	17.26	10.70	1.613 ok	1.614	1.554-1.674
Methyl ethyl ketone	3.38	3.64	0.929 ok	0.922	0.862-0.982
Methyl Tert Butyl Ether	3.21	3.64	0.882 ok	0.883	0.823-0.943
Methylmethacrylate	5.89	4.98	1.183 ok	1.184	1.124-1.244
Naphthalene	18.58	10.70	1.736 ok	1.737	1.677-1.797
Nonane	14.15	10.70	1.322 ok	1.323	1.263-1.383
Octane	9.71	4.98	1.950 ok	1.946	1.886-2.006
Pentane	2.64	3.64	0.725 ok	0.725	0.665-0.785
n-Propylbenzene	15.91	10.70	1.487 ok	1.488	1.428-1.548
Propylene	1.89	3.64	0.519 ok	0.518	0.458-0.578
Styrene	12.83	10.70	1.199 ok	1.199	1.139-1.259
1,1,1-Trichloroethane	4.31	3.64	1.184 ok	1.187	1.127-1.247
1,1,1,2-Tetrachloroethane	10.79	10.70	1.008 ok	1.009	0.949-1.069
1,1,2,2-Tetrachloroethane	13.05	10.70	1.220 ok	1.220	1.160-1.280
1,1,2-Trichloroethane	7.39	4.98	1.484 ok	1.487	1.427-1.547
1,2,4-Trichlorobenzene	18.53	10.70	1.732 ok	1.732	1.672-1.792
1,2,3-Trichloropropane	13.34	10.70	1.247 ok	1.247	1.187-1.307
1,2,3-Trimethylbenzene	17.19	10.70	1.607 ok	1.607	1.547-1.667
1,2,4-Trimethylbenzene	16.82	10.70	1.572 ok	1.572	1.512-1.632
1,3,5-Trimethylbenzene	16.37	10.70	1.530 ok	1.530	1.470-1.590
2,2,4-Trimethylpentane	5.68	4.98	1.141 ok	1.140	1.080-1.200

Initial Calibration Retention Time/Internal Standard Area Summary

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Job Number: JD36325

Account: GESNYP Groundwater & Environmental Services

Project: Orangeburg UB, Orangeburg, NY

Sample Number	Lab File ID	Injected	By	Level	Inst ID	Method	
V2W2424-IC2424	2W54654.D	07/27/21 11:38	DFT	0.5	GCMS2W	TO-15	
V2W2424-IC2424	2W54655.D	07/27/21 12:10	DFT	0.2	GCMS2W	TO-15	
V2W2424-IC2424	2W54656.D	07/27/21 12:41	DFT	0.1	GCMS2W	TO-15	
V2W2424-IC2424	2W54657.D	07/27/21 13:13	DFT	0.04	GCMS2W	TO-15	Reporting this level
V2W2424-IC2424	2W54658.D	07/27/21 13:44	DFT	5	GCMS2W	TO-15	
V2W2424-ICC2424	2W54659.D	07/27/21 14:15	DFT	10	GCMS2W	TO-15	
V2W2424-IC2424	2W54660.D	07/27/21 14:47	DFT	20	GCMS2W	TO-15	
V2W2424-IC2424	2W54661.D	07/27/21 15:21	DFT	40	GCMS2W	TO-15	

Target Compound	RT (min.)	Istd RT (min.)	Rel RT	Mean Rel RT	Rel RT Range (+ /- .06)
Tertiary Butyl Alcohol	2.74	3.64	0.753 ok	0.750	0.690-0.810
Tetrachloroethylene	9.55	4.98	1.918 ok	1.918	1.858-1.978
Toluene	7.78	4.98	1.562 ok	1.564	1.504-1.624
Trichloroethylene	5.58	4.98	1.120 ok	1.121	1.061-1.181
Trichlorofluoromethane	2.53	3.64	0.695 ok	0.694	0.634-0.754
Vinyl chloride	2.06	3.64	0.566 ok	0.563	0.503-0.623
m,p-Xylene	12.07	10.70	1.128 ok	1.130	1.070-1.190
o-Xylene	13.04	10.70	1.219 ok	1.219	1.159-1.279

Internal Standard	RT (min.)	Mean RT(min.)	RT Range (+ /- 0.33)	Area	Mean Area	Area Range (+ /- 40 %)
Bromochloromethane	3.64 ok	3.64	3.31-3.97	83186	ok 86057	51634-120480
1,4-Difluorobenzene	4.98 ok	4.98	4.65-5.31	414874	ok 425402	255241-595563
Chlorobenzene-D5	10.70 ok	10.70	10.37-11.03	358722	ok 368175	220905-515445

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Initial Calibration Retention Time/Internal Standard Area Summary

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Job Number: JD36325

Account: GESNYP Groundwater & Environmental Services

Project: Orangeburg UB, Orangeburg, NY

Sample Number	Lab File ID	Injected	By	Level	Inst ID	Method
V2W2424-IC2424	2W54654.D	07/27/21 11:38	DFT	0.5	GCMS2W	TO-15
V2W2424-IC2424	2W54655.D	07/27/21 12:10	DFT	0.2	GCMS2W	TO-15
V2W2424-IC2424	2W54656.D	07/27/21 12:41	DFT	0.1	GCMS2W	TO-15
V2W2424-IC2424	2W54657.D	07/27/21 13:13	DFT	0.04	GCMS2W	TO-15
V2W2424-IC2424	2W54658.D	07/27/21 13:44	DFT	5	GCMS2W	TO-15 Reporting this level
V2W2424-ICC2424	2W54659.D	07/27/21 14:15	DFT	10	GCMS2W	TO-15
V2W2424-IC2424	2W54660.D	07/27/21 14:47	DFT	20	GCMS2W	TO-15
V2W2424-IC2424	2W54661.D	07/27/21 15:21	DFT	40	GCMS2W	TO-15

Target Compound	RT (min.)	Istd RT (min.)	Rel RT	Mean Rel RT	Rel RT Range (+ /- .06)
Acetone	2.46	3.64	0.676 ok	0.677	0.617-0.737
Acrolein	2.42	3.64	0.665 ok	0.665	0.605-0.725
Acrylonitrile	2.61	3.64	0.717 ok	0.716	0.656-0.776
Acetonitrile	2.37	3.64	0.651 ok	0.653	0.593-0.713
1,3-Butadiene	2.09	3.64	0.574 ok	0.576	0.516-0.636
Benzene	4.65	3.64	1.277 ok	1.276	1.216-1.336
Bromobenzene	14.44	10.70	1.350 ok	1.350	1.290-1.410
Bromodichloromethane	5.52	4.99	1.106 ok	1.109	1.049-1.169
Bromoform	11.92	10.70	1.114 ok	1.114	1.054-1.174
Bromomethane	2.19	3.64	0.602 ok	0.604	0.544-0.664
Bromoethene	2.38	3.64	0.654 ok	0.656	0.596-0.716
n-Butane	2.11	3.64	0.580 ok	0.582	0.522-0.642
Benzyl Chloride	16.90	10.70	1.579 ok	1.579	1.519-1.639
n-Butylbenzene	17.61	10.70	1.646 ok	1.646	1.586-1.706
sec-Butylbenzene	17.09	10.70	1.597 ok	1.597	1.537-1.657
tert-Butylbenzene	16.81	10.70	1.571 ok	1.571	1.511-1.631
Carbon disulfide	2.86	3.64	0.786 ok	0.786	0.726-0.846
Chlorobenzene	10.78	10.70	1.007 ok	1.007	0.947-1.067
Chlorodifluoromethane	1.87	3.64	0.514 ok	0.515	0.455-0.575
Chloroethane	2.25	3.64	0.618 ok	0.620	0.560-0.680
Chlorotrifluoroethene	1.88	3.64	0.516 ok	0.518	0.458-0.578
Chloroform	3.72	3.64	1.022 ok	1.022	0.962-1.082
Chloromethane	1.96	3.64	0.538 ok	0.540	0.480-0.600
3-Chloropropene	2.80	3.64	0.769 ok	0.769	0.709-0.829
2-Chlorotoluene	15.58	10.70	1.456 ok	1.456	1.396-1.516
Carbon tetrachloride	4.76	3.64	1.308 ok	1.309	1.249-1.369
Cyclohexane	4.87	4.99	0.976 ok	0.977	0.917-1.037
1,1-Dichloroethane	3.18	3.64	0.874 ok	0.873	0.813-0.933
1,1-Dichloroethylene	2.72	3.64	0.747 ok	0.748	0.688-0.808
1,2-Dibromoethane	8.69	4.99	1.741 ok	1.744	1.684-1.804
1,2-Dichloroethane	4.15	3.64	1.140 ok	1.140	1.080-1.200
1,2-Dichloropropane	5.34	4.99	1.070 ok	1.072	1.012-1.132
1,3-Dichloropropane	7.85	4.99	1.573 ok	1.576	1.516-1.636
1,4-Dioxane	5.59	4.99	1.120 ok	1.127	1.067-1.187
Dichlorodifluoromethane	1.90	3.64	0.522 ok	0.524	0.464-0.584
Dichlorofluoromethane	2.29	3.64	0.629 ok	0.629	0.569-0.689
Dibromochloromethane	8.34	4.99	1.671 ok	1.673	1.613-1.733
Dibromomethane	5.30	4.99	1.062 ok	1.064	1.004-1.124
trans-1,2-Dichloroethylene	3.10	3.64	0.852 ok	0.851	0.791-0.911
cis-1,2-Dichloroethylene	3.56	3.64	0.978 ok	0.979	0.919-1.039

Initial Calibration Retention Time/Internal Standard Area Summary

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Job Number: JD36325

Account: GESNYP Groundwater & Environmental Services

Project: Orangeburg UB, Orangeburg, NY

Sample Number	Lab File ID	Injected	By	Level	Inst ID	Method
V2W2424-IC2424	2W54654.D	07/27/21 11:38	DFT	0.5	GCMS2W	TO-15
V2W2424-IC2424	2W54655.D	07/27/21 12:10	DFT	0.2	GCMS2W	TO-15
V2W2424-IC2424	2W54656.D	07/27/21 12:41	DFT	0.1	GCMS2W	TO-15
V2W2424-IC2424	2W54657.D	07/27/21 13:13	DFT	0.04	GCMS2W	TO-15
V2W2424-IC2424	2W54658.D	07/27/21 13:44	DFT	5	GCMS2W	TO-15 Reporting this level
V2W2424-ICC2424	2W54659.D	07/27/21 14:15	DFT	10	GCMS2W	TO-15
V2W2424-IC2424	2W54660.D	07/27/21 14:47	DFT	20	GCMS2W	TO-15
V2W2424-IC2424	2W54661.D	07/27/21 15:21	DFT	40	GCMS2W	TO-15

Target Compound	RT (min.)	Istd RT (min.)	Rel RT	Mean Rel RT	Rel RT Range (+ /- .06)
cis-1,3-Dichloropropene	6.55	4.99	1.313 ok	1.315	1.255-1.375
m-Dichlorobenzene	16.88	10.70	1.578 ok	1.578	1.518-1.638
o-Dichlorobenzene	17.25	10.70	1.612 ok	1.612	1.552-1.672
p-Dichlorobenzene	16.96	10.70	1.585 ok	1.585	1.525-1.645
trans-1,3-Dichloropropene	7.24	4.99	1.451 ok	1.455	1.395-1.515
Di-Isopropyl ether	3.70	3.64	1.016 ok	1.017	0.957-1.077
2,3-Dimethylpentane	5.13	4.99	1.028 ok	1.030	0.970-1.090
2,4-Dimethylpentane	4.24	3.64	1.165 ok	1.164	1.104-1.224
Ethanol	2.29	3.64	0.629 ok	0.631	0.571-0.691
Ethylbenzene	11.67	10.70	1.091 ok	1.091	1.031-1.151
Ethyl Acetate	3.70	3.64	1.016 ok	1.018	0.958-1.078
Ethyl Acrylate	5.46	4.99	1.094 ok	1.097	1.037-1.157
4-Ethyltoluene	16.23	10.70	1.517 ok	1.517	1.457-1.577
Freon 113	2.86	3.64	0.786 ok	0.785	0.725-0.845
Freon 114	2.00	3.64	0.549 ok	0.551	0.491-0.611
Freon 123	2.44	3.64	0.670 ok	0.670	0.610-0.730
Freon 123A	2.46	3.64	0.676 ok	0.676	0.616-0.736
Freon 142B	1.95	3.64	0.536 ok	0.538	0.478-0.598
Freon 152A	1.85	3.64	0.508 ok	0.510	0.450-0.570
Heptane	6.01	4.99	1.204 ok	1.206	1.146-1.266
Hexachlorobutadiene	18.84	10.70	1.761 ok	1.761	1.701-1.821
Hexachloroethane	17.79	10.70	1.663 ok	1.663	1.603-1.723
Hexane	3.69	3.64	1.014 ok	1.015	0.955-1.075
2-Hexanone	8.36	4.99	1.675 ok	1.679	1.619-1.739
Iodomethane	2.69	3.64	0.739 ok	0.740	0.680-0.800
Isopropylbenzene	14.57	10.70	1.362 ok	1.362	1.302-1.422
Isopropyl Alcohol	2.54	3.64	0.698 ok	0.698	0.638-0.758
p-Isopropyltoluene	17.27	10.70	1.614 ok	1.614	1.554-1.674
Methylene chloride	2.76	3.64	0.758 ok	0.758	0.698-0.818
Methyl ethyl ketone	3.35	3.64	0.920 ok	0.922	0.862-0.982
Methyl Isobutyl Ketone	6.65	4.99	1.333 ok	1.335	1.275-1.395
Methyl Tert Butyl Ether	3.21	3.64	0.882 ok	0.883	0.823-0.943
Methylmethacrylate	5.90	4.99	1.182 ok	1.184	1.124-1.244
Naphthalene	18.58	10.70	1.736 ok	1.737	1.677-1.797
Nonane	14.16	10.70	1.323 ok	1.323	1.263-1.383
Octane	9.70	4.99	1.944 ok	1.946	1.886-2.006
Pentane	2.64	3.64	0.725 ok	0.725	0.665-0.785
n-Propylbenzene	15.91	10.70	1.487 ok	1.488	1.428-1.548
Propylene	1.88	3.64	0.516 ok	0.518	0.458-0.578
Styrene	12.83	10.70	1.199 ok	1.199	1.139-1.259

Initial Calibration Retention Time/Internal Standard Area Summary

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Job Number: JD36325

Account: GESNYP Groundwater & Environmental Services

Project: Orangeburg UB, Orangeburg, NY

Sample Number	Lab File ID	Injected	By	Level	Inst ID	Method
V2W2424-IC2424	2W54654.D	07/27/21 11:38	DFT	0.5	GCMS2W	TO-15
V2W2424-IC2424	2W54655.D	07/27/21 12:10	DFT	0.2	GCMS2W	TO-15
V2W2424-IC2424	2W54656.D	07/27/21 12:41	DFT	0.1	GCMS2W	TO-15
V2W2424-IC2424	2W54657.D	07/27/21 13:13	DFT	0.04	GCMS2W	TO-15
V2W2424-IC2424	2W54658.D	07/27/21 13:44	DFT	5	GCMS2W	TO-15 Reporting this level
V2W2424-ICC2424	2W54659.D	07/27/21 14:15	DFT	10	GCMS2W	TO-15
V2W2424-IC2424	2W54660.D	07/27/21 14:47	DFT	20	GCMS2W	TO-15
V2W2424-IC2424	2W54661.D	07/27/21 15:21	DFT	40	GCMS2W	TO-15

Target Compound	RT (min.)	Istd RT (min.)	Rel RT	Mean Rel RT	Rel RT Range (+ /- .06)
1,1,1-Trichloroethane	4.32	3.64	1.187 ok	1.187	1.127-1.247
1,1,1,2-Tetrachloroethane	10.79	10.70	1.008 ok	1.009	0.949-1.069
1,1,2,2-Tetrachloroethane	13.05	10.70	1.220 ok	1.220	1.160-1.280
1,1,2-Trichloroethane	7.41	4.99	1.485 ok	1.487	1.427-1.547
1,2,4-Trichlorobenzene	18.53	10.70	1.732 ok	1.732	1.672-1.792
1,2,3-Trichloropropane	13.34	10.70	1.247 ok	1.247	1.187-1.307
1,2,3-Trimethylbenzene	17.20	10.70	1.607 ok	1.607	1.547-1.667
1,2,4-Trimethylbenzene	16.82	10.70	1.572 ok	1.572	1.512-1.632
1,3,5-Trimethylbenzene	16.37	10.70	1.530 ok	1.530	1.470-1.590
2,2,4-Trimethylpentane	5.68	4.99	1.138 ok	1.140	1.080-1.200
Tertiary Butyl Alcohol	2.73	3.64	0.750 ok	0.750	0.690-0.810
Tetrachloroethylene	9.55	4.99	1.914 ok	1.918	1.858-1.978
Tetrahydrofuran	3.94	3.64	1.082 ok	1.085	1.025-1.145
Toluene	7.79	4.99	1.561 ok	1.564	1.504-1.624
Trichloroethylene	5.58	4.99	1.118 ok	1.121	1.061-1.181
Trichlorofluoromethane	2.52	3.64	0.692 ok	0.694	0.634-0.754
Vinyl chloride	2.05	3.64	0.563 ok	0.563	0.503-0.623
Vinyl Acetate	3.25	3.64	0.893 ok	0.893	0.833-0.953
m,p-Xylene	12.11	10.70	1.132 ok	1.130	1.070-1.190
o-Xylene	13.04	10.70	1.219 ok	1.219	1.159-1.279

Internal Standard	RT (min.)	Mean RT(min.)	RT Range (+ /- 0.33)	Area	Mean Area	Area Range (+ /- 40 %)
Bromochloromethane	3.64 ok	3.64	3.31-3.97	83682 ok	86057	51634-120480
1,4-Difluorobenzene	4.99 ok	4.98	4.65-5.31	415186 ok	425402	255241-595563
Chlorobenzene-D5	10.70 ok	10.70	10.37-11.03	361915 ok	368175	220905-515445

Initial Calibration Retention Time/Internal Standard Area Summary

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Job Number: JD36325

Account: GESNYP Groundwater & Environmental Services

Project: Orangeburg UB, Orangeburg, NY

Sample Number	Lab File ID	Injected	By	Level	Inst ID	Method
V2W2424-IC2424	2W54654.D	07/27/21 11:38	DFT	0.5	GCMS2W	TO-15
V2W2424-IC2424	2W54655.D	07/27/21 12:10	DFT	0.2	GCMS2W	TO-15
V2W2424-IC2424	2W54656.D	07/27/21 12:41	DFT	0.1	GCMS2W	TO-15
V2W2424-IC2424	2W54657.D	07/27/21 13:13	DFT	0.04	GCMS2W	TO-15
V2W2424-IC2424	2W54658.D	07/27/21 13:44	DFT	5	GCMS2W	TO-15
V2W2424-ICC2424	2W54659.D	07/27/21 14:15	DFT	10	GCMS2W	TO-15 Reporting this level
V2W2424-IC2424	2W54660.D	07/27/21 14:47	DFT	20	GCMS2W	TO-15
V2W2424-IC2424	2W54661.D	07/27/21 15:21	DFT	40	GCMS2W	TO-15

Target Compound	RT (min.)	Istd RT (min.)	Rel RT	Mean Rel RT	Rel RT Range (+ /- .06)
Acetone	2.46	3.64	0.676 ok	0.677	0.617-0.737
Acrolein	2.42	3.64	0.665 ok	0.665	0.605-0.725
Acrylonitrile	2.61	3.64	0.717 ok	0.716	0.656-0.776
Acetonitrile	2.38	3.64	0.654 ok	0.653	0.593-0.713
1,3-Butadiene	2.10	3.64	0.577 ok	0.576	0.516-0.636
Benzene	4.65	3.64	1.277 ok	1.276	1.216-1.336
Bromobenzene	14.45	10.70	1.350 ok	1.350	1.290-1.410
Bromodichloromethane	5.53	4.98	1.110 ok	1.109	1.049-1.169
Bromoform	11.92	10.70	1.114 ok	1.114	1.054-1.174
Bromomethane	2.20	3.64	0.604 ok	0.604	0.544-0.664
Bromoethene	2.39	3.64	0.657 ok	0.656	0.596-0.716
n-Butane	2.12	3.64	0.582 ok	0.582	0.522-0.642
Benzyl Chloride	16.90	10.70	1.579 ok	1.579	1.519-1.639
n-Butylbenzene	17.61	10.70	1.646 ok	1.646	1.586-1.706
sec-Butylbenzene	17.09	10.70	1.597 ok	1.597	1.537-1.657
tert-Butylbenzene	16.81	10.70	1.571 ok	1.571	1.511-1.631
Carbon disulfide	2.86	3.64	0.786 ok	0.786	0.726-0.846
Chlorobenzene	10.78	10.70	1.007 ok	1.007	0.947-1.067
Chlorodifluoromethane	1.87	3.64	0.514 ok	0.515	0.455-0.575
Chloroethane	2.26	3.64	0.621 ok	0.620	0.560-0.680
Chlorotrifluoroethene	1.88	3.64	0.516 ok	0.518	0.458-0.578
Chloroform	3.72	3.64	1.022 ok	1.022	0.962-1.082
Chloromethane	1.96	3.64	0.538 ok	0.540	0.480-0.600
3-Chloropropene	2.80	3.64	0.769 ok	0.769	0.709-0.829
2-Chlorotoluene	15.58	10.70	1.456 ok	1.456	1.396-1.516
Carbon tetrachloride	4.77	3.64	1.310 ok	1.309	1.249-1.369
Cyclohexane	4.87	4.98	0.978 ok	0.977	0.917-1.037
1,1-Dichloroethane	3.18	3.64	0.874 ok	0.873	0.813-0.933
1,1-Dichloroethylene	2.72	3.64	0.747 ok	0.748	0.688-0.808
1,2-Dibromoethane	8.69	4.98	1.745 ok	1.744	1.684-1.804
1,2-Dichloroethane	4.15	3.64	1.140 ok	1.140	1.080-1.200
1,2-Dichloropropane	5.34	4.98	1.072 ok	1.072	1.012-1.132
1,3-Dichloropropane	7.85	4.98	1.576 ok	1.576	1.516-1.636
1,4-Dioxane	5.59	4.98	1.122 ok	1.127	1.067-1.187
Dichlorodifluoromethane	1.91	3.64	0.525 ok	0.524	0.464-0.584
Dichlorofluoromethane	2.29	3.64	0.629 ok	0.629	0.569-0.689
Dibromochloromethane	8.34	4.98	1.675 ok	1.673	1.613-1.733
Dibromomethane	5.30	4.98	1.064 ok	1.064	1.004-1.124
trans-1,2-Dichloroethylene	3.10	3.64	0.852 ok	0.851	0.791-0.911
cis-1,2-Dichloroethylene	3.56	3.64	0.978 ok	0.979	0.919-1.039

Initial Calibration Retention Time/Internal Standard Area Summary

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Job Number: JD36325

Account: GESNYP Groundwater & Environmental Services

Project: Orangeburg UB, Orangeburg, NY

Sample Number	Lab File ID	Injected	By	Level	Inst ID	Method
V2W2424-IC2424	2W54654.D	07/27/21 11:38	DFT	0.5	GCMS2W	TO-15
V2W2424-IC2424	2W54655.D	07/27/21 12:10	DFT	0.2	GCMS2W	TO-15
V2W2424-IC2424	2W54656.D	07/27/21 12:41	DFT	0.1	GCMS2W	TO-15
V2W2424-IC2424	2W54657.D	07/27/21 13:13	DFT	0.04	GCMS2W	TO-15
V2W2424-IC2424	2W54658.D	07/27/21 13:44	DFT	5	GCMS2W	TO-15
V2W2424-ICC2424	2W54659.D	07/27/21 14:15	DFT	10	GCMS2W	TO-15 Reporting this level
V2W2424-IC2424	2W54660.D	07/27/21 14:47	DFT	20	GCMS2W	TO-15
V2W2424-IC2424	2W54661.D	07/27/21 15:21	DFT	40	GCMS2W	TO-15

Target Compound	RT (min.)	Istd RT (min.)	Rel RT		Mean Rel RT	Rel RT Range (+ /- .06)
cis-1,3-Dichloropropene	6.55	4.98	1.315	ok	1.315	1.255-1.375
m-Dichlorobenzene	16.88	10.70	1.578	ok	1.578	1.518-1.638
o-Dichlorobenzene	17.25	10.70	1.612	ok	1.612	1.552-1.672
p-Dichlorobenzene	16.96	10.70	1.585	ok	1.585	1.525-1.645
trans-1,3-Dichloropropene	7.25	4.98	1.456	ok	1.455	1.395-1.515
Di-Isopropyl ether	3.70	3.64	1.016	ok	1.017	0.957-1.077
2,3-Dimethylpentane	5.13	4.98	1.030	ok	1.030	0.970-1.090
2,4-Dimethylpentane	4.24	3.64	1.165	ok	1.164	1.104-1.224
Ethanol	2.30	3.64	0.632	ok	0.631	0.571-0.691
Ethylbenzene	11.68	10.70	1.092	ok	1.091	1.031-1.151
Ethyl Acetate	3.70	3.64	1.016	ok	1.018	0.958-1.078
Ethyl Acrylate	5.46	4.98	1.096	ok	1.097	1.037-1.157
4-Ethyltoluene	16.23	10.70	1.517	ok	1.517	1.457-1.577
Freon 113	2.86	3.64	0.786	ok	0.785	0.725-0.845
Freon 114	2.00	3.64	0.549	ok	0.551	0.491-0.611
Freon 123	2.44	3.64	0.670	ok	0.670	0.610-0.730
Freon 123A	2.46	3.64	0.676	ok	0.676	0.616-0.736
Freon 142B	1.96	3.64	0.538	ok	0.538	0.478-0.598
Freon 152A	1.86	3.64	0.511	ok	0.510	0.450-0.570
Heptane	6.01	4.98	1.207	ok	1.206	1.146-1.266
Hexachlorobutadiene	18.84	10.70	1.761	ok	1.761	1.701-1.821
Hexachloroethane	17.79	10.70	1.663	ok	1.663	1.603-1.723
Hexane	3.70	3.64	1.016	ok	1.015	0.955-1.075
2-Hexanone	8.35	4.98	1.677	ok	1.679	1.619-1.739
Iodomethane	2.69	3.64	0.739	ok	0.740	0.680-0.800
Isopropylbenzene	14.58	10.70	1.363	ok	1.362	1.302-1.422
Isopropyl Alcohol	2.54	3.64	0.698	ok	0.698	0.638-0.758
p-Isopropyltoluene	17.27	10.70	1.614	ok	1.614	1.554-1.674
Methylene chloride	2.76	3.64	0.758	ok	0.758	0.698-0.818
Methyl ethyl ketone	3.35	3.64	0.920	ok	0.922	0.862-0.982
Methyl Isobutyl Ketone	6.65	4.98	1.335	ok	1.335	1.275-1.395
Methyl Tert Butyl Ether	3.21	3.64	0.882	ok	0.883	0.823-0.943
Methylmethacrylate	5.90	4.98	1.185	ok	1.184	1.124-1.244
Naphthalene	18.58	10.70	1.736	ok	1.737	1.677-1.797
Nonane	14.17	10.70	1.324	ok	1.323	1.263-1.383
Octane	9.70	4.98	1.948	ok	1.946	1.886-2.006
Pentane	2.64	3.64	0.725	ok	0.725	0.665-0.785
n-Propylbenzene	15.92	10.70	1.488	ok	1.488	1.428-1.548
Propylene	1.88	3.64	0.516	ok	0.518	0.458-0.578
Styrene	12.83	10.70	1.199	ok	1.199	1.139-1.259

Initial Calibration Retention Time/Internal Standard Area Summary

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Job Number: JD36325

Account: GESNYP Groundwater & Environmental Services

Project: Orangeburg UB, Orangeburg, NY

Sample Number	Lab File ID	Injected	By	Level	Inst ID	Method
V2W2424-IC2424	2W54654.D	07/27/21 11:38	DFT	0.5	GCMS2W	TO-15
V2W2424-IC2424	2W54655.D	07/27/21 12:10	DFT	0.2	GCMS2W	TO-15
V2W2424-IC2424	2W54656.D	07/27/21 12:41	DFT	0.1	GCMS2W	TO-15
V2W2424-IC2424	2W54657.D	07/27/21 13:13	DFT	0.04	GCMS2W	TO-15
V2W2424-IC2424	2W54658.D	07/27/21 13:44	DFT	5	GCMS2W	TO-15
V2W2424-ICC2424	2W54659.D	07/27/21 14:15	DFT	10	GCMS2W	TO-15 Reporting this level
V2W2424-IC2424	2W54660.D	07/27/21 14:47	DFT	20	GCMS2W	TO-15
V2W2424-IC2424	2W54661.D	07/27/21 15:21	DFT	40	GCMS2W	TO-15

Target Compound	RT (min.)	Istd RT (min.)	Rel RT	Mean Rel RT	Rel RT Range (+ /- .06)
1,1,1-Trichloroethane	4.32	3.64	1.187 ok	1.187	1.127-1.247
1,1,1,2-Tetrachloroethane	10.79	10.70	1.008 ok	1.009	0.949-1.069
1,1,2,2-Tetrachloroethane	13.05	10.70	1.220 ok	1.220	1.160-1.280
1,1,2-Trichloroethane	7.41	4.98	1.488 ok	1.487	1.427-1.547
1,2,4-Trichlorobenzene	18.53	10.70	1.732 ok	1.732	1.672-1.792
1,2,3-Trichloropropane	13.34	10.70	1.247 ok	1.247	1.187-1.307
1,2,3-Trimethylbenzene	17.20	10.70	1.607 ok	1.607	1.547-1.667
1,2,4-Trimethylbenzene	16.82	10.70	1.572 ok	1.572	1.512-1.632
1,3,5-Trimethylbenzene	16.37	10.70	1.530 ok	1.530	1.470-1.590
2,2,4-Trimethylpentane	5.68	4.98	1.141 ok	1.140	1.080-1.200
Tertiary Butyl Alcohol	2.73	3.64	0.750 ok	0.750	0.690-0.810
Tetrachloroethylene	9.56	4.98	1.920 ok	1.918	1.858-1.978
Tetrahydrofuran	3.94	3.64	1.082 ok	1.085	1.025-1.145
Toluene	7.79	4.98	1.564 ok	1.564	1.504-1.624
Trichloroethylene	5.59	4.98	1.122 ok	1.121	1.061-1.181
Trichlorofluoromethane	2.53	3.64	0.695 ok	0.694	0.634-0.754
Vinyl chloride	2.05	3.64	0.563 ok	0.563	0.503-0.623
Vinyl Acetate	3.25	3.64	0.893 ok	0.893	0.833-0.953
m,p-Xylene	12.10	10.70	1.131 ok	1.130	1.070-1.190
o-Xylene	13.04	10.70	1.219 ok	1.219	1.159-1.279

Internal Standard	RT (min.)	Mean RT(min.)	RT Range (+ /- 0.33)	Area	Mean Area	Area Range (+ /- 40 %)
Bromochloromethane	3.64 ok	3.64	3.31-3.97	86482 ok	86057	51634-120480
1,4-Difluorobenzene	4.98 ok	4.98	4.65-5.31	428121 ok	425402	255241-595563
Chlorobenzene-D5	10.70 ok	10.70	10.37-11.03	373337 ok	368175	220905-515445

Initial Calibration Retention Time/Internal Standard Area Summary

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Job Number: JD36325

Account: GESNYP Groundwater & Environmental Services

Project: Orangeburg UB, Orangeburg, NY

Sample Number	Lab File ID	Injected	By	Level	Inst ID	Method
V2W2424-IC2424	2W54654.D	07/27/21 11:38	DFT	0.5	GCMS2W	TO-15
V2W2424-IC2424	2W54655.D	07/27/21 12:10	DFT	0.2	GCMS2W	TO-15
V2W2424-IC2424	2W54656.D	07/27/21 12:41	DFT	0.1	GCMS2W	TO-15
V2W2424-IC2424	2W54657.D	07/27/21 13:13	DFT	0.04	GCMS2W	TO-15
V2W2424-IC2424	2W54658.D	07/27/21 13:44	DFT	5	GCMS2W	TO-15
V2W2424-ICC2424	2W54659.D	07/27/21 14:15	DFT	10	GCMS2W	TO-15
V2W2424-IC2424	2W54660.D	07/27/21 14:47	DFT	20	GCMS2W	TO-15
V2W2424-IC2424	2W54661.D	07/27/21 15:21	DFT	40	GCMS2W	TO-15

Reporting this level

Target Compound	RT (min.)	Istd RT (min.)	Rel RT	Mean Rel RT	Rel RT Range (+ /- .06)
Acetone	2.46	3.64	0.676	ok 0.677	0.617-0.737
Acrolein	2.42	3.64	0.665	ok 0.665	0.605-0.725
Acrylonitrile	2.61	3.64	0.717	ok 0.716	0.656-0.776
Acetonitrile	2.37	3.64	0.651	ok 0.653	0.593-0.713
1,3-Butadiene	2.09	3.64	0.574	ok 0.576	0.516-0.636
Benzene	4.65	3.64	1.277	ok 1.276	1.216-1.336
Bromobenzene	14.45	10.70	1.350	ok 1.350	1.290-1.410
Bromodichloromethane	5.53	4.98	1.110	ok 1.109	1.049-1.169
Bromoform	11.92	10.70	1.114	ok 1.114	1.054-1.174
Bromomethane	2.19	3.64	0.602	ok 0.604	0.544-0.664
Bromoethene	2.39	3.64	0.657	ok 0.656	0.596-0.716
n-Butane	2.11	3.64	0.580	ok 0.582	0.522-0.642
Benzyl Chloride	16.91	10.70	1.580	ok 1.579	1.519-1.639
n-Butylbenzene	17.61	10.70	1.646	ok 1.646	1.586-1.706
sec-Butylbenzene	17.09	10.70	1.597	ok 1.597	1.537-1.657
tert-Butylbenzene	16.82	10.70	1.572	ok 1.571	1.511-1.631
Carbon disulfide	2.86	3.64	0.786	ok 0.786	0.726-0.846
Chlorobenzene	10.78	10.70	1.007	ok 1.007	0.947-1.067
Chlorodifluoromethane	1.87	3.64	0.514	ok 0.515	0.455-0.575
Chloroethane	2.25	3.64	0.618	ok 0.620	0.560-0.680
Chlorotrifluoroethene	1.88	3.64	0.516	ok 0.518	0.458-0.578
Chloroform	3.72	3.64	1.022	ok 1.022	0.962-1.082
Chloromethane	1.96	3.64	0.538	ok 0.540	0.480-0.600
3-Chloropropene	2.80	3.64	0.769	ok 0.769	0.709-0.829
2-Chlorotoluene	15.59	10.70	1.457	ok 1.456	1.396-1.516
Carbon tetrachloride	4.77	3.64	1.310	ok 1.309	1.249-1.369
Cyclohexane	4.87	4.98	0.978	ok 0.977	0.917-1.037
1,1-Dichloroethane	3.18	3.64	0.874	ok 0.873	0.813-0.933
1,1-Dichloroethylene	2.72	3.64	0.747	ok 0.748	0.688-0.808
1,2-Dibromoethane	8.69	4.98	1.745	ok 1.744	1.684-1.804
1,2-Dichloroethane	4.15	3.64	1.140	ok 1.140	1.080-1.200
1,2-Dichloropropane	5.34	4.98	1.072	ok 1.072	1.012-1.132
1,3-Dichloropropane	7.85	4.98	1.576	ok 1.576	1.516-1.636
1,4-Dioxane	5.59	4.98	1.122	ok 1.127	1.067-1.187
Dichlorodifluoromethane	1.90	3.64	0.522	ok 0.524	0.464-0.584
Dichlorofluoromethane	2.29	3.64	0.629	ok 0.629	0.569-0.689
Dibromochloromethane	8.34	4.98	1.675	ok 1.673	1.613-1.733
Dibromomethane	5.30	4.98	1.064	ok 1.064	1.004-1.124
trans-1,2-Dichloroethylene	3.10	3.64	0.852	ok 0.851	0.791-0.911
cis-1,2-Dichloroethylene	3.56	3.64	0.978	ok 0.979	0.919-1.039

Initial Calibration Retention Time/Internal Standard Area Summary

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Job Number: JD36325

Account: GESNYP Groundwater & Environmental Services

Project: Orangeburg UB, Orangeburg, NY

Sample Number	Lab File ID	Injected	By	Level	Inst ID	Method
V2W2424-IC2424	2W54654.D	07/27/21 11:38	DFT	0.5	GCMS2W	TO-15
V2W2424-IC2424	2W54655.D	07/27/21 12:10	DFT	0.2	GCMS2W	TO-15
V2W2424-IC2424	2W54656.D	07/27/21 12:41	DFT	0.1	GCMS2W	TO-15
V2W2424-IC2424	2W54657.D	07/27/21 13:13	DFT	0.04	GCMS2W	TO-15
V2W2424-IC2424	2W54658.D	07/27/21 13:44	DFT	5	GCMS2W	TO-15
V2W2424-ICC2424	2W54659.D	07/27/21 14:15	DFT	10	GCMS2W	TO-15
V2W2424-IC2424	2W54660.D	07/27/21 14:47	DFT	20	GCMS2W	TO-15
V2W2424-IC2424	2W54661.D	07/27/21 15:21	DFT	40	GCMS2W	TO-15

Reporting this level

Target Compound	RT (min.)	Istd RT (min.)	Rel RT		Mean Rel RT	Rel RT Range (+ /- .06)
cis-1,3-Dichloropropene	6.55	4.98	1.315	ok	1.315	1.255-1.375
m-Dichlorobenzene	16.88	10.70	1.578	ok	1.578	1.518-1.638
o-Dichlorobenzene	17.26	10.70	1.613	ok	1.612	1.552-1.672
p-Dichlorobenzene	16.96	10.70	1.585	ok	1.585	1.525-1.645
trans-1,3-Dichloropropene	7.25	4.98	1.456	ok	1.455	1.395-1.515
Di-Isopropyl ether	3.70	3.64	1.016	ok	1.017	0.957-1.077
2,3-Dimethylpentane	5.13	4.98	1.030	ok	1.030	0.970-1.090
2,4-Dimethylpentane	4.24	3.64	1.165	ok	1.164	1.104-1.224
Ethanol	2.29	3.64	0.629	ok	0.631	0.571-0.691
Ethylbenzene	11.68	10.70	1.092	ok	1.091	1.031-1.151
Ethyl Acetate	3.70	3.64	1.016	ok	1.018	0.958-1.078
Ethyl Acrylate	5.46	4.98	1.096	ok	1.097	1.037-1.157
4-Ethyltoluene	16.23	10.70	1.517	ok	1.517	1.457-1.577
Freon 113	2.86	3.64	0.786	ok	0.785	0.725-0.845
Freon 114	2.00	3.64	0.549	ok	0.551	0.491-0.611
Freon 123	2.44	3.64	0.670	ok	0.670	0.610-0.730
Freon 123A	2.46	3.64	0.676	ok	0.676	0.616-0.736
Freon 142B	1.95	3.64	0.536	ok	0.538	0.478-0.598
Freon 152A	1.85	3.64	0.508	ok	0.510	0.450-0.570
Heptane	6.01	4.98	1.207	ok	1.206	1.146-1.266
Hexachlorobutadiene	18.84	10.70	1.761	ok	1.761	1.701-1.821
Hexachloroethane	17.79	10.70	1.663	ok	1.663	1.603-1.723
Hexane	3.70	3.64	1.016	ok	1.015	0.955-1.075
2-Hexanone	8.36	4.98	1.679	ok	1.679	1.619-1.739
Iodomethane	2.69	3.64	0.739	ok	0.740	0.680-0.800
Isopropylbenzene	14.58	10.70	1.363	ok	1.362	1.302-1.422
Isopropyl Alcohol	2.54	3.64	0.698	ok	0.698	0.638-0.758
p-Isopropyltoluene	17.27	10.70	1.614	ok	1.614	1.554-1.674
Methylene chloride	2.76	3.64	0.758	ok	0.758	0.698-0.818
Methyl ethyl ketone	3.35	3.64	0.920	ok	0.922	0.862-0.982
Methyl Isobutyl Ketone	6.65	4.98	1.335	ok	1.335	1.275-1.395
Methyl Tert Butyl Ether	3.21	3.64	0.882	ok	0.883	0.823-0.943
Methylmethacrylate	5.89	4.98	1.183	ok	1.184	1.124-1.244
Naphthalene	18.58	10.70	1.736	ok	1.737	1.677-1.797
Nonane	14.17	10.70	1.324	ok	1.323	1.263-1.383
Octane	9.70	4.98	1.948	ok	1.946	1.886-2.006
Pentane	2.64	3.64	0.725	ok	0.725	0.665-0.785
n-Propylbenzene	15.92	10.70	1.488	ok	1.488	1.428-1.548
Propylene	1.88	3.64	0.516	ok	0.518	0.458-0.578
Styrene	12.83	10.70	1.199	ok	1.199	1.139-1.259

Initial Calibration Retention Time/Internal Standard Area Summary

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Job Number: JD36325

Account: GESNYP Groundwater & Environmental Services

Project: Orangeburg UB, Orangeburg, NY

Sample Number	Lab File ID	Injected	By	Level	Inst ID	Method
V2W2424-IC2424	2W54654.D	07/27/21 11:38	DFT	0.5	GCMS2W	TO-15
V2W2424-IC2424	2W54655.D	07/27/21 12:10	DFT	0.2	GCMS2W	TO-15
V2W2424-IC2424	2W54656.D	07/27/21 12:41	DFT	0.1	GCMS2W	TO-15
V2W2424-IC2424	2W54657.D	07/27/21 13:13	DFT	0.04	GCMS2W	TO-15
V2W2424-IC2424	2W54658.D	07/27/21 13:44	DFT	5	GCMS2W	TO-15
V2W2424-ICC2424	2W54659.D	07/27/21 14:15	DFT	10	GCMS2W	TO-15
V2W2424-IC2424	2W54660.D	07/27/21 14:47	DFT	20	GCMS2W	TO-15
V2W2424-IC2424	2W54661.D	07/27/21 15:21	DFT	40	GCMS2W	TO-15

Reporting this level

Target Compound	RT (min.)	Istd RT (min.)	Rel RT	Mean Rel RT	Rel RT Range (+ /- .06)
1,1,1-Trichloroethane	4.32	3.64	1.187 ok	1.187	1.127-1.247
1,1,1,2-Tetrachloroethane	10.79	10.70	1.008 ok	1.009	0.949-1.069
1,1,2,2-Tetrachloroethane	13.06	10.70	1.221 ok	1.220	1.160-1.280
1,1,2-Trichloroethane	7.41	4.98	1.488 ok	1.487	1.427-1.547
1,2,4-Trichlorobenzene	18.53	10.70	1.732 ok	1.732	1.672-1.792
1,2,3-Trichloropropane	13.34	10.70	1.247 ok	1.247	1.187-1.307
1,2,3-Trimethylbenzene	17.20	10.70	1.607 ok	1.607	1.547-1.667
1,2,4-Trimethylbenzene	16.83	10.70	1.573 ok	1.572	1.512-1.632
1,3,5-Trimethylbenzene	16.38	10.70	1.531 ok	1.530	1.470-1.590
2,2,4-Trimethylpentane	5.69	4.98	1.143 ok	1.140	1.080-1.200
Tertiary Butyl Alcohol	2.73	3.64	0.750 ok	0.750	0.690-0.810
Tetrachloroethylene	9.56	4.98	1.920 ok	1.918	1.858-1.978
Tetrahydrofuran	3.94	3.64	1.082 ok	1.085	1.025-1.145
Toluene	7.79	4.98	1.564 ok	1.564	1.504-1.624
Trichloroethylene	5.59	4.98	1.122 ok	1.121	1.061-1.181
Trichlorofluoromethane	2.52	3.64	0.692 ok	0.694	0.634-0.754
Vinyl chloride	2.04	3.64	0.560 ok	0.563	0.503-0.623
Vinyl Acetate	3.25	3.64	0.893 ok	0.893	0.833-0.953
m,p-Xylene	12.11	10.70	1.132 ok	1.130	1.070-1.190
o-Xylene	13.05	10.70	1.220 ok	1.219	1.159-1.279

Internal Standard	RT (min.)	Mean RT(min.)	RT Range (+ /- 0.33)	Area	Mean Area	Area Range (+ /- 40 %)
Bromochloromethane	3.64 ok	3.64	3.31-3.97	85811 ok	86057	51634-120480
1,4-Difluorobenzene	4.98 ok	4.98	4.65-5.31	424308 ok	425402	255241-595563
Chlorobenzene-D5	10.70 ok	10.70	10.37-11.03	362745 ok	368175	220905-515445

Initial Calibration Retention Time/Internal Standard Area Summary

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Job Number: JD36325

Account: GESNYP Groundwater & Environmental Services

Project: Orangeburg UB, Orangeburg, NY

Sample Number	Lab File ID	Injected	By	Level	Inst ID	Method
V2W2424-IC2424	2W54654.D	07/27/21 11:38	DFT	0.5	GCMS2W	TO-15
V2W2424-IC2424	2W54655.D	07/27/21 12:10	DFT	0.2	GCMS2W	TO-15
V2W2424-IC2424	2W54656.D	07/27/21 12:41	DFT	0.1	GCMS2W	TO-15
V2W2424-IC2424	2W54657.D	07/27/21 13:13	DFT	0.04	GCMS2W	TO-15
V2W2424-IC2424	2W54658.D	07/27/21 13:44	DFT	5	GCMS2W	TO-15
V2W2424-ICC2424	2W54659.D	07/27/21 14:15	DFT	10	GCMS2W	TO-15
V2W2424-IC2424	2W54660.D	07/27/21 14:47	DFT	20	GCMS2W	TO-15
V2W2424-IC2424	2W54661.D	07/27/21 15:21	DFT	40	GCMS2W	TO-15

Reporting this level

Target Compound	RT (min.)	Istd RT (min.)	Rel RT	Mean Rel RT	Rel RT Range (+ /- .06)
Acetone	2.47	3.64	0.679 ok	0.677	0.617-0.737
Acrolein	2.42	3.64	0.665 ok	0.665	0.605-0.725
Acrylonitrile	2.61	3.64	0.717 ok	0.716	0.656-0.776
Acetonitrile	2.38	3.64	0.654 ok	0.653	0.593-0.713
1,3-Butadiene	2.10	3.64	0.577 ok	0.576	0.516-0.636
Benzene	4.65	3.64	1.277 ok	1.276	1.216-1.336
Bromobenzene	14.46	10.70	1.351 ok	1.350	1.290-1.410
Bromodichloromethane	5.53	4.99	1.108 ok	1.109	1.049-1.169
Bromoform	11.93	10.70	1.115 ok	1.114	1.054-1.174
Bromomethane	2.20	3.64	0.604 ok	0.604	0.544-0.664
Bromoethene	2.39	3.64	0.657 ok	0.656	0.596-0.716
n-Butane	2.12	3.64	0.582 ok	0.582	0.522-0.642
n-Butylbenzene	17.62	10.70	1.647 ok	1.646	1.586-1.706
sec-Butylbenzene	17.10	10.70	1.598 ok	1.597	1.537-1.657
tert-Butylbenzene	16.82	10.70	1.572 ok	1.571	1.511-1.631
Carbon disulfide	2.86	3.64	0.786 ok	0.786	0.726-0.846
Chlorobenzene	10.79	10.70	1.008 ok	1.007	0.947-1.067
Chlorodifluoromethane	1.88	3.64	0.516 ok	0.515	0.455-0.575
Chloroethane	2.26	3.64	0.621 ok	0.620	0.560-0.680
Chlorotrifluoroethene	1.89	3.64	0.519 ok	0.518	0.458-0.578
Chloroform	3.72	3.64	1.022 ok	1.022	0.962-1.082
Chloromethane	1.97	3.64	0.541 ok	0.540	0.480-0.600
3-Chloropropene	2.80	3.64	0.769 ok	0.769	0.709-0.829
2-Chlorotoluene	15.59	10.70	1.457 ok	1.456	1.396-1.516
Carbon tetrachloride	4.77	3.64	1.310 ok	1.309	1.249-1.369
Cyclohexane	4.87	4.99	0.976 ok	0.977	0.917-1.037
1,1-Dichloroethane	3.18	3.64	0.874 ok	0.873	0.813-0.933
1,1-Dichloroethylene	2.72	3.64	0.747 ok	0.748	0.688-0.808
1,2-Dibromoethane	8.70	4.99	1.743 ok	1.744	1.684-1.804
1,2-Dichloroethane	4.15	3.64	1.140 ok	1.140	1.080-1.200
1,2-Dichloropropane	5.34	4.99	1.070 ok	1.072	1.012-1.132
1,3-Dichloropropane	7.86	4.99	1.575 ok	1.576	1.516-1.636
1,4-Dioxane	5.59	4.99	1.120 ok	1.127	1.067-1.187
Dichlorodifluoromethane	1.91	3.64	0.525 ok	0.524	0.464-0.584
Dichlorofluoromethane	2.30	3.64	0.632 ok	0.629	0.569-0.689
Dibromochloromethane	8.34	4.99	1.671 ok	1.673	1.613-1.733
Dibromomethane	5.30	4.99	1.062 ok	1.064	1.004-1.124
trans-1,2-Dichloroethylene	3.10	3.64	0.852 ok	0.851	0.791-0.911
cis-1,2-Dichloroethylene	3.56	3.64	0.978 ok	0.979	0.919-1.039
cis-1,3-Dichloropropene	6.55	4.99	1.313 ok	1.315	1.255-1.375

Initial Calibration Retention Time/Internal Standard Area Summary

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Job Number: JD36325

Account: GESNYP Groundwater & Environmental Services

Project: Orangeburg UB, Orangeburg, NY

Sample Number	Lab File ID	Injected	By	Level	Inst ID	Method
V2W2424-IC2424	2W54654.D	07/27/21 11:38	DFT	0.5	GCMS2W	TO-15
V2W2424-IC2424	2W54655.D	07/27/21 12:10	DFT	0.2	GCMS2W	TO-15
V2W2424-IC2424	2W54656.D	07/27/21 12:41	DFT	0.1	GCMS2W	TO-15
V2W2424-IC2424	2W54657.D	07/27/21 13:13	DFT	0.04	GCMS2W	TO-15
V2W2424-IC2424	2W54658.D	07/27/21 13:44	DFT	5	GCMS2W	TO-15
V2W2424-ICC2424	2W54659.D	07/27/21 14:15	DFT	10	GCMS2W	TO-15
V2W2424-IC2424	2W54660.D	07/27/21 14:47	DFT	20	GCMS2W	TO-15
V2W2424-IC2424	2W54661.D	07/27/21 15:21	DFT	40	GCMS2W	TO-15

Reporting this level

Target Compound	RT (min.)	Istd RT (min.)	Rel RT	Mean Rel RT	Rel RT Range (+ /- .06)
m-Dichlorobenzene	16.89	10.70	1.579 ok	1.578	1.518-1.638
o-Dichlorobenzene	17.26	10.70	1.613 ok	1.612	1.552-1.672
p-Dichlorobenzene	16.97	10.70	1.586 ok	1.585	1.525-1.645
trans-1,3-Dichloropropene	7.25	4.99	1.453 ok	1.455	1.395-1.515
Di-Isopropyl ether	3.70	3.64	1.016 ok	1.017	0.957-1.077
2,3-Dimethylpentane	5.14	4.99	1.030 ok	1.030	0.970-1.090
2,4-Dimethylpentane	4.24	3.64	1.165 ok	1.164	1.104-1.224
Ethanol	2.30	3.64	0.632 ok	0.631	0.571-0.691
Ethylbenzene	11.68	10.70	1.092 ok	1.091	1.031-1.151
Ethyl Acetate	3.70	3.64	1.016 ok	1.018	0.958-1.078
Ethyl Acrylate	5.46	4.99	1.094 ok	1.097	1.037-1.157
4-Ethyltoluene	16.24	10.70	1.518 ok	1.517	1.457-1.577
Freon 113	2.86	3.64	0.786 ok	0.785	0.725-0.845
Freon 114	2.01	3.64	0.552 ok	0.551	0.491-0.611
Freon 123	2.44	3.64	0.670 ok	0.670	0.610-0.730
Freon 123A	2.46	3.64	0.676 ok	0.676	0.616-0.736
Freon 142B	1.96	3.64	0.538 ok	0.538	0.478-0.598
Freon 152A	1.86	3.64	0.511 ok	0.510	0.450-0.570
Heptane	6.01	4.99	1.204 ok	1.206	1.146-1.266
Hexachlorobutadiene	18.85	10.70	1.762 ok	1.761	1.701-1.821
Hexachloroethane	17.80	10.70	1.664 ok	1.663	1.603-1.723
Hexane	3.70	3.64	1.016 ok	1.015	0.955-1.075
2-Hexanone	8.37	4.99	1.677 ok	1.679	1.619-1.739
Iodomethane	2.70	3.64	0.742 ok	0.740	0.680-0.800
Isopropylbenzene	14.58	10.70	1.363 ok	1.362	1.302-1.422
Isopropyl Alcohol	2.54	3.64	0.698 ok	0.698	0.638-0.758
p-Isopropyltoluene	17.27	10.70	1.614 ok	1.614	1.554-1.674
Methylene chloride	2.76	3.64	0.758 ok	0.758	0.698-0.818
Methyl ethyl ketone	3.35	3.64	0.920 ok	0.922	0.862-0.982
Methyl Isobutyl Ketone	6.66	4.99	1.335 ok	1.335	1.275-1.395
Methyl Tert Butyl Ether	3.21	3.64	0.882 ok	0.883	0.823-0.943
Methylmethacrylate	5.90	4.99	1.182 ok	1.184	1.124-1.244
Naphthalene	18.59	10.70	1.737 ok	1.737	1.677-1.797
Nonane	14.18	10.70	1.325 ok	1.323	1.263-1.383
Octane	9.70	4.99	1.944 ok	1.946	1.886-2.006
Pentane	2.64	3.64	0.725 ok	0.725	0.665-0.785
n-Propylbenzene	15.93	10.70	1.489 ok	1.488	1.428-1.548
Propylene	1.89	3.64	0.519 ok	0.518	0.458-0.578
Styrene	12.84	10.70	1.200 ok	1.199	1.139-1.259
1,1,1-Trichloroethane	4.33	3.64	1.190 ok	1.187	1.127-1.247

Initial Calibration Retention Time/Internal Standard Area Summary

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Job Number: JD36325

Account: GESNYP Groundwater & Environmental Services

Project: Orangeburg UB, Orangeburg, NY

Sample Number	Lab File ID	Injected	By	Level	Inst ID	Method
V2W2424-IC2424	2W54654.D	07/27/21 11:38	DFT	0.5	GCMS2W	TO-15
V2W2424-IC2424	2W54655.D	07/27/21 12:10	DFT	0.2	GCMS2W	TO-15
V2W2424-IC2424	2W54656.D	07/27/21 12:41	DFT	0.1	GCMS2W	TO-15
V2W2424-IC2424	2W54657.D	07/27/21 13:13	DFT	0.04	GCMS2W	TO-15
V2W2424-IC2424	2W54658.D	07/27/21 13:44	DFT	5	GCMS2W	TO-15
V2W2424-ICC2424	2W54659.D	07/27/21 14:15	DFT	10	GCMS2W	TO-15
V2W2424-IC2424	2W54660.D	07/27/21 14:47	DFT	20	GCMS2W	TO-15
V2W2424-IC2424	2W54661.D	07/27/21 15:21	DFT	40	GCMS2W	TO-15

Reporting this level

Target Compound	RT (min.)	Istd RT (min.)	Rel RT	Mean Rel RT	Rel RT Range (+ /- .06)
1,1,1,2-Tetrachloroethane	10.80	10.70	1.009 ok	1.009	0.949-1.069
1,1,2,2-Tetrachloroethane	13.07	10.70	1.221 ok	1.220	1.160-1.280
1,1,2-Trichloroethane	7.42	4.99	1.487 ok	1.487	1.427-1.547
1,2,4-Trichlorobenzene	18.54	10.70	1.733 ok	1.732	1.672-1.792
1,2,3-Trichloropropane	13.35	10.70	1.248 ok	1.247	1.187-1.307
1,2,3-Trimethylbenzene	17.21	10.70	1.608 ok	1.607	1.547-1.667
1,2,4-Trimethylbenzene	16.83	10.70	1.573 ok	1.572	1.512-1.632
1,3,5-Trimethylbenzene	16.38	10.70	1.531 ok	1.530	1.470-1.590
2,2,4-Trimethylpentane	5.69	4.99	1.140 ok	1.140	1.080-1.200
Tertiary Butyl Alcohol	2.73	3.64	0.750 ok	0.750	0.690-0.810
Tetrachloroethylene	9.57	4.99	1.918 ok	1.918	1.858-1.978
Tetrahydrofuran	3.94	3.64	1.082 ok	1.085	1.025-1.145
Toluene	7.80	4.99	1.563 ok	1.564	1.504-1.624
Trichloroethylene	5.59	4.99	1.120 ok	1.121	1.061-1.181
Trichlorofluoromethane	2.53	3.64	0.695 ok	0.694	0.634-0.754
Vinyl chloride	2.05	3.64	0.563 ok	0.563	0.503-0.623
Vinyl Acetate	3.25	3.64	0.893 ok	0.893	0.833-0.953
m,p-Xylene	12.12	10.70	1.133 ok	1.130	1.070-1.190
o-Xylene	13.06	10.70	1.221 ok	1.219	1.159-1.279

Internal Standard	RT (min.)	Mean RT(min.)	RT Range (+ /- 0.33)	Area	Mean Area	Area Range (+ /- 40 %)
Bromochloromethane	3.64 ok	3.64	3.31-3.97	90289	ok 86057	51634-120480
1,4-Difluorobenzene	4.99 ok	4.98	4.65-5.31	442304	ok 425402	255241-595563
Chlorobenzene-D5	10.70 ok	10.70	10.37-11.03	377930	ok 368175	220905-515445

Initial Calibration Retention Time/Internal Standard Area Summary

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Job Number: JD36325

Account: GESNYP Groundwater & Environmental Services

Project: Orangeburg UB, Orangeburg, NY

Sample Number	Lab File ID	Injected	By	Level	Inst ID	Method	
V5W1909-IC1909	5W46126.D	11/04/21 10:43	DFT	0.5	GCMS5W	TO-15	Reporting this level
V5W1909-IC1909	5W46127.D	11/04/21 11:32	DFT	0.2	GCMS5W	TO-15	
V5W1909-IC1909	5W46128.D	11/04/21 12:20	DFT	0.1	GCMS5W	TO-15	
V5W1909-IC1909	5W46129.D	11/04/21 13:08	DFT	0.04	GCMS5W	TO-15	
V5W1909-IC1909	5W46130.D	11/04/21 13:56	DFT	5	GCMS5W	TO-15	
V5W1909-ICC1909	5W46131.D	11/04/21 14:45	DFT	10	GCMS5W	TO-15	
V5W1909-IC1909	5W46132.D	11/04/21 15:36	DFT	20	GCMS5W	TO-15	
V5W1909-IC1909	5W46133.D	11/04/21 16:30	DFT	40	GCMS5W	TO-15	
V5W1909-IC1909	5W46134.D	11/04/21 17:25	DFT	50	GCMS5W	TO-15	

Target Compound	RT (min.)	Istd RT (min.)	Rel RT	Mean Rel RT	Rel RT Range (+ /- .06)
Acetone (2-Propanone)	8.71	11.41	0.763 ok	0.763	0.703-0.823
Acrolein	8.14	11.41	0.713 ok	0.712	0.652-0.772
Acrylonitrile	10.14	11.41	0.889 ok	0.888	0.828-0.948
Acetonitrile	9.54	11.41	0.836 ok	0.835	0.775-0.895
1,3-Butadiene	5.08	11.41	0.445 ok	0.445	0.385-0.505
Benzene	12.58	11.41	1.103 ok	1.102	1.042-1.162
Bromobenzene	21.01	18.88	1.113 ok	1.113	1.053-1.173
Bromodichloromethane	14.58	13.61	1.071 ok	1.071	1.011-1.131
Bromoform	20.06	18.88	1.062 ok	1.062	1.002-1.122
Bromomethane	5.75	11.41	0.504 ok	0.504	0.444-0.564
Bromoethene	6.31	11.41	0.553 ok	0.553	0.493-0.613
n-Butane	4.91	11.41	0.430 ok	0.430	0.370-0.490
Benzyl Chloride	22.69	18.88	1.202 ok	1.202	1.142-1.262
n-Butylbenzene	22.70	18.88	1.202 ok	1.203	1.143-1.263
sec-Butylbenzene	21.99	18.88	1.165 ok	1.165	1.105-1.225
tert-Butylbenzene	21.75	18.88	1.152 ok	1.152	1.092-1.212
Carbon disulfide	7.53	11.41	0.660 ok	0.660	0.600-0.720
Chlorobenzene	18.91	18.88	1.002 ok	1.002	0.942-1.062
Chlorodifluoromethane	4.47	11.41	0.392 ok	0.391	0.331-0.451
Chloroethane	6.05	11.41	0.530 ok	0.530	0.470-0.590
Chlorotrifluoroethene	4.35	11.41	0.381 ok	0.381	0.321-0.441
Chloroform	11.56	11.41	1.013 ok	1.012	0.952-1.072
Chloromethane	4.81	11.41	0.422 ok	0.421	0.361-0.481
3-Chloropropene	8.44	11.41	0.740 ok	0.739	0.679-0.799
2-Chlorotoluene	21.27	18.88	1.127 ok	1.127	1.067-1.187
Carbon tetrachloride	11.84	11.41	1.038 ok	1.037	0.977-1.097
Cyclohexane	11.49	11.41	1.007 ok	1.007	0.947-1.067
1,1-Dichloroethane	10.10	11.41	0.885 ok	0.885	0.825-0.945
1,1-Dichloroethylene	7.47	11.41	0.655 ok	0.655	0.595-0.715
1,2-Dibromoethane (EDB)	17.94	13.61	1.318 ok	1.318	1.258-1.378
1,2-Dichloroethane	12.90	11.41	1.131 ok	1.130	1.070-1.190
1,2-Dichloropropane	14.47	13.61	1.063 ok	1.064	1.004-1.124
1,3-Dichloropropane	17.64	13.61	1.296 ok	1.296	1.236-1.356
1,4-Dioxane	14.93	13.61	1.097 ok	1.096	1.036-1.156
Dichlorodifluoromethane	4.39	11.41	0.385 ok	0.385	0.325-0.445
Dichlorofluoromethane	6.50	11.41	0.570 ok	0.570	0.510-0.630
Dibromochloromethane	17.49	13.61	1.285 ok	1.285	1.225-1.345
Dibromomethane	14.31	13.61	1.051 ok	1.051	0.991-1.111
trans-1,2-Dichloroethylene	8.97	11.41	0.786 ok	0.786	0.726-0.846

Initial Calibration Retention Time/Internal Standard Area Summary

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Job Number: JD36325

Account: GESNYP Groundwater & Environmental Services

Project: Orangeburg UB, Orangeburg, NY

Sample Number	Lab File ID	Injected	By	Level	Inst ID	Method	
V5W1909-IC1909	5W46126.D	11/04/21 10:43	DFT	0.5	GCMS5W	TO-15	Reporting this level
V5W1909-IC1909	5W46127.D	11/04/21 11:32	DFT	0.2	GCMS5W	TO-15	
V5W1909-IC1909	5W46128.D	11/04/21 12:20	DFT	0.1	GCMS5W	TO-15	
V5W1909-IC1909	5W46129.D	11/04/21 13:08	DFT	0.04	GCMS5W	TO-15	
V5W1909-IC1909	5W46130.D	11/04/21 13:56	DFT	5	GCMS5W	TO-15	
V5W1909-ICC1909	5W46131.D	11/04/21 14:45	DFT	10	GCMS5W	TO-15	
V5W1909-IC1909	5W46132.D	11/04/21 15:36	DFT	20	GCMS5W	TO-15	
V5W1909-IC1909	5W46133.D	11/04/21 16:30	DFT	40	GCMS5W	TO-15	
V5W1909-IC1909	5W46134.D	11/04/21 17:25	DFT	50	GCMS5W	TO-15	

Target Compound	RT (min.)	Istd RT (min.)	Rel RT	Mean Rel RT	Rel RT Range (+ /- .06)
cis-1,2-Dichloroethylene	11.08	11.41	0.971 ok	0.970	0.910-1.030
cis-1,3-Dichloropropene	15.70	13.61	1.154 ok	1.153	1.093-1.213
m-Dichlorobenzene	22.29	18.88	1.181 ok	1.181	1.121-1.241
o-Dichlorobenzene	22.92	18.88	1.214 ok	1.214	1.154-1.274
p-Dichlorobenzene	22.40	18.88	1.186 ok	1.186	1.126-1.246
trans-1,3-Dichloropropene	16.85	13.61	1.238 ok	1.238	1.178-1.298
Di-Isopropyl ether	9.94	11.41	0.871 ok	0.871	0.811-0.931
2,3-Dimethylpentane	11.67	11.41	1.023 ok	1.022	0.962-1.082
2,4-Dimethylpentane	10.24	11.41	0.897 ok	0.897	0.837-0.957
Ethanol	7.38	11.41	0.647 ok	0.645	0.585-0.705
Ethylbenzene	18.96	18.88	1.004 ok	1.004	0.944-1.064
Ethyl Acetate	11.76	11.41	1.031 ok	1.029	0.969-1.089
Ethyl Acrylate	14.49	13.61	1.065 ok	1.064	1.004-1.124
4-Ethyltoluene	21.19	18.88	1.122 ok	1.123	1.063-1.183
Freon 113	7.59	11.41	0.665 ok	0.665	0.605-0.725
Freon 114	4.70	11.41	0.412 ok	0.412	0.352-0.472
Freon 123	7.61	11.41	0.667 ok	0.666	0.606-0.726
Freon 123A	7.48	11.41	0.656 ok	0.655	0.595-0.715
Freon 142B	4.81	11.41	0.422 ok	0.421	0.361-0.481
Freon 152A	4.40	11.41	0.386 ok	0.385	0.325-0.445
Heptane	12.56	13.61	0.923 ok	0.923	0.863-0.983
Hexachlorobutadiene	24.67	18.88	1.307 ok	1.307	1.247-1.367
Hexachloroethane	22.91	18.88	1.213 ok	1.214	1.154-1.274
Hexane	9.18	11.41	0.805 ok	0.804	0.744-0.864
2-Hexanone	18.30	13.61	1.345 ok	1.344	1.284-1.404
Iodomethane	7.75	11.41	0.679 ok	0.679	0.619-0.739
Isopropylbenzene	20.43	18.88	1.082 ok	1.082	1.022-1.142
Isopropyl Alcohol	8.51	11.41	0.746 ok	0.744	0.684-0.804
p-Isopropyltoluene	22.17	18.88	1.174 ok	1.174	1.114-1.234
Methylene chloride	8.63	11.41	0.756 ok	0.756	0.696-0.816
Methyl ethyl ketone	12.07	11.41	1.058 ok	1.055	0.995-1.115
Methyl Isobutyl Ketone	16.76	13.61	1.231 ok	1.232	1.172-1.292
Methyl Tert Butyl Ether	9.22	11.41	0.808 ok	0.806	0.746-0.866
Methylmethacrylate	14.85	13.61	1.091 ok	1.090	1.030-1.150
Naphthalene	25.15	18.88	1.332 ok	1.332	1.272-1.392
Nonane	18.80	18.88	0.996 ok	0.996	0.936-1.056
Octane	15.83	13.61	1.163 ok	1.163	1.103-1.223
Pentane	6.41	11.41	0.562 ok	0.561	0.501-0.621
n-Propylbenzene	21.04	18.88	1.114 ok	1.114	1.054-1.174

Initial Calibration Retention Time/Internal Standard Area Summary

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Job Number: JD36325

Account: GESNYP Groundwater & Environmental Services

Project: Orangeburg UB, Orangeburg, NY

Sample Number	Lab File ID	Injected	By	Level	Inst ID	Method	
V5W1909-IC1909	5W46126.D	11/04/21 10:43	DFT	0.5	GCMS5W	TO-15	Reporting this level
V5W1909-IC1909	5W46127.D	11/04/21 11:32	DFT	0.2	GCMS5W	TO-15	
V5W1909-IC1909	5W46128.D	11/04/21 12:20	DFT	0.1	GCMS5W	TO-15	
V5W1909-IC1909	5W46129.D	11/04/21 13:08	DFT	0.04	GCMS5W	TO-15	
V5W1909-IC1909	5W46130.D	11/04/21 13:56	DFT	5	GCMS5W	TO-15	
V5W1909-ICC1909	5W46131.D	11/04/21 14:45	DFT	10	GCMS5W	TO-15	
V5W1909-IC1909	5W46132.D	11/04/21 15:36	DFT	20	GCMS5W	TO-15	
V5W1909-IC1909	5W46133.D	11/04/21 16:30	DFT	40	GCMS5W	TO-15	
V5W1909-IC1909	5W46134.D	11/04/21 17:25	DFT	50	GCMS5W	TO-15	

Target Compound	RT (min.)	Istd RT (min.)	Rel RT	Mean Rel RT	Rel RT Range (+ /- .06)
Propylene	4.30	11.41	0.377 ok	0.376	0.316-0.436
Styrene	20.01	18.88	1.060 ok	1.060	1.000-1.120
1,1,1-Trichloroethane	11.93	11.41	1.046 ok	1.046	0.986-1.106
1,1,1,2-Tetrachloroethane	19.02	13.61	1.398 ok	1.397	1.337-1.457
1,1,2,2-Tetrachloroethane	21.11	18.88	1.118 ok	1.118	1.058-1.178
1,1,2-Trichloroethane	17.14	13.61	1.259 ok	1.259	1.199-1.319
1,2,4-Trichlorobenzene	24.72	18.88	1.309 ok	1.309	1.249-1.369
1,2,3-Trichloropropane	21.30	18.88	1.128 ok	1.128	1.068-1.188
1,2,3-Trimethylbenzene	22.41	18.88	1.187 ok	1.187	1.127-1.247
1,2,4-Trimethylbenzene	21.84	18.88	1.157 ok	1.157	1.097-1.217
1,3,5-Trimethylbenzene	21.31	18.88	1.129 ok	1.129	1.069-1.189
2,2,4-Trimethylpentane	12.38	13.61	0.910 ok	0.910	0.850-0.970
Tertiary Butyl Alcohol	9.37	11.41	0.821 ok	0.820	0.760-0.880
Tetrachloroethylene	16.87	13.61	1.240 ok	1.239	1.179-1.299
Tetrahydrofuran	11.87	11.41	1.040 ok	1.038	0.978-1.098
Toluene	16.14	13.61	1.186 ok	1.186	1.126-1.246
Trichloroethylene	13.60	13.61	0.999 ok	0.999	0.939-1.059
Trichlorofluoromethane	6.39	11.41	0.560 ok	0.560	0.500-0.620
Vinyl chloride	5.02	11.41	0.440 ok	0.440	0.380-0.500
Vinyl Acetate	10.57	11.41	0.926 ok	0.925	0.865-0.985
m,p-Xylene	19.21	18.88	1.017 ok	1.018	0.958-1.078
o-Xylene	19.93	18.88	1.056 ok	1.056	0.996-1.116
TVHC As Equiv Pentane	6.40	18.88	0.339 ok	0.339	0.279-0.399

Internal Standard	RT (min.)	Mean RT(min.)	RT Range (+ /- 0.33)	Area	Mean Area	Area Range (+ /- 40 %)
Bromochloromethane	11.41 ok	11.42	11.09-11.75	196189	ok 181422	108853-253991
1,4-Difluorobenzene	13.61 ok	13.61	13.28-13.94	724158	ok 644223	386534-901912
Chlorobenzene-D5	18.88 ok	18.88	18.55-19.21	295359	ok 267847	160708-374986

Initial Calibration Retention Time/Internal Standard Area Summary

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Job Number: JD36325

Account: GESNYP Groundwater & Environmental Services

Project: Orangeburg UB, Orangeburg, NY

Sample Number	Lab File ID	Injected	By	Level	Inst ID	Method
V5W1909-IC1909	5W46126.D	11/04/21 10:43	DFT	0.5	GCMS5W	TO-15
V5W1909-IC1909	5W46127.D	11/04/21 11:32	DFT	0.2	GCMS5W	TO-15 Reporting this level
V5W1909-IC1909	5W46128.D	11/04/21 12:20	DFT	0.1	GCMS5W	TO-15
V5W1909-IC1909	5W46129.D	11/04/21 13:08	DFT	0.04	GCMS5W	TO-15
V5W1909-IC1909	5W46130.D	11/04/21 13:56	DFT	5	GCMS5W	TO-15
V5W1909-ICC1909	5W46131.D	11/04/21 14:45	DFT	10	GCMS5W	TO-15
V5W1909-IC1909	5W46132.D	11/04/21 15:36	DFT	20	GCMS5W	TO-15
V5W1909-IC1909	5W46133.D	11/04/21 16:30	DFT	40	GCMS5W	TO-15
V5W1909-IC1909	5W46134.D	11/04/21 17:25	DFT	50	GCMS5W	TO-15

Target Compound	RT (min.)	Istd RT (min.)	Rel RT	Mean Rel RT	Rel RT Range (+ /- .06)
Acetone (2-Propanone)	8.73	11.41	0.765 ok	0.763	0.703-0.823
Acrolein	8.15	11.41	0.714 ok	0.712	0.652-0.772
Acrylonitrile	10.16	11.41	0.890 ok	0.888	0.828-0.948
Acetonitrile	9.55	11.41	0.837 ok	0.835	0.775-0.895
1,3-Butadiene	5.08	11.41	0.445 ok	0.445	0.385-0.505
Benzene	12.58	11.41	1.103 ok	1.102	1.042-1.162
Bromobenzene	21.01	18.88	1.113 ok	1.113	1.053-1.173
Bromodichloromethane	14.59	13.61	1.072 ok	1.071	1.011-1.131
Bromoform	20.06	18.88	1.062 ok	1.062	1.002-1.122
Bromomethane	5.75	11.41	0.504 ok	0.504	0.444-0.564
Bromoethene	6.31	11.41	0.553 ok	0.553	0.493-0.613
n-Butane	4.90	11.41	0.429 ok	0.430	0.370-0.490
Benzyl Chloride	22.70	18.88	1.202 ok	1.202	1.142-1.262
n-Butylbenzene	22.71	18.88	1.203 ok	1.203	1.143-1.263
sec-Butylbenzene	21.99	18.88	1.165 ok	1.165	1.105-1.225
tert-Butylbenzene	21.75	18.88	1.152 ok	1.152	1.092-1.212
Carbon disulfide	7.53	11.41	0.660 ok	0.660	0.600-0.720
Chlorobenzene	18.92	18.88	1.002 ok	1.002	0.942-1.062
Chlorodifluoromethane	4.46	11.41	0.391 ok	0.391	0.331-0.451
Chloroethane	6.05	11.41	0.530 ok	0.530	0.470-0.590
Chlorotrifluoroethene	4.35	11.41	0.381 ok	0.381	0.321-0.441
Chloroform	11.55	11.41	1.012 ok	1.012	0.952-1.072
Chloromethane	4.81	11.41	0.422 ok	0.421	0.361-0.481
3-Chloropropene	8.44	11.41	0.740 ok	0.739	0.679-0.799
2-Chlorotoluene	21.27	18.88	1.127 ok	1.127	1.067-1.187
Carbon tetrachloride	11.84	11.41	1.038 ok	1.037	0.977-1.097
Cyclohexane	11.49	11.41	1.007 ok	1.007	0.947-1.067
1,1-Dichloroethane	10.10	11.41	0.885 ok	0.885	0.825-0.945
1,1-Dichloroethylene	7.48	11.41	0.656 ok	0.655	0.595-0.715
1,2-Dibromoethane (EDB)	17.94	13.61	1.318 ok	1.318	1.258-1.378
1,2-Dichloroethane	12.90	11.41	1.131 ok	1.130	1.070-1.190
1,2-Dichloropropane	14.48	13.61	1.064 ok	1.064	1.004-1.124
1,3-Dichloropropane	17.65	13.61	1.297 ok	1.296	1.236-1.356
1,4-Dioxane	14.94	13.61	1.098 ok	1.096	1.036-1.156
Dichlorodifluoromethane	4.39	11.41	0.385 ok	0.385	0.325-0.445
Dichlorofluoromethane	6.50	11.41	0.570 ok	0.570	0.510-0.630
Dibromochloromethane	17.49	13.61	1.285 ok	1.285	1.225-1.345
Dibromomethane	14.31	13.61	1.051 ok	1.051	0.991-1.111
trans-1,2-Dichloroethylene	8.97	11.41	0.786 ok	0.786	0.726-0.846

Initial Calibration Retention Time/Internal Standard Area Summary

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Job Number: JD36325

Account: GESNYP Groundwater & Environmental Services

Project: Orangeburg UB, Orangeburg, NY

Sample Number	Lab File ID	Injected	By	Level	Inst ID	Method
V5W1909-IC1909	5W46126.D	11/04/21 10:43	DFT	0.5	GCMS5W	TO-15
V5W1909-IC1909	5W46127.D	11/04/21 11:32	DFT	0.2	GCMS5W	TO-15 Reporting this level
V5W1909-IC1909	5W46128.D	11/04/21 12:20	DFT	0.1	GCMS5W	TO-15
V5W1909-IC1909	5W46129.D	11/04/21 13:08	DFT	0.04	GCMS5W	TO-15
V5W1909-IC1909	5W46130.D	11/04/21 13:56	DFT	5	GCMS5W	TO-15
V5W1909-ICC1909	5W46131.D	11/04/21 14:45	DFT	10	GCMS5W	TO-15
V5W1909-IC1909	5W46132.D	11/04/21 15:36	DFT	20	GCMS5W	TO-15
V5W1909-IC1909	5W46133.D	11/04/21 16:30	DFT	40	GCMS5W	TO-15
V5W1909-IC1909	5W46134.D	11/04/21 17:25	DFT	50	GCMS5W	TO-15

Target Compound	RT (min.)	Istd RT (min.)	Rel RT	Mean Rel RT	Rel RT Range (+ /- .06)
cis-1,2-Dichloroethylene	11.08	11.41	0.971 ok	0.970	0.910-1.030
cis-1,3-Dichloropropene	15.70	13.61	1.154 ok	1.153	1.093-1.213
m-Dichlorobenzene	22.29	18.88	1.181 ok	1.181	1.121-1.241
o-Dichlorobenzene	22.92	18.88	1.214 ok	1.214	1.154-1.274
p-Dichlorobenzene	22.40	18.88	1.186 ok	1.186	1.126-1.246
trans-1,3-Dichloropropene	16.85	13.61	1.238 ok	1.238	1.178-1.298
Di-Isopropyl ether	9.95	11.41	0.872 ok	0.871	0.811-0.931
2,3-Dimethylpentane	11.67	11.41	1.023 ok	1.022	0.962-1.082
2,4-Dimethylpentane	10.23	11.41	0.897 ok	0.897	0.837-0.957
Ethanol	7.40	11.41	0.649 ok	0.645	0.585-0.705
Ethylbenzene	18.96	18.88	1.004 ok	1.004	0.944-1.064
Ethyl Acetate	11.79	11.41	1.033 ok	1.029	0.969-1.089
Ethyl Acrylate	14.52	13.61	1.067 ok	1.064	1.004-1.124
4-Ethyltoluene	21.20	18.88	1.123 ok	1.123	1.063-1.183
Freon 113	7.60	11.41	0.666 ok	0.665	0.605-0.725
Freon 114	4.70	11.41	0.412 ok	0.412	0.352-0.472
Freon 123	7.60	11.41	0.666 ok	0.666	0.606-0.726
Freon 123A	7.47	11.41	0.655 ok	0.655	0.595-0.715
Freon 142B	4.81	11.41	0.422 ok	0.421	0.361-0.481
Freon 152A	4.39	11.41	0.385 ok	0.385	0.325-0.445
Heptane	12.56	13.61	0.923 ok	0.923	0.863-0.983
Hexachlorobutadiene	24.67	18.88	1.307 ok	1.307	1.247-1.367
Hexachloroethane	22.91	18.88	1.213 ok	1.214	1.154-1.274
Hexane	9.17	11.41	0.804 ok	0.804	0.744-0.864
2-Hexanone	18.32	13.61	1.346 ok	1.344	1.284-1.404
Iodomethane	7.75	11.41	0.679 ok	0.679	0.619-0.739
Isopropylbenzene	20.43	18.88	1.082 ok	1.082	1.022-1.142
Isopropyl Alcohol	8.53	11.41	0.748 ok	0.744	0.684-0.804
p-Isopropyltoluene	22.17	18.88	1.174 ok	1.174	1.114-1.234
Methylene chloride	8.63	11.41	0.756 ok	0.756	0.696-0.816
Methyl ethyl ketone	12.09	11.41	1.060 ok	1.055	0.995-1.115
Methyl Isobutyl Ketone	16.77	13.61	1.232 ok	1.232	1.172-1.292
Methyl Tert Butyl Ether	9.23	11.41	0.809 ok	0.806	0.746-0.866
Methylmethacrylate	14.85	13.61	1.091 ok	1.090	1.030-1.150
Naphthalene	25.15	18.88	1.332 ok	1.332	1.272-1.392
Nonane	18.80	18.88	0.996 ok	0.996	0.936-1.056
Octane	15.84	13.61	1.164 ok	1.163	1.103-1.223
Pentane	6.40	11.41	0.561 ok	0.561	0.501-0.621
n-Propylbenzene	21.04	18.88	1.114 ok	1.114	1.054-1.174

Initial Calibration Retention Time/Internal Standard Area Summary

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Job Number: JD36325

Account: GESNYP Groundwater & Environmental Services

Project: Orangeburg UB, Orangeburg, NY

Sample Number	Lab File ID	Injected	By	Level	Inst ID	Method
V5W1909-IC1909	5W46126.D	11/04/21 10:43	DFT	0.5	GCMS5W	TO-15
V5W1909-IC1909	5W46127.D	11/04/21 11:32	DFT	0.2	GCMS5W	TO-15
V5W1909-IC1909	5W46128.D	11/04/21 12:20	DFT	0.1	GCMS5W	TO-15
V5W1909-IC1909	5W46129.D	11/04/21 13:08	DFT	0.04	GCMS5W	TO-15
V5W1909-IC1909	5W46130.D	11/04/21 13:56	DFT	5	GCMS5W	TO-15
V5W1909-ICC1909	5W46131.D	11/04/21 14:45	DFT	10	GCMS5W	TO-15
V5W1909-IC1909	5W46132.D	11/04/21 15:36	DFT	20	GCMS5W	TO-15
V5W1909-IC1909	5W46133.D	11/04/21 16:30	DFT	40	GCMS5W	TO-15
V5W1909-IC1909	5W46134.D	11/04/21 17:25	DFT	50	GCMS5W	TO-15

Target Compound	RT (min.)	Istd RT (min.)	Rel RT	Mean Rel RT	Rel RT Range (+ /- .06)
Propylene	4.29	11.41	0.376 ok	0.376	0.316-0.436
Styrene	20.02	18.88	1.060 ok	1.060	1.000-1.120
1,1,1-Trichloroethane	11.93	11.41	1.046 ok	1.046	0.986-1.106
1,1,1,2-Tetrachloroethane	19.03	13.61	1.398 ok	1.397	1.337-1.457
1,1,2,2-Tetrachloroethane	21.11	18.88	1.118 ok	1.118	1.058-1.178
1,1,2-Trichloroethane	17.14	13.61	1.259 ok	1.259	1.199-1.319
1,2,4-Trichlorobenzene	24.72	18.88	1.309 ok	1.309	1.249-1.369
1,2,3-Trichloropropane	21.31	18.88	1.129 ok	1.128	1.068-1.188
1,2,3-Trimethylbenzene	22.41	18.88	1.187 ok	1.187	1.127-1.247
1,2,4-Trimethylbenzene	21.85	18.88	1.157 ok	1.157	1.097-1.217
1,3,5-Trimethylbenzene	21.31	18.88	1.129 ok	1.129	1.069-1.189
2,2,4-Trimethylpentane	12.38	13.61	0.910 ok	0.910	0.850-0.970
Tertiary Butyl Alcohol	9.38	11.41	0.822 ok	0.820	0.760-0.880
Tetrachloroethylene	16.87	13.61	1.240 ok	1.239	1.179-1.299
Tetrahydrofuran	11.87	11.41	1.040 ok	1.038	0.978-1.098
Toluene	16.14	13.61	1.186 ok	1.186	1.126-1.246
Trichloroethylene	13.60	13.61	0.999 ok	0.999	0.939-1.059
Trichlorofluoromethane	6.39	11.41	0.560 ok	0.560	0.500-0.620
Vinyl chloride	5.02	11.41	0.440 ok	0.440	0.380-0.500
Vinyl Acetate	10.58	11.41	0.927 ok	0.925	0.865-0.985
m,p-Xylene	19.21	18.88	1.017 ok	1.018	0.958-1.078
o-Xylene	19.94	18.88	1.056 ok	1.056	0.996-1.116
TVHC As Equiv Pentane	6.39	18.88	0.338 ok	0.339	0.279-0.399

Internal Standard	RT (min.)	Mean RT(min.)	RT Range (+ /- 0.33)	Area	Mean Area	Area Range (+ /- 40 %)
Bromochloromethane	11.41 ok	11.42	11.09-11.75	194426	ok 181422	108853-253991
1,4-Difluorobenzene	13.61 ok	13.61	13.28-13.94	714925	ok 644223	386534-901912
Chlorobenzene-D5	18.88 ok	18.88	18.55-19.21	284712	ok 267847	160708-374986

Initial Calibration Retention Time/Internal Standard Area Summary

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Job Number: JD36325

Account: GESNYP Groundwater & Environmental Services

Project: Orangeburg UB, Orangeburg, NY

Sample Number	Lab File ID	Injected	By	Level	Inst ID	Method
V5W1909-IC1909	5W46126.D	11/04/21 10:43	DFT	0.5	GCMS5W	TO-15
V5W1909-IC1909	5W46127.D	11/04/21 11:32	DFT	0.2	GCMS5W	TO-15
V5W1909-IC1909	5W46128.D	11/04/21 12:20	DFT	0.1	GCMS5W	TO-15 Reporting this level
V5W1909-IC1909	5W46129.D	11/04/21 13:08	DFT	0.04	GCMS5W	TO-15
V5W1909-IC1909	5W46130.D	11/04/21 13:56	DFT	5	GCMS5W	TO-15
V5W1909-ICC1909	5W46131.D	11/04/21 14:45	DFT	10	GCMS5W	TO-15
V5W1909-IC1909	5W46132.D	11/04/21 15:36	DFT	20	GCMS5W	TO-15
V5W1909-IC1909	5W46133.D	11/04/21 16:30	DFT	40	GCMS5W	TO-15
V5W1909-IC1909	5W46134.D	11/04/21 17:25	DFT	50	GCMS5W	TO-15

Target Compound	RT (min.)	Istd RT (min.)	Rel RT	Mean Rel RT	Rel RT Range (+ /- .06)
Acetone (2-Propanone)	8.73	11.41	0.765 ok	0.763	0.703-0.823
Acrylonitrile	10.16	11.41	0.890 ok	0.888	0.828-0.948
Acetonitrile	9.55	11.41	0.837 ok	0.835	0.775-0.895
1,3-Butadiene	5.08	11.41	0.445 ok	0.445	0.385-0.505
Benzene	12.58	11.41	1.103 ok	1.102	1.042-1.162
Bromobenzene	21.01	18.88	1.113 ok	1.113	1.053-1.173
Bromodichloromethane	14.59	13.61	1.072 ok	1.071	1.011-1.131
Bromoform	20.06	18.88	1.062 ok	1.062	1.002-1.122
Bromomethane	5.75	11.41	0.504 ok	0.504	0.444-0.564
Bromoethene	6.31	11.41	0.553 ok	0.553	0.493-0.613
Benzyl Chloride	22.70	18.88	1.202 ok	1.202	1.142-1.262
n-Butylbenzene	22.71	18.88	1.203 ok	1.203	1.143-1.263
sec-Butylbenzene	22.00	18.88	1.165 ok	1.165	1.105-1.225
tert-Butylbenzene	21.75	18.88	1.152 ok	1.152	1.092-1.212
Carbon disulfide	7.53	11.41	0.660 ok	0.660	0.600-0.720
Chlorobenzene	18.91	18.88	1.002 ok	1.002	0.942-1.062
Chlorodifluoromethane	4.48	11.41	0.393 ok	0.391	0.331-0.451
Chloroethane	6.05	11.41	0.530 ok	0.530	0.470-0.590
Chlorotrifluoroethene	4.34	11.41	0.380 ok	0.381	0.321-0.441
Chloroform	11.56	11.41	1.013 ok	1.012	0.952-1.072
Chloromethane	4.80	11.41	0.421 ok	0.421	0.361-0.481
3-Chloropropene	8.44	11.41	0.740 ok	0.739	0.679-0.799
2-Chlorotoluene	21.28	18.88	1.127 ok	1.127	1.067-1.187
Carbon tetrachloride	11.84	11.41	1.038 ok	1.037	0.977-1.097
Cyclohexane	11.49	11.41	1.007 ok	1.007	0.947-1.067
1,1-Dichloroethane	10.10	11.41	0.885 ok	0.885	0.825-0.945
1,1-Dichloroethylene	7.47	11.41	0.655 ok	0.655	0.595-0.715
1,2-Dibromoethane (EDB)	17.94	13.61	1.318 ok	1.318	1.258-1.378
1,2-Dichloroethane	12.91	11.41	1.131 ok	1.130	1.070-1.190
1,2-Dichloropropane	14.48	13.61	1.064 ok	1.064	1.004-1.124
1,3-Dichloropropane	17.65	13.61	1.297 ok	1.296	1.236-1.356
1,4-Dioxane	14.95	13.61	1.098 ok	1.096	1.036-1.156
Dichlorodifluoromethane	4.39	11.41	0.385 ok	0.385	0.325-0.445
Dichlorofluoromethane	6.50	11.41	0.570 ok	0.570	0.510-0.630
Dibromochloromethane	17.50	13.61	1.286 ok	1.285	1.225-1.345
Dibromomethane	14.32	13.61	1.052 ok	1.051	0.991-1.111
trans-1,2-Dichloroethylene	8.97	11.41	0.786 ok	0.786	0.726-0.846
cis-1,2-Dichloroethylene	11.08	11.41	0.971 ok	0.970	0.910-1.030
cis-1,3-Dichloropropene	15.71	13.61	1.154 ok	1.153	1.093-1.213

Initial Calibration Retention Time/Internal Standard Area Summary

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Job Number: JD36325

Account: GESNYP Groundwater & Environmental Services

Project: Orangeburg UB, Orangeburg, NY

Sample Number	Lab File ID	Injected	By	Level	Inst ID	Method	
V5W1909-IC1909	5W46126.D	11/04/21 10:43	DFT	0.5	GCMS5W	TO-15	
V5W1909-IC1909	5W46127.D	11/04/21 11:32	DFT	0.2	GCMS5W	TO-15	
V5W1909-IC1909	5W46128.D	11/04/21 12:20	DFT	0.1	GCMS5W	TO-15	Reporting this level
V5W1909-IC1909	5W46129.D	11/04/21 13:08	DFT	0.04	GCMS5W	TO-15	
V5W1909-IC1909	5W46130.D	11/04/21 13:56	DFT	5	GCMS5W	TO-15	
V5W1909-ICC1909	5W46131.D	11/04/21 14:45	DFT	10	GCMS5W	TO-15	
V5W1909-IC1909	5W46132.D	11/04/21 15:36	DFT	20	GCMS5W	TO-15	
V5W1909-IC1909	5W46133.D	11/04/21 16:30	DFT	40	GCMS5W	TO-15	
V5W1909-IC1909	5W46134.D	11/04/21 17:25	DFT	50	GCMS5W	TO-15	

Target Compound	RT (min.)	Istd RT (min.)	Rel RT	Mean Rel RT	Rel RT Range (+ /- .06)
m-Dichlorobenzene	22.29	18.88	1.181 ok	1.181	1.121-1.241
o-Dichlorobenzene	22.92	18.88	1.214 ok	1.214	1.154-1.274
p-Dichlorobenzene	22.40	18.88	1.186 ok	1.186	1.126-1.246
trans-1,3-Dichloropropene	16.86	13.61	1.239 ok	1.238	1.178-1.298
Di-Isopropyl ether	9.96	11.41	0.873 ok	0.871	0.811-0.931
2,3-Dimethylpentane	11.67	11.41	1.023 ok	1.022	0.962-1.082
2,4-Dimethylpentane	10.24	11.41	0.897 ok	0.897	0.837-0.957
Ethylbenzene	18.97	18.88	1.005 ok	1.004	0.944-1.064
Ethyl Acrylate	14.58	13.61	1.071 ok	1.064	1.004-1.124
4-Ethyltoluene	21.20	18.88	1.123 ok	1.123	1.063-1.183
Freon 113	7.59	11.41	0.665 ok	0.665	0.605-0.725
Freon 114	4.70	11.41	0.412 ok	0.412	0.352-0.472
Freon 123	7.60	11.41	0.666 ok	0.666	0.606-0.726
Freon 123A	7.47	11.41	0.655 ok	0.655	0.595-0.715
Freon 142B	4.81	11.41	0.422 ok	0.421	0.361-0.481
Freon 152A	4.39	11.41	0.385 ok	0.385	0.325-0.445
Heptane	12.56	13.61	0.923 ok	0.923	0.863-0.983
Hexachlorobutadiene	24.67	18.88	1.307 ok	1.307	1.247-1.367
Hexachloroethane	22.91	18.88	1.213 ok	1.214	1.154-1.274
Hexane	9.18	11.41	0.805 ok	0.804	0.744-0.864
2-Hexanone	18.33	13.61	1.347 ok	1.344	1.284-1.404
Iodomethane	7.75	11.41	0.679 ok	0.679	0.619-0.739
Isopropylbenzene	20.43	18.88	1.082 ok	1.082	1.022-1.142
p-Isopropyltoluene	22.17	18.88	1.174 ok	1.174	1.114-1.234
Methyl Isobutyl Ketone	16.79	13.61	1.234 ok	1.232	1.172-1.292
Methylmethacrylate	14.87	13.61	1.093 ok	1.090	1.030-1.150
Naphthalene	25.16	18.88	1.333 ok	1.332	1.272-1.392
Nonane	18.80	18.88	0.996 ok	0.996	0.936-1.056
Octane	15.84	13.61	1.164 ok	1.163	1.103-1.223
Pentane	6.41	11.41	0.562 ok	0.561	0.501-0.621
n-Propylbenzene	21.04	18.88	1.114 ok	1.114	1.054-1.174
Propylene	4.30	11.41	0.377 ok	0.376	0.316-0.436
Styrene	20.02	18.88	1.060 ok	1.060	1.000-1.120
1,1,1-Trichloroethane	11.94	11.41	1.046 ok	1.046	0.986-1.106
1,1,1,2-Tetrachloroethane	19.03	13.61	1.398 ok	1.397	1.337-1.457
1,1,2,2-Tetrachloroethane	21.11	18.88	1.118 ok	1.118	1.058-1.178
1,1,2-Trichloroethane	17.14	13.61	1.259 ok	1.259	1.199-1.319
1,2,4-Trichlorobenzene	24.73	18.88	1.310 ok	1.309	1.249-1.369
1,2,3-Trichloropropane	21.31	18.88	1.129 ok	1.128	1.068-1.188

Initial Calibration Retention Time/Internal Standard Area Summary

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Job Number: JD36325

Account: GESNYP Groundwater & Environmental Services

Project: Orangeburg UB, Orangeburg, NY

Sample Number	Lab File ID	Injected	By	Level	Inst ID	Method	
V5W1909-IC1909	5W46126.D	11/04/21 10:43	DFT	0.5	GCMS5W	TO-15	
V5W1909-IC1909	5W46127.D	11/04/21 11:32	DFT	0.2	GCMS5W	TO-15	
V5W1909-IC1909	5W46128.D	11/04/21 12:20	DFT	0.1	GCMS5W	TO-15	Reporting this level
V5W1909-IC1909	5W46129.D	11/04/21 13:08	DFT	0.04	GCMS5W	TO-15	
V5W1909-IC1909	5W46130.D	11/04/21 13:56	DFT	5	GCMS5W	TO-15	
V5W1909-ICC1909	5W46131.D	11/04/21 14:45	DFT	10	GCMS5W	TO-15	
V5W1909-IC1909	5W46132.D	11/04/21 15:36	DFT	20	GCMS5W	TO-15	
V5W1909-IC1909	5W46133.D	11/04/21 16:30	DFT	40	GCMS5W	TO-15	
V5W1909-IC1909	5W46134.D	11/04/21 17:25	DFT	50	GCMS5W	TO-15	

Target Compound	RT (min.)	Istd RT (min.)	Rel RT	Mean Rel RT	Rel RT Range (+ /- .06)
1,2,3-Trimethylbenzene	22.41	18.88	1.187 ok	1.187	1.127-1.247
1,2,4-Trimethylbenzene	21.85	18.88	1.157 ok	1.157	1.097-1.217
1,3,5-Trimethylbenzene	21.31	18.88	1.129 ok	1.129	1.069-1.189
2,2,4-Trimethylpentane	12.38	13.61	0.910 ok	0.910	0.850-0.970
Tertiary Butyl Alcohol	9.40	11.41	0.824 ok	0.820	0.760-0.880
Tetrachloroethylene	16.87	13.61	1.240 ok	1.239	1.179-1.299
Tetrahydrofuran	11.88	11.41	1.041 ok	1.038	0.978-1.098
Toluene	16.15	13.61	1.187 ok	1.186	1.126-1.246
Trichloroethylene	13.60	13.61	0.999 ok	0.999	0.939-1.059
Trichlorofluoromethane	6.39	11.41	0.560 ok	0.560	0.500-0.620
Vinyl chloride	5.03	11.41	0.441 ok	0.440	0.380-0.500
Vinyl Acetate	10.59	11.41	0.928 ok	0.925	0.865-0.985
m,p-Xylene	19.21	18.88	1.017 ok	1.018	0.958-1.078
o-Xylene	19.94	18.88	1.056 ok	1.056	0.996-1.116

Internal Standard	RT (min.)	Mean RT(min.)	RT Range (+ /- 0.33)	Area	Mean Area	Area Range (+ /- 40 %)
Bromochloromethane	11.41 ok	11.42	11.09-11.75	187264	ok 181422	108853-253991
1,4-Difluorobenzene	13.61 ok	13.61	13.28-13.94	693515	ok 644223	386534-901912
Chlorobenzene-D5	18.88 ok	18.88	18.55-19.21	280720	ok 267847	160708-374986

Initial Calibration Retention Time/Internal Standard Area Summary

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Job Number: JD36325

Account: GESNYP Groundwater & Environmental Services

Project: Orangeburg UB, Orangeburg, NY

Sample Number	Lab File ID	Injected	By	Level	Inst ID	Method
V5W1909-IC1909	5W46126.D	11/04/21 10:43	DFT	0.5	GCMS5W	TO-15
V5W1909-IC1909	5W46127.D	11/04/21 11:32	DFT	0.2	GCMS5W	TO-15
V5W1909-IC1909	5W46128.D	11/04/21 12:20	DFT	0.1	GCMS5W	TO-15
V5W1909-IC1909	5W46129.D	11/04/21 13:08	DFT	0.04	GCMS5W	TO-15 Reporting this level
V5W1909-IC1909	5W46130.D	11/04/21 13:56	DFT	5	GCMS5W	TO-15
V5W1909-ICC1909	5W46131.D	11/04/21 14:45	DFT	10	GCMS5W	TO-15
V5W1909-IC1909	5W46132.D	11/04/21 15:36	DFT	20	GCMS5W	TO-15
V5W1909-IC1909	5W46133.D	11/04/21 16:30	DFT	40	GCMS5W	TO-15
V5W1909-IC1909	5W46134.D	11/04/21 17:25	DFT	50	GCMS5W	TO-15

Target Compound	RT (min.)	Istd RT (min.)	Rel RT	Mean Rel RT	Rel RT Range (+ /- .06)
Acetone (2-Propanone)	8.75	11.41	0.767 ok	0.763	0.703-0.823
Acetonitrile	9.59	11.41	0.840 ok	0.835	0.775-0.895
1,3-Butadiene	5.08	11.41	0.445 ok	0.445	0.385-0.505
Bromobenzene	21.01	18.88	1.113 ok	1.113	1.053-1.173
Bromodichloromethane	14.59	13.61	1.072 ok	1.071	1.011-1.131
Bromoform	20.06	18.88	1.062 ok	1.062	1.002-1.122
Bromomethane	5.76	11.41	0.505 ok	0.504	0.444-0.564
Bromoethene	6.32	11.41	0.554 ok	0.553	0.493-0.613
Benzyl Chloride	22.70	18.88	1.202 ok	1.202	1.142-1.262
n-Butylbenzene	22.71	18.88	1.203 ok	1.203	1.143-1.263
sec-Butylbenzene	22.00	18.88	1.165 ok	1.165	1.105-1.225
tert-Butylbenzene	21.76	18.88	1.153 ok	1.152	1.092-1.212
Carbon disulfide	7.54	11.41	0.661 ok	0.660	0.600-0.720
Chlorobenzene	18.92	18.88	1.002 ok	1.002	0.942-1.062
Chlorotrifluoroethene	4.35	11.41	0.381 ok	0.381	0.321-0.441
Chloroform	11.56	11.41	1.013 ok	1.012	0.952-1.072
Chloromethane	4.82	11.41	0.422 ok	0.421	0.361-0.481
3-Chloropropene	8.44	11.41	0.740 ok	0.739	0.679-0.799
2-Chlorotoluene	21.28	18.88	1.127 ok	1.127	1.067-1.187
Carbon tetrachloride	11.84	11.41	1.038 ok	1.037	0.977-1.097
Cyclohexane	11.50	11.41	1.008 ok	1.007	0.947-1.067
1,1-Dichloroethane	10.11	11.41	0.886 ok	0.885	0.825-0.945
1,1-Dichloroethylene	7.49	11.41	0.656 ok	0.655	0.595-0.715
1,2-Dibromoethane (EDB)	17.95	13.61	1.319 ok	1.318	1.258-1.378
1,2-Dichloroethane	12.91	11.41	1.131 ok	1.130	1.070-1.190
1,2-Dichloropropane	14.49	13.61	1.065 ok	1.064	1.004-1.124
1,3-Dichloropropane	17.65	13.61	1.297 ok	1.296	1.236-1.356
1,4-Dioxane	14.95	13.61	1.098 ok	1.096	1.036-1.156
Dichlorodifluoromethane	4.39	11.41	0.385 ok	0.385	0.325-0.445
Dichlorofluoromethane	6.51	11.41	0.571 ok	0.570	0.510-0.630
Dibromochloromethane	17.50	13.61	1.286 ok	1.285	1.225-1.345
Dibromomethane	14.32	13.61	1.052 ok	1.051	0.991-1.111
trans-1,2-Dichloroethylene	8.97	11.41	0.786 ok	0.786	0.726-0.846
cis-1,2-Dichloroethylene	11.09	11.41	0.972 ok	0.970	0.910-1.030
cis-1,3-Dichloropropene	15.71	13.61	1.154 ok	1.153	1.093-1.213
m-Dichlorobenzene	22.30	18.88	1.181 ok	1.181	1.121-1.241
o-Dichlorobenzene	22.92	18.88	1.214 ok	1.214	1.154-1.274
p-Dichlorobenzene	22.40	18.88	1.186 ok	1.186	1.126-1.246
trans-1,3-Dichloropropene	16.86	13.61	1.239 ok	1.238	1.178-1.298

Initial Calibration Retention Time/Internal Standard Area Summary

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Job Number: JD36325

Account: GESNYP Groundwater & Environmental Services

Project: Orangeburg UB, Orangeburg, NY

Sample Number	Lab File ID	Injected	By	Level	Inst ID	Method
V5W1909-IC1909	5W46126.D	11/04/21 10:43	DFT	0.5	GCMS5W	TO-15
V5W1909-IC1909	5W46127.D	11/04/21 11:32	DFT	0.2	GCMS5W	TO-15
V5W1909-IC1909	5W46128.D	11/04/21 12:20	DFT	0.1	GCMS5W	TO-15
V5W1909-IC1909	5W46129.D	11/04/21 13:08	DFT	0.04	GCMS5W	TO-15 Reporting this level
V5W1909-IC1909	5W46130.D	11/04/21 13:56	DFT	5	GCMS5W	TO-15
V5W1909-ICC1909	5W46131.D	11/04/21 14:45	DFT	10	GCMS5W	TO-15
V5W1909-IC1909	5W46132.D	11/04/21 15:36	DFT	20	GCMS5W	TO-15
V5W1909-IC1909	5W46133.D	11/04/21 16:30	DFT	40	GCMS5W	TO-15
V5W1909-IC1909	5W46134.D	11/04/21 17:25	DFT	50	GCMS5W	TO-15

Target Compound	RT (min.)	Istd RT (min.)	Rel RT	Mean Rel RT	Rel RT Range (+ /- .06)
Di-Isopropyl ether	9.96	11.41	0.873 ok	0.871	0.811-0.931
2,3-Dimethylpentane	11.66	11.41	1.022 ok	1.022	0.962-1.082
2,4-Dimethylpentane	10.24	11.41	0.897 ok	0.897	0.837-0.957
Ethylbenzene	18.97	18.88	1.005 ok	1.004	0.944-1.064
4-Ethyltoluene	21.20	18.88	1.123 ok	1.123	1.063-1.183
Freon 113	7.59	11.41	0.665 ok	0.665	0.605-0.725
Freon 114	4.70	11.41	0.412 ok	0.412	0.352-0.472
Freon 123	7.60	11.41	0.666 ok	0.666	0.606-0.726
Freon 123A	7.47	11.41	0.655 ok	0.655	0.595-0.715
Freon 142B	4.81	11.41	0.422 ok	0.421	0.361-0.481
Heptane	12.57	13.61	0.924 ok	0.923	0.863-0.983
Hexachlorobutadiene	24.67	18.88	1.307 ok	1.307	1.247-1.367
Hexachloroethane	22.91	18.88	1.213 ok	1.214	1.154-1.274
Hexane	9.18	11.41	0.805 ok	0.804	0.744-0.864
2-Hexanone	18.35	13.61	1.348 ok	1.344	1.284-1.404
Iodomethane	7.75	11.41	0.679 ok	0.679	0.619-0.739
Isopropylbenzene	20.43	18.88	1.082 ok	1.082	1.022-1.142
p-Isopropyltoluene	22.17	18.88	1.174 ok	1.174	1.114-1.234
Methyl Isobutyl Ketone	16.81	13.61	1.235 ok	1.232	1.172-1.292
Nonane	18.80	18.88	0.996 ok	0.996	0.936-1.056
Octane	15.84	13.61	1.164 ok	1.163	1.103-1.223
n-Propylbenzene	21.04	18.88	1.114 ok	1.114	1.054-1.174
Styrene	20.02	18.88	1.060 ok	1.060	1.000-1.120
1,1,1-Trichloroethane	11.94	11.41	1.046 ok	1.046	0.986-1.106
1,1,1,2-Tetrachloroethane	19.02	13.61	1.398 ok	1.397	1.337-1.457
1,1,2,2-Tetrachloroethane	21.11	18.88	1.118 ok	1.118	1.058-1.178
1,1,2-Trichloroethane	17.15	13.61	1.260 ok	1.259	1.199-1.319
1,2,4-Trichlorobenzene	24.73	18.88	1.310 ok	1.309	1.249-1.369
1,2,3-Trimethylbenzene	22.41	18.88	1.187 ok	1.187	1.127-1.247
1,2,4-Trimethylbenzene	21.85	18.88	1.157 ok	1.157	1.097-1.217
1,3,5-Trimethylbenzene	21.31	18.88	1.129 ok	1.129	1.069-1.189
2,2,4-Trimethylpentane	12.38	13.61	0.910 ok	0.910	0.850-0.970
Tertiary Butyl Alcohol	9.41	11.41	0.825 ok	0.820	0.760-0.880
Tetrachloroethylene	16.87	13.61	1.240 ok	1.239	1.179-1.299
Toluene	16.15	13.61	1.187 ok	1.186	1.126-1.246
Trichloroethylene	13.60	13.61	0.999 ok	0.999	0.939-1.059
Trichlorofluoromethane	6.39	11.41	0.560 ok	0.560	0.500-0.620
Vinyl chloride	5.02	11.41	0.440 ok	0.440	0.380-0.500
m,p-Xylene	19.21	18.88	1.017 ok	1.018	0.958-1.078

Initial Calibration Retention Time/Internal Standard Area Summary

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Job Number: JD36325

Account: GESNYP Groundwater & Environmental Services

Project: Orangeburg UB, Orangeburg, NY

Sample Number	Lab File ID	Injected	By	Level	Inst ID	Method	
V5W1909-IC1909	5W46126.D	11/04/21 10:43	DFT	0.5	GCMS5W	TO-15	
V5W1909-IC1909	5W46127.D	11/04/21 11:32	DFT	0.2	GCMS5W	TO-15	
V5W1909-IC1909	5W46128.D	11/04/21 12:20	DFT	0.1	GCMS5W	TO-15	
V5W1909-IC1909	5W46129.D	11/04/21 13:08	DFT	0.04	GCMS5W	TO-15	Reporting this level
V5W1909-IC1909	5W46130.D	11/04/21 13:56	DFT	5	GCMS5W	TO-15	
V5W1909-ICC1909	5W46131.D	11/04/21 14:45	DFT	10	GCMS5W	TO-15	
V5W1909-IC1909	5W46132.D	11/04/21 15:36	DFT	20	GCMS5W	TO-15	
V5W1909-IC1909	5W46133.D	11/04/21 16:30	DFT	40	GCMS5W	TO-15	
V5W1909-IC1909	5W46134.D	11/04/21 17:25	DFT	50	GCMS5W	TO-15	

Target Compound	RT (min.)	Istd RT (min.)	Rel RT	Mean Rel RT	Rel RT Range (+ /- .06)

o-Xylene	19.94	18.88	1.056 ok	1.056	0.996-1.116

Internal Standard	RT (min.)	Mean RT(min.)	RT Range (+ /- 0.33)	Area	Mean Area	Area Range (+ /- 40 %)
Bromochloromethane	11.41 ok	11.42	11.09-11.75	185702	ok 181422	108853-253991
1,4-Difluorobenzene	13.61 ok	13.61	13.28-13.94	688295	ok 644223	386534-901912
Chlorobenzene-D5	18.88 ok	18.88	18.55-19.21	277179	ok 267847	160708-374986

Initial Calibration Retention Time/Internal Standard Area Summary

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Job Number: JD36325

Account: GESNYP Groundwater & Environmental Services

Project: Orangeburg UB, Orangeburg, NY

Sample Number	Lab File ID	Injected	By	Level	Inst ID	Method
V5W1909-IC1909	5W46126.D	11/04/21 10:43	DFT	0.5	GCMS5W	TO-15
V5W1909-IC1909	5W46127.D	11/04/21 11:32	DFT	0.2	GCMS5W	TO-15
V5W1909-IC1909	5W46128.D	11/04/21 12:20	DFT	0.1	GCMS5W	TO-15
V5W1909-IC1909	5W46129.D	11/04/21 13:08	DFT	0.04	GCMS5W	TO-15
V5W1909-IC1909	5W46130.D	11/04/21 13:56	DFT	5	GCMS5W	TO-15 Reporting this level
V5W1909-ICC1909	5W46131.D	11/04/21 14:45	DFT	10	GCMS5W	TO-15
V5W1909-IC1909	5W46132.D	11/04/21 15:36	DFT	20	GCMS5W	TO-15
V5W1909-IC1909	5W46133.D	11/04/21 16:30	DFT	40	GCMS5W	TO-15
V5W1909-IC1909	5W46134.D	11/04/21 17:25	DFT	50	GCMS5W	TO-15

Target Compound	RT (min.)	Istd RT (min.)	Rel RT	Mean Rel RT	Rel RT Range (+ /- .06)
Acetone (2-Propanone)	8.69	11.41	0.762 ok	0.763	0.703-0.823
Acrolein	8.12	11.41	0.712 ok	0.712	0.652-0.772
Acrylonitrile	10.12	11.41	0.887 ok	0.888	0.828-0.948
Acetonitrile	9.52	11.41	0.834 ok	0.835	0.775-0.895
1,3-Butadiene	5.07	11.41	0.444 ok	0.445	0.385-0.505
Benzene	12.58	11.41	1.103 ok	1.102	1.042-1.162
Bromobenzene	21.01	18.88	1.113 ok	1.113	1.053-1.173
Bromodichloromethane	14.58	13.61	1.071 ok	1.071	1.011-1.131
Bromoform	20.06	18.88	1.062 ok	1.062	1.002-1.122
Bromomethane	5.74	11.41	0.503 ok	0.504	0.444-0.564
Bromoethene	6.30	11.41	0.552 ok	0.553	0.493-0.613
n-Butane	4.91	11.41	0.430 ok	0.430	0.370-0.490
Benzyl Chloride	22.68	18.88	1.201 ok	1.202	1.142-1.262
n-Butylbenzene	22.70	18.88	1.202 ok	1.203	1.143-1.263
sec-Butylbenzene	21.99	18.88	1.165 ok	1.165	1.105-1.225
tert-Butylbenzene	21.75	18.88	1.152 ok	1.152	1.092-1.212
Carbon disulfide	7.52	11.41	0.659 ok	0.660	0.600-0.720
Chlorobenzene	18.92	18.88	1.002 ok	1.002	0.942-1.062
Chlorodifluoromethane	4.45	11.41	0.390 ok	0.391	0.331-0.451
Chloroethane	6.04	11.41	0.529 ok	0.530	0.470-0.590
Chlorotrifluoroethene	4.34	11.41	0.380 ok	0.381	0.321-0.441
Chloroform	11.56	11.41	1.013 ok	1.012	0.952-1.072
Chloromethane	4.80	11.41	0.421 ok	0.421	0.361-0.481
3-Chloropropene	8.44	11.41	0.740 ok	0.739	0.679-0.799
2-Chlorotoluene	21.27	18.88	1.127 ok	1.127	1.067-1.187
Carbon tetrachloride	11.84	11.41	1.038 ok	1.037	0.977-1.097
Cyclohexane	11.49	11.41	1.007 ok	1.007	0.947-1.067
1,1-Dichloroethane	10.10	11.41	0.885 ok	0.885	0.825-0.945
1,1-Dichloroethylene	7.47	11.41	0.655 ok	0.655	0.595-0.715
1,2-Dibromoethane (EDB)	17.94	13.61	1.318 ok	1.318	1.258-1.378
1,2-Dichloroethane	12.90	11.41	1.131 ok	1.130	1.070-1.190
1,2-Dichloropropane	14.47	13.61	1.063 ok	1.064	1.004-1.124
1,3-Dichloropropane	17.64	13.61	1.296 ok	1.296	1.236-1.356
1,4-Dioxane	14.91	13.61	1.096 ok	1.096	1.036-1.156
Dichlorodifluoromethane	4.38	11.41	0.384 ok	0.385	0.325-0.445
Dichlorofluoromethane	6.50	11.41	0.570 ok	0.570	0.510-0.630
Dibromochloromethane	17.49	13.61	1.285 ok	1.285	1.225-1.345
Dibromomethane	14.31	13.61	1.051 ok	1.051	0.991-1.111
trans-1,2-Dichloroethylene	8.97	11.41	0.786 ok	0.786	0.726-0.846

Initial Calibration Retention Time/Internal Standard Area Summary

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Job Number: JD36325

Account: GESNYP Groundwater & Environmental Services

Project: Orangeburg UB, Orangeburg, NY

Sample Number	Lab File ID	Injected	By	Level	Inst ID	Method
V5W1909-IC1909	5W46126.D	11/04/21 10:43	DFT	0.5	GCMS5W	TO-15
V5W1909-IC1909	5W46127.D	11/04/21 11:32	DFT	0.2	GCMS5W	TO-15
V5W1909-IC1909	5W46128.D	11/04/21 12:20	DFT	0.1	GCMS5W	TO-15
V5W1909-IC1909	5W46129.D	11/04/21 13:08	DFT	0.04	GCMS5W	TO-15
V5W1909-IC1909	5W46130.D	11/04/21 13:56	DFT	5	GCMS5W	TO-15 Reporting this level
V5W1909-ICC1909	5W46131.D	11/04/21 14:45	DFT	10	GCMS5W	TO-15
V5W1909-IC1909	5W46132.D	11/04/21 15:36	DFT	20	GCMS5W	TO-15
V5W1909-IC1909	5W46133.D	11/04/21 16:30	DFT	40	GCMS5W	TO-15
V5W1909-IC1909	5W46134.D	11/04/21 17:25	DFT	50	GCMS5W	TO-15

Target Compound	RT (min.)	Istd RT (min.)	Rel RT	Mean Rel RT	Rel RT Range (+ /- .06)
cis-1,2-Dichloroethylene	11.07	11.41	0.970 ok	0.970	0.910-1.030
cis-1,3-Dichloropropene	15.69	13.61	1.153 ok	1.153	1.093-1.213
m-Dichlorobenzene	22.29	18.88	1.181 ok	1.181	1.121-1.241
o-Dichlorobenzene	22.92	18.88	1.214 ok	1.214	1.154-1.274
p-Dichlorobenzene	22.39	18.88	1.186 ok	1.186	1.126-1.246
trans-1,3-Dichloropropene	16.84	13.61	1.237 ok	1.238	1.178-1.298
Di-Isopropyl ether	9.92	11.41	0.869 ok	0.871	0.811-0.931
2,3-Dimethylpentane	11.66	11.41	1.022 ok	1.022	0.962-1.082
2,4-Dimethylpentane	10.23	11.41	0.897 ok	0.897	0.837-0.957
Ethanol	7.36	11.41	0.645 ok	0.645	0.585-0.705
Ethylbenzene	18.96	18.88	1.004 ok	1.004	0.944-1.064
Ethyl Acetate	11.75	11.41	1.030 ok	1.029	0.969-1.089
Ethyl Acrylate	14.47	13.61	1.063 ok	1.064	1.004-1.124
4-Ethyltoluene	21.19	18.88	1.122 ok	1.123	1.063-1.183
Freon 113	7.59	11.41	0.665 ok	0.665	0.605-0.725
Freon 114	4.69	11.41	0.411 ok	0.412	0.352-0.472
Freon 123	7.60	11.41	0.666 ok	0.666	0.606-0.726
Freon 123A	7.47	11.41	0.655 ok	0.655	0.595-0.715
Freon 142B	4.80	11.41	0.421 ok	0.421	0.361-0.481
Freon 152A	4.39	11.41	0.385 ok	0.385	0.325-0.445
Heptane	12.56	13.61	0.923 ok	0.923	0.863-0.983
Hexachlorobutadiene	24.67	18.88	1.307 ok	1.307	1.247-1.367
Hexachloroethane	22.91	18.88	1.213 ok	1.214	1.154-1.274
Hexane	9.17	11.41	0.804 ok	0.804	0.744-0.864
2-Hexanone	18.28	13.61	1.343 ok	1.344	1.284-1.404
Iodomethane	7.74	11.41	0.678 ok	0.679	0.619-0.739
Isopropylbenzene	20.42	18.88	1.082 ok	1.082	1.022-1.142
Isopropyl Alcohol	8.49	11.41	0.744 ok	0.744	0.684-0.804
p-Isopropyltoluene	22.17	18.88	1.174 ok	1.174	1.114-1.234
Methylene chloride	8.63	11.41	0.756 ok	0.756	0.696-0.816
Methyl ethyl ketone	12.04	11.41	1.055 ok	1.055	0.995-1.115
Methyl Isobutyl Ketone	16.76	13.61	1.231 ok	1.232	1.172-1.292
Methyl Tert Butyl Ether	9.20	11.41	0.806 ok	0.806	0.746-0.866
Methylmethacrylate	14.83	13.61	1.090 ok	1.090	1.030-1.150
Naphthalene	25.14	18.88	1.332 ok	1.332	1.272-1.392
Nonane	18.80	18.88	0.996 ok	0.996	0.936-1.056
Octane	15.83	13.61	1.163 ok	1.163	1.103-1.223
Pentane	6.40	11.41	0.561 ok	0.561	0.501-0.621
n-Propylbenzene	21.04	18.88	1.114 ok	1.114	1.054-1.174

Initial Calibration Retention Time/Internal Standard Area Summary

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Job Number: JD36325

Account: GESNYP Groundwater & Environmental Services

Project: Orangeburg UB, Orangeburg, NY

Sample Number	Lab File ID	Injected	By	Level	Inst ID	Method	
V5W1909-IC1909	5W46126.D	11/04/21 10:43	DFT	0.5	GCMS5W	TO-15	
V5W1909-IC1909	5W46127.D	11/04/21 11:32	DFT	0.2	GCMS5W	TO-15	
V5W1909-IC1909	5W46128.D	11/04/21 12:20	DFT	0.1	GCMS5W	TO-15	
V5W1909-IC1909	5W46129.D	11/04/21 13:08	DFT	0.04	GCMS5W	TO-15	
V5W1909-IC1909	5W46130.D	11/04/21 13:56	DFT	5	GCMS5W	TO-15	Reporting this level
V5W1909-ICC1909	5W46131.D	11/04/21 14:45	DFT	10	GCMS5W	TO-15	
V5W1909-IC1909	5W46132.D	11/04/21 15:36	DFT	20	GCMS5W	TO-15	
V5W1909-IC1909	5W46133.D	11/04/21 16:30	DFT	40	GCMS5W	TO-15	
V5W1909-IC1909	5W46134.D	11/04/21 17:25	DFT	50	GCMS5W	TO-15	

Target Compound	RT (min.)	Istd RT (min.)	Rel RT	Mean Rel RT	Rel RT Range (+ /- .06)
Propylene	4.29	11.41	0.376 ok	0.376	0.316-0.436
Styrene	20.01	18.88	1.060 ok	1.060	1.000-1.120
1,1,1-Trichloroethane	11.93	11.41	1.046 ok	1.046	0.986-1.106
1,1,1,2-Tetrachloroethane	19.02	13.61	1.398 ok	1.397	1.337-1.457
1,1,2,2-Tetrachloroethane	21.11	18.88	1.118 ok	1.118	1.058-1.178
1,1,2-Trichloroethane	17.13	13.61	1.259 ok	1.259	1.199-1.319
1,2,4-Trichlorobenzene	24.71	18.88	1.309 ok	1.309	1.249-1.369
1,2,3-Trichloropropane	21.31	18.88	1.129 ok	1.128	1.068-1.188
1,2,3-Trimethylbenzene	22.41	18.88	1.187 ok	1.187	1.127-1.247
1,2,4-Trimethylbenzene	21.84	18.88	1.157 ok	1.157	1.097-1.217
1,3,5-Trimethylbenzene	21.31	18.88	1.129 ok	1.129	1.069-1.189
2,2,4-Trimethylpentane	12.38	13.61	0.910 ok	0.910	0.850-0.970
Tertiary Butyl Alcohol	9.34	11.41	0.819 ok	0.820	0.760-0.880
Tetrachloroethylene	16.87	13.61	1.240 ok	1.239	1.179-1.299
Tetrahydrofuran	11.84	11.41	1.038 ok	1.038	0.978-1.098
Toluene	16.14	13.61	1.186 ok	1.186	1.126-1.246
Trichloroethylene	13.60	13.61	0.999 ok	0.999	0.939-1.059
Trichlorofluoromethane	6.39	11.41	0.560 ok	0.560	0.500-0.620
Vinyl chloride	5.01	11.41	0.439 ok	0.440	0.380-0.500
Vinyl Acetate	10.55	11.41	0.925 ok	0.925	0.865-0.985
m,p-Xylene	19.21	18.88	1.017 ok	1.018	0.958-1.078
o-Xylene	19.93	18.88	1.056 ok	1.056	0.996-1.116
TVHC As Equiv Pentane	6.39	18.88	0.338 ok	0.339	0.279-0.399

Internal Standard	RT (min.)	Mean RT(min.)	RT Range (+ /- 0.33)	Area	Mean Area	Area Range (+ /- 40 %)
Bromochloromethane	11.41 ok	11.42	11.09-11.75	180647	ok 181422	108853-253991
1,4-Difluorobenzene	13.61 ok	13.61	13.28-13.94	654752	ok 644223	386534-901912
Chlorobenzene-D5	18.88 ok	18.88	18.55-19.21	267046	ok 267847	160708-374986

Initial Calibration Retention Time/Internal Standard Area Summary

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Job Number: JD36325

Account: GESNYP Groundwater & Environmental Services

Project: Orangeburg UB, Orangeburg, NY

Sample Number	Lab File ID	Injected	By	Level	Inst ID	Method
V5W1909-IC1909	5W46126.D	11/04/21 10:43	DFT	0.5	GCMS5W	TO-15
V5W1909-IC1909	5W46127.D	11/04/21 11:32	DFT	0.2	GCMS5W	TO-15
V5W1909-IC1909	5W46128.D	11/04/21 12:20	DFT	0.1	GCMS5W	TO-15
V5W1909-IC1909	5W46129.D	11/04/21 13:08	DFT	0.04	GCMS5W	TO-15
V5W1909-IC1909	5W46130.D	11/04/21 13:56	DFT	5	GCMS5W	TO-15
V5W1909-ICC1909	5W46131.D	11/04/21 14:45	DFT	10	GCMS5W	TO-15 Reporting this level
V5W1909-IC1909	5W46132.D	11/04/21 15:36	DFT	20	GCMS5W	TO-15
V5W1909-IC1909	5W46133.D	11/04/21 16:30	DFT	40	GCMS5W	TO-15
V5W1909-IC1909	5W46134.D	11/04/21 17:25	DFT	50	GCMS5W	TO-15

Target Compound	RT (min.)	Istd RT (min.)	Rel RT	Mean Rel RT	Rel RT Range (+ /- .06)
Acetone (2-Propanone)	8.69	11.42	0.761 ok	0.763	0.703-0.823
Acrolein	8.12	11.42	0.711 ok	0.712	0.652-0.772
Acrylonitrile	10.13	11.42	0.887 ok	0.888	0.828-0.948
Acetonitrile	9.52	11.42	0.834 ok	0.835	0.775-0.895
1,3-Butadiene	5.08	11.42	0.445 ok	0.445	0.385-0.505
Benzene	12.58	11.42	1.102 ok	1.102	1.042-1.162
Bromobenzene	21.01	18.88	1.113 ok	1.113	1.053-1.173
Bromodichloromethane	14.58	13.62	1.070 ok	1.071	1.011-1.131
Bromoform	20.06	18.88	1.062 ok	1.062	1.002-1.122
Bromomethane	5.76	11.42	0.504 ok	0.504	0.444-0.564
Bromoethene	6.32	11.42	0.553 ok	0.553	0.493-0.613
n-Butane	4.92	11.42	0.431 ok	0.430	0.370-0.490
Benzyl Chloride	22.68	18.88	1.201 ok	1.202	1.142-1.262
n-Butylbenzene	22.70	18.88	1.202 ok	1.203	1.143-1.263
sec-Butylbenzene	21.99	18.88	1.165 ok	1.165	1.105-1.225
tert-Butylbenzene	21.75	18.88	1.152 ok	1.152	1.092-1.212
Carbon disulfide	7.54	11.42	0.660 ok	0.660	0.600-0.720
Chlorobenzene	18.92	18.88	1.002 ok	1.002	0.942-1.062
Chlorodifluoromethane	4.47	11.42	0.391 ok	0.391	0.331-0.451
Chloroethane	6.06	11.42	0.531 ok	0.530	0.470-0.590
Chlorotrifluoroethene	4.35	11.42	0.381 ok	0.381	0.321-0.441
Chloroform	11.56	11.42	1.012 ok	1.012	0.952-1.072
Chloromethane	4.81	11.42	0.421 ok	0.421	0.361-0.481
3-Chloropropene	8.44	11.42	0.739 ok	0.739	0.679-0.799
2-Chlorotoluene	21.27	18.88	1.127 ok	1.127	1.067-1.187
Carbon tetrachloride	11.84	11.42	1.037 ok	1.037	0.977-1.097
Cyclohexane	11.50	11.42	1.007 ok	1.007	0.947-1.067
1,1-Dichloroethane	10.11	11.42	0.885 ok	0.885	0.825-0.945
1,1-Dichloroethylene	7.49	11.42	0.656 ok	0.655	0.595-0.715
1,2-Dibromoethane (EDB)	17.94	13.62	1.317 ok	1.318	1.258-1.378
1,2-Dichloroethane	12.90	11.42	1.130 ok	1.130	1.070-1.190
1,2-Dichloropropane	14.48	13.62	1.063 ok	1.064	1.004-1.124
1,3-Dichloropropane	17.64	13.62	1.295 ok	1.296	1.236-1.356
1,4-Dioxane	14.91	13.62	1.095 ok	1.096	1.036-1.156
Dichlorodifluoromethane	4.40	11.42	0.385 ok	0.385	0.325-0.445
Dichlorofluoromethane	6.51	11.42	0.570 ok	0.570	0.510-0.630
Dibromochloromethane	17.49	13.62	1.284 ok	1.285	1.225-1.345
Dibromomethane	14.31	13.62	1.051 ok	1.051	0.991-1.111
trans-1,2-Dichloroethylene	8.97	11.42	0.785 ok	0.786	0.726-0.846

Initial Calibration Retention Time/Internal Standard Area Summary

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Job Number: JD36325

Account: GESNYP Groundwater & Environmental Services

Project: Orangeburg UB, Orangeburg, NY

Sample Number	Lab File ID	Injected	By	Level	Inst ID	Method
V5W1909-IC1909	5W46126.D	11/04/21 10:43	DFT	0.5	GCMS5W	TO-15
V5W1909-IC1909	5W46127.D	11/04/21 11:32	DFT	0.2	GCMS5W	TO-15
V5W1909-IC1909	5W46128.D	11/04/21 12:20	DFT	0.1	GCMS5W	TO-15
V5W1909-IC1909	5W46129.D	11/04/21 13:08	DFT	0.04	GCMS5W	TO-15
V5W1909-IC1909	5W46130.D	11/04/21 13:56	DFT	5	GCMS5W	TO-15
V5W1909-ICC1909	5W46131.D	11/04/21 14:45	DFT	10	GCMS5W	TO-15 Reporting this level
V5W1909-IC1909	5W46132.D	11/04/21 15:36	DFT	20	GCMS5W	TO-15
V5W1909-IC1909	5W46133.D	11/04/21 16:30	DFT	40	GCMS5W	TO-15
V5W1909-IC1909	5W46134.D	11/04/21 17:25	DFT	50	GCMS5W	TO-15

Target Compound	RT (min.)	Istd RT (min.)	Rel RT	Mean Rel RT	Rel RT Range (+ /- .06)
cis-1,2-Dichloroethylene	11.07	11.42	0.969 ok	0.970	0.910-1.030
cis-1,3-Dichloropropene	15.69	13.62	1.152 ok	1.153	1.093-1.213
m-Dichlorobenzene	22.29	18.88	1.181 ok	1.181	1.121-1.241
o-Dichlorobenzene	22.92	18.88	1.214 ok	1.214	1.154-1.274
p-Dichlorobenzene	22.40	18.88	1.186 ok	1.186	1.126-1.246
trans-1,3-Dichloropropene	16.84	13.62	1.236 ok	1.238	1.178-1.298
Di-Isopropyl ether	9.93	11.42	0.870 ok	0.871	0.811-0.931
2,3-Dimethylpentane	11.67	11.42	1.022 ok	1.022	0.962-1.082
2,4-Dimethylpentane	10.24	11.42	0.897 ok	0.897	0.837-0.957
Ethanol	7.36	11.42	0.644 ok	0.645	0.585-0.705
Ethylbenzene	18.96	18.88	1.004 ok	1.004	0.944-1.064
Ethyl Acetate	11.74	11.42	1.028 ok	1.029	0.969-1.089
Ethyl Acrylate	14.47	13.62	1.062 ok	1.064	1.004-1.124
4-Ethyltoluene	21.19	18.88	1.122 ok	1.123	1.063-1.183
Freon 113	7.60	11.42	0.665 ok	0.665	0.605-0.725
Freon 114	4.71	11.42	0.412 ok	0.412	0.352-0.472
Freon 123	7.61	11.42	0.666 ok	0.666	0.606-0.726
Freon 123A	7.49	11.42	0.656 ok	0.655	0.595-0.715
Freon 142B	4.81	11.42	0.421 ok	0.421	0.361-0.481
Freon 152A	4.40	11.42	0.385 ok	0.385	0.325-0.445
Heptane	12.56	13.62	0.922 ok	0.923	0.863-0.983
Hexachlorobutadiene	24.67	18.88	1.307 ok	1.307	1.247-1.367
Hexachloroethane	22.91	18.88	1.213 ok	1.214	1.154-1.274
Hexane	9.18	11.42	0.804 ok	0.804	0.744-0.864
2-Hexanone	18.28	13.62	1.342 ok	1.344	1.284-1.404
Iodomethane	7.76	11.42	0.680 ok	0.679	0.619-0.739
Isopropylbenzene	20.43	18.88	1.082 ok	1.082	1.022-1.142
Isopropyl Alcohol	8.48	11.42	0.743 ok	0.744	0.684-0.804
p-Isopropyltoluene	22.17	18.88	1.174 ok	1.174	1.114-1.234
Methylene chloride	8.63	11.42	0.756 ok	0.756	0.696-0.816
Methyl ethyl ketone	12.04	11.42	1.054 ok	1.055	0.995-1.115
Methyl Isobutyl Ketone	16.76	13.62	1.231 ok	1.232	1.172-1.292
Methyl Tert Butyl Ether	9.20	11.42	0.806 ok	0.806	0.746-0.866
Methylmethacrylate	14.83	13.62	1.089 ok	1.090	1.030-1.150
Naphthalene	25.14	18.88	1.332 ok	1.332	1.272-1.392
Nonane	18.80	18.88	0.996 ok	0.996	0.936-1.056
Octane	15.83	13.62	1.162 ok	1.163	1.103-1.223
Pentane	6.42	11.42	0.562 ok	0.561	0.501-0.621
n-Propylbenzene	21.04	18.88	1.114 ok	1.114	1.054-1.174

Initial Calibration Retention Time/Internal Standard Area Summary

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Job Number: JD36325

Account: GESNYP Groundwater & Environmental Services

Project: Orangeburg UB, Orangeburg, NY

Sample Number	Lab File ID	Injected	By	Level	Inst ID	Method	
V5W1909-IC1909	5W46126.D	11/04/21 10:43	DFT	0.5	GCMS5W	TO-15	
V5W1909-IC1909	5W46127.D	11/04/21 11:32	DFT	0.2	GCMS5W	TO-15	
V5W1909-IC1909	5W46128.D	11/04/21 12:20	DFT	0.1	GCMS5W	TO-15	
V5W1909-IC1909	5W46129.D	11/04/21 13:08	DFT	0.04	GCMS5W	TO-15	
V5W1909-IC1909	5W46130.D	11/04/21 13:56	DFT	5	GCMS5W	TO-15	
V5W1909-ICC1909	5W46131.D	11/04/21 14:45	DFT	10	GCMS5W	TO-15	Reporting this level
V5W1909-IC1909	5W46132.D	11/04/21 15:36	DFT	20	GCMS5W	TO-15	
V5W1909-IC1909	5W46133.D	11/04/21 16:30	DFT	40	GCMS5W	TO-15	
V5W1909-IC1909	5W46134.D	11/04/21 17:25	DFT	50	GCMS5W	TO-15	

Target Compound	RT (min.)	Istd RT (min.)	Rel RT	Mean Rel RT	Rel RT Range (+ /- .06)
Propylene	4.30	11.42	0.377 ok	0.376	0.316-0.436
Styrene	20.01	18.88	1.060 ok	1.060	1.000-1.120
1,1,1-Trichloroethane	11.94	11.42	1.046 ok	1.046	0.986-1.106
1,1,1,2-Tetrachloroethane	19.03	13.62	1.397 ok	1.397	1.337-1.457
1,1,2,2-Tetrachloroethane	21.11	18.88	1.118 ok	1.118	1.058-1.178
1,1,2-Trichloroethane	17.14	13.62	1.258 ok	1.259	1.199-1.319
1,2,4-Trichlorobenzene	24.71	18.88	1.309 ok	1.309	1.249-1.369
1,2,3-Trichloropropane	21.31	18.88	1.129 ok	1.128	1.068-1.188
1,2,3-Trimethylbenzene	22.41	18.88	1.187 ok	1.187	1.127-1.247
1,2,4-Trimethylbenzene	21.84	18.88	1.157 ok	1.157	1.097-1.217
1,3,5-Trimethylbenzene	21.31	18.88	1.129 ok	1.129	1.069-1.189
2,2,4-Trimethylpentane	12.38	13.62	0.909 ok	0.910	0.850-0.970
Tertiary Butyl Alcohol	9.33	11.42	0.817 ok	0.820	0.760-0.880
Tetrachloroethylene	16.87	13.62	1.239 ok	1.239	1.179-1.299
Tetrahydrofuran	11.84	11.42	1.037 ok	1.038	0.978-1.098
Toluene	16.14	13.62	1.185 ok	1.186	1.126-1.246
Trichloroethylene	13.60	13.62	0.999 ok	0.999	0.939-1.059
Trichlorofluoromethane	6.40	11.42	0.560 ok	0.560	0.500-0.620
Vinyl chloride	5.03	11.42	0.440 ok	0.440	0.380-0.500
Vinyl Acetate	10.55	11.42	0.924 ok	0.925	0.865-0.985
m,p-Xylene	19.21	18.88	1.017 ok	1.018	0.958-1.078
o-Xylene	19.93	18.88	1.056 ok	1.056	0.996-1.116
TVHC As Equiv Pentane	6.40	18.88	0.339 ok	0.339	0.279-0.399

Internal Standard	RT (min.)	Mean RT(min.)	RT Range (+ /- 0.33)	Area	Mean Area	Area Range (+ /- 40 %)
Bromochloromethane	11.42 ok	11.42	11.09-11.75	181875	ok 181422	108853-253991
1,4-Difluorobenzene	13.62 ok	13.61	13.28-13.94	642414	ok 644223	386534-901912
Chlorobenzene-D5	18.88 ok	18.88	18.55-19.21	265468	ok 267847	160708-374986

Initial Calibration Retention Time/Internal Standard Area Summary

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Job Number: JD36325

Account: GESNYP Groundwater & Environmental Services

Project: Orangeburg UB, Orangeburg, NY

Sample Number	Lab File ID	Injected	By	Level	Inst ID	Method
V5W1909-IC1909	5W46126.D	11/04/21 10:43	DFT	0.5	GCMS5W	TO-15
V5W1909-IC1909	5W46127.D	11/04/21 11:32	DFT	0.2	GCMS5W	TO-15
V5W1909-IC1909	5W46128.D	11/04/21 12:20	DFT	0.1	GCMS5W	TO-15
V5W1909-IC1909	5W46129.D	11/04/21 13:08	DFT	0.04	GCMS5W	TO-15
V5W1909-IC1909	5W46130.D	11/04/21 13:56	DFT	5	GCMS5W	TO-15
V5W1909-ICC1909	5W46131.D	11/04/21 14:45	DFT	10	GCMS5W	TO-15
V5W1909-IC1909	5W46132.D	11/04/21 15:36	DFT	20	GCMS5W	TO-15 Reporting this level
V5W1909-IC1909	5W46133.D	11/04/21 16:30	DFT	40	GCMS5W	TO-15
V5W1909-IC1909	5W46134.D	11/04/21 17:25	DFT	50	GCMS5W	TO-15

Target Compound	RT (min.)	Istd RT (min.)	Rel RT	Mean Rel RT	Rel RT Range (+ /- .06)
Acetone (2-Propanone)	8.69	11.42	0.761 ok	0.763	0.703-0.823
Acrolein	8.12	11.42	0.711 ok	0.712	0.652-0.772
Acrylonitrile	10.13	11.42	0.887 ok	0.888	0.828-0.948
Acetonitrile	9.52	11.42	0.834 ok	0.835	0.775-0.895
1,3-Butadiene	5.08	11.42	0.445 ok	0.445	0.385-0.505
Benzene	12.58	11.42	1.102 ok	1.102	1.042-1.162
Bromobenzene	21.01	18.88	1.113 ok	1.113	1.053-1.173
Bromodichloromethane	14.59	13.62	1.071 ok	1.071	1.011-1.131
Bromoform	20.06	18.88	1.062 ok	1.062	1.002-1.122
Bromomethane	5.75	11.42	0.504 ok	0.504	0.444-0.564
Bromoethene	6.31	11.42	0.553 ok	0.553	0.493-0.613
n-Butane	4.91	11.42	0.430 ok	0.430	0.370-0.490
Benzyl Chloride	22.68	18.88	1.201 ok	1.202	1.142-1.262
n-Butylbenzene	22.71	18.88	1.203 ok	1.203	1.143-1.263
sec-Butylbenzene	21.99	18.88	1.165 ok	1.165	1.105-1.225
tert-Butylbenzene	21.75	18.88	1.152 ok	1.152	1.092-1.212
Carbon disulfide	7.54	11.42	0.660 ok	0.660	0.600-0.720
Chlorobenzene	18.92	18.88	1.002 ok	1.002	0.942-1.062
Chlorodifluoromethane	4.46	11.42	0.391 ok	0.391	0.331-0.451
Chloroethane	6.06	11.42	0.531 ok	0.530	0.470-0.590
Chlorotrifluoroethene	4.35	11.42	0.381 ok	0.381	0.321-0.441
Chloroform	11.56	11.42	1.012 ok	1.012	0.952-1.072
Chloromethane	4.80	11.42	0.420 ok	0.421	0.361-0.481
3-Chloropropene	8.44	11.42	0.739 ok	0.739	0.679-0.799
2-Chlorotoluene	21.27	18.88	1.127 ok	1.127	1.067-1.187
Carbon tetrachloride	11.85	11.42	1.038 ok	1.037	0.977-1.097
Cyclohexane	11.50	11.42	1.007 ok	1.007	0.947-1.067
1,1-Dichloroethane	10.11	11.42	0.885 ok	0.885	0.825-0.945
1,1-Dichloroethylene	7.49	11.42	0.656 ok	0.655	0.595-0.715
1,2-Dibromoethane (EDB)	17.94	13.62	1.317 ok	1.318	1.258-1.378
1,2-Dichloroethane	12.90	11.42	1.130 ok	1.130	1.070-1.190
1,2-Dichloropropane	14.48	13.62	1.063 ok	1.064	1.004-1.124
1,3-Dichloropropane	17.65	13.62	1.296 ok	1.296	1.236-1.356
1,4-Dioxane	14.91	13.62	1.095 ok	1.096	1.036-1.156
Dichlorodifluoromethane	4.39	11.42	0.384 ok	0.385	0.325-0.445
Dichlorofluoromethane	6.50	11.42	0.569 ok	0.570	0.510-0.630
Dibromochloromethane	17.50	13.62	1.285 ok	1.285	1.225-1.345
Dibromomethane	14.31	13.62	1.051 ok	1.051	0.991-1.111
trans-1,2-Dichloroethylene	8.97	11.42	0.785 ok	0.786	0.726-0.846

Initial Calibration Retention Time/Internal Standard Area Summary

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Job Number: JD36325

Account: GESNYP Groundwater & Environmental Services

Project: Orangeburg UB, Orangeburg, NY

Sample Number	Lab File ID	Injected	By	Level	Inst ID	Method
V5W1909-IC1909	5W46126.D	11/04/21 10:43	DFT	0.5	GCMS5W	TO-15
V5W1909-IC1909	5W46127.D	11/04/21 11:32	DFT	0.2	GCMS5W	TO-15
V5W1909-IC1909	5W46128.D	11/04/21 12:20	DFT	0.1	GCMS5W	TO-15
V5W1909-IC1909	5W46129.D	11/04/21 13:08	DFT	0.04	GCMS5W	TO-15
V5W1909-IC1909	5W46130.D	11/04/21 13:56	DFT	5	GCMS5W	TO-15
V5W1909-ICC1909	5W46131.D	11/04/21 14:45	DFT	10	GCMS5W	TO-15
V5W1909-IC1909	5W46132.D	11/04/21 15:36	DFT	20	GCMS5W	TO-15 Reporting this level
V5W1909-IC1909	5W46133.D	11/04/21 16:30	DFT	40	GCMS5W	TO-15
V5W1909-IC1909	5W46134.D	11/04/21 17:25	DFT	50	GCMS5W	TO-15

Target Compound	RT (min.)	Istd RT (min.)	Rel RT	Mean Rel RT	Rel RT Range (+ /- .06)
cis-1,2-Dichloroethylene	11.08	11.42	0.970 ok	0.970	0.910-1.030
cis-1,3-Dichloropropene	15.69	13.62	1.152 ok	1.153	1.093-1.213
m-Dichlorobenzene	22.29	18.88	1.181 ok	1.181	1.121-1.241
o-Dichlorobenzene	22.92	18.88	1.214 ok	1.214	1.154-1.274
p-Dichlorobenzene	22.40	18.88	1.186 ok	1.186	1.126-1.246
trans-1,3-Dichloropropene	16.85	13.62	1.237 ok	1.238	1.178-1.298
Di-Isopropyl ether	9.93	11.42	0.870 ok	0.871	0.811-0.931
2,3-Dimethylpentane	11.67	11.42	1.022 ok	1.022	0.962-1.082
2,4-Dimethylpentane	10.25	11.42	0.898 ok	0.897	0.837-0.957
Ethanol	7.36	11.42	0.644 ok	0.645	0.585-0.705
Ethylbenzene	18.96	18.88	1.004 ok	1.004	0.944-1.064
Ethyl Acetate	11.74	11.42	1.028 ok	1.029	0.969-1.089
Ethyl Acrylate	14.47	13.62	1.062 ok	1.064	1.004-1.124
4-Ethyltoluene	21.20	18.88	1.123 ok	1.123	1.063-1.183
Freon 113	7.60	11.42	0.665 ok	0.665	0.605-0.725
Freon 114	4.70	11.42	0.412 ok	0.412	0.352-0.472
Freon 123	7.61	11.42	0.666 ok	0.666	0.606-0.726
Freon 123A	7.48	11.42	0.655 ok	0.655	0.595-0.715
Freon 142B	4.80	11.42	0.420 ok	0.421	0.361-0.481
Freon 152A	4.39	11.42	0.384 ok	0.385	0.325-0.445
Heptane	12.56	13.62	0.922 ok	0.923	0.863-0.983
Hexachlorobutadiene	24.67	18.88	1.307 ok	1.307	1.247-1.367
Hexachloroethane	22.92	18.88	1.214 ok	1.214	1.154-1.274
Hexane	9.18	11.42	0.804 ok	0.804	0.744-0.864
2-Hexanone	18.28	13.62	1.342 ok	1.344	1.284-1.404
Iodomethane	7.76	11.42	0.680 ok	0.679	0.619-0.739
Isopropylbenzene	20.43	18.88	1.082 ok	1.082	1.022-1.142
Isopropyl Alcohol	8.49	11.42	0.743 ok	0.744	0.684-0.804
p-Isopropyltoluene	22.18	18.88	1.175 ok	1.174	1.114-1.234
Methylene chloride	8.63	11.42	0.756 ok	0.756	0.696-0.816
Methyl ethyl ketone	12.04	11.42	1.054 ok	1.055	0.995-1.115
Methyl Isobutyl Ketone	16.76	13.62	1.231 ok	1.232	1.172-1.292
Methyl Tert Butyl Ether	9.20	11.42	0.806 ok	0.806	0.746-0.866
Methylmethacrylate	14.83	13.62	1.089 ok	1.090	1.030-1.150
Naphthalene	25.14	18.88	1.332 ok	1.332	1.272-1.392
Nonane	18.80	18.88	0.996 ok	0.996	0.936-1.056
Octane	15.84	13.62	1.163 ok	1.163	1.103-1.223
Pentane	6.42	11.42	0.562 ok	0.561	0.501-0.621
n-Propylbenzene	21.04	18.88	1.114 ok	1.114	1.054-1.174

Initial Calibration Retention Time/Internal Standard Area Summary

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Job Number: JD36325

Account: GESNYP Groundwater & Environmental Services

Project: Orangeburg UB, Orangeburg, NY

Sample Number	Lab File ID	Injected	By	Level	Inst ID	Method
V5W1909-IC1909	5W46126.D	11/04/21 10:43	DFT	0.5	GCMS5W	TO-15
V5W1909-IC1909	5W46127.D	11/04/21 11:32	DFT	0.2	GCMS5W	TO-15
V5W1909-IC1909	5W46128.D	11/04/21 12:20	DFT	0.1	GCMS5W	TO-15
V5W1909-IC1909	5W46129.D	11/04/21 13:08	DFT	0.04	GCMS5W	TO-15
V5W1909-IC1909	5W46130.D	11/04/21 13:56	DFT	5	GCMS5W	TO-15
V5W1909-ICC1909	5W46131.D	11/04/21 14:45	DFT	10	GCMS5W	TO-15
V5W1909-IC1909	5W46132.D	11/04/21 15:36	DFT	20	GCMS5W	TO-15 Reporting this level
V5W1909-IC1909	5W46133.D	11/04/21 16:30	DFT	40	GCMS5W	TO-15
V5W1909-IC1909	5W46134.D	11/04/21 17:25	DFT	50	GCMS5W	TO-15

Target Compound	RT (min.)	Istd RT (min.)	Rel RT	Mean Rel RT	Rel RT Range (+ /- .06)
Propylene	4.29	11.42	0.376 ok	0.376	0.316-0.436
Styrene	20.01	18.88	1.060 ok	1.060	1.000-1.120
1,1,1-Trichloroethane	11.95	11.42	1.046 ok	1.046	0.986-1.106
1,1,1,2-Tetrachloroethane	19.02	13.62	1.396 ok	1.397	1.337-1.457
1,1,2,2-Tetrachloroethane	21.11	18.88	1.118 ok	1.118	1.058-1.178
1,1,2-Trichloroethane	17.14	13.62	1.258 ok	1.259	1.199-1.319
1,2,4-Trichlorobenzene	24.71	18.88	1.309 ok	1.309	1.249-1.369
1,2,3-Trichloropropane	21.31	18.88	1.129 ok	1.128	1.068-1.188
1,2,3-Trimethylbenzene	22.41	18.88	1.187 ok	1.187	1.127-1.247
1,2,4-Trimethylbenzene	21.85	18.88	1.157 ok	1.157	1.097-1.217
1,3,5-Trimethylbenzene	21.31	18.88	1.129 ok	1.129	1.069-1.189
2,2,4-Trimethylpentane	12.39	13.62	0.910 ok	0.910	0.850-0.970
Tertiary Butyl Alcohol	9.34	11.42	0.818 ok	0.820	0.760-0.880
Tetrachloroethylene	16.87	13.62	1.239 ok	1.239	1.179-1.299
Tetrahydrofuran	11.84	11.42	1.037 ok	1.038	0.978-1.098
Toluene	16.14	13.62	1.185 ok	1.186	1.126-1.246
Trichloroethylene	13.60	13.62	0.999 ok	0.999	0.939-1.059
Trichlorofluoromethane	6.39	11.42	0.560 ok	0.560	0.500-0.620
Vinyl chloride	5.02	11.42	0.440 ok	0.440	0.380-0.500
Vinyl Acetate	10.55	11.42	0.924 ok	0.925	0.865-0.985
m,p-Xylene	19.22	18.88	1.018 ok	1.018	0.958-1.078
o-Xylene	19.94	18.88	1.056 ok	1.056	0.996-1.116
TVHC As Equiv Pentane	6.40	18.88	0.339 ok	0.339	0.279-0.399

Internal Standard	RT (min.)	Mean RT(min.)	RT Range (+ /- 0.33)	Area	Mean Area	Area Range (+ /- 40 %)
Bromochloromethane	11.42 ok	11.42	11.09-11.75	173514	ok 181422	108853-253991
1,4-Difluorobenzene	13.62 ok	13.61	13.28-13.94	594114	ok 644223	386534-901912
Chlorobenzene-D5	18.88 ok	18.88	18.55-19.21	255057	ok 267847	160708-374986

Initial Calibration Retention Time/Internal Standard Area Summary

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Job Number: JD36325

Account: GESNYP Groundwater & Environmental Services

Project: Orangeburg UB, Orangeburg, NY

Sample Number	Lab File ID	Injected	By	Level	Inst ID	Method
V5W1909-IC1909	5W46126.D	11/04/21 10:43	DFT	0.5	GCMS5W	TO-15
V5W1909-IC1909	5W46127.D	11/04/21 11:32	DFT	0.2	GCMS5W	TO-15
V5W1909-IC1909	5W46128.D	11/04/21 12:20	DFT	0.1	GCMS5W	TO-15
V5W1909-IC1909	5W46129.D	11/04/21 13:08	DFT	0.04	GCMS5W	TO-15
V5W1909-IC1909	5W46130.D	11/04/21 13:56	DFT	5	GCMS5W	TO-15
V5W1909-ICC1909	5W46131.D	11/04/21 14:45	DFT	10	GCMS5W	TO-15
V5W1909-IC1909	5W46132.D	11/04/21 15:36	DFT	20	GCMS5W	TO-15
V5W1909-IC1909	5W46133.D	11/04/21 16:30	DFT	40	GCMS5W	TO-15 Reporting this level
V5W1909-IC1909	5W46134.D	11/04/21 17:25	DFT	50	GCMS5W	TO-15

Target Compound	RT (min.)	Istd RT (min.)	Rel RT	Mean Rel RT	Rel RT Range (+ /- .06)
Acetone (2-Propanone)	8.69	11.43	0.760 ok	0.763	0.703-0.823
Acrolein	8.12	11.43	0.710 ok	0.712	0.652-0.772
Acrylonitrile	10.13	11.43	0.886 ok	0.888	0.828-0.948
Acetonitrile	9.52	11.43	0.833 ok	0.835	0.775-0.895
1,3-Butadiene	5.07	11.43	0.444 ok	0.445	0.385-0.505
Benzene	12.59	11.43	1.101 ok	1.102	1.042-1.162
Bromobenzene	21.01	18.89	1.112 ok	1.113	1.053-1.173
Bromodichloromethane	14.59	13.62	1.071 ok	1.071	1.011-1.131
Bromoform	20.07	18.89	1.062 ok	1.062	1.002-1.122
Bromomethane	5.74	11.43	0.502 ok	0.504	0.444-0.564
Bromoethene	6.31	11.43	0.552 ok	0.553	0.493-0.613
n-Butane	4.91	11.43	0.430 ok	0.430	0.370-0.490
Benzyl Chloride	22.69	18.89	1.201 ok	1.202	1.142-1.262
n-Butylbenzene	22.71	18.89	1.202 ok	1.203	1.143-1.263
sec-Butylbenzene	22.00	18.89	1.165 ok	1.165	1.105-1.225
tert-Butylbenzene	21.76	18.89	1.152 ok	1.152	1.092-1.212
Carbon disulfide	7.54	11.43	0.660 ok	0.660	0.600-0.720
Chlorobenzene	18.92	18.89	1.002 ok	1.002	0.942-1.062
Chlorodifluoromethane	4.46	11.43	0.390 ok	0.391	0.331-0.451
Chloroethane	6.05	11.43	0.529 ok	0.530	0.470-0.590
Chlorotrifluoroethene	4.34	11.43	0.380 ok	0.381	0.321-0.441
Chloroform	11.56	11.43	1.011 ok	1.012	0.952-1.072
Chloromethane	4.80	11.43	0.420 ok	0.421	0.361-0.481
3-Chloropropene	8.44	11.43	0.738 ok	0.739	0.679-0.799
2-Chlorotoluene	21.28	18.89	1.127 ok	1.127	1.067-1.187
Carbon tetrachloride	11.85	11.43	1.037 ok	1.037	0.977-1.097
Cyclohexane	11.50	11.43	1.006 ok	1.007	0.947-1.067
1,1-Dichloroethane	10.11	11.43	0.885 ok	0.885	0.825-0.945
1,1-Dichloroethylene	7.48	11.43	0.654 ok	0.655	0.595-0.715
1,2-Dibromoethane (EDB)	17.95	13.62	1.318 ok	1.318	1.258-1.378
1,2-Dichloroethane	12.90	11.43	1.129 ok	1.130	1.070-1.190
1,2-Dichloropropane	14.49	13.62	1.064 ok	1.064	1.004-1.124
1,3-Dichloropropane	17.65	13.62	1.296 ok	1.296	1.236-1.356
1,4-Dioxane	14.91	13.62	1.095 ok	1.096	1.036-1.156
Dichlorodifluoromethane	4.39	11.43	0.384 ok	0.385	0.325-0.445
Dichlorofluoromethane	6.50	11.43	0.569 ok	0.570	0.510-0.630
Dibromochloromethane	17.50	13.62	1.285 ok	1.285	1.225-1.345
Dibromomethane	14.31	13.62	1.051 ok	1.051	0.991-1.111
trans-1,2-Dichloroethylene	8.97	11.43	0.785 ok	0.786	0.726-0.846

Initial Calibration Retention Time/Internal Standard Area Summary

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Job Number: JD36325

Account: GESNYP Groundwater & Environmental Services

Project: Orangeburg UB, Orangeburg, NY

Sample Number	Lab File ID	Injected	By	Level	Inst ID	Method
V5W1909-IC1909	5W46126.D	11/04/21 10:43	DFT	0.5	GCMS5W	TO-15
V5W1909-IC1909	5W46127.D	11/04/21 11:32	DFT	0.2	GCMS5W	TO-15
V5W1909-IC1909	5W46128.D	11/04/21 12:20	DFT	0.1	GCMS5W	TO-15
V5W1909-IC1909	5W46129.D	11/04/21 13:08	DFT	0.04	GCMS5W	TO-15
V5W1909-IC1909	5W46130.D	11/04/21 13:56	DFT	5	GCMS5W	TO-15
V5W1909-ICC1909	5W46131.D	11/04/21 14:45	DFT	10	GCMS5W	TO-15
V5W1909-IC1909	5W46132.D	11/04/21 15:36	DFT	20	GCMS5W	TO-15
V5W1909-IC1909	5W46133.D	11/04/21 16:30	DFT	40	GCMS5W	TO-15 Reporting this level
V5W1909-IC1909	5W46134.D	11/04/21 17:25	DFT	50	GCMS5W	TO-15

Target Compound	RT (min.)	Istd RT (min.)	Rel RT	Mean Rel RT	Rel RT Range (+ /- .06)
cis-1,2-Dichloroethylene	11.08	11.43	0.969 ok	0.970	0.910-1.030
cis-1,3-Dichloropropene	15.70	13.62	1.153 ok	1.153	1.093-1.213
m-Dichlorobenzene	22.29	18.89	1.180 ok	1.181	1.121-1.241
o-Dichlorobenzene	22.93	18.89	1.214 ok	1.214	1.154-1.274
p-Dichlorobenzene	22.40	18.89	1.186 ok	1.186	1.126-1.246
trans-1,3-Dichloropropene	16.85	13.62	1.237 ok	1.238	1.178-1.298
Di-Isopropyl ether	9.93	11.43	0.869 ok	0.871	0.811-0.931
2,3-Dimethylpentane	11.68	11.43	1.022 ok	1.022	0.962-1.082
2,4-Dimethylpentane	10.25	11.43	0.897 ok	0.897	0.837-0.957
Ethanol	7.36	11.43	0.644 ok	0.645	0.585-0.705
Ethylbenzene	18.97	18.89	1.004 ok	1.004	0.944-1.064
Ethyl Acetate	11.74	11.43	1.027 ok	1.029	0.969-1.089
Ethyl Acrylate	14.47	13.62	1.062 ok	1.064	1.004-1.124
4-Ethyltoluene	21.20	18.89	1.122 ok	1.123	1.063-1.183
Freon 113	7.60	11.43	0.665 ok	0.665	0.605-0.725
Freon 114	4.70	11.43	0.411 ok	0.412	0.352-0.472
Freon 123	7.61	11.43	0.666 ok	0.666	0.606-0.726
Freon 123A	7.48	11.43	0.654 ok	0.655	0.595-0.715
Freon 142B	4.80	11.43	0.420 ok	0.421	0.361-0.481
Freon 152A	4.39	11.43	0.384 ok	0.385	0.325-0.445
Heptane	12.56	13.62	0.922 ok	0.923	0.863-0.983
Hexachlorobutadiene	24.68	18.89	1.307 ok	1.307	1.247-1.367
Hexachloroethane	22.92	18.89	1.213 ok	1.214	1.154-1.274
Hexane	9.18	11.43	0.803 ok	0.804	0.744-0.864
2-Hexanone	18.29	13.62	1.343 ok	1.344	1.284-1.404
Iodomethane	7.76	11.43	0.679 ok	0.679	0.619-0.739
Isopropylbenzene	20.43	18.89	1.082 ok	1.082	1.022-1.142
Isopropyl Alcohol	8.49	11.43	0.743 ok	0.744	0.684-0.804
p-Isopropyltoluene	22.18	18.89	1.174 ok	1.174	1.114-1.234
Methylene chloride	8.63	11.43	0.755 ok	0.756	0.696-0.816
Methyl ethyl ketone	12.04	11.43	1.053 ok	1.055	0.995-1.115
Methyl Isobutyl Ketone	16.76	13.62	1.231 ok	1.232	1.172-1.292
Methyl Tert Butyl Ether	9.20	11.43	0.805 ok	0.806	0.746-0.866
Methylmethacrylate	14.83	13.62	1.089 ok	1.090	1.030-1.150
Naphthalene	25.14	18.89	1.331 ok	1.332	1.272-1.392
Nonane	18.81	18.89	0.996 ok	0.996	0.936-1.056
Octane	15.84	13.62	1.163 ok	1.163	1.103-1.223
Pentane	6.41	11.43	0.561 ok	0.561	0.501-0.621
n-Propylbenzene	21.04	18.89	1.114 ok	1.114	1.054-1.174

Initial Calibration Retention Time/Internal Standard Area Summary

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Job Number: JD36325

Account: GESNYP Groundwater & Environmental Services

Project: Orangeburg UB, Orangeburg, NY

Sample Number	Lab File ID	Injected	By	Level	Inst ID	Method
V5W1909-IC1909	5W46126.D	11/04/21 10:43	DFT	0.5	GCMS5W	TO-15
V5W1909-IC1909	5W46127.D	11/04/21 11:32	DFT	0.2	GCMS5W	TO-15
V5W1909-IC1909	5W46128.D	11/04/21 12:20	DFT	0.1	GCMS5W	TO-15
V5W1909-IC1909	5W46129.D	11/04/21 13:08	DFT	0.04	GCMS5W	TO-15
V5W1909-IC1909	5W46130.D	11/04/21 13:56	DFT	5	GCMS5W	TO-15
V5W1909-ICC1909	5W46131.D	11/04/21 14:45	DFT	10	GCMS5W	TO-15
V5W1909-IC1909	5W46132.D	11/04/21 15:36	DFT	20	GCMS5W	TO-15
V5W1909-IC1909	5W46133.D	11/04/21 16:30	DFT	40	GCMS5W	TO-15 Reporting this level
V5W1909-IC1909	5W46134.D	11/04/21 17:25	DFT	50	GCMS5W	TO-15

Target Compound	RT (min.)	Istd RT (min.)	Rel RT	Mean Rel RT	Rel RT Range (+ /- .06)
Propylene	4.29	11.43	0.375 ok	0.376	0.316-0.436
Styrene	20.02	18.89	1.060 ok	1.060	1.000-1.120
1,1,1-Trichloroethane	11.95	11.43	1.045 ok	1.046	0.986-1.106
1,1,1,2-Tetrachloroethane	19.03	13.62	1.397 ok	1.397	1.337-1.457
1,1,2,2-Tetrachloroethane	21.11	18.89	1.118 ok	1.118	1.058-1.178
1,1,2-Trichloroethane	17.15	13.62	1.259 ok	1.259	1.199-1.319
1,2,4-Trichlorobenzene	24.72	18.89	1.309 ok	1.309	1.249-1.369
1,2,3-Trichloropropane	21.31	18.89	1.128 ok	1.128	1.068-1.188
1,2,3-Trimethylbenzene	22.42	18.89	1.187 ok	1.187	1.127-1.247
1,2,4-Trimethylbenzene	21.85	18.89	1.157 ok	1.157	1.097-1.217
1,3,5-Trimethylbenzene	21.31	18.89	1.128 ok	1.129	1.069-1.189
2,2,4-Trimethylpentane	12.39	13.62	0.910 ok	0.910	0.850-0.970
Tertiary Butyl Alcohol	9.35	11.43	0.818 ok	0.820	0.760-0.880
Tetrachloroethylene	16.87	13.62	1.239 ok	1.239	1.179-1.299
Tetrahydrofuran	11.84	11.43	1.036 ok	1.038	0.978-1.098
Toluene	16.14	13.62	1.185 ok	1.186	1.126-1.246
Trichloroethylene	13.60	13.62	0.999 ok	0.999	0.939-1.059
Trichlorofluoromethane	6.39	11.43	0.559 ok	0.560	0.500-0.620
Vinyl chloride	5.02	11.43	0.439 ok	0.440	0.380-0.500
Vinyl Acetate	10.55	11.43	0.923 ok	0.925	0.865-0.985
m,p-Xylene	19.23	18.89	1.018 ok	1.018	0.958-1.078
o-Xylene	19.94	18.89	1.056 ok	1.056	0.996-1.116
TVHC As Equiv Pentane	6.40	18.89	0.339 ok	0.339	0.279-0.399

Internal Standard	RT (min.)	Mean RT(min.)	RT Range (+ /- 0.33)	Area	Mean Area	Area Range (+ /- 40 %)
Bromochloromethane	11.43 ok	11.42	11.09-11.75	167471	ok 181422	108853-253991
1,4-Difluorobenzene	13.62 ok	13.61	13.28-13.94	555244	ok 644223	386534-901912
Chlorobenzene-D5	18.89 ok	18.88	18.55-19.21	246139	ok 267847	160708-374986

Initial Calibration Retention Time/Internal Standard Area Summary

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Job Number: JD36325

Account: GESNYP Groundwater & Environmental Services

Project: Orangeburg UB, Orangeburg, NY

Sample Number	Lab File ID	Injected	By	Level	Inst ID	Method
V5W1909-IC1909	5W46126.D	11/04/21 10:43	DFT	0.5	GCMS5W	TO-15
V5W1909-IC1909	5W46127.D	11/04/21 11:32	DFT	0.2	GCMS5W	TO-15
V5W1909-IC1909	5W46128.D	11/04/21 12:20	DFT	0.1	GCMS5W	TO-15
V5W1909-IC1909	5W46129.D	11/04/21 13:08	DFT	0.04	GCMS5W	TO-15
V5W1909-IC1909	5W46130.D	11/04/21 13:56	DFT	5	GCMS5W	TO-15
V5W1909-ICC1909	5W46131.D	11/04/21 14:45	DFT	10	GCMS5W	TO-15
V5W1909-IC1909	5W46132.D	11/04/21 15:36	DFT	20	GCMS5W	TO-15
V5W1909-IC1909	5W46133.D	11/04/21 16:30	DFT	40	GCMS5W	TO-15
V5W1909-IC1909	5W46134.D	11/04/21 17:25	DFT	50	GCMS5W	TO-15

Reporting this level

Target Compound	RT (min.)	Istd RT (min.)	Rel RT	Mean Rel RT	Rel RT Range (+ /- .06)
Acetone (2-Propanone)	8.69	11.43	0.760 ok	0.763	0.703-0.823
Acrolein	8.12	11.43	0.710 ok	0.712	0.652-0.772
Acrylonitrile	10.13	11.43	0.886 ok	0.888	0.828-0.948
Acetonitrile	9.52	11.43	0.833 ok	0.835	0.775-0.895
1,3-Butadiene	5.07	11.43	0.444 ok	0.445	0.385-0.505
Benzene	12.59	11.43	1.101 ok	1.102	1.042-1.162
Bromobenzene	21.01	18.89	1.112 ok	1.113	1.053-1.173
Bromodichloromethane	14.59	13.62	1.071 ok	1.071	1.011-1.131
Bromoform	20.07	18.89	1.062 ok	1.062	1.002-1.122
Bromomethane	5.74	11.43	0.502 ok	0.504	0.444-0.564
Bromoethene	6.31	11.43	0.552 ok	0.553	0.493-0.613
n-Butane	4.91	11.43	0.430 ok	0.430	0.370-0.490
Benzyl Chloride	22.69	18.89	1.201 ok	1.202	1.142-1.262
n-Butylbenzene	22.71	18.89	1.202 ok	1.203	1.143-1.263
sec-Butylbenzene	22.00	18.89	1.165 ok	1.165	1.105-1.225
tert-Butylbenzene	21.76	18.89	1.152 ok	1.152	1.092-1.212
Carbon disulfide	7.54	11.43	0.660 ok	0.660	0.600-0.720
Chlorobenzene	18.93	18.89	1.002 ok	1.002	0.942-1.062
Chlorodifluoromethane	4.45	11.43	0.389 ok	0.391	0.331-0.451
Chloroethane	6.05	11.43	0.529 ok	0.530	0.470-0.590
Chlorotrifluoroethene	4.34	11.43	0.380 ok	0.381	0.321-0.441
Chloroform	11.56	11.43	1.011 ok	1.012	0.952-1.072
Chloromethane	4.80	11.43	0.420 ok	0.421	0.361-0.481
3-Chloropropene	8.44	11.43	0.738 ok	0.739	0.679-0.799
2-Chlorotoluene	21.28	18.89	1.127 ok	1.127	1.067-1.187
Carbon tetrachloride	11.86	11.43	1.038 ok	1.037	0.977-1.097
Cyclohexane	11.50	11.43	1.006 ok	1.007	0.947-1.067
1,1-Dichloroethane	10.11	11.43	0.885 ok	0.885	0.825-0.945
1,1-Dichloroethylene	7.48	11.43	0.654 ok	0.655	0.595-0.715
1,2-Dibromoethane (EDB)	17.95	13.62	1.318 ok	1.318	1.258-1.378
1,2-Dichloroethane	12.90	11.43	1.129 ok	1.130	1.070-1.190
1,2-Dichloropropane	14.49	13.62	1.064 ok	1.064	1.004-1.124
1,3-Dichloropropane	17.65	13.62	1.296 ok	1.296	1.236-1.356
1,4-Dioxane	14.91	13.62	1.095 ok	1.096	1.036-1.156
Dichlorodifluoromethane	4.39	11.43	0.384 ok	0.385	0.325-0.445
Dichlorofluoromethane	6.50	11.43	0.569 ok	0.570	0.510-0.630
Dibromochloromethane	17.50	13.62	1.285 ok	1.285	1.225-1.345
Dibromomethane	14.31	13.62	1.051 ok	1.051	0.991-1.111
trans-1,2-Dichloroethylene	8.97	11.43	0.785 ok	0.786	0.726-0.846

Initial Calibration Retention Time/Internal Standard Area Summary

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Job Number: JD36325

Account: GESNYP Groundwater & Environmental Services

Project: Orangeburg UB, Orangeburg, NY

Sample Number	Lab File ID	Injected	By	Level	Inst ID	Method
V5W1909-IC1909	5W46126.D	11/04/21 10:43	DFT	0.5	GCMS5W	TO-15
V5W1909-IC1909	5W46127.D	11/04/21 11:32	DFT	0.2	GCMS5W	TO-15
V5W1909-IC1909	5W46128.D	11/04/21 12:20	DFT	0.1	GCMS5W	TO-15
V5W1909-IC1909	5W46129.D	11/04/21 13:08	DFT	0.04	GCMS5W	TO-15
V5W1909-IC1909	5W46130.D	11/04/21 13:56	DFT	5	GCMS5W	TO-15
V5W1909-ICC1909	5W46131.D	11/04/21 14:45	DFT	10	GCMS5W	TO-15
V5W1909-IC1909	5W46132.D	11/04/21 15:36	DFT	20	GCMS5W	TO-15
V5W1909-IC1909	5W46133.D	11/04/21 16:30	DFT	40	GCMS5W	TO-15
V5W1909-IC1909	5W46134.D	11/04/21 17:25	DFT	50	GCMS5W	TO-15

Reporting this level

Target Compound	RT (min.)	Istd RT (min.)	Rel RT	Mean Rel RT	Rel RT Range (+ /- .06)
cis-1,2-Dichloroethylene	11.08	11.43	0.969 ok	0.970	0.910-1.030
cis-1,3-Dichloropropene	15.70	13.62	1.153 ok	1.153	1.093-1.213
m-Dichlorobenzene	22.29	18.89	1.180 ok	1.181	1.121-1.241
p-Dichlorobenzene	22.40	18.89	1.186 ok	1.186	1.126-1.246
trans-1,3-Dichloropropene	16.85	13.62	1.237 ok	1.238	1.178-1.298
Di-Isopropyl ether	9.93	11.43	0.869 ok	0.871	0.811-0.931
2,3-Dimethylpentane	11.68	11.43	1.022 ok	1.022	0.962-1.082
2,4-Dimethylpentane	10.25	11.43	0.897 ok	0.897	0.837-0.957
Ethanol	7.36	11.43	0.644 ok	0.645	0.585-0.705
Ethylbenzene	18.98	18.89	1.005 ok	1.004	0.944-1.064
Ethyl Acetate	11.75	11.43	1.028 ok	1.029	0.969-1.089
Ethyl Acrylate	14.47	13.62	1.062 ok	1.064	1.004-1.124
4-Ethyltoluene	21.20	18.89	1.122 ok	1.123	1.063-1.183
Freon 113	7.60	11.43	0.665 ok	0.665	0.605-0.725
Freon 114	4.70	11.43	0.411 ok	0.412	0.352-0.472
Freon 123	7.61	11.43	0.666 ok	0.666	0.606-0.726
Freon 123A	7.48	11.43	0.654 ok	0.655	0.595-0.715
Freon 142B	4.80	11.43	0.420 ok	0.421	0.361-0.481
Freon 152A	4.39	11.43	0.384 ok	0.385	0.325-0.445
Heptane	12.57	13.62	0.923 ok	0.923	0.863-0.983
Hexachlorobutadiene	24.68	18.89	1.307 ok	1.307	1.247-1.367
Hexane	9.18	11.43	0.803 ok	0.804	0.744-0.864
2-Hexanone	18.29	13.62	1.343 ok	1.344	1.284-1.404
Iodomethane	7.75	11.43	0.678 ok	0.679	0.619-0.739
Isopropylbenzene	20.43	18.89	1.082 ok	1.082	1.022-1.142
Isopropyl Alcohol	8.50	11.43	0.744 ok	0.744	0.684-0.804
p-Isopropyltoluene	22.18	18.89	1.174 ok	1.174	1.114-1.234
Methylene chloride	8.63	11.43	0.755 ok	0.756	0.696-0.816
Methyl ethyl ketone	12.04	11.43	1.053 ok	1.055	0.995-1.115
Methyl Isobutyl Ketone	16.76	13.62	1.231 ok	1.232	1.172-1.292
Methyl Tert Butyl Ether	9.20	11.43	0.805 ok	0.806	0.746-0.866
Methylmethacrylate	14.83	13.62	1.089 ok	1.090	1.030-1.150
Nonane	18.82	18.89	0.996 ok	0.996	0.936-1.056
Octane	15.84	13.62	1.163 ok	1.163	1.103-1.223
Pentane	6.41	11.43	0.561 ok	0.561	0.501-0.621
n-Propylbenzene	21.04	18.89	1.114 ok	1.114	1.054-1.174
Propylene	4.29	11.43	0.375 ok	0.376	0.316-0.436
Styrene	20.02	18.89	1.060 ok	1.060	1.000-1.120
1,1,1-Trichloroethane	11.95	11.43	1.045 ok	1.046	0.986-1.106

Initial Calibration Retention Time/Internal Standard Area Summary

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Job Number: JD36325

Account: GESNYP Groundwater & Environmental Services

Project: Orangeburg UB, Orangeburg, NY

Sample Number	Lab File ID	Injected	By	Level	Inst ID	Method
V5W1909-IC1909	5W46126.D	11/04/21 10:43	DFT	0.5	GCMS5W	TO-15
V5W1909-IC1909	5W46127.D	11/04/21 11:32	DFT	0.2	GCMS5W	TO-15
V5W1909-IC1909	5W46128.D	11/04/21 12:20	DFT	0.1	GCMS5W	TO-15
V5W1909-IC1909	5W46129.D	11/04/21 13:08	DFT	0.04	GCMS5W	TO-15
V5W1909-IC1909	5W46130.D	11/04/21 13:56	DFT	5	GCMS5W	TO-15
V5W1909-ICC1909	5W46131.D	11/04/21 14:45	DFT	10	GCMS5W	TO-15
V5W1909-IC1909	5W46132.D	11/04/21 15:36	DFT	20	GCMS5W	TO-15
V5W1909-IC1909	5W46133.D	11/04/21 16:30	DFT	40	GCMS5W	TO-15
V5W1909-IC1909	5W46134.D	11/04/21 17:25	DFT	50	GCMS5W	TO-15

Reporting this level

Target Compound	RT (min.)	Istd RT (min.)	Rel RT	Mean Rel RT	Rel RT Range (+ /- .06)
1,1,1,2-Tetrachloroethane	19.03	13.62	1.397 ok	1.397	1.337-1.457
1,1,2,2-Tetrachloroethane	21.11	18.89	1.118 ok	1.118	1.058-1.178
1,1,2-Trichloroethane	17.15	13.62	1.259 ok	1.259	1.199-1.319
1,2,3-Trichloropropane	21.31	18.89	1.128 ok	1.128	1.068-1.188
1,2,3-Trimethylbenzene	22.42	18.89	1.187 ok	1.187	1.127-1.247
1,2,4-Trimethylbenzene	21.85	18.89	1.157 ok	1.157	1.097-1.217
1,3,5-Trimethylbenzene	21.31	18.89	1.128 ok	1.129	1.069-1.189
2,2,4-Trimethylpentane	12.39	13.62	0.910 ok	0.910	0.850-0.970
Tertiary Butyl Alcohol	9.35	11.43	0.818 ok	0.820	0.760-0.880
Tetrachloroethylene	16.88	13.62	1.239 ok	1.239	1.179-1.299
Tetrahydrofuran	11.84	11.43	1.036 ok	1.038	0.978-1.098
Toluene	16.15	13.62	1.186 ok	1.186	1.126-1.246
Trichloroethylene	13.60	13.62	0.999 ok	0.999	0.939-1.059
Trichlorofluoromethane	6.39	11.43	0.559 ok	0.560	0.500-0.620
Vinyl chloride	5.02	11.43	0.439 ok	0.440	0.380-0.500
Vinyl Acetate	10.55	11.43	0.923 ok	0.925	0.865-0.985
m,p-Xylene	19.23	18.89	1.018 ok	1.018	0.958-1.078
o-Xylene	19.94	18.89	1.056 ok	1.056	0.996-1.116
TVHC As Equiv Pentane	6.40	18.89	0.339 ok	0.339	0.279-0.399

Internal Standard	RT (min.)	Mean RT(min.)	RT Range (+ /- 0.33)	Area	Mean Area	Area Range (+ /- 40 %)
Bromochloromethane	11.43 ok	11.42	11.09-11.75	165709	ok 181422	108853-253991
1,4-Difluorobenzene	13.62 ok	13.61	13.28-13.94	530588	ok 644223	386534-901912
Chlorobenzene-D5	18.89 ok	18.88	18.55-19.21	238940	ok 267847	160708-374986

Surrogate Recovery Summary

Job Number: JD36325
Account: GESNYP Groundwater & Environmental Services
Project: Orangeburg UB, Orangeburg, NY

