

November 20, 2019

Ms. Kerry Maloney
New York State Department of Environmental Conservation
625 Broadway, 12th Floor
Albany, New York 12207

**RE: Semi-Annual Monitoring Report – November 2019
 432 Rodney Street
 Brooklyn, New York 11211
 NYSDEC BCP Site No. C224216
 Langan Project No.: 170357801**

Dear Ms. Maloney:

In accordance with the December 14, 2017 Site Management Plan (SMP), Langan Engineering, Environmental, Surveying, Landscape Architecture and Geology, D.P.C. (Langan) conducted performance-monitoring groundwater sampling at 432 Rodney Street (the Site) located in the Williamsburg neighborhood of Brooklyn, New York. A Site Location Map is provided as Figure 1. This groundwater sampling event was performed in November 2019 and is the fifth sampling event since the installation and operation of the injection well network, and subsequent receipt of a New York State Department of Environmental Conservation (NYSDEC) Certificate of Completion, issued December 29, 2017.

Project Background

The Site, identified as Block 2374, Lots 1, 27, 28, and 31 on the New York City Brooklyn Borough Tax Map, is situated on an about 27,160-square-foot (± 0.6235 acre) area, which is bounded by a vacant lot and residential and commercial buildings followed by Ainslie Street to the north, Keap Street to the east, Hope Street to the south, and Rodney Street to the west. Prior to its mixed-use commercial/residential development, the Site was occupied by a packaged food storage and refrigeration facility, and was used by various commercial, automotive, and light industrial companies since around 1887.

In 2016, operations ceased and the Site was remediated in accordance with the NYSDEC-approved Interim Remedial Measures Work Plan (IRMWP), dated March 22, 2016, NYSDEC-approved IRMWP Addenda #1 and #2, dated January 9, 2017, and NYSDEC-approved Remedial

Action Work Plan (RAWP), dated March 23, 2017, and approved October 31, 2017. Under these plans, a Track 2 remedy was achieved on Lots 1 and 31. A Track 4 remedy was achieved on Lots 27 and 28.

A two-phase groundwater treatment system was used to treat groundwater impacted with petroleum-related volatile organic compounds (VOCs) and chlorinated volatile organic compounds (CVOCs). The treatment design included a preliminary in-situ chemical oxidation (ISCO) direct-injection of base-activated sodium persulfate, followed by the application of PlumeStop® (a liquid activated carbon substrate) through a sub-slab network of pressurized injection wells.

About 11,800 pounds of sodium hydroxide-activated sodium persulfate was direct-injected within saturated soil in the southeast corner of Lot 31 between February 21 and March 2, 2017 to treat petroleum-related VOC-impacted groundwater. Following the persulfate injection, about 56,400 pounds of PlumeStop® was applied through the well network on Lots 1 and 31 between November 8 and December 6, 2017, and about 15,600 pounds of PlumeStop® was direct-injected on Lots 27 and 28 between November 27 and December 6, 2017.

As part of the SMP prepared by Langan and approved by the NYSDEC in December 2017, five performance monitoring wells (PMW01, PMW02, PMW03, PMW04 and PMW05) were installed on Lots 1 and 31 and two performance monitoring wells (PMW06 and PMW07) were installed on Lots 27 and 28 to monitor post-injection groundwater quality. Performance monitoring well locations are shown on Figure 2. The monitoring plan summarized in the SMP includes 1) baseline sampling, which was conducted in June 2017 (Lots 1 and 31) and November 2017 (Lots 27 and 28), after sodium hydroxide-activated sodium persulfate injections and prior to PlumeStop® injections; and 2) post-injection sampling, which is required to be conducted on a quarterly basis during the first year following the injections and semi-annually during each subsequent year as needed.

November 2019 Performance Monitoring Scope of Work

Well Purging and Sampling

Monitoring well sampling was conducted on November 13 and 14, 2019 in accordance with the NYSDEC-approved SMP. Before sampling, each of the seven wells were purged using the low-flow method developed by the United States Environmental Protection Agency (USEPA) ("Low-Flow [Minimal Drawdown] Ground-Water Sampling Procedures," EPA/540/S-95/504, April 1996) and accepted by the NYSDEC. Purging was performed using a peristaltic pump fitted with dedicated tubing at all wells. During purging, turbidity, pH, temperature, conductivity, oxidation-reduction potential, and dissolved oxygen groundwater quality parameters were monitored using a Horiba U-52 Water Quality Meter with a flow-through cell. Purging was considered complete after three well volumes were purged and groundwater quality parameter had stabilized for three successive readings within a reasonable time frame. The purged water was containerized into a

55-gallon drum and temporarily stored in a secured area pending proper off-site disposal. The groundwater quality parameters were recorded on the Well Purging and Sampling Logs provided in Attachment A.

After purging each well, a groundwater sample was collected directly from the pump discharge line using USEPA low-flow techniques. For quality assurance and quality control, one field blank and a duplicate sample were collected. A trip blank was included in each shipment for quality control during transport. All samples were analyzed for Target Compound List (TCL) VOCs by Alpha Analytical, a New York State Department of Health (NYSDOH) Environmental Laboratory Approval Program (ELAP)-accredited laboratory in Westborough, Massachusetts.

November 2019 Performance Monitoring Analytical Results

The laboratory analytical results for the November 2019 sampling event are summarized in Table 1 and on Figure 2. Laboratory analytical reports are provided as Attachment C. Groundwater analytical results were compared to the NYSDEC Technical & Operational Guidance Series (TOGS) Ambient Water Quality Standards and Guidance Values (SGVs) for Class GA drinking water. Analytical results from the November 2019 performance monitoring are summarized as follows:

- **PMW03:** cis-1,2-dichloroethene (cis-1,2-DCE) and vinyl chloride were detected above the Class GA SGVs, which is consistent with previous sampling events and continues to follow a decreasing concentration trend. While both CVOCs exceed the Class GA SGVs, cis-1,2-DCE and vinyl chloride concentrations have been reduced by 99.2% and 99.1%, respectively, relative to the baseline.
- **PMW05:** Benzene, cis-1,2-DCE and vinyl chloride were detected above Class GA SGVs at their lowest concentrations since the 2016 baseline sampling. While benzene exceeds the Class GA SGV, the concentration has been reduced by 99.2% relative to the baseline. Vinyl chloride and cis-1,2-DCE were not detected during baseline sampling, but these compounds are daughter products that form as a result of the dechlorination of PCE and TCE, which are contaminants of concern.

VOCs were not detected above Class GA SGVs in performance monitoring wells PMW01, PMW02, PMW04, PMW06 and PMW07.

Based on the November 2019 groundwater monitoring analytical results, the extent of the petroleum-related VOC and CVOc-impacted groundwater has generally decreased relative to the baseline sampling after implementation of the two-phase groundwater treatment program. Comparing analytical results from the baseline to the November 2019 sampling events indicate a significant decrease of the following CVOcs:

CVOC	Low Range Reduction	High Range Reduction
1,2-dichloroethane	100% (PMW01, PMW04)	
cis-1,2-Dichloroethene	97% (PMW02)	100% (PMW04, PMW06, PMW07)
PCE	91% (PMW02)	100% (PMW03, PMW06, PMW07)
TCE	85% (PMW02)	100% (PMW03, PMW06, PMW07)
vinyl chloride	98% (PMW06)	100% (PMW01, PMW02, PMW04, PMW07)

The following petroleum-related VOCs have decreased in concentration, relative to the baseline concentrations:

Petroleum-Related VOC	Low Range Reduction	High Range Reduction
1,2,4-trimethylbenzene	100% (PMW05, PMW06)	
Benzene	99% (PMW05)	100% (PMW01, PMW02, PMW03, PMW04, PMW06, PMW07)
Ethylbenzene	100% (PMW05, PMW06)	
Isopropylbenzene	99% (PMW05)	100% (PMW06)
n-propylbenzene	99% (PMW05)	100% (PMW06)
p/m-xylene	100% (PMW05, PMW06)	
toluene	100% (PMW05, PMW06)	

Table 2 provides a summary of historical analytical results from the baseline sampling event through the November 2019 sampling event.

Data Validation

Copies of the Analytical Services Protocol (ASP) Category B laboratory reports were submitted to Langan's data validation department for review in accordance with the USEPA validation guidelines for organic and inorganic data. The data were found to be acceptable with no issues.

Data reduction, validation, and reporting procedures were completed in accordance with the Quality Assurance Project Plan (QAPP) provided in Appendix I of the SMP. Data Usability Reports (DUSRs) are included in Attachment B.

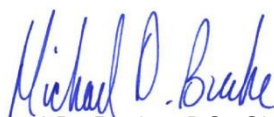
Closure

Petroleum-related VOC and CVOC concentrations detected during the June 2016 baseline sampling event have decreased by up to two orders of magnitude when compared to concentrations detected during the November 2019 sampling event. Total VOCs have decreased an average of 98.8% when comparing the November 2019 analytical results to that of the baseline analytical results. Petroleum-related VOC and CVOC concentrations continued a decreasing trend and are generally at the lowest concentrations relative to the baseline sampling. Post-remediation monitoring indicates that the two-phase groundwater remedy has achieved the remedial objective of 90% contaminant mass reduction. We recommend discontinuing the monitoring and sampling of the performance monitoring wells and monitoring well decommissioning.

Should you have any questions, please call the undersigned at 212-479-5413.

Sincerely,

**Langan Engineering, Environmental, Surveying
Landscape Architecture, and Geology, D.P.C.**

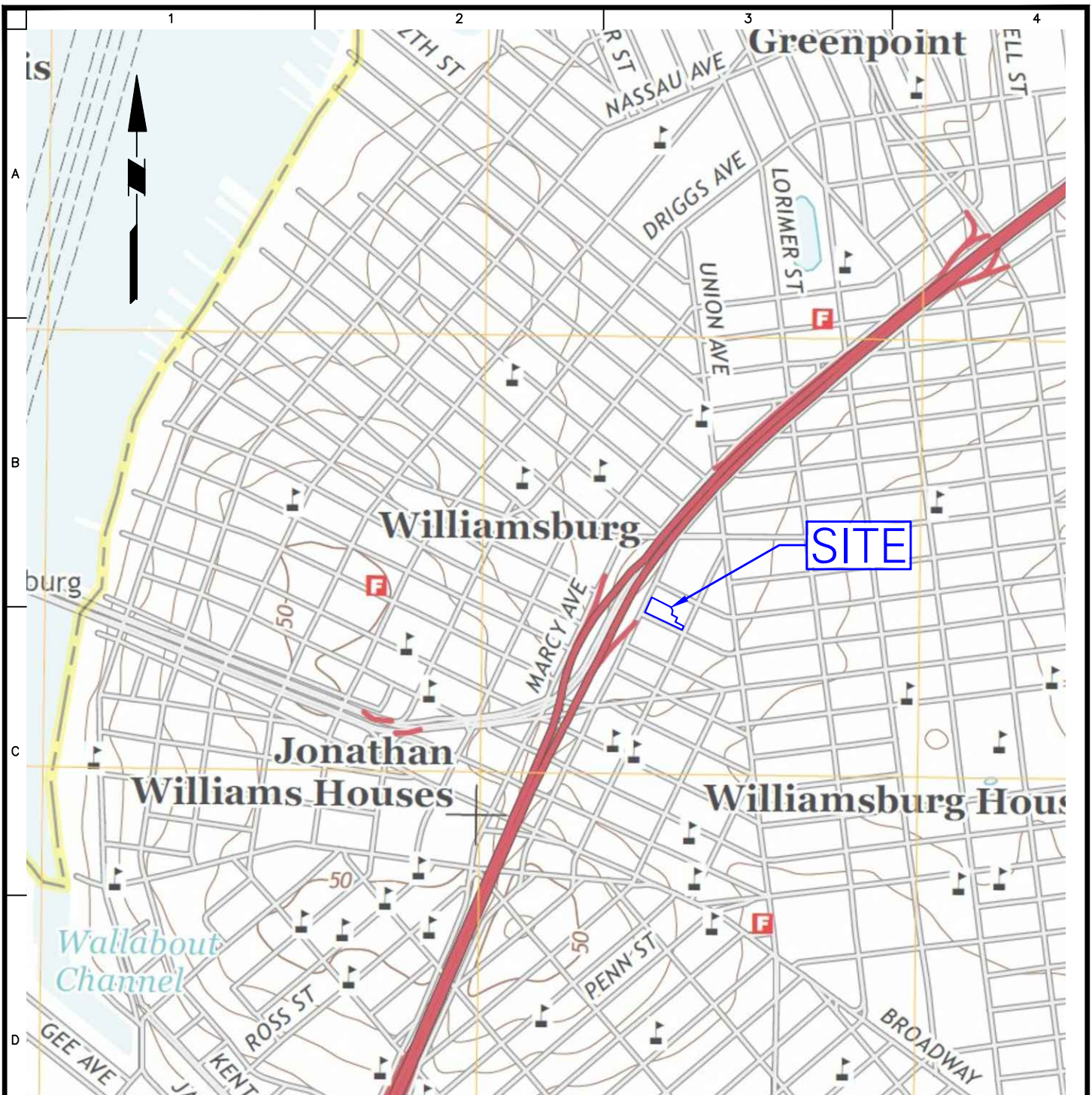


Michael D. Burke, PG, CHMM
Principal/Vice President

Enclosures:

Figure 1	Site Location Map
Figure 2	Groundwater Sample Results Map – Baseline and November 2019
Table 1	Semi-Annual Groundwater Sampling Results - November 2019
Table 2	Historical Performance Monitoring Analytical Results
Attachment A	Well Purging and Sampling Logs
Attachment B	Data Usability Reports
Attachment C	Laboratory Analytical Reports

FIGURES



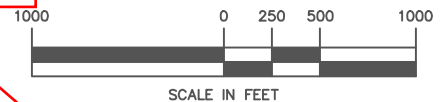
LEGEND:



SITE BOUNDARY

NOTE: BASE MAP TAKEN FROM UNITED STATES GEOLOGICAL SURVEY (USGS) 7.5 MINUTE SERIES QUADRANGLE MAPS, BROOKLYN, NY, DATED 2013.

update date to
11/18/2019



LANGAN

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Project

432 RODNEY STREET

BLOCK No. 2374, LOT Nos. 1, 27, 28
& 31
BROOKLYN
KINGS NEW YORK

Figure Title

**SITE LOCATION
MAP**

Project No.

170357801

Date
4/30/2019

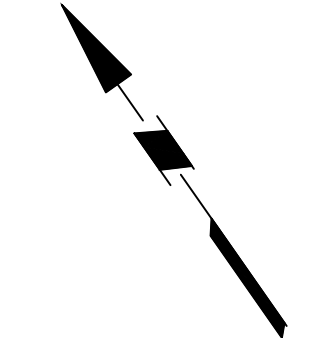
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Figure No.

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Sheet 1 of 2



RODNEY STREET

HOPE STREET

LOT 1

LOT 31

LOT 28

LOT 27

Sampling Location		PMW01		
Sampling Event		Baseline (2016)	Post-Source Removal (2017)	November (2019)
Sample ID		MW09_061616	PMW01_060817	MW01_111319
Volatile Organic Compounds (µg/L)				
1,2-Dichloroethane		0.87	ND	ND
Cis-1,2-Dichloroethene		99	36	NE
Tetrachloroethene (PCE)		48	11	NE
Trichloroethene (TCE)		13	9.6	NE

Sampling Location		PMW04		
Sampling Event		Baseline (2016)	Post-Source Removal (2017)	November (2019)
Sample ID		MW10_061516	PMW04_060817	MW04_111319
Volatile Organic Compounds (µg/L)				
1,2-Dichloroethane		20	NE	ND
Acetone		150	NE	ND
Benzene		260	NE	ND
Cis-1,2-Dichloroethene		6,500	52	NE
Tetrachloroethene (PCE)		1,000	14	NE
Trichloroethene (TCE)		210	11	NE
Vinyl Chloride		330	3	ND

Sampling Location		PMW02		
Sampling Event		Baseline (2016)	Post-Source Removal (2017)	November (2019)
Sample ID		MW08S_061716	PMW02_060817	MW02_111319
Volatile Organic Compounds (µg/L)				
Cis-1,2-Dichloroethene		66	56	NE
Tetrachloroethene (PCE)		27	10	NE
Trichloroethene (TCE)		NE	7.2	NE

Sampling Location		PMW03		
Sampling Event		Baseline (2016)	Post-Source Removal (2017)	November (2019)
Sample ID		MW18_070516	PMW03_060817	MW03_111419
Volatile Organic Compounds (µg/L)				
Benzene		44	NE	ND
Cis-1,2-Dichloroethene		4,100	120	32
Tetrachloroethene (PCE)		500	9.7	ND
Trichloroethene (TCE)		130	9.1	NE
Vinyl Chloride		240	3.6	2.2

Sampling Location		PMW05			
Sampling Event		Baseline (2016)	Post-Source Removal (2017)	November (2019)	November (2019)
Sample ID		MW15S_061716	PMW05_060717	MW05_111319	GWDUP_111319
Volatile Organic Compounds (µg/L)					
1,2,4,5-Tetramethylbenzene		76	NE	ND	ND
1,2,4-Trimethylbenzene		2,000	5.1	ND	ND
1,2-Dichloroethane		ND	0.88	ND	ND
1,3,5-Trimethylbenzene (Mesitylene)		580	ND	ND	ND
Acetone		240	NE	ND	ND
Benzene		260	95	2.2	2.2
Cis-1,2-Dichloroethene		ND	36	5.9	6
Ethylbenzene		1,500	49	NE	ND
Isopropylbenzene (Cumene)		110	6	NE	NE
M,P-Xylene		5,500	9.3	ND	ND
Naphthalene		75	NE	ND	ND
n-Butylbenzene		44	NE	ND	ND
n-Propylbenzene		410	13	NE	NE
o-Xylene (1,2-Dimethylbenzene)		2,300	NE	ND	ND
Tetrachloroethene (PCE)		ND	62	NE	NE
Toluene		2,300	8.3	NE	ND
Trichloroethene (TCE)		ND	9.4	NE	NE
Vinyl Chloride		ND	6.8	4.2	4.2

Sampling Location		PMW06		
Sampling Event		Baseline (2016)	Post-Source Removal (2017)	November (2019)
Sample ID		MW12_061716	PMW06_112717	MW06_111419
Volatile Organic Compounds (µg/L)				
1,2,4,5-Tetramethylbenzene		13	ND	ND
1,2,4-Trimethylbenzene		53	ND	ND
1,3,5-Trimethylbenzene (Mesitylene)		17	NE	ND
Benzene		41	NE	ND
Cis-1,2-Dichloroethene		21	11	ND
Ethylbenzene		120	ND	ND
Isopropylbenzene (Cumene)		20	ND	ND
M,P-Xylene		120	ND	ND
n-Butylbenzene		11	ND	ND
n-Propylbenzene		38	ND	ND
o-Xylene (1,2-Dimethylbenzene)		16	ND	ND
Sec-Butylbenzene		9.1	J	NE
Tetrachloroethene (PCE)		NE	5.9	ND
Toluene		8.1	J	ND
Trichloroethene (TCE)		13	NE	ND
Vinyl Chloride		15	J	NE

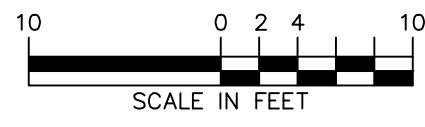
Sampling Location		PMW07		
Sampling Event		Baseline (2016)	Post-Source Removal (2017)	November (2019)
Sample ID		MW13_061716	PMW07_112717	MW07_111419
Volatile Organic Compounds (µg/L)				
Cis-1,2-Dichloroethene		46	J	ND
Dichlorodifluoromethane		17	ND	ND
Tetrachloroethene (PCE)		67	NE	ND
Trichloroethene (TCE)		8	NE	ND
Vinyl Chloride		12	ND	ND

LEGEND

- IW-4 PERMANENT INJECTION WELL LOCATION
- DP-10 DIRECT-PUSH INJECTION LOCATION
- PMW01 PERFORMANCE MONITORING WELL LOCATION
- PIPING NETWORK (EACH LINE REPRESENTS ONE OR MORE LINEAR PIPE RUNS)

- NOTES**
- BASEMAP IS REFERENCED FROM ARCHITECTURAL CELLAR PLAN BY AUFANG ARCHITECTS, DATED JANUARY 16, 2017.
 - ALL PERFORMANCE MONITORING AND INJECTION WELL LOCATIONS ARE APPROXIMATE.
 - RESULTS FROM THE POST-SOURCE REMOVAL SAMPLING EVENT THROUGH THE 2019 FIRST SEMI-ANNUAL SAMPLING EVENT ARE SHOWN.
 - GROUNDWATER SAMPLE ANALYTICAL RESULTS ARE COMPARED TO NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION (NYSDEC) TECHNICAL AND OPERATIONAL GUIDANCE SERIES (TOGS) 1.1.1 AMBIENT WATER QUALITY STANDARDS AND GUIDANCE VALUES (SGVs) FOR CLASS GA DRINKING WATER.
 - ONLY COMPOUNDS EXCEEDING THEIR RESPECTIVE CLASS GA SGVs ARE SHOWN.
 - COMPOUNDS EXCEEDING THEIR CLASS GA SGVs ARE SHADED AND IN BOLD.
 - µg/L = MICROGRAM PER LITER
 - VOCs = VOLATILE ORGANIC COMPOUNDS
 - ND = NOT DETECTED
 - NE = NO EXCEEDANCE OF CLASS GA SGVs

VOCs (µg/L)	NYSDEC TOGS Class GA SGVs
1,2,4,5-Tetramethylbenzene	5
1,2,4-Trimethylbenzene	5
1,2-Dichloroethane	0.6
1,3,5-Trimethylbenzene	5
2-Butanone	50
Acetone	50
Benzene	1
Chloroform	7
cis-1,2-Dichloroethene	5
Dichlorodifluoromethane	50
Ethylbenzene	5
Isopropylbenzene	5
Naphthalene	10
n-Butylbenzene	5
n-Propylbenzene	5
o-Xylene	5
p/m-Xylene	5
sec-Butylbenzene	5
Tetrachloroethene	5
Toluene	5
Trichloroethene	5
Vinyl chloride	2



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Langan Engineering, Environmental, Surveying and Landscape Architecture, D.P.C.
Langan Engineering and Environmental Services, Inc.
Langan CT, Inc.
Langan International LLC
Collectively known as Langan

Project

432 RODNEY STREET

BLOCK No. 2374, LOT Nos. 1, 27, 28, & 31

KINGS BROOKLYN NEW YORK

Figure Title

GROUNDWATER SAMPLE RESULTS MAP - BASELINE AND NOVEMBER 2019

Project No.

170357801

Date

11/18/2019

Scale

1" = 10'

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Submission Date

Figure No.

2

Sheet 2 of 2

TABLES

Table 1
Semi-Annual Groundwater Sampling Results - November 2019

432 Rodney Street
Brooklyn, New York
NYSDEC BCP Site No.: C224216
Langan Project No.: 170357801

Sample ID Laboratory ID Sample Date	Class GA SGVs	MW01_111319 L1954303-03 11/13/2019	MW02_111319 L1954303-02 11/13/2019	MW03_111419 L1954584-01 11/14/2019	MW04_111319 L1954303-01 11/13/2019	MW05_111319 L1954303-04 11/13/2019	GWDUP_111319 L1954303-07 11/13/2019	MW06_111419 L1954584-04 11/14/2019	MW07_111419 L1954584-02 11/14/2019
Volatile Organic Compounds (µg/L)									
Benzene	1	0.5 U	0.5 U	0.5 U	0.5 U	2.2	2.2	0.5 U	0.5 U
Bromomethane	5	2.5 U	2.5 U	2.7	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Chloroform	7	2.5 U	2.5 U	3.2	2.5 U	2.5 U	2.5 U	2.5 U	0.97 J
Cis-1,2-Dichloroethene	5	1.4 J	1.6 J	32	3.2	5.9	6	2.5 U	2.5 U
Isopropylbenzene (Cumene)	5	2.5 U	2.5 U	2.5 U	2.5 U	0.93 J	0.94 J	2.5 U	2.5 U
n-Propylbenzene	5	2.5 U	2.5 U	2.5 U	2.5 U	1.1 J	1.1 J	2.5 U	2.5 U
Tetrachloroethene (PCE)	5	4.6	2.4	0.5 U	0.7	0.75	0.78	0.5 U	0.5 U
Total 1,2-Dichloroethene (Cis and Trans)	~	1.4 J	1.6 J	32	3.2	5.9	6	2.5 U	2.5 U
Trichloroethene (TCE)	5	1.1	0.75	0.31 J	0.45 J	0.74	0.71	0.5 U	0.5 U
Vinyl Chloride	2	1 U	1 U	2.2	1 U	4.2	4.2	0.2 J	1 U

Notes:

- 1. Groundwater sample analytical results are compared to the New York State Department of Environmental Conservation (NYSDEC) Title 6 of the Official Compilation of New York Codes, Rules and Regulations (NYCRR) Part 703.5 and the NYSDEC Technical and Operational Guidance Series (TOGS) 1.1.1 Ambient Water Quality Standards and Guidance Values for Class GA Water (herein collectively referenced as "Class GA SGVs").
- 2. Only detected analytes are shown in the table.
- 3. Analytical results detected above Class GA SGVs are bolded and shaded.
- 4. Analytical results with reporting limits (RL) above Class GA SGVs are italicized.
- 5. Sample GWDUP_111319 is a duplicate sample of MW05_111319.
- 6. ~ = Regulatory limit for this analyte does not exist
- 7. µg/L = micrograms per liter

Qualifiers:

J = The analyte was detected above the Method Detection Limit (MDL), but below the RL; therefore, the result is an estimated concentration.
U = The analyte was analyzed for, but was not detected at a level greater than or equal to the RL; the value shown in the table is the RL.

Table 2
Hisotrical Performance Monitoring Analytical Results

432 Rodney Street
Brooklyn, New York
NYSDEC BCP Site No.: C224216
Langan Project No.: 170357801

Sampling Location		PMW01									PMW02						
Sampling Event	Class GA	Baseline (2016)	Post-Source Removal (2017)	Quarter 1 (2018)	Quarter 2 (2018)	Quarter 3 (2018)	Quarter 3 (2018)	Quarter 4 (2018)	November (2019)		Baseline (2016)	Post-Source Removal (2017)	Quarter 1 (2018)	Quarter 2 (2018)	Quarter 3 (2018)	Quarter 4 (2018)	November (2019)
Sample ID	SGVs	MW09_061616	PMW01_060817	PMW01_032018	PMW01_072318	PMW01_100918	DUP01_100918	PMW01_121918	MW01_111319		MW08S_061716	PMW02_060817	PMW02_032318	PMW02_072318	PMW02_100918	PMW02_121918	MW02_111319
Laboratory ID		L1618606-05	L1719158-04	L1809584-01	L1828253-01	L1840789-01	L1840789-07	L1852408-01	L1954303-03		L1618759-07	L1719158-01	L1810069-01	L1828253-02	L1840789-02	L1852408-02	L1954303-02
Sample Date		6/16/2016	6/8/2017	3/20/2018	7/23/2018	10/9/2018	10/9/2018	12/19/2018	11/13/2019		6/17/2016	6/8/2017	3/23/2018	7/23/2018	10/9/2018	12/19/2018	11/13/2019
Volatile Organic Compounds (µg/L)																	
1,1-Dichloroethane	5	2.6	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U		2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,1-Dichloroethene	5	0.5 U	0.2 J	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U		0.5 U	0.33 J	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2,4,5-Tetramethylbenzene	5	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U		2 U	2 U	2 U	2 U	2 U	2 U	2 U
1,2,4-Trimethylbenzene	5	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U		2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2-Dichlorobenzene	3	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U		2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,2-Dichloroethane	0.6	0.87	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U		0.5 U	0.14 J	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,3,5-Trimethylbenzene (Mesitylene)	5	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U		2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
1,4-Diethyl Benzene	~	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U		2 U	2 U	2 U	2 U	2 U	2 U	2 U
4-Ethyltoluene	~	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U		2 U	2 U	2 U	2 U	2 U	2 U	2 U
Acetone	50	7.8 J	2.4 J	5 U	7.5 U	19 U	17 U	5 U	5 U		3 J	28 U	5 U	2.8 J	5 U	5 U	5 U
Benzene	1	0.37 J	0.21 J	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U		0.6 U	0.22 J	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Bromodichloromethane	50	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U		0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Bromomethane	5	2.5 U	2.5 U	2.5 UJ	2.5 U	2.5 U	2.5 U	2.5 UJ	2.5 U		2.5 U	1.4 J	2.5 UJ	2.5 U	2.5 U	2.5 UJ	2.5 U
Chlorobenzene	5	2.5 U	1.1 J	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U		2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Chloroform	7	2.5 U	2.5 U	2.5 U	1.2 J	1.3 J	1.3 J	1.2 J	2.5 U		2.5 U	2.5 UJ	2.5 UJ	2.5 U	2.5 U	2.5 U	2.5 U
Cis-1,2-Dichloroethene	5	99	36	23	3.6	2.5	2.4 J	3.5 J	1.4 J		66	56	23	10	18	8.5 J	1.6 J
Dichlorodifluoromethane	5	5 UJ	5 U	5 UJ	5 UJ	5 U	5 U	5 UJ	5 U		5 UJ	5 U	5 UJ	5 UJ	5 U	5 UJ	5 U
Ethylbenzene	5	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U		2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Isopropylbenzene (Cumene)	5	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U		2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
M,P-Xylene	5	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U		2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Methyl Ethyl Ketone (2-Butanone)	50	5 U	4.7 J	5 U	12 U	42 U	39 U	5 UJ	5 U		5 U	27 U	5 U	5 U	5 U	5 UJ	5 U
Naphthalene	10	0.77 J	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 UJ	2.5 U		2.5 UJ	2.5 U	2.5 U	2.5 U	2.5 U	2.5 UJ	2.5 U
n-Butylbenzene	5	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U		2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
n-Propylbenzene	5	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 UJ	2.5 U		2.5 U	2.5 U	2.5 U	2.5 U	2.5 UJ	2.5 U	2.5 U
o-Xylene (1,2-Dimethylbenzene)	5	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U		2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Sec-Butylbenzene	5	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U		2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Tert-Butyl Methyl Ether	10	0.71 J	1.1 J	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U		1.9 J	4.5 U	2.5 U	2.5 U	2.5 U	0.86 J	2.5 U
Tetrachloroethene (PCE)	5	48	11	3.3	2.4 J	4.6	4.6	4.7	4.6		27	10	15	9 J	21	9.3	2.4
Toluene	5	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U		2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Total 1,2-Dichloroethene (Cis and Trans)	~	99	36	23	3.6	2.5	2.4 J	3.5 J	1.4 J		66	56	23	10	18	8.5 J	1.6 J
Total Xylenes	5	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U		2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Trans-1,2-Dichloroethene	5	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U		2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Trans-1,4-Dichloro-2-Butene	5	2.5 U	2.5 U	2.5 U	2.5 U	2.5 UJ	2.5 UJ	2.5 U	2.5 U		2.5 U	2.5 U	2.5 U	2.5 UJ	2.5 U	2.5 U	2.5 U
Trichloroethene (TCE)	5	13	9.6	2	2.3	3.2	3.1	2.1	1.1		5	7.2	3.4 J	1.7	3.3	2	0.75
Vinyl Chloride	2	0.5 J	0.46 J	1 UJ	1 U	1 U	1 U	1 U	1 U		1.5	0.8 J	0.13 J	1 U	1 U	1 U	1 U

Table 2
Hisotrical Performance Monitoring Analytical Results

432 Rodney Street
Brooklyn, New York
NYSDEC BCP Site No.: C224216
Langan Project No.: 170357801

Sampling Location		PMW03									PMW04						
Sampling Event	Class GA	Baseline (2016)	Post-Source Removal (2017)	Quarter 1 (2018)	Quarter 2 (2018)	Quarter 3 (2018)	Quarter 4 (2018)	Quarter 4 (2018)	November (2019)	Baseline (2016)	Post-Source Removal (2017)	Quarter 1 (2018)	Quarter 2 (2018)	Quarter 3 (2018)	Quarter 4 (2018)	November (2019)	
Sample ID	SGVs	MW18_070516	PMW03_060817	PMW03_032318	PMW03_072418	PMW03_101018	PMW03_121918	DUP01_121918	MW03_111419	MW10_061516	PMW04_060817	PMW04_032318	PMW04_072418	PMW04_100918	PMW04_121918	MW04_111319	
Laboratory ID		L1620549-02	L1719158-02	L1810069-02	L1828420-02	L1841013-01	L1852408-03	L1852408-06	L1954584-01	L1618426-12	L1719158-03	L1810069-03	L1828420-01	L1840789-03	L1852408-04	L1954303-01	
Sample Date		7/5/2016	6/8/2017	3/23/2018	7/24/2018	10/10/2018	12/19/2018	12/19/2018	11/14/2019	6/15/2016	6/8/2017	3/23/2018	7/24/2018	10/9/2018	12/19/2018	11/13/2019	
Volatile Organic Compounds (µg/L)																	
1,1-Dichloroethane	5	250	U	2.5	U	2.5	U	0.79	J	2.5	U	2.5	U	2.5	U	2.5	U
1,1-Dichloroethene	5	50	U	0.56	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,4,5-Tetramethylbenzene	5	200	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U
1,2,4-Trimethylbenzene	5	250	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U
1,2-Dichlorobenzene	3	250	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U
1,2-Dichloroethane	0.6	50	U	0.18	J	0.5	U	0.5	UJ	0.5	U	0.5	U	0.5	U	0.5	U
1,3,5-Trimethylbenzene (Mesitylene)	5	250	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U
1,4-Diethyl Benzene	~	200	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U
4-Ethyltoluene	~	200	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U
Acetone	50	500	U	22	U	18	J	15	J	5	U	5	U	5	UJ	5	U
Benzene	1	44	J	0.38	J	0.5	U	0.5	U	0.5	U	0.37	J	0.17	J	0.5	U
Bromodichloromethane	50	50	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Bromomethane	5	250	U	2.5	U	1.7	J	2.5	U	1.2	J	2.5	UJ	2.5	U	2.5	UJ
Chlorobenzene	5	250	U	2.5	U	2.5	U	2.5	U	2.5	U	1.4	J	2.5	U	2.5	U
Chloroform	7	250	U	2.5	U	1.3	J	13	U	4.5	U	3.2	U	2.5	U	2.5	U
Cis-1,2-Dichloroethene	5	4,100	U	120	U	6.7	U	35	U	120	U	50	J	32	U	50	J
Dichlorodifluoromethane	5	500	UJ	5	U	5	UJ	5	UJ	5	U	5	UJ	5	U	5	UJ
Ethylbenzene	5	250	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U
Isopropylbenzene (Cumene)	5	250	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U
M,P-Xylene	5	250	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U
Methyl Ethyl Ketone (2-Butanone)	50	500	U	12	U	2.3	J	4	J	5	U	5	UJ	5	U	5	UJ
Naphthalene	10	250	UJ	0.71	J	2.5	U	2.5	UJ	2.5	UJ	2.5	U	2.5	U	2.5	UJ
n-Butylbenzene	5	250	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U
n-Propylbenzene	5	250	U	2.5	U	2.5	U	2.5	U	2.5	UJ	2.5	UJ	2.5	U	2.5	UJ
o-Xylene (1,2-Dimethylbenzene)	5	250	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U
Sec-Butylbenzene	5	250	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U
Tert-Butyl Methyl Ether	10	250	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U
Tetrachloroethene (PCE)	5	500	U	9.7	U	0.5	U	0.5	U	0.5	U	0.5	U	1.3	U	1.2	U
Toluene	5	250	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U
Total 1,2-Dichloroethene (Cis and Trans)	~	4,100	U	120	U	6.7	U	35	U	120	U	50	J	32	U	50	J
Total Xylenes	5	250	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U
Trans-1,2-Dichloroethene	5	250	U	2.5	U	2.5	U	2.5	U	2.5	U	0.77	J	2.5	U	2.5	U
Trans-1,4-Dichloro-2-Butene	5	250	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	UJ	2.5	U
Trichloroethene (TCE)	5	130	U	9.1	U	0.5	UJ	0.5	U	0.32	J	0.26	J	0.27	J	0.31	J
Vinyl Chloride	2	240	U	3.6	U	0.77	J	2.6	U	8.5	J	2.7	U	2.9	U	2.2	U

Table 2
Hisotrical Performance Monitoring Analytical Results

432 Rodney Street
Brooklyn, New York
NYSDEC BCP Site No.: C224216
Langan Project No.: 170357801

Sampling Location		PMW05									PMW06						
Sampling Event	Class GA	Baseline (2016)	Post-Source Removal (2017)	Quarter 1 (2018)	Quarter 2 (2018)	Quarter 3 (2018)	Quarter 4 (2018)	November (2019)	November (2019)	Baseline (2016)	Post-Source Removal (2017)	Quarter 1 (2018)	Quarter 2 (2018)	Quarter 3 (2018)	Quarter 4 (2018)	November (2019)	
Sample ID	SGVs	MW15S_061716	PMW05_060717	PMW05_032318	PMW05_072618	PMW05_100918	PMW05_121918	MW05_111319	GWDUP_111319	MW12_061716	PMW06_112717	PMW06_032018	PMW06_072418	PMW06_101018	PMW06_122018	MW06_111419	
Laboratory ID		L1618759-11	L1718905-01	L1810069-04	L1829078-01	L1840789-04	L1852408-05	L1954303-04	L1954303-07	L1618759-03	L1743280-02	L1809583-01	L1828422-01	L1841018-01	L1852608-01	L1954584-04	
Sample Date		6/17/2016	6/7/2017	3/23/2018	7/26/2018	10/9/2018	12/19/2018	11/13/2019	11/13/2019	6/17/2016	11/27/2017	3/20/2018	7/24/2018	10/10/2018	12/20/2018	11/14/2019	
Volatile Organic Compounds (µg/L)																	
1,1-Dichloroethane	5	100	U	1	J	2.5	U	2.5	U	2.5	U	12	U	2.5	U	2.5	U
1,1-Dichloroethene	5	20	U	0.5	U	0.5	U	0.5	U	0.5	U	2.5	U	0.5	U	0.5	U
1,2,4,5-Tetramethylbenzene	5	76	J	1.9	J	2	U	3.1	J	1.9	J	2	U	2	U	2	U
1,2,4-Trimethylbenzene	5	2,000		5.1		2.5	U	1.4	J	1.2	J	2.5	U	2.5	U	2.5	U
1,2-Dichlorobenzene	3	100	U	0.78	J	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U
1,2-Dichloroethane	0.6	20	U	0.88		0.5	U	0.5	U	0.9		2.5	U	0.5	U	0.5	U
1,3,5-Trimethylbenzene (Mesitylene)	5	580		2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U
1,4-Diethyl Benzene	~	240		0.83	J	2	U	2.4		2	U	2	U	2	U	2	U
4-Ethyltoluene	~	1,900		2	U	0.97	J	0.78	J	2	U	2	U	2	U	2	U
Acetone	50	240		42		22	U	5	U	9.6	U	5	U	25	U	5	U
Benzene	1	260		95		0.5	U	27		44		51		2.2		2.2	
Bromodichloromethane	50	20	U	0.5	U	0.5	U	0.5	U	0.5	U	2.5	U	0.5	U	0.5	U
Bromomethane	5	100	U	2.5	U	2.5	UJ	2.5	UJ	2.5	U	2.5	UJ	2.5	UJ	2.5	UJ
Chlorobenzene	5	100	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U
Chloroform	7	100	U	2.5	U	2.5	UJ	2.5	U	2.5	U	2.5	U	2.5	U	1.2	J
Cis-1,2-Dichloroethene	5	100	U	36		2.5	U	13	J	17		23	J	5.9		6	
Dichlorodifluoromethane	5	200	UJ	5	U	5	UJ	5	U	5	U	25	UJ	5	U	5	UJ
Ethylbenzene	5	1,500		49		2.5	U	14		9.1		6.9		2.5	U	2.5	U
Isopropylbenzene (Cumene)	5	110		6		2.5	U	10		18		12		0.93	J	0.94	J
M,P-Xylene	5	5,500		9.3		2.5	U	2.2	J	4.2		1.5	J	2.5	U	2.5	U
Methyl Ethyl Ketone (2-Butanone)	50	200	U	5	U	8.7	U	5	U	5	UJ	5	U	25	U	5	U
Naphthalene	10	75	J	3.8	J	2.5	U	2.5	U	2.5	UJ	2.5	U	8.5	J	2.5	U
n-Butylbenzene	5	44	J	2	J	2.5	U	2.2	J	3.1		2.2	J	2.5	U	2.5	U
n-Propylbenzene	5	410		13		2.5	U	30		38		25	J	1.1	J	1.1	J
o-Xylene (1,2-Dimethylbenzene)	5	2,300		2.3	J	2.5	U	2.5	U	0.86	J	2.5	U	2.5	U	2.5	U
Sec-Butylbenzene	5	100	U	3		2.5	U	4.2		6.5		3.3		2.5	U	2.5	U
Tert-Butyl Methyl Ether	10	100	U	1.4	J	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U
Tetrachloroethene (PCE)	5	20	U	62		0.48	J	2.2		2.7		0.71		0.75		0.78	
Toluene	5	2,300		8.3		2.5	U	2.2	J	2.4	J	2.2	J	2.5	U	2.5	U
Total 1,2-Dichloroethene (Cis and Trans)	~	100	U	37	J	2.5	U	13		17		23		5.9		6	
Total Xylenes	5	7,800		12		2.5	U	2.2	J	5.1	J	1.5	J	2.5	U	2.5	U
Trans-1,2-Dichloroethene	5	100	U	0.82	J	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U
Trans-1,4-Dichloro-2-Butene	5	100	U	2.5	U	2.5	U	2.5	UJ	3		2.5	U	2.5	U	2.5	UJ
Trichloroethene (TCE)	5	20	U	9.4		0.5	UJ	0.5	U	1.8		1.1		0.74		0.71	
Vinyl Chloride	2	40	U	6.8		1	U	7.1		7.1		6.4		4.2		4.2	

Table 2
Hisotrical Performance Monitoring Analytical Results

432 Rodney Street
Brooklyn, New York
NYSDEC BCP Site No.: C224216
Langan Project No.: 170357801

Sampling Location	Class GA SGVs	PMW07									
Sampling Event		Baseline (2016)	Post-Source Removal (2017)	Quarter 1 (2018)	Quarter 1 (2018)	Quarter 2 (2018)	Quarter 2 (2018)	Quarter 3 (2018)	Quarter 4 (2018)	November (2019)	
Sample ID		MW13_061716	PMW07_112717	PMW07_032018	DUP01_032018	PMW07_072318	DUP01_072318	PMW07_101118	PMW07_122018	MW07_111419	
Laboratory ID		L1618759-06	L1743280-01	L1809583-02	L1809583-03	L1828254-01	L1828254-02	L1841249-01	L1852608-02	L1954584-02	
Sample Date		6/17/2016	11/27/2017	3/20/2018	3/20/2018	7/23/2018	7/23/2018	10/11/2018	12/20/2018	11/14/2019	
Volatile Organic Compounds (µg/L)											
1,1-Dichloroethane	5	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U
1,1-Dichloroethene	5	0.33	J	0.5	U	0.5	U	0.5	U	0.5	U
1,2,4,5-Tetramethylbenzene	5	2	U	2	U	2	U	2	U	2	U
1,2,4-Trimethylbenzene	5	2.5	U	2.5	UJ	2.5	U	2.5	U	2.5	U
1,2-Dichlorobenzene	3	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U
1,2-Dichloroethane	0.6	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,3,5-Trimethylbenzene (Mesitylene)	5	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U
1,4-Diethyl Benzene	~	2	U	2	U	2	U	2	U	2	U
4-Ethyltoluene	~	2	U	2	U	2	U	2	U	2	U
Acetone	50	4.5	J	5	U	5	U	5	U	5	UJ
Benzene	1	0.35	J	0.5	U	0.5	U	0.5	U	0.5	U
Bromodichloromethane	50	0.5	U	0.5	U	0.2	J	0.5	U	0.5	U
Bromomethane	5	2.5	U	2.5	UJ	2.5	UJ	2.5	U	2.5	UJ
Chlorobenzene	5	3.6	U	2.5	U	2.5	U	2.5	U	2.5	U
Chloroform	7	2.5	U	3.5	U	3.4	J	2	J	2.5	U
Cis-1,2-Dichloroethene	5	46	J	2.5	U	2.5	U	2.5	U	2.5	U
Dichlorodifluoromethane	5	17	J	5	UJ	5	UJ	5	UJ	5	UJ
Ethylbenzene	5	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U
Isopropylbenzene (Cumene)	5	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U
M,P-Xylene	5	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U
Methyl Ethyl Ketone (2-Butanone)	50	5	U	5	U	5	U	5	U	68	J
Naphthalene	10	2.5	UJ	2.5	U	2.5	U	2.5	U	2.5	U
n-Butylbenzene	5	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U
n-Propylbenzene	5	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U
o-Xylene (1,2-Dimethylbenzene)	5	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U
Sec-Butylbenzene	5	1.2	J	2.5	U	2.5	U	2.5	U	2.5	U
Tert-Butyl Methyl Ether	10	1.6	J	2.5	U	2.5	U	2.5	U	2.5	U
Tetrachloroethene (PCE)	5	67	J	0.96	U	0.5	U	0.5	UJ	0.5	U
Toluene	5	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U
Total 1,2-Dichloroethene (Cis and Trans)	~	46	J	2.5	U	2.5	U	2.5	U	2.5	U
Total Xylenes	5	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U
Trans-1,2-Dichloroethene	5	2.5	U	2.5	U	2.5	U	2.5	U	2.5	U
Trans-1,4-Dichloro-2-Butene	5	2.5	U	2.5	UJ	2.5	U	2.5	UJ	2.5	UJ
Trichloroethene (TCE)	5	8	J	0.2	J	0.5	U	0.5	U	0.5	U
Vinyl Chloride	2	12	J	1	UJ	1	UJ	1	U	0.35	J

Table 2
Hisotrical Performance Monitoring Analytical Results

432 Rodney Street
Brooklyn, New York
NYSDEC BCP Site No.: C224216
Langan Project No.: 170357801

Notes:

1. Groundwater sample analytical results are compared to the New York State Department of Environmental Conservation (NYSDEC) Title 6 of the Official Compilation of New York Codes, Rules and Regulations (NYCRR) Part 703.5 and the NYSDEC Technical and Operational Guidance Series (TOGS) 1.1.1 Ambient Water Quality Standards and Guidance Values for Class GA Water (herein collectively referenced as "Class GA SGVs").
2. Criterion comparisons for total xylenes and m,p-xylene are provided for reference. Promulgated Class GA SGVs are for o-xylene, m-xylene, and p-xylene.
3. Only detected analytes are shown in the table.
4. Analytical results detected above Class GA SGVs are bolded and shaded.
5. Analytical results with reporting limits (RL) above Class GA SGVs are italicized.
6. Sample GWDUP_111319 is a duplicate sample of MW05_111319; sample DUP01_121918 is a duplicate sample of PMW03_121918; sample DUP01_100918 is a duplicate sample of PMW01_10091; sample DUP01_072318 is a duplicate sample of PMW07_072318; and sample DUP01_032018 is a duplicate sample of PMW07_032018.
7. ~ = Regulatory limit for this analyte does not exist
8. µg/L = micrograms per liter

Qualifiers:

- J – The analyte was positively identified and the associated numerical value is the approximate concentration of the analyte in the sample.
- UJ – The analyte was not detected at a level greater than or equal to the RL; however, the reported RL is approximate and may be inaccurate or imprecise.
- U – The analyte was analyzed for, but was not detected at a level greater than or equal to the level of the RL or the sample concentration for results impacted by blank contamination.

ATTACHMENT A

WELL PURGING AND SAMPLING LOGS

[illegible]

ATTACHMENT B

DATA USABILITY REPORTS



www.alphalab.com



Alpha Analytical

Laboratory Code: 11148

SDG Number: L1954303

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

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Project Name: 432 RODNEY STREET
Project Number: 170357801

Lab Number: L1954303
Report Date: 11/14/19

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L1954303-01	MW04_111319	WATER	432 RODNEY STREET, BROOKLYN, NY	11/13/19 11:45	11/13/19
L1954303-02	MW02_111319	WATER	432 RODNEY STREET, BROOKLYN, NY	11/13/19 13:10	11/13/19
L1954303-03	MW01_111319	WATER	432 RODNEY STREET, BROOKLYN, NY	11/13/19 15:10	11/13/19
L1954303-04	MW05_111319	WATER	432 RODNEY STREET, BROOKLYN, NY	11/13/19 16:20	11/13/19
L1954303-05	GWFB_111319	WATER	432 RODNEY STREET, BROOKLYN, NY	11/13/19 12:30	11/13/19
L1954303-06	GWTB_111319	WATER	432 RODNEY STREET, BROOKLYN, NY	11/13/19 00:00	11/13/19
L1954303-07	GWDUP_111319	WATER	432 RODNEY STREET, BROOKLYN, NY	11/13/19 00:00	11/13/19

Project Name: 432 RODNEY STREET
Project Number: 170357801

Lab Number: L1954303
Report Date: 11/14/19

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. All specific QC information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

HOLD POLICY

For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Client Services at 800-624-9220 with any questions.

Project Name: 432 RODNEY STREET
Project Number: 170357801

Lab Number: L1954303
Report Date: 11/14/19

Case Narrative (continued)

Report Submission

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature: 

Report Date: 11/14/19

Title: Technical Director/Representative

GLOSSARY

Acronyms

DL	- Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EMPC	- Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCS D	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LOD	- Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
LOQ	- Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.) Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. For Method 332.0, the spike recovery is calculated using the native concentration, including estimated values.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NDPA/DPA	- N-Nitrosodiphenylamine/Diphenylamine.
NI	- Not Ignitable.
NP	- Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.
STLP	- Semi-dynamic Tank Leaching Procedure per EPA Method 1315.
TEF	- Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.
TEQ	- Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.
TIC	- Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Footnotes

Report Format: DU Report with 'J' Qualifiers



Project Name: 432 RODNEY STREET
Project Number: 170357801

Lab Number: L1954303
Report Date: 11/14/19

- 1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Difference: With respect to Total Oxidizable Precursor (TOP) Assay analysis, the difference is defined as the Post-Treatment value minus the Pre-Treatment value.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

PFAS Total: With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. If a 'Total' result is requested, the results of its individual components will also be reported.

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Data Qualifiers

- A** - Spectra identified as "Aldol Condensates" are byproducts of the extraction/concentration procedures when acetone is introduced in the process.
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).
- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E** - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- G** - The concentration may be biased high due to matrix interferences (i.e. co-elution) with non-target compound(s). The result should be considered estimated.
- H** - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- I** - The lower value for the two columns has been reported due to obvious interference.
- M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
- NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.
- P** - The RPD between the results for the two columns exceeds the method-specified criteria.
- Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
- R** - Analytical results are from sample re-analysis.
- RE** - Analytical results are from sample re-extraction.
- S** - Analytical results are from modified screening analysis.
- J** - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).
- ND** - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

Report Format: DU Report with 'J' Qualifiers





Volatile Organics Instruments

Volatile Organics:

Instrument: Agilent 7890 GC/5975C MSD
 Trap: Supelco K Trap (VOACARB 3000)
 Concentrator: EST Encon (or equivalent)
 Autosampler: EST Centurion (or equivalent)
 Purge time: 11 min

Columns (length x ID x df):
 RTX-VMS 20m x 0.18mm x 1um
 RTX-VMS 30m x 0.25mm x 1.4um
 RTX-502.2 40m x 0.18mm x 1um

Volatile Organics: VPH

Instrument: Agilent 6890 (or equivalent)
 Trap: Supelco K Trap (VOACARB 3000)
 Concentrator: EST Encon (or equivalent)
 Autosampler: EST Centurion (or equivalent)

Column Type: Restek RTX 502.2
 Column Length: 105 Meters
 df: 3.00 um
 ID: 0.53mm

Volatile Organics: PIANO

Instrument: Agilent 7890 GC/5975C MSD
 Trap: Supelco K Trap (VOACARB 3000)
 Concentrator: Tekmar Velocity / EST Encon
 Autosampler: Varian Archon / EST Centurion
 Purge time: 11 min

Column Type: DB-VRX
 Column Length: 60 Meters
 df: 1.40 um
 ID: 0.25 mm
 Desorb: 1 min

Volatile Organics: Dissolved Gas

Instrument: Agilent 7890 (or equivalent) with FID/TCD

Column Type: Haysep S Column
 Column Length: 2 Meters packed
 (100/200 mesh)

Autosampler: LEAP Headspace

Purge time: 0.6 min

Volatile Organics in Air Instruments

Volatile Organics in Air:

Instruments: Agilent 6890 GC / 5975 MSD Shimadzu QP2010-SE / QP2020

Concentrator: Entech 7100A or 7200
 Autosampler: Entech 7016CA or 7016D

Column Type: Restek RTX-1
 Column Length: 60 Meters
 df: 1.00 um
 ID: 0.25 mm or 0.32 mm

Trap 1: Glass Bead: manufacturer-Entech: 20 cm packing material

Trap 2: Tenax: manufacturer-Entech: 20 cm packing material



Semivolatile Organics Instruments - Westborough

Semivolatile Organics (Acid/Base/Neutral Extractables):

Instrument: Agilent 5973N MSD	Injection volume: 1 μ L; 2 μ L LVI
Column Type: Restek RXI-5SILMS	df: 0.32 μ m
Column Length: 30 Meters	ID: 0.25 mm

Polynuclear Aromatic Hydrocarbons by 8270 SIM:

Instrument: Agilent 5973 MSD	Injection volume: 1 μ L; 2 μ L LVI
Column Type: Restek RXI-5SILMS	df: 0.25 μ m
Column Length: 30 Meters	ID: 0.25 mm

Pesticides/PCB/Herbicides:

Instrument: Agilent 6890 w/Dual Micro ECDs	Injection Volume: 1 μ L
Column A: Restek RTX-CL/STX-CL	df: 0.32
Column B: Restek RTX/STX-CLP Pesticide II	df: 0.25
Column Length: 30 Meters	ID: 0.32 mm

Petroleum/EPH:

Instrument: Agilent 6890 w/FID / HP 5890 w/ FID	Injection Volume: 1 μ L
Column: Restek RTX 5	df: 0.25
Column Length: 30 Meters	
ID: 0.32 mm	



Semivolatile Organic Instruments - Mansfield

Semivolatile Organics (ALK-PAH Extractables):

Instrument: Agilent 5973N / 5975 MSD	Injection volume: 1 ul
Column Type: ZB-5	df: 0.25 um
Column Length: 60 Meters	ID: 0.25 mm

Semivolatile Organics (8270):

Instrument: Agilent 5973N / 5975 MSD	Injection volume: 2 ul
Column Type: ZB-Semivolatiles	df: 0.25 um
Column Length: 30 Meters	ID: 0.25 mm

Semivolatile Organics (8270 SIM):

Instrument: Agilent 5973N / 5975 MSD	Injection volume: 3 ul
Column Type: ZB-5	df: 0.25 um
Column Length: 30 Meters	ID: 0.25 mm

Semivolatile Organics (1,4-Dioxane):

Instrument: Agilent 5973N / 5975 / 5977 MSD	Injection volume: 3 ul
Column Type: RTX-5	df: 0.25um, 0.18 um
Column Length: 30 Meters	ID: 0.25um, 0.18 mm

Semivolatile Organics (209 Congener):

Instrument: Agilent 5973N / 5975 MSD	Injection volume: 3 ul
Column Type: RTX-5, RTX-PCB	df: 0.25um, 0.18 um
Column Length: 60 Meters	ID: 0.25um, 0.18 mm

Semivolatile Organics (8081):

Instrument: Agilent 6890 / 7890	Injection volume: 1 ul
Column Type: RTX-5 / RTX-CLP II	df: 0.25 um
Column Length: 60 Meters	ID: 0.25 mm

Semivolatile Organics (8082):

Instrument: Agilent 6890 w/Dual Micro ECDs	Injection Volume: 1uL
Column A: Restek RTX-CL/STX-CL	df: 0.32
Column B: Restek RTX/STX-CLPPesticide II	df: 0.25
Column Length: 30 Meters	ID: 0.32 mm

Semivolatile Organics (SHC Extractables):

Instrument: Agilent 6890	Injection volume: 1 ul
Column Type: RTX-5	df: 0.25 um
Column Length: 60 Meters	ID: 0.25 mm



Sample Delivery Group Summary

Alpha Job Number : L1954303

Received : 13-NOV-2019

Reviewer : Wendy Morency

Account Name : Langan Engineering & Environmental

Project Number : 170357801

Project Name : 432 RODNEY STREET

Delivery Information

Samples Delivered By : Alpha Courier

Chain of Custody : Present

Cooler Information

Cooler	Seal/Seal#	Preservation	Temperature(°C)	Additional Information
A	Absent/	Ice	5.5	

Condition Information

1) All samples on COC received?	YES
2) Extra samples received?	NO
3) Are there any sample container discrepancies?	NO
4) Are there any discrepancies between sample labels & COC?	NO
5) Are samples in appropriate containers for requested analysis?	YES
6) Are samples properly preserved for requested analysis?	YES
7) Are samples within holding time for requested analysis?	YES
8) All sampling equipment returned?	NA

Volatile Organics/VPH

1) Reagent Water Vials Frozen by Client?	NO

ALPHA ANALYTICAL LABORATORIES, INC.
LOGIN CHAIN OF CUSTODY REPORT
Nov 14 2019, 03:13 pm

Login Number: L1954303

Account: LANGAN-NYC Langan Engineering & Environmental Project: 170357801

Received: 13NOV19 Due Date: 14NOV19

Sample #	Client ID	Mat PR Collected
L1954303-01 MW04_111319		1 1A 13NOV19 11:45
ASP-B Package Due Date: 11/14/19		
ASP-B, NYTCL-8260		
L1954303-02 MW02_111319		1 1A 13NOV19 13:10
Package Due Date: 11/14/19		
NYTCL-8260		
L1954303-03 MW01_111319		1 1A 13NOV19 15:10
Package Due Date: 11/14/19		
NYTCL-8260		
L1954303-04 MW05_111319		1 1A 13NOV19 16:20
Package Due Date: 11/14/19		
NYTCL-8260		
L1954303-05 GWFB_111319		1 1A 13NOV19 12:30
Package Due Date: 11/14/19		
NYTCL-8260		
L1954303-06 GWTB_111319		1 1A 13NOV19 00:00
Package Due Date: 11/14/19		
NYTCL-8260		
L1954303-07 GWDUP_111319		1 1A 13NOV19 00:00
Package Due Date: 11/14/19		

ALPHA ANALYTICAL LABORATORIES, INC.
LOGIN CHAIN OF CUSTODY REPORT
Nov 14 2019, 03:13 pm

Login Number: L1954303

Account: LANGAN-NYC Langan Engineering & Environmental Project: 170357801

Received: 13NOV19 Due Date: 14NOV19

Mat PR Collected

Sample # Client ID

NYTCL-8260

Page 2

Logged By: Wendy Morency

Organics

GC/MS 8260

Analysis

Volatiles QC Summary

Surrogate Recovery Summary

Form 2

Volatiles

Client: Langan Engineering & Environmental
Project Name: 432 RODNEY STREET

Lab Number: L1954303
Project Number: 170357801
Matrix: Water

CLIENT ID (LAB SAMPLE NO.)	SMC1 DCA	SMC2 TOL	SMC3 BFB	SMC4 DBFM	TOT OUT
MW04_111319 (L1954303-01)	106	108	104	98	0
MW02_111319 (L1954303-02)	109	106	104	98	0
MW01_111319 (L1954303-03)	105	107	105	96	0
MW05_111319 (L1954303-04)	107	106	103	97	0
GWFB_111319 (L1954303-05)	103	107	104	96	0
GWTB_111319 (L1954303-06)	105	107	105	97	0
GWDUP_111319 (L1954303-07)	107	106	103	97	0
WG1308760-3LCS	108	107	104	97	0
WG1308760-4LCSD	102	108	104	95	0
WG1308760-5BLANK	104	108	104	97	0

QC LIMITS

(70-130) DCA = 1,2-DICHLOROETHANE-D4
(70-130) TOL = TOLUENE-D8
(70-130) BFB = 4-BROMOFLUOROBENZENE
(70-130) DBFM = DIBROMOFLUOROMETHANE

* Values outside of QC limits

FORM II NYTCL-8260



Laboratory Control Sample Summary

Form 3

Volatiles

Client : Langan Engineering & Environmental **Lab Number** : L1954303
Project Name : 432 RODNEY STREET **Project Number** : 170357801
Matrix : WATER
LCS Sample ID : WG1308760-3 **Analysis Date** : 11/14/19 07:24 **File ID** : V01191114A02
LCSD Sample ID : WG1308760-4 **Analysis Date** : 11/14/19 07:47 **File ID** : V01191114A03

Parameter	Laboratory Control Sample			Laboratory Control Duplicate			RPD	Recovery Limits	RPD Limit
	True (ug/l)	Found (ug/l)	%R	True (ug/l)	Found (ug/l)	%R			
Methylene chloride	10	8.4	84	10	8.2	82	2	70-130	20
1,1-Dichloroethane	10	9.5	95	10	9.4	94	1	70-130	20
Chloroform	10	9.4	94	10	9.2	92	2	70-130	20
Carbon tetrachloride	10	10	100	10	10	100	0	63-132	20
1,2-Dichloropropane	10	8.9	89	10	8.8	88	1	70-130	20
Dibromochloromethane	10	9.2	92	10	9.2	92	0	63-130	20
1,1,2-Trichloroethane	10	8.9	89	10	8.7	87	2	70-130	20
Tetrachloroethene	10	10	100	10	10	100	0	70-130	20
Chlorobenzene	10	10	100	10	10	100	0	75-130	20
Trichlorofluoromethane	10	9.7	97	10	9.5	95	2	62-150	20
1,2-Dichloroethane	10	9.3	93	10	9.1	91	2	70-130	20
1,1,1-Trichloroethane	10	9.9	99	10	9.8	98	1	67-130	20
Bromodichloromethane	10	8.9	89	10	8.7	87	2	67-130	20
trans-1,3-Dichloropropene	10	9.3	93	10	9.2	92	1	70-130	20
cis-1,3-Dichloropropene	10	8.3	83	10	8.2	82	1	70-130	20
1,1-Dichloropropene	10	9.1	91	10	9.1	91	0	70-130	20
Bromoform	10	9.0	90	10	9.1	91	1	54-136	20
1,1,2,2-Tetrachloroethane	10	9.2	92	10	9.0	90	2	67-130	20
Benzene	10	8.8	88	10	8.6	86	2	70-130	20
Toluene	10	10	100	10	9.9	99	1	70-130	20
Ethylbenzene	10	10	100	10	10	100	0	70-130	20
Chloromethane	10	11	110	10	11	110	0	64-130	20
Bromomethane	10	27	270 Q	10	25	250 Q	8	39-139	20
Vinyl chloride	10	9.9	99	10	9.5	95	4	55-140	20
Chloroethane	10	10	100	10	9.8	98	2	55-138	20
1,1-Dichloroethene	10	9.2	92	10	9.0	90	2	61-145	20



Laboratory Control Sample Summary

Form 3

Volatiles

Client : Langan Engineering & Environmental **Lab Number** : L1954303
Project Name : 432 RODNEY STREET **Project Number** : 170357801
Matrix : WATER
LCS Sample ID : WG1308760-3 **Analysis Date** : 11/14/19 07:24 **File ID** : V01191114A02
LCSD Sample ID : WG1308760-4 **Analysis Date** : 11/14/19 07:47 **File ID** : V01191114A03

Parameter	Laboratory Control Sample			Laboratory Control Duplicate			RPD	Recovery Limits	RPD Limit
	True (ug/l)	Found (ug/l)	%R	True (ug/l)	Found (ug/l)	%R			
trans-1,2-Dichloroethene	10	9.1	91	10	8.8	88	3	70-130	20
Trichloroethene	10	9.5	95	10	9.4	94	1	70-130	20
1,2-Dichlorobenzene	10	10	100	10	10	100	0	70-130	20
1,3-Dichlorobenzene	10	11	110	10	11	110	0	70-130	20
1,4-Dichlorobenzene	10	11	110	10	11	110	0	70-130	20
Methyl tert butyl ether	10	7.6	76	10	7.5	75	1	63-130	20
p/m-Xylene	20	20	100	20	20	100	0	70-130	20
o-Xylene	20	20	100	20	20	100	0	70-130	20
cis-1,2-Dichloroethene	10	9.1	91	10	8.9	89	2	70-130	20
Dibromomethane	10	7.8	78	10	7.7	77	1	70-130	20
1,2,3-Trichloropropane	10	9.4	94	10	9.3	93	1	64-130	20
Acrylonitrile	10	7.6	76	10	7.4	74	3	70-130	20
Styrene	20	20	100	20	19	95	5	70-130	20
Dichlorodifluoromethane	10	9.2	92	10	9.0	90	2	36-147	20
Acetone	10	6.8	68	10	6.5	65	5	58-148	20
Carbon disulfide	10	8.7	87	10	8.5	85	2	51-130	20
2-Butanone	10	7.0	70	10	6.9	69	1	63-138	20
Vinyl acetate	10	8.4	84	10	8.2	82	2	70-130	20
4-Methyl-2-pentanone	10	7.7	77	10	7.6	76	1	59-130	20
2-Hexanone	10	8.0	80	10	8.1	81	1	57-130	20
Bromochloromethane	10	9.0	90	10	8.9	89	1	70-130	20
2,2-Dichloropropane	10	10	100	10	9.8	98	2	63-133	20
1,2-Dibromoethane	10	8.8	88	10	8.8	88	0	70-130	20
1,3-Dichloropropane	10	8.8	88	10	8.8	88	0	70-130	20
1,1,1,2-Tetrachloroethane	10	10	100	10	10	100	0	64-130	20
Bromobenzene	10	11	110	10	11	110	0	70-130	20



Laboratory Control Sample Summary

Form 3

Volatiles

Client : Langan Engineering & Environmental Lab Number : L1954303
 Project Name : 432 RODNEY STREET Project Number : 170357801
 Matrix : WATER
 LCS Sample ID : WG1308760-3 Analysis Date : 11/14/19 07:24 File ID : V01191114A02
 LCSD Sample ID : WG1308760-4 Analysis Date : 11/14/19 07:47 File ID : V01191114A03

Parameter	Laboratory Control Sample			Laboratory Control Duplicate			RPD	Recovery Limits	RPD Limit
	True (ug/l)	Found (ug/l)	%R	True (ug/l)	Found (ug/l)	%R			
n-Butylbenzene	10	11	110	10	11	110	0	53-136	20
sec-Butylbenzene	10	11	110	10	11	110	0	70-130	20
tert-Butylbenzene	10	11	110	10	11	110	0	70-130	20
o-Chlorotoluene	10	11	110	10	11	110	0	70-130	20
p-Chlorotoluene	10	11	110	10	11	110	0	70-130	20
1,2-Dibromo-3-chloropropane	10	8.0	80	10	8.3	83	4	41-144	20
Hexachlorobutadiene	10	12	120	10	12	120	0	63-130	20
Isopropylbenzene	10	12	120	10	11	110	9	70-130	20
p-Isopropyltoluene	10	11	110	10	11	110	0	70-130	20
Naphthalene	10	8.2	82	10	8.4	84	2	70-130	20
n-Propylbenzene	10	12	120	10	11	110	9	69-130	20
1,2,3-Trichlorobenzene	10	9.1	91	10	9.4	94	3	70-130	20
1,2,4-Trichlorobenzene	10	9.8	98	10	9.9	99	1	70-130	20
1,3,5-Trimethylbenzene	10	11	110	10	11	110	0	64-130	20
1,2,4-Trimethylbenzene	10	11	110	10	11	110	0	70-130	20
1,4-Dioxane	500	310	62	500	300	60	3	56-162	20
p-Diethylbenzene	10	11	110	10	11	110	0	70-130	20
p-Ethyltoluene	10	11	110	10	11	110	0	70-130	20
1,2,4,5-Tetramethylbenzene	10	11	110	10	11	110	0	70-130	20
Ethyl ether	10	7.6	76	10	7.5	75	1	59-134	20
trans-1,4-Dichloro-2-butene	10	9.0	90	10	8.4	84	7	70-130	20



Method Blank Summary

Form 4

Volatiles

Client : Langan Engineering & Environmental Lab Number : L1954303
Project Name : 432 RODNEY STREET Project Number : 170357801
Lab Sample ID : WG1308760-5 Lab File ID : V01191114A05
Instrument ID : VOA101
Matrix : WATER Analysis Date : 11/14/19 08:34

Client Sample No.	Lab Sample ID	Analysis Date
WG1308760-3LCS	WG1308760-3	11/14/19 07:24
WG1308760-4LCSD	WG1308760-4	11/14/19 07:47
GWFB_111319	L1954303-05	11/14/19 09:21
GWTB_111319	L1954303-06	11/14/19 09:45
MW04_111319	L1954303-01	11/14/19 10:09
MW02_111319	L1954303-02	11/14/19 10:32
MW01_111319	L1954303-03	11/14/19 10:56
MW05_111319	L1954303-04	11/14/19 11:20
GWDUP_111319	L1954303-07	11/14/19 11:43

Instrument Performance Check (Tune) Summary

Form 5

Volatiles

Bromofluorobenzene (BFB)

Client	: Langan Engineering & Environmental	Lab Number	: L1954303
Project Name	: 432 RODNEY STREET	Project Number	: 170357801
Instrument ID	: VOA101	Analysis Date	: 11/07/19 11:48
Tune Standard	: WG1306306-1	Tune File ID	: V01191107ABF1_tune

m/e	Ion Abundance Criteria	%Relative Abundance
50	15.0 - 40.0% of mass 95	26.2
75	30.0 - 60.0% of mass 95	52.5
95	Base Peak, 100% relative abundance	100
96	5.0 - 9.0% of mass 95	7.2
173	Less than 2.0% of mass 174	0.6 (.9)1
174	Greater than 50.0 of mass 95	66.5
175	5.0 - 9.0% of mass 174	5 (7.5)1
176	95.0 - 101% of mass 174	63.5 (95.4)1
177	5.0 - 9.0% of mass 176	4.4 (7)2

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

This Check Applies to the following Samples, MS, MSD, Blanks, and Standards:

Client Sample ID	Lab Sample ID	File ID	Analysis Date/Time
STD0.5PPB	R1251846-2	V01191107A04	11/07/19 13:20
STD2PPB	R1251846-1	V01191107A07	11/07/19 14:31
STD10PPB	R1251846-3	V01191107A08	11/07/19 14:55
STD30PPB	R1251846-4	V01191107A09	11/07/19 15:18
STD80PPB	R1251846-6	V01191107A10	11/07/19 15:42
STD120PPB	R1251846-5	V01191107A11	11/07/19 16:06
STD200PPB	R1251846-8	V01191107A12	11/07/19 16:29
ICV QUANT REPORT	R1251846-7	V01191107A18	11/07/19 18:51

Instrument Performance Check (Tune) Summary

Form 5

Volatiles

Bromofluorobenzene (BFB)

Client : Langan Engineering & Environmental	Lab Number : L1954303
Project Name : 432 RODNEY STREET	Project Number : 170357801
Instrument ID : VOA101	Analysis Date : 11/14/19 06:46
Tune Standard : WG1308760-1	Tune File ID : V01191114ABF1_tune

m/e	Ion Abundance Criteria	%Relative Abundance
50	15.0 - 40.0% of mass 95	28.1
75	30.0 - 60.0% of mass 95	53.5
95	Base Peak, 100% relative abundance	100
96	5.0 - 9.0% of mass 95	7.1
173	Less than 2.0% of mass 174	0 (0)1
174	Greater than 50.0 of mass 95	63.4
175	5.0 - 9.0% of mass 174	4.8 (7.6)1
176	95.0 - 101% of mass 174	61.3 (96.7)1
177	5.0 - 9.0% of mass 176	4 (6.5)2

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

This Check Applies to the following Samples, MS, MSD, Blanks, and Standards:

Client Sample ID	Lab Sample ID	File ID	Analysis Date/Time
WG1308760-2CCAL	WG1308760-2	V01191114A02	11/14/19 07:24
WG1308760-3LCS	WG1308760-3	V01191114A02	11/14/19 07:24
WG1308760-4LCSD	WG1308760-4	V01191114A03	11/14/19 07:47
WG1308760-5BLANK	WG1308760-5	V01191114A05	11/14/19 08:34
GWFB_111319	L1954303-05	V01191114A07	11/14/19 09:21
GWTB_111319	L1954303-06	V01191114A08	11/14/19 09:45
MW04_111319	L1954303-01	V01191114A09	11/14/19 10:09
MW02_111319	L1954303-02	V01191114A10	11/14/19 10:32
MW01_111319	L1954303-03	V01191114A11	11/14/19 10:56
MW05_111319	L1954303-04	V01191114A12	11/14/19 11:20
GWDUP_111319	L1954303-07	V01191114A13	11/14/19 11:43

Internal Standard Area and RT Summary

Form 8a

Volatiles

Client : Langan Engineering & Environmental
 Project Name : 432 RODNEY STREET
 Instrument ID : VOA101
 Sample No : WG1308760-2

Lab Number : L1954303
 Project Number : 170357801
 Analysis Date : 11/14/19 07:24
 Lab File ID : V01191114A02

	Fluorobenzene (IS)		Chlorobenzene-d5		1,4-Dichlorobenzene-D4	
	Area	RT	Area	RT	Area	RT
WG1308760-2	199922	6.65	138066	10.54	65641	13.34
Upper Limit	399844	7.15	276132	11.04	131282	13.84
Lower Limit	99961	6.15	69033	10.04	32821	12.84
Sample ID						
WG1308760-3 LCS	199922	6.65	138066	10.54	65641	13.34
WG1308760-4 LCSD	197594	6.65	135962	10.54	64742	13.33
WG1308760-5 BLANK	193615	6.65	134703	10.54	63863	13.33
GWFB_111319	192224	6.65	133535	10.54	63069	13.33
GWTB_111319	192405	6.65	133920	10.54	62937	13.33
MW04_111319	189789	6.65	131765	10.54	63092	13.34
MW02_111319	187744	6.65	133496	10.54	63182	13.33
MW01_111319	190219	6.65	131626	10.54	62395	13.33
MW05_111319	190763	6.65	132213	10.54	63432	13.33
GWDUP_111319	190116	6.65	132857	10.54	64299	13.34

Area Upper Limit = +100% of internal standard area
 Area Lower Limit = - 50% of internal standard area

RT Upper Limit = +0.50 minutes of internal standard RT
 RT Lower Limit = -0.50 minutes of internal standard RT

* Values outside of QC limits





Date Created: 06/19/18
Created By: Jason Hebert
File: PM5049-1
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Volatile Organics - EPA 8260C (WATER)

Holding Time: 14 days
Container/Sample Preservation: 3 - Vial HCl preserved

Analyte	CAS #	RL	MDL	Units	LCS Criteria	LCS RPD	MS Criteria	MS RPD	Duplicate RPD	Surrogate Criteria		
Methylene chloride	75-09-2	3	0.678	ug/l	70-130	20	70-130	20	20			
1,1-Dichloroethane	75-34-3	0.75	0.210	ug/l	70-130	20	70-130	20	20			
Chloroform	67-66-3	0.75	0.222	ug/l	70-130	20	70-130	20	20			
Carbon tetrachloride	56-23-5	0.5	0.134	ug/l	63-132	20	63-132	20	20			
1,2-Dichloropropane	78-87-5	1.75	0.137	ug/l	70-130	20	70-130	20	20			
Dibromochloromethane	124-48-1	0.5	0.149	ug/l	63-130	20	63-130	20	20			
1,1,2-Trichloroethane	79-00-5	0.75	0.144	ug/l	70-130	20	70-130	20	20			
Tetrachloroethene	127-18-4	0.5	0.181	ug/l	70-130	20	70-130	20	20			
Chlorobenzene	108-90-7	0.5	0.178	ug/l	75-130	25	75-130	25	25			
Trichlorofluoromethane	75-69-4	2.5	0.161	ug/l	62-150	20	62-150	20	20			
1,2-Dichloroethane	107-06-2	0.5	0.132	ug/l	70-130	20	70-130	20	20			
1,1,1-Trichloroethane	71-55-6	0.5	0.158	ug/l	67-130	20	67-130	20	20			
Bromodichloromethane	75-27-4	0.5	0.192	ug/l	67-130	20	67-130	20	20			
trans-1,3-Dichloropropene	10061-02-6	0.5	0.164	ug/l	70-130	20	70-130	20	20			
cis-1,3-Dichloropropene	10061-01-5	0.5	0.144	ug/l	70-130	20	70-130	20	20			
1,3-Dichloropropene, Total	542-75-6	0.5	0.144	ug/l				20	20			
1,3-Dichloropropene, Total	542-75-6	0.5	0.144	ug/l				20	20			
1,1-Dichloropropene	563-58-6	2.5	0.240	ug/l	70-130	20	70-130	20	20			
Bromoform	75-25-2	2	0.248	ug/l	54-136	20	54-136	20	20			
1,1,2,2-Tetrachloroethane	79-34-5	0.5	0.167	ug/l	67-130	20	67-130	20	20			
Benzene	71-43-2	0.5	0.159	ug/l	70-130	25	70-130	25	25			
Toluene	108-88-3	0.75	0.203	ug/l	70-130	25	70-130	25	25			
Ethylbenzene	100-41-4	0.5	0.167	ug/l	70-130	20	70-130	20	20			
Chloromethane	74-87-3	2.5	0.200	ug/l	64-130	20	64-130	20	20			
Bromomethane	74-83-9	1	0.256	ug/l	39-139	20	39-139	20	20			
Vinyl chloride	75-01-4	1	0.0714	ug/l	55-140	20	55-140	20	20			
Chloroethane	75-00-3	1	0.134	ug/l	55-138	20	55-138	20	20			
1,1-Dichloroethene	75-35-4	0.5	0.169	ug/l	61-145	25	61-145	25	25			
trans-1,2-Dichloroethene	156-60-5	0.75	0.163	ug/l	70-130	20	70-130	20	20			
1,2-Dichloroethene (total)	540-59-0	0.5	0.163	ug/l				20	20			
1,2-Dichloroethene (total)	540-59-0	0.5	0.163	ug/l				20	20			
Trichloroethene	79-01-6	0.5	0.175	ug/l	70-130	25	70-130	25	25			
1,2-Dichlorobenzene	95-50-1	2.5	0.184	ug/l	70-130	20	70-130	20	20			
1,3-Dichlorobenzene	541-73-1	2.5	0.186	ug/l	70-130	20	70-130	20	20			
1,4-Dichlorobenzene	106-46-7	2.5	0.187	ug/l	70-130	20	70-130	20	20			
Methyl tert butyl ether	1634-04-4	1	0.166	ug/l	63-130	20	63-130	20	20			
p/m-Xylene	179601-23-1	1	0.332	ug/l	70-130	20	70-130	20	20			
o-Xylene	95-47-6	1	0.392	ug/l	70-130	20	70-130	20	20			
Xylene (Total)	1330-20-7	1	0.330	ug/l				20	20			
Xylene (Total)	1330-20-7	1	0.330	ug/l				20	20			
cis-1,2-Dichloroethene	156-59-2	0.5	0.187	ug/l	70-130	20	70-130	20	20			
Dibromomethane	74-95-3	5	0.363	ug/l	70-130	20	70-130	20	20			

Please Note that the RL information provided in this table is calculated using a 100% Solids factor. (Soil/Solids only)
Please Note that the information provided in this table is subject to change at anytime at the discretion of Alpha Analytical, Inc.



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Date Created: 06/19/18
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File: PM5049-1
Page: 2

Volatile Organics - EPA 8260C (WATER)

Holding Time: 14 days
Container/Sample Preservation: 3 - Vial HCl preserved

Analyte	CAS #	RL	MDL	Units	LCS Criteria	LCS RPD	MS Criteria	MS RPD	Duplicate RPD	Surrogate Criteria		
1,4-Dichlorobutane	110-56-5	5	0.464	ug/l	70-130	20	70-130	20	20			
1,2,3-Trichloropropane	96-18-4	5	0.176	ug/l	64-130	20	64-130	20	20			
Styrene	100-42-5	1	0.359	ug/l	70-130	20	70-130	20	20			
Dichlorodifluoromethane	75-71-8	5	0.244	ug/l	36-147	20	36-147	20	20			
Acetone	67-64-1	5	1.46	ug/l	58-148	20	58-148	20	20			
Carbon disulfide	75-15-0	5	0.299	ug/l	51-130	20	51-130	20	20			
2-Butanone	78-93-3	5	1.94	ug/l	63-138	20	63-138	20	20			
Vinyl acetate	108-05-4	5	0.311	ug/l	70-130	20	70-130	20	20			
4-Methyl-2-pentanone	108-10-1	5	0.416	ug/l	59-130	20	59-130	20	20			
2-Hexanone	591-78-6	5	0.515	ug/l	57-130	20	57-130	20	20			
Ethyl methacrylate	97-63-2	5	0.606	ug/l	70-130	20	70-130	20	20			
Acrylonitrile	107-13-1	5	0.430	ug/l	70-130	20	70-130	20	20			
Bromochloromethane	74-97-5	2.5	0.152	ug/l	70-130	20	70-130	20	20			
Tetrahydrofuran	109-99-9	5	0.525	ug/l	58-130	20	58-130	20	20			
2,2-Dichloropropane	594-20-7	2.5	0.204	ug/l	63-133	20	63-133	20	20			
1,2-Dibromoethane	106-93-4	2	0.193	ug/l	70-130	20	70-130	20	20			
1,3-Dichloropropane	142-28-9	2.5	0.212	ug/l	70-130	20	70-130	20	20			
1,1,1,2-Tetrachloroethane	630-20-6	0.5	0.164	ug/l	64-130	20	64-130	20	20			
Bromobenzene	108-86-1	2.5	0.152	ug/l	70-130	20	70-130	20	20			
n-Butylbenzene	104-51-8	0.5	0.192	ug/l	53-136	20	53-136	20	20			
sec-Butylbenzene	135-98-8	0.5	0.181	ug/l	70-130	20	70-130	20	20			
tert-Butylbenzene	98-06-6	2.5	0.196	ug/l	70-130	20	70-130	20	20			
o-Chlorotoluene	95-49-8	2.5	0.215	ug/l	70-130	20	70-130	20	20			
p-Chlorotoluene	106-43-4	2.5	0.185	ug/l	70-130	20	70-130	20	20			
1,2-Dibromo-3-chloropropane	96-12-8	2.5	0.353	ug/l	41-144	20	41-144	20	20			
Hexachlorobutadiene	87-68-3	0.5	0.217	ug/l	63-130	20	63-130	20	20			
Isopropylbenzene	98-82-8	0.5	0.187	ug/l	70-130	20	70-130	20	20			
p-Isopropyltoluene	99-87-6	0.5	0.188	ug/l	70-130	20	70-130	20	20			
Naphthalene	91-20-3	2.5	0.216	ug/l	70-130	20	70-130	20	20			
n-Propylbenzene	103-65-1	0.5	0.173	ug/l	69-130	20	69-130	20	20			
1,2,3-Trichlorobenzene	87-61-6	2.5	0.234	ug/l	70-130	20	70-130	20	20			
1,2,4-Trichlorobenzene	120-82-1	2.5	0.220	ug/l	70-130	20	70-130	20	20			
1,3,5-Trimethylbenzene	108-67-8	2.5	0.217	ug/l	64-130	20	64-130	20	20			
1,3,5-Trichlorobenzene	108-70-3	2	0.141	ug/l	70-130	20	70-130	20	20			
1,2,4-Trimethylbenzene	95-63-6	2.5	0.191	ug/l	70-130	20	70-130	20	20			
trans-1,4-Dichloro-2-butene	110-57-6	2.5	0.213	ug/l	70-130	20	70-130	20	20			
Ethyl ether	60-29-7	2.5	0.163	ug/l	59-134	20	59-134	20	20			
Methyl Acetate	79-20-9	10	0.234	ug/l	70-130	20	70-130	20	20			
Ethyl Acetate	141-78-6	10	0.716	ug/l	70-130	20	70-130	20	20			
Isopropyl Ether	108-20-3	2	0.425	ug/l	70-130	20	70-130	20	20			
Cyclohexane	110-82-7	10	0.271	ug/l	70-130	20	70-130	20	20			
Ethyl-Tert-Butyl-Ether	637-92-3	2	0.179	ug/l	70-130	20	70-130	20	20			

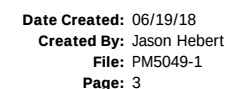
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Holding Time: 14 days
Container/Sample Preservation: 3 - Vial HCl preserved

Please Note that the RL information provided in this table is calculated using a 100% Solids factor. (Soil/ Solids only)





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Volatile Organics - EPA 8260C (SOIL-LOW)

Holding Time: 14 days
Container / Sample Preservation: 1 - Vial Large Septa unpreserved (4oz)

Analyte	CAS #	RL	MDL	Units	LCS Criteria	LCS RPD	MS Criteria	MS RPD	Duplicate RPD	Surrogate Criteria		
Methylene chloride	75-09-2	5	2.29	ug/kg	70-130	30	70-130	30	30			
1,1-Dichloroethane	75-34-3	1	0.145	ug/kg	70-130	30	70-130	30	30			
Chloroform	67-66-3	1.5	0.140	ug/kg	70-130	30	70-130	30	30			
Carbon tetrachloride	56-23-5	1	0.230	ug/kg	70-130	30	70-130	30	30			
1,2-Dichloropropane	78-87-5	1	0.125	ug/kg	70-130	30	70-130	30	30			
Dibromochloromethane	124-48-1	1	0.140	ug/kg	70-130	30	70-130	30	30			
1,1,2-Trichloroethane	79-00-5	1	0.267	ug/kg	70-130	30	70-130	30	30			
Tetrachloroethene	127-18-4	0.5	0.196	ug/kg	70-130	30	70-130	30	30			
Chlorobenzene	108-90-7	0.5	0.127	ug/kg	70-130	30	70-130	30	30			
Trichlorofluoromethane	75-69-4	4	0.695	ug/kg	70-139	30	70-139	30	30			
1,2-Dichloroethane	107-06-2	1	0.257	ug/kg	70-130	30	70-130	30	30			
1,1,1-Trichloroethane	71-55-6	0.5	0.167	ug/kg	70-130	30	70-130	30	30			
Bromodichloromethane	75-27-4	0.5	0.109	ug/kg	70-130	30	70-130	30	30			
trans-1,3-Dichloropropene	10061-02-6	1	0.273	ug/kg	70-130	30	70-130	30	30			
cis-1,3-Dichloropropene	10061-01-5	0.5	0.158	ug/kg	70-130	30	70-130	30	30			
1,3-Dichloropropene, Total	542-75-6	0.5	0.158	ug/kg				30	30			
1,3-Dichloropropene, Total	542-75-6	0.5	0.158	ug/kg				30	30			
1,1-Dichloropropene	563-58-6	0.5	0.159	ug/kg	70-130	30	70-130	30	30			
Bromoform	75-25-2	4	0.246	ug/kg	70-130	30	70-130	30	30			
1,1,2,2-Tetrachloroethane	79-34-5	0.5	0.166	ug/kg	70-130	30	70-130	30	30			
Benzene	71-43-2	0.5	0.166	ug/kg	70-130	30	70-130	30	30			
Toluene	108-88-3	1	0.543	ug/kg	70-130	30	70-130	30	30			
Ethylbenzene	100-41-4	1	0.141	ug/kg	70-130	30	70-130	30	30			
Chloromethane	74-87-3	4	0.932	ug/kg	52-130	30	52-130	30	30			
Bromomethane	74-83-9	2	0.581	ug/kg	57-147	30	57-147	30	30			
Vinyl chloride	75-01-4	1	0.335	ug/kg	67-130	30	67-130	30	30			
Chloroethane	75-00-3	2	0.452	ug/kg	50-151	30	50-151	30	30			
1,1-Dichloroethene	75-35-4	1	0.238	ug/kg	65-135	30	65-135	30	30			
trans-1,2-Dichloroethene	156-60-5	1.5	0.137	ug/kg	70-130	30	70-130	30	30			
Trichloroethene	79-01-6	0.5	0.137	ug/kg	70-130	30	70-130	30	30			
1,2-Dichlorobenzene	95-50-1	2	0.144	ug/kg	70-130	30	70-130	30	30			
1,3-Dichlorobenzene	541-73-1	2	0.148	ug/kg	70-130	30	70-130	30	30			
1,4-Dichlorobenzene	106-46-7	2	0.171	ug/kg	70-130	30	70-130	30	30			
Methyl tert butyl ether	1634-04-4	2	0.201	ug/kg	66-130	30	66-130	30	30			
p/m-Xylene	179601-23-1	2	0.560	ug/kg	70-130	30	70-130	30	30			
o-Xylene	95-47-6	1	0.291	ug/kg	70-130	30	70-130	30	30			
Xylene (Total)	1330-20-7	1	0.291	ug/kg				30	30			
Xylene (Total)	1330-20-7	1	0.291	ug/kg				30	30			
cis-1,2-Dichloroethene	156-59-2	1	0.175	ug/kg	70-130	30	70-130	30	30			
1,2-Dichloroethene (total)	540-59-0	1	0.137	ug/kg				30	30			
1,2-Dichloroethene (total)	540-59-0	1	0.137	ug/kg				30	30			
Dibromomethane	74-95-3	2	0.238	ug/kg	70-130	30	70-130	30	30			

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Volatile Organics - EPA 8260C (SOIL-LOW)

Holding Time: 14 days
Container / Sample Preservation: 1 - Vial Large Septa unpreserved (4oz)

Analyte	CAS #	RL	MDL	Units	LCS Criteria	LCS RPD	MS Criteria	MS RPD	Duplicate RPD	Surrogate Criteria		
1,4-Dichlorobutane	110-56-5	10	0.226	ug/kg	70-130	30	70-130	30	30			
1,2,3-Trichloropropane	96-18-4	2	0.127	ug/kg	68-130	30	68-130	30	30			
Styrene	100-42-5	1	0.196	ug/kg	70-130	30	70-130	30	30			
Dichlorodifluoromethane	75-71-8	10	0.915	ug/kg	30-146	30	30-146	30	30			
Acetone	67-64-1	10	4.81	ug/kg	54-140	30	54-140	30	30			
Carbon disulfide	75-15-0	10	4.55	ug/kg	59-130	30	59-130	30	30			
2-Butanone	78-93-3	10	2.22	ug/kg	70-130	30	70-130	30	30			
Vinyl acetate	108-05-4	10	2.15	ug/kg	70-130	30	70-130	30	30			
4-Methyl-2-pentanone	108-10-1	10	1.28	ug/kg	70-130	30	70-130	30	30			
2-Hexanone	591-78-6	10	1.18	ug/kg	70-130	30	70-130	30	30			
Ethyl methacrylate	97-63-2	10	1.58	ug/kg	70-130	30	70-130	30	30			
Acrylonitrile	107-13-1	4	1.15	ug/kg	70-130	30	70-130	30	30			
Bromochloromethane	74-97-5	2	0.205	ug/kg	70-130	30	70-130	30	30			
Tetrahydrofuran	109-99-9	4	1.59	ug/kg	66-130	30	66-130	30	30			
2,2-Dichloropropane	594-20-7	2	0.202	ug/kg	70-130	30	70-130	30	30			
1,2-Dibromoethane	106-93-4	1	0.279	ug/kg	70-130	30	70-130	30	30			
1,3-Dichloropropane	142-28-9	2	0.167	ug/kg	69-130	30	69-130	30	30			
1,1,1,2-Tetrachloroethane	630-20-6	0.5	0.132	ug/kg	70-130	30	70-130	30	30			
Bromobenzene	108-86-1	2	0.145	ug/kg	70-130	30	70-130	30	30			
n-Butylbenzene	104-51-8	1	0.167	ug/kg	70-130	30	70-130	30	30			
sec-Butylbenzene	135-98-8	1	0.146	ug/kg	70-130	30	70-130	30	30			
tert-Butylbenzene	98-06-6	2	0.118	ug/kg	70-130	30	70-130	30	30			
1,3,5-Trichlorobenzene	108-70-3	2	0.173	ug/kg	70-130	30	70-130	30	30			
o-Chlorotoluene	95-49-8	2	0.191	ug/kg	70-130	30	70-130	30	30			
p-Chlorotoluene	106-43-4	2	0.108	ug/kg	70-130	30	70-130	30	30			
1,2-Dibromo-3-chloropropane	96-12-8	3	0.998	ug/kg	68-130	30	68-130	30	30			
Hexachlorobutadiene	87-68-3	4	0.169	ug/kg	67-130	30	67-130	30	30			
Isopropylbenzene	98-82-8	1	0.109	ug/kg	70-130	30	70-130	30	30			
p-Isopropyltoluene	99-87-6	1	0.109	ug/kg	70-130	30	70-130	30	30			
Naphthalene	91-20-3	4	0.650	ug/kg	70-130	30	70-130	30	30			
n-Propylbenzene	103-65-1	1	0.171	ug/kg	70-130	30	70-130	30	30			
1,2,3-Trichlorobenzene	87-61-6	2	0.322	ug/kg	70-130	30	70-130	30	30			
1,2,4-Trichlorobenzene	120-82-1	2	0.272	ug/kg	70-130	30	70-130	30	30			
1,3,5-Trimethylbenzene	108-67-8	2	0.193	ug/kg	70-130	30	70-130	30	30			
1,2,4-Trimethylbenzene	95-63-6	2	0.334	ug/kg	70-130	30	70-130	30	30			
trans-1,4-Dichloro-2-butene	110-57-6	5	1.42	ug/kg	70-130	30	70-130	30	30			
iso-Propyl Alcohol	67-63-0	100	100	ug/kg	70-130	20	70-130	20	20			
Ethyl ether	60-29-7	2	0.341	ug/kg	67-130	30	67-130	30	30			
Methyl Acetate	79-20-9	4	0.950	ug/kg	65-130	30	65-130	30	30			
Ethyl Acetate	141-78-6	10	1.21	ug/kg	70-130	30	70-130	30	30			
Isopropyl Ether	108-20-3	2	0.213	ug/kg	66-130	30	66-130	30	30			
Cyclohexane	110-82-7	10	0.544	ug/kg	70-130	30	70-130	30	30			

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Volatile Organics - EPA 8260C (SOIL-LOW)

Holding Time: 14 days
Container/Sample Preservation: 1 - Vial Large Septa unpreserved (4oz)

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Volatile Organics - EPA 8260C (SOIL-HIGH)

Holding Time: 14 days
Container / Sample Preservation: 1 - Vial Large Septa unpreserved (4oz)

Analyte	CAS #	RL	MDL	Units	LCS Criteria	LCS RPD	MS Criteria	MS RPD	Duplicate RPD	Surrogate Criteria		
Methylene chloride	75-09-2	250	115	ug/kg	70-130	30	70-130	30	30			
1,1-Dichloroethane	75-34-3	50	7.25	ug/kg	70-130	30	70-130	30	30			
Chloroform	67-66-3	75	7.00	ug/kg	70-130	30	70-130	30	30			
Carbon tetrachloride	56-23-5	50	11.5	ug/kg	70-130	30	70-130	30	30			
1,2-Dichloropropane	78-87-5	50	6.25	ug/kg	70-130	30	70-130	30	30			
Dibromochloromethane	124-48-1	50	7.00	ug/kg	70-130	30	70-130	30	30			
1,1,2-Trichloroethane	79-00-5	50	13.4	ug/kg	70-130	30	70-130	30	30			
Tetrachloroethene	127-18-4	25	9.80	ug/kg	70-130	30	70-130	30	30			
Chlorobenzene	108-90-7	25	6.35	ug/kg	70-130	30	70-130	30	30			
Trichlorofluoromethane	75-69-4	200	34.8	ug/kg	70-139	30	70-139	30	30			
1,2-Dichloroethane	107-06-2	50	12.9	ug/kg	70-130	30	70-130	30	30			
1,1,1-Trichloroethane	71-55-6	25	8.35	ug/kg	70-130	30	70-130	30	30			
Bromodichloromethane	75-27-4	25	5.45	ug/kg	70-130	30	70-130	30	30			
trans-1,3-Dichloropropene	10061-02-6	50	13.7	ug/kg	70-130	30	70-130	30	30			
cis-1,3-Dichloropropene	10061-01-5	25	7.90	ug/kg	70-130	30	70-130	30	30			
1,3-Dichloropropene, Total	542-75-6	25	7.90	ug/kg				30	30			
1,3-Dichloropropene, Total	542-75-6	25	7.90	ug/kg				30	30			
1,1-Dichloropropene	563-58-6	25	7.95	ug/kg	70-130	30	70-130	30	30			
Bromoform	75-25-2	200	12.3	ug/kg	70-130	30	70-130	30	30			
1,1,2,2-Tetrachloroethane	79-34-5	25	8.30	ug/kg	70-130	30	70-130	30	30			
Benzene	71-43-2	25	8.30	ug/kg	70-130	30	70-130	30	30			
Toluene	108-88-3	50	27.2	ug/kg	70-130	30	70-130	30	30			
Ethylbenzene	100-41-4	50	7.05	ug/kg	70-130	30	70-130	30	30			
Chloromethane	74-87-3	200	46.6	ug/kg	52-130	30	52-130	30	30			
Bromomethane	74-83-9	100	29.1	ug/kg	57-147	30	57-147	30	30			
Vinyl chloride	75-01-4	50	16.8	ug/kg	67-130	30	67-130	30	30			
Chloroethane	75-00-3	100	22.6	ug/kg	50-151	30	50-151	30	30			
1,1-Dichloroethene	75-35-4	50	11.9	ug/kg	65-135	30	65-135	30	30			
trans-1,2-Dichloroethene	156-60-5	75	6.85	ug/kg	70-130	30	70-130	30	30			
Trichloroethene	79-01-6	25	6.85	ug/kg	70-130	30	70-130	30	30			
1,2-Dichlorobenzene	95-50-1	100	7.20	ug/kg	70-130	30	70-130	30	30			
1,3-Dichlorobenzene	541-73-1	100	7.40	ug/kg	70-130	30	70-130	30	30			
1,4-Dichlorobenzene	106-46-7	100	8.55	ug/kg	70-130	30	70-130	30	30			
Methyl tert butyl ether	1634-04-4	100	10.1	ug/kg	66-130	30	66-130	30	30			
p/m-Xylene	179601-23-1	100	28.0	ug/kg	70-130	30	70-130	30	30			
o-Xylene	95-47-6	50	14.6	ug/kg	70-130	30	70-130	30	30			
Xylene (Total)	1330-20-7	50	14.6	ug/kg				30	30			
Xylene (Total)	1330-20-7	50	14.6	ug/kg				30	30			
cis-1,2-Dichloroethene	156-59-2	50	8.75	ug/kg	70-130	30	70-130	30	30			
1,2-Dichloroethene (total)	540-59-0	50	6.85	ug/kg				30	30			
1,2-Dichloroethene (total)	540-59-0	50	6.85	ug/kg				30	30			
Dibromomethane	74-95-3	100	11.9	ug/kg	70-130	30	70-130	30	30			

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Volatile Organics - EPA 8260C (SOIL-HIGH)

Holding Time: 14 days
Container / Sample Preservation: 1 - Vial Large Septa unpreserved (4oz)

Analyte	CAS #	RL	MDL	Units	LCS Criteria	LCS RPD	MS Criteria	MS RPD	Duplicate RPD	Surrogate Criteria		
1,4-Dichlorobutane	110-56-5	500	11.3	ug/kg	70-130	30	70-130	30	30			
1,2,3-Trichloropropane	96-18-4	100	6.35	ug/kg	68-130	30	68-130	30	30			
Styrene	100-42-5	50	9.80	ug/kg	70-130	30	70-130	30	30			
Dichlorodifluoromethane	75-71-8	500	45.8	ug/kg	30-146	30	30-146	30	30			
Acetone	67-64-1	500	241	ug/kg	54-140	30	54-140	30	30			
Carbon disulfide	75-15-0	500	228	ug/kg	59-130	30	59-130	30	30			
2-Butanone	78-93-3	500	111	ug/kg	70-130	30	70-130	30	30			
Vinyl acetate	108-05-4	500	108	ug/kg	70-130	30	70-130	30	30			
4-Methyl-2-pentanone	108-10-1	500	64.0	ug/kg	70-130	30	70-130	30	30			
2-Hexanone	591-78-6	500	59.0	ug/kg	70-130	30	70-130	30	30			
Ethyl methacrylate	97-63-2	500	79.0	ug/kg	70-130	30	70-130	30	30			
Acrylonitrile	107-13-1	200	57.5	ug/kg	70-130	30	70-130	30	30			
Bromochloromethane	74-97-5	100	10.3	ug/kg	70-130	30	70-130	30	30			
Tetrahydrofuran	109-99-9	200	79.5	ug/kg	66-130	30	66-130	30	30			
2,2-Dichloropropane	594-20-7	100	10.1	ug/kg	70-130	30	70-130	30	30			
1,2-Dibromoethane	106-93-4	50	14.0	ug/kg	70-130	30	70-130	30	30			
1,3-Dichloropropane	142-28-9	100	8.35	ug/kg	69-130	30	69-130	30	30			
1,1,1,2-Tetrachloroethane	630-20-6	25	6.60	ug/kg	70-130	30	70-130	30	30			
Bromobenzene	108-86-1	100	7.25	ug/kg	70-130	30	70-130	30	30			
n-Butylbenzene	104-51-8	50	8.35	ug/kg	70-130	30	70-130	30	30			
sec-Butylbenzene	135-98-8	50	7.30	ug/kg	70-130	30	70-130	30	30			
tert-Butylbenzene	98-06-6	100	5.90	ug/kg	70-130	30	70-130	30	30			
1,3,5-Trichlorobenzene	108-70-3	100	8.65	ug/kg	70-139	30	70-130	30	30			
o-Chlorotoluene	95-49-8	100	9.55	ug/kg	70-130	30	70-130	30	30			
p-Chlorotoluene	106-43-4	100	5.40	ug/kg	70-130	30	70-130	30	30			
1,2-Dibromo-3-chloropropane	96-12-8	150	49.9	ug/kg	68-130	30	68-130	30	30			
Hexachlorobutadiene	87-68-3	200	8.45	ug/kg	67-130	30	67-130	30	30			
Isopropylbenzene	98-82-8	50	5.45	ug/kg	70-130	30	70-130	30	30			
p-Isopropyltoluene	99-87-6	50	5.45	ug/kg	70-130	30	70-130	30	30			
Naphthalene	91-20-3	200	32.5	ug/kg	70-130	30	70-130	30	30			
n-Propylbenzene	103-65-1	50	8.55	ug/kg	70-130	30	70-130	30	30			
1,2,3-Trichlorobenzene	87-61-6	100	16.1	ug/kg	70-130	30	70-130	30	30			
1,2,4-Trichlorobenzene	120-82-1	100	13.6	ug/kg	70-130	30	70-130	30	30			
1,3,5-Trimethylbenzene	108-67-8	100	9.65	ug/kg	70-130	30	70-130	30	30			
1,2,4-Trimethylbenzene	95-63-6	100	16.7	ug/kg	70-130	30	70-130	30	30			
trans-1,4-Dichloro-2-butene	110-57-6	250	71.0	ug/kg	70-130	30	70-130	30	30			
Iso-Propyl Alcohol	67-63-0	5000	5000	ug/kg	70-130	20	70-130	20	20			
Ethyl ether	60-29-7	100	17.1	ug/kg	67-130	30	67-130	30	30			
Methyl Acetate	79-20-9	200	47.5	ug/kg	65-130	30	65-130	30	30			
Ethyl Acetate	141-78-6	500	60.5	ug/kg	70-130	30	70-130	30	30			
Isopropyl Ether	108-20-3	100	10.7	ug/kg	66-130	30	66-130	30	30			
Cyclohexane	110-82-7	500	27.2	ug/kg	70-130	30	70-130	30	30			

Please Note that the RL information provided in this table is calculated using a 100% Solids factor. (Soil/Solids only)
Please Note that the information provided in this table is subject to change at anytime at the discretion of Alpha Analytical, Inc.



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Date Created: 06/19/18
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File: PM5048-1
Page: 3

Volatile Organics - EPA 8260C (SOIL-HIGH)

Holding Time: 14 days

Container/Sample Preservation: 1 - Vial Large Septa unpreserved (4oz)

[illegible]

Please Note that the RL information provided in this table is calculated using a 100% Solids factor. (Soil/Solids only)
Please Note that the information provided in this table is subject to change at anytime at the discretion of Alpha Analytical, Inc.



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Volatiles Sample Data

Results Summary

Form 1

Volatile Organics by GC/MS

Client : Langan Engineering & Environmental	Lab Number : L1954303
Project Name : 432 RODNEY STREET	Project Number : 170357801
Lab ID : L1954303-01	Date Collected : 11/13/19 11:45
Client ID : MW04_111319	Date Received : 11/13/19
Sample Location : 432 RODNEY STREET, BROOKLYN, NY	Date Analyzed : 11/14/19 10:09
Sample Matrix : WATER	Dilution Factor : 1
Analytical Method : 1,8260C	Analyst : PD
Lab File ID : V01191114A09	Instrument ID : VOA101
Sample Amount : 10 ml	GC Column : RTX-502.2
Level : LOW	%Solids : N/A
Extract Volume (MeOH) : N/A	Injection Volume : N/A

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
75-09-2	Methylene chloride	ND	2.5	0.70	U
75-34-3	1,1-Dichloroethane	ND	2.5	0.70	U
67-66-3	Chloroform	ND	2.5	0.70	U
56-23-5	Carbon tetrachloride	ND	0.50	0.13	U
78-87-5	1,2-Dichloropropane	ND	1.0	0.14	U
124-48-1	Dibromochloromethane	ND	0.50	0.15	U
79-00-5	1,1,2-Trichloroethane	ND	1.5	0.50	U
127-18-4	Tetrachloroethene	0.70	0.50	0.18	
108-90-7	Chlorobenzene	ND	2.5	0.70	U
75-69-4	Trichlorofluoromethane	ND	2.5	0.70	U
107-06-2	1,2-Dichloroethane	ND	0.50	0.13	U
71-55-6	1,1,1-Trichloroethane	ND	2.5	0.70	U
75-27-4	Bromodichloromethane	ND	0.50	0.19	U
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.16	U
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.14	U
542-75-6	1,3-Dichloropropene, Total	ND	0.50	0.14	U
563-58-6	1,1-Dichloropropene	ND	2.5	0.70	U
75-25-2	Bromoform	ND	2.0	0.65	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.17	U
71-43-2	Benzene	ND	0.50	0.16	U
108-88-3	Toluene	ND	2.5	0.70	U
100-41-4	Ethylbenzene	ND	2.5	0.70	U
74-87-3	Chloromethane	ND	2.5	0.70	U
74-83-9	Bromomethane	ND	2.5	0.70	U
75-01-4	Vinyl chloride	ND	1.0	0.07	U



Results Summary

Form 1

Volatile Organics by GC/MS

Client : Langan Engineering & Environmental	Lab Number : L1954303
Project Name : 432 RODNEY STREET	Project Number : 170357801
Lab ID : L1954303-01	Date Collected : 11/13/19 11:45
Client ID : MW04_111319	Date Received : 11/13/19
Sample Location : 432 RODNEY STREET, BROOKLYN, NY	Date Analyzed : 11/14/19 10:09
Sample Matrix : WATER	Dilution Factor : 1
Analytical Method : 1,8260C	Analyst : PD
Lab File ID : V01191114A09	Instrument ID : VOA101
Sample Amount : 10 ml	GC Column : RTX-502.2
Level : LOW	%Solids : N/A
Extract Volume (MeOH) : N/A	Injection Volume : N/A

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
75-00-3	Chloroethane	ND	2.5	0.70	U
75-35-4	1,1-Dichloroethene	ND	0.50	0.17	U
156-60-5	trans-1,2-Dichloroethene	ND	2.5	0.70	U
79-01-6	Trichloroethene	0.45	0.50	0.18	J
95-50-1	1,2-Dichlorobenzene	ND	2.5	0.70	U
541-73-1	1,3-Dichlorobenzene	ND	2.5	0.70	U
106-46-7	1,4-Dichlorobenzene	ND	2.5	0.70	U
1634-04-4	Methyl tert butyl ether	ND	2.5	0.70	U
179601-23-1	p/m-Xylene	ND	2.5	0.70	U
95-47-6	o-Xylene	ND	2.5	0.70	U
1330-20-7	Xylenes, Total	ND	2.5	0.70	U
156-59-2	cis-1,2-Dichloroethene	3.2	2.5	0.70	
540-59-0	1,2-Dichloroethene, Total	3.2	2.5	0.70	
74-95-3	Dibromomethane	ND	5.0	1.0	U
96-18-4	1,2,3-Trichloropropane	ND	2.5	0.70	U
107-13-1	Acrylonitrile	ND	5.0	1.5	U
100-42-5	Styrene	ND	2.5	0.70	U
75-71-8	Dichlorodifluoromethane	ND	5.0	1.0	U
67-64-1	Acetone	ND	5.0	1.5	U
75-15-0	Carbon disulfide	ND	5.0	1.0	U
78-93-3	2-Butanone	ND	5.0	1.9	U
108-05-4	Vinyl acetate	ND	5.0	1.0	U
108-10-1	4-Methyl-2-pentanone	ND	5.0	1.0	U
591-78-6	2-Hexanone	ND	5.0	1.0	U
74-97-5	Bromochloromethane	ND	2.5	0.70	U



Results Summary

Form 1

Volatile Organics by GC/MS

Client : Langan Engineering & Environmental	Lab Number : L1954303
Project Name : 432 RODNEY STREET	Project Number : 170357801
Lab ID : L1954303-01	Date Collected : 11/13/19 11:45
Client ID : MW04_111319	Date Received : 11/13/19
Sample Location : 432 RODNEY STREET, BROOKLYN, NY	Date Analyzed : 11/14/19 10:09
Sample Matrix : WATER	Dilution Factor : 1
Analytical Method : 1,8260C	Analyst : PD
Lab File ID : V01191114A09	Instrument ID : VOA101
Sample Amount : 10 ml	GC Column : RTX-502.2
Level : LOW	%Solids : N/A
Extract Volume (MeOH) : N/A	Injection Volume : N/A

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
594-20-7	2,2-Dichloropropane	ND	2.5	0.70	U
106-93-4	1,2-Dibromoethane	ND	2.0	0.65	U
142-28-9	1,3-Dichloropropane	ND	2.5	0.70	U
630-20-6	1,1,1,2-Tetrachloroethane	ND	2.5	0.70	U
108-86-1	Bromobenzene	ND	2.5	0.70	U
104-51-8	n-Butylbenzene	ND	2.5	0.70	U
135-98-8	sec-Butylbenzene	ND	2.5	0.70	U
98-06-6	tert-Butylbenzene	ND	2.5	0.70	U
95-49-8	o-Chlorotoluene	ND	2.5	0.70	U
106-43-4	p-Chlorotoluene	ND	2.5	0.70	U
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.5	0.70	U
87-68-3	Hexachlorobutadiene	ND	2.5	0.70	U
98-82-8	Isopropylbenzene	ND	2.5	0.70	U
99-87-6	p-Isopropyltoluene	ND	2.5	0.70	U
91-20-3	Naphthalene	ND	2.5	0.70	U
103-65-1	n-Propylbenzene	ND	2.5	0.70	U
87-61-6	1,2,3-Trichlorobenzene	ND	2.5	0.70	U
120-82-1	1,2,4-Trichlorobenzene	ND	2.5	0.70	U
108-67-8	1,3,5-Trimethylbenzene	ND	2.5	0.70	U
95-63-6	1,2,4-Trimethylbenzene	ND	2.5	0.70	U
123-91-1	1,4-Dioxane	ND	250	61.	U
105-05-5	p-Diethylbenzene	ND	2.0	0.70	U
622-96-8	p-Ethyltoluene	ND	2.0	0.70	U
95-93-2	1,2,4,5-Tetramethylbenzene	ND	2.0	0.54	U
60-29-7	Ethyl ether	ND	2.5	0.70	U



Results Summary

Form 1

Volatile Organics by GC/MS

Client	: Langan Engineering & Environmental	Lab Number	: L1954303
Project Name	: 432 RODNEY STREET	Project Number	: 170357801
Lab ID	: L1954303-01	Date Collected	: 11/13/19 11:45
Client ID	: MW04_111319	Date Received	: 11/13/19
Sample Location	: 432 RODNEY STREET, BROOKLYN, NY	Date Analyzed	: 11/14/19 10:09
Sample Matrix	: WATER	Dilution Factor	: 1
Analytical Method	: 1,8260C	Analyst	: PD
Lab File ID	: V01191114A09	Instrument ID	: VOA101
Sample Amount	: 10 ml	GC Column	: RTX-502.2
Level	: LOW	%Solids	: N/A
Extract Volume (MeOH)	: N/A	Injection Volume	: N/A

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
110-57-6	trans-1,4-Dichloro-2-butene	ND	2.5	0.70	U

Results Summary

Form 1

Volatile Organics by GC/MS

Client : Langan Engineering & Environmental	Lab Number : L1954303
Project Name : 432 RODNEY STREET	Project Number : 170357801
Lab ID : L1954303-02	Date Collected : 11/13/19 13:10
Client ID : MW02_111319	Date Received : 11/13/19
Sample Location : 432 RODNEY STREET, BROOKLYN, NY	Date Analyzed : 11/14/19 10:32
Sample Matrix : WATER	Dilution Factor : 1
Analytical Method : 1,8260C	Analyst : PD
Lab File ID : V01191114A10	Instrument ID : VOA101
Sample Amount : 10 ml	GC Column : RTX-502.2
Level : LOW	%Solids : N/A
Extract Volume (MeOH) : N/A	Injection Volume : N/A

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
75-09-2	Methylene chloride	ND	2.5	0.70	U
75-34-3	1,1-Dichloroethane	ND	2.5	0.70	U
67-66-3	Chloroform	ND	2.5	0.70	U
56-23-5	Carbon tetrachloride	ND	0.50	0.13	U
78-87-5	1,2-Dichloropropane	ND	1.0	0.14	U
124-48-1	Dibromochloromethane	ND	0.50	0.15	U
79-00-5	1,1,2-Trichloroethane	ND	1.5	0.50	U
127-18-4	Tetrachloroethene	2.4	0.50	0.18	
108-90-7	Chlorobenzene	ND	2.5	0.70	U
75-69-4	Trichlorofluoromethane	ND	2.5	0.70	U
107-06-2	1,2-Dichloroethane	ND	0.50	0.13	U
71-55-6	1,1,1-Trichloroethane	ND	2.5	0.70	U
75-27-4	Bromodichloromethane	ND	0.50	0.19	U
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.16	U
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.14	U
542-75-6	1,3-Dichloropropene, Total	ND	0.50	0.14	U
563-58-6	1,1-Dichloropropene	ND	2.5	0.70	U
75-25-2	Bromoform	ND	2.0	0.65	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.17	U
71-43-2	Benzene	ND	0.50	0.16	U
108-88-3	Toluene	ND	2.5	0.70	U
100-41-4	Ethylbenzene	ND	2.5	0.70	U
74-87-3	Chloromethane	ND	2.5	0.70	U
74-83-9	Bromomethane	ND	2.5	0.70	U
75-01-4	Vinyl chloride	ND	1.0	0.07	U



Results Summary

Form 1

Volatile Organics by GC/MS

Client : Langan Engineering & Environmental	Lab Number : L1954303
Project Name : 432 RODNEY STREET	Project Number : 170357801
Lab ID : L1954303-02	Date Collected : 11/13/19 13:10
Client ID : MW02_111319	Date Received : 11/13/19
Sample Location : 432 RODNEY STREET, BROOKLYN, NY	Date Analyzed : 11/14/19 10:32
Sample Matrix : WATER	Dilution Factor : 1
Analytical Method : 1,8260C	Analyst : PD
Lab File ID : V01191114A10	Instrument ID : VOA101
Sample Amount : 10 ml	GC Column : RTX-502.2
Level : LOW	%Solids : N/A
Extract Volume (MeOH) : N/A	Injection Volume : N/A

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
75-00-3	Chloroethane	ND	2.5	0.70	U
75-35-4	1,1-Dichloroethene	ND	0.50	0.17	U
156-60-5	trans-1,2-Dichloroethene	ND	2.5	0.70	U
79-01-6	Trichloroethene	0.75	0.50	0.18	
95-50-1	1,2-Dichlorobenzene	ND	2.5	0.70	U
541-73-1	1,3-Dichlorobenzene	ND	2.5	0.70	U
106-46-7	1,4-Dichlorobenzene	ND	2.5	0.70	U
1634-04-4	Methyl tert butyl ether	ND	2.5	0.70	U
179601-23-1	p/m-Xylene	ND	2.5	0.70	U
95-47-6	o-Xylene	ND	2.5	0.70	U
1330-20-7	Xylenes, Total	ND	2.5	0.70	U
156-59-2	cis-1,2-Dichloroethene	1.6	2.5	0.70	J
540-59-0	1,2-Dichloroethene, Total	1.6	2.5	0.70	J
74-95-3	Dibromomethane	ND	5.0	1.0	U
96-18-4	1,2,3-Trichloropropane	ND	2.5	0.70	U
107-13-1	Acrylonitrile	ND	5.0	1.5	U
100-42-5	Styrene	ND	2.5	0.70	U
75-71-8	Dichlorodifluoromethane	ND	5.0	1.0	U
67-64-1	Acetone	ND	5.0	1.5	U
75-15-0	Carbon disulfide	ND	5.0	1.0	U
78-93-3	2-Butanone	ND	5.0	1.9	U
108-05-4	Vinyl acetate	ND	5.0	1.0	U
108-10-1	4-Methyl-2-pentanone	ND	5.0	1.0	U
591-78-6	2-Hexanone	ND	5.0	1.0	U
74-97-5	Bromochloromethane	ND	2.5	0.70	U



Results Summary

Form 1

Volatile Organics by GC/MS

Client : Langan Engineering & Environmental	Lab Number : L1954303
Project Name : 432 RODNEY STREET	Project Number : 170357801
Lab ID : L1954303-02	Date Collected : 11/13/19 13:10
Client ID : MW02_111319	Date Received : 11/13/19
Sample Location : 432 RODNEY STREET, BROOKLYN, NY	Date Analyzed : 11/14/19 10:32
Sample Matrix : WATER	Dilution Factor : 1
Analytical Method : 1,8260C	Analyst : PD
Lab File ID : V01191114A10	Instrument ID : VOA101
Sample Amount : 10 ml	GC Column : RTX-502.2
Level : LOW	%Solids : N/A
Extract Volume (MeOH) : N/A	Injection Volume : N/A

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
594-20-7	2,2-Dichloropropane	ND	2.5	0.70	U
106-93-4	1,2-Dibromoethane	ND	2.0	0.65	U
142-28-9	1,3-Dichloropropane	ND	2.5	0.70	U
630-20-6	1,1,1,2-Tetrachloroethane	ND	2.5	0.70	U
108-86-1	Bromobenzene	ND	2.5	0.70	U
104-51-8	n-Butylbenzene	ND	2.5	0.70	U
135-98-8	sec-Butylbenzene	ND	2.5	0.70	U
98-06-6	tert-Butylbenzene	ND	2.5	0.70	U
95-49-8	o-Chlorotoluene	ND	2.5	0.70	U
106-43-4	p-Chlorotoluene	ND	2.5	0.70	U
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.5	0.70	U
87-68-3	Hexachlorobutadiene	ND	2.5	0.70	U
98-82-8	Isopropylbenzene	ND	2.5	0.70	U
99-87-6	p-Isopropyltoluene	ND	2.5	0.70	U
91-20-3	Naphthalene	ND	2.5	0.70	U
103-65-1	n-Propylbenzene	ND	2.5	0.70	U
87-61-6	1,2,3-Trichlorobenzene	ND	2.5	0.70	U
120-82-1	1,2,4-Trichlorobenzene	ND	2.5	0.70	U
108-67-8	1,3,5-Trimethylbenzene	ND	2.5	0.70	U
95-63-6	1,2,4-Trimethylbenzene	ND	2.5	0.70	U
123-91-1	1,4-Dioxane	ND	250	61.	U
105-05-5	p-Diethylbenzene	ND	2.0	0.70	U
622-96-8	p-Ethyltoluene	ND	2.0	0.70	U
95-93-2	1,2,4,5-Tetramethylbenzene	ND	2.0	0.54	U
60-29-7	Ethyl ether	ND	2.5	0.70	U



Results Summary

Form 1

Volatile Organics by GC/MS

Client	: Langan Engineering & Environmental	Lab Number	: L1954303
Project Name	: 432 RODNEY STREET	Project Number	: 170357801
Lab ID	: L1954303-02	Date Collected	: 11/13/19 13:10
Client ID	: MW02_111319	Date Received	: 11/13/19
Sample Location	: 432 RODNEY STREET, BROOKLYN, NY	Date Analyzed	: 11/14/19 10:32
Sample Matrix	: WATER	Dilution Factor	: 1
Analytical Method	: 1,8260C	Analyst	: PD
Lab File ID	: V01191114A10	Instrument ID	: VOA101
Sample Amount	: 10 ml	GC Column	: RTX-502.2
Level	: LOW	%Solids	: N/A
Extract Volume (MeOH)	: N/A	Injection Volume	: N/A

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
110-57-6	trans-1,4-Dichloro-2-butene	ND	2.5	0.70	U



Results Summary

Form 1

Volatile Organics by GC/MS

Client : Langan Engineering & Environmental	Lab Number : L1954303
Project Name : 432 RODNEY STREET	Project Number : 170357801
Lab ID : L1954303-03	Date Collected : 11/13/19 15:10
Client ID : MW01_111319	Date Received : 11/13/19
Sample Location : 432 RODNEY STREET, BROOKLYN, NY	Date Analyzed : 11/14/19 10:56
Sample Matrix : WATER	Dilution Factor : 1
Analytical Method : 1,8260C	Analyst : PD
Lab File ID : V01191114A11	Instrument ID : VOA101
Sample Amount : 10 ml	GC Column : RTX-502.2
Level : LOW	%Solids : N/A
Extract Volume (MeOH) : N/A	Injection Volume : N/A

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
75-09-2	Methylene chloride	ND	2.5	0.70	U
75-34-3	1,1-Dichloroethane	ND	2.5	0.70	U
67-66-3	Chloroform	ND	2.5	0.70	U
56-23-5	Carbon tetrachloride	ND	0.50	0.13	U
78-87-5	1,2-Dichloropropane	ND	1.0	0.14	U
124-48-1	Dibromochloromethane	ND	0.50	0.15	U
79-00-5	1,1,2-Trichloroethane	ND	1.5	0.50	U
127-18-4	Tetrachloroethene	4.6	0.50	0.18	
108-90-7	Chlorobenzene	ND	2.5	0.70	U
75-69-4	Trichlorofluoromethane	ND	2.5	0.70	U
107-06-2	1,2-Dichloroethane	ND	0.50	0.13	U
71-55-6	1,1,1-Trichloroethane	ND	2.5	0.70	U
75-27-4	Bromodichloromethane	ND	0.50	0.19	U
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.16	U
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.14	U
542-75-6	1,3-Dichloropropene, Total	ND	0.50	0.14	U
563-58-6	1,1-Dichloropropene	ND	2.5	0.70	U
75-25-2	Bromoform	ND	2.0	0.65	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.17	U
71-43-2	Benzene	ND	0.50	0.16	U
108-88-3	Toluene	ND	2.5	0.70	U
100-41-4	Ethylbenzene	ND	2.5	0.70	U
74-87-3	Chloromethane	ND	2.5	0.70	U
74-83-9	Bromomethane	ND	2.5	0.70	U
75-01-4	Vinyl chloride	ND	1.0	0.07	U



Results Summary

Form 1

Volatile Organics by GC/MS

Client	: Langan Engineering & Environmental	Lab Number	: L1954303
Project Name	: 432 RODNEY STREET	Project Number	: 170357801
Lab ID	: L1954303-03	Date Collected	: 11/13/19 15:10
Client ID	: MW01_111319	Date Received	: 11/13/19
Sample Location	: 432 RODNEY STREET, BROOKLYN, NY	Date Analyzed	: 11/14/19 10:56
Sample Matrix	: WATER	Dilution Factor	: 1
Analytical Method	: 1,8260C	Analyst	: PD
Lab File ID	: V01191114A11	Instrument ID	: VOA101
Sample Amount	: 10 ml	GC Column	: RTX-502.2
Level	: LOW	%Solids	: N/A
Extract Volume (MeOH)	: N/A	Injection Volume	: N/A

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
75-00-3	Chloroethane	ND	2.5	0.70	U
75-35-4	1,1-Dichloroethene	ND	0.50	0.17	U
156-60-5	trans-1,2-Dichloroethene	ND	2.5	0.70	U
79-01-6	Trichloroethene	1.1	0.50	0.18	
95-50-1	1,2-Dichlorobenzene	ND	2.5	0.70	U
541-73-1	1,3-Dichlorobenzene	ND	2.5	0.70	U
106-46-7	1,4-Dichlorobenzene	ND	2.5	0.70	U
1634-04-4	Methyl tert butyl ether	ND	2.5	0.70	U
179601-23-1	p/m-Xylene	ND	2.5	0.70	U
95-47-6	o-Xylene	ND	2.5	0.70	U
1330-20-7	Xylenes, Total	ND	2.5	0.70	U
156-59-2	cis-1,2-Dichloroethene	1.4	2.5	0.70	J
540-59-0	1,2-Dichloroethene, Total	1.4	2.5	0.70	J
74-95-3	Dibromomethane	ND	5.0	1.0	U
96-18-4	1,2,3-Trichloropropane	ND	2.5	0.70	U
107-13-1	Acrylonitrile	ND	5.0	1.5	U
100-42-5	Styrene	ND	2.5	0.70	U
75-71-8	Dichlorodifluoromethane	ND	5.0	1.0	U
67-64-1	Acetone	ND	5.0	1.5	U
75-15-0	Carbon disulfide	ND	5.0	1.0	U
78-93-3	2-Butanone	ND	5.0	1.9	U
108-05-4	Vinyl acetate	ND	5.0	1.0	U
108-10-1	4-Methyl-2-pentanone	ND	5.0	1.0	U
591-78-6	2-Hexanone	ND	5.0	1.0	U
74-97-5	Bromochloromethane	ND	2.5	0.70	U



Results Summary

Form 1

Volatile Organics by GC/MS

Client : Langan Engineering & Environmental	Lab Number : L1954303
Project Name : 432 RODNEY STREET	Project Number : 170357801
Lab ID : L1954303-03	Date Collected : 11/13/19 15:10
Client ID : MW01_111319	Date Received : 11/13/19
Sample Location : 432 RODNEY STREET, BROOKLYN, NY	Date Analyzed : 11/14/19 10:56
Sample Matrix : WATER	Dilution Factor : 1
Analytical Method : 1,8260C	Analyst : PD
Lab File ID : V01191114A11	Instrument ID : VOA101
Sample Amount : 10 ml	GC Column : RTX-502.2
Level : LOW	%Solids : N/A
Extract Volume (MeOH) : N/A	Injection Volume : N/A

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
594-20-7	2,2-Dichloropropane	ND	2.5	0.70	U
106-93-4	1,2-Dibromoethane	ND	2.0	0.65	U
142-28-9	1,3-Dichloropropane	ND	2.5	0.70	U
630-20-6	1,1,1,2-Tetrachloroethane	ND	2.5	0.70	U
108-86-1	Bromobenzene	ND	2.5	0.70	U
104-51-8	n-Butylbenzene	ND	2.5	0.70	U
135-98-8	sec-Butylbenzene	ND	2.5	0.70	U
98-06-6	tert-Butylbenzene	ND	2.5	0.70	U
95-49-8	o-Chlorotoluene	ND	2.5	0.70	U
106-43-4	p-Chlorotoluene	ND	2.5	0.70	U
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.5	0.70	U
87-68-3	Hexachlorobutadiene	ND	2.5	0.70	U
98-82-8	Isopropylbenzene	ND	2.5	0.70	U
99-87-6	p-Isopropyltoluene	ND	2.5	0.70	U
91-20-3	Naphthalene	ND	2.5	0.70	U
103-65-1	n-Propylbenzene	ND	2.5	0.70	U
87-61-6	1,2,3-Trichlorobenzene	ND	2.5	0.70	U
120-82-1	1,2,4-Trichlorobenzene	ND	2.5	0.70	U
108-67-8	1,3,5-Trimethylbenzene	ND	2.5	0.70	U
95-63-6	1,2,4-Trimethylbenzene	ND	2.5	0.70	U
123-91-1	1,4-Dioxane	ND	250	61.	U
105-05-5	p-Diethylbenzene	ND	2.0	0.70	U
622-96-8	p-Ethyltoluene	ND	2.0	0.70	U
95-93-2	1,2,4,5-Tetramethylbenzene	ND	2.0	0.54	U
60-29-7	Ethyl ether	ND	2.5	0.70	U



Results Summary

Form 1

Volatile Organics by GC/MS

Client	: Langan Engineering & Environmental	Lab Number	: L1954303
Project Name	: 432 RODNEY STREET	Project Number	: 170357801
Lab ID	: L1954303-03	Date Collected	: 11/13/19 15:10
Client ID	: MW01_111319	Date Received	: 11/13/19
Sample Location	: 432 RODNEY STREET, BROOKLYN, NY	Date Analyzed	: 11/14/19 10:56
Sample Matrix	: WATER	Dilution Factor	: 1
Analytical Method	: 1,8260C	Analyst	: PD
Lab File ID	: V01191114A11	Instrument ID	: VOA101
Sample Amount	: 10 ml	GC Column	: RTX-502.2
Level	: LOW	%Solids	: N/A
Extract Volume (MeOH)	: N/A	Injection Volume	: N/A

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
110-57-6	trans-1,4-Dichloro-2-butene	ND	2.5	0.70	U

Results Summary

Form 1

Volatile Organics by GC/MS

Client : Langan Engineering & Environmental	Lab Number : L1954303
Project Name : 432 RODNEY STREET	Project Number : 170357801
Lab ID : L1954303-04	Date Collected : 11/13/19 16:20
Client ID : MW05_111319	Date Received : 11/13/19
Sample Location : 432 RODNEY STREET, BROOKLYN, NY	Date Analyzed : 11/14/19 11:20
Sample Matrix : WATER	Dilution Factor : 1
Analytical Method : 1,8260C	Analyst : PD
Lab File ID : V01191114A12	Instrument ID : VOA101
Sample Amount : 10 ml	GC Column : RTX-502.2
Level : LOW	%Solids : N/A
Extract Volume (MeOH) : N/A	Injection Volume : N/A

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
75-09-2	Methylene chloride	ND	2.5	0.70	U
75-34-3	1,1-Dichloroethane	ND	2.5	0.70	U
67-66-3	Chloroform	ND	2.5	0.70	U
56-23-5	Carbon tetrachloride	ND	0.50	0.13	U
78-87-5	1,2-Dichloropropane	ND	1.0	0.14	U
124-48-1	Dibromochloromethane	ND	0.50	0.15	U
79-00-5	1,1,2-Trichloroethane	ND	1.5	0.50	U
127-18-4	Tetrachloroethene	0.75	0.50	0.18	
108-90-7	Chlorobenzene	ND	2.5	0.70	U
75-69-4	Trichlorofluoromethane	ND	2.5	0.70	U
107-06-2	1,2-Dichloroethane	ND	0.50	0.13	U
71-55-6	1,1,1-Trichloroethane	ND	2.5	0.70	U
75-27-4	Bromodichloromethane	ND	0.50	0.19	U
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.16	U
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.14	U
542-75-6	1,3-Dichloropropene, Total	ND	0.50	0.14	U
563-58-6	1,1-Dichloropropene	ND	2.5	0.70	U
75-25-2	Bromoform	ND	2.0	0.65	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.17	U
71-43-2	Benzene	2.2	0.50	0.16	
108-88-3	Toluene	ND	2.5	0.70	U
100-41-4	Ethylbenzene	ND	2.5	0.70	U
74-87-3	Chloromethane	ND	2.5	0.70	U
74-83-9	Bromomethane	ND	2.5	0.70	U
75-01-4	Vinyl chloride	4.2	1.0	0.07	



Results Summary

Form 1

Volatile Organics by GC/MS

Client	: Langan Engineering & Environmental	Lab Number	: L1954303
Project Name	: 432 RODNEY STREET	Project Number	: 170357801
Lab ID	: L1954303-04	Date Collected	: 11/13/19 16:20
Client ID	: MW05_111319	Date Received	: 11/13/19
Sample Location	: 432 RODNEY STREET, BROOKLYN, NY	Date Analyzed	: 11/14/19 11:20
Sample Matrix	: WATER	Dilution Factor	: 1
Analytical Method	: 1,8260C	Analyst	: PD
Lab File ID	: V01191114A12	Instrument ID	: VOA101
Sample Amount	: 10 ml	GC Column	: RTX-502.2
Level	: LOW	%Solids	: N/A
Extract Volume (MeOH)	: N/A	Injection Volume	: N/A

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
75-00-3	Chloroethane	ND	2.5	0.70	U
75-35-4	1,1-Dichloroethene	ND	0.50	0.17	U
156-60-5	trans-1,2-Dichloroethene	ND	2.5	0.70	U
79-01-6	Trichloroethene	0.74	0.50	0.18	
95-50-1	1,2-Dichlorobenzene	ND	2.5	0.70	U
541-73-1	1,3-Dichlorobenzene	ND	2.5	0.70	U
106-46-7	1,4-Dichlorobenzene	ND	2.5	0.70	U
1634-04-4	Methyl tert butyl ether	ND	2.5	0.70	U
179601-23-1	p/m-Xylene	ND	2.5	0.70	U
95-47-6	o-Xylene	ND	2.5	0.70	U
1330-20-7	Xylenes, Total	ND	2.5	0.70	U
156-59-2	cis-1,2-Dichloroethene	5.9	2.5	0.70	
540-59-0	1,2-Dichloroethene, Total	5.9	2.5	0.70	
74-95-3	Dibromomethane	ND	5.0	1.0	U
96-18-4	1,2,3-Trichloropropane	ND	2.5	0.70	U
107-13-1	Acrylonitrile	ND	5.0	1.5	U
100-42-5	Styrene	ND	2.5	0.70	U
75-71-8	Dichlorodifluoromethane	ND	5.0	1.0	U
67-64-1	Acetone	ND	5.0	1.5	U
75-15-0	Carbon disulfide	ND	5.0	1.0	U
78-93-3	2-Butanone	ND	5.0	1.9	U
108-05-4	Vinyl acetate	ND	5.0	1.0	U
108-10-1	4-Methyl-2-pentanone	ND	5.0	1.0	U
591-78-6	2-Hexanone	ND	5.0	1.0	U
74-97-5	Bromochloromethane	ND	2.5	0.70	U



Results Summary

Form 1

Volatile Organics by GC/MS

Client : Langan Engineering & Environmental	Lab Number : L1954303
Project Name : 432 RODNEY STREET	Project Number : 170357801
Lab ID : L1954303-04	Date Collected : 11/13/19 16:20
Client ID : MW05_111319	Date Received : 11/13/19
Sample Location : 432 RODNEY STREET, BROOKLYN, NY	Date Analyzed : 11/14/19 11:20
Sample Matrix : WATER	Dilution Factor : 1
Analytical Method : 1,8260C	Analyst : PD
Lab File ID : V01191114A12	Instrument ID : VOA101
Sample Amount : 10 ml	GC Column : RTX-502.2
Level : LOW	%Solids : N/A
Extract Volume (MeOH) : N/A	Injection Volume : N/A

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
594-20-7	2,2-Dichloropropane	ND	2.5	0.70	U
106-93-4	1,2-Dibromoethane	ND	2.0	0.65	U
142-28-9	1,3-Dichloropropane	ND	2.5	0.70	U
630-20-6	1,1,1,2-Tetrachloroethane	ND	2.5	0.70	U
108-86-1	Bromobenzene	ND	2.5	0.70	U
104-51-8	n-Butylbenzene	ND	2.5	0.70	U
135-98-8	sec-Butylbenzene	ND	2.5	0.70	U
98-06-6	tert-Butylbenzene	ND	2.5	0.70	U
95-49-8	o-Chlorotoluene	ND	2.5	0.70	U
106-43-4	p-Chlorotoluene	ND	2.5	0.70	U
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.5	0.70	U
87-68-3	Hexachlorobutadiene	ND	2.5	0.70	U
98-82-8	Isopropylbenzene	0.93	2.5	0.70	J
99-87-6	p-Isopropyltoluene	ND	2.5	0.70	U
91-20-3	Naphthalene	ND	2.5	0.70	U
103-65-1	n-Propylbenzene	1.1	2.5	0.70	J
87-61-6	1,2,3-Trichlorobenzene	ND	2.5	0.70	U
120-82-1	1,2,4-Trichlorobenzene	ND	2.5	0.70	U
108-67-8	1,3,5-Trimethylbenzene	ND	2.5	0.70	U
95-63-6	1,2,4-Trimethylbenzene	ND	2.5	0.70	U
123-91-1	1,4-Dioxane	ND	250	61.	U
105-05-5	p-Diethylbenzene	ND	2.0	0.70	U
622-96-8	p-Ethyltoluene	ND	2.0	0.70	U
95-93-2	1,2,4,5-Tetramethylbenzene	ND	2.0	0.54	U
60-29-7	Ethyl ether	ND	2.5	0.70	U



Results Summary

Form 1

Volatile Organics by GC/MS

Client	: Langan Engineering & Environmental	Lab Number	: L1954303
Project Name	: 432 RODNEY STREET	Project Number	: 170357801
Lab ID	: L1954303-04	Date Collected	: 11/13/19 16:20
Client ID	: MW05_111319	Date Received	: 11/13/19
Sample Location	: 432 RODNEY STREET, BROOKLYN, NY	Date Analyzed	: 11/14/19 11:20
Sample Matrix	: WATER	Dilution Factor	: 1
Analytical Method	: 1,8260C	Analyst	: PD
Lab File ID	: V01191114A12	Instrument ID	: VOA101
Sample Amount	: 10 ml	GC Column	: RTX-502.2
Level	: LOW	%Solids	: N/A
Extract Volume (MeOH)	: N/A	Injection Volume	: N/A

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
110-57-6	trans-1,4-Dichloro-2-butene	ND	2.5	0.70	U

Results Summary

Form 1

Volatile Organics by GC/MS

Client : Langan Engineering & Environmental	Lab Number : L1954303
Project Name : 432 RODNEY STREET	Project Number : 170357801
Lab ID : L1954303-05	Date Collected : 11/13/19 12:30
Client ID : GWFB_111319	Date Received : 11/13/19
Sample Location : 432 RODNEY STREET, BROOKLYN, NY	Date Analyzed : 11/14/19 09:21
Sample Matrix : WATER	Dilution Factor : 1
Analytical Method : 1,8260C	Analyst : PD
Lab File ID : V01191114A07	Instrument ID : VOA101
Sample Amount : 10 ml	GC Column : RTX-502.2
Level : LOW	%Solids : N/A
Extract Volume (MeOH) : N/A	Injection Volume : N/A

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
75-09-2	Methylene chloride	ND	2.5	0.70	U
75-34-3	1,1-Dichloroethane	ND	2.5	0.70	U
67-66-3	Chloroform	ND	2.5	0.70	U
56-23-5	Carbon tetrachloride	ND	0.50	0.13	U
78-87-5	1,2-Dichloropropane	ND	1.0	0.14	U
124-48-1	Dibromochloromethane	ND	0.50	0.15	U
79-00-5	1,1,2-Trichloroethane	ND	1.5	0.50	U
127-18-4	Tetrachloroethene	ND	0.50	0.18	U
108-90-7	Chlorobenzene	ND	2.5	0.70	U
75-69-4	Trichlorofluoromethane	ND	2.5	0.70	U
107-06-2	1,2-Dichloroethane	ND	0.50	0.13	U
71-55-6	1,1,1-Trichloroethane	ND	2.5	0.70	U
75-27-4	Bromodichloromethane	ND	0.50	0.19	U
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.16	U
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.14	U
542-75-6	1,3-Dichloropropene, Total	ND	0.50	0.14	U
563-58-6	1,1-Dichloropropene	ND	2.5	0.70	U
75-25-2	Bromoform	ND	2.0	0.65	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.17	U
71-43-2	Benzene	ND	0.50	0.16	U
108-88-3	Toluene	ND	2.5	0.70	U
100-41-4	Ethylbenzene	ND	2.5	0.70	U
74-87-3	Chloromethane	ND	2.5	0.70	U
74-83-9	Bromomethane	ND	2.5	0.70	U
75-01-4	Vinyl chloride	ND	1.0	0.07	U



Results Summary

Form 1

Volatile Organics by GC/MS

Client : Langan Engineering & Environmental	Lab Number : L1954303
Project Name : 432 RODNEY STREET	Project Number : 170357801
Lab ID : L1954303-05	Date Collected : 11/13/19 12:30
Client ID : GWFB_111319	Date Received : 11/13/19
Sample Location : 432 RODNEY STREET, BROOKLYN, NY	Date Analyzed : 11/14/19 09:21
Sample Matrix : WATER	Dilution Factor : 1
Analytical Method : 1,8260C	Analyst : PD
Lab File ID : V01191114A07	Instrument ID : VOA101
Sample Amount : 10 ml	GC Column : RTX-502.2
Level : LOW	%Solids : N/A
Extract Volume (MeOH) : N/A	Injection Volume : N/A

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
75-00-3	Chloroethane	ND	2.5	0.70	U
75-35-4	1,1-Dichloroethene	ND	0.50	0.17	U
156-60-5	trans-1,2-Dichloroethene	ND	2.5	0.70	U
79-01-6	Trichloroethene	ND	0.50	0.18	U
95-50-1	1,2-Dichlorobenzene	ND	2.5	0.70	U
541-73-1	1,3-Dichlorobenzene	ND	2.5	0.70	U
106-46-7	1,4-Dichlorobenzene	ND	2.5	0.70	U
1634-04-4	Methyl tert butyl ether	ND	2.5	0.70	U
179601-23-1	p/m-Xylene	ND	2.5	0.70	U
95-47-6	o-Xylene	ND	2.5	0.70	U
1330-20-7	Xylenes, Total	ND	2.5	0.70	U
156-59-2	cis-1,2-Dichloroethene	ND	2.5	0.70	U
540-59-0	1,2-Dichloroethene, Total	ND	2.5	0.70	U
74-95-3	Dibromomethane	ND	5.0	1.0	U
96-18-4	1,2,3-Trichloropropane	ND	2.5	0.70	U
107-13-1	Acrylonitrile	ND	5.0	1.5	U
100-42-5	Styrene	ND	2.5	0.70	U
75-71-8	Dichlorodifluoromethane	ND	5.0	1.0	U
67-64-1	Acetone	ND	5.0	1.5	U
75-15-0	Carbon disulfide	ND	5.0	1.0	U
78-93-3	2-Butanone	ND	5.0	1.9	U
108-05-4	Vinyl acetate	ND	5.0	1.0	U
108-10-1	4-Methyl-2-pentanone	ND	5.0	1.0	U
591-78-6	2-Hexanone	ND	5.0	1.0	U
74-97-5	Bromochloromethane	ND	2.5	0.70	U



Results Summary

Form 1

Volatile Organics by GC/MS

Client : Langan Engineering & Environmental	Lab Number : L1954303
Project Name : 432 RODNEY STREET	Project Number : 170357801
Lab ID : L1954303-05	Date Collected : 11/13/19 12:30
Client ID : GWFB_111319	Date Received : 11/13/19
Sample Location : 432 RODNEY STREET, BROOKLYN, NY	Date Analyzed : 11/14/19 09:21
Sample Matrix : WATER	Dilution Factor : 1
Analytical Method : 1,8260C	Analyst : PD
Lab File ID : V01191114A07	Instrument ID : VOA101
Sample Amount : 10 ml	GC Column : RTX-502.2
Level : LOW	%Solids : N/A
Extract Volume (MeOH) : N/A	Injection Volume : N/A

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
594-20-7	2,2-Dichloropropane	ND	2.5	0.70	U
106-93-4	1,2-Dibromoethane	ND	2.0	0.65	U
142-28-9	1,3-Dichloropropane	ND	2.5	0.70	U
630-20-6	1,1,1,2-Tetrachloroethane	ND	2.5	0.70	U
108-86-1	Bromobenzene	ND	2.5	0.70	U
104-51-8	n-Butylbenzene	ND	2.5	0.70	U
135-98-8	sec-Butylbenzene	ND	2.5	0.70	U
98-06-6	tert-Butylbenzene	ND	2.5	0.70	U
95-49-8	o-Chlorotoluene	ND	2.5	0.70	U
106-43-4	p-Chlorotoluene	ND	2.5	0.70	U
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.5	0.70	U
87-68-3	Hexachlorobutadiene	ND	2.5	0.70	U
98-82-8	Isopropylbenzene	ND	2.5	0.70	U
99-87-6	p-Isopropyltoluene	ND	2.5	0.70	U
91-20-3	Naphthalene	ND	2.5	0.70	U
103-65-1	n-Propylbenzene	ND	2.5	0.70	U
87-61-6	1,2,3-Trichlorobenzene	ND	2.5	0.70	U
120-82-1	1,2,4-Trichlorobenzene	ND	2.5	0.70	U
108-67-8	1,3,5-Trimethylbenzene	ND	2.5	0.70	U
95-63-6	1,2,4-Trimethylbenzene	ND	2.5	0.70	U
123-91-1	1,4-Dioxane	ND	250	61.	U
105-05-5	p-Diethylbenzene	ND	2.0	0.70	U
622-96-8	p-Ethyltoluene	ND	2.0	0.70	U
95-93-2	1,2,4,5-Tetramethylbenzene	ND	2.0	0.54	U
60-29-7	Ethyl ether	ND	2.5	0.70	U



Results Summary

Form 1

Volatile Organics by GC/MS

Client	: Langan Engineering & Environmental	Lab Number	: L1954303
Project Name	: 432 RODNEY STREET	Project Number	: 170357801
Lab ID	: L1954303-05	Date Collected	: 11/13/19 12:30
Client ID	: GWFB_111319	Date Received	: 11/13/19
Sample Location	: 432 RODNEY STREET, BROOKLYN, NY	Date Analyzed	: 11/14/19 09:21
Sample Matrix	: WATER	Dilution Factor	: 1
Analytical Method	: 1,8260C	Analyst	: PD
Lab File ID	: V01191114A07	Instrument ID	: VOA101
Sample Amount	: 10 ml	GC Column	: RTX-502.2
Level	: LOW	%Solids	: N/A
Extract Volume (MeOH)	: N/A	Injection Volume	: N/A

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
110-57-6	trans-1,4-Dichloro-2-butene	ND	2.5	0.70	U

Results Summary

Form 1

Volatile Organics by GC/MS

Client : Langan Engineering & Environmental	Lab Number : L1954303
Project Name : 432 RODNEY STREET	Project Number : 170357801
Lab ID : L1954303-06	Date Collected : 11/13/19 00:00
Client ID : GWTB_111319	Date Received : 11/13/19
Sample Location : 432 RODNEY STREET, BROOKLYN, NY	Date Analyzed : 11/14/19 09:45
Sample Matrix : WATER	Dilution Factor : 1
Analytical Method : 1,8260C	Analyst : PD
Lab File ID : V01191114A08	Instrument ID : VOA101
Sample Amount : 10 ml	GC Column : RTX-502.2
Level : LOW	%Solids : N/A
Extract Volume (MeOH) : N/A	Injection Volume : N/A

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
75-09-2	Methylene chloride	ND	2.5	0.70	U
75-34-3	1,1-Dichloroethane	ND	2.5	0.70	U
67-66-3	Chloroform	ND	2.5	0.70	U
56-23-5	Carbon tetrachloride	ND	0.50	0.13	U
78-87-5	1,2-Dichloropropane	ND	1.0	0.14	U
124-48-1	Dibromochloromethane	ND	0.50	0.15	U
79-00-5	1,1,2-Trichloroethane	ND	1.5	0.50	U
127-18-4	Tetrachloroethene	ND	0.50	0.18	U
108-90-7	Chlorobenzene	ND	2.5	0.70	U
75-69-4	Trichlorofluoromethane	ND	2.5	0.70	U
107-06-2	1,2-Dichloroethane	ND	0.50	0.13	U
71-55-6	1,1,1-Trichloroethane	ND	2.5	0.70	U
75-27-4	Bromodichloromethane	ND	0.50	0.19	U
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.16	U
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.14	U
542-75-6	1,3-Dichloropropene, Total	ND	0.50	0.14	U
563-58-6	1,1-Dichloropropene	ND	2.5	0.70	U
75-25-2	Bromoform	ND	2.0	0.65	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.17	U
71-43-2	Benzene	ND	0.50	0.16	U
108-88-3	Toluene	ND	2.5	0.70	U
100-41-4	Ethylbenzene	ND	2.5	0.70	U
74-87-3	Chloromethane	ND	2.5	0.70	U
74-83-9	Bromomethane	ND	2.5	0.70	U
75-01-4	Vinyl chloride	ND	1.0	0.07	U



Results Summary

Form 1

Volatile Organics by GC/MS

Client : Langan Engineering & Environmental	Lab Number : L1954303
Project Name : 432 RODNEY STREET	Project Number : 170357801
Lab ID : L1954303-06	Date Collected : 11/13/19 00:00
Client ID : GWTB_111319	Date Received : 11/13/19
Sample Location : 432 RODNEY STREET, BROOKLYN, NY	Date Analyzed : 11/14/19 09:45
Sample Matrix : WATER	Dilution Factor : 1
Analytical Method : 1,8260C	Analyst : PD
Lab File ID : V01191114A08	Instrument ID : VOA101
Sample Amount : 10 ml	GC Column : RTX-502.2
Level : LOW	%Solids : N/A
Extract Volume (MeOH) : N/A	Injection Volume : N/A

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
75-00-3	Chloroethane	ND	2.5	0.70	U
75-35-4	1,1-Dichloroethene	ND	0.50	0.17	U
156-60-5	trans-1,2-Dichloroethene	ND	2.5	0.70	U
79-01-6	Trichloroethene	ND	0.50	0.18	U
95-50-1	1,2-Dichlorobenzene	ND	2.5	0.70	U
541-73-1	1,3-Dichlorobenzene	ND	2.5	0.70	U
106-46-7	1,4-Dichlorobenzene	ND	2.5	0.70	U
1634-04-4	Methyl tert butyl ether	ND	2.5	0.70	U
179601-23-1	p/m-Xylene	ND	2.5	0.70	U
95-47-6	o-Xylene	ND	2.5	0.70	U
1330-20-7	Xylenes, Total	ND	2.5	0.70	U
156-59-2	cis-1,2-Dichloroethene	ND	2.5	0.70	U
540-59-0	1,2-Dichloroethene, Total	ND	2.5	0.70	U
74-95-3	Dibromomethane	ND	5.0	1.0	U
96-18-4	1,2,3-Trichloropropane	ND	2.5	0.70	U
107-13-1	Acrylonitrile	ND	5.0	1.5	U
100-42-5	Styrene	ND	2.5	0.70	U
75-71-8	Dichlorodifluoromethane	ND	5.0	1.0	U
67-64-1	Acetone	ND	5.0	1.5	U
75-15-0	Carbon disulfide	ND	5.0	1.0	U
78-93-3	2-Butanone	ND	5.0	1.9	U
108-05-4	Vinyl acetate	ND	5.0	1.0	U
108-10-1	4-Methyl-2-pentanone	ND	5.0	1.0	U
591-78-6	2-Hexanone	ND	5.0	1.0	U
74-97-5	Bromochloromethane	ND	2.5	0.70	U



Results Summary

Form 1

Volatile Organics by GC/MS

Client : Langan Engineering & Environmental	Lab Number : L1954303
Project Name : 432 RODNEY STREET	Project Number : 170357801
Lab ID : L1954303-06	Date Collected : 11/13/19 00:00
Client ID : GWTB_111319	Date Received : 11/13/19
Sample Location : 432 RODNEY STREET, BROOKLYN, NY	Date Analyzed : 11/14/19 09:45
Sample Matrix : WATER	Dilution Factor : 1
Analytical Method : 1,8260C	Analyst : PD
Lab File ID : V01191114A08	Instrument ID : VOA101
Sample Amount : 10 ml	GC Column : RTX-502.2
Level : LOW	%Solids : N/A
Extract Volume (MeOH) : N/A	Injection Volume : N/A

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
594-20-7	2,2-Dichloropropane	ND	2.5	0.70	U
106-93-4	1,2-Dibromoethane	ND	2.0	0.65	U
142-28-9	1,3-Dichloropropane	ND	2.5	0.70	U
630-20-6	1,1,1,2-Tetrachloroethane	ND	2.5	0.70	U
108-86-1	Bromobenzene	ND	2.5	0.70	U
104-51-8	n-Butylbenzene	ND	2.5	0.70	U
135-98-8	sec-Butylbenzene	ND	2.5	0.70	U
98-06-6	tert-Butylbenzene	ND	2.5	0.70	U
95-49-8	o-Chlorotoluene	ND	2.5	0.70	U
106-43-4	p-Chlorotoluene	ND	2.5	0.70	U
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.5	0.70	U
87-68-3	Hexachlorobutadiene	ND	2.5	0.70	U
98-82-8	Isopropylbenzene	ND	2.5	0.70	U
99-87-6	p-Isopropyltoluene	ND	2.5	0.70	U
91-20-3	Naphthalene	ND	2.5	0.70	U
103-65-1	n-Propylbenzene	ND	2.5	0.70	U
87-61-6	1,2,3-Trichlorobenzene	ND	2.5	0.70	U
120-82-1	1,2,4-Trichlorobenzene	ND	2.5	0.70	U
108-67-8	1,3,5-Trimethylbenzene	ND	2.5	0.70	U
95-63-6	1,2,4-Trimethylbenzene	ND	2.5	0.70	U
123-91-1	1,4-Dioxane	ND	250	61.	U
105-05-5	p-Diethylbenzene	ND	2.0	0.70	U
622-96-8	p-Ethyltoluene	ND	2.0	0.70	U
95-93-2	1,2,4,5-Tetramethylbenzene	ND	2.0	0.54	U
60-29-7	Ethyl ether	ND	2.5	0.70	U



Results Summary

Form 1

Volatile Organics by GC/MS

Client	: Langan Engineering & Environmental	Lab Number	: L1954303
Project Name	: 432 RODNEY STREET	Project Number	: 170357801
Lab ID	: L1954303-06	Date Collected	: 11/13/19 00:00
Client ID	: GWTB_111319	Date Received	: 11/13/19
Sample Location	: 432 RODNEY STREET, BROOKLYN, NY	Date Analyzed	: 11/14/19 09:45
Sample Matrix	: WATER	Dilution Factor	: 1
Analytical Method	: 1,8260C	Analyst	: PD
Lab File ID	: V01191114A08	Instrument ID	: VOA101
Sample Amount	: 10 ml	GC Column	: RTX-502.2
Level	: LOW	%Solids	: N/A
Extract Volume (MeOH)	: N/A	Injection Volume	: N/A

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
110-57-6	trans-1,4-Dichloro-2-butene	ND	2.5	0.70	U

Results Summary

Form 1

Volatile Organics by GC/MS

Client : Langan Engineering & Environmental	Lab Number : L1954303
Project Name : 432 RODNEY STREET	Project Number : 170357801
Lab ID : L1954303-07	Date Collected : 11/13/19 00:00
Client ID : GWDUP_111319	Date Received : 11/13/19
Sample Location : 432 RODNEY STREET, BROOKLYN, NY	Date Analyzed : 11/14/19 11:43
Sample Matrix : WATER	Dilution Factor : 1
Analytical Method : 1,8260C	Analyst : PD
Lab File ID : V01191114A13	Instrument ID : VOA101
Sample Amount : 10 ml	GC Column : RTX-502.2
Level : LOW	%Solids : N/A
Extract Volume (MeOH) : N/A	Injection Volume : N/A

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
75-09-2	Methylene chloride	ND	2.5	0.70	U
75-34-3	1,1-Dichloroethane	ND	2.5	0.70	U
67-66-3	Chloroform	ND	2.5	0.70	U
56-23-5	Carbon tetrachloride	ND	0.50	0.13	U
78-87-5	1,2-Dichloropropane	ND	1.0	0.14	U
124-48-1	Dibromochloromethane	ND	0.50	0.15	U
79-00-5	1,1,2-Trichloroethane	ND	1.5	0.50	U
127-18-4	Tetrachloroethene	0.78	0.50	0.18	
108-90-7	Chlorobenzene	ND	2.5	0.70	U
75-69-4	Trichlorofluoromethane	ND	2.5	0.70	U
107-06-2	1,2-Dichloroethane	ND	0.50	0.13	U
71-55-6	1,1,1-Trichloroethane	ND	2.5	0.70	U
75-27-4	Bromodichloromethane	ND	0.50	0.19	U
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.16	U
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.14	U
542-75-6	1,3-Dichloropropene, Total	ND	0.50	0.14	U
563-58-6	1,1-Dichloropropene	ND	2.5	0.70	U
75-25-2	Bromoform	ND	2.0	0.65	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.17	U
71-43-2	Benzene	2.2	0.50	0.16	
108-88-3	Toluene	ND	2.5	0.70	U
100-41-4	Ethylbenzene	ND	2.5	0.70	U
74-87-3	Chloromethane	ND	2.5	0.70	U
74-83-9	Bromomethane	ND	2.5	0.70	U
75-01-4	Vinyl chloride	4.2	1.0	0.07	



Results Summary

Form 1

Volatile Organics by GC/MS

Client : Langan Engineering & Environmental	Lab Number : L1954303
Project Name : 432 RODNEY STREET	Project Number : 170357801
Lab ID : L1954303-07	Date Collected : 11/13/19 00:00
Client ID : GWDUP_111319	Date Received : 11/13/19
Sample Location : 432 RODNEY STREET, BROOKLYN, NY	Date Analyzed : 11/14/19 11:43
Sample Matrix : WATER	Dilution Factor : 1
Analytical Method : 1,8260C	Analyst : PD
Lab File ID : V01191114A13	Instrument ID : VOA101
Sample Amount : 10 ml	GC Column : RTX-502.2
Level : LOW	%Solids : N/A
Extract Volume (MeOH) : N/A	Injection Volume : N/A

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
75-00-3	Chloroethane	ND	2.5	0.70	U
75-35-4	1,1-Dichloroethene	ND	0.50	0.17	U
156-60-5	trans-1,2-Dichloroethene	ND	2.5	0.70	U
79-01-6	Trichloroethene	0.71	0.50	0.18	
95-50-1	1,2-Dichlorobenzene	ND	2.5	0.70	U
541-73-1	1,3-Dichlorobenzene	ND	2.5	0.70	U
106-46-7	1,4-Dichlorobenzene	ND	2.5	0.70	U
1634-04-4	Methyl tert butyl ether	ND	2.5	0.70	U
179601-23-1	p/m-Xylene	ND	2.5	0.70	U
95-47-6	o-Xylene	ND	2.5	0.70	U
1330-20-7	Xylenes, Total	ND	2.5	0.70	U
156-59-2	cis-1,2-Dichloroethene	6.0	2.5	0.70	
540-59-0	1,2-Dichloroethene, Total	6.0	2.5	0.70	
74-95-3	Dibromomethane	ND	5.0	1.0	U
96-18-4	1,2,3-Trichloropropane	ND	2.5	0.70	U
107-13-1	Acrylonitrile	ND	5.0	1.5	U
100-42-5	Styrene	ND	2.5	0.70	U
75-71-8	Dichlorodifluoromethane	ND	5.0	1.0	U
67-64-1	Acetone	ND	5.0	1.5	U
75-15-0	Carbon disulfide	ND	5.0	1.0	U
78-93-3	2-Butanone	ND	5.0	1.9	U
108-05-4	Vinyl acetate	ND	5.0	1.0	U
108-10-1	4-Methyl-2-pentanone	ND	5.0	1.0	U
591-78-6	2-Hexanone	ND	5.0	1.0	U
74-97-5	Bromochloromethane	ND	2.5	0.70	U



Results Summary

Form 1

Volatile Organics by GC/MS

Client	: Langan Engineering & Environmental	Lab Number	: L1954303
Project Name	: 432 RODNEY STREET	Project Number	: 170357801
Lab ID	: L1954303-07	Date Collected	: 11/13/19 00:00
Client ID	: GWDUP_111319	Date Received	: 11/13/19
Sample Location	: 432 RODNEY STREET, BROOKLYN, NY	Date Analyzed	: 11/14/19 11:43
Sample Matrix	: WATER	Dilution Factor	: 1
Analytical Method	: 1,8260C	Analyst	: PD
Lab File ID	: V01191114A13	Instrument ID	: VOA101
Sample Amount	: 10 ml	GC Column	: RTX-502.2
Level	: LOW	%Solids	: N/A
Extract Volume (MeOH)	: N/A	Injection Volume	: N/A

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
594-20-7	2,2-Dichloropropane	ND	2.5	0.70	U
106-93-4	1,2-Dibromoethane	ND	2.0	0.65	U
142-28-9	1,3-Dichloropropane	ND	2.5	0.70	U
630-20-6	1,1,1,2-Tetrachloroethane	ND	2.5	0.70	U
108-86-1	Bromobenzene	ND	2.5	0.70	U
104-51-8	n-Butylbenzene	ND	2.5	0.70	U
135-98-8	sec-Butylbenzene	ND	2.5	0.70	U
98-06-6	tert-Butylbenzene	ND	2.5	0.70	U
95-49-8	o-Chlorotoluene	ND	2.5	0.70	U
106-43-4	p-Chlorotoluene	ND	2.5	0.70	U
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.5	0.70	U
87-68-3	Hexachlorobutadiene	ND	2.5	0.70	U
98-82-8	Isopropylbenzene	0.94	2.5	0.70	J
99-87-6	p-Isopropyltoluene	ND	2.5	0.70	U
91-20-3	Naphthalene	ND	2.5	0.70	U
103-65-1	n-Propylbenzene	1.1	2.5	0.70	J
87-61-6	1,2,3-Trichlorobenzene	ND	2.5	0.70	U
120-82-1	1,2,4-Trichlorobenzene	ND	2.5	0.70	U
108-67-8	1,3,5-Trimethylbenzene	ND	2.5	0.70	U
95-63-6	1,2,4-Trimethylbenzene	ND	2.5	0.70	U
123-91-1	1,4-Dioxane	ND	250	61.	U
105-05-5	p-Diethylbenzene	ND	2.0	0.70	U
622-96-8	p-Ethyltoluene	ND	2.0	0.70	U
95-93-2	1,2,4,5-Tetramethylbenzene	ND	2.0	0.54	U
60-29-7	Ethyl ether	ND	2.5	0.70	U



Results Summary

Form 1

Volatile Organics by GC/MS

Client	: Langan Engineering & Environmental	Lab Number	: L1954303
Project Name	: 432 RODNEY STREET	Project Number	: 170357801
Lab ID	: L1954303-07	Date Collected	: 11/13/19 00:00
Client ID	: GWDUP_111319	Date Received	: 11/13/19
Sample Location	: 432 RODNEY STREET, BROOKLYN, NY	Date Analyzed	: 11/14/19 11:43
Sample Matrix	: WATER	Dilution Factor	: 1
Analytical Method	: 1,8260C	Analyst	: PD
Lab File ID	: V01191114A13	Instrument ID	: VOA101
Sample Amount	: 10 ml	GC Column	: RTX-502.2
Level	: LOW	%Solids	: N/A
Extract Volume (MeOH)	: N/A	Injection Volume	: N/A

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
110-57-6	trans-1,4-Dichloro-2-butene	ND	2.5	0.70	U

Results Summary

Form 1

Volatile Organics by GC/MS

Client : Langan Engineering & Environmental
 Project Name : 432 RODNEY STREET
 Lab ID : WG1308760-5
 Client ID : WG1308760-5BLANK
 Sample Location :
 Sample Matrix : WATER
 Analytical Method : 1,8260C
 Lab File ID : V01191114A05
 Sample Amount : 10 ml
 Level : LOW
 Extract Volume (MeOH) : N/A

Lab Number : L1954303
 Project Number : 170357801
 Date Collected : NA
 Date Received : NA
 Date Analyzed : 11/14/19 08:34
 Dilution Factor : 1
 Analyst : PD
 Instrument ID : VOA101
 GC Column : RTX-502.2
 %Solids : N/A
 Injection Volume : N/A

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
75-09-2	Methylene chloride	ND	2.5	0.70	U
75-34-3	1,1-Dichloroethane	ND	2.5	0.70	U
67-66-3	Chloroform	ND	2.5	0.70	U
56-23-5	Carbon tetrachloride	ND	0.50	0.13	U
78-87-5	1,2-Dichloropropane	ND	1.0	0.14	U
124-48-1	Dibromochloromethane	ND	0.50	0.15	U
79-00-5	1,1,2-Trichloroethane	ND	1.5	0.50	U
127-18-4	Tetrachloroethene	ND	0.50	0.18	U
108-90-7	Chlorobenzene	ND	2.5	0.70	U
75-69-4	Trichlorofluoromethane	ND	2.5	0.70	U
107-06-2	1,2-Dichloroethane	ND	0.50	0.13	U
71-55-6	1,1,1-Trichloroethane	ND	2.5	0.70	U
75-27-4	Bromodichloromethane	ND	0.50	0.19	U
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.16	U
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.14	U
542-75-6	1,3-Dichloropropene, Total	ND	0.50	0.14	U
563-58-6	1,1-Dichloropropene	ND	2.5	0.70	U
75-25-2	Bromoform	ND	2.0	0.65	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.17	U
71-43-2	Benzene	ND	0.50	0.16	U
108-88-3	Toluene	ND	2.5	0.70	U
100-41-4	Ethylbenzene	ND	2.5	0.70	U
74-87-3	Chloromethane	ND	2.5	0.70	U
74-83-9	Bromomethane	ND	2.5	0.70	U
75-01-4	Vinyl chloride	ND	1.0	0.07	U



Results Summary

Form 1

Volatile Organics by GC/MS

Client : Langan Engineering & Environmental
 Project Name : 432 RODNEY STREET
 Lab ID : WG1308760-5
 Client ID : WG1308760-5BLANK
 Sample Location :
 Sample Matrix : WATER
 Analytical Method : 1,8260C
 Lab File ID : V01191114A05
 Sample Amount : 10 ml
 Level : LOW
 Extract Volume (MeOH) : N/A

Lab Number : L1954303
 Project Number : 170357801
 Date Collected : NA
 Date Received : NA
 Date Analyzed : 11/14/19 08:34
 Dilution Factor : 1
 Analyst : PD
 Instrument ID : VOA101
 GC Column : RTX-502.2
 %Solids : N/A
 Injection Volume : N/A

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
75-00-3	Chloroethane	ND	2.5	0.70	U
75-35-4	1,1-Dichloroethene	ND	0.50	0.17	U
156-60-5	trans-1,2-Dichloroethene	ND	2.5	0.70	U
79-01-6	Trichloroethene	ND	0.50	0.18	U
95-50-1	1,2-Dichlorobenzene	ND	2.5	0.70	U
541-73-1	1,3-Dichlorobenzene	ND	2.5	0.70	U
106-46-7	1,4-Dichlorobenzene	ND	2.5	0.70	U
1634-04-4	Methyl tert butyl ether	ND	2.5	0.70	U
179601-23-1	p/m-Xylene	ND	2.5	0.70	U
95-47-6	o-Xylene	ND	2.5	0.70	U
1330-20-7	Xylenes, Total	ND	2.5	0.70	U
156-59-2	cis-1,2-Dichloroethene	ND	2.5	0.70	U
540-59-0	1,2-Dichloroethene, Total	ND	2.5	0.70	U
74-95-3	Dibromomethane	ND	5.0	1.0	U
96-18-4	1,2,3-Trichloropropane	ND	2.5	0.70	U
107-13-1	Acrylonitrile	ND	5.0	1.5	U
100-42-5	Styrene	ND	2.5	0.70	U
75-71-8	Dichlorodifluoromethane	ND	5.0	1.0	U
67-64-1	Acetone	ND	5.0	1.5	U
75-15-0	Carbon disulfide	ND	5.0	1.0	U
78-93-3	2-Butanone	ND	5.0	1.9	U
108-05-4	Vinyl acetate	ND	5.0	1.0	U
108-10-1	4-Methyl-2-pentanone	ND	5.0	1.0	U
591-78-6	2-Hexanone	ND	5.0	1.0	U
74-97-5	Bromochloromethane	ND	2.5	0.70	U



Results Summary

Form 1

Volatile Organics by GC/MS

Client : Langan Engineering & Environmental
 Project Name : 432 RODNEY STREET
 Lab ID : WG1308760-5
 Client ID : WG1308760-5BLANK
 Sample Location :
 Sample Matrix : WATER
 Analytical Method : 1,8260C
 Lab File ID : V01191114A05
 Sample Amount : 10 ml
 Level : LOW
 Extract Volume (MeOH) : N/A

Lab Number : L1954303
 Project Number : 170357801
 Date Collected : NA
 Date Received : NA
 Date Analyzed : 11/14/19 08:34
 Dilution Factor : 1
 Analyst : PD
 Instrument ID : VOA101
 GC Column : RTX-502.2
 %Solids : N/A
 Injection Volume : N/A

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
594-20-7	2,2-Dichloropropane	ND	2.5	0.70	U
106-93-4	1,2-Dibromoethane	ND	2.0	0.65	U
142-28-9	1,3-Dichloropropane	ND	2.5	0.70	U
630-20-6	1,1,1,2-Tetrachloroethane	ND	2.5	0.70	U
108-86-1	Bromobenzene	ND	2.5	0.70	U
104-51-8	n-Butylbenzene	ND	2.5	0.70	U
135-98-8	sec-Butylbenzene	ND	2.5	0.70	U
98-06-6	tert-Butylbenzene	ND	2.5	0.70	U
95-49-8	o-Chlorotoluene	ND	2.5	0.70	U
106-43-4	p-Chlorotoluene	ND	2.5	0.70	U
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.5	0.70	U
87-68-3	Hexachlorobutadiene	ND	2.5	0.70	U
98-82-8	Isopropylbenzene	ND	2.5	0.70	U
99-87-6	p-Isopropyltoluene	ND	2.5	0.70	U
91-20-3	Naphthalene	ND	2.5	0.70	U
103-65-1	n-Propylbenzene	ND	2.5	0.70	U
87-61-6	1,2,3-Trichlorobenzene	ND	2.5	0.70	U
120-82-1	1,2,4-Trichlorobenzene	ND	2.5	0.70	U
108-67-8	1,3,5-Trimethylbenzene	ND	2.5	0.70	U
95-63-6	1,2,4-Trimethylbenzene	ND	2.5	0.70	U
123-91-1	1,4-Dioxane	ND	250	61.	U
105-05-5	p-Diethylbenzene	ND	2.0	0.70	U
622-96-8	p-Ethyltoluene	ND	2.0	0.70	U
95-93-2	1,2,4,5-Tetramethylbenzene	ND	2.0	0.54	U
60-29-7	Ethyl ether	ND	2.5	0.70	U



Results Summary

Form 1

Volatile Organics by GC/MS

Client	: Langan Engineering & Environmental	Lab Number	: L1954303
Project Name	: 432 RODNEY STREET	Project Number	: 170357801
Lab ID	: WG1308760-5	Date Collected	: NA
Client ID	: WG1308760-5BLANK	Date Received	: NA
Sample Location	:	Date Analyzed	: 11/14/19 08:34
Sample Matrix	: WATER	Dilution Factor	: 1
Analytical Method	: 1,8260C	Analyst	: PD
Lab File ID	: V01191114A05	Instrument ID	: VOA101
Sample Amount	: 10 ml	GC Column	: RTX-502.2
Level	: LOW	%Solids	: N/A
Extract Volume (MeOH)	: N/A	Injection Volume	: N/A

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
110-57-6	trans-1,4-Dichloro-2-butene	ND	2.5	0.70	U

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\VOA101\2019\191114A\
 Data File : V01191114A07.D
 Acq On : 14 Nov 2019 9:21 am
 Operator : VOA101:PD
 Sample : l1954303-05,31,10,10,,a
 Misc : WG1308760,ICAL16277
 ALS Vial : 8 Sample Multiplier: 1

Quant Time: Nov 14 11:18:01 2019
 Quant Method : I:\VOLATILES\VOA101\2019\191114A\V101_191107A_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Fri Nov 08 10:22:02 2019
 Response via : Initial Calibration

CCAL FILE(s) : 1 - I:\VOLATILES\VOA101\2019\191114A\V01191114A02.D
 Sub List : 8260-NYTCL - Megamix plus Diox

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

Internal Standards						
1) Fluorobenzene	6.645	96	192224	10.000	ug/L	0.00
Standard Area 1 = 199922			Recovery = 96.15%			
59) Chlorobenzene-d5	10.535	117	133535	10.000	ug/L	0.00
Standard Area 1 = 138066			Recovery = 96.72%			
79) 1,4-Dichlorobenzene-d4	13.334	152	63069	10.000	ug/L	0.00
Standard Area 1 = 65641			Recovery = 96.08%			
System Monitoring Compounds						
36) Dibromofluoromethane	5.750	113	46926	9.643	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 96.43%			
43) 1,2-Dichloroethane-d4	6.334	65	55244	10.283	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 102.83%			
60) Toluene-d8	8.511	98	192144	10.699	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 106.99%			
83) 4-Bromofluorobenzene	12.041	95	67735	10.383	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 103.83%			
Target Compounds						
2) Dichlorodifluoromethane	0.000		0	N.D.		
3) Chloromethane	0.000		0	N.D.		
4) Vinyl chloride	0.000		0	N.D.		
5) Bromomethane	0.000		0	N.D.		
6) Chloroethane	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000		0	N.D.		
8) Ethyl ether	0.000		0	N.D.		
10) 1,1-Dichloroethene	0.000		0	N.D.		
11) Carbon disulfide	3.338	76	405	N.D.		
15) Methylene chloride	3.900	84	344	0.076	ug/L	25
17) Acetone	0.000		0	N.D.	d	
18) trans-1,2-Dichloroethene	0.000		0	N.D.		
20) Methyl tert-butyl ether	0.000		0	N.D.		
23) 1,1-Dichloroethane	0.000		0	N.D.		
25) Acrylonitrile	0.000		0	N.D.		
27) Vinyl acetate	0.000		0	N.D.		
28) cis-1,2-Dichloroethene	0.000		0	N.D.		
29) 2,2-Dichloropropane	0.000		0	N.D.		
30) Bromochloromethane	0.000		0	N.D.		
32) Chloroform	0.000		0	N.D.		

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\VOA101\2019\191114A\
 Data File : V01191114A07.D
 Acq On : 14 Nov 2019 9:21 am
 Operator : VOA101:PD
 Sample : l1954303-05,31,10,10,,a
 Misc : WG1308760,ICAL16277
 ALS Vial : 8 Sample Multiplier: 1

Quant Time: Nov 14 11:18:01 2019
 Quant Method : I:\VOLATILES\VOA101\2019\191114A\V101_191107A_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Fri Nov 08 10:22:02 2019
 Response via : Initial Calibration

CCAL FILE(s) : 1 - I:\VOLATILES\VOA101\2019\191114A\V01191114A02.D
 Sub List : 8260-NYTCL - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
34) Carbon tetrachloride	0.000		0		N.D.	
37) 1,1,1-Trichloroethane	0.000		0		N.D.	
39) 2-Butanone	0.000		0		N.D.	
40) 1,1-Dichloropropene	0.000		0		N.D.	
41) Benzene	0.000		0		N.D.	
44) 1,2-Dichloroethane	0.000		0		N.D.	
48) Trichloroethene	0.000		0		N.D.	
50) Dibromomethane	0.000		0		N.D.	
51) 1,2-Dichloropropane	0.000		0		N.D.	
54) Bromodichloromethane	0.000		0		N.D.	
57) 1,4-Dioxane	0.000		0		N.D.	
58) cis-1,3-Dichloropropene	0.000		0		N.D.	
61) Toluene	0.000		0		N.D.	
62) 4-Methyl-2-pentanone	0.000		0		N.D.	
63) Tetrachloroethene	0.000		0		N.D.	
65) trans-1,3-Dichloropropene	0.000		0		N.D.	
68) 1,1,2-Trichloroethane	0.000		0		N.D.	
69) Chlorodibromomethane	0.000		0		N.D.	
70) 1,3-Dichloropropane	0.000		0		N.D.	
71) 1,2-Dibromoethane	0.000		0		N.D.	
72) 2-Hexanone	0.000		0		N.D.	
73) Chlorobenzene	0.000		0		N.D.	
74) Ethylbenzene	10.535	91	52		N.D.	
75) 1,1,1,2-Tetrachloroethane	0.000		0		N.D.	
76) p/m Xylene	0.000		0		N.D.	
77) o Xylene	0.000		0		N.D.	
78) Styrene	0.000		0		N.D.	
80) Bromoform	0.000		0		N.D.	
82) Isopropylbenzene	0.000		0		N.D.	
84) Bromobenzene	0.000		0		N.D.	
85) n-Propylbenzene	0.000		0		N.D.	
87) 1,1,2,2-Tetrachloroethane	0.000		0		N.D.	
88) 4-Ethyltoluene	0.000		0		N.D.	
89) 2-Chlorotoluene	0.000		0		N.D.	
90) 1,3,5-Trimethylbenzene	0.000		0		N.D.	
91) 1,2,3-Trichloropropane	0.000		0		N.D.	
92) trans-1,4-Dichloro-2-b...	0.000		0		N.D.	
93) 4-Chlorotoluene	0.000		0		N.D.	
94) tert-Butylbenzene	0.000		0		N.D.	

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\VOA101\2019\191114A\
 Data File : V01191114A07.D
 Acq On : 14 Nov 2019 9:21 am
 Operator : VOA101:PD
 Sample : l1954303-05,31,10,10,,a
 Misc : WG1308760,ICAL16277
 ALS Vial : 8 Sample Multiplier: 1

Quant Time: Nov 14 11:18:01 2019
 Quant Method : I:\VOLATILES\VOA101\2019\191114A\V101_191107A_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Fri Nov 08 10:22:02 2019
 Response via : Initial Calibration

CCAL FILE(s) : 1 - I:\VOLATILES\VOA101\2019\191114A\V01191114A02.D
 Sub List : 8260-NYTCL - Megamix plus Diox

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
97)	1,2,4-Trimethylbenzene	12.876	105	54	N.D.		
98)	sec-Butylbenzene	12.876	105	54	N.D.		
99)	p-Isopropyltoluene	13.160	119	55	N.D.		
100)	1,3-Dichlorobenzene	0.000		0	N.D.		
101)	1,4-Dichlorobenzene	0.000		0	N.D.		
102)	p-Diethylbenzene	0.000		0	N.D.		
103)	n-Butylbenzene	13.629	91	266	N.D.		
104)	1,2-Dichlorobenzene	0.000		0	N.D.		
105)	1,2,4,5-Tetramethylben...	14.442	119	203	N.D.		
106)	1,2-Dibromo-3-chloropr...	0.000		0	N.D.		
108)	Hexachlorobutadiene	0.000		0	N.D.		
109)	1,2,4-Trichlorobenzene	0.000		0	N.D.		
110)	Naphthalene	15.763	128	476	0.077 ug/L		100
111)	1,2,3-Trichlorobenzene	0.000		0	N.D.		

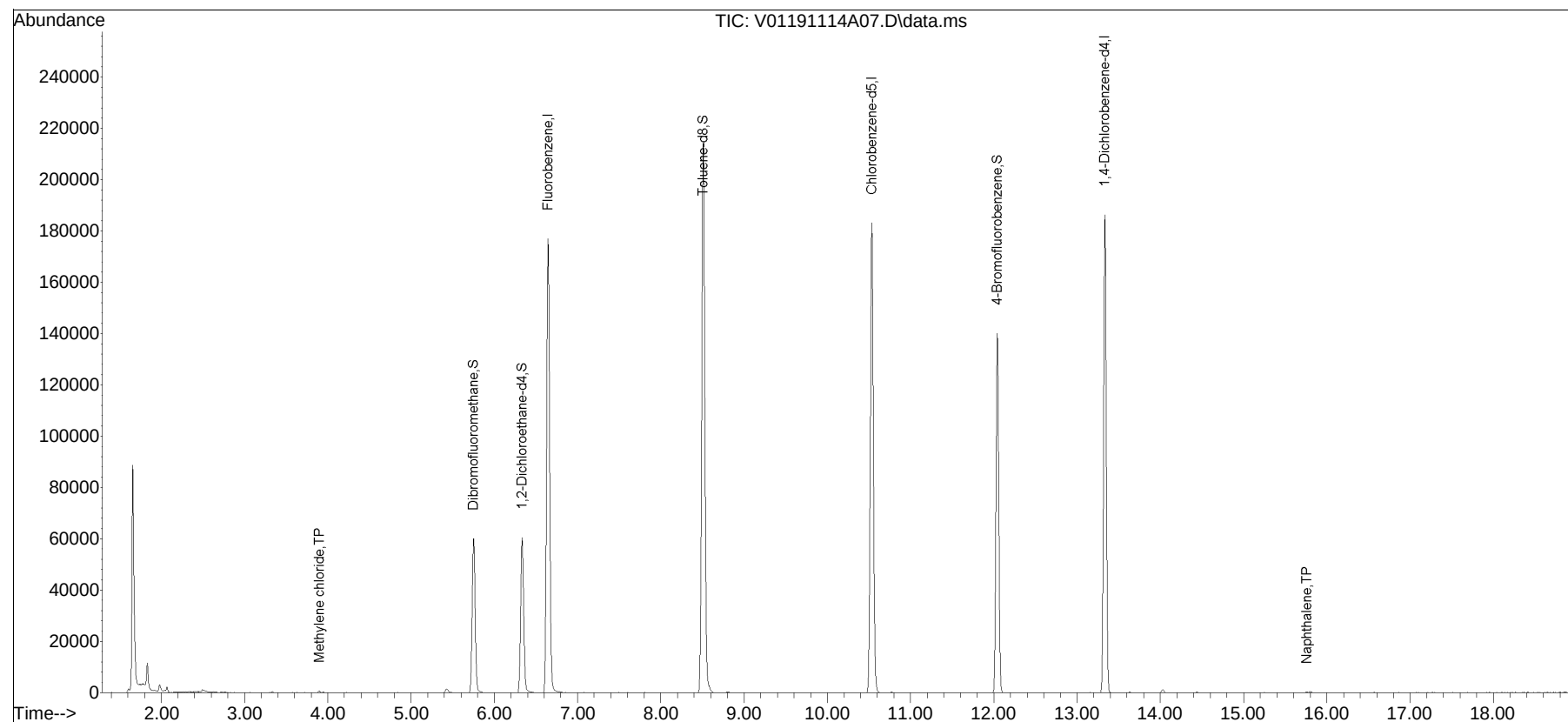
 (#) = qualifier out of range (m) = manual integration (+) = signals summed

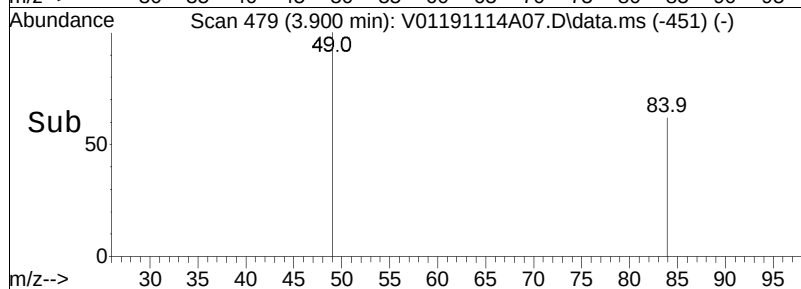
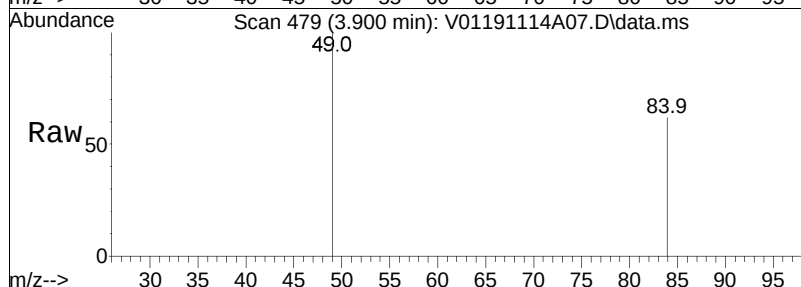
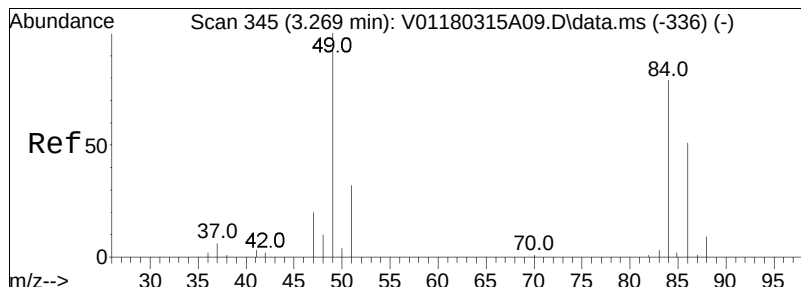
Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\VOA101\2019\191114A\
 Data File : V01191114A07.D
 Acq On : 14 Nov 2019 9:21 am
 Operator : VOA101:PD
 Sample : l1954303-05,31,10,10,,a
 Misc : WG1308760,ICAL16277
 ALS Vial : 8 Sample Multiplier: 1

Quant Time: Nov 14 11:18:01 2019
 Quant Method : I:\VOLATILES\VOA101\2019\191114A\V101_191107A_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Fri Nov 08 10:22:02 2019
 Response via : Initial Calibration

Sub List : 8260-NYTCL - Megamix plus Diox91114A\V01191114A02.D•





#15

Methylene chloride

Concen: 0.08 ug/L

RT: 3.900 min Scan# 479

Delta R.T. 0.000 min

Lab File: V01191114A07.D

Acq: 14 Nov 2019 9:21 am

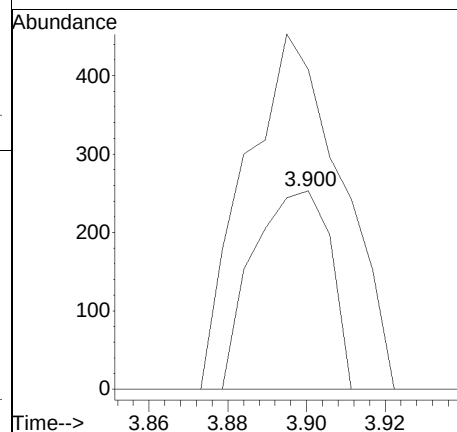
Tgt Ion: 84 Resp: 344

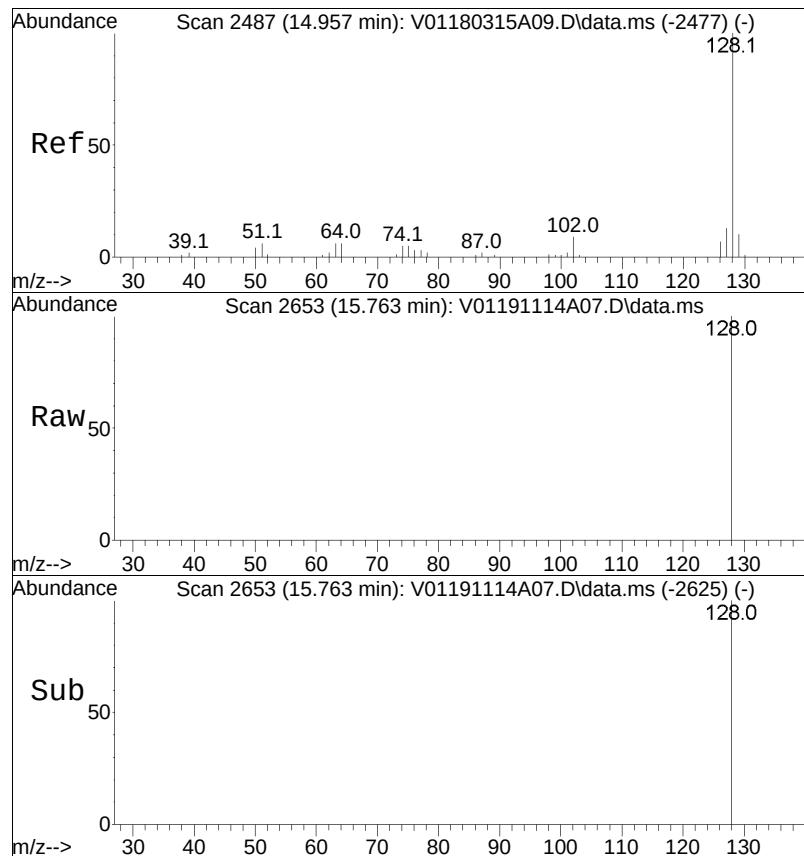
Ion Ratio Lower Upper

84 100

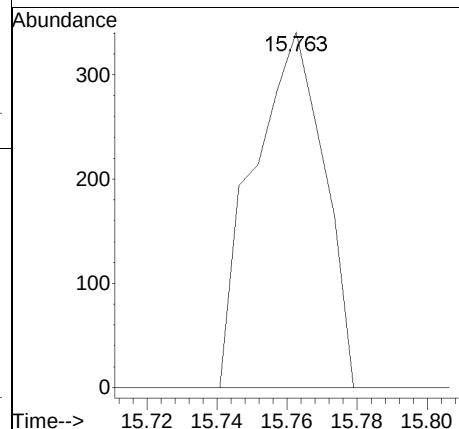
86 0.0 41.7 86.7#

49 223.5 89.1 185.1#





#110
 Naphthalene
 Concen: 0.08 ug/L
 RT: 15.763 min Scan# 2653
 Delta R.T. 0.000 min
 Lab File: V01191114A07.D
 Acq: 14 Nov 2019 9:21 am
 Tgt Ion:128 Resp: 476



Manual Integration Report

Data Path : I:\VOLATILES\VOA101\2019\10 Method : V101_191107A_8260.m
Data File : V01191114A07.D Operator : VOA101:PD
Date Inj'd : 11/14/2019 9:21 am Instrument : VOA 101
Sample : l1954303-05,31,10,10,,a Quant Date : 11/14/2019 11:16 am

There are no manual integrations or false positives in this file.

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\VOA101\2019\191114A\
 Data File : V01191114A08.D
 Acq On : 14 Nov 2019 9:45 am
 Operator : VOA101:PD
 Sample : l1954303-06,31,10,10,,a
 Misc : WG1308760,ICAL16277
 ALS Vial : 9 Sample Multiplier: 1

Quant Time: Nov 14 11:18:15 2019
 Quant Method : I:\VOLATILES\VOA101\2019\191114A\V101_191107A_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Fri Nov 08 10:22:02 2019
 Response via : Initial Calibration

CCAL FILE(s) : 1 - I:\VOLATILES\VOA101\2019\191114A\V01191114A02.D
 Sub List : 8260-NYTCL - Megamix plus Diox

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

Internal Standards						
1) Fluorobenzene	6.645	96	192405	10.000	ug/L	0.00
Standard Area 1 = 199922			Recovery	=	96.24%	
59) Chlorobenzene-d5	10.535	117	133920	10.000	ug/L	0.00
Standard Area 1 = 138066			Recovery	=	97.00%	
79) 1,4-Dichlorobenzene-d4	13.334	152	62937	10.000	ug/L	0.00
Standard Area 1 = 65641			Recovery	=	95.88%	
System Monitoring Compounds						
36) Dibromofluoromethane	5.750	113	47436	9.739	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery	=	97.39%	
43) 1,2-Dichloroethane-d4	6.334	65	56503	10.507	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery	=	105.07%	
60) Toluene-d8	8.511	98	191842	10.651	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery	=	106.51%	
83) 4-Bromofluorobenzene	12.041	95	68448	10.514	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery	=	105.14%	
Target Compounds						
2) Dichlorodifluoromethane	0.000		0		N.D.	
3) Chloromethane	0.000		0		N.D.	
4) Vinyl chloride	0.000		0		N.D.	
5) Bromomethane	0.000		0		N.D.	
6) Chloroethane	0.000		0		N.D.	
7) Trichlorofluoromethane	0.000		0		N.D.	
8) Ethyl ether	0.000		0		N.D.	
10) 1,1-Dichloroethene	0.000		0		N.D.	
11) Carbon disulfide	3.327	76	378		N.D.	
15) Methylene chloride	0.000		0		N.D.	
17) Acetone	0.000		0		N.D.	d
18) trans-1,2-Dichloroethene	0.000		0		N.D.	
20) Methyl tert-butyl ether	0.000		0		N.D.	
23) 1,1-Dichloroethane	0.000		0		N.D.	
25) Acrylonitrile	0.000		0		N.D.	
27) Vinyl acetate	0.000		0		N.D.	
28) cis-1,2-Dichloroethene	0.000		0		N.D.	
29) 2,2-Dichloropropane	0.000		0		N.D.	
30) Bromochloromethane	0.000		0		N.D.	
32) Chloroform	0.000		0		N.D.	

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\VOA101\2019\191114A\
 Data File : V01191114A08.D
 Acq On : 14 Nov 2019 9:45 am
 Operator : VOA101:PD
 Sample : 11954303-06,31,10,10,,a
 Misc : WG1308760,ICAL16277
 ALS Vial : 9 Sample Multiplier: 1

Quant Time: Nov 14 11:18:15 2019
 Quant Method : I:\VOLATILES\VOA101\2019\191114A\V101_191107A_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Fri Nov 08 10:22:02 2019
 Response via : Initial Calibration

CCAL FILE(s) : 1 - I:\VOLATILES\VOA101\2019\191114A\V01191114A02.D
 Sub List : 8260-NYTCL - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
34) Carbon tetrachloride	0.000		0		N.D.	
37) 1,1,1-Trichloroethane	0.000		0		N.D.	
39) 2-Butanone	0.000		0		N.D.	
40) 1,1-Dichloropropene	0.000		0		N.D.	
41) Benzene	0.000		0		N.D.	
44) 1,2-Dichloroethane	0.000		0		N.D.	
48) Trichloroethene	0.000		0		N.D.	
50) Dibromomethane	0.000		0		N.D.	
51) 1,2-Dichloropropane	0.000		0		N.D.	
54) Bromodichloromethane	0.000		0		N.D.	
57) 1,4-Dioxane	0.000		0		N.D.	
58) cis-1,3-Dichloropropene	0.000		0		N.D.	
61) Toluene	0.000		0		N.D.	
62) 4-Methyl-2-pentanone	0.000		0		N.D.	
63) Tetrachloroethene	0.000		0		N.D.	
65) trans-1,3-Dichloropropene	0.000		0		N.D.	
68) 1,1,2-Trichloroethane	0.000		0		N.D.	
69) Chlorodibromomethane	0.000		0		N.D.	
70) 1,3-Dichloropropane	0.000		0		N.D.	
71) 1,2-Dibromoethane	0.000		0		N.D.	
72) 2-Hexanone	0.000		0		N.D.	
73) Chlorobenzene	0.000		0		N.D.	
74) Ethylbenzene	0.000		0		N.D.	
75) 1,1,1,2-Tetrachloroethane	0.000		0		N.D.	
76) p/m Xylene	0.000		0		N.D.	
77) o Xylene	0.000		0		N.D.	
78) Styrene	0.000		0		N.D.	
80) Bromoform	0.000		0		N.D.	
82) Isopropylbenzene	0.000		0		N.D.	
84) Bromobenzene	0.000		0		N.D.	
85) n-Propylbenzene	0.000		0		N.D.	
87) 1,1,2,2-Tetrachloroethane	0.000		0		N.D.	
88) 4-Ethyltoluene	0.000		0		N.D.	
89) 2-Chlorotoluene	0.000		0		N.D.	
90) 1,3,5-Trimethylbenzene	0.000		0		N.D.	
91) 1,2,3-Trichloropropane	0.000		0		N.D.	
92) trans-1,4-Dichloro-2-b...	0.000		0		N.D.	
93) 4-Chlorotoluene	0.000		0		N.D.	
94) tert-Butylbenzene	0.000		0		N.D.	

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\VOA101\2019\191114A\
 Data File : V01191114A08.D
 Acq On : 14 Nov 2019 9:45 am
 Operator : VOA101:PD
 Sample : l1954303-06,31,10,10,,a
 Misc : WG1308760,ICAL16277
 ALS Vial : 9 Sample Multiplier: 1

Quant Time: Nov 14 11:18:15 2019
 Quant Method : I:\VOLATILES\VOA101\2019\191114A\V101_191107A_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Fri Nov 08 10:22:02 2019
 Response via : Initial Calibration

CCAL FILE(s) : 1 - I:\VOLATILES\VOA101\2019\191114A\V01191114A02.D
 Sub List : 8260-NYTCL - Megamix plus Diox

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

97)	1,2,4-Trimethylbenzene	0.000		0		N.D.	
98)	sec-Butylbenzene	0.000		0		N.D.	
99)	p-Isopropyltoluene	0.000		0		N.D.	
100)	1,3-Dichlorobenzene	0.000		0		N.D.	
101)	1,4-Dichlorobenzene	0.000		0		N.D.	
102)	p-Diethylbenzene	0.000		0		N.D.	
103)	n-Butylbenzene	13.624	91	162		N.D.	
104)	1,2-Dichlorobenzene	0.000		0		N.D.	
105)	1,2,4,5-Tetramethylben...	0.000		0		N.D.	
106)	1,2-Dibromo-3-chloropr...	0.000		0		N.D.	
108)	Hexachlorobutadiene	0.000		0		N.D.	
109)	1,2,4-Trichlorobenzene	0.000		0		N.D.	
110)	Naphthalene	15.757	128	503	0.081	ug/L	100
111)	1,2,3-Trichlorobenzene	0.000		0		N.D.	

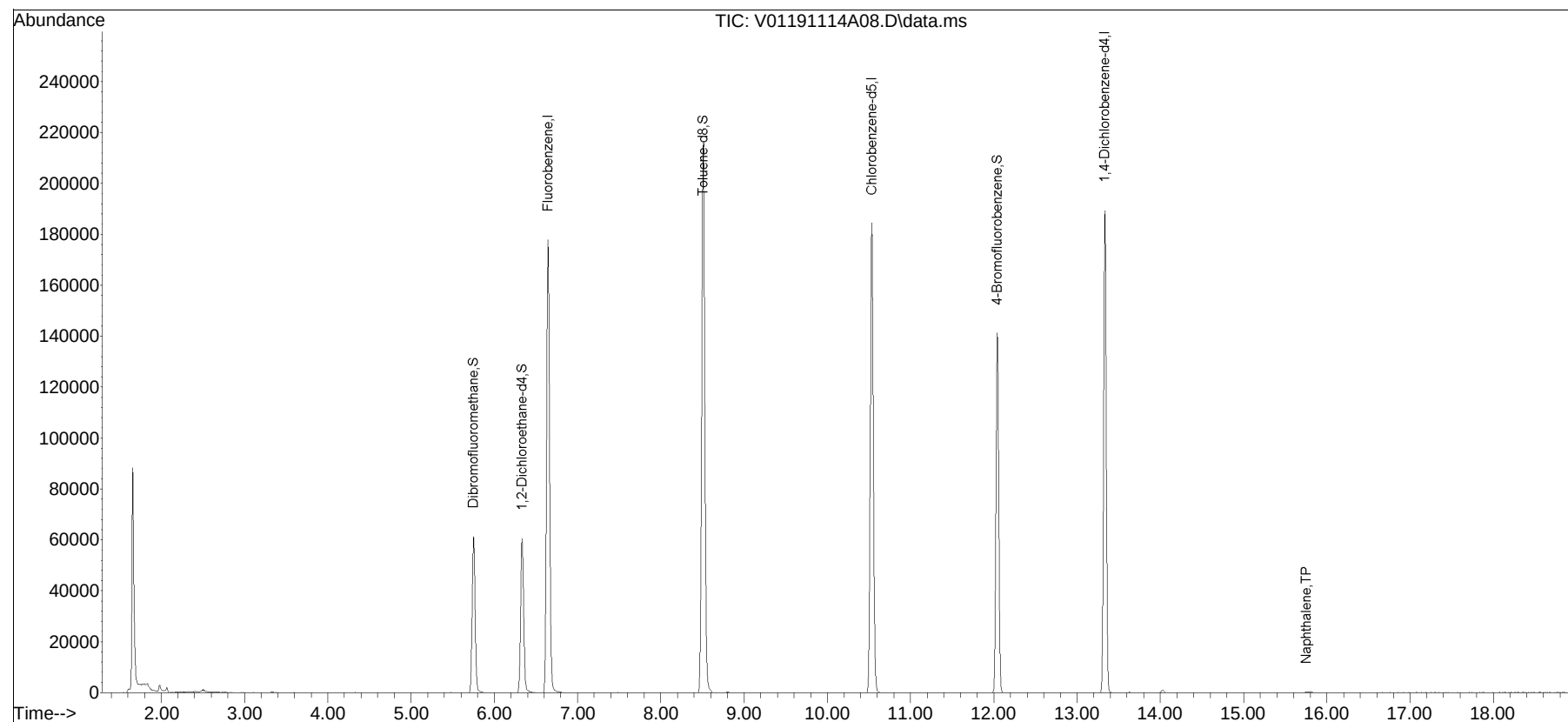
(#) = qualifier out of range (m) = manual integration (+) = signals summed

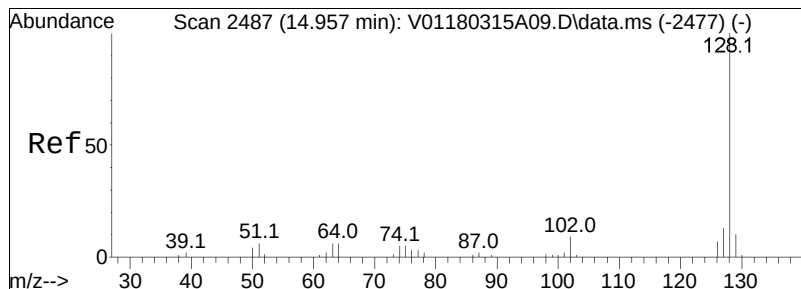
Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\VOA101\2019\191114A\
 Data File : V01191114A08.D
 Acq On : 14 Nov 2019 9:45 am
 Operator : VOA101:PD
 Sample : l1954303-06,31,10,10,,a
 Misc : WG1308760,ICAL16277
 ALS Vial : 9 Sample Multiplier: 1

Quant Time: Nov 14 11:18:15 2019
 Quant Method : I:\VOLATILES\VOA101\2019\191114A\V101_191107A_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Fri Nov 08 10:22:02 2019
 Response via : Initial Calibration

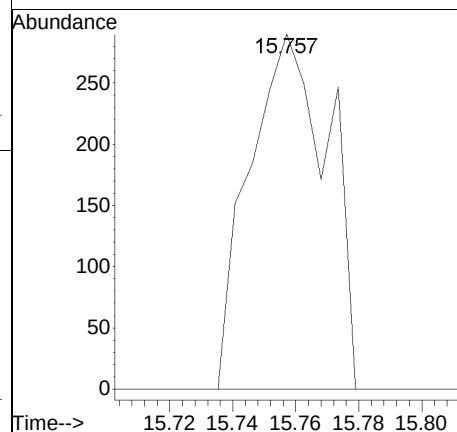
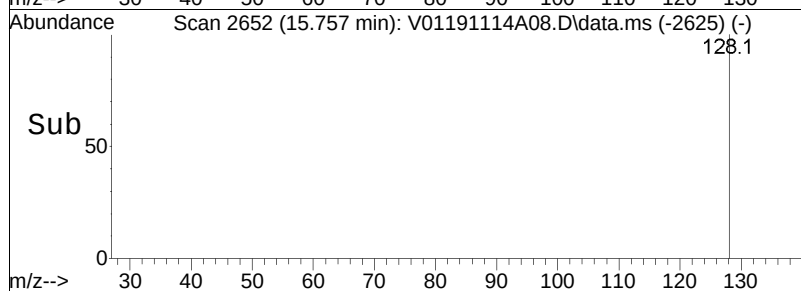
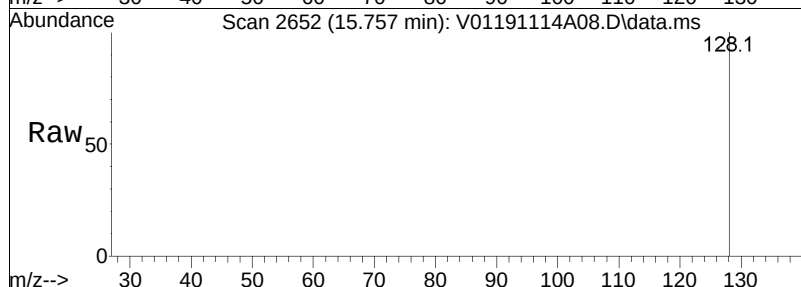
Sub List : 8260-NYTCL - Megamix plus Diox91114A\V01191114A02.D•





#110
Naphthalene
Concen: 0.08 ug/L
RT: 15.757 min Scan# 2652
Delta R.T. -0.005 min
Lab File: V01191114A08.D
Acq: 14 Nov 2019 9:45 am

Tgt Ion:128 Resp: 503



Manual Integration Report

Data Path : I:\VOLATILES\VOA101\2019\10 Method : V101_191107A_8260.m
Data File : V01191114A08.D Operator : VOA101:PD
Date Inj'd : 11/14/2019 9:45 am Instrument : VOA 101
Sample : l1954303-06,31,10,10,,a Quant Date : 11/14/2019 11:16 am

There are no manual integrations or false positives in this file.

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\VOA101\2019\191114A\
 Data File : V01191114A09.D
 Acq On : 14 Nov 2019 10:09 am
 Operator : VOA101:PD
 Sample : l1954303-01,31,10,10,,a
 Misc : WG1308760,ICAL16277
 ALS Vial : 10 Sample Multiplier: 1

Quant Time: Nov 14 11:17:09 2019
 Quant Method : I:\VOLATILES\VOA101\2019\191114A\V101_191107A_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Fri Nov 08 10:22:02 2019
 Response via : Initial Calibration

CCAL FILE(s) : 1 - I:\VOLATILES\VOA101\2019\191114A\V01191114A02.D
 Sub List : 8260-NYTCL - Megamix plus Diox

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

Internal Standards						
1) Fluorobenzene	6.645	96	189789	10.000	ug/L	0.00
Standard Area 1 = 199922			Recovery =	94.93%		
59) Chlorobenzene-d5	10.535	117	131765	10.000	ug/L	0.00
Standard Area 1 = 138066			Recovery =	95.44%		
79) 1,4-Dichlorobenzene-d4	13.335	152	63092	10.000	ug/L	0.00
Standard Area 1 = 65641			Recovery =	96.12%		
System Monitoring Compounds						
36) Dibromofluoromethane	5.750	113	47205	9.825	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	98.25%		
43) 1,2-Dichloroethane-d4	6.334	65	55969	10.551	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	105.51%		
60) Toluene-d8	8.506	98	190673	10.759	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	107.59%		
83) 4-Bromofluorobenzene	12.041	95	67902	10.405	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	104.05%		
Target Compounds						
2) Dichlorodifluoromethane	0.000		0	N.D.		
3) Chloromethane	0.000		0	N.D.		
4) Vinyl chloride	2.127	62	302	N.D.		
5) Bromomethane	0.000		0	N.D.		
6) Chloroethane	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000		0	N.D.		
8) Ethyl ether	0.000		0	N.D.		
10) 1,1-Dichloroethene	0.000		0	N.D.		
11) Carbon disulfide	3.338	76	340	N.D.		
15) Methylene chloride	0.000		0	N.D.		
17) Acetone	0.000		0	N.D.		
18) trans-1,2-Dichloroethene	0.000		0	N.D.		
20) Methyl tert-butyl ether	4.162	73	2028	0.224	ug/L #	91
23) 1,1-Dichloroethane	0.000		0	N.D.		
25) Acrylonitrile	0.000		0	N.D.		
27) Vinyl acetate	0.000		0	N.D.		
28) cis-1,2-Dichloroethene	5.270	96	16475	3.223	ug/L #	81
29) 2,2-Dichloropropane	0.000		0	N.D.		
30) Bromochloromethane	0.000		0	N.D.		
32) Chloroform	5.559	83	1216	0.144	ug/L #	88

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\VOA101\2019\191114A\
 Data File : V01191114A09.D
 Acq On : 14 Nov 2019 10:09 am
 Operator : VOA101:PD
 Sample : 11954303-01,31,10,10,,a
 Misc : WG1308760,ICAL16277
 ALS Vial : 10 Sample Multiplier: 1

Quant Time: Nov 14 11:17:09 2019
 Quant Method : I:\VOLATILES\VOA101\2019\191114A\V101_191107A_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Fri Nov 08 10:22:02 2019
 Response via : Initial Calibration

CCAL FILE(s) : 1 - I:\VOLATILES\VOA101\2019\191114A\V01191114A02.D
 Sub List : 8260-NYTCL - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
34) Carbon tetrachloride	0.000		0		N.D.	
37) 1,1,1-Trichloroethane	0.000		0		N.D.	
39) 2-Butanone	0.000		0		N.D.	
40) 1,1-Dichloropropene	0.000		0		N.D.	
41) Benzene	6.187	78	1224		N.D.	
44) 1,2-Dichloroethane	0.000		0		N.D.	
48) Trichloroethene	6.841	95	2135	0.453	ug/L	95
50) Dibromomethane	0.000		0		N.D.	
51) 1,2-Dichloropropane	0.000		0		N.D.	
54) Bromodichloromethane	0.000		0		N.D.	
57) 1,4-Dioxane	0.000		0		N.D.	
58) cis-1,3-Dichloropropene	0.000		0		N.D.	
61) Toluene	0.000		0		N.D.	
62) 4-Methyl-2-pentanone	0.000		0		N.D.	
63) Tetrachloroethene	9.073	166	2683	0.702	ug/L	91
65) trans-1,3-Dichloropropene	0.000		0		N.D.	
68) 1,1,2-Trichloroethane	0.000		0		N.D.	
69) Chlorodibromomethane	0.000		0		N.D.	
70) 1,3-Dichloropropane	0.000		0		N.D.	
71) 1,2-Dibromoethane	0.000		0		N.D.	
72) 2-Hexanone	0.000		0		N.D.	
73) Chlorobenzene	10.552	112	437		N.D.	
74) Ethylbenzene	10.541	91	52		N.D.	
75) 1,1,1,2-Tetrachloroethane	0.000		0		N.D.	
76) p/m Xylene	0.000		0		N.D.	
77) o Xylene	0.000		0		N.D.	
78) Styrene	0.000		0		N.D.	
80) Bromoform	0.000		0		N.D.	
82) Isopropylbenzene	0.000		0		N.D.	
84) Bromobenzene	0.000		0		N.D.	
85) n-Propylbenzene	0.000		0		N.D.	
87) 1,1,2,2-Tetrachloroethane	0.000		0		N.D.	
88) 4-Ethyltoluene	0.000		0		N.D.	
89) 2-Chlorotoluene	0.000		0		N.D.	
90) 1,3,5-Trimethylbenzene	0.000		0		N.D.	
91) 1,2,3-Trichloropropane	0.000		0		N.D.	
92) trans-1,4-Dichloro-2-b...	0.000		0		N.D.	
93) 4-Chlorotoluene	0.000		0		N.D.	
94) tert-Butylbenzene	0.000		0		N.D.	

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\VOA101\2019\191114A\
 Data File : V01191114A09.D
 Acq On : 14 Nov 2019 10:09 am
 Operator : VOA101:PD
 Sample : l1954303-01,31,10,10,,a
 Misc : WG1308760,ICAL16277
 ALS Vial : 10 Sample Multiplier: 1

Quant Time: Nov 14 11:17:09 2019
 Quant Method : I:\VOLATILES\VOA101\2019\191114A\V101_191107A_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Fri Nov 08 10:22:02 2019
 Response via : Initial Calibration

CCAL FILE(s) : 1 - I:\VOLATILES\VOA101\2019\191114A\V01191114A02.D
 Sub List : 8260-NYTCL - Megamix plus Diox

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
97)	1,2,4-Trimethylbenzene	0.000		0		N.D.	
98)	sec-Butylbenzene	0.000		0		N.D.	
99)	p-Isopropyltoluene	0.000		0		N.D.	
100)	1,3-Dichlorobenzene	0.000		0		N.D.	
101)	1,4-Dichlorobenzene	0.000		0		N.D.	
102)	p-Diethylbenzene	0.000		0		N.D.	
103)	n-Butylbenzene	13.629	91	123		N.D.	
104)	1,2-Dichlorobenzene	0.000		0		N.D.	
105)	1,2,4,5-Tetramethylben...	0.000		0		N.D.	
106)	1,2-Dibromo-3-chloropr...	0.000		0		N.D.	
108)	Hexachlorobutadiene	0.000		0		N.D.	
109)	1,2,4-Trichlorobenzene	0.000		0		N.D.	
110)	Naphthalene	15.757	128	131		N.D.	
111)	1,2,3-Trichlorobenzene	0.000		0		N.D.	

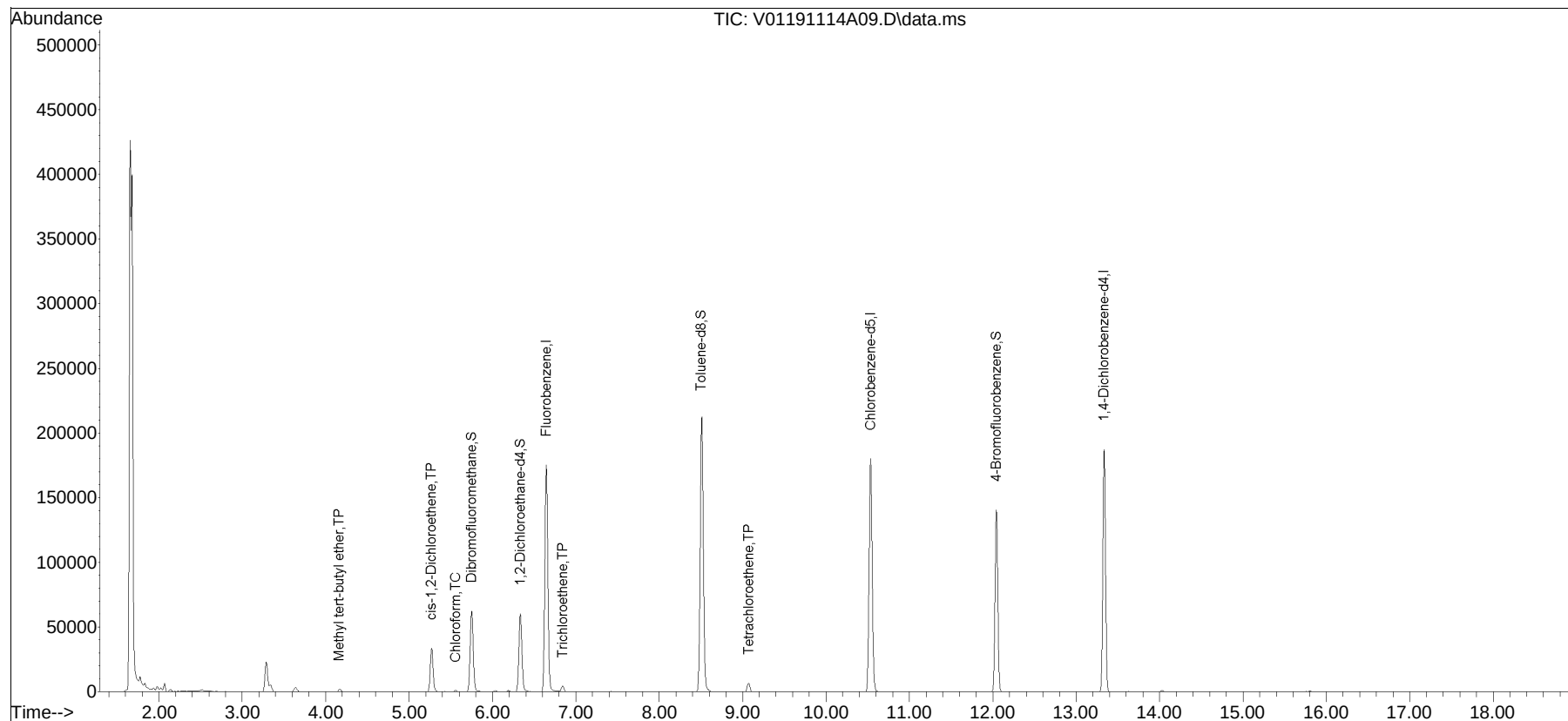
(#) = qualifier out of range (m) = manual integration (+) = signals summed

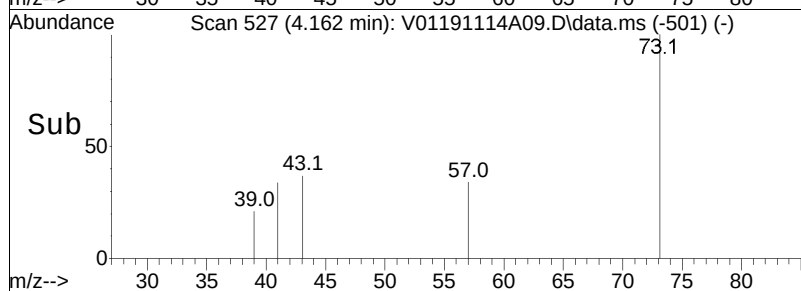
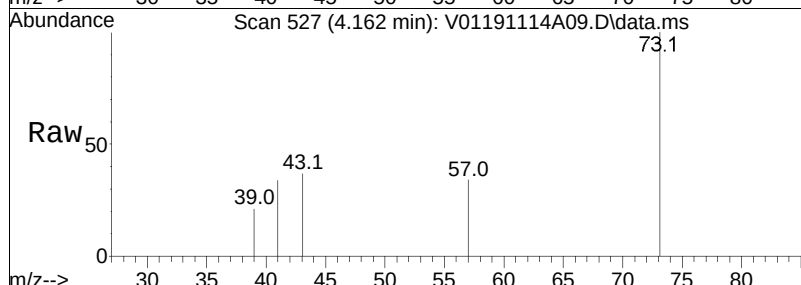
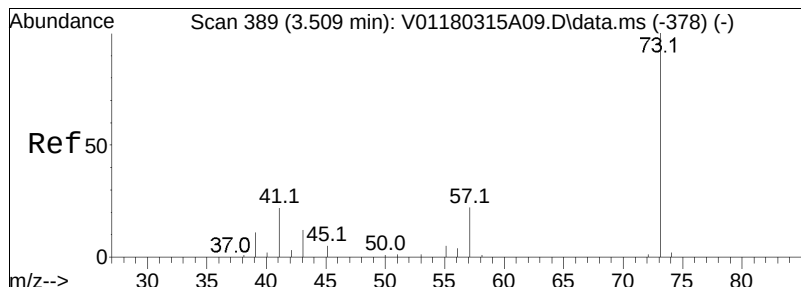
Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\VOA101\2019\191114A\
 Data File : V01191114A09.D
 Acq On : 14 Nov 2019 10:09 am
 Operator : VOA101:PD
 Sample : l1954303-01,31,10,10,,a
 Misc : WG1308760,ICAL16277
 ALS Vial : 10 Sample Multiplier: 1

Quant Time: Nov 14 11:17:09 2019
 Quant Method : I:\VOLATILES\VOA101\2019\191114A\V101_191107A_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Fri Nov 08 10:22:02 2019
 Response via : Initial Calibration

Sub List : 8260-NYTCL - Megamix plus Diox91114A\V01191114A02.D•





#20

Methyl tert-butyl ether

Concen: 0.22 ug/L

RT: 4.162 min Scan# 527

Delta R.T. -0.011 min

Lab File: V01191114A09.D

Acq: 14 Nov 2019 10:09 am

Tgt Ion: 73 Resp: 2028

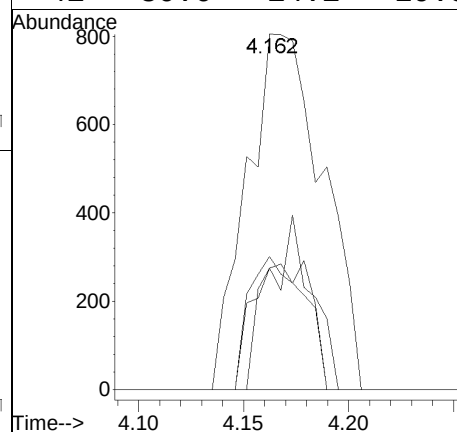
Ion Ratio Lower Upper

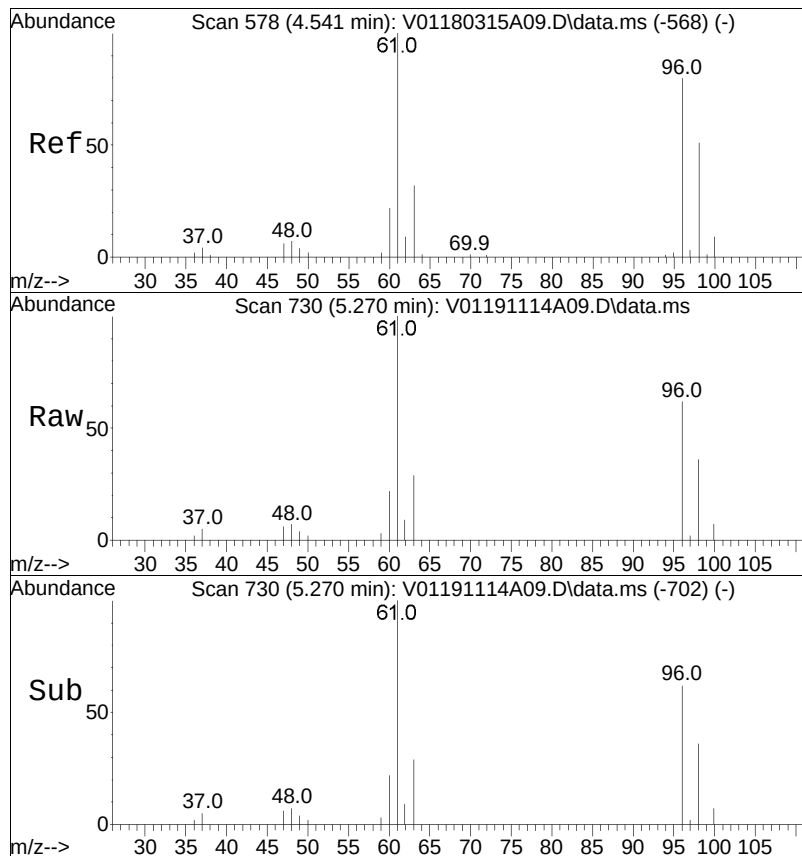
73 100

57 23.0 14.8 30.6

43 28.5 15.5 32.3

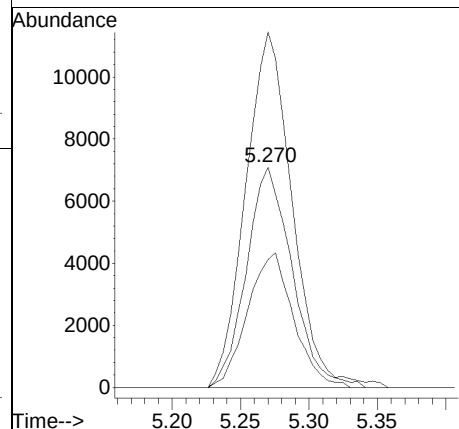
41 30.6 14.1 29.3#

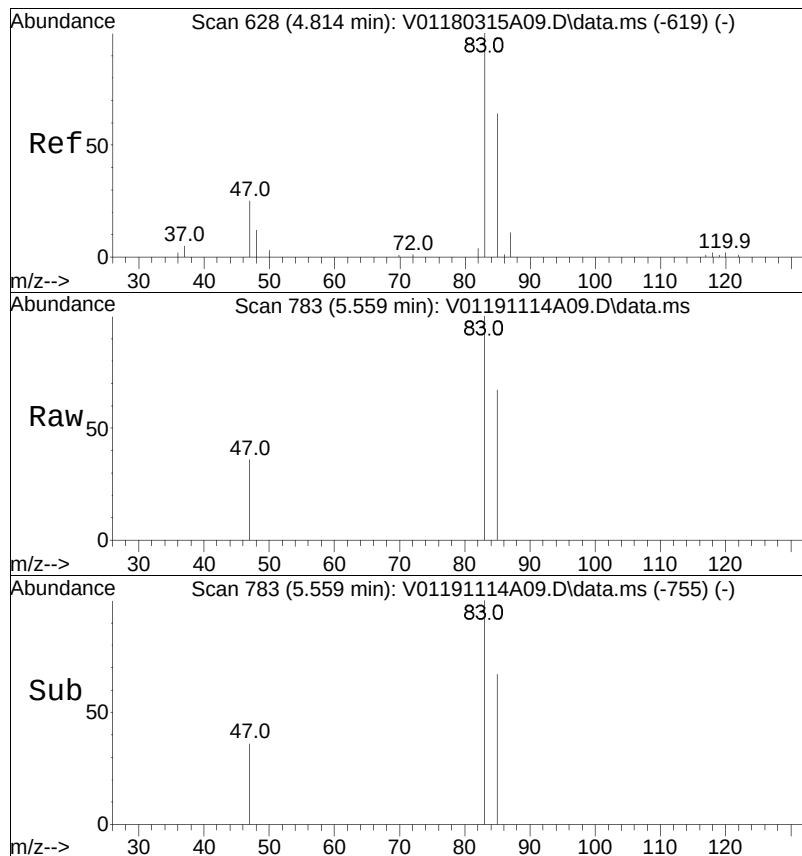




#28
 cis-1,2-Dichloroethene
 Concen: 3.22 ug/L
 RT: 5.270 min Scan# 730
 Delta R.T. 0.000 min
 Lab File: V01191114A09.D
 Acq: 14 Nov 2019 10:09 am

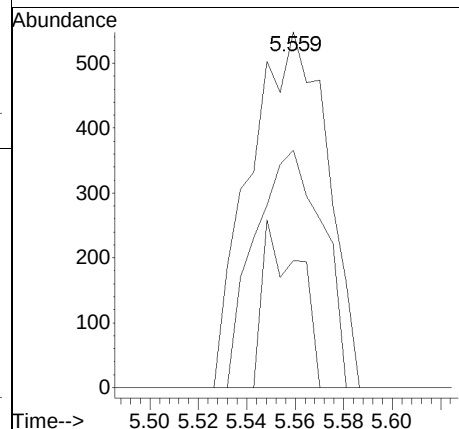
Tgt Ion:	96	Resp:	16475
Ion Ratio	Lower	Upper	
96	100		
61	164.0	105.8	158.6#
98	61.4	51.1	76.7

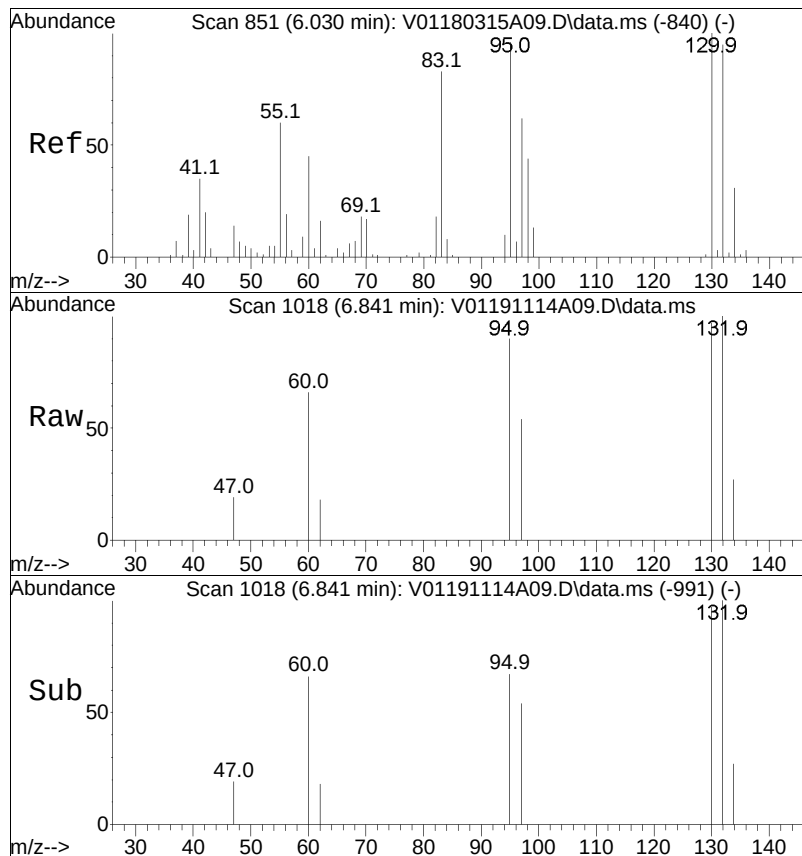




#32
 Chloroform
 Concen: 0.14 ug/L
 RT: 5.559 min Scan# 783
 Delta R.T. 0.000 min
 Lab File: V01191114A09.D
 Acq: 14 Nov 2019 10:09 am

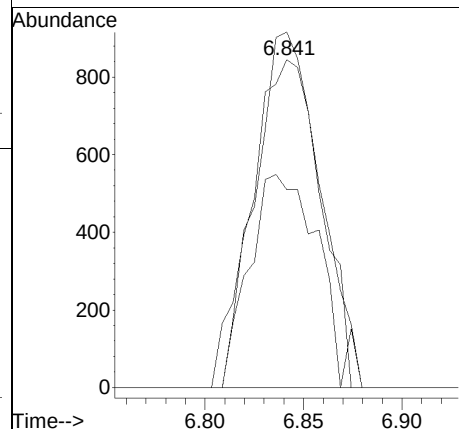
Tgt Ion:	83	Resp:	1216
Ion Ratio	Lower	Upper	
83	100		
85	58.4	42.3	87.8
47	22.0	17.8	37.0
48	0.0	9.3	19.3#

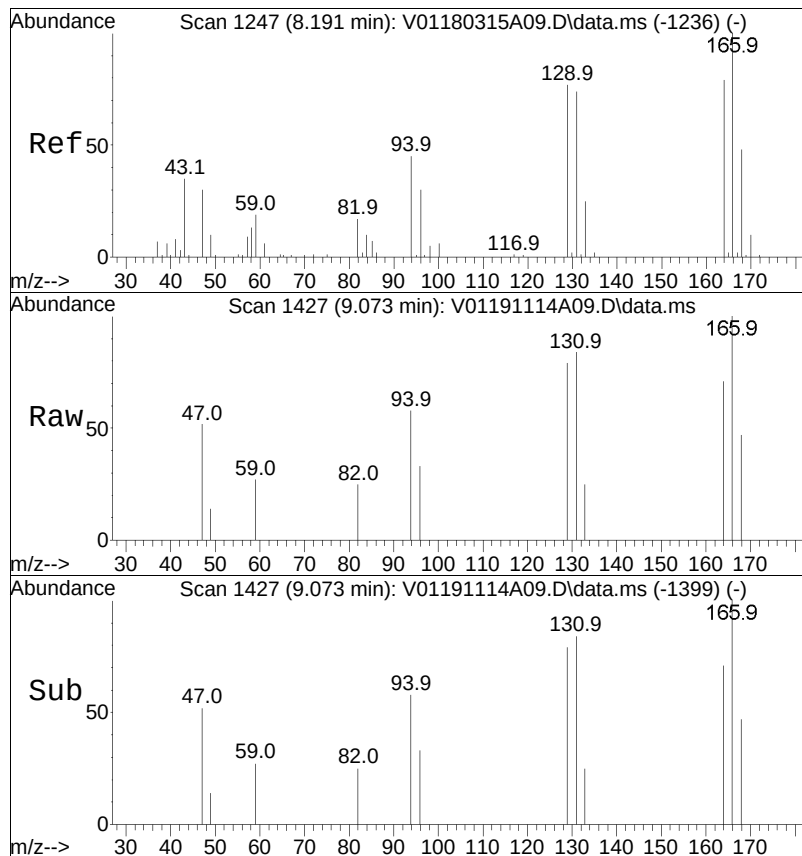




#48
 Trichloroethene
 Concen: 0.45 ug/L
 RT: 6.841 min Scan# 1018
 Delta R.T. -0.005 min
 Lab File: V01191114A09.D
 Acq: 14 Nov 2019 10:09 am

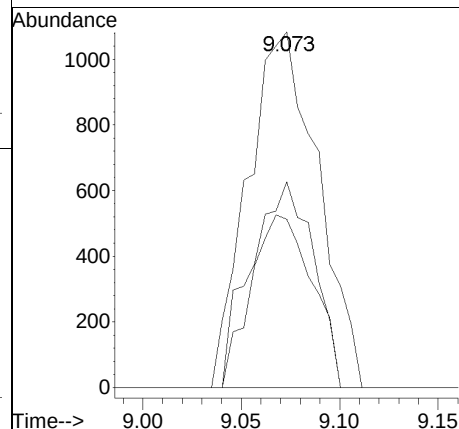
Tgt Ion:	95	Resp:	2135
Ion Ratio	Lower	Upper	
95	100		
97	63.1	54.4	81.6
130	96.1	80.6	120.8





#63
Tetrachloroethene
Concen: 0.70 ug/L
RT: 9.073 min Scan# 1427
Delta R.T. 0.000 min
Lab File: V01191114A09.D
Acq: 14 Nov 2019 10:09 am

Tgt Ion:	166	Resp:	2683
Ion Ratio	Lower	Upper	
166	100		
168	42.6	27.4	67.4
94	51.5	24.8	64.8



Manual Integration Report

Data Path : I:\VOLATILES\VOA101\2019\10 Method : V101_191107A_8260.m
Data File : V01191114A09.D Operator : VOA101:PD
Date Inj'd : 11/14/2019 10:09 am Instrument : VOA 101
Sample : l1954303-01,31,10,10,,a Quant Date : 11/14/2019 11:17 am

There are no manual integrations or false positives in this file.

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\VOA101\2019\191114A\
 Data File : V01191114A10.D
 Acq On : 14 Nov 2019 10:32 am
 Operator : VOA101:PD
 Sample : 11954303-02,31,10,10,,a
 Misc : WG1308760,ICAL16277
 ALS Vial : 10 Sample Multiplier: 1

Quant Time: Nov 14 11:17:16 2019
 Quant Method : I:\VOLATILES\VOA101\2019\191114A\V101_191107A_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Fri Nov 08 10:22:02 2019
 Response via : Initial Calibration

CCAL FILE(s) : 1 - I:\VOLATILES\VOA101\2019\191114A\V01191114A02.D
 Sub List : 8260-NYTCL - Megamix plus Diox

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

Internal Standards						
1) Fluorobenzene	6.645	96	187744	10.000	ug/L	0.00
Standard Area 1 = 199922			Recovery =	93.91%		
59) Chlorobenzene-d5	10.535	117	133496	10.000	ug/L	0.00
Standard Area 1 = 138066			Recovery =	96.69%		
79) 1,4-Dichlorobenzene-d4	13.334	152	63182	10.000	ug/L	0.00
Standard Area 1 = 65641			Recovery =	96.25%		
System Monitoring Compounds						
36) Dibromofluoromethane	5.750	113	46733	9.832	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	98.32%		
43) 1,2-Dichloroethane-d4	6.334	65	57110	10.884	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	108.84%		
60) Toluene-d8	8.511	98	189694	10.565	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	105.65%		
83) 4-Bromofluorobenzene	12.041	95	67704	10.360	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	103.60%		
Target Compounds						
2) Dichlorodifluoromethane	0.000		0	N.D.		
3) Chloromethane	0.000		0	N.D.		
4) Vinyl chloride	0.000		0	N.D.		
5) Bromomethane	0.000		0	N.D.		
6) Chloroethane	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000		0	N.D.		
8) Ethyl ether	0.000		0	N.D.		
10) 1,1-Dichloroethene	0.000		0	N.D.		
11) Carbon disulfide	3.328	76	294	N.D.		
15) Methylene chloride	0.000		0	N.D.		
17) Acetone	0.000		0	N.D.		
18) trans-1,2-Dichloroethene	0.000		0	N.D.		
20) Methyl tert-butyl ether	0.000		0	N.D.		
23) 1,1-Dichloroethane	0.000		0	N.D.		
25) Acrylonitrile	0.000		0	N.D.		
27) Vinyl acetate	0.000		0	N.D.		
28) cis-1,2-Dichloroethene	5.270	96	8076	1.597	ug/L #	79
29) 2,2-Dichloropropane	0.000		0	N.D.		
30) Bromochloromethane	0.000		0	N.D.		
32) Chloroform	5.548	83	858	0.103	ug/L #	81

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\VOA101\2019\191114A\
 Data File : V01191114A10.D
 Acq On : 14 Nov 2019 10:32 am
 Operator : VOA101:PD
 Sample : l1954303-02,31,10,10,,a
 Misc : WG1308760,ICAL16277
 ALS Vial : 10 Sample Multiplier: 1

Quant Time: Nov 14 11:17:16 2019
 Quant Method : I:\VOLATILES\VOA101\2019\191114A\V101_191107A_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Fri Nov 08 10:22:02 2019
 Response via : Initial Calibration

CCAL FILE(s) : 1 - I:\VOLATILES\VOA101\2019\191114A\V01191114A02.D
 Sub List : 8260-NYTCL - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
34) Carbon tetrachloride	0.000		0		N.D.	
37) 1,1,1-Trichloroethane	0.000		0		N.D.	
39) 2-Butanone	0.000		0		N.D.	
40) 1,1-Dichloropropene	0.000		0		N.D.	
41) Benzene	6.198	78	124		N.D.	
44) 1,2-Dichloroethane	0.000		0		N.D.	
48) Trichloroethene	6.841	95	3494	0.749	ug/L	93
50) Dibromomethane	0.000		0		N.D.	
51) 1,2-Dichloropropane	0.000		0		N.D.	
54) Bromodichloromethane	0.000		0		N.D.	
57) 1,4-Dioxane	0.000		0		N.D.	
58) cis-1,3-Dichloropropene	0.000		0		N.D.	
61) Toluene	0.000		0		N.D.	
62) 4-Methyl-2-pentanone	0.000		0		N.D.	
63) Tetrachloroethene	9.068	166	9233	2.383	ug/L	91
65) trans-1,3-Dichloropropene	0.000		0		N.D.	
68) 1,1,2-Trichloroethane	0.000		0		N.D.	
69) Chlorodibromomethane	0.000		0		N.D.	
70) 1,3-Dichloropropane	0.000		0		N.D.	
71) 1,2-Dibromoethane	0.000		0		N.D.	
72) 2-Hexanone	0.000		0		N.D.	
73) Chlorobenzene	10.552	112	686		N.D.	
74) Ethylbenzene	0.000		0		N.D.	
75) 1,1,1,2-Tetrachloroethane	0.000		0		N.D.	
76) p/m Xylene	0.000		0		N.D.	
77) o Xylene	0.000		0		N.D.	
78) Styrene	0.000		0		N.D.	
80) Bromoform	0.000		0		N.D.	
82) Isopropylbenzene	0.000		0		N.D.	
84) Bromobenzene	0.000		0		N.D.	
85) n-Propylbenzene	0.000		0		N.D.	
87) 1,1,2,2-Tetrachloroethane	0.000		0		N.D.	
88) 4-Ethyltoluene	0.000		0		N.D.	
89) 2-Chlorotoluene	0.000		0		N.D.	
90) 1,3,5-Trimethylbenzene	0.000		0		N.D.	
91) 1,2,3-Trichloropropane	0.000		0		N.D.	
92) trans-1,4-Dichloro-2-b...	0.000		0		N.D.	
93) 4-Chlorotoluene	0.000		0		N.D.	
94) tert-Butylbenzene	0.000		0		N.D.	

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\VOA101\2019\191114A\
 Data File : V01191114A10.D
 Acq On : 14 Nov 2019 10:32 am
 Operator : VOA101:PD
 Sample : l1954303-02,31,10,10,,a
 Misc : WG1308760,ICAL16277
 ALS Vial : 10 Sample Multiplier: 1

Quant Time: Nov 14 11:17:16 2019
 Quant Method : I:\VOLATILES\VOA101\2019\191114A\V101_191107A_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Fri Nov 08 10:22:02 2019
 Response via : Initial Calibration

CCAL FILE(s) : 1 - I:\VOLATILES\VOA101\2019\191114A\V01191114A02.D
 Sub List : 8260-NYTCL - Megamix plus Diox

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
97)	1,2,4-Trimethylbenzene	0.000		0		N.D.	
98)	sec-Butylbenzene	0.000		0		N.D.	
99)	p-Isopropyltoluene	13.154	119	51		N.D.	
100)	1,3-Dichlorobenzene	0.000		0		N.D.	
101)	1,4-Dichlorobenzene	0.000		0		N.D.	
102)	p-Diethylbenzene	0.000		0		N.D.	
103)	n-Butylbenzene	0.000		0		N.D.	
104)	1,2-Dichlorobenzene	0.000		0		N.D.	
105)	1,2,4,5-Tetramethylben...	0.000		0		N.D.	
106)	1,2-Dibromo-3-chloropr...	0.000		0		N.D.	
108)	Hexachlorobutadiene	0.000		0		N.D.	
109)	1,2,4-Trichlorobenzene	0.000		0		N.D.	
110)	Naphthalene	15.757	128	108		N.D.	
111)	1,2,3-Trichlorobenzene	0.000		0		N.D.	

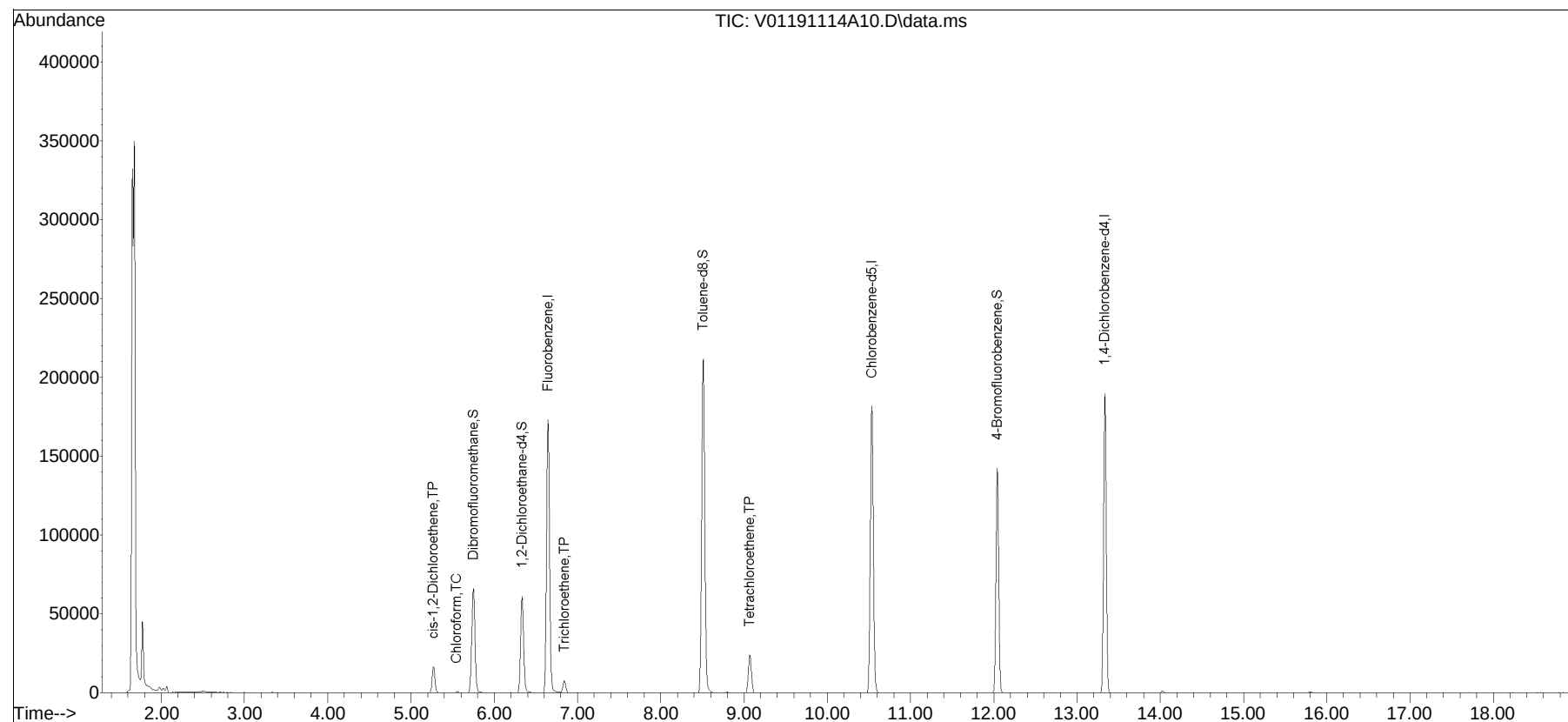
(#) = qualifier out of range (m) = manual integration (+) = signals summed

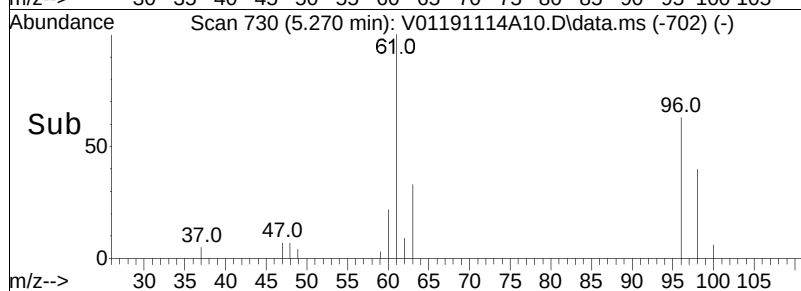
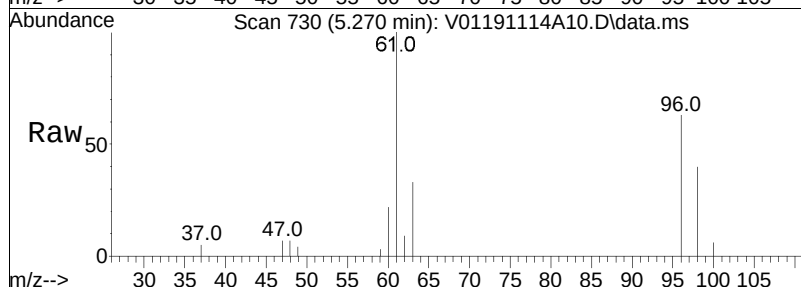
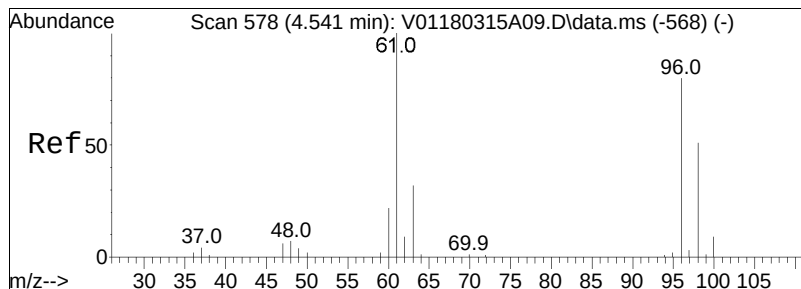
Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\VOA101\2019\191114A\
 Data File : V01191114A10.D
 Acq On : 14 Nov 2019 10:32 am
 Operator : VOA101:PD
 Sample : l1954303-02,31,10,10,,a
 Misc : WG1308760,ICAL16277
 ALS Vial : 10 Sample Multiplier: 1

Quant Time: Nov 14 11:17:16 2019
 Quant Method : I:\VOLATILES\VOA101\2019\191114A\V101_191107A_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Fri Nov 08 10:22:02 2019
 Response via : Initial Calibration

Sub List : 8260-NYTCL - Megamix plus Diox91114A\V01191114A02.D•





#28

cis-1,2-Dichloroethene

Concen: 1.60 ug/L

RT: 5.270 min Scan# 730

Delta R.T. 0.000 min

Lab File: V01191114A10.D

Acq: 14 Nov 2019 10:32 am

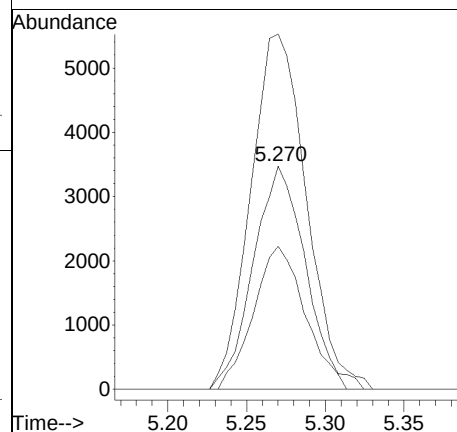
Tgt Ion: 96 Resp: 8076

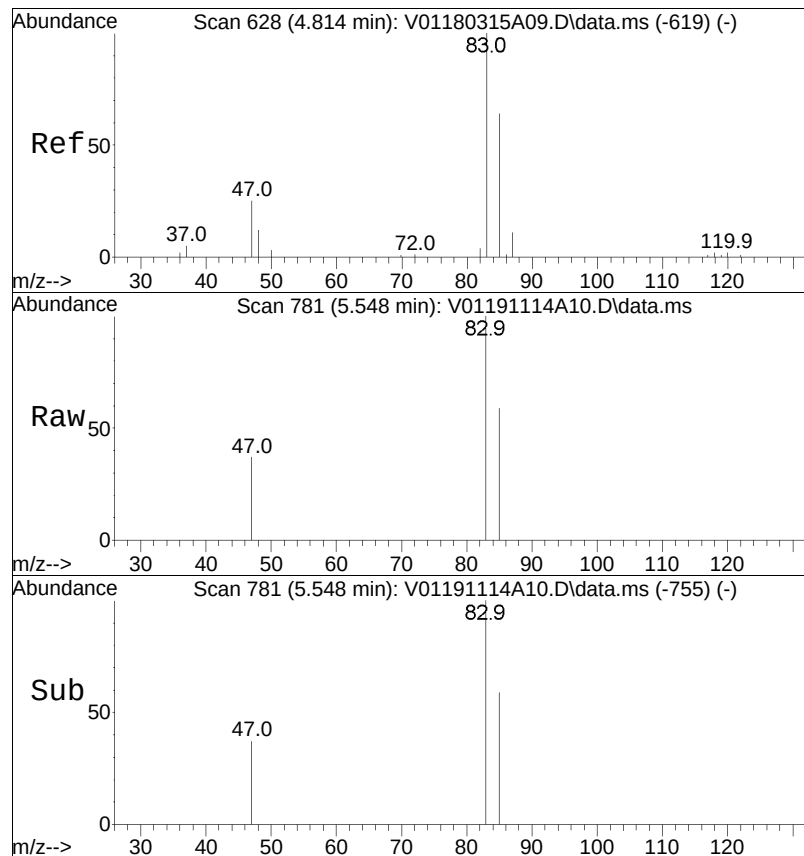
Ion Ratio Lower Upper

96 100

61 168.4 105.8 158.6#

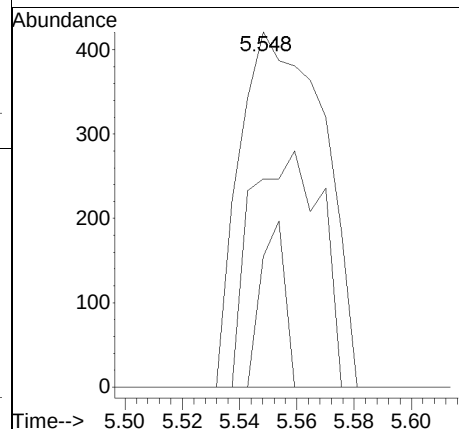
98 62.7 51.1 76.7

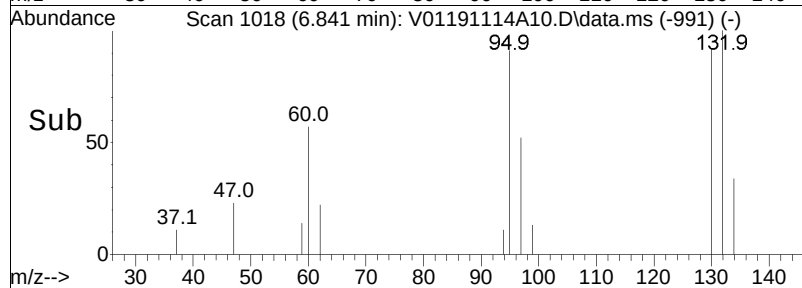
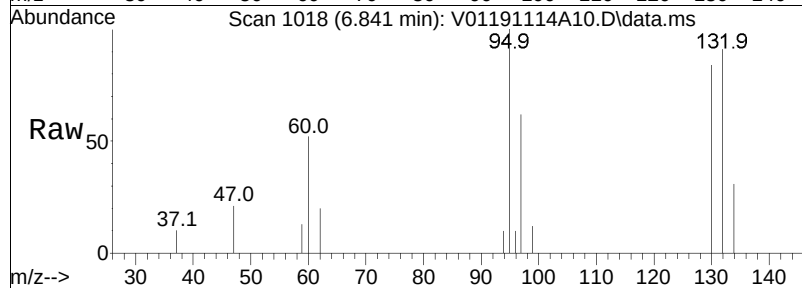
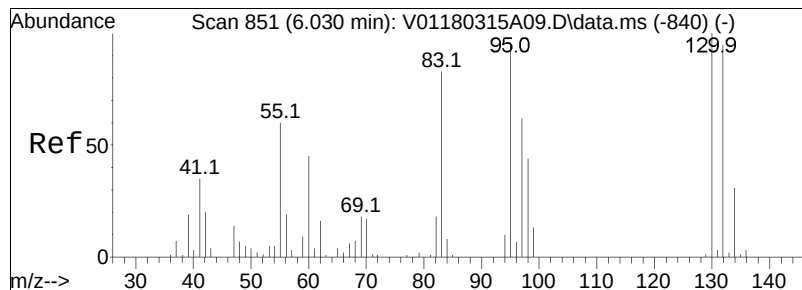




#32
 Chloroform
 Concen: 0.10 ug/L
 RT: 5.548 min Scan# 781
 Delta R.T. -0.011 min
 Lab File: V01191114A10.D
 Acq: 14 Nov 2019 10:32 am

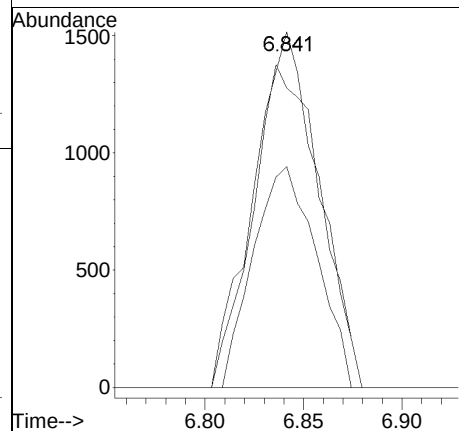
Tgt Ion:	83	Resp:	858
Ion Ratio	Lower	Upper	
83	100		
85	55.4	42.3	87.8
47	13.4	17.8	37.0#
48	0.0	9.3	19.3#

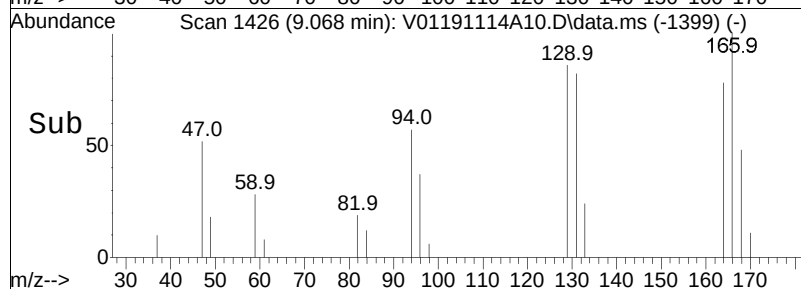
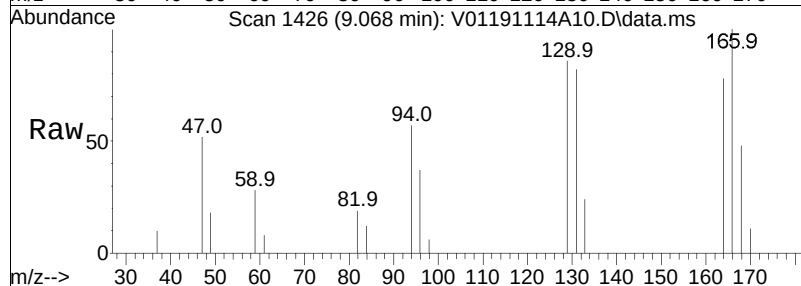
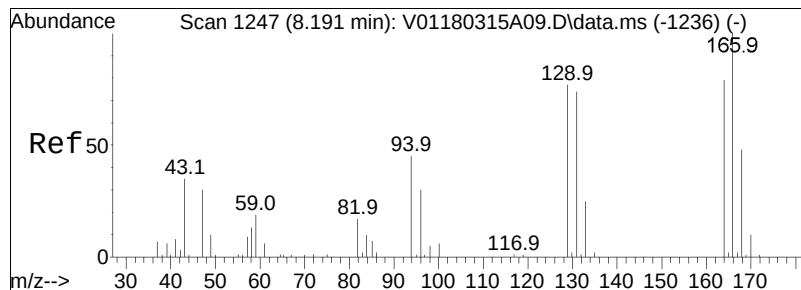




#48
 Trichloroethene
 Concen: 0.75 ug/L
 RT: 6.841 min Scan# 1018
 Delta R.T. -0.005 min
 Lab File: V01191114A10.D
 Acq: 14 Nov 2019 10:32 am

Tgt Ion	Ratio	Lower	Upper
95	100		
97	60.3	54.4	81.6
130	95.0	80.6	120.8





#63

Tetrachloroethene

Concen: 2.38 ug/L

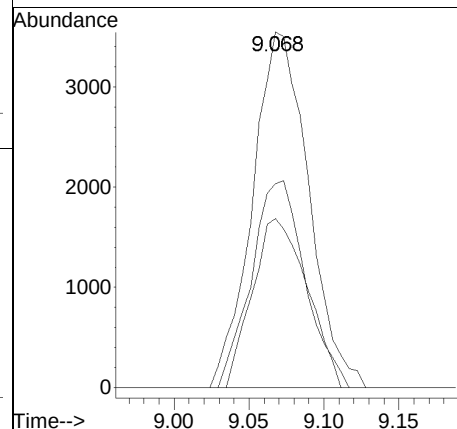
RT: 9.068 min Scan# 1426

Delta R.T. -0.005 min

Lab File: V01191114A10.D

Acq: 14 Nov 2019 10:32 am

Tgt	Ion:166	Resp:	9233
Ion	Ratio	Lower	Upper
166	100		
168	46.3	27.4	67.4
94	55.6	24.8	64.8



Manual Integration Report

Data Path : I:\VOLATILES\VOA101\2019\10 Method : V101_191107A_8260.m
Data File : V01191114A10.D Operator : VOA101:PD
Date Inj'd : 11/14/2019 10:32 am Instrument : VOA 101
Sample : l1954303-02,31,10,10,,a Quant Date : 11/14/2019 11:17 am

There are no manual integrations or false positives in this file.

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\VOA101\2019\191114A\
 Data File : V01191114A11.D
 Acq On : 14 Nov 2019 10:56 am
 Operator : VOA101:PD
 Sample : l1954303-03,31,10,10,,a
 Misc : WG1308760,ICAL16277
 ALS Vial : 11 Sample Multiplier: 1

Quant Time: Nov 14 11:18:59 2019
 Quant Method : I:\VOLATILES\VOA101\2019\191114A\V101_191107A_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Fri Nov 08 10:22:02 2019
 Response via : Initial Calibration

CCAL FILE(s) : 1 - I:\VOLATILES\VOA101\2019\191114A\V01191114A02.D
 Sub List : 8260-NYTCL - Megamix plus Diox

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

Internal Standards						
1) Fluorobenzene	6.645	96	190219	10.000	ug/L	0.00
Standard Area 1 = 199922			Recovery =	95.15%		
59) Chlorobenzene-d5	10.535	117	131626	10.000	ug/L	0.00
Standard Area 1 = 138066			Recovery =	95.34%		
79) 1,4-Dichlorobenzene-d4	13.334	152	62395	10.000	ug/L	0.00
Standard Area 1 = 65641			Recovery =	95.05%		
System Monitoring Compounds						
36) Dibromofluoromethane	5.750	113	46350	9.625	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	96.25%		
43) 1,2-Dichloroethane-d4	6.334	65	55785	10.493	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	104.93%		
60) Toluene-d8	8.511	98	189798	10.721	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	107.21%		
83) 4-Bromofluorobenzene	12.041	95	67465	10.453	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	104.53%		
Target Compounds						Qvalue
2) Dichlorodifluoromethane	0.000		0	N.D.		
3) Chloromethane	2.040	50	54	N.D.		
4) Vinyl chloride	0.000		0	N.D.		
5) Bromomethane	0.000		0	N.D.		
6) Chloroethane	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000		0	N.D.		
8) Ethyl ether	0.000		0	N.D.		
10) 1,1-Dichloroethene	0.000		0	N.D.		
11) Carbon disulfide	3.333	76	374	N.D.		
15) Methylene chloride	0.000		0	N.D.		
17) Acetone	0.000		0	N.D.	d	
18) trans-1,2-Dichloroethene	0.000		0	N.D.		
20) Methyl tert-butyl ether	4.173	73	2339	0.257	ug/L #	88
23) 1,1-Dichloroethane	0.000		0	N.D.		
25) Acrylonitrile	0.000		0	N.D.		
27) Vinyl acetate	0.000		0	N.D.		
28) cis-1,2-Dichloroethene	5.275	96	7361	1.437	ug/L #	77
29) 2,2-Dichloropropane	0.000		0	N.D.		
30) Bromochloromethane	0.000		0	N.D.		
32) Chloroform	5.559	83	3383	0.401	ug/L #	93

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\VOA101\2019\191114A\
 Data File : V01191114A11.D
 Acq On : 14 Nov 2019 10:56 am
 Operator : VOA101:PD
 Sample : l1954303-03,31,10,10,,a
 Misc : WG1308760,ICAL16277
 ALS Vial : 11 Sample Multiplier: 1

Quant Time: Nov 14 11:18:59 2019
 Quant Method : I:\VOLATILES\VOA101\2019\191114A\V101_191107A_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Fri Nov 08 10:22:02 2019
 Response via : Initial Calibration

CCAL FILE(s) : 1 - I:\VOLATILES\VOA101\2019\191114A\V01191114A02.D
 Sub List : 8260-NYTCL - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
34) Carbon tetrachloride	0.000		0		N.D.	
37) 1,1,1-Trichloroethane	0.000		0		N.D.	
39) 2-Butanone	0.000		0		N.D.	
40) 1,1-Dichloropropene	0.000		0		N.D.	
41) Benzene	6.187	78	796		N.D.	
44) 1,2-Dichloroethane	0.000		0		N.D.	
48) Trichloroethene	6.841	95	5418	1.146	ug/L	94
50) Dibromomethane	0.000		0		N.D.	
51) 1,2-Dichloropropane	0.000		0		N.D.	
54) Bromodichloromethane	0.000		0		N.D.	
57) 1,4-Dioxane	0.000		0		N.D.	
58) cis-1,3-Dichloropropene	0.000		0		N.D.	
61) Toluene	0.000		0		N.D.	
62) 4-Methyl-2-pentanone	0.000		0		N.D.	
63) Tetrachloroethene	9.067	166	17628	4.614	ug/L	92
65) trans-1,3-Dichloropropene	0.000		0		N.D.	
68) 1,1,2-Trichloroethane	0.000		0		N.D.	
69) Chlorodibromomethane	0.000		0		N.D.	
70) 1,3-Dichloropropane	0.000		0		N.D.	
71) 1,2-Dibromoethane	0.000		0		N.D.	
72) 2-Hexanone	0.000		0		N.D.	
73) Chlorobenzene	10.557	112	1048	0.101	ug/L #	1
74) Ethylbenzene	0.000		0		N.D.	
75) 1,1,1,2-Tetrachloroethane	0.000		0		N.D.	
76) p/m Xylene	0.000		0		N.D.	
77) o Xylene	0.000		0		N.D.	
78) Styrene	0.000		0		N.D.	
80) Bromoform	0.000		0		N.D.	
82) Isopropylbenzene	0.000		0		N.D.	
84) Bromobenzene	0.000		0		N.D.	
85) n-Propylbenzene	0.000		0		N.D.	
87) 1,1,2,2-Tetrachloroethane	0.000		0		N.D.	
88) 4-Ethyltoluene	0.000		0		N.D.	
89) 2-Chlorotoluene	0.000		0		N.D.	
90) 1,3,5-Trimethylbenzene	0.000		0		N.D.	
91) 1,2,3-Trichloropropane	0.000		0		N.D.	
92) trans-1,4-Dichloro-2-b...	0.000		0		N.D.	
93) 4-Chlorotoluene	0.000		0		N.D.	
94) tert-Butylbenzene	0.000		0		N.D.	

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\VOA101\2019\191114A\
 Data File : V01191114A11.D
 Acq On : 14 Nov 2019 10:56 am
 Operator : VOA101:PD
 Sample : l1954303-03,31,10,10,,a
 Misc : WG1308760,ICAL16277
 ALS Vial : 11 Sample Multiplier: 1

Quant Time: Nov 14 11:18:59 2019
 Quant Method : I:\VOLATILES\VOA101\2019\191114A\V101_191107A_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Fri Nov 08 10:22:02 2019
 Response via : Initial Calibration

CCAL FILE(s) : 1 - I:\VOLATILES\VOA101\2019\191114A\V01191114A02.D
 Sub List : 8260-NYTCL - Megamix plus Diox

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

97)	1,2,4-Trimethylbenzene	0.000		0		N.D.	
98)	sec-Butylbenzene	0.000		0		N.D.	
99)	p-Isopropyltoluene	0.000		0		N.D.	
100)	1,3-Dichlorobenzene	0.000		0		N.D.	
101)	1,4-Dichlorobenzene	0.000		0		N.D.	
102)	p-Diethylbenzene	0.000		0		N.D.	
103)	n-Butylbenzene	0.000		0		N.D.	
104)	1,2-Dichlorobenzene	0.000		0		N.D.	
105)	1,2,4,5-Tetramethylben...	0.000		0		N.D.	
106)	1,2-Dibromo-3-chloropr...	0.000		0		N.D.	
108)	Hexachlorobutadiene	0.000		0		N.D.	
109)	1,2,4-Trichlorobenzene	0.000		0		N.D.	
110)	Naphthalene	0.000		0		N.D.	
111)	1,2,3-Trichlorobenzene	0.000		0		N.D.	

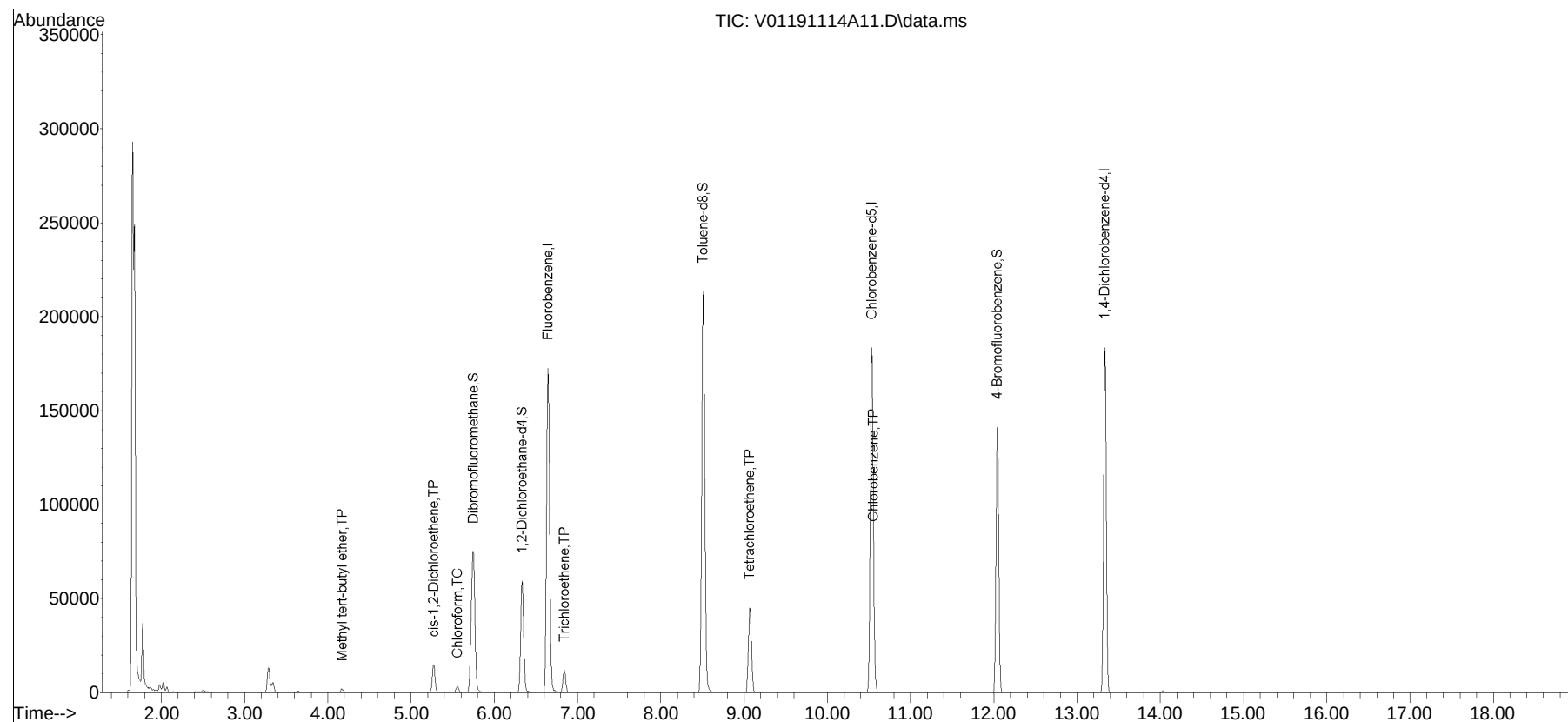
(#) = qualifier out of range (m) = manual integration (+) = signals summed

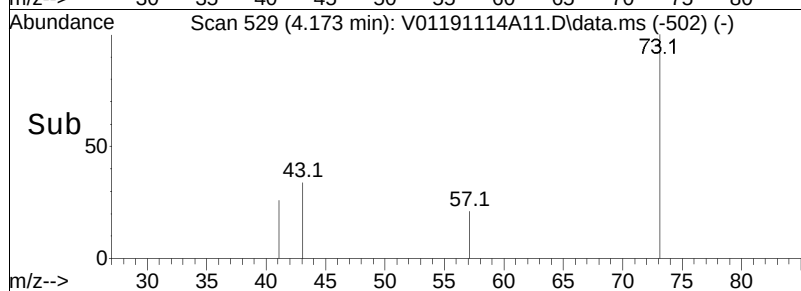
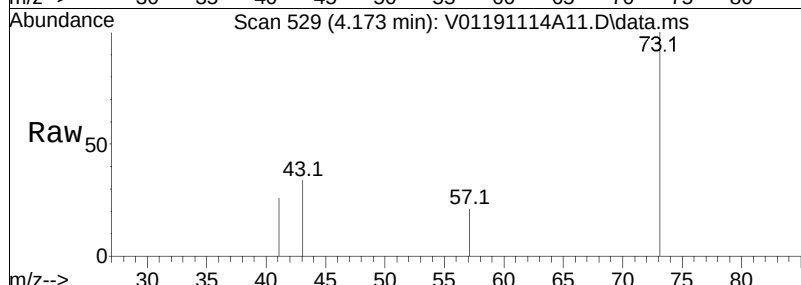
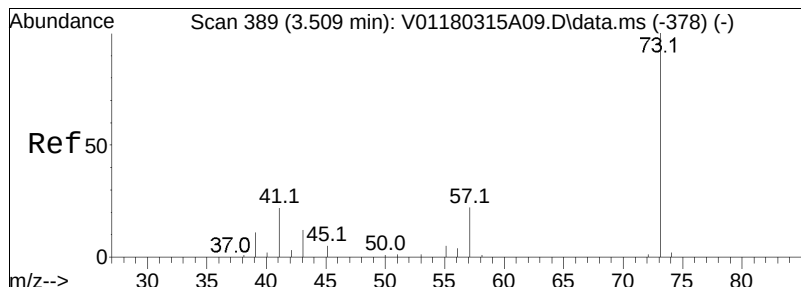
Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\VOA101\2019\191114A\
 Data File : V01191114A11.D
 Acq On : 14 Nov 2019 10:56 am
 Operator : VOA101:PD
 Sample : l1954303-03,31,10,10,,a
 Misc : WG1308760,ICAL16277
 ALS Vial : 11 Sample Multiplier: 1

Quant Time: Nov 14 11:18:59 2019
 Quant Method : I:\VOLATILES\VOA101\2019\191114A\V101_191107A_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Fri Nov 08 10:22:02 2019
 Response via : Initial Calibration

Sub List : 8260-NYTCL - Megamix plus Diox91114A\V01191114A02.D•





#20

Methyl tert-butyl ether

Concen: 0.26 ug/L

RT: 4.173 min Scan# 529

Delta R.T. -0.000 min

Lab File: V01191114A11.D

Acq: 14 Nov 2019 10:56 am

Tgt Ion: 73 Resp: 2339

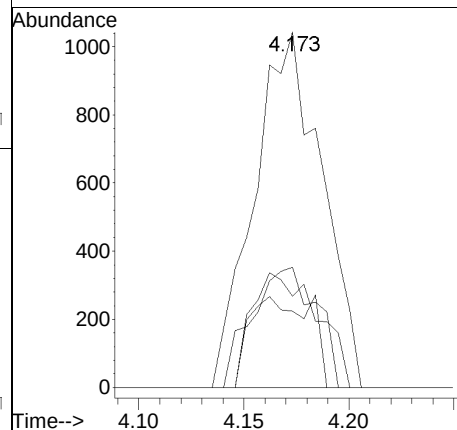
Ion Ratio Lower Upper

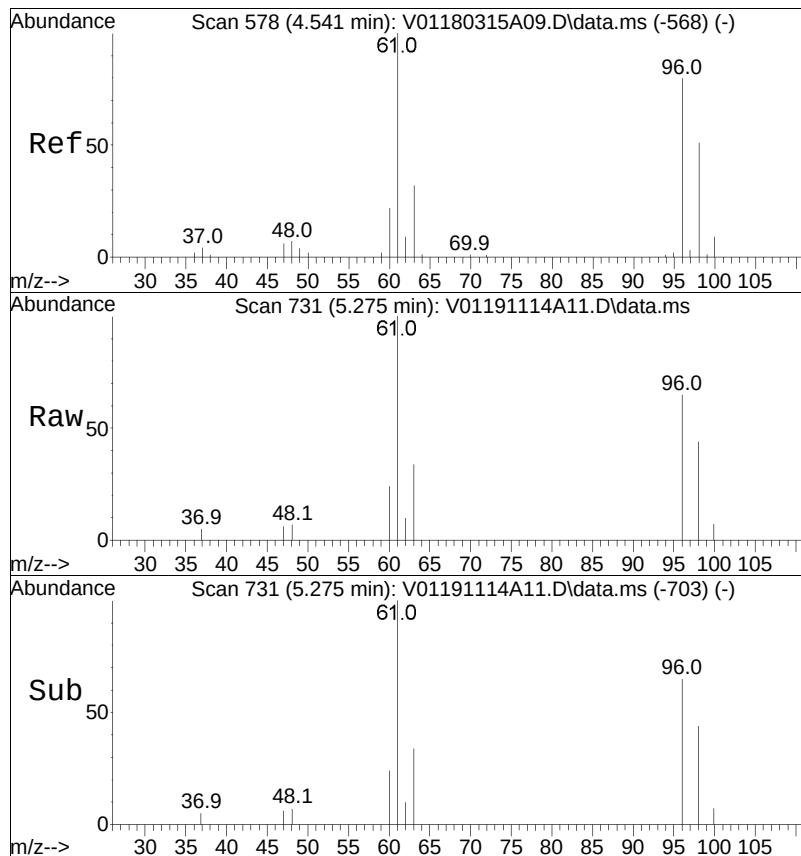
73 100

57 22.8 14.8 30.6

43 32.0 15.5 32.3

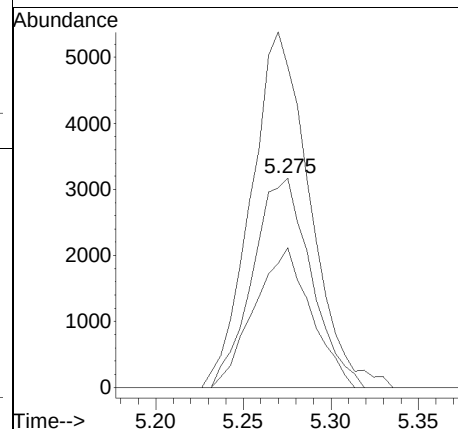
41 31.4 14.1 29.3#

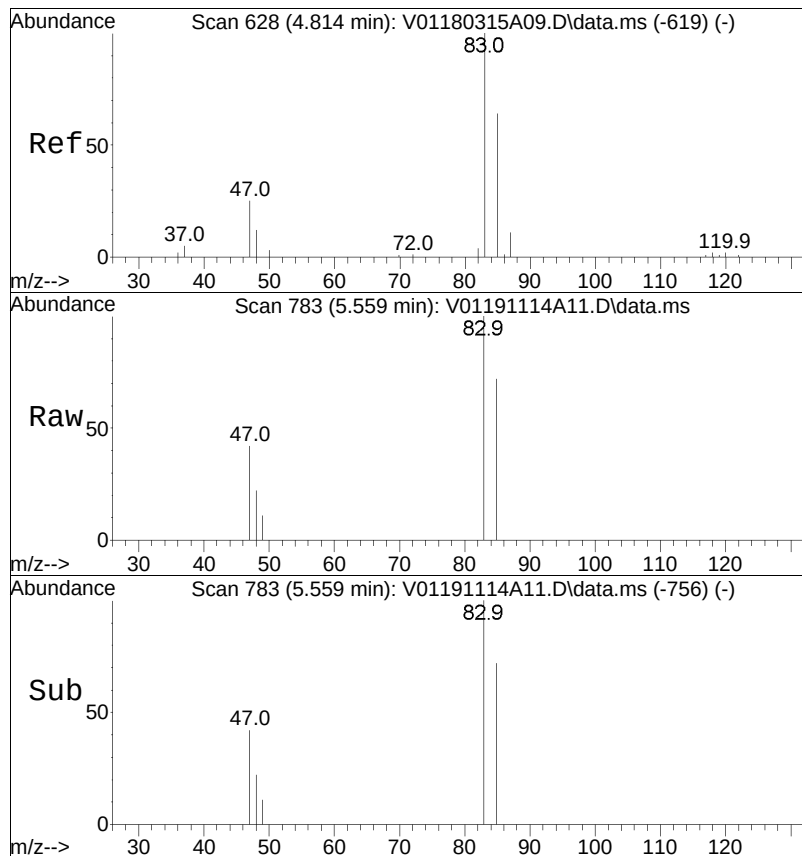




#28
 cis-1,2-Dichloroethene
 Concen: 1.44 ug/L
 RT: 5.275 min Scan# 731
 Delta R.T. 0.005 min
 Lab File: V01191114A11.D
 Acq: 14 Nov 2019 10:56 am

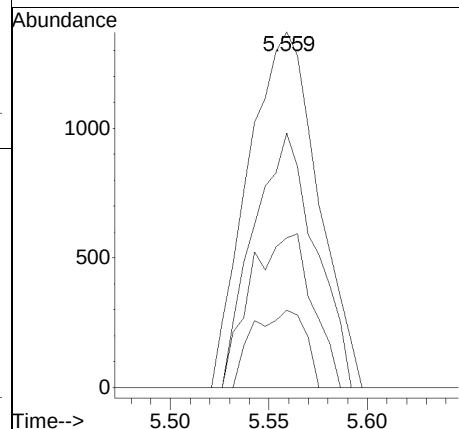
Tgt Ion:	96	Resp:	7361
Ion Ratio	Lower	Upper	
96	100		
61	171.1	105.8	158.6#
98	64.7	51.1	76.7

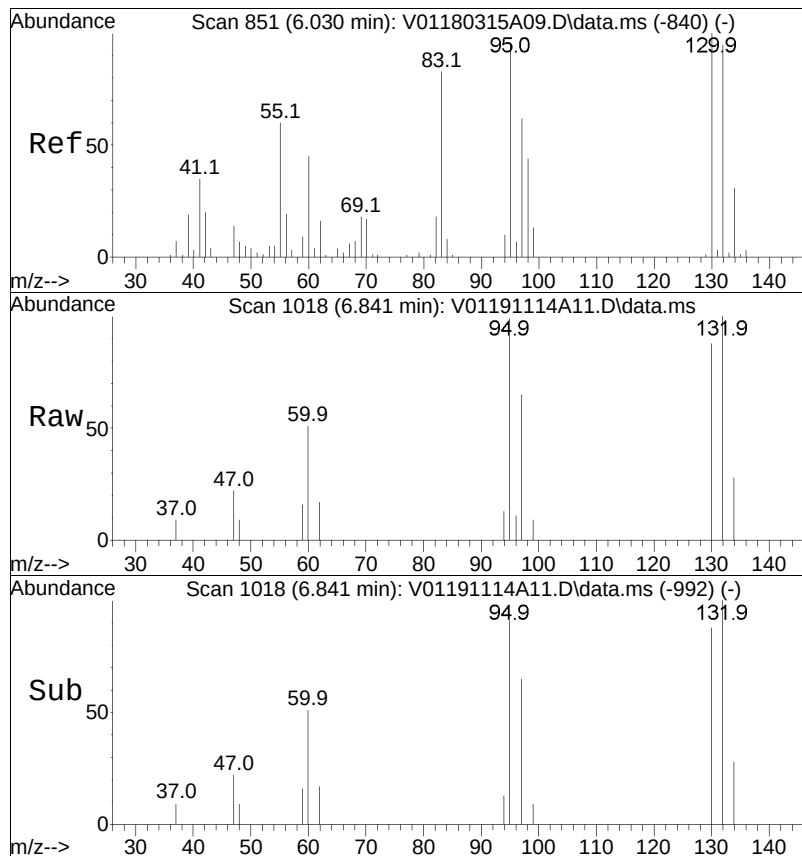




#32
 Chloroform
 Concen: 0.40 ug/L
 RT: 5.559 min Scan# 783
 Delta R.T. -0.000 min
 Lab File: V01191114A11.D
 Acq: 14 Nov 2019 10:56 am

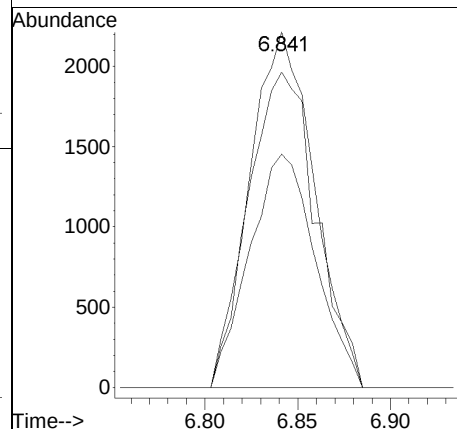
Tgt Ion:	83	Resp:	3383
Ion Ratio	Lower	Upper	
83	100		
85	63.4	42.3	87.8
47	38.3	17.8	37.0#
48	16.3	9.3	19.3

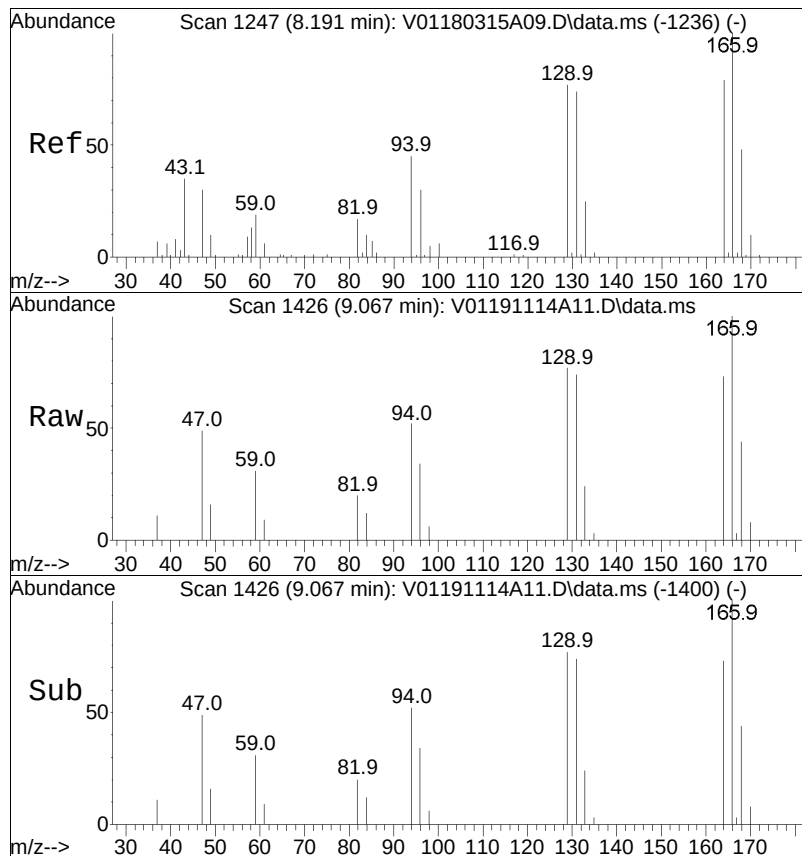




#48
 Trichloroethene
 Concen: 1.15 ug/L
 RT: 6.841 min Scan# 1018
 Delta R.T. -0.005 min
 Lab File: V01191114A11.D
 Acq: 14 Nov 2019 10:56 am

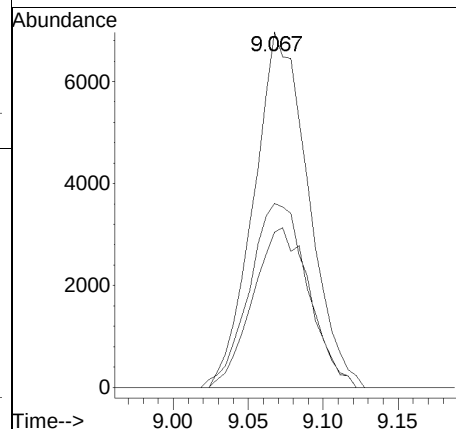
Tgt Ion:	95	Resp:	5418
Ion Ratio	Lower	Upper	
95	100		
97	66.4	54.4	81.6
130	91.9	80.6	120.8

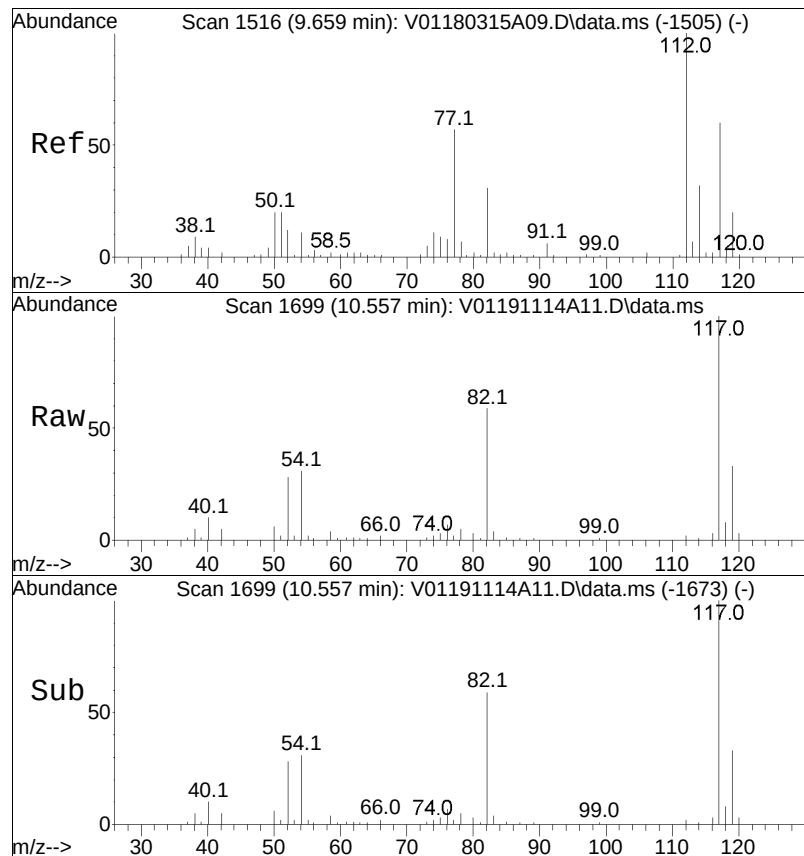




#63
Tetrachloroethene
Concen: 4.61 ug/L
RT: 9.067 min Scan# 1426
Delta R.T. -0.005 min
Lab File: V01191114A11.D
Acq: 14 Nov 2019 10:56 am

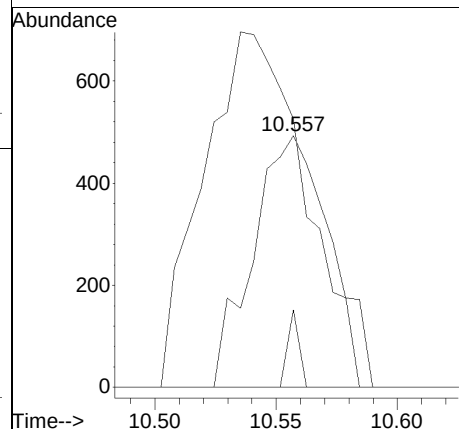
Tgt	Ion:166	Resp:	17628
Ion	Ratio	Lower	Upper
166	100		
168	47.3	27.4	67.4
94	55.4	24.8	64.8





#73
 Chlorobenzene
 Concen: 0.10 ug/L
 RT: 10.557 min Scan# 1699
 Delta R.T. -0.005 min
 Lab File: V01191114A11.D
 Acq: 14 Nov 2019 10:56 am

Tgt	Ion	Ratio	Lower	Upper
112	100			
77	197.0	59.8	89.6#	
114	4.8	25.4	38.2#	



Manual Integration Report

Data Path : I:\VOLATILES\VOA101\2019\10 Method : V101_191107A_8260.m
Data File : V01191114A11.D Operator : VOA101:PD
Date Inj'd : 11/14/2019 10:56 am Instrument : VOA 101
Sample : l1954303-03,31,10,10,,a Quant Date : 11/14/2019 11:17 am

There are no manual integrations or false positives in this file.

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\VOA101\2019\191114A\
 Data File : V01191114A12.D
 Acq On : 14 Nov 2019 11:20 am
 Operator : VOA101:PD
 Sample : l1954303-04,31,10,10,,a
 Misc : WG1308760,ICAL16277
 ALS Vial : 12 Sample Multiplier: 1

Quant Time: Nov 14 11:50:12 2019
 Quant Method : I:\VOLATILES\VOA101\2019\191114A\V101_191107A_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Fri Nov 08 10:22:02 2019
 Response via : Initial Calibration

CCAL FILE(s) : 1 - I:\VOLATILES\VOA101\2019\191114A\V01191114A02.D
 Sub List : 8260-NYTCL - Megamix plus Diox

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

Internal Standards						
1) Fluorobenzene	6.645	96	190763	10.000	ug/L	0.00
Standard Area 1 = 199922			Recovery =	95.42%		
59) Chlorobenzene-d5	10.535	117	132213	10.000	ug/L	0.00
Standard Area 1 = 138066			Recovery =	95.76%		
79) 1,4-Dichlorobenzene-d4	13.334	152	63432	10.000	ug/L	0.00
Standard Area 1 = 65641			Recovery =	96.63%		
System Monitoring Compounds						
36) Dibromofluoromethane	5.756	113	47005	9.733	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	97.33%		
43) 1,2-Dichloroethane-d4	6.334	65	57014	10.694	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	106.94%		
60) Toluene-d8	8.511	98	188081	10.577	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	105.77%		
83) 4-Bromofluorobenzene	12.041	95	67556	10.296	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	102.96%		
Target Compounds						
						Qvalue
2) Dichlorodifluoromethane	0.000		0	N.D.		
3) Chloromethane	0.000		0	N.D. d		
4) Vinyl chloride	2.127	62	18516	4.245	ug/L	99
5) Bromomethane	0.000		0	N.D.		
6) Chloroethane	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000		0	N.D.		
8) Ethyl ether	0.000		0	N.D.		
10) 1,1-Dichloroethene	0.000		0	N.D.		
11) Carbon disulfide	3.333	76	444	N.D.		
15) Methylene chloride	0.000		0	N.D.		
17) Acetone	0.000		0	N.D. d		
18) trans-1,2-Dichloroethene	4.069	96	1662	0.397	ug/L	83
20) Methyl tert-butyl ether	0.000		0	N.D.		
23) 1,1-Dichloroethane	4.697	63	1115	0.115	ug/L	82
25) Acrylonitrile	0.000		0	N.D. d		
27) Vinyl acetate	4.964	43	360	N.D.		
28) cis-1,2-Dichloroethene	5.270	96	30376	5.912	ug/L #	82
29) 2,2-Dichloropropane	0.000		0	N.D.		
30) Bromochloromethane	0.000		0	N.D.		
32) Chloroform	5.559	83	558	N.D.		

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\VOA101\2019\191114A\
 Data File : V01191114A12.D
 Acq On : 14 Nov 2019 11:20 am
 Operator : VOA101:PD
 Sample : 11954303-04,31,10,10,,a
 Misc : WG1308760,ICAL16277
 ALS Vial : 12 Sample Multiplier: 1

Quant Time: Nov 14 11:50:12 2019
 Quant Method : I:\VOLATILES\VOA101\2019\191114A\V101_191107A_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Fri Nov 08 10:22:02 2019
 Response via : Initial Calibration

CCAL FILE(s) : 1 - I:\VOLATILES\VOA101\2019\191114A\V01191114A02.D
 Sub List : 8260-NYTCL - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
34) Carbon tetrachloride	0.000		0	N.D.		
37) 1,1,1-Trichloroethane	0.000		0	N.D.		
39) 2-Butanone	0.000		0	N.D.	d	
40) 1,1-Dichloropropene	0.000		0	N.D.		
41) Benzene	6.192	78	40696	2.193	ug/L	# 89
44) 1,2-Dichloroethane	6.399	62	67	N.D.		
48) Trichloroethene	6.841	95	3527M1	0.744	ug/L	
50) Dibromomethane	0.000		0	N.D.		
51) 1,2-Dichloropropane	0.000		0	N.D.		
54) Bromodichloromethane	0.000		0	N.D.		
57) 1,4-Dioxane	0.000		0	N.D.		
58) cis-1,3-Dichloropropene	0.000		0	N.D.		
61) Toluene	8.582	92	2701	0.265	ug/L	94
62) 4-Methyl-2-pentanone	0.000		0	N.D.		
63) Tetrachloroethene	9.078	166	2889	0.753	ug/L	91
65) trans-1,3-Dichloropropene	0.000		0	N.D.		
68) 1,1,2-Trichloroethane	0.000		0	N.D.	d	
69) Chlorodibromomethane	0.000		0	N.D.		
70) 1,3-Dichloropropane	0.000		0	N.D.		
71) 1,2-Dibromoethane	0.000		0	N.D.		
72) 2-Hexanone	0.000		0	N.D.		
73) Chlorobenzene	10.573	112	53	N.D.		
74) Ethylbenzene	10.590	91	11476	0.589	ug/L	98
75) 1,1,1,2-Tetrachloroethane	0.000		0	N.D.		
76) p/m Xylene	10.770	106	4264	0.579	ug/L	96
77) o Xylene	11.321	106	1737	0.254	ug/L	98
78) Styrene	0.000		0	N.D.		
80) Bromoform	0.000		0	N.D.		
82) Isopropylbenzene	11.698	105	15440	0.929	ug/L	98
84) Bromobenzene	0.000		0	N.D.		
85) n-Propylbenzene	12.199	91	20838	1.081	ug/L	97
87) 1,1,2,2-Tetrachloroethane	0.000		0	N.D.		
88) 4-Ethyltoluene	12.314	105	4083	0.269	ug/L	96
89) 2-Chlorotoluene	12.309	91	386	N.D.		
90) 1,3,5-Trimethylbenzene	12.423	105	1418	0.109	ug/L	# 85
91) 1,2,3-Trichloropropane	0.000		0	N.D.		
92) trans-1,4-Dichloro-2-b...	0.000		0	N.D.		
93) 4-Chlorotoluene	12.674	91	309	N.D.		
94) tert-Butylbenzene	12.800	119	61	N.D.		

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\VOA101\2019\191114A\
 Data File : V01191114A12.D
 Acq On : 14 Nov 2019 11:20 am
 Operator : VOA101:PD
 Sample : l1954303-04,31,10,10,,a
 Misc : WG1308760,ICAL16277
 ALS Vial : 12 Sample Multiplier: 1

Quant Time: Nov 14 11:50:12 2019
 Quant Method : I:\VOLATILES\VOA101\2019\191114A\V101_191107A_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Fri Nov 08 10:22:02 2019
 Response via : Initial Calibration

CCAL FILE(s) : 1 - I:\VOLATILES\VOA101\2019\191114A\V01191114A02.D
 Sub List : 8260-NYTCL - Megamix plus Diox

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
97)	1,2,4-Trimethylbenzene	12.876	105	5369	0.415	ug/L		98
98)	sec-Butylbenzene	13.002	105	8835	0.614	ug/L #		57
99)	p-Isopropyltoluene	13.149	119	862	N.D.			
100)	1,3-Dichlorobenzene	0.000		0	N.D.			
101)	1,4-Dichlorobenzene	0.000		0	N.D.			
102)	p-Diethylbenzene	13.558	119	1211	0.172	ug/L #		18
103)	n-Butylbenzene	13.635	91	2177	0.200	ug/L #		88
104)	1,2-Dichlorobenzene	0.000		0	N.D.			
105)	1,2,4,5-Tetramethylben...	14.437	119	2703	0.262	ug/L		95
106)	1,2-Dibromo-3-chloropr...	0.000		0	N.D.			
108)	Hexachlorobutadiene	0.000		0	N.D.			
109)	1,2,4-Trichlorobenzene	0.000		0	N.D.			
110)	Naphthalene	15.752	128	1163	0.186	ug/L		100
111)	1,2,3-Trichlorobenzene	0.000		0	N.D.			

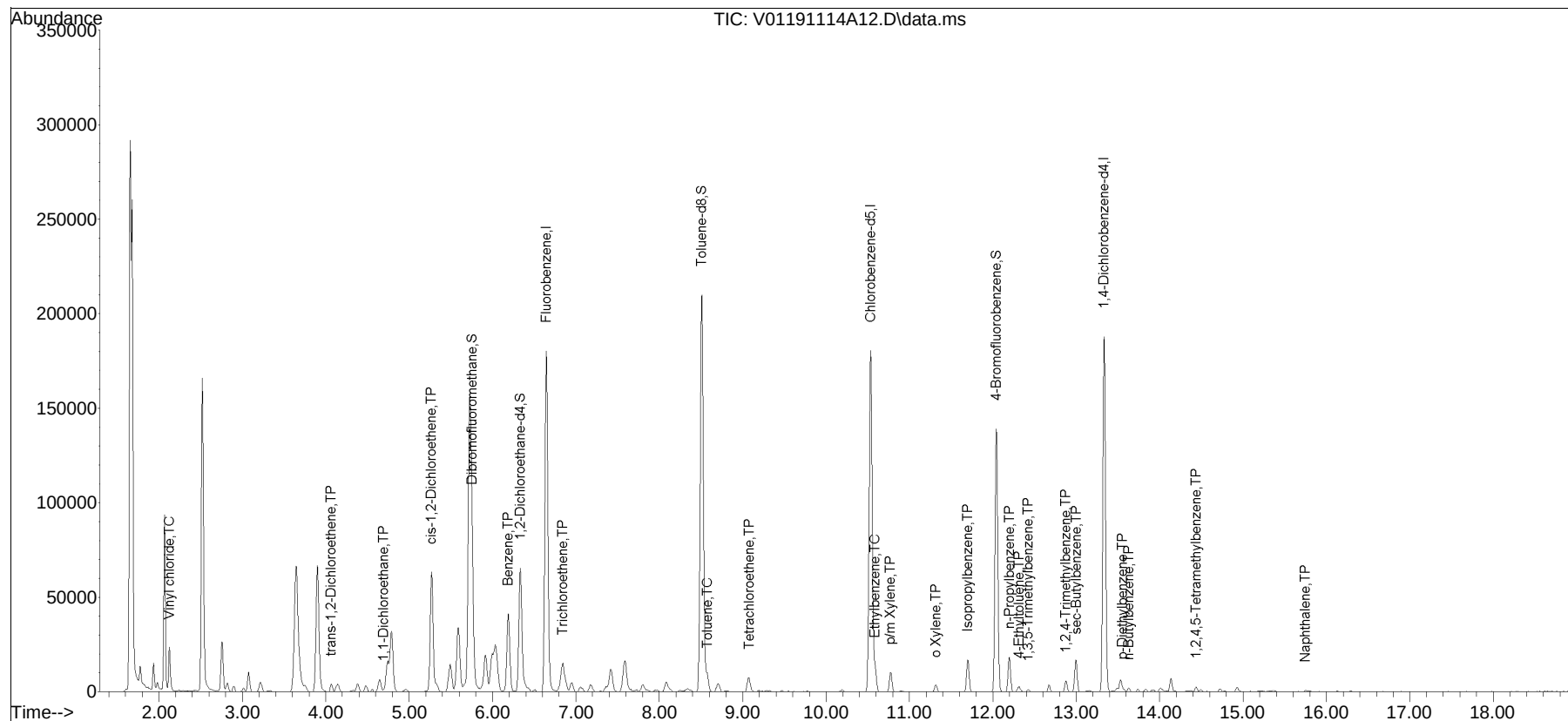
(#) = qualifier out of range (m) = manual integration (+) = signals summed

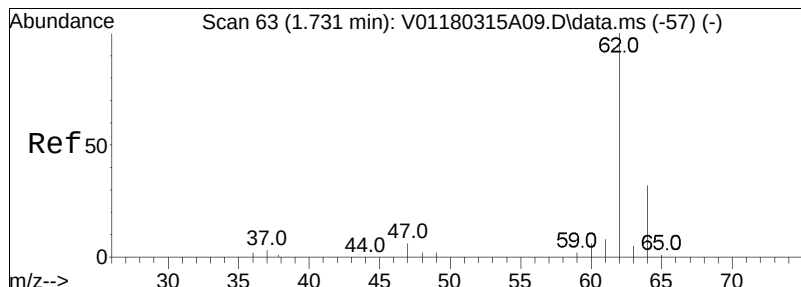
Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\VOA101\2019\191114A\
 Data File : V01191114A12.D
 Acq On : 14 Nov 2019 11:20 am
 Operator : VOA101:PD
 Sample : l1954303-04,31,10,10,,a
 Misc : WG1308760,ICAL16277
 ALS Vial : 12 Sample Multiplier: 1

Quant Time: Nov 14 11:50:12 2019
 Quant Method : I:\VOLATILES\VOA101\2019\191114A\V101_191107A_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Fri Nov 08 10:22:02 2019
 Response via : Initial Calibration

Sub List : 8260-NYTCL - Megamix plus Diox91114A\V01191114A02.D•





#4

Vinyl chloride

Concen: 4.25 ug/L

RT: 2.127 min Scan# 154

Delta R.T. 0.005 min

Lab File: V01191114A12.D

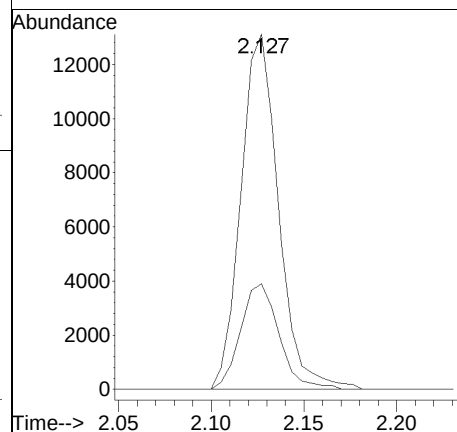
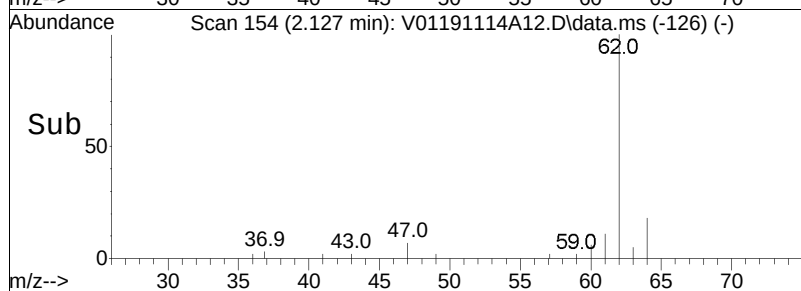
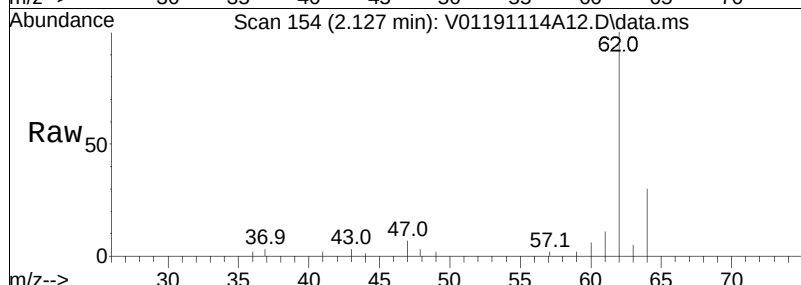
Acq: 14 Nov 2019 11:20 am

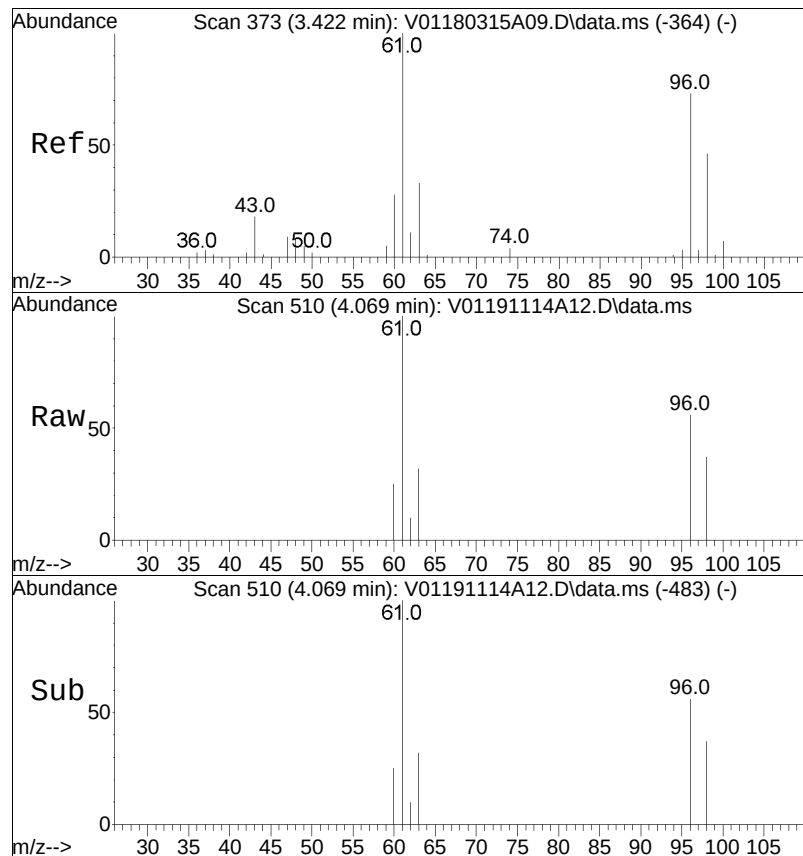
Tgt Ion: 62 Resp: 18516

Ion Ratio Lower Upper

62 100

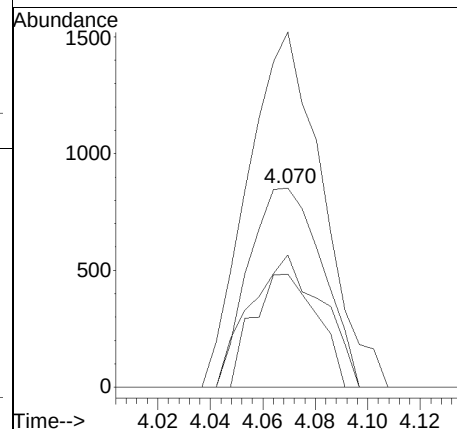
64 30.5 10.8 50.8

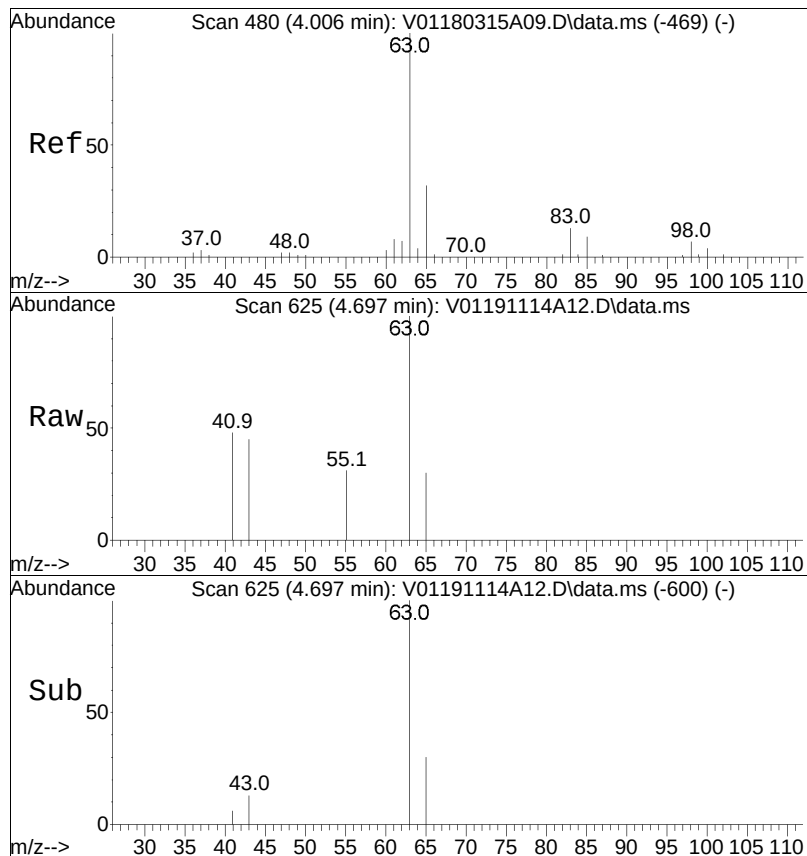




#18
 trans-1,2-Dichloroethene
 Concen: 0.40 ug/L
 RT: 4.069 min Scan# 510
 Delta R.T. 0.000 min
 Lab File: V01191114A12.D
 Acq: 14 Nov 2019 11:20 am

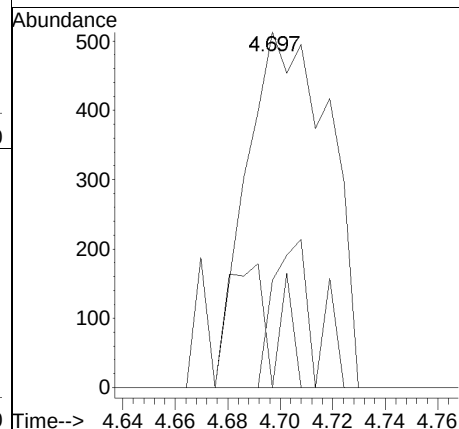
Tgt Ion:	96	Resp:	1662
Ion Ratio	Lower	Upper	
96	100		
61	181.3	95.3	197.9
98	65.0	41.0	85.2
63	49.3	30.2	62.6

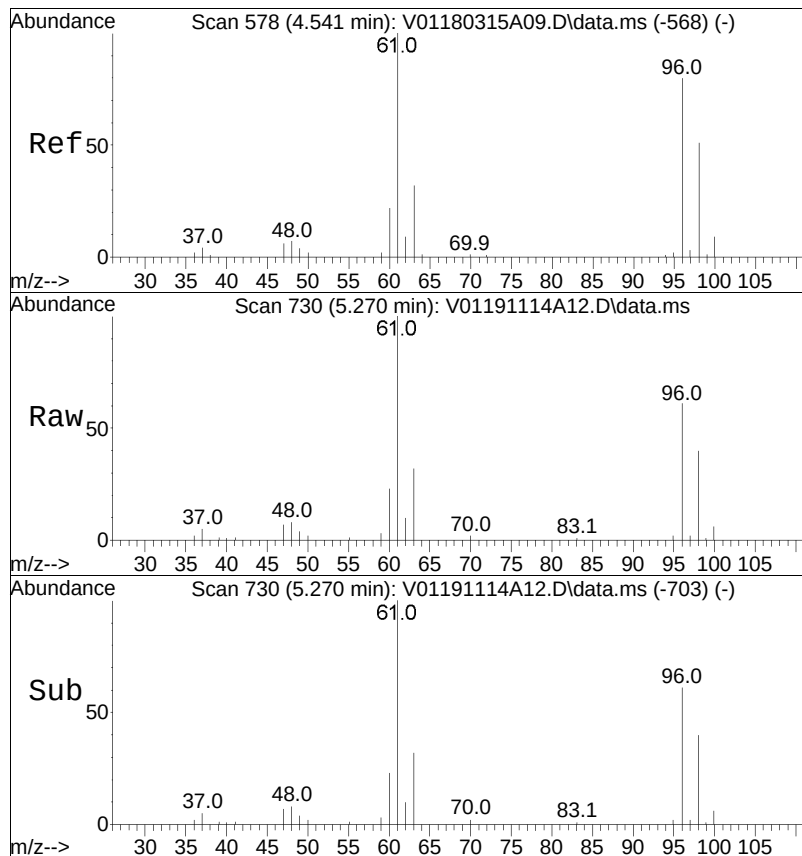




#23
 1,1-Dichloroethane
 Concen: 0.12 ug/L
 RT: 4.697 min Scan# 625
 Delta R.T. -0.011 min
 Lab File: V01191114A12.D
 Acq: 14 Nov 2019 11:20 am

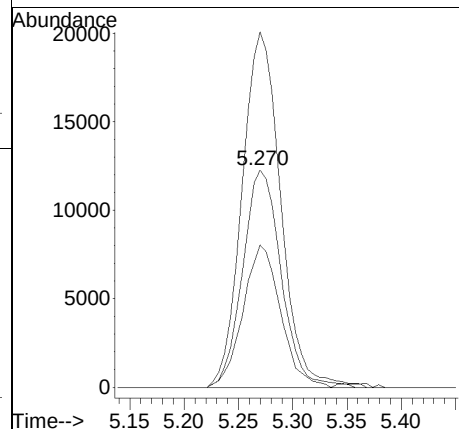
Tgt Ion:	63	Resp:	1115
Ion Ratio	Lower	Upper	
63	100		
65	21.1	10.9	50.9
83	19.6	0.0	33.0

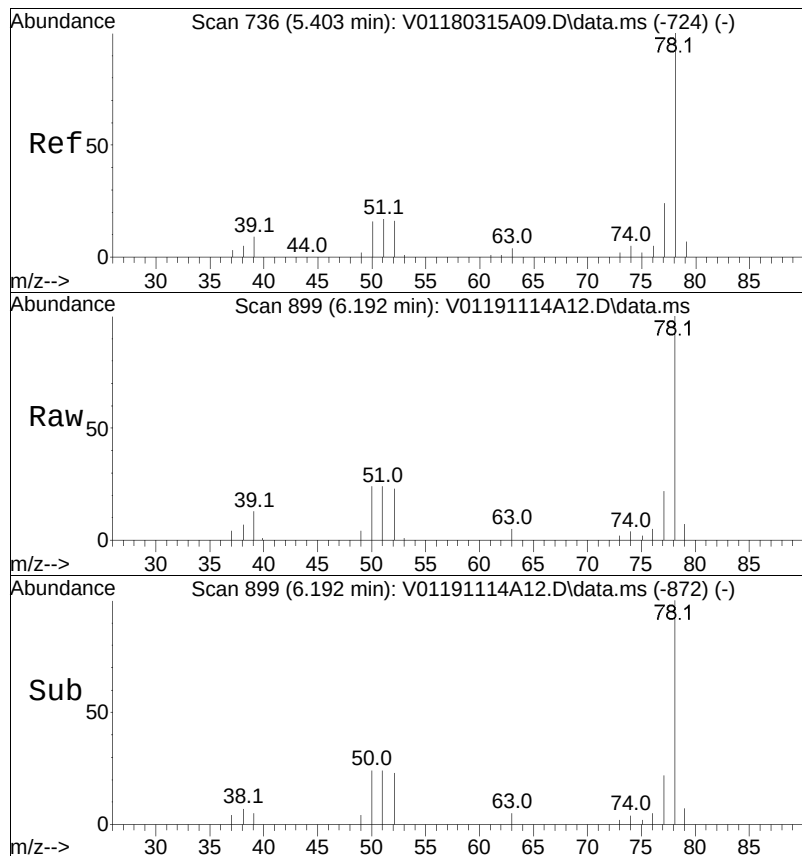




#28
 cis-1,2-Dichloroethene
 Concen: 5.91 ug/L
 RT: 5.270 min Scan# 730
 Delta R.T. 0.000 min
 Lab File: V01191114A12.D
 Acq: 14 Nov 2019 11:20 am

Tgt Ion:	96	Resp:	30376
Ion Ratio	Lower	Upper	
96	100		
61	163.9	105.8	158.6#
98	63.7	51.1	76.7





#41

Benzene

Concen: 2.19 ug/L

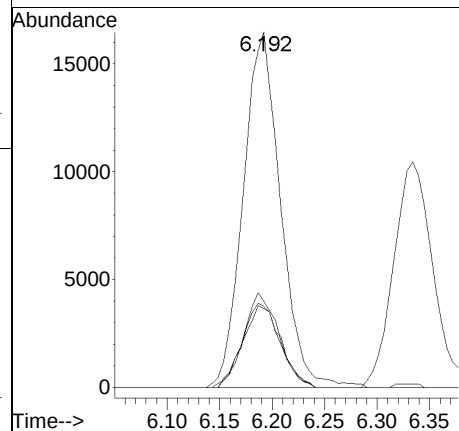
RT: 6.192 min Scan# 899

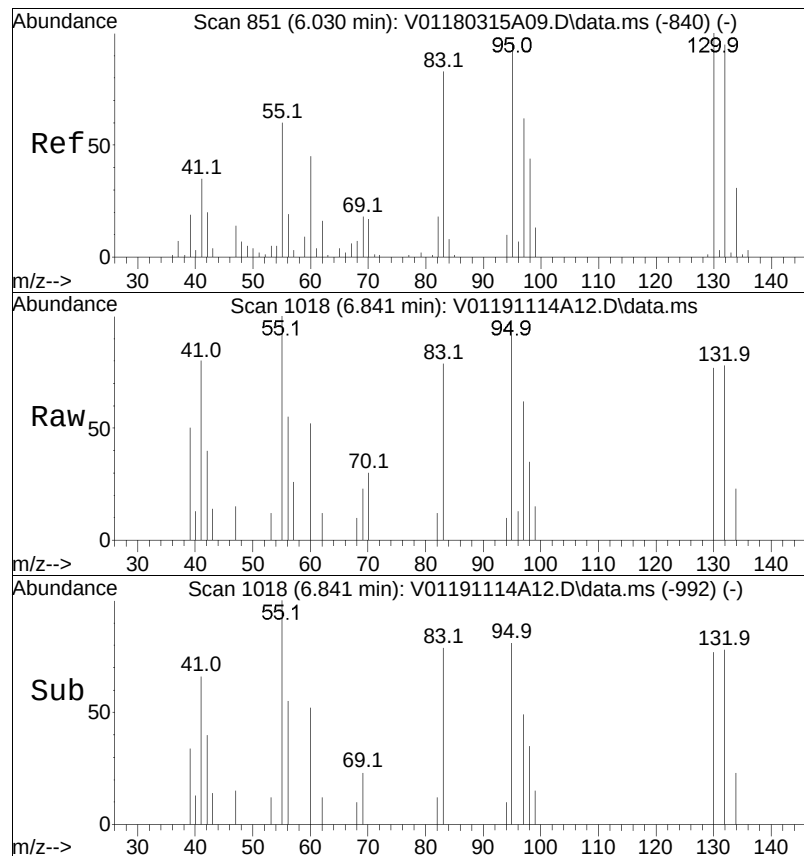
Delta R.T. 0.000 min

Lab File: V01191114A12.D

Acq: 14 Nov 2019 11:20 am

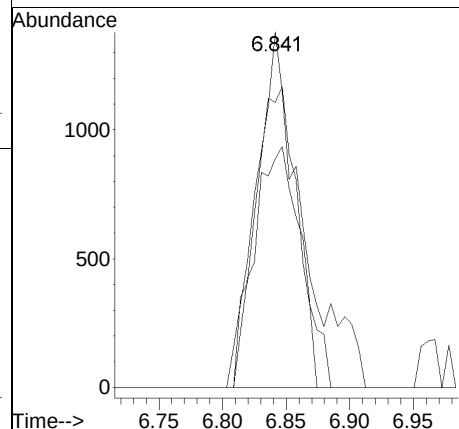
Tgt	Ion: 78	Resp:	40696
Ion	Ratio	Lower	Upper
78	100		
77	23.2	15.7	32.5
51	25.5	11.6	24.2#
52	23.7	10.9	22.5#

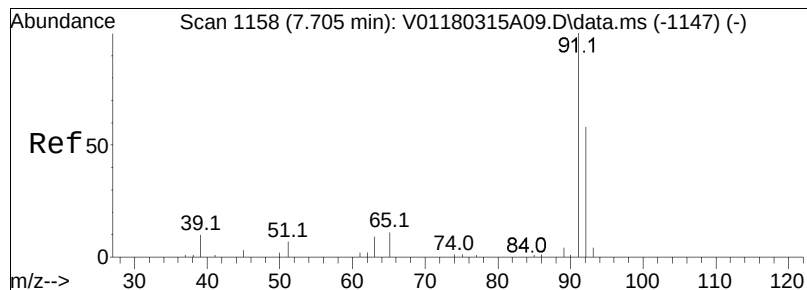




#48
 Trichloroethene
 Concen: 0.74 ug/L M1
 RT: 6.841 min Scan# 1018
 Delta R.T. -0.005 min
 Lab File: V01191114A12.D
 Acq: 14 Nov 2019 11:20 am

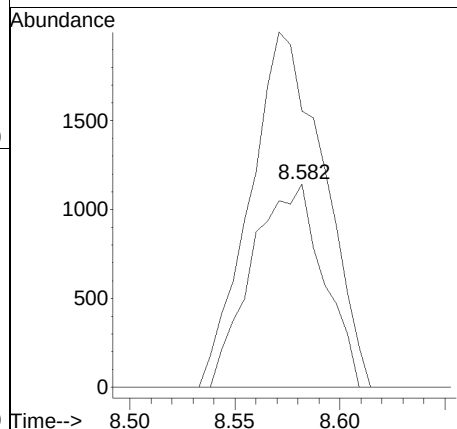
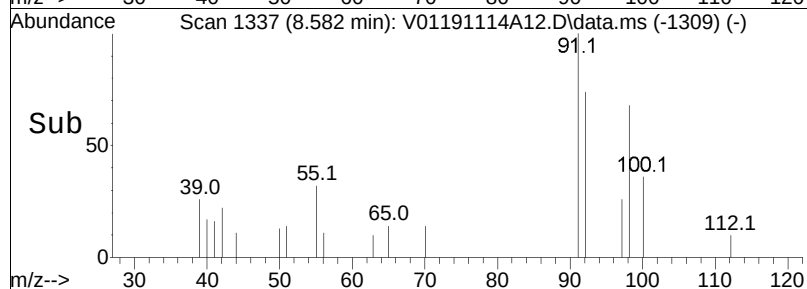
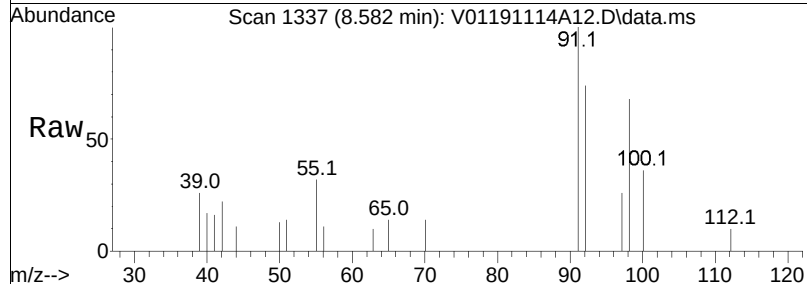
Tgt Ion	95	Resp	3527
Ion Ratio	Lower	Upper	
95	100		
97	68.4	54.4	81.6
130	76.5	80.6	120.8#

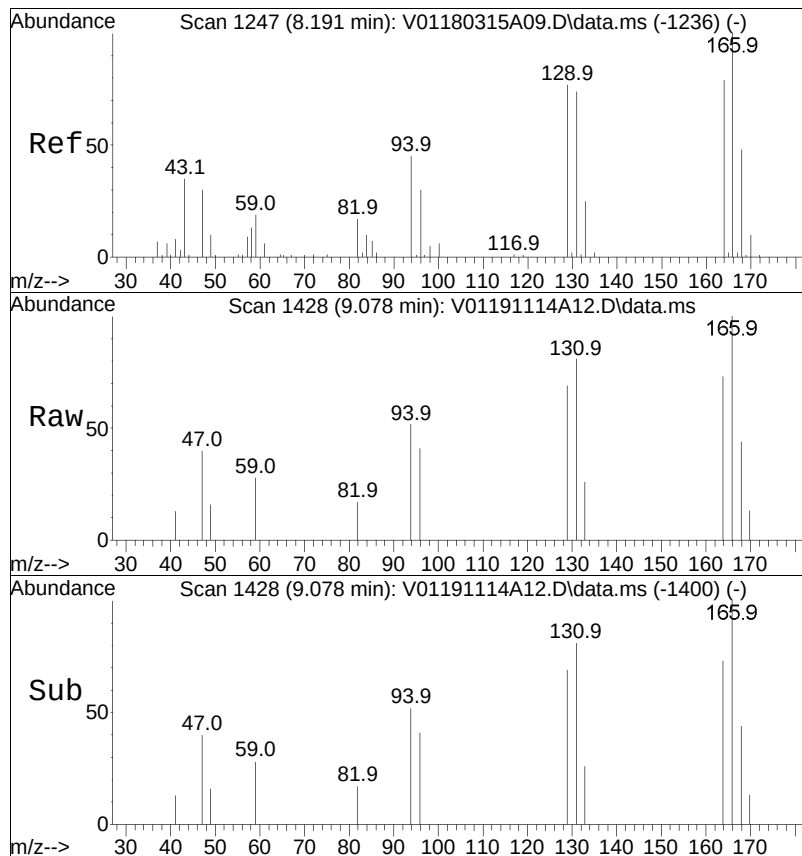




#61
Toluene
Concen: 0.26 ug/L
RT: 8.582 min Scan# 1337
Delta R.T. 0.005 min
Lab File: V01191114A12.D
Acq: 14 Nov 2019 11:20 am

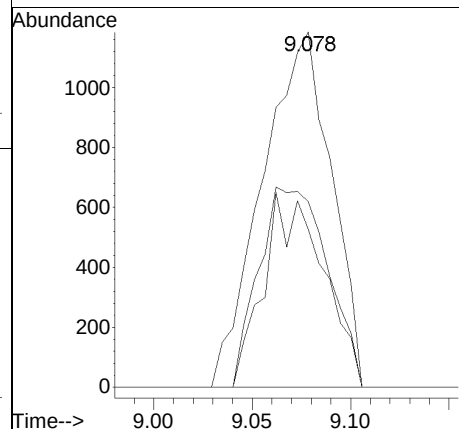
Tgt Ion	Ratio	Lower	Upper
92	100		
91	180.8	137.5	206.3

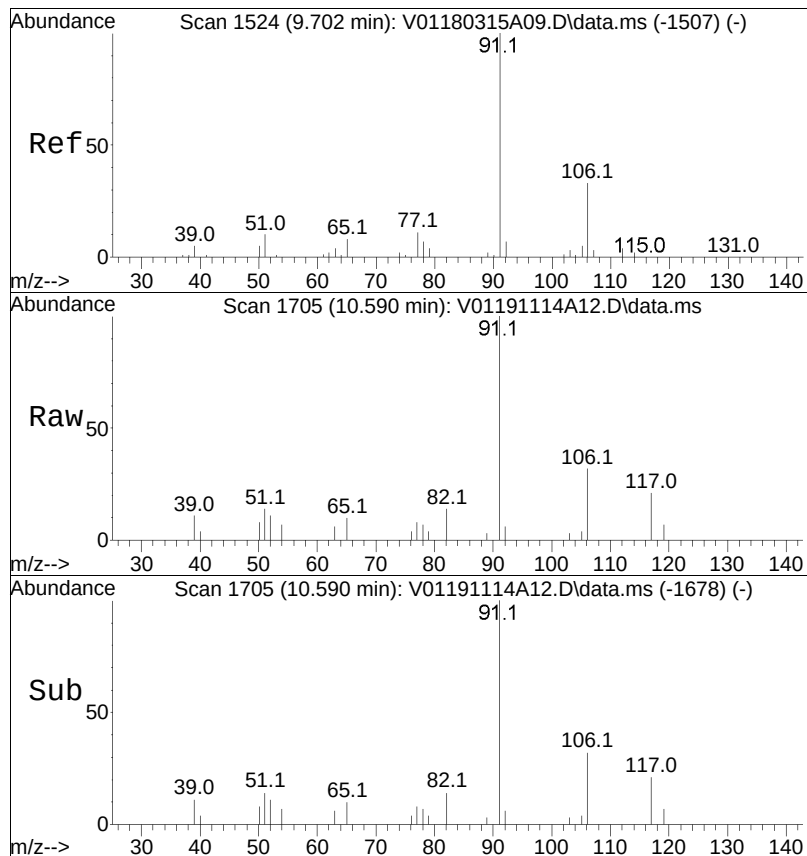




#63
 Tetrachloroethene
 Concen: 0.75 ug/L
 RT: 9.078 min Scan# 1428
 Delta R.T. 0.005 min
 Lab File: V01191114A12.D
 Acq: 14 Nov 2019 11:20 am

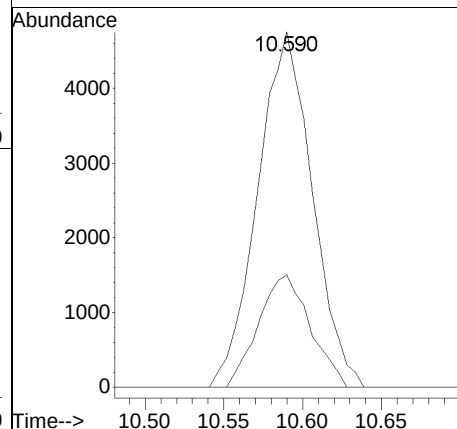
Tgt Ion:	166	Resp:	2889
Ion Ratio	Lower	Upper	
166	100		
168	47.0	27.4	67.4
94	55.9	24.8	64.8

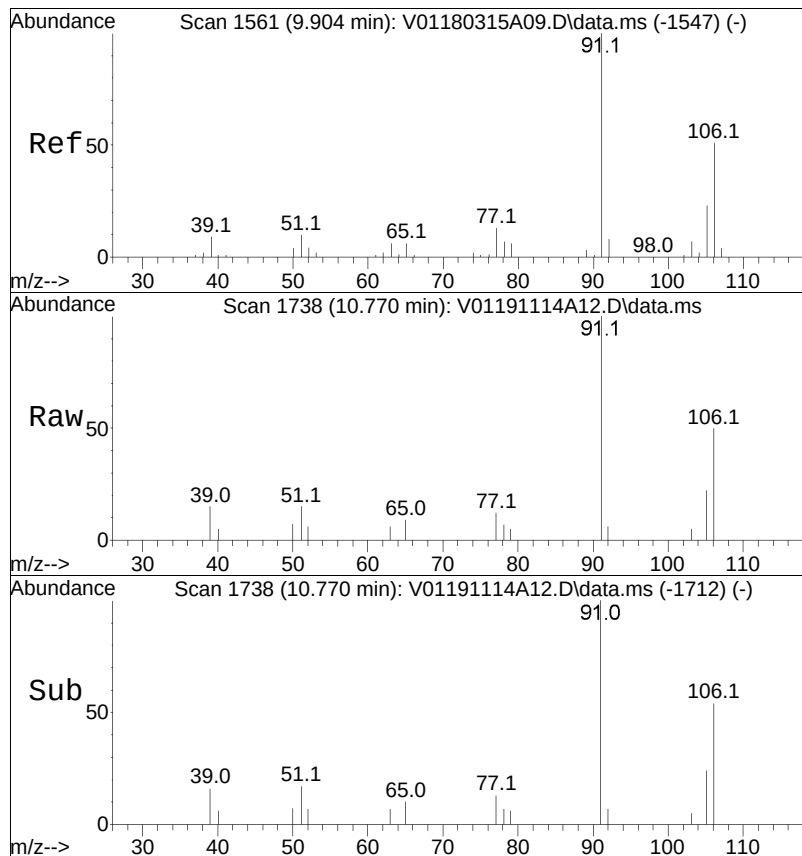




#74
 Ethylbenzene
 Concen: 0.59 ug/L
 RT: 10.590 min Scan# 1705
 Delta R.T. 0.000 min
 Lab File: V01191114A12.D
 Acq: 14 Nov 2019 11:20 am

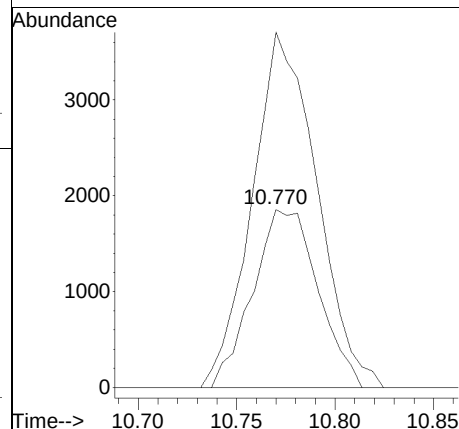
Tgt	Ion	Resp	Lower	Upper
91	100	11476		
106	29.9	24.7	37.1	

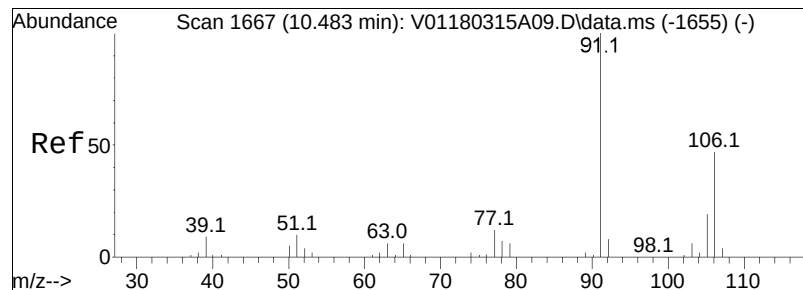




#76
 p/m Xylene
 Concen: 0.58 ug/L
 RT: 10.770 min Scan# 1738
 Delta R.T. -0.005 min
 Lab File: V01191114A12.D
 Acq: 14 Nov 2019 11:20 am

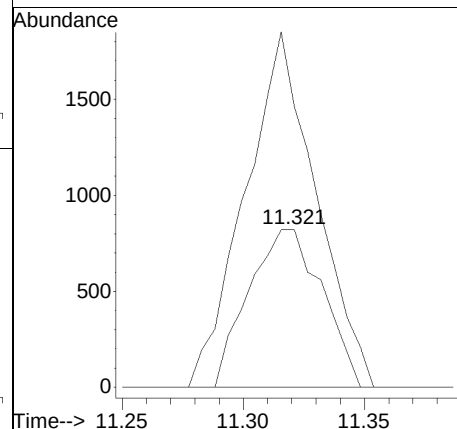
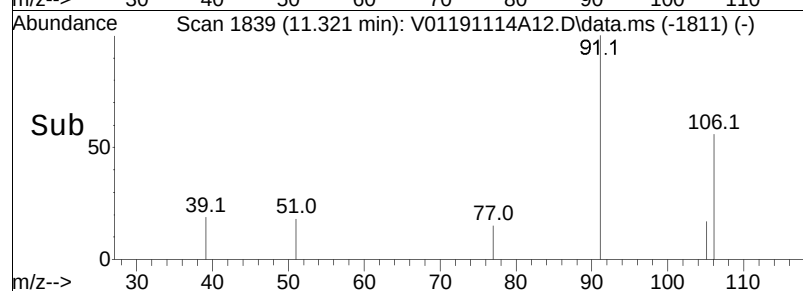
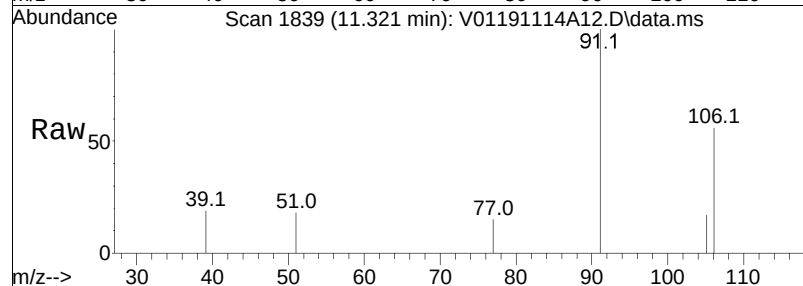
Tgt	Ion	Ratio	Lower	Upper
106	100			
91	198.1	162.9	244.3	

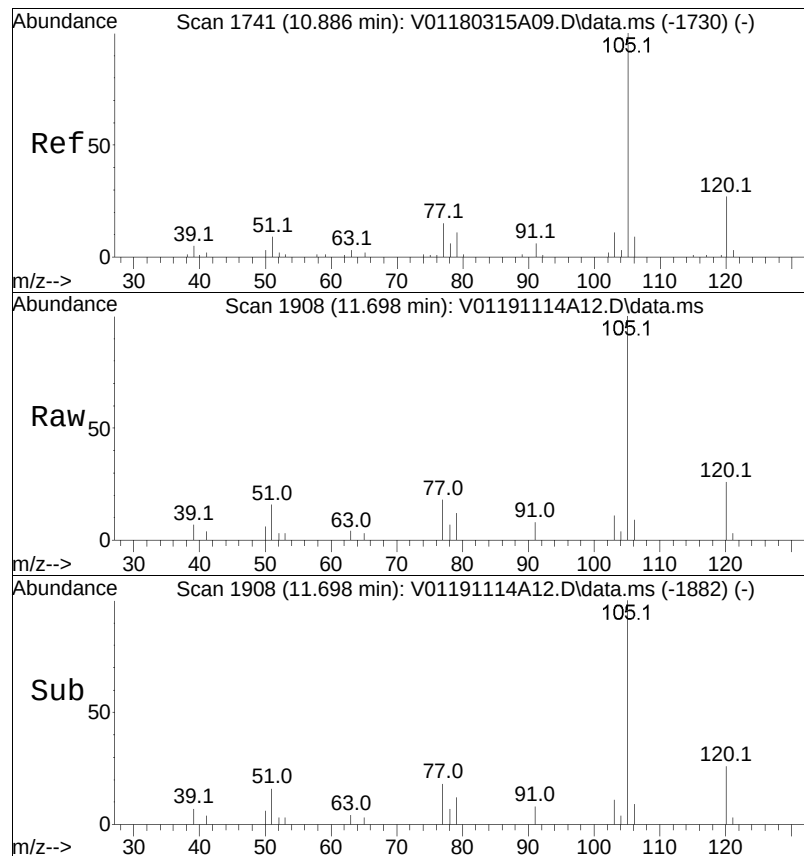




#77
 o Xylene
 Concen: 0.25 ug/L
 RT: 11.321 min Scan# 1839
 Delta R.T. 0.005 min
 Lab File: V01191114A12.D
 Acq: 14 Nov 2019 11:20 am

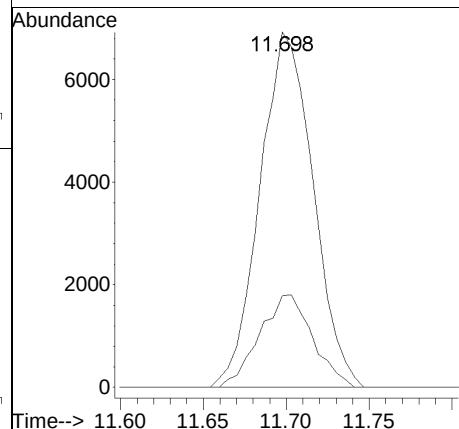
Tgt Ion	Ratio	Lower	Upper
106	100		
91	216.7	171.2	256.8

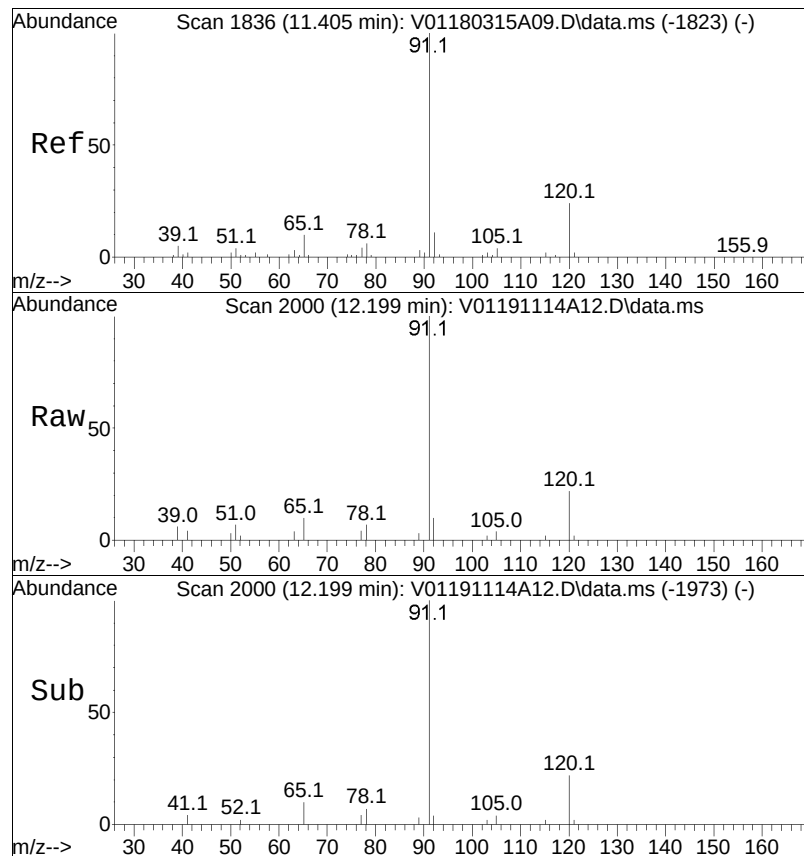




#82
 Isopropylbenzene
 Concen: 0.93 ug/L
 RT: 11.698 min Scan# 1908
 Delta R.T. -0.005 min
 Lab File: V01191114A12.D
 Acq: 14 Nov 2019 11:20 am

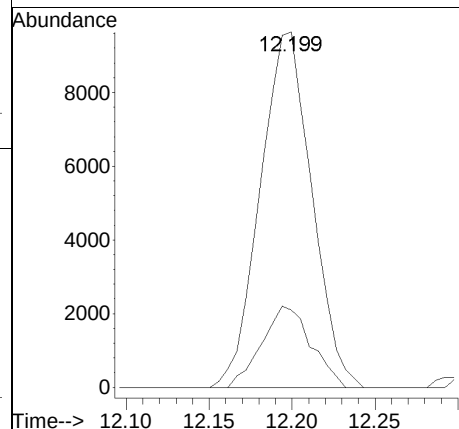
Tgt Ion	105	120	Ratio	Lower	Upper
105	100				
120	26.0		7.3		47.3

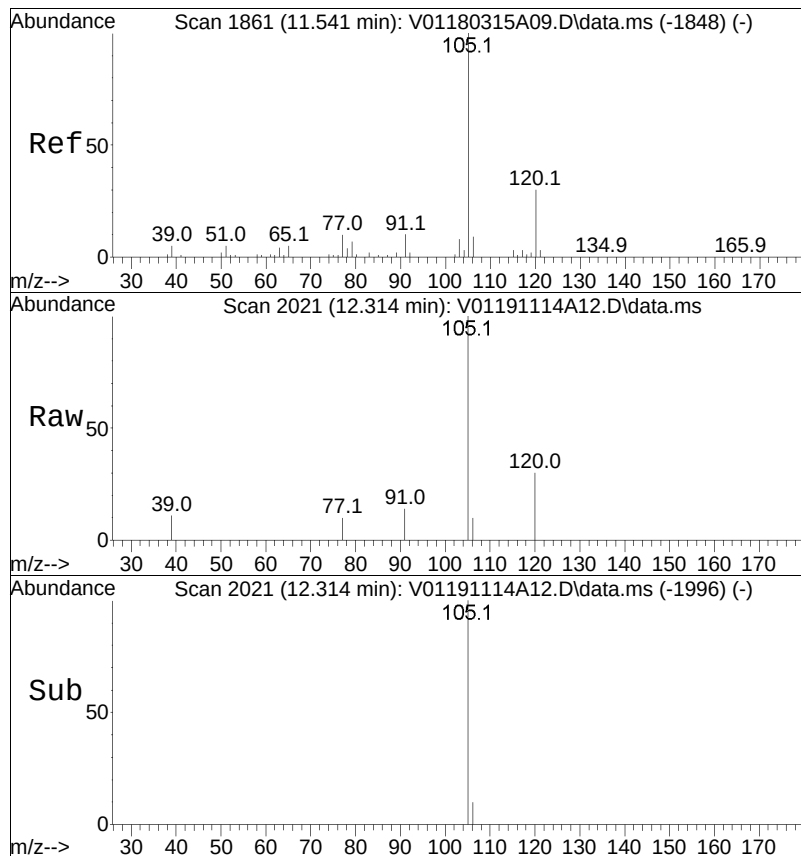




#85
 n-Propylbenzene
 Concen: 1.08 ug/L
 RT: 12.199 min Scan# 2000
 Delta R.T. 0.000 min
 Lab File: V01191114A12.D
 Acq: 14 Nov 2019 11:20 am

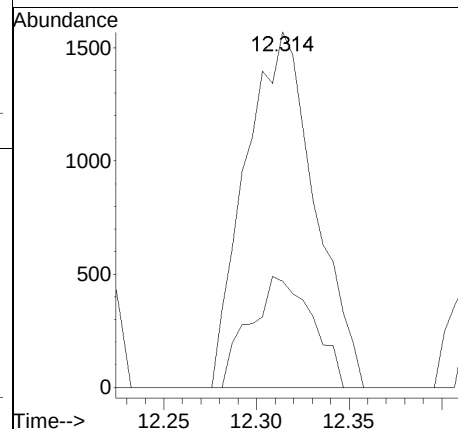
Tgt Ion:	91	Resp:	20838
Ion Ratio	Lower	Upper	
91	100		
120	21.8	18.6	28.0

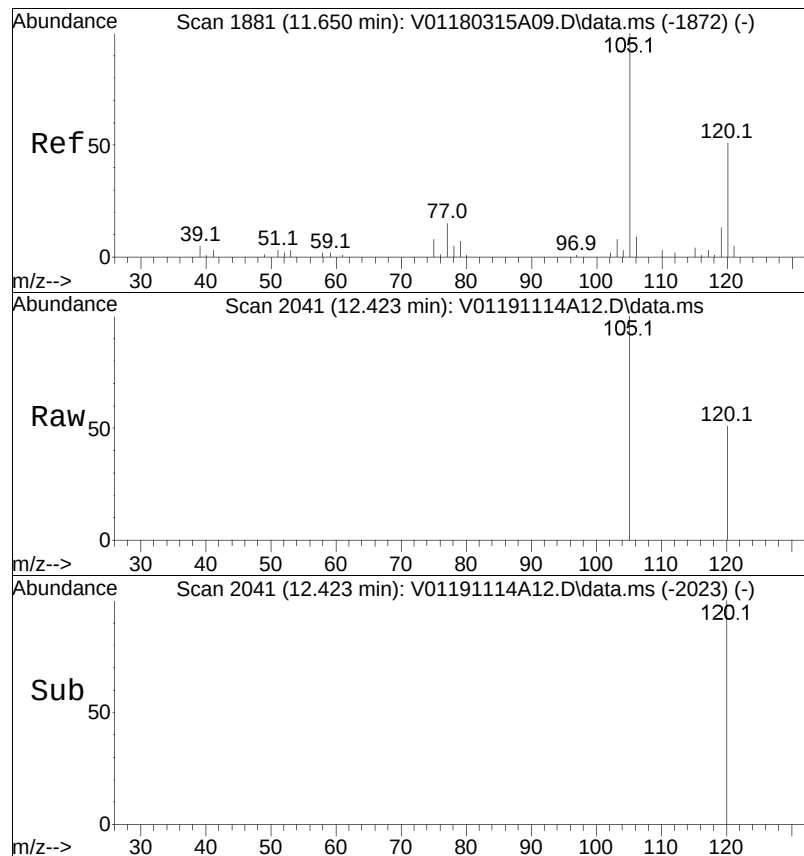




#88
 4-Ethyltoluene
 Concen: 0.27 ug/L
 RT: 12.314 min Scan# 2021
 Delta R.T. -0.011 min
 Lab File: V01191114A12.D
 Acq: 14 Nov 2019 11:20 am

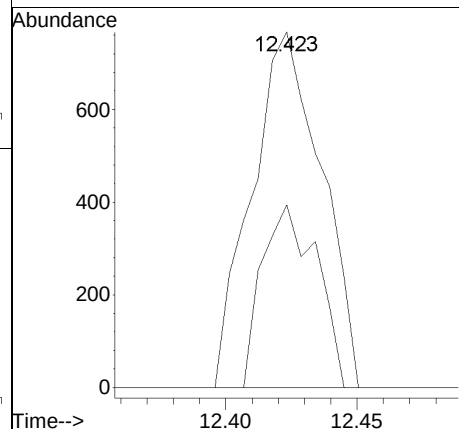
Tgt	Ion	Ratio	Lower	Upper
105	100			
120	28.1	19.8	41.0	

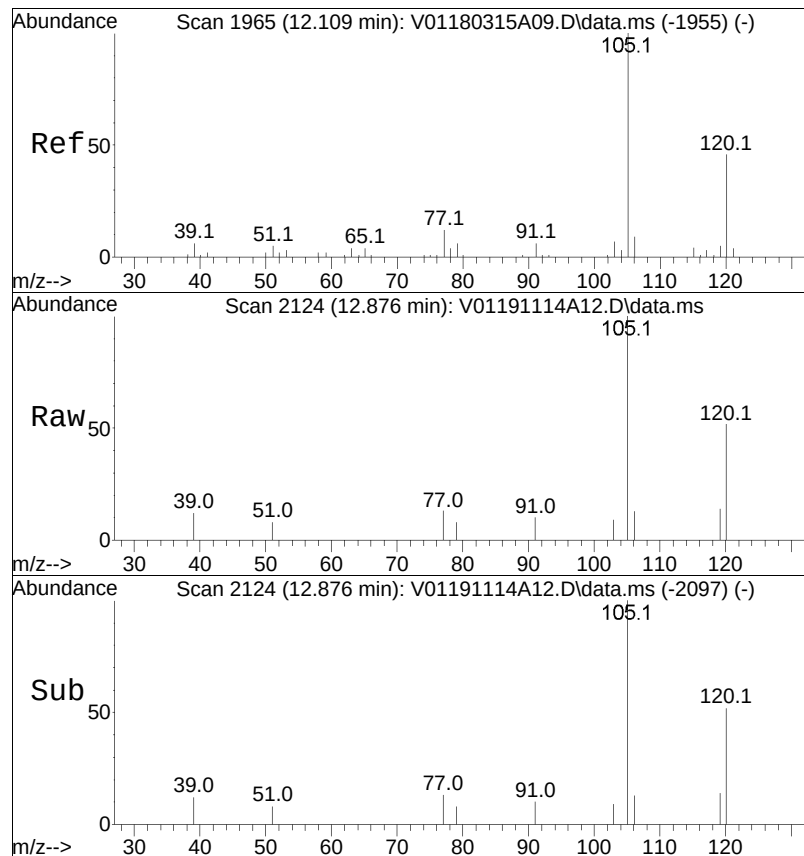




#90
 1,3,5-Trimethylbenzene
 Concen: 0.11 ug/L
 RT: 12.423 min Scan# 2041
 Delta R.T. 0.000 min
 Lab File: V01191114A12.D
 Acq: 14 Nov 2019 11:20 am

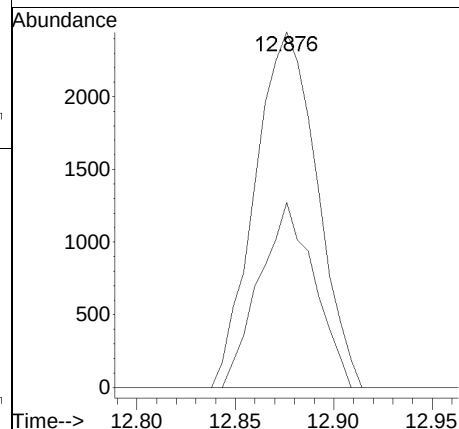
Tgt Ion	Ratio	Lower	Upper
105	100		
120	40.3	40.6	60.8#

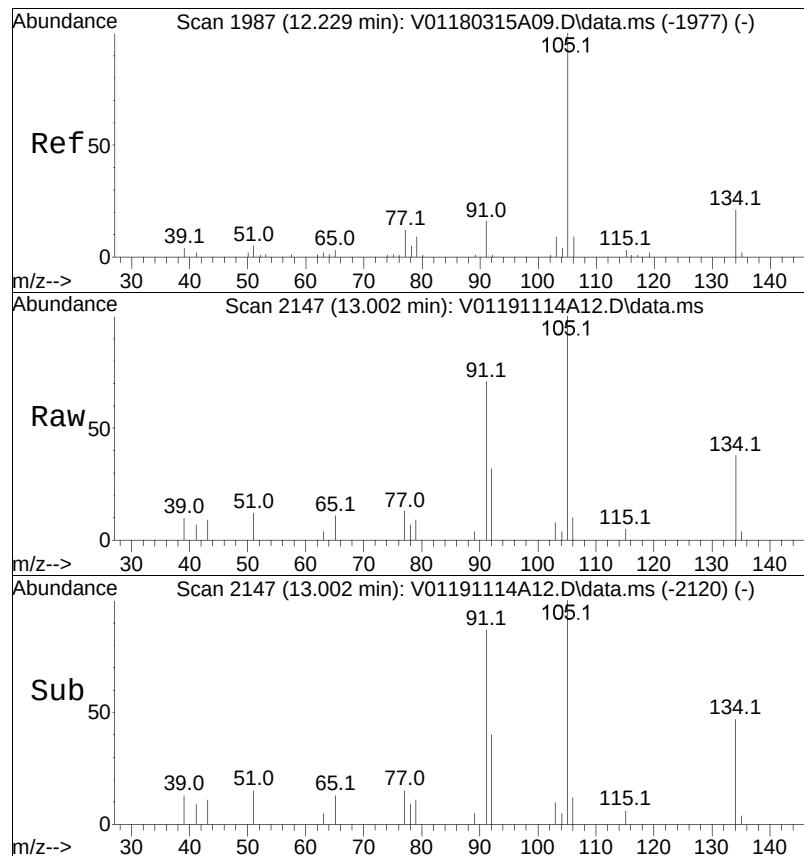




#97
 1,2,4-Trimethylbenzene
 Concen: 0.41 ug/L
 RT: 12.876 min Scan# 2124
 Delta R.T. 0.000 min
 Lab File: V01191114A12.D
 Acq: 14 Nov 2019 11:20 am

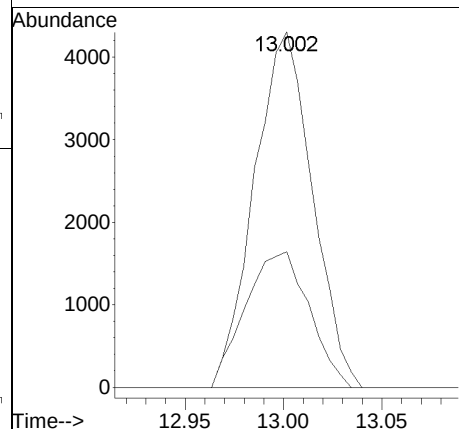
Tgt Ion:105 Resp: 5369
 Ion Ratio Lower Upper
 105 100
 120 46.0 37.8 56.6

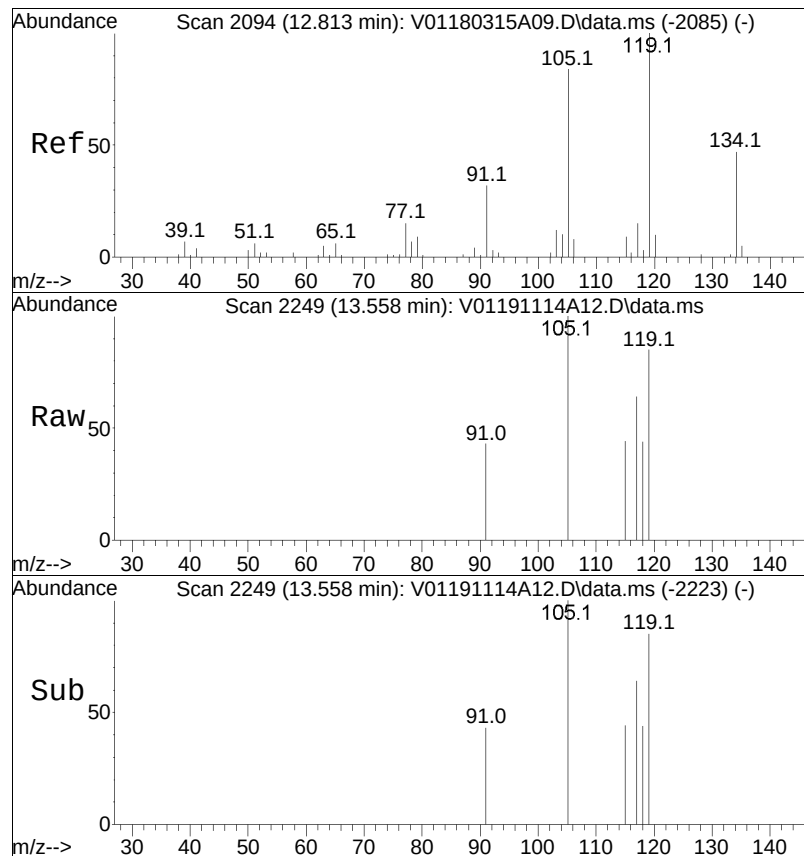




#98
 sec-Butylbenzene
 Concen: 0.61 ug/L
 RT: 13.002 min Scan# 2147
 Delta R.T. 0.000 min
 Lab File: V01191114A12.D
 Acq: 14 Nov 2019 11:20 am

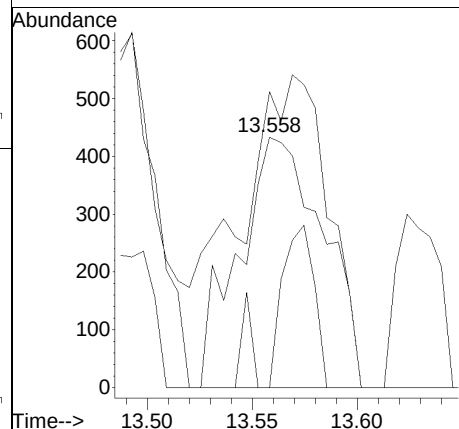
Tgt Ion	Ratio	Lower	Upper
105	100		
134	41.8	14.0	29.0#

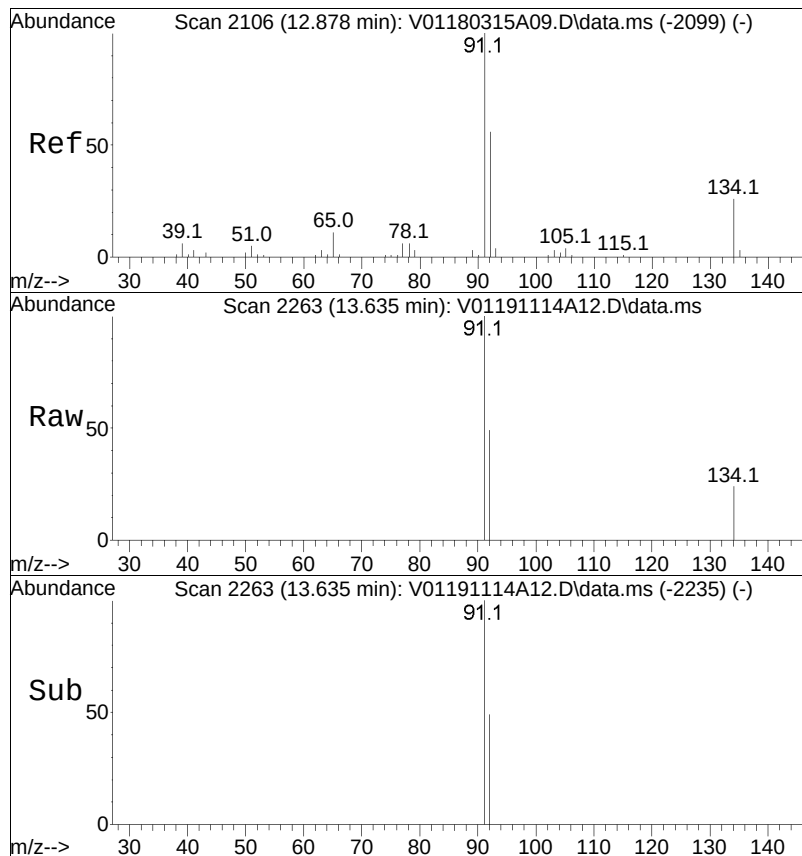




#102
 p-Diethylbenzene
 Concen: 0.17 ug/L
 RT: 13.558 min Scan# 2249
 Delta R.T. -0.005 min
 Lab File: V01191114A12.D
 Acq: 14 Nov 2019 11:20 am

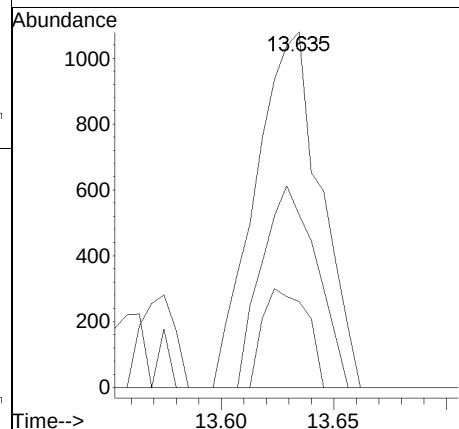
Tgt Ion	Ratio	Lower	Upper
119	100		
105	0.0	54.1	112.3#
134	4.5	31.5	65.3#

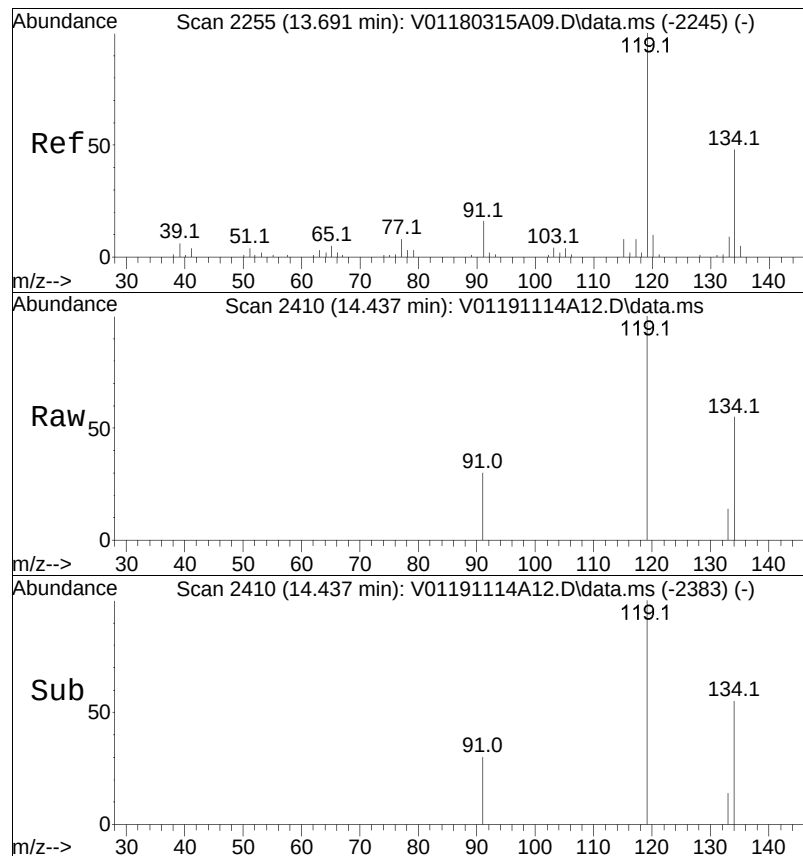




#103
 n-Butylbenzene
 Concen: 0.20 ug/L
 RT: 13.635 min Scan# 2263
 Delta R.T. 0.005 min
 Lab File: V01191114A12.D
 Acq: 14 Nov 2019 11:20 am

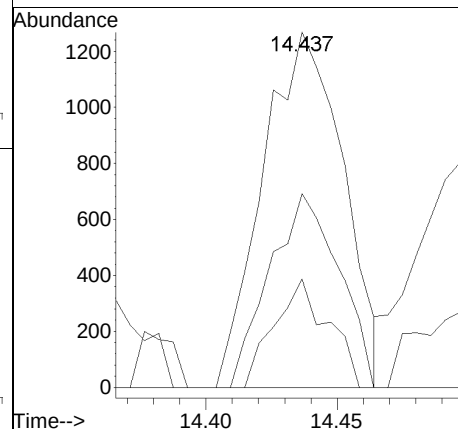
Tgt Ion	Ratio	Lower	Upper
91	100		
92	47.9	43.7	65.5
134	18.9	22.1	33.1#

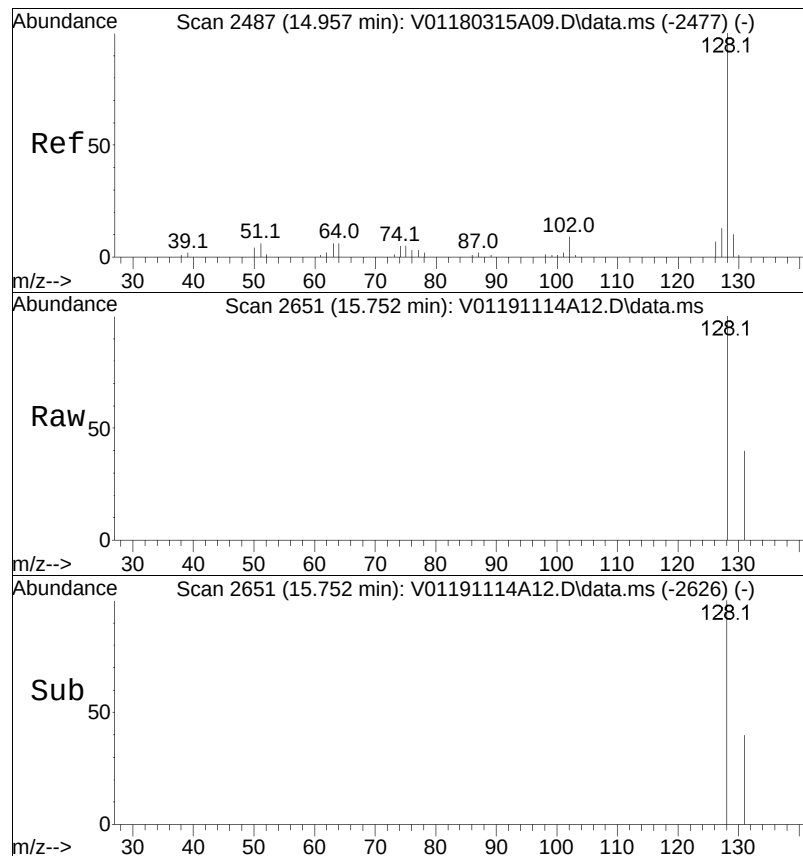




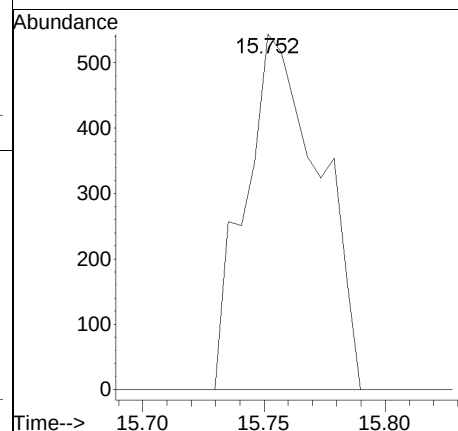
#105
 1,2,4,5-Tetramethylbenzene
 Concen: 0.26 ug/L
 RT: 14.437 min Scan# 2410
 Delta R.T. 0.000 min
 Lab File: V01191114A12.D
 Acq: 14 Nov 2019 11:20 am

Tgt Ion:	119	Resp:	2703
Ion Ratio	Lower	Upper	
119	100		
134	46.9	31.9	66.1
91	20.4	10.3	21.5





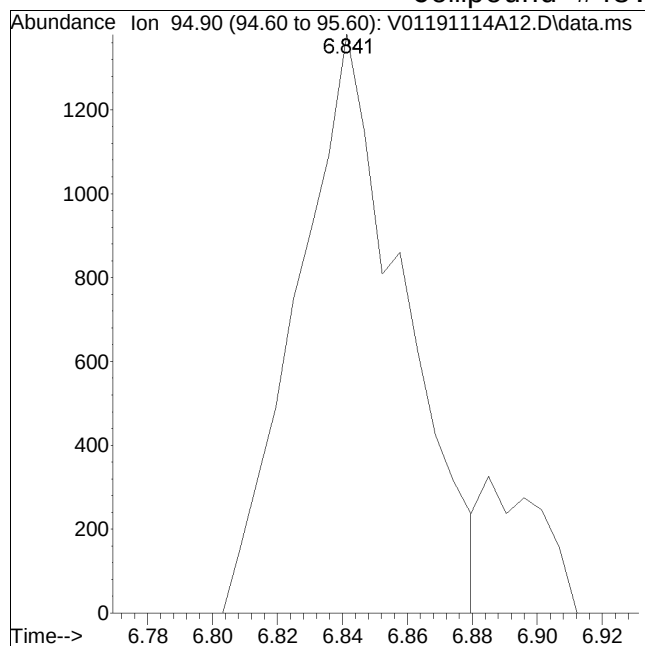
#110
 Naphthalene
 Concen: 0.19 ug/L
 RT: 15.752 min Scan# 2651
 Delta R.T. -0.011 min
 Lab File: V01191114A12.D
 Acq: 14 Nov 2019 11:20 am
 Tgt Ion:128 Resp: 1163



Manual Integration Report

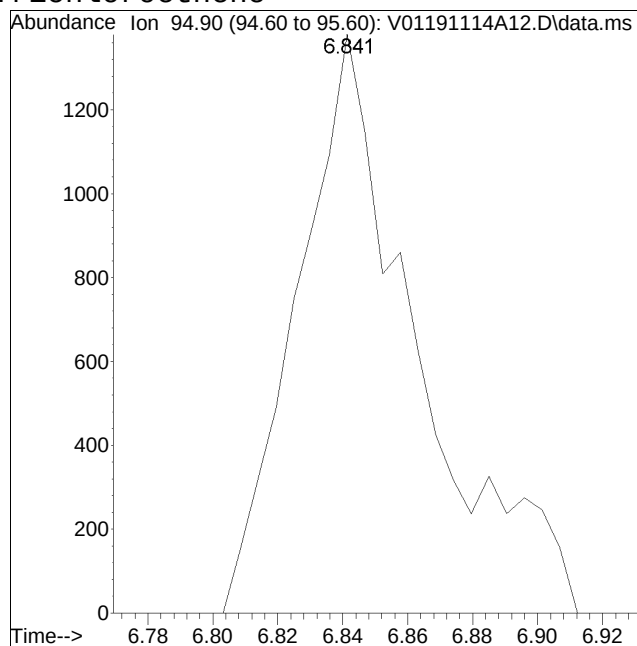
Data Path : I:\VOLATILES\VOA101\2019\10Method : V101_191107A_8260.m
Data File : V01191114A12.D Operator : VOA101:PD
Date Inj'd : 11/14/2019 11:20 am Instrument : VOA 101
Sample : l1954303-04,31,10,10,,a Quant Date : 11/14/2019 11:49 am

Compound #48: Trichloroethene



Original Peak Response = 3121

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.



Manual Peak Response = 3527 M1

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\VOA101\2019\191114A\
 Data File : V01191114A13.D
 Acq On : 14 Nov 2019 11:43 am
 Operator : VOA101:PD
 Sample : 11954303-07,31,10,10,,a
 Misc : WG1308760,ICAL16277
 ALS Vial : 13 Sample Multiplier: 1

Quant Time: Nov 14 12:18:11 2019
 Quant Method : I:\VOLATILES\VOA101\2019\191114A\V101_191107A_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Fri Nov 08 10:22:02 2019
 Response via : Initial Calibration

CCAL FILE(s) : 1 - I:\VOLATILES\VOA101\2019\191114A\V01191114A02.D
 Sub List : 8260-NYTCL - Megamix plus Diox

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

Internal Standards						
1) Fluorobenzene	6.645	96	190116	10.000	ug/L	0.00
Standard Area 1 = 199922			Recovery =	95.10%		
59) Chlorobenzene-d5	10.535	117	132857	10.000	ug/L	0.00
Standard Area 1 = 138066			Recovery =	96.23%		
79) 1,4-Dichlorobenzene-d4	13.335	152	64299	10.000	ug/L	0.00
Standard Area 1 = 65641			Recovery =	97.96%		
System Monitoring Compounds						
36) Dibromofluoromethane	5.750	113	46789	9.721	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	97.21%		
43) 1,2-Dichloroethane-d4	6.334	65	57003	10.728	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	107.28%		
60) Toluene-d8	8.511	98	188934	10.574	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	105.74%		
83) 4-Bromofluorobenzene	12.041	95	68660	10.323	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	103.23%		
Target Compounds						
						Qvalue
2) Dichlorodifluoromethane	0.000		0	N.D.		
3) Chloromethane	0.000		0	N.D. d		
4) Vinyl chloride	2.127	62	18393	4.232	ug/L	99
5) Bromomethane	0.000		0	N.D.		
6) Chloroethane	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000		0	N.D.		
8) Ethyl ether	0.000		0	N.D.		
10) 1,1-Dichloroethene	0.000		0	N.D.		
11) Carbon disulfide	3.339	76	529	N.D.		
15) Methylene chloride	0.000		0	N.D.		
17) Acetone	0.000		0	N.D. d		
18) trans-1,2-Dichloroethene	4.064	96	1627	0.390	ug/L	79
20) Methyl tert-butyl ether	0.000		0	N.D.		
23) 1,1-Dichloroethane	4.703	63	1182	0.123	ug/L	79
25) Acrylonitrile	0.000		0	N.D. d		
27) Vinyl acetate	4.954	43	517	N.D.		
28) cis-1,2-Dichloroethene	5.270	96	30711	5.997	ug/L #	82
29) 2,2-Dichloropropane	0.000		0	N.D.		
30) Bromochloromethane	0.000		0	N.D.		
32) Chloroform	5.548	83	491	N.D.		

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\VOA101\2019\191114A\
 Data File : V01191114A13.D
 Acq On : 14 Nov 2019 11:43 am
 Operator : VOA101:PD
 Sample : 11954303-07,31,10,10,,a
 Misc : WG1308760,ICAL16277
 ALS Vial : 13 Sample Multiplier: 1

Quant Time: Nov 14 12:18:11 2019
 Quant Method : I:\VOLATILES\VOA101\2019\191114A\V101_191107A_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Fri Nov 08 10:22:02 2019
 Response via : Initial Calibration

CCAL FILE(s) : 1 - I:\VOLATILES\VOA101\2019\191114A\V01191114A02.D
 Sub List : 8260-NYTCL - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
34) Carbon tetrachloride	0.000		0	N.D.		
37) 1,1,1-Trichloroethane	0.000		0	N.D.		
39) 2-Butanone	0.000		0	N.D.	d	
40) 1,1-Dichloropropene	0.000		0	N.D.		
41) Benzene	6.192	78	39964	2.161	ug/L #	90
44) 1,2-Dichloroethane	6.416	62	105	N.D.		
48) Trichloroethene	6.842	95	3350	0.709	ug/L #	83
50) Dibromomethane	0.000		0	N.D.		
51) 1,2-Dichloropropane	0.000		0	N.D.		
54) Bromodichloromethane	0.000		0	N.D.		
57) 1,4-Dioxane	0.000		0	N.D.		
58) cis-1,3-Dichloropropene	0.000		0	N.D.		
61) Toluene	8.577	92	2895	0.282	ug/L	99
62) 4-Methyl-2-pentanone	0.000		0	N.D.		
63) Tetrachloroethene	9.068	166	3003	0.779	ug/L	95
65) trans-1,3-Dichloropropene	0.000		0	N.D.		
68) 1,1,2-Trichloroethane	9.324	83	126	N.D.		
69) Chlorodibromomethane	0.000		0	N.D.		
70) 1,3-Dichloropropane	0.000		0	N.D.		
71) 1,2-Dibromoethane	0.000		0	N.D.		
72) 2-Hexanone	0.000		0	N.D.		
73) Chlorobenzene	10.563	112	302	N.D.		
74) Ethylbenzene	10.590	91	11350	0.580	ug/L	97
75) 1,1,1,2-Tetrachloroethane	0.000		0	N.D.		
76) p/m Xylene	10.776	106	3948	0.534	ug/L	91
77) o Xylene	11.316	106	1788	0.260	ug/L	99
78) Styrene	0.000		0	N.D.		
80) Bromoform	0.000		0	N.D.		
82) Isopropylbenzene	11.698	105	15762	0.936	ug/L	98
84) Bromobenzene	0.000		0	N.D.		
85) n-Propylbenzene	12.194	91	21061	1.078	ug/L	99
87) 1,1,2,2-Tetrachloroethane	0.000		0	N.D.		
88) 4-Ethyltoluene	12.314	105	3967	0.258	ug/L	93
89) 2-Chlorotoluene	12.423	91	52	N.D.		
90) 1,3,5-Trimethylbenzene	12.429	105	1498	0.114	ug/L	86
91) 1,2,3-Trichloropropane	0.000		0	N.D.		
92) trans-1,4-Dichloro-2-b...	0.000		0	N.D.		
93) 4-Chlorotoluene	12.674	91	370	N.D.		
94) tert-Butylbenzene	12.876	119	609	N.D.		

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\VOA101\2019\191114A\
 Data File : V01191114A13.D
 Acq On : 14 Nov 2019 11:43 am
 Operator : VOA101:PD
 Sample : l1954303-07,31,10,10,,a
 Misc : WG1308760,ICAL16277
 ALS Vial : 13 Sample Multiplier: 1

Quant Time: Nov 14 12:18:11 2019
 Quant Method : I:\VOLATILES\VOA101\2019\191114A\V101_191107A_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Fri Nov 08 10:22:02 2019
 Response via : Initial Calibration

CCAL FILE(s) : 1 - I:\VOLATILES\VOA101\2019\191114A\V01191114A02.D
 Sub List : 8260-NYTCL - Megamix plus Diox

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

97)	1,2,4-Trimethylbenzene	12.876	105	5244	0.400	ug/L	99
98)	sec-Butylbenzene	13.002	105	9061	0.621	ug/L #	58
99)	p-Isopropyltoluene	13.155	119	1066	0.082	ug/L #	54
100)	1,3-Dichlorobenzene	0.000		0	N.D.		
101)	1,4-Dichlorobenzene	0.000		0	N.D.		
102)	p-Diethylbenzene	13.569	119	1383	0.194	ug/L	87
103)	n-Butylbenzene	13.629	91	2309	0.209	ug/L #	86
104)	1,2-Dichlorobenzene	0.000		0	N.D.		
105)	1,2,4,5-Tetramethylben...	14.442	119	2961	0.283	ug/L	88
106)	1,2-Dibromo-3-chloropr...	0.000		0	N.D.		
108)	Hexachlorobutadiene	0.000		0	N.D.		
109)	1,2,4-Trichlorobenzene	0.000		0	N.D.		
110)	Naphthalene	15.774	128	1257	0.198	ug/L	100
111)	1,2,3-Trichlorobenzene	0.000		0	N.D.		

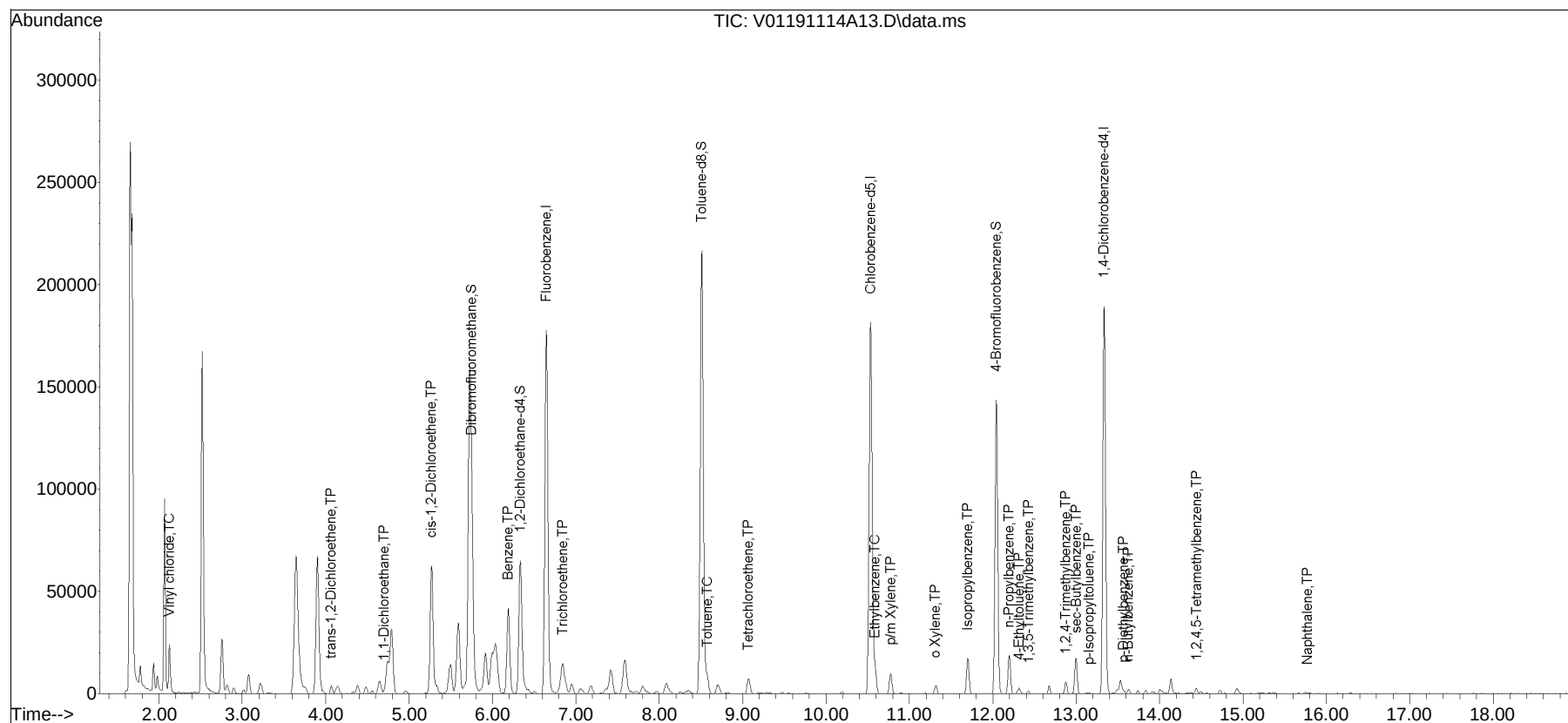
(#) = qualifier out of range (m) = manual integration (+) = signals summed

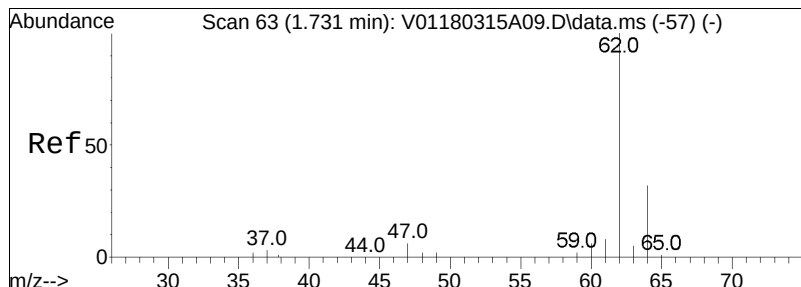
Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\VOA101\2019\191114A\
 Data File : V01191114A13.D
 Acq On : 14 Nov 2019 11:43 am
 Operator : VOA101:PD
 Sample : l1954303-07,31,10,10,,a
 Misc : WG1308760,ICAL16277
 ALS Vial : 13 Sample Multiplier: 1

Quant Time: Nov 14 12:18:11 2019
 Quant Method : I:\VOLATILES\VOA101\2019\191114A\V101_191107A_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Fri Nov 08 10:22:02 2019
 Response via : Initial Calibration

Sub List : 8260-NYTCL - Megamix plus Diox91114A\V01191114A02.D•





#4

Vinyl chloride

Concen: 4.23 ug/L

RT: 2.127 min Scan# 154

Delta R.T. 0.005 min

Lab File: V01191114A13.D

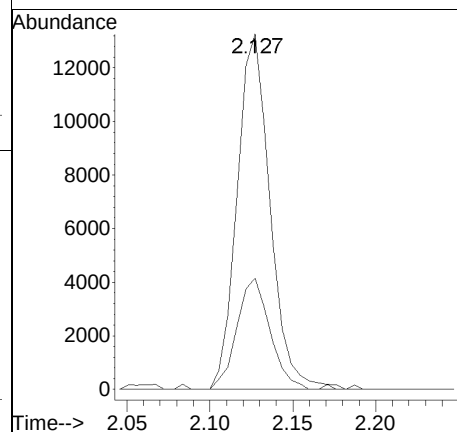
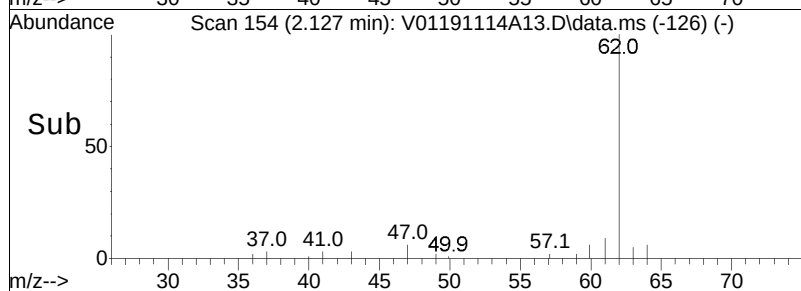
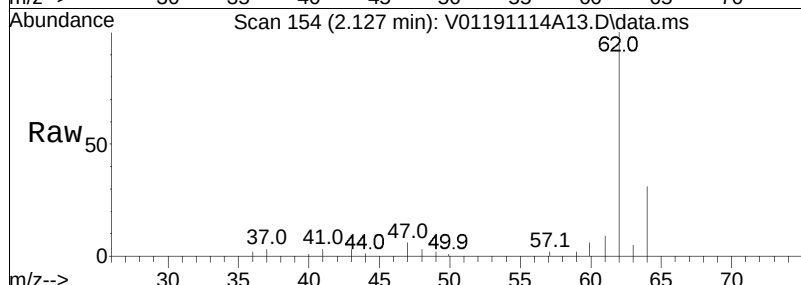
Acq: 14 Nov 2019 11:43 am

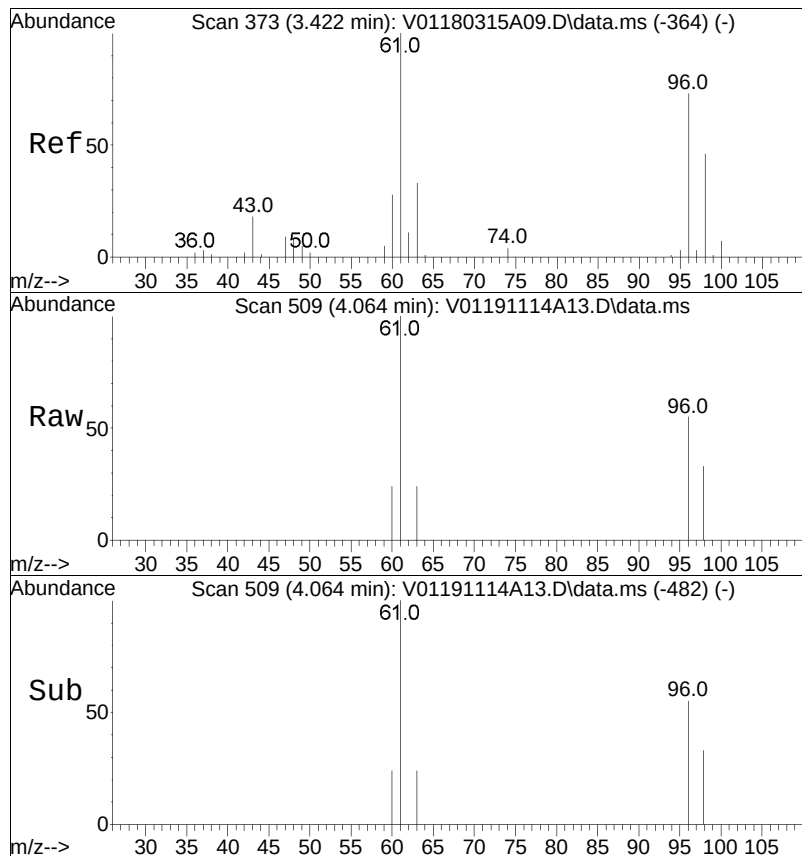
Tgt Ion: 62 Resp: 18393

Ion Ratio Lower Upper

62 100

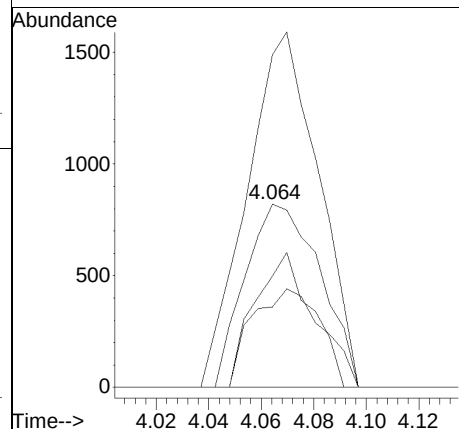
64 31.4 10.8 50.8

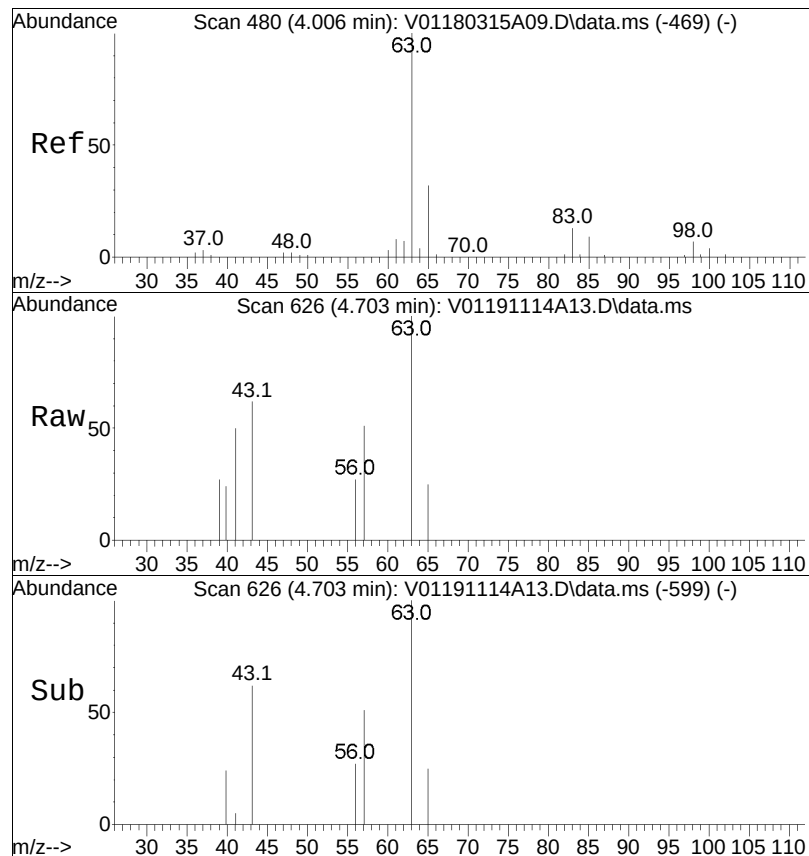




#18
 trans-1,2-Dichloroethene
 Concen: 0.39 ug/L
 RT: 4.064 min Scan# 509
 Delta R.T. -0.005 min
 Lab File: V01191114A13.D
 Acq: 14 Nov 2019 11:43 am

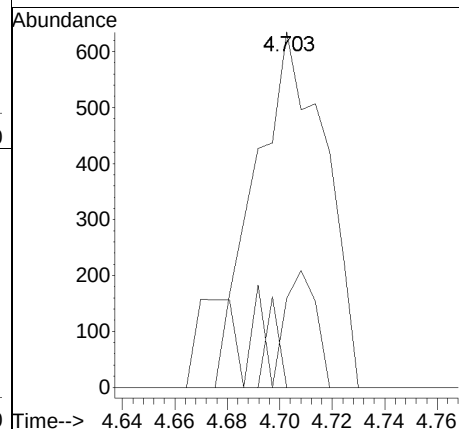
Tgt Ion:	96	Resp:	1627
Ion Ratio	Lower	Upper	
96	100		
61	185.1	95.3	197.9
98	55.6	41.0	85.2
63	50.9	30.2	62.6

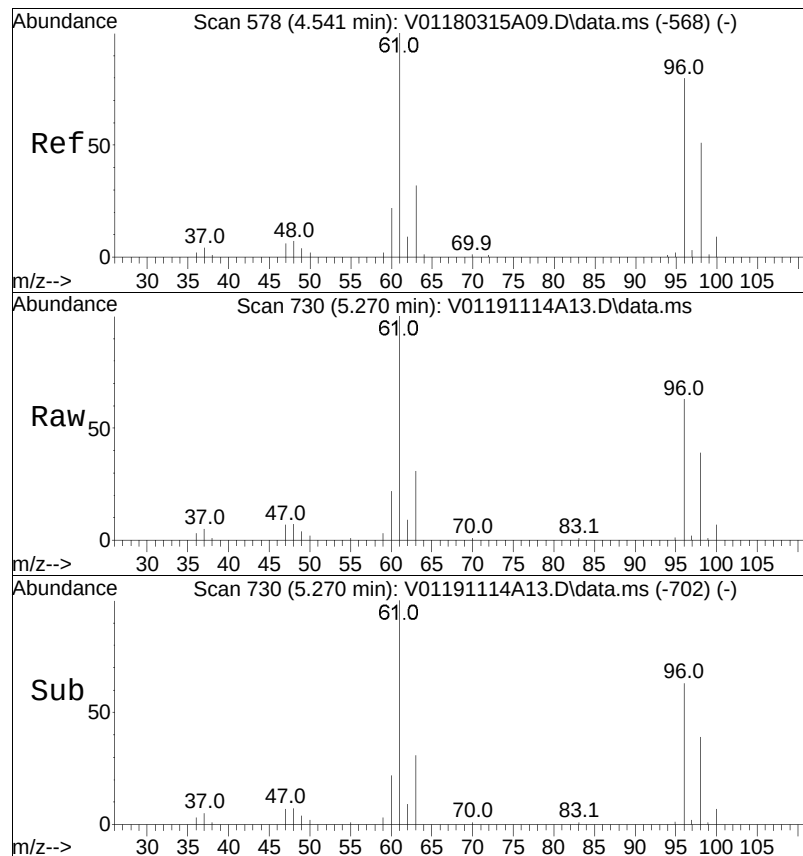




#23
 1,1-Dichloroethane
 Concen: 0.12 ug/L
 RT: 4.703 min Scan# 626
 Delta R.T. -0.005 min
 Lab File: V01191114A13.D
 Acq: 14 Nov 2019 11:43 am

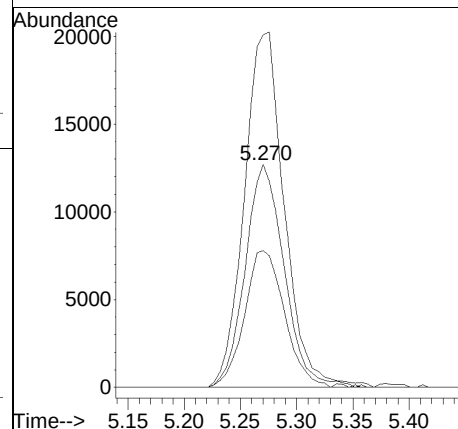
Tgt Ion:	63	Resp:	1182
Ion Ratio	Lower	Upper	
63	100		
65	19.5	10.9	50.9
83	4.5	0.0	33.0

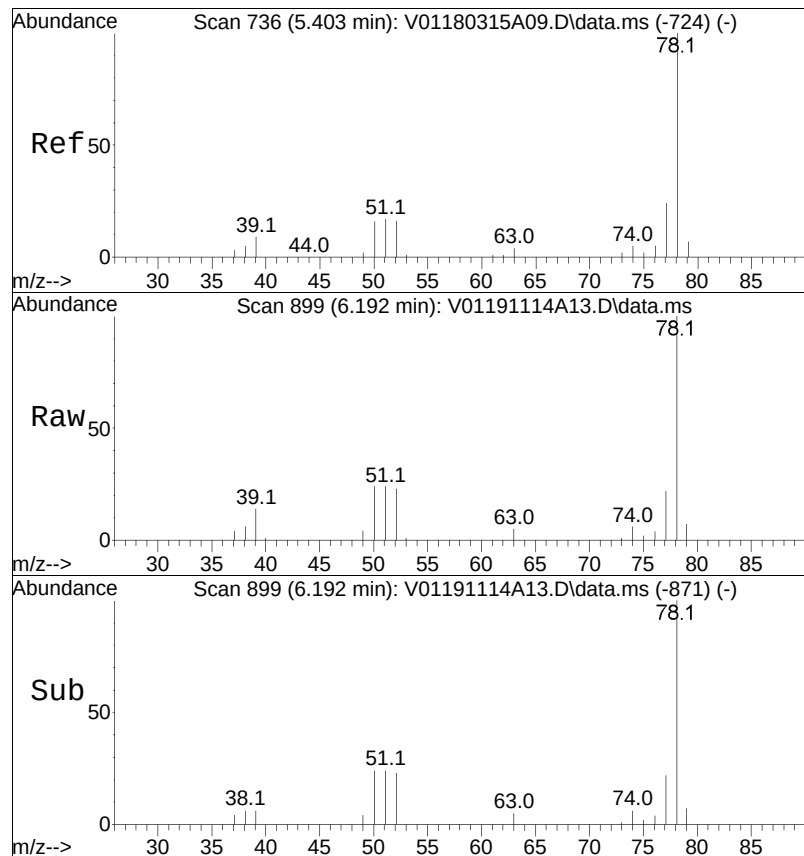




#28
 cis-1,2-Dichloroethene
 Concen: 6.00 ug/L
 RT: 5.270 min Scan# 730
 Delta R.T. 0.000 min
 Lab File: V01191114A13.D
 Acq: 14 Nov 2019 11:43 am

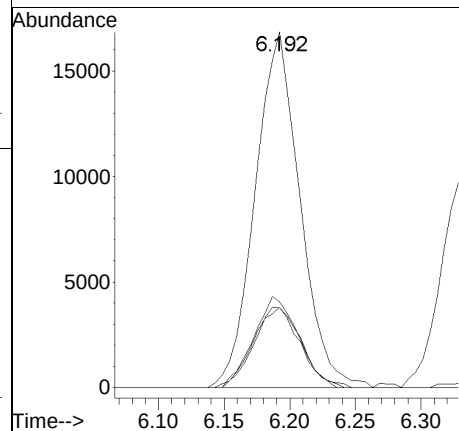
Tgt Ion:	96	Resp:	30711
Ion Ratio	Lower	Upper	
96	100		
61	162.8	105.8	158.6#
98	62.8	51.1	76.7

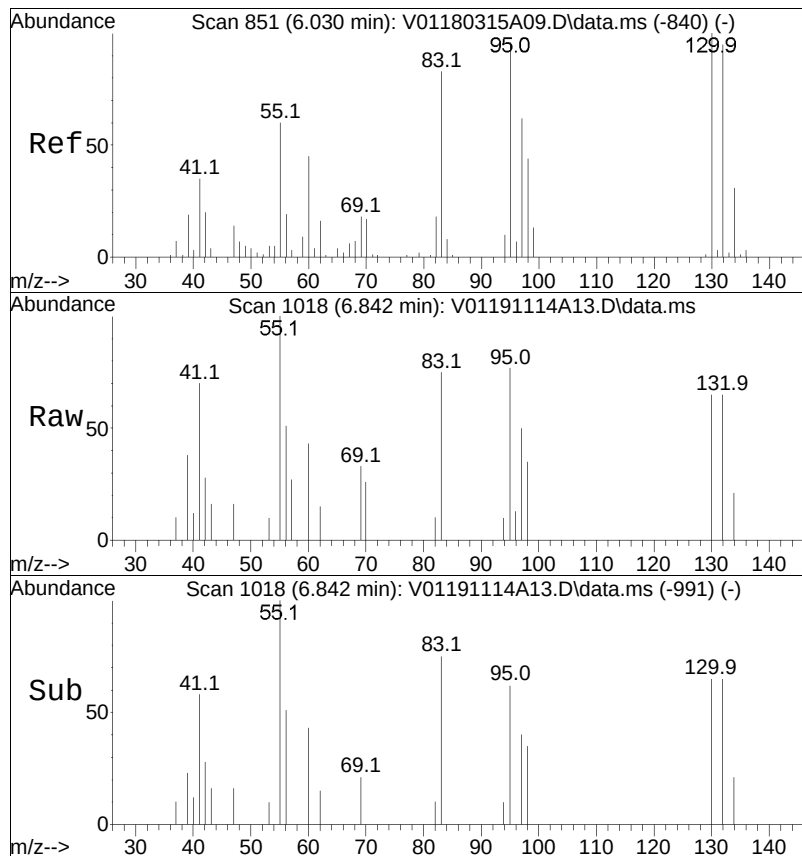




#41
Benzene
Concen: 2.16 ug/L
RT: 6.192 min Scan# 899
Delta R.T. 0.000 min
Lab File: V01191114A13.D
Acq: 14 Nov 2019 11:43 am

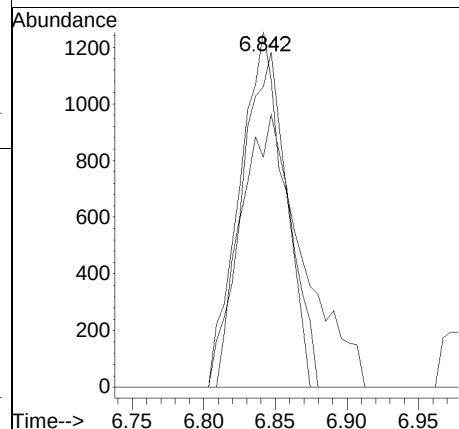
Tgt Ion: 78	Resp: 39964
Ion Ratio	Lower Upper
78 100	
77 23.7	15.7 32.5
51 25.4	11.6 24.2#
52 23.6	10.9 22.5#

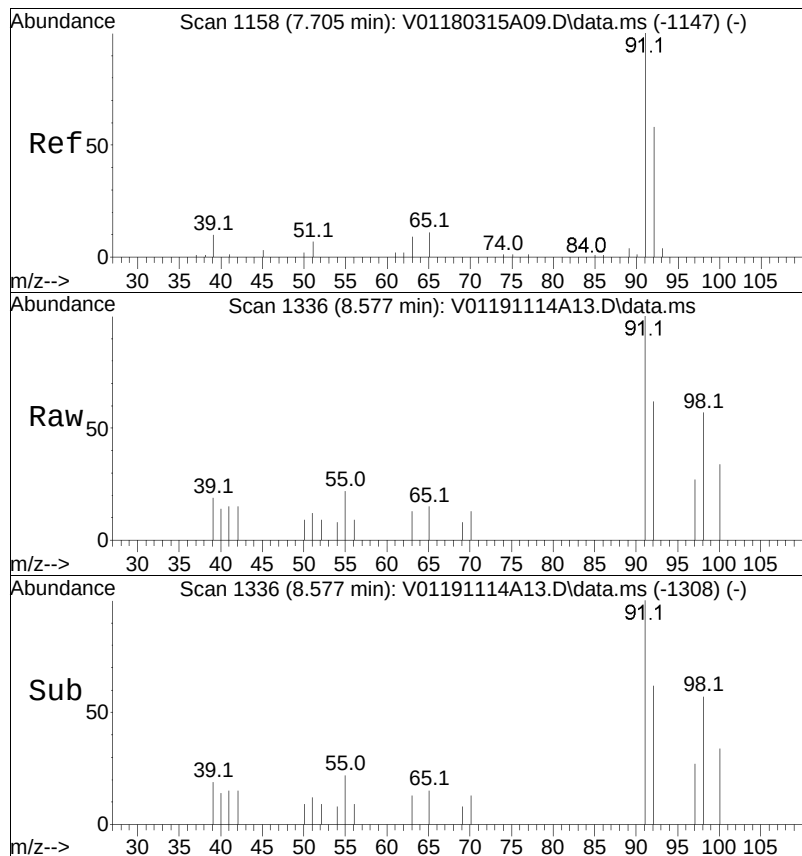




#48
 Trichloroethene
 Concen: 0.71 ug/L
 RT: 6.842 min Scan# 1018
 Delta R.T. -0.005 min
 Lab File: V01191114A13.D
 Acq: 14 Nov 2019 11:43 am

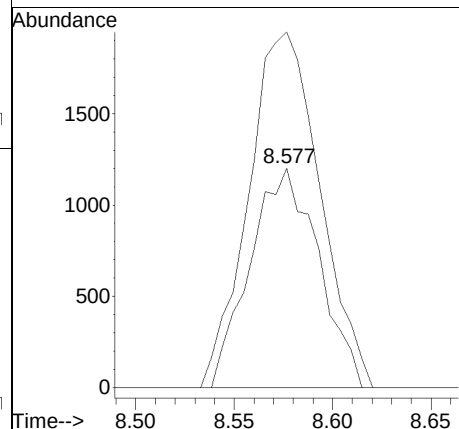
Tgt Ion	Ratio	Lower	Upper
95	100		
97	71.6	54.4	81.6
130	75.6	80.6	120.8#

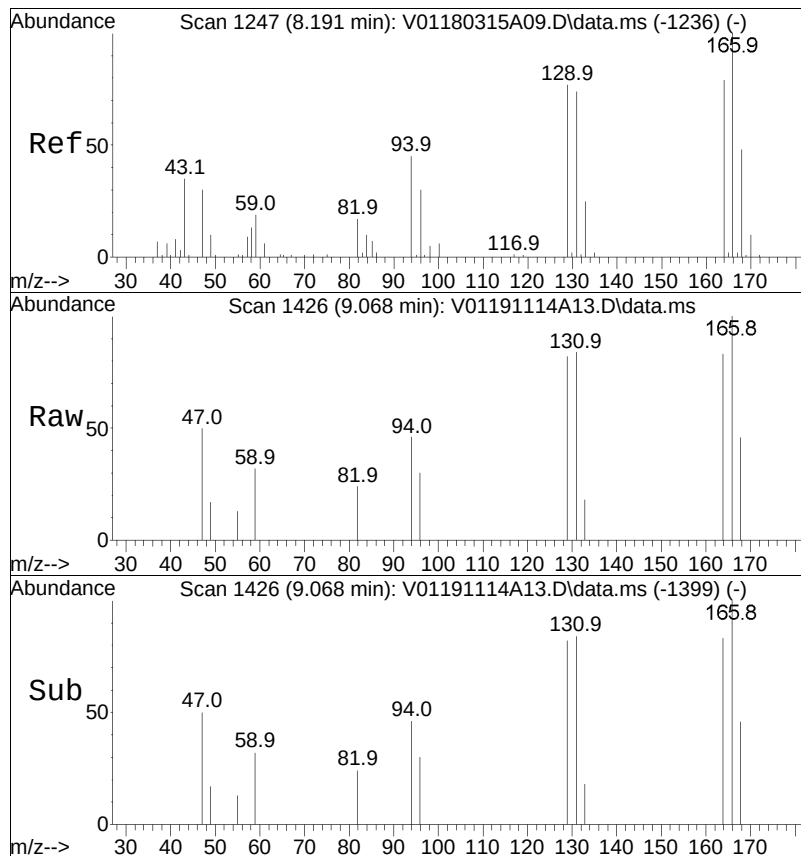




#61
 Toluene
 Concen: 0.28 ug/L
 RT: 8.577 min Scan# 1336
 Delta R.T. 0.000 min
 Lab File: V01191114A13.D
 Acq: 14 Nov 2019 11:43 am

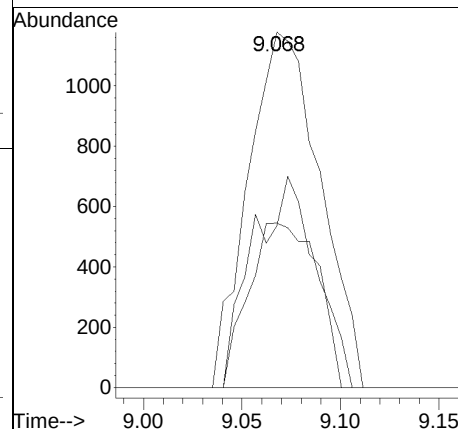
Tgt	Ion	Resp	Lower	Upper
92	100			
91	170.0	2895	137.5	206.3

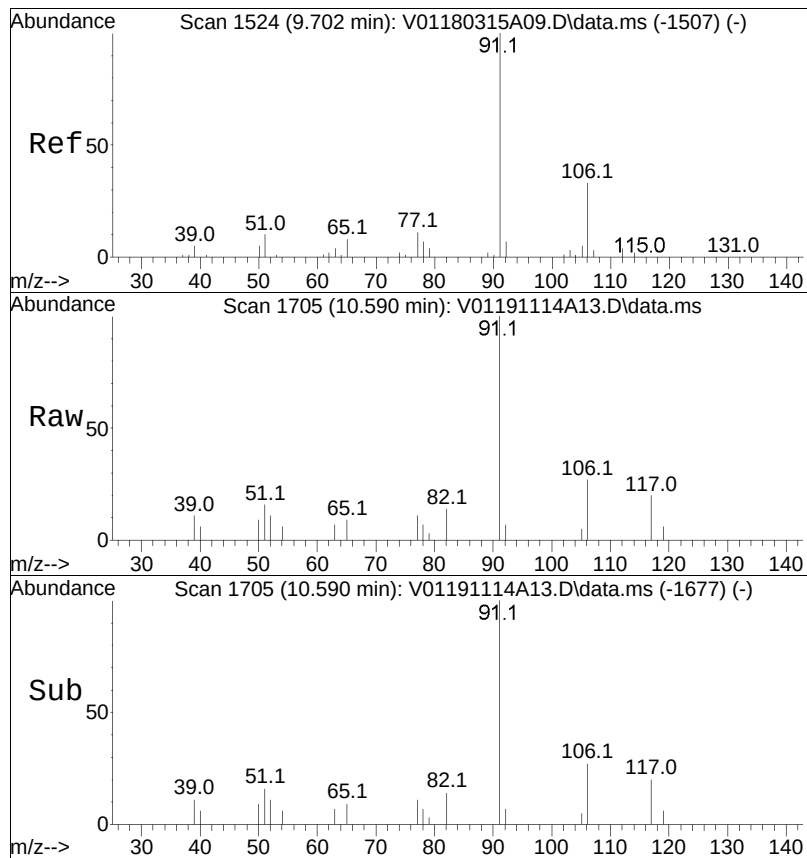




#63
Tetrachloroethene
Concen: 0.78 ug/L
RT: 9.068 min Scan# 1426
Delta R.T. -0.005 min
Lab File: V01191114A13.D
Acq: 14 Nov 2019 11:43 am

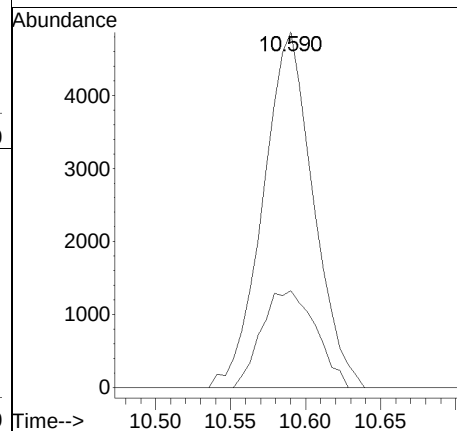
Tgt Ion:	166	Resp:	3003
Ion Ratio	Lower	Upper	
166	100		
168	46.1	27.4	67.4
94	50.2	24.8	64.8

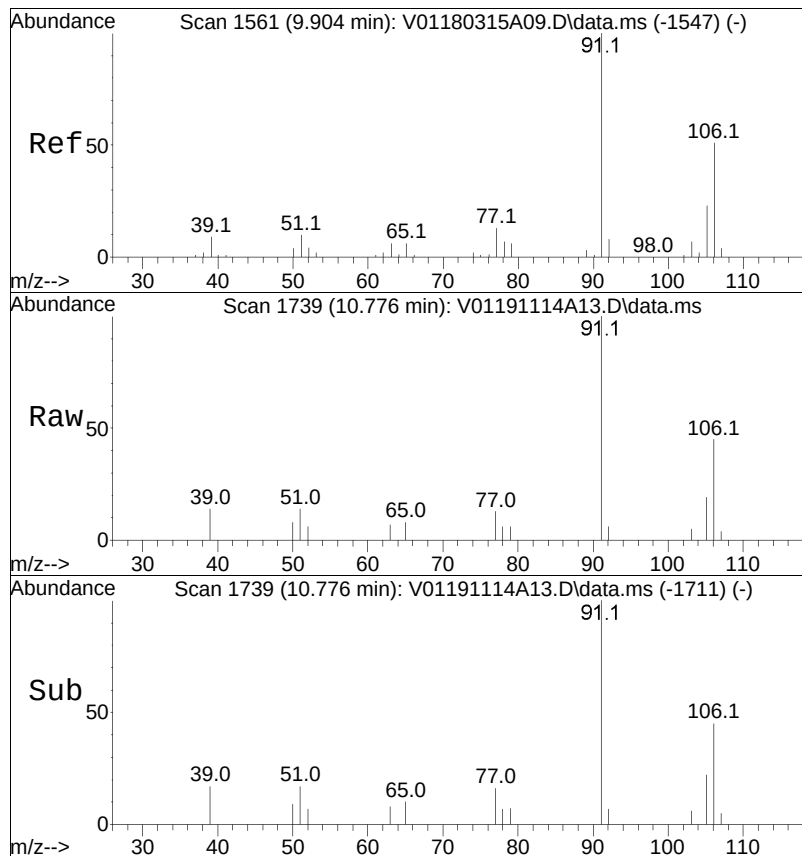




#74
 Ethylbenzene
 Concen: 0.58 ug/L
 RT: 10.590 min Scan# 1705
 Delta R.T. 0.000 min
 Lab File: V01191114A13.D
 Acq: 14 Nov 2019 11:43 am

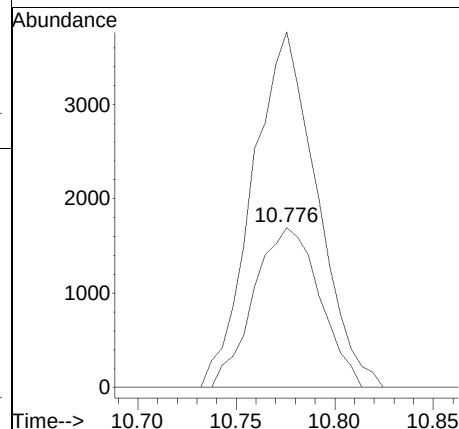
Tgt Ion	Ratio	Lower	Upper
91	100		
106	29.3	24.7	37.1

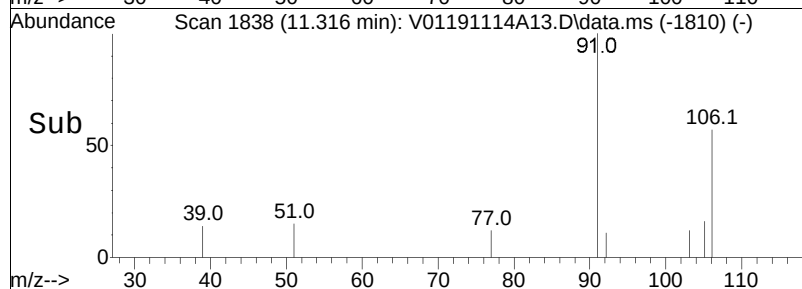
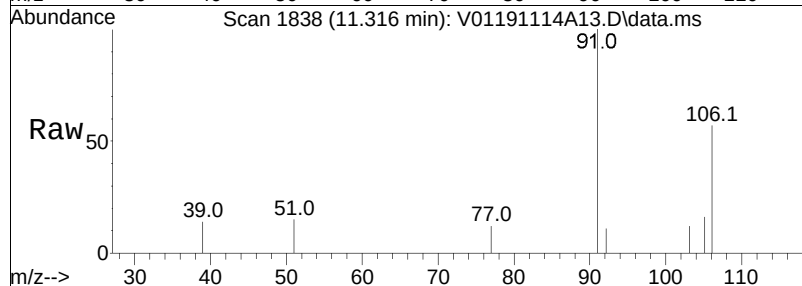
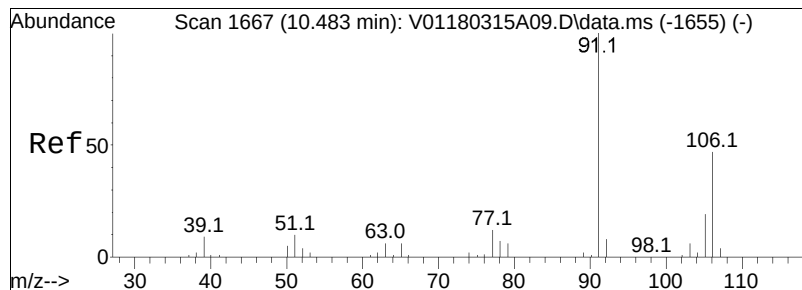




#76
 p/m Xylene
 Concen: 0.53 ug/L
 RT: 10.776 min Scan# 1739
 Delta R.T. 0.000 min
 Lab File: V01191114A13.D
 Acq: 14 Nov 2019 11:43 am

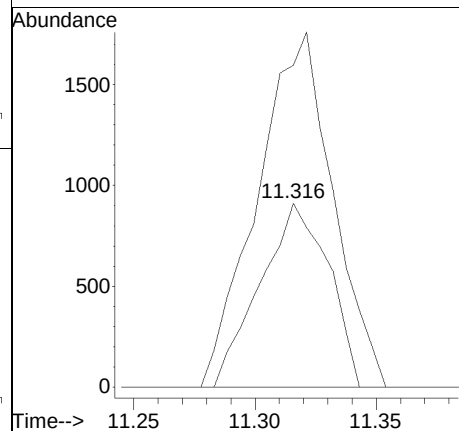
Tgt	Ion	Ratio	Lower	Upper
106	106	100		
91	217.6	162.9	244.3	

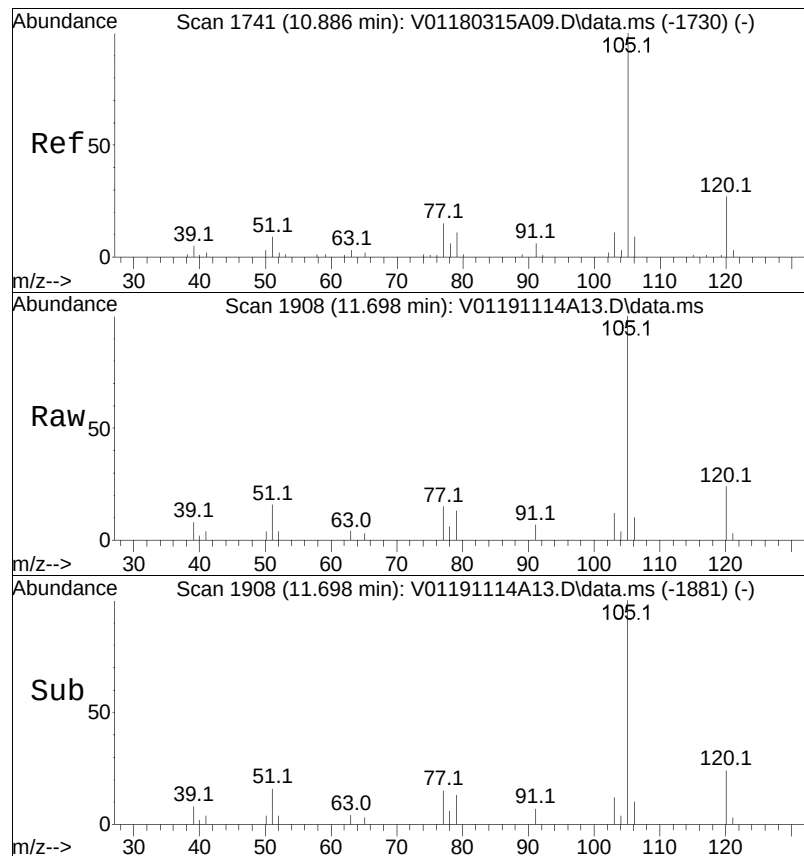




#77
o Xylene
Concen: 0.26 ug/L
RT: 11.316 min Scan# 1838
Delta R.T. 0.000 min
Lab File: V01191114A13.D
Acq: 14 Nov 2019 11:43 am

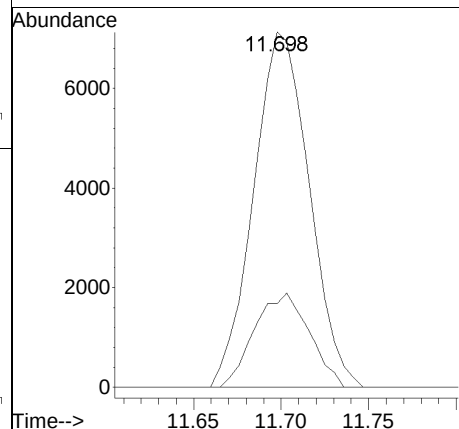
Tgt Ion	Ratio	Lower	Upper
106	100		
91	213.0	171.2	256.8

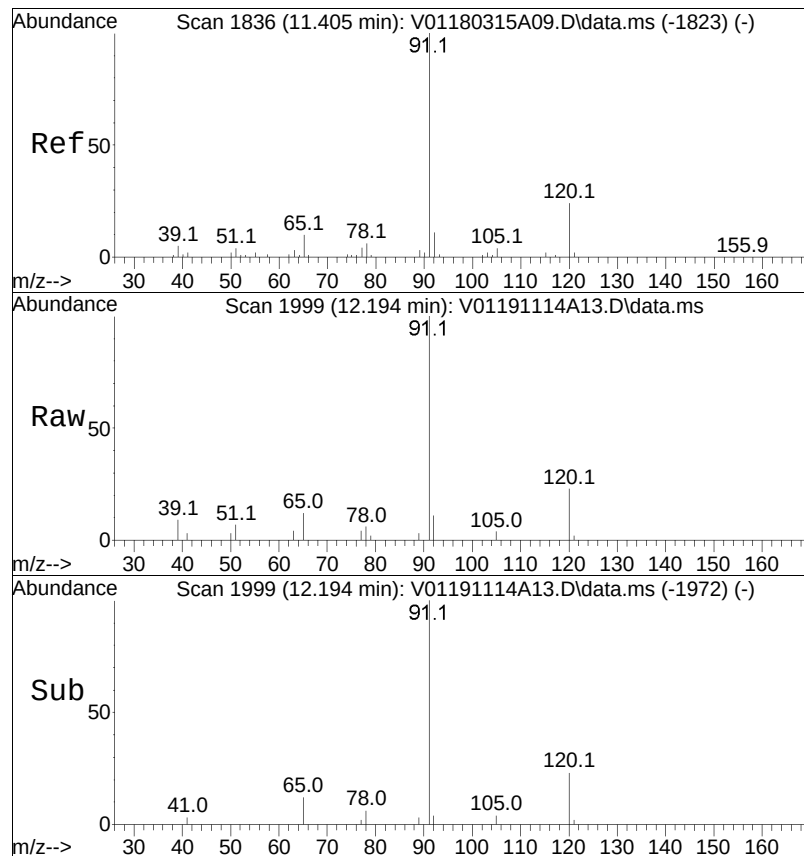




#82
 Isopropylbenzene
 Concen: 0.94 ug/L
 RT: 11.698 min Scan# 1908
 Delta R.T. -0.005 min
 Lab File: V01191114A13.D
 Acq: 14 Nov 2019 11:43 am

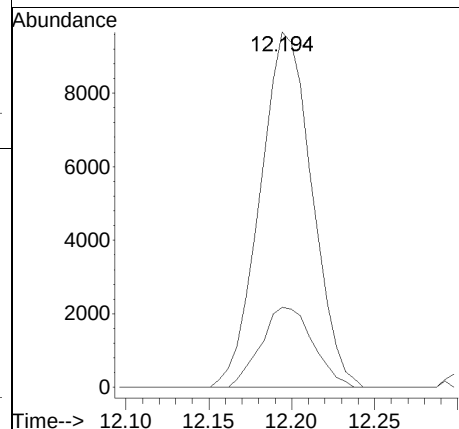
Tgt Ion	Ratio	Lower	Upper
105	100		
120	26.2	7.3	47.3

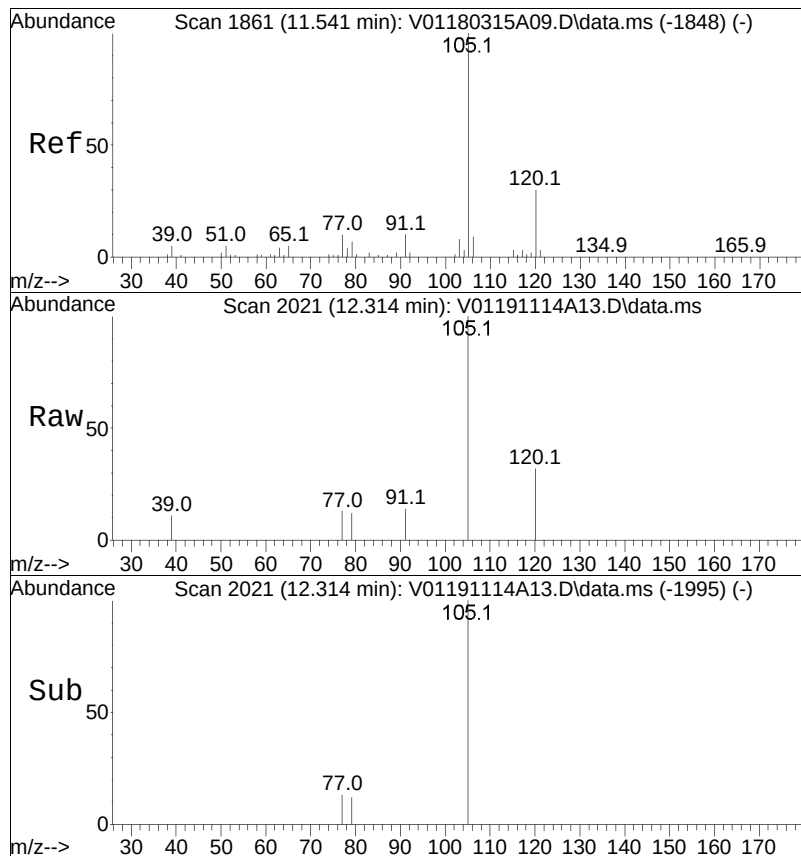




#85
 n-Propylbenzene
 Concen: 1.08 ug/L
 RT: 12.194 min Scan# 1999
 Delta R.T. -0.005 min
 Lab File: V01191114A13.D
 Acq: 14 Nov 2019 11:43 am

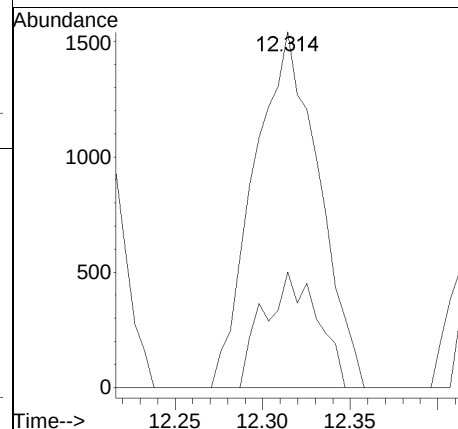
Tgt Ion:	91	Resp:	21061
Ion Ratio	Lower	Upper	
91	100		
120	22.6	18.6	28.0

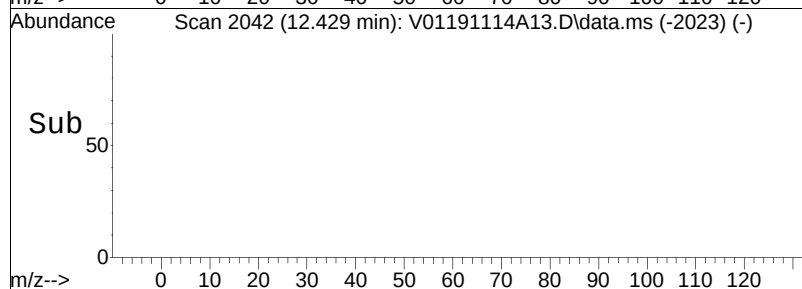
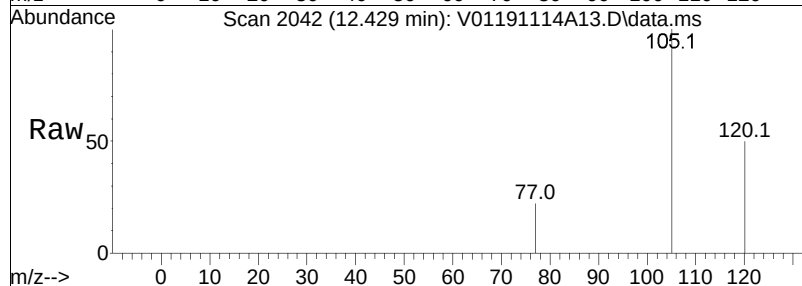
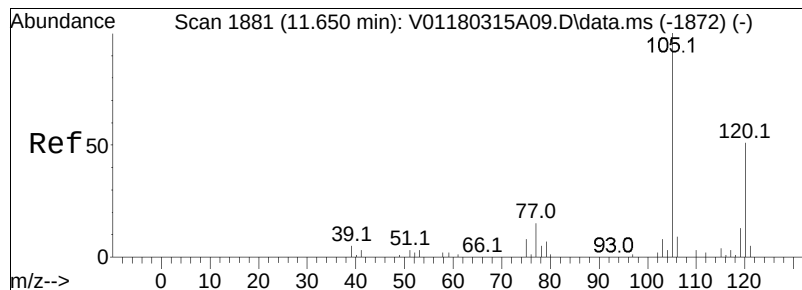




#88
 4-Ethyltoluene
 Concen: 0.26 ug/L
 RT: 12.314 min Scan# 2021
 Delta R.T. -0.011 min
 Lab File: V01191114A13.D
 Acq: 14 Nov 2019 11:43 am

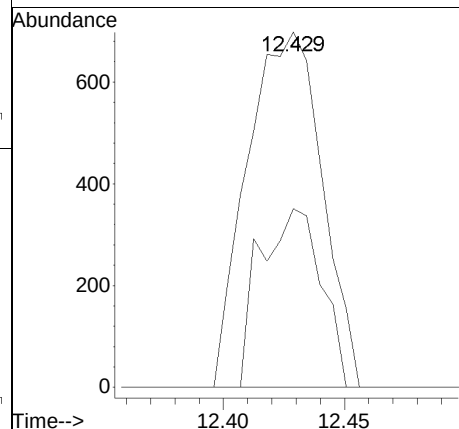
Tgt Ion	Ratio	Lower	Upper
105	100		
120	26.8	19.8	41.0

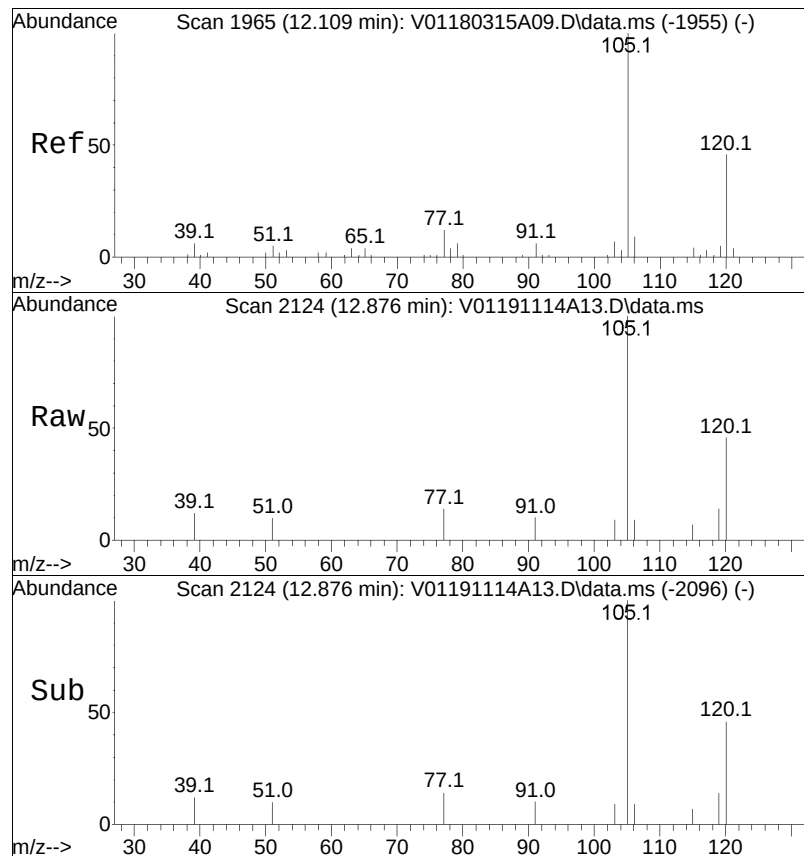




#90
 1,3,5-Trimethylbenzene
 Concen: 0.11 ug/L
 RT: 12.429 min Scan# 2042
 Delta R.T. 0.006 min
 Lab File: V01191114A13.D
 Acq: 14 Nov 2019 11:43 am

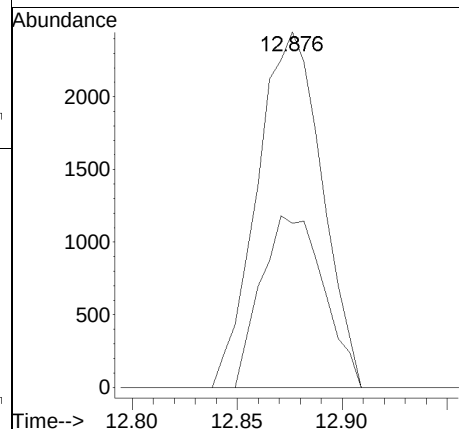
Tgt Ion	Ratio	Lower	Upper
105	100		
120	41.1	40.6	60.8

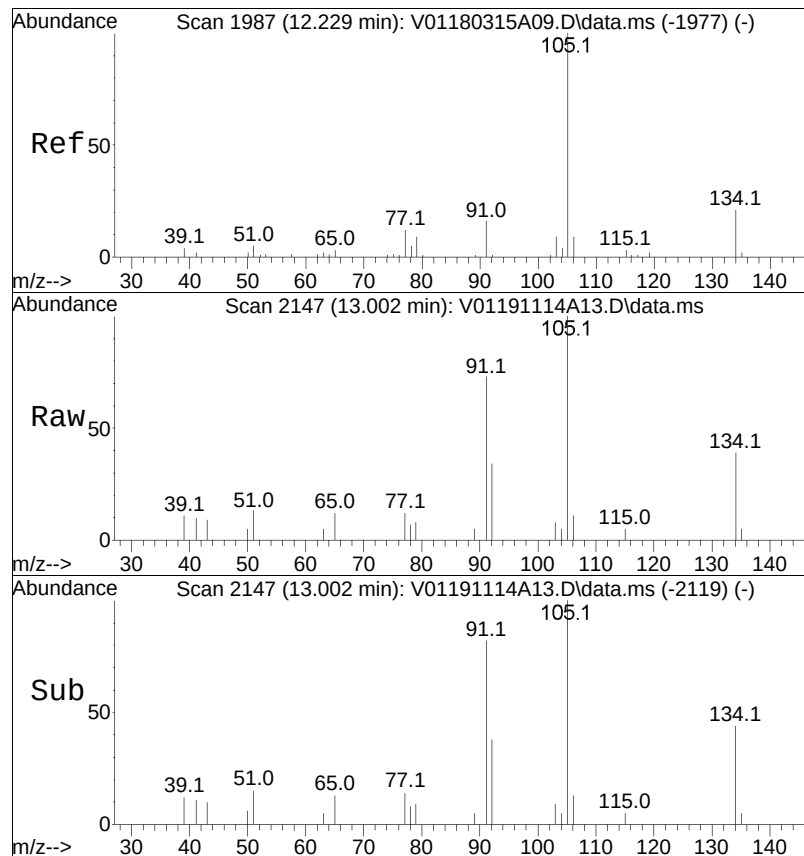




#97
 1,2,4-Trimethylbenzene
 Concen: 0.40 ug/L
 RT: 12.876 min Scan# 2124
 Delta R.T. 0.000 min
 Lab File: V01191114A13.D
 Acq: 14 Nov 2019 11:43 am

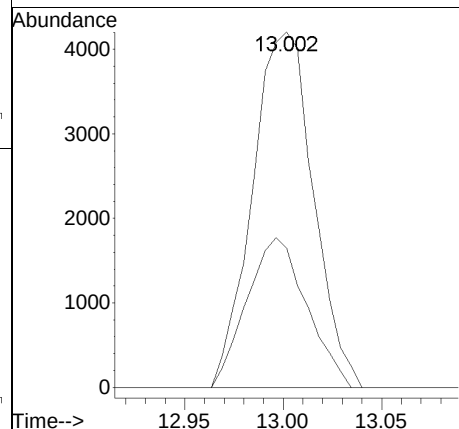
Tgt Ion	Ratio	Lower	Upper
105	100		
120	46.6	37.8	56.6

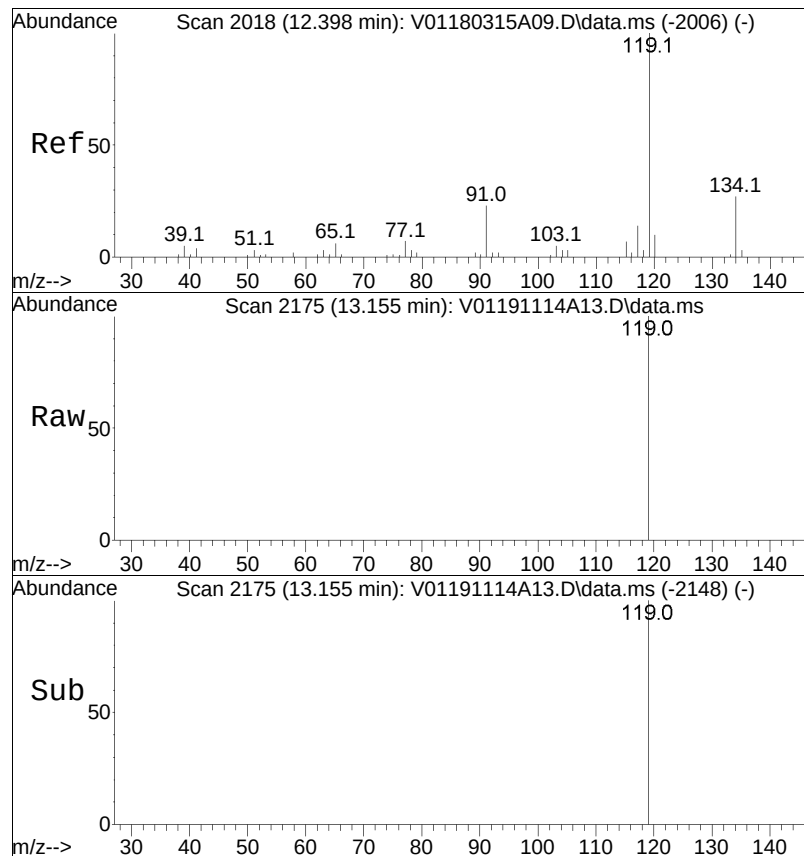




#98
 sec-Butylbenzene
 Concen: 0.62 ug/L
 RT: 13.002 min Scan# 2147
 Delta R.T. 0.000 min
 Lab File: V01191114A13.D
 Acq: 14 Nov 2019 11:43 am

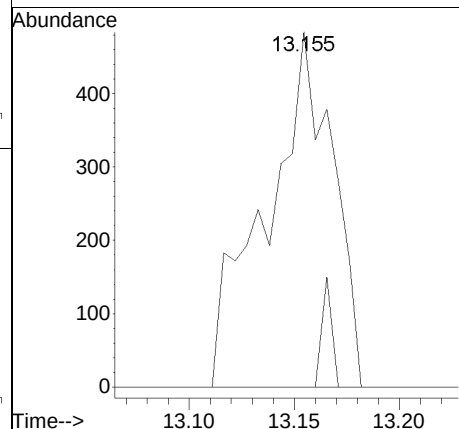
Tgt Ion	Ratio	Lower	Upper
105	100		
134	41.2	14.0	29.0#

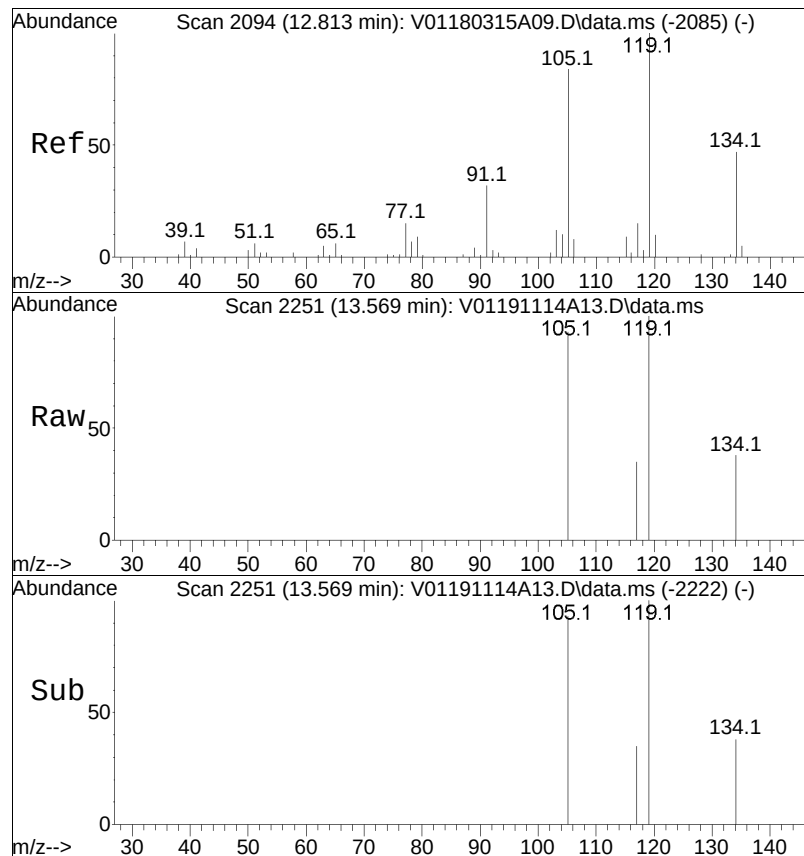




#99
 p-Isopropyltoluene
 Concen: 0.08 ug/L
 RT: 13.155 min Scan# 2175
 Delta R.T. -0.005 min
 Lab File: V01191114A13.D
 Acq: 14 Nov 2019 11:43 am

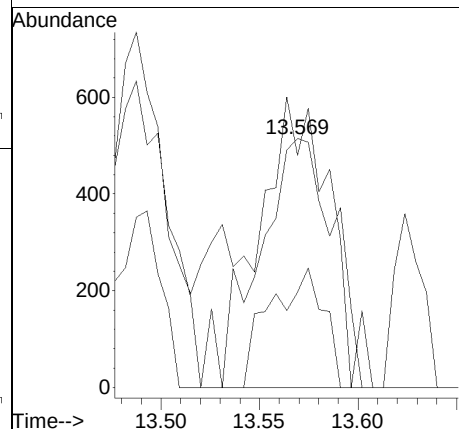
Tgt	Ion:119	Resp:	1066
Ion	Ratio	Lower	Upper
119	100		
134	4.6	17.7	36.7#
91	0.0	15.4	32.0#

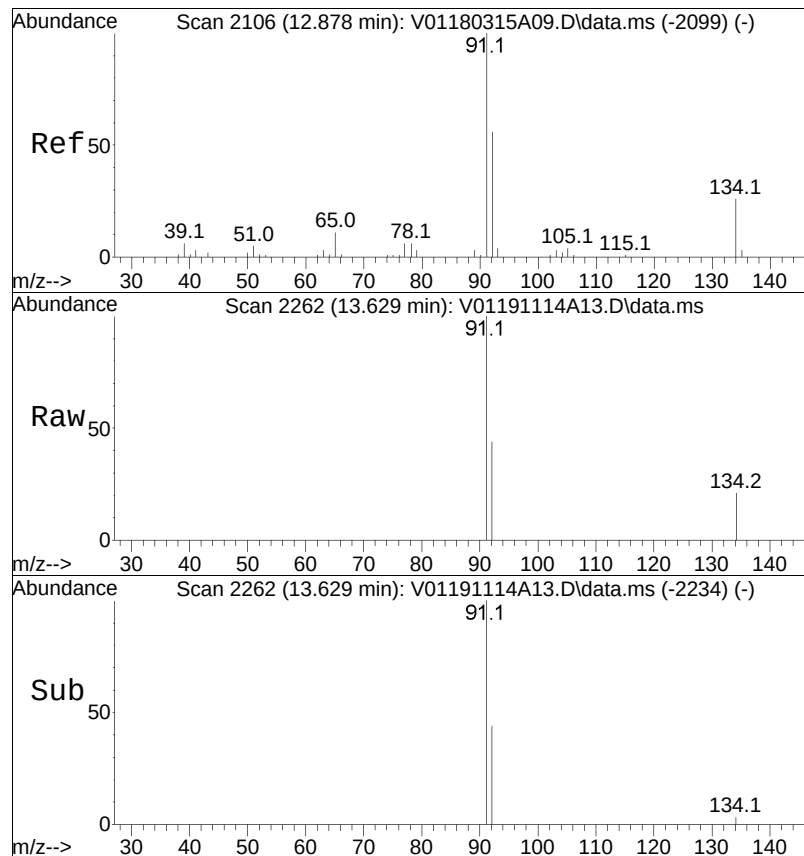




#102
 p-Diethylbenzene
 Concen: 0.19 ug/L
 RT: 13.569 min Scan# 2251
 Delta R.T. 0.006 min
 Lab File: V01191114A13.D
 Acq: 14 Nov 2019 11:43 am

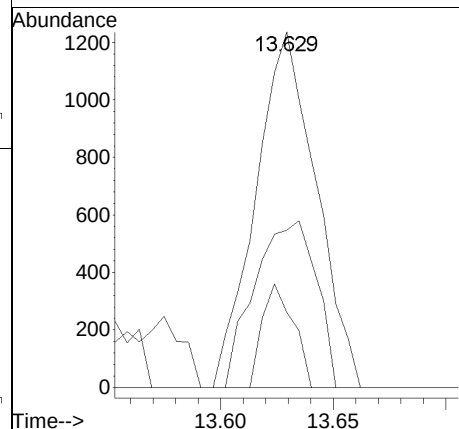
Tgt Ion:	119	Resp:	1383
Ion Ratio	Lower	Upper	
119	100		
105	89.9	54.1	112.3
134	33.7	31.5	65.3

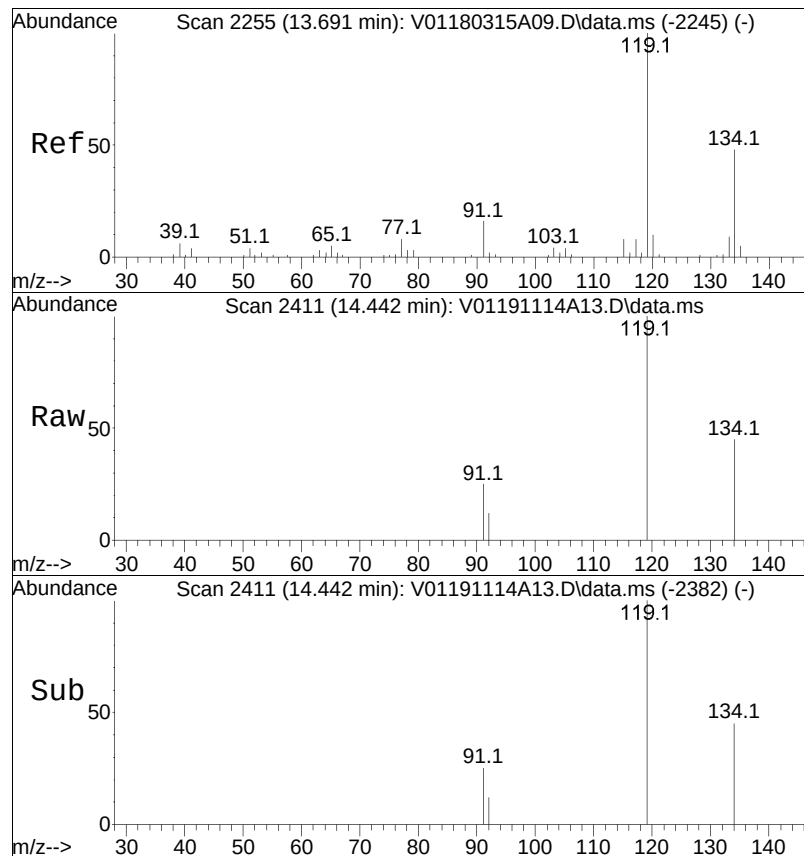




#103
 n-Butylbenzene
 Concen: 0.21 ug/L
 RT: 13.629 min Scan# 2262
 Delta R.T. 0.000 min
 Lab File: V01191114A13.D
 Acq: 14 Nov 2019 11:43 am

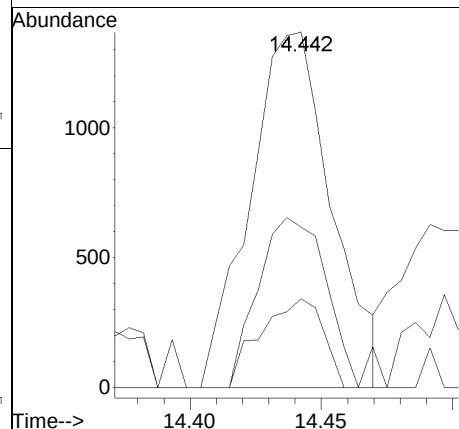
Tgt Ion:	91	Resp:	2309
Ion Ratio	Lower	Upper	
91	100		
92	47.8	43.7	65.5
134	15.0	22.1	33.1#

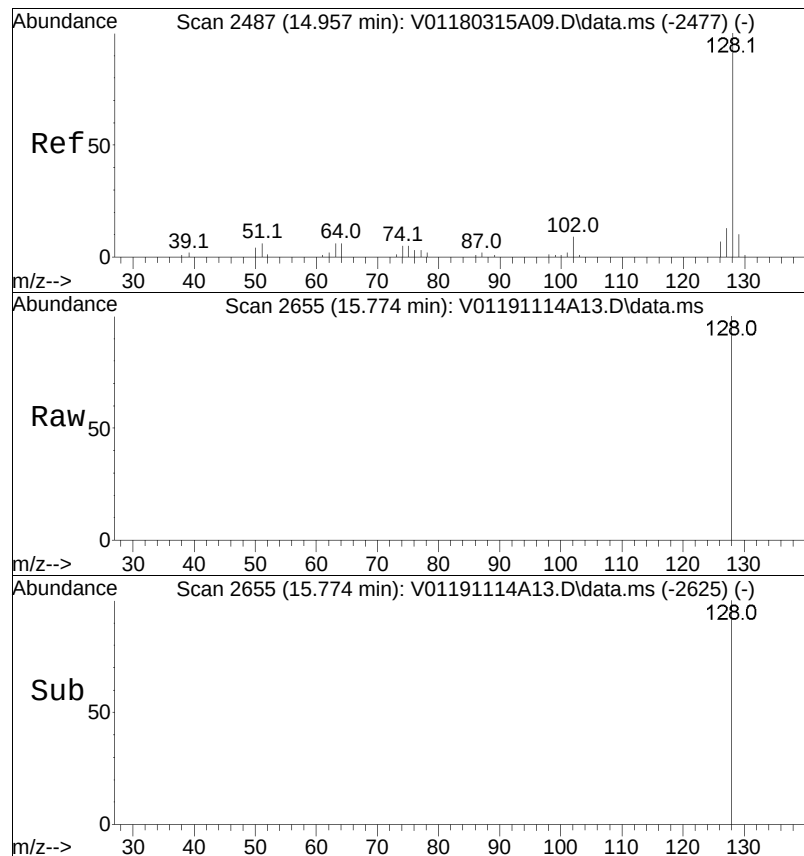




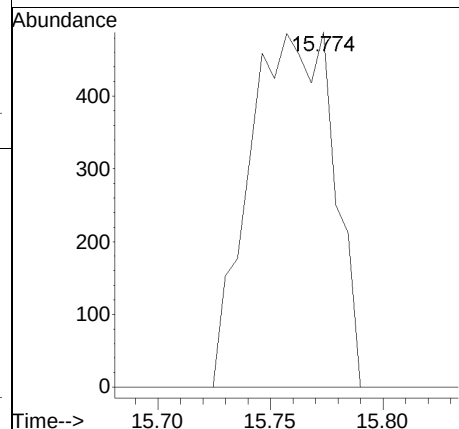
#105
 1,2,4,5-Tetramethylbenzene
 Concen: 0.28 ug/L
 RT: 14.442 min Scan# 2411
 Delta R.T. 0.006 min
 Lab File: V01191114A13.D
 Acq: 14 Nov 2019 11:43 am

Tgt Ion:	119	Resp:	2961
Ion Ratio	Lower	Upper	
119	100		
134	39.5	31.9	66.1
91	19.1	10.3	21.5





#110
 Naphthalene
 Concen: 0.20 ug/L
 RT: 15.774 min Scan# 2655
 Delta R.T. 0.011 min
 Lab File: V01191114A13.D
 Acq: 14 Nov 2019 11:43 am
 Tgt Ion:128 Resp: 1257



Manual Integration Report

Data Path : I:\VOLATILES\VOA101\2019\10 Method : V101_191107A_8260.m
Data File : V01191114A13.D Operator : VOA101:PD
Date Inj'd : 11/14/2019 11:43 am Instrument : VOA 101
Sample : l1954303-07,31,10,10,,a Quant Date : 11/14/2019 12:17 pm

There are no manual integrations or false positives in this file.

Volatiles Standards Data

Initial Calibration

Initial Calibration Summary

Form 6

Volatiles

Client : Langan Engineering & Environmental
Project Name : 432 RODNEY STREET
Instrument ID : VOA101
Calibration dates : 11/07/19 13:20 11/07/19 16:29
Lab Number : L1954303
Project Number : 170357801
Ical Ref : ICAL16277

Calibration Files

L1 =V01191107A04.D L2 =V01191107A07.D L3 =V01191107A08.D L4 =V01191107A09.D L6 =V01191107A10.D
 L8 =V01191107A11.D L10 =V01191107A12.D

Compound	L1	L2	L3	L4	L6	L8	L10	Avg	%RSD
1) I Fluorobenzene	-----ISTD-----								
2) TP Dichlorodifluoromethane	0.124	0.152	0.138	0.149	0.141	0.147	0.144	0.142	6.36
3) TP Chloromethane	0.192	0.236	0.213	0.231	0.225	0.243	0.250	0.227	8.65
4) TC Vinyl chloride	0.175	0.246	0.227	0.248	0.229	0.241	0.235	0.229	10.89
5) TP Bromomethane	0.034	0.024	0.021	0.040	0.062	0.084		*Q	0.9995
6) TP Chloroethane	0.151	0.174	0.158	0.162	0.143	0.142	0.128	0.151	9.88
7) TP Trichlorofluoromethane	0.292	0.361	0.327	0.352	0.327	0.343	0.334	0.334	6.75
8) TP Ethyl ether	0.084	0.111	0.103	0.104	0.102	0.100	0.098	0.100	8.42
10) TC 1,1-Dichloroethene	0.165	0.231	0.209	0.222	0.210	0.214	0.208	0.209	10.04
11) TP Carbon disulfide	0.570	0.621	0.549	0.584	0.548	0.568	0.550	0.570	4.59
12) TP Freon-113	0.174	0.230	0.208	0.229	0.210	0.217	0.210	0.211	8.81
13) TP Iodomethane		0.088	0.124	0.195	0.181	0.201	0.197	*L	0.9972
14) TP Acrolein		0.022	0.024	0.024	0.026	0.025	0.026	0.025#	6.69
15) TP Methylene chloride	0.258	0.253	0.230	0.233	0.222	0.226	0.219	0.235	6.53
16) TP Isopropyl alcohol		0.007	0.008	0.008	0.009	0.009	0.009	0.008#	7.86
17) TP Acetone		0.075	0.047	0.044	0.042	0.042	0.042	*L	1.0000
18) TP trans-1,2-Dichloroethene	0.196	0.239	0.216	0.228	0.217	0.225	0.216	0.220	6.08
19) TP Methyl acetate	0.130	0.144	0.130	0.122	0.125	0.122	0.122	0.128	6.22
20) TP Methyl tert-butyl ether	0.447	0.523	0.479	0.477	0.477	0.474	0.468	0.478	4.75
21) TP tert-Butyl alcohol		0.017	0.012	0.012	0.012	0.012	0.012	0.013#	14.13
22) TP Diisopropyl ether	0.923	1.042	0.968	0.982	0.951	0.961	0.941	0.967	3.95
23) TP 1,1-Dichloroethane	0.446	0.566	0.512	0.526	0.496	0.511	0.494	0.507	7.14
24) TP Halothane	0.134	0.187	0.172	0.188	0.178	0.185	0.181	0.175	10.81
25) TP Acrylonitrile		0.050	0.054	0.051	0.054	0.053	0.053	0.053	3.02
26) TP Ethyl tert-butyl ether	0.685	0.792	0.744	0.758	0.749	0.756	0.743	0.747	4.27
27) TP Vinyl acetate	0.422	0.510	0.500	0.500	0.520	0.519	0.525	0.499	7.12
28) TP cis-1,2-Dichloroethene	0.229	0.295	0.272	0.281	0.267	0.275	0.267	0.269	7.56
29) TP 2,2-Dichloropropane	0.323	0.386	0.351	0.372	0.360	0.370	0.362	0.360	5.56
30) TP Bromochloromethane	0.082	0.111	0.101	0.102	0.093	0.091	0.086	0.095	10.68
31) TP Cyclohexane	0.375	0.554	0.487	0.544	0.511	0.533	0.519	0.503	12.08
32) TC Chloroform	0.392	0.467	0.441	0.460	0.445	0.456	0.447	0.444	5.56
33) TP Ethyl acetate	0.136	0.148	0.173	0.169	0.173	0.169	0.171	0.163	8.96
34) TP Carbon tetrachloride	0.214	0.314	0.282	0.323	0.321	0.344	0.343	0.306	14.87
35) TP Tetrahydrofuran	0.037	0.051	0.048	0.048	0.049	0.045	0.047	0.046#	9.91
36) S Dibromofluoromethane	0.252	0.250	0.257	0.252	0.254	0.253	0.255	0.253	0.85
37) TP 1,1,1-Trichloroethane	0.313	0.411	0.370	0.407	0.390	0.407	0.398	0.385	8.96

Initial Calibration Summary

Form 6

Volatiles

Client : Langan Engineering & Environmental
Project Name : 432 RODNEY STREET
Instrument ID : VOA101
Calibration dates : 11/07/19 13:20 11/07/19 16:29
Lab Number : L1954303
Project Number : 170357801
Ical Ref : ICAL16277

Calibration Files

L1 =V01191107A04.D L2 =V01191107A07.D L3 =V01191107A08.D L4 =V01191107A09.D L6 =V01191107A10.D
 L8 =V01191107A11.D L10 =V01191107A12.D

Compound	L1	L2	L3	L4	L6	L8	L10	Avg	%RSD
38) TP 2-Butanol		0.009	0.010	0.010	0.011	0.012	0.011	0.010#	12.62
39) TP 2-Butanone		0.098	0.071	0.068	0.068	0.066	0.067	0.073#	16.68
40) TP 1,1-Dichloropropene	0.308	0.374	0.331	0.360	0.346	0.358	0.349	0.347	6.25
41) TP Benzene	0.906	1.067	0.953	0.994	0.957	0.984	0.947	0.973	5.19
42) TP tert-Amyl methyl ether	0.478	0.570	0.535	0.532	0.546	0.549	0.543	0.536	5.28
43) S 1,2-Dichloroethane-d4	0.278	0.284	0.280	0.268	0.277	0.275	0.296	0.279	3.11
44) TP 1,2-Dichloroethane	0.289	0.320	0.292	0.296	0.295	0.297	0.294	0.298	3.37
46) TP 2-Methyl-2-butanol		0.008	0.009	0.009	0.010	0.010	0.010	0.009#	7.52
47) TP Methyl cyclohexane	0.329	0.432	0.383	0.431	0.411	0.419	0.404	0.401	8.95
48) TP Trichloroethene	0.210	0.271	0.240	0.259	0.251	0.258	0.250	0.248	7.81
50) TP Dibromomethane	0.100	0.122	0.115	0.117	0.118	0.119	0.119	0.116	6.09
51) TC 1,2-Dichloropropane	0.228	0.294	0.264	0.276	0.267	0.272	0.267	0.267	7.49
52) TP 4-penten-2-ol			0.006	0.006	0.008	0.008	0.009	0.007#	18.92
53) TP 2-Chloroethyl vinyl ether			0.016	0.015	0.017	0.015	0.015	0.016#	5.64
54) TP Bromodichloromethane	0.229	0.292	0.283	0.307	0.309	0.318	0.317	0.294	10.62
57) TP 1,4-Dioxane	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001#	6.25
58) TP cis-1,3-Dichloropropene	0.308	0.369	0.357	0.382	0.381	0.385	0.376	0.366	7.40
59) I Chlorobenzene-d5	-----ISTD-----								
60) S Toluene-d8	1.373	1.354	1.347	1.335	1.308	1.334	1.364	1.345	1.60
61) TC Toluene	0.697	0.847	0.758	0.798	0.751	0.780	0.769	0.771	5.94
62) TP 4-Methyl-2-pentanone		0.069	0.069	0.070	0.073	0.072	0.074	0.071#	3.37
63) TP Tetrachloroethene	0.256	0.311	0.282	0.310	0.284	0.299	0.290	0.290	6.61
65) TP trans-1,3-Dichloropropene	0.281	0.354	0.362	0.383	0.389	0.400	0.403	0.367	11.49
66) TP 4-Methyl-2-pentanol		0.026	0.028	0.031	0.037	0.038	0.039	0.033#	16.87
67) TP Ethyl methacrylate	0.202	0.258	0.261	0.268	0.276	0.274	0.277	0.260	10.13
68) TP 1,1,2-Trichloroethane	0.158	0.194	0.178	0.178	0.178	0.178	0.180	0.178	5.92
69) TP Chlorodibromomethane	0.146	0.199	0.197	0.220	0.233	0.244	0.249	0.213	16.76
70) TP 1,3-Dichloropropane	0.354	0.394	0.369	0.365	0.367	0.369	0.371	0.370	3.26
71) TP 1,2-Dibromoethane	0.156	0.201	0.187	0.194	0.197	0.200	0.203	0.191	8.65
72) TP 2-Hexanone	0.091	0.128	0.124	0.127	0.134	0.133	0.135	0.125	12.34
73) TP Chlorobenzene	0.742	0.852	0.765	0.817	0.785	0.802	0.781	0.792	4.53
74) TC Ethylbenzene	1.306	1.602	1.413	1.539	1.465	1.516	1.478	1.474	6.47
75) TP 1,1,1,2-Tetrachloroethane	0.180	0.251	0.245	0.268	0.271	0.282	0.280	0.254	13.94
76) TP p/m Xylene	0.488	0.617	0.544	0.584	0.555	0.565	0.545	0.557	7.13
77) TP o Xylene	0.452	0.578	0.509	0.536	0.515	0.527	0.506	0.518	7.35
78) TP Styrene	0.705	0.908	0.837	0.892	0.868	0.887	0.850	0.850	8.02



Initial Calibration Summary

Form 6

Volatiles

Client : Langan Engineering & Environmental
Project Name : 432 RODNEY STREET
Instrument ID : VOA101
Calibration dates : 11/07/19 13:20 11/07/19 16:29
Lab Number : L1954303
Project Number : 170357801
Ical Ref : ICAL16277

Calibration Files

L1 =V01191107A04.D L2 =V01191107A07.D L3 =V01191107A08.D L4 =V01191107A09.D L6 =V01191107A10.D
 L8 =V01191107A11.D L10 =V01191107A12.D

Compound	L1	L2	L3	L4	L6	L8	L10	Avg	%RSD
79) I 1,4-Dichlorobenzene-d4	-----ISTD-----								
80) TP Bromoform	0.162	0.175	0.198	0.214	0.229	0.234	0.202	14.46	
82) TP Isopropylbenzene	2.236	2.986	2.554	2.733	2.537	2.680	2.608	2.619	8.66
83) S 4-Bromofluorobenzene	1.044	1.057	1.032	1.019	1.006	1.037	1.045	1.034	1.65
84) TP Bromobenzene	0.490	0.624	0.532	0.551	0.516	0.537	0.523	0.539	7.79
85) TP n-Propylbenzene	2.568	3.464	2.965	3.191	2.985	3.098	3.003	3.039	8.90
86) TP 1,4-Dichlorobutane	0.675	0.783	0.709	0.707	0.705	0.719	0.730	0.718	4.61
87) TP 1,1,2,2-Tetrachloroethane	0.391	0.412	0.397	0.401	0.409	0.415	0.418	0.406	2.42
88) TP 4-Ethyltoluene	2.036	2.683	2.335	2.519	2.342	2.455	2.394	2.395	8.30
89) TP 2-Chlorotoluene	1.763	2.205	1.892	2.015	1.885	2.009	1.947	1.959	7.06
90) TP 1,3,5-Trimethylbenzene	1.795	2.312	1.983	2.145	1.992	2.090	2.034	2.050	7.77
91) TP 1,2,3-Trichloropropane	0.345	0.392	0.371	0.350	0.352	0.356	0.354	0.360	4.56
92) TP trans-1,4-Dichloro-2-b...	0.123	0.108	0.119	0.130	0.131	0.138	0.125	8.23	
93) TP 4-Chlorotoluene	1.617	2.035	1.789	1.910	1.796	1.902	1.878	1.847	7.08
94) TP tert-Butylbenzene	1.442	1.922	1.679	1.825	1.686	1.777	1.734	1.724	8.71
97) TP 1,2,4-Trimethylbenzene	1.750	2.236	1.969	2.145	2.009	2.111	2.065	2.041	7.63
98) TP sec-Butylbenzene	1.878	2.451	2.189	2.422	2.260	2.370	2.317	2.270	8.60
99) TP p-Isopropyltoluene	1.568	2.220	1.958	2.178	2.032	2.124	2.080	2.023	10.82
100) TP 1,3-Dichlorobenzene	0.893	1.185	1.033	1.112	1.069	1.110	1.088	1.070	8.50
101) TP 1,4-Dichlorobenzene	0.970	1.194	1.043	1.114	1.067	1.105	1.092	1.083	6.37
102) TP p-Diethylbenzene	0.848	1.194	1.064	1.185	1.125	1.180	1.159	1.108	11.12
103) TP n-Butylbenzene	1.299	1.864	1.638	1.825	1.762	1.841	1.810	1.720	11.63
104) TP 1,2-Dichlorobenzene	0.844	1.050	0.928	0.971	0.957	0.988	0.965	0.958	6.53
105) TP 1,2,4,5-Tetramethylben...	1.236	1.669	1.554	1.748	1.697	1.767	1.702	1.625	11.35
106) TP 1,2-Dibromo-3-chloropr...	0.028	0.041	0.046	0.052	0.053	0.055	*L	0.9984	
107) TP 1,3,5-Trichlorobenzene	0.411	0.573	0.499	0.550	0.533	0.559	0.532	0.523	10.44
108) TP Hexachlorobutadiene	0.035	0.147	0.127	0.154	0.141	0.154	0.151	*L	0.9985
109) TP 1,2,4-Trichlorobenzene	0.365	0.478	0.433	0.466	0.461	0.477	0.466	0.449	8.94
110) TP Naphthalene	0.870	1.033	0.938	0.980	1.021	1.030	1.029	0.986	6.27
111) TP 1,2,3-Trichlorobenzene	0.288	0.376	0.331	0.357	0.359	0.366	0.361	0.348	8.59



Response Factor Report VOA 101

Method Path : I:\VOLATILES\VOA101\2019\191107A\
 Method File : V101_191107A_8260.m
 Title : VOLATILES BY GC/MS
 Last Update : Fri Nov 08 10:22:02 2019
 Response Via : Initial Calibration

Calibration Files

L1 =V01191107A04.D L2 =V01191107A07.D L3 =V01191107A08.D L4 =V01191107A09.D L6 =V01191107A10.D
 L8 =V01191107A11.D L10 =V01191107A12.D

Compound		L1	L2	L3	L4	L6	L8	L10	Avg	%RSD

1) I	Fluorobenzene	-----ISTD-----								
2) TP	Dichlorodifluo...	0.124	0.152	0.138	0.149	0.141	0.147	0.144	0.142	6.36
3) TP	Chloromethane	0.192	0.236	0.213	0.231	0.225	0.243	0.250	0.227	8.65
4) TC	Vinyl chloride	0.175	0.246	0.227	0.248	0.229	0.241	0.235	0.229	10.89
5) TP	Bromomethane	0.034	0.024	0.021	0.040	0.062	0.084		*Q	0.9995
6) TP	Chloroethane	0.151	0.174	0.158	0.162	0.143	0.142	0.128	0.151	9.88
7) TP	Trichlorofluor...	0.292	0.361	0.327	0.352	0.327	0.343	0.334	0.334	6.75
8) TP	Ethyl ether	0.084	0.111	0.103	0.104	0.102	0.100	0.098	0.100	8.42
10) TC	1,1-Dichloroet...	0.165	0.231	0.209	0.222	0.210	0.214	0.208	0.209	10.04
11) TP	Carbon disulfide	0.570	0.621	0.549	0.584	0.548	0.568	0.550	0.570	4.59
12) TP	Freon-113	0.174	0.230	0.208	0.229	0.210	0.217	0.210	0.211	8.81
13) TP	Iodomethane		0.088	0.124	0.195	0.181	0.201	0.197	*L	0.9972
14) TP	Acrolein		0.022	0.024	0.024	0.026	0.025	0.026	0.025#	6.69
15) TP	Methylene chlo...	0.258	0.253	0.230	0.233	0.222	0.226	0.219	0.235	6.53
16) TP	Isopropyl alcohol		0.007	0.008	0.008	0.009	0.009	0.009	0.008#	7.86
17) TP	Acetone		0.075	0.047	0.044	0.042	0.042	0.042	*L	1.0000
18) TP	trans-1,2-Dich...	0.196	0.239	0.216	0.228	0.217	0.225	0.216	0.220	6.08
19) TP	Methyl acetate	0.130	0.144	0.130	0.122	0.125	0.122	0.122	0.128	6.22
20) TP	Methyl tert-bu...	0.447	0.523	0.479	0.477	0.477	0.474	0.468	0.478	4.75
21) TP	tert-Butyl alc...		0.017	0.012	0.012	0.012	0.012	0.012	0.013#	14.13
22) TP	Diisopropyl ether	0.923	1.042	0.968	0.982	0.951	0.961	0.941	0.967	3.95
23) TP	1,1-Dichloroet...	0.446	0.566	0.512	0.526	0.496	0.511	0.494	0.507	7.14
24) TP	Halothane	0.134	0.187	0.172	0.188	0.178	0.185	0.181	0.175	10.81
25) TP	Acrylonitrile		0.050	0.054	0.051	0.054	0.053	0.053	0.053	3.02
26) TP	Ethyl tert-but...	0.685	0.792	0.744	0.758	0.749	0.756	0.743	0.747	4.27
27) TP	Vinyl acetate	0.422	0.510	0.500	0.500	0.520	0.519	0.525	0.499	7.12
28) TP	cis-1,2-Dichlo...	0.229	0.295	0.272	0.281	0.267	0.275	0.267	0.269	7.56
29) TP	2,2-Dichloropr...	0.323	0.386	0.351	0.372	0.360	0.370	0.362	0.360	5.56
30) TP	Bromochloromet...	0.082	0.111	0.101	0.102	0.093	0.091	0.086	0.095	10.68
31) TP	Cyclohexane	0.375	0.554	0.487	0.544	0.511	0.533	0.519	0.503	12.08
32) TC	Chloroform	0.392	0.467	0.441	0.460	0.445	0.456	0.447	0.444	5.56

Response Factor Report VOA 101

Method Path : I:\VOLATILES\VOA101\2019\191107A\
 Method File : V101_191107A_8260.m
 Title : VOLATILES BY GC/MS
 Last Update : Fri Nov 08 10:22:02 2019
 Response Via : Initial Calibration

Calibration Files

L1 =V01191107A04.D L2 =V01191107A07.D L3 =V01191107A08.D L4 =V01191107A09.D L6 =V01191107A10.D
 L8 =V01191107A11.D L10 =V01191107A12.D

	Compound	L1	L2	L3	L4	L6	L8	L10	Avg	%RSD
33)	TP Ethyl acetate	0.136	0.148	0.173	0.169	0.173	0.169	0.171	0.163	8.96
34)	TP Carbon tetrach...	0.214	0.314	0.282	0.323	0.321	0.344	0.343	0.306	14.87
35)	TP Tetrahydrofuran	0.037	0.051	0.048	0.048	0.049	0.045	0.047	0.046#	9.91
36)	S Dibromofluorom...	0.252	0.250	0.257	0.252	0.254	0.253	0.255	0.253	0.85
37)	TP 1,1,1-Trichlor...	0.313	0.411	0.370	0.407	0.390	0.407	0.398	0.385	8.96
38)	TP 2-Butanol		0.009	0.010	0.010	0.011	0.012	0.011	0.010#	12.62
39)	TP 2-Butanone		0.098	0.071	0.068	0.068	0.066	0.067	0.073#	16.68
40)	TP 1,1-Dichloropr...	0.308	0.374	0.331	0.360	0.346	0.358	0.349	0.347	6.25
41)	TP Benzene	0.906	1.067	0.953	0.994	0.957	0.984	0.947	0.973	5.19
42)	TP tert-Amyl meth...	0.478	0.570	0.535	0.532	0.546	0.549	0.543	0.536	5.28
43)	S 1,2-Dichloroet...	0.278	0.284	0.280	0.268	0.277	0.275	0.296	0.279	3.11
44)	TP 1,2-Dichloroet...	0.289	0.320	0.292	0.296	0.295	0.297	0.294	0.298	3.37
46)	TP 2-Methyl-2-but...		0.008	0.009	0.009	0.010	0.010	0.010	0.009#	7.52
47)	TP Methyl cyclohe...	0.329	0.432	0.383	0.431	0.411	0.419	0.404	0.401	8.95
48)	TP Trichloroethene	0.210	0.271	0.240	0.259	0.251	0.258	0.250	0.248	7.81
50)	TP Dibromomethane	0.100	0.122	0.115	0.117	0.118	0.119	0.119	0.116	6.09
51)	TC 1,2-Dichloropr...	0.228	0.294	0.264	0.276	0.267	0.272	0.267	0.267	7.49
52)	TP 4-penten-2-ol			0.006	0.006	0.008	0.008	0.009	0.007#	18.92
53)	TP 2-Chloroethyl ...			0.016	0.015	0.017	0.015	0.015	0.016#	5.64
54)	TP Bromodichlorom...	0.229	0.292	0.283	0.307	0.309	0.318	0.317	0.294	10.62
57)	TP 1,4-Dioxane	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001#	6.25
58)	TP cis-1,3-Dichlo...	0.308	0.369	0.357	0.382	0.381	0.385	0.376	0.366	7.40
59)	I Chlorobenzene-d5	-----ISTD-----								
60)	S Toluene-d8	1.373	1.354	1.347	1.335	1.308	1.334	1.364	1.345	1.60
61)	TC Toluene	0.697	0.847	0.758	0.798	0.751	0.780	0.769	0.771	5.94
62)	TP 4-Methyl-2-pen...		0.069	0.069	0.070	0.073	0.072	0.074	0.071#	3.37
63)	TP Tetrachloroethene	0.256	0.311	0.282	0.310	0.284	0.299	0.290	0.290	6.61
65)	TP trans-1,3-Dich...	0.281	0.354	0.362	0.383	0.389	0.400	0.403	0.367	11.49
66)	TP 4-Methyl-2-pen...		0.026	0.028	0.031	0.037	0.038	0.039	0.033#	16.87
67)	TP Ethyl methacry...	0.202	0.258	0.261	0.268	0.276	0.274	0.277	0.260	10.13
68)	TP 1,1,2-Trichlor...	0.158	0.194	0.178	0.178	0.178	0.178	0.180	0.178	5.92

Response Factor Report VOA 101

Method Path : I:\VOLATILES\VOA101\2019\191107A\
 Method File : V101_191107A_8260.m
 Title : VOLATILES BY GC/MS
 Last Update : Fri Nov 08 10:22:02 2019
 Response Via : Initial Calibration

Calibration Files

L1 =V01191107A04.D L2 =V01191107A07.D L3 =V01191107A08.D L4 =V01191107A09.D L6 =V01191107A10.D
 L8 =V01191107A11.D L10 =V01191107A12.D

	Compound	L1	L2	L3	L4	L6	L8	L10	Avg	%RSD
69)	TP Chlorodibromom...	0.146	0.199	0.197	0.220	0.233	0.244	0.249	0.213	16.76
70)	TP 1,3-Dichloropr...	0.354	0.394	0.369	0.365	0.367	0.369	0.371	0.370	3.26
71)	TP 1,2-Dibromoethane	0.156	0.201	0.187	0.194	0.197	0.200	0.203	0.191	8.65
72)	TP 2-Hexanone	0.091	0.128	0.124	0.127	0.134	0.133	0.135	0.125	12.34
73)	TP Chlorobenzene	0.742	0.852	0.765	0.817	0.785	0.802	0.781	0.792	4.53
74)	TC Ethylbenzene	1.306	1.602	1.413	1.539	1.465	1.516	1.478	1.474	6.47
75)	TP 1,1,1,2-Tetrac...	0.180	0.251	0.245	0.268	0.271	0.282	0.280	0.254	13.94
76)	TP p/m Xylene	0.488	0.617	0.544	0.584	0.555	0.565	0.545	0.557	7.13
77)	TP o Xylene	0.452	0.578	0.509	0.536	0.515	0.527	0.506	0.518	7.35
78)	TP Styrene	0.705	0.908	0.837	0.892	0.868	0.887	0.850	0.850	8.02
79)	I 1,4-Dichlorobenzene-d4	-----ISTD-----								
80)	TP Bromoform	0.162	0.175	0.198	0.214	0.229	0.234	0.202		14.46
82)	TP Isopropylbenzene	2.236	2.986	2.554	2.733	2.537	2.680	2.608	2.619	8.66
83)	S 4-Bromofluorob...	1.044	1.057	1.032	1.019	1.006	1.037	1.045	1.034	1.65
84)	TP Bromobenzene	0.490	0.624	0.532	0.551	0.516	0.537	0.523	0.539	7.79
85)	TP n-Propylbenzene	2.568	3.464	2.965	3.191	2.985	3.098	3.003	3.039	8.90
86)	TP 1,4-Dichlorobu...	0.675	0.783	0.709	0.707	0.705	0.719	0.730	0.718	4.61
87)	TP 1,1,2,2-Tetrac...	0.391	0.412	0.397	0.401	0.409	0.415	0.418	0.406	2.42
88)	TP 4-Ethyltoluene	2.036	2.683	2.335	2.519	2.342	2.455	2.394	2.395	8.30
89)	TP 2-Chlorotoluene	1.763	2.205	1.892	2.015	1.885	2.009	1.947	1.959	7.06
90)	TP 1,3,5-Trimethy...	1.795	2.312	1.983	2.145	1.992	2.090	2.034	2.050	7.77
91)	TP 1,2,3-Trichlor...	0.345	0.392	0.371	0.350	0.352	0.356	0.354	0.360	4.56
92)	TP trans-1,4-Dich...	0.123	0.108	0.119	0.130	0.131	0.138	0.125		8.23
93)	TP 4-Chlorotoluene	1.617	2.035	1.789	1.910	1.796	1.902	1.878	1.847	7.08
94)	TP tert-Butylbenzene	1.442	1.922	1.679	1.825	1.686	1.777	1.734	1.724	8.71
97)	TP 1,2,4-Trimethy...	1.750	2.236	1.969	2.145	2.009	2.111	2.065	2.041	7.63
98)	TP sec-Butylbenzene	1.878	2.451	2.189	2.422	2.260	2.370	2.317	2.270	8.60
99)	TP p-Isopropyltol...	1.568	2.220	1.958	2.178	2.032	2.124	2.080	2.023	10.82
100)	TP 1,3-Dichlorobe...	0.893	1.185	1.033	1.112	1.069	1.110	1.088	1.070	8.50
101)	TP 1,4-Dichlorobe...	0.970	1.194	1.043	1.114	1.067	1.105	1.092	1.083	6.37
102)	TP p-Diethylbenzene	0.848	1.194	1.064	1.185	1.125	1.180	1.159	1.108	11.12

Response Factor Report VOA 101

Method Path : I:\VOLATILES\VOA101\2019\191107A\
 Method File : V101_191107A_8260.m
 Title : VOLATILES BY GC/MS
 Last Update : Fri Nov 08 10:22:02 2019
 Response Via : Initial Calibration

Calibration Files

L1 =V01191107A04.D L2 =V01191107A07.D L3 =V01191107A08.D L4 =V01191107A09.D L6 =V01191107A10.D
 L8 =V01191107A11.D L10 =V01191107A12.D

Compound			L1	L2	L3	L4	L6	L8	L10	Avg	%RSD
103)	TP	n-Butylbenzene	1.299	1.864	1.638	1.825	1.762	1.841	1.810	1.720	11.63
104)	TP	1,2-Dichlorobe...	0.844	1.050	0.928	0.971	0.957	0.988	0.965	0.958	6.53
105)	TP	1,2,4,5-Tetram...	1.236	1.669	1.554	1.748	1.697	1.767	1.702	1.625	11.35
106)	TP	1,2-Dibromo-3-...		0.028	0.041	0.046	0.052	0.053	0.055	*L	0.9984
107)	TP	1,3,5-Trichlor...	0.411	0.573	0.499	0.550	0.533	0.559	0.532	0.523	10.44
108)	TP	Hexachlorobuta...	0.035	0.147	0.127	0.154	0.141	0.154	0.151	*L	0.9985
109)	TP	1,2,4-Trichlor...	0.365	0.478	0.433	0.466	0.461	0.477	0.466	0.449	8.94
110)	TP	Naphthalene	0.870	1.033	0.938	0.980	1.021	1.030	1.029	0.986	6.27
111)	TP	1,2,3-Trichlor...	0.288	0.376	0.331	0.357	0.359	0.366	0.361	0.348	8.59

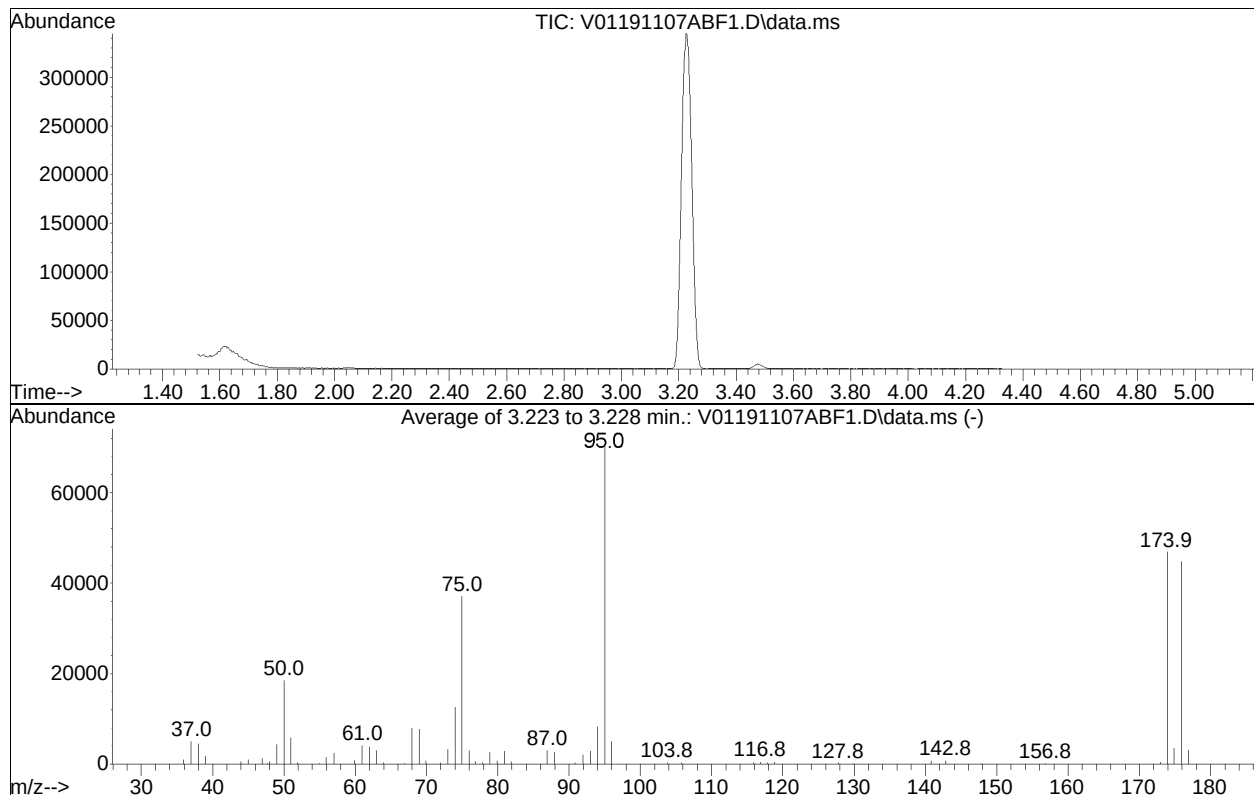
(#) = Out of Range

BFB

Data Path : I:\VOLATILES\VOA101\2019\191107A\
 Data File : V01191107ABF1.D
 Acq On : 7 Nov 2019 11:48 am
 Operator : VOA101:PD
 Sample : WG1306306-1
 Misc : WG1306306
 ALS Vial : 1 Sample Multiplier: 1

Integration File: rteint.p

Method : I:\VOLATILES\VOA101\2019\191107A\V101_191107A_8260.m
 Title : VOLATILES BY GC/MS
 Last Update : Fri Nov 08 09:58:51 2019



AutoFind: Scans 588, 589, 590; Background Corrected with Scan 570

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	26.2	18520	PASS
75	95	30	60	52.5	37088	PASS
95	95	100	100	100.0	70616	PASS
96	95	5	9	7.2	5050	PASS
173	174	0.00	2	0.9	403	PASS
174	95	50	100	66.5	46971	PASS
175	174	5	9	7.5	3522	PASS
176	174	95	101	95.4	44832	PASS
177	176	5	9	7.0	3129	PASS

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\VOA101\2019\191107A\
 Data File : V01191107A04.D
 Acq On : 7 Nov 2019 1:20 pm
 Operator : VOA101:PD
 Sample : I8260STD0.5PPB
 Misc : WG1306306,ICAL
 ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 08 10:00:44 2019
 Quant Method : I:\VOLATILES\VOA101\2019\191107A\V101_191107A_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Fri Nov 08 09:58:51 2019
 Response via : Initial Calibration

CCAL FILE(s) : 1 - I:\VOLATILES\VOA101\2019\191107A\V01191107A08.D
 Sub List : 8260-CurveAlc - All compounds listed

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

Internal Standards						
1) Fluorobenzene	6.645	96	173407	10.000	ug/L	0.00
Standard Area 1 = 168070			Recovery = 103.18%			
59) Chlorobenzene-d5	10.535	117	133904	10.000	ug/L	0.00
Standard Area 1 = 132945			Recovery = 100.72%			
79) 1,4-Dichlorobenzene-d4	13.335	152	69616	10.000	ug/L	0.00
Standard Area 1 = 70817			Recovery = 98.30%			
System Monitoring Compounds						
36) Dibromofluoromethane	5.756	113	43694	9.953	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 99.53%			
43) 1,2-Dichloroethane-d4	6.334	65	48193	9.944	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 99.44%			
60) Toluene-d8	8.511	98	183814	10.207	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 102.07%			
83) 4-Bromofluorobenzene	12.041	95	72683	10.094	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery = 100.94%			
Target Compounds						
						Qvalue
2) Dichlorodifluoromethane	1.822	85	1079	0.438	ug/L	# 89
3) Chloromethane	2.040	50	1665	0.423	ug/L	# 87
4) Vinyl chloride	2.122	62	1517	0.383	ug/L	# 94
5) Bromomethane	2.465	94	296	0.574	ug/L	# 79
6) Chloroethane	2.607	64	1313	0.501	ug/L	# 80
7) Trichlorofluoromethane	2.760	101	2528	0.437	ug/L	# 96
8) Ethyl ether	3.077	74	725	0.418	ug/L	# 66
10) 1,1-Dichloroethene	3.295	96	1432	0.396	ug/L	# 69
11) Carbon disulfide	3.333	76	4944	0.500	ug/L	# 92
12) Freon-113	3.338	101	1512	0.413	ug/L	# 60
13) Iodomethane	3.448	142	214	1.576	ug/L	# 40
14) Acrolein	0.000		0	N.D.		
15) Methylene chloride	3.901	84	2241	0.551	ug/L	# 78
16) Isopropyl alcohol	3.808	45	56	0.387	ug/L	# 60
17) Acetone	3.939	43	1319	0.246	ug/L	# 58
18) trans-1,2-Dichloroethene	4.064	96	1700	0.447	ug/L	# 90
19) Methyl acetate	4.075	43	1129	0.509	ug/L	# 53
20) Methyl tert-butyl ether	4.173	73	3875	0.468	ug/L	# 91
21) tert-Butyl alcohol	4.261	59	999	4.482	ug/L	# 67
22) Diisopropyl ether	4.566	45	8001	0.477	ug/L	# 92
23) 1,1-Dichloroethane	4.703	63	3864	0.439	ug/L	# 94

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\VOA101\2019\191107A\
 Data File : V01191107A04.D
 Acq On : 7 Nov 2019 1:20 pm
 Operator : VOA101:PD
 Sample : I8260STD0.5PPB
 Misc : WG1306306,ICAL
 ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 08 10:00:44 2019
 Quant Method : I:\VOLATILES\VOA101\2019\191107A\V101_191107A_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Fri Nov 08 09:58:51 2019
 Response via : Initial Calibration

CCAL FILE(s) : 1 - I:\VOLATILES\VOA101\2019\191107A\V01191107A08.D
 Sub List : 8260-CurveAlc - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
24) Halothane	4.763	117	1161	0.383	ug/L #	58
25) Acrylonitrile	4.752	53	177	0.194	ug/L #	9
26) Ethyl tert-butyl ether	4.943	59	5938	0.459	ug/L	89
27) Vinyl acetate	4.948	43	3658	0.422	ug/L #	77
28) cis-1,2-Dichloroethene	5.265	96	1982	0.424	ug/L #	79
29) 2,2-Dichloropropane	5.390	77	2798	0.448	ug/L	78
30) Bromochloromethane	5.472	128	711	0.430	ug/L #	49
31) Cyclohexane	5.494	56	3250	0.372	ug/L	91
32) Chloroform	5.559	83	3398	0.441	ug/L	96
33) Ethyl acetate	5.679	43	1183	0.419	ug/L #	68
34) Carbon tetrachloride	5.717	117	1854	0.350	ug/L	90
35) Tetrahydrofuran	5.750	42	318	0.396	ug/L #	43
37) 1,1,1-Trichloroethane	5.788	97	2717	0.407	ug/L #	92
38) 2-Butanol	0.000		0	N.D.		
39) 2-Butanone	5.876	43	1308	1.033	ug/L #	28
40) 1,1-Dichloropropene	5.919	75	2672	0.444	ug/L	86
41) Benzene	6.192	78	7852	0.466	ug/L	95
42) tert-Amyl methyl ether	6.301	73	4148	0.446	ug/L #	88
44) 1,2-Dichloroethane	6.416	62	2504	0.485	ug/L #	86
46) 2-Methyl-2-butanol	0.000		0	N.D.		
47) Methyl cyclohexane	6.847	83	2856	0.410	ug/L	91
48) Trichloroethene	6.847	95	1822	0.423	ug/L	97
50) Dibromomethane	7.333	93	871	0.434	ug/L	88
51) 1,2-Dichloropropane	7.442	63	1973	0.426	ug/L	93
52) 4-penten-2-ol	0.000		0	N.D.		
53) 2-Chloroethyl vinyl ether	0.000		0	N.D.		
54) Bromodichloromethane	7.518	83	1987	0.390	ug/L #	97
57) 1,4-Dioxane	7.753	88	1641	91.774	ug/L #	82
58) cis-1,3-Dichloropropene	8.282	75	2672	0.422	ug/L #	88
61) Toluene	8.577	92	4665	0.452	ug/L	97
62) 4-Methyl-2-pentanone	9.040	58	167	0.175	ug/L #	1
63) Tetrachloroethene	9.073	166	1712	0.441	ug/L	93
65) trans-1,3-Dichloropropene	9.095	75	1881	0.382	ug/L	81
66) 4-Methyl-2-pentanol	9.166	45	511	1.147	ug/L #	54
67) Ethyl methacrylate	9.291	69	1355	0.390	ug/L #	92
68) 1,1,2-Trichloroethane	9.308	83	1056	0.444	ug/L	90
69) Chlorodibromomethane	9.548	129	980	0.344	ug/L #	81
70) 1,3-Dichloropropane	9.662	76	2371	0.479	ug/L #	82
71) 1,2-Dibromoethane	9.864	107	1043	0.407	ug/L	87
72) 2-Hexanone	10.153	43	609	0.365	ug/L #	54

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\VOA101\2019\191107A\
 Data File : V01191107A04.D
 Acq On : 7 Nov 2019 1:20 pm
 Operator : VOA101:PD
 Sample : I8260STD0.5PPB
 Misc : WG1306306,ICAL
 ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 08 10:00:44 2019
 Quant Method : I:\VOLATILES\VOA101\2019\191107A\V101_191107A_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Fri Nov 08 09:58:51 2019
 Response via : Initial Calibration

CCAL FILE(s) : 1 - I:\VOLATILES\VOA101\2019\191107A\V01191107A08.D
 Sub List : 8260-CurveAlc - All compounds listed

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
73)	Chlorobenzene	10.552	112	4965	0.468	ug/L #	76
74)	Ethylbenzene	10.590	91	8741	0.443	ug/L	100
75)	1,1,1,2-Tetrachloroethane	10.639	131	1206	0.355	ug/L #	61
76)	p/m Xylene	10.770	106	6533	0.877	ug/L	99
77)	o Xylene	11.316	106	6050	0.873	ug/L	99
78)	Styrene	11.381	104	9444	0.830	ug/L	98
80)	Bromoform	11.414	173	285	0.203	ug/L #	28
82)	Isopropylbenzene	11.698	105	7784	0.427	ug/L	100
84)	Bromobenzene	12.167	156	1706	0.455	ug/L	96
85)	n-Propylbenzene	12.194	91	8939	0.423	ug/L	95
86)	1,4-Dichlorobutane	12.227	55	2349	0.470	ug/L #	79
87)	1,1,2,2-Tetrachloroethane	12.281	83	1362	0.482	ug/L #	86
88)	4-Ethyltoluene	12.331	105	7086	0.425	ug/L	99
89)	2-Chlorotoluene	12.385	91	6137	0.450	ug/L #	88
90)	1,3,5-Trimethylbenzene	12.423	105	6247	0.438	ug/L	94
91)	1,2,3-Trichloropropane	12.440	75	1200	0.479	ug/L #	62
92)	trans-1,4-Dichloro-2-b...	12.483	53	63	0.072	ug/L #	1
93)	4-Chlorotoluene	12.582	91	5627	0.438	ug/L	96
94)	tert-Butylbenzene	12.800	119	5020	0.418	ug/L	96
97)	1,2,4-Trimethylbenzene	12.876	105	6091	0.429	ug/L	100
98)	sec-Butylbenzene	13.002	105	6536	0.414	ug/L	92
99)	p-Isopropyltoluene	13.160	119	5458	0.388	ug/L	98
100)	1,3-Dichlorobenzene	13.253	146	3108	0.417	ug/L	98
101)	1,4-Dichlorobenzene	13.356	146	3375M2	0.447	ug/L	
102)	p-Diethylbenzene	13.569	119	2952	0.383	ug/L	93
103)	n-Butylbenzene	13.629	91	4523	0.378	ug/L	98
104)	1,2-Dichlorobenzene	13.820	146	2938	0.441	ug/L	98
105)	1,2,4,5-Tetramethylben...	14.437	119	4304	0.381	ug/L	93
106)	1,2-Dibromo-3-chloropr...	0.000		0	N.D.		
107)	1,3,5-Trichlorobenzene	14.710	180	1431	0.393	ug/L	96
108)	Hexachlorobutadiene	15.353	225	122	0.476	ug/L #	44
109)	1,2,4-Trichlorobenzene	15.386	180	1270	0.406	ug/L #	90
110)	Naphthalene	15.757	128	3028	0.441	ug/L	100
111)	1,2,3-Trichlorobenzene	15.975	180	1003	0.414	ug/L #	79

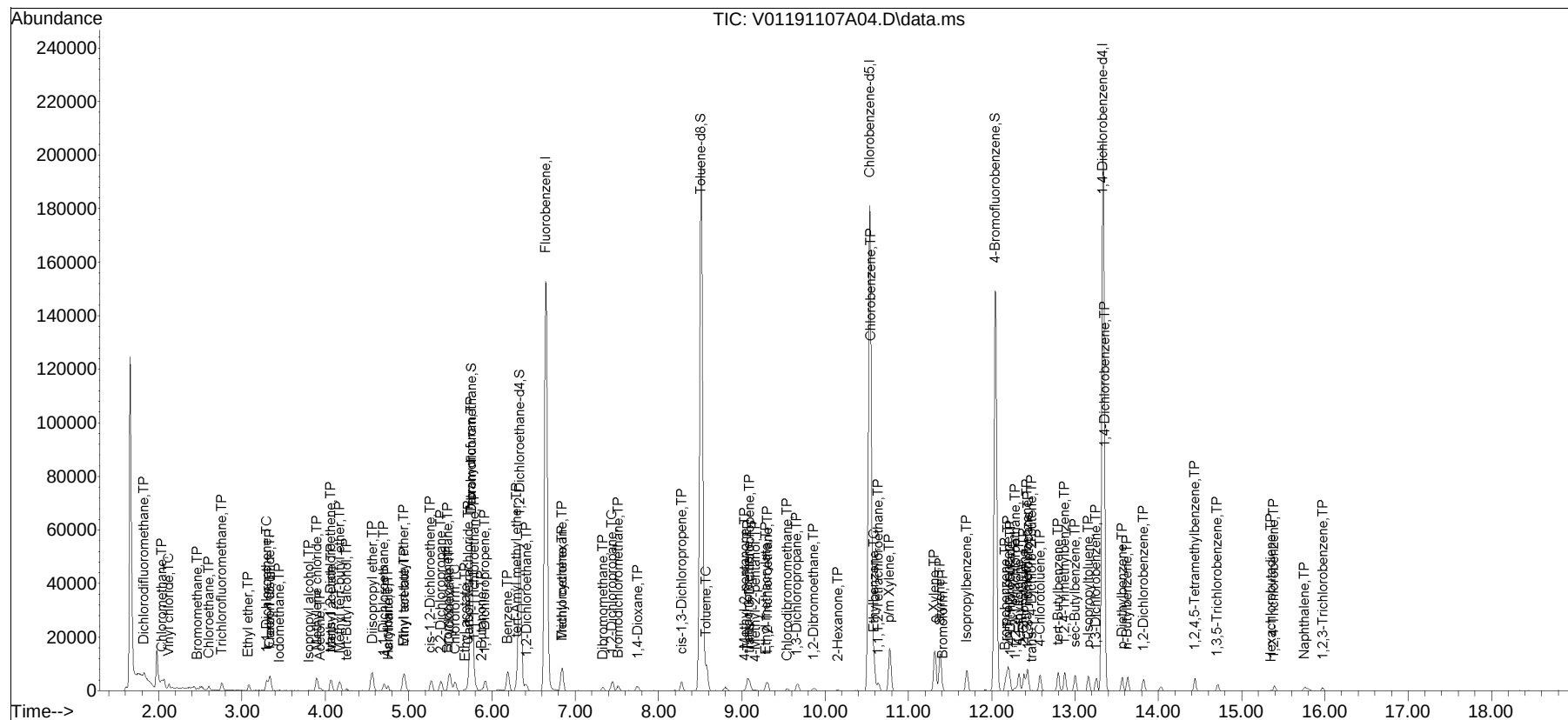
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\VOA101\2019\191107A\
 Data File : V01191107A04.D
 Acq On : 7 Nov 2019 1:20 pm
 Operator : VOA101:PD
 Sample : I8260STD0.5PPB
 Misc : WG1306306,ICAL
 ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 08 10:00:44 2019
 Quant Method : I:\VOLATILES\VOA101\2019\191107A\V101_191107A_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Fri Nov 08 09:58:51 2019
 Response via : Initial Calibration

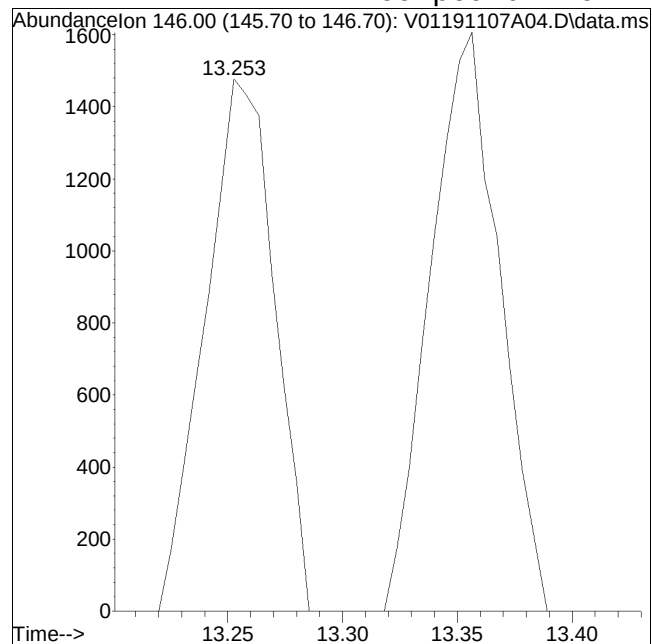
Sub List : 8260-CurveAlc - All compounds listed\V01191107A08.D•



Manual Integration Report

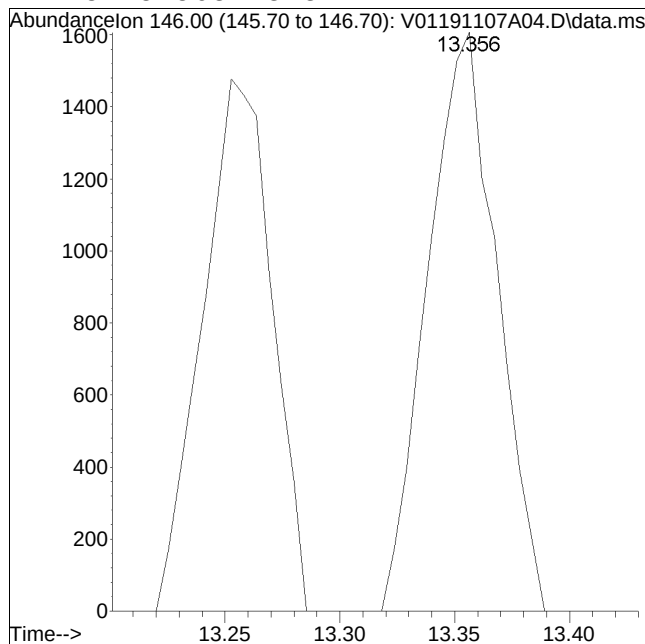
Data Path : I:\VOLATILES\VOA101\2019\10Method : V101_191107A_8260.m
Data File : V01191107A04.D Operator : VOA101:PD
Date Inj'd : 11/7/2019 1:20 pm Instrument : VOA 101
Sample : I8260STD0.5PPB Quant Date : 11/8/2019 10:00 am

Compound #101: 1,4-Dichlorobenzene



Original Peak Response = 3108

M2 = Peak not found by automatic integration algorithm.