Method: TO-15	Matrix: AIR

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1
JD36325-1	5W46812.D	95
JD36325-1	5W46798.D	93
JD36325-2	5W46795.D	97
JD36325-3	5W46813.D	96
JD36325-3	5W46799.D	96
JD36325-4	5W46796.D	96
JD36325-5	5W46797.D	94
JD36248-1DUP	5W46786.D	93
JD36496-1DUP	5W46816.D	84
V2W2494-SCC	2W55993.D	92
V2W2495-SCC	2W56011.D	91
V2W2497-SCC	2W56079.D	92
V5W1935-BS	5W46777.D	97
V5W1935-BSD	5W46778.D	99
V5W1935-MB	5W46781.D	93
V5W1936-BS	5W46804.D	100
V5W1936-BSD	5W46805.D	100
V5W1936-MB	5W46808.D	95
V2W2494-BS	2W55982.D	95
V2W2494-BSD	2W55983.D	96
V2W2494-MB	2W55985.D	92
V2W2495-BS	2W56007.D	94
V2W2495-BSD	2W56008.D	96
V2W2495-MB	2W56010.D	93
V2W2497-BS	2W56054.D	94
V2W2497-BSD	2W56056.D	95
V2W2497-MB	2W56058.D	91

Surrogate Compounds	Recovery Limits
S1 = 4-Bromofluorobenzene	65-128%

Initial Calibration Summary

Page 1 of 3

Job Number: JD36325
 Account: GESNYP Groundwater & Environmental Services
 Project: Orangeburg UB, Orangeburg, NY

Sample: V2W2424-ICC2424
 Lab FileID: 2W54659.D

Response Factor Report MS2W

Method : C:\msdchem\1\METHODS\M2W2424.M (RTE Integrator)
 Title : T015 by GCMS w/DB-1, 30m X 0.25mm ID X 0.5 um
 Last Update : Tue Jul 27 16:59:35 2021
 Response via : Initial Calibration

Calibration Files

0.5 =2w54654.D 0.2 =2w54655.D 40 =2w54661.D 0.04=2w54657.D
 5 =2w54658.D 10 =2w54659.D 20 =2w54660.D 0.1 =2w54656.D

Compound	0.5	0.2	40	0.04	5	10	20	0.1	Avg	%RSD
1) I BROMOCHLOROMETHANE										
2) FREON 115								0.000		-1.00
3) FREON 152A	0.838	0.758	0.723	0.814	0.748	0.717	0.740	0.815	0.769	6.04
4) CHLORODIFLUO	0.509	0.426	0.478	0.565	0.501	0.488	0.494	0.441	0.488	8.71
5) CHLOROTRIFLU	2.047	2.145	2.076	2.539	2.128	2.058	2.095	2.336	2.178	7.91
6) DICHLORODIFL	4.438	4.713	4.698		4.780	4.516	4.601	4.566	4.616	2.61
7) PROPYLENE	0.739	0.921	0.776	1.202	0.782	0.758	0.770	0.951	0.862	18.34
8) 1-CHLORO-1,1	3.794	4.034	3.906	4.114	3.942	3.834	3.922	3.930	3.935	2.60
9) FREON 114	3.862	3.973	4.037	4.129	4.087	3.938	4.063	4.036	4.016	2.16
10) CHLOROMETHAN	0.304	0.359	0.292		0.313	0.293	0.291	0.345	0.314	8.74
11) VINYL CHLORI	1.180	1.316	1.165	1.406	1.226	1.146	1.209	1.348	1.249	7.64
12) 1,3-BUTADIEN	0.775	0.860	0.827	0.661	0.854	0.833	0.846	1.017	0.834	11.82
13) N-BUTANE	1.534	1.548	1.490	1.981	1.570	1.484	1.512	1.652	1.596	10.28
14) BROMOMETHANE	1.362	1.228	1.311	1.629	1.357	1.277	1.332	1.511	1.376	9.54
15) CHLOROETHANE	0.638	0.669	0.648	0.775	0.658	0.641	0.653	0.676	0.670	6.66
16) DICHLOROFLUO	3.020	3.186	3.199	3.742	3.304	3.139	3.235	3.377	3.275	6.61
17) ACETONITRILE	1.022	0.882	0.815		0.795	0.771	0.822	1.146	0.893	15.60
18) ACROLEIN	0.584	0.579	0.497		0.510	0.488	0.515	0.734	0.558	15.46
19) FREON 123	3.265	3.402	3.104	3.444	3.201	3.069	3.204	3.576	3.283	5.36
20) FREON 123A	1.891	2.067	2.076	1.800	2.145	2.063	2.130	2.583	2.094	11.02
21) TRICHLOROFLU	4.687	4.889	4.879	5.214	4.976	4.746	4.910	4.766	4.883	3.37
22) ISOPROPYL AL	2.202	2.856	1.910		2.080	1.991	1.973		2.169	16.21
23) ACETONE	0.680	0.795	0.518		0.504	0.507	0.515		0.586	20.92
24) PENTANE	0.959	0.980	0.930	0.790	0.953	0.935	0.952	1.030	0.941	7.28
25) IODOMETHANE	3.861	3.734	3.942	3.796	3.922	3.824	3.940	4.342	3.920	4.74
26) 1,1-DICHLORO	1.167	1.358	1.295	1.602	1.318	1.281	1.303	1.542	1.358	10.57
27) CARBON DISUL	3.140	3.221	3.288	3.585	3.292	3.157	3.257	3.322	3.283	4.21
28) ETHANOL	0.622	0.598	0.393		0.403	0.393	0.408		0.470	23.29
29) BROMOETHENE	1.321	1.352	1.353	1.590	1.392	1.321	1.377	1.654	1.420	9.02
30) ACRYLONITRIL	0.735	0.813	0.734	0.908	0.737	0.714	0.729	0.749	0.765	8.48
31) METHYLENE CH	1.288	1.665	1.113		1.129	1.114	1.139		1.241	17.55
32) 3-CHLOROPROP	0.588	0.613	0.588	0.508	0.579	0.575	0.590	0.595	0.579	5.35
33) FREON 113	2.781	2.725	2.749	2.765	2.711	2.617	2.712	2.744	2.725	1.84
34) TRANS-1,2-DI	1.433	1.256	1.358	1.587	1.395	1.329	1.366	1.414	1.392	6.88
35) TERTIARY BUT	2.227	2.465	2.290	2.473	2.483	2.523	2.382	2.642	2.436	5.43
36) METHYL TERTI	3.395	3.504	3.863	3.576	3.544	3.585	3.751	3.414	3.579	4.46
37) TETRAHYDROFU	0.517	0.535	0.594		0.559	0.588	0.600	0.549	0.563	5.65
38) HEXANE	1.700	1.898	1.751	1.839	1.800	1.711	1.753	1.964	1.802	5.16
39) VINYL ACETAT	0.312	0.325	0.355		0.306	0.315	0.361	0.360	0.333	7.29
40) 1,1-DICHLORO	2.311	2.250	2.217	2.404	2.248	2.216	2.258	2.114	2.252	3.69
41) METHYL ETHYL	0.654	0.526	0.612	0.676	0.612	0.597	0.619	0.664	0.620	7.68
42) CIS-1,2-DICH	1.374	1.547	1.447	1.037	1.510	1.424	1.479	1.838	1.457	15.16
43) DIISOPROPYL	0.620	0.396	0.557	0.436	0.541	0.552	0.565	0.607	0.534	14.73
44) ETHYL ACETAT	0.333	0.362	0.336		0.329	0.329	0.334	0.230	0.322	13.06
45) METHYL ACRYL	2.195	2.342	2.289	1.923	2.243	2.169	2.268	2.431	2.233	6.70
46) CHLOROFORM	3.223	3.595	3.352	3.390	3.409	3.310	3.358	3.750	3.423	4.94

Initial Calibration Summary

Job Number: JD36325
Account: GESNYP Groundwater & Environmental Services
Project: Orangeburg UB, Orangeburg, NY

Sample: V2W2424-ICC2424
Lab FileID: 2W54659.D

47)	2,4-DIMETHYL	2.026	2.305	2.089	2.065	2.143	2.082	2.100	2.094	2.113	3.99
48)	1,1,1-TRICHL	3.582	3.434	3.804	4.439	3.567	3.563	3.779	3.442	3.701	8.85
49)	CARBON TETRA	3.757	4.181	4.241	4.222	4.000	4.041	4.224	4.185	4.106	4.06
50)	1,2-DICHLORO	2.336	2.438	2.356	2.062	2.449	2.344	2.384	2.488	2.357	5.58
51)	BENZENE	3.964	3.908	3.967	4.418	4.092	3.917	3.991	4.466	4.090	5.49
52)	I 1,4-DIFLUOROBENZENE	-----ISTD-----									
53)	CYCLOHEXANE	0.359	0.382	0.364	0.353	0.364	0.354	0.371	0.410	0.370	5.10
54)	2,3-DIMETHYL	0.179	0.137	0.175	0.156	0.179	0.178	0.177	0.221	0.175	13.55
55)	TRICHLOROETH	0.414	0.458	0.431	0.344	0.435	0.410	0.425	0.448	0.421	8.28
56)	1,2-DICHLORO	0.275	0.287	0.267	0.317	0.272	0.265	0.264	0.303	0.281	6.90
57)	DIBROMOMETHA	0.439	0.477	0.445	0.589	0.451	0.435	0.444	0.445	0.466	11.09
58)	ETHYL ACRYLA	0.540	0.514	0.591	0.462	0.546	0.554	0.585	0.495	0.536	8.20
59)	BROMODICHLOR	0.766	0.757	0.782	0.734	0.779	0.762	0.783	0.846	0.776	4.21
60)	2,2,4-TRIMET	1.195	1.238	1.151	1.118	1.182	1.124	1.157	1.201	1.171	3.49
61)	1,4-DIOXANE	0.231	0.259	0.189	0.136	0.187	0.189	0.188	0.223	0.200	18.52
62)	HEPTANE	0.386	0.388	0.372	0.341	0.380	0.373	0.373	0.422	0.379	5.92
63)	METHYL METHA	0.281	0.303	0.313	0.241	0.300	0.302	0.309	0.260	0.289	8.95
64)	METHYL ISOBU	0.231	0.220	0.231		0.223	0.219	0.228	0.235	0.227	2.66
65)	CIS-1,3-DICH	0.446	0.444	0.501	0.447	0.470	0.466	0.494	0.486	0.469	4.81
66)	TOLUENE	1.033	1.028	1.054	1.108	1.087	1.034	1.063	1.112	1.065	3.17
67)	1,3-DICHLORO	0.500	0.517	0.501	0.569	0.502	0.491	0.500	0.560	0.518	5.81
68)	TRANS-1,3-DI	0.405	0.399	0.495	0.386	0.422	0.440	0.478	0.392	0.427	9.53
69)	1,1,2-TRICHL	0.282	0.304	0.295	0.253	0.311	0.289	0.299	0.370	0.300	11.01
70)	2-HEXANONE	0.278	0.344	0.308	0.315	0.288	0.286	0.295	0.256	0.296	8.95
71)	ETHYL METHAC	0.418	0.391	0.518	0.327	0.479	0.486	0.512	0.474	0.451	14.77
72)	TETRACHLOROE	0.453	0.505	0.474	0.454	0.489	0.466	0.480	0.455	0.472	3.94
73)	DIBROMOCHLOR	0.761	0.772	0.823	0.694	0.804	0.779	0.819	0.783	0.779	5.24
74)	1,2-DIBROMOE	0.605	0.586	0.608	0.475	0.607	0.586	0.605	0.581	0.582	7.66
75)	OCTANE	0.536	0.519	0.519	0.603	0.538	0.510	0.517	0.535	0.534	5.50
76)	I CHLOROBENZENE-D5	-----ISTD-----									
77)	1,1,1,2-TETR	0.586	0.627	0.653	0.599	0.619	0.599	0.645	0.622	0.619	3.74
78)	CHLOROBENZEN	0.992	0.987	1.021	1.059	1.019	0.978	1.027	1.186	1.033	6.47
79)	ETHYLBENZENE	1.519	1.629	1.690	1.705	1.688	1.604	1.691	1.681	1.651	3.86
80)	M,P-XYLENE	1.255	1.253	1.343	1.243	1.318	1.277	1.337	1.180	1.276	4.32
81)	O-XYLENE	1.294	1.332	1.355	1.250	1.321	1.287	1.350	1.389	1.322	3.34
82)	STYRENE	0.923	0.862	0.998	0.816	0.974	0.953	0.996	0.862	0.923	7.47
83)	NONANE	0.619	0.656	0.638	0.755	0.637	0.606	0.636	0.665	0.651	7.02
84)	BROMOFORM	0.829	0.783	0.983	0.601	0.894	0.890	0.954	0.804	0.842	14.21
85)	1,1,2,2-TETR	0.801	0.819	0.835	0.745	0.821	0.794	0.833	0.789	0.804	3.67
86)	1,2,3-TRICHL	0.668	0.676	0.686	0.823	0.679	0.649	0.678	0.774	0.704	8.61
87)	4-BROMOFLUOR	0.708	0.692	0.711	0.692	0.700	0.696	0.720	0.704	0.703	1.38
88)	ISOPROPYLBEN	0.464	0.485	0.496	0.493	0.484	0.478	0.495	0.482	0.485	2.20
89)	BROMOBENZENE	0.850	0.938	0.868	0.748	0.853	0.835	0.871	0.906	0.859	6.47
90)	2-CHLOROTOLU	0.427	0.408	0.444	0.366	0.431	0.427	0.445	0.498	0.431	8.65
91)	N-PROPYLBENZ	0.453	0.454	0.505	0.394	0.498	0.481	0.506	0.471	0.470	7.95
92)	4-ETHYLTOLUE	1.659	1.596	1.920	1.662	1.830	1.775	1.900	1.634	1.747	7.23
93)	1,3,5-TRIMET	1.383	1.353	1.618	1.566	1.541	1.507	1.601	1.580	1.519	6.55
94)	ALPHA-METHYL	0.657	0.684	0.794	0.735	0.753	0.735	0.777	0.653	0.724	7.38
95)	TERT-BUTYLB	0.363	0.305	0.381	0.348	0.373	0.358	0.380	0.360	0.358	6.77
96)	1,2,4-TRIMET	1.468	1.375	1.658	1.229	1.568	1.533	1.628	1.424	1.485	9.56
97)	BENZYL CHLOR	0.583	0.594		0.484	0.767	0.881	1.087	0.597	0.713	29.64
98)	M-DICHLOROB	0.964	1.043	1.077	1.040	1.050	0.994	1.063	1.044	1.034	3.58
99)	P-DICHLOROB	1.047	0.949	1.081	0.946	1.034	0.994	1.069	1.031	1.019	5.01
100)	O-DICHLOROB	0.856	0.886	1.014	0.892	0.943	0.921	0.992	0.902	0.926	5.90
101)	SEC-BUTYLBEN	0.416	0.476	0.471	0.483	0.452	0.432	0.471	0.379	0.447	8.09
102)	1,2,3-TRIMET	1.417	1.390	1.622	1.284	1.507	1.475	1.580	1.567	1.480	7.61
103)	P-ISOPROPYLT	0.451	0.427	0.519	0.451	0.480	0.473	0.516	0.479	0.475	6.76
104)	N-BUTYLBENZE	0.413	0.420	0.475	0.468	0.446	0.438	0.462	0.410	0.441	5.75

Initial Calibration Summary

Job Number: JD36325
Account: GESNYP Groundwater & Environmental Services
Project: Orangeburg UB, Orangeburg, NY

Sample: V2W2424-ICC2424
Lab FileID: 2W54659.D

105)	HEXACHLOROET	0.537	0.555	0.735	0.668	0.595	0.610	0.682	0.548	0.616	11.67
106)	HEXACHLOROB	0.660	0.639	0.740	0.807	0.634	0.626	0.682	0.759	0.693	9.70
107)	1,2,4-TRICHL	0.623	0.662	0.723	0.886	0.619	0.620	0.681	0.762	0.697	13.23
108)	NAPHTHALENE	1.391	1.505	1.478	1.650	1.237	1.240	1.360	1.636	1.437	11.11

(#) = Out of Range ### Number of calibration levels exceeded format ###

M2W2424.M Wed Jul 28 11:13:14 2021 GCMS2W

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6

Initial Calibration Verification

Page 1 of 3

Job Number: JD36325
 Account: GESNYP Groundwater & Environmental Services
 Project: Orangeburg UB, Orangeburg, NY

Sample: V2W2424-ICV2424
 Lab FileID: 2W54663.D

Evaluate Continuing Calibration Report

Data Path : C:\msdchem\1\DATA\
 Data File : 2w54663.D
 Acq On : 27 Jul 2021 4:24 pm
 Operator : danat
 Sample : icv2424-10
 Misc : MS52290,V2w2424,,,,,1
 ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jul 28 11:12:39 2021
 Quant Method : C:\msdchem\1\METHODS\M2W2424.M
 Quant Title : T015 by GCMS w/DB-1, 30m X 0.25mm ID X 0.5 um
 QLast Update : Tue Jul 27 16:59:35 2021
 Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.33min
 Max. RRF Dev : 30% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1 I	BROMOCHLOROMETHANE	1.000	1.000	0.0	103	0.00
2 T	FREON 115	0.000	0.000	0.0	0#	-1.89#
3 T	FREON 152A	0.769	0.728	5.3	105	0.00
4 T	CHLORODIFLUOROMETHANE	0.488	0.476	2.5	101	0.00
5 T	CHLOROTRIFLUOROETHENE	2.178	2.159	0.9	108	0.00
6 T	DICHLORODIFLUOROMETHANE	4.616	4.442	3.8	101	0.00
7 T	PROPYLENE	0.862	0.773	10.3	105	0.00
8 T	1-CHLORO-1,1-DIFLUOROETHANE	3.935	3.936	-0.0	106	0.00
9 T	FREON 114	4.016	3.883	3.3	102	0.00
10 T	CHLOROMETHANE	0.314	0.284	9.6	100	0.00
11 T	VINYL CHLORIDE	1.249	1.172	6.2	106	0.00
12 t	1,3-BUTADIENE	0.834	0.830	0.5	103	0.00
13 T	N-BUTANE	1.596	1.473	7.7	102	0.00
14 T	BROMOMETHANE	1.376	1.270	7.7	103	0.00
15 T	CHLOROETHANE	0.670	0.633	5.5	102	0.00
16 T	DICHLOROFLUOROMETHANE	3.275	3.003	8.3	99	0.00
17 T	ACETONITRILE	0.893	0.767	14.1	103	0.00
18 T	ACROLEIN	0.558	0.329	41.0#	69	0.00
19 T	FREON 123	3.283	3.177	3.2	107	0.00
20 T	FREON 123A	2.094	2.266	-8.2	113	0.00
21 T	TRICHLOROFLUOROMETHANE	4.883	4.589	6.0	100	0.00
22 T	ISOPROPYL ALCOHOL	2.169	2.092	3.6	108	0.00
23 T	ACETONE	0.586	0.526	10.2	107	0.00
24 T	PENTANE	0.941	0.931	1.1	103	0.00
25 T	IODOMETHANE	3.920	3.827	2.4	103	0.00
26 T	1,1-DICHLOROETHYLENE	1.358	1.277	6.0	103	0.00
27 T	CARBON DISULFIDE	3.283	3.409	-3.8	111	0.00
28 T	ETHANOL	0.470	0.373	20.6	98	0.00
29 T	BROMOETHENE	1.420	1.352	4.8	106	0.00
30 T	ACRYLONITRILE	0.765	0.728	4.8	105	0.00
31 T	METHYLENE CHLORIDE	1.241	1.101	11.3	102	0.00
32 T	3-CHLOROPROPENE	0.579	0.560	3.3	101	0.00
33 T	FREON 113	2.725	2.633	3.4	104	0.00
34 T	TRANS-1,2-DICHLOROETHENE	1.392	1.390	0.1	108	0.00
35 T	TERTIARY BUTYL ALCOHOL	2.436	2.292	5.9	94	0.00
36 t	METHYL TERTIARY BUTYL ETHER	3.579	3.624	-1.3	104	0.00
37 T	TETRAHYDROFURAN	0.563	0.537	4.6	94	0.00
38 T	HEXANE	1.802	1.716	4.8	103	0.00

Initial Calibration Verification

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Job Number: JD36325
Account: GESNYP Groundwater & Environmental Services
Project: Orangeburg UB, Orangeburg, NY

Sample: V2W2424-ICV2424
Lab FileID: 2W54663.D

39	T	VINYL ACETATE	0.333	0.329	1.2	108	0.00
40	T	1,1-DICHLOROETHANE	2.252	2.176	3.4	101	0.00
41	T	METHYL ETHYL KETONE	0.620	0.579	6.6	100	0.00
42	T	CIS-1,2-DICHLOROETHENE	1.457	1.400	3.9	101	0.00
43	T	DIISOPROPYL ETHER	0.534	0.548	-2.6	102	0.00
44	T	ETHYL ACETATE	0.322	0.347	-7.8	109	0.00
45	T	METHYL ACRYLATE	2.233	2.217	0.7	105	0.00
46	T	CHLOROFORM	3.423	3.261	4.7	102	0.00
47	T	2,4-DIMETHYLPENTANE	2.113	2.028	4.0	101	0.00
48	T	1,1,1-TRICHLOROETHANE	3.701	3.625	2.1	105	0.00
49	T	CARBON TETRACHLORIDE	4.106	3.929	4.3	100	0.00
50	T	1,2-DICHLOROETHANE	2.357	2.258	4.2	99	0.00
51	t	BENZENE	4.090	3.910	4.4	103	0.00
52	I	1,4-DIFLUOROBENZENE	1.000	1.000	0.0	103	0.00
53	T	CYCLOHEXANE	0.370	0.361	2.4	104	0.00
54	T	2,3-DIMETHYLPENTANE	0.175	0.172	1.7	99	0.00
55	T	TRICHLOROETHENE	0.421	0.413	1.9	103	0.00
56	T	1,2-DICHLOROPROPANE	0.281	0.263	6.4	101	0.00
57	T	DIBROMOMETHANE	0.466	0.444	4.7	105	0.00
58	T	ETHYL ACRYLATE	0.536	0.568	-6.0	105	0.00
59	T	BROMODICHLOROMETHANE	0.776	0.743	4.3	100	0.00
60	T	2,2,4-TRIMETHYLPENTANE	1.171	1.115	4.8	102	0.00
61	T	1,4-DIOXANE	0.200	0.177	11.5	96	0.00
62	T	HEPTANE	0.379	0.370	2.4	102	0.00
63	T	METHYL METHACRYLATE	0.289	0.294	-1.7	100	0.00
64	T	METHYL ISOBUTYL KETONE	0.227	0.216	4.8	101	0.00
65	T	CIS-1,3-DICHLOROPROPENE	0.469	0.498	-6.2	109	0.00
66	T	TOLUENE	1.065	1.034	2.9	103	0.00
67	T	1,3-DICHLOROPROPANE	0.518	0.487	6.0	102	0.00
68	T	TRANS-1,3-DICHLOROPROPENE	0.427	0.443	-3.7	103	0.00
69	T	1,1,2-TRICHLOROETHANE	0.300	0.290	3.3	103	0.00
70	T	2-HEXANONE	0.296	0.284	4.1	102	0.00
71	T	ETHYL METHACRYLATE	0.451	0.498	-10.4	105	0.00
72	T	TETRACHLOROETHENE	0.472	0.488	-3.4	107	0.00
73	T	DIBROMOCHLOROMETHANE	0.779	0.762	2.2	100	0.00
74	T	1,2-DIBROMOETHANE	0.582	0.580	0.3	102	0.00
75	T	OCTANE	0.534	0.504	5.6	101	0.00
76	I	CHLOROBENZENE-D5	1.000	1.000	0.0	102	0.00
77	T	1,1,1,2-TETRACHLOROETHANE	0.619	0.600	3.1	102	0.00
78	T	CHLOROBENZENE	1.033	0.964	6.7	100	0.00
79	t	ETHYLBENZENE	1.651	1.626	1.5	103	0.00
80	t	M,P-XYLENE	1.276	1.270	0.5	101	0.00
81	t	O-XYLENE	1.322	1.270	3.9	101	0.00
82	T	STYRENE	0.923	0.938	-1.6	100	0.00
83	T	NONANE	0.651	0.615	5.5	103	0.00
84	T	BROMOFORM	0.842	0.808	4.0	92	0.00
85	T	1,1,2,2-TETRACHLOROETHANE	0.804	0.772	4.0	99	0.00
86	T	1,2,3-TRICHLOROPROPANE	0.704	0.633	10.1	99	0.00
87	S	4-BROMOFLUOROBENZENE	0.703	0.705	-0.3	103	0.00
88	T	ISOPROPYLBENZENE	0.485	0.474	2.3	101	0.00
89	T	BROMOBENZENE	0.859	0.808	5.9	99	0.00
90	T	2-CHLOROTOLUENE	0.431	0.428	0.7	102	0.00
91	T	N-PROPYLBENZENE	0.470	0.482	-2.6	102	0.00
92	T	4-ETHYLTOLUENE	1.747	1.800	-3.0	103	0.00
93	T	1,3,5-TRIMETHYLBENZENE	1.519	1.519	0.0	103	0.00
94	T	ALPHA-METHYLSTYRENE	0.724	0.715	1.2	99	0.00
95	T	TERT-BUTYLBENZENE	0.358	0.362	-1.1	103	0.00
96	T	1,2,4-TRIMETHYLBENZENE	1.485	1.519	-2.3	101	0.00

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6

Initial Calibration Verification

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Job Number: JD36325
Account: GESNYP Groundwater & Environmental Services
Project: Orangeburg UB, Orangeburg, NY

Sample: V2W2424-ICV2424
Lab FileID: 2W54663.D

97	T	BENZYL CHLORIDE	0.713	0.757	-6.2	88	0.00
98	T	M-DICHLOROBENZENE	1.034	0.961	7.1	98	0.00
99	T	P-DICHLOROBENZENE	1.019	0.970	4.8	99	0.00
100	T	O-DICHLOROBENZENE	0.926	0.887	4.2	98	0.00
101	T	SEC-BUTYLBENZENE	0.447	0.439	1.8	104	0.00
102	T	1,2,3-TRIMETHYLBENZENE	1.480	1.431	3.3	99	0.00
103	T	P-ISOPROPYLTOLUENE	0.475	0.476	-0.2	102	0.00
104	T	N-BUTYLBENZENE	0.441	0.439	0.5	102	0.00
105	T	HEXACHLOROETHANE	0.616	0.570	7.5	95	0.00
106	T	HEXACHLOROBUTADIENE	0.693	0.685	1.2	111	0.00
107	T	1,2,4-TRICHLOROBENZENE	0.697	0.585	16.1	96	0.00
108	T	NAPHTHALENE	1.437	1.145	20.3	94	0.00

(#) = Out of Range

SPCC's out = 0 CCC's out = 0

M2W2424.M Wed Jul 28 11:12:55 2021 GCMS2W

Continuing Calibration Summary

Page 1 of 3

Job Number: JD36325
 Account: GESNYP Groundwater & Environmental Services
 Project: Orangeburg UB, Orangeburg, NY

Sample: V2W2494-CC2424
 Lab FileID: 2W55980.D

Evaluate Continuing Calibration Report

Data Path : C:\msdchem\1\DATA\
 Data File : 2w55980.D
 Acq On : 1 Nov 2021 8:49 am
 Operator : thomash
 Sample : cc2424-10
 Misc : MS54658,V2w2494,,,,,1
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 01 12:57:10 2021
 Quant Method : C:\msdchem\1\METHODS\M2W2424.M
 Quant Title : T015 by GCMS w/DB-1, 30m X 0.25mm ID X 0.5 um
 QLast Update : Tue Jul 27 16:59:35 2021
 Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.33min
 Max. RRF Dev : 30% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1 I	BROMOCHLOROMETHANE	1.000	1.000	0.0	104	0.00
2 T	FREON 115	0.000	0.000	0.0	0#	-1.89#
3 T	FREON 152A	0.769	0.973	-26.5	141	0.00
4 T	CHLORODIFLUOROMETHANE	0.488	0.372	23.8	79	0.00
5 T	CHLOROTRIFLUOROETHENE	2.178	2.388	-9.6	120	0.00
6 T	DICHLORODIFLUOROMETHANE	4.616	4.677	-1.3	107	0.00
7 T	PROPYLENE	0.862	0.979	-13.6	134	0.00
8 T	1-CHLORO-1,1-DIFLUOROETHANE	3.935	2.879	26.8	78	0.00
9 T	FREON 114	4.016	4.078	-1.5	107	0.00
10 T	CHLOROMETHANE	0.314	0.349	-11.1	124	0.00
11 T	VINYL CHLORIDE	1.249	1.409	-12.8	127	0.00
12 t	1,3-BUTADIENE	0.834	0.984	-18.0	122	0.00
13 T	N-BUTANE	1.596	1.634	-2.4	114	0.00
14 T	BROMOMETHANE	1.376	1.491	-8.4	121	0.00
15 T	CHLOROETHANE	0.670	0.782	-16.7	126	0.00
16 T	DICHLOROFLUOROMETHANE	3.275	3.114	4.9	103	0.00
17 T	ACETONITRILE	0.893	0.899	-0.7	121	0.00
18 T	ACROLEIN	0.558	0.484	13.3	103	0.00
19 T	FREON 123	3.283	3.285	-0.1	111	0.00
20 T	FREON 123A	2.094	2.005	4.3	101	0.00
21 T	TRICHLOROFLUOROMETHANE	4.883	4.013	17.8	88	0.00
22 T	ISOPROPYL ALCOHOL	2.169	1.919	11.5	100	0.00
23 T	ACETONE	0.586	0.589	-0.5	120	0.00
24 T	PENTANE	0.941	0.902	4.1	100	0.00
25 T	IODOMETHANE	3.920	3.897	0.6	106	0.00
26 T	1,1-DICHLOROETHYLENE	1.358	1.318	2.9	107	0.00
27 T	CARBON DISULFIDE	3.283	3.345	-1.9	110	0.00
28 T	ETHANOL	0.470	0.488	-3.8	129	0.00
29 T	BROMOETHENE	1.420	1.450	-2.1	114	0.00
30 T	ACRYLONITRILE	0.765	0.741	3.1	108	0.00
31 T	METHYLENE CHLORIDE	1.241	1.181	4.8	110	0.00
32 T	3-CHLOROPROPENE	0.579	0.612	-5.7	110	0.00
33 T	FREON 113	2.725	2.518	7.6	100	0.00
34 T	TRANS-1,2-DICHLOROETHENE	1.392	1.411	-1.4	110	0.00
35 T	TERTIARY BUTYL ALCOHOL	2.436	2.170	10.9	89	0.00
36 t	METHYL TERTIARY BUTYL ETHER	3.579	3.572	0.2	103	0.00
37 T	TETRAHYDROFURAN	0.563	0.655	-16.3	115	0.00
38 T	HEXANE	1.802	2.006	-11.3	122	0.00

Continuing Calibration Summary

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Job Number: JD36325
Account: GESNYP Groundwater & Environmental Services
Project: Orangeburg UB, Orangeburg, NY

Sample: V2W2494-CC2424
Lab FileID: 2W55980.D

39	T	VINYL ACETATE	0.333	0.388	-16.5	128	0.00
40	T	1,1-DICHLOROETHANE	2.252	2.329	-3.4	109	0.00
41	T	METHYL ETHYL KETONE	0.620	0.689	-11.1	120	0.00
42	T	CIS-1,2-DICHLOROETHENE	1.457	1.537	-5.5	112	0.00
43	T	DIISOPROPYL ETHER	0.534	0.606	-13.5	114	0.00
44	T	ETHYL ACETATE	0.322	0.414	-28.6	130	0.00
45	T	METHYL ACRYLATE	2.233	2.458	-10.1	117	0.00
46	T	CHLOROFORM	3.423	3.026	11.6	95	0.00
47	T	2,4-DIMETHYLPENTANE	2.113	2.369	-12.1	118	0.00
48	T	1,1,1-TRICHLOROETHANE	3.701	3.084	16.7	90	0.00
49	T	CARBON TETRACHLORIDE	4.106	3.383	17.6	87	0.00
50	T	1,2-DICHLOROETHANE	2.357	1.749	25.8	77	0.00
51	t	BENZENE	4.090	4.422	-8.1	117	0.00
52	I	1,4-DIFLUOROBENZENE	1.000	1.000	0.0	107	0.00
53	T	CYCLOHEXANE	0.370	0.381	-3.0	115	0.00
54	T	2,3-DIMETHYLPENTANE	0.175	0.194	-10.9	117	0.00
55	T	TRICHLOROETHENE	0.421	0.403	4.3	105	0.00
56	T	1,2-DICHLOROPROPANE	0.281	0.306	-8.9	123	0.00
57	T	DIBROMOMETHANE	0.466	0.409	12.2	101	0.00
58	T	ETHYL ACRYLATE	0.536	0.588	-9.7	113	0.00
59	T	BROMODICHLOROMETHANE	0.776	0.666	14.2	93	0.00
60	T	2,2,4-TRIMETHYLPENTANE	1.171	1.268	-8.3	121	0.00
61	T	1,4-DIOXANE	0.200	0.199	0.5	113	0.00
62	T	HEPTANE	0.379	0.377	0.5	108	0.00
63	T	METHYL METHACRYLATE	0.289	0.326	-12.8	115	0.00
64	T	METHYL ISOBUTYL KETONE	0.227	0.245	-7.9	119	0.00
65	T	CIS-1,3-DICHLOROPROPENE	0.469	0.484	-3.2	111	0.00
66	T	TOLUENE	1.065	1.063	0.2	110	0.00
67	T	1,3-DICHLOROPROPANE	0.518	0.519	-0.2	113	0.00
68	T	TRANS-1,3-DICHLOROPROPENE	0.427	0.420	1.6	102	0.00
69	T	1,1,2-TRICHLOROETHANE	0.300	0.311	-3.7	115	0.00
70	T	2-HEXANONE	0.296	0.312	-5.4	116	0.00
71	T	ETHYL METHACRYLATE	0.451	0.519	-15.1	114	0.00
72	T	TETRACHLOROETHENE	0.472	0.454	3.8	104	0.00
73	T	DIBROMOCHLOROMETHANE	0.779	0.699	10.3	96	0.00
74	T	1,2-DIBROMOETHANE	0.582	0.578	0.7	105	0.00
75	T	OCTANE	0.534	0.523	2.1	110	0.00
76	I	CHLOROBENZENE-D5	1.000	1.000	0.0	106	0.00
77	T	1,1,1,2-TETRACHLOROETHANE	0.619	0.583	5.8	103	0.00
78	T	CHLOROBENZENE	1.033	1.005	2.7	108	0.00
79	t	ETHYLBENZENE	1.651	1.593	3.5	105	0.00
80	t	M,P-XYLENE	1.276	1.234	3.3	102	0.00
81	t	O-XYLENE	1.322	1.260	4.7	103	0.00
82	T	STYRENE	0.923	0.961	-4.1	106	0.00
83	T	NONANE	0.651	0.642	1.4	112	0.00
84	T	BROMOFORM	0.842	0.840	0.2	100	0.00
85	T	1,1,2,2-TETRACHLOROETHANE	0.804	0.914	-13.7	122	0.00
86	T	1,2,3-TRICHLOROPROPANE	0.704	0.680	3.4	111	0.00
87	S	4-BROMOFLUOROBENZENE	0.703	0.670	4.7	102	0.00
88	T	ISOPROPYLBENZENE	0.485	0.494	-1.9	109	0.00
89	T	BROMOBENZENE	0.859	0.821	4.4	104	0.00
90	T	2-CHLOROTOLUENE	0.431	0.444	-3.0	110	0.00
91	T	N-PROPYLBENZENE	0.470	0.498	-6.0	109	0.00
92	T	4-ETHYLTOLUENE	1.747	1.791	-2.5	107	0.00
93	T	1,3,5-TRIMETHYLBENZENE	1.519	1.487	2.1	104	0.00
94	T	ALPHA-METHYLSTYRENE	0.724	0.764	-5.5	110	0.00
95	T	TERT-BUTYLBENZENE	0.358	0.386	-7.8	114	0.00
96	T	1,2,4-TRIMETHYLBENZENE	1.485	1.526	-2.8	105	0.00

Continuing Calibration Summary

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Job Number: JD36325
Account: GESNYP Groundwater & Environmental Services
Project: Orangeburg UB, Orangeburg, NY

Sample: V2W2494-CC2424
Lab FileID: 2W55980.D

97 T	BENZYL CHLORIDE	0.713	0.928	-30.2#	111	0.00
98 T	M-DICHLOROBENZENE	1.034	1.026	0.8	109	0.00
99 T	P-DICHLOROBENZENE	1.019	1.024	-0.5	109	0.00
100 T	O-DICHLOROBENZENE	0.926	0.974	-5.2	112	0.00
101 T	SEC-BUTYLBENZENE	0.447	0.476	-6.5	116	0.00
102 T	1,2,3-TRIMETHYLBENZENE	1.480	1.511	-2.1	108	0.00
103 T	P-ISOPROPYLTOLUENE	0.475	0.525	-10.5	117	0.00
104 T	N-BUTYLBENZENE	0.441	0.469	-6.3	113	0.00
105 T	HEXACHLOROETHANE	0.616	0.634	-2.9	110	0.00
106 T	HEXACHLOROBUTADIENE	0.693	0.788	-13.7	133	-0.01
107 T	1,2,4-TRICHLOROBENZENE	0.697	0.701	-0.6	119	0.00
108 T	NAPHTHALENE	1.437	1.375	4.3	117	-0.01

(#) = Out of Range

SPCC's out = 0 CCC's out = 0

M2W2424.M Mon Nov 01 12:59:48 2021 GCMS2W

Continuing Calibration Summary

Page 1 of 3

Job Number: JD36325
 Account: GESNYP Groundwater & Environmental Services
 Project: Orangeburg UB, Orangeburg, NY

Sample: V2W2495-CC2424
 Lab FileID: 2W56006.D

Evaluate Continuing Calibration Report

Data Path : C:\msdchem\1\DATA\
 Data File : 2w56006.D
 Acq On : 2 Nov 2021 7:58 am
 Operator : thomash
 Sample : cc2424-10
 Misc : MS54715,V2w2495,,,,,1
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 02 10:55:13 2021
 Quant Method : C:\msdchem\1\METHODS\M2W2424.M
 Quant Title : T015 by GCMS w/DB-1, 30m X 0.25mm ID X 0.5 um
 QLast Update : Tue Jul 27 16:59:35 2021
 Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.33min
 Max. RRF Dev : 30% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1 I	BROMOCHLOROMETHANE	1.000	1.000	0.0	109	0.00
2 T	FREON 115	0.000	0.000	0.0	0#	-1.89#
3 T	FREON 152A	0.769	0.899	-16.9	137	0.00
4 T	CHLORODIFLUOROMETHANE	0.488	0.346	29.1	77	0.00
5 T	CHLOROTRIFLUOROETHENE	2.178	2.280	-4.7	121	0.00
6 T	DICHLORODIFLUOROMETHANE	4.616	4.356	5.6	105	0.00
7 T	PROPYLENE	0.862	0.878	-1.9	126	0.00
8 T	1-CHLORO-1,1-DIFLUOROETHANE	3.935	2.707	31.2#	77	0.00
9 T	FREON 114	4.016	3.796	5.5	105	0.00
10 T	CHLOROMETHANE	0.314	0.320	-1.9	119	0.00
11 T	VINYL CHLORIDE	1.249	1.315	-5.3	125	0.00
12 t	1,3-BUTADIENE	0.834	0.912	-9.4	119	0.00
13 T	N-BUTANE	1.596	1.508	5.5	111	0.00
14 T	BROMOMETHANE	1.376	1.403	-2.0	120	0.00
15 T	CHLOROETHANE	0.670	0.732	-9.3	124	0.00
16 T	DICHLOROFLUOROMETHANE	3.275	2.935	10.4	102	0.00
17 T	ACETONITRILE	0.893	0.828	7.3	117	0.01
18 T	ACROLEIN	0.558	0.447	19.9	100	0.00
19 T	FREON 123	3.283	3.142	4.3	112	0.00
20 T	FREON 123A	2.094	1.939	7.4	102	0.00
21 T	TRICHLOROFLUOROMETHANE	4.883	3.810	22.0	87	0.00
22 T	ISOPROPYL ALCOHOL	2.169	1.800	17.0	98	0.00
23 T	ACETONE	0.586	0.558	4.8	120	0.01
24 T	PENTANE	0.941	0.842	10.5	98	0.00
25 T	IODOMETHANE	3.920	3.777	3.6	108	0.00
26 T	1,1-DICHLOROETHYLENE	1.358	1.269	6.6	108	0.00
27 T	CARBON DISULFIDE	3.283	3.226	1.7	111	0.00
28 T	ETHANOL	0.470	0.441	6.2	122	0.00
29 T	BROMOETHENE	1.420	1.379	2.9	114	0.00
30 T	ACRYLONITRILE	0.765	0.694	9.3	106	0.01
31 T	METHYLENE CHLORIDE	1.241	1.120	9.8	110	0.00
32 T	3-CHLOROPROPENE	0.579	0.596	-2.9	113	0.00
33 T	FREON 113	2.725	2.451	10.1	102	0.00
34 T	TRANS-1,2-DICHLOROETHENE	1.392	1.377	1.1	113	0.00
35 T	TERTIARY BUTYL ALCOHOL	2.436	2.094	14.0	90	0.00
36 t	METHYL TERTIARY BUTYL ETHER	3.579	3.360	6.1	102	0.00
37 T	TETRAHYDROFURAN	0.563	0.633	-12.4	117	0.00
38 T	HEXANE	1.802	1.912	-6.1	122	0.00

Continuing Calibration Summary

Page 2 of 3

Job Number: JD36325
Account: GESNYP Groundwater & Environmental Services
Project: Orangeburg UB, Orangeburg, NY

Sample: V2W2495-CC2424
Lab FileID: 2W56006.D

39	T	VINYL ACETATE	0.333	0.367	-10.2	127	0.00
40	T	1,1-DICHLOROETHANE	2.252	2.229	1.0	110	0.00
41	T	METHYL ETHYL KETONE	0.620	0.665	-7.3	121	0.00
42	T	CIS-1,2-DICHLOROETHENE	1.457	1.489	-2.2	114	0.00
43	T	DIISOPROPYL ETHER	0.534	0.579	-8.4	114	0.00
44	T	ETHYL ACETATE	0.322	0.387	-20.2	128	0.00
45	T	METHYL ACRYLATE	2.233	2.314	-3.6	116	0.00
46	T	CHLOROFORM	3.423	2.891	15.5	95	0.00
47	T	2,4-DIMETHYLPENTANE	2.113	2.249	-6.4	118	0.00
48	T	1,1,1-TRICHLOROETHANE	3.701	2.938	20.6	90	0.00
49	T	CARBON TETRACHLORIDE	4.106	3.262	20.6	88	0.00
50	T	1,2-DICHLOROETHANE	2.357	1.670	29.1	78	0.00
51	t	BENZENE	4.090	4.201	-2.7	117	0.00
52	I	1,4-DIFLUOROBENZENE	1.000	1.000	0.0	112	0.00
53	T	CYCLOHEXANE	0.370	0.368	0.5	116	0.00
54	T	2,3-DIMETHYLPENTANE	0.175	0.189	-8.0	119	0.00
55	T	TRICHLOROETHENE	0.421	0.387	8.1	106	0.00
56	T	1,2-DICHLOROPROPANE	0.281	0.293	-4.3	124	0.00
57	T	DIBROMOMETHANE	0.466	0.396	15.0	102	0.00
58	T	ETHYL ACRYLATE	0.536	0.562	-4.9	114	0.00
59	T	BROMODICHLOROMETHANE	0.776	0.641	17.4	94	0.00
60	T	2,2,4-TRIMETHYLPENTANE	1.171	1.212	-3.5	121	0.00
61	T	1,4-DIOXANE	0.200	0.193	3.5	114	0.00
62	T	HEPTANE	0.379	0.360	5.0	108	0.00
63	T	METHYL METHACRYLATE	0.289	0.313	-8.3	116	0.00
64	T	METHYL ISOBUTYL KETONE	0.227	0.234	-3.1	119	0.00
65	T	CIS-1,3-DICHLOROPROPENE	0.469	0.469	0.0	113	0.00
66	T	TOLUENE	1.065	1.028	3.5	111	0.00
67	T	1,3-DICHLOROPROPANE	0.518	0.495	4.4	113	0.00
68	T	TRANS-1,3-DICHLOROPROPENE	0.427	0.401	6.1	102	0.00
69	T	1,1,2-TRICHLOROETHANE	0.300	0.302	-0.7	117	0.00
70	T	2-HEXANONE	0.296	0.296	0.0	116	0.00
71	T	ETHYL METHACRYLATE	0.451	0.494	-9.5	114	0.00
72	T	TETRACHLOROETHENE	0.472	0.441	6.6	106	0.00
73	T	DIBROMOCHLOROMETHANE	0.779	0.678	13.0	97	0.00
74	T	1,2-DIBROMOETHANE	0.582	0.556	4.5	106	0.00
75	T	OCTANE	0.534	0.497	6.9	109	0.00
76	I	CHLOROBENZENE-D5	1.000	1.000	0.0	112	0.00
77	T	1,1,1,2-TETRACHLOROETHANE	0.619	0.556	10.2	104	0.00
78	T	CHLOROBENZENE	1.033	0.960	7.1	110	0.00
79	t	ETHYLBENZENE	1.651	1.511	8.5	106	0.00
80	t	M,P-XYLENE	1.276	1.163	8.9	102	0.00
81	t	O-XYLENE	1.322	1.194	9.7	104	0.00
82	T	STYRENE	0.923	0.911	1.3	107	0.00
83	T	NONANE	0.651	0.598	8.1	111	0.00
84	T	BROMOFORM	0.842	0.795	5.6	100	0.00
85	T	1,1,2,2-TETRACHLOROETHANE	0.804	0.867	-7.8	122	0.00
86	T	1,2,3-TRICHLOROPROPANE	0.704	0.639	9.2	110	0.00
87	S	4-BROMOFLUOROBENZENE	0.703	0.658	6.4	106	0.00
88	T	ISOPROPYLBENZENE	0.485	0.469	3.3	110	0.00
89	T	BROMOBENZENE	0.859	0.770	10.4	103	0.00
90	T	2-CHLOROTOLUENE	0.431	0.420	2.6	110	0.00
91	T	N-PROPYLBENZENE	0.470	0.477	-1.5	111	0.00
92	T	4-ETHYLTOLUENE	1.747	1.693	3.1	107	0.00
93	T	1,3,5-TRIMETHYLBENZENE	1.519	1.402	7.7	104	0.00
94	T	ALPHA-METHYLSTYRENE	0.724	0.716	1.1	109	0.00
95	T	TERT-BUTYLBENZENE	0.358	0.364	-1.7	114	0.00
96	T	1,2,4-TRIMETHYLBENZENE	1.485	1.430	3.7	105	0.00

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Continuing Calibration Summary

Page 3 of 3

Job Number: JD36325
Account: GESNYP Groundwater & Environmental Services
Project: Orangeburg UB, Orangeburg, NY

Sample: V2W2495-CC2424
Lab FileID: 2W56006.D

97 T	BENZYL CHLORIDE	0.713	0.844	-18.4	107	0.00
98 T	M-DICHLOROBENZENE	1.034	0.949	8.2	107	0.00
99 T	P-DICHLOROBENZENE	1.019	0.959	5.9	108	0.00
100 T	O-DICHLOROBENZENE	0.926	0.916	1.1	112	0.00
101 T	SEC-BUTYLBENZENE	0.447	0.458	-2.5	119	0.00
102 T	1,2,3-TRIMETHYLBENZENE	1.480	1.409	4.8	107	0.00
103 T	P-ISOPROPYLTOLUENE	0.475	0.489	-2.9	116	0.00
104 T	N-BUTYLBENZENE	0.441	0.449	-1.8	115	0.00
105 T	HEXACHLOROETHANE	0.616	0.585	5.0	108	0.00
106 T	HEXACHLOROBUTADIENE	0.693	0.735	-6.1	132	-0.01
107 T	1,2,4-TRICHLOROBENZENE	0.697	0.640	8.2	116	0.00
108 T	NAPHTHALENE	1.437	1.254	12.7	113	-0.01

(#) = Out of Range

SPCC's out = 0 CCC's out = 0

M2W2424.M Tue Nov 02 10:56:31 2021 GCMS2W

Continuing Calibration Summary

Page 1 of 3

Job Number: JD36325
 Account: GESNYP Groundwater & Environmental Services
 Project: Orangeburg UB, Orangeburg, NY

Sample: V2W2497-CC2424
 Lab FileID: 2W56053.D

Evaluate Continuing Calibration Report

Data Path : C:\msdchem\1\DATA\
 Data File : 2w56053.D
 Acq On : 4 Nov 2021 7:23 am
 Operator : thomash
 Sample : cc2424-10
 Misc : MS54687,V2w2497,,,,,1
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 04 12:18:24 2021
 Quant Method : C:\msdchem\1\METHODS\M2W2424.M
 Quant Title : T015 by GCMS w/DB-1, 30m X 0.25mm ID X 0.5 um
 QLast Update : Tue Jul 27 16:59:35 2021
 Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.33min
 Max. RRF Dev : 30% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1 I	BROMOCHLOROMETHANE	1.000	1.000	0.0	107	0.00
2 T	FREON 115	0.000	0.000	0.0	0#	-1.89#
3 T	FREON 152A	0.769	0.894	-16.3	133	0.00
4 T	CHLORODIFLUOROMETHANE	0.488	0.348	28.7	76	0.00
5 T	CHLOROTRIFLUOROETHENE	2.178	2.262	-3.9	117	0.01
6 T	DICHLORODIFLUOROMETHANE	4.616	4.441	3.8	105	0.01
7 T	PROPYLENE	0.862	0.863	-0.1	122	0.00
8 T	1-CHLORO-1,1-DIFLUOROETHANE	3.935	2.704	31.3#	75	0.00
9 T	FREON 114	4.016	3.815	5.0	103	0.00
10 T	CHLOROMETHANE	0.314	0.322	-2.5	117	0.00
11 T	VINYL CHLORIDE	1.249	1.310	-4.9	122	0.01
12 t	1,3-BUTADIENE	0.834	0.914	-9.6	117	0.00
13 T	N-BUTANE	1.596	1.493	6.5	107	0.00
14 T	BROMOMETHANE	1.376	1.432	-4.1	120	0.00
15 T	CHLOROETHANE	0.670	0.725	-8.2	121	0.00
16 T	DICHLOROFLUOROMETHANE	3.275	2.957	9.7	101	0.00
17 T	ACETONITRILE	0.893	0.783	12.3	108	0.00
18 T	ACROLEIN	0.558	0.531	4.8	116	0.00
19 T	FREON 123	3.283	3.125	4.8	109	0.00
20 T	FREON 123A	2.094	1.924	8.1	100	0.00
21 T	TRICHLOROFLUOROMETHANE	4.883	3.851	21.1	87	0.00
22 T	ISOPROPYL ALCOHOL	2.169	1.688	22.2	90	0.00
23 T	ACETONE	0.586	0.534	8.9	113	0.00
24 T	PENTANE	0.941	0.843	10.4	96	0.00
25 T	IODOMETHANE	3.920	3.781	3.5	106	0.00
26 T	1,1-DICHLOROETHYLENE	1.358	1.283	5.5	107	0.00
27 T	CARBON DISULFIDE	3.283	3.227	1.7	109	0.00
28 T	ETHANOL	0.470	0.405	13.8	110	0.00
29 T	BROMOETHENE	1.420	1.373	3.3	111	0.00
30 T	ACRYLONITRILE	0.765	0.685	10.5	102	0.00
31 T	METHYLENE CHLORIDE	1.241	1.137	8.4	109	0.00
32 T	3-CHLOROPROPENE	0.579	0.608	-5.0	113	0.00
33 T	FREON 113	2.725	2.487	8.7	101	0.00
34 T	TRANS-1,2-DICHLOROETHENE	1.392	1.380	0.9	111	0.00
35 T	TERTIARY BUTYL ALCOHOL	2.436	2.122	12.9	90	0.00
36 t	METHYL TERTIARY BUTYL ETHER	3.579	3.387	5.4	101	0.00
37 T	TETRAHYDROFURAN	0.563	0.628	-11.5	114	0.00
38 T	HEXANE	1.802	1.922	-6.7	120	0.00

Continuing Calibration Summary

Page 2 of 3

Job Number: JD36325
Account: GESNYP Groundwater & Environmental Services
Project: Orangeburg UB, Orangeburg, NY

Sample: V2W2497-CC2424
Lab FileID: 2W56053.D

39	T	VINYL ACETATE	0.333	0.368	-10.5	125	0.00
40	T	1,1-DICHLOROETHANE	2.252	2.235	0.8	108	0.00
41	T	METHYL ETHYL KETONE	0.620	0.654	-5.5	117	0.00
42	T	CIS-1,2-DICHLOROETHENE	1.457	1.502	-3.1	113	0.00
43	T	DIISOPROPYL ETHER	0.534	0.584	-9.4	113	0.00
44	T	ETHYL ACETATE	0.322	0.390	-21.1	126	0.00
45	T	METHYL ACRYLATE	2.233	2.333	-4.5	115	0.00
46	T	CHLOROFORM	3.423	2.920	14.7	94	0.00
47	T	2,4-DIMETHYLPENTANE	2.113	2.270	-7.4	116	0.00
48	T	1,1,1-TRICHLOROETHANE	3.701	2.972	19.7	89	0.00
49	T	CARBON TETRACHLORIDE	4.106	3.346	18.5	88	0.00
50	T	1,2-DICHLOROETHANE	2.357	1.683	28.6	77	0.00
51	t	BENZENE	4.090	4.240	-3.7	116	0.00
52	I	1,4-DIFLUOROBENZENE	1.000	1.000	0.0	111	0.00
53	T	CYCLOHEXANE	0.370	0.373	-0.8	117	0.00
54	T	2,3-DIMETHYLPENTANE	0.175	0.191	-9.1	119	0.00
55	T	TRICHLOROETHENE	0.421	0.390	7.4	105	0.00
56	T	1,2-DICHLOROPROPANE	0.281	0.294	-4.6	123	0.00
57	T	DIBROMOMETHANE	0.466	0.395	15.2	101	0.00
58	T	ETHYL ACRYLATE	0.536	0.551	-2.8	110	0.00
59	T	BROMODICHLOROMETHANE	0.776	0.641	17.4	93	0.00
60	T	2,2,4-TRIMETHYLPENTANE	1.171	1.207	-3.1	119	0.00
61	T	1,4-DIOXANE	0.200	0.186	7.0	109	0.00
62	T	HEPTANE	0.379	0.360	5.0	107	0.00
63	T	METHYL METHACRYLATE	0.289	0.317	-9.7	116	0.00
64	T	METHYL ISOBUTYL KETONE	0.227	0.235	-3.5	119	0.00
65	T	CIS-1,3-DICHLOROPROPENE	0.469	0.463	1.3	110	0.00
66	T	TOLUENE	1.065	1.023	3.9	110	0.00
67	T	1,3-DICHLOROPROPANE	0.518	0.499	3.7	113	0.00
68	T	TRANS-1,3-DICHLOROPROPENE	0.427	0.401	6.1	101	0.00
69	T	1,1,2-TRICHLOROETHANE	0.300	0.299	0.3	115	0.00
70	T	2-HEXANONE	0.296	0.292	1.4	113	0.00
71	T	ETHYL METHACRYLATE	0.451	0.496	-10.0	113	0.00
72	T	TETRACHLOROETHENE	0.472	0.426	9.7	101	0.00
73	T	DIBROMOCHLOROMETHANE	0.779	0.690	11.4	98	0.00
74	T	1,2-DIBROMOETHANE	0.582	0.553	5.0	105	0.00
75	T	OCTANE	0.534	0.494	7.5	107	0.00
76	I	CHLOROBENZENE-D5	1.000	1.000	0.0	110	0.00
77	T	1,1,1,2-TETRACHLOROETHANE	0.619	0.562	9.2	104	0.00
78	T	CHLOROBENZENE	1.033	0.971	6.0	110	0.00
79	t	ETHYLBENZENE	1.651	1.521	7.9	105	0.00
80	t	M,P-XYLENE	1.276	1.169	8.4	101	0.00
81	t	O-XYLENE	1.322	1.193	9.8	102	0.00
82	T	STYRENE	0.923	0.915	0.9	106	0.00
83	T	NONANE	0.651	0.599	8.0	109	0.00
84	T	BROMOFORM	0.842	0.816	3.1	101	0.00
85	T	1,1,2,2-TETRACHLOROETHANE	0.804	0.860	-7.0	120	0.00
86	T	1,2,3-TRICHLOROPROPANE	0.704	0.639	9.2	109	0.00
87	S	4-BROMOFLUOROBENZENE	0.703	0.662	5.8	105	0.00
88	T	ISOPROPYLBENZENE	0.485	0.470	3.1	109	0.00
89	T	BROMOBENZENE	0.859	0.773	10.0	102	0.00
90	T	2-CHLOROTOLUENE	0.431	0.420	2.6	109	0.00
91	T	N-PROPYLBENZENE	0.470	0.475	-1.1	109	0.00
92	T	4-ETHYLTOLUENE	1.747	1.689	3.3	105	0.00
93	T	1,3,5-TRIMETHYLBENZENE	1.519	1.392	8.4	102	0.00
94	T	ALPHA-METHYLSTYRENE	0.724	0.723	0.1	109	0.00
95	T	TERT-BUTYLBENZENE	0.358	0.366	-2.2	113	0.00
96	T	1,2,4-TRIMETHYLBENZENE	1.485	1.431	3.6	103	0.00

6.9.5

6

Continuing Calibration Summary

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Job Number: JD36325
Account: GESNYP Groundwater & Environmental Services
Project: Orangeburg UB, Orangeburg, NY

Sample: V2W2497-CC2424
Lab FileID: 2W56053.D

97 T	BENZYL CHLORIDE	0.713	0.893	-25.2	112	0.00
98 T	M-DICHLOROBENZENE	1.034	0.968	6.4	108	0.00
99 T	P-DICHLOROBENZENE	1.019	0.961	5.7	107	0.00
100 T	O-DICHLOROBENZENE	0.926	0.912	1.5	109	0.00
101 T	SEC-BUTYLBENZENE	0.447	0.449	-0.4	115	0.00
102 T	1,2,3-TRIMETHYLBENZENE	1.480	1.383	6.6	104	0.00
103 T	P-ISOPROPYLTOLUENE	0.475	0.488	-2.7	114	0.00
104 T	N-BUTYLBENZENE	0.441	0.438	0.7	110	0.00
105 T	HEXACHLOROETHANE	0.616	0.635	-3.1	115	0.00
106 T	HEXACHLOROBUTADIENE	0.693	0.671	3.2	118	-0.01
107 T	1,2,4-TRICHLOROBENZENE	0.697	0.620	11.0	110	0.00
108 T	NAPHTHALENE	1.437	1.279	11.0	114	-0.01

(#) = Out of Range

SPCC's out = 0 CCC's out = 0

M2W2424.M Thu Nov 04 12:21:19 2021 GCMS2W

Initial Calibration Summary

Page 1 of 4

Job Number: JD36325
Account: GESNYP Groundwater & Environmental Services
Project: Orangeburg UB, Orangeburg, NY

Sample: V5W1909-ICC1909
Lab FileID: 5W46131.D

Response Factor Report Air5w

Method : C:\msdchem\1\methods\m5w1909.M (RTE Integrator)
Title : T0-15 Full Scan Mode
Last Update : Mon Nov 08 09:09:45 2021
Response via : Initial Calibration

Calibration Files

0.04=5w46129.D 0.1 =5w46128.D 0.2 =5w46127.D 0.5 =5w46126.D
5 =5w46130.D 10 =5w46131.D 20 =5w46132.D 40 =5w46133.D
50 =5w46134.D =

Compound	0.04	0.1	0.2	0.5	5	10	20	40	50	Avg	%RSD
1) I Bromochloromethane	-----ISTD-----										
2) Freon 152A											
	0.567	0.503	0.522	0.517	0.459	0.448	0.410	0.394	0.477	12.48	
3) Chlorodifluoromethane											
	0.232	0.266	0.256	0.257	0.240	0.241	0.238	0.235	0.246	4.99	
4) Propene											
	0.572	0.500	0.450	0.405	0.403	0.393	0.390	0.445	15.47		
5) Chlorotrifluoroethene											
	2.159	1.854	1.662	1.589	1.633	1.498	1.478	1.432	1.377	1.631	14.96
6) Dichlorodifluoromethane											
	4.089	3.380	3.285	3.247	3.222	2.957	2.576	2.442	2.338	3.059	17.98
7) 1-Chloro-1,1-difluoroethane											
	2.507	2.214	2.016	1.909	1.996	1.820	1.805	1.756	1.722	1.972	12.82
8) Chloromethane											
	1.011	0.847	0.756	0.668	0.655	0.585	0.558	0.529	0.505	0.679	24.50
9) Dichlorotetrafluoroethane											
	3.869	3.394	3.045	2.871	2.872	2.611	2.539	2.355	2.244	2.867	18.03
10) Vinyl Chloride											
	1.084	0.909	0.811	0.851	0.830	0.757	0.750	0.724	0.705	0.825	14.18
11) 1,3-Butadiene											
	0.526	0.561	0.478	0.468	0.474	0.427	0.444	0.410	0.399	0.465	11.40
12) n-Butane											
	0.103	0.119	0.119	0.106	0.105	0.102	0.099	0.108	7.55		
13) Bromomethane											
	1.058	0.922	0.769	0.729	0.718	0.679	0.683	0.677	0.662	0.766	17.67
14) Chloroethane											
	0.474	0.381	0.394	0.389	0.349	0.351	0.333	0.324	0.375	12.75	
15) Dichlorofluoromethane											
	2.876	2.293	2.080	2.032	2.011	1.821	1.794	1.715	1.668	2.032	18.38
16) Acetonitrile											
	0.480	0.511	0.450	0.412	0.403	0.387	0.375	0.431	11.72		
17) Freon 123											
	2.898	2.528	2.405	2.270	2.192	1.921	1.820	1.602	1.506	2.127	21.39
18) Freon 123A											
	1.900	1.617	1.436	1.367	1.373	1.262	1.214	1.122	1.078	1.374	18.70
19) Bromoethene											
	1.315	1.153	1.093	1.060	1.097	1.016	0.997	0.958	0.941	1.070	10.76
20) Acrolein											
	0.208	0.246	0.298	0.273	0.265	0.263	0.253	0.258	10.66		
21) Trichlorofluoromethane											
	4.130	3.511	3.076	2.948	3.039	2.752	2.722	2.585	2.491	3.028	16.96
22) Acetone											
	0.378	0.373	0.308	0.274	0.272	0.262	0.257	0.303	17.03		
23) Pentane											

Initial Calibration Summary

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Job Number: JD36325
Account: GESNYP Groundwater & Environmental Services
Project: Orangeburg UB, Orangeburg, NY

Sample: V5W1909-ICC1909
Lab FileID: 5W46131.D

		0.181	0.208	0.195	0.185	0.163	0.159	0.145	0.137	0.172	14.24		
24)	Iodomethane	4.894	4.154	3.755	3.567	3.761	3.395	3.291	3.079	2.955	3.650	16.30	
25)	Isopropyl Alcohol			0.199	0.222	0.223	0.205	0.200	0.190	0.183	0.203	7.44	
26)	1,1-Dichloroethene	1.808	1.470	1.454	1.378	1.369	1.246	1.193	1.107	1.063	1.343	16.91	
27)	Freon 113	3.223	2.753	2.589	2.479	2.458	2.187	2.084	1.855	1.749	2.375	19.45	
28)	Methylene Chloride			1.191	1.012	0.875	0.800	0.769	0.728	0.710	0.869	20.18	
29)	Carbon Disulfide	3.446	2.763	2.552	2.548	2.536	2.307	2.260	2.117	2.053	2.509	16.75	
30)	Ethanol			0.246	0.277	0.243	0.226	0.228	0.207	0.201	0.233	11.02	
31)	Acrylonitrile			0.509	0.509	0.563	0.503	0.455	0.447	0.421	0.410	0.477	11.00
32)	3-Chloropropene	0.359	0.444	0.404	0.423	0.437	0.391	0.388	0.364	0.356	0.396	8.37	
33)	trans-1,2-Dichloroethene	1.568	1.367	1.210	1.213	1.231	1.122	1.099	1.031	1.008	1.206	14.55	
34)	tert-Butyl Alcohol	1.743	1.553	1.459	1.452	1.653	1.530	1.510	1.426	1.393	1.524	7.40	
35)	Methyl tert-Butyl Ether			3.083	2.752	2.621	2.352	2.268	2.109	2.013	2.457	15.51	
36)	Vinyl Acetate	1.370	1.636	1.570	1.553	1.446	1.459	1.436	1.412	1.485	6.11		
37)	1,1-Dichloroethane	2.101	1.703	1.569	1.568	1.524	1.383	1.327	1.249	1.220	1.516	18.00	
38)	2-Butanone			0.286	0.354	0.397	0.359	0.357	0.339	0.334	0.347	9.61	
39)	Hexane	0.751	0.714	0.681	0.699	0.645	0.578	0.552	0.502	0.477	0.622	15.83	
40)	cis-1,2-Dichloroethene	1.543	1.357	1.218	1.197	1.202	1.102	1.071	1.013	0.992	1.188	14.75	
41)	Di-isopropyl Ether	1.000	0.881	0.795	0.788	0.786	0.716	0.703	0.662	0.638	0.774	14.65	
42)	Ethyl Acetate			0.161	0.214	0.232	0.213	0.207	0.189	0.181	0.200	12.06	
43)	Methyl Acrylate	1.081	1.165	1.218	1.260	1.142	1.102	1.017	0.981	1.121	8.50		
44)	Chloroform	2.857	2.500	2.306	2.297	2.324	2.084	2.047	1.940	1.876	2.248	13.59	
45)	2,4-Dimethylpentane	1.803	1.592	1.461	1.462	1.378	1.231	1.189	1.102	1.060	1.364	17.82	
46)	Tetrahydrofuran	0.358	0.384	0.405	0.419	0.364	0.349	0.304	0.289	0.359	12.67		
47)	1,1,1-Trichloroethane	3.278	2.743	2.564	2.422	2.414	2.224	2.179	2.050	1.992	2.429	16.45	
48)	1,2-Dichloroethane	1.502	1.395	1.246	1.264	1.298	1.179	1.172	1.107	1.097	1.251	10.66	
49)	Benzene	3.630	3.272	3.017	2.850	2.597	2.406	2.097	1.992	2.733	20.83		
50)	Carbon Tetrachloride	3.306	2.939	2.677	2.664	2.824	2.590	2.515	2.330	2.257	2.678	11.93	
51)	Cyclohexane	1.562	1.339	1.225	1.216	1.145	1.043	1.012	0.962	0.923	1.158	17.58	
52)	2,3-Dimethylpentane	0.631	0.617	0.600	0.584	0.581	0.542	0.525	0.487	0.464	0.559	10.41	

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Job Number: JD36325
Account: GESNYP Groundwater & Environmental Services
Project: Orangeburg UB, Orangeburg, NY

Sample: V5W1909-ICC1909
Lab FileID: 5W46131.D

53)	I	1,4-Difluorobenzene	-----ISTD-----										
54)		2,2,4-Trimethylpentane											
			1.368	1.143	1.086	1.032	1.015	0.938	0.912	0.870	0.864	1.025	15.66
55)		Heptane											
			0.263	0.245	0.242	0.242	0.232	0.218	0.211	0.189	0.184	0.225	11.85
56)		Trichloroethene											
			0.333	0.288	0.286	0.267	0.278	0.255	0.248	0.242	0.240	0.271	10.91
57)		1,2-Dichloropropane											
			0.295	0.278	0.266	0.265	0.257	0.233	0.227	0.210	0.206	0.249	12.46
58)		Dibromomethane											
			0.848	0.622	0.573	0.514	0.538	0.497	0.493	0.466	0.465	0.557	21.58
59)		Ethyl Acrylate											
			0.396	0.411	0.452	0.473	0.434	0.427	0.404	0.395		0.424	6.59
60)		Methyl Methacrylate											
			0.177	0.220	0.245	0.264	0.249	0.245	0.240	0.242		0.235	11.26
61)		1,4-Dioxane											
			0.130	0.192	0.167	0.174	0.195	0.182	0.179	0.167	0.168	0.173	10.97
62)		Bromodichloromethane											
			0.783	0.696	0.647	0.652	0.681	0.629	0.627	0.615	0.613	0.660	8.20
63)		cis-1,3-Dichloropropene											
			0.596	0.525	0.497	0.459	0.477	0.453	0.454	0.447	0.450	0.484	10.16
64)		4-Methyl-2-pentanone											
			0.139	0.155	0.176	0.187	0.202	0.186	0.185	0.178	0.178	0.176	10.64
65)		trans-1,3-Dichloropropene											
			0.625	0.498	0.463	0.435	0.432	0.407	0.396	0.370	0.370	0.444	17.97
66)		Toluene											
			1.354	1.131	1.098	1.063	1.056	0.986	0.980	0.928	0.918	1.057	12.63
67)		1,1,2-Trichloroethane											
			0.465	0.431	0.414	0.377	0.385	0.351	0.336	0.304	0.296	0.373	15.35
68)		1,3-Dichloropropane											
			0.561	0.482	0.454	0.432	0.450	0.416	0.411	0.402	0.401	0.445	11.45
69)		2-Hexanone											
			0.394	0.393	0.409	0.410	0.399	0.373	0.379	0.375	0.375	0.390	3.76
70)		Ethyl Methacrylate											
			0.313	0.337	0.375	0.395	0.441	0.405	0.394	0.358	0.349	0.374	10.48
71)		Dibromochloromethane											
			0.935	0.845	0.784	0.766	0.872	0.807	0.798	0.756	0.751	0.813	7.48
72)		Tetrachloroethene											
			1.020	0.868	0.784	0.730	0.755	0.687	0.642	0.558	0.539	0.731	20.64
73)		1,2-Dibromoethane											
			0.773	0.686	0.645	0.649	0.664	0.616	0.602	0.577	0.573	0.643	9.64
74)		Octane											
				0.429	0.432	0.425	0.392	0.383	0.366	0.360		0.398	7.67
75)		1,1,1,2-Tetrachloroethane											
			0.685	0.613	0.579	0.544	0.589	0.539	0.518	0.491	0.483	0.560	11.41
76)	I	Chlorobenzene-d5	-----ISTD-----										
77)		Chlorobenzene											
			2.786	2.498	2.294	2.179	2.238	2.031	1.910	1.755	1.683	2.153	16.43
78)		Ethylbenzene											
			4.325	3.640	3.403	3.197	3.283	2.956	2.748	2.532	2.434	3.169	18.65
79)		m,p-Xylene											
			3.351	2.816	2.619	2.465	2.513	2.254	2.031	1.747	1.667	2.385	22.30
80)		Styrene											
			2.058	1.995	1.950	1.878	2.014	1.846	1.713	1.551	1.497	1.834	11.11
81)		Nonane											
			1.260	1.079	1.043	1.043	1.045	0.949	0.896	0.797	0.777	0.988	15.28
82)		o-Xylene											
			3.327	2.904	2.692	2.546	2.584	2.362	2.243	2.045	2.006	2.523	16.73
83)		Bromoform											

Initial Calibration Summary

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Job Number: JD36325
Account: GESNYP Groundwater & Environmental Services
Project: Orangeburg UB, Orangeburg, NY

Sample: V5W1909-ICC1909
Lab FileID: 5W46131.D

	2.521	2.281	2.146	2.065	2.288	2.110	1.929	1.685	1.621	2.072	13.99
84)	1,1,2,2-Tetrachloroethane										
	2.382	2.046	1.910	1.832	1.815	1.619	1.498	1.322	1.269	1.744	20.46
85)	1,2,3-Trichloropropane										
	1.677	1.495	1.473	1.365	1.196	1.061	0.885	0.837	1.249	24.37	
86)	Isopropylbenzene										
	4.982	4.314	3.976	3.705	3.771	3.436	3.162	2.820	2.749	3.657	19.63
87)	Bromobenzene										
	2.028	1.643	1.525	1.426	1.509	1.362	1.267	1.098	1.058	1.435	20.57
88)	2-Chlorotoluene										
	1.265	1.101	1.030	0.973	1.014	0.914	0.842	0.748	0.708	0.955	18.32
89)	n-Propylbenzene										
	1.234	1.076	0.998	0.997	1.048	0.949	0.873	0.756	0.741	0.963	16.25
90)	4-Bromofluorobenzene										
	1.359	1.345	1.355	1.370	1.442	1.466	1.458	1.473	1.500	1.419	4.27
91)	4-Ethyltoluene										
	4.121	3.615	3.370	3.327	3.535	3.253	3.009	2.716	2.617	3.285	14.14
92)	1,3,5-Trimethylbenzene										
	3.544	3.031	2.921	2.830	2.900	2.553	2.297	1.934	1.825	2.648	20.85
93)	alpha-Methylstyrene										
	1.595	1.333	1.339	1.353	1.551	1.425	1.326	1.200	1.174	1.366	10.29
94)	tert-Butylbenzene										
	1.048	0.794	0.742	0.671	0.694	0.630	0.564	0.487	0.464	0.677	26.22
95)	1,2,4-Trimethylbenzene										
	3.143	2.822	2.548	2.577	2.824	2.611	2.413	2.187	2.117	2.582	12.50
96)	1,3-Dichlorobenzene										
	2.422	2.121	1.962	1.981	2.196	2.016	1.887	1.667	1.600	1.983	12.79
97)	1,2,3-trimethylbenzene										
	3.142	2.741	2.489	2.519	2.727	2.498	2.296	2.011	1.926	2.483	15.14
98)	Benzyl Chloride										
	0.629	0.436	0.447	0.460	0.554	0.504	0.467	0.412	0.399	0.479	15.29
99)	1,4-Dichlorobenzene										
	2.484	2.071	1.944	1.912	2.163	1.961	1.785	1.529	1.441	1.921	16.49
100)	sec-Butylbenzene										
	1.245	0.936	0.828	0.854	0.860	0.769	0.704	0.612	0.584	0.821	24.03
101)	p-Isopropyltoluene										
	1.275	0.972	0.919	0.892	0.936	0.860	0.788	0.683	0.656	0.887	20.59
102)	1,2-Dichlorobenzene										
	2.620	2.011	1.839	1.783	1.991	1.744	1.516	1.198		1.838	22.44
103)	n-Butylbenzene										
	0.943	0.726	0.727	0.683	0.783	0.722	0.679	0.589	0.561	0.713	15.60
104)	Hexachloroethane										
	1.963	1.611	1.438	1.379	1.366	1.212	1.057	0.844		1.359	25.08
105)	1,2,4-Trichlorobenzene										
	0.637	0.576	0.607	0.803	0.881	1.007	1.076			0.798	25.03
106)	Naphthalene										
	1.530	1.279	1.159	1.319	1.568	1.822	2.020			1.528	20.21
107)	Hexachlorobutadiene										
	1.904	1.582	1.313	1.233	1.212	1.158	1.191	1.090	1.068	1.306	20.74
108)	I Bromochloromethane (A -----ISTD-----										
109)	TVHC as equiv Pentane										
	9.679	9.143	9.681	8.637	8.530	8.097	7.765		8.790	8.48	

(#) = Out of Range ### Number of calibration levels exceeded format ###

m5w1909.M

Mon Nov 08 09:51:53 2021

Initial Calibration Verification

Page 1 of 3

Job Number: JD36325
 Account: GESNYP Groundwater & Environmental Services
 Project: Orangeburg UB, Orangeburg, NY

Sample: V5W1909-ICV1909
 Lab FileID: 5W46137.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\5w46137.D
 Acq On : 4 Nov 2021 7:52 pm
 Sample : icv1909-10
 Misc : ms54715,v5w1909,,,,,1
 MS Integration Params: Rteint.p

Vial: 4
 Operator: danat
 Inst : Air5w
 Multiplr: 1.00

Method : C:\msdchem\1\methods\m5w1909.M (RTE Integrator)
 Title : TO-15 Full Scan Mode
 Last Update : Mon Nov 08 09:09:45 2021
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 60% Max. R.T. Dev 0.33min
 Max. RRF Dev : 30% Max. Rel. Area : 140%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1	I Bromochloromethane	1.000	1.000	0.0	95	0.00	11.42
2	Freon 152A	0.477	0.485	-1.7	100	-0.01	4.38
3	Chlorodifluoromethane	0.246	0.262	-6.5	103	-0.03	4.45
4	Propene	0.445	0.414	7.0	97	-0.02	4.28
5	Chlorotrifluoroethene	1.631	1.655	-1.5	105	-0.01	4.33
6	Dichlorodifluoromethane	3.059	2.708	11.5	87	-0.02	4.37
7	1-Chloro-1,1-difluoroetha	1.972	2.019	-2.4	105	-0.02	4.79
8	Chloromethane	0.679	0.605	10.9	98	-0.01	4.79
9	Dichlorotetrafluoroethane	2.867	2.691	6.1	98	-0.01	4.69
10	Vinyl Chloride	0.825	0.802	2.8	100	-0.02	5.00
11	1,3-Butadiene	0.465	0.467	-0.4	104	-0.01	5.06
12	n-Butane	0.108	0.109	-0.9	97	-0.02	4.89
13	Bromomethane	0.766	0.713	6.9	100	-0.01	5.74
14	Chloroethane	0.375	0.367	2.1	99	-0.01	6.04
15	Dichlorofluoromethane	2.032	1.866	8.2	97	-0.01	6.49
16	Acetonitrile	0.431	0.388	10.0	89	-0.03	9.52
17	Freon 123	2.127	2.111	0.8	104	0.00	7.60
18	Freon 123A	1.374	1.481	-7.8	111	0.00	7.47
19	Bromoethene	1.070	1.093	-2.1	102	-0.01	6.30
20	Acrolein	0.258	0.263	-1.9	91	0.00	8.11
21	Trichlorofluoromethane	3.028	2.895	4.4	100	0.00	6.38
22	Acetone	0.303	0.290	4.3	100	-0.05	8.68
23	Pentane	0.172	0.175	-1.7	101	0.00	6.40
24	Iodomethane	3.650	3.637	0.4	101	0.00	7.74
25	Isopropyl Alcohol	0.203	0.205	-1.0	95	0.00	8.48
26	1,1-Dichloroethene	1.343	1.323	1.5	101	0.00	7.47
27	Freon 113	2.375	2.324	2.1	101	0.00	7.58
28	Methylene Chloride	0.869	0.848	2.4	100	0.00	8.62
29	Carbon Disulfide	2.509	2.593	-3.3	106	0.00	7.52
30	Ethanol	0.233	0.201	13.7	84	0.00	7.36
31	Acrylonitrile	0.477	0.457	4.2	95	-0.04	10.12
32	3-Chloropropene	0.396	0.415	-4.8	100	0.00	8.43
33	trans-1,2-Dichloroethene	1.206	1.211	-0.4	102	0.00	8.97
34	tert-Butyl Alcohol	1.524	1.400	8.1	87	-0.06	9.33
35	Methyl tert-Butyl Ether	2.457	2.482	-1.0	100	-0.04	9.19
36	Vinyl Acetate	1.485	1.489	-0.3	97	-0.05	10.55
37	1,1-Dichloroethane	1.516	1.433	5.5	98	0.00	10.10
38	2-Butanone	0.347	0.367	-5.8	97	0.00	12.04
39	Hexane	0.622	0.619	0.5	101	0.00	9.17
40	cis-1,2-Dichloroethene	1.188	1.140	4.0	98	0.00	11.07
41	Di-isopropyl Ether	0.774	0.759	1.9	100	-0.04	9.92
42	Ethyl Acetate	0.200	0.236	-18.0	105	0.00	11.75

Initial Calibration Verification

Job Number: JD36325
Account: GESNYP Groundwater & Environmental Services
Project: Orangeburg UB, Orangeburg, NY

Sample: V5W1909-ICV1909
Lab FileID: 5W46137.D

43	Methyl Acrylate	1.121	1.181	-5.4	98	-0.06	11.76
44	Chloroform	2.248	2.216	1.4	101	0.00	11.56
45	2,4-Dimethylpentane	1.364	1.258	7.8	97	0.00	10.23
46	Tetrahydrofuran	0.359	0.356	0.8	93	-0.04	11.84
47	1,1,1-Trichloroethane	2.429	2.361	2.8	101	0.00	11.94
48	1,2-Dichloroethane	1.251	1.245	0.5	100	-0.01	12.90
49	Benzene	2.733	2.644	3.3	96	0.00	12.58
50	Carbon Tetrachloride	2.678	2.744	-2.5	100	0.00	11.84
51	Cyclohexane	1.158	1.088	6.0	99	0.00	11.49
52	2,3-Dimethylpentane	0.559	0.558	0.2	97	0.00	11.67
53 I	1,4-Difluorobenzene	1.000	1.000	0.0	95	0.00	13.62
54	2,2,4-Trimethylpentane	1.025	0.965	5.9	97	0.00	12.39
55	Heptane	0.225	0.225	0.0	97	0.00	12.56
56	Trichloroethene	0.271	0.266	1.8	99	0.00	13.60
57	1,2-Dichloropropane	0.249	0.241	3.2	98	0.00	14.47
58	Dibromomethane	0.557	0.531	4.7	101	-0.01	14.31
59	Ethyl Acrylate	0.424	0.451	-6.4	98	-0.11	14.47
60	Methyl Methacrylate	0.235	0.244	-3.8	93	-0.04	14.83
61	1,4-Dioxane	0.173	0.173	0.0	90	-0.04	14.91
62	Bromodichloromethane	0.660	0.655	0.8	99	0.00	14.58
63	cis-1,3-Dichloropropene	0.484	0.502	-3.7	105	-0.02	15.69
64	4-Methyl-2-pentanone	0.176	0.191	-8.5	97	-0.03	16.76
65	trans-1,3-Dichloropropene	0.444	0.428	3.6	100	-0.02	16.84
66	Toluene	1.057	1.016	3.9	98	-0.01	16.14
67	1,1,2-Trichloroethane	0.373	0.367	1.6	99	0.00	17.14
68	1,3-Dichloropropane	0.445	0.429	3.6	98	0.00	17.64
69	2-Hexanone	0.390	0.381	2.3	97	-0.05	18.28
70	Ethyl Methacrylate	0.374	0.424	-13.4	99	-0.04	17.12
71	Dibromochloromethane	0.813	0.839	-3.2	98	0.00	17.49
72	Tetrachloroethene	0.731	0.718	1.8	99	0.00	16.87
73	1,2-Dibromoethane	0.643	0.635	1.2	97	0.00	17.94
74	Octane	0.398	0.401	-0.8	97	0.00	15.83
75	1,1,1,2-Tetrachloroethane	0.560	0.558	0.4	98	0.00	19.03
76 I	Chlorobenzene-d5	1.000	1.000	0.0	96	0.00	18.88
77	Chlorobenzene	2.153	2.053	4.6	98	0.00	18.91
78	Ethylbenzene	3.169	3.023	4.6	99	0.00	18.96
79	m,p-Xylene	2.385	2.289	4.0	98	0.00	19.21
80	Styrene	1.834	1.831	0.2	96	-0.01	20.01
81	Nonane	0.988	0.961	2.7	98	0.00	18.80
82	o-Xylene	2.523	2.399	4.9	98	0.00	19.93
83	Bromoform	2.072	2.077	-0.2	95	0.00	20.06
84	1,1,2,2-Tetrachloroethane	1.744	1.592	8.7	95	0.00	21.11
85	1,2,3-Trichloropropane	1.249	1.197	4.2	97	0.00	21.31
86	Isopropylbenzene	3.657	3.512	4.0	99	0.00	20.43
87	Bromobenzene	1.435	1.361	5.2	96	0.00	21.01
88	2-Chlorotoluene	0.955	0.933	2.3	98	0.00	21.27
89	n-Propylbenzene	0.963	0.962	0.1	98	0.00	21.04
90 S	4-Bromofluorobenzene	1.419	1.447	-2.0	95	0.00	20.84
91	4-Ethyltoluene	3.285	3.353	-2.1	99	0.00	21.19
92	1,3,5-Trimethylbenzene	2.648	2.684	-1.4	101	0.00	21.31
93	alpha-Methylstyrene	1.366	1.425	-4.3	97	-0.01	21.65
94	tert-Butylbenzene	0.677	0.642	5.2	98	0.00	21.75
95	1,2,4-Trimethylbenzene	2.582	2.676	-3.6	99	0.00	21.84
96	1,3-Dichlorobenzene	1.983	2.011	-1.4	96	0.00	22.29
97	1,2,3-trimethylbenzene	2.483	2.485	-0.1	96	0.00	22.41
98	Benzyl Chloride	0.479	0.488	-1.9	93	-0.01	22.68
99	1,4-Dichlorobenzene	1.921	1.904	0.9	94	0.00	22.40
100	sec-Butylbenzene	0.821	0.798	2.8	100	0.00	21.99

Initial Calibration Verification

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Job Number: JD36325
Account: GESNYP Groundwater & Environmental Services
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101	p-Isopropyltoluene	0.887	0.881	0.7	99	0.00	22.17
102	1,2-Dichlorobenzene	1.838	1.717	6.6	95	0.00	22.92
103	n-Butylbenzene	0.713	0.745	-4.5	100	0.00	22.70
104	Hexachloroethane	1.359	1.271	6.5	101	0.00	22.91
105	1,2,4-Trichlorobenzene	0.798	0.901	-12.9	99	-0.01	24.71
106	Naphthalene	1.528	1.546	-1.2	95	-0.01	25.14
107	Hexachlorobutadiene	1.306	1.331	-1.9	111	0.00	24.67
108 I	Bromochloromethane (A)	1.000	1.000	0.0	95	0.00	11.42
109	TVHC as equiv Pentane	8.790	9.183	-4.5	101	-0.02	6.39

(#) = Out of Range
 5w46131.D m5w1909.M

SPCC's out = 0 CCC's out = 0
 Mon Nov 08 09:51:35 2021

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Continuing Calibration Summary

Page 1 of 3

Job Number: JD36325
 Account: GESNYP Groundwater & Environmental Services
 Project: Orangeburg UB, Orangeburg, NY

Sample: V5W1935-CC1909
 Lab FileID: 5W46775.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\5w46775.D
 Acq On : 13 Dec 2021 8:38 am
 Sample : cc1909-10
 Misc : ms55457,v5w1935,,,,,1
 MS Integration Params: Rteint.p

Vial: 2
 Operator: danat
 Inst : Air5w
 Multiplr: 1.00

Method : C:\msdchem\1\methods\m5w1909.M (RTE Integrator)
 Title : TO-15 Full Scan Mode
 Last Update : Mon Nov 08 09:09:45 2021
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 60% Max. R.T. Dev 0.33min
 Max. RRF Dev : 30% Max. Rel. Area : 140%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1	I Bromochloromethane	1.000	1.000	0.0	105	-0.02	11.39
2	Freon 152A	0.477	0.489	-2.5	112	0.00	4.39
3	Chlorodifluoromethane	0.246	0.263	-6.9	115	-0.02	4.46
4	Propene	0.445	0.431	3.1	111	-0.01	4.29
5	Chlorotrifluoroethene	1.631	1.537	5.8	107	0.00	4.34
6	Dichlorodifluoromethane	3.059	3.201	-4.6	113	0.00	4.39
7	1-Chloro-1,1-difluoroetha	1.972	1.974	-0.1	114	-0.02	4.79
8	Chloromethane	0.679	0.615	9.4	110	-0.01	4.79
9	Dichlorotetrafluoroethane	2.867	2.781	3.0	112	0.00	4.69
10	Vinyl Chloride	0.825	0.800	3.0	111	-0.02	5.01
11	1,3-Butadiene	0.465	0.465	0.0	114	-0.01	5.06
12	n-Butane	0.108	0.111	-2.8	110	-0.02	4.90
13	Bromomethane	0.766	0.790	-3.1	122	-0.02	5.73
14	Chloroethane	0.375	0.384	-2.4	115	-0.01	6.04
15	Dichlorofluoromethane	2.032	2.004	1.4	115	-0.02	6.48
16	Acetonitrile	0.431	0.413	4.2	105	-0.07	9.48
17	Freon 123	2.127	2.120	0.3	116	-0.02	7.59
18	Freon 123A	1.374	1.329	3.3	110	-0.01	7.46
19	Bromoethene	1.070	1.080	-0.9	111	-0.02	6.29
20	Acrolein	0.258	0.256	0.8	98	-0.02	8.09
21	Trichlorofluoromethane	3.028	3.028	0.0	115	-0.01	6.37
22	Acetone	0.303	0.291	4.0	111	-0.07	8.66
23	Pentane	0.172	0.187	-8.7	120	-0.01	6.40
24	Iodomethane	3.650	3.576	2.0	110	-0.02	7.73
25	Isopropyl Alcohol	0.203	0.226	-11.3	115	-0.02	8.46
26	1,1-Dichloroethene	1.343	1.392	-3.6	117	0.00	7.46
27	Freon 113	2.375	2.390	-0.6	114	-0.01	7.58
28	Methylene Chloride	0.869	0.851	2.1	111	-0.03	8.60
29	Carbon Disulfide	2.509	2.469	1.6	112	-0.02	7.51
30	Ethanol	0.233	0.229	1.7	106	-0.02	7.34
31	Acrylonitrile	0.477	0.465	2.5	107	-0.07	10.09
32	3-Chloropropene	0.396	0.426	-7.6	114	-0.02	8.41
33	trans-1,2-Dichloroethene	1.206	1.239	-2.7	116	-0.02	8.95
34	tert-Butyl Alcohol	1.524	1.710	-12.2	117	-0.09	9.31
35	Methyl tert-Butyl Ether	2.457	2.654	-8.0	118	-0.06	9.18
36	Vinyl Acetate	1.485	1.473	0.8	107	-0.07	10.52
37	1,1-Dichloroethane	1.516	1.509	0.5	114	-0.02	10.07
38	2-Butanone	0.347	0.379	-9.2	111	-0.03	12.01
39	Hexane	0.622	0.647	-4.0	117	-0.02	9.16
40	cis-1,2-Dichloroethene	1.188	1.221	-2.8	116	-0.04	11.04
41	Di-isopropyl Ether	0.774	0.804	-3.9	118	-0.06	9.90
42	Ethyl Acetate	0.200	0.229	-14.5	113	-0.03	11.71

Continuing Calibration Summary

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Job Number: JD36325
Account: GESNYP Groundwater & Environmental Services
Project: Orangeburg UB, Orangeburg, NY

Sample: V5W1935-CC1909
Lab FileID: 5W46775.D

43	Methyl Acrylate	1.121	1.185	-5.7	109	-0.09	11.73
44	Chloroform	2.248	2.304	-2.5	116	-0.03	11.52
45	2,4-Dimethylpentane	1.364	1.367	-0.2	116	-0.02	10.22
46	Tetrahydrofuran	0.359	0.400	-11.4	115	-0.07	11.81
47	1,1,1-Trichloroethane	2.429	2.442	-0.5	115	-0.03	11.91
48	1,2-Dichloroethane	1.251	1.309	-4.6	116	-0.04	12.86
49	Benzene	2.733	2.730	0.1	110	-0.04	12.55
50	Carbon Tetrachloride	2.678	2.849	-6.4	115	-0.02	11.82
51	Cyclohexane	1.158	1.151	0.6	116	-0.02	11.47
52	2,3-Dimethylpentane	0.559	0.592	-5.9	114	-0.02	11.64
53 I	1,4-Difluorobenzene	1.000	1.000	0.0	105	-0.03	13.58
54	2,2,4-Trimethylpentane	1.025	1.021	0.4	115	-0.02	12.36
55	Heptane	0.225	0.234	-4.0	113	-0.02	12.53
56	Trichloroethene	0.271	0.274	-1.1	113	-0.04	13.57
57	1,2-Dichloropropane	0.249	0.255	-2.4	115	-0.04	14.44
58	Dibromomethane	0.557	0.499	10.4	106	-0.04	14.28
59	Ethyl Acrylate	0.424	0.454	-7.1	110	-0.14	14.44
60	Methyl Methacrylate	0.235	0.256	-8.9	108	-0.07	14.80
61	1,4-Dioxane	0.173	0.189	-9.2	109	-0.07	14.88
62	Bromodichloromethane	0.660	0.691	-4.7	116	-0.04	14.55
63	cis-1,3-Dichloropropene	0.484	0.485	-0.2	113	-0.05	15.65
64	4-Methyl-2-pentanone	0.176	0.196	-11.4	111	-0.07	16.72
65	trans-1,3-Dichloropropene	0.444	0.427	3.8	110	-0.05	16.80
66	Toluene	1.057	1.031	2.5	110	-0.04	16.11
67	1,1,2-Trichloroethane	0.373	0.370	0.8	111	-0.04	17.10
68	1,3-Dichloropropane	0.445	0.438	1.6	111	-0.04	17.61
69	2-Hexanone	0.390	0.381	2.3	107	-0.09	18.25
70	Ethyl Methacrylate	0.374	0.423	-13.1	110	-0.07	17.08
71	Dibromochloromethane	0.813	0.845	-3.9	110	-0.04	17.45
72	Tetrachloroethene	0.731	0.719	1.6	110	-0.03	16.84
73	1,2-Dibromoethane	0.643	0.628	2.3	107	-0.04	17.90
74	Octane	0.398	0.432	-8.5	116	-0.03	15.81
75	1,1,1,2-Tetrachloroethane	0.560	0.566	-1.1	111	-0.04	18.99
76 I	Chlorobenzene-d5	1.000	1.000	0.0	108	-0.04	18.85
77	Chlorobenzene	2.153	2.056	4.5	109	-0.03	18.88
78	Ethylbenzene	3.169	3.037	4.2	110	-0.04	18.93
79	m,p-Xylene	2.385	2.279	4.4	109	-0.03	19.18
80	Styrene	1.834	1.784	2.7	104	-0.04	19.98
81	Nonane	0.988	1.014	-2.6	115	-0.02	18.77
82	o-Xylene	2.523	2.447	3.0	111	-0.03	19.91
83	Bromoform	2.072	2.080	-0.4	106	-0.03	20.03
84	1,1,2,2-Tetrachloroethane	1.744	1.678	3.8	111	-0.03	21.08
85	1,2,3-Trichloropropane	1.249	1.276	-2.2	115	-0.03	21.28
86	Isopropylbenzene	3.657	3.576	2.2	112	-0.03	20.40
87	Bromobenzene	1.435	1.313	8.5	104	-0.03	20.98
88	2-Chlorotoluene	0.955	0.915	4.2	108	-0.03	21.25
89	n-Propylbenzene	0.963	0.959	0.4	109	-0.03	21.01
90 S	4-Bromofluorobenzene	1.419	1.397	1.6	102	-0.02	20.82
91	4-Ethyltoluene	3.285	3.350	-2.0	111	-0.03	21.17
92	1,3,5-Trimethylbenzene	2.648	2.743	-3.6	116	-0.03	21.28
93	alpha-Methylstyrene	1.366	1.386	-1.5	105	-0.03	21.63
94	tert-Butylbenzene	0.677	0.629	7.1	107	-0.02	21.73
95	1,2,4-Trimethylbenzene	2.582	2.700	-4.6	111	-0.02	21.82
96	1,3-Dichlorobenzene	1.983	1.936	2.4	103	-0.03	22.26
97	1,2,3-trimethylbenzene	2.483	2.621	-5.6	113	-0.02	22.39
98	Benzyl Chloride	0.479	0.461	3.8	98	-0.03	22.67
99	1,4-Dichlorobenzene	1.921	1.830	4.7	100	-0.03	22.37
100	sec-Butylbenzene	0.821	0.794	3.3	111	-0.03	21.97

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Continuing Calibration Summary

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Job Number: JD36325
Account: GESNYP Groundwater & Environmental Services
Project: Orangeburg UB, Orangeburg, NY

Sample: V5W1935-CC1909
Lab FileID: 5W46775.D

101	p-Isopropyltoluene	0.887	0.872	1.7	109	-0.02	22.15
102	1,2-Dichlorobenzene	1.838	1.701	7.5	105	-0.02	22.90
103	n-Butylbenzene	0.713	0.723	-1.4	108	-0.02	22.68
104	Hexachloroethane	1.359	1.175	13.5	104	-0.02	22.89
105	1,2,4-Trichlorobenzene	0.798	0.721	9.6	88	-0.04	24.69
106	Naphthalene	1.528	1.187	22.3	81	-0.04	25.12
107	Hexachlorobutadiene	1.306	1.182	9.5	110	-0.02	24.65
108 I	Bromochloromethane (A)	1.000	1.000	0.0	105	-0.02	11.39
109	TVHC as equiv Pentane	8.790	9.777	-11.2	119	-0.02	6.38

(#) = Out of Range
 5w46131.D m5w1909.M

SPCC's out = 0 CCC's out = 0
 Mon Dec 13 15:08:33 2021

6.9.8
 6

Continuing Calibration Summary

Page 1 of 3

Job Number: JD36325
 Account: GESNYP Groundwater & Environmental Services
 Project: Orangeburg UB, Orangeburg, NY

Sample: V5W1936-CC1909
 Lab FileID: 5W46803.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\5w46803.D
 Acq On : 14 Dec 2021 8:42 am
 Sample : cc1909-10
 Misc : ms55468,v5w1936,,,,,1
 MS Integration Params: Rteint.p

Vial: 2
 Operator: danat
 Inst : Air5w
 Multiplr: 1.00

Method : C:\msdchem\1\methods\m5w1909.M (RTE Integrator)
 Title : TO-15 Full Scan Mode
 Last Update : Mon Nov 08 09:09:45 2021
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 60% Max. R.T. Dev 0.33min
 Max. RRF Dev : 30% Max. Rel. Area : 140%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1	I Bromochloromethane	1.000	1.000	0.0	104	-0.02	11.39
2	Freon 152A	0.477	0.481	-0.8	109	0.00	4.39
3	Chlorodifluoromethane	0.246	0.261	-6.1	113	-0.02	4.46
4	Propene	0.445	0.424	4.7	109	0.00	4.29
5	Chlorotrifluoroethene	1.631	1.530	6.2	106	0.00	4.34
6	Dichlorodifluoromethane	3.059	3.201	-4.6	113	0.00	4.39
7	1-Chloro-1,1-difluoroetha	1.972	1.957	0.8	112	-0.01	4.80
8	Chloromethane	0.679	0.606	10.8	108	0.00	4.80
9	Dichlorotetrafluoroethane	2.867	2.732	4.7	109	0.00	4.70
10	Vinyl Chloride	0.825	0.799	3.2	110	-0.02	5.01
11	1,3-Butadiene	0.465	0.451	3.0	110	0.00	5.07
12	n-Butane	0.108	0.112	-3.7	110	-0.02	4.90
13	Bromomethane	0.766	0.741	3.3	114	-0.02	5.73
14	Chloroethane	0.375	0.376	-0.3	112	-0.01	6.04
15	Dichlorofluoromethane	2.032	1.983	2.4	113	-0.02	6.48
16	Acetonitrile	0.431	0.403	6.5	102	-0.06	9.49
17	Freon 123	2.127	2.107	0.9	114	-0.02	7.58
18	Freon 123A	1.374	1.314	4.4	108	-0.01	7.46
19	Bromoethene	1.070	1.060	0.9	109	-0.02	6.29
20	Acrolein	0.258	0.253	1.9	96	-0.02	8.09
21	Trichlorofluoromethane	3.028	2.963	2.1	112	0.00	6.38
22	Acetone	0.303	0.282	6.9	107	-0.07	8.66
23	Pentane	0.172	0.181	-5.2	115	-0.01	6.40
24	Iodomethane	3.650	3.516	3.7	108	-0.02	7.73
25	Isopropyl Alcohol	0.203	0.221	-8.9	112	-0.02	8.47
26	1,1-Dichloroethene	1.343	1.365	-1.6	114	0.00	7.46
27	Freon 113	2.375	2.358	0.7	112	-0.01	7.58
28	Methylene Chloride	0.869	0.840	3.3	109	-0.02	8.61
29	Carbon Disulfide	2.509	2.448	2.4	111	-0.02	7.51
30	Ethanol	0.233	0.226	3.0	104	-0.01	7.35
31	Acrylonitrile	0.477	0.454	4.8	104	-0.07	10.09
32	3-Chloropropene	0.396	0.420	-6.1	112	-0.02	8.41
33	trans-1,2-Dichloroethene	1.206	1.206	0.0	112	-0.03	8.94
34	tert-Butyl Alcohol	1.524	1.659	-8.9	113	-0.09	9.31
35	Methyl tert-Butyl Ether	2.457	2.566	-4.4	114	-0.06	9.18
36	Vinyl Acetate	1.485	1.453	2.2	105	-0.08	10.52
37	1,1-Dichloroethane	1.516	1.478	2.5	111	-0.02	10.07
38	2-Butanone	0.347	0.365	-5.2	106	-0.03	12.01
39	Hexane	0.622	0.623	-0.2	112	-0.02	9.15
40	cis-1,2-Dichloroethene	1.188	1.174	1.2	111	-0.04	11.04
41	Di-isopropyl Ether	0.774	0.761	1.7	111	-0.06	9.90
42	Ethyl Acetate	0.200	0.218	-9.0	107	-0.03	11.71

Continuing Calibration Summary

Page 2 of 3

Job Number: JD36325
Account: GESNYP Groundwater & Environmental Services
Project: Orangeburg UB, Orangeburg, NY

Sample: V5W1936-CC1909
Lab FileID: 5W46803.D

43	Methyl Acrylate	1.121	1.142	-1.9	104	-0.09	11.73
44	Chloroform	2.248	2.239	0.4	112	-0.03	11.52
45	2,4-Dimethylpentane	1.364	1.321	3.2	112	-0.02	10.22
46	Tetrahydrofuran	0.359	0.386	-7.5	110	-0.07	11.81
47	1,1,1-Trichloroethane	2.429	2.386	1.8	112	-0.03	11.91
48	1,2-Dichloroethane	1.251	1.283	-2.6	113	-0.04	12.86
49	Benzene	2.733	2.670	2.3	107	-0.04	12.55
50	Carbon Tetrachloride	2.678	2.768	-3.4	111	-0.02	11.81
51	Cyclohexane	1.158	1.116	3.6	112	-0.02	11.47
52	2,3-Dimethylpentane	0.559	0.565	-1.1	109	-0.02	11.64
53 I	1,4-Difluorobenzene	1.000	1.000	0.0	105	-0.03	13.58
54	2,2,4-Trimethylpentane	1.025	0.989	3.5	111	-0.02	12.36
55	Heptane	0.225	0.227	-0.9	109	-0.02	12.53
56	Trichloroethene	0.271	0.265	2.2	109	-0.04	13.57
57	1,2-Dichloropropane	0.249	0.245	1.6	110	-0.04	14.44
58	Dibromomethane	0.557	0.481	13.6	102	-0.05	14.27
59	Ethyl Acrylate	0.424	0.441	-4.0	107	-0.14	14.44
60	Methyl Methacrylate	0.235	0.250	-6.4	106	-0.07	14.80
61	1,4-Dioxane	0.173	0.185	-6.9	107	-0.08	14.87
62	Bromodichloromethane	0.660	0.662	-0.3	111	-0.04	14.55
63	cis-1,3-Dichloropropene	0.484	0.463	4.3	108	-0.06	15.65
64	4-Methyl-2-pentanone	0.176	0.193	-9.7	109	-0.07	16.72
65	trans-1,3-Dichloropropene	0.444	0.413	7.0	107	-0.06	16.80
66	Toluene	1.057	1.002	5.2	107	-0.04	16.11
67	1,1,2-Trichloroethane	0.373	0.362	2.9	108	-0.04	17.10
68	1,3-Dichloropropane	0.445	0.427	4.0	108	-0.04	17.61
69	2-Hexanone	0.390	0.371	4.9	105	-0.09	18.25
70	Ethyl Methacrylate	0.374	0.414	-10.7	108	-0.07	17.08
71	Dibromochloromethane	0.813	0.830	-2.1	108	-0.04	17.45
72	Tetrachloroethene	0.731	0.698	4.5	107	-0.03	16.83
73	1,2-Dibromoethane	0.643	0.605	5.9	103	-0.04	17.90
74	Octane	0.398	0.415	-4.3	111	-0.03	15.81
75	1,1,1,2-Tetrachloroethane	0.560	0.552	1.4	108	-0.04	18.99
76 I	Chlorobenzene-d5	1.000	1.000	0.0	110	-0.04	18.85
77	Chlorobenzene	2.153	1.969	8.5	106	-0.03	18.88
78	Ethylbenzene	3.169	2.936	7.4	109	-0.04	18.93
79	m,p-Xylene	2.385	2.238	6.2	109	-0.03	19.18
80	Styrene	1.834	1.723	6.1	102	-0.04	19.98
81	Nonane	0.988	0.975	1.3	113	-0.02	18.77
82	o-Xylene	2.523	2.367	6.2	110	-0.04	19.90
83	Bromoform	2.072	1.983	4.3	103	-0.03	20.03
84	1,1,2,2-Tetrachloroethane	1.744	1.608	7.8	109	-0.03	21.08
85	1,2,3-Trichloropropane	1.249	1.203	3.7	110	-0.03	21.28
86	Isopropylbenzene	3.657	3.414	6.6	109	-0.03	20.40
87	Bromobenzene	1.435	1.254	12.6	101	-0.03	20.98
88	2-Chlorotoluene	0.955	0.871	8.8	105	-0.04	21.24
89	n-Propylbenzene	0.963	0.923	4.2	107	-0.03	21.01
90 S	4-Bromofluorobenzene	1.419	1.394	1.8	104	-0.02	20.82
91	4-Ethyltoluene	3.285	3.230	1.7	109	-0.03	21.17
92	1,3,5-Trimethylbenzene	2.648	2.601	1.8	112	-0.03	21.28
93	alpha-Methylstyrene	1.366	1.333	2.4	103	-0.04	21.63
94	tert-Butylbenzene	0.677	0.603	10.9	105	-0.02	21.73
95	1,2,4-Trimethylbenzene	2.582	2.603	-0.8	109	-0.03	21.81
96	1,3-Dichlorobenzene	1.983	1.828	7.8	100	-0.03	22.26
97	1,2,3-trimethylbenzene	2.483	2.488	-0.2	109	-0.02	22.39
98	Benzyl Chloride	0.479	0.435	9.2	95	-0.04	22.66
99	1,4-Dichlorobenzene	1.921	1.729	10.0	97	-0.03	22.37
100	sec-Butylbenzene	0.821	0.767	6.6	109	-0.03	21.97

Continuing Calibration Summary

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Job Number: JD36325
Account: GESNYP Groundwater & Environmental Services
Project: Orangeburg UB, Orangeburg, NY

Sample: V5W1936-CC1909
Lab FileID: 5W46803.D

101	p-Isopropyltoluene	0.887	0.839	5.4	107	-0.02	22.15
102	1,2-Dichlorobenzene	1.838	1.641	10.7	103	-0.03	22.89
103	n-Butylbenzene	0.713	0.691	3.1	105	-0.02	22.68
104	Hexachloroethane	1.359	1.116	17.9	101	-0.02	22.89
105	1,2,4-Trichlorobenzene	0.798	0.688	13.8	86	-0.04	24.69
106	Naphthalene	1.528	1.109	27.4	78	-0.04	25.11
107	Hexachlorobutadiene	1.306	1.134	13.2	107	-0.02	24.65
108 I	Bromochloromethane (A)	1.000	1.000	0.0	104	-0.02	11.39
109	TVHC as equiv Pentane	8.790	9.541	-8.5	115	-0.02	6.39

(#) = Out of Range SPCC's out = 0 CCC's out = 0
 5w46131.D m5w1909.M Tue Dec 14 13:13:01 2021

6.9.9

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Run Sequence Report

Page 1 of 1

Job Number: JD36325**Account:** GESNYP Groundwater & Environmental Services**Project:** Orangeburg UB, Orangeburg, NY

Run ID: V2W2424	Method: TO-15	Instrument ID: GCMS2W

Lab Sample ID	Lab File ID	Date/Time Analyzed	Prep QC Batch	Client Sample ID
V2W2424-BFB	2W54653.D	07/27/21 11:06	n/a	BFB Tune
V2W2424-IC2424	2W54654.D	07/27/21 11:38	n/a	Initial cal 0.5
V2W2424-IC2424	2W54655.D	07/27/21 12:10	n/a	Initial cal 0.2
V2W2424-IC2424	2W54656.D	07/27/21 12:41	n/a	Initial cal 0.1
V2W2424-IC2424	2W54657.D	07/27/21 13:13	n/a	Initial cal 0.04
V2W2424-IC2424	2W54658.D	07/27/21 13:44	n/a	Initial cal 5
V2W2424-ICC2424	2W54659.D	07/27/21 14:15	n/a	Initial cal 10
V2W2424-IC2424	2W54660.D	07/27/21 14:47	n/a	Initial cal 20
V2W2424-IC2424	2W54661.D	07/27/21 15:21	n/a	Initial cal 40
V2W2424-ICV2424	2W54663.D	07/27/21 16:24	n/a	Initial cal verification 10

6.10.1
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Run Sequence Report

Job Number: JD36325
Account: GESNYP Groundwater & Environmental Services
Project: Orangeburg UB, Orangeburg, NY

Run ID: V2W2494	Method: TO-15	Instrument ID: GCMS2W

Lab Sample ID	Lab File ID	Date/Time Analyzed	Prep QC Batch	Client Sample ID
V2W2494-BFB	2W55978.D	11/01/21 06:59	n/a	BFB Tune
V2W2494-CC2424	2W55980.D	11/01/21 08:49	n/a	Continuing cal 10
V2W2494-BS	2W55982.D	11/01/21 10:21	n/a	Blank Spike
V2W2494-BSD	2W55983.D	11/01/21 11:03	n/a	Blank Spike Duplicate
V2W2494-MB	2W55985.D	11/01/21 12:25	n/a	Method Blank
JD34199-1	2W55986.D	11/01/21 13:13	n/a	(used for QC only; not part of job JD36325)
JD34199-1DUP	2W55987.D	11/01/21 13:50	n/a	Duplicate
ZZZZZZ	2W55988.D	11/01/21 14:26	n/a	(unrelated sample)
V2W2494-SCC	2W55990.D	11/01/21 15:44	n/a	Summa Cleaning Certification
V2W2494-SCC	2W55992.D	11/01/21 17:08	n/a	Summa Cleaning Certification
V2W2494-SCC	2W55993.D	11/01/21 17:48	n/a	Summa Cleaning Certification
V2W2494-SCC	2W55994.D	11/01/21 18:29	n/a	Summa Cleaning Certification
V2W2494-SCC	2W55995.D	11/01/21 19:05	n/a	Summa Cleaning Certification
V2W2494-SCC	2W55996.D	11/01/21 19:40	n/a	Summa Cleaning Certification
V2W2494-SCC	2W55997.D	11/01/21 20:15	n/a	Summa Cleaning Certification
JD34199-1	2W55998.D	11/01/21 20:51	n/a	(used for QC only; not part of job JD36325)
ZZZZZZ	2W55999.D	11/01/21 21:27	n/a	(unrelated sample)
ZZZZZZ	2W56000.D	11/01/21 22:03	n/a	(unrelated sample)
ZZZZZZ	2W56001.D	11/01/21 22:40	n/a	(unrelated sample)
ZZZZZZ	2W56002.D	11/01/21 23:16	n/a	(unrelated sample)
ZZZZZZ	2W56003.D	11/01/21 23:51	n/a	(unrelated sample)
ZZZZZZ	2W56004.D	11/02/21 00:28	n/a	(unrelated sample)

Run Sequence Report

Job Number: JD36325

Account: GESNYP Groundwater & Environmental Services

Project: Orangeburg UB, Orangeburg, NY

Run ID: V2W2495	Method: TO-15	Instrument ID: GCMS2W

Lab Sample ID	Lab File ID	Date/Time Analyzed	Prep QC Batch	Client Sample ID
V2W2495-BFB	2W56005.D	11/02/21 07:21	n/a	BFB Tune
V2W2495-CC2424	2W56006.D	11/02/21 07:58	n/a	Continuing cal 10
V2W2495-BS	2W56007.D	11/02/21 08:47	n/a	Blank Spike
V2W2495-BSD	2W56008.D	11/02/21 09:23	n/a	Blank Spike Duplicate
V2W2495-MB	2W56010.D	11/02/21 10:48	n/a	Method Blank
V2W2495-SCC	2W56011.D	11/02/21 13:05	n/a	Summa Cleaning Certification
V2W2495-SCC	2W56012.D	11/02/21 13:41	n/a	Summa Cleaning Certification
V2W2495-SCC	2W56013.D	11/02/21 14:15	n/a	Summa Cleaning Certification
V2W2495-SCC	2W56014.D	11/02/21 14:51	n/a	Summa Cleaning Certification
V2W2495-SCC	2W56015.D	11/02/21 15:27	n/a	Summa Cleaning Certification
ZZZZZZ	2W56016.D	11/02/21 16:03	n/a	(unrelated sample)
ZZZZZZ	2W56017.D	11/02/21 16:40	n/a	(unrelated sample)
ZZZZZZ	2W56018.D	11/02/21 17:15	n/a	(unrelated sample)
ZZZZZZ	2W56019.D	11/02/21 17:51	n/a	(unrelated sample)
ZZZZZZ	2W56020.D	11/02/21 18:27	n/a	(unrelated sample)
ZZZZZZ	2W56021.D	11/02/21 19:03	n/a	(unrelated sample)
ZZZZZZ	2W56022.D	11/02/21 19:39	n/a	(unrelated sample)
JD34484-3	2W56023.D	11/02/21 20:15	n/a	(used for QC only; not part of job JD36325)
JD34484-3DUP	2W56024.D	11/02/21 20:52	n/a	Duplicate
ZZZZZZ	2W56025.D	11/02/21 21:28	n/a	(unrelated sample)
ZZZZZZ	2W56026.D	11/02/21 22:04	n/a	(unrelated sample)
ZZZZZZ	2W56027.D	11/02/21 22:48	n/a	(unrelated sample)
ZZZZZZ	2W56028.D	11/02/21 23:30	n/a	(unrelated sample)
ZZZZZZ	2W56029.D	11/03/21 00:07	n/a	(unrelated sample)
ZZZZZZ	2W56030.D	11/03/21 00:44	n/a	(unrelated sample)

Run Sequence Report

Job Number: JD36325
Account: GESNYP Groundwater & Environmental Services
Project: Orangeburg UB, Orangeburg, NY

Run ID: V2W2497	Method: TO-15	Instrument ID: GCMS2W

Lab Sample ID	Lab File ID	Date/Time Analyzed	Prep QC Batch	Client Sample ID
V2W2497-BFB	2W56052.D	11/04/21 06:46	n/a	BFB Tune
V2W2497-CC2424	2W56053.D	11/04/21 07:23	n/a	Continuing cal 10
V2W2497-BS	2W56054.D	11/04/21 08:14	n/a	Blank Spike
V2W2497-BSD	2W56056.D	11/04/21 09:45	n/a	Blank Spike Duplicate
V2W2497-MB	2W56058.D	11/04/21 11:09	n/a	Method Blank
JD34347-5	2W56059.D	11/04/21 12:02	n/a	(used for QC only; not part of job JD36325)
ZZZZZZ	2W56060.D	11/04/21 12:37	n/a	(unrelated sample)
ZZZZZZ	2W56062.D	11/04/21 13:54	n/a	(unrelated sample)
ZZZZZZ	2W56063.D	11/04/21 14:43	n/a	(unrelated sample)
JD34347-5DUP	2W56064.D	11/04/21 15:21	n/a	Duplicate
ZZZZZZ	2W56065.D	11/04/21 15:56	n/a	(unrelated sample)
ZZZZZZ	2W56066.D	11/04/21 16:32	n/a	(unrelated sample)
ZZZZZZ	2W56067.D	11/04/21 17:08	n/a	(unrelated sample)
ZZZZZZ	2W56068.D	11/04/21 17:45	n/a	(unrelated sample)
ZZZZZZ	2W56069.D	11/04/21 18:21	n/a	(unrelated sample)
ZZZZZZ	2W56070.D	11/04/21 18:57	n/a	(unrelated sample)
ZZZZZZ	2W56071.D	11/04/21 19:34	n/a	(unrelated sample)
ZZZZZZ	2W56072.D	11/04/21 20:09	n/a	(unrelated sample)
ZZZZZZ	2W56073.D	11/04/21 20:46	n/a	(unrelated sample)
ZZZZZZ	2W56074.D	11/04/21 21:30	n/a	(unrelated sample)
ZZZZZZ	2W56075.D	11/04/21 22:13	n/a	(unrelated sample)
V2W2497-SCC	2W56076.D	11/04/21 22:49	n/a	Summa Cleaning Certification
V2W2497-SCC	2W56078.D	11/05/21 00:12	n/a	Summa Cleaning Certification
V2W2497-SCC	2W56079.D	11/05/21 00:54	n/a	Summa Cleaning Certification
V2W2497-SCC	2W56080.D	11/05/21 01:36	n/a	Summa Cleaning Certification

Run Sequence Report

Page 1 of 1

Job Number: JD36325**Account:** GESNYP Groundwater & Environmental Services**Project:** Orangeburg UB, Orangeburg, NY

Run ID: V5W1909	Method: TO-15	Instrument ID: GCMS5W

Lab Sample ID	Lab File ID	Date/Time Analyzed	Prep QC Batch	Client Sample ID
V5W1909-BFB	5W46125.D	11/04/21 09:52	n/a	BFB Tune
V5W1909-IC1909	5W46126.D	11/04/21 10:43	n/a	Initial cal 0.5
V5W1909-IC1909	5W46127.D	11/04/21 11:32	n/a	Initial cal 0.2
V5W1909-IC1909	5W46128.D	11/04/21 12:20	n/a	Initial cal 0.1
V5W1909-IC1909	5W46129.D	11/04/21 13:08	n/a	Initial cal 0.04
V5W1909-IC1909	5W46130.D	11/04/21 13:56	n/a	Initial cal 5
V5W1909-ICC1909	5W46131.D	11/04/21 14:45	n/a	Initial cal 10
V5W1909-IC1909	5W46132.D	11/04/21 15:36	n/a	Initial cal 20
V5W1909-IC1909	5W46133.D	11/04/21 16:30	n/a	Initial cal 40
V5W1909-IC1909	5W46134.D	11/04/21 17:25	n/a	Initial cal 50
V5W1909-ICV1909	5W46137.D	11/04/21 19:52	n/a	Initial cal verification 10

6.10.5

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Run Sequence Report

Job Number: JD36325
Account: GESNYP Groundwater & Environmental Services
Project: Orangeburg UB, Orangeburg, NY

Run ID: V5W1935	Method: TO-15	Instrument ID: GCMS5W

Lab Sample ID	Lab File ID	Date/Time Analyzed	Prep QC Batch	Client Sample ID
V5W1935-BFB	5W46774.D	12/13/21 07:49	n/a	BFB Tune
V5W1935-CC1909	5W46775.D	12/13/21 08:38	n/a	Continuing cal 10
V5W1935-BS	5W46777.D	12/13/21 10:27	n/a	Blank Spike
V5W1935-BSD	5W46778.D	12/13/21 11:15	n/a	Blank Spike Duplicate
V5W1935-MB	5W46781.D	12/13/21 13:54	n/a	Method Blank
ZZZZZZ	5W46782.D	12/13/21 14:42	n/a	(unrelated sample)
ZZZZZZ	5W46783.D	12/13/21 15:30	n/a	(unrelated sample)
ZZZZZZ	5W46784.D	12/13/21 16:18	n/a	(unrelated sample)
JD36248-1	5W46785.D	12/13/21 17:07	n/a	(used for QC only; not part of job JD36325)
JD36248-1DUP	5W46786.D	12/13/21 17:56	n/a	Duplicate
ZZZZZZ	5W46787.D	12/13/21 18:45	n/a	(unrelated sample)
ZZZZZZ	5W46788.D	12/13/21 19:35	n/a	(unrelated sample)
ZZZZZZ	5W46789.D	12/13/21 20:23	n/a	(unrelated sample)
ZZZZZZ	5W46790.D	12/13/21 21:12	n/a	(unrelated sample)
ZZZZZZ	5W46791.D	12/13/21 22:01	n/a	(unrelated sample)
ZZZZZZ	5W46792.D	12/13/21 22:50	n/a	(unrelated sample)
ZZZZZZ	5W46793.D	12/13/21 23:38	n/a	(unrelated sample)
ZZZZZZ	5W46794.D	12/14/21 00:27	n/a	(unrelated sample)
JD36325-2	5W46795.D	12/14/21 01:25	n/a	VP-5 INDOOR
JD36325-4	5W46796.D	12/14/21 02:22	n/a	VP-6 INDOOR
JD36325-5	5W46797.D	12/14/21 03:20	n/a	OUTSIDE AMBIENT
JD36325-1	5W46798.D	12/14/21 04:16	n/a	VP-5 SOIL VAPOR
JD36325-3	5W46799.D	12/14/21 05:11	n/a	VP-6 SOIL VAPOR
V5W1935-SCC	5W46800.D	12/14/21 06:02	n/a	Summa Cleaning Certification
V5W1935-SCC	5W46801.D	12/14/21 06:51	n/a	Summa Cleaning Certification

Run Sequence Report

Job Number: JD36325
Account: GESNYP Groundwater & Environmental Services
Project: Orangeburg UB, Orangeburg, NY

Run ID: V5W1936	Method: TO-15	Instrument ID: GCMS5W

Lab Sample ID	Lab File ID	Date/Time Analyzed	Prep QC Batch	Client Sample ID
V5W1936-BFB	5W46802.D	12/14/21 07:53	n/a	BFB Tune
V5W1936-CC1909	5W46803.D	12/14/21 08:42	n/a	Continuing cal 10
V5W1936-BS	5W46804.D	12/14/21 09:34	n/a	Blank Spike
V5W1936-BSD	5W46805.D	12/14/21 10:23	n/a	Blank Spike Duplicate
V5W1936-MB	5W46808.D	12/14/21 13:06	n/a	Method Blank
V5W1936-SCC	5W46809.D	12/14/21 14:00	n/a	Summa Cleaning Certification
V5W1936-SCC	5W46810.D	12/14/21 14:49	n/a	Summa Cleaning Certification
V5W1936-SCC	5W46811.D	12/14/21 15:44	n/a	Summa Cleaning Certification
JD36325-1	5W46812.D	12/14/21 16:34	n/a	VP-5 SOIL VAPOR
JD36325-3	5W46813.D	12/14/21 17:23	n/a	VP-6 SOIL VAPOR
ZZZZZZ	5W46814.D	12/14/21 18:11	n/a	(unrelated sample)
JD36496-1	5W46815.D	12/14/21 19:00	n/a	(used for QC only; not part of job JD36325)
JD36496-1DUP	5W46816.D	12/14/21 19:49	n/a	Duplicate
ZZZZZZ	5W46817.D	12/14/21 20:37	n/a	(unrelated sample)
ZZZZZZ	5W46818.D	12/14/21 21:26	n/a	(unrelated sample)
ZZZZZZ	5W46819.D	12/14/21 22:21	n/a	(unrelated sample)
ZZZZZZ	5W46820.D	12/14/21 23:16	n/a	(unrelated sample)
ZZZZZZ	5W46821.D	12/15/21 00:11	n/a	(unrelated sample)
ZZZZZZ	5W46822.D	12/15/21 01:07	n/a	(unrelated sample)
ZZZZZZ	5W46823.D	12/15/21 02:03	n/a	(unrelated sample)
ZZZZZZ	5W46824.D	12/15/21 02:58	n/a	(unrelated sample)
ZZZZZZ	5W46825.D	12/15/21 03:55	n/a	(unrelated sample)
ZZZZZZ	5W46826.D	12/15/21 04:50	n/a	(unrelated sample)
ZZZZZZ	5W46827.D	12/15/21 05:45	n/a	(unrelated sample)
V5W1936-SCC	5W46828.D	12/15/21 06:39	n/a	Summa Cleaning Certification
ZZZZZZ	5W46829.D	12/15/21 07:33	n/a	(unrelated sample)



MS Volatiles

Raw Data

7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
 Data File : 5W46798.D
 Acq On : 14 Dec 2021 4:16 am
 Operator : danat
 Sample : jd36325-1
 Misc : ms55468,v5w1935,400,,,,,1
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: Dec 14 13:49:19 2021
 Quant Method : C:\msdchem\1\methods\m5w1909.M
 Quant Title : T0-15 Full Scan Mode
 QLast Update : Mon Nov 08 09:09:12 2021
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

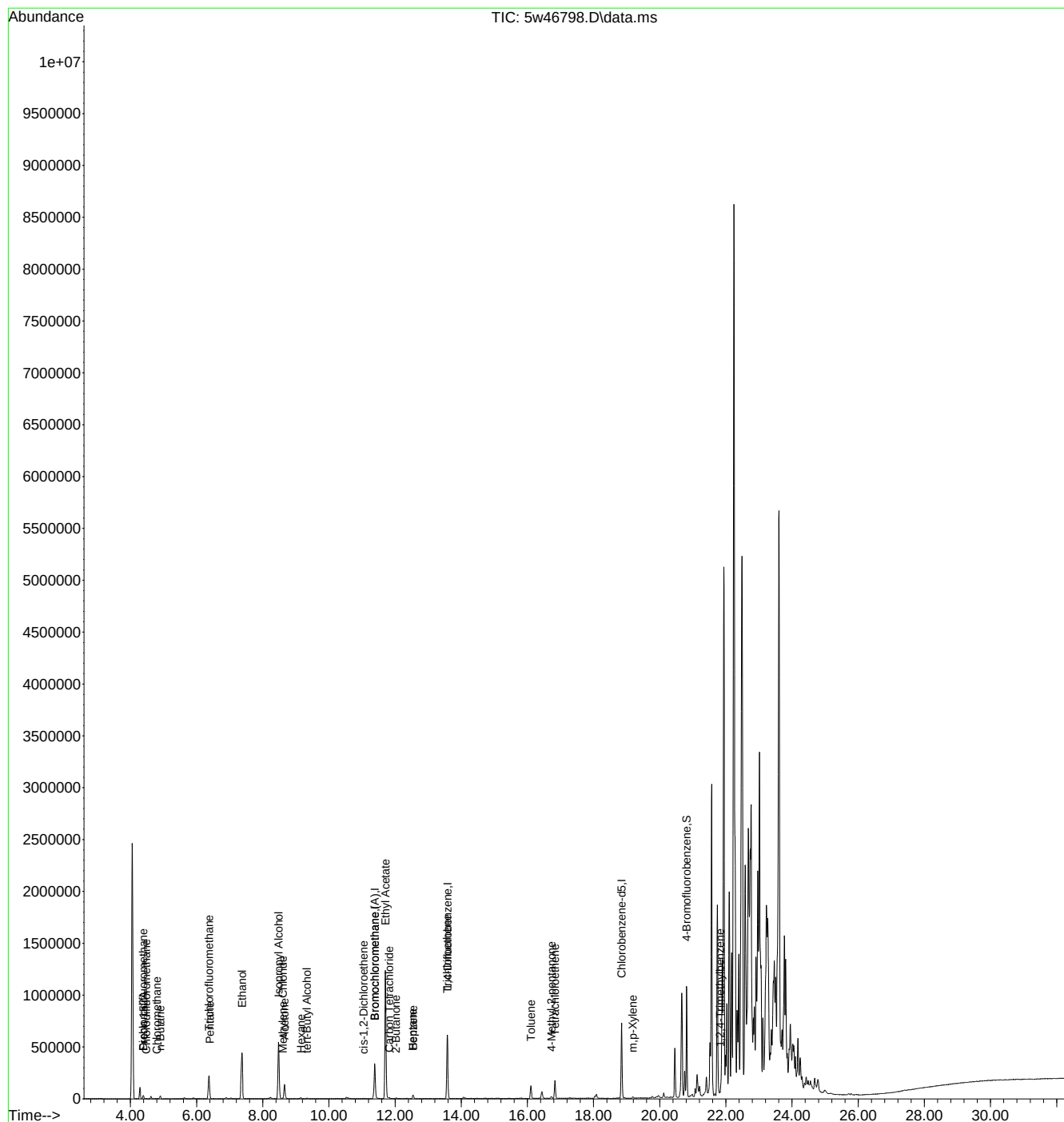
Internal Standards						
1) Bromochloromethane	11.390	130	187182	10.00	ppb(v	-0.02
53) 1,4-Difluorobenzene	13.580	114	686403	10.00	ppb(v	-0.03
76) Chlorobenzene-d5	18.848	82	286708	10.00	ppb(v	-0.04
108) Bromochloromethane (A)	11.390	130	187182	10.00	ppb(v	-0.02
System Monitoring Compounds						
90) 4-Bromofluorobenzene	20.811	95	376835	9.27	ppb(v	-0.03
Spiked Amount 10.000	Range 65 - 128		Recovery	=	92.70%	
Target Compounds						
					Qvalue	
2) Freon 152A	4.391	65	8419	0.94	ppb(v	99
3) Chlorodifluoromethane	4.471	67	1302	0.28	ppb(v#	100
6) Dichlorodifluoromethane	4.385	85	22026	0.38	ppb(v	99
8) Chloromethane	4.795	50	3419	0.27	ppb(v	89
12) n-Butane	4.899	58	2522	1.25	ppb(v	97
21) Trichlorofluoromethane	6.374	101	271496	4.79	ppb(v	91
22) Acetone	8.656	58	75670	13.32	ppb(v	80
23) Pentane	6.398	57	1789	0.56	ppb(v	91
25) Isopropyl Alcohol	8.478	43	191260	50.30	ppb(v	95
28) Methylene Chloride	8.607	84	4535	0.28	ppb(v	96
30) Ethanol	7.371	45	772449	177.46	ppb(v	99
34) tert-Butyl Alcohol	9.335	59	13147	0.46	ppb(v#	83
38) 2-Butanone	12.026	72	3766	0.58	ppb(v	86
39) Hexane	9.151	56	4790	0.41	ppb(v	86
40) cis-1,2-Dichloroethene	11.048	61	2580	0.12	ppb(v	95
42) Ethyl Acetate	11.708	61	313873	84.03	ppb(v	98
49) Benzene	12.546	78	37529	0.73	ppb(v	93
50) Carbon Tetrachloride	11.818	117	3761	0.08	ppb(v	92
55) Heptane	12.534	71	2862	0.19	ppb(v	91
56) Trichloroethene	13.574	97	7326	0.39	ppb(v#	1
64) 4-Methyl-2-pentanone	16.725	58	7418	0.61	ppb(v#	87
66) Toluene	16.107	91	126700	1.75	ppb(v	93
72) Tetrachloroethene	16.835	166	76058	1.52	ppb(v	91
79) m,p-Xylene	19.184	91	12285	0.18	ppb(v	94
95) 1,2,4-Trimethylbenzene	21.821	105	9743	0.13	ppb(v	97

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

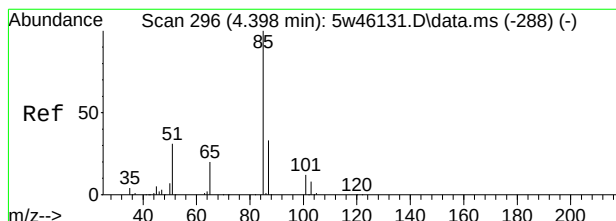
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 5w46798.D
Acq On : 14 Dec 2021 4:16 am
Operator : danat
Sample : jd36325-1
Misc : ms55468,v5w1935,400,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Dec 14 13:49:19 2021
Quant Method : C:\msdchem\1\methods\m5w1909.M
Quant Title : T0-15 Full Scan Mode
QLast Update : Mon Nov 08 09:09:12 2021
Response via : Initial Calibration

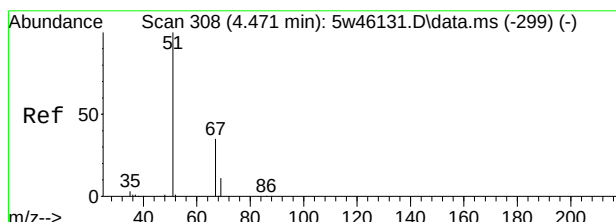
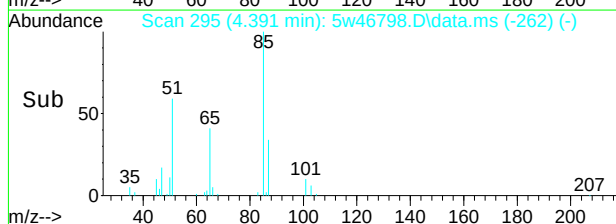
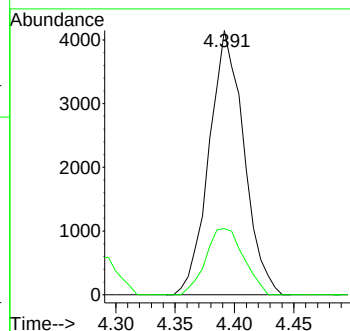
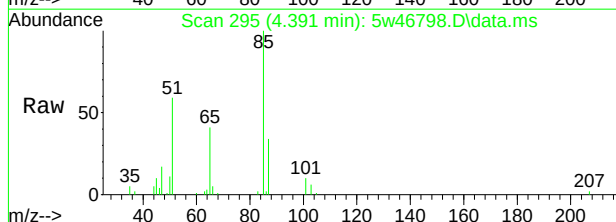


7.1.1



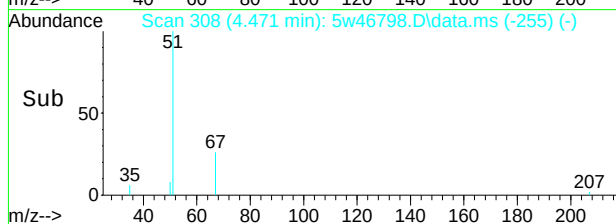
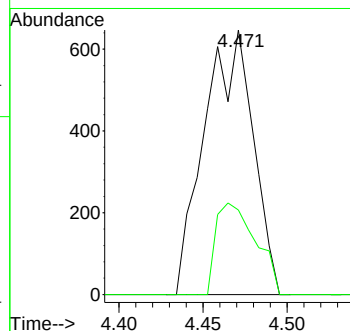
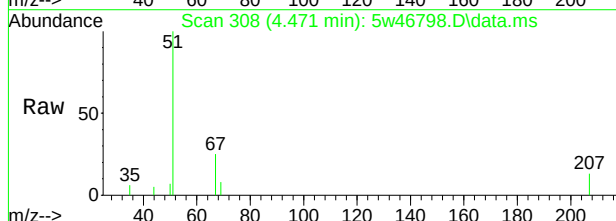
#2
Freon 152A
Concen: 0.94 ppb(v)
RT: 4.391 min Scan# 295
Delta R.T. -0.000 min
Lab File: 5w46798.D
Acq: 14 Dec 2021 4:16 am

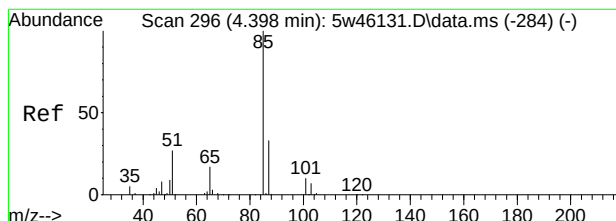
Tgt Ion: 65 Resp: 8419
Ion Ratio Lower Upper
65 100
45 25.1 17.8 33.1



#3
Chlorodifluoromethane
Concen: 0.28 ppb(v)
RT: 4.471 min Scan# 308
Delta R.T. -0.006 min
Lab File: 5w46798.D
Acq: 14 Dec 2021 4:16 am

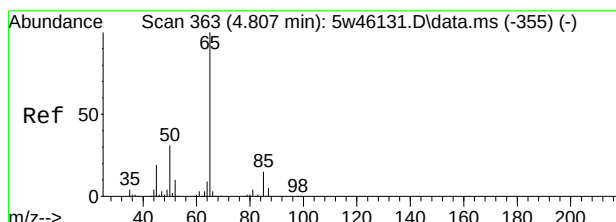
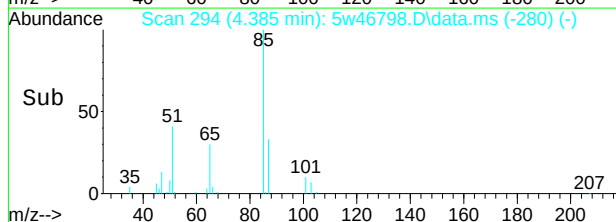
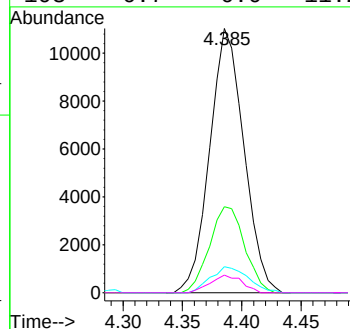
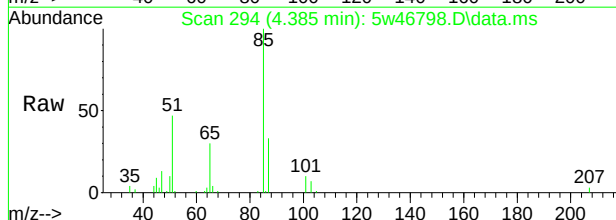
Tgt Ion: 67 Resp: 1302
Ion Ratio Lower Upper
67 100
69 32.0 0.0 0.0#





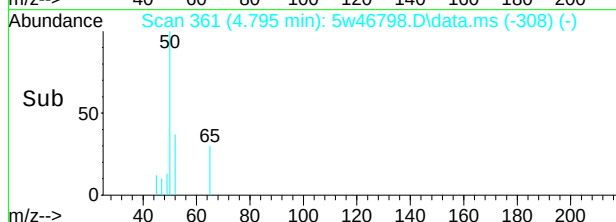
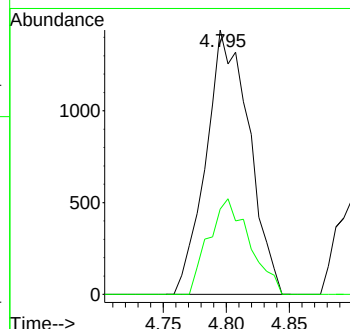
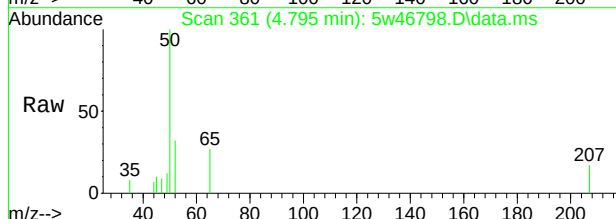
#6
Dichlorodifluoromethane
Concen: 0.38 ppb(v)
RT: 4.385 min Scan# 294
Delta R.T. -0.007 min
Lab File: 5w46798.D
Acq: 14 Dec 2021 4:16 am

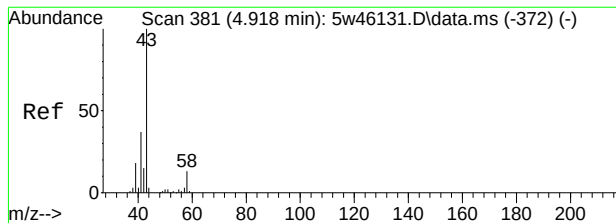
Tgt Ion:	85	Resp:	22026
Ion	Ratio	Lower	Upper
85	100		
87	32.6	23.0	42.6
101	9.9	6.8	12.6
103	6.7	6.0	11.2



#8
Chloromethane
Concen: 0.27 ppb(v)
RT: 4.795 min Scan# 361
Delta R.T. -0.006 min
Lab File: 5w46798.D
Acq: 14 Dec 2021 4:16 am

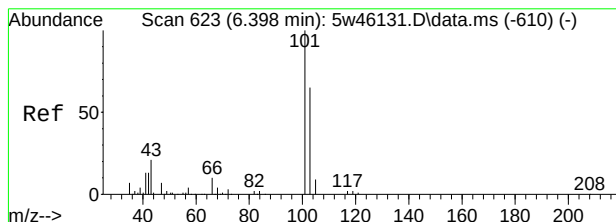
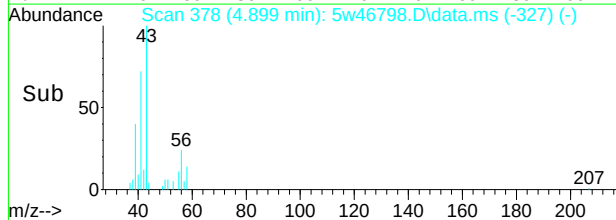
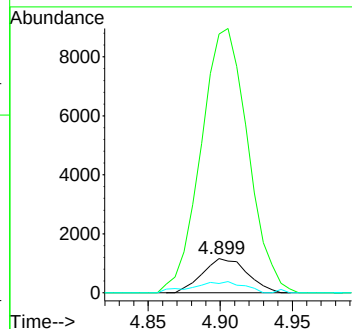
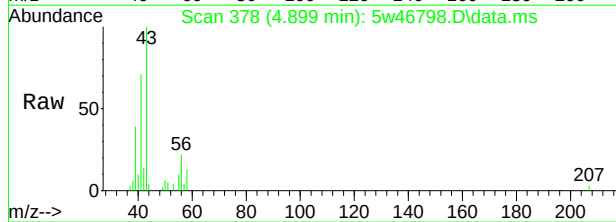
Tgt Ion:	50	Resp:	3419
Ion	Ratio	Lower	Upper
50	100		
52	32.3	18.8	34.8





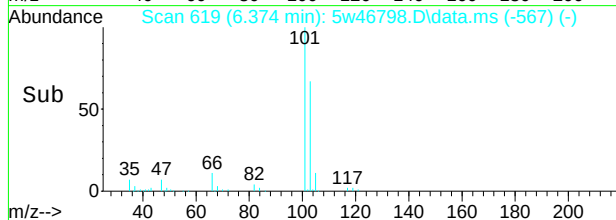
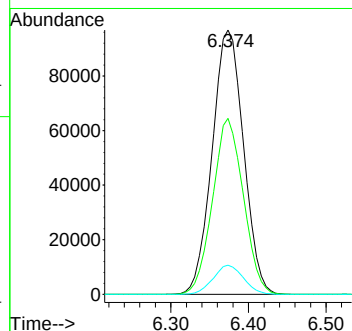
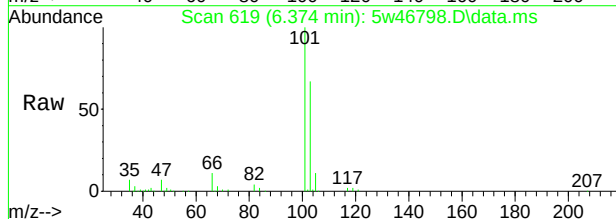
#12
n-Butane
Concen: 1.25 ppb(v)
RT: 4.899 min Scan# 378
Delta R.T. -0.018 min
Lab File: 5w46798.D
Acq: 14 Dec 2021 4:16 am

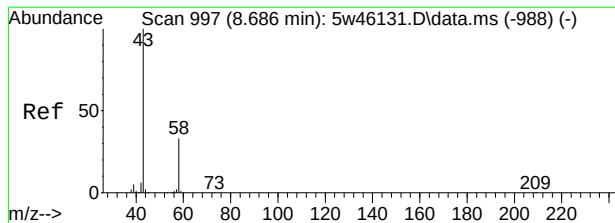
Tgt Ion	Ratio	Lower	Upper
58	100		
43	758.6	523.2	971.7
44	27.1	18.6	34.6



#21
Trichlorofluoromethane
Concen: 4.79 ppb(v)
RT: 6.374 min Scan# 619
Delta R.T. -0.012 min
Lab File: 5w46798.D
Acq: 14 Dec 2021 4:16 am

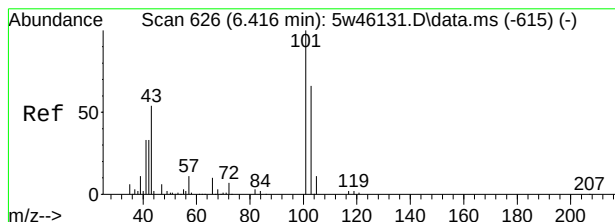
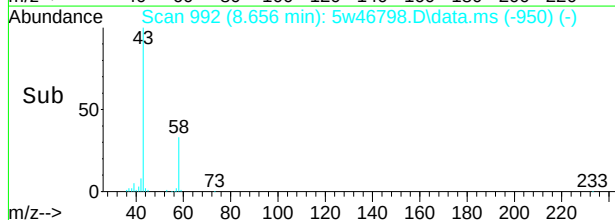
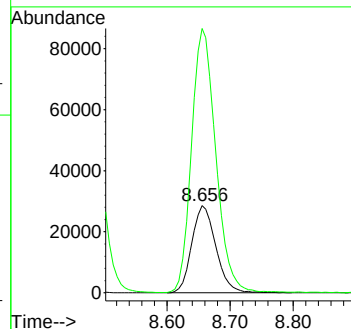
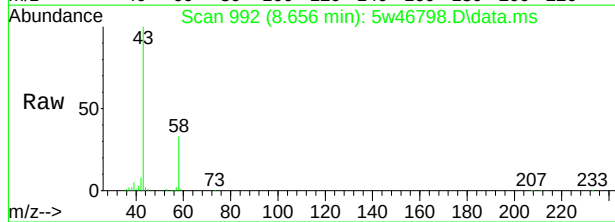
Tgt Ion	Ratio	Lower	Upper
101	100		
103	66.6	41.2	76.4
105	11.0	7.4	13.8





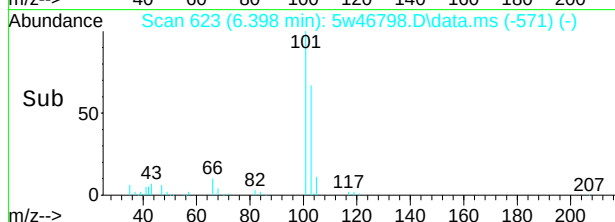
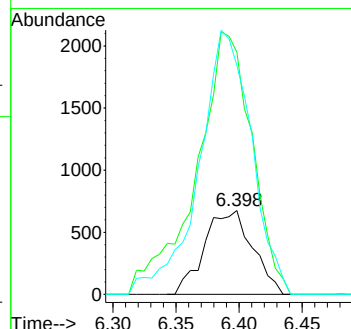
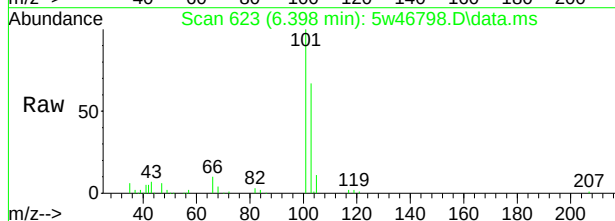
#22
Acetone
Concen: 13.32 ppb(v)
RT: 8.656 min Scan# 992
Delta R.T. -0.073 min
Lab File: 5w46798.D
Acq: 14 Dec 2021 4:16 am

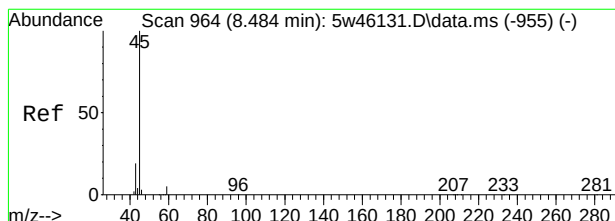
Tgt Ion: 58 Resp: 75670
Ion Ratio Lower Upper
58 100
43 303.2 186.7 346.7



#23
Pentane
Concen: 0.56 ppb(v)
RT: 6.398 min Scan# 623
Delta R.T. -0.012 min
Lab File: 5w46798.D
Acq: 14 Dec 2021 4:16 am

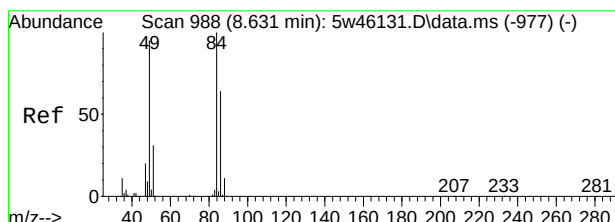
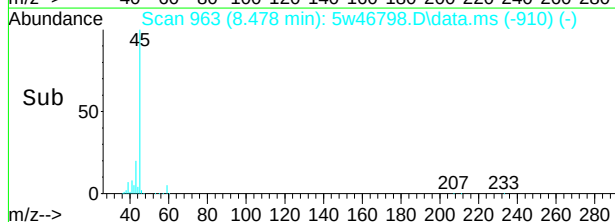
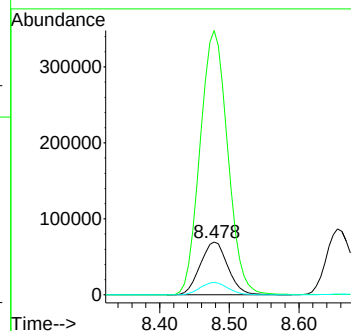
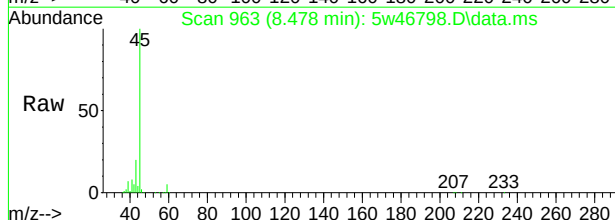
Tgt Ion: 57 Resp: 1789
Ion Ratio Lower Upper
57 100
42 289.3 192.4 357.4
41 273.6 204.9 380.5





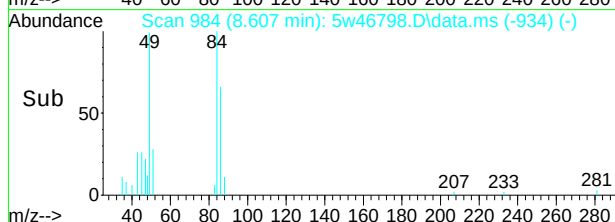
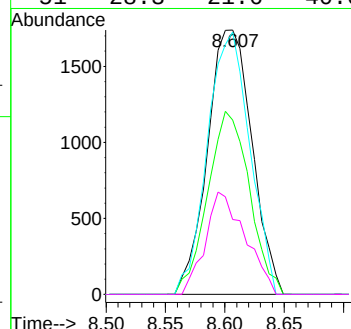
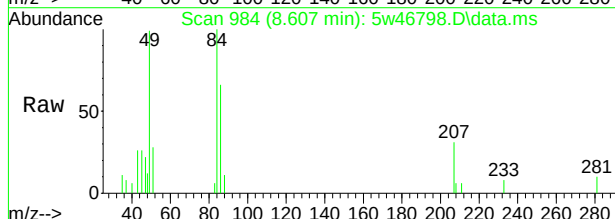
#25
Isopropyl Alcohol
Concen: 50.30 ppb(v)
RT: 8.478 min Scan# 963
Delta R.T. -0.006 min
Lab File: 5w46798.D
Acq: 14 Dec 2021 4:16 am

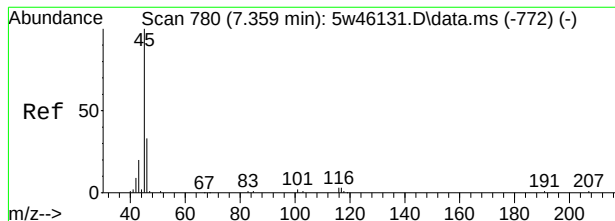
Tgt Ion	Ratio	Lower	Upper
43	100		
45	500.3	361.2	670.8
59	23.3	17.1	31.9



#28
Methylene Chloride
Concen: 0.28 ppb(v)
RT: 8.607 min Scan# 984
Delta R.T. -0.024 min
Lab File: 5w46798.D
Acq: 14 Dec 2021 4:16 am

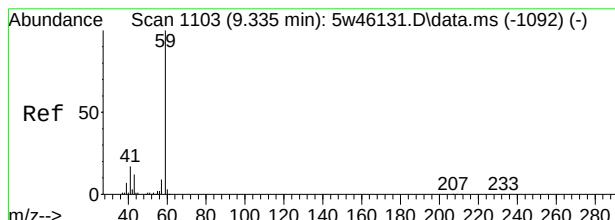
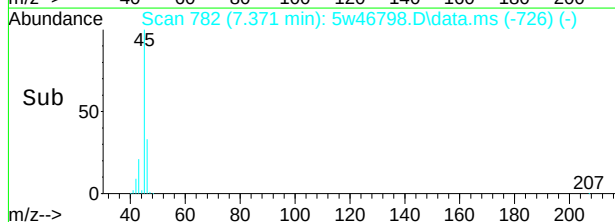
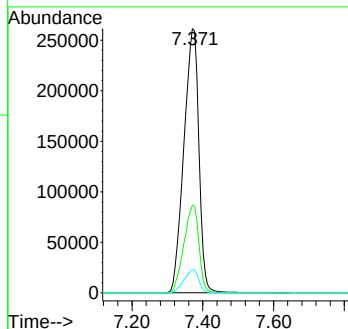
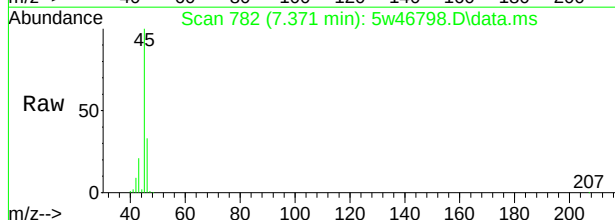
Tgt Ion	Ratio	Lower	Upper
84	100		
86	66.0	44.9	83.3
49	99.2	66.4	123.4
51	28.3	21.6	40.0





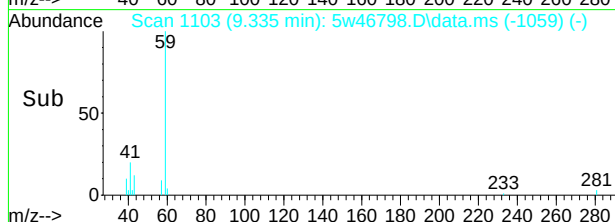
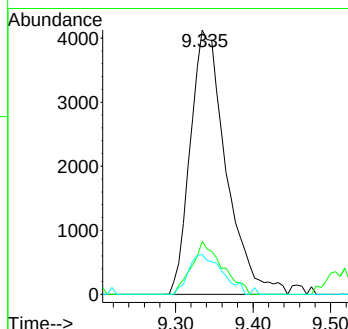
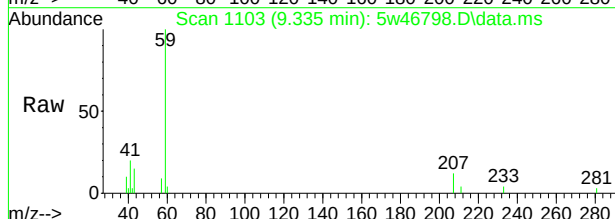
#30
 Ethanol
 Concen: 177.46 ppb(v)
 RT: 7.371 min Scan# 782
 Delta R.T. 0.012 min
 Lab File: 5w46798.D
 Acq: 14 Dec 2021 4:16 am

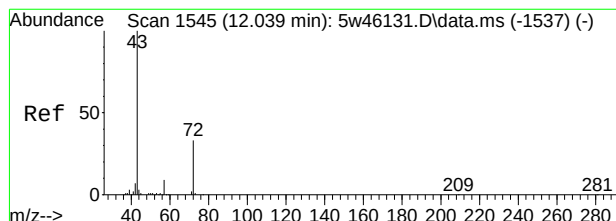
Tgt Ion	Ratio	Lower	Upper
45	100		
46	33.1	23.4	43.4
42	8.8	6.3	11.7



#34
 tert-Butyl Alcohol
 Concen: 0.46 ppb(v)
 RT: 9.335 min Scan# 1103
 Delta R.T. -0.061 min
 Lab File: 5w46798.D
 Acq: 14 Dec 2021 4:16 am

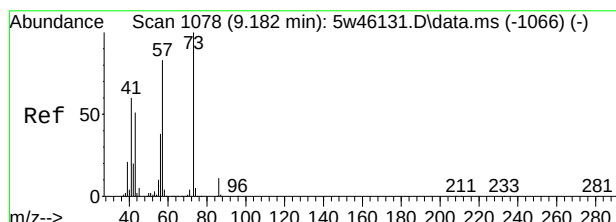
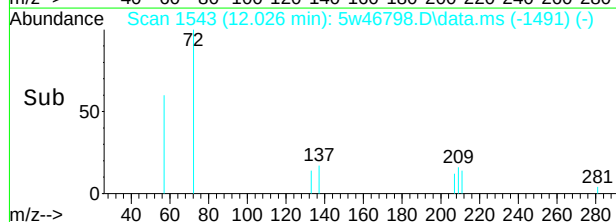
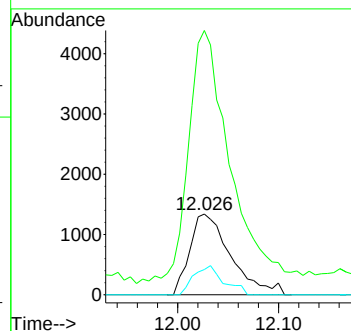
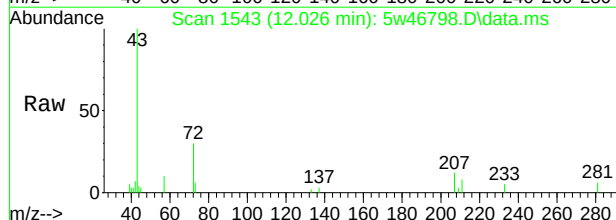
Tgt Ion	Ratio	Lower	Upper
59	100		
41	20.0	21.8	40.4#
43	15.1	14.2	26.4





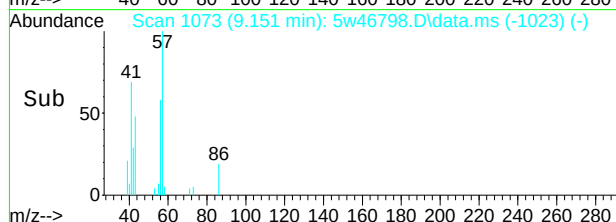
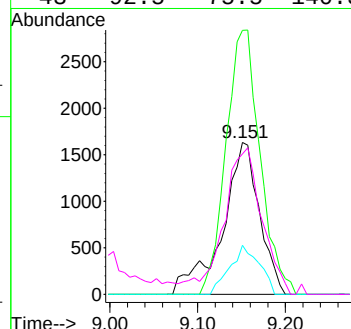
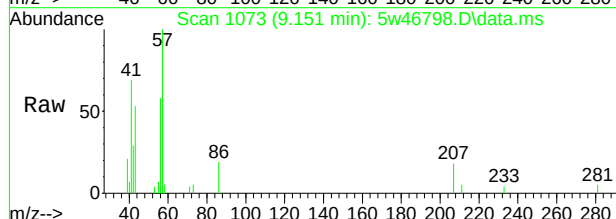
#38
2-Butanone
Concen: 0.58 ppb(v)
RT: 12.026 min Scan# 1543
Delta R.T. -0.012 min
Lab File: 5w46798.D
Acq: 14 Dec 2021 4:16 am

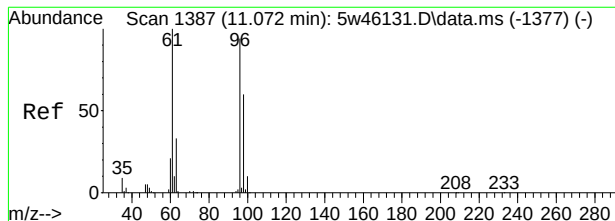
Tgt Ion: 72	Resp: 3766
Ion Ratio Lower Upper	
72 100	
43 328.0	209.6 389.2
57 31.2	19.4 36.0



#39
Hexane
Concen: 0.41 ppb(v)
RT: 9.151 min Scan# 1073
Delta R.T. -0.025 min
Lab File: 5w46798.D
Acq: 14 Dec 2021 4:16 am

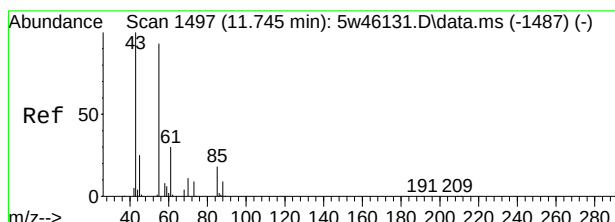
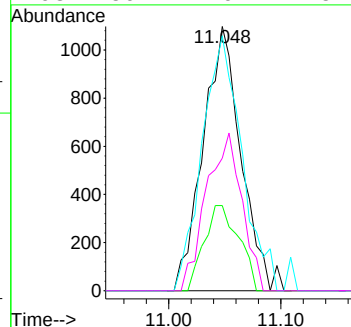
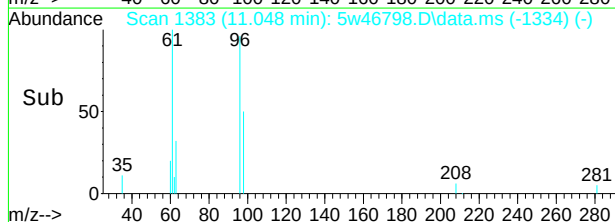
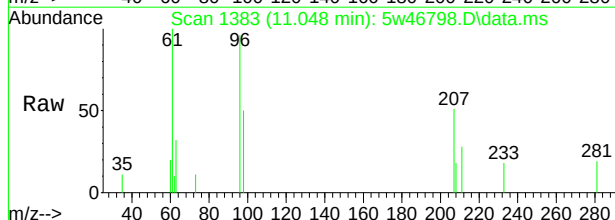
Tgt Ion: 56	Resp: 4790
Ion Ratio Lower Upper	
56 100	
57 173.8	137.2 254.8
86 32.3	24.0 44.6
43 92.5	75.5 140.3





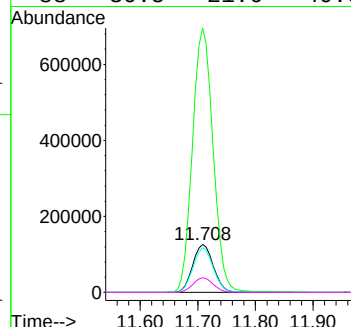
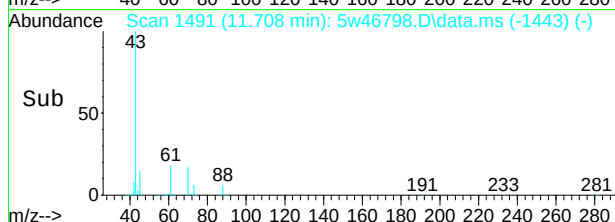
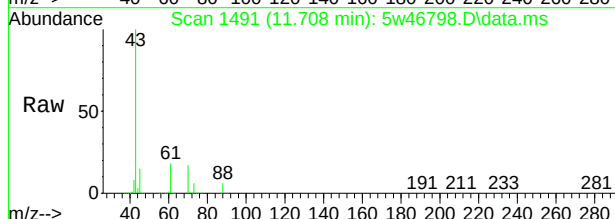
#40
cis-1,2-Dichloroethene
Concen: 0.12 ppb(v)
RT: 11.048 min Scan# 1383
Delta R.T. -0.031 min
Lab File: 5w46798.D
Acq: 14 Dec 2021 4:16 am

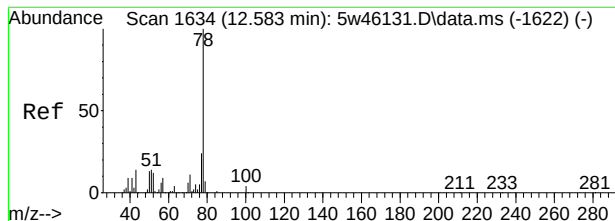
Tgt	Ion	Ratio	Resp	Lower	Upper
61	61	100	2580		
63	63	32.2		18.5	34.3
96	96	96.4		67.3	125.1
98	98	50.1		40.7	75.7



#42
Ethyl Acetate
Concen: 84.03 ppb(v)
RT: 11.708 min Scan# 1491
Delta R.T. -0.037 min
Lab File: 5w46798.D
Acq: 14 Dec 2021 4:16 am

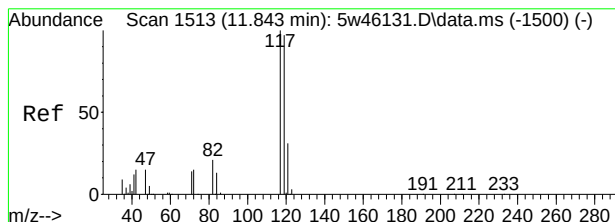
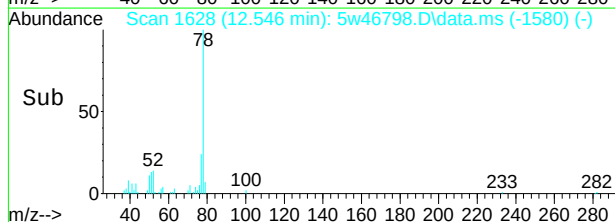
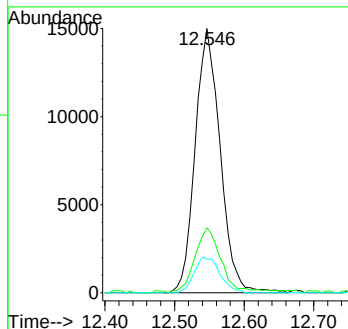
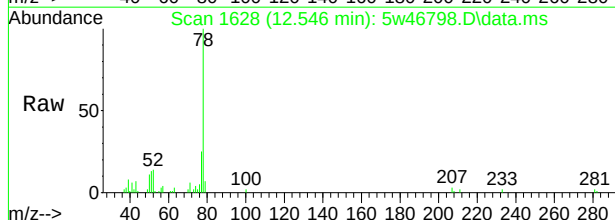
Tgt	Ion	Ratio	Resp	Lower	Upper
61	61	100	313873		
43	43	549.8		388.8	722.0
70	70	92.5		63.6	118.0
88	88	30.5		21.6	40.0





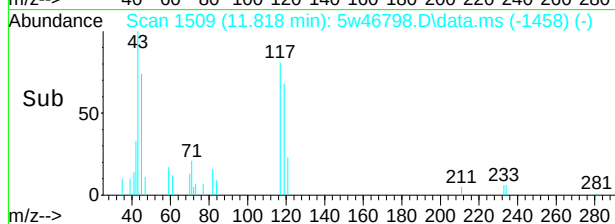
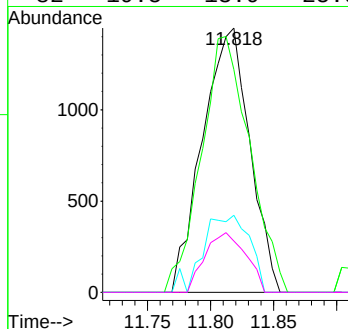
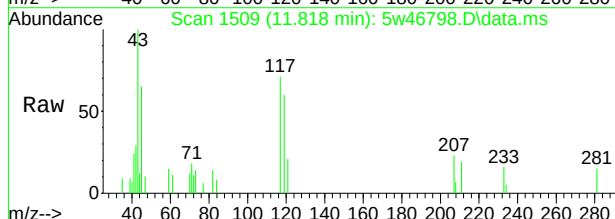
#49
Benzene
Concen: 0.73 ppb(v)
RT: 12.546 min Scan# 1628
Delta R.T. -0.037 min
Lab File: 5w46798.D
Acq: 14 Dec 2021 4:16 am

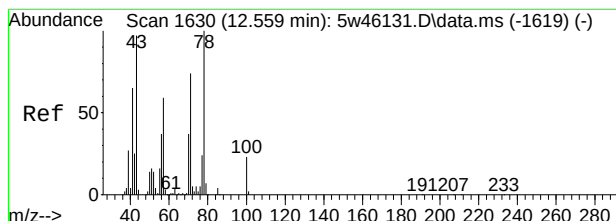
Tgt Ion	Ratio	Lower	Upper
78	100		
77	24.7	20.7	38.5
51	12.9	9.5	17.7



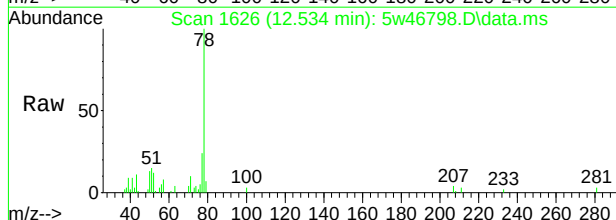
#50
Carbon Tetrachloride
Concen: 0.08 ppb(v)
RT: 11.818 min Scan# 1509
Delta R.T. -0.018 min
Lab File: 5w46798.D
Acq: 14 Dec 2021 4:16 am

Tgt Ion	Ratio	Lower	Upper
117	100		
119	84.3	65.5	121.6
121	29.1	18.5	34.3
82	19.5	13.9	25.9

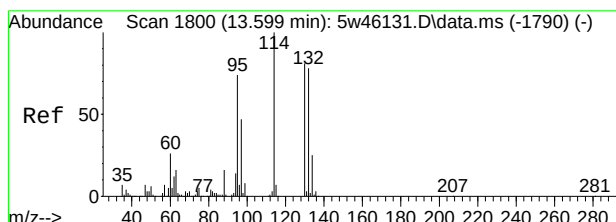
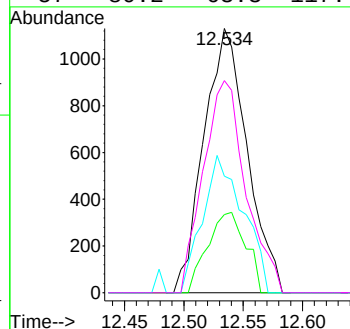
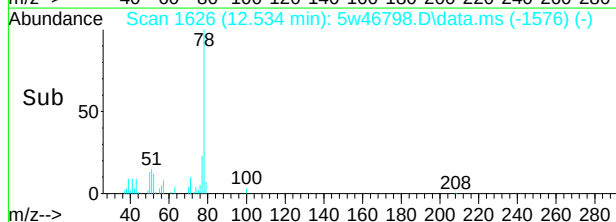




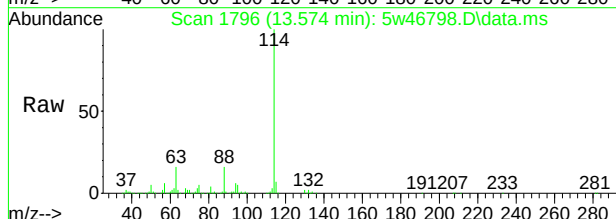
#55
Heptane
Concen: 0.19 ppb(v)
RT: 12.534 min Scan# 1626
Delta R.T. -0.025 min
Lab File: 5w46798.D
Acq: 14 Dec 2021 4:16 am



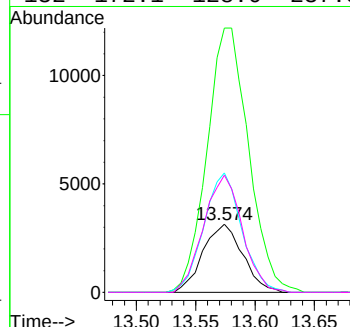
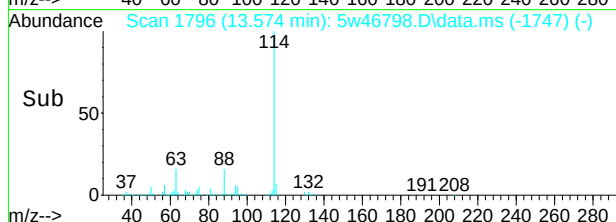
Tgt Ion: 71 Resp: 2862
Ion Ratio Lower Upper
71 100
100 29.5 25.2 46.8
70 44.1 32.1 59.7
57 80.2 63.3 117.7

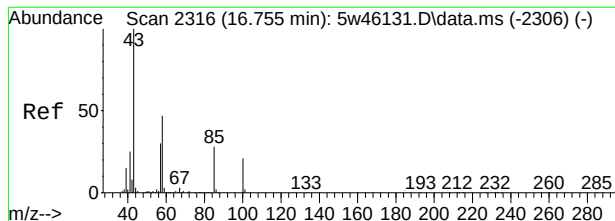


#56
Trichloroethene
Concen: 0.39 ppb(v)
RT: 13.574 min Scan# 1796
Delta R.T. -0.031 min
Lab File: 5w46798.D
Acq: 14 Dec 2021 4:16 am



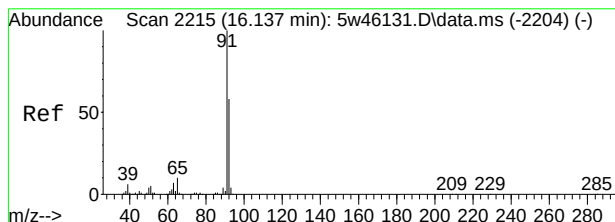
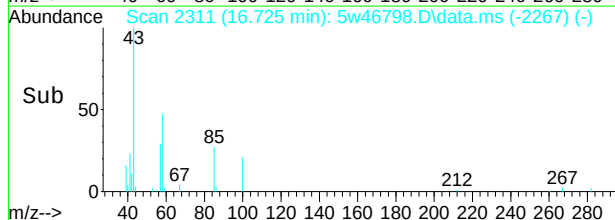
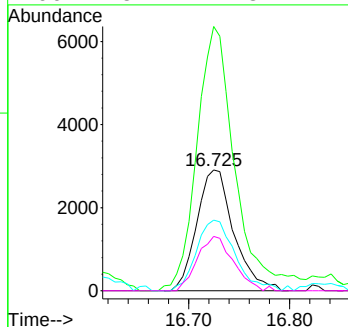
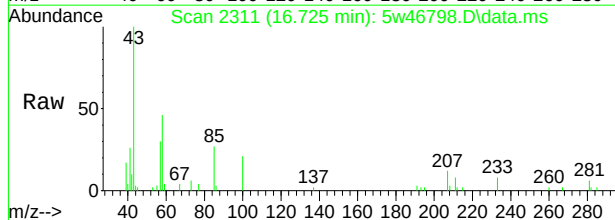
Tgt Ion: 97 Resp: 7326
Ion Ratio Lower Upper
97 100
95 388.5 690.3 1281.9#
130 175.7 137.1 254.7
132 172.1 128.0 237.8





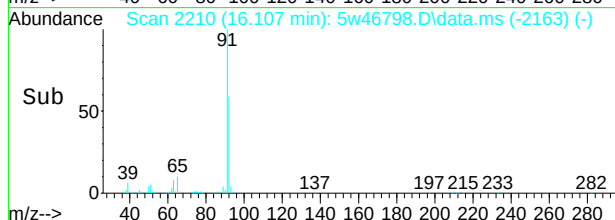
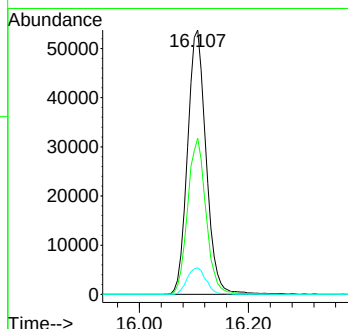
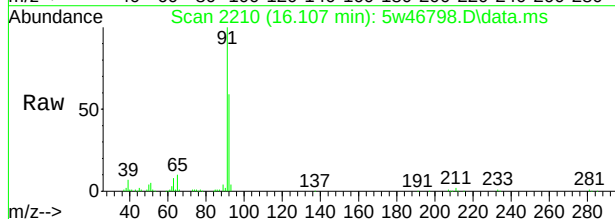
#64
4-Methyl-2-pentanone
Concen: 0.61 ppb(v)
RT: 16.725 min Scan# 2311
Delta R.T. -0.061 min
Lab File: 5w46798.D
Acq: 14 Dec 2021 4:16 am

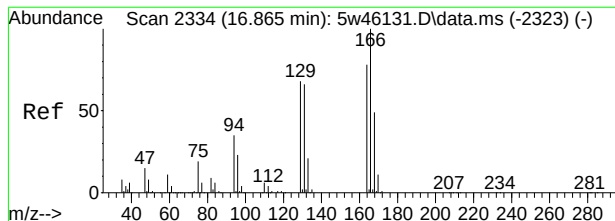
Tgt Ion:	58	Resp:	7418
Ion Ratio	Lower	Upper	
58	100		
43	218.7	164.7	305.9
85	58.5	51.0	94.6
100	45.1	22.8	42.4#



#66
Toluene
Concen: 1.75 ppb(v)
RT: 16.107 min Scan# 2210
Delta R.T. -0.043 min
Lab File: 5w46798.D
Acq: 14 Dec 2021 4:16 am

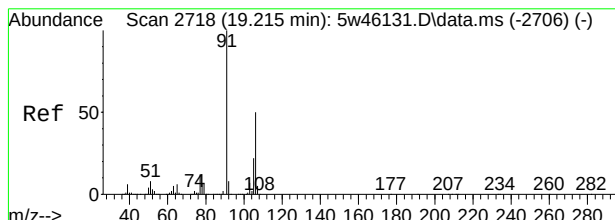
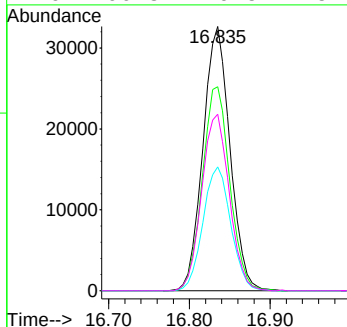
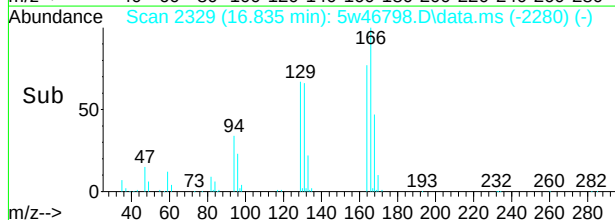
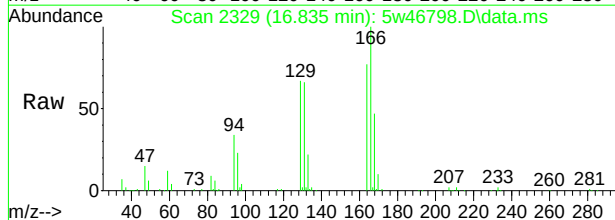
Tgt Ion:	91	Resp:	126700
Ion Ratio	Lower	Upper	
91	100		
92	59.0	45.5	84.5
65	10.1	6.0	11.2





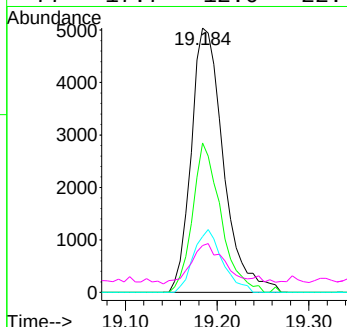
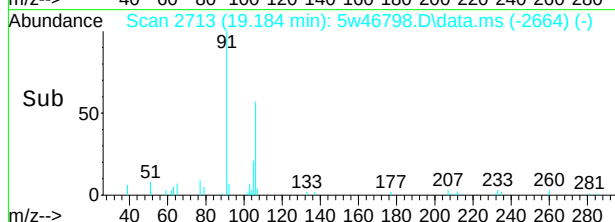
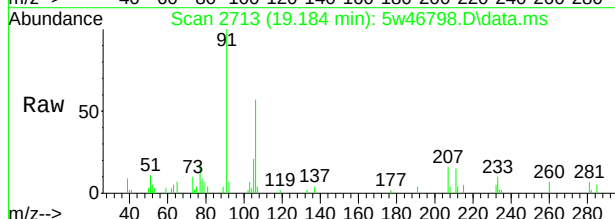
#72
Tetrachloroethene
Concen: 1.52 ppb(v)
RT: 16.835 min Scan# 2329
Delta R.T. -0.031 min
Lab File: 5w46798.D
Acq: 14 Dec 2021 4:16 am