Manual Peak Response = 3375 M2

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\VOA101\2019\191107A\
 Data File : V01191107A07.D
 Acq On : 7 Nov 2019 2:31 pm
 Operator : VOA101:PD
 Sample : I8260STD2PPB
 Misc : WG1306306,ICAL
 ALS Vial : 7 Sample Multiplier: 1

Quant Time: Nov 08 10:01:33 2019
 Quant Method : I:\VOLATILES\VOA101\2019\191107A\V101_191107A_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Fri Nov 08 09:58:51 2019
 Response via : Initial Calibration

CCAL FILE(s) : 1 - I:\VOLATILES\VOA101\2019\191107A\V01191107A08.D
 Sub List : 8260-CurveAlc - All compounds listed

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

Internal Standards						
1) Fluorobenzene	6.645	96	167748	10.000	ug/L	0.00
Standard Area 1 = 168070			Recovery =	99.81%		
59) Chlorobenzene-d5	10.535	117	131771	10.000	ug/L	0.00
Standard Area 1 = 132945			Recovery =	99.12%		
79) 1,4-Dichlorobenzene-d4	13.334	152	68139	10.000	ug/L	0.00
Standard Area 1 = 70817			Recovery =	96.22%		
System Monitoring Compounds						
36) Dibromofluoromethane	5.756	113	41964	9.881	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	98.81%		
43) 1,2-Dichloroethane-d4	6.334	65	47606	10.154	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	101.54%		
60) Toluene-d8	8.511	98	178374	10.065	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	100.65%		
83) 4-Bromofluorobenzene	12.041	95	72030	10.220	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	102.20%		
Target Compounds						
						Qvalue
2) Dichlorodifluoromethane	1.827	85	5088	2.136	ug/L	98
3) Chloromethane	2.040	50	7913	2.077	ug/L	94
4) Vinyl chloride	2.122	62	8238	2.148	ug/L	97
5) Bromomethane	2.471	94	794	1.967	ug/L	96
6) Chloroethane	2.602	64	5828	2.299	ug/L	96
7) Trichlorofluoromethane	2.760	101	12117	2.165	ug/L	100
8) Ethyl ether	3.082	74	3738	2.225	ug/L	75
10) 1,1-Dichloroethene	3.300	96	7764	2.220	ug/L	83
11) Carbon disulfide	3.333	76	20841	2.179	ug/L	100
12) Freon-113	3.344	101	7731	2.182	ug/L	87
13) Iodomethane	3.453	142	2949	2.405	ug/L #	93
14) Acrolein	3.633	56	734	1.777	ug/L	98
15) Methylene chloride	3.895	84	8496	2.159	ug/L	75
16) Isopropyl alcohol	3.797	45	1226	8.764	ug/L #	60
17) Acetone	3.939	43	2512	2.037	ug/L #	82
18) trans-1,2-Dichloroethene	4.070	96	8029	2.181	ug/L	89
19) Methyl acetate	4.070	43	4834	2.253	ug/L #	83
20) Methyl tert-butyl ether	4.168	73	17537	2.188	ug/L	90
21) tert-Butyl alcohol	4.250	59	2771	12.851	ug/L #	85
22) Diisopropyl ether	4.561	45	34953	2.155	ug/L	95
23) 1,1-Dichloroethane	4.702	63	18974	2.230	ug/L	97

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\VOA101\2019\191107A\
 Data File : V01191107A07.D
 Acq On : 7 Nov 2019 2:31 pm
 Operator : VOA101:PD
 Sample : I8260STD2PPB
 Misc : WG1306306,ICAL
 ALS Vial : 7 Sample Multiplier: 1

Quant Time: Nov 08 10:01:33 2019
 Quant Method : I:\VOLATILES\VOA101\2019\191107A\V101_191107A_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Fri Nov 08 09:58:51 2019
 Response via : Initial Calibration

CCAL FILE(s) : 1 - I:\VOLATILES\VOA101\2019\191107A\V01191107A08.D
 Sub List : 8260-CurveAlc - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
24) Halothane	4.757	117	6259	2.133	ug/L	99
25) Acrylonitrile	4.746	53	1687	1.913	ug/L	96
26) Ethyl tert-butyl ether	4.943	59	26572	2.122	ug/L	94
27) Vinyl acetate	4.953	43	17125	2.044	ug/L #	91
28) cis-1,2-Dichloroethene	5.270	96	9887	2.188	ug/L	90
29) 2,2-Dichloropropane	5.390	77	12951	2.142	ug/L	83
30) Bromochloromethane	5.483	128	3731	2.335	ug/L #	71
31) Cyclohexane	5.499	56	18589	2.202	ug/L	90
32) Chloroform	5.554	83	15671	2.104	ug/L	96
33) Ethyl acetate	5.668	43	4963M1	1.817	ug/L	
34) Carbon tetrachloride	5.717	117	10530	2.053	ug/L	97
35) Tetrahydrofuran	5.734	42	1713	2.207	ug/L #	78
37) 1,1,1-Trichloroethane	5.788	97	13778	2.133	ug/L	96
38) 2-Butanol	5.728	45	1426	8.099	ug/L #	45
39) 2-Butanone	5.881	43	3276	2.675	ug/L #	41
40) 1,1-Dichloropropene	5.925	75	12563	2.160	ug/L	98
41) Benzene	6.192	78	35806	2.195	ug/L	95
42) tert-Amyl methyl ether	6.301	73	19130	2.127	ug/L	91
44) 1,2-Dichloroethane	6.416	62	10720	2.147	ug/L	99
46) 2-Methyl-2-butanol	6.503	59	1408	9.106	ug/L #	84
47) Methyl cyclohexane	6.841	83	14485	2.152	ug/L	86
48) Trichloroethene	6.841	95	9097	2.182	ug/L	99
50) Dibromomethane	7.327	93	4087	2.104	ug/L	91
51) 1,2-Dichloropropane	7.447	63	9854	2.202	ug/L	95
52) 4-penten-2-ol	7.382	45	687	5.562	ug/L #	1
53) 2-Chloroethyl vinyl ether	8.189	63	287	1.088	ug/L #	17
54) Bromodichloromethane	7.518	83	9790	1.987	ug/L #	97
57) 1,4-Dioxane	7.747	88	7744	447.697	ug/L	88
58) cis-1,3-Dichloropropene	8.276	75	12383	2.020	ug/L #	87
61) Toluene	8.576	92	22318	2.196	ug/L	99
62) 4-Methyl-2-pentanone	9.035	58	1806	1.925	ug/L #	78
63) Tetrachloroethene	9.073	166	8198	2.144	ug/L	92
65) trans-1,3-Dichloropropene	9.095	75	9341	1.929	ug/L #	81
66) 4-Methyl-2-pentanol	9.155	45	3402	7.760	ug/L #	83
67) Ethyl methacrylate	9.291	69	6797	1.987	ug/L	98
68) 1,1,2-Trichloroethane	9.308	83	5106	2.180	ug/L	94
69) Chlorodibromomethane	9.548	129	5245	1.873	ug/L	99
70) 1,3-Dichloropropane	9.668	76	10387	2.132	ug/L	98
71) 1,2-Dibromoethane	9.864	107	5297	2.103	ug/L	97
72) 2-Hexanone	10.148	43	3375	2.055	ug/L #	90

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\VOA101\2019\191107A\
 Data File : V01191107A07.D
 Acq On : 7 Nov 2019 2:31 pm
 Operator : VOA101:PD
 Sample : I8260STD2PPB
 Misc : WG1306306,ICAL
 ALS Vial : 7 Sample Multiplier: 1

Quant Time: Nov 08 10:01:33 2019
 Quant Method : I:\VOLATILES\VOA101\2019\191107A\V101_191107A_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Fri Nov 08 09:58:51 2019
 Response via : Initial Calibration

CCAL FILE(s) : 1 - I:\VOLATILES\VOA101\2019\191107A\V01191107A08.D
 Sub List : 8260-CurveAlc - All compounds listed

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
73)	Chlorobenzene	10.557	112	22444	2.150	ug/L	93
74)	Ethylbenzene	10.590	91	42216	2.174	ug/L	99
75)	1,1,1,2-Tetrachloroethane	10.639	131	6613	1.976	ug/L	99
76)	p/m Xylene	10.775	106	32512	4.433	ug/L	100
77)	o Xylene	11.316	106	30486	4.470	ug/L	97
78)	Styrene	11.381	104	47833	4.273	ug/L	99
80)	Bromoform	11.419	173	2208	1.605	ug/L	96
82)	Isopropylbenzene	11.698	105	40687	2.280	ug/L	100
84)	Bromobenzene	12.172	156	8504	2.315	ug/L	96
85)	n-Propylbenzene	12.200	91	47205	2.280	ug/L	100
86)	1,4-Dichlorobutane	12.221	55	10668	2.180	ug/L	99
87)	1,1,2,2-Tetrachloroethane	12.281	83	5609	2.027	ug/L	96
88)	4-Ethyltoluene	12.325	105	36559	2.241	ug/L	99
89)	2-Chlorotoluene	12.385	91	30050	2.251	ug/L	94
90)	1,3,5-Trimethylbenzene	12.429	105	31504	2.255	ug/L	98
91)	1,2,3-Trichloropropane	12.440	75	5346M1	2.179	ug/L	
92)	trans-1,4-Dichloro-2-b...	12.483	53	1678	1.971	ug/L #	8
93)	4-Chlorotoluene	12.581	91	27739	2.204	ug/L	97
94)	tert-Butylbenzene	12.800	119	26188	2.230	ug/L	98
97)	1,2,4-Trimethylbenzene	12.876	105	30473	2.191	ug/L	100
98)	sec-Butylbenzene	13.002	105	33395	2.159	ug/L	99
99)	p-Isopropyltoluene	13.160	119	30248	2.194	ug/L	98
100)	1,3-Dichlorobenzene	13.258	146	16152	2.216	ug/L	97
101)	1,4-Dichlorobenzene	13.351	146	16270	2.204	ug/L	95
102)	p-Diethylbenzene	13.564	119	16275	2.156	ug/L	98
103)	n-Butylbenzene	13.629	91	25399	2.167	ug/L	98
104)	1,2-Dichlorobenzene	13.820	146	14311	2.193	ug/L	98
105)	1,2,4,5-Tetramethylben...	14.437	119	22740	2.054	ug/L	99
106)	1,2-Dibromo-3-chloropr...	14.688	155	385	2.385	ug/L	78
107)	1,3,5-Trichlorobenzene	14.720	180	7806	2.192	ug/L	94
108)	Hexachlorobutadiene	15.359	225	2005	2.317	ug/L	99
109)	1,2,4-Trichlorobenzene	15.397	180	6520	2.129	ug/L	97
110)	Naphthalene	15.763	128	14075	2.096	ug/L	100
111)	1,2,3-Trichlorobenzene	15.975	180	5127	2.160	ug/L	96

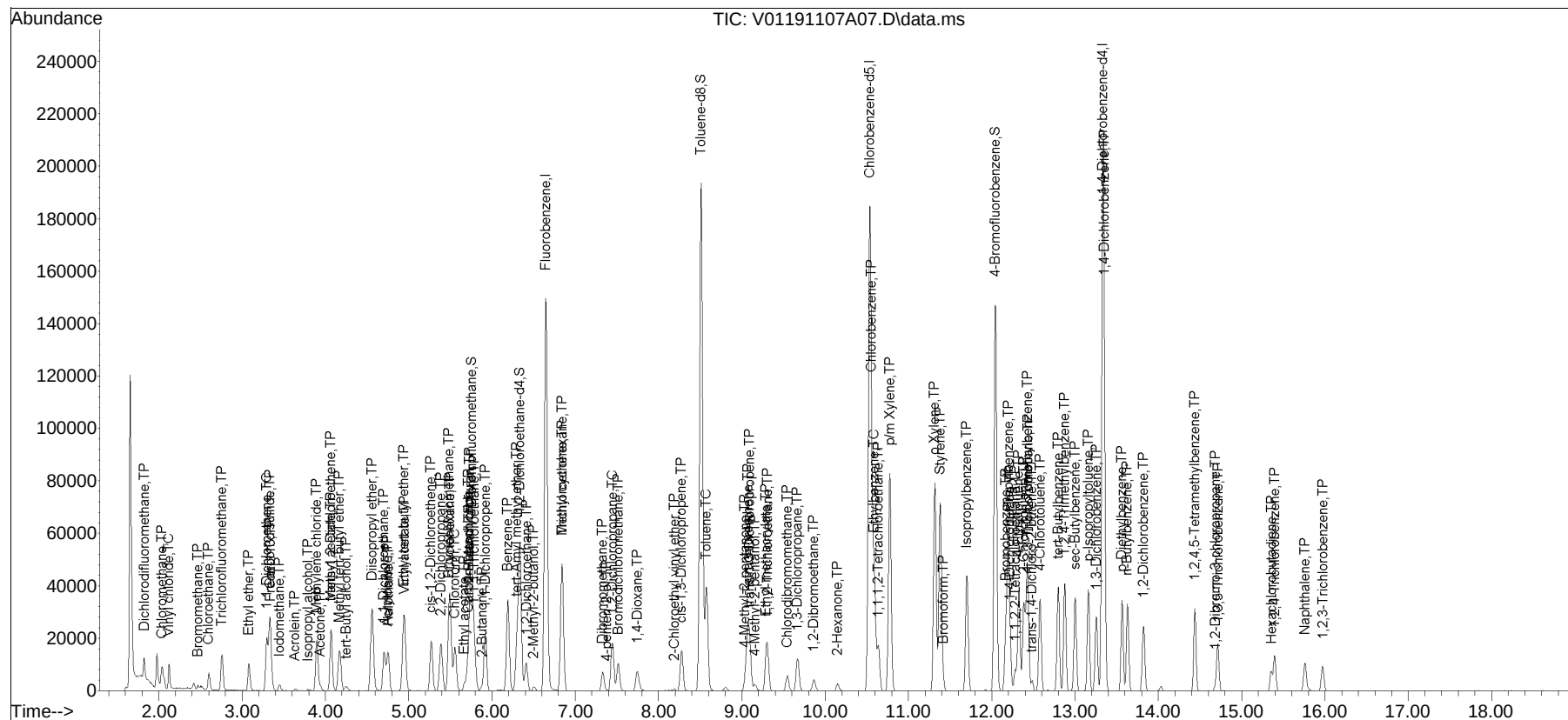
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\VOA101\2019\191107A\
 Data File : V01191107A07.D
 Acq On : 7 Nov 2019 2:31 pm
 Operator : VOA101:PD
 Sample : I8260STD2PPB
 Misc : WG1306306,ICAL
 ALS Vial : 7 Sample Multiplier: 1

Quant Time: Nov 08 10:01:33 2019
 Quant Method : I:\VOLATILES\VOA101\2019\191107A\V101_191107A_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Fri Nov 08 09:58:51 2019
 Response via : Initial Calibration

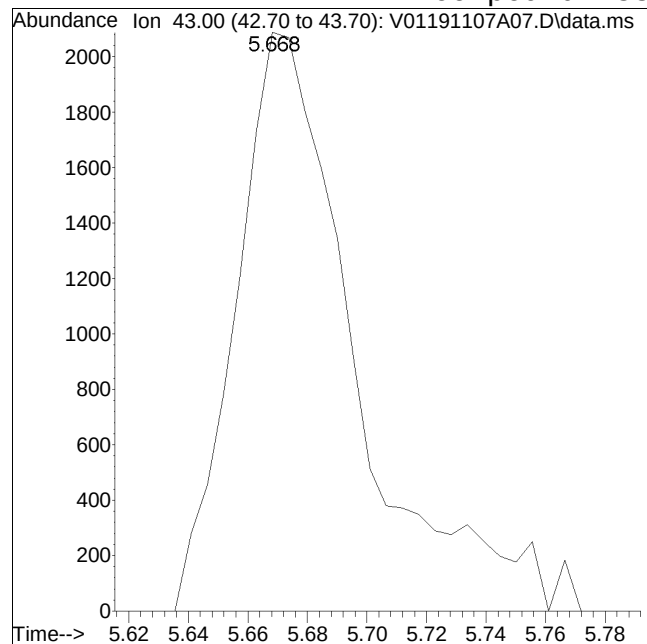
Sub List : 8260-CurveAlc - All compounds listed\V01191107A08.D•



Manual Integration Report

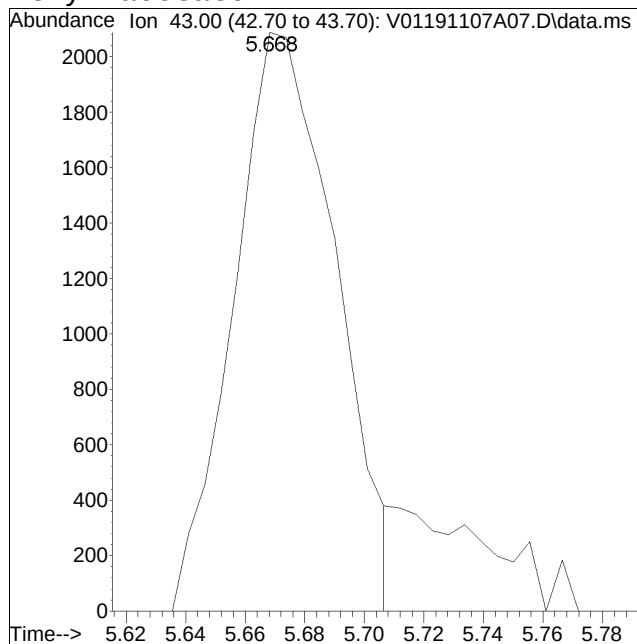
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Data File : V01191107A07.D Operator : VOA101:PD
Date Inj'd : 11/7/2019 2:31 pm Instrument : VOA 101
Sample : I8260STD2PPB Quant Date : 11/8/2019 10:01 am

Compound #33: Ethyl acetate



Original Peak Response = 5834

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

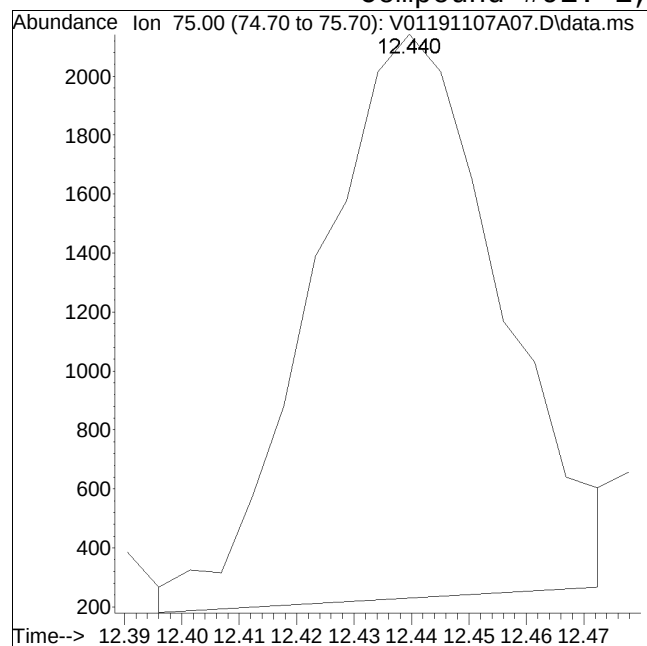


Manual Peak Response = 4963 M1

Manual Integration Report

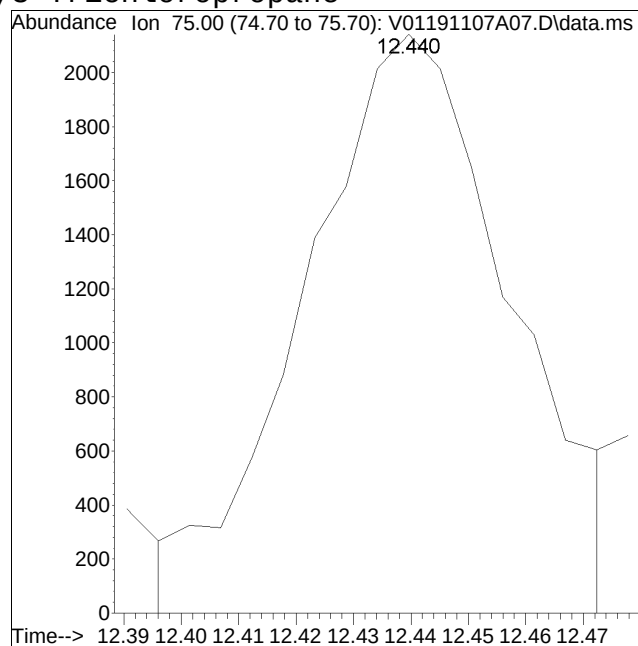
Data Path : I:\VOLATILES\VOA101\2019\10Method : V101_191107A_8260.m
Data File : V01191107A07.D Operator : VOA101:PD
Date Inj'd : 11/7/2019 2:31 pm Instrument : VOA 101
Sample : I8260STD2PPB Quant Date : 11/8/2019 10:01 am

Compound #91: 1,2,3-Trichloropropane



Original Peak Response = 4320

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.



Manual Peak Response = 5346 M1

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\VOA101\2019\191107A\
 Data File : V01191107A08.D
 Acq On : 7 Nov 2019 2:55 pm
 Operator : VOA101:PD
 Sample : I8260STD10PPB
 Misc : WG1306306,ICAL
 ALS Vial : 8 Sample Multiplier: 1

Quant Time: Nov 08 09:48:18 2019
 Quant Method : I:\VOLATILES\VOA101\2019\191107A\V101_191107A_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Fri Nov 08 09:44:52 2019
 Response via : Initial Calibration

CCAL FILE(s) : 1 - I:\VOLATILES\VOA101\2019\191107A\V01191107A08.D
 Sub List : 8260-CurveAlc - All compounds listed

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

Internal Standards						
1) Fluorobenzene	6.645	96	168070	10.000	ug/L	0.00
Standard Area 1 = 168070			Recovery	=	100.00%	
59) Chlorobenzene-d5	10.535	117	132945	10.000	ug/L	0.00
Standard Area 1 = 132945			Recovery	=	100.00%	
79) 1,4-Dichlorobenzene-d4	13.334	152	70817	10.000	ug/L	0.00
Standard Area 1 = 70817			Recovery	=	100.00%	
System Monitoring Compounds						
36) Dibromofluoromethane	5.750	113	43180	10.148	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery	=	101.48%	
43) 1,2-Dichloroethane-d4	6.334	65	46989	10.003	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery	=	100.03%	
60) Toluene-d8	8.511	98	179069	10.015	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery	=	100.15%	
83) 4-Bromofluorobenzene	12.041	95	73078	9.976	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery	=	99.76%	
Target Compounds						
						Qvalue
2) Dichlorodifluoromethane	1.821	85	23173	9.708	ug/L	98
3) Chloromethane	2.040	50	35737	9.364	ug/L	98
4) Vinyl chloride	2.122	62	38145	9.927	ug/L	99
5) Bromomethane	2.471	94	3527	4.106	ug/L	97
6) Chloroethane	2.602	64	26476	10.425	ug/L	94
7) Trichlorofluoromethane	2.760	101	54902	9.791	ug/L	98
8) Ethyl ether	3.082	74	17230	10.238	ug/L	72
10) 1,1-Dichloroethene	3.295	96	35095	10.014	ug/L	84
11) Carbon disulfide	3.333	76	92339	9.637	ug/L	98
12) Freon-113	3.338	101	34935	9.842	ug/L	89
13) Iodomethane	3.447	142	20909M1	8.613	ug/L	
14) Acrolein	3.638	56	3995	9.652	ug/L	100
15) Methylene chloride	3.900	84	38731	9.822	ug/L	79
16) Isopropyl alcohol	3.791	45	6800	55.176	ug/L #	92
17) Acetone	3.939	43	7874	7.411	ug/L #	83
18) trans-1,2-Dichloroethene	4.069	96	36317	9.844	ug/L	89
19) Methyl acetate	4.069	43	21817	10.147	ug/L #	88
20) Methyl tert-butyl ether	4.173	73	80573	10.034	ug/L	90
21) tert-Butyl alcohol	4.244	59	10067	41.857	ug/L #	86
22) Diisopropyl ether	4.561	45	162622	10.008	ug/L	95
23) 1,1-Dichloroethane	4.708	63	86021	10.090	ug/L	97

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\VOA101\2019\191107A\
 Data File : V01191107A08.D
 Acq On : 7 Nov 2019 2:55 pm
 Operator : VOA101:PD
 Sample : I8260STD10PPB
 Misc : WG1306306,ICAL
 ALS Vial : 8 Sample Multiplier: 1

Quant Time: Nov 08 09:48:18 2019
 Quant Method : I:\VOLATILES\VOA101\2019\191107A\V101_191107A_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Fri Nov 08 09:44:52 2019
 Response via : Initial Calibration

CCAL FILE(s) : 1 - I:\VOLATILES\VOA101\2019\191107A\V01191107A08.D
 Sub List : 8260-CurveAlc - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
24) Halothane	4.752	117	28860	9.818	ug/L	99
25) Acrylonitrile	4.746	53	9049	11.221	ug/L	94
26) Ethyl tert-butyl ether	4.937	59	125030	9.964	ug/L	96
27) Vinyl acetate	4.953	43	84081	10.017	ug/L #	94
28) cis-1,2-Dichloroethene	5.270	96	45759	10.108	ug/L	91
29) 2,2-Dichloropropane	5.384	77	58932	9.728	ug/L	84
30) Bromochloromethane	5.488	128	17032	10.639	ug/L #	73
31) Cyclohexane	5.499	56	81878	9.679	ug/L	90
32) Chloroform	5.559	83	74250	9.950	ug/L	94
33) Ethyl acetate	5.668	43	29106	10.635	ug/L #	93
34) Carbon tetrachloride	5.723	117	47468	9.235	ug/L	98
35) Tetrahydrofuran	5.728	42	7986	10.268	ug/L	92
37) 1,1,1-Trichloroethane	5.788	97	62226	9.615	ug/L	94
38) 2-Butanol	5.723	45	8541	48.415	ug/L #	70
39) 2-Butanone	5.876	43	11954	8.454	ug/L #	44
40) 1,1-Dichloropropene	5.919	75	55592	9.542	ug/L	99
41) Benzene	6.192	78	160208	9.801	ug/L	94
42) tert-Amyl methyl ether	6.301	73	89987	9.985	ug/L	92
44) 1,2-Dichloroethane	6.410	62	49123	9.821	ug/L	99
46) 2-Methyl-2-butanol	6.503	59	7208	46.529	ug/L #	91
47) Methyl cyclohexane	6.841	83	64328	9.539	ug/L	84
48) Trichloroethene	6.847	95	40401	9.674	ug/L	98
50) Dibromomethane	7.332	93	19367	9.953	ug/L	91
51) 1,2-Dichloropropane	7.447	63	44367	9.893	ug/L	97
52) 4-penten-2-ol	7.371	45	4633	40.427	ug/L #	1
53) 2-Chloroethyl vinyl ether	8.194	63	2752	11.265	ug/L #	85
54) Bromodichloromethane	7.518	83	47597	9.644	ug/L	97
57) 1,4-Dioxane	7.736	88	8646	498.886	ug/L	93
58) cis-1,3-Dichloropropene	8.276	75	59981	9.764	ug/L #	89
61) Toluene	8.576	92	100790	9.828	ug/L	100
62) 4-Methyl-2-pentanone	9.046	58	9128	10.629	ug/L	90
63) Tetrachloroethene	9.073	166	37500	9.719	ug/L	94
65) trans-1,3-Dichloropropene	9.100	75	48095	9.846	ug/L #	78
66) 4-Methyl-2-pentanol	9.149	45	18837	46.155	ug/L #	87
67) Ethyl methacrylate	9.291	69	34713	10.059	ug/L	96
68) 1,1,2-Trichloroethane	9.308	83	23648	10.008	ug/L	99
69) Chlorodibromomethane	9.548	129	26155	9.255	ug/L	98
70) 1,3-Dichloropropane	9.668	76	49057	9.979	ug/L	99
71) 1,2-Dibromoethane	9.864	107	24803	9.759	ug/L	99
72) 2-Hexanone	10.148	43	16522	9.969	ug/L	97

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\VOA101\2019\191107A\
 Data File : V01191107A08.D
 Acq On : 7 Nov 2019 2:55 pm
 Operator : VOA101:PD
 Sample : I8260STD10PPB
 Misc : WG1306306,ICAL
 ALS Vial : 8 Sample Multiplier: 1

Quant Time: Nov 08 09:48:18 2019
 Quant Method : I:\VOLATILES\VOA101\2019\191107A\V101_191107A_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Fri Nov 08 09:44:52 2019
 Response via : Initial Calibration

CCAL FILE(s) : 1 - I:\VOLATILES\VOA101\2019\191107A\V01191107A08.D
 Sub List : 8260-CurveAlc - All compounds listed

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
73)	Chlorobenzene	10.563	112	101681	9.657	ug/L	98
74)	Ethylbenzene	10.590	91	187838	9.586	ug/L	100
75)	1,1,1,2-Tetrachloroethane	10.639	131	32613	9.659	ug/L	100
76)	p/m Xylene	10.775	106	144525	19.530	ug/L	97
77)	o Xylene	11.316	106	135288	19.663	ug/L	98
78)	Styrene	11.381	104	222449	19.696	ug/L	100
80)	Bromoform	11.419	173	12361	9.446	ug/L	100
82)	Isopropylbenzene	11.703	105	180835	9.750	ug/L	100
84)	Bromobenzene	12.172	156	37644	9.861	ug/L	100
85)	n-Propylbenzene	12.199	91	209977	9.756	ug/L	99
86)	1,4-Dichlorobutane	12.221	55	50180	9.866	ug/L	99
87)	1,1,2,2-Tetrachloroethane	12.276	83	28144	9.785	ug/L	99
88)	4-Ethyltoluene	12.325	105	165332	9.749	ug/L	100
89)	2-Chlorotoluene	12.385	91	133985	9.656	ug/L	93
90)	1,3,5-Trimethylbenzene	12.423	105	140435	9.674	ug/L	100
91)	1,2,3-Trichloropropane	12.445	75	26284M1	10.309	ug/L	
92)	trans-1,4-Dichloro-2-b...	12.483	53	7680	9.889	ug/L #	13
93)	4-Chlorotoluene	12.576	91	126711	9.689	ug/L	97
94)	tert-Butylbenzene	12.800	119	118926	9.742	ug/L	99
97)	1,2,4-Trimethylbenzene	12.876	105	139448	9.649	ug/L	99
98)	sec-Butylbenzene	13.002	105	154990	9.643	ug/L	98
99)	p-Isopropyltoluene	13.160	119	138694	9.681	ug/L	99
100)	1,3-Dichlorobenzene	13.258	146	73172	9.657	ug/L	98
101)	1,4-Dichlorobenzene	13.356	146	73857	9.626	ug/L	98
102)	p-Diethylbenzene	13.564	119	75314	9.600	ug/L	98
103)	n-Butylbenzene	13.629	91	115997	9.523	ug/L	99
104)	1,2-Dichlorobenzene	13.825	146	65752	9.696	ug/L	98
105)	1,2,4,5-Tetramethylben...	14.437	119	110073	9.567	ug/L	98
106)	1,2-Dibromo-3-chloropr...	14.682	155	2907	8.938	ug/L	96
107)	1,3,5-Trichlorobenzene	14.715	180	35318	9.544	ug/L	96
108)	Hexachlorobutadiene	15.353	225	9003	9.793	ug/L	99
109)	1,2,4-Trichlorobenzene	15.397	180	30669	9.636	ug/L	97
110)	Naphthalene	15.762	128	66442	9.518	ug/L	100
111)	1,2,3-Trichlorobenzene	15.975	180	23439	9.502	ug/L	96

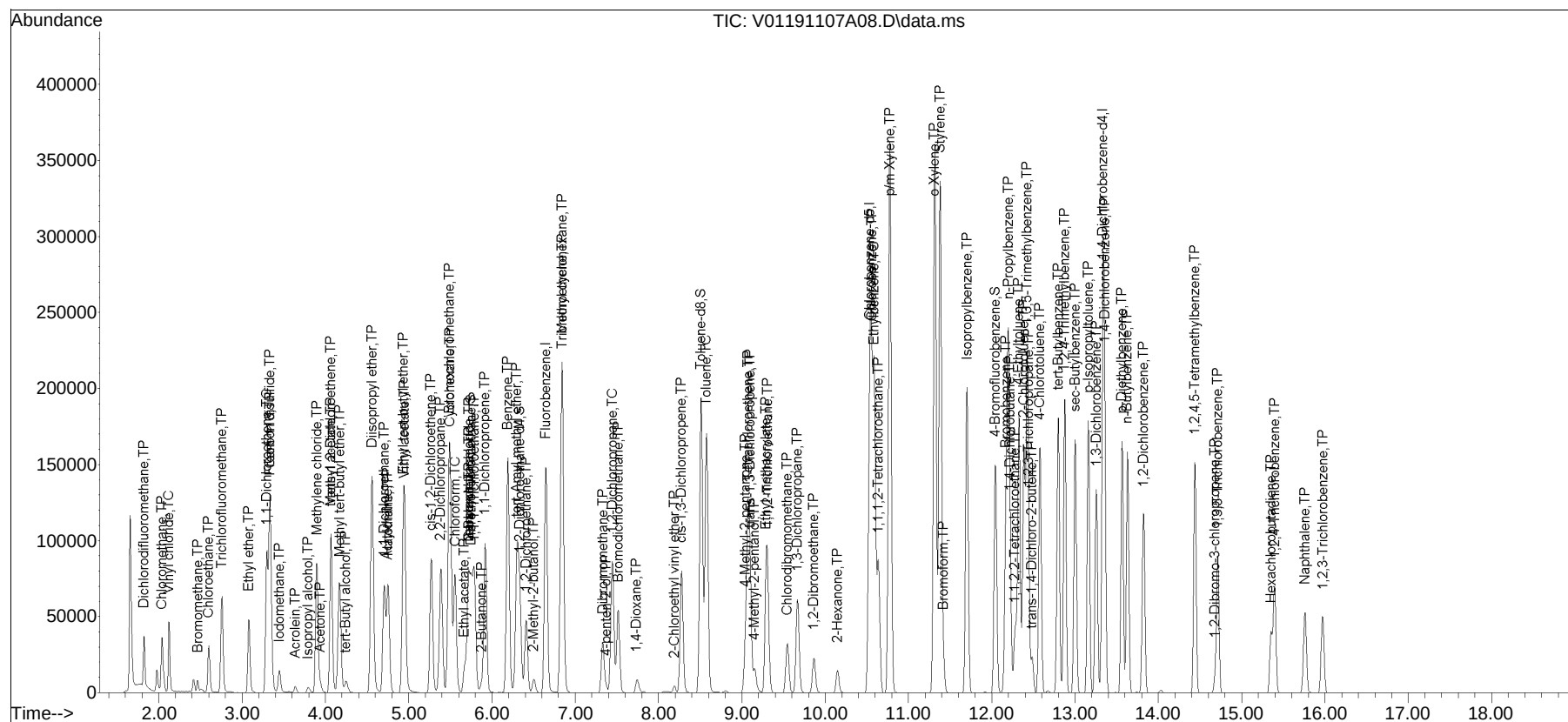
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\VOA101\2019\191107A\
 Data File : V01191107A08.D
 Acq On : 7 Nov 2019 2:55 pm
 Operator : VOA101:PD
 Sample : I8260STD10PPB
 Misc : WG1306306,ICAL
 ALS Vial : 8 Sample Multiplier: 1

Quant Time: Nov 08 09:48:18 2019
 Quant Method : I:\VOLATILES\VOA101\2019\191107A\V101_191107A_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Fri Nov 08 09:44:52 2019
 Response via : Initial Calibration

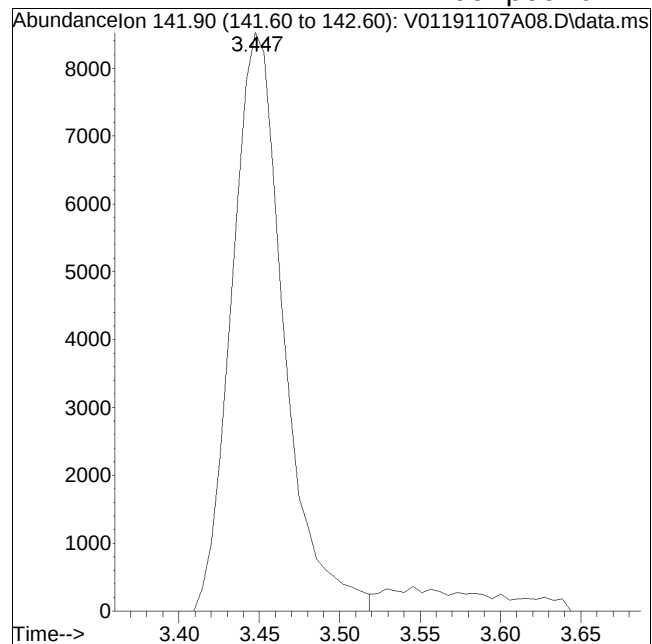
Sub List : 8260-CurveAlc - All compounds listed\V01191107A08.D•



Manual Integration Report

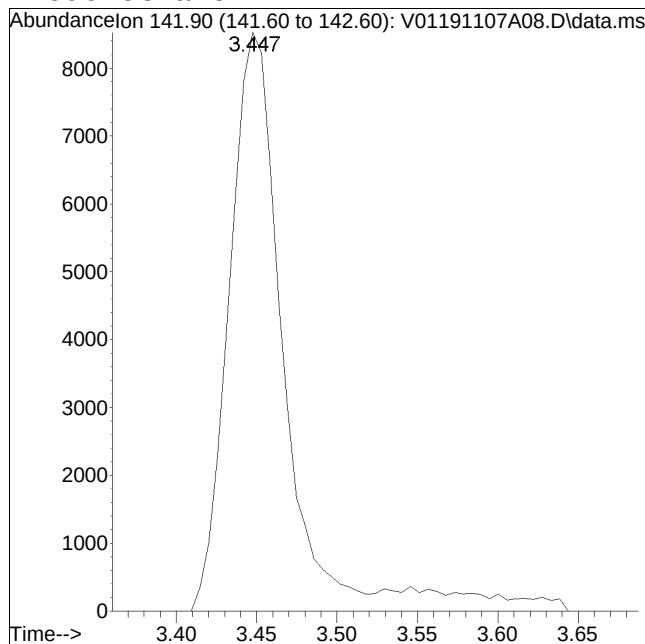
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Data File : V01191107A08.D Operator : VOA101:PD
Date Inj'd : 11/7/2019 2:55 pm Instrument : VOA 101
Sample : I8260STD10PPB Quant Date : 11/8/2019 9:48 am

Compound #13: Iodomethane



Original Peak Response = 19156

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

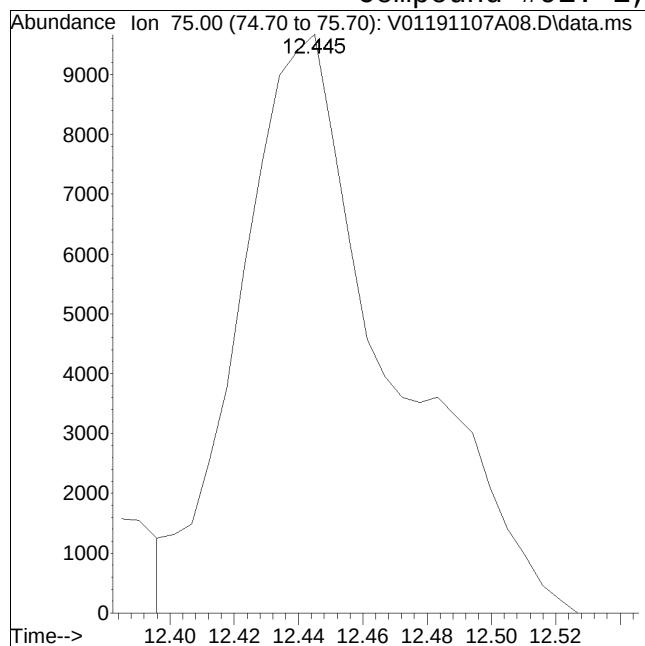


Manual Peak Response = 20909 M1

Manual Integration Report

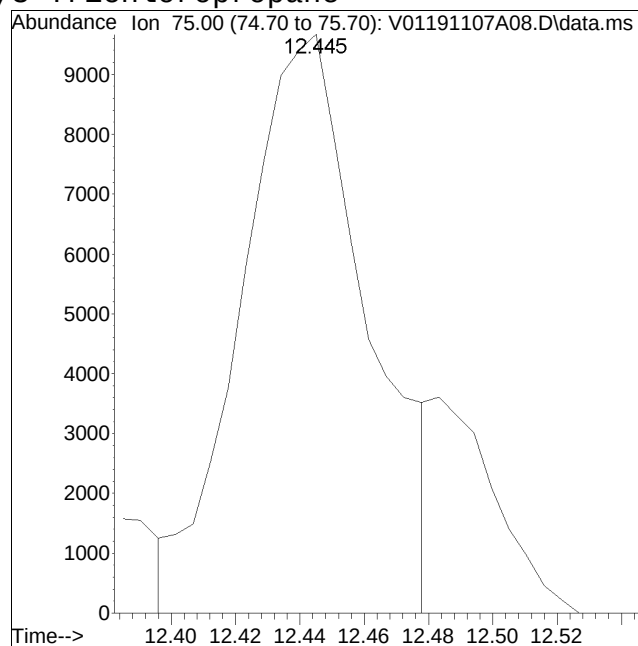
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Data File : V01191107A08.D Operator : VOA101:PD
Date Inj'd : 11/7/2019 2:55 pm Instrument : VOA 101
Sample : I8260STD10PPB Quant Date : 11/8/2019 9:48 am

Compound #91: 1,2,3-Trichloropropane



Original Peak Response = 31220

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.



Manual Peak Response = 26284 M1

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\VOA101\2019\191107A\
 Data File : V01191107A09.D
 Acq On : 7 Nov 2019 3:18 pm
 Operator : VOA101:PD
 Sample : I8260STD30PPB
 Misc : WG1306306,ICAL
 ALS Vial : 9 Sample Multiplier: 1

Quant Time: Nov 08 09:48:27 2019
 Quant Method : I:\VOLATILES\VOA101\2019\191107A\V101_191107A_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Fri Nov 08 09:44:52 2019
 Response via : Initial Calibration

CCAL FILE(s) : 1 - I:\VOLATILES\VOA101\2019\191107A\V01191107A08.D
 Sub List : 8260-CurveAlc - All compounds listed

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

Internal Standards						
1) Fluorobenzene	6.650	96	171169	10.000	ug/L	0.00
Standard Area 1 = 168070			Recovery	=	101.84%	
59) Chlorobenzene-d5	10.535	117	135709	10.000	ug/L	0.00
Standard Area 1 = 132945			Recovery	=	102.08%	
79) 1,4-Dichlorobenzene-d4	13.334	152	74438	10.000	ug/L	0.00
Standard Area 1 = 70817			Recovery	=	105.11%	
System Monitoring Compounds						
36) Dibromofluoromethane	5.750	113	43136	9.954	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery	=	99.54%	
43) 1,2-Dichloroethane-d4	6.339	65	45803	9.574	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery	=	95.74%	
60) Toluene-d8	8.511	98	181169	9.926	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery	=	99.26%	
83) 4-Bromofluorobenzene	12.041	95	75846	9.851	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery	=	98.51%	
Target Compounds						
						Qvalue
2) Dichlorodifluoromethane	1.821	85	76357	31.410	ug/L	98
3) Chloromethane	2.040	50	118737	30.547	ug/L	99
4) Vinyl chloride	2.127	62	127103	32.479	ug/L	99
5) Bromomethane	2.471	94	20354M1	23.264	ug/L	
6) Chloroethane	2.602	64	83139	32.143	ug/L	96
7) Trichlorofluoromethane	2.760	101	180716	31.644	ug/L	98
8) Ethyl ether	3.082	74	53175	31.024	ug/L	74
10) 1,1-Dichloroethene	3.300	96	114157	31.984	ug/L	84
11) Carbon disulfide	3.333	76	299667	30.708	ug/L	100
12) Freon-113	3.338	101	117403	32.477	ug/L	93
13) Iodomethane	3.447	142	99940M1	40.421	ug/L	
14) Acrolein	3.638	56	12544	29.758	ug/L	97
15) Methylene chloride	3.900	84	119668	29.797	ug/L	80
16) Isopropyl alcohol	3.791	45	20516M1	163.454	ug/L	
17) Acetone	3.939	43	22430	20.730	ug/L	89
18) trans-1,2-Dichloroethene	4.069	96	116927	31.121	ug/L	89
19) Methyl acetate	4.069	43	62433	28.512	ug/L #	90
20) Methyl tert-butyl ether	4.168	73	244841	29.939	ug/L	91
21) tert-Butyl alcohol	4.250	59	30052	122.689	ug/L #	88
22) Diisopropyl ether	4.561	45	504321	30.476	ug/L	94
23) 1,1-Dichloroethane	4.708	63	270094	31.107	ug/L	98

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\VOA101\2019\191107A\
 Data File : V01191107A09.D
 Acq On : 7 Nov 2019 3:18 pm
 Operator : VOA101:PD
 Sample : I8260STD30PPB
 Misc : WG1306306,ICAL
 ALS Vial : 9 Sample Multiplier: 1

Quant Time: Nov 08 09:48:27 2019
 Quant Method : I:\VOLATILES\VOA101\2019\191107A\V101_191107A_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Fri Nov 08 09:44:52 2019
 Response via : Initial Calibration

CCAL FILE(s) : 1 - I:\VOLATILES\VOA101\2019\191107A\V01191107A08.D
 Sub List : 8260-CurveAlc - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
24) Halothane	4.752	117	96299	32.168	ug/L	100
25) Acrylonitrile	4.746	53	26163	31.855	ug/L	96
26) Ethyl tert-butyl ether	4.937	59	389149	30.450	ug/L	95
27) Vinyl acetate	4.953	43	256628	30.019	ug/L	95
28) cis-1,2-Dichloroethene	5.270	96	144160	31.267	ug/L	90
29) 2,2-Dichloropropane	5.384	77	191190	30.988	ug/L	86
30) Bromochloromethane	5.483	128	52495	32.198	ug/L #	77
31) Cyclohexane	5.499	56	279232	32.411	ug/L	90
32) Chloroform	5.559	83	236098	31.065	ug/L	95
33) Ethyl acetate	5.668	43	86650	31.089	ug/L	94
34) Carbon tetrachloride	5.717	117	166001	31.711	ug/L	96
35) Tetrahydrofuran	5.728	42	24478	30.902	ug/L	96
37) 1,1,1-Trichloroethane	5.788	97	208908	31.694	ug/L	96
38) 2-Butanol	5.712	45	25347M1	141.080	ug/L	
39) 2-Butanone	5.876	43	34813	24.173	ug/L #	46
40) 1,1-Dichloropropene	5.919	75	184783	31.141	ug/L	99
41) Benzene	6.192	78	510399	30.658	ug/L	95
42) tert-Amyl methyl ether	6.301	73	273109	29.756	ug/L	93
44) 1,2-Dichloroethane	6.410	62	152122	29.862	ug/L	99
46) 2-Methyl-2-butanol	6.503	59	22660	143.628	ug/L	93
47) Methyl cyclohexane	6.841	83	221158	32.201	ug/L	83
48) Trichloroethene	6.841	95	133093	31.291	ug/L	97
50) Dibromomethane	7.327	93	60029	30.290	ug/L	92
51) 1,2-Dichloropropane	7.447	63	141920	31.074	ug/L	97
52) 4-penten-2-ol	7.376	45	16242	139.159	ug/L #	1
53) 2-Chloroethyl vinyl ether	8.189	63	7901	31.756	ug/L	89
54) Bromodichloromethane	7.512	83	157570	31.348	ug/L	98
57) 1,4-Dioxane	7.747	88	10337	585.660	ug/L	90
58) cis-1,3-Dichloropropene	8.276	75	196271	31.371	ug/L #	89
61) Toluene	8.576	92	324759	31.023	ug/L	100
62) 4-Methyl-2-pentanone	9.046	58	28584	32.607	ug/L	91
63) Tetrachloroethene	9.073	166	126307	32.068	ug/L	95
65) trans-1,3-Dichloropropene	9.100	75	156005	31.286	ug/L #	78
66) 4-Methyl-2-pentanol	9.155	45	63619	152.705	ug/L	95
67) Ethyl methacrylate	9.291	69	109193	30.996	ug/L	94
68) 1,1,2-Trichloroethane	9.308	83	72450	30.038	ug/L	99
69) Chlorodibromomethane	9.548	129	89438	31.004	ug/L	99
70) 1,3-Dichloropropane	9.668	76	148653	29.622	ug/L	100
71) 1,2-Dibromoethane	9.864	107	79083	30.483	ug/L	99
72) 2-Hexanone	10.148	43	51848	30.647	ug/L	98

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\VOA101\2019\191107A\
 Data File : V01191107A09.D
 Acq On : 7 Nov 2019 3:18 pm
 Operator : VOA101:PD
 Sample : I8260STD30PPB
 Misc : WG1306306,ICAL
 ALS Vial : 9 Sample Multiplier: 1

Quant Time: Nov 08 09:48:27 2019
 Quant Method : I:\VOLATILES\VOA101\2019\191107A\V101_191107A_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Fri Nov 08 09:44:52 2019
 Response via : Initial Calibration

CCAL FILE(s) : 1 - I:\VOLATILES\VOA101\2019\191107A\V01191107A08.D
 Sub List : 8260-CurveAlc - All compounds listed

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
73)	Chlorobenzene	10.557	112	332779	30.960	ug/L	99
74)	Ethylbenzene	10.590	91	626433	31.318	ug/L	99
75)	1,1,1,2-Tetrachloroethane	10.639	131	108978	31.619	ug/L	100
76)	p/m Xylene	10.775	106	475182	62.906	ug/L	99
77)	o Xylene	11.316	106	436438	62.142	ug/L	100
78)	Styrene	11.381	104	726072	62.979	ug/L	99
80)	Bromoform	11.419	173	44179	32.117	ug/L	99
82)	Isopropylbenzene	11.703	105	610269	31.302	ug/L	100
84)	Bromobenzene	12.172	156	123060	30.669	ug/L	98
85)	n-Propylbenzene	12.199	91	712577	31.499	ug/L	100
86)	1,4-Dichlorobutane	12.221	55	157828	29.521	ug/L	100
87)	1,1,2,2-Tetrachloroethane	12.281	83	89564	29.624	ug/L	98
88)	4-Ethyltoluene	12.325	105	562439	31.553	ug/L	100
89)	2-Chlorotoluene	12.385	91	450046	30.856	ug/L	93
90)	1,3,5-Trimethylbenzene	12.429	105	478939	31.386	ug/L	99
91)	1,2,3-Trichloropropane	12.440	75	78121M1	29.151	ug/L	
92)	trans-1,4-Dichloro-2-b...	12.483	53	26675	32.677	ug/L #	14
93)	4-Chlorotoluene	12.581	91	426555	31.029	ug/L	96
94)	tert-Butylbenzene	12.800	119	407659	31.771	ug/L	99
97)	1,2,4-Trimethylbenzene	12.876	105	479103	31.538	ug/L	100
98)	sec-Butylbenzene	13.002	105	540934	32.020	ug/L	98
99)	p-Isopropyltoluene	13.160	119	486372	32.298	ug/L	99
100)	1,3-Dichlorobenzene	13.258	146	248250	31.170	ug/L	99
101)	1,4-Dichlorobenzene	13.356	146	248805	30.851	ug/L	98
102)	p-Diethylbenzene	13.564	119	264592	32.085	ug/L	98
103)	n-Butylbenzene	13.629	91	407573	31.834	ug/L	99
104)	1,2-Dichlorobenzene	13.825	146	216738	30.406	ug/L	98
105)	1,2,4,5-Tetramethylben...	14.437	119	390291	32.270	ug/L	98
106)	1,2-Dibromo-3-chloropr...	14.688	155	10361	30.308	ug/L	99
107)	1,3,5-Trichlorobenzene	14.715	180	122921	31.601	ug/L	96
108)	Hexachlorobutadiene	15.353	225	34290	35.486	ug/L	98
109)	1,2,4-Trichlorobenzene	15.397	180	103978	31.079	ug/L	97
110)	Naphthalene	15.762	128	218807	29.820	ug/L	100
111)	1,2,3-Trichlorobenzene	15.975	180	79651	30.719	ug/L	98

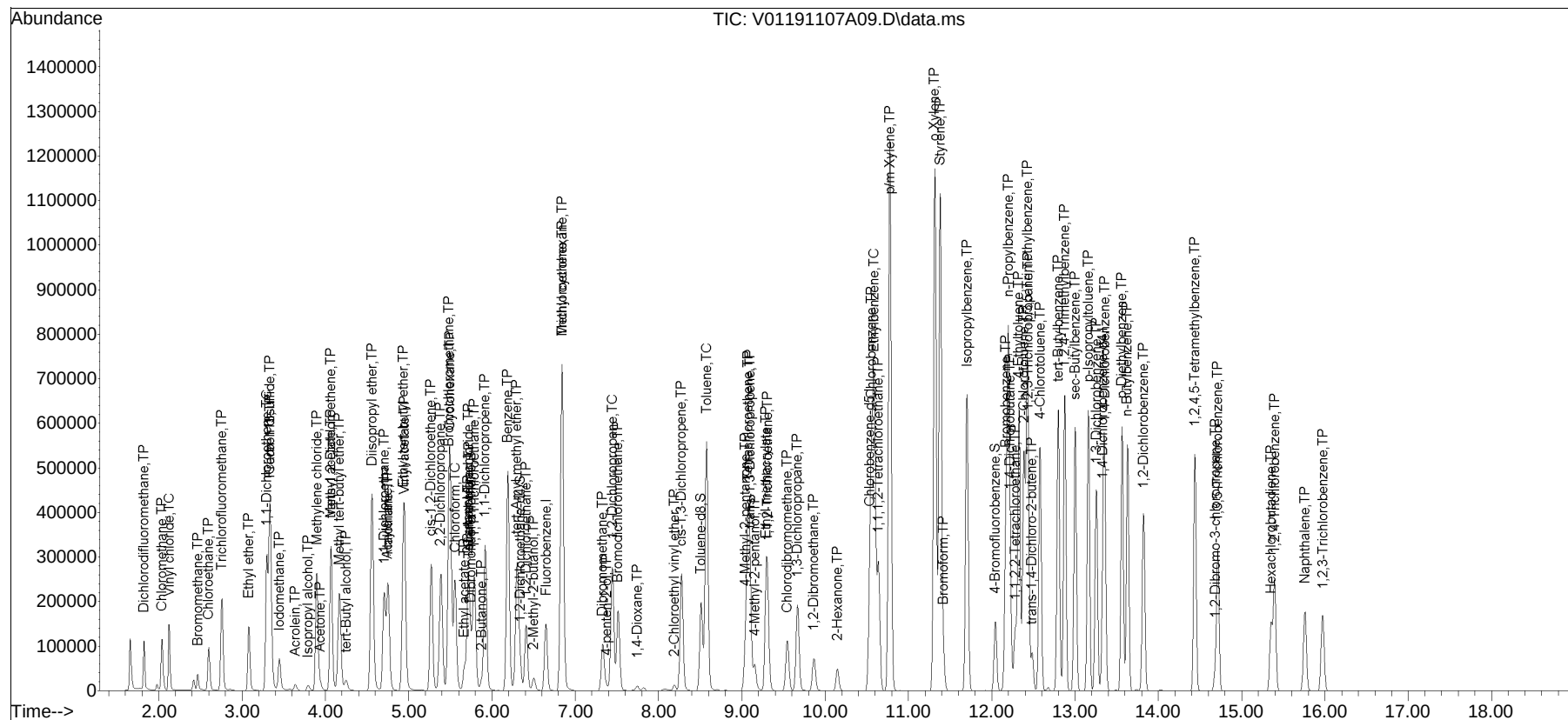
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\VOA101\2019\191107A\
 Data File : V01191107A09.D
 Acq On : 7 Nov 2019 3:18 pm
 Operator : VOA101:PD
 Sample : I8260STD30PPB
 Misc : WG1306306,ICAL
 ALS Vial : 9 Sample Multiplier: 1

Quant Time: Nov 08 09:48:27 2019
 Quant Method : I:\VOLATILES\VOA101\2019\191107A\V101_191107A_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Fri Nov 08 09:44:52 2019
 Response via : Initial Calibration

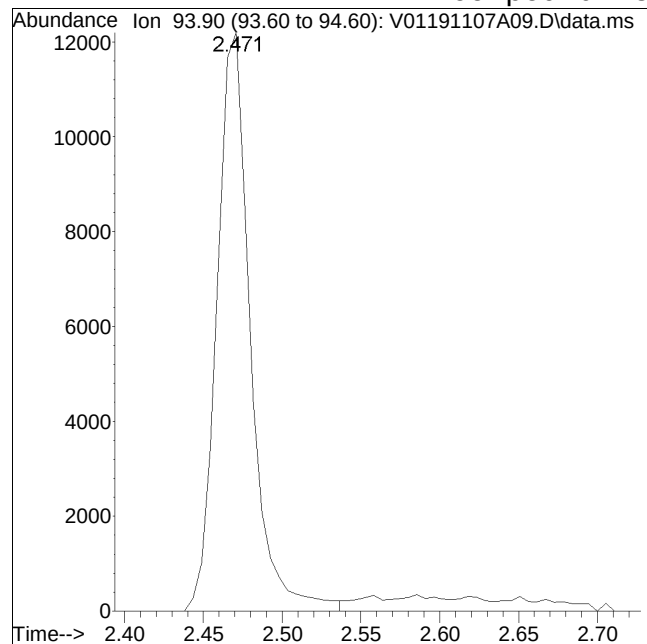
Sub List : 8260-CurveAlc - All compounds listed\V01191107A08.D•



Manual Integration Report

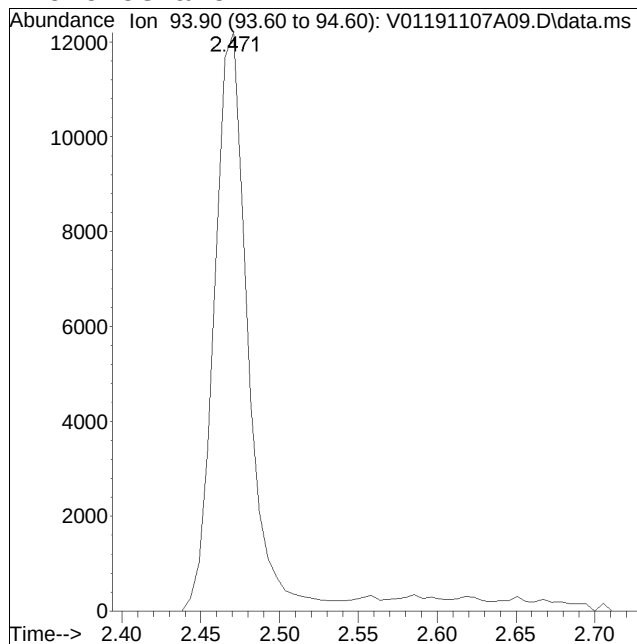
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Data File : V01191107A09.D Operator : VOA101:PD
Date Inj'd : 11/7/2019 3:18 pm Instrument : VOA 101
Sample : I8260STD30PPB Quant Date : 11/8/2019 9:48 am

Compound #5: Bromomethane



Original Peak Response = 18055

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

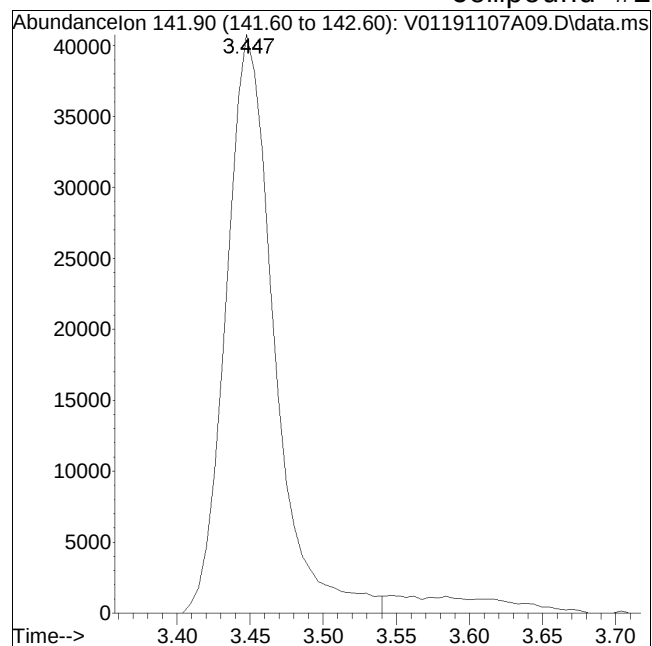


Manual Peak Response = 20354 M1

Manual Integration Report

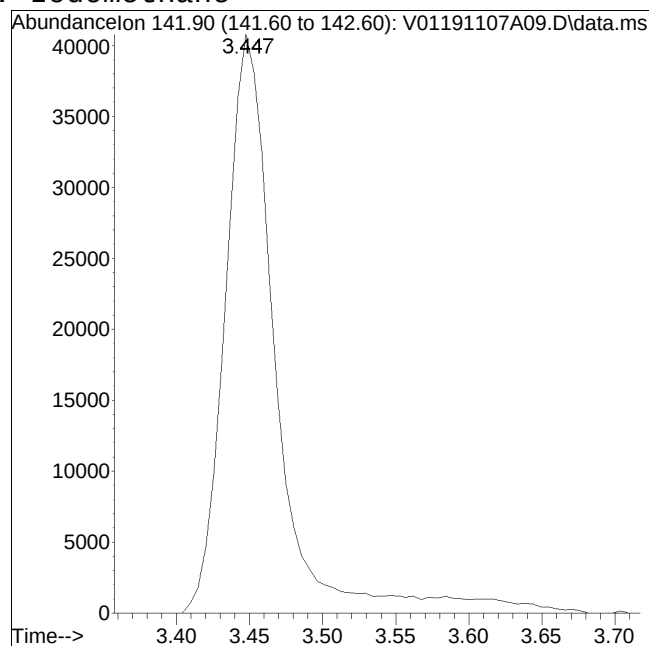
Data Path : I:\VOLATILES\VOA101\2019\10Method : V101_191107A_8260.m
Data File : V01191107A09.D Operator : VOA101:PD
Date Inj'd : 11/7/2019 3:18 pm Instrument : VOA 101
Sample : I8260STD30PPB Quant Date : 11/8/2019 9:48 am

Compound #13: Iodomethane



Original Peak Response = 93251

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

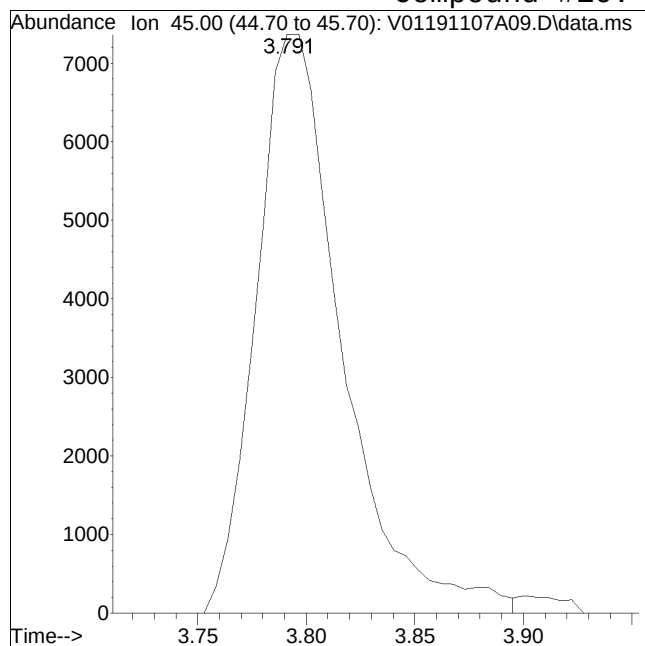


Manual Peak Response = 99940 M1

Manual Integration Report

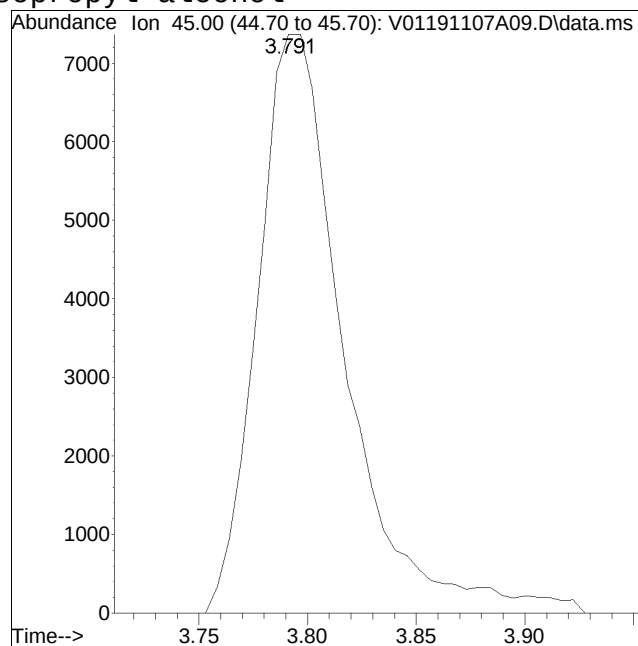
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Data File : V01191107A09.D Operator : VOA101:PD
Date Inj'd : 11/7/2019 3:18 pm Instrument : VOA 101
Sample : I8260STD30PPB Quant Date : 11/8/2019 9:48 am

Compound #16: Isopropyl alcohol



Original Peak Response = 20207

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

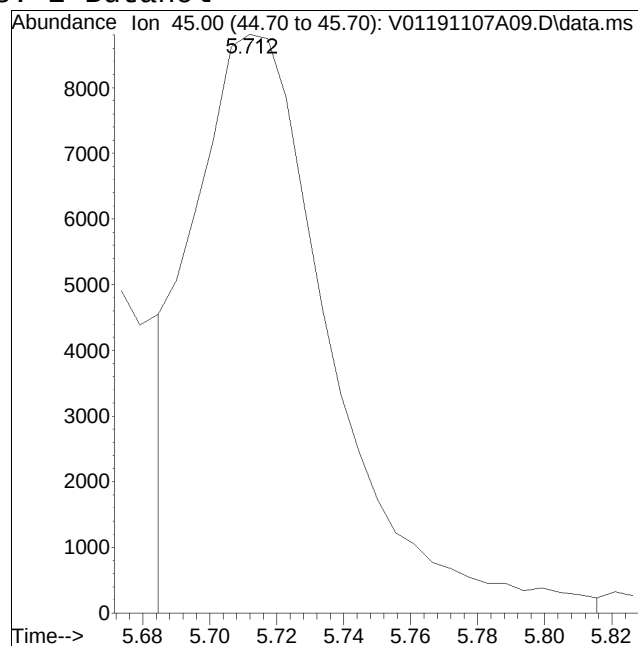
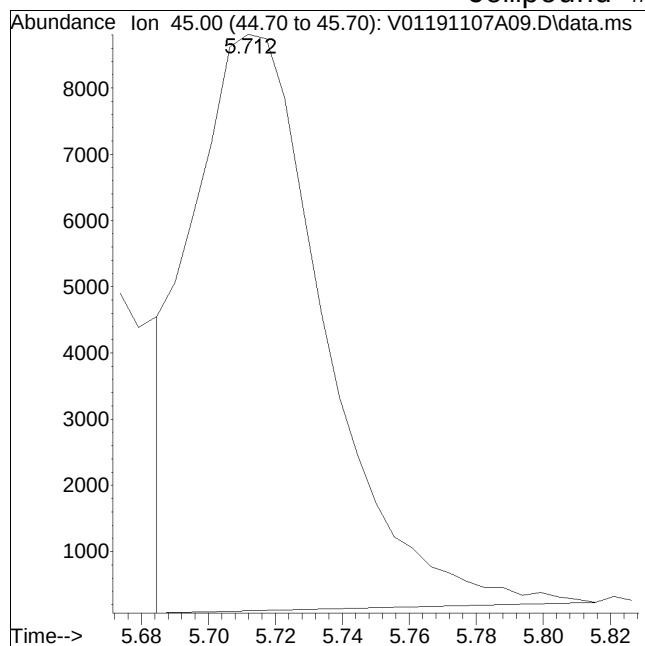


Manual Peak Response = 20516 M1

Manual Integration Report

Data Path : I:\VOLATILES\VOA101\2019\10Method : V101_191107A_8260.m
Data File : V01191107A09.D Operator : VOA101:PD
Date Inj'd : 11/7/2019 3:18 pm Instrument : VOA 101
Sample : I8260STD30PPB Quant Date : 11/8/2019 9:48 am

Compound #38: 2-Butanol



Original Peak Response = 24145

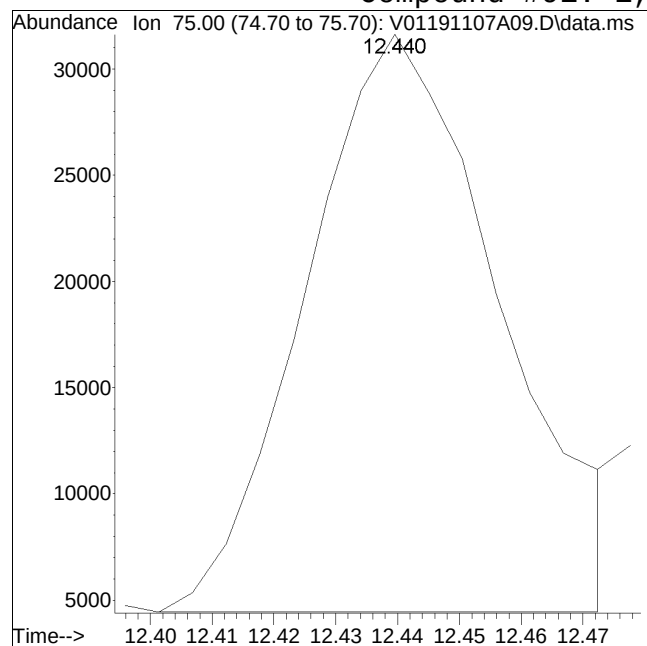
Manual Peak Response = 25347 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Manual Integration Report

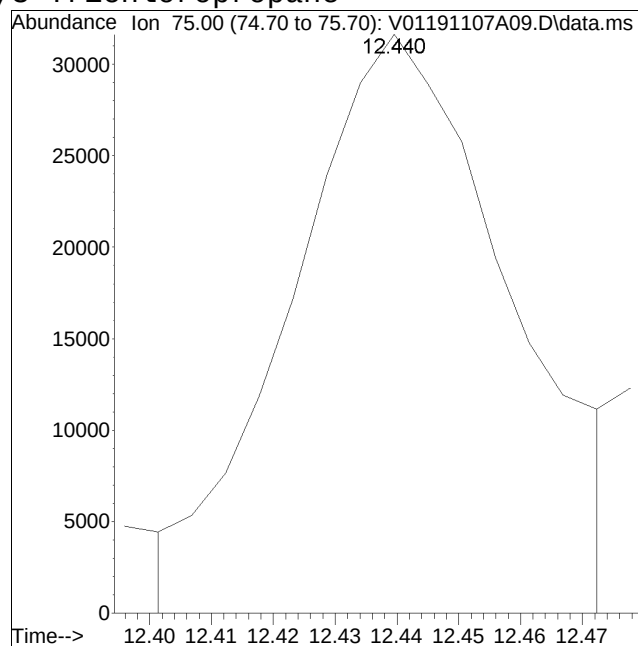
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Data File : V01191107A09.D Operator : VOA101:PD
Date Inj'd : 11/7/2019 3:18 pm Instrument : VOA 101
Sample : I8260STD30PPB Quant Date : 11/8/2019 9:48 am

Compound #91: 1,2,3-Trichloropropane



Original Peak Response = 59254

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.



Manual Peak Response = 78121 M1

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\VOA101\2019\191107A\
 Data File : V01191107A10.D
 Acq On : 7 Nov 2019 3:42 pm
 Operator : VOA101:PD
 Sample : I8260STD80PPB
 Misc : WG1306306,ICAL
 ALS Vial : 10 Sample Multiplier: 1

Quant Time: Nov 08 09:48:39 2019
 Quant Method : I:\VOLATILES\VOA101\2019\191107A\V101_191107A_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Fri Nov 08 09:44:52 2019
 Response via : Initial Calibration

CCAL FILE(s) : 1 - I:\VOLATILES\VOA101\2019\191107A\V01191107A08.D
 Sub List : 8260-CurveAlc - All compounds listed

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

Internal Standards						
1) Fluorobenzene	6.645	96	180580	10.000	ug/L	0.00
Standard Area 1 = 168070			Recovery	=	107.44%	
59) Chlorobenzene-d5	10.535	117	144742	10.000	ug/L	0.00
Standard Area 1 = 132945			Recovery	=	108.87%	
79) 1,4-Dichlorobenzene-d4	13.334	152	82379	10.000	ug/L	0.00
Standard Area 1 = 70817			Recovery	=	116.33%	
System Monitoring Compounds						
36) Dibromofluoromethane	5.756	113	45778	10.014	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery	=	100.14%	
43) 1,2-Dichloroethane-d4	6.334	65	50078	9.922	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery	=	99.22%	
60) Toluene-d8	8.511	98	189380	9.728	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery	=	97.28%	
83) 4-Bromofluorobenzene	12.047	95	82914	9.730	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery	=	97.30%	
Target Compounds						
						Qvalue
2) Dichlorodifluoromethane	1.821	85	203500	79.349	ug/L	98
3) Chloromethane	2.040	50	324706	79.183	ug/L	99
4) Vinyl chloride	2.122	62	331363	80.261	ug/L	100
5) Bromomethane	2.471	94	89599M1	97.070	ug/L	
6) Chloroethane	2.596	64	206574	75.702	ug/L	96
7) Trichlorofluoromethane	2.755	101	472640	78.447	ug/L	99
8) Ethyl ether	3.082	74	147060	81.329	ug/L	75
10) 1,1-Dichloroethene	3.295	96	303153	80.510	ug/L	85
11) Carbon disulfide	3.333	76	791245	76.857	ug/L	100
12) Freon-113	3.338	101	303625	79.615	ug/L	91
13) Iodomethane	3.447	142	261088M1	100.093	ug/L	
14) Acrolein	3.638	56	37478	84.276	ug/L	96
15) Methylene chloride	3.895	84	320838	75.724	ug/L	81
16) Isopropyl alcohol	3.791	45	63572M1	480.092	ug/L	
17) Acetone	3.939	43	60228	52.763	ug/L	94
18) trans-1,2-Dichloroethene	4.069	96	312987	78.961	ug/L	89
19) Methyl acetate	4.064	43	180642	78.197	ug/L	# 89
20) Methyl tert-butyl ether	4.168	73	689013	79.861	ug/L	92
21) tert-Butyl alcohol	4.250	59	87193	337.418	ug/L	92
22) Diisopropyl ether	4.561	45	1373501	78.674	ug/L	94
23) 1,1-Dichloroethane	4.702	63	717248	78.302	ug/L	98

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\VOA101\2019\191107A\
 Data File : V01191107A10.D
 Acq On : 7 Nov 2019 3:42 pm
 Operator : VOA101:PD
 Sample : I8260STD80PPB
 Misc : WG1306306,ICAL
 ALS Vial : 10 Sample Multiplier: 1

Quant Time: Nov 08 09:48:39 2019
 Quant Method : I:\VOLATILES\VOA101\2019\191107A\V101_191107A_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Fri Nov 08 09:44:52 2019
 Response via : Initial Calibration

CCAL FILE(s) : 1 - I:\VOLATILES\VOA101\2019\191107A\V01191107A08.D
 Sub List : 8260-CurveAlc - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
24) Halothane	4.752	117	257711	81.601	ug/L	99
25) Acrylonitrile	4.746	53	78178	90.224	ug/L	97
26) Ethyl tert-butyl ether	4.943	59	1081777	80.236	ug/L	97
27) Vinyl acetate	4.953	43	750728	83.239	ug/L #	95
28) cis-1,2-Dichloroethene	5.270	96	386251	79.408	ug/L	90
29) 2,2-Dichloropropane	5.390	77	519955	79.882	ug/L	87
30) Bromochloromethane	5.483	128	133704	77.734	ug/L #	75
31) Cyclohexane	5.499	56	738208	81.220	ug/L	89
32) Chloroform	5.559	83	643068	80.203	ug/L	95
33) Ethyl acetate	5.668	43	250457	85.178	ug/L #	57
34) Carbon tetrachloride	5.717	117	463636	83.952	ug/L	97
35) Tetrahydrofuran	5.728	42	70486M1	84.346	ug/L	
37) 1,1,1-Trichloroethane	5.788	97	562864	80.943	ug/L	96
38) 2-Butanol	5.712	45	78291M1	413.052	ug/L	
39) 2-Butanone	5.870	43	98410	64.772	ug/L #	47
40) 1,1-Dichloropropene	5.919	75	499781	79.838	ug/L	99
41) Benzene	6.192	78	1382831	78.734	ug/L	94
42) tert-Amyl methyl ether	6.301	73	788531	81.435	ug/L	94
44) 1,2-Dichloroethane	6.410	62	426793	79.414	ug/L	99
46) 2-Methyl-2-butanol	6.503	59	70387	422.889	ug/L	92
47) Methyl cyclohexane	6.841	83	594022	81.984	ug/L	83
48) Trichloroethene	6.841	95	361957	80.664	ug/L	97
50) Dibromomethane	7.327	93	171020	81.799	ug/L	93
51) 1,2-Dichloropropane	7.447	63	385593	80.027	ug/L	97
52) 4-penten-2-ol	7.371	45	56218	456.565	ug/L #	1
53) 2-Chloroethyl vinyl ether	8.195	63	24427	93.060	ug/L	91
54) Bromodichloromethane	7.518	83	446997	84.294	ug/L	98
57) 1,4-Dioxane	7.747	88	15311	822.262	ug/L	92
58) cis-1,3-Dichloropropene	8.276	75	551098	83.495	ug/L #	89
61) Toluene	8.576	92	869921	77.915	ug/L	99
62) 4-Methyl-2-pentanone	9.040	58	85006	90.918	ug/L	93
63) Tetrachloroethene	9.073	166	328617	78.226	ug/L	94
65) trans-1,3-Dichloropropene	9.100	75	450242	84.659	ug/L #	78
66) 4-Methyl-2-pentanol	9.155	45	211407	475.774	ug/L	94
67) Ethyl methacrylate	9.291	69	319453	85.023	ug/L	94
68) 1,1,2-Trichloroethane	9.308	83	206494	80.270	ug/L	98
69) Chlorodibromomethane	9.548	129	269833	87.700	ug/L	98
70) 1,3-Dichloropropane	9.668	76	424603	79.330	ug/L	100
71) 1,2-Dibromoethane	9.864	107	228593	82.613	ug/L	98
72) 2-Hexanone	10.148	43	155488	86.172	ug/L	98

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\VOA101\2019\191107A\
 Data File : V01191107A10.D
 Acq On : 7 Nov 2019 3:42 pm
 Operator : VOA101:PD
 Sample : I8260STD80PPB
 Misc : WG1306306,ICAL
 ALS Vial : 10 Sample Multiplier: 1

Quant Time: Nov 08 09:48:39 2019
 Quant Method : I:\VOLATILES\VOA101\2019\191107A\V101_191107A_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Fri Nov 08 09:44:52 2019
 Response via : Initial Calibration

CCAL FILE(s) : 1 - I:\VOLATILES\VOA101\2019\191107A\V01191107A08.D
 Sub List : 8260-CurveAlc - All compounds listed

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
73)	Chlorobenzene	10.557	112	909541	79.339	ug/L	98
74)	Ethylbenzene	10.590	91	1695798	79.490	ug/L	100
75)	1,1,1,2-Tetrachloroethane	10.639	131	313680	85.332	ug/L	100
76)	p/m Xylene	10.781	106	1284224	159.399	ug/L	100
77)	o Xylene	11.321	106	1191894	159.116	ug/L	99
78)	Styrene	11.386	104	2010325	163.492	ug/L	97
80)	Bromoform	11.419	173	141290	92.812	ug/L	100
82)	Isopropylbenzene	11.703	105	1671763	77.484	ug/L	100
84)	Bromobenzene	12.172	156	340357	76.647	ug/L	99
85)	n-Propylbenzene	12.199	91	1967084	78.571	ug/L	99
86)	1,4-Dichlorobutane	12.221	55	464938	78.581	ug/L	100
87)	1,1,2,2-Tetrachloroethane	12.281	83	269268	80.476	ug/L	97
88)	4-Ethyltoluene	12.330	105	1543190	78.227	ug/L	100
89)	2-Chlorotoluene	12.385	91	1242150	76.954	ug/L	92
90)	1,3,5-Trimethylbenzene	12.429	105	1312682	77.731	ug/L	99
91)	1,2,3-Trichloropropane	12.440	75	232275M1	78.319	ug/L	
92)	trans-1,4-Dichloro-2-b...	12.489	53	85482	94.623	ug/L #	15
93)	4-Chlorotoluene	12.581	91	1183731	77.809	ug/L	96
94)	tert-Butylbenzene	12.800	119	1110903	78.233	ug/L	98
97)	1,2,4-Trimethylbenzene	12.876	105	1323992	78.752	ug/L	99
98)	sec-Butylbenzene	13.002	105	1489365	79.662	ug/L	98
99)	p-Isopropyltoluene	13.160	119	1339421	80.372	ug/L	99
100)	1,3-Dichlorobenzene	13.253	146	704268	79.904	ug/L	98
101)	1,4-Dichlorobenzene	13.356	146	702890	78.754	ug/L	98
102)	p-Diethylbenzene	13.564	119	741375	81.234	ug/L	98
103)	n-Butylbenzene	13.629	91	1161395	81.969	ug/L	99
104)	1,2-Dichlorobenzene	13.820	146	630550	79.932	ug/L	98
105)	1,2,4,5-Tetramethylben...	14.437	119	1118335	83.554	ug/L	98
106)	1,2-Dibromo-3-chloropr...	14.682	155	34134	90.223	ug/L	100
107)	1,3,5-Trichlorobenzene	14.715	180	351543	81.663	ug/L	95
108)	Hexachlorobutadiene	15.353	225	92688	86.674	ug/L	98
109)	1,2,4-Trichlorobenzene	15.397	180	303738	82.036	ug/L	97
110)	Naphthalene	15.762	128	672549	82.823	ug/L	100
111)	1,2,3-Trichlorobenzene	15.970	180	236368	82.374	ug/L	98

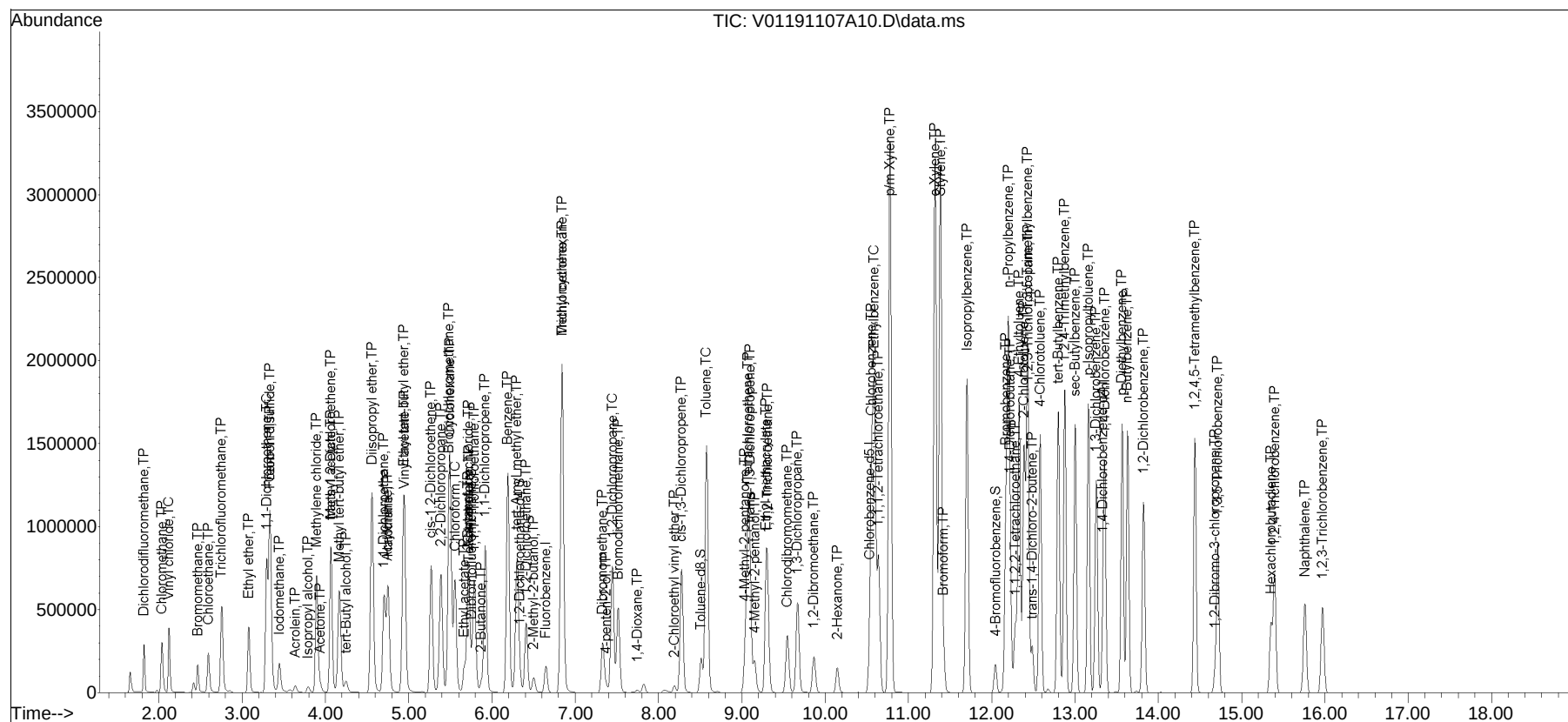
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\VOA101\2019\191107A\
 Data File : V01191107A10.D
 Acq On : 7 Nov 2019 3:42 pm
 Operator : VOA101:PD
 Sample : I8260STD80PPB
 Misc : WG1306306,ICAL
 ALS Vial : 10 Sample Multiplier: 1

Quant Time: Nov 08 09:48:39 2019
 Quant Method : I:\VOLATILES\VOA101\2019\191107A\V101_191107A_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Fri Nov 08 09:44:52 2019
 Response via : Initial Calibration

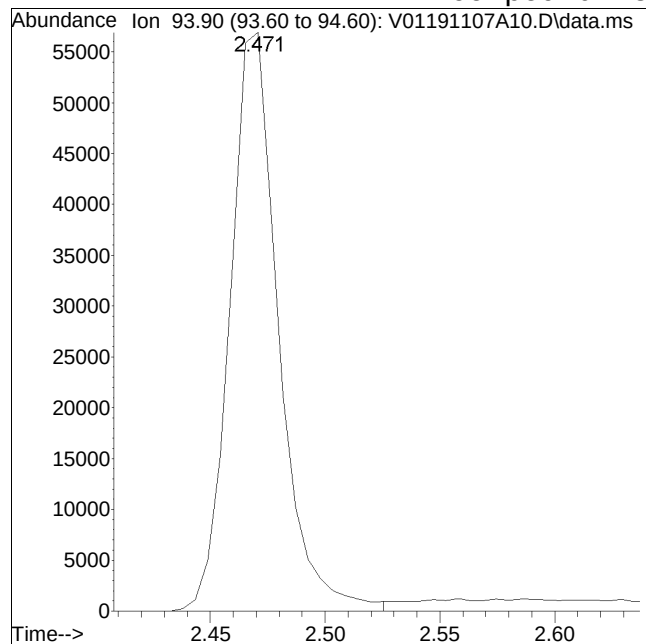
Sub List : 8260-CurveAlc - All compounds listed\V01191107A08.D•



Manual Integration Report

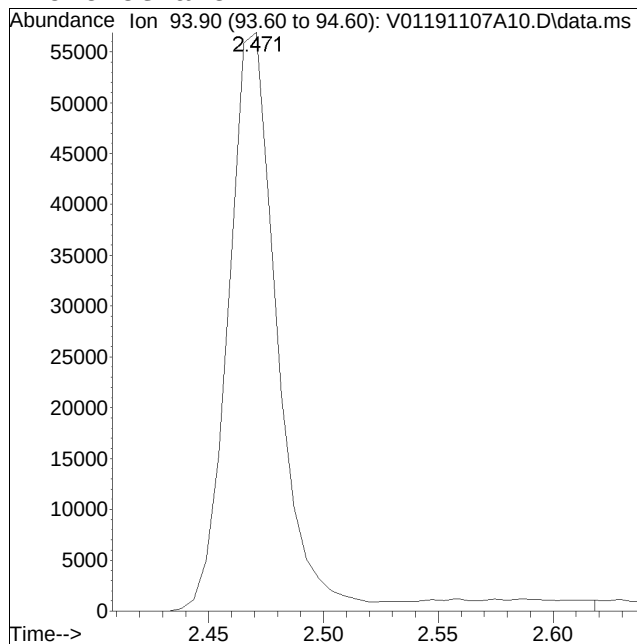
Data Path : I:\VOLATILES\VOA101\2019\1QMethod : V101_191107A_8260.m
Data File : V01191107A10.D Operator : VOA101:PD
Date Inj'd : 11/7/2019 3:42 pm Instrument : VOA 101
Sample : I8260STD80PPB Quant Date : 11/8/2019 9:48 am

Compound #5: Bromomethane



Original Peak Response = 83609

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

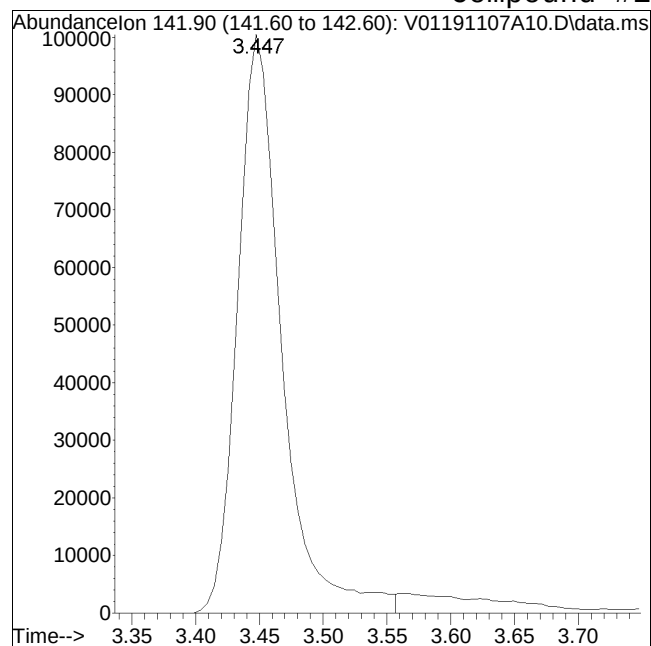


Manual Peak Response = 89599 M1

Manual Integration Report

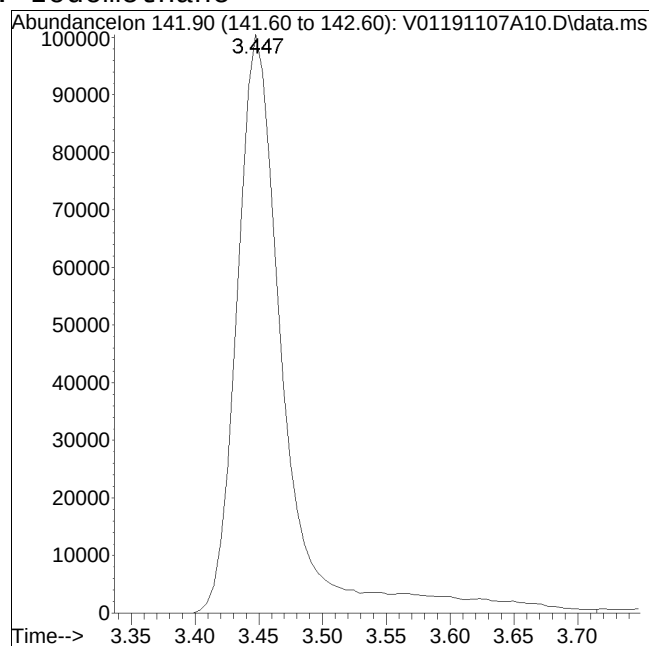
Data Path : I:\VOLATILES\VOA101\2019\10Method : V101_191107A_8260.m
Data File : V01191107A10.D Operator : VOA101:PD
Date Inj'd : 11/7/2019 3:42 pm Instrument : VOA 101
Sample : I8260STD80PPB Quant Date : 11/8/2019 9:48 am

Compound #13: Iodomethane



Original Peak Response = 241938

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

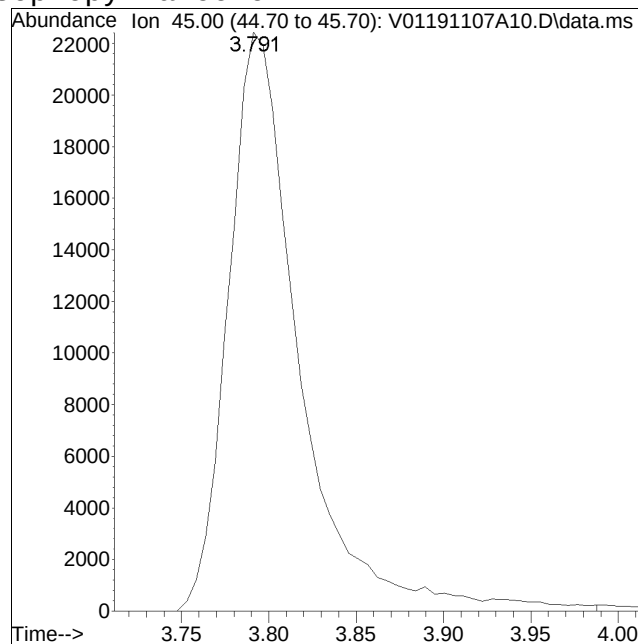
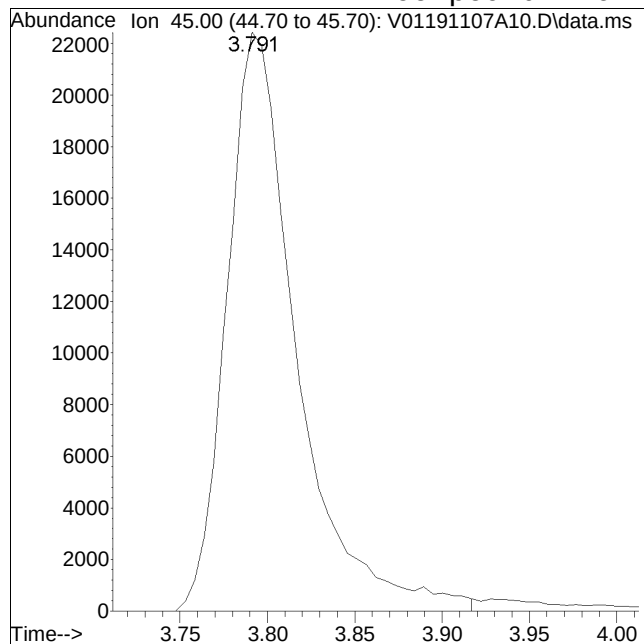


Manual Peak Response = 261088 M1

Manual Integration Report

Data Path : I:\VOLATILES\VOA101\2019\10 Method : V101_191107A_8260.m
Data File : V01191107A10.D Operator : VOA101:PD
Date Inj'd : 11/7/2019 3:42 pm Instrument : VOA 101
Sample : I8260STD80PPB Quant Date : 11/8/2019 9:48 am

Compound #16: Isopropyl alcohol



Original Peak Response = 62171

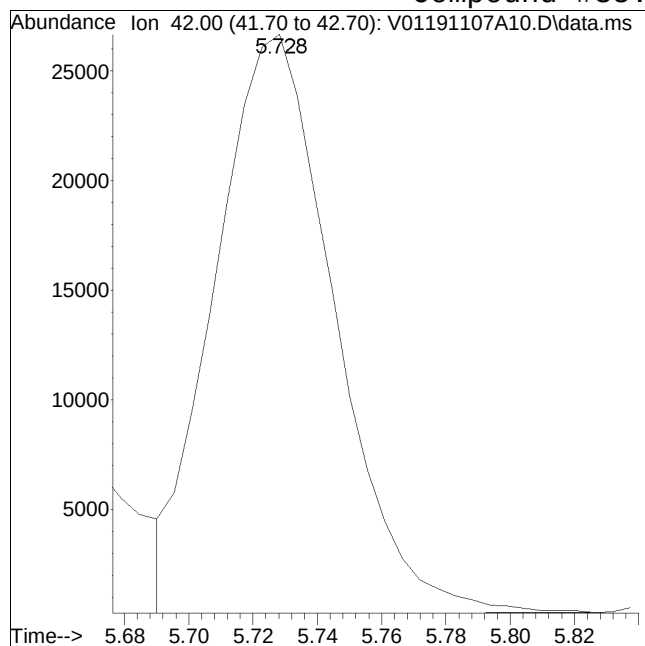
Manual Peak Response = 63572 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Manual Integration Report

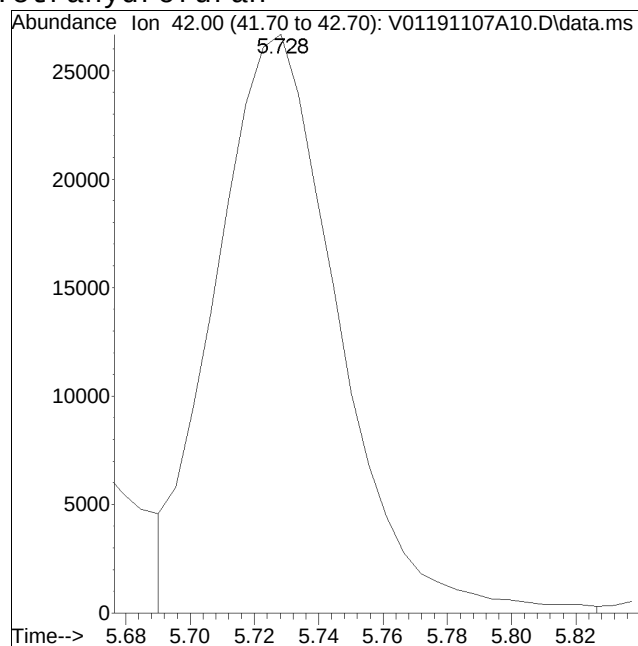
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Data File : V01191107A10.D Operator : VOA101:PD
Date Inj'd : 11/7/2019 3:42 pm Instrument : VOA 101
Sample : I8260STD80PPB Quant Date : 11/8/2019 9:48 am

Compound #35: Tetrahydrofuran



Original Peak Response = 68018

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

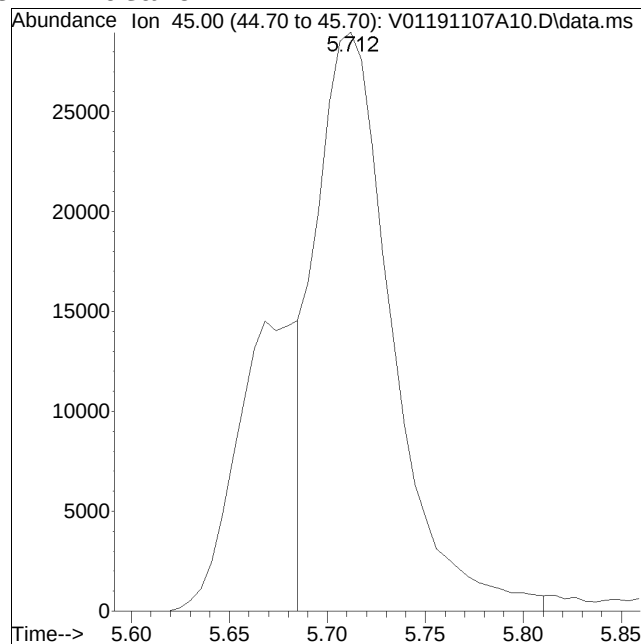
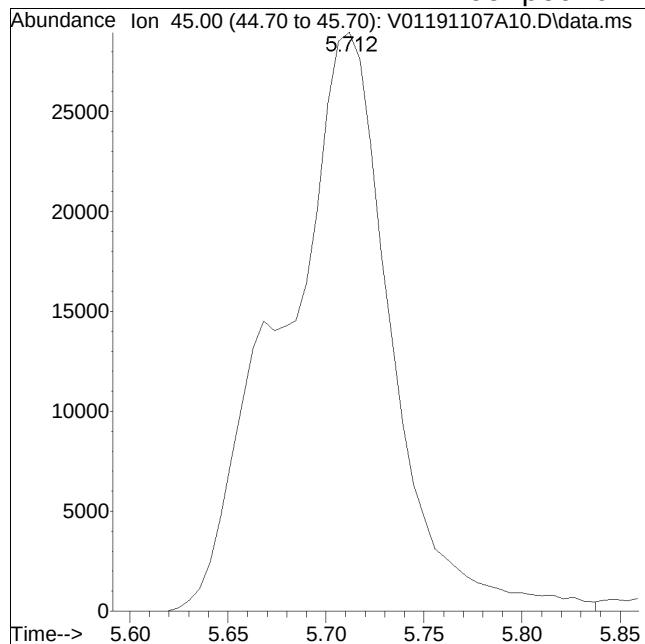


Manual Peak Response = 70486 M1

Manual Integration Report

Data Path : I:\VOLATILES\VOA101\2019\10Method : V101_191107A_8260.m
Data File : V01191107A10.D Operator : VOA101:PD
Date Inj'd : 11/7/2019 3:42 pm Instrument : VOA 101
Sample : I8260STD80PPB Quant Date : 11/8/2019 9:48 am

Compound #38: 2-Butanol



Original Peak Response = 111248

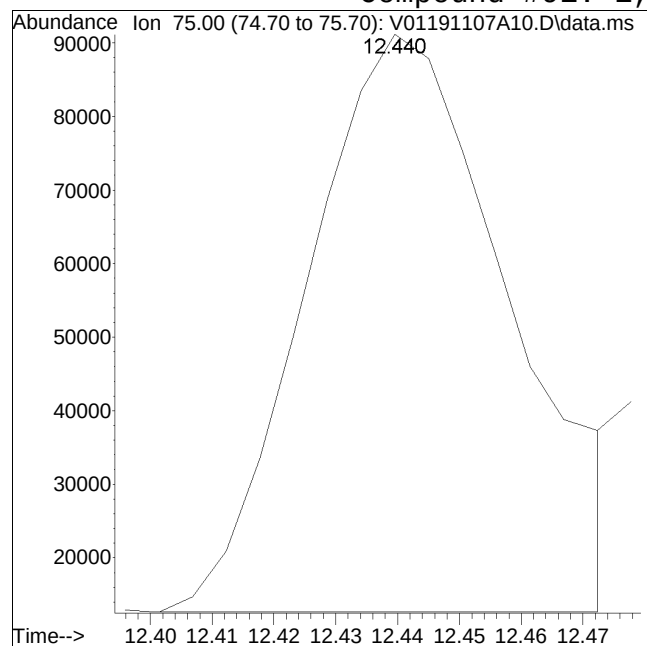
Manual Peak Response = 78291 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Manual Integration Report

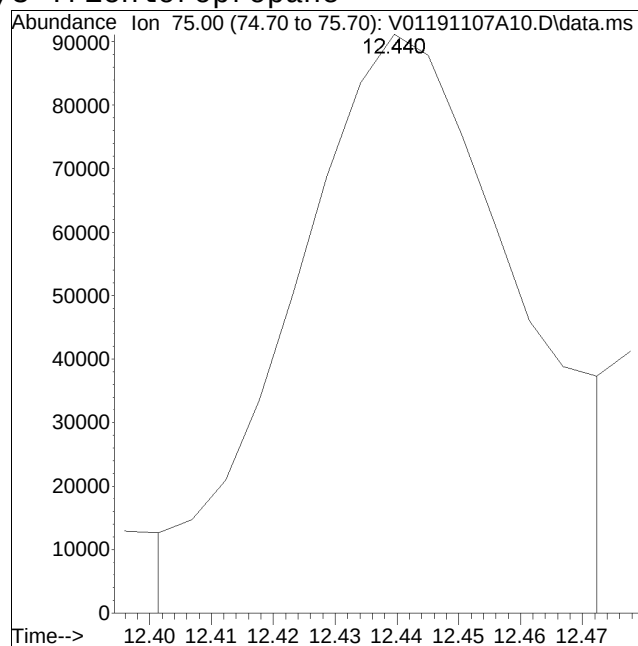
Data Path : I:\VOLATILES\VOA101\2019\10 Method : V101_191107A_8260.m
Data File : V01191107A10.D Operator : VOA101:PD
Date Inj'd : 11/7/2019 3:42 pm Instrument : VOA 101
Sample : I8260STD80PPB Quant Date : 11/8/2019 9:48 am

Compound #91: 1,2,3-Trichloropropane



Original Peak Response = 178522

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.



Manual Peak Response = 232275 M1

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\VOA101\2019\191107A\
 Data File : V01191107A11.D
 Acq On : 7 Nov 2019 4:06 pm
 Operator : VOA101:PD
 Sample : I8260STD120PPB
 Misc : WG1306306,ICAL
 ALS Vial : 11 Sample Multiplier: 1

Quant Time: Nov 08 09:48:52 2019
 Quant Method : I:\VOLATILES\VOA101\2019\191107A\V101_191107A_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Fri Nov 08 09:44:52 2019
 Response via : Initial Calibration

CCAL FILE(s) : 1 - I:\VOLATILES\VOA101\2019\191107A\V01191107A08.D
 Sub List : 8260-CurveAlc - All compounds listed

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

Internal Standards						
1) Fluorobenzene	6.650	96	188641	10.000	ug/L	0.00
Standard Area 1 = 168070			Recovery	=	112.24%	
59) Chlorobenzene-d5	10.541	117	148176	10.000	ug/L	0.00
Standard Area 1 = 132945			Recovery	=	111.46%	
79) 1,4-Dichlorobenzene-d4	13.340	152	82622	10.000	ug/L	0.00
Standard Area 1 = 70817			Recovery	=	116.67%	
System Monitoring Compounds						
36) Dibromofluoromethane	5.755	113	47719	9.992	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery	=	99.92%	
43) 1,2-Dichloroethane-d4	6.334	65	51785	9.822	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery	=	98.22%	
60) Toluene-d8	8.511	98	197644	9.918	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery	=	99.18%	
83) 4-Bromofluorobenzene	12.041	95	85674	10.025	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery	=	100.25%	
Target Compounds						
						Qvalue
2) Dichlorodifluoromethane	1.821	85	331969	123.910	ug/L	98
3) Chloromethane	2.040	50	550737	128.564	ug/L	99
4) Vinyl chloride	2.122	62	545925	126.581	ug/L	100
5) Bromomethane	2.471	94	191065	198.152	ug/L	99
6) Chloroethane	2.591	64	321076	112.635	ug/L	96
7) Trichlorofluoromethane	2.754	101	776980	123.449	ug/L	98
8) Ethyl ether	3.082	74	227212	120.286	ug/L	74
10) 1,1-Dichloroethene	3.295	96	484684	123.220	ug/L	83
11) Carbon disulfide	3.333	76	1286209	119.596	ug/L	100
12) Freon-113	3.338	101	491394	123.345	ug/L	90
13) Iodomethane	3.447	142	455712M1	167.241	ug/L	
14) Acrolein	3.638	56	57535	123.850	ug/L	97
15) Methylene chloride	3.895	84	512113	115.704	ug/L	80
16) Isopropyl alcohol	3.797	45	101618	734.620	ug/L	94
17) Acetone	3.933	43	94323	79.101	ug/L	92
18) trans-1,2-Dichloroethene	4.069	96	508824	122.882	ug/L	90
19) Methyl acetate	4.069	43	277015	114.791	ug/L	# 89
20) Methyl tert-butyl ether	4.168	73	1072804	119.032	ug/L	92
21) tert-Butyl alcohol	4.250	59	140792	521.553	ug/L	94
22) Diisopropyl ether	4.561	45	2176225	119.328	ug/L	95
23) 1,1-Dichloroethane	4.708	63	1157202	120.934	ug/L	98

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\VOA101\2019\191107A\
 Data File : V01191107A11.D
 Acq On : 7 Nov 2019 4:06 pm
 Operator : VOA101:PD
 Sample : I8260STD120PPB
 Misc : WG1306306,ICAL
 ALS Vial : 11 Sample Multiplier: 1

Quant Time: Nov 08 09:48:52 2019
 Quant Method : I:\VOLATILES\VOA101\2019\191107A\V101_191107A_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Fri Nov 08 09:44:52 2019
 Response via : Initial Calibration

CCAL FILE(s) : 1 - I:\VOLATILES\VOA101\2019\191107A\V01191107A08.D
 Sub List : 8260-CurveAlc - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
24) Halothane	4.752	117	419899	127.274	ug/L	99
25) Acrylonitrile	4.752	53	119733	132.278	ug/L	98
26) Ethyl tert-butyl ether	4.942	59	1710995	121.483	ug/L	97
27) Vinyl acetate	4.953	43	1175241	124.739	ug/L #	95
28) cis-1,2-Dichloroethene	5.270	96	622939	122.595	ug/L	89
29) 2,2-Dichloropropane	5.390	77	837264	123.135	ug/L	87
30) Bromochloromethane	5.483	128	206326	114.829	ug/L #	75
31) Cyclohexane	5.499	56	1206423	127.062	ug/L	88
32) Chloroform	5.559	83	1032281	123.244	ug/L	95
33) Ethyl acetate	5.668	43	383403	124.820	ug/L #	53
34) Carbon tetrachloride	5.717	117	777761	134.813	ug/L	98
35) Tetrahydrofuran	5.723	42	102621	117.552	ug/L	99
37) 1,1,1-Trichloroethane	5.788	97	920249	126.682	ug/L	96
38) 2-Butanol	5.712	45	140558M1	709.875	ug/L	
39) 2-Butanone	5.876	43	149559	94.231	ug/L #	47
40) 1,1-Dichloropropene	5.919	75	810244	123.902	ug/L	99
41) Benzene	6.192	78	2227865	121.426	ug/L	94
42) tert-Amyl methyl ether	6.301	73	1242026	122.789	ug/L	95
44) 1,2-Dichloroethane	6.410	62	671255	119.564	ug/L	99
46) 2-Methyl-2-butanol	6.503	59	111265	639.921	ug/L	95
47) Methyl cyclohexane	6.841	83	949296	125.418	ug/L #	81
48) Trichloroethene	6.841	95	583534	124.486	ug/L	96
50) Dibromomethane	7.327	93	269048	123.187	ug/L	92
51) 1,2-Dichloropropane	7.447	63	616596	122.501	ug/L	97
52) 4-penten-2-ol	7.371	45	95658	743.674	ug/L #	1
53) 2-Chloroethyl vinyl ether	8.194	63	34560	126.038	ug/L	92
54) Bromodichloromethane	7.518	83	720393	130.045	ug/L	98
57) 1,4-Dioxane	7.747	88	23193	1192.331	ug/L	90
58) cis-1,3-Dichloropropene	8.276	75	870592	126.265	ug/L #	89
61) Toluene	8.576	92	1386222	121.281	ug/L	100
62) 4-Methyl-2-pentanone	9.040	58	128785	134.550	ug/L	93
63) Tetrachloroethene	9.073	166	531557	123.602	ug/L	94
65) trans-1,3-Dichloropropene	9.100	75	711754	130.729	ug/L #	78
66) 4-Methyl-2-pentanol	9.155	45	339863	747.141	ug/L	94
67) Ethyl methacrylate	9.291	69	487751	126.808	ug/L	93
68) 1,1,2-Trichloroethane	9.308	83	316992	120.368	ug/L	99
69) Chlorodibromomethane	9.548	129	433253	137.551	ug/L	98
70) 1,3-Dichloropropane	9.668	76	655737	119.675	ug/L	100
71) 1,2-Dibromoethane	9.864	107	355161	125.380	ug/L	99
72) 2-Hexanone	10.148	43	235635	127.564	ug/L	99

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\VOA101\2019\191107A\
 Data File : V01191107A11.D
 Acq On : 7 Nov 2019 4:06 pm
 Operator : VOA101:PD
 Sample : I8260STD120PPB
 Misc : WG1306306,ICAL
 ALS Vial : 11 Sample Multiplier: 1

Quant Time: Nov 08 09:48:52 2019
 Quant Method : I:\VOLATILES\VOA101\2019\191107A\V101_191107A_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Fri Nov 08 09:44:52 2019
 Response via : Initial Calibration

CCAL FILE(s) : 1 - I:\VOLATILES\VOA101\2019\191107A\V01191107A08.D
 Sub List : 8260-CurveAlc - All compounds listed

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
73)	Chlorobenzene	10.557	112	1426006	121.507	ug/L	97
74)	Ethylbenzene	10.590	91	2695551	123.425	ug/L	100
75)	1,1,1,2-Tetrachloroethane	10.639	131	502031	133.406	ug/L	99
76)	p/m Xylene	10.781	106	2009745	243.670	ug/L	98
77)	o Xylene	11.321	106	1874816	244.485	ug/L	99
78)	Styrene	11.386	104	3154475	250.596	ug/L	97
80)	Bromoform	11.425	173	227373	148.920	ug/L	100
82)	Isopropylbenzene	11.703	105	2657272	122.798	ug/L	100
84)	Bromobenzene	12.172	156	532692	119.608	ug/L	98
85)	n-Propylbenzene	12.199	91	3071374	122.319	ug/L	99
86)	1,4-Dichlorobutane	12.221	55	712737	120.109	ug/L	99
87)	1,1,2,2-Tetrachloroethane	12.281	83	411704	122.684	ug/L	97
88)	4-Ethyltoluene	12.330	105	2434194	123.031	ug/L	100
89)	2-Chlorotoluene	12.390	91	1991741	123.030	ug/L	92
90)	1,3,5-Trimethylbenzene	12.429	105	2072108	122.341	ug/L	98
91)	1,2,3-Trichloropropane	12.445	75	352873M1	118.633	ug/L	
92)	trans-1,4-Dichloro-2-b...	12.489	53	130025	143.505	ug/L #	15
93)	4-Chlorotoluene	12.581	91	1885376	123.565	ug/L	96
94)	tert-Butylbenzene	12.800	119	1762287	123.740	ug/L	98
97)	1,2,4-Trimethylbenzene	12.882	105	2093264	124.143	ug/L	99
98)	sec-Butylbenzene	13.002	105	2349937	125.322	ug/L	98
99)	p-Isopropyltoluene	13.160	119	2106210	126.012	ug/L	98
100)	1,3-Dichlorobenzene	13.258	146	1100279	124.466	ug/L	98
101)	1,4-Dichlorobenzene	13.356	146	1095467	122.379	ug/L	98
102)	p-Diethylbenzene	13.569	119	1170003	127.823	ug/L	98
103)	n-Butylbenzene	13.634	91	1825618	128.470	ug/L	99
104)	1,2-Dichlorobenzene	13.825	146	979718	123.830	ug/L	98
105)	1,2,4,5-Tetramethylben...	14.442	119	1752091	130.518	ug/L	97
106)	1,2-Dibromo-3-chloropr...	14.682	155	52751	139.021	ug/L	99
107)	1,3,5-Trichlorobenzene	14.715	180	554549	128.443	ug/L	95
108)	Hexachlorobutadiene	15.353	225	152957	142.612	ug/L	99
109)	1,2,4-Trichlorobenzene	15.397	180	472707	127.298	ug/L	97
110)	Naphthalene	15.757	128	1020916	125.354	ug/L	100
111)	1,2,3-Trichlorobenzene	15.975	180	363109	126.170	ug/L	97

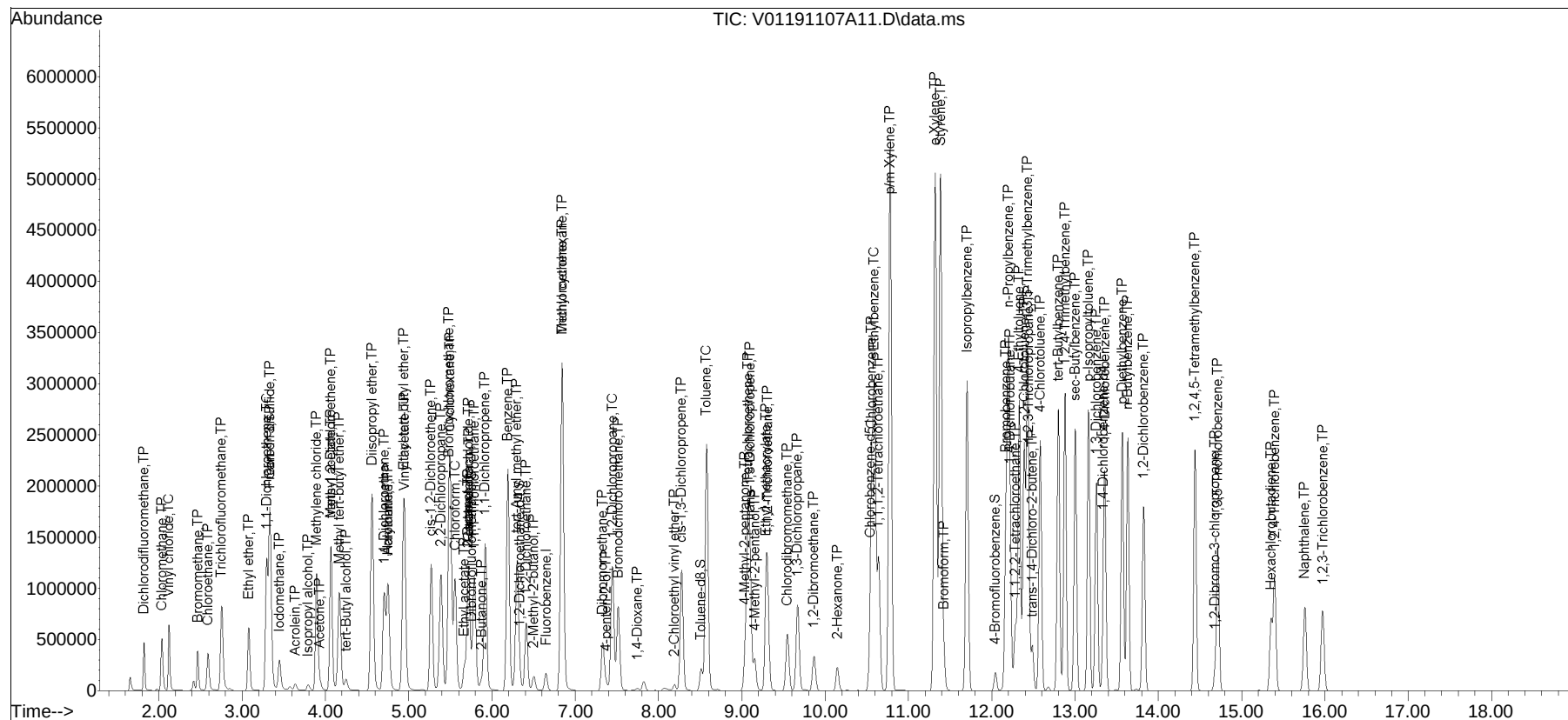
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\VOA101\2019\191107A\
 Data File : V01191107A11.D
 Acq On : 7 Nov 2019 4:06 pm
 Operator : VOA101:PD
 Sample : I8260STD120PPB
 Misc : WG1306306,ICAL
 ALS Vial : 11 Sample Multiplier: 1

Quant Time: Nov 08 09:48:52 2019
 Quant Method : I:\VOLATILES\VOA101\2019\191107A\V101_191107A_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Fri Nov 08 09:44:52 2019
 Response via : Initial Calibration

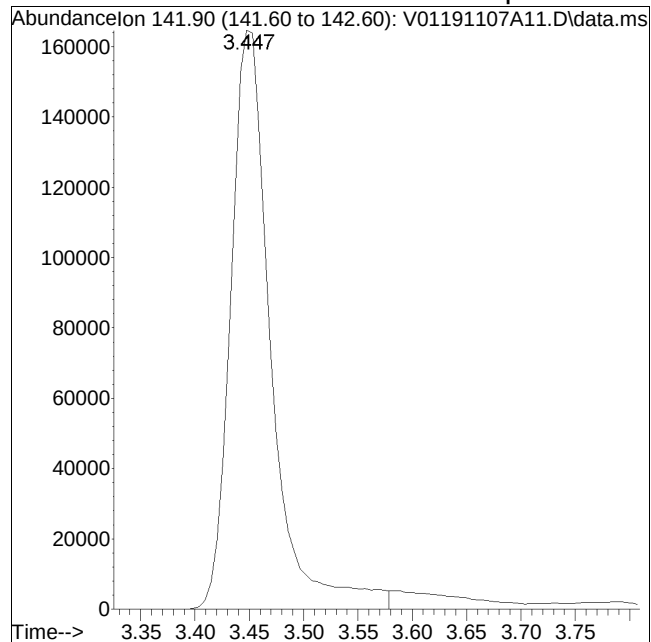
Sub List : 8260-CurveAlc - All compounds listed\V01191107A08.D•



Manual Integration Report

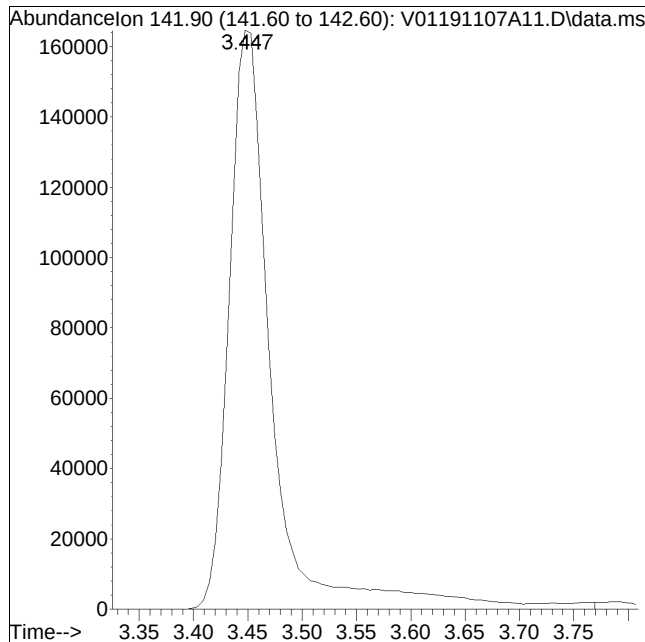
Data Path : I:\VOLATILES\V0A101\2019\1QMethod : V101_191107A_8260.m
Data File : V01191107A11.D Operator : V0A101:PD
Date Inj'd : 11/7/2019 4:06 pm Instrument : VOA 101
Sample : I8260STD120PPB Quant Date : 11/8/2019 9:48 am

Compound #13: Iodomethane



Original Peak Response = 424318

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

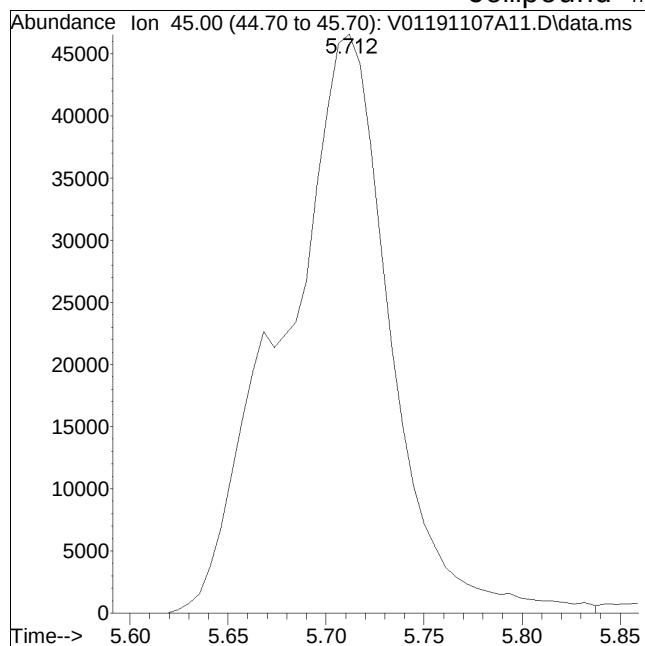


Manual Peak Response = 455712 M1

Manual Integration Report

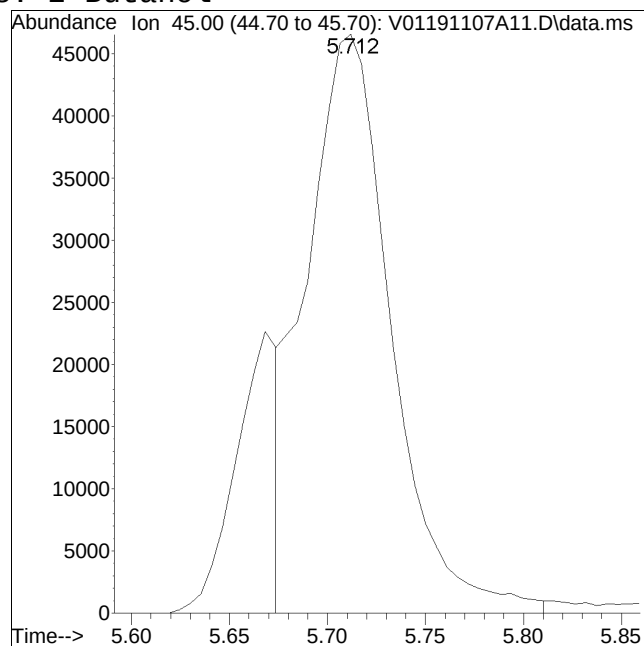
Data Path : I:\VOLATILES\VOA101\2019\10Method : V101_191107A_8260.m
Data File : V01191107A11.D Operator : VOA101:PD
Date Inj'd : 11/7/2019 4:06 pm Instrument : VOA 101
Sample : I8260STD120PPB Quant Date : 11/8/2019 9:48 am

Compound #38: 2-Butanol



Original Peak Response = 175762

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

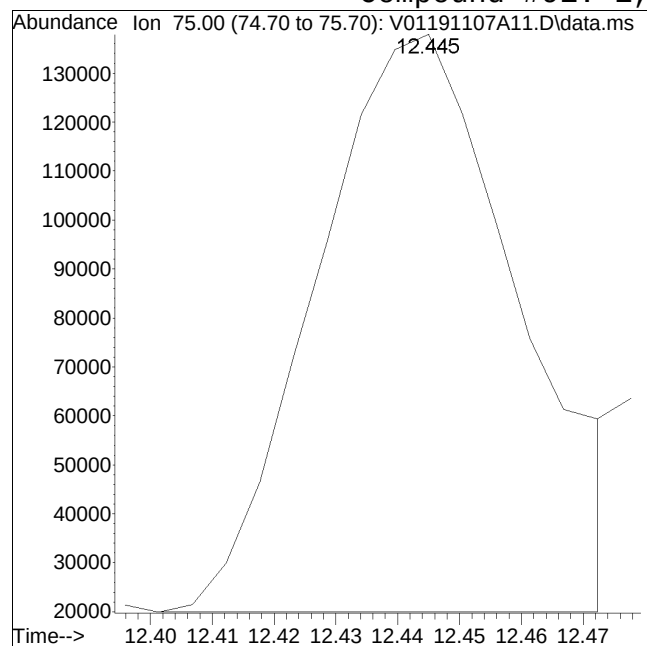


Manual Peak Response = 140558 M1

Manual Integration Report

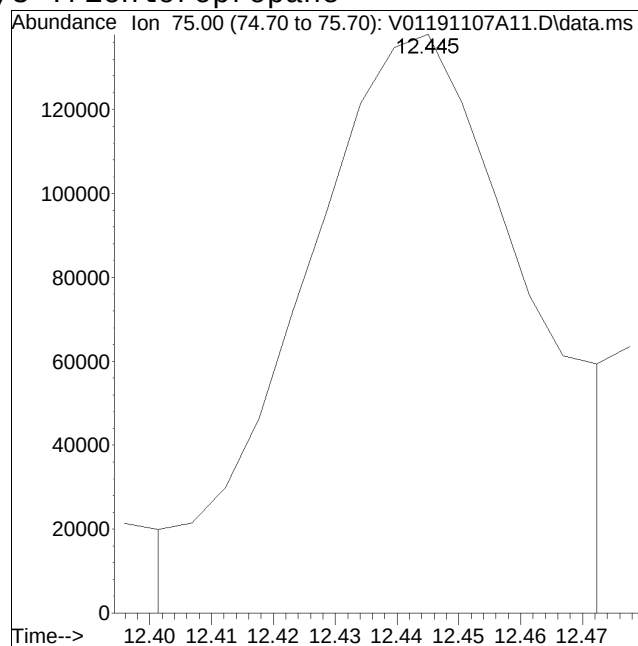
Data Path : I:\VOLATILES\VOA101\2019\10Method : V101_191107A_8260.m
Data File : V01191107A11.D Operator : VOA101:PD
Date Inj'd : 11/7/2019 4:06 pm Instrument : VOA 101
Sample : I8260STD120PPB Quant Date : 11/8/2019 9:48 am

Compound #91: 1,2,3-Trichloropropane



Original Peak Response = 268060

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.



Manual Peak Response = 352873 M1

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\VOA101\2019\191107A\
 Data File : V01191107A12.D
 Acq On : 7 Nov 2019 4:29 pm
 Operator : VOA101:PD
 Sample : I8260STD200PPB
 Misc : WG1306306,ICAL
 ALS Vial : 12 Sample Multiplier: 1

Quant Time: Nov 08 09:49:09 2019
 Quant Method : I:\VOLATILES\VOA101\2019\191107A\V101_191107A_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Fri Nov 08 09:44:52 2019
 Response via : Initial Calibration

CCAL FILE(s) : 1 - I:\VOLATILES\VOA101\2019\191107A\V01191107A08.D
 Sub List : 8260-CurveAlc - All compounds listed

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

Internal Standards						
1) Fluorobenzene	6.645	96	199772	10.000	ug/L	0.00
Standard Area 1 = 168070			Recovery	=	118.86%	
59) Chlorobenzene-d5	10.541	117	154138	10.000	ug/L	0.00
Standard Area 1 = 132945			Recovery	=	115.94%	
79) 1,4-Dichlorobenzene-d4	13.340	152	86437	10.000	ug/L	0.00
Standard Area 1 = 70817			Recovery	=	122.06%	
System Monitoring Compounds						
36) Dibromofluoromethane	5.755	113	50862	10.057	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery	=	100.57%	
43) 1,2-Dichloroethane-d4	6.334	65	59072	10.580	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery	=	105.80%	
60) Toluene-d8	8.511	98	210248	10.142	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery	=	101.42%	
83) 4-Bromofluorobenzene	12.047	95	90343	10.105	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery	=	101.05%	
Target Compounds						
						Qvalue
2) Dichlorodifluoromethane	1.821	85	575180	202.728	ug/L	98
3) Chloromethane	2.034	50	997987	219.990	ug/L	99
4) Vinyl chloride	2.122	62	938363	205.451	ug/L	100
5) Bromomethane	2.465	94	371376	363.690	ug/L	99
6) Chloroethane	2.580	64	512905	169.904	ug/L	96
7) Trichlorofluoromethane	2.749	101	1333632	200.086	ug/L	98
8) Ethyl ether	3.082	74	390195	195.060	ug/L	73
10) 1,1-Dichloroethene	3.295	96	830884	199.464	ug/L	81
11) Carbon disulfide	3.327	76	2199391	193.112	ug/L	100
12) Freon-113	3.338	101	838094	198.649	ug/L	90
13) Iodomethane	3.447	142	789034M1	273.432	ug/L	
14) Acrolein	3.638	56	105173	213.781	ug/L	97
15) Methylene chloride	3.895	84	874562	186.585	ug/L	79
16) Isopropyl alcohol	3.797	45	177156	1209.343	ug/L	93
17) Acetone	3.933	43	166197	131.609	ug/L	94
18) trans-1,2-Dichloroethene	4.064	96	862717	196.739	ug/L	88
19) Methyl acetate	4.064	43	488962	191.329	ug/L	# 89
20) Methyl tert-butyl ether	4.168	73	1868675	195.784	ug/L	91
21) tert-Butyl alcohol	4.249	59	247987	867.462	ug/L	94
22) Diisopropyl ether	4.561	45	3759667	194.665	ug/L	95
23) 1,1-Dichloroethane	4.702	63	1974103	194.809	ug/L	98

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\VOA101\2019\191107A\
 Data File : V01191107A12.D
 Acq On : 7 Nov 2019 4:29 pm
 Operator : VOA101:PD
 Sample : I8260STD200PPB
 Misc : WG1306306,ICAL
 ALS Vial : 12 Sample Multiplier: 1

Quant Time: Nov 08 09:49:09 2019
 Quant Method : I:\VOLATILES\VOA101\2019\191107A\V101_191107A_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Fri Nov 08 09:44:52 2019
 Response via : Initial Calibration

CCAL FILE(s) : 1 - I:\VOLATILES\VOA101\2019\191107A\V01191107A08.D
 Sub List : 8260-CurveAlc - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
24) Halothane	4.751	117	721751	206.578	ug/L	99
25) Acrylonitrile	4.746	53	213303	222.521	ug/L	98
26) Ethyl tert-butyl ether	4.942	59	2968767	199.041	ug/L	96
27) Vinyl acetate	4.953	43	2097283	210.201	ug/L #	95
28) cis-1,2-Dichloroethene	5.270	96	1065529	198.013	ug/L	88
29) 2,2-Dichloropropane	5.390	77	1445030	200.677	ug/L	87
30) Bromochloromethane	5.483	128	344696	181.150	ug/L #	72
31) Cyclohexane	5.499	56	2075477	206.413	ug/L	87
32) Chloroform	5.559	83	1784581	201.190	ug/L	94
33) Ethyl acetate	5.668	43	682343	209.765	ug/L #	56
34) Carbon tetrachloride	5.717	117	1369969	224.233	ug/L	98
35) Tetrahydrofuran	5.723	42	187382	202.685	ug/L	100
37) 1,1,1-Trichloroethane	5.788	97	1591465	206.875	ug/L	95
38) 2-Butanol	5.712	45	223427M1	1065.525	ug/L	
39) 2-Butanone	5.875	43	269036	160.065	ug/L #	46
40) 1,1-Dichloropropene	5.919	75	1396303	201.624	ug/L	100
41) Benzene	6.192	78	3783110	194.704	ug/L	93
42) tert-Amyl methyl ether	6.301	73	2169896	202.567	ug/L	95
44) 1,2-Dichloroethane	6.410	62	1176545	197.890	ug/L	99
46) 2-Methyl-2-butanol	6.503	59	198401	1077.489	ug/L	97
47) Methyl cyclohexane	6.841	83	1612422	201.159	ug/L #	78
48) Trichloroethene	6.841	95	999810	201.407	ug/L	95
50) Dibromomethane	7.327	93	474695	205.234	ug/L	92
51) 1,2-Dichloropropane	7.447	63	1066156	200.015	ug/L	97
52) 4-penten-2-ol	7.371	45	174667	1282.252	ug/L #	1
53) 2-Chloroethyl vinyl ether	8.194	63	58828	202.587	ug/L	93
54) Bromodichloromethane	7.518	83	1266182	215.836	ug/L	98
57) 1,4-Dioxane	7.747	88	39869	1935.427	ug/L	90
58) cis-1,3-Dichloropropene	8.276	75	1502763	205.806	ug/L #	88
61) Toluene	8.576	92	2371519	199.459	ug/L	99
62) 4-Methyl-2-pentanone	9.040	58	228098	229.090	ug/L	92
63) Tetrachloroethene	9.073	166	893383	199.702	ug/L	92
65) trans-1,3-Dichloropropene	9.100	75	1241084	219.135	ug/L #	76
66) 4-Methyl-2-pentanol	9.155	45	608506	1285.972	ug/L	94
67) Ethyl methacrylate	9.291	69	854793	213.637	ug/L	93
68) 1,1,2-Trichloroethane	9.308	83	555504	202.777	ug/L	98
69) Chlorodibromomethane	9.548	129	769107	234.734	ug/L	98
70) 1,3-Dichloropropane	9.673	76	1142558	200.456	ug/L	100
71) 1,2-Dibromoethane	9.864	107	627164	212.840	ug/L	99
72) 2-Hexanone	10.148	43	416733	216.877	ug/L	99

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\VOA101\2019\191107A\
 Data File : V01191107A12.D
 Acq On : 7 Nov 2019 4:29 pm
 Operator : VOA101:PD
 Sample : I8260STD200PPB
 Misc : WG1306306,ICAL
 ALS Vial : 12 Sample Multiplier: 1

Quant Time: Nov 08 09:49:09 2019
 Quant Method : I:\VOLATILES\VOA101\2019\191107A\V101_191107A_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Fri Nov 08 09:44:52 2019
 Response via : Initial Calibration

CCAL FILE(s) : 1 - I:\VOLATILES\VOA101\2019\191107A\V01191107A08.D
 Sub List : 8260-CurveAlc - All compounds listed

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
73)	Chlorobenzene	10.563	112	2408642	197.297	ug/L	96
74)	Ethylbenzene	10.595	91	4555611	200.526	ug/L	100
75)	1,1,1,2-Tetrachloroethane	10.644	131	864692	220.889	ug/L	99
76)	p/m Xylene	10.781	106	3359228	391.534	ug/L	97
77)	o Xylene	11.326	106	3118422	390.927	ug/L	97
78)	Styrene	11.386	104	5243536	400.442	ug/L	95
80)	Bromoform	11.425	173	403768	252.780	ug/L	100
82)	Isopropylbenzene	11.703	105	4509377	199.191	ug/L	99
84)	Bromobenzene	12.172	156	903776	193.972	ug/L	98
85)	n-Propylbenzene	12.205	91	5191514	197.629	ug/L	99
86)	1,4-Dichlorobutane	12.221	55	1262333	203.336	ug/L	99
87)	1,1,2,2-Tetrachloroethane	12.281	83	722543	205.808	ug/L	97
88)	4-Ethyltoluene	12.330	105	4138983	199.963	ug/L	99
89)	2-Chlorotoluene	12.390	91	3365462	198.709	ug/L	92
90)	1,3,5-Trimethylbenzene	12.429	105	3515831	198.419	ug/L	98
91)	1,2,3-Trichloropropane	12.445	75	611484M1	196.502	ug/L	
92)	trans-1,4-Dichloro-2-b...	12.489	53	237987	251.067	ug/L #	15
93)	4-Chlorotoluene	12.587	91	3246542	203.383	ug/L	95
94)	tert-Butylbenzene	12.800	119	2998264	201.233	ug/L	97
97)	1,2,4-Trimethylbenzene	12.881	105	3569792	202.366	ug/L	99
98)	sec-Butylbenzene	13.007	105	4006140	204.218	ug/L	97
99)	p-Isopropyltoluene	13.165	119	3596071	205.652	ug/L	98
100)	1,3-Dichlorobenzene	13.258	146	1880988	203.391	ug/L	97
101)	1,4-Dichlorobenzene	13.356	146	1887693	201.574	ug/L	98
102)	p-Diethylbenzene	13.569	119	2004116	209.286	ug/L	97
103)	n-Butylbenzene	13.634	91	3128477	210.436	ug/L	98
104)	1,2-Dichlorobenzene	13.825	146	1668230	201.546	ug/L	97
105)	1,2,4,5-Tetramethylben...	14.442	119	2942376	209.512	ug/L	97
106)	1,2-Dibromo-3-chloropr...	14.682	155	94833	238.894	ug/L	100
107)	1,3,5-Trichlorobenzene	14.715	180	919848	203.648	ug/L	95
108)	Hexachlorobutadiene	15.353	225	260891	232.511	ug/L	99
109)	1,2,4-Trichlorobenzene	15.397	180	806398	207.575	ug/L	97
110)	Naphthalene	15.757	128	1779044	208.800	ug/L	100
111)	1,2,3-Trichlorobenzene	15.975	180	624680	207.479	ug/L	98

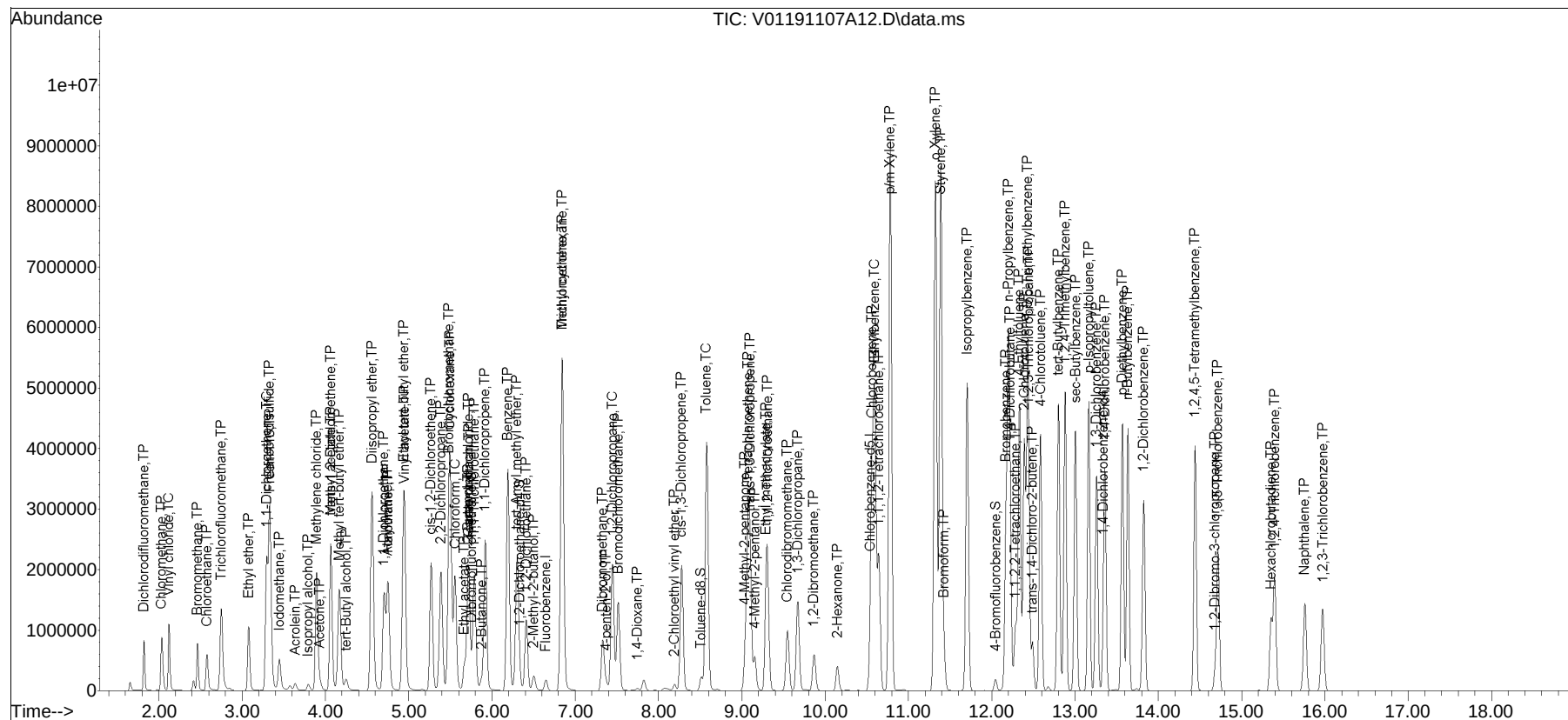
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\VOA101\2019\191107A\
 Data File : V01191107A12.D
 Acq On : 7 Nov 2019 4:29 pm
 Operator : VOA101:PD
 Sample : I8260STD200PPB
 Misc : WG1306306,ICAL
 ALS Vial : 12 Sample Multiplier: 1

Quant Time: Nov 08 09:49:09 2019
 Quant Method : I:\VOLATILES\VOA101\2019\191107A\V101_191107A_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Fri Nov 08 09:44:52 2019
 Response via : Initial Calibration

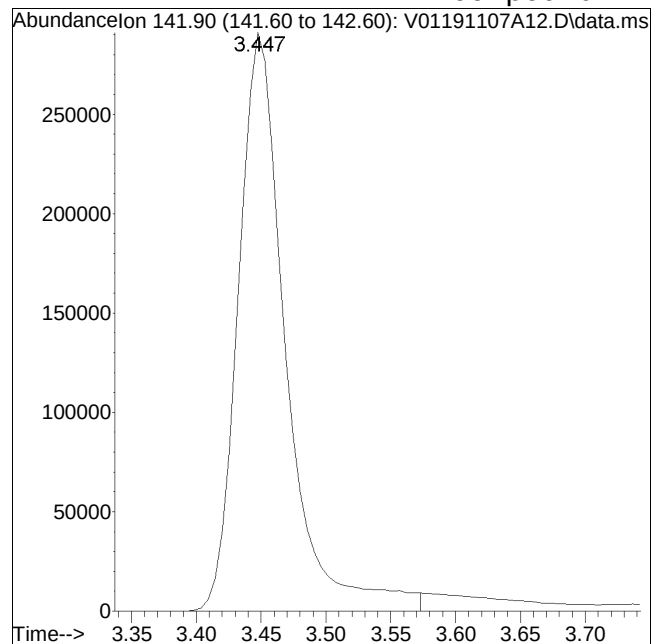
Sub List : 8260-CurveAlc - All compounds listed\V01191107A08.D•



Manual Integration Report

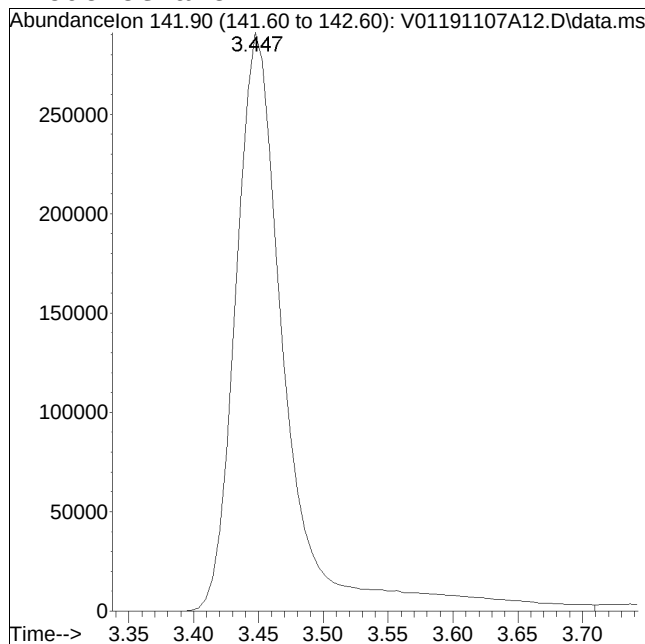
Data Path : I:\VOLATILES\VOA101\2019\1QMethod : V101_191107A_8260.m
Data File : V01191107A12.D Operator : VOA101:PD
Date Inj'd : 11/7/2019 4:29 pm Instrument : VOA 101
Sample : I8260STD200PPB Quant Date : 11/8/2019 9:48 am

Compound #13: Iodomethane



Original Peak Response = 742988

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

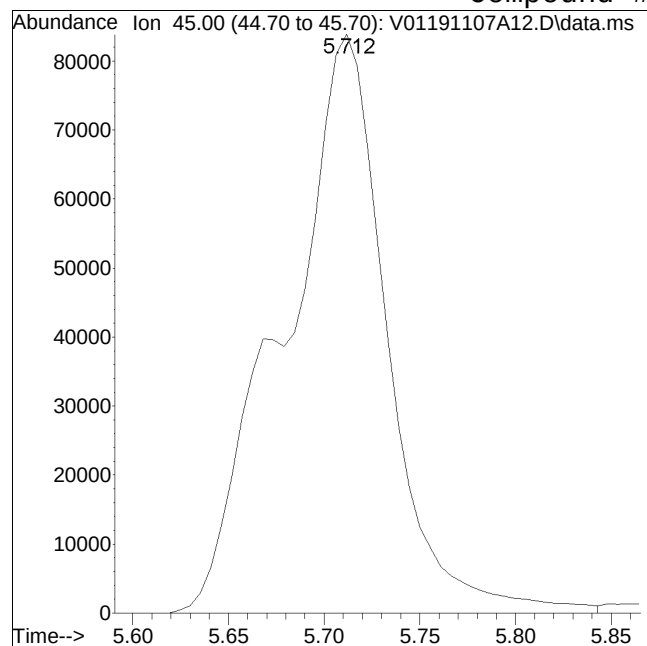


Manual Peak Response = 789034 M1

Manual Integration Report

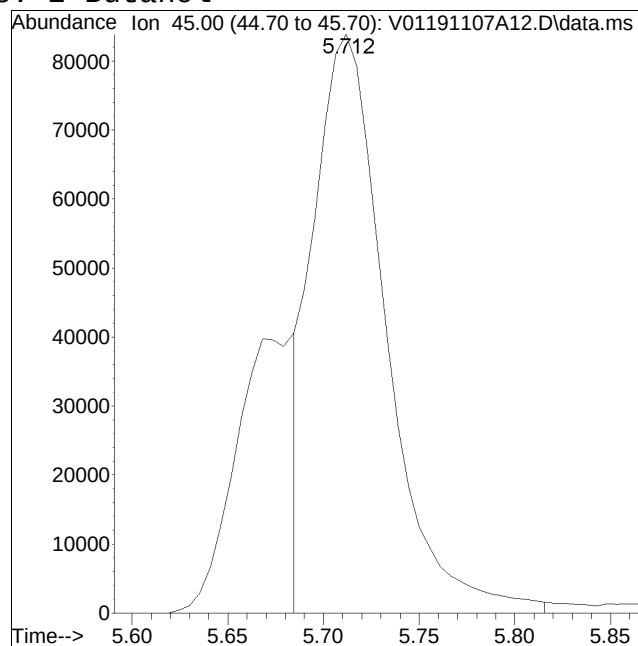
Data Path : I:\VOLATILES\VOA101\2019\10Method : V101_191107A_8260.m
Data File : V01191107A12.D Operator : VOA101:PD
Date Inj'd : 11/7/2019 4:29 pm Instrument : VOA 101
Sample : I8260STD200PPB Quant Date : 11/8/2019 9:48 am

Compound #38: 2-Butanol



Original Peak Response = 312460

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

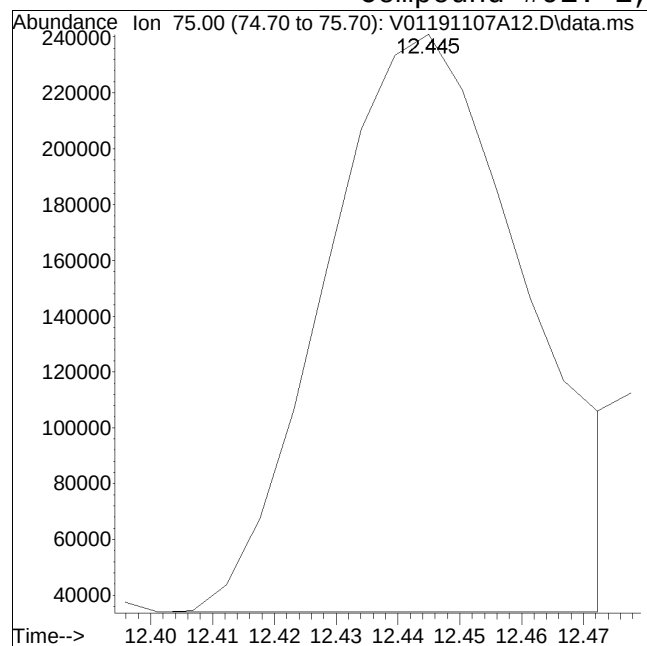


Manual Peak Response = 223427 M1

Manual Integration Report

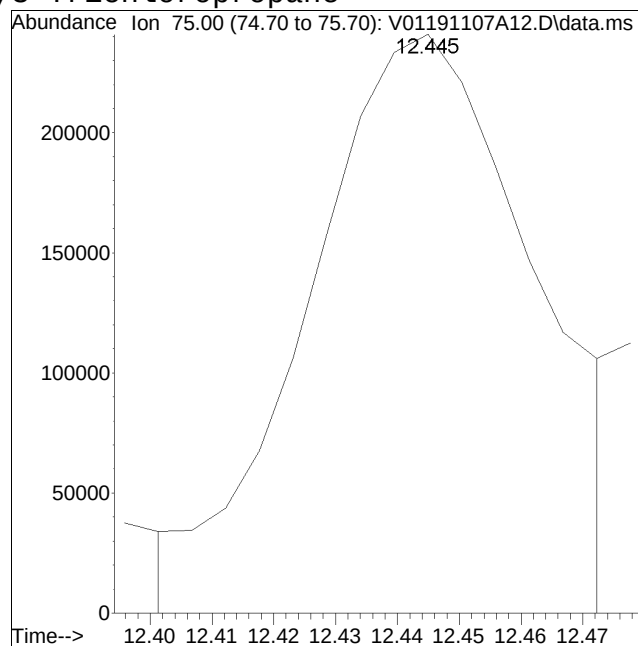
Data Path : I:\VOLATILES\VOA101\2019\10Method : V101_191107A_8260.m
Data File : V01191107A12.D Operator : VOA101:PD
Date Inj'd : 11/7/2019 4:29 pm Instrument : VOA 101
Sample : I8260STD200PPB Quant Date : 11/8/2019 9:48 am

Compound #91: 1,2,3-Trichloropropane



Original Peak Response = 466984

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.



Manual Peak Response = 611484 M1

Evaluate Continuing Calibration Report

Data Path : I:\VOLATILES\VOA101\2019\191107A\
 Data File : V01191107A18.D
 Acq On : 7 Nov 2019 6:51 pm
 Operator : VOA101:PD
 Sample : C8260STD10PPB
 Misc : WG1306306,ICAL
 ALS Vial : 18 Sample Multiplier: 1

Quant Time: Nov 08 10:07:15 2019
 Quant Method : I:\VOLATILES\VOA101\2019\191107A\V101_191107A_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Fri Nov 08 09:58:51 2019
 Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1 I	Fluorobenzene	1.000	1.000	0.0	110	0.00
2 TP	Dichlorodifluoromethane	0.142	0.232	-63.4#	186	0.00
3 TP	Chloromethane	0.227	0.289	-27.3#	150	0.00
4 TC	Vinyl chloride	0.200	0.259	-29.5#	126	0.00
5 TP	Bromomethane	* 10.000	21.990	-119.9#	374#	0.00
6 TP	Chloroethane	0.151	0.148	2.0	104	0.00
7 TP	Trichlorofluoromethane	0.334	0.330	1.2	112	0.00
8 TP	Ethyl ether	0.100	0.097	3.0	105	0.00
10 TC	1,1-Dichloroethene	0.209	0.177	15.3	94	0.00
11 TP	Carbon disulfide	0.570	0.559	1.9	112	0.00
12 TP	Freon-113	0.211	0.212	-0.5	113	0.00
13 TP	Iodomethane	* 10.000	4.754	52.5#	57	0.00
14 TP	Acrolein	0.025	0.021#	16.0	100	0.00
15 TP	Methylene chloride	0.235	0.194	17.4	93	0.00
16 TP	Isopropyl alcohol	0.00834	0.00791#	5.2	108	0.00
17 TP	Acetone	* 10.000	7.976	20.2#	93	0.00
18 TP	trans-1,2-Dichloroethene	0.220	0.197	10.5	101	0.00
19 TP	Methyl acetate	0.128	0.118	7.8	100	0.00
20 TP	Methyl tert-butyl ether	0.478	0.433	9.4	100	0.00
21 TP	tert-Butyl alcohol	0.013	0.011#	15.4	103	0.01
22 TP	Diisopropyl ether	0.967	0.870	10.0	99	0.00
23 TP	1,1-Dichloroethane	0.507	0.420	17.2	91	0.00
24 TP	Halothane	0.175	0.156	10.9	100	0.00
25 TP	Acrylonitrile	0.053	0.049#	7.5	101	0.01
26 TP	Ethyl tert-butyl ether	0.747	0.654	12.4	97	0.00
27 TP	Vinyl acetate	0.499	0.455	8.8	101	0.00
28 TP	cis-1,2-Dichloroethene	0.269	0.210	21.9#	85	0.00
29 TP	2,2-Dichloropropane	0.360	0.276	23.3#	87	0.00
30 TP	Bromochloromethane	0.095	0.087	8.4	95	0.00
31 TP	Cyclohexane	0.503	0.474	5.8	108	0.00
32 TC	Chloroform	0.444	0.366	17.6	91	0.00
33 TP	Ethyl acetate	0.163	0.147	9.8	94	0.00
34 TP	Carbon tetrachloride	0.268	0.254	5.2	99	0.00
35 TP	Tetrahydrofuran	0.046	0.044#	4.3	102	0.00
36 S	Dibromofluoromethane	0.222	0.243	-9.5	105	0.00
37 TP	1,1,1-Trichloroethane	0.385	0.319	17.1	95	0.00
38 TP	2-Butanol	0.01050	0.00985#	6.2	107	-0.01
39 TP	2-Butanone	0.073	0.060#	17.8	93	0.00
40 TP	1,1-Dichloropropene	0.347	0.291	16.1	97	0.00

Evaluate Continuing Calibration Report

Data Path : I:\VOLATILES\VOA101\2019\191107A\
 Data File : V01191107A18.D
 Acq On : 7 Nov 2019 6:51 pm
 Operator : VOA101:PD
 Sample : C8260STD10PPB
 Misc : WG1306306,ICAL
 ALS Vial : 18 Sample Multiplier: 1

Quant Time: Nov 08 10:07:15 2019
 Quant Method : I:\VOLATILES\VOA101\2019\191107A\V101_191107A_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Fri Nov 08 09:58:51 2019
 Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
41 TP	Benzene	0.851	0.811	4.7	94	0.00
42 TP	tert-Amyl methyl ether	0.536	0.457	14.7	94	0.00
43 S	1,2-Dichloroethane-d4	0.245	0.281	-14.7	111	0.00
44 TP	1,2-Dichloroethane	0.298	0.252	15.4	95	0.00
46 TP	2-Methyl-2-butanol	0.00922	0.00818#	11.3	105	0.00
47 TP	Methyl cyclohexane	0.401	0.350	12.7	101	0.00
48 TP	Trichloroethene	0.217	0.210	3.2	97	0.00
50 TP	Dibromomethane	0.116	0.096	17.2	92	0.00
51 TC	1,2-Dichloropropane	0.267	0.230	13.9	96	0.00
52 TP	4-penten-2-ol	0.00736	0.00546#	25.8#	109	0.00
53 TP	2-Chloroethyl vinyl ether	0.016	0.013#	18.8	89	0.00
54 TP	Bromodichloromethane	0.294	0.240	18.4	94	0.00
57 TP	1,4-Dioxane	0.00103	0.00115#	-11.7	124	0.02
58 TP	cis-1,3-Dichloropropene	0.366	0.293	19.9	91	0.00
59 I	Chlorobenzene-d5	1.000	1.000	0.0	100	0.00
60 S	Toluene-d8	1.177	1.423	-20.9#	105	0.00
61 TC	Toluene	0.771	0.714	7.4	94	0.00
62 TP	4-Methyl-2-pentanone	0.071	0.064#	9.9	93	0.00
63 TP	Tetrachloroethene	0.290	0.275	5.2	97	0.00
65 TP	trans-1,3-Dichloropropene	0.367	0.336	8.4	93	0.00
66 TP	4-Methyl-2-pentanol	0.033	0.029#	12.1	104	0.00
67 TP	Ethyl methacrylate	0.260	0.262	-0.8	100	0.00
68 TP	1,1,2-Trichloroethane	0.178	0.164	7.9	92	0.00
69 TP	Chlorodibromomethane	0.213	0.188	11.7	95	0.00
70 TP	1,3-Dichloropropane	0.370	0.337	8.9	91	0.00
71 TP	1,2-Dibromoethane	0.191	0.177	7.3	94	0.00
72 TP	2-Hexanone	0.125	0.115	8.0	92	0.00
73 TP	Chlorobenzene	0.792	0.729	8.0	95	0.00
74 TC	Ethylbenzene	1.474	1.370	7.1	97	0.00
75 TP	1,1,1,2-Tetrachloroethane	0.254	0.242	4.7	98	0.00
76 TP	p/m Xylene	0.557	0.517	7.2	95	0.00
77 TP	o Xylene	0.518	0.495	4.4	97	0.00
78 TP	Styrene	0.850	0.811	4.6	97	0.00
79 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	94	0.00
80 TP	Bromoform	0.202	0.182	9.9	98	0.00
82 TP	Isopropylbenzene	2.619	2.532	3.3	93	0.00
83 S	4-Bromofluorobenzene	0.905	1.039	-14.8	95	0.00

Evaluate Continuing Calibration Report

Data Path : I:\VOLATILES\VOA101\2019\191107A\
 Data File : V01191107A18.D
 Acq On : 7 Nov 2019 6:51 pm
 Operator : VOA101:PD
 Sample : C8260STD10PPB
 Misc : WG1306306,ICAL
 ALS Vial : 18 Sample Multiplier: 1

Quant Time: Nov 08 10:07:15 2019
 Quant Method : I:\VOLATILES\VOA101\2019\191107A\V101_191107A_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Fri Nov 08 09:58:51 2019
 Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
84 TP	Bromobenzene	0.539	0.538	0.2	95	0.00
85 TP	n-Propylbenzene	3.039	2.991	1.6	95	0.00
86 TP	1,4-Dichlorobutane	0.718	0.764	-6.4	101	0.00
87 TP	1,1,2,2-Tetrachloroethane	0.406	0.409	-0.7	97	0.00
88 TP	4-Ethyltoluene	2.395	2.432	-1.5	98	0.00
89 TP	2-Chlorotoluene	1.959	1.910	2.5	95	0.00
90 TP	1,3,5-Trimethylbenzene	2.050	1.971	3.9	94	0.00
91 TP	1,2,3-Trichloropropane	0.360	0.367	-1.9	93	0.00
92 TP	trans-1,4-Dichloro-2-butene	0.125	0.110	12.0	95	0.00
93 TP	4-Chlorotoluene	1.847	1.759	4.8	93	0.00
94 TP	tert-Butylbenzene	1.724	1.696	1.6	95	0.00
97 TP	1,2,4-Trimethylbenzene	2.041	2.040	0.0	97	0.00
98 TP	sec-Butylbenzene	2.270	2.379	-4.8	102	0.00
99 TP	p-Isopropyltoluene	2.023	1.964	2.9	94	0.00
100 TP	1,3-Dichlorobenzene	1.070	1.037	3.1	94	0.00
101 TP	1,4-Dichlorobenzene	1.083	1.032	4.7	93	0.00
102 TP	p-Diethylbenzene	1.108	1.052	5.1	93	0.00
103 TP	n-Butylbenzene	1.720	1.654	3.8	95	0.00
104 TP	1,2-Dichlorobenzene	0.958	0.904	5.6	92	0.00
105 TP	1,2,4,5-Tetramethylbenzene	1.625	1.572	3.3	95	0.00
106 TP	1,2-Dibromo-3-chloropropane *	10.000	9.018	9.8	95	0.00
107 TP	1,3,5-Trichlorobenzene	0.523	0.514	1.7	97	0.00
108 TP	Hexachlorobutadiene *	10.000	8.960	10.4	96	0.00
109 TP	1,2,4-Trichlorobenzene	0.449	0.435	3.1	94	0.00
110 TP	Naphthalene	0.986	0.914	7.3	92	0.00
111 TP	1,2,3-Trichlorobenzene	0.348	0.326	6.3	93	0.00

* Evaluation of CC level amount vs concentration.

(#) = Out of Range

SPCC's out = 13 CCC's out = 1

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\VOA101\2019\191107A\
 Data File : V01191107A18.D
 Acq On : 7 Nov 2019 6:51 pm
 Operator : VOA101:PD
 Sample : C8260STD10PPB
 Misc : WG1306306,ICAL
 ALS Vial : 18 Sample Multiplier: 1

Quant Time: Nov 08 10:07:15 2019
 Quant Method : I:\VOLATILES\VOA101\2019\191107A\V101_191107A_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Fri Nov 08 09:58:51 2019
 Response via : Initial Calibration

CCAL FILE(s) : 1 - I:\VOLATILES\VOA101\2019\191107A\V01191107A08.D
 Sub List : 8260-CurveAlc - All compounds listed

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

Internal Standards						
1) Fluorobenzene	6.650	96	185700	10.000	ug/L	0.00
Standard Area 1 = 168070			Recovery =	110.49%		
59) Chlorobenzene-d5	10.535	117	132509	10.000	ug/L	0.00
Standard Area 1 = 132945			Recovery =	99.67%		
79) 1,4-Dichlorobenzene-d4	13.334	152	66650	10.000	ug/L	0.00
Standard Area 1 = 70817			Recovery =	94.12%		
System Monitoring Compounds						
36) Dibromofluoromethane	5.755	113	45136	9.601	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	96.01%		
43) 1,2-Dichloroethane-d4	6.334	65	52141	10.046	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	100.46%		
60) Toluene-d8	8.511	98	188531	10.579	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	105.79%		
83) 4-Bromofluorobenzene	12.041	95	69239	10.043	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	100.43%		
Target Compounds						
						Qvalue
2) Dichlorodifluoromethane	1.827	85	43001	16.305	ug/L	98
3) Chloromethane	2.040	50	53627	12.717	ug/L	98
4) Vinyl chloride	2.127	62	48182	11.349	ug/L	100
5) Bromomethane	2.471	94	13182M1	21.990	ug/L	
6) Chloroethane	2.602	64	27565	9.823	ug/L	95
7) Trichlorofluoromethane	2.760	101	61328	9.898	ug/L	98
8) Ethyl ether	3.082	74	18011	9.686	ug/L	73
10) 1,1-Dichloroethene	3.300	96	32910	8.499	ug/L	81
11) Carbon disulfide	3.333	76	103827	9.807	ug/L	99
12) Freon-113	3.338	101	39343	10.032	ug/L	89
13) Iodomethane	3.453	142	11867M1	4.754	ug/L	
14) Acrolein	3.638	56	3976	8.694	ug/L	92
15) Methylene chloride	3.900	84	36074	8.279	ug/L	79
16) Isopropyl alcohol	3.797	45	7345	47.428	ug/L #	89
17) Acetone	3.939	43	7319	7.976	ug/L	90
18) trans-1,2-Dichloroethene	4.069	96	36589	8.976	ug/L	88
19) Methyl acetate	4.069	43	21902	9.220	ug/L #	87
20) Methyl tert-butyl ether	4.173	73	80363	9.058	ug/L	91
21) tert-Butyl alcohol	4.255	59	10407	43.597	ug/L	92
22) Diisopropyl ether	4.561	45	161568	8.999	ug/L	94
23) 1,1-Dichloroethane	4.708	63	78038	8.285	ug/L	97

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\VOA101\2019\191107A\
 Data File : V01191107A18.D
 Acq On : 7 Nov 2019 6:51 pm
 Operator : VOA101:PD
 Sample : C8260STD10PPB
 Misc : WG1306306,ICAL
 ALS Vial : 18 Sample Multiplier: 1

Quant Time: Nov 08 10:07:15 2019
 Quant Method : I:\VOLATILES\VOA101\2019\191107A\V101_191107A_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Fri Nov 08 09:58:51 2019
 Response via : Initial Calibration

CCAL FILE(s) : 1 - I:\VOLATILES\VOA101\2019\191107A\V01191107A08.D
 Sub List : 8260-CurveAlc - All compounds listed

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
24) Halothane	4.752	117	28967	8.919	ug/L	99
25) Acrylonitrile	4.757	53	9118	9.339	ug/L	95
26) Ethyl tert-butyl ether	4.942	59	121435	8.759	ug/L	97
27) Vinyl acetate	4.953	43	84564	9.118	ug/L #	94
28) cis-1,2-Dichloroethene	5.270	96	38959	7.789	ug/L	88
29) 2,2-Dichloropropane	5.390	77	51239	7.655	ug/L	84
30) Bromochloromethane	5.483	128	16167	9.140	ug/L #	73
31) Cyclohexane	5.494	56	88075	9.423	ug/L	88
32) Chloroform	5.559	83	67878	8.232	ug/L	94
33) Ethyl acetate	5.674	43	27292	9.026	ug/L #	57
34) Carbon tetrachloride	5.717	117	47080	8.290	ug/L	98
35) Tetrahydrofuran	5.728	42	8142	9.474	ug/L	91
37) 1,1,1-Trichloroethane	5.794	97	59284	8.290	ug/L	95
38) 2-Butanol	5.712	45	9148M1	46.933	ug/L	
39) 2-Butanone	5.876	43	11065	8.161	ug/L #	44
40) 1,1-Dichloropropene	5.919	75	53986	8.386	ug/L	99
41) Benzene	6.192	78	150692	8.343	ug/L	94
42) tert-Amyl methyl ether	6.301	73	84874	8.524	ug/L	93
44) 1,2-Dichloroethane	6.410	62	46750	8.459	ug/L	99
46) 2-Methyl-2-butanol	6.503	59	7598	44.391	ug/L	91
47) Methyl cyclohexane	6.841	83	64978	8.721	ug/L	84
48) Trichloroethene	6.841	95	38989	8.449	ug/L	97
50) Dibromomethane	7.332	93	17769	8.265	ug/L	91
51) 1,2-Dichloropropane	7.442	63	42681	8.614	ug/L	96
52) 4-penten-2-ol	7.376	45	5066	37.049	ug/L #	1
53) 2-Chloroethyl vinyl ether	8.189	63	2460	8.421	ug/L #	77
54) Bromodichloromethane	7.512	83	44558	8.171	ug/L	98
57) 1,4-Dioxane	7.753	88	10693	558.424	ug/L	88
58) cis-1,3-Dichloropropene	8.276	75	54352	8.008	ug/L #	89
61) Toluene	8.576	92	94552	9.250	ug/L	100
62) 4-Methyl-2-pentanone	9.040	58	8490	8.998	ug/L #	88
63) Tetrachloroethene	9.073	166	36379	9.459	ug/L	95
65) trans-1,3-Dichloropropene	9.100	75	44552	9.150	ug/L #	77
66) 4-Methyl-2-pentanol	9.155	45	19520	44.276	ug/L #	86
67) Ethyl methacrylate	9.291	69	34772	10.109	ug/L	91
68) 1,1,2-Trichloroethane	9.308	83	21675	9.204	ug/L	100
69) Chlorodibromomethane	9.542	129	24957	8.860	ug/L	99
70) 1,3-Dichloropropane	9.668	76	44652	9.113	ug/L	99
71) 1,2-Dibromoethane	9.870	107	23429	9.249	ug/L	98
72) 2-Hexanone	10.148	43	15221	9.214	ug/L	97

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\VOA101\2019\191107A\
 Data File : V01191107A18.D
 Acq On : 7 Nov 2019 6:51 pm
 Operator : VOA101:PD
 Sample : C8260STD10PPB
 Misc : WG1306306,ICAL
 ALS Vial : 18 Sample Multiplier: 1

Quant Time: Nov 08 10:07:15 2019
 Quant Method : I:\VOLATILES\VOA101\2019\191107A\V101_191107A_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Fri Nov 08 09:58:51 2019
 Response via : Initial Calibration

CCAL FILE(s) : 1 - I:\VOLATILES\VOA101\2019\191107A\V01191107A08.D
 Sub List : 8260-CurveAlc - All compounds listed

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
73)	Chlorobenzene	10.563	112	96590	9.203	ug/L	98
74)	Ethylbenzene	10.590	91	181584	9.298	ug/L	99
75)	1,1,1,2-Tetrachloroethane	10.639	131	32039	9.520	ug/L	99
76)	p/m Xylene	10.775	106	136958	18.569	ug/L	100
77)	o Xylene	11.316	106	131291	19.145	ug/L	98
78)	Styrene	11.381	104	214951	19.095	ug/L	99
80)	Bromoform	11.419	173	12145	9.023	ug/L	100
82)	Isopropylbenzene	11.703	105	168789	9.669	ug/L	100
84)	Bromobenzene	12.172	156	35860	9.981	ug/L	99
85)	n-Propylbenzene	12.199	91	199327	9.841	ug/L	100
86)	1,4-Dichlorobutane	12.221	55	50906	10.634	ug/L	99
87)	1,1,2,2-Tetrachloroethane	12.281	83	27255	10.068	ug/L	98
88)	4-Ethyltoluene	12.325	105	162088	10.156	ug/L	100
89)	2-Chlorotoluene	12.385	91	127317	9.749	ug/L	93
90)	1,3,5-Trimethylbenzene	12.429	105	131387	9.616	ug/L	100
91)	1,2,3-Trichloropropane	12.440	75	24433M1	10.183	ug/L	
92)	trans-1,4-Dichloro-2-b...	12.483	53	7317	8.788	ug/L #	12
93)	4-Chlorotoluene	12.576	91	117208	9.522	ug/L	97
94)	tert-Butylbenzene	12.800	119	113066	9.841	ug/L	99
97)	1,2,4-Trimethylbenzene	12.876	105	135933	9.994	ug/L	100
98)	sec-Butylbenzene	13.002	105	158580	10.484	ug/L	98
99)	p-Isopropyltoluene	13.160	119	130910	9.709	ug/L	98
100)	1,3-Dichlorobenzene	13.258	146	69123	9.693	ug/L	98
101)	1,4-Dichlorobenzene	13.356	146	68803	9.528	ug/L	98
102)	p-Diethylbenzene	13.564	119	70121	9.497	ug/L	99
103)	n-Butylbenzene	13.629	91	110270	9.619	ug/L	99
104)	1,2-Dichlorobenzene	13.825	146	60243	9.439	ug/L	98
105)	1,2,4,5-Tetramethylben...	14.437	119	104760	9.674	ug/L	98
106)	1,2-Dibromo-3-chloropr...	14.688	155	2756	9.018	ug/L	93
107)	1,3,5-Trichlorobenzene	14.715	180	34254	9.835	ug/L	95
108)	Hexachlorobutadiene	15.353	225	8617	8.960	ug/L	99
109)	1,2,4-Trichlorobenzene	15.391	180	28969	9.671	ug/L	98
110)	Naphthalene	15.757	128	60911	9.271	ug/L	100
111)	1,2,3-Trichlorobenzene	15.975	180	21739	9.364	ug/L	98

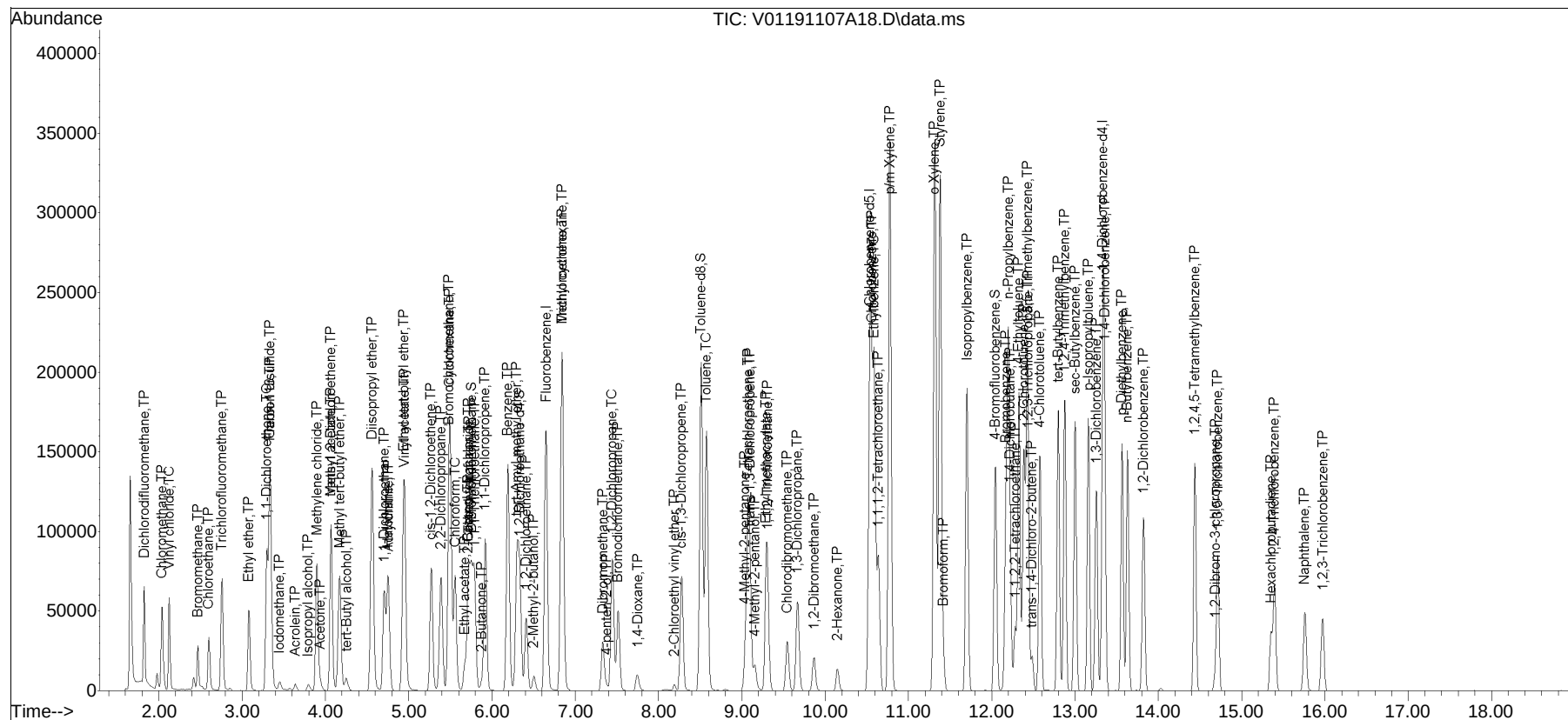
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\VOA101\2019\191107A\
 Data File : V01191107A18.D
 Acq On : 7 Nov 2019 6:51 pm
 Operator : VOA101:PD
 Sample : C8260STD10PPB
 Misc : WG1306306,ICAL
 ALS Vial : 18 Sample Multiplier: 1

Quant Time: Nov 08 10:07:15 2019
 Quant Method : I:\VOLATILES\VOA101\2019\191107A\V101_191107A_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Fri Nov 08 09:58:51 2019
 Response via : Initial Calibration

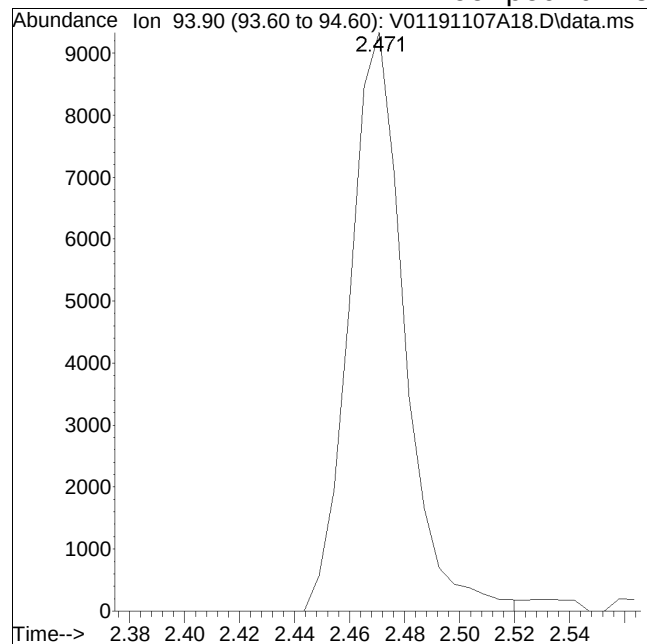
Sub List : 8260-CurveAlc - All compounds listed\V01191107A08.D•



Manual Integration Report

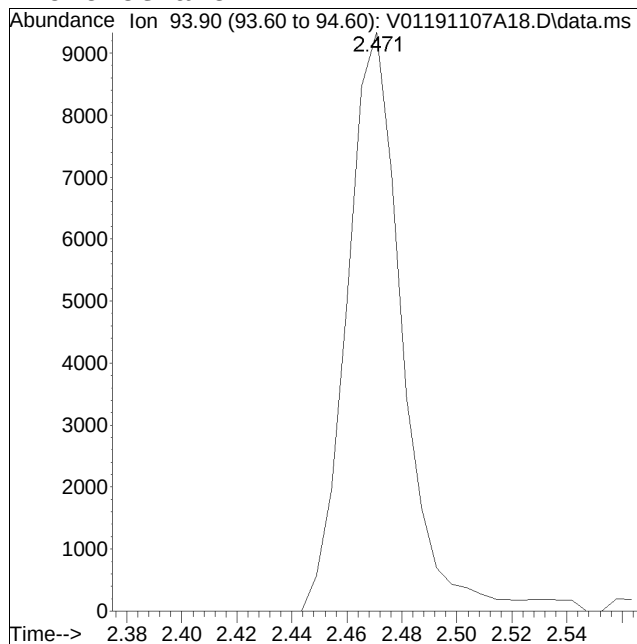
Data Path : I:\VOLATILES\VOA101\2019\1QMethod : V101_191107A_8260.m
Data File : V01191107A18.D Operator : VOA101:PD
Date Inj'd : 11/7/2019 6:51 pm Instrument : VOA 101
Sample : C8260STD10PPB Quant Date : 11/8/2019 10:03 am

Compound #5: Bromomethane



Original Peak Response = 12944

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

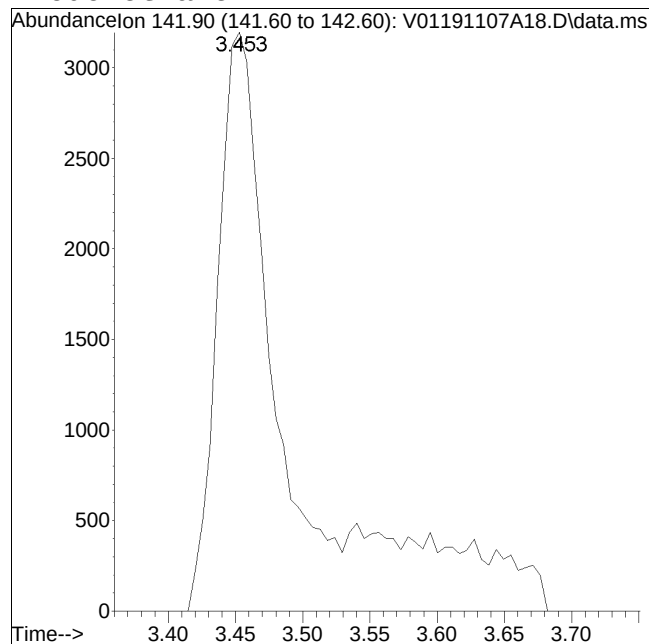
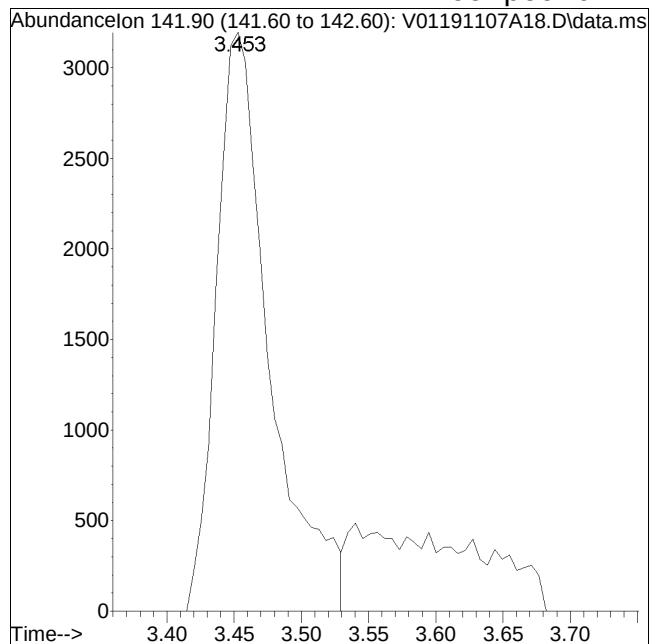


Manual Peak Response = 13182 M1

Manual Integration Report

Data Path : I:\VOLATILES\VOA101\2019\10Method : V101_191107A_8260.m
Data File : V01191107A18.D Operator : VOA101:PD
Date Inj'd : 11/7/2019 6:51 pm Instrument : VOA 101
Sample : C8260STD10PPB Quant Date : 11/8/2019 10:03 am

Compound #13: Iodomethane



Original Peak Response = 8803

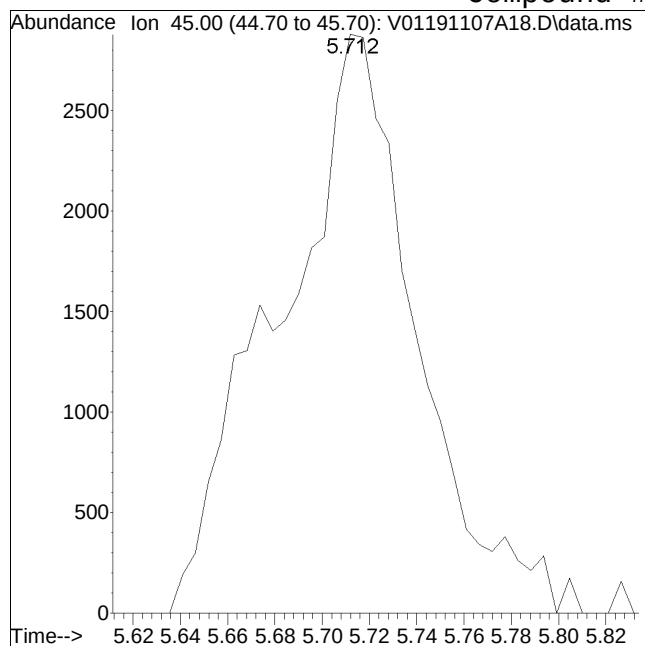
Manual Peak Response = 11867 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Manual Integration Report

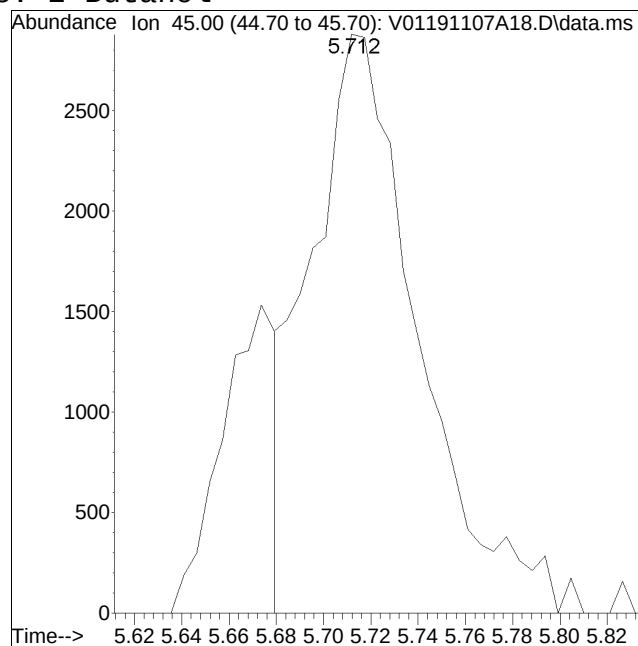
Data Path : I:\VOLATILES\VOA101\2019\10Method : V101_191107A_8260.m
Data File : V01191107A18.D Operator : VOA101:PD
Date Inj'd : 11/7/2019 6:51 pm Instrument : VOA 101
Sample : C8260STD10PPB Quant Date : 11/8/2019 10:03 am

Compound #38: 2-Butanol



Original Peak Response = 11670

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

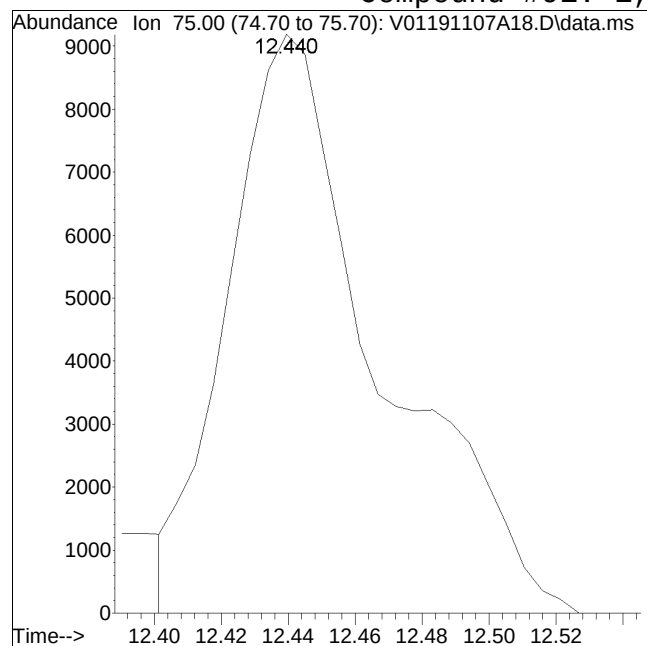


Manual Peak Response = 9148 M1

Manual Integration Report

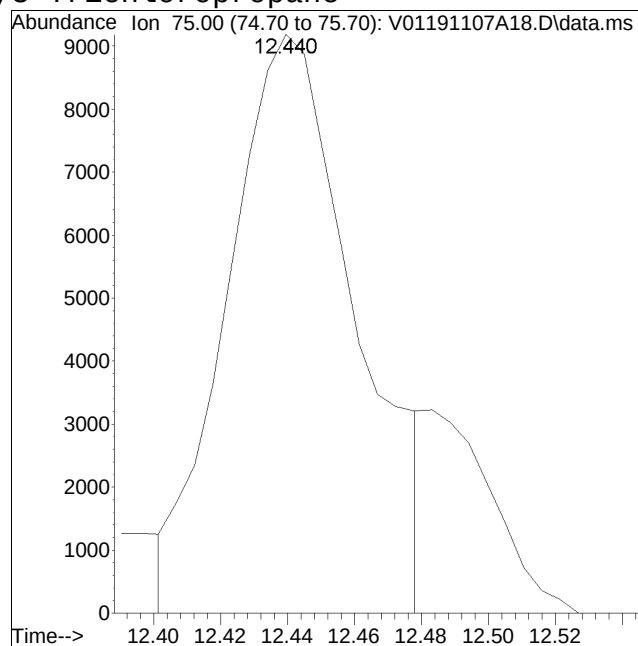
Data Path : I:\VOLATILES\VOA101\2019\10 Method : V101_191107A_8260.m
Data File : V01191107A18.D Operator : VOA101:PD
Date Inj'd : 11/7/2019 6:51 pm Instrument : VOA 101
Sample : C8260STD10PPB Quant Date : 11/8/2019 10:03 am

Compound #91: 1,2,3-Trichloropropane



Original Peak Response = 28928

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.



Manual Peak Response = 24433 M1

Continuing Calibration

Calibration Verification Summary

Form 7

Volatiles

Client : Langan Engineering & Environmental
 Project Name : 432 RODNEY STREET
 Instrument ID : VOA101
 Lab File ID : V01191114A02
 Sample No : WG1308760-2
 Channel :

Lab Number : L1954303
 Project Number : 170357801
 Calibration Date : 11/14/19 07:24
 Init. Calib. Date(s) : 11/07/19 11/07/19
 Init. Calib. Times : 13:20 16:29

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
Fluorobenzene	1	1	-	0	20	119	0
Dichlorodifluoromethane	0.142	0.13	-	8.5	20	112	0
Chloromethane	0.227	0.246	-	-8.4	20	137	0
Vinyl chloride	0.229	0.227	-	0.9	20	119	0
Bromomethane	10	26.856	-	-168.6*	20	530	0
Chloroethane	0.151	0.15	-	0.7	20	114	0
Trichlorofluoromethane	0.334	0.324	-	3	20	118	0
Ethyl ether	0.1	0.076	-	24*	20	88	0
1,1-Dichloroethene	0.209	0.191	-	8.6	20	109	0
Carbon disulfide	0.57	0.494	-	13.3	20	107	0
Freon-113	0.211	0.203	-	3.8	20	116	0
Acrolein	0.025	0.019*	-	24*	20	97	0
Methylene chloride	0.235	0.198	-	15.7	20	102	0
Acetone	10	6.819	-	31.8*	20	88	0
trans-1,2-Dichloroethene	0.22	0.2	-	9.1	20	110	0
Methyl acetate	0.128	0.096*	-	25*	20	88	0
Methyl tert-butyl ether	0.478	0.364	-	23.8*	20	90	0
tert-Butyl alcohol	0.01285	0.00801*	-	37.7*	20	80	0
Diisopropyl ether	0.967	0.877	-	9.3	20	108	0
1,1-Dichloroethane	0.507	0.481	-	5.1	20	112	0
Halothane	0.175	0.162	-	7.4	20	112	0
Acrylonitrile	0.053	0.04*	-	24.5*	20	89	0
Ethyl tert-butyl ether	0.747	0.644	-	13.8	20	103	0
Vinyl acetate	0.499	0.419	-	16	20	100	0
cis-1,2-Dichloroethene	0.269	0.244	-	9.3	20	107	0
2,2-Dichloropropane	0.36	0.362	-	-0.6	20	123	0
Bromochloromethane	0.095	0.086	-	9.5	20	101	0
Cyclohexane	0.503	0.506	-	-0.6	20	124	0
Chloroform	0.444	0.419	-	5.6	20	113	0
Ethyl acetate	0.163	0.126	-	22.7*	20	86	0
Carbon tetrachloride	0.306	0.31	-	-1.3	20	130	-0.01
Tetrahydrofuran	0.046	0.035*	-	23.9*	20	87	0
Dibromofluoromethane	0.253	0.245	-	3.2	20	114	0
1,1,1-Trichloroethane	0.385	0.381	-	1	20	122	0
2-Butanone	0.073	0.052*	-	28.8*	20	86	0
1,1-Dichloropropene	0.347	0.317	-	8.6	20	114	0
Benzene	0.973	0.854	-	12.2	20	107	0
tert-Amyl methyl ether	0.536	0.411	-	23.3*	20	91	0
1,2-Dichloroethane-d4	0.279	0.303	-	-8.6	20	129	0
1,2-Dichloroethane	0.298	0.278	-	6.7	20	113	0
Methyl cyclohexane	0.401	0.366	-	8.7	20	114	0
Trichloroethene	0.248	0.235	-	5.2	20	116	0
Dibromomethane	0.116	0.09	-	22.4*	20	93	0

* Value outside of QC limits.



Calibration Verification Summary

Form 7

Volatiles

Client : Langan Engineering & Environmental
 Project Name : 432 RODNEY STREET
 Instrument ID : VOA101
 Lab File ID : V01191114A02
 Sample No : WG1308760-2
 Channel :

Lab Number : L1954303
 Project Number : 170357801
 Calibration Date : 11/14/19 07:24
 Init. Calib. Date(s) : 11/07/19 11/07/19
 Init. Calib. Times : 13:20 16:29

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
1,2-Dichloropropane	0.267	0.237	-	11.2	20	107	0
Bromodichloromethane	0.294	0.262	-	10.9	20	110	0
1,4-Dioxane	0.00103	0.00064*	-	37.9*	20	73	0
cis-1,3-Dichloropropene	0.366	0.305	-	16.7	20	102	0
Chlorobenzene-d5	1	1	-	0	20	104	0
Toluene-d8	1.345	1.444	-	-7.4	20	111	0
Toluene	0.771	0.773	-	-0.3	20	106	0
4-Methyl-2-pentanone	0.071	0.055*	-	22.5*	20	83	0
Tetrachloroethene	0.29	0.302	-	-4.1	20	111	0
trans-1,3-Dichloropropene	0.367	0.342	-	6.8	20	98	0
Ethyl methacrylate	0.26	0.207	-	20.4*	20	82	0
1,1,2-Trichloroethane	0.178	0.158	-	11.2	20	92	0
Chlorodibromomethane	0.213	0.197	-	7.5	20	104	0
1,3-Dichloropropane	0.37	0.326	-	11.9	20	92	0
1,2-Dibromoethane	0.191	0.168	-	12	20	93	0
2-Hexanone	0.125	0.1	-	20	20	84	0
Chlorobenzene	0.792	0.795	-	-0.4	20	108	0
Ethylbenzene	1.474	1.508	-	-2.3	20	111	0
1,1,1,2-Tetrachloroethane	0.254	0.256	-	-0.8	20	108	0
p/m Xylene	0.557	0.567	-	-1.8	20	108	0
o Xylene	0.518	0.529	-	-2.1	20	108	0
Styrene	0.85	0.834	-	1.9	20	104	0
1,4-Dichlorobenzene-d4	1	1	-	0	20	93	0
Bromoform	0.202	0.182	-	9.9	20	97	0
Isopropylbenzene	2.619	3.026	-	-15.5	20	110	0
4-Bromofluorobenzene	1.034	1.079	-	-4.4	20	97	0
Bromobenzene	0.539	0.574	-	-6.5	20	100	0
n-Propylbenzene	3.039	3.525	-	-16	20	110	0
1,4-Dichlorobutane	0.718	0.72	-	-0.3	20	94	0
1,1,2,2-Tetrachloroethane	0.406	0.373	-	8.1	20	87	0
4-Ethyltoluene	2.395	2.738	-	-14.3	20	109	0
2-Chlorotoluene	1.959	2.212	-	-12.9	20	108	0
1,3,5-Trimethylbenzene	2.05	2.329	-	-13.6	20	109	0
1,2,3-Trichloropropane	0.36	0.34	-	5.6	20	85	0
trans-1,4-Dichloro-2-buten	0.125	0.113	-	9.6	20	96	0
4-Chlorotoluene	1.847	2.101	-	-13.8	20	109	0
tert-Butylbenzene	1.724	1.971	-	-14.3	20	109	0
1,2,4-Trimethylbenzene	2.041	2.292	-	-12.3	20	108	0
sec-Butylbenzene	2.27	2.561	-	-12.8	20	108	0
p-Isopropyltoluene	2.023	2.3	-	-13.7	20	109	0
1,3-Dichlorobenzene	1.07	1.166	-	-9	20	105	0
1,4-Dichlorobenzene	1.083	1.161	-	-7.2	20	103	0
p-Diethylbenzene	1.108	1.271	-	-14.7	20	111	0

* Value outside of QC limits.



Calibration Verification Summary

Form 7

Volatiles

Client	: Langan Engineering & Environmental	Lab Number	: L1954303
Project Name	: 432 RODNEY STREET	Project Number	: 170357801
Instrument ID	: VOA101	Calibration Date	: 11/14/19 07:24
Lab File ID	: V01191114A02	Init. Calib. Date(s)	: 11/07/19 11/07/19
Sample No	: WG1308760-2	Init. Calib. Times	: 13:20 16:29
Channel	:		

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
n-Butylbenzene	1.72	1.968	-	-14.4	20	111	0
1,2-Dichlorobenzene	0.958	0.987	-	-3	20	99	0
1,2,4,5-Tetramethylbenzene	1.625	1.787	-	-10	20	107	0
1,2-Dibromo-3-chloropropan	10	7.976	-	20.2*	20	81	0
1,3,5-Trichlorobenzene	0.523	0.577	-	-10.3	20	107	0
Hexachlorobutadiene	10	11.927	-	-19.3	20	127	0
1,2,4-Trichlorobenzene	0.449	0.44	-	2	20	94	0
Naphthalene	0.986	0.812	-	17.6	20	80	0
1,2,3-Trichlorobenzene	0.348	0.317	-	8.9	20	89	0

* Value outside of QC limits.



Evaluate Continuing Calibration Report

Data Path : I:\VOLATILES\VOA101\2019\191114A\
 Data File : V01191114A02.D
 Acq On : 14 Nov 2019 7:24 am
 Operator : VOA101:PD
 Sample : WG1308760-2
 Misc : WG1308760,ICAL16277
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 14 07:46:53 2019
 Quant Method : I:\VOLATILES\VOA101\2019\191114A\V101_191107A_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Fri Nov 08 10:22:02 2019
 Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1 I	Fluorobenzene	1.000	1.000	0.0	119	0.00
2 TP	Dichlorodifluoromethane	0.142	0.130	8.5	112	0.00
3 TP	Chloromethane	0.227	0.246	-8.4	137	0.00
4 TC	Vinyl chloride	0.229	0.227	0.9	119	0.00
5 TP	Bromomethane	* 10.000	26.856	-168.6#	530#	0.00
6 TP	Chloroethane	0.151	0.150	0.7	114	0.00
7 TP	Trichlorofluoromethane	0.334	0.324	3.0	118	0.00
8 TP	Ethyl ether	0.100	0.076	24.0#	88	0.00
10 TC	1,1-Dichloroethene	0.209	0.191	8.6	109	0.00
11 TP	Carbon disulfide	0.570	0.494	13.3	107	0.00
12 TP	Freon-113	0.211	0.203	3.8	116	0.00
14 TP	Acrolein	0.025	0.019#	24.0#	97	0.00
15 TP	Methylene chloride	0.235	0.198	15.7	102	0.00
17 TP	Acetone	* 10.000	6.819	31.8#	88	0.00
18 TP	trans-1,2-Dichloroethene	0.220	0.200	9.1	110	0.00
19 TP	Methyl acetate	0.128	0.096#	25.0#	88	0.00
20 TP	Methyl tert-butyl ether	0.478	0.364	23.8#	90	0.00
21 TP	tert-Butyl alcohol	0.01285	0.00801#	37.7#	80	0.00
22 TP	Diisopropyl ether	0.967	0.877	9.3	108	0.00
23 TP	1,1-Dichloroethane	0.507	0.481	5.1	112	0.00
24 TP	Halothane	0.175	0.162	7.4	112	0.00
25 TP	Acrylonitrile	0.053	0.040#	24.5#	89	0.00
26 TP	Ethyl tert-butyl ether	0.747	0.644	13.8	103	0.00
27 TP	Vinyl acetate	0.499	0.419	16.0	100	0.00
28 TP	cis-1,2-Dichloroethene	0.269	0.244	9.3	107	0.00
29 TP	2,2-Dichloropropane	0.360	0.362	-0.6	123	0.00
30 TP	Bromochloromethane	0.095	0.086	9.5	101	0.00
31 TP	Cyclohexane	0.503	0.506	-0.6	124	0.00
32 TC	Chloroform	0.444	0.419	5.6	113	0.00
33 TP	Ethyl acetate	0.163	0.126	22.7#	86	0.00
34 TP	Carbon tetrachloride	0.306	0.310	-1.3	130	-0.01
35 TP	Tetrahydrofuran	0.046	0.035#	23.9#	87	0.00
36 S	Dibromofluoromethane	0.253	0.245	3.2	114	0.00
37 TP	1,1,1-Trichloroethane	0.385	0.381	1.0	122	0.00
39 TP	2-Butanone	0.073	0.052#	28.8#	86	0.00
40 TP	1,1-Dichloropropene	0.347	0.317	8.6	114	0.00
41 TP	Benzene	0.973	0.854	12.2	107	0.00
42 TP	tert-Amyl methyl ether	0.536	0.411	23.3#	91	0.00
43 S	1,2-Dichloroethane-d4	0.279	0.303	-8.6	129	0.00

Evaluate Continuing Calibration Report

Data Path : I:\VOLATILES\VOA101\2019\191114A\
 Data File : V01191114A02.D
 Acq On : 14 Nov 2019 7:24 am
 Operator : VOA101:PD
 Sample : WG1308760-2
 Misc : WG1308760,ICAL16277
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 14 07:46:53 2019
 Quant Method : I:\VOLATILES\VOA101\2019\191114A\V101_191107A_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Fri Nov 08 10:22:02 2019
 Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
44 TP	1,2-Dichloroethane	0.298	0.278	6.7	113	0.00
47 TP	Methyl cyclohexane	0.401	0.366	8.7	114	0.00
48 TP	Trichloroethene	0.248	0.235	5.2	116	0.00
50 TP	Dibromomethane	0.116	0.090	22.4#	93	0.00
51 TC	1,2-Dichloropropane	0.267	0.237	11.2	107	0.00
54 TP	Bromodichloromethane	0.294	0.262	10.9	110	0.00
57 TP	1,4-Dioxane	0.00103	0.00064#	37.9#	73	0.00
58 TP	cis-1,3-Dichloropropene	0.366	0.305	16.7	102	0.00
59 I	Chlorobenzene-d5	1.000	1.000	0.0	104	0.00
60 S	Toluene-d8	1.345	1.444	-7.4	111	0.00
61 TC	Toluene	0.771	0.773	-0.3	106	0.00
62 TP	4-Methyl-2-pentanone	0.071	0.055#	22.5#	83	0.00
63 TP	Tetrachloroethene	0.290	0.302	-4.1	111	0.00
65 TP	trans-1,3-Dichloropropene	0.367	0.342	6.8	98	0.00
67 TP	Ethyl methacrylate	0.260	0.207	20.4#	82	0.00
68 TP	1,1,2-Trichloroethane	0.178	0.158	11.2	92	0.00
69 TP	Chlorodibromomethane	0.213	0.197	7.5	104	0.00
70 TP	1,3-Dichloropropane	0.370	0.326	11.9	92	0.00
71 TP	1,2-Dibromoethane	0.191	0.168	12.0	93	0.00
72 TP	2-Hexanone	0.125	0.100	20.0	84	0.00
73 TP	Chlorobenzene	0.792	0.795	-0.4	108	0.00
74 TC	Ethylbenzene	1.474	1.508	-2.3	111	0.00
75 TP	1,1,1,2-Tetrachloroethane	0.254	0.256	-0.8	108	0.00
76 TP	p/m Xylene	0.557	0.567	-1.8	108	0.00
77 TP	o Xylene	0.518	0.529	-2.1	108	0.00
78 TP	Styrene	0.850	0.834	1.9	104	0.00
79 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	93	0.00
80 TP	Bromoform	0.202	0.182	9.9	97	0.00
82 TP	Isopropylbenzene	2.619	3.026	-15.5	110	0.00
83 S	4-Bromofluorobenzene	1.034	1.079	-4.4	97	0.00
84 TP	Bromobenzene	0.539	0.574	-6.5	100	0.00
85 TP	n-Propylbenzene	3.039	3.525	-16.0	110	0.00
86 TP	1,4-Dichlorobutane	0.718	0.720	-0.3	94	0.00
87 TP	1,1,2,2-Tetrachloroethane	0.406	0.373	8.1	87	0.00
88 TP	4-Ethyltoluene	2.395	2.738	-14.3	109	0.00
89 TP	2-Chlorotoluene	1.959	2.212	-12.9	108	0.00
90 TP	1,3,5-Trimethylbenzene	2.050	2.329	-13.6	109	0.00

Evaluate Continuing Calibration Report

Data Path : I:\VOLATILES\VOA101\2019\191114A\
 Data File : V01191114A02.D
 Acq On : 14 Nov 2019 7:24 am
 Operator : VOA101:PD
 Sample : WG1308760-2
 Misc : WG1308760,ICAL16277
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 14 07:46:53 2019
 Quant Method : I:\VOLATILES\VOA101\2019\191114A\V101_191107A_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Fri Nov 08 10:22:02 2019
 Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
91 TP	1,2,3-Trichloropropane	0.360	0.340	5.6	85	0.00
92 TP	trans-1,4-Dichloro-2-butene	0.125	0.113	9.6	96	0.00
93 TP	4-Chlorotoluene	1.847	2.101	-13.8	109	0.00
94 TP	tert-Butylbenzene	1.724	1.971	-14.3	109	0.00
97 TP	1,2,4-Trimethylbenzene	2.041	2.292	-12.3	108	0.00
98 TP	sec-Butylbenzene	2.270	2.561	-12.8	108	0.00
99 TP	p-Isopropyltoluene	2.023	2.300	-13.7	109	0.00
100 TP	1,3-Dichlorobenzene	1.070	1.166	-9.0	105	0.00
101 TP	1,4-Dichlorobenzene	1.083	1.161	-7.2	103	0.00
102 TP	p-Diethylbenzene	1.108	1.271	-14.7	111	0.00
103 TP	n-Butylbenzene	1.720	1.968	-14.4	111	0.00
104 TP	1,2-Dichlorobenzene	0.958	0.987	-3.0	99	0.00
105 TP	1,2,4,5-Tetramethylbenzene	1.625	1.787	-10.0	107	0.00
106 TP	1,2-Dibromo-3-chloropropane *	10.000	7.976	20.2#	81	0.00
107 TP	1,3,5-Trichlorobenzene	0.523	0.577	-10.3	107	0.00
108 TP	Hexachlorobutadiene *	10.000	11.927	-19.3	127	0.00
109 TP	1,2,4-Trichlorobenzene	0.449	0.440	2.0	94	0.00
110 TP	Naphthalene	0.986	0.812	17.6	80	0.00
111 TP	1,2,3-Trichlorobenzene	0.348	0.317	8.9	89	0.00

* Evaluation of CC level amount vs concentration.

(#) = Out of Range SPCC's out = 8 CCC's out = 0

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\VOA101\2019\191114A\
 Data File : V01191114A02.D
 Acq On : 14 Nov 2019 7:24 am
 Operator : VOA101:PD
 Sample : WG1308760-2
 Misc : WG1308760,ICAL16277
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 14 07:46:53 2019
 Quant Method : I:\VOLATILES\VOA101\2019\191114A\V101_191107A_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Fri Nov 08 10:22:02 2019
 Response via : Initial Calibration

Sub List : 8260-Curve-IM-2CEVE - Megamix plus Diox-Iodomethane

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

Internal Standards						
1) Fluorobenzene	6.650	96	199922	10.000	ug/L	0.00
59) Chlorobenzene-d5	10.535	117	138066	10.000	ug/L	0.00
79) 1,4-Dichlorobenzene-d4	13.335	152	65641	10.000	ug/L	0.00
System Monitoring Compounds						
36) Dibromofluoromethane	5.750	113	49070	9.695	ug/L	0.00
Spiked Amount	10.000		Recovery	=	96.95%	
43) 1,2-Dichloroethane-d4	6.334	65	60561	10.839	ug/L	0.00
Spiked Amount	10.000		Recovery	=	108.39%	
60) Toluene-d8	8.511	98	199415	10.739	ug/L	0.00
Spiked Amount	10.000		Recovery	=	107.39%	
83) 4-Bromofluorobenzene	12.041	95	70854	10.435	ug/L	0.00
Spiked Amount	10.000		Recovery	=	104.35%	
Target Compounds						
						Qvalue
2) Dichlorodifluoromethane	1.822	85	26000	9.157	ug/L	96
3) Chloromethane	2.034	50	49083	10.811	ug/L	97
4) Vinyl chloride	2.127	62	45411	9.935	ug/L	99
5) Bromomethane	2.471	94	18697	26.856	ug/L	99
6) Chloroethane	2.607	64	30082	9.957	ug/L	97
7) Trichlorofluoromethane	2.760	101	64685	9.697	ug/L	98
8) Ethyl ether	3.082	74	15237	7.611	ug/L #	63
10) 1,1-Dichloroethene	3.300	96	38225	9.170	ug/L #	71
11) Carbon disulfide	3.333	76	98860	8.674	ug/L	99
12) Freon-113	3.344	101	40578	9.611	ug/L	98
14) Acrolein	3.639	56	3866	7.852	ug/L	97
15) Methylene chloride	3.900	84	39530	8.427	ug/L #	67
17) Acetone	3.933	43	6928	6.819	ug/L #	82
18) trans-1,2-Dichloroethene	4.070	96	39954	9.105	ug/L	82
19) Methyl acetate	4.070	43	19233	7.520	ug/L #	89
20) Methyl tert-butyl ether	4.168	73	72857	7.628	ug/L #	82
21) tert-Butyl alcohol	4.244	59	8005	31.149	ug/L #	87
22) Diisopropyl ether	4.561	45	175426	9.076	ug/L	95
23) 1,1-Dichloroethane	4.703	63	96085	9.475	ug/L	97
24) Halothane	4.752	117	32323	9.244	ug/L	99
25) Acrylonitrile	4.752	53	8044	7.653	ug/L #	89
26) Ethyl tert-butyl ether	4.937	59	128716	8.623	ug/L	93
27) Vinyl acetate	4.954	43	83780	8.391	ug/L #	92
28) cis-1,2-Dichloroethene	5.270	96	48791	9.060	ug/L #	83
29) 2,2-Dichloropropane	5.385	77	72326	10.037	ug/L #	74

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\VOA101\2019\191114A\
 Data File : V01191114A02.D
 Acq On : 14 Nov 2019 7:24 am
 Operator : VOA101:PD
 Sample : WG1308760-2
 Misc : WG1308760,ICAL16277
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 14 07:46:53 2019
 Quant Method : I:\VOLATILES\VOA101\2019\191114A\V101_191107A_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Fri Nov 08 10:22:02 2019
 Response via : Initial Calibration

Sub List : 8260-Curve-IM-2CEVE - Megamix plus Diox-Iodomethane

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
30)	Bromochloromethane	5.483	128	17155	9.009	ug/L	#	66
31)	Cyclohexane	5.494	56	101199	10.057	ug/L		84
32)	Chloroform	5.554	83	83827	9.443	ug/L		92
33)	Ethyl acetate	5.668	43	25122M1	7.717	ug/L		
34)	Carbon tetrachloride	5.712	117	61891	10.123	ug/L		97
35)	Tetrahydrofuran	5.728	42	6977	7.541	ug/L	#	84
37)	1,1,1-Trichloroethane	5.788	97	76158	9.892	ug/L		93
39)	2-Butanone	5.881	43	10297	7.054	ug/L	#	83
40)	1,1-Dichloropropene	5.919	75	63322	9.137	ug/L		99
41)	Benzene	6.192	78	170770	8.782	ug/L	#	89
42)	tert-Amyl methyl ether	6.301	73	82231	7.671	ug/L	#	89
44)	1,2-Dichloroethane	6.410	62	55479	9.324	ug/L		98
47)	Methyl cyclohexane	6.841	83	73231	9.129	ug/L	#	69
48)	Trichloroethene	6.841	95	47039	9.469	ug/L		95
50)	Dibromomethane	7.332	93	18046	7.796	ug/L		92
51)	1,2-Dichloropropane	7.442	63	47437	8.893	ug/L		98
54)	Bromodichloromethane	7.513	83	52333	8.914	ug/L		97
57)	1,4-Dioxane	7.742	88	6351	308.076	ug/L	#	85
58)	cis-1,3-Dichloropropene	8.276	75	60972	8.344	ug/L	#	76
61)	Toluene	8.571	92	106717	10.020	ug/L		99
62)	4-Methyl-2-pentanone	9.040	58	7616	7.747	ug/L	#	86
63)	Tetrachloroethene	9.068	166	41718	10.411	ug/L		91
65)	trans-1,3-Dichloropropene	9.095	75	47268	9.318	ug/L	#	71
67)	Ethyl methacrylate	9.291	69	28588	7.977	ug/L		96
68)	1,1,2-Trichloroethane	9.308	83	21824	8.894	ug/L		100
69)	Chlorodibromomethane	9.548	129	27168	9.257	ug/L		98
70)	1,3-Dichloropropane	9.668	76	45050	8.824	ug/L		100
71)	1,2-Dibromoethane	9.864	107	23143	8.768	ug/L		100
72)	2-Hexanone	10.143	43	13871	8.059	ug/L		94
73)	Chlorobenzene	10.557	112	109743	10.036	ug/L		96
74)	Ethylbenzene	10.590	91	208152	10.229	ug/L		100
75)	1,1,1,2-Tetrachloroethane	10.639	131	35385	10.091	ug/L		99
76)	p/m Xylene	10.775	106	156671	20.386	ug/L		99
77)	o Xylene	11.316	106	146008	20.434	ug/L		99
78)	Styrene	11.376	104	230361	19.640	ug/L		97
80)	Bromoform	11.414	173	11934	9.003	ug/L		99
82)	Isopropylbenzene	11.698	105	198609	11.553	ug/L		100
84)	Bromobenzene	12.167	156	37657	10.643	ug/L		99
85)	n-Propylbenzene	12.194	91	231368	11.598	ug/L		99
86)	1,4-Dichlorobutane	12.221	55	47250	10.022	ug/L		98
87)	1,1,2,2-Tetrachloroethane	12.276	83	24464	9.176	ug/L		97

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\VOA101\2019\191114A\
 Data File : V01191114A02.D
 Acq On : 14 Nov 2019 7:24 am
 Operator : VOA101:PD
 Sample : WG1308760-2
 Misc : WG1308760,ICAL16277
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 14 07:46:53 2019
 Quant Method : I:\VOLATILES\VOA101\2019\191114A\V101_191107A_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Fri Nov 08 10:22:02 2019
 Response via : Initial Calibration

Sub List : 8260-Curve-IM-2CEVE - Megamix plus Diox-Iodomethane

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
88)	4-Ethyltoluene	12.325	105	179718	11.433	ug/L	100
89)	2-Chlorotoluene	12.380	91	145191	11.289	ug/L	93
90)	1,3,5-Trimethylbenzene	12.423	105	152853	11.359	ug/L	99
91)	1,2,3-Trichloropropane	12.440	75	22298M1	9.436	ug/L	
92)	trans-1,4-Dichloro-2-b...	12.483	53	7406	9.032	ug/L #	13
93)	4-Chlorotoluene	12.576	91	137936	11.379	ug/L	95
94)	tert-Butylbenzene	12.794	119	129387	11.435	ug/L	98
97)	1,2,4-Trimethylbenzene	12.876	105	150459	11.231	ug/L	99
98)	sec-Butylbenzene	12.996	105	168078	11.282	ug/L	98
99)	p-Isopropyltoluene	13.160	119	150951	11.368	ug/L	99
100)	1,3-Dichlorobenzene	13.253	146	76516	10.895	ug/L	98
101)	1,4-Dichlorobenzene	13.351	146	76213	10.717	ug/L	98
102)	p-Diethylbenzene	13.564	119	83435	11.473	ug/L	99
103)	n-Butylbenzene	13.629	91	129192	11.443	ug/L	98
104)	1,2-Dichlorobenzene	13.820	146	64805	10.310	ug/L	99
105)	1,2,4,5-Tetramethylben...	14.437	119	117304	10.999	ug/L	98
106)	1,2-Dibromo-3-chloropr...	14.677	155	2346	7.976	ug/L	96
107)	1,3,5-Trichlorobenzene	14.710	180	37881	11.044	ug/L	95
108)	Hexachlorobutadiene	15.348	225	11414	11.927	ug/L	100
109)	1,2,4-Trichlorobenzene	15.397	180	28912	9.800	ug/L	97
110)	Naphthalene	15.757	128	53282	8.235	ug/L	100
111)	1,2,3-Trichlorobenzene	15.975	180	20819	9.105	ug/L	97

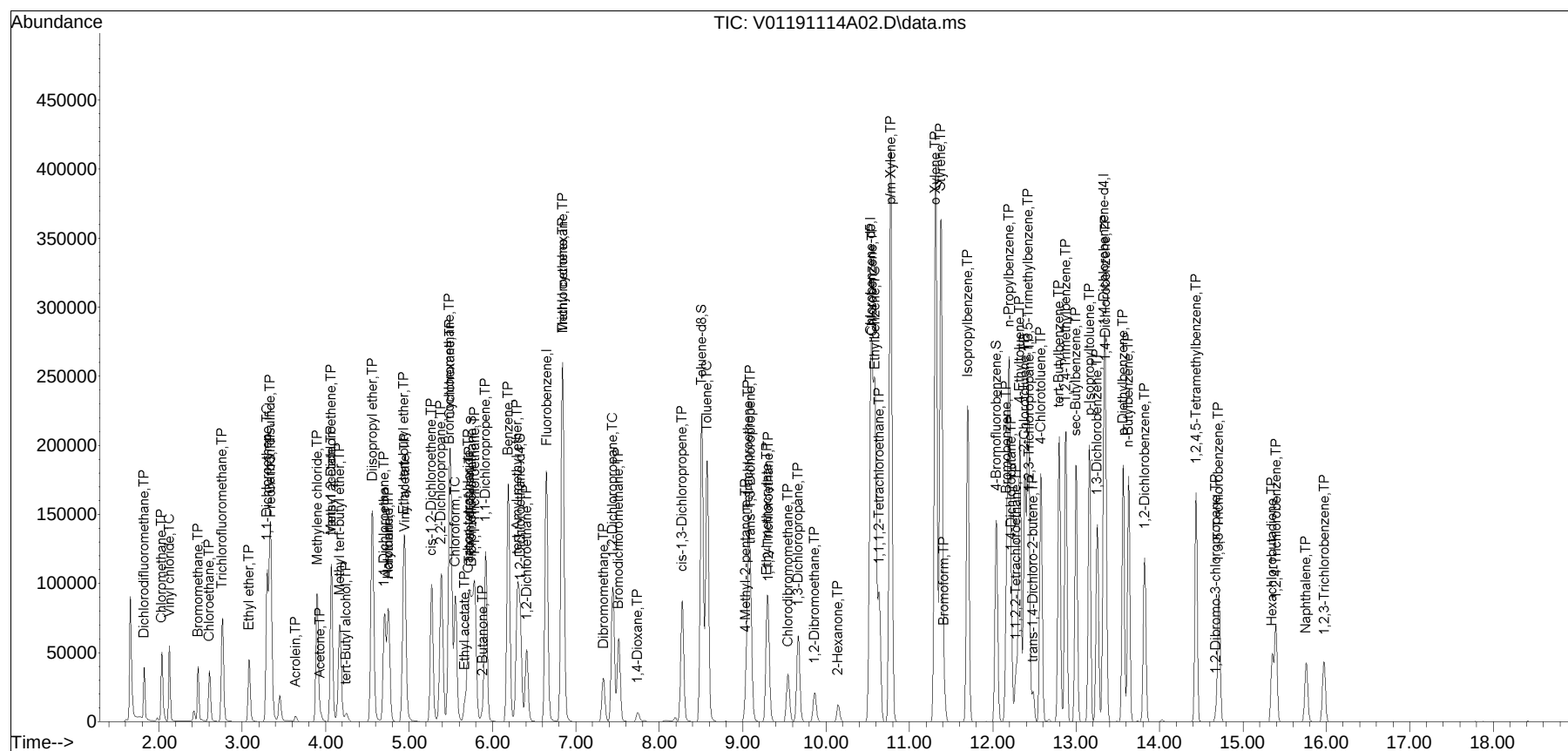
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\VOA101\2019\191114A\
Data File : V01191114A02.D
Acq On : 14 Nov 2019 7:24 am
Operator : VOA101:PD
Sample : WG1308760-2
Misc : WG1308760,ICAL16277
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 14 07:46:53 2019
Quant Method : I:\VOLATILES\VOA101\2019\191114A\V101_191107A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Fri Nov 08 10:22:02 2019
Response via : Initial Calibration

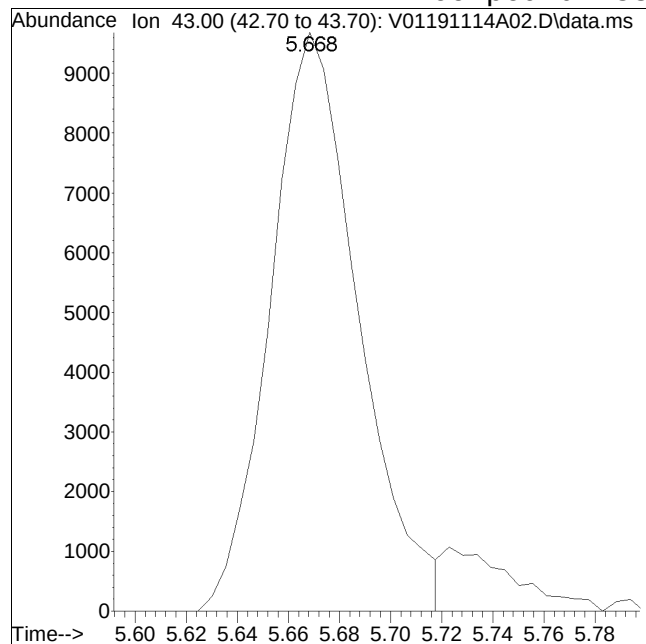
Sub List : 8260-Curve-IM-2CEVE - Megamix plus Diox-Iodomethane



Manual Integration Report

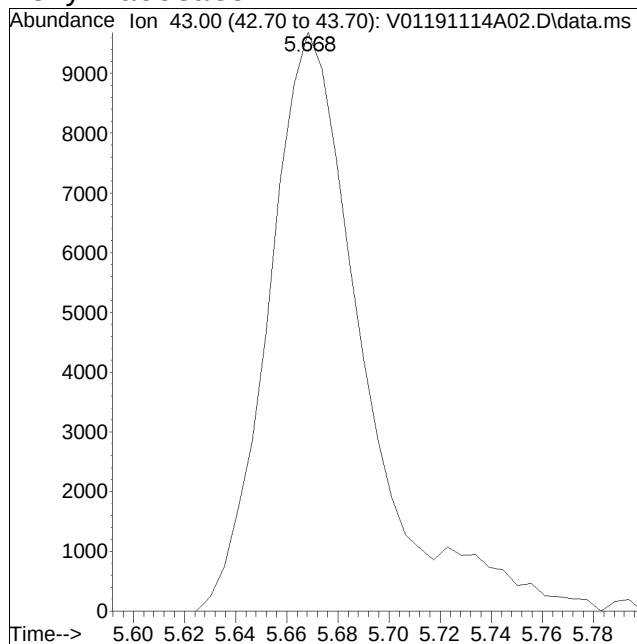
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Data File : V01191114A02.D Operator : VOA101:PD
Date Inj'd : 11/14/2019 7:24 am Instrument : VOA 101
Sample : WG1308760-2 Quant Date : 11/14/2019 7:45 am

Compound #33: Ethyl acetate



Original Peak Response = 23107

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

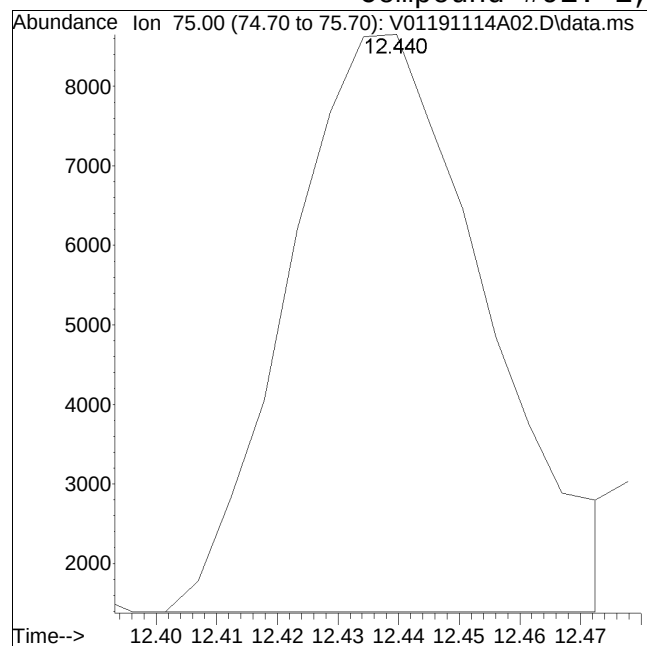


Manual Peak Response = 25122 M1

Manual Integration Report

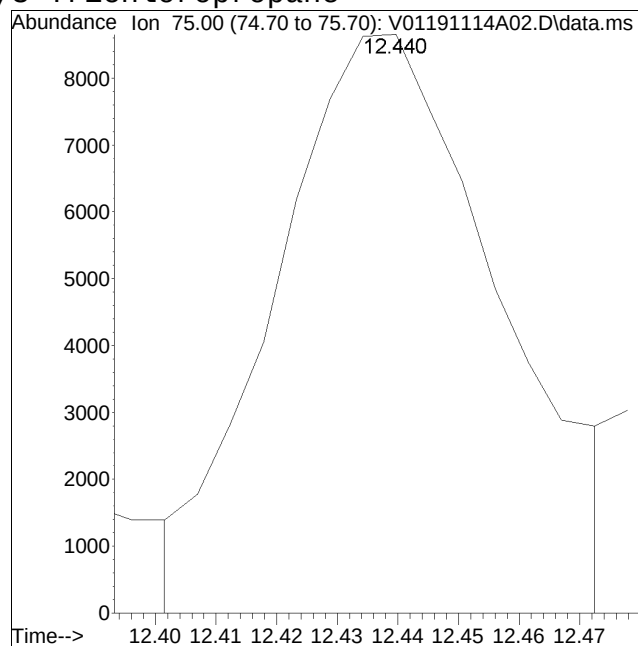
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Data File : V01191114A02.D Operator : VOA101:PD
Date Inj'd : 11/14/2019 7:24 am Instrument : VOA 101
Sample : WG1308760-2 Quant Date : 11/14/2019 7:45 am

Compound #91: 1,2,3-Trichloropropane



Original Peak Response = 16382

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.



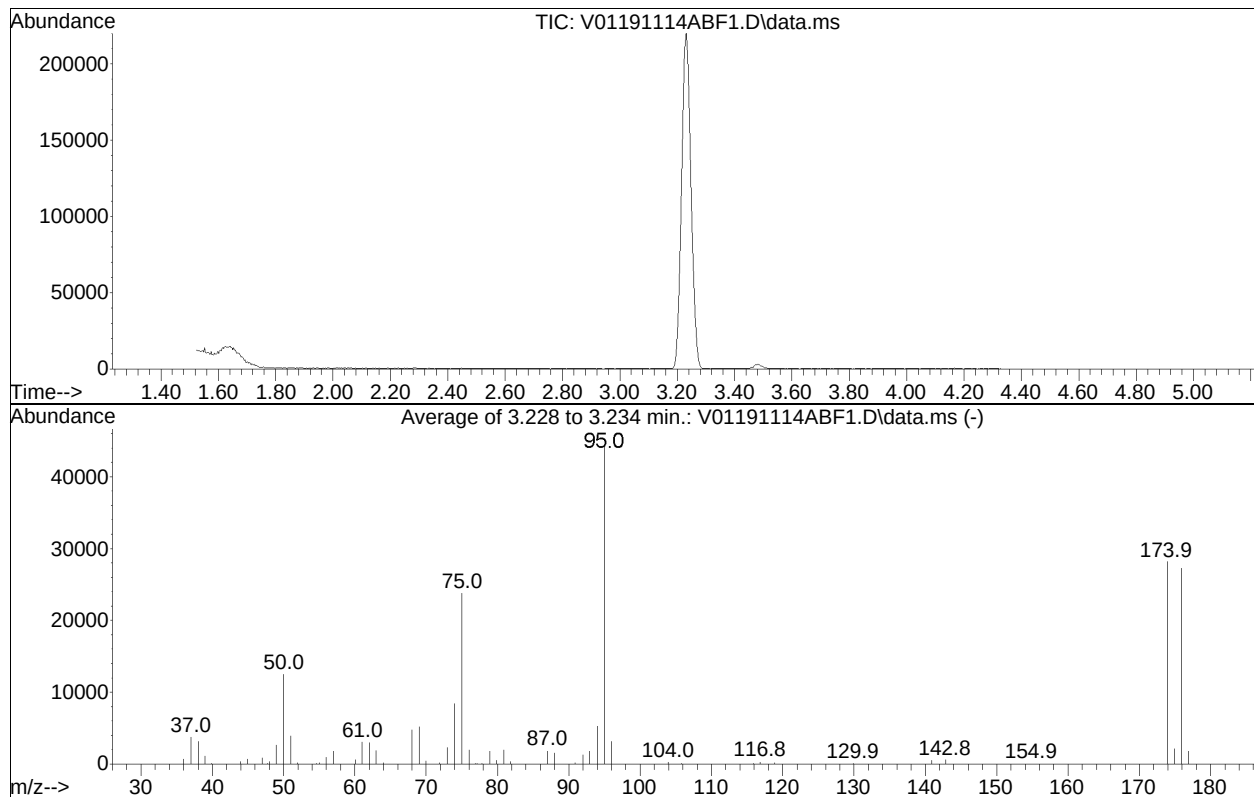
Manual Peak Response = 22298 M1

BFB

Data Path : I:\VOLATILES\VOA101\2019\191114A\
Data File : V01191114ABF1.D
Acq On : 14 Nov 2019 6:46 am
Operator : VOA101:PD
Sample : WG1308760-1
Misc : WG1308760
ALS Vial : 1 Sample Multiplier: 1

Integration File: rteint.p

Method : I:\VOLATILES\VOA101\2019\191114A\V101_191107A_8260.m
Title : VOLATILES BY GC/MS
Last Update : Fri Nov 08 10:22:02 2019



AutoFind: Scans 590, 591, 592; Background Corrected with Scan 572

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	28.1	12509	PASS
75	95	30	60	53.5	23771	PASS
95	95	100	100	100.0	44467	PASS
96	95	5	9	7.1	3162	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	63.4	28176	PASS
175	174	5	9	7.6	2142	PASS
176	174	95	101	96.7	27245	PASS
177	176	5	9	6.5	1760	PASS

Volatiles Raw QC Data

Quantitation Report (QT/LSC Reviewed)

Data Path : I:\VOLATILES\VOA101\2019\191114A\
 Data File : V01191114A05.D
 Acq On : 14 Nov 2019 8:34 am
 Operator : VOA101:PD
 Sample : WG1308760-5,31,10,10
 Misc : WG1308760,ICAL16277
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: Nov 14 08:56:15 2019
 Quant Method : I:\VOLATILES\VOA101\2019\191114A\V101_191107A_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Fri Nov 08 10:22:02 2019
 Response via : Initial Calibration

CCAL FILE(s) : 1 - I:\VOLATILES\VOA101\2019\191114A\V01191114A02.D
 Sub List : 8260-Curve-IM-2CEVE - Megamix plus Diox-Iodomethane

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

Internal Standards						
1) Fluorobenzene	6.645	96	193615	10.000	ug/L	0.00
Standard Area 1 = 199922			Recovery =	96.85%		
59) Chlorobenzene-d5	10.535	117	134703	10.000	ug/L	0.00
Standard Area 1 = 138066			Recovery =	97.56%		
79) 1,4-Dichlorobenzene-d4	13.334	152	63863	10.000	ug/L	0.00
Standard Area 1 = 65641			Recovery =	97.29%		
System Monitoring Compounds						
36) Dibromofluoromethane	5.750	113	47727	9.737	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	97.37%		
43) 1,2-Dichloroethane-d4	6.334	65	56136	10.374	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	103.74%		
60) Toluene-d8	8.511	98	195379	10.784	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	107.84%		
83) 4-Bromofluorobenzene	12.041	95	68630	10.389	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	103.89%		
Target Compounds						Qvalue
2) Dichlorodifluoromethane	0.000		0	N.D.		
3) Chloromethane	2.034	50	203	N.D.		
4) Vinyl chloride	0.000		0	N.D.		
5) Bromomethane	2.476	94	124	N.D.		
6) Chloroethane	0.000		0	N.D.		
7) Trichlorofluoromethane	0.000		0	N.D.		
8) Ethyl ether	0.000		0	N.D.		
10) 1,1-Dichloroethene	0.000		0	N.D.		
11) Carbon disulfide	3.338	76	674	N.D.		
15) Methylene chloride	0.000		0	N.D.		
17) Acetone	0.000		0	N.D.	d	
18) trans-1,2-Dichloroethene	0.000		0	N.D.		
20) Methyl tert-butyl ether	0.000		0	N.D.		
23) 1,1-Dichloroethane	0.000		0	N.D.		
25) Acrylonitrile	0.000		0	N.D.		
27) Vinyl acetate	0.000		0	N.D.		
28) cis-1,2-Dichloroethene	0.000		0	N.D.		
29) 2,2-Dichloropropane	0.000		0	N.D.		
30) Bromochloromethane	0.000		0	N.D.		
32) Chloroform	5.559	83	375	N.D.		

Quantitation Report (QT/LSC Reviewed)

Data Path : I:\VOLATILES\VOA101\2019\191114A\
 Data File : V01191114A05.D
 Acq On : 14 Nov 2019 8:34 am
 Operator : VOA101:PD
 Sample : WG1308760-5,31,10,10
 Misc : WG1308760,ICAL16277
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: Nov 14 08:56:15 2019
 Quant Method : I:\VOLATILES\VOA101\2019\191114A\V101_191107A_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Fri Nov 08 10:22:02 2019
 Response via : Initial Calibration

CCAL FILE(s) : 1 - I:\VOLATILES\VOA101\2019\191114A\V01191114A02.D
 Sub List : 8260-Curve-IM-2CEVE - Megamix plus Diox-Iodomethane

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
34) Carbon tetrachloride	0.000		0		N.D.	
37) 1,1,1-Trichloroethane	0.000		0		N.D.	
39) 2-Butanone	0.000		0		N.D.	
40) 1,1-Dichloropropene	0.000		0		N.D.	
41) Benzene	0.000		0		N.D.	
44) 1,2-Dichloroethane	0.000		0		N.D.	
48) Trichloroethene	0.000		0		N.D.	
50) Dibromomethane	0.000		0		N.D.	
51) 1,2-Dichloropropane	0.000		0		N.D.	
54) Bromodichloromethane	0.000		0		N.D.	
57) 1,4-Dioxane	0.000		0		N.D.	
58) cis-1,3-Dichloropropene	0.000		0		N.D.	
61) Toluene	0.000		0		N.D.	
62) 4-Methyl-2-pentanone	0.000		0		N.D.	
63) Tetrachloroethene	0.000		0		N.D.	
65) trans-1,3-Dichloropropene	0.000		0		N.D.	
68) 1,1,2-Trichloroethane	0.000		0		N.D.	
69) Chlorodibromomethane	0.000		0		N.D.	
70) 1,3-Dichloropropane	0.000		0		N.D.	
71) 1,2-Dibromoethane	0.000		0		N.D.	
72) 2-Hexanone	0.000		0		N.D.	
73) Chlorobenzene	0.000		0		N.D.	
74) Ethylbenzene	0.000		0		N.D.	
75) 1,1,1,2-Tetrachloroethane	0.000		0		N.D.	
76) p/m Xylene	0.000		0		N.D.	
77) o Xylene	0.000		0		N.D.	
78) Styrene	11.392	104	163		N.D.	
80) Bromoform	0.000		0		N.D.	
82) Isopropylbenzene	0.000		0		N.D.	
84) Bromobenzene	0.000		0		N.D.	
85) n-Propylbenzene	12.194	91	312		N.D.	
87) 1,1,2,2-Tetrachloroethane	0.000		0		N.D.	
88) 4-Ethyltoluene	12.325	105	113		N.D.	
89) 2-Chlorotoluene	0.000		0		N.D.	
90) 1,3,5-Trimethylbenzene	12.423	105	105		N.D.	
91) 1,2,3-Trichloropropane	0.000		0		N.D.	
92) trans-1,4-Dichloro-2-b...	0.000		0		N.D.	
93) 4-Chlorotoluene	12.576	91	297		N.D.	
94) tert-Butylbenzene	0.000		0		N.D.	

Quantitation Report (QT/LSC Reviewed)

Data Path : I:\VOLATILES\VOA101\2019\191114A\
 Data File : V01191114A05.D
 Acq On : 14 Nov 2019 8:34 am
 Operator : VOA101:PD
 Sample : WG1308760-5,31,10,10
 Misc : WG1308760,ICAL16277
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: Nov 14 08:56:15 2019
 Quant Method : I:\VOLATILES\VOA101\2019\191114A\V101_191107A_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Fri Nov 08 10:22:02 2019
 Response via : Initial Calibration

CCAL FILE(s) : 1 - I:\VOLATILES\VOA101\2019\191114A\V01191114A02.D
 Sub List : 8260-Curve-IM-2CEVE - Megamix plus Diox-Iodomethane

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
97)	1,2,4-Trimethylbenzene	12.876	105	268	N.D.		
98)	sec-Butylbenzene	12.996	105	334	N.D.		
99)	p-Isopropyltoluene	13.160	119	490	N.D.		
100)	1,3-Dichlorobenzene	13.253	146	186	N.D.		
101)	1,4-Dichlorobenzene	13.351	146	361	N.D.		
102)	p-Diethylbenzene	13.569	119	379	N.D.		
103)	n-Butylbenzene	13.629	91	844	0.077	ug/L #	74
104)	1,2-Dichlorobenzene	13.820	146	111	N.D.		
105)	1,2,4,5-Tetramethylben...	14.437	119	910	0.088	ug/L #	67
106)	1,2-Dibromo-3-chloropr...	0.000		0	N.D.		
108)	Hexachlorobutadiene	0.000		0	N.D.	d	
109)	1,2,4-Trichlorobenzene	15.391	180	537	0.187	ug/L #	67
110)	Naphthalene	15.768	128	2048	0.325	ug/L	100
111)	1,2,3-Trichlorobenzene	15.970	180	639	0.287	ug/L #	77

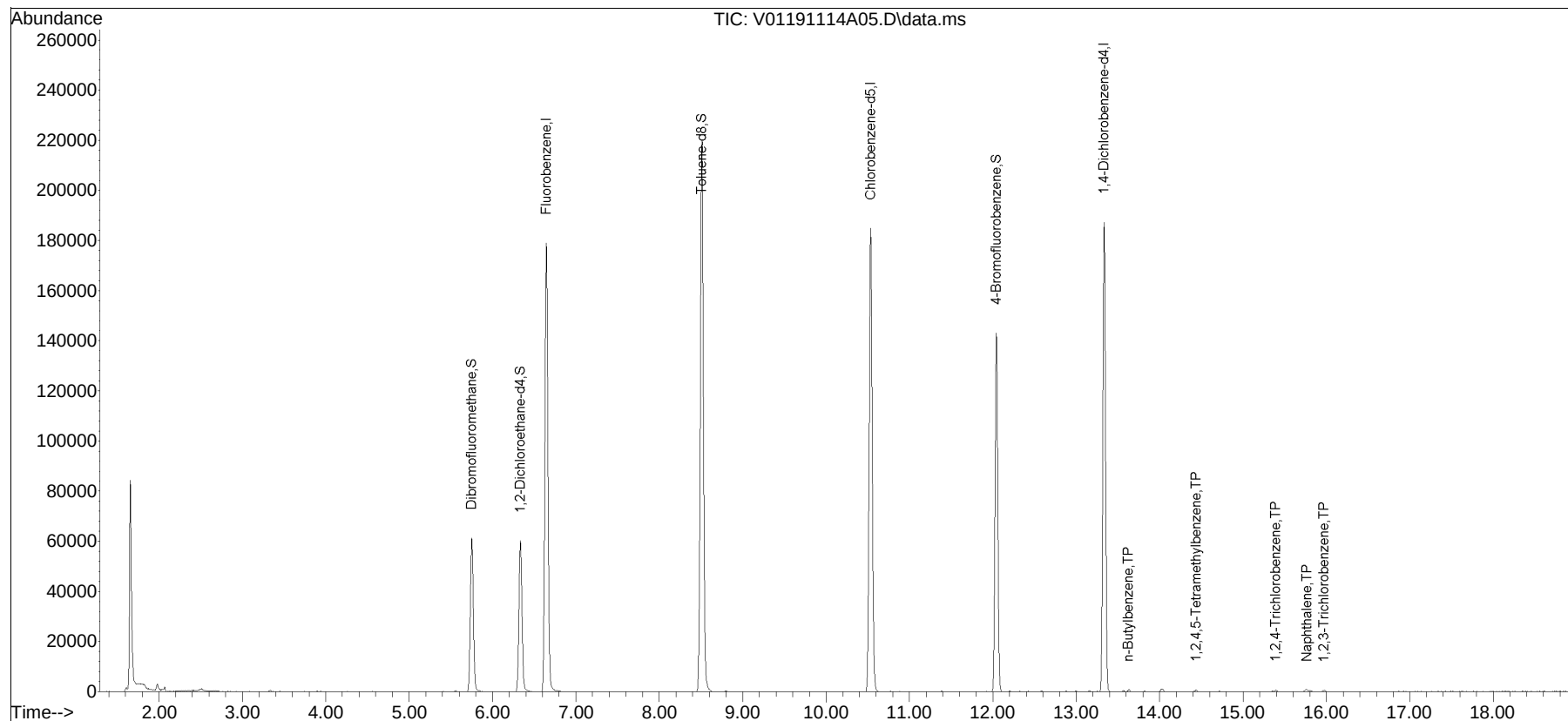
(#) = qualifier out of range (m) = manual integration (+) = signals summed

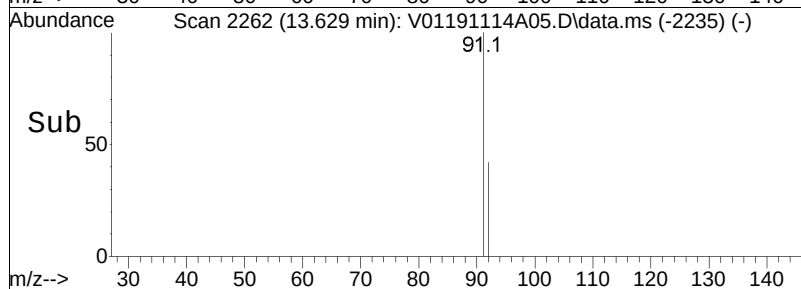
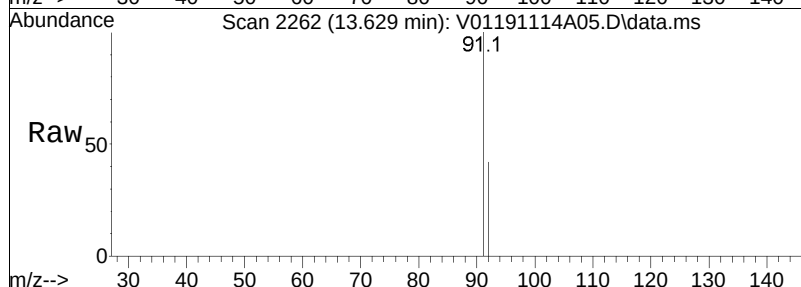
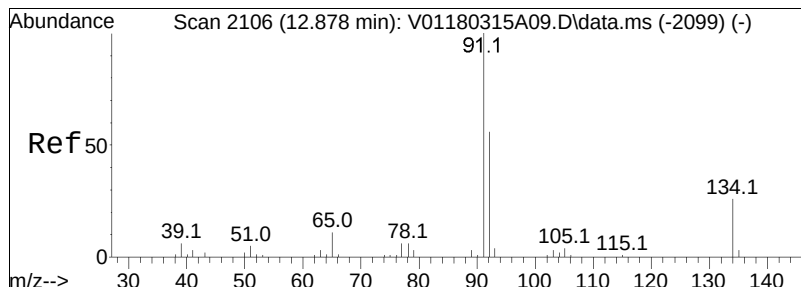
Quantitation Report (QT/LSC Reviewed)

Data Path : I:\VOLATILES\VOA101\2019\191114A\
 Data File : V01191114A05.D
 Acq On : 14 Nov 2019 8:34 am
 Operator : VOA101:PD
 Sample : WG1308760-5,31,10,10
 Misc : WG1308760,ICAL16277
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: Nov 14 08:56:15 2019
 Quant Method : I:\VOLATILES\VOA101\2019\191114A\V101_191107A_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Fri Nov 08 10:22:02 2019
 Response via : Initial Calibration

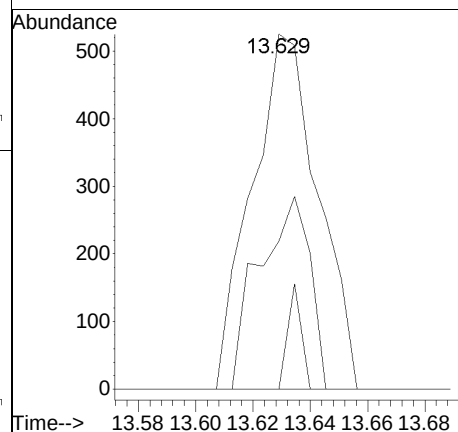
Sub List : 8260-Curve-IM-2CEVE - Megamix plus Diox-Iodomethane•

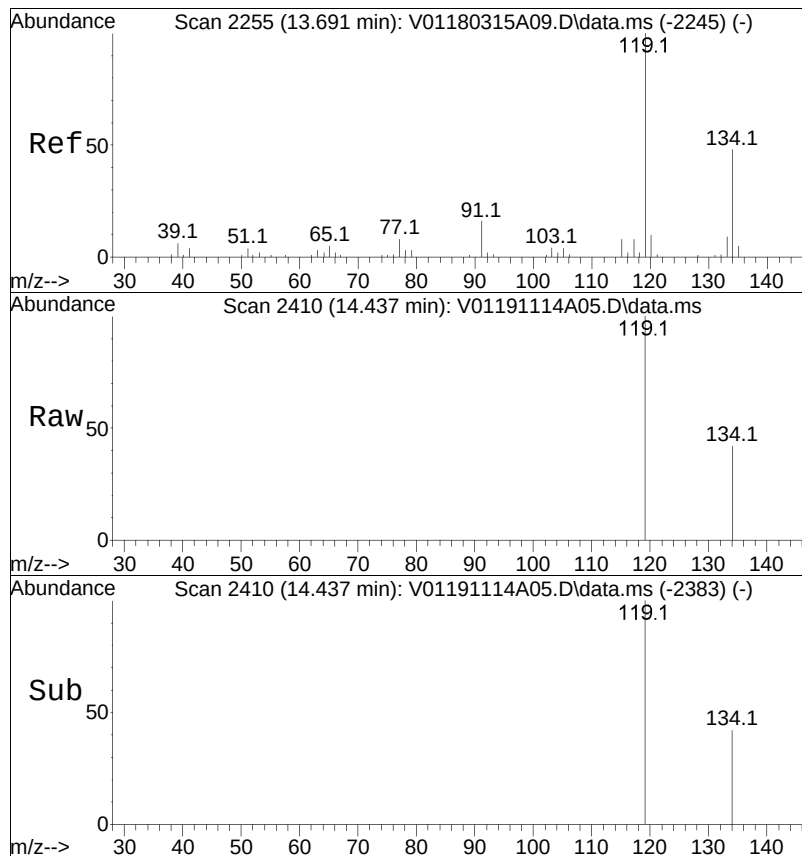




#103
 n-Butylbenzene
 Concen: 0.08 ug/L
 RT: 13.629 min Scan# 2262
 Delta R.T. -0.000 min
 Lab File: V01191114A05.D
 Acq: 14 Nov 2019 8:34 am

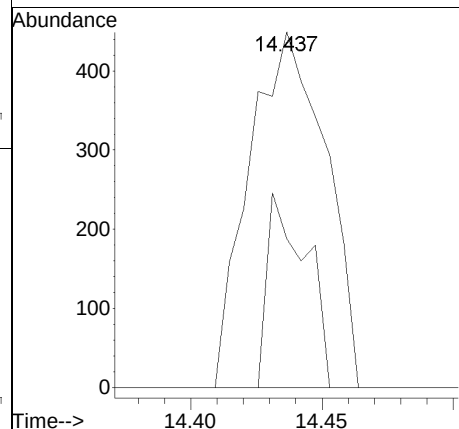
Tgt Ion	Ratio	Resp	Lower	Upper
91	100			
92	41.6		43.7	65.5#
134	6.0		22.1	33.1#

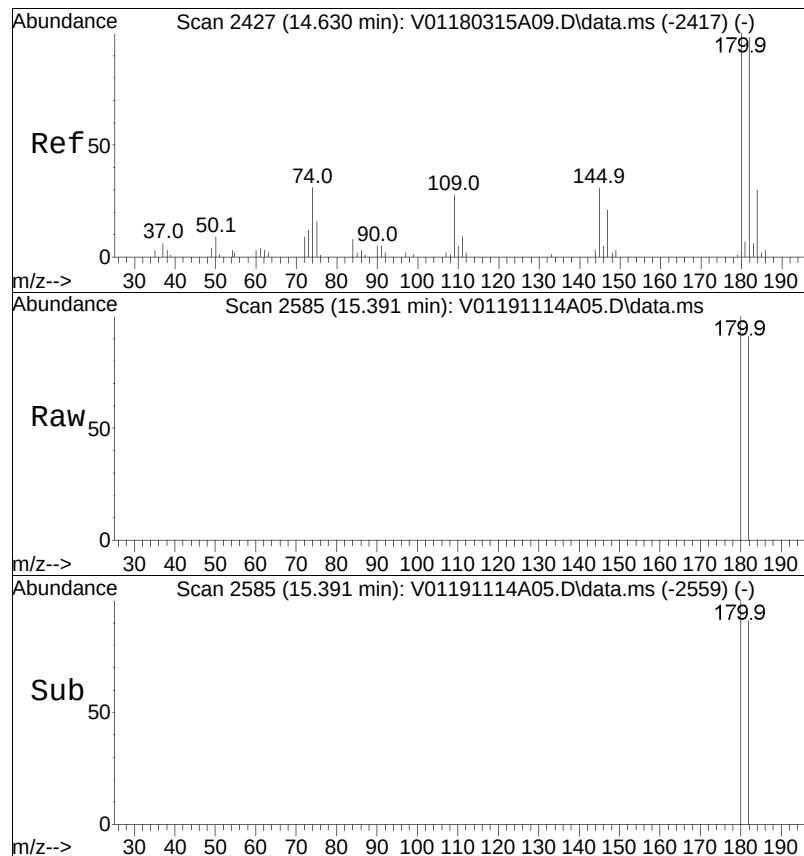




#105
 1,2,4,5-Tetramethylbenzene
 Concen: 0.09 ug/L
 RT: 14.437 min Scan# 2410
 Delta R.T. -0.000 min
 Lab File: V01191114A05.D
 Acq: 14 Nov 2019 8:34 am

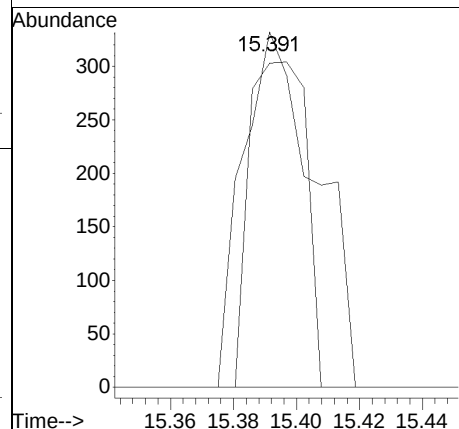
Tgt	Ion	Ratio	Lower	Upper
119	100			
134	27.8	31.9	66.1#	
91	0.0	10.3	21.5#	

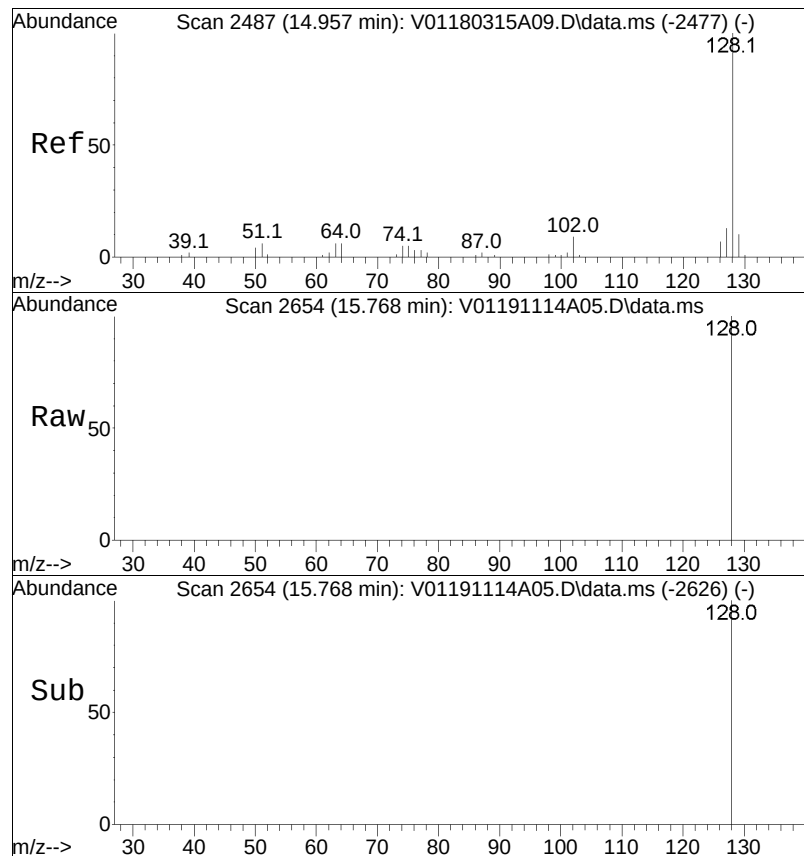




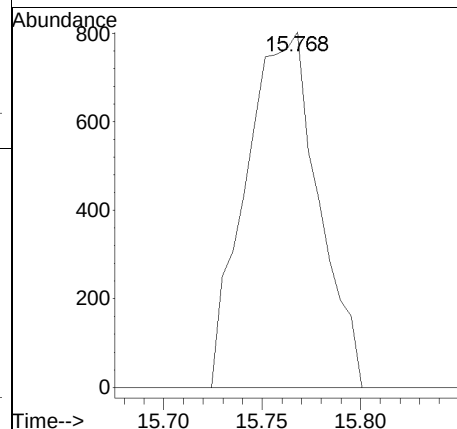
#109
 1,2,4-Trichlorobenzene
 Concen: 0.19 ug/L
 RT: 15.391 min Scan# 2585
 Delta R.T. -0.005 min
 Lab File: V01191114A05.D
 Acq: 14 Nov 2019 8:34 am

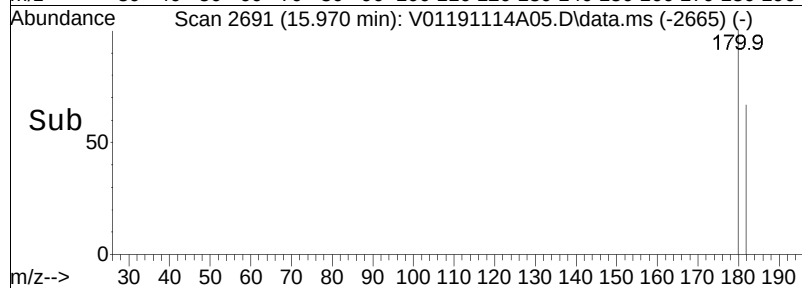
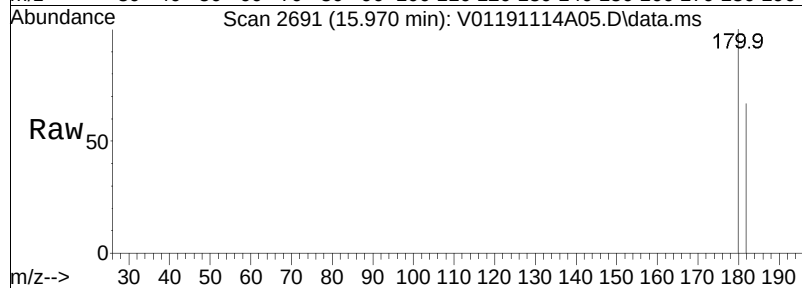
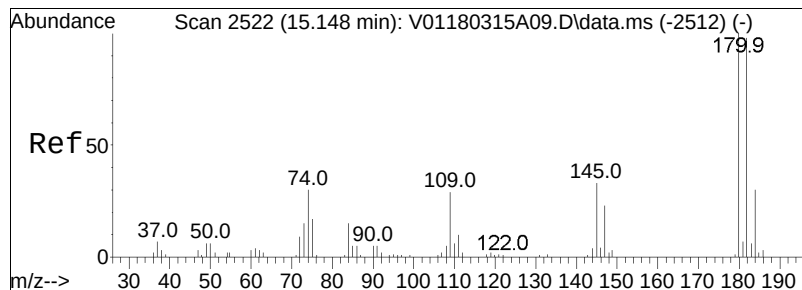
Tgt Ion	Ratio	Lower	Upper
180	100		
182	71.1	75.8	113.8#
145	0.0	26.1	39.1#





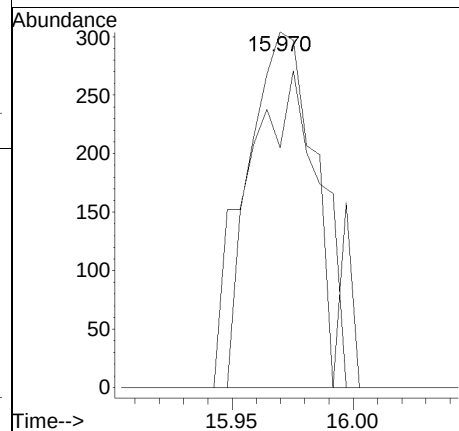
#110
 Naphthalene
 Concen: 0.33 ug/L
 RT: 15.768 min Scan# 2654
 Delta R.T. 0.005 min
 Lab File: V01191114A05.D
 Acq: 14 Nov 2019 8:34 am
 Tgt Ion:128 Resp: 2048





#111
 1,2,3-Trichlorobenzene
 Concen: 0.29 ug/L
 RT: 15.970 min Scan# 2691
 Delta R.T. -0.005 min
 Lab File: V01191114A05.D
 Acq: 14 Nov 2019 8:34 am

Tgt	Ion	Ratio	Resp	Lower	Upper
180	100		639		
182	82.8	75.4	113.0		
145	0.0	25.0	37.6#		



Manual Integration Report

Data Path	: I:\VOLATILES\VOA101\2019\10	Method	: V101_191107A_8260.m
Data File	: V01191114A05.D	Operator	: VOA101:PD
Date Inj'd	: 11/14/2019 8:34 am	Instrument	: VOA 101
Sample	: WG1308760-5,31,10,10	Quant Date	: 11/14/2019 8:55 am

There are no manual integrations or false positives in this file.

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\VOA101\2019\191114A\
 Data File : V01191114A02.D
 Acq On : 14 Nov 2019 7:24 am
 Operator : VOA101:PD
 Sample : WG1308760-3,31,10,10
 Misc : WG1308760,ICAL16277
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 14 07:46:53 2019
 Quant Method : I:\VOLATILES\VOA101\2019\191114A\V101_191107A_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Fri Nov 08 10:22:02 2019
 Response via : Initial Calibration

Sub List : 8260-Curve-IM-2CEVE - Megamix plus Diox-Iodomethane

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

Internal Standards						
1) Fluorobenzene	6.650	96	199922	10.000	ug/L	0.00
59) Chlorobenzene-d5	10.535	117	138066	10.000	ug/L	0.00
79) 1,4-Dichlorobenzene-d4	13.335	152	65641	10.000	ug/L	0.00
System Monitoring Compounds						
36) Dibromofluoromethane	5.750	113	49070	9.695	ug/L	0.00
Spiked Amount	10.000	Range 70 - 130	Recovery	=	96.95%	
43) 1,2-Dichloroethane-d4	6.334	65	60561	10.839	ug/L	0.00
Spiked Amount	10.000	Range 70 - 130	Recovery	=	108.39%	
60) Toluene-d8	8.511	98	199415	10.739	ug/L	0.00
Spiked Amount	10.000	Range 70 - 130	Recovery	=	107.39%	
83) 4-Bromofluorobenzene	12.041	95	70854	10.435	ug/L	0.00
Spiked Amount	10.000	Range 70 - 130	Recovery	=	104.35%	
Target Compounds						
						Qvalue
2) Dichlorodifluoromethane	1.822	85	26000	9.157	ug/L	96
3) Chloromethane	2.034	50	49083	10.811	ug/L	97
4) Vinyl chloride	2.127	62	45411	9.935	ug/L	99
5) Bromomethane	2.471	94	18697	26.856	ug/L	99
6) Chloroethane	2.607	64	30082	9.957	ug/L	97
7) Trichlorofluoromethane	2.760	101	64685	9.697	ug/L	98
8) Ethyl ether	3.082	74	15237	7.611	ug/L #	63
10) 1,1-Dichloroethene	3.300	96	38225	9.170	ug/L #	71
11) Carbon disulfide	3.333	76	98860	8.674	ug/L	99
15) Methylene chloride	3.900	84	39530	8.427	ug/L #	67
17) Acetone	3.933	43	6928	6.819	ug/L #	82
18) trans-1,2-Dichloroethene	4.070	96	39954	9.105	ug/L	82
20) Methyl tert-butyl ether	4.168	73	72857	7.628	ug/L #	82
23) 1,1-Dichloroethane	4.703	63	96085	9.475	ug/L	97
25) Acrylonitrile	4.752	53	8044	7.653	ug/L #	89
27) Vinyl acetate	4.954	43	83780	8.391	ug/L #	92
28) cis-1,2-Dichloroethene	5.270	96	48791	9.060	ug/L #	83
29) 2,2-Dichloropropane	5.385	77	72326	10.037	ug/L #	74
30) Bromochloromethane	5.483	128	17155	9.009	ug/L #	66
32) Chloroform	5.554	83	83827	9.443	ug/L	92
34) Carbon tetrachloride	5.712	117	61891	10.123	ug/L	97
37) 1,1,1-Trichloroethane	5.788	97	76158	9.892	ug/L	93
39) 2-Butanone	5.881	43	10297	7.054	ug/L #	83
40) 1,1-Dichloropropene	5.919	75	63322	9.137	ug/L	99

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\VOA101\2019\191114A\
 Data File : V01191114A02.D
 Acq On : 14 Nov 2019 7:24 am
 Operator : VOA101:PD
 Sample : WG1308760-3,31,10,10
 Misc : WG1308760,ICAL16277
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 14 07:46:53 2019
 Quant Method : I:\VOLATILES\VOA101\2019\191114A\V101_191107A_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Fri Nov 08 10:22:02 2019
 Response via : Initial Calibration

Sub List : 8260-Curve-IM-2CEVE - Megamix plus Diox-Iodomethane

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
41) Benzene	6.192	78	170770	8.782	ug/L	# 89
44) 1,2-Dichloroethane	6.410	62	55479	9.324	ug/L	98
48) Trichloroethene	6.841	95	47039	9.469	ug/L	95
50) Dibromomethane	7.332	93	18046	7.796	ug/L	92
51) 1,2-Dichloropropane	7.442	63	47437	8.893	ug/L	98
54) Bromodichloromethane	7.513	83	52333	8.914	ug/L	97
57) 1,4-Dioxane	7.742	88	6351	308.076	ug/L	# 85
58) cis-1,3-Dichloropropene	8.276	75	60972	8.344	ug/L	# 76
61) Toluene	8.571	92	106717	10.020	ug/L	99
62) 4-Methyl-2-pentanone	9.040	58	7616	7.747	ug/L	# 86
63) Tetrachloroethene	9.068	166	41718	10.411	ug/L	91
65) trans-1,3-Dichloropropene	9.095	75	47268	9.318	ug/L	# 71
68) 1,1,2-Trichloroethane	9.308	83	21824	8.894	ug/L	100
69) Chlorodibromomethane	9.548	129	27168	9.257	ug/L	98
70) 1,3-Dichloropropane	9.668	76	45050	8.824	ug/L	100
71) 1,2-Dibromoethane	9.864	107	23143	8.768	ug/L	100
72) 2-Hexanone	10.143	43	13871	8.059	ug/L	94
73) Chlorobenzene	10.557	112	109743	10.036	ug/L	96
74) Ethylbenzene	10.590	91	208152	10.229	ug/L	100
75) 1,1,1,2-Tetrachloroethane	10.639	131	35385	10.091	ug/L	99
76) p/m Xylene	10.775	106	156671	20.386	ug/L	99
77) o Xylene	11.316	106	146008	20.434	ug/L	99
78) Styrene	11.376	104	230361	19.640	ug/L	97
80) Bromoform	11.414	173	11934	9.003	ug/L	99
82) Isopropylbenzene	11.698	105	198609	11.553	ug/L	100
84) Bromobenzene	12.167	156	37657	10.643	ug/L	99
85) n-Propylbenzene	12.194	91	231368	11.598	ug/L	99
87) 1,1,2,2-Tetrachloroethane	12.276	83	24464	9.176	ug/L	97
88) 4-Ethyltoluene	12.325	105	179718	11.433	ug/L	100
89) 2-Chlorotoluene	12.380	91	145191	11.289	ug/L	93
90) 1,3,5-Trimethylbenzene	12.423	105	152853	11.359	ug/L	99
91) 1,2,3-Trichloropropane	12.440	75	22298M1	9.436	ug/L	
92) trans-1,4-Dichloro-2-b...	12.483	53	7406	9.032	ug/L	# 13
93) 4-Chlorotoluene	12.576	91	137936	11.379	ug/L	95
94) tert-Butylbenzene	12.794	119	129387	11.435	ug/L	98
97) 1,2,4-Trimethylbenzene	12.876	105	150459	11.231	ug/L	99
98) sec-Butylbenzene	12.996	105	168078	11.282	ug/L	98
99) p-Isopropyltoluene	13.160	119	150951	11.368	ug/L	99
100) 1,3-Dichlorobenzene	13.253	146	76516	10.895	ug/L	98
101) 1,4-Dichlorobenzene	13.351	146	76213	10.717	ug/L	98

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\VOA101\2019\191114A\
 Data File : V01191114A02.D
 Acq On : 14 Nov 2019 7:24 am
 Operator : VOA101:PD
 Sample : WG1308760-3,31,10,10
 Misc : WG1308760,ICAL16277
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 14 07:46:53 2019
 Quant Method : I:\VOLATILES\VOA101\2019\191114A\V101_191107A_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Fri Nov 08 10:22:02 2019
 Response via : Initial Calibration

Sub List : 8260-Curve-IM-2CEVE - Megamix plus Diox-Iodomethane

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
102)	p-Diethylbenzene	13.564	119	83435	11.473	ug/L	99
103)	n-Butylbenzene	13.629	91	129192	11.443	ug/L	98
104)	1,2-Dichlorobenzene	13.820	146	64805	10.310	ug/L	99
105)	1,2,4,5-Tetramethylben...	14.437	119	117304	10.999	ug/L	98
106)	1,2-Dibromo-3-chloropr...	14.677	155	2346	7.976	ug/L	96
108)	Hexachlorobutadiene	15.348	225	11414	11.927	ug/L	100
109)	1,2,4-Trichlorobenzene	15.397	180	28912	9.800	ug/L	97
110)	Naphthalene	15.757	128	53282	8.235	ug/L	100
111)	1,2,3-Trichlorobenzene	15.975	180	20819	9.105	ug/L	97

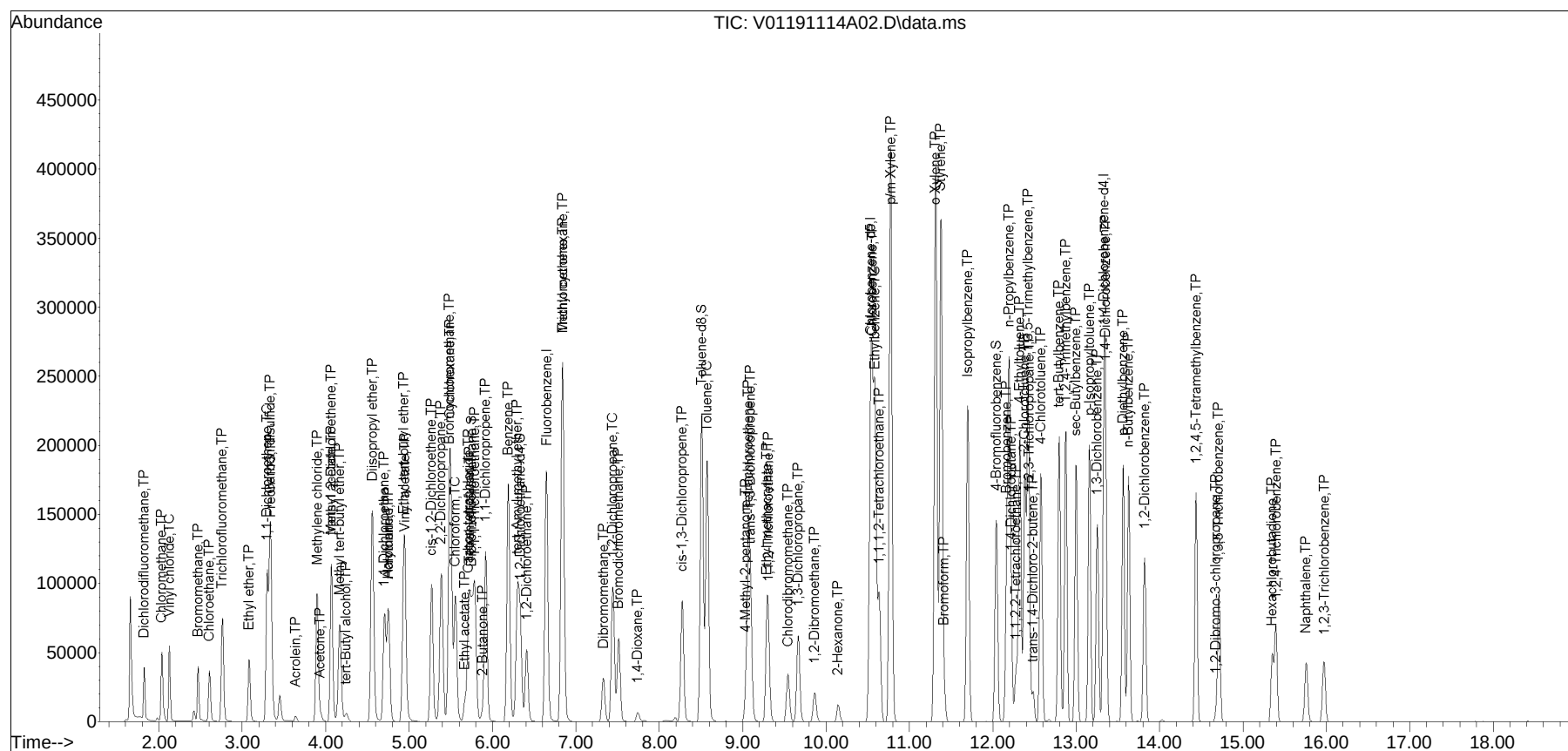
(#) = qualifier out of range (m) = manual integration (+) = signals summed

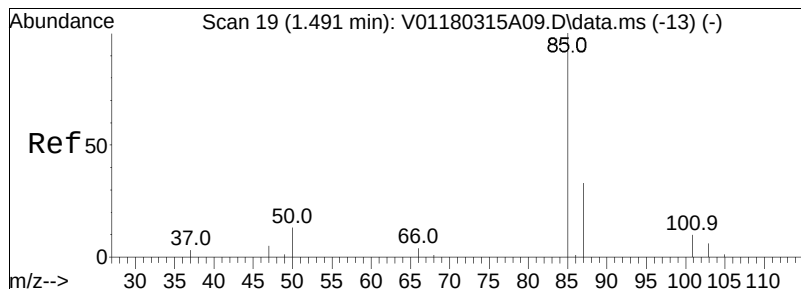
Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\VOA101\2019\191114A\
Data File : V01191114A02.D
Acq On : 14 Nov 2019 7:24 am
Operator : VOA101:PD
Sample : WG1308760-3, 31, 10, 10
Misc : WG1308760, ICAL16277
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 14 07:46:53 2019
Quant Method : I:\VOLATILES\VOA101\2019\191114A\V101_191107A_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Fri Nov 08 10:22:02 2019
Response via : Initial Calibration

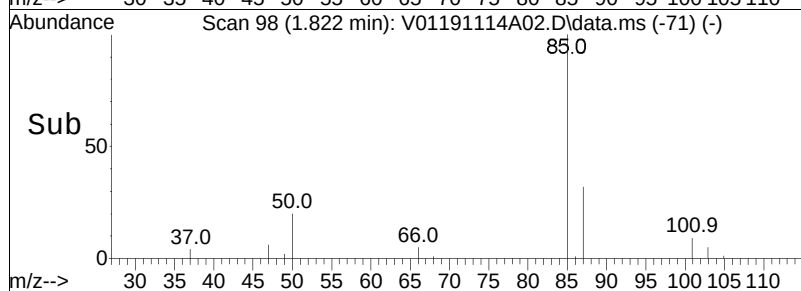
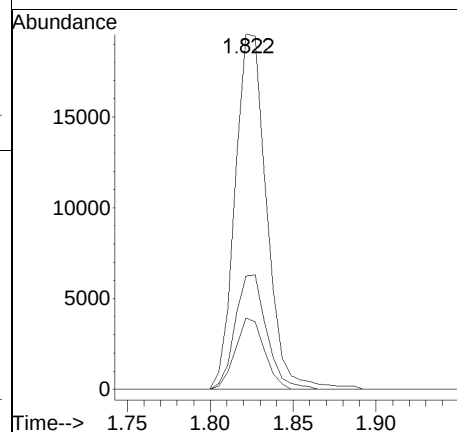
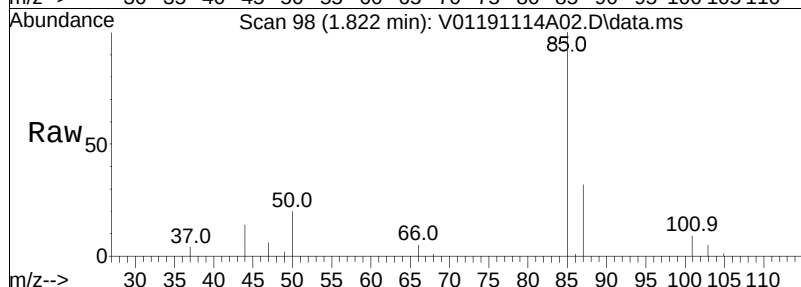
Sub List : 8260-Curve-IM-2CEVE - Megamix plus Diox-Iodomethane

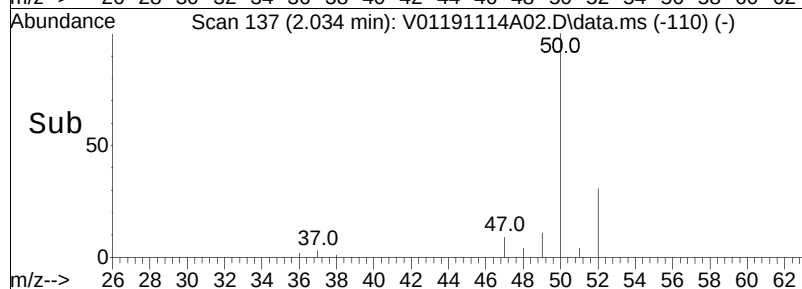
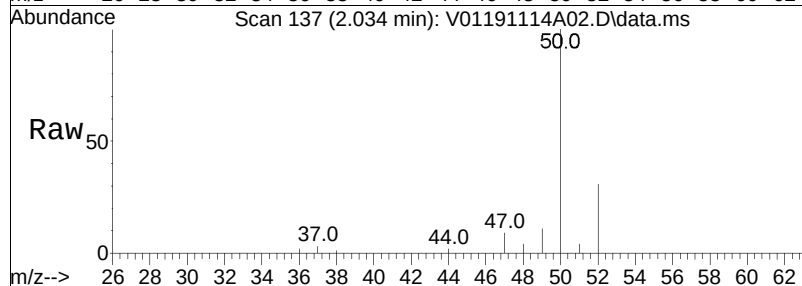
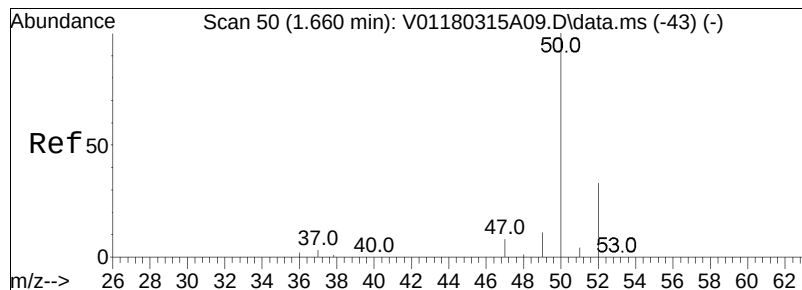




#2
 Dichlorodifluoromethane
 Concen: 9.16 ug/L
 RT: 1.822 min Scan# 98
 Delta R.T. 0.001 min
 Lab File: V01191114A02.D
 Acq: 14 Nov 2019 7:24 am

Tgt Ion	Ratio	Resp	Lower	Upper
85	100	26000		
87	32.0		20.9	43.5
50	18.4		9.1	18.9





#3

Chloromethane

Concen: 10.81 ug/L

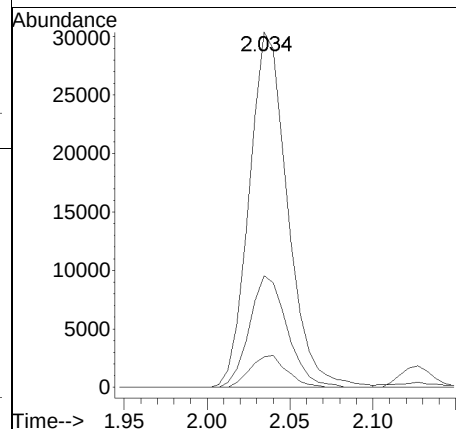
RT: 2.034 min Scan# 137

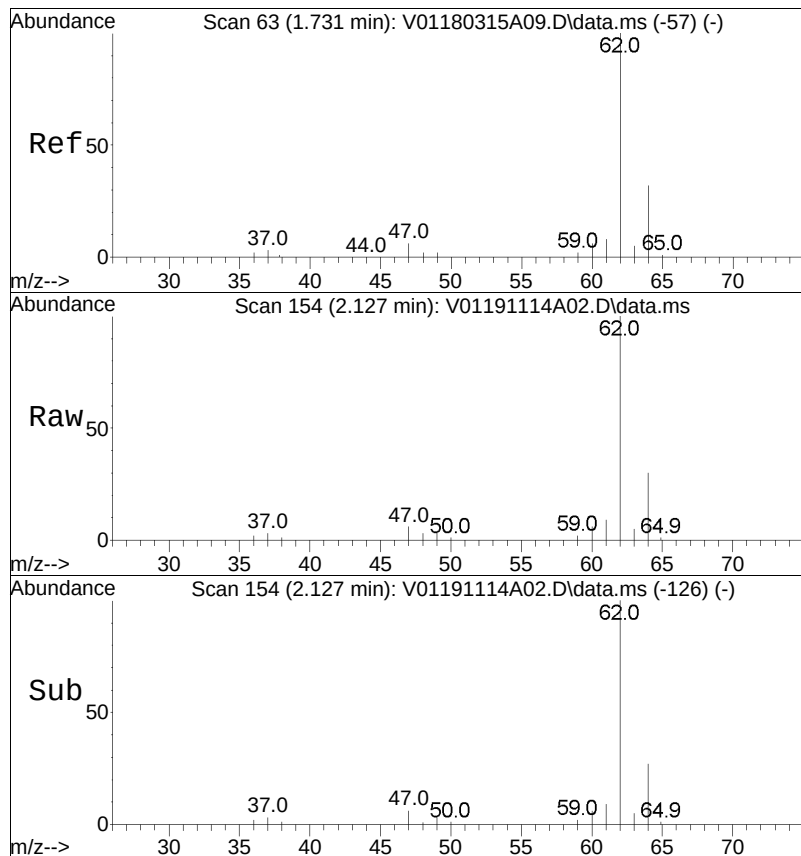
Delta R.T. -0.005 min

Lab File: V01191114A02.D

Acq: 14 Nov 2019 7:24 am

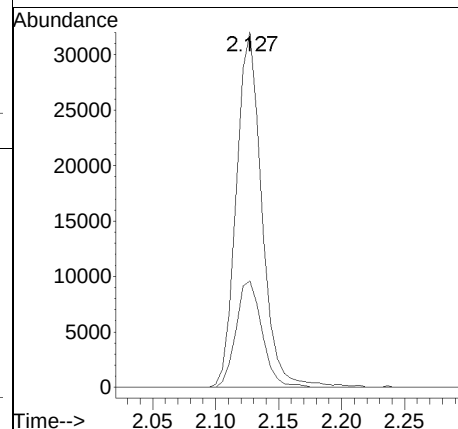
Tgt	Ion: 50	Resp:	49083
Ion	Ratio	Lower	Upper
50	100		
52	30.9	12.8	52.8
47	8.6	0.0	28.3

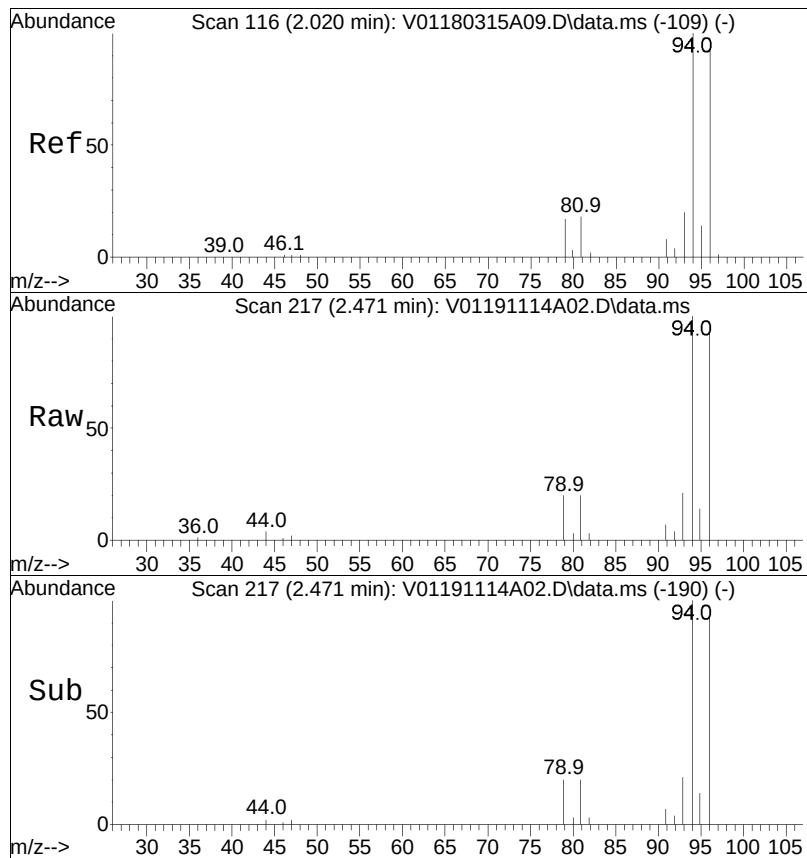




#4
 Vinyl chloride
 Concen: 9.94 ug/L
 RT: 2.127 min Scan# 154
 Delta R.T. 0.005 min
 Lab File: V01191114A02.D
 Acq: 14 Nov 2019 7:24 am

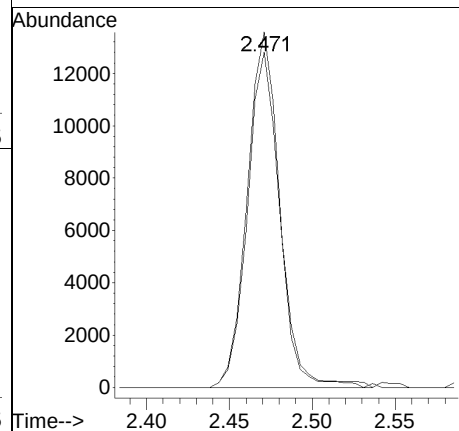
Tgt Ion	Ratio	Lower	Upper
62	100		
64	30.5	10.8	50.8

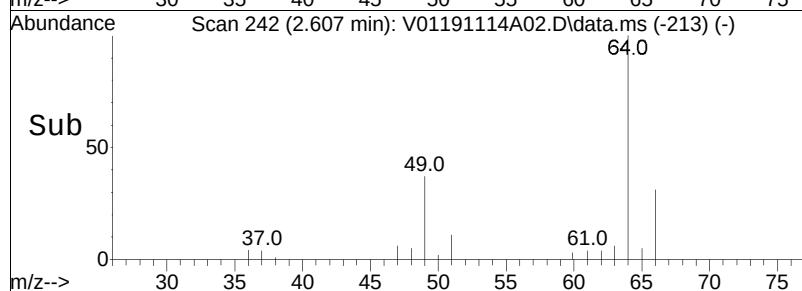
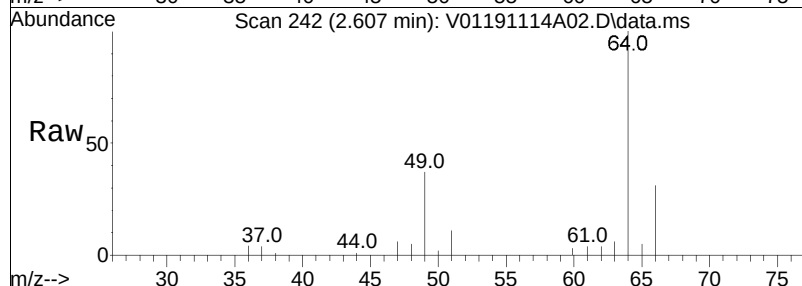
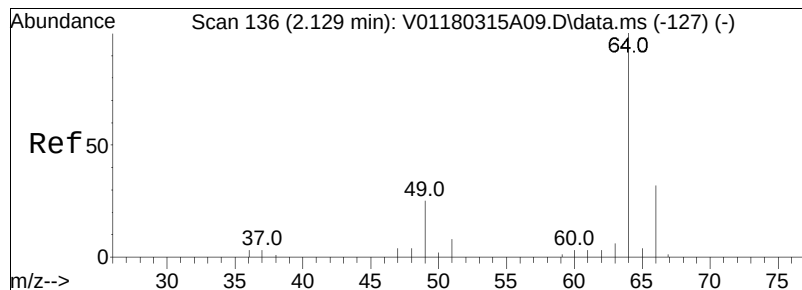




#5
 Bromomethane
 Concen: 26.86 ug/L
 RT: 2.471 min Scan# 217
 Delta R.T. -0.000 min
 Lab File: V01191114A02.D
 Acq: 14 Nov 2019 7:24 am

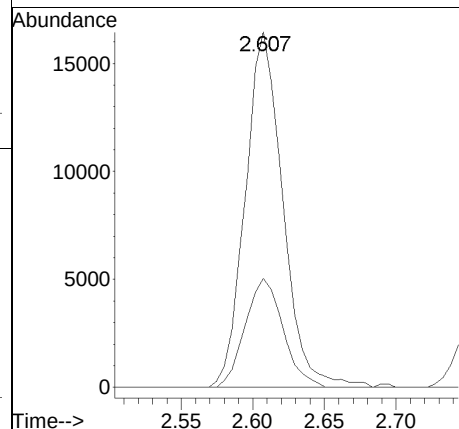
Tgt Ion	Ratio	Lower	Upper
94	100		
96	92.5	73.6	113.6

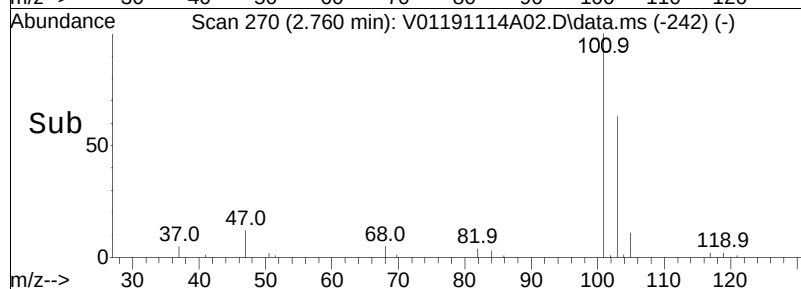
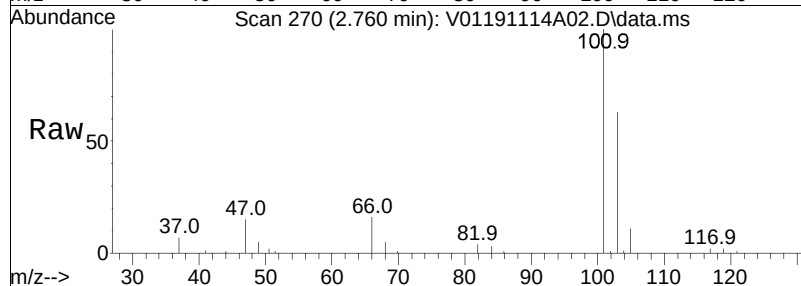
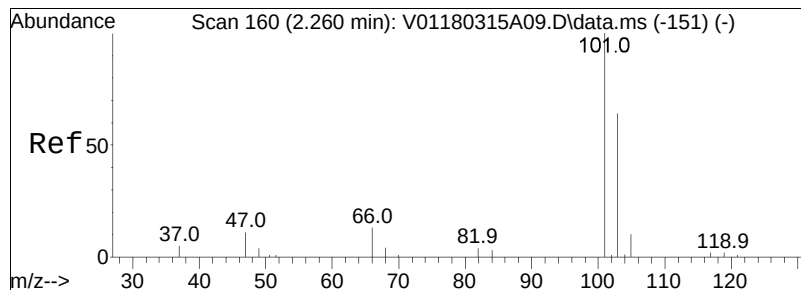




#6
 Chloroethane
 Concen: 9.96 ug/L
 RT: 2.607 min Scan# 242
 Delta R.T. 0.006 min
 Lab File: V01191114A02.D
 Acq: 14 Nov 2019 7:24 am

Tgt Ion	Ratio	Lower	Upper
64	100		
66	30.8	12.7	52.7





#7

Trichlorofluoromethane

Concen: 9.70 ug/L

RT: 2.760 min Scan# 270

Delta R.T. 0.000 min

Lab File: V01191114A02.D

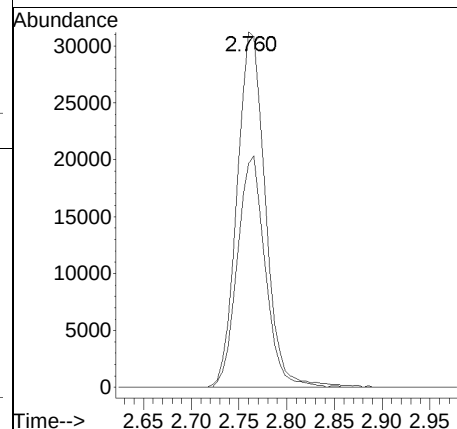
Acq: 14 Nov 2019 7:24 am

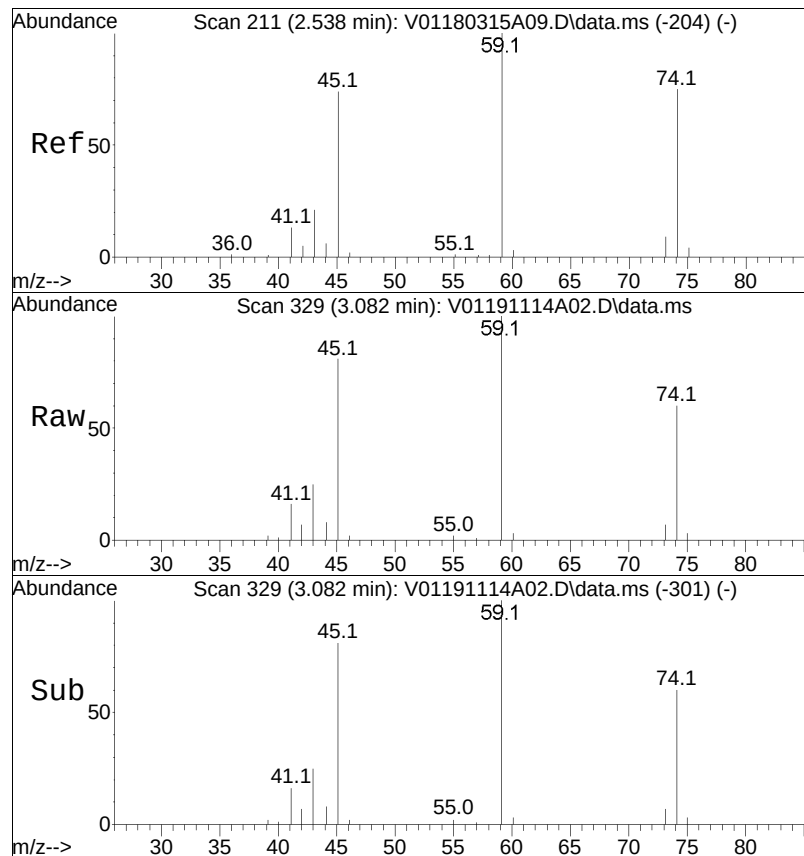
Tgt Ion:101 Resp: 64685

Ion Ratio Lower Upper

101 100

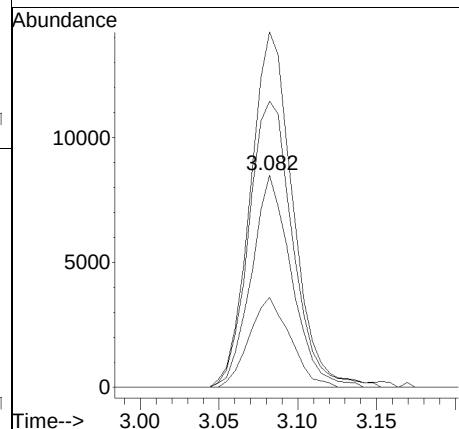
103 63.9 52.3 78.5

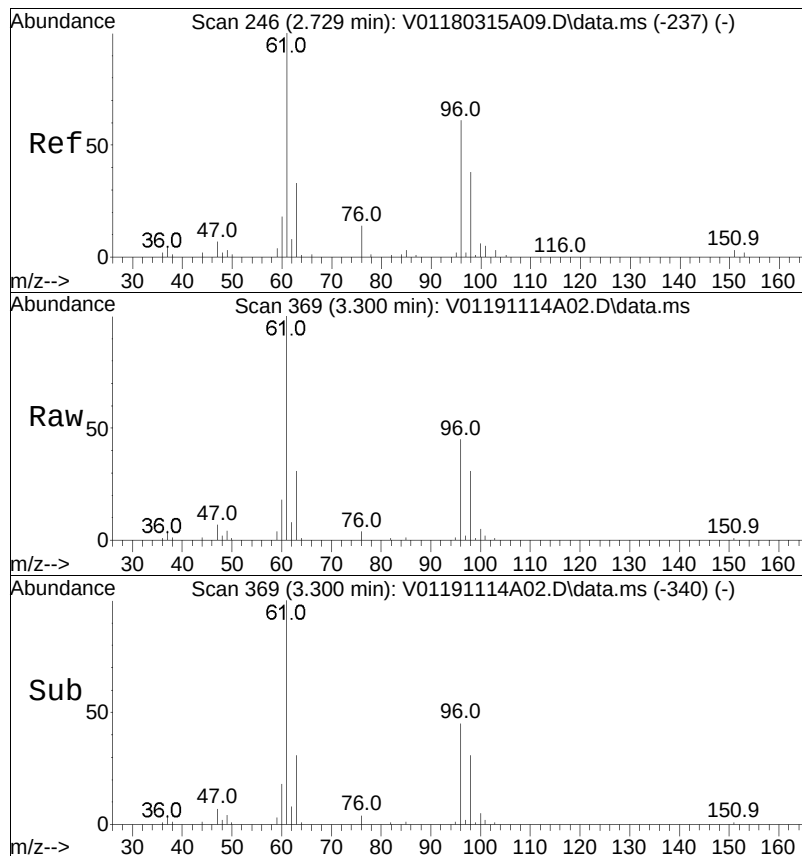




#8
 Ethyl ether
 Concen: 7.61 ug/L
 RT: 3.082 min Scan# 329
 Delta R.T. 0.000 min
 Lab File: V01191114A02.D
 Acq: 14 Nov 2019 7:24 am

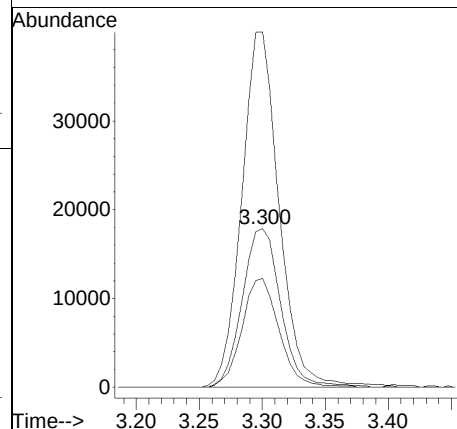
Tgt Ion:	74	Resp:	15237
Ion Ratio	Lower	Upper	
74	100		
59	176.9	88.1	182.9
45	146.3	66.1	137.3#
43	43.0	19.7	40.9#

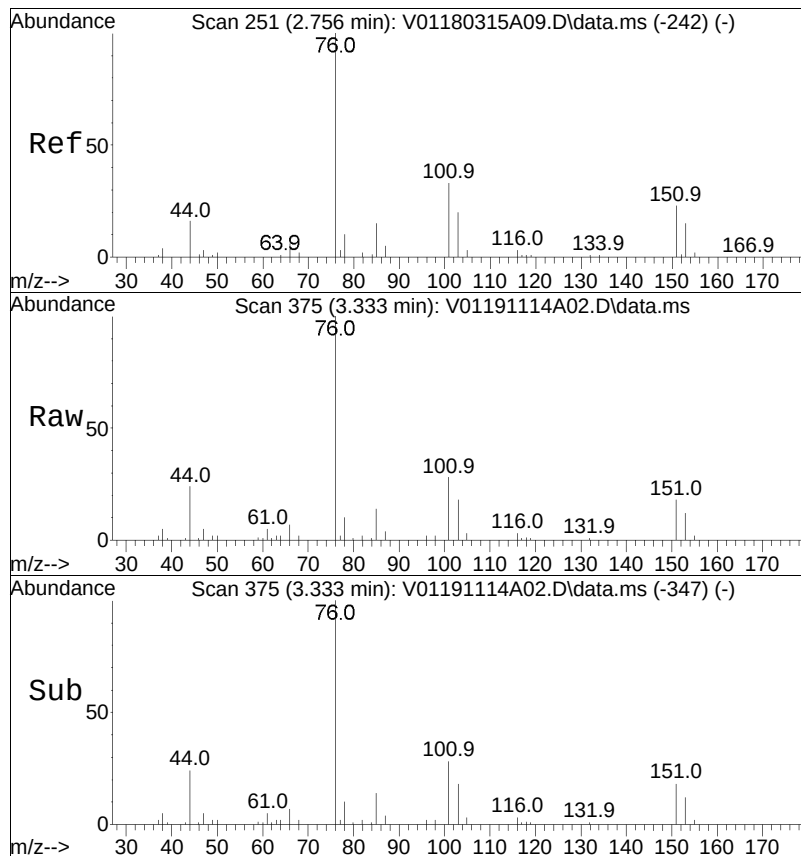




#10
 1,1-Dichloroethene
 Concen: 9.17 ug/L
 RT: 3.300 min Scan# 369
 Delta R.T. 0.006 min
 Lab File: V01191114A02.D
 Acq: 14 Nov 2019 7:24 am

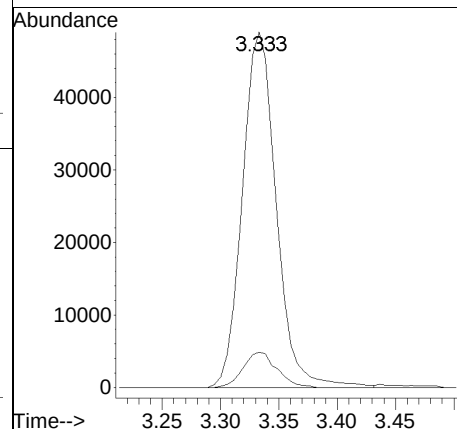
Tgt	Ion: 96	Resp:	38225
Ion	Ratio	Lower	Upper
96	100		
61	217.2	136.8	205.2#
63	66.2	43.6	65.4#

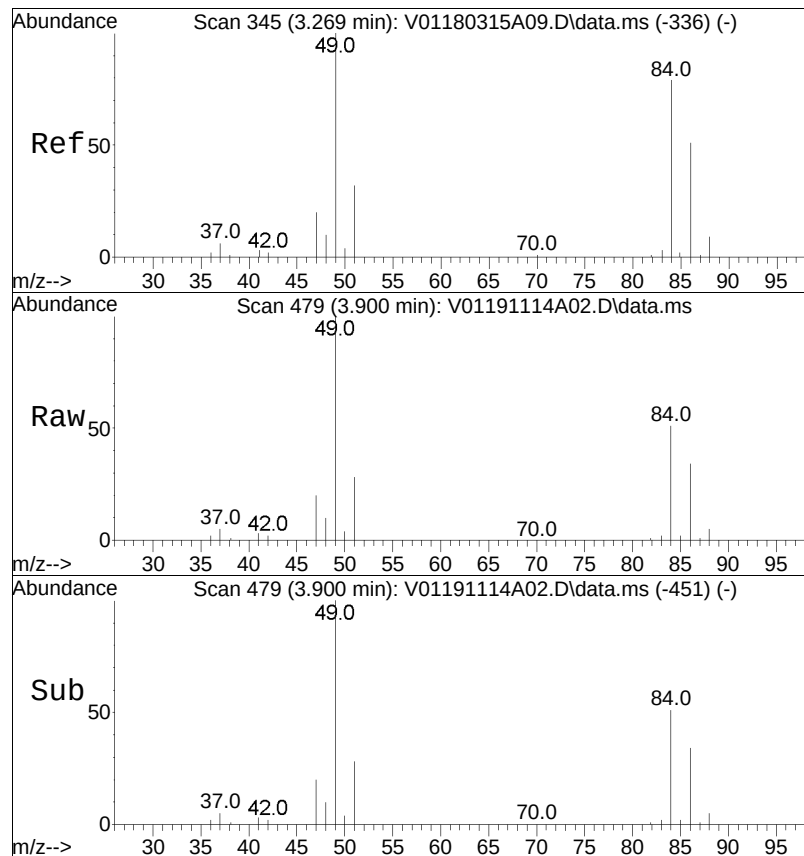




#11
Carbon disulfide
Concen: 8.67 ug/L
RT: 3.333 min Scan# 375
Delta R.T. 0.000 min
Lab File: V01191114A02.D
Acq: 14 Nov 2019 7:24 am

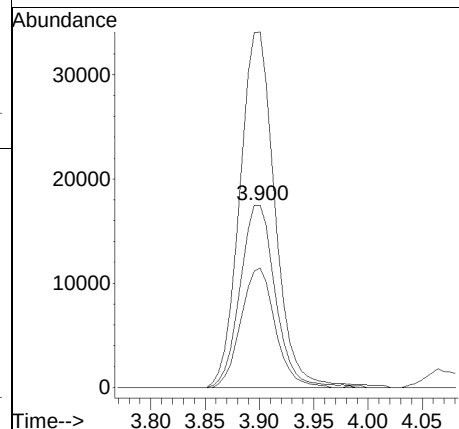
Tgt Ion	Ratio	Lower	Upper
76	100		
78	9.9	6.6	13.8

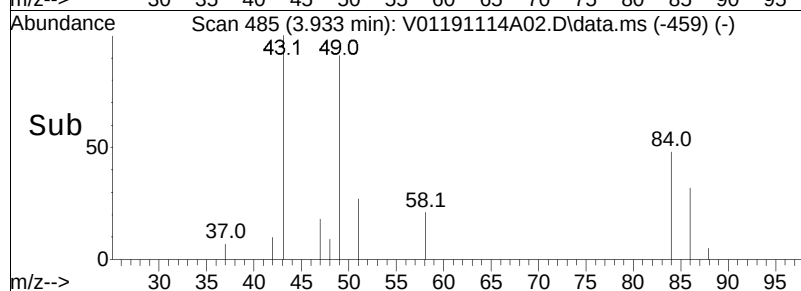
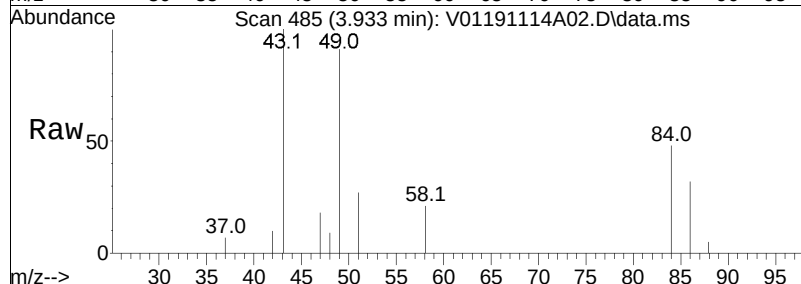
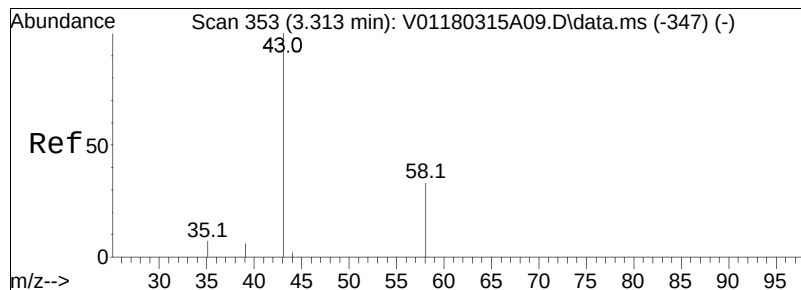




#15
 Methylene chloride
 Concen: 8.43 ug/L
 RT: 3.900 min Scan# 479
 Delta R.T. 0.000 min
 Lab File: V01191114A02.D
 Acq: 14 Nov 2019 7:24 am

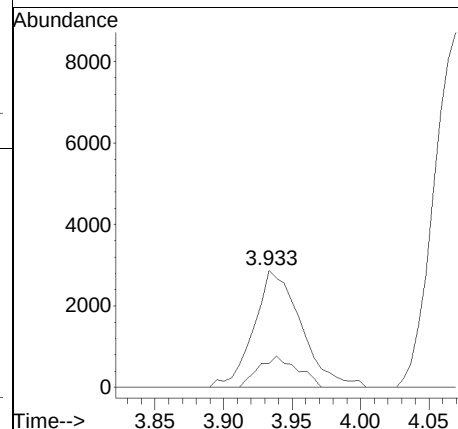
Tgt Ion:	84	Resp:	39530
Ion Ratio	Lower	Upper	
84	100		
86	63.6	41.7	86.7
49	194.3	89.1	185.1#

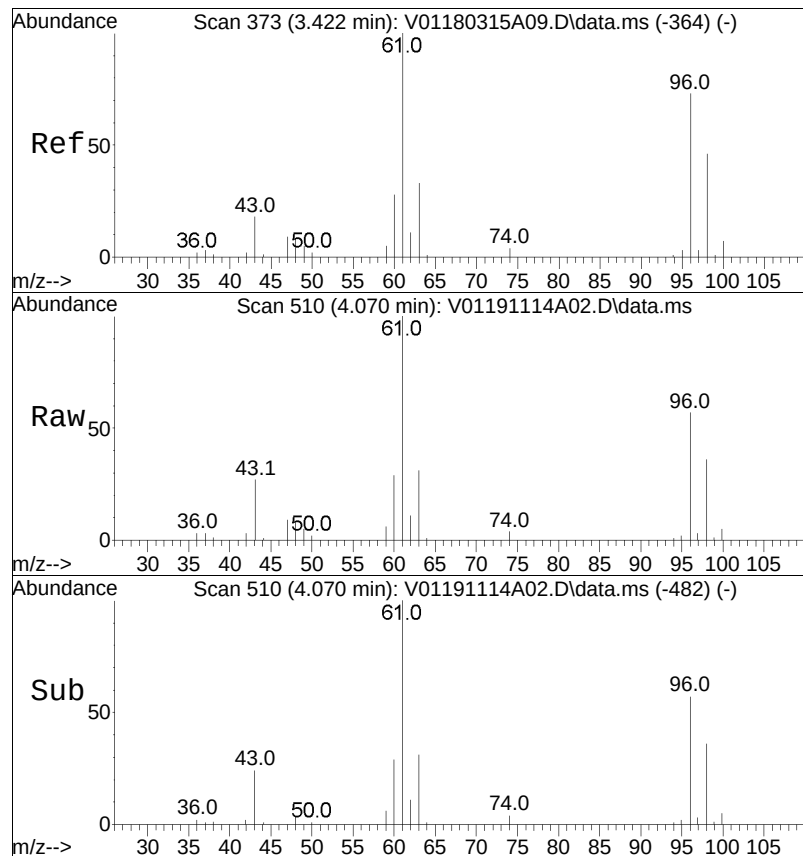




#17
Acetone
Concen: 6.82 ug/L
RT: 3.933 min Scan# 485
Delta R.T. -0.006 min
Lab File: V01191114A02.D
Acq: 14 Nov 2019 7:24 am

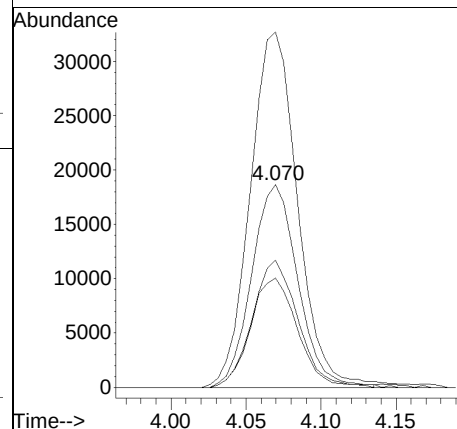
Tgt Ion: 43 Resp: 6928
Ion Ratio Lower Upper
43 100
58 22.2 25.9 38.9#

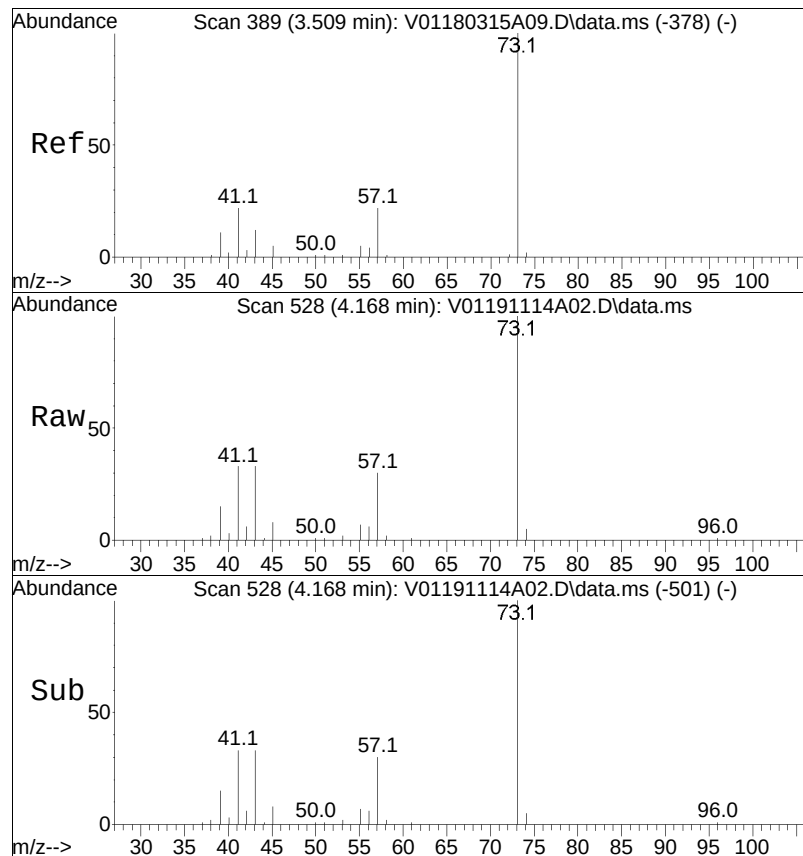




#18
 trans-1,2-Dichloroethene
 Concen: 9.10 ug/L
 RT: 4.070 min Scan# 510
 Delta R.T. 0.000 min
 Lab File: V01191114A02.D
 Acq: 14 Nov 2019 7:24 am

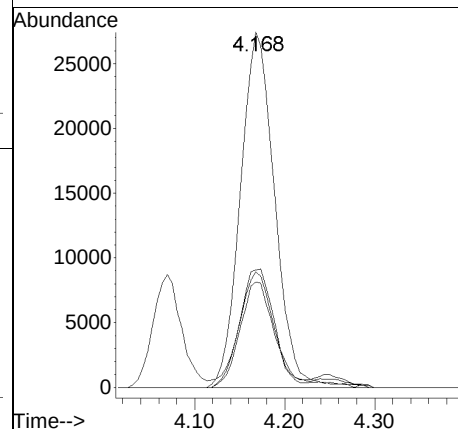
Tgt Ion: 96	Resp: 39954
Ion Ratio	Lower Upper
96 100	
61 181.2	95.3 197.9
98 62.1	41.0 85.2
63 54.8	30.2 62.6

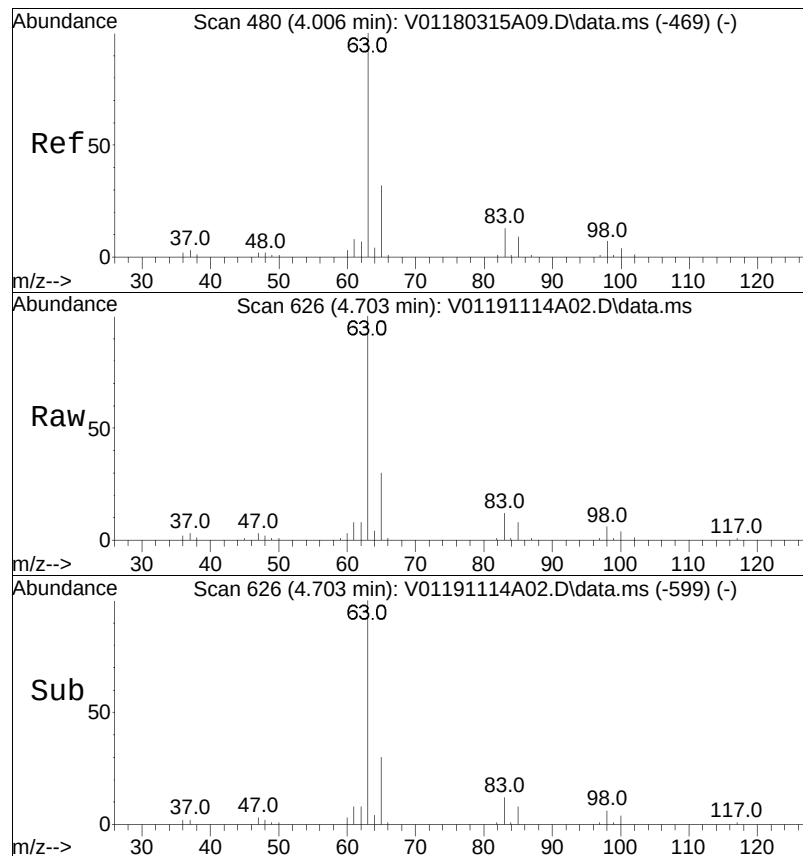




#20
Methyl tert-butyl ether
Concen: 7.63 ug/L
RT: 4.168 min Scan# 528
Delta R.T. -0.005 min
Lab File: V01191114A02.D
Acq: 14 Nov 2019 7:24 am

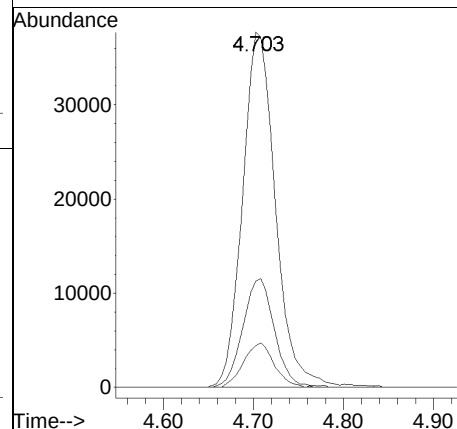
Tgt Ion:	73	Resp:	72857
Ion Ratio	Lower	Upper	
73	100		
57	29.0	14.8	30.6
43	32.6	15.5	32.3#
41	32.2	14.1	29.3#

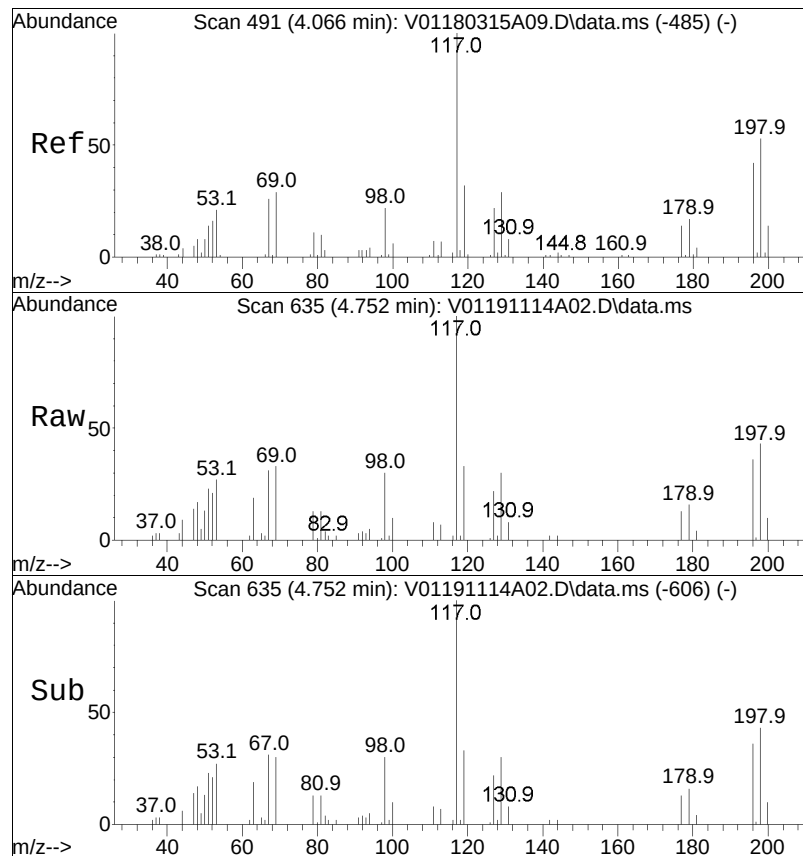




#23
 1,1-Dichloroethane
 Concen: 9.47 ug/L
 RT: 4.703 min Scan# 626
 Delta R.T. -0.005 min
 Lab File: V01191114A02.D
 Acq: 14 Nov 2019 7:24 am

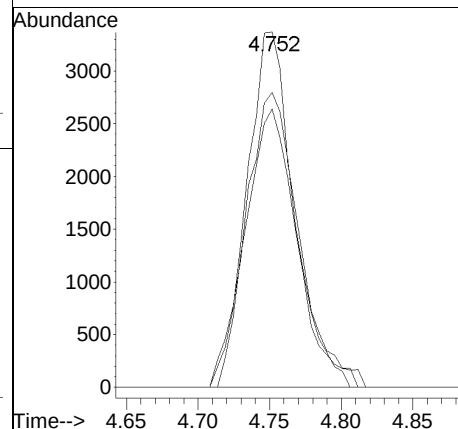
Tgt	Ion: 63	Resp:	96085
Ion	Ratio	Lower	Upper
63	100		
65	29.5	10.9	50.9
83	11.7	0.0	33.0

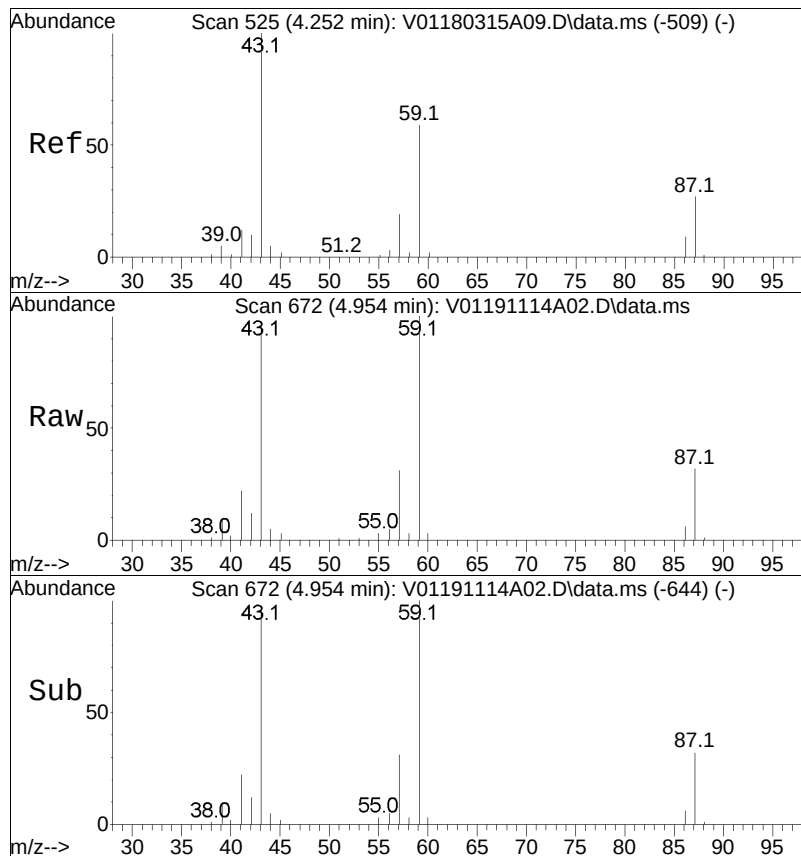




#25
 Acrylonitrile
 Concen: 7.65 ug/L
 RT: 4.752 min Scan# 635
 Delta R.T. 0.006 min
 Lab File: V01191114A02.D
 Acq: 14 Nov 2019 7:24 am

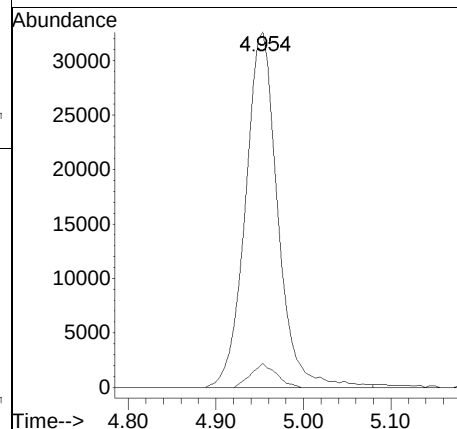
Tgt Ion:	53	Resp:	8044
Ion Ratio	Lower	Upper	
53	100		
52	81.1	69.1	103.7
51	87.7	58.3	87.5#

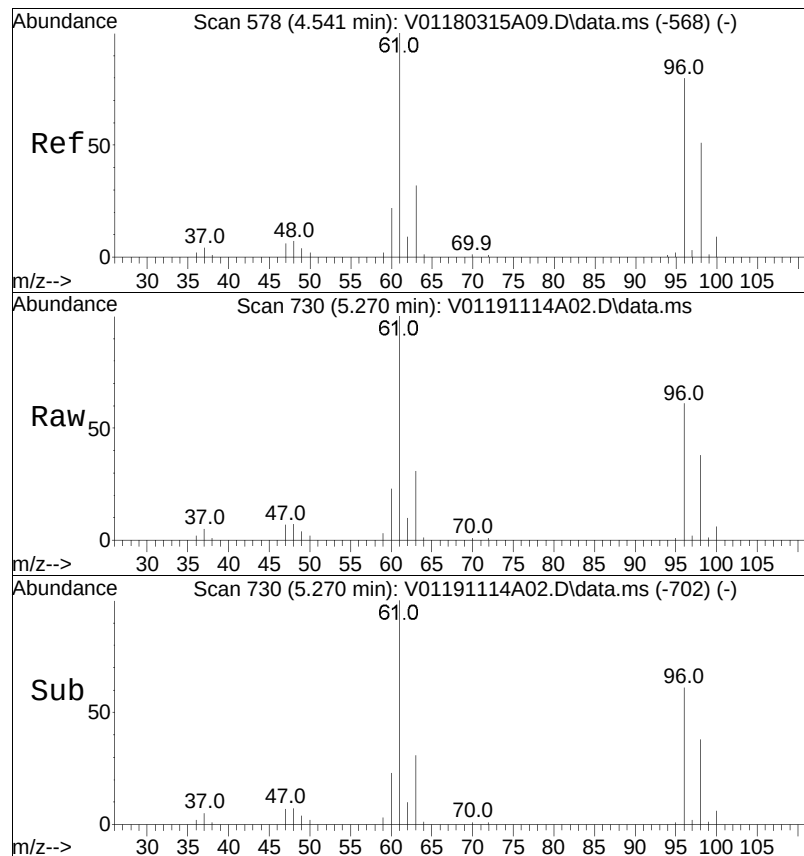




#27
 Vinyl acetate
 Concen: 8.39 ug/L
 RT: 4.954 min Scan# 672
 Delta R.T. 0.000 min
 Lab File: V01191114A02.D
 Acq: 14 Nov 2019 7:24 am

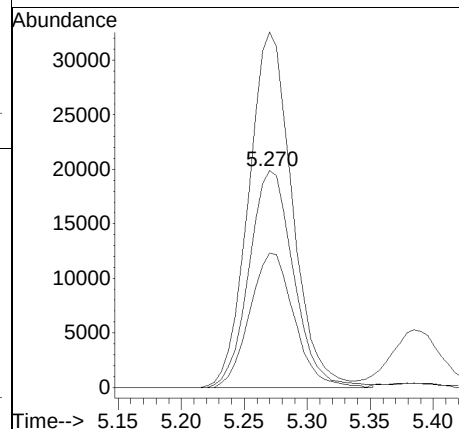
Tgt Ion	Ratio	Lower	Upper
43	100		
86	5.3	6.6	9.8#

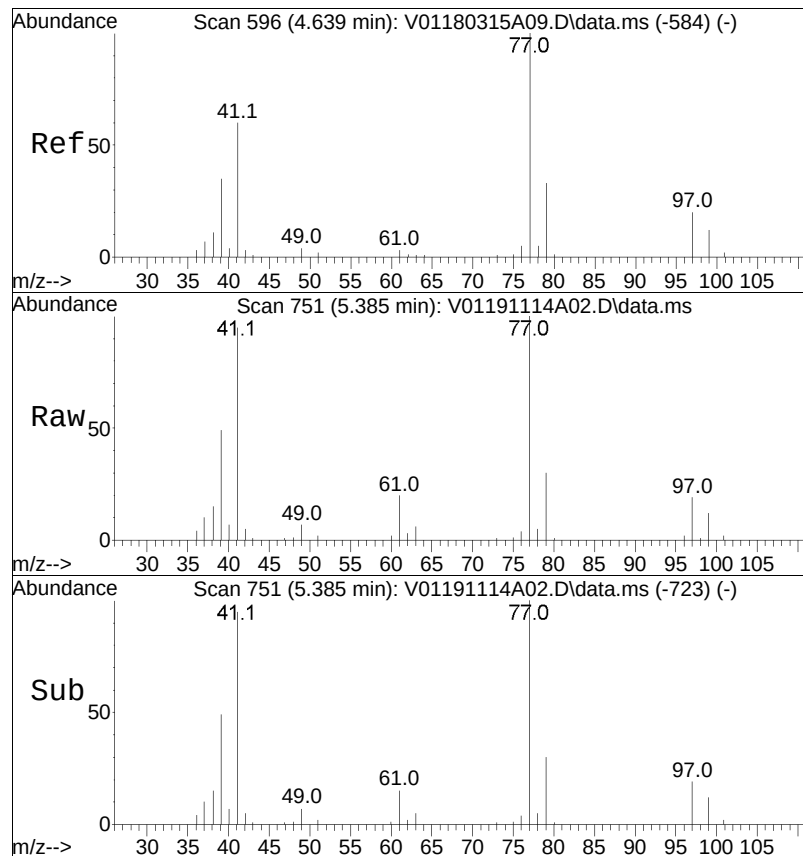




#28
 cis-1,2-Dichloroethene
 Concen: 9.06 ug/L
 RT: 5.270 min Scan# 730
 Delta R.T. 0.000 min
 Lab File: V01191114A02.D
 Acq: 14 Nov 2019 7:24 am

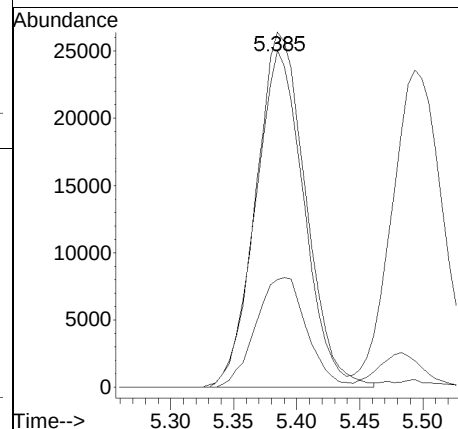
Tgt Ion: 96	Resp: 48791
Ion Ratio Lower Upper	
96 100	
61 160.4	105.8 158.6#
98 61.6	51.1 76.7

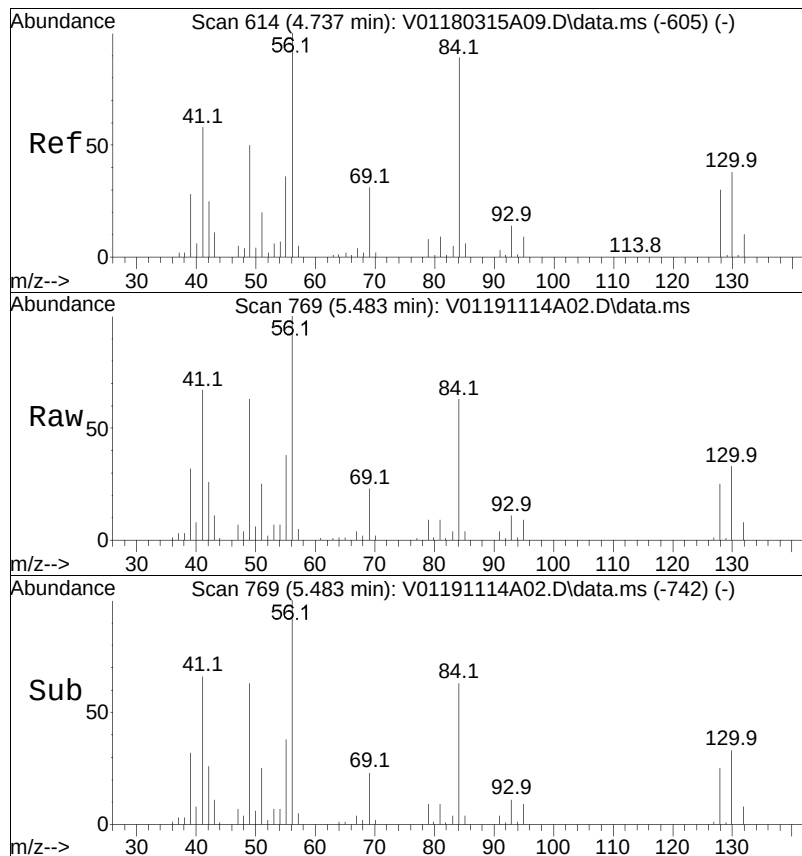




#29
 2,2-Dichloropropane
 Concen: 10.04 ug/L
 RT: 5.385 min Scan# 751
 Delta R.T. 0.000 min
 Lab File: V01191114A02.D
 Acq: 14 Nov 2019 7:24 am

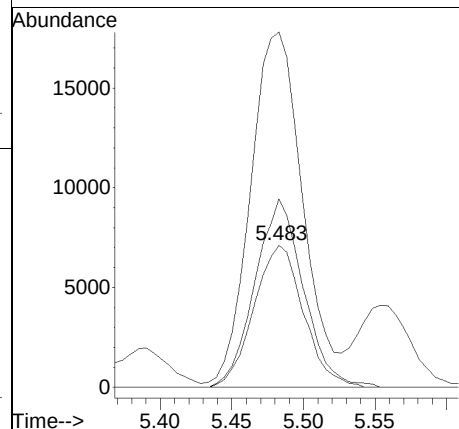
Tgt Ion:	77	Resp:	72326
Ion Ratio	Lower	Upper	
77	100		
41	91.5	39.6	82.3#
79	31.8	20.9	43.3

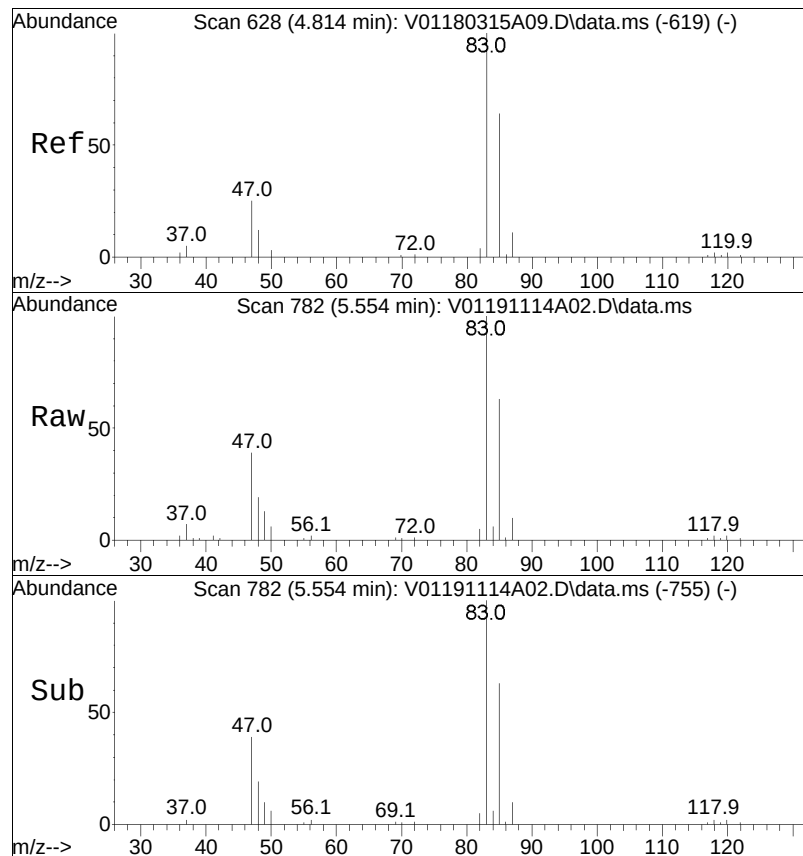




#30
 Bromochloromethane
 Concen: 9.01 ug/L
 RT: 5.483 min Scan# 769
 Delta R.T. -0.005 min
 Lab File: V01191114A02.D
 Acq: 14 Nov 2019 7:24 am

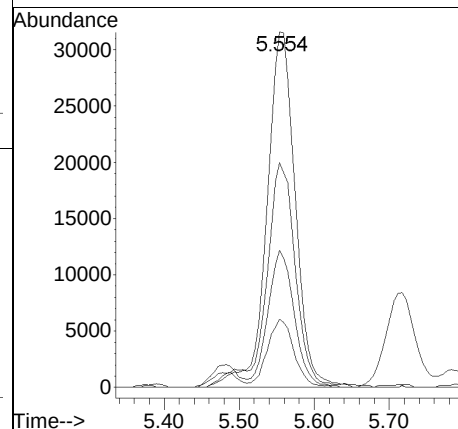
Tgt	Ion:128	Resp:	17155
Ion	Ratio	Lower	Upper
128	100		
49	257.9	140.4	210.6#
130	129.8	103.1	154.7

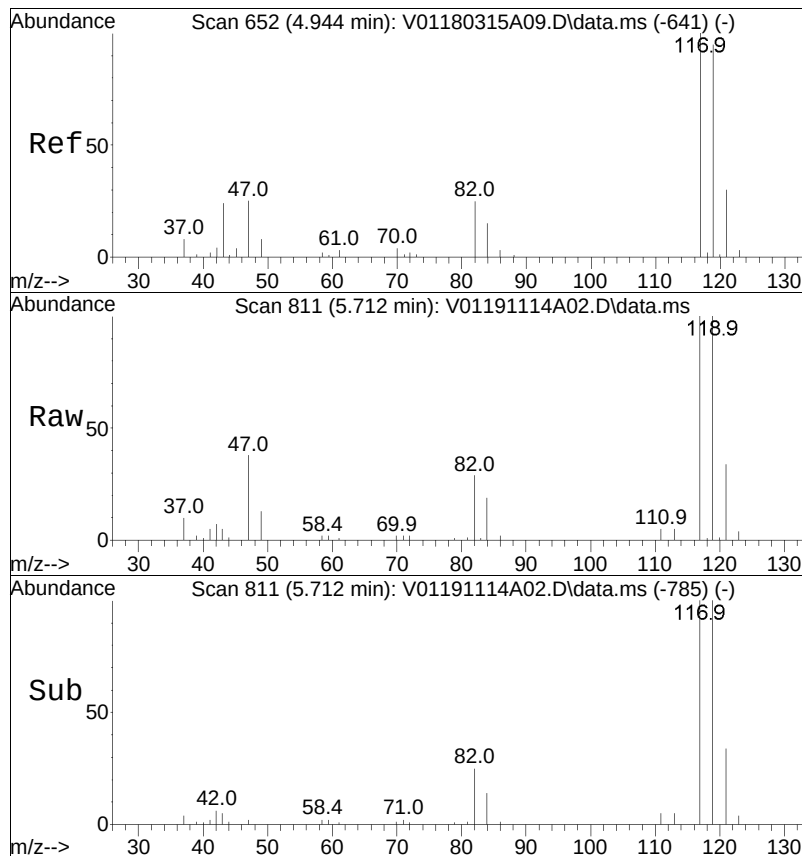




#32
 Chloroform
 Concen: 9.44 ug/L
 RT: 5.554 min Scan# 782
 Delta R.T. -0.005 min
 Lab File: V01191114A02.D
 Acq: 14 Nov 2019 7:24 am

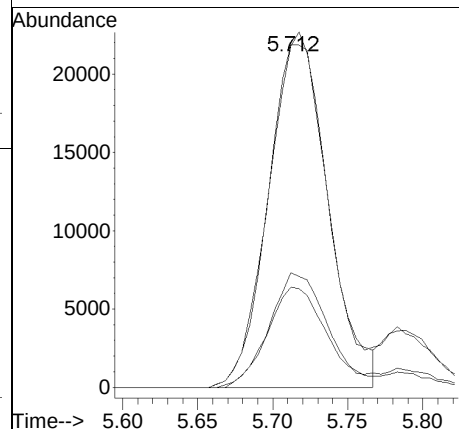
Tgt	Ion: 83	Resp:	83827
Ion	Ratio	Lower	Upper
83	100		
85	61.0	42.3	87.8
47	35.8	17.8	37.0
48	18.0	9.3	19.3

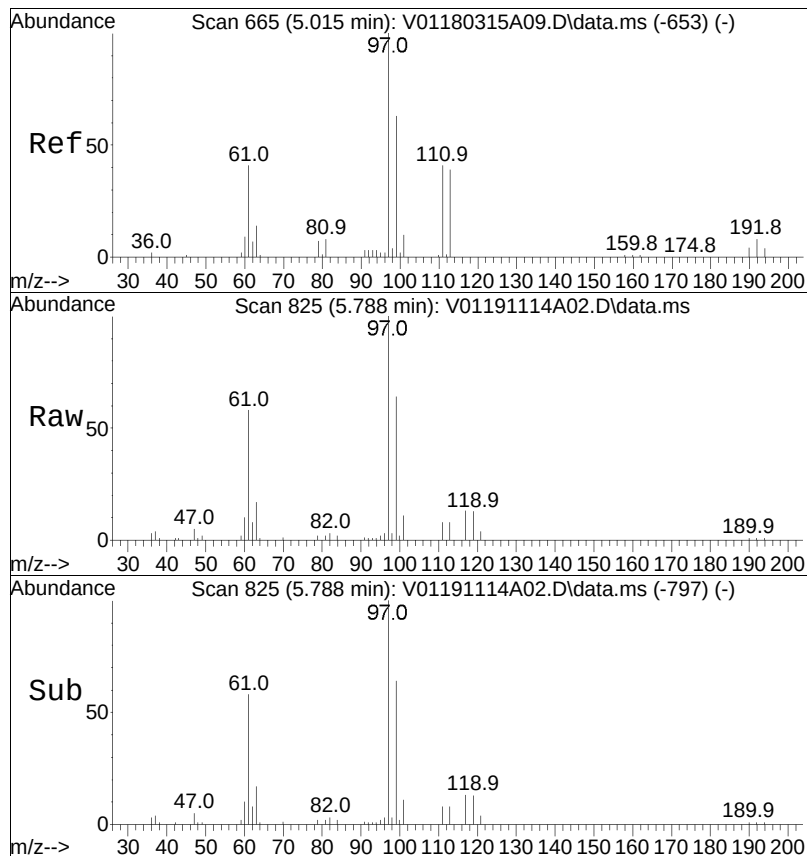




#34
 Carbon tetrachloride
 Concen: 10.12 ug/L
 RT: 5.712 min Scan# 811
 Delta R.T. -0.011 min
 Lab File: V01191114A02.D
 Acq: 14 Nov 2019 7:24 am

Tgt Ion:	117	Resp:	61891
Ion Ratio	Lower	Upper	
117	100		
119	98.4	62.1	128.9
121	31.5	19.8	41.0
82	28.8	17.1	35.5





#37

1,1,1-Trichloroethane

Concen: 9.89 ug/L

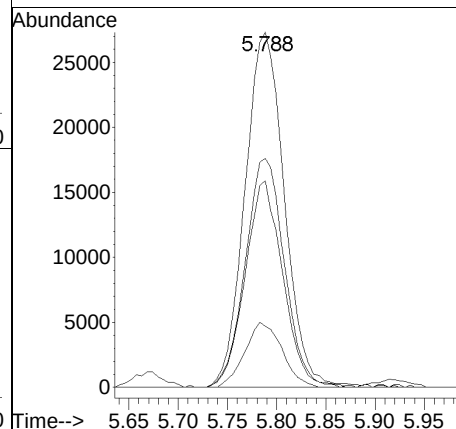
RT: 5.788 min Scan# 825

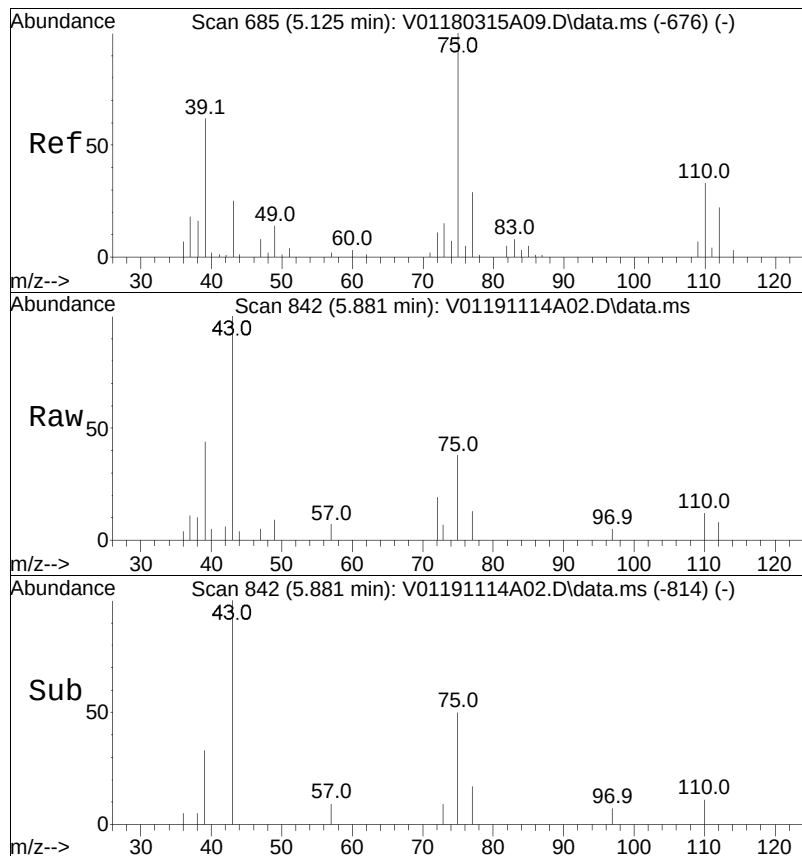
Delta R.T. 0.000 min

Lab File: V01191114A02.D

Acq: 14 Nov 2019 7:24 am

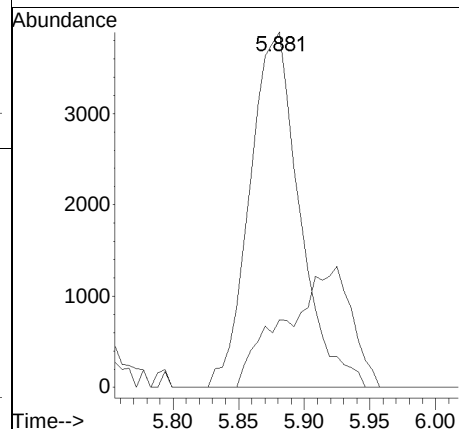
Tgt Ion:	97	Resp:	76158
Ion Ratio	Lower	Upper	
97	100		
99	63.9	41.7	86.7
61	55.6	29.4	61.2
63	17.4	9.4	19.4

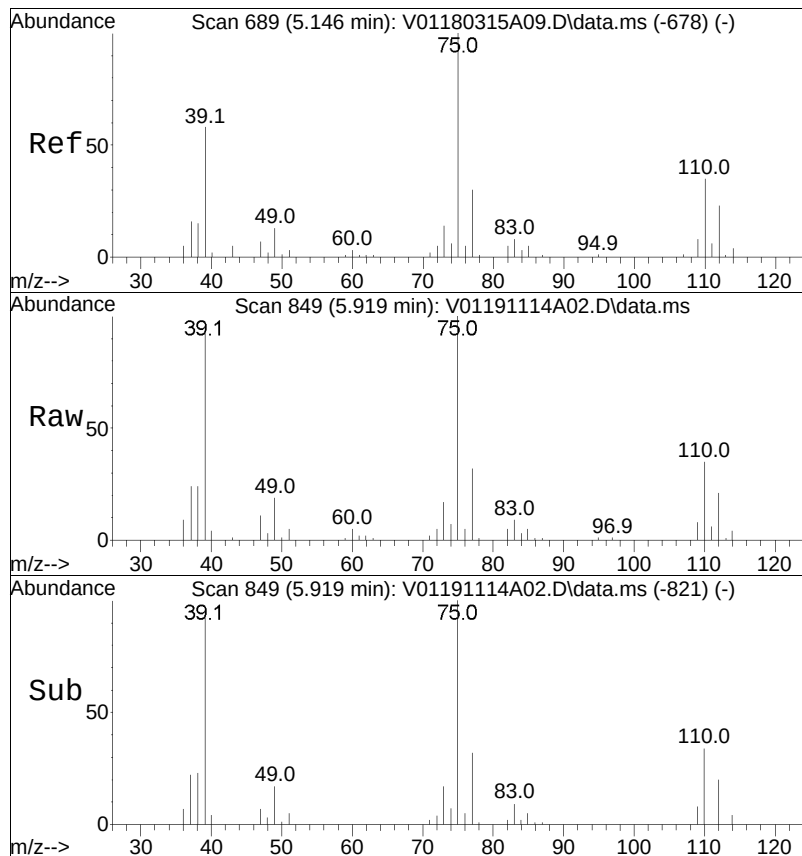




#39
 2-Butanone
 Concen: 7.05 ug/L
 RT: 5.881 min Scan# 842
 Delta R.T. 0.005 min
 Lab File: V01191114A02.D
 Acq: 14 Nov 2019 7:24 am

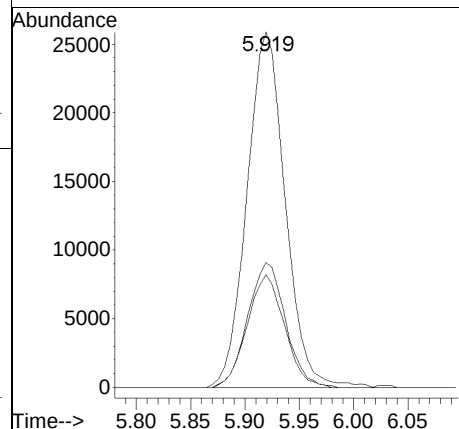
Tgt	Ion	Resp	Lower	Upper
43	100			
72	44.9	45.8	68.6	

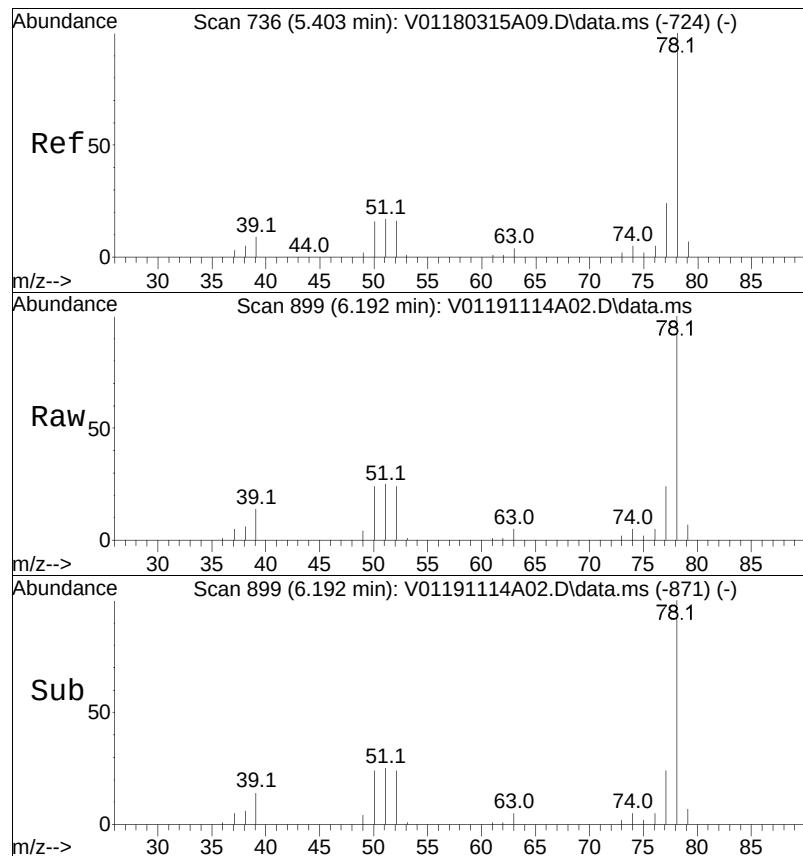




#40
 1,1-Dichloropropene
 Concen: 9.14 ug/L
 RT: 5.919 min Scan# 849
 Delta R.T. 0.000 min
 Lab File: V01191114A02.D
 Acq: 14 Nov 2019 7:24 am

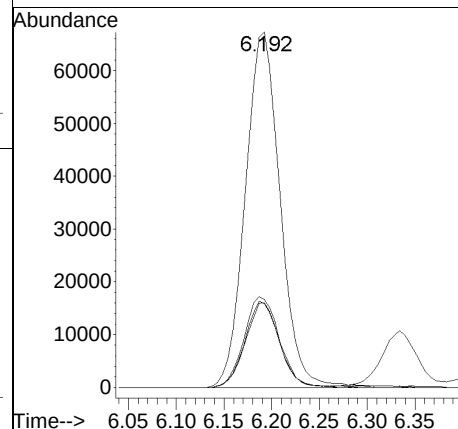
Tgt Ion:	75	Resp:	63322
Ion Ratio	Lower	Upper	
75	100		
110	34.7	22.2	46.2
77	30.9	20.2	42.0

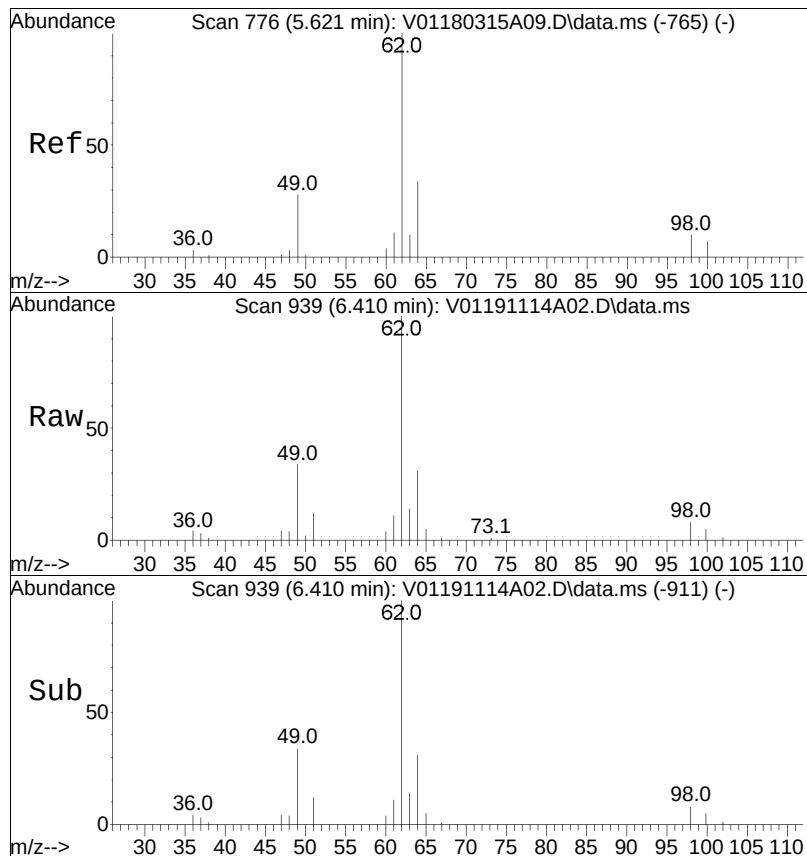




#41
Benzene
Concen: 8.78 ug/L
RT: 6.192 min Scan# 899
Delta R.T. 0.000 min
Lab File: V01191114A02.D
Acq: 14 Nov 2019 7:24 am

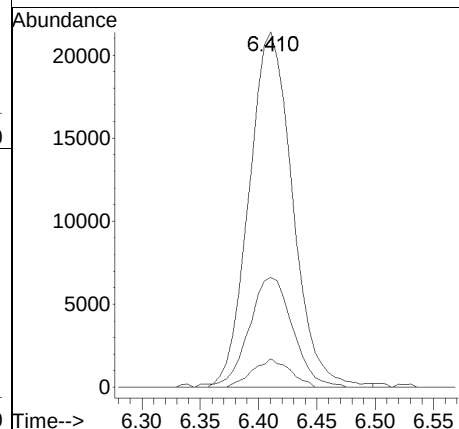
Tgt Ion:	78	Resp:	170770
Ion Ratio	Lower	Upper	
78	100		
77	23.3	15.7	32.5
51	25.8	11.6	24.2#
52	23.7	10.9	22.5#

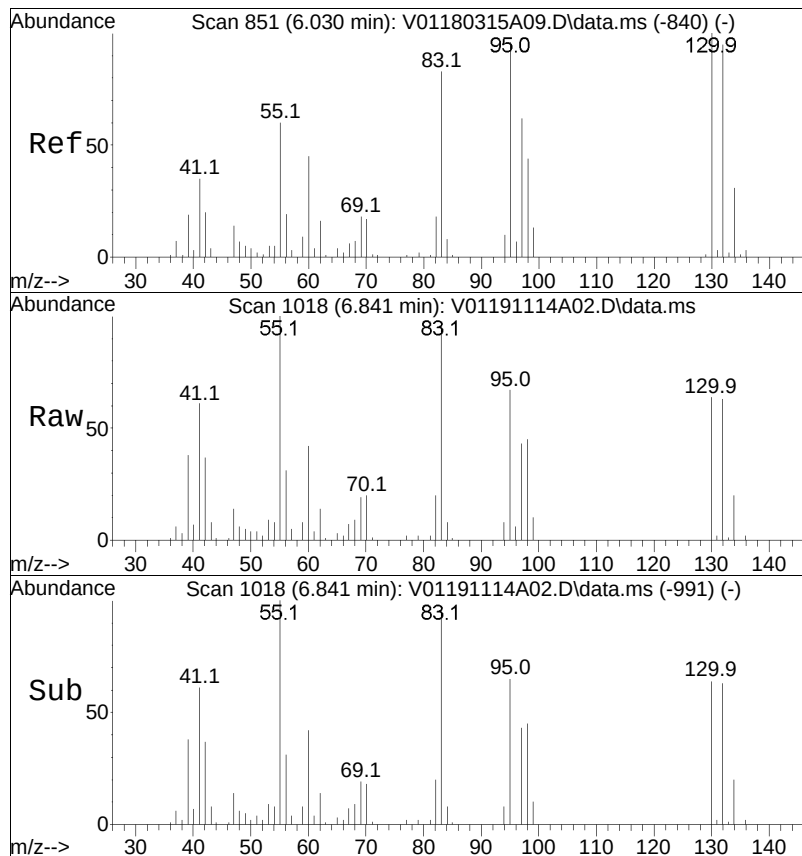




#44
 1,2-Dichloroethane
 Concen: 9.32 ug/L
 RT: 6.410 min Scan# 939
 Delta R.T. 0.000 min
 Lab File: V01191114A02.D
 Acq: 14 Nov 2019 7:24 am

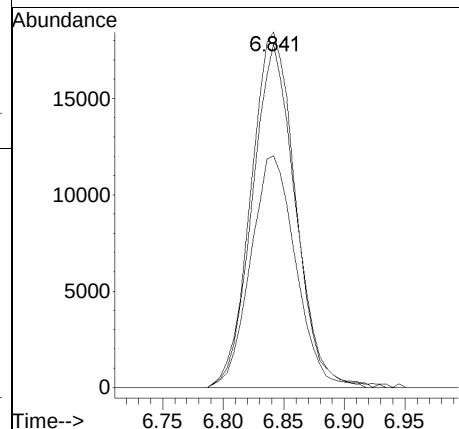
Tgt Ion:	62	Resp:	55479
Ion Ratio	Lower	Upper	
62	100		
64	31.3	12.1	52.1
98	7.0	0.0	28.8

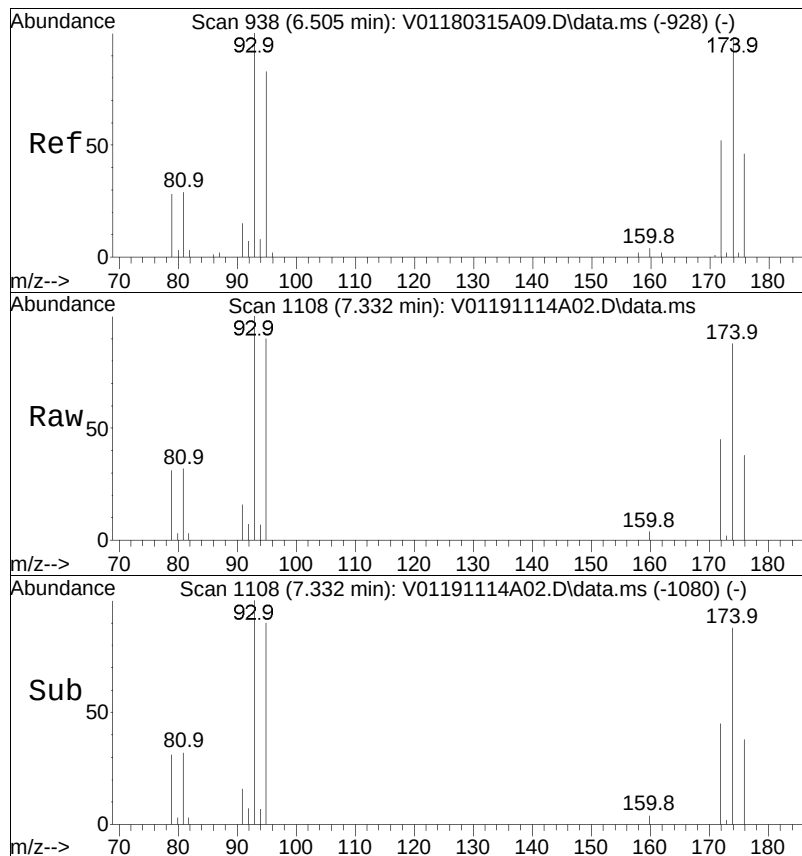




#48
 Trichloroethene
 Concen: 9.47 ug/L
 RT: 6.841 min Scan# 1018
 Delta R.T. -0.005 min
 Lab File: V01191114A02.D
 Acq: 14 Nov 2019 7:24 am

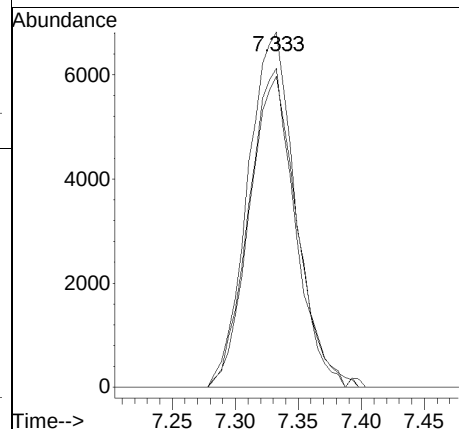
Tgt Ion	95	Resp	47039
Ion Ratio	Lower	Upper	
95	100		
97	66.1	54.4	81.6
130	93.8	80.6	120.8

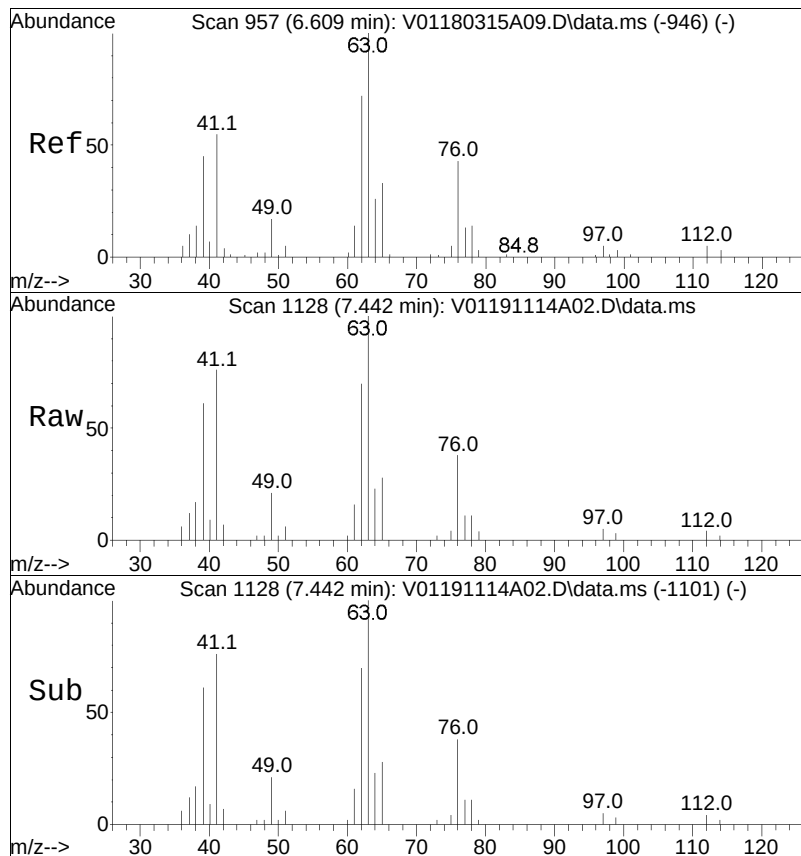




#50
 Dibromomethane
 Concen: 7.80 ug/L
 RT: 7.332 min Scan# 1108
 Delta R.T. 0.000 min
 Lab File: V01191114A02.D
 Acq: 14 Nov 2019 7:24 am

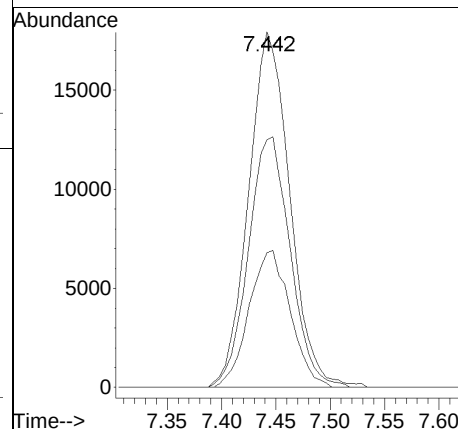
Tgt Ion:	93	Resp:	18046
Ion Ratio	Lower	Upper	
93	100		
95	86.7	68.6	102.8
174	87.5	80.5	120.7

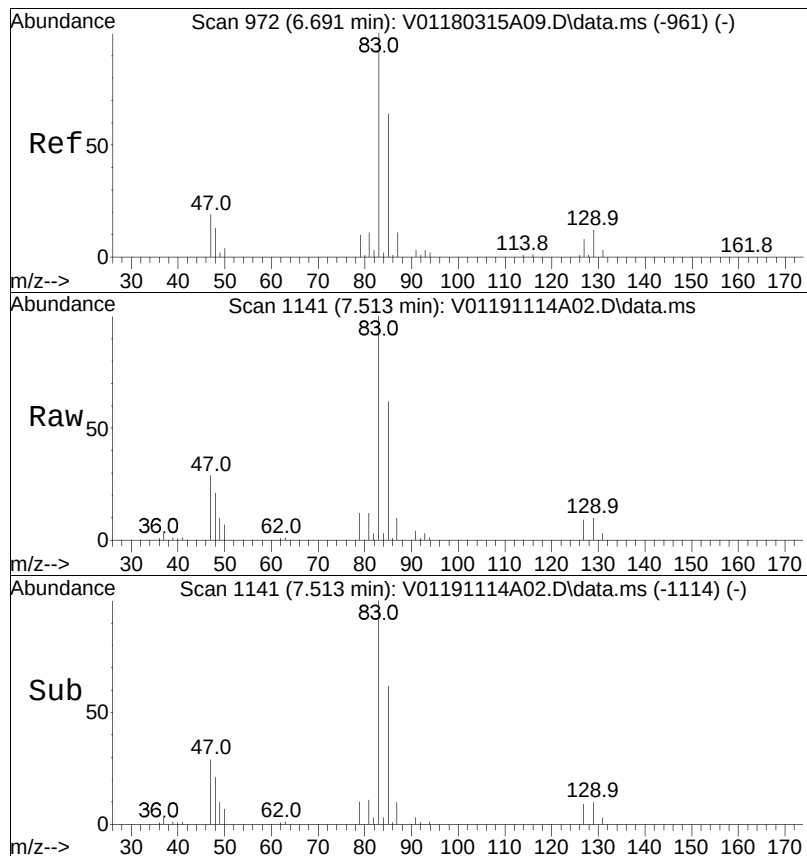




#51
 1,2-Dichloropropane
 Concen: 8.89 ug/L
 RT: 7.442 min Scan# 1128
 Delta R.T. -0.005 min
 Lab File: V01191114A02.D
 Acq: 14 Nov 2019 7:24 am

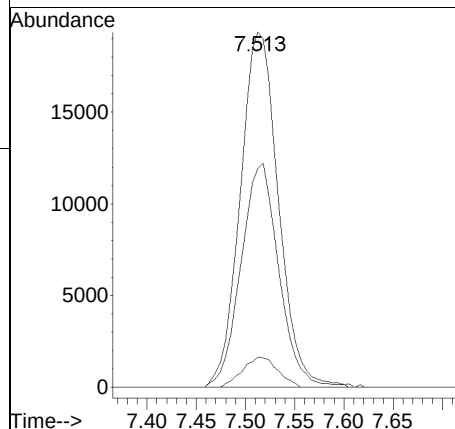
Tgt	Ion: 63	Resp:	47437
Ion	Ratio	Lower	Upper
63	100		
62	71.5	57.2	85.8
76	38.5	33.6	50.4

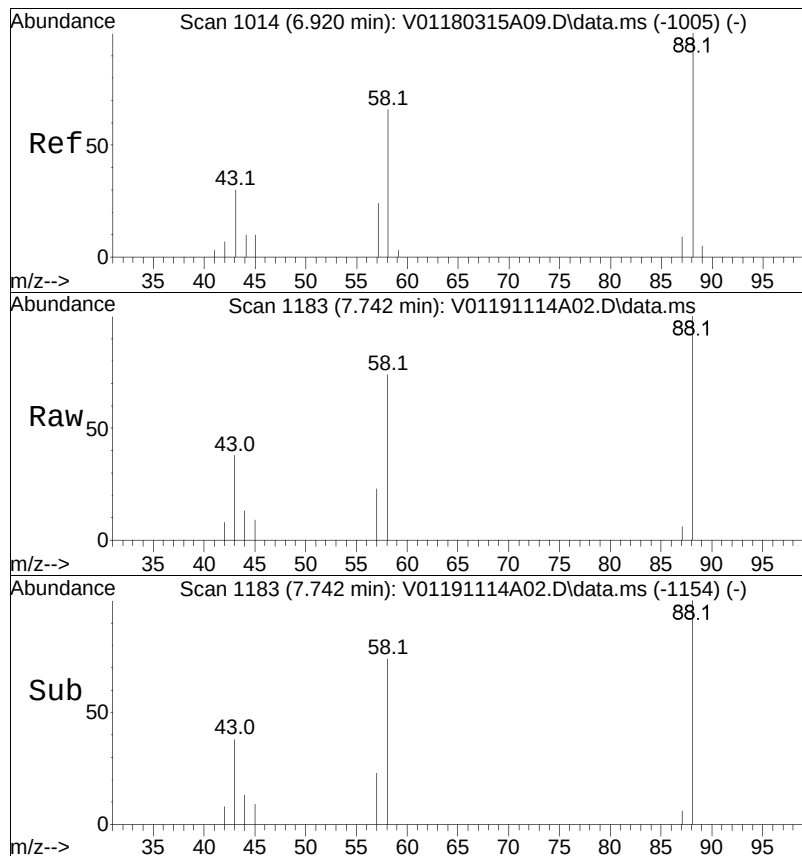




#54
 Bromodichloromethane
 Concen: 8.91 ug/L
 RT: 7.513 min Scan# 1141
 Delta R.T. -0.005 min
 Lab File: V01191114A02.D
 Acq: 14 Nov 2019 7:24 am

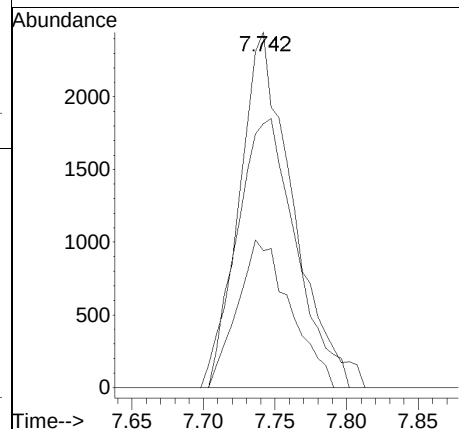
Tgt	Ion: 83	Resp:	52333
Ion	Ratio	Lower	Upper
83	100		
85	62.5	52.2	78.4
127	7.9	6.9	10.3

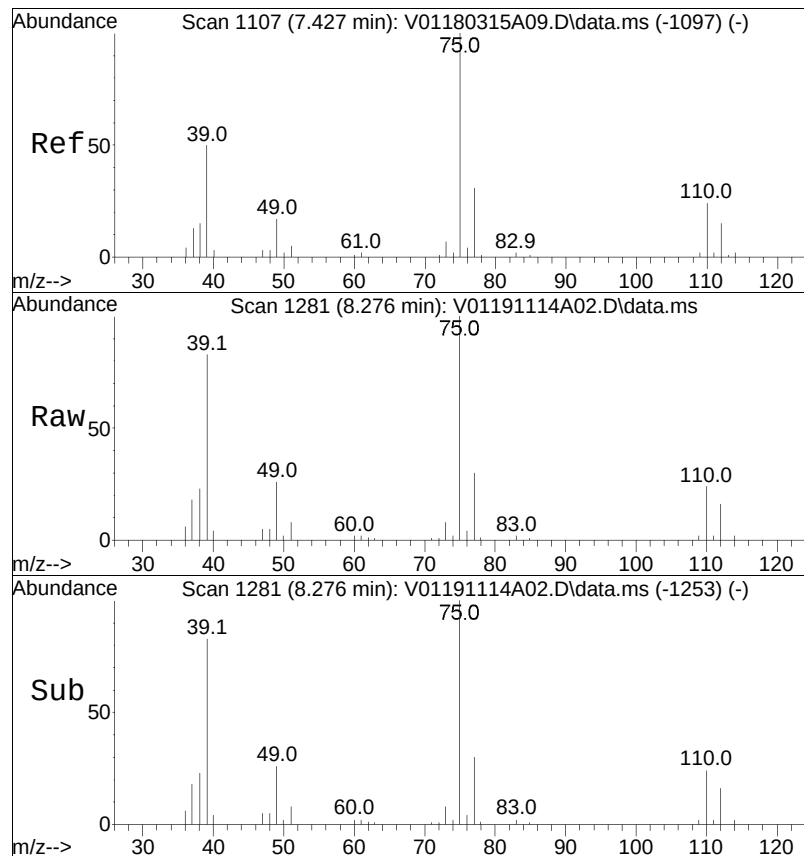




#57
 1,4-Dioxane
 Concen: 308.08 ug/L
 RT: 7.742 min Scan# 1183
 Delta R.T. 0.006 min
 Lab File: V01191114A02.D
 Acq: 14 Nov 2019 7:24 am

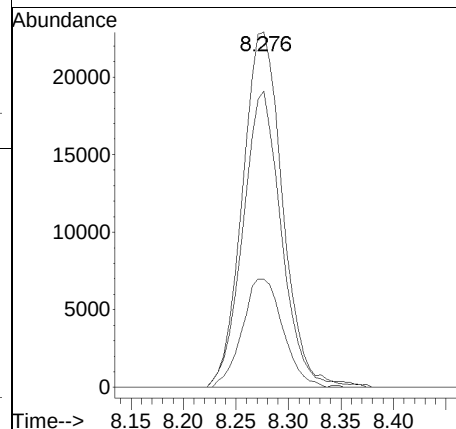
Tgt Ion: 88	Resp: 6351
Ion Ratio	Lower Upper
88 100	
58 84.0	54.8 82.2#
43 41.2	29.3 43.9

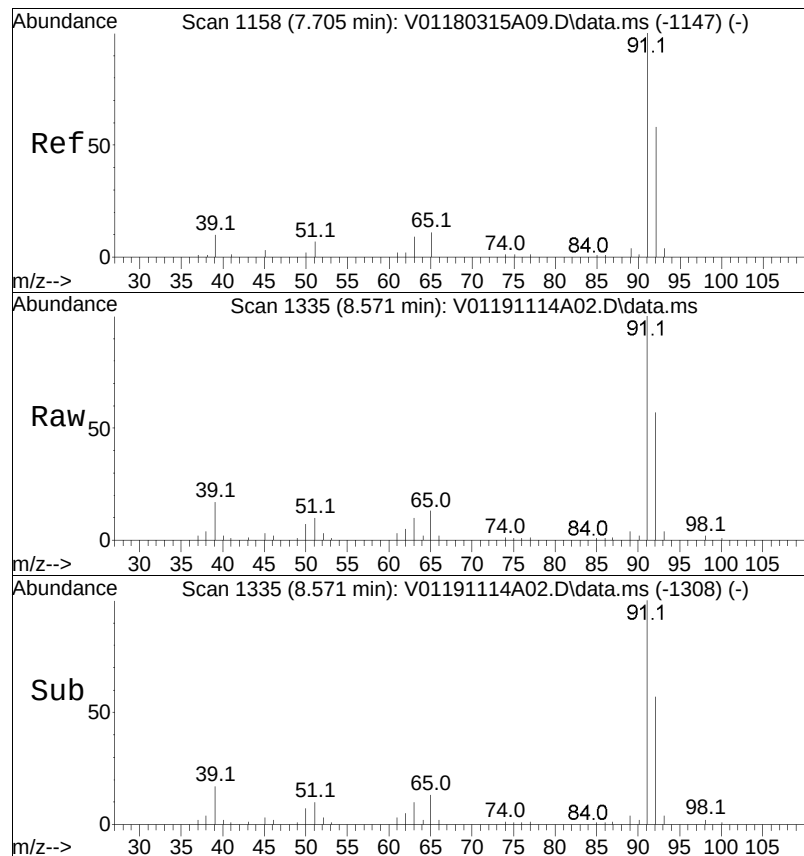




#58
 cis-1,3-Dichloropropene
 Concen: 8.34 ug/L
 RT: 8.276 min Scan# 1281
 Delta R.T. 0.000 min
 Lab File: V01191114A02.D
 Acq: 14 Nov 2019 7:24 am

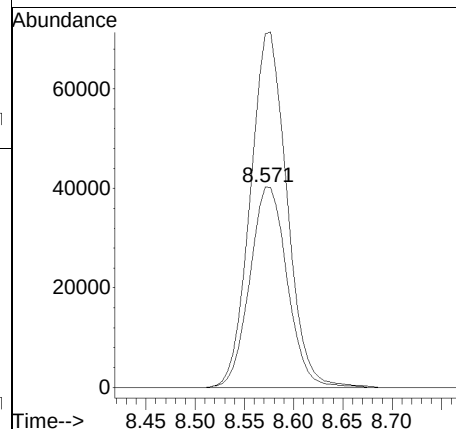
Tgt Ion	Ratio	Lower	Upper
75	100		
77	30.9	25.1	37.7
39	80.2	42.6	63.8

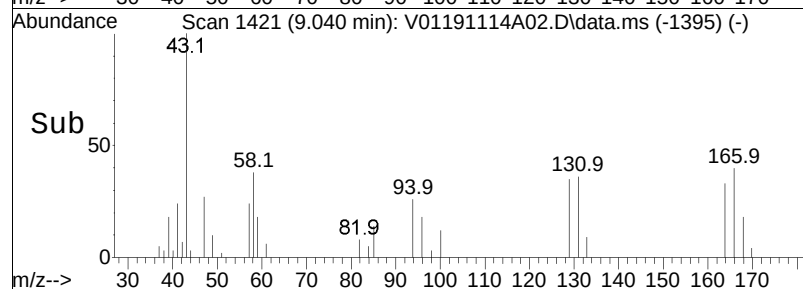
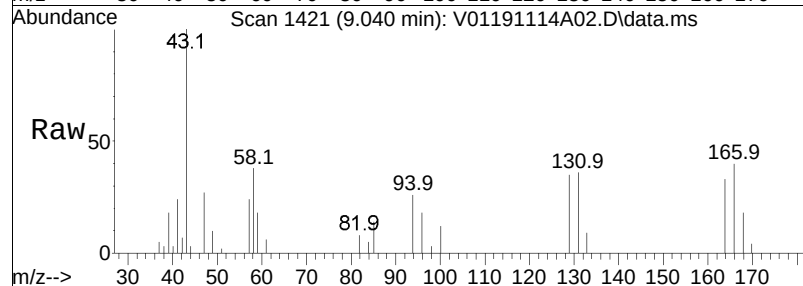
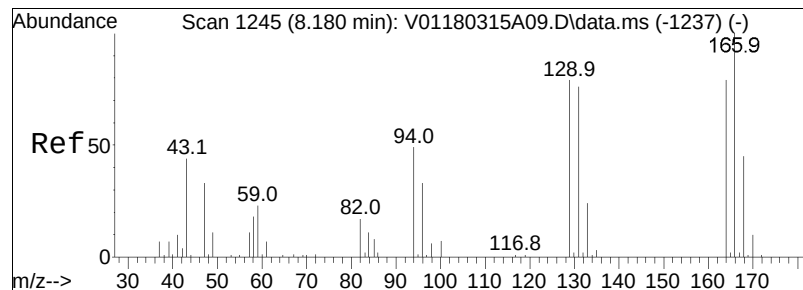




#61
 Toluene
 Concen: 10.02 ug/L
 RT: 8.571 min Scan# 1335
 Delta R.T. -0.005 min
 Lab File: V01191114A02.D
 Acq: 14 Nov 2019 7:24 am

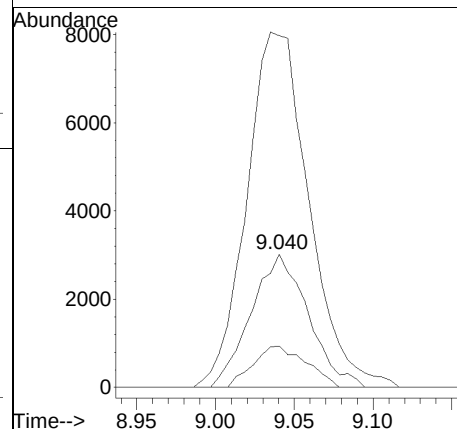
Tgt Ion	Ratio	Lower	Upper
92	100		
91	173.0	137.5	206.3

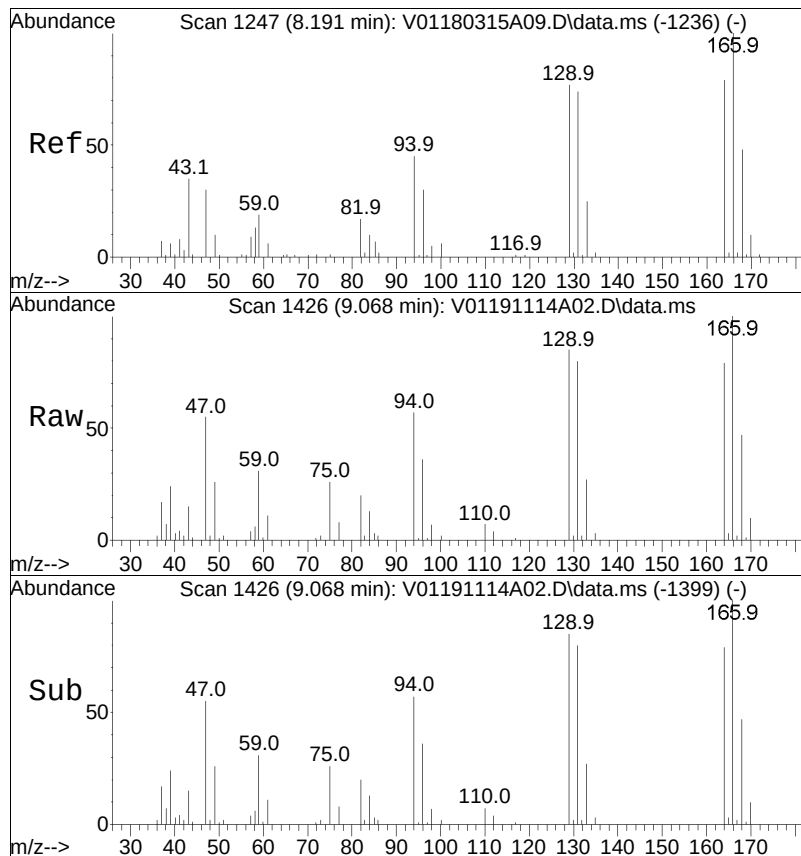




#62
 4-Methyl-2-pentanone
 Concen: 7.75 ug/L
 RT: 9.040 min Scan# 1421
 Delta R.T. -0.006 min
 Lab File: V01191114A02.D
 Acq: 14 Nov 2019 7:24 am

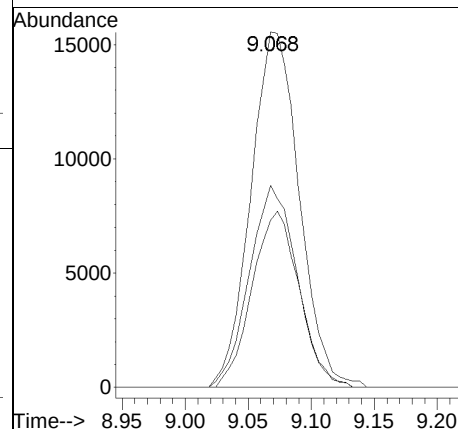
Tgt Ion	Ratio	Lower	Upper
58	100		
100	29.0	31.8	47.6#
43	290.4	212.5	318.7

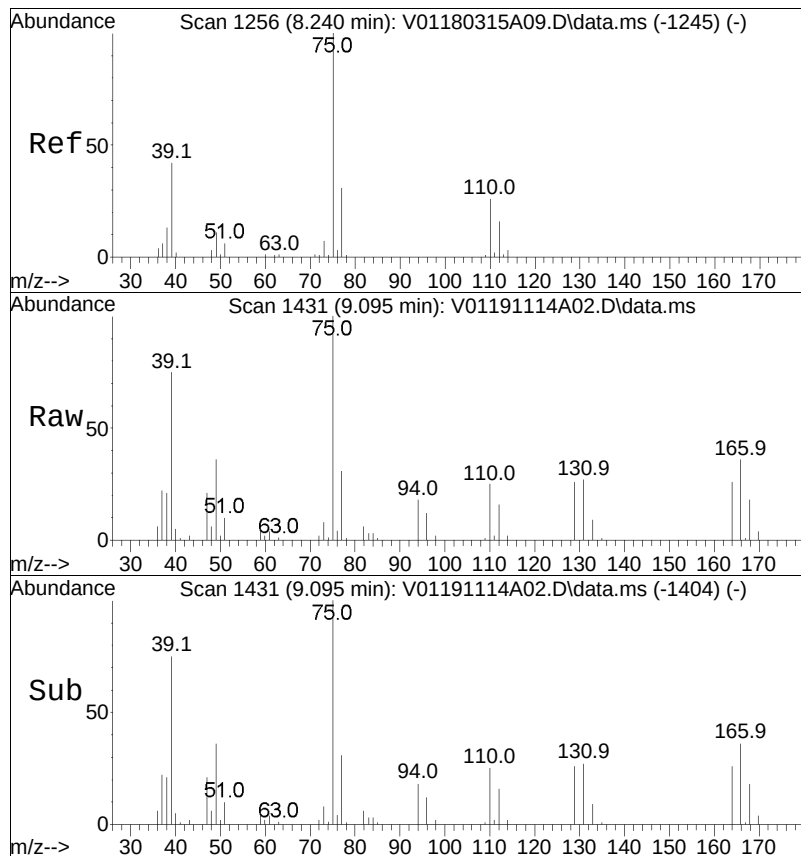




#63
Tetrachloroethene
Concen: 10.41 ug/L
RT: 9.068 min Scan# 1426
Delta R.T. -0.005 min
Lab File: V01191114A02.D
Acq: 14 Nov 2019 7:24 am

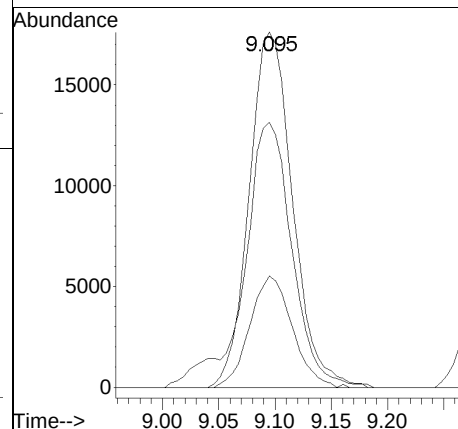
Tgt	Ion:166	Resp:	41718
Ion	Ratio	Lower	Upper
166	100		
168	48.3	27.4	67.4
94	55.7	24.8	64.8

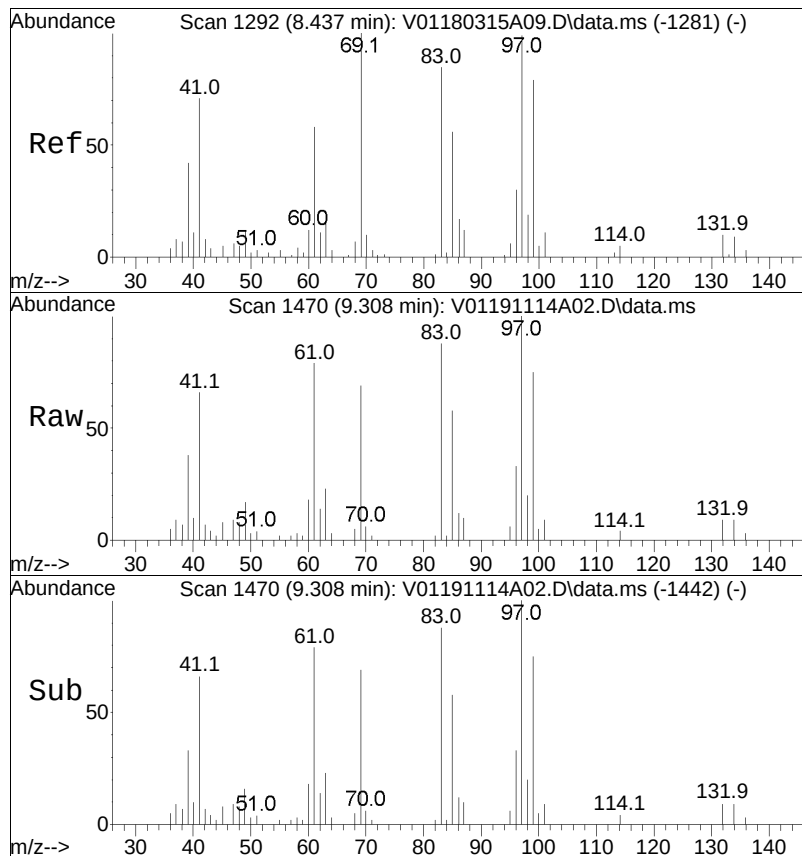




#65
 trans-1,3-Dichloropropene
 Concen: 9.32 ug/L
 RT: 9.095 min Scan# 1431
 Delta R.T. -0.005 min
 Lab File: V01191114A02.D
 Acq: 14 Nov 2019 7:24 am

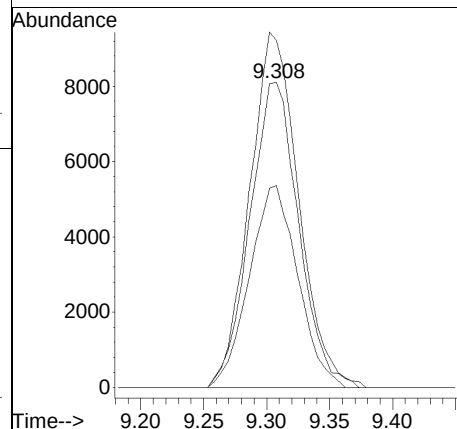
Tgt Ion	Ratio	Lower	Upper
75	100		
77	30.7	11.8	51.8
39	82.3	30.2	70.2#

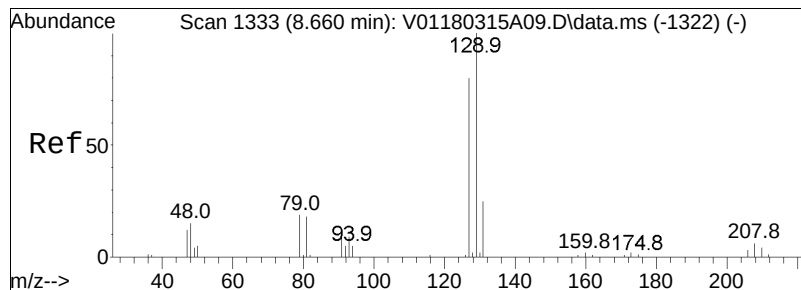




#68
 1,1,2-Trichloroethane
 Concen: 8.89 ug/L
 RT: 9.308 min Scan# 1470
 Delta R.T. 0.000 min
 Lab File: V01191114A02.D
 Acq: 14 Nov 2019 7:24 am

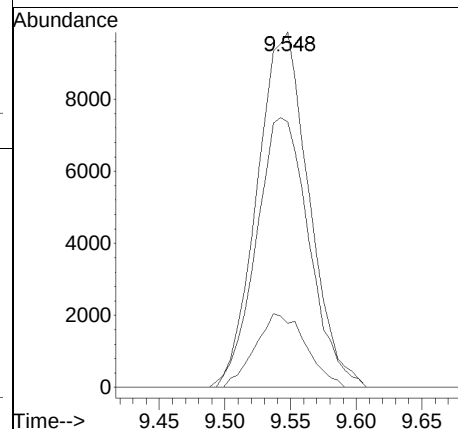
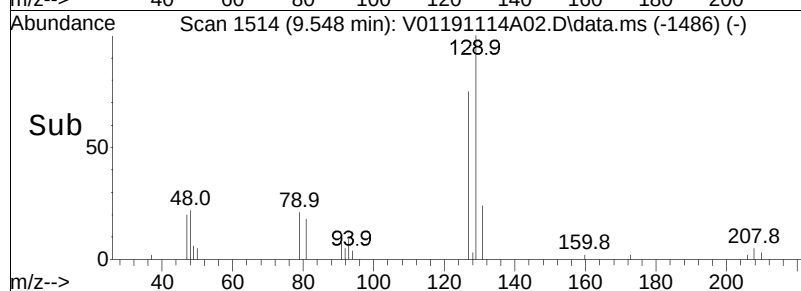
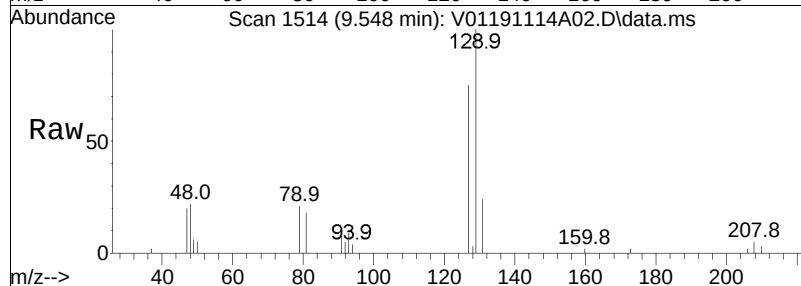
Tgt Ion:	83	Resp:	21824
Ion Ratio	Lower	Upper	
83	100		
97	116.3	96.7	136.7
85	65.6	45.3	85.3

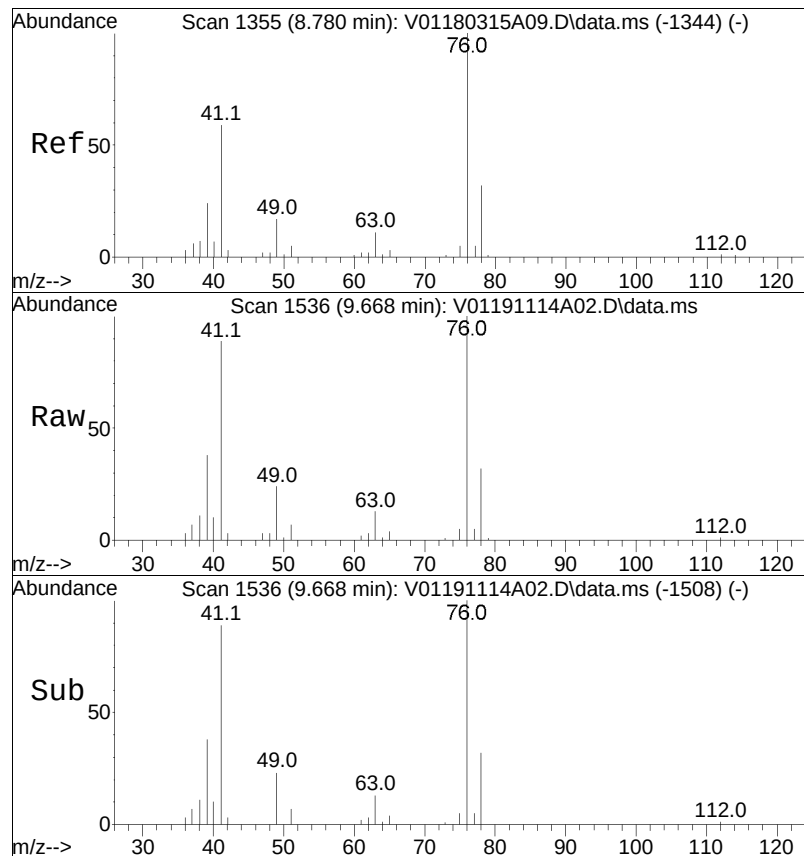




#69
 Chlorodibromomethane
 Concen: 9.26 ug/L
 RT: 9.548 min Scan# 1514
 Delta R.T. 0.000 min
 Lab File: V01191114A02.D
 Acq: 14 Nov 2019 7:24 am

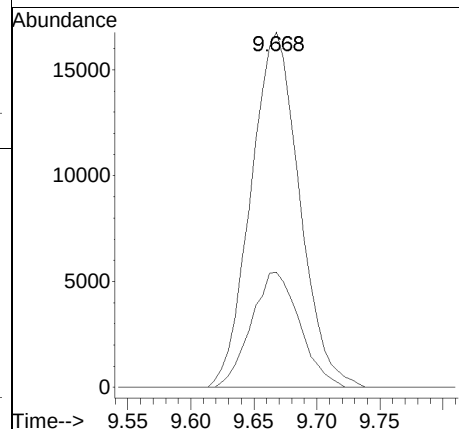
Tgt Ion	Ratio	Lower	Upper
129	100		
81	20.2	0.0	37.9
127	77.3	56.6	96.6

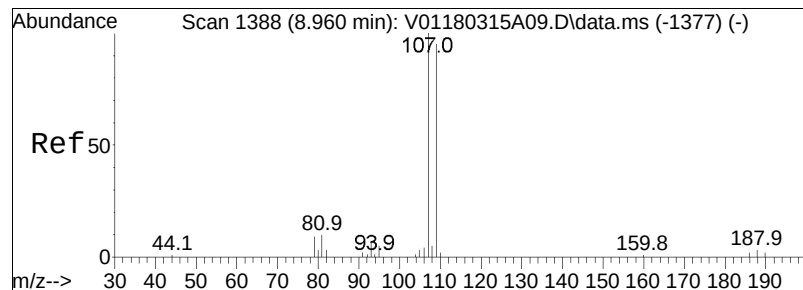




#70
 1,3-Dichloropropane
 Concen: 8.82 ug/L
 RT: 9.668 min Scan# 1536
 Delta R.T. 0.000 min
 Lab File: V01191114A02.D
 Acq: 14 Nov 2019 7:24 am

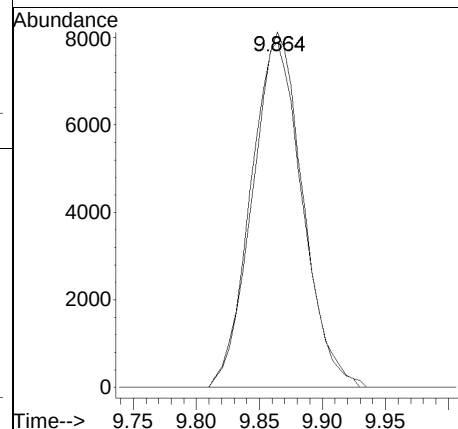
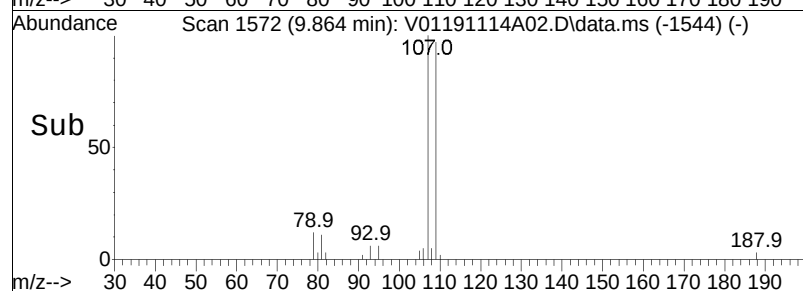
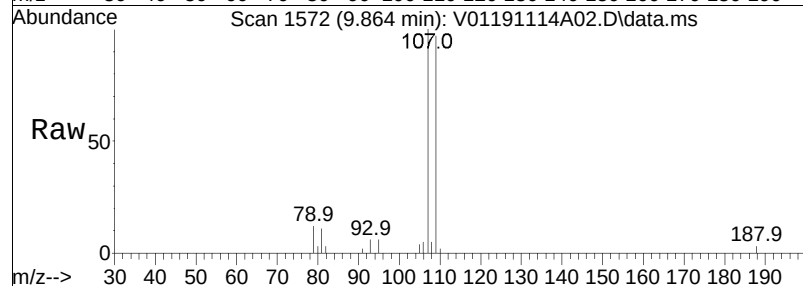
Tgt Ion	Ratio	Lower	Upper
76	100		
78	32.3	25.8	38.8

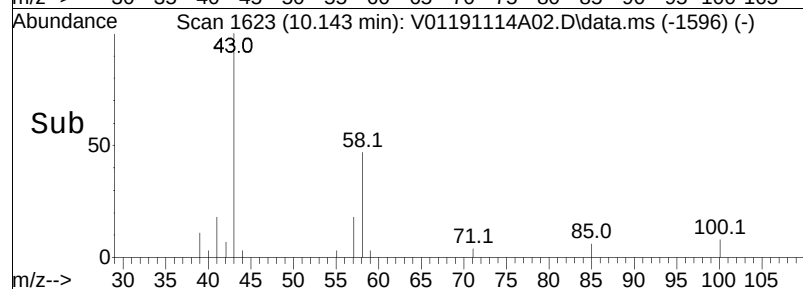
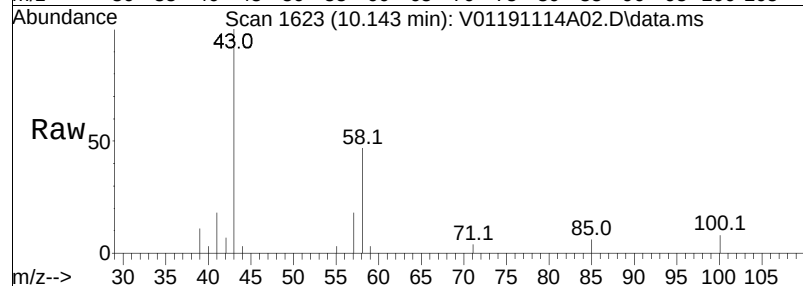
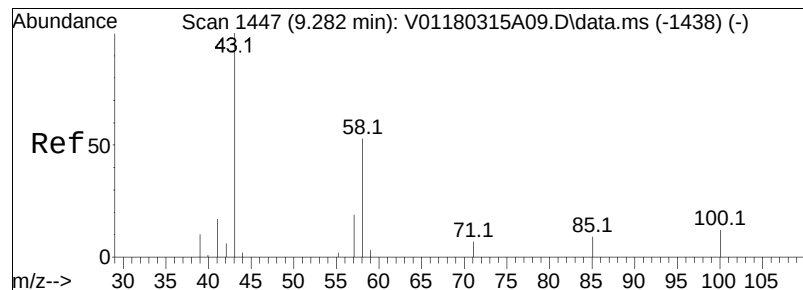




#71
 1,2-Dibromoethane
 Concen: 8.77 ug/L
 RT: 9.864 min Scan# 1572
 Delta R.T. 0.000 min
 Lab File: V01191114A02.D
 Acq: 14 Nov 2019 7:24 am

Tgt Ion	Ratio	Lower	Upper
107	100		
109	94.8	75.6	113.4





#72

2-Hexanone

Concen: 8.06 ug/L

RT: 10.143 min Scan# 1623

Delta R.T. -0.005 min

Lab File: V01191114A02.D

Acq: 14 Nov 2019 7:24 am

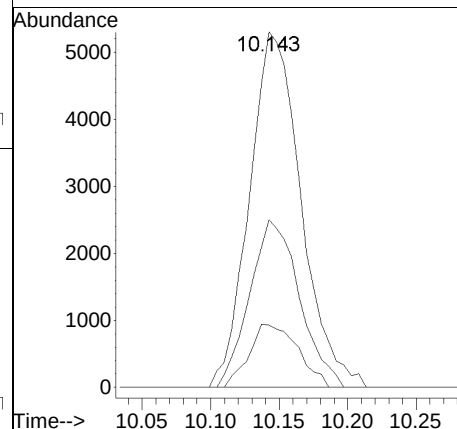
Tgt Ion: 43 Resp: 13871

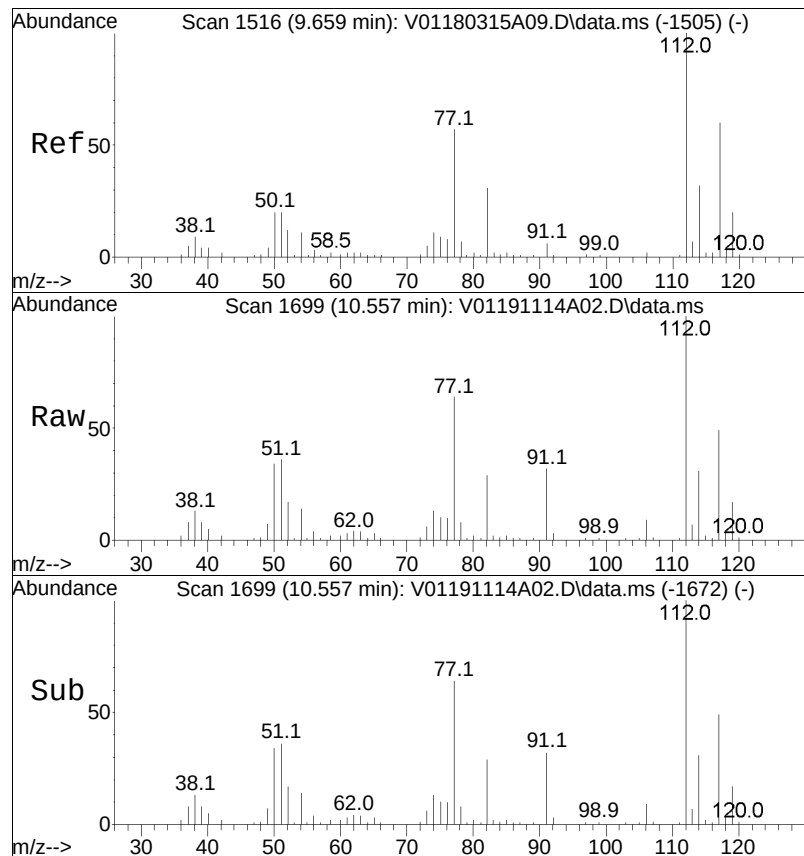
Ion Ratio Lower Upper

43 100

58 45.5 40.8 61.2

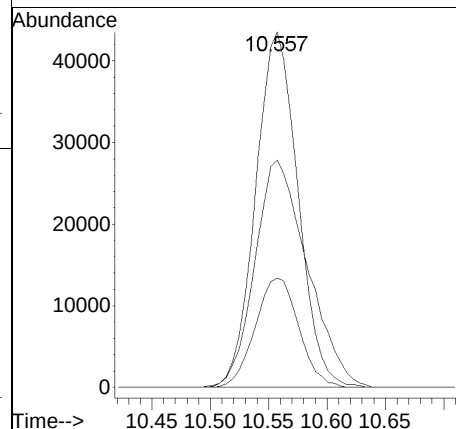
57 16.8 14.2 21.4

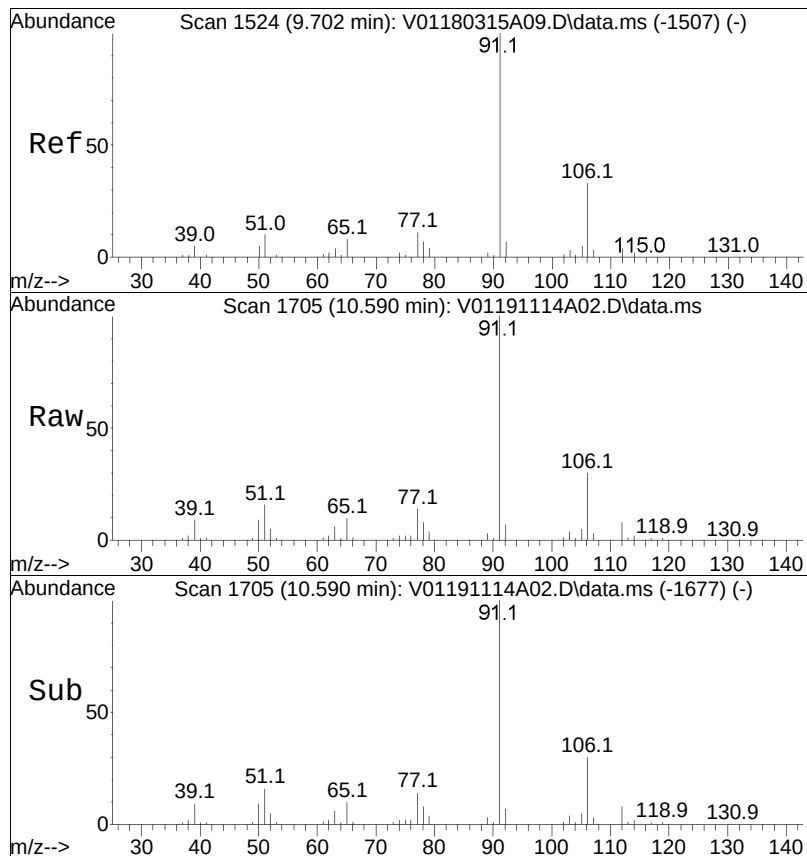




#73
 Chlorobenzene
 Concen: 10.04 ug/L
 RT: 10.557 min Scan# 1699
 Delta R.T. -0.005 min
 Lab File: V01191114A02.D
 Acq: 14 Nov 2019 7:24 am

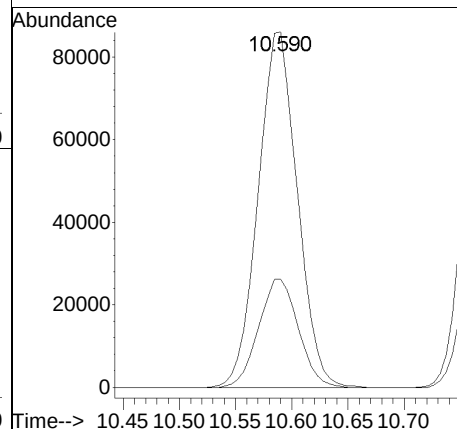
Tgt	Ion:112	Resp:	109743
Ion	Ratio	Lower	Upper
112	100		
77	79.3	59.8	89.6
114	31.7	25.4	38.2

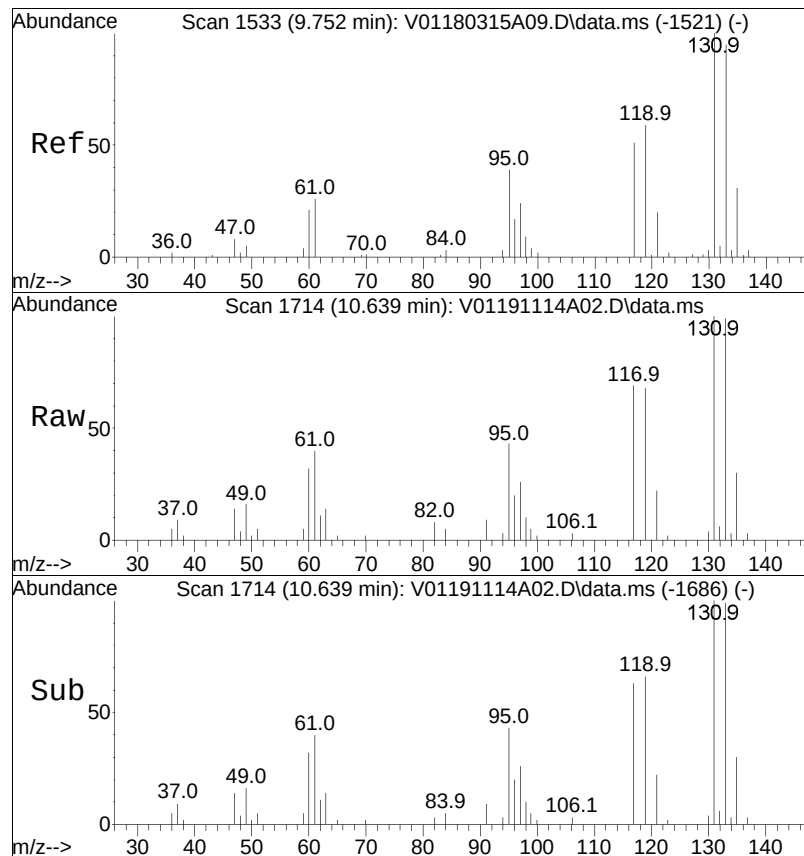




#74
 Ethylbenzene
 Concen: 10.23 ug/L
 RT: 10.590 min Scan# 1705
 Delta R.T. 0.000 min
 Lab File: V01191114A02.D
 Acq: 14 Nov 2019 7:24 am

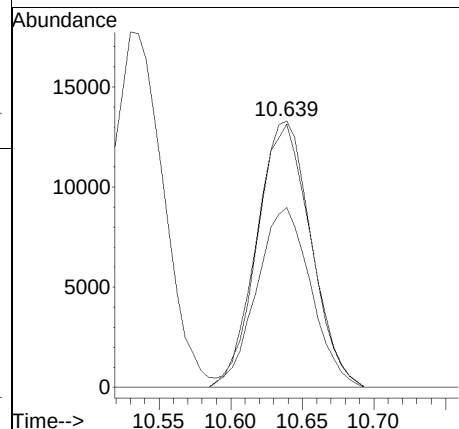
Tgt	Ion	Resp	Lower	Upper
91	100	208152		
106	30.9	24.7	37.1	

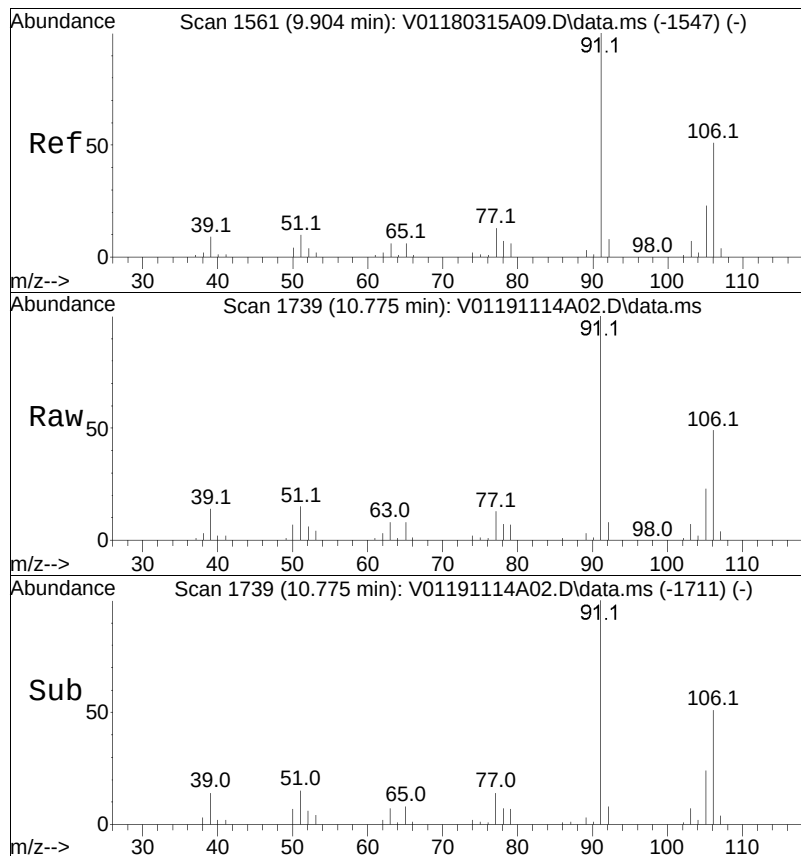




#75
 1,1,1,2-Tetrachloroethane
 Concen: 10.09 ug/L
 RT: 10.639 min Scan# 1714
 Delta R.T. 0.000 min
 Lab File: V01191114A02.D
 Acq: 14 Nov 2019 7:24 am

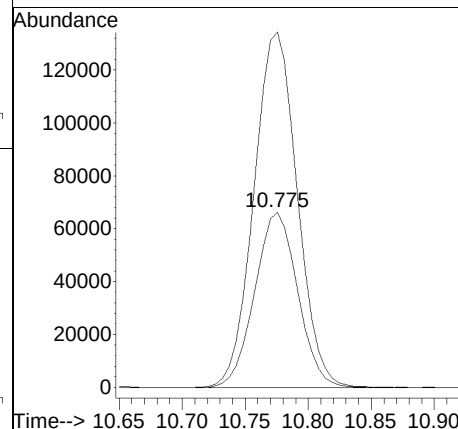
Tgt Ion:	131	Resp:	35385
Ion Ratio	Lower	Upper	
131	100		
133	96.3	75.8	115.8
119	66.5	45.8	85.8

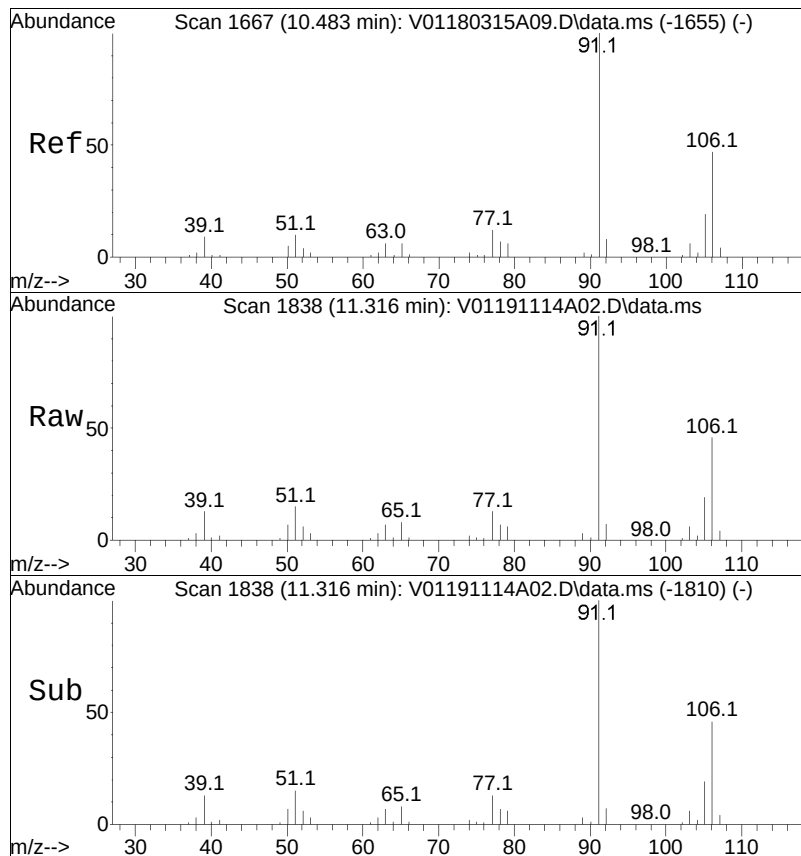




#76
 p/m Xylene
 Concen: 20.39 ug/L
 RT: 10.775 min Scan# 1739
 Delta R.T. 0.000 min
 Lab File: V01191114A02.D
 Acq: 14 Nov 2019 7:24 am

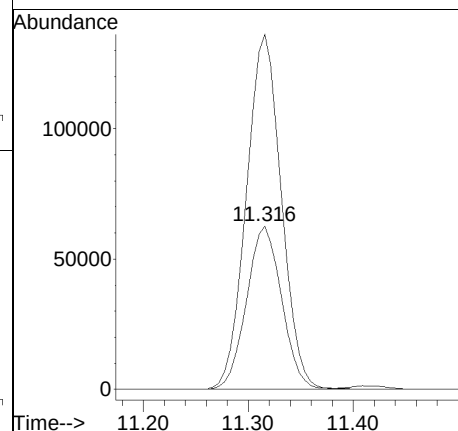
Tgt Ion	Ratio	Lower	Upper
106	100		
91	204.9	162.9	244.3

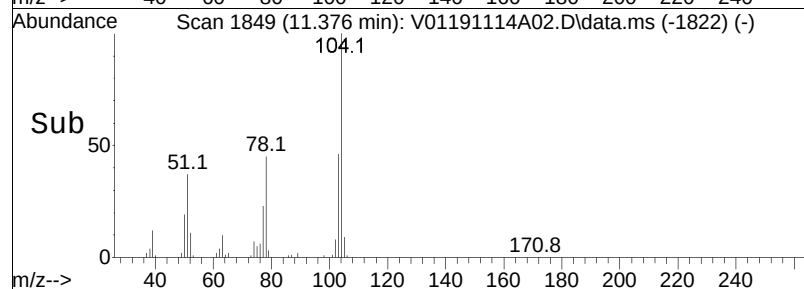
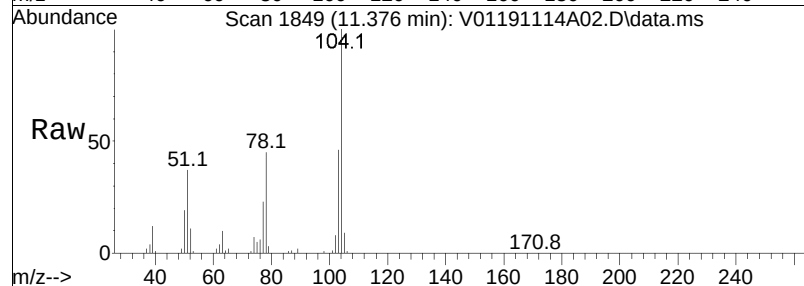
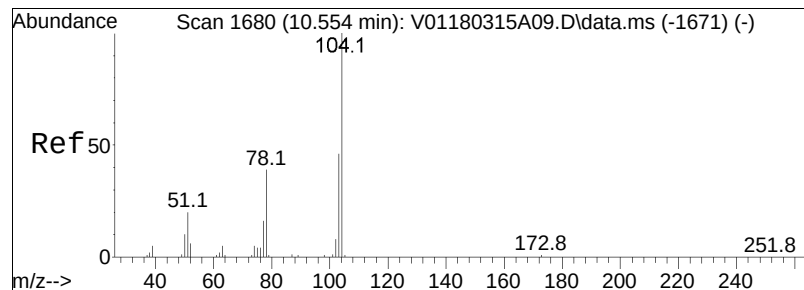




#77
 o Xylene
 Concen: 20.43 ug/L
 RT: 11.316 min Scan# 1838
 Delta R.T. 0.000 min
 Lab File: V01191114A02.D
 Acq: 14 Nov 2019 7:24 am

Tgt Ion	Ion	Ratio	Lower	Upper
106	100			
91	215.6	171.2	256.8	





#78

Styrene

Concen: 19.64 ug/L

RT: 11.376 min Scan# 1849

Delta R.T. -0.005 min

Lab File: V01191114A02.D

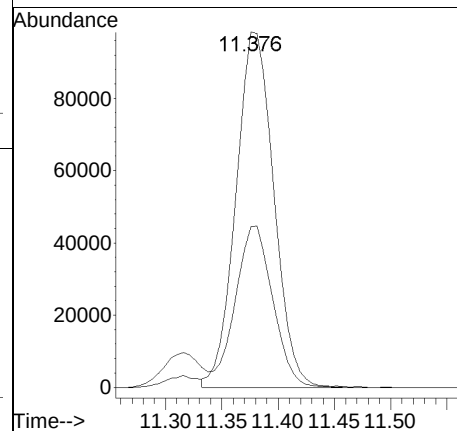
Acq: 14 Nov 2019 7:24 am

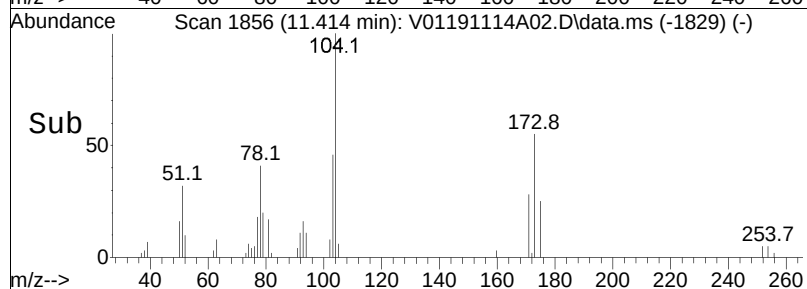
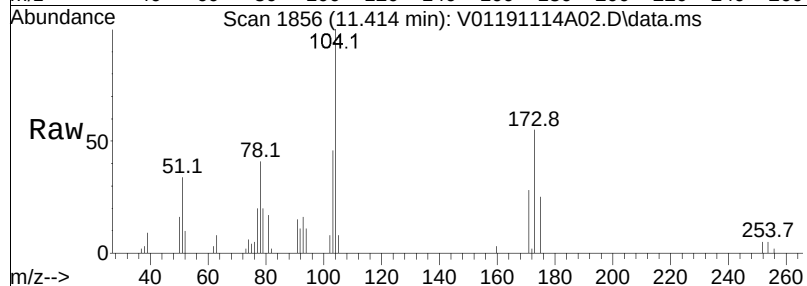
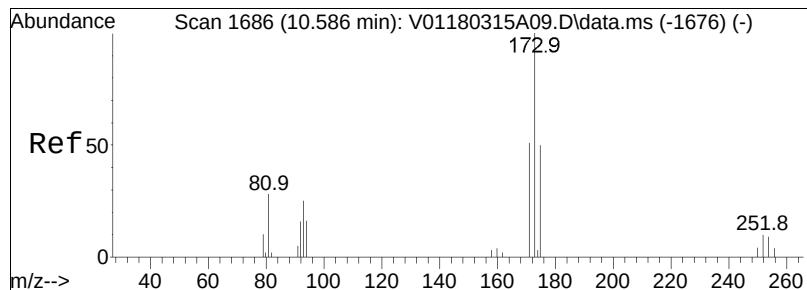
Tgt Ion:104 Resp: 230361

Ion Ratio Lower Upper

104 100

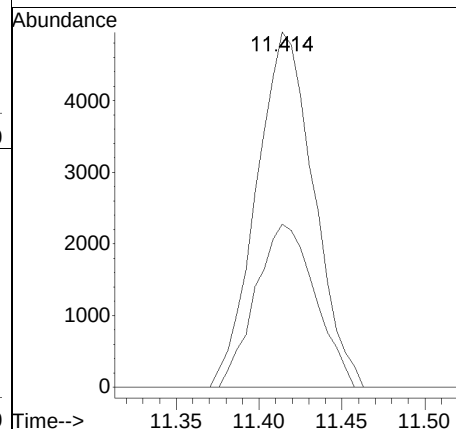
78 44.9 34.2 51.4

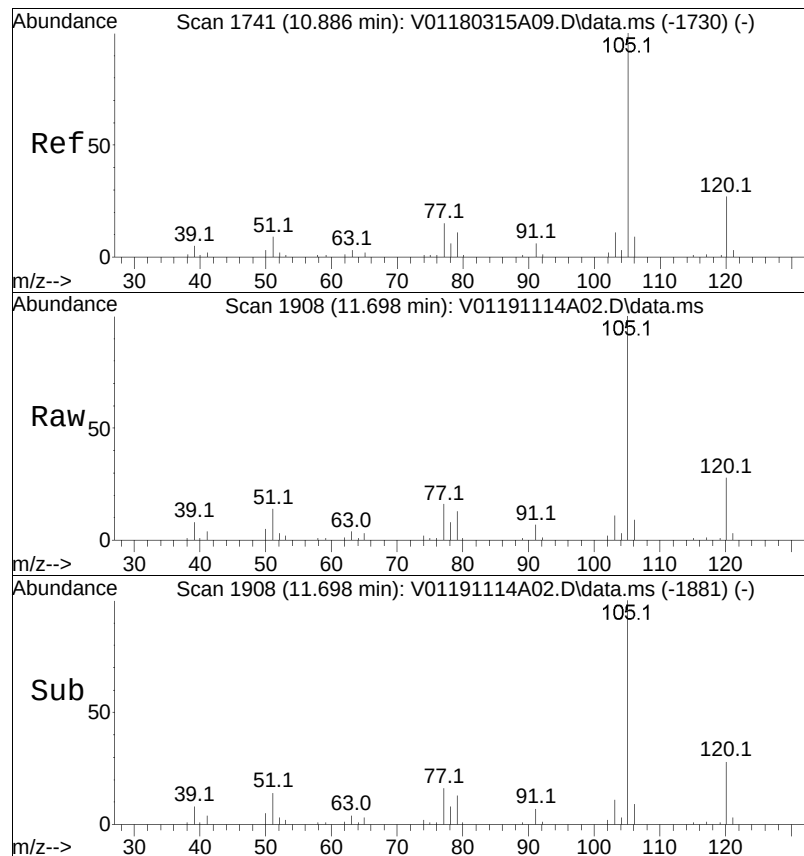




#80
Bromoform
Concen: 9.00 ug/L
RT: 11.414 min Scan# 1856
Delta R.T. -0.005 min
Lab File: V01191114A02.D
Acq: 14 Nov 2019 7:24 am

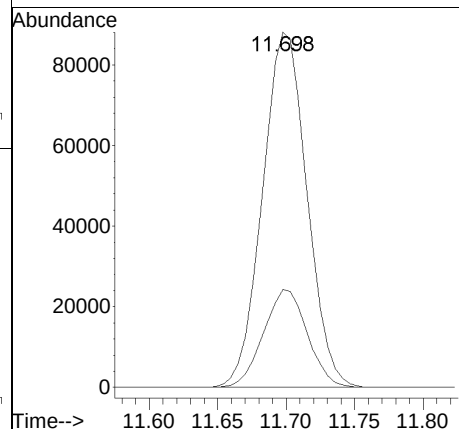
Tgt Ion:173 Resp: 11934
Ion Ratio Lower Upper
173 100
175 47.6 28.6 68.6

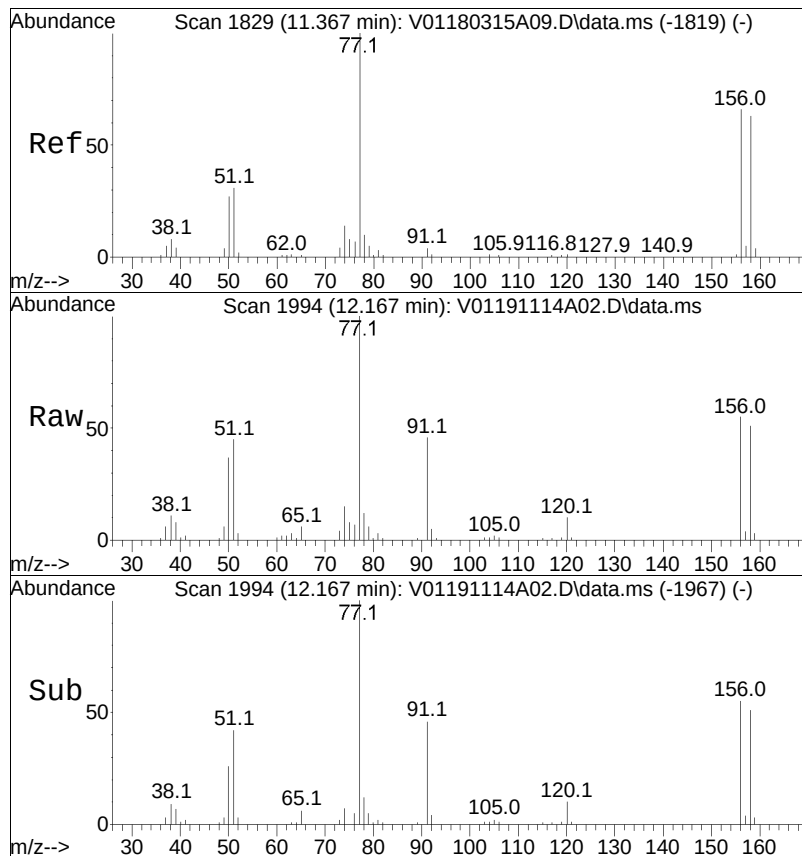




#82
 Isopropylbenzene
 Concen: 11.55 ug/L
 RT: 11.698 min Scan# 1908
 Delta R.T. -0.005 min
 Lab File: V01191114A02.D
 Acq: 14 Nov 2019 7:24 am

Tgt	Ion	Ratio	Lower	Upper
105	100			
120	27.2	7.3	47.3	





#84

Bromobenzene

Concen: 10.64 ug/L

RT: 12.167 min Scan# 1994

Delta R.T. -0.005 min

Lab File: V01191114A02.D

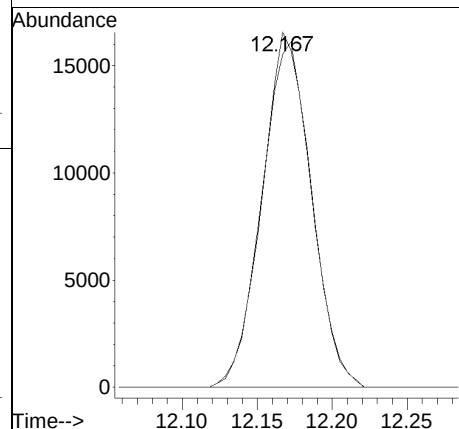
Acq: 14 Nov 2019 7:24 am

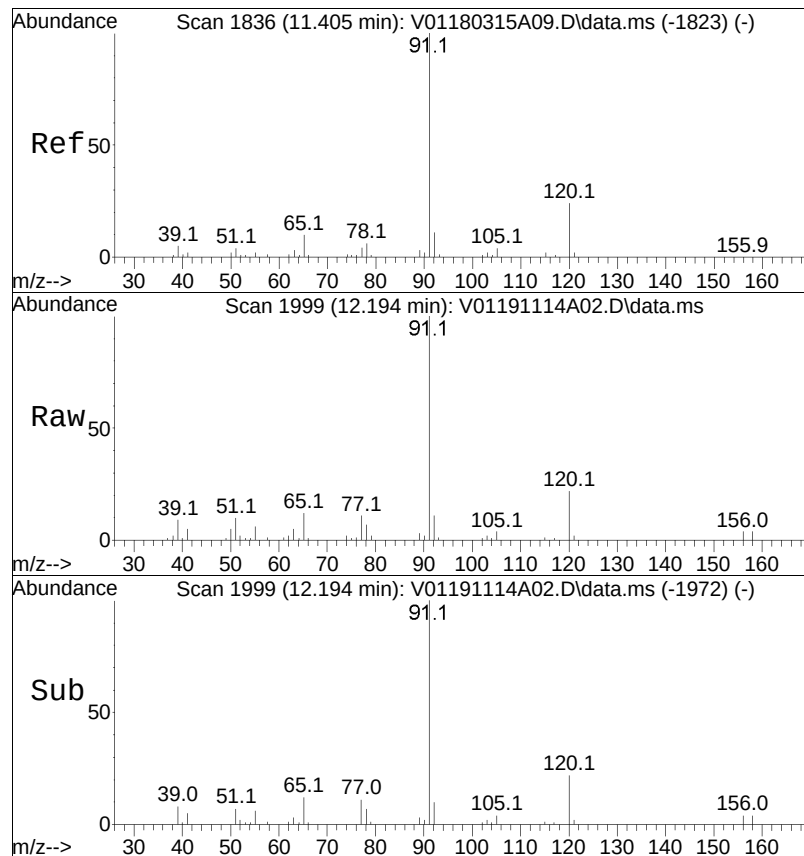
Tgt Ion:156 Resp: 37657

Ion Ratio Lower Upper

156 100

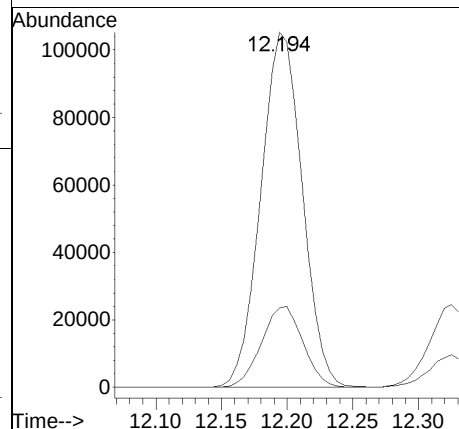
158 99.2 78.2 117.4

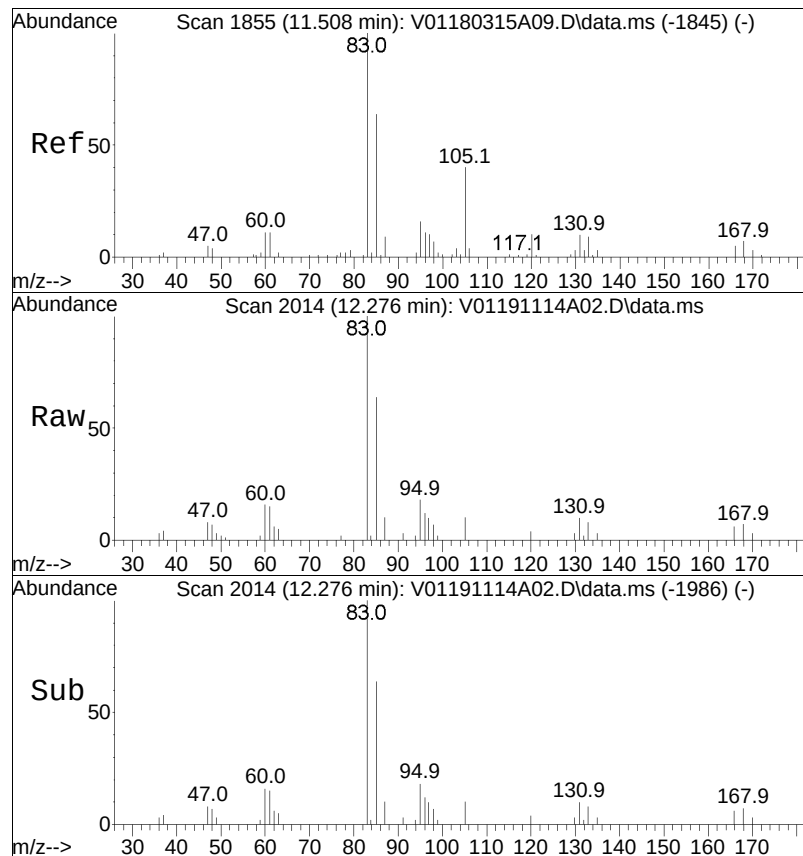




#85
 n-Propylbenzene
 Concen: 11.60 ug/L
 RT: 12.194 min Scan# 1999
 Delta R.T. -0.005 min
 Lab File: V01191114A02.D
 Acq: 14 Nov 2019 7:24 am

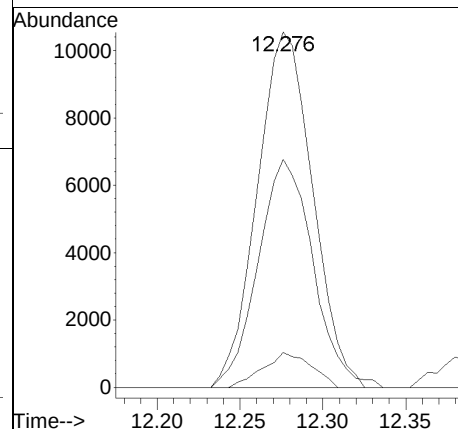
Tgt Ion:	91	Resp:	231368
Ion Ratio	Lower	Upper	
91	100		
120	22.8	18.6	28.0

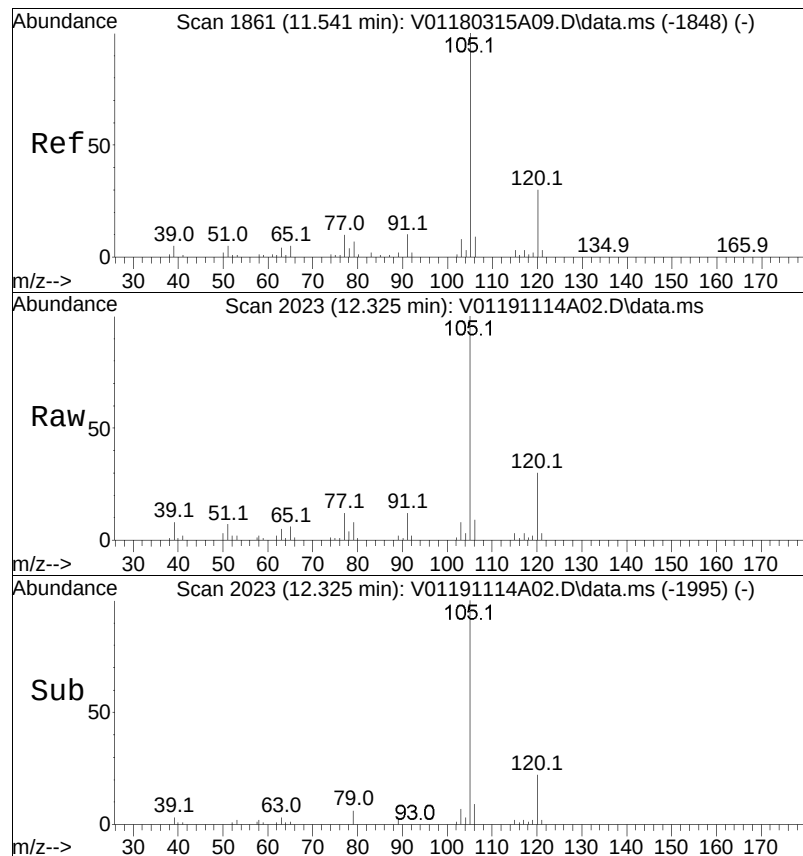




#87
 1,1,2,2-Tetrachloroethane
 Concen: 9.18 ug/L
 RT: 12.276 min Scan# 2014
 Delta R.T. 0.000 min
 Lab File: V01191114A02.D
 Acq: 14 Nov 2019 7:24 am

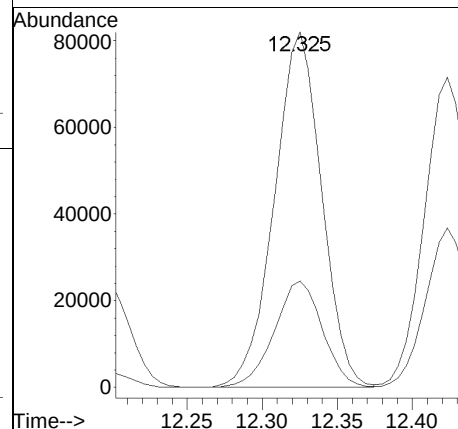
Tgt Ion:	83	Resp:	24464
Ion Ratio	Lower	Upper	
83	100		
131	8.6	0.0	30.1
85	63.7	45.8	85.8

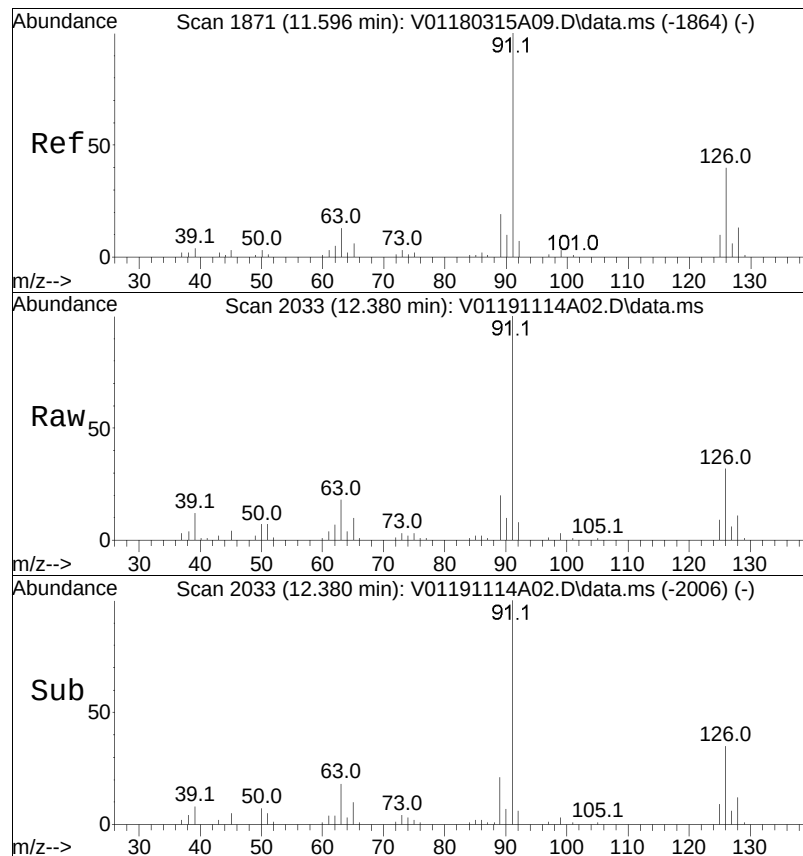




#88
 4-Ethyltoluene
 Concen: 11.43 ug/L
 RT: 12.325 min Scan# 2023
 Delta R.T. 0.000 min
 Lab File: V01191114A02.D
 Acq: 14 Nov 2019 7:24 am

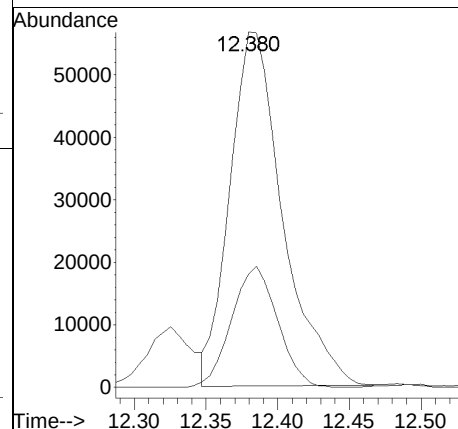
Tgt Ion	Ratio	Lower	Upper
105	100		
120	30.5	19.8	41.0

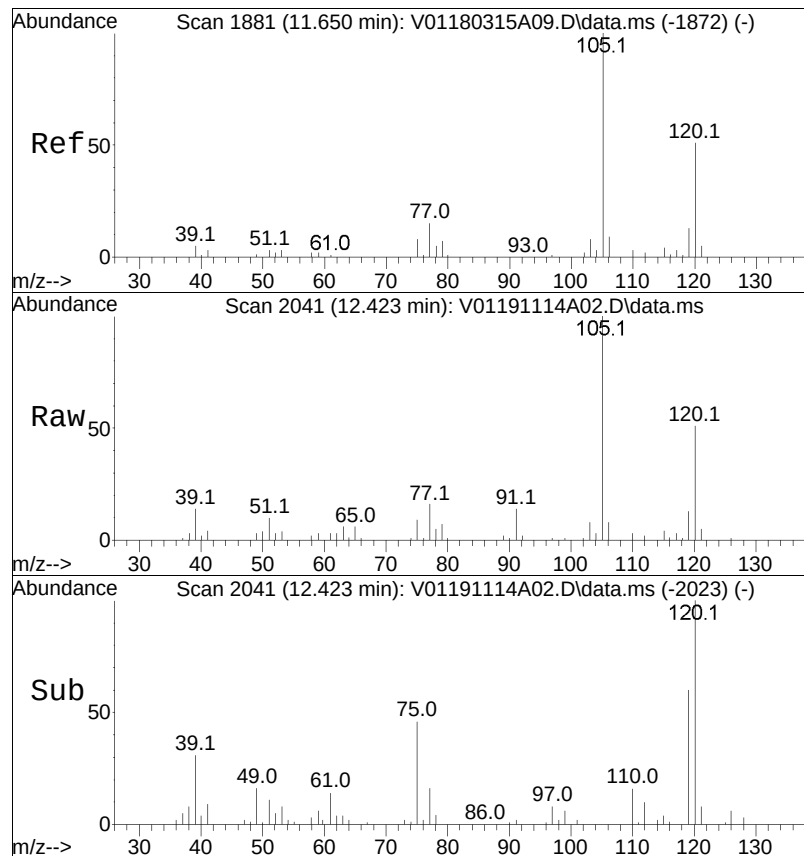




#89
 2-Chlorotoluene
 Concen: 11.29 ug/L
 RT: 12.380 min Scan# 2033
 Delta R.T. -0.005 min
 Lab File: V01191114A02.D
 Acq: 14 Nov 2019 7:24 am

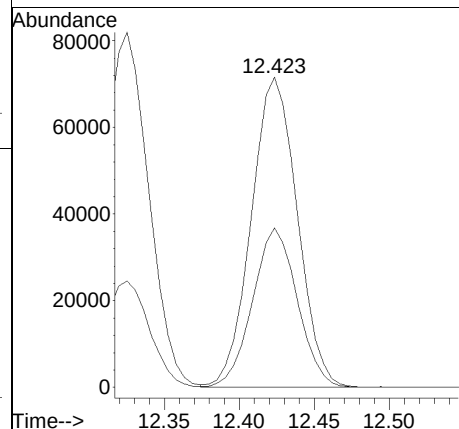
Tgt Ion	Ratio	Lower	Upper
91	100		
126	29.8	27.1	40.7

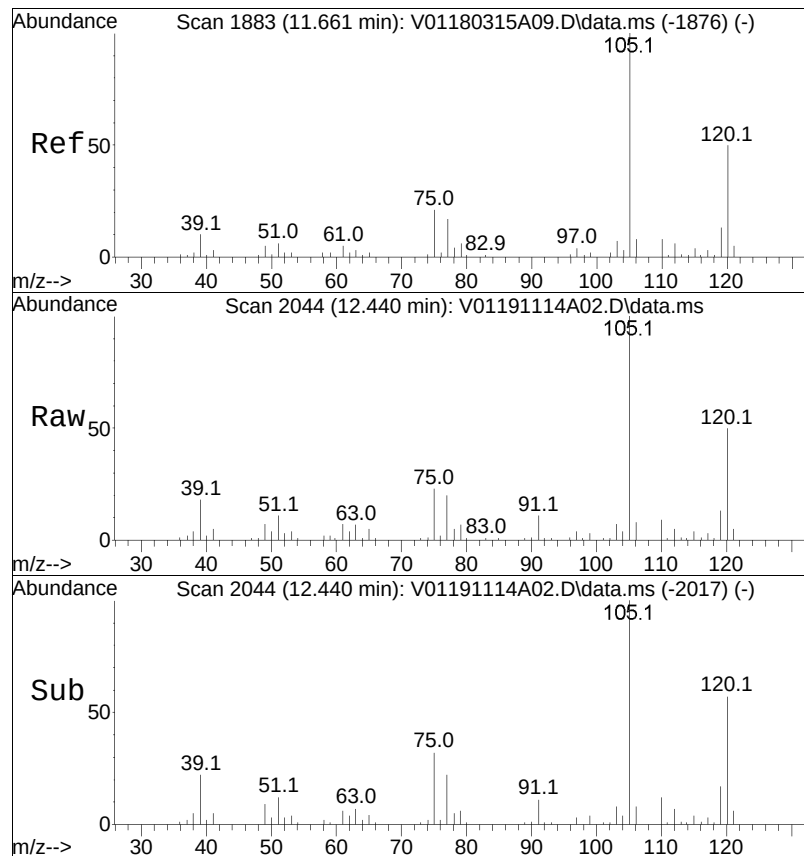




#90
 1,3,5-Trimethylbenzene
 Concen: 11.36 ug/L
 RT: 12.423 min Scan# 2041
 Delta R.T. 0.000 min
 Lab File: V01191114A02.D
 Acq: 14 Nov 2019 7:24 am

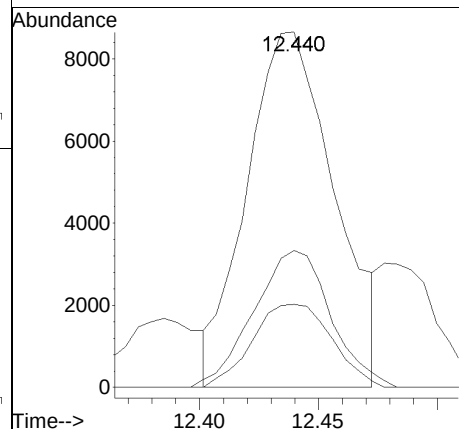
Tgt Ion	Ratio	Lower	Upper
105	100		
120	49.8	40.6	60.8

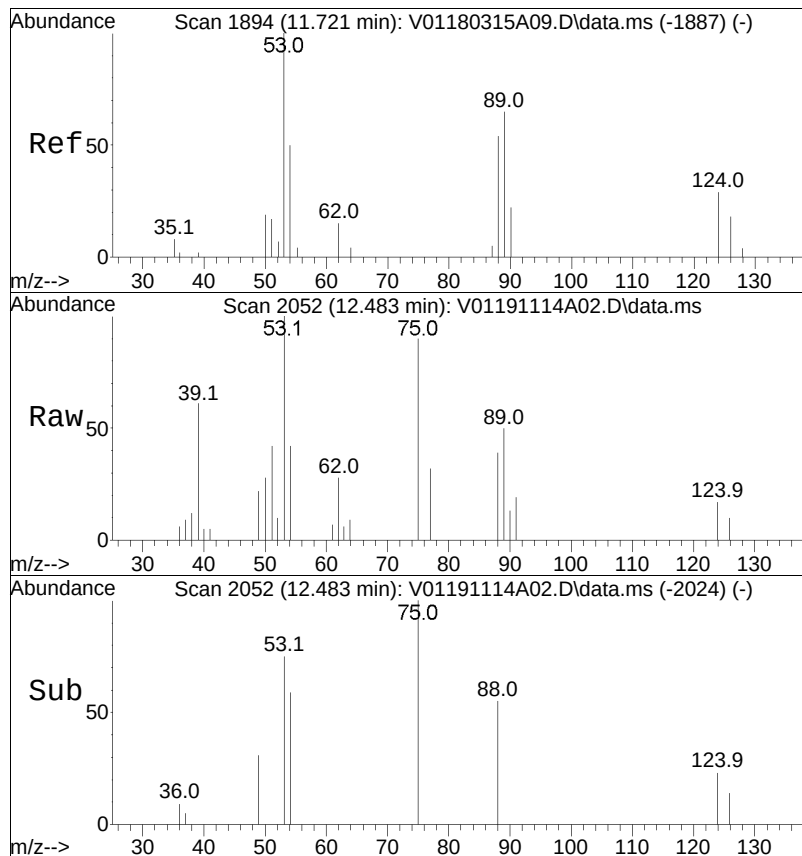




#91
 1,2,3-Trichloropropane
 Concen: 9.44 ug/L M1
 RT: 12.440 min Scan# 2044
 Delta R.T. -0.005 min
 Lab File: V01191114A02.D
 Acq: 14 Nov 2019 7:24 am

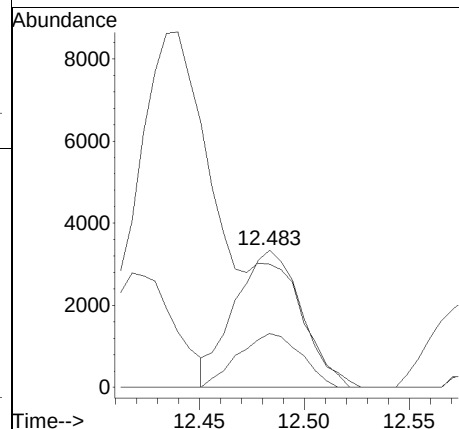
Tgt Ion:	75	Resp:	22298
Ion Ratio	Lower	Upper	
75	100		
110	33.7	26.5	54.9
112	21.2	17.0	35.2

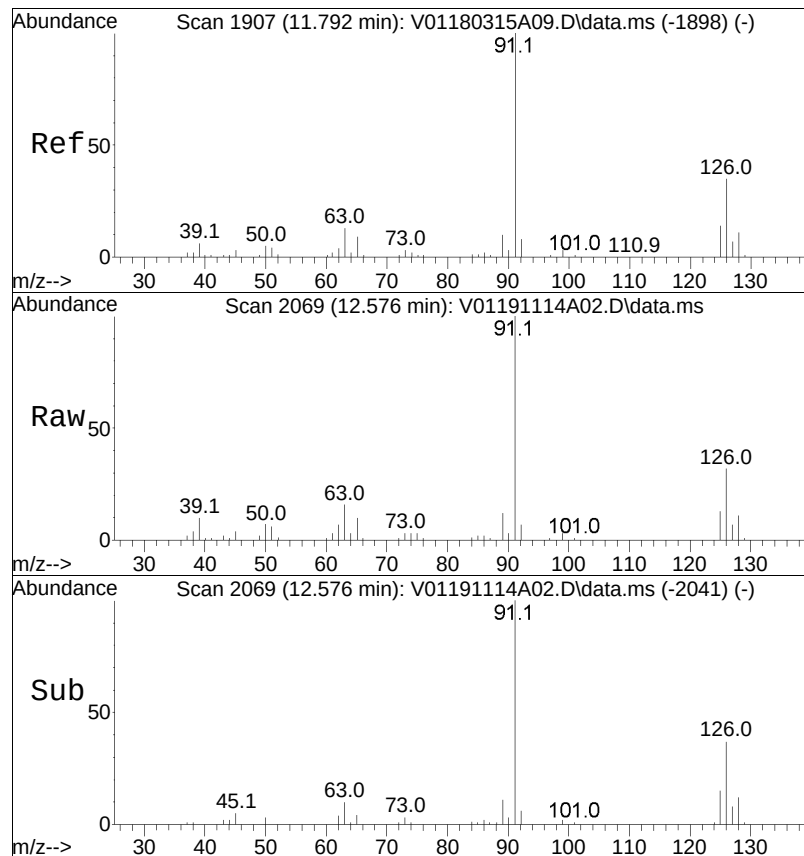




#92
 trans-1,4-Dichloro-2-butene
 Concen: 9.03 ug/L
 RT: 12.483 min Scan# 2052
 Delta R.T. 0.000 min
 Lab File: V01191114A02.D
 Acq: 14 Nov 2019 7:24 am

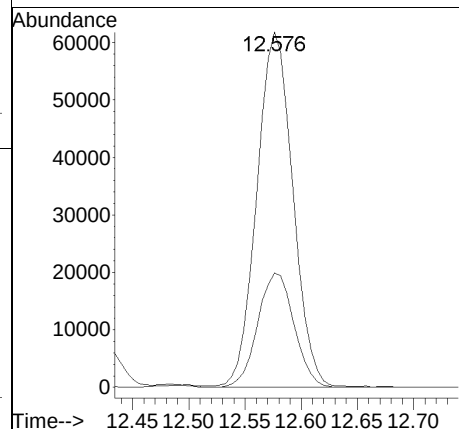
Tgt	Ion: 53	Resp:	7406
Ion	Ratio	Lower	Upper
53	100		
88	37.0	46.0	69.0#
75	0.0	107.0	160.4#

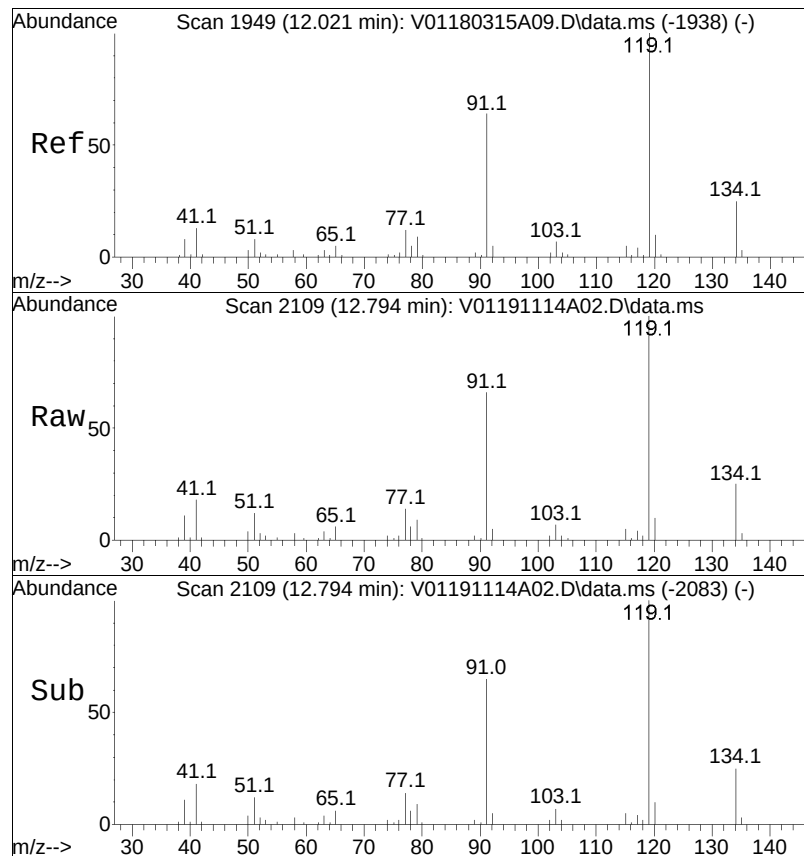




#93
 4-Chlorotoluene
 Concen: 11.38 ug/L
 RT: 12.576 min Scan# 2069
 Delta R.T. 0.000 min
 Lab File: V01191114A02.D
 Acq: 14 Nov 2019 7:24 am

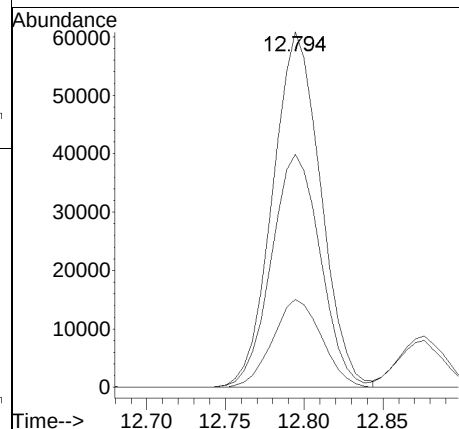
Tgt Ion	Ratio	Lower	Upper
91	100		
126	32.4	28.2	42.2

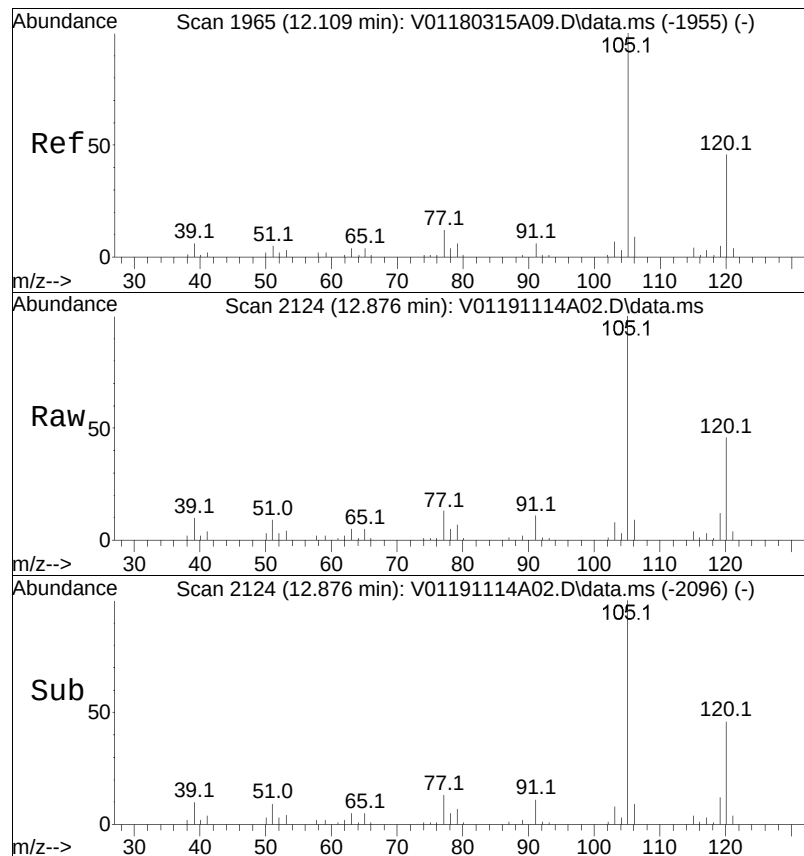




#94
 tert-Butylbenzene
 Concen: 11.44 ug/L
 RT: 12.794 min Scan# 2109
 Delta R.T. -0.005 min
 Lab File: V01191114A02.D
 Acq: 14 Nov 2019 7:24 am

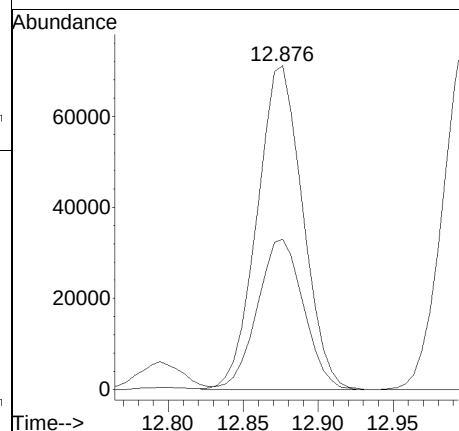
Tgt	Ion:119	Resp:	129387
Ion	Ratio	Lower	Upper
119	100		
91	66.9	52.5	78.7
134	25.2	20.9	31.3

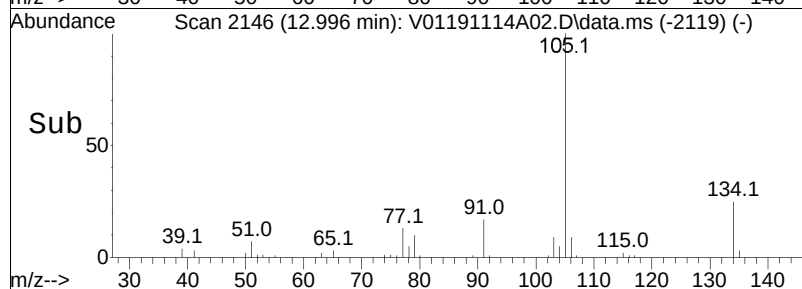
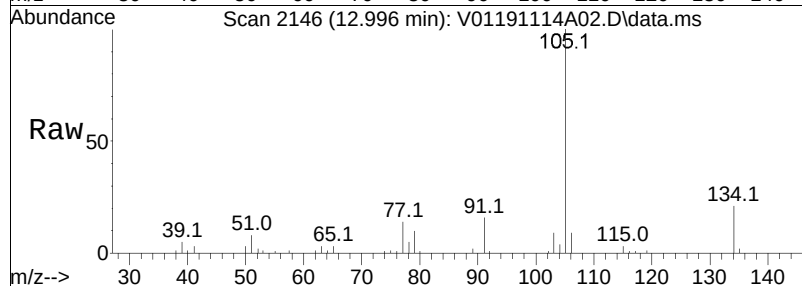
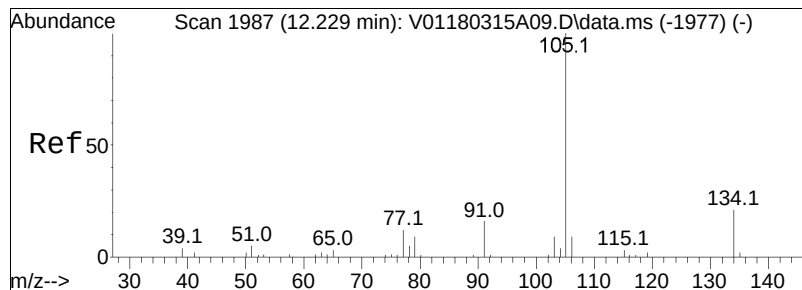




#97
 1,2,4-Trimethylbenzene
 Concen: 11.23 ug/L
 RT: 12.876 min Scan# 2124
 Delta R.T. 0.000 min
 Lab File: V01191114A02.D
 Acq: 14 Nov 2019 7:24 am

Tgt Ion	Ratio	Lower	Upper
105	100		
120	46.8	37.8	56.6





#98

sec-Butylbenzene

Concen: 11.28 ug/L

RT: 12.996 min Scan# 2146

Delta R.T. -0.005 min

Lab File: V01191114A02.D

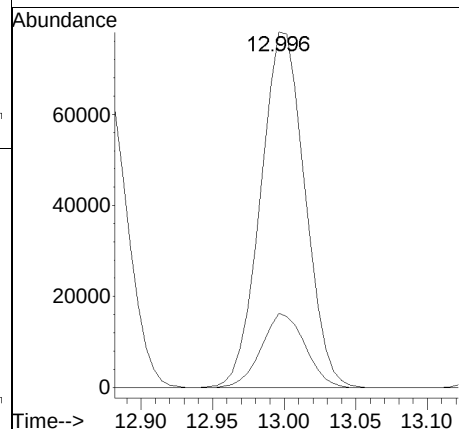
Acq: 14 Nov 2019 7:24 am

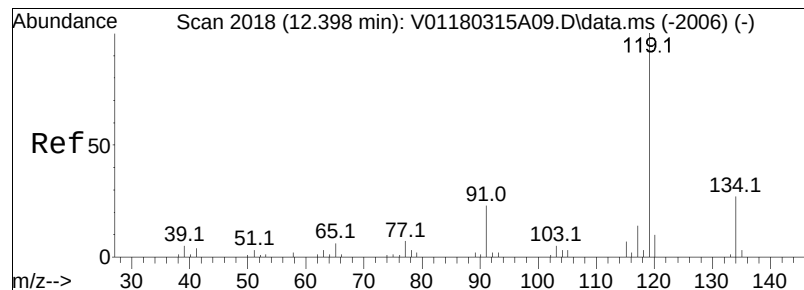
Tgt Ion:105 Resp: 168078

Ion Ratio Lower Upper

105 100

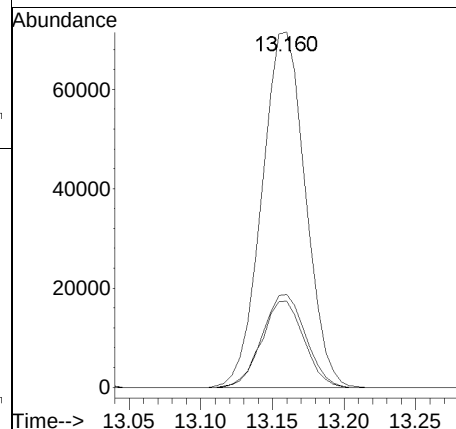
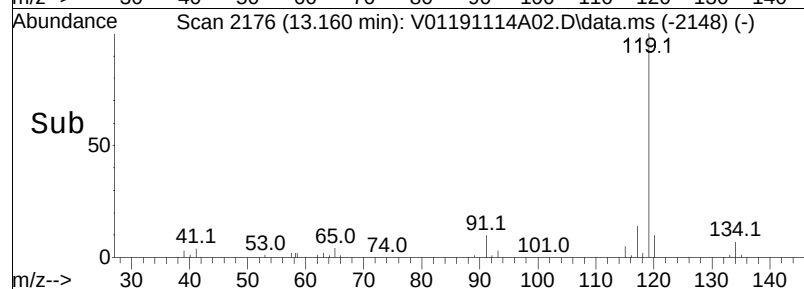
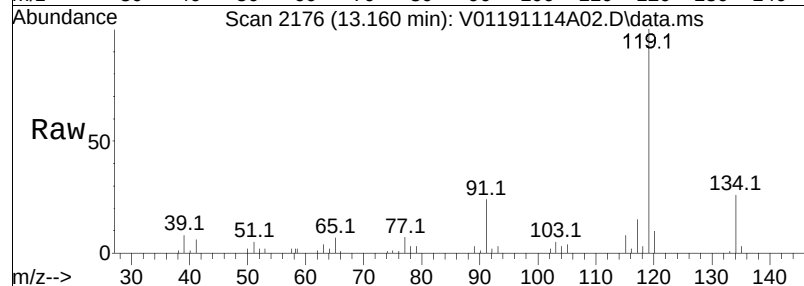
134 20.5 14.0 29.0

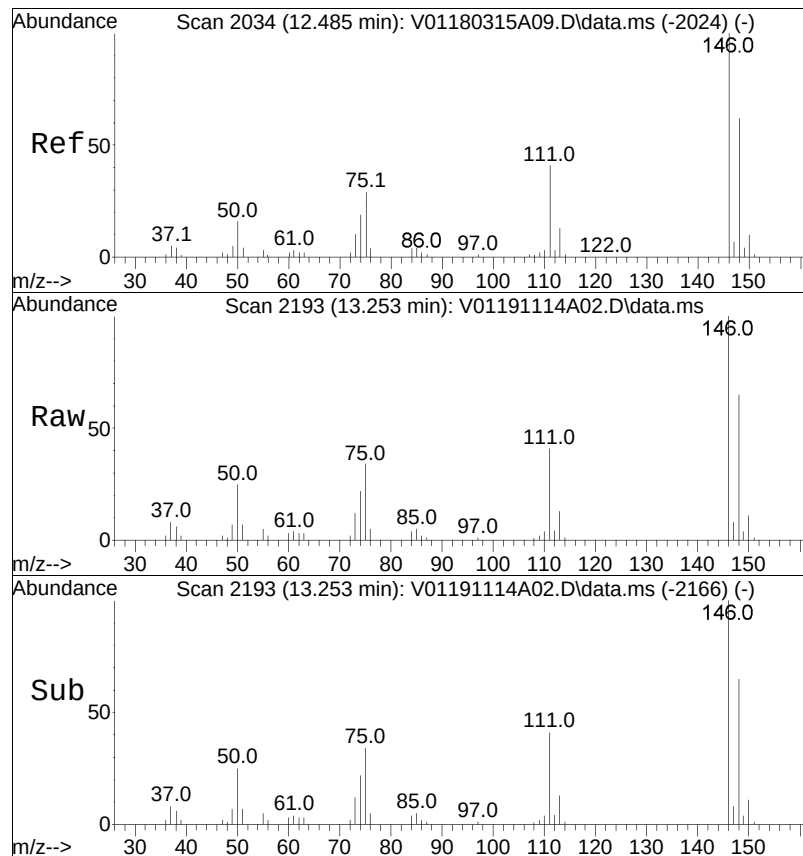




#99
 p-Isopropyltoluene
 Concen: 11.37 ug/L
 RT: 13.160 min Scan# 2176
 Delta R.T. 0.000 min
 Lab File: V01191114A02.D
 Acq: 14 Nov 2019 7:24 am

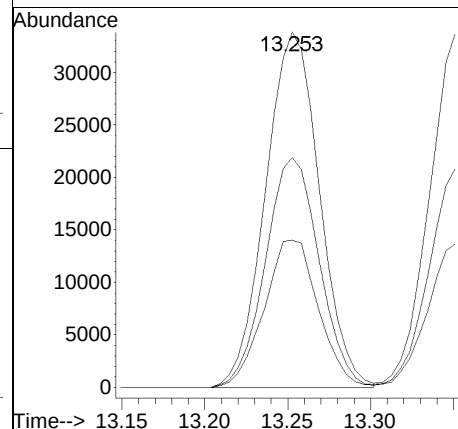
Tgt Ion	Ratio	Lower	Upper
119	100		
134	26.0	17.7	36.7
91	23.8	15.4	32.0

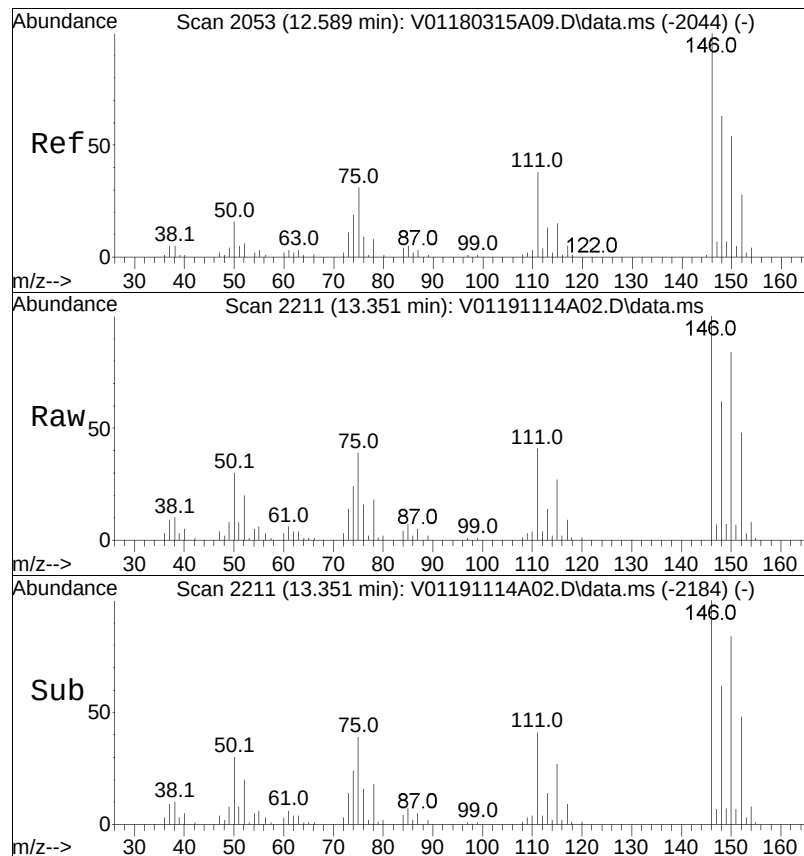




#100
 1,3-Dichlorobenzene
 Concen: 10.89 ug/L
 RT: 13.253 min Scan# 2193
 Delta R.T. -0.005 min
 Lab File: V01191114A02.D
 Acq: 14 Nov 2019 7:24 am

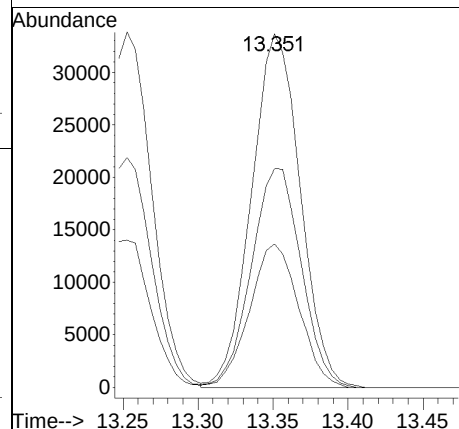
Tgt Ion:	146	Resp:	76516
Ion Ratio	Lower	Upper	
146	100		
111	41.7	25.9	53.9
148	64.5	41.5	86.3

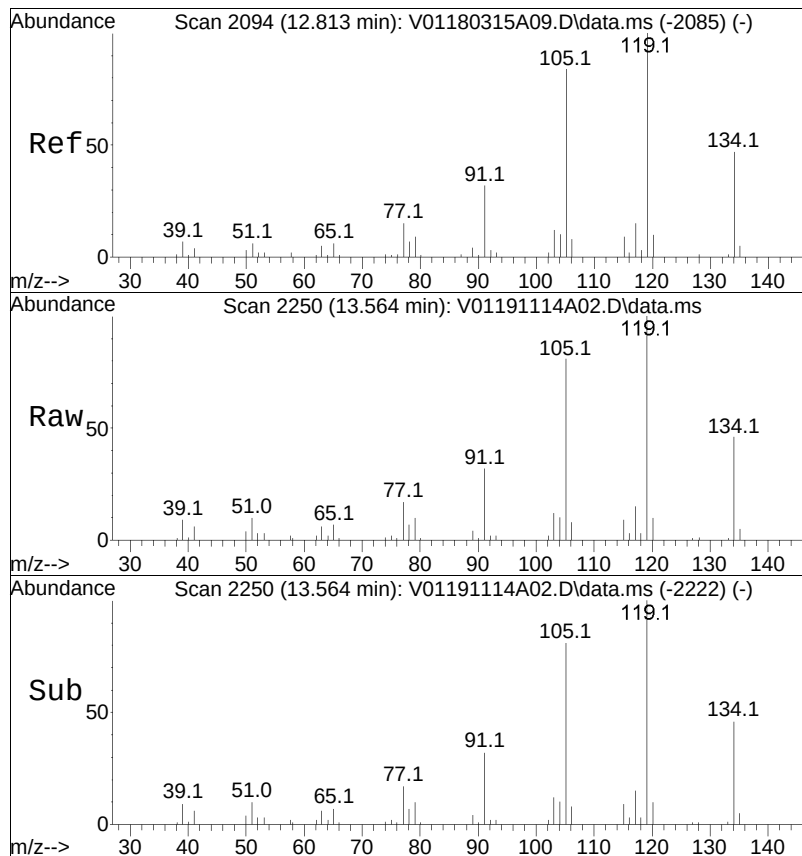




#101
 1,4-Dichlorobenzene
 Concen: 10.72 ug/L
 RT: 13.351 min Scan# 2211
 Delta R.T. -0.005 min
 Lab File: V01191114A02.D
 Acq: 14 Nov 2019 7:24 am

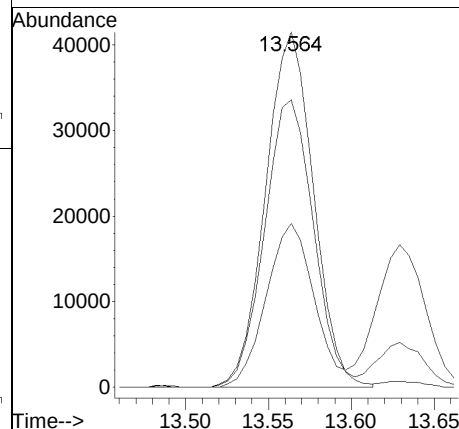
Tgt Ion	Ratio	Lower	Upper
146	100		
111	41.0	31.7	47.5
148	63.3	51.5	77.3

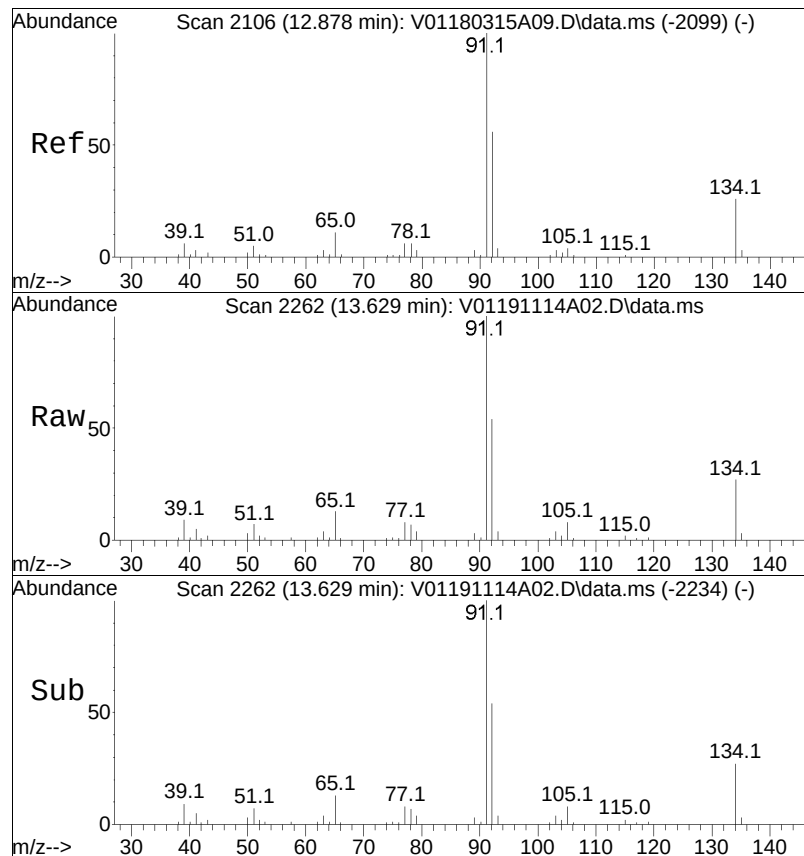




#102
 p-Diethylbenzene
 Concen: 11.47 ug/L
 RT: 13.564 min Scan# 2250
 Delta R.T. 0.000 min
 Lab File: V01191114A02.D
 Acq: 14 Nov 2019 7:24 am

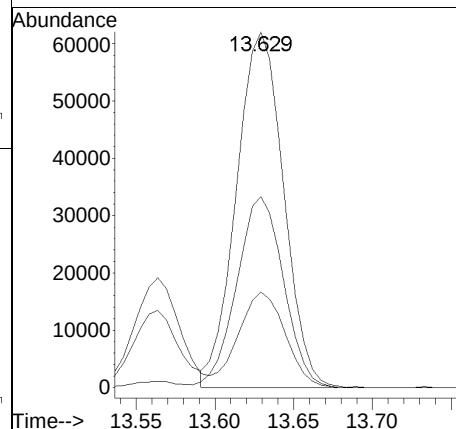
Tgt Ion:	119	Resp:	83435
Ion Ratio	Lower	Upper	
119	100		
105	82.8	54.1	112.3
134	46.3	31.5	65.3

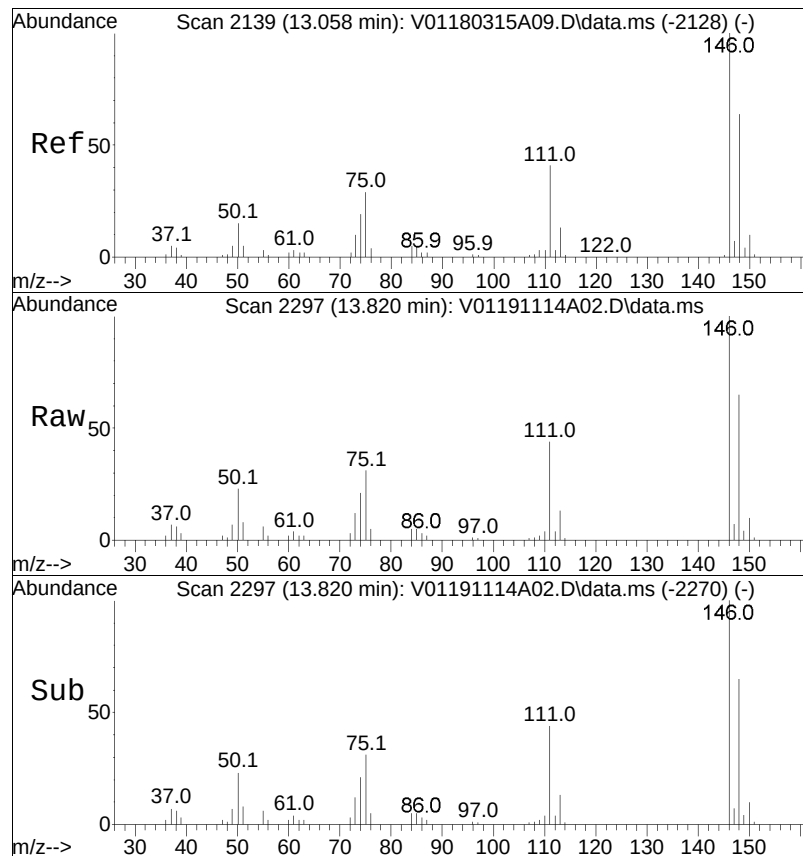




#103
 n-Butylbenzene
 Concen: 11.44 ug/L
 RT: 13.629 min Scan# 2262
 Delta R.T. 0.000 min
 Lab File: V01191114A02.D
 Acq: 14 Nov 2019 7:24 am

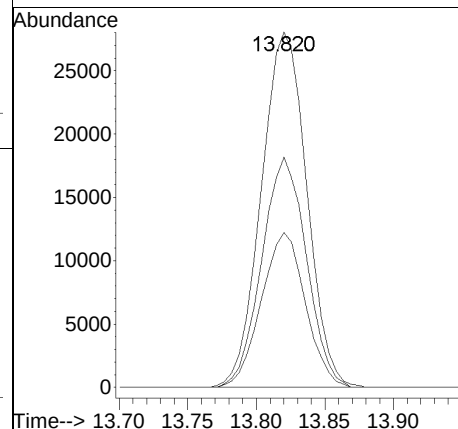
Tgt Ion:	91	Resp:	129192
Ion Ratio	Lower	Upper	
91	100		
92	53.2	43.7	65.5
134	26.5	22.1	33.1

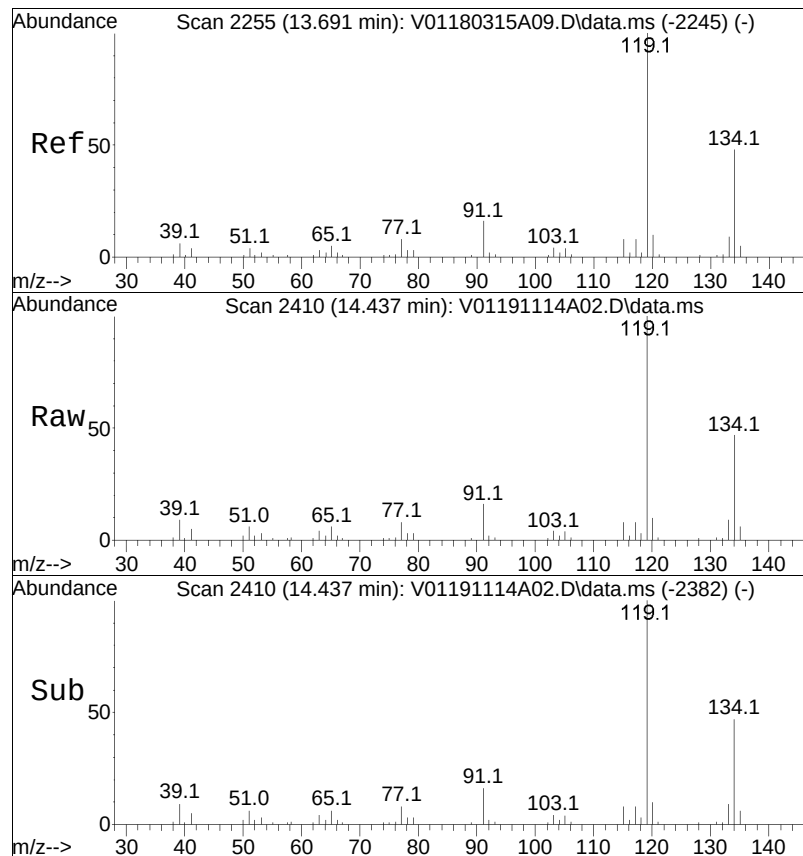




#104
 1,2-Dichlorobenzene
 Concen: 10.31 ug/L
 RT: 13.820 min Scan# 2297
 Delta R.T. -0.005 min
 Lab File: V01191114A02.D
 Acq: 14 Nov 2019 7:24 am

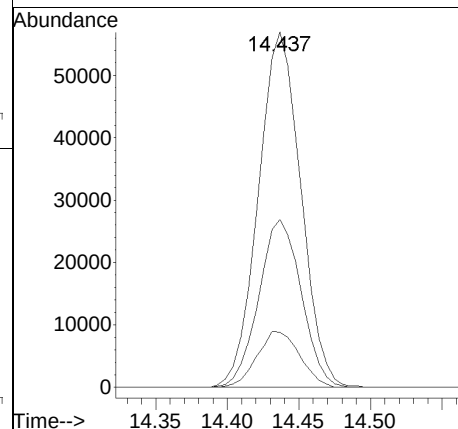
Tgt Ion:	146	Resp:	64805
Ion Ratio	Lower	Upper	
146	100		
111	42.3	26.8	55.8
148	63.6	41.6	86.4

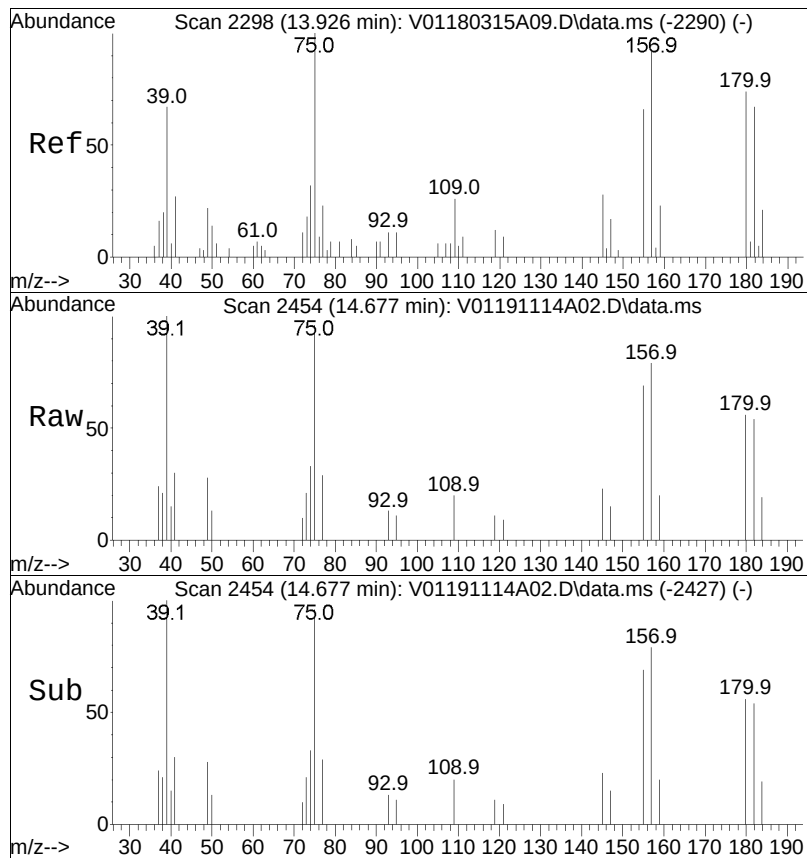




#105
 1,2,4,5-Tetramethylbenzene
 Concen: 11.00 ug/L
 RT: 14.437 min Scan# 2410
 Delta R.T. 0.000 min
 Lab File: V01191114A02.D
 Acq: 14 Nov 2019 7:24 am

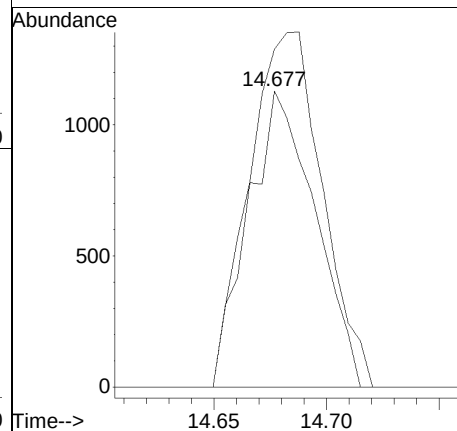
Tgt Ion:	119	Resp:	117304
Ion Ratio	Lower	Upper	
119	100		
134	47.3	31.9	66.1
91	15.9	10.3	21.5

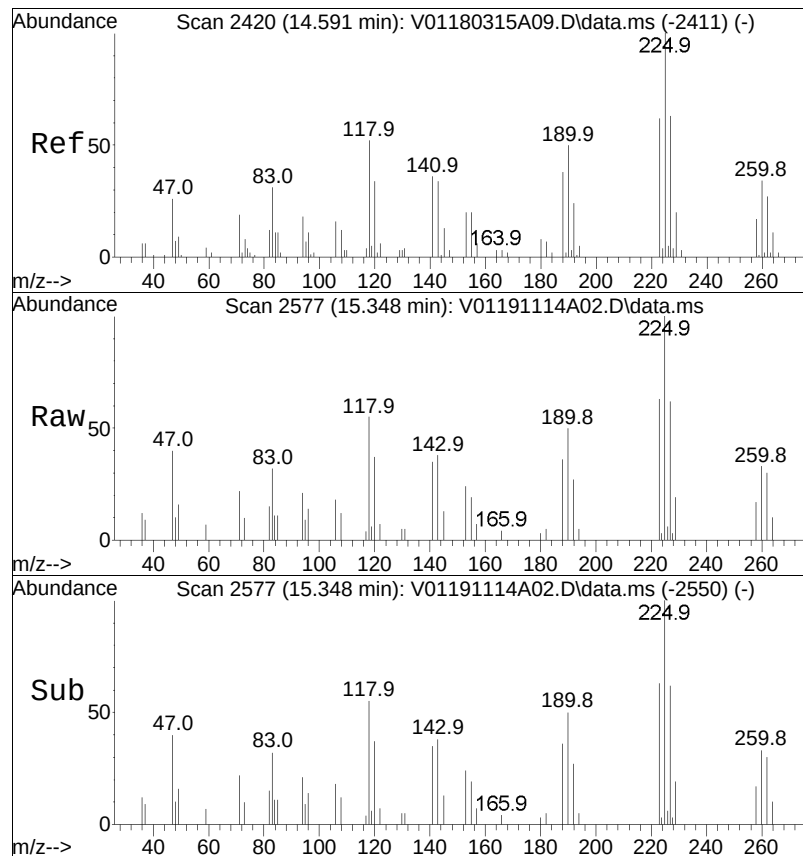




#106
 1,2-Dibromo-3-chloropropane
 Concen: 7.98 ug/L
 RT: 14.677 min Scan# 2454
 Delta R.T. -0.005 min
 Lab File: V01191114A02.D
 Acq: 14 Nov 2019 7:24 am

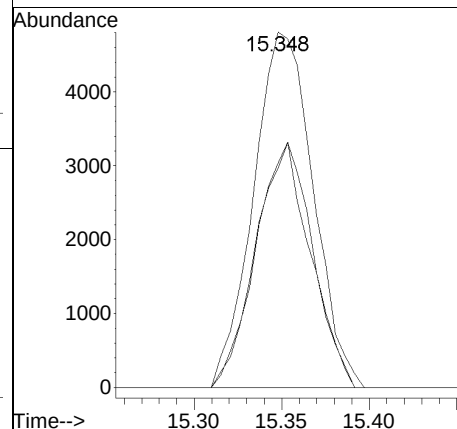
Tgt Ion:155 Resp: 2346
 Ion Ratio Lower Upper
 155 100
 157 131.0 101.1 151.7

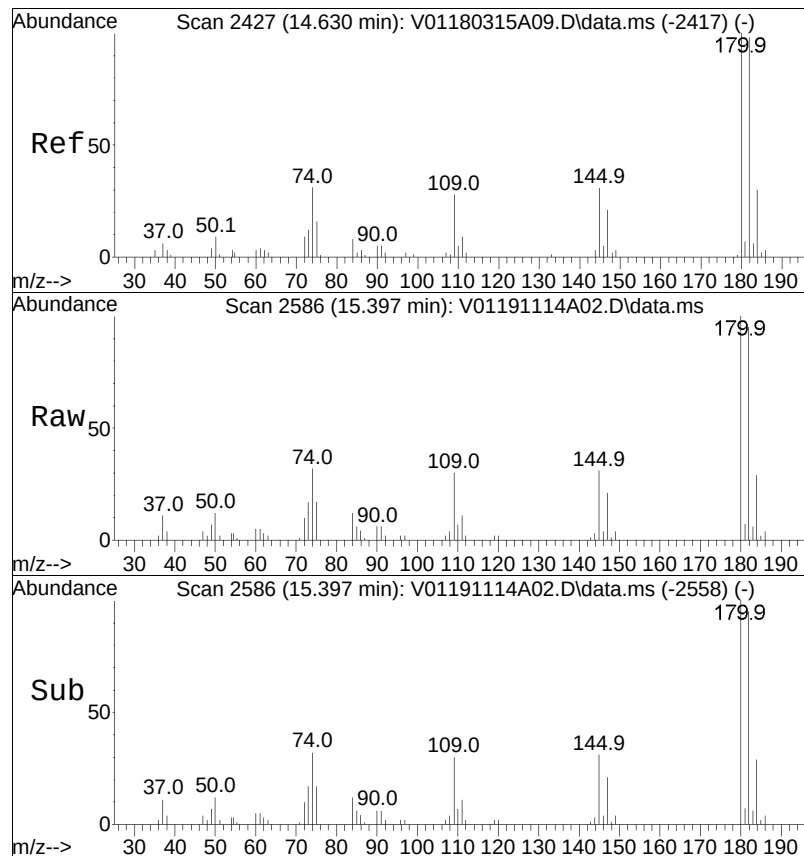




#108
 Hexachlorobutadiene
 Concen: 11.93 ug/L
 RT: 15.348 min Scan# 2577
 Delta R.T. -0.005 min
 Lab File: V01191114A02.D
 Acq: 14 Nov 2019 7:24 am

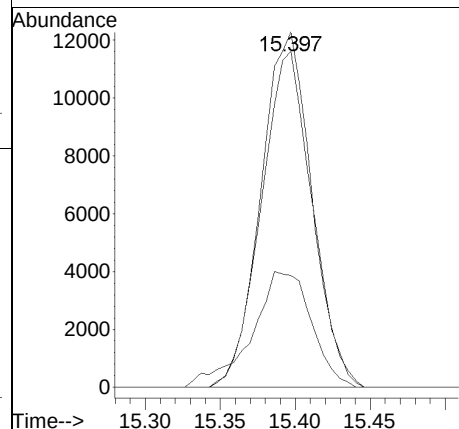
Tgt Ion	Ratio	Resp	Lower	Upper
225	100	11414		
223	63.2		51.0	76.4
227	65.6		52.2	78.4

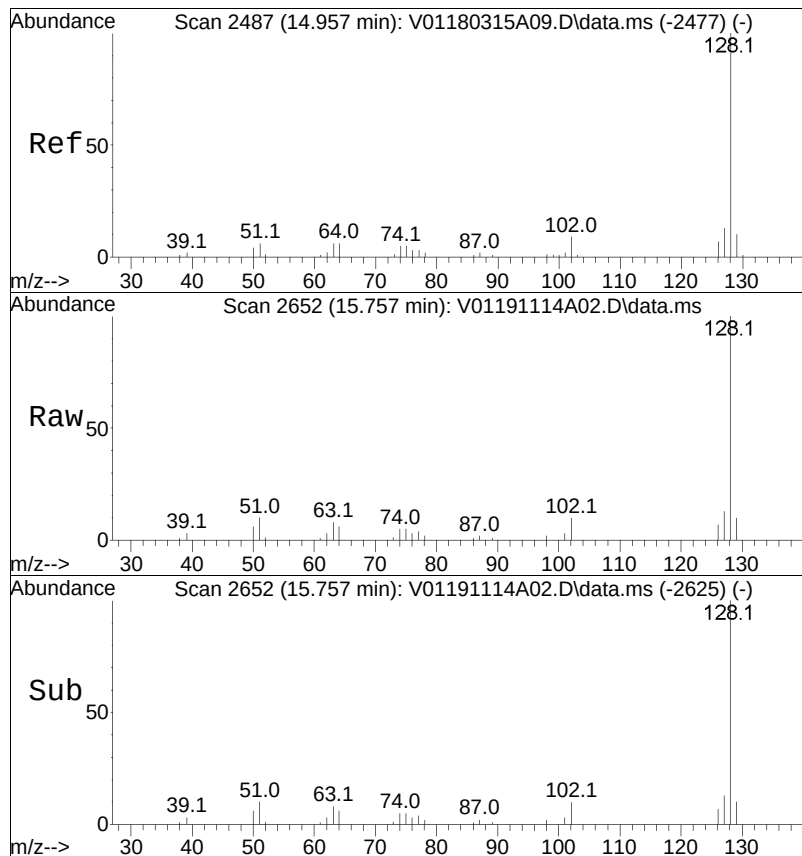




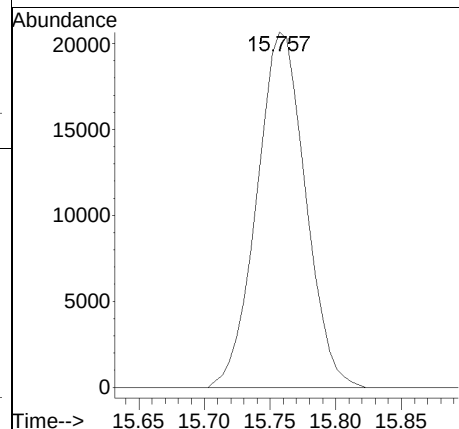
#109
 1,2,4-Trichlorobenzene
 Concen: 9.80 ug/L
 RT: 15.397 min Scan# 2586
 Delta R.T. 0.000 min
 Lab File: V01191114A02.D
 Acq: 14 Nov 2019 7:24 am

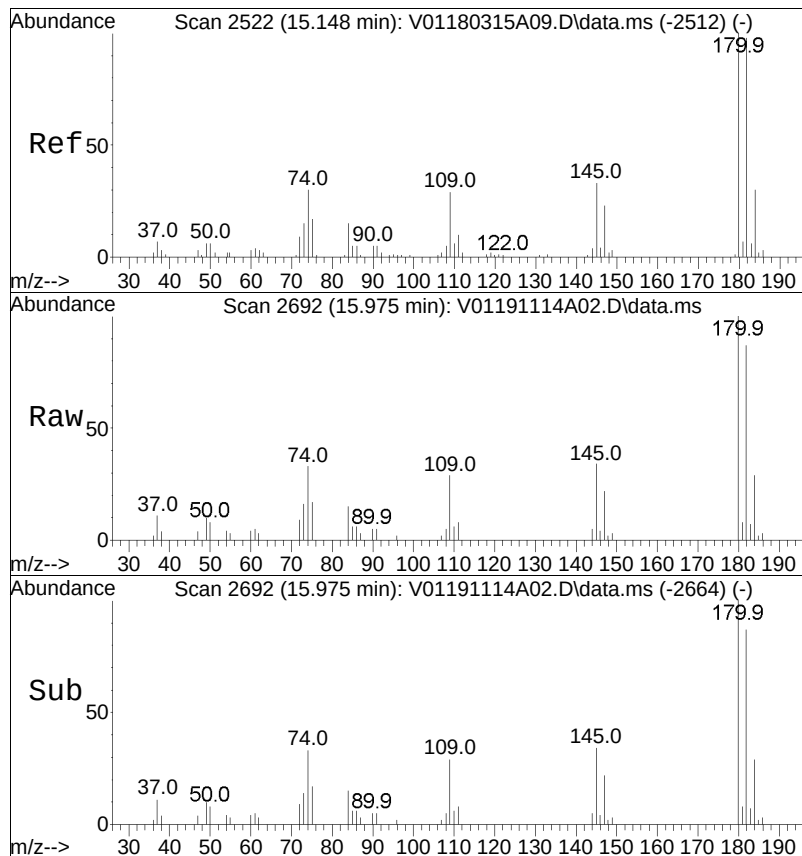
Tgt Ion	Ratio	Resp	Lower	Upper
180	100	28912		
182	94.5		75.8	113.8
145	38.2		26.1	39.1





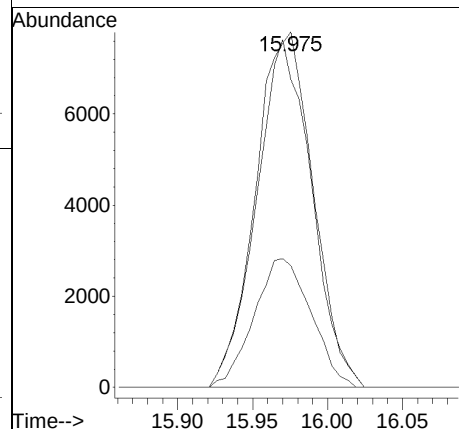
#110
 Naphthalene
 Concen: 8.23 ug/L
 RT: 15.757 min Scan# 2652
 Delta R.T. -0.005 min
 Lab File: V01191114A02.D
 Acq: 14 Nov 2019 7:24 am
 Tgt Ion:128 Resp: 53282





#111
 1,2,3-Trichlorobenzene
 Concen: 9.11 ug/L
 RT: 15.975 min Scan# 2692
 Delta R.T. 0.000 min
 Lab File: V01191114A02.D
 Acq: 14 Nov 2019 7:24 am

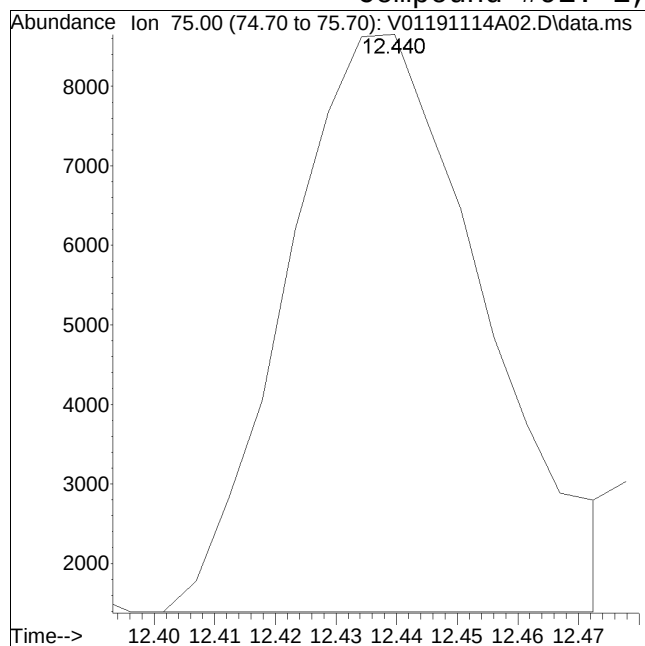
Tgt	Ion	Ratio	Resp	Lower	Upper
180	100		20819		
182	93.6	75.4		113.0	
145	35.9	25.0		37.6	



Manual Integration Report

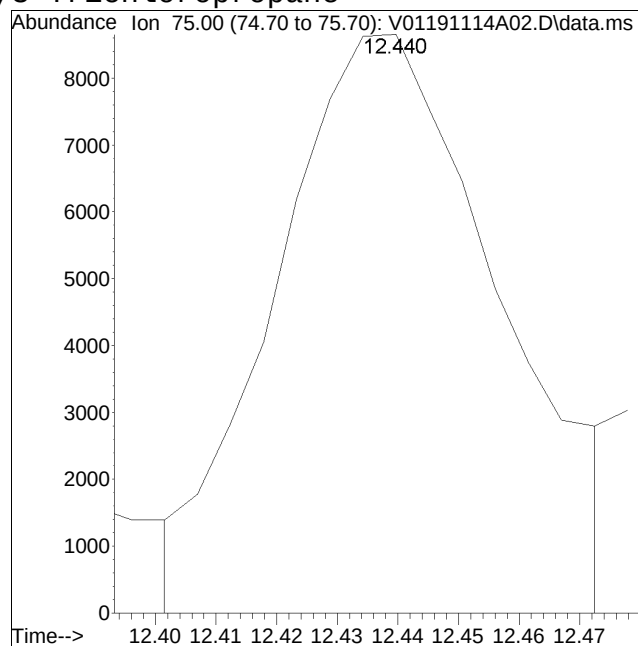
Data Path : I:\VOLATILES\VOA101\2019\10 Method : V101_191107A_8260.m
Data File : V01191114A02.D Operator : VOA101:PD
Date Inj'd : 11/14/2019 7:24 am Instrument : VOA 101
Sample : WG1308760-3,31,10,10 Quant Date : 11/14/2019 7:45 am

Compound #91: 1,2,3-Trichloropropane



Original Peak Response = 16382

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.