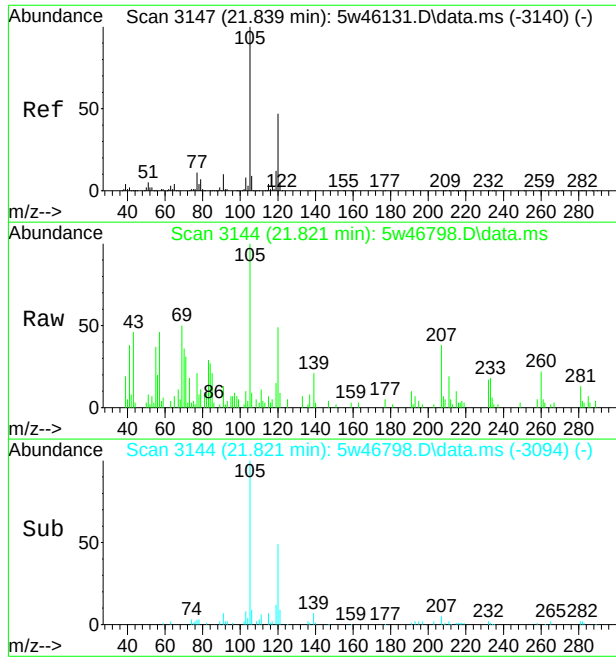
Tgt	Ion: 166	Resp:	76058
Ion	Ratio	Lower	Upper
166	100		
164	77.2	50.6	94.0
168	46.8	28.5	52.9
129	66.8	40.5	75.1



#79
m,p-Xylene
Concen: 0.18 ppb(v)
RT: 19.184 min Scan# 2713
Delta R.T. -0.031 min
Lab File: 5w46798.D
Acq: 14 Dec 2021 4:16 am

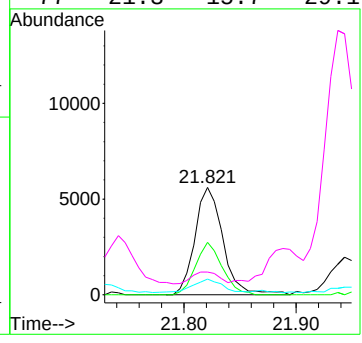
Tgt	Ion: 91	Resp:	12285
Ion	Ratio	Lower	Upper
91	100		
106	56.5	34.9	64.9
105	21.1	15.4	28.6
77	17.7	12.0	22.4





#95
1,2,4-Trimethylbenzene
Concen: 0.13 ppb(v)
RT: 21.821 min Scan# 3144
Delta R.T. -0.025 min
Lab File: 5w46798.D
Acq: 14 Dec 2021 4:16 am

Tgt Ion	105	Resp:	9743
Ion Ratio	Lower	Upper	
105	100		
120	48.8	33.5	62.1
119	14.8	13.2	24.4
77	21.3	15.7	29.1



7.1.1
7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
 Data File : 5w46812.D
 Acq On : 14 Dec 2021 4:34 pm
 Operator : danat
 Sample : jd36325-1
 Misc : ms55468,v5w1936,100,,,,1
 ALS Vial : 7 Sample Multiplier: 1

Quant Time: Dec 15 13:49:09 2021
 Quant Method : C:\msdchem\1\methods\m5w1909.M
 Quant Title : T0-15 Full Scan Mode
 QLast Update : Mon Nov 08 09:09:12 2021
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

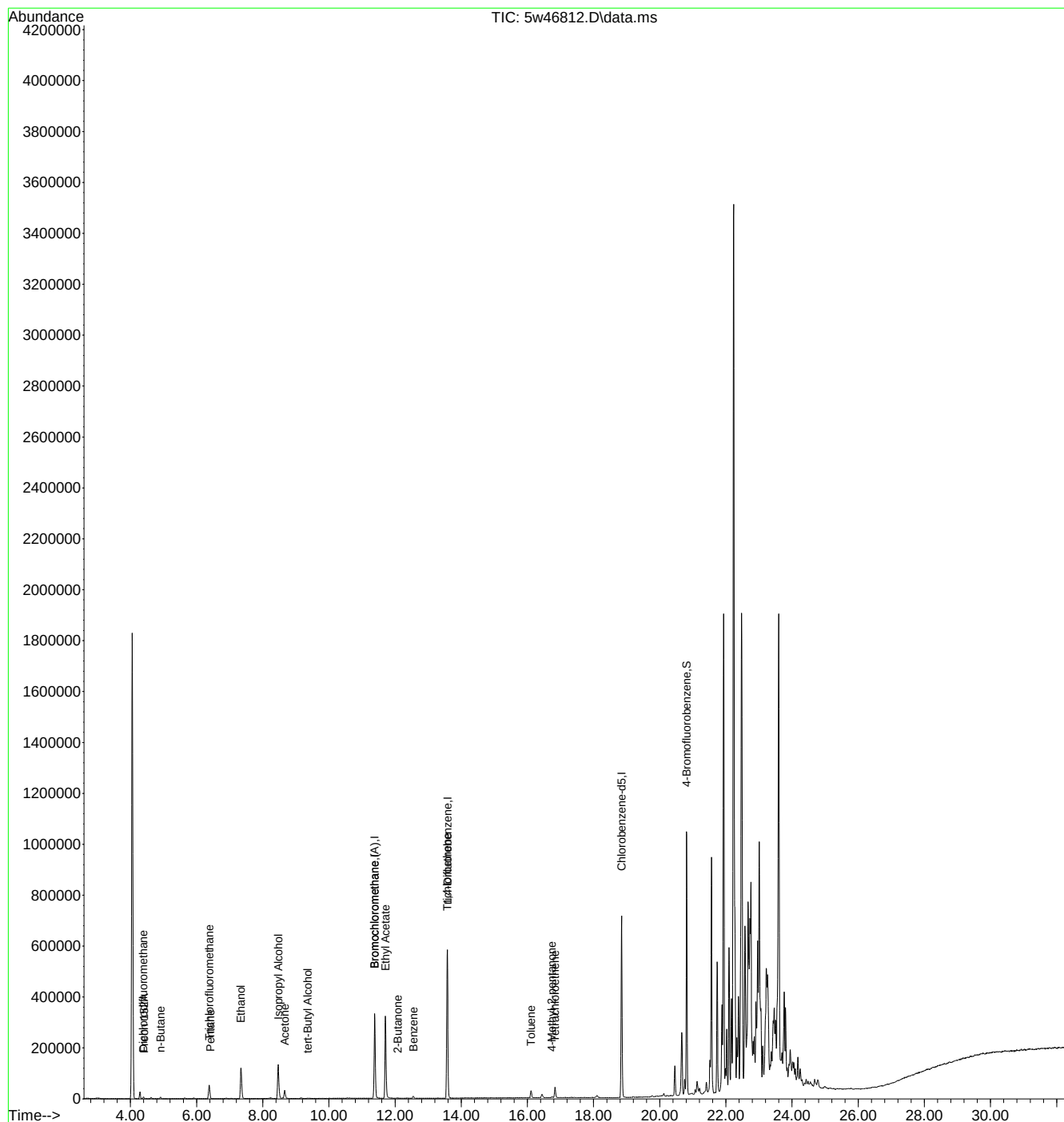
Internal Standards						
1) Bromochloromethane	11.384	130	185519	10.00	ppb(v	-0.03
53) 1,4-Difluorobenzene	13.580	114	666237	10.00	ppb(v	-0.03
76) Chlorobenzene-d5	18.848	82	277889	10.00	ppb(v	-0.04
108) Bromochloromethane (A)	11.384	130	185519	10.00	ppb(v	-0.03
System Monitoring Compounds						
90) 4-Bromofluorobenzene	20.812	95	375466	9.52	ppb(v	-0.03
Spiked Amount 10.000	Range 65 - 128		Recovery	=	95.20%	
Target Compounds						
					Qvalue	
2) Freon 152A	4.410	65	1886	0.21	ppb(v	95
6) Dichlorodifluoromethane	4.386	85	5611	0.10	ppb(v#	93
12) n-Butane	4.912	58	540	0.27	ppb(v#	75
21) Trichlorofluoromethane	6.386	101	66994	1.19	ppb(v	93
22) Acetone	8.662	58	17765	3.16	ppb(v	75
23) Pentane	6.417	57	306	0.10	ppb(v	62
25) Isopropyl Alcohol	8.466	43	47613	12.63	ppb(v	98
30) Ethanol	7.340	45	199675	46.28	ppb(v	99
34) tert-Butyl Alcohol	9.353	59	3073	0.11	ppb(v#	80
38) 2-Butanone	12.075	72	537	0.08	ppb(v#	86
42) Ethyl Acetate	11.708	61	82046	22.16	ppb(v	95
49) Benzene	12.553	78	9433	0.19	ppb(v	98
56) Trichloroethene	13.574	97	1781	0.10	ppb(v	82
64) 4-Methyl-2-pentanone	16.737	58	1439	0.12	ppb(v#	74
66) Toluene	16.107	91	30636	0.44	ppb(v	90
72) Tetrachloroethene	16.835	166	18720	0.38	ppb(v	92

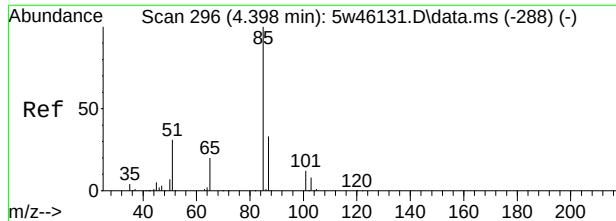
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 5w46812.D
Acq On : 14 Dec 2021 4:34 pm
Operator : danat
Sample : jd36325-1
Misc : ms55468,v5w1936,100,,,,,1
ALS Vial : 7 Sample Multiplier: 1

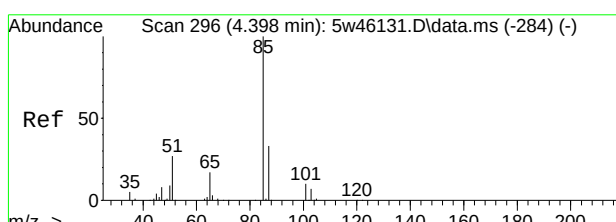
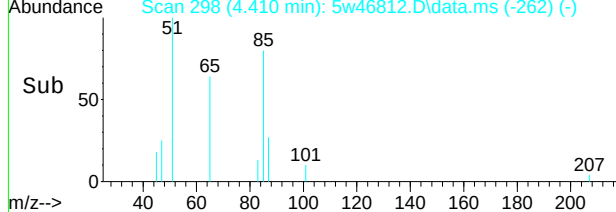
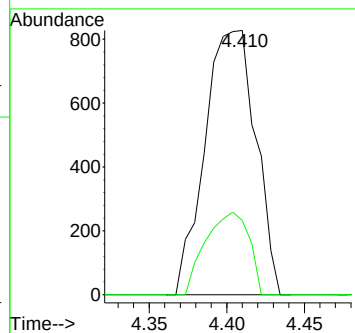
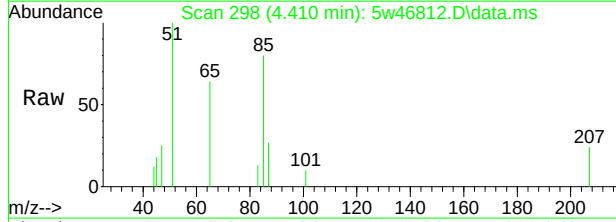
Quant Time: Dec 15 13:49:09 2021
Quant Method : C:\msdchem\1\methods\m5w1909.M
Quant Title : T0-15 Full Scan Mode
QLast Update : Mon Nov 08 09:09:12 2021
Response via : Initial Calibration





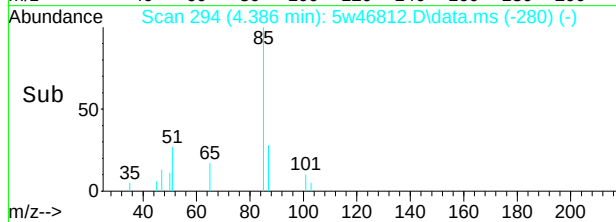
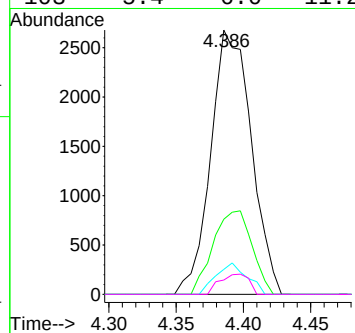
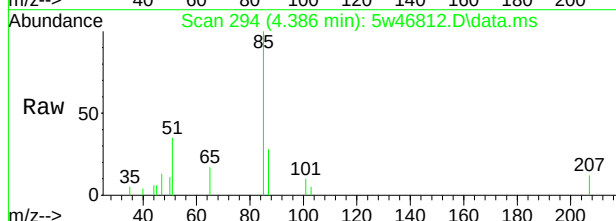
#2
 Freon 152A
 Concen: 0.21 ppb(v)
 RT: 4.410 min Scan# 298
 Delta R.T. 0.018 min
 Lab File: 5w46812.D
 Acq: 14 Dec 2021 4:34 pm

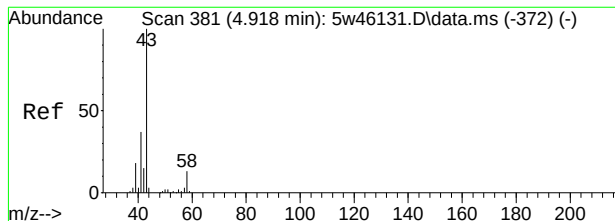
Tgt Ion:	65	Resp:	1886
Ion Ratio	Lower	Upper	
65	100		
45	28.1	17.8	33.1



#6
 Dichlorodifluoromethane
 Concen: 0.10 ppb(v)
 RT: 4.386 min Scan# 294
 Delta R.T. -0.006 min
 Lab File: 5w46812.D
 Acq: 14 Dec 2021 4:34 pm

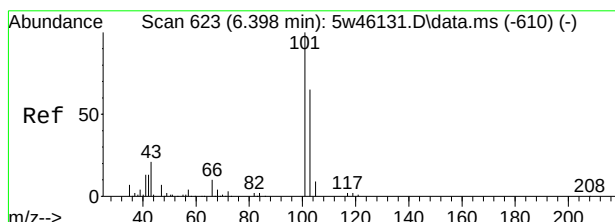
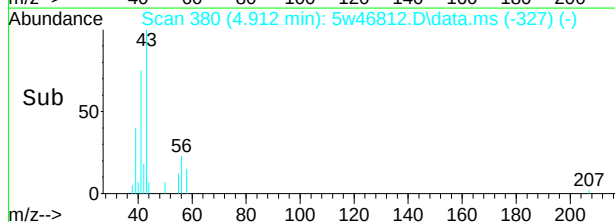
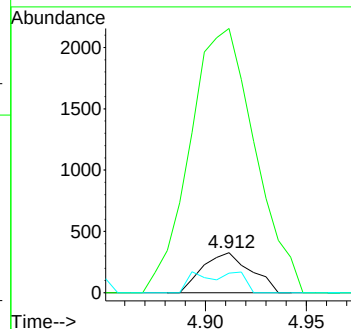
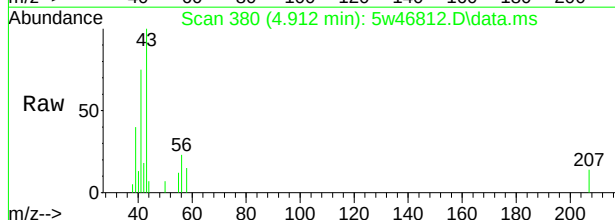
Tgt Ion:	85	Resp:	5611
Ion Ratio	Lower	Upper	
85	100		
87	28.4	23.0	42.6
101	9.5	6.8	12.6
103	5.4	6.0	11.2#





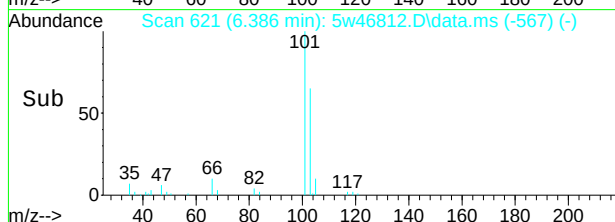
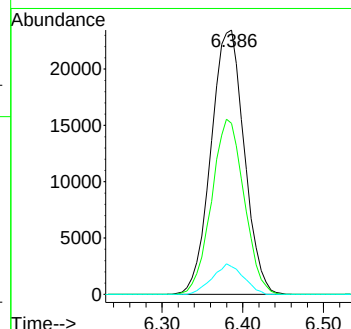
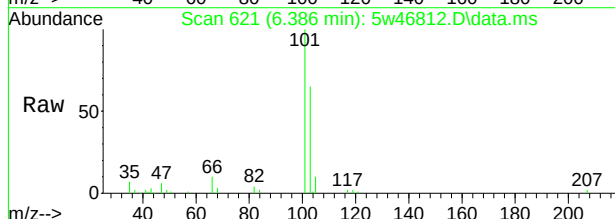
#12
n-Butane
Concen: 0.27 ppb(v)
RT: 4.912 min Scan# 380
Delta R.T. -0.006 min
Lab File: 5w46812.D
Acq: 14 Dec 2021 4:34 pm

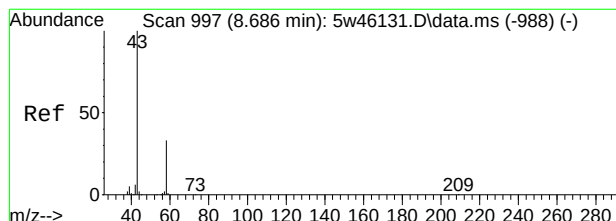
Tgt Ion	Ratio	Lower	Upper
58	100		
43	659.3	523.2	971.7
44	48.6	18.6	34.6#



#21
Trichlorofluoromethane
Concen: 1.19 ppb(v)
RT: 6.386 min Scan# 621
Delta R.T. 0.000 min
Lab File: 5w46812.D
Acq: 14 Dec 2021 4:34 pm

Tgt Ion	Ratio	Lower	Upper
101	100		
103	64.7	41.2	76.4
105	10.5	7.4	13.8





#22

Acetone

Concen: 3.16 ppb(v)

RT: 8.662 min Scan# 993

Delta R.T. -0.067 min

Lab File: 5w46812.D

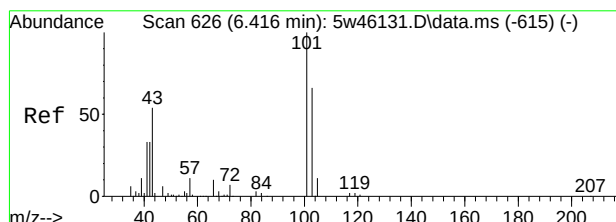
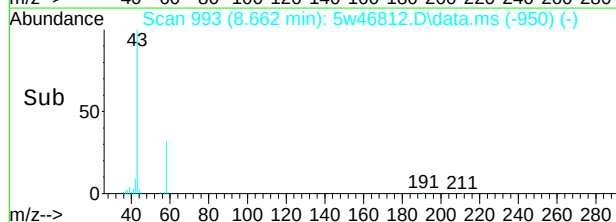
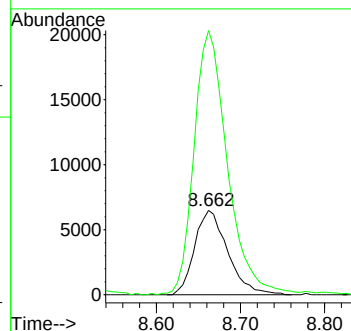
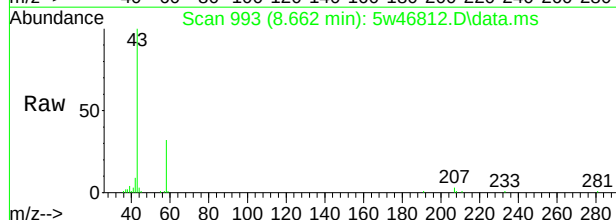
Acq: 14 Dec 2021 4:34 pm

Tgt Ion: 58 Resp: 17765

Ion Ratio Lower Upper

58 100

43 312.9 186.7 346.7



#23

Pentane

Concen: 0.10 ppb(v)

RT: 6.417 min Scan# 626

Delta R.T. 0.006 min

Lab File: 5w46812.D

Acq: 14 Dec 2021 4:34 pm

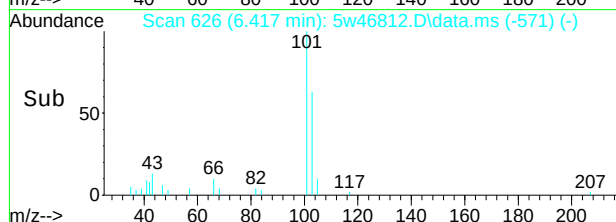
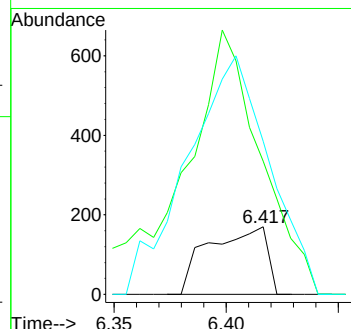
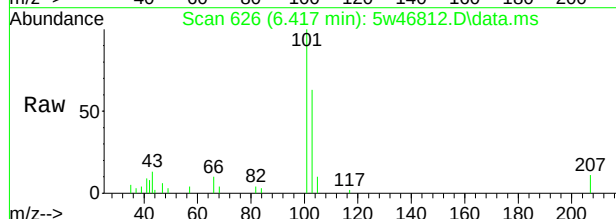
Tgt Ion: 57 Resp: 306

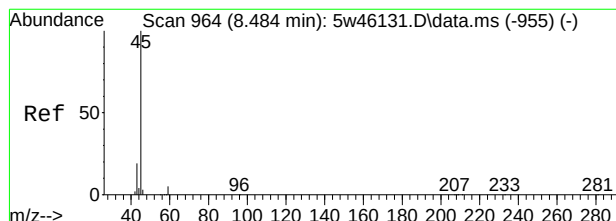
Ion Ratio Lower Upper

57 100

42 197.1 192.4 357.4

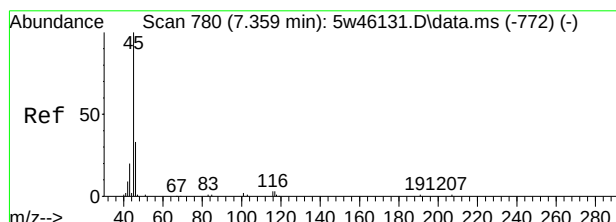
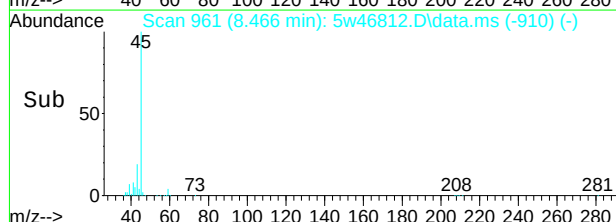
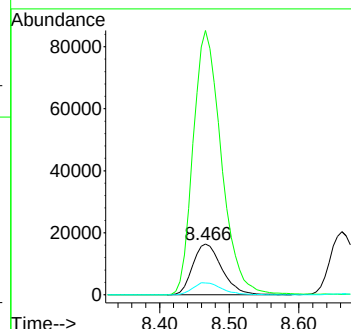
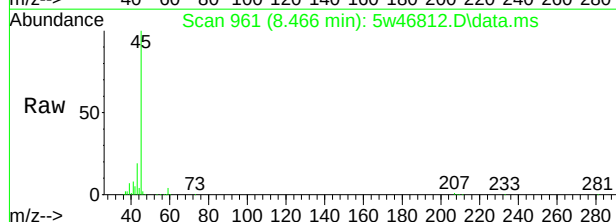
41 226.5 204.9 380.5





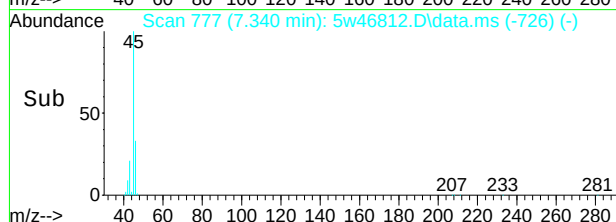
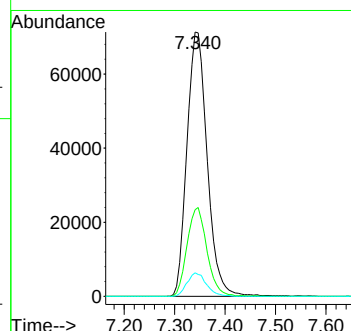
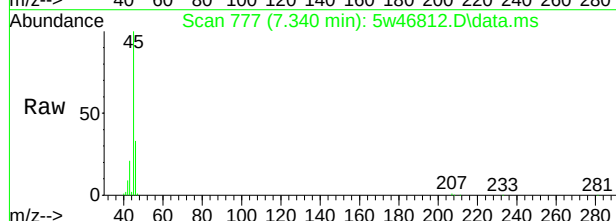
#25
Isopropyl Alcohol
Concen: 12.63 ppb(v)
RT: 8.466 min Scan# 961
Delta R.T. -0.018 min
Lab File: 5w46812.D
Acq: 14 Dec 2021 4:34 pm

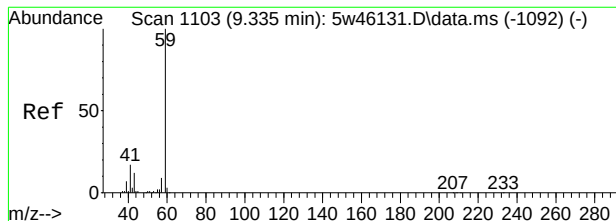
Tgt Ion: 43 Resp: 47613
Ion Ratio Lower Upper
43 100
45 520.4 361.2 670.8
59 23.3 17.1 31.9



#30
Ethanol
Concen: 46.28 ppb(v)
RT: 7.340 min Scan# 777
Delta R.T. -0.018 min
Lab File: 5w46812.D
Acq: 14 Dec 2021 4:34 pm

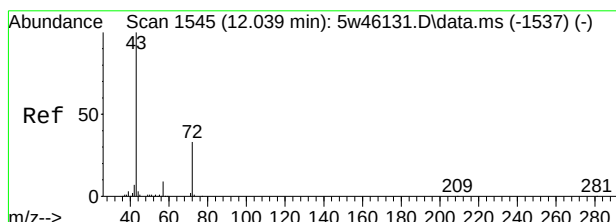
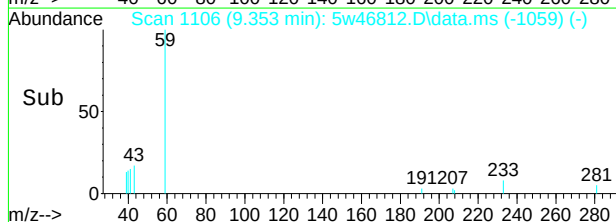
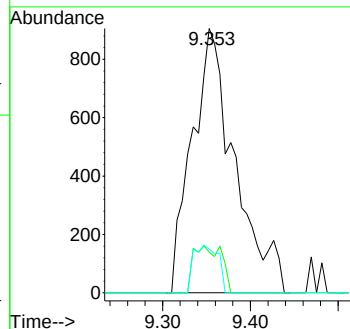
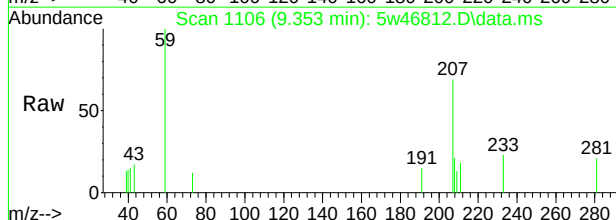
Tgt Ion: 45 Resp: 199675
Ion Ratio Lower Upper
45 100
46 32.7 23.4 43.4
42 9.0 6.3 11.7





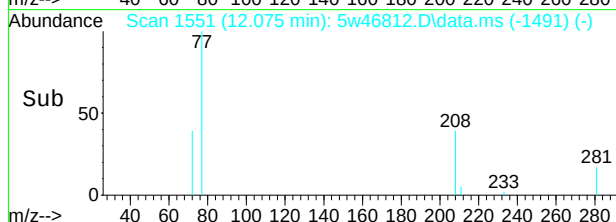
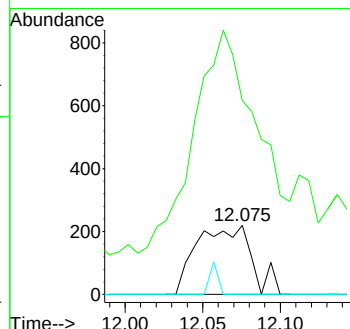
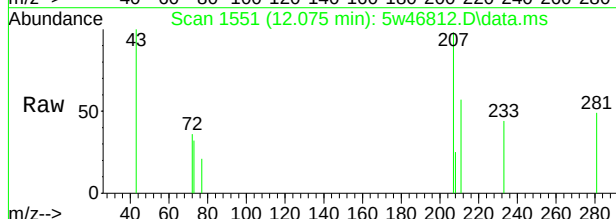
#34
tert-Butyl Alcohol
Concen: 0.11 ppb(v)
RT: 9.353 min Scan# 1106
Delta R.T. -0.043 min
Lab File: 5w46812.D
Acq: 14 Dec 2021 4:34 pm

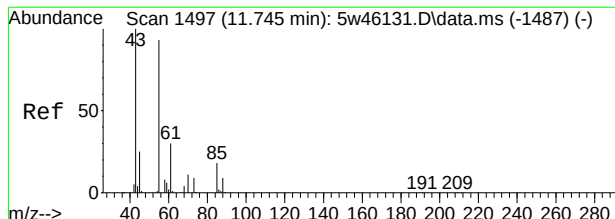
Tgt Ion	Ratio	Lower	Upper
59	100		
41	15.5	21.8	40.4#
43	16.6	14.2	26.4



#38
2-Butanone
Concen: 0.08 ppb(v)
RT: 12.075 min Scan# 1551
Delta R.T. 0.037 min
Lab File: 5w46812.D
Acq: 14 Dec 2021 4:34 pm

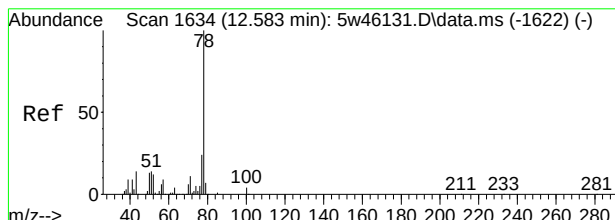
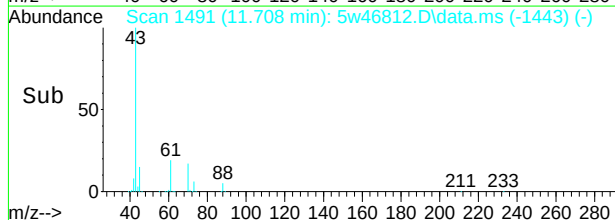
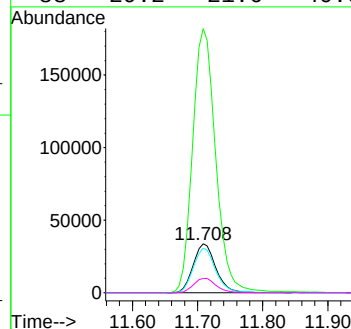
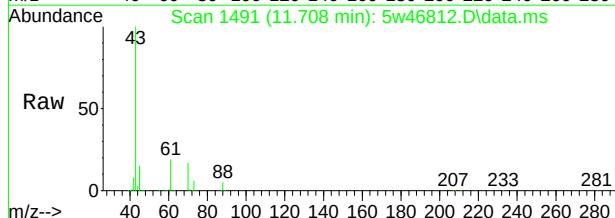
Tgt Ion	Ratio	Lower	Upper
72	100		
43	280.0	209.6	389.2
57	0.0	19.4	36.0#





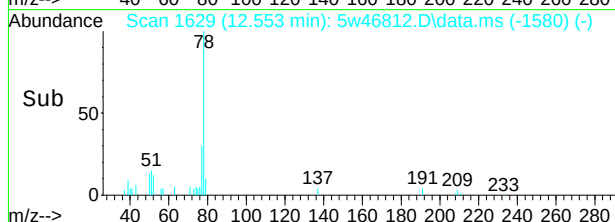
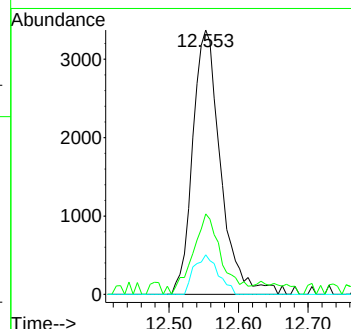
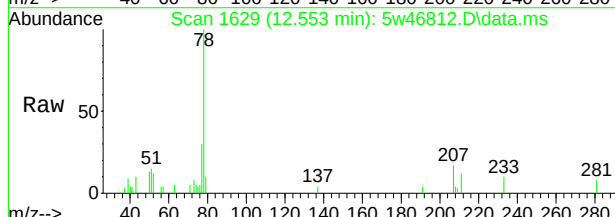
#42
Ethyl Acetate
Concen: 22.16 ppb(v)
RT: 11.708 min Scan# 1491
Delta R.T. -0.037 min
Lab File: 5w46812.D
Acq: 14 Dec 2021 4:34 pm

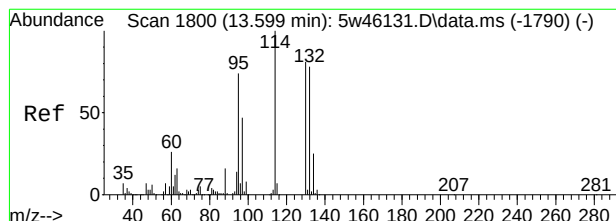
Tgt Ion	Ratio	Lower	Upper
61	100		
43	537.4	388.8	722.0
70	90.4	63.6	118.0
88	29.2	21.6	40.0



#49
Benzene
Concen: 0.19 ppb(v)
RT: 12.553 min Scan# 1629
Delta R.T. -0.030 min
Lab File: 5w46812.D
Acq: 14 Dec 2021 4:34 pm

Tgt Ion	Ratio	Lower	Upper
78	100		
77	30.4	20.7	38.5
51	15.0	9.5	17.7





#56

Trichloroethene

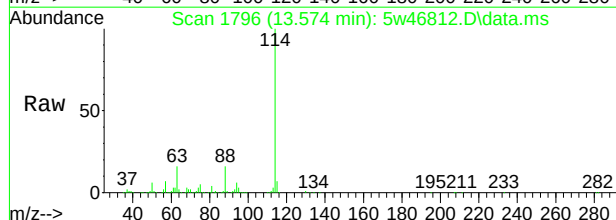
Concen: 0.10 ppb(v)

RT: 13.574 min Scan# 1796

Delta R.T. -0.030 min

Lab File: 5w46812.D

Acq: 14 Dec 2021 4:34 pm



Tgt Ion: 97 Resp: 1781

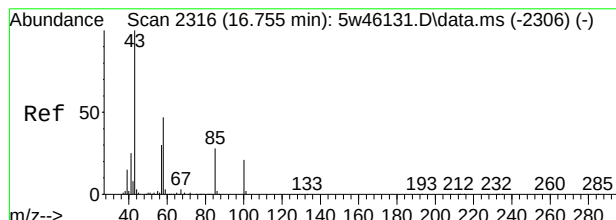
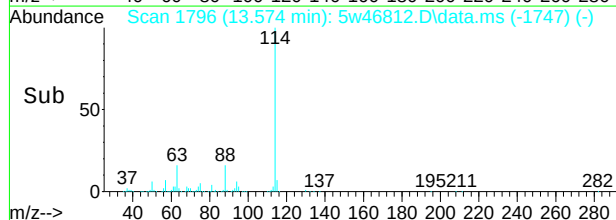
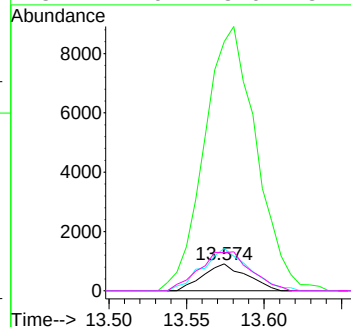
Ion Ratio Lower Upper

97 100

95 924.4 690.3 1281.9

130 157.5 137.1 254.7

132 142.0 128.0 237.8



#64

4-Methyl-2-pentanone

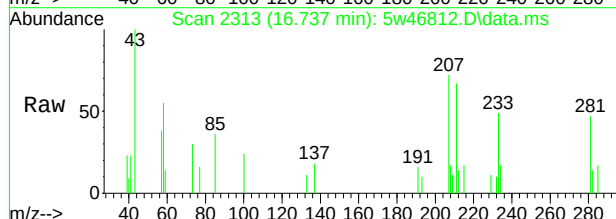
Concen: 0.12 ppb(v)

RT: 16.737 min Scan# 2313

Delta R.T. -0.049 min

Lab File: 5w46812.D

Acq: 14 Dec 2021 4:34 pm



Tgt Ion: 58 Resp: 1439

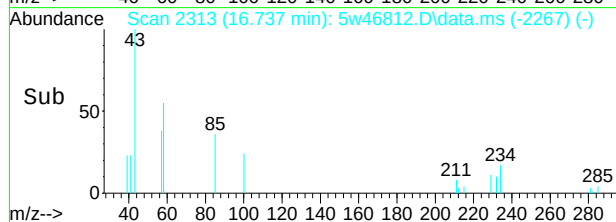
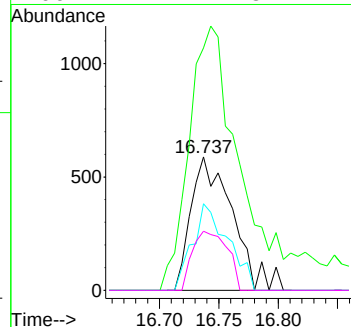
Ion Ratio Lower Upper

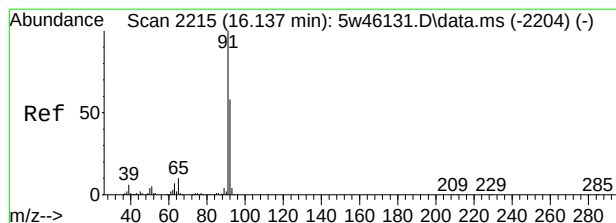
58 100

43 181.8 164.7 305.9

85 65.0 51.0 94.6

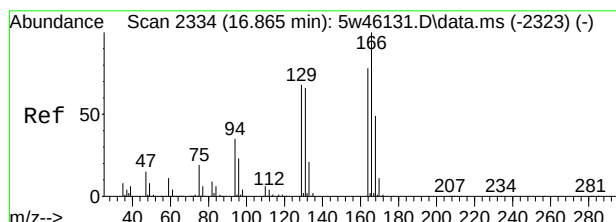
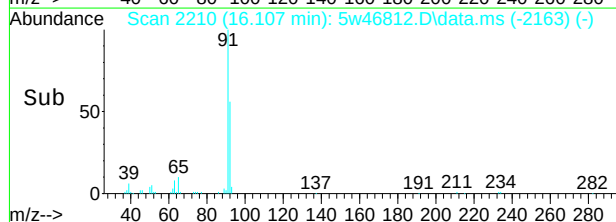
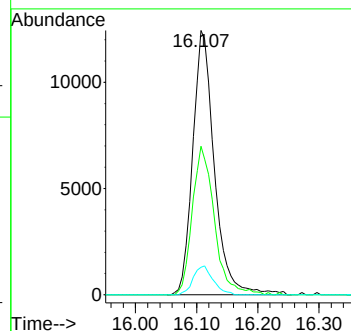
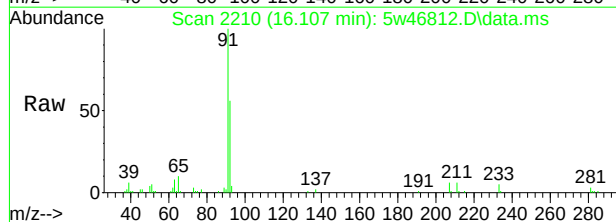
100 44.4 22.8 42.4#





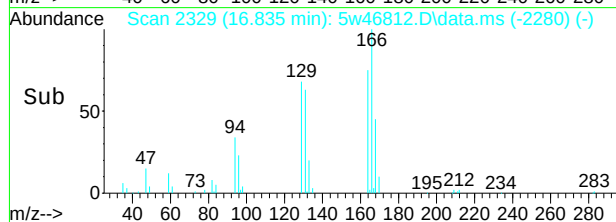
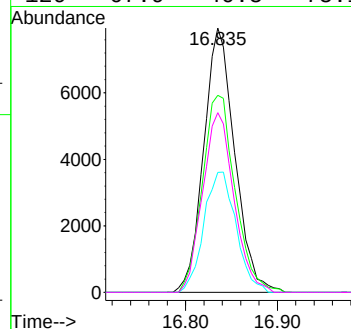
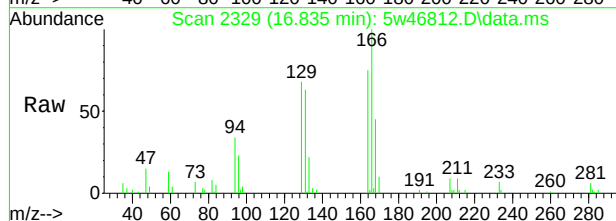
#66
Toluene
Concen: 0.44 ppb(v)
RT: 16.107 min Scan# 2210
Delta R.T. -0.043 min
Lab File: 5w46812.D
Acq: 14 Dec 2021 4:34 pm

Tgt Ion	Ratio	Resp	Lower	Upper
91	100	30636		
92	56.2		45.5	84.5
65	10.4		6.0	11.2



#72
Tetrachloroethene
Concen: 0.38 ppb(v)
RT: 16.835 min Scan# 2329
Delta R.T. -0.031 min
Lab File: 5w46812.D
Acq: 14 Dec 2021 4:34 pm

Tgt Ion	Ratio	Resp	Lower	Upper
166	100	18720		
164	74.6		50.6	94.0
168	45.4		28.5	52.9
129	67.9		40.5	75.1



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
 Data File : 5W46795.D
 Acq On : 14 Dec 2021 1:25 am
 Operator : danat
 Sample : jd36325-2
 Misc : ms55468,v5w1935,500,,,,,1
 ALS Vial : 16 Sample Multiplier: 1

Quant Time: Dec 14 13:34:54 2021
 Quant Method : C:\msdchem\1\methods\m5w1909.M
 Quant Title : T0-15 Full Scan Mode
 QLast Update : Mon Nov 08 09:09:12 2021
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

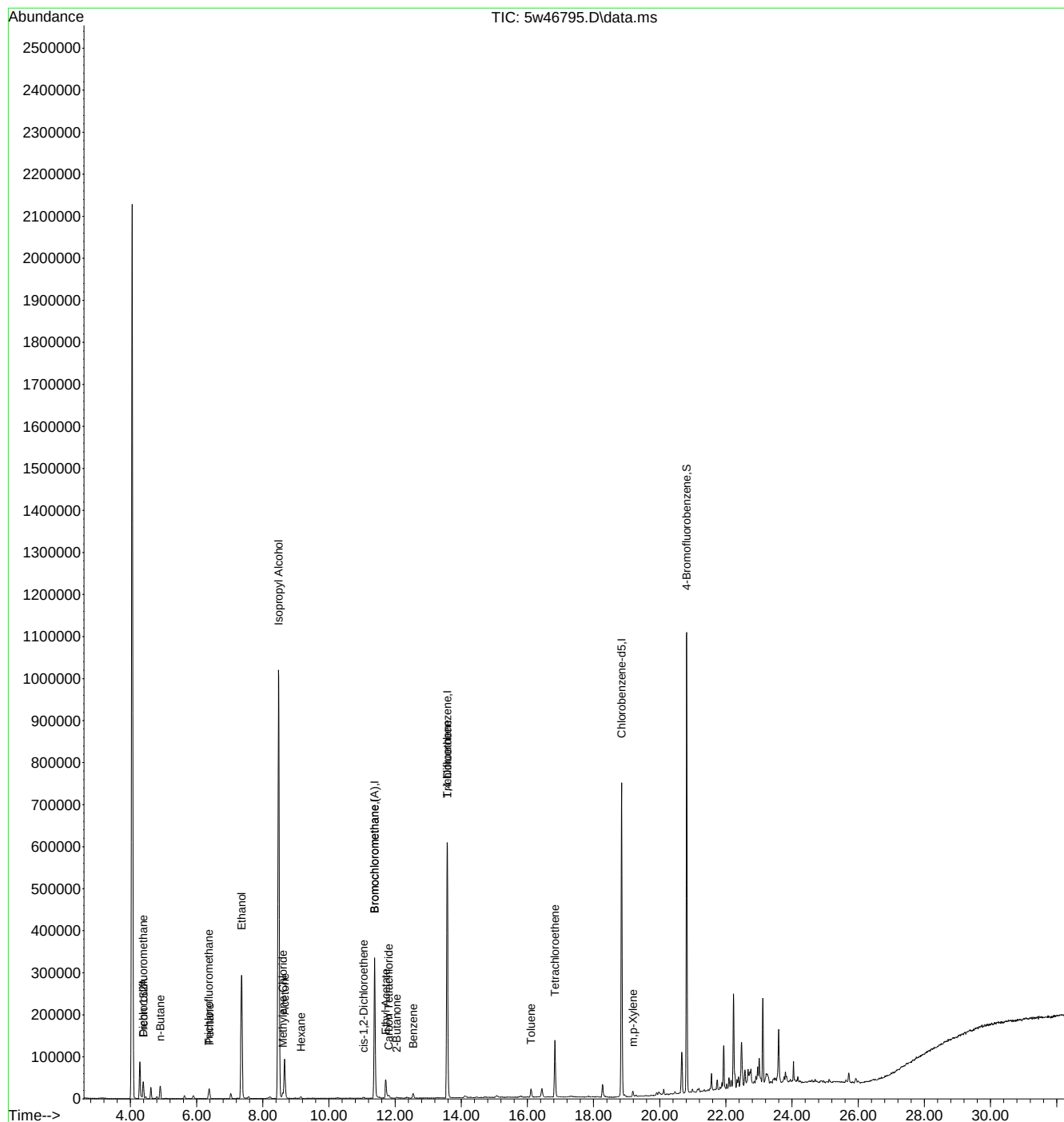
Internal Standards						
1) Bromochloromethane	11.384	130	191603	10.00	ppb(v	-0.03
53) 1,4-Difluorobenzene	13.574	114	702033	10.00	ppb(v	-0.04
76) Chlorobenzene-d5	18.848	82	292401	10.00	ppb(v	-0.04
108) Bromochloromethane (A)	11.384	130	191603	10.00	ppb(v	-0.03
System Monitoring Compounds						
90) 4-Bromofluorobenzene	20.811	95	403040	9.72	ppb(v	-0.03
Spiked Amount 10.000	Range 65 - 128		Recovery	=	97.20%	
Target Compounds						
					Qvalue	
2) Freon 152A	4.391	65	10874	1.19	ppb(v	95
6) Dichlorodifluoromethane	4.385	85	27101	0.46	ppb(v	97
12) n-Butane	4.899	58	3783	1.84	ppb(v	92
21) Trichlorofluoromethane	6.367	101	19832	0.34	ppb(v	98
22) Acetone	8.662	58	51484	8.86	ppb(v	77
23) Pentane	6.392	57	1867	0.57	ppb(v	92
25) Isopropyl Alcohol	8.478	43	373455	95.95	ppb(v	90
28) Methylene Chloride	8.600	84	8727	0.52	ppb(v	95
30) Ethanol	7.359	45	499606	112.13	ppb(v	100
38) 2-Butanone	12.045	72	1487	0.22	ppb(v	93
39) Hexane	9.151	56	1740	0.15	ppb(v	86
40) cis-1,2-Dichloroethene	11.048	61	1997	0.09	ppb(v	97
42) Ethyl Acetate	11.714	61	12219	3.20	ppb(v	91
49) Benzene	12.546	78	12134	0.23	ppb(v	95
50) Carbon Tetrachloride	11.806	117	4358	0.08	ppb(v#	92
56) Trichloroethene	13.574	97	2678	0.14	ppb(v	73
66) Toluene	16.107	91	22058	0.30	ppb(v	91
72) Tetrachloroethene	16.835	166	61524	1.20	ppb(v	90
79) m,p-Xylene	19.190	91	10940	0.16	ppb(v	97

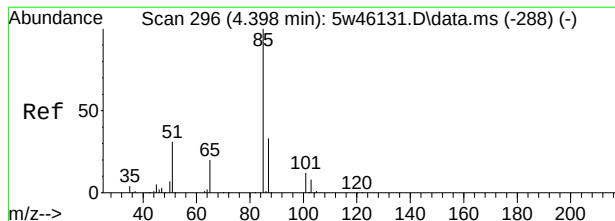
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 5w46795.D
Acq On : 14 Dec 2021 1:25 am
Operator : danat
Sample : jd36325-2
Misc : ms55468,v5w1935,500,,,,,1
ALS Vial : 16 Sample Multiplier: 1

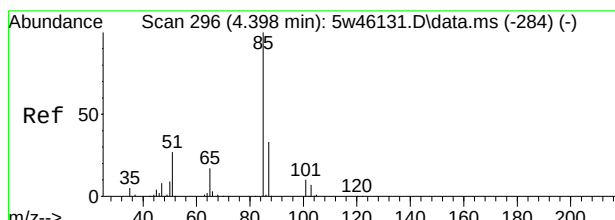
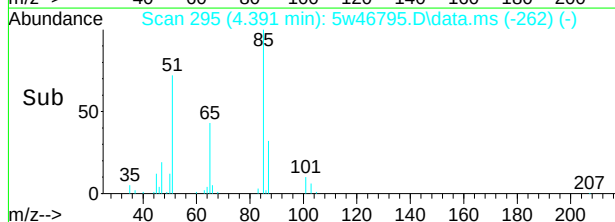
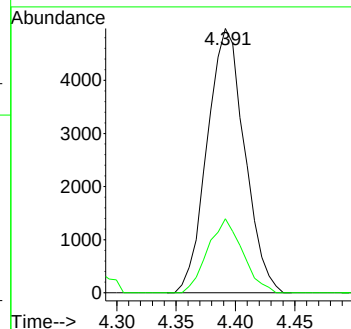
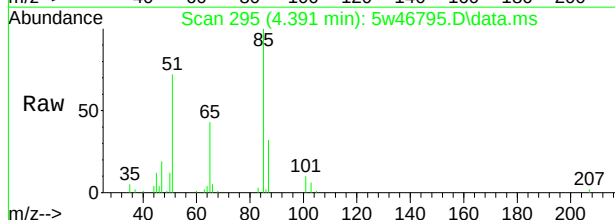
Quant Time: Dec 14 13:34:54 2021
Quant Method : C:\msdchem\1\methods\m5w1909.M
Quant Title : T0-15 Full Scan Mode
QLast Update : Mon Nov 08 09:09:12 2021
Response via : Initial Calibration





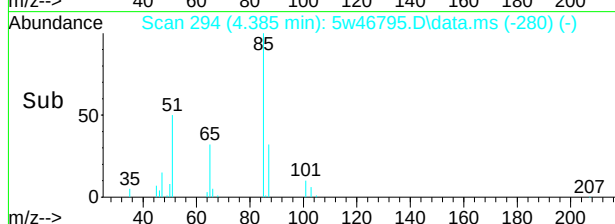
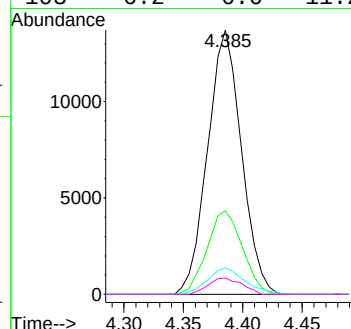
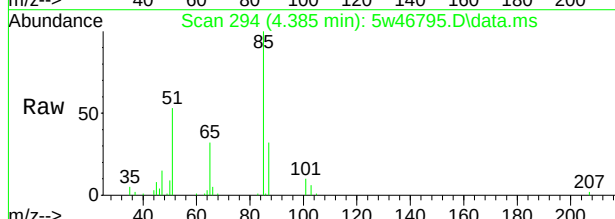
#2
Freon 152A
Concen: 1.19 ppb(v)
RT: 4.391 min Scan# 295
Delta R.T. -0.000 min
Lab File: 5w46795.D
Acq: 14 Dec 2021 1:25 am

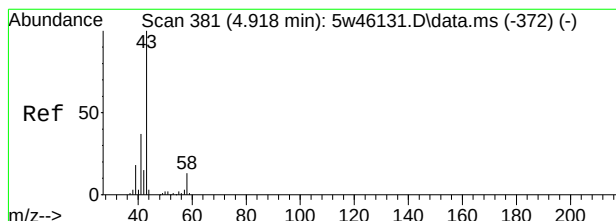
Tgt Ion: 65 Resp: 10874
Ion Ratio Lower Upper
65 100
45 28.0 17.8 33.1



#6
Dichlorodifluoromethane
Concen: 0.46 ppb(v)
RT: 4.385 min Scan# 294
Delta R.T. -0.007 min
Lab File: 5w46795.D
Acq: 14 Dec 2021 1:25 am

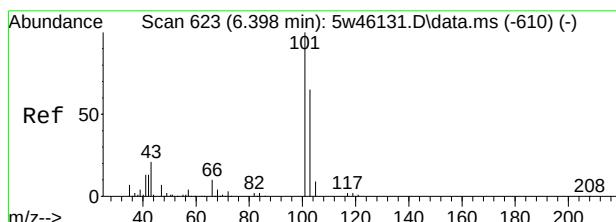
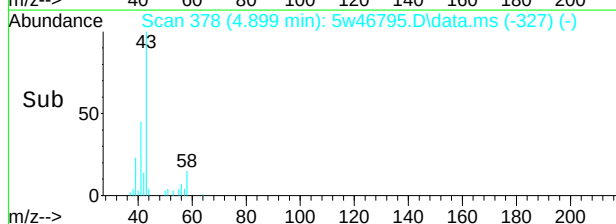
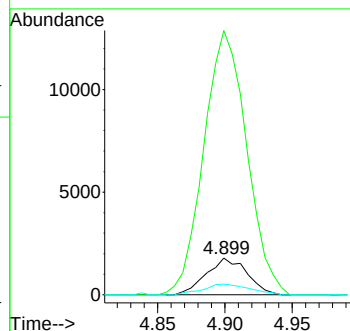
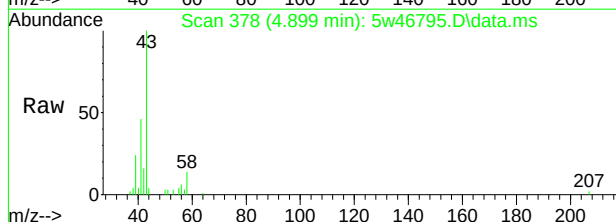
Tgt Ion: 85 Resp: 27101
Ion Ratio Lower Upper
85 100
87 31.6 23.0 42.6
101 10.1 6.8 12.6
103 6.2 6.0 11.2





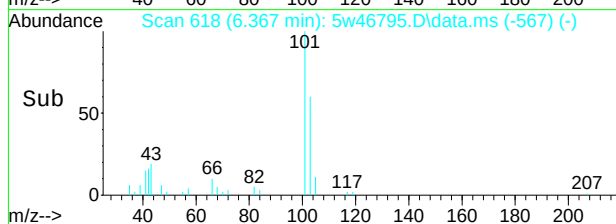
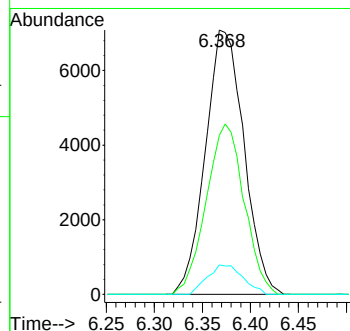
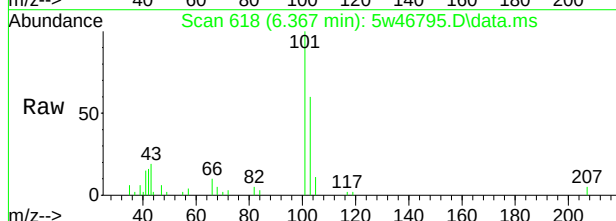
#12
n-Butane
Concen: 1.84 ppb(v)
RT: 4.899 min Scan# 378
Delta R.T. -0.018 min
Lab File: 5w46795.D
Acq: 14 Dec 2021 1:25 am

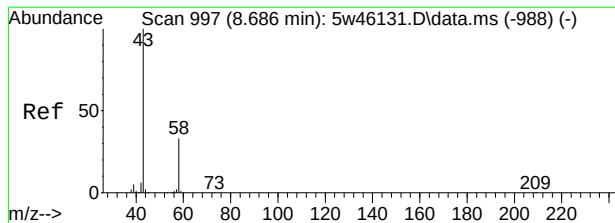
Tgt Ion:	58	Resp:	3783
Ion	Ratio	Lower	Upper
58	100		
43	718.5	523.2	971.7
44	29.0	18.6	34.6



#21
Trichlorofluoromethane
Concen: 0.34 ppb(v)
RT: 6.367 min Scan# 618
Delta R.T. -0.018 min
Lab File: 5w46795.D
Acq: 14 Dec 2021 1:25 am

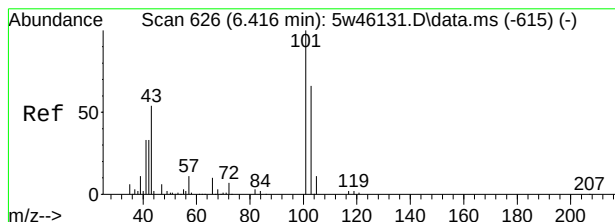
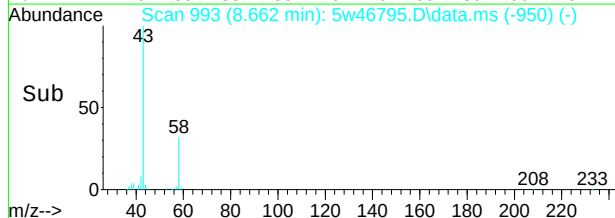
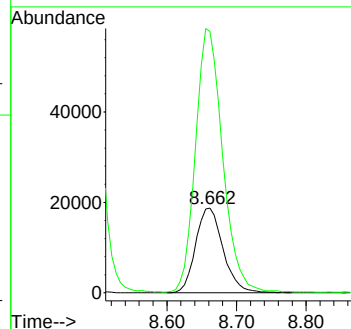
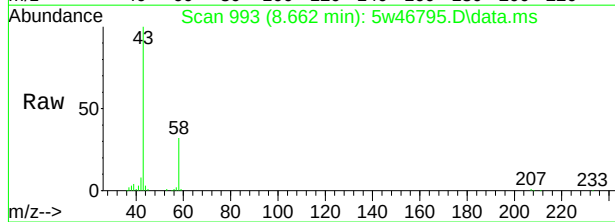
Tgt Ion:	101	Resp:	19832
Ion	Ratio	Lower	Upper
101	100		
103	60.1	41.2	76.4
105	11.2	7.4	13.8





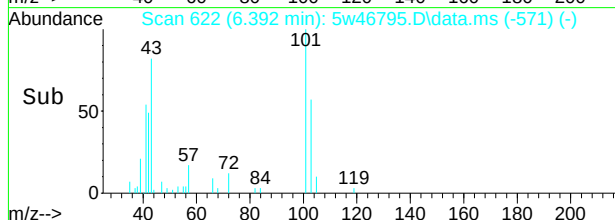
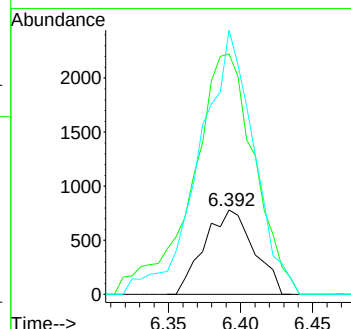
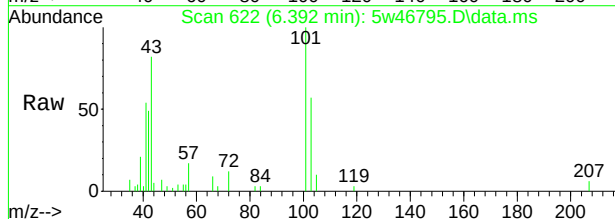
#22
Acetone
Concen: 8.86 ppb(v)
RT: 8.662 min Scan# 993
Delta R.T. -0.067 min
Lab File: 5w46795.D
Acq: 14 Dec 2021 1:25 am

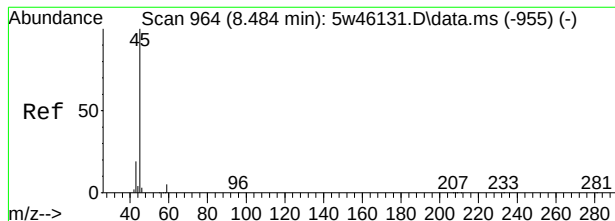
Tgt Ion: 58 Resp: 51484
Ion Ratio Lower Upper
58 100
43 308.4 186.7 346.7



#23
Pentane
Concen: 0.57 ppb(v)
RT: 6.392 min Scan# 622
Delta R.T. -0.018 min
Lab File: 5w46795.D
Acq: 14 Dec 2021 1:25 am

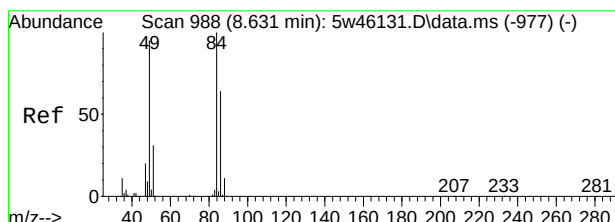
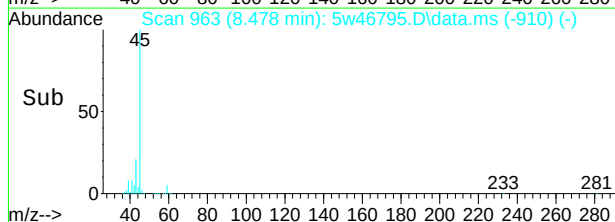
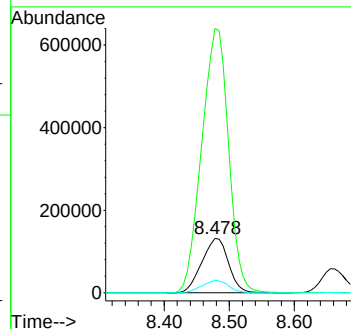
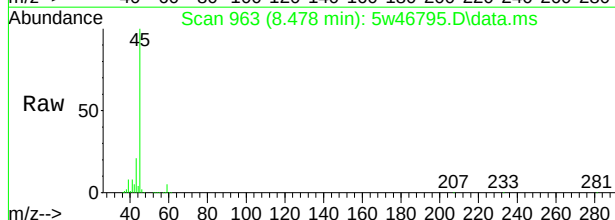
Tgt Ion: 57 Resp: 1867
Ion Ratio Lower Upper
57 100
42 285.1 192.4 357.4
41 313.5 204.9 380.5





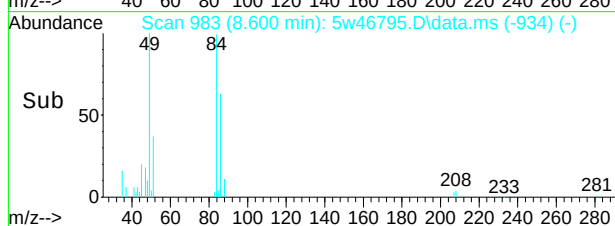
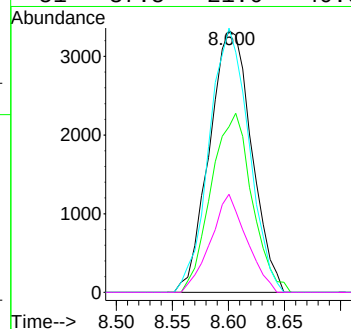
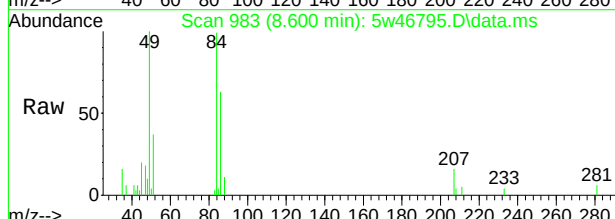
#25
Isopropyl Alcohol
Concen: 95.95 ppb(v)
RT: 8.478 min Scan# 963
Delta R.T. -0.006 min
Lab File: 5w46795.D
Acq: 14 Dec 2021 1:25 am

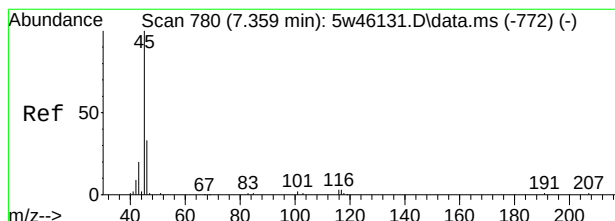
Tgt Ion:	43	Resp:	373455
Ion	Ratio	Lower	Upper
43	100		
45	486.2	361.2	670.8
59	23.1	17.1	31.9



#28
Methylene Chloride
Concen: 0.52 ppb(v)
RT: 8.600 min Scan# 983
Delta R.T. -0.031 min
Lab File: 5w46795.D
Acq: 14 Dec 2021 1:25 am

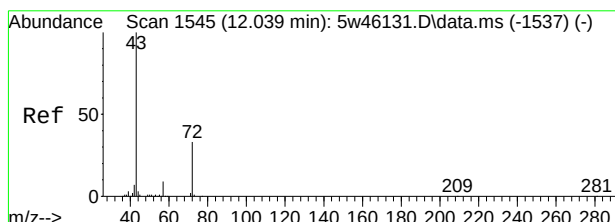
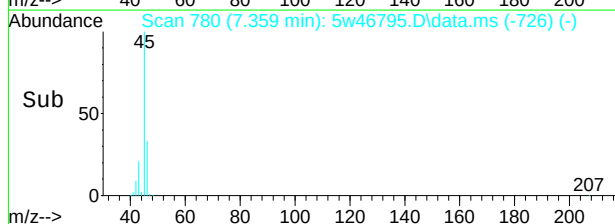
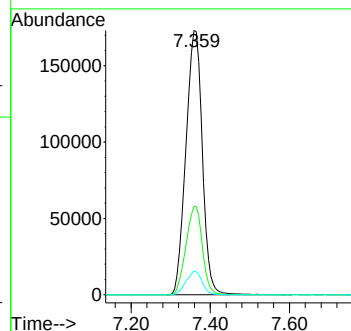
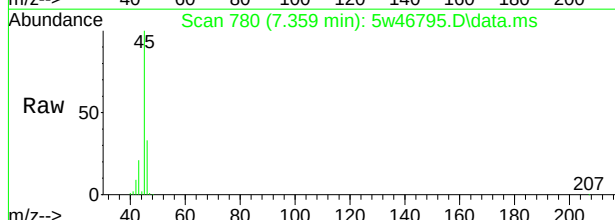
Tgt Ion:	84	Resp:	8727
Ion	Ratio	Lower	Upper
84	100		
86	63.2	44.9	83.3
49	101.0	66.4	123.4
51	37.5	21.6	40.0





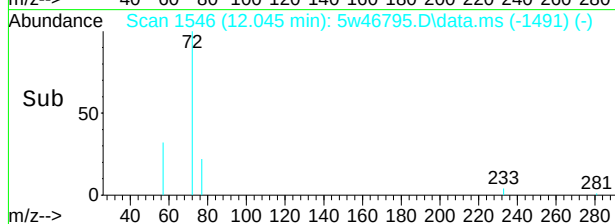
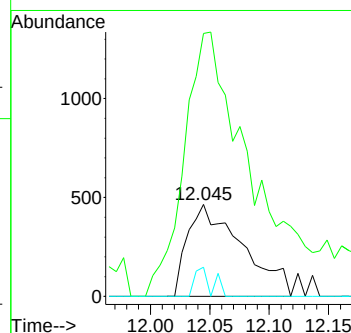
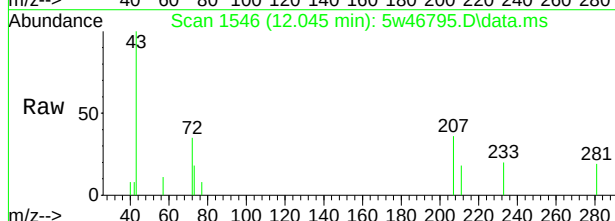
#30
Ethanol
Concen: 112.13 ppb(v)
RT: 7.359 min Scan# 780
Delta R.T. 0.000 min
Lab File: 5w46795.D
Acq: 14 Dec 2021 1:25 am

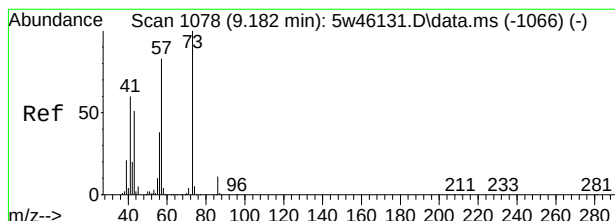
Tgt Ion:	45	Resp:	499606
Ion Ratio	Lower	Upper	
45	100		
46	33.4	23.4	43.4
42	9.0	6.3	11.7



#38
2-Butanone
Concen: 0.22 ppb(v)
RT: 12.045 min Scan# 1546
Delta R.T. 0.006 min
Lab File: 5w46795.D
Acq: 14 Dec 2021 1:25 am

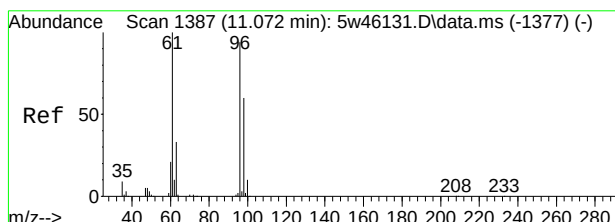
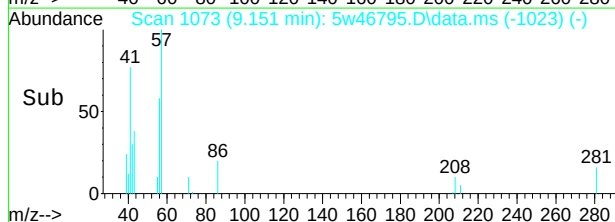
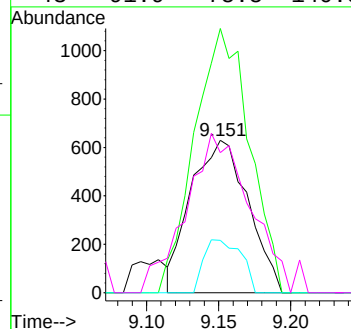
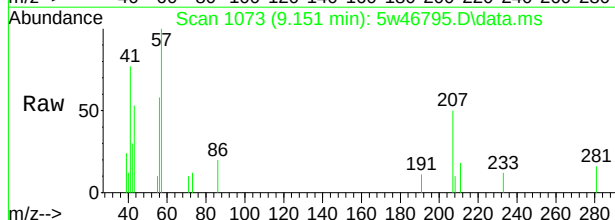
Tgt Ion:	72	Resp:	1487
Ion Ratio	Lower	Upper	
72	100		
43	285.8	209.6	389.2
57	31.8	19.4	36.0





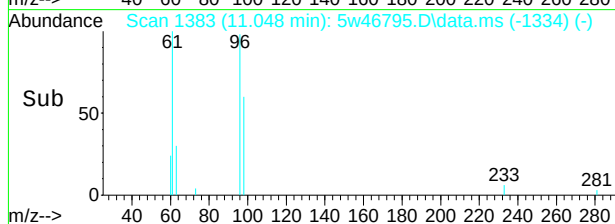
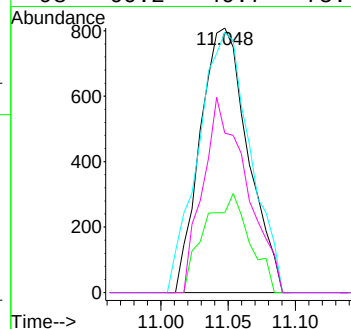
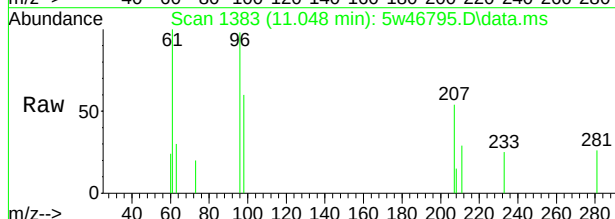
#39
Hexane
Concen: 0.15 ppb(v)
RT: 9.151 min Scan# 1073
Delta R.T. -0.024 min
Lab File: 5w46795.D
Acq: 14 Dec 2021 1:25 am

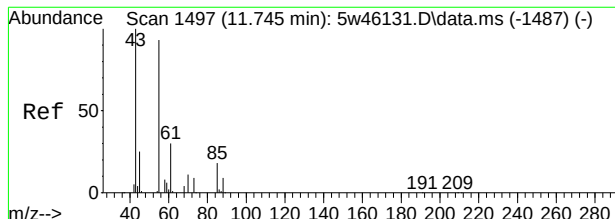
Tgt Ion	Ratio	Lower	Upper
56	100		
57	173.3	137.2	254.8
86	34.3	24.0	44.6
43	91.9	75.5	140.3



#40
cis-1,2-Dichloroethene
Concen: 0.09 ppb(v)
RT: 11.048 min Scan# 1383
Delta R.T. -0.031 min
Lab File: 5w46795.D
Acq: 14 Dec 2021 1:25 am

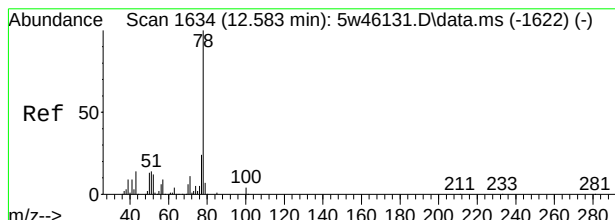
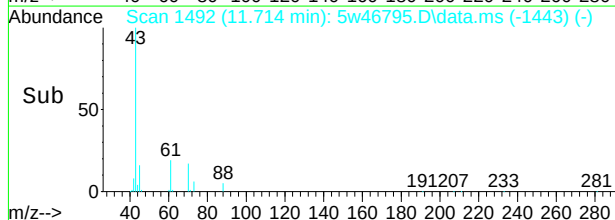
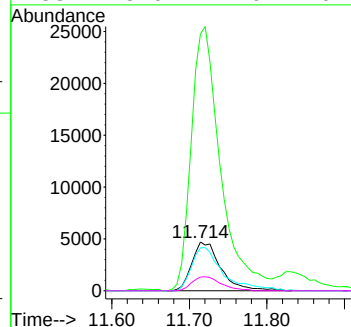
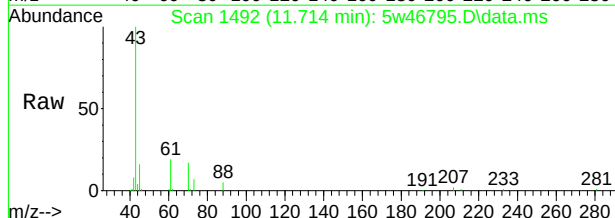
Tgt Ion	Ratio	Lower	Upper
61	100		
63	30.2	18.5	34.3
96	98.3	67.3	125.1
98	60.2	40.7	75.7





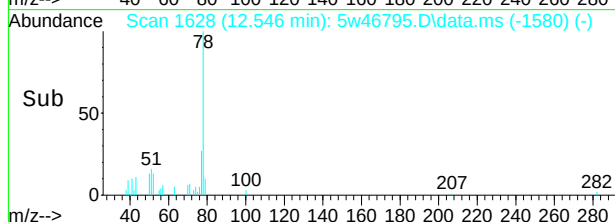
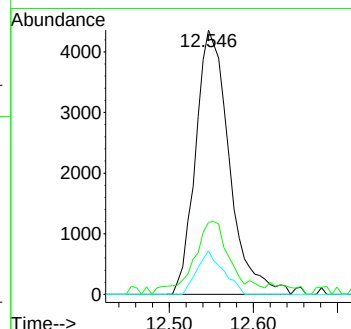
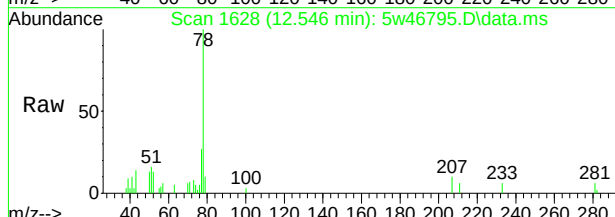
#42
Ethyl Acetate
Concen: 3.20 ppb(v)
RT: 11.714 min Scan# 1492
Delta R.T. -0.031 min
Lab File: 5w46795.D
Acq: 14 Dec 2021 1:25 am

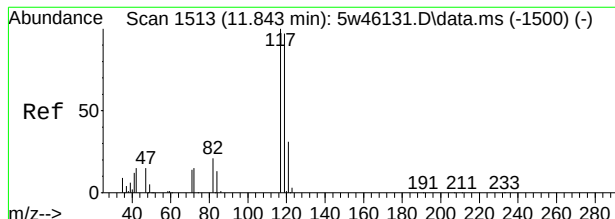
Tgt Ion:	61	Resp:	12219
Ion	Ratio	Lower	Upper
61	100		
43	526.1	388.8	722.0
70	88.1	63.6	118.0
88	28.0	21.6	40.0



#49
Benzene
Concen: 0.23 ppb(v)
RT: 12.546 min Scan# 1628
Delta R.T. -0.037 min
Lab File: 5w46795.D
Acq: 14 Dec 2021 1:25 am

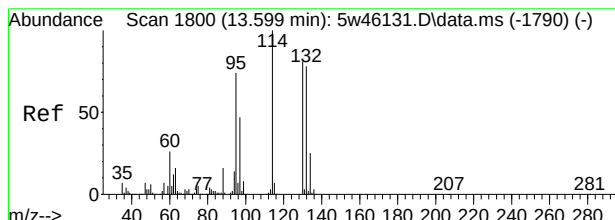
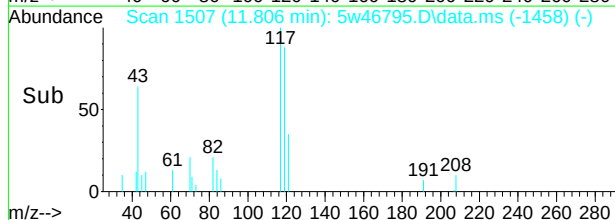
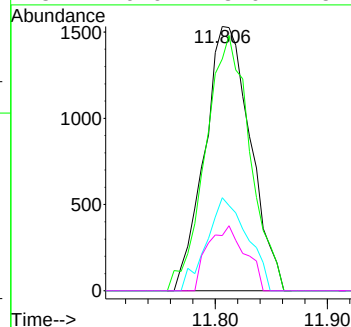
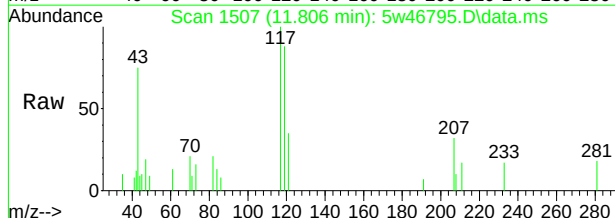
Tgt Ion:	78	Resp:	12134
Ion	Ratio	Lower	Upper
78	100		
77	27.3	20.7	38.5
51	16.4	9.5	17.7





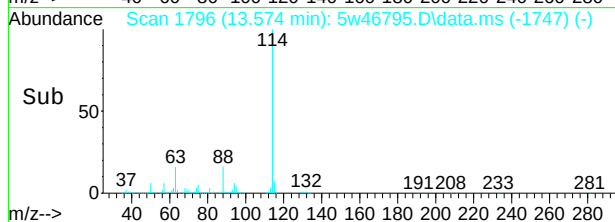
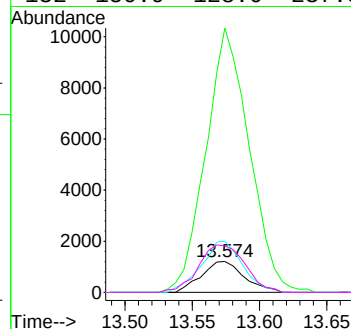
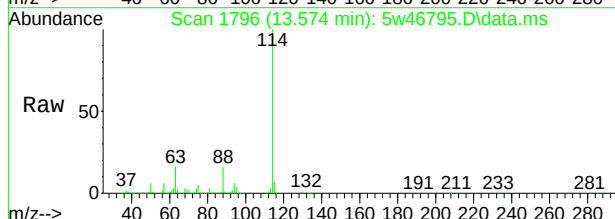
#50
Carbon Tetrachloride
Concen: 0.08 ppb(v)
RT: 11.806 min Scan# 1507
Delta R.T. -0.031 min
Lab File: 5w46795.D
Acq: 14 Dec 2021 1:25 am

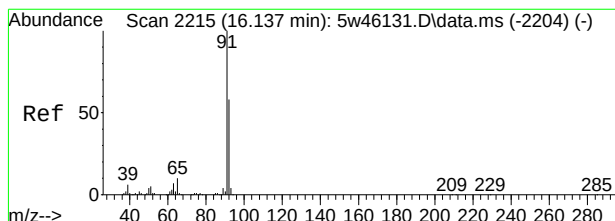
Tgt Ion	Ratio	Lower	Upper
117	100		
119	87.6	65.5	121.6
121	35.2	18.5	34.3#
82	20.9	13.9	25.9



#56
Trichloroethene
Concen: 0.14 ppb(v)
RT: 13.574 min Scan# 1796
Delta R.T. -0.031 min
Lab File: 5w46795.D
Acq: 14 Dec 2021 1:25 am

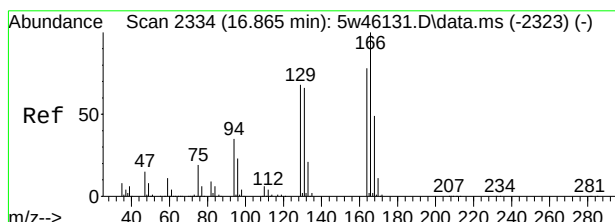
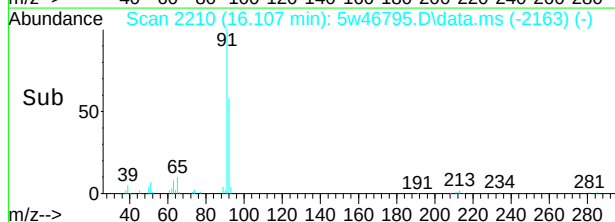
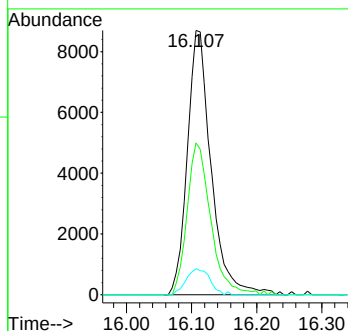
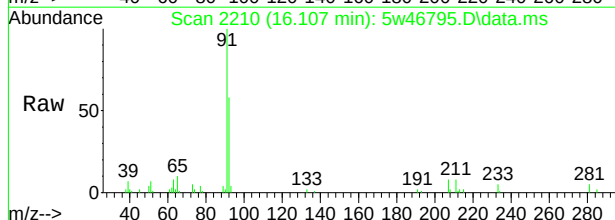
Tgt Ion	Ratio	Lower	Upper
97	100		
95	856.5	690.3	1281.9
130	165.7	137.1	254.7
132	150.9	128.0	237.8





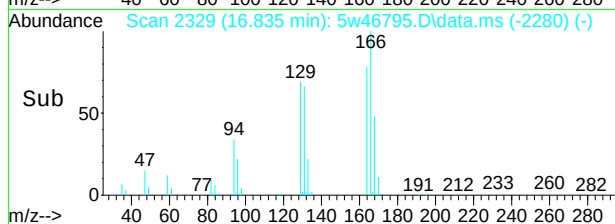
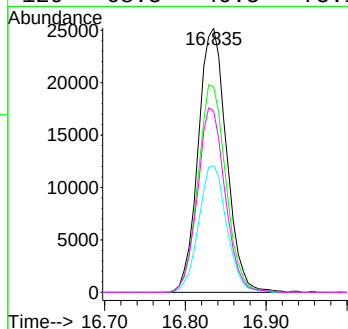
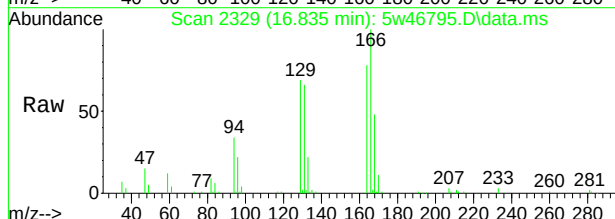
#66
Toluene
Concen: 0.30 ppb(v)
RT: 16.107 min Scan# 2210
Delta R.T. -0.043 min
Lab File: 5w46795.D
Acq: 14 Dec 2021 1:25 am

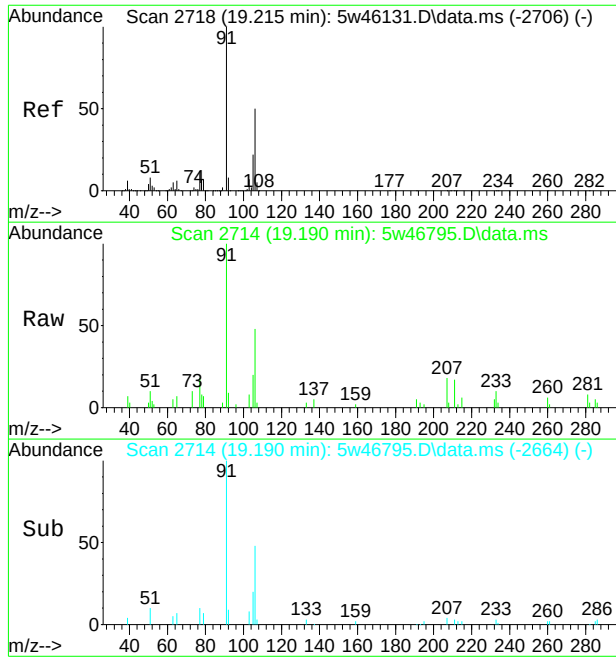
Tgt	Ion: 91	Resp:	22058
Ion	Ratio	Lower	Upper
91	100		
92	57.5	45.5	84.5
65	9.9	6.0	11.2



#72
Tetrachloroethene
Concen: 1.20 ppb(v)
RT: 16.835 min Scan# 2329
Delta R.T. -0.031 min
Lab File: 5w46795.D
Acq: 14 Dec 2021 1:25 am

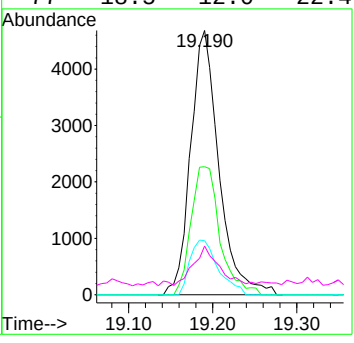
Tgt	Ion: 166	Resp:	61524
Ion	Ratio	Lower	Upper
166	100		
164	77.7	50.6	94.0
168	48.0	28.5	52.9
129	68.5	40.5	75.1





#79
m,p-Xylene
Concen: 0.16 ppb(v)
RT: 19.190 min Scan# 2714
Delta R.T. -0.025 min
Lab File: 5W46795.D
Acq: 14 Dec 2021 1:25 am

Tgt Ion	91	Resp	10940
Ion	Ratio	Lower	Upper
91	100		
106	48.5	34.9	64.9
105	20.4	15.4	28.6
77	18.5	12.0	22.4



7.1.3
7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
 Data File : 5W46799.D
 Acq On : 14 Dec 2021 5:11 am
 Operator : danat
 Sample : jd36325-3
 Misc : ms55468,v5w1935,400,,,1
 ALS Vial : 4 Sample Multiplier: 1

Quant Time: Dec 14 13:51:41 2021
 Quant Method : C:\msdchem\1\methods\m5w1909.M
 Quant Title : T0-15 Full Scan Mode
 QLast Update : Mon Nov 08 09:09:12 2021
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

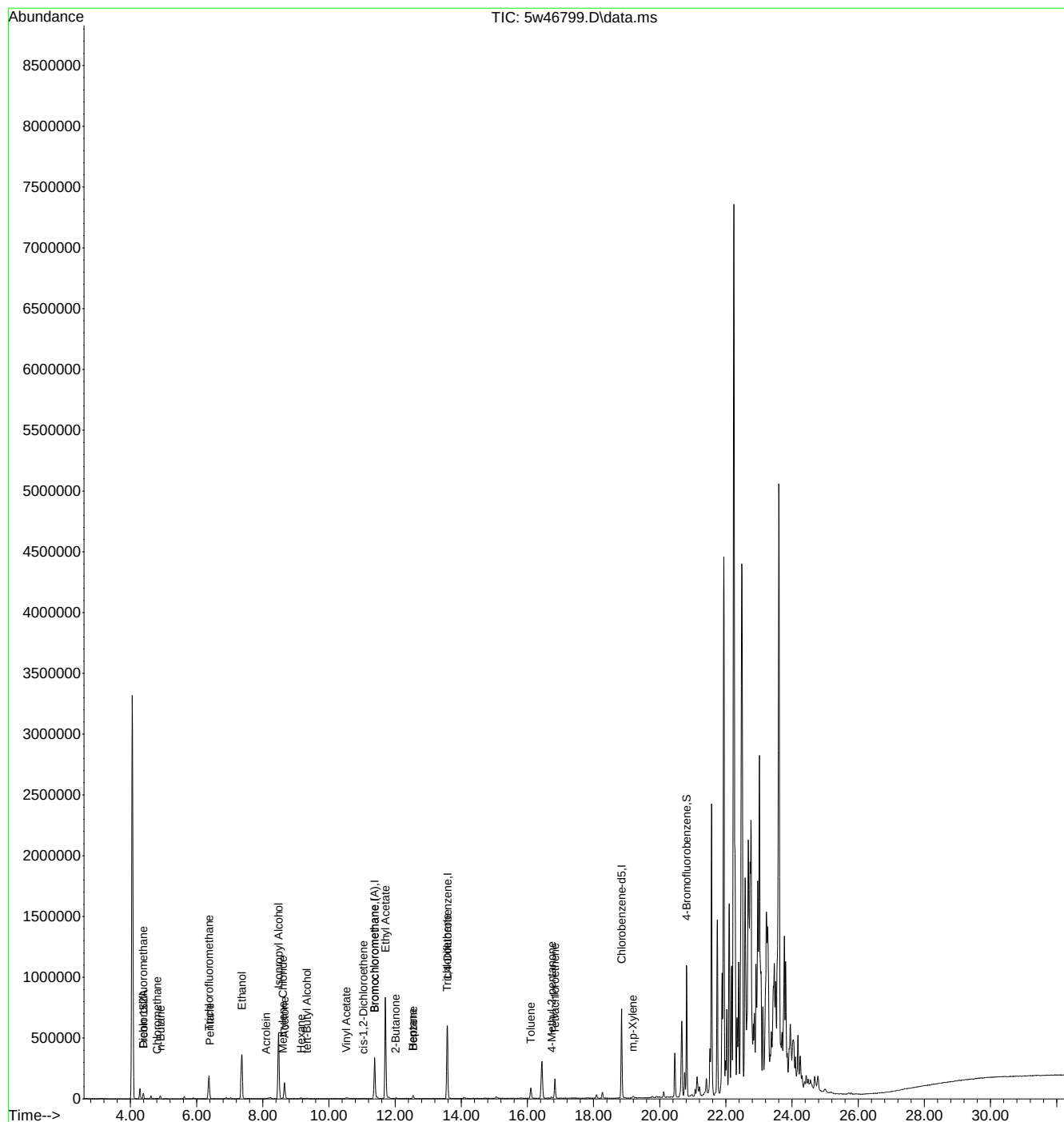
Internal Standards						
1) Bromochloromethane	11.384	130	183983	10.00	ppb(v	-0.03
53) 1,4-Difluorobenzene	13.580	114	672796	10.00	ppb(v	-0.03
76) Chlorobenzene-d5	18.848	82	285155	10.00	ppb(v	-0.04
108) Bromochloromethane (A)	11.384	130	183983	10.00	ppb(v	-0.03
System Monitoring Compounds						
90) 4-Bromofluorobenzene	20.812	95	386392	9.55	ppb(v	-0.03
Spiked Amount 10.000	Range 65 - 128		Recovery	=	95.50%	
Target Compounds						
					Qvalue	
2) Freon 152A	4.392	65	15864	1.81	ppb(v	99
6) Dichlorodifluoromethane	4.386	85	21180	0.38	ppb(v	98
8) Chloromethane	4.801	50	4216	0.34	ppb(v	85
12) n-Butane	4.906	58	2233	1.13	ppb(v	97
20) Acrolein	8.093	56	2557	0.54	ppb(v#	91
21) Trichlorofluoromethane	6.374	101	225481	4.05	ppb(v	91
22) Acetone	8.656	58	70265	12.59	ppb(v	75
23) Pentane	6.398	57	1344	0.43	ppb(v	90
25) Isopropyl Alcohol	8.478	43	191238	51.17	ppb(v	91
28) Methylene Chloride	8.607	84	4404	0.28	ppb(v	86
30) Ethanol	7.365	45	620501	145.03	ppb(v	99
34) tert-Butyl Alcohol	9.335	59	10510	0.37	ppb(v#	80
36) Vinyl Acetate	10.528	43	22422	0.82	ppb(v#	100
38) 2-Butanone	12.020	72	3919	0.61	ppb(v	93
39) Hexane	9.151	56	3650	0.32	ppb(v	90
40) cis-1,2-Dichloroethene	11.042	61	2312	0.11	ppb(v#	92
42) Ethyl Acetate	11.708	61	208471	56.78	ppb(v	97
49) Benzene	12.547	78	27926	0.56	ppb(v	92
55) Heptane	12.534	71	1984	0.13	ppb(v	88
56) Trichloroethene	13.568	97	6844	0.38	ppb(v#	1
64) 4-Methyl-2-pentanone	16.731	58	4648	0.39	ppb(v#	78
66) Toluene	16.101	91	91293	1.28	ppb(v	91
72) Tetrachloroethene	16.835	166	70555	1.43	ppb(v	91
79) m,p-Xylene	19.184	91	10869	0.16	ppb(v	97

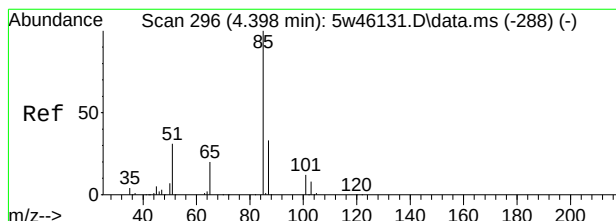
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 5w46799.D
Acq On : 14 Dec 2021 5:11 am
Operator : danat
Sample : jd36325-3
Misc : ms55468,v5w1935,400,,,,,1
ALS Vial : 4 Sample Multiplier: 1

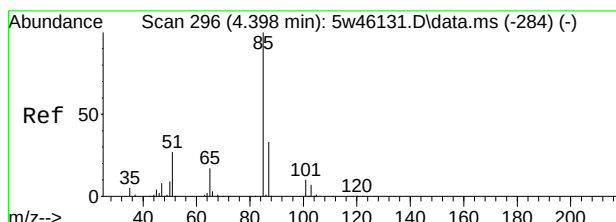
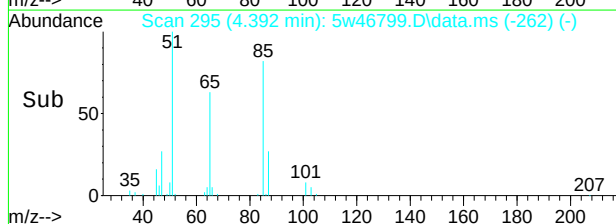
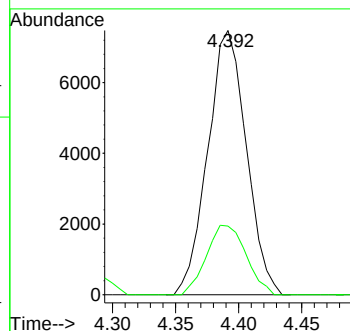
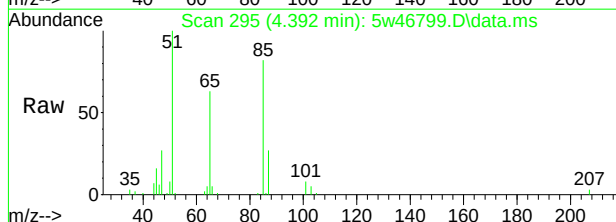
Quant Time: Dec 14 13:51:41 2021
Quant Method : C:\msdchem\1\methods\m5w1909.M
Quant Title : T0-15 Full Scan Mode
QLast Update : Mon Nov 08 09:09:12 2021
Response via : Initial Calibration





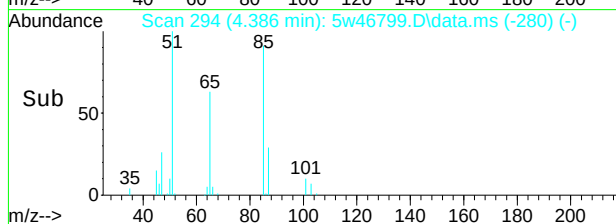
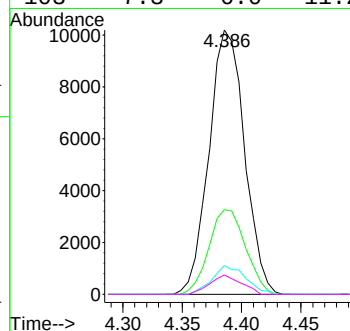
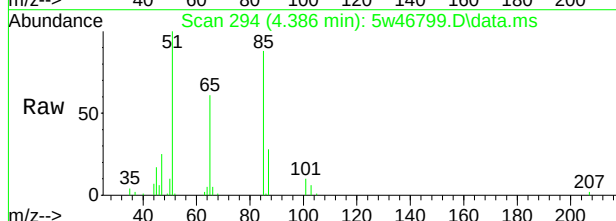
#2
 Freon 152A
 Concen: 1.81 ppb(v)
 RT: 4.392 min Scan# 295
 Delta R.T. 0.000 min
 Lab File: 5w46799.D
 Acq: 14 Dec 2021 5:11 am

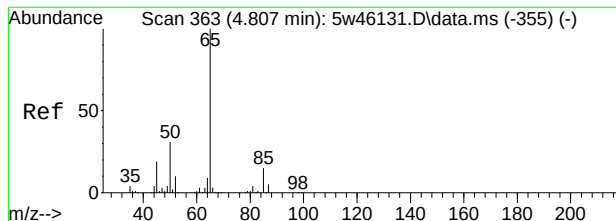
Tgt Ion: 65 Resp: 15864
 Ion Ratio Lower Upper
 65 100
 45 26.0 17.8 33.1



#6
 Dichlorodifluoromethane
 Concen: 0.38 ppb(v)
 RT: 4.386 min Scan# 294
 Delta R.T. -0.006 min
 Lab File: 5w46799.D
 Acq: 14 Dec 2021 5:11 am

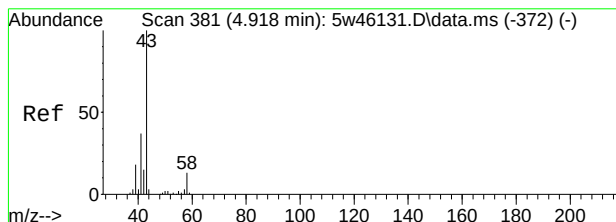
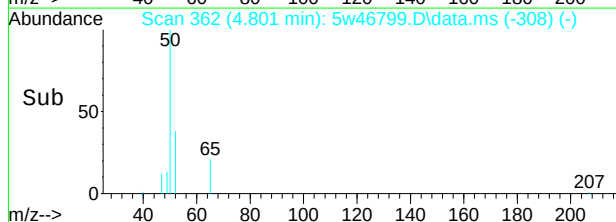
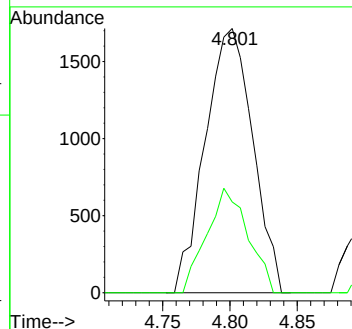
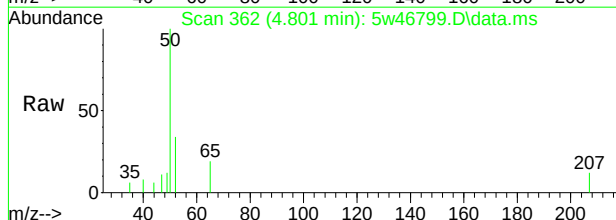
Tgt Ion: 85 Resp: 21180
 Ion Ratio Lower Upper
 85 100
 87 32.1 23.0 42.6
 101 10.9 6.8 12.6
 103 7.3 6.0 11.2





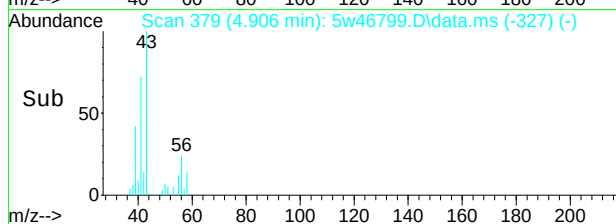
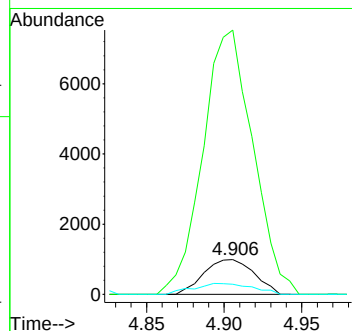
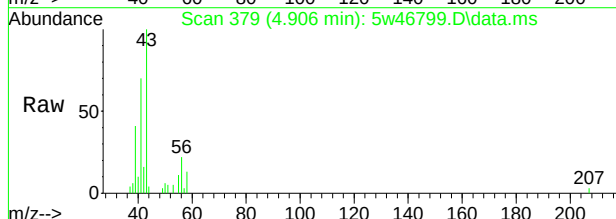
#8
Chloromethane
Concen: 0.34 ppb(v)
RT: 4.801 min Scan# 362
Delta R.T. 0.000 min
Lab File: 5w46799.D
Acq: 14 Dec 2021 5:11 am

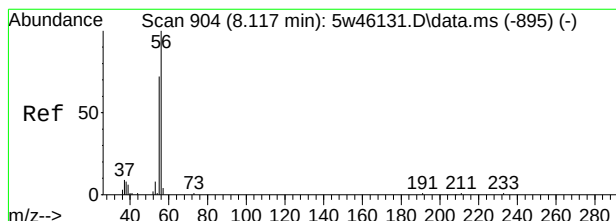
Tgt Ion	Ratio	Lower	Upper
50	100		
52	34.4	18.8	34.8



#12
n-Butane
Concen: 1.13 ppb(v)
RT: 4.906 min Scan# 379
Delta R.T. -0.012 min
Lab File: 5w46799.D
Acq: 14 Dec 2021 5:11 am

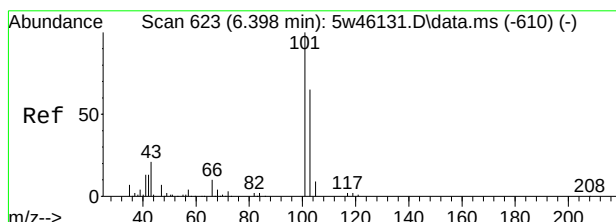
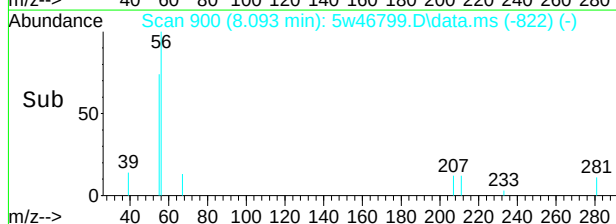
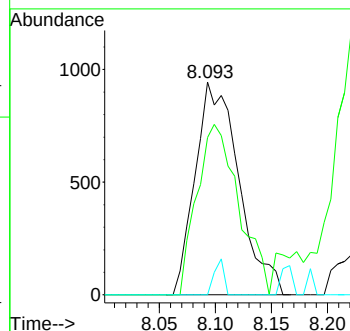
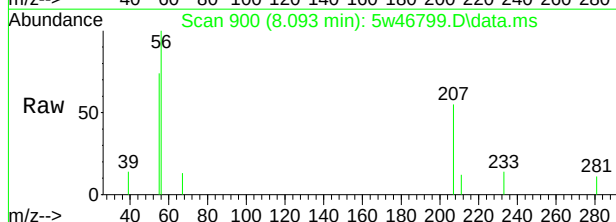
Tgt Ion	Ratio	Lower	Upper
58	100		
43	758.0	523.2	971.7
44	28.8	18.6	34.6





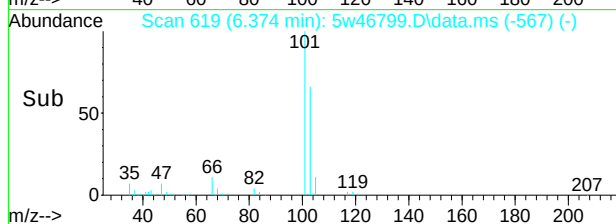
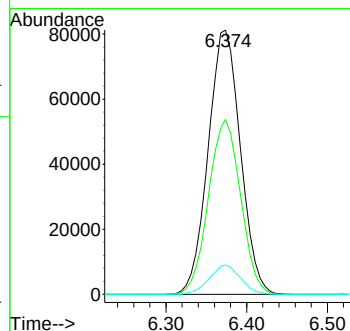
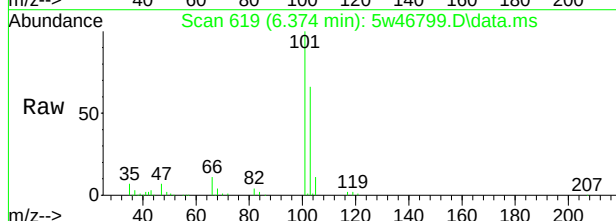
#20
Acrolein
Concen: 0.54 ppb(v)
RT: 8.093 min Scan# 900
Delta R.T. -0.024 min
Lab File: 5w46799.D
Acq: 14 Dec 2021 5:11 am

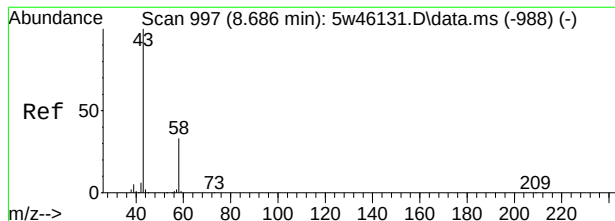
Tgt Ion	Ratio	Lower	Upper
56	100		
55	76.9	57.0	85.4
37	0.0	6.7	10.1#



#21
Trichlorofluoromethane
Concen: 4.05 ppb(v)
RT: 6.374 min Scan# 619
Delta R.T. -0.012 min
Lab File: 5w46799.D
Acq: 14 Dec 2021 5:11 am

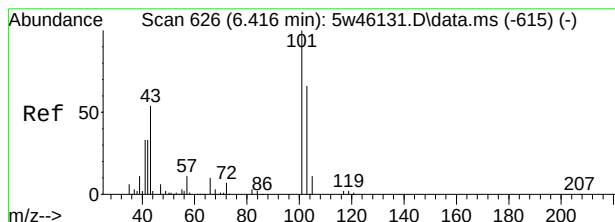
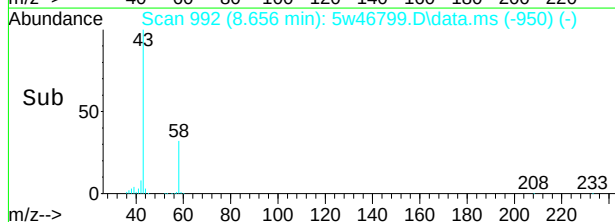
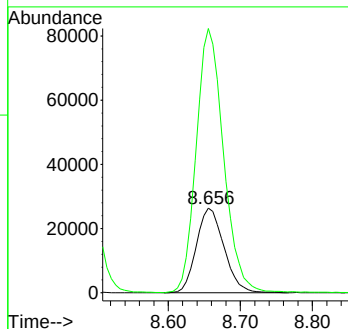
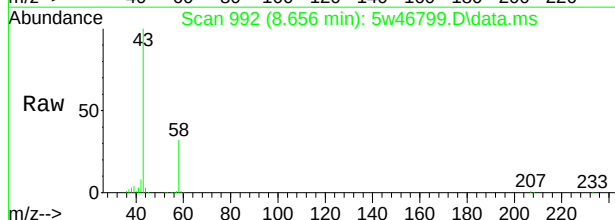
Tgt Ion	Ratio	Lower	Upper
101	100		
103	66.2	41.2	76.4
105	11.2	7.4	13.8





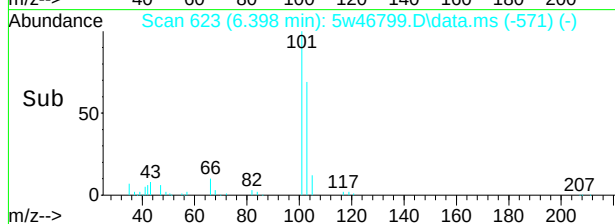
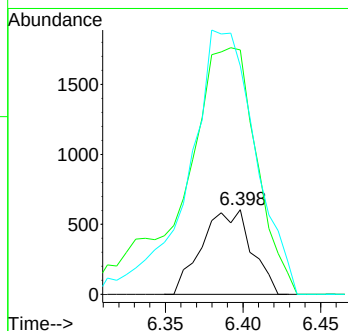
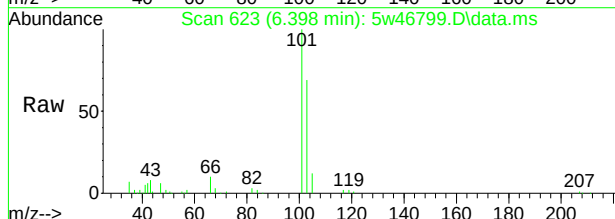
#22
Acetone
Concen: 12.59 ppb(v)
RT: 8.656 min Scan# 992
Delta R.T. -0.073 min
Lab File: 5w46799.D
Acq: 14 Dec 2021 5:11 am

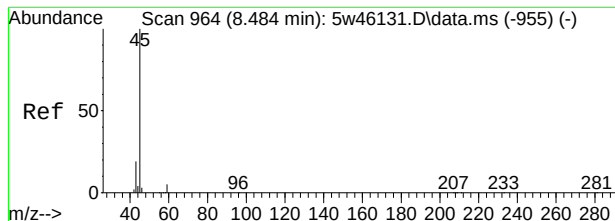
Tgt Ion: 58 Resp: 70265
Ion Ratio Lower Upper
58 100
43 311.8 186.7 346.7



#23
Pentane
Concen: 0.43 ppb(v)
RT: 6.398 min Scan# 623
Delta R.T. -0.012 min
Lab File: 5w46799.D
Acq: 14 Dec 2021 5:11 am

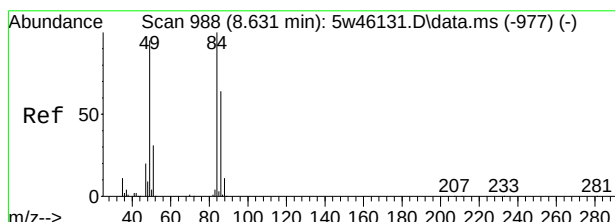
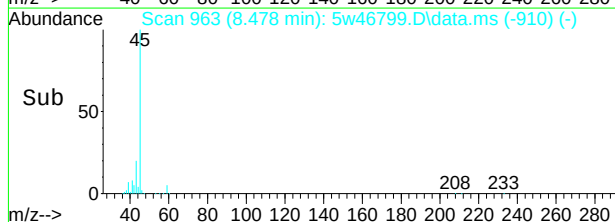
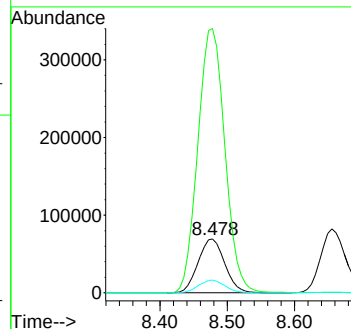
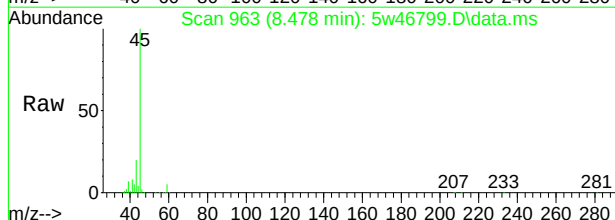
Tgt Ion: 57 Resp: 1344
Ion Ratio Lower Upper
57 100
42 288.3 192.4 357.4
41 269.5 204.9 380.5





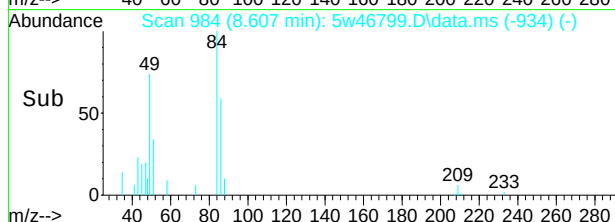
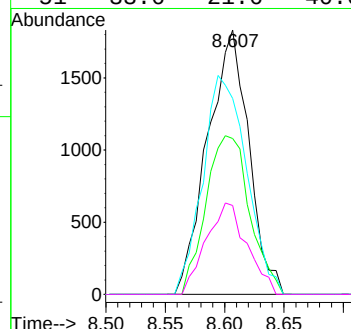
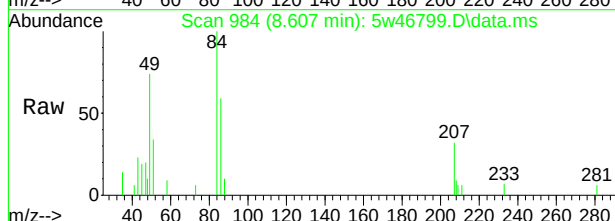
#25
Isopropyl Alcohol
Concen: 51.17 ppb(v)
RT: 8.478 min Scan# 963
Delta R.T. -0.006 min
Lab File: 5w46799.D
Acq: 14 Dec 2021 5:11 am

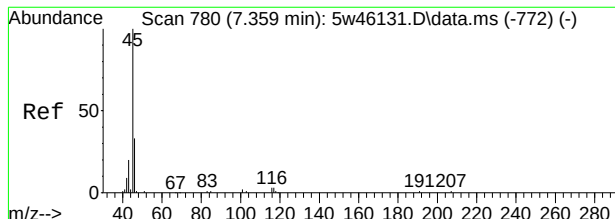
Tgt Ion:	43	Resp:	191238
Ion	Ratio	Lower	Upper
43	100		
45	489.8	361.2	670.8
59	23.3	17.1	31.9



#28
Methylene Chloride
Concen: 0.28 ppb(v)
RT: 8.607 min Scan# 984
Delta R.T. -0.024 min
Lab File: 5w46799.D
Acq: 14 Dec 2021 5:11 am

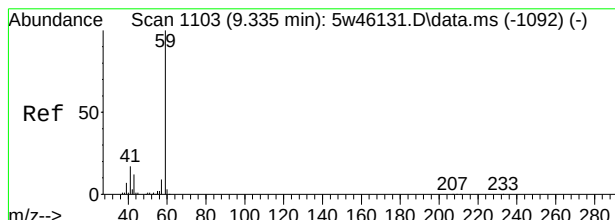
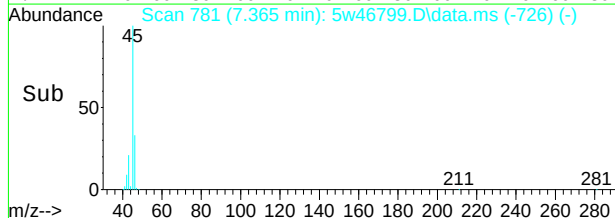
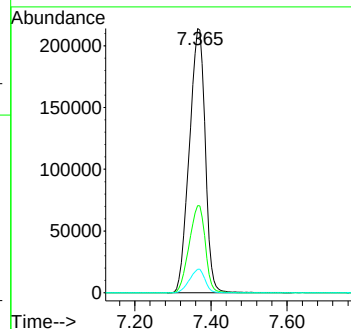
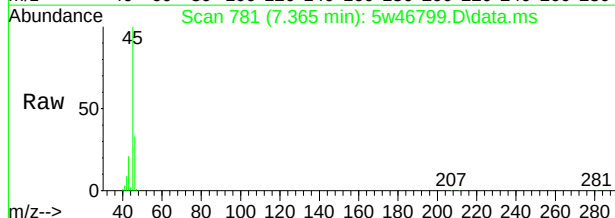
Tgt Ion:	84	Resp:	4404
Ion	Ratio	Lower	Upper
84	100		
86	59.0	44.9	83.3
49	74.1	66.4	123.4
51	33.6	21.6	40.0





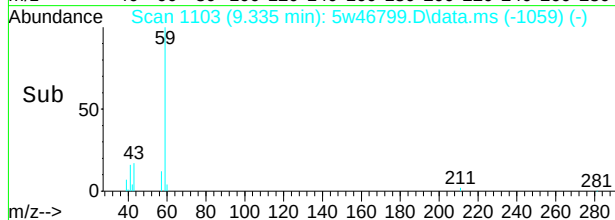
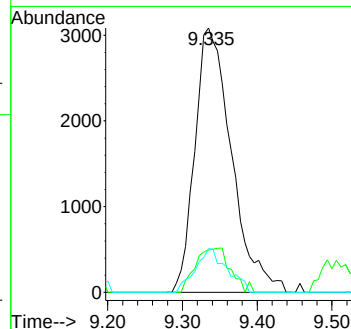
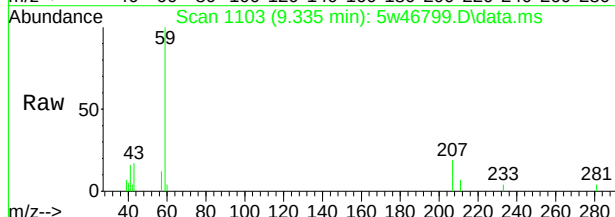
#30
 Ethanol
 Concen: 145.03 ppb(v)
 RT: 7.365 min Scan# 781
 Delta R.T. 0.006 min
 Lab File: 5w46799.D
 Acq: 14 Dec 2021 5:11 am

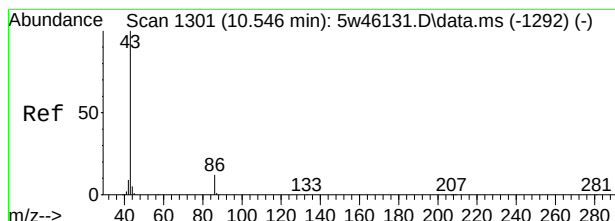
Tgt Ion	Ratio	Lower	Upper
45	100		
46	33.0	23.4	43.4
42	8.9	6.3	11.7



#34
 tert-Butyl Alcohol
 Concen: 0.37 ppb(v)
 RT: 9.335 min Scan# 1103
 Delta R.T. -0.061 min
 Lab File: 5w46799.D
 Acq: 14 Dec 2021 5:11 am

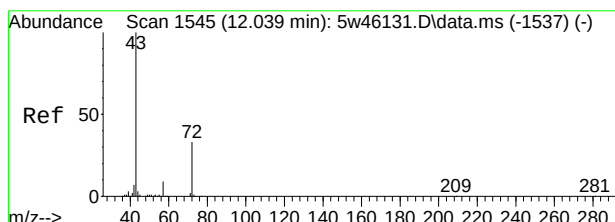
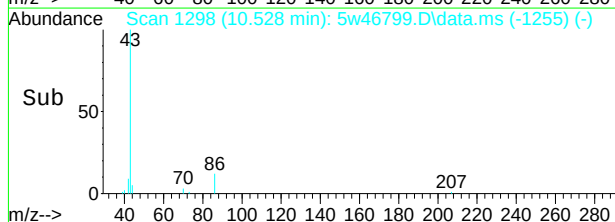
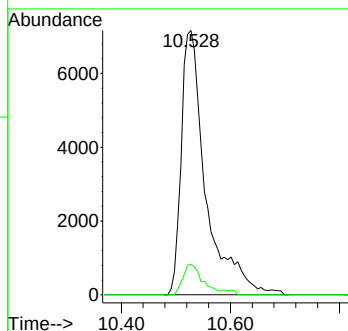
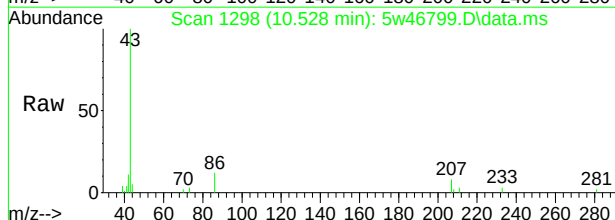
Tgt Ion	Ratio	Lower	Upper
59	100		
41	16.0	21.8	40.4#
43	16.5	14.2	26.4





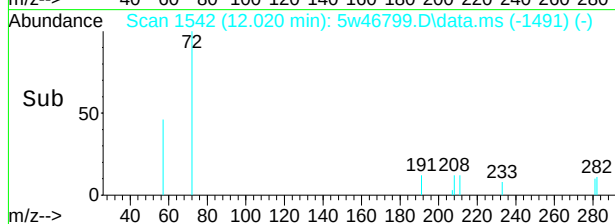
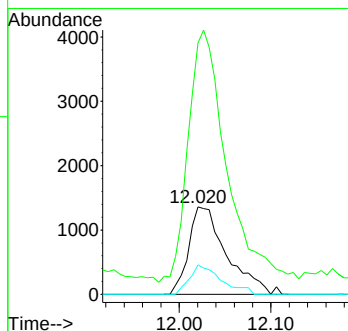
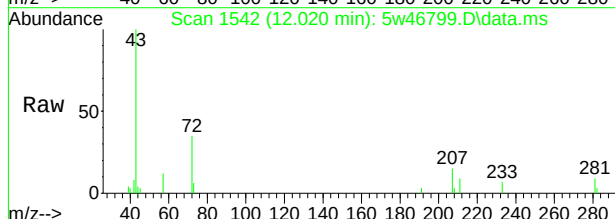
#36
 Vinyl Acetate
 Concen: 0.82 ppb(v)
 RT: 10.528 min Scan# 1298
 Delta R.T. -0.067 min
 Lab File: 5w46799.D
 Acq: 14 Dec 2021 5:11 am

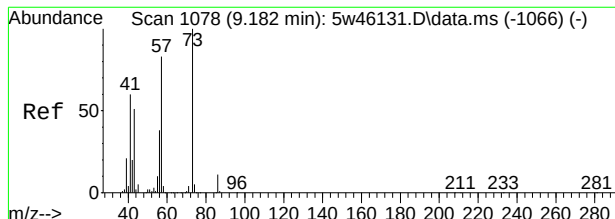
Tgt Ion	Ratio	Lower	Upper
43	100		
86	11.6	0.0	0.0#



#38
 2-Butanone
 Concen: 0.61 ppb(v)
 RT: 12.020 min Scan# 1542
 Delta R.T. -0.018 min
 Lab File: 5w46799.D
 Acq: 14 Dec 2021 5:11 am

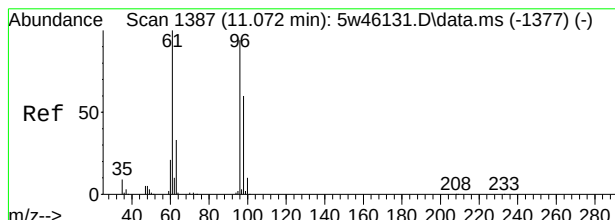
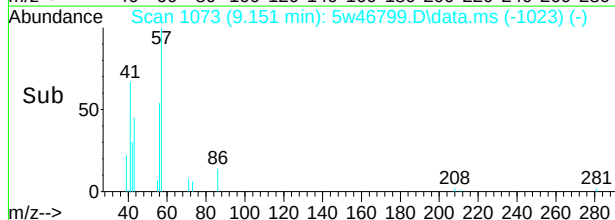
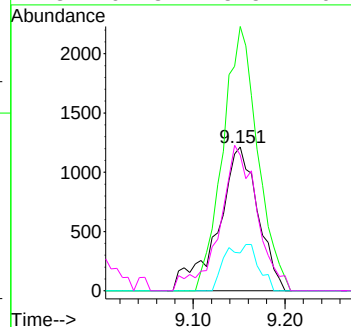
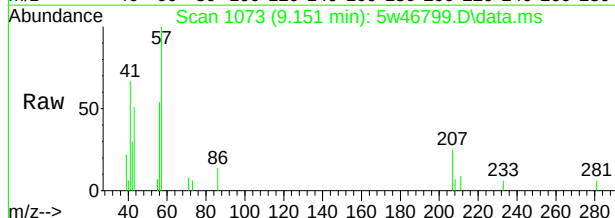
Tgt Ion	Ratio	Lower	Upper
72	100		
43	287.3	209.6	389.2
57	33.6	19.4	36.0





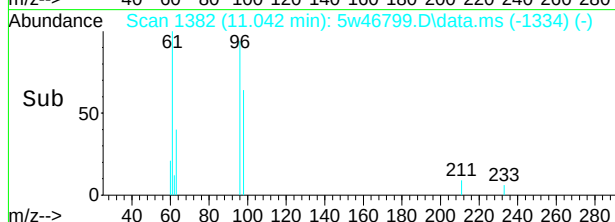
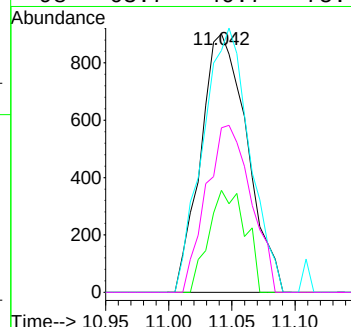
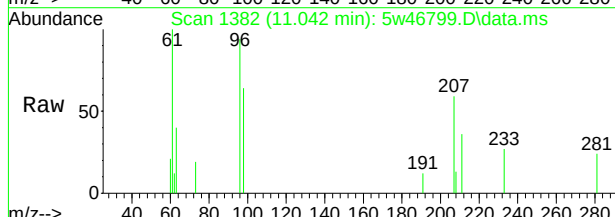
#39
Hexane
Concen: 0.32 ppb(v)
RT: 9.151 min Scan# 1073
Delta R.T. -0.024 min
Lab File: 5w46799.D
Acq: 14 Dec 2021 5:11 am

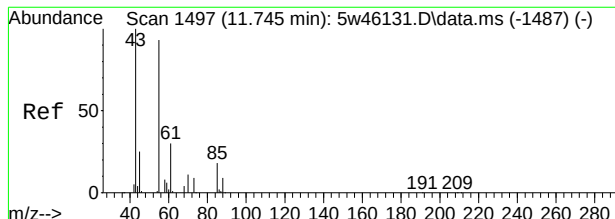
Tgt Ion	Ion	Ratio	Resp	Lower	Upper
56	56	100	3650		
57	57	183.8	137.2	254.8	
86	86	26.3	24.0	44.6	
43	43	94.3	75.5	140.3	



#40
cis-1,2-Dichloroethene
Concen: 0.11 ppb(v)
RT: 11.042 min Scan# 1382
Delta R.T. -0.037 min
Lab File: 5w46799.D
Acq: 14 Dec 2021 5:11 am

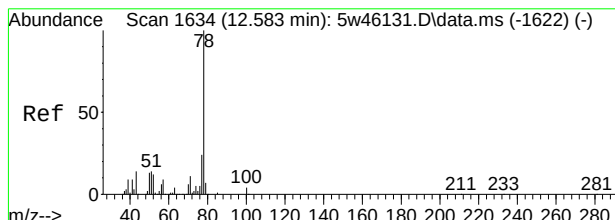
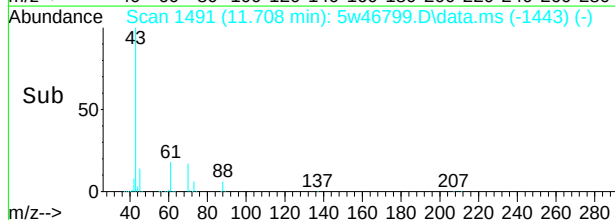
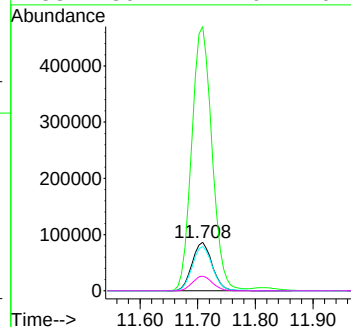
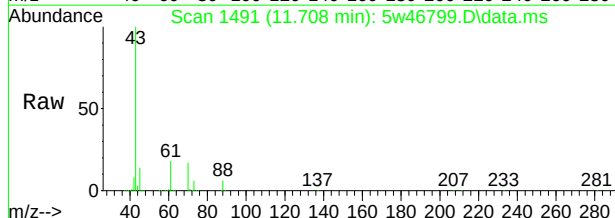
Tgt Ion	Ion	Ratio	Resp	Lower	Upper
61	61	100	2312		
63	63	39.5	18.5	34.3#	
96	96	93.6	67.3	125.1	
98	98	63.7	40.7	75.7	





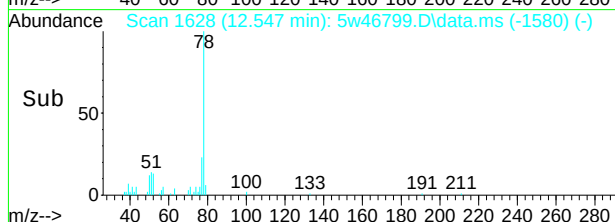
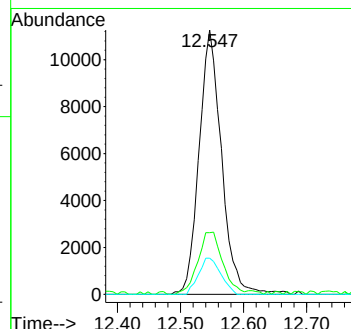
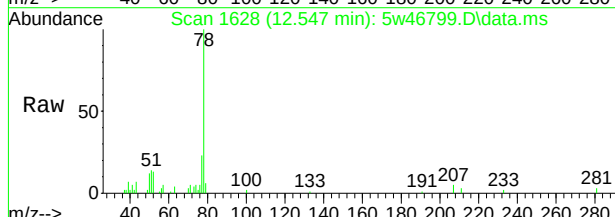
#42
Ethyl Acetate
Concen: 56.78 ppb(v)
RT: 11.708 min Scan# 1491
Delta R.T. -0.037 min
Lab File: 5w46799.D
Acq: 14 Dec 2021 5:11 am

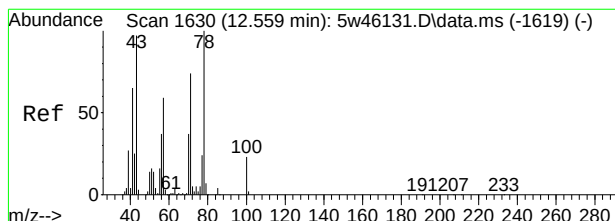
Tgt Ion	Ratio	Lower	Upper
61	100		
43	546.2	388.8	722.0
70	91.6	63.6	118.0
88	30.4	21.6	40.0



#49
Benzene
Concen: 0.56 ppb(v)
RT: 12.547 min Scan# 1628
Delta R.T. -0.036 min
Lab File: 5w46799.D
Acq: 14 Dec 2021 5:11 am

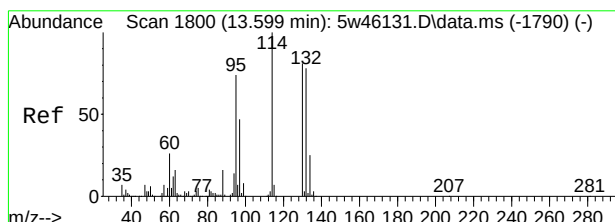
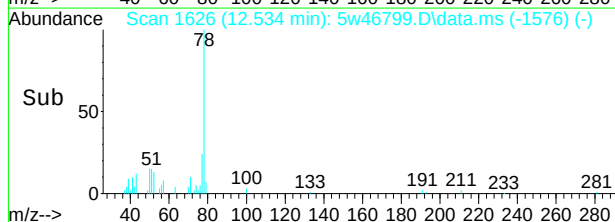
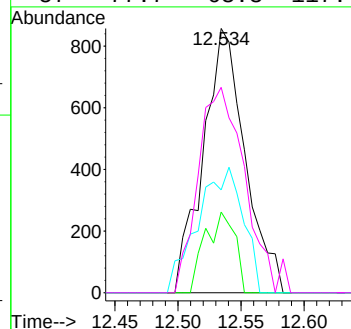
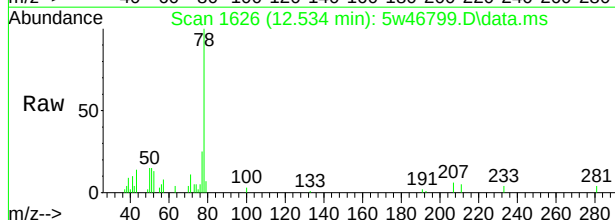
Tgt Ion	Ratio	Lower	Upper
78	100		
77	23.4	20.7	38.5
51	13.7	9.5	17.7





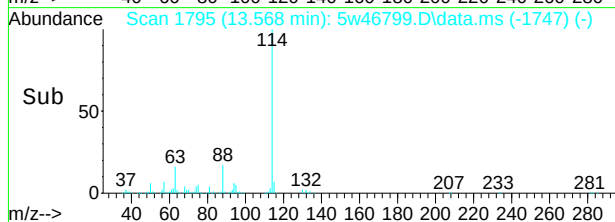
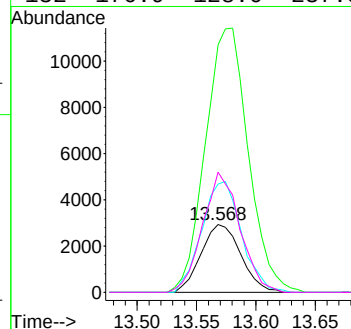
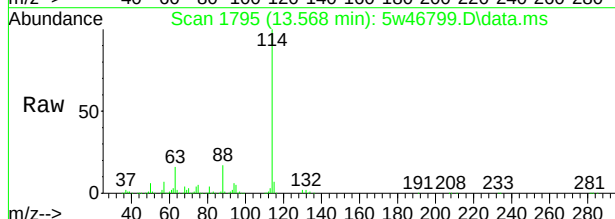
#55
Heptane
Concen: 0.13 ppb(v)
RT: 12.534 min Scan# 1626
Delta R.T. -0.024 min
Lab File: 5w46799.D
Acq: 14 Dec 2021 5:11 am

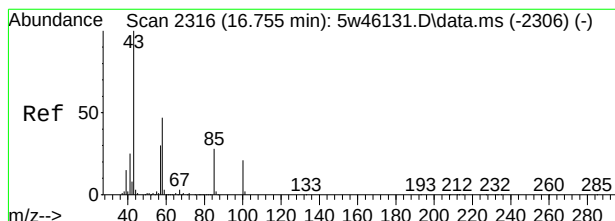
Tgt Ion	Ratio	Lower	Upper
71	100		
100	30.5	25.2	46.8
70	38.9	32.1	59.7
57	77.7	63.3	117.7



#56
Trichloroethene
Concen: 0.38 ppb(v)
RT: 13.568 min Scan# 1795
Delta R.T. -0.037 min
Lab File: 5w46799.D
Acq: 14 Dec 2021 5:11 am

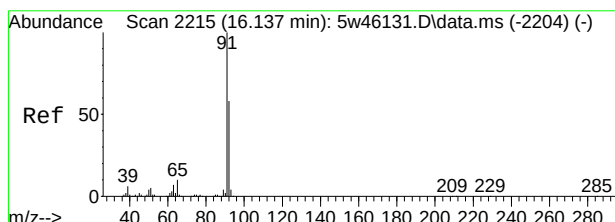
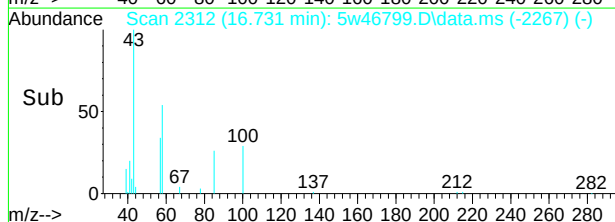
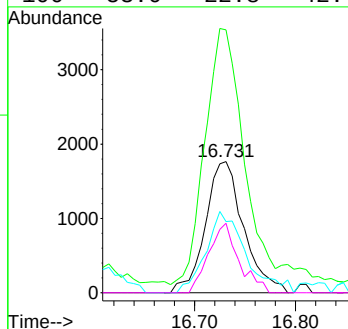
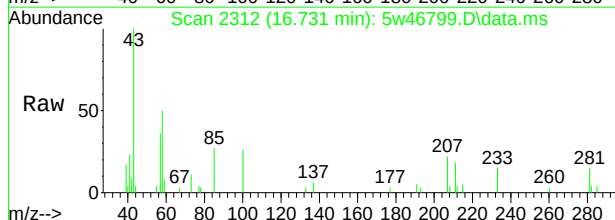
Tgt Ion	Ratio	Lower	Upper
97	100		
95	363.9	690.3	1281.9#
130	159.1	137.1	254.7
132	176.9	128.0	237.8





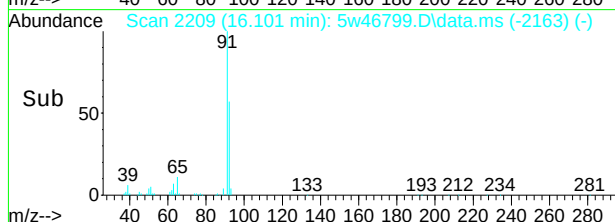
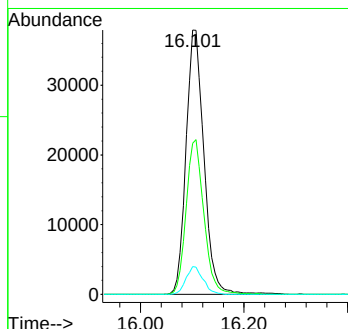
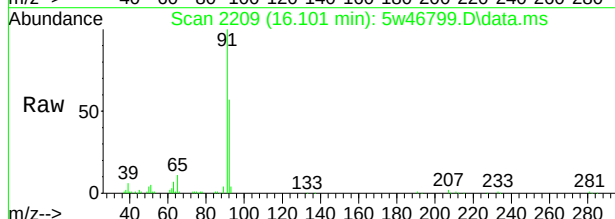
#64
4-Methyl-2-pentanone
Concen: 0.39 ppb(v)
RT: 16.731 min Scan# 2312
Delta R.T. -0.055 min
Lab File: 5w46799.D
Acq: 14 Dec 2021 5:11 am

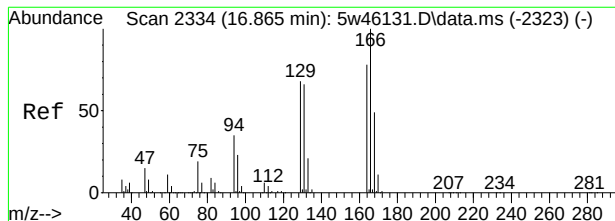
Tgt Ion:	58	Resp:	4648
Ion	Ratio	Lower	Upper
58	100		
43	200.6	164.7	305.9
85	54.3	51.0	94.6
100	53.0	22.8	42.4#



#66
Toluene
Concen: 1.28 ppb(v)
RT: 16.101 min Scan# 2209
Delta R.T. -0.049 min
Lab File: 5w46799.D
Acq: 14 Dec 2021 5:11 am

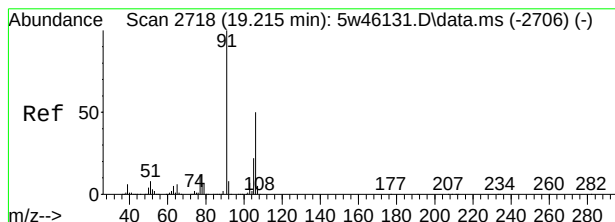
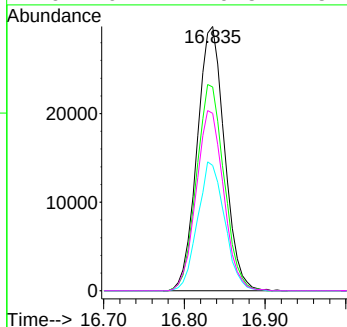
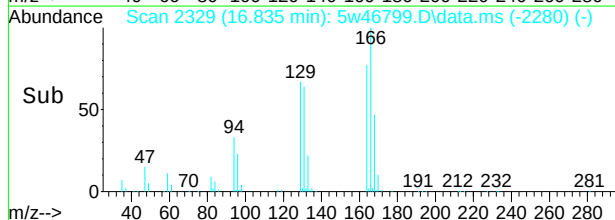
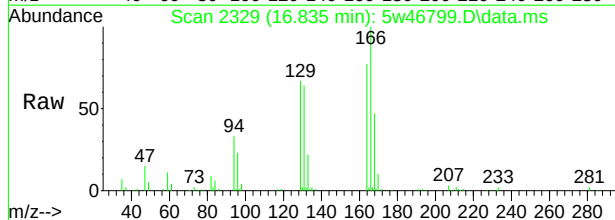
Tgt Ion:	91	Resp:	91293
Ion	Ratio	Lower	Upper
91	100		
92	57.1	45.5	84.5
65	10.5	6.0	11.2





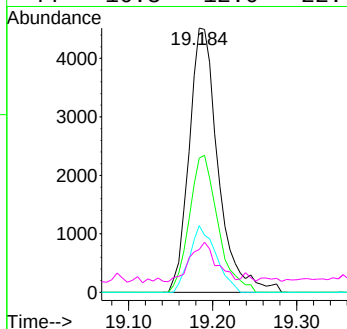
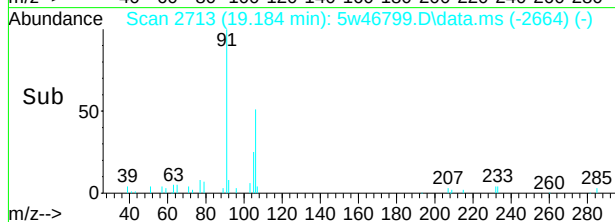
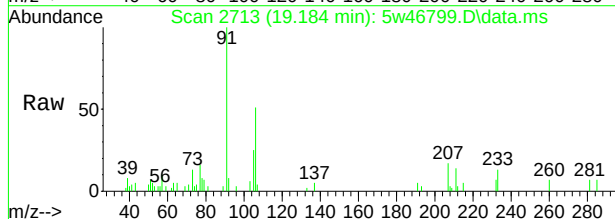
#72
Tetrachloroethene
Concen: 1.43 ppb(v)
RT: 16.835 min Scan# 2329
Delta R.T. -0.030 min
Lab File: 5w46799.D
Acq: 14 Dec 2021 5:11 am

Tgt Ion:	166	Resp:	70555
Ion Ratio	Lower	Upper	
166	100		
164	77.0	50.6	94.0
168	47.3	28.5	52.9
129	67.1	40.5	75.1



#79
m,p-Xylene
Concen: 0.16 ppb(v)
RT: 19.184 min Scan# 2713
Delta R.T. -0.031 min
Lab File: 5w46799.D
Acq: 14 Dec 2021 5:11 am

Tgt Ion:	91	Resp:	10869
Ion Ratio	Lower	Upper	
91	100		
106	50.8	34.9	64.9
105	25.3	15.4	28.6
77	16.3	12.0	22.4



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
 Data File : 5W46813.D
 Acq On : 14 Dec 2021 5:23 pm
 Operator : danat
 Sample : jd36325-3
 Misc : ms55468,v5w1936,100,,,,,1
 ALS Vial : 8 Sample Multiplier: 1

Quant Time: Dec 15 13:56:59 2021
 Quant Method : C:\msdchem\1\methods\m5w1909.M
 Quant Title : T0-15 Full Scan Mode
 QLast Update : Mon Nov 08 09:09:12 2021
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

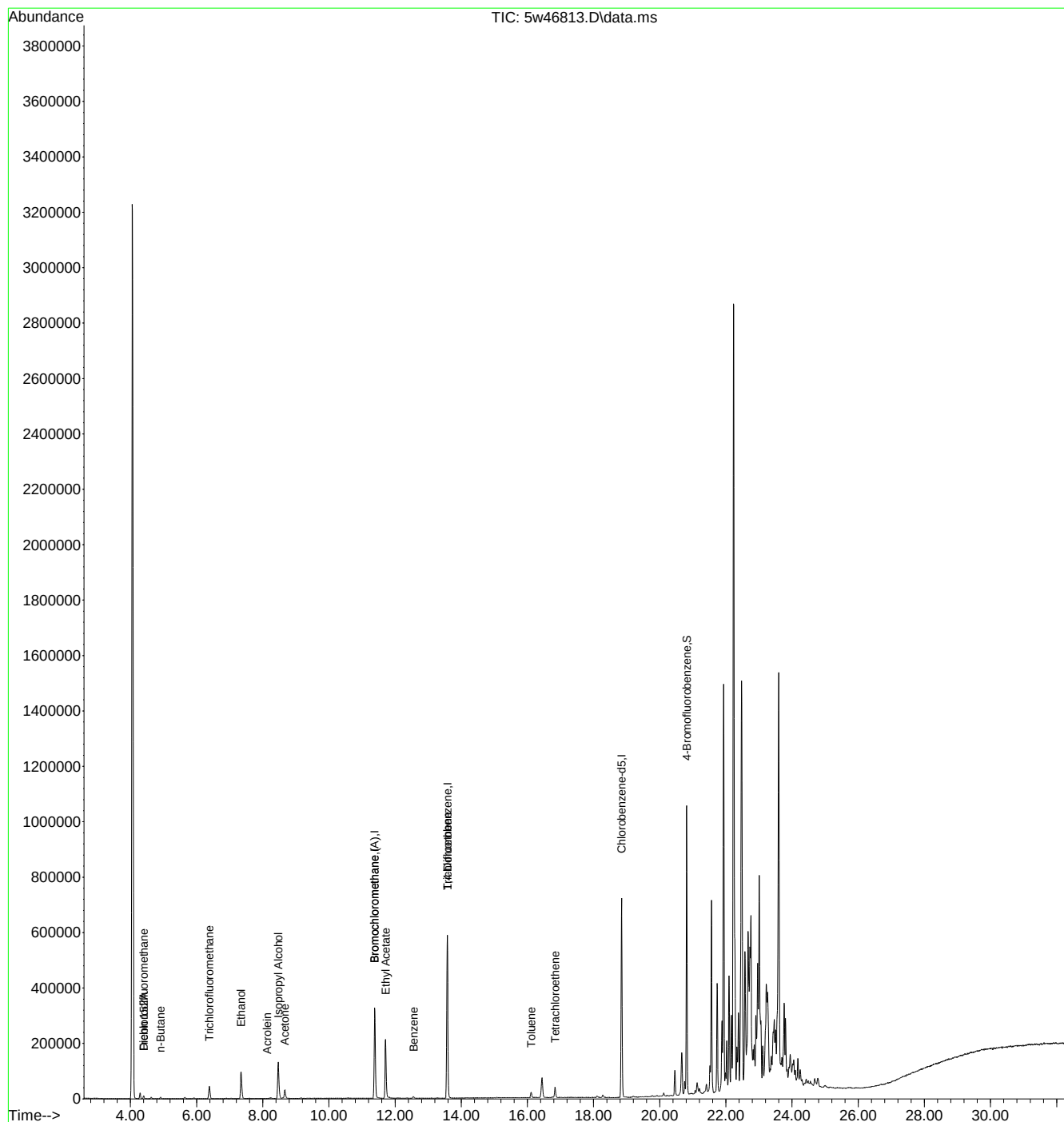
Internal Standards						
1) Bromochloromethane	11.384	130	186602	10.00	ppb(v	-0.03
53) 1,4-Difluorobenzene	13.580	114	678817	10.00	ppb(v	-0.03
76) Chlorobenzene-d5	18.848	82	283240	10.00	ppb(v	-0.04
108) Bromochloromethane (A)	11.384	130	186602	10.00	ppb(v	-0.03
System Monitoring Compounds						
90) 4-Bromofluorobenzene	20.817	95	385035	9.58	ppb(v	-0.02
Spiked Amount 10.000	Range 65 - 128		Recovery	=	95.80%	
Target Compounds						
					Qvalue	
2) Freon 152A	4.404	65	3877	0.44	ppb(v	99
6) Dichlorodifluoromethane	4.398	85	5523	0.10	ppb(v	98
12) n-Butane	4.911	58	456	0.23	ppb(v#	45
20) Acrolein	8.129	56	490	0.10	ppb(v#	84
21) Trichlorofluoromethane	6.386	101	56203	0.99	ppb(v	93
22) Acetone	8.668	58	17546	3.10	ppb(v	80
25) Isopropyl Alcohol	8.472	43	47010	12.40	ppb(v	90
30) Ethanol	7.346	45	155373	35.81	ppb(v	99
42) Ethyl Acetate	11.714	61	54025	14.51	ppb(v	93
49) Benzene	12.559	78	7299	0.14	ppb(v	95
56) Trichloroethene	13.580	97	1728	0.09	ppb(v	70
66) Toluene	16.113	91	22152	0.31	ppb(v#	90
72) Tetrachloroethene	16.841	166	17086	0.34	ppb(v	98

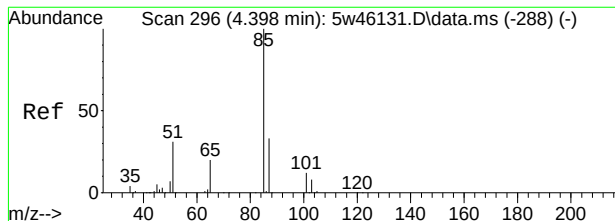
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 5w46813.D
Acq On : 14 Dec 2021 5:23 pm
Operator : danat
Sample : jd36325-3
Misc : ms55468,v5w1936,100,,,1
ALS Vial : 8 Sample Multiplier: 1

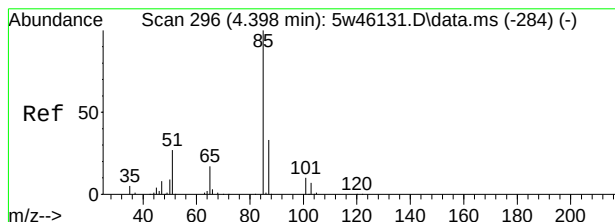
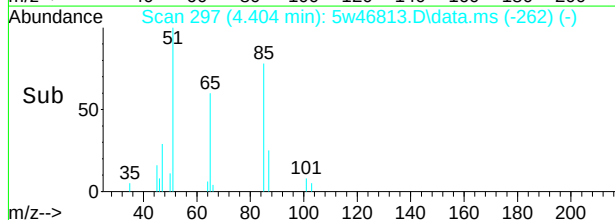
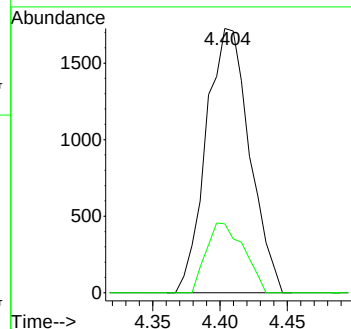
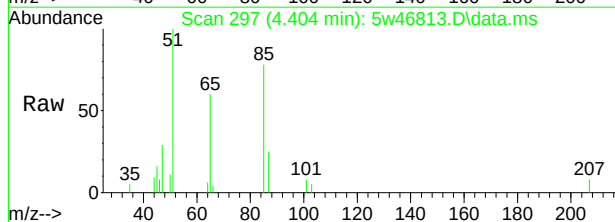
Quant Time: Dec 15 13:56:59 2021
Quant Method : C:\msdchem\1\methods\m5w1909.M
Quant Title : T0-15 Full Scan Mode
QLast Update : Mon Nov 08 09:09:12 2021
Response via : Initial Calibration





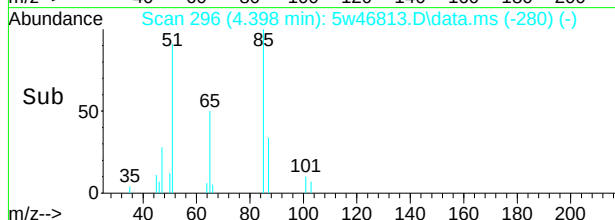
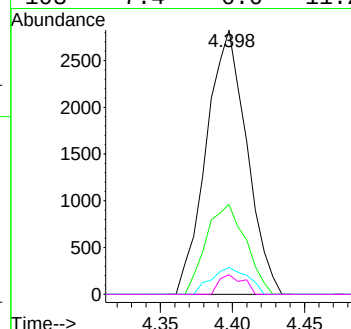
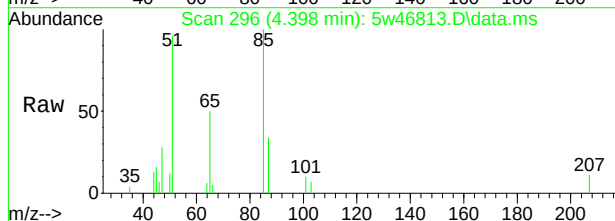
#2
Freon 152A
Concen: 0.44 ppb(v)
RT: 4.404 min Scan# 297
Delta R.T. 0.012 min
Lab File: 5w46813.D
Acq: 14 Dec 2021 5:23 pm

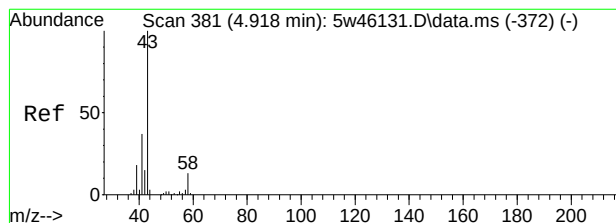
Tgt Ion: 65 Resp: 3877
Ion Ratio Lower Upper
65 100
45 26.1 17.8 33.1



#6
Dichlorodifluoromethane
Concen: 0.10 ppb(v)
RT: 4.398 min Scan# 296
Delta R.T. 0.006 min
Lab File: 5w46813.D
Acq: 14 Dec 2021 5:23 pm

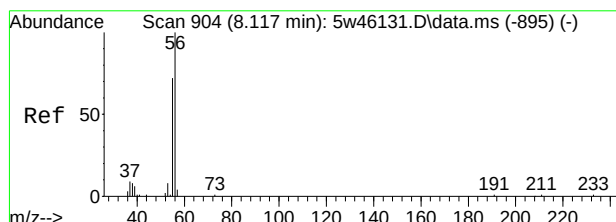
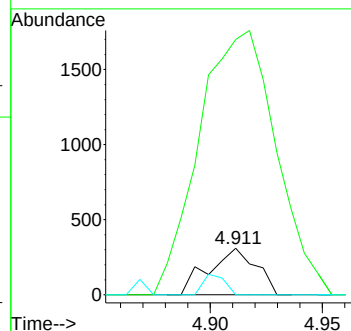
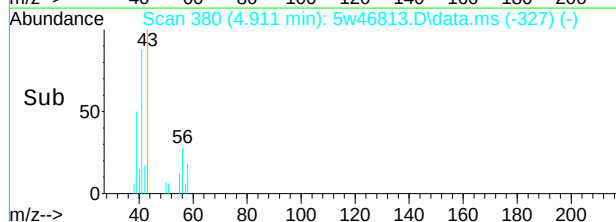
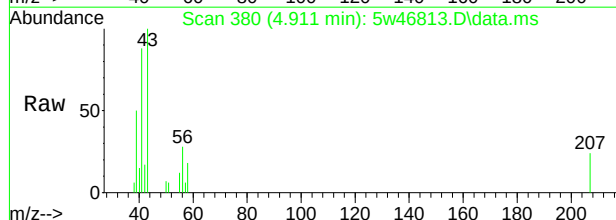
Tgt Ion: 85 Resp: 5523
Ion Ratio Lower Upper
85 100
87 34.1 23.0 42.6
101 10.2 6.8 12.6
103 7.4 6.0 11.2





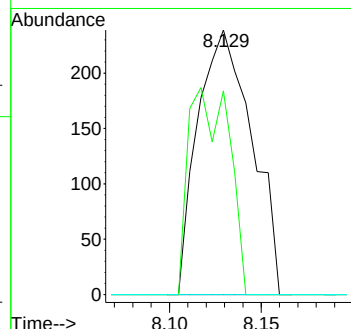
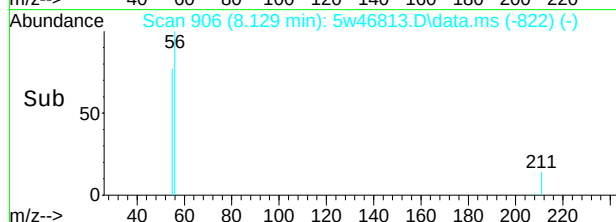
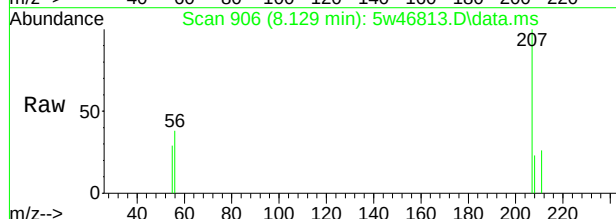
#12
n-Butane
Concen: 0.23 ppb(v)
RT: 4.911 min Scan# 380
Delta R.T. -0.006 min
Lab File: 5w46813.D
Acq: 14 Dec 2021 5:23 pm

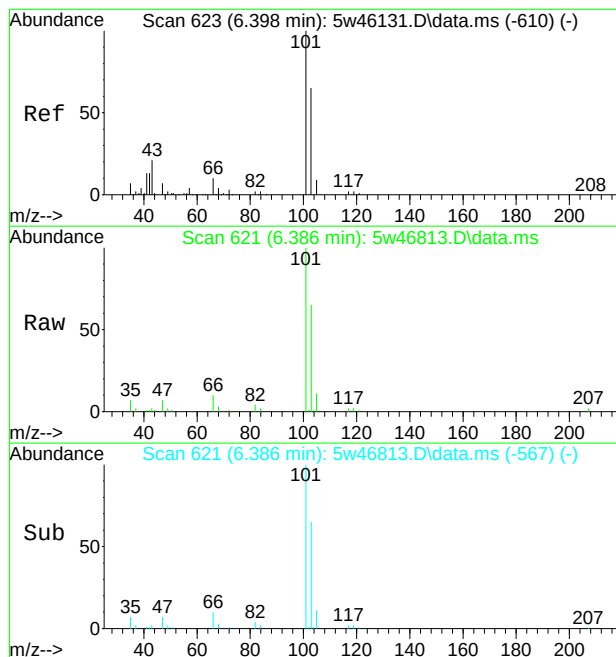
Tgt Ion	Ratio	Lower	Upper
58	100		
43	548.4	523.2	971.7
44	0.0	18.6	34.6#



#20
Acrolein
Concen: 0.10 ppb(v)
RT: 8.129 min Scan# 906
Delta R.T. 0.012 min
Lab File: 5w46813.D
Acq: 14 Dec 2021 5:23 pm

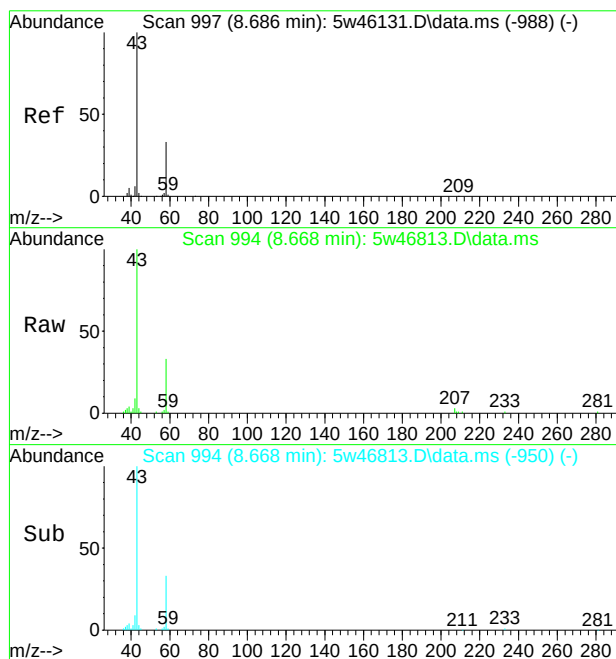
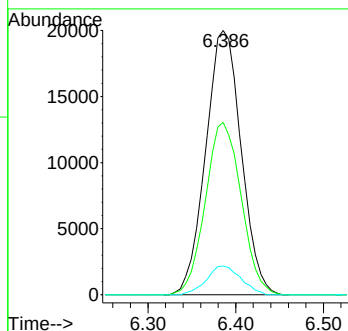
Tgt Ion	Ratio	Lower	Upper
56	100		
55	59.0	57.0	85.4
37	0.0	6.7	10.1#





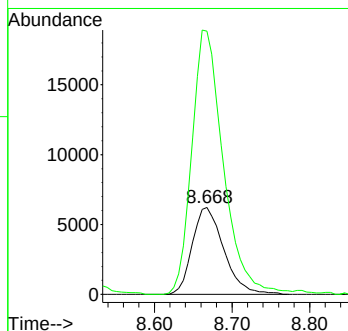
#21
Trichlorofluoromethane
Concen: 0.99 ppb(v)
RT: 6.386 min Scan# 621
Delta R.T. -0.000 min
Lab File: 5w46813.D
Acq: 14 Dec 2021 5:23 pm

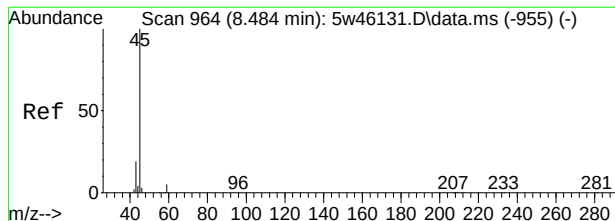
Tgt Ion	Ratio	Lower	Upper
101	100		
103	65.2	41.2	76.4
105	10.8	7.4	13.8



#22
Acetone
Concen: 3.10 ppb(v)
RT: 8.668 min Scan# 994
Delta R.T. -0.061 min
Lab File: 5w46813.D
Acq: 14 Dec 2021 5:23 pm

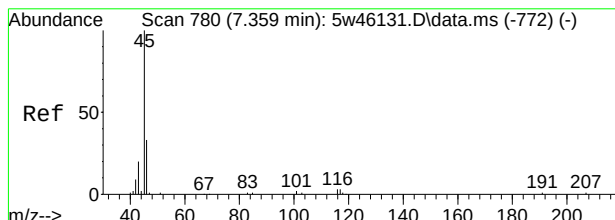
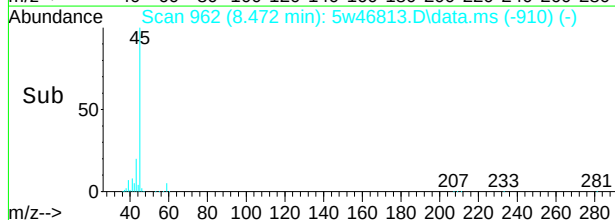
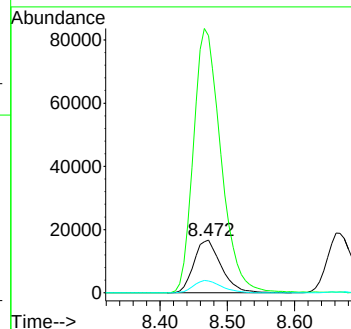
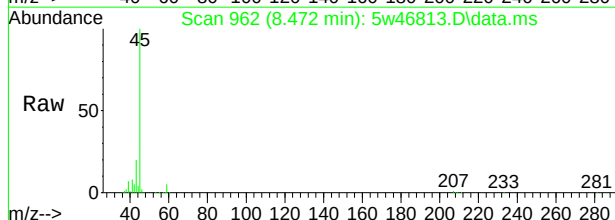
Tgt Ion	Ratio	Lower	Upper
58	100		
43	302.6	186.7	346.7





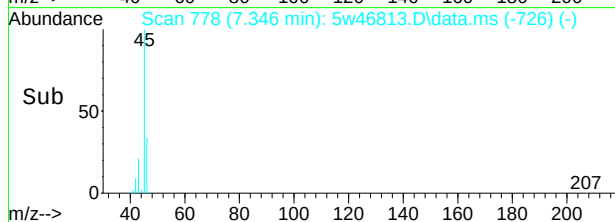
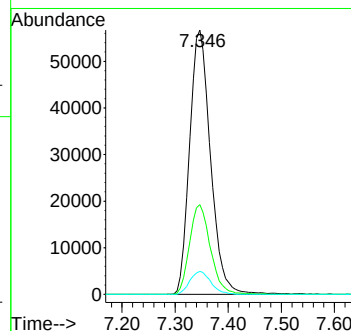
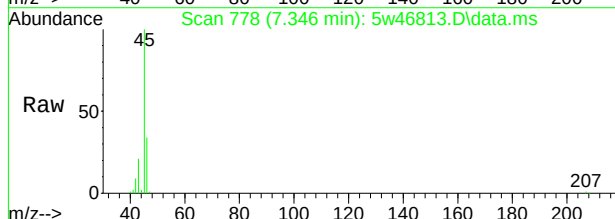
#25
Isopropyl Alcohol
Concen: 12.40 ppb(v)
RT: 8.472 min Scan# 962
Delta R.T. -0.012 min
Lab File: 5w46813.D
Acq: 14 Dec 2021 5:23 pm

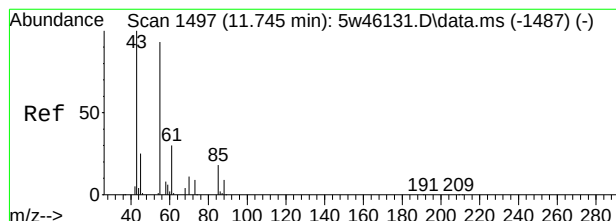
Tgt Ion:	43	Resp:	47010
Ion	Ratio	Lower	Upper
43	100		
45	488.4	361.2	670.8
59	22.7	17.1	31.9



#30
Ethanol
Concen: 35.81 ppb(v)
RT: 7.346 min Scan# 778
Delta R.T. -0.012 min
Lab File: 5w46813.D
Acq: 14 Dec 2021 5:23 pm

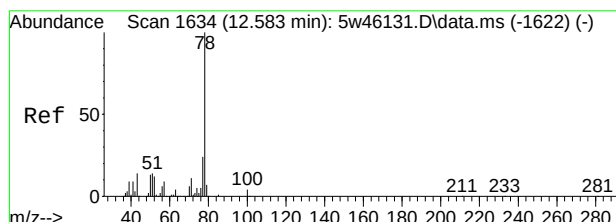
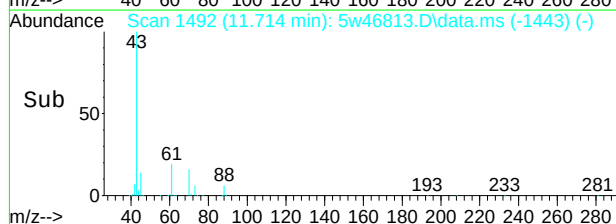
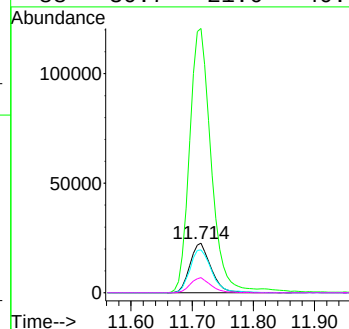
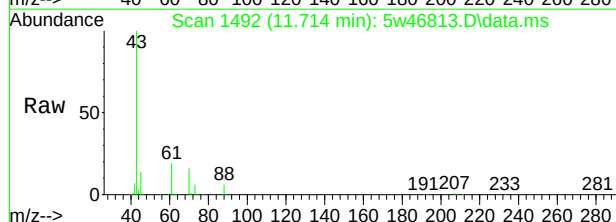
Tgt Ion:	45	Resp:	155373
Ion	Ratio	Lower	Upper
45	100		
46	34.0	23.4	43.4
42	8.7	6.3	11.7





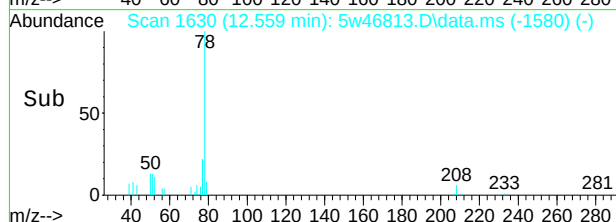
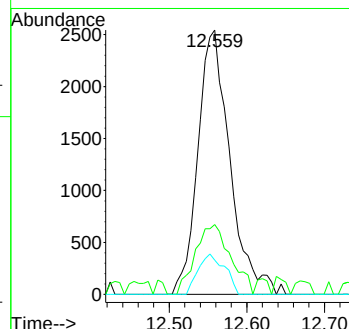
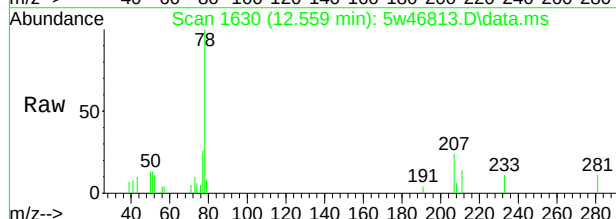
#42
Ethyl Acetate
Concen: 14.51 ppb(v)
RT: 11.714 min Scan# 1492
Delta R.T. -0.031 min
Lab File: 5w46813.D
Acq: 14 Dec 2021 5:23 pm

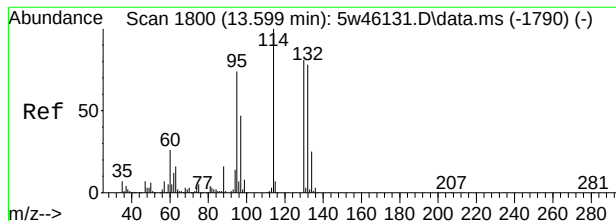
Tgt Ion	Ratio	Resp	Lower	Upper
61	100	54025		
43	531.8	388.8	722.0	
70	86.2	63.6	118.0	
88	30.7	21.6	40.0	



#49
Benzene
Concen: 0.14 ppb(v)
RT: 12.559 min Scan# 1630
Delta R.T. -0.024 min
Lab File: 5w46813.D
Acq: 14 Dec 2021 5:23 pm

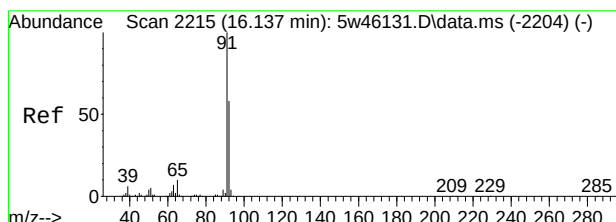
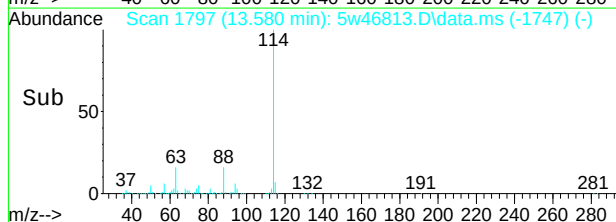
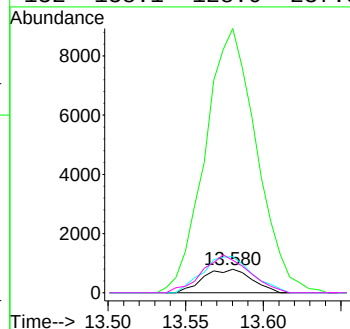
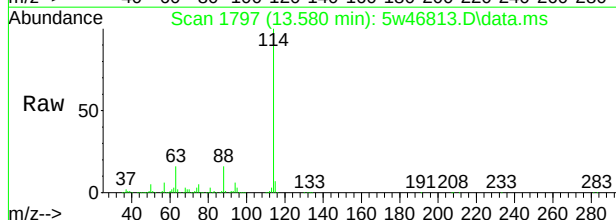
Tgt Ion	Ratio	Resp	Lower	Upper
78	100	7299		
77	26.4	20.7	38.5	
51	12.9	9.5	17.7	





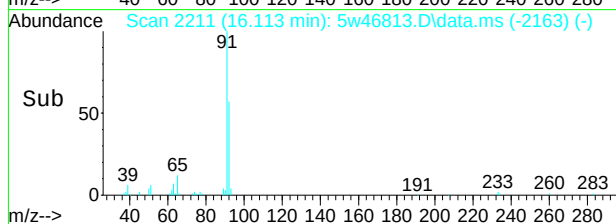
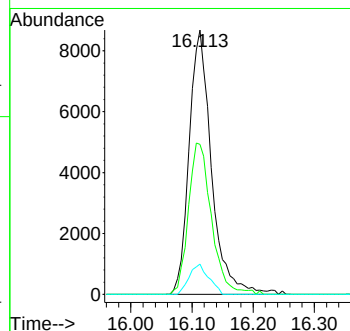
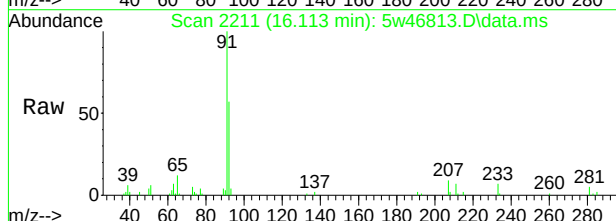
#56
Trichloroethene
Concen: 0.09 ppb(v)
RT: 13.580 min Scan# 1797
Delta R.T. -0.025 min
Lab File: 5w46813.D
Acq: 14 Dec 2021 5:23 pm

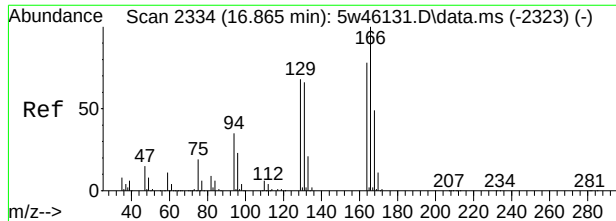
Tgt Ion	Ratio	Lower	Upper
97	100		
95	1122.2	690.3	1281.9
130	154.1	137.1	254.7
132	138.1	128.0	237.8



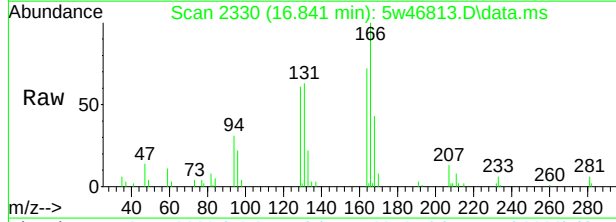
#66
Toluene
Concen: 0.31 ppb(v)
RT: 16.113 min Scan# 2211
Delta R.T. -0.037 min
Lab File: 5w46813.D
Acq: 14 Dec 2021 5:23 pm

Tgt Ion	Ratio	Lower	Upper
91	100		
92	56.7	45.5	84.5
65	11.5	6.0	11.2#

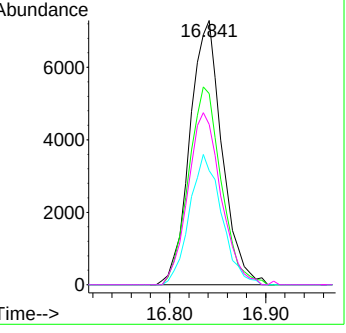
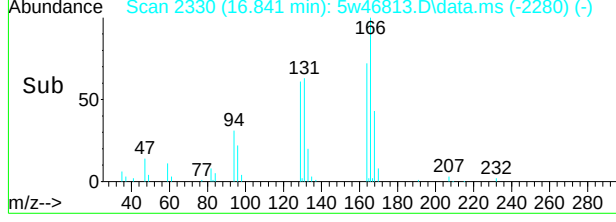




#72
Tetrachloroethene
Concen: 0.34 ppb(v)
RT: 16.841 min Scan# 2330
Delta R.T. -0.025 min
Lab File: 5w46813.D
Acq: 14 Dec 2021 5:23 pm



Tgt	Ion:166	Resp:	17086
Ion	Ratio	Lower	Upper
166	100		
164	72.3	50.6	94.0
168	43.1	28.5	52.9
129	60.6	40.5	75.1



7.1.5
7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
 Data File : 5W46796.D
 Acq On : 14 Dec 2021 2:22 am
 Operator : danat
 Sample : jd36325-4
 Misc : ms55468,v5w1935,500,,,,1
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Dec 14 13:44:46 2021
 Quant Method : C:\msdchem\1\methods\m5w1909.M
 Quant Title : T0-15 Full Scan Mode
 QLast Update : Mon Nov 08 09:09:12 2021
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