Manual Peak Response = 22298 M1

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\VOA101\2019\191114A\
 Data File : V01191114A03.D
 Acq On : 14 Nov 2019 7:47 am
 Operator : VOA101:PD
 Sample : WG1308760-4,31,10,10
 Misc : WG1308760,ICAL16277
 ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 14 08:08:04 2019
 Quant Method : I:\VOLATILES\VOA101\2019\191114A\V101_191107A_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Fri Nov 08 10:22:02 2019
 Response via : Initial Calibration

CCAL FILE(s) : 1 - I:\VOLATILES\VOA101\2019\191114A\V01191114A02.D
 Sub List : 8260-Curve-IM-2CEVE - Megamix plus Diox-Iodomethane

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

Internal Standards						
1) Fluorobenzene	6.645	96	197594	10.000	ug/L	0.00
Standard Area 1 = 199922			Recovery =	98.84%		
59) Chlorobenzene-d5	10.535	117	135962	10.000	ug/L	0.00
Standard Area 1 = 138066			Recovery =	98.48%		
79) 1,4-Dichlorobenzene-d4	13.334	152	64742	10.000	ug/L	0.00
Standard Area 1 = 65641			Recovery =	98.63%		
System Monitoring Compounds						
36) Dibromofluoromethane	5.750	113	47699	9.535	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	95.35%		
43) 1,2-Dichloroethane-d4	6.334	65	56163	10.170	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	101.70%		
60) Toluene-d8	8.511	98	196662	10.755	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	107.55%		
83) 4-Bromofluorobenzene	12.041	95	69970	10.448	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	104.48%		
Target Compounds						
						Qvalue
2) Dichlorodifluoromethane	1.821	85	25325	9.024	ug/L	95
3) Chloromethane	2.034	50	47845	10.663	ug/L	98
4) Vinyl chloride	2.127	62	43124	9.546	ug/L	99
5) Bromomethane	2.471	94	17152	25.461	ug/L	99
6) Chloroethane	2.607	64	29342	9.827	ug/L	96
7) Trichlorofluoromethane	2.760	101	62823	9.529	ug/L	96
8) Ethyl ether	3.082	74	14779	7.470	ug/L #	64
10) 1,1-Dichloroethene	3.300	96	36883	8.952	ug/L #	72
11) Carbon disulfide	3.333	76	95683	8.494	ug/L	100
15) Methylene chloride	3.895	84	38146	8.228	ug/L #	67
17) Acetone	3.938	43	6576	6.485	ug/L #	83
18) trans-1,2-Dichloroethene	4.069	96	38319	8.835	ug/L	80
20) Methyl tert-butyl ether	4.168	73	70851	7.505	ug/L #	83
23) 1,1-Dichloroethane	4.702	63	94504	9.429	ug/L	96
25) Acrylonitrile	4.751	53	7668	7.381	ug/L	91
27) Vinyl acetate	4.953	43	81125	8.220	ug/L #	93
28) cis-1,2-Dichloroethene	5.270	96	47615	8.946	ug/L #	83
29) 2,2-Dichloropropane	5.384	77	69954	9.822	ug/L #	74
30) Bromochloromethane	5.483	128	16770	8.910	ug/L #	66
32) Chloroform	5.553	83	80521	9.178	ug/L	92

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\VOA101\2019\191114A\
 Data File : V01191114A03.D
 Acq On : 14 Nov 2019 7:47 am
 Operator : VOA101:PD
 Sample : WG1308760-4,31,10,10
 Misc : WG1308760,ICAL16277
 ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 14 08:08:04 2019
 Quant Method : I:\VOLATILES\VOA101\2019\191114A\V101_191107A_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Fri Nov 08 10:22:02 2019
 Response via : Initial Calibration

CCAL FILE(s) : 1 - I:\VOLATILES\VOA101\2019\191114A\V01191114A02.D
 Sub List : 8260-Curve-IM-2CEVE - Megamix plus Diox-Iodomethane

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
34)	Carbon tetrachloride	5.717	117	60493	10.010	ug/L	97
37)	1,1,1-Trichloroethane	5.788	97	74517	9.793	ug/L	93
39)	2-Butanone	5.875	43	9936	6.887	ug/L #	42
40)	1,1-Dichloropropene	5.919	75	62599	9.139	ug/L	99
41)	Benzene	6.192	78	166287	8.653	ug/L #	89
44)	1,2-Dichloroethane	6.410	62	53714	9.134	ug/L	99
48)	Trichloroethene	6.841	95	46220	9.413	ug/L	95
50)	Dibromomethane	7.327	93	17611	7.698	ug/L	92
51)	1,2-Dichloropropane	7.441	63	46519	8.823	ug/L	97
54)	Bromodichloromethane	7.512	83	50375	8.682	ug/L	100
57)	1,4-Dioxane	7.742	88	6179	303.264	ug/L #	80
58)	cis-1,3-Dichloropropene	8.276	75	59225	8.200	ug/L #	76
61)	Toluene	8.571	92	104006	9.917	ug/L	99
62)	4-Methyl-2-pentanone	9.040	58	7368	7.611	ug/L #	85
63)	Tetrachloroethene	9.067	166	40718	10.319	ug/L	92
65)	trans-1,3-Dichloropropene	9.095	75	45810	9.170	ug/L #	70
68)	1,1,2-Trichloroethane	9.307	83	20941	8.666	ug/L	99
69)	Chlorodibromomethane	9.542	129	26698	9.238	ug/L	99
70)	1,3-Dichloropropane	9.668	76	44083	8.768	ug/L	98
71)	1,2-Dibromoethane	9.864	107	22877	8.802	ug/L	98
72)	2-Hexanone	10.148	43	13728	8.099	ug/L	96
73)	Chlorobenzene	10.557	112	108030	10.032	ug/L	97
74)	Ethylbenzene	10.590	91	203401	10.150	ug/L	100
75)	1,1,1,2-Tetrachloroethane	10.633	131	34849	10.092	ug/L	99
76)	p/m Xylene	10.775	106	151873	20.068	ug/L	98
77)	o Xylene	11.315	106	141587	20.122	ug/L	99
78)	Styrene	11.381	104	224264	19.416	ug/L	96
80)	Bromoform	11.414	173	11883	9.089	ug/L	98
82)	Isopropylbenzene	11.697	105	193266	11.398	ug/L	100
84)	Bromobenzene	12.167	156	37436	10.727	ug/L	99
85)	n-Propylbenzene	12.199	91	226174	11.495	ug/L	99
87)	1,1,2,2-Tetrachloroethane	12.276	83	23596	8.973	ug/L	98
88)	4-Ethyltoluene	12.325	105	175171	11.299	ug/L	100
89)	2-Chlorotoluene	12.385	91	143140	11.284	ug/L	92
90)	1,3,5-Trimethylbenzene	12.423	105	150037	11.305	ug/L	98
91)	1,2,3-Trichloropropane	12.439	75	21646M1	9.287	ug/L	
92)	trans-1,4-Dichloro-2-b...	12.489	53	6833	8.448	ug/L #	6
93)	4-Chlorotoluene	12.576	91	132333	11.068	ug/L	96
94)	tert-Butylbenzene	12.794	119	126605	11.345	ug/L	99

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\VOA101\2019\191114A\
 Data File : V01191114A03.D
 Acq On : 14 Nov 2019 7:47 am
 Operator : VOA101:PD
 Sample : WG1308760-4,31,10,10
 Misc : WG1308760,ICAL16277
 ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 14 08:08:04 2019
 Quant Method : I:\VOLATILES\VOA101\2019\191114A\V101_191107A_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Fri Nov 08 10:22:02 2019
 Response via : Initial Calibration

CCAL FILE(s) : 1 - I:\VOLATILES\VOA101\2019\191114A\V01191114A02.D
 Sub List : 8260-Curve-IM-2CEVE - Megamix plus Diox-Iodomethane

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

97)	1,2,4-Trimethylbenzene	12.876	105	146446	11.084	ug/L	100
98)	sec-Butylbenzene	12.996	105	163874	11.153	ug/L	99
99)	p-Isopropyltoluene	13.154	119	147156	11.236	ug/L	99
100)	1,3-Dichlorobenzene	13.252	146	75278	10.867	ug/L	98
101)	1,4-Dichlorobenzene	13.356	146	75632	10.783	ug/L	98
102)	p-Diethylbenzene	13.563	119	81624	11.380	ug/L	99
103)	n-Butylbenzene	13.629	91	125209	11.244	ug/L	99
104)	1,2-Dichlorobenzene	13.820	146	63253	10.203	ug/L	99
105)	1,2,4,5-Tetramethylben...	14.436	119	115883	11.016	ug/L	98
106)	1,2-Dibromo-3-chloropr...	14.682	155	2413	8.260	ug/L	98
108)	Hexachlorobutadiene	15.353	225	11479	12.155	ug/L	99
109)	1,2,4-Trichlorobenzene	15.391	180	28922	9.940	ug/L	96
110)	Naphthalene	15.762	128	53713	8.417	ug/L	100
111)	1,2,3-Trichlorobenzene	15.970	180	21176	9.390	ug/L	97

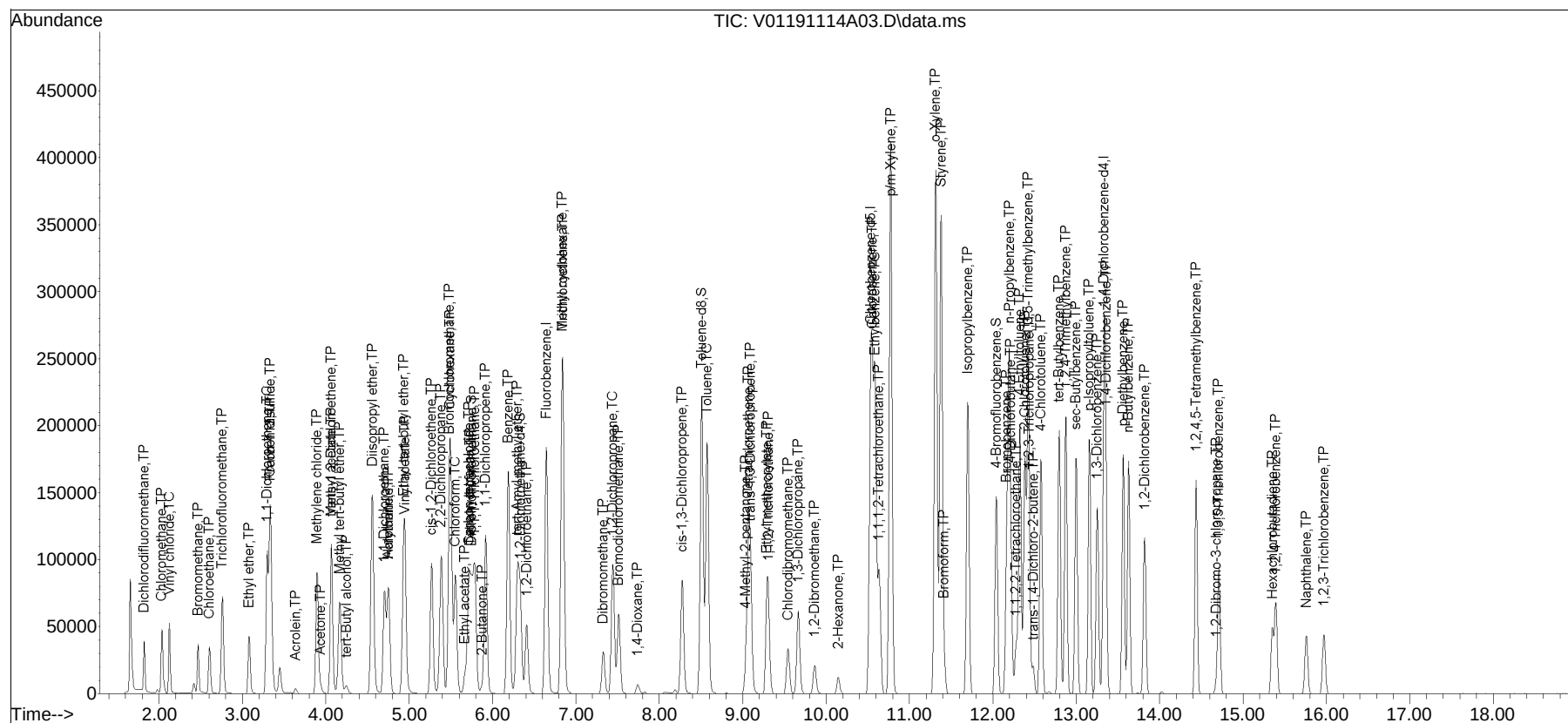
(#) = qualifier out of range (m) = manual integration (+) = signals summed

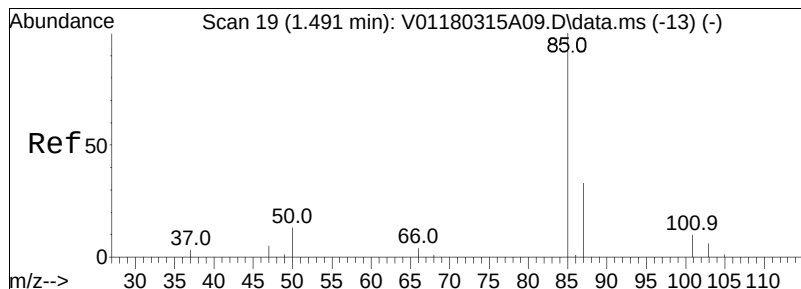
Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\VOA101\2019\191114A\
 Data File : V01191114A03.D
 Acq On : 14 Nov 2019 7:47 am
 Operator : VOA101:PD
 Sample : WG1308760-4,31,10,10
 Misc : WG1308760,ICAL16277
 ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 14 08:08:04 2019
 Quant Method : I:\VOLATILES\VOA101\2019\191114A\V101_191107A_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Fri Nov 08 10:22:02 2019
 Response via : Initial Calibration

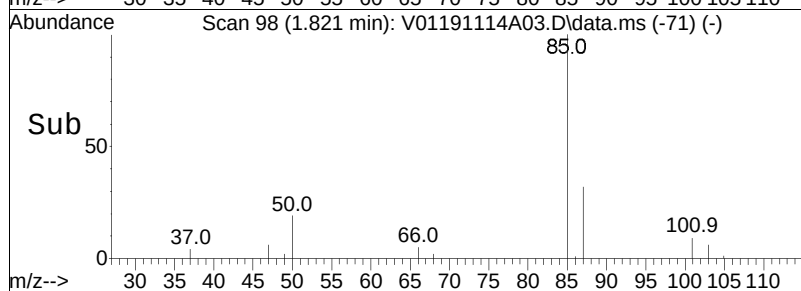
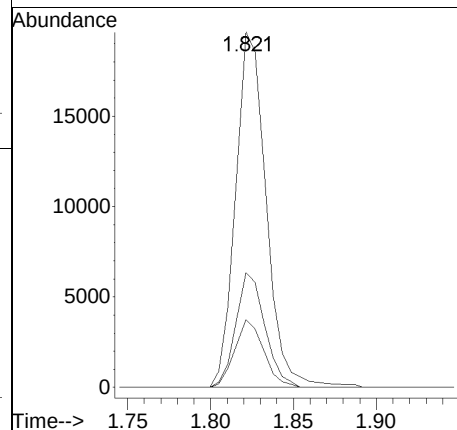
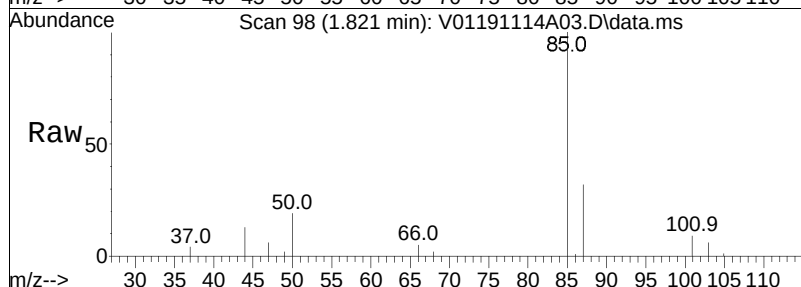
Sub List : 8260-Curve-IM-2CEVE - Megamix plus Diox-Iodomethane•

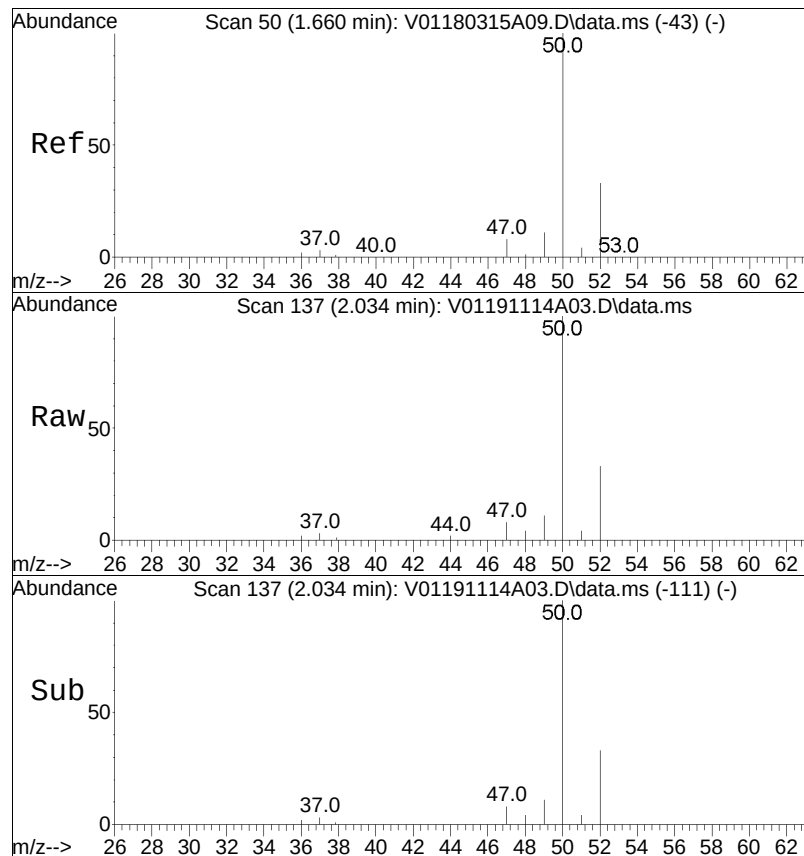




#2
 Dichlorodifluoromethane
 Concen: 9.02 ug/L
 RT: 1.821 min Scan# 98
 Delta R.T. 0.000 min
 Lab File: V01191114A03.D
 Acq: 14 Nov 2019 7:47 am

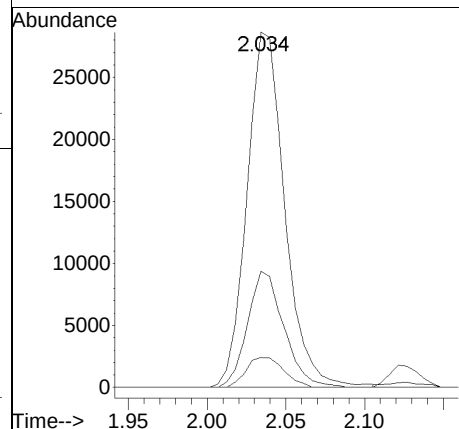
Tgt Ion	85	Resp:	25325
Ion Ratio	Lower	Upper	
85	100		
87	30.7	20.9	43.5
50	18.0	9.1	18.9

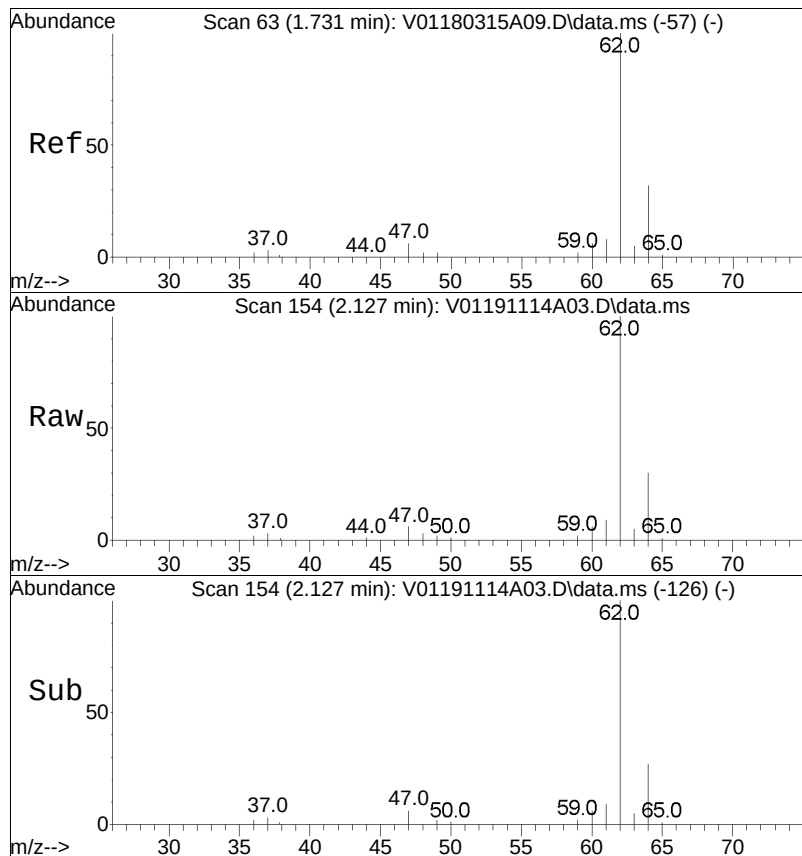




#3
 Chloromethane
 Concen: 10.66 ug/L
 RT: 2.034 min Scan# 137
 Delta R.T. -0.006 min
 Lab File: V01191114A03.D
 Acq: 14 Nov 2019 7:47 am

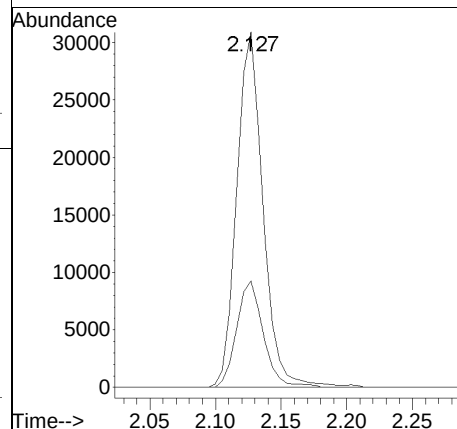
Tgt	Ion: 50	Resp:	47845
Ion	Ratio	Lower	Upper
50	100		
52	31.4	12.8	52.8
47	8.5	0.0	28.3

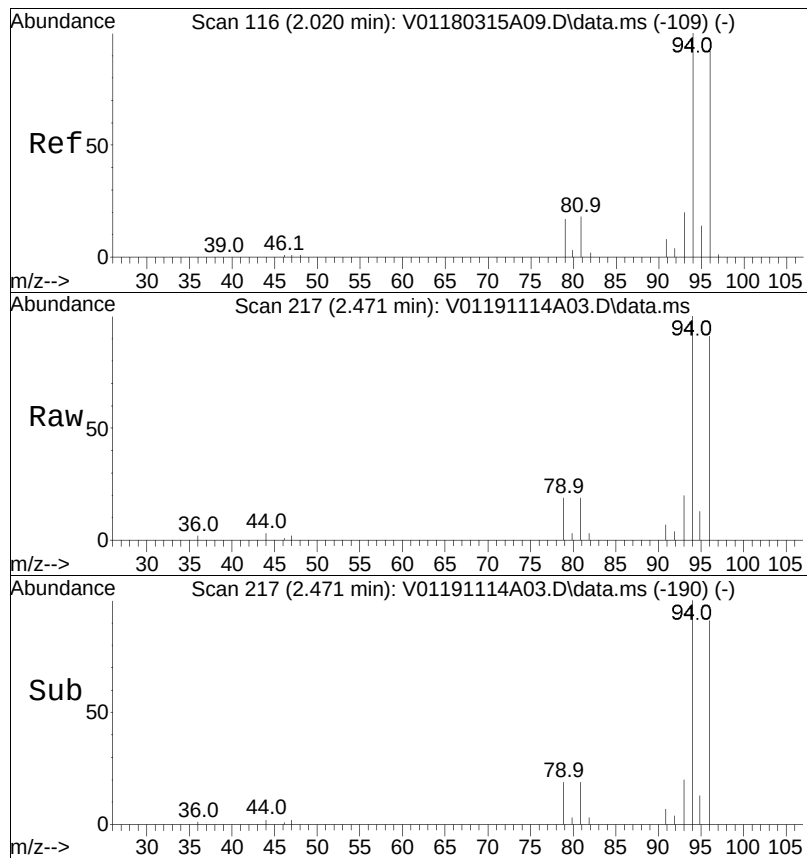




#4
 Vinyl chloride
 Concen: 9.55 ug/L
 RT: 2.127 min Scan# 154
 Delta R.T. 0.005 min
 Lab File: V01191114A03.D
 Acq: 14 Nov 2019 7:47 am

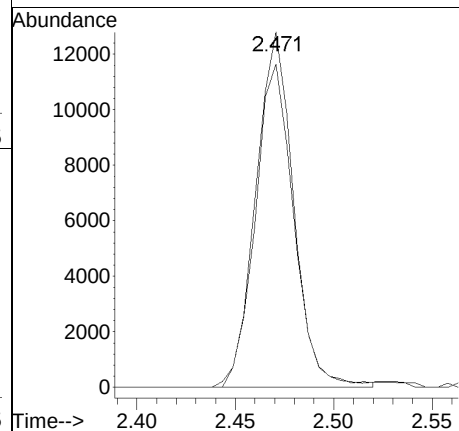
Tgt Ion	Ratio	Lower	Upper
62	100		
64	30.4	10.8	50.8

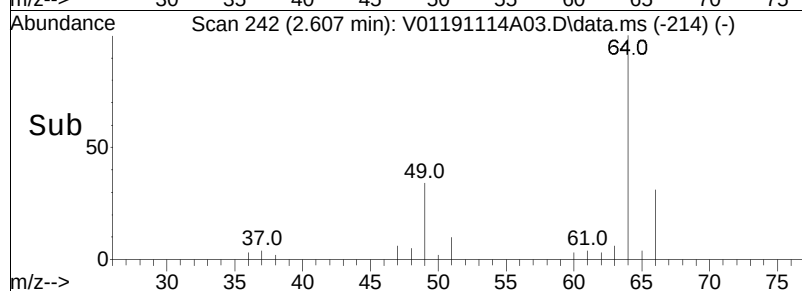
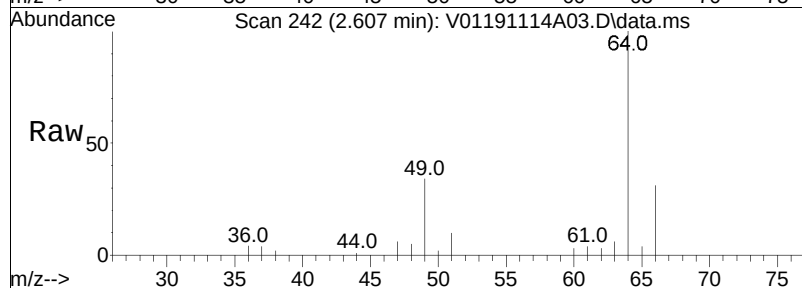
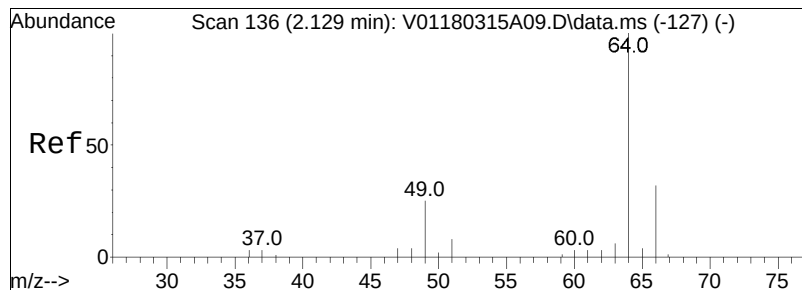




#5
 Bromomethane
 Concen: 25.46 ug/L
 RT: 2.471 min Scan# 217
 Delta R.T. -0.000 min
 Lab File: V01191114A03.D
 Acq: 14 Nov 2019 7:47 am

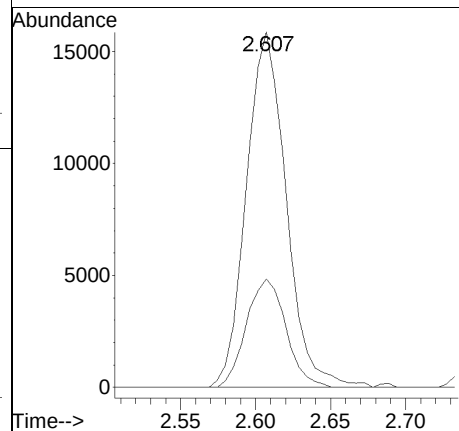
Tgt Ion	Ion	Ratio	Lower	Upper
94	100			
96	92.3	73.6	113.6	

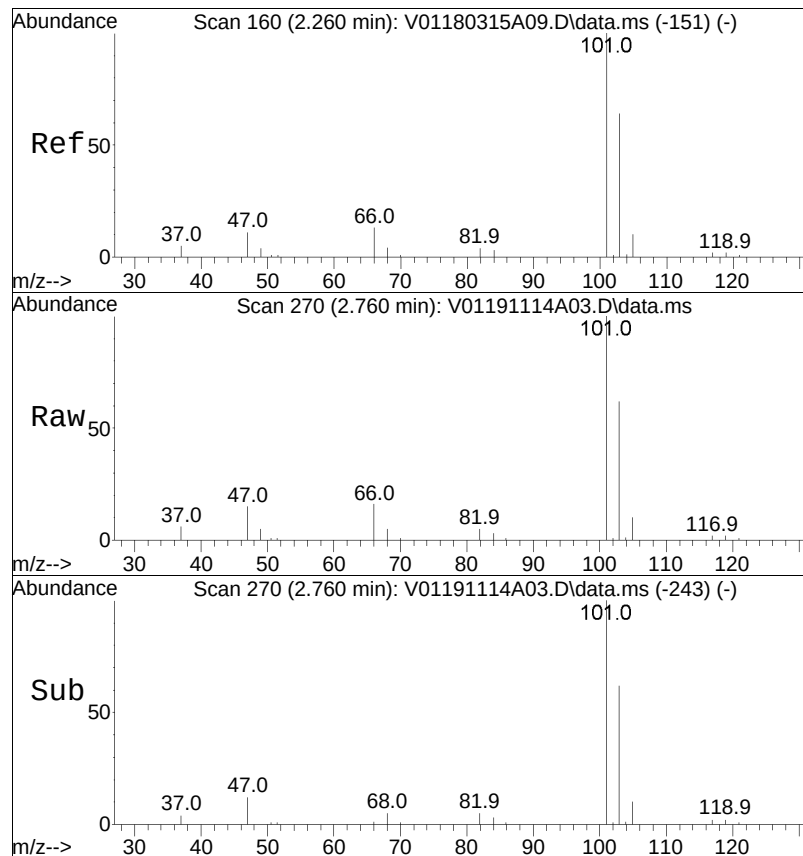




#6
 Chloroethane
 Concen: 9.83 ug/L
 RT: 2.607 min Scan# 242
 Delta R.T. 0.005 min
 Lab File: V01191114A03.D
 Acq: 14 Nov 2019 7:47 am

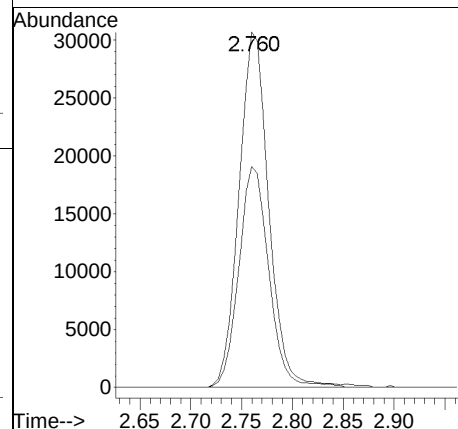
Tgt Ion	Ratio	Lower	Upper
64	100		
66	30.3	12.7	52.7

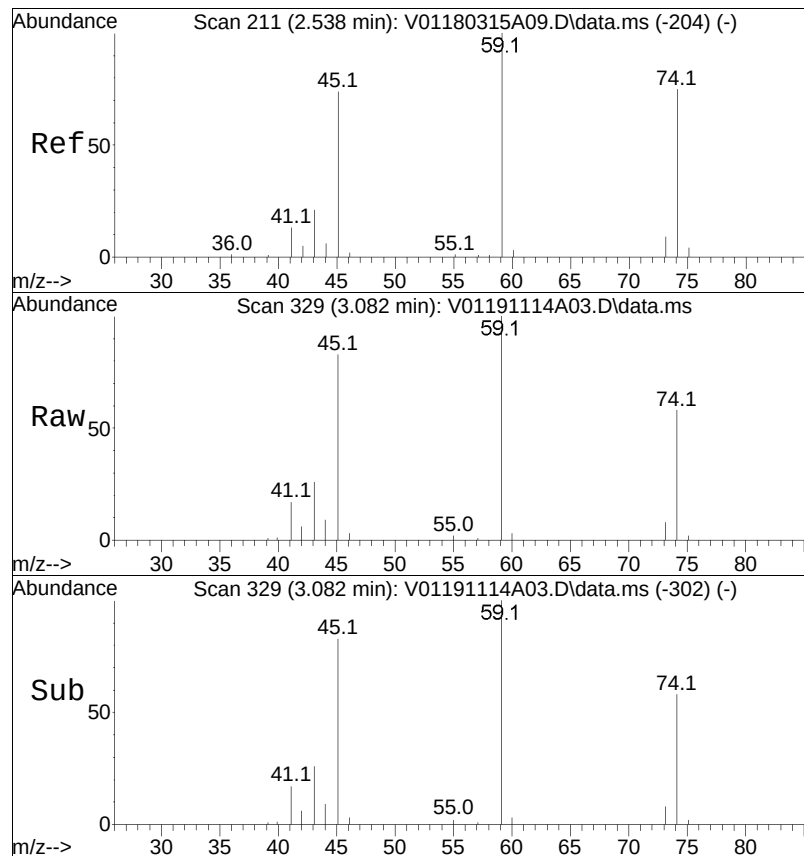




#7
 Trichlorofluoromethane
 Concen: 9.53 ug/L
 RT: 2.760 min Scan# 270
 Delta R.T. -0.000 min
 Lab File: V01191114A03.D
 Acq: 14 Nov 2019 7:47 am

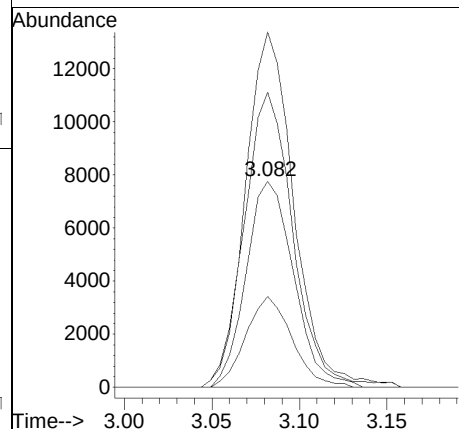
Tgt Ion	Ratio	Lower	Upper
101	100		
103	62.6	52.3	78.5

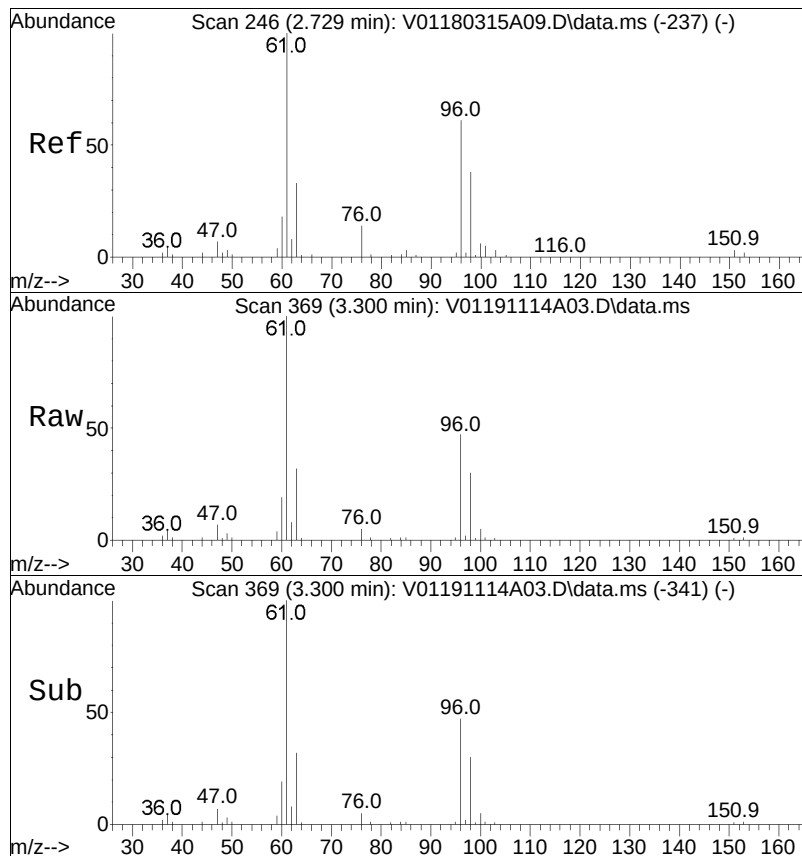




#8
 Ethyl ether
 Concen: 7.47 ug/L
 RT: 3.082 min Scan# 329
 Delta R.T. -0.000 min
 Lab File: V01191114A03.D
 Acq: 14 Nov 2019 7:47 am

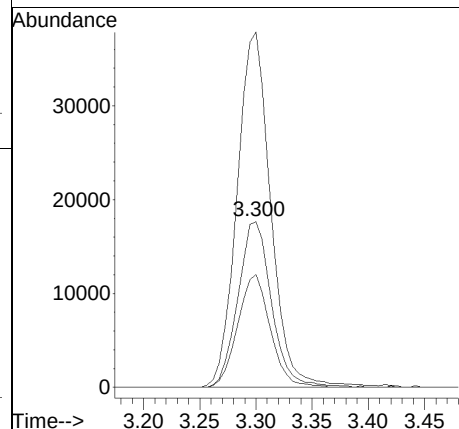
Tgt Ion:	74	Resp:	14779
Ion Ratio	Lower	Upper	
74	100		
59	174.8	88.1	182.9
45	145.9	66.1	137.3#
43	42.9	19.7	40.9#

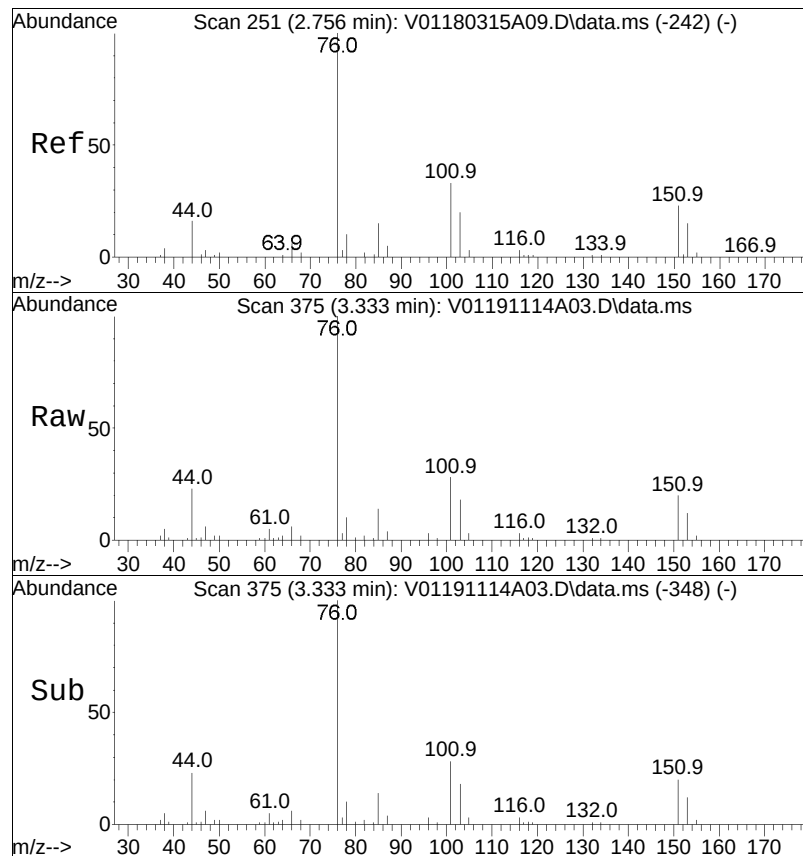




#10
 1,1-Dichloroethene
 Concen: 8.95 ug/L
 RT: 3.300 min Scan# 369
 Delta R.T. 0.005 min
 Lab File: V01191114A03.D
 Acq: 14 Nov 2019 7:47 am

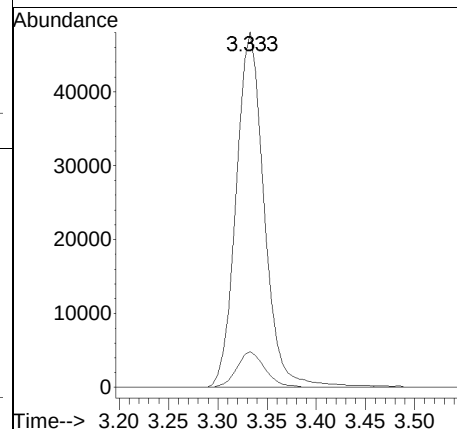
Tgt Ion:	96	Resp:	36883
Ion Ratio	Lower	Upper	
96	100		
61	214.5	136.8	205.2#
63	65.8	43.6	65.4#

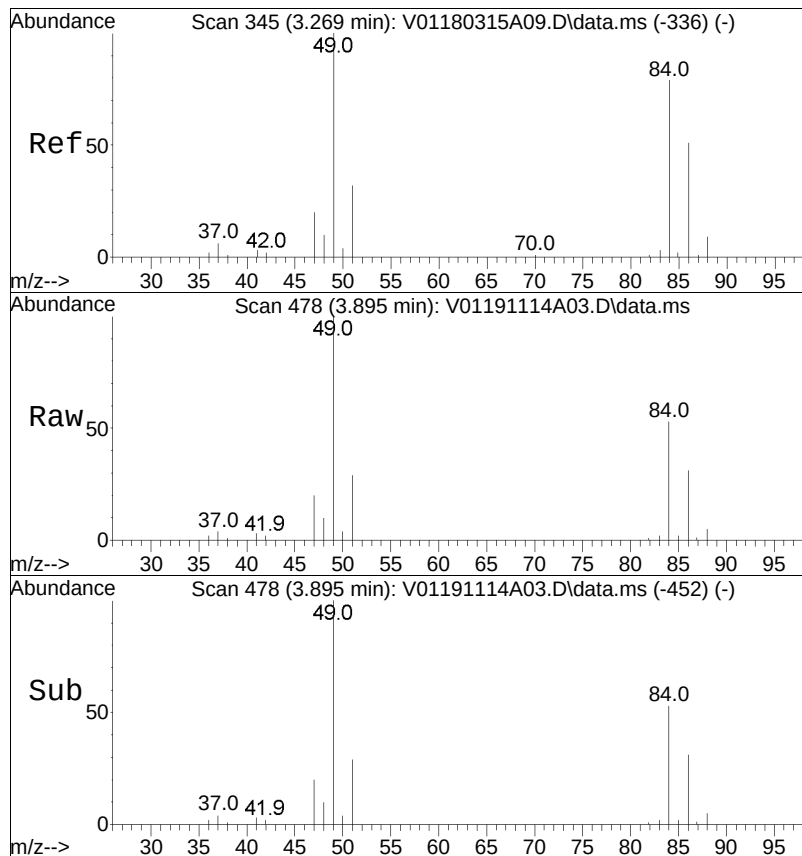




#11
 Carbon disulfide
 Concen: 8.49 ug/L
 RT: 3.333 min Scan# 375
 Delta R.T. -0.000 min
 Lab File: V01191114A03.D
 Acq: 14 Nov 2019 7:47 am

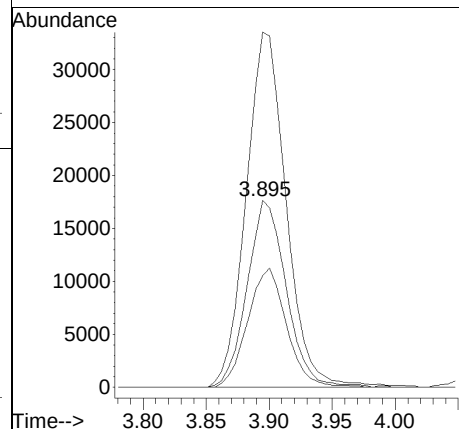
Tgt Ion	Ratio	Lower	Upper
76	100		
78	10.1	6.6	13.8

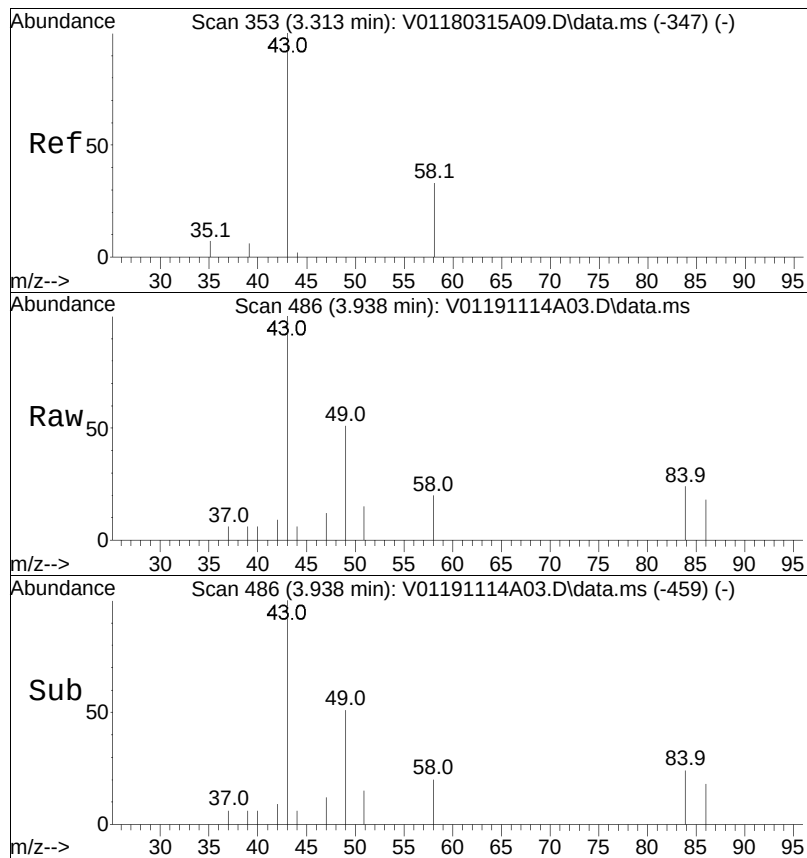




#15
 Methylene chloride
 Concen: 8.23 ug/L
 RT: 3.895 min Scan# 478
 Delta R.T. -0.006 min
 Lab File: V01191114A03.D
 Acq: 14 Nov 2019 7:47 am

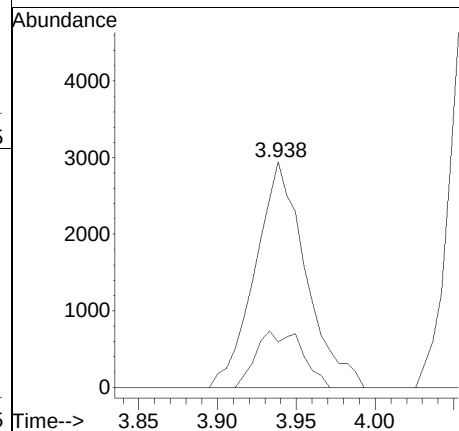
Tgt Ion:	84	Resp:	38146
Ion Ratio	Lower	Upper	
84	100		
86	63.5	41.7	86.7
49	194.5	89.1	185.1#

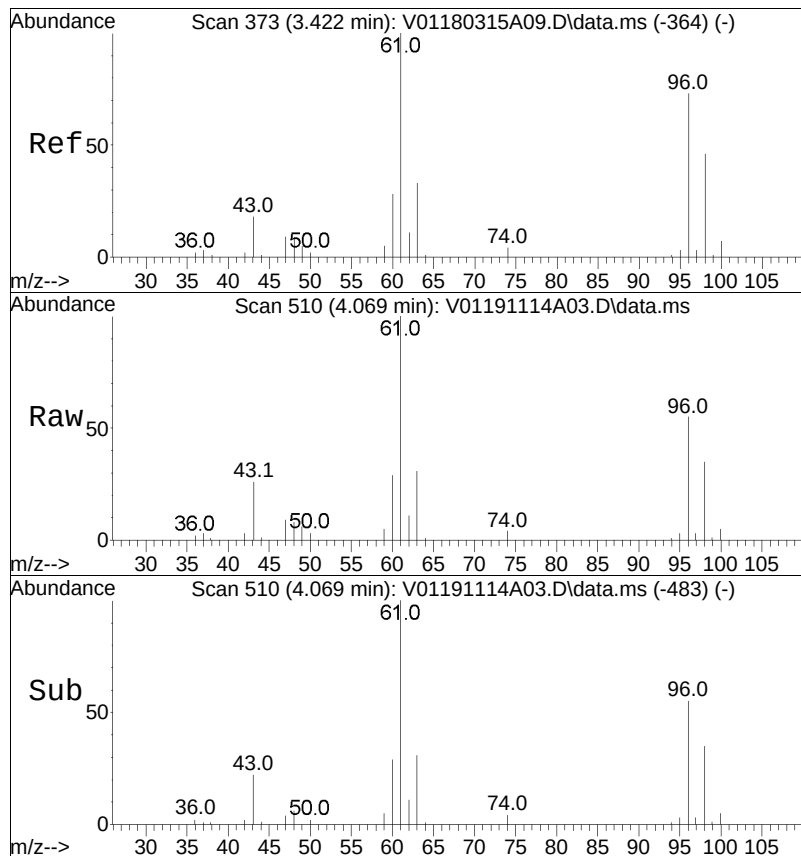




#17
 Acetone
 Concen: 6.49 ug/L
 RT: 3.938 min Scan# 486
 Delta R.T. -0.001 min
 Lab File: V01191114A03.D
 Acq: 14 Nov 2019 7:47 am

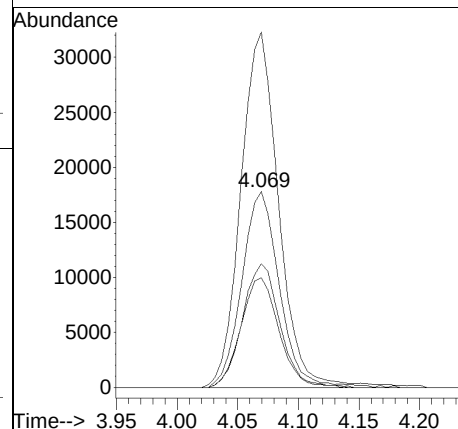
Tgt Ion: 43 Resp: 6576
 Ion Ratio Lower Upper
 43 100
 58 22.7 25.9 38.9#

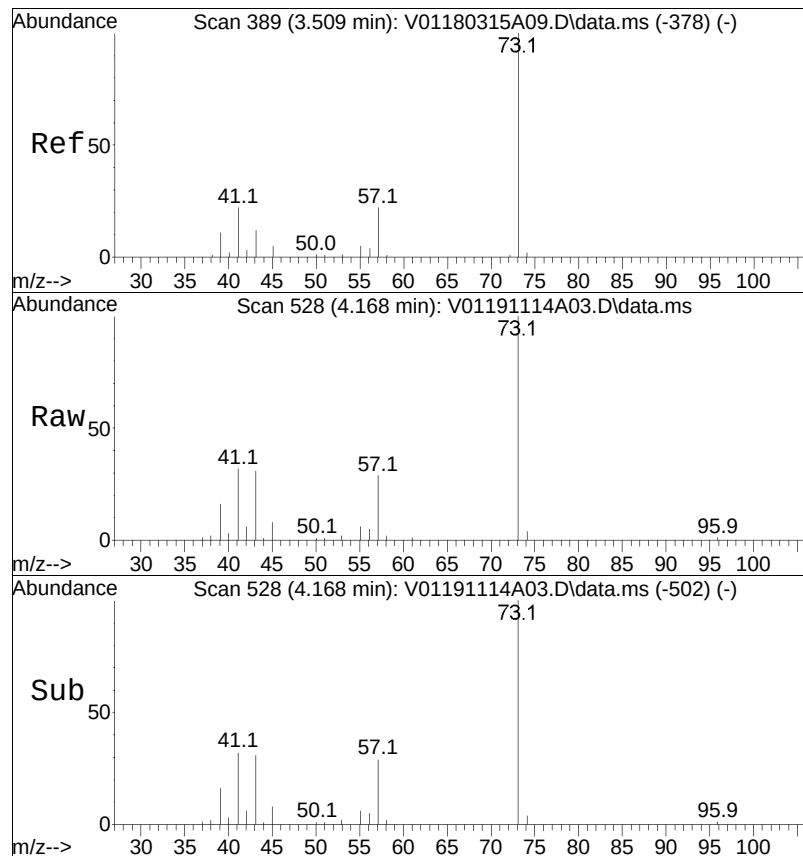




#18
 trans-1,2-Dichloroethene
 Concen: 8.83 ug/L
 RT: 4.069 min Scan# 510
 Delta R.T. -0.000 min
 Lab File: V01191114A03.D
 Acq: 14 Nov 2019 7:47 am

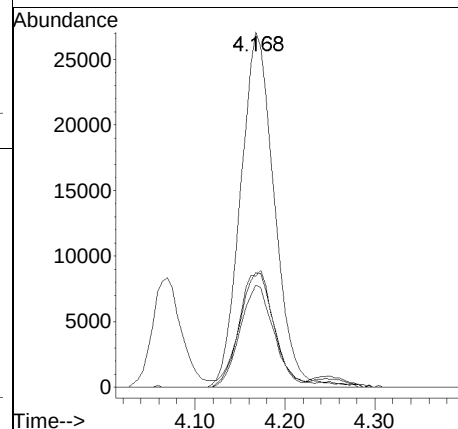
Tgt Ion:	96	Resp:	38319
Ion Ratio	Lower	Upper	
96	100		
61	183.5	95.3	197.9
98	63.1	41.0	85.2
63	56.5	30.2	62.6

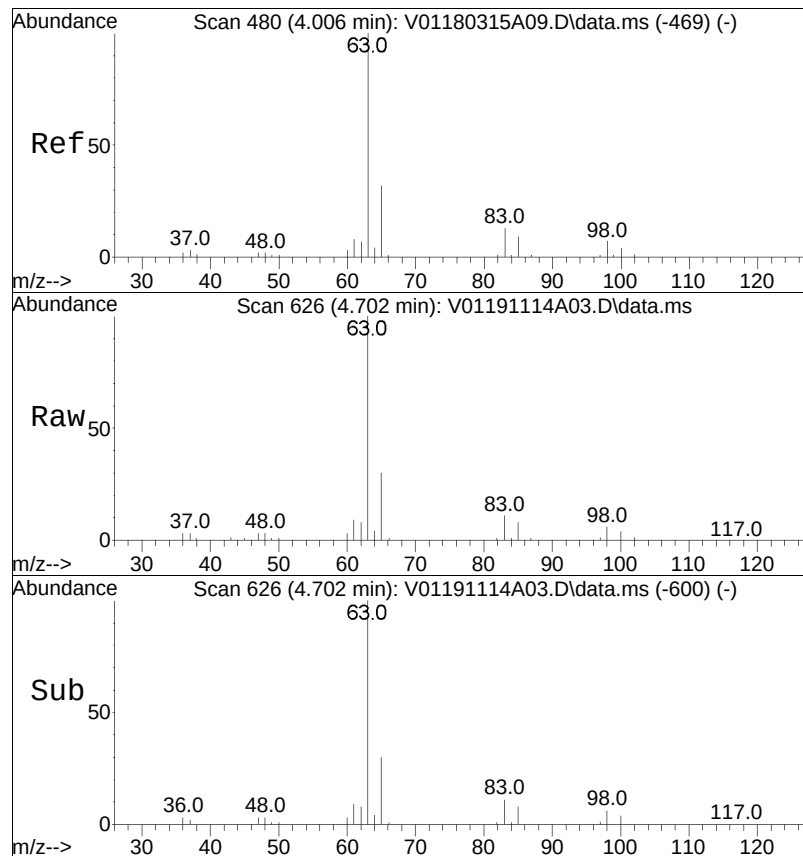




#20
Methyl tert-butyl ether
Concen: 7.50 ug/L
RT: 4.168 min Scan# 528
Delta R.T. -0.006 min
Lab File: V01191114A03.D
Acq: 14 Nov 2019 7:47 am

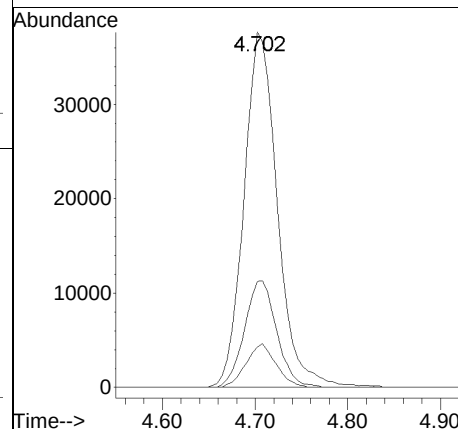
Tgt Ion:	73	Resp:	70851
Ion Ratio	Lower	Upper	
73	100		
57	28.9	14.8	30.6
43	32.1	15.5	32.3
41	32.8	14.1	29.3#

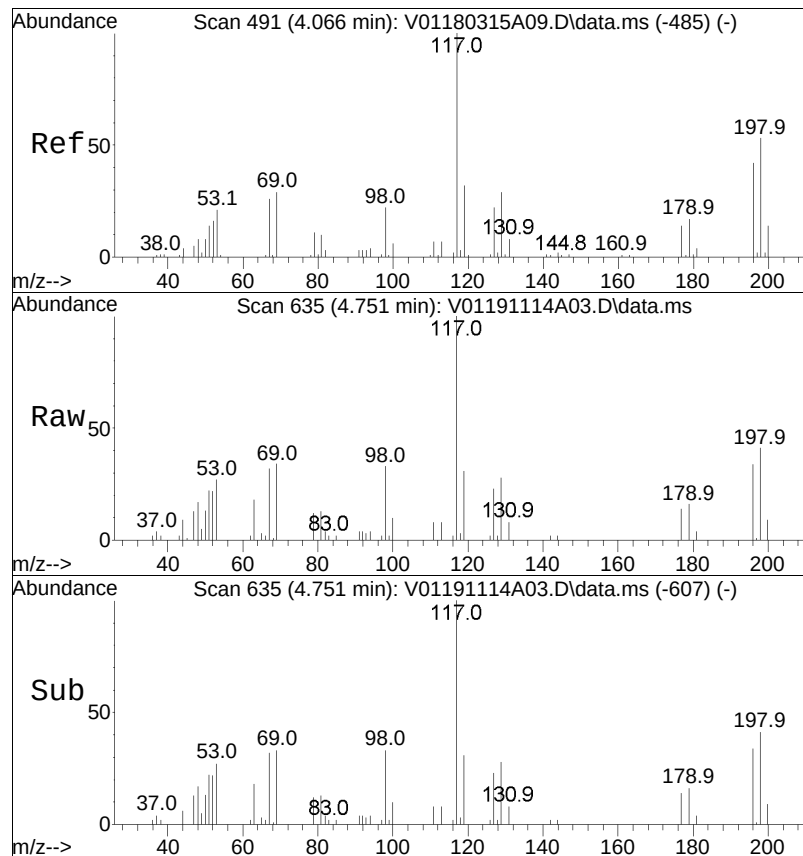




#23
 1,1-Dichloroethane
 Concen: 9.43 ug/L
 RT: 4.702 min Scan# 626
 Delta R.T. -0.006 min
 Lab File: V01191114A03.D
 Acq: 14 Nov 2019 7:47 am

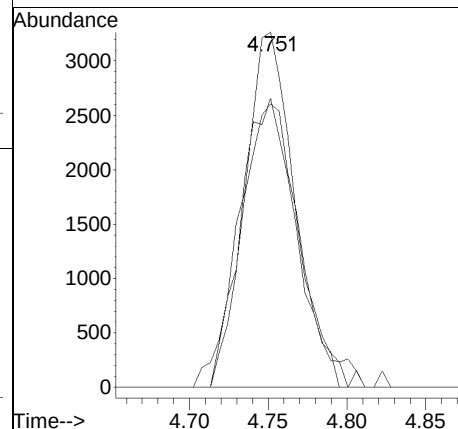
Tgt	Ion: 63	Resp:	94504
Ion	Ratio	Lower	Upper
63	100		
65	28.9	10.9	50.9
83	11.0	0.0	33.0

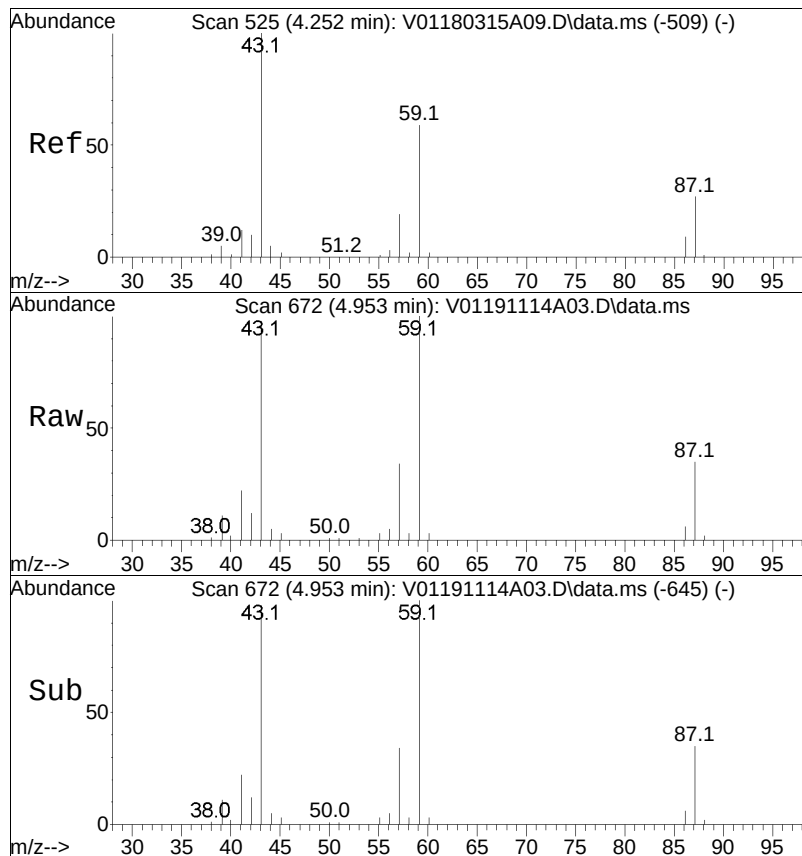




#25
 Acrylonitrile
 Concen: 7.38 ug/L
 RT: 4.751 min Scan# 635
 Delta R.T. 0.005 min
 Lab File: V01191114A03.D
 Acq: 14 Nov 2019 7:47 am

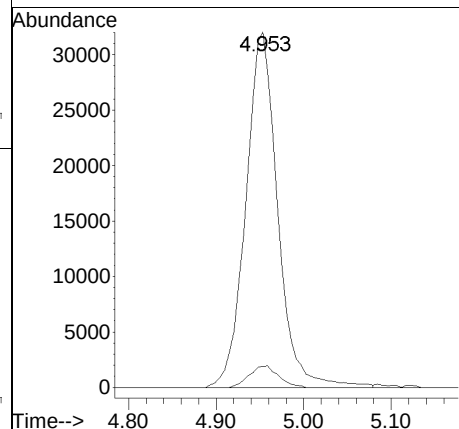
Tgt Ion:	53	Resp:	7668
Ion Ratio	Lower	Upper	
53	100		
52	84.2	69.1	103.7
51	87.2	58.3	87.5

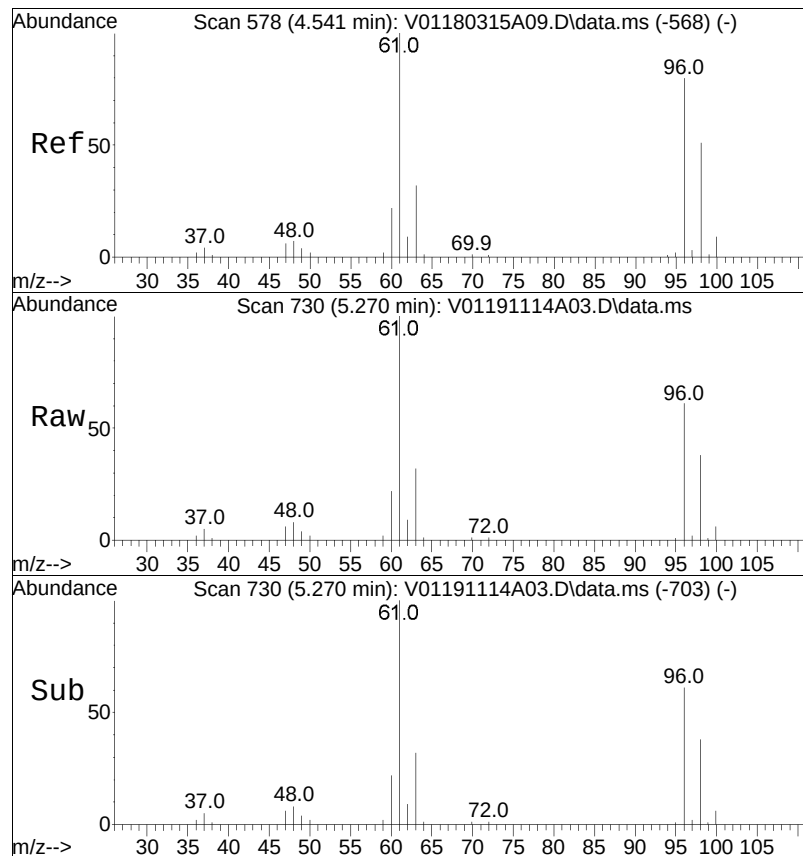




#27
 Vinyl acetate
 Concen: 8.22 ug/L
 RT: 4.953 min Scan# 672
 Delta R.T. -0.000 min
 Lab File: V01191114A03.D
 Acq: 14 Nov 2019 7:47 am

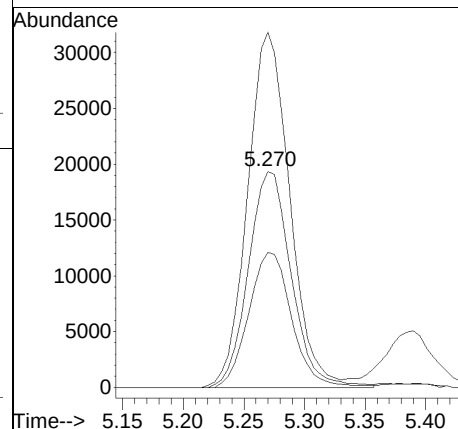
Tgt Ion	Ratio	Lower	Upper
43	100		
86	5.5	6.6	9.8#

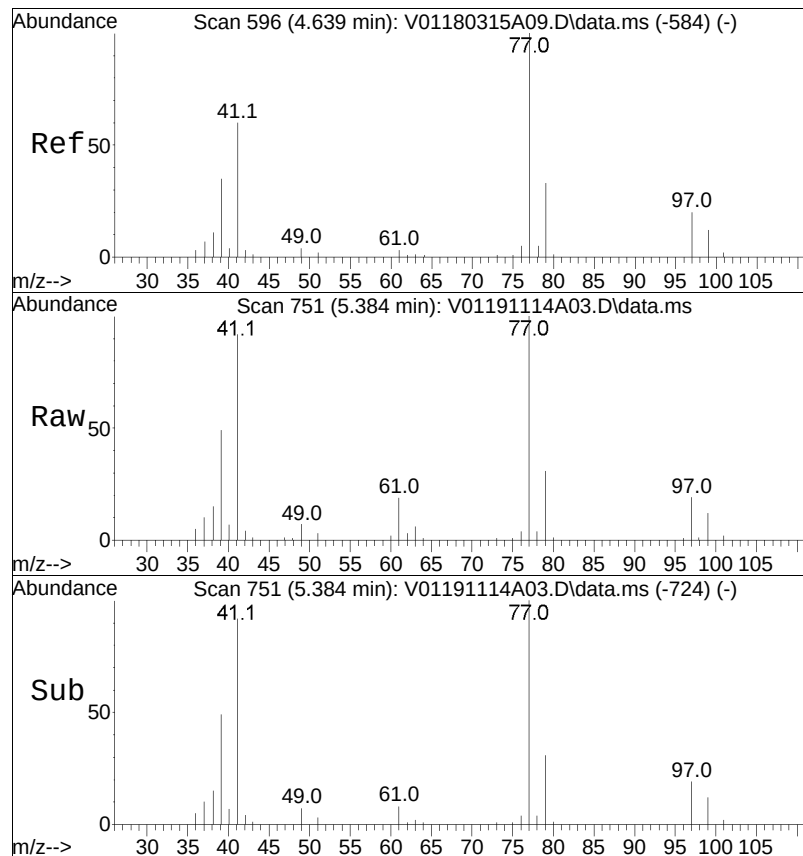




#28
 cis-1,2-Dichloroethene
 Concen: 8.95 ug/L
 RT: 5.270 min Scan# 730
 Delta R.T. -0.000 min
 Lab File: V01191114A03.D
 Acq: 14 Nov 2019 7:47 am

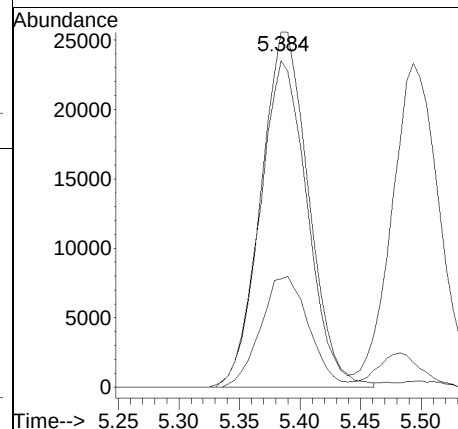
Tgt Ion:	96	Resp:	47615
Ion Ratio	Lower	Upper	
96	100		
61	160.8	105.8	158.6#
98	62.6	51.1	76.7

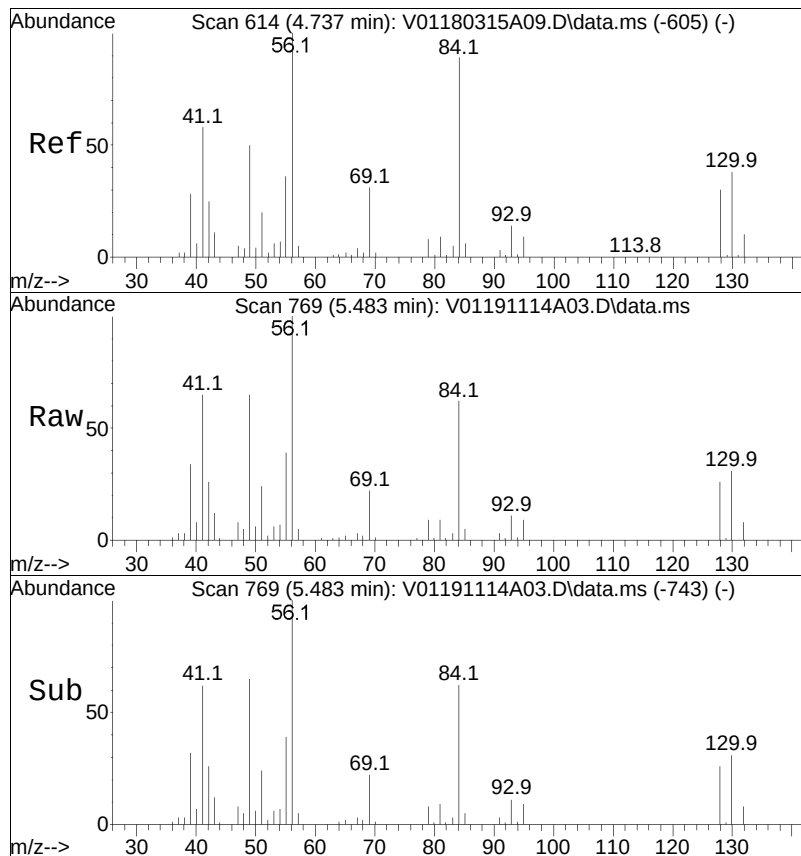




#29
 2,2-Dichloropropane
 Concen: 9.82 ug/L
 RT: 5.384 min Scan# 751
 Delta R.T. -0.000 min
 Lab File: V01191114A03.D
 Acq: 14 Nov 2019 7:47 am

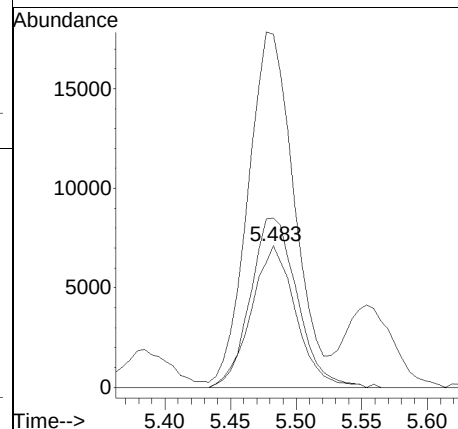
Tgt Ion	Ratio	Resp	Lower	Upper
77	100	69954		
41	90.9		39.6	82.3#
79	31.6		20.9	43.3

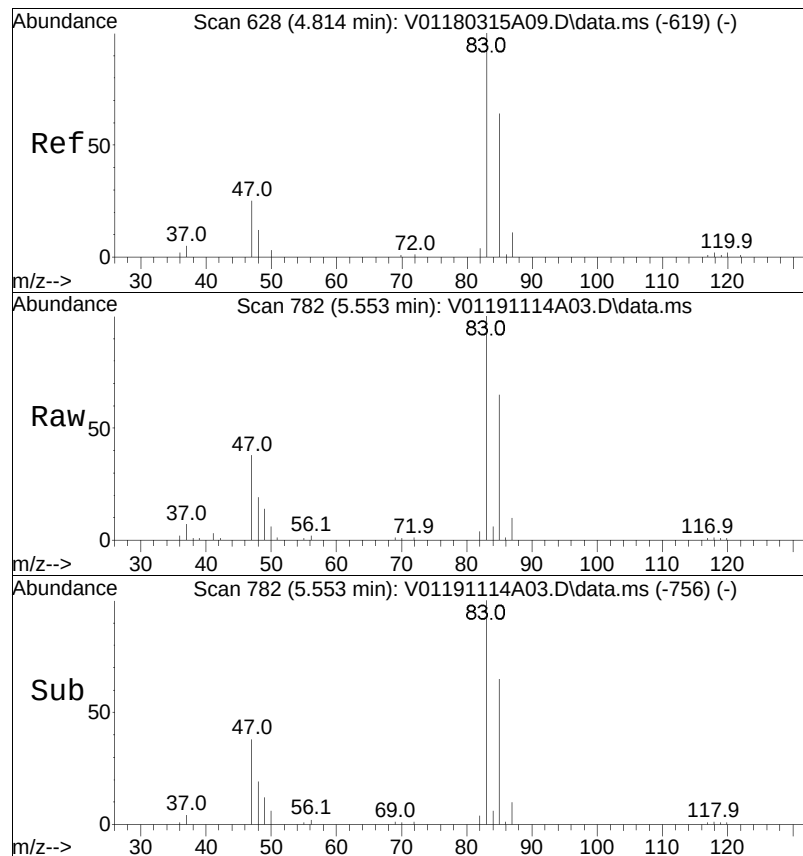




#30
 Bromochloromethane
 Concen: 8.91 ug/L
 RT: 5.483 min Scan# 769
 Delta R.T. -0.006 min
 Lab File: V01191114A03.D
 Acq: 14 Nov 2019 7:47 am

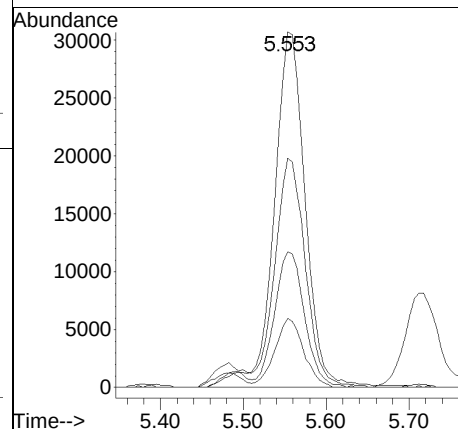
Tgt	Ion:128	Resp:	16770
Ion	Ratio	Lower	Upper
128	100		
49	255.5	140.4	210.6#
130	126.4	103.1	154.7

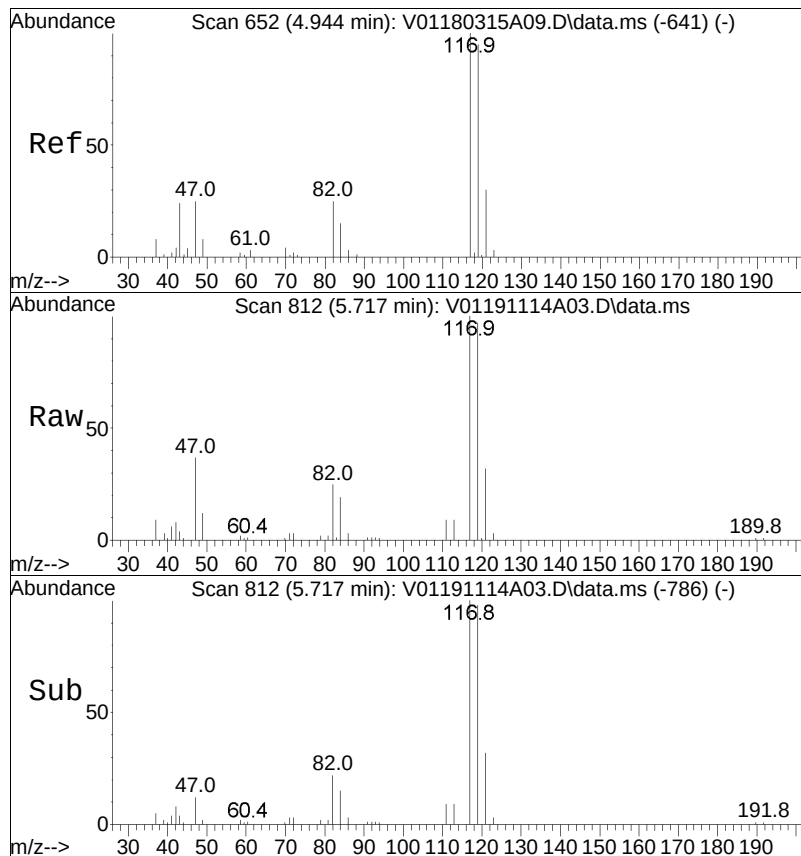




#32
 Chloroform
 Concen: 9.18 ug/L
 RT: 5.553 min Scan# 782
 Delta R.T. -0.006 min
 Lab File: V01191114A03.D
 Acq: 14 Nov 2019 7:47 am

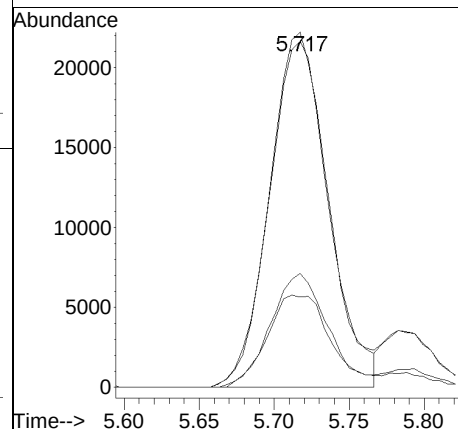
Tgt Ion:	83	Resp:	80521
Ion Ratio	Lower	Upper	
83	100		
85	62.8	42.3	87.8
47	36.9	17.8	37.0
48	18.0	9.3	19.3

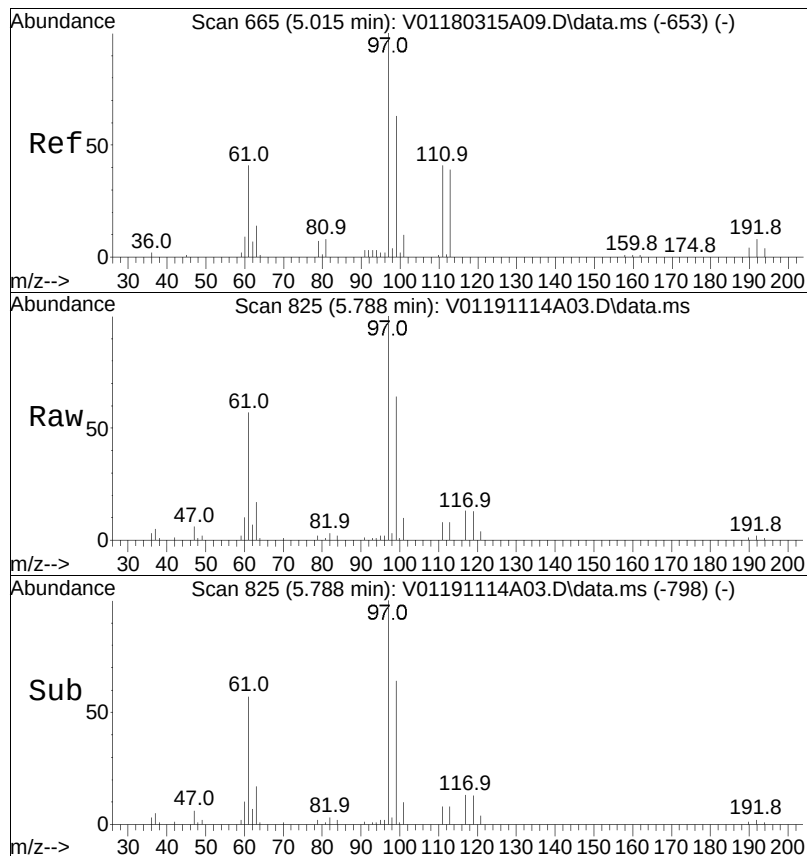




#34
 Carbon tetrachloride
 Concen: 10.01 ug/L
 RT: 5.717 min Scan# 812
 Delta R.T. -0.006 min
 Lab File: V01191114A03.D
 Acq: 14 Nov 2019 7:47 am

Tgt Ion:	117	Resp:	60493
Ion Ratio	Lower	Upper	
117	100		
119	98.4	62.1	128.9
121	31.5	19.8	41.0
82	28.5	17.1	35.5





#37

1,1,1-Trichloroethane

Concen: 9.79 ug/L

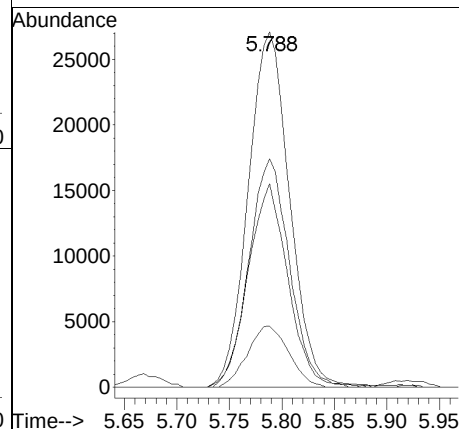
RT: 5.788 min Scan# 825

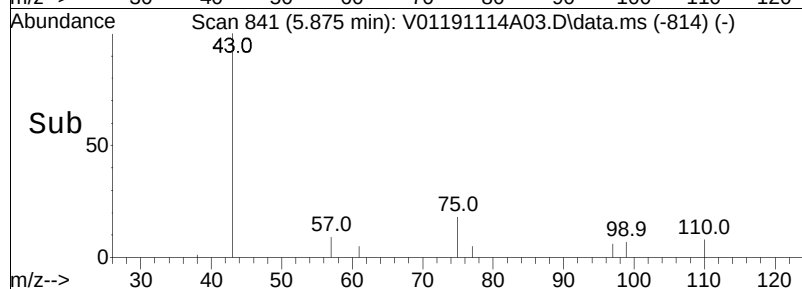
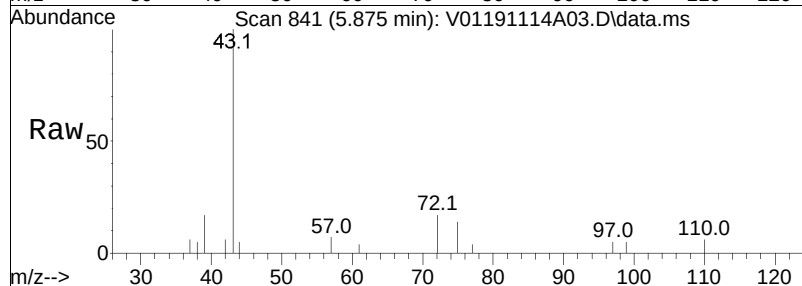
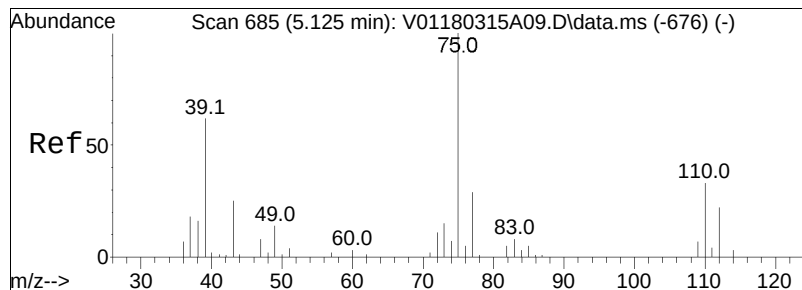
Delta R.T. -0.000 min

Lab File: V01191114A03.D

Acq: 14 Nov 2019 7:47 am

Tgt Ion:	97	Resp:	74517
Ion Ratio	Lower	Upper	
97	100		
99	63.2	41.7	86.7
61	54.9	29.4	61.2
63	17.2	9.4	19.4





#39

2-Butanone

Concen: 6.89 ug/L

RT: 5.875 min Scan# 841

Delta R.T. -0.001 min

Lab File: V01191114A03.D

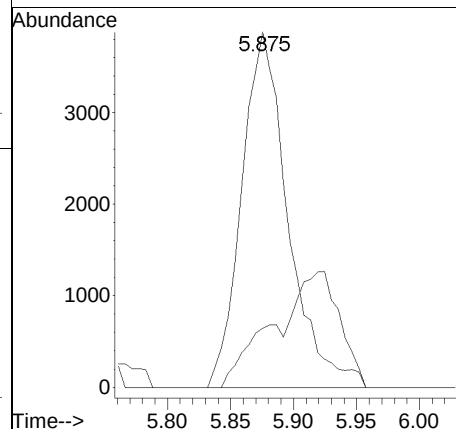
Acq: 14 Nov 2019 7:47 am

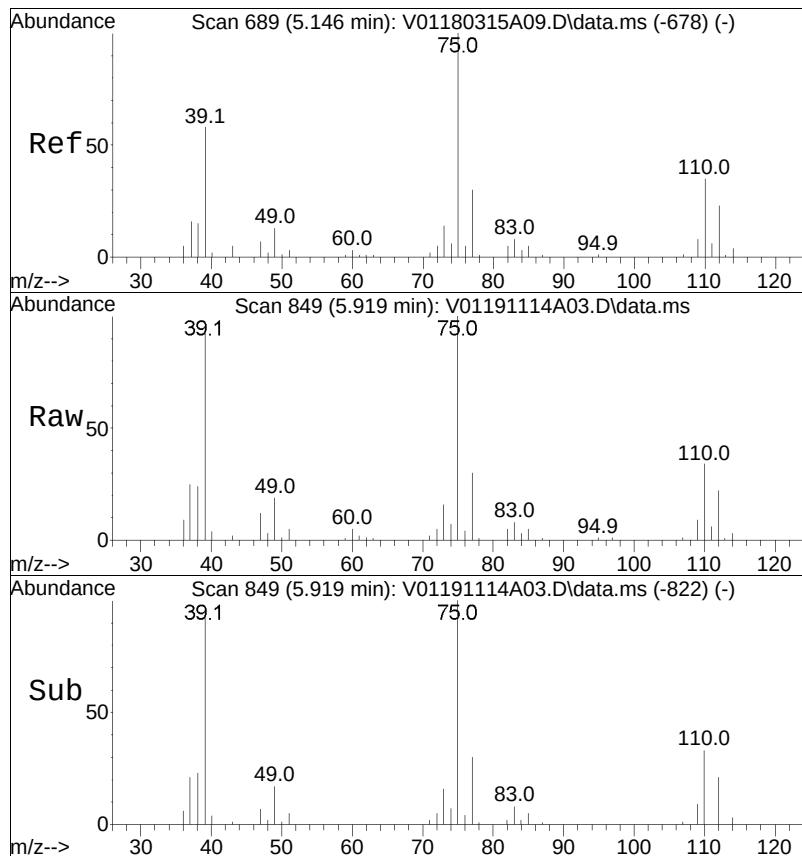
Tgt Ion: 43 Resp: 9936

Ion Ratio Lower Upper

43 100

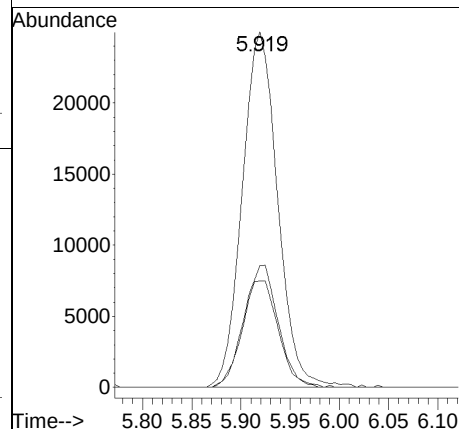
72 14.5 45.8 68.6#

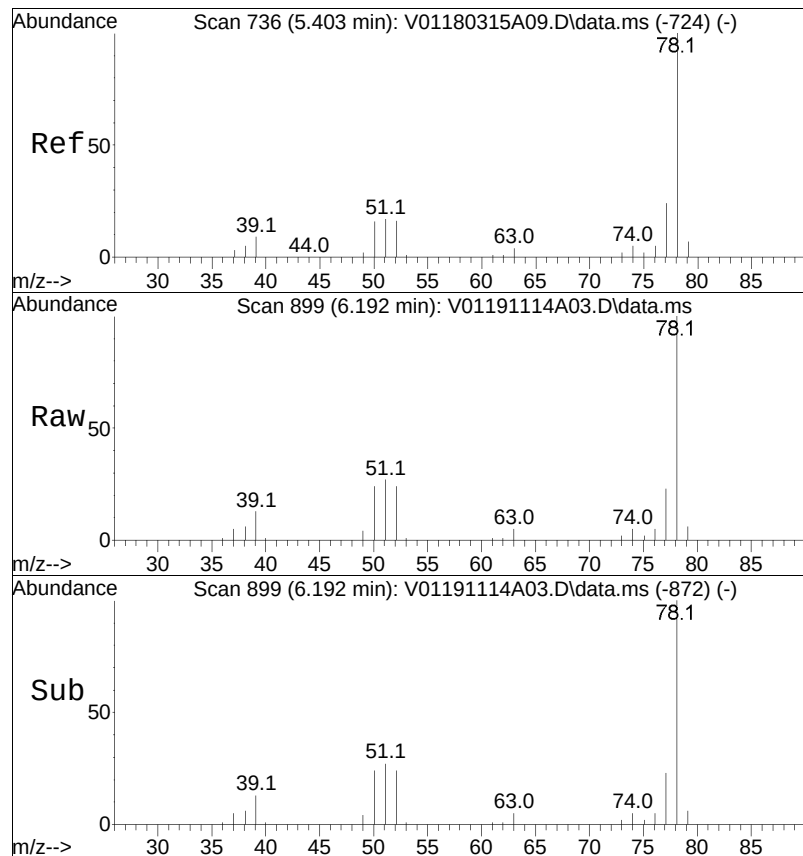




#40
 1,1-Dichloropropene
 Concen: 9.14 ug/L
 RT: 5.919 min Scan# 849
 Delta R.T. -0.000 min
 Lab File: V01191114A03.D
 Acq: 14 Nov 2019 7:47 am

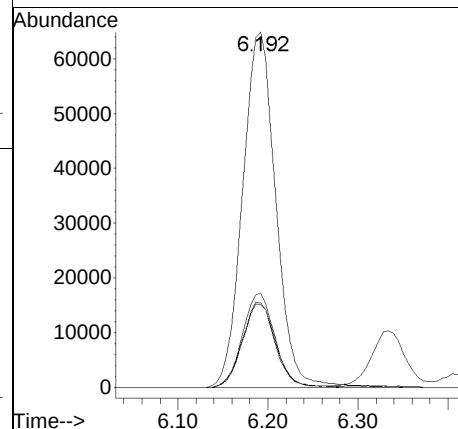
Tgt	Ion: 75	Resp:	62599
Ion	Ratio	Lower	Upper
75	100		
110	33.6	22.2	46.2
77	30.4	20.2	42.0

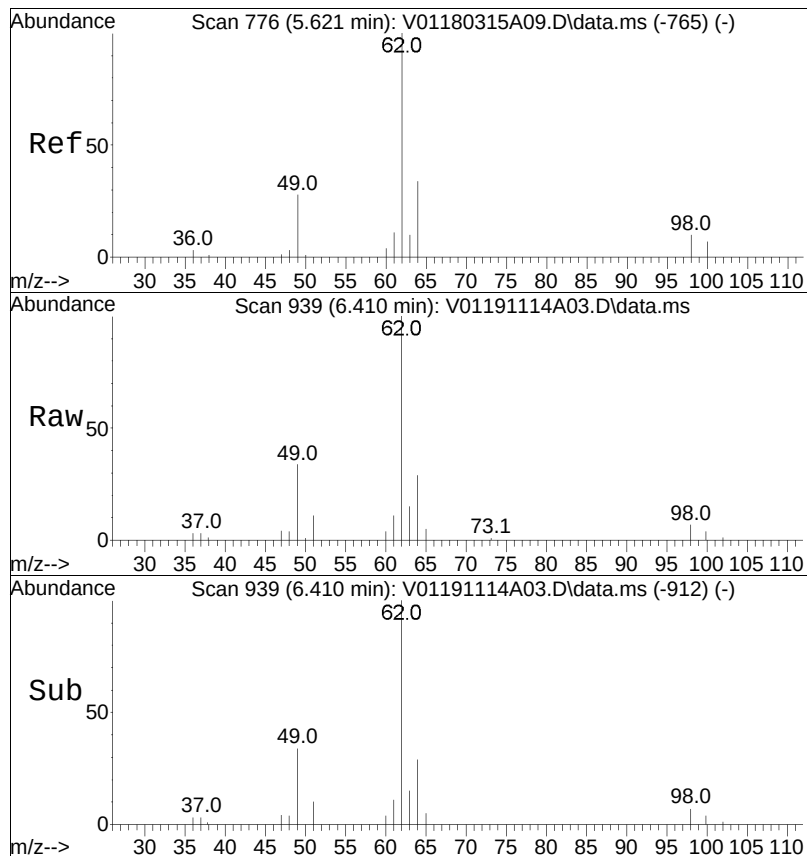




#41
Benzene
Concen: 8.65 ug/L
RT: 6.192 min Scan# 899
Delta R.T. -0.000 min
Lab File: V01191114A03.D
Acq: 14 Nov 2019 7:47 am

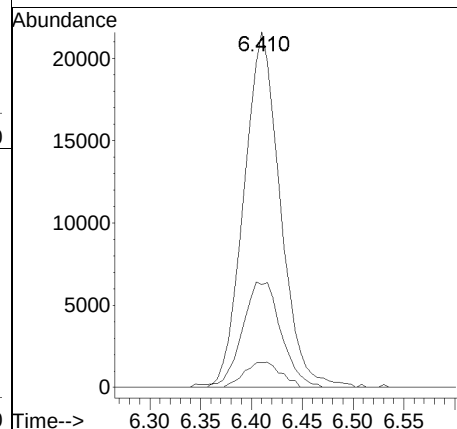
Tgt	Ion: 78	Resp:	166287
Ion	Ratio	Lower	Upper
78	100		
77	23.6	15.7	32.5
51	25.9	11.6	24.2#
52	23.7	10.9	22.5#

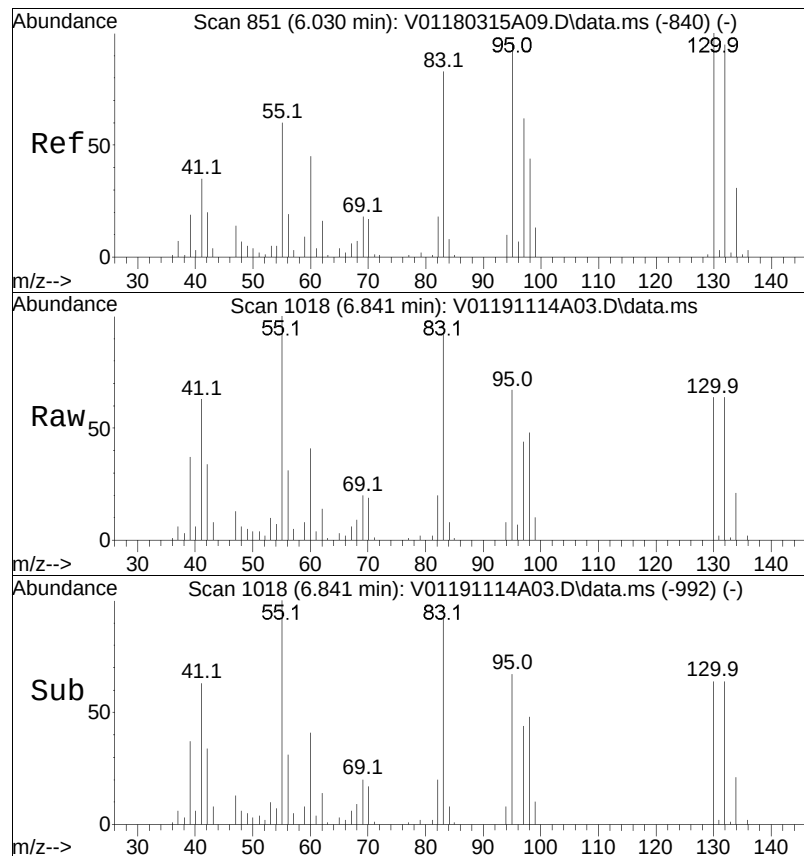




#44
 1,2-Dichloroethane
 Concen: 9.13 ug/L
 RT: 6.410 min Scan# 939
 Delta R.T. -0.000 min
 Lab File: V01191114A03.D
 Acq: 14 Nov 2019 7:47 am

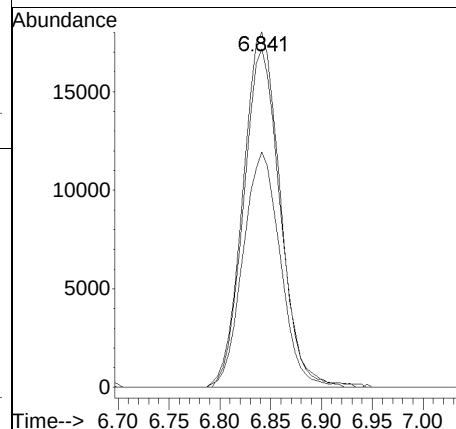
Tgt Ion:	62	Resp:	53714
Ion Ratio	Lower	Upper	
62	100		
64	31.9	12.1	52.1
98	7.2	0.0	28.8

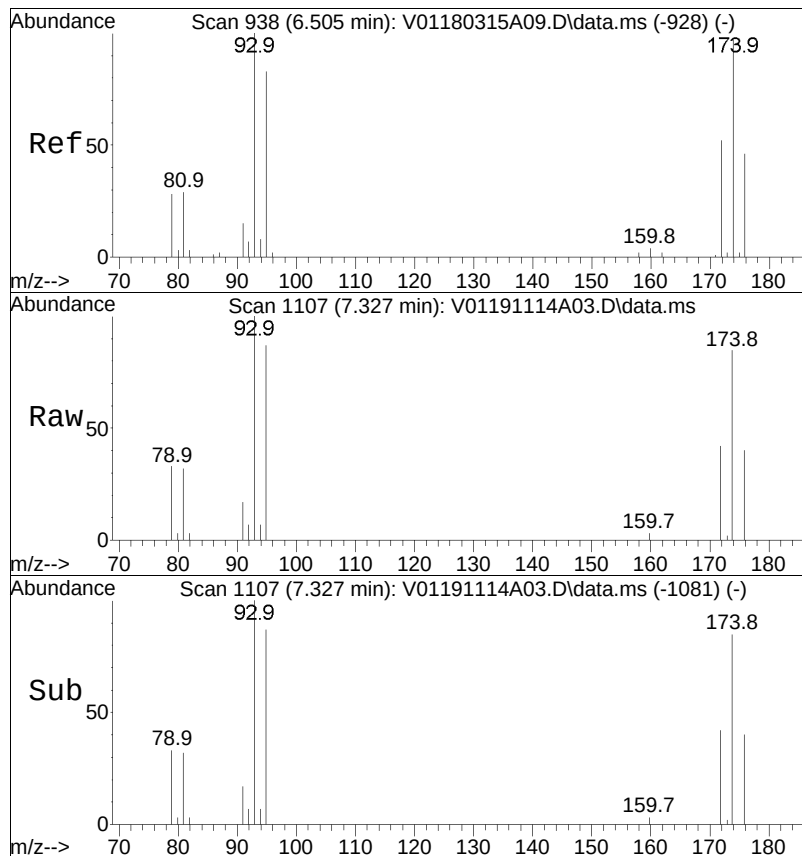




#48
 Trichloroethene
 Concen: 9.41 ug/L
 RT: 6.841 min Scan# 1018
 Delta R.T. -0.006 min
 Lab File: V01191114A03.D
 Acq: 14 Nov 2019 7:47 am

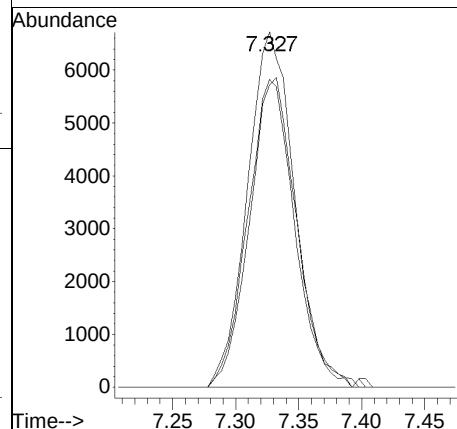
Tgt Ion	Ratio	Lower	Upper
95	100		
97	66.1	54.4	81.6
130	93.2	80.6	120.8

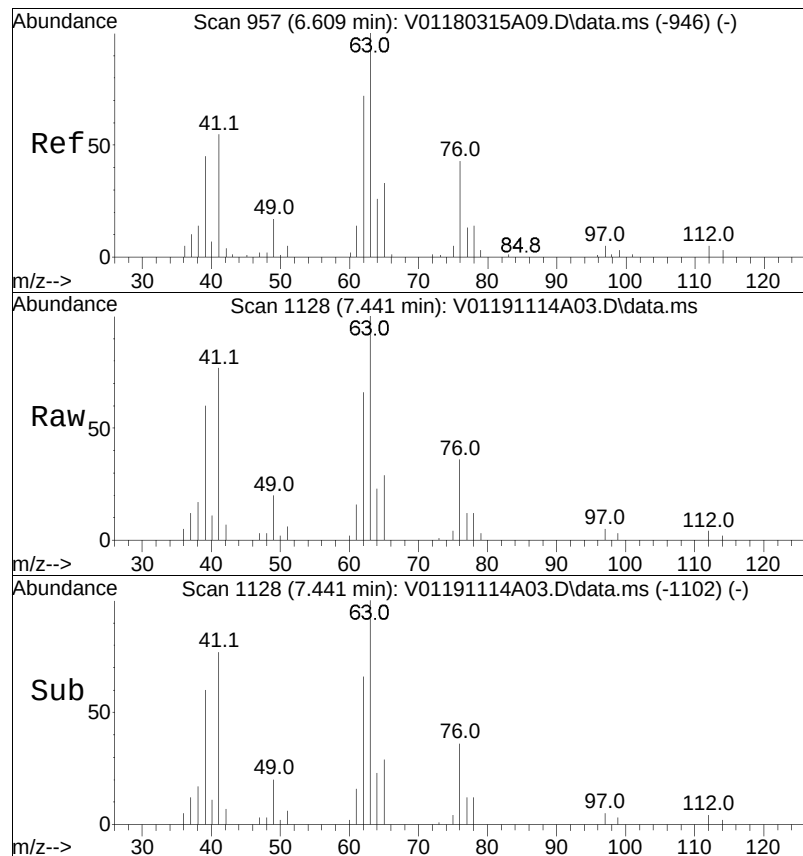




#50
 Dibromomethane
 Concen: 7.70 ug/L
 RT: 7.327 min Scan# 1107
 Delta R.T. -0.006 min
 Lab File: V01191114A03.D
 Acq: 14 Nov 2019 7:47 am

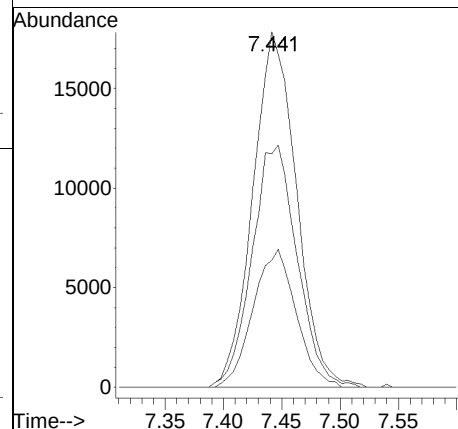
Tgt Ion:	93	Resp:	17611
Ion Ratio	Lower	Upper	
93	100		
95	85.7	68.6	102.8
174	86.1	80.5	120.7

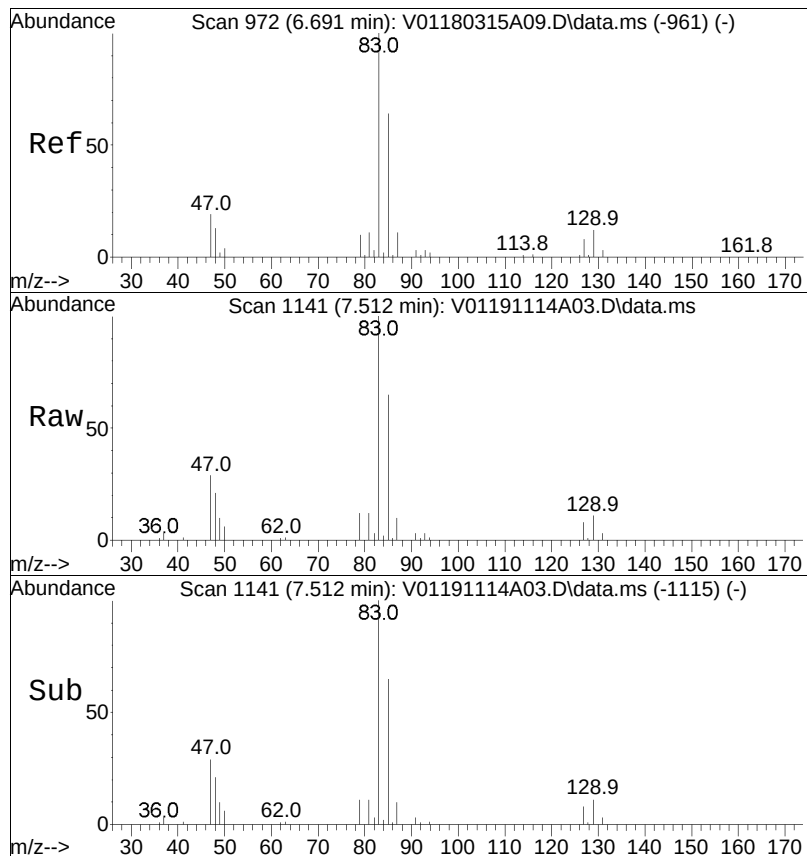




#51
 1,2-Dichloropropane
 Concen: 8.82 ug/L
 RT: 7.441 min Scan# 1128
 Delta R.T. -0.006 min
 Lab File: V01191114A03.D
 Acq: 14 Nov 2019 7:47 am

Tgt	Ion: 63	Resp:	46519
Ion	Ratio	Lower	Upper
63	100		
62	70.5	57.2	85.8
76	38.3	33.6	50.4





#54

Bromodichloromethane

Concen: 8.68 ug/L

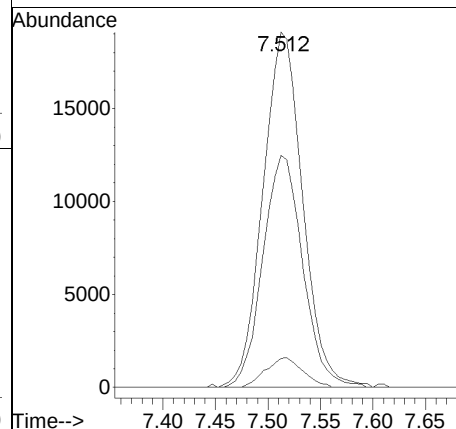
RT: 7.512 min Scan# 1141

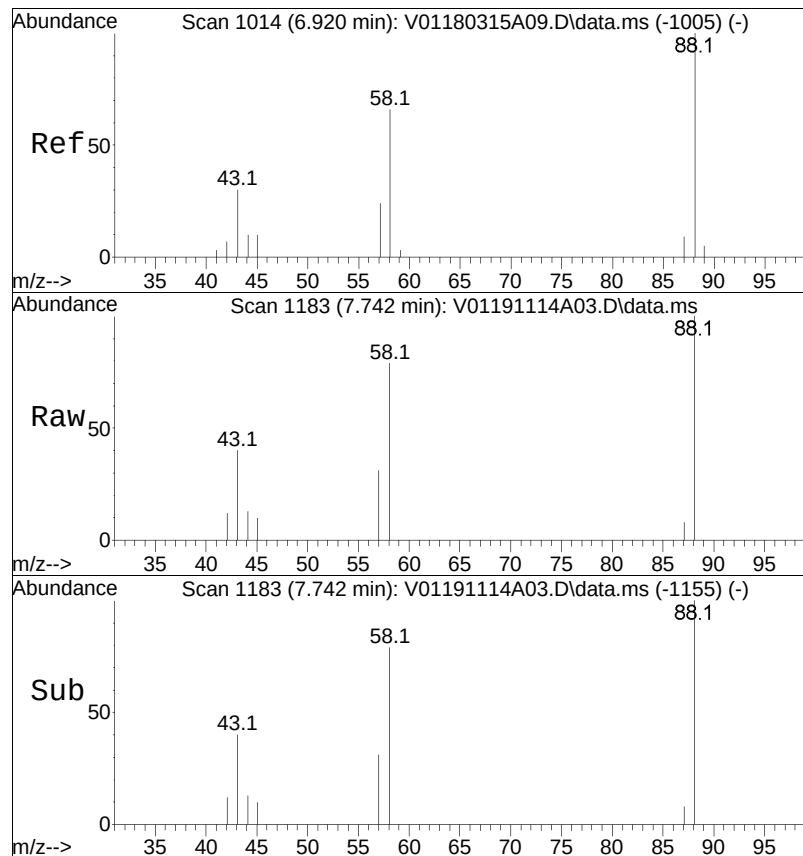
Delta R.T. -0.006 min

Lab File: V01191114A03.D

Acq: 14 Nov 2019 7:47 am

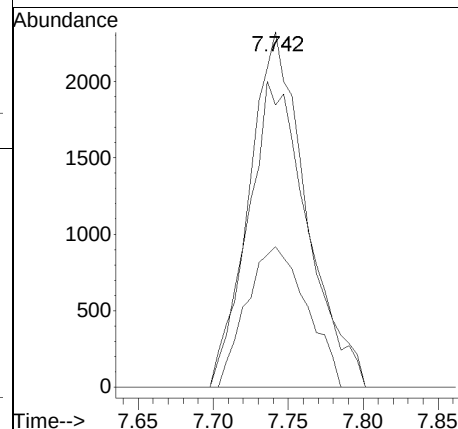
Tgt	Ion: 83	Resp:	50375
Ion	Ratio	Lower	Upper
83	100		
85	65.5	52.2	78.4
127	7.9	6.9	10.3

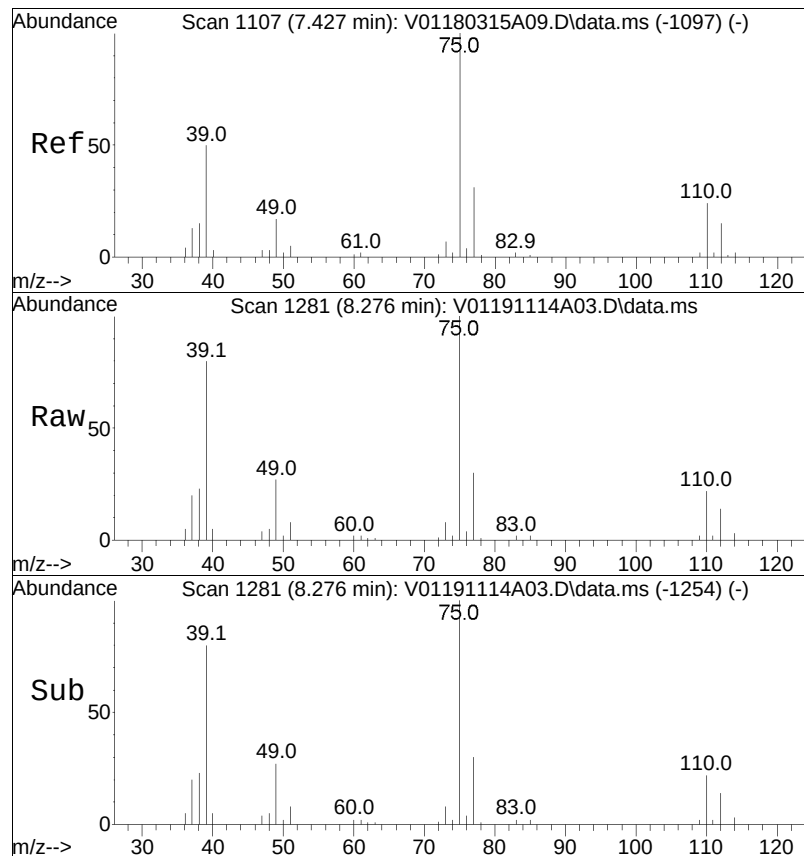




#57
 1,4-Dioxane
 Concen: 303.26 ug/L
 RT: 7.742 min Scan# 1183
 Delta R.T. 0.005 min
 Lab File: V01191114A03.D
 Acq: 14 Nov 2019 7:47 am

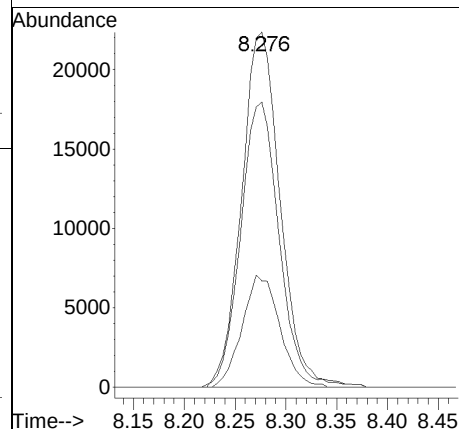
Tgt Ion:	88	Resp:	6179
Ion Ratio	Lower	Upper	
88	100		
58	89.8	54.8	82.2#
43	41.6	29.3	43.9

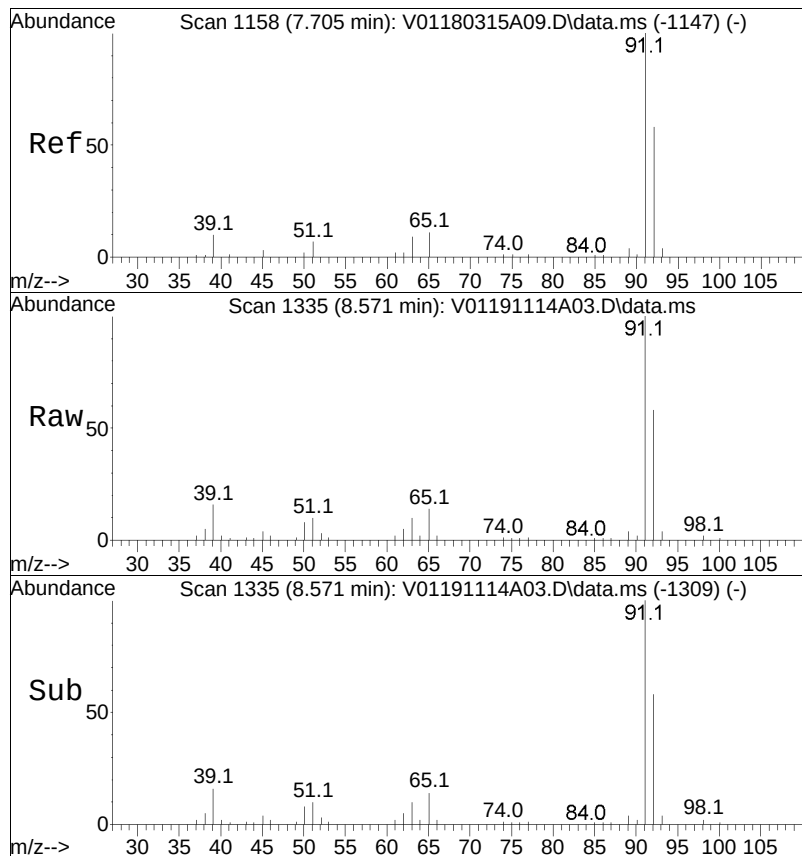




#58
 cis-1,3-Dichloropropene
 Concen: 8.20 ug/L
 RT: 8.276 min Scan# 1281
 Delta R.T. -0.000 min
 Lab File: V01191114A03.D
 Acq: 14 Nov 2019 7:47 am

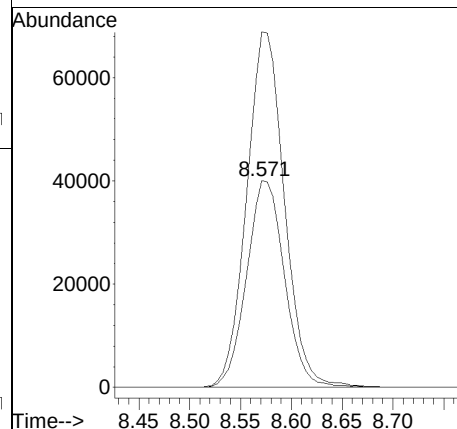
Tgt Ion	Ratio	Lower	Upper
75	100		
77	30.8	25.1	37.7
39	80.3	42.6	63.8

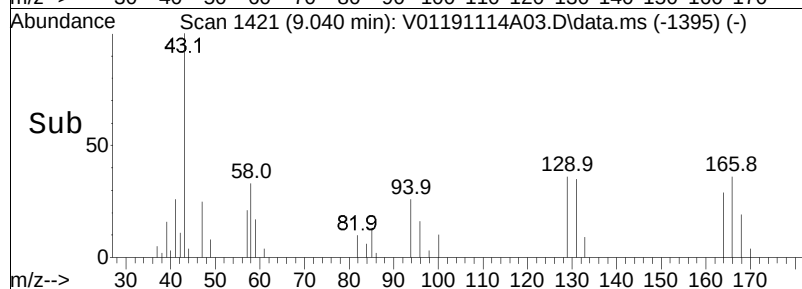
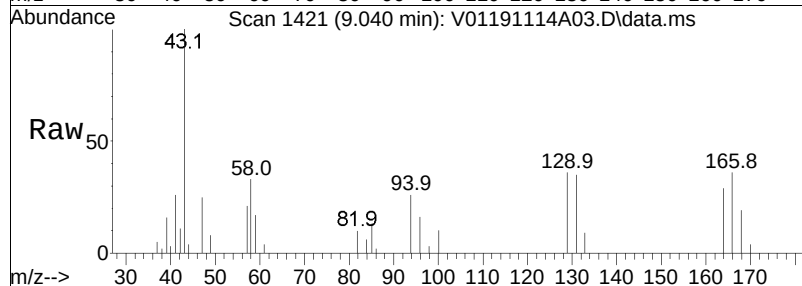
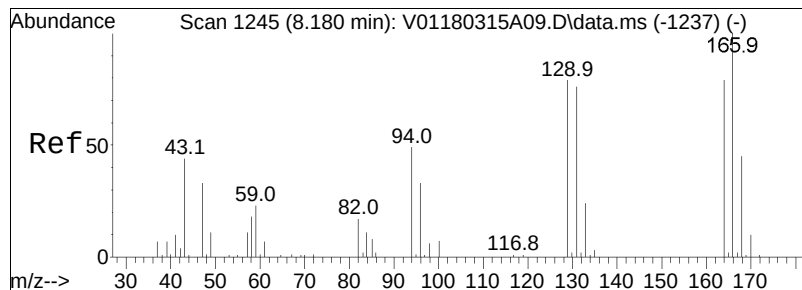




#61
 Toluene
 Concen: 9.92 ug/L
 RT: 8.571 min Scan# 1335
 Delta R.T. -0.006 min
 Lab File: V01191114A03.D
 Acq: 14 Nov 2019 7:47 am

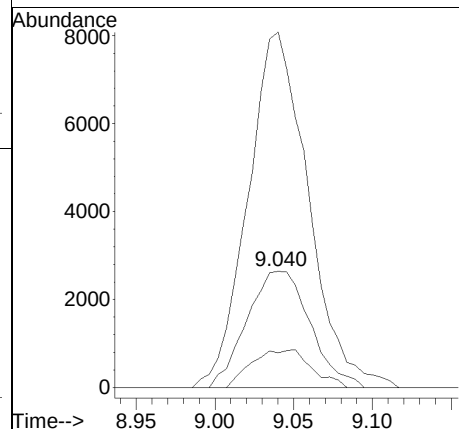
Tgt Ion	Ratio	Lower	Upper
92	100		
91	171.1	137.5	206.3

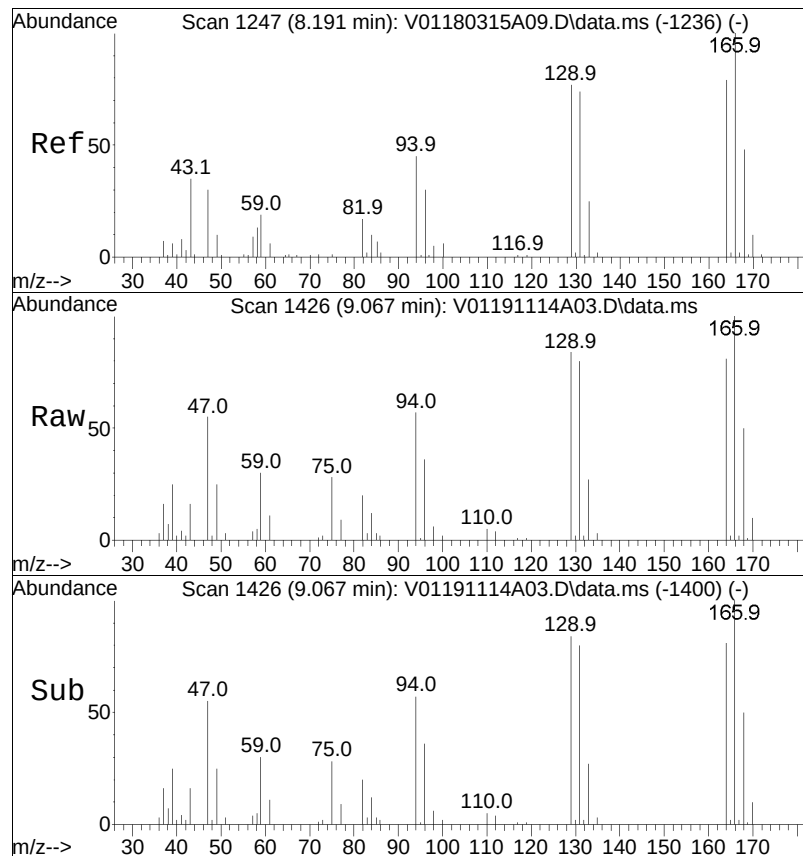




#62
 4-Methyl-2-pentanone
 Concen: 7.61 ug/L
 RT: 9.040 min Scan# 1421
 Delta R.T. -0.006 min
 Lab File: V01191114A03.D
 Acq: 14 Nov 2019 7:47 am

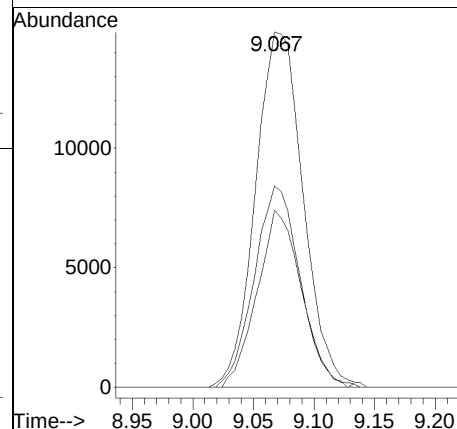
Tgt Ion	Ratio	Lower	Upper
58	100		
100	30.6	31.8	47.6#
43	292.3	212.5	318.7

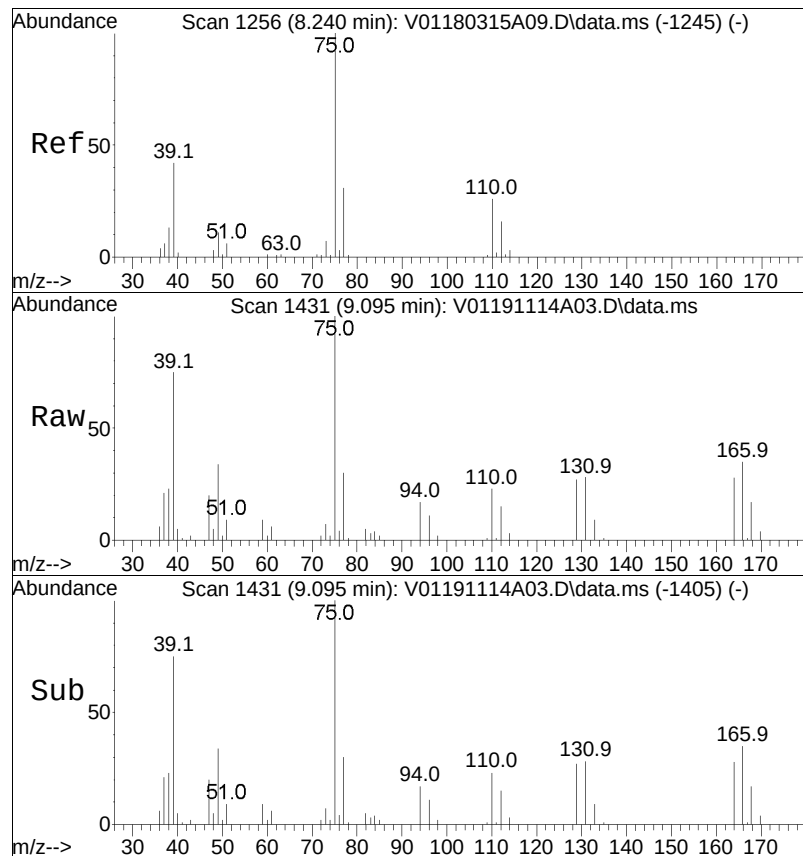




#63
Tetrachloroethene
Concen: 10.32 ug/L
RT: 9.067 min Scan# 1426
Delta R.T. -0.006 min
Lab File: V01191114A03.D
Acq: 14 Nov 2019 7:47 am

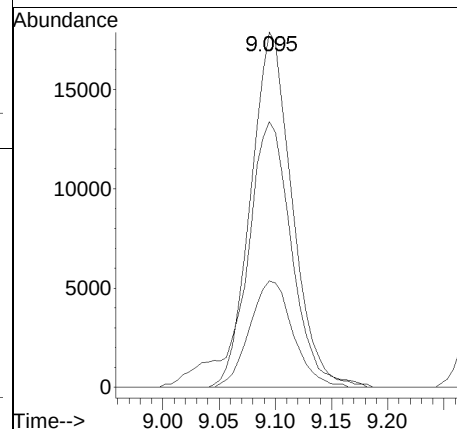
Tgt	Ion:166	Resp:	40718
Ion	Ratio	Lower	Upper
166	100		
168	46.5	27.4	67.4
94	54.5	24.8	64.8

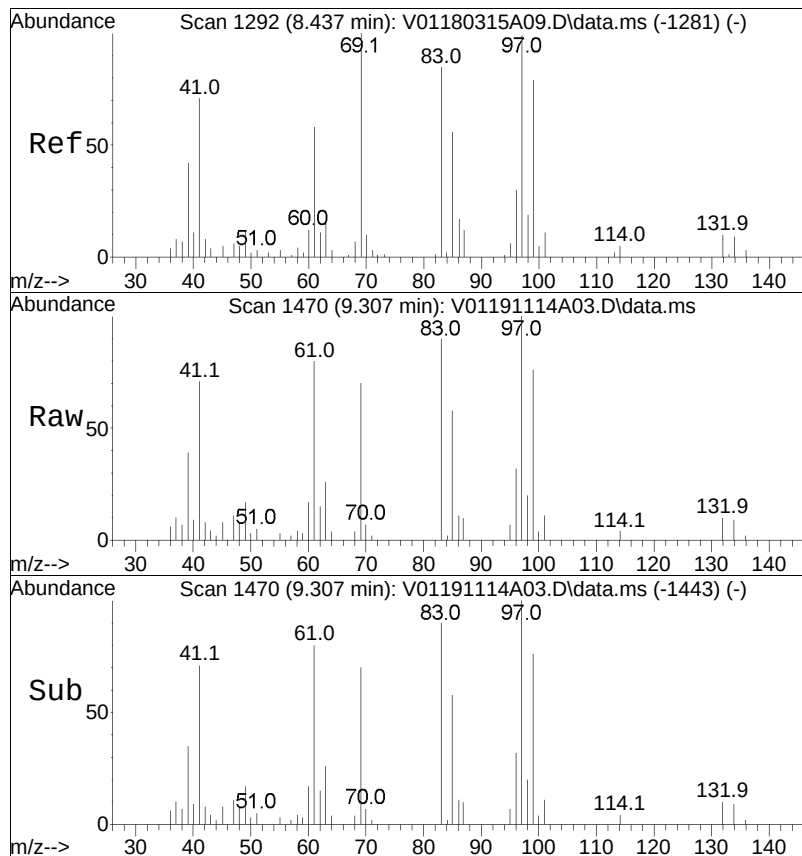




#65
 trans-1,3-Dichloropropene
 Concen: 9.17 ug/L
 RT: 9.095 min Scan# 1431
 Delta R.T. -0.006 min
 Lab File: V01191114A03.D
 Acq: 14 Nov 2019 7:47 am

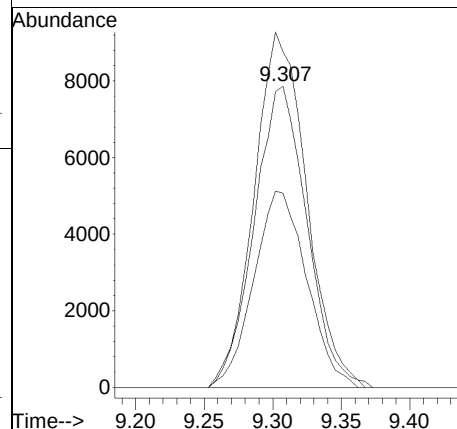
Tgt Ion	Ratio	Lower	Upper
75	100		
77	31.5	11.8	51.8
39	83.6	30.2	70.2#

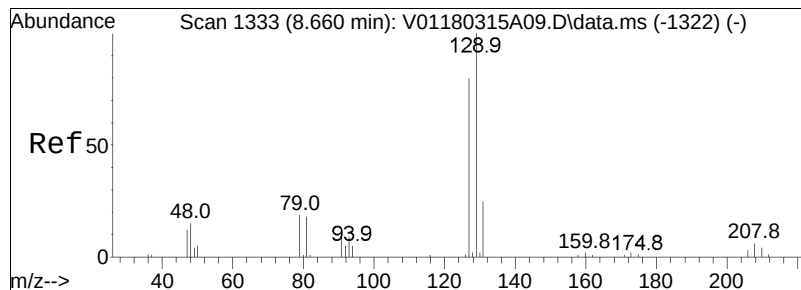




#68
 1,1,2-Trichloroethane
 Concen: 8.67 ug/L
 RT: 9.307 min Scan# 1470
 Delta R.T. -0.000 min
 Lab File: V01191114A03.D
 Acq: 14 Nov 2019 7:47 am

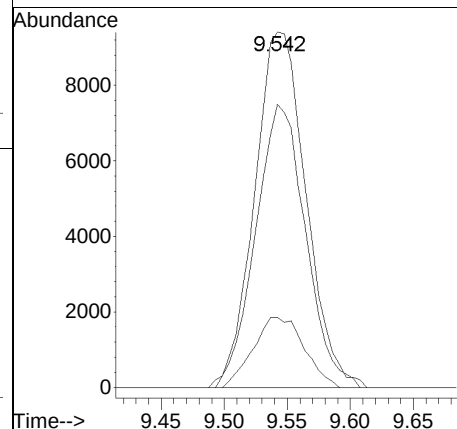
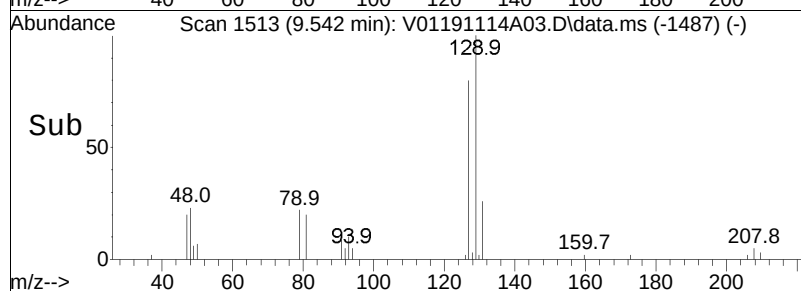
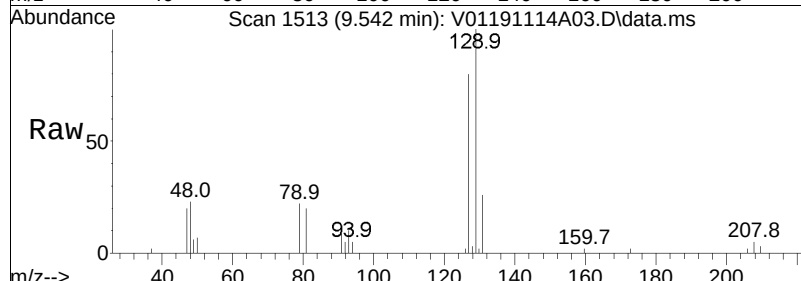
Tgt Ion:	83	Resp:	20941
Ion Ratio	Lower	Upper	
83	100		
97	118.6	96.7	136.7
85	65.9	45.3	85.3

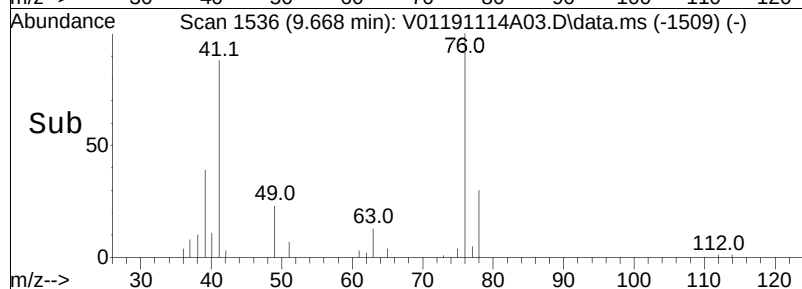
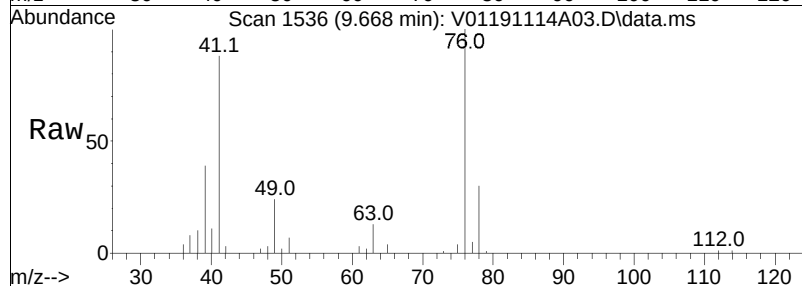
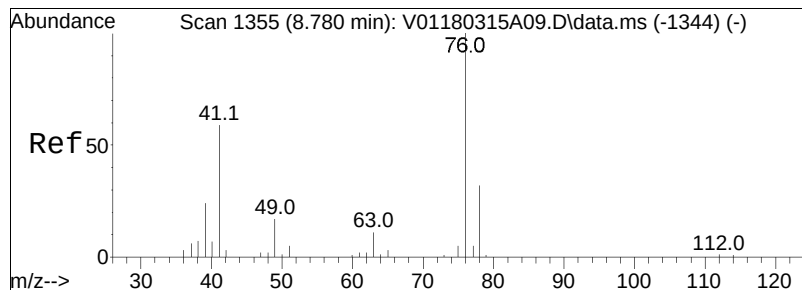




#69
 Chlorodibromomethane
 Concen: 9.24 ug/L
 RT: 9.542 min Scan# 1513
 Delta R.T. -0.006 min
 Lab File: V01191114A03.D
 Acq: 14 Nov 2019 7:47 am

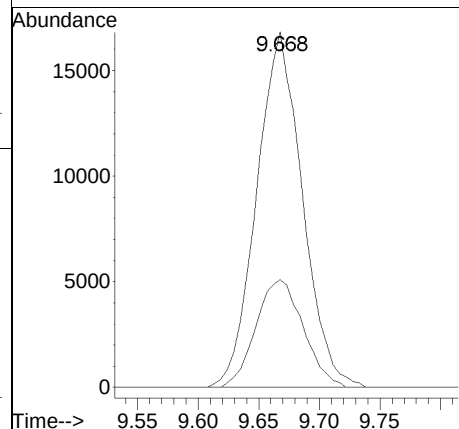
Tgt Ion	Ratio	Lower	Upper
129	100		
81	19.6	0.0	37.9
127	77.3	56.6	96.6

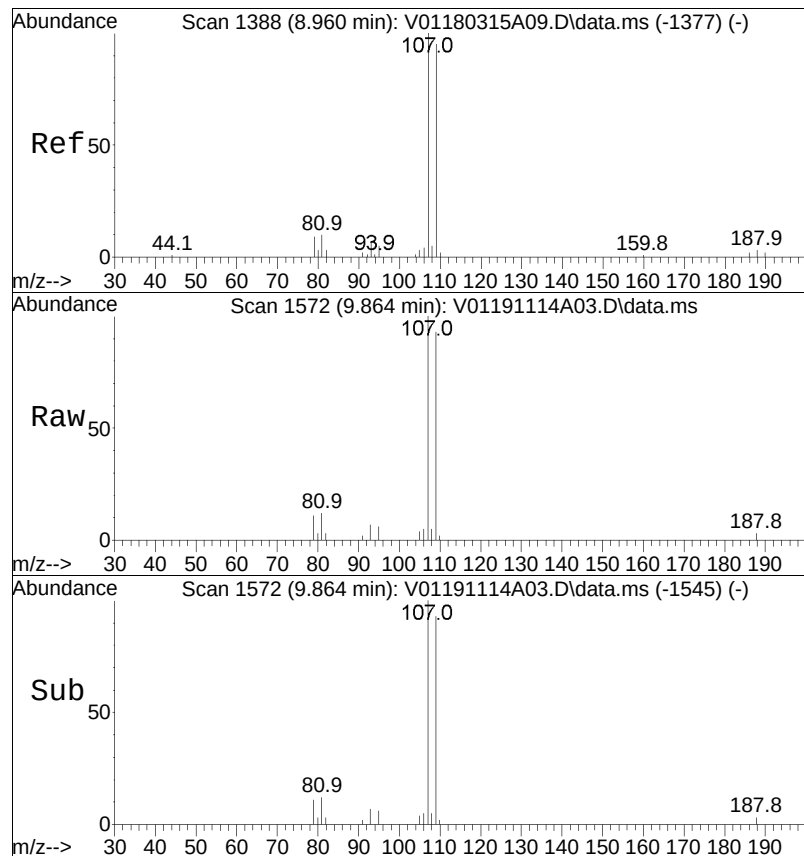




#70
 1,3-Dichloropropane
 Concen: 8.77 ug/L
 RT: 9.668 min Scan# 1536
 Delta R.T. -0.000 min
 Lab File: V01191114A03.D
 Acq: 14 Nov 2019 7:47 am

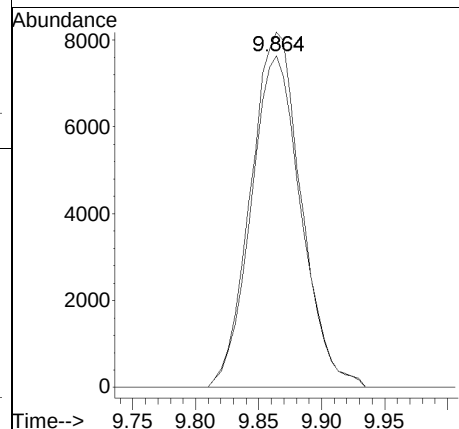
Tgt Ion	Ratio	Lower	Upper
76	100		
78	31.4	25.8	38.8

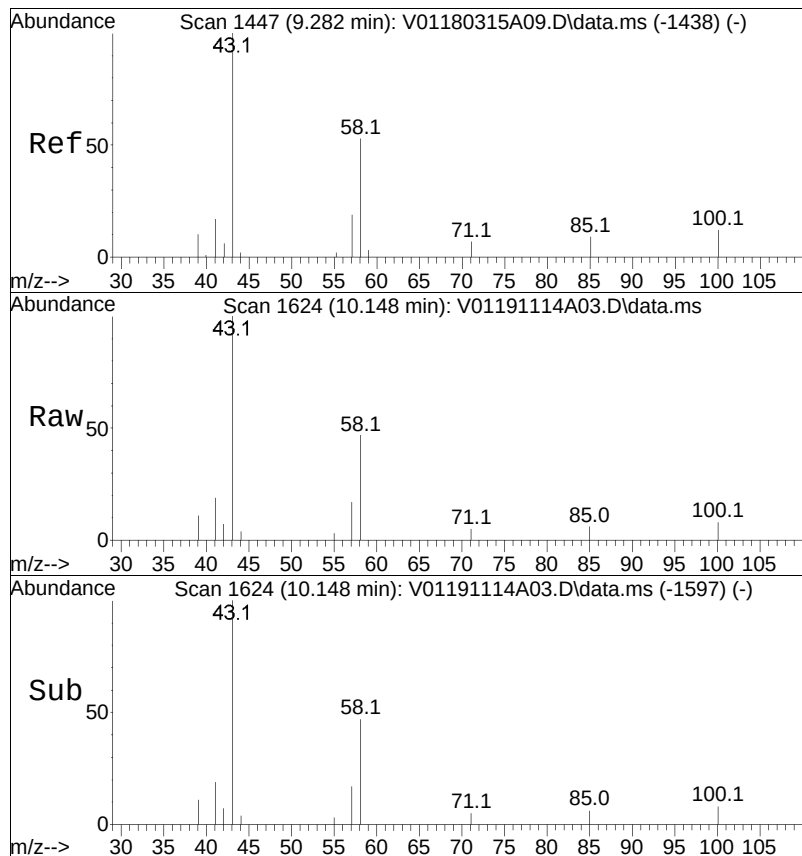




#71
 1,2-Dibromoethane
 Concen: 8.80 ug/L
 RT: 9.864 min Scan# 1572
 Delta R.T. -0.000 min
 Lab File: V01191114A03.D
 Acq: 14 Nov 2019 7:47 am

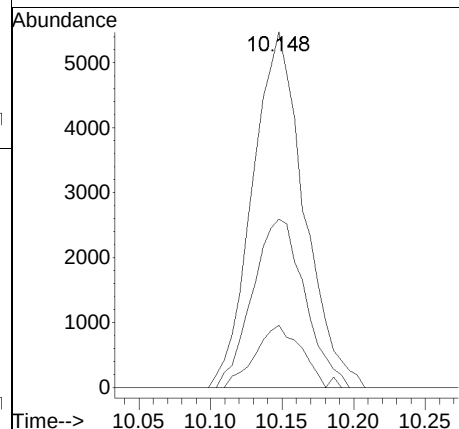
Tgt Ion	Ratio	Lower	Upper
107	100		
109	92.6	75.6	113.4

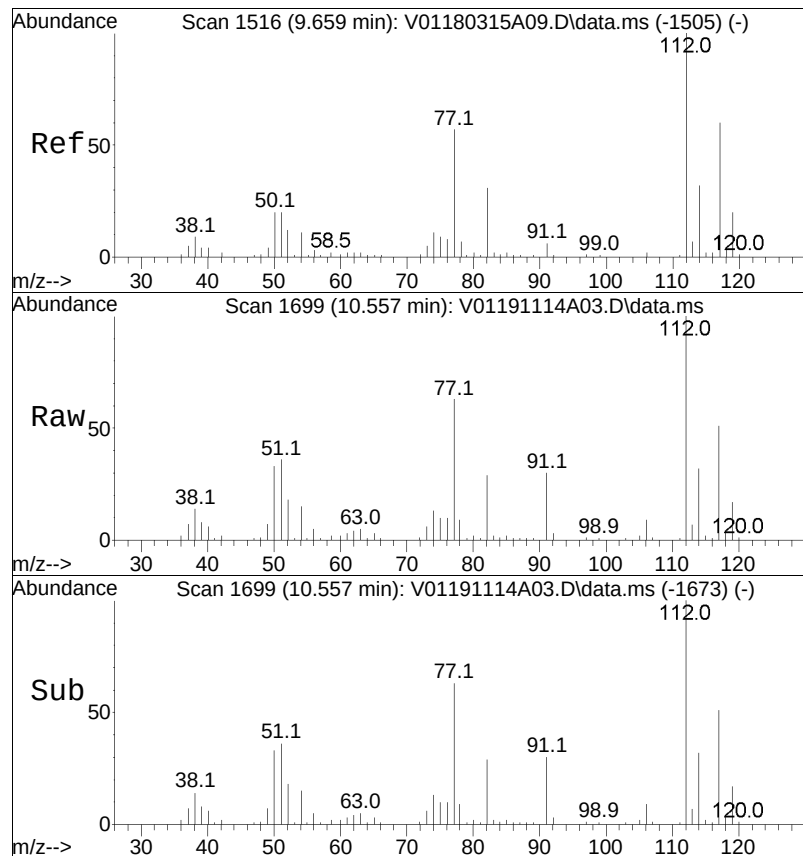




#72
 2-Hexanone
 Concen: 8.10 ug/L
 RT: 10.148 min Scan# 1624
 Delta R.T. -0.000 min
 Lab File: V01191114A03.D
 Acq: 14 Nov 2019 7:47 am

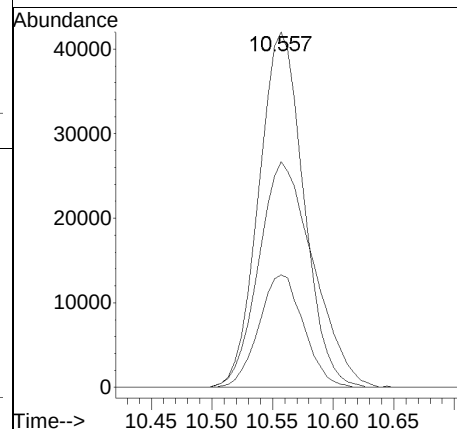
Tgt Ion:	43	Resp:	13728
Ion Ratio	Lower	Upper	
43	100		
58	47.9	40.8	61.2
57	15.9	14.2	21.4

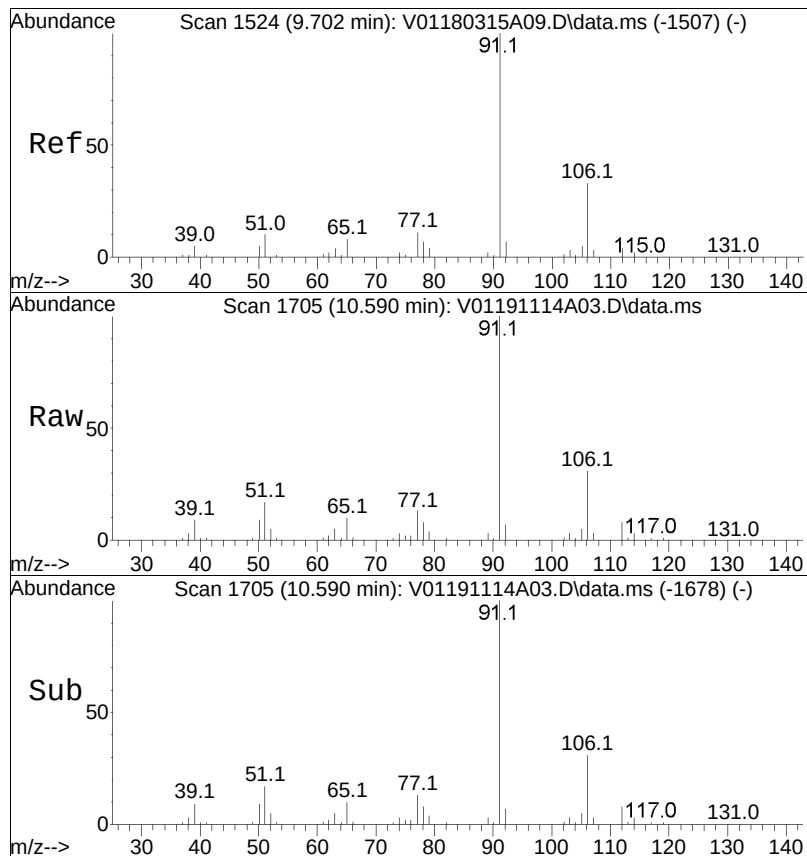




#73
 Chlorobenzene
 Concen: 10.03 ug/L
 RT: 10.557 min Scan# 1699
 Delta R.T. -0.006 min
 Lab File: V01191114A03.D
 Acq: 14 Nov 2019 7:47 am

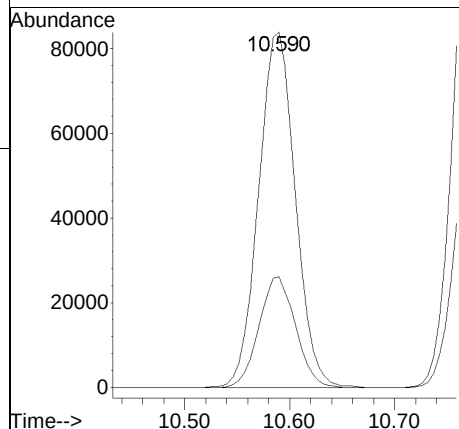
Tgt	Ion:112	Resp:	108030
Ion	Ratio	Lower	Upper
112	100		
77	77.9	59.8	89.6
114	31.6	25.4	38.2

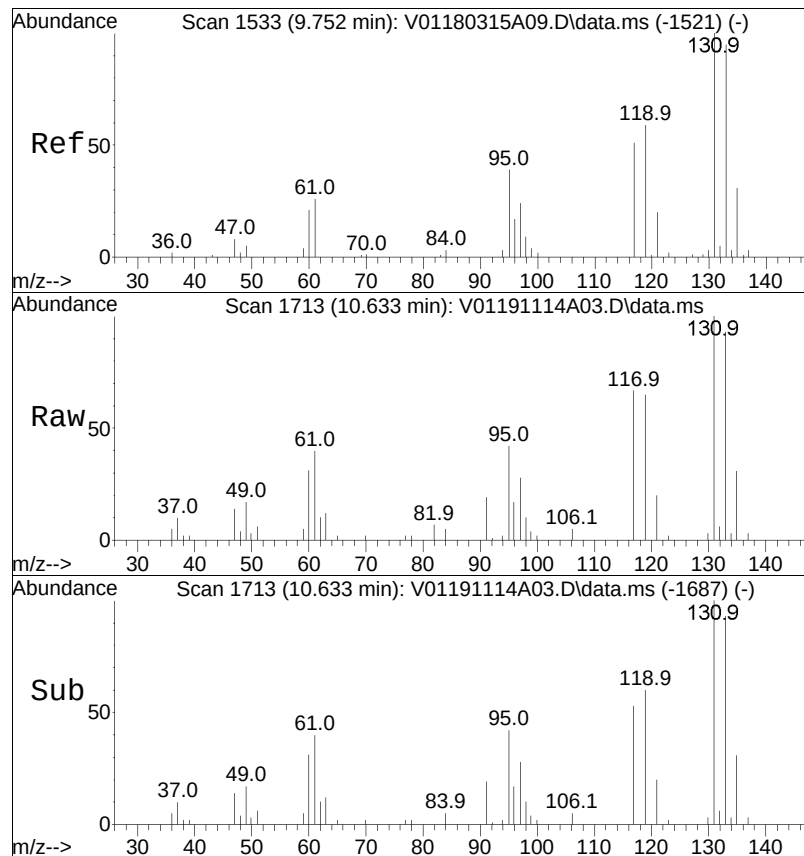




#74
 Ethylbenzene
 Concen: 10.15 ug/L
 RT: 10.590 min Scan# 1705
 Delta R.T. -0.000 min
 Lab File: V01191114A03.D
 Acq: 14 Nov 2019 7:47 am

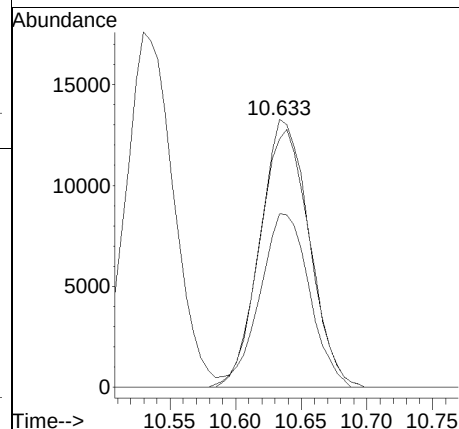
Tgt Ion:	91	Resp:	203401
Ion Ratio	Lower	Upper	
91	100		
106	30.9	24.7	37.1

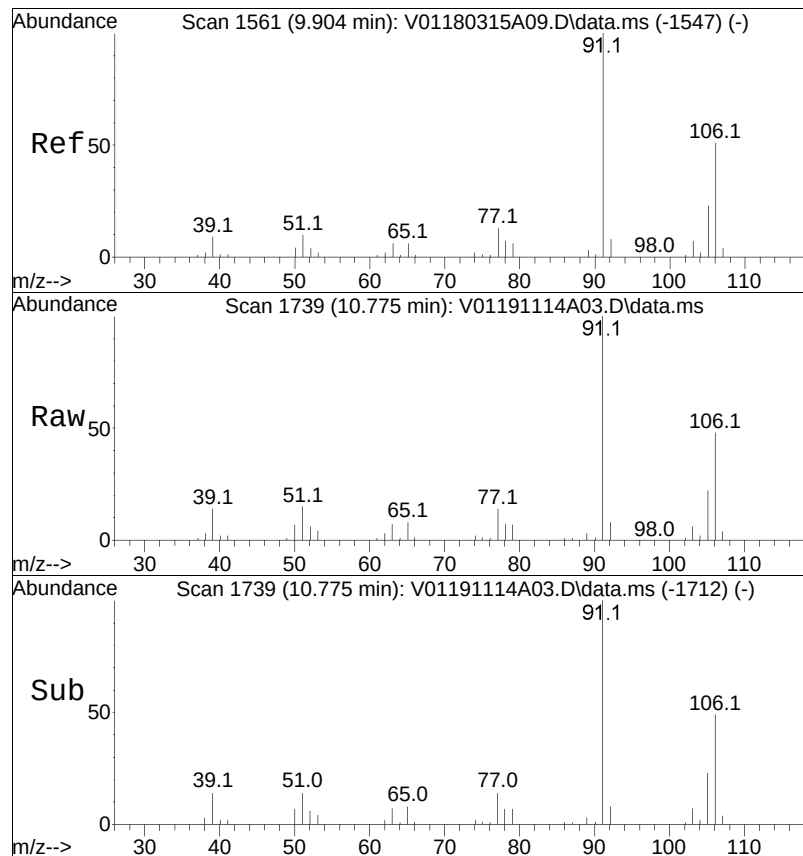




#75
 1,1,1,2-Tetrachloroethane
 Concen: 10.09 ug/L
 RT: 10.633 min Scan# 1713
 Delta R.T. -0.006 min
 Lab File: V01191114A03.D
 Acq: 14 Nov 2019 7:47 am

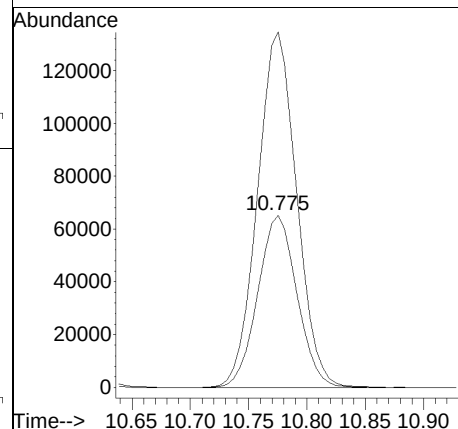
Tgt Ion:	131	Resp:	34849
Ion Ratio	Lower	Upper	
131	100		
133	96.9	75.8	115.8
119	64.5	45.8	85.8

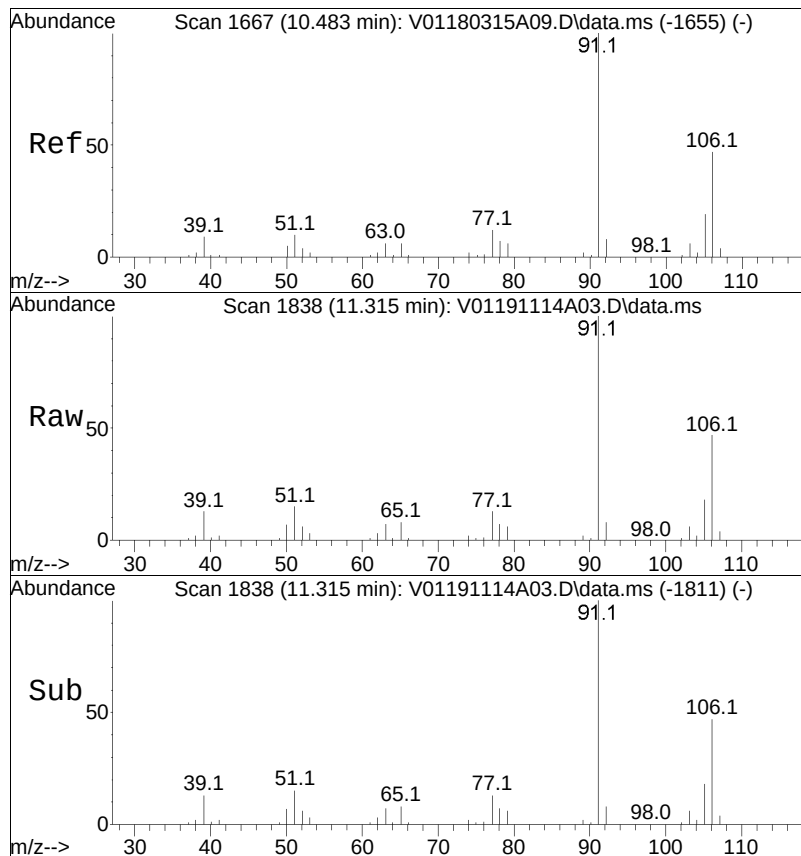




#76
 p/m Xylene
 Concen: 20.07 ug/L
 RT: 10.775 min Scan# 1739
 Delta R.T. -0.000 min
 Lab File: V01191114A03.D
 Acq: 14 Nov 2019 7:47 am

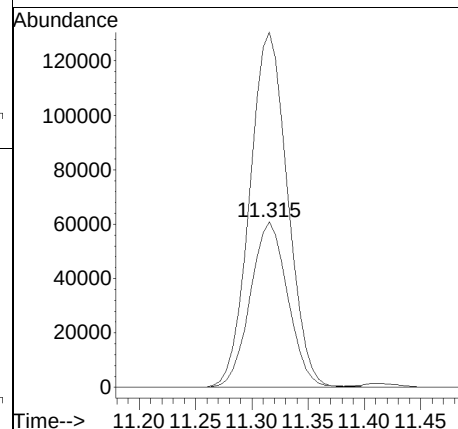
Tgt Ion	Ratio	Lower	Upper
106	100		
91	206.5	162.9	244.3

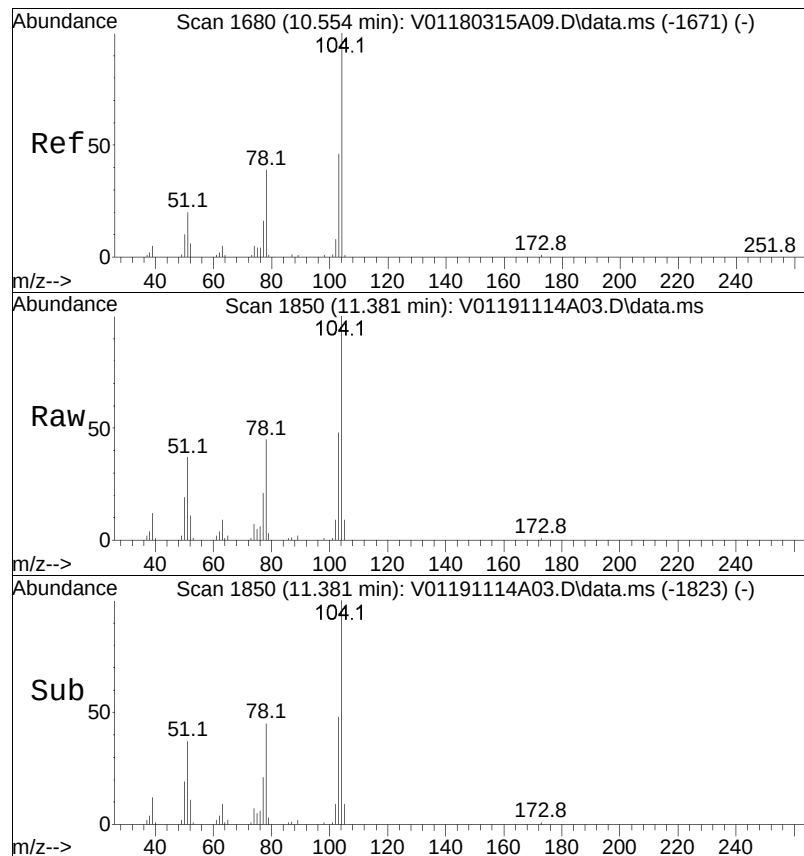




#77
 o Xylene
 Concen: 20.12 ug/L
 RT: 11.315 min Scan# 1838
 Delta R.T. -0.000 min
 Lab File: V01191114A03.D
 Acq: 14 Nov 2019 7:47 am

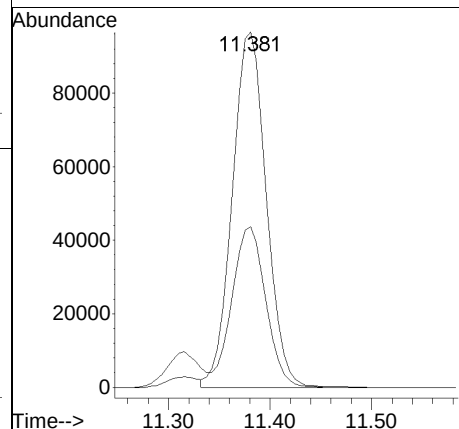
Tgt Ion	Ratio	Lower	Upper
106	100		
91	215.3	171.2	256.8

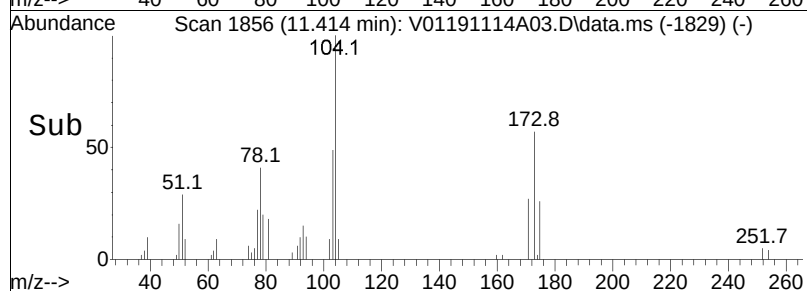
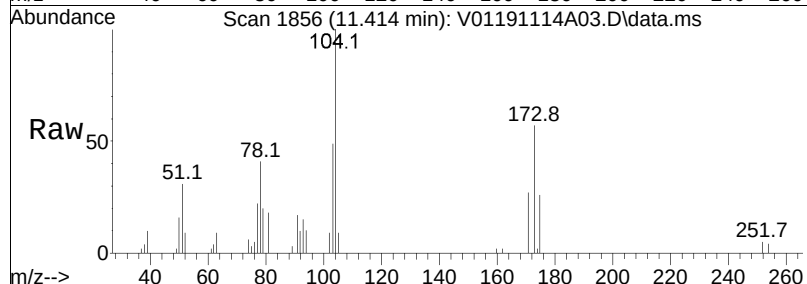
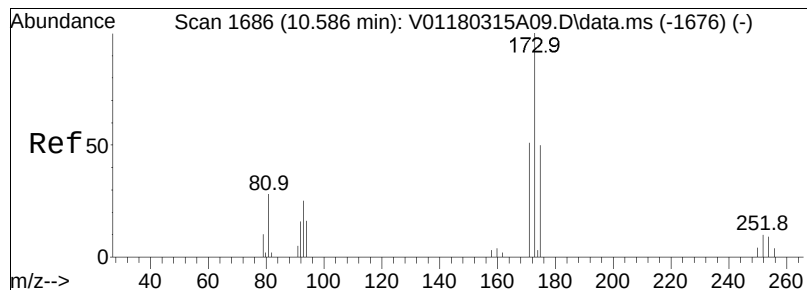




#78
 Styrene
 Concen: 19.42 ug/L
 RT: 11.381 min Scan# 1850
 Delta R.T. -0.000 min
 Lab File: V01191114A03.D
 Acq: 14 Nov 2019 7:47 am

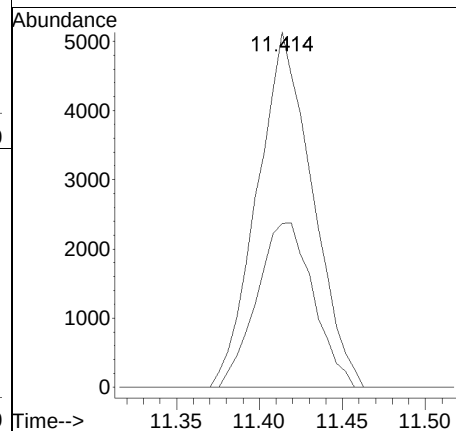
Tgt Ion	Ratio	Lower	Upper
104	100		
78	45.2	34.2	51.4

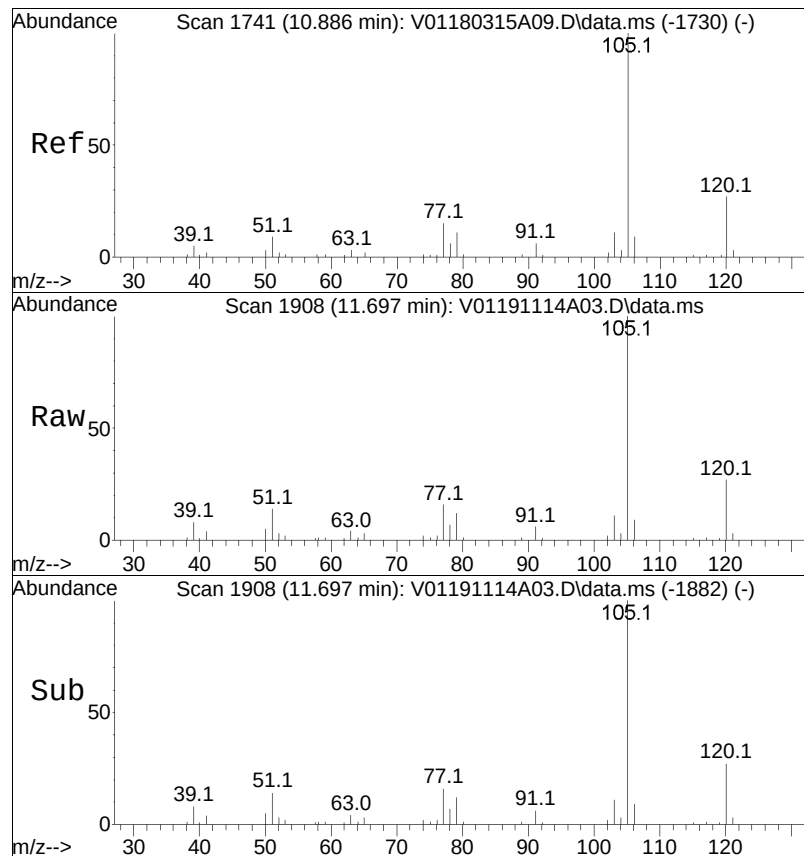




#80
Bromoform
Concen: 9.09 ug/L
RT: 11.414 min Scan# 1856
Delta R.T. -0.005 min
Lab File: V01191114A03.D
Acq: 14 Nov 2019 7:47 am

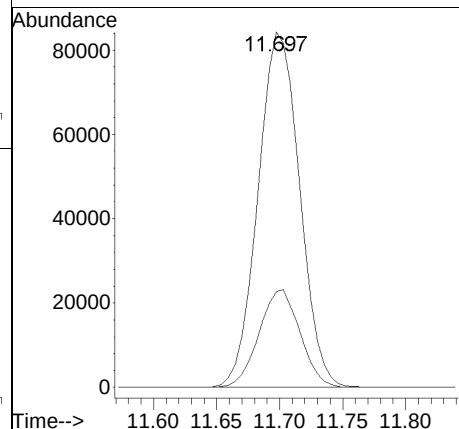
Tgt Ion:173 Resp: 11883
Ion Ratio Lower Upper
173 100
175 47.5 28.6 68.6

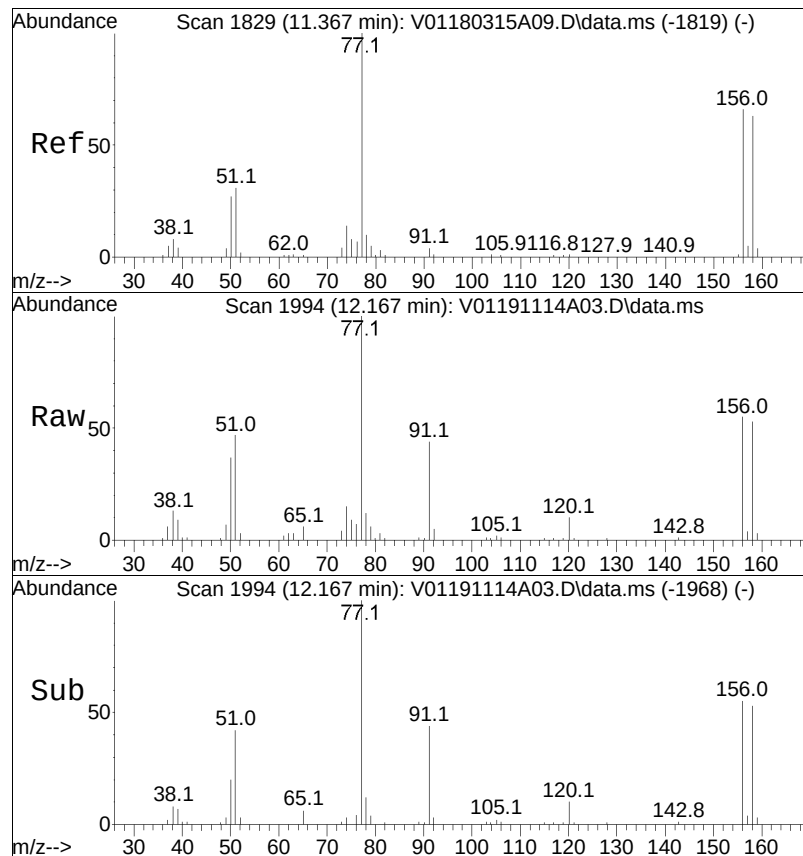




#82
 Isopropylbenzene
 Concen: 11.40 ug/L
 RT: 11.697 min Scan# 1908
 Delta R.T. -0.006 min
 Lab File: V01191114A03.D
 Acq: 14 Nov 2019 7:47 am

Tgt	Ion	Ratio	Lower	Upper
105	100			
120	27.1	7.3	47.3	





#84

Bromobenzene

Concen: 10.73 ug/L

RT: 12.167 min Scan# 1994

Delta R.T. -0.006 min

Lab File: V01191114A03.D

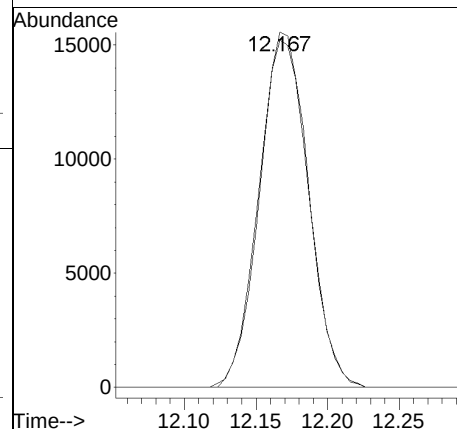
Acq: 14 Nov 2019 7:47 am

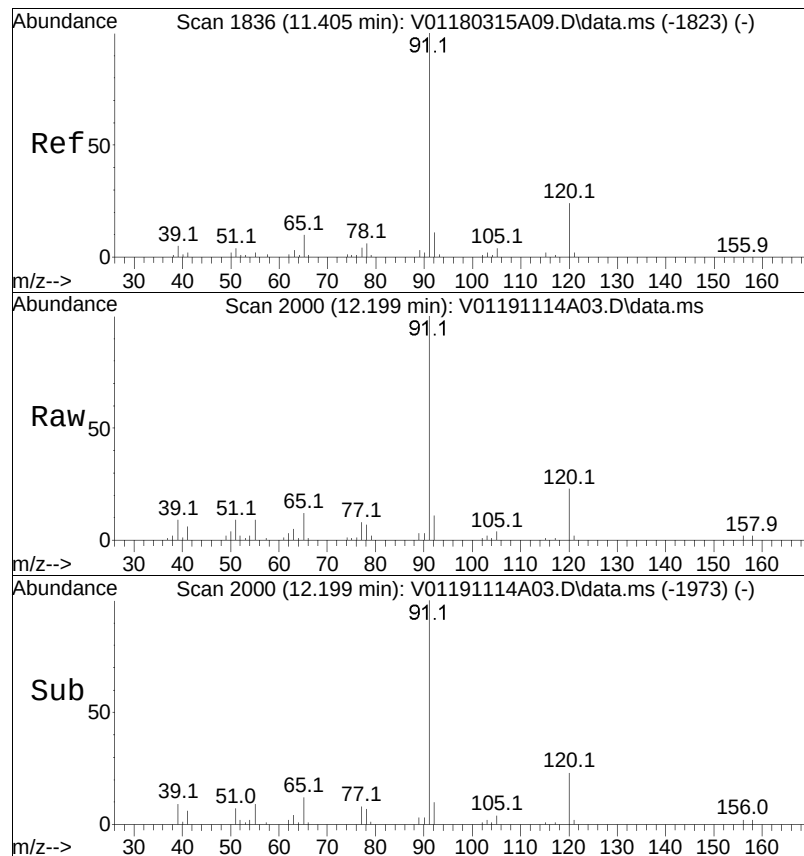
Tgt Ion:156 Resp: 37436

Ion Ratio Lower Upper

156 100

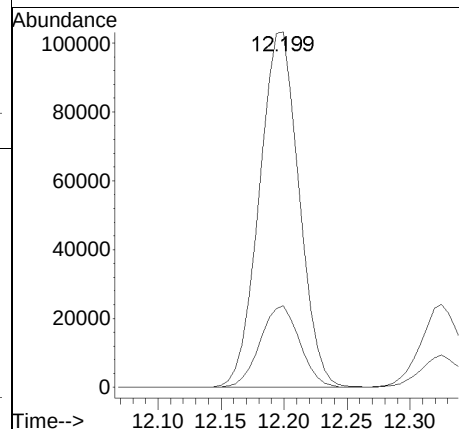
158 97.2 78.2 117.4

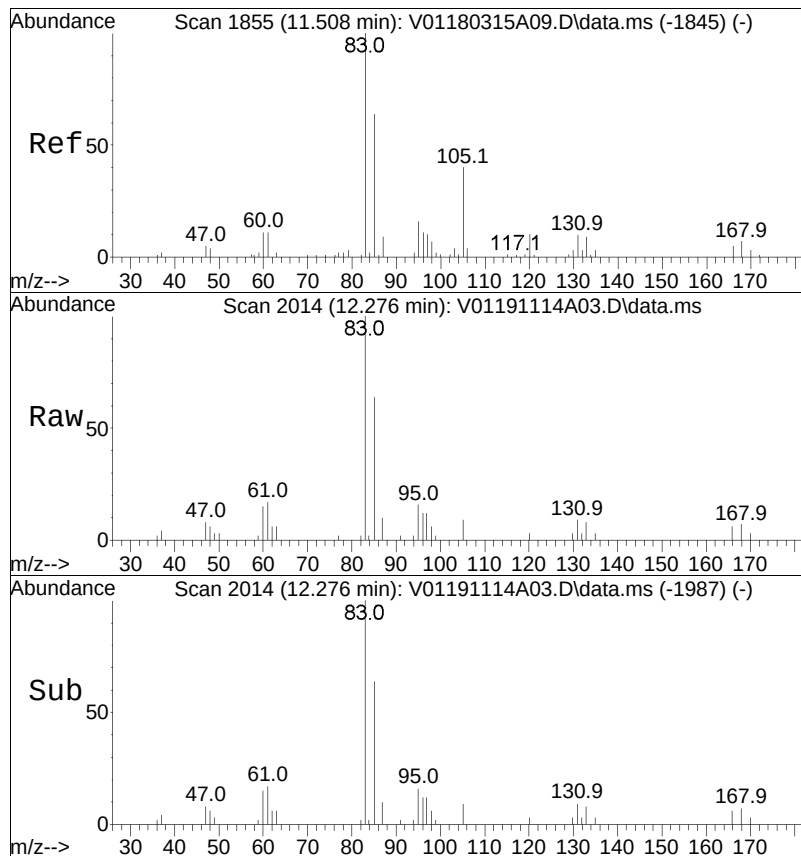




#85
 n-Propylbenzene
 Concen: 11.50 ug/L
 RT: 12.199 min Scan# 2000
 Delta R.T. -0.000 min
 Lab File: V01191114A03.D
 Acq: 14 Nov 2019 7:47 am

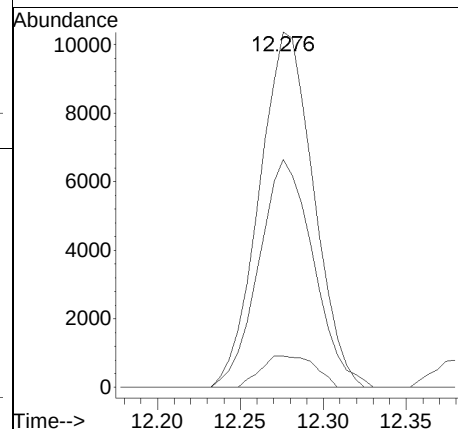
Tgt Ion	Ratio	Lower	Upper
91	100		
120	22.9	18.6	28.0

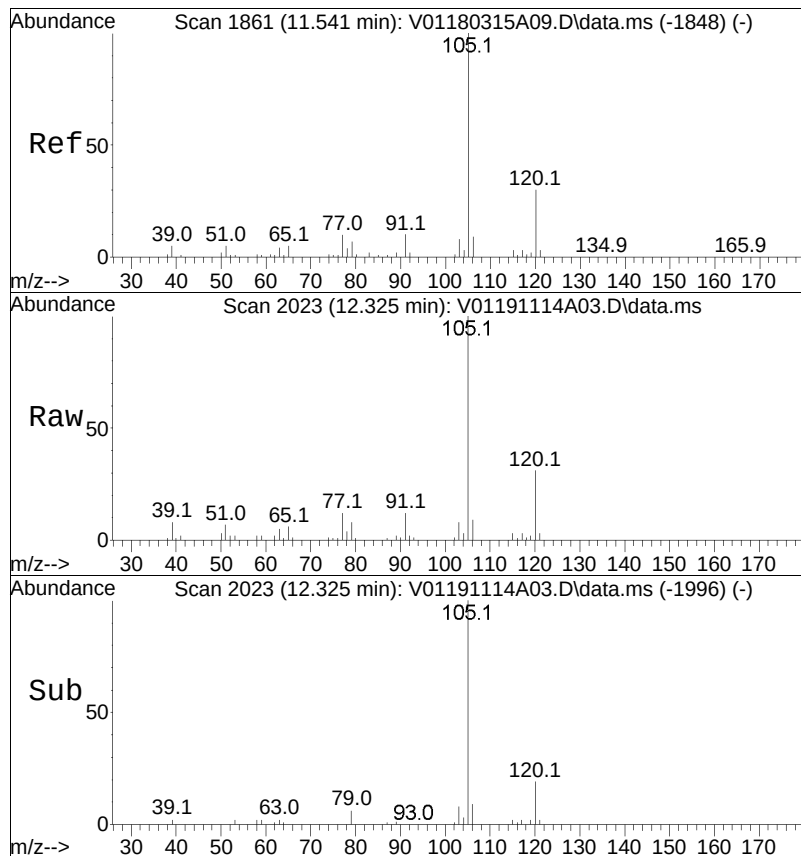




#87
 1,1,2,2-Tetrachloroethane
 Concen: 8.97 ug/L
 RT: 12.276 min Scan# 2014
 Delta R.T. -0.000 min
 Lab File: V01191114A03.D
 Acq: 14 Nov 2019 7:47 am

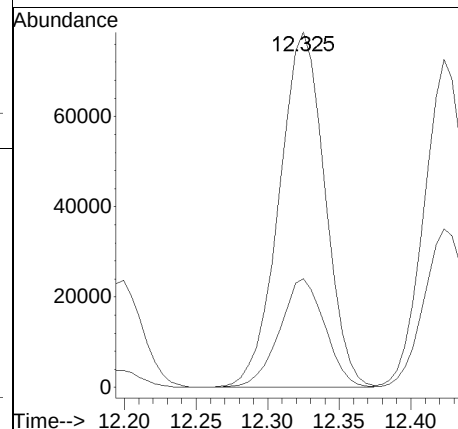
Tgt Ion:	83	Resp:	23596
Ion Ratio	Lower	Upper	
83	100		
131	8.9	0.0	30.1
85	64.5	45.8	85.8

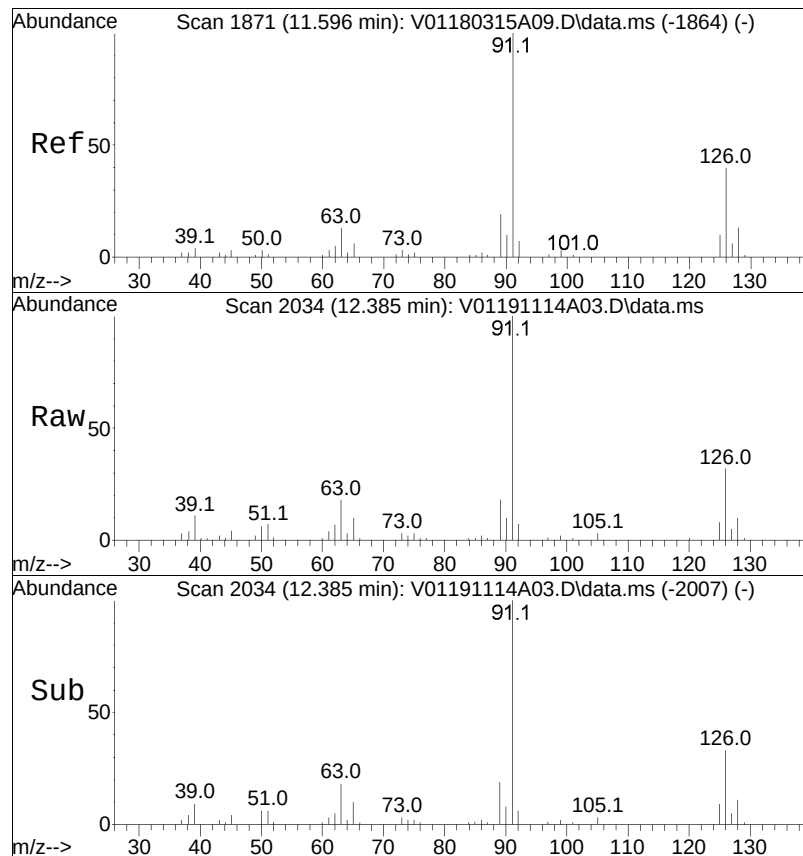




#88
 4-Ethyltoluene
 Concen: 11.30 ug/L
 RT: 12.325 min Scan# 2023
 Delta R.T. -0.000 min
 Lab File: V01191114A03.D
 Acq: 14 Nov 2019 7:47 am

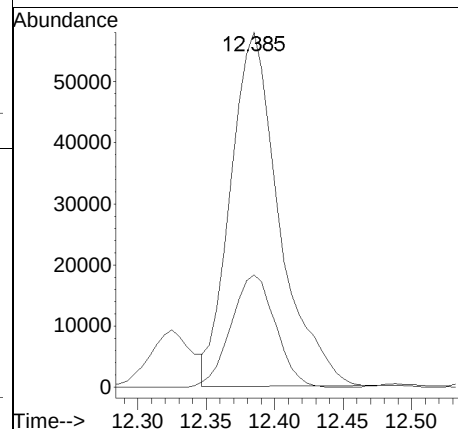
Tgt	Ion	Ratio	Lower	Upper
105	100			
120	30.3	19.8	41.0	

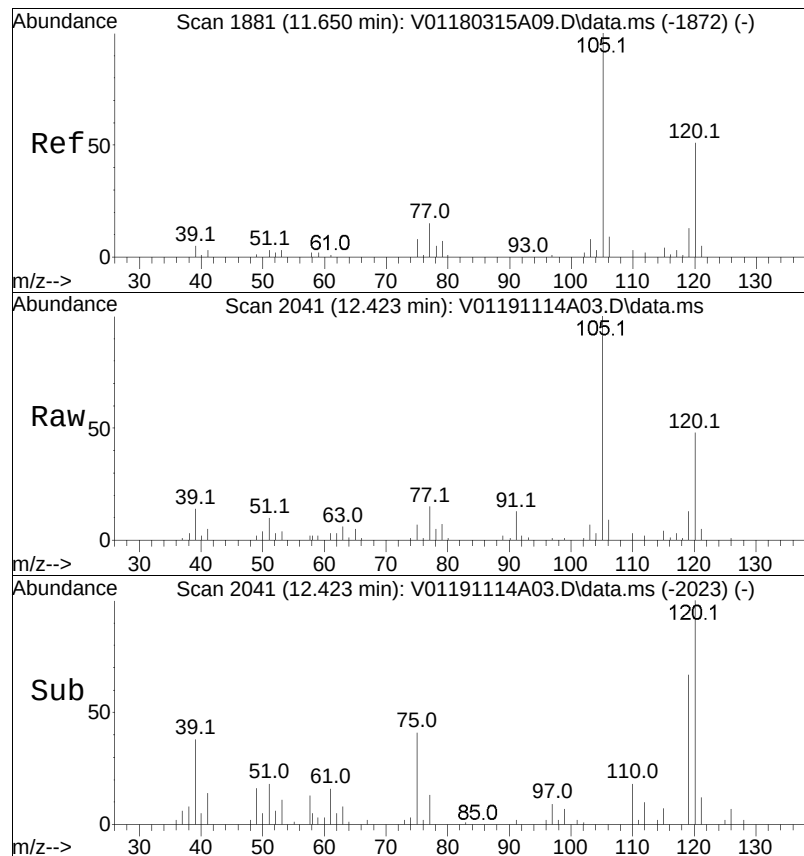




#89
 2-Chlorotoluene
 Concen: 11.28 ug/L
 RT: 12.385 min Scan# 2034
 Delta R.T. -0.000 min
 Lab File: V01191114A03.D
 Acq: 14 Nov 2019 7:47 am

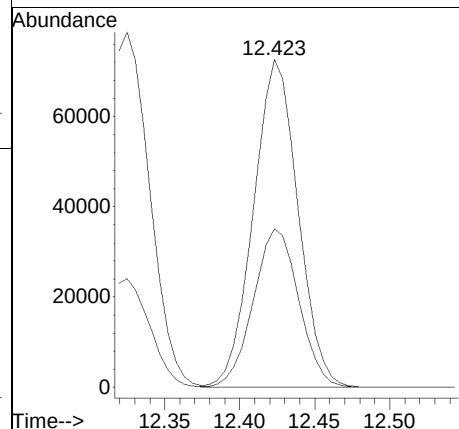
Tgt Ion	Ratio	Lower	Upper
91	100		
126	29.0	27.1	40.7

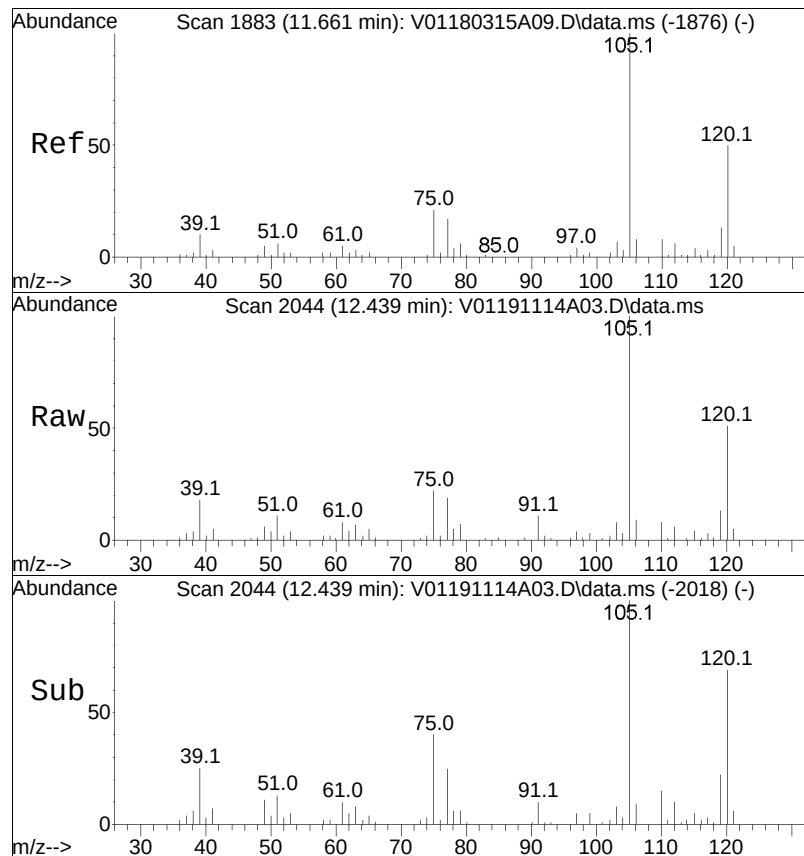




#90
 1,3,5-Trimethylbenzene
 Concen: 11.30 ug/L
 RT: 12.423 min Scan# 2041
 Delta R.T. -0.000 min
 Lab File: V01191114A03.D
 Acq: 14 Nov 2019 7:47 am

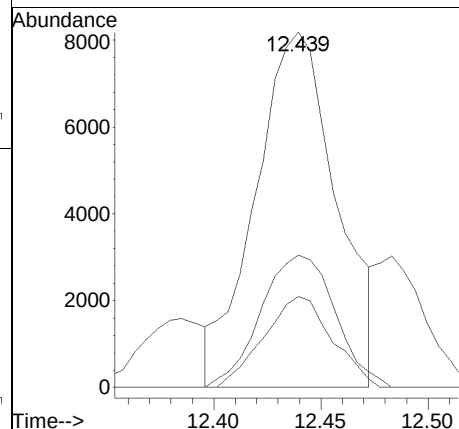
Tgt Ion	Ratio	Lower	Upper
105	100		
120	49.3	40.6	60.8

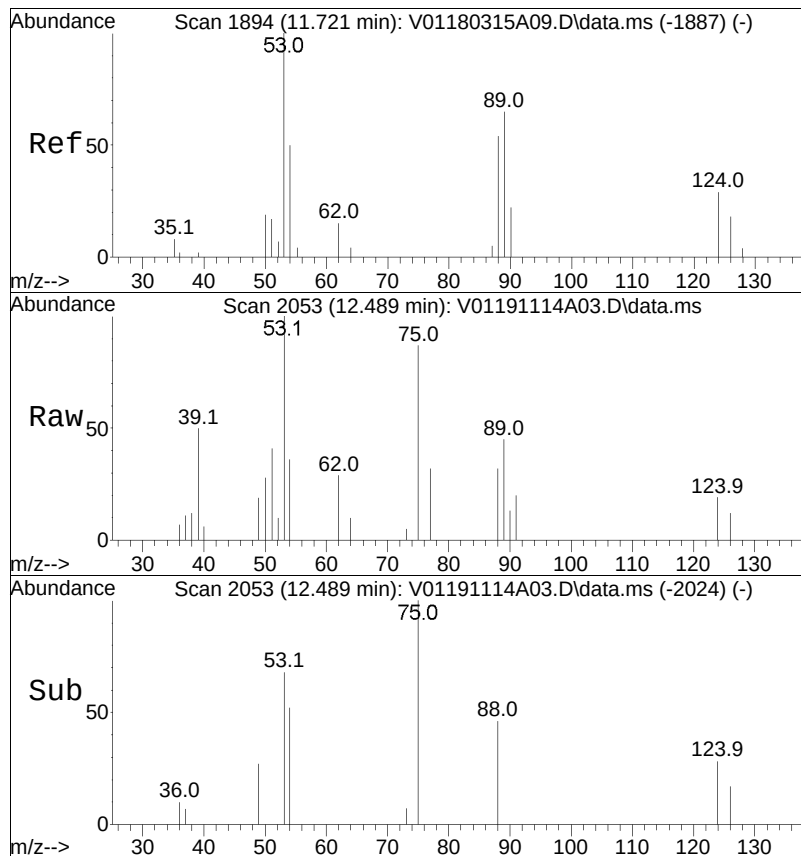




#91
 1,2,3-Trichloropropane
 Concen: 9.29 ug/L M1
 RT: 12.439 min Scan# 2044
 Delta R.T. -0.006 min
 Lab File: V01191114A03.D
 Acq: 14 Nov 2019 7:47 am

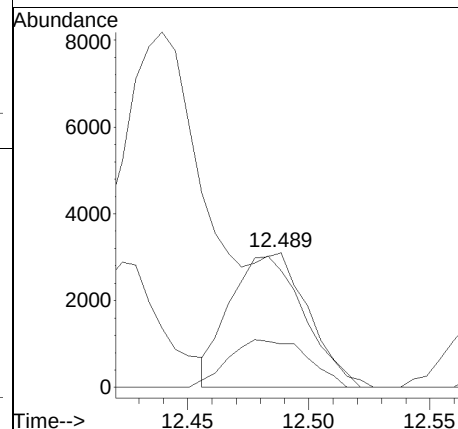
Tgt Ion:	75	Resp:	21646
Ion Ratio	Lower	Upper	
75	100		
110	34.0	26.5	54.9
112	21.5	17.0	35.2

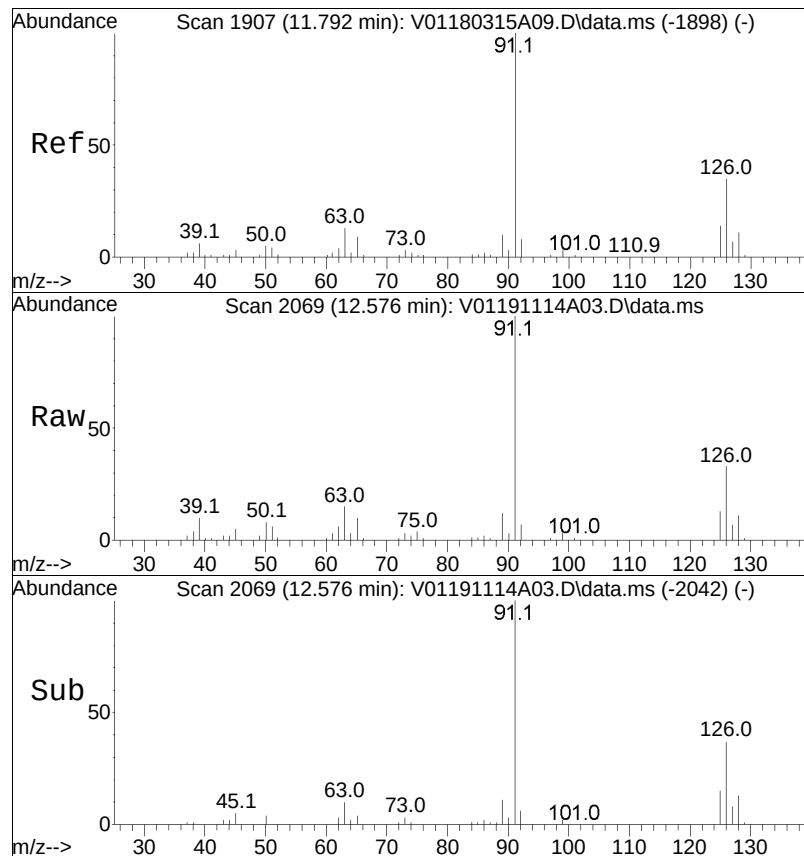




#92
 trans-1,4-Dichloro-2-butene
 Concen: 8.45 ug/L
 RT: 12.489 min Scan# 2053
 Delta R.T. 0.006 min
 Lab File: V01191114A03.D
 Acq: 14 Nov 2019 7:47 am

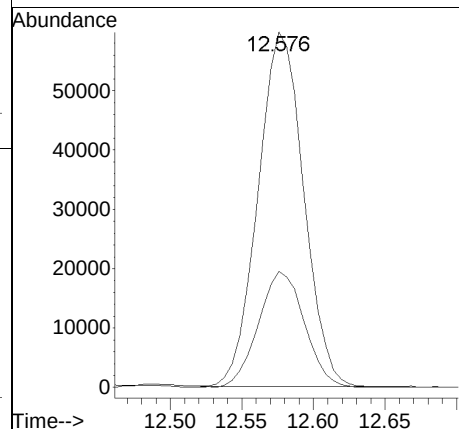
Tgt Ion:	53	Resp:	6833
Ion Ratio	Lower	Upper	
53	100		
88	20.4	46.0	69.0#
75	0.0	107.0	160.4#

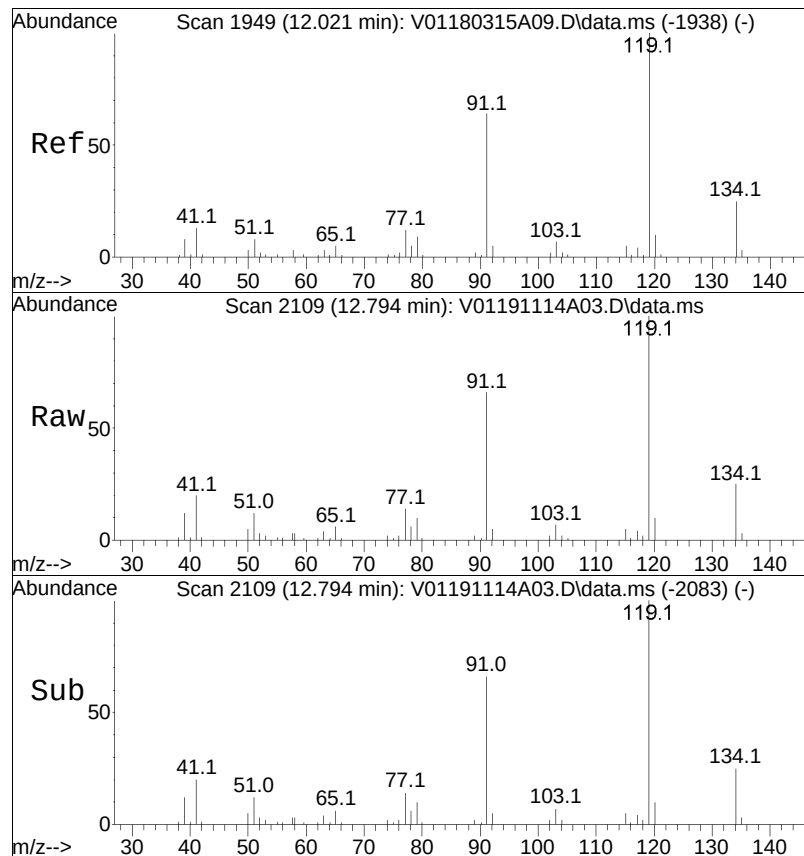




#93
 4-Chlorotoluene
 Concen: 11.07 ug/L
 RT: 12.576 min Scan# 2069
 Delta R.T. -0.000 min
 Lab File: V01191114A03.D
 Acq: 14 Nov 2019 7:47 am

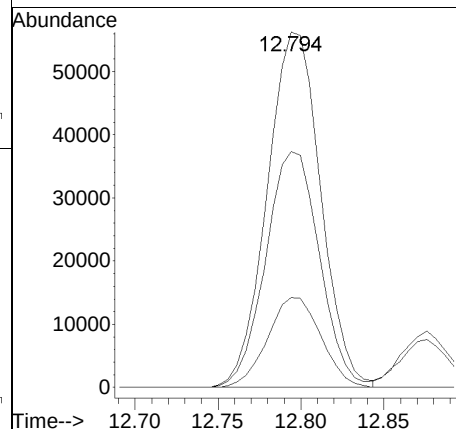
Tgt Ion	Ratio	Lower	Upper
91	100		
126	32.9	28.2	42.2

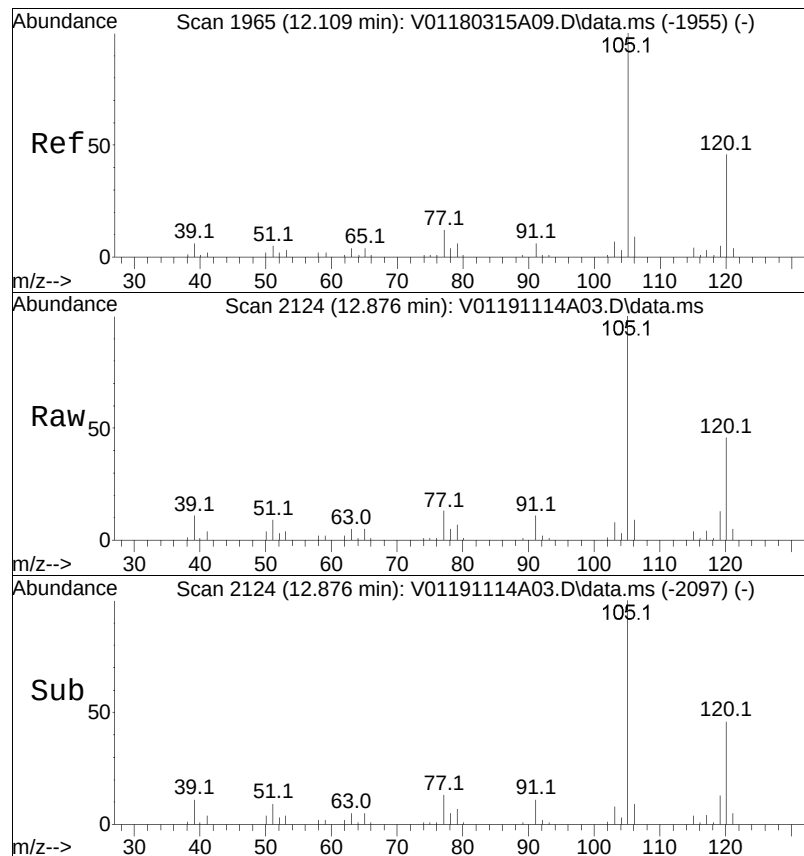




#94
 tert-Butylbenzene
 Concen: 11.34 ug/L
 RT: 12.794 min Scan# 2109
 Delta R.T. -0.006 min
 Lab File: V01191114A03.D
 Acq: 14 Nov 2019 7:47 am

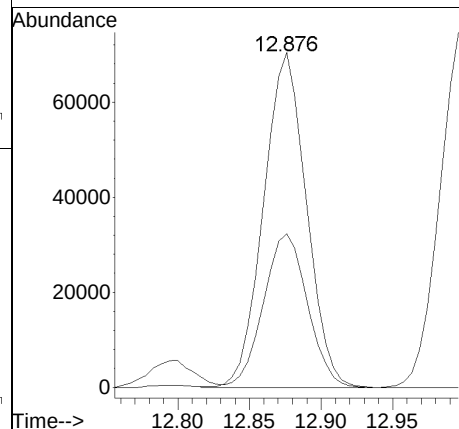
Tgt	Ion:119	Resp:	126605
Ion	Ratio	Lower	Upper
119	100		
91	66.5	52.5	78.7
134	25.2	20.9	31.3

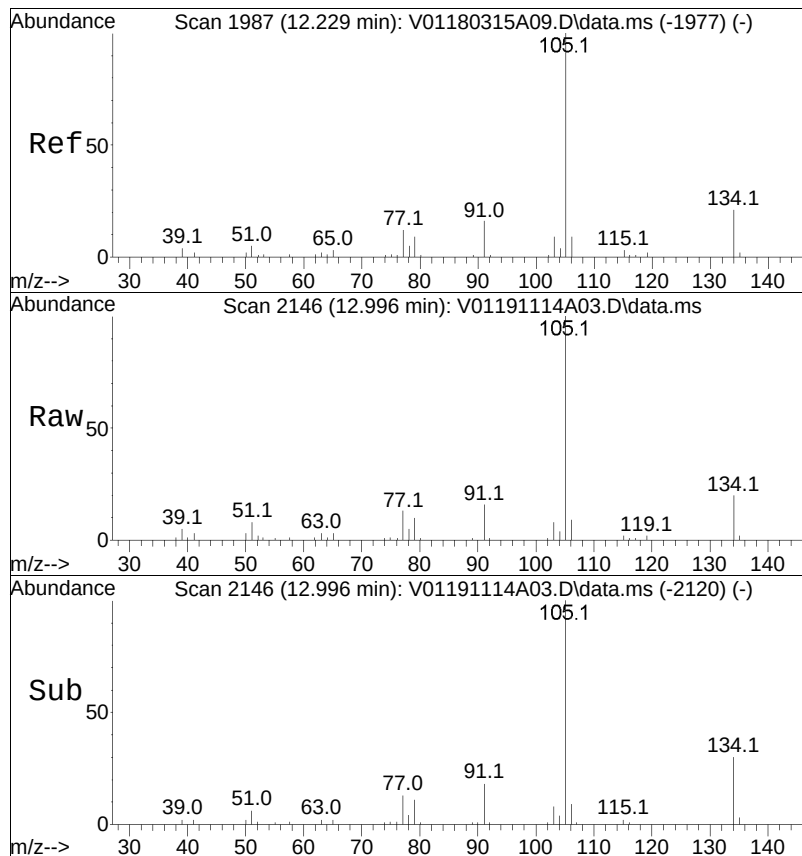




#97
 1,2,4-Trimethylbenzene
 Concen: 11.08 ug/L
 RT: 12.876 min Scan# 2124
 Delta R.T. -0.000 min
 Lab File: V01191114A03.D
 Acq: 14 Nov 2019 7:47 am

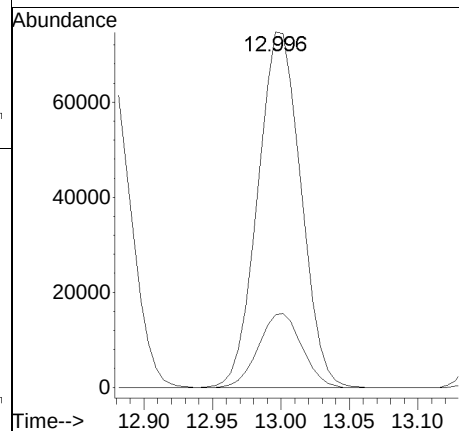
Tgt Ion	Ratio	Lower	Upper
105	100		
120	47.0	37.8	56.6

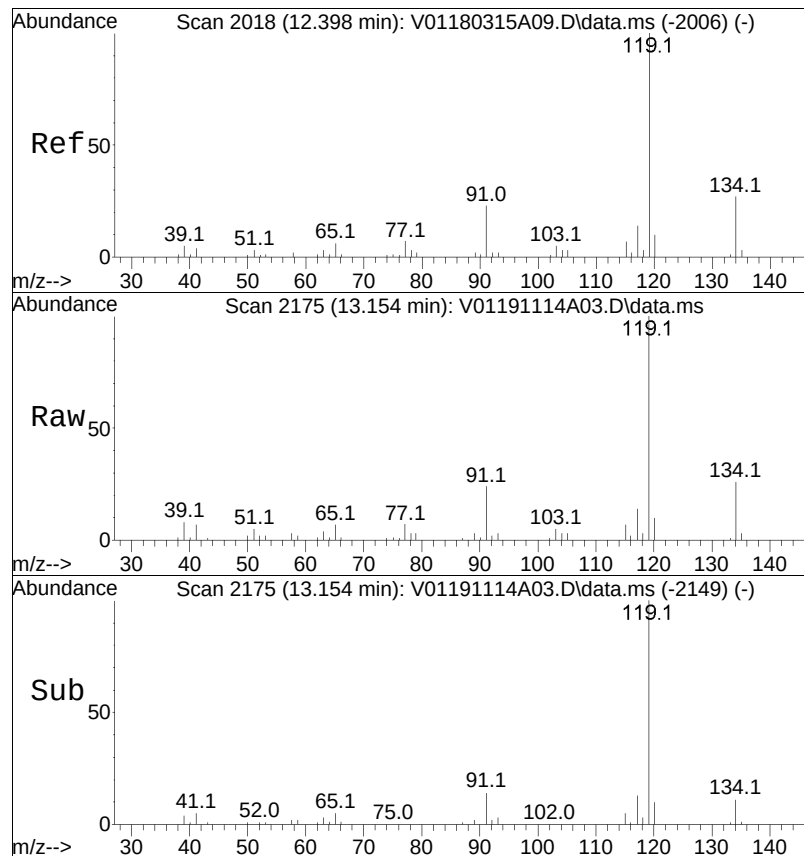




#98
 sec-Butylbenzene
 Concen: 11.15 ug/L
 RT: 12.996 min Scan# 2146
 Delta R.T. -0.006 min
 Lab File: V01191114A03.D
 Acq: 14 Nov 2019 7:47 am

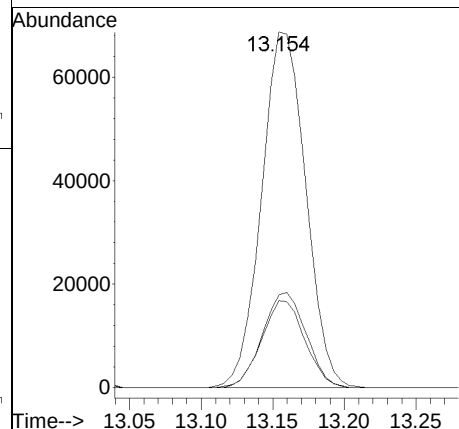
Tgt	Ion	Ratio	Lower	Upper
105	100			
134	20.8	14.0	29.0	

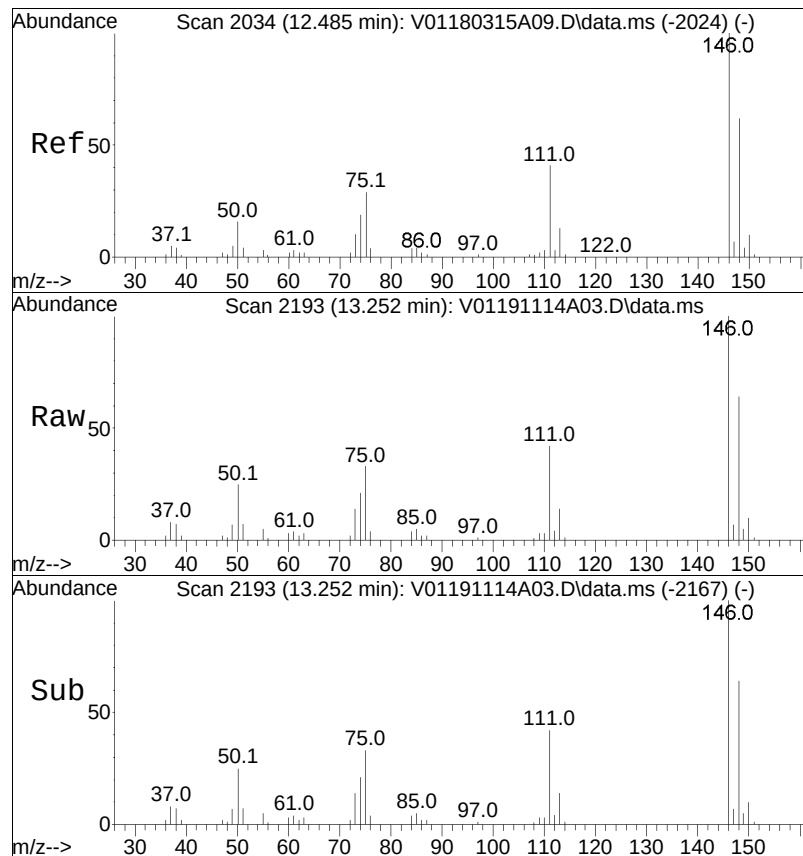




#99
 p-Isopropyltoluene
 Concen: 11.24 ug/L
 RT: 13.154 min Scan# 2175
 Delta R.T. -0.006 min
 Lab File: V01191114A03.D
 Acq: 14 Nov 2019 7:47 am

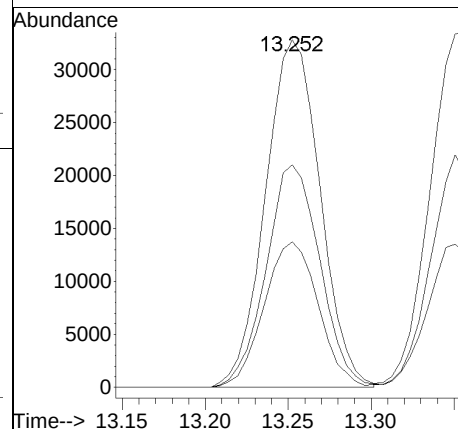
Tgt	Ion	Ratio	Lower	Upper
119	100			
134	26.3	17.7	36.7	
91	23.9	15.4	32.0	

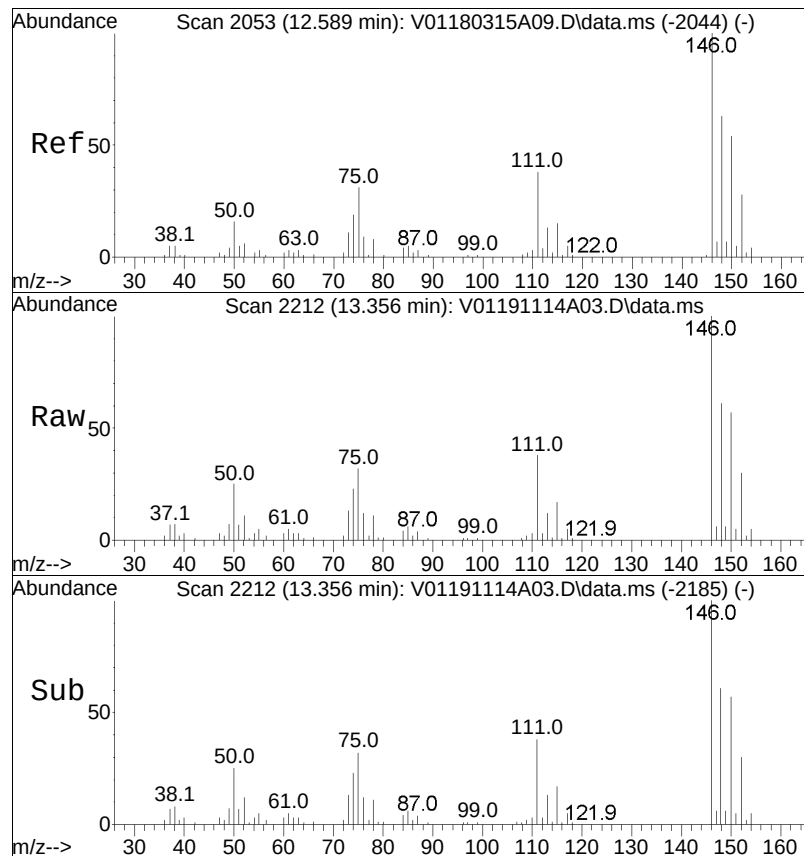




#100
 1,3-Dichlorobenzene
 Concen: 10.87 ug/L
 RT: 13.252 min Scan# 2193
 Delta R.T. -0.006 min
 Lab File: V01191114A03.D
 Acq: 14 Nov 2019 7:47 am

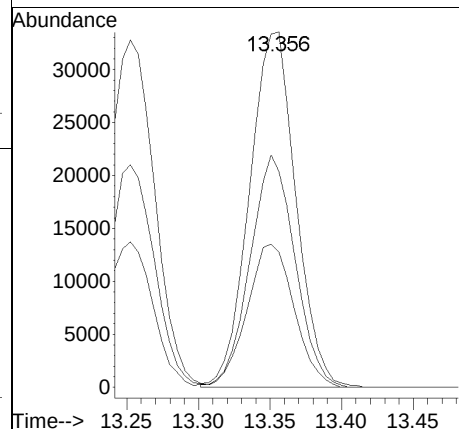
Tgt Ion:	146	Resp:	75278
Ion Ratio	Lower	Upper	
146	100		
111	41.7	25.9	53.9
148	63.1	41.5	86.3

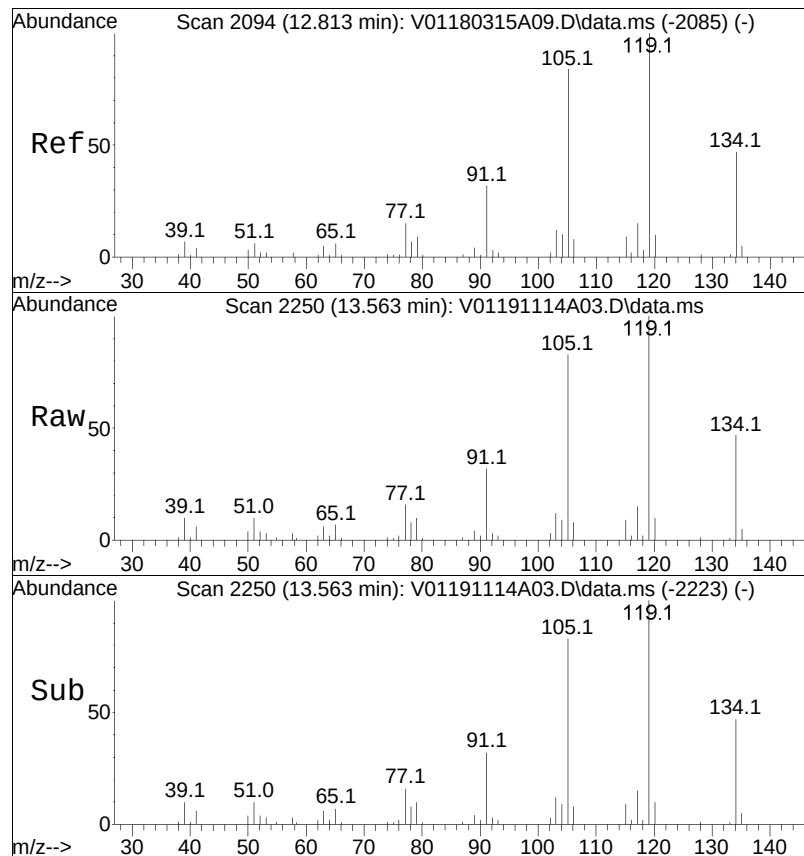




#101
 1,4-Dichlorobenzene
 Concen: 10.78 ug/L
 RT: 13.356 min Scan# 2212
 Delta R.T. -0.000 min
 Lab File: V01191114A03.D
 Acq: 14 Nov 2019 7:47 am

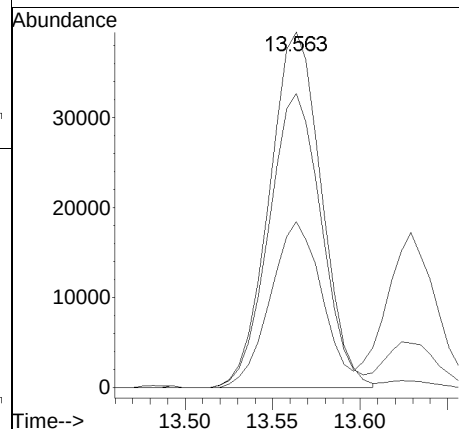
Tgt	Ion	Ratio	Lower	Upper
146	100			
111	41.0	31.7	47.5	
148	63.2	51.5	77.3	

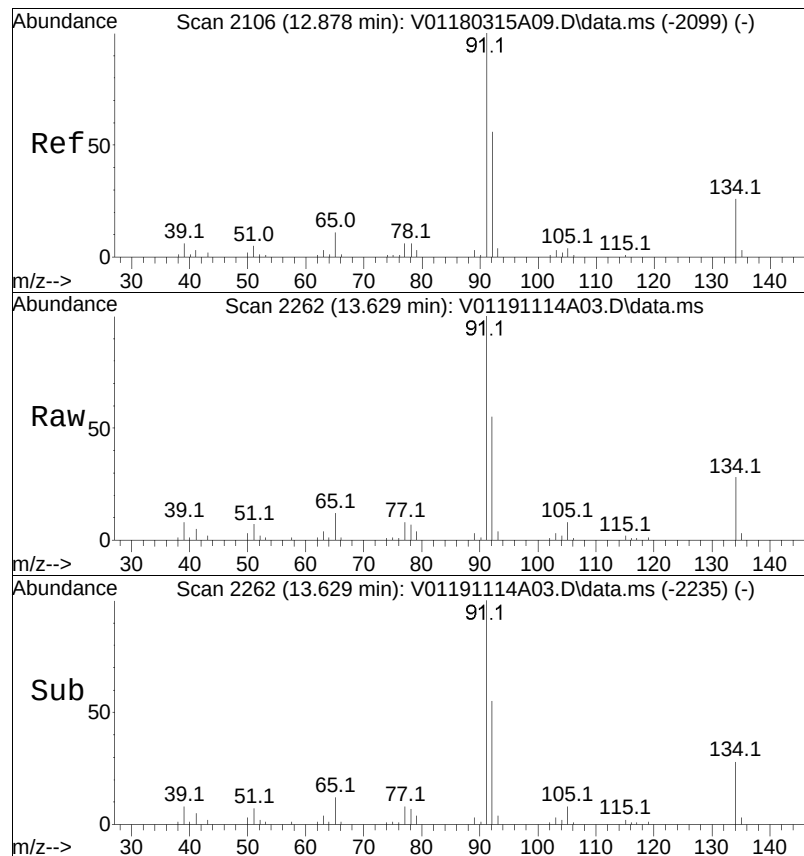




#102
 p-Diethylbenzene
 Concen: 11.38 ug/L
 RT: 13.563 min Scan# 2250
 Delta R.T. -0.000 min
 Lab File: V01191114A03.D
 Acq: 14 Nov 2019 7:47 am

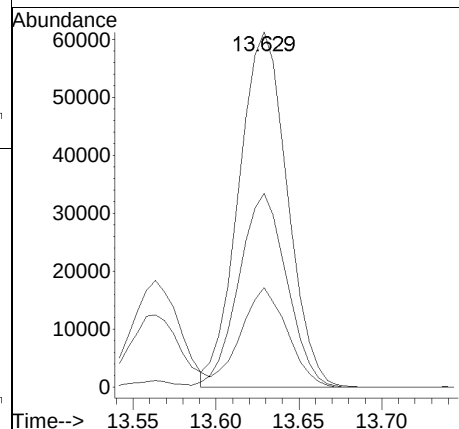
Tgt	Ion	Ratio	Lower	Upper
119	100			
105	83.5	54.1	112.3	
134	46.1	31.5	65.3	

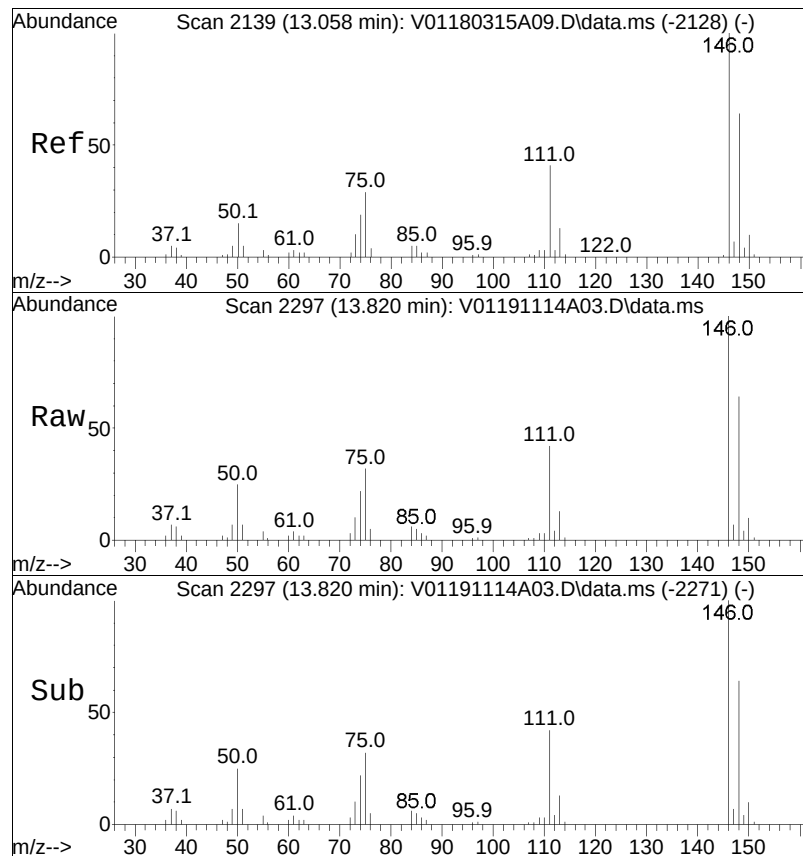




#103
 n-Butylbenzene
 Concen: 11.24 ug/L
 RT: 13.629 min Scan# 2262
 Delta R.T. -0.000 min
 Lab File: V01191114A03.D
 Acq: 14 Nov 2019 7:47 am

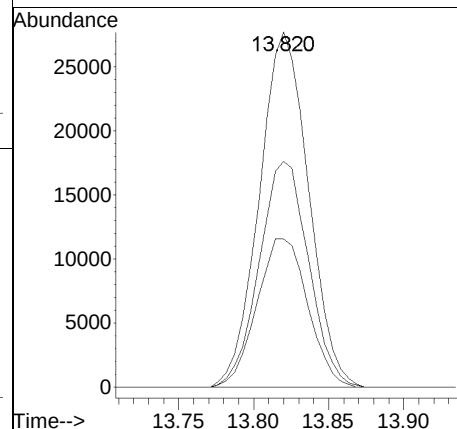
Tgt Ion	Ratio	Lower	Upper
91	100		
92	54.0	43.7	65.5
134	26.7	22.1	33.1

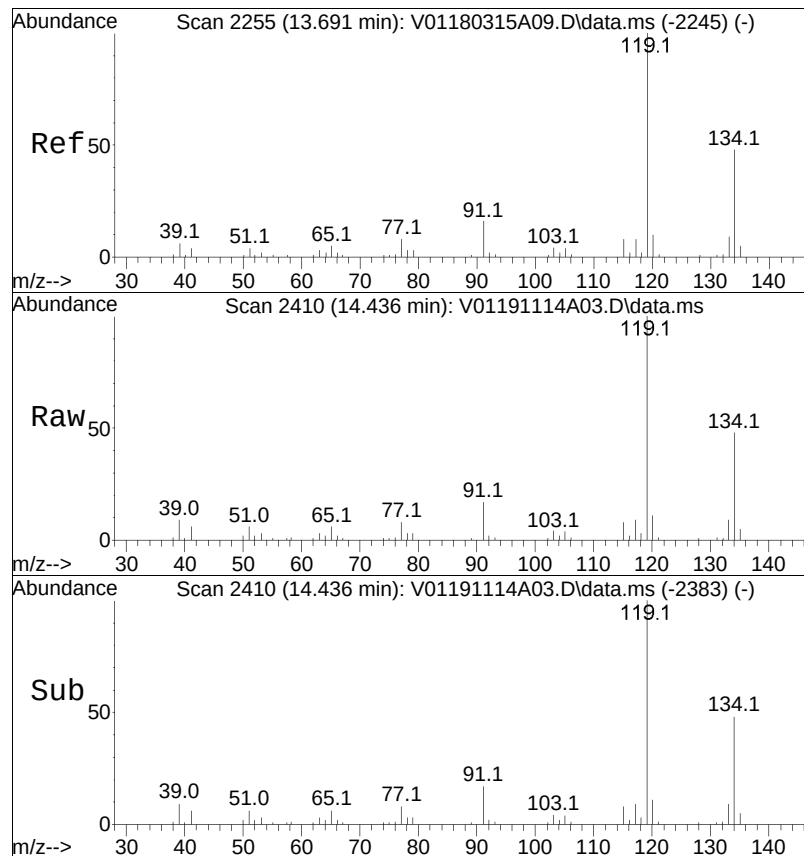




#104
 1,2-Dichlorobenzene
 Concen: 10.20 ug/L
 RT: 13.820 min Scan# 2297
 Delta R.T. -0.006 min
 Lab File: V01191114A03.D
 Acq: 14 Nov 2019 7:47 am

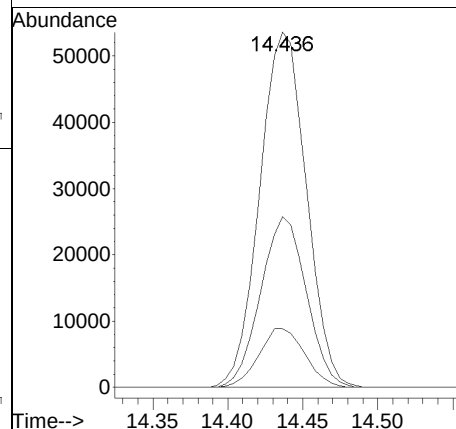
Tgt Ion	Ratio	Lower	Upper
146	100		
111	43.3	26.8	55.8
148	63.7	41.6	86.4

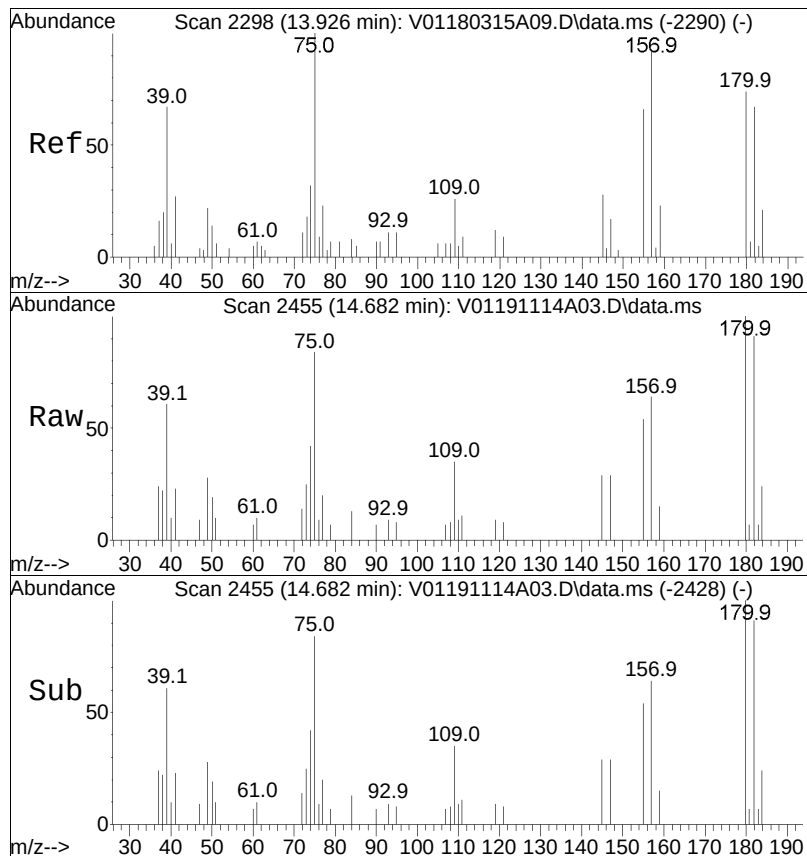




#105
 1,2,4,5-Tetramethylbenzene
 Concen: 11.02 ug/L
 RT: 14.436 min Scan# 2410
 Delta R.T. -0.000 min
 Lab File: V01191114A03.D
 Acq: 14 Nov 2019 7:47 am

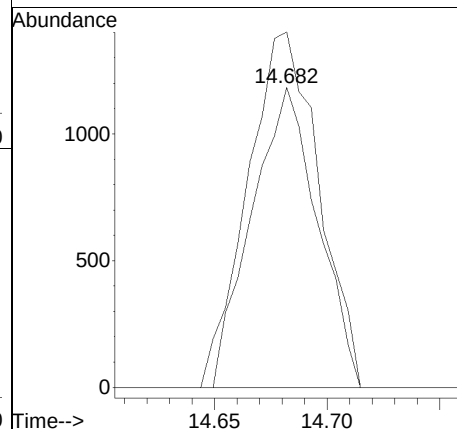
Tgt Ion:	119	Resp:	115883
Ion Ratio	Lower	Upper	
119	100		
134	47.1	31.9	66.1
91	16.4	10.3	21.5

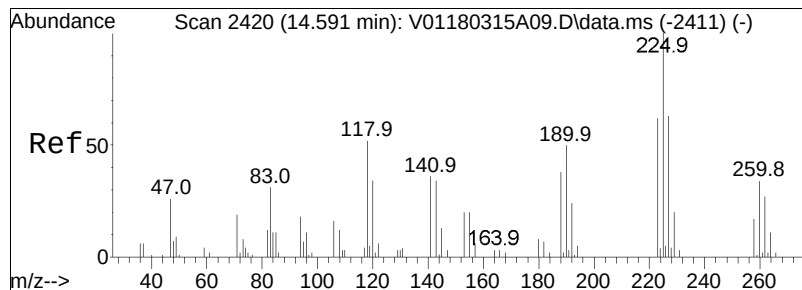




#106
 1,2-Dibromo-3-chloropropane
 Concen: 8.26 ug/L
 RT: 14.682 min Scan# 2455
 Delta R.T. 0.000 min
 Lab File: V01191114A03.D
 Acq: 14 Nov 2019 7:47 am

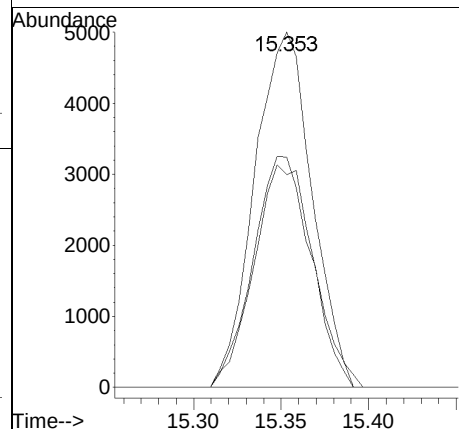
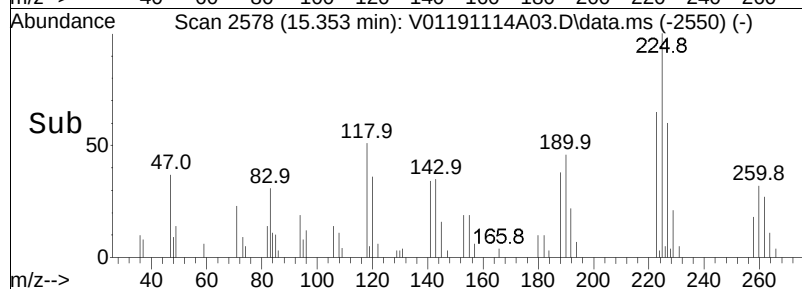
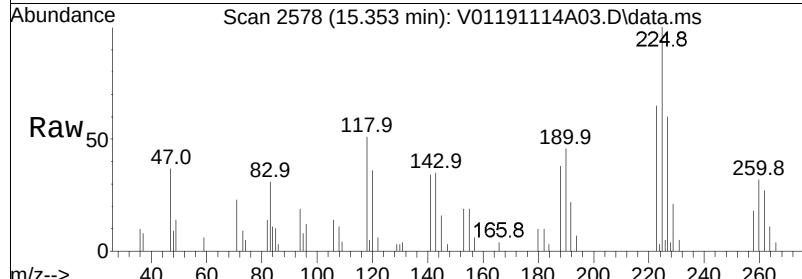
Tgt Ion	Ratio	Lower	Upper
155	100		
157	128.3	101.1	151.7

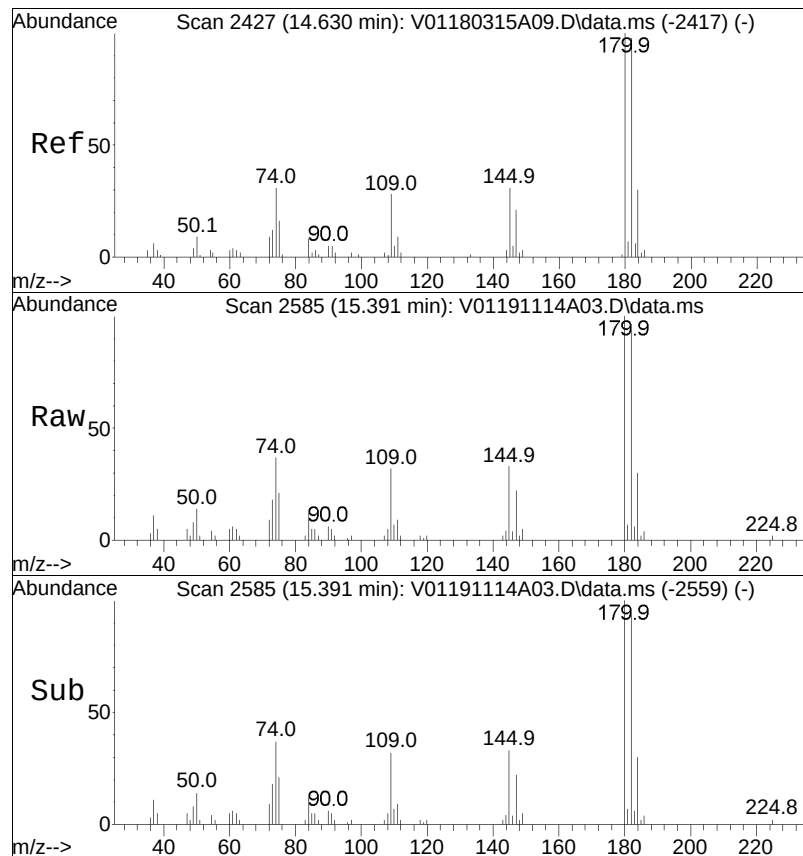




#108
 Hexachlorobutadiene
 Concen: 12.15 ug/L
 RT: 15.353 min Scan# 2578
 Delta R.T. 0.000 min
 Lab File: V01191114A03.D
 Acq: 14 Nov 2019 7:47 am

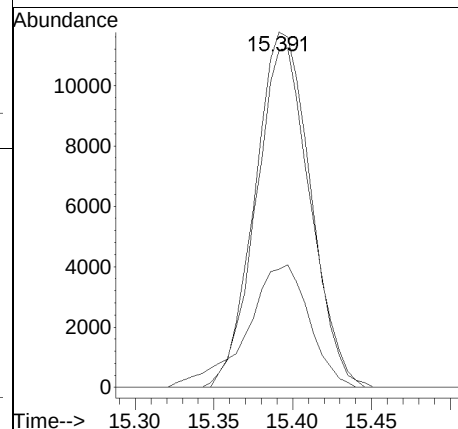
Tgt Ion:	225	Resp:	11479
Ion Ratio	Lower	Upper	
225	100		
223	64.9	51.0	76.4
227	64.5	52.2	78.4

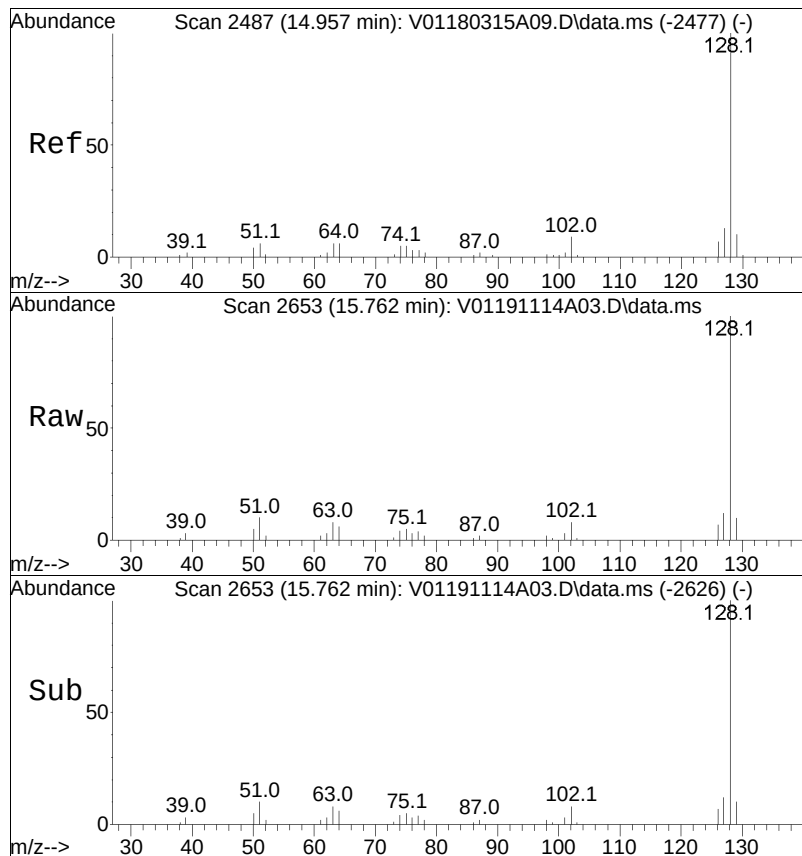




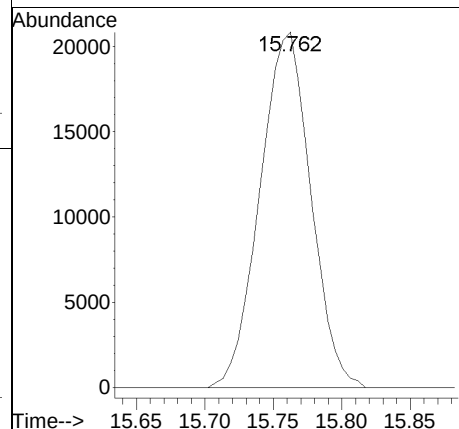
#109
 1,2,4-Trichlorobenzene
 Concen: 9.94 ug/L
 RT: 15.391 min Scan# 2585
 Delta R.T. -0.006 min
 Lab File: V01191114A03.D
 Acq: 14 Nov 2019 7:47 am

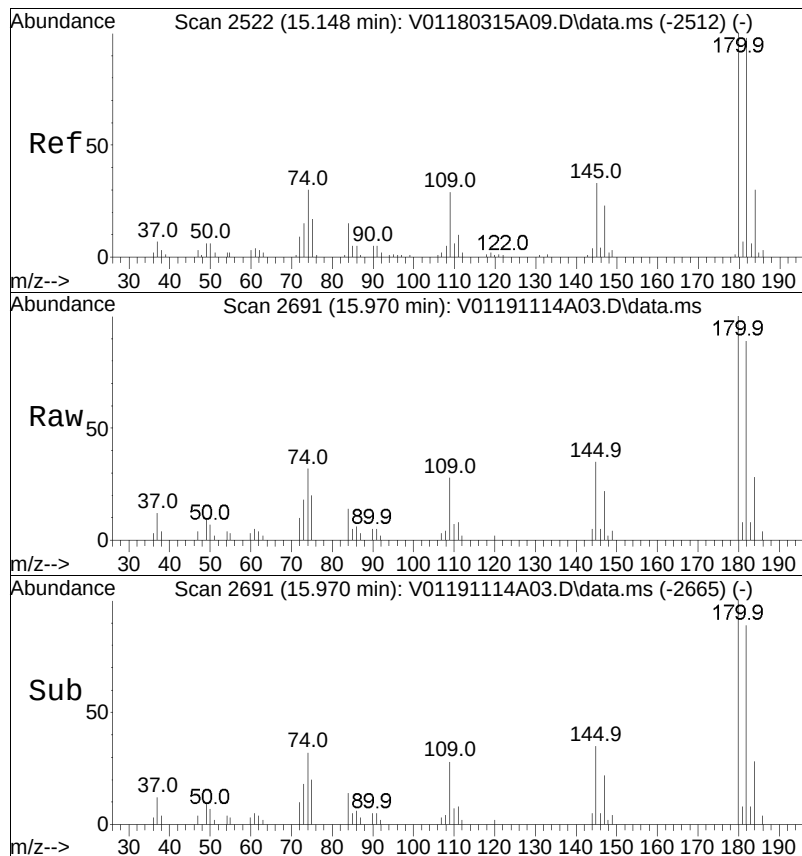
Tgt Ion	Ratio	Lower	Upper
180	100		
182	93.4	75.8	113.8
145	38.6	26.1	39.1





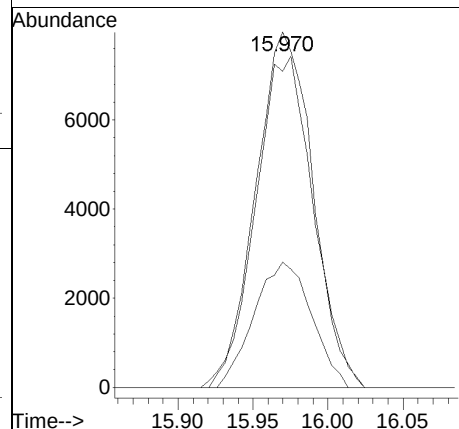
#110
Naphthalene
Concen: 8.42 ug/L
RT: 15.762 min Scan# 2653
Delta R.T. -0.000 min
Lab File: V01191114A03.D
Acq: 14 Nov 2019 7:47 am
Tgt Ion:128 Resp: 53713





#111
 1,2,3-Trichlorobenzene
 Concen: 9.39 ug/L
 RT: 15.970 min Scan# 2691
 Delta R.T. -0.006 min
 Lab File: V01191114A03.D
 Acq: 14 Nov 2019 7:47 am

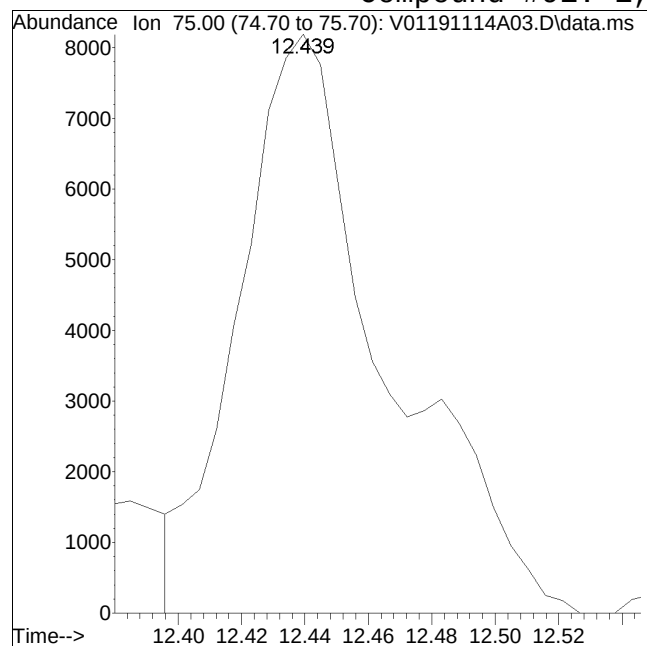
Tgt Ion	Ratio	Lower	Upper
180	100		
182	93.3	75.4	113.0
145	35.4	25.0	37.6



Manual Integration Report

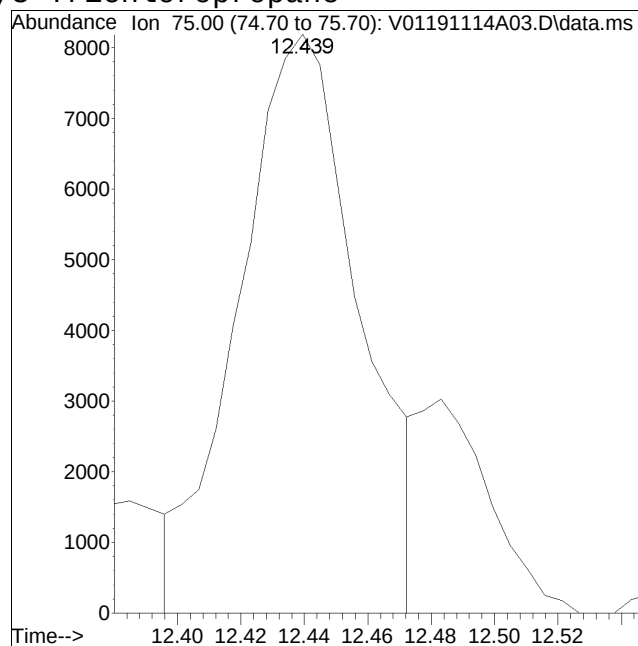
Data Path : I:\VOLATILES\VOA101\2019\10 Method : V101_191107A_8260.m
Data File : V01191114A03.D Operator : VOA101:PD
Date Inj'd : 11/14/2019 7:47 am Instrument : VOA 101
Sample : WG1308760-4,31,10,10 Quant Date : 11/14/2019 8:07 am

Compound #91: 1,2,3-Trichloropropane



Original Peak Response = 26333

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.



Manual Peak Response = 21646 M1



Calculation of Volatile Organic Compounds

Aqueous Concentration Formula: $Amt * DF * Uf * (1/Vo)$

Where:

DF = Dilution Factor

Vo = Sample Volume Purged (mL)

Uf = ng Unit Correction Factor (mL)

Soil Concentration Formula: $Amt * DF * (1/Wt)$

Where:

DF = Dilution Factor

Wt = Weight of Sample (g)

ALPHA ANALYTICAL LABORATORIES, INC.

Alpha WORK GROUP REPORT (wk02)

Nov 14 2019, 12:54 pm

Work Group: WG1308760 for Department: 31 GC/MS - Volatiles

Created: 14-NOV-19 Due: Operator: PD

Sample	Client ID	C Product	Matrix	Stat	UA	HOLD	DUE	PR	Location
L1954211-02	TB111319	S NYTCL-8260	WATER	DONE	U	1127	1114	1A	Vial-B
L1954303-01	MW04_111319	S NYTCL-8260	WATER	DONE	U	1127	1114	1A	Vial-B
L1954303-02	MW02_111319	S NYTCL-8260	WATER	DONE	U	1127	1114	1A	Vial-B
L1954303-03	MW01_111319	S NYTCL-8260	WATER	DONE	U	1127	1114	1A	Vial-B
L1954303-04	MW05_111319	S NYTCL-8260	WATER	DONE	U	1127	1114	1A	Vial-B
L1954303-05	GWFB_111319	S NYTCL-8260	WATER	DONE	U	1127	1114	1A	Vial-B
L1954303-06	GWTB_111319	S NYTCL-8260	WATER	DONE	U	1127	1114	1A	Vial-B
L1954303-07	GWDUP_111319	S NYTCL-8260	WATER	DONE	U	1127	1114	1A	Vial-B
WG1308760-1	MS BFB Tune Standard	S NYTCL-8260	WATER	DONE	U				
WG1308760-2	Continuing Calibrati	S NYTCL-8260	WATER	DONE	U				
WG1308760-3	Laboratory Control S	S NYTCL-8260	WATER	DONE	U				
WG1308760-4	LCS Duplicate	S NYTCL-8260	WATER	DONE	U				
WG1308760-5	Laboratory Method Bl	S NYTCL-8260	WATER	DONE	U				

Comments:

WG1308760-4 WG1308760-3

Inst: VOA101
Initials: PD
Date: 11/07/19
Run: A

BFB: V7601
IS/SS: V7616
ICAL: V7621C, V7612, V7545
ICV: V7624, V7528, V7577, V7579, V7596, V7613, V7545

Method
GC: 8260
Autosampler: 8260 liquid IS2
Concentrator: 8260water



QC: _____ Seq: _____

Vial	Data File	Sample	
1	V01191107ABF1	BFB TUNE	11:48
1	V01191107A01	BLK	
2	V01191107A02	BLK	
3	V01191107A03	I8260STD0.15PPB	
4	V01191107A04	I8260STD0.5PPB	
5	V01191107A05	I8260STD0.5PPB	
6	V01191107A06	I8260STD2PPB	
7	V01191107A07	I8260STD2PPB	
8	V01191107A08	I8260STD10PPB	
9	V01191107A09	I8260STD30PPB	
10	V01191107A10	I8260STD80PPB	
11	V01191107A11	I8260STD120PPB	
12	V01191107A12	I8260STD200PPB	
13	V01191107A13	BLK	
14	V01191107A14	BLK	
15	V01191107A15	BLK	
16	V01191107A16	BLK	
17	V01191107A17	BLK	
18	V01191107A18	C8260STD10PPB	
19	V01191107A19	C8260STD10PPB	
20	V01191107A20	BLK	

Inst: VOA101
 Initials: PD
 Date: 11/14/19
 Run: A

BFB: V7601
 IS/SS: V7616
 ICAL: V7621C, V7631
 ICV: V7624, V7528, V7577, V7579, V7596, V7613, V7545

Method
 GC: 8260
 Autosampler: 8260 liquid IS2
 Concentrator: 8260water



QC: _____ Seq: _____

Vial	Data File	Sample	
1	V01191114ABF1	BFB TUNE	06:46
1	V01191114A01	8260 CCAL	
2	V01191114A02	8260 CCAL	LCS
4	V01191114A03	8260 CCAL	LCSD
5	V01191114A04	BLK	
6	V01191114A05	METHOD BLK	
7	V01191114A06	I1954211-02,31,10,10,,b	NYTCL pH<2
8	V01191114A07	I1954303-05,31,10,10,,a	NYTCL pH<2
9	V01191114A08	I1954303-06,31,10,10,,a	NYTCL pH<2
10	V01191114A09	I1954303-01,31,10,10,,a	NYTCL pH<2
10	V01191114A10	I1954303-02,31,10,10,,a	NYTCL pH<2
11	V01191114A11	I1954303-03,31,10,10,,a	NYTCL pH<2
12	V01191114A12	I1954303-04,31,10,10,,a	NYTCL pH<2
13	V01191114A13	I1954303-07,31,10,10,,a	NYTCL pH<2
14	V01191114A14	I1952831-12,31,10,10,,a	NYTCL pH<2
15	V01191114A15	I1952831-13,31,10,10,,a	NYTCL pH<2
16	V01191114A16	I1952831-14,31,10,10,,a	NYTCL pH<2
17	V01191114A17	I1952831-15,31,10,10,,a	NYTCL pH<2
18	V01191114A18	I1952831-16,31,10,10,,a	NYTCL pH<2
19	V01191114A19	I1952831-19,31,10,10,,a	NYTCL pH<2
20	V01191114A20	I1953398-01,31,10,10,,a	NYTCL/10 pH<2
21	V01191114A21	I1953398-02,31,10,10,,a	NYTCL/10 pH<2
22	V01191114A22	I1953352-01,31,10,10,,a	NYTCL pH<2
23	V01191114A23	I1953352-02,31,10,10,,a	NYTCL pH<2
24	V01191114A24	I1953352-03,31,10,10,,a	NYTCL pH<2
25	V01191114A25	I1954111-02,31,10,10,,d	NYTCL pH<2



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Alpha Analytical

Laboratory Code: 11148

SDG Number: L1954584

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Project Name: 432 RODNEY STREET
Project Number: 170357801

Lab Number: L1954584
Report Date: 11/15/19

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L1954584-01	MW03_111419	WATER	BROOKLYN, NY	11/14/19 10:30	11/14/19
L1954584-02	MW07_111419	WATER	BROOKLYN, NY	11/14/19 15:30	11/14/19
L1954584-03	GWTB_111419	WATER	BROOKLYN, NY	11/13/19 00:00	11/14/19
L1954584-04	MW06_111419	WATER	BROOKLYN, NY	11/14/19 16:30	11/14/19

Project Name: 432 RODNEY STREET
Project Number: 170357801

Lab Number: L1954584
Report Date: 11/15/19

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. All specific QC information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

HOLD POLICY

For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Client Services at 800-624-9220 with any questions.

Project Name: 432 RODNEY STREET
Project Number: 170357801

Lab Number: L1954584
Report Date: 11/15/19

Case Narrative (continued)

Report Submission

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature: *Melissa Sturgis*

Report Date: 11/15/19

Title: Technical Director/Representative



GLOSSARY

Acronyms

DL	- Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EMPC	- Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCS D	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LOD	- Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
LOQ	- Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.) Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. For Method 332.0, the spike recovery is calculated using the native concentration, including estimated values.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NDPA/DPA	- N-Nitrosodiphenylamine/Diphenylamine.
NI	- Not Ignitable.
NP	- Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.
STLP	- Semi-dynamic Tank Leaching Procedure per EPA Method 1315.
TEF	- Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.
TEQ	- Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.
TIC	- Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Footnotes

Report Format: DU Report with 'J' Qualifiers



Project Name: 432 RODNEY STREET
Project Number: 170357801

Lab Number: L1954584
Report Date: 11/15/19

- 1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Difference: With respect to Total Oxidizable Precursor (TOP) Assay analysis, the difference is defined as the Post-Treatment value minus the Pre-Treatment value.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

PFAS Total: With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. If a 'Total' result is requested, the results of its individual components will also be reported.

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Data Qualifiers

- A** - Spectra identified as "Aldol Condensates" are byproducts of the extraction/concentration procedures when acetone is introduced in the process.
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).
- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E** - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- G** - The concentration may be biased high due to matrix interferences (i.e. co-elution) with non-target compound(s). The result should be considered estimated.
- H** - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- I** - The lower value for the two columns has been reported due to obvious interference.
- M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
- NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.
- P** - The RPD between the results for the two columns exceeds the method-specified criteria.
- Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
- R** - Analytical results are from sample re-analysis.
- RE** - Analytical results are from sample re-extraction.
- S** - Analytical results are from modified screening analysis.
- J** - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).
- ND** - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

Report Format: DU Report with 'J' Qualifiers





Volatile Organics Instruments

Volatile Organics:

Instrument: Agilent 7890 GC/5975C MSD
 Trap: Supelco K Trap (VOACARB 3000)
 Concentrator: EST Encon (or equivalent)
 Autosampler: EST Centurion (or equivalent)
 Purge time: 11 min

Columns (length x ID x df):
 RTX-VMS 20m x 0.18mm x 1um
 RTX-VMS 30m x 0.25mm x 1.4um
 RTX-502.2 40m x 0.18mm x 1um

Volatile Organics: VPH

Instrument: Agilent 6890 (or equivalent)
 Trap: Supelco K Trap (VOACARB 3000)
 Concentrator: EST Encon (or equivalent)
 Autosampler: EST Centurion (or equivalent)

Column Type: Restek RTX 502.2
 Column Length: 105 Meters
 df: 3.00 um
 ID: 0.53mm

Volatile Organics: PIANO

Instrument: Agilent 7890 GC/5975C MSD
 Trap: Supelco K Trap (VOACARB 3000)
 Concentrator: Tekmar Velocity / EST Encon
 Autosampler: Varian Archon / EST Centurion
 Purge time: 11 min

Column Type: DB-VRX
 Column Length: 60 Meters
 df: 1.40 um
 ID: 0.25 mm
 Desorb: 1 min

Volatile Organics: Dissolved Gas

Instrument: Agilent 7890 (or equivalent) with FID/TCD

Column Type: Haysep S Column
 Column Length: 2 Meters packed
 (100/200 mesh)

Autosampler: LEAP Headspace

Purge time: 0.6 min

Volatile Organics in Air Instruments

Volatile Organics in Air:

Instruments: Agilent 6890 GC / 5975 MSD Shimadzu QP2010-SE / QP2020

Concentrator: Entech 7100A or 7200
 Autosampler: Entech 7016CA or 7016D

Column Type: Restek RTX-1
 Column Length: 60 Meters
 df: 1.00 um
 ID: 0.25 mm or 0.32 mm

Trap 1: Glass Bead: manufacturer-Entech: 20 cm packing material

Trap 2: Tenax: manufacturer-Entech: 20 cm packing material



Semivolatile Organics Instruments - Westborough

Semivolatile Organics (Acid/Base/Neutral Extractables):

Instrument: Agilent 5973N MSD	Injection volume: 1 μ L; 2 μ L LVI
Column Type: Restek RXI-5SILMS	df: 0.32 μ m
Column Length: 30 Meters	ID: 0.25 mm

Polynuclear Aromatic Hydrocarbons by 8270 SIM:

Instrument: Agilent 5973 MSD	Injection volume: 1 μ L; 2 μ L LVI
Column Type: Restek RXI-5SILMS	df: 0.25 μ m
Column Length: 30 Meters	ID: 0.25 mm

Pesticides/PCB/Herbicides:

Instrument: Agilent 6890 w/Dual Micro ECDs	Injection Volume: 1 μ L
Column A: Restek RTX-CL/STX-CL	df: 0.32
Column B: Restek RTX/STX-CLP Pesticide II	df: 0.25
Column Length: 30 Meters	ID: 0.32 mm

Petroleum/EPH:

Instrument: Agilent 6890 w/FID / HP 5890 w/ FID	Injection Volume: 1 μ L
Column: Restek RTX 5	df: 0.25
Column Length: 30 Meters	
ID: 0.32 mm	



Semivolatile Organic Instruments - Mansfield

Semivolatile Organics (ALK-PAH Extractables):

Instrument: Agilent 5973N / 5975 MSD	Injection volume: 1 ul
Column Type: ZB-5	df: 0.25 um
Column Length: 60 Meters	ID: 0.25 mm

Semivolatile Organics (8270):

Instrument: Agilent 5973N / 5975 MSD	Injection volume: 2 ul
Column Type: ZB-Semivolatiles	df: 0.25 um
Column Length: 30 Meters	ID: 0.25 mm

Semivolatile Organics (8270 SIM):

Instrument: Agilent 5973N / 5975 MSD	Injection volume: 3 ul
Column Type: ZB-5	df: 0.25 um
Column Length: 30 Meters	ID: 0.25 mm

Semivolatile Organics (1,4-Dioxane):

Instrument: Agilent 5973N / 5975 / 5977 MSD	Injection volume: 3 ul
Column Type: RTX-5	df: 0.25um, 0.18 um
Column Length: 30 Meters	ID: 0.25um, 0.18 mm

Semivolatile Organics (209 Congener):

Instrument: Agilent 5973N / 5975 MSD	Injection volume: 3 ul
Column Type: RTX-5, RTX-PCB	df: 0.25um, 0.18 um
Column Length: 60 Meters	ID: 0.25um, 0.18 mm

Semivolatile Organics (8081):

Instrument: Agilent 6890 / 7890	Injection volume: 1 ul
Column Type: RTX-5 / RTX-CLP II	df: 0.25 um
Column Length: 60 Meters	ID: 0.25 mm

Semivolatile Organics (8082):

Instrument: Agilent 6890 w/Dual Micro ECDs	Injection Volume: 1uL
Column A: Restek RTX-CL/STX-CL	df: 0.32
Column B: Restek RTX/STX-CLPPesticide II	df: 0.25
Column Length: 30 Meters	ID: 0.32 mm

Semivolatile Organics (SHC Extractables):

Instrument: Agilent 6890	Injection volume: 1 ul
Column Type: RTX-5	df: 0.25 um
Column Length: 60 Meters	ID: 0.25 mm



Sample Delivery Group Summary

Alpha Job Number : L1954584

Received : 14-NOV-2019

Reviewer : Sharon Hoffman

Account Name : Langan Engineering & Environmental

Project Number : 170357801

Project Name : 432 RODNEY STREET

Delivery Information

Samples Delivered By : Alpha Courier

Chain of Custody : Present

Cooler Information

Cooler	Seal/Seal#	Preservation	Temperature(°C)	Additional Information
A	Absent/	Ice	3.4	

Condition Information

1) All samples on COC received?	YES
2) Extra samples received?	NO
3) Are there any sample container discrepancies?	NO
4) Are there any discrepancies between sample labels & COC?	NO
5) Are samples in appropriate containers for requested analysis?	YES
6) Are samples properly preserved for requested analysis?	YES
7) Are samples within holding time for requested analysis?	YES
8) All sampling equipment returned?	NA

Volatile Organics/VPH

1) Reagent Water Vials Frozen by Client?	NO

ALPHA ANALYTICAL LABORATORIES, INC.
LOGIN CHAIN OF CUSTODY REPORT
Nov 15 2019, 01:56 pm

Login Number: L1954584

Account: LANGAN-NYC Langan Engineering & Environmental Project: 170357801

Received: 14NOV19 Due Date: 15NOV19

Sample #	Client ID	Mat	PR	Collected
L1954584-01	MW03_111419	1	1A	14NOV19 10:30
ASP-B Package Due Date: 11/15/19				
ASP-B, NYTCL-8260				
L1954584-02	MW07_111419	1	1A	14NOV19 15:30
Package Due Date: 11/15/19				
NYTCL-8260				
L1954584-03	GWTB_111419	1	1A	13NOV19 00:00
Package Due Date: 11/15/19				
NYTCL-8260				
L1954584-04	MW06_111419	1	1A	14NOV19 16:30
Package Due Date: 11/15/19				
NYTCL-8260				

Page 1

Logged By: Ben Rao



Organics

GC/MS 8260

Analysis

Volatiles QC Summary

Surrogate Recovery Summary

Form 2

Volatiles

Client: Langan Engineering & Environmental
Project Name: 432 RODNEY STREET

Lab Number: L1954584
Project Number: 170357801
Matrix: Water

CLIENT ID (LAB SAMPLE NO.)	SMC1 DCA	SMC2 TOL	SMC3 BFB	SMC4 DBFM	TOT OUT
MW03_111419 (L1954584-01)	99	96	87	113	0
MW07_111419 (L1954584-02)	101	97	88	109	0
GWTB_111419 (L1954584-03)	95	95	87	107	0
MW06_111419 (L1954584-04)	98	96	89	110	0
WG1309356-3LCS	100	96	88	109	0
WG1309356-4LCSD	98	97	87	108	0
WG1309356-5BLANK	98	96	88	109	0

QC LIMITS

(70-130) DCA = 1,2-DICHLOROETHANE-D4
(70-130) TOL = TOLUENE-D8
(70-130) BFB = 4-BROMOFLUOROBENZENE
(70-130) DBFM = DIBROMOFLUOROMETHANE

* Values outside of QC limits

FORM II NYTCL-8260



Laboratory Control Sample Summary

Form 3

Volatiles

Client : Langan Engineering & Environmental Lab Number : L1954584
 Project Name : 432 RODNEY STREET Project Number : 170357801
 Matrix : WATER
 LCS Sample ID : WG1309356-3 Analysis Date : 11/15/19 07:19 File ID : V05191115A02
 LCSD Sample ID : WG1309356-4 Analysis Date : 11/15/19 07:42 File ID : V05191115A03

Parameter	Laboratory Control Sample			Laboratory Control Duplicate			RPD	Recovery Limits	RPD Limit
	True (ug/l)	Found (ug/l)	%R	True (ug/l)	Found (ug/l)	%R			
Methylene chloride	10	8.8	88	10	8.6	86	2	70-130	20
1,1-Dichloroethane	10	8.3	83	10	8.2	82	1	70-130	20
Chloroform	10	9.0	90	10	8.9	89	1	70-130	20
Carbon tetrachloride	10	9.6	96	10	9.2	92	4	63-132	20
1,2-Dichloropropane	10	8.2	82	10	7.9	79	4	70-130	20
Dibromochloromethane	10	8.8	88	10	8.7	87	1	63-130	20
1,1,2-Trichloroethane	10	8.5	85	10	8.6	86	1	70-130	20
Tetrachloroethene	10	10	100	10	10	100	0	70-130	20
Chlorobenzene	10	9.0	90	10	9.0	90	0	75-130	20
Trichlorofluoromethane	10	9.1	91	10	8.6	86	6	62-150	20
1,2-Dichloroethane	10	8.8	88	10	8.6	86	2	70-130	20
1,1,1-Trichloroethane	10	9.4	94	10	9.3	93	1	67-130	20
Bromodichloromethane	10	9.1	91	10	8.7	87	4	67-130	20
trans-1,3-Dichloropropene	10	7.3	73	10	7.1	71	3	70-130	20
cis-1,3-Dichloropropene	10	8.7	87	10	8.6	86	1	70-130	20
1,1-Dichloropropene	10	8.8	88	10	8.6	86	2	70-130	20
Bromoform	10	9.1	91	10	8.9	89	2	54-136	20
1,1,2,2-Tetrachloroethane	10	8.0	80	10	7.8	78	3	67-130	20
Benzene	10	8.9	89	10	8.8	88	1	70-130	20
Toluene	10	8.6	86	10	8.6	86	0	70-130	20
Ethylbenzene	10	8.6	86	10	8.6	86	0	70-130	20
Chloromethane	10	5.5	55 Q	10	5.4	54 Q	2	64-130	20
Bromomethane	10	5.6	56	10	6.0	60	7	39-139	20
Vinyl chloride	10	7.2	72	10	7.1	71	1	55-140	20
Chloroethane	10	8.7	87	10	8.5	85	2	55-138	20
1,1-Dichloroethene	10	9.3	93	10	9.1	91	2	61-145	20



Laboratory Control Sample Summary

Form 3

Volatiles

Client : Langan Engineering & Environmental **Lab Number** : L1954584
Project Name : 432 RODNEY STREET **Project Number** : 170357801
Matrix : WATER
LCS Sample ID : WG1309356-3 **Analysis Date** : 11/15/19 07:19 **File ID** : V05191115A02
LCSD Sample ID : WG1309356-4 **Analysis Date** : 11/15/19 07:42 **File ID** : V05191115A03

Parameter	Laboratory Control Sample			Laboratory Control Duplicate			RPD	Recovery Limits	RPD Limit
	True (ug/l)	Found (ug/l)	%R	True (ug/l)	Found (ug/l)	%R			
trans-1,2-Dichloroethene	10	8.9	89	10	8.7	87	2	70-130	20
Trichloroethene	10	8.7	87	10	8.5	85	2	70-130	20
1,2-Dichlorobenzene	10	9.2	92	10	8.8	88	4	70-130	20
1,3-Dichlorobenzene	10	9.1	91	10	8.9	89	2	70-130	20
1,4-Dichlorobenzene	10	9.0	90	10	8.7	87	3	70-130	20
Methyl tert butyl ether	10	9.4	94	10	9.1	91	3	63-130	20
p/m-Xylene	20	18	90	20	18	90	0	70-130	20
o-Xylene	20	18	90	20	18	90	0	70-130	20
cis-1,2-Dichloroethene	10	10	100	10	10	100	0	70-130	20
Dibromomethane	10	9.6	96	10	9.4	94	2	70-130	20
1,2,3-Trichloropropane	10	7.8	78	10	7.4	74	5	64-130	20
Acrylonitrile	10	8.9	89	10	8.7	87	2	70-130	20
Styrene	20	19	95	20	19	95	0	70-130	20
Dichlorodifluoromethane	10	5.8	58	10	5.5	55	5	36-147	20
Acetone	10	8.3	83	10	7.8	78	6	58-148	20
Carbon disulfide	10	8.0	80	10	7.9	79	1	51-130	20
2-Butanone	10	8.7	87	10	8.2	82	6	63-138	20
Vinyl acetate	10	6.8	68 Q	10	6.4	64 Q	6	70-130	20
4-Methyl-2-pentanone	10	7.1	71	10	7.0	70	1	59-130	20
2-Hexanone	10	6.4	64	10	6.1	61	5	57-130	20
Bromochloromethane	10	11	110	10	11	110	0	70-130	20
2,2-Dichloropropane	10	9.7	97	10	9.3	93	4	63-133	20
1,2-Dibromoethane	10	9.5	95	10	9.4	94	1	70-130	20
1,3-Dichloropropane	10	8.2	82	10	8.0	80	2	70-130	20
1,1,1,2-Tetrachloroethane	10	9.4	94	10	9.4	94	0	64-130	20
Bromobenzene	10	9.0	90	10	8.8	88	2	70-130	20



Laboratory Control Sample Summary

Form 3

Volatiles

Client : Langan Engineering & Environmental Lab Number : L1954584
 Project Name : 432 RODNEY STREET Project Number : 170357801
 Matrix : WATER
 LCS Sample ID : WG1309356-3 Analysis Date : 11/15/19 07:19 File ID : V05191115A02
 LCSD Sample ID : WG1309356-4 Analysis Date : 11/15/19 07:42 File ID : V05191115A03

Parameter	Laboratory Control Sample			Laboratory Control Duplicate			RPD	Recovery Limits	RPD Limit
	True (ug/l)	Found (ug/l)	%R	True (ug/l)	Found (ug/l)	%R			
n-Butylbenzene	10	8.2	82	10	7.9	79	4	53-136	20
sec-Butylbenzene	10	8.7	87	10	8.2	82	6	70-130	20
tert-Butylbenzene	10	8.9	89	10	8.5	85	5	70-130	20
o-Chlorotoluene	10	7.6	76	10	7.4	74	3	70-130	20
p-Chlorotoluene	10	8.0	80	10	7.8	78	3	70-130	20
1,2-Dibromo-3-chloropropane	10	9.2	92	10	8.7	87	6	41-144	20
Hexachlorobutadiene	10	10	100	10	9.5	95	5	63-130	20
Isopropylbenzene	10	8.7	87	10	8.4	84	4	70-130	20
p-Isopropyltoluene	10	9.2	92	10	8.8	88	4	70-130	20
Naphthalene	10	9.2	92	10	8.7	87	6	70-130	20
n-Propylbenzene	10	8.3	83	10	7.9	79	5	69-130	20
1,2,3-Trichlorobenzene	10	9.6	96	10	9.1	91	5	70-130	20
1,2,4-Trichlorobenzene	10	9.3	93	10	9.0	90	3	70-130	20
1,3,5-Trimethylbenzene	10	8.7	87	10	8.4	84	4	64-130	20
1,2,4-Trimethylbenzene	10	8.7	87	10	8.5	85	2	70-130	20
1,4-Dioxane	500	390	78	500	390	78	0	56-162	20
p-Diethylbenzene	10	8.9	89	10	8.7	87	2	70-130	20
p-Ethyltoluene	10	8.8	88	10	8.4	84	5	70-130	20
1,2,4,5-Tetramethylbenzene	10	9.3	93	10	9.0	90	3	70-130	20
Ethyl ether	10	11	110	10	10	100	10	59-134	20
trans-1,4-Dichloro-2-butene	10	5.6	56 Q	10	5.3	53 Q	6	70-130	20



**Method Blank Summary
Form 4
Volatiles**

Client	: Langan Engineering & Environmental	Lab Number	: L1954584
Project Name	: 432 RODNEY STREET	Project Number	: 170357801
Lab Sample ID	: WG1309356-5	Lab File ID	: V05191115A05
Instrument ID	: VOA105		
Matrix	: WATER	Analysis Date	: 11/15/19 08:29

Client Sample No.	Lab Sample ID	Analysis Date
WG1309356-3LCS	WG1309356-3	11/15/19 07:19
WG1309356-4LCSD	WG1309356-4	11/15/19 07:42
GWTB_111419	L1954584-03	11/15/19 08:52
MW03_111419	L1954584-01	11/15/19 09:15
MW07_111419	L1954584-02	11/15/19 09:38
MW06_111419	L1954584-04	11/15/19 10:01

Instrument Performance Check (Tune) Summary

Form 5

Volatiles

Bromofluorobenzene (BFB)

Client	: Langan Engineering & Environmental	Lab Number	: L1954584
Project Name	: 432 RODNEY STREET	Project Number	: 170357801
Instrument ID	: VOA105	Analysis Date	: 09/21/19 01:04
Tune Standard	: WG1287418-1	Tune File ID	: V05190921A01_tune

m/e	Ion Abundance Criteria	%Relative Abundance
50	15.0 - 40.0% of mass 95	21.8
75	30.0 - 60.0% of mass 95	56.5
95	Base Peak, 100% relative abundance	100
96	5.0 - 9.0% of mass 95	7
173	Less than 2.0% of mass 174	0.6 (.8)1
174	Greater than 50.0 of mass 95	75.6
175	5.0 - 9.0% of mass 174	5.7 (7.6)1
176	95.0 - 101% of mass 174	75.6 (100)1
177	5.0 - 9.0% of mass 176	4.8 (6.4)2

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

This Check Applies to the following Samples, MS, MSD, Blanks, and Standards:

Client Sample ID	Lab Sample ID	File ID	Analysis Date/Time
STDL2PPB	R1234001-2	V05190921A04	09/21/19 02:10
STDL5PPB	R1234001-1	V05190921A06	09/21/19 02:56
STDL2PPB	R1234001-3	V05190921A08	09/21/19 04:04
STDL10PPB	R1234001-4	V05190921A09	09/21/19 04:27
STDL30PPB	R1234001-5	V05190921A10	09/21/19 04:50
STDL80PPB	R1234001-6	V05190921A11	09/21/19 05:13
STDL120PPB	R1234001-7	V05190921A12	09/21/19 05:37
STDL200PPB	R1234001-8	V05190921A13	09/21/19 06:00
ICV QUANT REPORT	R1234001-9	V05190921A19	09/21/19 08:18

Instrument Performance Check (Tune) Summary

Form 5

Volatiles

Bromofluorobenzene (BFB)

Client : Langan Engineering & Environmental	Lab Number : L1954584
Project Name : 432 RODNEY STREET	Project Number : 170357801
Instrument ID : VOA105	Analysis Date : 11/15/19 06:42
Tune Standard : WG1309356-1	Tune File ID : V05191115ABF1_tune

m/e	Ion Abundance Criteria	%Relative Abundance
50	15.0 - 40.0% of mass 95	18.2
75	30.0 - 60.0% of mass 95	50.3
95	Base Peak, 100% relative abundance	100
96	5.0 - 9.0% of mass 95	6.4
173	Less than 2.0% of mass 174	0 (0)1
174	Greater than 50.0 of mass 95	94.5
175	5.0 - 9.0% of mass 174	6.9 (7.3)1
176	95.0 - 101% of mass 174	92.1 (97.5)1
177	5.0 - 9.0% of mass 176	6 (6.5)2

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

This Check Applies to the following Samples, MS, MSD, Blanks, and Standards:

Client Sample ID	Lab Sample ID	File ID	Analysis Date/Time
WG1309356-2CCAL	WG1309356-2	V05191115A02	11/15/19 07:19
WG1309356-3LCS	WG1309356-3	V05191115A02	11/15/19 07:19
WG1309356-4LCSD	WG1309356-4	V05191115A03	11/15/19 07:42
WG1309356-5BLANK	WG1309356-5	V05191115A05	11/15/19 08:29
GWTB_111419	L1954584-03	V05191115A06	11/15/19 08:52
MW03_111419	L1954584-01	V05191115A07	11/15/19 09:15
MW07_111419	L1954584-02	V05191115A08	11/15/19 09:38
MW06_111419	L1954584-04	V05191115A09	11/15/19 10:01

Internal Standard Area and RT Summary

Form 8a

Volatiles

Client : Langan Engineering & Environmental
 Project Name : 432 RODNEY STREET
 Instrument ID : VOA105
 Sample No : WG1309356-2

Lab Number : L1954584
 Project Number : 170357801
 Analysis Date : 11/15/19 07:19
 Lab File ID : V05191115A02

	Fluorobenzene (IS)		Chlorobenzene-d5		1,4-Dichlorobenzene-D4	
	Area	RT	Area	RT	Area	RT
WG1309356-2	547837	6.09	453564	9.62	259117	12.30
Upper Limit	1095674	6.59	907128	10.12	518234	12.80
Lower Limit	273919	5.59	226782	9.12	129559	11.80
Sample ID						
WG1309356-3 LCS	547837	6.09	453564	9.62	259117	12.30
WG1309356-4 LCSD	562925	6.09	461881	9.62	267874	12.30
WG1309356-5 BLANK	527019	6.09	426641	9.62	232291	12.30
GWTB_111419	519785	6.09	417528	9.62	224537	12.30
MW03_111419	506895	6.09	405445	9.62	222951	12.31
MW07_111419	498248	6.10	399984	9.62	217619	12.31
MW06_111419	489219	6.09	394508	9.62	210255	12.30

Area Upper Limit = +100% of internal standard area
 Area Lower Limit = - 50% of internal standard area

RT Upper Limit = +0.50 minutes of internal standard RT
 RT Lower Limit = -0.50 minutes of internal standard RT

* Values outside of QC limits





Date Created: 06/19/18
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Volatile Organics - EPA 8260C (WATER)

Holding Time: 14 days
Container/Sample Preservation: 3 - Vial HCl preserved

Analyte	CAS #	RL	MDL	Units	LCS Criteria	LCS RPD	MS Criteria	MS RPD	Duplicate RPD	Surrogate Criteria		
Methylene chloride	75-09-2	3	0.678	ug/l	70-130	20	70-130	20	20			
1,1-Dichloroethane	75-34-3	0.75	0.210	ug/l	70-130	20	70-130	20	20			
Chloroform	67-66-3	0.75	0.222	ug/l	70-130	20	70-130	20	20			
Carbon tetrachloride	56-23-5	0.5	0.134	ug/l	63-132	20	63-132	20	20			
1,2-Dichloropropane	78-87-5	1.75	0.137	ug/l	70-130	20	70-130	20	20			
Dibromochloromethane	124-48-1	0.5	0.149	ug/l	63-130	20	63-130	20	20			
1,1,2-Trichloroethane	79-00-5	0.75	0.144	ug/l	70-130	20	70-130	20	20			
Tetrachloroethene	127-18-4	0.5	0.181	ug/l	70-130	20	70-130	20	20			
Chlorobenzene	108-90-7	0.5	0.178	ug/l	75-130	25	75-130	25	25			
Trichlorofluoromethane	75-69-4	2.5	0.161	ug/l	62-150	20	62-150	20	20			
1,2-Dichloroethane	107-06-2	0.5	0.132	ug/l	70-130	20	70-130	20	20			
1,1,1-Trichloroethane	71-55-6	0.5	0.158	ug/l	67-130	20	67-130	20	20			
Bromodichloromethane	75-27-4	0.5	0.192	ug/l	67-130	20	67-130	20	20			
trans-1,3-Dichloropropene	10061-02-6	0.5	0.164	ug/l	70-130	20	70-130	20	20			
cis-1,3-Dichloropropene	10061-01-5	0.5	0.144	ug/l	70-130	20	70-130	20	20			
1,3-Dichloropropene, Total	542-75-6	0.5	0.144	ug/l				20	20			
1,3-Dichloropropene, Total	542-75-6	0.5	0.144	ug/l				20	20			
1,1-Dichloropropene	563-58-6	2.5	0.240	ug/l	70-130	20	70-130	20	20			
Bromoform	75-25-2	2	0.248	ug/l	54-136	20	54-136	20	20			
1,1,2,2-Tetrachloroethane	79-34-5	0.5	0.167	ug/l	67-130	20	67-130	20	20			
Benzene	71-43-2	0.5	0.159	ug/l	70-130	25	70-130	25	25			
Toluene	108-88-3	0.75	0.203	ug/l	70-130	25	70-130	25	25			
Ethylbenzene	100-41-4	0.5	0.167	ug/l	70-130	20	70-130	20	20			
Chloromethane	74-87-3	2.5	0.200	ug/l	64-130	20	64-130	20	20			
Bromomethane	74-83-9	1	0.256	ug/l	39-139	20	39-139	20	20			
Vinyl chloride	75-01-4	1	0.0714	ug/l	55-140	20	55-140	20	20			
Chloroethane	75-00-3	1	0.134	ug/l	55-138	20	55-138	20	20			
1,1-Dichloroethene	75-35-4	0.5	0.169	ug/l	61-145	25	61-145	25	25			
trans-1,2-Dichloroethene	156-60-5	0.75	0.163	ug/l	70-130	20	70-130	20	20			
1,2-Dichloroethene (total)	540-59-0	0.5	0.163	ug/l				20	20			
1,2-Dichloroethene (total)	540-59-0	0.5	0.163	ug/l				20	20			
Trichloroethene	79-01-6	0.5	0.175	ug/l	70-130	25	70-130	25	25			
1,2-Dichlorobenzene	95-50-1	2.5	0.184	ug/l	70-130	20	70-130	20	20			
1,3-Dichlorobenzene	541-73-1	2.5	0.186	ug/l	70-130	20	70-130	20	20			
1,4-Dichlorobenzene	106-46-7	2.5	0.187	ug/l	70-130	20	70-130	20	20			
Methyl tert butyl ether	1634-04-4	1	0.166	ug/l	63-130	20	63-130	20	20			
p/m-Xylene	179601-23-1	1	0.332	ug/l	70-130	20	70-130	20	20			
o-Xylene	95-47-6	1	0.392	ug/l	70-130	20	70-130	20	20			
Xylene (Total)	1330-20-7	1	0.330	ug/l				20	20			
Xylene (Total)	1330-20-7	1	0.330	ug/l				20	20			
cis-1,2-Dichloroethene	156-59-2	0.5	0.187	ug/l	70-130	20	70-130	20	20			
Dibromomethane	74-95-3	5	0.363	ug/l	70-130	20	70-130	20	20			

Please Note that the RL information provided in this table is calculated using a 100% Solids factor. (Soil/Solids only)
Please Note that the information provided in this table is subject to change at anytime at the discretion of Alpha Analytical, Inc.



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Date Created: 06/19/18
Created By: Jason Hebert
File: PM5049-1
Page: 2

Volatile Organics - EPA 8260C (WATER)

Holding Time: 14 days
Container/Sample Preservation: 3 - Vial HCl preserved

Analyte	CAS #	RL	MDL	Units	LCS Criteria	LCS RPD	MS Criteria	MS RPD	Duplicate RPD	Surrogate Criteria		
1,4-Dichlorobutane	110-56-5	5	0.464	ug/l	70-130	20	70-130	20	20			
1,2,3-Trichloropropane	96-18-4	5	0.176	ug/l	64-130	20	64-130	20	20			
Styrene	100-42-5	1	0.359	ug/l	70-130	20	70-130	20	20			
Dichlorodifluoromethane	75-71-8	5	0.244	ug/l	36-147	20	36-147	20	20			
Acetone	67-64-1	5	1.46	ug/l	58-148	20	58-148	20	20			
Carbon disulfide	75-15-0	5	0.299	ug/l	51-130	20	51-130	20	20			
2-Butanone	78-93-3	5	1.94	ug/l	63-138	20	63-138	20	20			
Vinyl acetate	108-05-4	5	0.311	ug/l	70-130	20	70-130	20	20			
4-Methyl-2-pentanone	108-10-1	5	0.416	ug/l	59-130	20	59-130	20	20			
2-Hexanone	591-78-6	5	0.515	ug/l	57-130	20	57-130	20	20			
Ethyl methacrylate	97-63-2	5	0.606	ug/l	70-130	20	70-130	20	20			
Acrylonitrile	107-13-1	5	0.430	ug/l	70-130	20	70-130	20	20			
Bromochloromethane	74-97-5	2.5	0.152	ug/l	70-130	20	70-130	20	20			
Tetrahydrofuran	109-99-9	5	0.525	ug/l	58-130	20	58-130	20	20			
2,2-Dichloropropane	594-20-7	2.5	0.204	ug/l	63-133	20	63-133	20	20			
1,2-Dibromoethane	106-93-4	2	0.193	ug/l	70-130	20	70-130	20	20			
1,3-Dichloropropane	142-28-9	2.5	0.212	ug/l	70-130	20	70-130	20	20			
1,1,1,2-Tetrachloroethane	630-20-6	0.5	0.164	ug/l	64-130	20	64-130	20	20			
Bromobenzene	108-86-1	2.5	0.152	ug/l	70-130	20	70-130	20	20			
n-Butylbenzene	104-51-8	0.5	0.192	ug/l	53-136	20	53-136	20	20			
sec-Butylbenzene	135-98-8	0.5	0.181	ug/l	70-130	20	70-130	20	20			
tert-Butylbenzene	98-06-6	2.5	0.196	ug/l	70-130	20	70-130	20	20			
o-Chlorotoluene	95-49-8	2.5	0.215	ug/l	70-130	20	70-130	20	20			
p-Chlorotoluene	106-43-4	2.5	0.185	ug/l	70-130	20	70-130	20	20			
1,2-Dibromo-3-chloropropane	96-12-8	2.5	0.353	ug/l	41-144	20	41-144	20	20			
Hexachlorobutadiene	87-68-3	0.5	0.217	ug/l	63-130	20	63-130	20	20			
Isopropylbenzene	98-82-8	0.5	0.187	ug/l	70-130	20	70-130	20	20			
p-Isopropyltoluene	99-87-6	0.5	0.188	ug/l	70-130	20	70-130	20	20			
Naphthalene	91-20-3	2.5	0.216	ug/l	70-130	20	70-130	20	20			
n-Propylbenzene	103-65-1	0.5	0.173	ug/l	69-130	20	69-130	20	20			
1,2,3-Trichlorobenzene	87-61-6	2.5	0.234	ug/l	70-130	20	70-130	20	20			
1,2,4-Trichlorobenzene	120-82-1	2.5	0.220	ug/l	70-130	20	70-130	20	20			
1,3,5-Trimethylbenzene	108-67-8	2.5	0.217	ug/l	64-130	20	64-130	20	20			
1,3,5-Trichlorobenzene	108-70-3	2	0.141	ug/l	70-130	20	70-130	20	20			
1,2,4-Trimethylbenzene	95-63-6	2.5	0.191	ug/l	70-130	20	70-130	20	20			
trans-1,4-Dichloro-2-butene	110-57-6	2.5	0.213	ug/l	70-130	20	70-130	20	20			
Ethyl ether	60-29-7	2.5	0.163	ug/l	59-134	20	59-134	20	20			
Methyl Acetate	79-20-9	10	0.234	ug/l	70-130	20	70-130	20	20			
Ethyl Acetate	141-78-6	10	0.716	ug/l	70-130	20	70-130	20	20			
Isopropyl Ether	108-20-3	2	0.425	ug/l	70-130	20	70-130	20	20			
Cyclohexane	110-82-7	10	0.271	ug/l	70-130	20	70-130	20	20			
Ethyl-Tert-Butyl-Ether	637-92-3	2	0.179	ug/l	70-130	20	70-130	20	20			

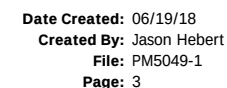
Please Note that the RL information provided in this table is calculated using a 100% Solids factor. (Soil/Solids only)
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Holding Time: 14 days
Container/Sample Preservation: 3 - Vial HCl preserved

Please Note that the RL information provided in this table is calculated using a 100% Solids factor. (Soil/ Solids only)





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Volatile Organics - EPA 8260C (SOIL-LOW)

Holding Time: 14 days
Container / Sample Preservation: 1 - Vial Large Septa unpreserved (4oz)

Analyte	CAS #	RL	MDL	Units	LCS Criteria	LCS RPD	MS Criteria	MS RPD	Duplicate RPD	Surrogate Criteria		
Methylene chloride	75-09-2	5	2.29	ug/kg	70-130	30	70-130	30	30			
1,1-Dichloroethane	75-34-3	1	0.145	ug/kg	70-130	30	70-130	30	30			
Chloroform	67-66-3	1.5	0.140	ug/kg	70-130	30	70-130	30	30			
Carbon tetrachloride	56-23-5	1	0.230	ug/kg	70-130	30	70-130	30	30			
1,2-Dichloropropane	78-87-5	1	0.125	ug/kg	70-130	30	70-130	30	30			
Dibromochloromethane	124-48-1	1	0.140	ug/kg	70-130	30	70-130	30	30			
1,1,2-Trichloroethane	79-00-5	1	0.267	ug/kg	70-130	30	70-130	30	30			
Tetrachloroethene	127-18-4	0.5	0.196	ug/kg	70-130	30	70-130	30	30			
Chlorobenzene	108-90-7	0.5	0.127	ug/kg	70-130	30	70-130	30	30			
Trichlorofluoromethane	75-69-4	4	0.695	ug/kg	70-139	30	70-139	30	30			
1,2-Dichloroethane	107-06-2	1	0.257	ug/kg	70-130	30	70-130	30	30			
1,1,1-Trichloroethane	71-55-6	0.5	0.167	ug/kg	70-130	30	70-130	30	30			
Bromodichloromethane	75-27-4	0.5	0.109	ug/kg	70-130	30	70-130	30	30			
trans-1,3-Dichloropropene	10061-02-6	1	0.273	ug/kg	70-130	30	70-130	30	30			
cis-1,3-Dichloropropene	10061-01-5	0.5	0.158	ug/kg	70-130	30	70-130	30	30			
1,3-Dichloropropene, Total	542-75-6	0.5	0.158	ug/kg				30	30			
1,3-Dichloropropene, Total	542-75-6	0.5	0.158	ug/kg				30	30			
1,1-Dichloropropene	563-58-6	0.5	0.159	ug/kg	70-130	30	70-130	30	30			
Bromoform	75-25-2	4	0.246	ug/kg	70-130	30	70-130	30	30			
1,1,2,2-Tetrachloroethane	79-34-5	0.5	0.166	ug/kg	70-130	30	70-130	30	30			
Benzene	71-43-2	0.5	0.166	ug/kg	70-130	30	70-130	30	30			
Toluene	108-88-3	1	0.543	ug/kg	70-130	30	70-130	30	30			
Ethylbenzene	100-41-4	1	0.141	ug/kg	70-130	30	70-130	30	30			
Chloromethane	74-87-3	4	0.932	ug/kg	52-130	30	52-130	30	30			
Bromomethane	74-83-9	2	0.581	ug/kg	57-147	30	57-147	30	30			
Vinyl chloride	75-01-4	1	0.335	ug/kg	67-130	30	67-130	30	30			
Chloroethane	75-00-3	2	0.452	ug/kg	50-151	30	50-151	30	30			
1,1-Dichloroethene	75-35-4	1	0.238	ug/kg	65-135	30	65-135	30	30			
trans-1,2-Dichloroethene	156-60-5	1.5	0.137	ug/kg	70-130	30	70-130	30	30			
Trichloroethene	79-01-6	0.5	0.137	ug/kg	70-130	30	70-130	30	30			
1,2-Dichlorobenzene	95-50-1	2	0.144	ug/kg	70-130	30	70-130	30	30			
1,3-Dichlorobenzene	541-73-1	2	0.148	ug/kg	70-130	30	70-130	30	30			
1,4-Dichlorobenzene	106-46-7	2	0.171	ug/kg	70-130	30	70-130	30	30			
Methyl tert butyl ether	1634-04-4	2	0.201	ug/kg	66-130	30	66-130	30	30			
p/m-Xylene	179601-23-1	2	0.560	ug/kg	70-130	30	70-130	30	30			
o-Xylene	95-47-6	1	0.291	ug/kg	70-130	30	70-130	30	30			
Xylene (Total)	1330-20-7	1	0.291	ug/kg				30	30			
Xylene (Total)	1330-20-7	1	0.291	ug/kg				30	30			
cis-1,2-Dichloroethene	156-59-2	1	0.175	ug/kg	70-130	30	70-130	30	30			
1,2-Dichloroethene (total)	540-59-0	1	0.137	ug/kg				30	30			
1,2-Dichloroethene (total)	540-59-0	1	0.137	ug/kg				30	30			
Dibromomethane	74-95-3	2	0.238	ug/kg	70-130	30	70-130	30	30			

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Volatile Organics - EPA 8260C (SOIL-LOW)

Holding Time: 14 days
Container / Sample Preservation: 1 - Vial Large Septa unpreserved (4oz)

Analyte	CAS #	RL	MDL	Units	LCS Criteria	LCS RPD	MS Criteria	MS RPD	Duplicate RPD	Surrogate Criteria		
1,4-Dichlorobutane	110-56-5	10	0.226	ug/kg	70-130	30	70-130	30	30			
1,2,3-Trichloropropane	96-18-4	2	0.127	ug/kg	68-130	30	68-130	30	30			
Styrene	100-42-5	1	0.196	ug/kg	70-130	30	70-130	30	30			
Dichlorodifluoromethane	75-71-8	10	0.915	ug/kg	30-146	30	30-146	30	30			
Acetone	67-64-1	10	4.81	ug/kg	54-140	30	54-140	30	30			
Carbon disulfide	75-15-0	10	4.55	ug/kg	59-130	30	59-130	30	30			
2-Butanone	78-93-3	10	2.22	ug/kg	70-130	30	70-130	30	30			
Vinyl acetate	108-05-4	10	2.15	ug/kg	70-130	30	70-130	30	30			
4-Methyl-2-pentanone	108-10-1	10	1.28	ug/kg	70-130	30	70-130	30	30			
2-Hexanone	591-78-6	10	1.18	ug/kg	70-130	30	70-130	30	30			
Ethyl methacrylate	97-63-2	10	1.58	ug/kg	70-130	30	70-130	30	30			
Acrylonitrile	107-13-1	4	1.15	ug/kg	70-130	30	70-130	30	30			
Bromochloromethane	74-97-5	2	0.205	ug/kg	70-130	30	70-130	30	30			
Tetrahydrofuran	109-99-9	4	1.59	ug/kg	66-130	30	66-130	30	30			
2,2-Dichloropropane	594-20-7	2	0.202	ug/kg	70-130	30	70-130	30	30			
1,2-Dibromoethane	106-93-4	1	0.279	ug/kg	70-130	30	70-130	30	30			
1,3-Dichloropropane	142-28-9	2	0.167	ug/kg	69-130	30	69-130	30	30			
1,1,1,2-Tetrachloroethane	630-20-6	0.5	0.132	ug/kg	70-130	30	70-130	30	30			
Bromobenzene	108-86-1	2	0.145	ug/kg	70-130	30	70-130	30	30			
n-Butylbenzene	104-51-8	1	0.167	ug/kg	70-130	30	70-130	30	30			
sec-Butylbenzene	135-98-8	1	0.146	ug/kg	70-130	30	70-130	30	30			
tert-Butylbenzene	98-06-6	2	0.118	ug/kg	70-130	30	70-130	30	30			
1,3,5-Trichlorobenzene	108-70-3	2	0.173	ug/kg	70-130	30	70-130	30	30			
o-Chlorotoluene	95-49-8	2	0.191	ug/kg	70-130	30	70-130	30	30			
p-Chlorotoluene	106-43-4	2	0.108	ug/kg	70-130	30	70-130	30	30			
1,2-Dibromo-3-chloropropane	96-12-8	3	0.998	ug/kg	68-130	30	68-130	30	30			
Hexachlorobutadiene	87-68-3	4	0.169	ug/kg	67-130	30	67-130	30	30			
Isopropylbenzene	98-82-8	1	0.109	ug/kg	70-130	30	70-130	30	30			
p-Isopropyltoluene	99-87-6	1	0.109	ug/kg	70-130	30	70-130	30	30			
Naphthalene	91-20-3	4	0.650	ug/kg	70-130	30	70-130	30	30			
n-Propylbenzene	103-65-1	1	0.171	ug/kg	70-130	30	70-130	30	30			
1,2,3-Trichlorobenzene	87-61-6	2	0.322	ug/kg	70-130	30	70-130	30	30			
1,2,4-Trichlorobenzene	120-82-1	2	0.272	ug/kg	70-130	30	70-130	30	30			
1,3,5-Trimethylbenzene	108-67-8	2	0.193	ug/kg	70-130	30	70-130	30	30			
1,2,4-Trimethylbenzene	95-63-6	2	0.334	ug/kg	70-130	30	70-130	30	30			
trans-1,4-Dichloro-2-butene	110-57-6	5	1.42	ug/kg	70-130	30	70-130	30	30			
iso-Propyl Alcohol	67-63-0	100	100	ug/kg	70-130	20	70-130	20	20			
Ethyl ether	60-29-7	2	0.341	ug/kg	67-130	30	67-130	30	30			
Methyl Acetate	79-20-9	4	0.950	ug/kg	65-130	30	65-130	30	30			
Ethyl Acetate	141-78-6	10	1.21	ug/kg	70-130	30	70-130	30	30			
Isopropyl Ether	108-20-3	2	0.213	ug/kg	66-130	30	66-130	30	30			
Cyclohexane	110-82-7	10	0.544	ug/kg	70-130	30	70-130	30	30			

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Volatile Organics - EPA 8260C (SOIL-LOW)

Holding Time: 14 days

Container / Sample Preservation: 1 - Vial Large Septa unpreserved (4oz)

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Please Note that the RL information provided in this table is calculated using a 100% Solids factor. (Soil/Solids only)
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Volatile Organics - EPA 8260C (SOIL-HIGH)

Holding Time: 14 days
Container / Sample Preservation: 1 - Vial Large Septa unpreserved (4oz)

Analyte	CAS #	RL	MDL	Units	LCS Criteria	LCS RPD	MS Criteria	MS RPD	Duplicate RPD	Surrogate Criteria		
Methylene chloride	75-09-2	250	115	ug/kg	70-130	30	70-130	30	30			
1,1-Dichloroethane	75-34-3	50	7.25	ug/kg	70-130	30	70-130	30	30			
Chloroform	67-66-3	75	7.00	ug/kg	70-130	30	70-130	30	30			
Carbon tetrachloride	56-23-5	50	11.5	ug/kg	70-130	30	70-130	30	30			
1,2-Dichloropropane	78-87-5	50	6.25	ug/kg	70-130	30	70-130	30	30			
Dibromochloromethane	124-48-1	50	7.00	ug/kg	70-130	30	70-130	30	30			
1,1,2-Trichloroethane	79-00-5	50	13.4	ug/kg	70-130	30	70-130	30	30			
Tetrachloroethene	127-18-4	25	9.80	ug/kg	70-130	30	70-130	30	30			
Chlorobenzene	108-90-7	25	6.35	ug/kg	70-130	30	70-130	30	30			
Trichlorofluoromethane	75-69-4	200	34.8	ug/kg	70-139	30	70-139	30	30			
1,2-Dichloroethane	107-06-2	50	12.9	ug/kg	70-130	30	70-130	30	30			
1,1,1-Trichloroethane	71-55-6	25	8.35	ug/kg	70-130	30	70-130	30	30			
Bromodichloromethane	75-27-4	25	5.45	ug/kg	70-130	30	70-130	30	30			
trans-1,3-Dichloropropene	10061-02-6	50	13.7	ug/kg	70-130	30	70-130	30	30			
cis-1,3-Dichloropropene	10061-01-5	25	7.90	ug/kg	70-130	30	70-130	30	30			
1,3-Dichloropropene, Total	542-75-6	25	7.90	ug/kg				30	30			
1,3-Dichloropropene, Total	542-75-6	25	7.90	ug/kg				30	30			
1,1-Dichloropropene	563-58-6	25	7.95	ug/kg	70-130	30	70-130	30	30			
Bromoform	75-25-2	200	12.3	ug/kg	70-130	30	70-130	30	30			
1,1,2,2-Tetrachloroethane	79-34-5	25	8.30	ug/kg	70-130	30	70-130	30	30			
Benzene	71-43-2	25	8.30	ug/kg	70-130	30	70-130	30	30			
Toluene	108-88-3	50	27.2	ug/kg	70-130	30	70-130	30	30			
Ethylbenzene	100-41-4	50	7.05	ug/kg	70-130	30	70-130	30	30			
Chloromethane	74-87-3	200	46.6	ug/kg	52-130	30	52-130	30	30			
Bromomethane	74-83-9	100	29.1	ug/kg	57-147	30	57-147	30	30			
Vinyl chloride	75-01-4	50	16.8	ug/kg	67-130	30	67-130	30	30			
Chloroethane	75-00-3	100	22.6	ug/kg	50-151	30	50-151	30	30			
1,1-Dichloroethene	75-35-4	50	11.9	ug/kg	65-135	30	65-135	30	30			
trans-1,2-Dichloroethene	156-60-5	75	6.85	ug/kg	70-130	30	70-130	30	30			
Trichloroethene	79-01-6	25	6.85	ug/kg	70-130	30	70-130	30	30			
1,2-Dichlorobenzene	95-50-1	100	7.20	ug/kg	70-130	30	70-130	30	30			
1,3-Dichlorobenzene	541-73-1	100	7.40	ug/kg	70-130	30	70-130	30	30			
1,4-Dichlorobenzene	106-46-7	100	8.55	ug/kg	70-130	30	70-130	30	30			
Methyl tert butyl ether	1634-04-4	100	10.1	ug/kg	66-130	30	66-130	30	30			
p/m-Xylene	179601-23-1	100	28.0	ug/kg	70-130	30	70-130	30	30			
o-Xylene	95-47-6	50	14.6	ug/kg	70-130	30	70-130	30	30			
Xylene (Total)	1330-20-7	50	14.6	ug/kg				30	30			
Xylene (Total)	1330-20-7	50	14.6	ug/kg				30	30			
cis-1,2-Dichloroethene	156-59-2	50	8.75	ug/kg	70-130	30	70-130	30	30			
1,2-Dichloroethene (total)	540-59-0	50	6.85	ug/kg				30	30			
1,2-Dichloroethene (total)	540-59-0	50	6.85	ug/kg				30	30			
Dibromomethane	74-95-3	100	11.9	ug/kg	70-130	30	70-130	30	30			

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Volatile Organics - EPA 8260C (SOIL-HIGH)

Holding Time: 14 days
Container / Sample Preservation: 1 - Vial Large Septa unpreserved (4oz)

Analyte	CAS #	RL	MDL	Units	LCS Criteria	LCS RPD	MS Criteria	MS RPD	Duplicate RPD	Surrogate Criteria		
1,4-Dichlorobutane	110-56-5	500	11.3	ug/kg	70-130	30	70-130	30	30			
1,2,3-Trichloropropane	96-18-4	100	6.35	ug/kg	68-130	30	68-130	30	30			
Styrene	100-42-5	50	9.80	ug/kg	70-130	30	70-130	30	30			
Dichlorodifluoromethane	75-71-8	500	45.8	ug/kg	30-146	30	30-146	30	30			
Acetone	67-64-1	500	241	ug/kg	54-140	30	54-140	30	30			
Carbon disulfide	75-15-0	500	228	ug/kg	59-130	30	59-130	30	30			
2-Butanone	78-93-3	500	111	ug/kg	70-130	30	70-130	30	30			
Vinyl acetate	108-05-4	500	108	ug/kg	70-130	30	70-130	30	30			
4-Methyl-2-pentanone	108-10-1	500	64.0	ug/kg	70-130	30	70-130	30	30			
2-Hexanone	591-78-6	500	59.0	ug/kg	70-130	30	70-130	30	30			
Ethyl methacrylate	97-63-2	500	79.0	ug/kg	70-130	30	70-130	30	30			
Acrylonitrile	107-13-1	200	57.5	ug/kg	70-130	30	70-130	30	30			
Bromochloromethane	74-97-5	100	10.3	ug/kg	70-130	30	70-130	30	30			
Tetrahydrofuran	109-99-9	200	79.5	ug/kg	66-130	30	66-130	30	30			
2,2-Dichloropropane	594-20-7	100	10.1	ug/kg	70-130	30	70-130	30	30			
1,2-Dibromoethane	106-93-4	50	14.0	ug/kg	70-130	30	70-130	30	30			
1,3-Dichloropropane	142-28-9	100	8.35	ug/kg	69-130	30	69-130	30	30			
1,1,1,2-Tetrachloroethane	630-20-6	25	6.60	ug/kg	70-130	30	70-130	30	30			
Bromobenzene	108-86-1	100	7.25	ug/kg	70-130	30	70-130	30	30			
n-Butylbenzene	104-51-8	50	8.35	ug/kg	70-130	30	70-130	30	30			
sec-Butylbenzene	135-98-8	50	7.30	ug/kg	70-130	30	70-130	30	30			
tert-Butylbenzene	98-06-6	100	5.90	ug/kg	70-130	30	70-130	30	30			
1,3,5-Trichlorobenzene	108-70-3	100	8.65	ug/kg	70-130	30	70-130	30	30			
o-Chlorotoluene	95-49-8	100	9.55	ug/kg	70-130	30	70-130	30	30			
p-Chlorotoluene	106-43-4	100	5.40	ug/kg	70-130	30	70-130	30	30			
1,2-Dibromo-3-chloropropane	96-12-8	150	49.9	ug/kg	68-130	30	68-130	30	30			
Hexachlorobutadiene	87-68-3	200	8.45	ug/kg	67-130	30	67-130	30	30			
Isopropylbenzene	98-82-8	50	5.45	ug/kg	70-130	30	70-130	30	30			
p-Isopropyltoluene	99-87-6	50	5.45	ug/kg	70-130	30	70-130	30	30			
Naphthalene	91-20-3	200	32.5	ug/kg	70-130	30	70-130	30	30			
n-Propylbenzene	103-65-1	50	8.55	ug/kg	70-130	30	70-130	30	30			
1,2,3-Trichlorobenzene	87-61-6	100	16.1	ug/kg	70-130	30	70-130	30	30			
1,2,4-Trichlorobenzene	120-82-1	100	13.6	ug/kg	70-130	30	70-130	30	30			
1,3,5-Trimethylbenzene	108-67-8	100	9.65	ug/kg	70-130	30	70-130	30	30			
1,2,4-Trimethylbenzene	95-63-6	100	16.7	ug/kg	70-130	30	70-130	30	30			
trans-1,4-Dichloro-2-butene	110-57-6	250	71.0	ug/kg	70-130	30	70-130	30	30			
Iso-Propyl Alcohol	67-63-0	5000	5000	ug/kg	70-130	20	70-130	20	20			
Ethyl ether	60-29-7	100	17.1	ug/kg	67-130	30	67-130	30	30			
Methyl Acetate	79-20-9	200	47.5	ug/kg	65-130	30	65-130	30	30			
Ethyl Acetate	141-78-6	500	60.5	ug/kg	70-130	30	70-130	30	30			
Isopropyl Ether	108-20-3	100	10.7	ug/kg	66-130	30	66-130	30	30			
Cyclohexane	110-82-7	500	27.2	ug/kg	70-130	30	70-130	30	30			

Please Note that the RL information provided in this table is calculated using a 100% Solids factor. (Soil/Solids only)
Please Note that the information provided in this table is subject to change at anytime at the discretion of Alpha Analytical, Inc.



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Date Created: 06/19/18
Created By: Jason Hebert
File: PM5048-1
Page: 3

Volatile Organics - EPA 8260C (SOIL-HIGH)

Holding Time: 14 days

Container/Sample Preservation: 1 - Vial Large Septa unpreserved (4oz)

[illegible]

Please Note that the information provided in this table is subject to change at anytime at the discretion of Alpha Analytical, Inc.



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Volatiles Sample Data

Results Summary

Form 1

Volatile Organics by GC/MS

Client : Langan Engineering & Environmental
 Project Name : 432 RODNEY STREET
 Lab ID : L1954584-01
 Client ID : MW03_111419
 Sample Location : BROOKLYN, NY
 Sample Matrix : WATER
 Analytical Method : 1,8260C
 Lab File ID : V05191115A07
 Sample Amount : 10 ml
 Level : LOW
 Extract Volume (MeOH) : N/A

Lab Number : L1954584
 Project Number : 170357801
 Date Collected : 11/14/19 10:30
 Date Received : 11/14/19
 Date Analyzed : 11/15/19 09:15
 Dilution Factor : 1
 Analyst : PD
 Instrument ID : VOA105
 GC Column : RTX-502.2
 %Solids : N/A
 Injection Volume : N/A

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
75-09-2	Methylene chloride	ND	2.5	0.70	U
75-34-3	1,1-Dichloroethane	ND	2.5	0.70	U
67-66-3	Chloroform	3.2	2.5	0.70	
56-23-5	Carbon tetrachloride	ND	0.50	0.13	U
78-87-5	1,2-Dichloropropane	ND	1.0	0.14	U
124-48-1	Dibromochloromethane	ND	0.50	0.15	U
79-00-5	1,1,2-Trichloroethane	ND	1.5	0.50	U
127-18-4	Tetrachloroethene	ND	0.50	0.18	U
108-90-7	Chlorobenzene	ND	2.5	0.70	U
75-69-4	Trichlorofluoromethane	ND	2.5	0.70	U
107-06-2	1,2-Dichloroethane	ND	0.50	0.13	U
71-55-6	1,1,1-Trichloroethane	ND	2.5	0.70	U
75-27-4	Bromodichloromethane	ND	0.50	0.19	U
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.16	U
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.14	U
542-75-6	1,3-Dichloropropene, Total	ND	0.50	0.14	U
563-58-6	1,1-Dichloropropene	ND	2.5	0.70	U
75-25-2	Bromoform	ND	2.0	0.65	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.17	U
71-43-2	Benzene	ND	0.50	0.16	U
108-88-3	Toluene	ND	2.5	0.70	U
100-41-4	Ethylbenzene	ND	2.5	0.70	U
74-87-3	Chloromethane	ND	2.5	0.70	U
74-83-9	Bromomethane	2.7	2.5	0.70	
75-01-4	Vinyl chloride	2.2	1.0	0.07	



Results Summary

Form 1

Volatile Organics by GC/MS

Client : Langan Engineering & Environmental
 Project Name : 432 RODNEY STREET
 Lab ID : L1954584-01
 Client ID : MW03_111419
 Sample Location : BROOKLYN, NY
 Sample Matrix : WATER
 Analytical Method : 1,8260C
 Lab File ID : V05191115A07
 Sample Amount : 10 ml
 Level : LOW
 Extract Volume (MeOH) : N/A

Lab Number : L1954584
 Project Number : 170357801
 Date Collected : 11/14/19 10:30
 Date Received : 11/14/19
 Date Analyzed : 11/15/19 09:15
 Dilution Factor : 1
 Analyst : PD
 Instrument ID : VOA105
 GC Column : RTX-502.2
 %Solids : N/A
 Injection Volume : N/A

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
75-00-3	Chloroethane	ND	2.5	0.70	U
75-35-4	1,1-Dichloroethene	ND	0.50	0.17	U
156-60-5	trans-1,2-Dichloroethene	ND	2.5	0.70	U
79-01-6	Trichloroethene	0.31	0.50	0.18	J
95-50-1	1,2-Dichlorobenzene	ND	2.5	0.70	U
541-73-1	1,3-Dichlorobenzene	ND	2.5	0.70	U
106-46-7	1,4-Dichlorobenzene	ND	2.5	0.70	U
1634-04-4	Methyl tert butyl ether	ND	2.5	0.70	U
179601-23-1	p/m-Xylene	ND	2.5	0.70	U
95-47-6	o-Xylene	ND	2.5	0.70	U
1330-20-7	Xylenes, Total	ND	2.5	0.70	U
156-59-2	cis-1,2-Dichloroethene	32	2.5	0.70	
540-59-0	1,2-Dichloroethene, Total	32	2.5	0.70	
74-95-3	Dibromomethane	ND	5.0	1.0	U
96-18-4	1,2,3-Trichloropropane	ND	2.5	0.70	U
107-13-1	Acrylonitrile	ND	5.0	1.5	U
100-42-5	Styrene	ND	2.5	0.70	U
75-71-8	Dichlorodifluoromethane	ND	5.0	1.0	U
67-64-1	Acetone	ND	5.0	1.5	U
75-15-0	Carbon disulfide	ND	5.0	1.0	U
78-93-3	2-Butanone	ND	5.0	1.9	U
108-05-4	Vinyl acetate	ND	5.0	1.0	U
108-10-1	4-Methyl-2-pentanone	ND	5.0	1.0	U
591-78-6	2-Hexanone	ND	5.0	1.0	U
74-97-5	Bromochloromethane	ND	2.5	0.70	U



Results Summary

Form 1

Volatile Organics by GC/MS

Client : Langan Engineering & Environmental
 Project Name : 432 RODNEY STREET
 Lab ID : L1954584-01
 Client ID : MW03_111419
 Sample Location : BROOKLYN, NY
 Sample Matrix : WATER
 Analytical Method : 1,8260C
 Lab File ID : V05191115A07
 Sample Amount : 10 ml
 Level : LOW
 Extract Volume (MeOH) : N/A

Lab Number : L1954584
 Project Number : 170357801
 Date Collected : 11/14/19 10:30
 Date Received : 11/14/19
 Date Analyzed : 11/15/19 09:15
 Dilution Factor : 1
 Analyst : PD
 Instrument ID : VOA105
 GC Column : RTX-502.2
 %Solids : N/A
 Injection Volume : N/A

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
594-20-7	2,2-Dichloropropane	ND	2.5	0.70	U
106-93-4	1,2-Dibromoethane	ND	2.0	0.65	U
142-28-9	1,3-Dichloropropane	ND	2.5	0.70	U
630-20-6	1,1,1,2-Tetrachloroethane	ND	2.5	0.70	U
108-86-1	Bromobenzene	ND	2.5	0.70	U
104-51-8	n-Butylbenzene	ND	2.5	0.70	U
135-98-8	sec-Butylbenzene	ND	2.5	0.70	U
98-06-6	tert-Butylbenzene	ND	2.5	0.70	U
95-49-8	o-Chlorotoluene	ND	2.5	0.70	U
106-43-4	p-Chlorotoluene	ND	2.5	0.70	U
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.5	0.70	U
87-68-3	Hexachlorobutadiene	ND	2.5	0.70	U
98-82-8	Isopropylbenzene	ND	2.5	0.70	U
99-87-6	p-Isopropyltoluene	ND	2.5	0.70	U
91-20-3	Naphthalene	ND	2.5	0.70	U
103-65-1	n-Propylbenzene	ND	2.5	0.70	U
87-61-6	1,2,3-Trichlorobenzene	ND	2.5	0.70	U
120-82-1	1,2,4-Trichlorobenzene	ND	2.5	0.70	U
108-67-8	1,3,5-Trimethylbenzene	ND	2.5	0.70	U
95-63-6	1,2,4-Trimethylbenzene	ND	2.5	0.70	U
123-91-1	1,4-Dioxane	ND	250	61.	U
105-05-5	p-Diethylbenzene	ND	2.0	0.70	U
622-96-8	p-Ethyltoluene	ND	2.0	0.70	U
95-93-2	1,2,4,5-Tetramethylbenzene	ND	2.0	0.54	U
60-29-7	Ethyl ether	ND	2.5	0.70	U



Results Summary

Form 1

Volatile Organics by GC/MS

Client	: Langan Engineering & Environmental	Lab Number	: L1954584
Project Name	: 432 RODNEY STREET	Project Number	: 170357801
Lab ID	: L1954584-01	Date Collected	: 11/14/19 10:30
Client ID	: MW03_111419	Date Received	: 11/14/19
Sample Location	: BROOKLYN, NY	Date Analyzed	: 11/15/19 09:15
Sample Matrix	: WATER	Dilution Factor	: 1
Analytical Method	: 1,8260C	Analyst	: PD
Lab File ID	: V05191115A07	Instrument ID	: VOA105
Sample Amount	: 10 ml	GC Column	: RTX-502.2
Level	: LOW	%Solids	: N/A
Extract Volume (MeOH)	: N/A	Injection Volume	: N/A

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
110-57-6	trans-1,4-Dichloro-2-butene	ND	2.5	0.70	U

Results Summary

Form 1

Volatile Organics by GC/MS

Client : Langan Engineering & Environmental
 Project Name : 432 RODNEY STREET
 Lab ID : L1954584-02
 Client ID : MW07_111419
 Sample Location : BROOKLYN, NY
 Sample Matrix : WATER
 Analytical Method : 1,8260C
 Lab File ID : V05191115A08
 Sample Amount : 10 ml
 Level : LOW
 Extract Volume (MeOH) : N/A

Lab Number : L1954584
 Project Number : 170357801
 Date Collected : 11/14/19 15:30
 Date Received : 11/14/19
 Date Analyzed : 11/15/19 09:38
 Dilution Factor : 1
 Analyst : PD
 Instrument ID : VOA105
 GC Column : RTX-502.2
 %Solids : N/A
 Injection Volume : N/A

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
75-09-2	Methylene chloride	ND	2.5	0.70	U
75-34-3	1,1-Dichloroethane	ND	2.5	0.70	U
67-66-3	Chloroform	0.97	2.5	0.70	J
56-23-5	Carbon tetrachloride	ND	0.50	0.13	U
78-87-5	1,2-Dichloropropane	ND	1.0	0.14	U
124-48-1	Dibromochloromethane	ND	0.50	0.15	U
79-00-5	1,1,2-Trichloroethane	ND	1.5	0.50	U
127-18-4	Tetrachloroethene	ND	0.50	0.18	U
108-90-7	Chlorobenzene	ND	2.5	0.70	U
75-69-4	Trichlorofluoromethane	ND	2.5	0.70	U
107-06-2	1,2-Dichloroethane	ND	0.50	0.13	U
71-55-6	1,1,1-Trichloroethane	ND	2.5	0.70	U
75-27-4	Bromodichloromethane	ND	0.50	0.19	U
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.16	U
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.14	U
542-75-6	1,3-Dichloropropene, Total	ND	0.50	0.14	U
563-58-6	1,1-Dichloropropene	ND	2.5	0.70	U
75-25-2	Bromoform	ND	2.0	0.65	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.17	U
71-43-2	Benzene	ND	0.50	0.16	U
108-88-3	Toluene	ND	2.5	0.70	U
100-41-4	Ethylbenzene	ND	2.5	0.70	U
74-87-3	Chloromethane	ND	2.5	0.70	U
74-83-9	Bromomethane	ND	2.5	0.70	U
75-01-4	Vinyl chloride	ND	1.0	0.07	U



Results Summary

Form 1

Volatile Organics by GC/MS

Client : Langan Engineering & Environmental
 Project Name : 432 RODNEY STREET
 Lab ID : L1954584-02
 Client ID : MW07_111419
 Sample Location : BROOKLYN, NY
 Sample Matrix : WATER
 Analytical Method : 1,8260C
 Lab File ID : V05191115A08
 Sample Amount : 10 ml
 Level : LOW
 Extract Volume (MeOH) : N/A

Lab Number : L1954584
 Project Number : 170357801
 Date Collected : 11/14/19 15:30
 Date Received : 11/14/19
 Date Analyzed : 11/15/19 09:38
 Dilution Factor : 1
 Analyst : PD
 Instrument ID : VOA105
 GC Column : RTX-502.2
 %Solids : N/A
 Injection Volume : N/A

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
75-00-3	Chloroethane	ND	2.5	0.70	U
75-35-4	1,1-Dichloroethene	ND	0.50	0.17	U
156-60-5	trans-1,2-Dichloroethene	ND	2.5	0.70	U
79-01-6	Trichloroethene	ND	0.50	0.18	U
95-50-1	1,2-Dichlorobenzene	ND	2.5	0.70	U
541-73-1	1,3-Dichlorobenzene	ND	2.5	0.70	U
106-46-7	1,4-Dichlorobenzene	ND	2.5	0.70	U
1634-04-4	Methyl tert butyl ether	ND	2.5	0.70	U
179601-23-1	p/m-Xylene	ND	2.5	0.70	U
95-47-6	o-Xylene	ND	2.5	0.70	U
1330-20-7	Xylenes, Total	ND	2.5	0.70	U
156-59-2	cis-1,2-Dichloroethene	ND	2.5	0.70	U
540-59-0	1,2-Dichloroethene, Total	ND	2.5	0.70	U
74-95-3	Dibromomethane	ND	5.0	1.0	U
96-18-4	1,2,3-Trichloropropane	ND	2.5	0.70	U
107-13-1	Acrylonitrile	ND	5.0	1.5	U
100-42-5	Styrene	ND	2.5	0.70	U
75-71-8	Dichlorodifluoromethane	ND	5.0	1.0	U
67-64-1	Acetone	ND	5.0	1.5	U
75-15-0	Carbon disulfide	ND	5.0	1.0	U
78-93-3	2-Butanone	ND	5.0	1.9	U
108-05-4	Vinyl acetate	ND	5.0	1.0	U
108-10-1	4-Methyl-2-pentanone	ND	5.0	1.0	U
591-78-6	2-Hexanone	ND	5.0	1.0	U
74-97-5	Bromochloromethane	ND	2.5	0.70	U



Results Summary

Form 1

Volatile Organics by GC/MS

Client : Langan Engineering & Environmental
 Project Name : 432 RODNEY STREET
 Lab ID : L1954584-02
 Client ID : MW07_111419
 Sample Location : BROOKLYN, NY
 Sample Matrix : WATER
 Analytical Method : 1,8260C
 Lab File ID : V05191115A08
 Sample Amount : 10 ml
 Level : LOW
 Extract Volume (MeOH) : N/A

Lab Number : L1954584
 Project Number : 170357801
 Date Collected : 11/14/19 15:30
 Date Received : 11/14/19
 Date Analyzed : 11/15/19 09:38
 Dilution Factor : 1
 Analyst : PD
 Instrument ID : VOA105
 GC Column : RTX-502.2
 %Solids : N/A
 Injection Volume : N/A

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
594-20-7	2,2-Dichloropropane	ND	2.5	0.70	U
106-93-4	1,2-Dibromoethane	ND	2.0	0.65	U
142-28-9	1,3-Dichloropropane	ND	2.5	0.70	U
630-20-6	1,1,1,2-Tetrachloroethane	ND	2.5	0.70	U
108-86-1	Bromobenzene	ND	2.5	0.70	U
104-51-8	n-Butylbenzene	ND	2.5	0.70	U
135-98-8	sec-Butylbenzene	ND	2.5	0.70	U
98-06-6	tert-Butylbenzene	ND	2.5	0.70	U
95-49-8	o-Chlorotoluene	ND	2.5	0.70	U
106-43-4	p-Chlorotoluene	ND	2.5	0.70	U
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.5	0.70	U
87-68-3	Hexachlorobutadiene	ND	2.5	0.70	U
98-82-8	Isopropylbenzene	ND	2.5	0.70	U
99-87-6	p-Isopropyltoluene	ND	2.5	0.70	U
91-20-3	Naphthalene	ND	2.5	0.70	U
103-65-1	n-Propylbenzene	ND	2.5	0.70	U
87-61-6	1,2,3-Trichlorobenzene	ND	2.5	0.70	U
120-82-1	1,2,4-Trichlorobenzene	ND	2.5	0.70	U
108-67-8	1,3,5-Trimethylbenzene	ND	2.5	0.70	U
95-63-6	1,2,4-Trimethylbenzene	ND	2.5	0.70	U
123-91-1	1,4-Dioxane	ND	250	61.	U
105-05-5	p-Diethylbenzene	ND	2.0	0.70	U
622-96-8	p-Ethyltoluene	ND	2.0	0.70	U
95-93-2	1,2,4,5-Tetramethylbenzene	ND	2.0	0.54	U
60-29-7	Ethyl ether	ND	2.5	0.70	U



Results Summary

Form 1

Volatile Organics by GC/MS

Client	: Langan Engineering & Environmental	Lab Number	: L1954584
Project Name	: 432 RODNEY STREET	Project Number	: 170357801
Lab ID	: L1954584-02	Date Collected	: 11/14/19 15:30
Client ID	: MW07_111419	Date Received	: 11/14/19
Sample Location	: BROOKLYN, NY	Date Analyzed	: 11/15/19 09:38
Sample Matrix	: WATER	Dilution Factor	: 1
Analytical Method	: 1,8260C	Analyst	: PD
Lab File ID	: V05191115A08	Instrument ID	: VOA105
Sample Amount	: 10 ml	GC Column	: RTX-502.2
Level	: LOW	%Solids	: N/A
Extract Volume (MeOH)	: N/A	Injection Volume	: N/A

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
110-57-6	trans-1,4-Dichloro-2-butene	ND	2.5	0.70	U

Results Summary

Form 1

Volatile Organics by GC/MS

Client : Langan Engineering & Environmental
 Project Name : 432 RODNEY STREET
 Lab ID : L1954584-03
 Client ID : GWTB_111419
 Sample Location : BROOKLYN, NY
 Sample Matrix : WATER
 Analytical Method : 1,8260C
 Lab File ID : V05191115A06
 Sample Amount : 10 ml
 Level : LOW
 Extract Volume (MeOH) : N/A

Lab Number : L1954584
 Project Number : 170357801
 Date Collected : 11/13/19 00:00
 Date Received : 11/14/19
 Date Analyzed : 11/15/19 08:52
 Dilution Factor : 1
 Analyst : PD
 Instrument ID : VOA105
 GC Column : RTX-502.2
 %Solids : N/A
 Injection Volume : N/A

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
75-09-2	Methylene chloride	ND	2.5	0.70	U
75-34-3	1,1-Dichloroethane	ND	2.5	0.70	U
67-66-3	Chloroform	ND	2.5	0.70	U
56-23-5	Carbon tetrachloride	ND	0.50	0.13	U
78-87-5	1,2-Dichloropropane	ND	1.0	0.14	U
124-48-1	Dibromochloromethane	ND	0.50	0.15	U
79-00-5	1,1,2-Trichloroethane	ND	1.5	0.50	U
127-18-4	Tetrachloroethene	ND	0.50	0.18	U
108-90-7	Chlorobenzene	ND	2.5	0.70	U
75-69-4	Trichlorofluoromethane	ND	2.5	0.70	U
107-06-2	1,2-Dichloroethane	ND	0.50	0.13	U
71-55-6	1,1,1-Trichloroethane	ND	2.5	0.70	U
75-27-4	Bromodichloromethane	ND	0.50	0.19	U
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.16	U
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.14	U
542-75-6	1,3-Dichloropropene, Total	ND	0.50	0.14	U
563-58-6	1,1-Dichloropropene	ND	2.5	0.70	U
75-25-2	Bromoform	ND	2.0	0.65	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.17	U
71-43-2	Benzene	ND	0.50	0.16	U
108-88-3	Toluene	ND	2.5	0.70	U
100-41-4	Ethylbenzene	ND	2.5	0.70	U
74-87-3	Chloromethane	ND	2.5	0.70	U
74-83-9	Bromomethane	ND	2.5	0.70	U
75-01-4	Vinyl chloride	ND	1.0	0.07	U



Results Summary

Form 1

Volatile Organics by GC/MS

Client : Langan Engineering & Environmental
 Project Name : 432 RODNEY STREET
 Lab ID : L1954584-03
 Client ID : GWTB_111419
 Sample Location : BROOKLYN, NY
 Sample Matrix : WATER
 Analytical Method : 1,8260C
 Lab File ID : V05191115A06
 Sample Amount : 10 ml
 Level : LOW
 Extract Volume (MeOH) : N/A

Lab Number : L1954584
 Project Number : 170357801
 Date Collected : 11/13/19 00:00
 Date Received : 11/14/19
 Date Analyzed : 11/15/19 08:52
 Dilution Factor : 1
 Analyst : PD
 Instrument ID : VOA105
 GC Column : RTX-502.2
 %Solids : N/A
 Injection Volume : N/A

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
75-00-3	Chloroethane	ND	2.5	0.70	U
75-35-4	1,1-Dichloroethene	ND	0.50	0.17	U
156-60-5	trans-1,2-Dichloroethene	ND	2.5	0.70	U
79-01-6	Trichloroethene	ND	0.50	0.18	U
95-50-1	1,2-Dichlorobenzene	ND	2.5	0.70	U
541-73-1	1,3-Dichlorobenzene	ND	2.5	0.70	U
106-46-7	1,4-Dichlorobenzene	ND	2.5	0.70	U
1634-04-4	Methyl tert butyl ether	ND	2.5	0.70	U
179601-23-1	p/m-Xylene	ND	2.5	0.70	U
95-47-6	o-Xylene	ND	2.5	0.70	U
1330-20-7	Xylenes, Total	ND	2.5	0.70	U
156-59-2	cis-1,2-Dichloroethene	ND	2.5	0.70	U
540-59-0	1,2-Dichloroethene, Total	ND	2.5	0.70	U
74-95-3	Dibromomethane	ND	5.0	1.0	U
96-18-4	1,2,3-Trichloropropane	ND	2.5	0.70	U
107-13-1	Acrylonitrile	ND	5.0	1.5	U
100-42-5	Styrene	ND	2.5	0.70	U
75-71-8	Dichlorodifluoromethane	ND	5.0	1.0	U
67-64-1	Acetone	ND	5.0	1.5	U
75-15-0	Carbon disulfide	ND	5.0	1.0	U
78-93-3	2-Butanone	ND	5.0	1.9	U
108-05-4	Vinyl acetate	ND	5.0	1.0	U
108-10-1	4-Methyl-2-pentanone	ND	5.0	1.0	U
591-78-6	2-Hexanone	ND	5.0	1.0	U
74-97-5	Bromochloromethane	ND	2.5	0.70	U



Results Summary

Form 1

Volatile Organics by GC/MS

Client : Langan Engineering & Environmental
 Project Name : 432 RODNEY STREET
 Lab ID : L1954584-03
 Client ID : GWTB_111419
 Sample Location : BROOKLYN, NY
 Sample Matrix : WATER
 Analytical Method : 1,8260C
 Lab File ID : V05191115A06
 Sample Amount : 10 ml
 Level : LOW
 Extract Volume (MeOH) : N/A

Lab Number : L1954584
 Project Number : 170357801
 Date Collected : 11/13/19 00:00
 Date Received : 11/14/19
 Date Analyzed : 11/15/19 08:52
 Dilution Factor : 1
 Analyst : PD
 Instrument ID : VOA105
 GC Column : RTX-502.2
 %Solids : N/A
 Injection Volume : N/A

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
594-20-7	2,2-Dichloropropane	ND	2.5	0.70	U
106-93-4	1,2-Dibromoethane	ND	2.0	0.65	U
142-28-9	1,3-Dichloropropane	ND	2.5	0.70	U
630-20-6	1,1,1,2-Tetrachloroethane	ND	2.5	0.70	U
108-86-1	Bromobenzene	ND	2.5	0.70	U
104-51-8	n-Butylbenzene	ND	2.5	0.70	U
135-98-8	sec-Butylbenzene	ND	2.5	0.70	U
98-06-6	tert-Butylbenzene	ND	2.5	0.70	U
95-49-8	o-Chlorotoluene	ND	2.5	0.70	U
106-43-4	p-Chlorotoluene	ND	2.5	0.70	U
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.5	0.70	U
87-68-3	Hexachlorobutadiene	ND	2.5	0.70	U
98-82-8	Isopropylbenzene	ND	2.5	0.70	U
99-87-6	p-Isopropyltoluene	ND	2.5	0.70	U
91-20-3	Naphthalene	ND	2.5	0.70	U
103-65-1	n-Propylbenzene	ND	2.5	0.70	U
87-61-6	1,2,3-Trichlorobenzene	ND	2.5	0.70	U
120-82-1	1,2,4-Trichlorobenzene	ND	2.5	0.70	U
108-67-8	1,3,5-Trimethylbenzene	ND	2.5	0.70	U
95-63-6	1,2,4-Trimethylbenzene	ND	2.5	0.70	U
123-91-1	1,4-Dioxane	ND	250	61.	U
105-05-5	p-Diethylbenzene	ND	2.0	0.70	U
622-96-8	p-Ethyltoluene	ND	2.0	0.70	U
95-93-2	1,2,4,5-Tetramethylbenzene	ND	2.0	0.54	U
60-29-7	Ethyl ether	ND	2.5	0.70	U



Results Summary

Form 1

Volatile Organics by GC/MS

Client : Langan Engineering & Environmental
 Project Name : 432 RODNEY STREET
 Lab ID : L1954584-03
 Client ID : GWTB_111419
 Sample Location : BROOKLYN, NY
 Sample Matrix : WATER
 Analytical Method : 1,8260C
 Lab File ID : V05191115A06
 Sample Amount : 10 ml
 Level : LOW
 Extract Volume (MeOH) : N/A

Lab Number : L1954584
 Project Number : 170357801
 Date Collected : 11/13/19 00:00
 Date Received : 11/14/19
 Date Analyzed : 11/15/19 08:52
 Dilution Factor : 1
 Analyst : PD
 Instrument ID : VOA105
 GC Column : RTX-502.2
 %Solids : N/A
 Injection Volume : N/A

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
110-57-6	trans-1,4-Dichloro-2-butene	ND	2.5	0.70	U



Results Summary

Form 1

Volatile Organics by GC/MS

Client : Langan Engineering & Environmental
 Project Name : 432 RODNEY STREET
 Lab ID : L1954584-04
 Client ID : MW06_111419
 Sample Location : BROOKLYN, NY
 Sample Matrix : WATER
 Analytical Method : 1,8260C
 Lab File ID : V05191115A09
 Sample Amount : 10 ml
 Level : LOW
 Extract Volume (MeOH) : N/A

Lab Number : L1954584
 Project Number : 170357801
 Date Collected : 11/14/19 16:30
 Date Received : 11/14/19
 Date Analyzed : 11/15/19 10:01
 Dilution Factor : 1
 Analyst : PD
 Instrument ID : VOA105
 GC Column : RTX-502.2
 %Solids : N/A
 Injection Volume : N/A

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
75-09-2	Methylene chloride	ND	2.5	0.70	U
75-34-3	1,1-Dichloroethane	ND	2.5	0.70	U
67-66-3	Chloroform	ND	2.5	0.70	U
56-23-5	Carbon tetrachloride	ND	0.50	0.13	U
78-87-5	1,2-Dichloropropane	ND	1.0	0.14	U
124-48-1	Dibromochloromethane	ND	0.50	0.15	U
79-00-5	1,1,2-Trichloroethane	ND	1.5	0.50	U
127-18-4	Tetrachloroethene	ND	0.50	0.18	U
108-90-7	Chlorobenzene	ND	2.5	0.70	U
75-69-4	Trichlorofluoromethane	ND	2.5	0.70	U
107-06-2	1,2-Dichloroethane	ND	0.50	0.13	U
71-55-6	1,1,1-Trichloroethane	ND	2.5	0.70	U
75-27-4	Bromodichloromethane	ND	0.50	0.19	U
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.16	U
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.14	U
542-75-6	1,3-Dichloropropene, Total	ND	0.50	0.14	U
563-58-6	1,1-Dichloropropene	ND	2.5	0.70	U
75-25-2	Bromoform	ND	2.0	0.65	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.17	U
71-43-2	Benzene	ND	0.50	0.16	U
108-88-3	Toluene	ND	2.5	0.70	U
100-41-4	Ethylbenzene	ND	2.5	0.70	U
74-87-3	Chloromethane	ND	2.5	0.70	U
74-83-9	Bromomethane	ND	2.5	0.70	U
75-01-4	Vinyl chloride	0.20	1.0	0.07	J



Results Summary

Form 1

Volatile Organics by GC/MS

Client : Langan Engineering & Environmental
 Project Name : 432 RODNEY STREET
 Lab ID : L1954584-04
 Client ID : MW06_111419
 Sample Location : BROOKLYN, NY
 Sample Matrix : WATER
 Analytical Method : 1,8260C
 Lab File ID : V05191115A09
 Sample Amount : 10 ml
 Level : LOW
 Extract Volume (MeOH) : N/A

Lab Number : L1954584
 Project Number : 170357801
 Date Collected : 11/14/19 16:30
 Date Received : 11/14/19
 Date Analyzed : 11/15/19 10:01
 Dilution Factor : 1
 Analyst : PD
 Instrument ID : VOA105
 GC Column : RTX-502.2
 %Solids : N/A
 Injection Volume : N/A

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
75-00-3	Chloroethane	ND	2.5	0.70	U
75-35-4	1,1-Dichloroethene	ND	0.50	0.17	U
156-60-5	trans-1,2-Dichloroethene	ND	2.5	0.70	U
79-01-6	Trichloroethene	ND	0.50	0.18	U
95-50-1	1,2-Dichlorobenzene	ND	2.5	0.70	U
541-73-1	1,3-Dichlorobenzene	ND	2.5	0.70	U
106-46-7	1,4-Dichlorobenzene	ND	2.5	0.70	U
1634-04-4	Methyl tert butyl ether	ND	2.5	0.70	U
179601-23-1	p/m-Xylene	ND	2.5	0.70	U
95-47-6	o-Xylene	ND	2.5	0.70	U
1330-20-7	Xylenes, Total	ND	2.5	0.70	U
156-59-2	cis-1,2-Dichloroethene	ND	2.5	0.70	U
540-59-0	1,2-Dichloroethene, Total	ND	2.5	0.70	U
74-95-3	Dibromomethane	ND	5.0	1.0	U
96-18-4	1,2,3-Trichloropropane	ND	2.5	0.70	U
107-13-1	Acrylonitrile	ND	5.0	1.5	U
100-42-5	Styrene	ND	2.5	0.70	U
75-71-8	Dichlorodifluoromethane	ND	5.0	1.0	U
67-64-1	Acetone	ND	5.0	1.5	U
75-15-0	Carbon disulfide	ND	5.0	1.0	U
78-93-3	2-Butanone	ND	5.0	1.9	U
108-05-4	Vinyl acetate	ND	5.0	1.0	U
108-10-1	4-Methyl-2-pentanone	ND	5.0	1.0	U
591-78-6	2-Hexanone	ND	5.0	1.0	U
74-97-5	Bromochloromethane	ND	2.5	0.70	U



Results Summary

Form 1

Volatile Organics by GC/MS

Client : Langan Engineering & Environmental
 Project Name : 432 RODNEY STREET
 Lab ID : L1954584-04
 Client ID : MW06_111419
 Sample Location : BROOKLYN, NY
 Sample Matrix : WATER
 Analytical Method : 1,8260C
 Lab File ID : V05191115A09
 Sample Amount : 10 ml
 Level : LOW
 Extract Volume (MeOH) : N/A

Lab Number : L1954584
 Project Number : 170357801
 Date Collected : 11/14/19 16:30
 Date Received : 11/14/19
 Date Analyzed : 11/15/19 10:01
 Dilution Factor : 1
 Analyst : PD
 Instrument ID : VOA105
 GC Column : RTX-502.2
 %Solids : N/A
 Injection Volume : N/A

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
594-20-7	2,2-Dichloropropane	ND	2.5	0.70	U
106-93-4	1,2-Dibromoethane	ND	2.0	0.65	U
142-28-9	1,3-Dichloropropane	ND	2.5	0.70	U
630-20-6	1,1,1,2-Tetrachloroethane	ND	2.5	0.70	U
108-86-1	Bromobenzene	ND	2.5	0.70	U
104-51-8	n-Butylbenzene	ND	2.5	0.70	U
135-98-8	sec-Butylbenzene	ND	2.5	0.70	U
98-06-6	tert-Butylbenzene	ND	2.5	0.70	U
95-49-8	o-Chlorotoluene	ND	2.5	0.70	U
106-43-4	p-Chlorotoluene	ND	2.5	0.70	U
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.5	0.70	U
87-68-3	Hexachlorobutadiene	ND	2.5	0.70	U
98-82-8	Isopropylbenzene	ND	2.5	0.70	U
99-87-6	p-Isopropyltoluene	ND	2.5	0.70	U
91-20-3	Naphthalene	ND	2.5	0.70	U
103-65-1	n-Propylbenzene	ND	2.5	0.70	U
87-61-6	1,2,3-Trichlorobenzene	ND	2.5	0.70	U
120-82-1	1,2,4-Trichlorobenzene	ND	2.5	0.70	U
108-67-8	1,3,5-Trimethylbenzene	ND	2.5	0.70	U
95-63-6	1,2,4-Trimethylbenzene	ND	2.5	0.70	U
123-91-1	1,4-Dioxane	ND	250	61.	U
105-05-5	p-Diethylbenzene	ND	2.0	0.70	U
622-96-8	p-Ethyltoluene	ND	2.0	0.70	U
95-93-2	1,2,4,5-Tetramethylbenzene	ND	2.0	0.54	U
60-29-7	Ethyl ether	ND	2.5	0.70	U



Results Summary

Form 1

Volatile Organics by GC/MS

Client : Langan Engineering & Environmental
 Project Name : 432 RODNEY STREET
 Lab ID : L1954584-04
 Client ID : MW06_111419
 Sample Location : BROOKLYN, NY
 Sample Matrix : WATER
 Analytical Method : 1,8260C
 Lab File ID : V05191115A09
 Sample Amount : 10 ml
 Level : LOW
 Extract Volume (MeOH) : N/A

Lab Number : L1954584
 Project Number : 170357801
 Date Collected : 11/14/19 16:30
 Date Received : 11/14/19
 Date Analyzed : 11/15/19 10:01
 Dilution Factor : 1
 Analyst : PD
 Instrument ID : VOA105
 GC Column : RTX-502.2
 %Solids : N/A
 Injection Volume : N/A

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
110-57-6	trans-1,4-Dichloro-2-butene	ND	2.5	0.70	U



Results Summary

Form 1

Volatile Organics by GC/MS

Client : Langan Engineering & Environmental
 Project Name : 432 RODNEY STREET
 Lab ID : WG1309356-5
 Client ID : WG1309356-5BLANK
 Sample Location :
 Sample Matrix : WATER
 Analytical Method : 1,8260C
 Lab File ID : V05191115A05
 Sample Amount : 10 ml
 Level : LOW
 Extract Volume (MeOH) : N/A

Lab Number : L1954584
 Project Number : 170357801
 Date Collected : NA
 Date Received : NA
 Date Analyzed : 11/15/19 08:29
 Dilution Factor : 1
 Analyst : PD
 Instrument ID : VOA105
 GC Column : RTX-502.2
 %Solids : N/A
 Injection Volume : N/A

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
75-09-2	Methylene chloride	ND	2.5	0.70	U
75-34-3	1,1-Dichloroethane	ND	2.5	0.70	U
67-66-3	Chloroform	ND	2.5	0.70	U
56-23-5	Carbon tetrachloride	ND	0.50	0.13	U
78-87-5	1,2-Dichloropropane	ND	1.0	0.14	U
124-48-1	Dibromochloromethane	ND	0.50	0.15	U
79-00-5	1,1,2-Trichloroethane	ND	1.5	0.50	U
127-18-4	Tetrachloroethene	ND	0.50	0.18	U
108-90-7	Chlorobenzene	ND	2.5	0.70	U
75-69-4	Trichlorofluoromethane	ND	2.5	0.70	U
107-06-2	1,2-Dichloroethane	ND	0.50	0.13	U
71-55-6	1,1,1-Trichloroethane	ND	2.5	0.70	U
75-27-4	Bromodichloromethane	ND	0.50	0.19	U
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	0.16	U
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	0.14	U
542-75-6	1,3-Dichloropropene, Total	ND	0.50	0.14	U
563-58-6	1,1-Dichloropropene	ND	2.5	0.70	U
75-25-2	Bromoform	ND	2.0	0.65	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	0.17	U
71-43-2	Benzene	ND	0.50	0.16	U
108-88-3	Toluene	ND	2.5	0.70	U
100-41-4	Ethylbenzene	ND	2.5	0.70	U
74-87-3	Chloromethane	ND	2.5	0.70	U
74-83-9	Bromomethane	ND	2.5	0.70	U
75-01-4	Vinyl chloride	ND	1.0	0.07	U



Results Summary

Form 1

Volatile Organics by GC/MS

Client : Langan Engineering & Environmental
 Project Name : 432 RODNEY STREET
 Lab ID : WG1309356-5
 Client ID : WG1309356-5BLANK
 Sample Location :
 Sample Matrix : WATER
 Analytical Method : 1,8260C
 Lab File ID : V05191115A05
 Sample Amount : 10 ml
 Level : LOW
 Extract Volume (MeOH) : N/A

Lab Number : L1954584
 Project Number : 170357801
 Date Collected : NA
 Date Received : NA
 Date Analyzed : 11/15/19 08:29
 Dilution Factor : 1
 Analyst : PD
 Instrument ID : VOA105
 GC Column : RTX-502.2
 %Solids : N/A
 Injection Volume : N/A

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
75-00-3	Chloroethane	ND	2.5	0.70	U
75-35-4	1,1-Dichloroethene	ND	0.50	0.17	U
156-60-5	trans-1,2-Dichloroethene	ND	2.5	0.70	U
79-01-6	Trichloroethene	ND	0.50	0.18	U
95-50-1	1,2-Dichlorobenzene	ND	2.5	0.70	U
541-73-1	1,3-Dichlorobenzene	ND	2.5	0.70	U
106-46-7	1,4-Dichlorobenzene	ND	2.5	0.70	U
1634-04-4	Methyl tert butyl ether	ND	2.5	0.70	U
179601-23-1	p/m-Xylene	ND	2.5	0.70	U
95-47-6	o-Xylene	ND	2.5	0.70	U
1330-20-7	Xylenes, Total	ND	2.5	0.70	U
156-59-2	cis-1,2-Dichloroethene	ND	2.5	0.70	U
540-59-0	1,2-Dichloroethene, Total	ND	2.5	0.70	U
74-95-3	Dibromomethane	ND	5.0	1.0	U
96-18-4	1,2,3-Trichloropropane	ND	2.5	0.70	U
107-13-1	Acrylonitrile	ND	5.0	1.5	U
100-42-5	Styrene	ND	2.5	0.70	U
75-71-8	Dichlorodifluoromethane	ND	5.0	1.0	U
67-64-1	Acetone	ND	5.0	1.5	U
75-15-0	Carbon disulfide	ND	5.0	1.0	U
78-93-3	2-Butanone	ND	5.0	1.9	U
108-05-4	Vinyl acetate	ND	5.0	1.0	U
108-10-1	4-Methyl-2-pentanone	ND	5.0	1.0	U
591-78-6	2-Hexanone	ND	5.0	1.0	U
74-97-5	Bromochloromethane	ND	2.5	0.70	U



Results Summary

Form 1

Volatile Organics by GC/MS

Client : Langan Engineering & Environmental
 Project Name : 432 RODNEY STREET
 Lab ID : WG1309356-5
 Client ID : WG1309356-5BLANK
 Sample Location :
 Sample Matrix : WATER
 Analytical Method : 1,8260C
 Lab File ID : V05191115A05
 Sample Amount : 10 ml
 Level : LOW
 Extract Volume (MeOH) : N/A

Lab Number : L1954584
 Project Number : 170357801
 Date Collected : NA
 Date Received : NA
 Date Analyzed : 11/15/19 08:29
 Dilution Factor : 1
 Analyst : PD
 Instrument ID : VOA105
 GC Column : RTX-502.2
 %Solids : N/A
 Injection Volume : N/A

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
594-20-7	2,2-Dichloropropane	ND	2.5	0.70	U
106-93-4	1,2-Dibromoethane	ND	2.0	0.65	U
142-28-9	1,3-Dichloropropane	ND	2.5	0.70	U
630-20-6	1,1,1,2-Tetrachloroethane	ND	2.5	0.70	U
108-86-1	Bromobenzene	ND	2.5	0.70	U
104-51-8	n-Butylbenzene	ND	2.5	0.70	U
135-98-8	sec-Butylbenzene	ND	2.5	0.70	U
98-06-6	tert-Butylbenzene	ND	2.5	0.70	U
95-49-8	o-Chlorotoluene	ND	2.5	0.70	U
106-43-4	p-Chlorotoluene	ND	2.5	0.70	U
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.5	0.70	U
87-68-3	Hexachlorobutadiene	ND	2.5	0.70	U
98-82-8	Isopropylbenzene	ND	2.5	0.70	U
99-87-6	p-Isopropyltoluene	ND	2.5	0.70	U
91-20-3	Naphthalene	ND	2.5	0.70	U
103-65-1	n-Propylbenzene	ND	2.5	0.70	U
87-61-6	1,2,3-Trichlorobenzene	ND	2.5	0.70	U
120-82-1	1,2,4-Trichlorobenzene	ND	2.5	0.70	U
108-67-8	1,3,5-Trimethylbenzene	ND	2.5	0.70	U
95-63-6	1,2,4-Trimethylbenzene	ND	2.5	0.70	U
123-91-1	1,4-Dioxane	ND	250	61.	U
105-05-5	p-Diethylbenzene	ND	2.0	0.70	U
622-96-8	p-Ethyltoluene	ND	2.0	0.70	U
95-93-2	1,2,4,5-Tetramethylbenzene	ND	2.0	0.54	U
60-29-7	Ethyl ether	ND	2.5	0.70	U



Results Summary

Form 1

Volatile Organics by GC/MS

Client : Langan Engineering & Environmental
 Project Name : 432 RODNEY STREET
 Lab ID : WG1309356-5
 Client ID : WG1309356-5BLANK
 Sample Location :
 Sample Matrix : WATER
 Analytical Method : 1,8260C
 Lab File ID : V05191115A05
 Sample Amount : 10 ml
 Level : LOW
 Extract Volume (MeOH) : N/A

Lab Number : L1954584
 Project Number : 170357801
 Date Collected : NA
 Date Received : NA
 Date Analyzed : 11/15/19 08:29
 Dilution Factor : 1
 Analyst : PD
 Instrument ID : VOA105
 GC Column : RTX-502.2
 %Solids : N/A
 Injection Volume : N/A

CAS NO.	Parameter	ug/L			Qualifier
		Results	RL	MDL	
110-57-6	trans-1,4-Dichloro-2-butene	ND	2.5	0.70	U



Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\VOA105\2019\191115A\
 Data File : V05191115A06.d
 Acq On : 15 Nov 2019 8:52 am
 Operator : VOA105:PD
 Sample : 11954584-03,31,10,10,,a
 Misc : WG1309356,ICAL16159 (Sig #1); WG,ICAL16159 (Sig #2)
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: Nov 15 12:04:55 2019
 Quant Method : I:\VOLATILES\VOA105\2019\191115A\V105_190921_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Mon Sep 23 12:05:21 2019
 Response via : Initial Calibration

CCAL FILE(s) : 1 - I:\VOLATILES\VOA105\2019\191115A\V05191115A02.d
 Sub List : 8260-NYTCL - Megamix plus Diox

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

Internal Standards						
1) Fluorobenzene	6.085	96	519785	10.000	ug/L	0.00
Standard Area 1 = 547837			Recovery =	94.88%		
59) Chlorobenzene-d5	9.618	117	417528	10.000	ug/L	0.00
Standard Area 1 = 453564			Recovery =	92.05%		
79) 1,4-Dichlorobenzene-d4	12.302	152	224537	10.000	ug/L	0.00
Standard Area 1 = 259117			Recovery =	86.65%		
System Monitoring Compounds						
36) Dibromofluoromethane	5.283	113	150844	10.694	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	106.94%		
43) 1,2-Dichloroethane-d4	5.811	65	170691	9.505	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	95.05%		
60) Toluene-d8	7.777	98	520496	9.547	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	95.47%		
83) 4-Bromofluorobenzene	11.107	95	192257	8.709	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	87.09%		
Target Compounds						
						Qvalue
2) Dichlorodifluoromethane	0.000		0	N.D.		
3) Chloromethane	0.000		0	N.D.	d	
4) Vinyl chloride	0.000		0	N.D.		
5) Bromomethane	2.290	94	603	0.117	ug/L #	56
6) Chloroethane	0.000		0	N.D.	d	
7) Trichlorofluoromethane	0.000		0	N.D.		
8) Ethyl ether	0.000		0	N.D.		
10) 1,1-Dichloroethene	0.000		0	N.D.		
11) Carbon disulfide	3.063	76	1392	N.D.		
15) Methylene chloride	0.000		0	N.D.		
17) Acetone	0.000		0	N.D.	d	
18) trans-1,2-Dichloroethene	0.000		0	N.D.		
20) Methyl tert-butyl ether	0.000		0	N.D.		
23) 1,1-Dichloroethane	0.000		0	N.D.		
25) Acrylonitrile	0.000		0	N.D.		
27) Vinyl acetate	0.000		0	N.D.		
28) cis-1,2-Dichloroethene	0.000		0	N.D.		
29) 2,2-Dichloropropane	0.000		0	N.D.		
30) Bromochloromethane	0.000		0	N.D.		
32) Chloroform	0.000		0	N.D.		

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\VOA105\2019\191115A\
 Data File : V05191115A06.d
 Acq On : 15 Nov 2019 8:52 am
 Operator : VOA105:PD
 Sample : 11954584-03,31,10,10,,a
 Misc : WG1309356,ICAL16159 (Sig #1); WG,ICAL16159 (Sig #2)
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: Nov 15 12:04:55 2019
 Quant Method : I:\VOLATILES\VOA105\2019\191115A\V105_190921_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Mon Sep 23 12:05:21 2019
 Response via : Initial Calibration

CCAL FILE(s) : 1 - I:\VOLATILES\VOA105\2019\191115A\V05191115A02.d
 Sub List : 8260-NYTCL - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
34) Carbon tetrachloride	0.000		0		N.D.	
37) 1,1,1-Trichloroethane	0.000		0		N.D.	
39) 2-Butanone	0.000		0		N.D.	
40) 1,1-Dichloropropene	0.000		0		N.D.	
41) Benzene	5.675	78	387		N.D.	
44) 1,2-Dichloroethane	5.890	62	310		N.D.	
48) Trichloroethene	6.261	95	221		N.D.	
50) Dibromomethane	0.000		0		N.D.	
51) 1,2-Dichloropropane	0.000		0		N.D.	
54) Bromodichloromethane	0.000		0		N.D.	
57) 1,4-Dioxane	0.000		0		N.D.	
58) cis-1,3-Dichloropropene	0.000		0		N.D.	
61) Toluene	7.836	92	445		N.D.	
62) 4-Methyl-2-pentanone	0.000		0		N.D.	
63) Tetrachloroethene	0.000		0		N.D.	
65) trans-1,3-Dichloropropene	0.000		0		N.D.	
68) 1,1,2-Trichloroethane	0.000		0		N.D.	
69) Chlorodibromomethane	0.000		0		N.D.	
70) 1,3-Dichloropropane	0.000		0		N.D.	
71) 1,2-Dibromoethane	0.000		0		N.D.	
72) 2-Hexanone	0.000		0		N.D.	
73) Chlorobenzene	0.000		0		N.D.	
74) Ethylbenzene	9.618	91	685		N.D.	
75) 1,1,1,2-Tetrachloroethane	0.000		0		N.D.	
76) p/m Xylene	0.000		0		N.D.	
77) o Xylene	0.000		0		N.D.	
78) Styrene	0.000		0		N.D.	
80) Bromoform	0.000		0		N.D.	
82) Isopropylbenzene	0.000		0		N.D.	
84) Bromobenzene	0.000		0		N.D.	
85) n-Propylbenzene	11.254	91	224		N.D.	
87) 1,1,2,2-Tetrachloroethane	0.000		0		N.D.	
88) 4-Ethyltoluene	11.391	105	113		N.D.	
89) 2-Chlorotoluene	11.254	91	224		N.D.	
90) 1,3,5-Trimethylbenzene	11.469	105	90		N.D.	
91) 1,2,3-Trichloropropane	0.000		0		N.D.	
92) trans-1,4-Dichloro-2-b...	0.000		0		N.D.	
93) 4-Chlorotoluene	0.000		0		N.D.	
94) tert-Butylbenzene	11.812	119	107		N.D.	

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\VOA105\2019\191115A\
 Data File : V05191115A06.d
 Acq On : 15 Nov 2019 8:52 am
 Operator : VOA105:PD
 Sample : 11954584-03,31,10,10,,a
 Misc : WG1309356,ICAL16159 (Sig #1); WG,ICAL16159 (Sig #2)
 ALS Vial : 6 Sample Multiplier: 1

Quant Time: Nov 15 12:04:55 2019
 Quant Method : I:\VOLATILES\VOA105\2019\191115A\V105_190921_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Mon Sep 23 12:05:21 2019
 Response via : Initial Calibration

CCAL FILE(s) : 1 - I:\VOLATILES\VOA105\2019\191115A\V05191115A02.d
 Sub List : 8260-NYTCL - Megamix plus Diox

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
97)	1,2,4-Trimethylbenzene	11.998	105	123	N.D.		
98)	sec-Butylbenzene	11.998	105	123	N.D.		
99)	p-Isopropyltoluene	12.155	119	296	N.D.		
100)	1,3-Dichlorobenzene	12.233	146	112	N.D.		
101)	1,4-Dichlorobenzene	12.321	146	538	N.D.		
102)	p-Diethylbenzene	12.527	119	125	N.D.		
103)	n-Butylbenzene	12.586	91	561	N.D.		
104)	1,2-Dichlorobenzene	12.762	146	323	N.D.		
105)	1,2,4,5-Tetramethylben...	13.321	119	422	N.D.		
106)	1,2-Dibromo-3-chloropr...	0.000		0	N.D.		
108)	Hexachlorobutadiene	14.114	225	318	N.D.		
109)	1,2,4-Trichlorobenzene	14.163	180	652	N.D.		
110)	Naphthalene	14.447	128	1186	0.072	ug/L	100
111)	1,2,3-Trichlorobenzene	14.604	180	853	0.101	ug/L #	93

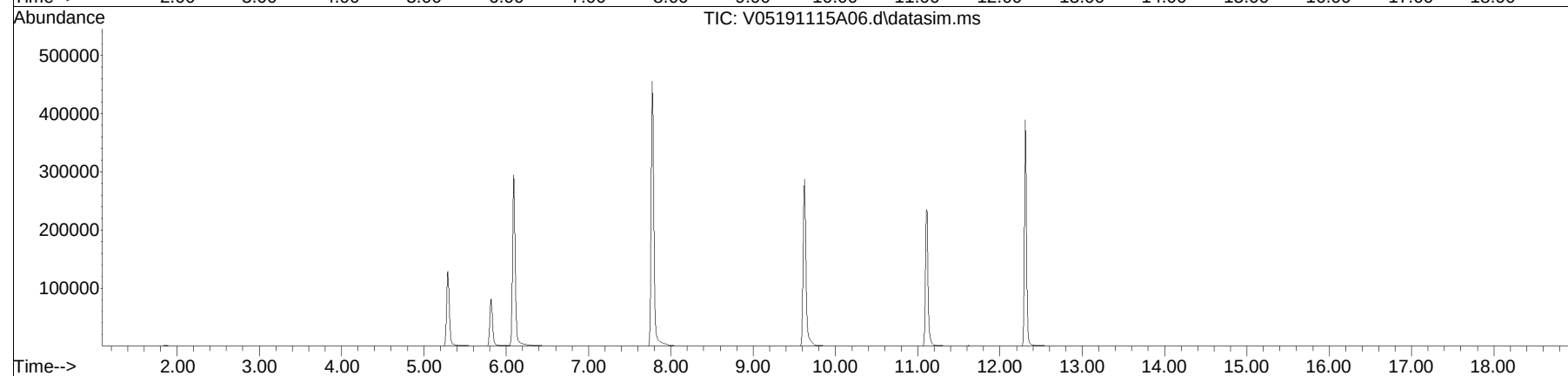
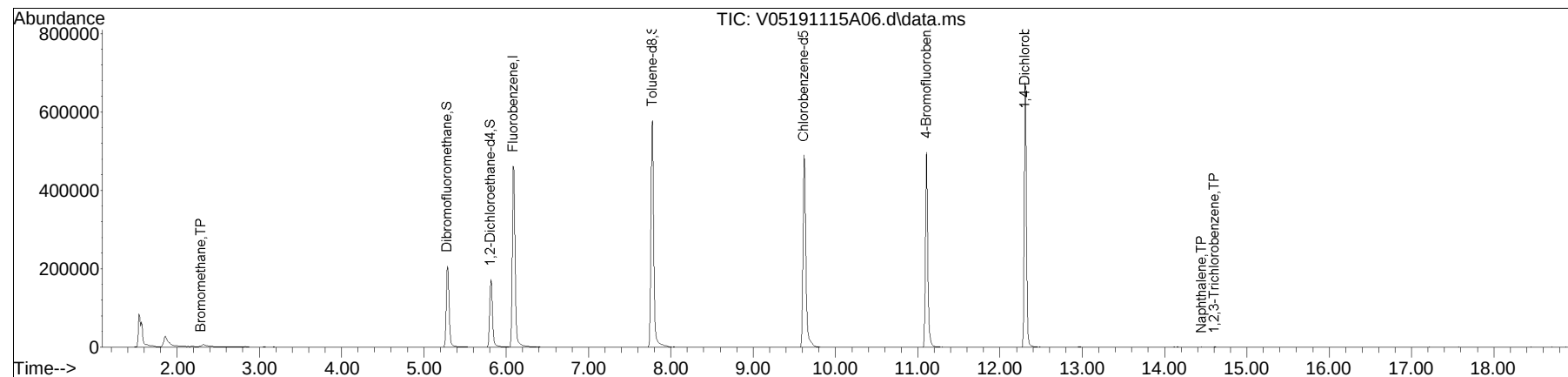
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\VOA105\2019\191115A\
 Data File : V05191115A06.d
 Acq On : 15 Nov 2019 8:52 am
 Operator : VOA105:PD
 Sample : l1954584-03,31,10,10,,a
 Misc : WG1309356,ICAL16159 (Sig #1); WG,ICAL16159 (Sig #2)
 ALS Vial : 6 Sample Multiplier: 1

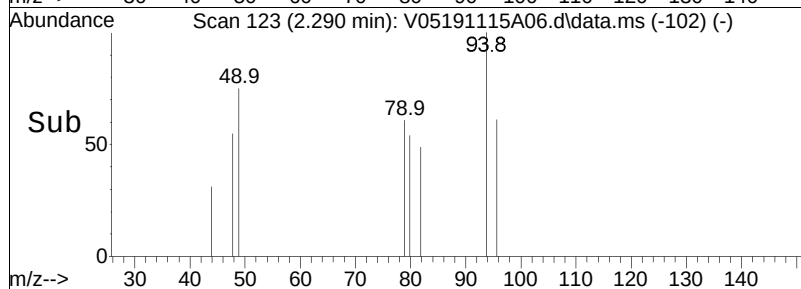
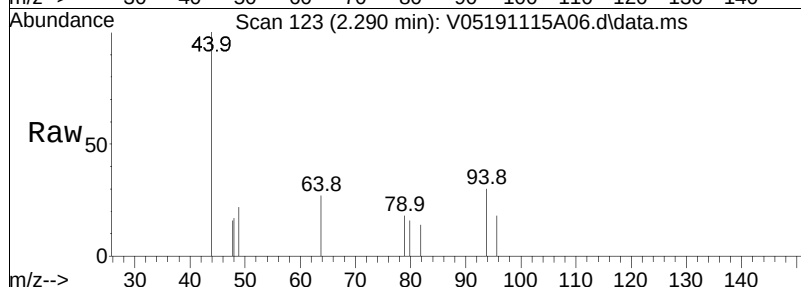
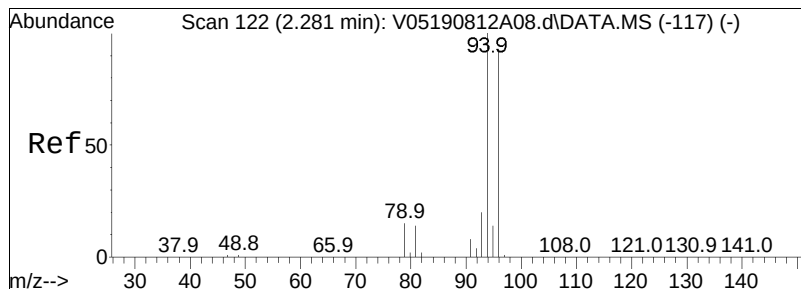
Quant Time: Nov 15 12:04:55 2019
 Quant Method : I:\VOLATILES\VOA105\2019\191115A\V105_190921_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Mon Sep 23 12:05:21 2019
 Response via : Initial Calibration

Sub List : 8260-NYTCL - Megamix plus Diox91115A\V05191115A02.d•



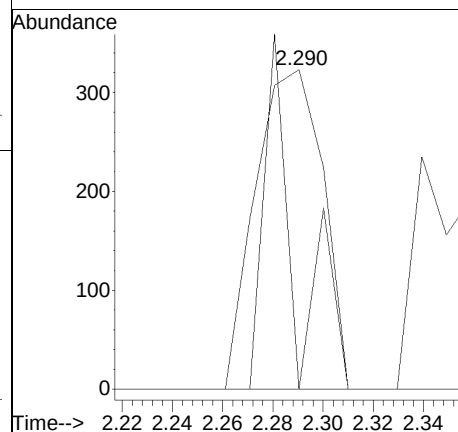
V105_190921_8260.m Fri Nov 15 12:54:59 2019

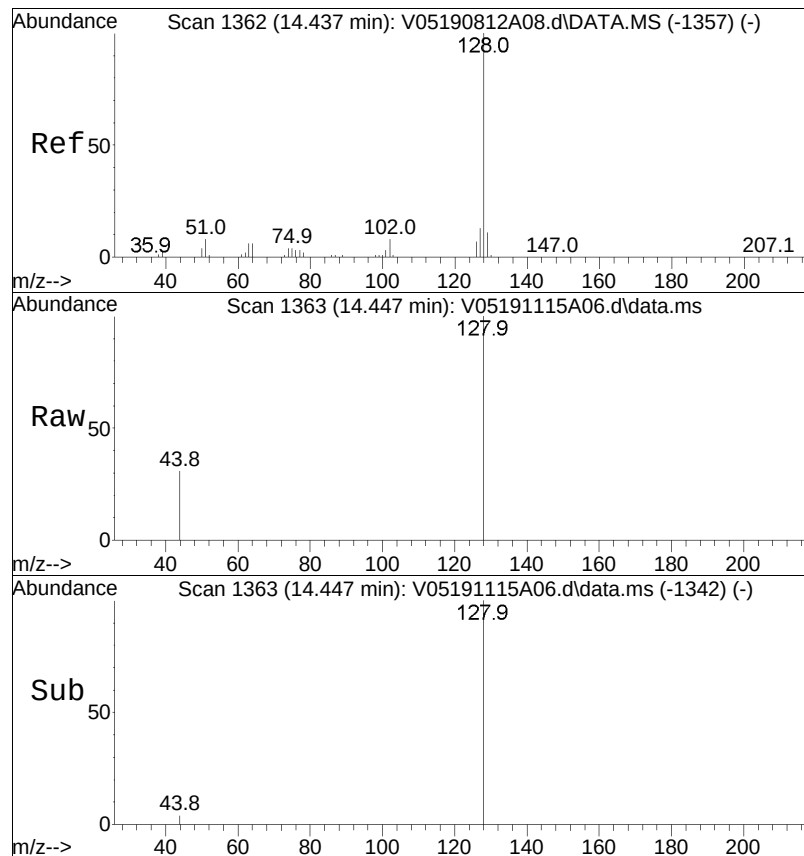
Page: 4



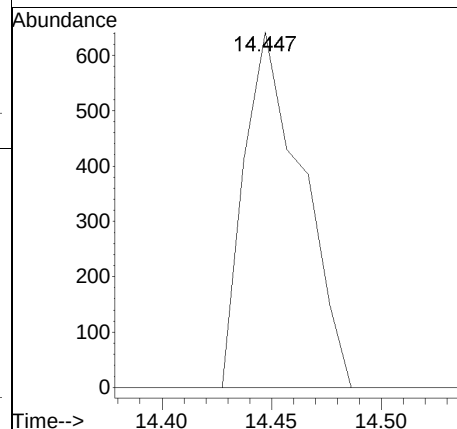
#5
 Bromomethane
 Concen: 0.12 ug/L
 RT: 2.290 min Scan# 123
 Delta R.T. 0.010 min
 Lab File: V05191115A06.d
 Acq: 15 Nov 2019 8:52 am

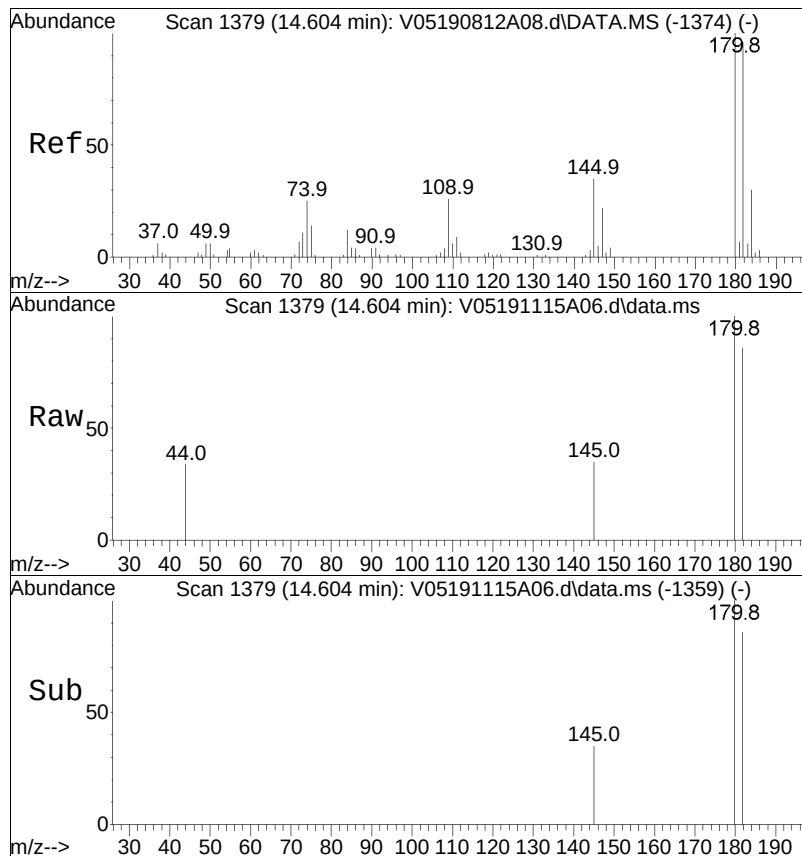
Tgt Ion: 94 Resp: 603
 Ion Ratio Lower Upper
 94 100
 96 52.7 75.4 115.4#





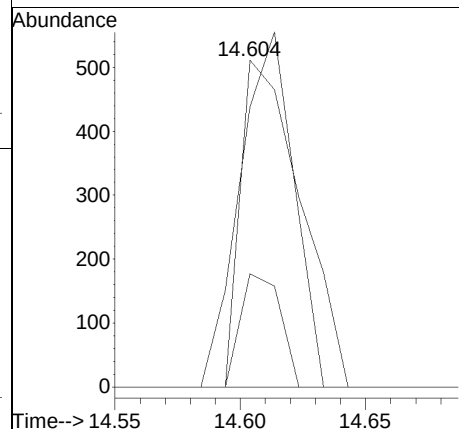
#110
 Naphthalene
 Concen: 0.07 ug/L
 RT: 14.447 min Scan# 1363
 Delta R.T. 0.010 min
 Lab File: V05191115A06.d
 Acq: 15 Nov 2019 8:52 am
 Tgt Ion:128 Resp: 1186





#111
 1,2,3-Trichlorobenzene
 Concen: 0.10 ug/L
 RT: 14.604 min Scan# 1379
 Delta R.T. 0.000 min
 Lab File: V05191115A06.d
 Acq: 15 Nov 2019 8:52 am

Tgt Ion	Ratio	Lower	Upper
180	100		
182	97.4	75.5	113.3
145	23.1	26.5	39.7#



Manual Integration Report

Data Path : I:\VOLATILES\VOA105\2019\10 Method : V105_190921_8260.m
Data File : V05191115A06.d Operator : VOA105:PD
Date Inj'd : 11/15/2019 8:52 am Instrument : VOA 105
Sample : l1954584-03,31,10,10,,a Quant Date : 11/15/2019 12:04 pm

There are no manual integrations or false positives in this file.

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\VOA105\2019\191115A\
 Data File : V05191115A07.d
 Acq On : 15 Nov 2019 9:15 am
 Operator : VOA105:PD
 Sample : 11954584-01,31,10,10,,a
 Misc : WG1309356,ICAL16159 (Sig #1); WG,ICAL16159 (Sig #2)
 ALS Vial : 7 Sample Multiplier: 1

Quant Time: Nov 15 12:05:35 2019
 Quant Method : I:\VOLATILES\VOA105\2019\191115A\V105_190921_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Mon Sep 23 12:05:21 2019
 Response via : Initial Calibration

CCAL FILE(s) : 1 - I:\VOLATILES\VOA105\2019\191115A\V05191115A02.d
 Sub List : 8260-NYTCL - Megamix plus Diox

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

Internal Standards						
1) Fluorobenzene	6.085	96	506895	10.000	ug/L	0.00
Standard Area 1 = 547837			Recovery	=	92.53%	
59) Chlorobenzene-d5	9.618	117	405445	10.000	ug/L	0.00
Standard Area 1 = 453564			Recovery	=	89.39%	
79) 1,4-Dichlorobenzene-d4	12.311	152	222951	10.000	ug/L	0.00
Standard Area 1 = 259117			Recovery	=	86.04%	
System Monitoring Compounds						
36) Dibromofluoromethane	5.283	113	155863	11.331	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery	=	113.31%	
43) 1,2-Dichloroethane-d4	5.811	65	172797	9.867	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery	=	98.67%	
60) Toluene-d8	7.777	98	510680	9.646	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery	=	96.46%	
83) 4-Bromofluorobenzene	11.107	95	191333	8.729	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery	=	87.29%	
Target Compounds						
						Qvalue
2) Dichlorodifluoromethane	0.000		0	N.D.		
3) Chloromethane	0.000		0	N.D. d		
4) Vinyl chloride	1.968	62	23822	2.178	ug/L #	25
5) Bromomethane	2.281	94	13574M1	2.697	ug/L	
6) Chloroethane	2.398	64	177	N.D.		
7) Trichlorofluoromethane	0.000		0	N.D.		
8) Ethyl ether	0.000		0	N.D.		
10) 1,1-Dichloroethene	3.034	96	1417	0.148	ug/L #	85
11) Carbon disulfide	3.063	76	7192	0.267	ug/L	91
15) Methylene chloride	3.591	84	2069	0.196	ug/L	92
17) Acetone	3.650	43	1362	0.768	ug/L #	61
18) trans-1,2-Dichloroethene	3.748	96	661	N.D.		
20) Methyl tert-butyl ether	3.836	73	93	N.D.		
23) 1,1-Dichloroethane	4.335	63	3348	0.160	ug/L	90
25) Acrylonitrile	0.000		0	N.D.		
27) Vinyl acetate	0.000		0	N.D.		
28) cis-1,2-Dichloroethene	4.843	96	355105	31.726	ug/L	97
29) 2,2-Dichloropropane	0.000		0	N.D.		
30) Bromochloromethane	0.000		0	N.D.		
32) Chloroform	5.107	83	66993	3.201	ug/L	98

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\VOA105\2019\191115A\
 Data File : V05191115A07.d
 Acq On : 15 Nov 2019 9:15 am
 Operator : VOA105:PD
 Sample : 11954584-01,31,10,10,,a
 Misc : WG1309356,ICAL16159 (Sig #1); WG,ICAL16159 (Sig #2)
 ALS Vial : 7 Sample Multiplier: 1

Quant Time: Nov 15 12:05:35 2019
 Quant Method : I:\VOLATILES\VOA105\2019\191115A\V105_190921_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Mon Sep 23 12:05:21 2019
 Response via : Initial Calibration

CCAL FILE(s) : 1 - I:\VOLATILES\VOA105\2019\191115A\V05191115A02.d
 Sub List : 8260-NYTCL - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
34) Carbon tetrachloride	5.107	117	585	N.D.		
37) 1,1,1-Trichloroethane	0.000		0	N.D.		
39) 2-Butanone	0.000		0	N.D.	d	
40) 1,1-Dichloropropene	0.000		0	N.D.		
41) Benzene	5.674	78	1453	N.D.		
44) 1,2-Dichloroethane	5.890	62	714	N.D.		
48) Trichloroethene	6.271	95	3796	0.307	ug/L	90
50) Dibromomethane	0.000		0	N.D.		
51) 1,2-Dichloropropane	0.000		0	N.D.		
54) Bromodichloromethane	0.000		0	N.D.		
57) 1,4-Dioxane	0.000		0	N.D.		
58) cis-1,3-Dichloropropene	0.000		0	N.D.		
61) Toluene	0.000		0	N.D.		
62) 4-Methyl-2-pentanone	0.000		0	N.D.		
63) Tetrachloroethene	8.276	166	96	N.D.		
65) trans-1,3-Dichloropropene	0.000		0	N.D.		
68) 1,1,2-Trichloroethane	0.000		0	N.D.		
69) Chlorodibromomethane	0.000		0	N.D.		
70) 1,3-Dichloropropane	0.000		0	N.D.		
71) 1,2-Dibromoethane	0.000		0	N.D.		
72) 2-Hexanone	0.000		0	N.D.		
73) Chlorobenzene	9.637	112	106	N.D.		
74) Ethylbenzene	9.686	91	110	N.D.		
75) 1,1,1,2-Tetrachloroethane	0.000		0	N.D.		
76) p/m Xylene	0.000		0	N.D.		
77) o Xylene	0.000		0	N.D.		
78) Styrene	0.000		0	N.D.		
80) Bromoform	0.000		0	N.D.		
82) Isopropylbenzene	0.000		0	N.D.		
84) Bromobenzene	0.000		0	N.D.		
85) n-Propylbenzene	11.244	91	104	N.D.		
87) 1,1,2,2-Tetrachloroethane	0.000		0	N.D.		
88) 4-Ethyltoluene	0.000		0	N.D.		
89) 2-Chlorotoluene	0.000		0	N.D.		
90) 1,3,5-Trimethylbenzene	0.000		0	N.D.		
91) 1,2,3-Trichloropropane	0.000		0	N.D.		
92) trans-1,4-Dichloro-2-b...	0.000		0	N.D.		
93) 4-Chlorotoluene	0.000		0	N.D.		
94) tert-Butylbenzene	0.000		0	N.D.		

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\VOA105\2019\191115A\
 Data File : V05191115A07.d
 Acq On : 15 Nov 2019 9:15 am
 Operator : VOA105:PD
 Sample : l1954584-01,31,10,10,,a
 Misc : WG1309356,ICAL16159 (Sig #1); WG,ICAL16159 (Sig #2)
 ALS Vial : 7 Sample Multiplier: 1

Quant Time: Nov 15 12:05:35 2019
 Quant Method : I:\VOLATILES\VOA105\2019\191115A\V105_190921_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Mon Sep 23 12:05:21 2019
 Response via : Initial Calibration

CCAL FILE(s) : 1 - I:\VOLATILES\VOA105\2019\191115A\V05191115A02.d
 Sub List : 8260-NYTCL - Megamix plus Diox

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

97)	1,2,4-Trimethylbenzene	11.900	105	93		N.D.	
98)	sec-Butylbenzene	11.900	105	93		N.D.	
99)	p-Isopropyltoluene	12.145	119	261		N.D.	
100)	1,3-Dichlorobenzene	12.243	146	265		N.D.	
101)	1,4-Dichlorobenzene	12.321	146	360		N.D.	
102)	p-Diethylbenzene	0.000		0		N.D.	
103)	n-Butylbenzene	12.586	91	397		N.D.	
104)	1,2-Dichlorobenzene	0.000		0		N.D.	
105)	1,2,4,5-Tetramethylben...	13.320	119	344		N.D.	
106)	1,2-Dibromo-3-chloropr...	0.000		0		N.D.	
108)	Hexachlorobutadiene	0.000		0		N.D.	
109)	1,2,4-Trichlorobenzene	14.163	180	182		N.D.	
110)	Naphthalene	14.447	128	622		N.D.	
111)	1,2,3-Trichlorobenzene	14.614	180	285		N.D.	

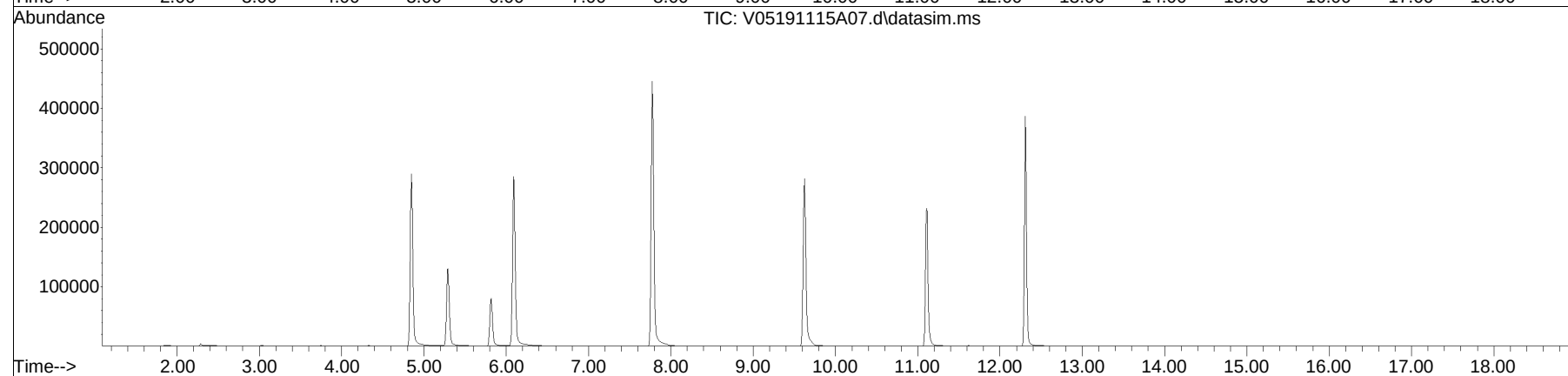
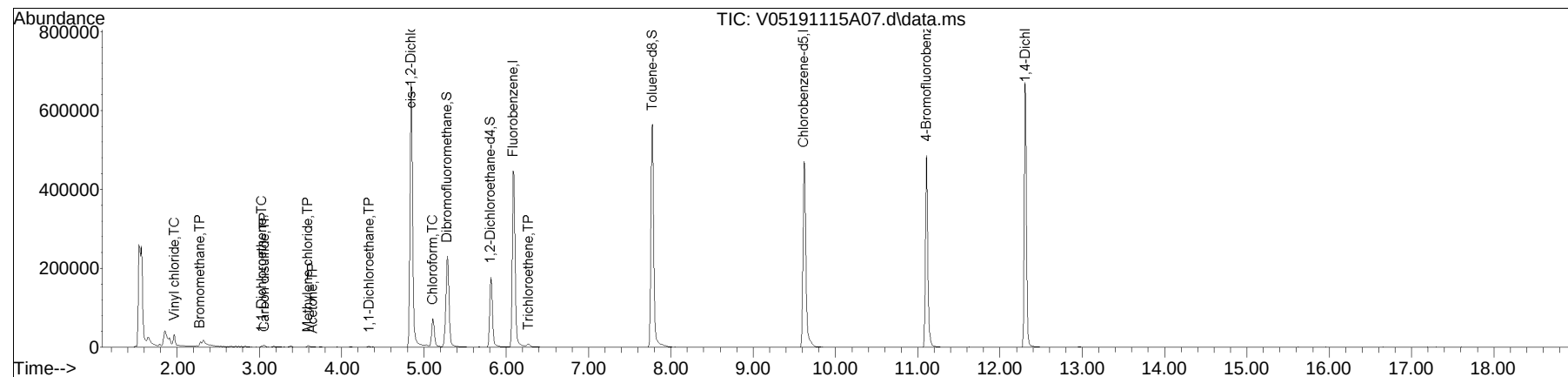
(#) = qualifier out of range (m) = manual integration (+) = signals summed

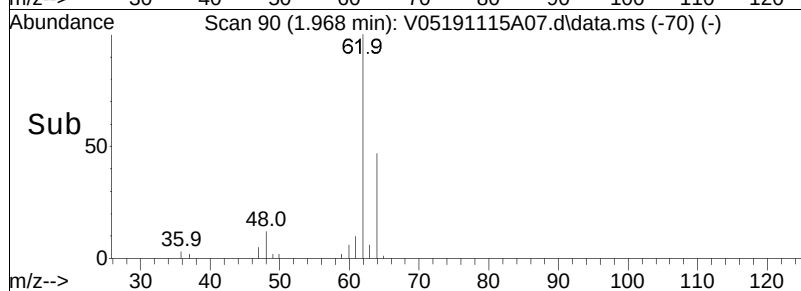
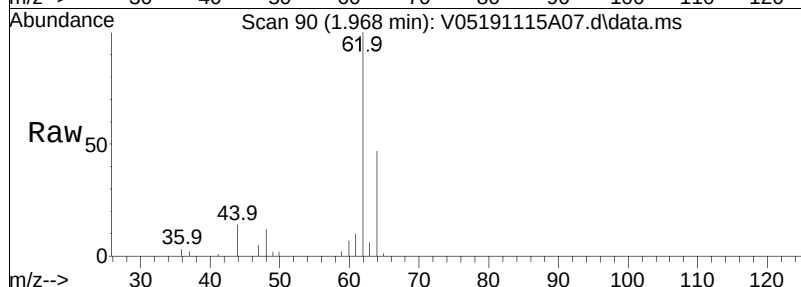
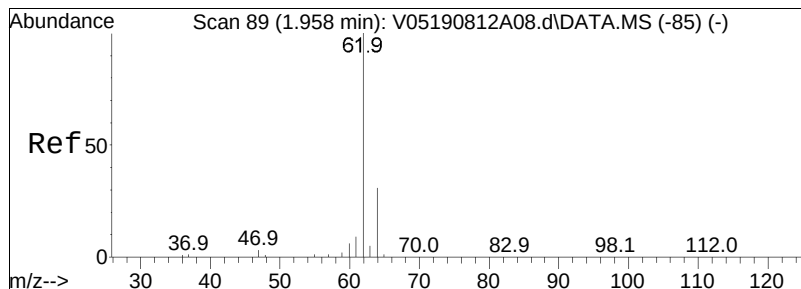
Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\VOA105\2019\191115A\
 Data File : V05191115A07.d
 Acq On : 15 Nov 2019 9:15 am
 Operator : VOA105:PD
 Sample : l1954584-01,31,10,10,,a
 Misc : WG1309356,ICAL16159 (Sig #1); WG,ICAL16159 (Sig #2)
 ALS Vial : 7 Sample Multiplier: 1

Quant Time: Nov 15 12:05:35 2019
 Quant Method : I:\VOLATILES\VOA105\2019\191115A\V105_190921_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Mon Sep 23 12:05:21 2019
 Response via : Initial Calibration

Sub List : 8260-NYTCL - Megamix plus Diox91115A\V05191115A02.d•





#4

Vinyl chloride

Concen: 2.18 ug/L

RT: 1.968 min Scan# 90

Delta R.T. 0.000 min

Lab File: V05191115A07.d

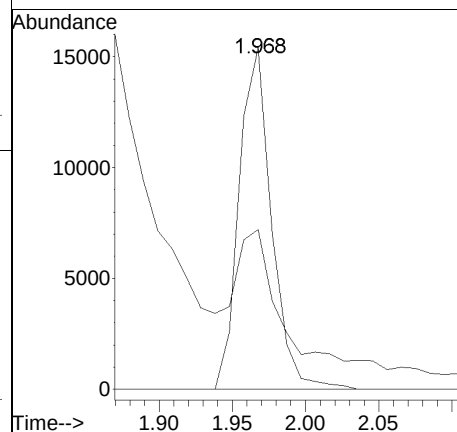
Acq: 15 Nov 2019 9:15 am

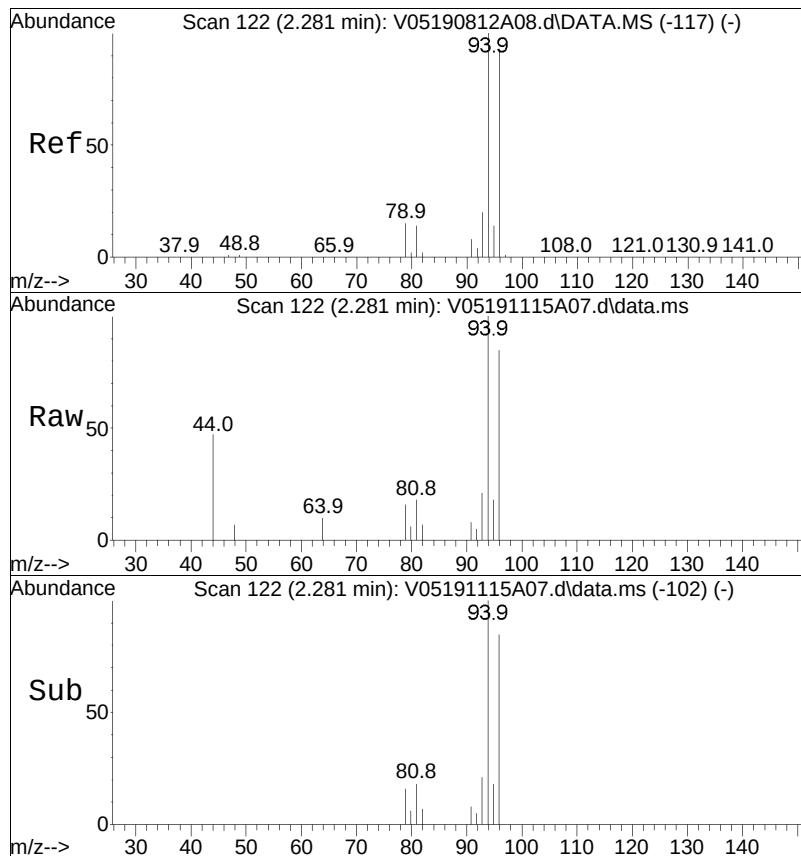
Tgt Ion: 62 Resp: 23822

Ion Ratio Lower Upper

62 100

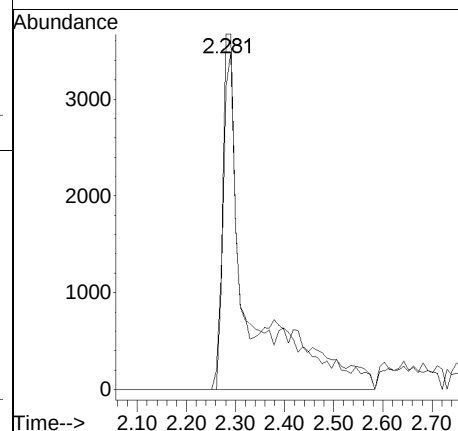
64 76.1 13.5 53.5#

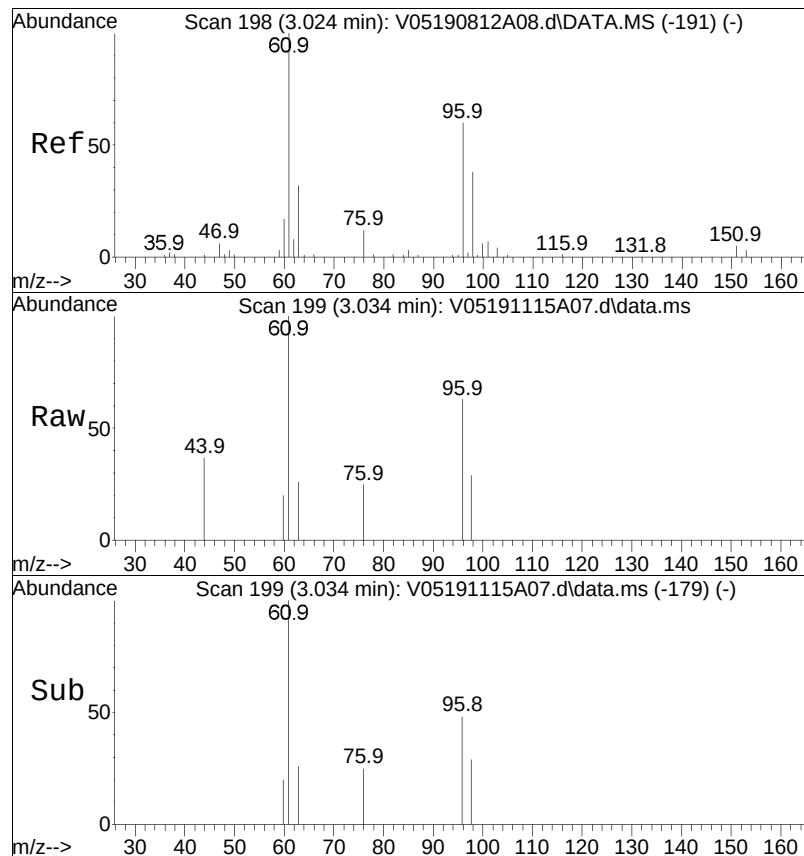




#5
 Bromomethane
 Concen: 2.70 ug/L M1
 RT: 2.281 min Scan# 122
 Delta R.T. 0.000 min
 Lab File: V05191115A07.d
 Acq: 15 Nov 2019 9:15 am

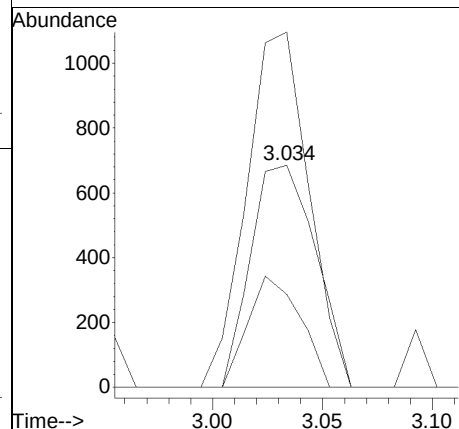
Tgt Ion: 94 Resp: 13574
 Ion Ratio Lower Upper
 94 100
 96 62.6 75.4 115.4#

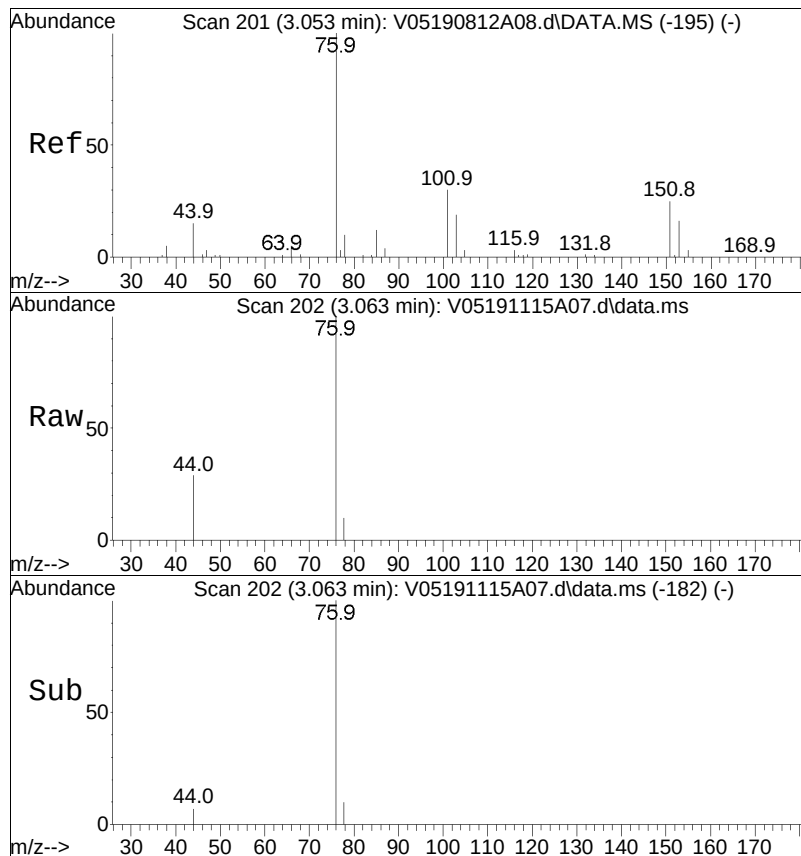




#10
 1,1-Dichloroethene
 Concen: 0.15 ug/L
 RT: 3.034 min Scan# 199
 Delta R.T. 0.000 min
 Lab File: V05191115A07.d
 Acq: 15 Nov 2019 9:15 am

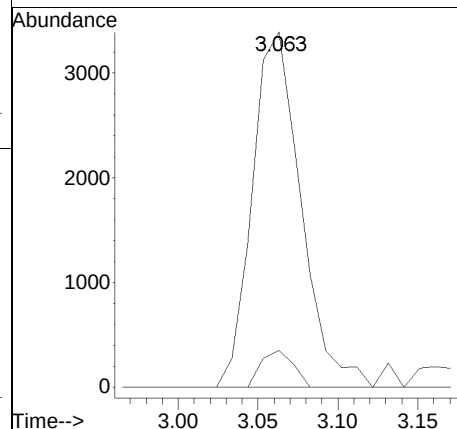
Tgt	Ion	Resp	Lower	Upper
96	100			
61	152.6	1417	136.7	205.1
63	40.2		45.0	67.6#

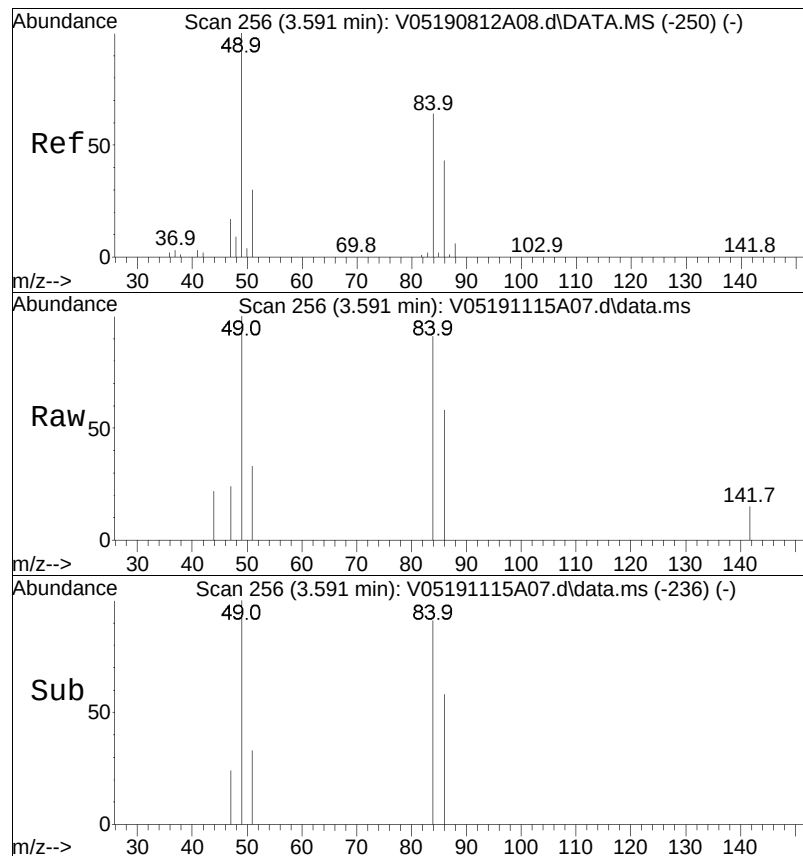




#11
 Carbon disulfide
 Concen: 0.27 ug/L
 RT: 3.063 min Scan# 202
 Delta R.T. 0.000 min
 Lab File: V05191115A07.d
 Acq: 15 Nov 2019 9:15 am

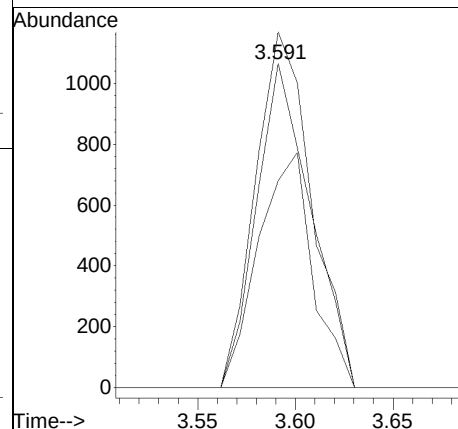
Tgt Ion	Ratio	Lower	Upper
76	100		
78	6.9	6.7	13.9

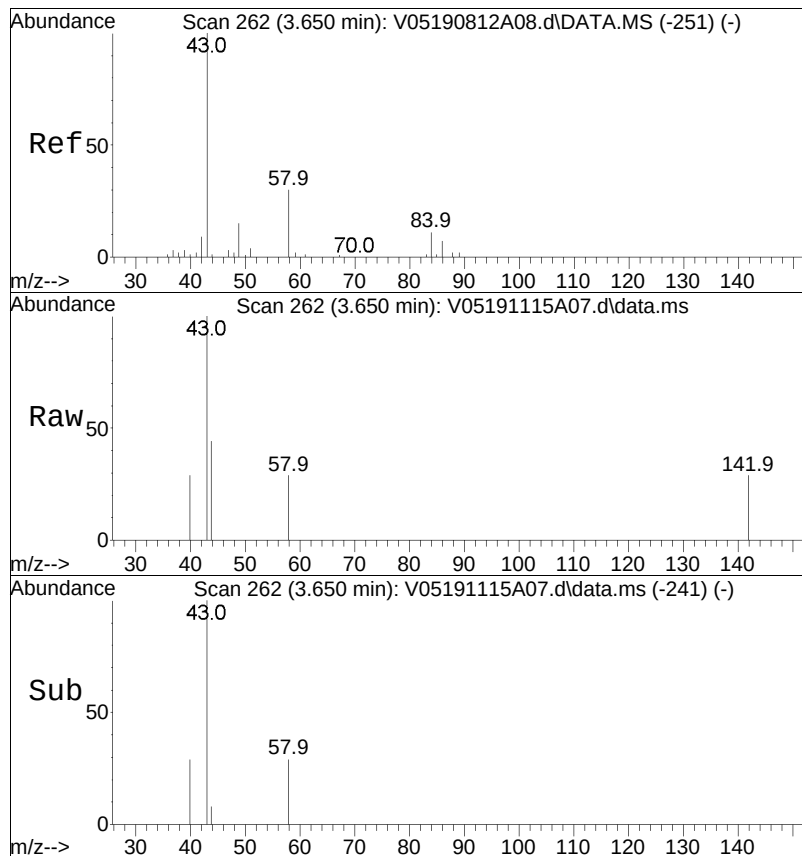




#15
Methylene chloride
Concen: 0.20 ug/L
RT: 3.591 min Scan# 256
Delta R.T. 0.000 min
Lab File: V05191115A07.d
Acq: 15 Nov 2019 9:15 am

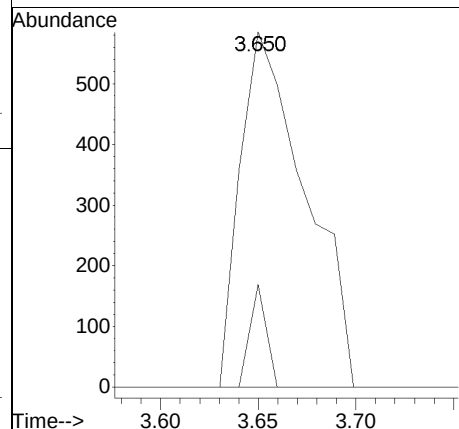
Tgt Ion:	84	Resp:	2069
Ion Ratio	Lower	Upper	
84	100		
86	72.1	42.1	87.5
49	113.5	69.3	143.9

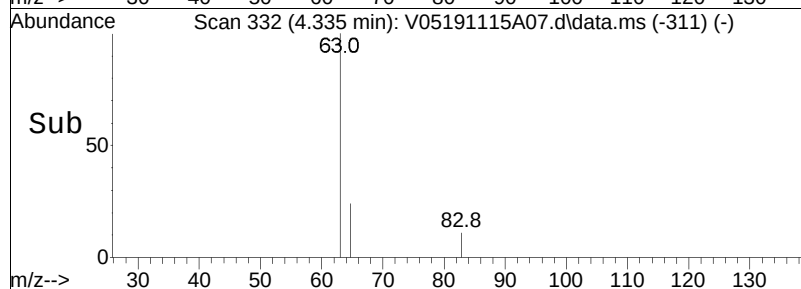
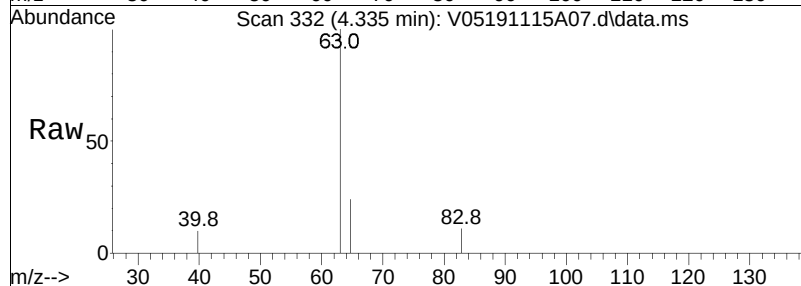
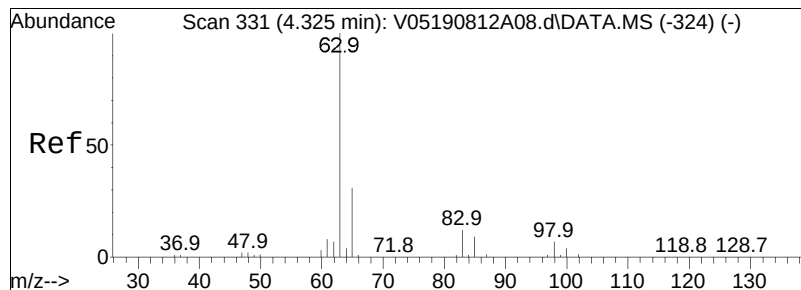




#17
 Acetone
 Concen: 0.77 ug/L
 RT: 3.650 min Scan# 262
 Delta R.T. 0.010 min
 Lab File: V05191115A07.d
 Acq: 15 Nov 2019 9:15 am

Tgt Ion: 43 Resp: 1362
 Ion Ratio Lower Upper
 43 100
 58 7.3 22.0 33.0#





#23

1,1-Dichloroethane

Concen: 0.16 ug/L

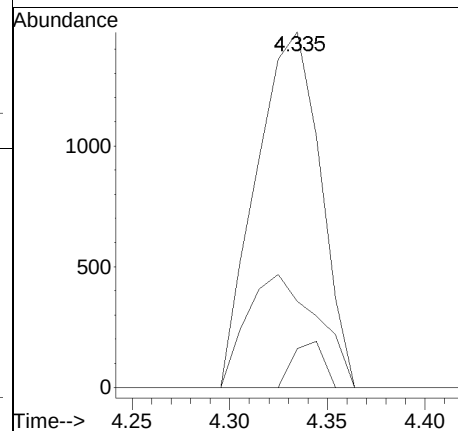
RT: 4.335 min Scan# 332

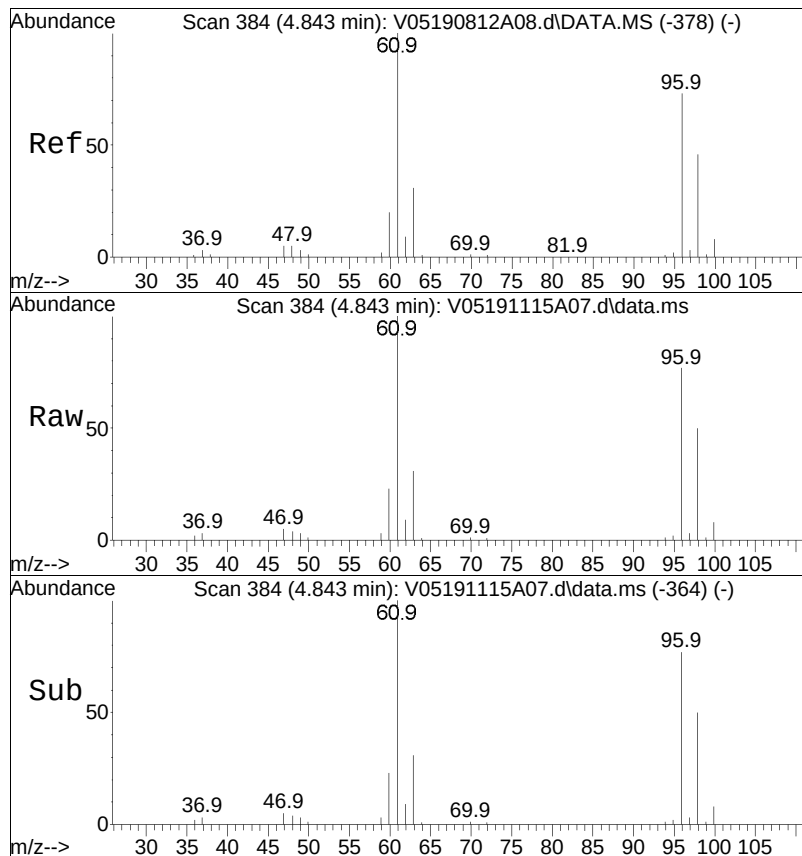
Delta R.T. 0.010 min

Lab File: V05191115A07.d

Acq: 15 Nov 2019 9:15 am

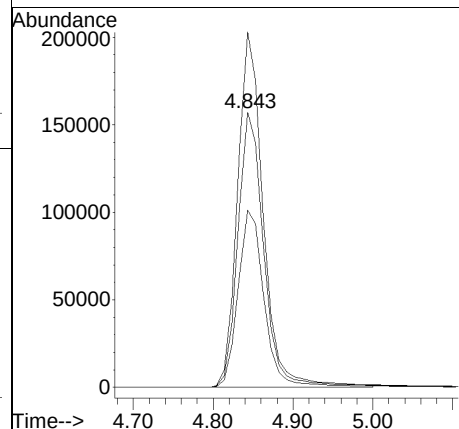
Tgt	Ion: 63	Resp:	3348
Ion	Ratio	Lower	Upper
63	100		
65	34.8	11.9	51.9
83	6.2	0.0	34.2

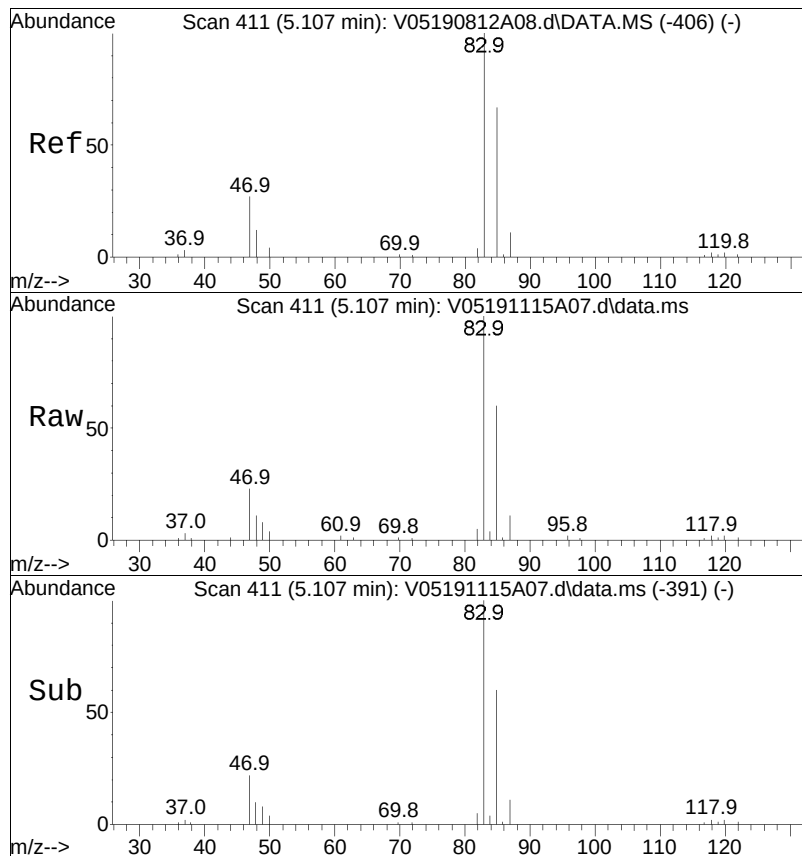




#28
 cis-1,2-Dichloroethene
 Concen: 31.73 ug/L
 RT: 4.843 min Scan# 384
 Delta R.T. 0.000 min
 Lab File: V05191115A07.d
 Acq: 15 Nov 2019 9:15 am

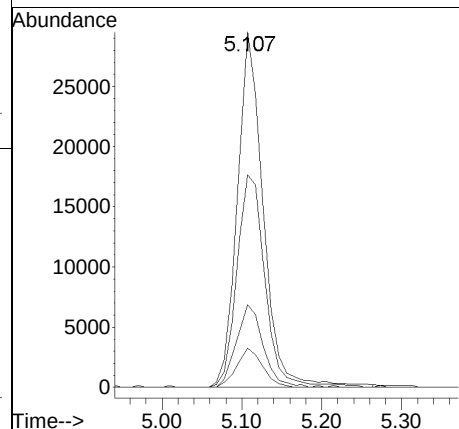
Tgt Ion:	96	Resp:	355105
Ion Ratio	Lower	Upper	
96	100		
61	128.0	100.5	150.7
98	65.2	49.8	74.8

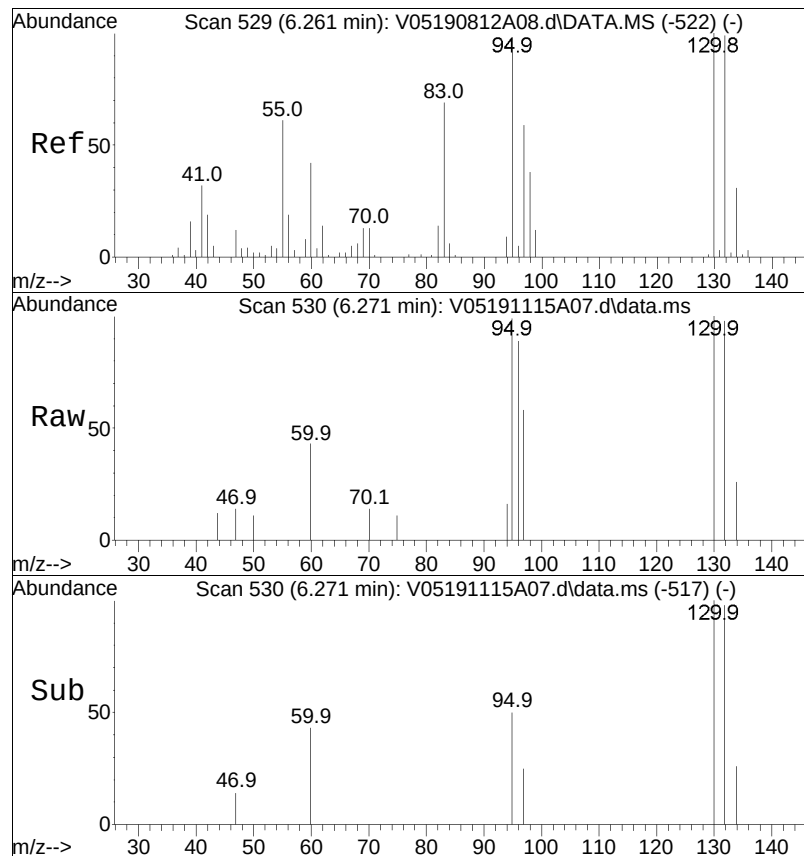




#32
 Chloroform
 Concen: 3.20 ug/L
 RT: 5.107 min Scan# 411
 Delta R.T. 0.000 min
 Lab File: V05191115A07.d
 Acq: 15 Nov 2019 9:15 am

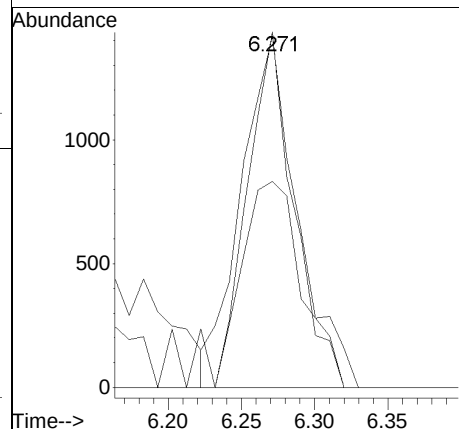
Tgt	Ion: 83	Resp:	66993
Ion	Ratio	Lower	Upper
83	100		
85	64.8	42.8	89.0
47	24.0	13.7	28.4
48	11.0	6.9	14.3





#48
 Trichloroethene
 Concen: 0.31 ug/L
 RT: 6.271 min Scan# 530
 Delta R.T. 0.010 min
 Lab File: V05191115A07.d
 Acq: 15 Nov 2019 9:15 am

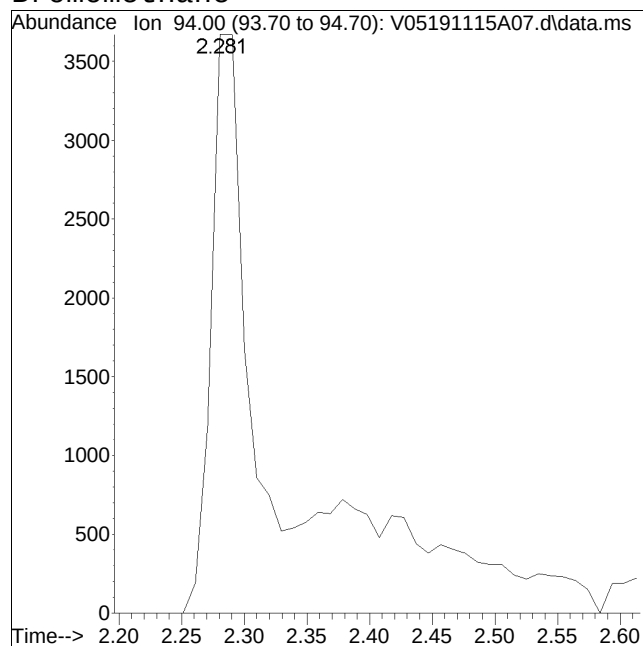
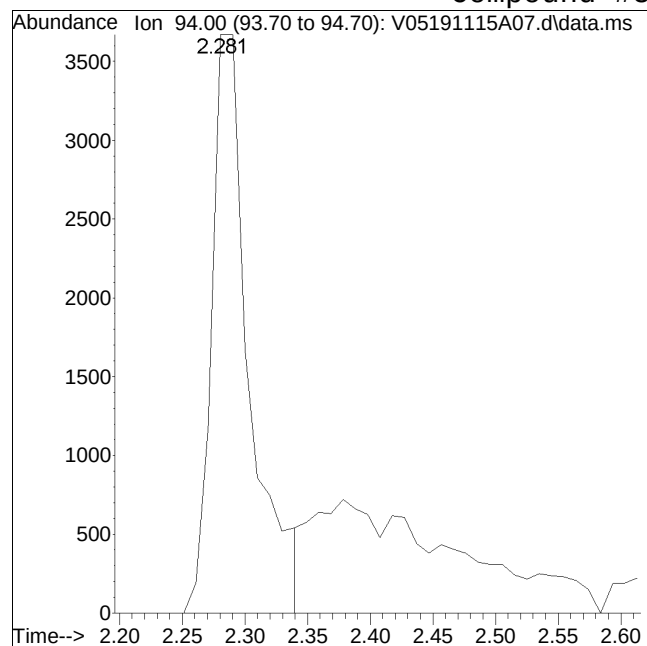
Tgt Ion:	95	Resp:	3796
Ion Ratio	Lower	Upper	
95	100		
97	66.1	56.1	84.1
130	83.2	77.7	116.5



Manual Integration Report

Data Path : I:\VOLATILES\VOA105\2019\10Method : V105_190921_8260.m
Data File : V05191115A07.d Operator : VOA105:PD
Date Inj'd : 11/15/2019 9:15 am Instrument : VOA 105
Sample : l1954584-01,31,10,10,,a Quant Date : 11/15/2019 12:04 pm

Compound #5: Bromomethane



Original Peak Response = 7665

Manual Peak Response = 13574 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\VOA105\2019\191115A\
 Data File : V05191115A08.d
 Acq On : 15 Nov 2019 9:38 am
 Operator : VOA105:PD
 Sample : 11954584-02,31,10,10,,a
 Misc : WG1309356,ICAL16159 (Sig #1); WG,ICAL16159 (Sig #2)
 ALS Vial : 8 Sample Multiplier: 1

Quant Time: Nov 15 12:05:52 2019
 Quant Method : I:\VOLATILES\VOA105\2019\191115A\V105_190921_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Mon Sep 23 12:05:21 2019
 Response via : Initial Calibration

CCAL FILE(s) : 1 - I:\VOLATILES\VOA105\2019\191115A\V05191115A02.d
 Sub List : 8260-NYTCL - Megamix plus Diox

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

Internal Standards						
1) Fluorobenzene	6.095	96	498248	10.000	ug/L	0.00
Standard Area 1 = 547837			Recovery =	90.95%		
59) Chlorobenzene-d5	9.618	117	399984	10.000	ug/L	0.00
Standard Area 1 = 453564			Recovery =	88.19%		
79) 1,4-Dichlorobenzene-d4	12.311	152	217619	10.000	ug/L	0.00
Standard Area 1 = 259117			Recovery =	83.98%		
System Monitoring Compounds						
36) Dibromofluoromethane	5.283	113	147523	10.910	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	109.10%		
43) 1,2-Dichloroethane-d4	5.811	65	174345	10.128	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	101.28%		
60) Toluene-d8	7.777	98	505179	9.673	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	96.73%		
83) 4-Bromofluorobenzene	11.107	95	187198	8.750	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	87.50%		
Target Compounds						
2) Dichlorodifluoromethane	1.694	85	6551	0.537	ug/L	96
3) Chloromethane	0.000		0	N.D.	d	
4) Vinyl chloride	0.000		0	N.D.		
5) Bromomethane	2.280	94	1033	0.209	ug/L	98
6) Chloroethane	0.000		0	N.D.	d	
7) Trichlorofluoromethane	2.545	101	538	N.D.		
8) Ethyl ether	0.000		0	N.D.		
10) 1,1-Dichloroethene	0.000		0	N.D.		
11) Carbon disulfide	3.063	76	1637	N.D.		
15) Methylene chloride	0.000		0	N.D.		
17) Acetone	0.000		0	N.D.	d	
18) trans-1,2-Dichloroethene	0.000		0	N.D.		
20) Methyl tert-butyl ether	0.000		0	N.D.		
23) 1,1-Dichloroethane	0.000		0	N.D.		
25) Acrylonitrile	0.000		0	N.D.		
27) Vinyl acetate	0.000		0	N.D.		
28) cis-1,2-Dichloroethene	4.853	96	617	N.D.		
29) 2,2-Dichloropropane	0.000		0	N.D.		
30) Bromochloromethane	0.000		0	N.D.		
32) Chloroform	5.107	83	19933	0.969	ug/L	99

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\VOA105\2019\191115A\
 Data File : V05191115A08.d
 Acq On : 15 Nov 2019 9:38 am
 Operator : VOA105:PD
 Sample : 11954584-02,31,10,10,,a
 Misc : WG1309356,ICAL16159 (Sig #1); WG,ICAL16159 (Sig #2)
 ALS Vial : 8 Sample Multiplier: 1

Quant Time: Nov 15 12:05:52 2019
 Quant Method : I:\VOLATILES\VOA105\2019\191115A\V105_190921_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Mon Sep 23 12:05:21 2019
 Response via : Initial Calibration

CCAL FILE(s) : 1 - I:\VOLATILES\VOA105\2019\191115A\V05191115A02.d
 Sub List : 8260-NYTCL - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
34) Carbon tetrachloride	0.000		0		N.D.	
37) 1,1,1-Trichloroethane	0.000		0		N.D.	
39) 2-Butanone	0.000		0		N.D.	
40) 1,1-Dichloropropene	0.000		0		N.D.	
41) Benzene	0.000		0		N.D.	
44) 1,2-Dichloroethane	5.899	62	94		N.D.	
48) Trichloroethene	6.252	95	1119	0.092	ug/L #	46
50) Dibromomethane	0.000		0		N.D.	
51) 1,2-Dichloropropane	0.000		0		N.D.	
54) Bromodichloromethane	0.000		0		N.D.	
57) 1,4-Dioxane	0.000		0		N.D.	
58) cis-1,3-Dichloropropene	0.000		0		N.D.	
61) Toluene	0.000		0		N.D.	
62) 4-Methyl-2-pentanone	0.000		0		N.D.	
63) Tetrachloroethene	8.286	166	245		N.D.	
65) trans-1,3-Dichloropropene	0.000		0		N.D.	
68) 1,1,2-Trichloroethane	0.000		0		N.D.	
69) Chlorodibromomethane	0.000		0		N.D.	
70) 1,3-Dichloropropane	0.000		0		N.D.	
71) 1,2-Dibromoethane	0.000		0		N.D.	
72) 2-Hexanone	0.000		0		N.D.	
73) Chlorobenzene	0.000		0		N.D.	
74) Ethylbenzene	9.686	91	93		N.D.	
75) 1,1,1,2-Tetrachloroethane	0.000		0		N.D.	
76) p/m Xylene	0.000		0		N.D.	
77) o Xylene	0.000		0		N.D.	
78) Styrene	0.000		0		N.D.	
80) Bromoform	0.000		0		N.D.	
82) Isopropylbenzene	0.000		0		N.D.	
84) Bromobenzene	0.000		0		N.D.	
85) n-Propylbenzene	11.107	91	541		N.D.	
87) 1,1,2,2-Tetrachloroethane	0.000		0		N.D.	
88) 4-Ethyltoluene	0.000		0		N.D.	
89) 2-Chlorotoluene	0.000		0		N.D.	
90) 1,3,5-Trimethylbenzene	0.000		0		N.D.	
91) 1,2,3-Trichloropropane	0.000		0		N.D.	
92) trans-1,4-Dichloro-2-b...	0.000		0		N.D.	
93) 4-Chlorotoluene	0.000		0		N.D.	
94) tert-Butylbenzene	0.000		0		N.D.	

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\VOA105\2019\191115A\
 Data File : V05191115A08.d
 Acq On : 15 Nov 2019 9:38 am
 Operator : VOA105:PD
 Sample : l1954584-02,31,10,10,,a
 Misc : WG1309356,ICAL16159 (Sig #1); WG,ICAL16159 (Sig #2)
 ALS Vial : 8 Sample Multiplier: 1

Quant Time: Nov 15 12:05:52 2019
 Quant Method : I:\VOLATILES\VOA105\2019\191115A\V105_190921_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Mon Sep 23 12:05:21 2019
 Response via : Initial Calibration

CCAL FILE(s) : 1 - I:\VOLATILES\VOA105\2019\191115A\V05191115A02.d
 Sub List : 8260-NYTCL - Megamix plus Diox

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
97)	1,2,4-Trimethylbenzene	0.000		0		N.D.	
98)	sec-Butylbenzene	0.000		0		N.D.	
99)	p-Isopropyltoluene	12.145	119	238		N.D.	
100)	1,3-Dichlorobenzene	12.243	146	95		N.D.	
101)	1,4-Dichlorobenzene	12.311	146	117		N.D.	
102)	p-Diethylbenzene	0.000		0		N.D.	
103)	n-Butylbenzene	12.586	91	195		N.D.	
104)	1,2-Dichlorobenzene	0.000		0		N.D.	
105)	1,2,4,5-Tetramethylben...	0.000		0		N.D.	
106)	1,2-Dibromo-3-chloropr...	0.000		0		N.D.	
108)	Hexachlorobutadiene	0.000		0		N.D.	
109)	1,2,4-Trichlorobenzene	14.153	180	140		N.D.	
110)	Naphthalene	14.457	128	341		N.D.	
111)	1,2,3-Trichlorobenzene	14.613	180	229		N.D.	

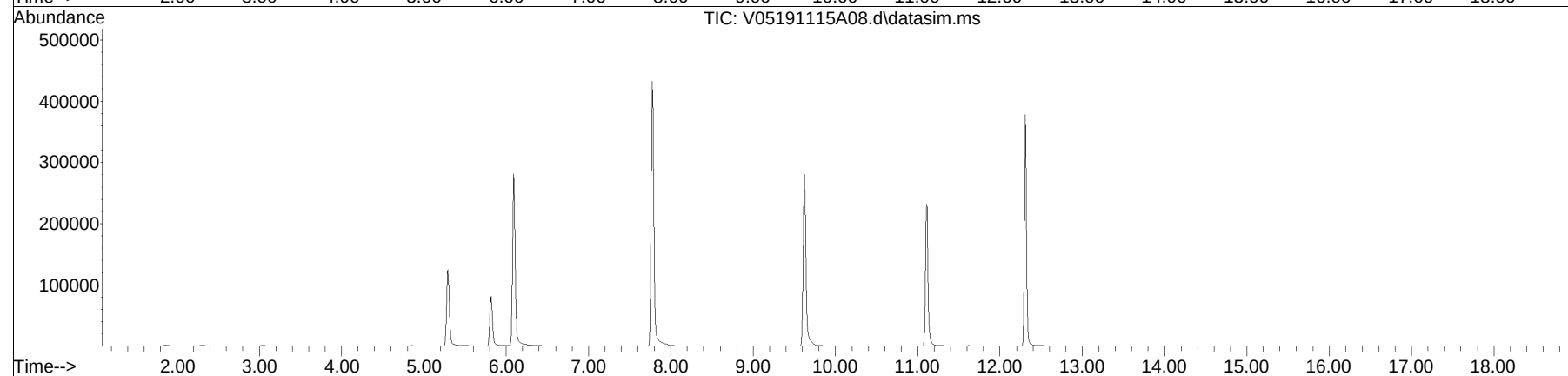
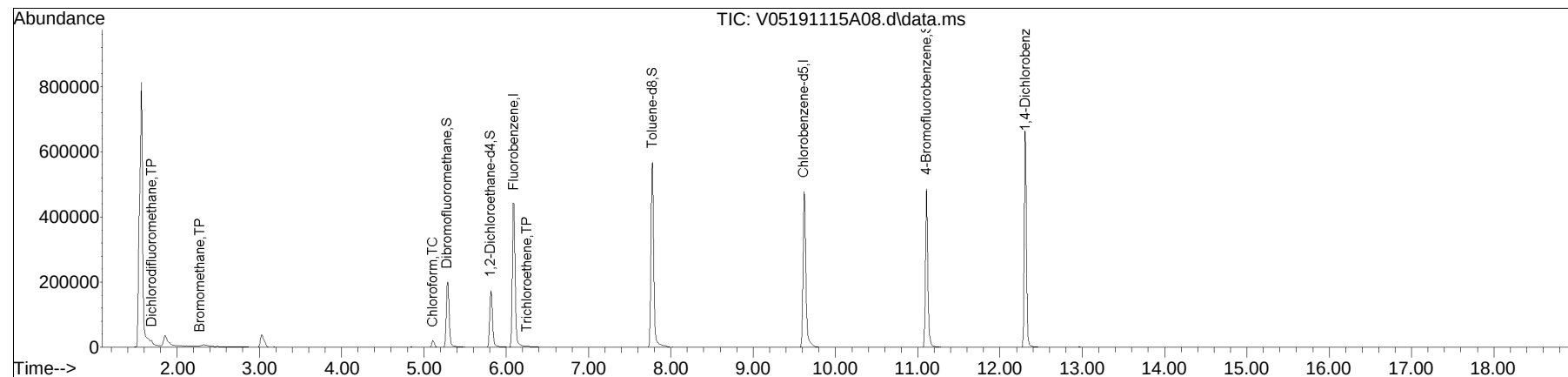
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\VOA105\2019\191115A\
 Data File : V05191115A08.d
 Acq On : 15 Nov 2019 9:38 am
 Operator : VOA105:PD
 Sample : l1954584-02,31,10,10,,a
 Misc : WG1309356,ICAL16159 (Sig #1); WG,ICAL16159 (Sig #2)
 ALS Vial : 8 Sample Multiplier: 1

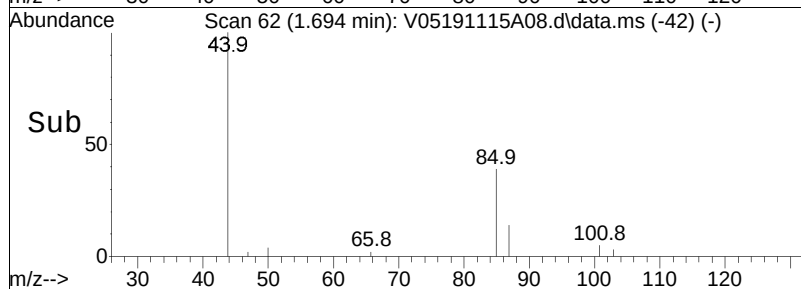
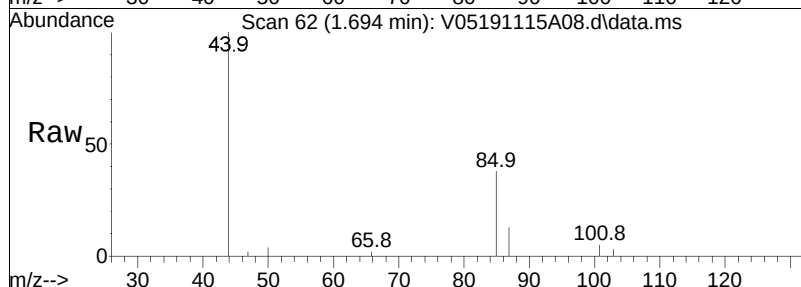
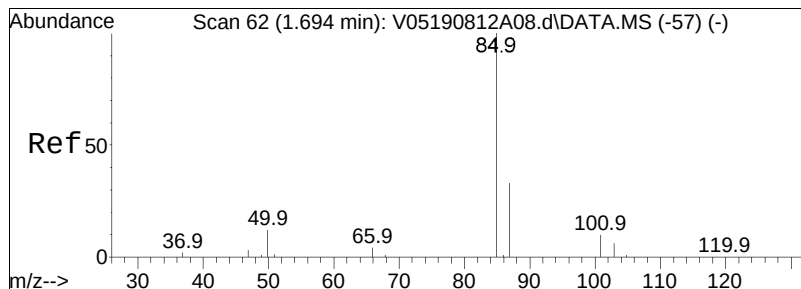
Quant Time: Nov 15 12:05:52 2019
 Quant Method : I:\VOLATILES\VOA105\2019\191115A\V105_190921_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Mon Sep 23 12:05:21 2019
 Response via : Initial Calibration

Sub List : 8260-NYTCL - Megamix plus Diox91115A\V05191115A02.d•



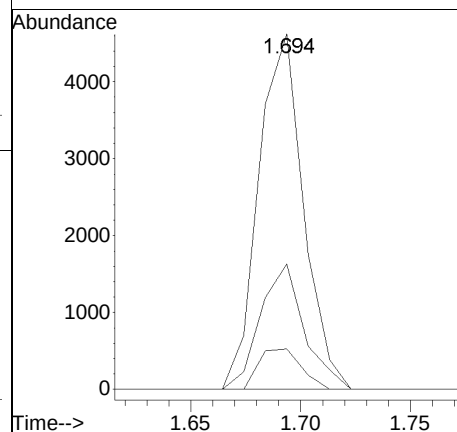
V105_190921_8260.m Fri Nov 15 12:55:09 2019

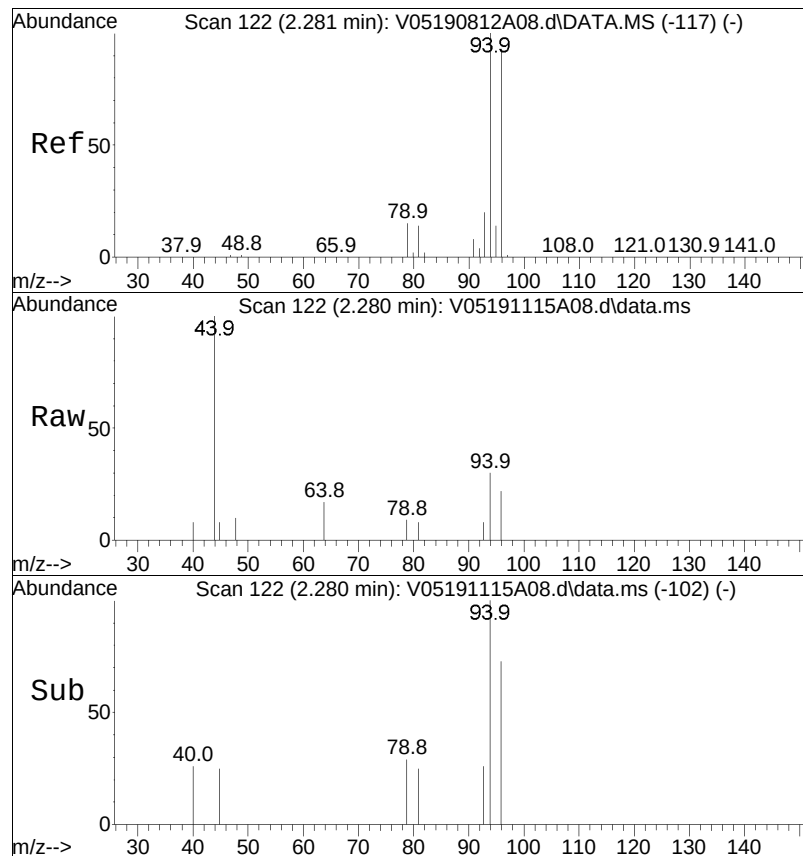
Page: 4



#2
 Dichlorodifluoromethane
 Concen: 0.54 ug/L
 RT: 1.694 min Scan# 62
 Delta R.T. 0.000 min
 Lab File: V05191115A08.d
 Acq: 15 Nov 2019 9:38 am

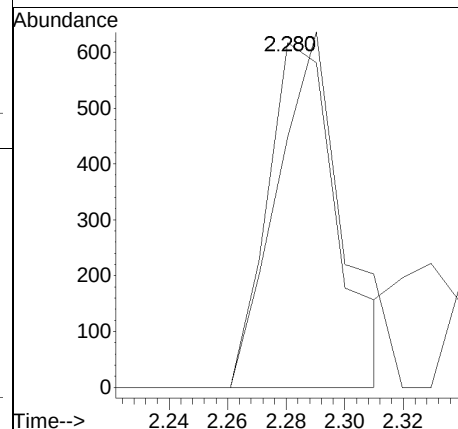
Tgt Ion: 85 Resp: 6551
 Ion Ratio Lower Upper
 85 100
 87 34.6 20.9 43.5
 50 10.9 6.8 14.0

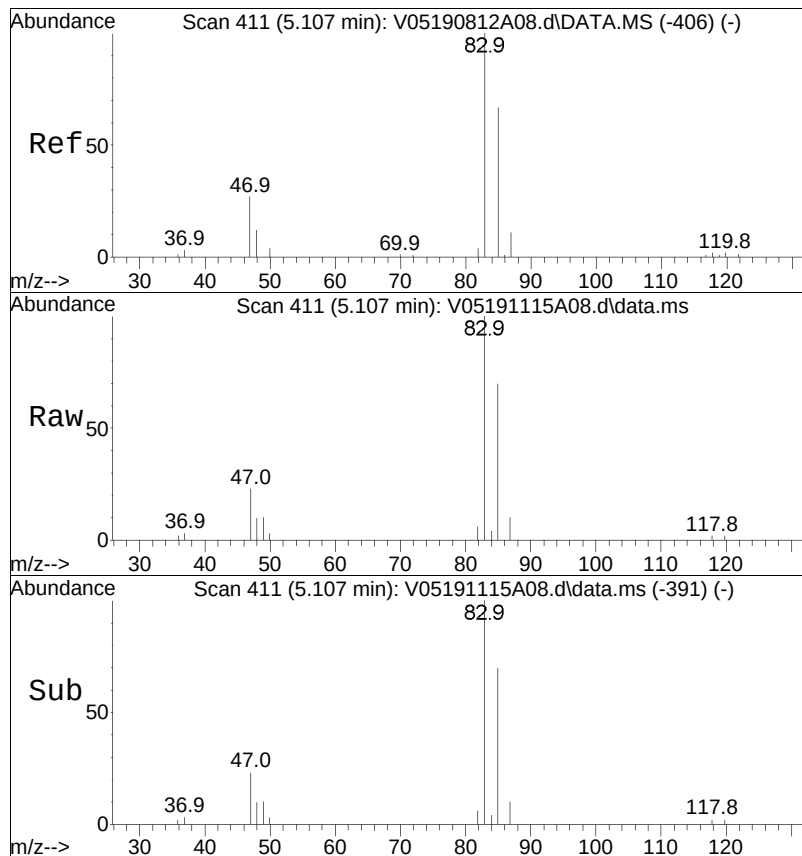




#5
 Bromomethane
 Concen: 0.21 ug/L
 RT: 2.280 min Scan# 122
 Delta R.T. 0.000 min
 Lab File: V05191115A08.d
 Acq: 15 Nov 2019 9:38 am

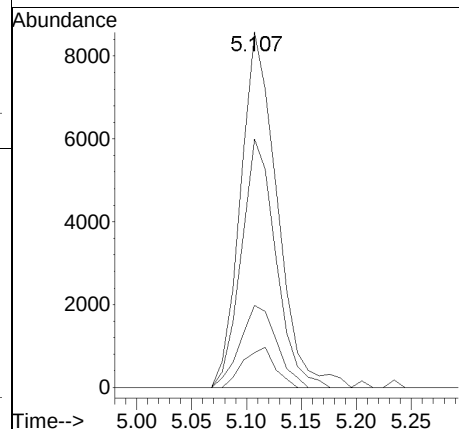
Tgt Ion	Ratio	Lower	Upper
94	100		
96	97.0	75.4	115.4

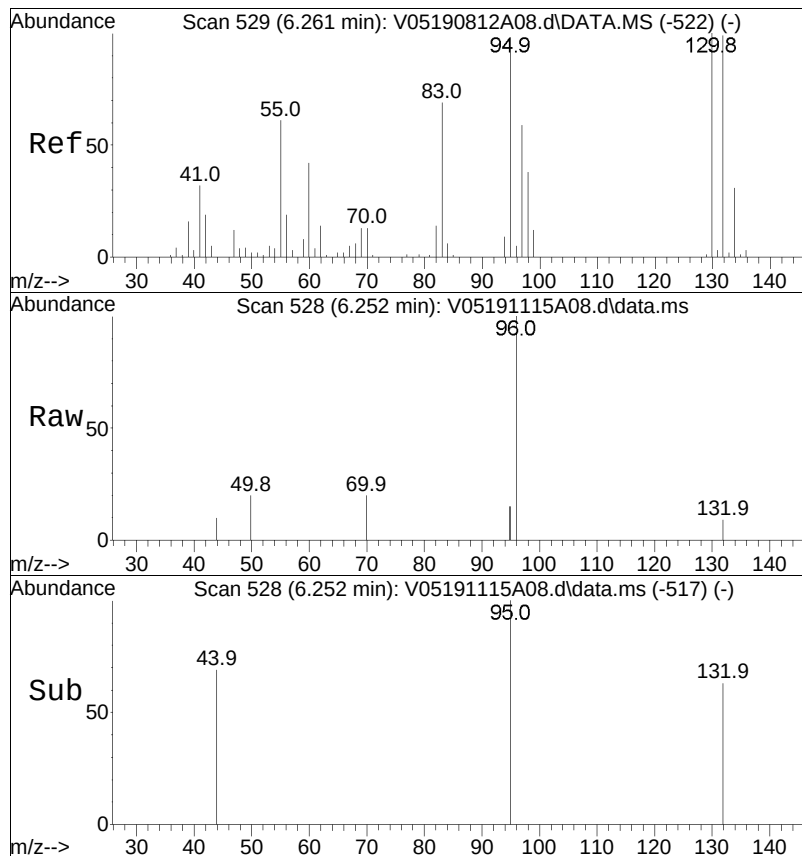




#32
 Chloroform
 Concen: 0.97 ug/L
 RT: 5.107 min Scan# 411
 Delta R.T. 0.000 min
 Lab File: V05191115A08.d
 Acq: 15 Nov 2019 9:38 am

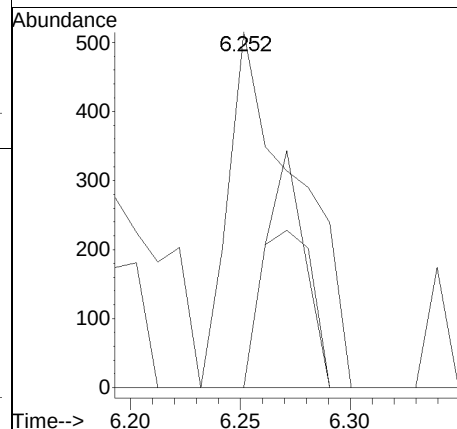
Tgt	Ion: 83	Resp:	19933
Ion	Ratio	Lower	Upper
83	100		
85	65.9	42.8	89.0
47	23.0	13.7	28.4
48	9.8	6.9	14.3





#48
 Trichloroethene
 Concen: 0.09 ug/L
 RT: 6.252 min Scan# 528
 Delta R.T. -0.010 min
 Lab File: V05191115A08.d
 Acq: 15 Nov 2019 9:38 am

Tgt Ion:	95	Resp:	1119
Ion Ratio	Lower	Upper	
95	100		
97	37.6	56.1	84.1#
130	33.4	77.7	116.5#



Manual Integration Report

Data Path : I:\VOLATILES\VOA105\2019\10Method : V105_190921_8260.m
Data File : V05191115A08.d Operator : VOA105:PD
Date Inj'd : 11/15/2019 9:38 am Instrument : VOA 105
Sample : l1954584-02,31,10,10,,a Quant Date : 11/15/2019 12:04 pm

There are no manual integrations or false positives in this file.

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\VOA105\2019\191115A\
 Data File : V05191115A09.d
 Acq On : 15 Nov 2019 10:01 am
 Operator : VOA105:PD
 Sample : 11954584-04,31,10,10,,a
 Misc : WG1309356,ICAL16159 (Sig #1); WG,ICAL16159 (Sig #2)
 ALS Vial : 9 Sample Multiplier: 1

Quant Time: Nov 15 12:06:10 2019
 Quant Method : I:\VOLATILES\VOA105\2019\191115A\V105_190921_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Mon Sep 23 12:05:21 2019
 Response via : Initial Calibration

CCAL FILE(s) : 1 - I:\VOLATILES\VOA105\2019\191115A\V05191115A02.d
 Sub List : 8260-NYTCL - Megamix plus Diox

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

Internal Standards						
1) Fluorobenzene	6.085	96	489219	10.000	ug/L	0.00
Standard Area 1 = 547837			Recovery =	89.30%		
59) Chlorobenzene-d5	9.618	117	394508	10.000	ug/L	0.00
Standard Area 1 = 453564			Recovery =	86.98%		
79) 1,4-Dichlorobenzene-d4	12.302	152	210255	10.000	ug/L	0.00
Standard Area 1 = 259117			Recovery =	81.14%		
System Monitoring Compounds						
36) Dibromofluoromethane	5.283	113	145506	10.960	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	109.60%		
43) 1,2-Dichloroethane-d4	5.812	65	166352	9.842	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	98.42%		
60) Toluene-d8	7.777	98	495804	9.625	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	96.25%		
83) 4-Bromofluorobenzene	11.107	95	183672	8.886	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery =	88.86%		
Target Compounds						
						Qvalue
2) Dichlorodifluoromethane	0.000		0	N.D.		
3) Chloromethane	0.000		0	N.D. d		
4) Vinyl chloride	1.968	62	2113	0.200	ug/L #	41
5) Bromomethane	2.281	94	862	0.177	ug/L	94
6) Chloroethane	2.427	64	215	N.D.		
7) Trichlorofluoromethane	0.000		0	N.D.		
8) Ethyl ether	0.000		0	N.D.		
10) 1,1-Dichloroethene	0.000		0	N.D.		
11) Carbon disulfide	3.063	76	2320	0.089	ug/L #	72
15) Methylene chloride	0.000		0	N.D.		
17) Acetone	0.000		0	N.D. d		
18) trans-1,2-Dichloroethene	0.000		0	N.D.		
20) Methyl tert-butyl ether	0.000		0	N.D.		
23) 1,1-Dichloroethane	0.000		0	N.D.		
25) Acrylonitrile	0.000		0	N.D.		
27) Vinyl acetate	0.000		0	N.D.		
28) cis-1,2-Dichloroethene	4.853	96	1994	0.185	ug/L	89
29) 2,2-Dichloropropane	0.000		0	N.D.		
30) Bromochloromethane	0.000		0	N.D.		
32) Chloroform	0.000		0	N.D.		

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\VOA105\2019\191115A\
 Data File : V05191115A09.d
 Acq On : 15 Nov 2019 10:01 am
 Operator : VOA105:PD
 Sample : 11954584-04,31,10,10,,a
 Misc : WG1309356,ICAL16159 (Sig #1); WG,ICAL16159 (Sig #2)
 ALS Vial : 9 Sample Multiplier: 1

Quant Time: Nov 15 12:06:10 2019
 Quant Method : I:\VOLATILES\VOA105\2019\191115A\V105_190921_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Mon Sep 23 12:05:21 2019
 Response via : Initial Calibration

CCAL FILE(s) : 1 - I:\VOLATILES\VOA105\2019\191115A\V05191115A02.d
 Sub List : 8260-NYTCL - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
34) Carbon tetrachloride	0.000		0		N.D.	
37) 1,1,1-Trichloroethane	0.000		0		N.D.	
39) 2-Butanone	0.000		0		N.D.	
40) 1,1-Dichloropropene	0.000		0		N.D.	
41) Benzene	5.684	78	326		N.D.	
44) 1,2-Dichloroethane	5.890	62	120		N.D.	
48) Trichloroethene	6.261	95	998	0.084	ug/L #	52
50) Dibromomethane	0.000		0		N.D.	
51) 1,2-Dichloropropane	0.000		0		N.D.	
54) Bromodichloromethane	0.000		0		N.D.	
57) 1,4-Dioxane	0.000		0		N.D.	
58) cis-1,3-Dichloropropene	0.000		0		N.D.	
61) Toluene	0.000		0		N.D.	
62) 4-Methyl-2-pentanone	0.000		0		N.D.	
63) Tetrachloroethene	8.286	166	347		N.D.	
65) trans-1,3-Dichloropropene	0.000		0		N.D.	
68) 1,1,2-Trichloroethane	0.000		0		N.D.	
69) Chlorodibromomethane	0.000		0		N.D.	
70) 1,3-Dichloropropane	0.000		0		N.D.	
71) 1,2-Dibromoethane	0.000		0		N.D.	
72) 2-Hexanone	0.000		0		N.D.	
73) Chlorobenzene	0.000		0		N.D.	
74) Ethylbenzene	9.618	91	680		N.D.	
75) 1,1,1,2-Tetrachloroethane	0.000		0		N.D.	
76) p/m Xylene	0.000		0		N.D.	
77) o Xylene	0.000		0		N.D.	
78) Styrene	0.000		0		N.D.	
80) Bromoform	0.000		0		N.D.	
82) Isopropylbenzene	0.000		0		N.D.	
84) Bromobenzene	0.000		0		N.D.	
85) n-Propylbenzene	11.107	91	447		N.D.	
87) 1,1,2,2-Tetrachloroethane	0.000		0		N.D.	
88) 4-Ethyltoluene	0.000		0		N.D.	
89) 2-Chlorotoluene	0.000		0		N.D.	
90) 1,3,5-Trimethylbenzene	0.000		0		N.D.	
91) 1,2,3-Trichloropropane	0.000		0		N.D.	
92) trans-1,4-Dichloro-2-b...	0.000		0		N.D.	
93) 4-Chlorotoluene	0.000		0		N.D.	
94) tert-Butylbenzene	0.000		0		N.D.	

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\VOA105\2019\191115A\
 Data File : V05191115A09.d
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 Operator : VOA105:PD
 Sample : 11954584-04,31,10,10,,a
 Misc : WG1309356,ICAL16159 (Sig #1); WG,ICAL16159 (Sig #2)
 ALS Vial : 9 Sample Multiplier: 1

Quant Time: Nov 15 12:06:10 2019
 Quant Method : I:\VOLATILES\VOA105\2019\191115A\V105_190921_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Mon Sep 23 12:05:21 2019
 Response via : Initial Calibration

CCAL FILE(s) : 1 - I:\VOLATILES\VOA105\2019\191115A\V05191115A02.d
 Sub List : 8260-NYTCL - Megamix plus Diox

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

97)	1,2,4-Trimethylbenzene	0.000		0		N.D.	
98)	sec-Butylbenzene	0.000		0		N.D.	
99)	p-Isopropyltoluene	0.000		0		N.D.	
100)	1,3-Dichlorobenzene	12.321	146	140		N.D.	
101)	1,4-Dichlorobenzene	12.321	146	140		N.D.	
102)	p-Diethylbenzene	0.000		0		N.D.	
103)	n-Butylbenzene	0.000		0		N.D.	
104)	1,2-Dichlorobenzene	0.000		0		N.D.	
105)	1,2,4,5-Tetramethylben...	13.321	119	89		N.D.	
106)	1,2-Dibromo-3-chloropr...	0.000		0		N.D.	
108)	Hexachlorobutadiene	0.000		0		N.D.	
109)	1,2,4-Trichlorobenzene	0.000		0		N.D.	
110)	Naphthalene	14.457	128	128		N.D.	
111)	1,2,3-Trichlorobenzene	14.614	180	89		N.D.	

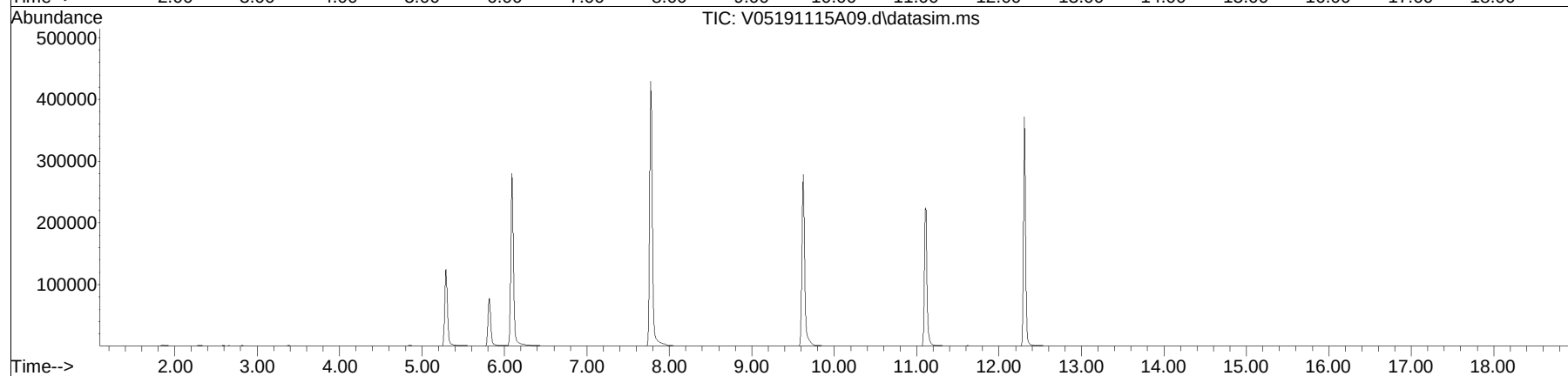
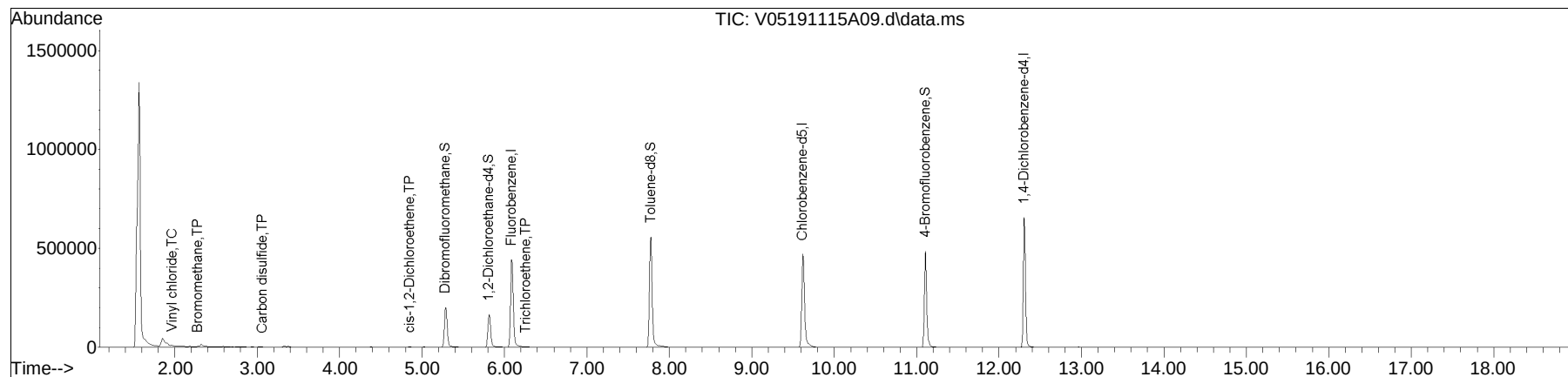
(#) = qualifier out of range (m) = manual integration (+) = signals summed

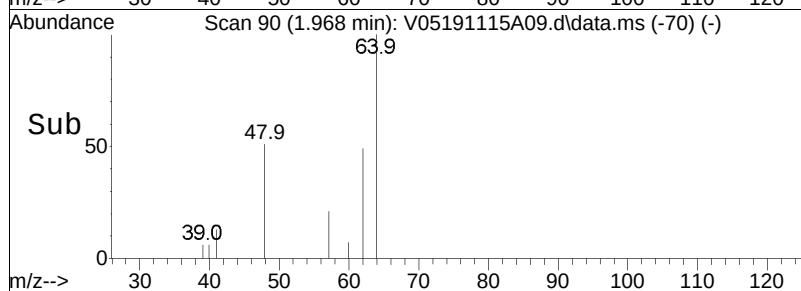
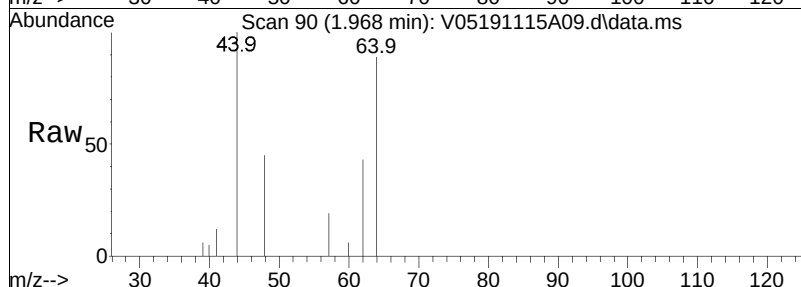
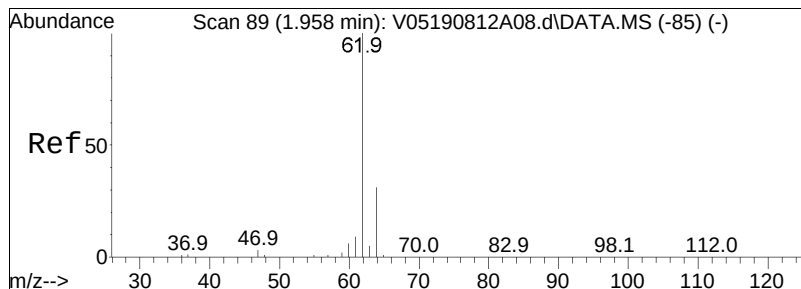
Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\VOA105\2019\191115A\
 Data File : V05191115A09.d
 Acq On : 15 Nov 2019 10:01 am
 Operator : VOA105:PD
 Sample : l1954584-04,31,10,10,,a
 Misc : WG1309356,ICAL16159 (Sig #1); WG,ICAL16159 (Sig #2)
 ALS Vial : 9 Sample Multiplier: 1

Quant Time: Nov 15 12:06:10 2019
 Quant Method : I:\VOLATILES\VOA105\2019\191115A\V105_190921_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Mon Sep 23 12:05:21 2019
 Response via : Initial Calibration

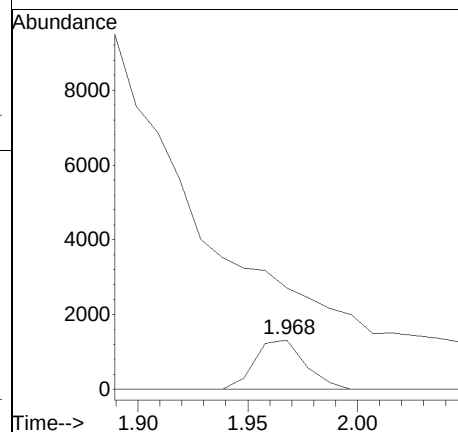
Sub List : 8260-NYTCL - Megamix plus Diox91115A\V05191115A02.d•

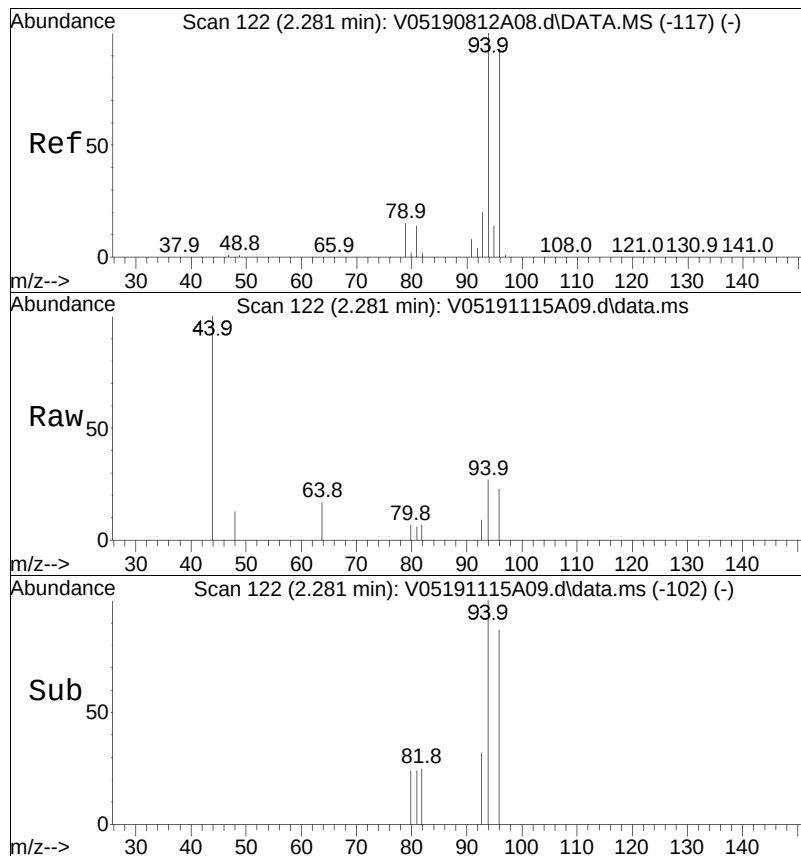




#4
 Vinyl chloride
 Concen: 0.20 ug/L
 RT: 1.968 min Scan# 90
 Delta R.T. 0.000 min
 Lab File: V05191115A09.d
 Acq: 15 Nov 2019 10:01 am

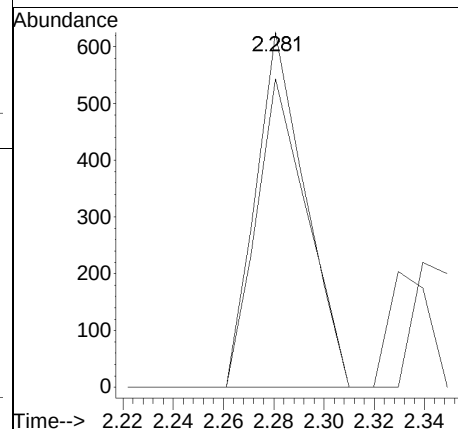
Tgt Ion: 62 Resp: 2113
 Ion Ratio Lower Upper
 62 100
 64 0.0 13.5 53.5#

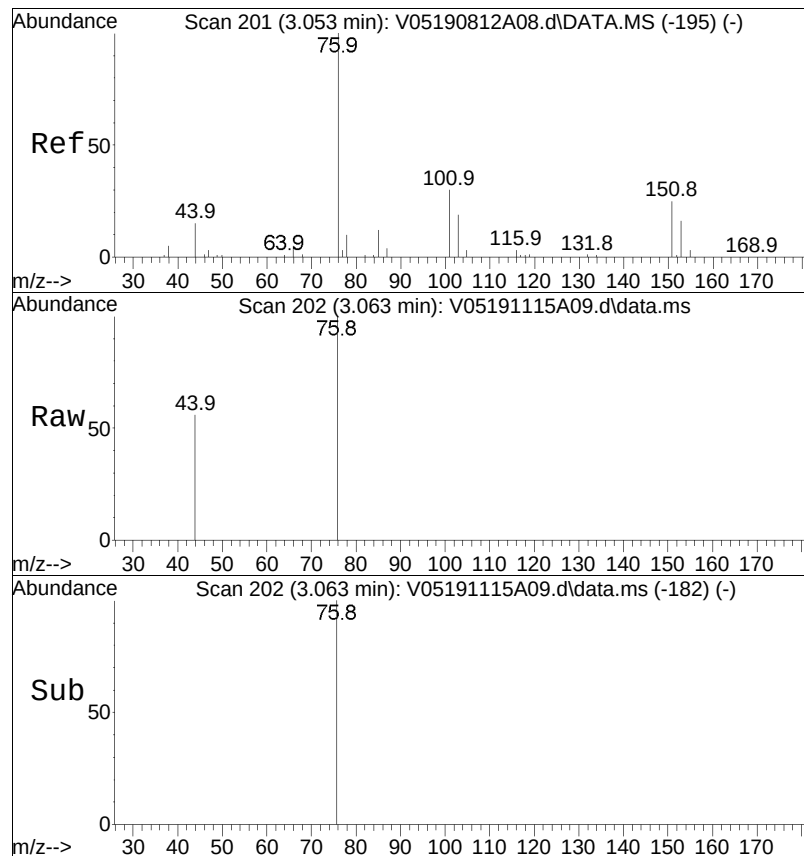




#5
 Bromomethane
 Concen: 0.18 ug/L
 RT: 2.281 min Scan# 122
 Delta R.T. 0.000 min
 Lab File: V05191115A09.d
 Acq: 15 Nov 2019 10:01 am

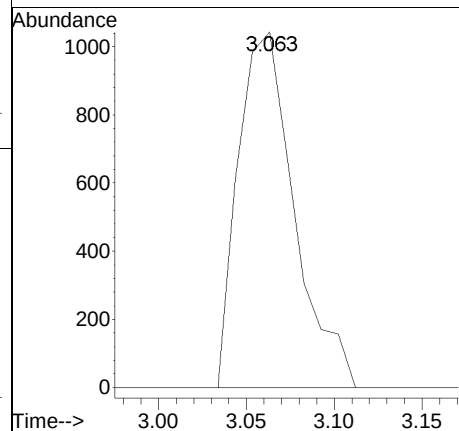
Tgt Ion	Ratio	Lower	Upper
94	100		
96	89.8	75.4	115.4

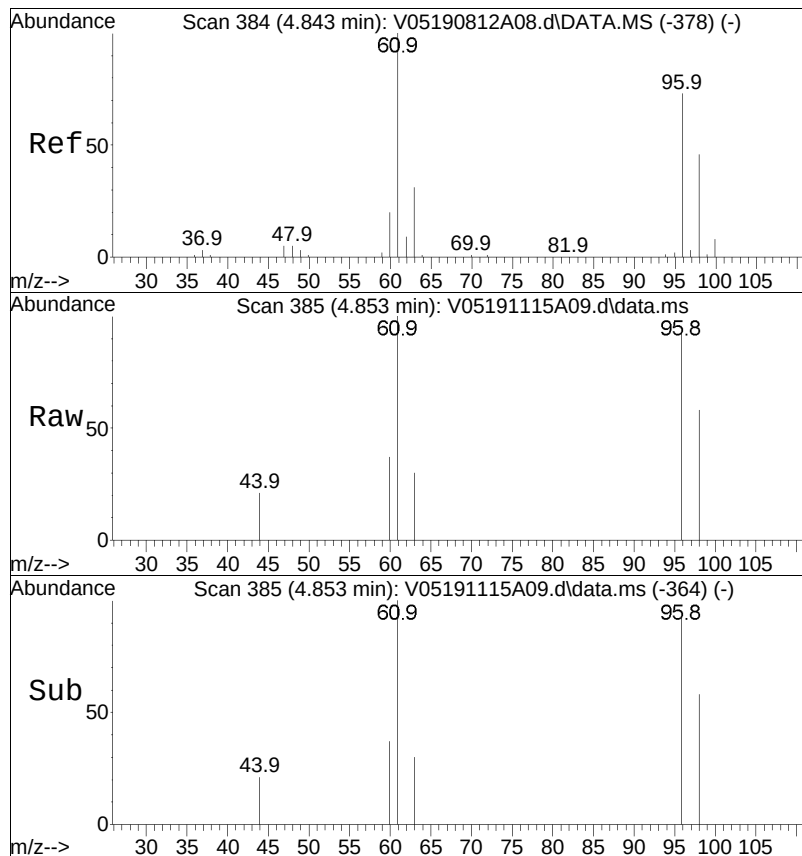




#11
Carbon disulfide
Concen: 0.09 ug/L
RT: 3.063 min Scan# 202
Delta R.T. 0.000 min
Lab File: V05191115A09.d
Acq: 15 Nov 2019 10:01 am

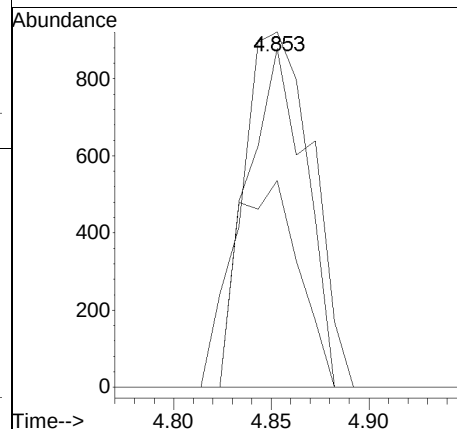
Tgt Ion: 76 Resp: 2320
Ion Ratio Lower Upper
76 100
78 0.0 6.7 13.9#

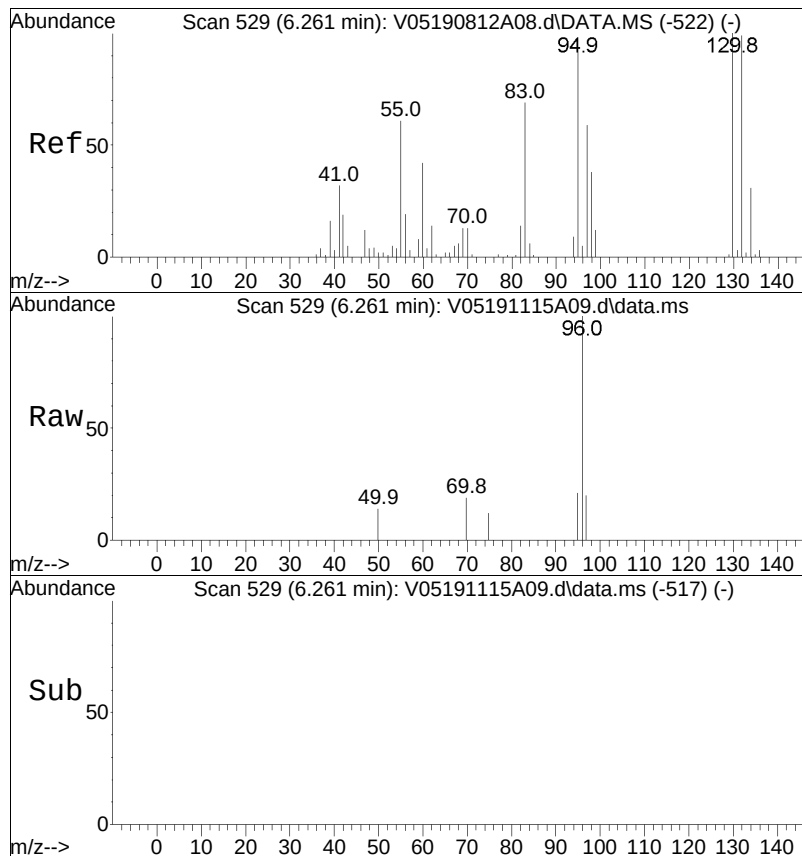




#28
 cis-1,2-Dichloroethene
 Concen: 0.18 ug/L
 RT: 4.853 min Scan# 385
 Delta R.T. 0.010 min
 Lab File: V05191115A09.d
 Acq: 15 Nov 2019 10:01 am

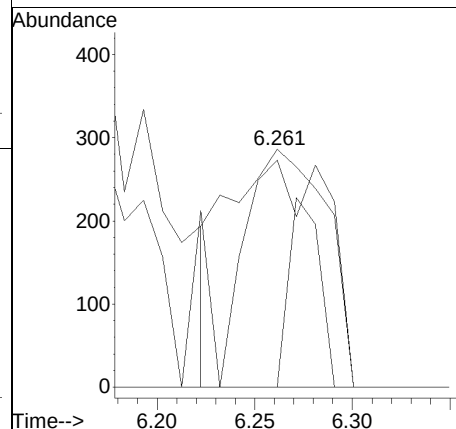
Tgt Ion:	96	Resp:	1994
Ion Ratio	Lower	Upper	
96	100		
61	109.2	100.5	150.7
98	58.2	49.8	74.8





#48
 Trichloroethene
 Concen: 0.08 ug/L
 RT: 6.261 min Scan# 529
 Delta R.T. 0.000 min
 Lab File: V05191115A09.d
 Acq: 15 Nov 2019 10:01 am

Tgt Ion	Ratio	Lower	Upper
95	100		
97	80.8	56.1	84.1
130	24.9	77.7	116.5#



Manual Integration Report

Data Path	: I:\VOLATILES\VOA105\2019\10	Method	: V105_190921_8260.m
Data File	: V05191115A09.d	Operator	: VOA105:PD
Date Inj'd	: 11/15/2019 10:01 am	Instrument	: VOA 105
Sample	: l1954584-04,31,10,10,,a	Quant Date	: 11/15/2019 12:04 pm

There are no manual integrations or false positives in this file.