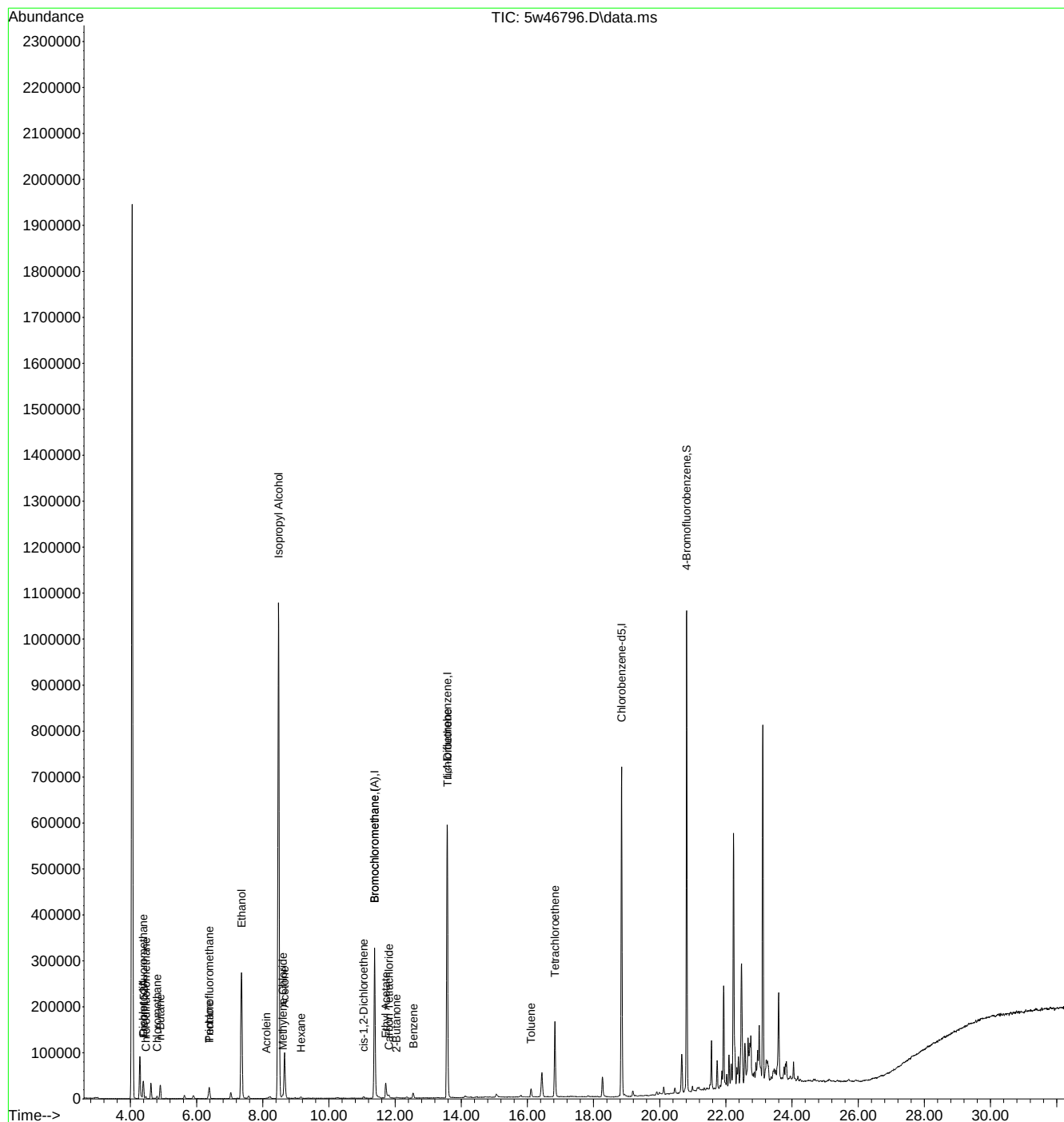
Internal Standards						
1) Bromochloromethane	11.384	130	184204	10.00	ppb(v	-0.03
53) 1,4-Difluorobenzene	13.574	114	685293	10.00	ppb(v	-0.04
76) Chlorobenzene-d5	18.848	82	282439	10.00	ppb(v	-0.04
108) Bromochloromethane (A)	11.384	130	184204	10.00	ppb(v	-0.03
System Monitoring Compounds						
90) 4-Bromofluorobenzene	20.812	95	383133	9.56	ppb(v	-0.03
Spiked Amount 10.000	Range 65 - 128		Recovery	=	95.60%	
Target Compounds						
					Qvalue	
2) Freon 152A	4.398	65	10969	1.25	ppb(v	97
3) Chlorodifluoromethane	4.465	67	1700	0.38	ppb(v#	100
6) Dichlorodifluoromethane	4.386	85	26102	0.46	ppb(v	96
8) Chloromethane	4.802	50	7373	0.59	ppb(v	84
12) n-Butane	4.899	58	3647	1.84	ppb(v	96
20) Acrolein	8.111	56	1245	0.26	ppb(v#	84
21) Trichlorofluoromethane	6.380	101	19285	0.35	ppb(v	93
22) Acetone	8.656	58	55255	9.89	ppb(v	83
23) Pentane	6.386	57	2035	0.64	ppb(v	84
25) Isopropyl Alcohol	8.478	43	396451	105.95	ppb(v	90
28) Methylene Chloride	8.601	84	5128	0.32	ppb(v	88
30) Ethanol	7.359	45	463628	108.23	ppb(v	99
38) 2-Butanone	12.039	72	1307	0.20	ppb(v#	85
39) Hexane	9.151	56	1250	0.11	ppb(v	81
40) cis-1,2-Dichloroethene	11.048	61	2638	0.12	ppb(v	91
42) Ethyl Acetate	11.721	61	8875	2.41	ppb(v	90
49) Benzene	12.553	78	11710	0.23	ppb(v	93
50) Carbon Tetrachloride	11.812	117	4815	0.10	ppb(v	96
56) Trichloroethene	13.580	97	2747	0.15	ppb(v#	49
66) Toluene	16.107	91	20734	0.29	ppb(v	95
72) Tetrachloroethene	16.835	166	73428	1.47	ppb(v	92

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

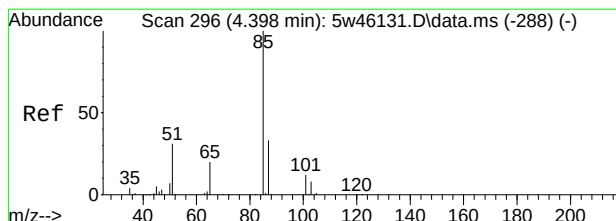
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 5w46796.D
Acq On : 14 Dec 2021 2:22 am
Operator : danat
Sample : jd36325-4
Misc : ms55468,v5w1935,500,,,1
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Dec 14 13:44:46 2021
Quant Method : C:\msdchem\1\methods\m5w1909.M
Quant Title : T0-15 Full Scan Mode
QLast Update : Mon Nov 08 09:09:12 2021
Response via : Initial Calibration

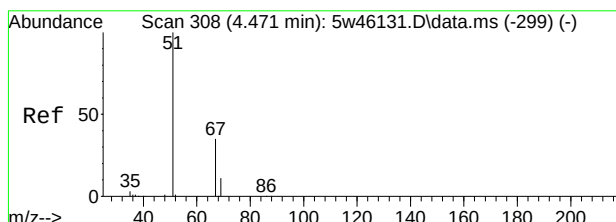
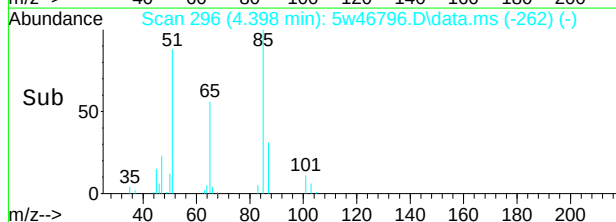
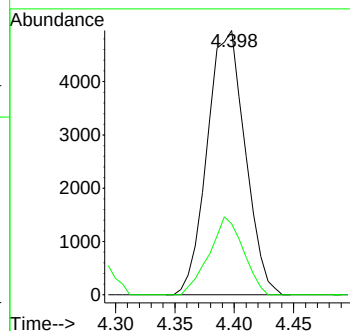
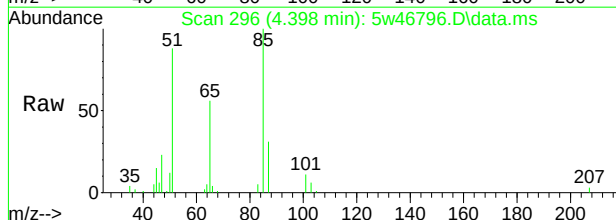


7.1.6



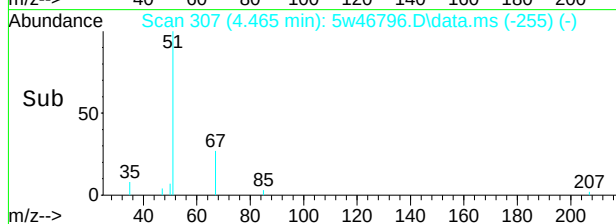
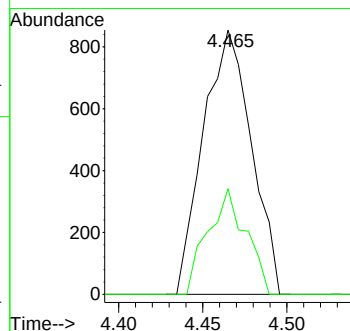
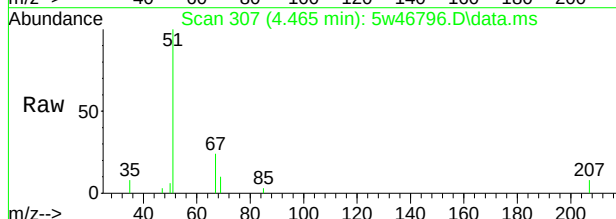
#2
 Freon 152A
 Concen: 1.25 ppb(v)
 RT: 4.398 min Scan# 296
 Delta R.T. 0.006 min
 Lab File: 5w46796.D
 Acq: 14 Dec 2021 2:22 am

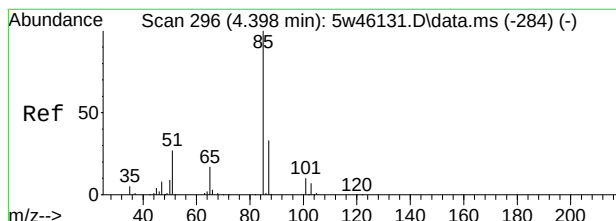
Tgt Ion: 65 Resp: 10969
 Ion Ratio Lower Upper
 65 100
 45 26.8 17.8 33.1



#3
 Chlorodifluoromethane
 Concen: 0.38 ppb(v)
 RT: 4.465 min Scan# 307
 Delta R.T. -0.012 min
 Lab File: 5w46796.D
 Acq: 14 Dec 2021 2:22 am

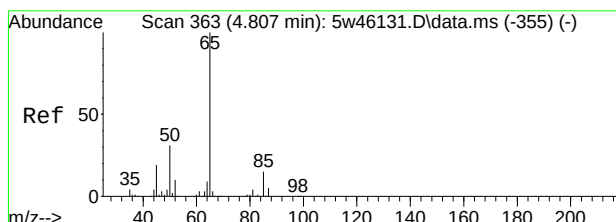
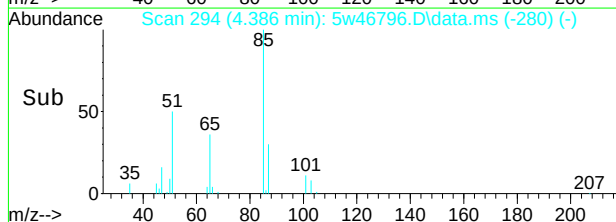
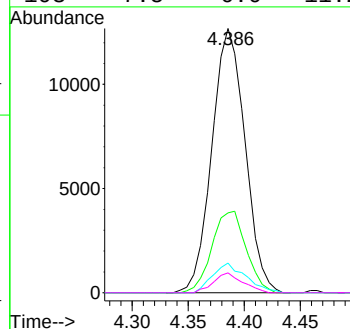
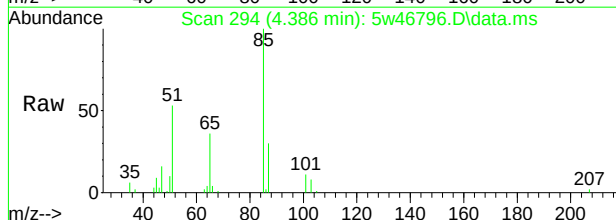
Tgt Ion: 67 Resp: 1700
 Ion Ratio Lower Upper
 67 100
 69 40.0 0.0 0.0#





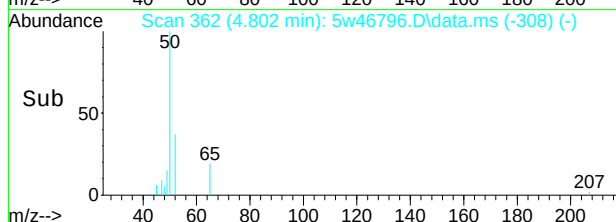
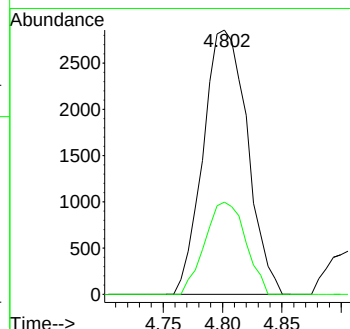
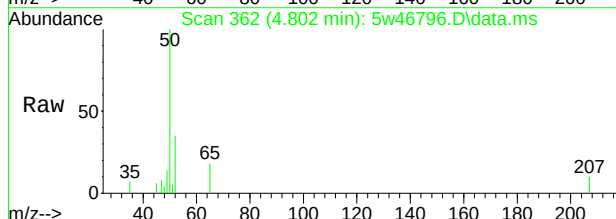
#6
Dichlorodifluoromethane
Concen: 0.46 ppb(v)
RT: 4.386 min Scan# 294
Delta R.T. -0.006 min
Lab File: 5w46796.D
Acq: 14 Dec 2021 2:22 am

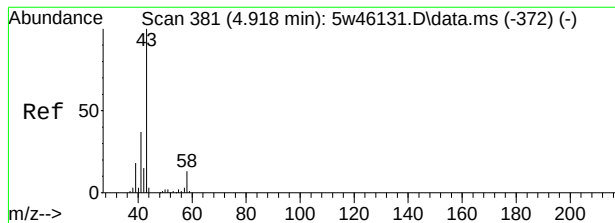
Tgt	Ion	85	Resp:	26102
	Ratio	100	Lower	Upper
	87	30.2	23.0	42.6
	101	11.2	6.8	12.6
	103	7.5	6.0	11.2



#8
Chloromethane
Concen: 0.59 ppb(v)
RT: 4.802 min Scan# 362
Delta R.T. 0.000 min
Lab File: 5w46796.D
Acq: 14 Dec 2021 2:22 am

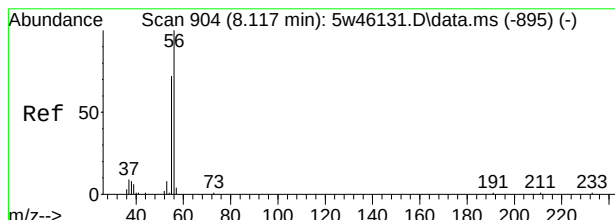
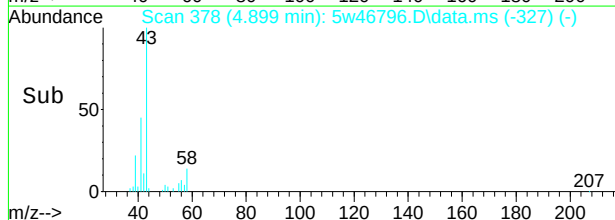
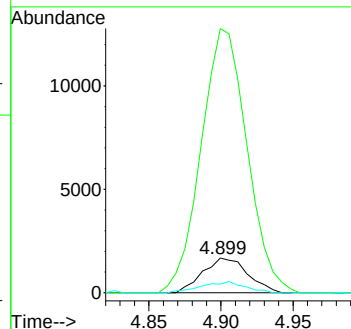
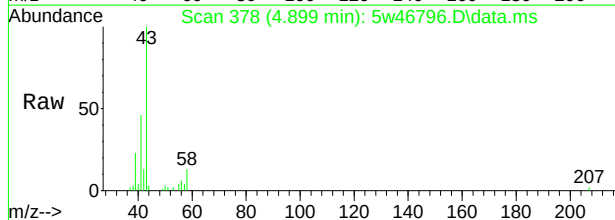
Tgt	Ion	50	Resp:	7373
	Ratio	100	Lower	Upper
	50	100		
	52	34.8	18.8	34.8





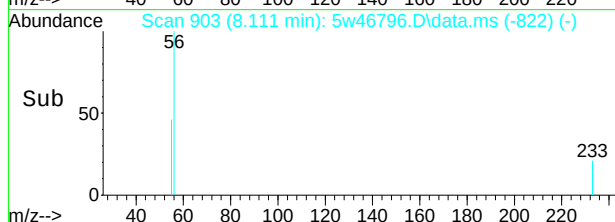
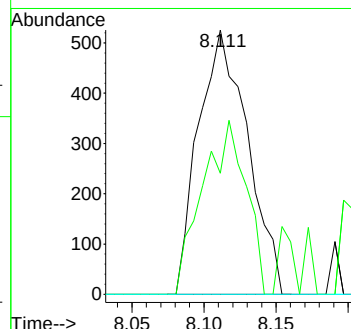
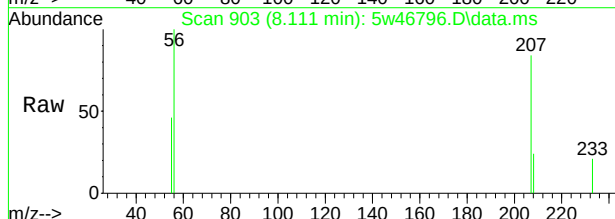
#12
n-Butane
Concen: 1.84 ppb(v)
RT: 4.899 min Scan# 378
Delta R.T. -0.018 min
Lab File: 5w46796.D
Acq: 14 Dec 2021 2:22 am

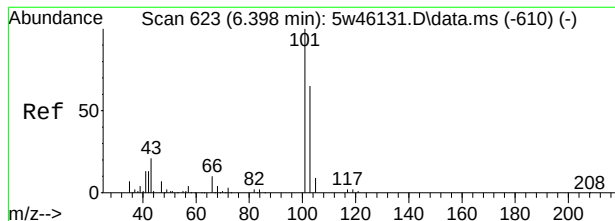
Tgt Ion: 58 Resp: 3647
Ion Ratio Lower Upper
58 100
43 761.7 523.2 971.7
44 25.0 18.6 34.6



#20
Acrolein
Concen: 0.26 ppb(v)
RT: 8.111 min Scan# 903
Delta R.T. -0.006 min
Lab File: 5w46796.D
Acq: 14 Dec 2021 2:22 am

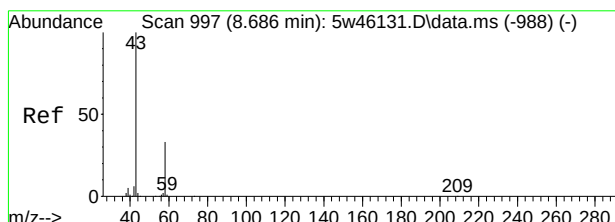
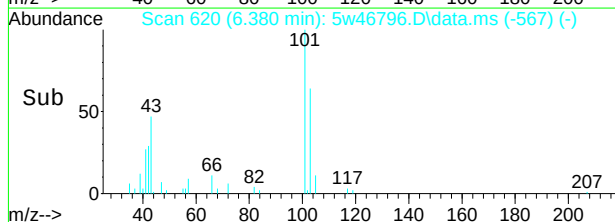
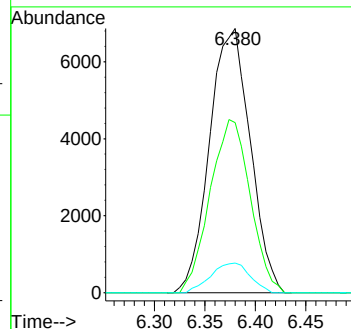
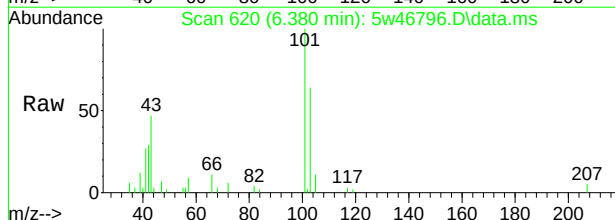
Tgt Ion: 56 Resp: 1245
Ion Ratio Lower Upper
56 100
55 58.3 57.0 85.4
37 0.0 6.7 10.1#





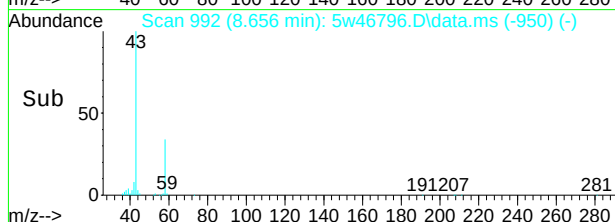
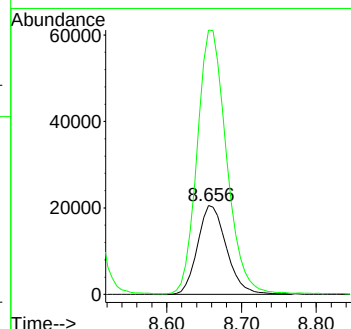
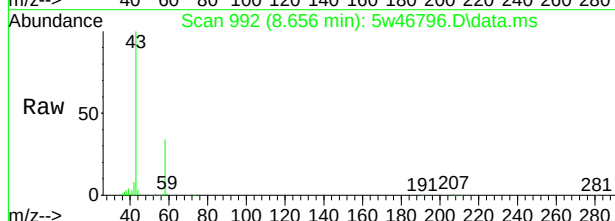
#21
 Trichlorofluoromethane
 Concen: 0.35 ppb(v)
 RT: 6.380 min Scan# 620
 Delta R.T. -0.006 min
 Lab File: 5w46796.D
 Acq: 14 Dec 2021 2:22 am

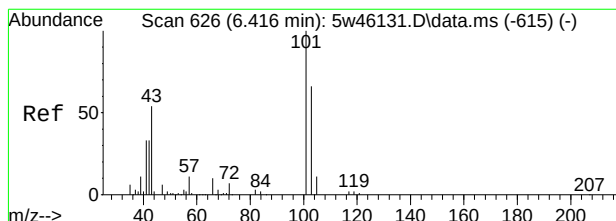
Tgt Ion:	101	Resp:	19285
Ion	Ratio	Lower	Upper
101	100		
103	64.3	41.2	76.4
105	11.3	7.4	13.8



#22
 Acetone
 Concen: 9.89 ppb(v)
 RT: 8.656 min Scan# 992
 Delta R.T. -0.073 min
 Lab File: 5w46796.D
 Acq: 14 Dec 2021 2:22 am

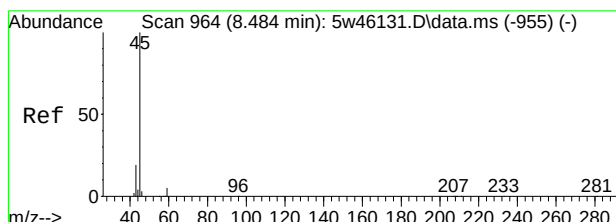
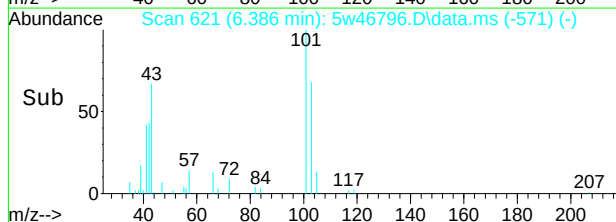
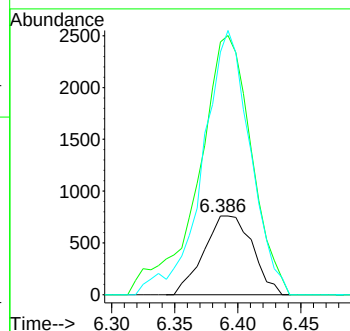
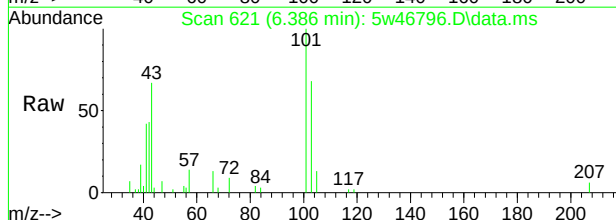
Tgt Ion:	58	Resp:	55255
Ion	Ratio	Lower	Upper
58	100		
43	297.6	186.7	346.7





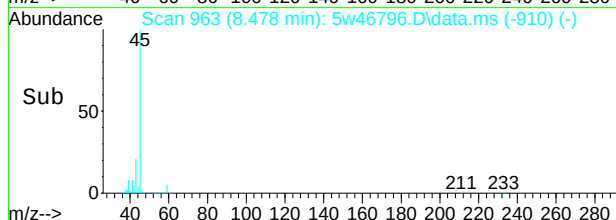
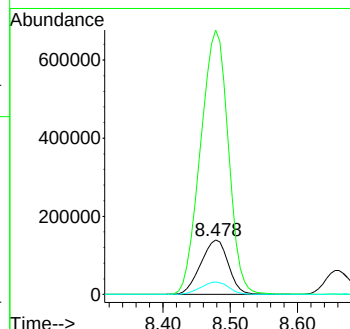
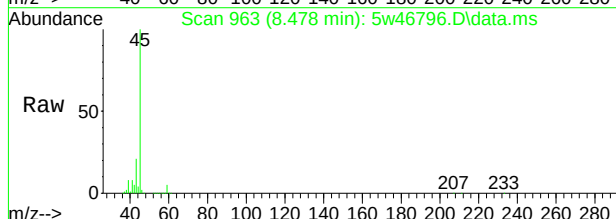
#23
Pentane
Concen: 0.64 ppb(v)
RT: 6.386 min Scan# 621
Delta R.T. -0.024 min
Lab File: 5w46796.D
Acq: 14 Dec 2021 2:22 am

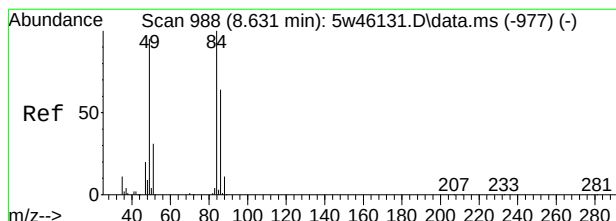
Tgt Ion: 57 Resp: 2035
Ion Ratio Lower Upper
57 100
42 320.6 192.4 357.4
41 307.8 204.9 380.5



#25
Isopropyl Alcohol
Concen: 105.95 ppb(v)
RT: 8.478 min Scan# 963
Delta R.T. -0.006 min
Lab File: 5w46796.D
Acq: 14 Dec 2021 2:22 am

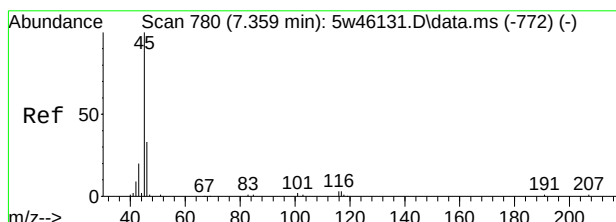
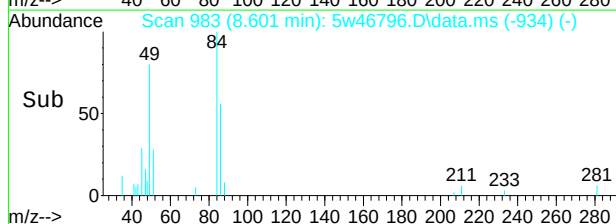
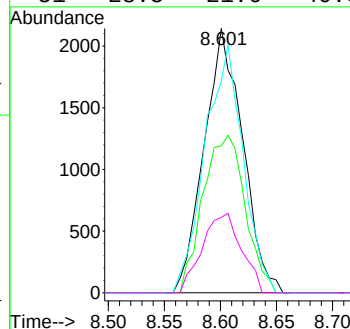
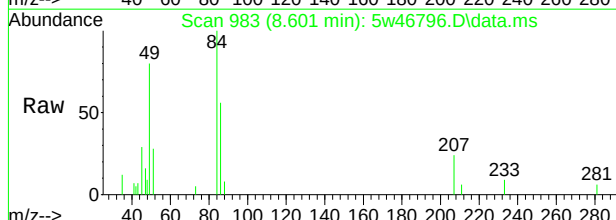
Tgt Ion: 43 Resp: 396451
Ion Ratio Lower Upper
43 100
45 486.4 361.2 670.8
59 22.7 17.1 31.9





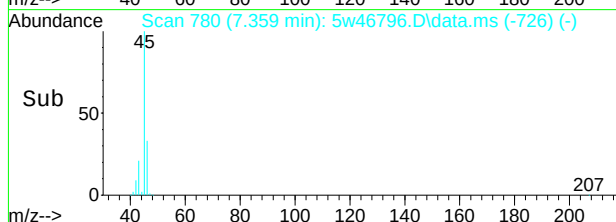
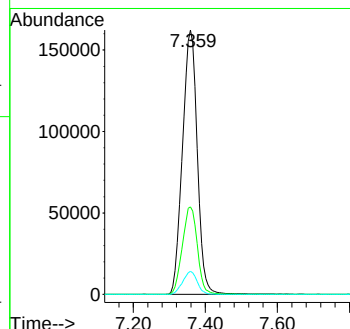
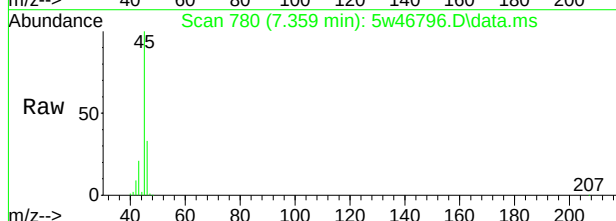
#28
Methylene Chloride
Concen: 0.32 ppb(v)
RT: 8.601 min Scan# 983
Delta R.T. -0.030 min
Lab File: 5w46796.D
Acq: 14 Dec 2021 2:22 am

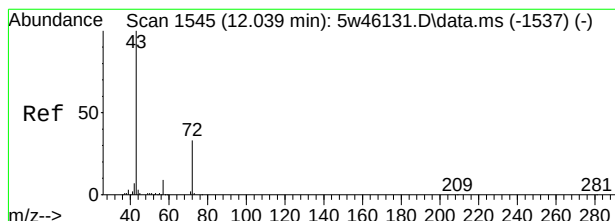
Tgt Ion:	84	Resp:	5128
Ion	Ratio	Lower	Upper
84	100		
86	55.5	44.9	83.3
49	80.0	66.4	123.4
51	28.5	21.6	40.0



#30
Ethanol
Concen: 108.23 ppb(v)
RT: 7.359 min Scan# 780
Delta R.T. 0.000 min
Lab File: 5w46796.D
Acq: 14 Dec 2021 2:22 am

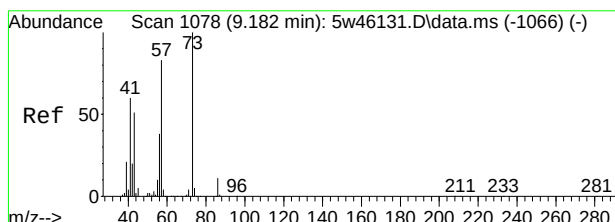
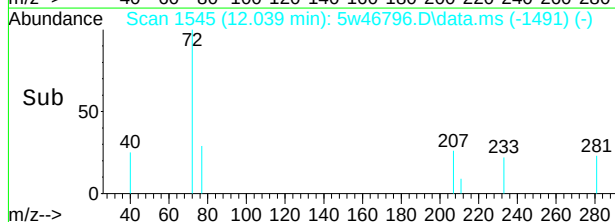
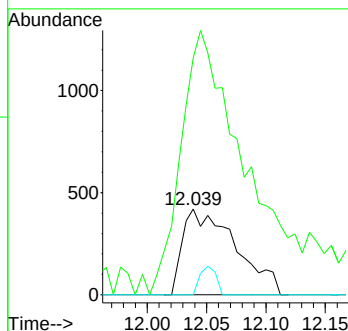
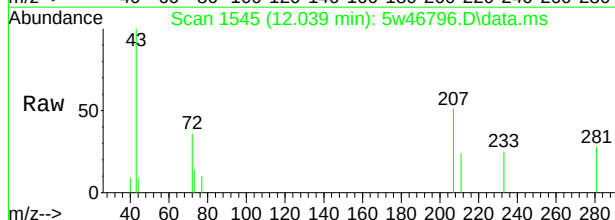
Tgt Ion:	45	Resp:	463628
Ion	Ratio	Lower	Upper
45	100		
46	33.1	23.4	43.4
42	8.7	6.3	11.7





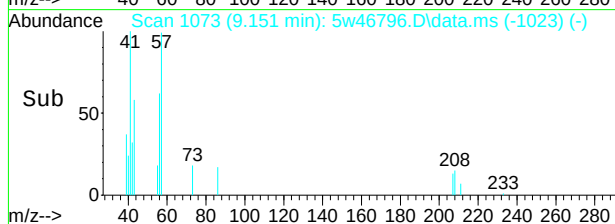
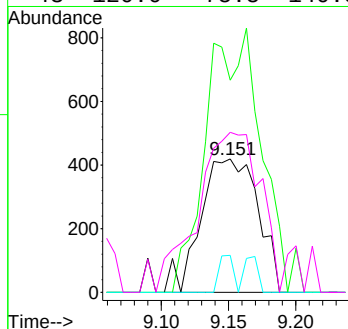
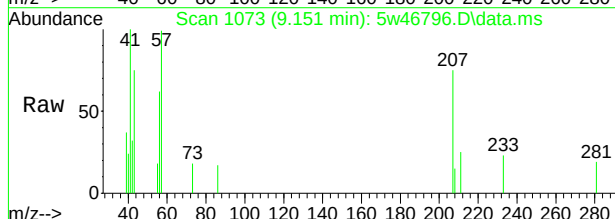
#38
2-Butanone
Concen: 0.20 ppb(v)
RT: 12.039 min Scan# 1545
Delta R.T. 0.000 min
Lab File: 5w46796.D
Acq: 14 Dec 2021 2:22 am

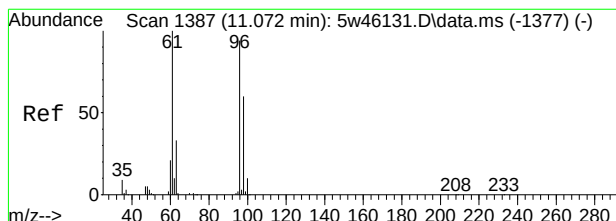
Tgt Ion	Ratio	Lower	Upper
72	100		
43	276.2	209.6	389.2
57	0.0	19.4	36.0#



#39
Hexane
Concen: 0.11 ppb(v)
RT: 9.151 min Scan# 1073
Delta R.T. -0.024 min
Lab File: 5w46796.D
Acq: 14 Dec 2021 2:22 am

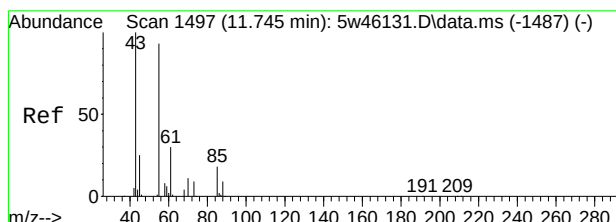
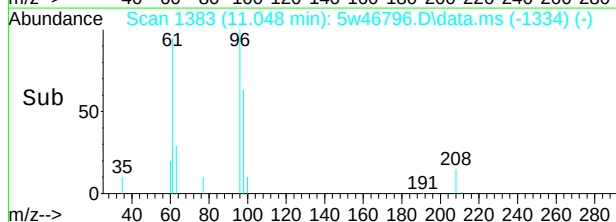
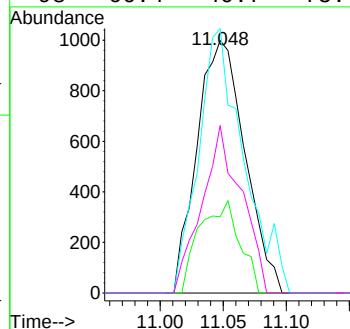
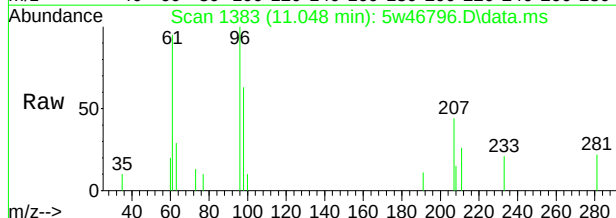
Tgt Ion	Ratio	Lower	Upper
56	100		
57	159.2	137.2	254.8
86	27.7	24.0	44.6
43	120.0	75.5	140.3





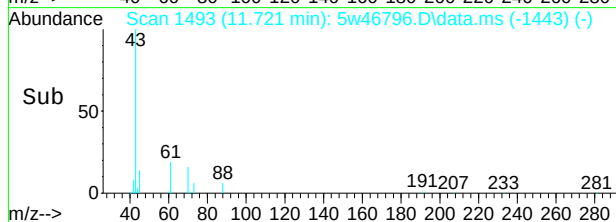
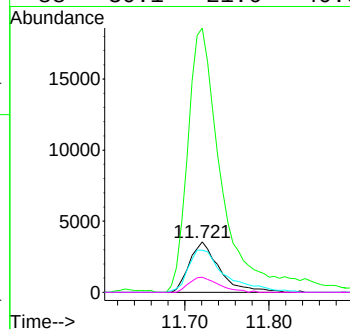
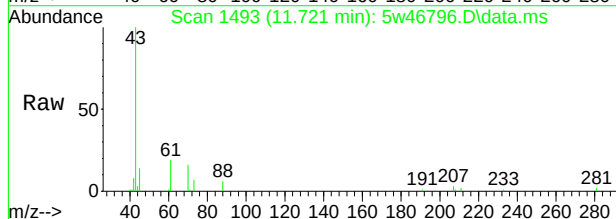
#40
cis-1,2-Dichloroethene
Concen: 0.12 ppb(v)
RT: 11.048 min Scan# 1383
Delta R.T. -0.030 min
Lab File: 5w46796.D
Acq: 14 Dec 2021 2:22 am

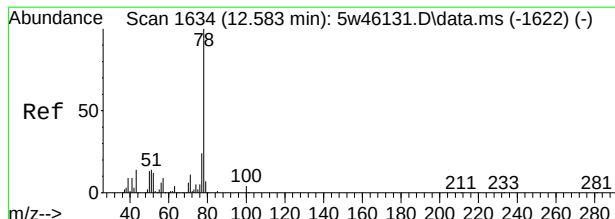
Tgt	Ion	Ratio	Lower	Upper
61	61	100		
63	63	30.1	18.5	34.3
96	96	104.8	67.3	125.1
98	98	66.4	40.7	75.7



#42
Ethyl Acetate
Concen: 2.41 ppb(v)
RT: 11.721 min Scan# 1493
Delta R.T. -0.024 min
Lab File: 5w46796.D
Acq: 14 Dec 2021 2:22 am

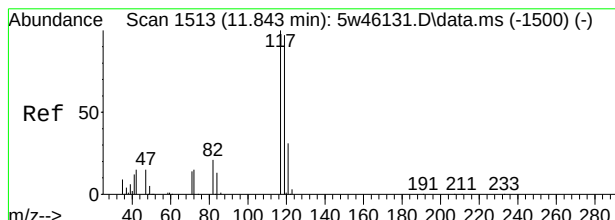
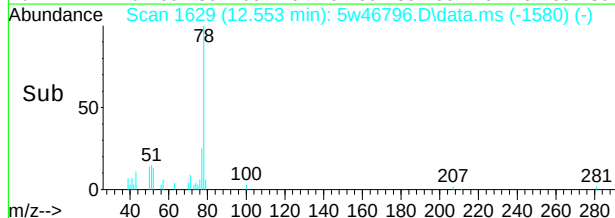
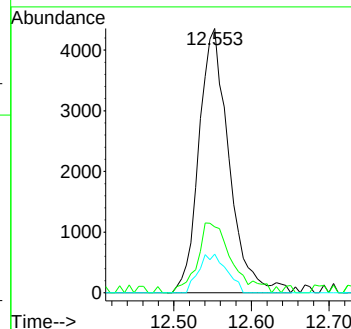
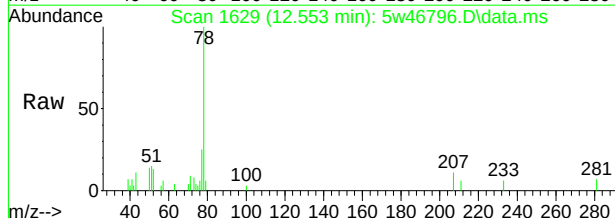
Tgt	Ion	Ratio	Lower	Upper
61	61	100		
43	43	523.3	388.8	722.0
70	70	83.3	63.6	118.0
88	88	30.1	21.6	40.0





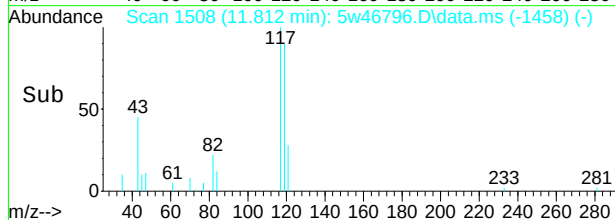
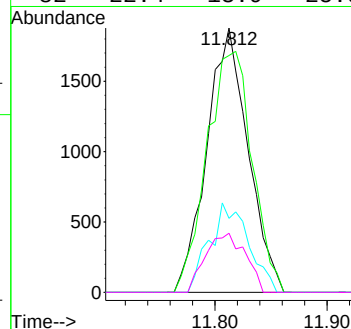
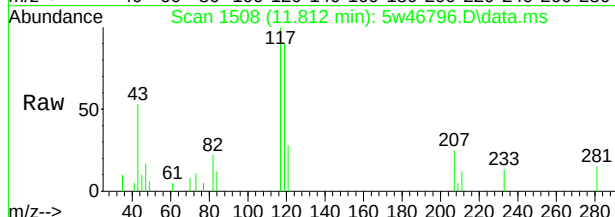
#49
Benzene
Concen: 0.23 ppb(v)
RT: 12.553 min Scan# 1629
Delta R.T. -0.030 min
Lab File: 5w46796.D
Acq: 14 Dec 2021 2:22 am

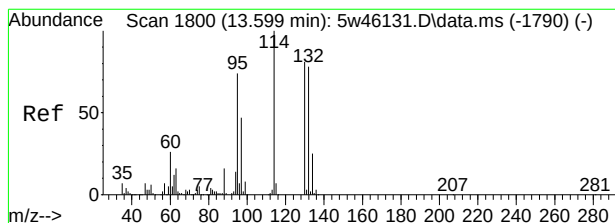
Tgt Ion	Ratio	Lower	Upper
78	100		
77	24.9	20.7	38.5
51	14.7	9.5	17.7



#50
Carbon Tetrachloride
Concen: 0.10 ppb(v)
RT: 11.812 min Scan# 1508
Delta R.T. -0.024 min
Lab File: 5w46796.D
Acq: 14 Dec 2021 2:22 am

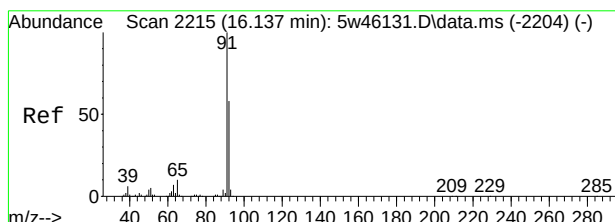
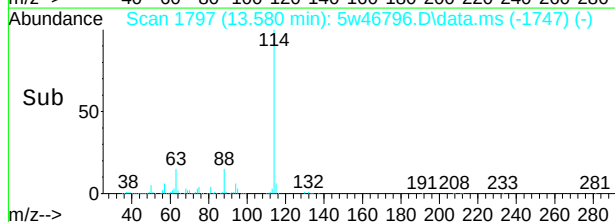
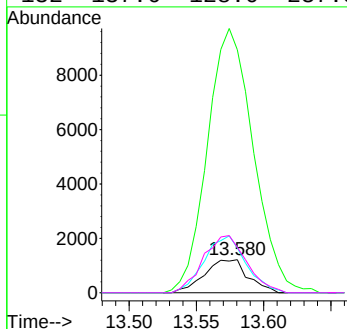
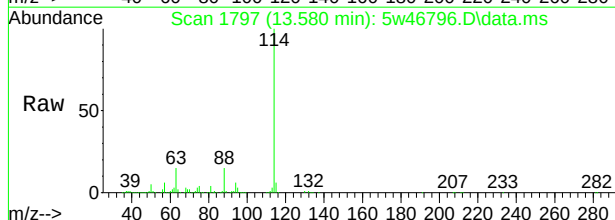
Tgt Ion	Ratio	Lower	Upper
117	100		
119	89.5	65.5	121.6
121	28.0	18.5	34.3
82	22.4	13.9	25.9





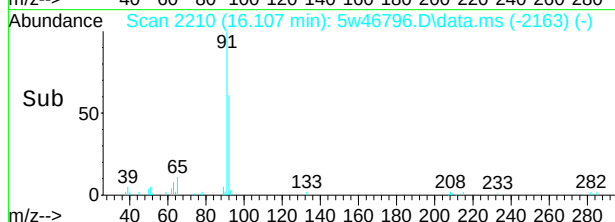
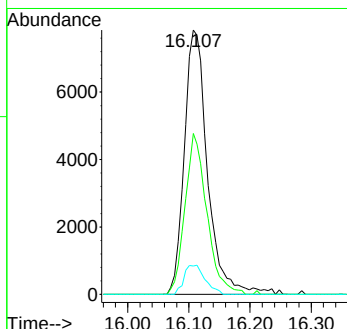
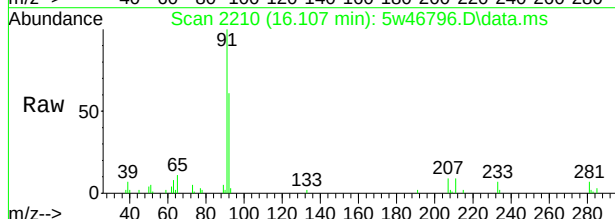
#56
Trichloroethene
Concen: 0.15 ppb(v)
RT: 13.580 min Scan# 1797
Delta R.T. -0.024 min
Lab File: 5w46796.D
Acq: 14 Dec 2021 2:22 am

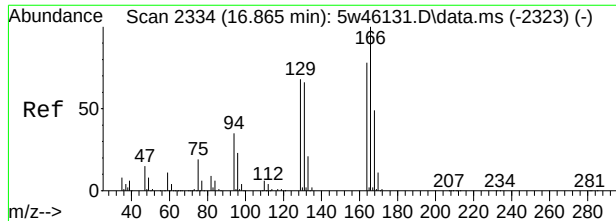
Tgt Ion: 97	Resp: 2747
Ion Ratio Lower Upper	
97 100	
95 734.3	690.3 1281.9
130 135.8	137.1 254.7#
132 137.6	128.0 237.8



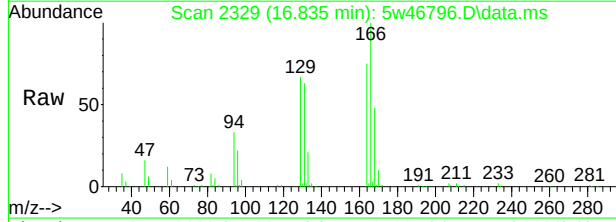
#66
Toluene
Concen: 0.29 ppb(v)
RT: 16.107 min Scan# 2210
Delta R.T. -0.043 min
Lab File: 5w46796.D
Acq: 14 Dec 2021 2:22 am

Tgt Ion: 91	Resp: 20734
Ion Ratio Lower Upper	
91 100	
92 60.9	45.5 84.5
65 10.7	6.0 11.2

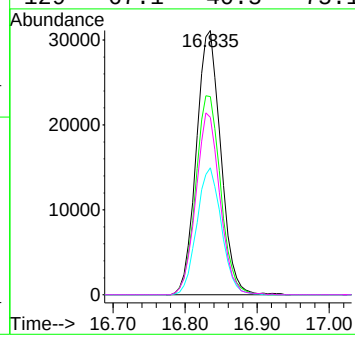
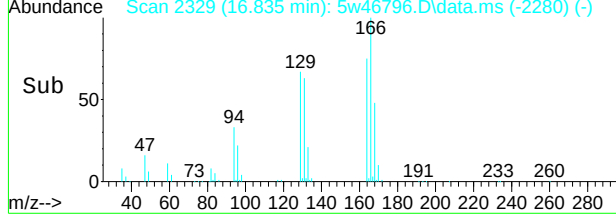




#72
Tetrachloroethene
Concen: 1.47 ppb(v)
RT: 16.835 min Scan# 2329
Delta R.T. -0.030 min
Lab File: 5w46796.D
Acq: 14 Dec 2021 2:22 am



Tgt Ion:	166	Resp:	73428
Ion Ratio	Lower	Upper	
166	100		
164	74.9	50.6	94.0
168	48.0	28.5	52.9
129	67.1	40.5	75.1



7.1.6
7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
 Data File : 5W46797.D
 Acq On : 14 Dec 2021 3:20 am
 Operator : danat
 Sample : jd36325-5
 Misc : ms55468,v5w1935,500,,,,1
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 14 13:47:00 2021
 Quant Method : C:\msdchem\1\methods\m5w1909.M
 Quant Title : T0-15 Full Scan Mode
 QLast Update : Mon Nov 08 09:09:12 2021
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

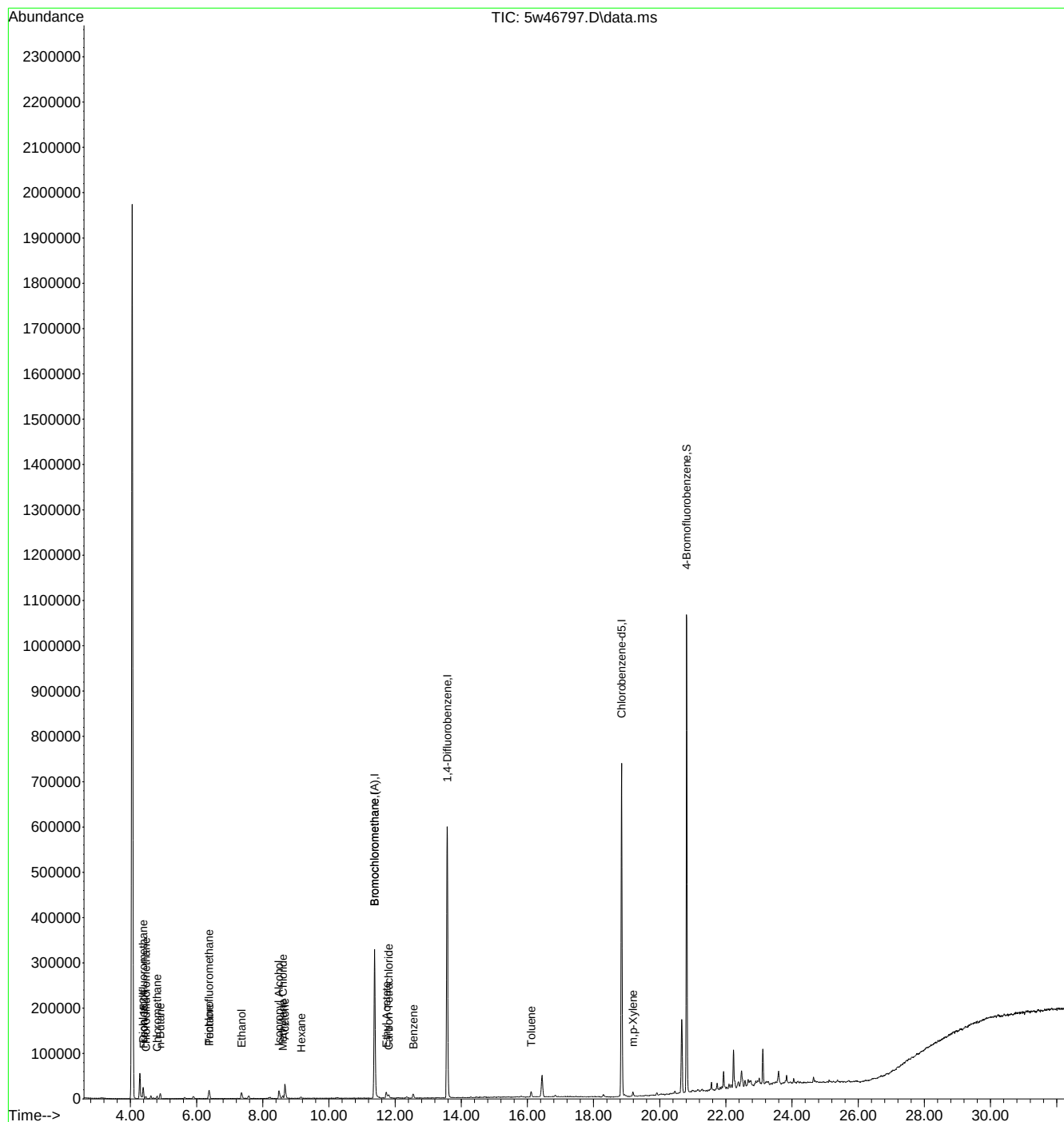
Internal Standards						
1) Bromochloromethane	11.384	130	188610	10.00	ppb(v	-0.03
53) 1,4-Difluorobenzene	13.574	114	697035	10.00	ppb(v	-0.04
76) Chlorobenzene-d5	18.848	82	290766	10.00	ppb(v	-0.04
108) Bromochloromethane (A)	11.384	130	188610	10.00	ppb(v	-0.03
System Monitoring Compounds						
90) 4-Bromofluorobenzene	20.812	95	386252	9.36	ppb(v	-0.03
Spiked Amount 10.000	Range 65 - 128		Recovery	=	93.60%	
Target Compounds						
					Qvalue	
2) Freon 152A	4.404	65	1379	0.15	ppb(v	98
3) Chlorodifluoromethane	4.465	67	1707	0.37	ppb(v#	100
6) Dichlorodifluoromethane	4.385	85	27240	0.47	ppb(v	97
8) Chloromethane	4.801	50	6746	0.53	ppb(v	94
12) n-Butane	4.899	58	1346	0.66	ppb(v	100
21) Trichlorofluoromethane	6.374	101	18661	0.33	ppb(v	99
22) Acetone	8.668	58	16719	2.92	ppb(v	85
23) Pentane	6.386	57	901	0.28	ppb(v	88
25) Isopropyl Alcohol	8.490	43	6159	1.61	ppb(v	81
28) Methylene Chloride	8.607	84	4068	0.25	ppb(v	90
30) Ethanol	7.359	45	21341	4.87	ppb(v	100
39) Hexane	9.157	56	1209	0.10	ppb(v#	84
42) Ethyl Acetate	11.739	61	3955	1.05	ppb(v	89
49) Benzene	12.553	78	10756	0.21	ppb(v	93
50) Carbon Tetrachloride	11.800	117	5041	0.10	ppb(v	93
66) Toluene	16.113	91	14096	0.19	ppb(v#	87
79) m,p-Xylene	19.190	91	8158	0.12	ppb(v	90

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

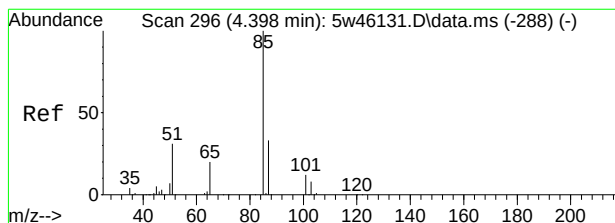
Quantitation Report (QT Reviewed)

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Data Path : C:\msdchem\1\data\  
Data File : 5w46797.D  
Acq On : 14 Dec 2021 3:20 am  
Operator : danat  
Sample : jd36325-5  
Misc : ms55468,v5w1935,500,,,,,1  
ALS Vial : 2 Sample Multiplier: 1
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Quant Time: Dec 14 13:47:00 2021
Quant Method : C:\msdchem\1\methods\m5w1909.M
Quant Title : T0-15 Full Scan Mode
QLast Update : Mon Nov 08 09:09:12 2021
Response via : Initial Calibration

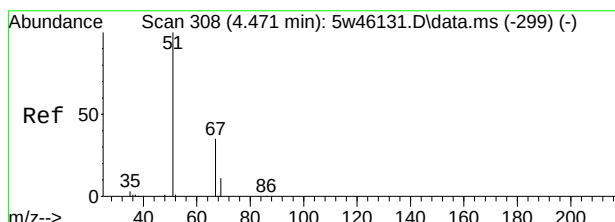
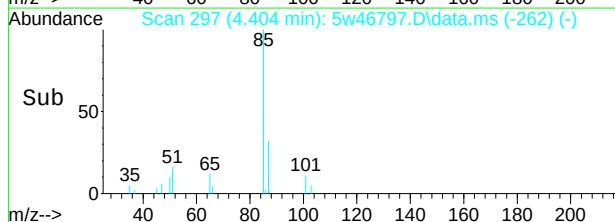
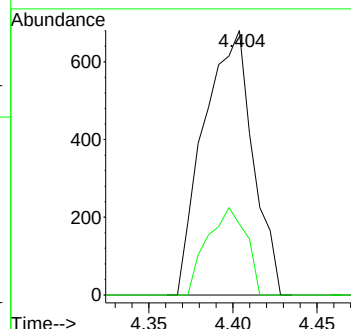
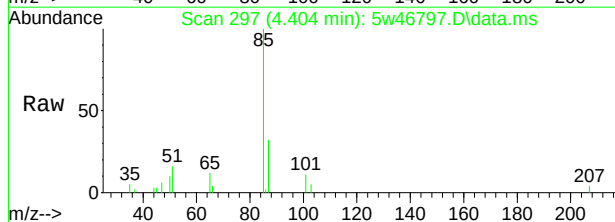


7.1.7



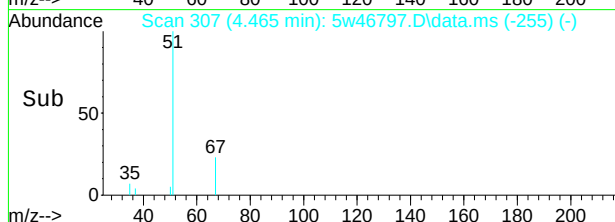
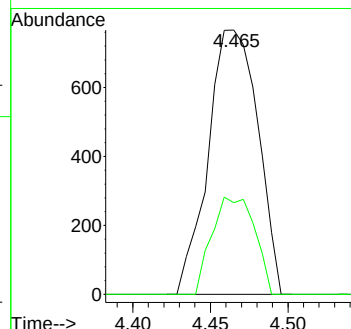
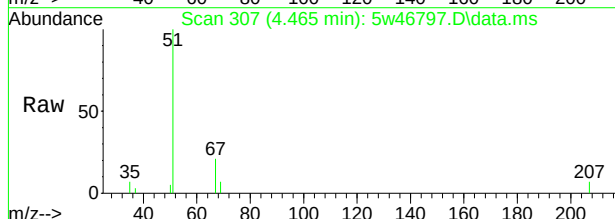
#2
 Freon 152A
 Concen: 0.15 ppb(v)
 RT: 4.404 min Scan# 297
 Delta R.T. 0.012 min
 Lab File: 5w46797.D
 Acq: 14 Dec 2021 3:20 am

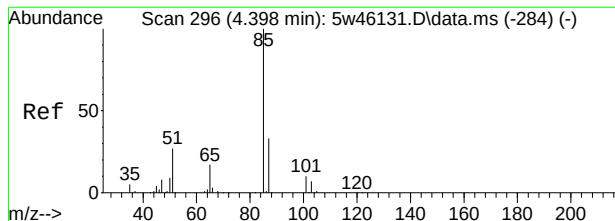
Tgt Ion: 65 Resp: 1379
 Ion Ratio Lower Upper
 65 100
 45 26.7 17.8 33.1



#3
 Chlorodifluoromethane
 Concen: 0.37 ppb(v)
 RT: 4.465 min Scan# 307
 Delta R.T. -0.012 min
 Lab File: 5w46797.D
 Acq: 14 Dec 2021 3:20 am

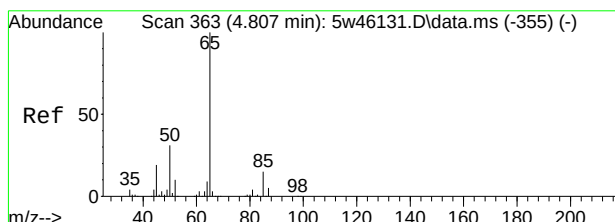
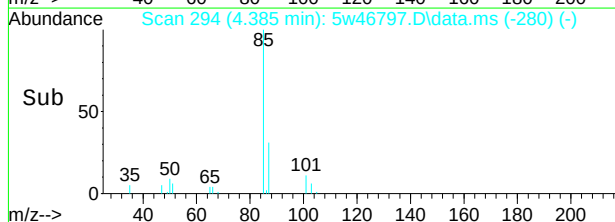
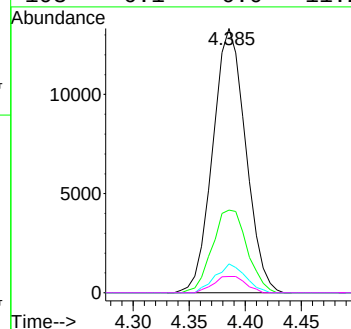
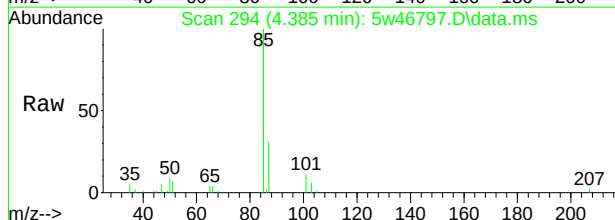
Tgt Ion: 67 Resp: 1707
 Ion Ratio Lower Upper
 67 100
 69 34.7 0.0 0.0#





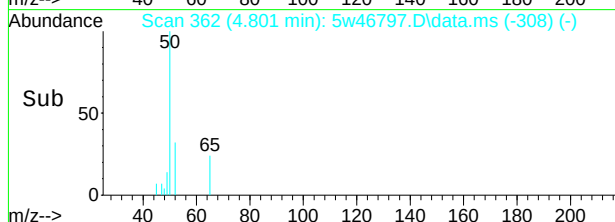
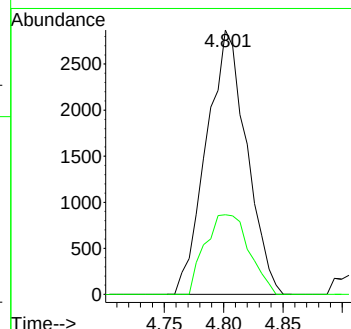
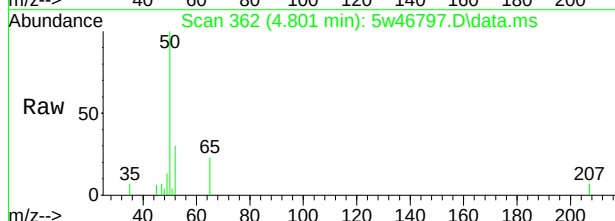
#6
Dichlorodifluoromethane
Concen: 0.47 ppb(v)
RT: 4.385 min Scan# 294
Delta R.T. -0.007 min
Lab File: 5w46797.D
Acq: 14 Dec 2021 3:20 am

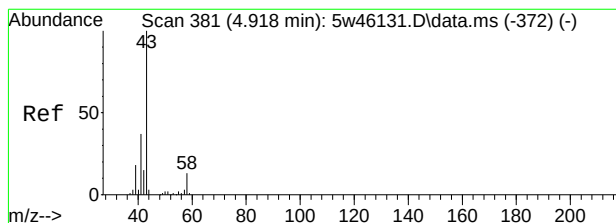
Tgt Ion:	85	Resp:	27240
Ion	Ratio	Lower	Upper
85	100		
87	31.3	23.0	42.6
101	10.9	6.8	12.6
103	6.1	6.0	11.2



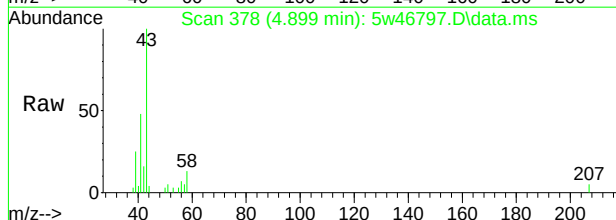
#8
Chloromethane
Concen: 0.53 ppb(v)
RT: 4.801 min Scan# 362
Delta R.T. 0.000 min
Lab File: 5w46797.D
Acq: 14 Dec 2021 3:20 am

Tgt Ion:	50	Resp:	6746
Ion	Ratio	Lower	Upper
50	100		
52	30.1	18.8	34.8

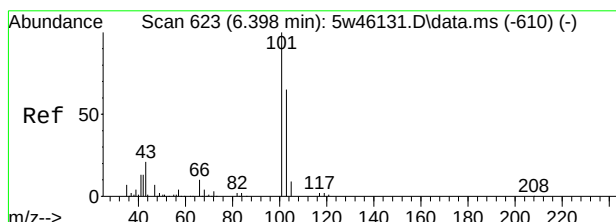
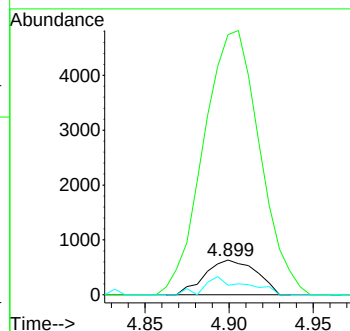
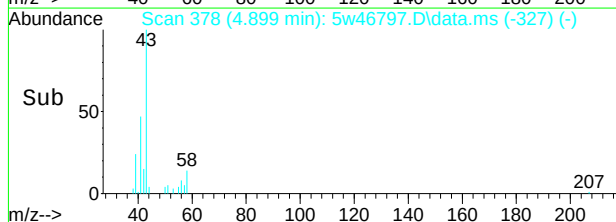




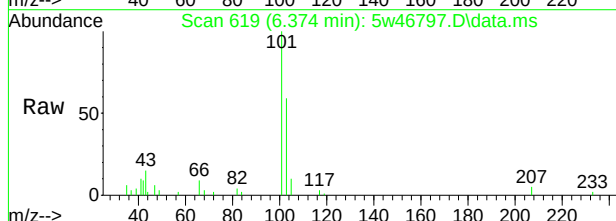
#12
n-Butane
Concen: 0.66 ppb(v)
RT: 4.899 min Scan# 378
Delta R.T. -0.018 min
Lab File: 5w46797.D
Acq: 14 Dec 2021 3:20 am



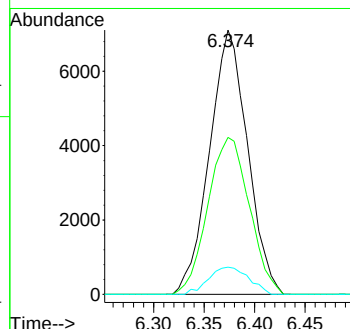
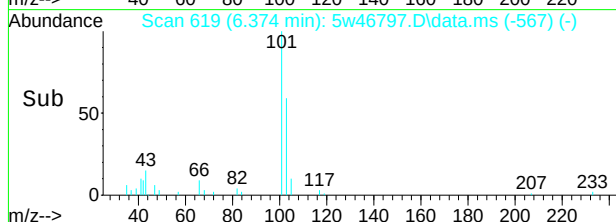
Tgt Ion: 58 Resp: 1346
Ion Ratio Lower Upper
58 100
43 748.1 523.2 971.7
44 27.1 18.6 34.6

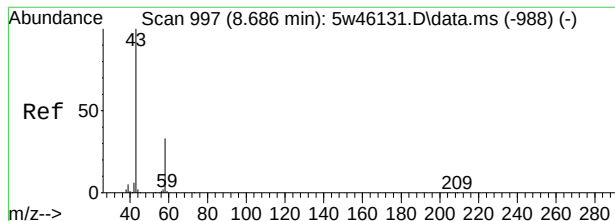


#21
Trichlorofluoromethane
Concen: 0.33 ppb(v)
RT: 6.374 min Scan# 619
Delta R.T. -0.012 min
Lab File: 5w46797.D
Acq: 14 Dec 2021 3:20 am



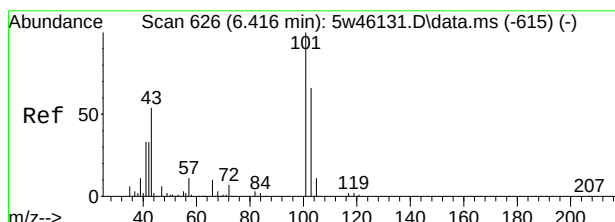
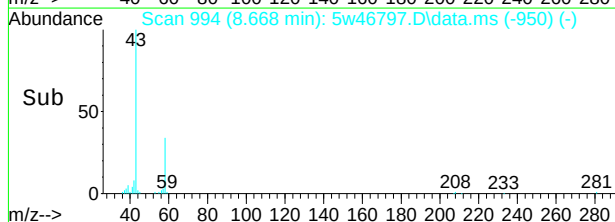
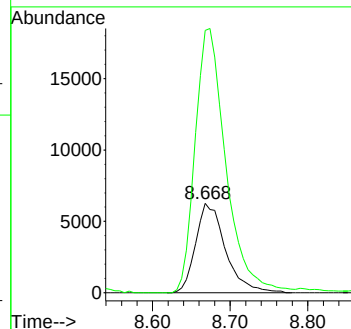
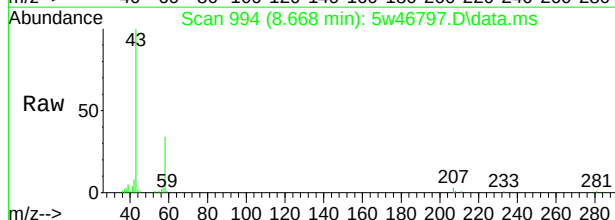
Tgt Ion: 101 Resp: 18661
Ion Ratio Lower Upper
101 100
103 59.4 41.2 76.4
105 10.3 7.4 13.8





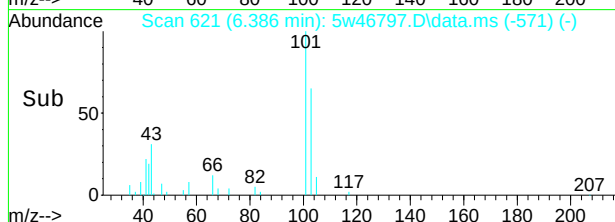
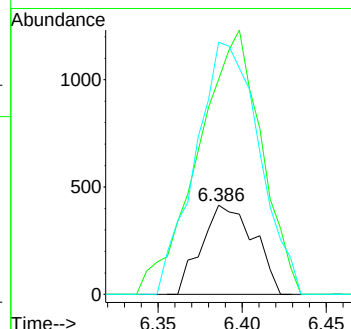
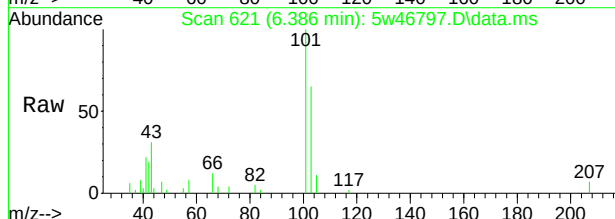
#22
Acetone
Concen: 2.92 ppb(v)
RT: 8.668 min Scan# 994
Delta R.T. -0.061 min
Lab File: 5w46797.D
Acq: 14 Dec 2021 3:20 am

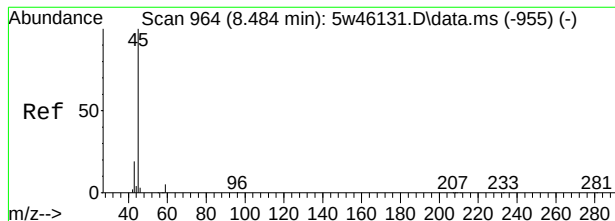
Tgt Ion: 58 Resp: 16719
Ion Ratio Lower Upper
58 100
43 293.6 186.7 346.7



#23
Pentane
Concen: 0.28 ppb(v)
RT: 6.386 min Scan# 621
Delta R.T. -0.024 min
Lab File: 5w46797.D
Acq: 14 Dec 2021 3:20 am

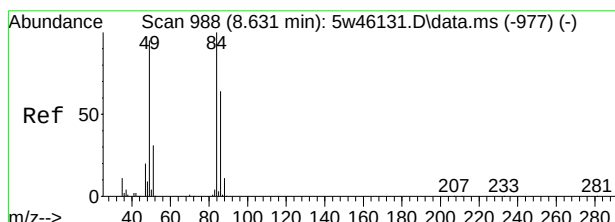
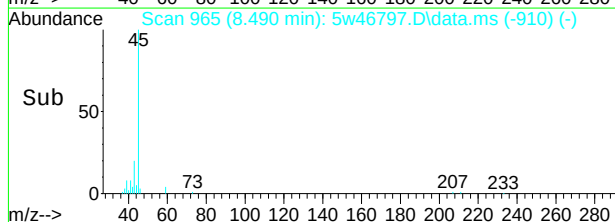
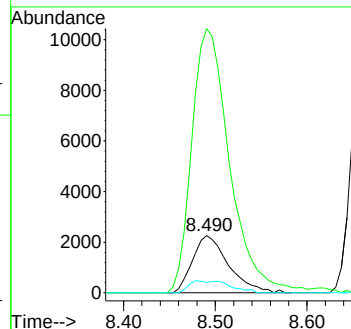
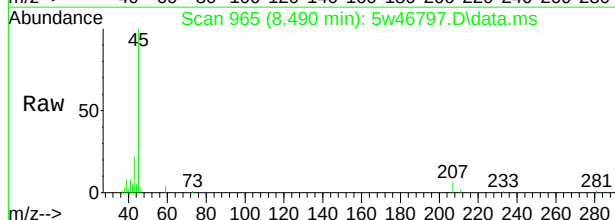
Tgt Ion: 57 Resp: 901
Ion Ratio Lower Upper
57 100
42 240.6 192.4 357.4
41 282.5 204.9 380.5





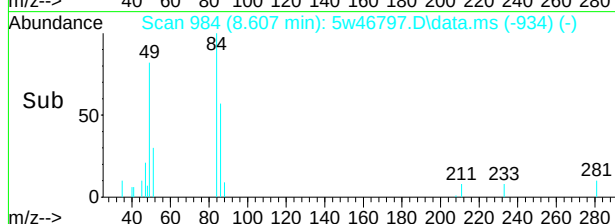
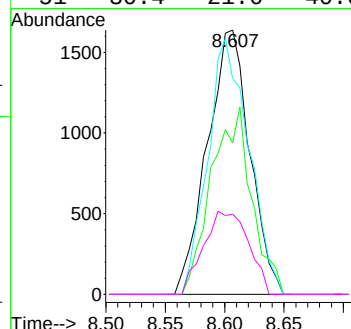
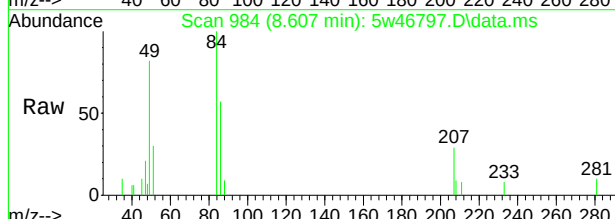
#25
Isopropyl Alcohol
Concen: 1.61 ppb(v)
RT: 8.490 min Scan# 965
Delta R.T. 0.006 min
Lab File: 5w46797.D
Acq: 14 Dec 2021 3:20 am

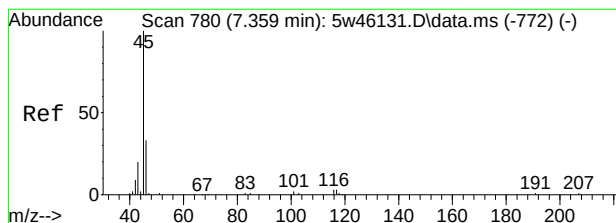
Tgt Ion:	43	Resp:	6159
Ion	Ratio	Lower	Upper
43	100		
45	461.5	361.2	670.8
59	18.4	17.1	31.9



#28
Methylene Chloride
Concen: 0.25 ppb(v)
RT: 8.607 min Scan# 984
Delta R.T. -0.024 min
Lab File: 5w46797.D
Acq: 14 Dec 2021 3:20 am

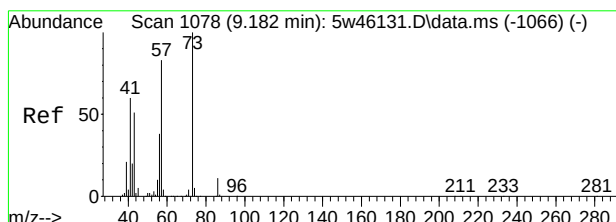
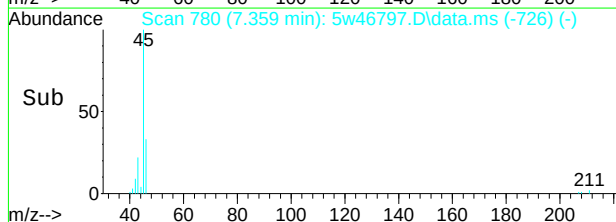
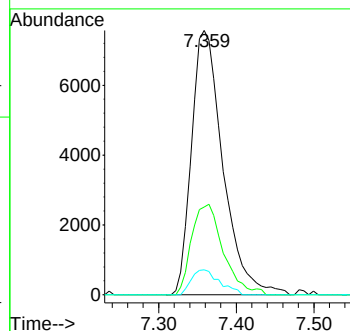
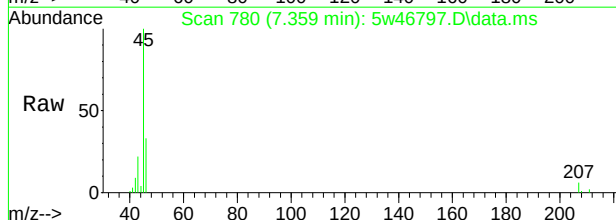
Tgt Ion:	84	Resp:	4068
Ion	Ratio	Lower	Upper
84	100		
86	57.2	44.9	83.3
49	81.6	66.4	123.4
51	30.4	21.6	40.0





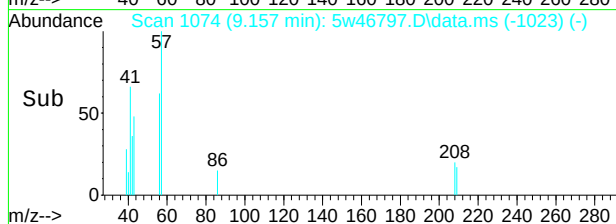
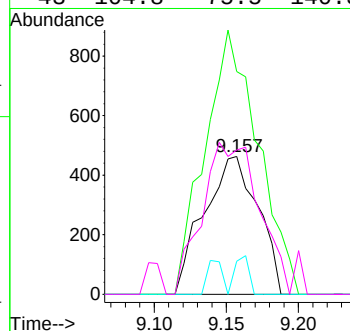
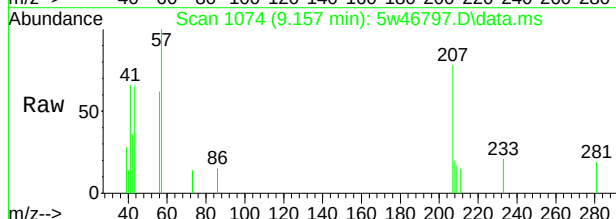
#30
Ethanol
Concen: 4.87 ppb(v)
RT: 7.359 min Scan# 780
Delta R.T. 0.000 min
Lab File: 5w46797.D
Acq: 14 Dec 2021 3:20 am

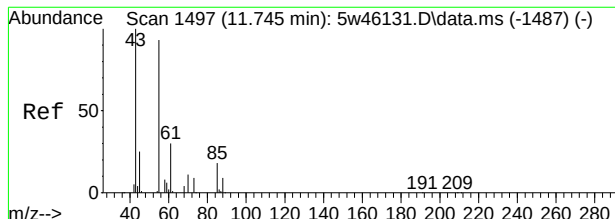
Tgt Ion:	45	Resp:	21341
Ion Ratio	Lower	Upper	
45	100		
46	33.2	23.4	43.4
42	9.5	6.3	11.7



#39
Hexane
Concen: 0.10 ppb(v)
RT: 9.157 min Scan# 1074
Delta R.T. -0.018 min
Lab File: 5w46797.D
Acq: 14 Dec 2021 3:20 am

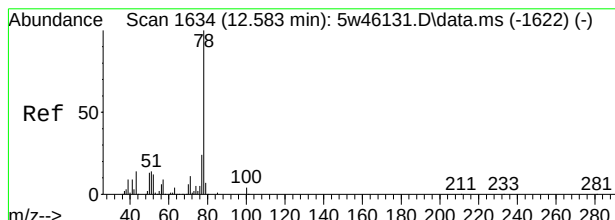
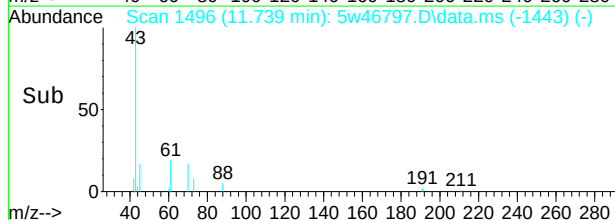
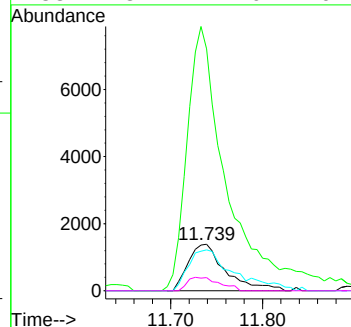
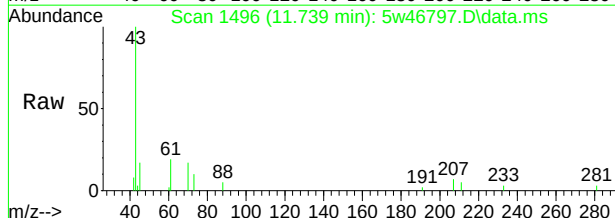
Tgt Ion:	56	Resp:	1209
Ion Ratio	Lower	Upper	
56	100		
57	161.6	137.2	254.8
86	24.0	24.0	44.6#
43	104.8	75.5	140.3





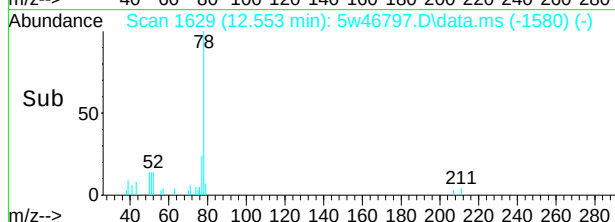
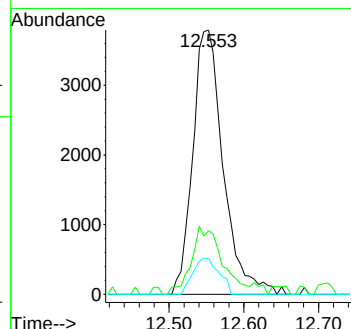
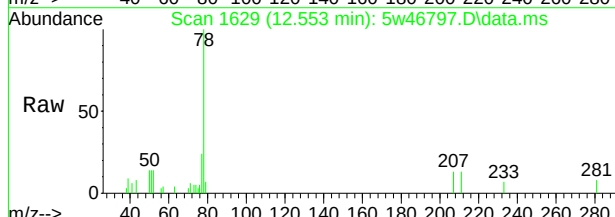
#42
Ethyl Acetate
Concen: 1.05 ppb(v)
RT: 11.739 min Scan# 1496
Delta R.T. -0.006 min
Lab File: 5w46797.D
Acq: 14 Dec 2021 3:20 am

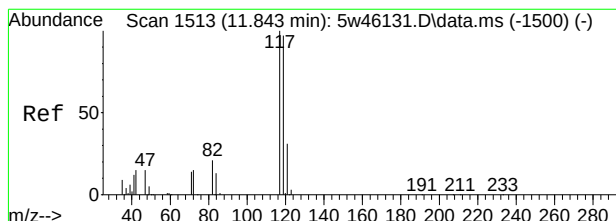
Tgt Ion	Ratio	Lower	Upper
61	100		
43	518.8	388.8	722.0
70	87.7	63.6	118.0
88	28.4	21.6	40.0



#49
Benzene
Concen: 0.21 ppb(v)
RT: 12.553 min Scan# 1629
Delta R.T. -0.030 min
Lab File: 5w46797.D
Acq: 14 Dec 2021 3:20 am

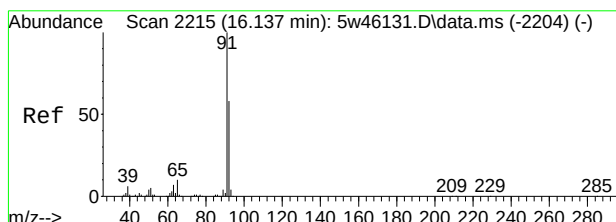
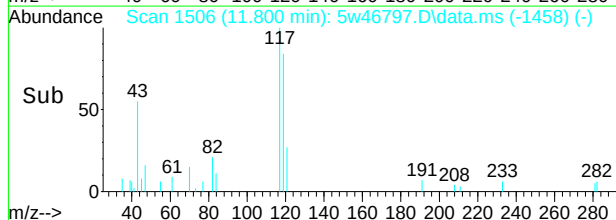
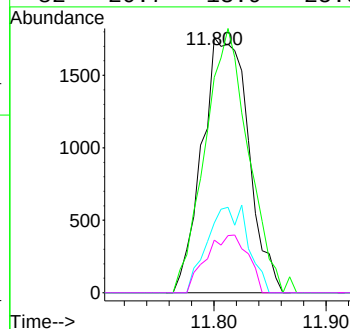
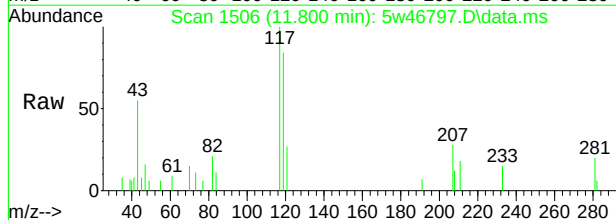
Tgt Ion	Ratio	Lower	Upper
78	100		
77	24.1	20.7	38.5
51	13.6	9.5	17.7





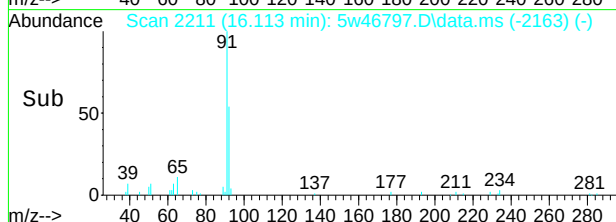
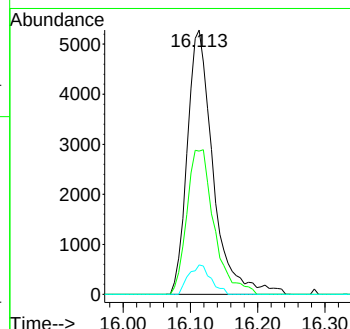
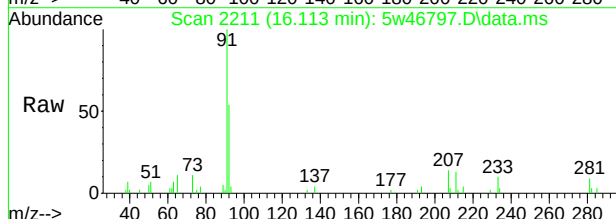
#50
Carbon Tetrachloride
Concen: 0.10 ppb(v)
RT: 11.800 min Scan# 1506
Delta R.T. -0.037 min
Lab File: 5w46797.D
Acq: 14 Dec 2021 3:20 am

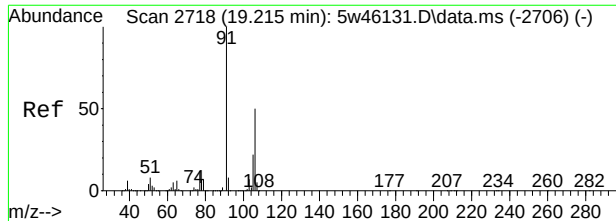
Tgt Ion	Ratio	Resp	Lower	Upper
117	100	5041		
119	84.4		65.5	121.6
121	27.3		18.5	34.3
82	20.7		13.9	25.9



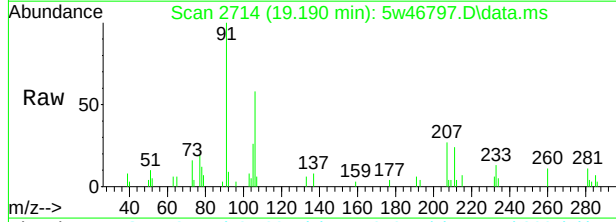
#66
Toluene
Concen: 0.19 ppb(v)
RT: 16.113 min Scan# 2211
Delta R.T. -0.037 min
Lab File: 5w46797.D
Acq: 14 Dec 2021 3:20 am

Tgt Ion	Ratio	Resp	Lower	Upper
91	100	14096		
92	54.2		45.5	84.5
65	11.2		6.0	11.2#

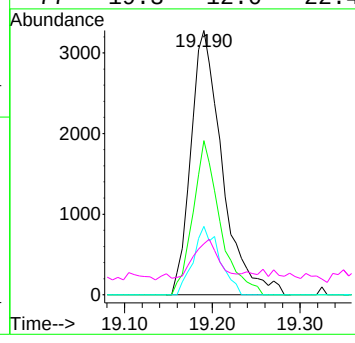
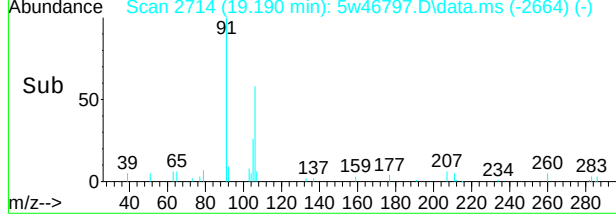




#79
m,p-Xylene
Concen: 0.12 ppb(v)
RT: 19.190 min Scan# 2714
Delta R.T. -0.025 min
Lab File: 5w46797.D
Acq: 14 Dec 2021 3:20 am



Tgt Ion:	91	Resp:	8158
Ion	Ratio	Lower	Upper
91	100		
106	58.3	34.9	64.9
105	25.9	15.4	28.6
77	19.3	12.0	22.4



7.1.7
7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 5W46781.D
Acq On : 13 Dec 2021 1:54 pm
Operator : danat
Sample : mb
Misc : ms55457,v5w1935,,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Dec 13 15:07:28 2021
Quant Method : C:\msdchem\1\methods\m5w1909.M
Quant Title : T0-15 Full Scan Mode
QLast Update : Mon Nov 08 09:09:12 2021
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) Bromochloromethane	11.390	130	190813	10.00	ppb(v	-0.02
53) 1,4-Difluorobenzene	13.580	114	701273	10.00	ppb(v	-0.03
76) Chlorobenzene-d5	18.848	82	282671	10.00	ppb(v	-0.04
108) Bromochloromethane (A)	11.390	130	190813	10.00	ppb(v	-0.02
System Monitoring Compounds						
90) 4-Bromofluorobenzene	20.817	95	371726	9.27	ppb(v	-0.02
Spiked Amount	10.000	Range 65 - 128	Recovery	=	92.70%	

Target Compounds	Qvalue

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

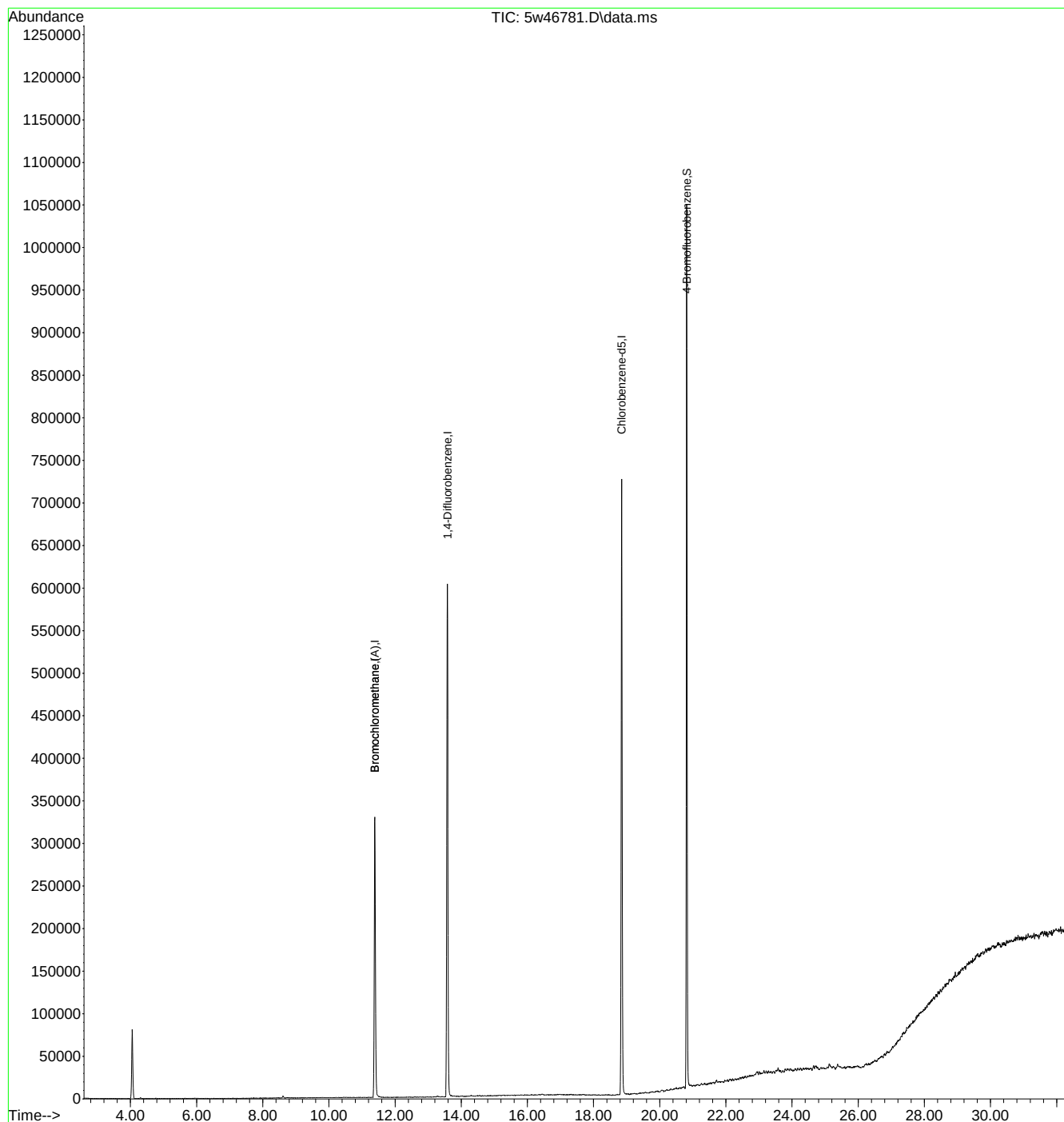
7.2.1

7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 5w46781.D
Acq On : 13 Dec 2021 1:54 pm
Operator : danat
Sample : mb
Misc : ms55457,v5w1935,,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Dec 13 15:07:28 2021
Quant Method : C:\msdchem\1\methods\m5w1909.M
Quant Title : T0-15 Full Scan Mode
QLast Update : Mon Nov 08 09:09:12 2021
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 5W46808.D
Acq On : 14 Dec 2021 1:06 pm
Operator : danat
Sample : mb
Misc : ms55468,v5w1936,,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Dec 14 13:40:41 2021
Quant Method : C:\msdchem\1\methods\m5w1909.M
Quant Title : T0-15 Full Scan Mode
QLast Update : Mon Nov 08 09:09:12 2021
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) Bromochloromethane	11.384	130	189874	10.00	ppb(v	-0.03
53) 1,4-Difluorobenzene	13.574	114	689528	10.00	ppb(v	-0.04
76) Chlorobenzene-d5	18.848	82	284629	10.00	ppb(v	-0.04
108) Bromochloromethane (A)	11.384	130	189874	10.00	ppb(v	-0.03
System Monitoring Compounds						
90) 4-Bromofluorobenzene	20.811	95	383082	9.49	ppb(v	-0.03
Spiked Amount	10.000	Range 65 - 128	Recovery	=	94.90%	

Target Compounds	Qvalue

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

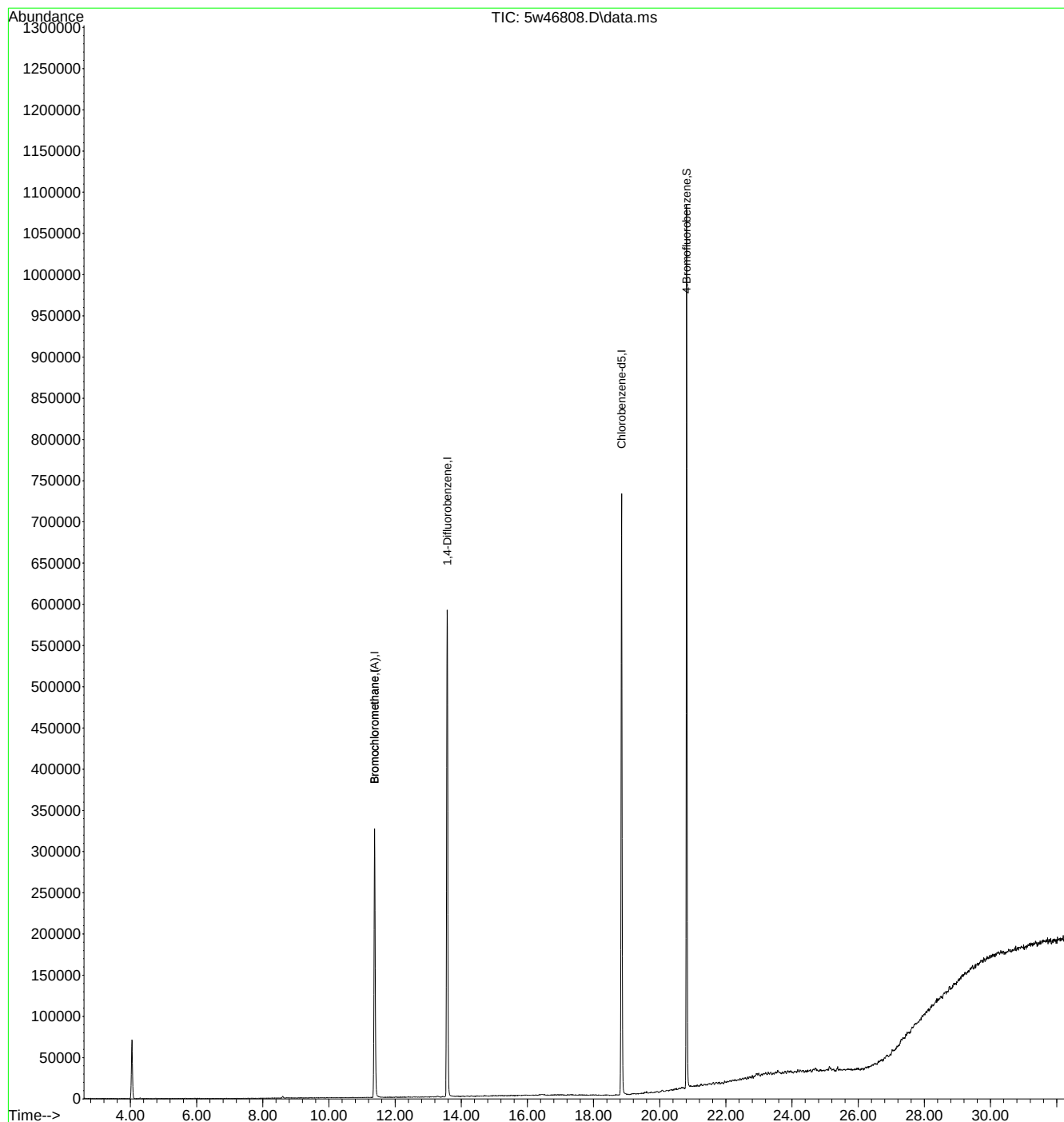
7.2.2

7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 5w46808.D
Acq On : 14 Dec 2021 1:06 pm
Operator : danat
Sample : mb
Misc : ms55468,v5w1936,,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Dec 14 13:40:41 2021
Quant Method : C:\msdchem\1\methods\m5w1909.M
Quant Title : T0-15 Full Scan Mode
QLast Update : Mon Nov 08 09:09:12 2021
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 2w55985.D
Acq On : 1 Nov 2021 12:25 pm
Operator : thomash
Sample : mb
Misc : MS54658,V2w2494,,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Nov 01 12:58:46 2021
Quant Method : C:\msdchem\1\METHODS\M2W2424.M
Quant Title : T015 by GCMS w/DB-1, 30m X 0.25mm ID X 0.5 um
QLast Update : Tue Jul 27 16:59:35 2021
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) BROMOCHLOROMETHANE	3.647	128	91649	10.00	PPBV	0.00
52) 1,4-DIFLUOROBENZENE	4.988	114	467691	10.00	PPBV	0.00
76) CHLOROBENZENE-D5	10.701	117	412438	10.00	PPBV	0.00

System Monitoring Compounds						
87) 4-BROMOFLUOROBENZENE	14.093	95	267052	9.21	PPBV	0.00

Target Compounds	Qvalue

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

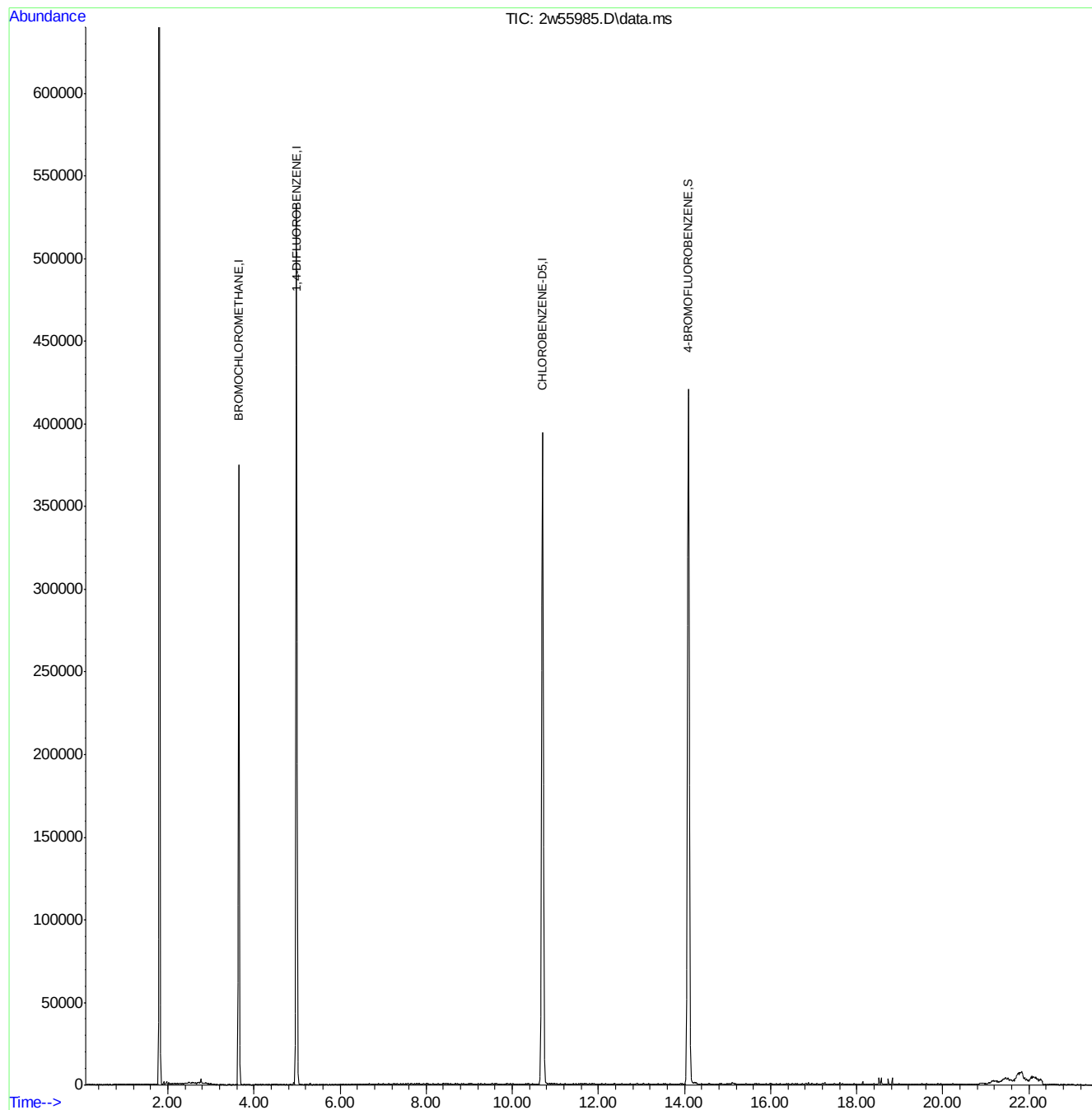
7.2.3

7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 2w55985.D
Acq On : 1 Nov 2021 12:25 pm
Operator : thomash
Sample : mb
Misc : MS54658,V2w2494,,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Nov 01 12:58:46 2021
Quant Method : C:\msdchem\1\METHODS\M2W2424.M
Quant Title : T015 by GCMS w/DB-1, 30m X 0.25mm ID X 0.5 um
QLast Update : Tue Jul 27 16:59:35 2021
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 2w56010.D
Acq On : 2 Nov 2021 10:48 am
Operator : thomash
Sample : mb
Misc : MS54715,V2w2495,,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Nov 02 12:23:01 2021
Quant Method : C:\msdchem\1\METHODS\M2W2424.M
Quant Title : T015 by GCMS w/DB-1, 30m X 0.25mm ID X 0.5 um
QLast Update : Tue Jul 27 16:59:35 2021
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) BROMOCHLOROMETHANE	3.644	128	94907	10.00	PPBV	0.00
52) 1,4-DIFLUOROBENZENE	4.985	114	480309	10.00	PPBV	0.00
76) CHLOROBENZENE-D5	10.701	117	421088	10.00	PPBV	0.00

System Monitoring Compounds						
87) 4-BROMOFLUOROBENZENE	14.090	95	275890	9.32	PPBV	0.00

Target Compounds	Qvalue

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

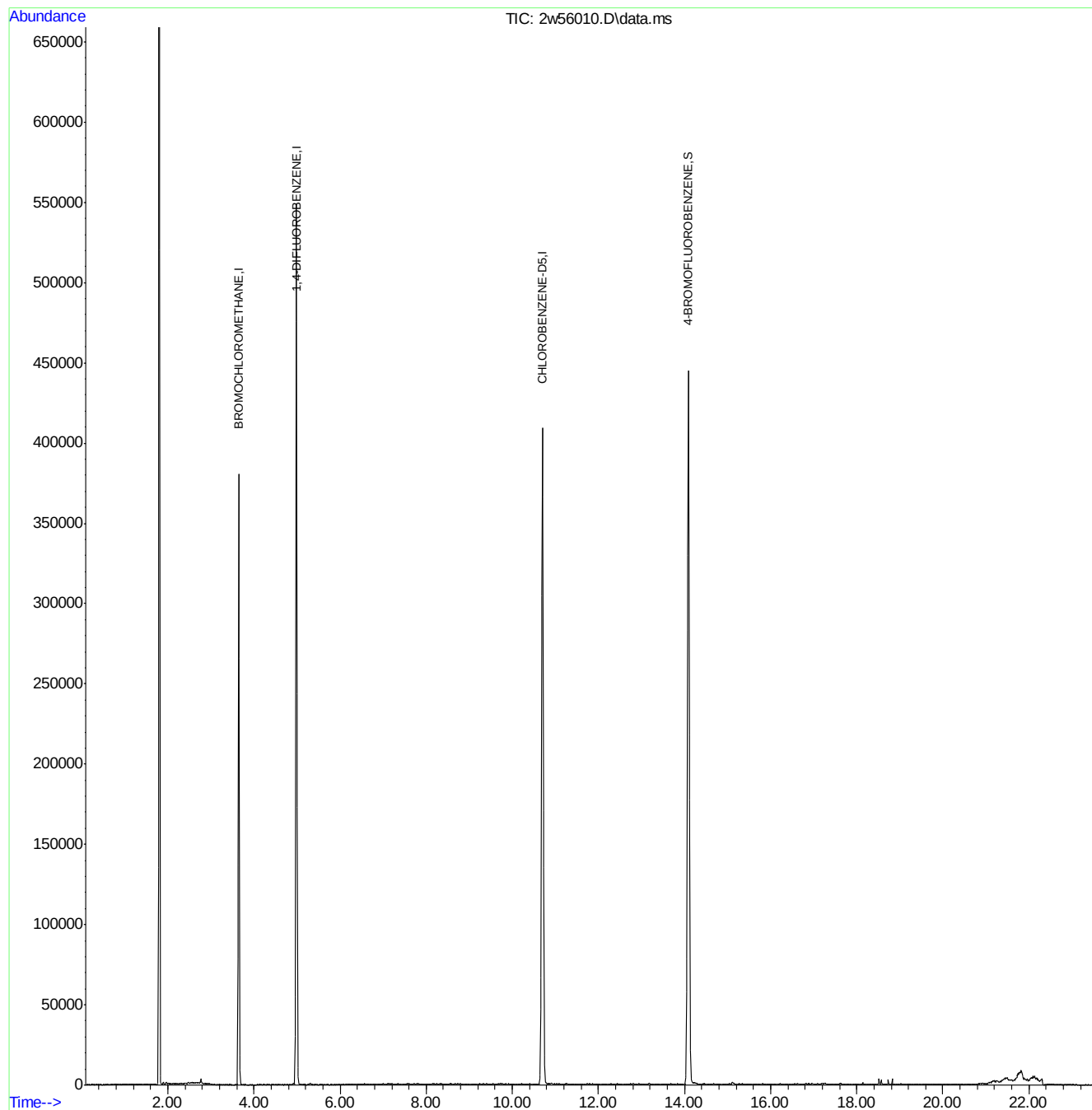
7.2.4

7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 2w56010.D
Acq On : 2 Nov 2021 10:48 am
Operator : thomash
Sample : mb
Misc : MS54715,V2w2495,,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Nov 02 12:23:01 2021
Quant Method : C:\msdchem\1\METHODS\M2W2424.M
Quant Title : T015 by GCMS w/DB-1, 30m X 0.25mm ID X 0.5 um
QLast Update : Tue Jul 27 16:59:35 2021
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 2w56058.D
Acq On : 4 Nov 2021 11:09 am
Operator : thomash
Sample : mb
Misc : MS54687,V2w2497,,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Nov 04 12:20:28 2021
Quant Method : C:\msdchem\1\METHODS\M2W2424.M
Quant Title : T015 by GCMS w/DB-1, 30m X 0.25mm ID X 0.5 um
QLast Update : Tue Jul 27 16:59:35 2021
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) BROMOCHLOROMETHANE	3.647	128	90837	10.00	PPBV	0.00
52) 1,4-DIFLUOROBENZENE	4.988	114	464779	10.00	PPBV	0.00
76) CHLOROBENZENE-D5	10.701	117	406041	10.00	PPBV	0.00

System Monitoring Compounds						
87) 4-BROMOFLUOROBENZENE	14.087	95	261137	9.15	PPBV	0.00

Target Compounds	Qvalue

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

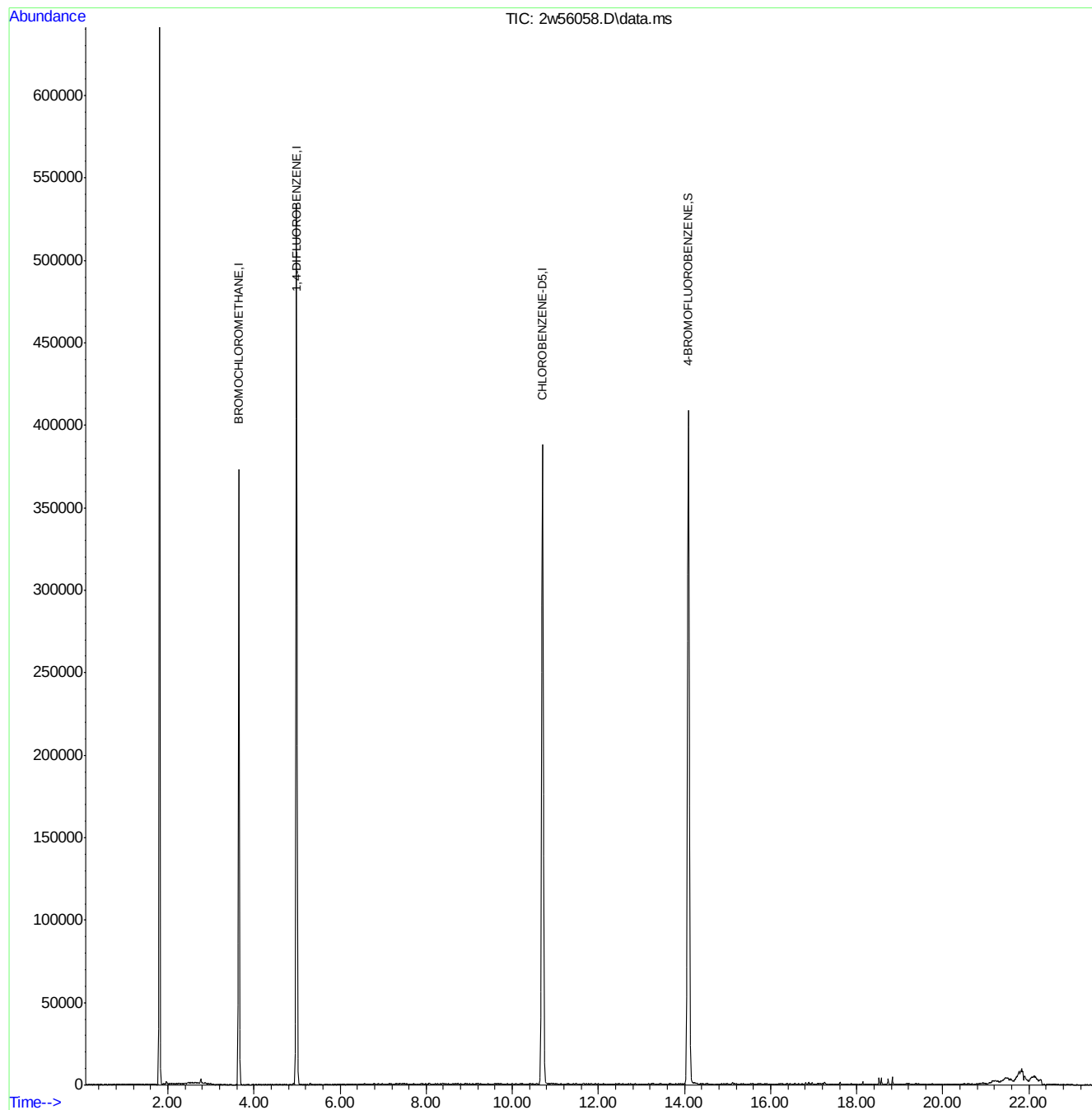
7.2.5

7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 2w56058.D
Acq On : 4 Nov 2021 11:09 am
Operator : thomash
Sample : mb
Misc : MS54687,V2w2497,,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Nov 04 12:20:28 2021
Quant Method : C:\msdchem\1\METHODS\M2W2424.M
Quant Title : T015 by GCMS w/DB-1, 30m X 0.25mm ID X 0.5 um
QLast Update : Tue Jul 27 16:59:35 2021
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
 Data File : 5W46777.D
 Acq On : 13 Dec 2021 10:27 am
 Operator : danat
 Sample : bs
 Misc : ms55457,v5w1935,,,,,1
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 13 11:06:33 2021
 Quant Method : C:\msdchem\1\methods\m5w1909.M
 Quant Title : T0-15 Full Scan Mode
 QLast Update : Mon Nov 08 09:09:12 2021
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) Bromochloromethane	11.390	130	189248	10.00	ppb(v	-0.02
53) 1,4-Difluorobenzene	13.586	114	670388	10.00	ppb(v	-0.02
76) Chlorobenzene-d5	18.854	82	290464	10.00	ppb(v	-0.03
108) Bromochloromethane (A)	11.390	130	189248	10.00	ppb(v	-0.02
System Monitoring Compounds						
90) 4-Bromofluorobenzene	20.818	95	398189	9.66	ppb(v	-0.02
Spiked Amount 10.000	Range 65 - 128		Recovery	=	96.60%	
Target Compounds						
					Qvalue	
2) Freon 152A	4.404	65	92233	10.21	ppb(v	95
3) Chlorodifluoromethane	4.471	67	50124	10.79	ppb(v#	100
4) Propene	4.306	41	81901	9.73	ppb(v#	89
5) Chlorotrifluoroethene	4.361	116	292054	9.46	ppb(v	97
6) Dichlorodifluoromethane	4.404	85	620102	10.71	ppb(v	99
7) 1-Chloro-1,1-difluoro...	4.807	65	381390	10.22	ppb(v#	71
8) Chloromethane	4.814	50	118490	9.22	ppb(v	89
9) Dichlorotetrafluoroethane	4.710	85	528881	9.75	ppb(v	95
10) Vinyl Chloride	5.028	62	155026	9.93	ppb(v#	92
11) 1,3-Butadiene	5.083	54	89943	10.21	ppb(v	96
12) n-Butane	4.918	58	21511	10.57	ppb(v	93
13) Bromomethane	5.750	94	149462	10.31	ppb(v#	99
14) Chloroethane	6.049	64	72440	10.22	ppb(v#	88
15) Dichlorofluoromethane	6.496	67	386197	10.04	ppb(v	96
16) Acetonitrile	9.488	41	78413	9.61	ppb(v#	82
17) Freon 123	7.591	83	402566	10.00	ppb(v	96
18) Freon 123A	7.469	117	255021	9.81	ppb(v#	85
19) Bromoethene	6.306	106	205919	10.17	ppb(v	96
20) Acrolein	8.099	56	50006	10.24	ppb(v	99
21) Trichlorofluoromethane	6.386	101	574685	10.03	ppb(v	93
22) Acetone	8.662	58	54897	9.56	ppb(v	80
23) Pentane	6.404	57	35124	10.81	ppb(v	81
24) Iodomethane	7.738	142	681317	9.86	ppb(v	94
25) Isopropyl Alcohol	8.466	43	42514	11.06	ppb(v	91
26) 1,1-Dichloroethene	7.469	61	265019	10.43	ppb(v	99
27) Freon 113	7.585	101	451250	10.04	ppb(v	91
28) Methylene Chloride	8.613	84	160166	9.74	ppb(v	99
29) Carbon Disulfide	7.524	76	476179	10.03	ppb(v	99
30) Ethanol	7.340	45	44154	10.03	ppb(v	97
31) Acrylonitrile	10.093	53	88567	9.81	ppb(v#	41
32) 3-Chloropropene	8.417	76	79323	10.57	ppb(v	85
33) trans-1,2-Dichloroethene	8.955	61	236021	10.34	ppb(v	94
34) tert-Butyl Alcohol	9.310	59	322309	11.17	ppb(v#	78
35) Methyl tert-Butyl Ether	9.176	73	499249	10.74	ppb(v#	28
36) Vinyl Acetate	10.521	43	283508	10.09	ppb(v#	100
37) 1,1-Dichloroethane	10.081	63	287037	10.00	ppb(v#	97
38) 2-Butanone	12.008	72	71883	10.96	ppb(v	97
39) Hexane	9.163	56	121760	10.34	ppb(v#	77
40) cis-1,2-Dichloroethene	11.048	61	229121	10.19	ppb(v	94
41) Di-isopropyl Ether	9.904	87	150137	10.25	ppb(v	78
42) Ethyl Acetate	11.714	61	42965	11.38	ppb(v	96
43) Methyl Acrylate	11.733	55	225629	10.64	ppb(v#	94
44) Chloroform	11.525	83	430867	10.13	ppb(v	96
45) 2,4-Dimethylpentane	10.222	57	259669	10.06	ppb(v	98
46) Tetrahydrofuran	11.806	72	75049	11.05	ppb(v	83
47) 1,1,1-Trichloroethane	11.916	97	464491	10.10	ppb(v	93
48) 1,2-Dichloroethane	12.865	62	247762	10.47	ppb(v#	95

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
 Data File : 5W46777.D
 Acq On : 13 Dec 2021 10:27 am
 Operator : danat
 Sample : bs
 Misc : ms55457,v5w1935,,,,,1
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 13 11:06:33 2021
 Quant Method : C:\msdchem\1\methods\m5w1909.M
 Quant Title : T0-15 Full Scan Mode
 QLast Update : Mon Nov 08 09:09:12 2021
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
49) Benzene	12.553	78	517471	10.01	ppb(v	93
50) Carbon Tetrachloride	11.818	117	531013	10.48	ppb(v	95
51) Cyclohexane	11.476	56	215153	9.81	ppb(v	88
52) 2,3-Dimethylpentane	11.647	71	110892	10.48	ppb(v#	84
54) 2,2,4-Trimethylpentane	12.357	57	681050	9.91	ppb(v	96
55) Heptane	12.534	71	159043	10.55	ppb(v	90
56) Trichloroethene	13.568	97	182573	10.05	ppb(v#	1
57) 1,2-Dichloropropane	14.443	63	169572	10.18	ppb(v#	90
58) Dibromomethane	14.278	174	333292	8.92	ppb(v	90
59) Ethyl Acrylate	14.437	55	305742	10.75	ppb(v#	18
60) Methyl Methacrylate	14.798	69	174105	11.04	ppb(v	83
61) 1,4-Dioxane	14.877	88	126454	10.93	ppb(v#	88
62) Bromodichloromethane	14.553	83	455199	10.28	ppb(v	97
63) cis-1,3-Dichloropropene	15.660	75	322979	9.95	ppb(v	92
64) 4-Methyl-2-pentanone	16.719	58	133489	11.29	ppb(v#	85
65) trans-1,3-Dichloropropene	16.810	75	285280	9.58	ppb(v	88
66) Toluene	16.107	91	702098	9.91	ppb(v	92
67) 1,1,2-Trichloroethane	17.104	97	250440	10.01	ppb(v	88
68) 1,3-Dichloropropane	17.606	76	294409	9.86	ppb(v#	77
69) 2-Hexanone	18.248	43	258743	9.91	ppb(v	90
70) Ethyl Methacrylate	17.086	69	287904	11.48	ppb(v#	49
71) Dibromochloromethane	17.459	129	569371	10.45	ppb(v#	97
72) Tetrachloroethene	16.835	166	485039	9.89	ppb(v	88
73) 1,2-Dibromoethane	17.899	107	421068	9.77	ppb(v#	97
74) Octane	15.807	43	288469	10.81	ppb(v	95
75) 1,1,1,2-Tetrachloroethane	18.988	131	382617	10.19	ppb(v	94
77) Chlorobenzene	18.884	112	583278	9.33	ppb(v	86
78) Ethylbenzene	18.933	91	879819	9.56	ppb(v#	95
79) m,p-Xylene	19.184	91	1323695	19.11	ppb(v	97
80) Styrene	19.979	104	512569	9.62	ppb(v#	89
81) Nonane	18.774	43	288106	10.04	ppb(v#	88
82) o-Xylene	19.906	91	695697	9.49	ppb(v#	92
83) Bromoform	20.028	173	592818	9.85	ppb(v	91
84) 1,1,2,2-Tetrachloroethane	21.081	83	476966	9.42	ppb(v	94
85) 1,2,3-Trichloropropane	21.276	75	362428	9.99	ppb(v	97
86) Isopropylbenzene	20.395	105	1012003	9.53	ppb(v	93
87) Bromobenzene	20.983	156	376179	9.03	ppb(v	98
88) 2-Chlorotoluene	21.246	126	261249	9.42	ppb(v	93
89) n-Propylbenzene	21.013	120	272410	9.73	ppb(v	98
91) 4-Ethyltoluene	21.172	105	957982	10.04	ppb(v	96
92) 1,3,5-Trimethylbenzene	21.282	105	775731	10.08	ppb(v	93
93) alpha-Methylstyrene	21.631	118	400722	10.10	ppb(v	88
94) tert-Butylbenzene	21.729	134	177872	9.04	ppb(v	84
95) 1,2,4-Trimethylbenzene	21.821	105	765106	10.20	ppb(v#	90
96) 1,3-Dichlorobenzene	22.261	146	552204	9.58	ppb(v	93
97) 1,2,3-trimethylbenzene	22.390	105	738214	10.24	ppb(v#	95
98) Benzyl Chloride	22.665	126	134308	9.66	ppb(v	52
99) 1,4-Dichlorobenzene	22.371	146	520498	9.33	ppb(v	90
100) sec-Butylbenzene	21.968	134	224805	9.42	ppb(v	77
101) p-Isopropyltoluene	22.151	134	247202	9.60	ppb(v	96
102) 1,2-Dichlorobenzene	22.898	146	493439	9.24	ppb(v	95
103) n-Butylbenzene	22.683	134	210984	10.19	ppb(v	84
104) Hexachloroethane	22.891	201	334463	8.48	ppb(v	95
105) 1,2,4-Trichlorobenzene	24.696	180	224901	9.70	ppb(v#	83
106) Naphthalene	25.118	128	391792	8.83	ppb(v	91
107) Hexachlorobutadiene	24.653	225	351209	9.26	ppb(v#	69
109) TVHC as equiv Pentane	6.398	TIC	1850950	11.13	ppb(v	100

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 5W46777.D
Acq On : 13 Dec 2021 10:27 am
Operator : danat
Sample : bs
Misc : ms55457,v5w1935,,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 13 11:06:33 2021
Quant Method : C:\msdchem\1\methods\m5w1909.M
Quant Title : T0-15 Full Scan Mode
QLast Update : Mon Nov 08 09:09:12 2021
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

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

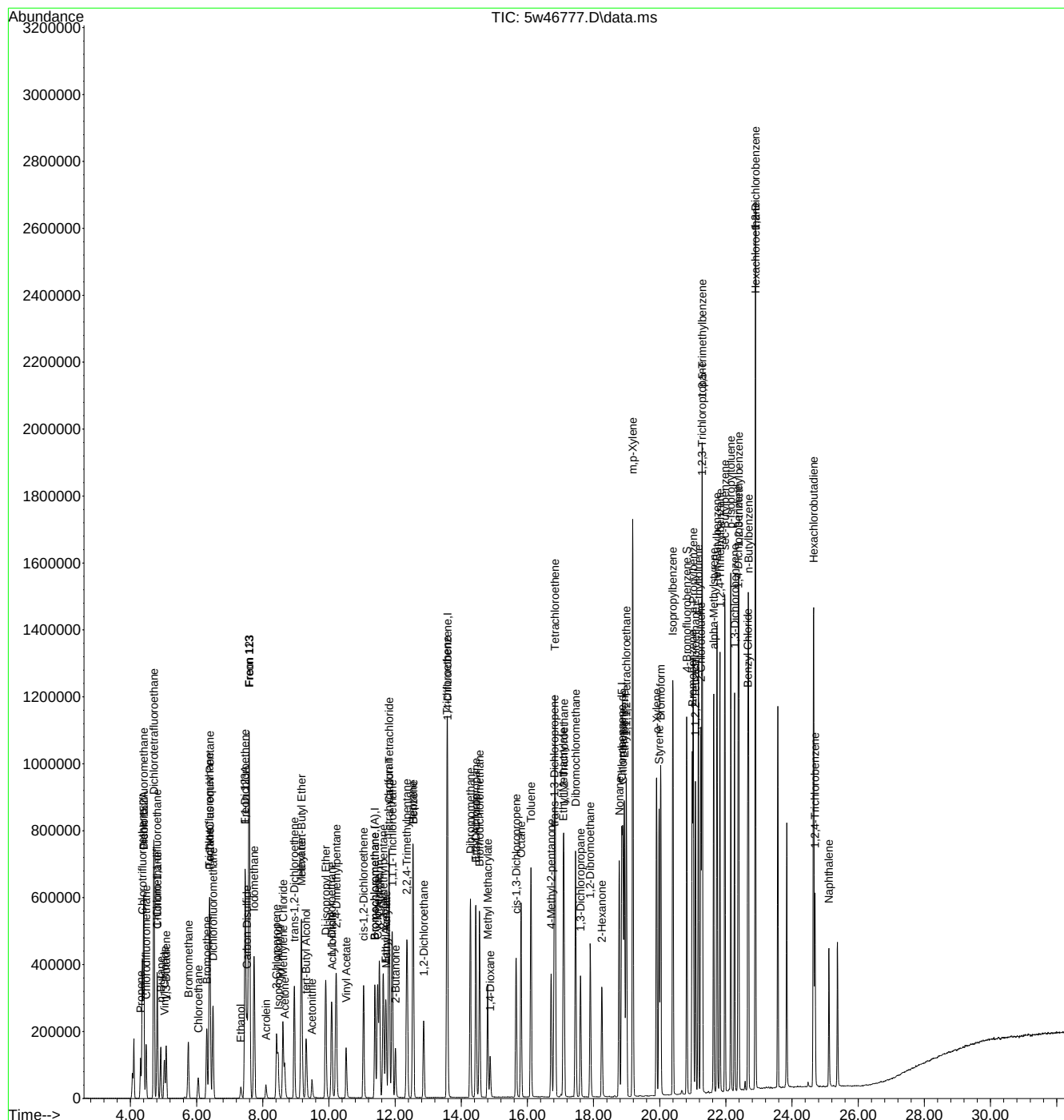
7.3.1

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Quantitation Report (QT Reviewed)

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Data Path : C:\msdchem\1\data\  
Data File : 5w46777.D  
Acq On : 13 Dec 2021 10:27 am  
Operator : danat  
Sample : bs  
Misc : ms55457,v5w1935,,,,,1  
ALS Vial : 2 Sample Multiplier: 1
```

Quant Time: Dec 13 11:06:33 2021
Quant Method : C:\msdchem\1\methods\m5w1909.M
Quant Title : T0-15 Full Scan Mode
QLast Update : Mon Nov 08 09:09:12 2021
Response via : Initial Calibration



7.3.1

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
 Data File : 5w46778.D
 Acq On : 13 Dec 2021 11:15 am
 Operator : danat
 Sample : bsd
 Misc : ms55457,v5w1935,,,,,1
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 13 11:48:22 2021
 Quant Method : C:\msdchem\1\methods\m5w1909.M
 Quant Title : T0-15 Full Scan Mode
 QLast Update : Mon Nov 08 09:09:12 2021
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) Bromochloromethane	11.390	130	188708	10.00	ppb(v	-0.02
53) 1,4-Difluorobenzene	13.586	114	664857	10.00	ppb(v	-0.02
76) Chlorobenzene-d5	18.854	82	285090	10.00	ppb(v	-0.03
108) Bromochloromethane (A)	11.390	130	188708	10.00	ppb(v	-0.02

System Monitoring Compounds						
90) 4-Bromofluorobenzene	20.818	95	399864	9.89	ppb(v	-0.02
Spiked Amount	10.000	Range	65 - 128	Recovery	=	98.90%

Target Compounds					Qvalue	
2) Freon 152A	4.385	65	93747	10.41	ppb(v	95
3) Chlorodifluoromethane	4.459	67	49889	10.77	ppb(v#	100
4) Propene	4.294	41	81523	9.71	ppb(v#	88
5) Chlorotrifluoroethene	4.343	116	290765	9.44	ppb(v	96
6) Dichlorodifluoromethane	4.385	85	614151	10.64	ppb(v	99
7) 1-Chloro-1,1-difluoro...	4.795	65	380973	10.24	ppb(v#	71
8) Chloromethane	4.795	50	118669	9.26	ppb(v	90
9) Dichlorotetrafluoroethane	4.691	85	529651	9.79	ppb(v	97
10) Vinyl Chloride	5.009	62	153447	9.86	ppb(v#	94
11) 1,3-Butadiene	5.064	54	91199	10.39	ppb(v	96
12) n-Butane	4.899	58	21120	10.41	ppb(v	91
13) Bromomethane	5.737	94	148241	10.25	ppb(v#	98
14) Chloroethane	6.037	64	71241	10.08	ppb(v#	92
15) Dichlorofluoromethane	6.484	67	381021	9.94	ppb(v	97
16) Acetonitrile	9.488	41	77969	9.58	ppb(v#	83
17) Freon 123	7.585	83	399141	9.94	ppb(v	95
18) Freon 123A	7.463	117	252519	9.74	ppb(v#	86
19) Bromoethene	6.294	106	203910	10.10	ppb(v	97
20) Acrolein	8.087	56	48862	10.04	ppb(v	99
21) Trichlorofluoromethane	6.380	101	571109	9.99	ppb(v	92
22) Acetone	8.662	58	54122	9.45	ppb(v	73
23) Pentane	6.398	57	35017	10.81	ppb(v	86
24) Iodomethane	7.732	142	678680	9.85	ppb(v	93
25) Isopropyl Alcohol	8.466	43	42601	11.11	ppb(v	95
26) 1,1-Dichloroethene	7.463	61	261997	10.34	ppb(v	99
27) Freon 113	7.579	101	447833	9.99	ppb(v	92
28) Methylene Chloride	8.607	84	161107	9.82	ppb(v	98
29) Carbon Disulfide	7.512	76	465618	9.83	ppb(v	99
30) Ethanol	7.340	45	43637	9.94	ppb(v	98
31) Acrylonitrile	10.093	53	89229	9.91	ppb(v#	42
32) 3-Chloropropene	8.411	76	79527	10.63	ppb(v	85
33) trans-1,2-Dichloroethene	8.949	61	231602	10.18	ppb(v	94
34) tert-Butyl Alcohol	9.310	59	325070	11.30	ppb(v#	78
35) Methyl tert-Butyl Ether	9.176	73	498385	10.75	ppb(v#	41
36) Vinyl Acetate	10.521	43	277842	9.91	ppb(v#	100
37) 1,1-Dichloroethane	10.075	63	284435	9.94	ppb(v#	95
38) 2-Butanone	12.008	72	71995	11.00	ppb(v	97
39) Hexane	9.157	56	121576	10.36	ppb(v	81
40) cis-1,2-Dichloroethene	11.048	61	230225	10.27	ppb(v	95
41) Di-isopropyl Ether	9.904	87	150184	10.28	ppb(v	75
42) Ethyl Acetate	11.714	61	42163	11.20	ppb(v	96
43) Methyl Acrylate	11.727	55	223508	10.57	ppb(v#	94
44) Chloroform	11.525	83	431127	10.16	ppb(v	95
45) 2,4-Dimethylpentane	10.216	57	257501	10.00	ppb(v	99
46) Tetrahydrofuran	11.806	72	74875	11.06	ppb(v	83
47) 1,1,1-Trichloroethane	11.910	97	461794	10.07	ppb(v	93
48) 1,2-Dichloroethane	12.865	62	250007	10.59	ppb(v#	96

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
 Data File : 5w46778.D
 Acq On : 13 Dec 2021 11:15 am
 Operator : danat
 Sample : bsd
 Misc : ms55457,v5w1935,,,,,1
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 13 11:48:22 2021
 Quant Method : C:\msdchem\1\methods\m5w1909.M
 Quant Title : T0-15 Full Scan Mode
 QLast Update : Mon Nov 08 09:09:12 2021
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
49) Benzene	12.553	78	517572	10.04	ppb(v	92
50) Carbon Tetrachloride	11.818	117	535452	10.59	ppb(v	95
51) Cyclohexane	11.470	56	218961	10.02	ppb(v	89
52) 2,3-Dimethylpentane	11.647	71	111091	10.53	ppb(v#	82
54) 2,2,4-Trimethylpentane	12.363	57	683154	10.02	ppb(v	97
55) Heptane	12.534	71	157420	10.53	ppb(v	89
56) Trichloroethene	13.574	97	183435	10.18	ppb(v#	1
57) 1,2-Dichloropropane	14.443	63	172283	10.43	ppb(v#	89
58) Dibromomethane	14.278	174	333710	9.00	ppb(v	89
59) Ethyl Acrylate	14.437	55	307742	10.91	ppb(v#	19
60) Methyl Methacrylate	14.798	69	175029	11.19	ppb(v	84
61) 1,4-Dioxane	14.877	88	127792	11.13	ppb(v#	83
62) Bromodichloromethane	14.553	83	459814	10.47	ppb(v	99
63) cis-1,3-Dichloropropene	15.660	75	325057	10.10	ppb(v	92
64) 4-Methyl-2-pentanone	16.719	58	132854	11.33	ppb(v#	85
65) trans-1,3-Dichloropropene	16.810	75	286853	9.72	ppb(v	89
66) Toluene	16.107	91	693508	9.87	ppb(v	92
67) 1,1,2-Trichloroethane	17.104	97	249627	10.06	ppb(v	88
68) 1,3-Dichloropropane	17.606	76	295133	9.97	ppb(v#	77
69) 2-Hexanone	18.248	43	258926	9.99	ppb(v	92
70) Ethyl Methacrylate	17.086	69	288947	11.62	ppb(v#	48
71) Dibromochloromethane	17.459	129	571473	10.58	ppb(v#	97
72) Tetrachloroethene	16.835	166	485377	9.98	ppb(v	87
73) 1,2-Dibromoethane	17.899	107	425967	9.97	ppb(v#	97
74) Octane	15.807	43	289557	10.94	ppb(v	96
75) 1,1,1,2-Tetrachloroethane	18.994	131	380830	10.23	ppb(v	94
77) Chlorobenzene	18.884	112	587905	9.58	ppb(v	86
78) Ethylbenzene	18.933	91	872430	9.66	ppb(v#	95
79) m,p-Xylene	19.184	91	1333146	19.61	ppb(v	97
80) Styrene	19.979	104	515559	9.86	ppb(v#	88
81) Nonane	18.774	43	289585	10.28	ppb(v#	90
82) o-Xylene	19.906	91	702079	9.76	ppb(v#	92
83) Bromoform	20.028	173	593798	10.05	ppb(v	91
84) 1,1,2,2-Tetrachloroethane	21.081	83	479767	9.65	ppb(v	96
85) 1,2,3-Trichloropropane	21.276	75	364456	10.24	ppb(v	96
86) Isopropylbenzene	20.395	105	1012915	9.71	ppb(v	93
87) Bromobenzene	20.983	156	376377	9.20	ppb(v	97
88) 2-Chlorotoluene	21.246	126	264535	9.72	ppb(v	91
89) n-Propylbenzene	21.013	120	277415	10.10	ppb(v	97
91) 4-Ethyltoluene	21.172	105	967802	10.33	ppb(v	97
92) 1,3,5-Trimethylbenzene	21.282	105	783442	10.38	ppb(v	92
93) alpha-Methylstyrene	21.631	118	405788	10.42	ppb(v	88
94) tert-Butylbenzene	21.735	134	181052	9.38	ppb(v	92
95) 1,2,4-Trimethylbenzene	21.821	105	773100	10.50	ppb(v#	90
96) 1,3-Dichlorobenzene	22.261	146	549715	9.72	ppb(v	93
97) 1,2,3-trimethylbenzene	22.390	105	745739	10.53	ppb(v#	95
98) Benzyl Chloride	22.665	126	134485	9.86	ppb(v	54
99) 1,4-Dichlorobenzene	22.371	146	524713	9.58	ppb(v	91
100) sec-Butylbenzene	21.974	134	223520	9.55	ppb(v	85
101) p-Isopropyltoluene	22.151	134	247052	9.77	ppb(v	96
102) 1,2-Dichlorobenzene	22.898	146	491853	9.39	ppb(v	95
103) n-Butylbenzene	22.683	134	207493	10.21	ppb(v	84
104) Hexachloroethane	22.891	201	337294	8.71	ppb(v	94
105) 1,2,4-Trichlorobenzene	24.696	180	220910	9.71	ppb(v#	83
106) Naphthalene	25.118	128	392829	9.02	ppb(v	92
107) Hexachlorobutadiene	24.653	225	339823	9.13	ppb(v#	69
109) TVHC as equiv Pentane	6.386	TIC	1831196	11.04	ppb(v	100

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 5w46778.D
Acq On : 13 Dec 2021 11:15 am
Operator : danat
Sample : bsd
Misc : ms55457,v5w1935,,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 13 11:48:22 2021
Quant Method : C:\msdchem\1\methods\m5w1909.M
Quant Title : T0-15 Full Scan Mode
QLast Update : Mon Nov 08 09:09:12 2021
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

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

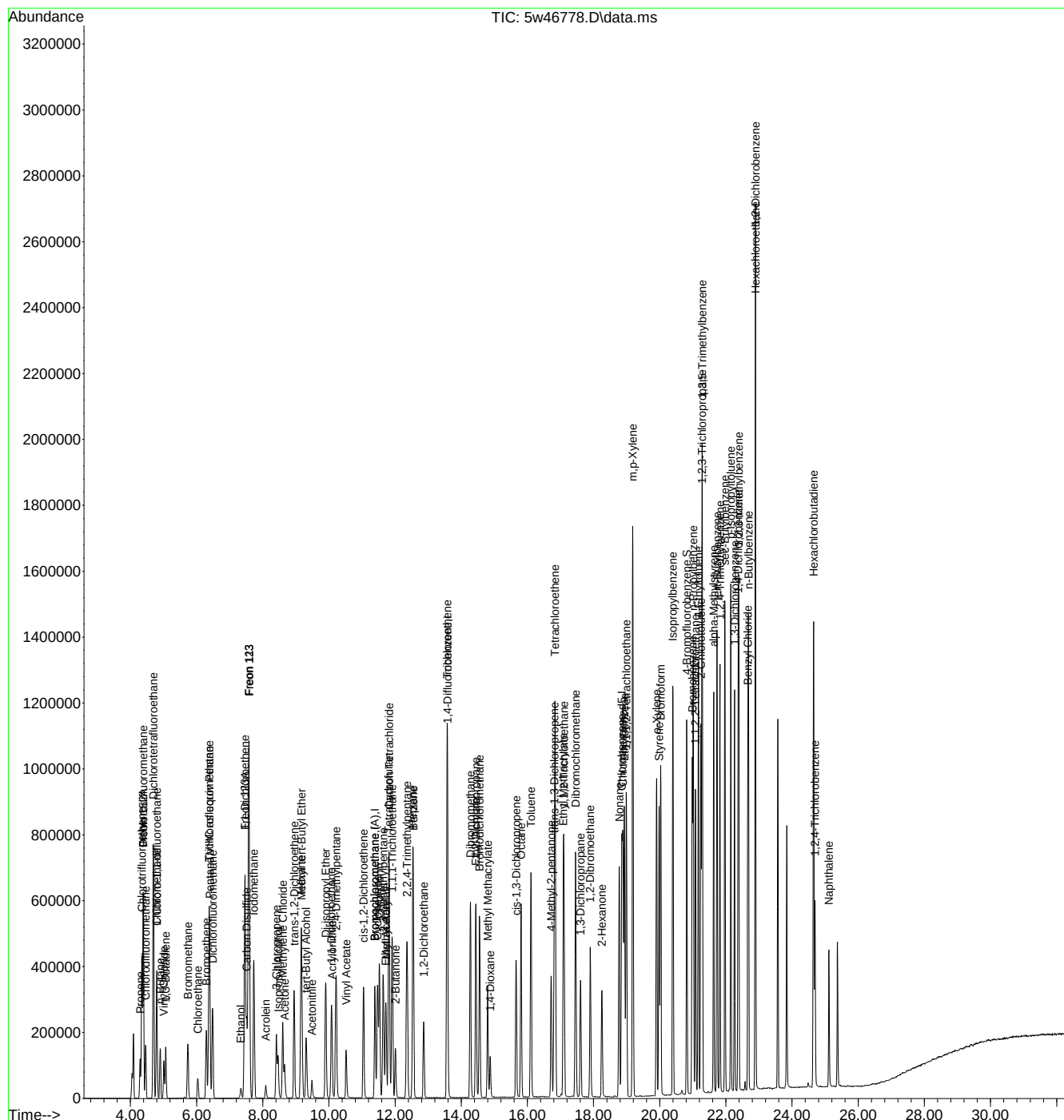
7.3.2

7

Quantitation Report (QT Reviewed)

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Data Path : C:\msdchem\1\data\  
Data File : 5w46778.D  
Acq On : 13 Dec 2021 11:15 am  
Operator : danat  
Sample : bsd  
Misc : ms55457,v5w1935,,,,,1  
ALS Vial : 2 Sample Multiplier: 1
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Quant Time: Dec 13 11:48:22 2021
Quant Method : C:\msdchem\1\methods\m5w1909.M
Quant Title : T0-15 Full Scan Mode
QLast Update : Mon Nov 08 09:09:12 2021
Response via : Initial Calibration



7.3.2

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
 Data File : 5w46804.D
 Acq On : 14 Dec 2021 9:34 am
 Operator : danat
 Sample : bs
 Misc : ms55468,v5w1936,,,,,1
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 14 10:07:23 2021
 Quant Method : C:\msdchem\1\methods\m5w1909.M
 Quant Title : T0-15 Full Scan Mode
 QLast Update : Mon Nov 08 09:09:12 2021
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) Bromochloromethane	11.390	130	193407	10.00	ppb(v	-0.02
53) 1,4-Difluorobenzene	13.580	114	687415	10.00	ppb(v	-0.03
76) Chlorobenzene-d5	18.848	82	289766	10.00	ppb(v	-0.04
108) Bromochloromethane (A)	11.390	130	193407	10.00	ppb(v	-0.02

System Monitoring Compounds						
90) 4-Bromofluorobenzene	20.818	95	409065	9.95	ppb(v	-0.02
Spiked Amount	10.000	Range	65 - 128	Recovery	=	99.50%

Target Compounds					Qvalue	
2) Freon 152A	4.392	65	91612	9.92	ppb(v	98
3) Chlorodifluoromethane	4.465	67	49321	10.38	ppb(v#	100
4) Propene	4.294	41	81471	9.47	ppb(v#	87
5) Chlorotrifluoroethene	4.349	116	285828	9.06	ppb(v	96
6) Dichlorodifluoromethane	4.392	85	611082	10.33	ppb(v	99
7) 1-Chloro-1,1-difluoro...	4.802	65	373417	9.79	ppb(v#	71
8) Chloromethane	4.802	50	116503	8.87	ppb(v	91
9) Dichlorotetrafluoroethane	4.704	85	517983	9.34	ppb(v	94
10) Vinyl Chloride	5.016	62	151244	9.48	ppb(v#	93
11) 1,3-Butadiene	5.077	54	88997	9.89	ppb(v	97
12) n-Butane	4.912	58	21759	10.46	ppb(v	100
13) Bromomethane	5.738	94	143056	9.65	ppb(v#	98
14) Chloroethane	6.043	64	71505	9.87	ppb(v#	88
15) Dichlorofluoromethane	6.490	67	379363	9.65	ppb(v	96
16) Acetonitrile	9.488	41	76663	9.19	ppb(v#	81
17) Freon 123	7.585	83	395620	9.62	ppb(v	95
18) Freon 123A	7.463	117	249215	9.38	ppb(v#	83
19) Bromoethene	6.300	106	201832	9.75	ppb(v	96
20) Acrolein	8.093	56	47470	9.51	ppb(v	99
21) Trichlorofluoromethane	6.380	101	560741	9.57	ppb(v	93
22) Acetone	8.662	58	53947	9.19	ppb(v	73
23) Pentane	6.398	57	34592	10.42	ppb(v	79
24) Iodomethane	7.732	142	667562	9.46	ppb(v	94
25) Isopropyl Alcohol	8.466	43	42624	10.85	ppb(v	93
26) 1,1-Dichloroethene	7.463	61	258664	9.96	ppb(v	99
27) Freon 113	7.579	101	441361	9.61	ppb(v	91
28) Methylene Chloride	8.607	84	159242	9.47	ppb(v	98
29) Carbon Disulfide	7.518	76	458577	9.45	ppb(v	100
30) Ethanol	7.353	45	42913	9.54	ppb(v	98
31) Acrylonitrile	10.093	53	86396	9.36	ppb(v#	40
32) 3-Chloropropene	8.411	76	79557	10.38	ppb(v	89
33) trans-1,2-Dichloroethene	8.949	61	229987	9.86	ppb(v	94
34) tert-Butyl Alcohol	9.316	59	317590	10.77	ppb(v#	79
35) Methyl tert-Butyl Ether	9.176	73	487569	10.26	ppb(v#	38
36) Vinyl Acetate	10.522	43	277628	9.66	ppb(v#	100
37) 1,1-Dichloroethane	10.075	63	279177	9.52	ppb(v#	97
38) 2-Butanone	12.008	72	70840	10.57	ppb(v	98
39) Hexane	9.157	56	120386	10.01	ppb(v	87
40) cis-1,2-Dichloroethene	11.048	61	226112	9.84	ppb(v	95
41) Di-isopropyl Ether	9.904	87	146296	9.77	ppb(v	72
42) Ethyl Acetate	11.715	61	41676	10.80	ppb(v	95
43) Methyl Acrylate	11.727	55	219521	10.13	ppb(v#	94
44) Chloroform	11.525	83	423393	9.74	ppb(v	94
45) 2,4-Dimethylpentane	10.216	57	250397	9.49	ppb(v	98
46) Tetrahydrofuran	11.806	72	73314	10.56	ppb(v	83
47) 1,1,1-Trichloroethane	11.910	97	453186	9.65	ppb(v	94
48) 1,2-Dichloroethane	12.865	62	242263	10.01	ppb(v#	95

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
 Data File : 5w46804.D
 Acq On : 14 Dec 2021 9:34 am
 Operator : danat
 Sample : bs
 Misc : ms55468,v5w1936,,,,,1
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 14 10:07:23 2021
 Quant Method : C:\msdchem\1\methods\m5w1909.M
 Quant Title : T0-15 Full Scan Mode
 QLast Update : Mon Nov 08 09:09:12 2021
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
49) Benzene	12.547	78	503714	9.53	ppb(v	92
50) Carbon Tetrachloride	11.819	117	519247	10.02	ppb(v	97
51) Cyclohexane	11.470	56	214006	9.55	ppb(v	90
52) 2,3-Dimethylpentane	11.641	71	108538	10.04	ppb(v#	79
54) 2,2,4-Trimethylpentane	12.357	57	668830	9.49	ppb(v	96
55) Heptane	12.534	71	152851	9.88	ppb(v	90
56) Trichloroethene	13.574	97	178958	9.61	ppb(v#	1
57) 1,2-Dichloropropane	14.443	63	168219	9.85	ppb(v#	89
58) Dibromomethane	14.278	174	324048	8.46	ppb(v	89
59) Ethyl Acrylate	14.437	55	302110	10.36	ppb(v#	18
60) Methyl Methacrylate	14.798	69	169387	10.47	ppb(v	83
61) 1,4-Dioxane	14.871	88	123329	10.39	ppb(v#	83
62) Bromodichloromethane	14.553	83	445424	9.81	ppb(v	98
63) cis-1,3-Dichloropropene	15.654	75	315052	9.47	ppb(v	92
64) 4-Methyl-2-pentanone	16.713	58	129173	10.65	ppb(v#	84
65) trans-1,3-Dichloropropene	16.804	75	279861	9.17	ppb(v	89
66) Toluene	16.107	91	678295	9.33	ppb(v	92
67) 1,1,2-Trichloroethane	17.104	97	243070	9.48	ppb(v	89
68) 1,3-Dichloropropane	17.606	76	288558	9.42	ppb(v#	77
69) 2-Hexanone	18.248	43	258006	9.63	ppb(v	90
70) Ethyl Methacrylate	17.086	69	278774	10.84	ppb(v#	54
71) Dibromochloromethane	17.453	129	560250	10.03	ppb(v#	97
72) Tetrachloroethene	16.835	166	475837	9.46	ppb(v	89
73) 1,2-Dibromoethane	17.900	107	411028	9.30	ppb(v#	97
74) Octane	15.807	43	283849	10.37	ppb(v	96
75) 1,1,1,2-Tetrachloroethane	18.988	131	371433	9.65	ppb(v	93
77) Chlorobenzene	18.884	112	569799	9.13	ppb(v	86
78) Ethylbenzene	18.927	91	841850	9.17	ppb(v#	95
79) m,p-Xylene	19.184	91	1297925	18.78	ppb(v	97
80) Styrene	19.980	104	502597	9.46	ppb(v#	89
81) Nonane	18.774	43	285725	9.98	ppb(v#	88
82) o-Xylene	19.900	91	687928	9.41	ppb(v#	91
83) Bromoform	20.029	173	578076	9.63	ppb(v	91
84) 1,1,2,2-Tetrachloroethane	21.081	83	474777	9.40	ppb(v	95
85) 1,2,3-Trichloropropane	21.277	75	354894	9.81	ppb(v	95
86) Isopropylbenzene	20.396	105	980258	9.25	ppb(v	93
87) Bromobenzene	20.983	156	366974	8.83	ppb(v	99
88) 2-Chlorotoluene	21.240	126	255531	9.23	ppb(v	87
89) n-Propylbenzene	21.013	120	271635	9.73	ppb(v	98
91) 4-Ethyltoluene	21.166	105	942723	9.90	ppb(v	96
92) 1,3,5-Trimethylbenzene	21.283	105	766880	9.99	ppb(v#	92
93) alpha-Methylstyrene	21.625	118	397084	10.03	ppb(v	89
94) tert-Butylbenzene	21.729	134	178148	9.08	ppb(v	87
95) 1,2,4-Trimethylbenzene	21.821	105	762035	10.18	ppb(v#	90
96) 1,3-Dichlorobenzene	22.261	146	544522	9.47	ppb(v	92
97) 1,2,3-trimethylbenzene	22.390	105	732905	10.19	ppb(v#	95
98) Benzyl Chloride	22.659	126	130732	9.43	ppb(v#	38
99) 1,4-Dichlorobenzene	22.372	146	508463	9.13	ppb(v	91
100) sec-Butylbenzene	21.968	134	223121	9.38	ppb(v	78
101) p-Isopropyltoluene	22.151	134	243452	9.47	ppb(v	97
102) 1,2-Dichlorobenzene	22.892	146	486636	9.14	ppb(v	96
103) n-Butylbenzene	22.684	134	208771	10.11	ppb(v	81
104) Hexachloroethane	22.892	201	324339	8.24	ppb(v	96
105) 1,2,4-Trichlorobenzene	24.690	180	214120	9.26	ppb(v#	82
106) Naphthalene	25.112	128	372729	8.42	ppb(v	91
107) Hexachlorobutadiene	24.647	225	339340	8.97	ppb(v#	69
109) TVHC as equiv Pentane	6.386	TIC	1812482	10.66	ppb(v	100

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 5w46804.D
Acq On : 14 Dec 2021 9:34 am
Operator : danat
Sample : bs
Misc : ms55468,v5w1936,,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 14 10:07:23 2021
Quant Method : C:\msdchem\1\methods\m5w1909.M
Quant Title : T0-15 Full Scan Mode
QLast Update : Mon Nov 08 09:09:12 2021
Response via : Initial Calibration

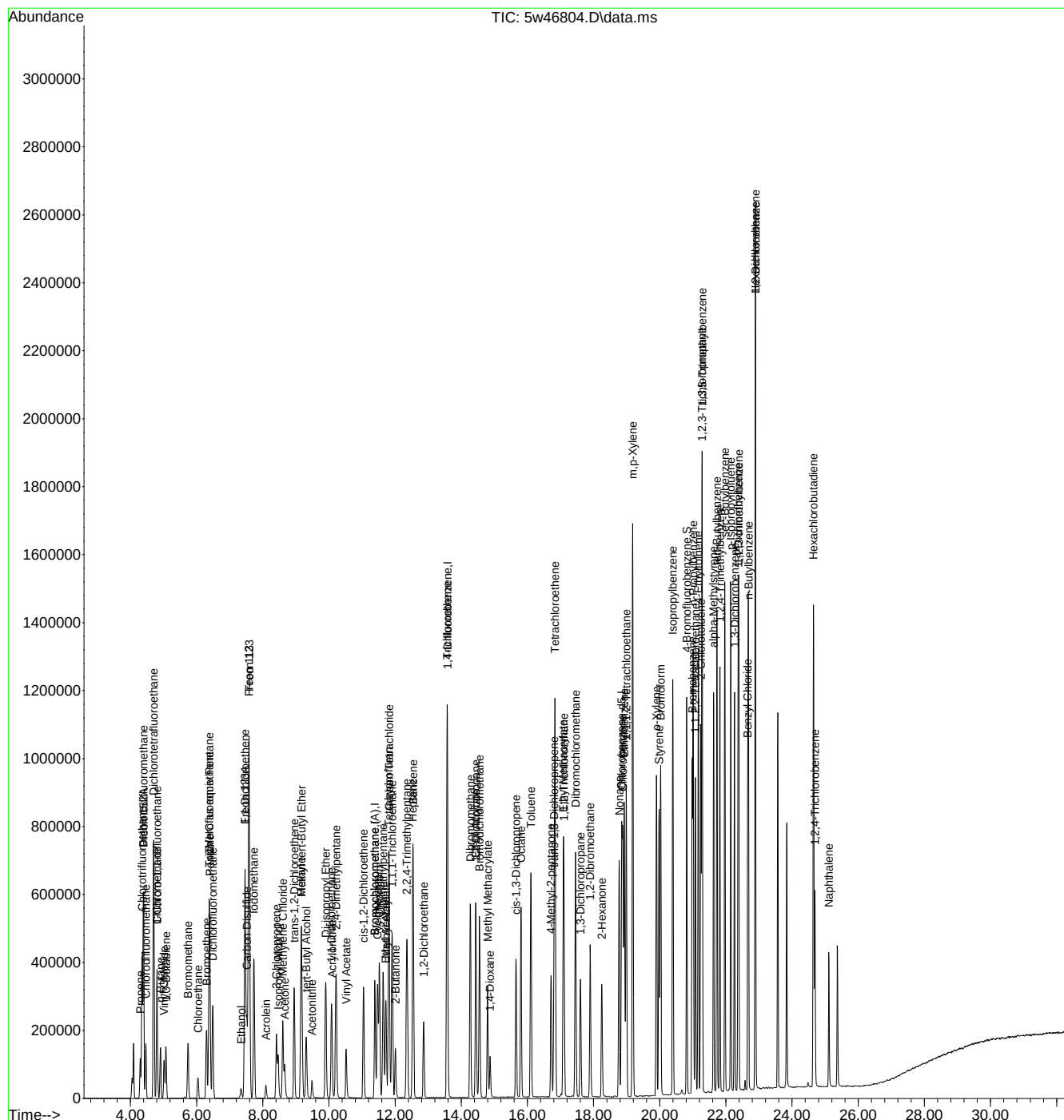
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

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

Quantitation Report (QT Reviewed)

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Data Path : C:\msdchem\1\data\  
Data File : 5w46804.D  
Acq On : 14 Dec 2021 9:34 am  
Operator : danat  
Sample : bs  
Misc : ms55468,v5w1936,,,,,1  
ALS Vial : 2 Sample Multiplier: 1
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Quant Time: Dec 14 10:07:23 2021
Quant Method : C:\msdchem\1\methods\m5w1909.M
Quant Title : T0-15 Full Scan Mode
QLast Update : Mon Nov 08 09:09:12 2021
Response via : Initial Calibration



7.3.3

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
 Data File : 5w46805.D
 Acq On : 14 Dec 2021 10:23 am
 Operator : danat
 Sample : bsd
 Misc : ms55468,v5w1936,,,,,1
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 14 10:56:59 2021
 Quant Method : C:\msdchem\1\methods\m5w1909.M
 Quant Title : T0-15 Full Scan Mode
 QLast Update : Mon Nov 08 09:09:12 2021
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) Bromochloromethane	11.390	130	187692	10.00	ppb(v	-0.02
53) 1,4-Difluorobenzene	13.580	114	667037	10.00	ppb(v	-0.03
76) Chlorobenzene-d5	18.848	82	284306	10.00	ppb(v	-0.04
108) Bromochloromethane (A)	11.390	130	187692	10.00	ppb(v	-0.02
System Monitoring Compounds						
90) 4-Bromofluorobenzene	20.818	95	402695	9.98	ppb(v	-0.02
Spiked Amount 10.000	Range 65 - 128		Recovery	=	99.80%	
Target Compounds						
					Qvalue	
2) Freon 152A	4.392	65	89579	10.00	ppb(v	97
3) Chlorodifluoromethane	4.459	67	49055	10.64	ppb(v#	100
4) Propene	4.294	41	78596	9.41	ppb(v#	88
5) Chlorotrifluoroethene	4.349	116	279187	9.12	ppb(v	96
6) Dichlorodifluoromethane	4.386	85	594495	10.35	ppb(v	99
7) 1-Chloro-1,1-difluoro...	4.795	65	364295	9.84	ppb(v#	71
8) Chloromethane	4.795	50	113380	8.89	ppb(v	89
9) Dichlorotetrafluoroethane	4.697	85	511751	9.51	ppb(v	96
10) Vinyl Chloride	5.016	62	149389	9.65	ppb(v#	93
11) 1,3-Butadiene	5.071	54	86738	9.93	ppb(v	95
12) n-Butane	4.906	58	21052	10.43	ppb(v	96
13) Bromomethane	5.738	94	141573	9.84	ppb(v#	98
14) Chloroethane	6.037	64	70719	10.06	ppb(v#	90
15) Dichlorofluoromethane	6.484	67	370266	9.71	ppb(v	97
16) Acetonitrile	9.488	41	76860	9.50	ppb(v#	81
17) Freon 123	7.585	83	388550	9.73	ppb(v	96
18) Freon 123A	7.463	117	246478	9.56	ppb(v#	83
19) Bromoethene	6.294	106	196886	9.80	ppb(v	97
20) Acrolein	8.093	56	46660	9.64	ppb(v	99
21) Trichlorofluoromethane	6.380	101	555701	9.78	ppb(v	94
22) Acetone	8.656	58	53167	9.34	ppb(v	75
23) Pentane	6.398	57	34214	10.62	ppb(v	81
24) Iodomethane	7.732	142	655431	9.57	ppb(v	94
25) Isopropyl Alcohol	8.460	43	41236	10.82	ppb(v	95
26) 1,1-Dichloroethene	7.463	61	255715	10.14	ppb(v	99
27) Freon 113	7.579	101	434794	9.75	ppb(v	92
28) Methylene Chloride	8.607	84	158006	9.68	ppb(v	98
29) Carbon Disulfide	7.518	76	456545	9.69	ppb(v	98
30) Ethanol	7.340	45	42581	9.76	ppb(v	98
31) Acrylonitrile	10.093	53	86917	9.71	ppb(v#	36
32) 3-Chloropropene	8.411	76	76819	10.33	ppb(v	84
33) trans-1,2-Dichloroethene	8.949	61	227961	10.07	ppb(v	94
34) tert-Butyl Alcohol	9.310	59	314766	11.00	ppb(v#	79
35) Methyl tert-Butyl Ether	9.176	73	483027	10.47	ppb(v#	46
36) Vinyl Acetate	10.522	43	275352	9.88	ppb(v#	100
37) 1,1-Dichloroethane	10.075	63	279379	9.82	ppb(v#	95
38) 2-Butanone	12.008	72	70490	10.83	ppb(v	98
39) Hexane	9.157	56	116789	10.00	ppb(v#	80
40) cis-1,2-Dichloroethene	11.042	61	221610	9.93	ppb(v	94
41) Di-isopropyl Ether	9.904	87	144787	9.96	ppb(v	76
42) Ethyl Acetate	11.715	61	41319	11.03	ppb(v	96
43) Methyl Acrylate	11.727	55	217875	10.36	ppb(v#	95
44) Chloroform	11.525	83	416529	9.87	ppb(v	94
45) 2,4-Dimethylpentane	10.216	57	248256	9.69	ppb(v	98
46) Tetrahydrofuran	11.806	72	72834	10.81	ppb(v	83
47) 1,1,1-Trichloroethane	11.910	97	450028	9.87	ppb(v	93
48) 1,2-Dichloroethane	12.865	62	240516	10.24	ppb(v#	96

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
 Data File : 5w46805.D
 Acq On : 14 Dec 2021 10:23 am
 Operator : danat
 Sample : bsd
 Misc : ms55468,v5w1936,,,,,1
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 14 10:56:59 2021
 Quant Method : C:\msdchem\1\methods\m5w1909.M
 Quant Title : T0-15 Full Scan Mode
 QLast Update : Mon Nov 08 09:09:12 2021
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
49) Benzene	12.547	78	501068	9.77	ppb(v	92
50) Carbon Tetrachloride	11.812	117	518590	10.32	ppb(v	96
51) Cyclohexane	11.470	56	211169	9.71	ppb(v	90
52) 2,3-Dimethylpentane	11.641	71	108255	10.32	ppb(v#	82
54) 2,2,4-Trimethylpentane	12.357	57	664140	9.71	ppb(v	96
55) Heptane	12.534	71	151875	10.12	ppb(v	91
56) Trichloroethene	13.568	97	178851	9.90	ppb(v#	1
57) 1,2-Dichloropropane	14.443	63	165413	9.98	ppb(v#	89
58) Dibromomethane	14.278	174	326174	8.77	ppb(v	92
59) Ethyl Acrylate	14.437	55	299213	10.58	ppb(v#	18
60) Methyl Methacrylate	14.798	69	168052	10.71	ppb(v	82
61) 1,4-Dioxane	14.871	88	122664	10.65	ppb(v#	85
62) Bromodichloromethane	14.553	83	446993	10.15	ppb(v	98
63) cis-1,3-Dichloropropene	15.654	75	314660	9.74	ppb(v	93
64) 4-Methyl-2-pentanone	16.719	58	130088	11.06	ppb(v#	86
65) trans-1,3-Dichloropropene	16.804	75	278170	9.39	ppb(v	90
66) Toluene	16.107	91	676063	9.59	ppb(v	93
67) 1,1,2-Trichloroethane	17.104	97	244148	9.81	ppb(v	90
68) 1,3-Dichloropropane	17.606	76	287682	9.68	ppb(v#	77
69) 2-Hexanone	18.248	43	251959	9.69	ppb(v	90
70) Ethyl Methacrylate	17.086	69	279881	11.22	ppb(v#	53
71) Dibromochloromethane	17.453	129	556928	10.27	ppb(v#	96
72) Tetrachloroethene	16.835	166	473312	9.70	ppb(v	89
73) 1,2-Dibromoethane	17.900	107	409844	9.56	ppb(v#	97
74) Octane	15.807	43	280357	10.56	ppb(v	94
75) 1,1,1,2-Tetrachloroethane	18.988	131	367509	9.84	ppb(v	94
77) Chlorobenzene	18.884	112	566426	9.26	ppb(v	86
78) Ethylbenzene	18.927	91	840183	9.33	ppb(v#	95
79) m,p-Xylene	19.184	91	1286749	18.98	ppb(v	98
80) Styrene	19.980	104	494396	9.48	ppb(v#	90
81) Nonane	18.774	43	277524	9.88	ppb(v#	89
82) o-Xylene	19.900	91	684280	9.54	ppb(v#	92
83) Bromoform	20.028	173	576025	9.78	ppb(v	91
84) 1,1,2,2-Tetrachloroethane	21.081	83	469737	9.48	ppb(v	94
85) 1,2,3-Trichloropropane	21.276	75	350924	9.89	ppb(v	97
86) Isopropylbenzene	20.396	105	981677	9.44	ppb(v	93
87) Bromobenzene	20.983	156	368186	9.02	ppb(v	99
88) 2-Chlorotoluene	21.240	126	253041	9.32	ppb(v	87
89) n-Propylbenzene	21.013	120	264971	9.67	ppb(v	100
91) 4-Ethyltoluene	21.166	105	932174	9.98	ppb(v	96
92) 1,3,5-Trimethylbenzene	21.283	105	756530	10.05	ppb(v	92
93) alpha-Trimethylstyrene	21.625	118	388793	10.01	ppb(v	89
94) tert-Butylbenzene	21.729	134	175452	9.11	ppb(v	86
95) 1,2,4-Trimethylbenzene	21.821	105	757757	10.32	ppb(v#	90
96) 1,3-Dichlorobenzene	22.261	146	540530	9.59	ppb(v	93
97) 1,2,3-trimethylbenzene	22.390	105	730885	10.35	ppb(v#	95
98) Benzyl Chloride	22.659	126	129098	9.49	ppb(v#	38
99) 1,4-Dichlorobenzene	22.372	146	509710	9.33	ppb(v	91
100) sec-Butylbenzene	21.968	134	222219	9.52	ppb(v	73
101) p-Isopropyltoluene	22.145	134	244719	9.71	ppb(v	96
102) 1,2-Dichlorobenzene	22.892	146	482386	9.23	ppb(v	96
103) n-Butylbenzene	22.684	134	210349	10.38	ppb(v	81
104) Hexachloroethane	22.892	201	322294	8.34	ppb(v	96
105) 1,2,4-Trichlorobenzene	24.690	180	224510	9.89	ppb(v#	82
106) Naphthalene	25.112	128	382063	8.79	ppb(v	92
107) Hexachlorobutadiene	24.653	225	351818	9.48	ppb(v#	70
109) TVHC as equiv Pentane	6.386	TIC	1784409	10.82	ppb(v	100

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 5w46805.D
Acq On : 14 Dec 2021 10:23 am
Operator : danat
Sample : bsd
Misc : ms55468,v5w1936,,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 14 10:56:59 2021
Quant Method : C:\msdchem\1\methods\m5w1909.M
Quant Title : T0-15 Full Scan Mode
QLast Update : Mon Nov 08 09:09:12 2021
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

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

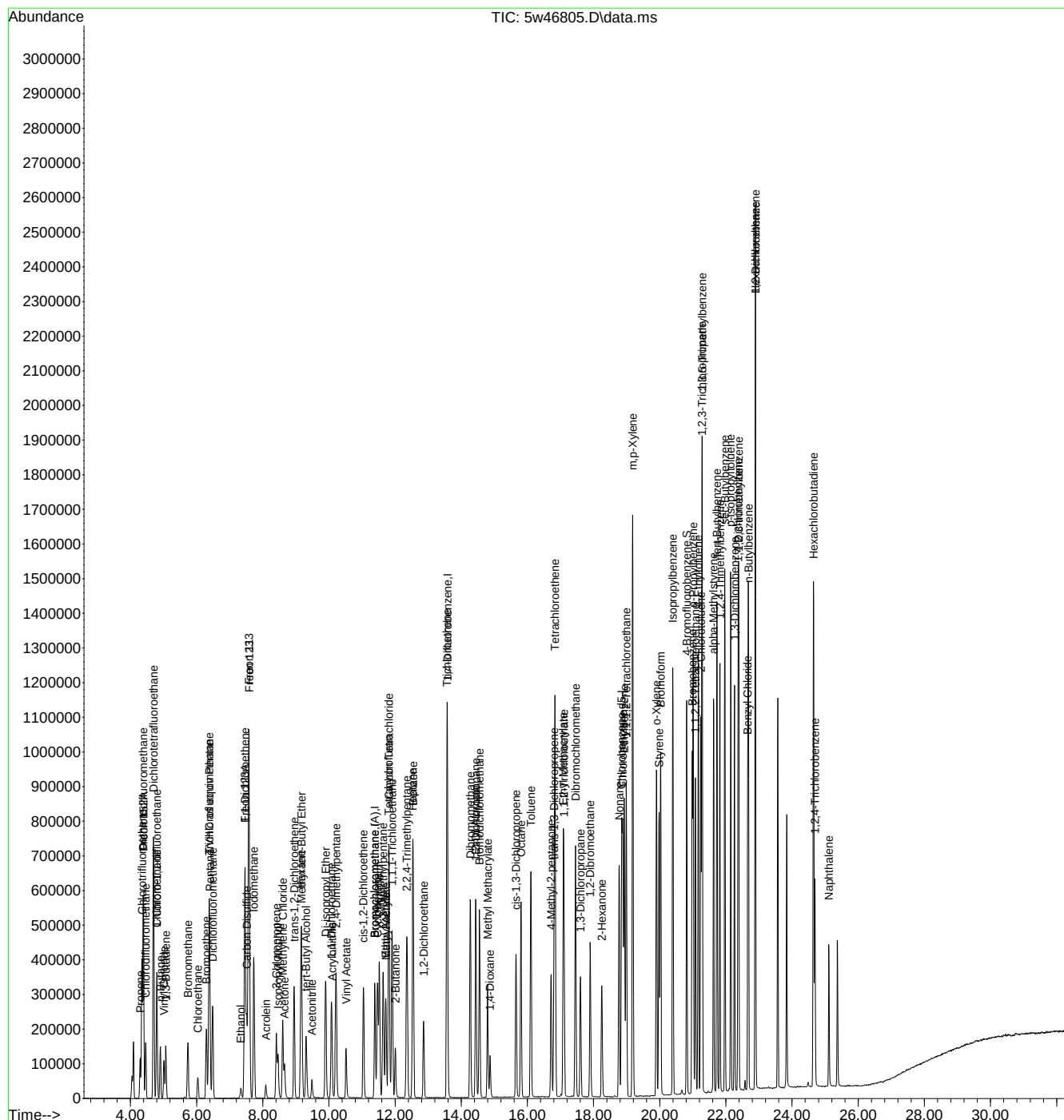
7.3.4

7

Quantitation Report (QT Reviewed)

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Data Path : C:\msdchem\1\data\  
Data File : 5w46805.D  
Acq On : 14 Dec 2021 10:23 am  
Operator : danat  
Sample : bsd  
Misc : ms55468,v5w1936,,,,,1  
ALS Vial : 2 Sample Multiplier: 1
```

Quant Time: Dec 14 10:56:59 2021
Quant Method : C:\msdchem\1\methods\m5w1909.M
Quant Title : T0-15 Full Scan Mode
QLast Update : Mon Nov 08 09:09:12 2021
Response via : Initial Calibration



7.3.4

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
 Data File : 2w55982.D
 Acq On : 1 Nov 2021 10:21 am
 Operator : thomash
 Sample : bs
 Misc : MS54658,V2w2494,,,,,1
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 01 12:57:33 2021
 Quant Method : C:\msdchem\1\METHODS\M2W2424.M
 Quant Title : T015 by GCMS w/DB-1, 30m X 0.25mm ID X 0.5 um
 QLast Update : Tue Jul 27 16:59:35 2021
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) BROMOCHLOROMETHANE	3.647	128	89182	10.00	PPBV	0.00
52) 1,4-DIFLUOROBENZENE	4.988	114	453752	10.00	PPBV	0.00
76) CHLOROBENZENE-D5	10.701	117	401508	10.00	PPBV	0.00
System Monitoring Compounds						
87) 4-BROMOFLUOROBENZENE	14.093	95	267323	9.47	PPBV	0.00
Target Compounds						
3) FREON 152A	1.856	65	85278	12.43	PPBV	Qvalue # 74
4) CHLORODIFLUOROMETHANE	1.875	67	32668	7.51	PPBV	98
5) CHLOROTRIFLUOROETHENE	1.888	116	211936	10.91	PPBV	# 99
6) DICHLORODIFLUOROMETHANE	1.911	85	406871	9.88	PPBV	# 97
7) PROPYLENE	1.888	41	86756	11.28	PPBV	90
8) 1-CHLORO-1,1-DIFLUORO...	1.962	65	256321	7.30	PPBV	# 94
9) FREON 114	2.007	85	361503	10.09	PPBV	99
10) CHLOROMETHANE	1.968	52	31042	11.09	PPBV	99
11) VINYL CHLORIDE	2.052	62	126565	11.36	PPBV	98
12) 1,3-BUTADIENE	2.100	54	88436	11.89	PPBV	# 77
13) N-BUTANE	2.123	43	146958	10.32	PPBV	97
14) BROMOMETHANE	2.200	94	131545	10.72	PPBV	98
15) CHLOROETHANE	2.264	64	69008	11.55	PPBV	# 87
16) DICHLOROFLUOROMETHANE	2.296	67	275743	9.44	PPBV	# 98
17) ACETONITRILE	2.383	41	80457	10.10	PPBV	95
18) ACROLEIN	2.428	56	43037	8.64	PPBV	98
19) FREON 123	2.448	83	293717	10.03	PPBV	96
20) FREON 123A	2.464	117	178658	9.57	PPBV	96
21) TRICHLOROFLUOROMETHANE	2.534	101	355241	8.16	PPBV	99
22) ISOPROPYL ALCOHOL	2.547	45	168863	8.73	PPBV	# 93
23) ACETONE	2.470	58	52165	9.97	PPBV	# 51
24) PENTANE	2.644	42	81142	9.67	PPBV	86
25) IODOMETHANE	2.702	142	345593	9.89	PPBV	88
26) 1,1-DICHLOROETHYLENE	2.730	96	116029	9.58	PPBV	85
27) CARBON DISULFIDE	2.862	76	299260	10.22	PPBV	# 90
28) ETHANOL	2.303	45	42422	10.13	PPBV	# 96
29) BROMOETHENE	2.393	106	127573	10.07	PPBV	# 97
30) ACRYLONITRILE	2.615	52	66624	9.77	PPBV	94
31) METHYLENE CHLORIDE	2.766	84	104733	9.46	PPBV	94
32) 3-CHLOROPROPENE	2.808	76	55889	10.82	PPBV	# 62
33) FREON 113	2.862	151	226581	9.32	PPBV	98
34) TRANS-1,2-DICHLOROETHENE	3.103	96	128000	10.31	PPBV	94
35) TERTIARY BUTYL ALCOHOL	2.737	59	191404	8.81	PPBV	# 93
36) METHYL TERTIARY BUTYL ...	3.216	73	319705	10.02	PPBV	97
37) TETRAHYDROFURAN	3.943	72	59218	11.79	PPBV	96
38) HEXANE	3.701	57	178594	11.11	PPBV	# 77
39) VINYL ACETATE	3.258	86	33787	11.36	PPBV	77
40) 1,1-DICHLOROETHANE	3.184	63	209231	10.42	PPBV	99
41) METHYL ETHYL KETONE	3.357	72	62427	11.29	PPBV	81
42) CIS-1,2-DICHLOROETHENE	3.566	96	138782	10.68	PPBV	93
43) DIISOPROPYL ETHER	3.701	59	54742	11.49	PPBV	97