Volatiles Standards Data

Initial Calibration

Initial Calibration Summary

Form 6

Volatiles

Client : Langan Engineering & Environmental
Project Name : 432 RODNEY STREET
Instrument ID : VOA105
Calibration dates : 09/21/19 02:10 09/21/19 06:00
Lab Number : L1954584
Project Number : 170357801
Ical Ref : ICAL16159

Calibration Files

L11 =V05190921A04.d L1 =V05190921A06.d L2 =V05190921A08.d L3 =V05190921A09.d L4 =V05190921A10.d
 L6 =V05190921A11.d L8 =V05190921A12.d L10 =V05190921A13.d

Compound	L11	L1	L2	L3	L4	L6	L8	L10	Avg	%RSD
1) I Fluorobenzene	-----ISTD-----									
2) TP Dichlorodifluo		0.257	0.220	0.260	0.252	0.246	0.240	0.238	0.245	5.64
3) TP Chloromethane		0.303	0.227	0.267	0.230	0.225	0.230	0.239	0.246	11.83
4) TC Vinyl chloride	0.210	0.214	0.188	0.228	0.218	0.221	0.223	0.224	0.216	5.75
5) TP Bromomethane		0.098	0.074	0.102	0.086	0.101	0.111	0.123	0.099#	16.13
6) TP Chloroethane		0.162	0.130	0.143	0.127	0.124	0.123	0.119	0.133	11.42
7) TP Trichlorofluor		0.372	0.328	0.390	0.382	0.368	0.352	0.345	0.362	5.99
8) TP Ethyl ether		0.081	0.071	0.086	0.073	0.073	0.074	0.074	0.076	7.10
10) TC 1,1-Dichloroet		0.189	0.166	0.201	0.188	0.188	0.192	0.194	0.188	5.85
11) TP Carbon disulfide		0.487	0.424	0.559	0.529	0.549	0.579	0.592	0.531	11.05
12) TP Freon-113		0.204	0.187	0.210	0.210	0.209	0.207	0.208	0.205	3.92
14) TP Acrolein		0.015	0.015	0.023	0.021	0.021	0.022	0.022	0.020#	16.60
15) TP Methylene chlo		0.254	0.206	0.233	0.188	0.188	0.193	0.192	0.208	12.40
17) TP Acetone			0.038	0.039	0.033	0.032	0.033	0.034	0.035#	8.31
18) TP trans-1,2-Dich		0.210	0.188	0.231	0.202	0.204	0.209	0.211	0.208	6.12
19) TP Methyl acetate		0.088	0.071	0.094	0.080	0.082	0.085	0.084	0.083#	8.58
20) TP Methyl tert butyl ether		0.380	0.359	0.463	0.400	0.408	0.425	0.424	0.408	8.29
21) TP tert-Butyl alc		0.010	0.008	0.009	0.009	0.009	0.010	0.011	0.009#	12.18
22) TP Diisopropyl ether		0.623	0.569	0.725	0.637	0.650	0.656	0.645	0.644	7.20
23) TP 1,1-Dichloroet		0.440	0.384	0.462	0.396	0.398	0.403	0.402	0.412	6.79
24) TP Halothane		0.149	0.133	0.163	0.157	0.161	0.165	0.168	0.157	7.68
25) TP Acrylonitrile		0.027	0.031	0.041	0.035	0.036	0.037	0.038	0.035#	12.75
26) TP Ethyl tert-but		0.514	0.468	0.609	0.542	0.550	0.566	0.562	0.544	8.15
27) TP Vinyl acetate		0.338	0.297	0.453	0.392	0.395	0.404	0.401	0.383	13.18
28) TP cis-1,2-Dichlo		0.225	0.201	0.257	0.208	0.213	0.220	0.221	0.221	8.21
29) TP 2,2-Dichloropr		0.289	0.268	0.345	0.349	0.349	0.355	0.355	0.330	10.84
30) TP Bromochloromet		0.101	0.088	0.106	0.092	0.093	0.095	0.090	0.095	6.82
31) TP Cyclohexane		0.321	0.304	0.372	0.390	0.388	0.391	0.389	0.365	10.09
32) TC Chloroform		0.465	0.391	0.472	0.388	0.391	0.394	0.389	0.413	9.25
33) TP Ethyl acetate		0.111	0.098	0.126	0.114	0.115	0.117	0.117	0.114	7.47
34) TP Carbon tetrachloride	0.267	0.285	0.266	0.361	0.361	0.367	0.365	0.362	0.329	14.39
35) TP Tetrahydrofuran		0.032	0.027	0.037	0.033	0.032	0.033	0.032	0.032#	9.25
36) S Dibromofluoromethane	0.268	0.271	0.280	0.277	0.277	0.271	0.266	0.262	0.271	2.26
37) TP 1,1,1-Trichlor		0.387	0.345	0.445	0.408	0.411	0.410	0.406	0.402	7.54
39) TP 2-Butanone		0.058	0.040	0.053	0.046	0.047	0.048	0.048	0.049#	11.46
40) TP 1,1-Dichloropr		0.285	0.265	0.319	0.312	0.317	0.318	0.322	0.306	7.09



Initial Calibration Summary

Form 6

Volatiles

Client : Langan Engineering & Environmental
Project Name : 432 RODNEY STREET
Instrument ID : VOA105
Calibration dates : 09/21/19 02:10 09/21/19 06:00
Lab Number : L1954584
Project Number : 170357801
Ical Ref : ICAL16159

Calibration Files

L11 =V05190921A04.d L1 =V05190921A06.d L2 =V05190921A08.d L3 =V05190921A09.d L4 =V05190921A10.d
 L6 =V05190921A11.d L8 =V05190921A12.d L10 =V05190921A13.d

Compound	L11	L1	L2	L3	L4	L6	L8	L10	Avg	%RSD
41) TP Benzene	0.793	0.801	0.735	0.910	0.770	0.787	0.802	0.804	0.800	6.22
42) TP Tertiary-Amyl Methyl Ether		0.352	0.329	0.461	0.406	0.421	0.440	0.442	0.407	12.09
43) S 1,2-Dichloroethane-d4	0.351	0.348	0.360	0.375	0.347	0.340	0.323	0.319	0.345	5.32
44) TP 1,2-Dichloroet		0.348	0.300	0.360	0.293	0.287	0.286	0.279	0.307	10.62
47) TP Methyl cyclohe		0.318	0.294	0.346	0.372	0.379	0.384	0.391	0.355	10.35
48) TP Trichloroethene	0.280	0.289	0.214	0.252	0.224	0.228	0.232	0.232	0.244	11.17
50) TP Dibromomethane		0.097	0.098	0.122	0.102	0.103	0.107	0.106	0.105	8.01
51) TC 1,2-Dichloropr		0.192	0.178	0.226	0.187	0.193	0.199	0.199	0.196	7.51
54) TP Bromodichlorom		0.241	0.237	0.328	0.276	0.294	0.300	0.300	0.282	11.82
57) TP 1,4-Dioxane		0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001#	5.09
58) TP cis-1,3-Dichlo		0.212	0.226	0.335	0.305	0.324	0.337	0.336	0.297	18.29
59) I Chlorobenzene-d5	-----ISTD-----									
60) S Toluene-d8	1.299	1.301	1.333	1.305	1.319	1.299	1.290	1.301	1.306	1.05
61) TC Toluene		0.729	0.678	0.782	0.683	0.686	0.702	0.710	0.710	5.14
62) TP 4-Methyl-2-pen			0.034	0.054	0.050	0.052	0.054	0.055	0.050#	15.69
63) TP Tetrachloroethene		0.314	0.287	0.340	0.322	0.326	0.331	0.335	0.322	5.48
65) TP trans-1,3-Dich		0.234	0.247	0.383	0.358	0.376	0.390	0.395	*L	0.9991
67) TP Ethyl methacry			0.136	0.226	0.221	0.227	0.236	0.237	0.214	18.14
68) TP 1,1,2-Trichlor		0.154	0.143	0.176	0.149	0.148	0.152	0.153	0.153	6.94
69) TP Chlorodibromom		0.181	0.166	0.234	0.210	0.218	0.225	0.230	0.209	12.49
70) TP 1,3-Dichloropr		0.354	0.313	0.373	0.332	0.331	0.341	0.339	0.340	5.60
71) TP 1,2-Dibromoethane		0.141	0.149	0.195	0.176	0.180	0.187	0.188	0.174	11.88
72) TP 2-Hexanone			0.056	0.092	0.090	0.096	0.100	0.101	0.089#	18.80
73) TP Chlorobenzene		0.822	0.736	0.861	0.729	0.744	0.761	0.754	0.773	6.44
74) TC Ethylbenzene		1.386	1.297	1.562	1.392	1.412	1.428	1.298	1.397	6.43
75) TP 1,1,1,2-Tetrac		0.240	0.241	0.296	0.271	0.278	0.284	0.284	0.271	8.11
76) TP p/m Xylene		0.468	0.449	0.554	0.499	0.506	0.512	0.506	0.499	6.73
77) TP o Xylene		0.402	0.411	0.516	0.461	0.468	0.475	0.466	0.457	8.53
78) TP Styrene		0.588	0.645	0.837	0.743	0.766	0.784	0.630	0.713	12.94
79) I 1,4-Dichlorobenzene-d4	-----ISTD-----									
80) TP Bromoform		0.164	0.170	0.248	0.234	0.256	0.274	0.287	*Q	0.9996
82) TP Isopropylbenzene		2.269	2.262	2.720	2.576	2.635	2.685	2.352	2.500	7.97
83) S 4-Bromofluorobenzene	0.988	0.990	1.010	0.983	0.973	0.975	0.966	0.981	0.983	1.37
84) TP Bromobenzene		0.635	0.575	0.645	0.568	0.584	0.606	0.613	0.604	4.90
85) TP n-Propylbenzene		2.998	2.853	3.239	3.071	3.112	3.103	2.316	2.956	10.34
86) TP 1,4-Dichlorobu		0.589	0.543	0.654	0.563	0.565	0.584	0.587	0.583	6.05



Initial Calibration Summary

Form 6

Volatiles

Client : Langan Engineering & Environmental
Project Name : 432 RODNEY STREET
Instrument ID : VOA105
Calibration dates : 09/21/19 02:10 09/21/19 06:00
Lab Number : L1954584
Project Number : 170357801
Ical Ref : ICAL16159

Calibration Files

L11 =V05190921A04.d L1 =V05190921A06.d L2 =V05190921A08.d L3 =V05190921A09.d L4 =V05190921A10.d
 L6 =V05190921A11.d L8 =V05190921A12.d L10 =V05190921A13.d

Compound	L11	L1	L2	L3	L4	L6	L8	L10	Avg	%RSD
87) TP 1,1,2,2-Tetrac	0.334	0.309	0.374	0.319	0.321	0.339	0.349	0.335	6.56	
88) TP 4-Ethyltoluene	2.148	2.175	2.575	2.380	2.454	2.504	2.153	2.341	7.71	
89) TP 2-Chlorotoluene	1.903	1.836	2.027	1.732	1.845	1.892	1.871	1.872	4.73	
90) TP 1,3,5-Trimethy	1.946	1.968	2.318	2.113	2.161	2.229	1.972	2.101	6.89	
91) TP 1,2,3-Trichlor	0.372	0.320	0.358	0.301	0.300	0.312	0.328	0.327	8.54	
92) TP trans-1,4-Dich	0.057	0.086	0.083	0.097	0.106	0.109	*L		0.9959	
93) TP 4-Chlorotoluene	1.970	1.839	2.101	1.850	1.886	1.935	1.851	1.919	4.90	
94) TP tert-Butylbenzene	1.586	1.600	1.930	1.860	1.890	1.940	1.858	1.809	8.34	
97) TP 1,2,4-Trimethy	1.705	1.863	2.265	2.073	2.116	2.175	1.942	2.020	9.61	
98) TP sec-Butylbenzene	2.130	2.135	2.474	2.449	2.509	2.552	2.096	2.335	8.72	
99) TP p-Isopropyltol	1.751	1.912	2.328	2.261	2.323	2.369	2.020	2.138	11.36	
100) TP 1,3-Dichlorobe	1.109	1.055	1.246	1.055	1.099	1.141	1.150	1.122	5.89	
101) TP 1,4-Dichlorobe	1.290	1.122	1.257	1.063	1.098	1.135	1.146	1.159	7.20	
102) TP p-Diethylbenzene	0.996	1.006	1.283	1.250	1.286	1.338	1.338	1.214	12.26	
103) TP n-Butylbenzene	1.772	1.736	2.026	1.979	2.041	2.073	1.797	1.918	7.48	
104) TP 1,2-Dichlorobe	0.974	0.915	1.088	0.930	0.946	0.987	0.986	0.975	5.82	
105) TP 1,2,4,5-Tetram	1.094	1.232	1.842	1.771	1.835	1.891	1.696	1.623	19.89	
106) TP 1,2-Dibromo-3-	0.026	0.029	0.039	0.039	0.044	0.047	0.050	*Q	0.9996	
107) TP 1,3,5-Trichlor	0.612	0.638	0.742	0.675	0.702	0.728	0.741	0.691	7.46	
108) TP Hexachlorobuta	0.288	0.251	0.268	0.271	0.281	0.297	0.306	0.280	6.67	
109) TP 1,2,4-Trichlor	0.478	0.457	0.556	0.523	0.545	0.582	0.586	0.532	9.31	
110) TP Naphthalene	0.553	0.505	0.767	0.770	0.787	0.857	0.874	0.730	19.77	
111) TP 1,2,3-Trichlor	0.379	0.332	0.380	0.363	0.370	0.401	0.410	0.376	6.81	

Response Factor Report VOA 105

Method Path : I:\VOLATILES\VOA105\2019\190921\
 Method File : V105_190921_8260.m
 Title : VOLATILES BY GC/MS
 Last Update : Mon Sep 23 12:05:21 2019
 Response Via : Initial Calibration

Calibration Files

L11 =V05190921A04.d L1 =V05190921A06.d L2 =V05190921A08.d L3 =V05190921A09.d L4 =V05190921A10.d
 L6 =V05190921A11.d L8 =V05190921A12.d L10 =V05190921A13.d

Compound		L11	L1	L2	L3	L4	L6	L8	L10	Avg	%RSD

1) I	Fluorobenzene	-----ISTD-----									
2) TP	Dichlorodifluo...	0.257	0.220	0.260	0.252	0.246	0.240	0.238	0.245	5.64	
3) TP	Chloromethane	0.303	0.227	0.267	0.230	0.225	0.230	0.239	0.246	11.83	
4) TC	Vinyl chloride	0.210	0.214	0.188	0.228	0.218	0.221	0.223	0.224	0.216	5.75
5) TP	Bromomethane	0.098	0.074	0.102	0.086	0.101	0.111	0.123	0.099#	16.13	
6) TP	Chloroethane	0.162	0.130	0.143	0.127	0.124	0.123	0.119	0.133	11.42	
7) TP	Trichlorofluor...	0.372	0.328	0.390	0.382	0.368	0.352	0.345	0.362	5.99	
8) TP	Ethyl ether	0.081	0.071	0.086	0.073	0.073	0.074	0.074	0.076	7.10	
10) TC	1,1-Dichloroet...	0.189	0.166	0.201	0.188	0.188	0.192	0.194	0.188	5.85	
11) TP	Carbon disulfide	0.487	0.424	0.559	0.529	0.549	0.579	0.592	0.531	11.05	
12) TP	Freon-113	0.204	0.187	0.210	0.210	0.209	0.207	0.208	0.205	3.92	
14) TP	Acrolein	0.015	0.015	0.023	0.021	0.021	0.022	0.022	0.020#	16.60	
15) TP	Methylene chlo...	0.254	0.206	0.233	0.188	0.188	0.193	0.192	0.208	12.40	
17) TP	Acetone		0.038	0.039	0.033	0.032	0.033	0.034	0.035#	8.31	
18) TP	trans-1,2-Dich...	0.210	0.188	0.231	0.202	0.204	0.209	0.211	0.208	6.12	
19) TP	Methyl acetate	0.088	0.071	0.094	0.080	0.082	0.085	0.084	0.083#	8.58	
20) TP	Methyl tert-bu...	0.380	0.359	0.463	0.400	0.408	0.425	0.424	0.408	8.29	
21) TP	tert-Butyl alc...	0.010	0.008	0.009	0.009	0.009	0.010	0.011	0.009#	12.18	
22) TP	Diisopropyl ether	0.623	0.569	0.725	0.637	0.650	0.656	0.645	0.644	7.20	
23) TP	1,1-Dichloroet...	0.440	0.384	0.462	0.396	0.398	0.403	0.402	0.412	6.79	
24) TP	Halothane	0.149	0.133	0.163	0.157	0.161	0.165	0.168	0.157	7.68	
25) TP	Acrylonitrile	0.027	0.031	0.041	0.035	0.036	0.037	0.038	0.035#	12.75	
26) TP	Ethyl tert-but...	0.514	0.468	0.609	0.542	0.550	0.566	0.562	0.544	8.15	
27) TP	Vinyl acetate	0.338	0.297	0.453	0.392	0.395	0.404	0.401	0.383	13.18	
28) TP	cis-1,2-Dichlo...	0.225	0.201	0.257	0.208	0.213	0.220	0.221	0.221	8.21	
29) TP	2,2-Dichloropr...	0.289	0.268	0.345	0.349	0.349	0.355	0.355	0.330	10.84	
30) TP	Bromochloromet...	0.101	0.088	0.106	0.092	0.093	0.095	0.090	0.095	6.82	
31) TP	Cyclohexane	0.321	0.304	0.372	0.390	0.388	0.391	0.389	0.365	10.09	
32) TC	Chloroform	0.465	0.391	0.472	0.388	0.391	0.394	0.389	0.413	9.25	
33) TP	Ethyl acetate	0.111	0.098	0.126	0.114	0.115	0.117	0.117	0.114	7.47	
34) TP	Carbon tetrach...	0.267	0.285	0.266	0.361	0.367	0.365	0.362	0.329	14.39	

Response Factor Report VOA 105

Method Path : I:\VOLATILES\VOA105\2019\190921\
 Method File : V105_190921_8260.m
 Title : VOLATILES BY GC/MS
 Last Update : Mon Sep 23 12:05:21 2019
 Response Via : Initial Calibration

Calibration Files

L11 =V05190921A04.d L1 =V05190921A06.d L2 =V05190921A08.d L3 =V05190921A09.d L4 =V05190921A10.d
 L6 =V05190921A11.d L8 =V05190921A12.d L10 =V05190921A13.d

Compound		L11	L1	L2	L3	L4	L6	L8	L10	Avg	%RSD
35)	TP Tetrahydrofuran	0.032	0.027	0.037	0.033	0.032	0.033	0.032	0.032#	9.25	
36)	S Dibromofluorom...	0.268	0.271	0.280	0.277	0.271	0.266	0.262	0.271	2.26	
37)	TP 1,1,1-Trichlor...	0.387	0.345	0.445	0.408	0.411	0.410	0.406	0.402	7.54	
39)	TP 2-Butanone	0.058	0.040	0.053	0.046	0.047	0.048	0.048	0.049#	11.46	
40)	TP 1,1-Dichloropr...	0.285	0.265	0.319	0.312	0.317	0.318	0.322	0.306	7.09	
41)	TP Benzene	0.793	0.801	0.735	0.910	0.770	0.787	0.802	0.804	0.800	6.22
42)	TP tert-Amyl meth...	0.352	0.329	0.461	0.406	0.421	0.440	0.442	0.407	12.09	
43)	S 1,2-Dichloroet...	0.351	0.348	0.360	0.375	0.347	0.340	0.323	0.319	0.345	5.32
44)	TP 1,2-Dichloroet...	0.348	0.300	0.360	0.293	0.287	0.286	0.279	0.307	10.62	
47)	TP Methyl cyclohe...	0.318	0.294	0.346	0.372	0.379	0.384	0.391	0.355	10.35	
48)	TP Trichloroethene	0.280	0.289	0.214	0.252	0.224	0.228	0.232	0.232	0.244	11.17
50)	TP Dibromomethane	0.097	0.098	0.122	0.102	0.103	0.107	0.106	0.105	8.01	
51)	TC 1,2-Dichloropr...	0.192	0.178	0.226	0.187	0.193	0.199	0.199	0.196	7.51	
54)	TP Bromodichlorom...	0.241	0.237	0.328	0.276	0.294	0.300	0.300	0.282	11.82	
57)	TP 1,4-Dioxane	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001#	5.09	
58)	TP cis-1,3-Dichlo...	0.212	0.226	0.335	0.305	0.324	0.337	0.336	0.297	18.29	
59)	I Chlorobenzene-d5	-----ISTD-----									
60)	S Toluene-d8	1.299	1.301	1.333	1.305	1.319	1.299	1.290	1.301	1.306	1.05
61)	TC Toluene	0.729	0.678	0.782	0.683	0.686	0.702	0.710	0.710	5.14	
62)	TP 4-Methyl-2-pen...		0.034	0.054	0.050	0.052	0.054	0.055	0.050#	15.69	
63)	TP Tetrachloroethene	0.314	0.287	0.340	0.322	0.326	0.331	0.335	0.322	5.48	
65)	TP trans-1,3-Dich...	0.234	0.247	0.383	0.358	0.376	0.390	0.395	*L	0.9991	
67)	TP Ethyl methacry...		0.136	0.226	0.221	0.227	0.236	0.237	0.214	18.14	
68)	TP 1,1,2-Trichlor...	0.154	0.143	0.176	0.149	0.148	0.152	0.153	0.153	6.94	
69)	TP Chlorodibromom...	0.181	0.166	0.234	0.210	0.218	0.225	0.230	0.209	12.49	
70)	TP 1,3-Dichloropr...	0.354	0.313	0.373	0.332	0.331	0.341	0.339	0.340	5.60	
71)	TP 1,2-Dibromoethane	0.141	0.149	0.195	0.176	0.180	0.187	0.188	0.174	11.88	
72)	TP 2-Hexanone		0.056	0.092	0.090	0.096	0.100	0.101	0.089#	18.80	
73)	TP Chlorobenzene	0.822	0.736	0.861	0.729	0.744	0.761	0.754	0.773	6.44	
74)	TC Ethylbenzene	1.386	1.297	1.562	1.392	1.412	1.428	1.298	1.397	6.43	
75)	TP 1,1,1,2-Tetrac...	0.240	0.241	0.296	0.271	0.278	0.284	0.284	0.271	8.11	

Response Factor Report VOA 105

Method Path : I:\VOLATILES\VOA105\2019\190921\
 Method File : V105_190921_8260.m
 Title : VOLATILES BY GC/MS
 Last Update : Mon Sep 23 12:05:21 2019
 Response Via : Initial Calibration

Calibration Files

L11 =V05190921A04.d L1 =V05190921A06.d L2 =V05190921A08.d L3 =V05190921A09.d L4 =V05190921A10.d
 L6 =V05190921A11.d L8 =V05190921A12.d L10 =V05190921A13.d

Compound		L11	L1	L2	L3	L4	L6	L8	L10	Avg	%RSD
76)	TP p/m Xylene	0.468	0.449	0.554	0.499	0.506	0.512	0.506	0.499	6.73	
77)	TP o Xylene	0.402	0.411	0.516	0.461	0.468	0.475	0.466	0.457	8.53	
78)	TP Styrene	0.588	0.645	0.837	0.743	0.766	0.784	0.630	0.713	12.94	
79)	I 1,4-Dichlorobenzene-d4	-----ISTD-----									
80)	TP Bromoform	0.164	0.170	0.248	0.234	0.256	0.274	0.287	*Q	0.9996	
82)	TP Isopropylbenzene	2.269	2.262	2.720	2.576	2.635	2.685	2.352	2.500	7.97	
83)	S 4-Bromofluorob...	0.988	0.990	1.010	0.983	0.973	0.975	0.966	0.981	0.983	1.37
84)	TP Bromobenzene	0.635	0.575	0.645	0.568	0.584	0.606	0.613	0.604	4.90	
85)	TP n-Propylbenzene	2.998	2.853	3.239	3.071	3.112	3.103	2.316	2.956	10.34	
86)	TP 1,4-Dichlorobu...	0.589	0.543	0.654	0.563	0.565	0.584	0.587	0.583	6.05	
87)	TP 1,1,2,2-Tetrac...	0.334	0.309	0.374	0.319	0.321	0.339	0.349	0.335	6.56	
88)	TP 4-Ethyltoluene	2.148	2.175	2.575	2.380	2.454	2.504	2.153	2.341	7.71	
89)	TP 2-Chlorotoluene	1.903	1.836	2.027	1.732	1.845	1.892	1.871	1.872	4.73	
90)	TP 1,3,5-Trimethy...	1.946	1.968	2.318	2.113	2.161	2.229	1.972	2.101	6.89	
91)	TP 1,2,3-Trichlor...	0.372	0.320	0.358	0.301	0.300	0.312	0.328	0.327	8.54	
92)	TP trans-1,4-Dich...		0.057	0.086	0.083	0.097	0.106	0.109	*L	0.9959	
93)	TP 4-Chlorotoluene	1.970	1.839	2.101	1.850	1.886	1.935	1.851	1.919	4.90	
94)	TP tert-Butylbenzene	1.586	1.600	1.930	1.860	1.890	1.940	1.858	1.809	8.34	
97)	TP 1,2,4-Trimethy...	1.705	1.863	2.265	2.073	2.116	2.175	1.942	2.020	9.61	
98)	TP sec-Butylbenzene	2.130	2.135	2.474	2.449	2.509	2.552	2.096	2.335	8.72	
99)	TP p-Isopropyltol...	1.751	1.912	2.328	2.261	2.323	2.369	2.020	2.138	11.36	
100)	TP 1,3-Dichlorobe...	1.109	1.055	1.246	1.055	1.099	1.141	1.150	1.122	5.89	
101)	TP 1,4-Dichlorobe...	1.290	1.122	1.257	1.063	1.098	1.135	1.146	1.159	7.20	
102)	TP p-Diethylbenzene	0.996	1.006	1.283	1.250	1.286	1.338	1.338	1.214	12.26	
103)	TP n-Butylbenzene	1.772	1.736	2.026	1.979	2.041	2.073	1.797	1.918	7.48	
104)	TP 1,2-Dichlorobe...	0.974	0.915	1.088	0.930	0.946	0.987	0.986	0.975	5.82	
105)	TP 1,2,4,5-Tetram...	1.094	1.232	1.842	1.771	1.835	1.891	1.696	1.623	19.89	
106)	TP 1,2-Dibromo-3-...	0.026	0.029	0.039	0.039	0.044	0.047	0.050	*Q	0.9996	
107)	TP 1,3,5-Trichlor...	0.612	0.638	0.742	0.675	0.702	0.728	0.741	0.691	7.46	
108)	TP Hexachlorobuta...	0.288	0.251	0.268	0.271	0.281	0.297	0.306	0.280	6.67	
109)	TP 1,2,4-Trichlor...	0.478	0.457	0.556	0.523	0.545	0.582	0.586	0.532	9.31	

Response Factor Report VOA 105

Method Path : I:\VOLATILES\VOA105\2019\190921\
Method File : V105_190921_8260.m
Title : VOLATILES BY GC/MS
Last Update : Mon Sep 23 12:05:21 2019
Response Via : Initial Calibration

Calibration Files

L11 =V05190921A04.d L1 =V05190921A06.d L2 =V05190921A08.d L3 =V05190921A09.d L4 =V05190921A10.d
L6 =V05190921A11.d L8 =V05190921A12.d L10 =V05190921A13.d

Compound		L11	L1	L2	L3	L4	L6	L8	L10	Avg	%RSD
110) TP	Naphthalene	0.553	0.505	0.767	0.770	0.787	0.857	0.874	0.730	19.77	
111) TP	1,2,3-Trichlor...	0.379	0.332	0.380	0.363	0.370	0.401	0.410	0.376	6.81	

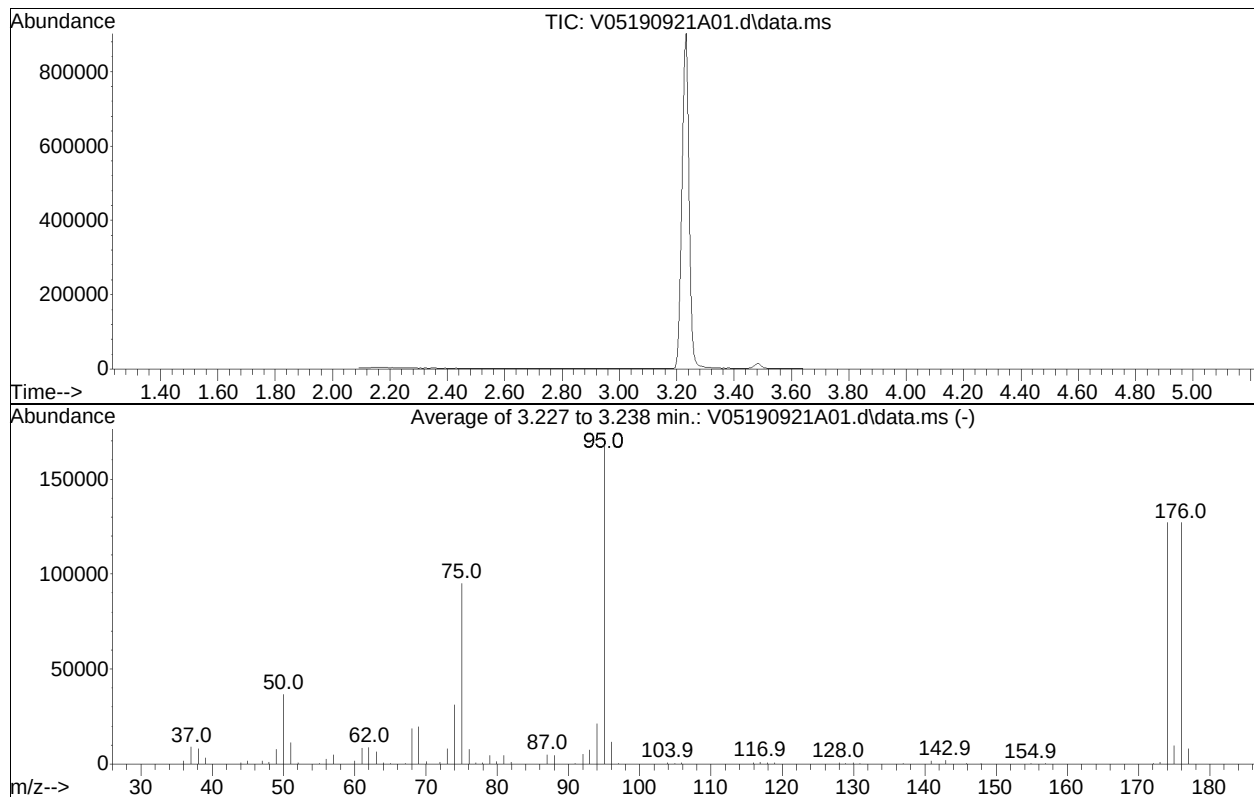
(#) = Out of Range

BFB

Data Path : I:\VOLATILES\VOA105\2019\190921\
Data File : V05190921A01.d
Acq On : 21 Sep 2019 1:04 am
Operator : VOA105:PD
Sample : WG1287418-1
Misc : WG1287418
ALS Vial : 1 Sample Multiplier: 1

Integration File: rteint.p

Method : I:\VOLATILES\VOA105\2019\190921\V105_190921_8260.m
Title : VOLATILES BY GC/MS
Last Update : Mon Sep 23 12:05:21 2019



AutoFind: Scans 209, 210, 211; Background Corrected with Scan 200

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	21.8	36701	PASS
75	95	30	60	56.5	95000	PASS
95	95	100	100	100.0	168085	PASS
96	95	5	9	7.0	11710	PASS
173	174	0.00	2	0.8	1048	PASS
174	95	50	100	75.6	127008	PASS
175	174	5	9	7.6	9629	PASS
176	174	95	101	100.0	127045	PASS
177	176	5	9	6.4	8069	PASS

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\VOA105\2019\190921\
 Data File : V05190921A04.d
 Acq On : 21 Sep 2019 2:10 am
 Operator : VOA105:PD
 Sample : I8260STD.L2PPB
 Misc : WG1287418, ICAL (Sig #1); WG, ICAL16040 (Sig #2)
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: Sep 23 12:06:48 2019
 Quant Method : I:\VOLATILES\VOA105\2019\190921\V105_190921_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Mon Sep 23 12:05:21 2019
 Response via : Initial Calibration

CCAL FILE(s) : 1 - I:\VOLATILES\VOA105\2019\190921\V05190921A09.d
 Sub List : 8260-L11 - Level 11 for 8260-LRR product

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

Internal Standards						
1) Fluorobenzene	6.095	96	888527	10.000	ug/L	0.00
Standard Area 1 = 891322			Recovery	=	99.69%	
59) Chlorobenzene-d5	9.627	117	658973	10.000	ug/L	0.01
Standard Area 1 = 671076			Recovery	=	98.20%	
79) 1,4-Dichlorobenzene-d4	12.311	152	329625	10.000	ug/L	0.00
Standard Area 1 = 351825			Recovery	=	93.69%	
System Monitoring Compounds						
36) Dibromofluoromethane	5.293	113	238296	9.883	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery	=	98.83%	
43) 1,2-Dichloroethane-d4	5.811	65	311995	10.163	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery	=	101.63%	
60) Toluene-d8	7.777	98	855754	9.945	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery	=	99.45%	
83) 4-Bromofluorobenzene	11.107	95	325576	10.047	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery	=	100.47%	
Target Compounds						
4) Vinyl chloride	1.968	62	3740	0.195	ug/L #	41
34) Carbon tetrachloride	5.234	117	4742	0.162	ug/L	96
41) Benzene	5.674	78	14094	0.198	ug/L	93
48) Trichloroethene	6.271	95	4971	0.229	ug/L #	79

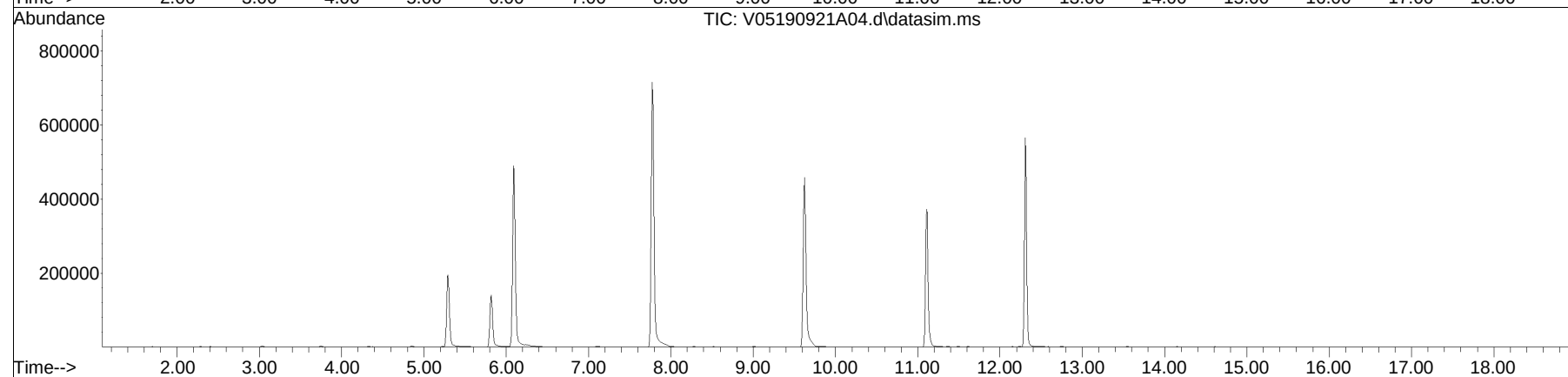
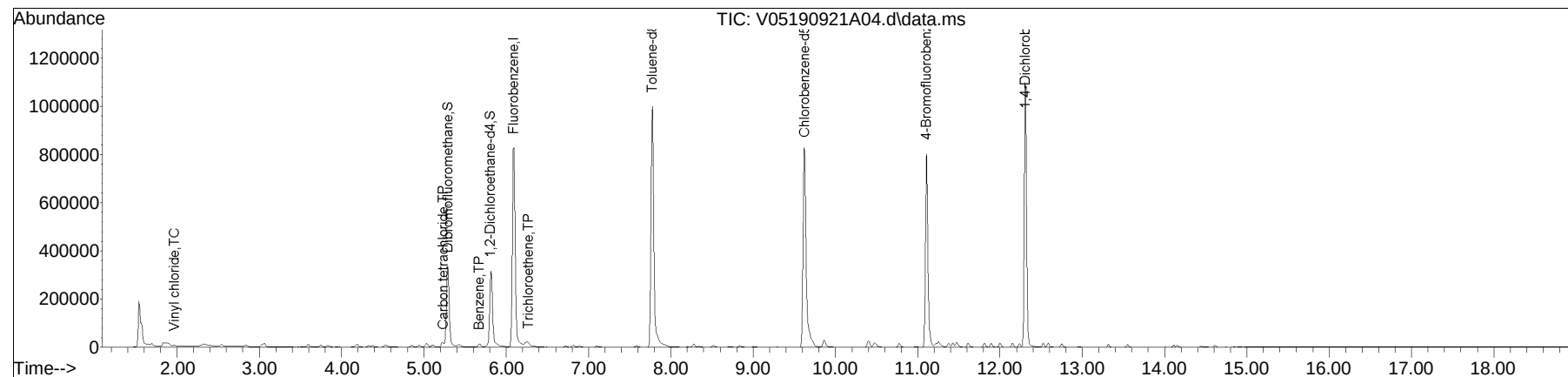
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\VOA105\2019\190921\
 Data File : V05190921A04.d
 Acq On : 21 Sep 2019 2:10 am
 Operator : VOA105:PD
 Sample : I8260STD.L2PPB
 Misc : WG1287418,ICAL (Sig #1); WG,ICAL16040 (Sig #2)
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: Sep 23 12:06:48 2019
 Quant Method : I:\VOLATILES\VOA105\2019\190921\V105_190921_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Mon Sep 23 12:05:21 2019
 Response via : Initial Calibration

Sub List : 8260-L11 - Level 11 for 8260-LRR product90921A09.d•



Manual Integration Report

Data Path	: I:\VOLATILES\VOA105\2019\1Q	Method	: V105_190921_8260.m
Data File	: V05190921A04.d	Operator	: VOA105:PD
Date Inj'd	: 9/21/2019 2:10 am	Instrument	: VOA 105
Sample	: I8260STD.L2PPB	Quant Date	: 9/23/2019 12:06 pm

There are no manual integrations or false positives in this file.

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\VOA105\2019\190921\
 Data File : V05190921A06.d
 Acq On : 21 Sep 2019 2:56 am
 Operator : VOA105:PD
 Sample : I8260STD.L5PPB
 Misc : WG1287418, ICAL (Sig #1); WG, ICAL16040 (Sig #2)
 ALS Vial : 5 Sample Multiplier: 1

Quant Time: Sep 23 12:06:57 2019
 Quant Method : I:\VOLATILES\VOA105\2019\190921\V105_190921_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Mon Sep 23 12:05:21 2019
 Response via : Initial Calibration

CCAL FILE(s) : 1 - I:\VOLATILES\VOA105\2019\190921\V05190921A09.d
 Sub List : 8260-Curve-IM-2CEVE - Megamix plus Diox-Iodomethane

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

Internal Standards						
1) Fluorobenzene	6.095	96	878697	10.000	ug/L	0.00
Standard Area 1 = 891322			Recovery	=	98.58%	
59) Chlorobenzene-d5	9.627	117	652532	10.000	ug/L	0.01
Standard Area 1 = 671076			Recovery	=	97.24%	
79) 1,4-Dichlorobenzene-d4	12.311	152	324754	10.000	ug/L	0.00
Standard Area 1 = 351825			Recovery	=	92.31%	
System Monitoring Compounds						
36) Dibromofluoromethane	5.293	113	237744	9.970	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery	=	99.70%	
43) 1,2-Dichloroethane-d4	5.811	65	306013	10.080	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery	=	100.80%	
60) Toluene-d8	7.777	98	848929	9.963	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery	=	99.63%	
83) 4-Bromofluorobenzene	11.106	95	321378	10.066	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery	=	100.66%	
Target Compounds						
						Qvalue
2) Dichlorodifluoromethane	1.694	85	11308	0.526	ug/L	98
3) Chloromethane	1.889	50	13326	0.617	ug/L	90
4) Vinyl chloride	1.967	62	9419	0.497	ug/L #	12
5) Bromomethane	2.280	94	4290	0.492	ug/L	92
6) Chloroethane	2.398	64	7129	0.611	ug/L	94
7) Trichlorofluoromethane	2.535	101	16356	0.514	ug/L	97
8) Ethyl ether	2.838	74	3572	0.535	ug/L #	55
10) 1,1-Dichloroethene	3.034	96	8308	0.502	ug/L	86
11) Carbon disulfide	3.063	76	21387	0.458	ug/L	97
12) Freon-113	3.063	101	8973	0.498	ug/L	98
14) Acrolein	3.376	56	669	0.384	ug/L	99
15) Methylene chloride	3.591	84	11140	0.610	ug/L #	70
17) Acetone	3.650	43	3225	1.049	ug/L #	88
18) trans-1,2-Dichloroethene	3.748	96	9237	0.505	ug/L	92
19) Methyl acetate	3.757	43	3848	0.526	ug/L #	75
20) Methyl tert-butyl ether	3.836	73	16686	0.465	ug/L #	79
21) tert-Butyl alcohol	3.933	59	2257	2.712	ug/L #	80
22) Diisopropyl ether	4.188	45	27350	0.484	ug/L	89
23) 1,1-Dichloroethane	4.325	63	19341	0.534	ug/L	96
24) Halothane	4.383	117	6551	0.476	ug/L	93
25) Acrylonitrile	4.413	53	1201	0.389	ug/L #	88

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\VOA105\2019\190921\
 Data File : V05190921A06.d
 Acq On : 21 Sep 2019 2:56 am
 Operator : VOA105:PD
 Sample : I8260STD.L5PPB
 Misc : WG1287418,ICAL (Sig #1); WG,ICAL16040 (Sig #2)
 ALS Vial : 5 Sample Multiplier: 1

Quant Time: Sep 23 12:06:57 2019
 Quant Method : I:\VOLATILES\VOA105\2019\190921\V105_190921_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Mon Sep 23 12:05:21 2019
 Response via : Initial Calibration

CCAL FILE(s) : 1 - I:\VOLATILES\VOA105\2019\190921\V05190921A09.d
 Sub List : 8260-Curve-IM-2CEVE - Megamix plus Diox-Iodomethane

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
26) Ethyl tert-butyl ether	4.530	59	22588	0.472	ug/L	87
27) Vinyl acetate	4.569	43	14835	0.441	ug/L #	88
28) cis-1,2-Dichloroethene	4.853	96	9893	0.510	ug/L	88
29) 2,2-Dichloropropane	4.941	77	12682	0.437	ug/L #	75
30) Bromochloromethane	5.048	128	4450	0.533	ug/L #	75
31) Cyclohexane	5.029	56	14103	0.440	ug/L	82
32) Chloroform	5.107	83	20423	0.563	ug/L	93
33) Ethyl acetate	5.224	43	4871	0.487	ug/L #	89
34) Carbon tetrachloride	5.234	117	12506	0.432	ug/L	94
35) Tetrahydrofuran	5.264	42	1422	0.500	ug/L #	63
37) 1,1,1-Trichloroethane	5.303	97	17005	0.482	ug/L	96
39) 2-Butanone	5.430	43	2541	0.595	ug/L #	59
40) 1,1-Dichloropropene	5.430	75	12523	0.466	ug/L	95
41) Benzene	5.674	78	35202	0.501	ug/L #	93
42) tert-Amyl methyl ether	5.772	73	15458	0.432	ug/L #	84
44) 1,2-Dichloroethane	5.890	62	15302	0.566	ug/L	98
47) Methyl cyclohexane	6.251	83	13955	0.448	ug/L #	72
48) Trichloroethene	6.261	95	12685	0.592	ug/L #	86
50) Dibromomethane	6.721	93	4282	0.463	ug/L	93
51) 1,2-Dichloropropane	6.819	63	8418	0.488	ug/L	94
54) Bromodichloromethane	6.887	83	10596	0.427	ug/L	97
57) 1,4-Dioxane	7.102	88	9127	101.977	ug/L #	76
58) cis-1,3-Dichloropropene	7.582	75	9319	0.358	ug/L #	82
61) Toluene	7.836	92	23789	0.514	ug/L	94
62) 4-Methyl-2-pentanone	8.286	58	1053	0.325	ug/L #	39
63) Tetrachloroethene	8.276	166	10230	0.487	ug/L	98
65) trans-1,3-Dichloropropene	8.335	75	7646	0.628	ug/L	80
67) Ethyl methacrylate	8.511	69	4227	0.303	ug/L #	71
68) 1,1,2-Trichloroethane	8.521	83	5018	0.501	ug/L	97
69) Chlorodibromomethane	8.726	129	5891	0.432	ug/L	92
70) 1,3-Dichloropropane	8.844	76	11560	0.520	ug/L	98
71) 1,2-Dibromoethane	9.010	107	4588	0.405	ug/L	91
72) 2-Hexanone	9.304	43	1671	0.287	ug/L #	59
73) Chlorobenzene	9.647	112	26833	0.532	ug/L #	84
74) Ethylbenzene	9.676	91	45227	0.496	ug/L	100
75) 1,1,1,2-Tetrachloroethane	9.725	131	7818	0.443	ug/L #	65
76) p/m Xylene	9.862	106	30521	0.937	ug/L	98
77) o Xylene	10.401	106	26248	0.880	ug/L	96
78) Styrene	10.470	104	38386	0.825	ug/L	99
80) Bromoform	10.509	173	2662	0.576	ug/L	99

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\VOA105\2019\190921\
 Data File : V05190921A06.d
 Acq On : 21 Sep 2019 2:56 am
 Operator : VOA105:PD
 Sample : I8260STD.L5PPB
 Misc : WG1287418,ICAL (Sig #1); WG,ICAL16040 (Sig #2)
 ALS Vial : 5 Sample Multiplier: 1

Quant Time: Sep 23 12:06:57 2019
 Quant Method : I:\VOLATILES\VOA105\2019\190921\V105_190921_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Mon Sep 23 12:05:21 2019
 Response via : Initial Calibration

CCAL FILE(s) : 1 - I:\VOLATILES\VOA105\2019\190921\V05190921A09.d
 Sub List : 8260-Curve-IM-2CEVE - Megamix plus Diox-Iodomethane

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
82)	Isopropylbenzene	10.773	105	36849	0.454	ug/L	99
84)	Bromobenzene	11.224	156	10303	0.526	ug/L	99
85)	n-Propylbenzene	11.253	91	48678	0.507	ug/L	100
86)	1,4-Dichlorobutane	11.283	55	9562	0.505	ug/L	98
87)	1,1,2,2-Tetrachloroethane	11.351	83	5419	0.498	ug/L	99
88)	4-Ethyltoluene	11.381	105	34877	0.459	ug/L	100
89)	2-Chlorotoluene	11.430	91	30897M1	0.508	ug/L	
90)	1,3,5-Trimethylbenzene	11.469	105	31598	0.463	ug/L	97
91)	1,2,3-Trichloropropane	11.488	75	6043M1	0.569	ug/L	
92)	trans-1,4-Dichloro-2-b...	11.557	53	765	1.580	ug/L #	1
93)	4-Chlorotoluene	11.606	91	31993	0.513	ug/L	98
94)	tert-Butylbenzene	11.812	119	25758	0.438	ug/L #	84
97)	1,2,4-Trimethylbenzene	11.890	105	27689	0.422	ug/L	96
98)	sec-Butylbenzene	11.998	105	34589	0.456	ug/L	99
99)	p-Isopropyltoluene	12.155	119	28436	0.410	ug/L	98
100)	1,3-Dichlorobenzene	12.233	146	18005	0.494	ug/L	98
101)	1,4-Dichlorobenzene	12.321	146	20946M2	0.557	ug/L	
102)	p-Diethylbenzene	12.527	119	16167	0.410	ug/L	98
103)	n-Butylbenzene	12.586	91	28780	0.462	ug/L	95
104)	1,2-Dichlorobenzene	12.752	146	15815	0.499	ug/L	98
105)	1,2,4,5-Tetramethylben...	13.311	119	17757	0.337	ug/L	98
106)	1,2-Dibromo-3-chloropr...	13.526	155	417	0.590	ug/L	95
107)	1,3,5-Trichlorobenzene	13.546	180	9940	0.443	ug/L	94
108)	Hexachlorobutadiene	14.114	225	4671	0.513	ug/L	98
109)	1,2,4-Trichlorobenzene	14.153	180	7761	0.449	ug/L	98
110)	Naphthalene	14.447	128	8986	0.379	ug/L	100
111)	1,2,3-Trichlorobenzene	14.613	180	6153	0.503	ug/L	98

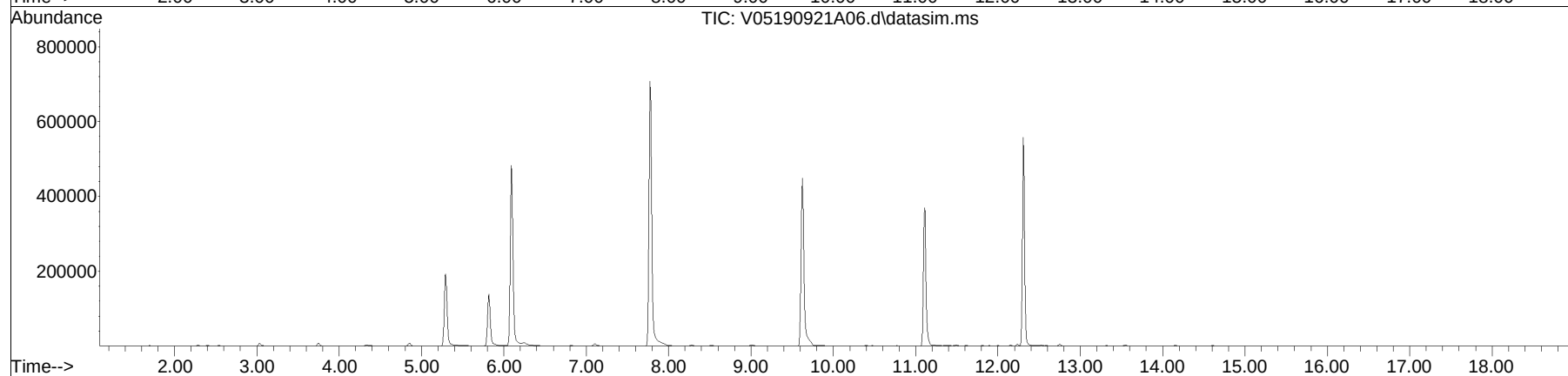
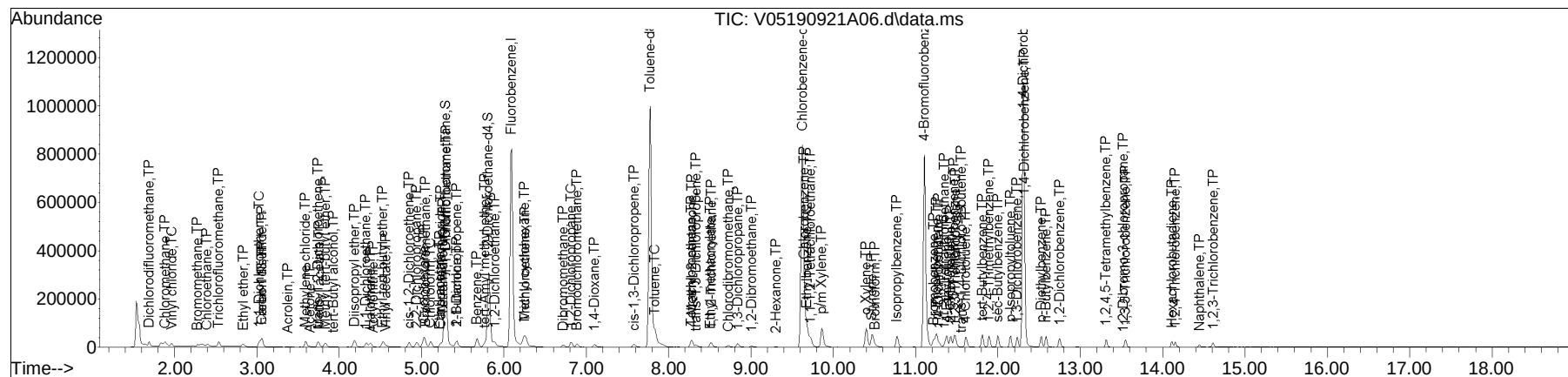
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\VOA105\2019\190921\
 Data File : V05190921A06.d
 Acq On : 21 Sep 2019 2:56 am
 Operator : VOA105:PD
 Sample : I8260STD.L5PPB
 Misc : WG1287418,ICAL (Sig #1); WG,ICAL16040 (Sig #2)
 ALS Vial : 5 Sample Multiplier: 1

Quant Time: Sep 23 12:06:57 2019
 Quant Method : I:\VOLATILES\VOA105\2019\190921\V105_190921_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Mon Sep 23 12:05:21 2019
 Response via : Initial Calibration

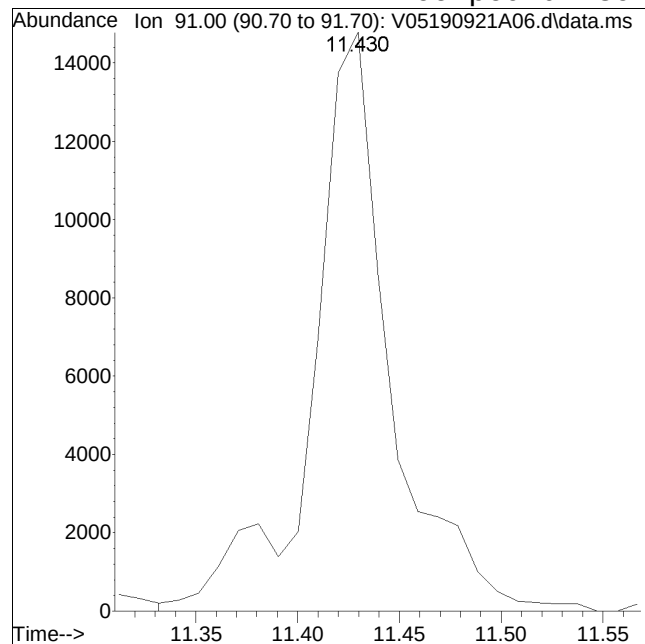
Sub List : 8260-Curve-IM-2CEVE - Megamix plus Diox-Iodomethane



Manual Integration Report

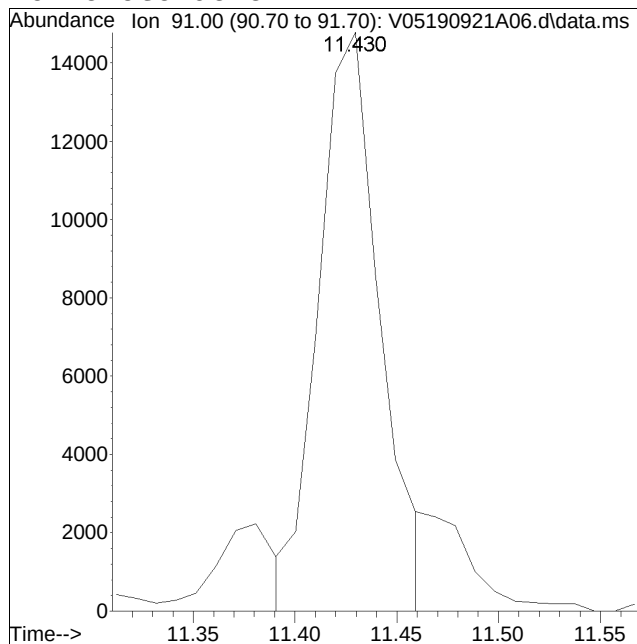
Data Path : I:\VOLATILES\VOA105\2019\1QMethod : V105_190921_8260.m
Data File : V05190921A06.d Operator : VOA105:PD
Date Inj'd : 9/21/2019 2:56 am Instrument : VOA 105
Sample : I8260STD.L5PPB Quant Date : 9/23/2019 12:06 pm

Compound #89: 2-Chlorotoluene



Original Peak Response = 39419

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

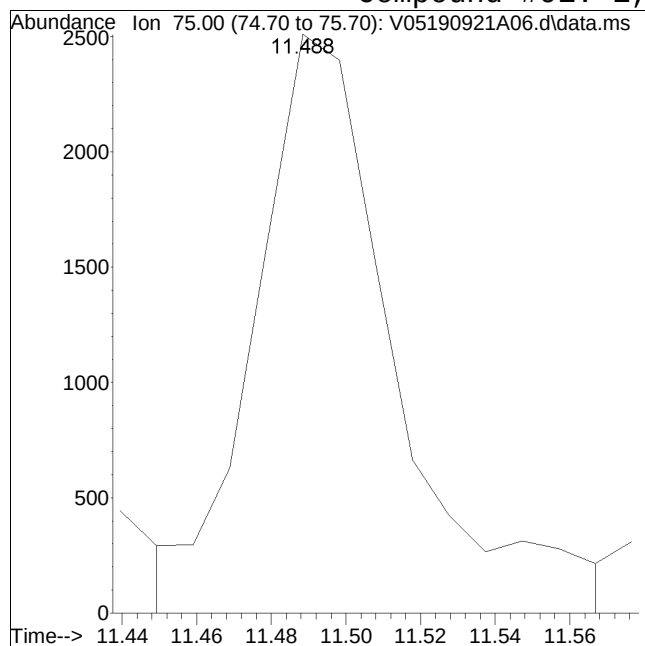


Manual Peak Response = 30897 M1

Manual Integration Report

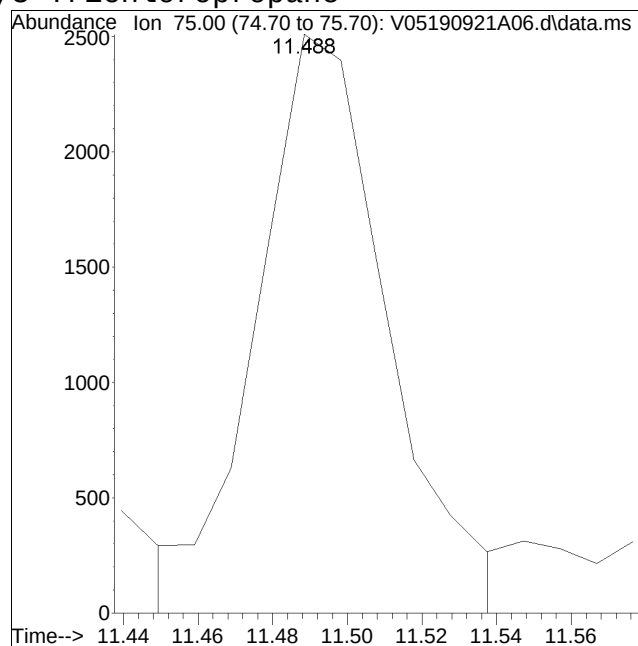
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Data File : V05190921A06.d Operator : VOA105:PD
Date Inj'd : 9/21/2019 2:56 am Instrument : VOA 105
Sample : I8260STDL.5PPB Quant Date : 9/23/2019 12:06 pm

Compound #91: 1,2,3-Trichloropropane



Original Peak Response = 6517

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

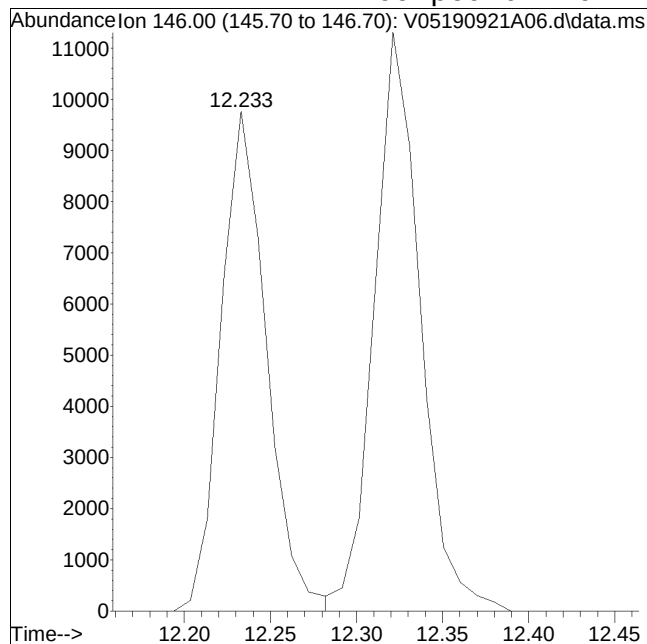


Manual Peak Response = 6043 M1

Manual Integration Report

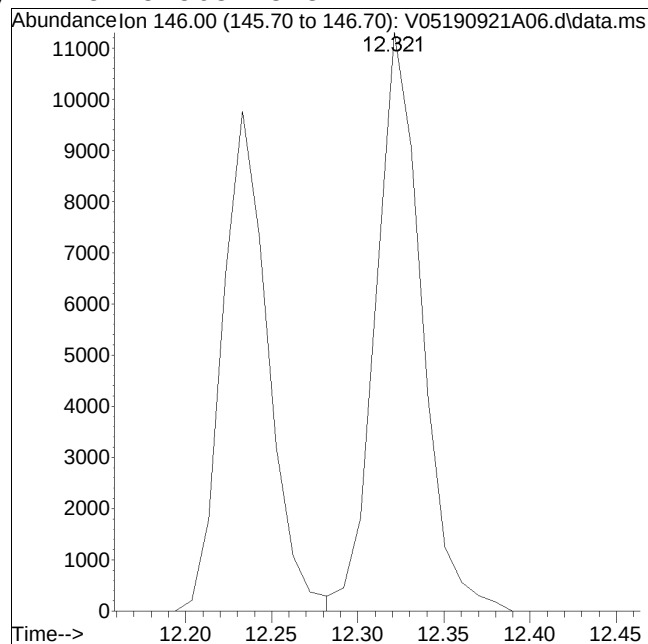
Data Path : I:\VOLATILES\VOA105\2019\10Method : V105_190921_8260.m
Data File : V05190921A06.d Operator : VOA105:PD
Date Inj'd : 9/21/2019 2:56 am Instrument : VOA 105
Sample : I8260STDL.5PPB Quant Date : 9/23/2019 12:06 pm

Compound #101: 1,4-Dichlorobenzene



Original Peak Response = 18005

M2 = Peak not found by automatic integration algorithm.



Manual Peak Response = 20946 M2

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\VOA105\2019\190921\
 Data File : V05190921A08.d
 Acq On : 21 Sep 2019 4:04 am
 Operator : VOA105:PD
 Sample : I8260STD12PPB
 Misc : WG1287418, ICAL (Sig #1); WG, ICAL16040 (Sig #2)
 ALS Vial : 7 Sample Multiplier: 1

Quant Time: Sep 23 12:07:08 2019
 Quant Method : I:\VOLATILES\VOA105\2019\190921\V105_190921_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Mon Sep 23 12:05:21 2019
 Response via : Initial Calibration

CCAL FILE(s) : 1 - I:\VOLATILES\VOA105\2019\190921\V05190921A09.d
 Sub List : 8260-Curve-IM-2CEVE - Megamix plus Diox-Iodomethane

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

Internal Standards						
1) Fluorobenzene	6.095	96	873108	10.000	ug/L	0.00
Standard Area 1 = 891322			Recovery	=	97.96%	
59) Chlorobenzene-d5	9.627	117	637541	10.000	ug/L	0.01
Standard Area 1 = 671076			Recovery	=	95.00%	
79) 1,4-Dichlorobenzene-d4	12.302	152	325147	10.000	ug/L	0.00
Standard Area 1 = 351825			Recovery	=	92.42%	
System Monitoring Compounds						
36) Dibromofluoromethane	5.293	113	244142	10.304	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery	=	103.04%	
43) 1,2-Dichloroethane-d4	5.811	65	314699	10.432	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery	=	104.32%	
60) Toluene-d8	7.777	98	849890	10.209	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery	=	102.09%	
83) 4-Bromofluorobenzene	11.107	95	328432	10.274	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery	=	102.74%	
Target Compounds						
						Qvalue
2) Dichlorodifluoromethane	1.694	85	38335	1.794	ug/L	97
3) Chloromethane	1.889	50	39643	1.846	ug/L	98
4) Vinyl chloride	1.968	62	32878	1.745	ug/L	96
5) Bromomethane	2.281	94	12929M1	1.492	ug/L	
6) Chloroethane	2.398	64	22740	1.962	ug/L	96
7) Trichlorofluoromethane	2.535	101	57351	1.813	ug/L	99
8) Ethyl ether	2.838	74	12407	1.871	ug/L #	68
10) 1,1-Dichloroethene	3.034	96	28957	1.760	ug/L	89
11) Carbon disulfide	3.063	76	73961	1.594	ug/L	100
12) Freon-113	3.063	101	32733	1.827	ug/L	95
14) Acrolein	3.366	56	2636	1.522	ug/L	95
15) Methylene chloride	3.591	84	35949	1.982	ug/L #	71
17) Acetone	3.650	43	6635	2.172	ug/L #	85
18) trans-1,2-Dichloroethene	3.748	96	32877	1.811	ug/L	89
19) Methyl acetate	3.758	43	12346	1.698	ug/L #	84
20) Methyl tert-butyl ether	3.836	73	62644	1.757	ug/L #	86
21) tert-Butyl alcohol	3.934	59	6657	8.052	ug/L #	78
22) Diisopropyl ether	4.188	45	99445	1.770	ug/L	90
23) 1,1-Dichloroethane	4.325	63	67067	1.863	ug/L	96
24) Halothane	4.374	117	23267	1.701	ug/L	99
25) Acrylonitrile	4.403	53	5451	1.778	ug/L	90

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\VOA105\2019\190921\
 Data File : V05190921A08.d
 Acq On : 21 Sep 2019 4:04 am
 Operator : VOA105:PD
 Sample : I8260STD2L2PPB
 Misc : WG1287418, ICAL (Sig #1); WG, ICAL16040 (Sig #2)
 ALS Vial : 7 Sample Multiplier: 1

Quant Time: Sep 23 12:07:08 2019
 Quant Method : I:\VOLATILES\VOA105\2019\190921\V105_190921_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Mon Sep 23 12:05:21 2019
 Response via : Initial Calibration

CCAL FILE(s) : 1 - I:\VOLATILES\VOA105\2019\190921\V05190921A09.d
 Sub List : 8260-Curve-IM-2CEVE - Megamix plus Diox-Iodomethane

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
26) Ethyl tert-butyl ether	4.530	59	81700	1.719	ug/L	87
27) Vinyl acetate	4.569	43	51938	1.553	ug/L #	92
28) cis-1,2-Dichloroethene	4.853	96	35078	1.819	ug/L	88
29) 2,2-Dichloropropane	4.941	77	46856	1.627	ug/L #	77
30) Bromochloromethane	5.039	128	15281	1.841	ug/L #	79
31) Cyclohexane	5.029	56	53070	1.665	ug/L	77
32) Chloroform	5.107	83	68211	1.892	ug/L	96
33) Ethyl acetate	5.225	43	17026	1.712	ug/L #	96
34) Carbon tetrachloride	5.234	117	46376	1.614	ug/L	99
35) Tetrahydrofuran	5.264	42	4671M1	1.652	ug/L	
37) 1,1,1-Trichloroethane	5.303	97	60232	1.718	ug/L	95
39) 2-Butanone	5.410	43	7012	1.653	ug/L #	74
40) 1,1-Dichloropropene	5.430	75	46354	1.738	ug/L	97
41) Benzene	5.675	78	128384	1.837	ug/L	94
42) tert-Amyl methyl ether	5.772	73	57468	1.616	ug/L	89
44) 1,2-Dichloroethane	5.890	62	52302	1.949	ug/L	94
47) Methyl cyclohexane	6.242	83	51410	1.660	ug/L #	75
48) Trichloroethene	6.271	95	37340	1.754	ug/L	97
50) Dibromomethane	6.721	93	17149	1.866	ug/L	97
51) 1,2-Dichloropropane	6.819	63	31155	1.818	ug/L	96
54) Bromodichloromethane	6.887	83	41325	1.677	ug/L	99
57) 1,4-Dioxane	7.103	88	36154M1	406.537	ug/L	
58) cis-1,3-Dichloropropene	7.582	75	39450	1.524	ug/L #	85
61) Toluene	7.836	92	86399	1.909	ug/L	98
62) 4-Methyl-2-pentanone	8.276	58	4357	1.377	ug/L #	72
63) Tetrachloroethene	8.276	166	36638	1.784	ug/L	97
65) trans-1,3-Dichloropropene	8.335	75	31485	1.597	ug/L #	82
67) Ethyl methacrylate	8.511	69	17291	1.269	ug/L	80
68) 1,1,2-Trichloroethane	8.511	83	18230	1.864	ug/L	98
69) Chlorodibromomethane	8.726	129	21141	1.586	ug/L	98
70) 1,3-Dichloropropane	8.834	76	39873	1.837	ug/L	99
71) 1,2-Dibromoethane	9.001	107	19048	1.720	ug/L	97
72) 2-Hexanone	9.294	43	7154	1.259	ug/L #	86
73) Chlorobenzene	9.647	112	93890	1.906	ug/L	97
74) Ethylbenzene	9.676	91	165373	1.857	ug/L	100
75) 1,1,1,2-Tetrachloroethane	9.725	131	30768	1.783	ug/L	95
76) p/m Xylene	9.863	106	114485	3.598	ug/L	100
77) o Xylene	10.401	106	104870	3.599	ug/L	97
78) Styrene	10.470	104	164475	3.617	ug/L	98
80) Bromoform	10.499	173	11043	1.655	ug/L	98

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\VOA105\2019\190921\
 Data File : V05190921A08.d
 Acq On : 21 Sep 2019 4:04 am
 Operator : VOA105:PD
 Sample : I8260STD12PPB
 Misc : WG1287418,ICAL (Sig #1); WG,ICAL16040 (Sig #2)
 ALS Vial : 7 Sample Multiplier: 1

Quant Time: Sep 23 12:07:08 2019
 Quant Method : I:\VOLATILES\VOA105\2019\190921\V105_190921_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Mon Sep 23 12:05:21 2019
 Response via : Initial Calibration

CCAL FILE(s) : 1 - I:\VOLATILES\VOA105\2019\190921\V05190921A09.d
 Sub List : 8260-Curve-IM-2CEVE - Megamix plus Diox-Iodomethane

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
82)	Isopropylbenzene	10.774	105	147070	1.809	ug/L	99
84)	Bromobenzene	11.214	156	37379	1.905	ug/L	100
85)	n-Propylbenzene	11.254	91	185544	1.930	ug/L	99
86)	1,4-Dichlorobutane	11.283	55	35299	1.861	ug/L	96
87)	1,1,2,2-Tetrachloroethane	11.352	83	20077	1.842	ug/L	97
88)	4-Ethyltoluene	11.371	105	141437	1.858	ug/L	99
89)	2-Chlorotoluene	11.420	91	119418M1	1.962	ug/L	
90)	1,3,5-Trimethylbenzene	11.469	105	127967	1.873	ug/L	98
91)	1,2,3-Trichloropropane	11.489	75	20827M1	1.957	ug/L	
92)	trans-1,4-Dichloro-2-b...	11.547	53	3700M1	2.435	ug/L	
93)	4-Chlorotoluene	11.606	91	119570	1.916	ug/L	99
94)	tert-Butylbenzene	11.812	119	104031	1.769	ug/L	88
97)	1,2,4-Trimethylbenzene	11.890	105	121142	1.845	ug/L	99
98)	sec-Butylbenzene	11.998	105	138863	1.829	ug/L	99
99)	p-Isopropyltoluene	12.155	119	124327	1.789	ug/L	99
100)	1,3-Dichlorobenzene	12.233	146	68614	1.880	ug/L	99
101)	1,4-Dichlorobenzene	12.321	146	72963	1.937	ug/L	96
102)	p-Diethylbenzene	12.527	119	65430	1.658	ug/L	97
103)	n-Butylbenzene	12.586	91	112872	1.810	ug/L	97
104)	1,2-Dichlorobenzene	12.743	146	59530	1.877	ug/L	99
105)	1,2,4,5-Tetramethylben...	13.311	119	80114	1.518	ug/L	97
106)	1,2-Dibromo-3-chloropr...	13.526	155	1861	1.702	ug/L	95
107)	1,3,5-Trichlorobenzene	13.546	180	41489	1.846	ug/L	98
108)	Hexachlorobutadiene	14.114	225	16293	1.789	ug/L	99
109)	1,2,4-Trichlorobenzene	14.143	180	29702	1.717	ug/L	100
110)	Naphthalene	14.437	128	32809	1.381	ug/L	100
111)	1,2,3-Trichlorobenzene	14.614	180	21598	1.765	ug/L	97

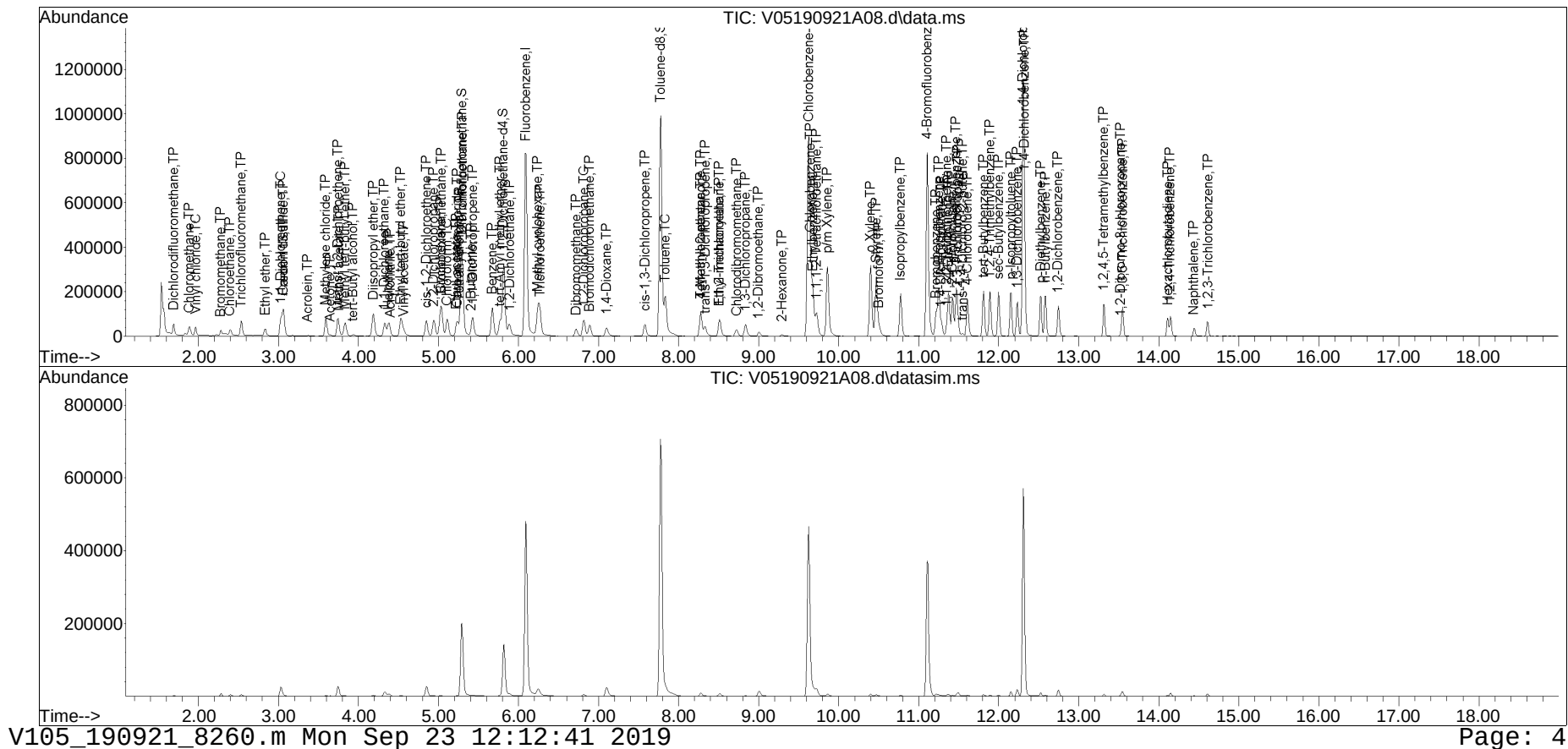
(#) = qualifier out of range (m) = manual integration (+) = signals summed

(QT Reviewed)

Data Path : I:\VOLATILES\VOA105\2019\190921\
Data File : V05190921A08.d
Acq On : 21 Sep 2019 4:04 am
Operator : VOA105:PD
Sample : I8260STD L2PPB
Misc : WG1287418,ICAL (Sig #1); WG,ICAL16040 (Sig #2)
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Sep 23 12:07:08 2019
Quant Method : I:\VOLATILES\VOA105\2019\190921\V105_190921_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Mon Sep 23 12:05:21 2019
Response via : Initial Calibration

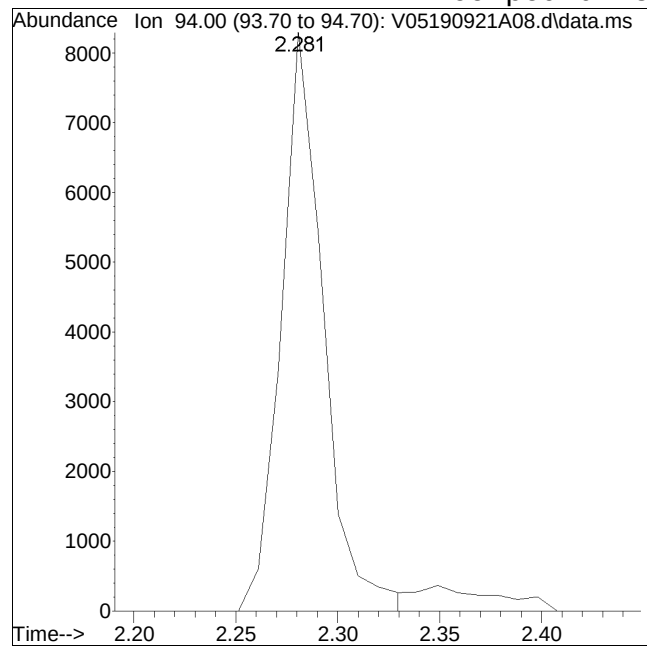
Sub List : 8260-Curve-IM-2CEVE - Megamix plus Diox-Iodomethane



Manual Integration Report

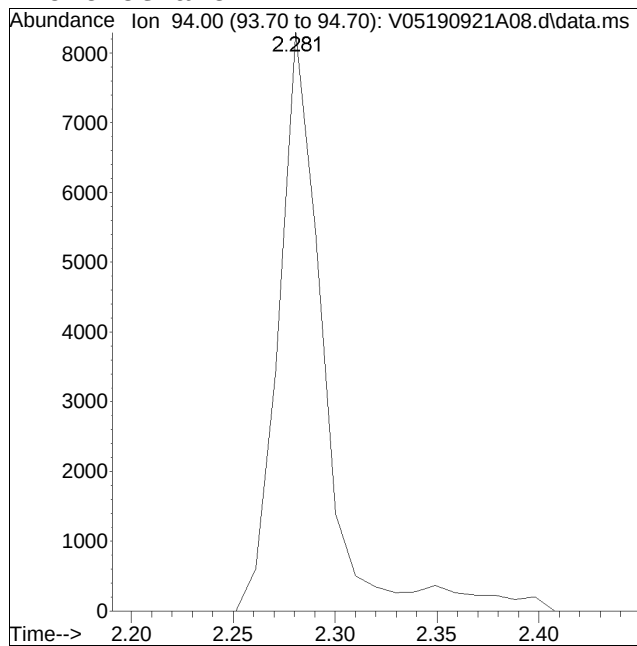
Data Path : I:\VOLATILES\VOA105\2019\1QMethod : V105_190921_8260.m
Data File : V05190921A08.d Operator : VOA105:PD
Date Inj'd : 9/21/2019 4:04 am Instrument : VOA 105
Sample : I8260STDL2PPB Quant Date : 9/23/2019 12:07 pm

Compound #5: Bromomethane



Original Peak Response = 11909

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

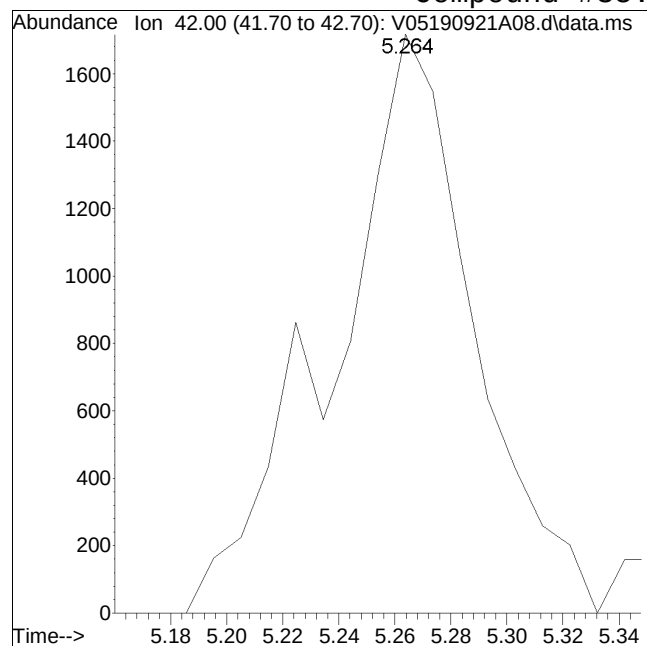


Manual Peak Response = 12929 M1

Manual Integration Report

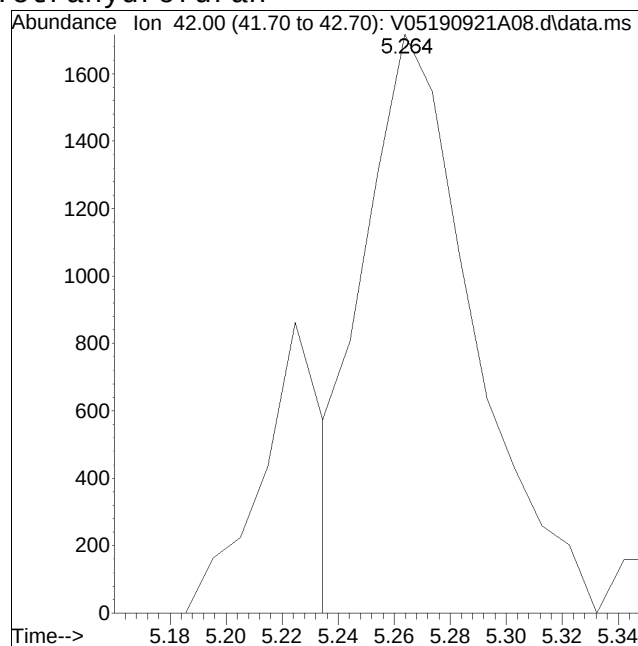
Data Path : I:\VOLATILES\VOA105\2019\10Method : V105_190921_8260.m
Data File : V05190921A08.d Operator : VOA105:PD
Date Inj'd : 9/21/2019 4:04 am Instrument : VOA 105
Sample : I8260STDL2PPB Quant Date : 9/23/2019 12:07 pm

Compound #35: Tetrahydrofuran



Original Peak Response = 5996

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

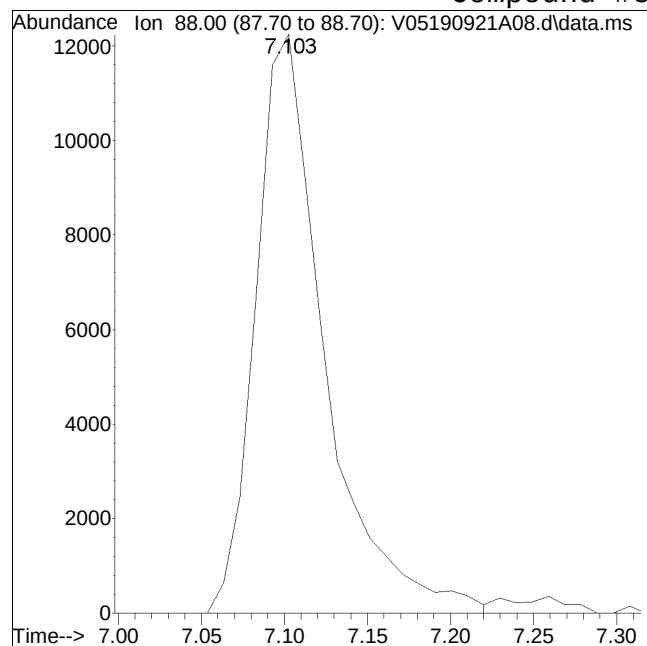


Manual Peak Response = 4671 M1

Manual Integration Report

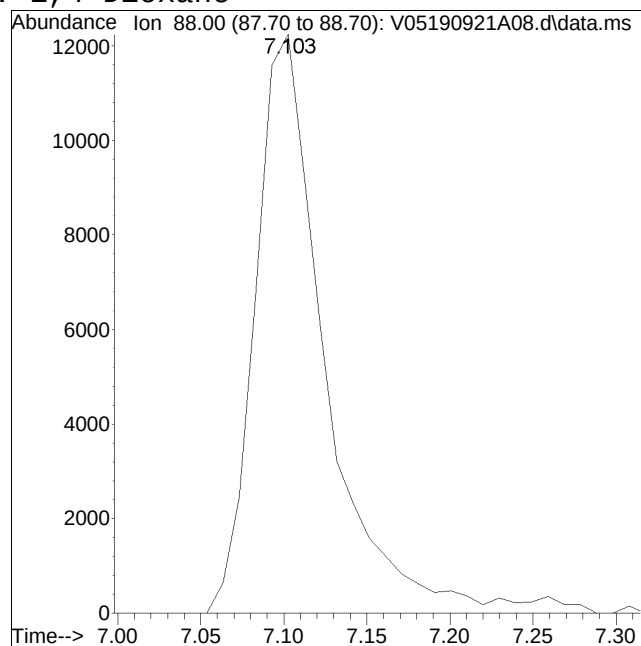
Data Path : I:\VOLATILES\VOA105\2019\10Method : V105_190921_8260.m
Data File : V05190921A08.d Operator : VOA105:PD
Date Inj'd : 9/21/2019 4:04 am Instrument : VOA 105
Sample : I8260STDL2PPB Quant Date : 9/23/2019 12:07 pm

Compound #57: 1,4-Dioxane



Original Peak Response = 35287

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

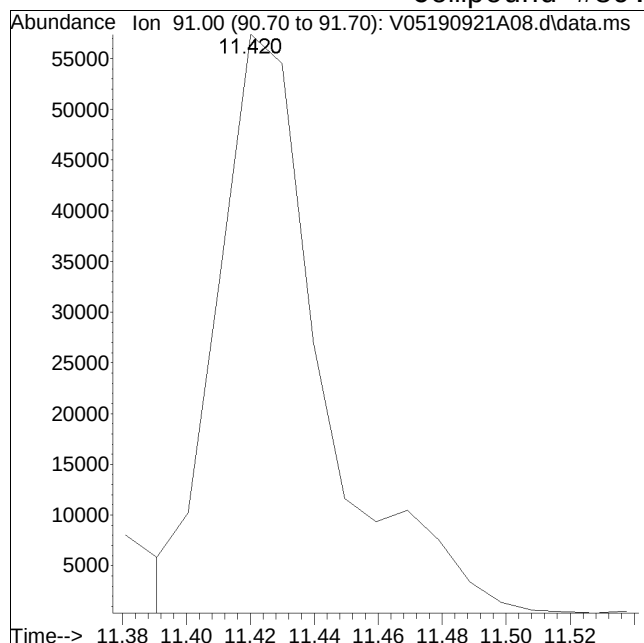


Manual Peak Response = 36154 M1

Manual Integration Report

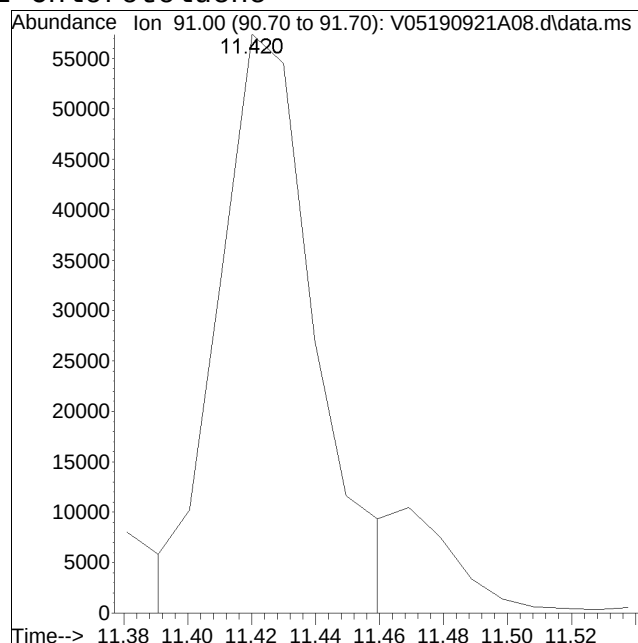
Data Path : I:\VOLATILES\VOA105\2019\10Method : V105_190921_8260.m
Data File : V05190921A08.d Operator : VOA105:PD
Date Inj'd : 9/21/2019 4:04 am Instrument : VOA 105
Sample : I8260STDL2PPB Quant Date : 9/23/2019 12:07 pm

Compound #89: 2-Chlorotoluene



Original Peak Response = 130869

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

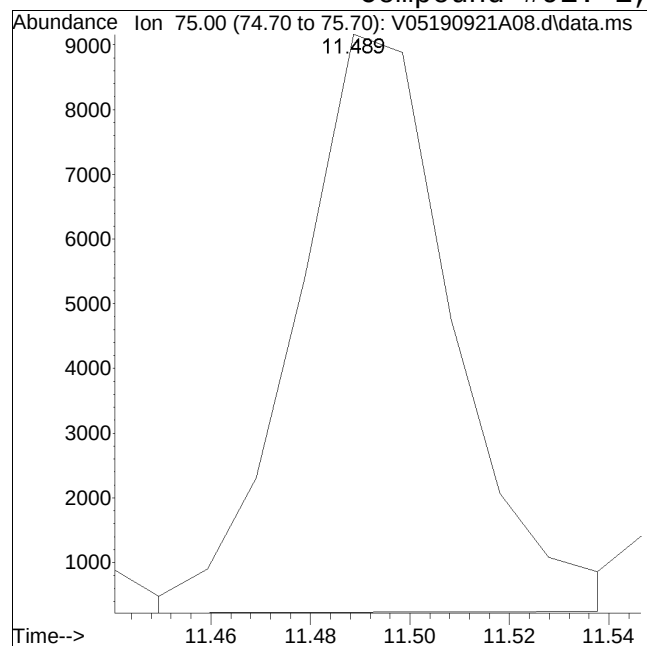


Manual Peak Response = 119418 M1

Manual Integration Report

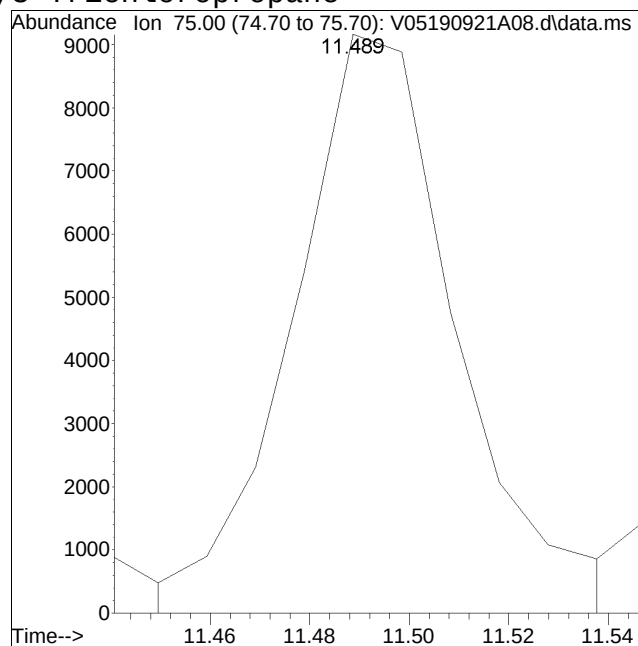
Data Path : I:\VOLATILES\VOA105\2019\10Method : V105_190921_8260.m
Data File : V05190921A08.d Operator : VOA105:PD
Date Inj'd : 9/21/2019 4:04 am Instrument : VOA 105
Sample : I8260STDL2PPB Quant Date : 9/23/2019 12:07 pm

Compound #91: 1,2,3-Trichloropropane



Original Peak Response = 19592

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

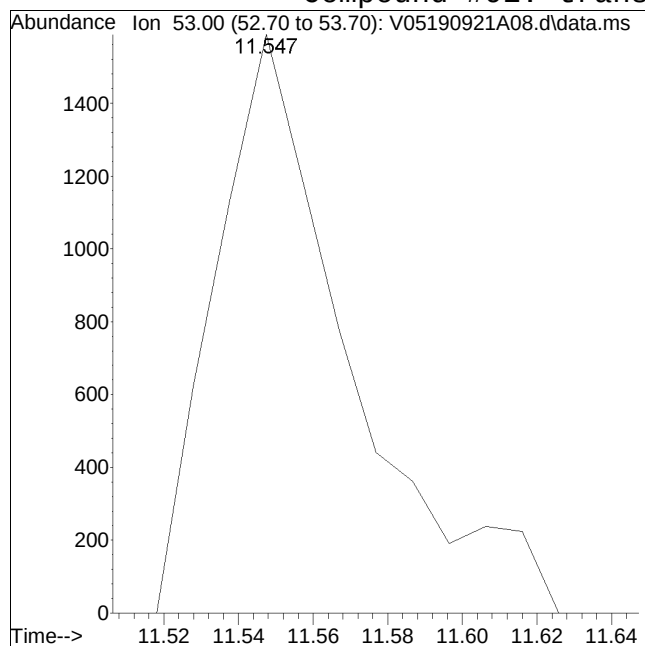


Manual Peak Response = 20827 M1

Manual Integration Report

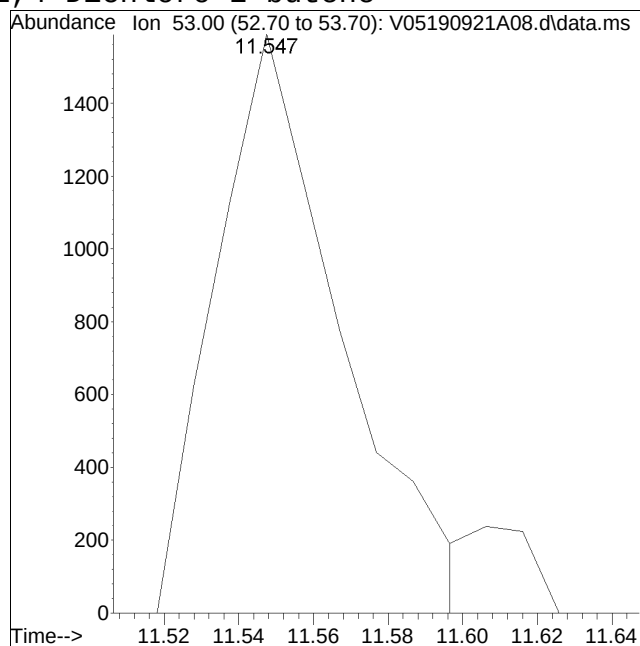
Data Path : I:\VOLATILES\VOA105\2019\10Method : V105_190921_8260.m
Data File : V05190921A08.d Operator : VOA105:PD
Date Inj'd : 9/21/2019 4:04 am Instrument : VOA 105
Sample : I8260STDL2PPB Quant Date : 9/23/2019 12:07 pm

Compound #92: trans-1,4-Dichloro-2-butene



Original Peak Response = 3972

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.



Manual Peak Response = 3700 M1

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\VOA105\2019\190921\
 Data File : V05190921A09.d
 Acq On : 21 Sep 2019 4:27 am
 Operator : VOA105:PD
 Sample : I8260STD10PPB
 Misc : WG1287418, ICAL (Sig #1); WG, ICAL16040 (Sig #2)
 ALS Vial : 8 Sample Multiplier: 1

Quant Time: Sep 23 12:07:19 2019
 Quant Method : I:\VOLATILES\VOA105\2019\190921\V105_190921_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Mon Sep 23 12:05:21 2019
 Response via : Initial Calibration

CCAL FILE(s) : 1 - I:\VOLATILES\VOA105\2019\190921\V05190921A09.d
 Sub List : 8260-Curve-IM-2CEVE - Megamix plus Diox-Iodomethane

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

Internal Standards						
1) Fluorobenzene	6.095	96	891322	10.000	ug/L	0.00
Standard Area 1 = 891322			Recovery	=	100.00%	
59) Chlorobenzene-d5	9.617	117	671076	10.000	ug/L	0.00
Standard Area 1 = 671076			Recovery	=	100.00%	
79) 1,4-Dichlorobenzene-d4	12.302	152	351825	10.000	ug/L	0.00
Standard Area 1 = 351825			Recovery	=	100.00%	
System Monitoring Compounds						
36) Dibromofluoromethane	5.293	113	246946	10.209	ug/L	0.00
Spiked Amount 10.000	Range 70	- 130	Recovery	=	102.09%	
43) 1,2-Dichloroethane-d4	5.811	65	333271	10.822	ug/L	0.00
Spiked Amount 10.000	Range 70	- 130	Recovery	=	108.22%	
60) Toluene-d8	7.777	98	875675	9.993	ug/L	0.00
Spiked Amount 10.000	Range 70	- 130	Recovery	=	99.93%	
83) 4-Bromofluorobenzene	11.106	95	346053	10.005	ug/L	0.00
Spiked Amount 10.000	Range 70	- 130	Recovery	=	100.05%	
Target Compounds						
						Qvalue
2) Dichlorodifluoromethane	1.694	85	231353	10.608	ug/L	98
3) Chloromethane	1.889	50	238024	10.859	ug/L	98
4) Vinyl chloride	1.967	62	202896	10.549	ug/L	100
5) Bromomethane	2.280	94	91138	10.299	ug/L	99
6) Chloroethane	2.398	64	127859	10.804	ug/L	97
7) Trichlorofluoromethane	2.535	101	347389	10.755	ug/L	100
8) Ethyl ether	2.828	74	76065	11.238	ug/L	78
10) 1,1-Dichloroethene	3.034	96	179590	10.692	ug/L	89
11) Carbon disulfide	3.063	76	498323	10.523	ug/L	100
12) Freon-113	3.063	101	187314	10.244	ug/L	87
14) Acrolein	3.366	56	20329	11.497	ug/L	97
15) Methylene chloride	3.591	84	207697	11.218	ug/L #	74
17) Acetone	3.640	43	35038	11.238	ug/L	94
18) trans-1,2-Dichloroethene	3.738	96	205553	11.089	ug/L	91
19) Methyl acetate	3.757	43	83689	11.273	ug/L #	85
20) Methyl tert-butyl ether	3.836	73	413079	11.349	ug/L	89
21) tert-Butyl alcohol	3.933	59	40022	47.417	ug/L	90
22) Diisopropyl ether	4.188	45	645801	11.258	ug/L	93
23) 1,1-Dichloroethane	4.325	63	411900	11.208	ug/L	98
24) Halothane	4.374	117	145380	10.413	ug/L	99
25) Acrylonitrile	4.393	53	36211	11.567	ug/L	94

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\VOA105\2019\190921\
 Data File : V05190921A09.d
 Acq On : 21 Sep 2019 4:27 am
 Operator : VOA105:PD
 Sample : I8260STD10PPB
 Misc : WG1287418, ICAL (Sig #1); WG, ICAL16040 (Sig #2)
 ALS Vial : 8 Sample Multiplier: 1

Quant Time: Sep 23 12:07:19 2019
 Quant Method : I:\VOLATILES\VOA105\2019\190921\V105_190921_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Mon Sep 23 12:05:21 2019
 Response via : Initial Calibration

CCAL FILE(s) : 1 - I:\VOLATILES\VOA105\2019\190921\V05190921A09.d
 Sub List : 8260-Curve-IM-2CEVE - Megamix plus Diox-Iodomethane

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
26) Ethyl tert-butyl ether	4.530	59	541386	11.157	ug/L	#	81
27) Vinyl acetate	4.559	43	402923	11.804	ug/L	#	94
28) cis-1,2-Dichloroethene	4.843	96	229490	11.660	ug/L		92
29) 2,2-Dichloropropane	4.941	77	307783	10.467	ug/L		84
30) Bromochloromethane	5.039	128	94227	11.120	ug/L	#	81
31) Cyclohexane	5.029	56	330368	10.155	ug/L		78
32) Chloroform	5.107	83	420450	11.427	ug/L		95
33) Ethyl acetate	5.215	43	111881	11.019	ug/L	#	94
34) Carbon tetrachloride	5.234	117	322085	10.981	ug/L		98
35) Tetrahydrofuran	5.264	42	32937M1	11.408	ug/L		
37) 1,1,1-Trichloroethane	5.303	97	395952	11.062	ug/L		97
39) 2-Butanone	5.410	43	46331	10.697	ug/L	#	78
40) 1,1-Dichloropropene	5.420	75	283695	10.417	ug/L		99
41) Benzene	5.674	78	810777	11.366	ug/L		94
42) tert-Amyl methyl ether	5.772	73	410527	11.310	ug/L		95
44) 1,2-Dichloroethane	5.880	62	320078	11.681	ug/L		99
47) Methyl cyclohexane	6.242	83	308406	9.755	ug/L	#	77
48) Trichloroethene	6.261	95	224404	10.324	ug/L		98
50) Dibromomethane	6.711	93	109163	11.636	ug/L		99
51) 1,2-Dichloropropane	6.819	63	200423	11.457	ug/L		96
54) Bromodichloromethane	6.887	83	292232	11.615	ug/L		98
57) 1,4-Dioxane	7.102	88	40517	446.288	ug/L	#	78
58) cis-1,3-Dichloropropene	7.572	75	297509	11.257	ug/L	#	86
61) Toluene	7.836	92	524790	11.015	ug/L		99
62) 4-Methyl-2-pentanone	8.276	58	35960	10.795	ug/L	#	80
63) Tetrachloroethene	8.276	166	228492	10.572	ug/L		97
65) trans-1,3-Dichloropropene	8.325	75	257205	10.188	ug/L		86
67) Ethyl methacrylate	8.501	69	151485	10.559	ug/L		99
68) 1,1,2-Trichloroethane	8.511	83	118143	11.479	ug/L		99
69) Chlorodibromomethane	8.726	129	156935	11.186	ug/L		100
70) 1,3-Dichloropropane	8.834	76	250323	10.958	ug/L		100
71) 1,2-Dibromoethane	9.000	107	130617	11.208	ug/L		100
72) 2-Hexanone	9.284	43	61486	10.276	ug/L		94
73) Chlorobenzene	9.647	112	578049	11.149	ug/L		97
74) Ethylbenzene	9.676	91	1048276	11.185	ug/L		100
75) 1,1,1,2-Tetrachloroethane	9.725	131	198719	10.940	ug/L		98
76) p/m Xylene	9.862	106	743501	22.202	ug/L		98
77) o Xylene	10.401	106	692951	22.595	ug/L		100
78) Styrene	10.470	104	1122926	23.463	ug/L		100
80) Bromoform	10.499	173	87270	10.526	ug/L		97

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\VOA105\2019\190921\
 Data File : V05190921A09.d
 Acq On : 21 Sep 2019 4:27 am
 Operator : VOA105:PD
 Sample : I8260STD10PPB
 Misc : WG1287418,ICAL (Sig #1); WG,ICAL16040 (Sig #2)
 ALS Vial : 8 Sample Multiplier: 1

Quant Time: Sep 23 12:07:19 2019
 Quant Method : I:\VOLATILES\VOA105\2019\190921\V105_190921_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Mon Sep 23 12:05:21 2019
 Response via : Initial Calibration

CCAL FILE(s) : 1 - I:\VOLATILES\VOA105\2019\190921\V05190921A09.d
 Sub List : 8260-Curve-IM-2CEVE - Megamix plus Diox-Iodomethane

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
82)	Isopropylbenzene	10.773	105	956801	10.879	ug/L	98
84)	Bromobenzene	11.214	156	226867	10.684	ug/L	100
85)	n-Propylbenzene	11.253	91	1139670	10.958	ug/L	99
86)	1,4-Dichlorobutane	11.283	55	230139	11.211	ug/L	98
87)	1,1,2,2-Tetrachloroethane	11.351	83	131737	11.173	ug/L	100
88)	4-Ethyltoluene	11.371	105	906031	10.999	ug/L	100
89)	2-Chlorotoluene	11.420	91	713170M1	10.826	ug/L	
90)	1,3,5-Trimethylbenzene	11.469	105	815626	11.034	ug/L	99
91)	1,2,3-Trichloropropane	11.488	75	125945M1	10.938	ug/L	
92)	trans-1,4-Dichloro-2-b...	11.547	53	30294M1	9.520	ug/L	
93)	4-Chlorotoluene	11.606	91	739200	10.949	ug/L	99
94)	tert-Butylbenzene	11.812	119	679011	10.668	ug/L	90
97)	1,2,4-Trimethylbenzene	11.890	105	797013	11.216	ug/L	99
98)	sec-Butylbenzene	11.998	105	870057	10.591	ug/L	99
99)	p-Isopropyltoluene	12.145	119	819182	10.892	ug/L	99
100)	1,3-Dichlorobenzene	12.233	146	438482	11.105	ug/L	100
101)	1,4-Dichlorobenzene	12.321	146	442550	10.856	ug/L	100
102)	p-Diethylbenzene	12.517	119	451218	10.566	ug/L	98
103)	n-Butylbenzene	12.576	91	713760	10.579	ug/L	98
104)	1,2-Dichlorobenzene	12.742	146	382757	11.156	ug/L	99
105)	1,2,4,5-Tetramethylben...	13.311	119	648343	11.354	ug/L	98
106)	1,2-Dibromo-3-chloropr...	13.526	155	13695	9.923	ug/L	99
107)	1,3,5-Trichlorobenzene	13.546	180	261079	10.735	ug/L	99
108)	Hexachlorobutadiene	14.114	225	94368	9.574	ug/L	99
109)	1,2,4-Trichlorobenzene	14.143	180	195811	10.459	ug/L	99
110)	Naphthalene	14.437	128	269781	10.498	ug/L	100
111)	1,2,3-Trichlorobenzene	14.604	180	133742	10.101	ug/L	98

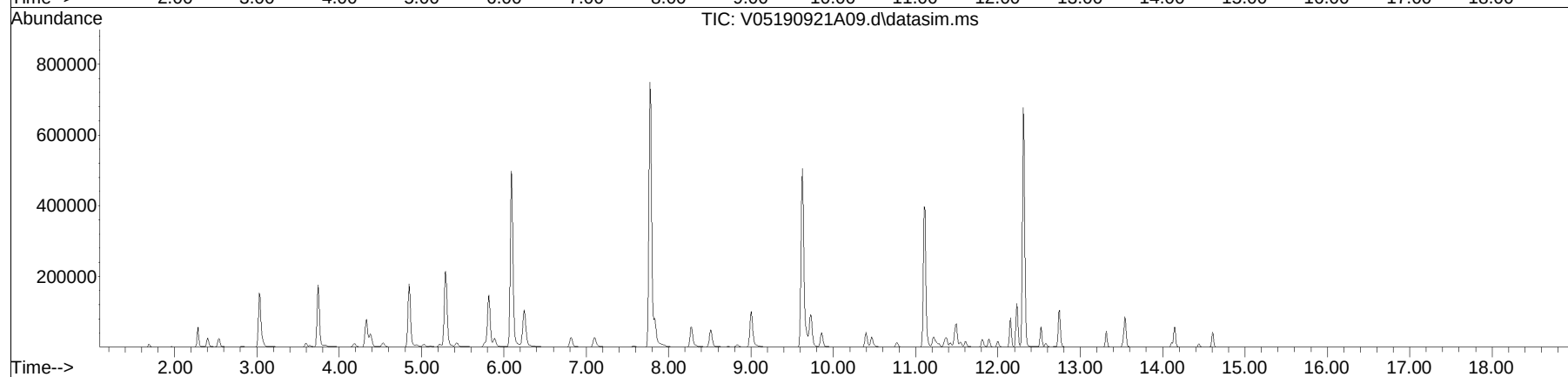
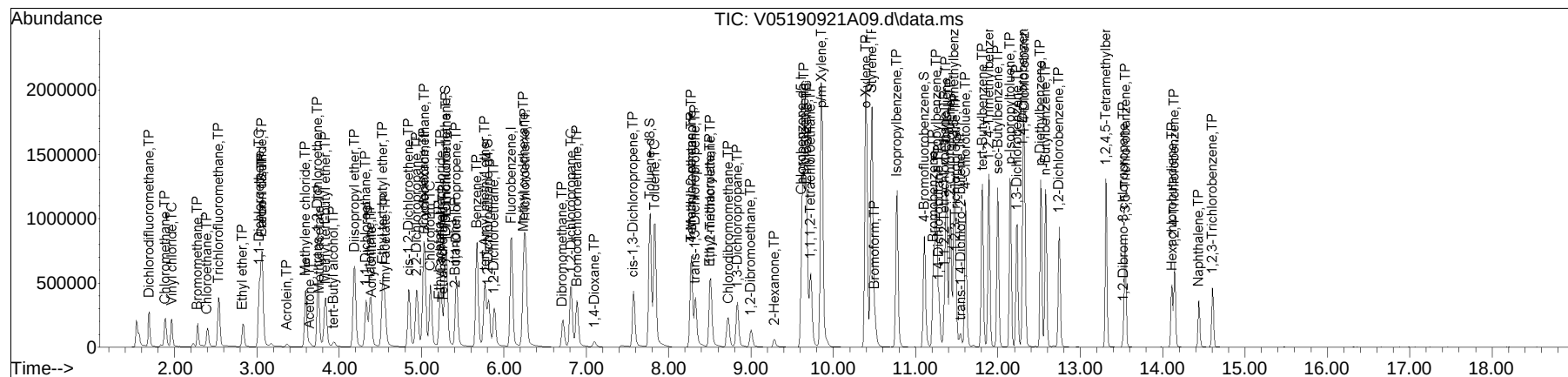
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\VOA105\2019\190921\
 Data File : V05190921A09.d
 Acq On : 21 Sep 2019 4:27 am
 Operator : VOA105:PD
 Sample : I8260STDL10PPB
 Misc : WG1287418,ICAL (Sig #1); WG,ICAL16040 (Sig #2)
 ALS Vial : 8 Sample Multiplier: 1

Quant Time: Sep 23 12:07:19 2019
 Quant Method : I:\VOLATILES\VOA105\2019\190921\V105_190921_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Mon Sep 23 12:05:21 2019
 Response via : Initial Calibration

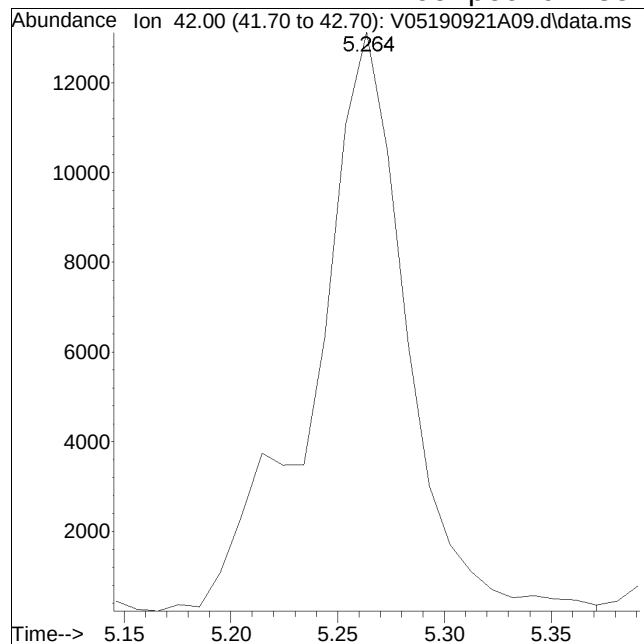
Sub List : 8260-Curve-IM-2CEVE - Megamix plus Diox-Iodomethane



Manual Integration Report

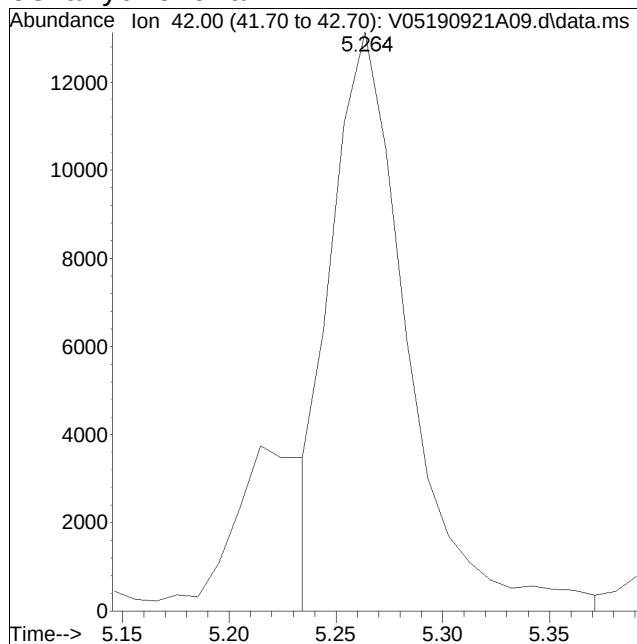
Data Path : I:\VOLATILES\VOA105\2019\1QMethod : V105_190921_8260.m
Data File : V05190921A09.d Operator : VOA105:PD
Date Inj'd : 9/21/2019 4:27 am Instrument : VOA 105
Sample : I8260STD10PPB Quant Date : 9/23/2019 12:07 pm

Compound #35: Tetrahydrofuran



Original Peak Response = 38838

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

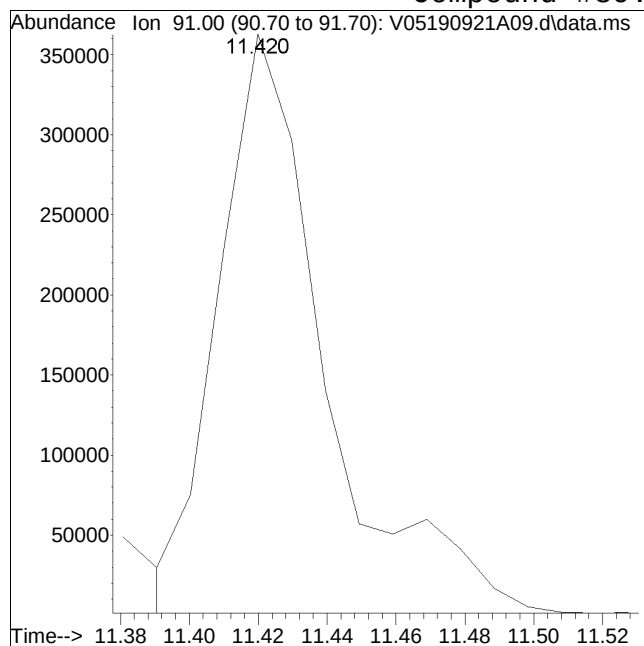


Manual Peak Response = 32937 M1

Manual Integration Report

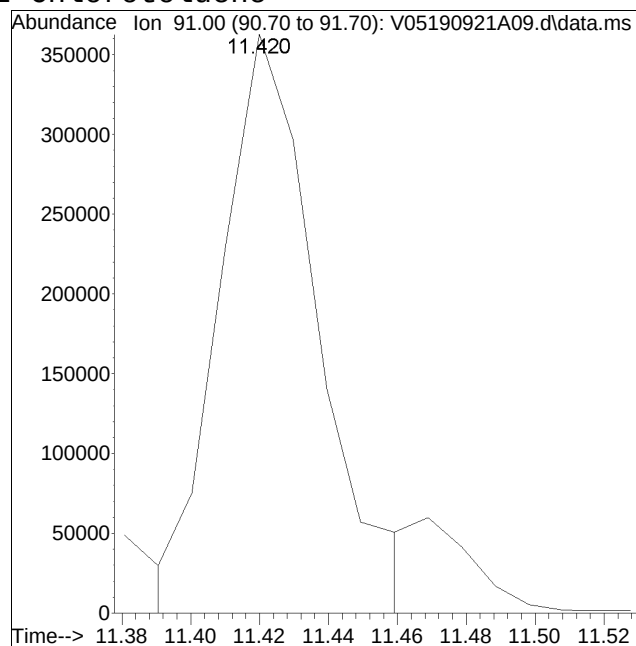
Data Path : I:\VOLATILES\VOA105\2019\10Method : V105_190921_8260.m
Data File : V05190921A09.d Operator : VOA105:PD
Date Inj'd : 9/21/2019 4:27 am Instrument : VOA 105
Sample : I8260STD10PPB Quant Date : 9/23/2019 12:07 pm

Compound #89: 2-Chlorotoluene



Original Peak Response = 777434

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

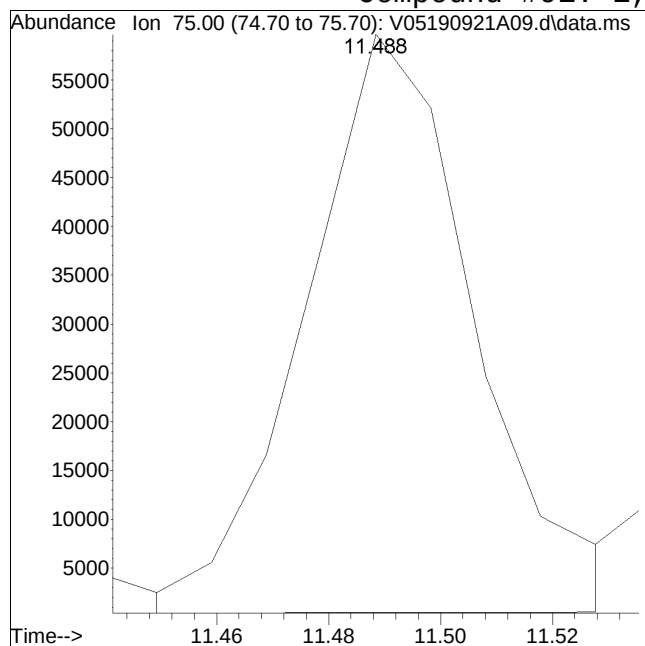


Manual Peak Response = 713170 M1

Manual Integration Report

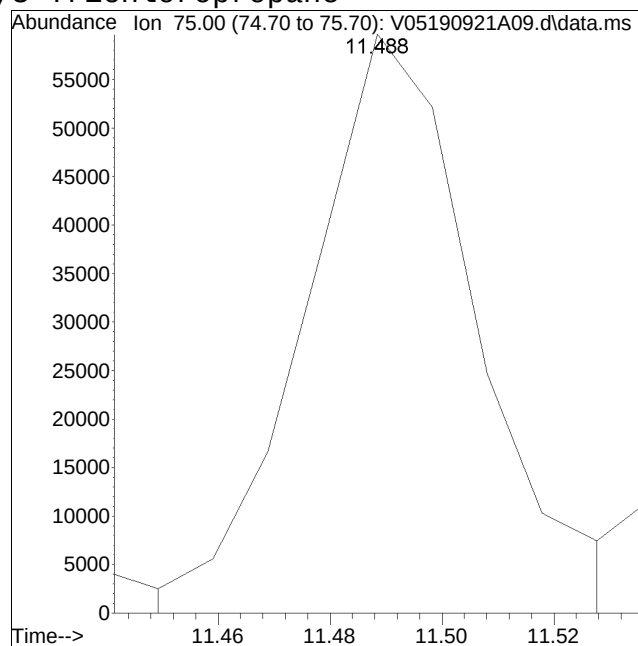
Data Path : I:\VOLATILES\VOA105\2019\10Method : V105_190921_8260.m
Data File : V05190921A09.d Operator : VOA105:PD
Date Inj'd : 9/21/2019 4:27 am Instrument : VOA 105
Sample : I8260STDL10PPB Quant Date : 9/23/2019 12:07 pm

Compound #91: 1,2,3-Trichloropropane



Original Peak Response = 123783

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

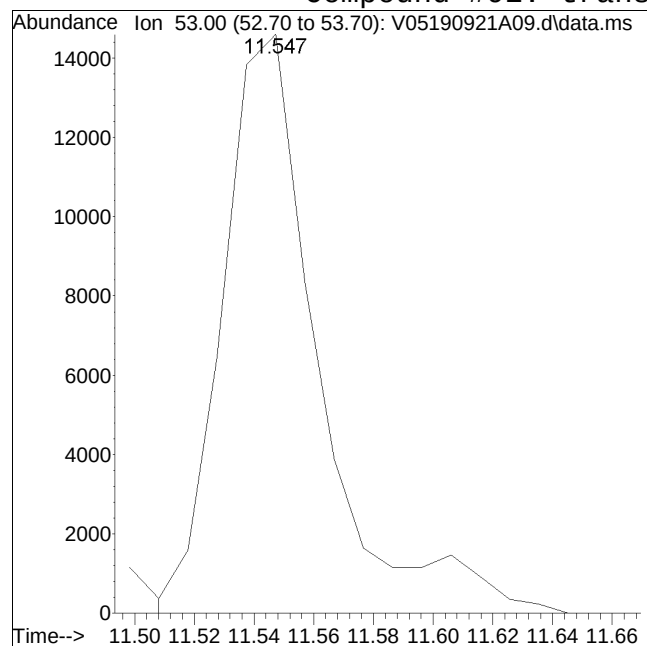


Manual Peak Response = 125945 M1

Manual Integration Report

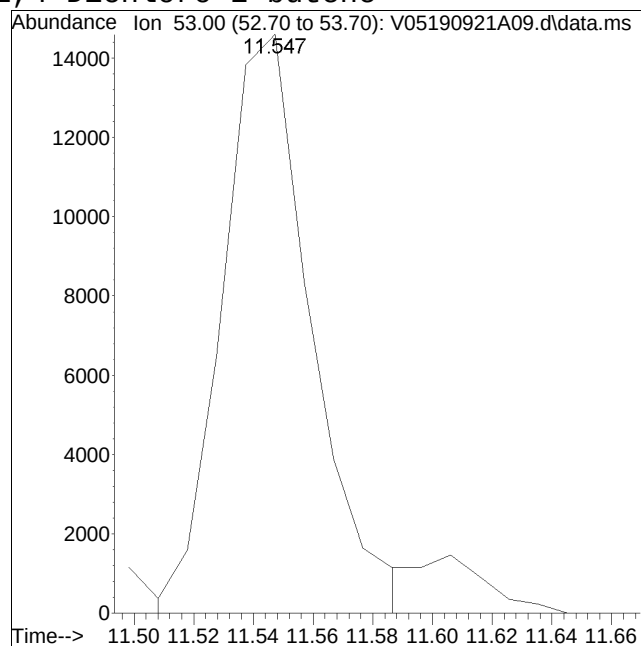
Data Path : I:\VOLATILES\VOA105\2019\10Method : V105_190921_8260.m
Data File : V05190921A09.d Operator : VOA105:PD
Date Inj'd : 9/21/2019 4:27 am Instrument : VOA 105
Sample : I8260STD10PPB Quant Date : 9/23/2019 12:07 pm

Compound #92: trans-1,4-Dichloro-2-butene



Original Peak Response = 32710

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.



Manual Peak Response = 30294 M1

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\VOA105\2019\190921\
 Data File : V05190921A10.d
 Acq On : 21 Sep 2019 4:50 am
 Operator : VOA105:PD
 Sample : I8260STD130PPB
 Misc : WG1287418, ICAL (Sig #1); WG, ICAL16040 (Sig #2)
 ALS Vial : 9 Sample Multiplier: 1

Quant Time: Sep 23 12:07:28 2019
 Quant Method : I:\VOLATILES\VOA105\2019\190921\V105_190921_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Mon Sep 23 12:05:21 2019
 Response via : Initial Calibration

CCAL FILE(s) : 1 - I:\VOLATILES\VOA105\2019\190921\V05190921A09.d
 Sub List : 8260-Curve-IM-2CEVE - Megamix plus Diox-Iodomethane

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

Internal Standards						
1) Fluorobenzene	6.095	96	934645	10.000	ug/L	0.00
Standard Area 1 = 891322			Recovery	=	104.86%	
59) Chlorobenzene-d5	9.617	117	698854	10.000	ug/L	0.00
Standard Area 1 = 671076			Recovery	=	104.14%	
79) 1,4-Dichlorobenzene-d4	12.302	152	379099	10.000	ug/L	0.00
Standard Area 1 = 351825			Recovery	=	107.75%	
System Monitoring Compounds						
36) Dibromofluoromethane	5.283	113	258969	10.210	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery	=	102.10%	
43) 1,2-Dichloroethane-d4	5.811	65	323956	10.032	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery	=	100.32%	
60) Toluene-d8	7.777	98	921579	10.099	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery	=	100.99%	
83) 4-Bromofluorobenzene	11.106	95	368888	9.898	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery	=	98.98%	
Target Compounds						
						Qvalue
2) Dichlorodifluoromethane	1.694	85	707507	30.936	ug/L	98
3) Chloromethane	1.889	50	645826	28.097	ug/L	99
4) Vinyl chloride	1.958	62	610478	30.268	ug/L	97
5) Bromomethane	2.280	94	240716	25.941	ug/L	97
6) Chloroethane	2.398	64	356503	28.728	ug/L	97
7) Trichlorofluoromethane	2.535	101	1069880	31.587	ug/L	100
8) Ethyl ether	2.828	74	203908	28.729	ug/L	78
10) 1,1-Dichloroethene	3.024	96	528516	30.006	ug/L	88
11) Carbon disulfide	3.053	76	1484249	29.890	ug/L	100
12) Freon-113	3.063	101	588346	30.684	ug/L	93
14) Acrolein	3.366	56	58176	31.376	ug/L	97
15) Methylene chloride	3.591	84	526784	27.133	ug/L #	75
17) Acetone	3.640	43	93324	28.544	ug/L	98
18) trans-1,2-Dichloroethene	3.738	96	566322	29.135	ug/L	92
19) Methyl acetate	3.748	43	224659	28.858	ug/L #	86
20) Methyl tert-butyl ether	3.836	73	1121471	29.384	ug/L	90
21) tert-Butyl alcohol	3.933	59	122259	138.134	ug/L	92
22) Diisopropyl ether	4.188	45	1787035	29.708	ug/L	93
23) 1,1-Dichloroethane	4.325	63	1110630	28.820	ug/L	98
24) Halothane	4.374	117	440297	30.075	ug/L	100
25) Acrylonitrile	4.383	53	99089	30.186	ug/L	97

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\VOA105\2019\190921\
 Data File : V05190921A10.d
 Acq On : 21 Sep 2019 4:50 am
 Operator : VOA105:PD
 Sample : I8260STD130PPB
 Misc : WG1287418,ICAL (Sig #1); WG,ICAL16040 (Sig #2)
 ALS Vial : 9 Sample Multiplier: 1

Quant Time: Sep 23 12:07:28 2019
 Quant Method : I:\VOLATILES\VOA105\2019\190921\V105_190921_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Mon Sep 23 12:05:21 2019
 Response via : Initial Calibration

CCAL FILE(s) : 1 - I:\VOLATILES\VOA105\2019\190921\V05190921A09.d
 Sub List : 8260-Curve-IM-2CEVE - Megamix plus Diox-Iodomethane

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
26) Ethyl tert-butyl ether	4.530	59	1518833	29.850	ug/L	#	82
27) Vinyl acetate	4.559	43	1099822	30.727	ug/L	#	94
28) cis-1,2-Dichloroethene	4.843	96	584530	28.322	ug/L		89
29) 2,2-Dichloropropane	4.941	77	977441	31.700	ug/L		90
30) Bromochloromethane	5.039	128	259161	29.167	ug/L	#	82
31) Cyclohexane	5.029	56	1093427	32.053	ug/L		78
32) Chloroform	5.107	83	1087768	28.192	ug/L		95
33) Ethyl acetate	5.215	43	320747	30.126	ug/L	#	94
34) Carbon tetrachloride	5.234	117	1011624	32.891	ug/L		98
35) Tetrahydrofuran	5.264	42	92932M1	30.697	ug/L		
37) 1,1,1-Trichloroethane	5.303	97	1142935	30.451	ug/L		98
39) 2-Butanone	5.401	43	129898	28.602	ug/L	#	79
40) 1,1-Dichloropropene	5.420	75	875700	30.664	ug/L		99
41) Benzene	5.674	78	2158619	28.859	ug/L		94
42) tert-Amyl methyl ether	5.772	73	1137701	29.891	ug/L		98
44) 1,2-Dichloroethane	5.880	62	820232	28.546	ug/L		99
47) Methyl cyclohexane	6.242	83	1042520	31.447	ug/L	#	79
48) Trichloroethene	6.261	95	629313	27.611	ug/L		99
50) Dibromomethane	6.711	93	285985	29.071	ug/L		98
51) 1,2-Dichloropropane	6.809	63	525590	28.653	ug/L		96
54) Bromodichloromethane	6.887	83	774774	29.367	ug/L		98
57) 1,4-Dioxane	7.102	88	57584	604.877	ug/L	#	80
58) cis-1,3-Dichloropropene	7.572	75	855758	30.880	ug/L	#	87
61) Toluene	7.826	92	1431349	28.850	ug/L		100
62) 4-Methyl-2-pentanone	8.276	58	104036	29.989	ug/L		84
63) Tetrachloroethene	8.276	166	674946	29.987	ug/L		98
65) trans-1,3-Dichloropropene	8.325	75	749761	27.932	ug/L		88
67) Ethyl methacrylate	8.501	69	463973	31.054	ug/L		91
68) 1,1,2-Trichloroethane	8.511	83	312161	29.125	ug/L		99
69) Chlorodibromomethane	8.716	129	439523	30.084	ug/L		99
70) 1,3-Dichloropropane	8.834	76	696631	29.282	ug/L		99
71) 1,2-Dibromoethane	9.000	107	368517	30.364	ug/L		99
72) 2-Hexanone	9.284	43	189588	30.427	ug/L		94
73) Chlorobenzene	9.647	112	1527939	28.297	ug/L		97
74) Ethylbenzene	9.676	91	2918984	29.908	ug/L		99
75) 1,1,1,2-Tetrachloroethane	9.725	131	568420	30.049	ug/L		99
76) p/m Xylene	9.862	106	2092740	60.007	ug/L		100
77) o Xylene	10.401	106	1930984	60.460	ug/L		100
78) Styrene	10.470	104	3113448	62.468	ug/L		99
80) Bromoform	10.499	173	265702	28.774	ug/L		98

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\VOA105\2019\190921\
 Data File : V05190921A10.d
 Acq On : 21 Sep 2019 4:50 am
 Operator : VOA105:PD
 Sample : I8260STD130PPB
 Misc : WG1287418,ICAL (Sig #1); WG,ICAL16040 (Sig #2)
 ALS Vial : 9 Sample Multiplier: 1

Quant Time: Sep 23 12:07:28 2019
 Quant Method : I:\VOLATILES\VOA105\2019\190921\V105_190921_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Mon Sep 23 12:05:21 2019
 Response via : Initial Calibration

CCAL FILE(s) : 1 - I:\VOLATILES\VOA105\2019\190921\V05190921A09.d
 Sub List : 8260-Curve-IM-2CEVE - Megamix plus Diox-Iodomethane

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
82)	Isopropylbenzene	10.773	105	2929835	30.917	ug/L	98
84)	Bromobenzene	11.214	156	646013	28.233	ug/L	100
85)	n-Propylbenzene	11.244	91	3492243	31.162	ug/L	99
86)	1,4-Dichlorobutane	11.283	55	639765	28.924	ug/L	98
87)	1,1,2,2-Tetrachloroethane	11.351	83	362917	28.565	ug/L	100
88)	4-Ethyltoluene	11.371	105	2706244	30.490	ug/L	99
89)	2-Chlorotoluene	11.420	91	1969477M1	27.746	ug/L	
90)	1,3,5-Trimethylbenzene	11.469	105	2403541	30.176	ug/L	99
91)	1,2,3-Trichloropropane	11.489	75	341956M1	27.560	ug/L	
92)	trans-1,4-Dichloro-2-b...	11.538	53	94892	25.089	ug/L	97
93)	4-Chlorotoluene	11.606	91	2103955	28.922	ug/L	100
94)	tert-Butylbenzene	11.812	119	2115788	30.849	ug/L	90
97)	1,2,4-Trimethylbenzene	11.890	105	2357803	30.793	ug/L	99
98)	sec-Butylbenzene	11.998	105	2785257	31.464	ug/L	98
99)	p-Isopropyltoluene	12.145	119	2571173	31.726	ug/L	99
100)	1,3-Dichlorobenzene	12.233	146	1199855	28.201	ug/L	100
101)	1,4-Dichlorobenzene	12.321	146	1208810	27.520	ug/L	99
102)	p-Diethylbenzene	12.517	119	1421359	30.890	ug/L	99
103)	n-Butylbenzene	12.576	91	2251277	30.967	ug/L	98
104)	1,2-Dichlorobenzene	12.742	146	1057631	28.608	ug/L	99
105)	1,2,4,5-Tetramethylben...	13.311	119	2014696	32.744	ug/L	98
106)	1,2-Dibromo-3-chloropr...	13.526	155	44788	28.882	ug/L	100
107)	1,3,5-Trichlorobenzene	13.546	180	767297	29.279	ug/L	100
108)	Hexachlorobutadiene	14.114	225	308298	29.027	ug/L	100
109)	1,2,4-Trichlorobenzene	14.143	180	594401	29.464	ug/L	99
110)	Naphthalene	14.437	128	875367	31.613	ug/L	100
111)	1,2,3-Trichlorobenzene	14.604	180	412343	28.901	ug/L	98

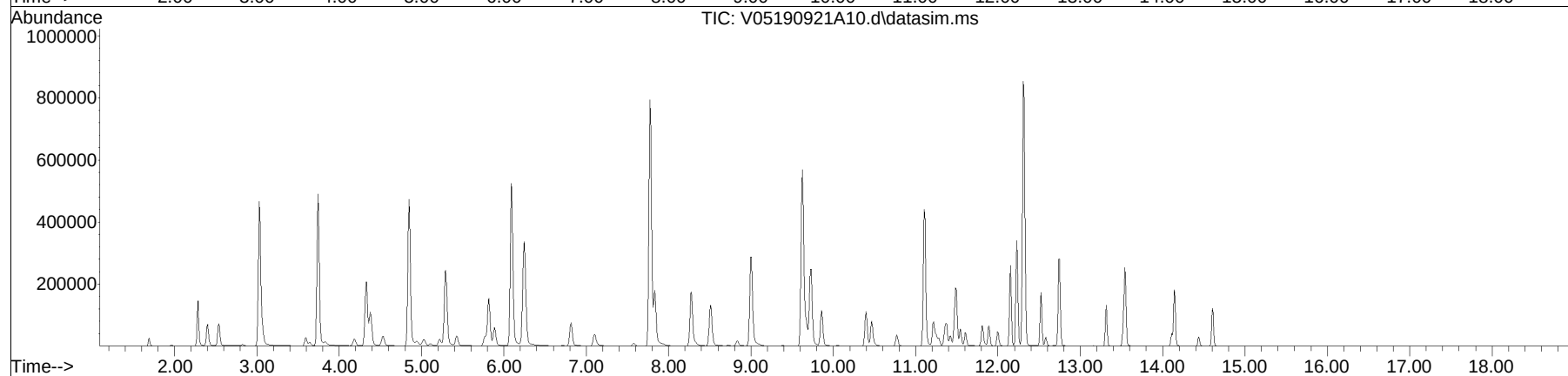
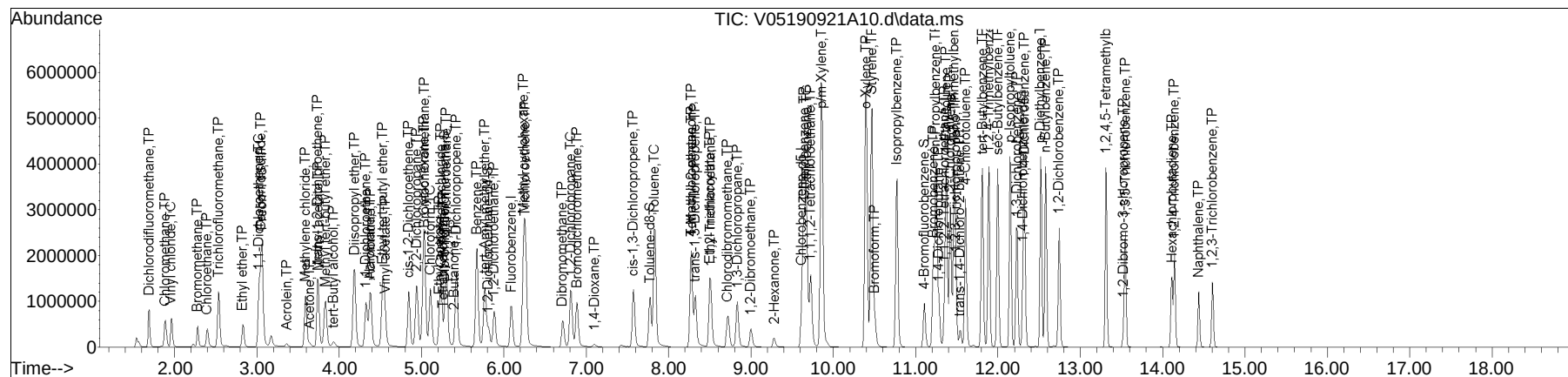
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\VOA105\2019\190921\
 Data File : V05190921A10.d
 Acq On : 21 Sep 2019 4:50 am
 Operator : VOA105:PD
 Sample : I8260STDL30PPB
 Misc : WG1287418,ICAL (Sig #1); WG,ICAL16040 (Sig #2)
 ALS Vial : 9 Sample Multiplier: 1

Quant Time: Sep 23 12:07:28 2019
 Quant Method : I:\VOLATILES\VOA105\2019\190921\V105_190921_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Mon Sep 23 12:05:21 2019
 Response via : Initial Calibration

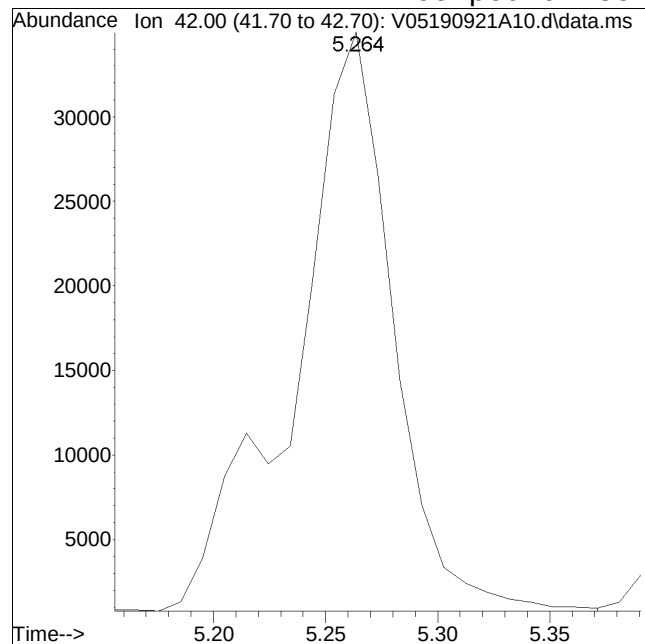
Sub List : 8260-Curve-IM-2CEVE - Megamix plus Diox-Iodomethane



Manual Integration Report

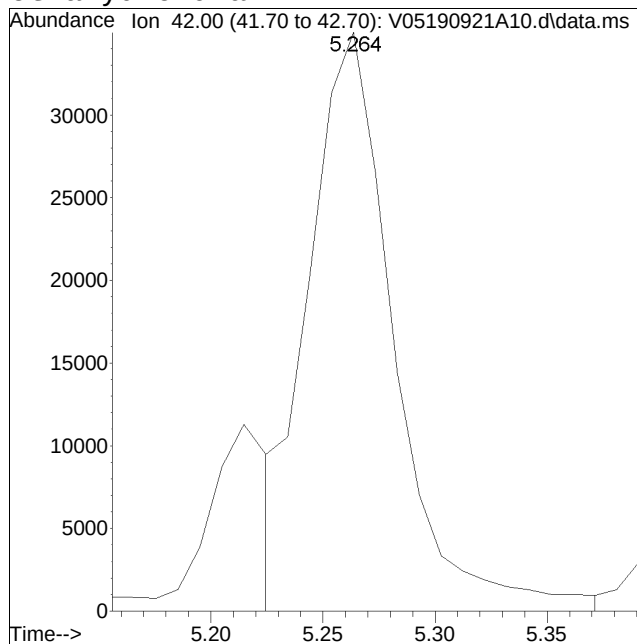
Data Path : I:\VOLATILES\VOA105\2019\1QMethod : V105_190921_8260.m
Data File : V05190921A10.d Operator : VOA105:PD
Date Inj'd : 9/21/2019 4:50 am Instrument : VOA 105
Sample : I8260STD130PPB Quant Date : 9/23/2019 12:07 pm

Compound #35: Tetrahydrofuran



Original Peak Response = 104179

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

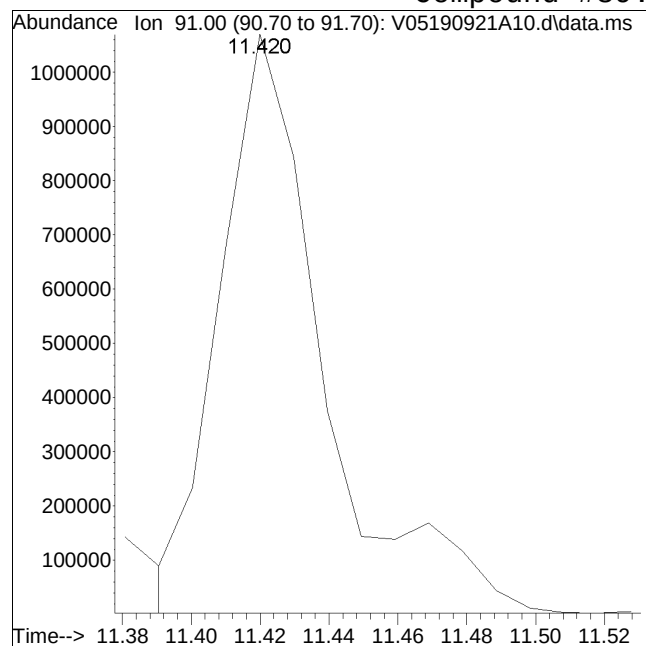


Manual Peak Response = 92932 M1

Manual Integration Report

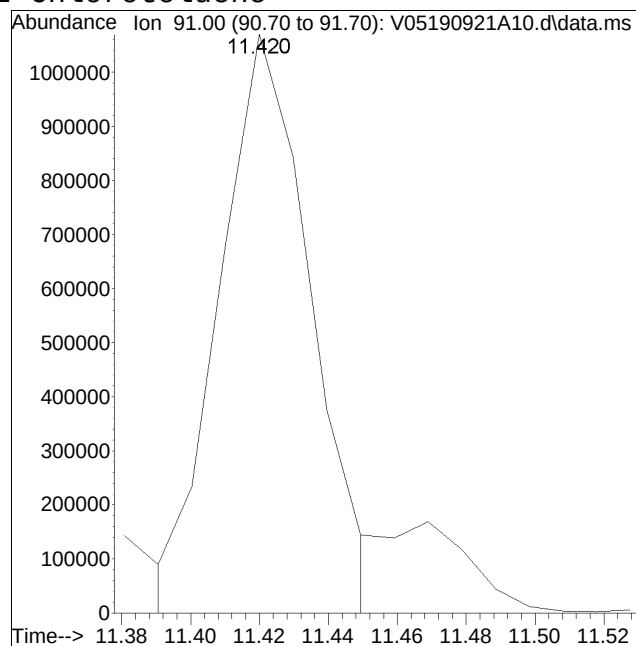
Data Path : I:\VOLATILES\VOA105\2019\10Method : V105_190921_8260.m
Data File : V05190921A10.d Operator : VOA105:PD
Date Inj'd : 9/21/2019 4:50 am Instrument : VOA 105
Sample : I8260STDL30PPB Quant Date : 9/23/2019 12:07 pm

Compound #89: 2-Chlorotoluene



Original Peak Response = 2234985

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

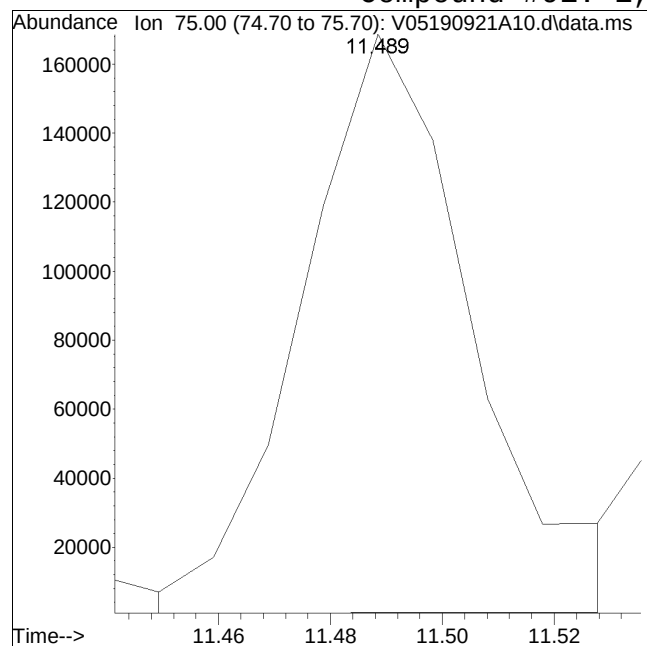


Manual Peak Response = 1969477 M1

Manual Integration Report

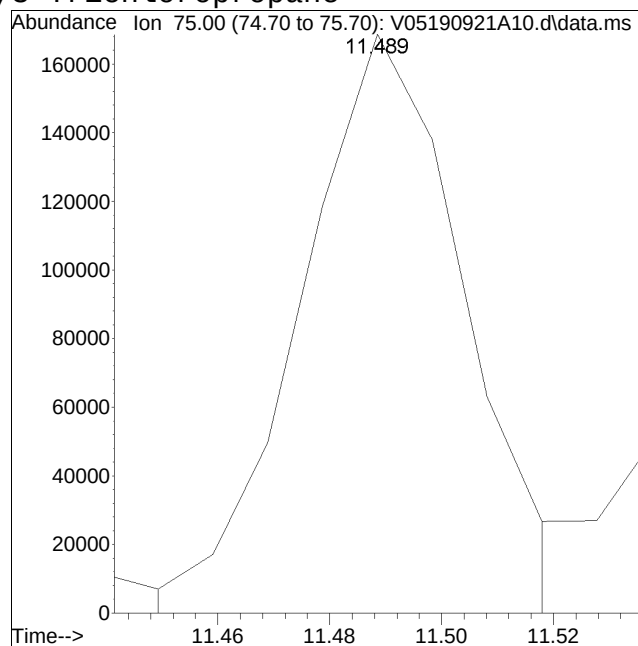
Data Path : I:\VOLATILES\VOA105\2019\10Method : V105_190921_8260.m
Data File : V05190921A10.d Operator : VOA105:PD
Date Inj'd : 9/21/2019 4:50 am Instrument : VOA 105
Sample : I8260STDL30PPB Quant Date : 9/23/2019 12:07 pm

Compound #91: 1,2,3-Trichloropropane



Original Peak Response = 353101

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.



Manual Peak Response = 341956 M1

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\VOA105\2019\190921\
 Data File : V05190921A11.d
 Acq On : 21 Sep 2019 5:13 am
 Operator : VOA105:PD
 Sample : I8260STD180PPB
 Misc : WG1287418, ICAL (Sig #1); WG, ICAL16040 (Sig #2)
 ALS Vial : 10 Sample Multiplier: 1

Quant Time: Sep 23 12:07:38 2019
 Quant Method : I:\VOLATILES\VOA105\2019\190921\V105_190921_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Mon Sep 23 12:05:21 2019
 Response via : Initial Calibration

CCAL FILE(s) : 1 - I:\VOLATILES\VOA105\2019\190921\V05190921A09.d
 Sub List : 8260-Curve-IM-2CEVE - Megamix plus Diox-Iodomethane

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

Internal Standards						
1) Fluorobenzene	6.095	96	1010452	10.000	ug/L	0.00
Standard Area 1 = 891322			Recovery	=	113.37%	
59) Chlorobenzene-d5	9.618	117	766671	10.000	ug/L	0.00
Standard Area 1 = 671076			Recovery	=	114.25%	
79) 1,4-Dichlorobenzene-d4	12.311	152	413552	10.000	ug/L	0.00
Standard Area 1 = 351825			Recovery	=	117.54%	
System Monitoring Compounds						
36) Dibromofluoromethane	5.283	113	273495	9.974	ug/L	0.00
Spiked Amount 10.000	Range 70	- 130	Recovery	=	99.74%	
43) 1,2-Dichloroethane-d4	5.811	65	343179	9.830	ug/L	0.00
Spiked Amount 10.000	Range 70	- 130	Recovery	=	98.30%	
60) Toluene-d8	7.777	98	995910	9.948	ug/L	0.00
Spiked Amount 10.000	Range 70	- 130	Recovery	=	99.48%	
83) 4-Bromofluorobenzene	11.107	95	403172	9.916	ug/L	0.00
Spiked Amount 10.000	Range 70	- 130	Recovery	=	99.16%	
Target Compounds						
						Qvalue
2) Dichlorodifluoromethane	1.694	85	1984576	80.266	ug/L	98
3) Chloromethane	1.889	50	1817245	73.128	ug/L	98
4) Vinyl chloride	1.968	62	1785610	81.891	ug/L	97
5) Bromomethane	2.281	94	813106	81.051	ug/L	98
6) Chloroethane	2.398	64	1005273	74.931	ug/L	97
7) Trichlorofluoromethane	2.535	101	2977333	81.307	ug/L	100
8) Ethyl ether	2.828	74	590493	76.955	ug/L	80
10) 1,1-Dichloroethene	3.034	96	1519218	79.781	ug/L	89
11) Carbon disulfide	3.063	76	4440066	82.705	ug/L	100
12) Freon-113	3.063	101	1687059	81.385	ug/L	89
14) Acrolein	3.356	56	167249	83.435	ug/L	99
15) Methylene chloride	3.591	84	1522418	72.533	ug/L	# 76
17) Acetone	3.640	43	261267	73.916	ug/L	97
18) trans-1,2-Dichloroethene	3.738	96	1647524	78.400	ug/L	92
19) Methyl acetate	3.748	43	659251	78.329	ug/L	# 85
20) Methyl tert-butyl ether	3.836	73	3300753	79.996	ug/L	92
21) tert-Butyl alcohol	3.933	59	376239	393.202	ug/L	88
22) Diisopropyl ether	4.188	45	5252963	80.775	ug/L	92
23) 1,1-Dichloroethane	4.325	63	3221143	77.316	ug/L	98
24) Halothane	4.374	117	1299910	82.130	ug/L	99
25) Acrylonitrile	4.383	53	290431	81.838	ug/L	95

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\VOA105\2019\190921\
 Data File : V05190921A11.d
 Acq On : 21 Sep 2019 5:13 am
 Operator : VOA105:PD
 Sample : I8260STDL80PPB
 Misc : WG1287418, ICAL (Sig #1); WG, ICAL16040 (Sig #2)
 ALS Vial : 10 Sample Multiplier: 1

Quant Time: Sep 23 12:07:38 2019
 Quant Method : I:\VOLATILES\VOA105\2019\190921\V105_190921_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Mon Sep 23 12:05:21 2019
 Response via : Initial Calibration

CCAL FILE(s) : 1 - I:\VOLATILES\VOA105\2019\190921\V05190921A09.d
 Sub List : 8260-Curve-IM-2CEVE - Megamix plus Diox-Iodomethane

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
26) Ethyl tert-butyl ether	4.530	59	4442159	80.752	ug/L #	83
27) Vinyl acetate	4.559	43	3190630	82.453	ug/L #	94
28) cis-1,2-Dichloroethene	4.843	96	1723332	77.237	ug/L	90
29) 2,2-Dichloropropane	4.941	77	2819319	84.577	ug/L	92
30) Bromochloromethane	5.039	128	750889	78.168	ug/L #	83
31) Cyclohexane	5.029	56	3138575	85.101	ug/L	79
32) Chloroform	5.107	83	3163410	75.837	ug/L	96
33) Ethyl acetate	5.215	43	930701	80.859	ug/L #	94
34) Carbon tetrachloride	5.234	117	2964098	89.141	ug/L	98
35) Tetrahydrofuran	5.264	42	260505M1	79.593	ug/L	
37) 1,1,1-Trichloroethane	5.303	97	3319972	81.817	ug/L	98
39) 2-Butanone	5.401	43	376826	76.747	ug/L #	79
40) 1,1-Dichloropropene	5.420	75	2559067	82.887	ug/L	99
41) Benzene	5.674	78	6363065	78.687	ug/L	95
42) tert-Amyl methyl ether	5.772	73	3401422	82.662	ug/L	97
44) 1,2-Dichloroethane	5.880	62	2319646	74.673	ug/L	98
47) Methyl cyclohexane	6.242	83	3061287	85.415	ug/L #	80
48) Trichloroethene	6.261	95	1841075	74.718	ug/L	99
50) Dibromomethane	6.711	93	834349	78.451	ug/L	96
51) 1,2-Dichloropropane	6.819	63	1560548	78.693	ug/L	95
54) Bromodichloromethane	6.887	83	2373856	83.229	ug/L	100
57) 1,4-Dioxane	7.102	88	81313	790.053	ug/L #	80
58) cis-1,3-Dichloropropene	7.572	75	2620314	87.460	ug/L #	89
61) Toluene	7.836	92	4205804	77.272	ug/L	100
62) 4-Methyl-2-pentanone	8.266	58	318186	83.605	ug/L #	89
63) Tetrachloroethene	8.276	166	1997501	80.896	ug/L	96
65) trans-1,3-Dichloropropene	8.325	75	2307845	77.783	ug/L	90
67) Ethyl methacrylate	8.501	69	1394421	85.075	ug/L	90
68) 1,1,2-Trichloroethane	8.511	83	905620	77.022	ug/L	100
69) Chlorodibromomethane	8.726	129	1337136	83.426	ug/L	99
70) 1,3-Dichloropropane	8.834	76	2031552	77.840	ug/L	100
71) 1,2-Dibromoethane	9.000	107	1104586	82.961	ug/L	99
72) 2-Hexanone	9.275	43	585918	85.716	ug/L	96
73) Chlorobenzene	9.647	112	4564998	77.065	ug/L	96
74) Ethylbenzene	9.676	91	8659640	80.879	ug/L	100
75) 1,1,1,2-Tetrachloroethane	9.725	131	1708035	82.307	ug/L	98
76) p/m Xylene	9.862	106	6205899	162.208	ug/L	100
77) o Xylene	10.401	106	5739169	163.802	ug/L	100
78) Styrene	10.470	104	9391123	171.755	ug/L	99
80) Bromoform	10.499	173	847350	79.538	ug/L	97

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\VOA105\2019\190921\
 Data File : V05190921A11.d
 Acq On : 21 Sep 2019 5:13 am
 Operator : VOA105:PD
 Sample : I8260STD180PPB
 Misc : WG1287418,ICAL (Sig #1); WG,ICAL16040 (Sig #2)
 ALS Vial : 10 Sample Multiplier: 1

Quant Time: Sep 23 12:07:38 2019
 Quant Method : I:\VOLATILES\VOA105\2019\190921\V105_190921_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Mon Sep 23 12:05:21 2019
 Response via : Initial Calibration

CCAL FILE(s) : 1 - I:\VOLATILES\VOA105\2019\190921\V05190921A09.d
 Sub List : 8260-Curve-IM-2CEVE - Megamix plus Diox-Iodomethane

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
82)	Isopropylbenzene	10.773	105	8717464	84.326	ug/L	98
84)	Bromobenzene	11.214	156	1931107	77.366	ug/L	100
85)	n-Propylbenzene	11.253	91	10297162	84.228	ug/L	99
86)	1,4-Dichlorobutane	11.283	55	1868284	77.428	ug/L	98
87)	1,1,2,2-Tetrachloroethane	11.351	83	1063511	76.734	ug/L	98
88)	4-Ethyltoluene	11.371	105	8118584	83.849	ug/L	99
89)	2-Chlorotoluene	11.420	91	6105136M1	78.845	ug/L	
90)	1,3,5-Trimethylbenzene	11.469	105	7149814	82.285	ug/L	99
91)	1,2,3-Trichloropropane	11.489	75	992877M1	73.355	ug/L	
92)	trans-1,4-Dichloro-2-b...	11.538	53	321198M1	74.996	ug/L	
93)	4-Chlorotoluene	11.606	91	6240346	78.635	ug/L	100
94)	tert-Butylbenzene	11.812	119	6252211	83.566	ug/L	90
97)	1,2,4-Trimethylbenzene	11.890	105	6999362	83.795	ug/L	99
98)	sec-Butylbenzene	11.998	105	8302226	85.974	ug/L	98
99)	p-Isopropyltoluene	12.155	119	7684904	86.925	ug/L	99
100)	1,3-Dichlorobenzene	12.233	146	3637455	78.372	ug/L	99
101)	1,4-Dichlorobenzene	12.321	146	3633528	75.830	ug/L	99
102)	p-Diethylbenzene	12.517	119	4255225	84.773	ug/L	99
103)	n-Butylbenzene	12.576	91	6752436	85.144	ug/L	99
104)	1,2-Dichlorobenzene	12.742	146	3130613	77.626	ug/L	99
105)	1,2,4,5-Tetramethylben...	13.311	119	6070195	90.437	ug/L	98
106)	1,2-Dibromo-3-chloropr...	13.526	155	144461	79.827	ug/L	95
107)	1,3,5-Trichlorobenzene	13.546	180	2323091	81.261	ug/L	99
108)	Hexachlorobutadiene	14.114	225	929582	80.231	ug/L	99
109)	1,2,4-Trichlorobenzene	14.143	180	1801729	81.871	ug/L	99
110)	Naphthalene	14.437	128	2604863	86.235	ug/L	100
111)	1,2,3-Trichlorobenzene	14.604	180	1223517	78.611	ug/L	99

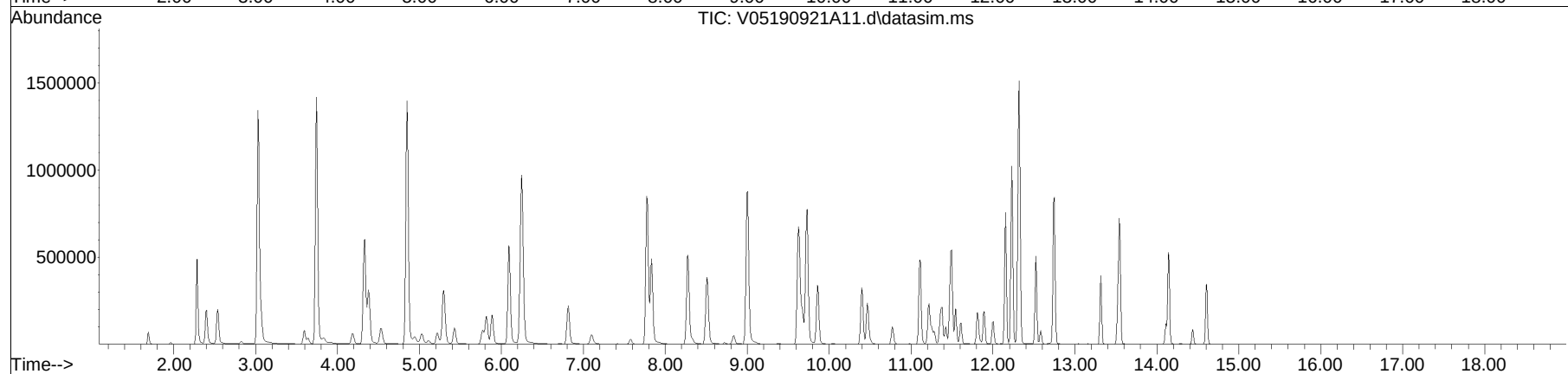
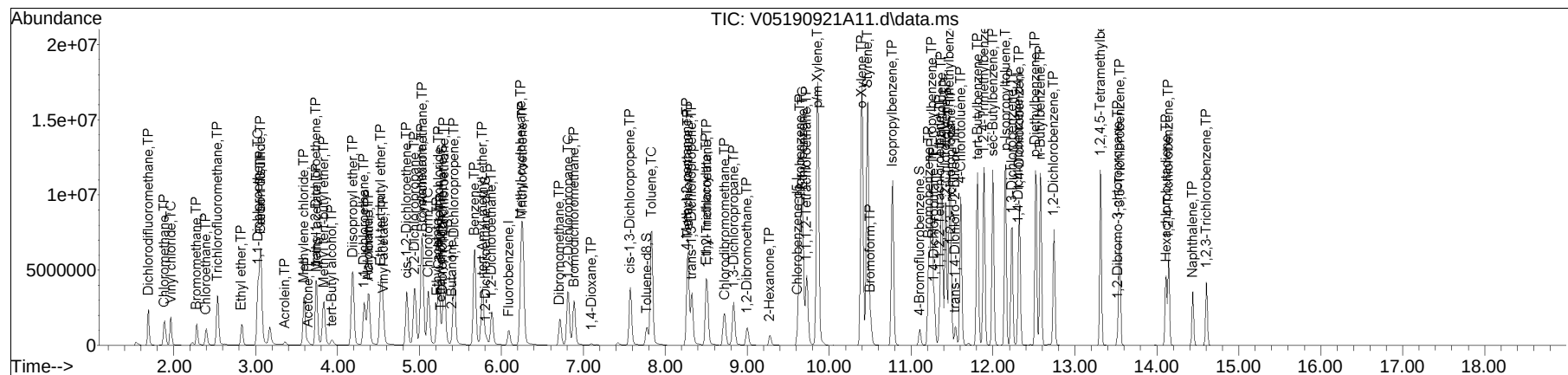
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\VOA105\2019\190921\
 Data File : V05190921A11.d
 Acq On : 21 Sep 2019 5:13 am
 Operator : VOA105:PD
 Sample : I8260STD80PPB
 Misc : WG1287418,ICAL (Sig #1); WG,ICAL16040 (Sig #2)
 ALS Vial : 10 Sample Multiplier: 1

Quant Time: Sep 23 12:07:38 2019
 Quant Method : I:\VOLATILES\VOA105\2019\190921\V105_190921_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Mon Sep 23 12:05:21 2019
 Response via : Initial Calibration

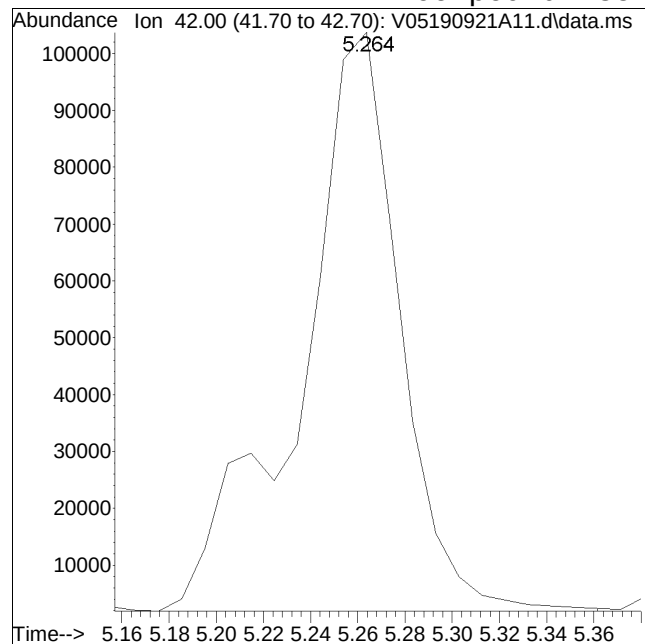
Sub List : 8260-Curve-IM-2CEVE - Megamix plus Diox-Iodomethane



Manual Integration Report

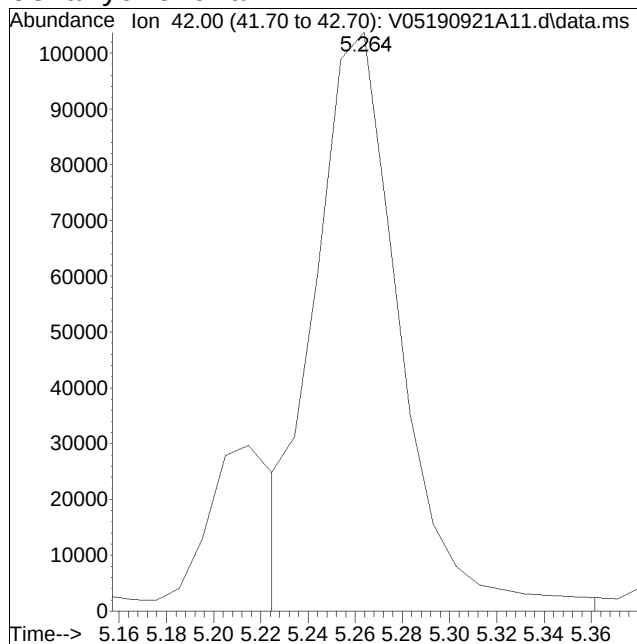
Data Path : I:\VOLATILES\VOA105\2019\1QMethod : V105_190921_8260.m
Data File : V05190921A11.d Operator : VOA105:PD
Date Inj'd : 9/21/2019 5:13 am Instrument : VOA 105
Sample : I8260STD L80PPB Quant Date : 9/23/2019 12:07 pm

Compound #35: Tetrahydrofuran



Original Peak Response = 297306

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

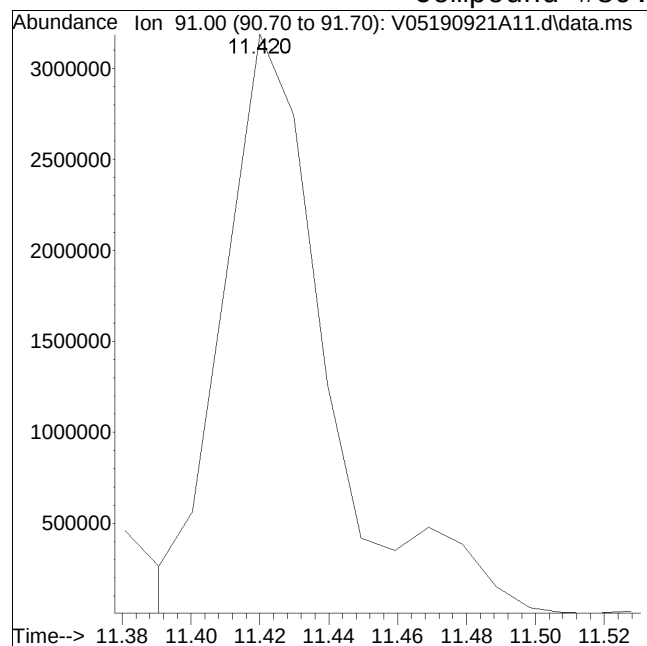


Manual Peak Response = 260505 M1

Manual Integration Report

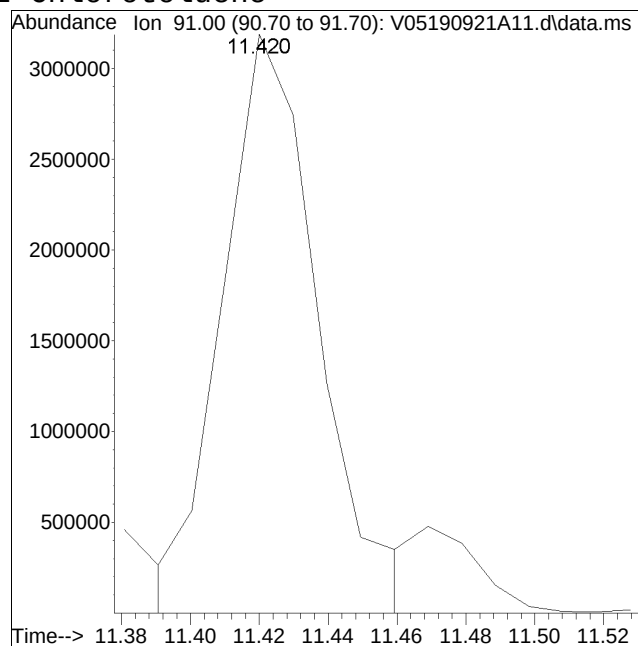
Data Path : I:\VOLATILES\VOA105\2019\10Method : V105_190921_8260.m
Data File : V05190921A11.d Operator : VOA105:PD
Date Inj'd : 9/21/2019 5:13 am Instrument : VOA 105
Sample : I8260STDL80PPB Quant Date : 9/23/2019 12:07 pm

Compound #89: 2-Chlorotoluene



Original Peak Response = 6682133

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

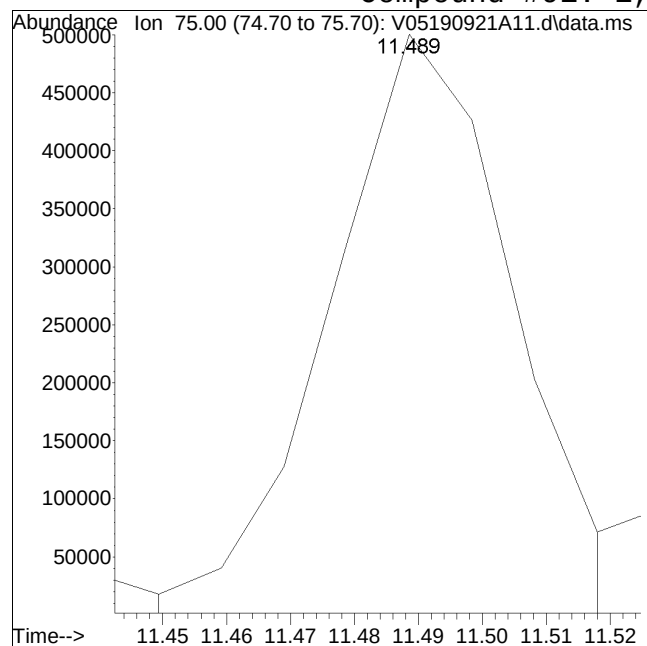


Manual Peak Response = 6105136 M1

Manual Integration Report

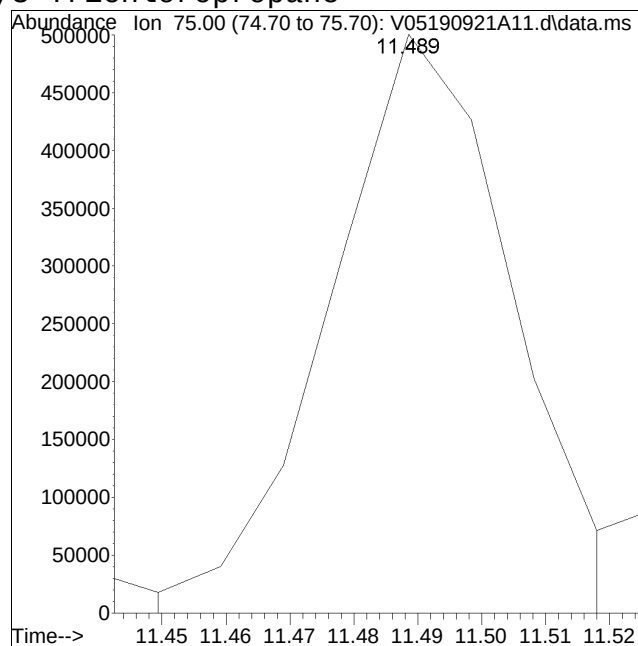
Data Path : I:\VOLATILES\VOA105\2019\10Method : V105_190921_8260.m
Data File : V05190921A11.d Operator : VOA105:PD
Date Inj'd : 9/21/2019 5:13 am Instrument : VOA 105
Sample : I8260STDL80PPB Quant Date : 9/23/2019 12:07 pm

Compound #91: 1,2,3-Trichloropropane



Original Peak Response = 985982

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

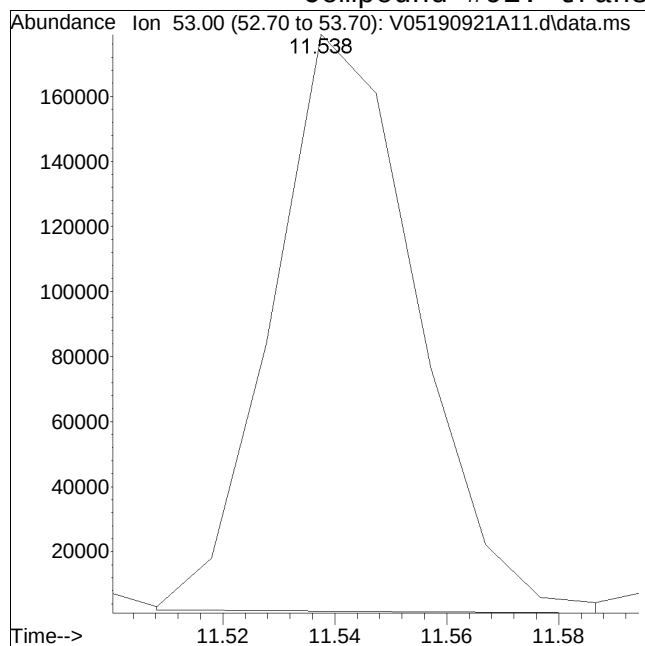


Manual Peak Response = 992877 M1

Manual Integration Report

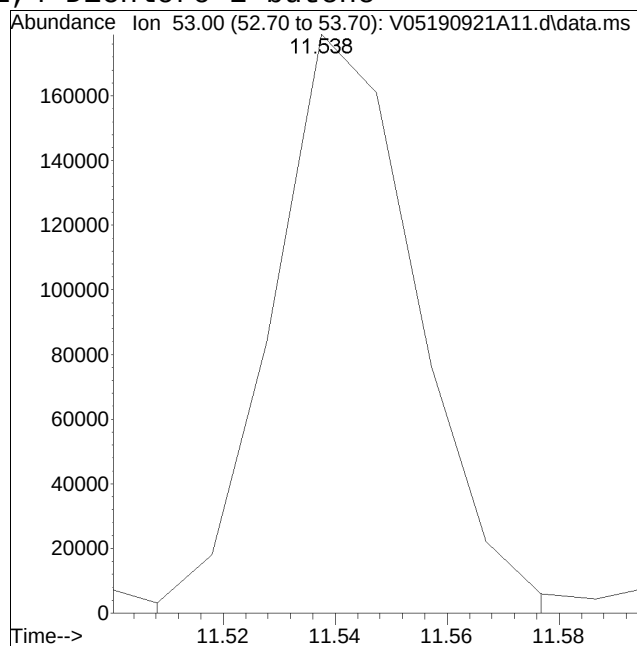
Data Path : I:\VOLATILES\VOA105\2019\10Method : V105_190921_8260.m
Data File : V05190921A11.d Operator : VOA105:PD
Date Inj'd : 9/21/2019 5:13 am Instrument : VOA 105
Sample : I8260STD80PPB Quant Date : 9/23/2019 12:07 pm

Compound #92: trans-1,4-Dichloro-2-butene



Original Peak Response = 315997

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.



Manual Peak Response = 321198 M1

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\VOA105\2019\190921\
 Data File : V05190921A12.d
 Acq On : 21 Sep 2019 5:37 am
 Operator : VOA105:PD
 Sample : I8260STD120PPB
 Misc : WG1287418, ICAL (Sig #1); WG, ICAL16040 (Sig #2)
 ALS Vial : 11 Sample Multiplier: 1

Quant Time: Sep 23 12:07:47 2019
 Quant Method : I:\VOLATILES\VOA105\2019\190921\V105_190921_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Mon Sep 23 12:05:21 2019
 Response via : Initial Calibration

CCAL FILE(s) : 1 - I:\VOLATILES\VOA105\2019\190921\V05190921A09.d
 Sub List : 8260-Curve-IM-2CEVE - Megamix plus Diox-Iodomethane

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

Internal Standards						
1) Fluorobenzene	6.095	96	1088573	10.000	ug/L	0.00
Standard Area 1 = 891322			Recovery	=	122.13%	
59) Chlorobenzene-d5	9.627	117	826091	10.000	ug/L	0.01
Standard Area 1 = 671076			Recovery	=	123.10%	
79) 1,4-Dichlorobenzene-d4	12.311	152	438023	10.000	ug/L	0.00
Standard Area 1 = 351825			Recovery	=	124.50%	
System Monitoring Compounds						
36) Dibromofluoromethane	5.293	113	289416	9.797	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery	=	97.97%	
43) 1,2-Dichloroethane-d4	5.811	65	351870	9.356	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery	=	93.56%	
60) Toluene-d8	7.777	98	1065689	9.880	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery	=	98.80%	
83) 4-Bromofluorobenzene	11.107	95	423031	9.823	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery	=	98.23%	
Target Compounds						
						Qvalue
2) Dichlorodifluoromethane	1.694	85	3140720	117.911	ug/L	98
3) Chloromethane	1.889	50	3008331	112.371	ug/L	99
4) Vinyl chloride	1.958	62	2909126	123.842	ug/L	97
5) Bromomethane	2.281	94	1455518	134.676	ug/L	98
6) Chloroethane	2.398	64	1609256	111.342	ug/L	97
7) Trichlorofluoromethane	2.535	101	4592605	116.417	ug/L	100
8) Ethyl ether	2.828	74	965300	116.773	ug/L	80
10) 1,1-Dichloroethene	3.024	96	2511333	122.417	ug/L	92
11) Carbon disulfide	3.063	76	7559164	130.700	ug/L	99
12) Freon-113	3.063	101	2709786	121.341	ug/L	82
14) Acrolein	3.356	56	285777	132.334	ug/L	98
15) Methylene chloride	3.591	84	2523810	111.614	ug/L	# 77
17) Acetone	3.640	43	437095	114.786	ug/L	98
18) trans-1,2-Dichloroethene	3.738	96	2734861	120.804	ug/L	93
19) Methyl acetate	3.748	43	1110586	122.485	ug/L	# 85
20) Methyl tert-butyl ether	3.836	73	5546460	124.776	ug/L	93
21) tert-Butyl alcohol	3.933	59	681585	661.196	ug/L	85
22) Diisopropyl ether	4.188	45	8567996	122.295	ug/L	92
23) 1,1-Dichloroethane	4.325	63	5264545	117.294	ug/L	98
24) Halothane	4.374	117	2152306	126.226	ug/L	100
25) Acrylonitrile	4.383	53	489550	128.046	ug/L	94

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\VOA105\2019\190921\
 Data File : V05190921A12.d
 Acq On : 21 Sep 2019 5:37 am
 Operator : VOA105:PD
 Sample : I8260STD120PPB
 Misc : WG1287418, ICAL (Sig #1); WG, ICAL16040 (Sig #2)
 ALS Vial : 11 Sample Multiplier: 1

Quant Time: Sep 23 12:07:47 2019
 Quant Method : I:\VOLATILES\VOA105\2019\190921\V105_190921_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Mon Sep 23 12:05:21 2019
 Response via : Initial Calibration

CCAL FILE(s) : 1 - I:\VOLATILES\VOA105\2019\190921\V05190921A09.d
 Sub List : 8260-Curve-IM-2CEVE - Megamix plus Diox-Iodomethane

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
26) Ethyl tert-butyl ether	4.530	59	7398509	124.842	ug/L	# 83
27) Vinyl acetate	4.559	43	5283048	126.727	ug/L	95
28) cis-1,2-Dichloroethene	4.843	96	2868216	119.323	ug/L	91
29) 2,2-Dichloropropane	4.941	77	4632579	128.999	ug/L	94
30) Bromochloromethane	5.039	128	1237711	119.599	ug/L	# 84
31) Cyclohexane	5.029	56	5105507	128.500	ug/L	79
32) Chloroform	5.107	83	5147852	114.553	ug/L	96
33) Ethyl acetate	5.215	43	1534337	123.736	ug/L	# 94
34) Carbon tetrachloride	5.234	117	4765866	133.041	ug/L	98
35) Tetrahydrofuran	5.264	42	433188M1	122.855	ug/L	
37) 1,1,1-Trichloroethane	5.303	97	5352871	122.449	ug/L	99
39) 2-Butanone	5.401	43	627487	118.626	ug/L	# 77
40) 1,1-Dichloropropene	5.420	75	4149701	124.761	ug/L	99
41) Benzene	5.674	78	10478305	120.278	ug/L	95
42) tert-Amyl methyl ether	5.772	73	5744777	129.592	ug/L	96
44) 1,2-Dichloroethane	5.880	62	3733767	111.570	ug/L	98
47) Methyl cyclohexane	6.242	83	5010896	129.779	ug/L	# 81
48) Trichloroethene	6.261	95	3027201	114.039	ug/L	98
50) Dibromomethane	6.711	93	1397090	121.936	ug/L	97
51) 1,2-Dichloropropane	6.809	63	2595355	121.482	ug/L	94
54) Bromodichloromethane	6.887	83	3917197	127.484	ug/L	100
57) 1,4-Dioxane	7.102	88	135093	1218.393	ug/L	# 81
58) cis-1,3-Dichloropropene	7.572	75	4395846	136.193	ug/L	91
61) Toluene	7.836	92	6963575	118.736	ug/L	100
62) 4-Methyl-2-pentanone	8.266	58	535411	130.562	ug/L	92
63) Tetrachloroethene	8.276	166	3278182	123.213	ug/L	95
65) trans-1,3-Dichloropropene	8.325	75	3866417	120.759	ug/L	91
67) Ethyl methacrylate	8.501	69	2336620	132.305	ug/L	89
68) 1,1,2-Trichloroethane	8.511	83	1503463	118.671	ug/L	100
69) Chlorodibromomethane	8.726	129	2232797	129.288	ug/L	99
70) 1,3-Dichloropropane	8.834	76	3379200	120.163	ug/L	100
71) 1,2-Dibromoethane	9.000	107	1853679	129.208	ug/L	100
72) 2-Hexanone	9.275	43	991202	134.575	ug/L	97
73) Chlorobenzene	9.647	112	7544041	118.195	ug/L	95
74) Ethylbenzene	9.676	91	14157040	122.713	ug/L	99
75) 1,1,1,2-Tetrachloroethane	9.725	131	2813726	125.836	ug/L	99
76) p/m Xylene	9.862	106	10149213	246.196	ug/L	90
77) o Xylene	10.401	106	9408503	249.213	ug/L	91
78) Styrene	10.470	104	15550669	263.951	ug/L	98
80) Bromoform	10.509	173	1439898	122.363	ug/L	97

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\VOA105\2019\190921\
 Data File : V05190921A12.d
 Acq On : 21 Sep 2019 5:37 am
 Operator : VOA105:PD
 Sample : I8260STD120PPB
 Misc : WG1287418,ICAL (Sig #1); WG,ICAL16040 (Sig #2)
 ALS Vial : 11 Sample Multiplier: 1

Quant Time: Sep 23 12:07:47 2019
 Quant Method : I:\VOLATILES\VOA105\2019\190921\V105_190921_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Mon Sep 23 12:05:21 2019
 Response via : Initial Calibration

CCAL FILE(s) : 1 - I:\VOLATILES\VOA105\2019\190921\V05190921A09.d
 Sub List : 8260-Curve-IM-2CEVE - Megamix plus Diox-Iodomethane

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
82)	Isopropylbenzene	10.773	105	14112329	128.885	ug/L	98
84)	Bromobenzene	11.214	156	3184567	120.456	ug/L	99
85)	n-Propylbenzene	11.253	91	16312153	125.975	ug/L	98
86)	1,4-Dichlorobutane	11.283	55	3068085	120.048	ug/L	96
87)	1,1,2,2-Tetrachloroethane	11.351	83	1783934	121.522	ug/L	98
88)	4-Ethyltoluene	11.371	105	13161195	128.336	ug/L	99
89)	2-Chlorotoluene	11.420	91	9945414M1	121.264	ug/L	
90)	1,3,5-Trimethylbenzene	11.469	105	11716165	127.305	ug/L	99
91)	1,2,3-Trichloropropane	11.489	75	1639234M1	114.343	ug/L	
92)	trans-1,4-Dichloro-2-b...	11.538	53	557623M1	122.057	ug/L	
93)	4-Chlorotoluene	11.606	91	10172740	121.026	ug/L	99
94)	tert-Butylbenzene	11.812	119	10194992	128.653	ug/L	91
97)	1,2,4-Trimethylbenzene	11.890	105	11431288	129.208	ug/L	99
98)	sec-Butylbenzene	11.998	105	13411586	131.125	ug/L	99
99)	p-Isopropyltoluene	12.155	119	12453714	132.996	ug/L	98
100)	1,3-Dichlorobenzene	12.233	146	5998173	122.016	ug/L	99
101)	1,4-Dichlorobenzene	12.321	146	5967370	117.578	ug/L	99
102)	p-Diethylbenzene	12.527	119	7031945	132.265	ug/L	99
103)	n-Butylbenzene	12.586	91	10895146	129.705	ug/L	99
104)	1,2-Dichlorobenzene	12.742	146	5189949	121.499	ug/L	99
105)	1,2,4,5-Tetramethylben...	13.311	119	9938743	139.800	ug/L	97
106)	1,2-Dibromo-3-chloropr...	13.526	155	247325	122.719	ug/L	97
107)	1,3,5-Trichlorobenzene	13.546	180	3828736	126.445	ug/L	99
108)	Hexachlorobutadiene	14.114	225	1559755	127.099	ug/L	99
109)	1,2,4-Trichlorobenzene	14.143	180	3056644	131.135	ug/L	99
110)	Naphthalene	14.437	128	4504787	140.802	ug/L	100
111)	1,2,3-Trichlorobenzene	14.604	180	2109539	127.967	ug/L	99

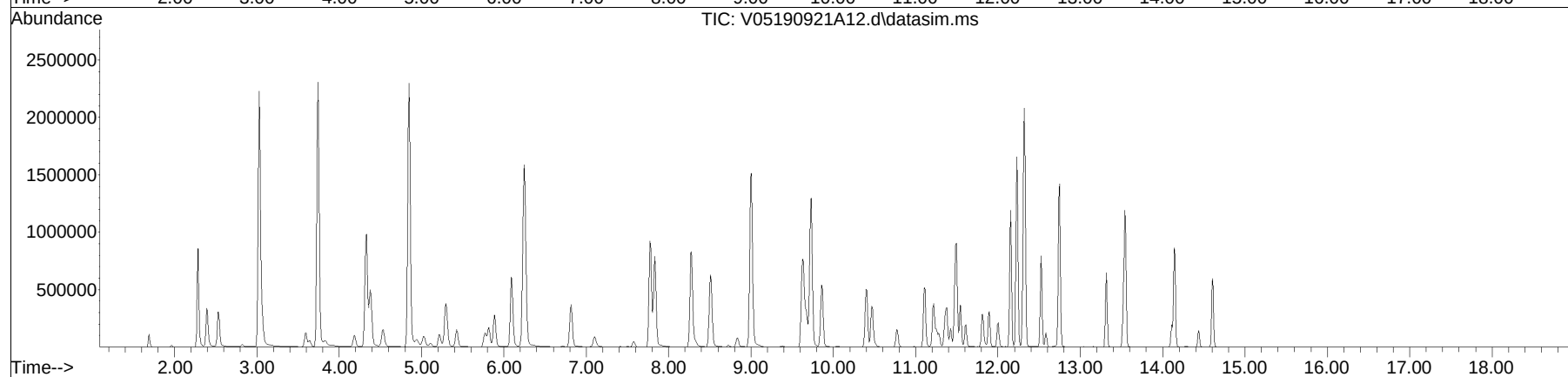
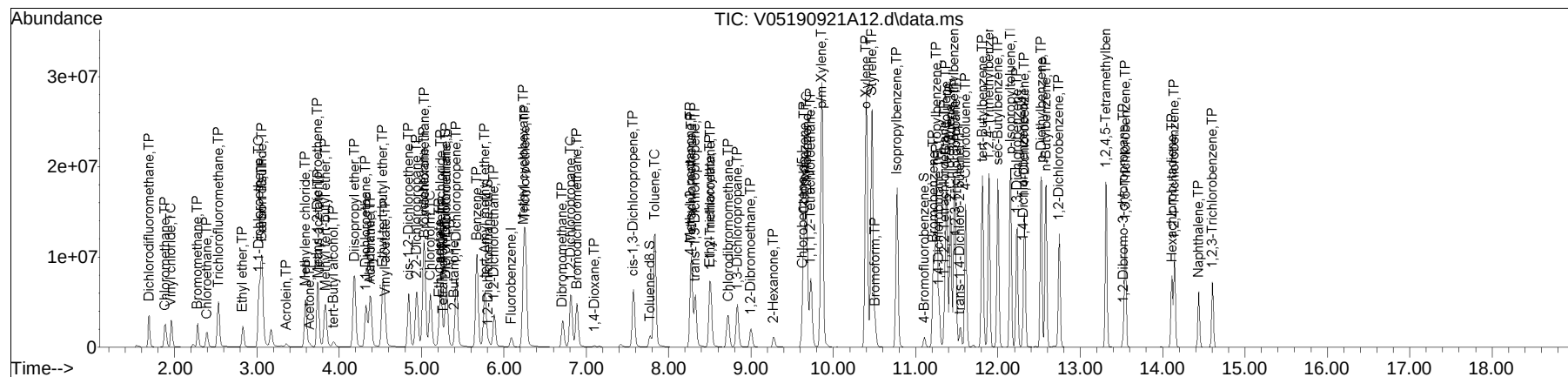
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\VOA105\2019\190921\
 Data File : V05190921A12.d
 Acq On : 21 Sep 2019 5:37 am
 Operator : VOA105:PD
 Sample : I8260STD120PPB
 Misc : WG1287418,ICAL (Sig #1); WG,ICAL16040 (Sig #2)
 ALS Vial : 11 Sample Multiplier: 1

Quant Time: Sep 23 12:07:47 2019
 Quant Method : I:\VOLATILES\VOA105\2019\190921\V105_190921_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Mon Sep 23 12:05:21 2019
 Response via : Initial Calibration

Sub List : 8260-Curve-IM-2CEVE - Megamix plus Diox-Iodomethane



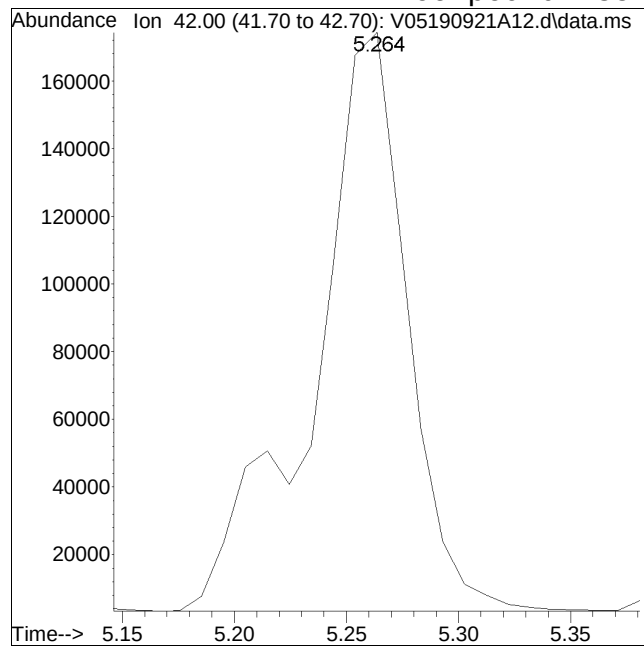
V105_190921_8260.m Mon Sep 23 12:12:59 2019

Page: 4

Manual Integration Report

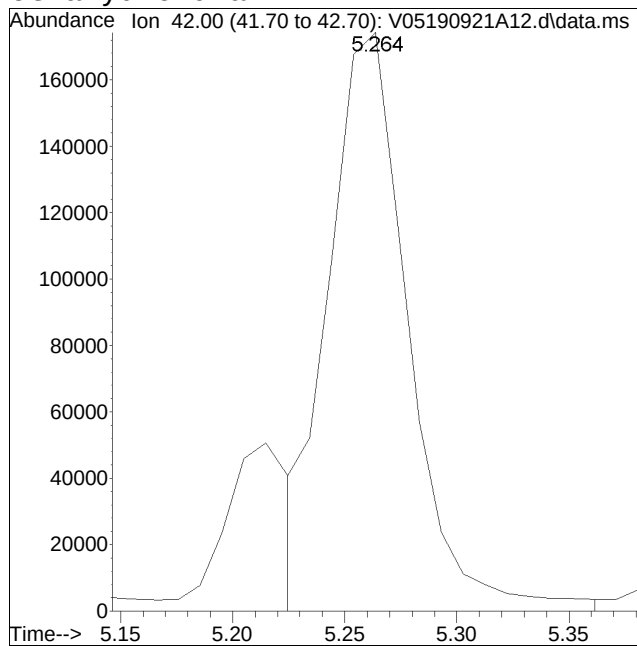
Data Path : I:\VOLATILES\VOA105\2019\1QMethod : V105_190921_8260.m
Data File : V05190921A12.d Operator : VOA105:PD
Date Inj'd : 9/21/2019 5:37 am Instrument : VOA 105
Sample : I8260STD120PPB Quant Date : 9/23/2019 12:07 pm

Compound #35: Tetrahydrofuran



Original Peak Response = 494619

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

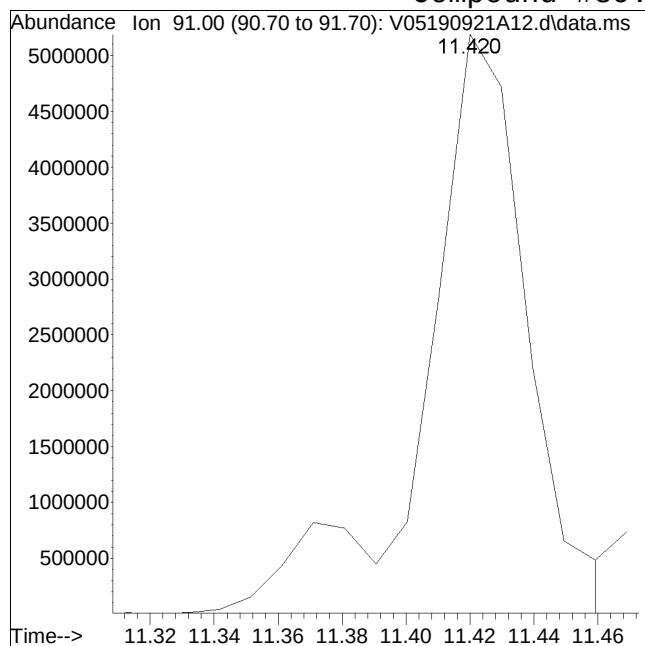


Manual Peak Response = 433188 M1

Manual Integration Report

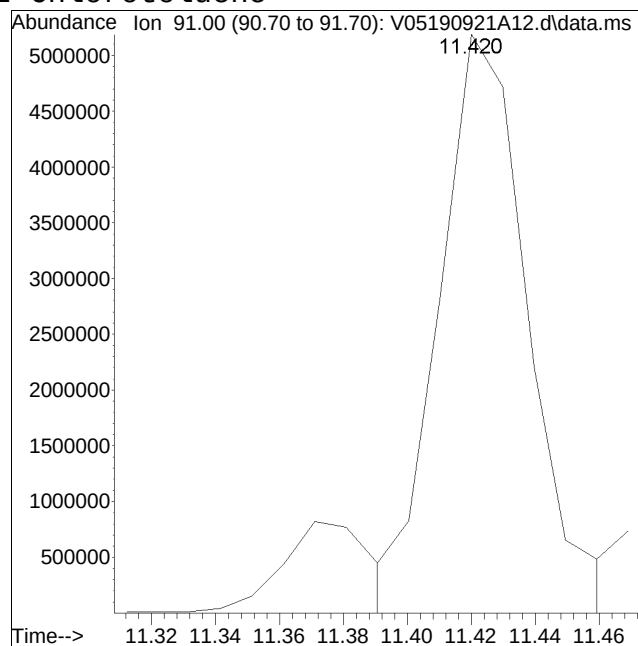
Data Path : I:\VOLATILES\VOA105\2019\10Method : V105_190921_8260.m
Data File : V05190921A12.d Operator : VOA105:PD
Date Inj'd : 9/21/2019 5:37 am Instrument : VOA 105
Sample : I8260STDL120PPB Quant Date : 9/23/2019 12:07 pm

Compound #89: 2-Chlorotoluene



Original Peak Response = 11442932

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

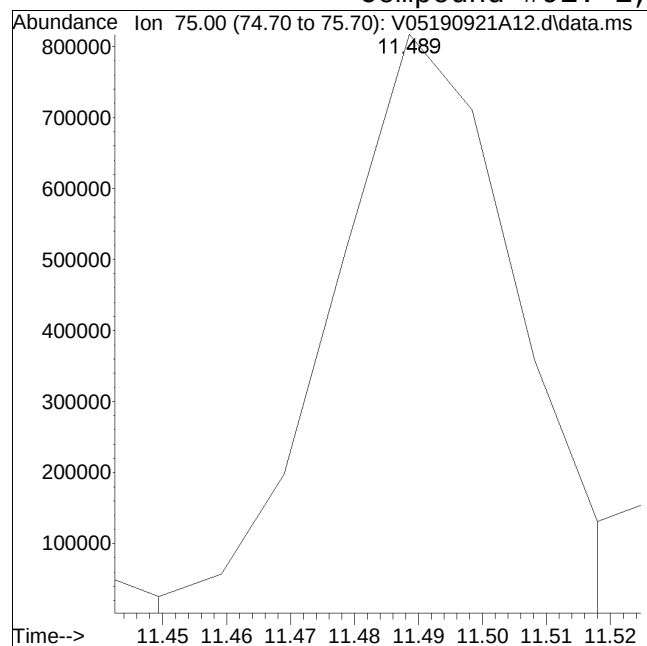


Manual Peak Response = 9945414 M1

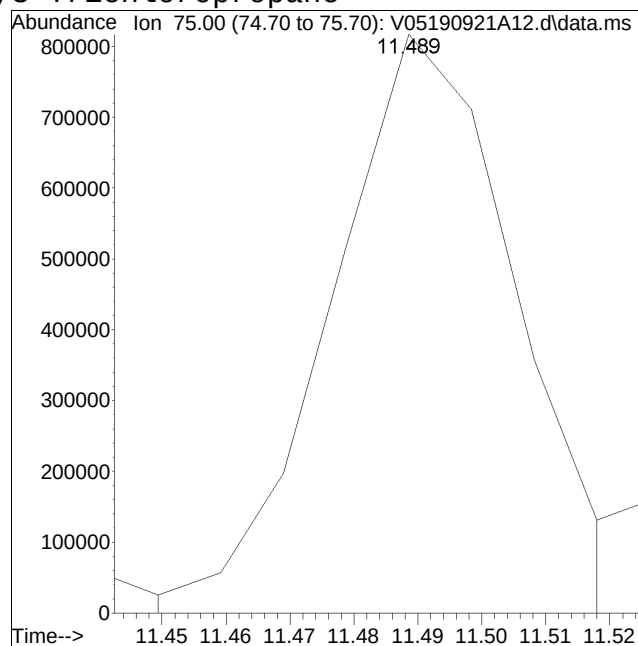
Manual Integration Report

Data Path : I:\VOLATILES\VOA105\2019\10Method : V105_190921_8260.m
Data File : V05190921A12.d Operator : VOA105:PD
Date Inj'd : 9/21/2019 5:37 am Instrument : VOA 105
Sample : I8260STDL120PPB Quant Date : 9/23/2019 12:07 pm

Compound #91: 1,2,3-Trichloropropane



Original Peak Response = 1629377



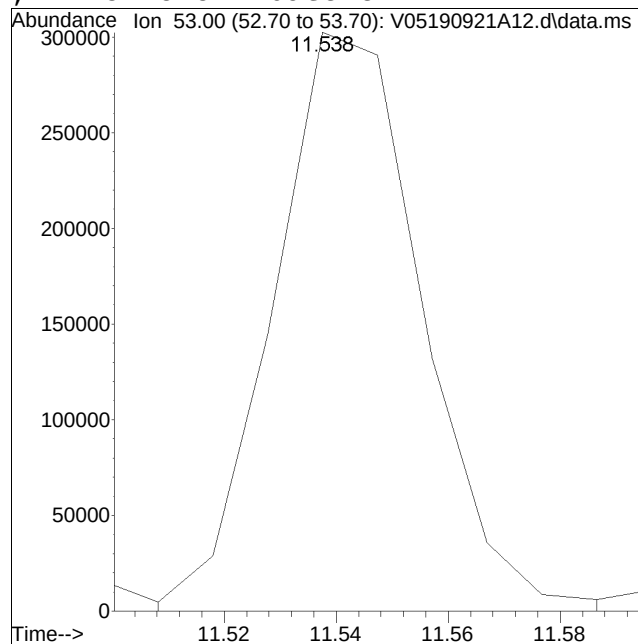
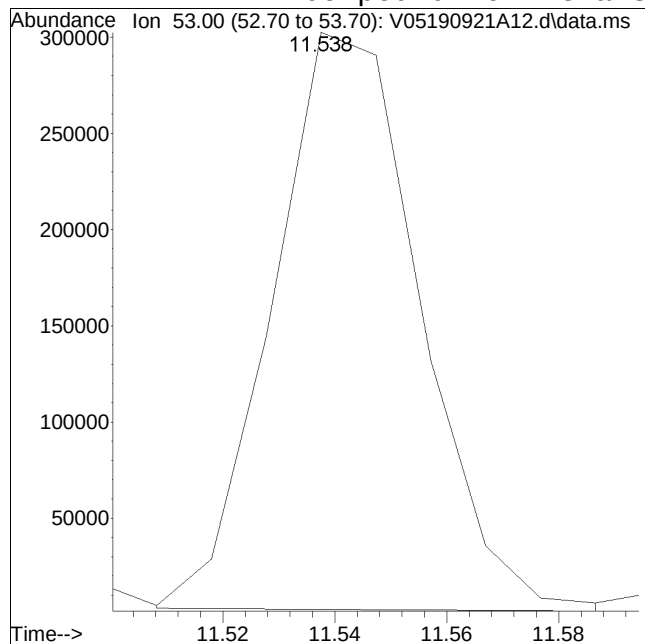
Manual Peak Response = 1639234 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Manual Integration Report

Data Path : I:\VOLATILES\VOA105\2019\10Method : V105_190921_8260.m
Data File : V05190921A12.d Operator : VOA105:PD
Date Inj'd : 9/21/2019 5:37 am Instrument : VOA 105
Sample : I8260STD120PPB Quant Date : 9/23/2019 12:07 pm

Compound #92: trans-1,4-Dichloro-2-butene



Original Peak Response = 545680

Manual Peak Response = 557623 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\VOA105\2019\190921\
 Data File : V05190921A13.d
 Acq On : 21 Sep 2019 6:00 am
 Operator : VOA105:PD
 Sample : I8260STD1200PPB
 Misc : WG1287418, ICAL (Sig #1); WG, ICAL16040 (Sig #2)
 ALS Vial : 12 Sample Multiplier: 1

Quant Time: Sep 23 12:07:57 2019
 Quant Method : I:\VOLATILES\VOA105\2019\190921\V105_190921_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Mon Sep 23 12:05:21 2019
 Response via : Initial Calibration

CCAL FILE(s) : 1 - I:\VOLATILES\VOA105\2019\190921\V05190921A09.d
 Sub List : 8260-Curve-IM-2CEVE - Megamix plus Diox-Iodomethane

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

Internal Standards						
1) Fluorobenzene	6.095	96	1140519	10.000	ug/L	0.00
Standard Area 1 = 891322			Recovery	=	127.96%	
59) Chlorobenzene-d5	9.627	117	861175	10.000	ug/L	0.01
Standard Area 1 = 671076			Recovery	=	128.33%	
79) 1,4-Dichlorobenzene-d4	12.312	152	444096	10.000	ug/L	0.00
Standard Area 1 = 351825			Recovery	=	126.23%	
System Monitoring Compounds						
36) Dibromofluoromethane	5.283	113	298763	9.653	ug/L	0.00
Spiked Amount 10.000	Range 70	- 130	Recovery	=	96.53%	
43) 1,2-Dichloroethane-d4	5.811	65	364231	9.243	ug/L	0.00
Spiked Amount 10.000	Range 70	- 130	Recovery	=	92.43%	
60) Toluene-d8	7.777	98	1120172	9.962	ug/L	0.00
Spiked Amount 10.000	Range 70	- 130	Recovery	=	99.62%	
83) 4-Bromofluorobenzene	11.107	95	435485	9.974	ug/L	0.00
Spiked Amount 10.000	Range 70	- 130	Recovery	=	99.74%	
Target Compounds						
						Qvalue
2) Dichlorodifluoromethane	1.694	85	5427291	194.474	ug/L	99
3) Chloromethane	1.889	50	5445068	194.127	ug/L	97
4) Vinyl chloride	1.958	62	5115561	207.852	ug/L	97
5) Bromomethane	2.281	94	2804373	247.664	ug/L	98
6) Chloroethane	2.388	64	2709233	178.911	ug/L	97
7) Trichlorofluoromethane	2.535	101	7866461	190.324	ug/L	100
8) Ethyl ether	2.828	74	1685277	194.584	ug/L	82
10) 1,1-Dichloroethene	3.024	96	4427080	205.973	ug/L	94
11) Carbon disulfide	3.063	76	13512837	222.999	ug/L	99
12) Freon-113	3.063	101	4750035	203.013	ug/L	79
14) Acrolein	3.357	56	508736	224.850	ug/L	97
15) Methylene chloride	3.591	84	4379263	184.849	ug/L	78
17) Acetone	3.640	43	764454	191.611	ug/L	100
18) trans-1,2-Dichloroethene	3.738	96	4824384	203.396	ug/L	94
19) Methyl acetate	3.748	43	1920199	202.131	ug/L #	85
20) Methyl tert-butyl ether	3.836	73	9661320	207.447	ug/L	94
21) tert-Butyl alcohol	3.934	59	1248127	1155.643	ug/L #	83
22) Diisopropyl ether	4.188	45	14705109	200.333	ug/L	92
23) 1,1-Dichloroethane	4.325	63	9174129	195.090	ug/L	98
24) Halothane	4.374	117	3841494	215.031	ug/L	99
25) Acrylonitrile	4.383	53	865163	215.984	ug/L	93

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\VOA105\2019\190921\
 Data File : V05190921A13.d
 Acq On : 21 Sep 2019 6:00 am
 Operator : VOA105:PD
 Sample : I8260STD1200PPB
 Misc : WG1287418,ICAL (Sig #1); WG,ICAL16040 (Sig #2)
 ALS Vial : 12 Sample Multiplier: 1

Quant Time: Sep 23 12:07:57 2019
 Quant Method : I:\VOLATILES\VOA105\2019\190921\V105_190921_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Mon Sep 23 12:05:21 2019
 Response via : Initial Calibration

CCAL FILE(s) : 1 - I:\VOLATILES\VOA105\2019\190921\V05190921A09.d
 Sub List : 8260-Curve-IM-2CEVE - Megamix plus Diox-Iodomethane

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
26) Ethyl tert-butyl ether	4.530	59	12820154	206.474	ug/L	#	83
27) Vinyl acetate	4.560	43	9155672	209.619	ug/L		95
28) cis-1,2-Dichloroethene	4.843	96	5040075	200.127	ug/L		91
29) 2,2-Dichloropropane	4.941	77	8097226	215.207	ug/L		96
30) Bromochloromethane	5.039	128	2063077	190.274	ug/L	#	85
31) Cyclohexane	5.029	56	8879201	213.300	ug/L		81
32) Chloroform	5.107	83	8866367	188.314	ug/L		96
33) Ethyl acetate	5.215	43	2657529	204.553	ug/L	#	95
34) Carbon tetrachloride	5.234	117	8254716	219.938	ug/L		98
35) Tetrahydrofuran	5.264	42	733071M1	198.435	ug/L		
37) 1,1,1-Trichloroethane	5.303	97	9263555	202.255	ug/L		99
39) 2-Butanone	5.401	43	1097381	198.011	ug/L	#	77
40) 1,1-Dichloropropene	5.420	75	7352318	210.980	ug/L		99
41) Benzene	5.675	78	18338634	200.918	ug/L		95
42) tert-Amyl methyl ether	5.772	73	10086077	217.161	ug/L		94
44) 1,2-Dichloroethane	5.880	62	6363591	181.492	ug/L		98
47) Methyl cyclohexane	6.242	83	8911858	220.300	ug/L		84
48) Trichloroethene	6.261	95	5296110	190.425	ug/L		98
50) Dibromomethane	6.711	93	2428640	202.313	ug/L		95
51) 1,2-Dichloropropane	6.819	63	4539062	202.786	ug/L		93
54) Bromodichloromethane	6.887	83	6837602	212.392	ug/L		100
57) 1,4-Dioxane	7.103	88	245819	2116.045	ug/L	#	84
58) cis-1,3-Dichloropropene	7.572	75	7671597	226.858	ug/L		93
61) Toluene	7.836	92	12227498	199.998	ug/L		97
62) 4-Methyl-2-pentanone	8.276	58	940066	219.900	ug/L		96
63) Tetrachloroethene	8.276	166	5766661	207.914	ug/L		94
65) trans-1,3-Dichloropropene	8.325	75	6803595	203.614	ug/L		93
67) Ethyl methacrylate	8.501	69	4082464	221.741	ug/L		89
68) 1,1,2-Trichloroethane	8.511	83	2626697	198.883	ug/L		99
69) Chlorodibromomethane	8.726	129	3966407	220.314	ug/L		99
70) 1,3-Dichloropropane	8.834	76	5830619	198.887	ug/L		99
71) 1,2-Dibromoethane	9.000	107	3240862	216.696	ug/L		100
72) 2-Hexanone	9.275	43	1744428	227.192	ug/L		98
73) Chlorobenzene	9.647	112	12990404	195.234	ug/L		96
74) Ethylbenzene	9.667	91	22360297	185.923	ug/L		93
75) 1,1,1,2-Tetrachloroethane	9.725	131	4895788	210.030	ug/L		99
76) p/m Xylene	9.863	106	17421246	405.382	ug/L	#	55
77) o Xylene	10.401	106	16068015	408.272	ug/L	#	56
78) Styrene	10.470	104	21699132	353.307	ug/L		88
80) Bromoform	10.509	173	2546785	199.020	ug/L		97

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\VOA105\2019\190921\
 Data File : V05190921A13.d
 Acq On : 21 Sep 2019 6:00 am
 Operator : VOA105:PD
 Sample : I8260STD1200PPB
 Misc : WG1287418,ICAL (Sig #1); WG,ICAL16040 (Sig #2)
 ALS Vial : 12 Sample Multiplier: 1

Quant Time: Sep 23 12:07:57 2019
 Quant Method : I:\VOLATILES\VOA105\2019\190921\V105_190921_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Mon Sep 23 12:05:21 2019
 Response via : Initial Calibration

CCAL FILE(s) : 1 - I:\VOLATILES\VOA105\2019\190921\V05190921A09.d
 Sub List : 8260-Curve-IM-2CEVE - Megamix plus Diox-Iodomethane

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
82)	Isopropylbenzene	10.764	105	20889970	188.175	ug/L	90
84)	Bromobenzene	11.214	156	5446518	203.196	ug/L	100
85)	n-Propylbenzene	11.244	91	20574488	156.719	ug/L #	80
86)	1,4-Dichlorobutane	11.283	55	5218086	201.382	ug/L	96
87)	1,1,2,2-Tetrachloroethane	11.352	83	3100896	208.345	ug/L	98
88)	4-Ethyltoluene	11.371	105	19126517	183.953	ug/L	89
89)	2-Chlorotoluene	11.430	91	16620277M1	199.880	ug/L	
90)	1,3,5-Trimethylbenzene	11.469	105	17515411	187.716	ug/L	89
91)	1,2,3-Trichloropropane	11.498	75	2913181M1	200.427	ug/L	
92)	trans-1,4-Dichloro-2-b...	11.547	53	967446M1	207.903	ug/L	
93)	4-Chlorotoluene	11.606	91	16440541	192.920	ug/L	96
94)	tert-Butylbenzene	11.812	119	16504357	205.423	ug/L	88
97)	1,2,4-Trimethylbenzene	11.890	105	17244485	192.250	ug/L	90
98)	sec-Butylbenzene	11.998	105	18612159	179.482	ug/L	88
99)	p-Isopropyltoluene	12.145	119	17942553	188.992	ug/L	91
100)	1,3-Dichlorobenzene	12.233	146	10215433	204.963	ug/L	99
101)	1,4-Dichlorobenzene	12.321	146	10175144	197.744	ug/L	99
102)	p-Diethylbenzene	12.527	119	11886283	220.514	ug/L	99
103)	n-Butylbenzene	12.576	91	15959620	187.399	ug/L #	89
104)	1,2-Dichlorobenzene	12.743	146	8755804	202.174	ug/L	99
105)	1,2,4,5-Tetramethylben...	13.311	119	15065355	209.014	ug/L	91
106)	1,2-Dibromo-3-chloropr...	13.526	155	440934	198.764	ug/L	98
107)	1,3,5-Trichlorobenzene	13.546	180	6583889	214.462	ug/L	98
108)	Hexachlorobutadiene	14.114	225	2717290	218.395	ug/L	99
109)	1,2,4-Trichlorobenzene	14.143	180	5201804	220.115	ug/L	99
110)	Naphthalene	14.437	128	7763750	239.345	ug/L	100
111)	1,2,3-Trichlorobenzene	14.604	180	3637530	217.639	ug/L	100

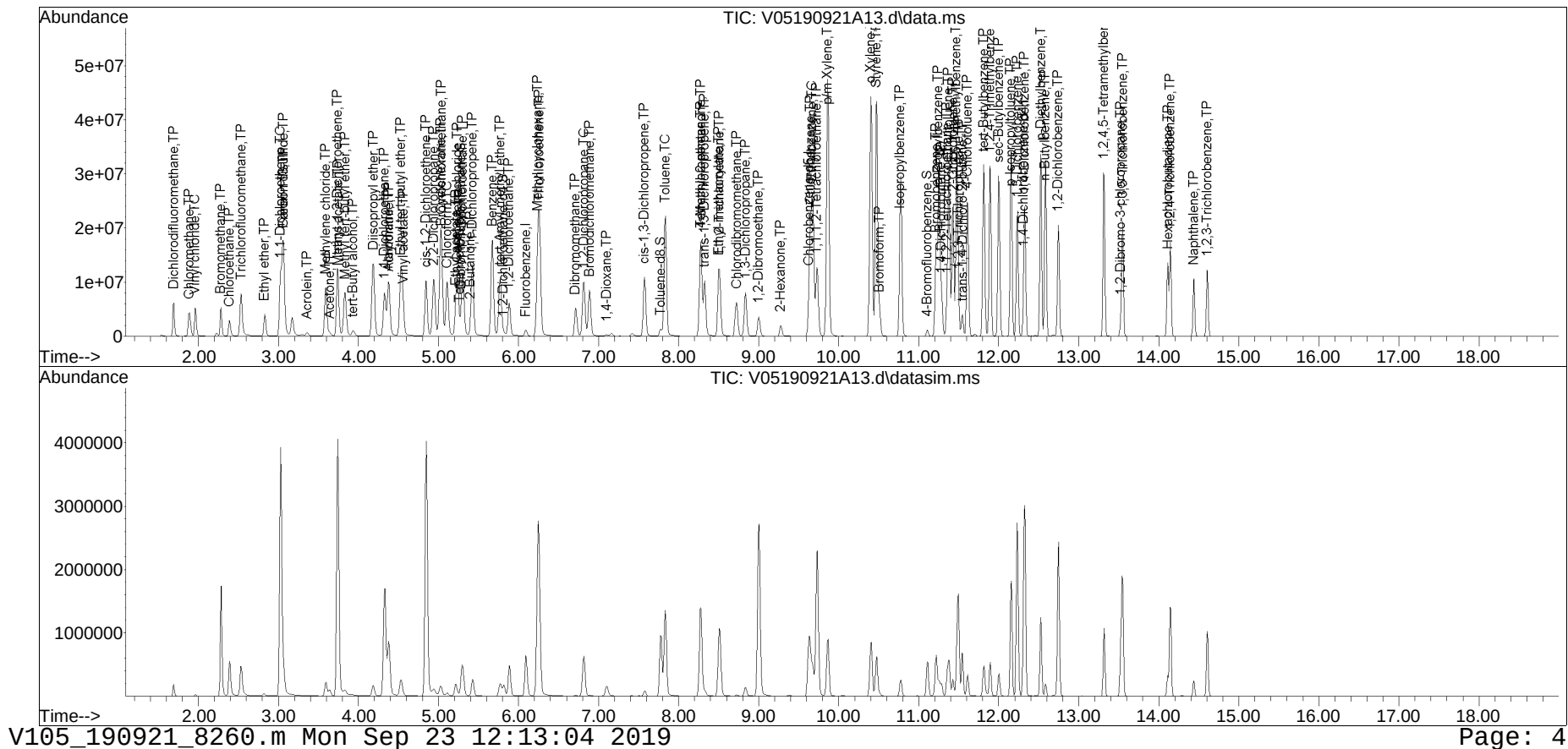
(#) = qualifier out of range (m) = manual integration (+) = signals summed

(QT Reviewed)

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Data Path   : I:\VOLATILES\VOA105\2019\190921\  
Data File  : V05190921A13.d  
Acq On     : 21 Sep 2019    6:00 am  
Operator   : VOA105:PD  
Sample     : I8260STD L200PPB  
Misc       : WG1287418,ICAL (Sig #1); WG,ICAL16040 (Sig #2)  
ALS Vial   : 12    Sample Multiplier: 1
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Quant Time: Sep 23 12:07:57 2019
Quant Method : I:\VOLATILES\VOA105\2019\190921\V105_190921_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Mon Sep 23 12:05:21 2019
Response via : Initial Calibration

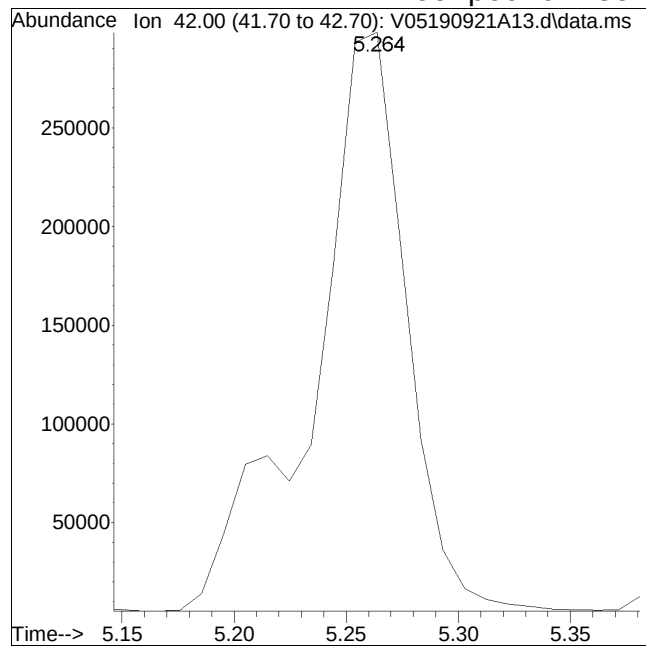
Sub List : 8260-Curve-IM-2CEVE - Megamix plus Diox-Iodomethane



Manual Integration Report

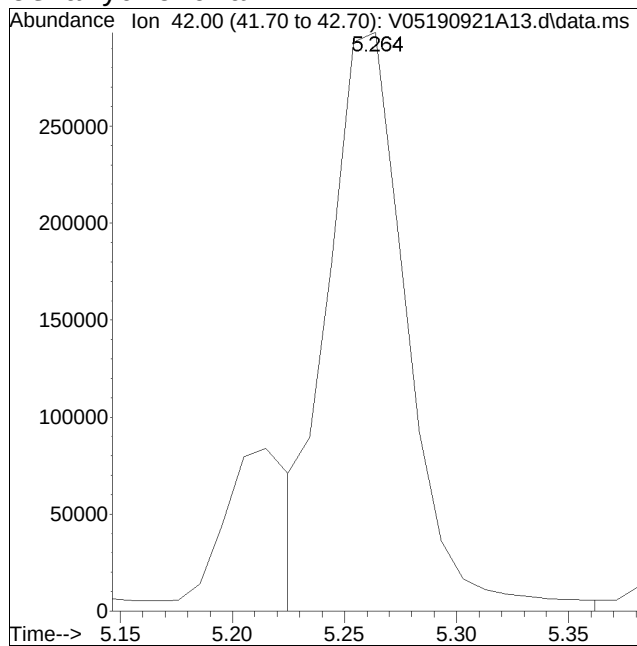
Data Path : I:\VOLATILES\VOA105\2019\1QMethod : V105_190921_8260.m
Data File : V05190921A13.d Operator : VOA105:PD
Date Inj'd : 9/21/2019 6:00 am Instrument : VOA 105
Sample : I8260STD L200PPB Quant Date : 9/23/2019 12:07 pm

Compound #35: Tetrahydrofuran



Original Peak Response = 846494

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

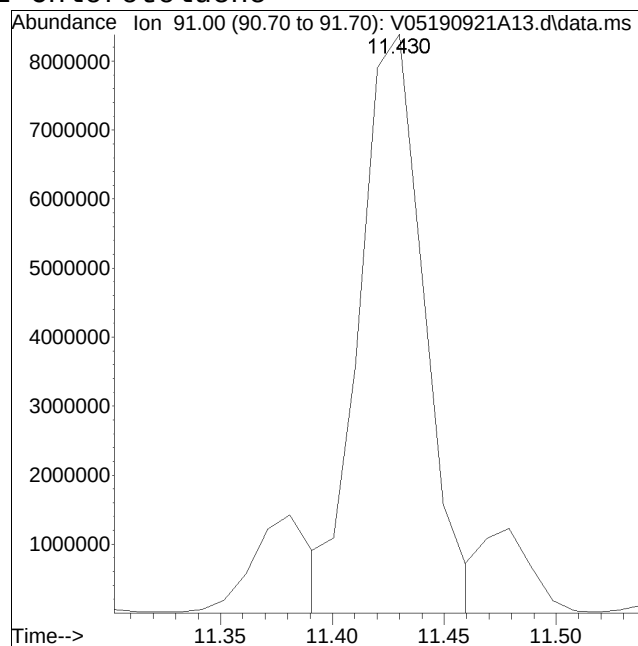
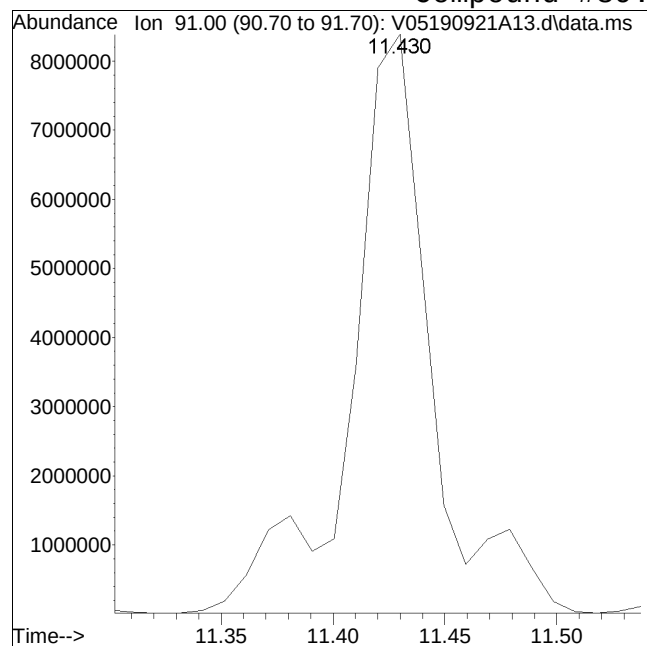


Manual Peak Response = 733071 M1

Manual Integration Report

Data Path : I:\VOLATILES\VOA105\2019\10Method : V105_190921_8260.m
Data File : V05190921A13.d Operator : VOA105:PD
Date Inj'd : 9/21/2019 6:00 am Instrument : VOA 105
Sample : I8260STDL200PPB Quant Date : 9/23/2019 12:07 pm

Compound #89: 2-Chlorotoluene



Original Peak Response = 20921068

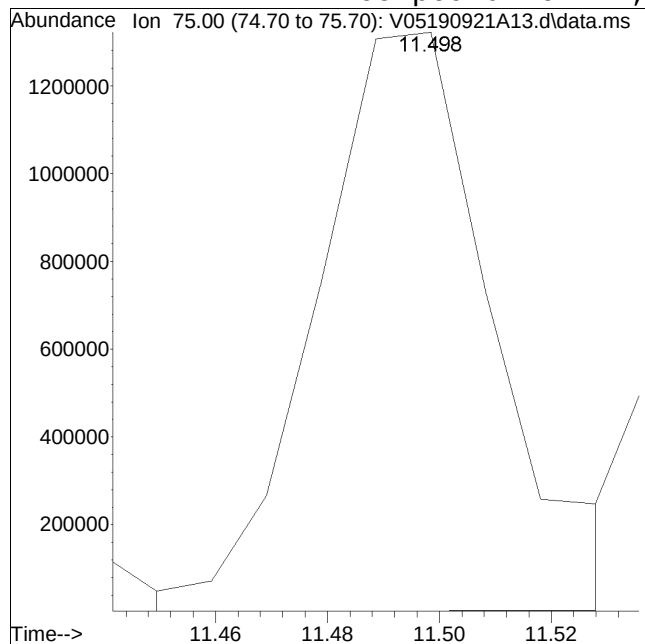
Manual Peak Response = 16620277 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Manual Integration Report

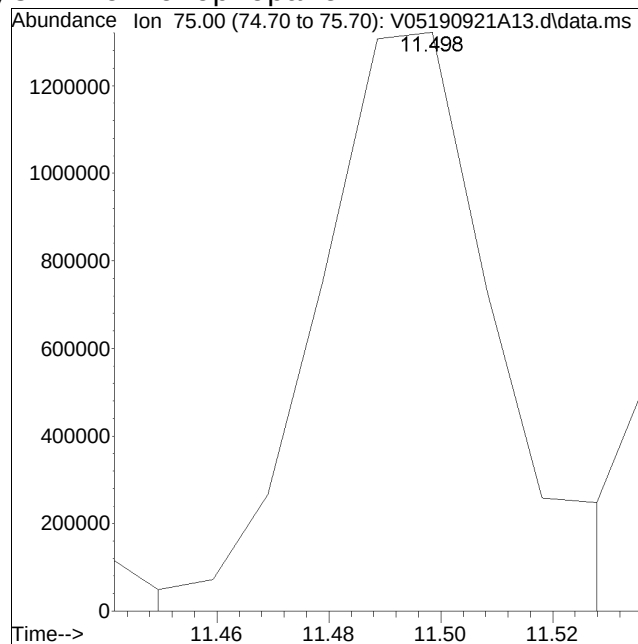
Data Path : I:\VOLATILES\VOA105\2019\10Method : V105_190921_8260.m
Data File : V05190921A13.d Operator : VOA105:PD
Date Inj'd : 9/21/2019 6:00 am Instrument : VOA 105
Sample : I8260STDL200PPB Quant Date : 9/23/2019 12:07 pm

Compound #91: 1,2,3-Trichloropropane



Original Peak Response = 2894342

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

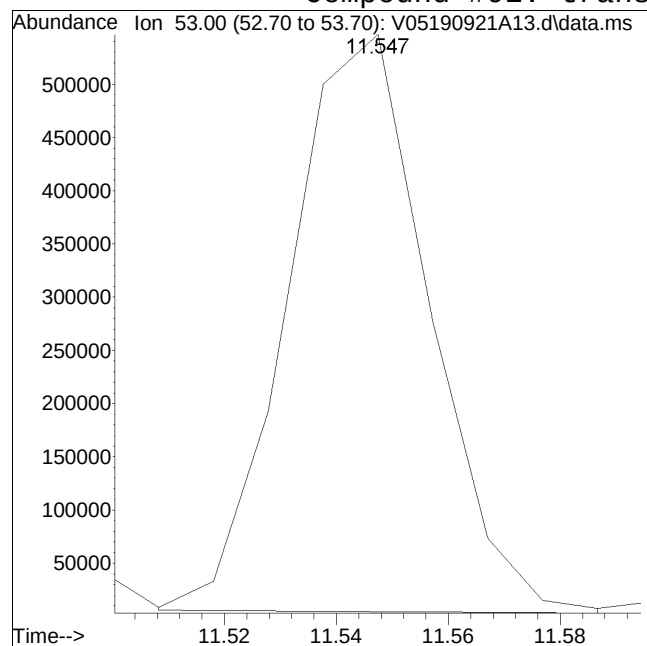


Manual Peak Response = 2913181 M1

Manual Integration Report

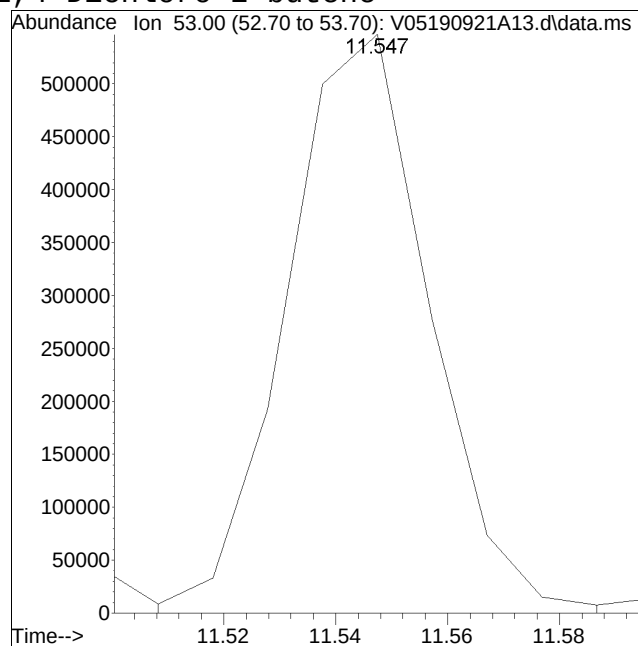
Data Path : I:\VOLATILES\VOA105\2019\10Method : V105_190921_8260.m
Data File : V05190921A13.d Operator : VOA105:PD
Date Inj'd : 9/21/2019 6:00 am Instrument : VOA 105
Sample : I8260STD L200PPB Quant Date : 9/23/2019 12:07 pm

Compound #92: trans-1,4-Dichloro-2-butene



Original Peak Response = 945925

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.



Manual Peak Response = 967446 M1

Evaluate Continuing Calibration Report

Data Path : I:\VOLATILES\VOA105\2019\190921\
 Data File : V05190921A19.d
 Acq On : 21 Sep 2019 8:18 am
 Operator : VOA105:PD
 Sample : C8260STD10PPB
 Misc : WG1287418,ICAL (Sig #1); WG,ICAL16040 (Sig #2)
 ALS Vial : 18 Sample Multiplier: 1

Quant Time: Sep 23 12:10:34 2019
 Quant Method : I:\VOLATILES\VOA105\2019\190921\V105_190921_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Mon Sep 23 12:05:21 2019
 Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1 I	Fluorobenzene	1.000	1.000	0.0	117	0.00
2 TP	Dichlorodifluoromethane	0.245	0.281	-14.7	127	0.00
3 TP	Chloromethane	0.246	0.247	-0.4	108	0.00
4 TC	Vinyl chloride	0.216	0.224	-3.7	115	0.00
5 TP	Bromomethane	0.099	0.083#	16.2	95	0.00
6 TP	Chloroethane	0.133	0.122	8.3	99	0.00
7 TP	Trichlorofluoromethane	0.362	0.353	2.5	106	0.00
8 TP	Ethyl ether	0.076	0.097	-27.6#	133	0.00
10 TC	1,1-Dichloroethene	0.188	0.179	4.8	104	0.00
11 TP	Carbon disulfide	0.531	0.533	-0.4	111	0.00
12 TP	Freon-113	0.205	0.198	3.4	110	0.00
14 TP	Acrolein	0.020	0.019#	5.0	95	0.00
15 TP	Methylene chloride	0.208	0.185	11.1	93	0.00
17 TP	Acetone	0.035	0.036#	-2.9	107	0.00
18 TP	trans-1,2-Dichloroethene	0.208	0.191	8.2	97	0.00
19 TP	Methyl acetate	0.083	0.087#	-4.8	108	0.00
20 TP	Methyl tert-butyl ether	0.408	0.520	-27.5#	131	0.00
21 TP	tert-Butyl alcohol	0.00947	0.01090#	-15.1	142	0.00
22 TP	Diisopropyl ether	0.644	0.833	-29.3#	134	0.00
23 TP	1,1-Dichloroethane	0.412	0.376	8.7	95	0.00
24 TP	Halothane	0.157	0.153	2.5	110	0.00
25 TP	Acrylonitrile	0.035	0.045#	-28.6#	129	0.00
26 TP	Ethyl tert-butyl ether	0.544	0.696	-27.9#	134	0.00
27 TP	Vinyl acetate	0.383	0.393	-2.6	102	0.00
28 TP	cis-1,2-Dichloroethene	0.221	0.198	10.4	90	0.00
29 TP	2,2-Dichloropropane	0.330	0.284	13.9	96	0.00
30 TP	Bromochloromethane	0.095	0.087	8.4	96	0.00
31 TP	Cyclohexane	0.365	0.372	-1.9	117	0.00
32 TC	Chloroform	0.413	0.357	13.6	88	0.00
33 TP	Ethyl acetate	0.114	0.106	7.0	99	0.00
34 TP	Carbon tetrachloride	0.329	0.306	7.0	99	0.00
35 TP	Tetrahydrofuran	0.032	0.043#	-34.4#	135	0.00
36 S	Dibromofluoromethane	0.271	0.265	2.2	112	0.00
37 TP	1,1,1-Trichloroethane	0.402	0.365	9.2	96	0.00
39 TP	2-Butanone	0.049	0.048#	2.0	105	0.00
40 TP	1,1-Dichloropropene	0.306	0.294	3.9	108	0.00
41 TP	Benzene	0.800	0.752	6.0	97	0.00
42 TP	tert-Amyl methyl ether	0.407	0.514	-26.3#	130	0.00
43 S	1,2-Dichloroethane-d4	0.345	0.337	2.3	105	0.00

Evaluate Continuing Calibration Report

Data Path : I:\VOLATILES\VOA105\2019\190921\
 Data File : V05190921A19.d
 Acq On : 21 Sep 2019 8:18 am
 Operator : VOA105:PD
 Sample : C8260STD10PPB
 Misc : WG1287418,ICAL (Sig #1); WG,ICAL16040 (Sig #2)
 ALS Vial : 18 Sample Multiplier: 1

Quant Time: Sep 23 12:10:34 2019
 Quant Method : I:\VOLATILES\VOA105\2019\190921\V105_190921_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Mon Sep 23 12:05:21 2019
 Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
44 TP	1,2-Dichloroethane	0.307	0.262	14.7	85	0.00
47 TP	Methyl cyclohexane	0.355	0.343	3.4	116	0.00
48 TP	Trichloroethene	0.244	0.208	14.8	96	0.00
50 TP	Dibromomethane	0.105	0.093	11.4	89	0.01
51 TC	1,2-Dichloropropane	0.196	0.185	5.6	96	0.00
54 TP	Bromodichloromethane	0.282	0.239	15.2	85	0.00
57 TP	1,4-Dioxane	0.00102	0.00126#	-23.5#	161	0.00
58 TP	cis-1,3-Dichloropropene	0.297	0.257	13.5	90	0.00
59 I	Chlorobenzene-d5	1.000	1.000	0.0	115	0.00
60 S	Toluene-d8	1.306	1.325	-1.5	116	0.00
61 TC	Toluene	0.710	0.664	6.5	97	0.00
62 TP	4-Methyl-2-pentanone	0.050	0.051#	-2.0	109	0.00
63 TP	Tetrachloroethene	0.322	0.308	4.3	104	0.00
65 TP	trans-1,3-Dichloropropene	* 10.000	8.001	20.0	89	0.00
67 TP	Ethyl methacrylate	0.214	0.287	-34.1#	146	0.00
68 TP	1,1,2-Trichloroethane	0.153	0.144	5.9	94	0.00
69 TP	Chlorodibromomethane	0.209	0.177	15.3	87	0.00
70 TP	1,3-Dichloropropane	0.340	0.317	6.8	97	0.00
71 TP	1,2-Dibromoethane	0.174	0.163	6.3	96	0.00
72 TP	2-Hexanone	0.089	0.086#	3.4	108	0.00
73 TP	Chlorobenzene	0.773	0.707	8.5	94	0.00
74 TC	Ethylbenzene	1.397	1.349	3.4	99	0.00
75 TP	1,1,1,2-Tetrachloroethane	0.271	0.248	8.5	96	0.00
76 TP	p/m Xylene	0.499	0.478	4.2	99	0.00
77 TP	o Xylene	0.457	0.520	-13.8	115	0.00
78 TP	Styrene	0.713	0.835	-17.1	114	0.00
79 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	113	0.00
80 TP	Bromoform	* 10.000	8.549	14.5	91	0.00
82 TP	Isopropylbenzene	2.500	2.434	2.6	101	0.00
83 S	4-Bromofluorobenzene	0.983	0.975	0.8	112	0.00
84 TP	Bromobenzene	0.604	0.557	7.8	98	0.00
85 TP	n-Propylbenzene	2.956	2.949	0.2	103	0.00
86 TP	1,4-Dichlorobutane	0.583	0.801	-37.4#	138	0.00
87 TP	1,1,2,2-Tetrachloroethane	0.335	0.318	5.1	96	0.00
88 TP	4-Ethyltoluene	2.341	3.158	-34.9#	139	0.00
89 TP	2-Chlorotoluene	1.872	1.743	6.9	97	0.00
90 TP	1,3,5-Trimethylbenzene	2.101	1.996	5.0	97	0.00

Evaluate Continuing Calibration Report

Data Path : I:\VOLATILES\VOA105\2019\190921\
 Data File : V05190921A19.d
 Acq On : 21 Sep 2019 8:18 am
 Operator : VOA105:PD
 Sample : C8260STD10PPB
 Misc : WG1287418, ICAL (Sig #1); WG, ICAL16040 (Sig #2)
 ALS Vial : 18 Sample Multiplier: 1

Quant Time: Sep 23 12:10:34 2019
 Quant Method : I:\VOLATILES\VOA105\2019\190921\V105_190921_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Mon Sep 23 12:05:21 2019
 Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
91 TP	1,2,3-Trichloropropane	0.327	0.312	4.6	99	0.00
92 TP	trans-1,4-Dichloro-2-butene *	10.000	9.699	3.0	116	0.00
93 TP	4-Chlorotoluene	1.919	1.772	7.7	95	0.00
94 TP	tert-Butylbenzene	1.809	1.771	2.1	104	0.00
97 TP	1,2,4-Trimethylbenzene	2.020	2.007	0.6	100	0.00
98 TP	sec-Butylbenzene	2.335	2.506	-7.3	115	0.00
99 TP	p-Isopropyltoluene	2.138	2.145	-0.3	104	0.00
100 TP	1,3-Dichlorobenzene	1.122	1.021	9.0	93	0.00
101 TP	1,4-Dichlorobenzene	1.159	1.036	10.6	93	0.00
102 TP	p-Diethylbenzene	1.214	1.516	-24.9#	134	0.00
103 TP	n-Butylbenzene	1.918	1.870	2.5	104	0.00
104 TP	1,2-Dichlorobenzene	0.975	0.880	9.7	92	0.00
105 TP	1,2,4,5-Tetramethylbenzene	1.623	2.120	-30.6#	130	0.00
106 TP	1,2-Dibromo-3-chloropropane *	10.000	8.340	16.6	94	0.00
107 TP	1,3,5-Trichlorobenzene	0.691	0.645	6.7	98	0.00
108 TP	Hexachlorobutadiene	0.280	0.255	8.9	107	0.00
109 TP	1,2,4-Trichlorobenzene	0.532	0.476	10.5	97	0.00
110 TP	Naphthalene	0.730	0.693	5.1	102	0.00
111 TP	1,2,3-Trichlorobenzene	0.376	0.342	9.0	102	0.00

* Evaluation of CC level amount vs concentration.