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
 Data File : 2W55982.D
 Acq On : 1 Nov 2021 10:21 am
 Operator : thomash
 Sample : bs
 Misc : MS54658,V2W2494,,,,,1
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 01 12:57:33 2021
 Quant Method : C:\msdchem\1\METHODS\M2W2424.M
 Quant Title : T015 by GCMS w/DB-1, 30m X 0.25mm ID X 0.5 um
 QLast Update : Tue Jul 27 16:59:35 2021
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
44) ETHYL ACETATE	3.708	61	35857	12.48	PPBV	53
45) METHYL ACRYLATE	3.695	55	220147	11.06	PPBV #	99
46) CHLOROFORM	3.724	83	268087	8.78	PPBV #	94
47) 2,4-DIMETHYLPENTANE	4.242	57	210533	11.17	PPBV	98
48) 1,1,1-TRICHLOROETHANE	4.325	97	275502	8.35	PPBV	97
49) CARBON TETRACHLORIDE	4.769	117	304870	8.32	PPBV	99
50) 1,2-DICHLOROETHANE	4.155	62	156667	7.45	PPBV #	97
51) BENZENE	4.650	78	394739	10.82	PPBV	94
53) CYCLOHEXANE	4.872	84	177421	10.58	PPBV	99
54) 2,3-DIMETHYLPENTANE	5.136	71	89043	11.20	PPBV	96
55) TRICHLOROETHENE	5.586	95	183432	9.61	PPBV	99
56) 1,2-DICHLOROPROPANE	5.345	63	140679	11.02	PPBV #	83
57) DIBROMOMETHANE	5.303	174	186538	8.83	PPBV	99
58) ETHYL ACRYLATE	5.460	55	269648	11.09	PPBV	98
59) BROMODICHLOROMETHANE	5.531	83	303360	8.61	PPBV	98
60) 2,2,4-TRIMETHYLPENTANE	5.682	57	579486	10.91	PPBV	100
61) 1,4-DIOXANE	5.589	88	92916	10.23	PPBV #	95
62) HEPTANE	6.010	43	174102	10.12	PPBV	94
63) METHYL METHACRYLATE	5.898	69	151892	11.59	PPBV #	81
64) METHYL ISOBUTYL KETONE	6.653	58	112349	10.92	PPBV	83
65) CIS-1,3-DICHLOROPROPENE	6.550	75	224362	10.53	PPBV #	80
66) TOLUENE	7.791	91	490033	10.14	PPBV	99
67) 1,3-DICHLOROPROPANE	7.849	76	238342	10.15	PPBV #	99
68) TRANS-1,3-DICHLOROPROPENE	7.245	75	193954	10.01	PPBV #	85
69) 1,1,2-TRICHLOROETHANE	7.412	83	143277	10.51	PPBV	95
70) 2-HEXANONE	8.357	58	145644	10.84	PPBV	81
71) ETHYL METHACRYLATE	8.496	69	239086	11.70	PPBV #	89
72) TETRACHLOROETHENE	9.560	164	209736	9.80	PPBV	98
73) DIBROMOCHLOROMETHANE	8.338	129	320554	9.06	PPBV	100
74) 1,2-DIBROMOETHANE	8.688	107	265291	10.05	PPBV	99
75) OCTANE	9.698	43	241453	9.96	PPBV	97
77) 1,1,1,2-TETRACHLOROETHANE	10.794	131	230329	9.27	PPBV	92
78) CHLOROBENZENE	10.785	112	399695	9.63	PPBV	97
79) ETHYLBENZENE	11.672	91	634805	9.58	PPBV	98
80) M,P-XYLENE	12.103	91	981572	19.16	PPBV #	98
81) O-XYLENE	13.045	91	497163	9.37	PPBV	96
82) STYRENE	12.830	104	381386	10.29	PPBV	95
83) NONANE	14.158	43	256806	9.82	PPBV	93
84) BROMOFORM	11.917	173	331432	9.80	PPBV	99
85) 1,1,2,2-TETRACHLOROETHANE	13.058	83	365956	11.33	PPBV	99
86) 1,2,3-TRICHLOROPROPANE	13.341	75	268717	9.50	PPBV	100
88) ISOPROPYLBENZENE	14.572	120	196403	10.09	PPBV	89
89) BROMOBENZENE	14.447	77	328012	9.52	PPBV	99
90) 2-CHLOROTOLUENE	15.579	126	177341	10.26	PPBV	99
91) N-PROPYLBENZENE	15.916	120	200455	10.62	PPBV	98
92) 4-ETHYLTOLUENE	16.228	105	712437	10.16	PPBV	96
93) 1,3,5-TRIMETHYLBENZENE	16.373	105	592080	9.71	PPBV	96
94) ALPHA-METHYLSTYRENE	16.563	118	306931	10.57	PPBV	98
95) TERT-BUTYLBENZENE	16.814	134	152394	10.59	PPBV	86
96) 1,2,4-TRIMETHYLBENZENE	16.820	105	608063	10.20	PPBV	98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
 Data File : 2w55982.D
 Acq On : 1 Nov 2021 10:21 am
 Operator : thomash
 Sample : bs
 Misc : MS54658,V2w2494,,,,,1
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 01 12:57:33 2021
 Quant Method : C:\msdchem\1\METHODS\M2W2424.M
 Quant Title : T015 by GCMS w/DB-1, 30m X 0.25mm ID X 0.5 um
 QLast Update : Tue Jul 27 16:59:35 2021
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
97) BENZYL CHLORIDE	16.900	91	368037	12.85	PPBV	96
98) M-DICHLOROBENZENE	16.881	146	409730	9.87	PPBV	98
99) P-DICHLOROBENZENE	16.961	146	403314	9.86	PPBV	98
100) O-DICHLOROBENZENE	17.251	146	388778	10.46	PPBV	98
101) SEC-BUTYLBENZENE	17.087	134	190713	10.61	PPBV	87
102) 1,2,3-TRIMETHYLBENZENE	17.196	105	597654	10.06	PPBV	96
103) P-ISOPROPYLTOLUENE	17.264	134	205134	10.77	PPBV	88
104) N-BUTYLBENZENE	17.608	134	186133	10.50	PPBV	97
105) HEXACHLOROETHANE	17.785	117	249408	10.08	PPBV	97
106) HEXACHLOROBUTADIENE	18.823	225	314479	11.30	PPBV	99
107) 1,2,4-TRICHLOROBENZENE	18.514	180	280807	10.03	PPBV	98
108) NAPHTHALENE	18.563	128	549473	9.52	PPBV	100

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
 Data File : 2w55983.D
 Acq On : 1 Nov 2021 11:03 am
 Operator : thomash
 Sample : bsd
 Misc : MS54658,V2w2494,,,,,1
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 01 12:57:54 2021
 Quant Method : C:\msdchem\1\METHODS\M2W2424.M
 Quant Title : T015 by GCMS w/DB-1, 30m X 0.25mm ID X 0.5 um
 QLast Update : Tue Jul 27 16:59:35 2021
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) BROMOCHLOROMETHANE	3.650	128	90512	10.00	PPBV	0.00
52) 1,4-DIFLUOROBENZENE	4.988	114	463945	10.00	PPBV	0.00
76) CHLOROBENZENE-D5	10.701	117	402270	10.00	PPBV	0.00
System Monitoring Compounds						
87) 4-BROMOFLUOROBENZENE	14.090	95	271437	9.60	PPBV	0.00
Target Compounds						
3) FREON 152A	1.866	65	85866	12.33	PPBV	# 74
4) CHLORODIFLUOROMETHANE	1.882	67	32452	7.35	PPBV	96
5) CHLOROTRIFLUOROETHENE	1.895	116	212925	10.80	PPBV	# 99
6) DICHLORODIFLUOROMETHANE	1.917	85	417373	9.99	PPBV	# 97
7) PROPYLENE	1.895	41	86256	11.05	PPBV	89
8) 1-CHLORO-1,1-DIFLUORO...	1.969	65	257559	7.23	PPBV	# 93
9) FREON 114	2.014	85	363105	9.99	PPBV	99
10) CHLOROMETHANE	1.975	52	31747	11.18	PPBV	97
11) VINYL CHLORIDE	2.059	62	125825	11.13	PPBV	98
12) 1,3-BUTADIENE	2.107	54	89284	11.83	PPBV	# 76
13) N-BUTANE	2.129	43	147064	10.18	PPBV	98
14) BROMOMETHANE	2.206	94	132921	10.67	PPBV	97
15) CHLOROETHANE	2.271	64	69431	11.45	PPBV	# 86
16) DICHLOROFLUOROMETHANE	2.303	67	276973	9.34	PPBV	# 98
17) ACETONITRILE	2.390	41	80568	9.96	PPBV	# 93
18) ACROLEIN	2.435	56	42654	8.44	PPBV	98
19) FREON 123	2.451	83	292036	9.83	PPBV	96
20) FREON 123A	2.467	117	178991	9.44	PPBV	98
21) TRICHLOROFLUOROMETHANE	2.534	101	356538	8.07	PPBV	99
22) ISOPROPYL ALCOHOL	2.550	45	177424	9.04	PPBV	# 92
23) ACETONE	2.477	58	52866	9.96	PPBV	# 49
24) PENTANE	2.647	42	80602	9.46	PPBV	86
25) IODOMETHANE	2.705	142	346316	9.76	PPBV	88
26) 1,1-DICHLOROETHYLENE	2.731	96	117067	9.52	PPBV	85
27) CARBON DISULFIDE	2.866	76	302785	10.19	PPBV	# 90
28) ETHANOL	2.309	45	42484	10.00	PPBV	# 95
29) BROMOETHENE	2.399	106	129657	10.09	PPBV	# 96
30) ACRYLONITRILE	2.618	52	66526	9.61	PPBV	95
31) METHYLENE CHLORIDE	2.766	84	106005	9.44	PPBV	93
32) 3-CHLOROPROPENE	2.808	76	56559	10.79	PPBV	# 62
33) FREON 113	2.866	151	226868	9.20	PPBV	99
34) TRANS-1,2-DICHLOROETHENE	3.104	96	129475	10.27	PPBV	95
35) TERTIARY BUTYL ALCOHOL	2.737	59	205947	9.34	PPBV	# 93
36) METHYL TERTIARY BUTYL ...	3.216	73	323978	10.00	PPBV	97
37) TETRAHYDROFURAN	3.943	72	59849	11.74	PPBV	96
38) HEXANE	3.702	57	181765	11.14	PPBV	# 77
39) VINYL ACETATE	3.258	86	34857	11.55	PPBV	75
40) 1,1-DICHLOROETHANE	3.184	63	211818	10.39	PPBV	98
41) METHYL ETHYL KETONE	3.358	72	63607	11.34	PPBV	81
42) CIS-1,2-DICHLOROETHENE	3.567	96	138814	10.53	PPBV	93
43) DIISOPROPYL ETHER	3.705	59	55454	11.47	PPBV	98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
 Data File : 2w55983.D
 Acq On : 1 Nov 2021 11:03 am
 Operator : thomash
 Sample : bsd
 Misc : MS54658,V2w2494,,,,,1
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 01 12:57:54 2021
 Quant Method : C:\msdchem\1\METHODS\M2W2424.M
 Quant Title : T015 by GCMS w/DB-1, 30m X 0.25mm ID X 0.5 um
 QLast Update : Tue Jul 27 16:59:35 2021
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
44) ETHYL ACETATE	3.708	61	37642	12.91	PPBV #	45
45) METHYL ACRYLATE	3.695	55	221453	10.96	PPBV #	99
46) CHLOROFORM	3.724	83	271437	8.76	PPBV #	94
47) 2,4-DIMETHYLPENTANE	4.242	57	214197	11.20	PPBV	98
48) 1,1,1-TRICHLOROETHANE	4.325	97	277742	8.29	PPBV	97
49) CARBON TETRACHLORIDE	4.769	117	304259	8.19	PPBV	99
50) 1,2-DICHLOROETHANE	4.152	62	159034	7.45	PPBV #	98
51) BENZENE	4.650	78	396471	10.71	PPBV	94
53) CYCLOHEXANE	4.869	84	178101	10.39	PPBV	99
54) 2,3-DIMETHYLPENTANE	5.132	71	90713	11.16	PPBV	94
55) TRICHLOROETHENE	5.586	95	185509	9.50	PPBV	99
56) 1,2-DICHLOROPROPANE	5.345	63	140771	10.79	PPBV #	83
57) DIBROMOMETHANE	5.303	174	187325	8.67	PPBV	99
58) ETHYL ACRYLATE	5.460	55	273642	11.01	PPBV	98
59) BROMODICHLOROMETHANE	5.528	83	306831	8.52	PPBV	99
60) 2,2,4-TRIMETHYLPENTANE	5.682	57	588619	10.84	PPBV	99
61) 1,4-DIOXANE	5.589	88	94086	10.13	PPBV #	95
62) HEPTANE	6.007	43	177339	10.08	PPBV	95
63) METHYL METHACRYLATE	5.898	69	154250	11.52	PPBV #	81
64) METHYL ISOBUTYL KETONE	6.647	58	114787	10.91	PPBV	83
65) CIS-1,3-DICHLOROPROPENE	6.550	75	225109	10.34	PPBV #	81
66) TOLUENE	7.795	91	495020	10.02	PPBV	100
67) 1,3-DICHLOROPROPANE	7.849	76	242304	10.09	PPBV #	99
68) TRANS-1,3-DICHLOROPROPENE	7.245	75	195989	9.89	PPBV #	85
69) 1,1,2-TRICHLOROETHANE	7.412	83	144883	10.40	PPBV	94
70) 2-HEXANONE	8.357	58	147462	10.73	PPBV	81
71) ETHYL METHACRYLATE	8.496	69	240933	11.53	PPBV #	88
72) TETRACHLOROETHENE	9.557	164	211298	9.65	PPBV	98
73) DIBROMOCHLOROMETHANE	8.338	129	323436	8.94	PPBV	100
74) 1,2-DIBROMOETHANE	8.688	107	267385	9.91	PPBV	100
75) OCTANE	9.695	43	244065	9.84	PPBV	97
77) 1,1,1,2-TETRACHLOROETHANE	10.788	131	232749	9.35	PPBV	92
78) CHLOROBENZENE	10.782	112	402574	9.68	PPBV	97
79) ETHYLBENZENE	11.672	91	642919	9.68	PPBV	99
80) M, P-XYLENE	12.100	91	989348	19.28	PPBV #	98
81) O-XYLENE	13.048	91	501252	9.42	PPBV	97
82) STYRENE	12.830	104	385326	10.38	PPBV	95
83) NONANE	14.161	43	257373	9.82	PPBV	93
84) BROMOFORM	11.913	173	333016	9.83	PPBV	99
85) 1,1,2,2-TETRACHLOROETHANE	13.052	83	366842	11.34	PPBV	99
86) 1,2,3-TRICHLOROPROPANE	13.335	75	268159	9.47	PPBV	100
88) ISOPROPYLBENZENE	14.573	120	197596	10.13	PPBV	89
89) BROMOBENZENE	14.444	77	330729	9.58	PPBV	99
90) 2-CHLOROTOLUENE	15.579	126	179298	10.35	PPBV	98
91) N-PROPYLBENZENE	15.913	120	199511	10.55	PPBV	98
92) 4-ETHYLTOLUENE	16.228	105	713073	10.15	PPBV	98
93) 1,3,5-TRIMETHYLBENZENE	16.373	105	594127	9.72	PPBV	95
94) ALPHA-METHYLSTYRENE	16.563	118	305892	10.51	PPBV	99
95) TERT-BUTYLBENZENE	16.814	134	153109	10.62	PPBV	86
96) 1,2,4-TRIMETHYLBENZENE	16.820	105	606725	10.16	PPBV	98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 2w55983.D
Acq On : 1 Nov 2021 11:03 am
Operator : thomash
Sample : bsd
Misc : MS54658,V2w2494,,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 01 12:57:54 2021
Quant Method : C:\msdchem\1\METHODS\M2W2424.M
Quant Title : T015 by GCMS w/DB-1, 30m X 0.25mm ID X 0.5 um
QLast Update : Tue Jul 27 16:59:35 2021
Response via : Initial Calibration

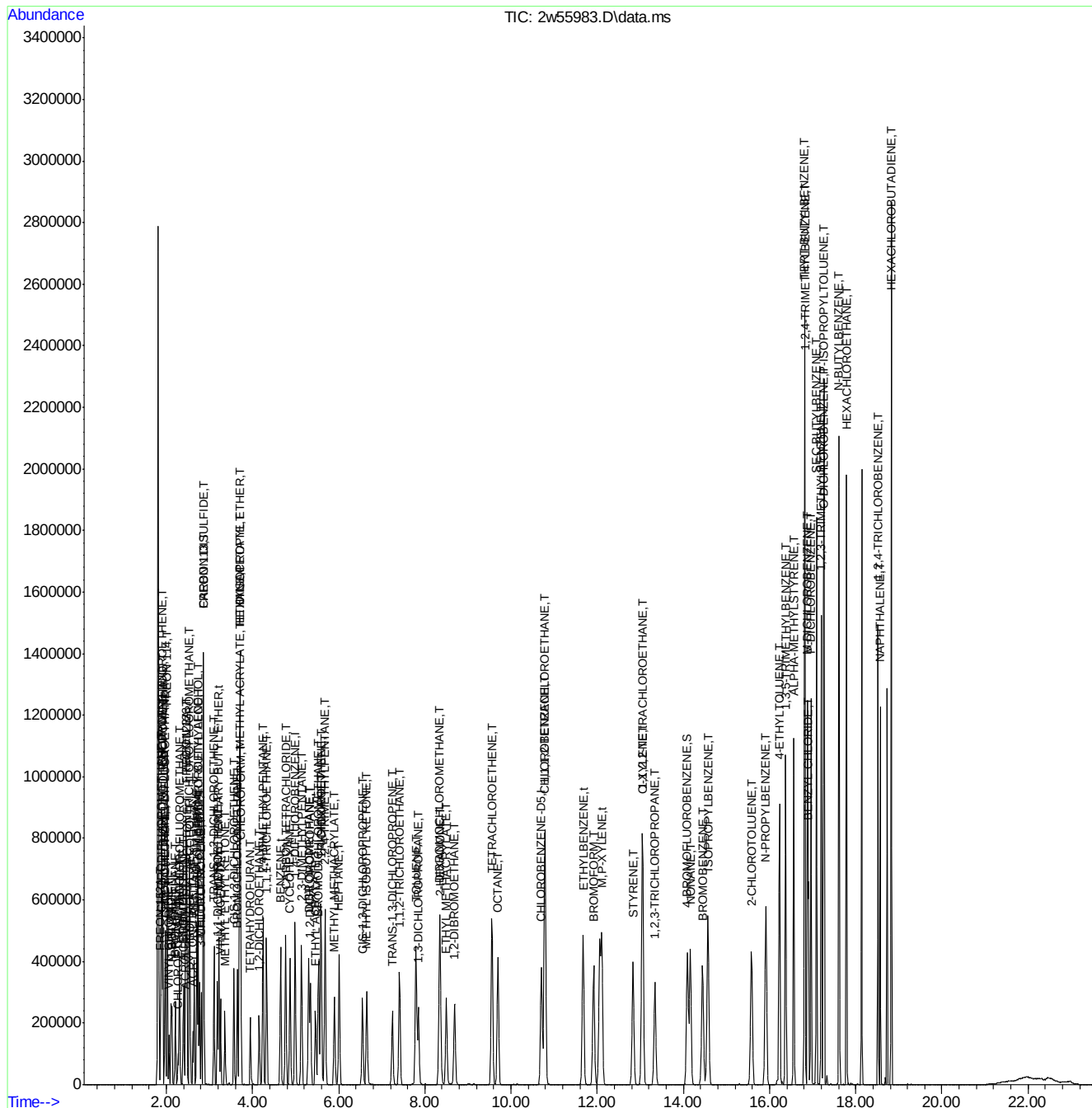
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
97) BENZYL CHLORIDE	16.900	91	367233	12.80	PPBV	96
98) M-DICHLOROBENZENE	16.878	146	412257	9.91	PPBV	98
99) P-DICHLOROBENZENE	16.961	146	405787	9.90	PPBV	97
100) O-DICHLOROBENZENE	17.251	146	393854	10.58	PPBV	97
101) SEC-BUTYLBENZENE	17.087	134	189405	10.52	PPBV	89
102) 1,2,3-TRIMETHYLBENZENE	17.196	105	601042	10.09	PPBV	96
103) P-ISOPROPYLTOLUENE	17.264	134	207734	10.88	PPBV	87
104) N-BUTYLBENZENE	17.608	134	187925	10.58	PPBV	95
105) HEXACHLOROETHANE	17.785	117	248232	10.01	PPBV	98
106) HEXACHLOROBUTADIENE	18.823	225	312332	11.20	PPBV	100
107) 1,2,4-TRICHLOROBENZENE	18.518	180	278674	9.94	PPBV	99
108) NAPHTHALENE	18.566	128	553736	9.58	PPBV	100

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 2w55983.D
Acq On : 1 Nov 2021 11:03 am
Operator : thomash
Sample : bsd
Misc : MS54658,V2w2494,,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 01 12:57:54 2021
Quant Method : C:\msdchem\1\METHODS\M2W2424.M
Quant Title : T015 by GCMS w/DB-1, 30m X 0.25mm ID X 0.5 um
QLast Update : Tue Jul 27 16:59:35 2021
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
 Data File : 2W56007.D
 Acq On : 2 Nov 2021 8:47 am
 Operator : thomash
 Sample : bs
 Misc : MS54715,V2W2495,,,,,1
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 02 10:55:30 2021
 Quant Method : C:\msdchem\1\METHODS\M2W2424.M
 Quant Title : T015 by GCMS w/DB-1, 30m X 0.25mm ID X 0.5 um
 QLast Update : Tue Jul 27 16:59:35 2021
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) BROMOCHLOROMETHANE	3.650	128	91940	10.00	PPBV	0.00
52) 1,4-DIFLUOROBENZENE	4.988	114	477772	10.00	PPBV	0.00
76) CHLOROBENZENE-D5	10.705	117	413421	10.00	PPBV	0.00
System Monitoring Compounds						
87) 4-BROMOFLUOROBENZENE	14.087	95	274022	9.43	PPBV	0.00
Target Compounds						
					Qvalue	
3) FREON 152A	1.863	65	85416	12.08	PPBV	# 74
4) CHLORODIFLUOROMETHANE	1.875	67	32096	7.16	PPBV	97
5) CHLOROTRIFLUOROETHENE	1.891	116	215412	10.76	PPBV	# 97
6) DICHLORODIFLUOROMETHANE	1.914	85	408888	9.63	PPBV	# 97
7) PROPYLENE	1.888	41	85876	10.83	PPBV	90
8) 1-CHLORO-1,1-DIFLUORO...	1.965	65	256241	7.08	PPBV	# 93
9) FREON 114	2.010	85	361933	9.80	PPBV	99
10) CHLOROMETHANE	1.972	52	31559	10.94	PPBV	96
11) VINYL CHLORIDE	2.052	62	126704	11.03	PPBV	98
12) 1,3-BUTADIENE	2.104	54	88148	11.50	PPBV	# 76
13) N-BUTANE	2.126	43	145194	9.89	PPBV	# 96
14) BROMOMETHANE	2.203	94	134447	10.63	PPBV	97
15) CHLOROETHANE	2.268	64	69457	11.28	PPBV	# 88
16) DICHLOROFLUOROMETHANE	2.300	67	277170	9.20	PPBV	# 97
17) ACETONITRILE	2.387	41	80052	9.75	PPBV	93
18) ACROLEIN	2.432	56	42790	8.34	PPBV	100
19) FREON 123	2.448	83	298841	9.90	PPBV	95
20) FREON 123A	2.467	117	180894	9.39	PPBV	97
21) TRICHLOROFLUOROMETHANE	2.535	101	358179	7.98	PPBV	99
22) ISOPROPYL ALCOHOL	2.547	45	176724	8.86	PPBV	# 92
23) ACETONE	2.473	58	53931	10.00	PPBV	# 46
24) PENTANE	2.647	42	80261	9.27	PPBV	86
25) IODOMETHANE	2.705	142	386049	10.71	PPBV	86
26) 1,1-DICHLOROETHYLENE	2.734	96	137457	11.01	PPBV	85
27) CARBON DISULFIDE	2.866	76	370656	12.28	PPBV	# 91
28) ETHANOL	2.303	45	43897	10.17	PPBV	# 97
29) BROMOETHENE	2.396	106	129399	9.91	PPBV	# 96
30) ACRYLONITRILE	2.618	52	66430	9.45	PPBV	93
31) METHYLENE CHLORIDE	2.766	84	133828	11.73	PPBV	100
32) 3-CHLOROPROPENE	2.808	76	72368	13.59	PPBV	# 66
33) FREON 113	2.866	151	253944	10.13	PPBV	97
34) TRANS-1,2-DICHLOROETHENE	3.107	96	149837	11.71	PPBV	98
35) TERTIARY BUTYL ALCOHOL	2.740	59	240249	10.73	PPBV	# 96
36) METHYL TERTIARY BUTYL ...	3.219	73	362289	11.01	PPBV	97
37) TETRAHYDROFURAN	3.943	72	58810	11.36	PPBV	95
38) HEXANE	3.705	57	179549	10.84	PPBV	# 76
39) VINYL ACETATE	3.258	86	39905	13.02	PPBV	84
40) 1,1-DICHLOROETHANE	3.187	63	251715	12.16	PPBV	98
41) METHYL ETHYL KETONE	3.358	72	62368	10.94	PPBV	83
42) CIS-1,2-DICHLOROETHENE	3.570	96	137842	10.29	PPBV	94
43) DIISOPROPYL ETHER	3.705	59	54416	11.08	PPBV	95

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
 Data File : 2W56007.D
 Acq On : 2 Nov 2021 8:47 am
 Operator : thomash
 Sample : bs
 Misc : MS54715,V2W2495,,,,,1
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 02 10:55:30 2021
 Quant Method : C:\msdchem\1\METHODS\M2W2424.M
 Quant Title : T015 by GCMS w/DB-1, 30m X 0.25mm ID X 0.5 um
 QLast Update : Tue Jul 27 16:59:35 2021
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
44) ETHYL ACETATE	3.708	61	36433	12.30	PPBV #	49
45) METHYL ACRYLATE	3.695	55	217555	10.60	PPBV #	99
46) CHLOROFORM	3.724	83	267923	8.51	PPBV #	94
47) 2,4-DIMETHYLPENTANE	4.245	57	213839	11.01	PPBV	99
48) 1,1,1-TRICHLOROETHANE	4.325	97	276320	8.12	PPBV	97
49) CARBON TETRACHLORIDE	4.766	117	304110	8.05	PPBV	99
50) 1,2-DICHLOROETHANE	4.155	62	156594	7.23	PPBV #	98
51) BENZENE	4.650	78	394135	10.48	PPBV	94
53) CYCLOHEXANE	4.869	84	174607	9.89	PPBV	99
54) 2,3-DIMETHYLPENTANE	5.136	71	89058	10.64	PPBV	96
55) TRICHLOROETHENE	5.586	95	182617	9.09	PPBV	98
56) 1,2-DICHLOROPROPANE	5.345	63	140666	10.47	PPBV #	84
57) DIBROMOMETHANE	5.303	174	187360	8.42	PPBV	99
58) ETHYL ACRYLATE	5.460	55	268261	10.48	PPBV	98
59) BROMODICHLOROMETHANE	5.528	83	303386	8.18	PPBV	98
60) 2,2,4-TRIMETHYLPENTANE	5.682	57	581441	10.40	PPBV	100
61) 1,4-DIOXANE	5.592	88	92476	9.66	PPBV #	95
62) HEPTANE	6.007	43	173059	9.55	PPBV	94
63) METHYL METHACRYLATE	5.898	69	149955	10.87	PPBV #	81
64) METHYL ISOBUTYL KETONE	6.650	58	112277	10.36	PPBV	82
65) CIS-1,3-DICHLOROPROPENE	6.550	75	221642	9.88	PPBV #	80
66) TOLUENE	7.792	91	488418	9.60	PPBV	100
67) 1,3-DICHLOROPROPANE	7.846	76	236537	9.57	PPBV #	100
68) TRANS-1,3-DICHLOROPROPENE	7.248	75	193822	9.50	PPBV #	85
69) 1,1,2-TRICHLOROETHANE	7.412	83	143977	10.03	PPBV	94
70) 2-HEXANONE	8.354	58	143029	10.11	PPBV	81
71) ETHYL METHACRYLATE	8.499	69	238872	11.10	PPBV #	88
72) TETRACHLOROETHENE	9.557	164	209485	9.29	PPBV	98
73) DIBROMOCHLOROMETHANE	8.335	129	322088	8.65	PPBV	100
74) 1,2-DIBROMOETHANE	8.685	107	264035	9.50	PPBV	100
75) OCTANE	9.695	43	237037	9.28	PPBV	97
77) 1,1,1,2-TETRACHLOROETHANE	10.785	131	231489	9.05	PPBV	91
78) CHLOROBENZENE	10.779	112	401107	9.39	PPBV	97
79) ETHYLBENZENE	11.669	91	632378	9.27	PPBV	99
80) M, P-XYLENE	12.103	91	968045	18.35	PPBV #	97
81) O-XYLENE	13.045	91	494203	9.04	PPBV	97
82) STYRENE	12.824	104	378228	9.91	PPBV	95
83) NONANE	14.158	43	250089	9.29	PPBV	92
84) BROMOFORM	11.917	173	328964	9.45	PPBV	99
85) 1,1,2,2-TETRACHLOROETHANE	13.055	83	361082	10.86	PPBV	99
86) 1,2,3-TRICHLOROPROPANE	13.338	75	265229	9.11	PPBV	100
88) ISOPROPYLBENZENE	14.566	120	194429	9.70	PPBV	89
89) BROMOBENZENE	14.444	77	320913	9.04	PPBV	100
90) 2-CHLOROTOLUENE	15.579	126	175897	9.88	PPBV	99
91) N-PROPYLBENZENE	15.917	120	197612	10.17	PPBV	99
92) 4-ETHYLTOLUENE	16.229	105	703194	9.74	PPBV	96
93) 1,3,5-TRIMETHYLBENZENE	16.373	105	583625	9.30	PPBV	95
94) ALPHA-METHYLSTYRENE	16.563	118	299908	10.03	PPBV	99
95) TERT-BUTYLBENZENE	16.814	134	153948	10.39	PPBV	84
96) 1,2,4-TRIMETHYLBENZENE	16.820	105	595751	9.70	PPBV	98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 2w56007.D
Acq On : 2 Nov 2021 8:47 am
Operator : thomash
Sample : bs
Misc : MS54715,V2w2495,,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 02 10:55:30 2021
Quant Method : C:\msdchem\1\METHODS\M2W2424.M
Quant Title : T015 by GCMS w/DB-1, 30m X 0.25mm ID X 0.5 um
QLast Update : Tue Jul 27 16:59:35 2021
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
97) BENZYL CHLORIDE	16.901	91	354205	12.01	PPBV	95
98) M-DICHLOROBENZENE	16.881	146	403612	9.44	PPBV	98
99) P-DICHLOROBENZENE	16.962	146	399336	9.48	PPBV	97
100) O-DICHLOROBENZENE	17.251	146	384601	10.05	PPBV	97
101) SEC-BUTYLBENZENE	17.087	134	187018	10.11	PPBV	89
102) 1,2,3-TRIMETHYLBENZENE	17.200	105	585962	9.58	PPBV	95
103) P-ISOPROPYLTOLUENE	17.264	134	205036	10.45	PPBV	87
104) N-BUTYLBENZENE	17.608	134	186143	10.20	PPBV	95
105) HEXACHLOROETHANE	17.788	117	242906	9.53	PPBV	98
106) HEXACHLOROBUTADIENE	18.830	225	311493	10.87	PPBV	100
107) 1,2,4-TRICHLOROBENZENE	18.521	180	275519	9.56	PPBV	98
108) NAPHTHALENE	18.569	128	535709	9.02	PPBV	100

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
 Data File : 2w56008.D
 Acq On : 2 Nov 2021 9:23 am
 Operator : thomash
 Sample : bsd
 Misc : MS54715,V2w2495,,,,,1
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 02 10:55:49 2021
 Quant Method : C:\msdchem\1\METHODS\M2W2424.M
 Quant Title : T015 by GCMS w/DB-1, 30m X 0.25mm ID X 0.5 um
 QLast Update : Tue Jul 27 16:59:35 2021
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) BROMOCHLOROMETHANE	3.647	128	90138	10.00	PPBV	0.00
52) 1,4-DIFLUOROBENZENE	4.988	114	462154	10.00	PPBV	0.00
76) CHLOROBENZENE-D5	10.705	117	399940	10.00	PPBV	0.00
System Monitoring Compounds						
87) 4-BROMOFLUOROBENZENE	14.090	95	269787	9.60	PPBV	0.00
Target Compounds						
3) FREON 152A	1.862	65	84857	12.24	PPBV	Qvalue # 74
4) CHLORODIFLUOROMETHANE	1.879	67	31839	7.24	PPBV	97
5) CHLOROTRIFLUOROETHENE	1.891	116	208951	10.64	PPBV	# 99
6) DICHLORODIFLUOROMETHANE	1.914	85	407749	9.80	PPBV	# 96
7) PROPYLENE	1.888	41	83306	10.72	PPBV	89
8) 1-CHLORO-1,1-DIFLUORO...	1.965	65	249611	7.04	PPBV	# 93
9) FREON 114	2.010	85	354342	9.79	PPBV	100
10) CHLOROMETHANE	1.972	52	31129	11.00	PPBV	94
11) VINYL CHLORIDE	2.052	62	123719	10.99	PPBV	98
12) 1,3-BUTADIENE	2.104	54	85853	11.42	PPBV	# 76
13) N-BUTANE	2.123	43	140912	9.79	PPBV	96
14) BROMOMETHANE	2.203	94	131442	10.60	PPBV	98
15) CHLOROETHANE	2.268	64	67409	11.17	PPBV	# 88
16) DICHLOROFLUOROMETHANE	2.300	67	271894	9.21	PPBV	# 98
17) ACETONITRILE	2.387	41	77710	9.65	PPBV	# 93
18) ACROLEIN	2.432	56	41279	8.20	PPBV	98
19) FREON 123	2.448	83	287210	9.70	PPBV	96
20) FREON 123A	2.467	117	174920	9.27	PPBV	96
21) TRICHLOROFLUOROMETHANE	2.531	101	351231	7.98	PPBV	100
22) ISOPROPYL ALCOHOL	2.547	45	165475	8.47	PPBV	# 93
23) ACETONE	2.473	58	51433	9.73	PPBV	# 49
24) PENTANE	2.644	42	78064	9.20	PPBV	85
25) IODOMETHANE	2.702	142	343321	9.72	PPBV	88
26) 1,1-DICHLOROETHYLENE	2.731	96	116648	9.53	PPBV	82
27) CARBON DISULFIDE	2.862	76	294878	9.97	PPBV	# 91
28) ETHANOL	2.306	45	41865	9.89	PPBV	# 96
29) BROMOETHENE	2.396	106	126825	9.91	PPBV	# 97
30) ACRYLONITRILE	2.615	52	63991	9.28	PPBV	94
31) METHYLENE CHLORIDE	2.766	84	104279	9.32	PPBV	91
32) 3-CHLOROPROPENE	2.805	76	54352	10.41	PPBV	# 62
33) FREON 113	2.862	151	225820	9.19	PPBV	97
34) TRANS-1,2-DICHLOROETHENE	3.104	96	126644	10.09	PPBV	94
35) TERTIARY BUTYL ALCOHOL	2.737	59	187475	8.54	PPBV	# 94
36) METHYL TERTIARY BUTYL ...	3.216	73	312207	9.68	PPBV	97
37) TETRAHYDROFURAN	3.943	72	59373	11.70	PPBV	94
38) HEXANE	3.702	57	175486	10.80	PPBV	# 77
39) VINYL ACETATE	3.258	86	33746	11.23	PPBV	71
40) 1,1-DICHLOROETHANE	3.184	63	203897	10.04	PPBV	98
41) METHYL ETHYL KETONE	3.358	72	61682	11.04	PPBV	80
42) CIS-1,2-DICHLOROETHENE	3.567	96	136603	10.40	PPBV	93
43) DIISOPROPYL ETHER	3.702	59	54588	11.34	PPBV	92

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
 Data File : 2w56008.D
 Acq On : 2 Nov 2021 9:23 am
 Operator : thomash
 Sample : bsd
 Misc : MS54715,V2w2495,,,,,1
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 02 10:55:49 2021
 Quant Method : C:\msdchem\1\METHODS\M2W2424.M
 Quant Title : T015 by GCMS w/DB-1, 30m X 0.25mm ID X 0.5 um
 QLast Update : Tue Jul 27 16:59:35 2021
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
44) ETHYL ACETATE	3.708	61	35472	12.22	PPBV #	49
45) METHYL ACRYLATE	3.692	55	216849	10.78	PPBV #	98
46) CHLOROFORM	3.724	83	268023	8.69	PPBV #	94
47) 2,4-DIMETHYLPENTANE	4.242	57	208078	10.93	PPBV	98
48) 1,1,1-TRICHLOROETHANE	4.325	97	270187	8.10	PPBV	96
49) CARBON TETRACHLORIDE	4.769	117	300452	8.12	PPBV	99
50) 1,2-DICHLOROETHANE	4.155	62	153268	7.21	PPBV #	97
51) BENZENE	4.650	78	387195	10.50	PPBV	94
53) CYCLOHEXANE	4.869	84	173684	10.17	PPBV	99
54) 2,3-DIMETHYLPENTANE	5.132	71	88587	10.94	PPBV	95
55) TRICHLOROETHENE	5.586	95	179837	9.25	PPBV	98
56) 1,2-DICHLOROPROPANE	5.345	63	138712	10.67	PPBV #	83
57) DIBROMOMETHANE	5.300	174	185405	8.62	PPBV	99
58) ETHYL ACRYLATE	5.460	55	264387	10.68	PPBV	99
59) BROMODICHLOROMETHANE	5.528	83	299510	8.35	PPBV	98
60) 2,2,4-TRIMETHYLPENTANE	5.682	57	568078	10.50	PPBV	100
61) 1,4-DIOXANE	5.592	88	91755	9.91	PPBV #	95
62) HEPTANE	6.007	43	171021	9.76	PPBV	93
63) METHYL METHACRYLATE	5.898	69	145924	10.94	PPBV #	82
64) METHYL ISOBUTYL KETONE	6.653	58	110963	10.59	PPBV	81
65) CIS-1,3-DICHLOROPROPENE	6.550	75	219078	10.10	PPBV #	80
66) TOLUENE	7.791	91	486665	9.89	PPBV	99
67) 1,3-DICHLOROPROPANE	7.849	76	235288	9.84	PPBV #	99
68) TRANS-1,3-DICHLOROPROPENE	7.248	75	190906	9.67	PPBV #	85
69) 1,1,2-TRICHLOROETHANE	7.409	83	140154	10.10	PPBV	96
70) 2-HEXANONE	8.354	58	141169	10.31	PPBV	81
71) ETHYL METHACRYLATE	8.496	69	237256	11.40	PPBV #	87
72) TETRACHLOROETHENE	9.553	164	207115	9.50	PPBV	99
73) DIBROMOCHLOROMETHANE	8.338	129	318471	8.84	PPBV	100
74) 1,2-DIBROMOETHANE	8.689	107	262588	9.77	PPBV	100
75) OCTANE	9.698	43	234541	9.50	PPBV	95
77) 1,1,1,2-TETRACHLOROETHANE	10.791	131	228637	9.24	PPBV	91
78) CHLOROBENZENE	10.782	112	396712	9.60	PPBV	97
79) ETHYLBENZENE	11.672	91	628330	9.52	PPBV	98
80) M, P-XYLENE	12.103	91	964106	18.90	PPBV #	97
81) O-XYLENE	13.048	91	495984	9.38	PPBV	99
82) STYRENE	12.830	104	375555	10.17	PPBV	95
83) NONANE	14.161	43	249670	9.59	PPBV	92
84) BROMOFORM	11.917	173	325492	9.66	PPBV	99
85) 1,1,2,2-TETRACHLOROETHANE	13.052	83	359992	11.19	PPBV	99
86) 1,2,3-TRICHLOROPROPANE	13.338	75	264899	9.41	PPBV	100
88) ISOPROPYLBENZENE	14.573	120	193977	10.00	PPBV	89
89) BROMOBENZENE	14.441	77	320930	9.35	PPBV	100
90) 2-CHLOROTOLUENE	15.585	126	176605	10.26	PPBV	100
91) N-PROPYLBENZENE	15.917	120	197722	10.52	PPBV	99
92) 4-ETHYLTOLUENE	16.232	105	705203	10.09	PPBV	96
93) 1,3,5-TRIMETHYLBENZENE	16.373	105	583153	9.60	PPBV	95
94) ALPHA-METHYLSTYRENE	16.563	118	301289	10.41	PPBV	98
95) TERT-BUTYLBENZENE	16.814	134	152867	10.66	PPBV	84
96) 1,2,4-TRIMETHYLBENZENE	16.820	105	589998	9.93	PPBV	97

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 2w56008.D
Acq On : 2 Nov 2021 9:23 am
Operator : thomash
Sample : bsd
Misc : MS54715,V2w2495,,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 02 10:55:49 2021
Quant Method : C:\msdchem\1\METHODS\M2W2424.M
Quant Title : T015 by GCMS w/DB-1, 30m X 0.25mm ID X 0.5 um
QLast Update : Tue Jul 27 16:59:35 2021
Response via : Initial Calibration

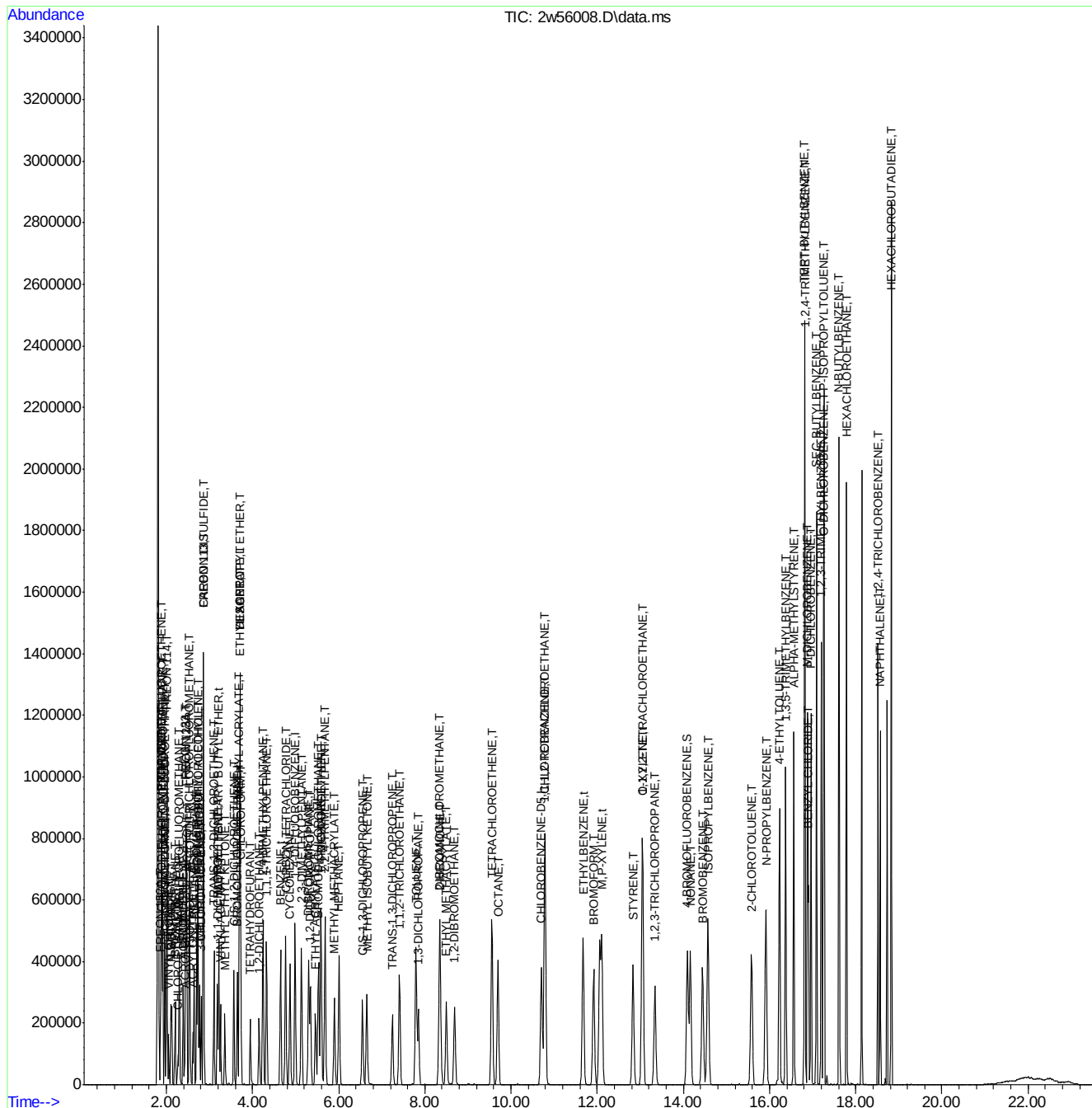
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
97) BENZYL CHLORIDE	16.900	91	351822	12.33	PPBV	96
98) M-DICHLOROBENZENE	16.881	146	401749	9.71	PPBV	98
99) P-DICHLOROBENZENE	16.962	146	396340	9.72	PPBV	97
100) O-DICHLOROBENZENE	17.251	146	382480	10.33	PPBV	97
101) SEC-BUTYLBENZENE	17.087	134	187564	10.48	PPBV	86
102) 1,2,3-TRIMETHYLBENZENE	17.199	105	585782	9.90	PPBV	95
103) P-ISOPROPYLTOLUENE	17.264	134	202243	10.66	PPBV	87
104) N-BUTYLBENZENE	17.608	134	184306	10.44	PPBV	96
105) HEXACHLOROETHANE	17.788	117	242661	9.84	PPBV	98
106) HEXACHLOROBUTADIENE	18.823	225	310606	11.20	PPBV	100
107) 1,2,4-TRICHLOROBENZENE	18.518	180	272542	9.78	PPBV	99
108) NAPHTHALENE	18.566	128	524863	9.13	PPBV	100

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 2w56008.D
Acq On : 2 Nov 2021 9:23 am
Operator : thomash
Sample : bsd
Misc : MS54715,V2w2495,,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 02 10:55:49 2021
Quant Method : C:\msdchem\1\METHODS\M2W2424.M
Quant Title : T015 by GCMS w/DB-1, 30m X 0.25mm ID X 0.5 um
QLast Update : Tue Jul 27 16:59:35 2021
Response via : Initial Calibration



7.3.8

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
 Data File : 2w56054.D
 Acq On : 4 Nov 2021 8:14 am
 Operator : thomash
 Sample : bs
 Misc : MS54687,V2w2497,,,,,1
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 04 12:18:42 2021
 Quant Method : C:\msdchem\1\METHODS\M2W2424.M
 Quant Title : T015 by GCMS w/DB-1, 30m X 0.25mm ID X 0.5 um
 QLast Update : Tue Jul 27 16:59:35 2021
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) BROMOCHLOROMETHANE	3.644	128	95032	10.00	PPBV	0.00
52) 1,4-DIFLUOROBENZENE	4.984	114	489585	10.00	PPBV	0.00
76) CHLOROBENZENE-D5	10.704	117	420511	10.00	PPBV	0.00
System Monitoring Compounds						
87) 4-BROMOFLUOROBENZENE	14.087	95	278814	9.43	PPBV	0.00
Target Compounds						
					Qvalue	
3) FREON 152A	1.862	65	86105	11.78	PPBV #	74
4) CHLORODIFLUOROMETHANE	1.878	67	32483	7.01	PPBV	98
5) CHLOROTRIFLUOROETHENE	1.891	116	213415	10.31	PPBV #	99
6) DICHLORODIFLUOROMETHANE	1.914	85	411587	9.38	PPBV #	96
7) PROPYLENE	1.888	41	83930	10.24	PPBV	90
8) 1-CHLORO-1,1-DIFLUORO...	1.965	65	257249	6.88	PPBV #	94
9) FREON 114	2.010	85	362969	9.51	PPBV	99
10) CHLOROMETHANE	1.972	52	30850	10.34	PPBV	98
11) VINYL CHLORIDE	2.052	62	125896	10.60	PPBV	98
12) 1,3-BUTADIENE	2.103	54	87856	11.08	PPBV #	77
13) N-BUTANE	2.123	43	144669	9.54	PPBV	97
14) BROMOMETHANE	2.203	94	134067	10.25	PPBV	98
15) CHLOROETHANE	2.264	64	69352	10.90	PPBV #	86
16) DICHLOROFLUOROMETHANE	2.296	67	277394	8.91	PPBV #	98
17) ACETONITRILE	2.383	41	76754	9.04	PPBV	95
18) ACROLEIN	2.428	56	50805	9.58	PPBV	99
19) FREON 123	2.444	83	296310	9.50	PPBV	96
20) FREON 123A	2.464	117	180497	9.07	PPBV	97
21) TRICHLOROFLUOROMETHANE	2.531	101	363971	7.84	PPBV	100
22) ISOPROPYL ALCOHOL	2.544	45	165250	8.02	PPBV #	92
23) ACETONE	2.470	58	51946	9.32	PPBV #	47
24) PENTANE	2.640	42	80871	9.04	PPBV	86
25) IODOMETHANE	2.702	142	353354	9.49	PPBV	88
26) 1,1-DICHLOROETHYLENE	2.727	96	118442	9.18	PPBV	83
27) CARBON DISULFIDE	2.859	76	302382	9.69	PPBV #	89
28) ETHANOL	2.300	45	40101	8.99	PPBV #	97
29) BROMOETHENE	2.393	106	130073	9.64	PPBV #	96
30) ACRYLONITRILE	2.615	52	65833	9.06	PPBV	95
31) METHYLENE CHLORIDE	2.763	84	106423	9.02	PPBV	93
32) 3-CHLOROPROPENE	2.804	76	55493	10.08	PPBV #	62
33) FREON 113	2.859	151	230071	8.88	PPBV	98
34) TRANS-1,2-DICHLOROETHENE	3.100	96	128486	9.71	PPBV	95
35) TERTIARY BUTYL ALCOHOL	2.734	59	203225	8.78	PPBV #	93
36) METHYL TERTIARY BUTYL ...	3.213	73	317874	9.35	PPBV #	97
37) TETRAHYDROFURAN	3.943	72	59057	11.04	PPBV	96
38) HEXANE	3.698	57	179998	10.51	PPBV #	76
39) VINYL ACETATE	3.255	86	35162	11.10	PPBV #	69
40) 1,1-DICHLOROETHANE	3.181	63	209206	9.77	PPBV	98
41) METHYL ETHYL KETONE	3.354	72	61648	10.46	PPBV	83
42) CIS-1,2-DICHLOROETHENE	3.563	96	139102	10.05	PPBV	94
43) DIISOPROPYL ETHER	3.698	59	55654	10.96	PPBV	89

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
 Data File : 2W56054.D
 Acq On : 4 Nov 2021 8:14 am
 Operator : thomash
 Sample : bs
 Misc : MS54687,V2W2497,,,,,1
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 04 12:18:42 2021
 Quant Method : C:\msdchem\1\METHODS\M2W2424.M
 Quant Title : T015 by GCMS w/DB-1, 30m X 0.25mm ID X 0.5 um
 QLast Update : Tue Jul 27 16:59:35 2021
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
44) ETHYL ACETATE	3.705	61	36463	11.91	PPBV #	48
45) METHYL ACRYLATE	3.692	55	219193	10.33	PPBV #	99
46) CHLOROFORM	3.721	83	270855	8.33	PPBV #	94
47) 2,4-DIMETHYLPENTANE	4.238	57	215091	10.71	PPBV	99
48) 1,1,1-TRICHLOROETHANE	4.322	97	276730	7.87	PPBV	96
49) CARBON TETRACHLORIDE	4.766	117	309838	7.94	PPBV	99
50) 1,2-DICHLOROETHANE	4.148	62	156623	6.99	PPBV #	97
51) BENZENE	4.647	78	396256	10.19	PPBV	93
53) CYCLOHEXANE	4.865	84	176397	9.75	PPBV	99
54) 2,3-DIMETHYLPENTANE	5.132	71	90543	10.55	PPBV	94
55) TRICHLOROETHENE	5.582	95	185307	9.00	PPBV	98
56) 1,2-DICHLOROPROPANE	5.341	63	141277	10.26	PPBV #	83
57) DIBROMOMETHANE	5.300	174	187379	8.22	PPBV	99
58) ETHYL ACRYLATE	5.460	55	266989	10.18	PPBV	99
59) BROMODICHLOROMETHANE	5.528	83	305933	8.05	PPBV	98
60) 2,2,4-TRIMETHYLPENTANE	5.679	57	581326	10.14	PPBV	99
61) 1,4-DIOXANE	5.586	88	91005	9.28	PPBV #	94
62) HEPTANE	6.004	43	173990	9.37	PPBV	93
63) METHYL METHACRYLATE	5.894	69	149971	10.61	PPBV #	81
64) METHYL ISOBUTYL KETONE	6.647	58	113383	10.21	PPBV	81
65) CIS-1,3-DICHLOROPROPENE	6.547	75	223776	9.74	PPBV #	80
66) TOLUENE	7.788	91	493853	9.47	PPBV	99
67) 1,3-DICHLOROPROPANE	7.846	76	238363	9.41	PPBV #	99
68) TRANS-1,3-DICHLOROPROPENE	7.242	75	197076	9.43	PPBV #	85
69) 1,1,2-TRICHLOROETHANE	7.409	83	142988	9.72	PPBV	95
70) 2-HEXANONE	8.351	58	142009	9.79	PPBV	81
71) ETHYL METHACRYLATE	8.492	69	237861	10.78	PPBV #	87
72) TETRACHLOROETHENE	9.553	164	203100	8.79	PPBV	98
73) DIBROMOCHLOROMETHANE	8.335	129	326753	8.56	PPBV	99
74) 1,2-DIBROMOETHANE	8.685	107	264132	9.28	PPBV	100
75) OCTANE	9.692	43	238333	9.11	PPBV	97
77) 1,1,1,2-TETRACHLOROETHANE	10.788	131	232169	8.92	PPBV	91
78) CHLOROBENZENE	10.778	112	401214	9.23	PPBV	96
79) ETHYLBENZENE	11.669	91	631595	9.10	PPBV	99
80) M,P-XYLENE	12.100	91	973342	18.14	PPBV #	98
81) O-XYLENE	13.045	91	495574	8.91	PPBV	94
82) STYRENE	12.827	104	380431	9.80	PPBV	95
83) NONANE	14.158	43	247644	9.04	PPBV	91
84) BROMOFORM	11.910	173	339633	9.59	PPBV	99
85) 1,1,2,2-TETRACHLOROETHANE	13.048	83	356738	10.55	PPBV	99
86) 1,2,3-TRICHLOROPROPANE	13.338	75	264936	8.95	PPBV	100
88) ISOPROPYLBENZENE	14.566	120	194047	9.52	PPBV	88
89) BROMOBENZENE	14.441	77	320818	8.89	PPBV	99
90) 2-CHLOROTOLUENE	15.579	126	175637	9.70	PPBV	100
91) N-PROPYLBENZENE	15.910	120	196997	9.97	PPBV	98
92) 4-ETHYLTOLUENE	16.228	105	696828	9.48	PPBV	96
93) 1,3,5-TRIMETHYLBENZENE	16.370	105	577141	9.04	PPBV	95
94) ALPHA-METHYLSTYRENE	16.560	118	301521	9.91	PPBV	98
95) TERT-BUTYLBENZENE	16.814	134	151237	10.03	PPBV	84
96) 1,2,4-TRIMETHYLBENZENE	16.820	105	585134	9.37	PPBV	97

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 2w56054.D
Acq On : 4 Nov 2021 8:14 am
Operator : thomash
Sample : bs
Misc : MS54687,V2w2497,,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 04 12:18:42 2021
Quant Method : C:\msdchem\1\METHODS\M2W2424.M
Quant Title : T015 by GCMS w/DB-1, 30m X 0.25mm ID X 0.5 um
QLast Update : Tue Jul 27 16:59:35 2021
Response via : Initial Calibration

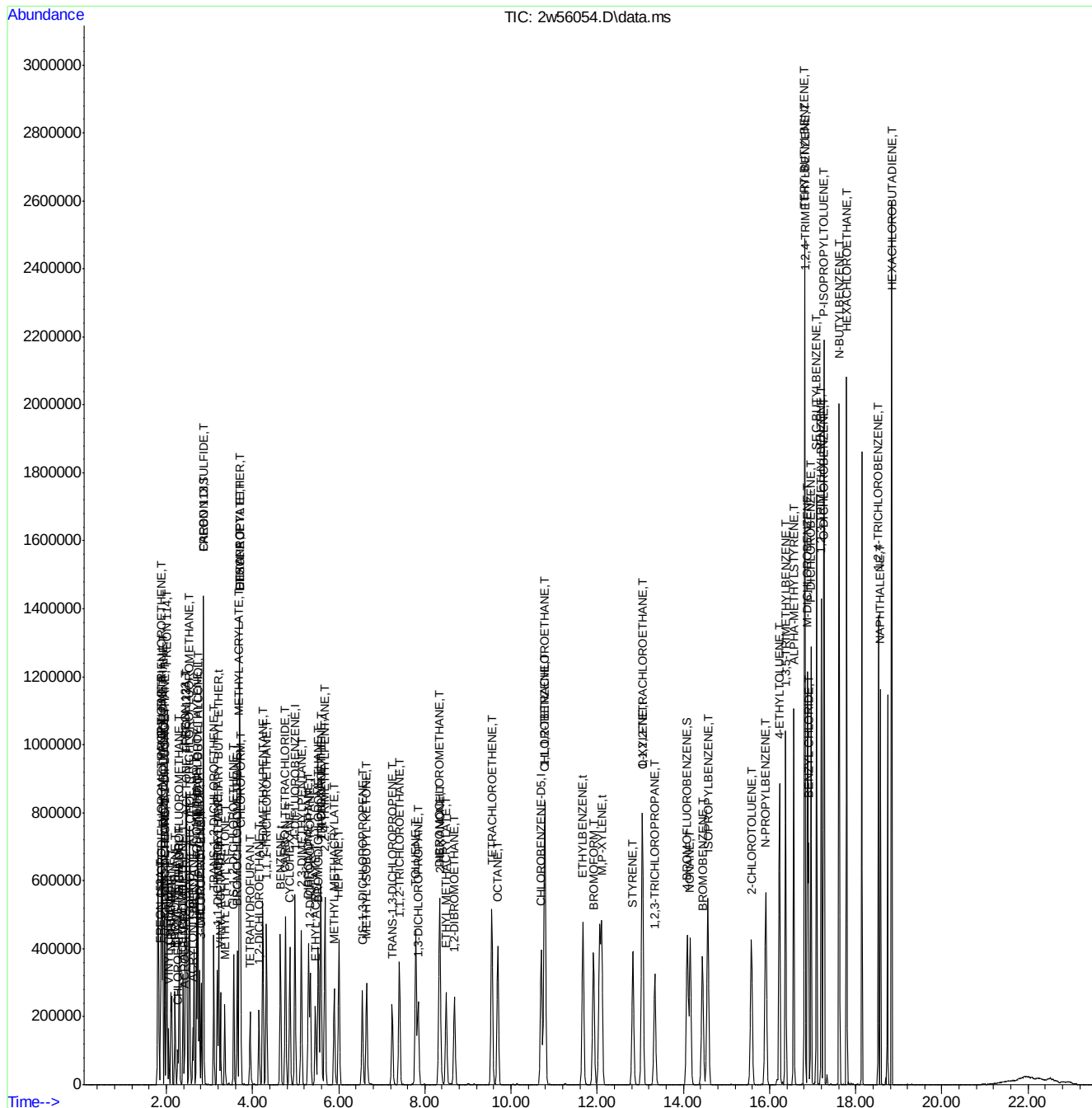
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
97) BENZYL CHLORIDE	16.904	91	375963	12.54	PPBV	95
98) M-DICHLOROBENZENE	16.881	146	404413	9.30	PPBV	98
99) P-DICHLOROBENZENE	16.961	146	400126	9.34	PPBV	98
100) O-DICHLOROBENZENE	17.251	146	376494	9.67	PPBV	98
101) SEC-BUTYLBENZENE	17.087	134	185616	9.86	PPBV	85
102) 1,2,3-TRIMETHYLBENZENE	17.199	105	578260	9.29	PPBV	96
103) P-ISOPROPYLTOLUENE	17.264	134	200447	10.05	PPBV	85
104) N-BUTYLBENZENE	17.611	134	181869	9.80	PPBV	93
105) HEXACHLOROETHANE	17.791	117	261001	10.07	PPBV	98
106) HEXACHLOROBUTADIENE	18.833	225	280122	9.61	PPBV	100
107) 1,2,4-TRICHLOROBENZENE	18.521	180	262259	8.95	PPBV	98
108) NAPHTHALENE	18.572	128	545790	9.03	PPBV	99

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 2w56054.D
Acq On : 4 Nov 2021 8:14 am
Operator : thomash
Sample : bs
Misc : MS54687,V2w2497,,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 04 12:18:42 2021
Quant Method : C:\msdchem\1\METHODS\M2W2424.M
Quant Title : T015 by GCMS w/DB-1, 30m X 0.25mm ID X 0.5 um
QLast Update : Tue Jul 27 16:59:35 2021
Response via : Initial Calibration



7.3.9

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
 Data File : 2w56056.D
 Acq On : 4 Nov 2021 9:45 am
 Operator : thomash
 Sample : bsd
 Misc : MS54687,V2w2497,,,,,1
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 04 12:19:21 2021
 Quant Method : C:\msdchem\1\METHODS\M2W2424.M
 Quant Title : T015 by GCMS w/DB-1, 30m X 0.25mm ID X 0.5 um
 QLast Update : Tue Jul 27 16:59:35 2021
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) BROMOCHLOROMETHANE	3.650	128	93991	10.00	PPBV	0.00
52) 1,4-DIFLUOROBENZENE	4.988	114	482617	10.00	PPBV	0.00
76) CHLOROBENZENE-D5	10.701	117	413587	10.00	PPBV	0.00
System Monitoring Compounds						
87) 4-BROMOFLUOROBENZENE	14.087	95	275500	9.48	PPBV	0.00
Target Compounds						
3) FREON 152A	1.866	65	87029	12.04	PPBV	Qvalue # 73
4) CHLORODIFLUOROMETHANE	1.882	67	32538	7.10	PPBV	96
5) CHLOROTRIFLUOROETHENE	1.898	116	214813	10.49	PPBV	# 100
6) DICHLORODIFLUOROMETHANE	1.917	85	419764	9.67	PPBV	# 96
7) PROPYLENE	1.895	41	85292	10.52	PPBV	90
8) 1-CHLORO-1,1-DIFLUORO...	1.968	65	256953	6.95	PPBV	# 93
9) FREON 114	2.014	85	370940	9.83	PPBV	99
10) CHLOROMETHANE	1.975	52	31776	10.77	PPBV	99
11) VINYL CHLORIDE	2.055	62	127971	10.90	PPBV	99
12) 1,3-BUTADIENE	2.107	54	89609	11.43	PPBV	# 76
13) N-BUTANE	2.129	43	145895	9.72	PPBV	# 96
14) BROMOMETHANE	2.206	94	136717	10.57	PPBV	98
15) CHLOROETHANE	2.271	64	69968	11.11	PPBV	# 87
16) DICHLOROFLUOROMETHANE	2.303	67	283493	9.21	PPBV	# 98
17) ACETONITRILE	2.386	41	79279	9.44	PPBV	# 93
18) ACROLEIN	2.435	56	51265	9.77	PPBV	98
19) FREON 123	2.451	83	302197	9.79	PPBV	96
20) FREON 123A	2.467	117	184179	9.36	PPBV	98
21) TRICHLOROFLUOROMETHANE	2.534	101	365378	7.96	PPBV	99
22) ISOPROPYL ALCOHOL	2.550	45	168171	8.25	PPBV	# 93
23) ACETONE	2.477	58	52210	9.47	PPBV	# 47
24) PENTANE	2.647	42	81791	9.25	PPBV	85
25) IODOMETHANE	2.705	142	360794	9.79	PPBV	87
26) 1,1-DICHLOROETHYLENE	2.731	96	120682	9.45	PPBV	83
27) CARBON DISULFIDE	2.866	76	304113	9.86	PPBV	# 91
28) ETHANOL	2.306	45	40706	9.22	PPBV	# 98
29) BROMOETHENE	2.399	106	132111	9.90	PPBV	# 97
30) ACRYLONITRILE	2.618	52	66921	9.31	PPBV	95
31) METHYLENE CHLORIDE	2.769	84	107935	9.25	PPBV	92
32) 3-CHLOROPROPENE	2.811	76	56947	10.46	PPBV	# 60
33) FREON 113	2.866	151	234123	9.14	PPBV	98
34) TRANS-1,2-DICHLOROETHENE	3.107	96	133767	10.22	PPBV	93
35) TERTIARY BUTYL ALCOHOL	2.740	59	207705	9.07	PPBV	# 93
36) METHYL TERTIARY BUTYL ...	3.219	73	325093	9.66	PPBV	97
37) TETRAHYDROFURAN	3.946	72	61082	11.54	PPBV	94
38) HEXANE	3.702	57	183756	10.85	PPBV	# 76
39) VINYL ACETATE	3.258	86	35732	11.40	PPBV	72
40) 1,1-DICHLOROETHANE	3.184	63	216185	10.21	PPBV	98
41) METHYL ETHYL KETONE	3.358	72	63512	10.90	PPBV	81
42) CIS-1,2-DICHLOROETHENE	3.570	96	143338	10.47	PPBV	93
43) DIISOPROPYL ETHER	3.705	59	55943	11.14	PPBV	94

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
 Data File : 2w56056.D
 Acq On : 4 Nov 2021 9:45 am
 Operator : thomash
 Sample : bsd
 Misc : MS54687,V2w2497,,,,,1
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 04 12:19:21 2021
 Quant Method : C:\msdchem\1\METHODS\M2W2424.M
 Quant Title : T015 by GCMS w/DB-1, 30m X 0.25mm ID X 0.5 um
 QLast Update : Tue Jul 27 16:59:35 2021
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
44) ETHYL ACETATE	3.708	61	36905	12.19	PPBV #	48
45) METHYL ACRYLATE	3.695	55	221571	10.56	PPBV #	98
46) CHLOROFORM	3.727	83	276476	8.59	PPBV #	94
47) 2,4-DIMETHYLPENTANE	4.245	57	219924	11.07	PPBV	98
48) 1,1,1-TRICHLOROETHANE	4.329	97	283329	8.14	PPBV	97
49) CARBON TETRACHLORIDE	4.766	117	315040	8.16	PPBV	99
50) 1,2-DICHLOROETHANE	4.155	62	158318	7.15	PPBV #	97
51) BENZENE	4.653	78	405757	10.55	PPBV	94
53) CYCLOHEXANE	4.869	84	180596	10.13	PPBV	99
54) 2,3-DIMETHYLPENTANE	5.136	71	91468	10.81	PPBV	96
55) TRICHLOROETHENE	5.586	95	189301	9.32	PPBV	98
56) 1,2-DICHLOROPROPANE	5.345	63	144232	10.62	PPBV #	83
57) DIBROMOMETHANE	5.300	174	192443	8.56	PPBV	99
58) ETHYL ACRYLATE	5.460	55	275080	10.64	PPBV	98
59) BROMODICHLOROMETHANE	5.528	83	310277	8.28	PPBV	98
60) 2,2,4-TRIMETHYLPENTANE	5.685	57	595788	10.55	PPBV	99
61) 1,4-DIOXANE	5.589	88	93932	9.72	PPBV #	95
62) HEPTANE	6.007	43	178242	9.74	PPBV	94
63) METHYL METHACRYLATE	5.898	69	154244	11.07	PPBV #	81
64) METHYL ISOBUTYL KETONE	6.650	58	113706	10.39	PPBV	83
65) CIS-1,3-DICHLOROPROPENE	6.550	75	229413	10.13	PPBV #	80
66) TOLUENE	7.791	91	503918	9.80	PPBV	99
67) 1,3-DICHLOROPROPANE	7.849	76	243838	9.76	PPBV #	99
68) TRANS-1,3-DICHLOROPROPENE	7.245	75	201277	9.77	PPBV #	85
69) 1,1,2-TRICHLOROETHANE	7.409	83	145467	10.03	PPBV	94
70) 2-HEXANONE	8.354	58	146948	10.28	PPBV	79
71) ETHYL METHACRYLATE	8.492	69	242138	11.14	PPBV #	88
72) TETRACHLOROETHENE	9.557	164	207187	9.10	PPBV	98
73) DIBROMOCHLOROMETHANE	8.335	129	334391	8.89	PPBV	100
74) 1,2-DIBROMOETHANE	8.688	107	272231	9.70	PPBV	100
75) OCTANE	9.695	43	242400	9.40	PPBV	96
77) 1,1,1,2-TETRACHLOROETHANE	10.791	131	236163	9.23	PPBV	91
78) CHLOROBENZENE	10.778	112	409543	9.58	PPBV	97
79) ETHYLBENZENE	11.666	91	645347	9.45	PPBV	98
80) M, P-XYLENE	12.100	91	993086	18.82	PPBV #	98
81) O-XYLENE	13.048	91	504453	9.22	PPBV	94
82) STYRENE	12.830	104	387999	10.16	PPBV	95
83) NONANE	14.158	43	252293	9.37	PPBV	91
84) BROMOFORM	11.917	173	345410	9.92	PPBV	99
85) 1,1,2,2-TETRACHLOROETHANE	13.052	83	361655	10.87	PPBV	99
86) 1,2,3-TRICHLOROPROPANE	13.338	75	268626	9.22	PPBV	100
88) ISOPROPYLBENZENE	14.566	120	197514	9.85	PPBV	89
89) BROMOBENZENE	14.441	77	331442	9.33	PPBV	99
90) 2-CHLOROTOLUENE	15.576	126	180552	10.14	PPBV	98
91) N-PROPYLBENZENE	15.913	120	201836	10.38	PPBV	98
92) 4-ETHYLTOLUENE	16.228	105	712185	9.86	PPBV	97
93) 1,3,5-TRIMETHYLBENZENE	16.370	105	582475	9.27	PPBV	95
94) ALPHA-METHYLSTYRENE	16.560	118	307045	10.26	PPBV	98
95) TERT-BUTYLBENZENE	16.814	134	154022	10.39	PPBV	84
96) 1,2,4-TRIMETHYLBENZENE	16.820	105	599860	9.77	PPBV	98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 2w56056.D
Acq On : 4 Nov 2021 9:45 am
Operator : thomash
Sample : bsd
Misc : MS54687,V2w2497,,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 04 12:19:21 2021
Quant Method : C:\msdchem\1\METHODS\M2W2424.M
Quant Title : T015 by GCMS w/DB-1, 30m X 0.25mm ID X 0.5 um
QLast Update : Tue Jul 27 16:59:35 2021
Response via : Initial Calibration

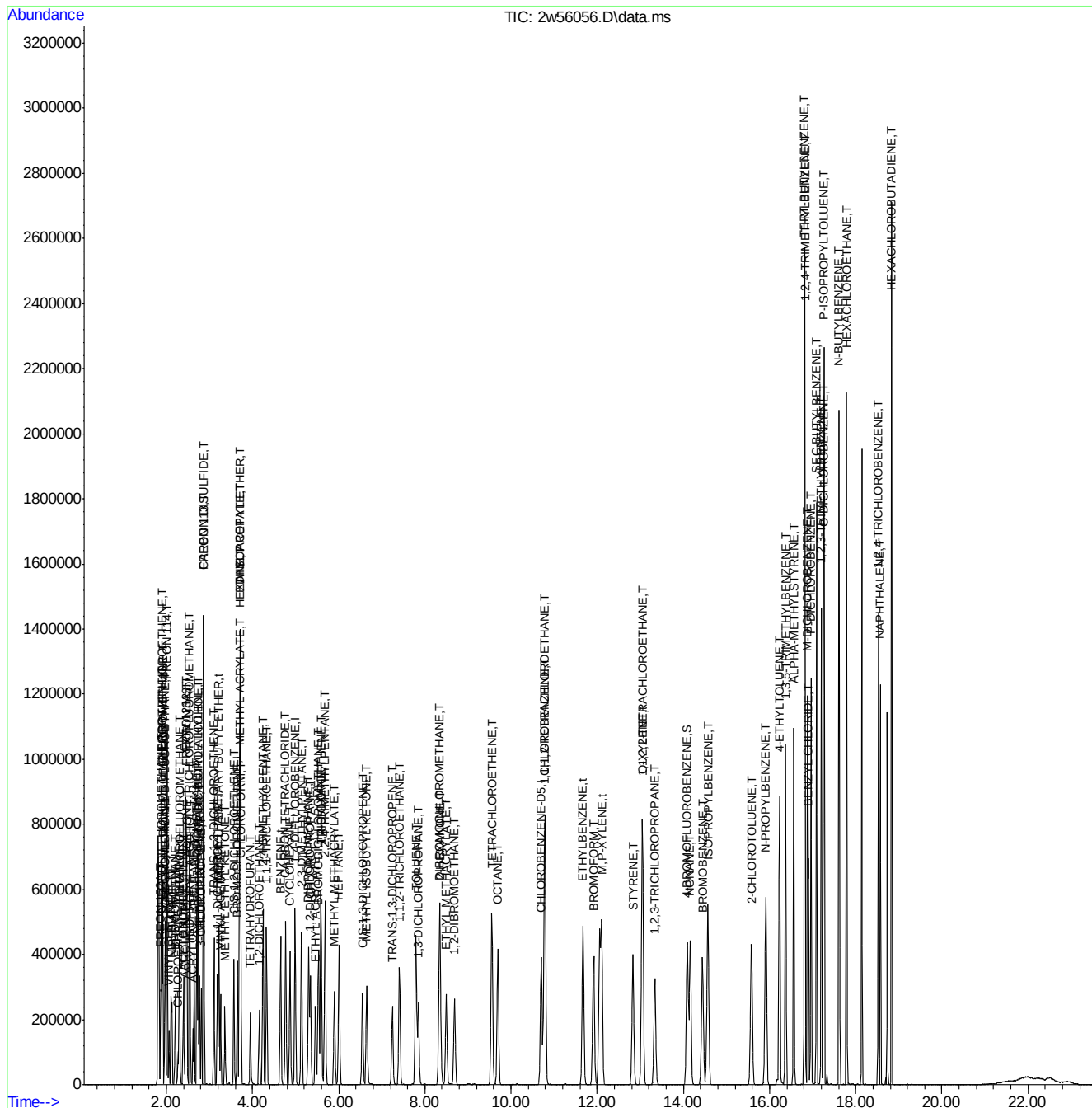
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
97) BENZYL CHLORIDE	16.900	91	380542	12.90	PPBV	95
98) M-DICHLOROBENZENE	16.878	146	411075	9.61	PPBV	98
99) P-DICHLOROBENZENE	16.961	146	402788	9.56	PPBV	98
100) O-DICHLOROBENZENE	17.251	146	383773	10.02	PPBV	98
101) SEC-BUTYLBENZENE	17.090	134	188167	10.17	PPBV	86
102) 1,2,3-TRIMETHYLBENZENE	17.199	105	583963	9.54	PPBV	96
103) P-ISOPROPYLTOLUENE	17.264	134	205739	10.48	PPBV	87
104) N-BUTYLBENZENE	17.608	134	183805	10.07	PPBV	94
105) HEXACHLOROETHANE	17.788	117	265210	10.40	PPBV	98
106) HEXACHLOROBUTADIENE	18.830	225	282781	9.86	PPBV	99
107) 1,2,4-TRICHLOROBENZENE	18.521	180	269108	9.34	PPBV	98
108) NAPHTHALENE	18.569	128	552714	9.30	PPBV	99

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 2w56056.D
Acq On : 4 Nov 2021 9:45 am
Operator : thomash
Sample : bsd
Misc : MS54687,V2w2497,,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 04 12:19:21 2021
Quant Method : C:\msdchem\1\METHODS\M2W2424.M
Quant Title : T015 by GCMS w/DB-1, 30m X 0.25mm ID X 0.5 um
QLast Update : Tue Jul 27 16:59:35 2021
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
 Data File : 5W46786.D
 Acq On : 13 Dec 2021 5:56 pm
 Operator : danat
 Sample : jd36248-1dup
 Misc : ms55457,v5w1935,100,,,1
 ALS Vial : 7 Sample Multiplier: 1

Quant Time: Dec 14 09:49:21 2021
 Quant Method : C:\msdchem\1\methods\m5w1909.M
 Quant Title : T0-15 Full Scan Mode
 QLast Update : Mon Nov 08 09:09:12 2021
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

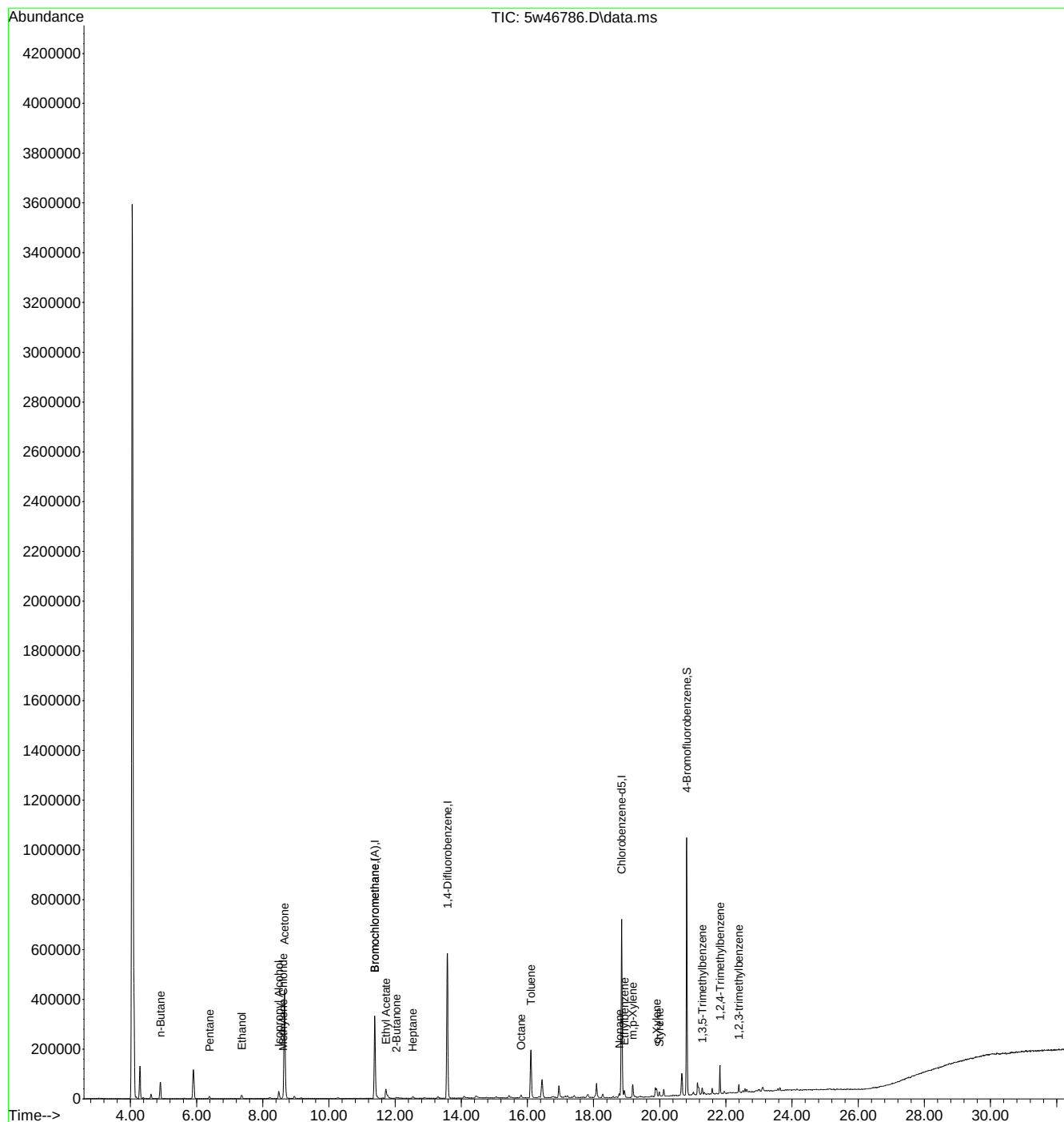
Internal Standards						
1) Bromochloromethane	11.390	130	187871	10.00	ppb(v	-0.02
53) 1,4-Difluorobenzene	13.580	114	679892	10.00	ppb(v	-0.03
76) Chlorobenzene-d5	18.848	82	279427	10.00	ppb(v	-0.04
108) Bromochloromethane (A)	11.390	130	187871	10.00	ppb(v	-0.02
System Monitoring Compounds						
90) 4-Bromofluorobenzene	20.817	95	367483	9.27	ppb(v	-0.02
Spiked Amount 10.000	Range 65 - 128		Recovery	=	92.70%	
Target Compounds						
					Qvalue	
12) n-Butane	4.905	58	9261	4.58	ppb(v	87
22) Acetone	8.656	58	237665	41.70	ppb(v	77
23) Pentane	6.392	57	1111	0.34	ppb(v	78
25) Isopropyl Alcohol	8.484	43	9730	2.55	ppb(v	92
28) Methylene Chloride	8.613	84	4574	0.28	ppb(v	98
30) Ethanol	7.365	45	22003	5.04	ppb(v	98
38) 2-Butanone	12.039	72	2466	0.38	ppb(v	97
42) Ethyl Acetate	11.727	61	10479	2.80	ppb(v	91
55) Heptane	12.534	71	2542	0.17	ppb(v	89
66) Toluene	16.107	91	198208	2.76	ppb(v	92
74) Octane	15.807	43	5430	0.20	ppb(v	99
78) Ethylbenzene	18.933	91	27971	0.32	ppb(v	91
79) m,p-Xylene	19.184	91	40603	0.61	ppb(v	97
80) Styrene	19.985	104	14051	0.27	ppb(v	94
81) Nonane	18.774	43	7436	0.27	ppb(v#	87
82) o-Xylene	19.906	91	19628	0.28	ppb(v	95
92) 1,3,5-Trimethylbenzene	21.282	105	18353	0.25	ppb(v#	87
95) 1,2,4-Trimethylbenzene	21.821	105	68901	0.95	ppb(v#	92
97) 1,2,3-trimethylbenzene	22.390	105	21244	0.31	ppb(v	99

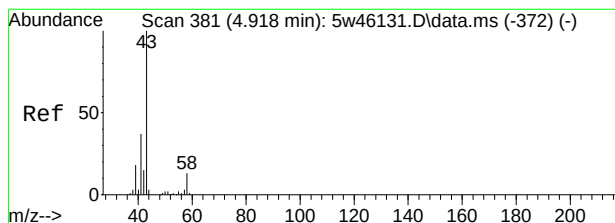
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 5w46786.D
Acq On : 13 Dec 2021 5:56 pm
Operator : danat
Sample : jd36248-1dup
Misc : ms55457,v5w1935,100,,,,,1
ALS Vial : 7 Sample Multiplier: 1

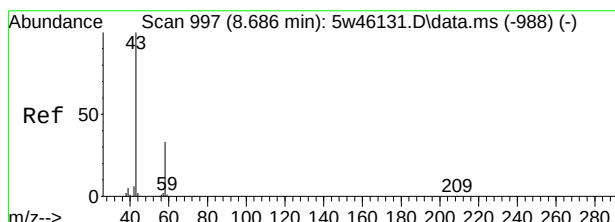
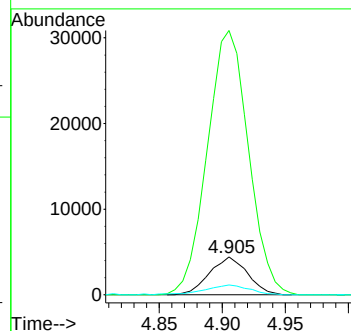
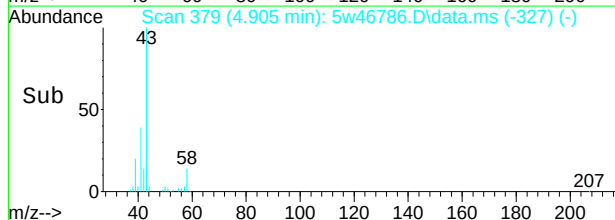
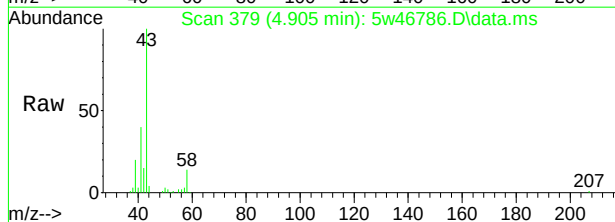
Quant Time: Dec 14 09:49:21 2021
Quant Method : C:\msdchem\1\methods\m5w1909.M
Quant Title : T0-15 Full Scan Mode
QLast Update : Mon Nov 08 09:09:12 2021
Response via : Initial Calibration





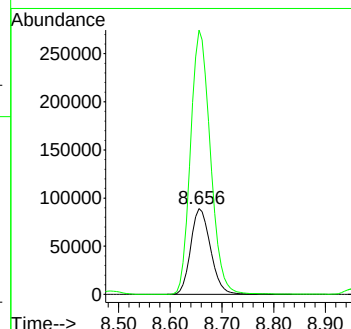
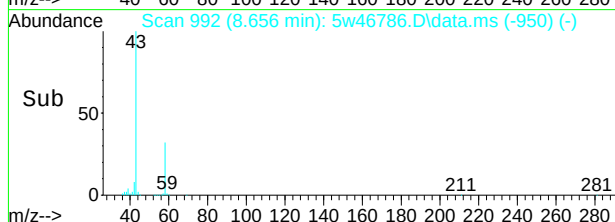
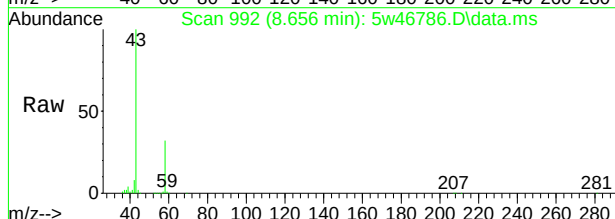
#12
n-Butane
Concen: 4.58 ppb(v)
RT: 4.905 min Scan# 379
Delta R.T. -0.012 min
Lab File: 5w46786.D
Acq: 13 Dec 2021 5:56 pm

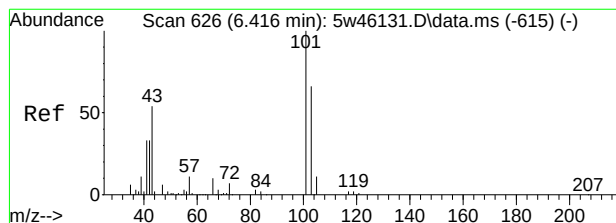
Tgt	Ion	Ratio	Lower	Upper
58	100			
43	700.1	523.2	971.7	
44	25.9	18.6	34.6	



#22
Acetone
Concen: 41.70 ppb(v)
RT: 8.656 min Scan# 992
Delta R.T. -0.073 min
Lab File: 5w46786.D
Acq: 13 Dec 2021 5:56 pm

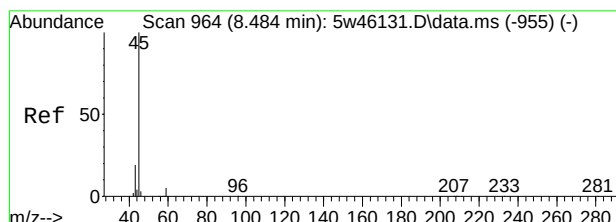
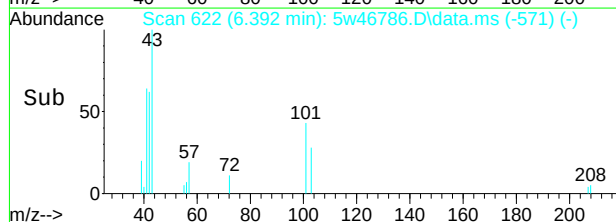
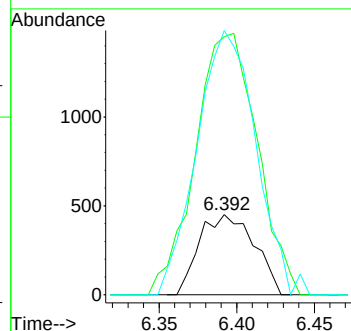
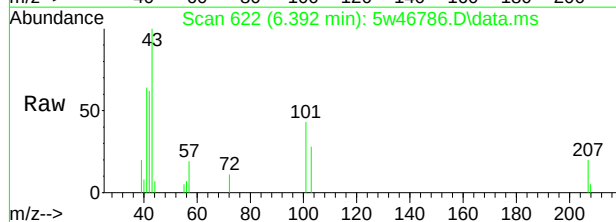
Tgt	Ion	Ratio	Lower	Upper
58	100			
43	308.2	186.7	346.7	





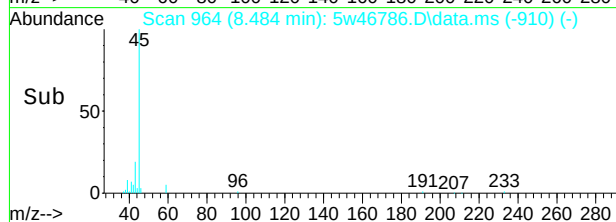
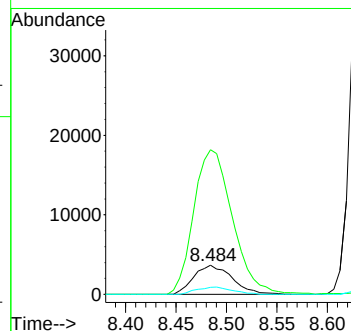
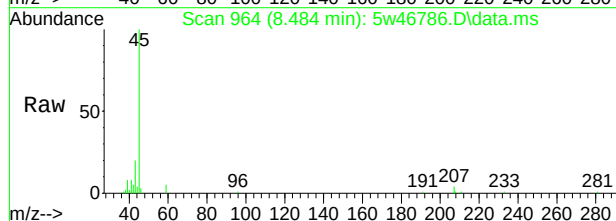
#23
Pentane
Concen: 0.34 ppb(v)
RT: 6.392 min Scan# 622
Delta R.T. -0.018 min
Lab File: 5w46786.D
Acq: 13 Dec 2021 5:56 pm

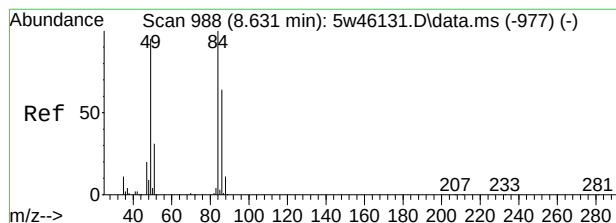
Tgt Ion	Ratio	Lower	Upper
57	100		
42	321.7	192.4	357.4
41	329.7	204.9	380.5



#25
Isopropyl Alcohol
Concen: 2.55 ppb(v)
RT: 8.484 min Scan# 964
Delta R.T. -0.000 min
Lab File: 5w46786.D
Acq: 13 Dec 2021 5:56 pm

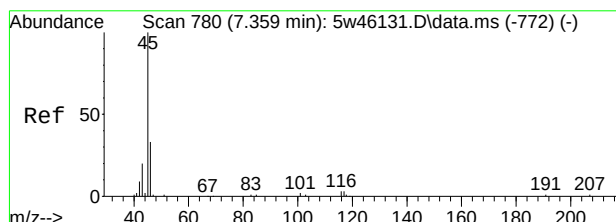
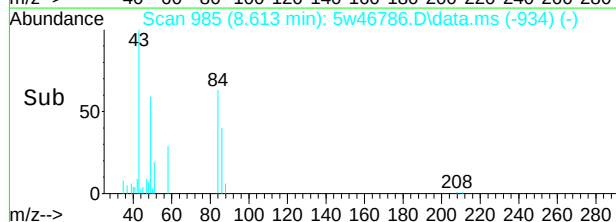
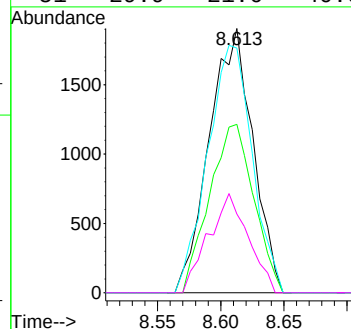
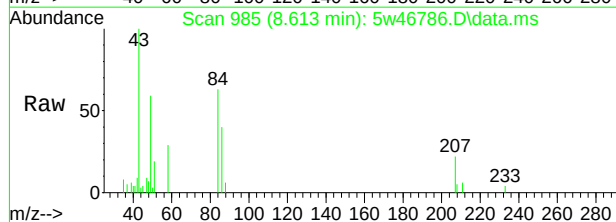
Tgt Ion	Ratio	Lower	Upper
43	100		
45	493.0	361.2	670.8
59	24.3	17.1	31.9





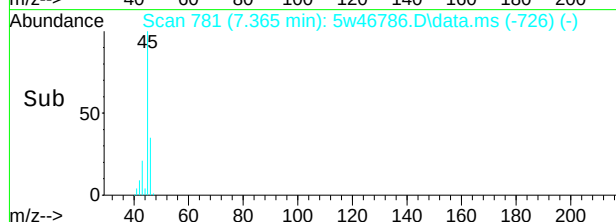
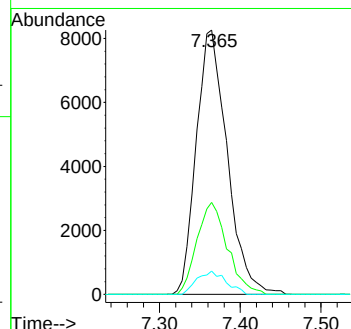
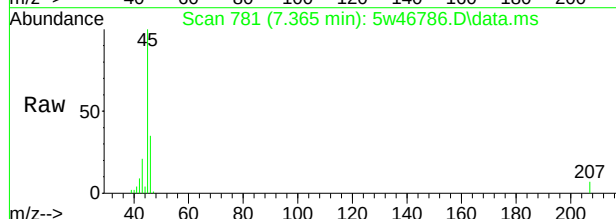
#28
Methylene Chloride
Concen: 0.28 ppb(v)
RT: 8.613 min Scan# 985
Delta R.T. -0.018 min
Lab File: 5w46786.D
Acq: 13 Dec 2021 5:56 pm

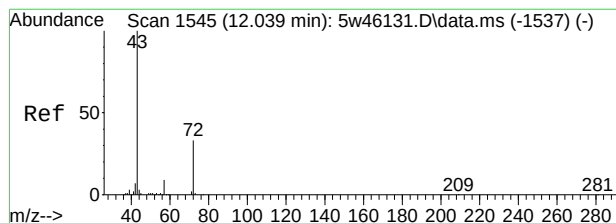
Tgt Ion:	84	Resp:	4574
Ion	Ratio	Lower	Upper
84	100		
86	63.7	44.9	83.3
49	92.5	66.4	123.4
51	29.9	21.6	40.0



#30
Ethanol
Concen: 5.04 ppb(v)
RT: 7.365 min Scan# 781
Delta R.T. 0.006 min
Lab File: 5w46786.D
Acq: 13 Dec 2021 5:56 pm

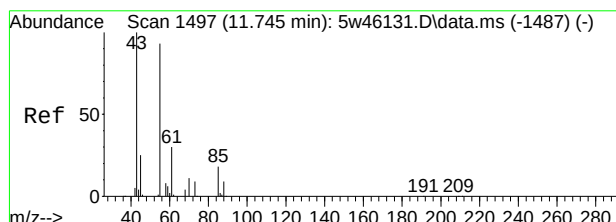
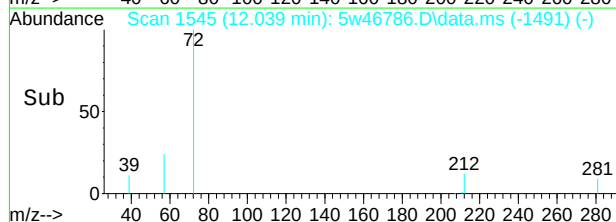
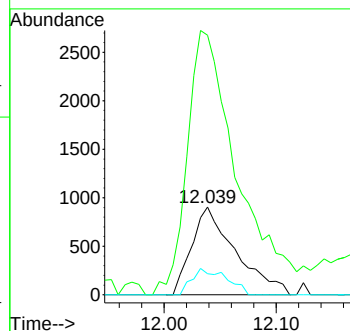
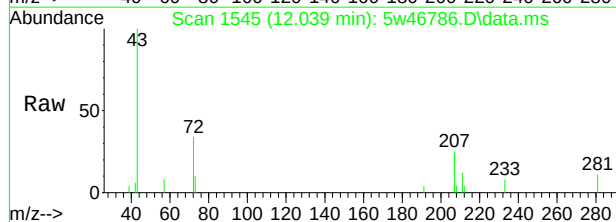
Tgt Ion:	45	Resp:	22003
Ion	Ratio	Lower	Upper
45	100		
46	34.8	23.4	43.4
42	8.8	6.3	11.7





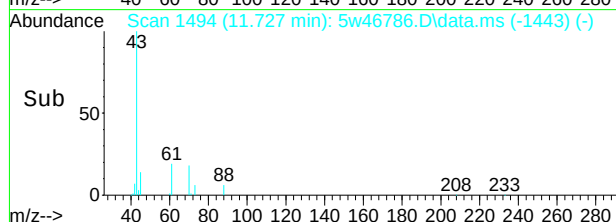
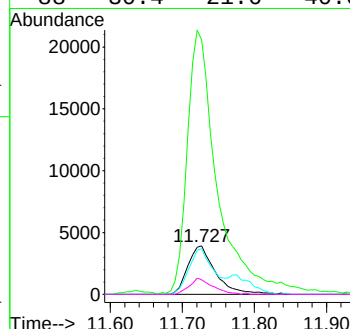
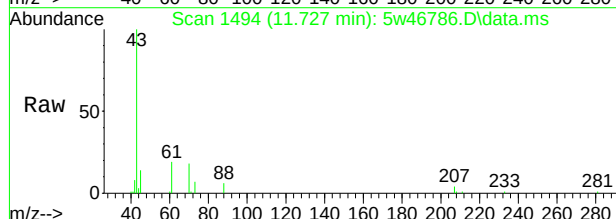
#38
2-Butanone
Concen: 0.38 ppb(v)
RT: 12.039 min Scan# 1545
Delta R.T. -0.000 min
Lab File: 5w46786.D
Acq: 13 Dec 2021 5:56 pm

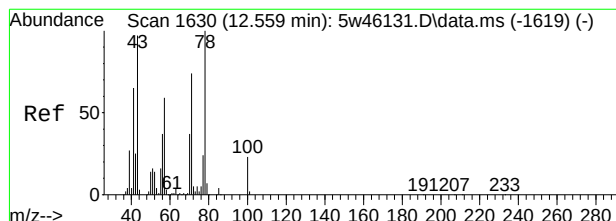
Tgt Ion: 72 Resp: 2466
Ion Ratio Lower Upper
72 100
43 295.3 209.6 389.2
57 23.8 19.4 36.0



#42
Ethyl Acetate
Concen: 2.80 ppb(v)
RT: 11.727 min Scan# 1494
Delta R.T. -0.018 min
Lab File: 5w46786.D
Acq: 13 Dec 2021 5:56 pm

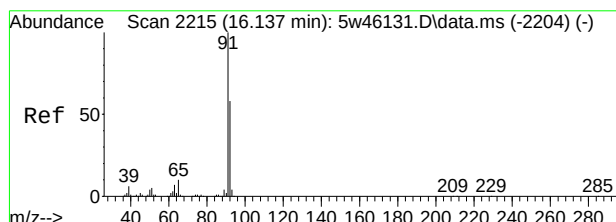
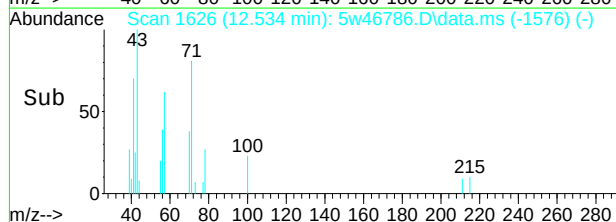
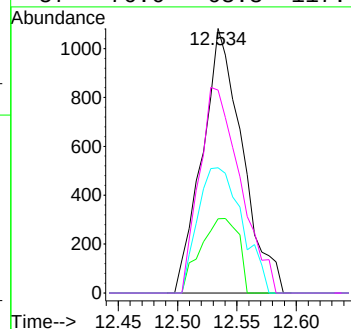
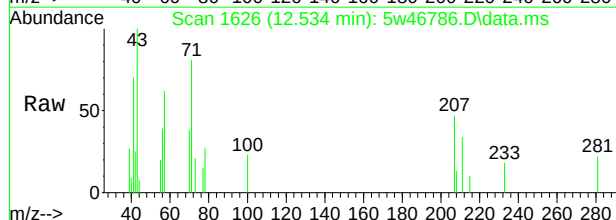
Tgt Ion: 61 Resp: 10479
Ion Ratio Lower Upper
61 100
43 524.1 388.8 722.0
70 94.5 63.6 118.0
88 30.4 21.6 40.0





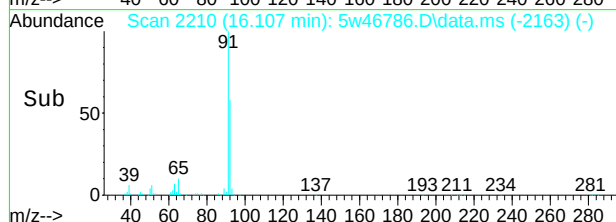
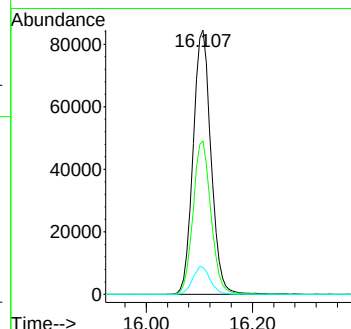
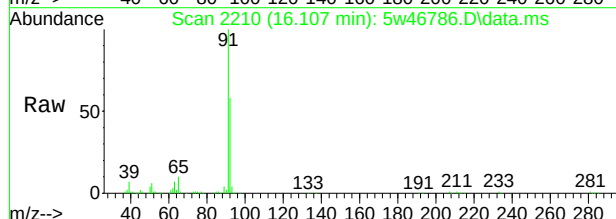
#55
Heptane
Concen: 0.17 ppb(v)
RT: 12.534 min Scan# 1626
Delta R.T. -0.025 min
Lab File: 5w46786.D
Acq: 13 Dec 2021 5:56 pm

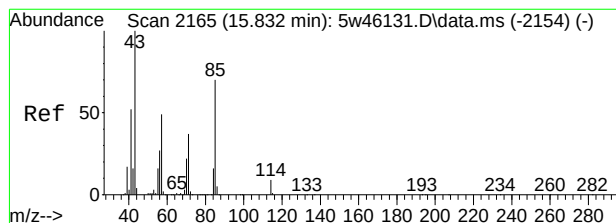
Tgt Ion	Ratio	Lower	Upper
71	100		
100	28.0	25.2	46.8
70	47.3	32.1	59.7
57	76.6	63.3	117.7



#66
Toluene
Concen: 2.76 ppb(v)
RT: 16.107 min Scan# 2210
Delta R.T. -0.043 min
Lab File: 5w46786.D
Acq: 13 Dec 2021 5:56 pm

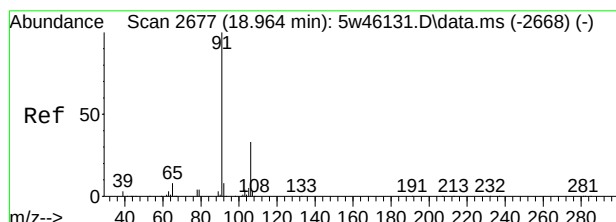
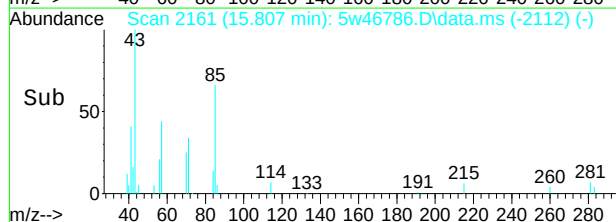
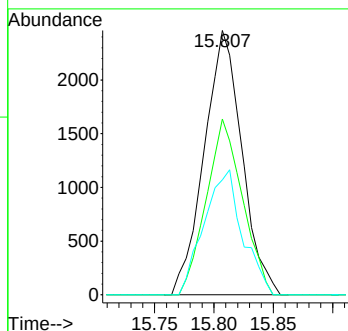
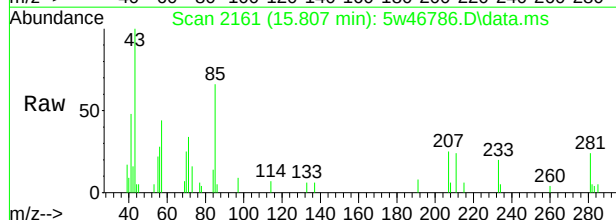
Tgt Ion	Ratio	Lower	Upper
91	100		
92	58.1	45.5	84.5
65	10.2	6.0	11.2





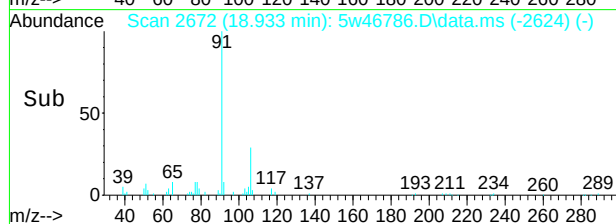
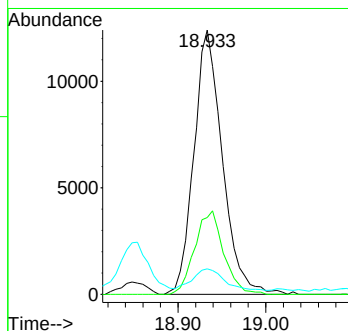
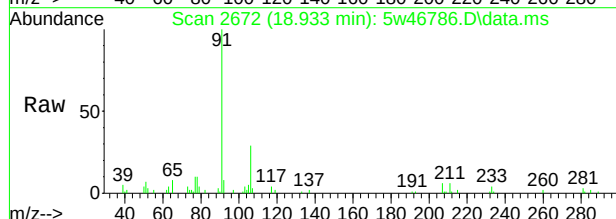
#74
Octane
Concen: 0.20 ppb(v)
RT: 15.807 min Scan# 2161
Delta R.T. -0.031 min
Lab File: 5w46786.D
Acq: 13 Dec 2021 5:56 pm

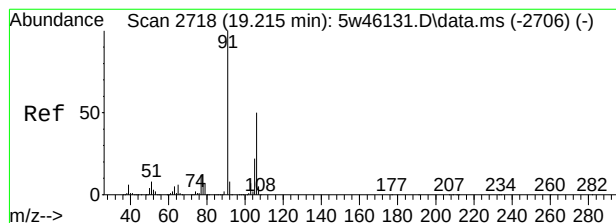
Tgt	Ion: 43	Resp:	5430
Ion	Ratio	Lower	Upper
43	100		
85	66.5	46.0	85.4
57	43.5	30.6	56.8



#78
Ethylbenzene
Concen: 0.32 ppb(v)
RT: 18.933 min Scan# 2672
Delta R.T. -0.037 min
Lab File: 5w46786.D
Acq: 13 Dec 2021 5:56 pm

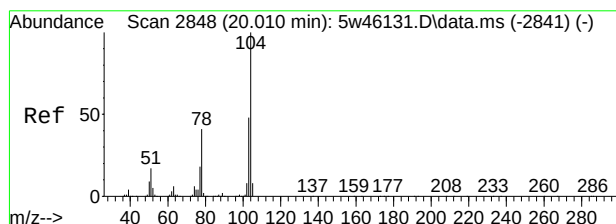
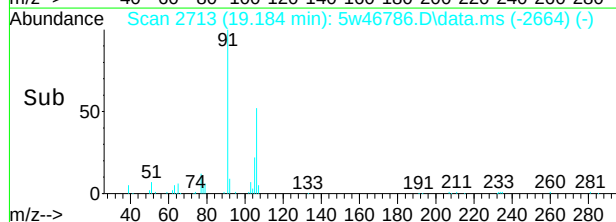
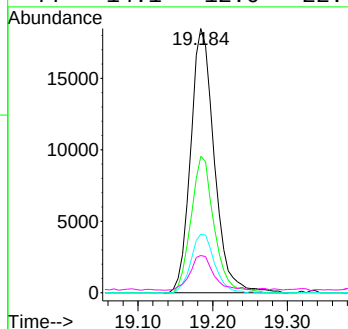
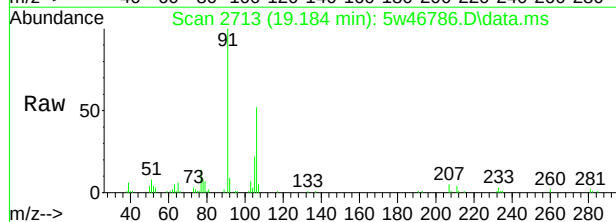
Tgt	Ion: 91	Resp:	27971
Ion	Ratio	Lower	Upper
91	100		
106	29.1	23.9	44.5
77	9.7	9.1	16.9





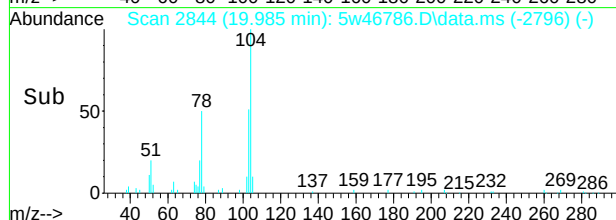
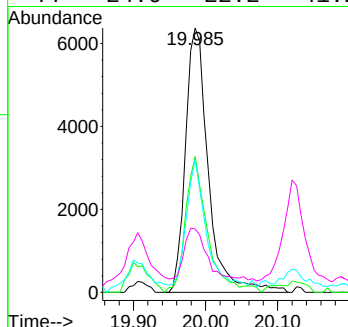
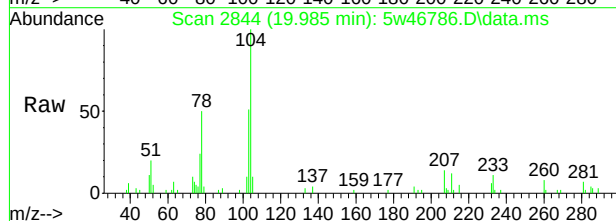
#79
m,p-Xylene
Concen: 0.61 ppb(v)
RT: 19.184 min Scan# 2713
Delta R.T. -0.031 min
Lab File: 5w46786.D
Acq: 13 Dec 2021 5:56 pm

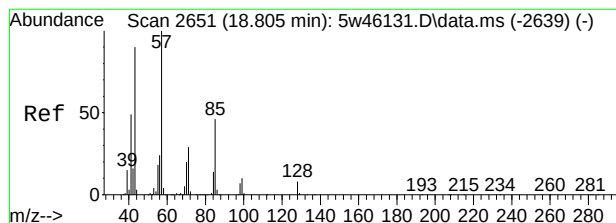
Tgt Ion	91	Resp	40603
Ion	Ratio	Lower	Upper
91	100		
106	51.6	34.9	64.9
105	22.2	15.4	28.6
77	14.1	12.0	22.4



#80
Styrene
Concen: 0.27 ppb(v)
RT: 19.985 min Scan# 2844
Delta R.T. -0.037 min
Lab File: 5w46786.D
Acq: 13 Dec 2021 5:56 pm

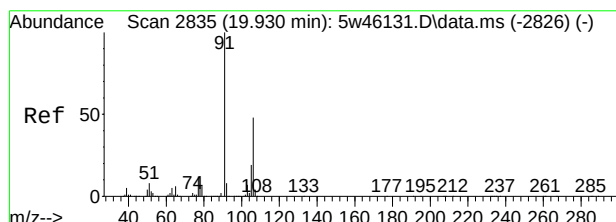
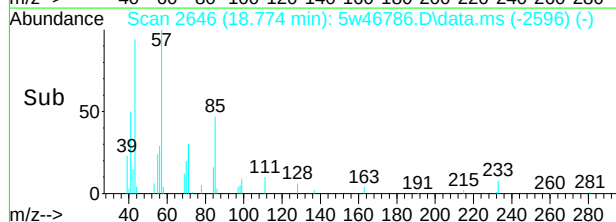
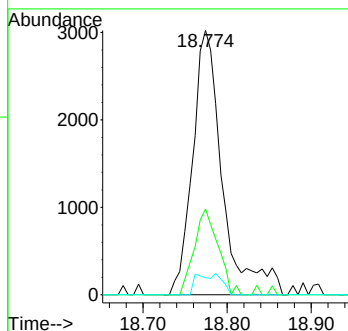
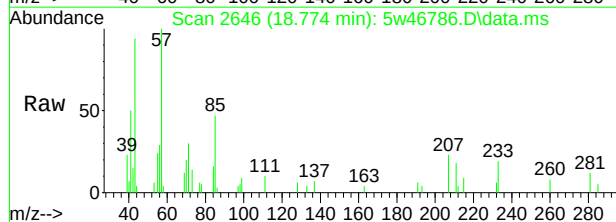
Tgt Ion	104	Resp	14051
Ion	Ratio	Lower	Upper
104	100		
103	51.5	34.2	63.4
78	50.1	36.5	67.7
77	24.0	22.2	41.2





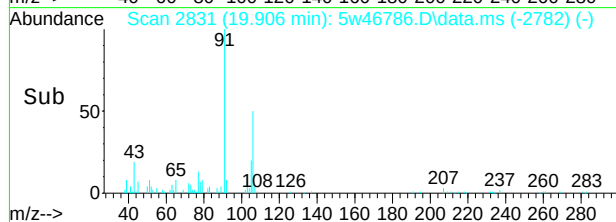
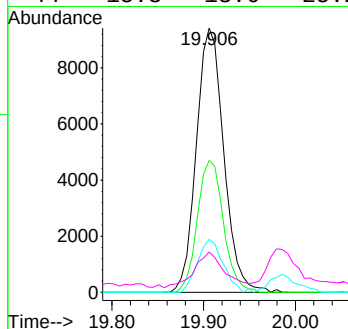
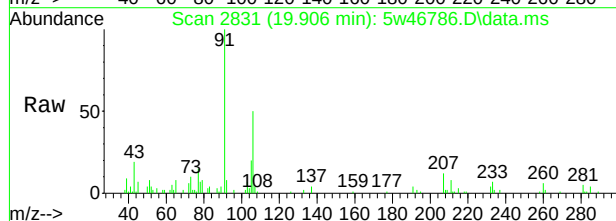
#81
Nonane
Concen: 0.27 ppb(v)
RT: 18.774 min Scan# 2646
Delta R.T. -0.025 min
Lab File: 5w46786.D
Acq: 13 Dec 2021 5:56 pm

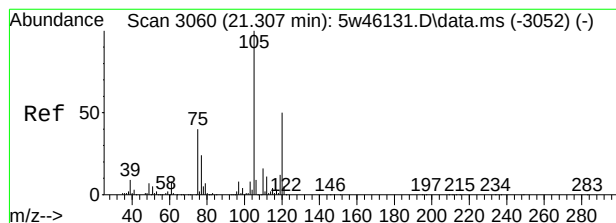
Tgt Ion	Ratio	Lower	Upper
43	100		
71	32.4	18.1	33.5
128	6.5	0.0	0.0#



#82
o-Xylene
Concen: 0.28 ppb(v)
RT: 19.906 min Scan# 2831
Delta R.T. -0.031 min
Lab File: 5w46786.D
Acq: 13 Dec 2021 5:56 pm

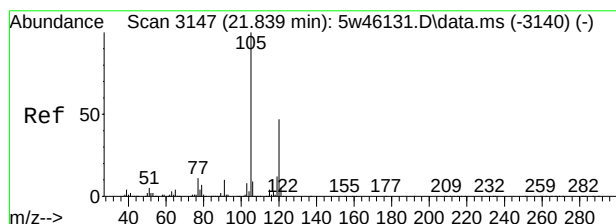
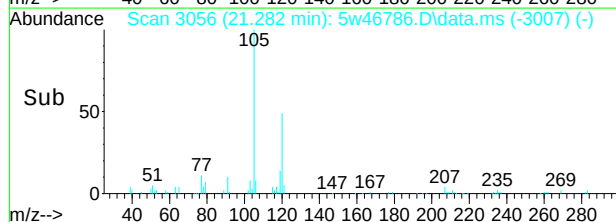
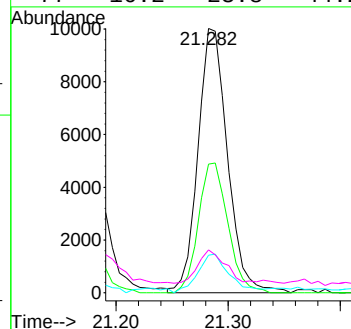
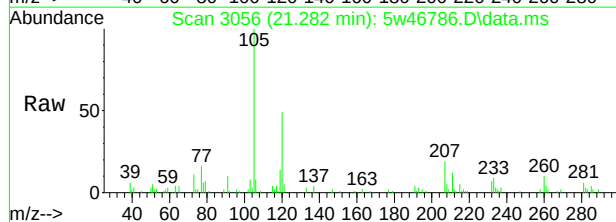
Tgt Ion	Ratio	Lower	Upper
91	100		
106	50.0	36.3	67.3
105	20.0	15.8	29.3
77	15.3	13.6	25.2





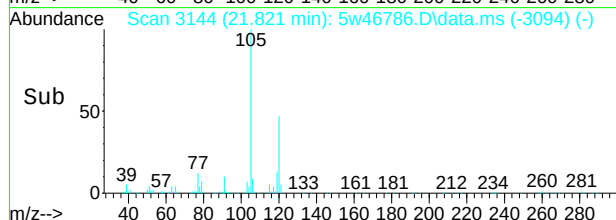
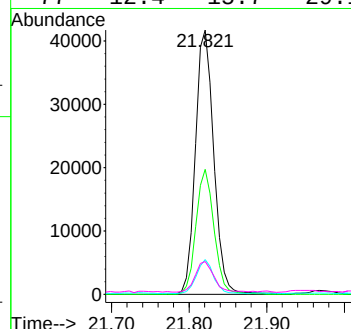
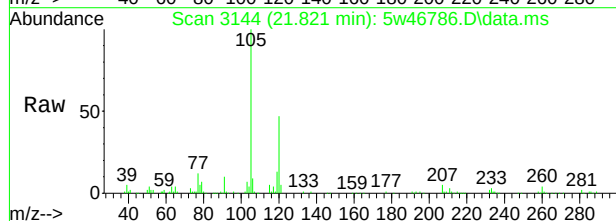
#92
1,3,5-Trimethylbenzene
Concen: 0.25 ppb(v)
RT: 21.282 min Scan# 3056
Delta R.T. -0.031 min
Lab File: 5w46786.D
Acq: 13 Dec 2021 5:56 pm

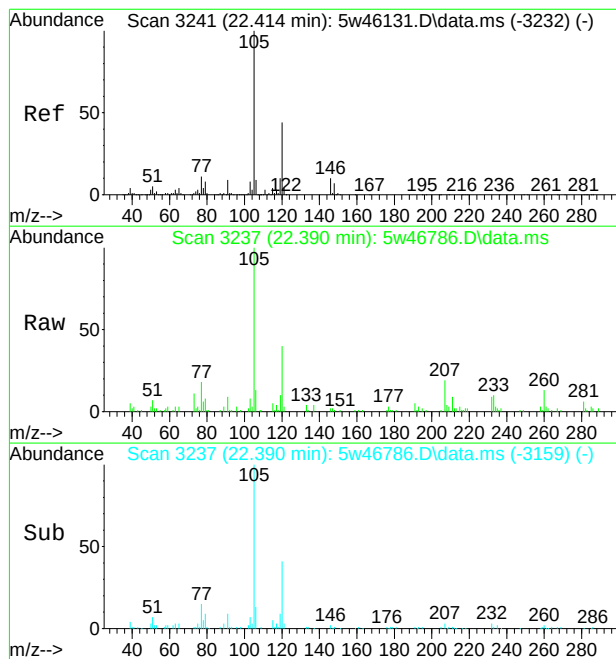
Tgt Ion:	105	Resp:	18353
Ion Ratio	Lower	Upper	
105	100		
120	48.7	35.4	65.7
119	14.2	8.2	15.2
77	16.2	23.8	44.2#



#95
1,2,4-Trimethylbenzene
Concen: 0.95 ppb(v)
RT: 21.821 min Scan# 3144
Delta R.T. -0.025 min
Lab File: 5w46786.D
Acq: 13 Dec 2021 5:56 pm

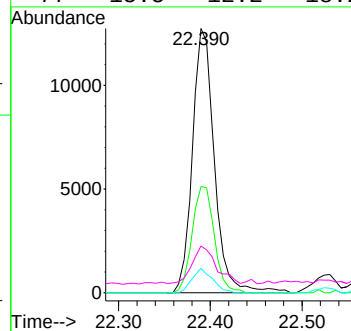
Tgt Ion:	105	Resp:	68901
Ion Ratio	Lower	Upper	
105	100		
120	47.2	33.5	62.1
119	13.2	13.2	24.4
77	12.4	15.7	29.1#





#97
1,2,3-trimethylbenzene
Concen: 0.31 ppb(v)
RT: 22.390 min Scan# 3237
Delta R.T. -0.025 min
Lab File: 5w46786.D
Acq: 13 Dec 2021 5:56 pm

Tgt Ion	105	Resp	21244
Ion Ratio	Lower	Upper	
105	100		
120	40.5	32.8	49.2
91	8.6	7.0	10.4
77	15.5	12.2	18.2



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
 Data File : 5W46816.D
 Acq On : 14 Dec 2021 7:49 pm
 Operator : danat
 Sample : jd36496-1dup
 Misc : ms55532,v5w1936,100,,,1
 ALS Vial : 10 Sample Multiplier: 1

Quant Time: Dec 15 14:19:55 2021
 Quant Method : C:\msdchem\1\methods\m5w1909.M
 Quant Title : T0-15 Full Scan Mode
 QLast Update : Mon Nov 08 09:09:12 2021
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

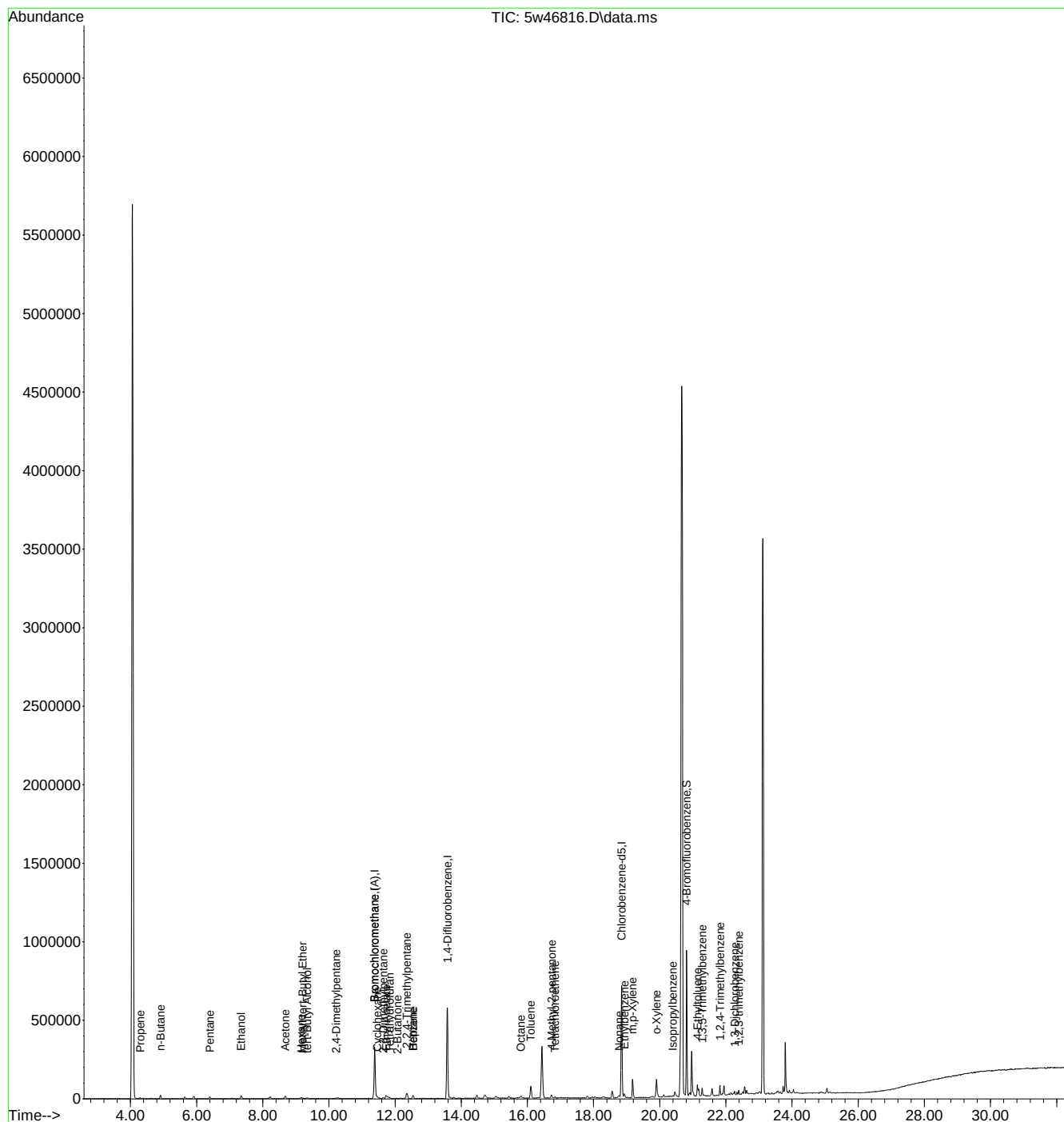
Internal Standards						
1) Bromochloromethane	11.384	130	183044	10.00	ppb(v	-0.03
53) 1,4-Difluorobenzene	13.580	114	672143	10.00	ppb(v	-0.03
76) Chlorobenzene-d5	18.848	82	280958	10.00	ppb(v	-0.04
108) Bromochloromethane (A)	11.384	130	183044	10.00	ppb(v	-0.03
System Monitoring Compounds						
90) 4-Bromofluorobenzene	20.811	95	333269	8.36	ppb(v	-0.03
Spiked Amount 10.000	Range 65 - 128		Recovery	=	83.60%	
Target Compounds						
					Qvalue	
4) Propene	4.294	41	2061	0.25	ppb(v#	82
12) n-Butane	4.905	58	2198	1.12	ppb(v	89
22) Acetone	8.680	58	6269	1.13	ppb(v	71
23) Pentane	6.404	57	1726	0.55	ppb(v	90
30) Ethanol	7.346	45	29245	6.87	ppb(v	98
34) tert-Butyl Alcohol	9.341	59	10014	0.36	ppb(v#	85
35) Methyl tert-Butyl Ether	9.200	73	6843	0.15	ppb(v#	79
38) 2-Butanone	12.069	72	838	0.13	ppb(v#	74
39) Hexane	9.157	56	3363	0.30	ppb(v#	73
42) Ethyl Acetate	11.733	61	5105	1.40	ppb(v	96
45) 2,4-Dimethylpentane	10.216	57	2336	0.09	ppb(v	97
46) Tetrahydrofuran	11.837	72	2194	0.33	ppb(v	75
49) Benzene	12.546	78	17415	0.35	ppb(v	91
51) Cyclohexane	11.464	56	3474	0.16	ppb(v#	89
52) 2,3-Dimethylpentane	11.647	71	1625	0.16	ppb(v	98
54) 2,2,4-Trimethylpentane	12.357	57	47443	0.69	ppb(v	97
55) Heptane	12.540	71	2713	0.18	ppb(v	90
64) 4-Methyl-2-pentanone	16.731	58	7779	0.66	ppb(v	81
66) Toluene	16.101	91	81385	1.15	ppb(v	91
72) Tetrachloroethene	16.835	166	2108	0.04	ppb(v	91
74) Octane	15.801	43	8039	0.30	ppb(v	91
78) Ethylbenzene	18.933	91	25703	0.29	ppb(v	97
79) m,p-Xylene	19.178	91	92384	1.38	ppb(v	98
81) Nonane	18.768	43	8441	0.30	ppb(v#	91
82) o-Xylene	19.900	91	82006	1.16	ppb(v#	94
86) Isopropylbenzene	20.395	105	8150	0.08	ppb(v	95
91) 4-Ethyltoluene	21.142	105	61872	0.67	ppb(v	98
92) 1,3,5-Trimethylbenzene	21.283	105	31948	0.43	ppb(v#	85
95) 1,2,4-Trimethylbenzene	21.821	105	38589	0.53	ppb(v#	91
96) 1,3-Dichlorobenzene	22.261	146	9888	0.18	ppb(v	93
97) 1,2,3-trimethylbenzene	22.390	105	19264	0.28	ppb(v#	92

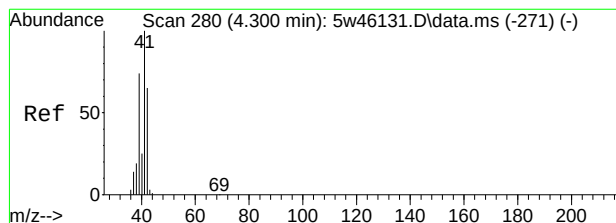
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 5w46816.D
Acq On : 14 Dec 2021 7:49 pm
Operator : danat
Sample : jd36496-1dup
Misc : ms55532,v5w1936,100,,,,,1
ALS Vial : 10 Sample Multiplier: 1

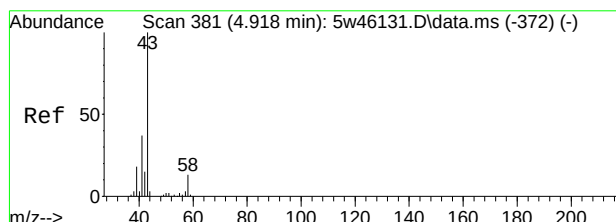
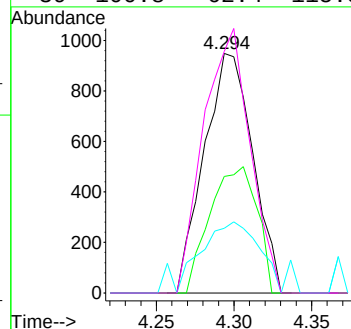
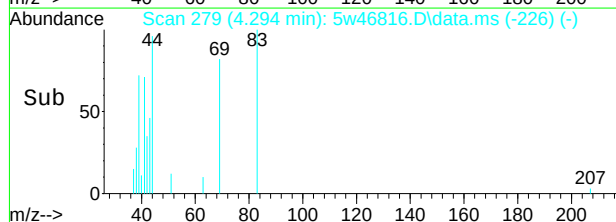
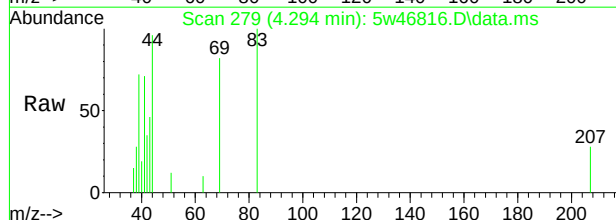
Quant Time: Dec 15 14:19:55 2021
Quant Method : C:\msdchem\1\methods\m5w1909.M
Quant Title : T0-15 Full Scan Mode
QLast Update : Mon Nov 08 09:09:12 2021
Response via : Initial Calibration





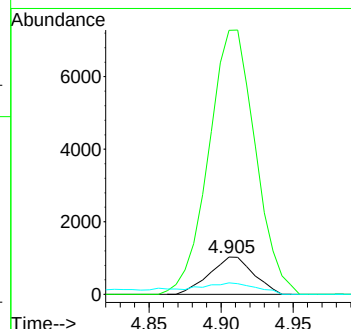
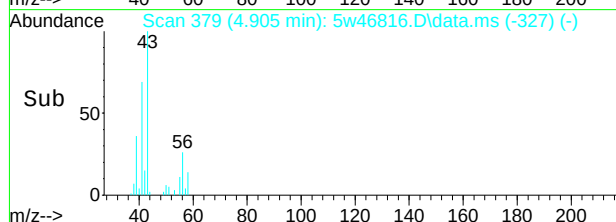
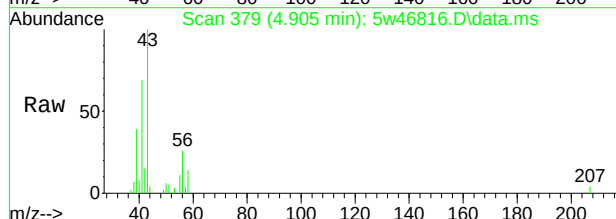
#4
Propene
Concen: 0.25 ppb(v)
RT: 4.294 min Scan# 279
Delta R.T. -0.006 min
Lab File: 5w46816.D
Acq: 14 Dec 2021 7:49 pm

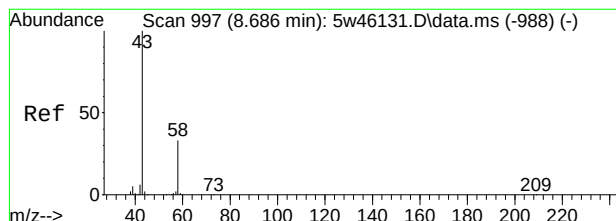
Tgt	Ion	41	Resp	2061
	Ratio	100	Lower	Upper
	41	100		
	42	48.6	47.9	89.1
	40	27.0	27.9	51.9#
	39	100.8	62.4	115.8



#12
n-Butane
Concen: 1.12 ppb(v)
RT: 4.905 min Scan# 379
Delta R.T. -0.012 min
Lab File: 5w46816.D
Acq: 14 Dec 2021 7:49 pm

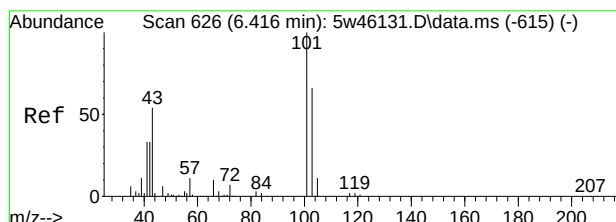
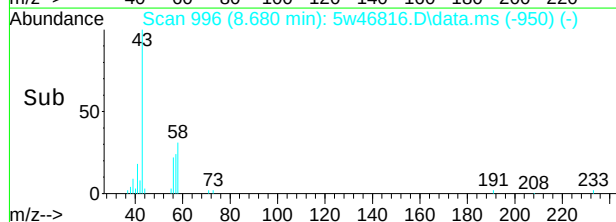
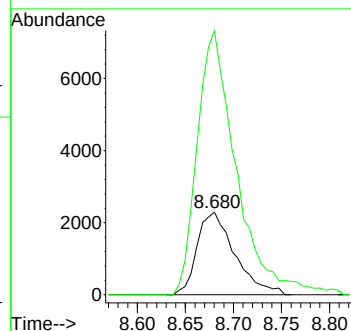
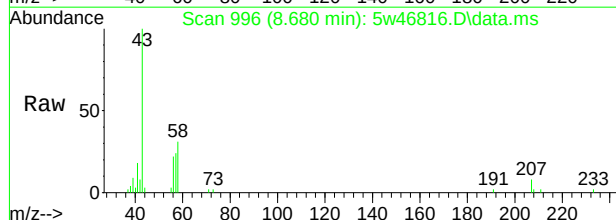
Tgt	Ion	58	Resp	2198
	Ratio	100	Lower	Upper
	58	100		
	43	706.0	523.2	971.7
	44	30.6	18.6	34.6





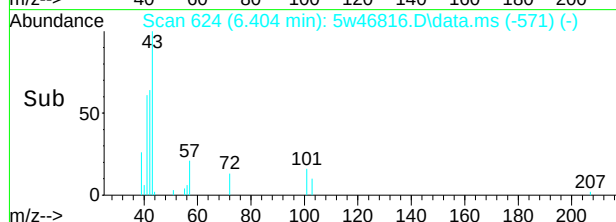
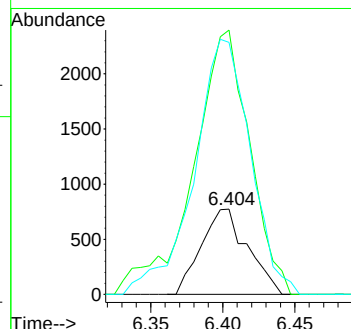
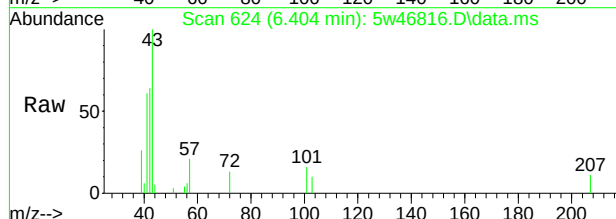
#22
Acetone
Concen: 1.13 ppb(v)
RT: 8.680 min Scan# 996
Delta R.T. -0.049 min
Lab File: 5w46816.D
Acq: 14 Dec 2021 7:49 pm

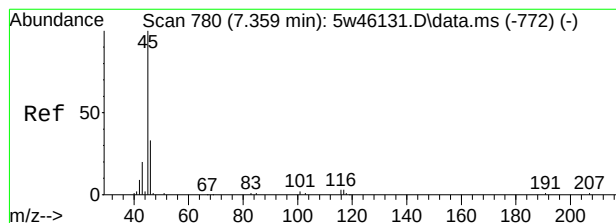
Tgt Ion: 58 Resp: 6269
Ion Ratio Lower Upper
58 100
43 319.3 186.7 346.7



#23
Pentane
Concen: 0.55 ppb(v)
RT: 6.404 min Scan# 624
Delta R.T. -0.006 min
Lab File: 5w46816.D
Acq: 14 Dec 2021 7:49 pm

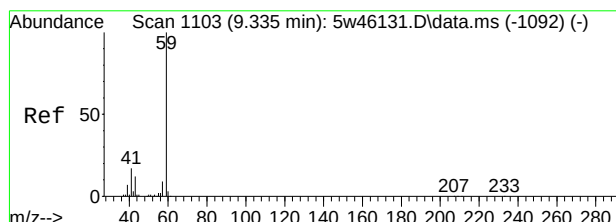
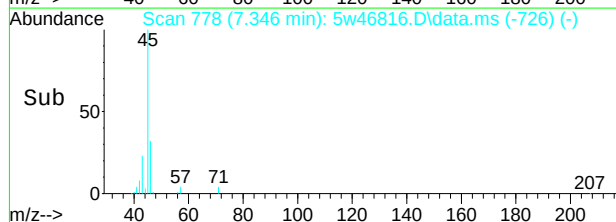
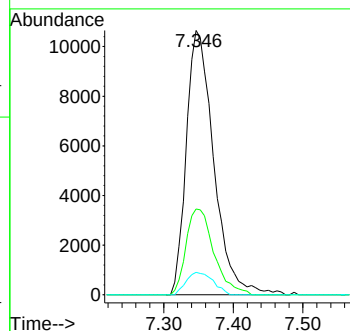
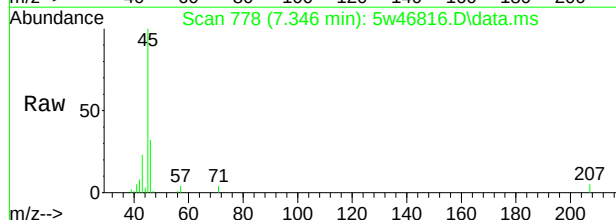
Tgt Ion: 57 Resp: 1726
Ion Ratio Lower Upper
57 100
42 310.3 192.4 357.4
41 295.9 204.9 380.5





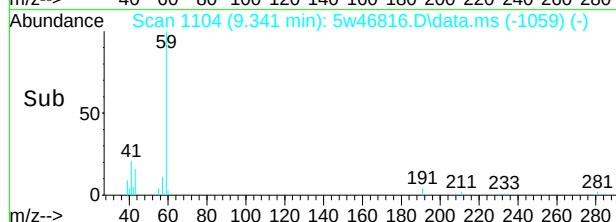
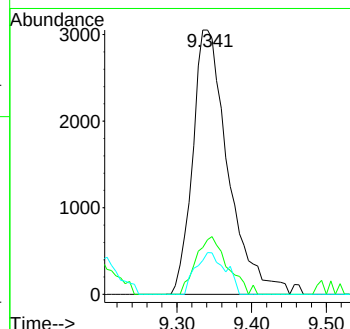
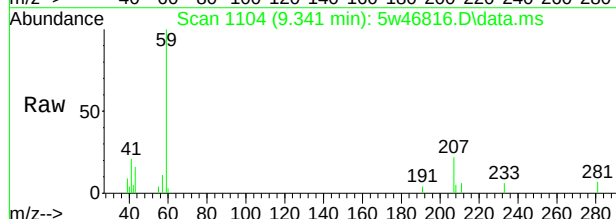
#30
Ethanol
Concen: 6.87 ppb(v)
RT: 7.346 min Scan# 778
Delta R.T. -0.012 min
Lab File: 5w46816.D
Acq: 14 Dec 2021 7:49 pm

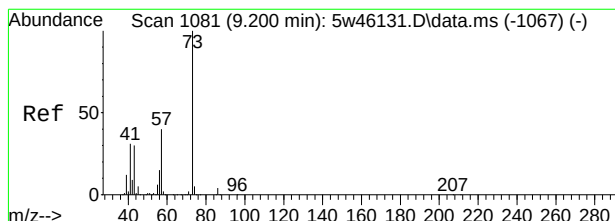
Tgt Ion	Ratio	Lower	Upper
45	100		
46	32.5	23.4	43.4
42	8.5	6.3	11.7



#34
tert-Butyl Alcohol
Concen: 0.36 ppb(v)
RT: 9.341 min Scan# 1104
Delta R.T. -0.055 min
Lab File: 5w46816.D
Acq: 14 Dec 2021 7:49 pm

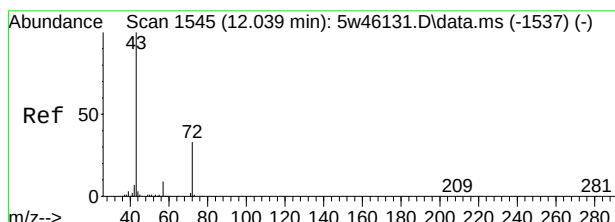
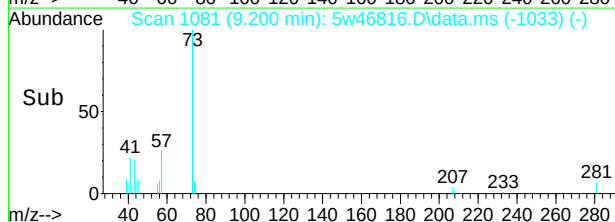
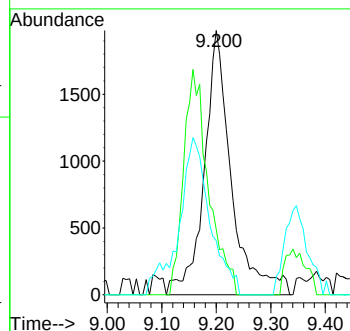
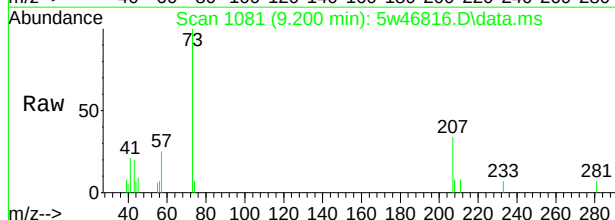
Tgt Ion	Ratio	Lower	Upper
59	100		
41	20.7	21.8	40.4#
43	15.8	14.2	26.4





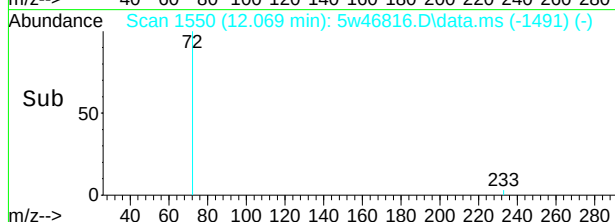
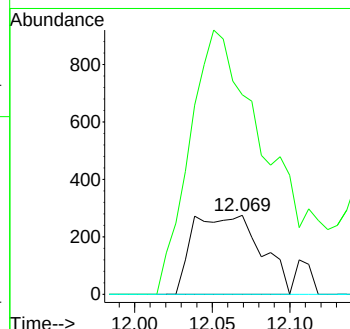
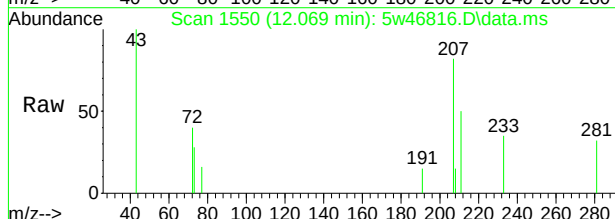
#35
Methyl tert-Butyl Ether
Concen: 0.15 ppb(v)
RT: 9.200 min Scan# 1081
Delta R.T. -0.037 min
Lab File: 5w46816.D
Acq: 14 Dec 2021 7:49 pm

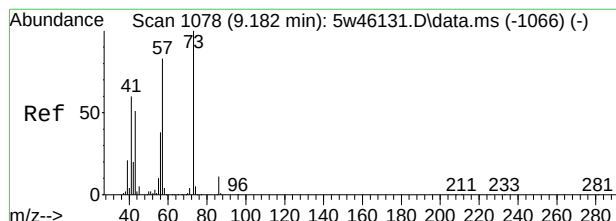
Tgt Ion	Ratio	Lower	Upper
73	100		
57	24.7	8.9	16.5#
41	20.5	10.6	19.8#



#38
2-Butanone
Concen: 0.13 ppb(v)
RT: 12.069 min Scan# 1550
Delta R.T. 0.031 min
Lab File: 5w46816.D
Acq: 14 Dec 2021 7:49 pm

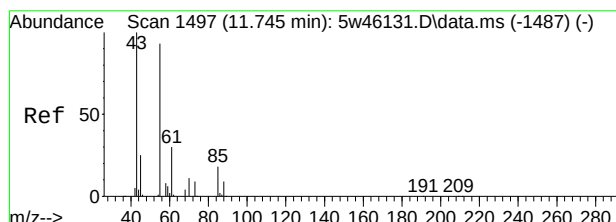
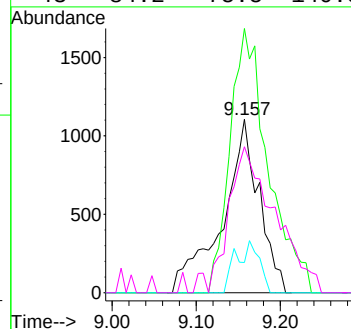
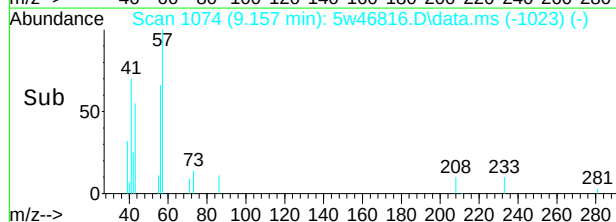
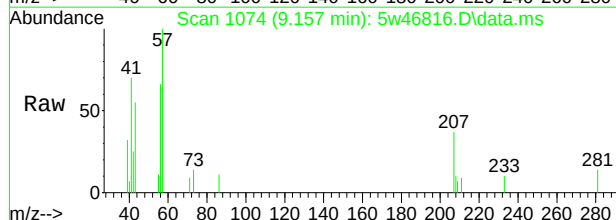
Tgt Ion	Ratio	Lower	Upper
72	100		
43	252.4	209.6	389.2
57	0.0	19.4	36.0#





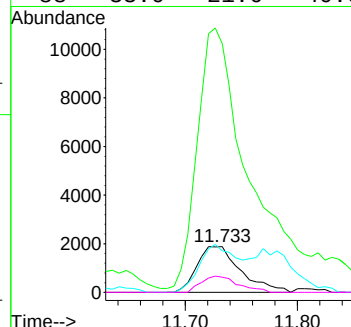
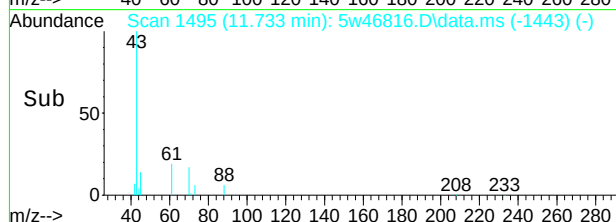
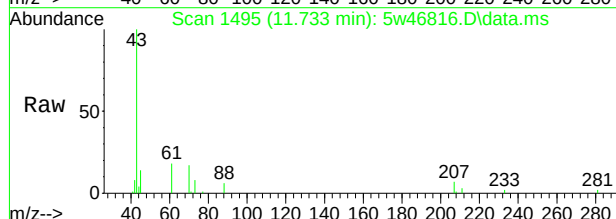
#39
Hexane
Concen: 0.30 ppb(v)
RT: 9.157 min Scan# 1074
Delta R.T. -0.018 min
Lab File: 5w46816.D
Acq: 14 Dec 2021 7:49 pm

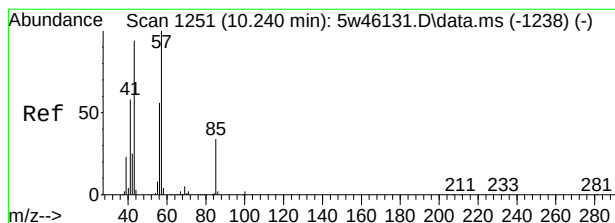
Tgt Ion	Ratio	Lower	Upper
56	100		
57	152.4	137.2	254.8
86	17.5	24.0	44.6#
43	84.2	75.5	140.3



#42
Ethyl Acetate
Concen: 1.40 ppb(v)
RT: 11.733 min Scan# 1495
Delta R.T. -0.012 min
Lab File: 5w46816.D
Acq: 14 Dec 2021 7:49 pm

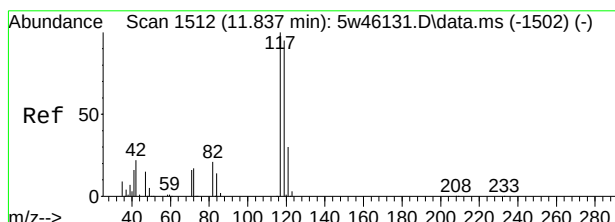
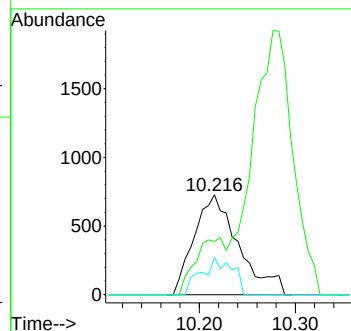
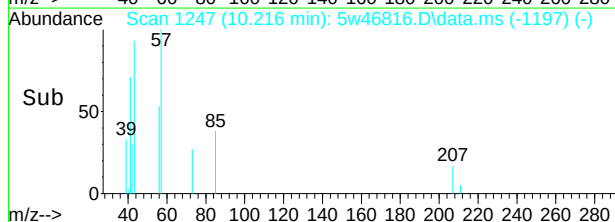
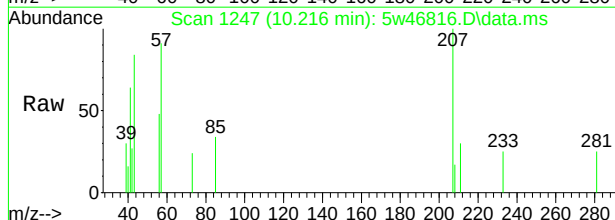
Tgt Ion	Ratio	Lower	Upper
61	100		
43	543.4	388.8	722.0
70	90.6	63.6	118.0
88	33.0	21.6	40.0





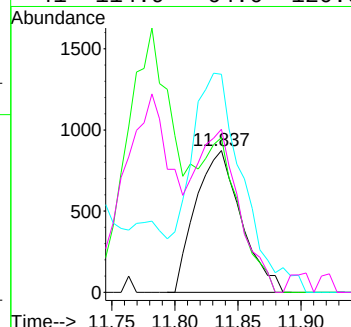
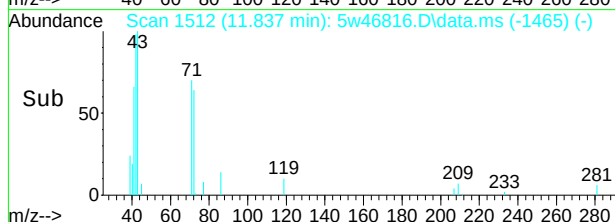
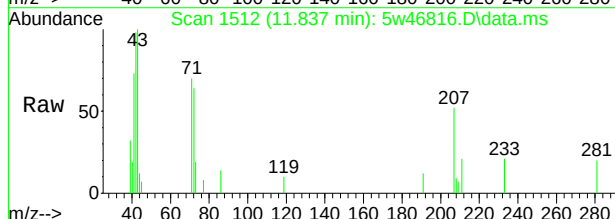
#45
2,4-Dimethylpentane
Concen: 0.09 ppb(v)
RT: 10.216 min Scan# 1247
Delta R.T. -0.024 min
Lab File: 5w46816.D
Acq: 14 Dec 2021 7:49 pm

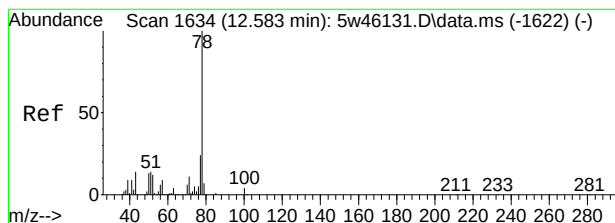
Tgt Ion	Ratio	Lower	Upper
57	100		
56	53.3	37.0	68.6
85	37.6	23.4	43.4



#46
Tetrahydrofuran
Concen: 0.33 ppb(v)
RT: 11.837 min Scan# 1512
Delta R.T. -0.043 min
Lab File: 5w46816.D
Acq: 14 Dec 2021 7:49 pm

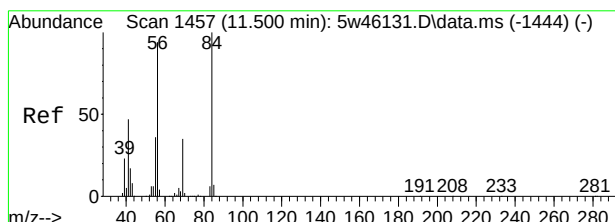
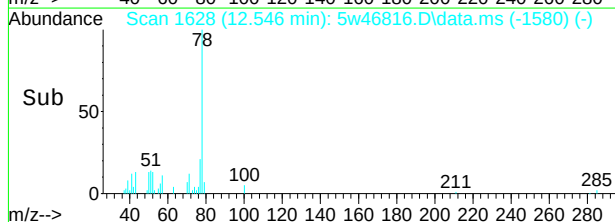
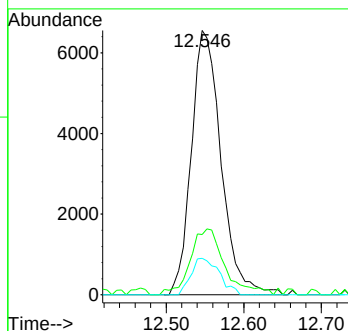
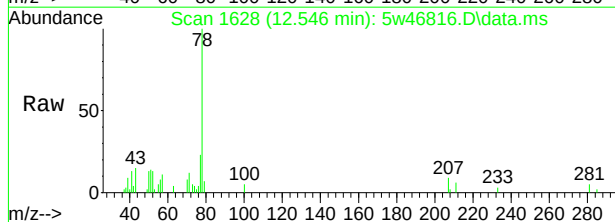
Tgt Ion	Ratio	Lower	Upper
72	100		
71	108.9	62.8	116.6
42	153.5	135.7	251.9
41	114.9	64.6	120.0





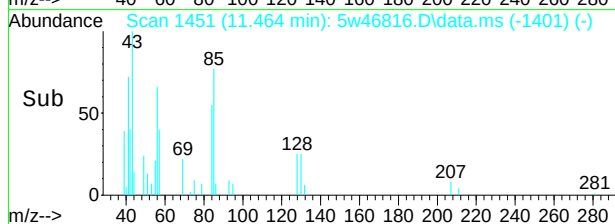
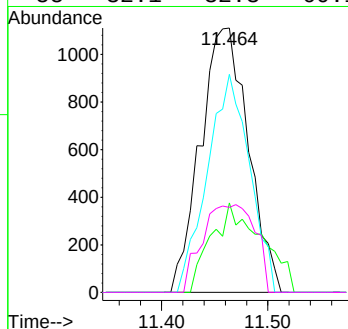
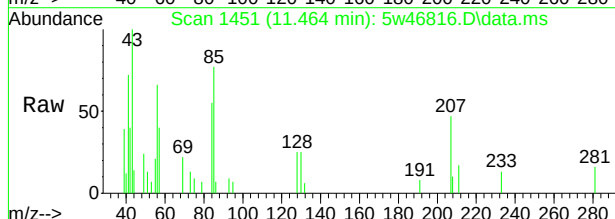
#49
Benzene
Concen: 0.35 ppb(v)
RT: 12.546 min Scan# 1628
Delta R.T. -0.037 min
Lab File: 5w46816.D
Acq: 14 Dec 2021 7:49 pm

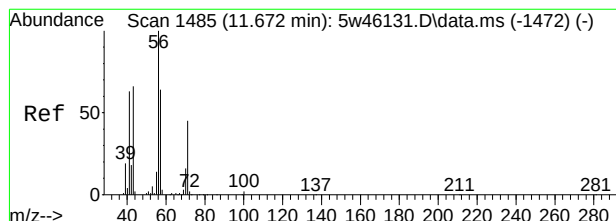
Tgt	Ion	Ratio	Lower	Upper
78	78	100		
77	77	22.8	20.7	38.5
51	51	13.8	9.5	17.7



#51
Cyclohexane
Concen: 0.16 ppb(v)
RT: 11.464 min Scan# 1451
Delta R.T. -0.024 min
Lab File: 5w46816.D
Acq: 14 Dec 2021 7:49 pm

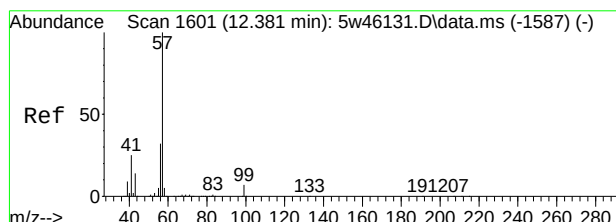
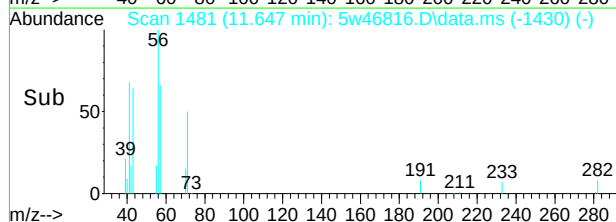
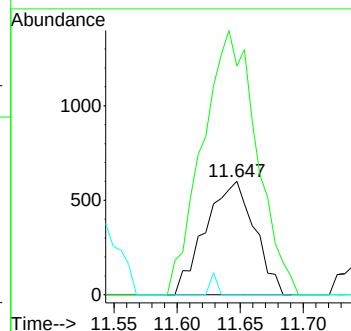
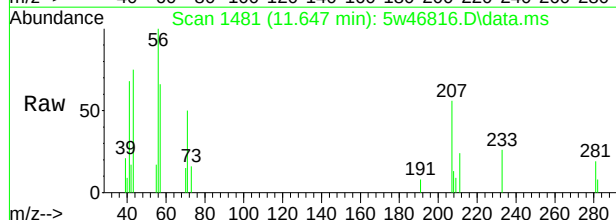
Tgt	Ion	Ratio	Lower	Upper
56	56	100		
69	69	33.8	24.6	45.6
84	84	82.4	63.9	118.7
55	55	32.1	32.3	60.1#





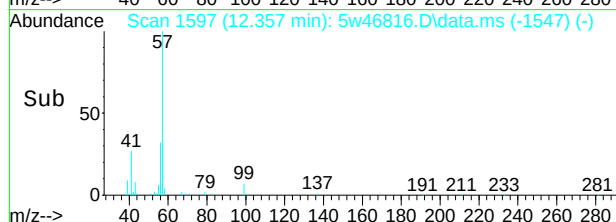
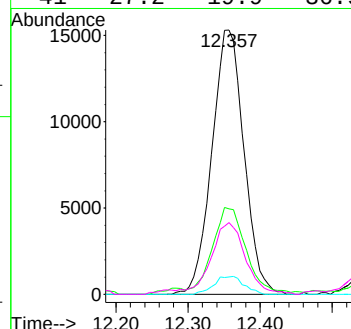
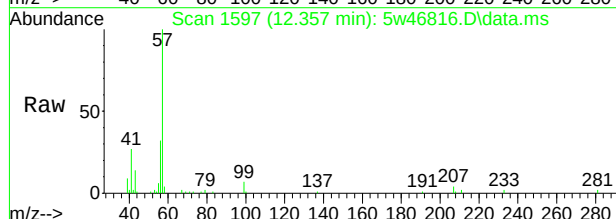
#52
2,3-Dimethylpentane
Concen: 0.16 ppb(v)
RT: 11.647 min Scan# 1481
Delta R.T. -0.018 min
Lab File: 5w46816.D
Acq: 14 Dec 2021 7:49 pm

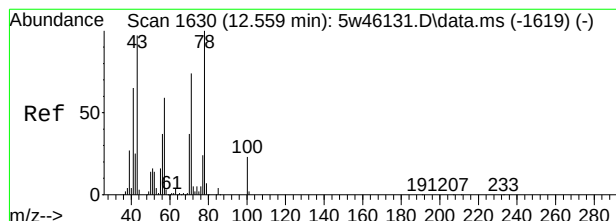
Tgt Ion	Ratio	Resp	Lower	Upper
71	100	1625		
56	201.7	139.5	259.1	
85	0.0	0.0	0.0	



#54
2,2,4-Trimethylpentane
Concen: 0.69 ppb(v)
RT: 12.357 min Scan# 1597
Delta R.T. -0.024 min
Lab File: 5w46816.D
Acq: 14 Dec 2021 7:49 pm

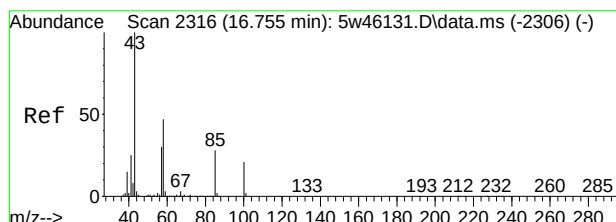
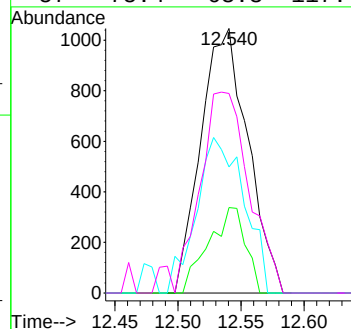
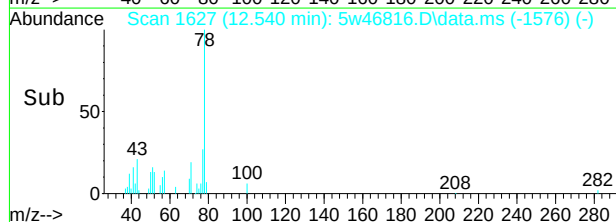
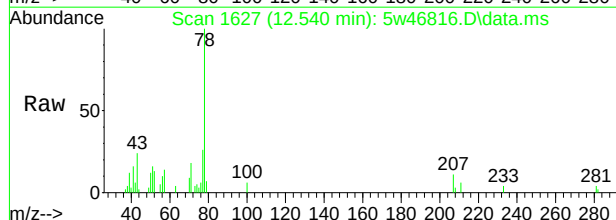
Tgt Ion	Ratio	Resp	Lower	Upper
57	100	47443		
56	32.4	23.7	44.1	
99	6.6	5.3	9.9	
41	27.2	19.9	36.9	





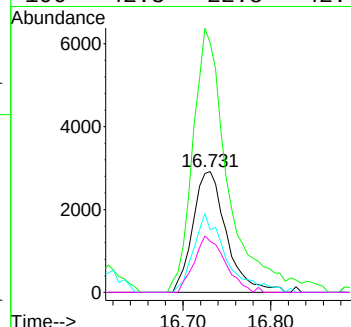
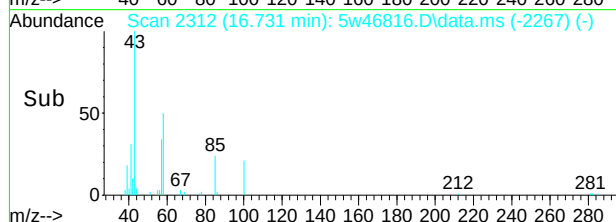
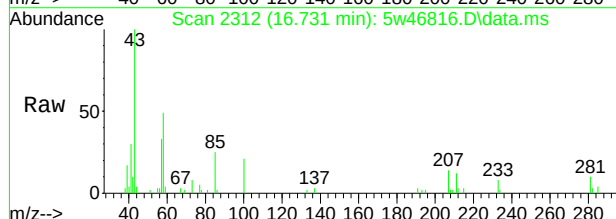
#55
Heptane
Concen: 0.18 ppb(v)
RT: 12.540 min Scan# 1627
Delta R.T. -0.018 min
Lab File: 5w46816.D
Acq: 14 Dec 2021 7:49 pm

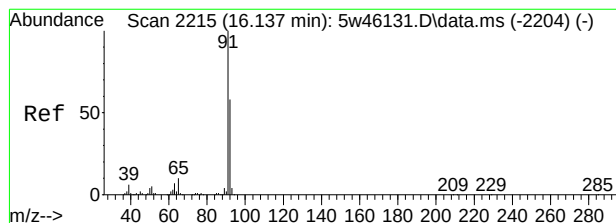
Tgt Ion	Ratio	Resp	Lower	Upper
71	100	2713		
100	32.3	25.2	46.8	
70	47.7	32.1	59.7	
57	75.4	63.3	117.7	



#64
4-Methyl-2-pentanone
Concen: 0.66 ppb(v)
RT: 16.731 min Scan# 2312
Delta R.T. -0.055 min
Lab File: 5w46816.D
Acq: 14 Dec 2021 7:49 pm

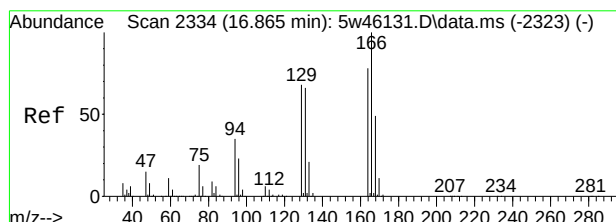
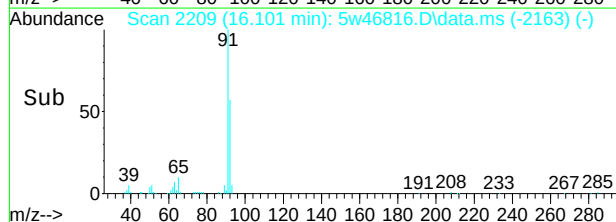
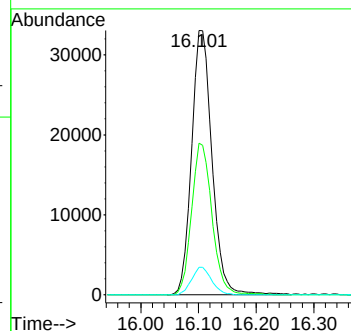
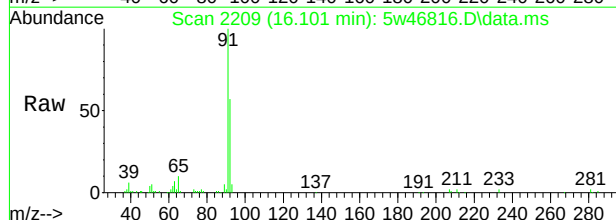
Tgt Ion	Ratio	Resp	Lower	Upper
58	100	7779		
43	206.1	164.7	305.9	
85	51.7	51.0	94.6	
100	42.3	22.8	42.4	





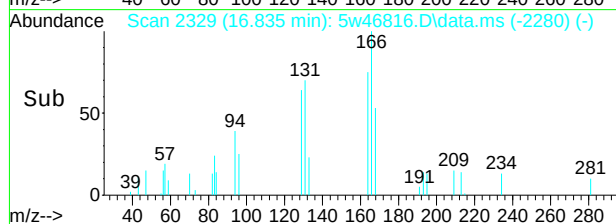
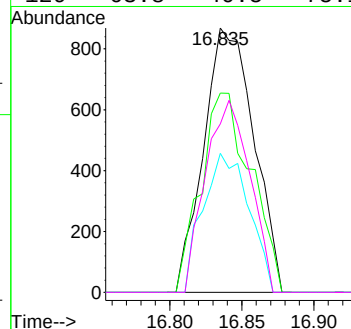
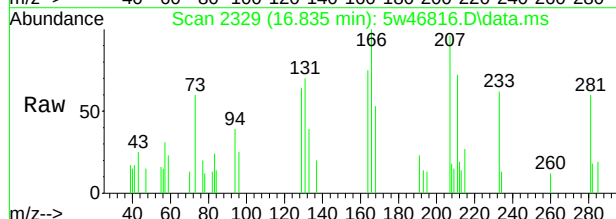
#66
Toluene
Concen: 1.15 ppb(v)
RT: 16.101 min Scan# 2209
Delta R.T. -0.049 min
Lab File: 5w46816.D
Acq: 14 Dec 2021 7:49 pm

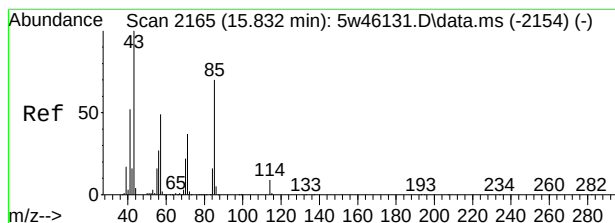
Tgt Ion	Ratio	Resp	Lower	Upper
91	100	81385		
92	57.3		45.5	84.5
65	10.4		6.0	11.2



#72
Tetrachloroethene
Concen: 0.04 ppb(v)
RT: 16.835 min Scan# 2329
Delta R.T. -0.031 min
Lab File: 5w46816.D
Acq: 14 Dec 2021 7:49 pm

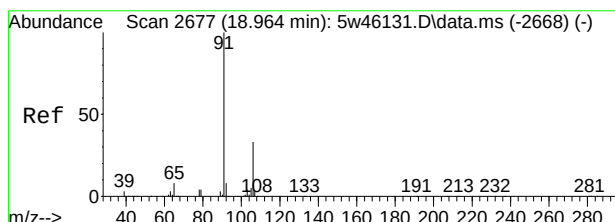
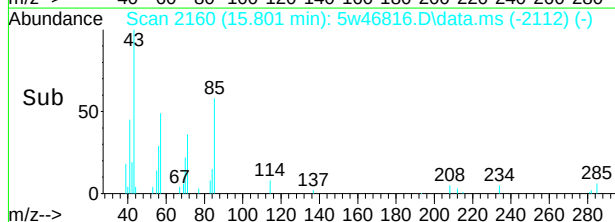
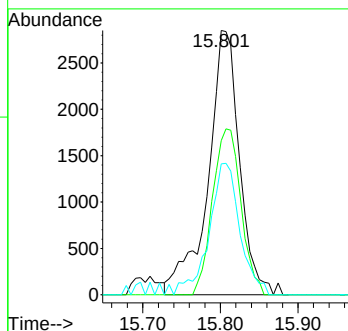
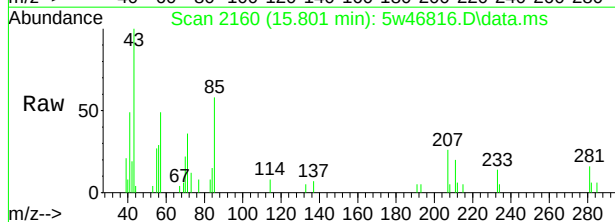
Tgt Ion	Ratio	Resp	Lower	Upper
166	100	2108		
164	75.4		50.6	94.0
168	52.6		28.5	52.9
129	63.8		40.5	75.1





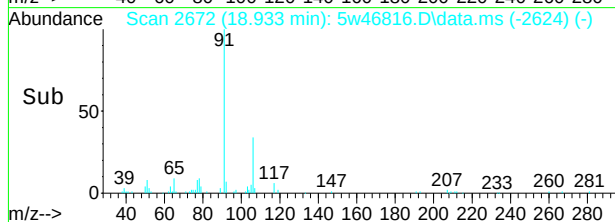
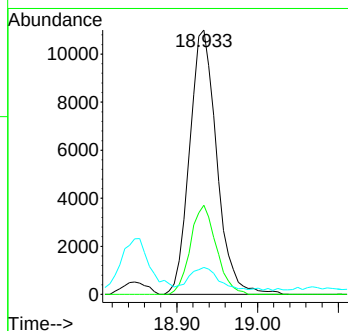
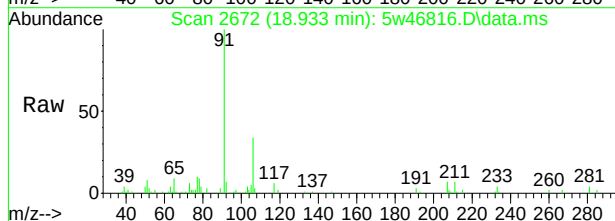
#74
Octane
Concen: 0.30 ppb(v)
RT: 15.801 min Scan# 2160
Delta R.T. -0.037 min
Lab File: 5w46816.D
Acq: 14 Dec 2021 7:49 pm

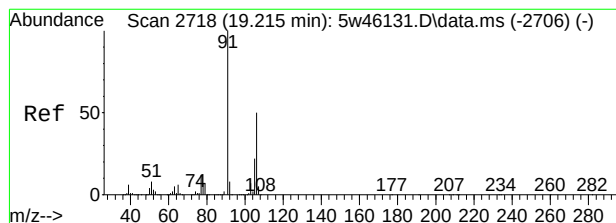
Tgt Ion	Ratio	Resp	Lower	Upper
43	100	8039		
85	58.3	46.0	85.4	
57	49.5	30.6	56.8	



#78
Ethylbenzene
Concen: 0.29 ppb(v)
RT: 18.933 min Scan# 2672
Delta R.T. -0.037 min
Lab File: 5w46816.D
Acq: 14 Dec 2021 7:49 pm

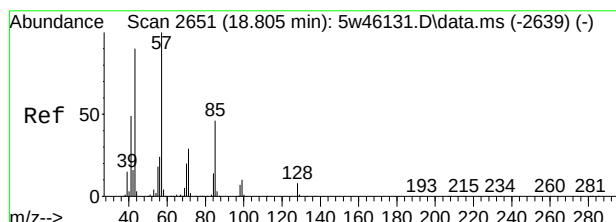
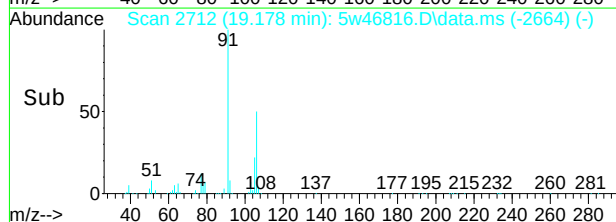
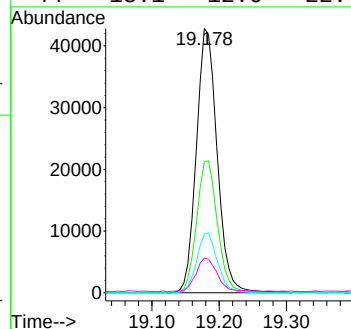
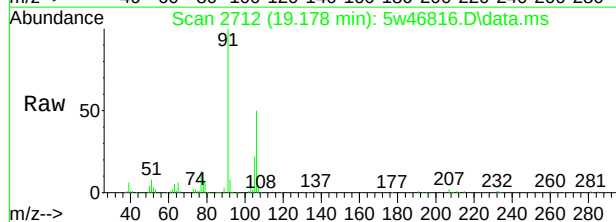
Tgt Ion	Ratio	Resp	Lower	Upper
91	100	25703		
106	33.7	23.9	44.5	
77	10.1	9.1	16.9	





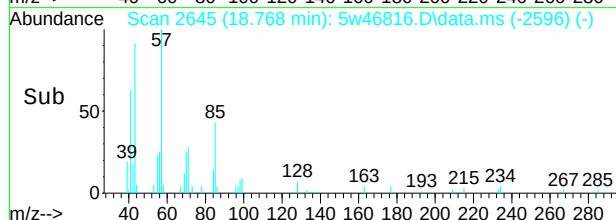
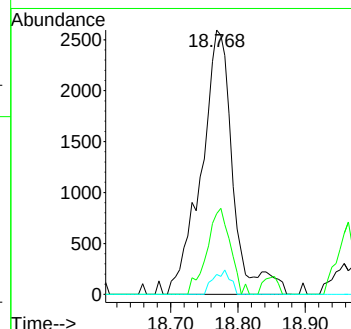
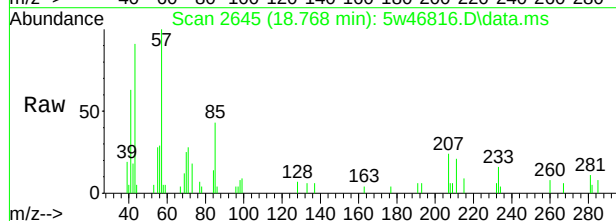
#79
m,p-Xylene
Concen: 1.38 ppb(v)
RT: 19.178 min Scan# 2712
Delta R.T. -0.037 min
Lab File: 5w46816.D
Acq: 14 Dec 2021 7:49 pm

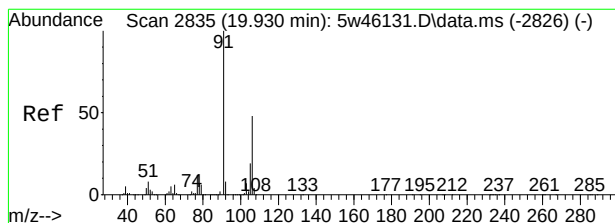
Tgt Ion	Ratio	Resp	Lower	Upper
91	100	92384		
106	49.6		34.9	64.9
105	22.0		15.4	28.6
77	13.1		12.0	22.4



#81
Nonane
Concen: 0.30 ppb(v)
RT: 18.768 min Scan# 2645
Delta R.T. -0.031 min
Lab File: 5w46816.D
Acq: 14 Dec 2021 7:49 pm

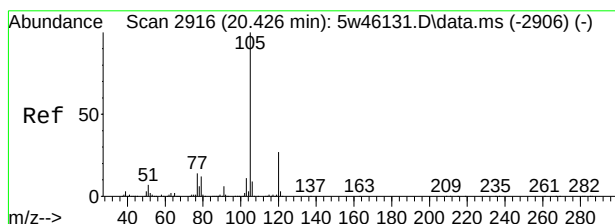
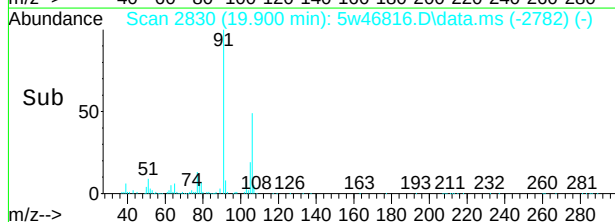
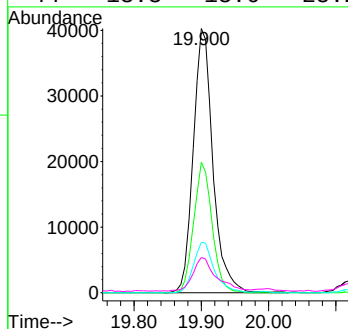
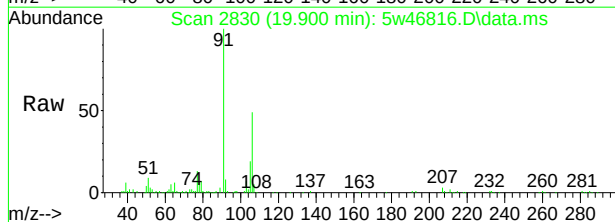
Tgt Ion	Ratio	Resp	Lower	Upper
43	100	8441		
71	30.6		18.1	33.5
128	7.5		0.0	0.0#





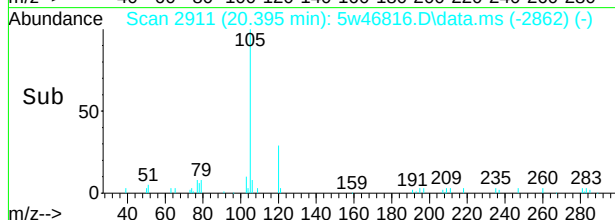
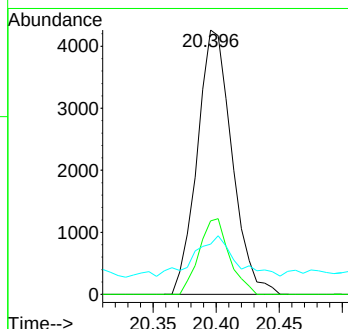
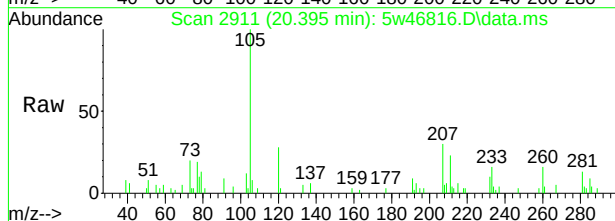
#82
o-Xylene
Concen: 1.16 ppb(v)
RT: 19.900 min Scan# 2830
Delta R.T. -0.037 min
Lab File: 5w46816.D
Acq: 14 Dec 2021 7:49 pm

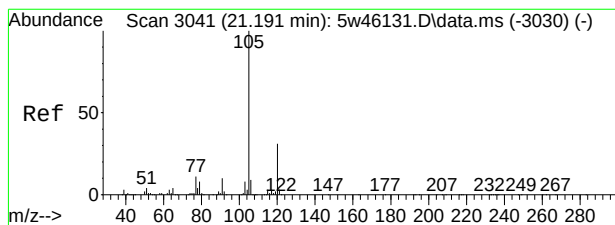
Tgt Ion:	91	Resp:	82006
Ion	Ratio	Lower	Upper
91	100		
106	49.4	36.3	67.3
105	19.1	15.8	29.3
77	13.3	13.6	25.2#



#86
Isopropylbenzene
Concen: 0.08 ppb(v)
RT: 20.395 min Scan# 2911
Delta R.T. -0.031 min
Lab File: 5w46816.D
Acq: 14 Dec 2021 7:49 pm

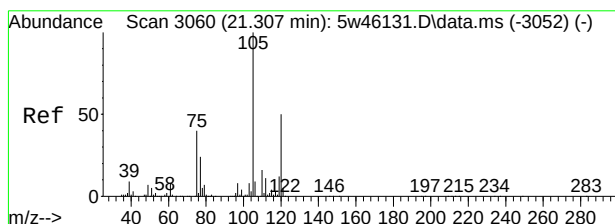
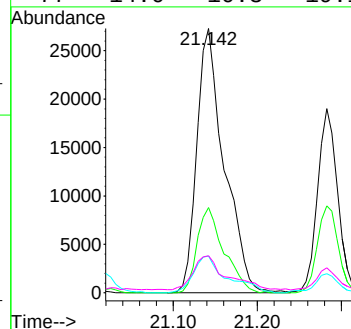
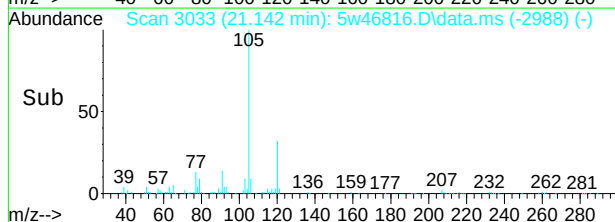
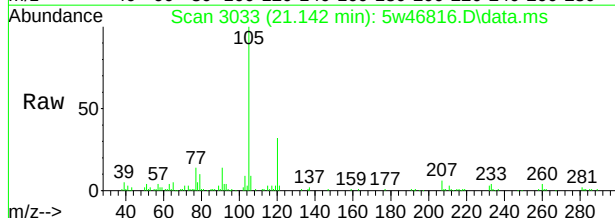
Tgt Ion:	105	Resp:	8150
Ion	Ratio	Lower	Upper
105	100		
120	27.8	16.9	31.5
77	19.0	13.7	25.5





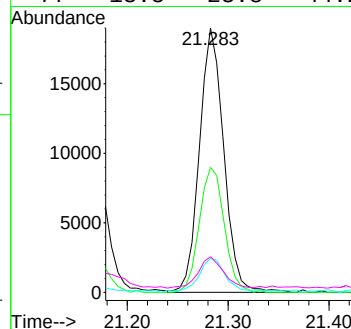
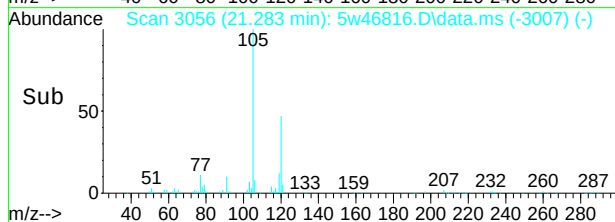
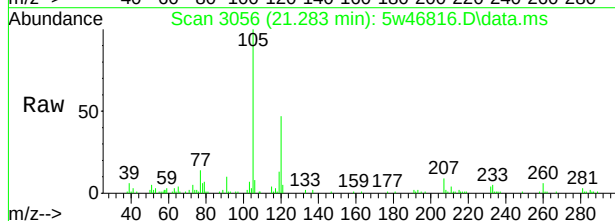
#91
4-Ethyltoluene
Concen: 0.67 ppb(v)
RT: 21.142 min Scan# 3033
Delta R.T. -0.055 min
Lab File: 5w46816.D
Acq: 14 Dec 2021 7:49 pm

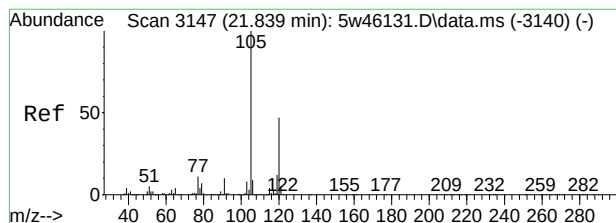
Tgt	Ion	105	Resp:	61872
Ion	Ratio	Lower	Upper	
105	100			
120	32.3	22.3	41.3	
91	13.9	8.0	14.8	
77	14.0	10.3	19.1	



#92
1,3,5-Trimethylbenzene
Concen: 0.43 ppb(v)
RT: 21.283 min Scan# 3056
Delta R.T. -0.031 min
Lab File: 5w46816.D
Acq: 14 Dec 2021 7:49 pm

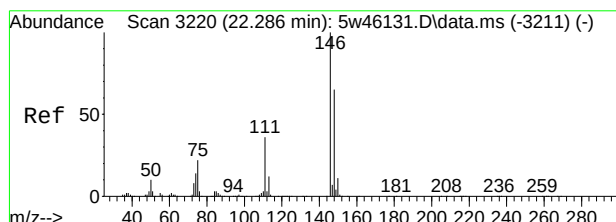
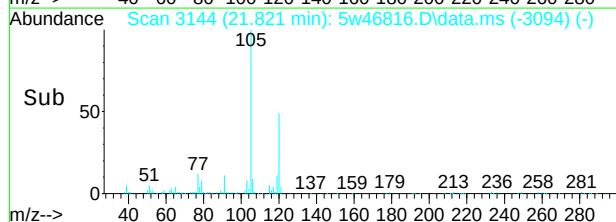
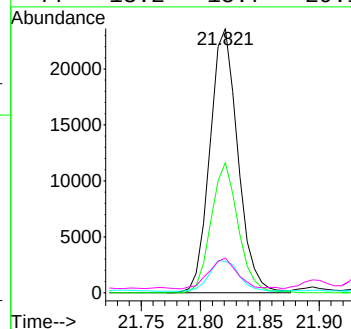
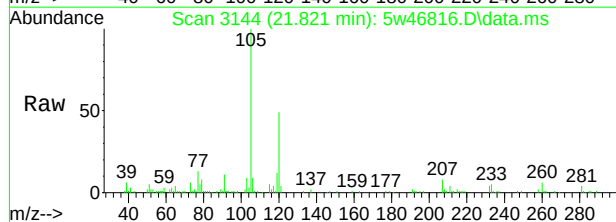
Tgt	Ion	105	Resp:	31948
Ion	Ratio	Lower	Upper	
105	100			
120	47.3	35.4	65.7	
119	12.8	8.2	15.2	
77	13.5	23.8	44.2#	





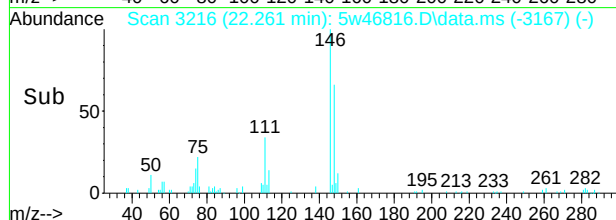
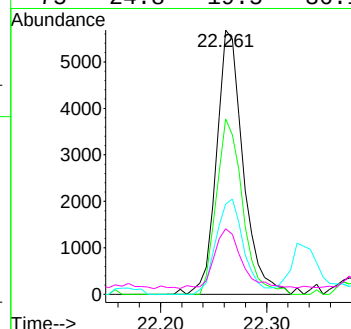
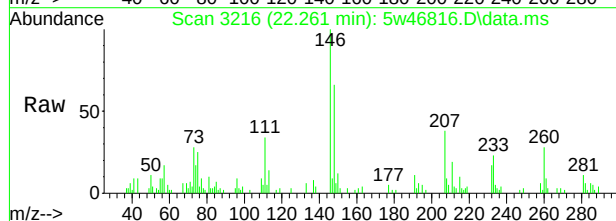
#95
1,2,4-Trimethylbenzene
Concen: 0.53 ppb(v)
RT: 21.821 min Scan# 3144
Delta R.T. -0.024 min
Lab File: 5w46816.D
Acq: 14 Dec 2021 7:49 pm

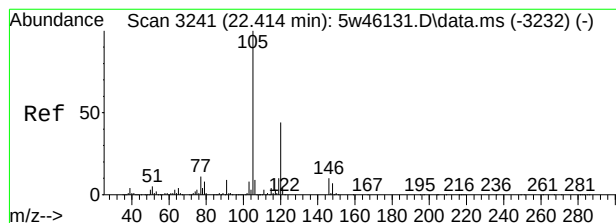
Tgt Ion	Ion	Ratio	Resp	Lower	Upper
105	105	100	38589		
120	120	49.3		33.5	62.1
119	119	11.9		13.2	24.4#
77	77	13.2		15.7	29.1#



#96
1,3-Dichlorobenzene
Concen: 0.18 ppb(v)
RT: 22.261 min Scan# 3216
Delta R.T. -0.031 min
Lab File: 5w46816.D
Acq: 14 Dec 2021 7:49 pm

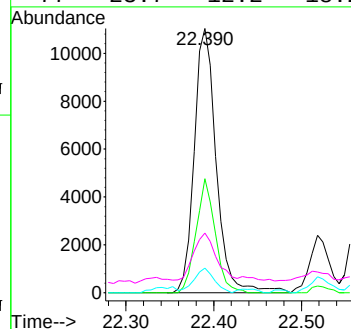
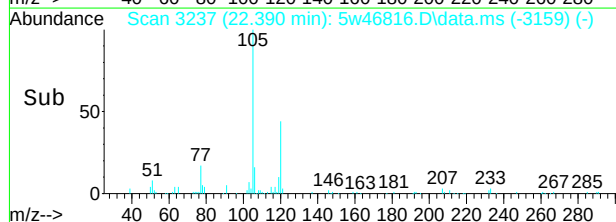
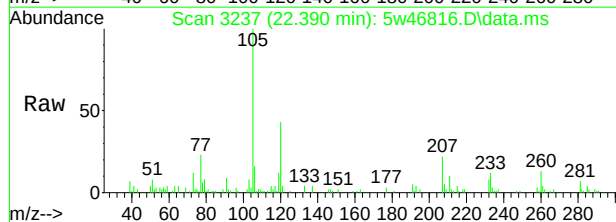
Tgt Ion	Ion	Ratio	Resp	Lower	Upper
146	146	100	9888		
148	148	66.4		40.7	75.5
111	111	34.1		24.5	45.5
75	75	24.8		19.5	36.1





#97
1,2,3-trimethylbenzene
Concen: 0.28 ppb(v)
RT: 22.390 min Scan# 3237
Delta R.T. -0.024 min
Lab File: 5w46816.D
Acq: 14 Dec 2021 7:49 pm

Tgt Ion:	105	Resp:	19264
Ion Ratio	Lower	Upper	
105	100		
120	37.6	32.8	49.2
91	8.6	7.0	10.4
77	23.7	12.2	18.2#



7.4.2

7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 2w55993.D
Acq On : 1 Nov 2021 5:48 pm
Operator : thomash
Sample : scc(a1332),cp11406
Misc : MS54666,V2w2494,,,,,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Nov 02 08:40:52 2021
Quant Method : C:\msdchem\1\METHODS\M2W2424.M
Quant Title : T015 by GCMS w/DB-1, 30m X 0.25mm ID X 0.5 um
QLast Update : Tue Jul 27 16:59:35 2021
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) BROMOCHLOROMETHANE	3.647	128	88448	10.00	PPBV	0.00
52) 1,4-DIFLUOROBENZENE	4.988	114	450541	10.00	PPBV	0.00
76) CHLOROBENZENE-D5	10.701	117	397708	10.00	PPBV	0.00

System Monitoring Compounds						
87) 4-BROMOFLUOROBENZENE	14.090	95	256919	9.19	PPBV	0.00

Target Compounds	Qvalue

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

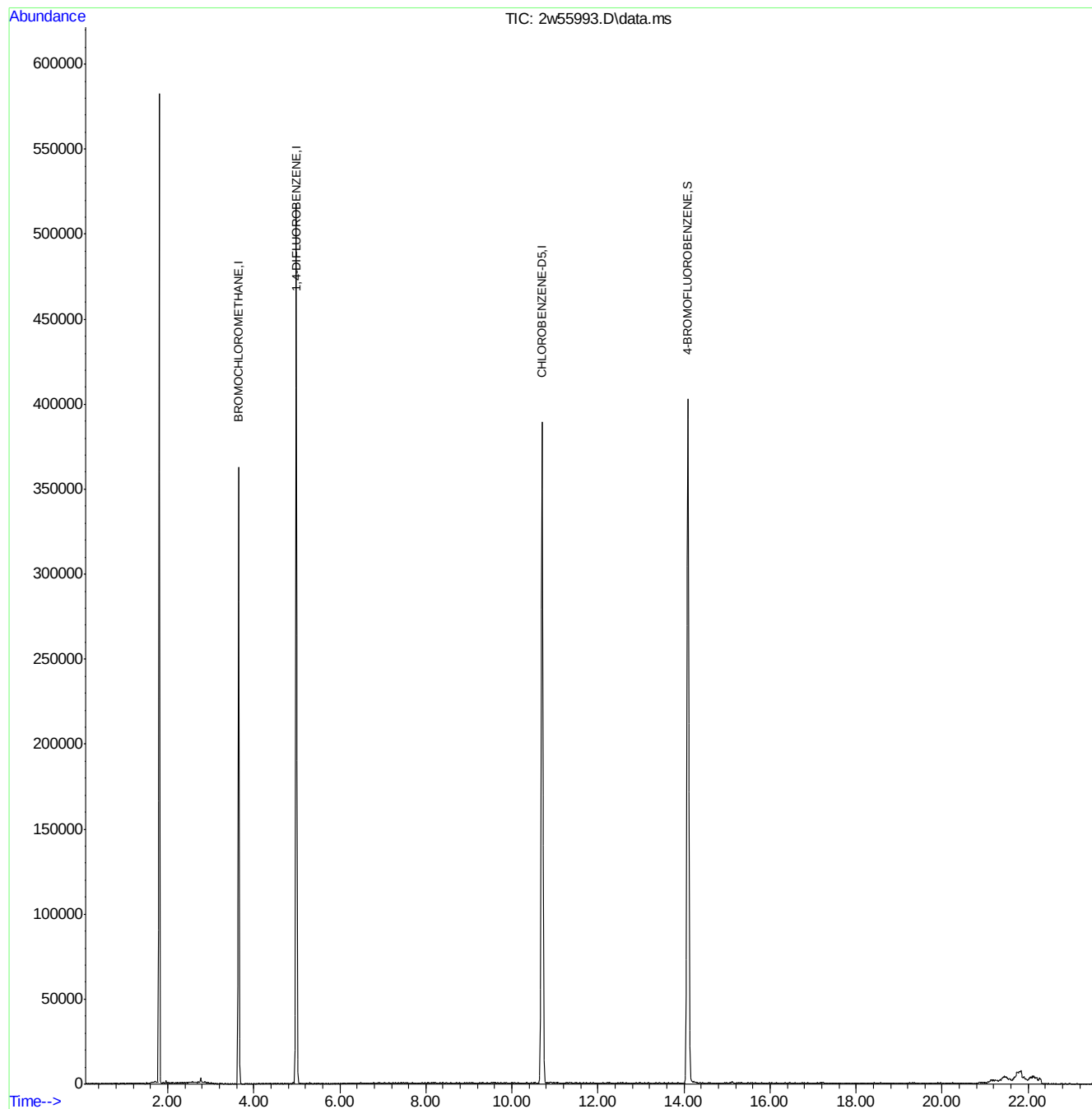
7.5.1

7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 2w55993.D
Acq On : 1 Nov 2021 5:48 pm
Operator : thomash
Sample : scc(a1332),cp11406
Misc : MS54666,V2w2494,,,,,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Nov 02 08:40:52 2021
Quant Method : C:\msdchem\1\METHODS\M2W2424.M
Quant Title : T015 by GCMS w/DB-1, 30m X 0.25mm ID X 0.5 um
QLast Update : Tue Jul 27 16:59:35 2021
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 2w56011.D
Acq On : 2 Nov 2021 1:05 pm
Operator : thomash
Sample : scc(m162),cp11409
Misc : MS54715,V2w2495,,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 02 13:46:04 2021
Quant Method : C:\msdchem\1\METHODS\M2W2424.M
Quant Title : T015 by GCMS w/DB-1, 30m X 0.25mm ID X 0.5 um
QLast Update : Tue Jul 27 16:59:35 2021
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) BROMOCHLOROMETHANE	3.647	128	94210	10.00	PPBV	0.00
52) 1,4-DIFLUOROBENZENE	4.988	114	482607	10.00	PPBV	0.00
76) CHLOROBENZENE-D5	10.695	117	423926	10.00	PPBV	0.00

System Monitoring Compounds						
87) 4-BROMOFLUOROBENZENE	14.090	95	271580	9.11	PPBV	0.00

Target Compounds	Qvalue

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

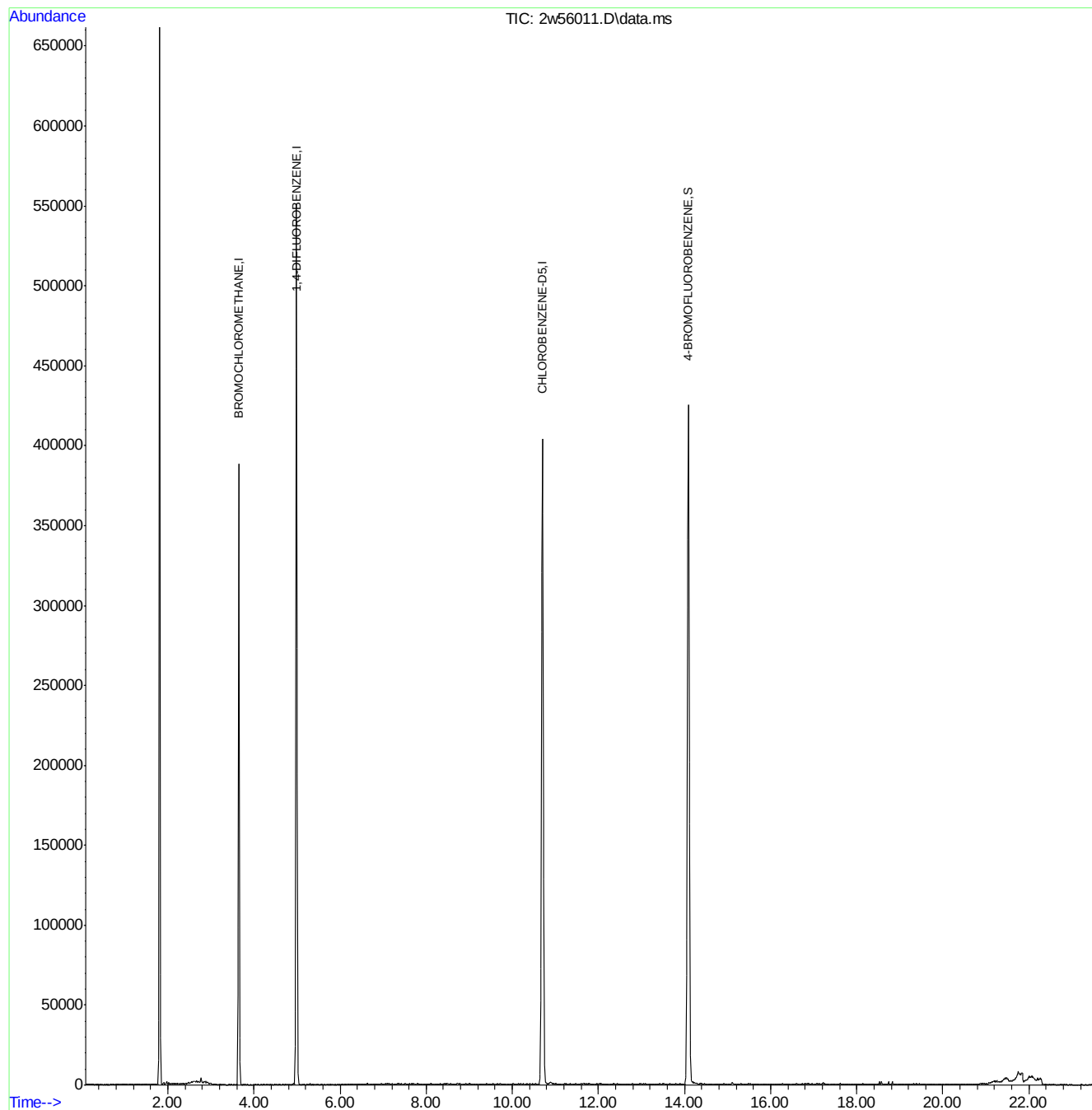
7.5.2

7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 2w56011.D
Acq On : 2 Nov 2021 1:05 pm
Operator : thomash
Sample : scc(m162),cp11409
Misc : MS54715,V2w2495,,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 02 13:46:04 2021
Quant Method : C:\msdchem\1\METHODS\M2W2424.M
Quant Title : T015 by GCMS w/DB-1, 30m X 0.25mm ID X 0.5 um
QLast Update : Tue Jul 27 16:59:35 2021
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 2w56079.D
Acq On : 5 Nov 2021 12:54 am
Operator : thomash
Sample : scc(a1334),cp11410
Misc : MS54771,V2w2497,,,,,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Nov 05 09:47:58 2021
Quant Method : C:\msdchem\1\METHODS\M2W2424.M
Quant Title : T015 by GCMS w/DB-1, 30m X 0.25mm ID X 0.5 um
QLast Update : Tue Jul 27 16:59:35 2021
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) BROMOCHLOROMETHANE	3.650	128	92068	10.00	PPBV	0.00
52) 1,4-DIFLUOROBENZENE	4.988	114	469952	10.00	PPBV	0.00
76) CHLOROBENZENE-D5	10.698	117	407631	10.00	PPBV	0.00

System Monitoring Compounds						
87) 4-BROMOFLUOROBENZENE	14.093	95	262645	9.17	PPBV	0.00

Target Compounds	Qvalue

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

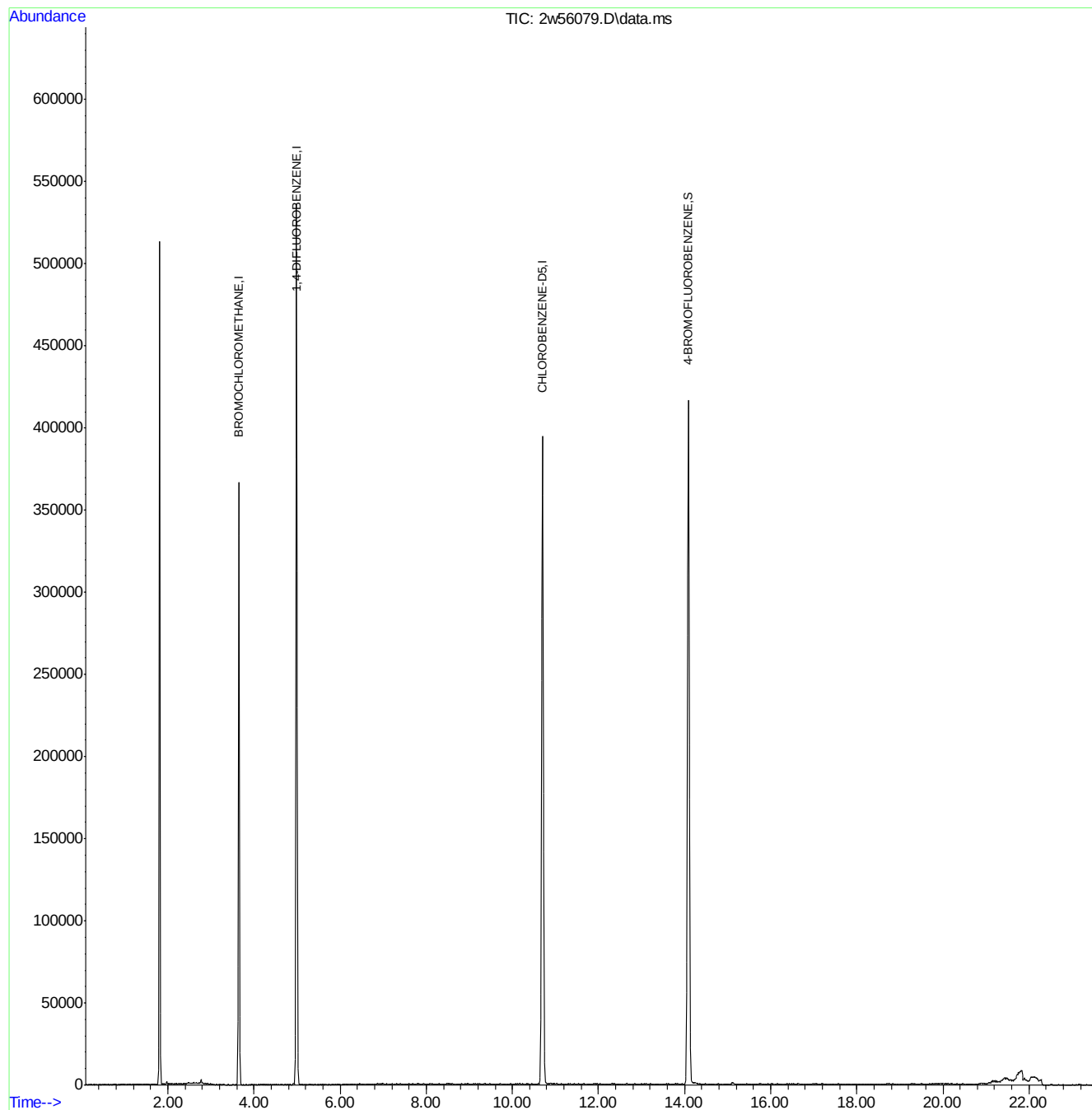
7.5.3

7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 2w56079.D
Acq On : 5 Nov 2021 12:54 am
Operator : thomash
Sample : scc(a1334),cp11410
Misc : MS54771,V2w2497,,,,,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Nov 05 09:47:58 2021
Quant Method : C:\msdchem\1\METHODS\M2W2424.M
Quant Title : T015 by GCMS w/DB-1, 30m X 0.25mm ID X 0.5 um
QLast Update : Tue Jul 27 16:59:35 2021
Response via : Initial Calibration

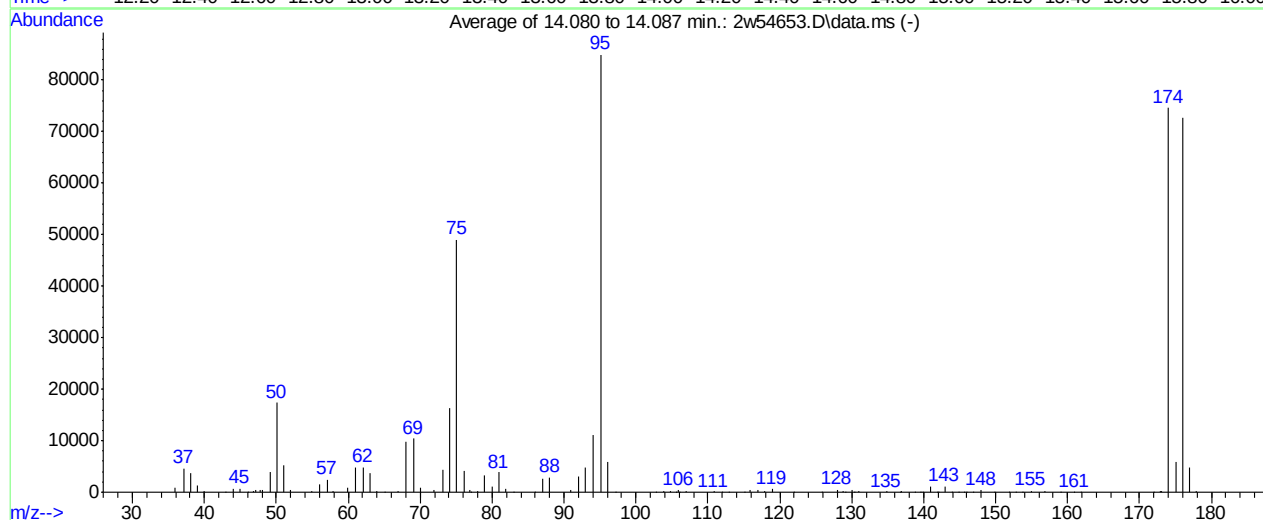
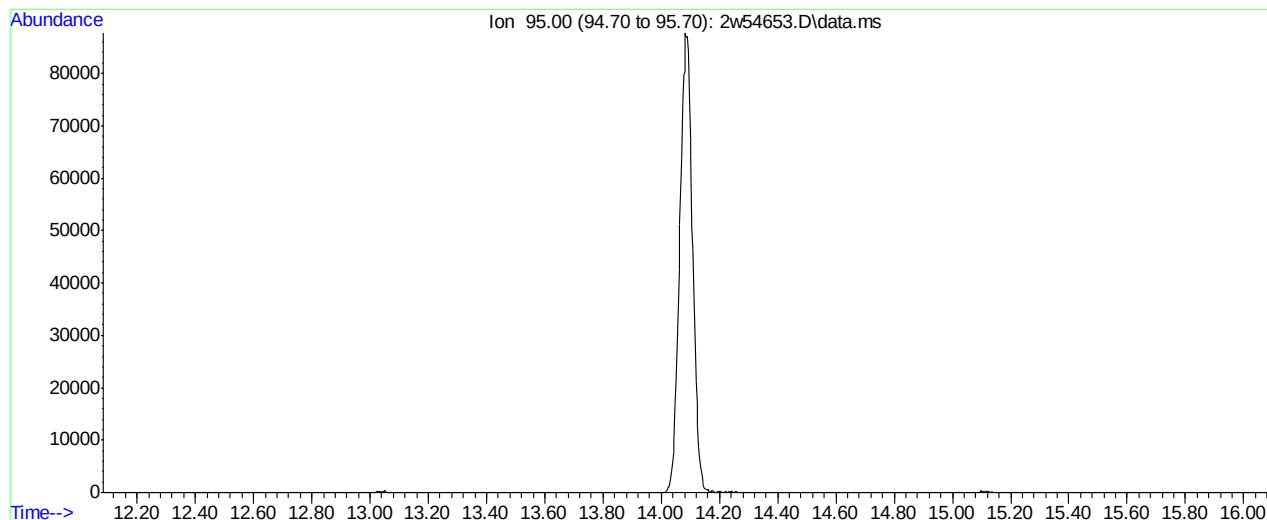


BFB

Data File : C:\msdchem\1\DATA\2w54653.D
Acq On : 27 Jul 2021 11:06 am
Sample : bfb
Misc : MS52290,V2w2424,,,,,1
MS Integration Params: RTEINT.P

Vial: 1
Operator: danat
Inst : MS2W
Multiplr: 1.00

Method : C:\msdchem\1\METHODS\M2W2424.M (RTE Integrator)
Title : T015 by GCMS w/DB-1, 30m X 0.25mm ID X 0.5 um



AutoFind: Scans 4352, 4353, 4354; Background Corrected with Scan 4326

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	8	40	20.4	17344	PASS
75	95	30	66	57.7	49021	PASS
95	95	100	100	100.0	84973	PASS
96	95	5	9	6.9	5881	PASS
173	174	0.00	2	0.3	215	PASS
174	95	50	120	87.8	74597	PASS
175	174	4	9	7.8	5828	PASS
176	174	93	101	97.5	72717	PASS
177	176	5	9	6.6	4763	PASS

2w54653.D M2W2424.M Wed Jul 28 11:12:23 2021 GCMS2W

Average of 14.080 to 14.087 min.: 2w54653.D\data.ms

bfb

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
35.95	819	47.80	355	61.05	4738	74.10	16305
37.10	4630	48.10	498	62.05	4793	75.10	49021
38.05	3795	49.10	3954	63.05	3731	76.05	4113
39.05	1415	50.10	17344	64.00	277	76.85	339
39.90	189	51.10	5190	65.00	29	77.10	73
43.00	56	52.00	359	66.85	183	78.05	266
43.95	703	54.95	248	68.00	9888	78.95	3299
44.95	752	56.05	1599	69.05	10396	80.00	1108
46.10	19	57.05	2495	70.00	866	80.95	3863
46.90	301	57.95	300	71.95	439	81.95	753
47.15	501	59.95	929	73.10	4311	83.05	59

Average of 14.080 to 14.087 min.: 2w54653.D\data.ms

bfb

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
85.90	21	103.90	291	116.95	546	134.85	189
87.00	2525	104.75	136	117.85	266	136.70	25
88.00	2850	105.60	73	118.95	639	136.95	147
90.95	353	105.90	384	122.00	87	138.80	46
92.00	3091	106.10	114	125.90	97	139.60	21
93.00	4886	106.90	116	127.95	493	139.90	22
94.05	11142	110.80	168	128.75	188	140.95	1013
95.10	84973	111.90	101	129.10	89	141.90	102
96.05	5881	112.90	80	130.00	399	142.10	90
97.20	70	115.00	72	130.40	67	142.90	1189
102.80	69	115.90	446	130.95	183	143.90	95

Average of 14.080 to 14.087 min.: 2w54653.D\data.ms

bfb

Modified:subtracted

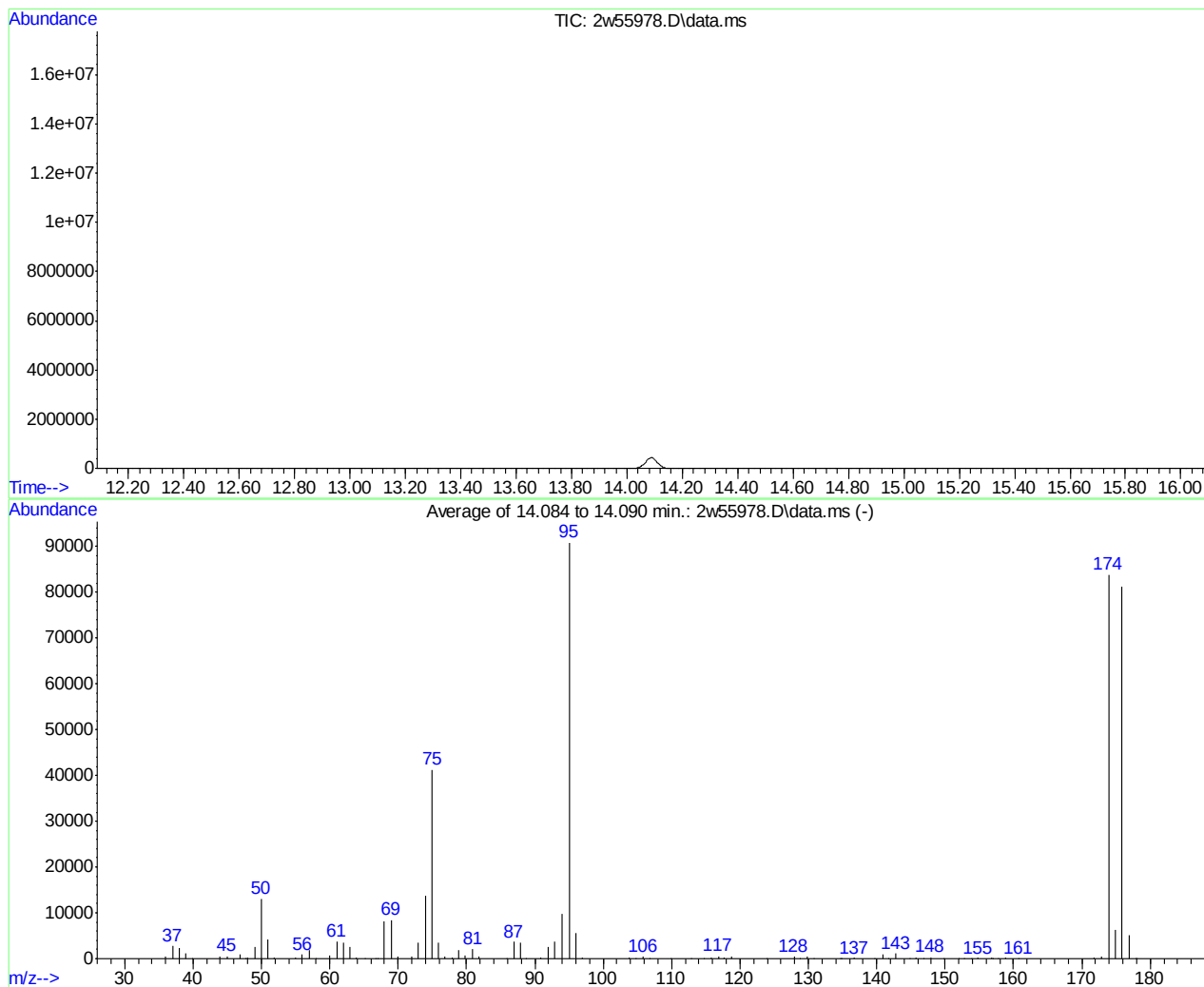
m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
144.90	74	159.00	55				
145.60	18	160.90	71				
145.90	48	161.80	37				
146.90	20	171.90	49				
148.00	390	172.90	189				
149.90	111	173.10	215				
151.90	22	174.00	74597				
152.80	19	175.00	5828				
153.75	80	176.00	72717				
154.95	280	176.95	4763				
156.85	191	177.85	139				

BFB

Data File : C:\msdchem\1\DATA\2w55978.D
Acq On : 1 Nov 2021 6:59 am
Sample : bfb
Misc : MS54658,V2w2494,,,,,1
MS Integration Params: RTEINT.P

Vial: 1
Operator: thomash
Inst : MS2W
Multiplr: 1.00

Method : C:\msdchem\1\METHODS\M2W2424.M (RTE Integrator)
Title : T015 by GCMS w/DB-1, 30m X 0.25mm ID X 0.5 um



AutoFind: Scans 4353, 4354, 4355; Background Corrected with Scan 4326

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	8	40	14.5	13139	PASS
75	95	30	66	45.4	41240	PASS
95	95	100	100	100.0	90861	PASS
96	95	5	9	6.2	5649	PASS
173	174	0.00	2	0.6	499	PASS
174	95	50	120	92.3	83824	PASS
175	174	4	9	7.5	6272	PASS
176	174	93	101	96.8	81173	PASS
177	176	5	9	6.3	5145	PASS

Average of 14.084 to 14.090 min.: 2w55978.D\data.ms

bfb

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.00	554	50.00	13139	63.95	243	75.95	3572
37.00	2733	51.00	4268	65.10	115	76.90	448
38.00	2318	51.85	143	66.70	69	77.90	334
39.00	1094	54.95	147	67.00	79	78.85	1959
39.90	66	55.95	927	68.00	8161	79.85	617
43.90	435	56.95	1859	69.00	8431	80.90	2183
44.95	585	57.95	54	69.95	574	81.85	416
46.95	951	59.95	608	71.95	442	85.90	26
47.70	122	61.00	3799	73.00	3415	86.95	3627
47.95	288	62.00	3428	74.00	13784	87.95	3549
49.00	2550	62.95	2642	75.00	41240	88.60	24

Average of 14.084 to 14.090 min.: 2w55978.D\data.ms

bfb

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
90.85	314	109.90	23	130.70	99	147.90	256
91.95	2589	112.80	51	134.70	122	149.85	81
92.95	3651	114.75	99	134.90	50	151.90	17
94.00	9876	115.85	341	136.75	170	152.75	78
95.00	90861	116.85	556	139.65	56	153.85	48
96.00	5649	117.75	348	140.90	938	154.85	206
96.90	157	118.80	436	141.75	70	156.80	134
103.85	343	123.90	17	142.80	1109	157.00	40
104.80	97	127.90	383	144.75	88	157.70	29
105.85	368	128.75	115	145.75	130	158.85	149
106.70	54	129.85	366	146.80	54	160.75	105

Average of 14.084 to 14.090 min.: 2w55978.D\data.ms

bfb

Modified:subtracted

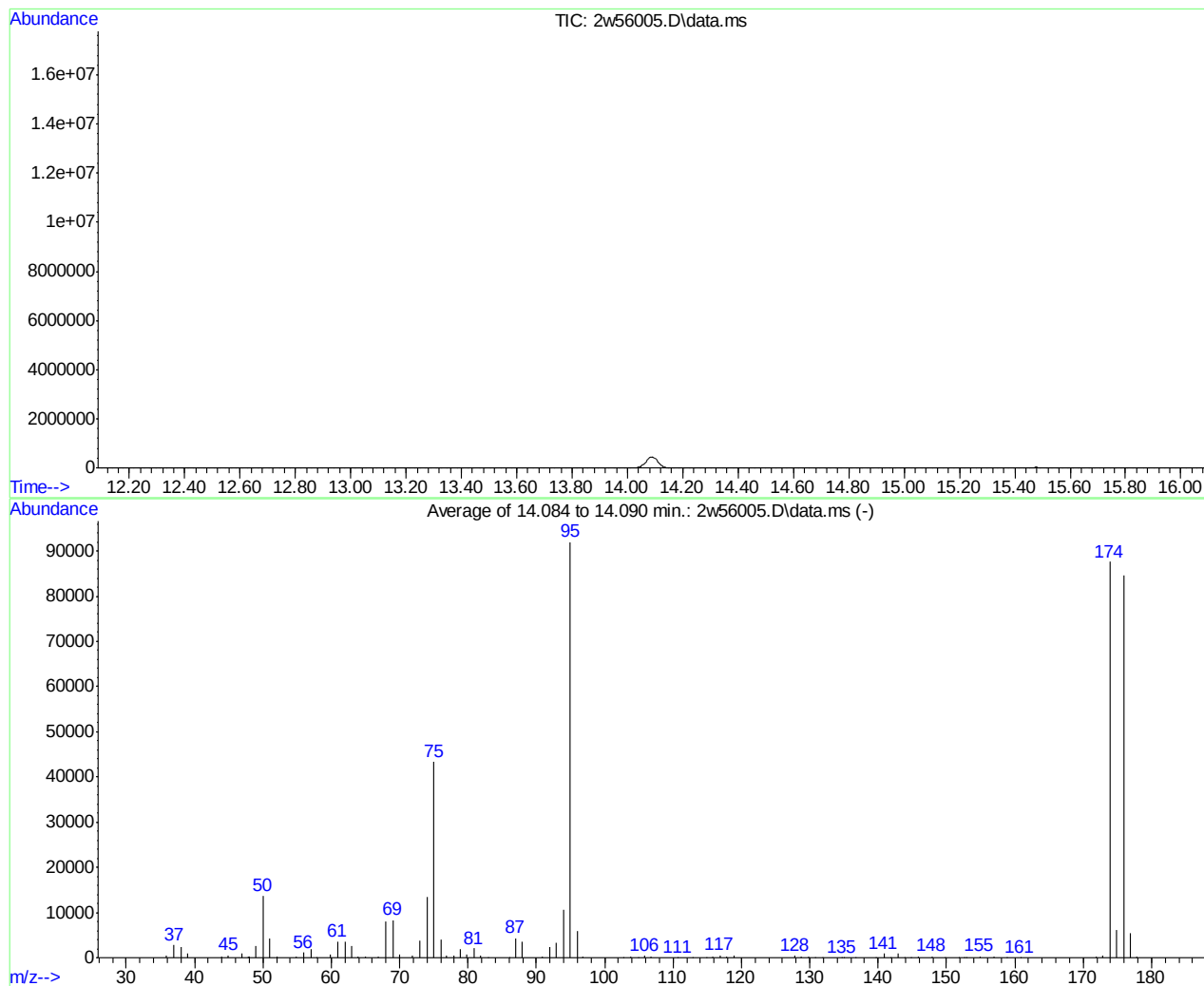
m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
171.75	220						
172.90	499						
173.90	83824						
174.90	6272						
175.90	81173						
176.90	5145						
177.80	58						
178.00	47						

BFB

Data File : C:\msdchem\1\DATA\2w56005.D
 Acq On : 2 Nov 2021 7:21 am
 Sample : bfb
 Misc : MS54715,V2W2495,,,,,1
 MS Integration Params: RTEINT.P

Vial: 1
 Operator: thomash
 Inst : MS2W
 Multiplr: 1.00

Method : C:\msdchem\1\METHODS\M2W2424.M (RTE Integrator)
 Title : T015 by GCMS w/DB-1, 30m X 0.25mm ID X 0.5 um



AutoFind: Scans 4353, 4354, 4355; Background Corrected with Scan 4324

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	8	40	14.9	13711	PASS
75	95	30	66	47.0	43245	PASS
95	95	100	100	100.0	92005	PASS
96	95	5	9	6.5	5972	PASS
173	174	0.00	2	0.6	547	PASS
174	95	50	120	95.2	87619	PASS
175	174	4	9	6.9	6070	PASS
176	174	93	101	96.7	84699	PASS
177	176	5	9	6.4	5455	PASS

Average of 14.084 to 14.090 min.: 2w56005.D\data.ms

bfb

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
35.90	437	51.00	4328	64.95	135	77.95	428
37.00	2822	52.00	250	66.90	223	78.90	1969
38.00	2408	54.90	192	68.00	8077	79.85	606
39.00	955	55.95	1084	69.00	8337	80.90	2078
43.90	296	57.00	1861	69.95	620	81.80	396
44.95	539	57.80	42	71.90	456	82.90	18
47.00	979	59.90	760	73.00	3665	86.00	24
47.80	140	60.95	3548	74.00	13517	86.95	4316
47.95	333	62.00	3480	75.00	43245	87.95	3514
48.95	2671	63.00	2602	76.00	3959	90.85	236
50.00	13711	63.95	251	76.90	556	91.95	2325

Average of 14.084 to 14.090 min.: 2w56005.D\data.ms

bfb

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
92.95	3410	112.80	61	134.70	65	149.80	97
94.00	10547	114.90	126	134.90	33	151.80	28
95.00	92005	115.75	254	136.70	106	152.60	26
96.00	5972	116.85	508	139.70	67	152.95	41
96.85	189	117.85	325	140.85	929	154.85	294
102.70	20	118.85	487	141.75	96	156.90	177
103.85	356	127.85	387	142.85	851	158.75	117
104.85	107	128.80	150	143.85	71	160.80	71
105.85	371	129.85	309	144.85	79	171.85	246
106.80	128	130.80	88	145.85	151	172.90	547
110.70	37	131.90	17	147.85	245	173.90	87619

Average of 14.084 to 14.090 min.: 2w56005.D\data.ms

bfb

Modified:subtracted

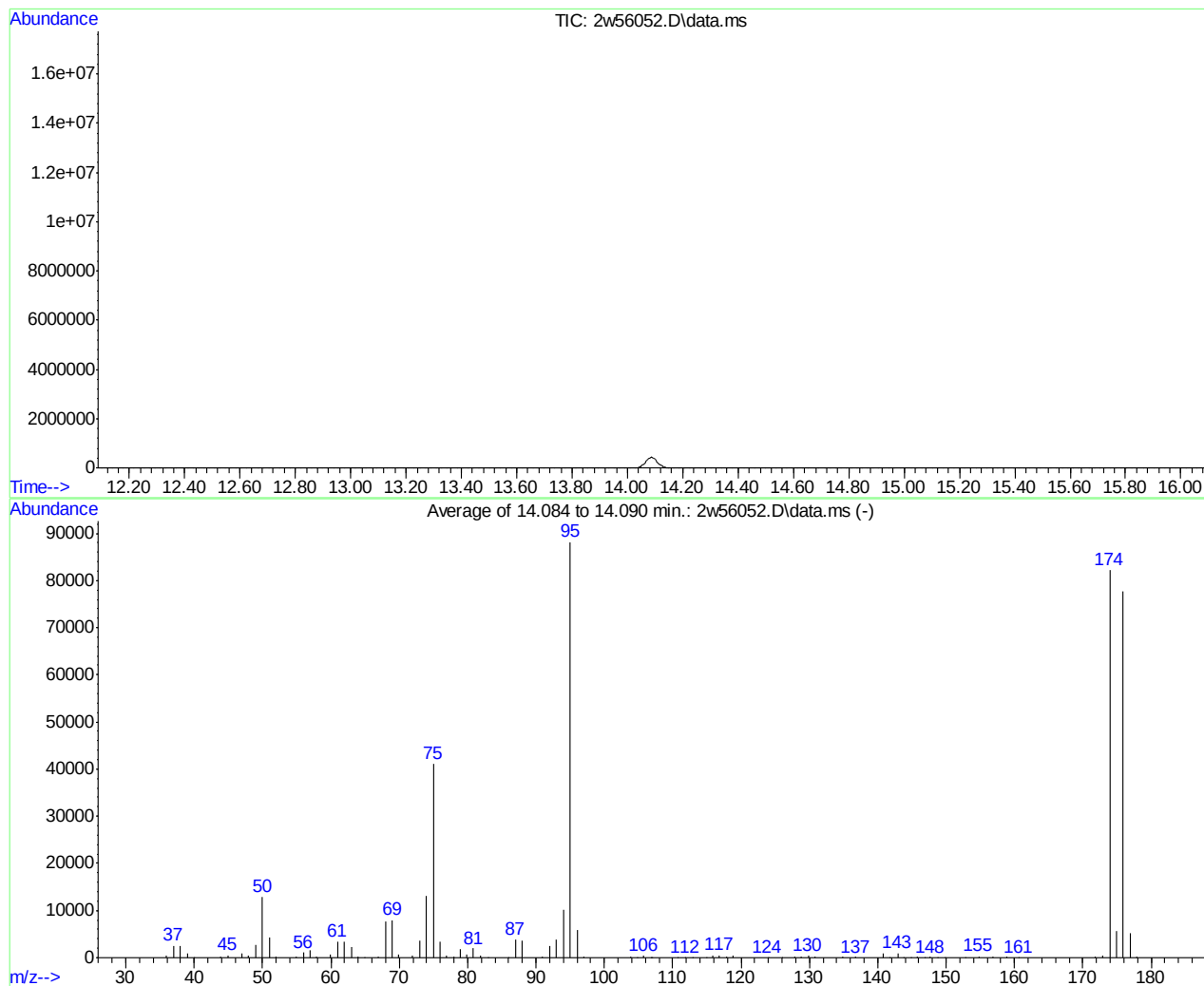
m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
174.90	6070						
175.90	84699						
176.90	5455						
177.80	144						

BFB

Data File : C:\msdchem\1\DATA\2w56052.D
 Acq On : 4 Nov 2021 6:46 am
 Sample : bfb
 Misc : MS54687,V2w2497,,,,,1
 MS Integration Params: RTEINT.P

Vial: 1
 Operator: thomash
 Inst : MS2W
 Multiplr: 1.00

Method : C:\msdchem\1\METHODS\M2W2424.M (RTE Integrator)
 Title : T015 by GCMS w/DB-1, 30m X 0.25mm ID X 0.5 um



AutoFind: Scans 4353, 4354, 4355; Background Corrected with Scan 4326

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	8	40	14.7	12982	PASS
75	95	30	66	46.6	41104	PASS
95	95	100	100	100.0	88184	PASS
96	95	5	9	6.6	5800	PASS
173	174	0.00	2	0.7	537	PASS
174	95	50	120	93.3	82253	PASS
175	174	4	9	7.0	5735	PASS
176	174	93	101	94.5	77688	PASS
177	176	5	9	6.6	5127	PASS

Average of 14.084 to 14.090 min.: 2w56052.D\data.ms

bfb

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
35.95	565	51.00	4189	64.95	69	78.00	275
37.00	2537	51.90	195	66.85	197	78.85	1756
38.00	2532	55.00	168	68.00	7679	79.90	684
39.00	817	55.95	1103	69.00	8012	80.85	1940
39.90	31	57.00	1617	69.95	603	81.85	384
43.90	247	57.95	120	71.90	409	83.00	20
44.95	517	59.95	693	73.00	3579	85.90	35
46.95	841	61.00	3456	74.00	13059	86.95	3939
47.90	360	62.00	3322	75.00	41104	87.95	3647
49.00	2745	63.00	2235	76.00	3489	90.85	315
50.00	12982	63.95	285	76.90	525	91.95	2545

Average of 14.084 to 14.090 min.: 2w56052.D\data.ms

bfb

Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
92.95	3793	111.85	40	129.85	352	147.70	223
94.00	10151	112.90	35	130.80	138	148.80	47
95.00	88184	114.90	62	134.85	128	149.75	61
96.00	5800	115.80	359	136.80	145	152.85	36
96.95	254	116.85	554	140.85	883	154.75	228
103.85	326	117.85	323	141.75	92	156.85	157
104.85	105	118.85	377	142.90	1010	158.80	120
105.80	379	123.90	17	143.80	22	160.65	95
106.80	58	126.00	20	144.85	72	171.85	196
107.00	18	127.85	327	145.75	139	172.95	537
110.70	37	128.80	145	146.90	42	173.90	82253

Average of 14.084 to 14.090 min.: 2w56052.D\data.ms

bfb

Modified:subtracted

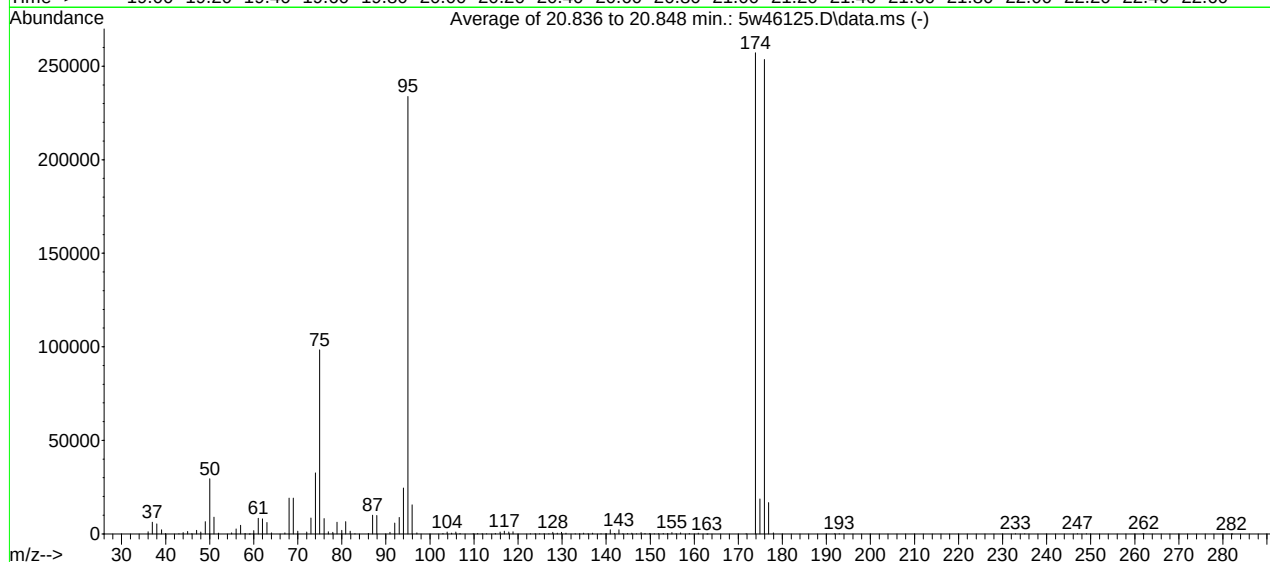
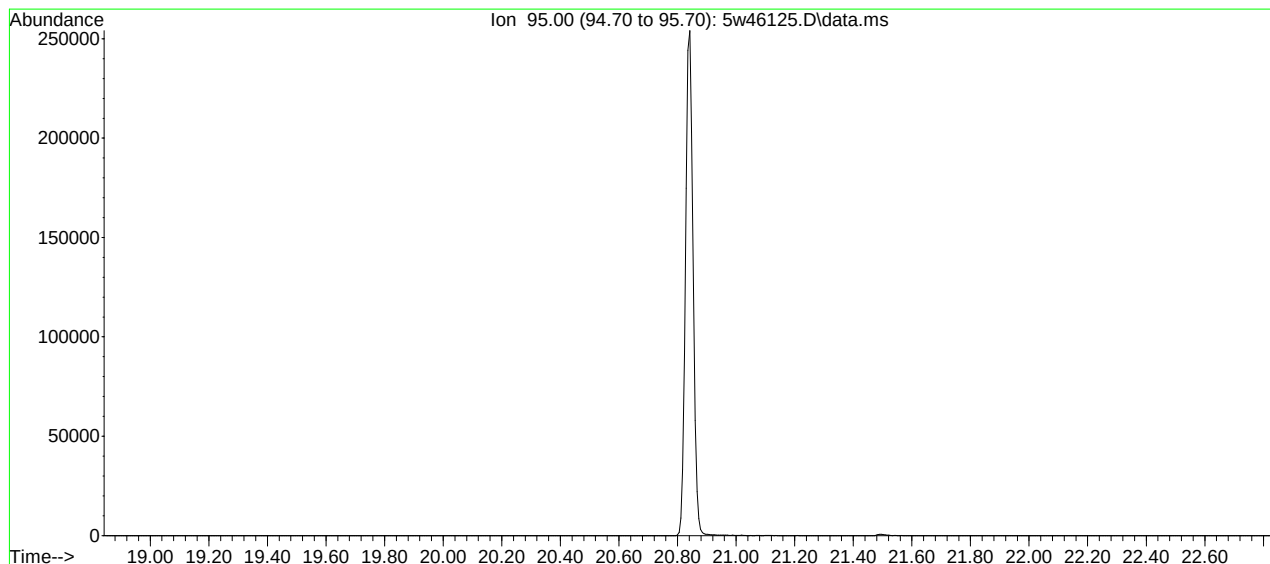
m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
174.90	5735						
175.90	77688						
176.90	5127						
177.85	147						

BFB

Data File : C:\msdchem\1\data\5w46125.D
Acq On : 4 Nov 2021 9:52 am
Sample : bfb
Misc : ms54715,v5w1909,,,,,1
MS Integration Params: Rteint.p

Vial: 1
Operator: danat
Inst : Air5w
Multiplr: 1.00

Method : C:\msdchem\1\methods\m5w1909.M (RTE Integrator)
Title : T0-15 Full Scan Mode



AutoFind: Scans 2983, 2984, 2985; Background Corrected with Scan 2974

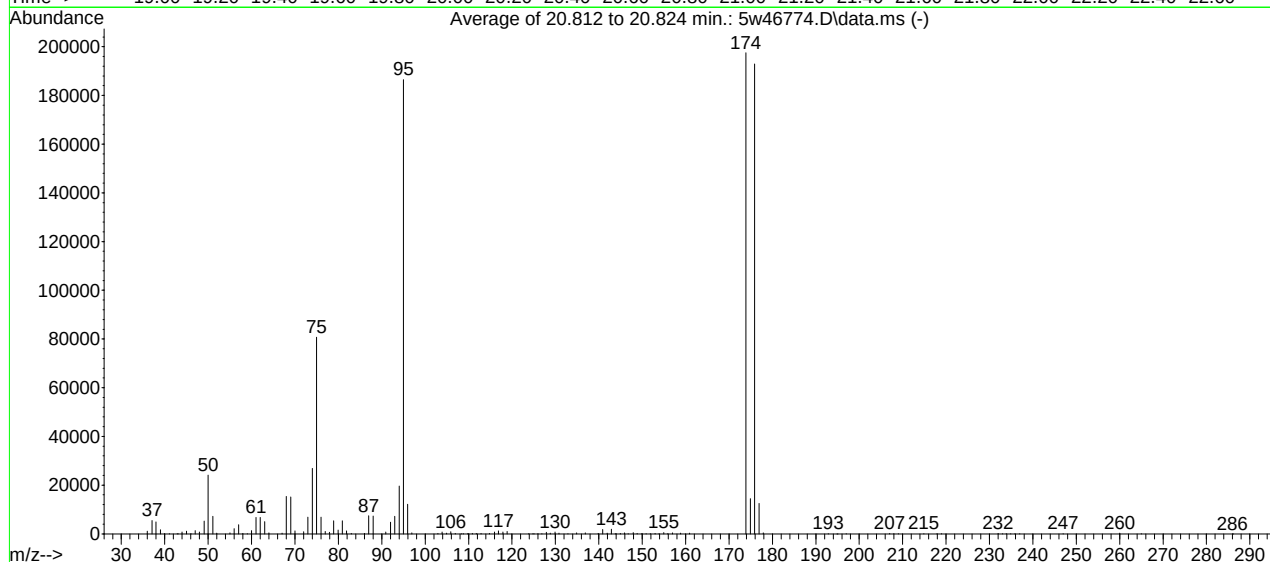
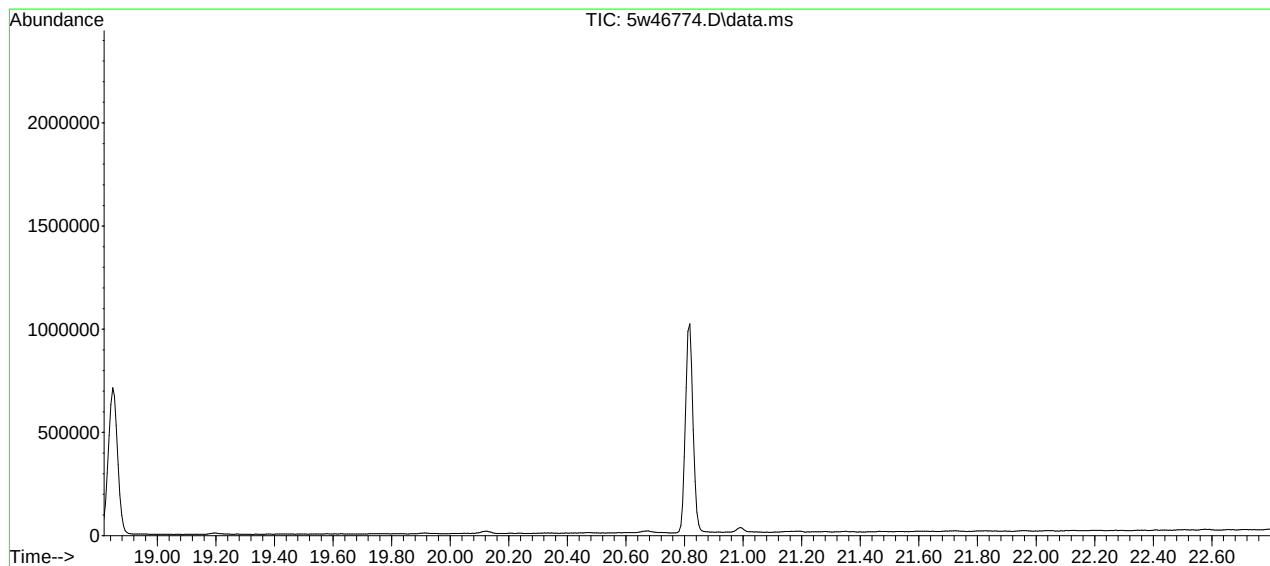
Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	8	40	12.6	29392	PASS
75	95	30	66	42.1	98379	PASS
95	95	100	100	100.0	233792	PASS
96	95	5	9	6.6	15532	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	120	110.0	257152	PASS
175	174	4	9	7.3	18667	PASS
176	174	93	101	98.6	253547	PASS
177	176	5	9	6.6	16661	PASS

BFB

Data File : C:\msdchem\1\data\5w46774.D
Acq On : 13 Dec 2021 7:49 am
Sample : bfb
Misc : ms55457,v5w1935,,,,,1
MS Integration Params: Rteint.p

Vial: 1
Operator: danat
Inst : Air5w
Multiplr: 1.00

Method : C:\msdchem\1\methods\m5w1909.M (RTE Integrator)
Title : T0-15 Full Scan Mode



AutoFind: Scans 2979, 2980, 2981; Background Corrected with Scan 2970

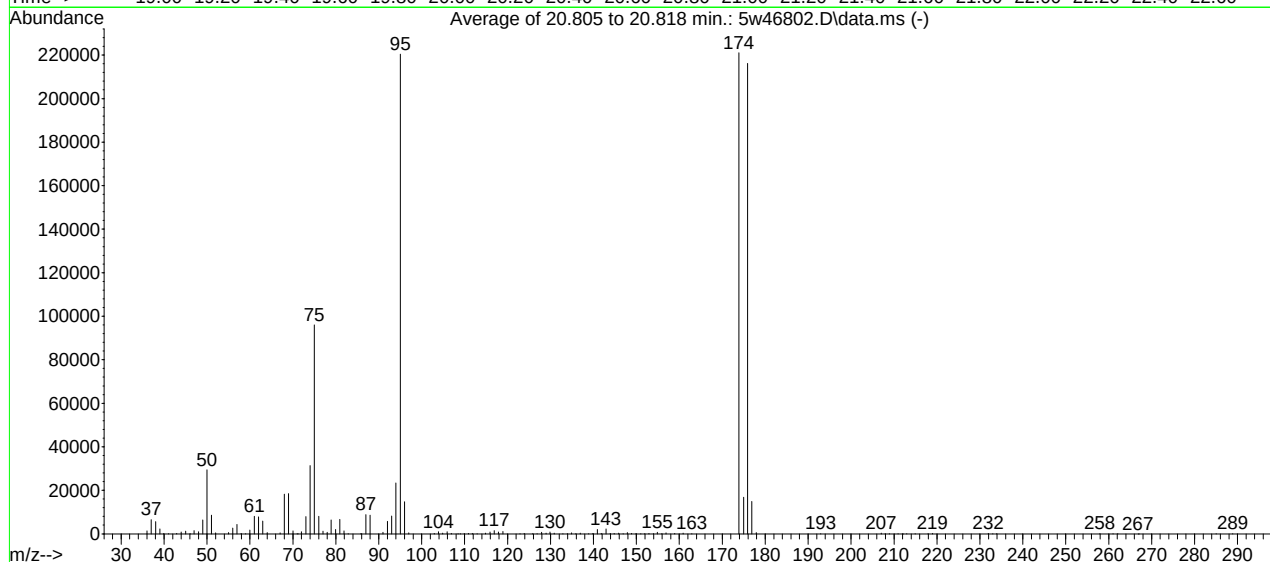
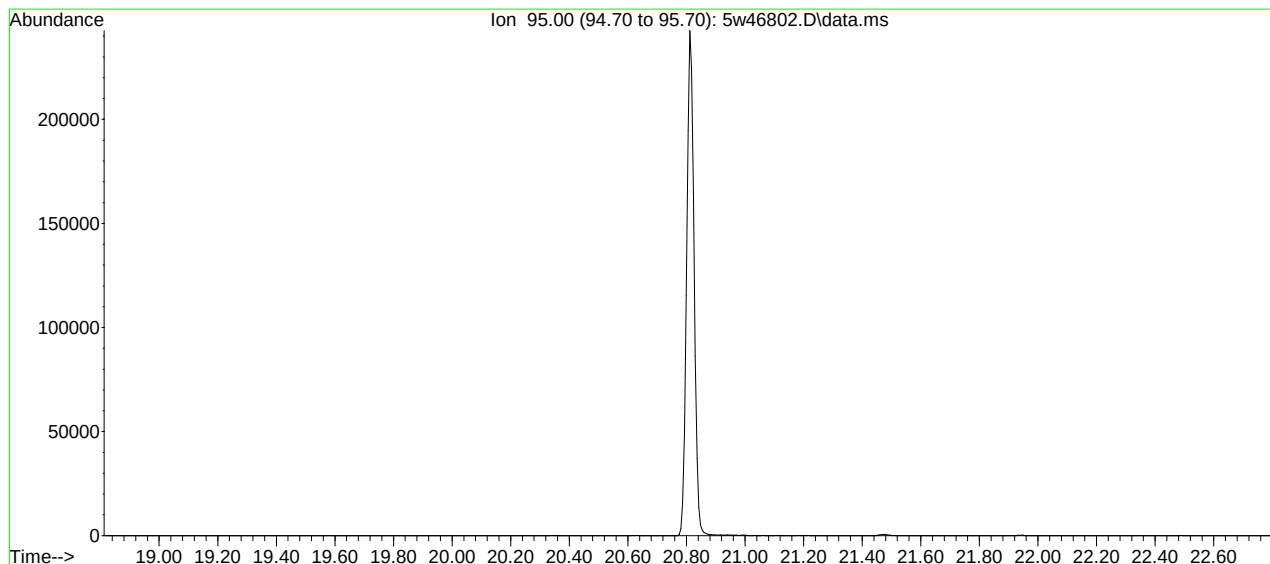
Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	8	40	12.9	24064	PASS
75	95	30	66	43.3	80693	PASS
95	95	100	100	100.0	186475	PASS
96	95	5	9	6.5	12167	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	120	105.9	197483	PASS
175	174	4	9	7.3	14420	PASS
176	174	93	101	97.7	192875	PASS
177	176	5	9	6.5	12514	PASS

BFB

Data File : C:\msdchem\1\data\5w46802.D
Acq On : 14 Dec 2021 7:53 am
Sample : bfb
Misc : ms55468,v5w1936,,,,,1
MS Integration Params: Rteint.p

Vial: 1
Operator: danat
Inst : Air5w
Multiplr: 1.00

Method : C:\msdchem\1\methods\m5w1909.M (RTE Integrator)
Title : T0-15 Full Scan Mode



AutoFind: Scans 2978, 2979, 2980; Background Corrected with Scan 2970

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	8	40	13.3	29408	PASS
75	95	30	66	43.5	95955	PASS
95	95	100	100	100.0	220459	PASS
96	95	5	9	6.7	14806	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	120	100.3	221013	PASS
175	174	4	9	7.6	16793	PASS
176	174	93	101	97.8	216213	PASS
177	176	5	9	6.9	14867	PASS

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
 Data File : 2w54654.D
 Acq On : 27 Jul 2021 11:38 am
 Operator : danat
 Sample : ic2424-0.5
 Misc : MS52290,V2w2424,,,,,1
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jul 27 14:47:06 2021
 Quant Method : C:\msdchem\1\METHODS\M2W2424.M
 Quant Title : T015 by GCMS w/DB-1, 30m X 0.25mm ID X 0.5 um
 QLast Update : Tue Jul 27 14:46:20 2021
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) BROMOCHLOROMETHANE	3.643	128	89424	10.00	PPBV	0.00
52) 1,4-DIFLUOROBENZENE	4.984	114	437760	10.00	PPBV	0.00
76) CHLOROBENZENE-D5	10.701	117	380955	10.00	PPBV	0.00
System Monitoring Compounds						
87) 4-BROMOFLUOROBENZENE	14.096	95	269734	10.14	PPBV	0.00
Target Compounds						
3) FREON 152A	1.856	65	3745	0.57	PPBV	Qvalue 91
4) CHLORODIFLUOROMETHANE	1.869	67	2276	0.51	PPBV	99
5) CHLOROTRIFLUOROETHENE	1.885	116	9151	0.49	PPBV #	96
6) DICHLORODIFLUOROMETHANE	1.907	85	19845	0.48	PPBV	98
7) PROPYLENE	1.885	41	3306	0.48	PPBV	99
8) 1-CHLORO-1,1-DIFLUORO...	1.959	65	16965	0.49	PPBV #	93
9) FREON 114	2.004	85	17266	0.48	PPBV	96
10) CHLOROMETHANE	1.968	52	1360	0.50	PPBV	97
11) VINYL CHLORIDE	2.042	62	5274	0.50	PPBV	96
12) 1,3-BUTADIENE	2.097	54	3464	0.46	PPBV	91
13) N-BUTANE	2.116	43	6858	0.50	PPBV #	96
14) BROMOMETHANE	2.197	94	6089	0.52	PPBV	88
15) CHLOROETHANE	2.258	64	2853	0.49	PPBV	96
16) DICHLOROFLUOROMETHANE	2.290	67	13504	0.47	PPBV	96
17) ACETONITRILE	2.377	41	4571	0.65	PPBV	91
18) ACROLEIN	2.422	56	2610	0.58	PPBV	94
19) FREON 123	2.441	83	14600	0.52	PPBV	95
20) FREON 123A	2.460	117	8454	0.45	PPBV	94
21) TRICHLOROFLUOROMETHANE	2.528	101	20956	0.48	PPBV	98
22) ISOPROPYL ALCOHOL	2.547	45	9846	0.54	PPBV #	93
23) ACETONE	2.470	58	3039	0.67	PPBV	93
24) PENTANE	2.640	42	4289	0.51	PPBV	96
25) IODOMETHANE	2.698	142	17263	0.50	PPBV	100
26) 1,1-DICHLOROETHYLENE	2.724	96	5216	0.45	PPBV	87
27) CARBON DISULFIDE	2.856	76	14040	0.49	PPBV	94
28) ETHANOL	2.299	45	2783	0.78	PPBV	96
29) BROMOETHENE	2.389	106	5906	0.49	PPBV	98
30) ACRYLONITRILE	2.615	52	3288	0.51	PPBV	88
31) METHYLENE CHLORIDE	2.759	84	5759	0.57	PPBV	97
32) 3-CHLOROPROPENE	2.801	76	2627	0.51	PPBV	98
33) FREON 113	2.856	151	12434	0.52	PPBV	93
34) TRANS-1,2-DICHLOROETHENE	3.097	96	6408	0.53	PPBV	97
35) TERTIARY BUTYL ALCOHOL	2.734	59	9959	0.44	PPBV	94
36) METHYL TERTIARY BUTYL ...	3.219	73	15179	0.48	PPBV #	95
37) TETRAHYDROFURAN	3.962	72	2311	0.45	PPBV	87
38) HEXANE	3.701	57	7601	0.48	PPBV	90
39) VINYL ACETATE	3.254	86	1395	0.50	PPBV #	75
40) 1,1-DICHLOROETHANE	3.180	63	10333	0.52	PPBV	96
41) METHYL ETHYL KETONE	3.351	72	2924	0.54	PPBV	100
42) CIS-1,2-DICHLOROETHENE	3.563	96	6144	0.47	PPBV	100
43) DIISOPROPYL ETHER	3.698	59	2770	0.57	PPBV	72

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
 Data File : 2w54654.D
 Acq On : 27 Jul 2021 11:38 am
 Operator : danat
 Sample : ic2424-0.5
 Misc : MS52290,V2w2424,,,,,1
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jul 27 14:47:06 2021
 Quant Method : C:\msdchem\1\METHODS\M2W2424.M
 Quant Title : T015 by GCMS w/DB-1, 30m X 0.25mm ID X 0.5 um
 QLast Update : Tue Jul 27 14:46:20 2021
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
44) ETHYL ACETATE	3.714	61	1491	0.51	PPBV	93
45) METHYL ACRYLATE	3.692	55	9815	0.50	PPBV #	99
46) CHLOROFORM	3.721	83	14409	0.48	PPBV	99
47) 2,4-DIMETHYLPENTANE	4.238	57	9058	0.48	PPBV	94
48) 1,1,1-TRICHLOROETHANE	4.322	97	16016	0.50	PPBV	94
49) CARBON TETRACHLORIDE	4.762	117	16797	0.47	PPBV	97
50) 1,2-DICHLOROETHANE	4.148	62	10444	0.49	PPBV #	97
51) BENZENE	4.643	78	17724	0.49	PPBV	91
53) CYCLOHEXANE	4.868	84	7860	0.50	PPBV	92
54) 2,3-DIMETHYLPENTANE	5.132	71	3910	0.50	PPBV	90
55) TRICHLOROETHENE	5.579	95	9064	0.49	PPBV	97
56) 1,2-DICHLOROPROPANE	5.341	63	6017	0.51	PPBV	98
57) DIBROMOMETHANE	5.303	174	9608	0.50	PPBV	96
58) ETHYL ACRYLATE	5.467	55	11811	0.49	PPBV #	94
59) BROMODICHLOROMETHANE	5.521	83	16763	0.50	PPBV	96
60) 2,2,4-TRIMETHYLPENTANE	5.676	57	26160	0.52	PPBV	99
61) 1,4-DIOXANE	5.608	88	5050	0.62	PPBV	93
62) HEPTANE	6.007	43	8446	0.51	PPBV	98
63) METHYL METHACRYLATE	5.904	69	6161	0.47	PPBV	98
64) METHYL ISOBUTYL KETONE	6.653	58	5056	0.52	PPBV #	87
65) CIS-1,3-DICHLOROPROPENE	6.550	75	9771	0.48	PPBV	97
66) TOLUENE	7.791	91	22608	0.49	PPBV	99
67) 1,3-DICHLOROPROPANE	7.852	76	10935	0.50	PPBV #	97
68) TRANS-1,3-DICHLOROPROPENE	7.251	75	8860	0.47	PPBV #	89
69) 1,1,2-TRICHLOROETHANE	7.402	83	6183	0.47	PPBV	97
70) 2-HEXANONE	8.360	58	6080	0.48	PPBV	100
71) ETHYL METHACRYLATE	8.495	69	9139	0.43	PPBV #	92
72) TETRACHLOROETHENE	9.560	164	9920	0.48	PPBV	97
73) DIBROMOCHLOROMETHANE	8.338	129	16663	0.48	PPBV	97
74) 1,2-DIBROMOETHANE	8.685	107	13253	0.51	PPBV #	93
75) OCTANE	9.691	43	11723	0.51	PPBV	94
77) 1,1,1,2-TETRACHLOROETHANE	10.794	131	11156	0.48	PPBV	95
78) CHLOROBENZENE	10.778	112	18895	0.50	PPBV	99
79) ETHYLBENZENE	11.666	91	28933	0.46	PPBV	95
80) M,P-XYLENE	12.061	91	47823	0.97	PPBV #	63
81) O-XYLENE	13.045	91	24657	0.50	PPBV	94
82) STYRENE	12.830	104	17577	0.48	PPBV	96
83) NONANE	14.148	43	11787	0.50	PPBV #	26
84) BROMOFORM	11.920	173	15793	0.46	PPBV #	95
85) 1,1,2,2-TETRACHLOROETHANE	13.051	83	15250	0.50	PPBV	98
86) 1,2,3-TRICHLOROPROPANE	13.334	75	12732	0.50	PPBV #	99
88) ISOPROPYLBENZENE	14.572	120	8838	0.48	PPBV #	51
89) BROMOBENZENE	14.444	77	16199	0.50	PPBV #	88
90) 2-CHLOROTOLUENE	15.579	126	8124	0.50	PPBV #	86
91) N-PROPYLBENZENE	15.913	120	8620	0.46	PPBV #	90
92) 4-ETHYLTOLUENE	16.231	105	31609	0.46	PPBV #	98
93) 1,3,5-TRIMETHYLBENZENE	16.373	105	26338	0.45	PPBV	95
94) ALPHA-METHYLSTYRENE	16.563	118	12513	0.44	PPBV	98
95) TERT-BUTYLBENZENE	16.817	134	6913	0.50	PPBV	88
96) 1,2,4-TRIMETHYLBENZENE	16.820	105	27963	0.47	PPBV	99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 2w54654.D
Acq On : 27 Jul 2021 11:38 am
Operator : danat
Sample : ic2424-0.5
Misc : MS52290,V2w2424,,,,,1
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jul 27 14:47:06 2021
Quant Method : C:\msdchem\1\METHODS\M2W2424.M
Quant Title : T015 by GCMS w/DB-1, 30m X 0.25mm ID X 0.5 um
QLast Update : Tue Jul 27 14:46:20 2021
Response via : Initial Calibration

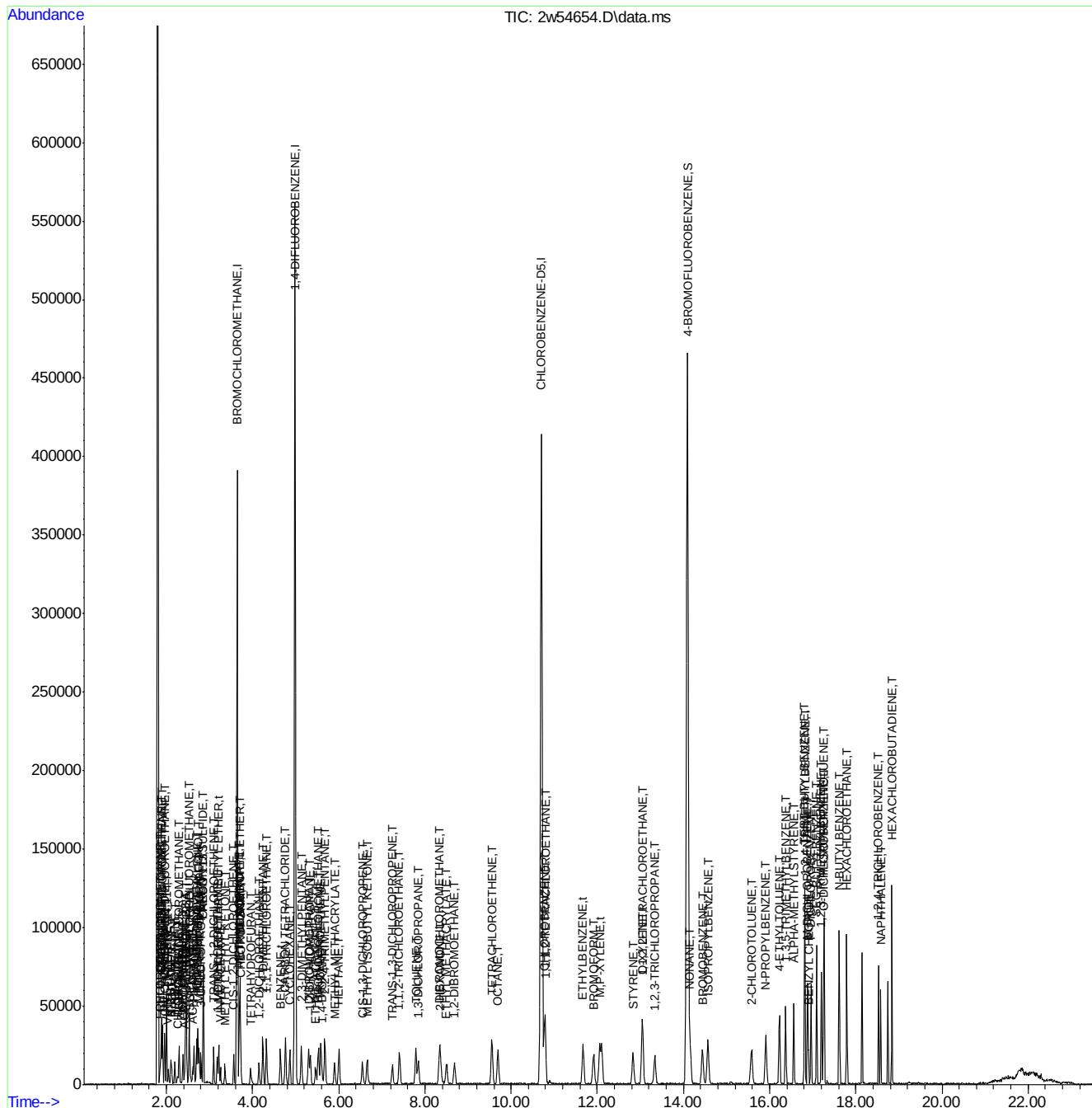
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
97) BENZYL CHLORIDE	16.903	91	11114	0.35	PPBV	97
98) M-DICHLOROBENZENE	16.881	146	18365	0.47	PPBV	99
99) P-DICHLOROBENZENE	16.961	146	19940	0.52	PPBV	96
100) O-DICHLOROBENZENE	17.254	146	16298	0.46	PPBV	96
101) SEC-BUTYLBENZENE	17.093	134	7916	0.47	PPBV	95
102) 1,2,3-TRIMETHYLBENZENE	17.199	105	26983	0.48	PPBV	96
103) P-ISOPROPYLTOLUENE	17.267	134	8590	0.47	PPBV	100
104) N-BUTYLBENZENE	17.614	134	7873	0.47	PPBV	99
105) HEXACHLOROETHANE	17.794	117	10229	0.45	PPBV	95
106) HEXACHLOROBUTADIENE	18.839	225	12580	0.52	PPBV	98
107) 1,2,4-TRICHLOROBENZENE	18.530	180	11874	0.50	PPBV	98
108) NAPHTHALENE	18.579	128	26501	0.56	PPBV	97

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 2w54654.D
Acq On : 27 Jul 2021 11:38 am
Operator : danat
Sample : ic2424-0.5
Misc : MS52290,V2w2424,,,,,1
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jul 27 14:47:06 2021
Quant Method : C:\msdchem\1\METHODS\M2W2424.M
Quant Title : T015 by GCMS w/DB-1, 30m X 0.25mm ID X 0.5 um
QLast Update : Tue Jul 27 14:46:20 2021
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
 Data File : 2w54655.D
 Acq On : 27 Jul 2021 12:10 pm
 Operator : danat
 Sample : ic2424-0.2
 Misc : MS52290,V2w2424,,,,,1
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jul 27 14:51:30 2021
 Quant Method : C:\msdchem\1\METHODS\M2W2424.M
 Quant Title : T015 by GCMS w/DB-1, 30m X 0.25mm ID X 0.5 um
 QLast Update : Tue Jul 27 14:48:25 2021
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) BROMOCHLOROMETHANE	3.640	128	86192	10.00	PPBV	0.00
52) 1,4-DIFLUOROBENZENE	4.984	114	424800	10.00	PPBV	0.00
76) CHLOROBENZENE-D5	10.698	117	372550	10.00	PPBV	0.00
System Monitoring Compounds						
87) 4-BROMOFLUOROBENZENE	14.093	95	257850	9.87	PPBV	0.00
Target Compounds						
					Qvalue	
3) FREON 152A	1.859	65	1307m	0.20	PPBV	
4) CHLORODIFLUOROMETHANE	1.872	67	735	0.17	PPBV #	75
5) CHLOROTRIFLUOROETHENE	1.891	116	3698	0.21	PPBV #	91
6) DICHLORODIFLUOROMETHANE	1.910	85	8124	0.21	PPBV	98
7) PROPYLENE	1.891	41	1587	0.24	PPBV	96
8) 1-CHLORO-1,1-DIFLUORO...	1.962	65	6954	0.21	PPBV #	85
9) FREON 114	2.007	85	6848	0.20	PPBV	95
10) CHLOROMETHANE	1.962	52	618	0.24	PPBV	96
11) VINYL CHLORIDE	2.045	62	2268	0.22	PPBV #	99
12) 1,3-BUTADIENE	2.097	54	1482	0.21	PPBV	89
13) N-BUTANE	2.116	43	2668	0.20	PPBV #	76
14) BROMOMETHANE	2.200	94	2117	0.18	PPBV	94
15) CHLOROETHANE	2.261	64	1153	0.21	PPBV #	87
16) DICHLOROFLUOROMETHANE	2.290	67	5492	0.20	PPBV #	94
17) ACETONITRILE	2.380	41	1520	0.20	PPBV #	50
18) ACROLEIN	2.428	56	998	0.22	PPBV	94
19) FREON 123	2.441	83	5865	0.21	PPBV	92
20) FREON 123A	2.457	117	3563	0.20	PPBV	95
21) TRICHLOROFLUOROMETHANE	2.524	101	8427	0.20	PPBV	100
22) ISOPROPYL ALCOHOL	2.544	45	4923	0.27	PPBV #	79
23) ACETONE	2.463	58	1371	0.28	PPBV	86
24) PENTANE	2.640	42	1689	0.21	PPBV	97
25) IODOMETHANE	2.695	142	6437	0.19	PPBV	100
26) 1,1-DICHLOROETHYLENE	2.727	96	2341	0.22	PPBV	96
27) CARBON DISULFIDE	2.856	76	5552	0.20	PPBV #	73
28) ETHANOL	2.299	45	1031	0.25	PPBV #	89
29) BROMOETHENE	2.393	106	2331	0.20	PPBV #	97
30) ACRYLONITRILE	2.614	52	1402	0.22	PPBV	96
31) METHYLENE CHLORIDE	2.756	84	2870	0.28	PPBV	97
32) 3-CHLOROPROPENE	2.804	76	1056	0.21	PPBV #	92
33) FREON 113	2.852	151	4697	0.20	PPBV	98
34) TRANS-1,2-DICHLOROETHENE	3.100	96	2166	0.18	PPBV	90
35) TERTIARY BUTYL ALCOHOL	2.730	59	4249	0.20	PPBV #	90
36) METHYL TERTIARY BUTYL ...	3.219	73	6040	0.20	PPBV #	92
37) TETRAHYDROFURAN	3.962	72	922	0.19	PPBV	89
38) HEXANE	3.695	57	3271	0.22	PPBV	90
39) VINYL ACETATE	3.254	86	560	0.21	PPBV #	77
40) 1,1-DICHLOROETHANE	3.174	63	3878	0.20	PPBV #	91
41) METHYL ETHYL KETONE	3.367	72	906	0.17	PPBV #	44
42) CIS-1,2-DICHLOROETHENE	3.557	96	2666	0.22	PPBV	98
43) DIISOPROPYL ETHER	3.698	59	682	0.14	PPBV #	14

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
 Data File : 2w54655.D
 Acq On : 27 Jul 2021 12:10 pm
 Operator : danat
 Sample : ic2424-0.2
 Misc : MS52290,V2w2424,,,,,1
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jul 27 14:51:30 2021
 Quant Method : C:\msdchem\1\METHODS\M2W2424.M
 Quant Title : T015 by GCMS w/DB-1, 30m X 0.25mm ID X 0.5 um
 QLast Update : Tue Jul 27 14:48:25 2021
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
44) ETHYL ACETATE	3.701	61	624	0.22	PPBV #	73
45) METHYL ACRYLATE	3.695	55	4037	0.21	PPBV #	99
46) CHLOROFORM	3.717	83	6198	0.22	PPBV	98
47) 2,4-DIMETHYLPENTANE	4.235	57	3973	0.22	PPBV	99
48) 1,1,1-TRICHLOROETHANE	4.325	97	5919	0.19	PPBV #	91
49) CARBON TETRACHLORIDE	4.762	117	7207	0.21	PPBV	100
50) 1,2-DICHLOROETHANE	4.148	62	4202	0.21	PPBV	98
51) BENZENE	4.646	78	6736	0.20	PPBV	99
53) CYCLOHEXANE	4.862	84	3246	0.21	PPBV	99
54) 2,3-DIMETHYLPENTANE	5.135	71	1163	0.15	PPBV #	40
55) TRICHLOROETHENE	5.582	95	3888	0.22	PPBV	93
56) 1,2-DICHLOROPROPANE	5.338	63	2442	0.21	PPBV	97
57) DIBROMOMETHANE	5.306	174	4056	0.22	PPBV	94
58) ETHYL ACRYLATE	5.466	55	4367	0.19	PPBV	97
59) BROMODICHLOROMETHANE	5.524	83	6430	0.20	PPBV	87
60) 2,2,4-TRIMETHYLPENTANE	5.679	57	10517	0.21	PPBV	98
61) 1,4-DIOXANE	5.627	88	2203	0.26	PPBV #	63
62) HEPTANE	6.010	43	3296	0.20	PPBV	92
63) METHYL METHACRYLATE	5.900	69	2572	0.21	PPBV	93
64) METHYL ISOBUTYL KETONE	6.659	58	1873	0.20	PPBV #	90
65) CIS-1,3-DICHLOROPROPENE	6.547	75	3773	0.19	PPBV	95
66) TOLUENE	7.801	91	8737	0.20	PPBV	95
67) 1,3-DICHLOROPROPANE	7.846	76	4392	0.21	PPBV #	98
68) TRANS-1,3-DICHLOROPROPENE	7.251	75	3393	0.19	PPBV #	90
69) 1,1,2-TRICHLOROETHANE	7.415	83	2582	0.21	PPBV	94
70) 2-HEXANONE	8.376	58	2922	0.24	PPBV #	87
71) ETHYL METHACRYLATE	8.495	69	3320	0.17	PPBV #	47
72) TETRACHLOROETHENE	9.547	164	4287	0.22	PPBV	95
73) DIBROMOCHLOROMETHANE	8.334	129	6558	0.20	PPBV	94
74) 1,2-DIBROMOETHANE	8.688	107	4977	0.20	PPBV #	99
75) OCTANE	9.695	43	4411	0.20	PPBV	94
77) 1,1,1,2-TETRACHLOROETHANE	10.797	131	4669	0.21	PPBV #	34
78) CHLOROBENZENE	10.775	112	7352	0.20	PPBV	96
79) ETHYLBENZENE	11.666	91	12141	0.20	PPBV	99
80) M,P-XYLENE	12.100	91	18669	0.39	PPBV #	54
81) O-XYLENE	13.042	91	9927	0.20	PPBV #	86
82) STYRENE	12.826	104	6425	0.18	PPBV	97
83) NONANE	14.157	43	4886	0.21	PPBV #	32
84) BROMOFORM	11.919	173	5835	0.18	PPBV	98
85) 1,1,2,2-TETRACHLOROETHANE	13.061	83	6102	0.20	PPBV	95
86) 1,2,3-TRICHLOROPROPANE	13.347	75	5038	0.20	PPBV #	99
88) ISOPROPYLBENZENE	14.579	120	3613	0.20	PPBV	98
89) BROMOBENZENE	14.437	77	6986	0.22	PPBV	89
90) 2-CHLOROTOLUENE	15.575	126	3038	0.19	PPBV	97
91) N-PROPYLBENZENE	15.910	120	3382	0.19	PPBV #	83
92) 4-ETHYLTOLUENE	16.231	105	11892	0.18	PPBV	98
93) 1,3,5-TRIMETHYLBENZENE	16.369	105	10084	0.18	PPBV	99
94) ALPHA-METHYLSTYRENE	16.569	118	5094	0.19	PPBV	98
95) TERT-BUTYLBENZENE	16.816	134	2275	0.17	PPBV	79
96) 1,2,4-TRIMETHYLBENZENE	16.823	105	10242	0.18	PPBV	94

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 2w54655.D
Acq On : 27 Jul 2021 12:10 pm
Operator : danat
Sample : ic2424-0.2
Misc : MS52290,V2w2424,,,,,1
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jul 27 14:51:30 2021
Quant Method : C:\msdchem\1\METHODS\M2W2424.M
Quant Title : T015 by GCMS w/DB-1, 30m X 0.25mm ID X 0.5 um
QLast Update : Tue Jul 27 14:48:25 2021
Response via : Initial Calibration

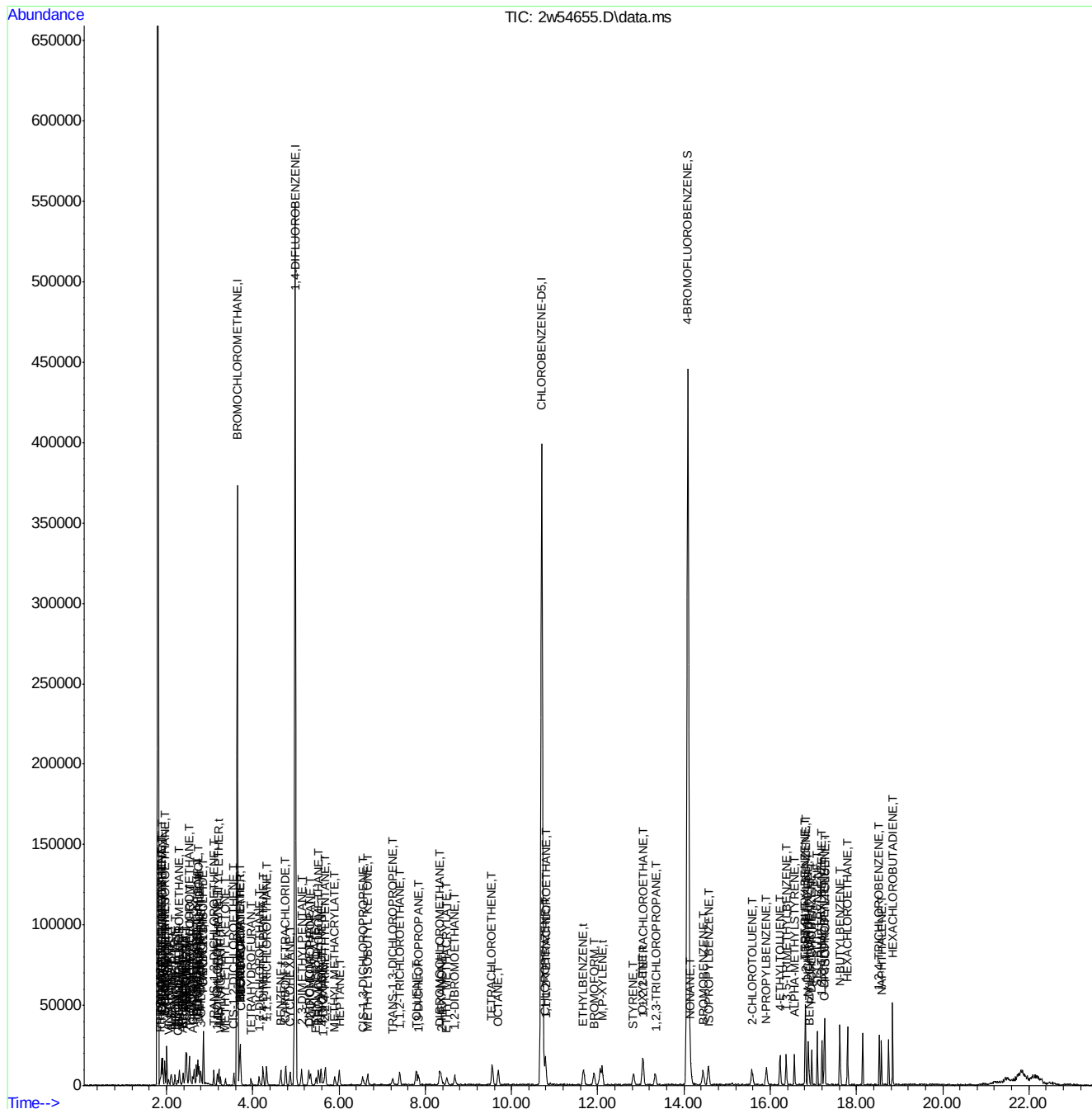
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
97) BENZYL CHLORIDE	16.903	91	4424	0.16	PPBV	96
98) M-DICHLOROBENZENE	16.881	146	7771	0.21	PPBV	95
99) P-DICHLOROBENZENE	16.961	146	7074	0.19	PPBV	97
100) O-DICHLOROBENZENE	17.250	146	6601	0.20	PPBV	98
101) SEC-BUTYLBENZENE	17.090	134	3544	0.22	PPBV	68
102) 1,2,3-TRIMETHYLBENZENE	17.199	105	10354	0.19	PPBV	98
103) P-ISOPROPYLTOLUENE	17.270	134	3179	0.18	PPBV	99
104) N-BUTYLBENZENE	17.611	134	3129	0.19	PPBV	95
105) HEXACHLOROETHANE	17.794	117	4139	0.19	PPBV	95
106) HEXACHLOROBUTADIENE	18.842	225	4762	0.20	PPBV	96
107) 1,2,4-TRICHLOROBENZENE	18.530	180	4936	0.21	PPBV	93
108) NAPHTHALENE	18.582	128	11211	0.23	PPBV	97

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 2w54655.D
Acq On : 27 Jul 2021 12:10 pm
Operator : danat
Sample : ic2424-0.2
Misc : MS52290,V2w2424,,,,,1
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jul 27 14:51:30 2021
Quant Method : C:\msdchem\1\METHODS\M2W2424.M
Quant Title : T015 by GCMS w/DB-1, 30m X 0.25mm ID X 0.5 um
QLast Update : Tue Jul 27 14:48:25 2021
Response via : Initial Calibration



M2W2424.M Wed Jul 28 11:18:30 2021 GCMS2W

Page: 4

7.7.2

Manual Integration Approval Summary

Sample Number: V2W2424-IC2424

Method: TO-15

Lab FileID: 2W54655.D

Analyst approved: 07/28/21 11:16 Dana Tryon

Injection Time: 07/27/21 12:10

Supervisor approved: 07/28/21 11:23 Dana Tryon

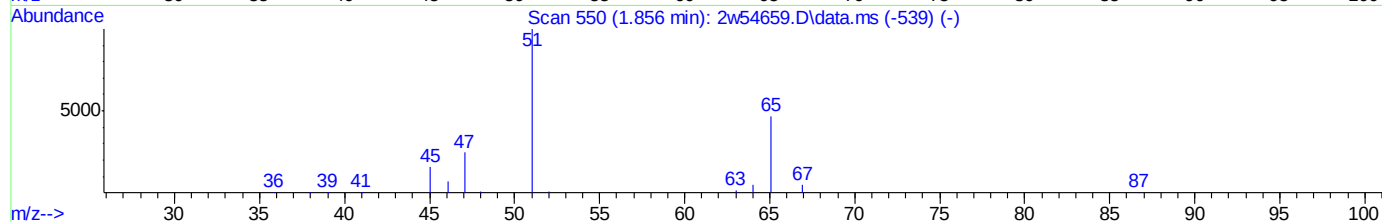
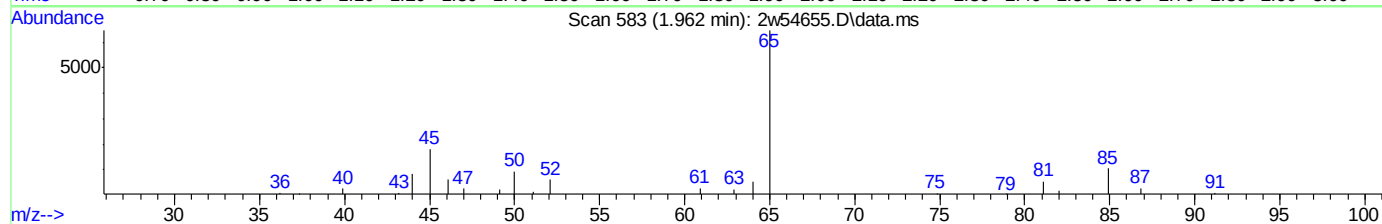
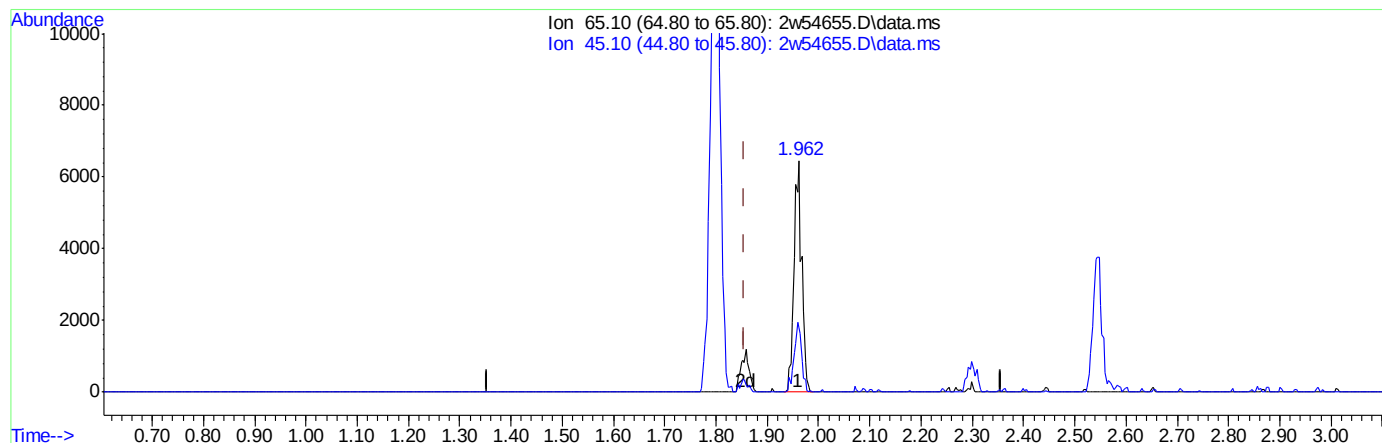
Parameter	CAS	Sig#	R.T. (min.)	Reason
Freon 152A	75-37-6		1.86	Poor instrument integration

7.7.2.1
7

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\
Data File : 2w54655.D
Acq On : 27 Jul 2021 12:10 pm
Operator : danat
Sample : ic2424-0.2
Misc : MS52290,V2w2424,,,,,1
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jul 27 14:48:36 2021
Quant Method : C:\msdchem\1\METHODS\M2W2424.M
Quant Title : T015 by GCMS w/DB-1, 30m X 0.25mm ID X 0.5 um
QLast Update : Tue Jul 27 14:48:25 2021
Response via : Initial Calibration



TIC: 2w54655.D\data.ms

(3) FREON 152A (T)

1.962min (+0.106) 1.05PPBV

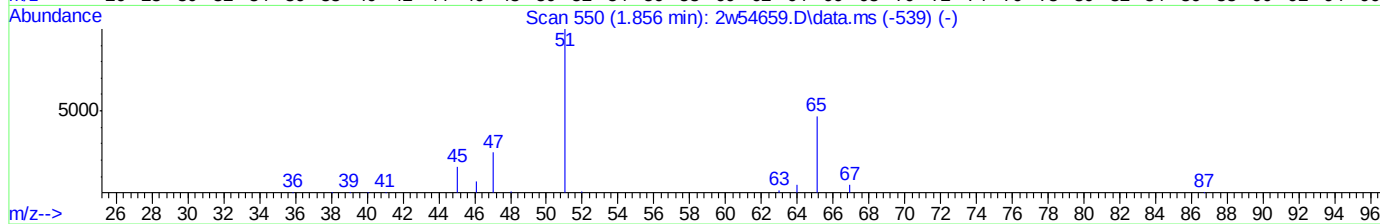
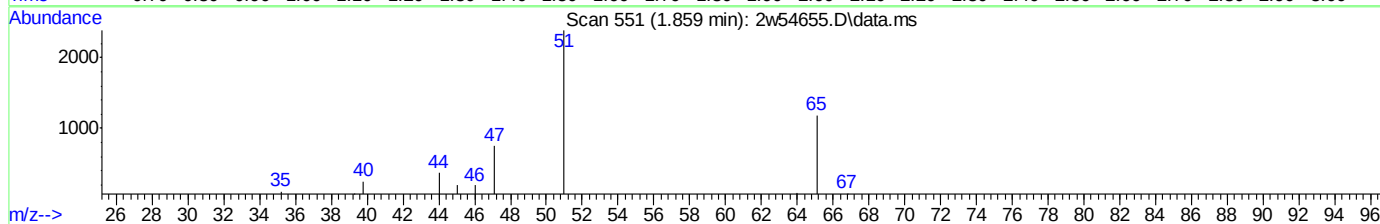
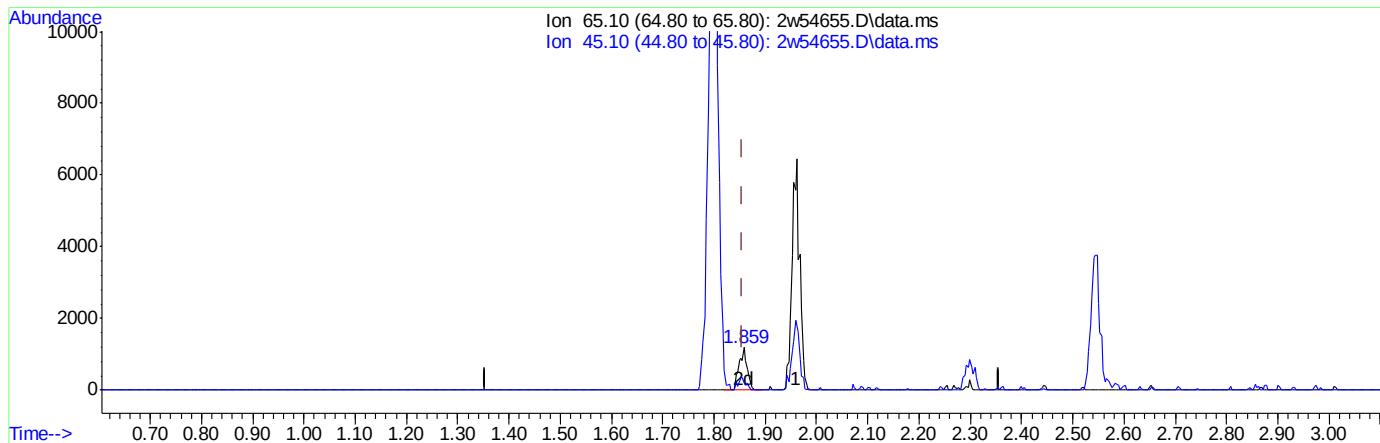
response 6956

Ion	Exp%	Act%
65.10	100	100
45.10	36.50	30.19
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\
Data File : 2w54655.D
Acq On : 27 Jul 2021 12:10 pm
Operator : danat
Sample : ic2424-0.2
Misc : MS52290,V2w2424,,,,,1
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jul 27 14:48:36 2021
Quant Method : C:\msdchem\1\METHODS\M2W2424.M
Quant Title : T015 by GCMS w/DB-1, 30m X 0.25mm ID X 0.5 um
QLast Update : Tue Jul 27 14:48:25 2021
Response via : Initial Calibration



TIC: 2w54655.D\data.ms

(3) FREON 152A (T)

1.859min (+0.003) 0.20PPBV m

response 1307

Ion	Exp%	Act%
65.10	100	100
45.10	36.50	160.67#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
 Data File : 2W54656.D
 Acq On : 27 Jul 2021 12:41 pm
 Operator : danat
 Sample : ic2424-0.1
 Misc : MS52290,V2W2424,,,,,1
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jul 27 14:53:41 2021
 Quant Method : C:\msdchem\1\METHODS\M2W2424.M
 Quant Title : T015 by GCMS w/DB-1, 30m X 0.25mm ID X 0.5 um
 QLast Update : Tue Jul 27 14:48:25 2021
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) BROMOCHLOROMETHANE	3.643	128	83390	10.00	PPBV	0.00
52) 1,4-DIFLUOROBENZENE	4.984	114	415863	10.00	PPBV	0.00
76) CHLOROBENZENE-D5	10.698	117	357247	10.00	PPBV	0.00
System Monitoring Compounds						
87) 4-BROMOFLUOROBENZENE	14.090	95	251572	10.04	PPBV	0.00
Target Compounds						
						Qvalue
3) FREON 152A	1.862	65	680	0.11	PPBV	# 81
4) CHLORODIFLUOROMETHANE	1.878	67	368	0.09	PPBV	# 40
5) CHLOROTRIFLUOROETHENE	1.888	116	1948	0.11	PPBV	# 100
6) DICHLORODIFLUOROMETHANE	1.910	85	3808	0.10	PPBV	# 99
7) PROPYLENE	1.891	41	793	0.13	PPBV	# 94
8) 1-CHLORO-1,1-DIFLUORO...	1.962	65	3277	0.10	PPBV	# 58
9) FREON 114	2.007	85	3366	0.10	PPBV	# 81
10) CHLOROMETHANE	1.968	52	288	0.11	PPBV	# 89
11) VINYL CHLORIDE	2.052	62	1124	0.11	PPBV	# 77
12) 1,3-BUTADIENE	2.097	54	848	0.12	PPBV	# 88
13) N-BUTANE	2.119	43	1378	0.11	PPBV	# 90
14) BROMOMETHANE	2.203	94	1260	0.11	PPBV	# 91
15) CHLOROETHANE	2.254	64	564	0.10	PPBV	# 76
16) DICHLOROFLUOROMETHANE	2.293	67	2816	0.11	PPBV	# 94
17) ACETONITRILE	2.383	41	956	0.13	PPBV	# 87
18) ACROLEIN	2.418	56	612	0.14	PPBV	# 66
19) FREON 123	2.438	83	2982	0.11	PPBV	# 89
20) FREON 123A	2.463	117	2154	0.13	PPBV	# 89
21) TRICHLOROFLUOROMETHANE	2.528	101	3974	0.10	PPBV	# 92
24) PENTANE	2.637	42	859	0.11	PPBV	# 92
25) IODOMETHANE	2.698	142	3621	0.11	PPBV	# 99
26) 1,1-DICHLOROETHYLENE	2.717	96	1286	0.12	PPBV	# 80
27) CARBON DISULFIDE	2.859	76	2770	0.10	PPBV	# 33
29) BROMOETHENE	2.389	106	1379	0.12	PPBV	# 85
30) ACRYLONITRILE	2.605	52	625	0.10	PPBV	# 77
32) 3-CHLOROPROPENE	2.801	76	496	0.10	PPBV	# 43
33) FREON 113	2.856	151	2288	0.10	PPBV	# 91
34) TRANS-1,2-DICHLOROETHENE	3.097	96	1179	0.10	PPBV	# 94
35) TERTIARY BUTYL ALCOHOL	2.733	59	2203	0.11	PPBV	# 79
36) METHYL TERTIARY BUTYL ...	3.216	73	2847	0.10	PPBV	# 98
37) TETRAHYDROFURAN	3.958	72	458	0.10	PPBV	# 73
38) HEXANE	3.695	57	1638	0.11	PPBV	# 91
39) VINYL ACETATE	3.251	86	300	0.12	PPBV	# 64
40) 1,1-DICHLOROETHANE	3.180	63	1763	0.09	PPBV	# 91
41) METHYL ETHYL KETONE	3.357	72	554	0.11	PPBV	# 94
42) CIS-1,2-DICHLOROETHENE	3.566	96	1533	0.13	PPBV	# 86
43) DIISOPROPYL ETHER	3.701	59	506	0.11	PPBV	# 79
44) ETHYL ACETATE	3.717	61	192	0.07	PPBV	# 1
45) METHYL ACRYLATE	3.692	55	2027	0.11	PPBV	# 65
46) CHLOROFORM	3.717	83	3127	0.11	PPBV	# 97
47) 2,4-DIMETHYLPENTANE	4.238	57	1746	0.10	PPBV	# 91

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
 Data File : 2W54656.D
 Acq On : 27 Jul 2021 12:41 pm
 Operator : danat
 Sample : ic2424-0.1
 Misc : MS52290,V2W2424,,,,,1
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jul 27 14:53:41 2021

Quant Method : C:\msdchem\1\METHODS\M2W2424.M

Quant Title : T015 by GCMS w/DB-1, 30m X 0.25mm ID X 0.5 um

QLast Update : Tue Jul 27 14:48:25 2021

Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
48) 1,1,1-TRICHLOROETHANE	4.319	97	2870	0.10	PPBV	99
49) CARBON TETRACHLORIDE	4.765	117	3490	0.11	PPBV	93
50) 1,2-DICHLOROETHANE	4.148	62	2075	0.10	PPBV #	94
51) BENZENE	4.643	78	3724	0.11	PPBV	99
53) CYCLOHEXANE	4.875	84	1705	0.11	PPBV #	84
54) 2,3-DIMETHYLPENTANE	5.132	71	918	0.12	PPBV #	86
55) TRICHLOROETHENE	5.576	95	1864	0.11	PPBV	92
56) 1,2-DICHLOROPROPANE	5.338	63	1258	0.11	PPBV #	90
57) DIBROMOMETHANE	5.296	174	1850	0.10	PPBV #	82
58) ETHYL ACRYLATE	5.473	55	2060	0.09	PPBV #	91
59) BROMODICHLOROMETHANE	5.521	83	3519	0.11	PPBV	96
60) 2,2,4-TRIMETHYLPENTANE	5.675	57	4994	0.10	PPBV	99
61) 1,4-DIOXANE	5.634	88	928	0.11	PPBV #	68
62) HEPTANE	6.010	43	1754	0.11	PPBV	94
63) METHYL METHACRYLATE	5.900	69	1081	0.09	PPBV	96
64) METHYL ISOBUTYL KETONE	6.659	58	979	0.10	PPBV	96
65) CIS-1,3-DICHLOROPROPENE	6.550	75	2023	0.11	PPBV	97
66) TOLUENE	7.797	91	4625	0.11	PPBV	97
67) 1,3-DICHLOROPROPANE	7.849	76	2329	0.11	PPBV #	42
68) TRANS-1,3-DICHLOROPROPENE	7.248	75	1631	0.09	PPBV #	76
69) 1,1,2-TRICHLOROETHANE	7.405	83	1538	0.13	PPBV #	81
70) 2-HEXANONE	8.376	58	1064	0.09	PPBV #	82
71) ETHYL METHACRYLATE	8.498	69	1970	0.10	PPBV #	92
72) TETRACHLOROETHENE	9.563	164	1893	0.10	PPBV #	28
73) DIBROMOCHLOROMETHANE	8.331	129	3256	0.10	PPBV	94
74) 1,2-DIBROMOETHANE	8.682	107	2415	0.10	PPBV #	96
75) OCTANE	9.691	43	2225	0.10	PPBV	95
77) 1,1,1,2-TETRACHLOROETHANE	10.791	131	2221	0.10	PPBV	96
78) CHLOROBENZENE	10.772	112	4236	0.12	PPBV #	81
79) ETHYLBENZENE	11.665	91	6004	0.10	PPBV	96
80) M,P-XYLENE	12.103	91	8431m	0.18	PPBV	
81) O-XYLENE	13.045	91	4961	0.11	PPBV	94
82) STYRENE	12.836	104	3080	0.09	PPBV	95
83) NONANE	14.141	43	2374	0.11	PPBV #	80
84) BROMOFORM	11.916	173	2873	0.09	PPBV #	91
85) 1,1,2,2-TETRACHLOROETHANE	13.058	83	2818	0.10	PPBV #	86
86) 1,2,3-TRICHLOROPROPANE	13.337	75	2765	0.12	PPBV #	99
88) ISOPROPYLBENZENE	14.566	120	1722	0.10	PPBV	95
89) BROMOBENZENE	14.447	77	3235	0.11	PPBV	96
90) 2-CHLOROTOLUENE	15.575	126	1780	0.12	PPBV #	76
91) N-PROPYLBENZENE	15.923	120	1684	0.10	PPBV #	62
92) 4-ETHYLTOLUENE	16.228	105	5836	0.09	PPBV	92
93) 1,3,5-TRIMETHYLBENZENE	16.376	105	5646	0.11	PPBV	91
94) ALPHA-METHYLSTYRENE	16.562	118	2334	0.09	PPBV	93
95) TERT-BUTYLBENZENE	16.810	134	1285	0.10	PPBV	97
96) 1,2,4-TRIMETHYLBENZENE	16.816	105	5088	0.09	PPBV	93
97) BENZYL CHLORIDE	16.894	91	2132	0.08	PPBV	93
98) M-DICHLOROBENZENE	16.877	146	3729	0.10	PPBV	94
99) P-DICHLOROBENZENE	16.961	146	3685	0.10	PPBV	93
100) O-DICHLOROBENZENE	17.254	146	3222	0.10	PPBV	98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 2w54656.D
Acq On : 27 Jul 2021 12:41 pm
Operator : danat
Sample : ic2424-0.1
Misc : MS52290,V2w2424,,,,,1
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jul 27 14:53:41 2021
Quant Method : C:\msdchem\1\METHODS\M2W2424.M
Quant Title : T015 by GCMS w/DB-1, 30m X 0.25mm ID X 0.5 um
QLast Update : Tue Jul 27 14:48:25 2021
Response via : Initial Calibration

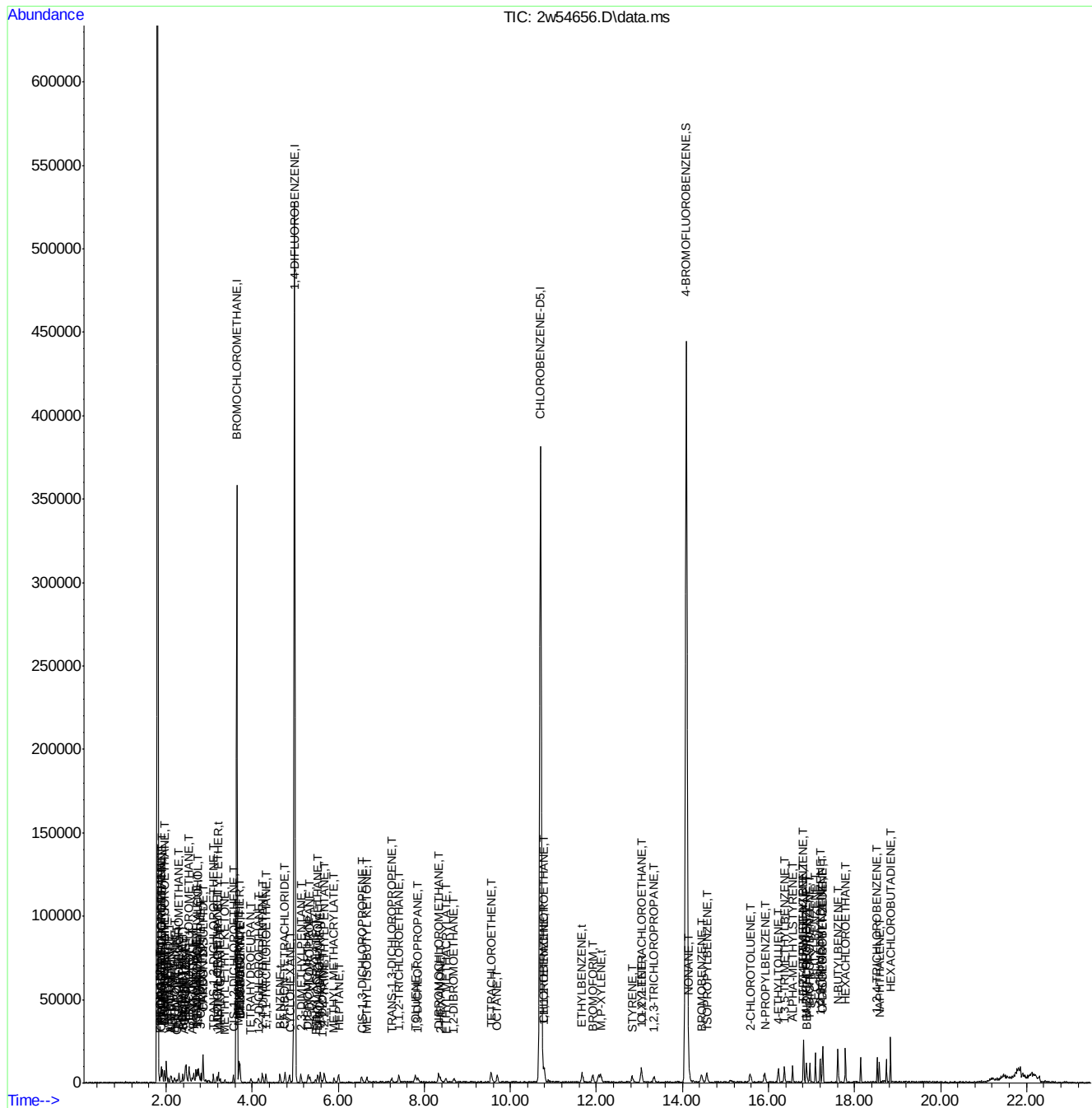
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
101) SEC-BUTYLBENZENE	17.090	134	1354	0.09	PPBV	90
102) 1,2,3-TRIMETHYLBENZENE	17.202	105	5599	0.11	PPBV	93
103) P-ISOPROPYLTOLUENE	17.267	134	1710	0.10	PPBV	96
104) N-BUTYLBENZENE	17.611	134	1466	0.09	PPBV	85
105) HEXACHLOROETHANE	17.794	117	1959	0.09	PPBV	98
106) HEXACHLOROBUTADIENE	18.836	225	2712	0.12	PPBV	91
107) 1,2,4-TRICHLOROBENZENE	18.527	180	2724	0.12	PPBV	96
108) NAPHTHALENE	18.575	128	5845	0.13	PPBV	96

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

(QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 2w54656.D
Acq On : 27 Jul 2021 12:41 pm
Operator : danat
Sample : ic2424-0.1
Misc : MS52290,V2w2424,,,,,1
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jul 27 14:53:41 2021
Quant Method : C:\msdchem\1\METHODS\M2W2424.M
Quant Title : T015 by GCMS w/DB-1, 30m X 0.25mm ID X 0.5 um
QLast Update : Tue Jul 27 14:48:25 2021
Response via : Initial Calibration



7.7.3

Manual Integration Approval Summary

Sample Number: V2W2424-IC2424

Method: TO-15

Lab FileID: 2W54656.D

Analyst approved: 07/28/21 11:16 Dana Tryon

Injection Time: 07/27/21 12:41

Supervisor approved: 07/28/21 11:23 Dana Tryon

Parameter	CAS	Sig#	R.T. (min.)	Reason

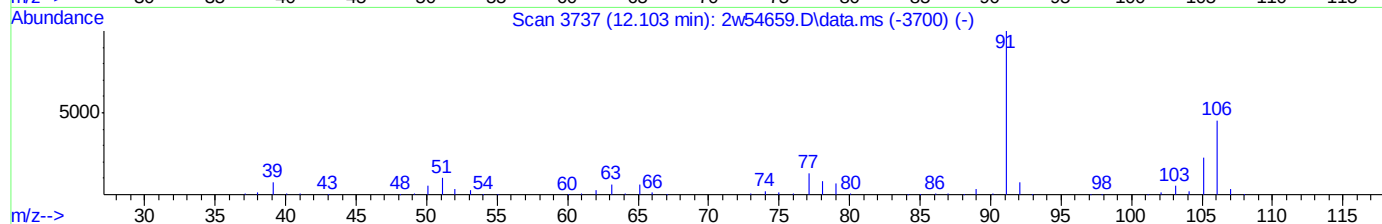
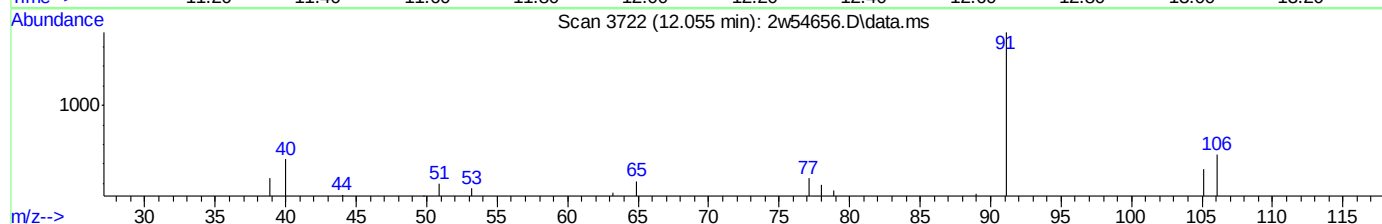
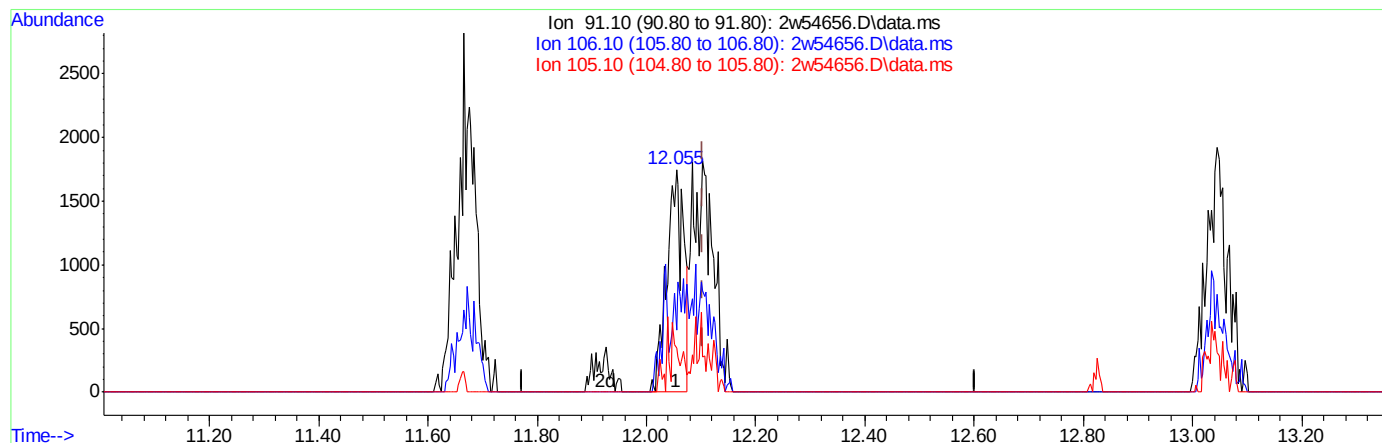
m,p-Xylene			12.10	Poor instrument integration

7.7.3.1
7

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\
Data File : 2w54656.D
Acq On : 27 Jul 2021 12:41 pm
Operator : danat
Sample : ic2424-0.1
Misc : MS52290,V2w2424,,,,,1
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jul 27 14:52:30 2021
Quant Method : C:\msdchem\1\METHODS\M2W2424.M
Quant Title : T015 by GCMS w/DB-1, 30m X 0.25mm ID X 0.5 um
QLast Update : Tue Jul 27 14:48:25 2021
Response via : Initial Calibration



TIC: 2w54656.D\data.ms

(80) M,P-XYLENE (t)

12.055min (-0.048) 0.08PPBV

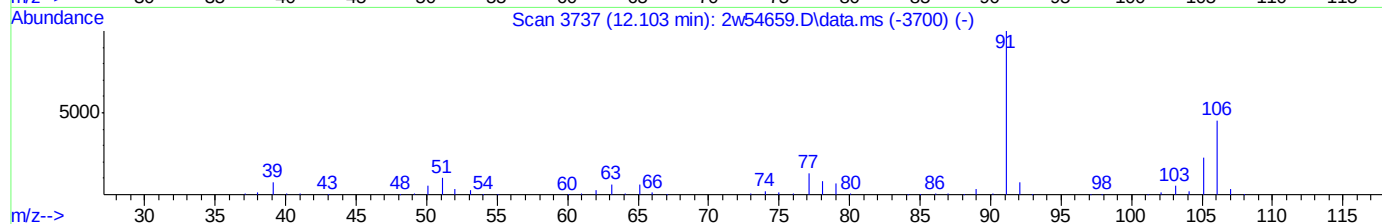
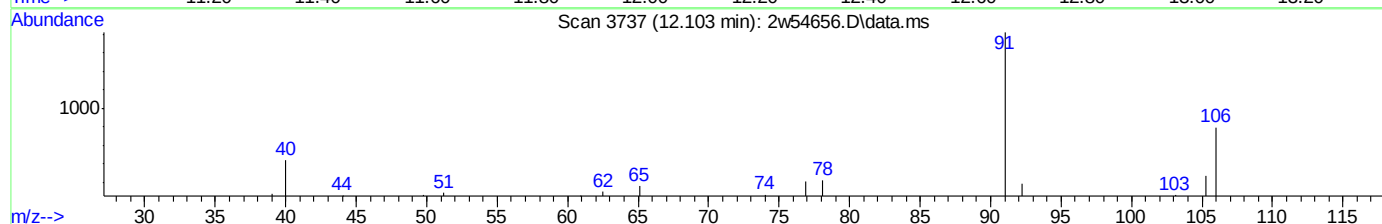
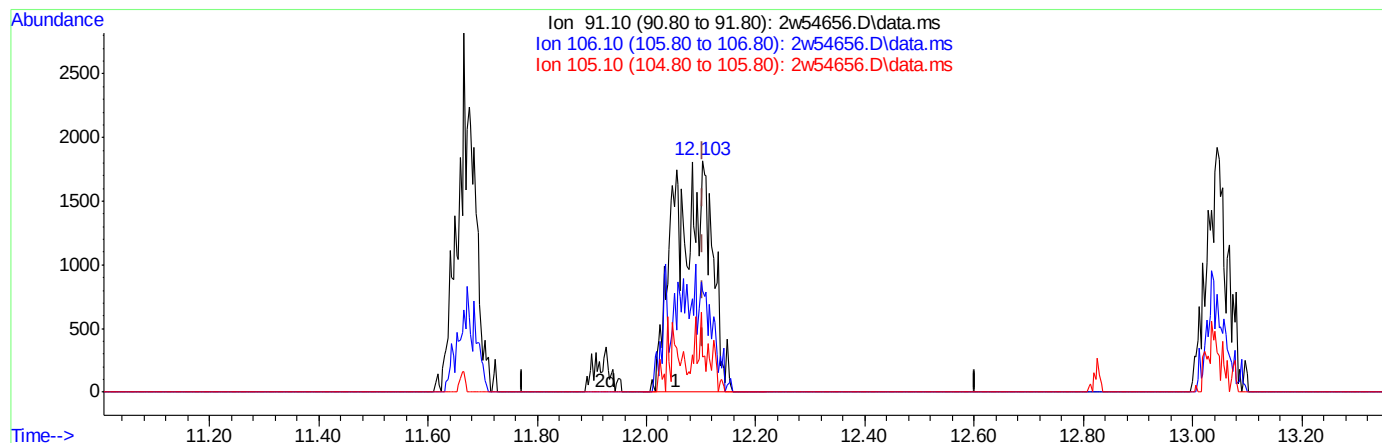
response 3706

Ion	Exp%	Act%
91.10	100	100
106.10	0.00	0.00
105.10	22.00	18.89
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\
Data File : 2w54656.D
Acq On : 27 Jul 2021 12:41 pm
Operator : danat
Sample : ic2424-0.1
Misc : MS52290,V2w2424,,,,,1
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jul 27 14:52:30 2021
Quant Method : C:\msdchem\1\METHODS\M2W2424.M
Quant Title : T015 by GCMS w/DB-1, 30m X 0.25mm ID X 0.5 um
QLast Update : Tue Jul 27 14:48:25 2021
Response via : Initial Calibration



TIC: 2w54656.D\data.ms

(80) M,P-XYLENE (t)

12.103min (-0.000) 0.18PPBV m

response 8431

Ion	Exp%	Act%
91.10	100	100
106.10	0.00	0.00
105.10	22.00	8.30
0.00	0.00	0.00

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
 Data File : 2w54657.D
 Acq On : 27 Jul 2021 1:13 pm
 Operator : danat
 Sample : ic2424-0.04
 Misc : MS52290,V2w2424,,,,,1
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jul 27 14:57:43 2021
 Quant Method : C:\msdchem\1\METHODS\M2W2424.M
 Quant Title : T015 by GCMS w/DB-1, 30m X 0.25mm ID X 0.5 um
 QLast Update : Tue Jul 27 14:54:04 2021
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) BROMOCHLOROMETHANE	3.644	128	83186	10.00	PPBV	0.00
52) 1,4-DIFLUOROBENZENE	4.984	114	414874	10.00	PPBV	0.00
76) CHLOROBENZENE-D5	10.701	117	358722	10.00	PPBV	0.00
System Monitoring Compounds						
87) 4-BROMOFLUOROBENZENE	14.090	95	248335	9.86	PPBV	0.00
Target Compounds						
					Qvalue	
3) FREON 152A	1.856	65	271	0.04	PPBV #	38
4) CHLORODIFLUOROMETHANE	1.878	67	188	0.05	PPBV #	40
5) CHLOROTRIFLUOROETHENE	1.888	116	845	0.05	PPBV #	93
7) PROPYLENE	1.888	41	400	0.06	PPBV	94
8) 1-CHLORO-1,1-DIFLUOROE...	1.956	65	1369	0.04	PPBV #	18
9) FREON 114	2.007	85	1374	0.04	PPBV	89
11) VINYL CHLORIDE	2.055	62	468	0.05	PPBV #	49
12) 1,3-BUTADIENE	2.100	54	220	0.03	PPBV #	52
13) N-BUTANE	2.123	43	659	0.05	PPBV #	68
14) BROMOMETHANE	2.203	94	542	0.05	PPBV #	71
15) CHLOROETHANE	2.258	64	258	0.05	PPBV #	44
16) DICHLOROFLUOROMETHANE	2.290	67	1245	0.05	PPBV #	87
19) FREON 123	2.435	83	1146	0.04	PPBV #	89
20) FREON 123A	2.460	117	599	0.03	PPBV #	61
21) TRICHLOROFLUOROMETHANE	2.528	101	1735	0.04	PPBV	97
24) PENTANE	2.640	42	263	0.03	PPBV #	31
25) IODOMETHANE	2.698	142	1263	0.04	PPBV	86
26) 1,1-DICHLOROETHYLENE	2.727	96	533	0.05	PPBV	96
27) CARBON DISULFIDE	2.859	76	1193	0.04	PPBV #	76
29) BROMOETHENE	2.390	106	529	0.04	PPBV #	72
30) ACRYLONITRILE	2.602	52	302	0.05	PPBV #	75
32) 3-CHLOROPROPENE	2.801	76	169	0.03	PPBV #	36
33) FREON 113	2.856	151	920	0.04	PPBV	96
34) TRANS-1,2-DICHLOROETHENE	3.094	96	528	0.05	PPBV #	80
35) TERTIARY BUTYL ALCOHOL	2.740	59	823	0.04	PPBV #	82
36) METHYL TERTIARY BUTYL ...	3.209	73	1190	0.04	PPBV #	85
38) HEXANE	3.698	57	612	0.04	PPBV	91
40) 1,1-DICHLOROETHANE	3.184	63	800	0.04	PPBV #	74
41) METHYL ETHYL KETONE	3.377	72	225	0.04	PPBV #	83
42) CIS-1,2-DICHLOROETHENE	3.566	96	345	0.03	PPBV #	52
43) DIISOPROPYL ETHER	3.711	59	145	0.03	PPBV #	50
45) METHYL ACRYLATE	3.695	55	640	0.03	PPBV #	65
46) CHLOROFORM	3.721	83	1128	0.04	PPBV #	83
47) 2,4-DIMETHYLPENTANE	4.238	57	687	0.04	PPBV #	81
48) 1,1,1-TRICHLOROETHANE	4.309	97	1477	0.05	PPBV	92
49) CARBON TETRACHLORIDE	4.762	117	1405	0.04	PPBV	96
50) 1,2-DICHLOROETHANE	4.158	62	686	0.03	PPBV #	94
51) BENZENE	4.644	78	1470	0.04	PPBV #	75
53) CYCLOHEXANE	4.859	84	585	0.04	PPBV #	63
54) 2,3-DIMETHYLPENTANE	5.126	71	259	0.03	PPBV #	69
55) TRICHLOROETHENE	5.579	95	571	0.03	PPBV #	77

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
 Data File : 2w54657.D
 Acq On : 27 Jul 2021 1:13 pm
 Operator : danat
 Sample : ic2424-0.04
 Misc : MS52290,V2w2424,,,,,1
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jul 27 14:57:43 2021
 Quant Method : C:\msdchem\1\METHODS\M2W2424.M
 Quant Title : T015 by GCMS w/DB-1, 30m X 0.25mm ID X 0.5 um
 QLast Update : Tue Jul 27 14:54:04 2021
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
56) 1,2-DICHLOROPROPANE	5.338	63	526	0.05	PPBV #	66
57) DIBROMOMETHANE	5.306	174	978	0.05	PPBV #	74
58) ETHYL ACRYLATE	5.473	55	766	0.03	PPBV #	72
59) BROMODICHLOROMETHANE	5.528	83	1218	0.04	PPBV #	82
60) 2,2,4-TRIMETHYLPENTANE	5.679	57	1855	0.04	PPBV #	87
61) 1,4-DIOXANE	5.698	88	226	0.03	PPBV #	1
62) HEPTANE	6.004	43	566	0.03	PPBV #	75
63) METHYL METHACRYLATE	5.891	69	400	0.03	PPBV #	77
65) CIS-1,3-DICHLOROPROPENE	6.557	75	742	0.04	PPBV #	31
66) TOLUENE	7.785	91	1839	0.04	PPBV	98
67) 1,3-DICHLOROPROPANE	7.846	76	945	0.04	PPBV #	66
68) TRANS-1,3-DICHLOROPROPENE	7.258	75	640	0.04	PPBV #	67
69) 1,1,2-TRICHLOROETHANE	7.393	83	420	0.03	PPBV	85
70) 2-HEXANONE	8.376	58	523	0.05	PPBV #	90
71) ETHYL METHACRYLATE	8.505	69	542	0.03	PPBV #	81
72) TETRACHLOROETHENE	9.547	164	753	0.04	PPBV #	58
73) DIBROMOCHLOROMETHANE	8.328	129	1152	0.04	PPBV	96
74) 1,2-DIBROMOETHANE	8.701	107	788	0.03	PPBV #	99
75) OCTANE	9.708	43	1000	0.05	PPBV #	82
77) 1,1,1,2-TETRACHLOROETHANE	10.794	131	860	0.04	PPBV #	58
78) CHLOROBENZENE	10.769	112	1520	0.04	PPBV #	86
79) ETHYLBENZENE	11.691	91	2447	0.04	PPBV	93
80) M,P-XYLENE	12.068	91	3567	0.08	PPBV #	74
81) O-XYLENE	13.035	91	1793	0.04	PPBV #	51
82) STYRENE	12.830	104	1171	0.04	PPBV #	91
83) NONANE	14.151	43	1083	0.05	PPBV #	26
84) BROMOFORM	11.900	173	863	0.03	PPBV #	36
85) 1,1,2,2-TETRACHLOROETHANE	13.055	83	1069	0.04	PPBV #	89
86) 1,2,3-TRICHLOROPROPANE	13.338	75	1181	0.05	PPBV #	99
88) ISOPROPYLBENZENE	14.566	120	708	0.04	PPBV #	77
89) BROMOBENZENE	14.447	77	1073	0.03	PPBV	90
90) 2-CHLOROTOLUENE	15.595	126	525	0.03	PPBV #	42
91) N-PROPYLBENZENE	15.913	120	565	0.03	PPBV #	62
92) 4-ETHYLTOLUENE	16.228	105	2385	0.04	PPBV #	85
93) 1,3,5-TRIMETHYLBENZENE	16.373	105	2247	0.04	PPBV #	95
94) ALPHA-METHYLSTYRENE	16.563	118	1055	0.04	PPBV #	92
95) TERT-BUTYLBENZENE	16.804	134	500	0.04	PPBV	88
96) 1,2,4-TRIMETHYLBENZENE	16.820	105	1763	0.03	PPBV #	73
97) BENZYL CHLORIDE	16.897	91	694	0.03	PPBV #	84
98) M-DICHLOROBENZENE	16.875	146	1492	0.04	PPBV	97
99) P-DICHLOROBENZENE	16.965	146	1358m	0.04	PPBV	
100) O-DICHLOROBENZENE	17.254	146	1280	0.04	PPBV	92
101) SEC-BUTYLBENZENE	17.096	134	693	0.05	PPBV	82
102) 1,2,3-TRIMETHYLBENZENE	17.193	105	1843	0.03	PPBV	97
103) P-ISOPROPYLTOLUENE	17.260	134	647	0.04	PPBV	94
104) N-BUTYLBENZENE	17.614	134	671	0.04	PPBV	78
105) HEXACHLOROETHANE	17.794	117	958	0.05	PPBV #	80
106) HEXACHLOROBUTADIENE	18.836	225	1158	0.05	PPBV	90
107) 1,2,4-TRICHLOROBENZENE	18.527	180	1271	0.05	PPBV	97
108) NAPHTHALENE	18.575	128	2368	0.05	PPBV	97

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 2w54657.D
Acq On : 27 Jul 2021 1:13 pm
Operator : danat
Sample : ic2424-0.04
Misc : MS52290,V2w2424,,,,,1
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jul 27 14:57:43 2021
Quant Method : C:\msdchem\1\METHODS\M2W2424.M
Quant Title : T015 by GCMS w/DB-1, 30m X 0.25mm ID X 0.5 um
QLast Update : Tue Jul 27 14:54:04 2021
Response via : Initial Calibration

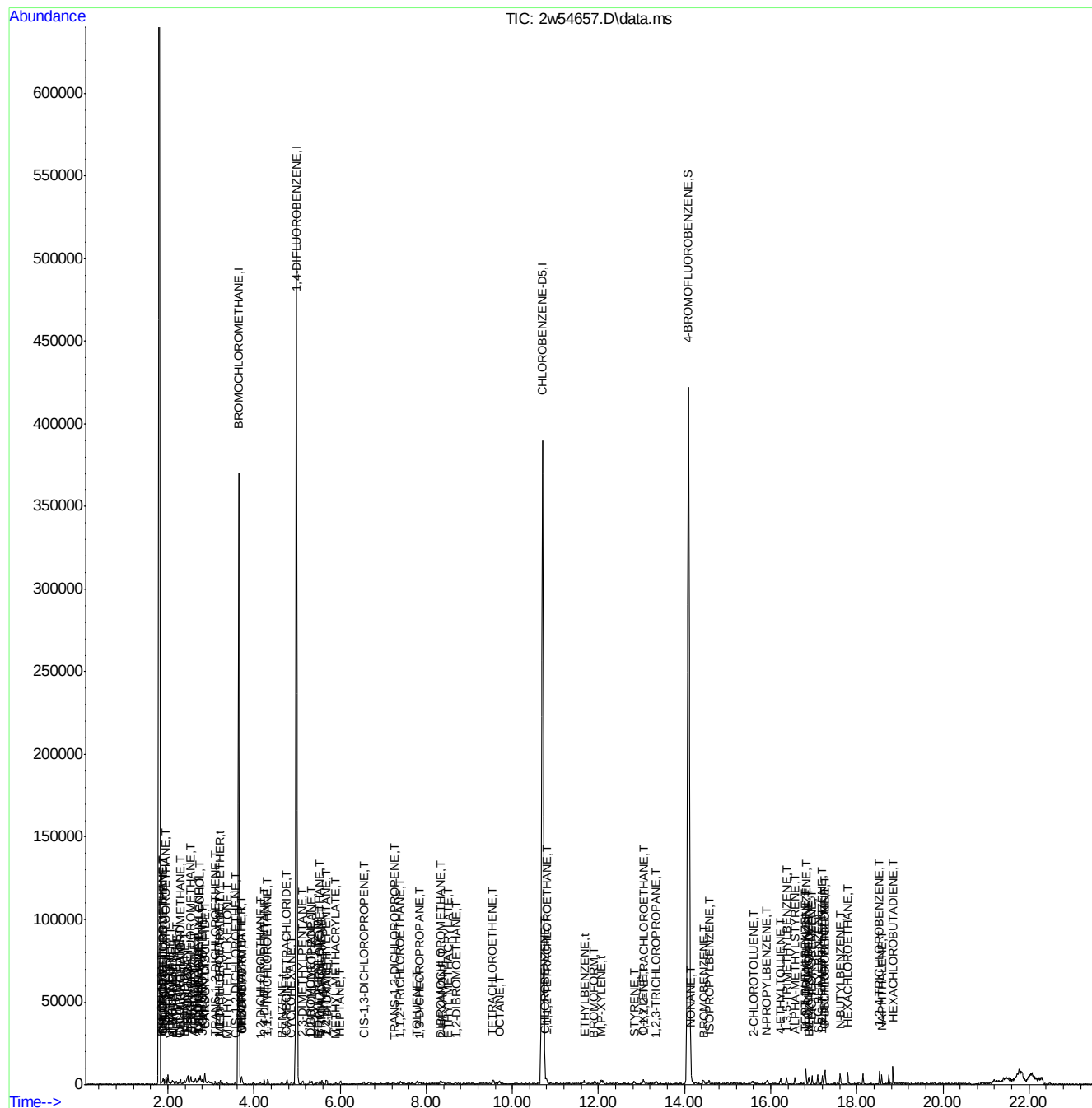
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 2w54657.D
Acq On : 27 Jul 2021 1:13 pm
Operator : danat
Sample : ic2424-0.04
Misc : MS52290,V2w2424,,,,,1
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jul 27 14:57:43 2021
Quant Method : C:\msdchem\1\METHODS\M2W2424.M
Quant Title : T015 by GCMS w/DB-1, 30m X 0.25mm ID X 0.5 um
QLast Update : Tue Jul 27 14:54:04 2021
Response via : Initial Calibration



7.7.4

Manual Integration Approval Summary

Sample Number: V2W2424-IC2424

Method: TO-15

Lab FileID: 2W54657.D

Analyst approved: 07/28/21 11:16 Dana Tryon

Injection Time: 07/27/21 13:13

Supervisor approved: 07/28/21 11:23 Dana Tryon

Parameter	CAS	Sig#	R.T. (min.)	Reason
p-Dichlorobenzene	106-46-7		16.96	Poor instrument integration

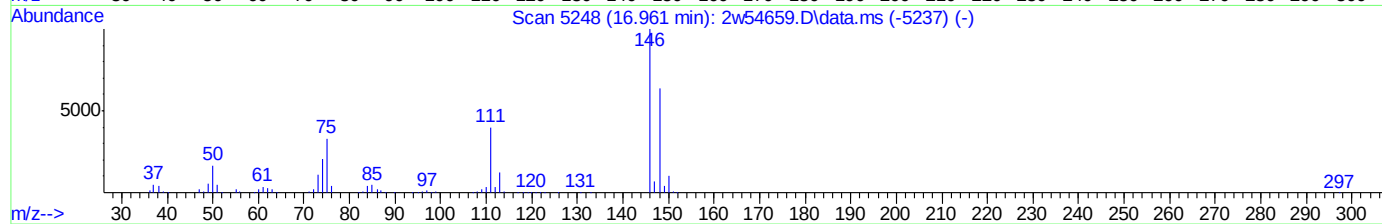
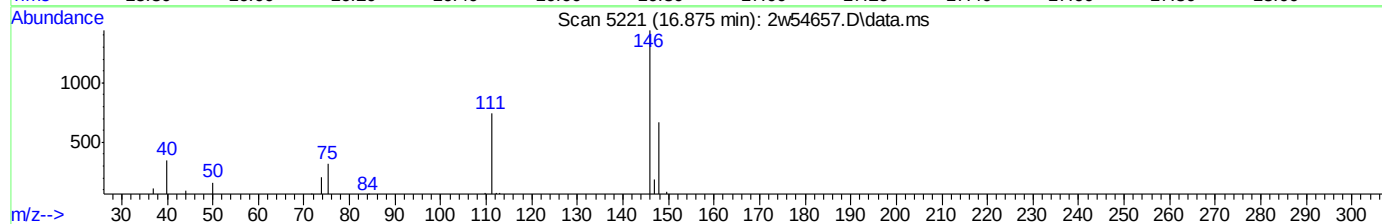
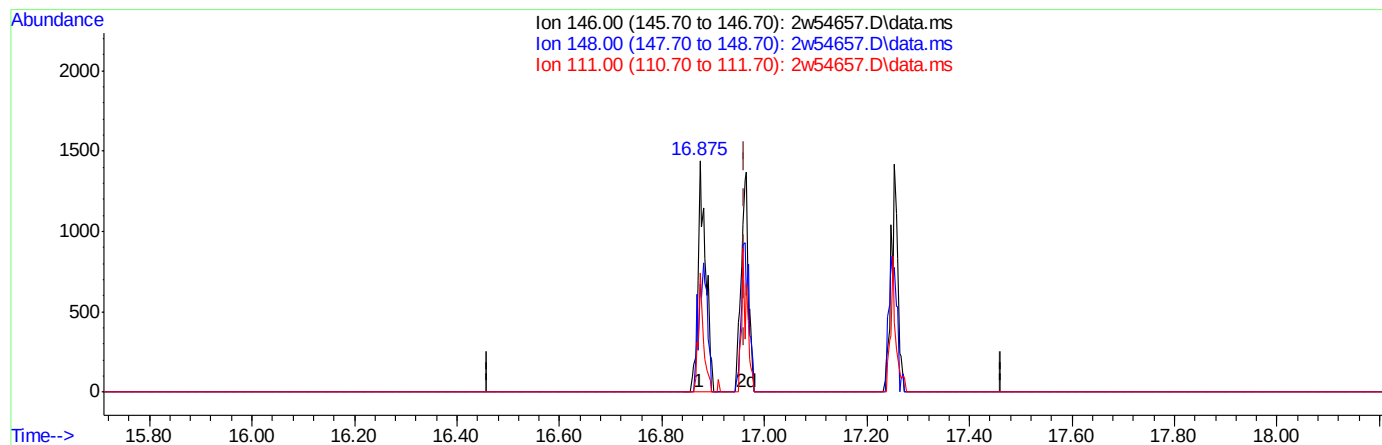
7.7.4.1

7

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\
Data File : 2w54657.D
Acq On : 27 Jul 2021 1:13 pm
Operator : danat
Sample : ic2424-0.04
Misc : MS52290,V2w2424,,,,,1
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jul 27 14:54:18 2021
Quant Method : C:\msdchem\1\METHODS\M2W2424.M
Quant Title : T015 by GCMS w/DB-1, 30m X 0.25mm ID X 0.5 um
QLast Update : Tue Jul 27 14:54:04 2021
Response via : Initial Calibration



TIC: 2w54657.D\data.ms

(99) P-DICHLOROBENZENE (T)

16.875min (-0.087) 0.04PPBV

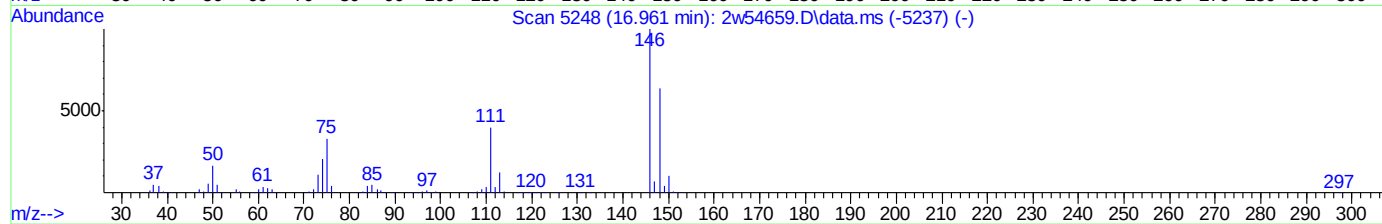
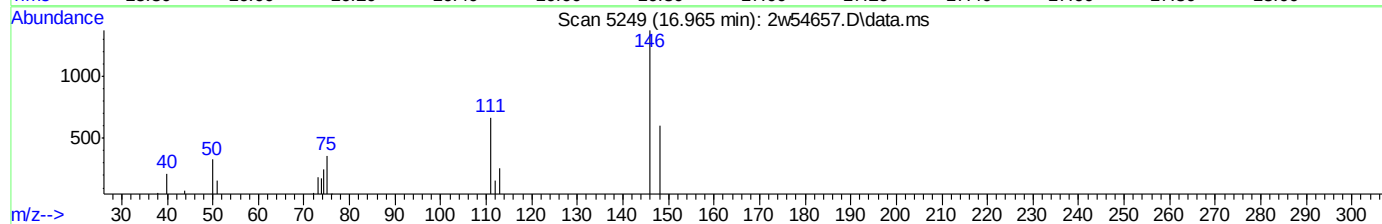
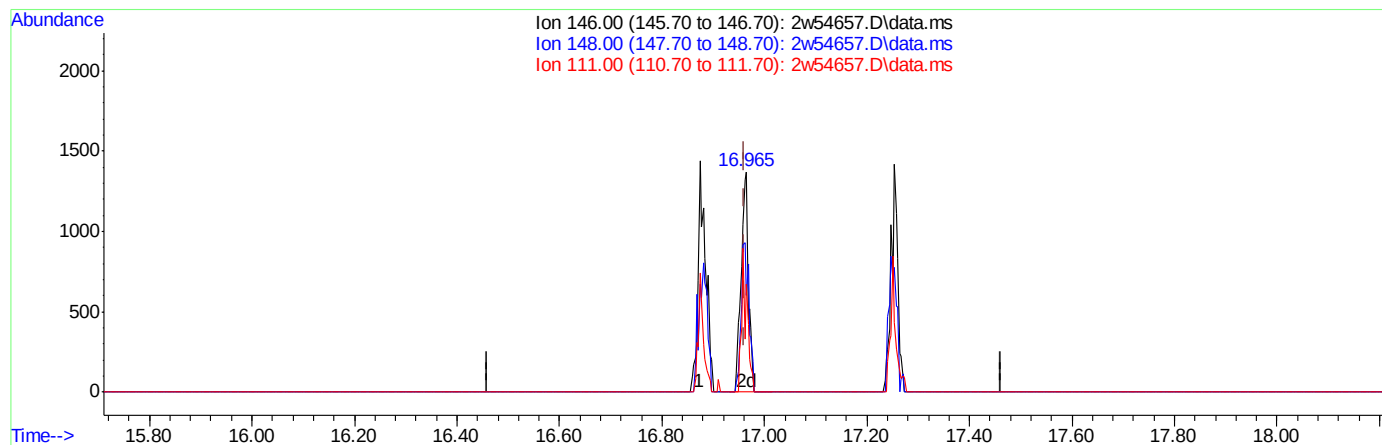
response 1492

Ion	Exp%	Act%
146.00	100	100
148.00	64.70	64.68
111.00	39.10	37.40
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\
Data File : 2w54657.D
Acq On : 27 Jul 2021 1:13 pm
Operator : danat
Sample : ic2424-0.04
Misc : MS52290,V2w2424,,,,,1
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jul 27 14:54:18 2021
Quant Method : C:\msdchem\1\METHODS\M2W2424.M
Quant Title : T015 by GCMS w/DB-1, 30m X 0.25mm ID X 0.5 um
QLast Update : Tue Jul 27 14:54:04 2021
Response via : Initial Calibration



TIC: 2w54657.D\data.ms

(99) P-DICHLOROBENZENE (T)

16.965min (+0.003) 0.04PPBV m

response 1358

Ion	Exp%	Act%
146.00	100	100
148.00	64.70	71.06
111.00	39.10	41.09
0.00	0.00	0.00

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
 Data File : 2w54658.D
 Acq On : 27 Jul 2021 1:44 pm
 Operator : danat
 Sample : ic2424-5
 Misc : MS52290,V2w2424,,,,,1
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jul 27 14:45:06 2021
 Quant Method : C:\msdchem\1\METHODS\M2W2424.M
 Quant Title : T015 by GCMS w/DB-1, 30m X 0.25mm ID X 0.5 um
 QLast Update : Tue Jul 27 14:44:19 2021
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) BROMOCHLOROMETHANE	3.643	128	83682	10.00	PPBV	0.00
52) 1,4-DIFLUOROBENZENE	4.987	114	415186	10.00	PPBV	0.00
76) CHLOROBENZENE-D5	10.701	117	361915	10.00	PPBV	0.00
System Monitoring Compounds						
87) 4-BROMOFLUOROBENZENE	14.096	95	253399	10.06	PPBV	0.00
Target Compounds						
3) FREON 152A	1.849	65	31310	5.22	PPBV	Qvalue 99
4) CHLORODIFLUOROMETHANE	1.869	67	20950	5.13	PPBV	97
5) CHLOROTRIFLUOROETHENE	1.881	116	89054	5.17	PPBV #	98
6) DICHLORODIFLUOROMETHANE	1.904	85	200016	5.29	PPBV	99
7) PROPYLENE	1.881	41	32712	5.16	PPBV	98
8) 1-CHLORO-1,1-DIFLUORO...	1.952	65	164923	5.14	PPBV	99
9) FREON 114	1.997	85	171015	5.19	PPBV	100
10) CHLOROMETHANE	1.962	52	13083	5.34	PPBV	100
11) VINYL CHLORIDE	2.045	62	51285	5.35	PPBV	100
12) 1,3-BUTADIENE	2.090	54	35729	5.13	PPBV	100
13) N-BUTANE	2.113	43	65710	5.29	PPBV	100
14) BROMOMETHANE	2.190	94	56783	5.31	PPBV	98
15) CHLOROETHANE	2.254	64	27528	5.13	PPBV	96
16) DICHLOROFLUOROMETHANE	2.287	67	138228	5.26	PPBV	100
17) ACETONITRILE	2.373	41	33280	5.16	PPBV	96
18) ACROLEIN	2.422	56	21345	5.22	PPBV	98
19) FREON 123	2.438	83	133939	5.22	PPBV	100
20) FREON 123A	2.457	117	89755	5.20	PPBV	99
21) TRICHLOROFLUOROMETHANE	2.524	101	208202	5.24	PPBV	99
22) ISOPROPYL ALCOHOL	2.541	45	87026	5.22	PPBV	99
23) ACETONE	2.463	58	21090	4.97	PPBV	90
24) PENTANE	2.640	42	39880	5.10	PPBV	98
25) IODOMETHANE	2.695	142	164092	5.13	PPBV	100
26) 1,1-DICHLOROETHYLENE	2.724	96	55141	5.14	PPBV	98
27) CARBON DISULFIDE	2.856	76	137756	5.21	PPBV	100
28) ETHANOL	2.287	45	16853	5.12	PPBV	94
29) BROMOETHENE	2.383	106	58225	5.27	PPBV	99
30) ACRYLONITRILE	2.611	52	30819	5.16	PPBV	98
31) METHYLENE CHLORIDE	2.759	84	47246	5.07	PPBV	98
32) 3-CHLOROPROPENE	2.798	76	24225	5.04	PPBV	96
33) FREON 113	2.856	151	113417	5.18	PPBV	99
34) TRANS-1,2-DICHLOROETHENE	3.097	96	58382	5.25	PPBV	99
35) TERTIARY BUTYL ALCOHOL	2.730	59	103895	4.92	PPBV	96
36) METHYL TERTIARY BUTYL ...	3.213	73	148294	4.94	PPBV	100
37) TETRAHYDROFURAN	3.942	72	23399	4.76	PPBV	95
38) HEXANE	3.695	57	75333	5.26	PPBV	98
39) VINYL ACETATE	3.251	86	12814	4.86	PPBV	100
40) 1,1-DICHLOROETHANE	3.177	63	94062	5.07	PPBV	98
41) METHYL ETHYL KETONE	3.354	72	25610	5.13	PPBV	100
42) CIS-1,2-DICHLOROETHENE	3.560	96	63168	5.30	PPBV	96
43) DIISOPROPYL ETHER	3.701	59	22619	4.89	PPBV	89

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
 Data File : 2w54658.D
 Acq On : 27 Jul 2021 1:44 pm
 Operator : danat
 Sample : ic2424-5
 Misc : MS52290,V2w2424,,,,,1
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jul 27 14:45:06 2021
 Quant Method : C:\msdchem\1\METHODS\M2W2424.M
 Quant Title : T015 by GCMS w/DB-1, 30m X 0.25mm ID X 0.5 um
 QLast Update : Tue Jul 27 14:44:19 2021
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
44) ETHYL ACETATE	3.701	61	13754	4.99	PPBV	94
45) METHYL ACRYLATE	3.692	55	93840	5.17	PPBV #	99
46) CHLOROFORM	3.721	83	142656	5.15	PPBV	99
47) 2,4-DIMETHYLPENTANE	4.238	57	89676	5.15	PPBV	99
48) 1,1,1-TRICHLOROETHANE	4.322	97	149226	5.01	PPBV	98
49) CARBON TETRACHLORIDE	4.762	117	167384	4.95	PPBV	99
50) 1,2-DICHLOROETHANE	4.151	62	102484	5.23	PPBV	99
51) BENZENE	4.647	78	171225	5.22	PPBV	99
53) CYCLOHEXANE	4.865	84	75605	5.14	PPBV	99
54) 2,3-DIMETHYLPENTANE	5.129	71	37246	5.05	PPBV	95
55) TRICHLOROETHENE	5.582	95	90366	5.31	PPBV	97
56) 1,2-DICHLOROPROPANE	5.344	63	56563	5.13	PPBV	97
57) DIBROMOMETHANE	5.299	174	93560	5.18	PPBV	99
58) ETHYL ACRYLATE	5.460	55	113251	4.92	PPBV	99
59) BROMODICHLOROMETHANE	5.524	83	161796	5.11	PPBV	100
60) 2,2,4-TRIMETHYLPENTANE	5.682	57	245288	5.26	PPBV	98
61) 1,4-DIOXANE	5.589	88	38734	4.95	PPBV	98
62) HEPTANE	6.007	43	78926	5.10	PPBV	99
63) METHYL METHACRYLATE	5.897	69	62317	4.96	PPBV	98
64) METHYL ISOBUTYL KETONE	6.653	58	46296	5.09	PPBV	98
65) CIS-1,3-DICHLOROPROPENE	6.550	75	97610	5.04	PPBV	99
66) TOLUENE	7.791	91	225578	5.25	PPBV	99
67) 1,3-DICHLOROPROPANE	7.852	76	104262	5.11	PPBV #	99
68) TRANS-1,3-DICHLOROPROPENE	7.245	75	87509	4.79	PPBV	100
69) 1,1,2-TRICHLOROETHANE	7.412	83	64483	5.37	PPBV	97
70) 2-HEXANONE	8.357	58	59696	5.02	PPBV	99
71) ETHYL METHACRYLATE	8.499	69	99392	4.92	PPBV	100
72) TETRACHLOROETHENE	9.553	164	101420	5.25	PPBV	98
73) DIBROMOCHLOROMETHANE	8.338	129	166980	5.16	PPBV	99
74) 1,2-DIBROMOETHANE	8.688	107	126032	5.18	PPBV	98
75) OCTANE	9.698	43	111628	5.27	PPBV	98
77) 1,1,1,2-TETRACHLOROETHANE	10.788	131	112068	5.17	PPBV	99
78) CHLOROBENZENE	10.781	112	184362	5.21	PPBV	99
79) ETHYLBENZENE	11.669	91	305407	5.26	PPBV	99
80) M, P-XYLENE	12.109	91	477038	10.32	PPBV #	99
81) O-XYLENE	13.042	91	238999	5.13	PPBV	97
82) STYRENE	12.830	104	176299	5.11	PPBV	100
83) NONANE	14.161	43	115187	5.25	PPBV	99
84) BROMOFORM	11.920	173	161784	5.02	PPBV	99
85) 1,1,2,2-TETRACHLOROETHANE	13.051	83	148587	5.17	PPBV	99
86) 1,2,3-TRICHLOROPROPANE	13.341	75	122911	5.23	PPBV #	100
88) ISOPROPYLBENZENE	14.566	120	87576	5.06	PPBV	98
89) BROMOBENZENE	14.444	77	154394	5.11	PPBV	99
90) 2-CHLOROTOLUENE	15.582	126	77967	5.05	PPBV	99
91) N-PROPYLBENZENE	15.913	120	90048	5.18	PPBV	98
92) 4-ETHYLTOLUENE	16.231	105	331207	5.16	PPBV	99
93) 1,3,5-TRIMETHYLBENZENE	16.373	105	278898	5.11	PPBV	99
94) ALPHA-METHYLSTYRENE	16.559	118	136332	5.13	PPBV	99
95) TERT-BUTYLBENZENE	16.813	134	67436	5.21	PPBV	97
96) 1,2,4-TRIMETHYLBENZENE	16.820	105	283768	5.12	PPBV	100

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 2w54658.D
Acq On : 27 Jul 2021 1:44 pm
Operator : danat
Sample : ic2424-5
Misc : MS52290,V2w2424,,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jul 27 14:45:06 2021
Quant Method : C:\msdchem\1\METHODS\M2W2424.M
Quant Title : T015 by GCMS w/DB-1, 30m X 0.25mm ID X 0.5 um
QLast Update : Tue Jul 27 14:44:19 2021
Response via : Initial Calibration

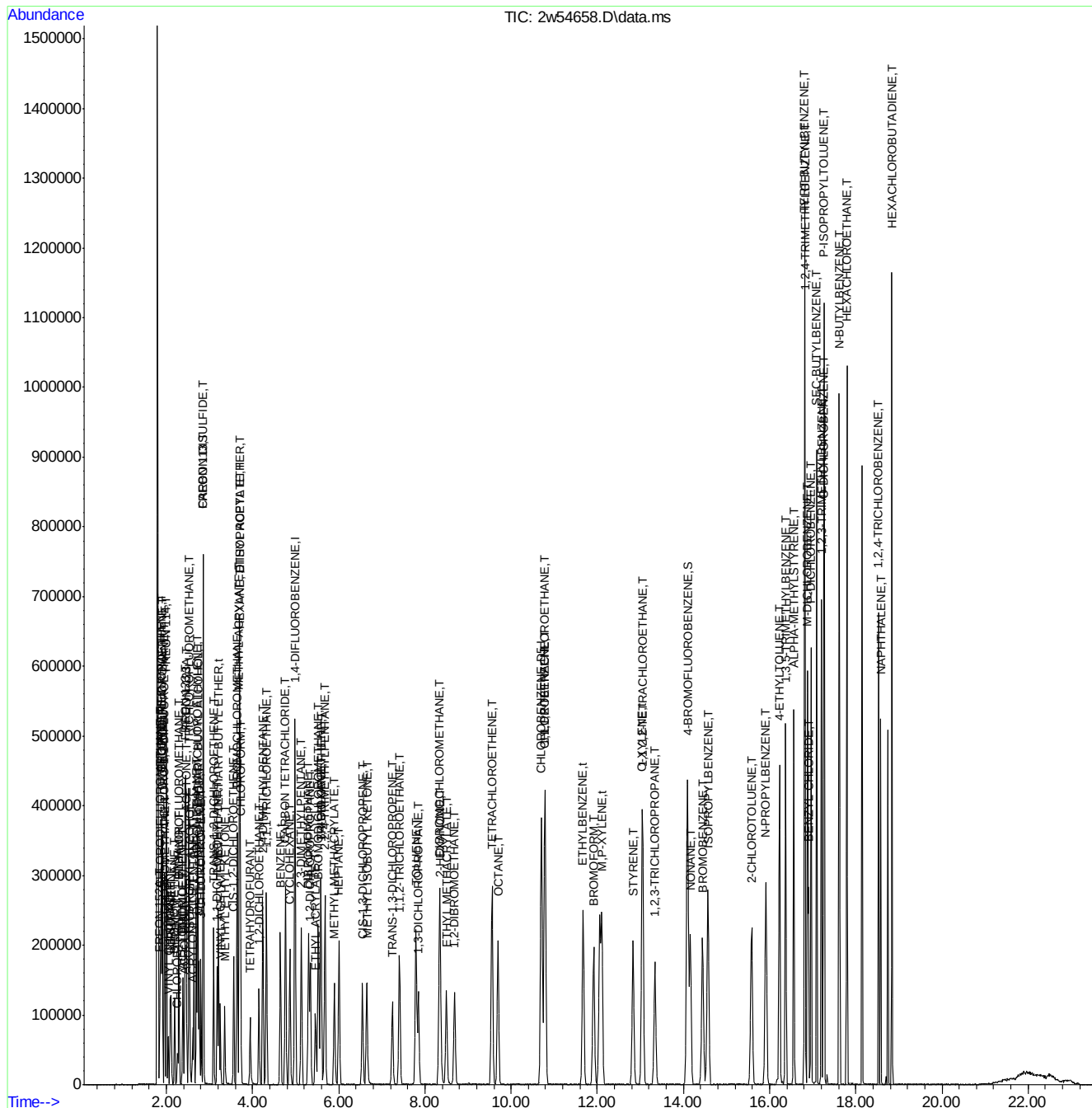
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
97) BENZYL CHLORIDE	16.903	91	138768	4.35	PPBV	100
98) M-DICHLOROBENZENE	16.881	146	190029	5.28	PPBV	98
99) P-DICHLOROBENZENE	16.961	146	187151	5.20	PPBV	98
100) O-DICHLOROBENZENE	17.254	146	170725	5.12	PPBV	99
101) SEC-BUTYLBENZENE	17.090	134	81844	5.24	PPBV	94
102) 1,2,3-TRIMETHYLBENZENE	17.202	105	272688	5.11	PPBV	99
103) P-ISOPROPYLTOLUENE	17.267	134	86928	5.08	PPBV	98
104) N-BUTYLBENZENE	17.614	134	80662	5.09	PPBV	95
105) HEXACHLOROETHANE	17.794	117	107730	4.88	PPBV	99
106) HEXACHLOROBUTADIENE	18.839	225	114650	5.06	PPBV	99
107) 1,2,4-TRICHLOROBENZENE	18.530	180	112018	5.00	PPBV	99
108) NAPHTHALENE	18.578	128	223818	4.99	PPBV	99

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

(QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 2w54658.D
Acq On : 27 Jul 2021 1:44 pm
Operator : danat
Sample : ic2424-5
Misc : MS52290,V2w2424,,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jul 27 14:45:06 2021
Quant Method : C:\msdchem\1\METHODS\M2W2424.M
Quant Title : T015 by GCMS w/DB-1, 30m X 0.25mm ID X 0.5 um
QLast Update : Tue Jul 27 14:44:19 2021
Response via : Initial Calibration



7.7.5

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
 Data File : 2w54659.D
 Acq On : 27 Jul 2021 2:15 pm
 Operator : danat
 Sample : icc2424-10
 Misc : MS52290,V2w2424,,,,,1
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jul 27 14:40:31 2021
 Quant Method : C:\msdchem\1\METHODS\M2W2424.M
 Quant Title : T015 by GCMS w/DB-1, 30m X 0.25mm ID X 0.5 um
 QLast Update : Tue Jul 27 09:51:11 2021
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) BROMOCHLOROMETHANE	3.643	128	86482	10.00	PPBV	0.00
52) 1,4-DIFLUOROBENZENE	4.984	114	428121	10.00	PPBV	0.00
76) CHLOROBENZENE-D5	10.704	117	373337	10.00	PPBV	0.00
System Monitoring Compounds						
87) 4-BROMOFLUOROBENZENE	14.093	95	259876	9.82	PPBV	0.00
Target Compounds						
3) FREON 152A	1.856	65	62041	9.23	PPBV	Qvalue 98
4) CHLORODIFLUOROMETHANE	1.872	67	42224	9.78	PPBV	96
5) CHLOROTRIFLUOROETHENE	1.885	116	178007	9.69	PPBV	# 98
6) DICHLORODIFLUOROMETHANE	1.907	85	390566	9.60	PPBV	100
7) PROPYLENE	1.885	41	65568	9.24	PPBV	99
8) 1-CHLORO-1,1-DIFLUORO...	1.959	65	331582	9.57	PPBV	99
9) FREON 114	2.004	85	340575	9.56	PPBV	99
10) CHLOROMETHANE	1.965	52	25325	9.42	PPBV	95
11) VINYL CHLORIDE	2.045	62	99100	9.37	PPBV	99
12) 1,3-BUTADIENE	2.097	54	72032	9.83	PPBV	98
13) N-BUTANE	2.116	43	128338	9.53	PPBV	99
14) BROMOMETHANE	2.196	94	110454	9.28	PPBV	97
15) CHLOROETHANE	2.261	64	55472	9.47	PPBV	98
16) DICHLOROFLUOROMETHANE	2.293	67	271458	9.54	PPBV	100
17) ACETONITRILE	2.377	41	66698	8.69	PPBV	99
18) ACROLEIN	2.425	56	42241	14.12	PPBV	94
19) FREON 123	2.441	83	265400	9.76	PPBV	99
20) FREON 123A	2.460	117	178416	9.59	PPBV	99
21) TRICHLOROFLUOROMETHANE	2.528	101	410481	9.52	PPBV	100
22) ISOPROPYL ALCOHOL	2.541	45	172228	8.98	PPBV	98
23) ACETONE	2.463	58	43849	7.86	PPBV	92
24) PENTANE	2.637	42	80839	9.58	PPBV	99
25) IODOMETHANE	2.695	142	330684	9.56	PPBV	99
26) 1,1-DICHLOROETHYLENE	2.724	96	110821	9.76	PPBV	97
27) CARBON DISULFIDE	2.856	76	272995	9.76	PPBV	99
28) ETHANOL	2.299	45	33997	8.52	PPBV	99
29) BROMOETHENE	2.389	106	114270	9.54	PPBV	100
30) ACRYLONITRILE	2.608	52	61741	9.84	PPBV	99
31) METHYLENE CHLORIDE	2.759	84	96299	8.73	PPBV	96
32) 3-CHLOROPROPENE	2.801	76	49707	9.24	PPBV	95
33) FREON 113	2.856	151	226350	9.63	PPBV	100
34) TRANS-1,2-DICHLOROETHENE	3.097	96	114939	9.66	PPBV	99
35) TERTIARY BUTYL ALCOHOL	2.730	59	218222	9.86	PPBV	98
36) METHYL TERTIARY BUTYL ...	3.209	73	310025	9.86	PPBV	100
37) TETRAHYDROFURAN	3.939	72	50855	10.22	PPBV	99
38) HEXANE	3.698	57	147943	9.79	PPBV	99
39) VINYL ACETATE	3.251	86	27241	9.51	PPBV	97
40) 1,1-DICHLOROETHANE	3.177	63	191649	9.83	PPBV	99
41) METHYL ETHYL KETONE	3.351	72	51631	10.26	PPBV	97
42) CIS-1,2-DICHLOROETHENE	3.560	96	123126	9.56	PPBV	99
43) DIISOPROPYL ETHER	3.701	59	47774	10.11	PPBV	94

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
 Data File : 2w54659.D
 Acq On : 27 Jul 2021 2:15 pm
 Operator : danat
 Sample : icc2424-10
 Misc : MS52290,V2w2424,,,,,1
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jul 27 14:40:31 2021
 Quant Method : C:\msdchem\1\METHODS\M2W2424.M
 Quant Title : T015 by GCMS w/DB-1, 30m X 0.25mm ID X 0.5 um
 QLast Update : Tue Jul 27 09:51:11 2021
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
44) ETHYL ACETATE	3.701	61	28486	10.21	PPBV	96
45) METHYL ACRYLATE	3.688	55	187617	10.00	PPBV #	100
46) CHLOROFORM	3.717	83	286249	9.63	PPBV	100
47) 2,4-DIMETHYLPENTANE	4.238	57	180042	9.83	PPBV	100
48) 1,1,1-TRICHLOROETHANE	4.322	97	308125	9.65	PPBV	99
49) CARBON TETRACHLORIDE	4.766	117	349453	9.94	PPBV	100
50) 1,2-DICHLOROETHANE	4.148	62	202678	9.74	PPBV	99
51) BENZENE	4.647	78	338792	9.53	PPBV	99
53) CYCLOHEXANE	4.865	84	151620	9.62	PPBV	99
54) 2,3-DIMETHYLPENTANE	5.129	71	76085	9.90	PPBV	100
55) TRICHLOROETHENE	5.585	95	175436	9.50	PPBV	98
56) 1,2-DICHLOROPROPANE	5.338	63	113610	9.89	PPBV	99
57) DIBROMOMETHANE	5.296	174	186169	8.34	PPBV	99
58) ETHYL ACRYLATE	5.457	55	237153	10.77	PPBV	100
59) BROMODICHLOROMETHANE	5.528	83	326320	10.05	PPBV	98
60) 2,2,4-TRIMETHYLPENTANE	5.682	57	481298	9.58	PPBV	99
61) 1,4-DIOXANE	5.592	88	80727	10.13	PPBV	99
62) HEPTANE	6.007	43	159655	9.93	PPBV	99
63) METHYL METHACRYLATE	5.897	69	129446	10.48	PPBV	98
64) METHYL ISOBUTYL KETONE	6.650	58	93878	9.80	PPBV	96
65) CIS-1,3-DICHLOROPROPENE	6.550	75	199709	10.33	PPBV	100
66) TOLUENE	7.794	91	442790	9.63	PPBV	100
67) 1,3-DICHLOROPROPANE	7.846	76	210326	9.69	PPBV #	99
68) TRANS-1,3-DICHLOROPROPENE	7.248	75	188271	10.99	PPBV	99
69) 1,1,2-TRICHLOROETHANE	7.405	83	123870	9.47	PPBV	98
70) 2-HEXANONE	8.354	58	122543	10.52	PPBV	100
71) ETHYL METHACRYLATE	8.498	69	208265	10.54	PPBV	100
72) TETRACHLOROETHENE	9.563	164	199306	9.22	PPBV	99
73) DIBROMOCHLOROMETHANE	8.338	129	333500	10.74	PPBV	100
74) 1,2-DIBROMOETHANE	8.688	107	250749	10.21	PPBV	98
75) OCTANE	9.698	43	218328	9.65	PPBV	99
77) 1,1,1,2-TETRACHLOROETHANE	10.791	131	223785	9.82	PPBV	99
78) CHLOROBENZENE	10.781	112	365020	9.83	PPBV	98
79) ETHYLBENZENE	11.675	91	598691	9.76	PPBV	99
80) M,P-XYLENE	12.103	91	953219	19.81	PPBV #	52
81) O-XYLENE	13.045	91	480436	9.73	PPBV	100
82) STYRENE	12.833	104	355852	10.28	PPBV	99
83) NONANE	14.167	43	226264	9.47	PPBV	99
84) BROMOFORM	11.920	173	332204	12.87	PPBV	100
85) 1,1,2,2-TETRACHLOROETHANE	13.051	83	296334	9.50	PPBV	99
86) 1,2,3-TRICHLOROPROPANE	13.338	75	242351	9.47	PPBV	100
88) ISOPROPYLBENZENE	14.575	120	178640	9.62	PPBV	95
89) BROMOBENZENE	14.447	77	311808	9.91	PPBV	99
90) 2-CHLOROTOLUENE	15.582	126	159246	9.66	PPBV	99
91) N-PROPYLBENZENE	15.916	120	179413	9.87	PPBV	100
92) 4-ETHYLTOLUENE	16.231	105	662510	9.85	PPBV	100
93) 1,3,5-TRIMETHYLBENZENE	16.373	105	562529	9.73	PPBV	99
94) ALPHA-METHYLSTYRENE	16.562	118	274230	10.08	PPBV	100
95) TERT-BUTYLBENZENE	16.813	134	133518	9.29	PPBV	98
96) 1,2,4-TRIMETHYLBENZENE	16.823	105	572206	9.78	PPBV	98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 2w54659.D
Acq On : 27 Jul 2021 2:15 pm
Operator : danat
Sample : icc2424-10
Misc : MS52290,V2w2424,,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jul 27 14:40:31 2021
Quant Method : C:\msdchem\1\METHODS\M2W2424.M
Quant Title : T015 by GCMS w/DB-1, 30m X 0.25mm ID X 0.5 um
QLast Update : Tue Jul 27 09:51:11 2021
Response via : Initial Calibration

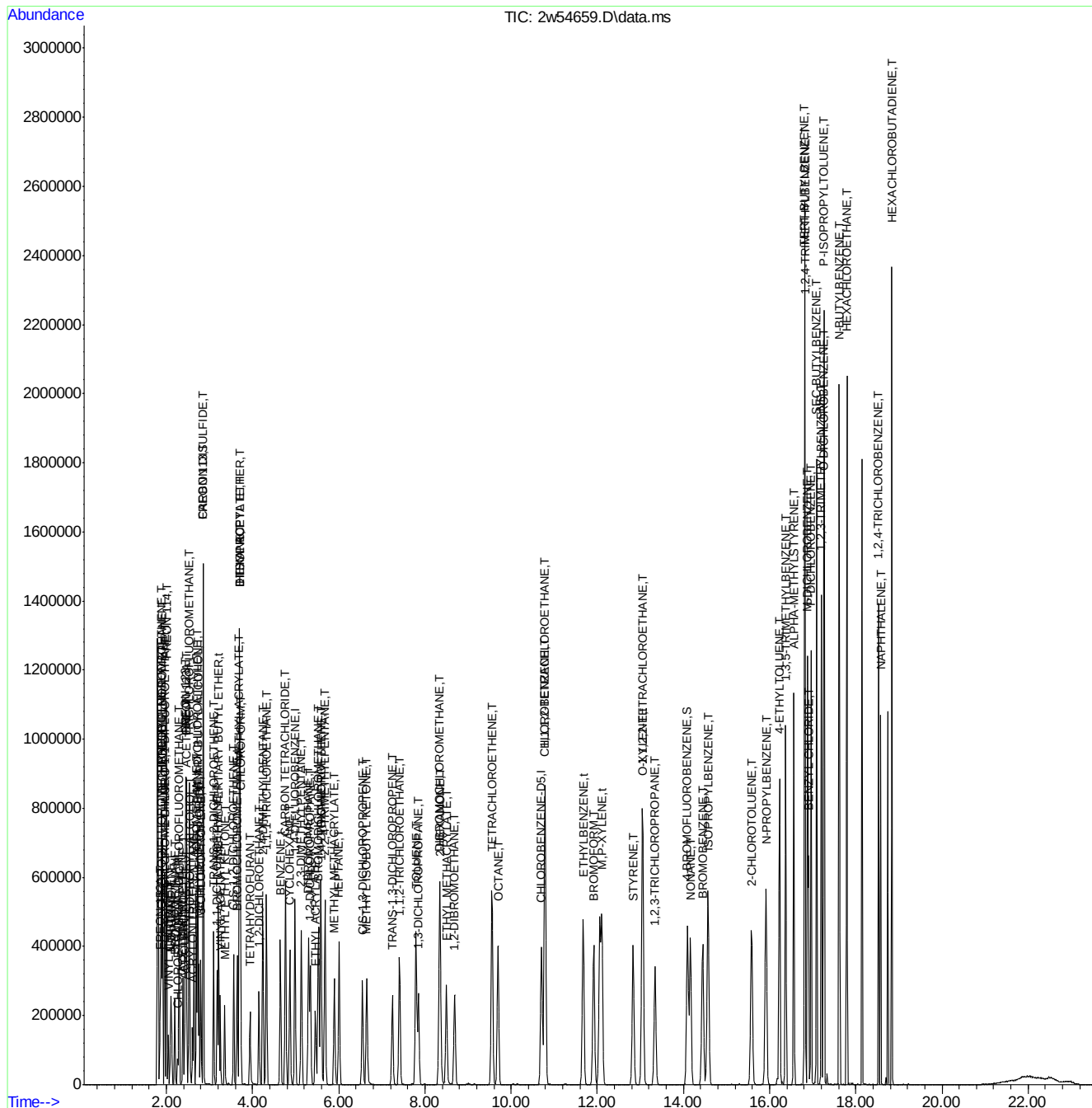
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
97) BENZYL CHLORIDE	16.903	91	328963	12.15	PPBV	99
98) M-DICHLOROBENZENE	16.881	146	371076	9.99	PPBV	100
99) P-DICHLOROBENZENE	16.961	146	371088	10.26	PPBV	99
100) O-DICHLOROBENZENE	17.254	146	343739	9.75	PPBV	99
101) SEC-BUTYLBENZENE	17.090	134	161190	9.20	PPBV	96
102) 1,2,3-TRIMETHYLBENZENE	17.199	105	550507	9.43	PPBV	100
103) P-ISOPROPYLTOLUENE	17.267	134	176528	9.31	PPBV	97
104) N-BUTYLBENZENE	17.611	134	163342	9.52	PPBV	98
105) HEXACHLOROETHANE	17.794	117	227610	10.44	PPBV	100
106) HEXACHLOROBUTADIENE	18.839	225	233783	7.57	PPBV	99
107) 1,2,4-TRICHLOROBENZENE	18.527	180	231305	9.53	PPBV	100
108) NAPHTHALENE	18.578	128	462971	10.66	PPBV	100

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
 Data File : 2w54659.D
 Acq On : 27 Jul 2021 2:15 pm
 Operator : danat
 Sample : icc2424-10
 Misc : MS52290,V2w2424,,,,,1
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jul 27 14:40:31 2021
 Quant Method : C:\msdchem\1\METHODS\M2W2424.M
 Quant Title : T015 by GCMS w/DB-1, 30m X 0.25mm ID X 0.5 um
 QLast Update : Tue Jul 27 09:51:11 2021
 Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
 Data File : 2w54660.D
 Acq On : 27 Jul 2021 2:47 pm
 Operator : danat
 Sample : ic2424-20
 Misc : MS52290,V2w2424,,,,,1
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jul 27 16:52:47 2021
 Quant Method : C:\msdchem\1\METHODS\M2W2424.M
 Quant Title : T015 by GCMS w/DB-1, 30m X 0.25mm ID X 0.5 um
 QLast Update : Tue Jul 27 14:57:59 2021
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) BROMOCHLOROMETHANE	3.643	128	85811	10.00	PPBV	0.00
52) 1,4-DIFLUOROBENZENE	4.984	114	424308	10.00	PPBV	0.00
76) CHLOROBENZENE-D5	10.704	117	362745	10.00	PPBV	0.00
System Monitoring Compounds						
87) 4-BROMOFLUOROBENZENE	14.100	95	261107	10.28	PPBV	0.00
Target Compounds						
					Qvalue	
3) FREON 152A	1.849	65	126968	18.81	PPBV	99
4) CHLORODIFLUOROMETHANE	1.869	67	84746	19.72	PPBV	98
5) CHLOROTRIFLUOROETHENE	1.881	116	359579	18.86	PPBV #	98
6) DICHLORODIFLUOROMETHANE	1.904	85	789686m	20.11	PPBV	
7) PROPYLENE	1.878	41	132205	17.38	PPBV	99
8) 1-CHLORO-1,1-DIFLUORO...	1.952	65	673144	20.00	PPBV	100
9) FREON 114	2.000	85	697223	20.26	PPBV	99
10) CHLOROMETHANE	1.962	52	49944	18.55	PPBV	87
11) VINYL CHLORIDE	2.042	62	207436	19.17	PPBV	98
12) 1,3-BUTADIENE	2.090	54	145130	20.43	PPBV	98
13) N-BUTANE	2.113	43	259444	18.39	PPBV	99
14) BROMOMETHANE	2.190	94	228648	18.67	PPBV	98
15) CHLOROETHANE	2.254	64	112022	19.26	PPBV #	71
16) DICHLOROFLUOROMETHANE	2.287	67	555121	19.51	PPBV	99
17) ACETONITRILE	2.373	41	141090	17.61	PPBV	98
18) ACROLEIN	2.422	56	88421	17.79	PPBV	98
19) FREON 123	2.438	83	549940	19.36	PPBV	98
20) FREON 123A	2.457	117	365545	20.32	PPBV	100
21) TRICHLOROFLUOROMETHANE	2.525	101	842710	20.13	PPBV	99
22) ISOPROPYL ALCOHOL	2.537	45	338572	18.87	PPBV	100
23) ACETONE	2.463	58	88324	18.26	PPBV	99
24) PENTANE	2.637	42	163442	20.40	PPBV	98
25) IODOMETHANE	2.695	142	676139	19.95	PPBV	100
26) 1,1-DICHLOROETHYLENE	2.724	96	223682	18.86	PPBV	98
27) CARBON DISULFIDE	2.856	76	558899	19.74	PPBV	100
28) ETHANOL	2.293	45	69951	17.24	PPBV	99
29) BROMOETHENE	2.386	106	236315	18.92	PPBV	99
30) ACRYLONITRILE	2.608	52	125084	18.97	PPBV	99
31) METHYLENE CHLORIDE	2.759	84	195404	19.35	PPBV	91
32) 3-CHLOROPROPENE	2.801	76	101320	20.76	PPBV	97
33) FREON 113	2.856	151	465469	19.92	PPBV	100
34) TRANS-1,2-DICHLOROETHENE	3.097	96	234380	19.08	PPBV	99
35) TERTIARY BUTYL ALCOHOL	2.730	59	408793	19.29	PPBV	100
36) METHYL TERTIARY BUTYL ...	3.209	73	643674	21.41	PPBV	97
37) TETRAHYDROFURAN	3.936	72	103002	21.69	PPBV	100
38) HEXANE	3.698	57	300840	19.45	PPBV	99
39) VINYL ACETATE	3.251	86	61949	22.33	PPBV	88
40) 1,1-DICHLOROETHANE	3.177	63	387453	19.99	PPBV	99
41) METHYL ETHYL KETONE	3.351	72	106157	19.31	PPBV	99
42) CIS-1,2-DICHLOROETHENE	3.563	96	253759	20.59	PPBV	98
43) DIISOPROPYL ETHER	3.698	59	97003	20.52	PPBV	100

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
 Data File : 2w54660.D
 Acq On : 27 Jul 2021 2:47 pm
 Operator : danat
 Sample : ic2424-20
 Misc : MS52290,V2w2424,,,,,1
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jul 27 16:52:47 2021
 Quant Method : C:\msdchem\1\METHODS\M2W2424.M
 Quant Title : T015 by GCMS w/DB-1, 30m X 0.25mm ID X 0.5 um
 QLast Update : Tue Jul 27 14:57:59 2021
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
44) ETHYL ACETATE	3.705	61	57403	21.90	PPBV	94
45) METHYL ACRYLATE	3.692	55	389305	20.69	PPBV #	100
46) CHLOROFORM	3.721	83	576387	19.66	PPBV	99
47) 2,4-DIMETHYLPENTANE	4.238	57	360447	20.18	PPBV	99
48) 1,1,1-TRICHLOROETHANE	4.322	97	648505	20.32	PPBV	99
49) CARBON TETRACHLORIDE	4.766	117	724968	20.91	PPBV	100
50) 1,2-DICHLOROETHANE	4.151	62	409195	20.42	PPBV	99
51) BENZENE	4.647	78	684861	19.13	PPBV	99
53) CYCLOHEXANE	4.868	84	314429	20.14	PPBV	96
54) 2,3-DIMETHYLPENTANE	5.132	71	150344	19.41	PPBV	97
55) TRICHLOROETHENE	5.585	95	360734	20.72	PPBV	99
56) 1,2-DICHLOROPROPANE	5.344	63	223644	18.40	PPBV	97
57) DIBROMOMETHANE	5.299	174	376519	18.81	PPBV	99
58) ETHYL ACRYLATE	5.460	55	496130	22.52	PPBV	100
59) BROMODICHLOROMETHANE	5.531	83	664814	20.15	PPBV	99
60) 2,2,4-TRIMETHYLPENTANE	5.685	57	981771	19.88	PPBV	99
61) 1,4-DIOXANE	5.589	88	159947	19.53	PPBV	99
62) HEPTANE	6.007	43	316126	19.59	PPBV	99
63) METHYL METHACRYLATE	5.894	69	262582	22.34	PPBV	99
64) METHYL ISOBUTYL KETONE	6.650	58	193357	20.06	PPBV	98
65) CIS-1,3-DICHLOROPROPENE	6.553	75	419058	21.32	PPBV	99
66) TOLUENE	7.794	91	901917	19.78	PPBV	100
67) 1,3-DICHLOROPROPANE	7.852	76	424020	19.05	PPBV #	100
68) TRANS-1,3-DICHLOROPROPENE	7.251	75	406012	23.41	PPBV	99
69) 1,1,2-TRICHLOROETHANE	7.415	83	253586	19.85	PPBV	98
70) 2-HEXANONE	8.360	58	250037	20.71	PPBV	99
71) ETHYL METHACRYLATE	8.499	69	434575	23.46	PPBV	98
72) TETRACHLOROETHENE	9.556	164	407532	20.73	PPBV	99
73) DIBROMOCHLOROMETHANE	8.341	129	694775	21.42	PPBV	100
74) 1,2-DIBROMOETHANE	8.691	107	513052	21.18	PPBV	100
75) OCTANE	9.701	43	438325	18.98	PPBV	99
77) 1,1,1,2-TETRACHLOROETHANE	10.794	131	467681	21.31	PPBV	99
78) CHLOROBENZENE	10.785	112	744873	19.62	PPBV	99
79) ETHYLBENZENE	11.675	91	1226728	20.63	PPBV	100
80) M, P-XYLENE	12.109	91	1939588	42.62	PPBV #	100
81) O-XYLENE	13.051	91	979077	20.63	PPBV	98
82) STYRENE	12.833	104	722236	21.98	PPBV	99
83) NONANE	14.167	43	461067	19.37	PPBV	99
84) BROMOFORM	11.920	173	691788	23.73	PPBV	100
85) 1,1,2,2-TETRACHLOROETHANE	13.058	83	604197	21.09	PPBV	99
86) 1,2,3-TRICHLOROPROPANE	13.344	75	491612	18.86	PPBV	100
88) ISOPROPYLBENZENE	14.582	120	359445	20.63	PPBV	98
89) BROMOBENZENE	14.450	77	631689	20.77	PPBV	100
90) 2-CHLOROTOLUENE	15.588	126	322978	20.73	PPBV	100
91) N-PROPYLBENZENE	15.919	120	367001	22.03	PPBV	99
92) 4-ETHYLTOLUENE	16.235	105	1378705	22.20	PPBV	99
93) 1,3,5-TRIMETHYLBENZENE	16.376	105	1161549	21.13	PPBV	99
94) ALPHA-METHYLSTYRENE	16.566	118	563779	21.99	PPBV	99
95) TERT-BUTYLBENZENE	16.817	134	275712	21.10	PPBV	99
96) 1,2,4-TRIMETHYLBENZENE	16.826	105	1180755	22.54	PPBV	99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 2w54660.D
Acq On : 27 Jul 2021 2:47 pm
Operator : danat
Sample : ic2424-20
Misc : MS52290,V2w2424,,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jul 27 16:52:47 2021
Quant Method : C:\msdchem\1\METHODS\M2W2424.M
Quant Title : T015 by GCMS w/DB-1, 30m X 0.25mm ID X 0.5 um
QLast Update : Tue Jul 27 14:57:59 2021
Response via : Initial Calibration

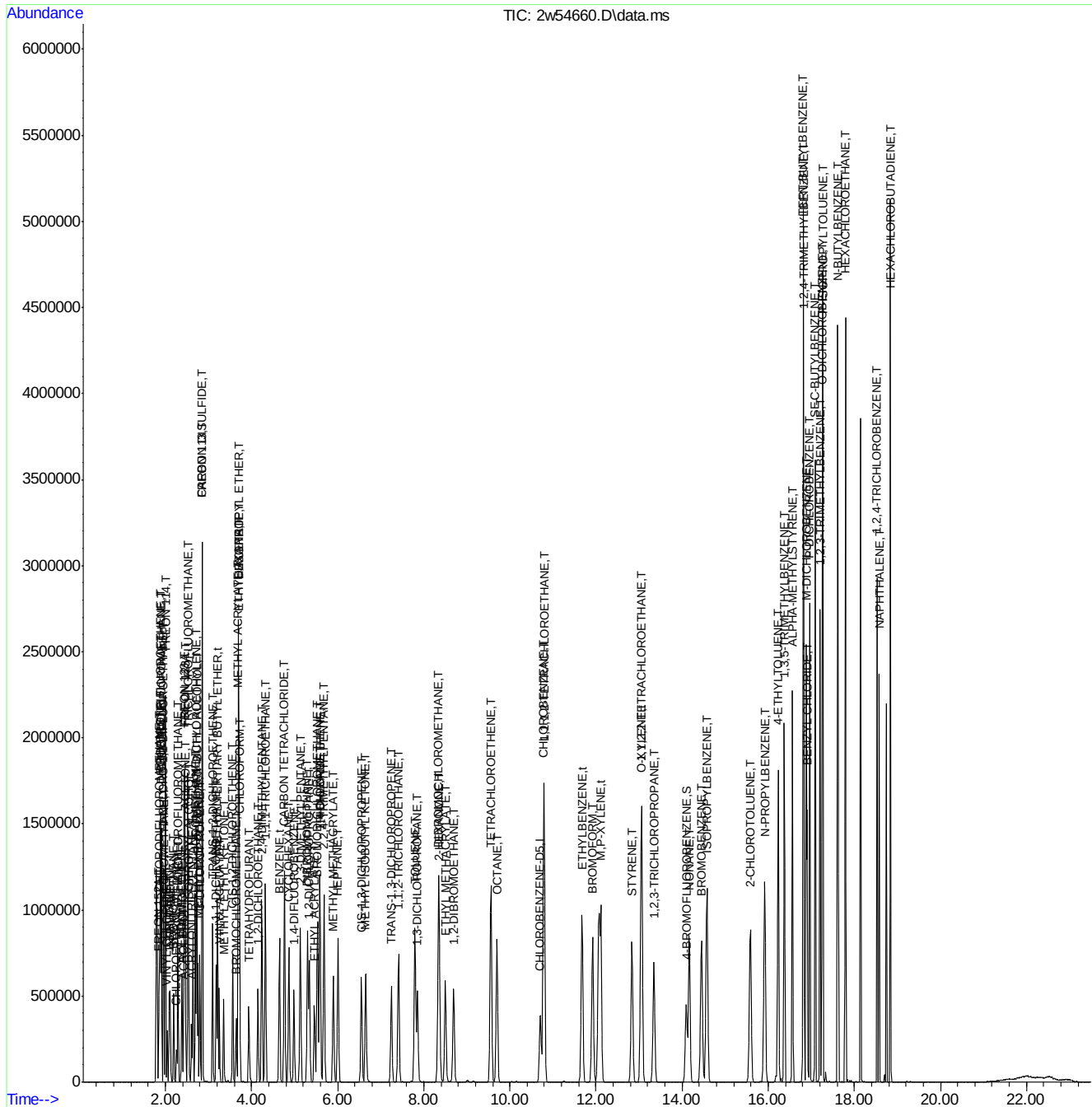
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
97) BENZYL CHLORIDE	16.907	91	788569	32.82	PPBV	99
98) M-DICHLOROBENZENE	16.884	146	770879	20.87	PPBV	99
99) P-DICHLOROBENZENE	16.964	146	775451	21.15	PPBV	99
100) O-DICHLOROBENZENE	17.257	146	720025	21.99	PPBV	99
101) SEC-BUTYLBENZENE	17.093	134	341852	21.80	PPBV	93
102) 1,2,3-TRIMETHYLBENZENE	17.202	105	1146301	21.79	PPBV	99
103) P-ISOPROPYLTOLUENE	17.270	134	374572	22.12	PPBV	97
104) N-BUTYLBENZENE	17.614	134	335267	21.25	PPBV	96
105) HEXACHLOROETHANE	17.794	117	494569	23.05	PPBV	99
106) HEXACHLOROBUTADIENE	18.839	225	494709	19.56	PPBV	99
107) 1,2,4-TRICHLOROBENZENE	18.530	180	493741	19.39	PPBV	99
108) NAPHTHALENE	18.579	128	986364	19.00	PPBV	100

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

(QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 2w54660.D
Acq On : 27 Jul 2021 2:47 pm
Operator : danat
Sample : ic2424-20
Misc : MS52290,V2w2424,,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jul 27 16:52:47 2021
Quant Method : C:\msdchem\1\METHODS\M2W2424.M
Quant Title : T015 by GCMS w/DB-1, 30m X 0.25mm ID X 0.5 um
QLast Update : Tue Jul 27 14:57:59 2021
Response via : Initial Calibration



Manual Integration Approval Summary

Sample Number: V2W2424-IC2424

Method: TO-15

Lab FileID: 2W54660.D

Analyst approved: 07/28/21 11:16 Dana Tryon

Injection Time: 07/27/21 14:47

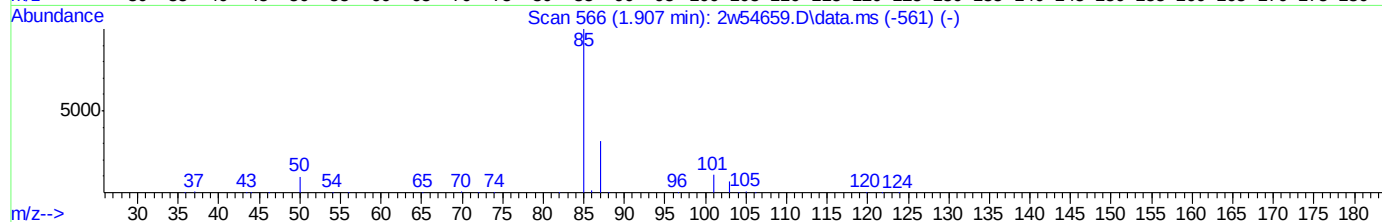
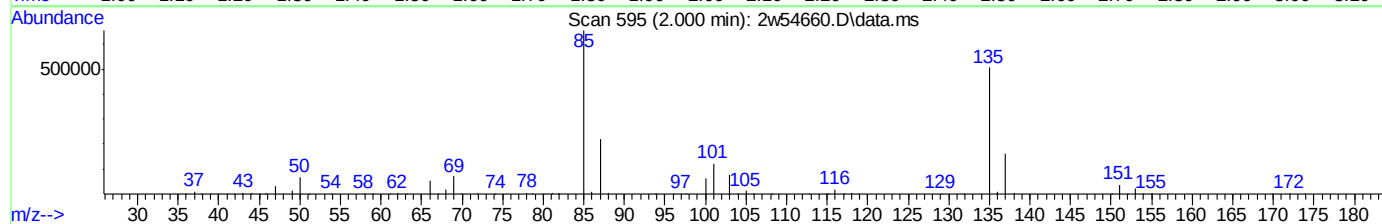
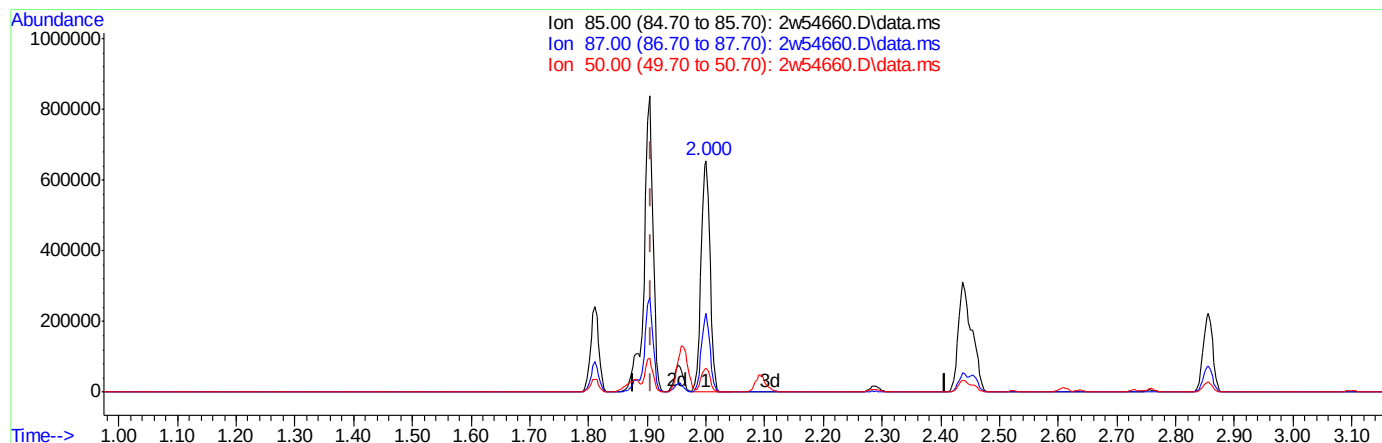
Supervisor approved: 07/28/21 11:23 Dana Tryon

Parameter	CAS	Sig#	R.T. (min.)	Reason
Dichlorodifluoromethane	75-71-8		1.90	Poor instrument integration

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\
Data File : 2w54660.D
Acq On : 27 Jul 2021 2:47 pm
Operator : danat
Sample : ic2424-20
Misc : MS52290,V2w2424,,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jul 27 16:52:15 2021
Quant Method : C:\msdchem\1\METHODS\M2W2424.M
Quant Title : T015 by GCMS w/DB-1, 30m X 0.25mm ID X 0.5 um
QLast Update : Tue Jul 27 14:57:59 2021
Response via : Initial Calibration



TIC: 2w54660.D\data.ms

(6) DICHLORODIFLUOROMETHANE (T)

2.000min (+0.093) 17.79PPBV

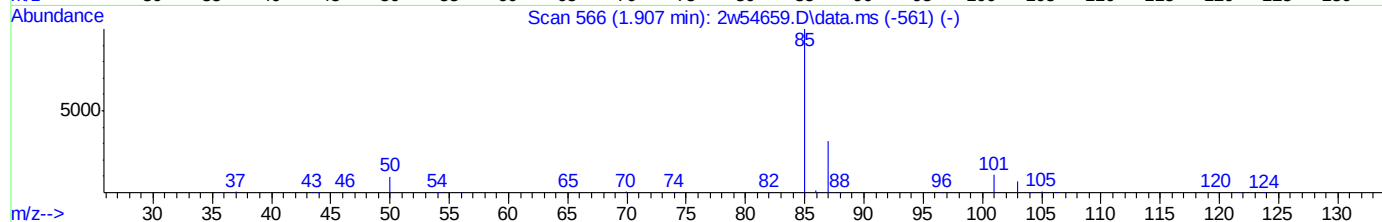
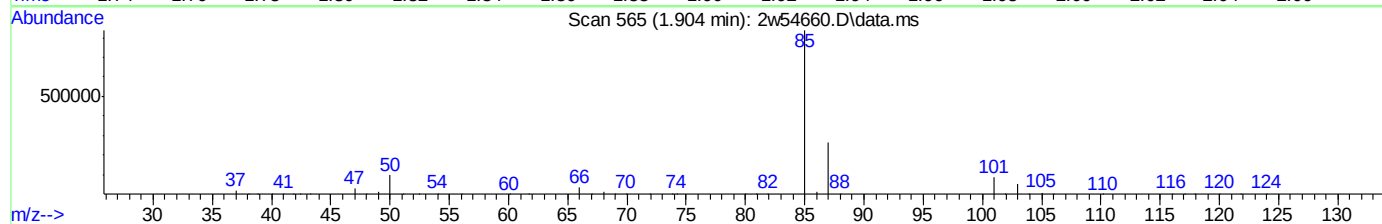
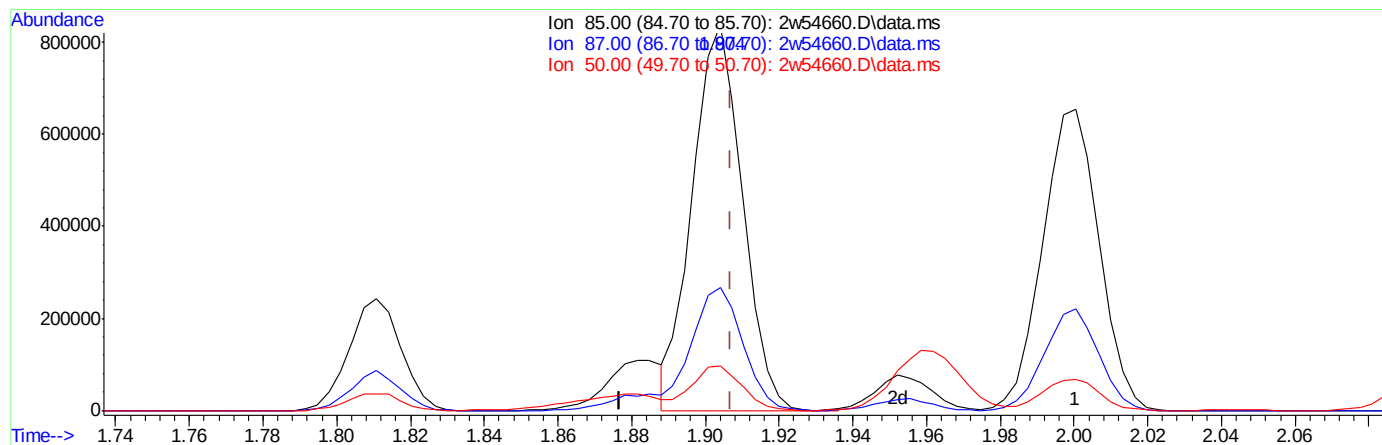
response 698526

Ion	Exp%	Act%
85.00	100	100
87.00	32.00	32.53
50.00	11.50	10.20
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\
Data File : 2w54660.D
Acq On : 27 Jul 2021 2:47 pm
Operator : danat
Sample : ic2424-20
Misc : MS52290,V2w2424,,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jul 27 16:52:15 2021
Quant Method : C:\msdchem\1\METHODS\M2W2424.M
Quant Title : T015 by GCMS w/DB-1, 30m X 0.25mm ID X 0.5 um
QLast Update : Tue Jul 27 14:57:59 2021
Response via : Initial Calibration



TIC: 2w54660.D\data.ms

(6) DICHLORODIFLUOROMETHANE (T)

1.904min (-0.003) 20.11PPBV m

response 789686

Ion	Exp%	Act%
85.00	100	100
87.00	32.00	28.77
50.00	11.50	9.02#
0.00	0.00	0.00

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
 Data File : 2w54661.D
 Acq On : 27 Jul 2021 3:21 pm
 Operator : danat
 Sample : ic2424-40
 Misc : MS52290,V2w2424,,,,,1
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jul 27 16:59:11 2021
 Quant Method : C:\msdchem\1\METHODS\M2W2424.M
 Quant Title : T015 by GCMS w/DB-1, 30m X 0.25mm ID X 0.5 um
 QLast Update : Tue Jul 27 16:54:03 2021
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) BROMOCHLOROMETHANE	3.644	128	90289	10.00	PPBV	0.00
52) 1,4-DIFLUOROBENZENE	4.987	114	442304	10.00	PPBV	0.00
76) CHLOROBENZENE-D5	10.704	117	377930	10.00	PPBV	0.00
System Monitoring Compounds						
87) 4-BROMOFLUOROBENZENE	14.100	95	268674	10.11	PPBV	0.00
Target Compounds						
3) FREON 152A	1.859	65	261093	37.13	PPBV	Qvalue 99
4) CHLORODIFLUOROMETHANE	1.875	67	172788	38.30	PPBV	99
5) CHLOROTRIFLUOROETHENE	1.891	116	749782	37.74	PPBV #	100
6) DICHLORODIFLUOROMETHANE	1.910	85	1696605	41.02	PPBV	99
7) PROPYLENE	1.888	41	280161	35.78	PPBV	99
8) 1-CHLORO-1,1-DIFLUORO...	1.962	65	1410755	39.83	PPBV	99
9) FREON 114	2.007	85	1458108	40.18	PPBV	100
10) CHLOROMETHANE	1.968	52	105499	37.79	PPBV	98
11) VINYL CHLORIDE	2.049	62	420654	37.20	PPBV	99
12) 1,3-BUTADIENE	2.100	54	298684	39.81	PPBV	98
13) N-BUTANE	2.119	43	538286	36.75	PPBV #	98
14) BROMOMETHANE	2.200	94	473448	37.15	PPBV	99
15) CHLOROETHANE	2.264	64	233863	38.45	PPBV	98
16) DICHLOROFLUOROMETHANE	2.296	67	1155336	38.74	PPBV	99
17) ACETONITRILE	2.380	41	294285	35.76	PPBV	98
18) ACROLEIN	2.425	56	179611	35.13	PPBV	99
19) FREON 123	2.444	83	1121033	37.70	PPBV	100
20) FREON 123A	2.460	117	749609	39.50	PPBV	99
21) TRICHLOROFLUOROMETHANE	2.528	101	1762031	39.96	PPBV	100
22) ISOPROPYL ALCOHOL	2.544	45	689815	37.06	PPBV	99
23) ACETONE	2.467	58	187008	37.57	PPBV	100
24) PENTANE	2.640	42	335979	39.73	PPBV	100
25) IODOMETHANE	2.698	142	1423637	39.94	PPBV	99
26) 1,1-DICHLOROETHYLENE	2.724	96	467771	37.85	PPBV	97
27) CARBON DISULFIDE	2.859	76	1187329	39.94	PPBV	99
28) ETHANOL	2.300	45	142114	34.48	PPBV	99
29) BROMOETHENE	2.390	106	488647	37.52	PPBV	100
30) ACRYLONITRILE	2.611	52	265179	38.55	PPBV	100
31) METHYLENE CHLORIDE	2.763	84	402139	38.15	PPBV	99
32) 3-CHLOROPROPENE	2.801	76	212209	41.06	PPBV	98
33) FREON 113	2.859	151	992696	40.40	PPBV	99
34) TRANS-1,2-DICHLOROETHENE	3.100	96	490502	38.24	PPBV	98
35) TERTIARY BUTYL ALCOHOL	2.734	59	826947	37.30	PPBV	98
36) METHYL TERTIARY BUTYL ...	3.213	73	1395140	43.60	PPBV	100
37) TETRAHYDROFURAN	3.936	72	214385	42.20	PPBV	99
38) HEXANE	3.698	57	632432	39.03	PPBV	99
39) VINYL ACETATE	3.254	86	128372	42.98	PPBV	96
40) 1,1-DICHLOROETHANE	3.180	63	800746	39.27	PPBV	99
41) METHYL ETHYL KETONE	3.354	72	220886	38.40	PPBV	99
42) CIS-1,2-DICHLOROETHENE	3.563	96	522562	40.09	PPBV	99
43) DIISOPROPYL ETHER	3.705	59	201319	40.29	PPBV	98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
 Data File : 2w54661.D
 Acq On : 27 Jul 2021 3:21 pm
 Operator : danat
 Sample : ic2424-40
 Misc : MS52290,V2w2424,,,,,1
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jul 27 16:59:11 2021
 Quant Method : C:\msdchem\1\METHODS\M2W2424.M
 Quant Title : T015 by GCMS w/DB-1, 30m X 0.25mm ID X 0.5 um
 QLast Update : Tue Jul 27 16:54:03 2021
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
44) ETHYL ACETATE	3.705	61	121519	43.24	PPBV	94
45) METHYL ACRYLATE	3.692	55	826687	41.52	PPBV #	100
46) CHLOROFORM	3.724	83	1210587	39.36	PPBV	99
47) 2,4-DIMETHYLPENTANE	4.242	57	754528	40.08	PPBV	99
48) 1,1,1-TRICHLOROETHANE	4.325	97	1373993	40.82	PPBV	98
49) CARBON TETRACHLORIDE	4.769	117	1531531	41.66	PPBV	99
50) 1,2-DICHLOROETHANE	4.152	62	850782	40.20	PPBV	99
51) BENZENE	4.650	78	1432774	38.32	PPBV	100
53) CYCLOHEXANE	4.869	84	643655	39.50	PPBV	98
54) 2,3-DIMETHYLPENTANE	5.135	71	310462	38.65	PPBV	96
55) TRICHLOROETHENE	5.589	95	763027	41.79	PPBV	97
56) 1,2-DICHLOROPROPANE	5.344	63	473157	37.85	PPBV	98
57) DIBROMOMETHANE	5.303	174	787452	38.12	PPBV	99
58) ETHYL ACRYLATE	5.463	55	1045842	44.60	PPBV	99
59) BROMODICHLOROMETHANE	5.534	83	1383810	40.19	PPBV	99
60) 2,2,4-TRIMETHYLPENTANE	5.685	57	2035848	39.59	PPBV	99
61) 1,4-DIOXANE	5.592	88	334640	39.35	PPBV	98
62) HEPTANE	6.013	43	657736	39.23	PPBV	99
63) METHYL METHACRYLATE	5.901	69	553205	44.29	PPBV	99
64) METHYL ISOBUTYL KETONE	6.656	58	408005	40.58	PPBV	98
65) CIS-1,3-DICHLOROPROPENE	6.553	75	886443	42.79	PPBV	99
66) TOLUENE	7.801	91	1864696	39.30	PPBV	100
67) 1,3-DICHLOROPROPANE	7.856	76	886577	38.52	PPBV #	99
68) TRANS-1,3-DICHLOROPROPENE	7.251	75	875193	47.07	PPBV	99
69) 1,1,2-TRICHLOROETHANE	7.415	83	521824	39.23	PPBV	99
70) 2-HEXANONE	8.370	58	545037	43.06	PPBV	98
71) ETHYL METHACRYLATE	8.508	69	916811	46.14	PPBV	99
72) TETRACHLOROETHENE	9.566	164	838515	40.68	PPBV	99
73) DIBROMOCHLOROMETHANE	8.344	129	1455430	42.55	PPBV	100
74) 1,2-DIBROMOETHANE	8.701	107	1076550	42.23	PPBV	100
75) OCTANE	9.704	43	917694	38.45	PPBV	99
77) 1,1,1,2-TETRACHLOROETHANE	10.804	131	986826	42.69	PPBV	99
78) CHLOROBENZENE	10.788	112	1542979	39.13	PPBV	99
79) ETHYLBENZENE	11.679	91	2554102	41.01	PPBV	99
80) M,P-XYLENE	12.119	91	4061398	84.73	PPBV #	99
81) O-XYLENE	13.061	91	2048969	41.23	PPBV	98
82) STYRENE	12.839	104	1508707	43.36	PPBV	99
83) NONANE	14.177	43	964555	39.10	PPBV	99
84) BROMOFORM	11.933	173	1486347	47.46	PPBV	99
85) 1,1,2,2-TETRACHLOROETHANE	13.071	83	1261587	41.88	PPBV	100
86) 1,2,3-TRICHLOROPROPANE	13.354	75	1036798	38.54	PPBV	100
88) ISOPROPYLBENZENE	14.582	120	749852	41.09	PPBV	98
89) BROMOBENZENE	14.460	77	1312275	41.15	PPBV	100
90) 2-CHLOROTOLUENE	15.592	126	670614	41.06	PPBV	99
91) N-PROPYLBENZENE	15.926	120	763469	43.26	PPBV	99
92) 4-ETHYLTOLUENE	16.238	105	2902842	44.06	PPBV	100
93) 1,3,5-TRIMETHYLBENZENE	16.379	105	2446332	42.32	PPBV	99
94) ALPHA-METHYLSTYRENE	16.569	118	1200362	44.21	PPBV	100
95) TERT-BUTYLBENZENE	16.823	134	575949	41.92	PPBV	99
96) 1,2,4-TRIMETHYLBENZENE	16.829	105	2506108	44.96	PPBV	99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 2w54661.D
Acq On : 27 Jul 2021 3:21 pm
Operator : danat
Sample : ic2424-40
Misc : MS52290,V2w2424,,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jul 27 16:59:11 2021
Quant Method : C:\msdchem\1\METHODS\M2W2424.M
Quant Title : T015 by GCMS w/DB-1, 30m X 0.25mm ID X 0.5 um
QLast Update : Tue Jul 27 16:54:03 2021
Response via : Initial Calibration

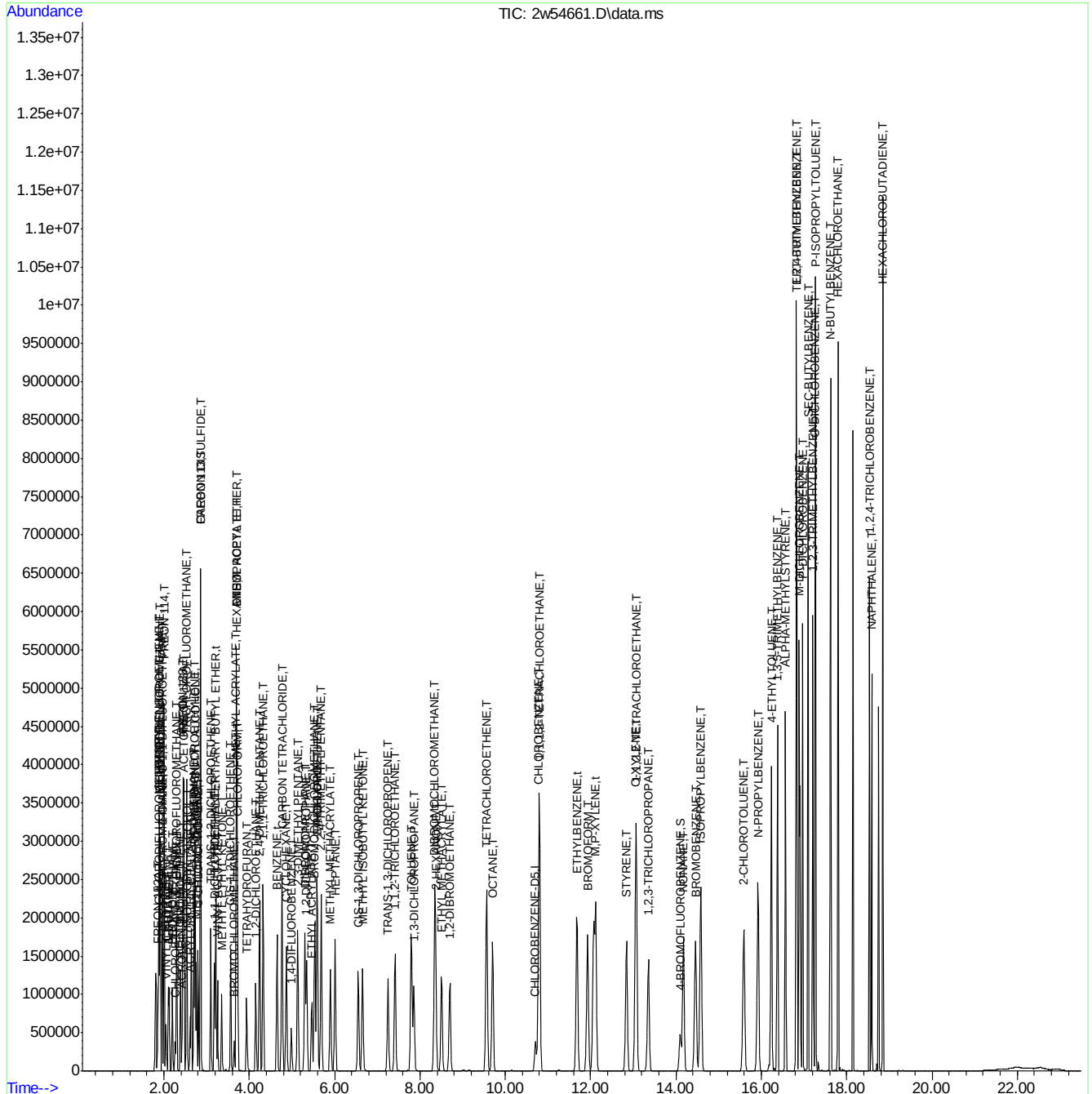
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
98) M-DICHLOROBENZENE	16.891	146	1627560	41.98	PPBV	100
99) P-DICHLOROBENZENE	16.968	146	1634496	42.39	PPBV	100
100) O-DICHLOROBENZENE	17.260	146	1533575	44.22	PPBV	99
101) SEC-BUTYLBENZENE	17.096	134	712761	42.98	PPBV	99
102) 1,2,3-TRIMETHYLBENZENE	17.209	105	2451728	44.08	PPBV	99
103) P-ISOPROPYLTOLUENE	17.273	134	785064	43.73	PPBV	96
104) N-BUTYLBENZENE	17.617	134	718534	43.26	PPBV	96
105) HEXACHLOROETHANE	17.797	117	1111845	48.50	PPBV	99
106) HEXACHLOROBUTADIENE	18.845	225	1118251	42.59	PPBV	100
107) 1,2,4-TRICHLOROBENZENE	18.537	180	1092777	41.40	PPBV	99
108) NAPHTHALENE	18.585	128	2234468	41.66	PPBV	100

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 2w54661.D
Acq On : 27 Jul 2021 3:21 pm
Operator : danat
Sample : ic2424-40
Misc : MS52290,V2w2424,,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jul 27 16:59:11 2021
Quant Method : C:\msdchem\1\METHODS\M2W2424.M
Quant Title : T015 by GCMS w/DB-1, 30m X 0.25mm ID X 0.5 um
QLast Update : Tue Jul 27 16:54:03 2021
Response via : Initial Calibration



7.7.8

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
 Data File : 2W54663.D
 Acq On : 27 Jul 2021 4:24 pm
 Operator : danat
 Sample : icv2424-10
 Misc : MS52290,V2W2424,,,,,1
 ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jul 28 11:12:39 2021
 Quant Method : C:\msdchem\1\METHODS\M2W2424.M
 Quant Title : T015 by GCMS w/DB-1, 30m X 0.25mm ID X 0.5 um
 QLast Update : Tue Jul 27 16:59:35 2021
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) BROMOCHLOROMETHANE	3.647	128	89240	10.00	PPBV	0.00
52) 1,4-DIFLUOROBENZENE	4.987	114	439003	10.00	PPBV	0.00
76) CHLOROBENZENE-D5	10.704	117	380174	10.00	PPBV	0.00
System Monitoring Compounds						
87) 4-BROMOFLUOROBENZENE	14.093	95	268041	10.03	PPBV	0.00
Target Compounds						
						Qvalue
3) FREON 152A	1.856	65	65000	9.47	PPBV	97
4) CHLORODIFLUOROMETHANE	1.872	67	42476	9.76	PPBV	98
5) CHLOROTRIFLUOROETHENE	1.888	116	192701	9.91	PPBV #	99
6) DICHLORODIFLUOROMETHANE	1.910	85	396424	9.62	PPBV	99
7) PROPYLENE	1.885	41	68953	8.96	PPBV	99
8) 1-CHLORO-1,1-DIFLUORO...	1.962	65	351217	10.00	PPBV	100
9) FREON 114	2.007	85	346537	9.67	PPBV	100
10) CHLOROMETHANE	1.968	52	25303	9.04	PPBV	95
11) VINYL CHLORIDE	2.049	62	104591	9.38	PPBV	99
12) 1,3-BUTADIENE	2.100	54	74037	9.95	PPBV	98
13) N-BUTANE	2.119	43	131457	9.23	PPBV	99
14) BROMOMETHANE	2.200	94	113356	9.23	PPBV	98
15) CHLOROETHANE	2.264	64	56456	9.45	PPBV	96
16) DICHLOROFLUOROMETHANE	2.293	67	267982	9.17	PPBV	98
17) ACETONITRILE	2.380	41	68422	8.58	PPBV	98
18) ACROLEIN	2.422	56	29354	5.89	PPBV	99
19) FREON 123	2.444	83	283544	9.68	PPBV	97
20) FREON 123A	2.460	117	202194	10.82	PPBV	100
21) TRICHLOROFLUOROMETHANE	2.528	101	409548	9.40	PPBV	99
22) ISOPROPYL ALCOHOL	2.541	45	186676	9.65	PPBV	99
23) ACETONE	2.467	58	46964	8.97	PPBV	98
24) PENTANE	2.640	42	83085	9.89	PPBV	100
25) IODOMETHANE	2.698	142	341556	9.76	PPBV	99
26) 1,1-DICHLOROETHYLENE	2.724	96	113965	9.40	PPBV	98
27) CARBON DISULFIDE	2.859	76	304197	10.38	PPBV	99
28) ETHANOL	2.300	45	33260	7.94	PPBV	94
29) BROMOETHENE	2.390	106	120639	9.52	PPBV	100
30) ACRYLONITRILE	2.608	52	64935	9.51	PPBV	99
31) METHYLENE CHLORIDE	2.759	84	98268	8.87	PPBV	100
32) 3-CHLOROPROPENE	2.801	76	50000	9.67	PPBV	97
33) FREON 113	2.859	151	234930	9.66	PPBV	100
34) TRANS-1,2-DICHLOROETHENE	3.097	96	124041	9.98	PPBV	98
35) TERTIARY BUTYL ALCOHOL	2.734	59	204550	9.41	PPBV	99
36) METHYL TERTIARY BUTYL ...	3.213	73	323380	10.13	PPBV	100
37) TETRAHYDROFURAN	3.943	72	47904	9.53	PPBV	99
38) HEXANE	3.701	57	153098	9.52	PPBV	99
39) VINYL ACETATE	3.254	86	29373	9.87	PPBV	93
40) 1,1-DICHLOROETHANE	3.177	63	194230	9.66	PPBV	99
41) METHYL ETHYL KETONE	3.354	72	51706	9.35	PPBV	95
42) CIS-1,2-DICHLOROETHENE	3.563	96	124916	9.61	PPBV	100
43) DIISOPROPYL ETHER	3.698	59	48912	10.26	PPBV	99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
 Data File : 2W54663.D
 Acq On : 27 Jul 2021 4:24 pm
 Operator : danat
 Sample : icv2424-10
 Misc : MS52290,V2W2424,,,,,1
 ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jul 28 11:12:39 2021
 Quant Method : C:\msdchem\1\METHODS\M2W2424.M
 Quant Title : T015 by GCMS w/DB-1, 30m X 0.25mm ID X 0.5 um
 QLast Update : Tue Jul 27 16:59:35 2021
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
44) ETHYL ACETATE	3.705	61	30937	10.76	PPBV	99
45) METHYL ACRYLATE	3.692	55	197840	9.93	PPBV #	100
46) CHLOROFORM	3.721	83	290990	9.52	PPBV	100
47) 2,4-DIMETHYLPENTANE	4.242	57	181005	9.60	PPBV	100
48) 1,1,1-TRICHLOROETHANE	4.322	97	323496	9.79	PPBV	99
49) CARBON TETRACHLORIDE	4.766	117	350596	9.57	PPBV	98
50) 1,2-DICHLOROETHANE	4.152	62	201470	9.58	PPBV	99
51) BENZENE	4.647	78	348918	9.56	PPBV	99
53) CYCLOHEXANE	4.869	84	158332	9.76	PPBV	97
54) 2,3-DIMETHYLPENTANE	5.132	71	75423	9.80	PPBV	94
55) TRICHLOROETHENE	5.586	95	181414	9.82	PPBV	99
56) 1,2-DICHLOROPROPANE	5.341	63	115247	9.33	PPBV	98
57) DIBROMOMETHANE	5.299	174	194970	9.54	PPBV	100
58) ETHYL ACRYLATE	5.460	55	249309	10.60	PPBV	99
59) BROMODICHLOROMETHANE	5.528	83	326392	9.58	PPBV	98
60) 2,2,4-TRIMETHYLPENTANE	5.679	57	489342	9.52	PPBV	99
61) 1,4-DIOXANE	5.586	88	77618	8.83	PPBV	100
62) HEPTANE	6.010	43	162493	9.76	PPBV	99
63) METHYL METHACRYLATE	5.897	69	129021	10.18	PPBV	99
64) METHYL ISOBUTYL KETONE	6.653	58	94959	9.54	PPBV	98
65) CIS-1,3-DICHLOROPROPENE	6.553	75	218668	10.61	PPBV	99
66) TOLUENE	7.794	91	454024	9.71	PPBV	99
67) 1,3-DICHLOROPROPANE	7.849	76	213772	9.41	PPBV #	99
68) TRANS-1,3-DICHLOROPROPENE	7.248	75	194513	10.38	PPBV	98
69) 1,1,2-TRICHLOROETHANE	7.409	83	127277	9.65	PPBV	98
70) 2-HEXANONE	8.357	58	124893	9.61	PPBV	96
71) ETHYL METHACRYLATE	8.495	69	218470	11.05	PPBV	100
72) TETRACHLOROETHENE	9.553	164	214218	10.34	PPBV	98
73) DIBROMOCHLOROMETHANE	8.341	129	334708	9.78	PPBV	100
74) 1,2-DIBROMOETHANE	8.688	107	254627	9.97	PPBV	99
75) OCTANE	9.698	43	221053	9.42	PPBV	99
77) 1,1,1,2-TETRACHLOROETHANE	10.788	131	227970	9.69	PPBV	96
78) CHLOROBENZENE	10.785	112	366593	9.33	PPBV	98
79) ETHYLBENZENE	11.672	91	618009	9.85	PPBV	99
80) M,P-XYLENE	12.103	91	965761	19.91	PPBV #	99
81) O-XYLENE	13.048	91	482906	9.61	PPBV	99
82) STYRENE	12.830	104	356621	10.16	PPBV	99
83) NONANE	14.164	43	233703	9.44	PPBV	98
84) BROMOFORM	11.920	173	307211	9.59	PPBV	100
85) 1,1,2,2-TETRACHLOROETHANE	13.055	83	293343	9.59	PPBV	100
86) 1,2,3-TRICHLOROPROPANE	13.344	75	240776	8.99	PPBV #	99
88) ISOPROPYLBENZENE	14.569	120	180232	9.78	PPBV	100
89) BROMOBENZENE	14.447	77	307235	9.41	PPBV	99
90) 2-CHLOROTOLUENE	15.579	126	162630	9.94	PPBV	99
91) N-PROPYLBENZENE	15.916	120	183380	10.26	PPBV	99
92) 4-ETHYLTOLUENE	16.228	105	684143	10.30	PPBV	99
93) 1,3,5-TRIMETHYLBENZENE	16.373	105	577318	10.00	PPBV	99
94) ALPHA-METHYLSTYRENE	16.563	118	271652	9.88	PPBV	99
95) TERT-BUTYLBENZENE	16.813	134	137703	10.10	PPBV	97
96) 1,2,4-TRIMETHYLBENZENE	16.823	105	577369	10.23	PPBV	100

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 2w54663.D
Acq On : 27 Jul 2021 4:24 pm
Operator : danat
Sample : icv2424-10
Misc : MS52290,V2w2424,,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jul 28 11:12:39 2021
Quant Method : C:\msdchem\1\METHODS\M2W2424.M
Quant Title : T015 by GCMS w/DB-1, 30m X 0.25mm ID X 0.5 um
QLast Update : Tue Jul 27 16:59:35 2021
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
97) BENZYL CHLORIDE	16.903	91	287871	10.62	PPBV	100
98) M-DICHLOROBENZENE	16.881	146	365316	9.29	PPBV	100
99) P-DICHLOROBENZENE	16.961	146	368955	9.52	PPBV	99
100) O-DICHLOROBENZENE	17.257	146	337368	9.58	PPBV	99
101) SEC-BUTYLBENZENE	17.093	134	167003	9.82	PPBV	95
102) 1,2,3-TRIMETHYLBENZENE	17.202	105	543940	9.67	PPBV	99
103) P-ISOPROPYLTOLUENE	17.267	134	180905	10.03	PPBV	100
104) N-BUTYLBENZENE	17.614	134	166932	9.95	PPBV	98
105) HEXACHLOROETHANE	17.794	117	216513	9.24	PPBV	98
106) HEXACHLOROBUTADIENE	18.842	225	260402	9.88	PPBV	100
107) 1,2,4-TRICHLOROBENZENE	18.530	180	222314	8.39	PPBV	99
108) NAPHTHALENE	18.582	128	435187	7.97	PPBV	100

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
 Data File : 2w55980.D
 Acq On : 1 Nov 2021 8:49 am
 Operator : thomash
 Sample : cc2424-10
 Misc : MS54658,V2w2494,,,,,1
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 01 12:57:10 2021
 Quant Method : C:\msdchem\1\METHODS\M2W2424.M
 Quant Title : T015 by GCMS w/DB-1, 30m X 0.25mm ID X 0.5 um
 QLast Update : Tue Jul 27 16:59:35 2021
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) BROMOCHLOROMETHANE	3.647	128	89656	10.00	PPBV	0.00
52) 1,4-DIFLUOROBENZENE	4.988	114	457587	10.00	PPBV	0.00
76) CHLOROBENZENE-D5	10.704	117	394029	10.00	PPBV	0.00
System Monitoring Compounds						
87) 4-BROMOFLUOROBENZENE	14.090	95	263895	9.53	PPBV	0.00
Target Compounds						
3) FREON 152A	1.862	65	87245	12.65	PPBV	Qvalue # 74
4) CHLORODIFLUOROMETHANE	1.878	67	33365	7.63	PPBV	97
5) CHLOROTRIFLUOROETHENE	1.895	116	214123	10.96	PPBV	# 99
6) DICHLORODIFLUOROMETHANE	1.914	85	419312	10.13	PPBV	# 97
7) PROPYLENE	1.891	41	87768	11.35	PPBV	89
8) 1-CHLORO-1,1-DIFLUORO...	1.965	65	258160	7.32	PPBV	# 93
9) FREON 114	2.010	85	365616	10.16	PPBV	99
10) CHLOROMETHANE	1.975	52	31279	11.12	PPBV	100
11) VINYL CHLORIDE	2.055	62	126291	11.28	PPBV	99
12) 1,3-BUTADIENE	2.103	54	88188	11.79	PPBV	# 78
13) N-BUTANE	2.126	43	146518	10.24	PPBV	97
14) BROMOMETHANE	2.203	94	133719	10.84	PPBV	97
15) CHLOROETHANE	2.267	64	70079	11.67	PPBV	95
16) DICHLOROFLUOROMETHANE	2.300	67	279219	9.51	PPBV	# 98
17) ACETONITRILE	2.386	41	80587	10.06	PPBV	# 93
18) ACROLEIN	2.431	56	43365	8.66	PPBV	98
19) FREON 123	2.451	83	294547	10.01	PPBV	96
20) FREON 123A	2.467	117	179745	9.57	PPBV	98
21) TRICHLOROFLUOROMETHANE	2.534	101	359749	8.22	PPBV	100
22) ISOPROPYL ALCOHOL	2.550	45	172008	8.85	PPBV	# 93
23) ACETONE	2.473	58	52764	10.04	PPBV	# 49
24) PENTANE	2.647	42	80884	9.58	PPBV	86
25) IODOMETHANE	2.705	142	349372	9.94	PPBV	88
26) 1,1-DICHLOROETHYLENE	2.730	96	118141	9.70	PPBV	84
27) CARBON DISULFIDE	2.866	76	299877	10.19	PPBV	# 92
28) ETHANOL	2.303	45	43748	10.39	PPBV	# 97
29) BROMOETHENE	2.396	106	129986	10.21	PPBV	# 97
30) ACRYLONITRILE	2.618	52	66458	9.69	PPBV	94
31) METHYLENE CHLORIDE	2.766	84	105906	9.52	PPBV	92
32) 3-CHLOROPROPENE	2.808	76	54839	10.56	PPBV	# 64
33) FREON 113	2.862	151	225764	9.24	PPBV	99
34) TRANS-1,2-DICHLOROETHENE	3.103	96	126549	10.14	PPBV	95
35) TERTIARY BUTYL ALCOHOL	2.740	59	194522	8.91	PPBV	# 93
36) METHYL TERTIARY BUTYL ...	3.219	73	320209	9.98	PPBV	97
37) TETRAHYDROFURAN	3.946	72	58686	11.62	PPBV	97
38) HEXANE	3.701	57	179860	11.13	PPBV	# 77
39) VINYL ACETATE	3.258	86	34815	11.64	PPBV	70
40) 1,1-DICHLOROETHANE	3.184	63	208799	10.34	PPBV	98
41) METHYL ETHYL KETONE	3.357	72	61739	11.11	PPBV	84
42) CIS-1,2-DICHLOROETHENE	3.570	96	137828	10.55	PPBV	94
43) DIISOPROPYL ETHER	3.705	59	54348	11.35	PPBV	97

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
 Data File : 2w55980.D
 Acq On : 1 Nov 2021 8:49 am
 Operator : thomash
 Sample : cc2424-10
 Misc : MS54658,V2w2494,,,,,1
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 01 12:57:10 2021
 Quant Method : C:\msdchem\1\METHODS\M2W2424.M
 Quant Title : T015 by GCMS w/DB-1, 30m X 0.25mm ID X 0.5 um
 QLast Update : Tue Jul 27 16:59:35 2021
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
44) ETHYL ACETATE	3.708	61	37085	12.84	PPBV #	46
45) METHYL ACRYLATE	3.698	55	220363	11.01	PPBV #	98
46) CHLOROFORM	3.727	83	271285	8.84	PPBV #	94
47) 2,4-DIMETHYLPENTANE	4.245	57	212418	11.21	PPBV	98
48) 1,1,1-TRICHLOROETHANE	4.325	97	276497	8.33	PPBV	97
49) CARBON TETRACHLORIDE	4.769	117	303299	8.24	PPBV	99
50) 1,2-DICHLOROETHANE	4.155	62	156819	7.42	PPBV #	98
51) BENZENE	4.653	78	396439	10.81	PPBV	94
53) CYCLOHEXANE	4.869	84	174116	10.30	PPBV	99
54) 2,3-DIMETHYLPENTANE	5.136	71	88732	11.06	PPBV	96
55) TRICHLOROETHENE	5.586	95	184182	9.57	PPBV	99
56) 1,2-DICHLOROPROPANE	5.345	63	139878	10.87	PPBV #	84
57) DIBROMOMETHANE	5.303	174	187210	8.79	PPBV	99
58) ETHYL ACRYLATE	5.463	55	268845	10.97	PPBV	98
59) BROMODICHLOROMETHANE	5.531	83	304724	8.58	PPBV	99
60) 2,2,4-TRIMETHYLPENTANE	5.685	57	580232	10.83	PPBV	99
61) 1,4-DIOXANE	5.592	88	91214	9.95	PPBV #	94
62) HEPTANE	6.010	43	172408	9.93	PPBV	94
63) METHYL METHACRYLATE	5.898	69	149043	11.28	PPBV #	82
64) METHYL ISOBUTYL KETONE	6.653	58	112049	10.80	PPBV	82
65) CIS-1,3-DICHLOROPROPENE	6.550	75	221317	10.30	PPBV #	81
66) TOLUENE	7.791	91	486229	9.98	PPBV	100
67) 1,3-DICHLOROPROPANE	7.849	76	237264	10.02	PPBV #	99
68) TRANS-1,3-DICHLOROPROPENE	7.248	75	192267	9.84	PPBV #	86
69) 1,1,2-TRICHLOROETHANE	7.412	83	142347	10.36	PPBV	95
70) 2-HEXANONE	8.357	58	142592	10.52	PPBV	81
71) ETHYL METHACRYLATE	8.496	69	237339	11.51	PPBV #	89
72) TETRACHLOROETHENE	9.560	164	207637	9.62	PPBV	98
73) DIBROMOCHLOROMETHANE	8.338	129	320057	8.97	PPBV	99
74) 1,2-DIBROMOETHANE	8.692	107	264495	9.94	PPBV	99
75) OCTANE	9.698	43	239479	9.79	PPBV	98
77) 1,1,1,2-TETRACHLOROETHANE	10.791	131	229642	9.42	PPBV	92
78) CHLOROBENZENE	10.782	112	395984	9.72	PPBV	98
79) ETHYLBENZENE	11.669	91	627612	9.65	PPBV	99
80) M, P-XYLENE	12.100	91	972555	19.35	PPBV #	98
81) O-XYLENE	13.045	91	496574	9.53	PPBV	97
82) STYRENE	12.830	104	378722	10.41	PPBV	95
83) NONANE	14.158	43	252851	9.85	PPBV	94
84) BROMOFORM	11.920	173	331056	9.97	PPBV	99
85) 1,1,2,2-TETRACHLOROETHANE	13.058	83	360169	11.36	PPBV	99
86) 1,2,3-TRICHLOROPROPANE	13.338	75	267847	9.65	PPBV	100
88) ISOPROPYLBENZENE	14.566	120	194647	10.19	PPBV	90
89) BROMOBENZENE	14.444	77	323548	9.56	PPBV	100
90) 2-CHLOROTOLUENE	15.582	126	175023	10.32	PPBV	98
91) N-PROPYLBENZENE	15.913	120	196184	10.59	PPBV	99
92) 4-ETHYLTOLUENE	16.232	105	705627	10.25	PPBV	98
93) 1,3,5-TRIMETHYLBENZENE	16.373	105	585746	9.79	PPBV	96
94) ALPHA-METHYLSTYRENE	16.563	118	301208	10.57	PPBV	98
95) TERT-BUTYLBENZENE	16.814	134	151920	10.76	PPBV	86
96) 1,2,4-TRIMETHYLBENZENE	16.820	105	601477	10.28	PPBV	98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 2w55980.D
Acq On : 1 Nov 2021 8:49 am
Operator : thomash
Sample : cc2424-10
Misc : MS54658,V2w2494,,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 01 12:57:10 2021
Quant Method : C:\msdchem\1\METHODS\M2W2424.M
Quant Title : T015 by GCMS w/DB-1, 30m X 0.25mm ID X 0.5 um
QLast Update : Tue Jul 27 16:59:35 2021
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
97) BENZYL CHLORIDE	16.904	91	365851	13.02	PPBV	95
98) M-DICHLOROBENZENE	16.881	146	404464	9.92	PPBV	98
99) P-DICHLOROBENZENE	16.961	146	403410	10.05	PPBV	97
100) O-DICHLOROBENZENE	17.251	146	383773	10.52	PPBV	98
101) SEC-BUTYLBENZENE	17.087	134	187612	10.64	PPBV	88
102) 1,2,3-TRIMETHYLBENZENE	17.199	105	595347	10.21	PPBV	96
103) P-ISOPROPYLTOLUENE	17.264	134	206780	11.06	PPBV	86
104) N-BUTYLBENZENE	17.608	134	184961	10.63	PPBV	97
105) HEXACHLOROETHANE	17.788	117	249974	10.29	PPBV	98
106) HEXACHLOROBUTADIENE	18.826	225	310375	11.36	PPBV	100
107) 1,2,4-TRICHLOROBENZENE	18.518	180	276189	10.06	PPBV	99
108) NAPHTHALENE	18.566	128	541883	9.57	PPBV	100

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
 Data File : 2w56006.D
 Acq On : 2 Nov 2021 7:58 am
 Operator : thomash
 Sample : cc2424-10
 Misc : MS54715,V2w2495,,,,,1
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 02 10:55:13 2021
 Quant Method : C:\msdchem\1\METHODS\M2W2424.M
 Quant Title : T015 by GCMS w/DB-1, 30m X 0.25mm ID X 0.5 um
 QLast Update : Tue Jul 27 16:59:35 2021
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) BROMOCHLOROMETHANE	3.650	128	94236	10.00	PPBV	0.00
52) 1,4-DIFLUOROBENZENE	4.991	114	479253	10.00	PPBV	0.00
76) CHLOROBENZENE-D5	10.704	117	418699	10.00	PPBV	0.00
System Monitoring Compounds						
87) 4-BROMOFLUOROBENZENE	14.093	95	275664	9.37	PPBV	0.00
Target Compounds						
3) FREON 152A	1.862	65	84731	11.69	PPBV	Qvalue # 74
4) CHLORODIFLUOROMETHANE	1.882	67	32650	7.10	PPBV	97
5) CHLOROTRIFLUOROETHENE	1.894	116	214876	10.47	PPBV	# 99
6) DICHLORODIFLUOROMETHANE	1.917	85	410462	9.44	PPBV	# 97
7) PROPYLENE	1.891	41	82720	10.18	PPBV	90
8) 1-CHLORO-1,1-DIFLUORO...	1.965	65	255130	6.88	PPBV	# 93
9) FREON 114	2.013	85	357694	9.45	PPBV	100
10) CHLOROMETHANE	1.975	52	30136	10.19	PPBV	100
11) VINYL CHLORIDE	2.055	62	123959	10.53	PPBV	98
12) 1,3-BUTADIENE	2.107	54	85989	10.94	PPBV	# 77
13) N-BUTANE	2.126	43	142082	9.44	PPBV	97
14) BROMOMETHANE	2.206	94	132175	10.19	PPBV	98
15) CHLOROETHANE	2.267	64	68994	10.93	PPBV	# 94
16) DICHLOROFLUOROMETHANE	2.303	67	276611	8.96	PPBV	# 98
17) ACETONITRILE	2.390	41	78032	9.27	PPBV	95
18) ACROLEIN	2.435	56	42164	8.01	PPBV	97
19) FREON 123	2.451	83	296135	9.57	PPBV	96
20) FREON 123A	2.470	117	182714	9.26	PPBV	100
21) TRICHLOROFLUOROMETHANE	2.538	101	359069	7.80	PPBV	99
22) ISOPROPYL ALCOHOL	2.550	45	169625	8.30	PPBV	# 93
23) ACETONE	2.476	58	52563	9.51	PPBV	# 49
24) PENTANE	2.647	42	79376	8.95	PPBV	86
25) IODOMETHANE	2.705	142	355936	9.64	PPBV	87
26) 1,1-DICHLOROETHYLENE	2.734	96	119591	9.34	PPBV	82
27) CARBON DISULFIDE	2.865	76	303972	9.83	PPBV	# 90
28) ETHANOL	2.306	45	41511	9.38	PPBV	# 94
29) BROMOETHENE	2.399	106	129977	9.71	PPBV	# 96
30) ACRYLONITRILE	2.621	52	65430	9.08	PPBV	94
31) METHYLENE CHLORIDE	2.769	84	105525	9.02	PPBV	94
32) 3-CHLOROPROPENE	2.811	76	56209	10.30	PPBV	# 61
33) FREON 113	2.865	151	230951	8.99	PPBV	98
34) TRANS-1,2-DICHLOROETHENE	3.107	96	129806	9.89	PPBV	94
35) TERTIARY BUTYL ALCOHOL	2.740	59	197319	8.60	PPBV	# 93
36) METHYL TERTIARY BUTYL ...	3.219	73	316619	9.39	PPBV	# 97
37) TETRAHYDROFURAN	3.946	72	59666	11.24	PPBV	94
38) HEXANE	3.705	57	180199	10.61	PPBV	# 77
39) VINYL ACETATE	3.261	86	34630	11.02	PPBV	67
40) 1,1-DICHLOROETHANE	3.187	63	210072	9.90	PPBV	99
41) METHYL ETHYL KETONE	3.361	72	62646	10.72	PPBV	80
42) CIS-1,2-DICHLOROETHENE	3.570	96	140284	10.22	PPBV	93
43) DIISOPROPYL ETHER	3.708	59	54568	10.84	PPBV	96

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
 Data File : 2W56006.D
 Acq On : 2 Nov 2021 7:58 am
 Operator : thomash
 Sample : cc2424-10
 Misc : MS54715,V2W2495,,,,,1
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 02 10:55:13 2021
 Quant Method : C:\msdchem\1\METHODS\M2W2424.M
 Quant Title : T015 by GCMS w/DB-1, 30m X 0.25mm ID X 0.5 um
 QLast Update : Tue Jul 27 16:59:35 2021
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
44) ETHYL ACETATE	3.711	61	36506	12.03	PPBV #	47
45) METHYL ACRYLATE	3.698	55	218082	10.37	PPBV #	99
46) CHLOROFORM	3.727	83	272464	8.45	PPBV #	93
47) 2,4-DIMETHYLPENTANE	4.245	57	211917	10.64	PPBV	98
48) 1,1,1-TRICHLOROETHANE	4.328	97	276831	7.94	PPBV	96
49) CARBON TETRACHLORIDE	4.772	117	307360	7.94	PPBV	99
50) 1,2-DICHLOROETHANE	4.155	62	157371	7.09	PPBV #	98
51) BENZENE	4.653	78	395918	10.27	PPBV	94
53) CYCLOHEXANE	4.869	84	176376	9.96	PPBV	99
54) 2,3-DIMETHYLPENTANE	5.135	71	90757	10.80	PPBV	95
55) TRICHLOROETHENE	5.589	95	185621	9.21	PPBV	98
56) 1,2-DICHLOROPROPANE	5.348	63	140418	10.41	PPBV #	83
57) DIBROMOMETHANE	5.303	174	189857	8.51	PPBV	99
58) ETHYL ACRYLATE	5.463	55	269198	10.48	PPBV	98
59) BROMODICHLOROMETHANE	5.531	83	306984	8.25	PPBV	99
60) 2,2,4-TRIMETHYLPENTANE	5.685	57	580910	10.35	PPBV	100
61) 1,4-DIOXANE	5.595	88	92387	9.63	PPBV #	95
62) HEPTANE	6.013	43	172760	9.50	PPBV	93
63) METHYL METHACRYLATE	5.901	69	150020	10.84	PPBV #	82
64) METHYL ISOBUTYL KETONE	6.653	58	111960	10.30	PPBV	82
65) CIS-1,3-DICHLOROPROPENE	6.553	75	224802	9.99	PPBV #	79
66) TOLUENE	7.795	91	492907	9.66	PPBV	99
67) 1,3-DICHLOROPROPANE	7.849	76	237428	9.57	PPBV #	100
68) TRANS-1,3-DICHLOROPROPENE	7.248	75	192275	9.39	PPBV #	85
69) 1,1,2-TRICHLOROETHANE	7.412	83	144687	10.05	PPBV	95
70) 2-HEXANONE	8.357	58	141862	10.00	PPBV	80
71) ETHYL METHACRYLATE	8.499	69	236933	10.97	PPBV #	88
72) TETRACHLOROETHENE	9.560	164	211553	9.35	PPBV	99
73) DIBROMOCHLOROMETHANE	8.338	129	325105	8.70	PPBV	100
74) 1,2-DIBROMOETHANE	8.688	107	266406	9.56	PPBV	100
75) OCTANE	9.698	43	237967	9.29	PPBV	96
77) 1,1,1,2-TETRACHLOROETHANE	10.791	131	232633	8.98	PPBV	92
78) CHLOROBENZENE	10.778	112	401870	9.29	PPBV	97
79) ETHYLBENZENE	11.669	91	632853	9.16	PPBV	98
80) M, P-XYLENE	12.100	91	973543	18.23	PPBV #	97
81) O-XYLENE	13.045	91	499924	9.03	PPBV	96
82) STYRENE	12.833	104	381318	9.87	PPBV	94
83) NONANE	14.161	43	250579	9.19	PPBV	91
84) BROMOFORM	11.917	173	332765	9.44	PPBV	99
85) 1,1,2,2-TETRACHLOROETHANE	13.055	83	362808	10.77	PPBV	99
86) 1,2,3-TRICHLOROPROPANE	13.341	75	267599	9.08	PPBV	100
88) ISOPROPYLBENZENE	14.566	120	196228	9.67	PPBV	89
89) BROMOBENZENE	14.444	77	322485	8.97	PPBV	99
90) 2-CHLOROTOLUENE	15.582	126	175730	9.75	PPBV	99
91) N-PROPYLBENZENE	15.913	120	199567	10.14	PPBV	98
92) 4-ETHYLTOLUENE	16.228	105	709043	9.69	PPBV	96
93) 1,3,5-TRIMETHYLBENZENE	16.373	105	586818	9.23	PPBV	96
94) ALPHA-METHYLSTYRENE	16.563	118	299607	9.89	PPBV	98
95) TERT-BUTYLBENZENE	16.813	134	152300	10.15	PPBV	85
96) 1,2,4-TRIMETHYLBENZENE	16.820	105	598934	9.63	PPBV	98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
 Data File : 2w56006.D
 Acq On : 2 Nov 2021 7:58 am
 Operator : thomash
 Sample : cc2424-10
 Misc : MS54715,V2w2495,,,,,1
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 02 10:55:13 2021
 Quant Method : C:\msdchem\1\METHODS\M2W2424.M
 Quant Title : T015 by GCMS w/DB-1, 30m X 0.25mm ID X 0.5 um
 QLast Update : Tue Jul 27 16:59:35 2021
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
97) BENZYL CHLORIDE	16.900	91	353244	11.83	PPBV	96
98) M-DICHLOROBENZENE	16.881	146	397415	9.18	PPBV	98
99) P-DICHLOROBENZENE	16.961	146	401464	9.41	PPBV	97
100) O-DICHLOROBENZENE	17.251	146	383550	9.89	PPBV	97
101) SEC-BUTYLBENZENE	17.087	134	191834	10.24	PPBV	84
102) 1,2,3-TRIMETHYLBENZENE	17.199	105	590145	9.52	PPBV	96
103) P-ISOPROPYLTOLUENE	17.264	134	204730	10.30	PPBV	88
104) N-BUTYLBENZENE	17.608	134	187873	10.16	PPBV	93
105) HEXACHLOROETHANE	17.788	117	244892	9.49	PPBV	97
106) HEXACHLOROBUTADIENE	18.826	225	307576	10.59	PPBV	100
107) 1,2,4-TRICHLOROBENZENE	18.518	180	268119	9.19	PPBV	99
108) NAPHTHALENE	18.566	128	524908	8.72	PPBV	99

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

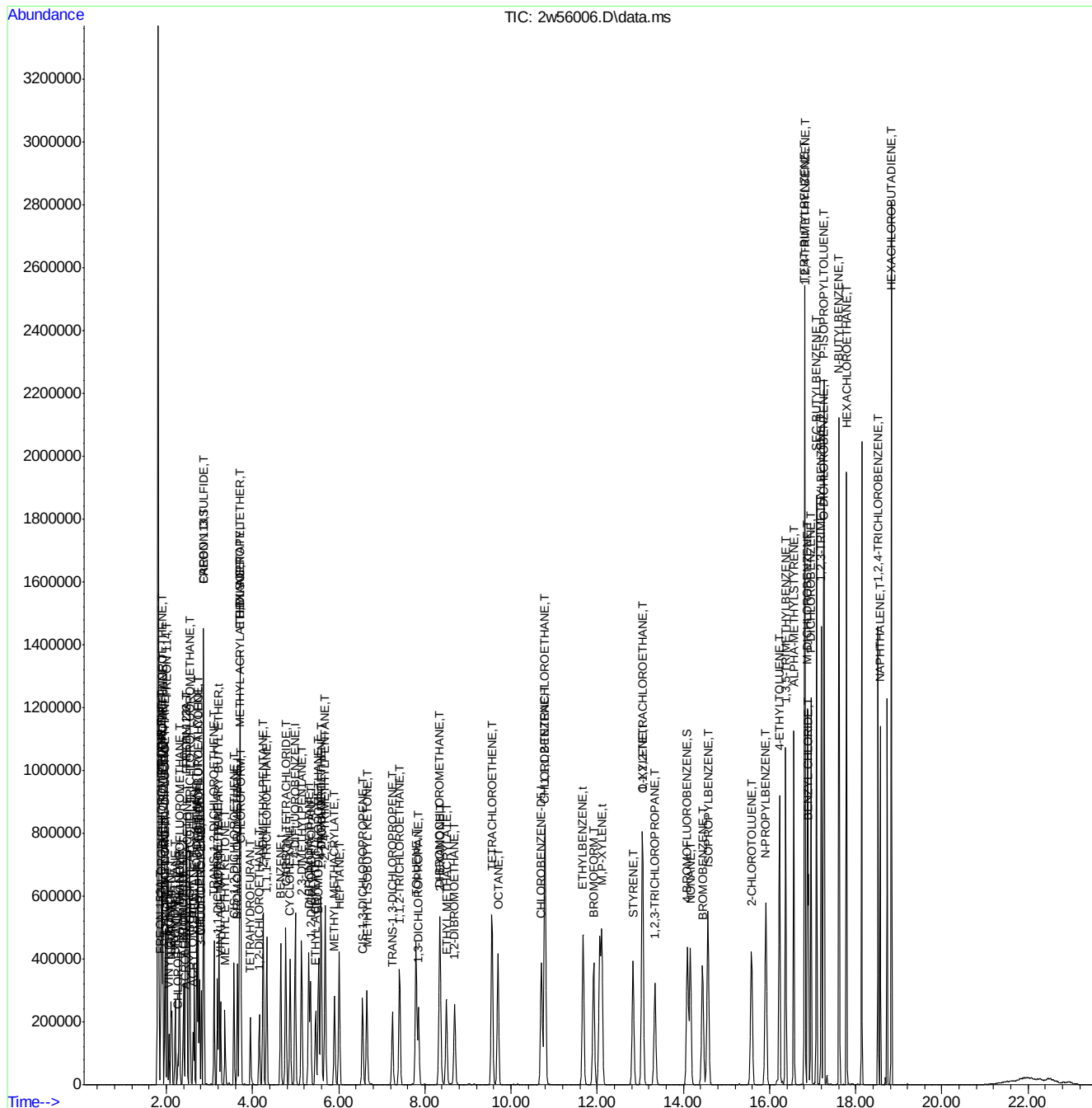
7.7.11

7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 2w56006.D
Acq On : 2 Nov 2021 7:58 am
Operator : thomash
Sample : cc2424-10
Misc : MS54715,V2w2495,,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 02 10:55:13 2021
Quant Method : C:\msdchem\1\METHODS\M2W2424.M
Quant Title : T015 by GCMS w/DB-1, 30m X 0.25mm ID X 0.5 um
QLast Update : Tue Jul 27 16:59:35 2021
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
 Data File : 2w56053.D
 Acq On : 4 Nov 2021 7:23 am
 Operator : thomash
 Sample : cc2424-10
 Misc : MS54687,V2w2497,,,,,1
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 04 12:18:24 2021
 Quant Method : C:\msdchem\1\METHODS\M2W2424.M
 Quant Title : T015 by GCMS w/DB-1, 30m X 0.25mm ID X 0.5 um
 QLast Update : Tue Jul 27 16:59:35 2021
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) BROMOCHLOROMETHANE	3.644	128	92311	10.00	PPBV	0.00
52) 1,4-DIFLUOROBENZENE	4.984	114	474122	10.00	PPBV	0.00
76) CHLOROBENZENE-D5	10.698	117	412399	10.00	PPBV	0.00
System Monitoring Compounds						
87) 4-BROMOFLUOROBENZENE	14.090	95	273016	9.42	PPBV	0.00
Target Compounds						
3) FREON 152A	1.866	65	82488	11.62	PPBV	Qvalue # 74
4) CHLORODIFLUOROMETHANE	1.882	67	32144	7.14	PPBV	98
5) CHLOROTRIFLUOROETHENE	1.898	116	208772	10.38	PPBV	# 99
6) DICHLORODIFLUOROMETHANE	1.917	85	409935	9.62	PPBV	# 96
7) PROPYLENE	1.894	41	79684	10.01	PPBV	89
8) 1-CHLORO-1,1-DIFLUORO...	1.968	65	249646	6.87	PPBV	# 93
9) FREON 114	2.013	85	352183	9.50	PPBV	99
10) CHLOROMETHANE	1.975	52	29697	10.25	PPBV	100
11) VINYL CHLORIDE	2.058	62	120917	10.48	PPBV	99
12) 1,3-BUTADIENE	2.107	54	84364	10.96	PPBV	# 77
13) N-BUTANE	2.126	43	137849	9.35	PPBV	# 96
14) BROMOMETHANE	2.206	94	132153	10.40	PPBV	97
15) CHLOROETHANE	2.271	64	66882	10.82	PPBV	# 86
16) DICHLOROFLUOROMETHANE	2.303	67	272999	9.03	PPBV	# 98
17) ACETONITRILE	2.386	41	72255	8.76	PPBV	95
18) ACROLEIN	2.431	56	49006	9.51	PPBV	97
19) FREON 123	2.448	83	288483	9.52	PPBV	96
20) FREON 123A	2.464	117	177574	9.19	PPBV	98
21) TRICHLOROFLUOROMETHANE	2.531	101	355535	7.89	PPBV	99
22) ISOPROPYL ALCOHOL	2.544	45	155809	7.78	PPBV	# 94
23) ACETONE	2.470	58	49334	9.11	PPBV	# 48
24) PENTANE	2.644	42	77833	8.96	PPBV	85
25) IODOMETHANE	2.702	142	349066	9.65	PPBV	88
26) 1,1-DICHLOROETHYLENE	2.727	96	118410	9.44	PPBV	82
27) CARBON DISULFIDE	2.859	76	297898	9.83	PPBV	# 90
28) ETHANOL	2.306	45	37378	8.62	PPBV	# 95
29) BROMOETHENE	2.396	106	126697	9.67	PPBV	# 97
30) ACRYLONITRILE	2.615	52	63258	8.96	PPBV	95
31) METHYLENE CHLORIDE	2.763	84	104950	9.16	PPBV	92
32) 3-CHLOROPROPENE	2.804	76	56104	10.49	PPBV	# 60
33) FREON 113	2.859	151	229605	9.13	PPBV	98
34) TRANS-1,2-DICHLOROETHENE	3.100	96	127354	9.91	PPBV	94
35) TERTIARY BUTYL ALCOHOL	2.734	59	195920	8.71	PPBV	# 94
36) METHYL TERTIARY BUTYL ...	3.213	73	312634	9.46	PPBV	97
37) TETRAHYDROFURAN	3.943	72	57973	11.15	PPBV	95
38) HEXANE	3.698	57	177413	10.67	PPBV	# 76
39) VINYL ACETATE	3.255	86	34003	11.05	PPBV	70
40) 1,1-DICHLOROETHANE	3.181	63	206292	9.92	PPBV	99
41) METHYL ETHYL KETONE	3.354	72	60351	10.55	PPBV	83
42) CIS-1,2-DICHLOROETHENE	3.563	96	138653	10.31	PPBV	93
43) DIISOPROPYL ETHER	3.698	59	53950	10.94	PPBV	94

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
 Data File : 2w56053.D
 Acq On : 4 Nov 2021 7:23 am
 Operator : thomash
 Sample : cc2424-10
 Misc : MS54687,V2w2497,,,,,1
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 04 12:18:24 2021
 Quant Method : C:\msdchem\1\METHODS\M2W2424.M
 Quant Title : T015 by GCMS w/DB-1, 30m X 0.25mm ID X 0.5 um
 QLast Update : Tue Jul 27 16:59:35 2021
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
44) ETHYL ACETATE	3.701	61	35962	12.09	PPBV #	47
45) METHYL ACRYLATE	3.695	55	215367	10.45	PPBV #	98
46) CHLOROFORM	3.721	83	269515	8.53	PPBV #	93
47) 2,4-DIMETHYLPENTANE	4.242	57	209526	10.74	PPBV	98
48) 1,1,1-TRICHLOROETHANE	4.325	97	274362	8.03	PPBV	97
49) CARBON TETRACHLORIDE	4.766	117	308830	8.15	PPBV	99
50) 1,2-DICHLOROETHANE	4.152	62	155386	7.14	PPBV #	97
51) BENZENE	4.650	78	391406	10.37	PPBV	94
53) CYCLOHEXANE	4.865	84	177033	10.10	PPBV	98
54) 2,3-DIMETHYLPENTANE	5.132	71	90659	10.91	PPBV	93
55) TRICHLOROETHENE	5.582	95	184929	9.27	PPBV	98
56) 1,2-DICHLOROPROPANE	5.345	63	139627	10.47	PPBV #	84
57) DIBROMOMETHANE	5.300	174	187474	8.49	PPBV	100
58) ETHYL ACRYLATE	5.457	55	261073	10.28	PPBV	99
59) BROMODICHLOROMETHANE	5.528	83	303825	8.26	PPBV	98
60) 2,2,4-TRIMETHYLPENTANE	5.682	57	572095	10.31	PPBV	99
61) 1,4-DIOXANE	5.586	88	88084	9.28	PPBV #	95
62) HEPTANE	6.007	43	170876	9.50	PPBV	93
63) METHYL METHACRYLATE	5.898	69	150326	10.98	PPBV #	80
64) METHYL ISOBUTYL KETONE	6.647	58	111319	10.35	PPBV	82
65) CIS-1,3-DICHLOROPROPENE	6.550	75	219488	9.86	PPBV #	80
66) TOLUENE	7.791	91	485158	9.61	PPBV	99
67) 1,3-DICHLOROPROPANE	7.846	76	236781	9.65	PPBV #	99
68) TRANS-1,3-DICHLOROPROPENE	7.245	75	189979	9.38	PPBV #	85
69) 1,1,2-TRICHLOROETHANE	7.409	83	141863	9.96	PPBV	95
70) 2-HEXANONE	8.357	58	138458	9.86	PPBV	81
71) ETHYL METHACRYLATE	8.496	69	235202	11.01	PPBV #	87
72) TETRACHLOROETHENE	9.553	164	201775	9.02	PPBV	99
73) DIBROMOCHLOROMETHANE	8.335	129	327064	8.85	PPBV	100
74) 1,2-DIBROMOETHANE	8.688	107	262072	9.50	PPBV	100
75) OCTANE	9.692	43	234350	9.25	PPBV	96
77) 1,1,1,2-TETRACHLOROETHANE	10.788	131	231745	9.08	PPBV	92
78) CHLOROBENZENE	10.782	112	400575	9.40	PPBV	97
79) ETHYLBENZENE	11.669	91	627274	9.21	PPBV	98
80) M, P-XYLENE	12.103	91	964121	18.33	PPBV #	98
81) O-XYLENE	13.048	91	492194	9.03	PPBV	95
82) STYRENE	12.827	104	377266	9.91	PPBV	95
83) NONANE	14.158	43	247099	9.20	PPBV	92
84) BROMOFORM	11.913	173	336617	9.69	PPBV	100
85) 1,1,2,2-TETRACHLOROETHANE	13.048	83	354622	10.69	PPBV	99
86) 1,2,3-TRICHLOROPROPANE	13.341	75	263518	9.07	PPBV	100
88) ISOPROPYLBENZENE	14.566	120	193980	9.70	PPBV	89
89) BROMOBENZENE	14.444	77	318662	9.00	PPBV	99
90) 2-CHLOROTOLUENE	15.585	126	173020	9.74	PPBV	99
91) N-PROPYLBENZENE	15.910	120	195798	10.10	PPBV	98
92) 4-ETHYLTOLUENE	16.228	105	696341	9.66	PPBV	97
93) 1,3,5-TRIMETHYLBENZENE	16.373	105	573899	9.16	PPBV	95
94) ALPHA-METHYLSTYRENE	16.563	118	298249	10.00	PPBV	98
95) TERT-BUTYLBENZENE	16.814	134	151071	10.22	PPBV	84
96) 1,2,4-TRIMETHYLBENZENE	16.820	105	590094	9.63	PPBV	98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
 Data File : 2w56053.D
 Acq On : 4 Nov 2021 7:23 am
 Operator : thomash
 Sample : cc2424-10
 Misc : MS54687,V2w2497,,,,,1
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 04 12:18:24 2021
 Quant Method : C:\msdchem\1\METHODS\M2W2424.M
 Quant Title : T015 by GCMS w/DB-1, 30m X 0.25mm ID X 0.5 um
 QLast Update : Tue Jul 27 16:59:35 2021
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
97) BENZYL CHLORIDE	16.904	91	368449	12.53	PPBV	96
98) M-DICHLOROBENZENE	16.881	146	399123	9.36	PPBV	98
99) P-DICHLOROBENZENE	16.961	146	396451	9.43	PPBV	97
100) O-DICHLOROBENZENE	17.251	146	375908	9.85	PPBV	97
101) SEC-BUTYLBENZENE	17.087	134	185305	10.04	PPBV	85
102) 1,2,3-TRIMETHYLBENZENE	17.196	105	570317	9.34	PPBV	95
103) P-ISOPROPYLTOLUENE	17.264	134	201086	10.28	PPBV	85
104) N-BUTYLBENZENE	17.608	134	180474	9.91	PPBV	93
105) HEXACHLOROETHANE	17.788	117	262028	10.31	PPBV	98
106) HEXACHLOROBUTADIENE	18.826	225	276880	9.68	PPBV	100
107) 1,2,4-TRICHLOROBENZENE	18.518	180	255587	8.89	PPBV	98
108) NAPHTHALENE	18.566	128	527416	8.90	PPBV	100

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

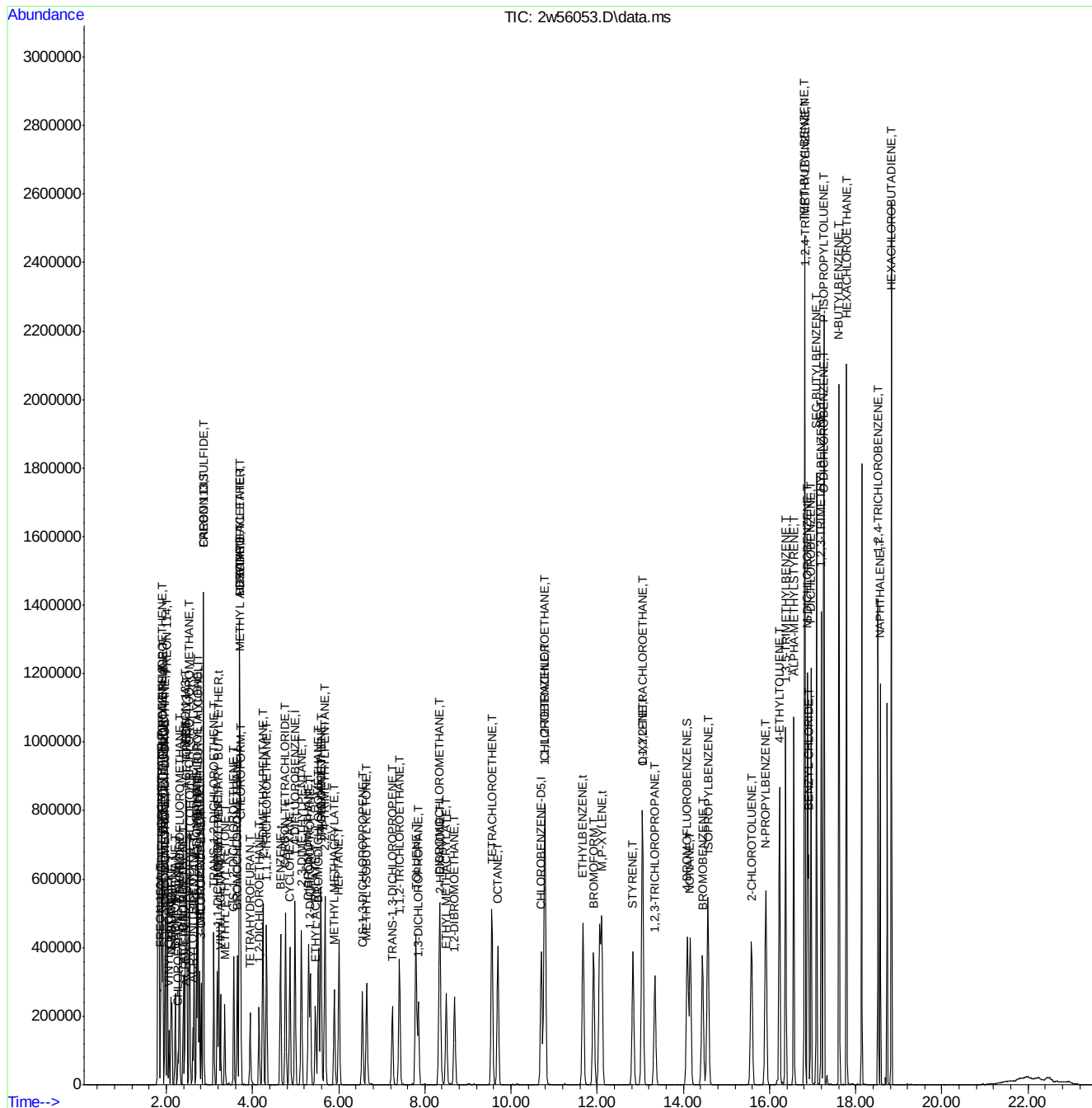
7.7.12

7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 2w56053.D
Acq On : 4 Nov 2021 7:23 am
Operator : thomash
Sample : cc2424-10
Misc : MS54687,V2w2497,,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 04 12:18:24 2021
Quant Method : C:\msdchem\1\METHODS\M2W2424.M
Quant Title : T015 by GCMS w/DB-1, 30m X 0.25mm ID X 0.5 um
QLast Update : Tue Jul 27 16:59:35 2021
Response via : Initial Calibration



7.7.12

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
 Data File : 5w46126.D
 Acq On : 4 Nov 2021 10:43 am
 Operator : danat
 Sample : ic1909-0.5
 Misc : ms54715,v5w1909,,,,,1
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Nov 04 13:52:19 2021
 Quant Method : C:\msdchem\1\methods\m5w1909.M
 Quant Title : T0-15 Full Scan Mode
 QLast Update : Thu Nov 04 14:50:49 2021
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) Bromochloromethane	11.415	130	196189	10.00	ppb(v	-0.10
53) 1,4-Difluorobenzene	13.611	114	724158	10.00	ppb(v	-0.10
76) Chlorobenzene-d5	18.878	82	295359	10.00	ppb(v	-0.10
108) Bromochloromethane (A)	11.415	130	196189	10.00	ppb(v	-0.10

System Monitoring Compounds						
90) 4-Bromofluorobenzene	20.842	95	404755	9.51	ppb(v	-0.08
Spiked Amount	10.000	Range	65 - 128	Recovery	=	95.10%

Target Compounds						Qvalue
2) Freon 152A	4.398	65	5121	0.50	ppb(v	88
3) Chlorodifluoromethane	4.471	67	2511	0.50	ppb(v	86
4) Propene	4.300	41	4908	0.56	ppb(v#	90
5) Chlorotrifluoroethene	4.349	116	15591	0.49	ppb(v	95
6) Dichlorodifluoromethane	4.391	85	31855	0.50	ppb(v	99
7) 1-Chloro-1,1-difluoro...	4.808	65	18730	0.48	ppb(v	97
8) Chloromethane	4.808	50	6555	0.51	ppb(v	99
9) Dichlorotetrafluoroethane	4.697	85	28161	0.50	ppb(v	99
10) Vinyl Chloride	5.022	62	8350	0.51	ppb(v#	96
11) 1,3-Butadiene	5.077	54	4587	0.49	ppb(v	97
12) n-Butane	4.905	58	1165	0.50	ppb(v#	70
13) Bromomethane	5.750	94	7149	0.51	ppb(v	95
14) Chloroethane	6.049	64	3863	0.51	ppb(v	96
15) Dichlorofluoromethane	6.502	67	19933	0.51	ppb(v	97
16) Acetonitrile	9.543	41	5011	0.57	ppb(v#	91
17) Freon 123	7.609	83	22263	0.52	ppb(v	98
18) Freon 123A	7.481	117	13412	0.50	ppb(v	97
19) Bromoethene	6.306	106	10396	0.48	ppb(v#	95
20) Acrolein	8.136	56	2417	0.41	ppb(v#	95
21) Trichlorofluoromethane	6.392	101	28915	0.48	ppb(v	99
22) Acetone	8.711	58	3657	0.61	ppb(v	76
23) Pentane	6.410	57	1909	0.53	ppb(v	89
24) Iodomethane	7.750	142	34990	0.47	ppb(v	100
25) Isopropyl Alcohol	8.509	43	2177	0.50	ppb(v	59
26) 1,1-Dichloroethene	7.475	61	13522	0.50	ppb(v	94
27) Freon 113	7.591	101	24318	0.50	ppb(v	95
28) Methylene Chloride	8.631	84	9930	0.58	ppb(v	98
29) Carbon Disulfide	7.530	76	24991	0.50	ppb(v	100
30) Ethanol	7.383	45	2713	0.57	ppb(v#	85
31) Acrylonitrile	10.142	53	5526	0.56	ppb(v	93
32) 3-Chloropropene	8.435	76	4149	0.48	ppb(v	95
33) trans-1,2-Dichloroethene	8.974	61	11902	0.49	ppb(v	96
34) tert-Butyl Alcohol	9.371	59	14241	0.44	ppb(v	92
35) Methyl tert-Butyl Ether	9.218	73	26999	0.53	ppb(v#	79
36) Vinyl Acetate	10.570	43	15400	0.51	ppb(v	98
37) 1,1-Dichloroethane	10.099	63	15385	0.51	ppb(v	100
38) 2-Butanone	12.069	72	3474	0.45	ppb(v	97
39) Hexane	9.176	56	6858	0.54	ppb(v	75
40) cis-1,2-Dichloroethene	11.078	61	11746	0.50	ppb(v	97
41) Di-isopropyl Ether	9.940	87	7727	0.50	ppb(v	94
42) Ethyl Acetate	11.763	61	2102	0.46	ppb(v	87
43) Methyl Acrylate	11.782	55	11948	0.48	ppb(v	98
44) Chloroform	11.555	83	22534	0.49	ppb(v	98
45) 2,4-Dimethylpentane	10.240	57	14346	0.53	ppb(v	98
46) Tetrahydrofuran	11.867	72	3973	0.48	ppb(v	94
47) 1,1,1-Trichloroethane	11.935	97	23761	0.50	ppb(v	99
48) 1,2-Dichloroethane	12.895	62	12396	0.49	ppb(v	94

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
 Data File : 5w46126.D
 Acq On : 4 Nov 2021 10:43 am
 Operator : danat
 Sample : ic1909-0.5
 Misc : ms54715,v5w1909,,,,,1
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Nov 04 13:52:19 2021
 Quant Method : C:\msdchem\1\methods\m5w1909.M
 Quant Title : T0-15 Full Scan Mode
 QLast Update : Thu Nov 04 14:50:49 2021
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
49) Benzene	12.583	78	29596	0.53	ppb(v	98
50) Carbon Tetrachloride	11.837	117	26135	0.47	ppb(v	98
51) Cyclohexane	11.488	56	11933	0.53	ppb(v	95
52) 2,3-Dimethylpentane	11.665	71	5733	0.50	ppb(v	89
54) 2,2,4-Trimethylpentane	12.381	57	37361	0.51	ppb(v	98
55) Heptane	12.559	71	8745	0.52	ppb(v	96
56) Trichloroethene	13.599	97	9658	0.48	ppb(v#	67
57) 1,2-Dichloropropane	14.473	63	9598	0.52	ppb(v	98
58) Dibromomethane	14.314	174	18618	0.48	ppb(v	96
59) Ethyl Acrylate	14.492	55	16384	0.48	ppb(v#	89
60) Methyl Methacrylate	14.847	69	8884	0.46	ppb(v	93
61) 1,4-Dioxane	14.926	88	6299	0.45	ppb(v	93
62) Bromodichloromethane	14.584	83	23599	0.48	ppb(v	99
63) cis-1,3-Dichloropropene	15.697	75	16627	0.48	ppb(v	99
64) 4-Methyl-2-pentanone	16.762	58	6788	0.46	ppb(v	97
65) trans-1,3-Dichloropropene	16.847	75	15734	0.50	ppb(v	99
66) Toluene	16.137	91	38493	0.50	ppb(v	99
67) 1,1,2-Trichloroethane	17.141	97	13635	0.49	ppb(v	91
68) 1,3-Dichloropropane	17.642	76	15626	0.48	ppb(v#	90
69) 2-Hexanone	18.303	43	14832	0.51	ppb(v	91
70) Ethyl Methacrylate	17.129	69	14314	0.45	ppb(v#	49
71) Dibromochloromethane	17.490	129	27739	0.44	ppb(v	98
72) Tetrachloroethene	16.866	166	26439	0.48	ppb(v	97
73) 1,2-Dibromoethane	17.936	107	23512	0.49	ppb(v	96
74) Octane	15.832	43	15651	0.51	ppb(v	92
75) 1,1,1,2-Tetrachloroethane	19.019	131	19713	0.46	ppb(v	98
77) Chlorobenzene	18.915	112	32184	0.49	ppb(v	95
78) Ethylbenzene	18.964	91	47217	0.49	ppb(v	98
79) m,p-Xylene	19.215	91	72816	0.98	ppb(v	99
80) Styrene	20.010	104	27730	0.47	ppb(v	95
81) Nonane	18.799	43	15397	0.50	ppb(v	96
82) o-Xylene	19.930	91	37594	0.49	ppb(v	98
83) Bromoform	20.059	173	30496	0.45	ppb(v	99
84) 1,1,2,2-Tetrachloroethane	21.105	83	27054	0.50	ppb(v	98
85) 1,2,3-Trichloropropane	21.301	75	21757	0.54	ppb(v	99
86) Isopropylbenzene	20.426	105	54718	0.49	ppb(v	98
87) Bromobenzene	21.013	156	21057	0.47	ppb(v	98
88) 2-Chlorotoluene	21.270	126	14376	0.48	ppb(v	98
89) n-Propylbenzene	21.038	120	14717	0.48	ppb(v	97
91) 4-Ethyltoluene	21.191	105	49129	0.47	ppb(v	99
92) 1,3,5-Trimethylbenzene	21.307	105	41793	0.49	ppb(v	95
93) alpha-Methylstyrene	21.656	118	19987	0.44	ppb(v	97
94) tert-Butylbenzene	21.754	134	9904	0.48	ppb(v	96
95) 1,2,4-Trimethylbenzene	21.839	105	38053	0.46	ppb(v	98
96) 1,3-Dichlorobenzene	22.286	146	29253	0.45	ppb(v	98
97) 1,2,3-trimethylbenzene	22.414	105	37194	0.46	ppb(v	97
98) Benzyl Chloride	22.690	126	6794	0.42	ppb(v	83
99) 1,4-Dichlorobenzene	22.396	146	28234m	0.44	ppb(v	
100) sec-Butylbenzene	21.992	134	12612	0.50	ppb(v	98
101) p-Isopropyltoluene	22.170	134	13180	0.48	ppb(v	94
102) 1,2-Dichlorobenzene	22.916	146	26330	0.45	ppb(v	98
103) n-Butylbenzene	22.702	134	10089	0.44	ppb(v	96
104) Hexachloroethane	22.910	201	20359	0.50	ppb(v	94
105) 1,2,4-Trichlorobenzene	24.721	180	8967	0.38	ppb(v	96
106) Naphthalene	25.149	128	17123	0.44	ppb(v	99
107) Hexachlorobutadiene	24.672	225	18206	0.51	ppb(v	95
109) TVHC as equiv Pentane	6.398	TIC	89685	0.47	ppb(v	100

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 5w46126.D
Acq On : 4 Nov 2021 10:43 am
Operator : danat
Sample : ic1909-0.5
Misc : ms54715,v5w1909,,,,,1
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Nov 04 13:52:19 2021
Quant Method : C:\msdchem\1\methods\m5w1909.M
Quant Title : T0-15 Full Scan Mode
QLast Update : Thu Nov 04 14:50:49 2021
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

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

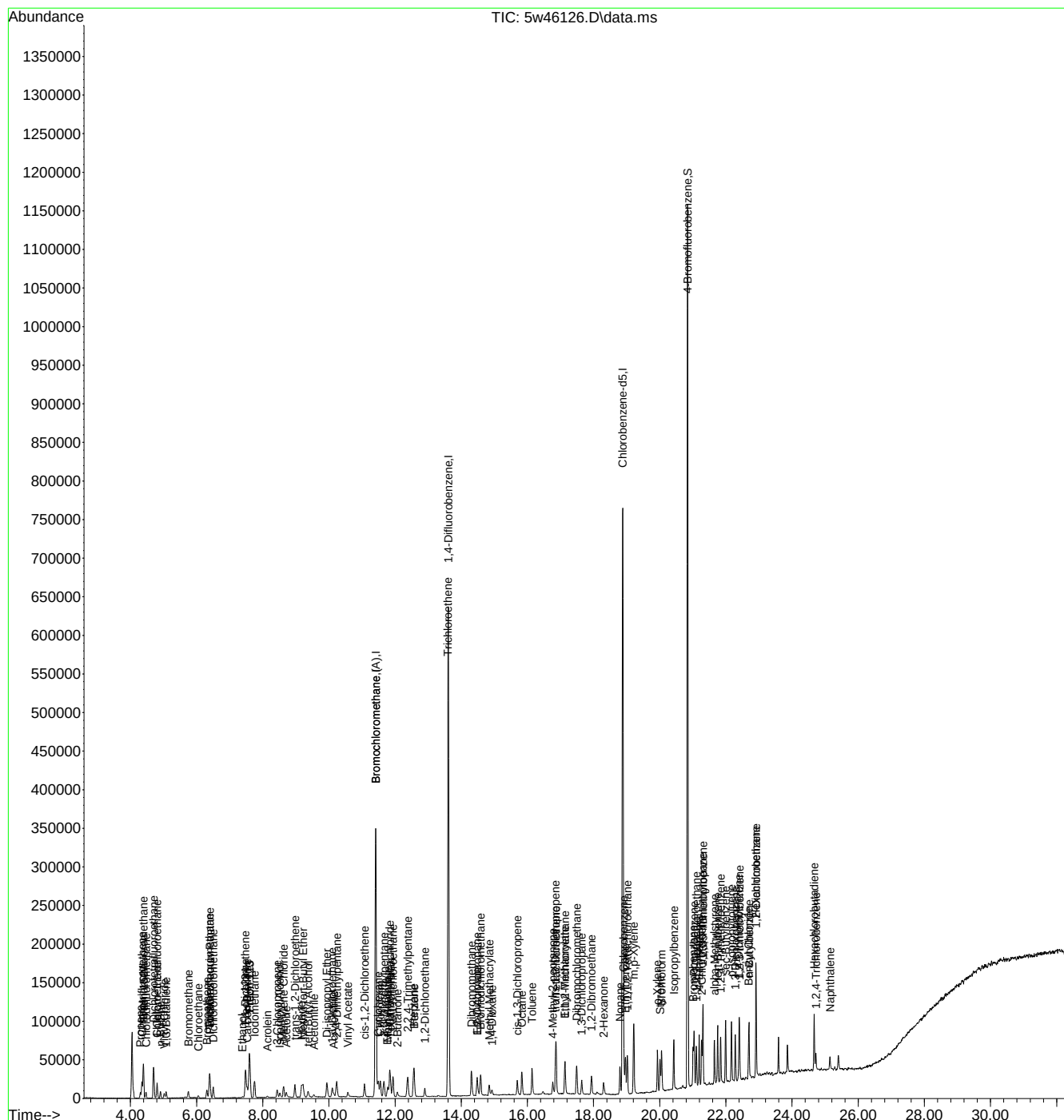
7.7.13

7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 5w46126.D
Acq On : 4 Nov 2021 10:43 am
Operator : danat
Sample : ic1909-0.5
Misc : ms54715,v5w1909,,,,,1
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Nov 04 13:52:19 2021
Quant Method : C:\msdchem\1\methods\m5w1909.M
Quant Title : T0-15 Full Scan Mode
QLast Update : Thu Nov 04 14:50:49 2021
Response via : Initial Calibration



7.7.13



Manual Integration Approval Summary

Sample Number:

V5W1909-IC1909

Method:

TO-15

Lab FileID:

5W46126.D

Analyst approved:

11/08/21 09:56 Dana Tryon

Injection Time:

11/04/21 10:43

Supervisor approved:

11/09/21 10:39 Dana Tryon

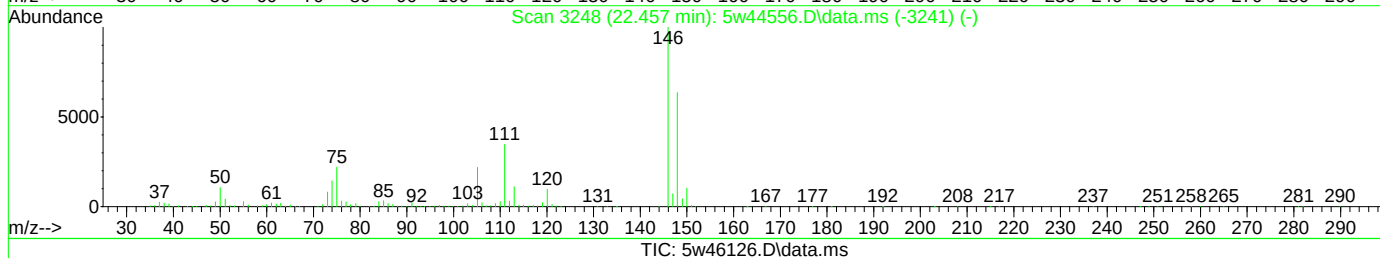
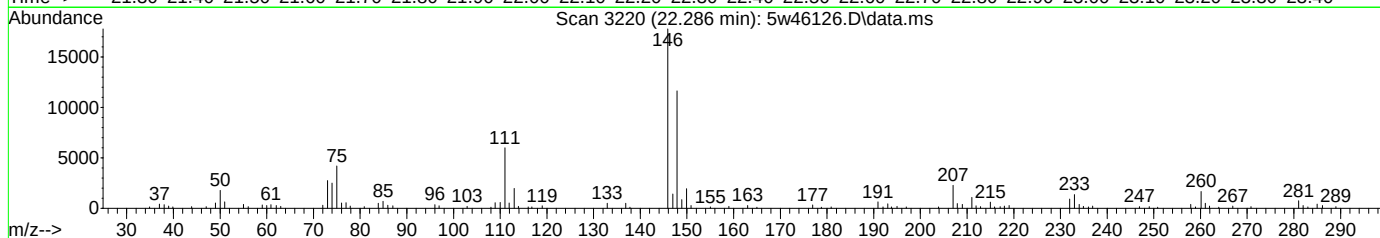
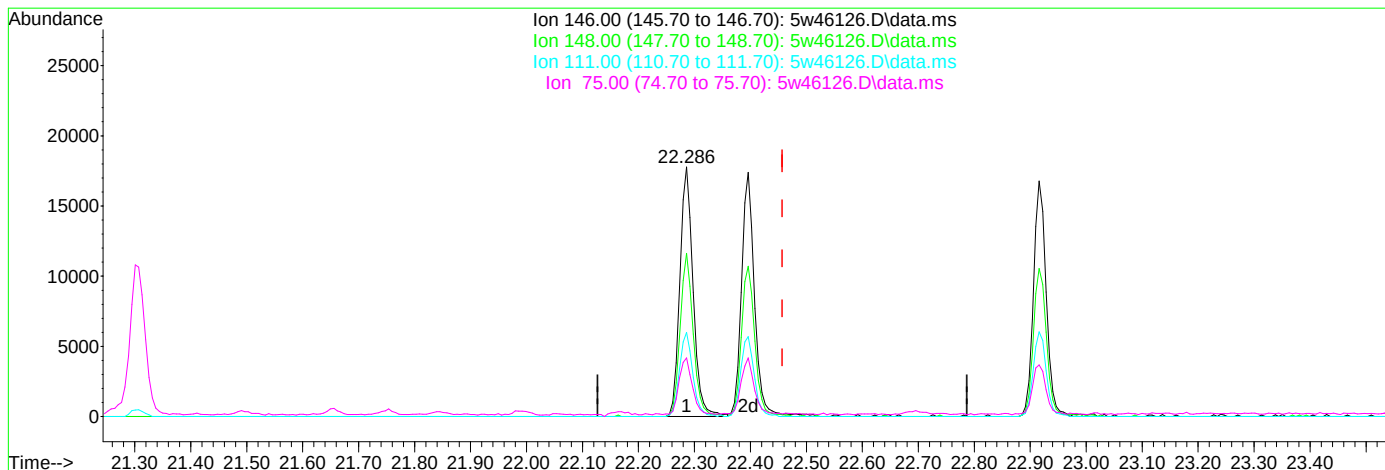
Parameter	CAS	Sig#	R.T. (min.)	Reason
p-Dichlorobenzene	106-46-7		22.40	Missed peak

7.7.13.1
7

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\
Data File : 5w46126.D
Acq On : 4 Nov 2021 10:43 am
Operator : danat
Sample : ic1909-0.5
Misc : ms54715,v5w1909,,,,,1
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Nov 04 14:51:00 2021
Quant Method : C:\msdchem\1\methods\m5w1909.M
Quant Title : T0-15 Full Scan Mode
QLast Update : Thu Nov 04 14:50:49 2021
Response via : Initial Calibration



(99) 1,4-Dichlorobenzene

22.286min (-0.171) 0.46ppb(v)

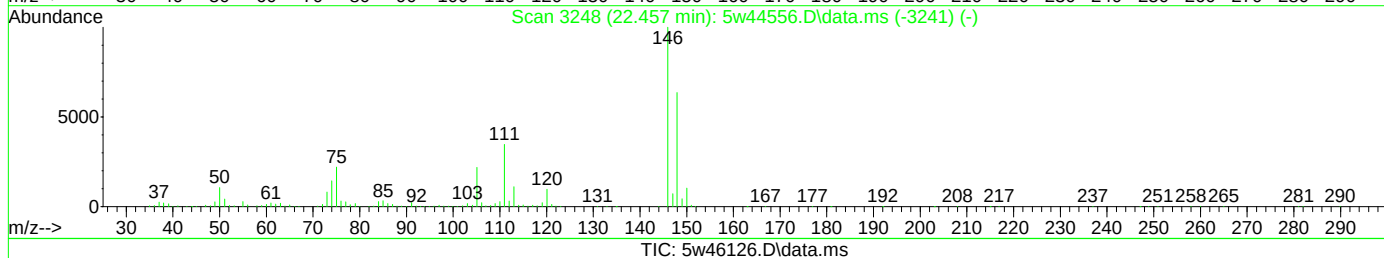
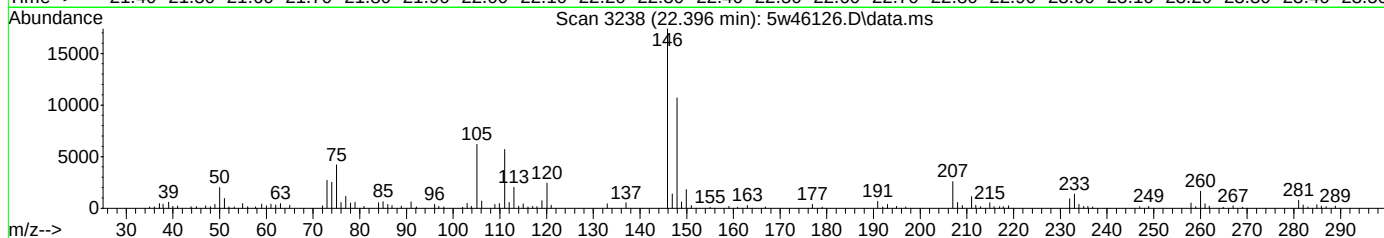
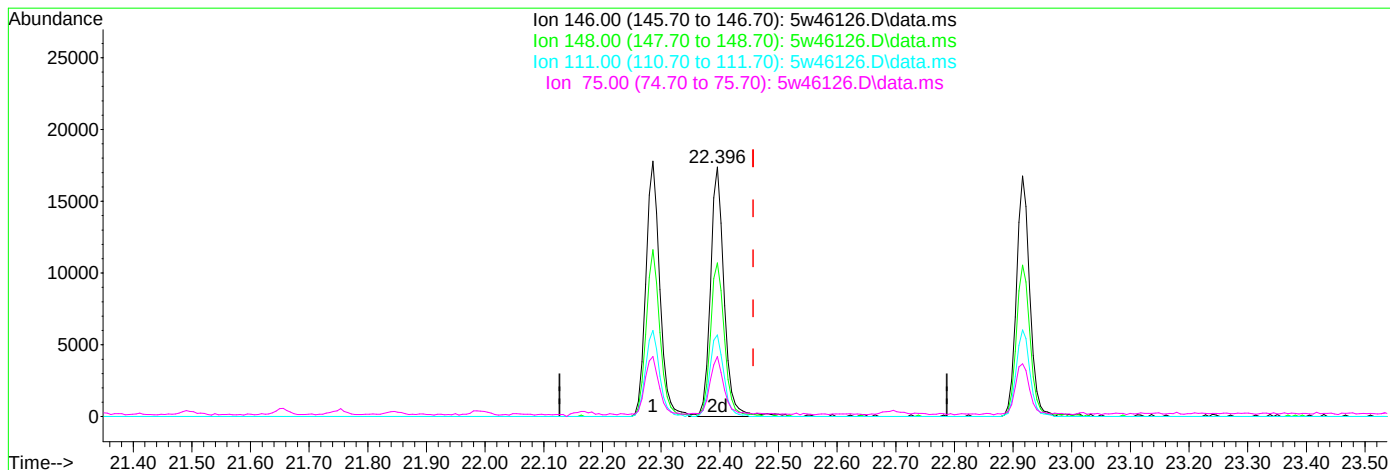
response 29253

Ion	Exp%	Act%
146.00	100	100
148.00	63.60	65.33
111.00	34.60	33.75
75.00	22.10	23.50

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\
Data File : 5w46126.D
Acq On : 4 Nov 2021 10:43 am
Operator : danat
Sample : ic1909-0.5
Misc : ms54715,v5w1909,,,,,1
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Nov 04 14:52:19 2021
Quant Method : C:\msdchem\1\methods\m5w1909.M
Quant Title : T0-15 Full Scan Mode
QLast Update : Thu Nov 04 14:50:49 2021
Response via : Initial Calibration



(99) 1,4-Dichlorobenzene

22.396min (-0.061) 0.44ppb(v) m

response 28234

Ion	Exp%	Act%
146.00	100	100
148.00	63.60	61.56
111.00	34.60	32.75
75.00	22.10	24.07

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
 Data File : 5w46127.D
 Acq On : 4 Nov 2021 11:32 am
 Operator : danat
 Sample : ic1909-0.2
 Misc : ms54715,v5w1909,,,,,1
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Nov 04 13:56:17 2021
 Quant Method : C:\msdchem\1\methods\m5w1909.M
 Quant Title : T0-15 Full Scan Mode
 QLast Update : Thu Nov 04 14:52:58 2021
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) Bromochloromethane	11.415	130	194426	10.00	ppb(v	-0.10
53) 1,4-Difluorobenzene	13.611	114	714925	10.00	ppb(v	-0.10
76) Chlorobenzene-d5	18.884	82	284712	10.00	ppb(v	-0.10
108) Bromochloromethane (A)	11.415	130	194426	10.00	ppb(v	-0.10

System Monitoring Compounds						
90) 4-Bromofluorobenzene	20.842	95	385778	9.64	ppb(v	-0.08
Spiked Amount 10.000	Range 65 - 128		Recovery	=	96.40%	

Target Compounds					Qvalue
2) Freon 152A	4.392	65	1954	0.19	ppb(v 89
3) Chlorodifluoromethane	4.465	67	1033	0.21	ppb(v 89
4) Propene	4.294	41	2226	0.24	ppb(v 89
5) Chlorotrifluoroethene	4.349	116	6462	0.21	ppb(v 99
6) Dichlorodifluoromethane	4.385	85	12773	0.20	ppb(v 98
7) 1-Chloro-1,1-difluoro...	4.808	65	7839	0.21	ppb(v 97
8) Chloromethane	4.808	50	2940	0.23	ppb(v 90
9) Dichlorotetrafluoroethane	4.704	85	11841	0.21	ppb(v 95
10) Vinyl Chloride	5.022	62	3155	0.19	ppb(v# 98
11) 1,3-Butadiene	5.077	54	1859	0.20	ppb(v 97
12) n-Butane	4.899	58	400	0.17	ppb(v# 67
13) Bromomethane	5.750	94	2990	0.21	ppb(v 90
14) Chloroethane	6.049	64	1482	0.19	ppb(v# 94
15) Dichlorofluoromethane	6.502	67	8087	0.21	ppb(v# 91
16) Acetonitrile	9.555	41	1867	0.20	ppb(v 87
17) Freon 123	7.597	83	9351	0.22	ppb(v 96
18) Freon 123A	7.475	117	5582	0.21	ppb(v 92
19) Bromoethene	6.306	106	4251	0.20	ppb(v 95
20) Acrolein	8.148	56	809	0.15	ppb(v# 91
21) Trichlorofluoromethane	6.392	101	11963	0.21	ppb(v 94
22) Acetone	8.729	58	1468	0.22	ppb(v 95
23) Pentane	6.404	57	808	0.22	ppb(v 67
24) Iodomethane	7.750	142	14603	0.20	ppb(v 94
25) Isopropyl Alcohol	8.527	43	773	0.18	ppb(v# 62
26) 1,1-Dichloroethene	7.481	61	5655	0.21	ppb(v 96
27) Freon 113	7.597	101	10069	0.21	ppb(v 97
28) Methylene Chloride	8.631	84	4633	0.25	ppb(v 96
29) Carbon Disulfide	7.530	76	9922	0.20	ppb(v 99
30) Ethanol	7.395	45	957	0.19	ppb(v# 82
31) Acrylonitrile	10.161	53	1978	0.19	ppb(v 95
32) 3-Chloropropene	8.442	76	1571	0.19	ppb(v 94
33) trans-1,2-Dichloroethene	8.974	61	4707	0.20	ppb(v 93
34) tert-Butyl Alcohol	9.378	59	5675	0.19	ppb(v 97
35) Methyl tert-Butyl Ether	9.231	73	11988	0.23	ppb(v# 72
36) Vinyl Acetate	10.583	43	6362	0.21	ppb(v 95
37) 1,1-Dichloroethane	10.099	63	6100	0.20	ppb(v# 89
38) 2-Butanone	12.088	72	1113	0.15	ppb(v 95
39) Hexane	9.170	56	2648	0.20	ppb(v 75
40) cis-1,2-Dichloroethene	11.078	61	4737	0.20	ppb(v 89
41) Di-isopropyl Ether	9.946	87	3092	0.20	ppb(v 84
42) Ethyl Acetate	11.788	61	625	0.14	ppb(v# 95
43) Methyl Acrylate	11.800	55	4531	0.19	ppb(v 97
44) Chloroform	11.549	83	8968	0.20	ppb(v 99
45) 2,4-Dimethylpentane	10.234	57	5681	0.21	ppb(v 99
46) Tetrahydrofuran	11.867	72	1495	0.19	ppb(v 85
47) 1,1,1-Trichloroethane	11.935	97	9970	0.21	ppb(v 97
48) 1,2-Dichloroethane	12.901	62	4844	0.19	ppb(v 99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
 Data File : 5w46127.D
 Acq On : 4 Nov 2021 11:32 am
 Operator : danat
 Sample : ic1909-0.2
 Misc : ms54715,v5w1909,,,,,1
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Nov 04 13:56:17 2021
 Quant Method : C:\msdchem\1\methods\m5w1909.M
 Quant Title : T0-15 Full Scan Mode
 QLast Update : Thu Nov 04 14:52:58 2021
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
49) Benzene	12.583	78	12725	0.22	ppb(v	98
50) Carbon Tetrachloride	11.843	117	10410	0.20	ppb(v	95
51) Cyclohexane	11.494	56	4762	0.21	ppb(v	97
52) 2,3-Dimethylpentane	11.672	71	2334	0.21	ppb(v	81
54) 2,2,4-Trimethylpentane	12.381	57	15533	0.21	ppb(v	93
55) Heptane	12.559	71	3457	0.20	ppb(v	93
56) Trichloroethene	13.599	97	4091	0.21	ppb(v#	20
57) 1,2-Dichloropropane	14.480	63	3798	0.20	ppb(v#	87
58) Dibromomethane	14.315	174	8195	0.22	ppb(v	93
59) Ethyl Acrylate	14.516	55	5877	0.18	ppb(v#	59
60) Methyl Methacrylate	14.853	69	3145	0.17	ppb(v	93
61) 1,4-Dioxane	14.945	88	2383	0.18	ppb(v#	89
62) Bromodichloromethane	14.590	83	9248	0.19	ppb(v	95
63) cis-1,3-Dichloropropene	15.697	75	7113	0.21	ppb(v	98
64) 4-Methyl-2-pentanone	16.774	58	2515	0.18	ppb(v	94
65) trans-1,3-Dichloropropene	16.853	75	6620m	0.21	ppb(v	
66) Toluene	16.144	91	15698	0.21	ppb(v	97
67) 1,1,2-Trichloroethane	17.141	97	5915	0.22	ppb(v	95
68) 1,3-Dichloropropane	17.649	76	6492	0.21	ppb(v#	80
69) 2-Hexanone	18.315	43	5854	0.20	ppb(v	92
70) Ethyl Methacrylate	17.141	69	5360	0.18	ppb(v#	23
71) Dibromochloromethane	17.490	129	11207	0.19	ppb(v#	92
72) Tetrachloroethene	16.872	166	11205	0.21	ppb(v	97
73) 1,2-Dibromoethane	17.942	107	9220	0.20	ppb(v	99
74) Octane	15.838	43	6129	0.20	ppb(v	95
75) 1,1,1,2-Tetrachloroethane	19.025	131	8275	0.20	ppb(v	99
77) Chlorobenzene	18.915	112	13064	0.21	ppb(v	91
78) Ethylbenzene	18.964	91	19375	0.21	ppb(v#	97
79) m,p-Xylene	19.215	91	29821	0.42	ppb(v	98
80) Styrene	20.016	104	11102	0.20	ppb(v	93
81) Nonane	18.805	43	5939	0.20	ppb(v	95
82) o-Xylene	19.937	91	15329	0.21	ppb(v#	95
83) Bromoform	20.059	173	12220	0.20	ppb(v	96
84) 1,1,2,2-Tetrachloroethane	21.105	83	10877	0.21	ppb(v	98
85) 1,2,3-Trichloropropane	21.307	75	8513	0.21	ppb(v	93
86) Isopropylbenzene	20.426	105	22639	0.21	ppb(v#	95
87) Bromobenzene	21.013	156	8683	0.21	ppb(v	95
88) 2-Chlorotoluene	21.270	126	5865	0.21	ppb(v	92
89) n-Propylbenzene	21.044	120	5681	0.20	ppb(v	90
91) 4-Ethyltoluene	21.197	105	19190	0.20	ppb(v#	95
92) 1,3,5-Trimethylbenzene	21.307	105	16635	0.20	ppb(v#	90
93) alpha-Methylstyrene	21.656	118	7627	0.18	ppb(v	95
94) tert-Butylbenzene	21.754	134	4226	0.22	ppb(v	99
95) 1,2,4-Trimethylbenzene	21.845	105	14511	0.19	ppb(v#	96
96) 1,3-Dichlorobenzene	22.286	146	11172	0.19	ppb(v#	92
97) 1,2,3-trimethylbenzene	22.408	105	14171	0.19	ppb(v#	96
98) Benzyl Chloride	22.696	126	2545	0.18	ppb(v	79
99) 1,4-Dichlorobenzene	22.396	146	11071m	0.19	ppb(v	
100) sec-Butylbenzene	21.992	134	4716	0.19	ppb(v	89
101) p-Isopropyltoluene	22.170	134	5231	0.20	ppb(v	95
102) 1,2-Dichlorobenzene	22.922	146	10473	0.19	ppb(v	96
103) n-Butylbenzene	22.708	134	4140	0.20	ppb(v	94
104) Hexachloroethane	22.910	201	8187	0.21	ppb(v	99
105) 1,2,4-Trichlorobenzene	24.721	180	3279	0.16	ppb(v#	94
106) Naphthalene	25.149	128	7281	0.21	ppb(v	97
107) Hexachlorobutadiene	24.666	225	7476	0.21	ppb(v#	84
109) TVHC as equiv Pentane	6.392	TIC	37638m	0.21	ppb(v	

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 5w46127.D
Acq On : 4 Nov 2021 11:32 am
Operator : danat
Sample : ic1909-0.2
Misc : ms54715,v5w1909,,,,,1
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Nov 04 13:56:17 2021
Quant Method : C:\msdchem\1\methods\m5w1909.M
Quant Title : T0-15 Full Scan Mode
QLast Update : Thu Nov 04 14:52:58 2021
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

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

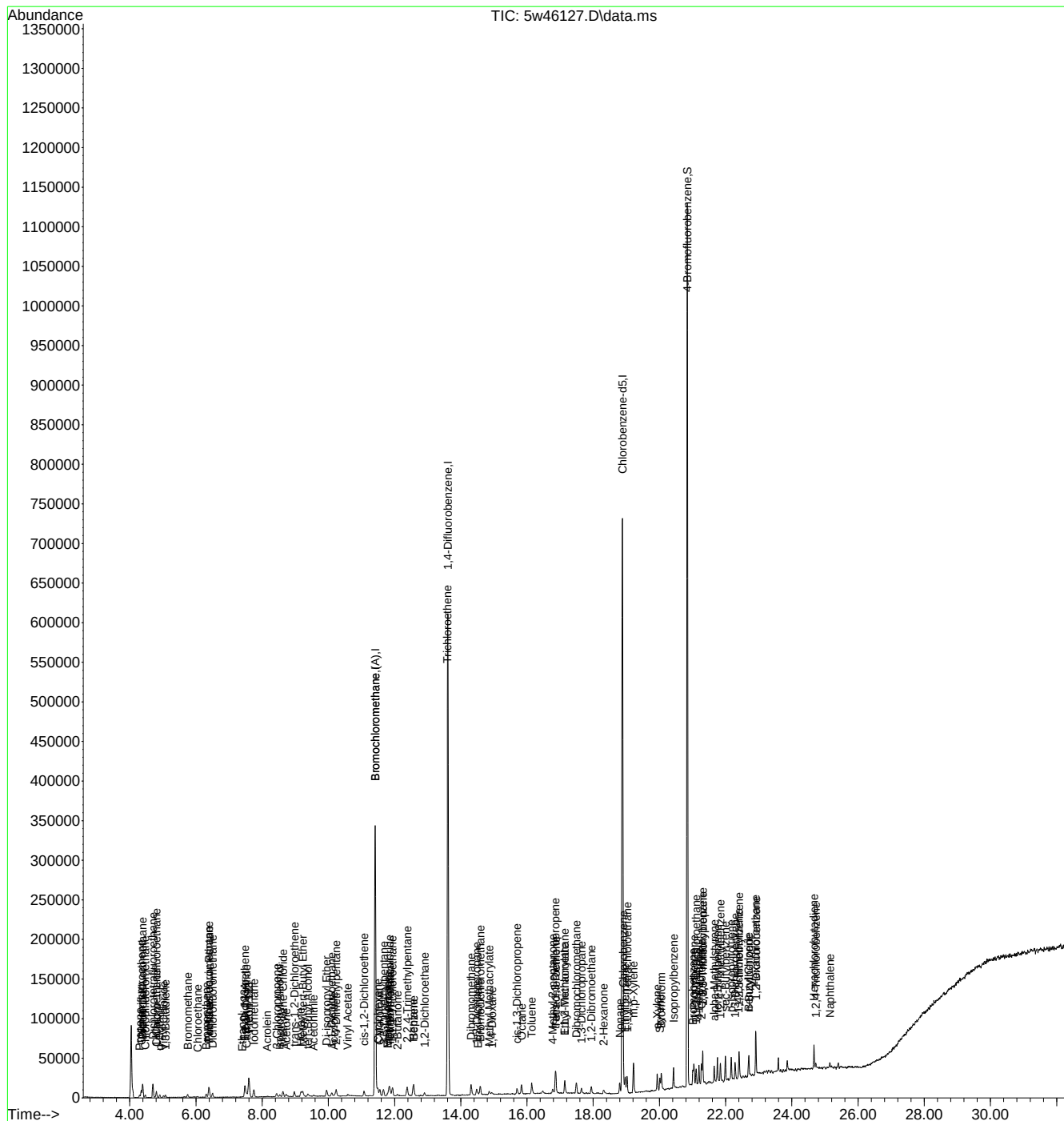
7.7.14

7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 5w46127.D
Acq On : 4 Nov 2021 11:32 am
Operator : danat
Sample : ic1909-0.2
Misc : ms54715,v5w1909,,,,,1
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Nov 04 13:56:17 2021
Quant Method : C:\msdchem\1\methods\m5w1909.M
Quant Title : T0-15 Full Scan Mode
QLast Update : Thu Nov 04 14:52:58 2021
Response via : Initial Calibration



7.7.14



Manual Integration Approval Summary

Sample Number:

V5W1909-IC1909

Method:

TO-15

Lab FileID:

5W46127.D

Analyst approved:

11/08/21 09:56 Dana Tryon

Injection Time:

11/04/21 11:32

Supervisor approved:

11/09/21 10:39 Dana Tryon

Parameter	CAS	Sig#	R.T. (min.)	Reason

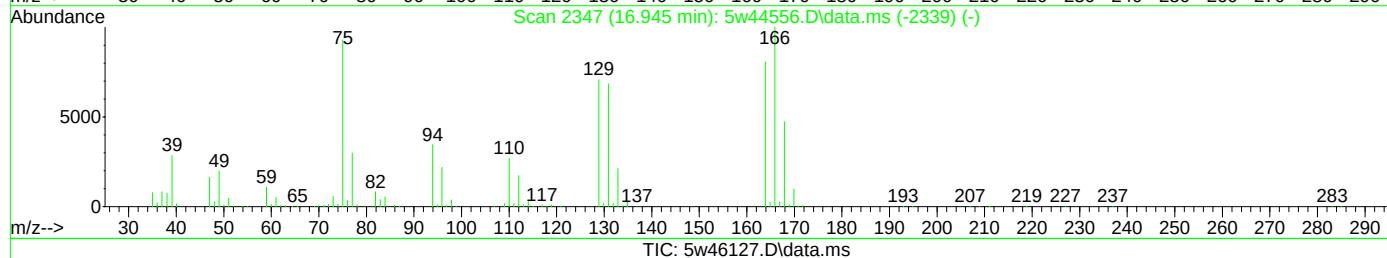
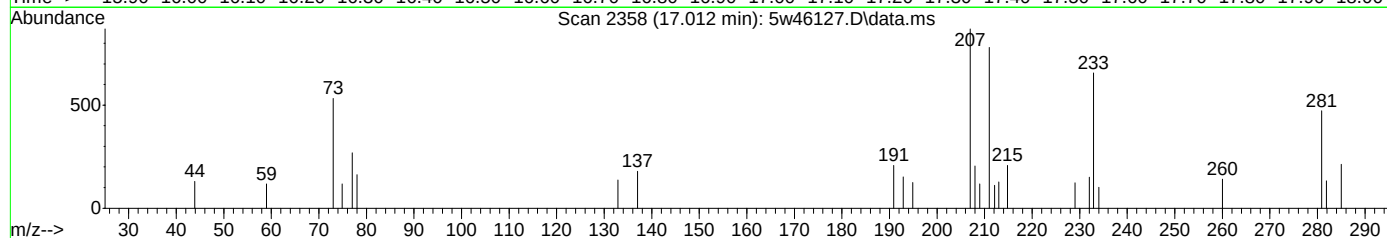
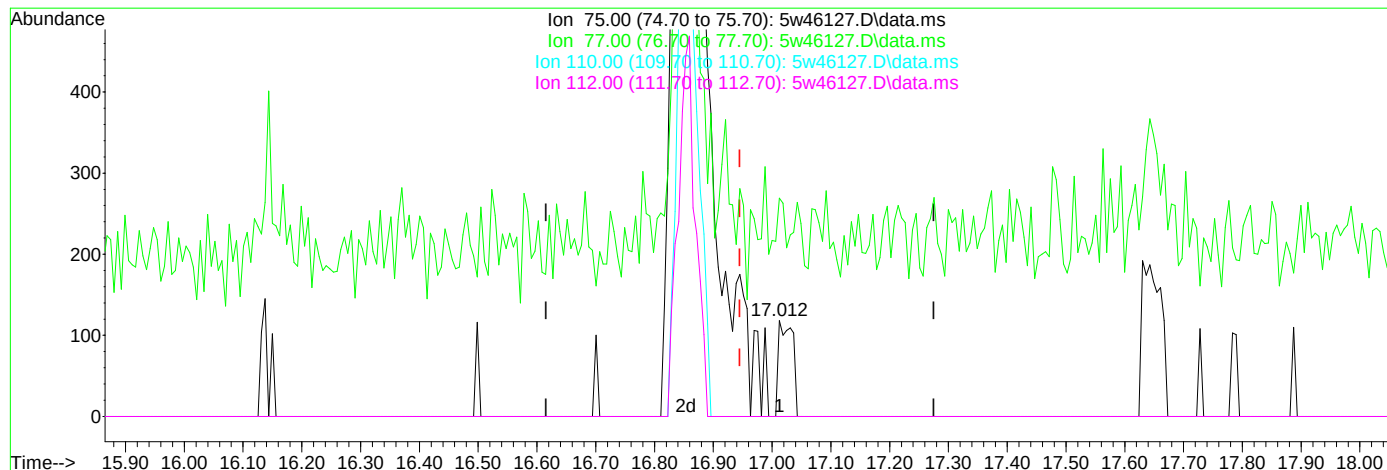
TVHC As Equiv Pentane			6.39	Missed peak
trans-1,3-Dichloropropene	10061-02-6		16.85	Poor instrument integration
p-Dichlorobenzene	106-46-7		22.40	Missed peak

7.7.14.1
7

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\
Data File : 5w46127.D
Acq On : 4 Nov 2021 11:32 am
Operator : danat
Sample : ic1909-0.2
Misc : ms54715,v5w1909,,,,,1
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Nov 04 14:53:59 2021
Quant Method : C:\msdchem\1\methods\m5w1909.M
Quant Title : T0-15 Full Scan Mode
QLast Update : Thu Nov 04 14:52:58 2021
Response via : Initial Calibration



(65) trans-1,3-Dichloropropene

17.012min (+0.067) 0.01ppb(v)

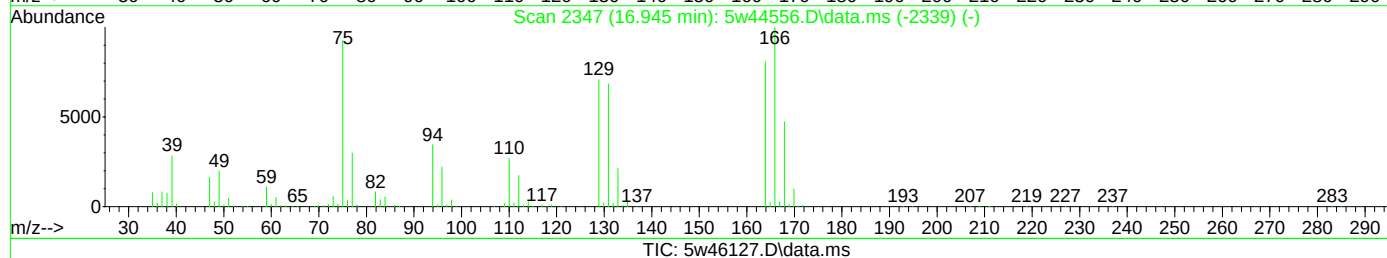
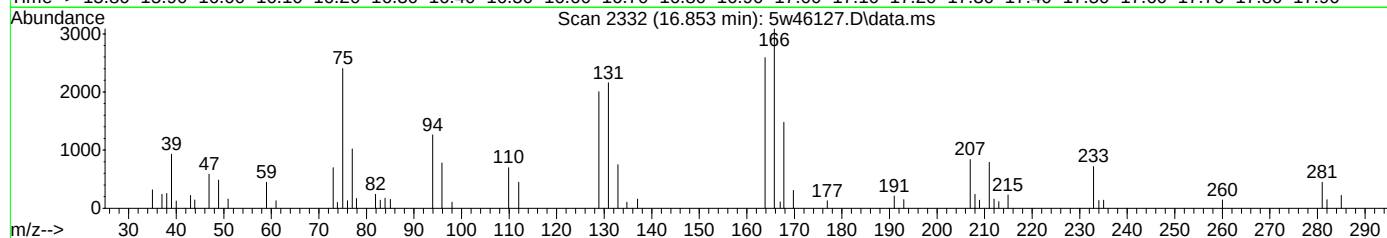
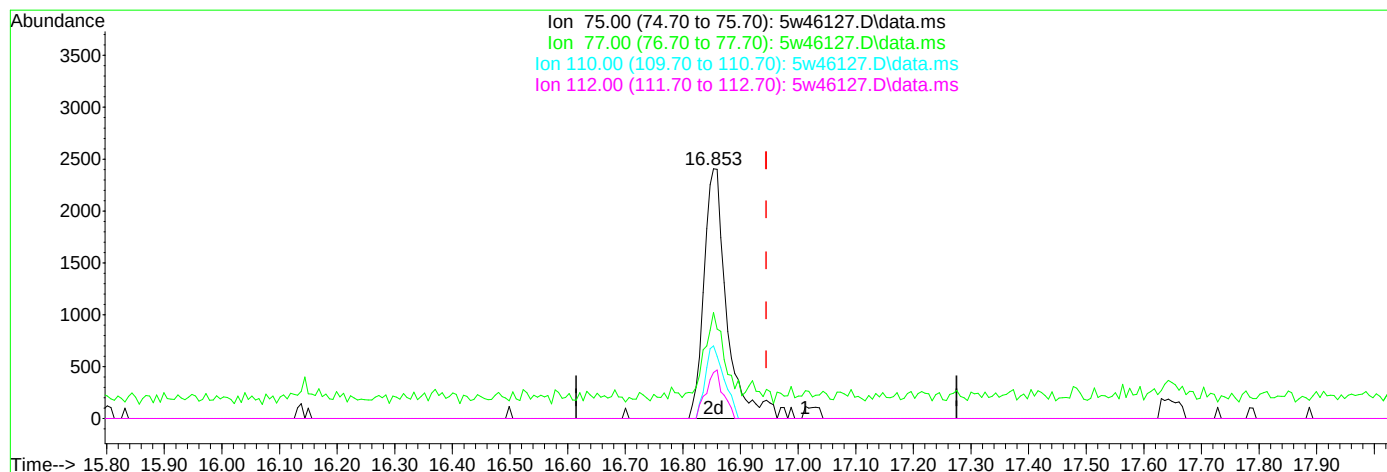
response 197

Ion	Exp%	Act%
75.00	100	100
77.00	32.40	227.97#
110.00	28.70	0.00#
112.00	18.60	0.00#

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\
 Data File : 5w46127.D
 Acq On : 4 Nov 2021 11:32 am
 Operator : danat
 Sample : ic1909-0.2
 Misc : ms54715,v5w1909,,,,,1
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Nov 04 14:53:59 2021
 Quant Method : C:\msdchem\1\methods\m5w1909.M
 Quant Title : T0-15 Full Scan Mode
 QLast Update : Thu Nov 04 14:52:58 2021
 Response via : Initial Calibration



(65) trans-1,3-Dichloropropene

16.853min (-0.092) 0.21ppb(v) m

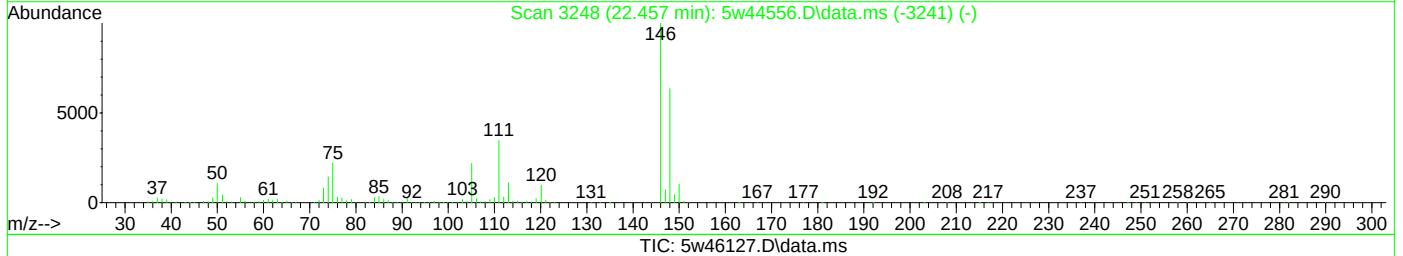
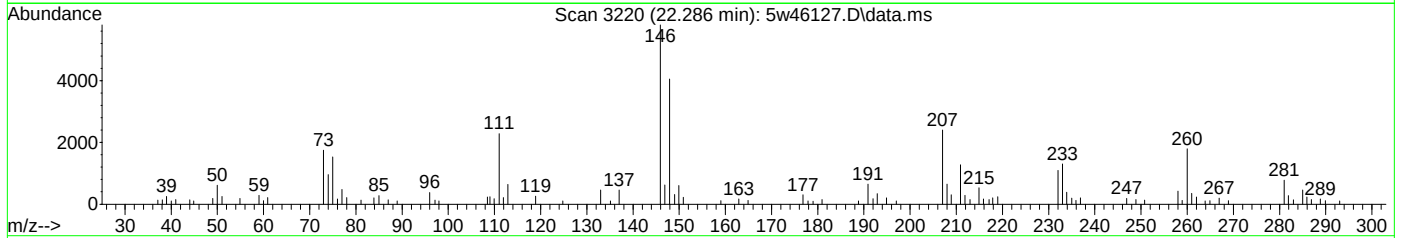
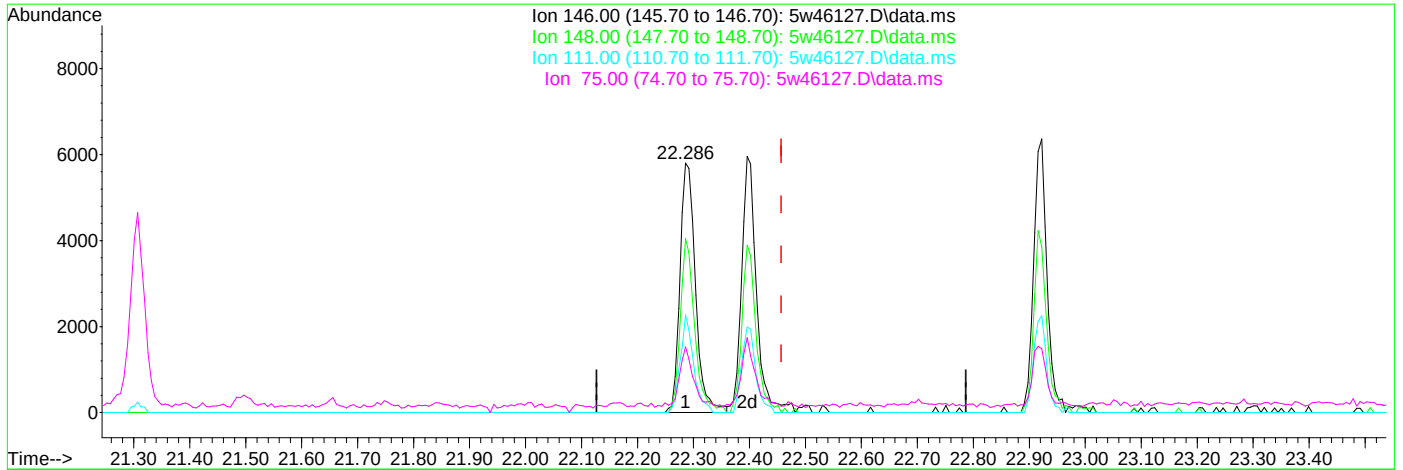
response 6620

Ion	Exp%	Act%
75.00	100	100
77.00	32.40	42.44#
110.00	28.70	29.05
112.00	18.60	18.45

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\
Data File : 5w46127.D
Acq On : 4 Nov 2021 11:32 am
Operator : danat
Sample : ic1909-0.2
Misc : ms54715,v5w1909,,,,,1
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Nov 04 14:53:59 2021
Quant Method : C:\msdchem\1\methods\m5w1909.M
Quant Title : T0-15 Full Scan Mode
QLast Update : Thu Nov 04 14:52:58 2021
Response via : Initial Calibration



(99) 1,4-Dichlorobenzene

22.286min (-0.171) 0.19ppb(v)

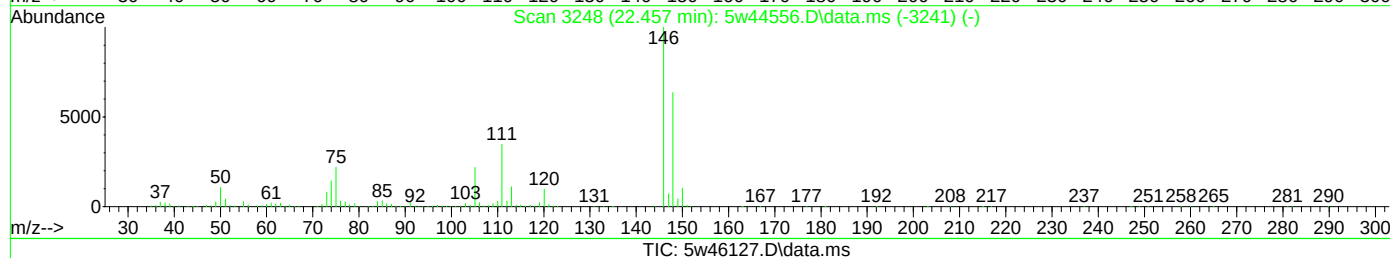
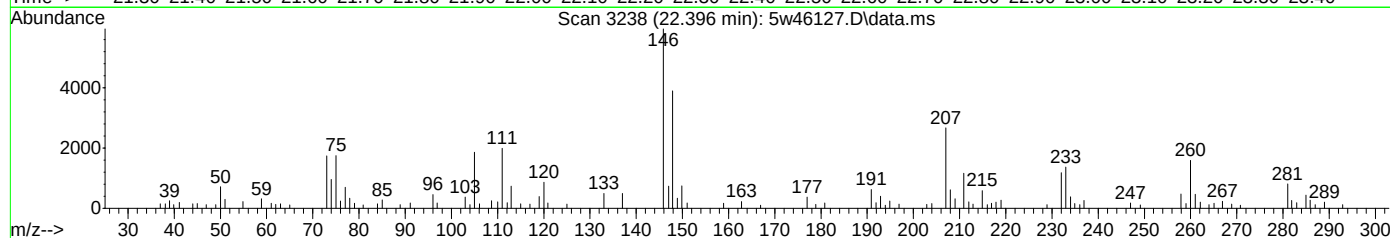
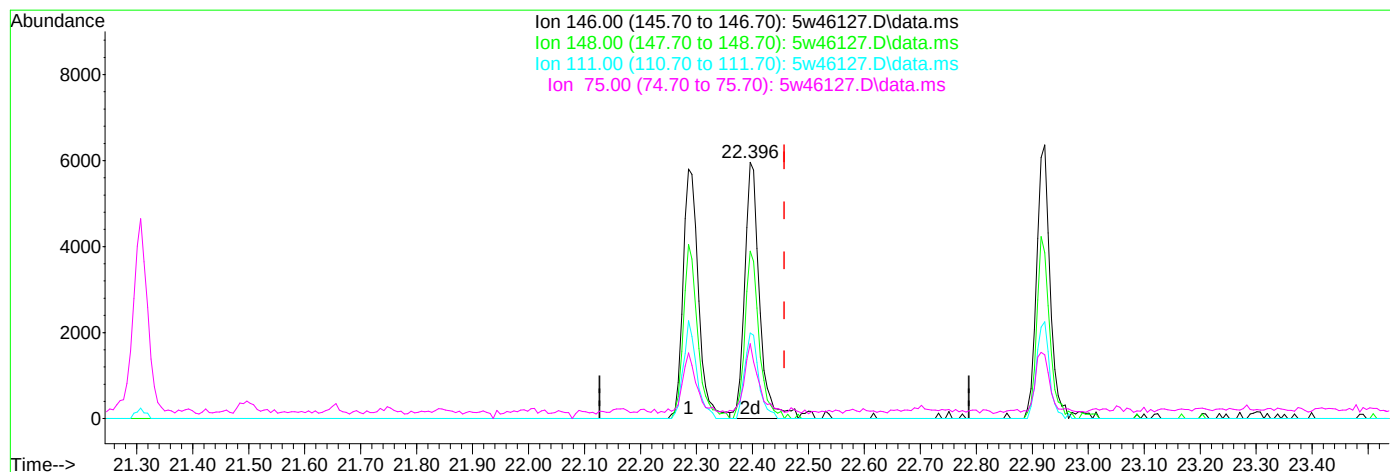
response 11172

Ion	Exp%	Act%
146.00	100	100
148.00	63.60	69.78
111.00	34.60	39.25
75.00	22.10	26.26

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\
 Data File : 5w46127.D
 Acq On : 4 Nov 2021 11:32 am
 Operator : danat
 Sample : ic1909-0.2
 Misc : ms54715,v5w1909,,,,,1
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Nov 04 14:53:59 2021
 Quant Method : C:\msdchem\1\methods\m5w1909.M
 Quant Title : T0-15 Full Scan Mode
 QLast Update : Thu Nov 04 14:52:58 2021
 Response via : Initial Calibration



(99) 1,4-Dichlorobenzene

22.396min (-0.061) 0.19ppb(v) m

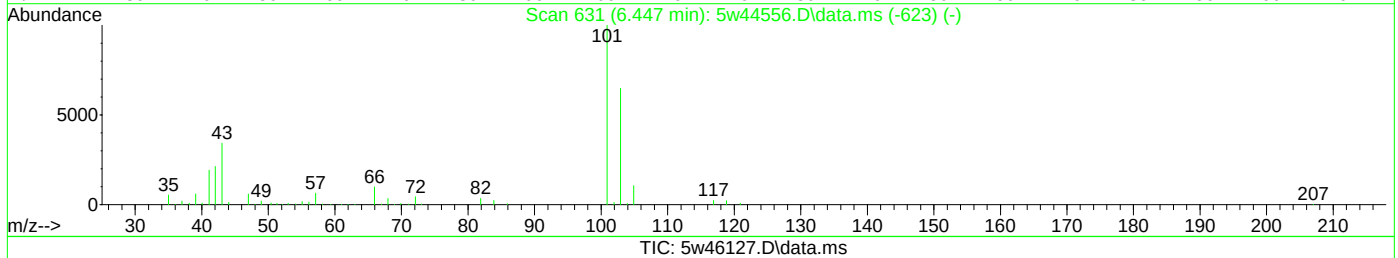
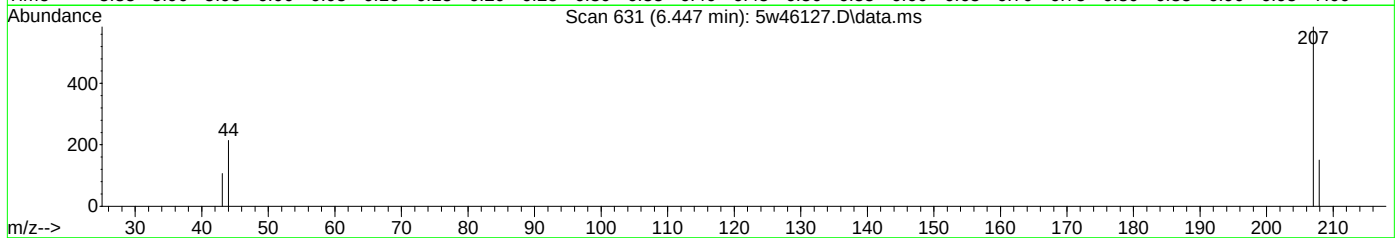
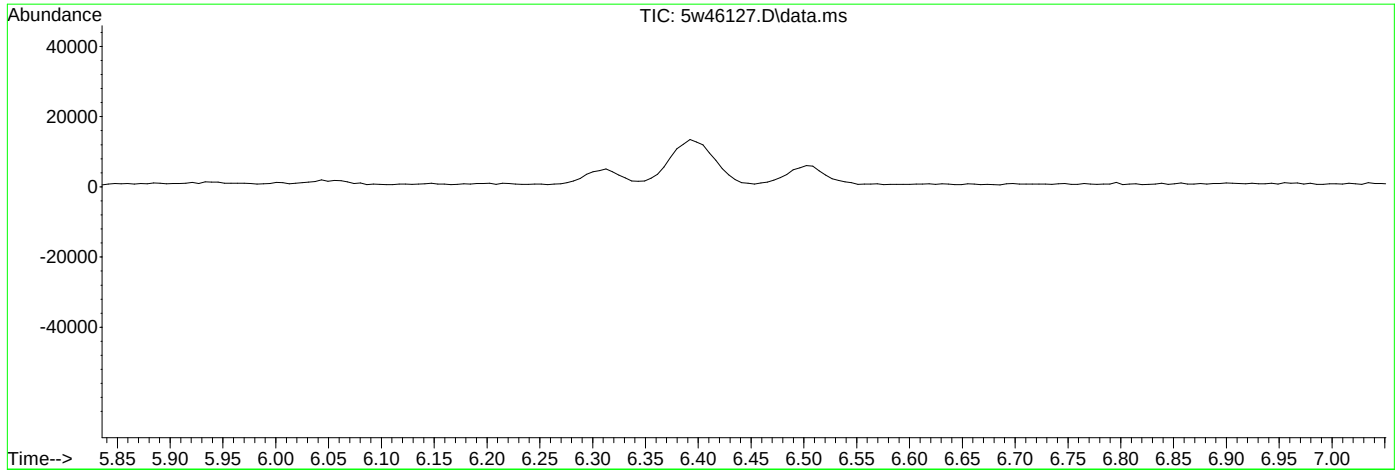
response 11071

Ion	Exp%	Act%
146.00	100	100
148.00	63.60	65.34
111.00	34.60	33.39
75.00	22.10	29.25#

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\
Data File : 5w46127.D
Acq On : 4 Nov 2021 11:32 am
Operator : danat
Sample : ic1909-0.2
Misc : ms54715,v5w1909,,,,,1
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Nov 04 14:53:59 2021
Quant Method : C:\msdchem\1\methods\m5w1909.M
Quant Title : T0-15 Full Scan Mode
QLast Update : Thu Nov 04 14:52:58 2021
Response via : Initial Calibration



(109) TVHC as equiv Pentane

6.447min (-6.447) 0.00ppb(v)

response 0

Signal	Exp%	Act%

TIC	100	0.00

0.00	0.00	0.00

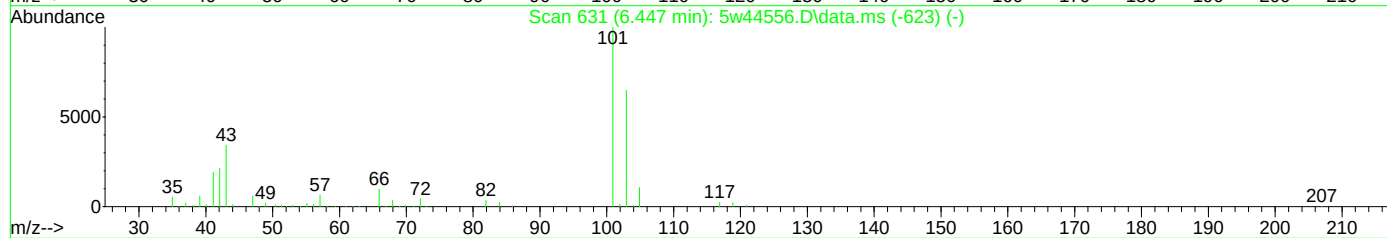
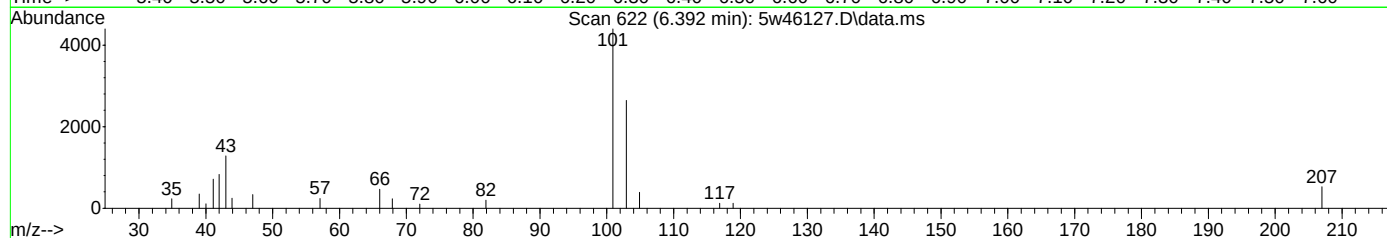
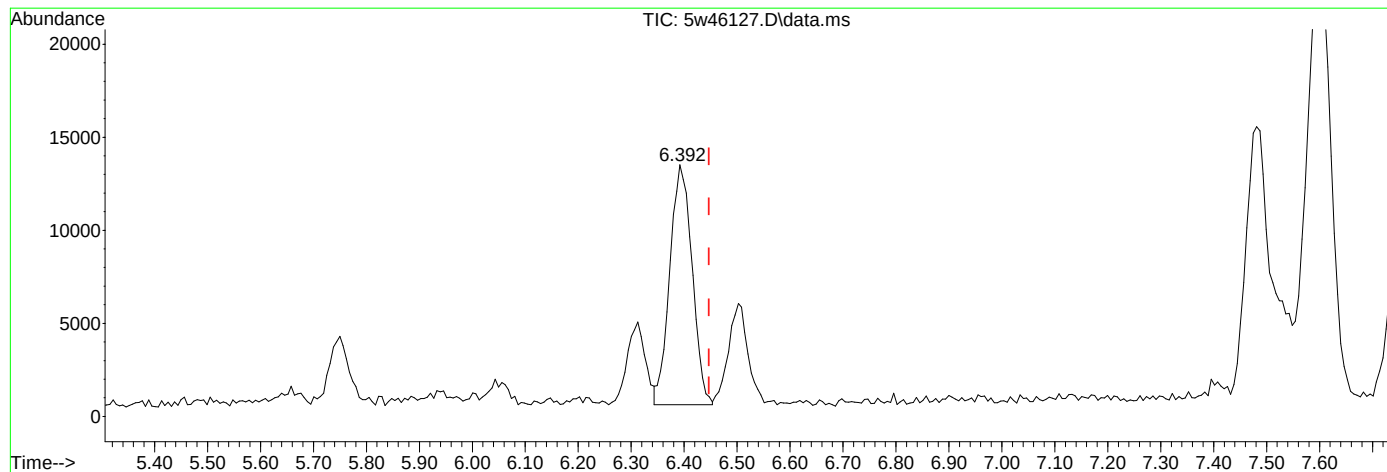
0.00	0.00	0.00

0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\
Data File : 5w46127.D
Acq On : 4 Nov 2021 11:32 am
Operator : danat
Sample : ic1909-0.2
Misc : ms54715,v5w1909,,,,,1
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Nov 04 14:53:59 2021
Quant Method : C:\msdchem\1\methods\m5w1909.M
Quant Title : T0-15 Full Scan Mode
QLast Update : Thu Nov 04 14:52:58 2021
Response via : Initial Calibration



(109) TVHC as equiv Pentane

6.392min (-0.055) 0.21ppb(v) m

response 37638

Signal	Exp%	Act%

TIC	100	100

0.00	0.00	0.00

0.00	0.00	0.00

0.00	0.00	0.00

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
 Data File : 5w46128.D
 Acq On : 4 Nov 2021 12:20 pm
 Operator : danat
 Sample : ic1909-0.1
 Misc : ms54715,v5w1909,,,,,1
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Nov 04 15:13:28 2021
 Quant Method : C:\msdchem\1\methods\m5w1909.M
 Quant Title : T0-15 Full Scan Mode
 QLast Update : Thu Nov 04 15:19:23 2021
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) Bromochloromethane	11.415	130	187264	10.00	ppb(v	0.00
53) 1,4-Difluorobenzene	13.611	114	693515	10.00	ppb(v	0.00
76) Chlorobenzene-d5	18.884	82	280720	10.00	ppb(v	0.00
108) Bromochloromethane (A)	11.415	130	187264	10.00	ppb(v	0.00

System Monitoring Compounds
 90) 4-Bromofluorobenzene 20.842 95 377452 9.55 ppb(v 0.00
 Spiked Amount 10.000 Range 65 - 128 Recovery = 95.50%

Target Compounds					Qvalue	
2) Freon 152A	4.392	65	1061	0.11	ppb(v	99
3) Chlorodifluoromethane	4.477	67	435	0.09	ppb(v#	42
4) Propene	4.300	41	1253	0.14	ppb(v#	86
5) Chlorotrifluoroethene	4.343	116	3471	0.12	ppb(v	96
6) Dichlorodifluoromethane	4.392	85	6329	0.11	ppb(v	99
7) 1-Chloro-1,1-difluoro...	4.808	65	4146	0.11	ppb(v#	68
8) Chloromethane	4.801	50	1587	0.13	ppb(v	92
9) Dichlorotetrafluoroethane	4.697	85	6355	0.12	ppb(v	93
10) Vinyl Chloride	5.028	62	1702	0.11	ppb(v#	93
11) 1,3-Butadiene	5.077	54	1051	0.12	ppb(v	97
13) Bromomethane	5.750	94	1727	0.13	ppb(v#	93
14) Chloroethane	6.049	64	888	0.13	ppb(v#	70
15) Dichlorofluoromethane	6.502	67	4294	0.12	ppb(v	98
16) Acetonitrile	9.549	41	1070	0.12	ppb(v#	75
17) Freon 123	7.603	83	4734	0.12	ppb(v	98
18) Freon 123A	7.469	117	3028	0.12	ppb(v#	87
19) Bromoethene	6.312	106	2160	0.11	ppb(v	97
21) Trichlorofluoromethane	6.386	101	6574	0.12	ppb(v	92
22) Acetone	8.729	58	702	0.11	ppb(v	81
23) Pentane	6.410	57	339	0.10	ppb(v	86
24) Iodomethane	7.750	142	7779	0.11	ppb(v	95
26) 1,1-Dichloroethene	7.469	61	2753	0.11	ppb(v	96
27) Freon 113	7.591	101	5155	0.11	ppb(v	95
29) Carbon Disulfide	7.530	76	5175	0.11	ppb(v	100
31) Acrylonitrile	10.161	53	953	0.10	ppb(v#	51
32) 3-Chloropropene	8.435	76	831	0.11	ppb(v	93
33) trans-1,2-Dichloroethene	8.974	61	2560	0.11	ppb(v	96
34) tert-Butyl Alcohol	9.396	59	2908	0.10	ppb(v#	73
36) Vinyl Acetate	10.595	43	2566	0.09	ppb(v#	70
37) 1,1-Dichloroethane	10.099	63	3189	0.11	ppb(v#	94
39) Hexane	9.176	56	1337	0.11	ppb(v	83
40) cis-1,2-Dichloroethene	11.078	61	2542	0.12	ppb(v	96
41) Di-isopropyl Ether	9.965	87	1650	0.11	ppb(v	77
43) Methyl Acrylate	11.818	55	2024	0.09	ppb(v#	90
44) Chloroform	11.555	83	4681	0.11	ppb(v	95
45) 2,4-Dimethylpentane	10.240	57	2981	0.12	ppb(v	97
46) Tetrahydrofuran	11.880	72	670	0.09	ppb(v	83
47) 1,1,1-Trichloroethane	11.941	97	5136	0.11	ppb(v	94
48) 1,2-Dichloroethane	12.907	62	2612	0.11	ppb(v#	91
49) Benzene	12.583	78	6798	0.12	ppb(v	92
50) Carbon Tetrachloride	11.837	117	5504	0.11	ppb(v	96
51) Cyclohexane	11.488	56	2507	0.12	ppb(v	88
52) 2,3-Dimethylpentane	11.665	71	1156	0.11	ppb(v#	84
54) 2,2,4-Trimethylpentane	12.381	57	7926	0.11	ppb(v	96
55) Heptane	12.559	71	1699	0.10	ppb(v	90
56) Trichloroethene	13.605	97	1996	0.11	ppb(v#	1
57) 1,2-Dichloropropane	14.480	63	1925	0.11	ppb(v#	89

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
 Data File : 5w46128.D
 Acq On : 4 Nov 2021 12:20 pm
 Operator : danat
 Sample : ic1909-0.1
 Misc : ms54715,v5w1909,,,,,1
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Nov 04 15:13:28 2021
 Quant Method : C:\msdchem\1\methods\m5w1909.M
 Quant Title : T0-15 Full Scan Mode
 QLast Update : Thu Nov 04 15:19:23 2021
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
58) Dibromomethane	14.321	174	4314	0.12	ppb(v	93
59) Ethyl Acrylate	14.578	55	2746	0.09	ppb(v#	1
60) Methyl Methacrylate	14.865	69	1227	0.07	ppb(v	87
61) 1,4-Dioxane	14.951	88	1330	0.11	ppb(v#	79
62) Bromodichloromethane	14.590	83	4829	0.11	ppb(v	98
63) cis-1,3-Dichloropropene	15.709	75	3639	0.11	ppb(v	92
64) 4-Methyl-2-pentanone	16.786	58	1078	0.08	ppb(v	85
65) trans-1,3-Dichloropropene	16.859	75	3454	0.11	ppb(v#	88
66) Toluene	16.150	91	7843	0.11	ppb(v	91
67) 1,1,2-Trichloroethane	17.141	97	2990	0.11	ppb(v	90
68) 1,3-Dichloropropane	17.649	76	3344	0.11	ppb(v#	74
69) 2-Hexanone	18.334	43	2725	0.10	ppb(v	89
70) Ethyl Methacrylate	17.153	69	2334	0.08	ppb(v#	28
71) Dibromochloromethane	17.496	129	5859	0.10	ppb(v#	98
72) Tetrachloroethene	16.866	166	6022	0.12	ppb(v	90
73) 1,2-Dibromoethane	17.942	107	4760	0.11	ppb(v#	97
74) Octane	15.838	43	3148	0.11	ppb(v	94
75) 1,1,1,2-Tetrachloroethane	19.025	131	4248	0.11	ppb(v	93
77) Chlorobenzene	18.915	112	7012	0.11	ppb(v#	82
78) Ethylbenzene	18.970	91	10217	0.11	ppb(v#	95
79) m,p-Xylene	19.215	91	15811	0.23	ppb(v#	98
80) Styrene	20.022	104	5599	0.10	ppb(v#	88
81) Nonane	18.799	43	3028	0.11	ppb(v#	86
82) o-Xylene	19.937	91	8152	0.11	ppb(v#	92
83) Bromoform	20.059	173	6404	0.11	ppb(v	91
84) 1,1,2,2-Tetrachloroethane	21.111	83	5743	0.11	ppb(v	94
85) 1,2,3-Trichloropropane	21.307	75	4708	0.12	ppb(v	96
86) Isopropylbenzene	20.426	105	12110	0.12	ppb(v#	92
87) Bromobenzene	21.013	156	4611	0.11	ppb(v	100
88) 2-Chlorotoluene	21.276	126	3091	0.11	ppb(v	99
89) n-Propylbenzene	21.044	120	3021	0.11	ppb(v	95
91) 4-Ethyltoluene	21.197	105	10148	0.11	ppb(v#	96
92) 1,3,5-Trimethylbenzene	21.313	105	8509	0.11	ppb(v#	94
93) alpha-Methylstyrene	21.662	118	3743	0.09	ppb(v	87
94) tert-Butylbenzene	21.754	134	2228	0.12	ppb(v	94
95) 1,2,4-Trimethylbenzene	21.845	105	7921	0.11	ppb(v#	92
96) 1,3-Dichlorobenzene	22.292	146	5955	0.10	ppb(v	93
97) 1,2,3-trimethylbenzene	22.414	105	7694	0.11	ppb(v#	94
98) Benzyl Chloride	22.696	126	1224	0.09	ppb(v#	29
99) 1,4-Dichlorobenzene	22.402	146	5815	0.10	ppb(v	91
100) sec-Butylbenzene	21.998	134	2627	0.11	ppb(v	87
101) p-Isopropyltoluene	22.170	134	2728	0.11	ppb(v	97
102) 1,2-Dichlorobenzene	22.922	146	5644	0.11	ppb(v	95
103) n-Butylbenzene	22.708	134	2039	0.10	ppb(v	93
104) Hexachloroethane	22.910	201	4521	0.12	ppb(v	97
105) 1,2,4-Trichlorobenzene	24.727	180	1788	0.09	ppb(v#	84
106) Naphthalene	25.155	128	4296	0.11	ppb(v#	92
107) Hexachlorobutadiene	24.672	225	4441	0.13	ppb(v#	74

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

(QT Reviewed)

Quant Time: Nov 04 15:13:28 2021
Quant Method : C:\msdchem\1\methods\m5w1909.M
Quant Title : T0-15 Full Scan Mode
QLast Update : Thu Nov 04 15:19:23 2021
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
 Data File : 5W46129.D
 Acq On : 4 Nov 2021 1:08 pm
 Operator : danat
 Sample : ic1909-0.04
 Misc : ms54715,v5w1909,,,,,1
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Nov 04 16:07:51 2021
 Quant Method : C:\msdchem\1\methods\m5w1909.M
 Quant Title : T0-15 Full Scan Mode
 QLast Update : Thu Nov 04 15:22:14 2021
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) Bromochloromethane	11.415	130	185702	10.00	ppb(v	0.00
53) 1,4-Difluorobenzene	13.611	114	688295	10.00	ppb(v	0.00
76) Chlorobenzene-d5	18.884	82	277179	10.00	ppb(v	0.00
108) Bromochloromethane (A)	11.415	130	185702	10.00	ppb(v	0.00

System Monitoring Compounds
 90) 4-Bromofluorobenzene 20.842 95 376602 9.74 ppb(v 0.00
 Spiked Amount 10.000 Range 65 - 128 Recovery = 97.40%

Target Compounds					Qvalue	
5) Chlorotrifluoroethene	4.355	116	1604	0.05	ppb(v	99
6) Dichlorodifluoromethane	4.392	85	3037	0.05	ppb(v#	93
7) 1-Chloro-1,1-difluoroethene	4.814	65	1862	0.05	ppb(v#	66
8) Chloromethane	4.820	50	751	0.06	ppb(v	89
9) Dichlorotetrafluoroethane	4.697	85	2874	0.05	ppb(v	92
10) Vinyl Chloride	5.022	62	805	0.05	ppb(v	99
11) 1,3-Butadiene	5.083	54	391	0.04	ppb(v#	87
13) Bromomethane	5.756	94	786	0.06	ppb(v#	84
15) Dichlorofluoromethane	6.508	67	2136	0.06	ppb(v#	88
16) Acetonitrile	9.586	41	402	0.05	ppb(v	75
17) Freon 123	7.603	83	2153	0.05	ppb(v	93
18) Freon 123A	7.475	117	1411	0.05	ppb(v#	88
19) Bromoethene	6.325	106	977	0.05	ppb(v#	80
21) Trichlorofluoromethane	6.386	101	3068	0.05	ppb(v#	86
22) Acetone	8.747	58	305	0.05	ppb(v	75
24) Iodomethane	7.750	142	3635	0.05	ppb(v	98
26) 1,1-Dichloroethene	7.487	61	1343	0.05	ppb(v	91
27) Freon 113	7.591	101	2394	0.05	ppb(v	85
29) Carbon Disulfide	7.536	76	2560	0.05	ppb(v#	92
32) 3-Chloropropene	8.435	76	267	0.03	ppb(v#	41
33) trans-1,2-Dichloroethene	8.974	61	1165	0.05	ppb(v	85
34) tert-Butyl Alcohol	9.408	59	1295	0.05	ppb(v	94
37) 1,1-Dichloroethane	10.106	63	1561	0.05	ppb(v	92
39) Hexane	9.182	56	558	0.05	ppb(v#	79
40) cis-1,2-Dichloroethene	11.091	61	1146	0.05	ppb(v#	84
41) Di-isopropyl Ether	9.959	87	743	0.05	ppb(v#	91
44) Chloroform	11.555	83	2122	0.05	ppb(v	90
45) 2,4-Dimethylpentane	10.240	57	1339	0.05	ppb(v	85
47) 1,1,1-Trichloroethane	11.941	97	2435	0.05	ppb(v	89
48) 1,2-Dichloroethane	12.907	62	1116	0.05	ppb(v	84
50) Carbon Tetrachloride	11.843	117	2456	0.05	ppb(v	90
51) Cyclohexane	11.500	56	1160	0.05	ppb(v	84
52) 2,3-Dimethylpentane	11.659	71	469	0.04	ppb(v	82
54) 2,2,4-Trimethylpentane	12.375	57	3767	0.05	ppb(v#	90
55) Heptane	12.571	71	723	0.04	ppb(v#	66
56) Trichloroethene	13.605	97	918	0.05	ppb(v#	1
57) 1,2-Dichloropropane	14.492	63	813	0.05	ppb(v#	76
58) Dibromomethane	14.321	174	2335	0.06	ppb(v	95
61) 1,4-Dioxane	14.951	88	359	0.03	ppb(v#	34
62) Bromodichloromethane	14.590	83	2156	0.05	ppb(v#	90
63) cis-1,3-Dichloropropene	15.709	75	1640	0.05	ppb(v#	81
64) 4-Methyl-2-pentanone	16.811	58	382	0.03	ppb(v#	48
65) trans-1,3-Dichloropropene	16.860	75	1721	0.06	ppb(v#	71
66) Toluene	16.150	91	3728	0.05	ppb(v	89
67) 1,1,2-Trichloroethane	17.147	97	1281	0.05	ppb(v#	82
68) 1,3-Dichloropropane	17.655	76	1544	0.05	ppb(v#	77
69) 2-Hexanone	18.352	43	1084	0.04	ppb(v#	84

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
 Data File : 5W46129.D
 Acq On : 4 Nov 2021 1:08 pm
 Operator : danat
 Sample : ic1909-0.04
 Misc : ms54715,v5w1909,,,,,1
 ALS Vial : 1 Sample Multiplier: 1

Quant Time: Nov 04 16:07:51 2021
 Quant Method : C:\msdchem\1\methods\m5w1909.M
 Quant Title : T0-15 Full Scan Mode
 QLast Update : Thu Nov 04 15:22:14 2021
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
70) Ethyl Methacrylate	17.172	69	861	0.03	ppb(v#)	58
71) Dibromochloromethane	17.502	129	2573	0.05	ppb(v#)	94
72) Tetrachloroethene	16.866	166	2808	0.05	ppb(v)	94
73) 1,2-Dibromoethane	17.948	107	2127	0.05	ppb(v)	88
74) Octane	15.838	43	1452	0.05	ppb(v)	95
75) 1,1,1,2-Tetrachloroethane	19.019	131	1886	0.05	ppb(v)	84
77) Chlorobenzene	18.915	112	3089	0.05	ppb(v)	85
78) Ethylbenzene	18.970	91	4795	0.05	ppb(v#)	92
79) m,p-Xylene	19.215	91	7431	0.11	ppb(v)	96
80) Styrene	20.022	104	2282	0.04	ppb(v#)	82
81) Nonane	18.799	43	1397	0.05	ppb(v)	99
82) o-Xylene	19.943	91	3689	0.05	ppb(v)	96
83) Bromoform	20.059	173	2795	0.05	ppb(v)	95
84) 1,1,2,2-Tetrachloroethane	21.111	83	2641	0.05	ppb(v#)	91
86) Isopropylbenzene	20.432	105	5524	0.05	ppb(v)	91
87) Bromobenzene	21.013	156	2248	0.05	ppb(v)	86
88) 2-Chlorotoluene	21.276	126	1402	0.05	ppb(v)	97
89) n-Propylbenzene	21.044	120	1368	0.05	ppb(v)	74
91) 4-Ethyltoluene	21.197	105	4569	0.05	ppb(v#)	91
92) 1,3,5-Trimethylbenzene	21.313	105	3929	0.05	ppb(v#)	86
93) alpha-Methylstyrene	21.662	118	1768	0.05	ppb(v)	95
94) tert-Butylbenzene	21.760	134	1162	0.06	ppb(v)	82
95) 1,2,4-Trimethylbenzene	21.845	105	3485	0.05	ppb(v#)	93
96) 1,3-Dichlorobenzene	22.298	146	2685	0.05	ppb(v)	96
97) 1,2,3-trimethylbenzene	22.414	105	3484	0.05	ppb(v#)	97
98) Benzyl Chloride	22.696	126	697	0.05	ppb(v#)	32
99) 1,4-Dichlorobenzene	22.402	146	2754	0.05	ppb(v)	89
100) sec-Butylbenzene	21.998	134	1380	0.06	ppb(v)	93
101) p-Isopropyltoluene	22.170	134	1414	0.06	ppb(v)	89
102) 1,2-Dichlorobenzene	22.922	146	2905	0.06	ppb(v)	95
103) n-Butylbenzene	22.708	134	1046	0.05	ppb(v)	72
104) Hexachloroethane	22.910	201	2176	0.06	ppb(v)	90
105) 1,2,4-Trichlorobenzene	24.727	180	951	0.05	ppb(v#)	70
107) Hexachlorobutadiene	24.666	225	2111	0.06	ppb(v#)	66

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

7.7.16

7

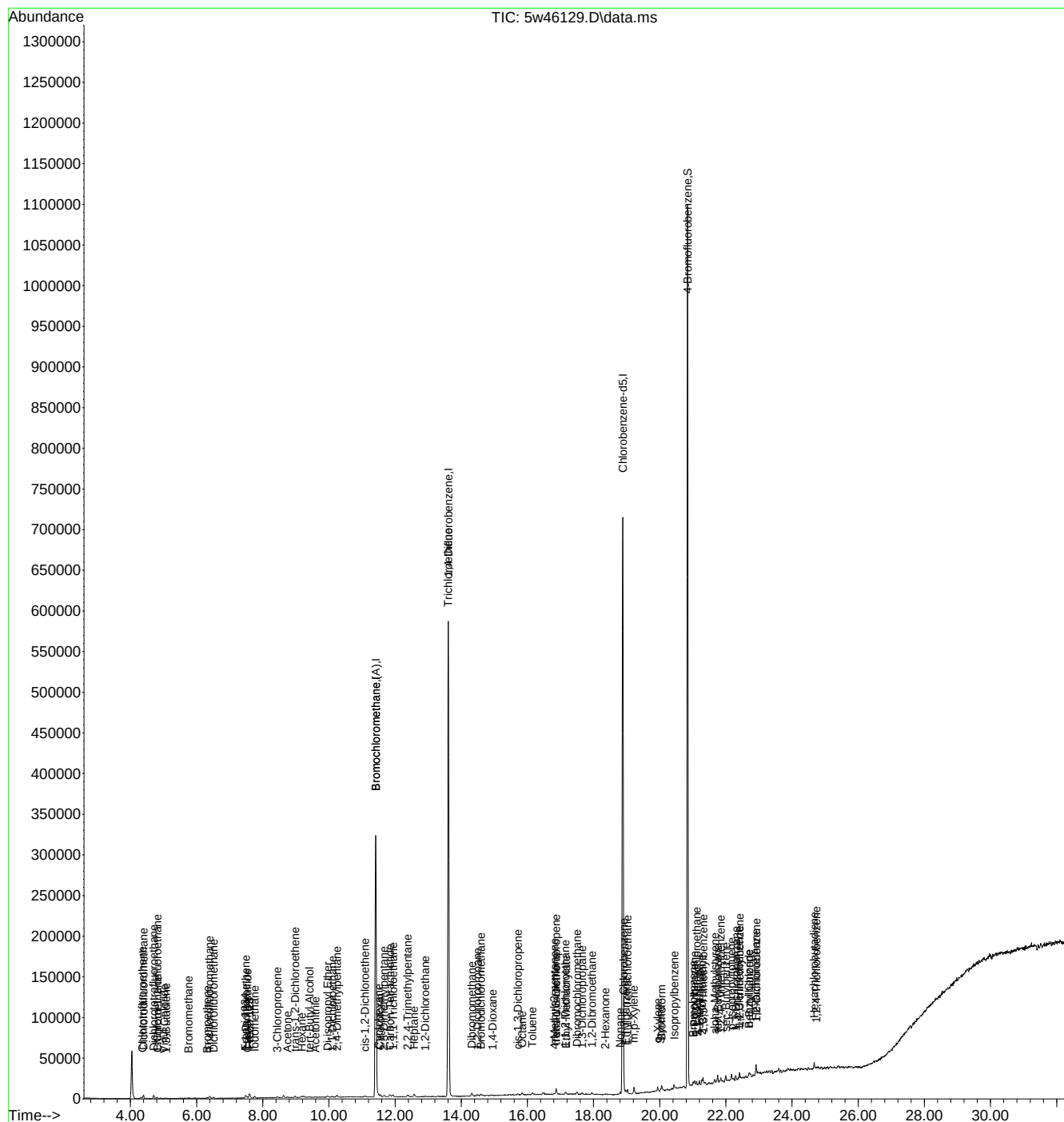
Quantitation Report (QT Reviewed)

```

Data Path : C:\msdchem\1\data\
Data File : 5w46129.D
Acq On    : 4 Nov 2021    1:08 pm
Operator   : danat
Sample    : ic1909-0.04
Misc      : ms54715,v5w1909,,,,,1
ALS Vial   : 1      Sample Multiplier: 1

```

Quant Time: Nov 04 16:07:51 2021
Quant Method : C:\msdchem\1\methods\m5w1909.M
Quant Title : T0-15 Full Scan Mode
QLast Update : Thu Nov 04 15:22:14 2021
Response via : Initial Calibration



7.7.16



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
 Data File : 5W46130.D
 Acq On : 4 Nov 2021 1:56 pm
 Operator : danat
 Sample : ic1909-5
 Misc : ms54715,v5w1909,,,,,1
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 04 13:47:35 2021
 Quant Method : C:\msdchem\1\methods\m5w1909.M
 Quant Title : T0-15 Full Scan Mode
 QLast Update : Fri Jul 16 17:46:46 2021
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) Bromochloromethane	11.415	130	180647	10.00	ppb(v	-0.10
53) 1,4-Difluorobenzene	13.611	114	654752	10.00	ppb(v	-0.10
76) Chlorobenzene-d5	18.884	82	267046	10.00	ppb(v	-0.10
108) Bromochloromethane (A)	11.415	130	180647	10.00	ppb(v	-0.10

System Monitoring Compounds
 90) 4-Bromofluorobenzene 20.842 95 384970 10.32 ppb(v -0.08
 Spiked Amount 10.000 Range 65 - 128 Recovery = 103.20%

Target Compounds					Qvalue
2) Freon 152A	4.386	65	46725	5.37	ppb(v 97
3) Chlorodifluoromethane	4.453	67	23233	6.36	ppb(v 96
4) Propene	4.288	41	40620	4.68	ppb(v 97
5) Chlorotrifluoroethene	4.337	116	147517	5.44	ppb(v 96
6) Dichlorodifluoromethane	4.379	85	291007	6.21	ppb(v 99
7) 1-Chloro-1,1-difluoro...	4.795	65	180312	6.19	ppb(v 97
8) Chloromethane	4.795	50	59170	4.94	ppb(v 98
9) Dichlorotetrafluoroethane	4.691	85	259374	5.41	ppb(v 98
10) Vinyl Chloride	5.010	62	74964	5.13	ppb(v# 99
11) 1,3-Butadiene	5.071	54	42815	5.20	ppb(v 96
12) n-Butane	4.906	58	10744	5.45	ppb(v 82
13) Bromomethane	5.738	94	64877	4.42	ppb(v 97
14) Chloroethane	6.037	64	35161	5.21	ppb(v 99
15) Dichlorofluoromethane	6.496	67	181647	5.22	ppb(v 99
16) Acetonitrile	9.518	41	40660	4.56	ppb(v 100
17) Freon 123	7.597	83	198022	5.14	ppb(v 93
18) Freon 123A	7.475	117	124025	5.35	ppb(v 97
19) Bromoethene	6.300	106	99074	5.38	ppb(v 99
20) Acrolein	8.117	56	26893	5.23	ppb(v 99
21) Trichlorofluoromethane	6.386	101	274480	5.96	ppb(v 99
22) Acetone	8.686	58	27815	5.02	ppb(v 87
23) Pentane	6.404	57	16721	5.37	ppb(v 96
24) Iodomethane	7.744	142	339716	5.42	ppb(v 96
25) Isopropyl Alcohol	8.491	43	20159	5.46	ppb(v 80
26) 1,1-Dichloroethene	7.475	61	123657	5.34	ppb(v 99
27) Freon 113	7.591	101	222015	5.36	ppb(v 99
28) Methylene Chloride	8.625	84	79028	4.88	ppb(v 98
29) Carbon Disulfide	7.524	76	229097	5.10	ppb(v 99
30) Ethanol	7.365	45	21937	4.46	ppb(v 96
31) Acrylonitrile	10.124	53	45474	4.79	ppb(v 99
32) 3-Chloropropene	8.435	76	39494	5.34	ppb(v 93
33) trans-1,2-Dichloroethene	8.968	61	111183	5.28	ppb(v 98
34) tert-Butyl Alcohol	9.341	59	149286	5.28	ppb(v 98
35) Methyl tert-Butyl Ether	9.200	73	236760	5.35	ppb(v 90
36) Vinyl Acetate	10.546	43	140252	4.69	ppb(v 98
37) 1,1-Dichloroethane	10.099	63	137657	5.14	ppb(v 100
38) 2-Butanone	12.045	72	35817	5.47	ppb(v 90
39) Hexane	9.170	56	58235	5.26	ppb(v 97
40) cis-1,2-Dichloroethene	11.072	61	108563	5.29	ppb(v 98
41) Di-isopropyl Ether	9.922	87	71018	5.33	ppb(v 89
42) Ethyl Acetate	11.745	61	20965	5.41	ppb(v 94
43) Methyl Acrylate	11.757	55	113791	5.17	ppb(v 99
44) Chloroform	11.555	83	209898	5.63	ppb(v 99
45) 2,4-Dimethylpentane	10.234	57	124504	4.91	ppb(v 99
46) Tetrahydrofuran	11.837	72	37850	5.60	ppb(v 95
47) 1,1,1-Trichloroethane	11.935	97	218018	5.65	ppb(v 99
48) 1,2-Dichloroethane	12.895	62	117221	6.02	ppb(v 98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
 Data File : 5w46130.D
 Acq On : 4 Nov 2021 1:56 pm
 Operator : danat
 Sample : ic1909-5
 Misc : ms54715,v5w1909,,,,,1
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 04 13:47:35 2021
 Quant Method : C:\msdchem\1\methods\m5w1909.M
 Quant Title : T0-15 Full Scan Mode
 QLast Update : Fri Jul 16 17:46:46 2021
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
49) Benzene	12.577	78	257416	4.69	ppb(v)	99
50) Carbon Tetrachloride	11.843	117	255112	6.03	ppb(v)	98
51) Cyclohexane	11.494	56	103381	4.81	ppb(v)	97
52) 2,3-Dimethylpentane	11.659	71	52466	5.38	ppb(v)	97
54) 2,2,4-Trimethylpentane	12.381	57	332193	4.84	ppb(v)	97
55) Heptane	12.559	71	75985	5.10	ppb(v)	98
56) Trichloroethene	13.599	97	91079	5.24	ppb(v)	98
57) 1,2-Dichloropropane	14.474	63	84216	5.01	ppb(v)	93
58) Dibromomethane	14.308	174	176269	5.17	ppb(v)	97
59) Ethyl Acrylate	14.474	55	154810	5.31	ppb(v)	97
60) Methyl Methacrylate	14.828	69	86384	5.53	ppb(v)	98
61) 1,4-Dioxane	14.908	88	63861	4.99	ppb(v)	99
62) Bromodichloromethane	14.584	83	222899	5.52	ppb(v)	99
63) cis-1,3-Dichloropropene	15.691	75	156217	4.80	ppb(v)	99
64) 4-Methyl-2-pentanone	16.756	58	66121	5.37	ppb(v)	98
65) trans-1,3-Dichloropropene	16.841	75	141483	4.86	ppb(v)	99
66) Toluene	16.138	91	345746	5.10	ppb(v)	99
67) 1,1,2-Trichloroethane	17.135	97	125930	5.09	ppb(v)	96
68) 1,3-Dichloropropane	17.643	76	147171	5.10	ppb(v)	99
69) 2-Hexanone	18.285	43	130582	5.15	ppb(v)	98
70) Ethyl Methacrylate	17.116	69	144291	5.82	ppb(v)#	85
71) Dibromochloromethane	17.490	129	285420	5.57	ppb(v)	100
72) Tetrachloroethene	16.866	166	247014	5.61	ppb(v)	100
73) 1,2-Dibromoethane	17.936	107	217352	5.26	ppb(v)	98
74) Octane	15.832	43	139121	5.00	ppb(v)	95
75) 1,1,1,2-Tetrachloroethane	19.019	131	192939	5.42	ppb(v)	96
77) Chlorobenzene	18.915	112	298798	5.16	ppb(v)	99
78) Ethylbenzene	18.958	91	438296	5.25	ppb(v)	99
79) m,p-Xylene	19.215	91	671033	10.62	ppb(v)	98
80) Styrene	20.010	104	268953	5.24	ppb(v)	99
81) Nonane	18.799	43	139500	4.64	ppb(v)	99
82) o-Xylene	19.931	91	345005	5.18	ppb(v)	99
83) Bromoform	20.059	173	305500	5.67	ppb(v)	100
84) 1,1,2,2-Tetrachloroethane	21.105	83	242315	4.84	ppb(v)	98
85) 1,2,3-Trichloropropane	21.307	75	182295	4.97	ppb(v)	99
86) Isopropylbenzene	20.420	105	503481	5.09	ppb(v)	98
87) Bromobenzene	21.007	156	201527	5.35	ppb(v)	98
88) 2-Chlorotoluene	21.270	126	135378	5.08	ppb(v)	97
89) n-Propylbenzene	21.038	120	139875	5.21	ppb(v)	98
91) 4-Ethyltoluene	21.191	105	472009	5.05	ppb(v)	99
92) 1,3,5-Trimethylbenzene	21.307	105	387190	5.11	ppb(v)	98
93) alpha-Methylstyrene	21.650	118	207143	5.07	ppb(v)	99
94) tert-Butylbenzene	21.754	134	92687	4.68	ppb(v)	98
95) 1,2,4-Trimethylbenzene	21.839	105	377036	5.02	ppb(v)	98
96) 1,3-Dichlorobenzene	22.286	146	293252	4.99	ppb(v)	99
97) 1,2,3-trimethylbenzene	22.414	105	364065	4.95	ppb(v)	99
98) Benzyl Chloride	22.684	126	73908	4.69	ppb(v)	65
99) 1,4-Dichlorobenzene	22.390	146	288796	5.10	ppb(v)	99
100) sec-Butylbenzene	21.992	134	114800	4.72	ppb(v)	98
101) p-Isopropyltoluene	22.170	134	124932	4.59	ppb(v)	93
102) 1,2-Dichlorobenzene	22.916	146	265840	4.99	ppb(v)	98
103) n-Butylbenzene	22.702	134	104600	4.60	ppb(v)	83
104) Hexachloroethane	22.910	201	182374	4.92	ppb(v)	96
105) 1,2,4-Trichlorobenzene	24.715	180	107267	3.26	ppb(v)	100
106) Naphthalene	25.143	128	176051	3.03	ppb(v)	99
107) Hexachlorobutadiene	24.672	225	161793	4.05	ppb(v)	99
109) TVHC as equiv Pentane	6.392	TIC	874404	6.02	ppb(v)	100

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 5w46130.D
Acq On : 4 Nov 2021 1:56 pm
Operator : danat
Sample : ic1909-5
Misc : ms54715,v5w1909,,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 04 13:47:35 2021
Quant Method : C:\msdchem\1\methods\m5w1909.M
Quant Title : T0-15 Full Scan Mode
QLast Update : Fri Jul 16 17:46:46 2021
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

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

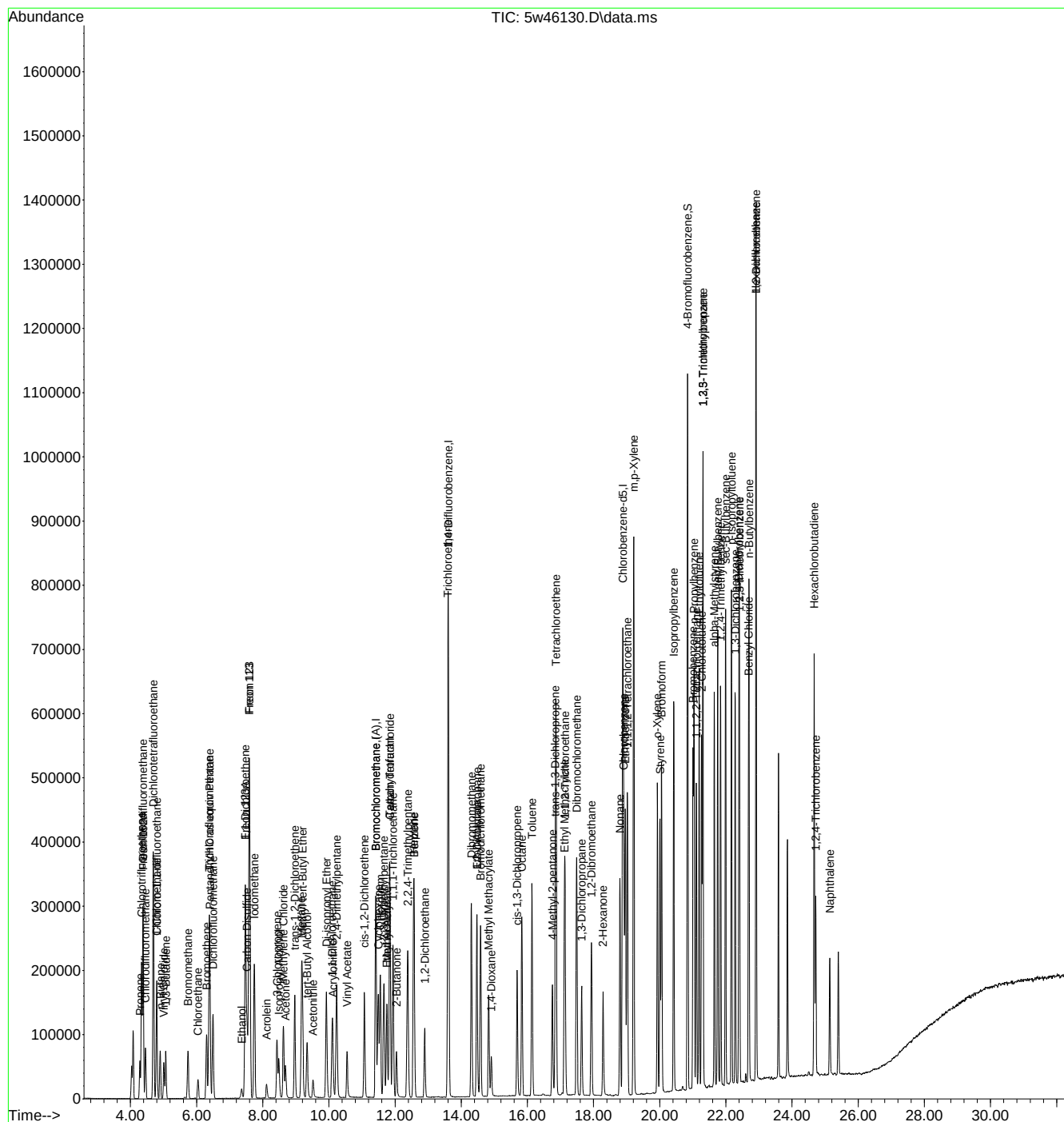
7.7.17

7

Quantitation Report (QT Reviewed)

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Data Path : C:\msdchem\1\data\  
Data File : 5w46130.D  
Acq On : 4 Nov 2021 1:56 pm  
Operator : danat  
Sample : ic1909-5  
Misc : ms54715,v5w1909,,,,,1  
ALS Vial : 2 Sample Multiplier: 1
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Quant Time: Nov 04 13:47:35 2021
Quant Method : C:\msdchem\1\methods\m5w1909.M
Quant Title : T0-15 Full Scan Mode
QLast Update : Fri Jul 16 17:46:46 2021
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
 Data File : 5w46131.D
 Acq On : 4 Nov 2021 2:45 pm
 Operator : danat
 Sample : icc1909-10
 Misc : ms54715,v5w1909,,,,,1
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 04 14:17:42 2021
 Quant Method : C:\msdchem\1\methods\m5w1909.M
 Quant Title : T0-15 Full Scan Mode
 QLast Update : Thu Nov 04 14:56:35 2021
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) Bromochloromethane	11.421	130	181875	10.00	ppb(v	-0.10
53) 1,4-Difluorobenzene	13.617	114	642414	10.00	ppb(v	-0.10
76) Chlorobenzene-d5	18.884	82	265468	10.00	ppb(v	-0.10
108) Bromochloromethane (A)	11.421	130	181875	10.00	ppb(v	-0.10

System Monitoring Compounds
 90) 4-Bromofluorobenzene 20.842 95 389044 10.55 ppb(v -0.08
 Spiked Amount 10.000 Range 65 - 128 Recovery = 105.50%

Target Compounds					Qvalue
2) Freon 152A	4.398	65	83503	8.93	ppb(v 93
3) Chlorodifluoromethane	4.471	67	43588	9.23	ppb(v 98
4) Propene	4.300	41	73704	7.99	ppb(v 99
5) Chlorotrifluoroethene	4.355	116	272477	9.20	ppb(v 97
6) Dichlorodifluoromethane	4.398	85	537716	9.09	ppb(v 99
7) 1-Chloro-1,1-difluoro...	4.807	65	331012	9.22	ppb(v 97
8) Chloromethane	4.807	50	106440	8.44	ppb(v 98
9) Dichlorotetrafluoroethane	4.710	85	474890	8.91	ppb(v 96
10) Vinyl Chloride	5.028	62	137724	9.11	ppb(v# 99
11) 1,3-Butadiene	5.083	54	77587	9.01	ppb(v 97
12) n-Butane	4.918	58	19306	9.35	ppb(v 90
13) Bromomethane	5.756	94	123446	9.19	ppb(v 98
14) Chloroethane	6.056	64	63508	9.00	ppb(v 98
15) Dichlorofluoromethane	6.508	67	331162	8.92	ppb(v 100
16) Acetonitrile	9.518	41	74922	8.58	ppb(v 97
17) Freon 123	7.609	83	349412	8.39	ppb(v 94
18) Freon 123A	7.487	117	229481	9.06	ppb(v 94
19) Bromoethene	6.319	106	184810	9.38	ppb(v 98
20) Acrolein	8.117	56	49741	10.91	ppb(v 100
21) Trichlorofluoromethane	6.398	101	500490	9.11	ppb(v 99
22) Acetone	8.686	58	49880	7.77	ppb(v 83
23) Pentane	6.416	57	29682	8.33	ppb(v 95
24) Iodomethane	7.756	142	617464	9.19	ppb(v 95
25) Isopropyl Alcohol	8.484	43	37303	9.56	ppb(v 82
26) 1,1-Dichloroethene	7.487	61	226547	8.89	ppb(v 99
27) Freon 113	7.597	101	397766	8.72	ppb(v 97
28) Methylene Chloride	8.631	84	145422	7.79	ppb(v 98
29) Carbon Disulfide	7.536	76	419541	9.06	ppb(v 99
30) Ethanol	7.359	45	41166	8.87	ppb(v 98
31) Acrylonitrile	10.130	53	82712	8.66	ppb(v 99
32) 3-Chloropropene	8.441	76	71176	9.29	ppb(v 91
33) trans-1,2-Dichloroethene	8.974	61	204147	9.21	ppb(v 99
34) tert-Butyl Alcohol	9.335	59	278228	10.06	ppb(v 98
35) Methyl tert-Butyl Ether	9.200	73	427737	8.34	ppb(v 95
36) Vinyl Acetate	10.546	43	263075	9.12	ppb(v 100
37) 1,1-Dichloroethane	10.105	63	251604	8.90	ppb(v 99
38) 2-Butanone	12.039	72	65274	10.38	ppb(v 91
39) Hexane	9.182	56	105066	8.56	ppb(v 95
40) cis-1,2-Dichloroethene	11.072	61	200439	9.14	ppb(v 99
41) Di-isopropyl Ether	9.928	87	130140	9.06	ppb(v 89
42) Ethyl Acetate	11.745	61	38720	10.52	ppb(v 96
43) Methyl Acrylate	11.757	55	207720	9.41	ppb(v 98
44) Chloroform	11.555	83	378942	9.02	ppb(v 99
45) 2,4-Dimethylpentane	10.240	57	223954	8.59	ppb(v 98
46) Tetrahydrofuran	11.837	72	66133	9.03	ppb(v 96
47) 1,1,1-Trichloroethane	11.941	97	404432	9.01	ppb(v 98
48) 1,2-Dichloroethane	12.895	62	214431	9.29	ppb(v 97

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
 Data File : 5w46131.D
 Acq On : 4 Nov 2021 2:45 pm
 Operator : danat
 Sample : icc1909-10
 Misc : ms54715,v5w1909,,,,,1
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 04 14:17:42 2021
 Quant Method : C:\msdchem\1\methods\m5w1909.M
 Quant Title : T0-15 Full Scan Mode
 QLast Update : Thu Nov 04 14:56:35 2021
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
49) Benzene	12.583	78	472294	8.52	ppb(v)	99
50) Carbon Tetrachloride	11.843	117	471137	9.52	ppb(v)	99
51) Cyclohexane	11.500	56	189614	8.72	ppb(v)	96
52) 2,3-Dimethylpentane	11.672	71	98541	9.21	ppb(v)	94
54) 2,2,4-Trimethylpentane	12.381	57	602555	8.98	ppb(v)	97
55) Heptane	12.559	71	140366	9.16	ppb(v)	98
56) Trichloroethene	13.599	97	163913	9.21	ppb(v)	99
57) 1,2-Dichloropropane	14.480	63	149876	8.88	ppb(v)	93
58) Dibromomethane	14.308	174	319475	9.18	ppb(v)	98
59) Ethyl Acrylate	14.467	55	278609	9.74	ppb(v)	99
60) Methyl Methacrylate	14.828	69	159848	10.24	ppb(v)	99
61) 1,4-Dioxane	14.908	88	116905	10.19	ppb(v)	97
62) Bromodichloromethane	14.584	83	403957	9.53	ppb(v)	98
63) cis-1,3-Dichloropropene	15.691	75	290810	9.47	ppb(v)	99
64) 4-Methyl-2-pentanone	16.755	58	119643	9.88	ppb(v)	94
65) trans-1,3-Dichloropropene	16.841	75	261523	9.18	ppb(v)	99
66) Toluene	16.137	91	633352	9.19	ppb(v)	99
67) 1,1,2-Trichloroethane	17.141	97	225680	8.97	ppb(v)	98
68) 1,3-Dichloropropane	17.642	76	267097	9.34	ppb(v)	99
69) 2-Hexanone	18.285	43	239537	9.18	ppb(v)	98
70) Ethyl Methacrylate	17.116	69	260147	10.03	ppb(v#)	87
71) Dibromochloromethane	17.489	129	518562	10.00	ppb(v)	100
72) Tetrachloroethene	16.865	166	441123	9.08	ppb(v)	99
73) 1,2-Dibromoethane	17.936	107	395677	9.44	ppb(v)	98
74) Octane	15.832	43	251983	9.15	ppb(v)	96
75) 1,1,1,2-Tetrachloroethane	19.025	131	346014	9.44	ppb(v)	97
77) Chlorobenzene	18.921	112	539113	9.08	ppb(v)	100
78) Ethylbenzene	18.964	91	784680	8.97	ppb(v)	99
79) m,p-Xylene	19.215	91	1196935	17.81	ppb(v)	97
80) Styrene	20.010	104	490036	9.48	ppb(v)	98
81) Nonane	18.805	43	252034	9.10	ppb(v)	98
82) o-Xylene	19.930	91	626920	9.06	ppb(v)	97
83) Bromoform	20.059	173	560042	9.74	ppb(v)	99
84) 1,1,2,2-Tetrachloroethane	21.105	83	429857	8.74	ppb(v)	99
85) 1,2,3-Trichloropropane	21.307	75	317546	8.28	ppb(v)	99
86) Isopropylbenzene	20.426	105	912078	9.00	ppb(v)	98
87) Bromobenzene	21.007	156	361437	9.16	ppb(v)	100
88) 2-Chlorotoluene	21.270	126	242589	9.09	ppb(v)	97
89) n-Propylbenzene	21.038	120	251895	9.36	ppb(v)	99
91) 4-Ethyltoluene	21.191	105	863664	9.54	ppb(v)	99
92) 1,3,5-Trimethylbenzene	21.307	105	677678	8.85	ppb(v)	97
93) alpha-Methylstyrene	21.650	118	378160	10.07	ppb(v)	98
94) tert-Butylbenzene	21.754	134	167340	8.98	ppb(v)	97
95) 1,2,4-Trimethylbenzene	21.839	105	693195	9.86	ppb(v)	98
96) 1,3-Dichlorobenzene	22.286	146	535176	9.85	ppb(v)	99
97) 1,2,3-trimethylbenzene	22.414	105	663212	9.69	ppb(v)	98
98) Benzyl Chloride	22.683	126	133776	10.35	ppb(v)	60
99) 1,4-Dichlorobenzene	22.396	146	520529	9.77	ppb(v)	99
100) sec-Butylbenzene	21.992	134	204219	9.08	ppb(v)	99
101) p-Isopropyltoluene	22.170	134	228312	9.39	ppb(v)	94
102) 1,2-Dichlorobenzene	22.916	146	463060	9.32	ppb(v)	98
103) n-Butylbenzene	22.702	134	191616	9.87	ppb(v)	84
104) Hexachloroethane	22.910	201	321778	8.69	ppb(v)	95
105) 1,2,4-Trichlorobenzene	24.715	180	233972	13.31	ppb(v)	99
106) Naphthalene	25.143	128	416283	12.52	ppb(v)	100
107) Hexachlorobutadiene	24.672	225	307289	9.24	ppb(v)	99
109) TVHC as equiv Pentane	6.404	TIC	1570809	9.09	ppb(v)	100

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 5w46131.D
Acq On : 4 Nov 2021 2:45 pm
Operator : danat
Sample : icc1909-10
Misc : ms54715,v5w1909,,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 04 14:17:42 2021
Quant Method : C:\msdchem\1\methods\m5w1909.M
Quant Title : T0-15 Full Scan Mode
QLast Update : Thu Nov 04 14:56:35 2021
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

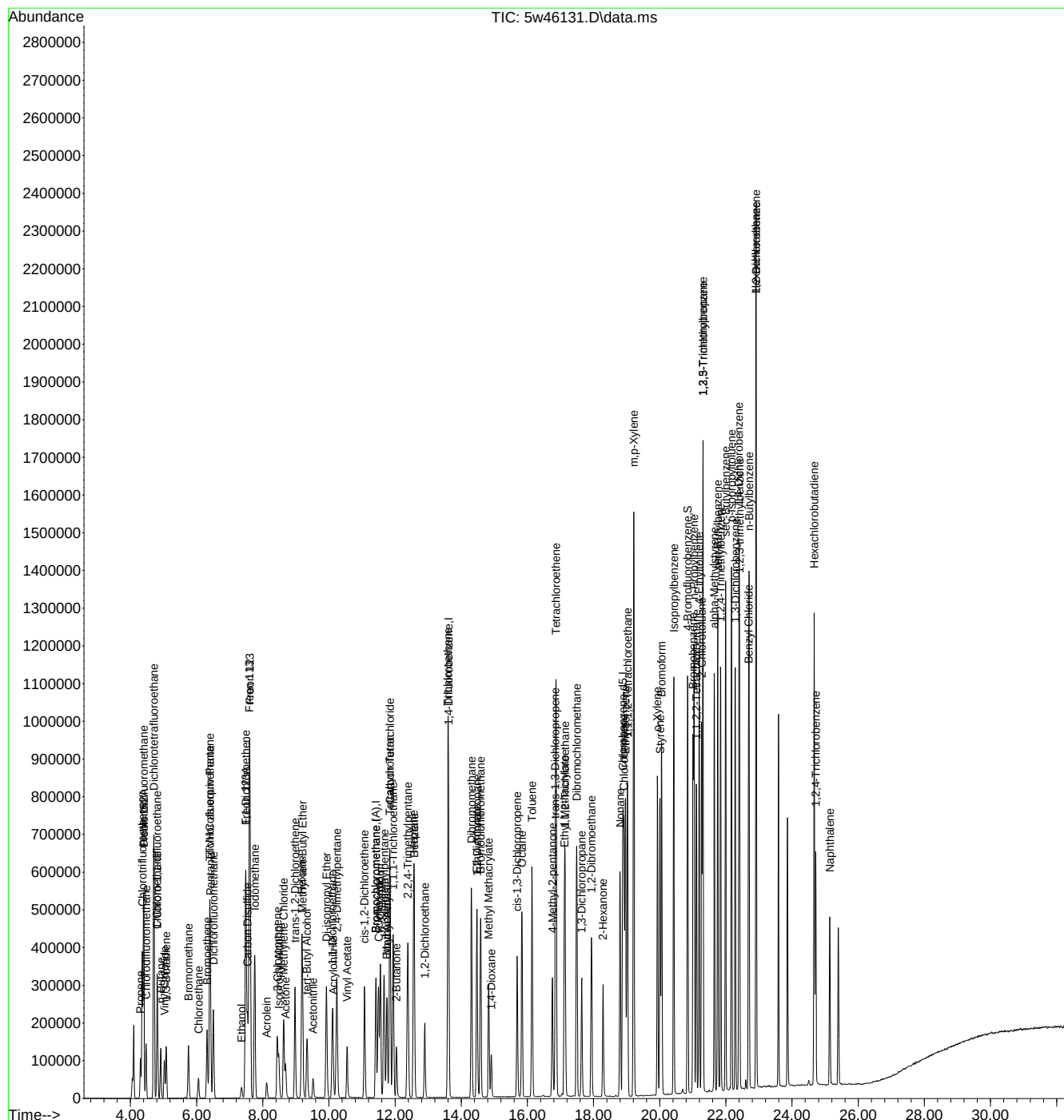
(#) = qualifier out of range (m) = manual integration (+) = signals summed

7.7.18

7

Data Path : C:\msdchem\1\data\
Data File : 5w46131.D
Acq On : 4 Nov 2021 2:45 pm
Operator : danat
Sample : icc1909-10
Misc : ms54715,v5w1909,,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 04 14:17:42 2021
Quant Method : C:\msdchem\1\methods\m5w1909.M
Quant Title : T0-15 Full Scan Mode
QLast Update : Thu Nov 04 14:56:35 2021
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
 Data File : 5w46132.D
 Acq On : 4 Nov 2021 3:36 pm
 Operator : danat
 Sample : ic1909-20
 Misc : ms54715,v5w1909,,,,,1
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 04 15:11:23 2021
 Quant Method : C:\msdchem\1\methods\m5w1909.M
 Quant Title : T0-15 Full Scan Mode
 QLast Update : Thu Nov 04 15:26:07 2021
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) Bromochloromethane	11.421	130	173514	10.00	ppb(v	0.00
53) 1,4-Difluorobenzene	13.617	114	594114	10.00	ppb(v	0.00
76) Chlorobenzene-d5	18.884	82	255057	10.00	ppb(v	0.00
108) Bromochloromethane (A)	11.421	130	173514	10.00	ppb(v	0.00

System Monitoring Compounds
 90) 4-Bromofluorobenzene 20.842 95 371805 10.49 ppb(v 0.00
 Spiked Amount 10.000 Range 65 - 128 Recovery = 104.90%

Target Compounds					Qvalue	
2) Freon 152A	4.391	65	155319	17.43	ppb(v	99
3) Chlorodifluoromethane	4.465	67	83550	19.25	ppb(v#	100
4) Propene	4.294	41	139796	16.72	ppb(v#	88
5) Chlorotrifluoroethene	4.349	116	512907	17.06	ppb(v	96
6) Dichlorodifluoromethane	4.391	85	893886	15.32	ppb(v	99
7) 1-Chloro-1,1-difluoro...	4.801	65	626319	17.38	ppb(v#	70
8) Chloromethane	4.801	50	193802	14.82	ppb(v	88
9) Dichlorotetrafluoroethane	4.703	85	881260	16.33	ppb(v	91
10) Vinyl Chloride	5.022	62	260358	17.17	ppb(v#	94
11) 1,3-Butadiene	5.077	54	154048	18.16	ppb(v	96
12) n-Butane	4.911	58	36606	18.89	ppb(v	95
13) Bromomethane	5.750	94	236879	16.80	ppb(v#	95
14) Chloroethane	6.055	64	121947	17.68	ppb(v#	87
15) Dichlorofluoromethane	6.502	67	622460	16.42	ppb(v	97
16) Acetonitrile	9.524	41	139731	17.38	ppb(v#	82
17) Freon 123	7.609	83	631628	15.37	ppb(v	97
18) Freon 123A	7.481	117	421295	16.27	ppb(v#	85
19) Bromoethene	6.312	106	345874	17.76	ppb(v	96
20) Acrolein	8.117	56	91824	20.64	ppb(v	100
21) Trichlorofluoromethane	6.392	101	944585	16.79	ppb(v	93
22) Acetone	8.686	58	94440	16.34	ppb(v	80
23) Pentane	6.416	57	55168	17.06	ppb(v	89
24) Iodomethane	7.756	142	1142155	16.79	ppb(v	94
25) Isopropyl Alcohol	8.490	43	69432	18.85	ppb(v	96
26) 1,1-Dichloroethene	7.487	61	413943	16.40	ppb(v	96
27) Freon 113	7.597	101	723156	15.94	ppb(v	93
28) Methylene Chloride	8.631	84	266758	15.86	ppb(v	99
29) Carbon Disulfide	7.536	76	784244	16.79	ppb(v	100
30) Ethanol	7.365	45	79102	18.38	ppb(v	99
31) Acrylonitrile	10.130	53	155090	17.60	ppb(v#	40
32) 3-Chloropropene	8.441	76	134741	18.95	ppb(v	93
33) trans-1,2-Dichloroethene	8.974	61	381264	17.09	ppb(v	96
34) tert-Butyl Alcohol	9.341	59	524106	19.30	ppb(v#	77
35) Methyl tert-Butyl Ether	9.200	73	787034	13.85	ppb(v#	46
36) Vinyl Acetate	10.552	43	506313	19.26	ppb(v#	100
37) 1,1-Dichloroethane	10.105	63	460389	16.16	ppb(v#	96
38) 2-Butanone	12.045	72	123985	20.48	ppb(v	100
39) Hexane	9.182	56	191580	16.29	ppb(v#	79
40) cis-1,2-Dichloroethene	11.078	61	371713	16.87	ppb(v	96
41) Di-isopropyl Ether	9.928	87	243934	16.99	ppb(v	78
42) Ethyl Acetate	11.745	61	71855	20.20	ppb(v	97
43) Methyl Acrylate	11.763	55	382450	18.79	ppb(v#	95
44) Chloroform	11.561	83	710362	17.10	ppb(v	94
45) 2,4-Dimethylpentane	10.246	57	412535	15.98	ppb(v	99
46) Tetrahydrofuran	11.837	72	120950	18.06	ppb(v	82
47) 1,1,1-Trichloroethane	11.947	97	756017	16.71	ppb(v	94
48) 1,2-Dichloroethane	12.901	62	406569	17.83	ppb(v#	96

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
 Data File : 5w46132.D
 Acq On : 4 Nov 2021 3:36 pm
 Operator : danat
 Sample : ic1909-20
 Misc : ms54715,v5w1909,,,,,1
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 04 15:11:23 2021
 Quant Method : C:\msdchem\1\methods\m5w1909.M
 Quant Title : T0-15 Full Scan Mode
 QLast Update : Thu Nov 04 15:26:07 2021
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
49) Benzene	12.583	78	834844	14.38	ppb(v	93
50) Carbon Tetrachloride	11.849	117	872904	17.75	ppb(v	96
51) Cyclohexane	11.500	56	351269	16.13	ppb(v	87
52) 2,3-Dimethylpentane	11.672	71	182142	17.71	ppb(v#	77
54) 2,2,4-Trimethylpentane	12.387	57	1083629	16.63	ppb(v	96
55) Heptane	12.565	71	250192	17.53	ppb(v	90
56) Trichloroethene	13.605	97	295207	17.46	ppb(v#	1
57) 1,2-Dichloropropane	14.480	63	269502	17.07	ppb(v#	88
58) Dibromomethane	14.314	174	586083	16.47	ppb(v	96
59) Ethyl Acrylate	14.473	55	507398	19.71	ppb(v#	18
60) Methyl Methacrylate	14.834	69	291625	21.25	ppb(v#	84
61) 1,4-Dioxane	14.908	88	212535	20.64	ppb(v#	86
62) Bromodichloromethane	14.590	83	744857	18.40	ppb(v#	97
63) cis-1,3-Dichloropropene	15.691	75	539556	18.12	ppb(v	92
64) 4-Methyl-2-pentanone	16.755	58	220089	21.25	ppb(v#	85
65) trans-1,3-Dichloropropene	16.847	75	470492	16.61	ppb(v	88
66) Toluene	16.144	91	1164050	17.58	ppb(v	92
67) 1,1,2-Trichloroethane	17.141	97	399083	16.64	ppb(v	89
68) 1,3-Dichloropropane	17.648	76	488764	17.67	ppb(v#	76
69) 2-Hexanone	18.285	43	450873	19.15	ppb(v	89
70) Ethyl Methacrylate	17.116	69	468111	20.87	ppb(v#	38
71) Dibromochloromethane	17.496	129	947713	19.11	ppb(v#	97
72) Tetrachloroethene	16.872	166	762998	15.91	ppb(v	90
73) 1,2-Dibromoethane	17.942	107	715373	17.91	ppb(v#	97
74) Octane	15.838	43	454833	18.25	ppb(v	94
75) 1,1,1,2-Tetrachloroethane	19.025	131	615987	17.53	ppb(v	94
77) Chlorobenzene	18.921	112	974482	16.34	ppb(v	85
78) Ethylbenzene	18.964	91	1401937	15.85	ppb(v#	96
79) m,p-Xylene	19.221	91	2071910	30.43	ppb(v	97
80) Styrene	20.010	104	873971	17.51	ppb(v#	89
81) Nonane	18.805	43	456945	16.75	ppb(v#	87
82) o-Xylene	19.937	91	1144312	16.40	ppb(v#	92
83) Bromoform	20.059	173	984072	17.26	ppb(v	91
84) 1,1,2,2-Tetrachloroethane	21.111	83	764269	15.49	ppb(v	95
85) 1,2,3-Trichloropropane	21.307	75	541135	14.72	ppb(v	94
86) Isopropylbenzene	20.426	105	1613011	15.69	ppb(v	92
87) Bromobenzene	21.013	156	646352	16.02	ppb(v	98
88) 2-Chlorotoluene	21.270	126	429644	16.05	ppb(v	93
89) n-Propylbenzene	21.044	120	445083	16.62	ppb(v	94
91) 4-Ethyltoluene	21.197	105	1534929	17.02	ppb(v	97
92) 1,3,5-Trimethylbenzene	21.313	105	1171882	15.51	ppb(v	93
93) alpha-Methylstyrene	21.656	118	676425	18.51	ppb(v	88
94) tert-Butylbenzene	21.753	134	287848	14.79	ppb(v	86
95) 1,2,4-Trimethylbenzene	21.845	105	1230695	17.52	ppb(v#	91
96) 1,3-Dichlorobenzene	22.286	146	962606	17.83	ppb(v	93
97) 1,2,3-trimethylbenzene	22.414	105	1171063	17.09	ppb(v#	95
98) Benzyl Chloride	22.683	126	238448	18.52	ppb(v#	39
99) 1,4-Dichlorobenzene	22.396	146	910652	17.09	ppb(v	91
100) sec-Butylbenzene	21.992	134	359204	15.39	ppb(v	81
101) p-Isopropyltoluene	22.176	134	402215	16.16	ppb(v	97
102) 1,2-Dichlorobenzene	22.922	146	773246	15.17	ppb(v	95
103) n-Butylbenzene	22.708	134	346257	17.76	ppb(v	82
104) Hexachloroethane	22.916	201	539116	14.14	ppb(v	96
105) 1,2,4-Trichlorobenzene	24.714	180	513563	28.73	ppb(v#	82
106) Naphthalene	25.143	128	929471	26.58	ppb(v	91
107) Hexachlorobutadiene	24.672	225	607449	17.01	ppb(v#	69
109) TVHC as equiv Pentane	6.398	TIC	2960111	18.37	ppb(v	100

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 5w46132.D
Acq On : 4 Nov 2021 3:36 pm
Operator : danat
Sample : ic1909-20
Misc : ms54715,v5w1909,,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 04 15:11:23 2021
Quant Method : C:\msdchem\1\methods\m5w1909.M
Quant Title : T0-15 Full Scan Mode
QLast Update : Thu Nov 04 15:26:07 2021
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

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

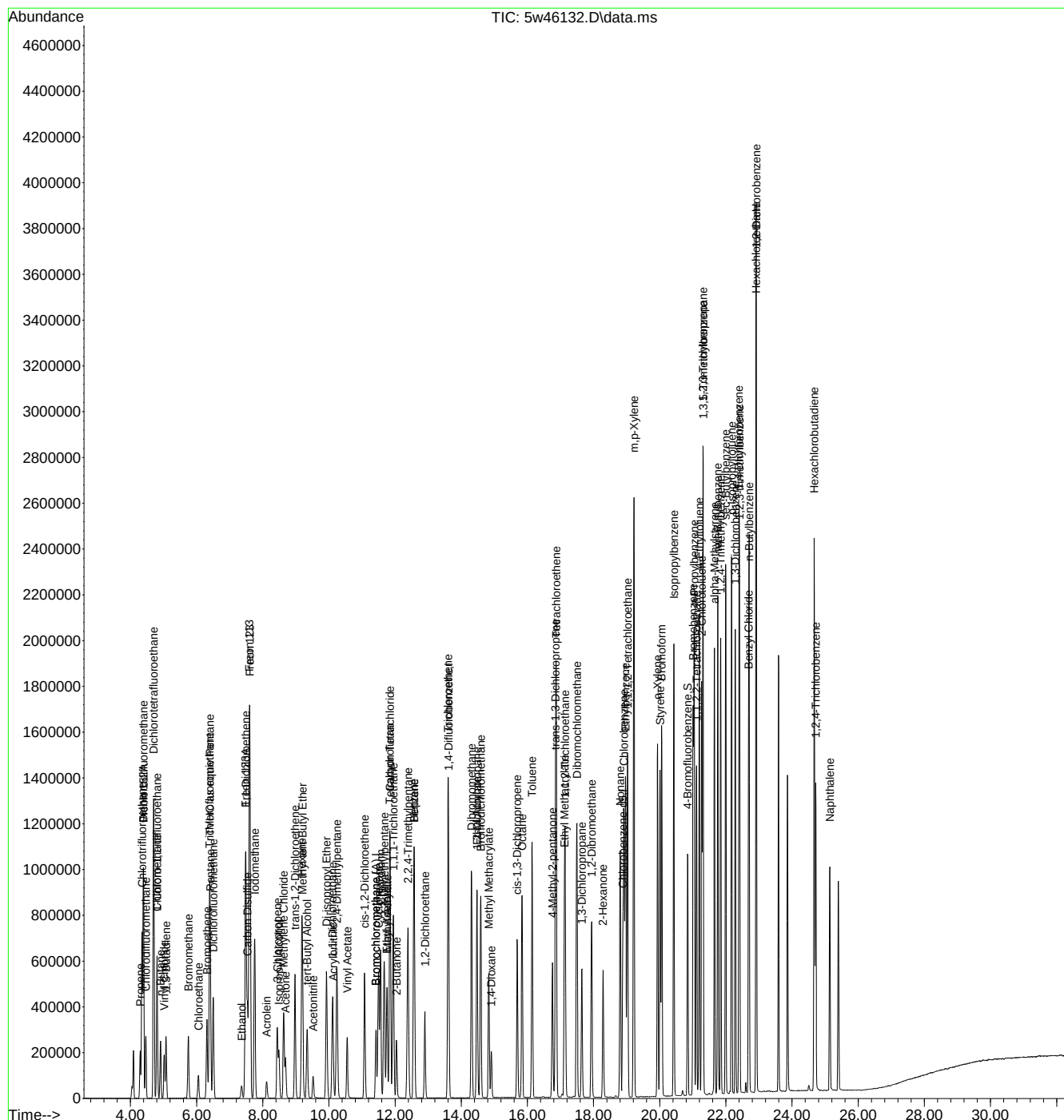
7.7.19

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Quantitation Report (QT Reviewed)

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Data Path : C:\msdchem\1\data\  
Data File : 5w46132.D  
Acq On : 4 Nov 2021 3:36 pm  
Operator : danat  
Sample : ic1909-20  
Misc : ms54715,v5w1909,,,,,1  
ALS Vial : 2 Sample Multiplier: 1
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Quant Time: Nov 04 15:11:23 2021
Quant Method : C:\msdchem\1\methods\m5w1909.M
Quant Title : T0-15 Full Scan Mode
QLast Update : Thu Nov 04 15:26:07 2021
Response via : Initial Calibration



7.7.19



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
 Data File : 5w46133.D
 Acq On : 4 Nov 2021 4:30 pm
 Operator : danat
 Sample : ic1909-40
 Misc : ms54715,v5w1909,,,,,1
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 04 16:05:20 2021
 Quant Method : C:\msdchem\1\methods\m5w1909.M
 Quant Title : T0-15 Full Scan Mode
 QLast Update : Thu Nov 04 16:12:42 2021
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) Bromochloromethane	11.427	130	167471	10.00	ppb(v	0.01
53) 1,4-Difluorobenzene	13.623	114	555244	10.00	ppb(v	0.01
76) Chlorobenzene-d5	18.890	82	246139	10.00	ppb(v	0.00
108) Bromochloromethane (A)	11.427	130	167471	10.00	ppb(v	0.01

System Monitoring Compounds
 90) 4-Bromofluorobenzene 20.848 95 362642 10.53 ppb(v 0.00
 Spiked Amount 10.000 Range 65 - 128 Recovery = 105.30%

Target Compounds					Qvalue	
2) Freon 152A	4.385	65	274890	32.66	ppb(v	95
3) Chlorodifluoromethane	4.459	67	159347	38.27	ppb(v#	100
4) Propene	4.287	41	262983	33.69	ppb(v#	89
5) Chlorotrifluoroethene	4.343	116	959360	33.77	ppb(v	94
6) Dichlorodifluoromethane	4.385	85	1635970	30.05	ppb(v	98
7) 1-Chloro-1,1-difluoro...	4.801	65	1176332	34.46	ppb(v#	70
8) Chloromethane	4.795	50	354088	29.13	ppb(v	90
9) Dichlorotetrafluoroethane	4.697	85	1577835	31.11	ppb(v	91
10) Vinyl Chloride	5.015	62	485238	33.85	ppb(v#	94
11) 1,3-Butadiene	5.071	54	274938	34.02	ppb(v	97
12) n-Butane	4.905	58	68361	36.96	ppb(v	96
13) Bromomethane	5.743	94	453614	34.12	ppb(v#	97
14) Chloroethane	6.049	64	223171	34.18	ppb(v#	88
15) Dichlorofluoromethane	6.496	67	1149136	32.22	ppb(v	96
16) Acetonitrile	9.524	41	259510	34.35	ppb(v#	82
17) Freon 123	7.609	83	1072950	27.97	ppb(v	95
18) Freon 123A	7.481	117	751434	30.89	ppb(v#	86
19) Bromoethene	6.312	106	641675	34.69	ppb(v	95
20) Acrolein	8.117	56	175917	40.71	ppb(v	100
21) Trichlorofluoromethane	6.392	101	1731675	32.64	ppb(v	93
22) Acetone	8.686	58	175822	32.71	ppb(v	79
23) Pentane	6.410	57	97460	32.01	ppb(v	85
24) Iodomethane	7.756	142	2062906	32.15	ppb(v	92
25) Isopropyl Alcohol	8.490	43	127260	36.22	ppb(v	97
26) 1,1-Dichloroethene	7.481	61	741750	31.26	ppb(v	99
27) Freon 113	7.597	101	1242531	29.22	ppb(v	93
28) Methylene Chloride	8.631	84	487743	31.34	ppb(v	99
29) Carbon Disulfide	7.536	76	1417860	32.19	ppb(v	99
30) Ethanol	7.365	45	138746	33.96	ppb(v	99
31) Acrylonitrile	10.130	53	281819	33.81	ppb(v#	41
32) 3-Chloropropene	8.441	76	244157	35.85	ppb(v	90
33) trans-1,2-Dichloroethene	8.974	61	690822	32.77	ppb(v	96
34) tert-Butyl Alcohol	9.347	59	955328	36.63	ppb(v#	78
35) Methyl tert-Butyl Ether	9.200	73	1413106	32.26	ppb(v#	43
36) Vinyl Acetate	10.552	43	961842	38.14	ppb(v#	100
37) 1,1-Dichloroethane	10.105	63	836709	31.29	ppb(v#	97
38) 2-Butanone	12.045	72	227418	38.73	ppb(v	98
39) Hexane	9.182	56	335992	30.40	ppb(v#	78
40) cis-1,2-Dichloroethene	11.078	61	678853	32.65	ppb(v	96
41) Di-isopropyl Ether	9.928	87	443455	32.70	ppb(v	79
42) Ethyl Acetate	11.745	61	126337	36.72	ppb(v	98
43) Methyl Acrylate	11.769	55	681432	35.04	ppb(v#	96
44) Chloroform	11.561	83	1299418	33.09	ppb(v	95
45) 2,4-Dimethylpentane	10.246	57	738365	30.51	ppb(v	98
46) Tetrahydrofuran	11.837	72	203335	31.97	ppb(v	81
47) 1,1,1-Trichloroethane	11.947	97	1373212	32.20	ppb(v	93
48) 1,2-Dichloroethane	12.901	62	741562	34.23	ppb(v#	96

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
 Data File : 5w46133.D
 Acq On : 4 Nov 2021 4:30 pm
 Operator : danat
 Sample : ic1909-40
 Misc : ms54715,v5w1909,,,,,1
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 04 16:05:20 2021
 Quant Method : C:\msdchem\1\methods\m5w1909.M
 Quant Title : T0-15 Full Scan Mode
 QLast Update : Thu Nov 04 16:12:42 2021
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
49) Benzene	12.589	78	1404983	26.12	ppb(v	92
50) Carbon Tetrachloride	11.849	117	1561032	33.43	ppb(v	95
51) Cyclohexane	11.500	56	644356	31.53	ppb(v	87
52) 2,3-Dimethylpentane	11.678	71	326206	33.41	ppb(v#	81
54) 2,2,4-Trimethylpentane	12.393	57	1931300	32.49	ppb(v	97
55) Heptane	12.565	71	418903	31.97	ppb(v	89
56) Trichloroethene	13.605	97	538287	34.70	ppb(v#	1
57) 1,2-Dichloropropane	14.486	63	467340	32.36	ppb(v#	86
58) Dibromomethane	14.314	174	1035526	31.95	ppb(v	92
59) Ethyl Acrylate	14.473	55	898133	37.43	ppb(v#	18
60) Methyl Methacrylate	14.834	69	532344	41.08	ppb(v	83
61) 1,4-Dioxane	14.908	88	371283	38.41	ppb(v#	87
62) Bromodichloromethane	14.590	83	1365790	36.52	ppb(v#	99
63) cis-1,3-Dichloropropene	15.697	75	991973	36.13	ppb(v	92
64) 4-Methyl-2-pentanone	16.761	58	395940	40.55	ppb(v#	85
65) trans-1,3-Dichloropropene	16.847	75	822310	31.84	ppb(v	89
66) Toluene	16.144	91	2061292	33.89	ppb(v	92
67) 1,1,2-Trichloroethane	17.147	97	676018	30.90	ppb(v	90
68) 1,3-Dichloropropane	17.649	76	893405	35.14	ppb(v#	77
69) 2-Hexanone	18.291	43	832204	38.06	ppb(v	90
70) Ethyl Methacrylate	17.122	69	794859	37.68	ppb(v#	44
71) Dibromochloromethane	17.496	129	1680069	36.48	ppb(v#	97
72) Tetrachloroethene	16.872	166	1238986	28.48	ppb(v	88
73) 1,2-Dibromoethane	17.948	107	1281783	34.86	ppb(v#	97
74) Octane	15.844	43	812593	35.51	ppb(v	91
75) 1,1,1,2-Tetrachloroethane	19.031	131	1089943	33.79	ppb(v	93
77) Chlorobenzene	18.921	112	1727523	30.83	ppb(v	86
78) Ethylbenzene	18.970	91	2492732	30.10	ppb(v#	95
79) m,p-Xylene	19.227	91	3439830	54.20	ppb(v	97
80) Styrene	20.016	104	1527187	32.28	ppb(v#	89
81) Nonane	18.811	43	784996	30.52	ppb(v#	89
82) o-Xylene	19.937	91	2013408	30.69	ppb(v#	92
83) Bromoform	20.065	173	1659417	30.76	ppb(v	92
84) 1,1,2,2-Tetrachloroethane	21.111	83	1301484	28.25	ppb(v	94
85) 1,2,3-Trichloropropane	21.313	75	871412	25.69	ppb(v	94
86) Isopropylbenzene	20.432	105	2776553	28.88	ppb(v	93
87) Bromobenzene	21.013	156	1081381	28.58	ppb(v	98
88) 2-Chlorotoluene	21.276	126	736033	29.32	ppb(v	92
89) n-Propylbenzene	21.044	120	744651	29.52	ppb(v	96
91) 4-Ethyltoluene	21.203	105	2674449	31.39	ppb(v	96
92) 1,3,5-Trimethylbenzene	21.313	105	1904401	26.98	ppb(v	92
93) alpha-Methylstyrene	21.656	118	1181063	33.85	ppb(v	88
94) tert-Butylbenzene	21.760	134	479888	26.53	ppb(v	82
95) 1,2,4-Trimethylbenzene	21.845	105	2153395	32.34	ppb(v#	89
96) 1,3-Dichlorobenzene	22.292	146	1640930	32.00	ppb(v	93
97) 1,2,3-trimethylbenzene	22.420	105	1979981	30.58	ppb(v#	96
98) Benzyl Chloride	22.690	126	406079	33.03	ppb(v	51
99) 1,4-Dichlorobenzene	22.396	146	1505480	29.90	ppb(v	91
100) sec-Butylbenzene	21.998	134	602871	27.67	ppb(v	79
101) p-Isopropyltoluene	22.176	134	672050	28.77	ppb(v	93
102) 1,2-Dichlorobenzene	22.928	146	1179201	24.83	ppb(v	95
103) n-Butylbenzene	22.708	134	580048	31.34	ppb(v	87
104) Hexachloroethane	22.916	201	830713	23.57	ppb(v	91
105) 1,2,4-Trichlorobenzene	24.721	180	1059405	57.24	ppb(v#	83
106) Naphthalene	25.143	128	1989255	55.88	ppb(v	91
107) Hexachlorobutadiene	24.678	225	1073141	31.82	ppb(v#	68
109) TVHC as equiv Pentane	6.398	TIC	5424303	35.46	ppb(v	100

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 5w46133.D
Acq On : 4 Nov 2021 4:30 pm
Operator : danat
Sample : ic1909-40
Misc : ms54715,v5w1909,,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 04 16:05:20 2021
Quant Method : C:\msdchem\1\methods\m5w1909.M
Quant Title : T0-15 Full Scan Mode
QLast Update : Thu Nov 04 16:12:42 2021
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

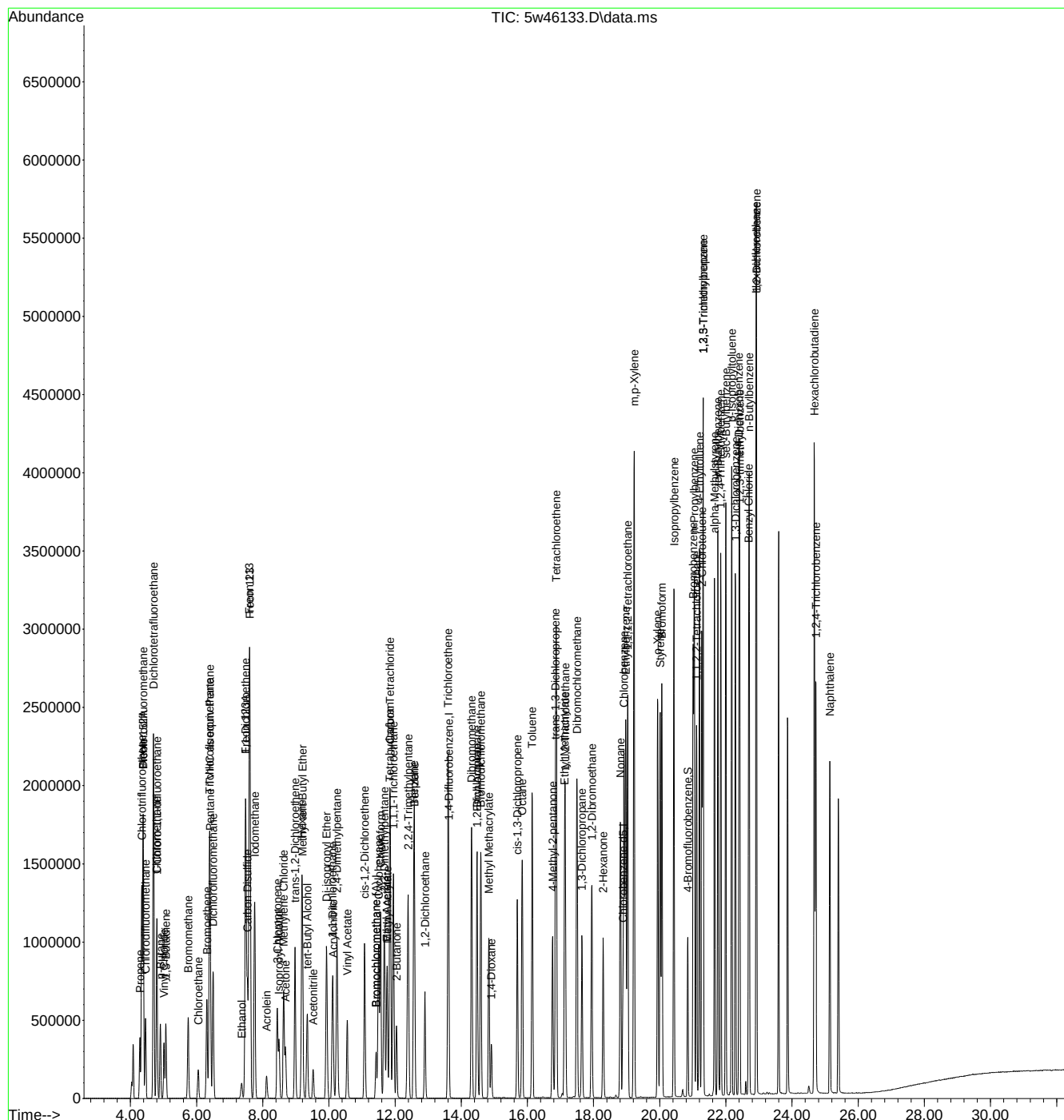
(#) = qualifier out of range (m) = manual integration (+) = signals summed

7.7.20

7

Data Path : C:\msdchem\1\data\
Data File : 5w46133.D
Acq On : 4 Nov 2021 4:30 pm
Operator : danat
Sample : ic1909-40
Misc : ms54715,v5w1909,,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 04 16:05:20 2021
Quant Method : C:\msdchem\1\methods\m5w1909.M
Quant Title : T0-15 Full Scan Mode
QLast Update : Thu Nov 04 16:12:42 2021
Response via : Initial Calibration



7.7.20

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
 Data File : 5w46134.D
 Acq On : 4 Nov 2021 5:25 pm
 Operator : danat
 Sample : ic1909-50
 Misc : ms54715,v5w1909,,,,,1
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 08 09:08:53 2021
 Quant Method : C:\msdchem\1\methods\m5w1909.M
 Quant Title : T0-15 Full Scan Mode
 QLast Update : Thu Nov 04 17:06:34 2021
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) Bromochloromethane	11.427	130	165709	10.00	ppb(v	0.01
53) 1,4-Difluorobenzene	13.623	114	530588	10.00	ppb(v	0.01
76) Chlorobenzene-d5	18.891	82	238940	10.00	ppb(v	0.00
108) Bromochloromethane (A)	11.427	130	165709	10.00	ppb(v	0.01

System Monitoring Compounds
 90) 4-Bromofluorobenzene 20.848 95 358475 10.65 ppb(v 0.00
 Spiked Amount 10.000 Range 65 - 128 Recovery = 106.50%

Target Compounds					Qvalue	
2) Freon 152A	4.386	65	326443	40.26	ppb(v	94
3) Chlorodifluoromethane	4.453	67	194746	47.57	ppb(v#	100
4) Propene	4.288	41	323490	43.01	ppb(v#	88
5) Chlorotrifluoroethene	4.343	116	1141021	41.40	ppb(v	93
6) Dichlorodifluoromethane	4.386	85	1936960	37.11	ppb(v	99
7) 1-Chloro-1,1-difluoro...	4.795	65	1426815	42.99	ppb(v#	70
8) Chloromethane	4.795	50	418047	35.97	ppb(v	90
9) Dichlorotetrafluoroethane	4.698	85	1858971	38.10	ppb(v	91
10) Vinyl Chloride	5.016	62	584498	42.01	ppb(v#	94
11) 1,3-Butadiene	5.071	54	330780	42.15	ppb(v	97
12) n-Butane	4.906	58	81635	45.18	ppb(v	98
13) Bromomethane	5.744	94	548786	42.49	ppb(v#	98
14) Chloroethane	6.050	64	268783	42.49	ppb(v#	88
15) Dichlorofluoromethane	6.496	67	1381950	40.14	ppb(v	97
16) Acetonitrile	9.524	41	310898	42.59	ppb(v#	83
17) Freon 123	7.610	83	1248071	34.16	ppb(v	95
18) Freon 123A	7.481	117	893530	38.21	ppb(v#	88
19) Bromoethene	6.306	106	779564	43.31	ppb(v	96
20) Acrolein	8.117	56	209742	48.90	ppb(v	99
21) Trichlorofluoromethane	6.392	101	2064038	40.24	ppb(v	92
22) Acetone	8.686	58	212675	41.24	ppb(v	81
23) Pentane	6.410	57	113916	38.93	ppb(v	84
24) Iodomethane	7.750	142	2448562	39.54	ppb(v	90
25) Isopropyl Alcohol	8.497	43	151543	44.28	ppb(v	93
26) 1,1-Dichloroethene	7.481	61	880731	38.56	ppb(v	98
27) Freon 113	7.597	101	1449148	35.64	ppb(v	94
28) Methylene Chloride	8.631	84	588060	39.61	ppb(v	99
29) Carbon Disulfide	7.536	76	1700880	40.00	ppb(v	100
30) Ethanol	7.365	45	166427	42.23	ppb(v	99
31) Acrylonitrile	10.130	53	339478	42.09	ppb(v#	40
32) 3-Chloropropene	8.442	76	294835	44.32	ppb(v	90
33) trans-1,2-Dichloroethene	8.974	61	835387	40.98	ppb(v	95
34) tert-Butyl Alcohol	9.347	59	1154344	45.21	ppb(v#	78
35) Methyl tert-Butyl Ether	9.200	73	1667630	39.76	ppb(v#	44
36) Vinyl Acetate	10.552	43	1170148	47.21	ppb(v#	100
37) 1,1-Dichloroethane	10.106	63	1010851	39.28	ppb(v#	96
38) 2-Butanone	12.045	72	276901	47.91	ppb(v	97
39) Hexane	9.182	56	395064	37.24	ppb(v#	79
40) cis-1,2-Dichloroethene	11.078	61	821646	40.88	ppb(v	96
41) Di-isopropyl Ether	9.934	87	528681	40.32	ppb(v	83
42) Ethyl Acetate	11.751	61	150176	44.73	ppb(v	99
43) Methyl Acrylate	11.770	55	812549	42.98	ppb(v#	96
44) Chloroform	11.562	83	1554253	40.88	ppb(v	95
45) 2,4-Dimethylpentane	10.246	57	878461	37.80	ppb(v	98
46) Tetrahydrofuran	11.837	72	239437	39.17	ppb(v	80
47) 1,1,1-Trichloroethane	11.953	97	1650152	40.09	ppb(v	93
48) 1,2-Dichloroethane	12.901	62	908564	43.16	ppb(v#	97

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
 Data File : 5w46134.D
 Acq On : 4 Nov 2021 5:25 pm
 Operator : danat
 Sample : ic1909-50
 Misc : ms54715,v5w1909,,,,,1
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 08 09:08:53 2021
 Quant Method : C:\msdchem\1\methods\m5w1909.M
 Quant Title : T0-15 Full Scan Mode
 QLast Update : Thu Nov 04 17:06:34 2021
 Response via : Initial Calibration

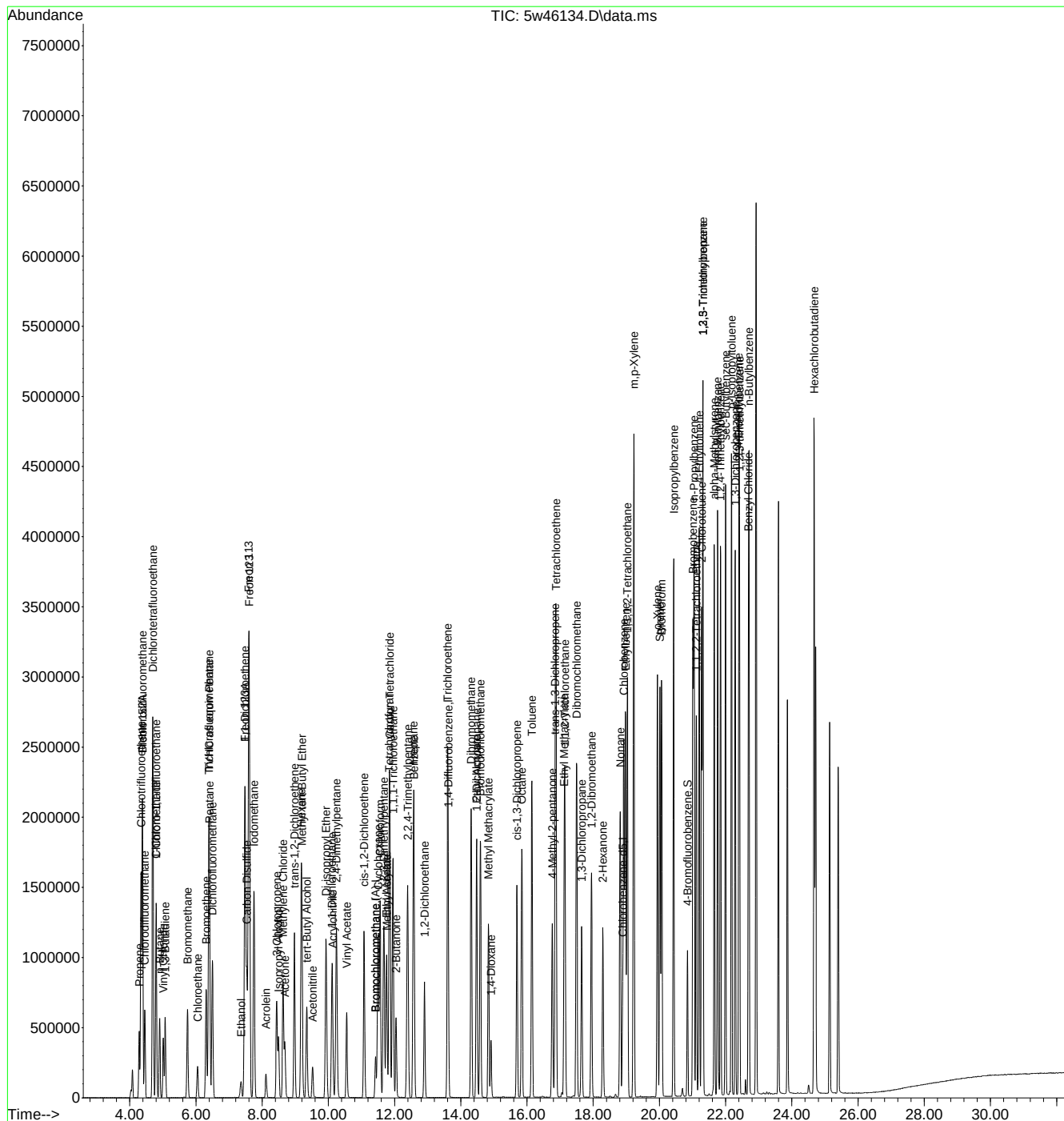
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
49) Benzene	12.589	78	1650457	35.09	ppb(v	92
50) Carbon Tetrachloride	11.855	117	1869871	41.32	ppb(v	96
51) Cyclohexane	11.500	56	764882	38.86	ppb(v	87
52) 2,3-Dimethylpentane	11.678	71	384581	40.65	ppb(v#	84
54) 2,2,4-Trimethylpentane	12.394	57	2291200	41.31	ppb(v	98
55) Heptane	12.571	71	487875	39.96	ppb(v	89
56) Trichloroethene	13.605	97	637746	43.74	ppb(v#	1
57) 1,2-Dichloropropane	14.486	63	545407	40.48	ppb(v#	85
58) Dibromomethane	14.315	174	1232673	40.82	ppb(v	91
59) Ethyl Acrylate	14.474	55	1048483	46.15	ppb(v#	18
60) Methyl Methacrylate	14.835	69	642871	51.71	ppb(v	84
61) 1,4-Dioxane	14.914	88	445713	48.49	ppb(v#	86
62) Bromodichloromethane	14.590	83	1626850	46.03	ppb(v#	99
63) cis-1,3-Dichloropropene	15.697	75	1194540	46.09	ppb(v	92
64) 4-Methyl-2-pentanone	16.762	58	473370	50.65	ppb(v#	86
65) trans-1,3-Dichloropropene	16.847	75	980788	40.78	ppb(v	89
66) Toluene	16.150	91	2434535	42.70	ppb(v	91
67) 1,1,2-Trichloroethane	17.147	97	783995	38.59	ppb(v	89
68) 1,3-Dichloropropane	17.655	76	1064001	44.47	ppb(v#	77
69) 2-Hexanone	18.291	43	995616	47.94	ppb(v	91
70) Ethyl Methacrylate	17.123	69	926276	46.29	ppb(v#	43
71) Dibromochloromethane	17.496	129	1992804	45.79	ppb(v#	97
72) Tetrachloroethene	16.878	166	1430364	35.69	ppb(v	88
73) 1,2-Dibromoethane	17.948	107	1521136	44.00	ppb(v#	96
74) Octane	15.844	43	954386	44.47	ppb(v	91
75) 1,1,1,2-Tetrachloroethane	19.031	131	1282302	42.42	ppb(v	93
77) Chlorobenzene	18.927	112	2010400	38.05	ppb(v	86
78) Ethylbenzene	18.976	91	2908067	37.33	ppb(v#	95
79) m,p-Xylene	19.227	91	3983545	67.37	ppb(v	96
80) Styrene	20.016	104	1788589	39.91	ppb(v#	90
81) Nonane	18.817	43	928552	38.33	ppb(v#	87
82) o-Xylene	19.943	91	2395995	38.75	ppb(v#	92
83) Bromoform	20.065	173	1936192	38.08	ppb(v	92
84) 1,1,2,2-Tetrachloroethane	21.111	83	1515907	35.19	ppb(v	94
85) 1,2,3-Trichloropropane	21.313	75	999504	31.99	ppb(v	94
86) Isopropylbenzene	20.432	105	3284555	36.46	ppb(v	93
87) Bromobenzene	21.013	156	1263972	35.69	ppb(v	97
88) 2-Chlorotoluene	21.277	126	846364	35.93	ppb(v#	89
89) n-Propylbenzene	21.044	120	885092	37.37	ppb(v	97
91) 4-Ethyltoluene	21.203	105	3126909	38.85	ppb(v	96
92) 1,3,5-Trimethylbenzene	21.313	105	2180903	33.17	ppb(v	92
93) alpha-Methylstyrene	21.656	118	1402569	42.22	ppb(v	89
94) tert-Butylbenzene	21.760	134	554018	32.94	ppb(v	78
95) 1,2,4-Trimethylbenzene	21.845	105	2529239	40.09	ppb(v#	89
96) 1,3-Dichlorobenzene	22.292	146	1911087	39.37	ppb(v	93
97) 1,2,3-trimethylbenzene	22.421	105	2301079	37.73	ppb(v#	96
98) Benzyl Chloride	22.690	126	476278	40.79	ppb(v	48
99) 1,4-Dichlorobenzene	22.396	146	1721751	36.37	ppb(v	91
100) sec-Butylbenzene	21.998	134	697284	34.29	ppb(v	76
101) p-Isopropyltoluene	22.176	134	784302	35.85	ppb(v	92
103) n-Butylbenzene	22.708	134	670806	38.37	ppb(v	91
107) Hexachlorobutadiene	24.678	225	1275915	39.99	ppb(v#	68
109) TVHC as equiv Pentane	6.398	TIC	6433479	43.32	ppb(v	100

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 5W46134.D
Acq On : 4 Nov 2021 5:25 pm
Operator : danat
Sample : ic1909-50
Misc : ms54715,v5w1909,,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 08 09:08:53 2021
Quant Method : C:\msdchem\1\methods\m5w1909.M
Quant Title : T0-15 Full Scan Mode
QLast Update : Thu Nov 04 17:06:34 2021
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
 Data File : 5w46137.D
 Acq On : 4 Nov 2021 7:52 pm
 Operator : danat
 Sample : icv1909-10
 Misc : ms54715,v5w1909,,,,,1
 ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 08 09:10:54 2021
 Quant Method : C:\msdchem\1\methods\m5w1909.M
 Quant Title : T0-15 Full Scan Mode
 QLast Update : Mon Nov 08 09:09:12 2021
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) Bromochloromethane	11.421	130	172183	10.00	ppb(v	0.00
53) 1,4-Difluorobenzene	13.617	114	607759	10.00	ppb(v	0.00
76) Chlorobenzene-d5	18.884	82	256103	10.00	ppb(v	0.00
108) Bromochloromethane (A)	11.421	130	172183	10.00	ppb(v	0.00

System Monitoring Compounds
 90) 4-Bromofluorobenzene 20.842 95 370613 10.20 ppb(v 0.00
 Spiked Amount 10.000 Range 65 - 128 Recovery = 102.00%

Target Compounds					Qvalue	
2) Freon 152A	4.379	65	83545	10.16	ppb(v	98
3) Chlorodifluoromethane	4.447	67	45045	10.65	ppb(v#	100
4) Propene	4.281	41	71203	9.30	ppb(v#	88
5) Chlorotrifluoroethene	4.330	116	284900	10.14	ppb(v	91
6) Dichlorodifluoromethane	4.373	85	466305	8.85	ppb(v	98
7) 1-Chloro-1,1-difluoro...	4.789	65	347588	10.24	ppb(v#	70
8) Chloromethane	4.789	50	104237	8.91	ppb(v	89
9) Dichlorotetrafluoroethane	4.685	85	463304	9.39	ppb(v	92
10) Vinyl Chloride	5.003	62	138144	9.73	ppb(v#	94
11) 1,3-Butadiene	5.064	54	80451	10.04	ppb(v	96
12) n-Butane	4.893	58	18738	10.12	ppb(v	95
13) Bromomethane	5.737	94	122830	9.31	ppb(v#	97
14) Chloroethane	6.037	64	63108	9.79	ppb(v#	88
15) Dichlorofluoromethane	6.490	67	321304	9.18	ppb(v	97
16) Acetonitrile	9.518	41	66808	9.00	ppb(v#	82
17) Freon 123	7.597	83	363491	9.93	ppb(v	96
18) Freon 123A	7.475	117	254965	10.78	ppb(v#	88
19) Bromoethene	6.300	106	188273	10.22	ppb(v	97
20) Acrolein	8.111	56	45302	10.20	ppb(v	98
21) Trichlorofluoromethane	6.380	101	498399	9.56	ppb(v	93
22) Acetone	8.680	58	49888	9.55	ppb(v	83
23) Pentane	6.404	57	30070	10.17	ppb(v	87
24) Iodomethane	7.744	142	626248	9.96	ppb(v	95
25) Isopropyl Alcohol	8.478	43	35368	10.11	ppb(v	96
26) 1,1-Dichloroethene	7.475	61	227783	9.85	ppb(v	96
27) Freon 113	7.585	101	400167	9.78	ppb(v	94
28) Methylene Chloride	8.625	84	145981	9.75	ppb(v	97
29) Carbon Disulfide	7.524	76	446513	10.34	ppb(v	99
30) Ethanol	7.359	45	34611	8.64	ppb(v	99
31) Acrylonitrile	10.124	53	78699	9.58	ppb(v#	41
32) 3-Chloropropene	8.429	76	71409	10.46	ppb(v	96
33) trans-1,2-Dichloroethene	8.968	61	208469	10.04	ppb(v	96
34) tert-Butyl Alcohol	9.335	59	241099	9.19	ppb(v#	78
35) Methyl tert-Butyl Ether	9.194	73	427340	10.10	ppb(v#	48
36) Vinyl Acetate	10.546	43	256300	10.02	ppb(v#	100
37) 1,1-Dichloroethane	10.099	63	246817	9.46	ppb(v#	95
38) 2-Butanone	12.039	72	63226	10.59	ppb(v	98
39) Hexane	9.169	56	106530	9.95	ppb(v	91
40) cis-1,2-Dichloroethene	11.072	61	196338	9.59	ppb(v	96
41) Di-isopropyl Ether	9.922	87	130759	9.81	ppb(v	80
42) Ethyl Acetate	11.745	61	40603	11.82	ppb(v	98
43) Methyl Acrylate	11.757	55	203314	10.54	ppb(v#	96
44) Chloroform	11.555	83	381589	9.86	ppb(v	94
45) 2,4-Dimethylpentane	10.234	57	216588	9.22	ppb(v	98
46) Tetrahydrofuran	11.837	72	61231	9.91	ppb(v	82
47) 1,1,1-Trichloroethane	11.941	97	406466	9.72	ppb(v	92
48) 1,2-Dichloroethane	12.895	62	214413	9.95	ppb(v#	97

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
 Data File : 5w46137.D
 Acq On : 4 Nov 2021 7:52 pm
 Operator : danat
 Sample : icv1909-10
 Misc : ms54715,v5w1909,,,,,1
 ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 08 09:10:54 2021
 Quant Method : C:\msdchem\1\methods\m5w1909.M
 Quant Title : T0-15 Full Scan Mode
 QLast Update : Mon Nov 08 09:09:12 2021
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
49) Benzene	12.577	78	455215	9.67	ppb(v	92
50) Carbon Tetrachloride	11.843	117	472480	10.25	ppb(v	96
51) Cyclohexane	11.494	56	187272	9.39	ppb(v	86
52) 2,3-Dimethylpentane	11.665	71	96068	9.98	ppb(v#	78
54) 2,2,4-Trimethylpentane	12.387	57	586274	9.41	ppb(v	96
55) Heptane	12.559	71	136645	9.99	ppb(v	90
56) Trichloroethene	13.599	97	161490	9.81	ppb(v#	1
57) 1,2-Dichloropropane	14.474	63	146641	9.71	ppb(v#	88
58) Dibromomethane	14.308	174	322820	9.53	ppb(v	95
59) Ethyl Acrylate	14.467	55	274287	10.64	ppb(v#	18
60) Methyl Methacrylate	14.828	69	148041	10.35	ppb(v	84
61) 1,4-Dioxane	14.908	88	104851	9.99	ppb(v#	87
62) Bromodichloromethane	14.584	83	397991	9.92	ppb(v#	98
63) cis-1,3-Dichloropropene	15.691	75	305287	10.37	ppb(v	92
64) 4-Methyl-2-pentanone	16.755	58	116162	10.83	ppb(v#	85
65) trans-1,3-Dichloropropene	16.841	75	260283	9.65	ppb(v	88
66) Toluene	16.138	91	617553	9.61	ppb(v	92
67) 1,1,2-Trichloroethane	17.141	97	222797	9.82	ppb(v	90
68) 1,3-Dichloropropane	17.642	76	260792	9.63	ppb(v#	76
69) 2-Hexanone	18.285	43	231448	9.77	ppb(v	88
70) Ethyl Methacrylate	17.116	69	257962	11.35	ppb(v#	42
71) Dibromochloromethane	17.490	129	509855	10.32	ppb(v#	96
72) Tetrachloroethene	16.866	166	436400	9.82	ppb(v	89
73) 1,2-Dibromoethane	17.936	107	385660	9.87	ppb(v#	98
74) Octane	15.832	43	243517	10.07	ppb(v	92
75) 1,1,1,2-Tetrachloroethane	19.025	131	339293	9.97	ppb(v	93
77) Chlorobenzene	18.915	112	525733	9.54	ppb(v	85
78) Ethylbenzene	18.964	91	774287	9.54	ppb(v#	94
79) m,p-Xylene	19.215	91	1172585	19.20	ppb(v	97
80) Styrene	20.010	104	468933	9.99	ppb(v#	87
81) Nonane	18.799	43	246127	9.73	ppb(v#	88
82) o-Xylene	19.930	91	614361	9.51	ppb(v#	92
83) Bromoform	20.059	173	531814	10.02	ppb(v	91
84) 1,1,2,2-Tetrachloroethane	21.105	83	407662	9.13	ppb(v	94
85) 1,2,3-Trichloropropane	21.307	75	306533	9.59	ppb(v	95
86) Isopropylbenzene	20.426	105	899360	9.60	ppb(v	91
87) Bromobenzene	21.007	156	348465	9.48	ppb(v	100
88) 2-Chlorotoluene	21.270	126	238857	9.77	ppb(v	96
89) n-Propylbenzene	21.038	120	246335	9.98	ppb(v	95
91) 4-Ethyltoluene	21.191	105	858793	10.21	ppb(v	96
92) 1,3,5-Trimethylbenzene	21.307	105	687349	10.13	ppb(v	93
93) alpha-Methylstyrene	21.650	118	364982	10.43	ppb(v	87
94) tert-Butylbenzene	21.754	134	164529	9.49	ppb(v	92
95) 1,2,4-Trimethylbenzene	21.839	105	685335	10.36	ppb(v#	91
96) 1,3-Dichlorobenzene	22.286	146	514935	10.14	ppb(v	93
97) 1,2,3-trimethylbenzene	22.414	105	636543	10.01	ppb(v#	94
98) Benzyl Chloride	22.683	126	125005	10.20	ppb(v#	43
99) 1,4-Dichlorobenzene	22.396	146	487598	9.91	ppb(v	91
100) sec-Butylbenzene	21.992	134	204408	9.72	ppb(v	84
101) p-Isopropyltoluene	22.170	134	225750	9.94	ppb(v	98
102) 1,2-Dichlorobenzene	22.916	146	439724	9.34	ppb(v	95
103) n-Butylbenzene	22.702	134	190842	10.46	ppb(v	91
104) Hexachloroethane	22.910	201	325556	9.36	ppb(v	96
105) 1,2,4-Trichlorobenzene	24.715	180	230810	11.29	ppb(v#	83
106) Naphthalene	25.143	128	396002	10.12	ppb(v	92
107) Hexachlorobutadiene	24.672	225	340870	10.20	ppb(v#	69
109) TVHC as equiv Pentane	6.386	TIC	1581184	10.45	ppb(v	100

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 5w46137.D
Acq On : 4 Nov 2021 7:52 pm
Operator : danat
Sample : icv1909-10
Misc : ms54715,v5w1909,,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 08 09:10:54 2021
Quant Method : C:\msdchem\1\methods\m5w1909.M
Quant Title : T0-15 Full Scan Mode
QLast Update : Mon Nov 08 09:09:12 2021
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

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

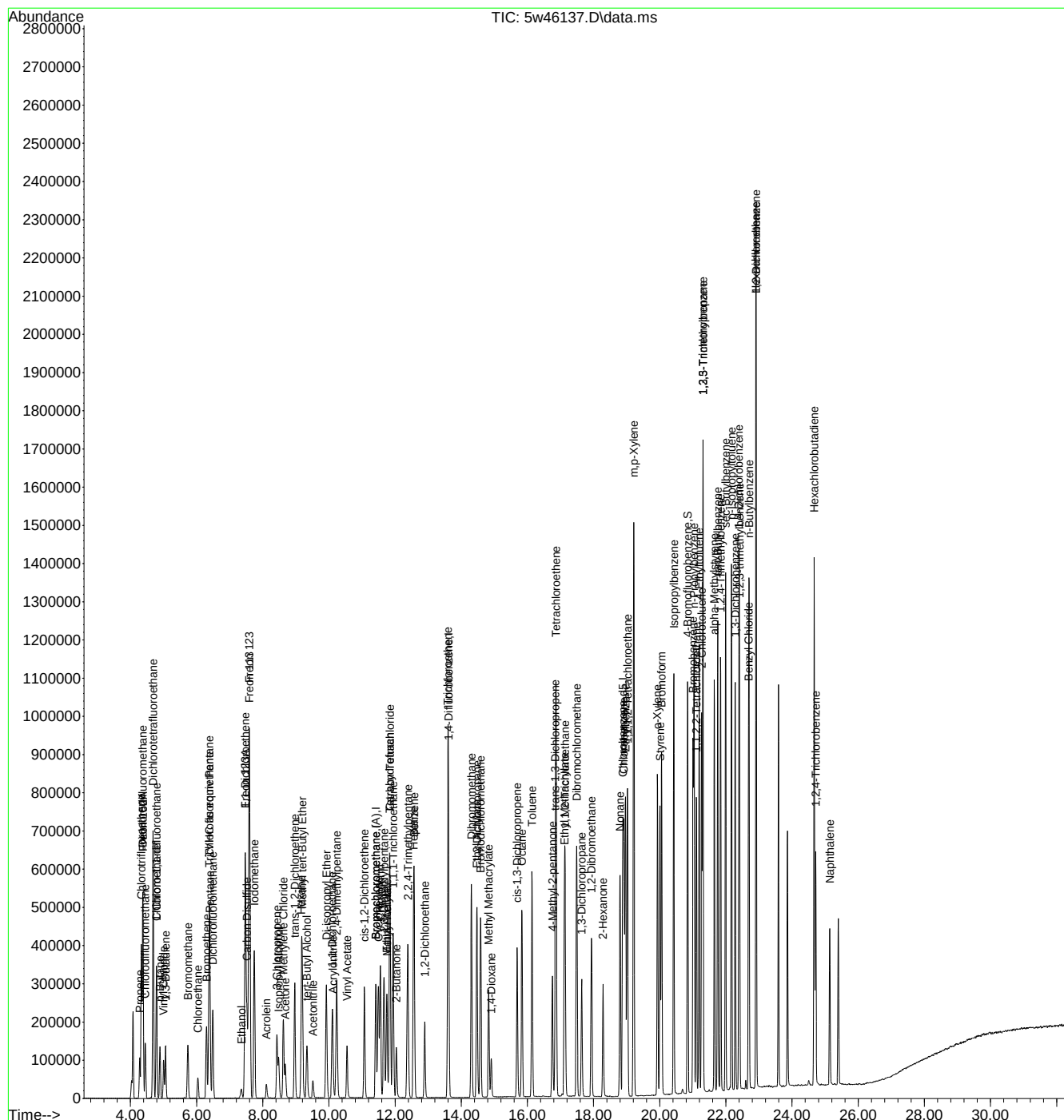
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Quantitation Report (QT Reviewed)

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Data Path : C:\msdchem\1\data\  
Data File : 5w46137.D  
Acq On : 4 Nov 2021 7:52 pm  
Operator : danat  
Sample : icv1909-10  
Misc : ms54715,v5w1909,,,,,1  
ALS Vial : 4 Sample Multiplier: 1
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Quant Time: Nov 08 09:10:54 2021
Quant Method : C:\msdchem\1\methods\m5w1909.M
Quant Title : T0-15 Full Scan Mode
QLast Update : Mon Nov 08 09:09:12 2021
Response via : Initial Calibration



7.7.22 7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
 Data File : 5W46775.D
 Acq On : 13 Dec 2021 8:38 am
 Operator : danat
 Sample : cc1909-10
 Misc : ms55457,v5w1935,,,,,1
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 13 09:17:42 2021
 Quant Method : C:\msdchem\1\methods\m5w1909.M
 Quant Title : T0-15 Full Scan Mode
 QLast Update : Mon Nov 08 09:09:12 2021
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) Bromochloromethane	11.390	130	190395	10.00	ppb(v	-0.02
53) 1,4-Difluorobenzene	13.580	114	675967	10.00	ppb(v	-0.03
76) Chlorobenzene-d5	18.848	82	285440	10.00	ppb(v	-0.04
108) Bromochloromethane (A)	11.390	130	190395	10.00	ppb(v	-0.02

System Monitoring Compounds
 90) 4-Bromofluorobenzene 20.818 95 398637 9.84 ppb(v -0.02
 Spiked Amount 10.000 Range 65 - 128 Recovery = 98.40%

Target Compounds					Qvalue	
2) Freon 152A	4.386	65	93108	10.24	ppb(v	96
3) Chlorodifluoromethane	4.459	67	50164	10.73	ppb(v#	100
4) Propene	4.288	41	82141	9.70	ppb(v#	88
5) Chlorotrifluoroethene	4.343	116	292727	9.42	ppb(v	97
6) Dichlorodifluoromethane	4.386	85	609512	10.46	ppb(v	99
7) 1-Chloro-1,1-difluoro...	4.789	65	375912	10.01	ppb(v#	71
8) Chloromethane	4.789	50	117157	9.06	ppb(v	91
9) Dichlorotetrafluoroethane	4.691	85	529513	9.70	ppb(v	95
10) Vinyl Chloride	5.010	62	152305	9.70	ppb(v#	95
11) 1,3-Butadiene	5.065	54	88508	9.99	ppb(v	94
12) n-Butane	4.899	58	21146	10.33	ppb(v	97
13) Bromomethane	5.731	94	150361	10.31	ppb(v#	99
14) Chloroethane	6.037	64	73114	10.25	ppb(v#	89
15) Dichlorofluoromethane	6.478	67	381642	9.86	ppb(v	97
16) Acetonitrile	9.482	41	78728	9.59	ppb(v#	81
17) Freon 123	7.585	83	403638	9.97	ppb(v	95
18) Freon 123A	7.457	117	253026	9.67	ppb(v#	80
19) Bromoethene	6.294	106	205646	10.09	ppb(v	96
20) Acrolein	8.093	56	48819	9.94	ppb(v	99
21) Trichlorofluoromethane	6.374	101	576438	10.00	ppb(v	92
22) Acetone	8.656	58	55418	9.59	ppb(v	78
23) Pentane	6.398	57	35652	10.91	ppb(v	82
24) Iodomethane	7.726	142	680831	9.80	ppb(v	94
25) Isopropyl Alcohol	8.460	43	42938	11.10	ppb(v	96
26) 1,1-Dichloroethene	7.463	61	264949	10.36	ppb(v	99
27) Freon 113	7.579	101	455014	10.06	ppb(v	92
28) Methylene Chloride	8.601	84	162026	9.79	ppb(v	99
29) Carbon Disulfide	7.512	76	470144	9.84	ppb(v	99
30) Ethanol	7.340	45	43620	9.85	ppb(v	99
31) Acrylonitrile	10.093	53	88496	9.74	ppb(v#	37
32) 3-Chloropropene	8.411	76	81190	10.76	ppb(v	88
33) trans-1,2-Dichloroethene	8.949	61	235813	10.27	ppb(v	93
34) tert-Butyl Alcohol	9.310	59	325641	11.22	ppb(v#	78
35) Methyl tert-Butyl Ether	9.176	73	505301	10.80	ppb(v#	43
36) Vinyl Acetate	10.522	43	280492	9.92	ppb(v#	100
37) 1,1-Dichloroethane	10.075	63	287359	9.96	ppb(v#	95
38) 2-Butanone	12.008	72	72237	10.94	ppb(v	98
39) Hexane	9.157	56	123098	10.39	ppb(v#	81
40) cis-1,2-Dichloroethene	11.042	61	232554	10.28	ppb(v	94
41) Di-isopropyl Ether	9.904	87	153132	10.39	ppb(v	78
42) Ethyl Acetate	11.715	61	43610	11.48	ppb(v	96
43) Methyl Acrylate	11.727	55	225665	10.58	ppb(v#	94
44) Chloroform	11.525	83	438629	10.25	ppb(v	94
45) 2,4-Dimethylpentane	10.216	57	260323	10.02	ppb(v	99
46) Tetrahydrofuran	11.806	72	76097	11.14	ppb(v	81
47) 1,1,1-Trichloroethane	11.910	97	464856	10.05	ppb(v	93
48) 1,2-Dichloroethane	12.865	62	249164	10.46	ppb(v#	94

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
 Data File : 5W46775.D
 Acq On : 13 Dec 2021 8:38 am
 Operator : danat
 Sample : cc1909-10
 Misc : ms55457,v5w1935,,,,,1
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 13 09:17:42 2021
 Quant Method : C:\msdchem\1\methods\m5w1909.M
 Quant Title : T0-15 Full Scan Mode
 QLast Update : Mon Nov 08 09:09:12 2021
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
49) Benzene	12.547	78	519734	9.99	ppb(v	92
50) Carbon Tetrachloride	11.819	117	542377	10.64	ppb(v	96
51) Cyclohexane	11.470	56	219069	9.93	ppb(v	88
52) 2,3-Dimethylpentane	11.641	71	112734	10.59	ppb(v#	76
54) 2,2,4-Trimethylpentane	12.363	57	690063	9.96	ppb(v	96
55) Heptane	12.534	71	158348	10.41	ppb(v	90
56) Trichloroethene	13.568	97	185127	10.11	ppb(v#	1
57) 1,2-Dichloropropane	14.443	63	172208	10.25	ppb(v#	89
58) Dibromomethane	14.278	174	337315	8.95	ppb(v	90
59) Ethyl Acrylate	14.437	55	306608	10.70	ppb(v#	18
60) Methyl Methacrylate	14.798	69	173130	10.89	ppb(v	83
61) 1,4-Dioxane	14.877	88	127811	10.95	ppb(v#	88
62) Bromodichloromethane	14.553	83	467089	10.46	ppb(v	99
63) cis-1,3-Dichloropropene	15.654	75	327955	10.02	ppb(v	93
64) 4-Methyl-2-pentanone	16.719	58	132656	11.12	ppb(v#	84
65) trans-1,3-Dichloropropene	16.804	75	288463	9.61	ppb(v	90
66) Toluene	16.107	91	696741	9.75	ppb(v	91
67) 1,1,2-Trichloroethane	17.104	97	250270	9.92	ppb(v	88
68) 1,3-Dichloropropane	17.606	76	296345	9.84	ppb(v#	78
69) 2-Hexanone	18.248	43	257277	9.77	ppb(v	91
70) Ethyl Methacrylate	17.080	69	286266	11.32	ppb(v#	39
71) Dibromochloromethane	17.453	129	570943	10.39	ppb(v#	97
72) Tetrachloroethene	16.835	166	485801	9.83	ppb(v	89
73) 1,2-Dibromoethane	17.900	107	424297	9.76	ppb(v#	98
74) Octane	15.807	43	291881	10.85	ppb(v	93
75) 1,1,1,2-Tetrachloroethane	18.988	131	382514	10.10	ppb(v	95
77) Chlorobenzene	18.884	112	586777	9.55	ppb(v	87
78) Ethylbenzene	18.927	91	866888	9.58	ppb(v#	96
79) m,p-Xylene	19.184	91	1301075	19.11	ppb(v	97
80) Styrene	19.980	104	509230	9.73	ppb(v#	88
81) Nonane	18.774	43	289443	10.27	ppb(v#	89
82) o-Xylene	19.906	91	698570	9.70	ppb(v#	91
83) Bromoform	20.029	173	593740	10.04	ppb(v	92
84) 1,1,2,2-Tetrachloroethane	21.081	83	479093	9.63	ppb(v	94
85) 1,2,3-Trichloropropane	21.277	75	364183	10.22	ppb(v	97
86) Isopropylbenzene	20.396	105	1020730	9.78	ppb(v	92
87) Bromobenzene	20.983	156	374886	9.15	ppb(v	98
88) 2-Chlorotoluene	21.246	126	261106	9.58	ppb(v	94
89) n-Propylbenzene	21.013	120	273851	9.96	ppb(v	97
91) 4-Ethyltoluene	21.166	105	956312	10.20	ppb(v	95
92) 1,3,5-Trimethylbenzene	21.283	105	783051	10.36	ppb(v	92
93) alpha-Methylstyrene	21.631	118	395716	10.15	ppb(v	89
94) tert-Butylbenzene	21.729	134	179541	9.29	ppb(v	87
95) 1,2,4-Trimethylbenzene	21.821	105	770739	10.46	ppb(v#	89
96) 1,3-Dichlorobenzene	22.261	146	552716	9.76	ppb(v	93
97) 1,2,3-trimethylbenzene	22.390	105	748146	10.56	ppb(v#	95
98) Benzyl Chloride	22.665	126	131512	9.63	ppb(v	59
99) 1,4-Dichlorobenzene	22.372	146	522271	9.52	ppb(v	91
100) sec-Butylbenzene	21.968	134	226526	9.66	ppb(v	76
101) p-Isopropyltoluene	22.151	134	249006	9.84	ppb(v	98
102) 1,2-Dichlorobenzene	22.898	146	485442	9.25	ppb(v	95
103) n-Butylbenzene	22.684	134	206499	10.15	ppb(v	82
104) Hexachloroethane	22.892	201	335268	8.65	ppb(v	95
105) 1,2,4-Trichlorobenzene	24.690	180	205798	9.03	ppb(v#	83
106) Naphthalene	25.118	128	338681	7.76	ppb(v#	91
107) Hexachlorobutadiene	24.653	225	337385	9.05	ppb(v#	69
109) TVHC as equiv Pentane	6.380	TIC	1861470	11.12	ppb(v	100

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 5w46775.D
Acq On : 13 Dec 2021 8:38 am
Operator : danat
Sample : cc1909-10
Misc : ms55457,v5w1935,,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 13 09:17:42 2021
Quant Method : C:\msdchem\1\methods\m5w1909.M
Quant Title : T0-15 Full Scan Mode
QLast Update : Mon Nov 08 09:09:12 2021
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

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

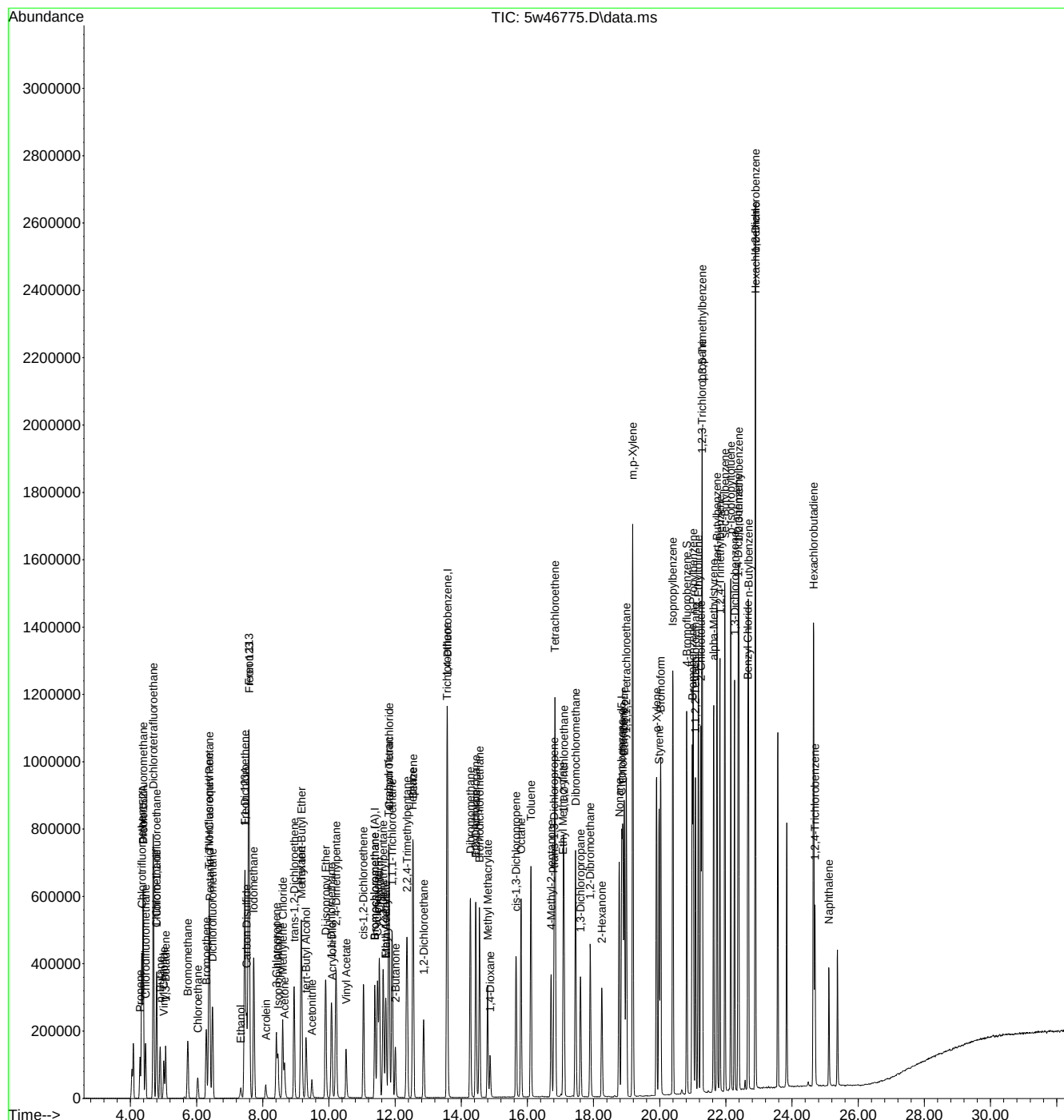
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Quantitation Report (QT Reviewed)

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Data Path : C:\msdchem\1\data\  
Data File : 5w46775.D  
Acq On : 13 Dec 2021 8:38 am  
Operator : danat  
Sample : cc1909-10  
Misc : ms55457,v5w1935,,,,,1  
ALS Vial : 2 Sample Multiplier: 1
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Quant Time: Dec 13 09:17:42 2021
Quant Method : C:\msdchem\1\methods\m5w1909.M
Quant Title : T0-15 Full Scan Mode
QLast Update : Mon Nov 08 09:09:12 2021
Response via : Initial Calibration



7.7.23



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
 Data File : 5w46803.D
 Acq On : 14 Dec 2021 8:42 am
 Operator : danat
 Sample : cc1909-10
 Misc : ms55468,v5w1936,,,,,1
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 14 09:15:21 2021
 Quant Method : C:\msdchem\1\methods\m5w1909.M
 Quant Title : T0-15 Full Scan Mode
 QLast Update : Mon Nov 08 09:09:12 2021
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

Internal Standards						
1) Bromochloromethane	11.390	130	189464	10.00	ppb(v	-0.02
53) 1,4-Difluorobenzene	13.580	114	676287	10.00	ppb(v	-0.03
76) Chlorobenzene-d5	18.848	82	291365	10.00	ppb(v	-0.04
108) Bromochloromethane (A)	11.390	130	189464	10.00	ppb(v	-0.02

System Monitoring Compounds						
90) 4-Bromofluorobenzene	20.817	95	406045	9.82	ppb(v	-0.02
Spiked Amount	10.000	Range	65 - 128	Recovery	=	98.20%

Target Compounds					Qvalue	
2) Freon 152A	4.391	65	91203	10.08	ppb(v	94
3) Chlorodifluoromethane	4.459	67	49435	10.63	ppb(v#	100
4) Propene	4.294	41	80386	9.54	ppb(v#	87
5) Chlorotrifluoroethene	4.343	116	289833	9.38	ppb(v	97
6) Dichlorodifluoromethane	4.385	85	606481	10.46	ppb(v	98
7) 1-Chloro-1,1-difluoro...	4.795	65	370816	9.93	ppb(v#	71
8) Chloromethane	4.795	50	114907	8.93	ppb(v	89
9) Dichlorotetrafluoroethane	4.697	85	517657	9.53	ppb(v	95
10) Vinyl Chloride	5.009	62	151471	9.69	ppb(v#	92
11) 1,3-Butadiene	5.071	54	85539	9.70	ppb(v	95
12) n-Butane	4.899	58	21183	10.40	ppb(v	95
13) Bromomethane	5.731	94	140479	9.68	ppb(v#	98
14) Chloroethane	6.037	64	71287	10.05	ppb(v#	87
15) Dichlorofluoromethane	6.484	67	375797	9.76	ppb(v	97
16) Acetonitrile	9.488	41	76427	9.36	ppb(v#	81
17) Freon 123	7.585	83	399139	9.90	ppb(v	97
18) Freon 123A	7.456	117	248931	9.56	ppb(v#	82
19) Bromoethene	6.294	106	200901	9.91	ppb(v	95
20) Acrolein	8.093	56	47940	9.81	ppb(v	99
21) Trichlorofluoromethane	6.380	101	561340	9.78	ppb(v	93
22) Acetone	8.662	58	53465	9.30	ppb(v	77
23) Pentane	6.398	57	34259	10.53	ppb(v	83
24) Iodomethane	7.726	142	666161	9.63	ppb(v	94
25) Isopropyl Alcohol	8.466	43	41883	10.88	ppb(v	90
26) 1,1-Dichloroethene	7.463	61	258644	10.16	ppb(v	98
27) Freon 113	7.579	101	446720	9.93	ppb(v	91
28) Methylene Chloride	8.607	84	159108	9.66	ppb(v	99
29) Carbon Disulfide	7.511	76	463832	9.76	ppb(v	100
30) Ethanol	7.346	45	42820	9.72	ppb(v	98
31) Acrylonitrile	10.093	53	86038	9.52	ppb(v#	38
32) 3-Chloropropene	8.411	76	79532	10.59	ppb(v	85
33) trans-1,2-Dichloroethene	8.943	61	228564	10.01	ppb(v	91
34) tert-Butyl Alcohol	9.310	59	314353	10.88	ppb(v#	78
35) Methyl tert-Butyl Ether	9.175	73	486094	10.44	ppb(v#	47
36) Vinyl Acetate	10.515	43	275358	9.78	ppb(v#	100
37) 1,1-Dichloroethane	10.075	63	280071	9.75	ppb(v#	96
38) 2-Butanone	12.008	72	69197	10.53	ppb(v	95
39) Hexane	9.151	56	118064	10.02	ppb(v	89
40) cis-1,2-Dichloroethene	11.041	61	222442	9.88	ppb(v	94
41) Di-isopropyl Ether	9.904	87	144269	9.83	ppb(v	75
42) Ethyl Acetate	11.714	61	41319	10.93	ppb(v	99
43) Methyl Acrylate	11.727	55	216312	10.19	ppb(v#	94
44) Chloroform	11.525	83	424251	9.96	ppb(v	94
45) 2,4-Dimethylpentane	10.216	57	250253	9.68	ppb(v	98
46) Tetrahydrofuran	11.806	72	73070	10.75	ppb(v	84
47) 1,1,1-Trichloroethane	11.910	97	451972	9.82	ppb(v	94
48) 1,2-Dichloroethane	12.864	62	243165	10.26	ppb(v#	95

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
 Data File : 5w46803.D
 Acq On : 14 Dec 2021 8:42 am
 Operator : danat
 Sample : cc1909-10
 Misc : ms55468,v5w1936,,,,,1
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 14 09:15:21 2021
 Quant Method : C:\msdchem\1\methods\m5w1909.M
 Quant Title : T0-15 Full Scan Mode
 QLast Update : Mon Nov 08 09:09:12 2021
 Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
49) Benzene	12.546	78	505921	9.77	ppb(v	93
50) Carbon Tetrachloride	11.812	117	524384	10.33	ppb(v	96
51) Cyclohexane	11.470	56	211420	9.63	ppb(v	88
52) 2,3-Dimethylpentane	11.641	71	107138	10.11	ppb(v#	82
54) 2,2,4-Trimethylpentane	12.357	57	669154	9.65	ppb(v	96
55) Heptane	12.534	71	153392	10.08	ppb(v	90
56) Trichloroethene	13.568	97	179015	9.77	ppb(v#	1
57) 1,2-Dichloropropane	14.443	63	165545	9.85	ppb(v#	88
58) Dibromomethane	14.272	174	325047	8.62	ppb(v	87
59) Ethyl Acrylate	14.437	55	298016	10.39	ppb(v#	18
60) Methyl Methacrylate	14.798	69	168838	10.61	ppb(v	82
61) 1,4-Dioxane	14.871	88	125197	10.72	ppb(v#	86
62) Bromodichloromethane	14.553	83	447776	10.03	ppb(v	98
63) cis-1,3-Dichloropropene	15.654	75	313226	9.57	ppb(v	92
64) 4-Methyl-2-pentanone	16.719	58	130236	10.92	ppb(v#	84
65) trans-1,3-Dichloropropene	16.804	75	279477	9.31	ppb(v	89
66) Toluene	16.107	91	677806	9.48	ppb(v	91
67) 1,1,2-Trichloroethane	17.098	97	244602	9.69	ppb(v	86
68) 1,3-Dichloropropane	17.606	76	289099	9.60	ppb(v#	77
69) 2-Hexanone	18.248	43	251230	9.53	ppb(v	90
70) Ethyl Methacrylate	17.080	69	279991	11.07	ppb(v#	42
71) Dibromochloromethane	17.453	129	561616	10.22	ppb(v#	97
72) Tetrachloroethene	16.835	166	471720	9.54	ppb(v	89
73) 1,2-Dibromoethane	17.899	107	409257	9.41	ppb(v#	97
74) Octane	15.807	43	280873	10.43	ppb(v	92
75) 1,1,1,2-Tetrachloroethane	18.988	131	373106	9.85	ppb(v	95
77) Chlorobenzene	18.884	112	573833	9.15	ppb(v	86
78) Ethylbenzene	18.927	91	855310	9.26	ppb(v#	96
79) m,p-Xylene	19.184	91	1304166	18.77	ppb(v	97
80) Styrene	19.979	104	501998	9.40	ppb(v#	89
81) Nonane	18.774	43	284079	9.87	ppb(v#	90
82) o-Xylene	19.900	91	689596	9.38	ppb(v#	91
83) Bromoform	20.028	173	577817	9.57	ppb(v	91
84) 1,1,2,2-Tetrachloroethane	21.081	83	468544	9.22	ppb(v	95
85) 1,2,3-Trichloropropane	21.276	75	350590	9.64	ppb(v	97
86) Isopropylbenzene	20.395	105	994721	9.33	ppb(v	92
87) Bromobenzene	20.983	156	365384	8.74	ppb(v	99
88) 2-Chlorotoluene	21.240	126	253888	9.12	ppb(v	88
89) n-Propylbenzene	21.013	120	268885	9.58	ppb(v	97
91) 4-Ethyltoluene	21.166	105	940982	9.83	ppb(v	95
92) 1,3,5-Trimethylbenzene	21.282	105	757802	9.82	ppb(v	92
93) alpha-Methylstyrene	21.625	118	388411	9.76	ppb(v	89
94) tert-Butylbenzene	21.729	134	175831	8.91	ppb(v	85
95) 1,2,4-Trimethylbenzene	21.815	105	758324	10.08	ppb(v#	90
96) 1,3-Dichlorobenzene	22.261	146	532518	9.21	ppb(v	93
97) 1,2,3-trimethylbenzene	22.390	105	724809	10.02	ppb(v#	95
98) Benzyl Chloride	22.659	126	126847	9.10	ppb(v#	38
99) 1,4-Dichlorobenzene	22.371	146	503821	9.00	ppb(v	91
100) sec-Butylbenzene	21.968	134	223593	9.34	ppb(v	78
101) p-Isopropyltoluene	22.151	134	244442	9.46	ppb(v	98
102) 1,2-Dichlorobenzene	22.891	146	478085	8.93	ppb(v	95
103) n-Butylbenzene	22.683	134	201336	9.70	ppb(v	81
104) Hexachloroethane	22.891	201	325195	8.22	ppb(v	97
105) 1,2,4-Trichlorobenzene	24.690	180	200381	8.62	ppb(v#	83
106) Naphthalene	25.112	128	323257	7.26	ppb(v	92
107) Hexachlorobutadiene	24.647	225	330285	8.68	ppb(v#	69
109) TVHC as equiv Pentane	6.386	TIC	1807684	10.85	ppb(v	100

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\
Data File : 5w46803.D
Acq On : 14 Dec 2021 8:42 am
Operator : danat
Sample : cc1909-10
Misc : ms55468,v5w1936,,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 14 09:15:21 2021
Quant Method : C:\msdchem\1\methods\m5w1909.M
Quant Title : T0-15 Full Scan Mode
QLast Update : Mon Nov 08 09:09:12 2021
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

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

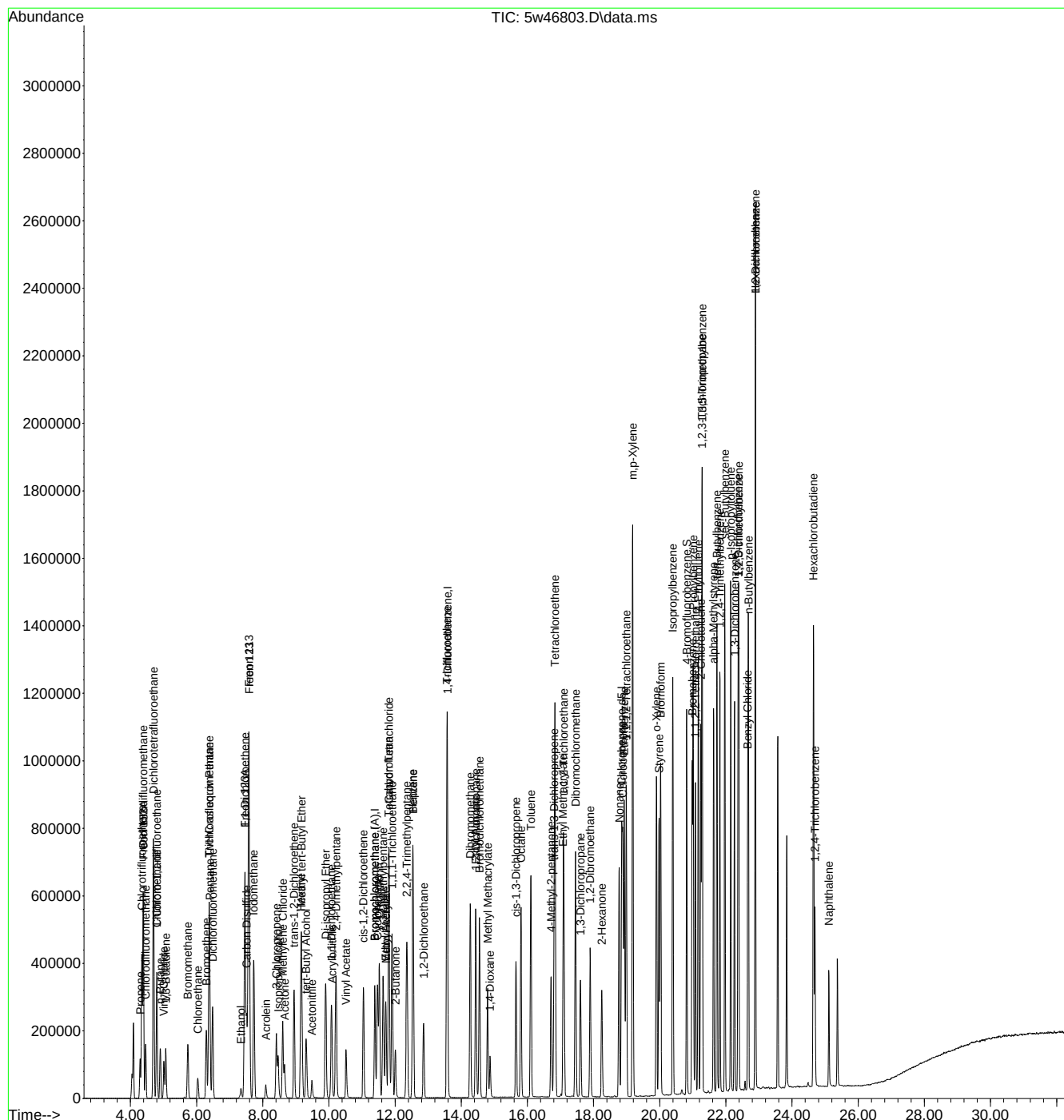
7.7.24

7

Quantitation Report (QT Reviewed)

```
Data Path : C:\msdchem\1\data\  
Data File : 5w46803.D  
Acq On : 14 Dec 2021 8:42 am  
Operator : danat  
Sample : cc1909-10  
Misc : ms55468,v5w1936,,,,,1  
ALS Vial : 2 Sample Multiplier: 1
```

Quant Time: Dec 14 09:15:21 2021
Quant Method : C:\msdchem\1\methods\m5w1909.M
Quant Title : T0-15 Full Scan Mode
QLast Update : Mon Nov 08 09:09:12 2021
Response via : Initial Calibration



7.7.24



SGS

Batch ID: V2424

Date:

Analyst Signature:

Columns: 13m X 0.25mm X 0.5

Method: 2WTO

Seq. File: 2620210727.5

Initial Cal. Method: M2w/2424

AS Data

Method: T-015, 7203A, CTD

Standard Data

<u>Standard Data</u>		
Lot #	Description	Conc.

Standard Data

Lot #	Description	Conc.
A59178	Int / Sur	100 ppb
A59267	TO15 Std (A977)	40 ppb
A9268	TO15 Std (A1262)	130 ppb
A9242	TO15 Ecs (A974)	40 ppb

(M) Manually integrated chromatographic peaks in the following reportable file have been reviewed and verified to comply with the crit of SGS SOP EQA044.

Supervisor Signature:

Date: 7/28/21

[illegible]

All strikeouts must be initial and dated. Comment is require for anything other than a transcription error.

TO-15

Batch ID: V2W2494

Date: 11/1/21

Analyst Signature: *[Signature]*

AS Data

Method: T015 720ch. 01D

Columns: DB-1 30m x 0.25mm x 0.5um

Method: 2W7015.M

Seq. File: 2W2421101.5

Initial Cal. Method: 45W2421.M

TH4501026.M
M2W2421.M

Standard Data

Lot #	Description	Conc.

Standard Data

Lot #	Description	Conc.
A5788	Int/Surr.	100 ppb
A5713	T015 STD (A976)	40 ppb

(M) Manually integrated chromatographic peaks in the following reportable file have been reviewed and verified to comply with the criteria of SGS SOP EQA044.

Supervisor Signature: *[Signature]*

Date: 11/2/21

AS #	Data File	Sample ID	TEST	Canister Serial #	Vol Sample	Dil Fact	TICS	Int. STD Areas	Surr	Status Data	Comments
1	2W55978	BFB		open	400						
2	2W55979	CC2424-10		A976	100					OK	6:57AM
2	2W55980	CC2424-10		A976	100					PR	120CA low
2	2W55981	BS		A976	100			✓	✓	OK	benzyl chloride
2	2W55982	BS T112		A976	100					PR	ethyl acetate
2	2W55983	BSD		A976	100			✓	✓	OK	
3	2W55984	IB		A962	100			✓	✓	OK	
3	2W55985	MB		A962	400						
4	2W55986	JD34192-1	STD NAP MS57666	M442	100	1		✓	✓	OK	
4	2W55987	JD34192-1 Dup	✓	M442	100	1		✓	✓	AK/DL	Propene T RC 20mL
5	2W55988	JD34192-2	✓	A1144	100	1		✓	✓	OK	
6	2W55989	IB		A1290	100			✓	✓	AK/DL	Propene T RC 20mL
6	2W55990	SCC CP11401		A1290	400						
7	2W55991	SCC CP11402		M125	400			✓	✓	OK	
8	2W55992	SCC CP11404		A770	400					NG	0.120CE T 0.120ppbV
9	2W55993	SCC CP11406		A1332	400			✓	✓	OK	
10	2W55994	SCC CP11403		A1327	400			✓	✓	OK	
11	2W55995	SCC CP11405		A625	100			✓	✓	OK	
12	2W55996	SCC CP11405		A795	100			✓	✓	OK	
13	2W55997	SCC CP11405		A725	100			✓	✓	OK	
4	2W55998	JD34192-1	STD NAP MS54666	M442	20	1		✓	✓	OK	
5	2W55999	JD34192-2	✓	A1144	20	1		✓	✓	OK/DL	
14	2W56000	JD34345-5	STD MS54715	A507	100	1		✓	✓	OK/DL	
15	2W56001	JD34345-6	✓	A791	100	1					acetone T RC 50mL
16	2W56002	JD34345-7	✓	A799	100	1					acetone T RC 20mL
1	2W56003	JD34345-8	✓	M324	100	1					acetone T RC 50mL
2	2W56004	JD34345-9	✓	A1249	100	1					acetone T RC 20mL
											acetone T RC 10mL
										TH	11/2/21

All strikeouts must be initial and dated. Comment is required for anything other than a transcription error.

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TO-15

Batch ID: V2W2497

Date: 11/4/21

Analyst Signature: TH

Columns: DB-1 30m x 0.25mm x 0.5µm

Method: ZW TO15.M

Seq. File: ZW20211104.5

Initial Cal. Method: M2W2424.M

AS Data

Method: T015.7202A.ctd

Standard Data

Lot #	Description	Conc.

Standard Data

Lot #	Description	Conc.
A59188	Int/Surr	100ppbv
A59328	T015 STD (A976)	40ppbv

(M) Manually integrated chromatographic peaks in the following reportable file have been reviewed and verified to comply with the criteria of SGS SOP EQA044.

Supervisor Signature: TH

Date: 11/4/21

AS #	Data File	Sample ID	TEST	Canister Serial #	Vol Sample	Dil Fact	TICS	Int. STD Areas	Surr	Status Data	Comments
1	2W56052	BFB		open position	400					OK	6:46 AM
2	2W56053	CC2424-10		A976	100			✓	✓	OK	F142B ↓
2	2W56054	BS		A976	100			✓	✓	OK	F142B ↓
2	2W56055	BSD		A976	100					RR	
2	2W56056	BSD		A976	100			✓	✓	OK	F142B ↓
3	2W56057	IB		A962	100					—	
3	2W56058	MD		A962	400					—	
4	2W56059	JD34347-5	✓	A1231	100	1		✓	✓	OK	
5	2W56060	JD34347-3	✓	M201, A609	40	125		✓	✓	OK	over cal
6	2W56061	JD34347-4	✓	A423, A128	40	120				RR	too dilute
6	2W56062	JD34347-4	✓	A423	20	1.20		✓	✓	OK	
7	2W56063	JD34347-3	✓	M201, A609	5	500		✓	✓	OK	
4	2W56064	JD34347-5WP	✓	A1231	100	1		✓	✓	OK	
8	2W56065	JD34225-2	BTX-M M354667	A435	50	1		✓	✓	OK	
9	2W56066	JD34111-7	STD M354644	A1229	100	1	+	✓	✓	OK	
10	2W56067	JD34111-8	✓	A1233	100	1	+	✓	✓	OK	
11	2W56068	JD34111-9	✓	A517	100	1	+	✓	✓	OK	acquire ↑ RR 20mL
12	2W56069	JD34111-10	✓	A1210	100	1	+	✓	✓	OK	
13	2W56070	JD34111-11	✓	A1245	100	1	+	✓	✓	OK	acquire ↑ RR 20mL
14	2W56071	JD34111-12	✓	A1251	100	1	+	✓	✓	OK	
15	2W56072	JD34567-1	SL M354771	A342	20	1		✓	✓	OK	
16	2W56073	JD34567-2	✓	M226	100	1		✓	✓	OK	
1	2W56074	JD34139-1	STD M354658	A1169	400	1		✓	✓	OK	
2	2W56075	JD34478-1	STD M354771	A735	400	1		✓	✓	OK	
3	2W56076	SCC CP11414		A1252	100			✓	✓	OK	
5	2W56077	SCC CP11412		A1352	400					RR	A1352 p. 10
6	2W56078	SCC CP11402		M125	400			✓	✓	OK	
7	2W56079	SCC CP11410		A1334	400			✓	✓	OK	
4	2W56080	SCC CP11411		A231	400			✓	✓	OK	

All strikeouts must be initial and dated. Comment is required for anything other than a transcription error.

DAYT-AIR-0096-06-FORM-TO15 Instrument Log

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Canister Secondary Dilution Log

Test Gauge ID : TG-

[illegible]
$$\text{Final DF} = (\text{Original Canister DF}) \times (\text{Secondary Canister DF})$$
$$\text{Dilution Factor at Instrument} = \frac{\text{Original Canister DF} / x}{\text{Secondary Canister DF}} \times (\text{Final Canister Dilution Factor}) \times (\text{Normal Sampling Volume in cc})$$

Sample Volume in cc Injected
Original Canister is diluted 2x for analysis

Original Canister is diluted 2X for manual sample draw. 75cc from this canister is added to a 375cc minican and brought to 14.7 psig or 750cc equiv volume. This results in an additional dilution of 750/75 or 10. The final canister dilution factor is $2 \times 10 = 20$. From the dilution canister 20cc is injected at the instrument where normal volume is 400cc. This is an additional instrument dilution factor of 20. The final dilution multiplier is 20(from canister dilution) $\times$ 20(from instrument dilution) = 400

Notes:

All strikeouts must be initial, dated and reason code applied as follows: # 1 = Reviewer Correction Error; # 2 = Transcription Error; # 3 = Computer Miscalculation; # 4 = Analyst's Correction Error

DAYT-AIR-0003-05-FORM-Canister Secondary Dilution Log

TO-15

Batch ID: 5W1909

Date: 11/4/21

Analyst Signature: *[Signature]*

Columns: RTX/VMS 6mmx0.25mmx14

Method: SWTO15A.m

Seq. File: SW2021109.3

Initial Cal. Method: 11/5/21

AS Data

Method: TO15E.CTDS

Standard Data

Lot #	Description	Conc.

Standard Data

Lot #	Description	Conc.
AS9188	Ind/Sup	100ppm
AS9327	TO15 Std (1968)	40ppm
AS9329	TO15 Std (19126)	1.10ppm
AS9331	TO15 LCS (1974)	40ppm

(M) Manually integrated chromatographic peaks in the following reportable file have been reviewed and verified to comply with the criteria of SGS SOP EQA044.

Supervisor Signature: *[Signature]*

Date: 11/10/21

AS #	Data File	Sample ID	TEST	Canister Serial #	Vol Sample	Dil Fact	TICS	Int. STD Areas	Surr	Status Data	Comments
1	SW46121	IO		open	400						
1	SW46127	IO		open	400						
1	SW46123	IO		open	400						
1	SW46124	IO		open	400						
1	SW46120	IO		open	400						
1	SW46126	IC1909-0.5		1968	200			✓	✓	OK	Final 952
1	SW46127	IC1909-0.2		1968	80			✓	✓	OK	
1	SW46128	IC1909-0.1		1968	40			✓	✓	OK	
1	SW46129	IC1909-0.04		1968	16			✓	✓	OK	
2	SW46130	IC1909-5		1968	50			✓	✓	OK	
2	SW46131	IC1909-10		1968	100			✓	✓	OK	
2	SW46132	IC1909-20		1968	200			✓	✓	OK	
2	SW46133	IC1909-40		1968	400			✓	✓	OK	
2	SW46134	IC1909-50		1968	500			✓	✓	OK	
3	SW46135	IC1909-100		1963	100						
3	SW46136	IC1909-100		1963	100						
4	SW46137	IC1909-100		1964	100						
5	SW46138	IO		1965	100						

All strikeouts must be initial and dated. Comment is required for anything other than a transcription error.

Batch ID: VSW1935

Analyst Signature: 

Columns: μ -X bonds (100 μ m x 0.25 mm x 1.5 m)

Method: SW to 15 A.m

Seq. File: EW20211213-5

Initial Cal. Method: MSW 1909.m

Standard Data

Standard Data		
Lot #	Description	Conc.

Lot #	Description	Conc.
A59188	Int./Surv.	10pphm
132366	TKS STD (A974)	2pphm

Supervisor Signature: _____

Supervisor Signature:

Date: 12/14/21

Supervisor Signature: 											Date: 12/14/21	
AS #	Data File	Sample ID	TEST	Canister Serial #	Vol Sample	Dil Fact	TICS	Int. SFD Areas	Surr	Status Data	Comments	
1	SW 76774	BFB		open pos. 7mm	400							
2	SW 76775	CC1909-10		A774	100					all	time 749	
2	SW 76776	25		A774	100			✓	✓	all		
2	SW 76777	25X of whole		A774	100			✓	✓	all	and injection	
2	SW 76778	ISO		1474	100			✓	✓	all		
3	SW 76779	I3		1463	100							
2	SW 76780	M3		1463	400							
3	SW 76781	M3		1463	400			✓	✓	all		
4	SW 76782	JD36308-2	MONITORING	A1164	40	1		✓	✓	all		
5	SW 76783	JD36249-9	MONITORING	A869	40	1		✓	✓	all		
6	SW 76784	JD36249-10	MONITORING	A1086	40	1		✓	✓	all		
7	SW 76785	JD36249-1	MONITORING	A677	100	1		✓	✓	all		
7	SW 76786	JD36249-1d	MONITORING	A677	100	1		✓	✓	all		
8	SW 76787	JD36249-2		A394	100	1		✓	✓	all		
9	SW 76788	JD36249-3		A608	100	1		✓	✓	all		
10	SW 76789	JD36249-4		A741	100	1		✓	✓	all		
11	SW 76790	JD36249-5		A724	100	1		✓	✓	all		
12	SW 76791	JD36249-6		A682	100	1		✓	✓	all		
13	SW 76792	JD36249-7		A682	100	1		✓	✓	all		
14	SW 76793	JD36333-1	MONITORING	A204	20	1		✓	✓	all		
15	SW 76794	JD36333-2	MONITORING	A496	100	1		✓	✓	all		
16	SW 76795	JD36335-2	MONITORING	A1324	500	1		✓	✓	all		
1	SW 76796	JD36335-4	MONITORING	A1302	500	1		✓	✓	all		
2	SW 76797	JD36335-5		A1305	500	1		✓	✓	all		
3	SW 76798	JD36335-1	MONITORING	A1029	400	1		✓	✓	all		
4	SW 76799	JD36335-3		A086	400	1		✓	✓	all	any catalyst in barrel ethyl acetate in barrel	
5	SW 76800	SCC CP11466		A119	100	1		✓	✓	all		
6	SW 76801	SCC CP11466		A1115	100	1		✓	✓	all		
								TH	12/14/21			
All strikeouts must be initial and dated. Comment is require for anything other than a												

All strikeouts must be initial and dated. Comment is require for anything other than a transcription error.

DAYT-AIR-0006-06-FORM-TO15 Instrument Log

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Instrument Run Log V5W1935 page 1 of 1

SGS

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JD36325

SGS

TO-15

Batch ID: V5W1936

Date: 12/14/21

Analyst Signature: *[Signature]*

AS Data

Method: T015E, CTD3

Columns: FID VMS 60m x 0.25mm x 1/4mm

Method: 5WTO15A.M

Seq. File: 5W20211214.S

Initial Cal. Method: M5W1902.M

Standard Data

Lot #	Description	Conc.

Standard Data

Lot #	Description	Conc.
AS9188	Int / Surr	100ppbv
AS9366	T015 STD (A974)	40ppbv

(M) Manually integrated chromatographic peaks in the following reportable file have been reviewed and verified to comply with the criteria of SGS SOP EQA044.

Supervisor Signature: *[Signature]*

Date: 12/15/21

AS #	Data File	Sample ID	TEST	Canister Serial #	Vol Sample	Dil Fact	TICS	Int. STD Areas	Surr	Status Data	Comments
1	5W46802	BFB		Pen 23.1 from	400						
2	5W46803	CC1909-10		A974	100			✓	✓	OK	18ml 755
2	5W46804	20		A974	100			✓	✓	OK	
2	5W46805	250		A974	100			✓	✓	OK	
3	5W46806	20		A963	100						
3	5W46807	200		A963	100						
3	5W46808	MB		A963	400			✓	✓	OK	
4	5W46809	Sec CP11467		M010	400			✓	✓	OK	
5	5W46810	Sec CP11466		M191	100			✓	✓	OK	
6	5W46811	Sec CP11467		A256	400			✓	✓	OK	
7	5W46812	TD36325-1	100ppbv	A129	100	1		✓	✓	OK	
8	5W46813	TD36325-3	MS5548	A086	100	1		✓	✓	OK	
9	5W46814	TD36324-2	100ppbv	A218	5	1.25		✓	✓	OK	
10	5W46815	TD36496-1	100ppbv	A1140	100	1		✓	✓	OK	
10	5W46816	TD36496-1	MS55732	A1140	100	1		✓	✓	OK	
11	5W46817	TD36496-2		A540	100	1		✓	✓	OK	
12	5W46818	TD36496-7		A398	100	1		✓	✓	OK	
13	5W46819	TD36521-1	100ppbv	A1363	400	1					over cut 100ppbv
14	5W46820	TD36521-2	MS5571	A112	400	1					
15	5W46821	TD36521-3		M139	400	1					
16	5W46822	TD36521-4		A1325	400	1					over cut 100ppbv
1	5W46823	TD36521-5	100ppbv	A743	500	1					over cut 100ppbv
2	5W46824	TD36521-6	100ppbv	M011	400	1					over cut 100ppbv
3	5W46825	TD36521-7	100ppbv	M163	400	1					
4	5W46826	TD36521-8	100ppbv	A1364	400	1					
5	5W46827	TD36521-9		A1361	400	1					
6	5W46828	Sec CP11468		M1060	400	1		✓	✓	OK	
7	5W46829	TD36521-10		A1359	400	1					7:33AM
TH 12/15/21											

All strikeouts must be initial and dated. Comment is required for anything other than a transcription error.

SGS

TO-15

Batch ID: V5W1936

Date: 12/14/21

Analyst Signature: *[Signature]*

AS Data

Method: TO15E, CTD3

Columns: 15% VMS 60m x 0.25mm x 1/8" ID

Method: 15WTO15A.M

Seq. File: 5W20211214.S

Initial Cal. Method: 15W1902.M

Standard Data

Lot #	Description	Conc.

Standard Data

Lot #	Description	Conc.
AS2188	Int / Surr	100ppbv
182366	TO15 STD (A774)	40ppbv

(M) Manually integrated chromatographic peaks in the following reportable file have been reviewed and verified to comply with the criteria of SGS SOP EQA044.

Supervisor Signature: *[Signature]*

Date: 12/15/21

AS #	Data File	Sample ID	TEST	Canister Serial #	Vol Sample	Dil Fact	TICS	Int. STD Areas	Surr	Status Data	Comments
1	5W46802	BFB		735. form	400						
2	5W46803	CL1907-10		A774	100						753
2	5W46804	B7		A774	100						
2	5W46805	B50		A774	100						
3	5W46806	B0		A774	100						
3	5W46807	MB		A774	100						
3	5W46808	MB		A774	100						
4	5W46809	SCC CP11467		M300	400						
5	5W46810	SCC CP11466		M191	100						
6	5W46811	SCC CP11469		A256	400						
7	5W46812	TD36325-1		A159	100	1					
8	5W46813	TD36325-3		A086	100	1					
9	5W46814	TD36324-2		A218	5	1.25					
10	5W46815	TD36496-1		A140	100	1					
10	5W46816	TD36496-1		A140	100	1					
11	5W46817	TD36496-2		A350	100	1					
12	5W46818	TD36496-7		A398	100	1					
13	5W46819	TD36521-1		A1363	400	1					
14	5W46820	TD36521-2		A112	400	1					
15	5W46821	TD36521-3		M139	400	1					
16	5W46822	TD36521-4		A1325	400	1					
1	5W46823	TD36521-5		A743	500	1					
2	5W46824	TD36521-6		M011	400	1					
3	5W46825	TD36521-7		M163	400	1					
4	5W46826	TD36521-8		A1361	400	1					
5	5W46827	TD36521-9		A1361	400	1					
6	5W46828	SCC CP11468		A1060	400	1					
7	5W46829	TD36521-10		A1359	400	1					

All strikeouts must be initial and dated. Comment is require for anything other than a transcription error.

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Appendix E – Data Usability Summary Report

Quality Assessment Data Usability Summary Report

		RemVēr Project #2021-GE-01 Client Project # 1102783-02-210	
Site:	Orangetown Shopping Center	Site #:	C344066
Client:	GES, Inc.	Site Owner:	UB Orangeburg, LLC (UBO)
Sample Delivery Group (SDG)	JD36325		
Sample Matrix:	☐ Drinking water ☐ Groundwater ☐ Surface water ☐ Soil ☐ Sediment ☒ Air ☐ Biota (tissue, type: _____) ☐ Other: _____		

Introduction

RemVēr performed a data quality assessment (DQA) on analytical data reported in SGS North America Inc.'s (SGS) Sample Delivery Group (SDG) #JD36325 for air samples. The DQA evaluated the performance of the analytical procedures and the quality of the resulting data. RemVēr followed the requirements of the New York State Department of Environmental Conservation (NYSDEC) Data Usability Summary Report (DUSR) guidelines for an Analytical Services Protocol (ASP) Category B Data Deliverable. This report includes a narrative discussion of sample results qualified during the DQA. Table 1 describes qualification flags applied to the data either by SGS or during the DQA process.

Reported Methods

☐ Method 1311 TCLP ☐ Method 1312 SPLP ☐ Method 6010A, B & C / 6020 Trace Metals ☐ Method 7000 Metals ☐ Method 7196 Hexavalent Chromium (other: _____) ☐ Method 7470A or 7471 Mercury ☐ Method 8021 Volatile Organic Compounds (VOCs) GC ☐ Method 8081B Pesticides ☐ Method 8082 PCBs ☐ Method 8151 Chlorinated Herbicides ☐ Method 8260C VOCs GC/MS ☐ Method 8270D Semi-VOCs (sVOCs) GC/MS ☐ Method 9010/9012/9014 Cyanides (_____)	☐ Method TO-13A PAHs (air) ☒ Method TO-14A / -15 VOCs (air, summa) (_____) ☐ Method TO-17 VOCs (air, sorbent) ☐ Extractable Petroleum Hydrocarbons (EPH) ☐ Volatile Petroleum Hydrocarbons (VPH) Method ☐ EPH-total ☐ Other Methods: Method 9060A Total Organic Carbon Method MCAWW 300.0 Anions (IC) Method RSK-175 Dissolved Gases Method SM4500 Nitrite Method 353 Nitrite & Nitrate

Quality Control Requirements Summary

☒ Duplicate (lab internal) ☐ Matrix Spike [MS] / Matrix Spike Duplicate [MSD] ☐ Trip Blank(s) ☐ Equipment, Method, &/or Rinsate Blank	☒ Other Field QC: Field notes regarding sampling ☐ Special QAPP Requirements: _____ _____

Intended Use of Data under Review

The client collected air samples during a twenty-four (24) hour collection event beginning December 7, 2021 at the referenced New York State Brownfields site. The site is under a Site Management Plan (SMP) that requires several kinds of monitoring. The sampling event provided ambient and sub-slab/soil vapor monitoring (see §3.3 of Kleinfelder, 2011).

Significant Data Usability Issues Identified for SDG: #JD36325

Of the five samples (two soil gas, two indoor ambient air, and one outdoor ambient) discussed herein, RemVēr rejected no results, but flagged certain analytes as estimated due to the quality of the analysis and the results are acceptable for use. Some analytes had quality issues associated with results falling beyond the calibrated range requiring qualifier flagging. Please refer to the Lab Results and Data Usability Narrative section for further detail.

Detailed Quality Review

Field Notes Review

	Y	N	NA	COMMENTS
Sampling notes	☒	☐	☐	Field Notes & COC sheets
Field meteorological data	☐	☐	☒	No review required under QAPP
Associated sampling location and plan included	☒	☐	☐	See RAP/QAPP
Associated drilling logs available, reviewed	☐	☐	☒	No review required under QAPP
Identification of QC samples in notes	☒	☐	☐	
Sampling instrument decontamination records	☐	☐	☒	No review required under QAPP
Sampling instrument calibration logs	☐	☐	☒	No review required under QAPP
Chain of custody included	☒	☐	☐	With analytical report
Notes include communication logs	☐	☒	☐	
Any corrective action (CA) reports	☐	☒	☐	If so, CA documentation of results required.
Any deviation from methods noted? If so, explain	☐	☒	☐	None
Any electronic data deliverables	☒	☐	☐	See Attachment #4
Sampling Report (by Field Team Leader)	☐	☐	☒	

Lab Report Contents (SGS SDG Report: #JD36325)

☒ SDG Narrative	☒ Spike recoveries
☒ Contract Lab Sample Information Sheets	☒ Duplicate results
☒ Data Package Summary Forms	☒ Confirmation (lab check/QC) samples
☒ Chain-of-Custody (COC) Forms	☒ Internal standard area & retention time summary
☒ Test Results (no tentatively identified compounds [TICs])	☒ Chromatograms
☒ Calibration standards	☒ Raw data files
☒ Surrogate recoveries	☒ Other specific information
☒ Blank results	

The SDG reported on the following samples:

Sample ID	SDG #JD36325– Sample #	Matrix	Sampled	Received
VP-5-SV	#-1	SV	12/07/21	12/08/21
VP-5-A	#-2	IA	12/07/21	12/08/21
VP-6-SV	#-3	SV	12/07/21	12/08/21
VP-6-A	#-4	IA	12/07/21	12/08/21
Outdoor Ambient	#-5	OA	12/07/21	12/08/21

NOTES: SV = Soil Gas (Vapor) IA = Indoor Ambient Air OA = Outdoor Ambient Air

All samples associated with SDG #JD36325 were analyzed using USEPA Method TO-15.

Is the data package complete as defined under the requirements for the NYSDEC ASP Category B?		
Laboratory Report	Complete (Y/N)	Comments
JD36325	Y	Yes

Sample Preservation Requirements & Holding Times Met?			
Laboratory Report	Hold Times (Y/N)	Preservation (Y/N)	Exception Comment
JD36325	Y	Y	None

Do all QC data fall within the protocol required limits and specifications? (1) blanks, (2) instrument tunings, (3) calibration standards, (4) calibration verifications, (5) surrogate recoveries, (6) spike recoveries, (7) replicate analyses, (8) laboratory controls, and (9) sample data									
SDG	1	2	3	4	5	6	7	8	9
JD36325	☐	☐	☒	☐	☐	☐	☐	☐	☒
The narrative section, below, discusses these deficiencies in detail, see Attachments 2 and 3 as well.									

Were the data generated using established and agreed upon analytical protocols?		
Laboratory Report	Protocols (Y/N)	Exception Comment
JD36325	Y	None

Do the raw data confirm the results provided in the data summary sheets and quality control verification forms?		
Laboratory Report	Confirmation (Y/N)	Exception Comment
JD36325	Y	None

Were correct data qualifiers used and are they consistent with the most current guidance?		
Laboratory Report	Qualifiers (Y/N)	Comment
JD36325	Y	The laboratory generally applied appropriate qualifiers. To prepare the DUSR, it was necessary to apply additional qualifications or adjust qualifications to certain results as shown in Attachments 2, 3, and 4.

Were quality control (QC) exceedances specifically noted in this DUSR and the corresponding QC summary sheets from the data packages referenced?		
Laboratory Report	QC Exceedances Documented (Y/N)	Comment
JD36325	Y	Several data qualifications were applied as described below

Data Quality and Usability Narrative

Field Notes Inspection

The air samples came from a collection event on December 7, 2021. GES provided air sampling field notes related to the effort together with the COC.

Laboratory Report Inspection

The laboratory produced SDG report #JD36325. The full ASP Category B report was issued on 17Dec2021. The final report contained the required data and information.

Chain of Custody (COC) Evaluation

GES produced one COC for the referenced fieldwork (#JD36325, single, one-page COC). The laboratory noted no quality issues.

Sample Preservation & Holding Time Evaluation

The laboratory reported on the Summa canister's cleaning (§6.4) as well as their (and the Flow Controller) conditions at departure and receipt (§5.2). There were no issues noted with either the canisters (cleanliness or performance) or valve and flow controllers. Laboratory received the canister samples from GES on 12/8/2021 @ 11:10 (designated as SDG-JD36325) in proper condition. Holding times (were within seven [7] days) and preservation requirements were met.

Analytical

The laboratory ran the samples in two batches:

Sample	V5W1935	V5W1936
#-1 SV	X	X
#-2 IA	X	
#-3 SV	X	X
#-4 IA	X	
#-5 OA	X	

The second batch served to confirm certain elevated results from the first run. Each batch included the required Method Blank (§6.1 & 6.2), Lab Duplicate (§6.3), GC/MS Instrument Performance Check (§6.5), Standard Area and Initial Checks (§6.6 & 6.7), Surrogates (6.8), and Initial and Continuing Calibration Checks (CCV, §6.9).

Calibration Standards and Continuing Calibration Verification (CCV)

Calibration standards (external or internal) were acceptable in both batches for all analytes, with the following exceptions:

- The laboratory flagged certain results (Ethanol and Isopropyl Alcohol) for Sample(s) JD36325-2 and JD36325-4 (in Batch V5W1935) as "E," indicating estimated results and exceeding calibration range. Thus, RemVēr flagged these results with E J+.

CCV were acceptable in both batches for all analytes.

Blank Evaluation

There were no associated blanks, other than the ambient indoor and outdoor air samples. All laboratory method blanks performed within acceptable parameters.

Laboratory Control Samples (LCS)

The various LCS' (BS/BSD) were within the acceptable range for the analyses in SDG JD36325.

Surrogates

Surrogates added to a sample allow testing of preparatory and instrument behavior resulting in recoveries within appropriate method ranges for all analytes. The surrogate 4-Bromofluorobenzene performed within acceptable parameters across all Method TO-15 batches and sample runs in SDG JD36325.

Site-Specific Matrix Spikes and Matrix Spike Duplicates

No matrix spike/matrix spike duplicate (MS/MSD) runs were required for the analyses per TO-15 Method.

Duplicates

The laboratory used internal samples for duplicates for these analytes. The duplicate analytes met the RPD performance criteria of <25%.

Tentatively Identified Compounds (TICs)

This SDG had no analysis of TICs.

Sample Result and Usability Evaluation

All samples were run in one batch, while Samples #-2 and #-4 were run in a second batch to confirm certain analytical results due to high concentrations. Due to certain sample issues or laboratory performance some results were qualified, however, the data are usable. No data received an R (rejected) flag.

RemVēr modified SGS's laboratory electronic data reports by adding quality flags (see Attachment #4 [separate file]: SDG-#JD36325_EquaNysdec.xls [EXCEL file]).

References

- Kleinfelder, 2011, *Site Management Plan, Orangetown Shopping Center, 1-45 Orangetown Shopping Center, Orangeburg, NY, NYSDEC Site #C344066*, Final, 21-November, 250p
- NYSDEC, 2010, *Technical Guidance for Site Investigation and Remediation*, "DER-10," Division of Environmental Remediation: Albany, NY, May, 232p
- NYSDEC, 2010, *Guidance for Data Deliverables and the Development of Data Usability Summary Reports*, Appendix 2B IN *Technical Guidance for Site Investigation and Remediation*, Division of Environmental Remediation: Albany, NY, May, 232p
- USEPA, 2008, *Contract Laboratory Program National Functional Guidelines for Organic Data Review*, OSWER 9240.1-48, USEPA-540-R-08-01, Office of Superfund Remediation and Technology Innovation: Washington, DC, June, 225p
- USEPA, 2010, *Contract Laboratory Program National Functional Guidelines for Inorganic Data Review*, OSWER 9240.1-51, USEPA-540-R-10-011, Office of Superfund Remediation and Technology Innovation: Washington, DC, January, 110p
- USEPA, 2012, *Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW-846*, Current Online Revision: <http://www.epa.gov/epawaste/hazard/testmethods/sw846/online/index.htm>, accessed April 2012
- USEPA Region 2, 2016, *Analysis of Volatile Organic Compounds in Air Contained in Canisters by Method TO-15*, Hazardous Waste Support Section, SOP NO. HW-31, Revision 6

Tables

1. Qualifier Flags

Attachments

1. Data Usability Reviewer Qualifications
2. DQA Detail Worksheet
3. DQA Non-Conformance Summary Workheet
4. Separate EXCEL File: SDG-#JD36325_EquaNysdec.xls [NOTE: RemVër modified the SGS work products by adding quality flags]

Prepared by: Kurt A. Frantzen, PhD, CHMM
January 7, 2022



GES PO# #1120058

Table 1
Qualifier Flags

Qualifier	Quality Implication
U	Analyte analyzed for, but not detected above the sample's reported quantitation limit
J	Analyte positively identified at a numerical value that is the approximate concentration of the analyte in the sample
J +	Sample result likely to have a high bias
J –	Sample result likely to have a low bias
UJ	Analyte analyzed for but not detected. Reported quantitation limit is approximate and may be inaccurate or imprecise
N	Analysis indicates presence of analyte for which there is presumptive evidence to make a “tentative identification.”
NJ	Analysis indicates presence of analyte that has been “tentatively identified” and the associated numerical value represents its approximate concentration.
R	Data are unusable. Sample result rejected due to serious deficiency meeting quality control criteria; the presence or absence of the analyte cannot be confirmed.
B EB TB BB	An analyte identified in method blank (B), aqueous equipment (EB), trip (TB), or bottle blanks (BB) used to assess field contamination associated with soil or sediment samples mandates these qualifiers for only soil and sediment sample results.
P	Use professional judgment based on data use. It usually has an “M” with it, which indicates that a manual check should be made if the data that are qualified with the “P” are important to the data user. In addition, “PM” also means a decision is necessary from the Project Manager (or a delegate) concerning the need for further review of the data (<i>see below</i>).
PM	A manual review of the raw data is recommended to determine if the defect affects data use, as in “R” above. This review should include consideration of potential affects that could result from using the “P” qualified data. For example, in the case of holding-time exceedance, the Project Manager or delegate can decide to use the data with no qualification when analytes of interest are known not to be adversely affected by holding-time exceedances. Another example is the case where soil sample duplicate analyses for metals exceed the precision criteria; because this is likely due to sample non-homogeneity rather than contract laboratory error, then the manager or delegate must decide how to use the data.

Attachment 1

Data Usability Reviewer: Kurt A. Frantzen, PhD

Experience

2013-Present	d/b/a RemVēr	Owner
2014-2019	AECC	Senior EHS Consultant
2011-2012	RemVēr, Inc.	President
2006-2011	Kleinfelder	Senior Principal Scientist
2005	Kleinfelder	Principal Scientist, Part-Time/On Call
2004-2006	d/b/a Environmental Risk Group	Owner
2004-2006	RemVēr, Inc., Larchmont, NY	Founder, President
1999-2004	VHB, Inc.	ERM Director & Associate
1997-1998	GEI Consultants, Inc.	Senior Project Manager
1992-1997	Ecology and Environment, Inc.	Technical Chief
1991-1992	EA Engineering, Science, & Technology, Inc.	Project Manager III
1990-1991	Ecology and Environment, Inc.	Technical Group Manager
1986-1990	Ecology and Environment, Inc.	Senior Environmental Scientist

Education

Am Cancer Soc. Post-Doctoral Fellow, U Washington 1985-1986
PhD—Life Sci. / Biochem, NU—Lincoln 1985
MS—Plant Pathology, Kansas State Univ. 1980
BS—Biology, NU—Omaha 1978

Professional Affiliations

Society Risk Analysis ('09 & '11 Chair, Eco-Risk Assessment)	Am. Chemistry Society
Am. Assoc. Advance Science	NY Academy of Science
LSP Association	Am. Institute of Biological Sciences

Other

- CERCLA & RCRA experience, as well as DOD (Air Force & Army) & DOE (INEL)
- NE Regional Experience—NY BCP; Mass MCP; & various sites in CT, RI & NH
- National Experience: NE, SE, Gulf & West Coast, Mid-west, Inter-mountain, California, Alaska
- International: Germany, Israel, Kuwait, Australia
- Selected Publications
 - *Using Risk Appraisals to Manage Environmentally Impaired Properties*, 2000, VHB Site Works, Report 108
 - *Risk-Based Analysis for Environmental Managers*, 2001, CRC/Lewis
 - Chapter 7 Risk Assessment, *Managing Hazardous Materials*, 2002 & 2009, IHMM
 - Chapter 22 Cleanup Goals, *Brownfields Law & Practice*, 2004-Present, Lexis/Nexis
 - *Use of Risk Assessment in Risk Management of Contaminated Sites*, 2008, ITRC
- 61 Conference Papers & Invited Professional Presentations
 - 1999-2021, Visiting Lecturer, Brownfields Program & Open Studio, Harvard Graduate School of Design
 - 2010-2013, Invited Lecturer, Pace University Law School

Attachment 2 DQA Detail Worksheet

BLANKS	>RL?	Compounds	Notes
Method Blank: VOCs	No	—	No Comment
—	—	—	—

BS/BSD	SV <10%	Low Bias > 10% & < LCL	High Bias >UCL	Compound(s)	Notes
VOCs	—	—	—		No Comment
—	—	—	—	—	—

SURROGATES	SV <10%	Low Bias > 10% & < LCL	High Bias >UCL	Compound(s)	Notes
VOCs	—	—	—	4-Bromofluorobenzene	No Comment
—	—	—	—	—	—

MS/MSDs	SV <10%	Low Bias > 10% & < LCL	High Bias >UCL	QC Source	RPDs	Notes
VOCs	—	—	—	—	—	No Comment, none required
—	—	—	—	—	—	—

FIELD DUPLICATES RPDs	QC Source	Soil RPD > 50%	Air RPD > 25%	Compounds	Notes
N/A	N/A	N/A	N/A	N/A	N/A
N/A		N/A	N/A	N/A	N/A

LAB DUPLICATES					
Batch V5W1935	JD36248-1DUP	N/A	—	—	No Comment
Batch V5W1936	JD36496-1DUP	N/A	—	—	No Comment

Reasonable Confidence Achieved	Not Applicable	Significant QC Variances Noted	☐ Y ☒ N
Requested Reporting Limits Achieved	☒ Y ☐ N	Preservation Requirements Met	☒ Y ☐ N
Holding Time Requirements Met	☒ Y ☐ N		

Abbreviations:

RL = Reporting Limit LCS = Laboratory Control Sample SV = Significant QC Variance
 RPD = Relative Percent Difference LCL= RCP Lower Control Limit UCL= RCP Upper Control Limit
 VOCs = Volatile Organic Compounds SVOCs = Semi-volatile Organic Compounds Pest = Pesticides
 EPH = Extractable Petroleum Hydrocarbons VPH = Volatile Petroleum Hydrocarbons ETPH = EPH-Total
 PCBs = Polychlorinated Biphenyls N/A = Not Applicable N/C = Not Collected -- = nothing to report

Notes: * Typical lab contaminants, not site-related

Attachment 3

DQA Non-Conformance Summary Worksheet

Only Flagged Results Shown Below

Sample Number(s)	Compound(s)	QC Non-Conformance	% Recovery	% RPD †	High or Low Bias ‡	Comments
All	Any	Not Detected	—	—	—	Flag U
	—	—	—	—	—	—
#-2 & 4	Ethanol & Isopropyl Alcohol	Calibration	—	—	Hi	Flag E J+
—	—	—	—	—	—	—

Notes: † RPD—Relative Percent Difference

‡ Bias High—Reported result may be lower, Reporting Limit (RL) is acceptable as reported. Bias Low—Reported results may be higher, RL may be higher than reported.



Appendix F – NYSDOH Guidance for Evaluating Soil Vapor Intrusion in the State of New York

Soil Vapor/Indoor Air Matrix A

May 2017

Analytes Assigned:

Trichloroethene (TCE), *cis*-1,2-Dichloroethene (c12-DCE), 1,1-Dichloroethene (11-DCE), Carbon Tetrachloride

SUB-SLAB VAPOR CONCENTRATION of COMPOUND (mcg/m ³)	INDOOR AIR CONCENTRATION of COMPOUND (mcg/m ³)		
	< 0.2	0.2 to < 1	1 and above
< 6	1. No further action	2. No Further Action	3. IDENTIFY SOURCE(S) and RESAMPLE or MITIGATE
6 to < 60	4. No further action	5. MONITOR	6. MITIGATE
60 and above	7. MITIGATE	8. MITIGATE	9. MITIGATE

No further action: No additional actions are recommended to address human exposures.

Identify Source(s) and Resample or Mitigate: We recommend that reasonable and practical actions be taken to identify the source(s) affecting the indoor air quality and that actions be implemented to reduce indoor air concentrations to within background ranges. For example, if an indoor or outdoor air source is identified, we recommend the appropriate party implement actions to reduce the levels. In the event that indoor or outdoor sources are not readily identified or confirmed, resampling (which might include additional sub-slab vapor and indoor air sampling locations) is recommended to demonstrate that SVI mitigation actions are not needed. Based on the information available, mitigation might also be recommended when soil vapor intrusion cannot be ruled out.

Monitor: We recommend monitoring (sampling on a recurring basis), including but not necessarily limited to sub-slab vapor, basement air and outdoor air sampling, to determine whether concentrations in the indoor air or sub-slab vapor have changed and/or to evaluate temporal influences. Monitoring might also be recommended to determine whether existing building conditions (e.g., positive pressure heating, ventilation and air-conditioning systems) are maintaining the desired mitigation endpoint and to determine whether changes are needed. The type and frequency of monitoring is determined based on site-, building- and analyte-specific information, taking into account applicable environmental data and building operating conditions. Monitoring is an interim measure required to evaluate exposures related to soil vapor intrusion until contaminated environmental media are remediated.

Mitigate: We recommend mitigation to minimize current or potential exposures associated with soil vapor intrusion. The most common mitigation methods are sealing preferential pathways in conjunction with installing a sub-slab depressurization system and changing the pressurization of the building in conjunction with monitoring. The type, or combination of types, of mitigation is determined on a building-specific basis, taking into account building construction and operating conditions. Mitigation is considered a temporary measure implemented to address exposures related to soil vapor intrusion until contaminated environmental media are remediated.

These general recommendations are made with consideration being given to the additional notes on page 2.

ADDITIONAL NOTES FOR MATRIX A

This matrix summarizes actions recommended to address current and potential exposures related to soil vapor intrusion. To use the matrix appropriately as a tool in the decision-making process, the following should be noted:

- [1] The matrix is generic. As such, it may be appropriate to modify a recommended action to accommodate analyte-specific, building-specific conditions (e.g., dirt floor in basement, crawl spaces, thick slabs, current occupancy, etc.), and/or factors provided in Section 3.2 of the guidance (e.g., current land use, environmental conditions, etc.). For example, collection of additional samples may be recommended when the matrix indicates "no further action" for a particular building, but the results of adjacent buildings (especially sub-slab vapor results) indicate a need to take actions to address exposures related to soil vapor intrusion. Mitigation might be recommended when the results of multiple contaminants indicate monitoring is recommended. Proactive actions may be proposed at any time. For example, the party implementing the actions may decide to install sub-slab depressurization systems on buildings where the matrix indicates "no further action" or "monitoring." Such an action might be undertaken for reasons other than public health (e.g., seeking community acceptance, reducing costs, etc.). However, actions implemented *in lieu* of sampling will typically be expected to be captured in the final engineering report and site management plan, and might not rule out the need for post-implementation sampling (e.g., to document effectiveness or to support terminating the action).
- [2] Actions provided in the matrix are specific to addressing human exposures. Implementation of these actions does not preclude investigating possible sources of soil vapor contamination, nor does it preclude remediating contaminated soil vapor or the source of soil vapor contamination.
- [3] Appropriate care should be taken during all aspects of sample collection to ensure that high quality data are obtained. Since the data are being used in the decision-making process, the laboratory analyzing the environmental samples must have current Environmental Laboratory Approval Program (ELAP) certification for the appropriate analyte and environmental matrix combinations. Furthermore, samples should be analyzed by methods that can achieve a minimum reporting limit of 0.20 microgram per cubic meter for indoor and outdoor air samples. For sub-slab vapor samples and dirt floor soil vapor samples, a minimum reporting limit of 1 microgram per cubic meter is recommended.
- [4] Sub-slab vapor and indoor air samples are typically collected when the likelihood of soil vapor intrusion is considered to be the greatest (i.e., worst-case conditions). If samples are collected at other times (typically, samples collected outside of the heating season), then resampling during worst-case conditions might be appropriate to verify that actions taken to address exposures related to soil vapor intrusion are protective of human health.
- [5] When current exposures are attributed to sources other than soil vapor intrusion, the agencies should be given documentation (e.g., applicable environmental data, completed indoor air sampling questionnaire, digital photographs, etc.) to support a proposed action other than that provided in the matrix box and to support agency assessment and follow-up.
- [6] The party responsible for implementing the recommended actions will differ depending upon several factors, including but not limited to the following: the identified source of the volatile chemicals, the environmental remediation program, and analyte-specific, site-specific and building-specific factors.

Soil Vapor/Indoor Air Matrix B

May 2017

Analytes Assigned:

Tetrachloroethene (PCE), 1,1,1-Trichloroethane (111-TCA), Methylene Chloride

SUB-SLAB VAPOR CONCENTRATION of COMPOUND (mcg/m ³)	INDOOR AIR CONCENTRATION of COMPOUND (mcg/m ³)		
	< 3	3 to < 10	10 and above
< 100	1. No further action	2. No Further Action	3. IDENTIFY SOURCE(S) and RESAMPLE or MITIGATE
100 to < 1,000	4. No further action	5. MONITOR	6. MITIGATE
1,000 and above	7. MITIGATE	8. MITIGATE	9. MITIGATE

No further action: No additional actions are recommended to address human exposures.

Identify Source(s) and Resample or Mitigate: We recommend that reasonable and practical actions be taken to identify the source(s) affecting the indoor air quality and that actions be implemented to reduce indoor air concentrations to within background ranges. For example, if an indoor or outdoor air source is identified, we recommend the appropriate party implement actions to reduce the levels. In the event that indoor or outdoor sources are not readily identified or confirmed, resampling (which might include additional sub-slab vapor and indoor air sampling locations) is recommended to demonstrate that SVI mitigation actions are not needed. Based on the information available, mitigation might also be recommended when soil vapor intrusion cannot be ruled out.

Monitor: We recommend monitoring (sampling on a recurring basis), including but not necessarily limited to sub-slab vapor, basement air and outdoor air sampling, to determine whether concentrations in the indoor air or sub-slab vapor have changed and/or to evaluate temporal influences. Monitoring might also be recommended to determine whether existing building conditions (e.g., positive pressure heating, ventilation and air-conditioning systems) are maintaining the desired mitigation endpoint and to determine whether changes are needed. The type and frequency of monitoring is determined based on site-, building- and analyte-specific information, taking into account applicable environmental data and building operating conditions. Monitoring is an interim measure required to evaluate exposures related to soil vapor intrusion until contaminated environmental media are remediated.

Mitigate: We recommend mitigation to minimize current or potential exposures associated with soil vapor intrusion. The most common mitigation methods are sealing preferential pathways in conjunction with installing a sub-slab depressurization system and changing the pressurization of the building in conjunction with monitoring. The type, or combination of types, of mitigation is determined on a building-specific basis, taking into account building construction and operating conditions. Mitigation is considered a temporary measure implemented to address exposures related to soil vapor intrusion until contaminated environmental media are remediated.

These general recommendations are made with consideration being given to the additional notes on page 2.

ADDITIONAL NOTES FOR MATRIX B

This matrix summarizes actions recommended to address current and potential exposures related to soil vapor intrusion. To use the matrix appropriately as a tool in the decision-making process, the following should be noted:

- [1] The matrix is generic. As such, it may be appropriate to modify a recommended action to accommodate analyte-specific, building-specific conditions (e.g., dirt floor in basement, crawl spaces, thick slabs, current occupancy, etc.), and/or factors provided in Section 3.2 of the guidance (e.g., current land use, environmental conditions, etc.). For example, collection of additional samples may be recommended when the matrix indicates "no further action" for a particular building, but the results of adjacent buildings (especially sub-slab vapor results) indicate a need to take actions to address exposures related to soil vapor intrusion. Mitigation might be recommended when the results of multiple contaminants indicate monitoring is recommended. Proactive actions may be proposed at any time. For example, the party implementing the actions may decide to install sub-slab depressurization systems on buildings where the matrix indicates "no further action" or "monitoring." Such an action might be undertaken for reasons other than public health (e.g., seeking community acceptance, reducing costs, etc.). However, actions implemented *in lieu* of sampling will typically be expected to be captured in the final engineering report and site management plan, and might not rule out the need for post-implementation sampling (e.g., to document effectiveness or to support terminating the action).
- [2] Actions provided in the matrix are specific to addressing human exposures. Implementation of these actions does not preclude investigating possible sources of soil vapor contamination, nor does it preclude remediating contaminated soil vapor or the source of soil vapor contamination.
- [3] Appropriate care should be taken during all aspects of sample collection to ensure that high quality data are obtained. Since the data are being used in the decision-making process, the laboratory analyzing the environmental samples must have current Environmental Laboratory Approval Program (ELAP) certification for the appropriate analyte and environmental matrix combinations. Furthermore, samples should be analyzed by methods that can achieve a minimum reporting limit of 1 microgram per cubic meter for indoor and outdoor air samples. For sub-slab vapor samples and dirt floor soil vapor samples, a minimum reporting limit of 1 microgram per cubic meter is recommended.
- [4] Sub-slab vapor and indoor air samples are typically collected when the likelihood of soil vapor intrusion is considered to be the greatest (i.e., worst-case conditions). If samples are collected at other times (typically, samples collected outside of the heating season), then resampling during worst-case conditions might be appropriate to verify that actions taken to address exposures related to soil vapor intrusion are protective of human health.
- [5] When current exposures are attributed to sources other than soil vapor intrusion, the agencies should be given documentation (e.g., applicable environmental data, completed indoor air sampling questionnaire, digital photographs, etc.) to support a proposed action other than that provided in the matrix box and to support agency assessment and follow-up.
- [6] The party responsible for implementing the recommended actions will differ depending upon several factors, including but not limited to the following: the identified source of the volatile chemicals, the environmental remediation program, and analyte-specific, site-specific and building-specific factors.

Soil Vapor/Indoor Air Matrix C

May 2017

Analytes Assigned:

Vinyl Chloride

SUB-SLAB VAPOR CONCENTRATION of COMPOUND (mcg/m ³)	INDOOR AIR CONCENTRATION of COMPOUND (mcg/m ³)	
	< 0.2	0.2 and above
< 6	1. No further action	2. IDENTIFY SOURCE(S) and RESAMPLE or MITIGATE
6 to < 60	3. MONITOR	4. MITIGATE
60 and above	5. MITIGATE	6. MITIGATE

No further action: No additional actions are recommended to address human exposures.

Identify Source(s) and Resample or Mitigate: We recommend that reasonable and practical actions be taken to identify the source(s) affecting the indoor air quality and that actions be implemented to reduce indoor air concentrations to within background ranges. For example, if an indoor or outdoor air source is identified, we recommend the appropriate party implement actions to reduce the levels. In the event that indoor or outdoor sources are not readily identified or confirmed, resampling (which might include additional sub-slab vapor and indoor air sampling locations) is recommended to demonstrate that SVI mitigation actions are not needed. Based on the information available, mitigation might also be recommended when soil vapor intrusion cannot be ruled out.

Monitor: We recommend monitoring (sampling on a recurring basis), including but not necessarily limited to sub-slab vapor, basement air and outdoor air sampling, to determine whether concentrations in the indoor air or sub-slab vapor have changed and/or to evaluate temporal influences. Monitoring might also be recommended to determine whether existing building conditions (e.g., positive pressure heating, ventilation and air-conditioning systems) are maintaining the desired mitigation endpoint and to determine whether changes are needed. The type and frequency of monitoring is determined based on site-, building- and analyte-specific information, taking into account applicable environmental data and building operating conditions. Monitoring is an interim measure required to evaluate exposures related to soil vapor intrusion until contaminated environmental media are remediated.

Mitigate: We recommend mitigation to minimize current or potential exposures associated with soil vapor intrusion. The most common mitigation methods are sealing preferential pathways in conjunction with installing a sub-slab depressurization system and changing the pressurization of the building in conjunction with monitoring. The type, or combination of types, of mitigation is determined on a building-specific basis, taking into account building construction and operating conditions. Mitigation is considered a temporary measure implemented to address exposures related to soil vapor intrusion until contaminated environmental media are remediated.

These general recommendations are made with consideration being given to the additional notes on page 2.

ADDITIONAL NOTES FOR MATRIX C

This matrix summarizes actions recommended to address current and potential exposures related to soil vapor intrusion. To use the matrix appropriately as a tool in the decision-making process, the following should be noted:

- [1] The matrix is generic. As such, it may be appropriate to modify a recommended action to accommodate analyte-specific, building-specific conditions (e.g., dirt floor in basement, crawl spaces, thick slabs, current occupancy, etc.), and/or factors provided in Section 3.2 of the guidance (e.g., current land use, environmental conditions, etc.). For example, collection of additional samples may be recommended when the matrix indicates "no further action" for a particular building, but the results of adjacent buildings (especially sub-slab vapor results) indicate a need to take actions to address exposures related to soil vapor intrusion. Mitigation might be recommended when the results of multiple contaminants indicate monitoring is recommended. Proactive actions may be proposed at any time. For example, the party implementing the actions may decide to install sub-slab depressurization systems on buildings where the matrix indicates "no further action" or "monitoring." Such an action might be undertaken for reasons other than public health (e.g., seeking community acceptance, reducing costs, etc.). However, actions implemented *in lieu* of sampling will typically be expected to be captured in the final engineering report and site management plan, and might not rule out the need for post-implementation sampling (e.g., to document effectiveness or to support terminating the action).
- [2] Actions provided in the matrix are specific to addressing human exposures. Implementation of these actions does not preclude investigating possible sources of soil vapor contamination, nor does it preclude remediating contaminated soil vapor or the source of soil vapor contamination.
- [3] Appropriate care should be taken during all aspects of sample collection to ensure that high quality data are obtained. Since the data are being used in the decision-making process, the laboratory analyzing the environmental samples must have current Environmental Laboratory Approval Program (ELAP) certification for the appropriate analyte and environmental matrix combinations. Furthermore, samples should be analyzed by methods that can achieve a minimum reporting limit of 0.20 microgram per cubic meter for indoor and outdoor air samples. For sub-slab vapor samples and dirt floor soil vapor samples, a minimum reporting limit of 1 microgram per cubic meter is recommended.
- [4] Sub-slab vapor and indoor air samples are typically collected when the likelihood of soil vapor intrusion is considered to be the greatest (i.e., worst-case conditions). If samples are collected at other times (typically, samples collected outside of the heating season), then resampling during worst-case conditions might be appropriate to verify that actions taken to address exposures related to soil vapor intrusion are protective of human health.
- [5] When current exposures are attributed to sources other than soil vapor intrusion, the agencies should be given documentation (e.g., applicable environmental data, completed indoor air sampling questionnaire, digital photographs, etc.) to support a proposed action other than that provided in the matrix box and to support agency assessment and follow-up.
- [6] The party responsible for implementing the recommended actions will differ depending upon several factors, including but not limited to the following: the identified source of the volatile chemicals, the environmental remediation program, and analyte-specific, site-specific and building-specific factors.