(#) = Out of Range

SPCC's out = 11 CCC's out = 0

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\VOA105\2019\190921\
 Data File : V05190921A19.d
 Acq On : 21 Sep 2019 8:18 am
 Operator : VOA105:PD
 Sample : C8260STD10PPB
 Misc : WG1287418, ICAL (Sig #1); WG, ICAL16040 (Sig #2)
 ALS Vial : 18 Sample Multiplier: 1

Quant Time: Sep 23 12:10:34 2019
 Quant Method : I:\VOLATILES\VOA105\2019\190921\V105_190921_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Mon Sep 23 12:05:21 2019
 Response via : Initial Calibration

CCAL FILE(s) : 1 - I:\VOLATILES\VOA105\2019\190921\V05190921A09.d
 Sub List : 8260-Curve-IM-2CEVE - Megamix plus Diox-Iodomethane

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

Internal Standards						
1) Fluorobenzene	6.095	96	1042788	10.000	ug/L	0.00
Standard Area 1 = 891322			Recovery	=	116.99%	
59) Chlorobenzene-d5	9.618	117	769268	10.000	ug/L	0.00
Standard Area 1 = 671076			Recovery	=	114.63%	
79) 1,4-Dichlorobenzene-d4	12.312	152	397855	10.000	ug/L	0.00
Standard Area 1 = 351825			Recovery	=	113.08%	
System Monitoring Compounds						
36) Dibromofluoromethane	5.293	113	276219	9.761	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery	=	97.61%	
43) 1,2-Dichloroethane-d4	5.812	65	351803	9.765	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery	=	97.65%	
60) Toluene-d8	7.777	98	1019461	10.149	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery	=	101.49%	
83) 4-Bromofluorobenzene	11.107	95	387903	9.917	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery	=	99.17%	
Target Compounds						
						Qvalue
2) Dichlorodifluoromethane	1.694	85	293488	11.502	ug/L	98
3) Chloromethane	1.889	50	257563	10.043	ug/L	98
4) Vinyl chloride	1.968	62	233238	10.365	ug/L	99
5) Bromomethane	2.281	94	86821	8.386	ug/L	95
6) Chloroethane	2.398	64	127070	9.178	ug/L	98
7) Trichlorofluoromethane	2.535	101	368393	9.748	ug/L	99
8) Ethyl ether	2.828	74	101372	12.801	ug/L	78
10) 1,1-Dichloroethene	3.024	96	186703	9.501	ug/L	93
11) Carbon disulfide	3.053	76	555365	10.024	ug/L	100
12) Freon-113	3.063	101	206400	9.648	ug/L	86
14) Acrolein	3.366	56	19449	9.402	ug/L	95
15) Methylene chloride	3.591	84	193225	8.920	ug/L #	77
17) Acetone	3.640	43	37631	10.316	ug/L	99
18) trans-1,2-Dichloroethene	3.738	96	199663	9.207	ug/L	93
19) Methyl acetate	3.758	43	90733	10.446	ug/L #	83
20) Methyl tert-butyl ether	3.836	73	541758	12.723	ug/L	91
21) tert-Butyl alcohol	3.934	59	56846	57.567	ug/L	89
22) Diisopropyl ether	4.188	45	868529	12.941	ug/L	92
23) 1,1-Dichloroethane	4.325	63	392406	9.127	ug/L	97
24) Halothane	4.374	117	159569	9.769	ug/L	100
25) Acrylonitrile	4.384	53	46633M1	12.733	ug/L	

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\VOA105\2019\190921\
 Data File : V05190921A19.d
 Acq On : 21 Sep 2019 8:18 am
 Operator : VOA105:PD
 Sample : C8260STD10PPB
 Misc : WG1287418,ICAL (Sig #1); WG,ICAL16040 (Sig #2)
 ALS Vial : 18 Sample Multiplier: 1

Quant Time: Sep 23 12:10:34 2019
 Quant Method : I:\VOLATILES\VOA105\2019\190921\V105_190921_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Mon Sep 23 12:05:21 2019
 Response via : Initial Calibration

CCAL FILE(s) : 1 - I:\VOLATILES\VOA105\2019\190921\V05190921A09.d
 Sub List : 8260-Curve-IM-2CEVE - Megamix plus Diox-Iodomethane

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	
26) Ethyl tert-butyl ether	4.530	59	725316	12.776	ug/L		91
27) Vinyl acetate	4.560	43	410068	10.268	ug/L	#	94
28) cis-1,2-Dichloroethene	4.843	96	206351	8.962	ug/L		90
29) 2,2-Dichloropropane	4.941	77	295964	8.603	ug/L		88
30) Bromochloromethane	5.039	128	90917	9.171	ug/L	#	82
31) Cyclohexane	5.029	56	388035	10.195	ug/L		79
32) Chloroform	5.107	83	372157	8.645	ug/L		96
33) Ethyl acetate	5.215	43	110761	9.324	ug/L	#	94
34) Carbon tetrachloride	5.234	117	319147	9.300	ug/L		98
35) Tetrahydrofuran	5.264	42	44402M1	13.146	ug/L		
37) 1,1,1-Trichloroethane	5.303	97	381088	9.100	ug/L		98
39) 2-Butanone	5.410	43	49852	9.838	ug/L	#	77
40) 1,1-Dichloropropene	5.420	75	306984	9.635	ug/L		100
41) Benzene	5.675	78	784522	9.401	ug/L		95
42) tert-Amyl methyl ether	5.772	73	536113	12.625	ug/L		97
44) 1,2-Dichloroethane	5.880	62	273021	8.516	ug/L		100
47) Methyl cyclohexane	6.242	83	357212	9.658	ug/L	#	79
48) Trichloroethene	6.261	95	216451	8.512	ug/L		97
50) Dibromomethane	6.721	93	96945	8.833	ug/L		98
51) 1,2-Dichloropropane	6.809	63	192635	9.413	ug/L		94
54) Bromodichloromethane	6.887	83	248910	8.456	ug/L		98
57) 1,4-Dioxane	7.093	88	65491	616.592	ug/L	#	80
58) cis-1,3-Dichloropropene	7.572	75	268391	8.680	ug/L	#	91
61) Toluene	7.836	92	510706	9.351	ug/L		99
62) 4-Methyl-2-pentanone	8.276	58	39195	10.264	ug/L	#	85
63) Tetrachloroethene	8.276	166	236876	9.561	ug/L		95
65) trans-1,3-Dichloropropene	8.325	75	229451	8.001	ug/L		88
67) Ethyl methacrylate	8.501	69	220594	13.413	ug/L	#	79
68) 1,1,2-Trichloroethane	8.511	83	111124	9.419	ug/L		99
69) Chlorodibromomethane	8.726	129	136099	8.463	ug/L		98
70) 1,3-Dichloropropane	8.834	76	243538	9.300	ug/L		100
71) 1,2-Dibromoethane	9.001	107	125689	9.408	ug/L		100
72) 2-Hexanone	9.285	43	66298	9.666	ug/L		93
73) Chlorobenzene	9.647	112	543695	9.147	ug/L		97
74) Ethylbenzene	9.676	91	1037542	9.658	ug/L		99
75) 1,1,1,2-Tetrachloroethane	9.725	131	190403	9.144	ug/L		96
76) p/m Xylene	9.853	106	735521	19.160	ug/L		98
77) o Xylene	10.401	106	799303	22.736	ug/L		98
78) Styrene	10.470	104	1283952	23.403	ug/L		97
80) Bromoform	10.499	173	79570	8.549	ug/L		99

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\VOA105\2019\190921\
 Data File : V05190921A19.d
 Acq On : 21 Sep 2019 8:18 am
 Operator : VOA105:PD
 Sample : C8260STD10PPB
 Misc : WG1287418,ICAL (Sig #1); WG,ICAL16040 (Sig #2)
 ALS Vial : 18 Sample Multiplier: 1

Quant Time: Sep 23 12:10:34 2019
 Quant Method : I:\VOLATILES\VOA105\2019\190921\V105_190921_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Mon Sep 23 12:05:21 2019
 Response via : Initial Calibration

CCAL FILE(s) : 1 - I:\VOLATILES\VOA105\2019\190921\V05190921A09.d
 Sub List : 8260-Curve-IM-2CEVE - Megamix plus Diox-Iodomethane

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
82)	Isopropylbenzene	10.774	105	968573	9.739	ug/L	98
84)	Bromobenzene	11.214	156	221644	9.230	ug/L	100
85)	n-Propylbenzene	11.244	91	1173178	9.975	ug/L	98
86)	1,4-Dichlorobutane	11.283	55	318618	13.726	ug/L	96
87)	1,1,2,2-Tetrachloroethane	11.352	83	126659	9.499	ug/L	98
88)	4-Ethyltoluene	11.371	105	1256467	13.489	ug/L	99
89)	2-Chlorotoluene	11.420	91	693503M1	9.310	ug/L	
90)	1,3,5-Trimethylbenzene	11.469	105	794036	9.499	ug/L	98
91)	1,2,3-Trichloropropane	11.489	75	124220M1	9.540	ug/L	
92)	trans-1,4-Dichloro-2-b...	11.547	53	35008M1	9.699	ug/L	
93)	4-Chlorotoluene	11.606	91	705150	9.236	ug/L	100
94)	tert-Butylbenzene	11.812	119	704704	9.791	ug/L	91
97)	1,2,4-Trimethylbenzene	11.890	105	798489	9.937	ug/L	99
98)	sec-Butylbenzene	11.998	105	997213	10.734	ug/L	99
99)	p-Isopropyltoluene	12.145	119	853514	10.035	ug/L	98
100)	1,3-Dichlorobenzene	12.233	146	406224	9.098	ug/L	98
101)	1,4-Dichlorobenzene	12.321	146	412117	8.940	ug/L	100
102)	p-Diethylbenzene	12.517	119	603028	12.488	ug/L	98
103)	n-Butylbenzene	12.576	91	743840	9.749	ug/L	99
104)	1,2-Dichlorobenzene	12.743	146	350218	9.027	ug/L	98
105)	1,2,4,5-Tetramethylben...	13.311	119	843415	13.061	ug/L	97
106)	1,2-Dibromo-3-chloropr...	13.526	155	12921	8.340	ug/L	100
107)	1,3,5-Trichlorobenzene	13.546	180	256780	9.336	ug/L	99
108)	Hexachlorobutadiene	14.114	225	101282	9.086	ug/L	99
109)	1,2,4-Trichlorobenzene	14.143	180	189446	8.948	ug/L	98
110)	Naphthalene	14.437	128	275704	9.487	ug/L	100
111)	1,2,3-Trichlorobenzene	14.604	180	136001	9.083	ug/L	99

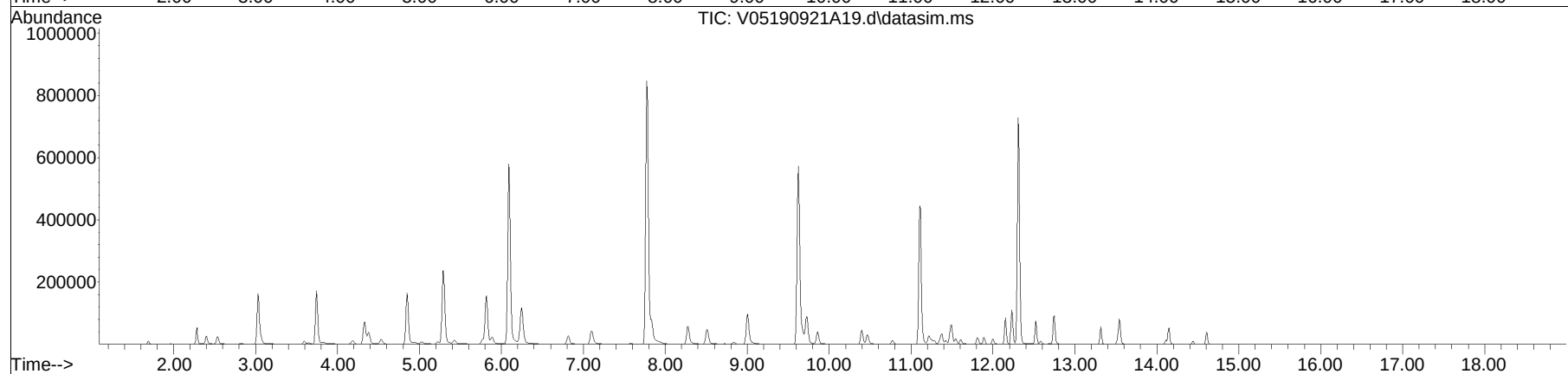
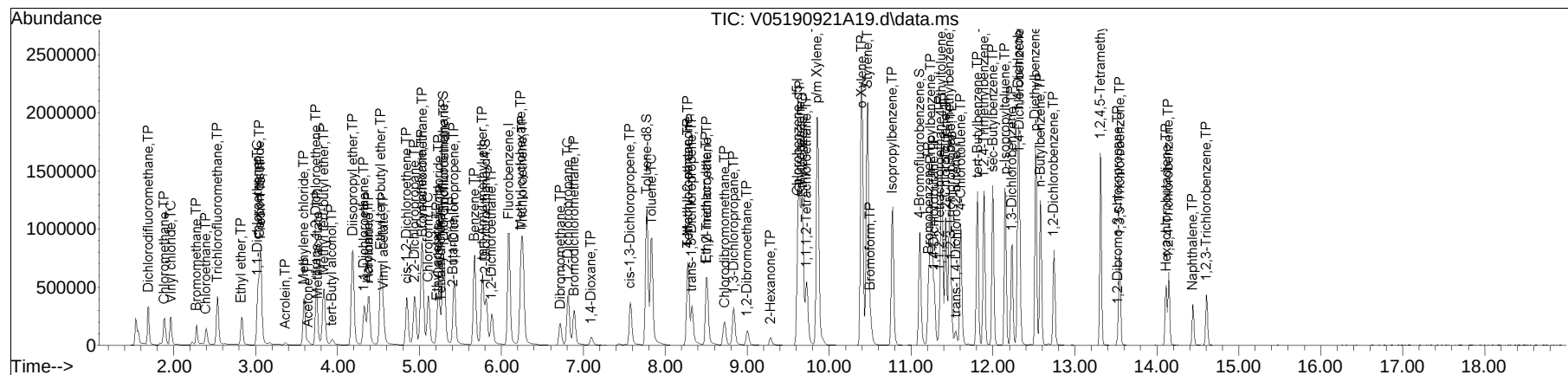
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\VOA105\2019\190921\
 Data File : V05190921A19.d
 Acq On : 21 Sep 2019 8:18 am
 Operator : VOA105:PD
 Sample : C8260STD10PPB
 Misc : WG1287418,ICAL (Sig #1); WG,ICAL16040 (Sig #2)
 ALS Vial : 18 Sample Multiplier: 1

Quant Time: Sep 23 12:10:34 2019
 Quant Method : I:\VOLATILES\VOA105\2019\190921\V105_190921_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Mon Sep 23 12:05:21 2019
 Response via : Initial Calibration

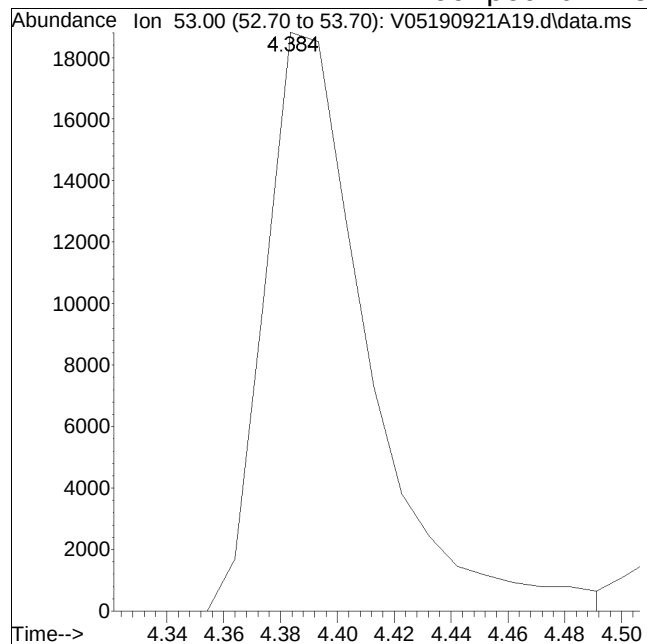
Sub List : 8260-Curve-IM-2CEVE - Megamix plus Diox-Iodomethane



Manual Integration Report

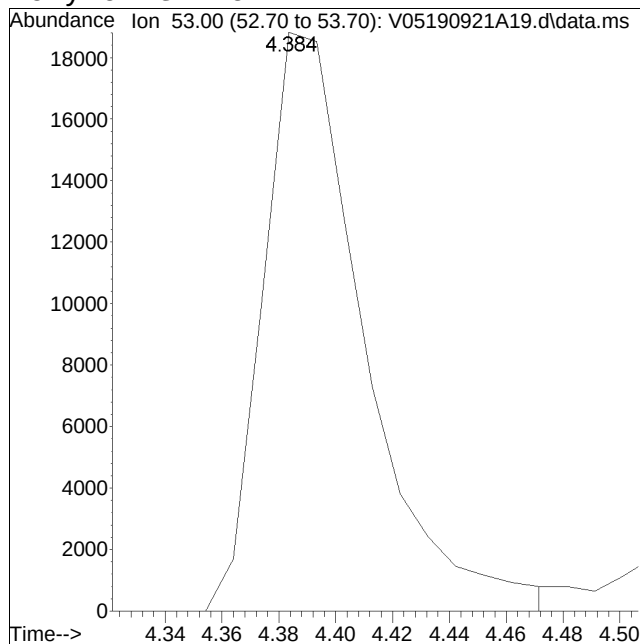
Data Path : I:\VOLATILES\VOA105\2019\1QMethod : V105_190921_8260.m
Data File : V05190921A19.d Operator : VOA105:PD
Date Inj'd : 9/21/2019 8:18 am Instrument : VOA 105
Sample : C8260STD10PPB Quant Date : 9/23/2019 12:09 pm

Compound #25: Acrylonitrile



Original Peak Response = 47485

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

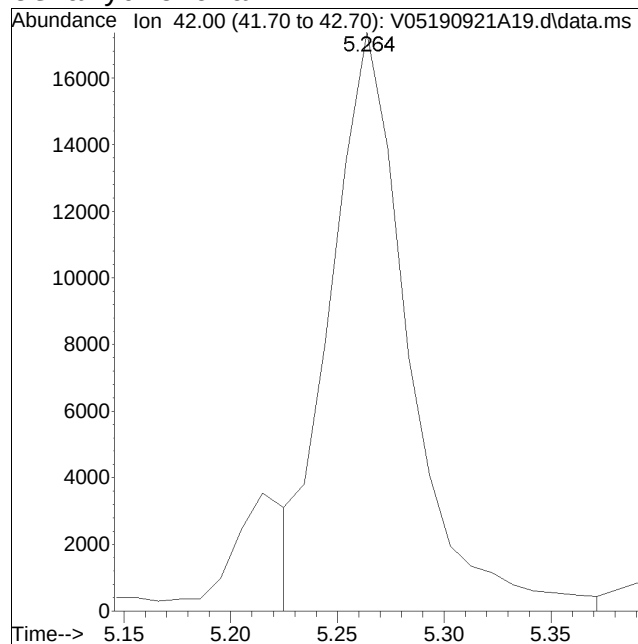
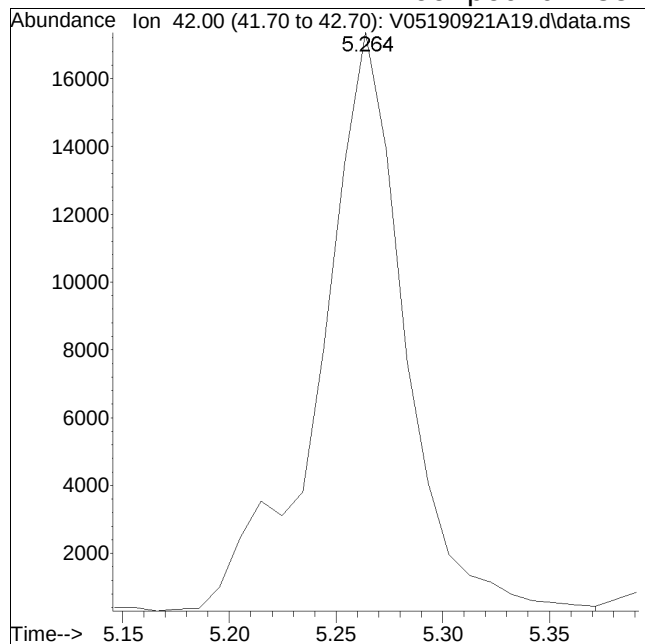


Manual Peak Response = 46633 M1

Manual Integration Report

Data Path : I:\VOLATILES\VOA105\2019\10Method : V105_190921_8260.m
Data File : V05190921A19.d Operator : VOA105:PD
Date Inj'd : 9/21/2019 8:18 am Instrument : VOA 105
Sample : C8260STDL10PPB Quant Date : 9/23/2019 12:09 pm

Compound #35: Tetrahydrofuran



Original Peak Response = 47071

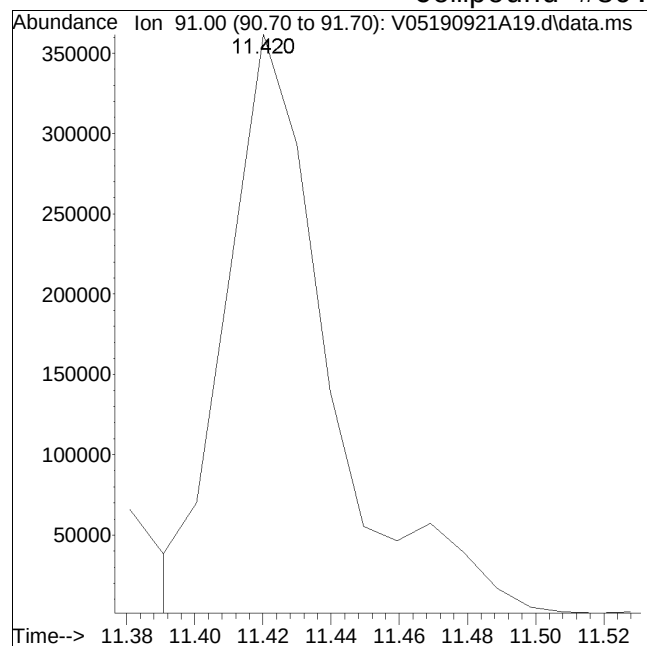
Manual Peak Response = 44402 M1

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

Manual Integration Report

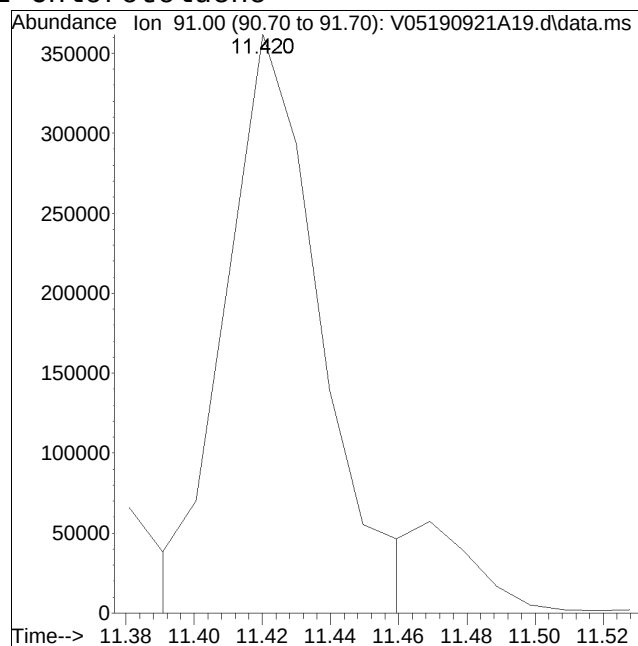
Data Path : I:\VOLATILES\VOA105\2019\10Method : V105_190921_8260.m
Data File : V05190921A19.d Operator : VOA105:PD
Date Inj'd : 9/21/2019 8:18 am Instrument : VOA 105
Sample : C8260STD10PPB Quant Date : 9/23/2019 12:09 pm

Compound #89: 2-Chlorotoluene



Original Peak Response = 754368

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

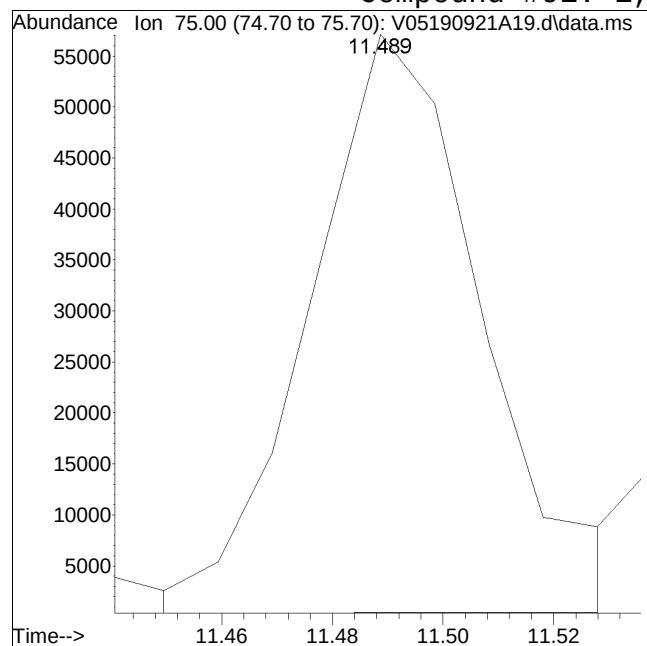


Manual Peak Response = 693503 M1

Manual Integration Report

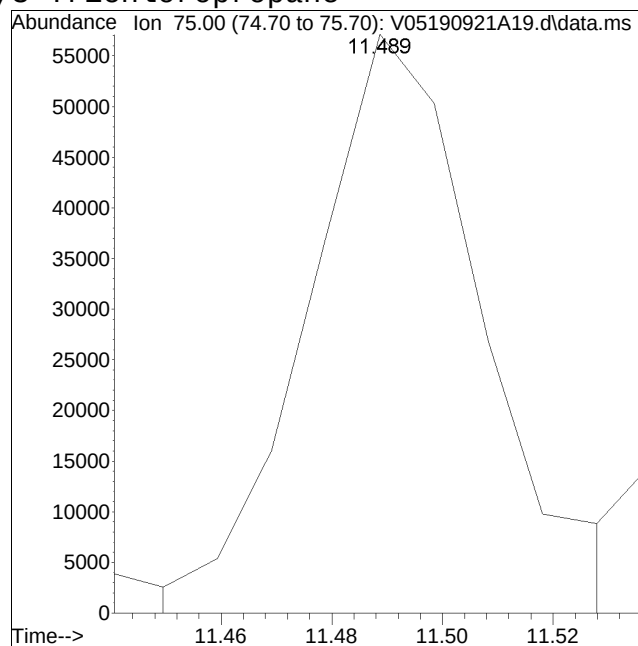
Data Path : I:\VOLATILES\VOA105\2019\10Method : V105_190921_8260.m
Data File : V05190921A19.d Operator : VOA105:PD
Date Inj'd : 9/21/2019 8:18 am Instrument : VOA 105
Sample : C8260STD10PPB Quant Date : 9/23/2019 12:09 pm

Compound #91: 1,2,3-Trichloropropane



Original Peak Response = 122302

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

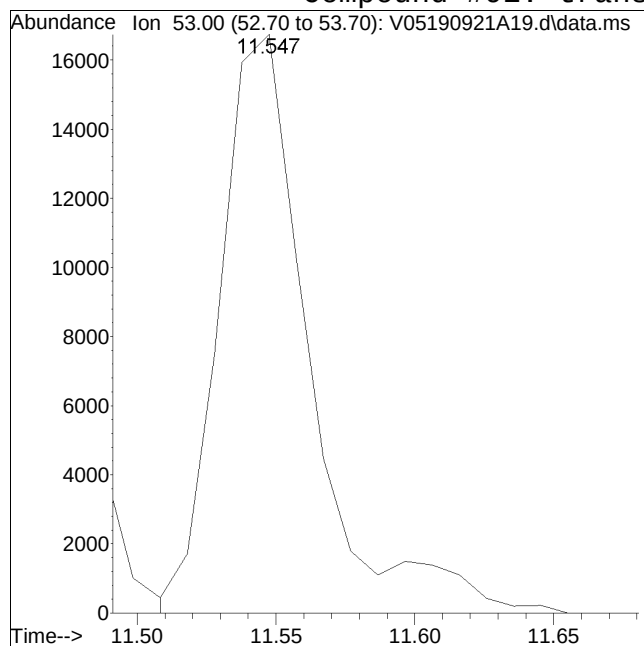


Manual Peak Response = 124220 M1

Manual Integration Report

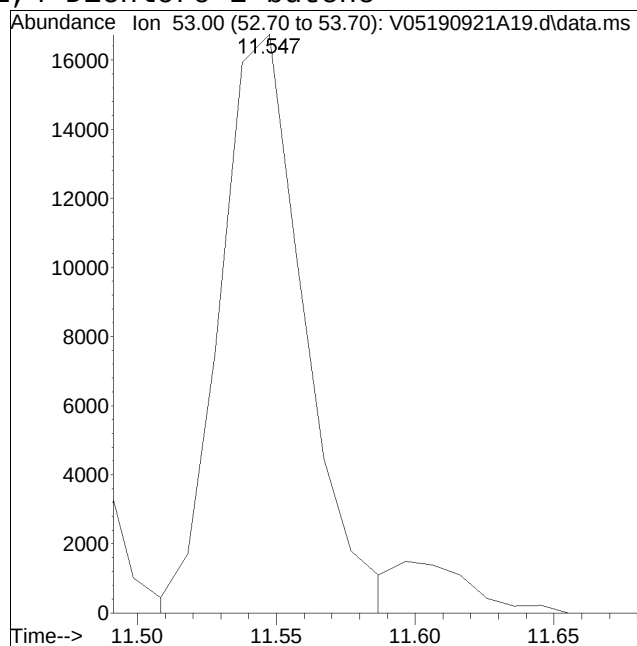
Data Path : I:\VOLATILES\VOA105\2019\10Method : V105_190921_8260.m
Data File : V05190921A19.d Operator : VOA105:PD
Date Inj'd : 9/21/2019 8:18 am Instrument : VOA 105
Sample : C8260STD10PPB Quant Date : 9/23/2019 12:09 pm

Compound #92: trans-1,4-Dichloro-2-butene



Original Peak Response = 37859

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.



Manual Peak Response = 35008 M1

Continuing Calibration

Calibration Verification Summary

Form 7

Volatiles

Client : Langan Engineering & Environmental
 Project Name : 432 RODNEY STREET
 Instrument ID : VOA105
 Lab File ID : V05191115A02
 Sample No : WG1309356-2
 Channel :

Lab Number : L1954584
 Project Number : 170357801
 Calibration Date : 11/15/19 07:19
 Init. Calib. Date(s) : 09/21/19 09/21/19
 Init. Calib. Times : 02:10 06:00

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
Fluorobenzene	1	1	-	0	20	61	0
Dichlorodifluoromethane	0.245	0.143	-	41.6*	20	34	0
Chloromethane	0.246	0.135	-	45.1*	20	31	0
Vinyl chloride	0.216	0.157	-	27.3*	20	42	0
Bromomethane	0.099	0.055*	-	44.4*	20	33	0
Chloroethane	0.133	0.116	-	12.8	20	50	0
Trichlorofluoromethane	0.362	0.331	-	8.6	20	52	0
Ethyl ether	0.076	0.083	-	-9.2	20	59	0
1,1-Dichloroethene	0.188	0.175	-	6.9	20	53	0
Carbon disulfide	0.531	0.426	-	19.8	20	47	0
Methylene chloride	0.208	0.183	-	12	20	48	0
Acetone	0.035	0.029*	-	17.1	20	45	0
trans-1,2-Dichloroethene	0.208	0.184	-	11.5	20	49	0
Methyl tert-butyl ether	0.408	0.384	-	5.9	20	51	0
1,1-Dichloroethane	0.412	0.343	-	16.7	20	46	0
Acrylonitrile	0.035	0.031*	-	11.4	20	47	0
Vinyl acetate	0.383	0.261	-	31.9*	20	35	0
cis-1,2-Dichloroethene	0.221	0.224	-	-1.4	20	54	0
2,2-Dichloropropane	0.33	0.32	-	3	20	57	0
Bromochloromethane	0.095	0.107	-	-12.6	20	62	0
Chloroform	0.413	0.371	-	10.2	20	48	0
Carbon tetrachloride	0.329	0.316	-	4	20	54	0
Dibromofluoromethane	0.271	0.297	-	-9.6	20	66	0
1,1,1-Trichloroethane	0.402	0.38	-	5.5	20	52	0
2-Butanone	0.049	0.042*	-	14.3	20	49	0
1,1-Dichloropropene	0.306	0.269	-	12.1	20	52	0
Benzene	0.8	0.712	-	11	20	48	0
1,2-Dichloroethane-d4	0.345	0.344	-	0.3	20	56	0
1,2-Dichloroethane	0.307	0.272	-	11.4	20	46	0
Trichloroethene	0.244	0.213	-	12.7	20	52	0
Dibromomethane	0.105	0.101	-	3.8	20	51	0
1,2-Dichloropropane	0.196	0.16	-	18.4	20	44	0
Bromodichloromethane	0.282	0.258	-	8.5	20	48	0
1,4-Dioxane	0.00102	0.00079*	-	22.5*	20	53	0
cis-1,3-Dichloropropene	0.297	0.259	-	12.8	20	48	0
Chlorobenzene-d5	1	1	-	0	20	68	0
Toluene-d8	1.306	1.252	-	4.1	20	65	0
Toluene	0.71	0.612	-	13.8	20	53	0
4-Methyl-2-pentanone	0.05	0.035*	-	30*	20	45	0
Tetrachloroethene	0.322	0.339	-	-5.3	20	67	0
trans-1,3-Dichloropropene	10	7.305	-	27*	20	48	0
Ethyl methacrylate	0.214	0.165	-	22.9*	20	49	0
1,1,2-Trichloroethane	0.153	0.13	-	15	20	50	0

* Value outside of QC limits.



Calibration Verification Summary

Form 7

Volatiles

Client : Langan Engineering & Environmental
 Project Name : 432 RODNEY STREET
 Instrument ID : VOA105
 Lab File ID : V05191115A02
 Sample No : WG1309356-2
 Channel :

Lab Number : L1954584
 Project Number : 170357801
 Calibration Date : 11/15/19 07:19
 Init. Calib. Date(s) : 09/21/19 09/21/19
 Init. Calib. Times : 02:10 06:00

Compound	Ave. RRF	RRF	Min RRF	%D	Max %D	Area%	Dev(min)
Chlorodibromomethane	0.209	0.185	-	11.5	20	53	0
1,3-Dichloropropane	0.34	0.279	-	17.9	20	51	0
1,2-Dibromoethane	0.174	0.165	-	5.2	20	57	0
2-Hexanone	0.089	0.057*	-	36*	20	42	0
Chlorobenzene	0.773	0.698	-	9.7	20	55	0
Ethylbenzene	1.397	1.205	-	13.7	20	52	0
1,1,1,2-Tetrachloroethane	0.271	0.256	-	5.5	20	58	0
p/m Xylene	0.499	0.461	-	7.6	20	56	0
o Xylene	0.457	0.421	-	7.9	20	55	0
Styrene	0.713	0.693	-	2.8	20	56	0
1,4-Dichlorobenzene-d4	1	1	-	0	20	74	0
Bromoform	10	9.143	-	8.6	20	64	0
Isopropylbenzene	2.5	2.165	-	13.4	20	59	0
4-Bromofluorobenzene	0.983	0.861	-	12.4	20	64	0
Bromobenzene	0.604	0.543	-	10.1	20	62	0
n-Propylbenzene	2.956	2.447	-	17.2	20	56	0
1,4-Dichlorobutane	0.583	0.419	-	28.1*	20	47	0
1,1,2,2-Tetrachloroethane	0.335	0.268*	-	20	20	53	0
4-Ethyltoluene	2.341	2.051	-	12.4	20	59	0
2-Chlorotoluene	1.872	1.428	-	23.7*	20	52	0
1,3,5-Trimethylbenzene	2.101	1.832	-	12.8	20	58	0
1,2,3-Trichloropropane	0.327	0.257	-	21.4*	20	53	0
trans-1,4-Dichloro-2-buten	10	5.571	-	44.3*	20	38	0
4-Chlorotoluene	1.919	1.531	-	20.2*	20	54	0
tert-Butylbenzene	1.809	1.609	-	11.1	20	61	0
1,2,4-Trimethylbenzene	2.02	1.767	-	12.5	20	57	0
sec-Butylbenzene	2.335	2.025	-	13.3	20	60	0
p-Isopropyltoluene	2.138	1.959	-	8.4	20	62	0
1,3-Dichlorobenzene	1.122	1.019	-	9.2	20	60	0
1,4-Dichlorobenzene	1.159	1.045	-	9.8	20	61	0
p-Diethylbenzene	1.214	1.084	-	10.7	20	62	0
n-Butylbenzene	1.918	1.577	-	17.8	20	57	0
1,2-Dichlorobenzene	0.975	0.903	-	7.4	20	61	0
1,2,4,5-Tetramethylbenzene	1.623	1.508	-	7.1	20	60	0
1,2-Dibromo-3-chloropropan	10	9.172	-	8.3	20	68	0
Hexachlorobutadiene	0.28	0.282	-	-0.7	20	77	0
1,2,4-Trichlorobenzene	0.532	0.495	-	7	20	66	0
Naphthalene	0.73	0.674	-	7.7	20	65	0
1,2,3-Trichlorobenzene	0.376	0.362	-	3.7	20	70	0

* Value outside of QC limits.



Evaluate Continuing Calibration Report

Data Path : I:\VOLATILES\VOA105\2019\191115A\
 Data File : V05191115A02.d
 Acq On : 15 Nov 2019 7:19 am
 Operator : VOA105:PD
 Sample : WG1309356-2 (Sig #1); 8260 CCAL (Sig #2)
 Misc : WG1309356, ICAL16159 (Sig #1); WG, ICAL16159 (Sig #2)
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 15 08:50:16 2019
 Quant Method : I:\VOLATILES\VOA105\2019\191115A\V105_190921_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Mon Sep 23 12:05:21 2019
 Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1 I	Fluorobenzene	1.000	1.000	0.0	61	0.00
2 TP	Dichlorodifluoromethane	0.245	0.143	41.6#	34#	0.00
3 TP	Chloromethane	0.246	0.135	45.1#	31#	0.00
4 TC	Vinyl chloride	0.216	0.157	27.3#	42#	0.00
5 TP	Bromomethane	0.099	0.055#	44.4#	33#	0.00
6 TP	Chloroethane	0.133	0.116	12.8	50#	0.00
7 TP	Trichlorofluoromethane	0.362	0.331	8.6	52	0.00
8 TP	Ethyl ether	0.076	0.083	-9.2	59	0.00
10 TC	1,1-Dichloroethene	0.188	0.175	6.9	53	0.00
11 TP	Carbon disulfide	0.531	0.426	19.8	47#	0.00
15 TP	Methylene chloride	0.208	0.183	12.0	48#	0.00
17 TP	Acetone	0.035	0.029#	17.1	45#	0.00
18 TP	trans-1,2-Dichloroethene	0.208	0.184	11.5	49#	0.00
20 TP	Methyl tert-butyl ether	0.408	0.384	5.9	51	0.00
23 TP	1,1-Dichloroethane	0.412	0.343	16.7	46#	0.00
25 TP	Acrylonitrile	0.035	0.031#	11.4	47#	0.00
27 TP	Vinyl acetate	0.383	0.261	31.9#	35#	0.00
28 TP	cis-1,2-Dichloroethene	0.221	0.224	-1.4	54	0.00
29 TP	2,2-Dichloropropane	0.330	0.320	3.0	57	0.00
30 TP	Bromochloromethane	0.095	0.107	-12.6	62	0.00
32 TC	Chloroform	0.413	0.371	10.2	48#	0.00
34 TP	Carbon tetrachloride	0.329	0.316	4.0	54	0.00
36 S	Dibromofluoromethane	0.271	0.297	-9.6	66	0.00
37 TP	1,1,1-Trichloroethane	0.402	0.380	5.5	52	0.00
39 TP	2-Butanone	0.049	0.042#	14.3	49#	0.00
40 TP	1,1-Dichloropropene	0.306	0.269	12.1	52	0.00
41 TP	Benzene	0.800	0.712	11.0	48#	0.00
43 S	1,2-Dichloroethane-d4	0.345	0.344	0.3	56	0.00
44 TP	1,2-Dichloroethane	0.307	0.272	11.4	46#	0.00
48 TP	Trichloroethene	0.244	0.213	12.7	52	0.00
50 TP	Dibromomethane	0.105	0.101	3.8	51	0.00
51 TC	1,2-Dichloropropane	0.196	0.160	18.4	44#	0.00
54 TP	Bromodichloromethane	0.282	0.258	8.5	48#	0.00
57 TP	1,4-Dioxane	0.00102	0.00079#	22.5#	53	0.00
58 TP	cis-1,3-Dichloropropene	0.297	0.259	12.8	48#	0.00
59 I	Chlorobenzene-d5	1.000	1.000	0.0	68	0.00
60 S	Toluene-d8	1.306	1.252	4.1	65	0.00
61 TC	Toluene	0.710	0.612	13.8	53	0.00

Evaluate Continuing Calibration Report

Data Path : I:\VOLATILES\VOA105\2019\191115A\
 Data File : V05191115A02.d
 Acq On : 15 Nov 2019 7:19 am
 Operator : VOA105:PD
 Sample : WG1309356-2 (Sig #1); 8260 CCAL (Sig #2)
 Misc : WG1309356, ICAL16159 (Sig #1); WG, ICAL16159 (Sig #2)
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 15 08:50:16 2019
 Quant Method : I:\VOLATILES\VOA105\2019\191115A\V105_190921_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Mon Sep 23 12:05:21 2019
 Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
62 TP	4-Methyl-2-pentanone	0.050	0.035#	30.0#	45#	0.00
63 TP	Tetrachloroethene	0.322	0.339	-5.3	67	0.00
65 TP	trans-1,3-Dichloropropene	* 10.000	7.305	27.0#	48#	0.00
67 TP	Ethyl methacrylate	0.214	0.165	22.9#	49#	0.00
68 TP	1,1,2-Trichloroethane	0.153	0.130	15.0	50#	0.00
69 TP	Chlorodibromomethane	0.209	0.185	11.5	53	0.00
70 TP	1,3-Dichloropropane	0.340	0.279	17.9	51	0.00
71 TP	1,2-Dibromoethane	0.174	0.165	5.2	57	0.00
72 TP	2-Hexanone	0.089	0.057#	36.0#	42#	0.00
73 TP	Chlorobenzene	0.773	0.698	9.7	55	0.00
74 TC	Ethylbenzene	1.397	1.205	13.7	52	0.00
75 TP	1,1,1,2-Tetrachloroethane	0.271	0.256	5.5	58	0.00
76 TP	p/m Xylene	0.499	0.461	7.6	56	0.00
77 TP	o Xylene	0.457	0.421	7.9	55	0.00
78 TP	Styrene	0.713	0.693	2.8	56	0.00
79 I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	74	0.00
80 TP	Bromoform	* 10.000	9.143	8.6	64	0.00
82 TP	Isopropylbenzene	2.500	2.165	13.4	59	0.00
83 S	4-Bromofluorobenzene	0.983	0.861	12.4	64	0.00
84 TP	Bromobenzene	0.604	0.543	10.1	62	0.00
85 TP	n-Propylbenzene	2.956	2.447	17.2	56	0.00
86 TP	1,4-Dichlorobutane	0.583	0.419	28.1#	47#	0.00
87 TP	1,1,2,2-Tetrachloroethane	0.335	0.268#	20.0	53	0.00
88 TP	4-Ethyltoluene	2.341	2.051	12.4	59	0.00
89 TP	2-Chlorotoluene	1.872	1.428	23.7#	52	0.00
90 TP	1,3,5-Trimethylbenzene	2.101	1.832	12.8	58	0.00
91 TP	1,2,3-Trichloropropane	0.327	0.257	21.4#	53	0.00
92 TP	trans-1,4-Dichloro-2-butene	* 10.000	5.571	44.3#	38#	0.00
93 TP	4-Chlorotoluene	1.919	1.531	20.2#	54	0.00
94 TP	tert-Butylbenzene	1.809	1.609	11.1	61	0.00
97 TP	1,2,4-Trimethylbenzene	2.020	1.767	12.5	57	0.00
98 TP	sec-Butylbenzene	2.335	2.025	13.3	60	0.00
99 TP	p-Isopropyltoluene	2.138	1.959	8.4	62	0.00
100 TP	1,3-Dichlorobenzene	1.122	1.019	9.2	60	0.00
101 TP	1,4-Dichlorobenzene	1.159	1.045	9.8	61	0.00
102 TP	p-Diethylbenzene	1.214	1.084	10.7	62	0.00
103 TP	n-Butylbenzene	1.918	1.577	17.8	57	0.00
104 TP	1,2-Dichlorobenzene	0.975	0.903	7.4	61	0.00

Evaluate Continuing Calibration Report

Data Path : I:\VOLATILES\VOA105\2019\191115A\
 Data File : V05191115A02.d
 Acq On : 15 Nov 2019 7:19 am
 Operator : VOA105:PD
 Sample : WG1309356-2 (Sig #1); 8260 CCAL (Sig #2)
 Misc : WG1309356, ICAL16159 (Sig #1); WG, ICAL16159 (Sig #2)
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 15 08:50:16 2019
 Quant Method : I:\VOLATILES\VOA105\2019\191115A\V105_190921_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Mon Sep 23 12:05:21 2019
 Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 20% Max. Rel. Area : 200%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
105 TP	1,2,4,5-Tetramethylbenzene	1.623	1.508	7.1	60	0.00
106 TP	1,2-Dibromo-3-chloropropane *	10.000	9.172	8.3	68	0.00
108 TP	Hexachlorobutadiene	0.280	0.282	-0.7	77	0.00
109 TP	1,2,4-Trichlorobenzene	0.532	0.495	7.0	66	0.00
110 TP	Naphthalene	0.730	0.674	7.7	65	0.00
111 TP	1,2,3-Trichlorobenzene	0.376	0.362	3.7	70	0.00

* Evaluation of CC level amount vs concentration.
 (#) = Out of Range SPCC's out = 8 CCC's out = 1

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\VOA105\2019\191115A\
 Data File : V05191115A02.d
 Acq On : 15 Nov 2019 7:19 am
 Operator : VOA105:PD
 Sample : WG1309356-2 (Sig #1); 8260 CCAL (Sig #2)
 Misc : WG1309356, ICAL16159 (Sig #1); WG, ICAL16159 (Sig #2)
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 15 08:50:16 2019
 Quant Method : I:\VOLATILES\VOA105\2019\191115A\V105_190921_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Mon Sep 23 12:05:21 2019
 Response via : Initial Calibration

Sub List : 8260-NYTCL - Megamix plus Diox

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

Internal Standards						
1) Fluorobenzene	6.085	96	547837	10.000	ug/L	0.00
59) Chlorobenzene-d5	9.618	117	453564	10.000	ug/L	0.00
79) 1,4-Dichlorobenzene-d4	12.302	152	259117	10.000	ug/L	0.00
System Monitoring Compounds						
36) Dibromofluoromethane	5.283	113	162633	10.939	ug/L	0.00
Spiked Amount	10.000	Range 70 - 130	Recovery	=	109.39%	
43) 1,2-Dichloroethane-d4	5.812	65	188580	9.963	ug/L	0.00
Spiked Amount	10.000	Range 70 - 130	Recovery	=	99.63%	
60) Toluene-d8	7.768	98	567854	9.588	ug/L	0.00
Spiked Amount	10.000	Range 70 - 130	Recovery	=	95.88%	
83) 4-Bromofluorobenzene	11.107	95	223012	8.754	ug/L	0.00
Spiked Amount	10.000	Range 70 - 130	Recovery	=	87.54%	
Target Compounds						
						Qvalue
2) Dichlorodifluoromethane	1.684	85	78080	5.825	ug/L	99
3) Chloromethane	1.889	50	74024	5.494	ug/L	98
4) Vinyl chloride	1.958	62	85776	7.256	ug/L	86
5) Bromomethane	2.281	94	30231	5.558	ug/L	95
6) Chloroethane	2.398	64	63581	8.741	ug/L	97
7) Trichlorofluoromethane	2.535	101	181204	9.127	ug/L	99
8) Ethyl ether	2.828	74	45233	10.873	ug/L	91
10) 1,1-Dichloroethene	3.024	96	95947	9.293	ug/L	96
11) Carbon disulfide	3.053	76	233340	8.017	ug/L	99
15) Methylene chloride	3.591	84	100410	8.824	ug/L	92
17) Acetone	3.640	43	15853	8.272	ug/L	97
18) trans-1,2-Dichloroethene	3.738	96	100958	8.861	ug/L	97
20) Methyl tert-butyl ether	3.836	73	210382	9.404	ug/L	96
23) 1,1-Dichloroethane	4.325	63	187808	8.314	ug/L	99
25) Acrylonitrile	4.384	53	17185	8.932	ug/L	91
27) Vinyl acetate	4.560	43	143015	6.817	ug/L	98
28) cis-1,2-Dichloroethene	4.843	96	122913	10.161	ug/L	98
29) 2,2-Dichloropropane	4.941	77	175259	9.697	ug/L	98
30) Bromochloromethane	5.039	128	58565	11.245	ug/L	91
32) Chloroform	5.107	83	203425	8.995	ug/L	99
34) Carbon tetrachloride	5.234	117	173386	9.618	ug/L	98
37) 1,1,1-Trichloroethane	5.303	97	208043	9.456	ug/L	99
39) 2-Butanone	5.411	43	23279M1	8.745	ug/L	
40) 1,1-Dichloropropene	5.420	75	147265	8.798	ug/L	96
41) Benzene	5.665	78	389892	8.893	ug/L	97

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\VOA105\2019\191115A\
 Data File : V05191115A02.d
 Acq On : 15 Nov 2019 7:19 am
 Operator : VOA105:PD
 Sample : WG1309356-2 (Sig #1); 8260 CCAL (Sig #2)
 Misc : WG1309356, ICAL16159 (Sig #1); WG, ICAL16159 (Sig #2)
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 15 08:50:16 2019
 Quant Method : I:\VOLATILES\VOA105\2019\191115A\V105_190921_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Mon Sep 23 12:05:21 2019
 Response via : Initial Calibration

Sub List : 8260-NYTCL - Megamix plus Diox

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
44)	1,2-Dichloroethane	5.880	62	148745	8.832	ug/L	99
48)	Trichloroethene	6.261	95	116836	8.746	ug/L	89
50)	Dibromomethane	6.711	93	55590	9.641	ug/L #	84
51)	1,2-Dichloropropane	6.809	63	87635	8.151	ug/L	97
54)	Bromodichloromethane	6.887	83	141258	9.135	ug/L	100
57)	1,4-Dioxane	7.103	88	21636	387.737	ug/L	96
58)	cis-1,3-Dichloropropene	7.572	75	141992	8.741	ug/L	95
61)	Toluene	7.826	92	277756	8.626	ug/L	99
62)	4-Methyl-2-pentanone	8.267	58	16084	7.144	ug/L	95
63)	Tetrachloroethene	8.276	166	153601	10.515	ug/L	88
65)	trans-1,3-Dichloropropene	8.325	75	123021	7.305	ug/L	95
67)	Ethyl methacrylate	8.501	69	74929	7.727	ug/L	92
68)	1,1,2-Trichloroethane	8.511	83	58914	8.470	ug/L	94
69)	Chlorodibromomethane	8.716	129	83891	8.847	ug/L	97
70)	1,3-Dichloropropane	8.834	76	126682	8.205	ug/L	99
71)	1,2-Dibromoethane	9.001	107	75007	9.522	ug/L	97
72)	2-Hexanone	9.275	43	25763	6.371	ug/L	98
73)	Chlorobenzene	9.637	112	316493	9.031	ug/L	89
74)	Ethylbenzene	9.667	91	546594	8.629	ug/L	96
75)	1,1,1,2-Tetrachloroethane	9.725	131	116044	9.452	ug/L	97
76)	p/m Xylene	9.853	106	418152	18.474	ug/L	92
77)	o Xylene	10.392	106	382324	18.445	ug/L	92
78)	Styrene	10.460	104	629017	19.446	ug/L	92
80)	Bromoform	10.499	173	55558	9.143	ug/L	97
82)	Isopropylbenzene	10.774	105	561114	8.663	ug/L	96
84)	Bromobenzene	11.214	156	140811	9.004	ug/L	100
85)	n-Propylbenzene	11.244	91	633965	8.276	ug/L	94
86)	1,4-Dichlorobutane	11.283	55	108538	7.179	ug/L	98
87)	1,1,2,2-Tetrachloroethane	11.352	83	69355	7.986	ug/L	97
88)	4-Ethyltoluene	11.371	105	531480	8.761	ug/L	98
89)	2-Chlorotoluene	11.420	91	370080M1	7.628	ug/L	
90)	1,3,5-Trimethylbenzene	11.469	105	474698	8.719	ug/L	95
91)	1,2,3-Trichloropropane	11.489	75	66515M1	7.843	ug/L	
92)	trans-1,4-Dichloro-2-b...	11.538	53	11519M1	5.571	ug/L	
93)	4-Chlorotoluene	11.606	91	396830M1	7.981	ug/L	
94)	tert-Butylbenzene	11.802	119	416834	8.892	ug/L	97
97)	1,2,4-Trimethylbenzene	11.890	105	457747	8.746	ug/L	96
98)	sec-Butylbenzene	11.998	105	524706	8.672	ug/L	95
99)	p-Isopropyltoluene	12.145	119	507626	9.164	ug/L	95
100)	1,3-Dichlorobenzene	12.223	146	264153	9.084	ug/L	96
101)	1,4-Dichlorobenzene	12.321	146	270769	9.019	ug/L	97

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\VOA105\2019\191115A\
 Data File : V05191115A02.d
 Acq On : 15 Nov 2019 7:19 am
 Operator : VOA105:PD
 Sample : WG1309356-2 (Sig #1); 8260 CCAL (Sig #2)
 Misc : WG1309356,ICAL16159 (Sig #1); WG,ICAL16159 (Sig #2)
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 15 08:50:16 2019
 Quant Method : I:\VOLATILES\VOA105\2019\191115A\V105_190921_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Mon Sep 23 12:05:21 2019
 Response via : Initial Calibration

Sub List : 8260-NYTCL - Megamix plus Diox

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
102)	p-Diethylbenzene	12.517	119	280838	8.929	ug/L	96
103)	n-Butylbenzene	12.576	91	408540	8.222	ug/L	97
104)	1,2-Dichlorobenzene	12.743	146	233890	9.256	ug/L	96
105)	1,2,4,5-Tetramethylben...	13.311	119	390688	9.290	ug/L	94
106)	1,2-Dibromo-3-chloropr...	13.526	155	9293	9.172	ug/L	99
108)	Hexachlorobutadiene	14.114	225	73119	10.072	ug/L	99
109)	1,2,4-Trichlorobenzene	14.143	180	128326	9.307	ug/L	99
110)	Naphthalene	14.437	128	174746	9.233	ug/L	100
111)	1,2,3-Trichlorobenzene	14.604	180	93821	9.621	ug/L	98

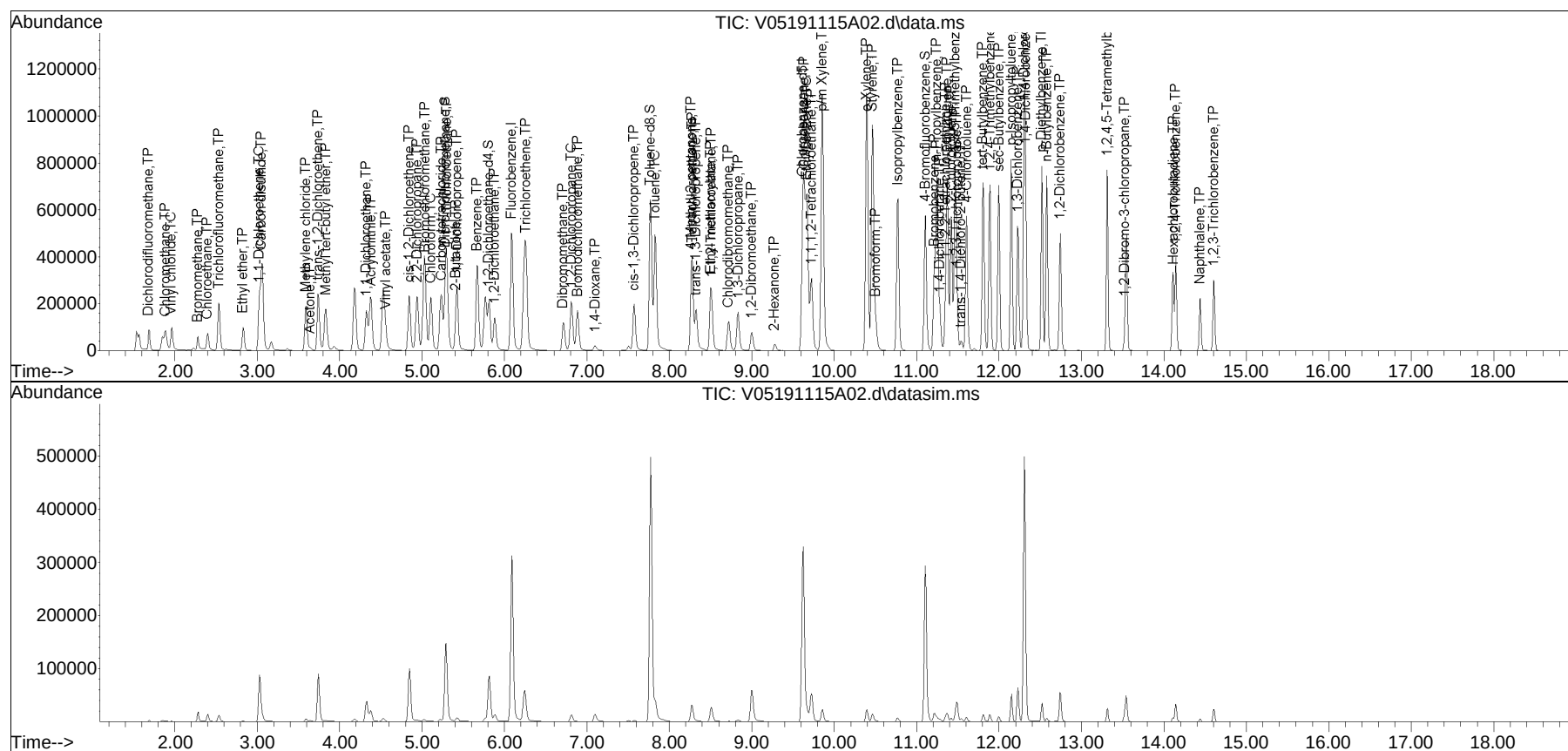
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

```
Data Path   : I:\VOLATILES\VOA105\2019\191115A\  
Data File  : V05191115A02.d  
Acq On     : 15 Nov 2019    7:19 am  
Operator   : VOA105:PD  
Sample     : WG1309356-2 (Sig #1); 8260 CCAL (Sig #2)  
Misc       : WG1309356,ICAL16159 (Sig #1); WG,ICAL16159 (Sig #2)  
ALS Vial   : 2      Sample Multiplier: 1
```

Quant Time: Nov 15 08:50:16 2019
Quant Method : I:\VOLATILES\VOA105\2019\191115A\V105_190921_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Mon Sep 23 12:05:21 2019
Response via : Initial Calibration

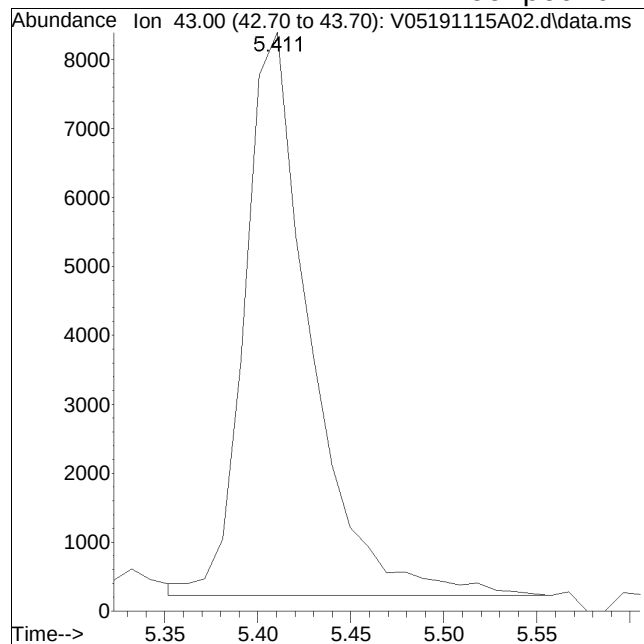
Sub List : 8260-NYTCL - Megamix plus Diox



Manual Integration Report

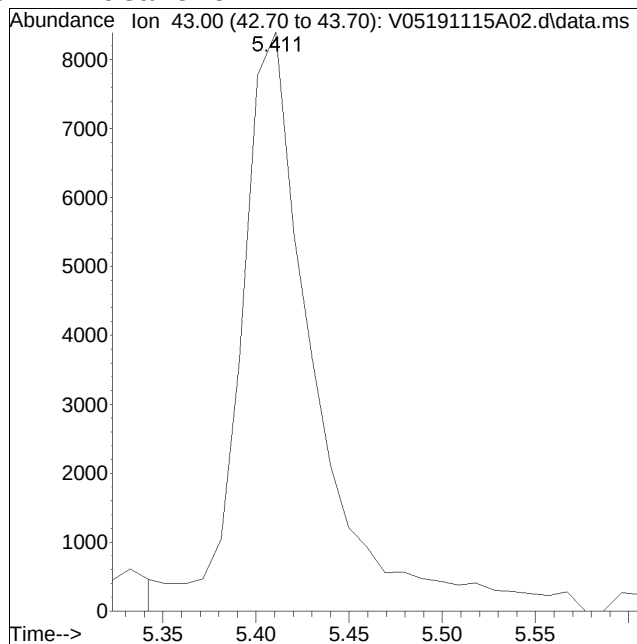
Data Path : I:\VOLATILES\VOA105\2019\1QMethod : V105_190921_8260.m
Data File : V05191115A02.d Operator : VOA105:PD
Date Inj'd : 11/15/2019 7:19 am Instrument : VOA 105
Sample : WG1309356-2 Quant Date : 11/15/2019 7:44 am

Compound #39: 2-Butanone



Original Peak Response = 20096

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

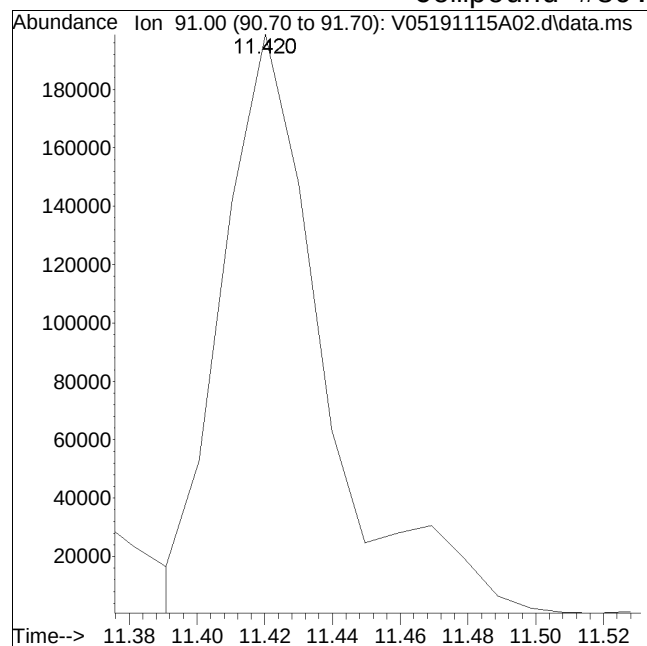


Manual Peak Response = 23279 M1

Manual Integration Report

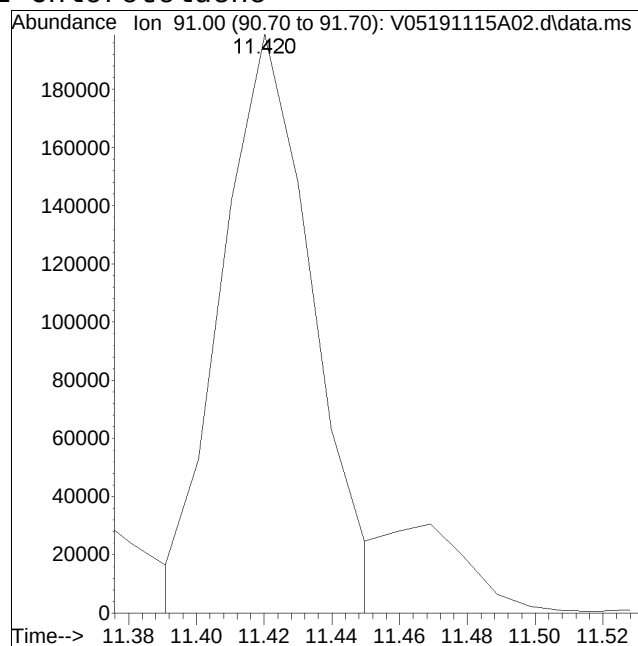
Data Path : I:\VOLATILES\VOA105\2019\10Method : V105_190921_8260.m
Data File : V05191115A02.d Operator : VOA105:PD
Date Inj'd : 11/15/2019 7:19 am Instrument : VOA 105
Sample : WG1309356-2 Quant Date : 11/15/2019 7:44 am

Compound #89: 2-Chlorotoluene



Original Peak Response = 417204

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

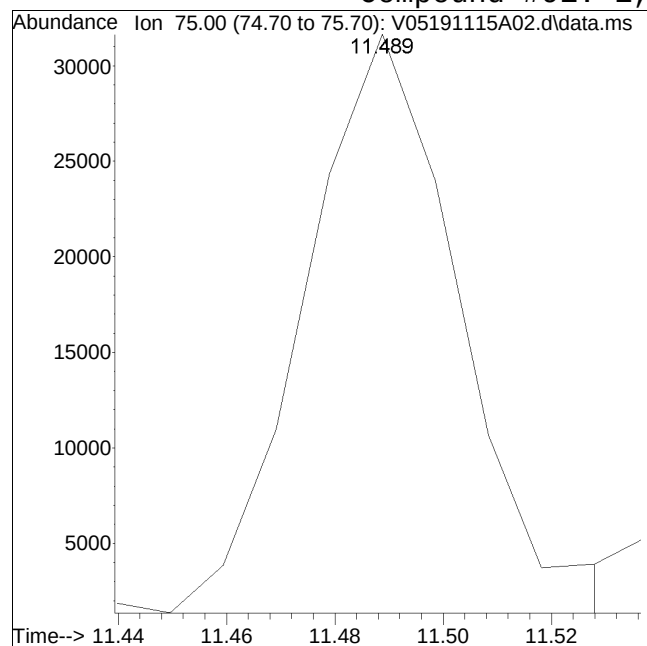


Manual Peak Response = 370080 M1

Manual Integration Report

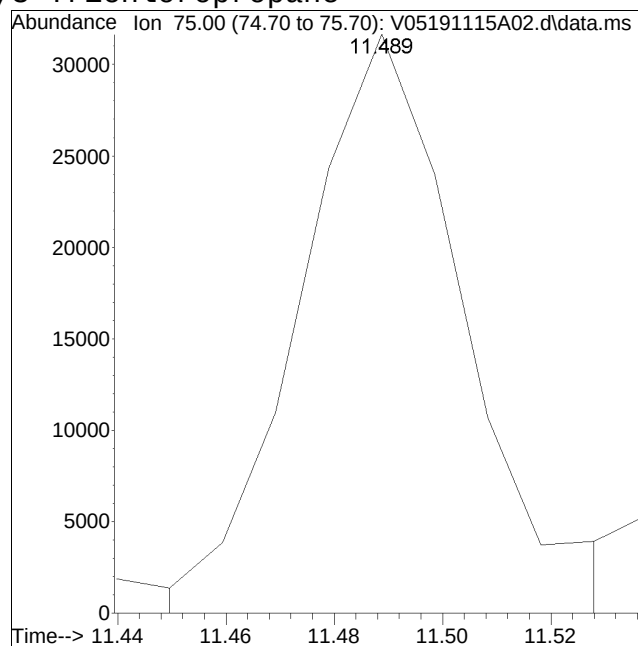
Data Path : I:\VOLATILES\VOA105\2019\10Method : V105_190921_8260.m
Data File : V05191115A02.d Operator : VOA105:PD
Date Inj'd : 11/15/2019 7:19 am Instrument : VOA 105
Sample : WG1309356-2 Quant Date : 11/15/2019 7:44 am

Compound #91: 1,2,3-Trichloropropane



Original Peak Response = 60071

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

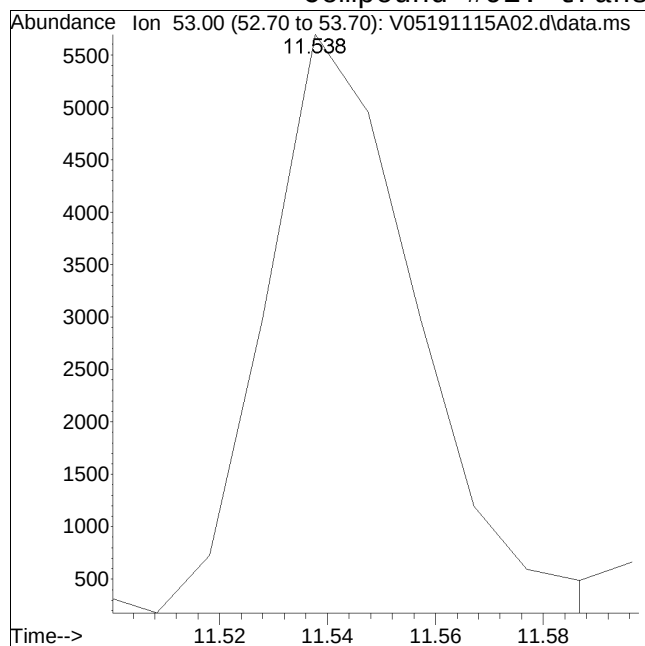


Manual Peak Response = 66515 M1

Manual Integration Report

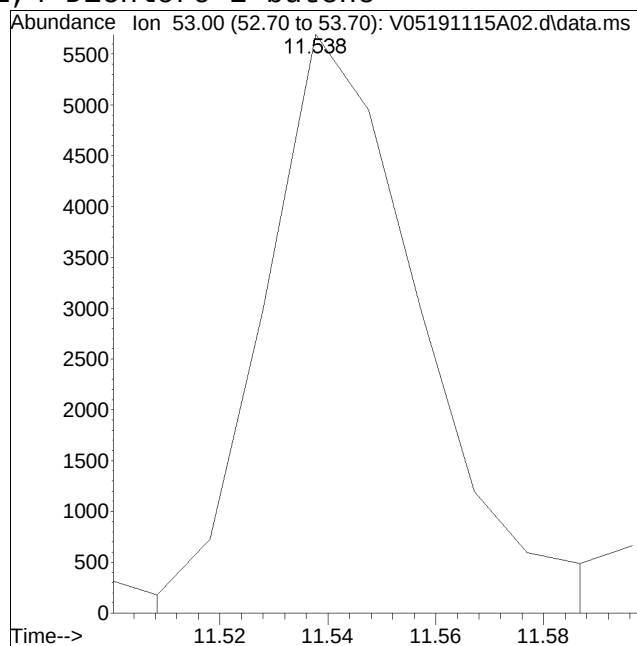
Data Path : I:\VOLATILES\VOA105\2019\10Method : V105_190921_8260.m
Data File : V05191115A02.d Operator : VOA105:PD
Date Inj'd : 11/15/2019 7:19 am Instrument : VOA 105
Sample : WG1309356-2 Quant Date : 11/15/2019 7:44 am

Compound #92: trans-1,4-Dichloro-2-butene



Original Peak Response = 10678

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

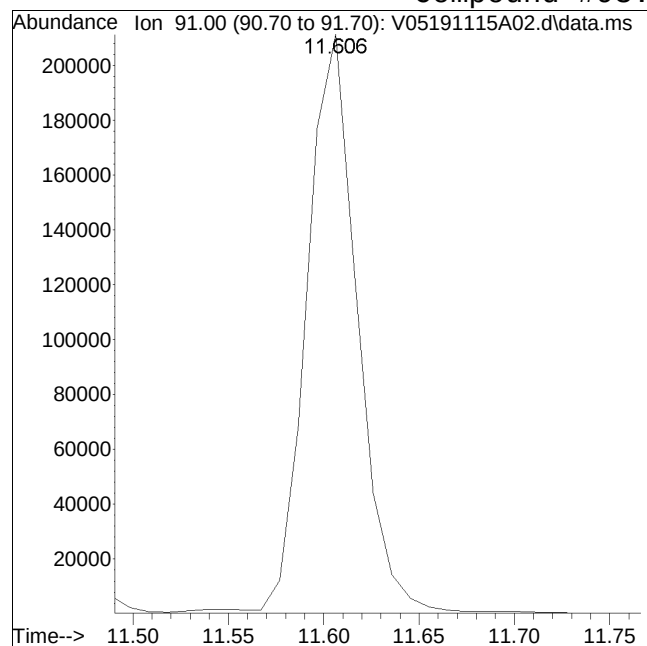


Manual Peak Response = 11519 M1

Manual Integration Report

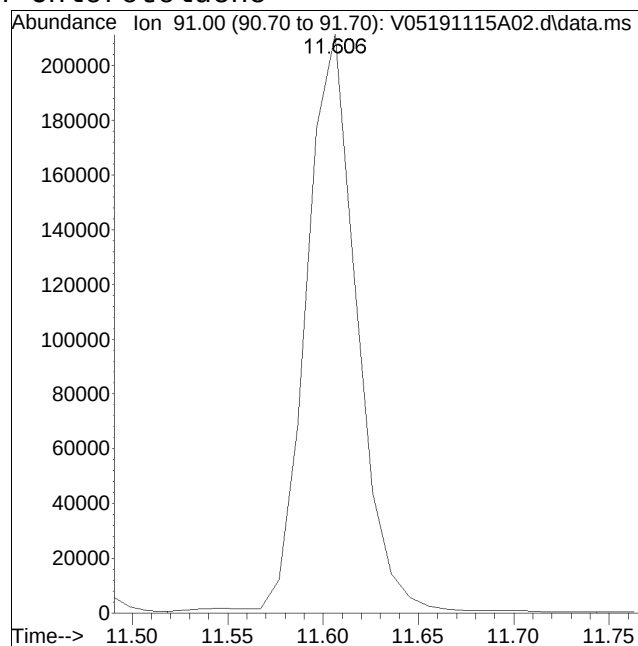
Data Path : I:\VOLATILES\VOA105\2019\1QMethod : V105_190921_8260.m
Data File : V05191115A02.d Operator : VOA105:PD
Date Inj'd : 11/15/2019 7:19 am Instrument : VOA 105
Sample : WG1309356-2 Quant Date : 11/15/2019 7:44 am

Compound #93: 4-Chlorotoluene



Original Peak Response = 392234

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.



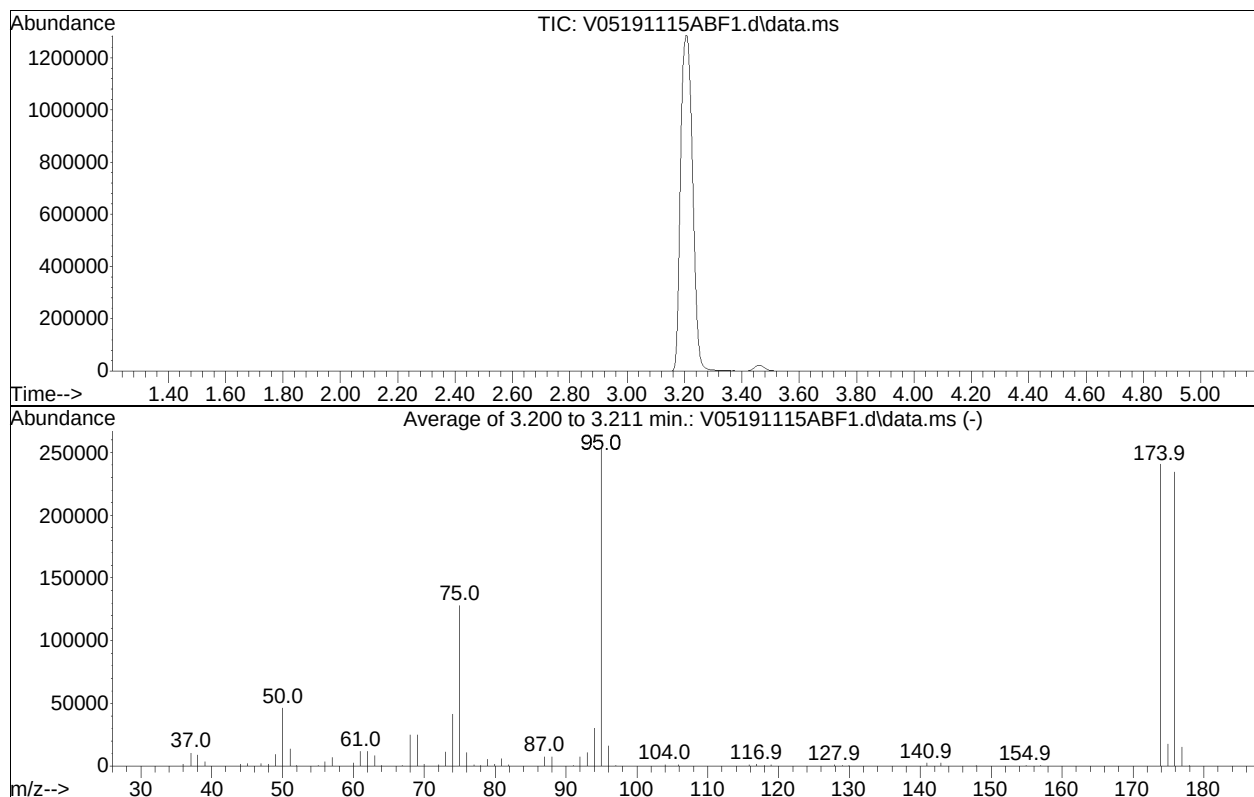
Manual Peak Response = 396830 M1

BFB

Data Path : I:\VOLATILES\VOA105\2019\191115A\
 Data File : V05191115ABF1.d
 Acq On : 15 Nov 2019 6:42 am
 Operator : VOA105:PD
 Sample : WG1309356-1
 Misc : WG1309356
 ALS Vial : 1 Sample Multiplier: 1

Integration File: rteint.p

Method : I:\VOLATILES\VOA105\2019\191115A\V105_190921_8260.m
 Title : VOLATILES BY GC/MS
 Last Update : Mon Sep 23 12:05:21 2019



AutoFind: Scans 204, 205, 206; Background Corrected with Scan 194

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	18.2	46259	PASS
75	95	30	60	50.3	128013	PASS
95	95	100	100	100.0	254699	PASS
96	95	5	9	6.4	16262	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	94.5	240597	PASS
175	174	5	9	7.3	17504	PASS
176	174	95	101	97.5	234560	PASS
177	176	5	9	6.5	15318	PASS

Volatiles Raw QC Data

Quantitation Report (QT/LSC Reviewed)

Data Path : I:\VOLATILES\VOA105\2019\191115A\
 Data File : V05191115A05.d
 Acq On : 15 Nov 2019 8:29 am
 Operator : VOA105:PD
 Sample : WG1309356-5,31,10,10 (Sig #1); METHOD BLK (Sig #2)
 Misc : WG1309356,ICAL16159 (Sig #1); WG,ICAL16159 (Sig #2)
 ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 15 08:52:51 2019
 Quant Method : I:\VOLATILES\VOA105\2019\191115A\V105_190921_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Mon Sep 23 12:05:21 2019
 Response via : Initial Calibration

CCAL FILE(s) : 1 - I:\VOLATILES\VOA105\2019\191115A\V05191115A02.d
 Sub List : 8260-NYTCL - Megamix plus Diox

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

Internal Standards						
1) Fluorobenzene	6.085	96	527019	10.000	ug/L	0.00
Standard Area 1 = 547837			Recovery	=	96.20%	
59) Chlorobenzene-d5	9.618	117	426641	10.000	ug/L	0.00
Standard Area 1 = 453564			Recovery	=	94.06%	
79) 1,4-Dichlorobenzene-d4	12.302	152	232291	10.000	ug/L	0.00
Standard Area 1 = 259117			Recovery	=	89.65%	
System Monitoring Compounds						
36) Dibromofluoromethane	5.283	113	155339	10.861	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery	=	108.61%	
43) 1,2-Dichloroethane-d4	5.812	65	178686	9.813	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery	=	98.13%	
60) Toluene-d8	7.777	98	534893	9.602	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery	=	96.02%	
83) 4-Bromofluorobenzene	11.107	95	201217	8.811	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery	=	88.11%	
Target Compounds						
						Qvalue
2) Dichlorodifluoromethane	0.000		0		N.D.	
3) Chloromethane	0.000		0		N.D. d	
4) Vinyl chloride	0.000		0		N.D.	
5) Bromomethane	2.281	94	743	0.142	ug/L	97
6) Chloroethane	0.000		0		N.D. d	
7) Trichlorofluoromethane	0.000		0		N.D.	
8) Ethyl ether	0.000		0		N.D.	
10) 1,1-Dichloroethene	0.000		0		N.D.	
11) Carbon disulfide	3.053	76	1786		N.D.	
15) Methylene chloride	3.601	84	504		N.D.	
17) Acetone	0.000		0		N.D. d	
18) trans-1,2-Dichloroethene	0.000		0		N.D.	
20) Methyl tert-butyl ether	0.000		0		N.D.	
23) 1,1-Dichloroethane	0.000		0		N.D.	
25) Acrylonitrile	0.000		0		N.D.	
27) Vinyl acetate	0.000		0		N.D.	
28) cis-1,2-Dichloroethene	0.000		0		N.D.	
29) 2,2-Dichloropropane	0.000		0		N.D.	
30) Bromochloromethane	0.000		0		N.D.	
32) Chloroform	5.107	83	1524	0.070	ug/L #	92

Quantitation Report (QT/LSC Reviewed)

Data Path : I:\VOLATILES\VOA105\2019\191115A\
 Data File : V05191115A05.d
 Acq On : 15 Nov 2019 8:29 am
 Operator : VOA105:PD
 Sample : WG1309356-5,31,10,10 (Sig #1); METHOD BLK (Sig #2)
 Misc : WG1309356,ICAL16159 (Sig #1); WG,ICAL16159 (Sig #2)
 ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 15 08:52:51 2019
 Quant Method : I:\VOLATILES\VOA105\2019\191115A\V105_190921_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Mon Sep 23 12:05:21 2019
 Response via : Initial Calibration

CCAL FILE(s) : 1 - I:\VOLATILES\VOA105\2019\191115A\V05191115A02.d
 Sub List : 8260-NYTCL - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
34) Carbon tetrachloride	0.000		0		N.D.	
37) 1,1,1-Trichloroethane	0.000		0		N.D.	
39) 2-Butanone	0.000		0		N.D.	
40) 1,1-Dichloropropene	0.000		0		N.D.	
41) Benzene	0.000		0		N.D.	
44) 1,2-Dichloroethane	5.890	62	95		N.D.	
48) Trichloroethene	6.261	95	695		N.D.	
50) Dibromomethane	0.000		0		N.D.	
51) 1,2-Dichloropropane	0.000		0		N.D.	
54) Bromodichloromethane	0.000		0		N.D.	
57) 1,4-Dioxane	0.000		0		N.D.	
58) cis-1,3-Dichloropropene	0.000		0		N.D.	
61) Toluene	0.000		0		N.D.	
62) 4-Methyl-2-pentanone	0.000		0		N.D.	
63) Tetrachloroethene	0.000		0		N.D.	
65) trans-1,3-Dichloropropene	0.000		0		N.D.	
68) 1,1,2-Trichloroethane	0.000		0		N.D.	
69) Chlorodibromomethane	0.000		0		N.D.	
70) 1,3-Dichloropropane	0.000		0		N.D.	
71) 1,2-Dibromoethane	0.000		0		N.D.	
72) 2-Hexanone	0.000		0		N.D.	
73) Chlorobenzene	9.637	112	102		N.D.	
74) Ethylbenzene	9.686	91	103		N.D.	
75) 1,1,1,2-Tetrachloroethane	0.000		0		N.D.	
76) p/m Xylene	0.000		0		N.D.	
77) o Xylene	0.000		0		N.D.	
78) Styrene	0.000		0		N.D.	
80) Bromoform	0.000		0		N.D.	
82) Isopropylbenzene	10.774	105	113		N.D.	
84) Bromobenzene	0.000		0		N.D.	
85) n-Propylbenzene	11.263	91	718		N.D.	
87) 1,1,2,2-Tetrachloroethane	0.000		0		N.D.	
88) 4-Ethyltoluene	11.381	105	407		N.D.	
89) 2-Chlorotoluene	11.420	91	342		N.D.	
90) 1,3,5-Trimethylbenzene	11.479	105	268		N.D.	
91) 1,2,3-Trichloropropane	0.000		0		N.D.	
92) trans-1,4-Dichloro-2-b...	0.000		0		N.D.	
93) 4-Chlorotoluene	11.626	91	434		N.D.	
94) tert-Butylbenzene	11.802	119	337		N.D.	

Quantitation Report (QT/LSC Reviewed)

Data Path : I:\VOLATILES\VOA105\2019\191115A\
 Data File : V05191115A05.d
 Acq On : 15 Nov 2019 8:29 am
 Operator : VOA105:PD
 Sample : WG1309356-5,31,10,10 (Sig #1); METHOD BLK (Sig #2)
 Misc : WG1309356,ICAL16159 (Sig #1); WG,ICAL16159 (Sig #2)
 ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 15 08:52:51 2019
 Quant Method : I:\VOLATILES\VOA105\2019\191115A\V105_190921_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Mon Sep 23 12:05:21 2019
 Response via : Initial Calibration

CCAL FILE(s) : 1 - I:\VOLATILES\VOA105\2019\191115A\V05191115A02.d
 Sub List : 8260-NYTCL - Megamix plus Diox

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
97)	1,2,4-Trimethylbenzene	11.890	105	268	N.D.		
98)	sec-Butylbenzene	11.998	105	605	N.D.		
99)	p-Isopropyltoluene	12.145	119	553	N.D.		
100)	1,3-Dichlorobenzene	12.243	146	550	N.D.		
101)	1,4-Dichlorobenzene	12.321	146	942	N.D.		
102)	p-Diethylbenzene	12.517	119	660	N.D.		
103)	n-Butylbenzene	12.586	91	1266	N.D.		
104)	1,2-Dichlorobenzene	12.752	146	645	N.D.		
105)	1,2,4,5-Tetramethylben...	13.311	119	998	N.D.		
106)	1,2-Dibromo-3-chloropr...	0.000		0	N.D.		
108)	Hexachlorobutadiene	14.104	225	1102	0.169	ug/L #	83
109)	1,2,4-Trichlorobenzene	14.153	180	1473	0.119	ug/L #	87
110)	Naphthalene	14.447	128	2615	0.154	ug/L	100
111)	1,2,3-Trichlorobenzene	14.604	180	2243	0.257	ug/L	95

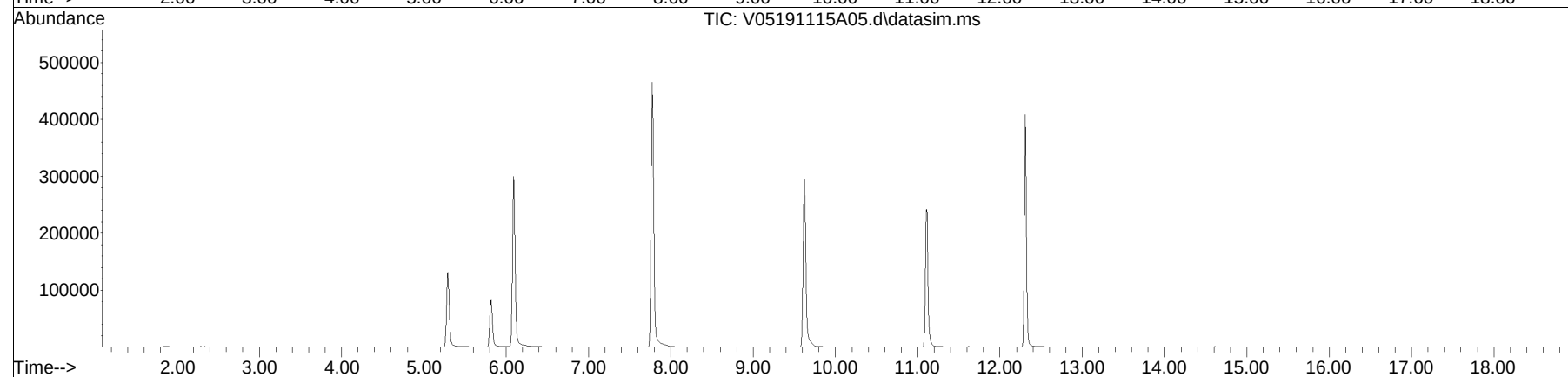
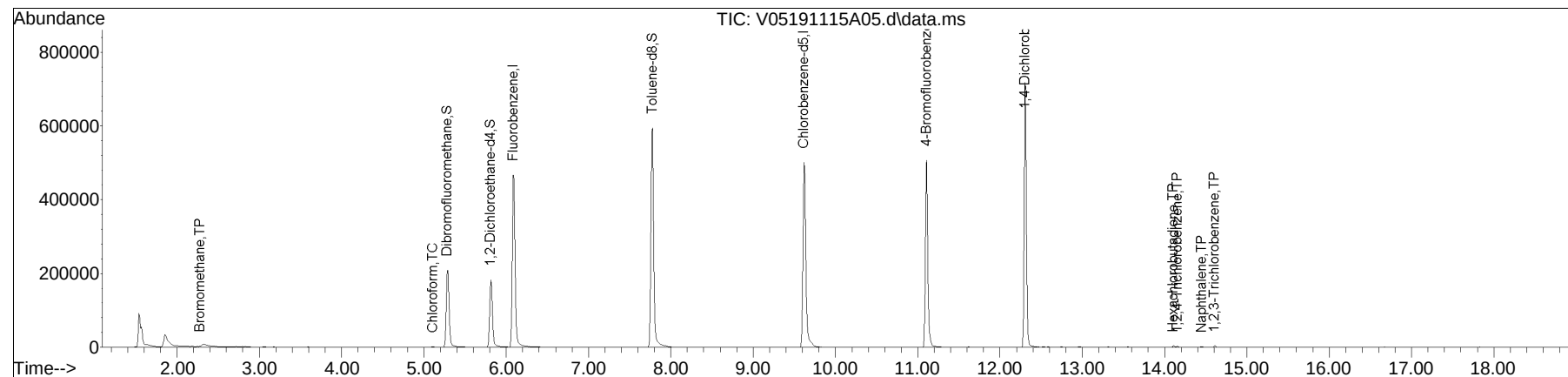
 (#) = qualifier out of range (m) = manual integration (+) = signals summed

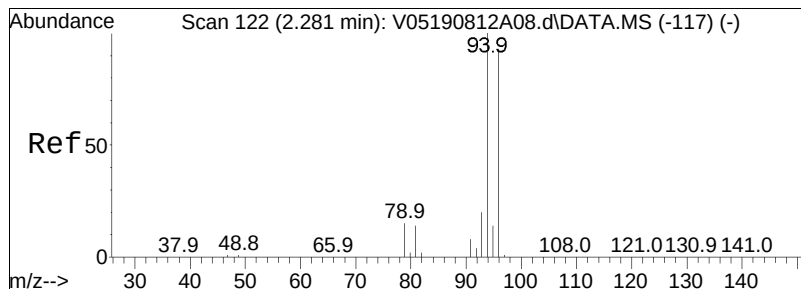
Quantitation Report (QT/LSC Reviewed)

Data Path : I:\VOLATILES\VOA105\2019\191115A\
 Data File : V05191115A05.d
 Acq On : 15 Nov 2019 8:29 am
 Operator : VOA105:PD
 Sample : WG1309356-5,31,10,10 (Sig #1); METHOD BLK (Sig #2)
 Misc : WG1309356,ICAL16159 (Sig #1); WG,ICAL16159 (Sig #2)
 ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 15 08:52:51 2019
 Quant Method : I:\VOLATILES\VOA105\2019\191115A\V105_190921_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Mon Sep 23 12:05:21 2019
 Response via : Initial Calibration

Sub List : 8260-NYTCL - Megamix plus Diox91115A\V05191115A02.d•





#5

Bromomethane

Concen: 0.14 ug/L

RT: 2.281 min Scan# 122

Delta R.T. 0.000 min

Lab File: V05191115A05.d

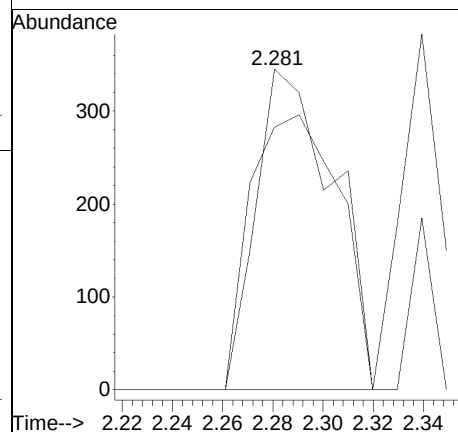
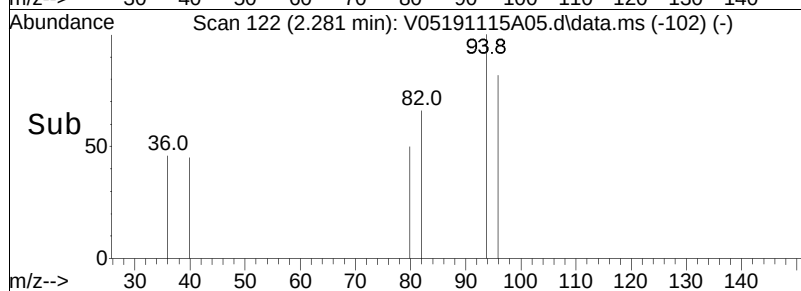
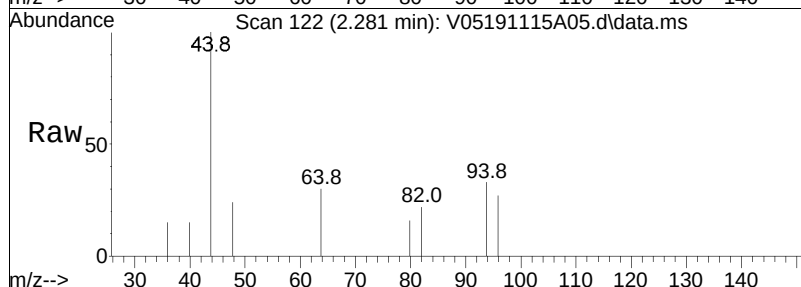
Acq: 15 Nov 2019 8:29 am

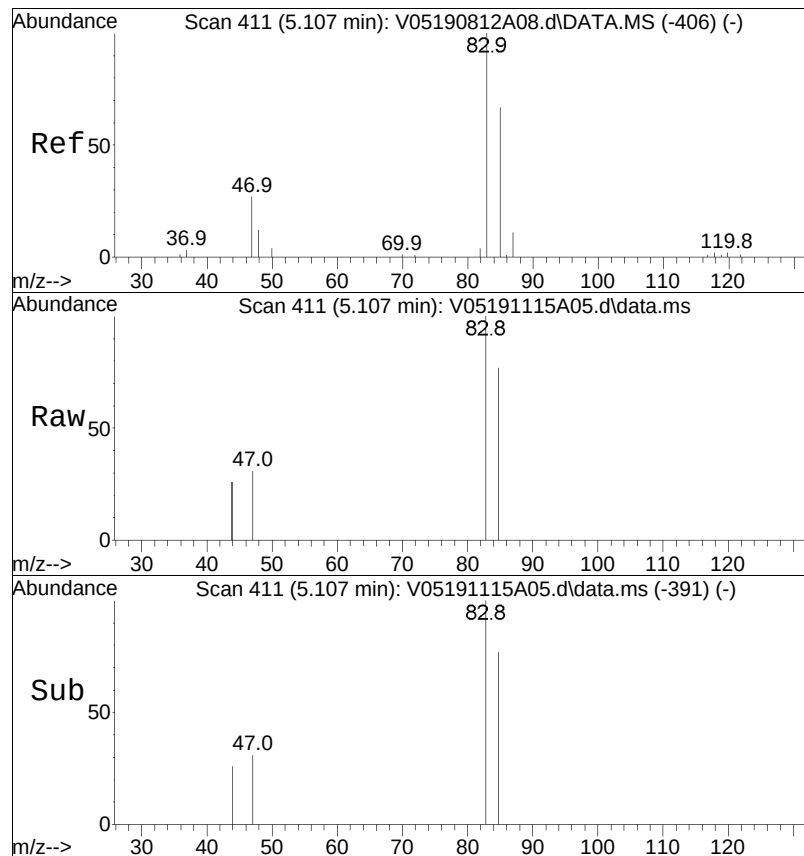
Tgt Ion: 94 Resp: 743

Ion Ratio Lower Upper

94 100

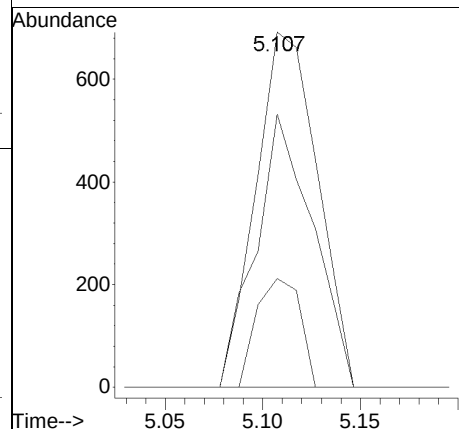
96 98.5 75.4 115.4

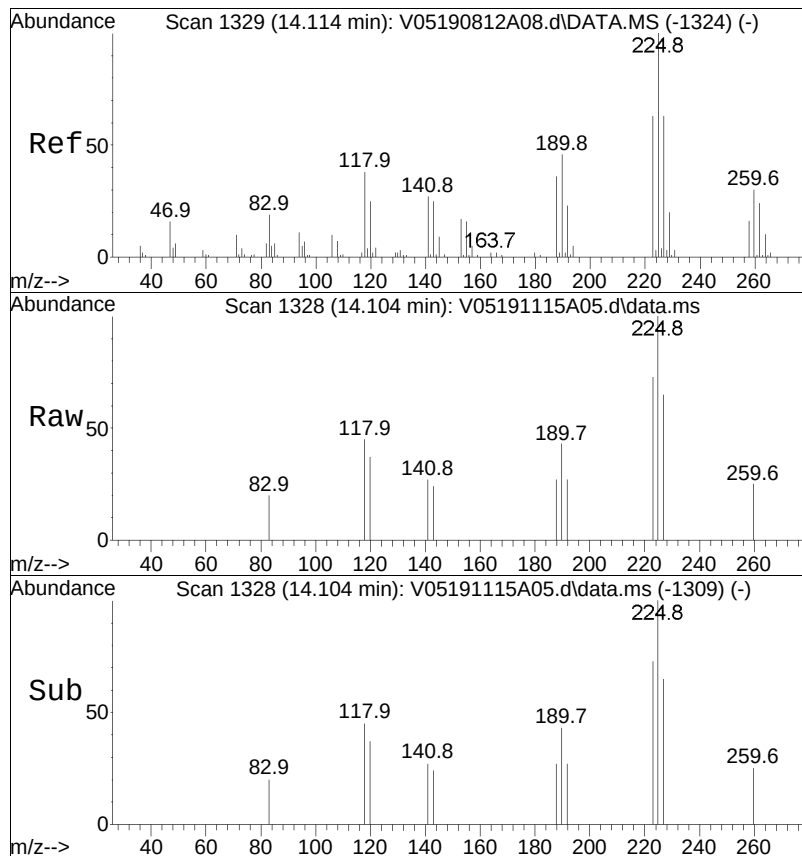




#32
 Chloroform
 Concen: 0.07 ug/L
 RT: 5.107 min Scan# 411
 Delta R.T. 0.000 min
 Lab File: V05191115A05.d
 Acq: 15 Nov 2019 8:29 am

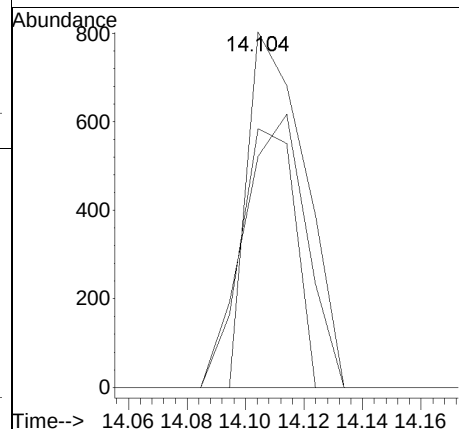
Tgt	Ion: 83	Resp:	1524
Ion	Ratio	Lower	Upper
83	100		
85	71.3	42.8	89.0
47	21.7	13.7	28.4
48	0.0	6.9	14.3#

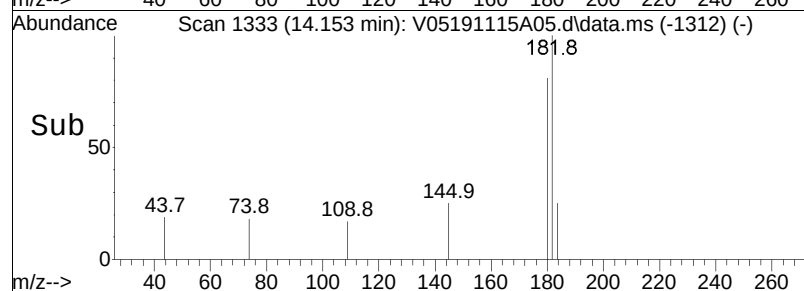
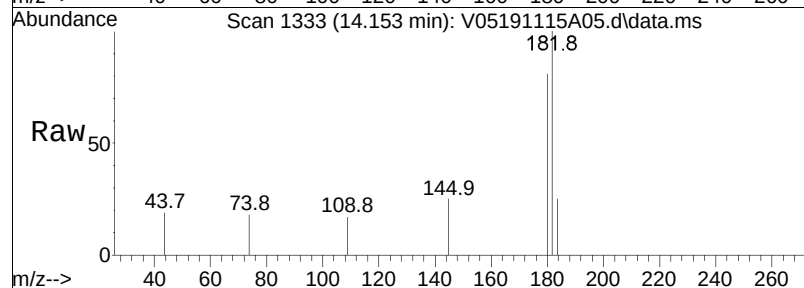
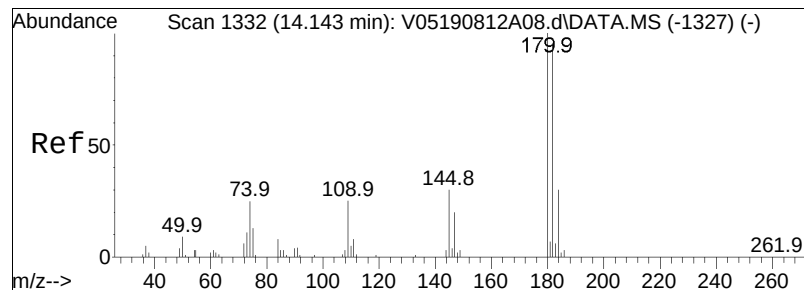




#108
 Hexachlorobutadiene
 Concen: 0.17 ug/L
 RT: 14.104 min Scan# 1328
 Delta R.T. -0.010 min
 Lab File: V05191115A05.d
 Acq: 15 Nov 2019 8:29 am

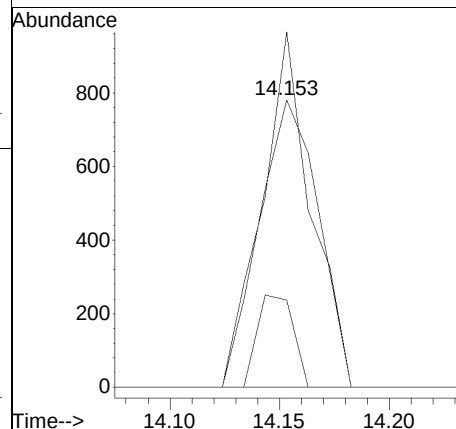
Tgt Ion	Ratio	Lower	Upper
225	100		
223	69.3	49.9	74.9
227	83.5	51.0	76.4

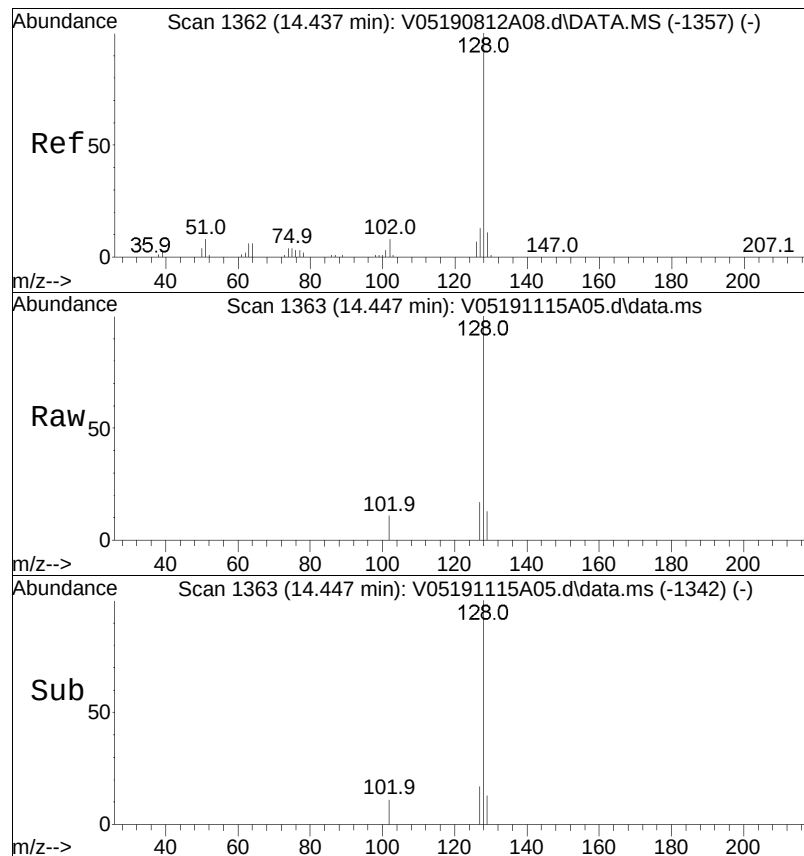




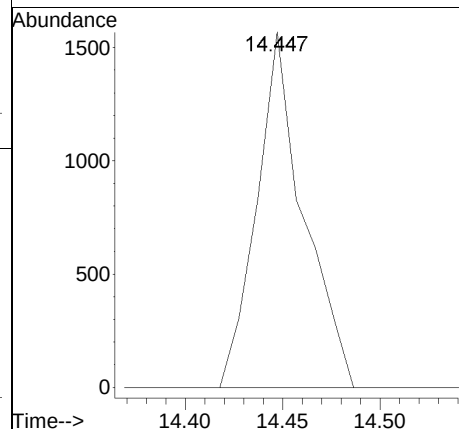
#109
 1,2,4-Trichlorobenzene
 Concen: 0.12 ug/L
 RT: 14.153 min Scan# 1333
 Delta R.T. 0.010 min
 Lab File: V05191115A05.d
 Acq: 15 Nov 2019 8:29 am

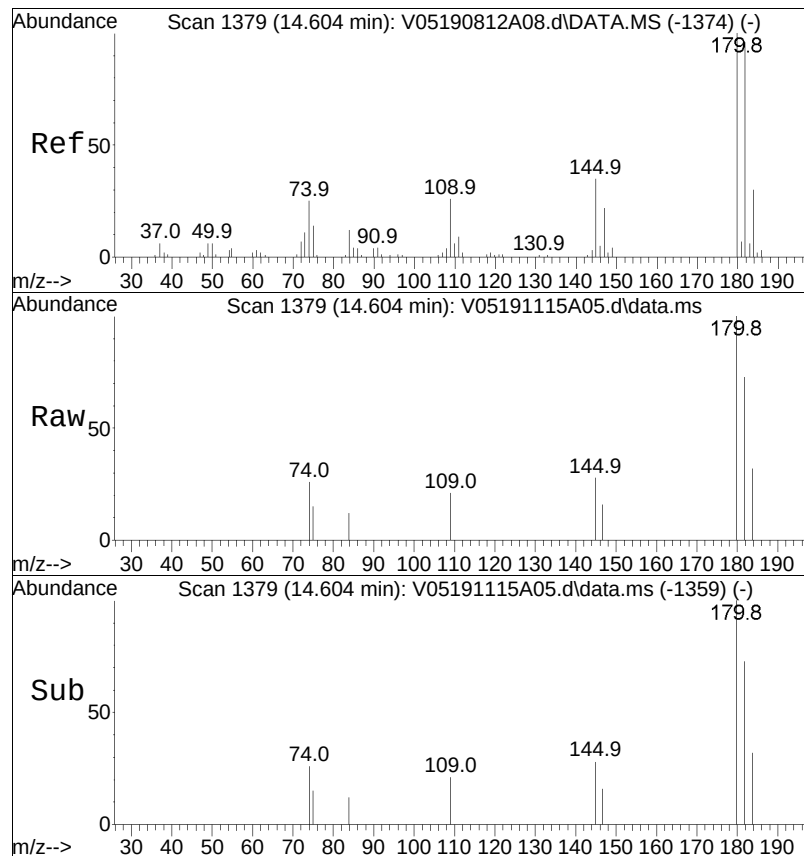
Tgt Ion	Ratio	Lower	Upper
180	100		
182	102.6	75.2	112.8
145	19.5	27.4	41.2





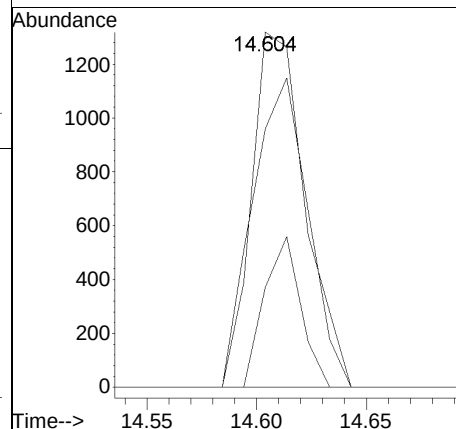
#110
 Naphthalene
 Concen: 0.15 ug/L
 RT: 14.447 min Scan# 1363
 Delta R.T. 0.010 min
 Lab File: V05191115A05.d
 Acq: 15 Nov 2019 8:29 am
 Tgt Ion:128 Resp: 2615





#111
 1,2,3-Trichlorobenzene
 Concen: 0.26 ug/L
 RT: 14.604 min Scan# 1379
 Delta R.T. 0.000 min
 Lab File: V05191115A05.d
 Acq: 15 Nov 2019 8:29 am

Tgt	Ion	Ratio	Lower	Upper
180	100			
182	90.4	75.5	113.3	
145	28.8	26.5	39.7	



Manual Integration Report

Data Path	: I:\VOLATILES\VOA105\2019\10	Method	: V105_190921_8260.m
Data File	: V05191115A05.d	Operator	: VOA105:PD
Date Inj'd	: 11/15/2019 8:29 am	Instrument	: VOA 105
Sample	: WG1309356-5,31,10,10	Quant Date	: 11/15/2019 8:52 am

There are no manual integrations or false positives in this file.

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\VOA105\2019\191115A\
 Data File : V05191115A02.d
 Acq On : 15 Nov 2019 7:19 am
 Operator : VOA105:PD
 Sample : WG1309356-3,31,10,10 (Sig #1); 8260 CCAL (Sig #2)
 Misc : WG1309356,ICAL16159 (Sig #1); WG,ICAL16159 (Sig #2)
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 15 08:50:16 2019
 Quant Method : I:\VOLATILES\VOA105\2019\191115A\V105_190921_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Mon Sep 23 12:05:21 2019
 Response via : Initial Calibration

Sub List : 8260-NYTCL - Megamix plus Diox

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

Internal Standards						
1) Fluorobenzene	6.085	96	547837	10.000	ug/L	0.00
59) Chlorobenzene-d5	9.618	117	453564	10.000	ug/L	0.00
79) 1,4-Dichlorobenzene-d4	12.302	152	259117	10.000	ug/L	0.00
System Monitoring Compounds						
36) Dibromofluoromethane	5.283	113	162633	10.939	ug/L	0.00
Spiked Amount	10.000	Range 70 - 130	Recovery	=	109.39%	
43) 1,2-Dichloroethane-d4	5.812	65	188580	9.963	ug/L	0.00
Spiked Amount	10.000	Range 70 - 130	Recovery	=	99.63%	
60) Toluene-d8	7.768	98	567854	9.588	ug/L	0.00
Spiked Amount	10.000	Range 70 - 130	Recovery	=	95.88%	
83) 4-Bromofluorobenzene	11.107	95	223012	8.754	ug/L	0.00
Spiked Amount	10.000	Range 70 - 130	Recovery	=	87.54%	
Target Compounds						
						Qvalue
2) Dichlorodifluoromethane	1.684	85	78080	5.825	ug/L	99
3) Chloromethane	1.889	50	74024	5.494	ug/L	98
4) Vinyl chloride	1.958	62	85776	7.256	ug/L	86
5) Bromomethane	2.281	94	30231	5.558	ug/L	95
6) Chloroethane	2.398	64	63581	8.741	ug/L	97
7) Trichlorofluoromethane	2.535	101	181204	9.127	ug/L	99
8) Ethyl ether	2.828	74	45233	10.873	ug/L	91
10) 1,1-Dichloroethene	3.024	96	95947	9.293	ug/L	96
11) Carbon disulfide	3.053	76	233340	8.017	ug/L	99
15) Methylene chloride	3.591	84	100410	8.824	ug/L	92
17) Acetone	3.640	43	15853	8.272	ug/L	97
18) trans-1,2-Dichloroethene	3.738	96	100958	8.861	ug/L	97
20) Methyl tert-butyl ether	3.836	73	210382	9.404	ug/L	96
23) 1,1-Dichloroethane	4.325	63	187808	8.314	ug/L	99
25) Acrylonitrile	4.384	53	17185	8.932	ug/L	91
27) Vinyl acetate	4.560	43	143015	6.817	ug/L	98
28) cis-1,2-Dichloroethene	4.843	96	122913	10.161	ug/L	98
29) 2,2-Dichloropropane	4.941	77	175259	9.697	ug/L	98
30) Bromochloromethane	5.039	128	58565	11.245	ug/L	91
32) Chloroform	5.107	83	203425	8.995	ug/L	99
34) Carbon tetrachloride	5.234	117	173386	9.618	ug/L	98
37) 1,1,1-Trichloroethane	5.303	97	208043	9.456	ug/L	99
39) 2-Butanone	5.411	43	23279M1	8.745	ug/L	
40) 1,1-Dichloropropene	5.420	75	147265	8.798	ug/L	96

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\VOA105\2019\191115A\
 Data File : V05191115A02.d
 Acq On : 15 Nov 2019 7:19 am
 Operator : VOA105:PD
 Sample : WG1309356-3,31,10,10 (Sig #1); 8260 CCAL (Sig #2)
 Misc : WG1309356,ICAL16159 (Sig #1); WG,ICAL16159 (Sig #2)
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 15 08:50:16 2019
 Quant Method : I:\VOLATILES\VOA105\2019\191115A\V105_190921_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Mon Sep 23 12:05:21 2019
 Response via : Initial Calibration

Sub List : 8260-NYTCL - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
41) Benzene	5.665	78	389892	8.893	ug/L	97
44) 1,2-Dichloroethane	5.880	62	148745	8.832	ug/L	99
48) Trichloroethene	6.261	95	116836	8.746	ug/L	89
50) Dibromomethane	6.711	93	55590	9.641	ug/L #	84
51) 1,2-Dichloropropane	6.809	63	87635	8.151	ug/L	97
54) Bromodichloromethane	6.887	83	141258	9.135	ug/L	100
57) 1,4-Dioxane	7.103	88	21636	387.737	ug/L	96
58) cis-1,3-Dichloropropene	7.572	75	141992	8.741	ug/L	95
61) Toluene	7.826	92	277756	8.626	ug/L	99
62) 4-Methyl-2-pentanone	8.267	58	16084	7.144	ug/L	95
63) Tetrachloroethene	8.276	166	153601	10.515	ug/L	88
65) trans-1,3-Dichloropropene	8.325	75	123021	7.305	ug/L	95
68) 1,1,2-Trichloroethane	8.511	83	58914	8.470	ug/L	94
69) Chlorodibromomethane	8.716	129	83891	8.847	ug/L	97
70) 1,3-Dichloropropane	8.834	76	126682	8.205	ug/L	99
71) 1,2-Dibromoethane	9.001	107	75007	9.522	ug/L	97
72) 2-Hexanone	9.275	43	25763	6.371	ug/L	98
73) Chlorobenzene	9.637	112	316493	9.031	ug/L	89
74) Ethylbenzene	9.667	91	546594	8.629	ug/L	96
75) 1,1,1,2-Tetrachloroethane	9.725	131	116044	9.452	ug/L	97
76) p/m Xylene	9.853	106	418152	18.474	ug/L	92
77) o Xylene	10.392	106	382324	18.445	ug/L	92
78) Styrene	10.460	104	629017	19.446	ug/L	92
80) Bromoform	10.499	173	55558	9.143	ug/L	97
82) Isopropylbenzene	10.774	105	561114	8.663	ug/L	96
84) Bromobenzene	11.214	156	140811	9.004	ug/L	100
85) n-Propylbenzene	11.244	91	633965	8.276	ug/L	94
87) 1,1,2,2-Tetrachloroethane	11.352	83	69355	7.986	ug/L	97
88) 4-Ethyltoluene	11.371	105	531480	8.761	ug/L	98
89) 2-Chlorotoluene	11.420	91	370080M1	7.628	ug/L	
90) 1,3,5-Trimethylbenzene	11.469	105	474698	8.719	ug/L	95
91) 1,2,3-Trichloropropane	11.489	75	66515M1	7.843	ug/L	
92) trans-1,4-Dichloro-2-b...	11.538	53	11519M1	5.571	ug/L	
93) 4-Chlorotoluene	11.606	91	396830M1	7.981	ug/L	
94) tert-Butylbenzene	11.802	119	416834	8.892	ug/L	97
97) 1,2,4-Trimethylbenzene	11.890	105	457747	8.746	ug/L	96
98) sec-Butylbenzene	11.998	105	524706	8.672	ug/L	95
99) p-Isopropyltoluene	12.145	119	507626	9.164	ug/L	95
100) 1,3-Dichlorobenzene	12.223	146	264153	9.084	ug/L	96
101) 1,4-Dichlorobenzene	12.321	146	270769	9.019	ug/L	97

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\VOA105\2019\191115A\
 Data File : V05191115A02.d
 Acq On : 15 Nov 2019 7:19 am
 Operator : VOA105:PD
 Sample : WG1309356-3,31,10,10 (Sig #1); 8260 CCAL (Sig #2)
 Misc : WG1309356,ICAL16159 (Sig #1); WG,ICAL16159 (Sig #2)
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 15 08:50:16 2019
 Quant Method : I:\VOLATILES\VOA105\2019\191115A\V105_190921_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Mon Sep 23 12:05:21 2019
 Response via : Initial Calibration

Sub List : 8260-NYTCL - Megamix plus Diox

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
102)	p-Diethylbenzene	12.517	119	280838	8.929	ug/L	96
103)	n-Butylbenzene	12.576	91	408540	8.222	ug/L	97
104)	1,2-Dichlorobenzene	12.743	146	233890	9.256	ug/L	96
105)	1,2,4,5-Tetramethylben...	13.311	119	390688	9.290	ug/L	94
106)	1,2-Dibromo-3-chloropr...	13.526	155	9293	9.172	ug/L	99
108)	Hexachlorobutadiene	14.114	225	73119	10.072	ug/L	99
109)	1,2,4-Trichlorobenzene	14.143	180	128326	9.307	ug/L	99
110)	Naphthalene	14.437	128	174746	9.233	ug/L	100
111)	1,2,3-Trichlorobenzene	14.604	180	93821	9.621	ug/L	98

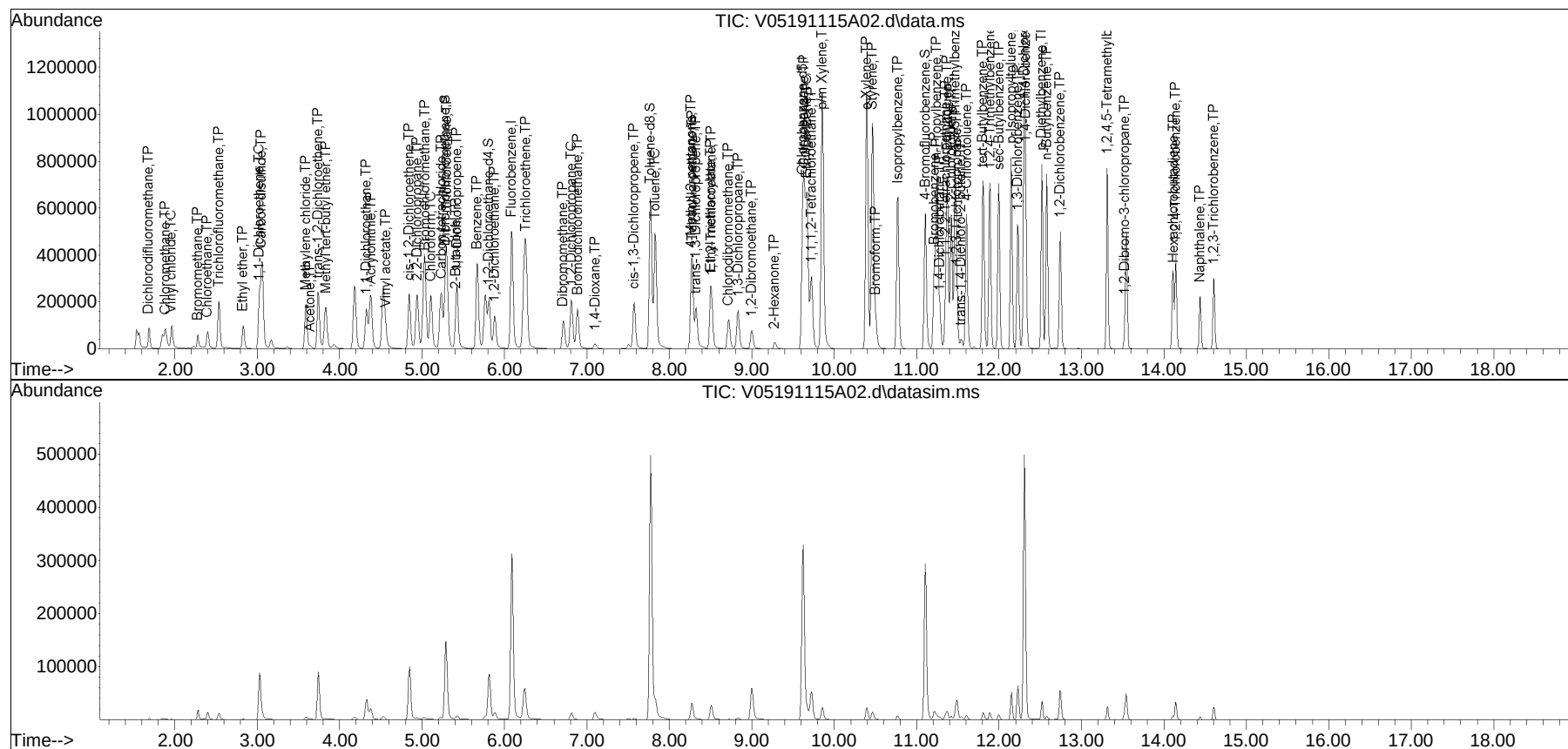
(#) = qualifier out of range (m) = manual integration (+) = signals summed

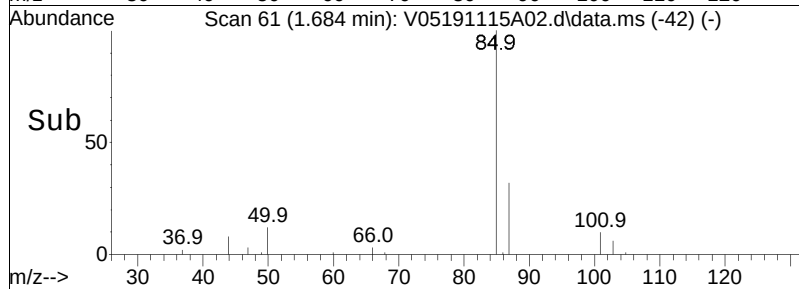
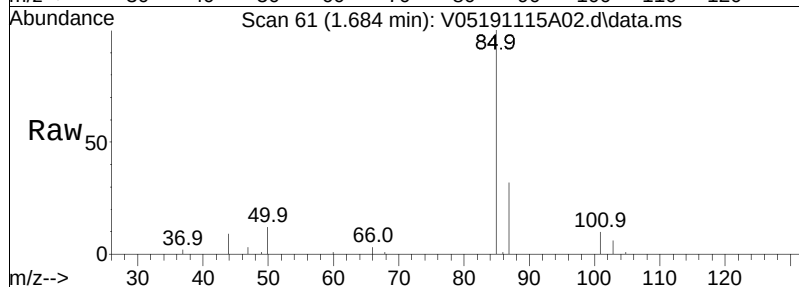
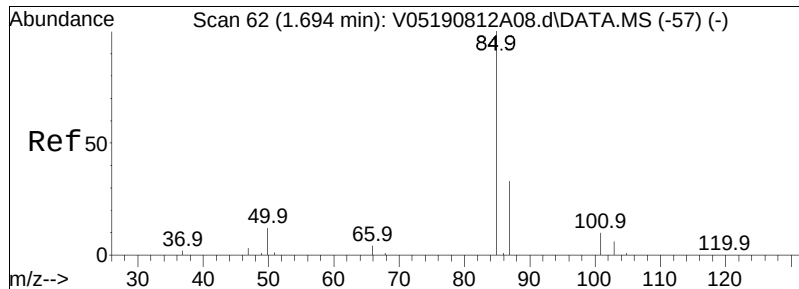
Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\VOA105\2019\191115A\
 Data File : V05191115A02.d
 Acq On : 15 Nov 2019 7:19 am
 Operator : VOA105:PD
 Sample : WG1309356-3,31,10,10 (Sig #1); 8260 CCAL (Sig #2)
 Misc : WG1309356,ICAL16159 (Sig #1); WG,ICAL16159 (Sig #2)
 ALS Vial : 2 Sample Multiplier: 1

Quant Time: Nov 15 08:50:16 2019
 Quant Method : I:\VOLATILES\VOA105\2019\191115A\V105_190921_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Mon Sep 23 12:05:21 2019
 Response via : Initial Calibration

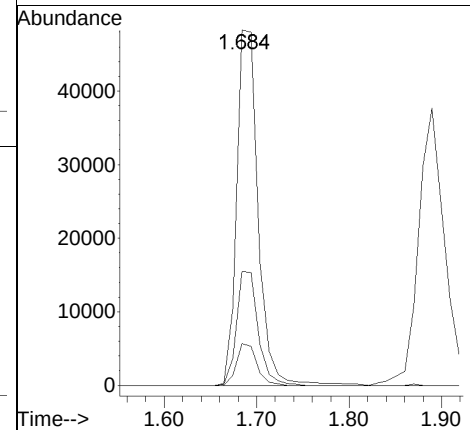
Sub List : 8260-NYTCL - Megamix plus Diox

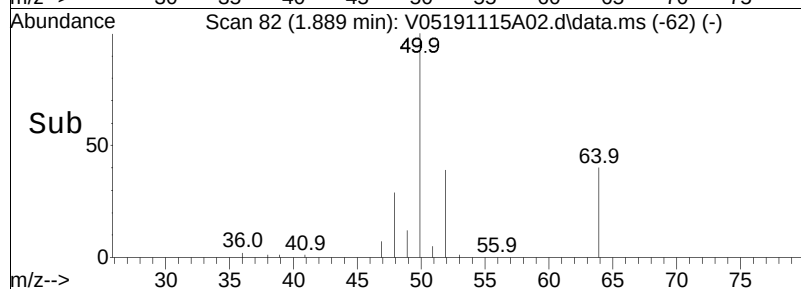
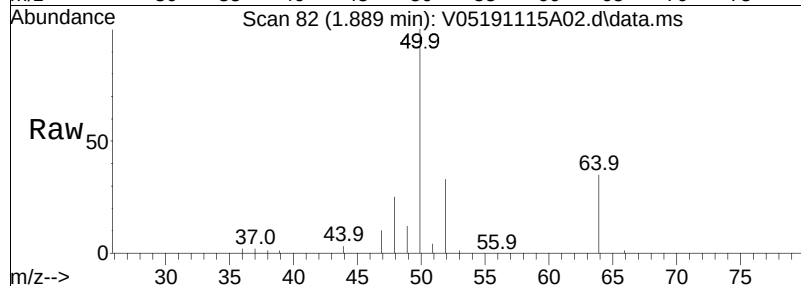
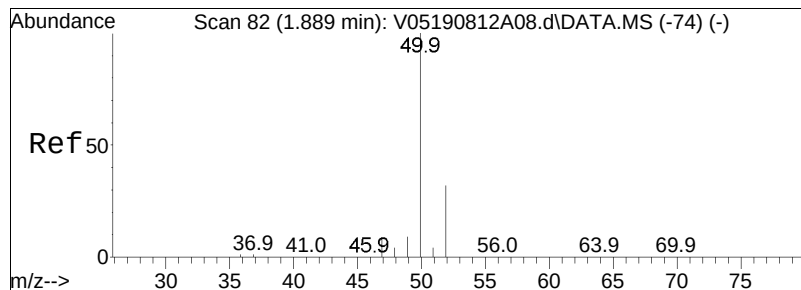




#2
 Dichlorodifluoromethane
 Concen: 5.82 ug/L
 RT: 1.684 min Scan# 61
 Delta R.T. -0.010 min
 Lab File: V05191115A02.d
 Acq: 15 Nov 2019 7:19 am

Tgt Ion	Ratio	Resp	Lower	Upper
85	100			
87	32.1	20.9	43.5	
50	11.1	6.8	14.0	





#3

Chloromethane

Concen: 5.49 ug/L

RT: 1.889 min Scan# 82

Delta R.T. 0.000 min

Lab File: V05191115A02.d

Acq: 15 Nov 2019 7:19 am

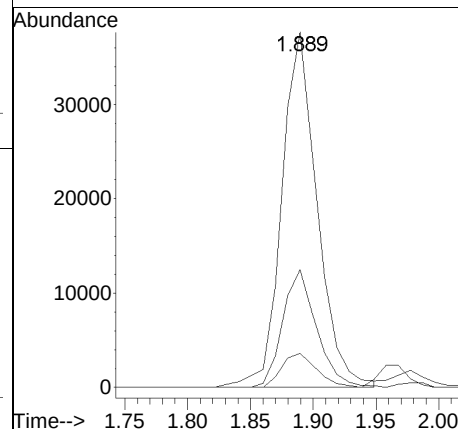
Tgt Ion: 50 Resp: 74024

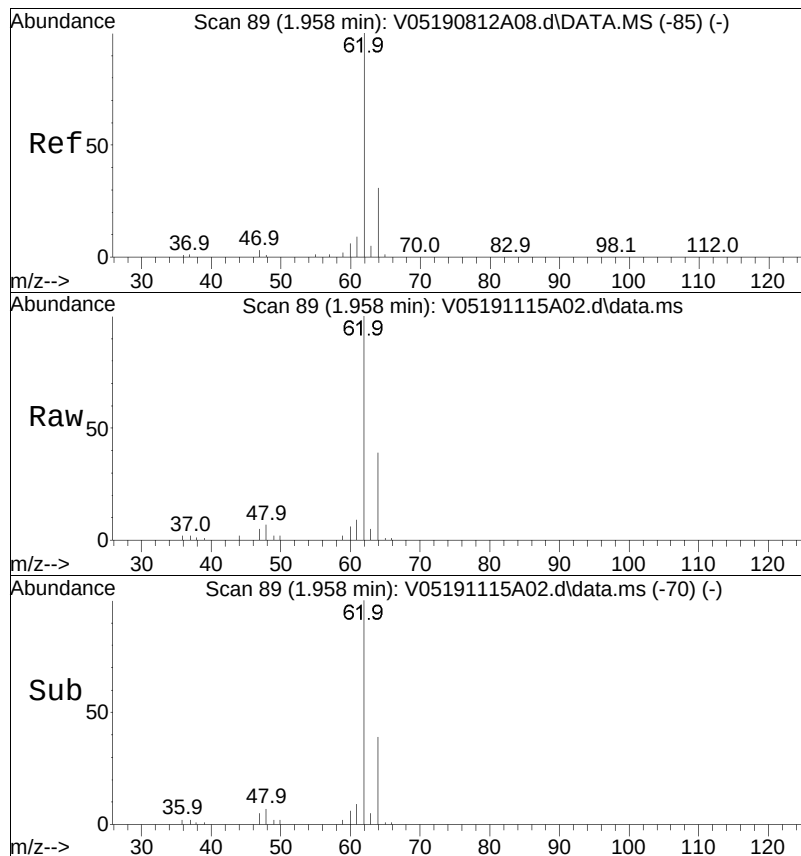
Ion Ratio Lower Upper

50 100

52 31.6 12.6 52.6

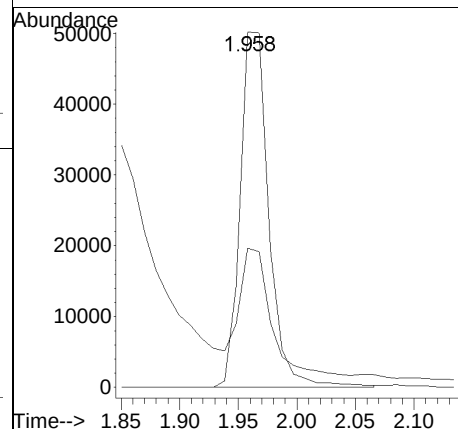
47 9.5 0.0 30.1

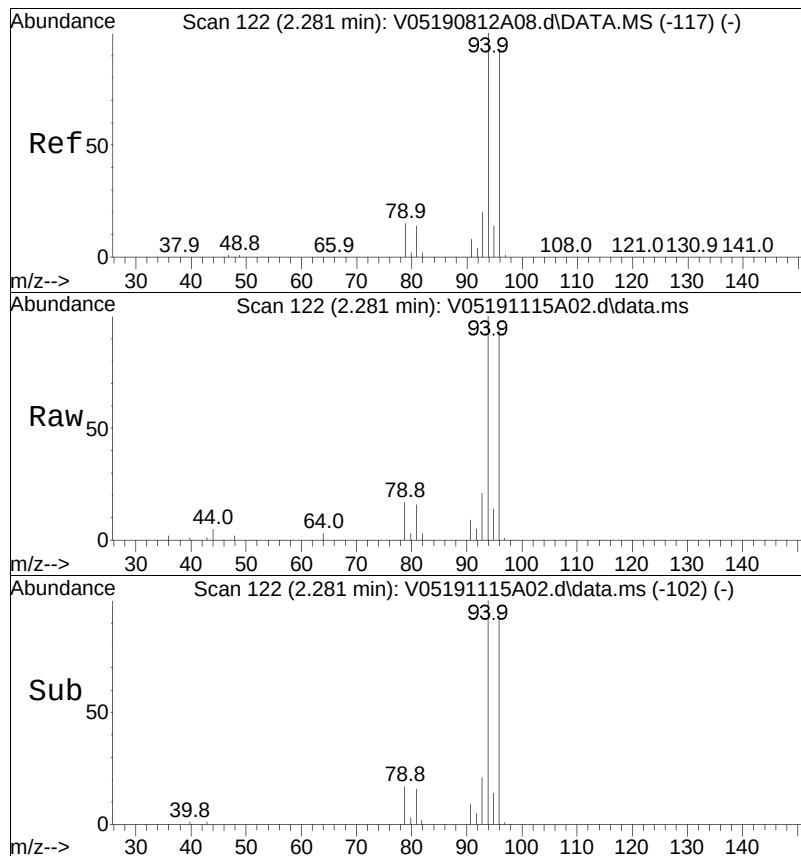




#4
 Vinyl chloride
 Concen: 7.26 ug/L
 RT: 1.958 min Scan# 89
 Delta R.T. -0.010 min
 Lab File: V05191115A02.d
 Acq: 15 Nov 2019 7:19 am

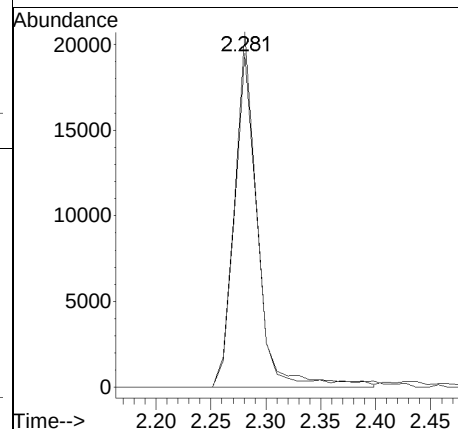
Tgt Ion	Ratio	Lower	Upper
62	100		
64	41.3	13.5	53.5

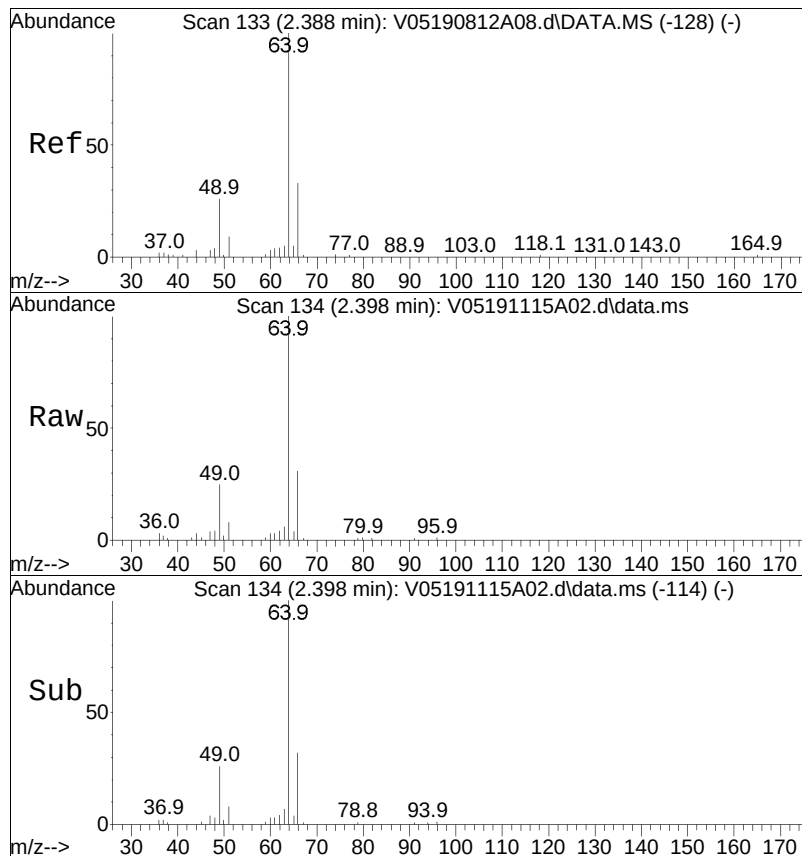




#5
 Bromomethane
 Concen: 5.56 ug/L
 RT: 2.281 min Scan# 122
 Delta R.T. 0.000 min
 Lab File: V05191115A02.d
 Acq: 15 Nov 2019 7:19 am

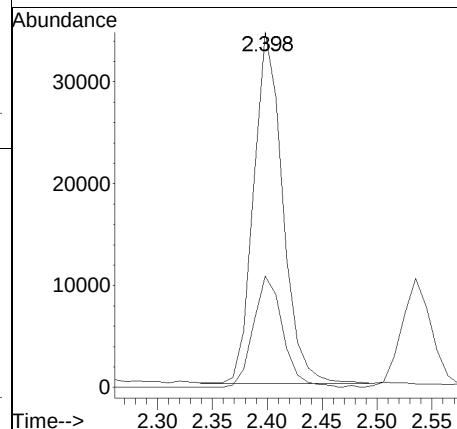
Tgt Ion	Ratio	Lower	Upper
94	100		
96	90.6	75.4	115.4

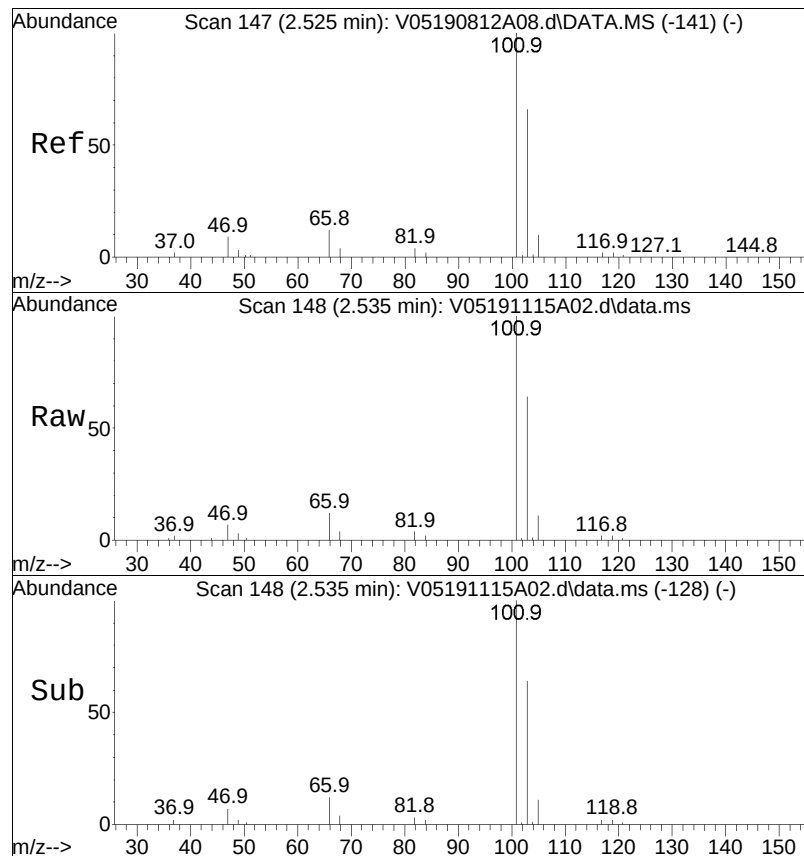




#6
 Chloroethane
 Concen: 8.74 ug/L
 RT: 2.398 min Scan# 134
 Delta R.T. 0.000 min
 Lab File: V05191115A02.d
 Acq: 15 Nov 2019 7:19 am

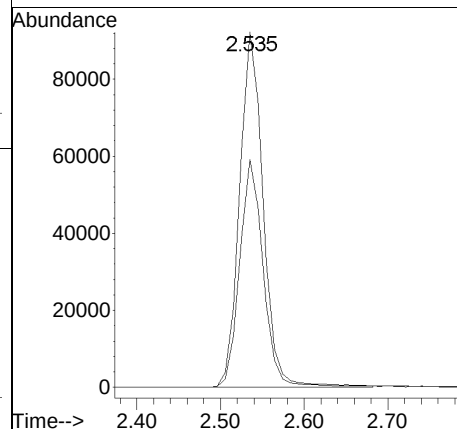
Tgt	Ion	Ratio	Lower	Upper
64	100			
66	32.1	13.8	53.8	

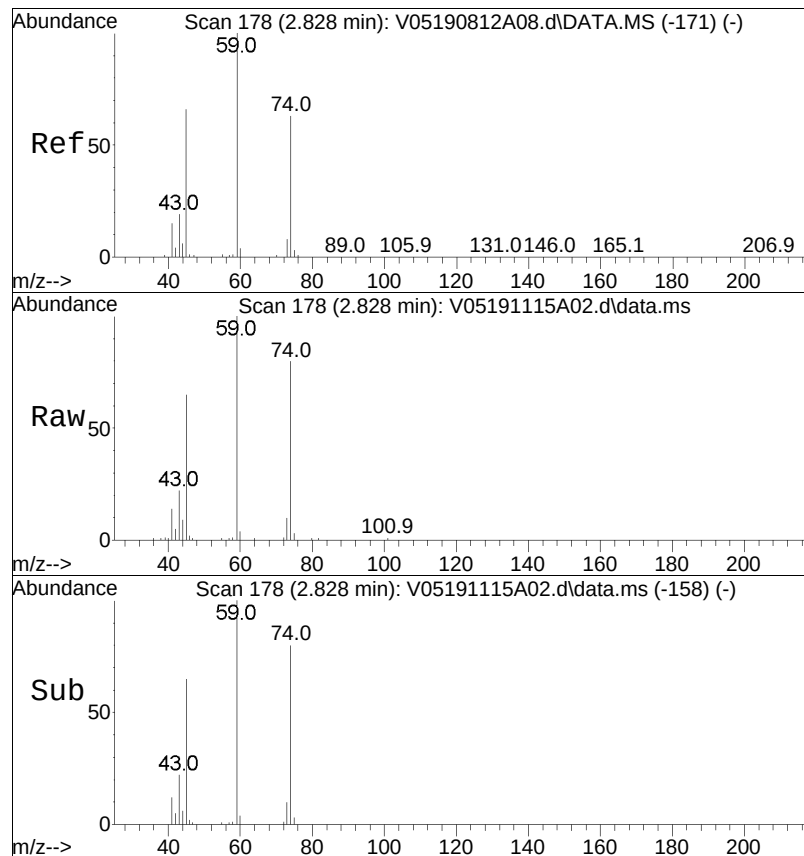




#7
 Trichlorofluoromethane
 Concen: 9.13 ug/L
 RT: 2.535 min Scan# 148
 Delta R.T. 0.000 min
 Lab File: V05191115A02.d
 Acq: 15 Nov 2019 7:19 am

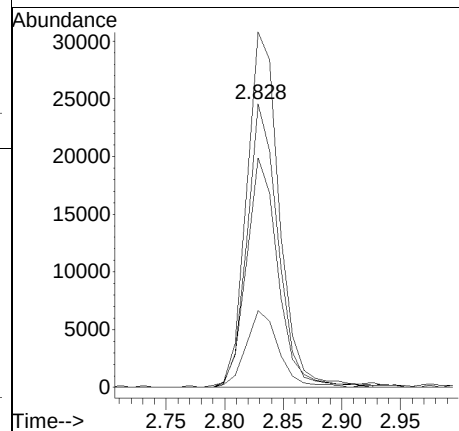
Tgt	Ion	Ratio	Lower	Upper
101	101	100		
103	63.9	51.8	77.6	

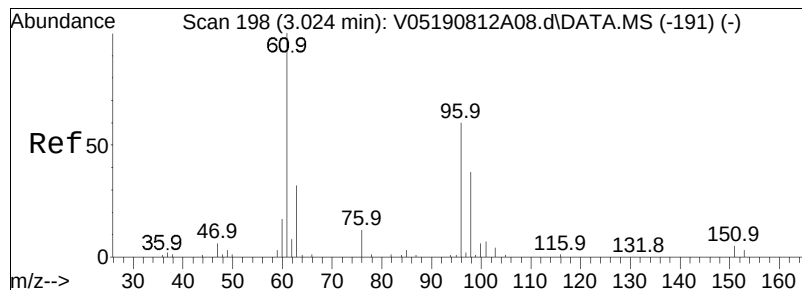




#8
 Ethyl ether
 Concen: 10.87 ug/L
 RT: 2.828 min Scan# 178
 Delta R.T. 0.000 min
 Lab File: V05191115A02.d
 Acq: 15 Nov 2019 7:19 am

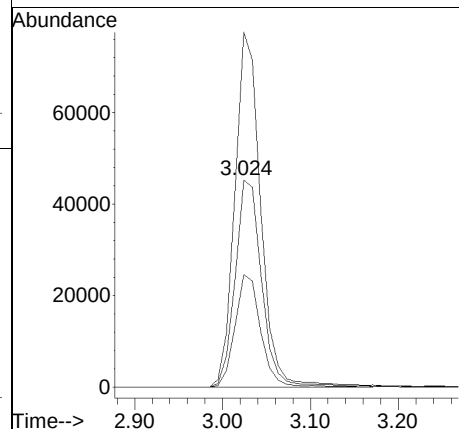
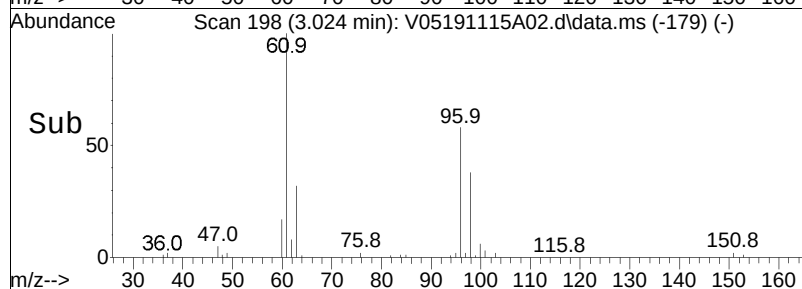
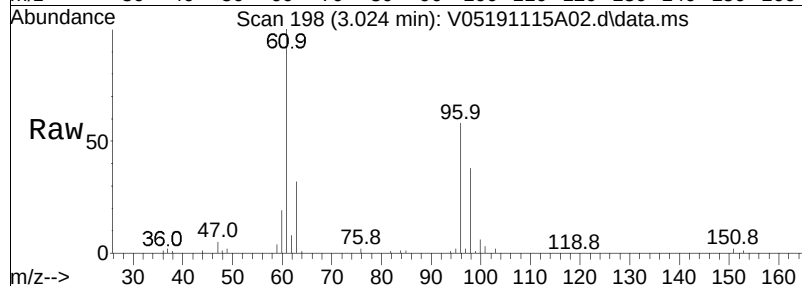
Tgt Ion:	74	Resp:	45233
Ion	Ratio	Lower	Upper
74	100		
59	133.5	78.6	163.2
45	84.2	49.8	103.4
43	29.0	18.0	37.4

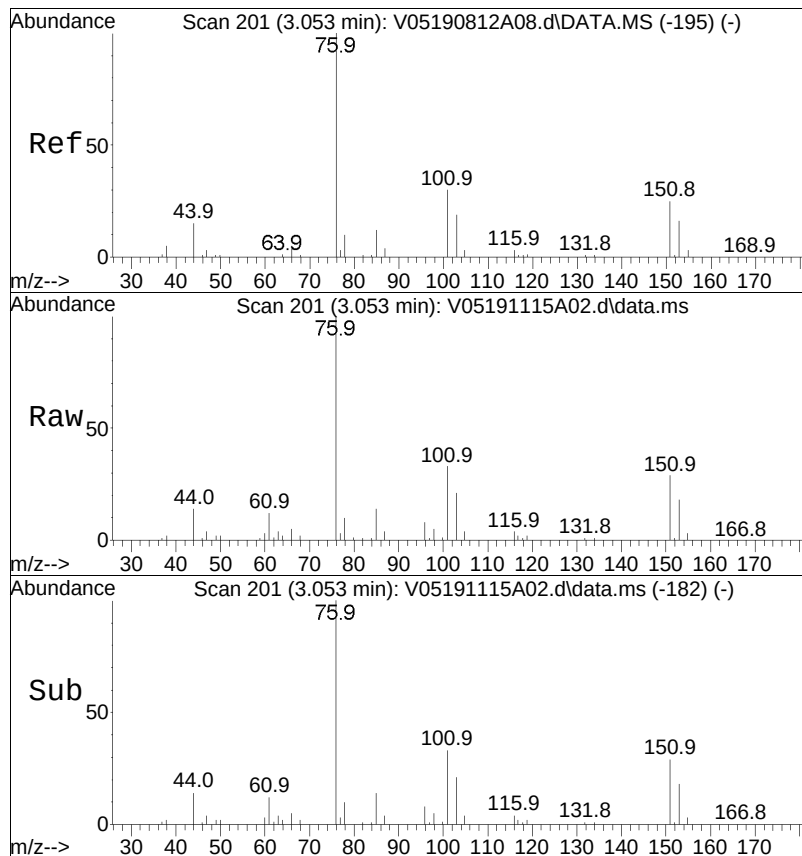




#10
 1,1-Dichloroethene
 Concen: 9.29 ug/L
 RT: 3.024 min Scan# 198
 Delta R.T. -0.009 min
 Lab File: V05191115A02.d
 Acq: 15 Nov 2019 7:19 am

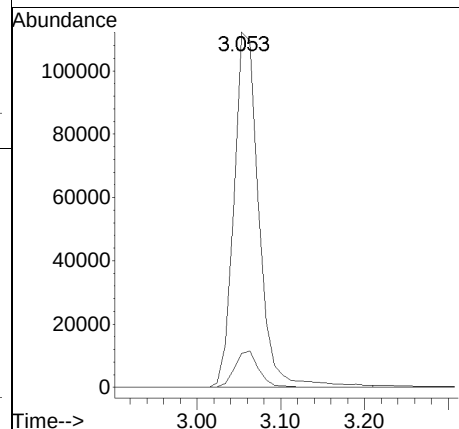
Tgt Ion	Ratio	Lower	Upper
96	100		
61	166.7	136.7	205.1
63	52.6	45.0	67.6

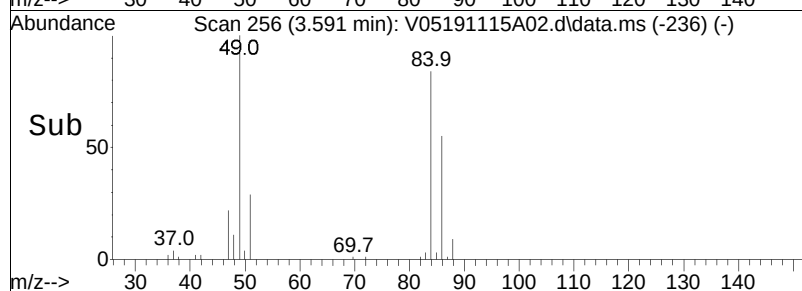
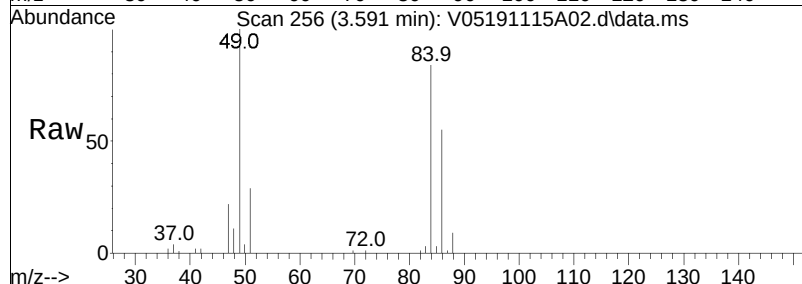
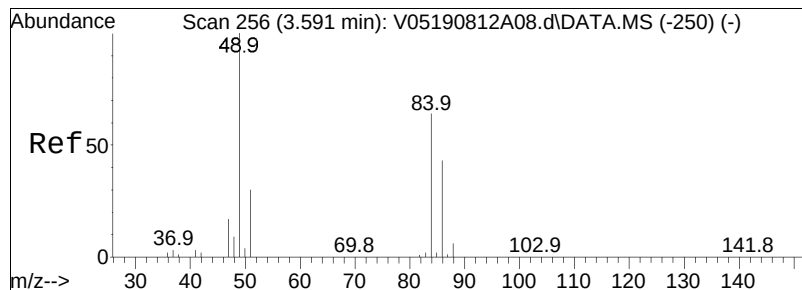




#11
Carbon disulfide
Concen: 8.02 ug/L
RT: 3.053 min Scan# 201
Delta R.T. -0.010 min
Lab File: V05191115A02.d
Acq: 15 Nov 2019 7:19 am

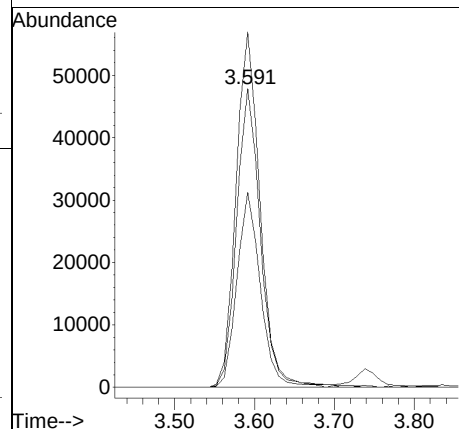
Tgt Ion:	76	Resp:	233340
Ion Ratio	Lower	Upper	
76	100		
78	9.9	6.7	13.9

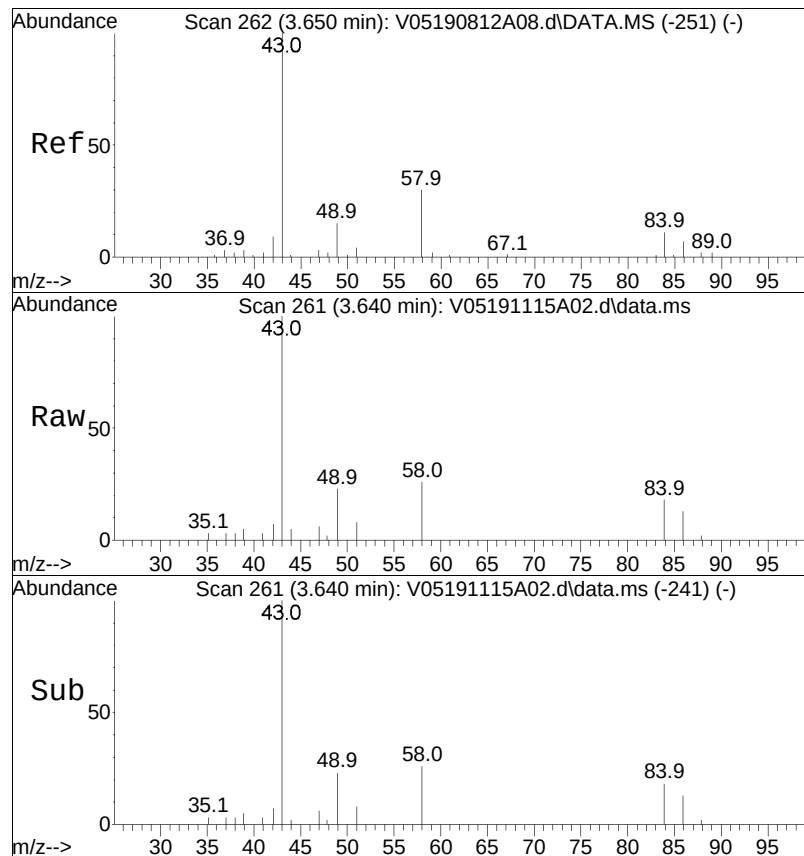




#15
Methylene chloride
Concen: 8.82 ug/L
RT: 3.591 min Scan# 256
Delta R.T. 0.000 min
Lab File: V05191115A02.d
Acq: 15 Nov 2019 7:19 am

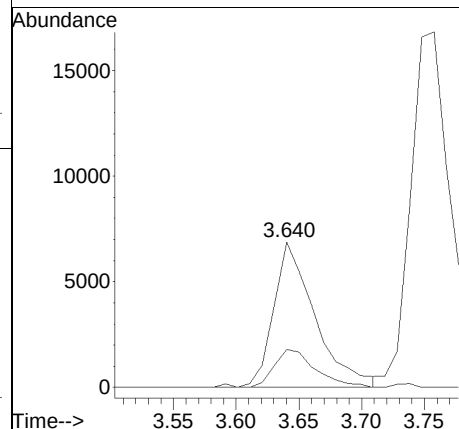
Tgt Ion	Ratio	Lower	Upper
84	100		
86	64.0	42.1	87.5
49	119.0	69.3	143.9

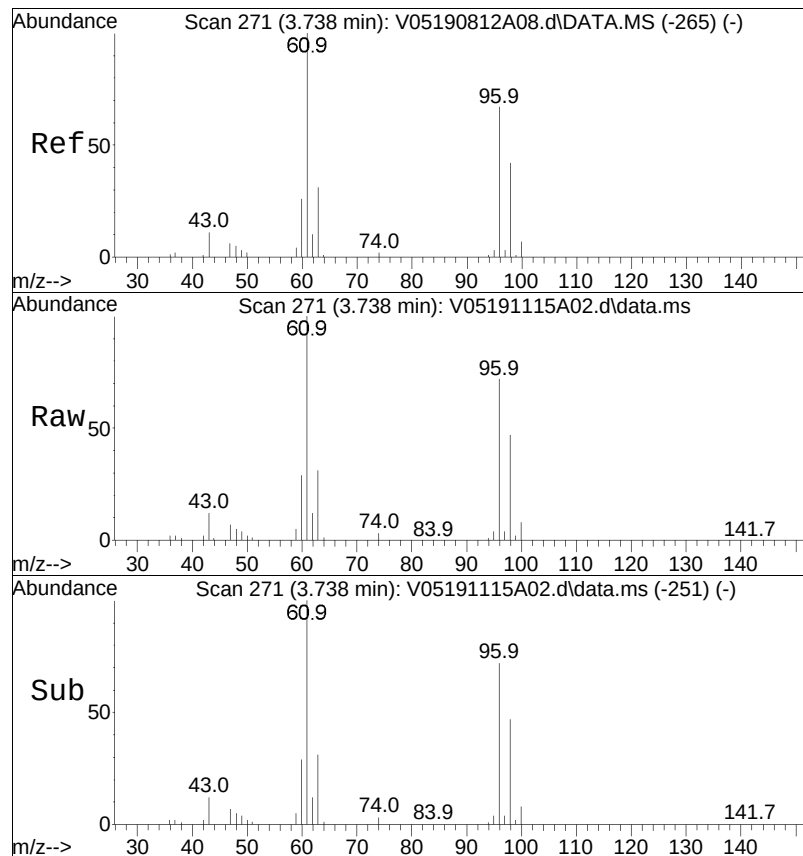




#17
 Acetone
 Concen: 8.27 ug/L
 RT: 3.640 min Scan# 261
 Delta R.T. 0.000 min
 Lab File: V05191115A02.d
 Acq: 15 Nov 2019 7:19 am

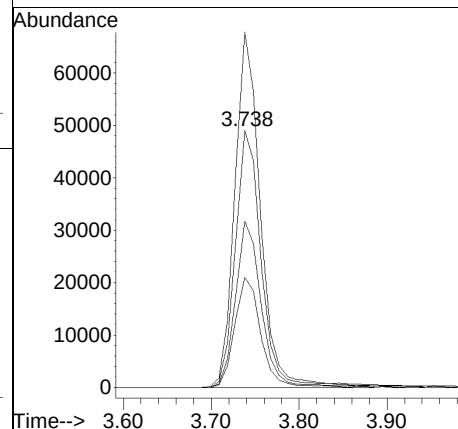
Tgt Ion:	43	Resp:	15853
Ion Ratio	Lower	Upper	
43	100		
58	26.0	22.0	33.0

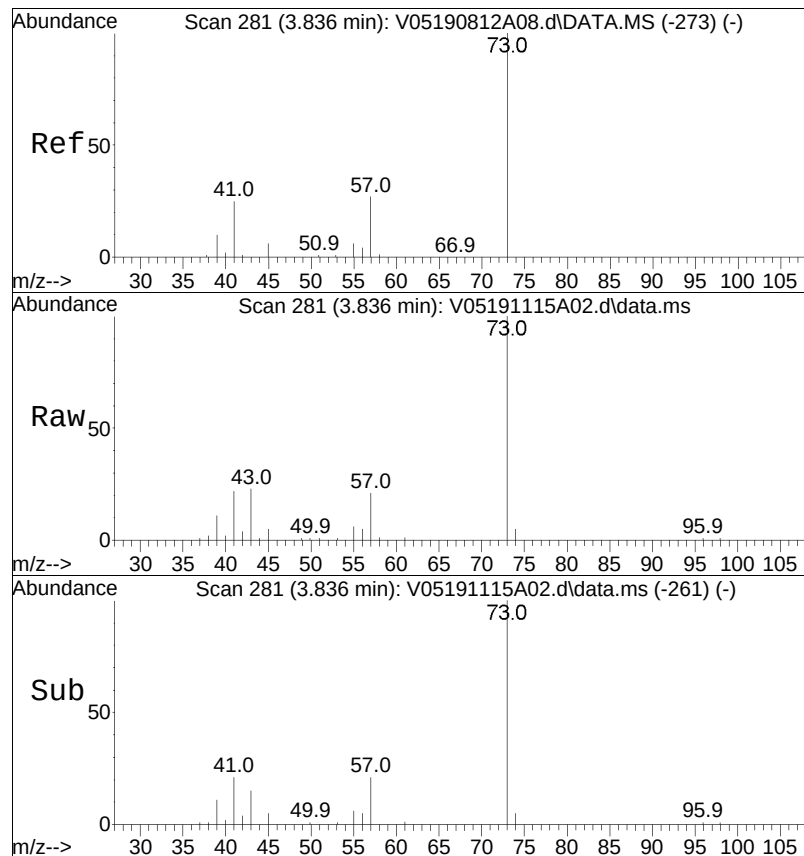




#18
 trans-1,2-Dichloroethene
 Concen: 8.86 ug/L
 RT: 3.738 min Scan# 271
 Delta R.T. 0.000 min
 Lab File: V05191115A02.d
 Acq: 15 Nov 2019 7:19 am

Tgt Ion:	96	Resp:	100958
Ion Ratio	Lower	Upper	
96	100		
61	137.3	91.7	190.5
98	64.1	41.1	85.5
63	43.0	29.4	61.0





#20

Methyl tert-butyl ether

Concen: 9.40 ug/L

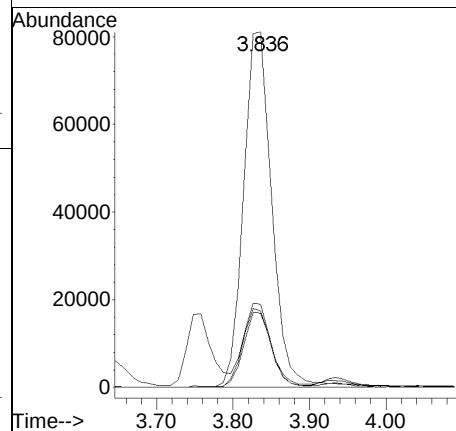
RT: 3.836 min Scan# 281

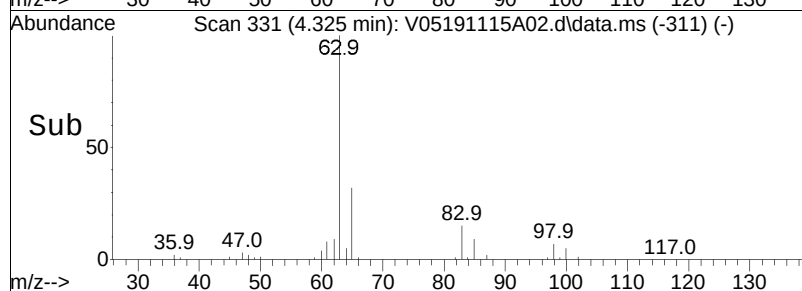
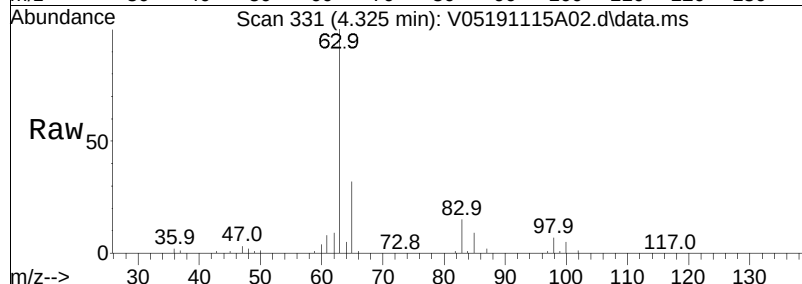
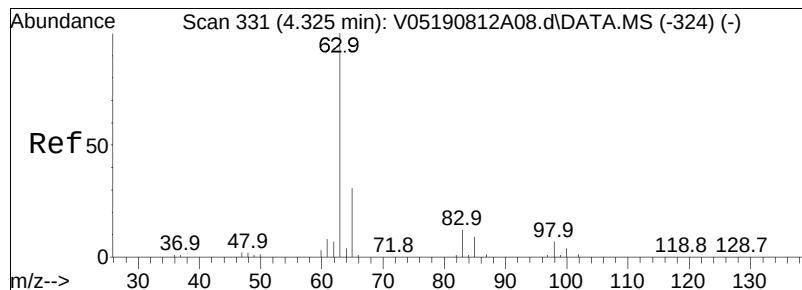
Delta R.T. 0.000 min

Lab File: V05191115A02.d

Acq: 15 Nov 2019 7:19 am

Tgt Ion:	73	Resp:	210382
Ion Ratio	Lower	Upper	
73	100		
57	20.9	11.8	24.6
43	22.2	13.5	27.9
41	21.3	13.3	27.5





#23

1,1-Dichloroethane

Concen: 8.31 ug/L

RT: 4.325 min Scan# 331

Delta R.T. 0.000 min

Lab File: V05191115A02.d

Acq: 15 Nov 2019 7:19 am

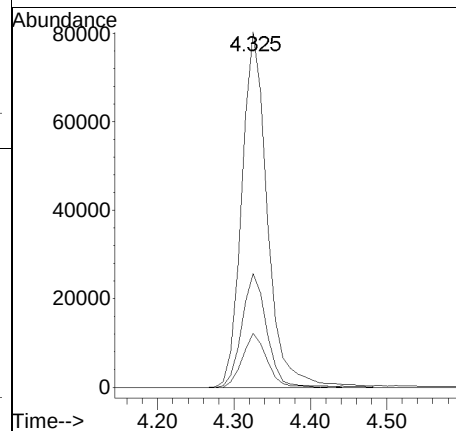
Tgt Ion: 63 Resp: 187808

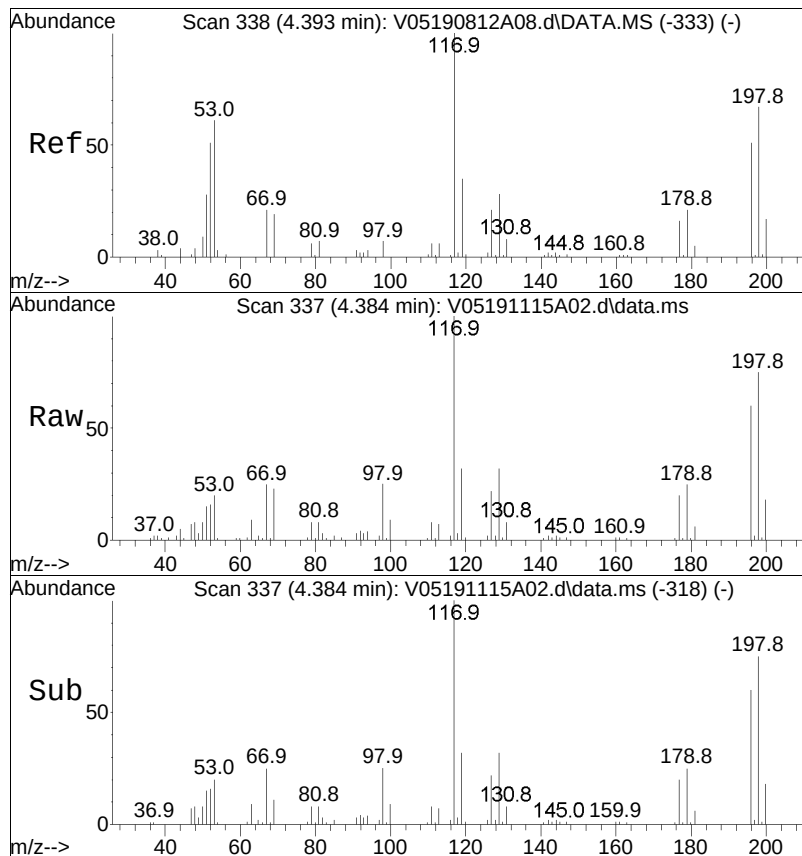
Ion Ratio Lower Upper

63 100

65 31.3 11.9 51.9

83 14.4 0.0 34.2





#25

Acrylonitrile

Concen: 8.93 ug/L

RT: 4.384 min Scan# 337

Delta R.T. -0.009 min

Lab File: V05191115A02.d

Acq: 15 Nov 2019 7:19 am

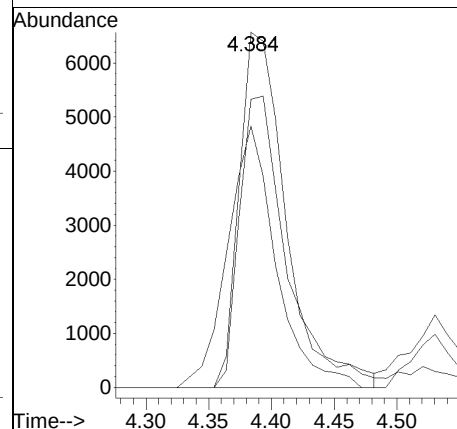
Tgt Ion: 53 Resp: 17185

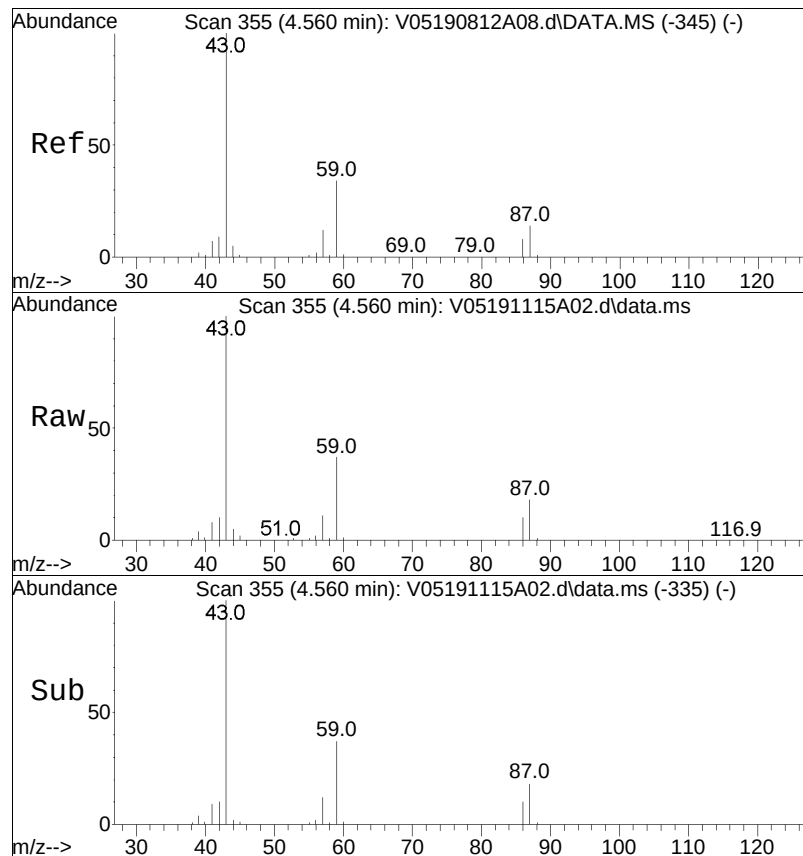
Ion Ratio Lower Upper

53 100

52 81.7 68.9 103.3

51 75.8 70.1 105.1





#27

Vinyl acetate

Concen: 6.82 ug/L

RT: 4.560 min Scan# 355

Delta R.T. 0.000 min

Lab File: V05191115A02.d

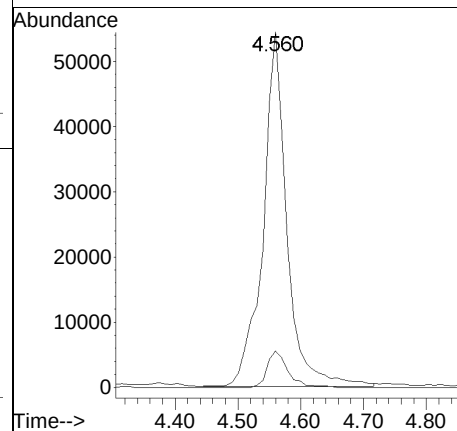
Acq: 15 Nov 2019 7:19 am

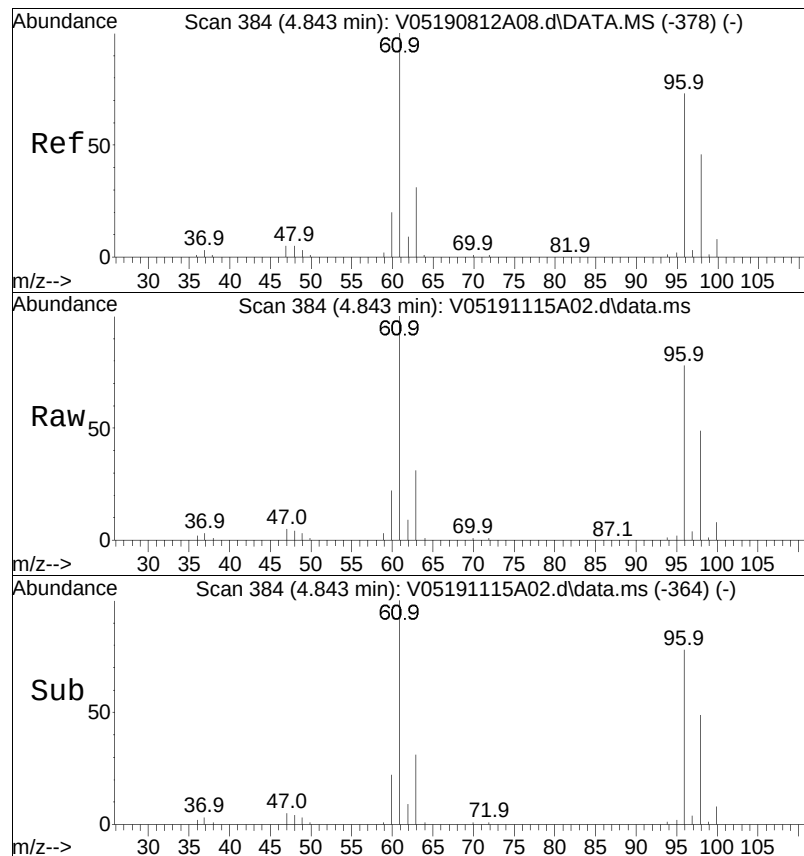
Tgt Ion: 43 Resp: 143015

Ion Ratio Lower Upper

43 100

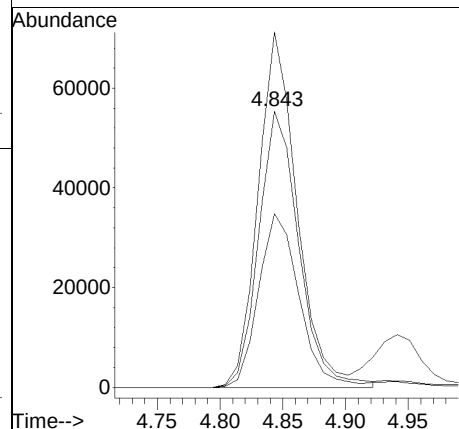
86 9.0 7.7 11.5

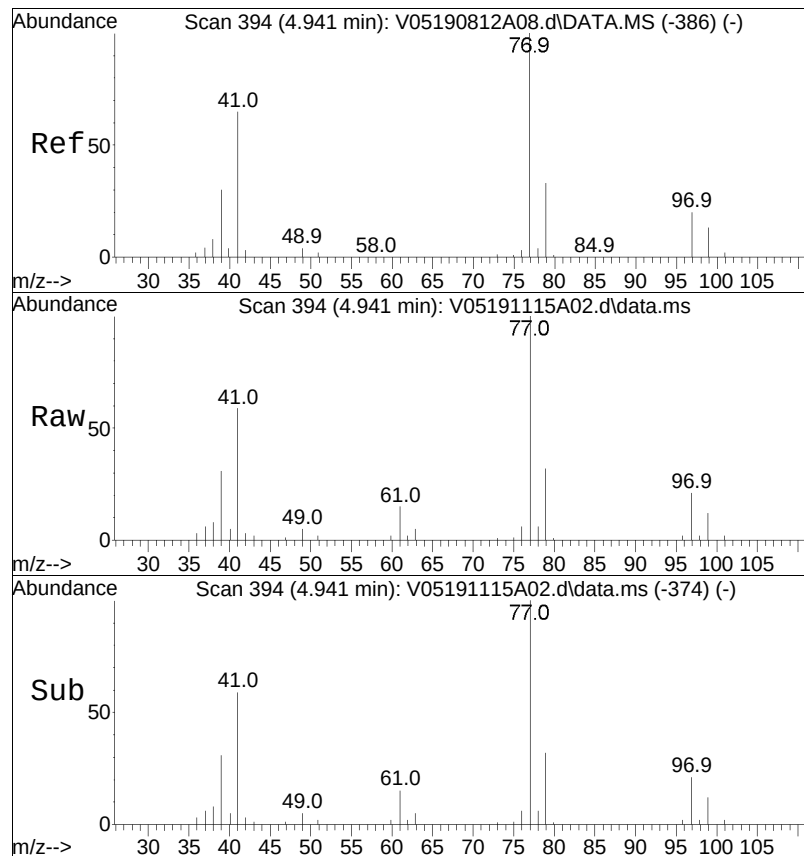




#28
 cis-1,2-Dichloroethene
 Concen: 10.16 ug/L
 RT: 4.843 min Scan# 384
 Delta R.T. 0.000 min
 Lab File: V05191115A02.d
 Acq: 15 Nov 2019 7:19 am

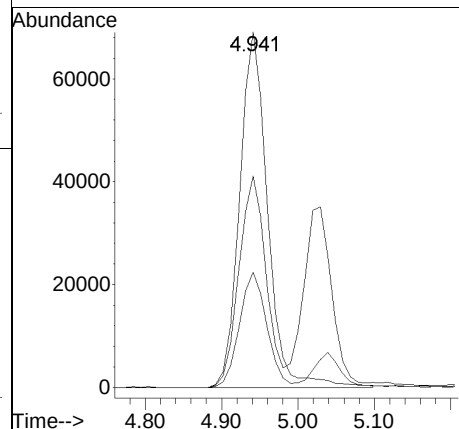
Tgt Ion:	96	Resp:	122913
Ion Ratio	Lower	Upper	
96	100		
61	123.9	100.5	150.7
98	63.6	49.8	74.8

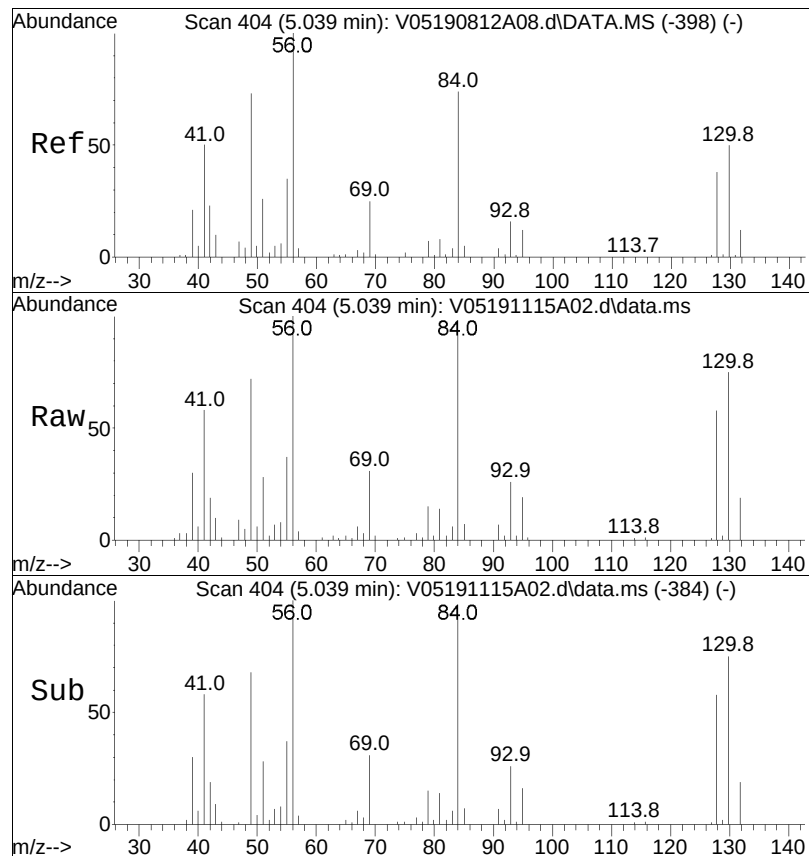




#29
 2,2-Dichloropropane
 Concen: 9.70 ug/L
 RT: 4.941 min Scan# 394
 Delta R.T. 0.000 min
 Lab File: V05191115A02.d
 Acq: 15 Nov 2019 7:19 am

Tgt Ion	Ratio	Lower	Upper
77	100		
41	57.5	35.7	74.1
79	31.7	20.6	42.8





#30

Bromochloromethane

Concen: 11.24 ug/L

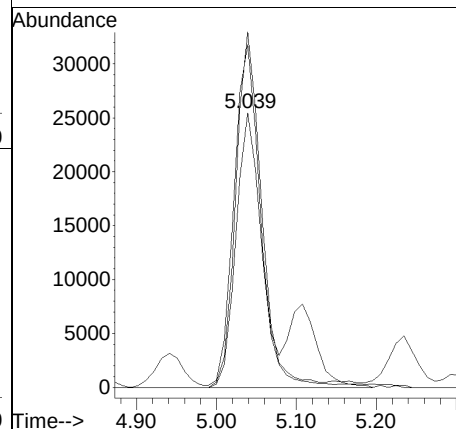
RT: 5.039 min Scan# 404

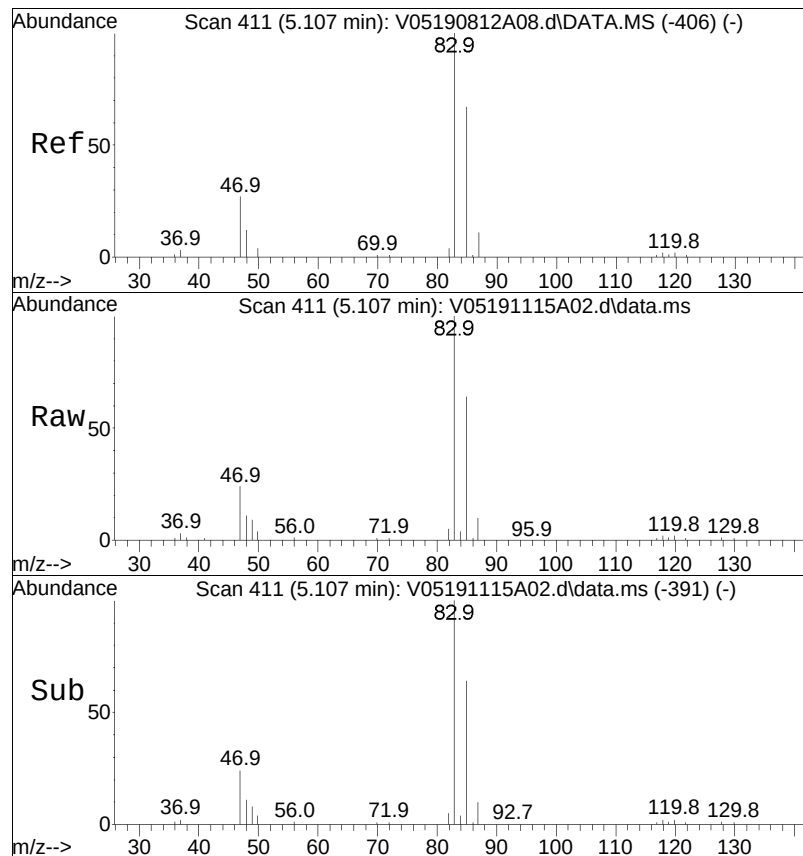
Delta R.T. 0.000 min

Lab File: V05191115A02.d

Acq: 15 Nov 2019 7:19 am

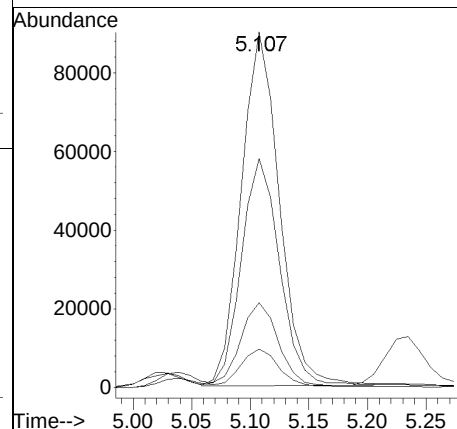
Tgt	Ion:128	Resp:	58565
Ion	Ratio	Lower	Upper
128	100		
49	121.2	109.0	163.4
130	126.5	105.6	158.4

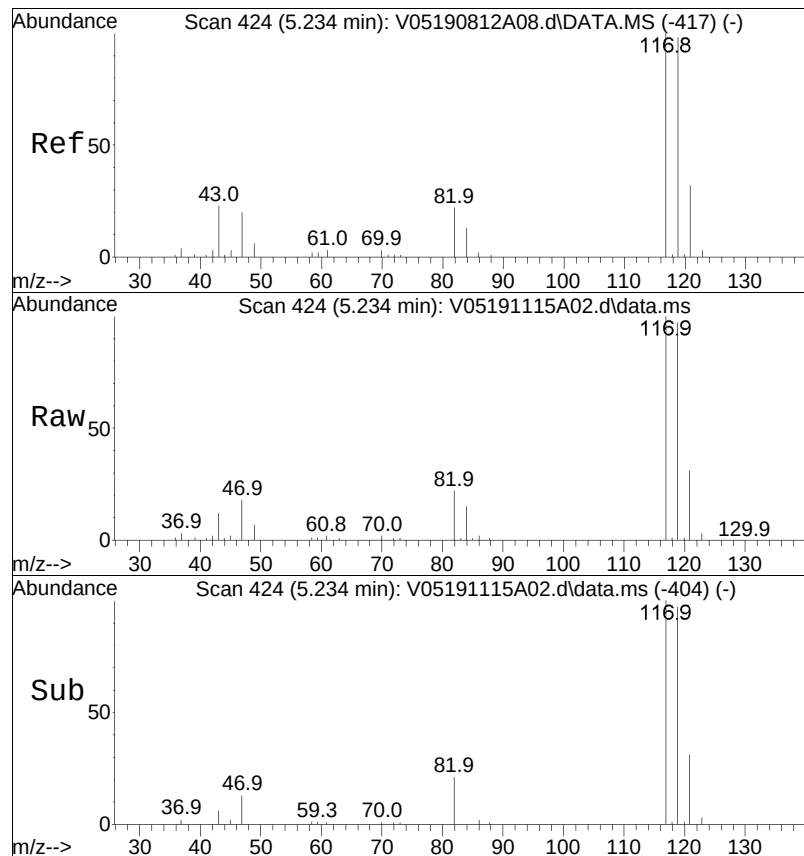




#32
 Chloroform
 Concen: 8.99 ug/L
 RT: 5.107 min Scan# 411
 Delta R.T. 0.000 min
 Lab File: V05191115A02.d
 Acq: 15 Nov 2019 7:19 am

Tgt	Ion: 83	Resp:	203425
Ion	Ratio	Lower	Upper
83	100		
85	65.9	42.8	89.0
47	22.7	13.7	28.4
48	10.8	6.9	14.3





#34

Carbon tetrachloride

Concen: 9.62 ug/L

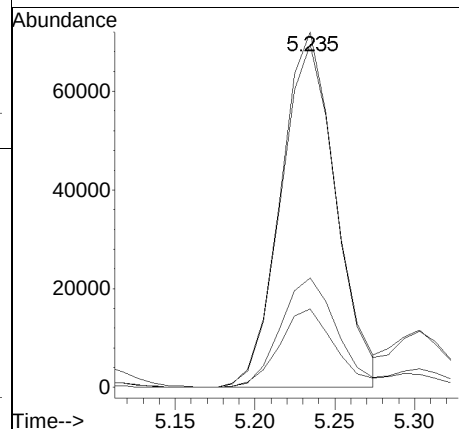
RT: 5.234 min Scan# 424

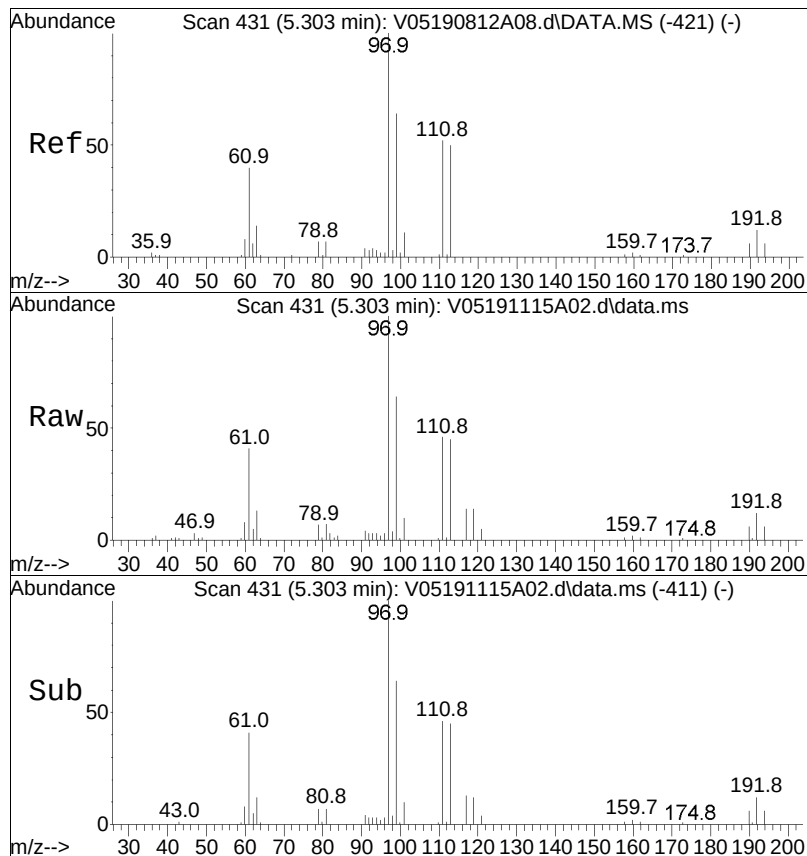
Delta R.T. 0.000 min

Lab File: V05191115A02.d

Acq: 15 Nov 2019 7:19 am

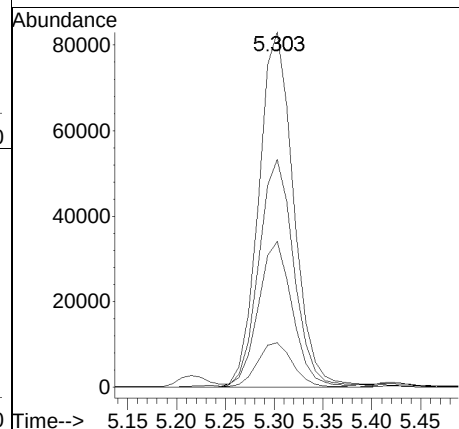
Tgt	Ion:117	Resp:	173386
Ion	Ratio	Lower	Upper
117	100		
119	96.7	63.6	132.2
121	31.2	19.8	41.0
82	22.3	15.9	32.9

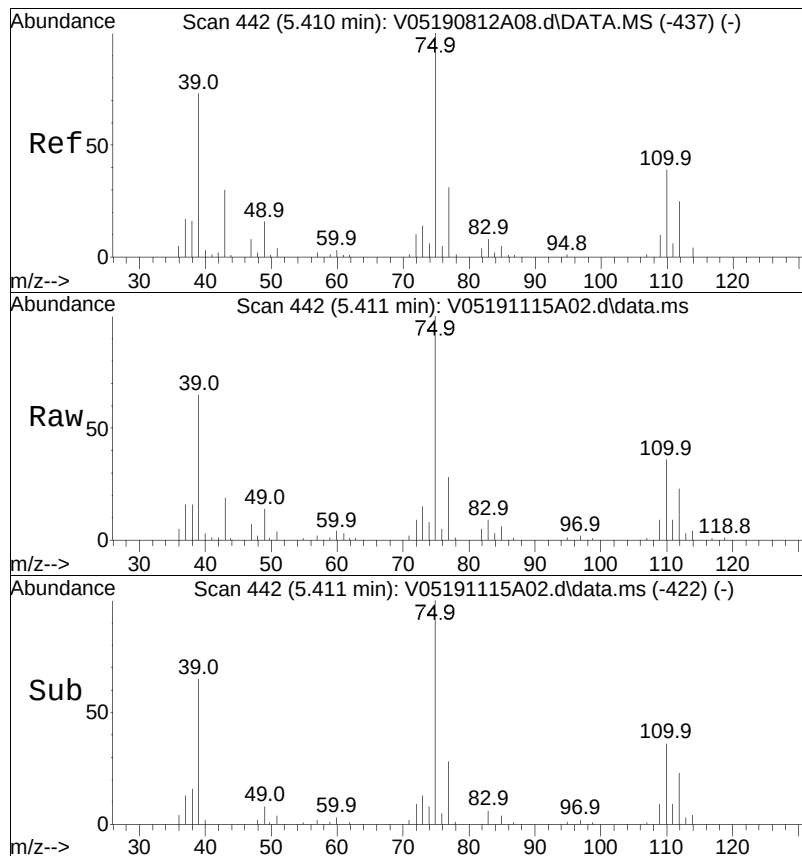




#37
 1,1,1-Trichloroethane
 Concen: 9.46 ug/L
 RT: 5.303 min Scan# 431
 Delta R.T. 0.000 min
 Lab File: V05191115A02.d
 Acq: 15 Nov 2019 7:19 am

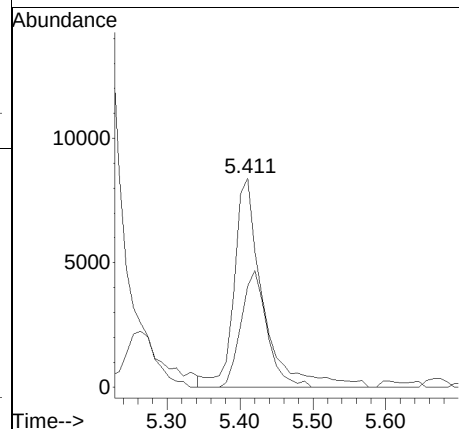
Tgt Ion:	97	Resp:	208043
Ion Ratio	Lower	Upper	
97	100		
99	64.7	41.7	86.5
61	39.4	26.1	54.3
63	12.8	8.5	17.6

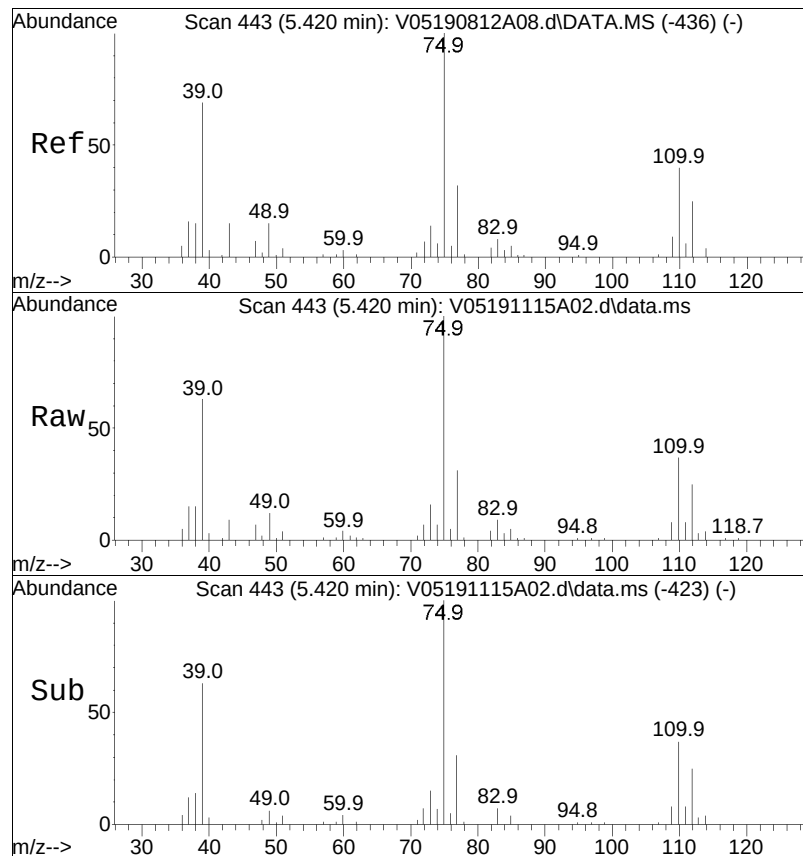




#39
 2-Butanone
 Concen: 8.74 ug/L M1
 RT: 5.411 min Scan# 442
 Delta R.T. 0.000 min
 Lab File: V05191115A02.d
 Acq: 15 Nov 2019 7:19 am

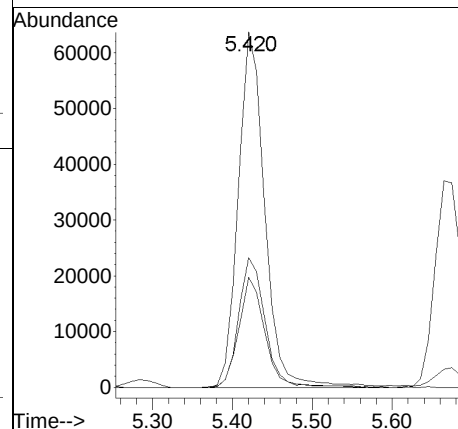
Tgt	Ion	Resp	Lower	Upper
43	100	23279		
72	50.4	55.6	83.4#	

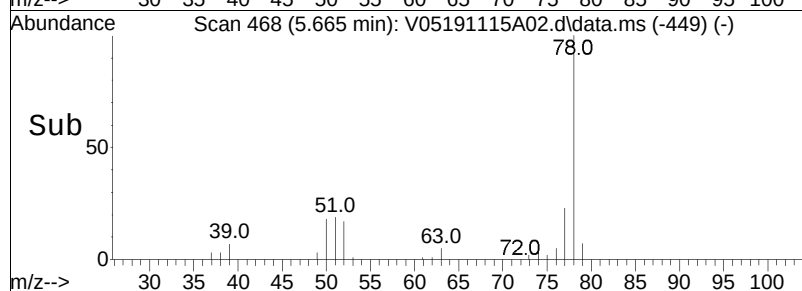
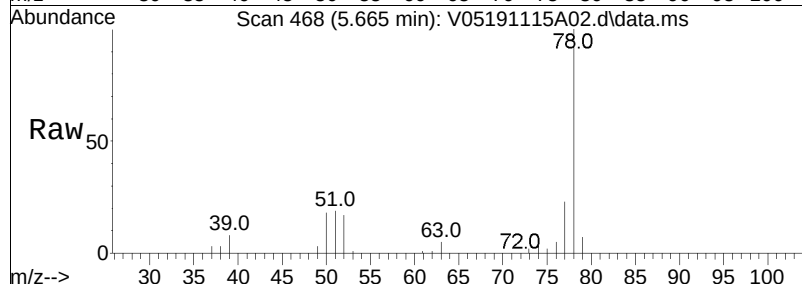
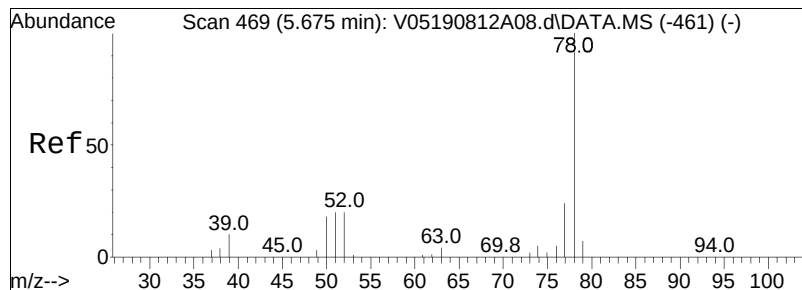




#40
 1,1-Dichloropropene
 Concen: 8.80 ug/L
 RT: 5.420 min Scan# 443
 Delta R.T. 0.000 min
 Lab File: V05191115A02.d
 Acq: 15 Nov 2019 7:19 am

Tgt	Ion	Ratio	Lower	Upper
75	100			
110	36.2	21.1	43.7	
77	30.6	20.1	41.7	





#41

Benzene

Concen: 8.89 ug/L

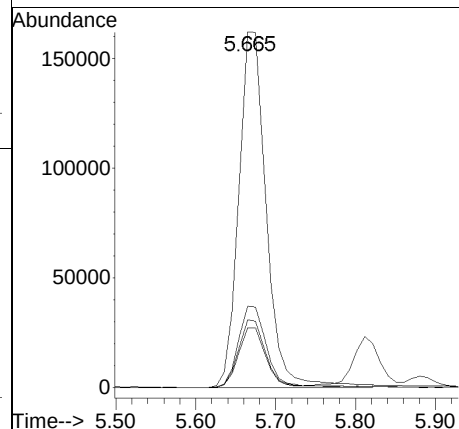
RT: 5.665 min Scan# 468

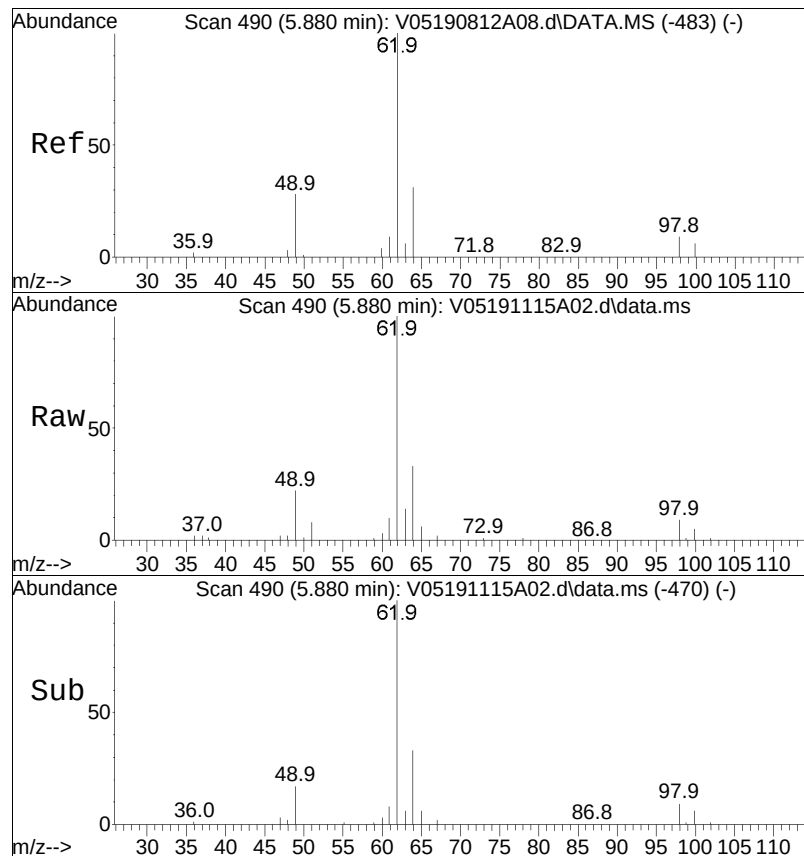
Delta R.T. -0.009 min

Lab File: V05191115A02.d

Acq: 15 Nov 2019 7:19 am

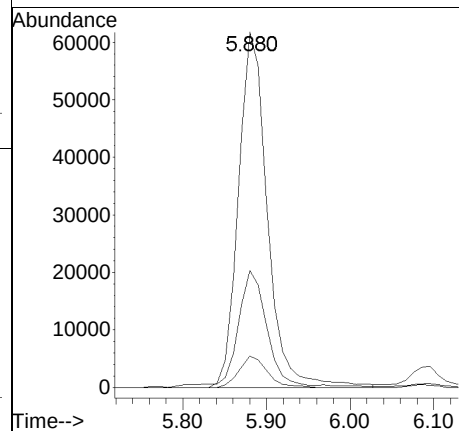
Tgt Ion:	78	Resp:	389892
Ion	Ratio	Lower	Upper
78	100		
77	23.3	15.2	31.6
51	18.6	10.5	21.7
52	16.5	9.5	19.7

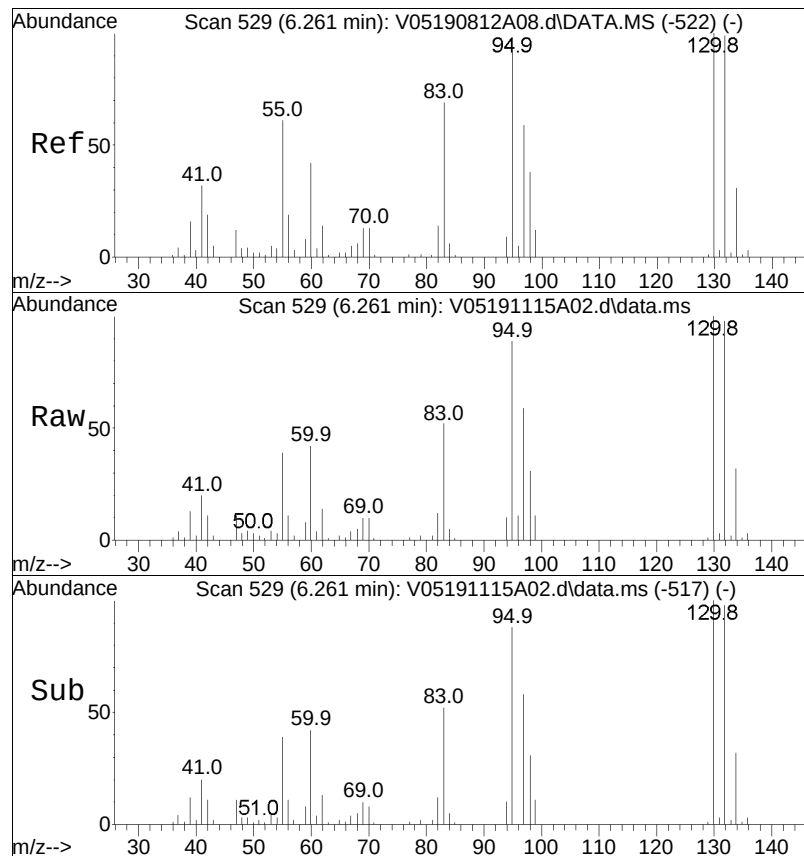




#44
 1,2-Dichloroethane
 Concen: 8.83 ug/L
 RT: 5.880 min Scan# 490
 Delta R.T. 0.000 min
 Lab File: V05191115A02.d
 Acq: 15 Nov 2019 7:19 am

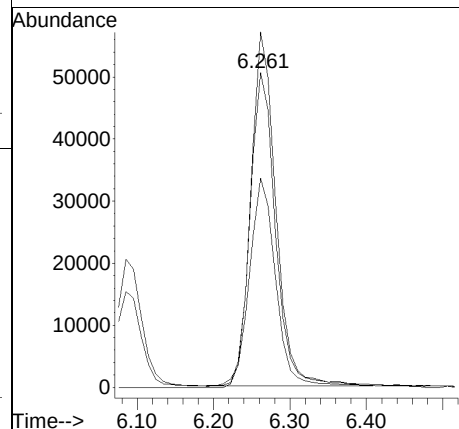
Tgt	Ion	Ratio	Lower	Upper
62	100			
64	33.7	13.2	53.2	
98	8.5	0.0	27.8	

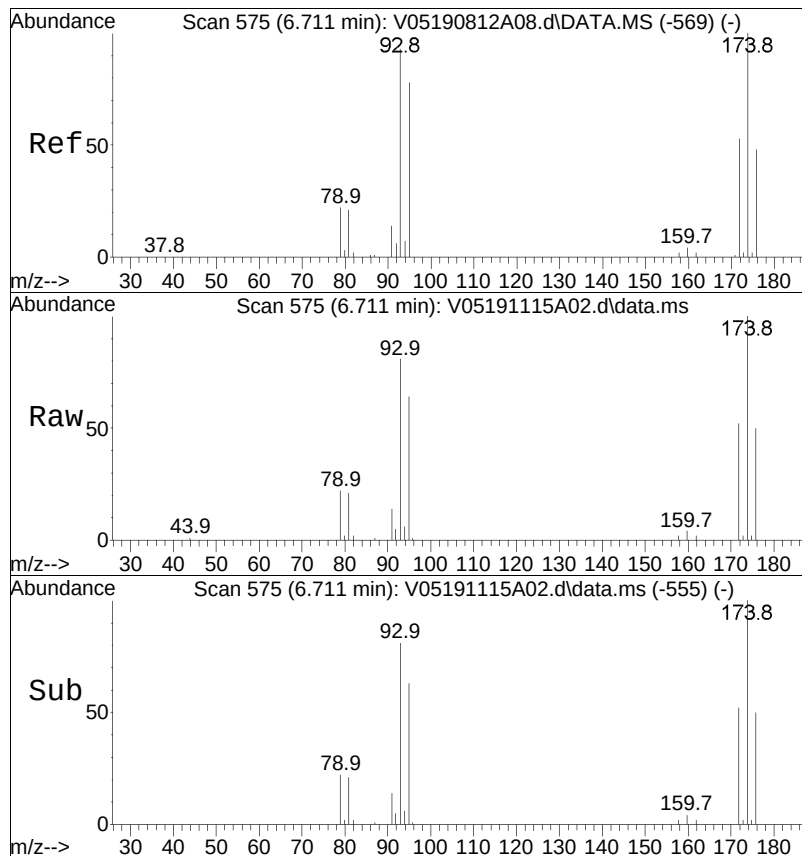




#48
 Trichloroethene
 Concen: 8.75 ug/L
 RT: 6.261 min Scan# 529
 Delta R.T. 0.000 min
 Lab File: V05191115A02.d
 Acq: 15 Nov 2019 7:19 am

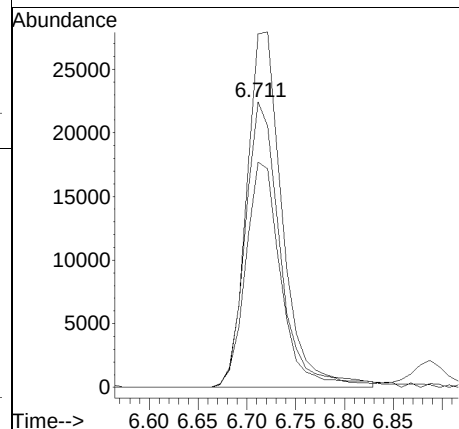
Tgt Ion	Ratio	Resp	Lower	Upper
95	100	116836		
97	68.2		56.1	84.1
130	113.4		77.7	116.5

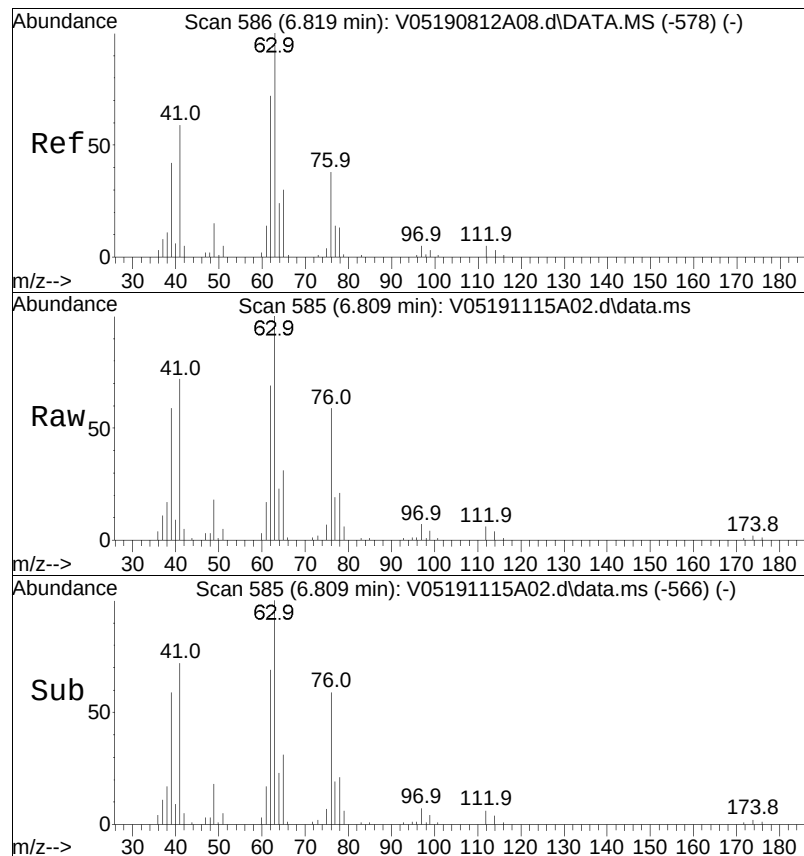




#50
 Dibromomethane
 Concen: 9.64 ug/L
 RT: 6.711 min Scan# 575
 Delta R.T. 0.000 min
 Lab File: V05191115A02.d
 Acq: 15 Nov 2019 7:19 am

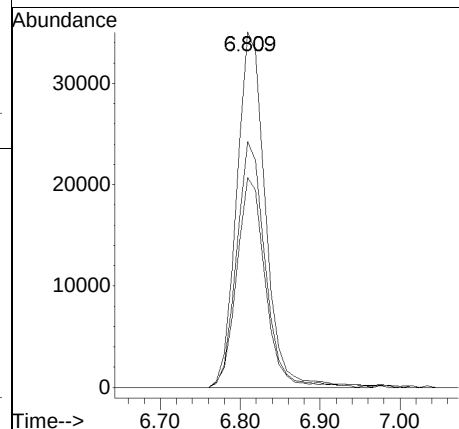
Tgt Ion	Ratio	Lower	Upper
93	100		
95	82.0	64.3	96.5
174	129.0	80.9	121.3#

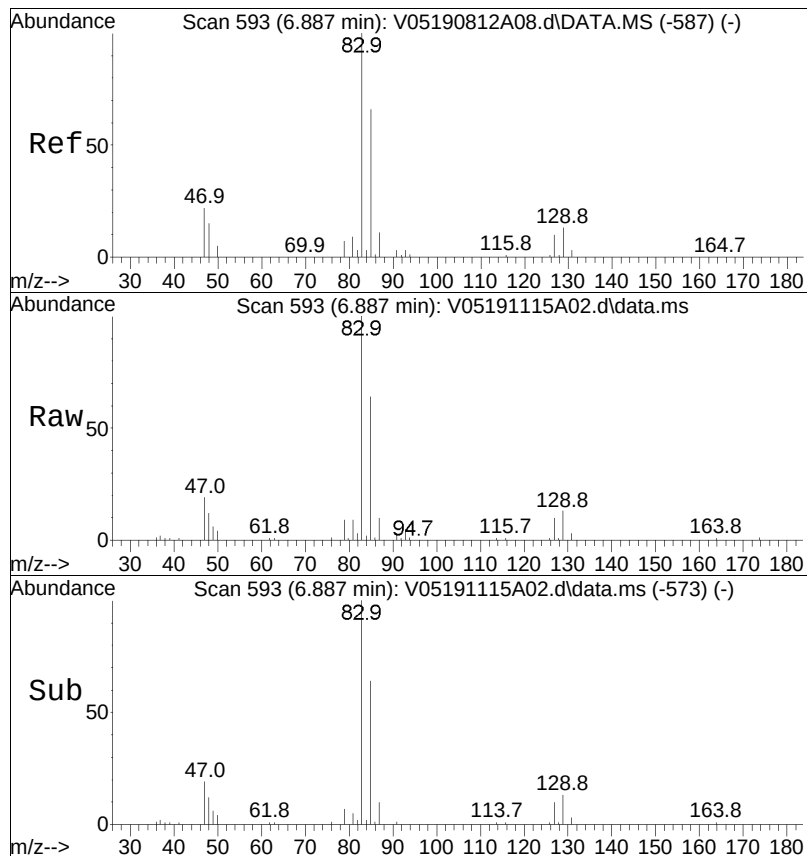




#51
 1,2-Dichloropropane
 Concen: 8.15 ug/L
 RT: 6.809 min Scan# 585
 Delta R.T. -0.010 min
 Lab File: V05191115A02.d
 Acq: 15 Nov 2019 7:19 am

Tgt	Ion	Ratio	Lower	Upper
63	100			
62	69.0	57.0	85.4	
76	57.9	48.4	72.6	





#54

Bromodichloromethane

Concen: 9.13 ug/L

RT: 6.887 min Scan# 593

Delta R.T. 0.000 min

Lab File: V05191115A02.d

Acq: 15 Nov 2019 7:19 am

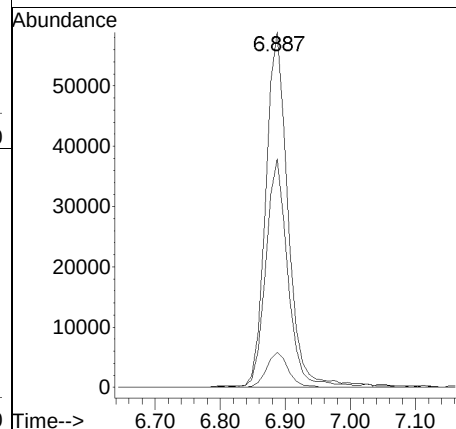
Tgt Ion: 83 Resp: 141258

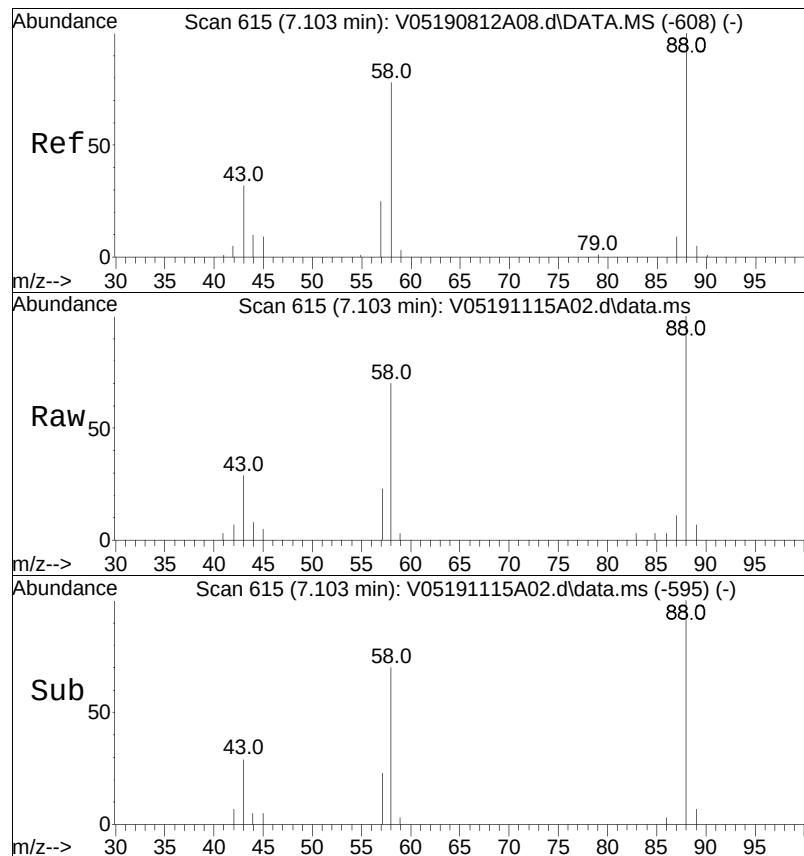
Ion Ratio Lower Upper

83 100

85 63.8 51.0 76.6

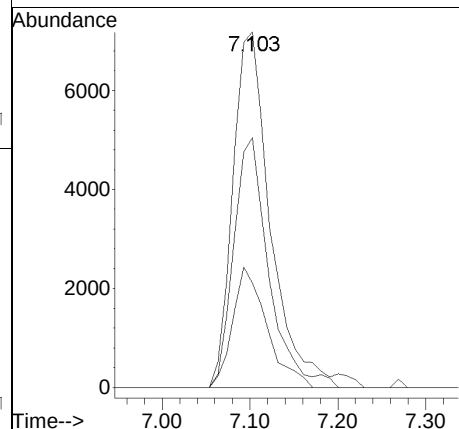
127 9.6 6.7 10.1

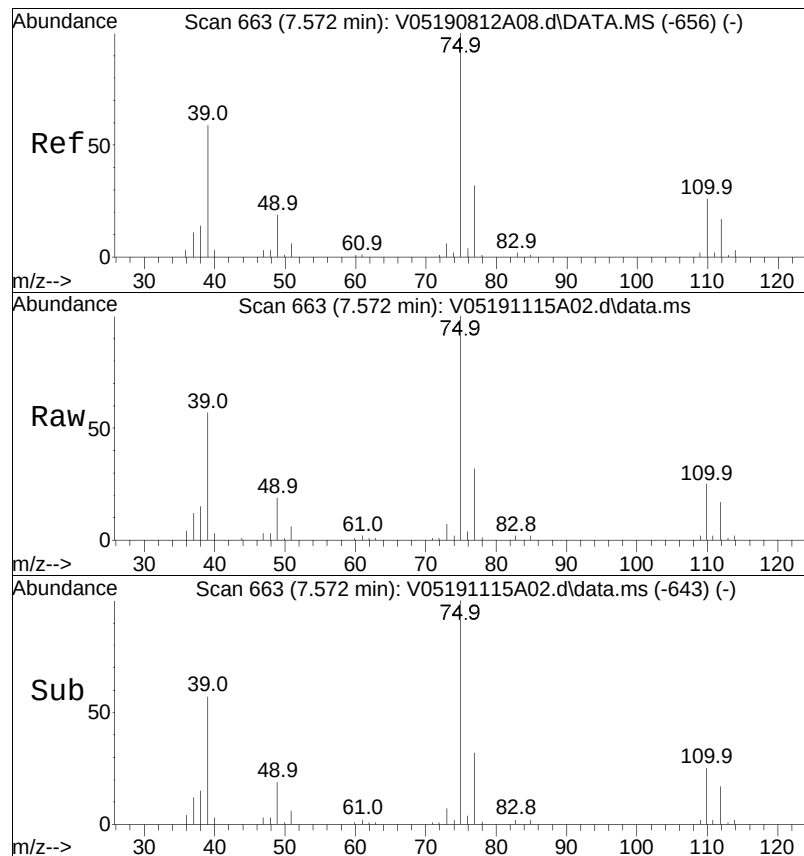




#57
 1,4-Dioxane
 Concen: 387.74 ug/L
 RT: 7.103 min Scan# 615
 Delta R.T. 0.000 min
 Lab File: V05191115A02.d
 Acq: 15 Nov 2019 7:19 am

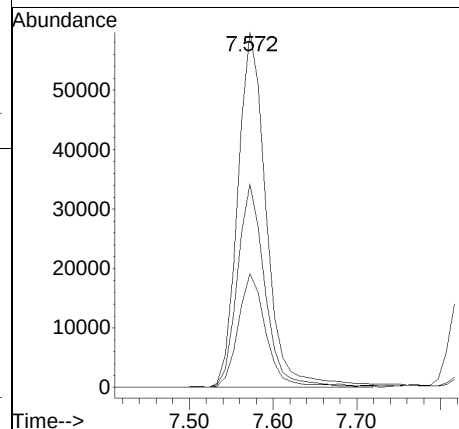
Tgt Ion	Ratio	Lower	Upper
88	100		
58	64.7	50.6	75.8
43	30.5	20.5	30.7

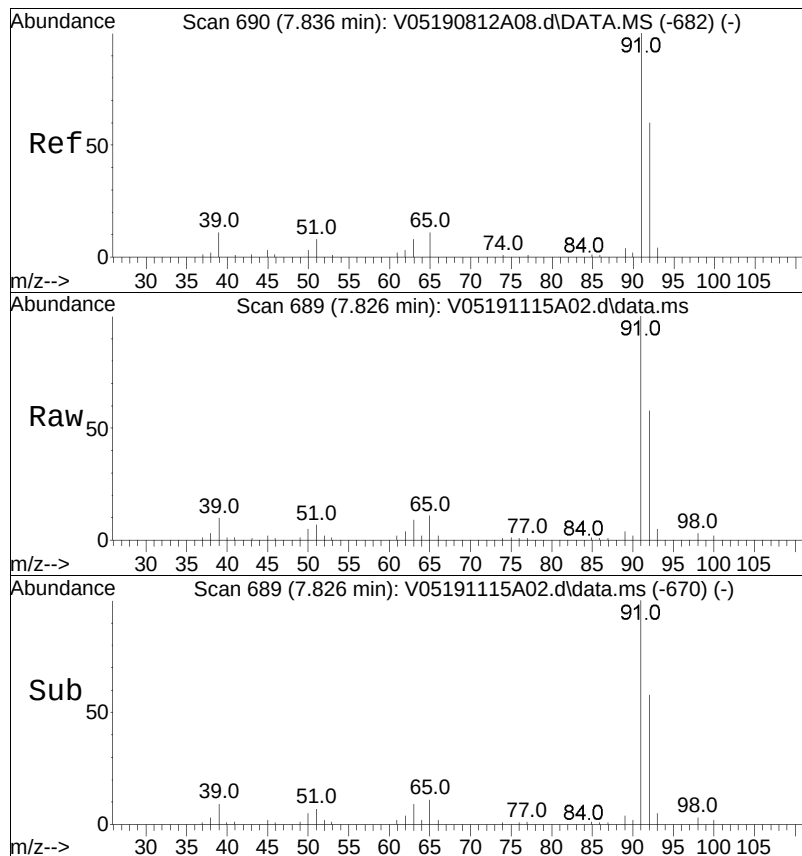




#58
 cis-1,3-Dichloropropene
 Concen: 8.74 ug/L
 RT: 7.572 min Scan# 663
 Delta R.T. 0.000 min
 Lab File: V05191115A02.d
 Acq: 15 Nov 2019 7:19 am

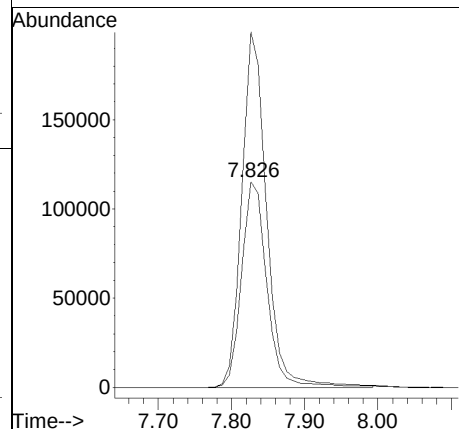
Tgt Ion:	75	Resp:	141992
Ion Ratio	Lower	Upper	
75	100		
77	31.3	25.5	38.3
39	55.5	40.4	60.6

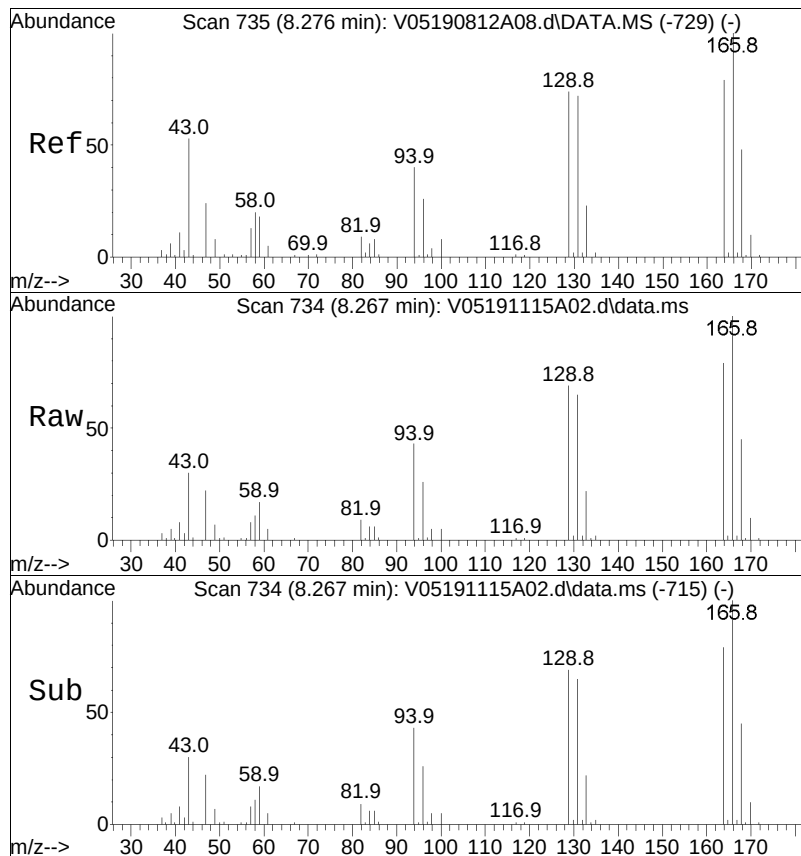




#61
 Toluene
 Concen: 8.63 ug/L
 RT: 7.826 min Scan# 689
 Delta R.T. -0.010 min
 Lab File: V05191115A02.d
 Acq: 15 Nov 2019 7:19 am

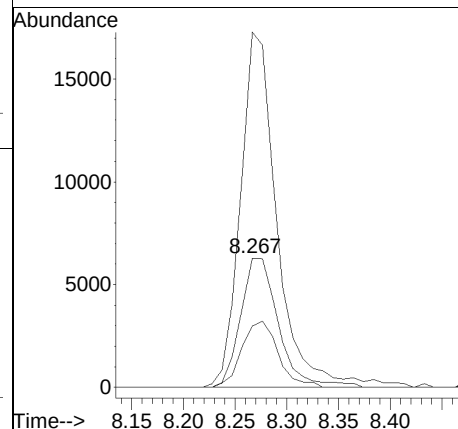
Tgt	Ion	Resp	Lower	Upper
92	100	277756		
91	168.2	135.2	202.8	

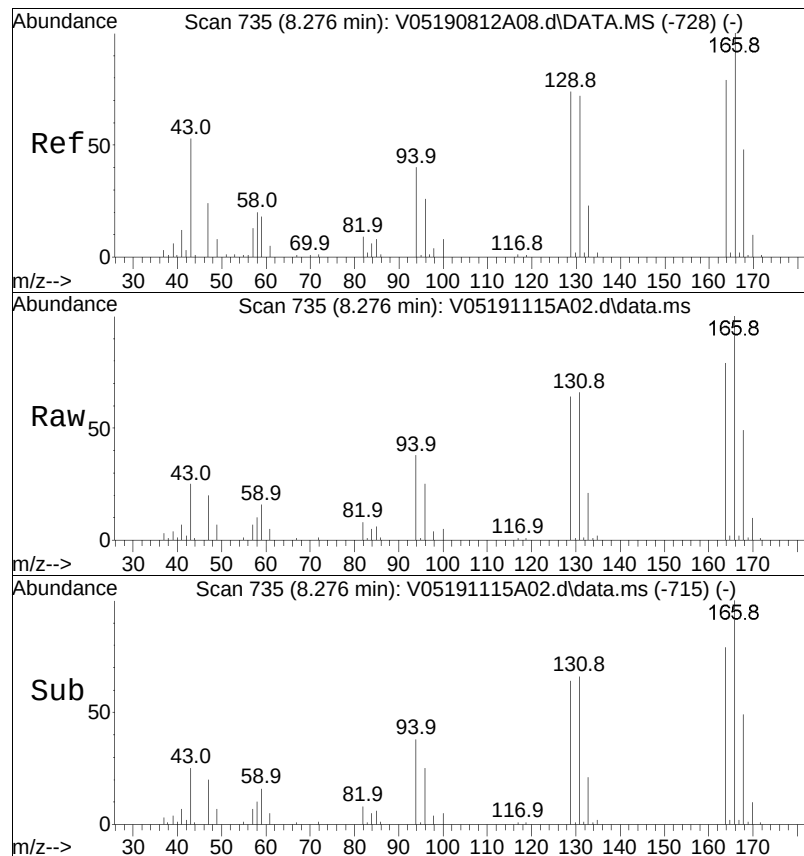




#62
 4-Methyl-2-pentanone
 Concen: 7.14 ug/L
 RT: 8.267 min Scan# 734
 Delta R.T. -0.009 min
 Lab File: V05191115A02.d
 Acq: 15 Nov 2019 7:19 am

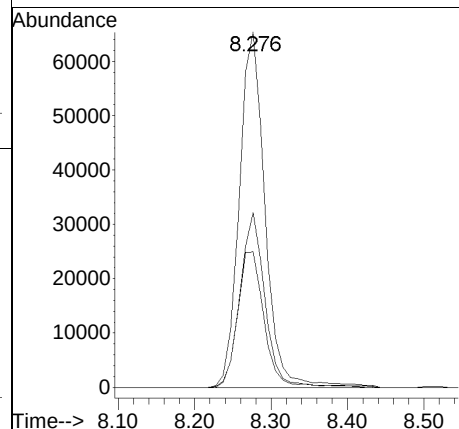
Tgt	Ion	Resp	Lower	Upper
58	100			
100	49.2	38.9	58.3	
43	265.9	204.2	306.2	

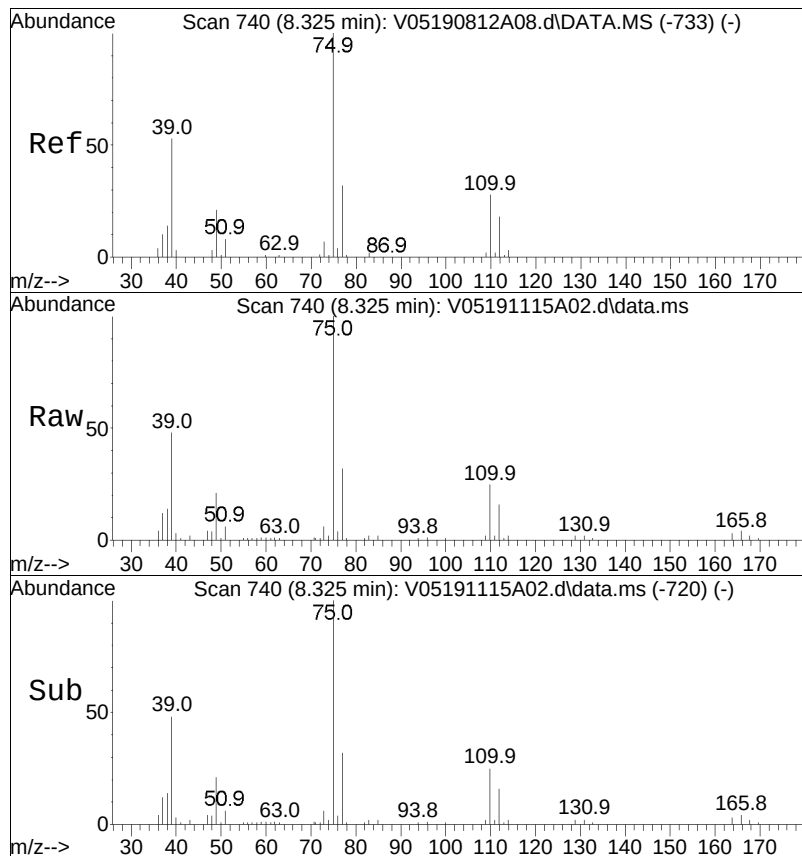




#63
 Tetrachloroethene
 Concen: 10.51 ug/L
 RT: 8.276 min Scan# 735
 Delta R.T. 0.000 min
 Lab File: V05191115A02.d
 Acq: 15 Nov 2019 7:19 am

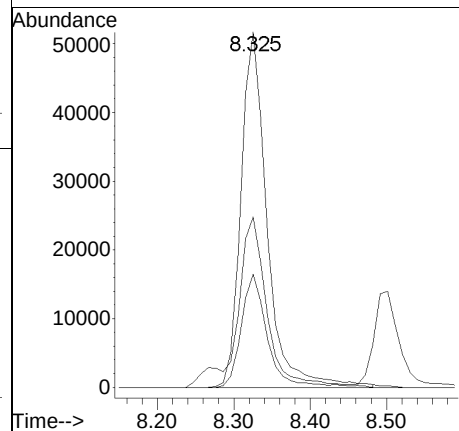
Tgt Ion	Ratio	Lower	Upper
166	100		
168	47.2	30.2	70.2
94	39.0	32.5	72.5

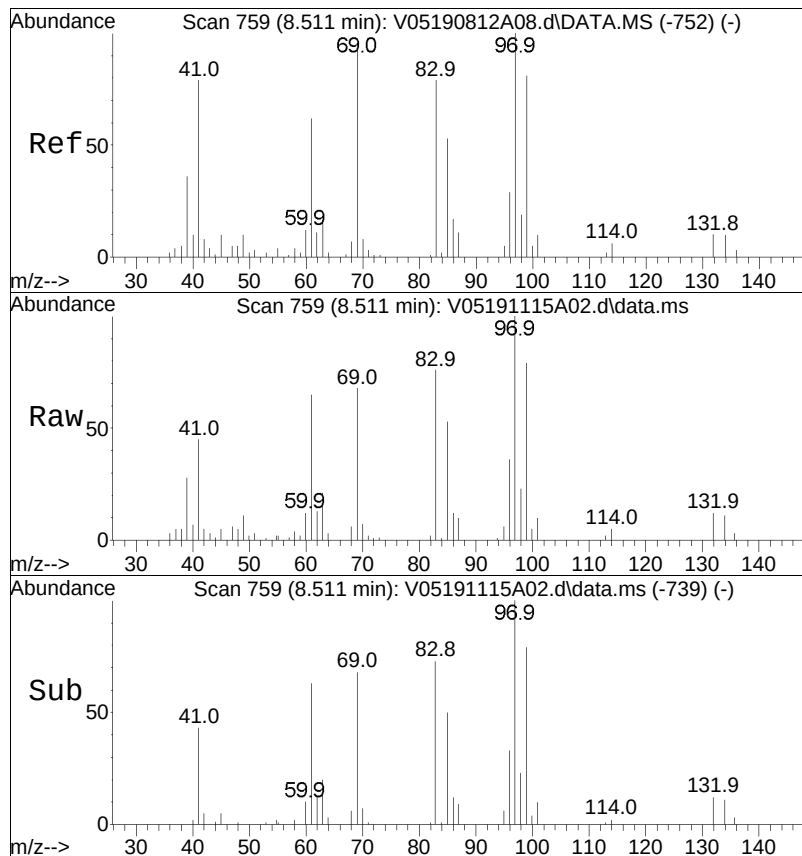




#65
 trans-1,3-Dichloropropene
 Concen: 7.31 ug/L
 RT: 8.325 min Scan# 740
 Delta R.T. 0.000 min
 Lab File: V05191115A02.d
 Acq: 15 Nov 2019 7:19 am

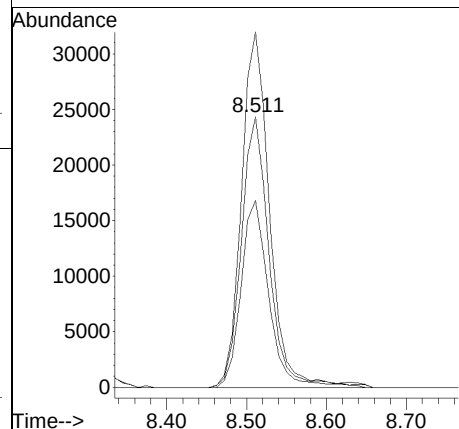
Tgt Ion	Ratio	Lower	Upper
75	100		
77	31.7	11.5	51.5
39	54.3	29.3	69.3

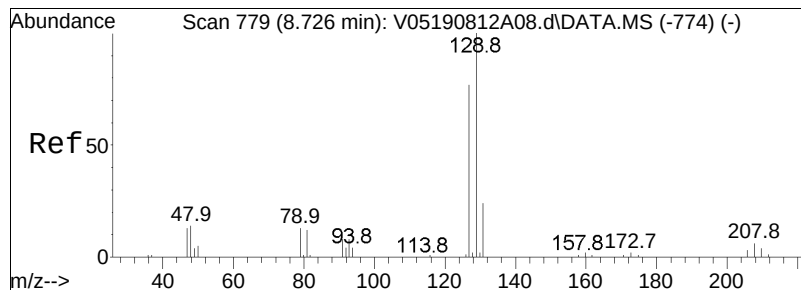




#68
 1,1,2-Trichloroethane
 Concen: 8.47 ug/L
 RT: 8.511 min Scan# 759
 Delta R.T. 0.000 min
 Lab File: V05191115A02.d
 Acq: 15 Nov 2019 7:19 am

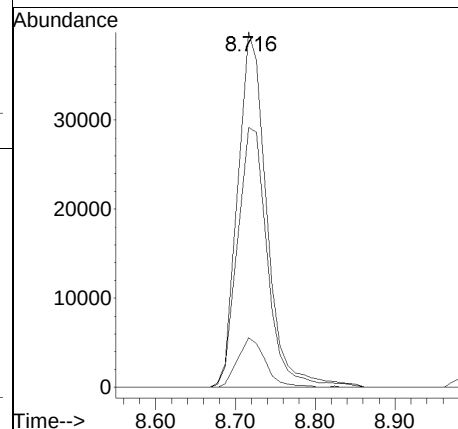
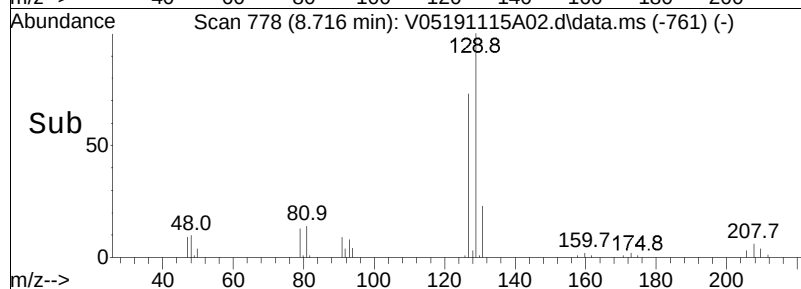
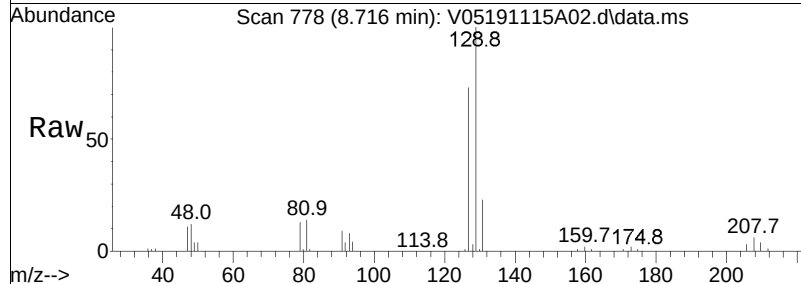
Tgt Ion:	83	Resp:	58914
Ion Ratio	Lower	Upper	
83	100		
97	131.3	102.2	142.2
85	69.2	47.5	87.5

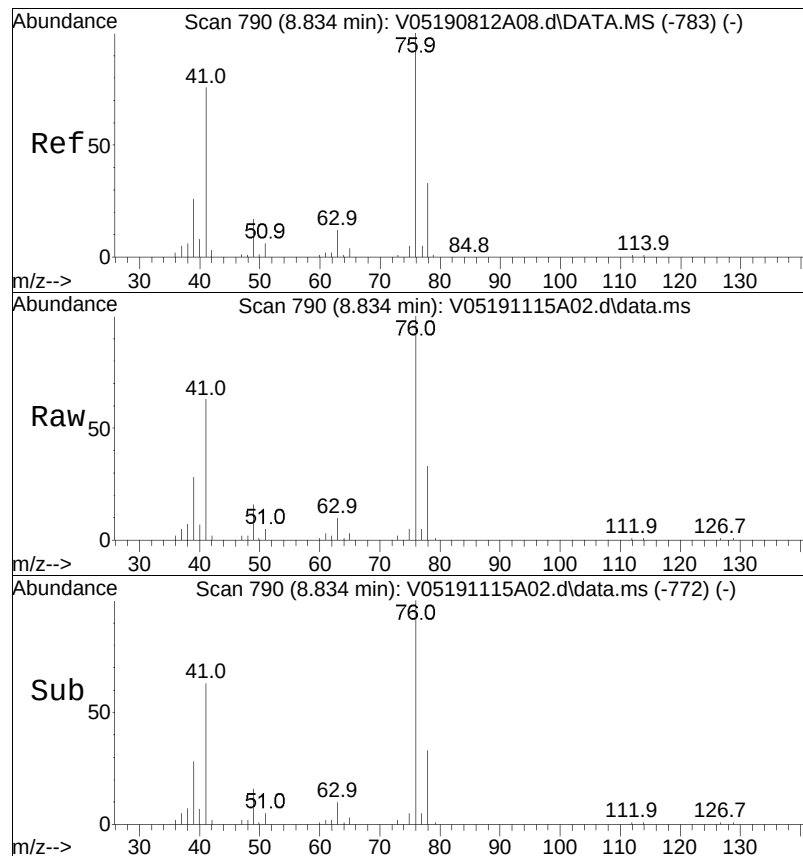




#69
 Chlorodibromomethane
 Concen: 8.85 ug/L
 RT: 8.716 min Scan# 778
 Delta R.T. -0.010 min
 Lab File: V05191115A02.d
 Acq: 15 Nov 2019 7:19 am

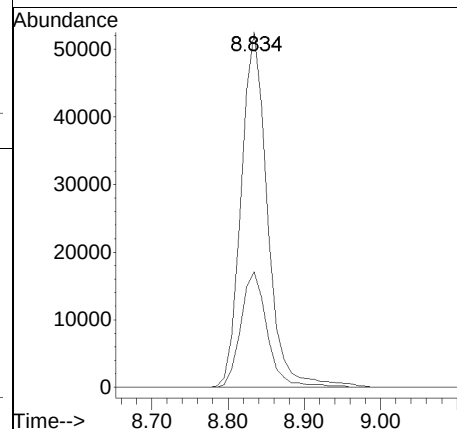
Tgt Ion	Ratio	Resp	Lower	Upper
129	100	83891		
81	13.9		0.0	37.0
127	76.2		58.3	98.3

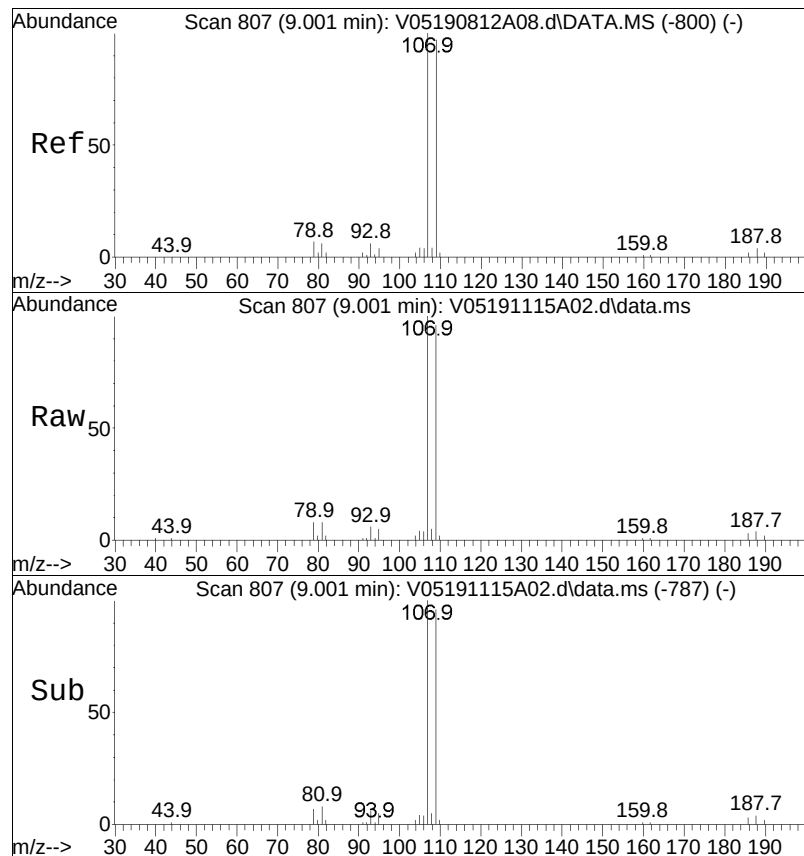




#70
 1,3-Dichloropropane
 Concen: 8.20 ug/L
 RT: 8.834 min Scan# 790
 Delta R.T. 0.000 min
 Lab File: V05191115A02.d
 Acq: 15 Nov 2019 7:19 am

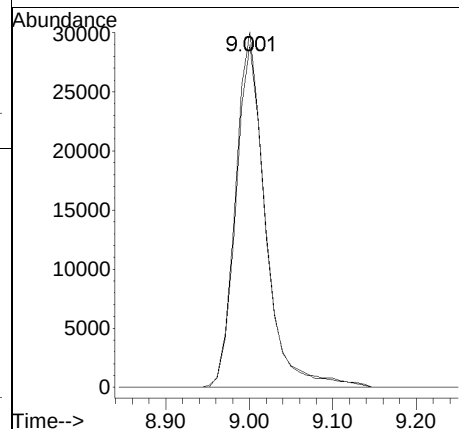
Tgt	Ion	Ratio	Lower	Upper
76	100			
78	32.7	25.5	38.3	

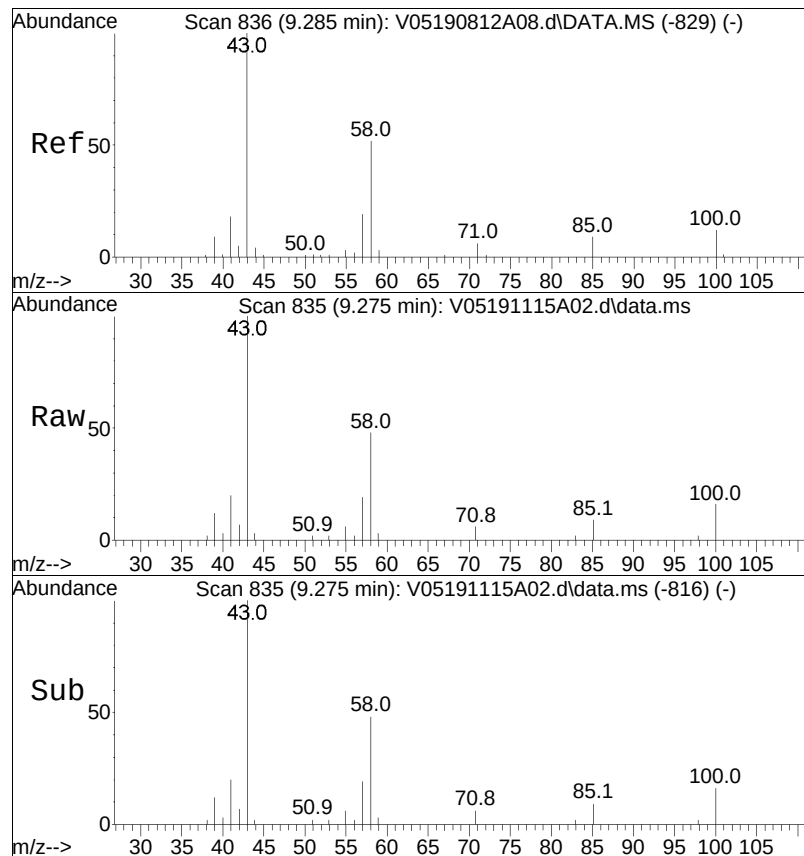




#71
 1,2-Dibromoethane
 Concen: 9.52 ug/L
 RT: 9.001 min Scan# 807
 Delta R.T. 0.000 min
 Lab File: V05191115A02.d
 Acq: 15 Nov 2019 7:19 am

Tgt Ion	Ratio	Lower	Upper
107	100		
109	96.5	75.0	112.6





#72

2-Hexanone

Concen: 6.37 ug/L

RT: 9.275 min Scan# 835

Delta R.T. -0.009 min

Lab File: V05191115A02.d

Acq: 15 Nov 2019 7:19 am

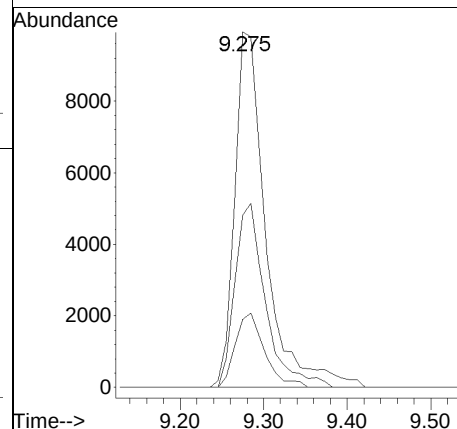
Tgt Ion: 43 Resp: 25763

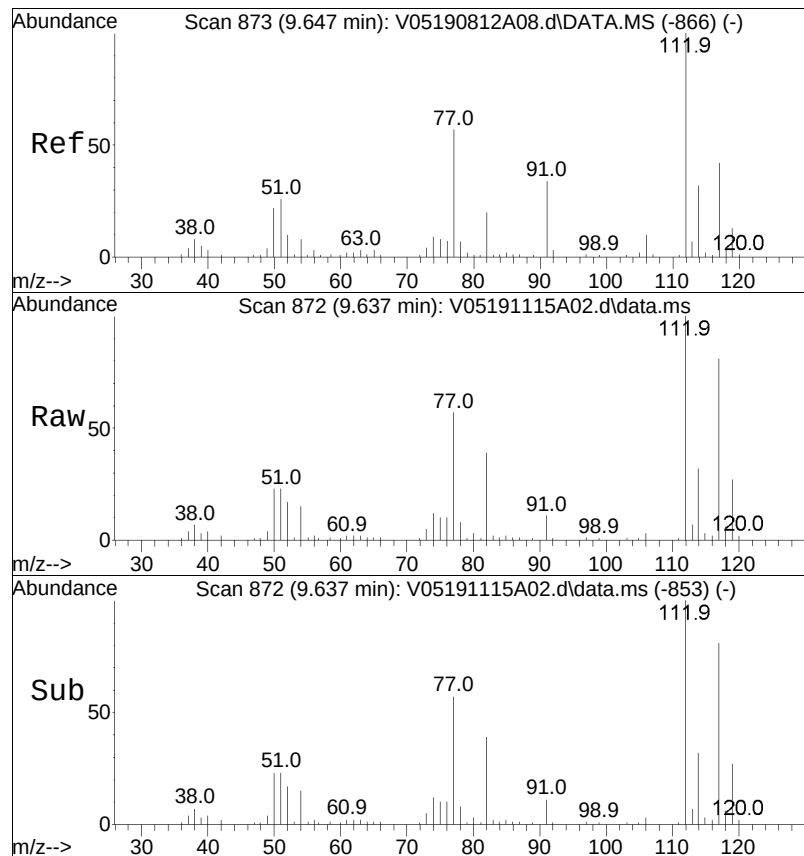
Ion Ratio Lower Upper

43 100

58 50.9 42.3 63.5

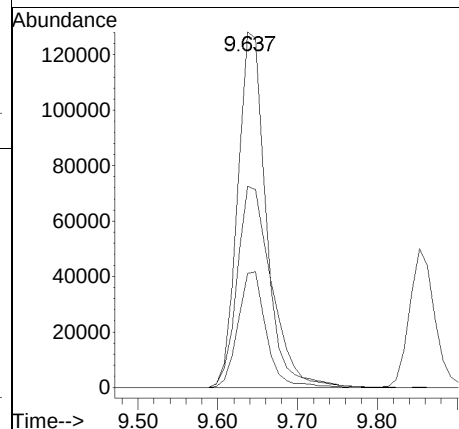
57 19.7 15.6 23.4

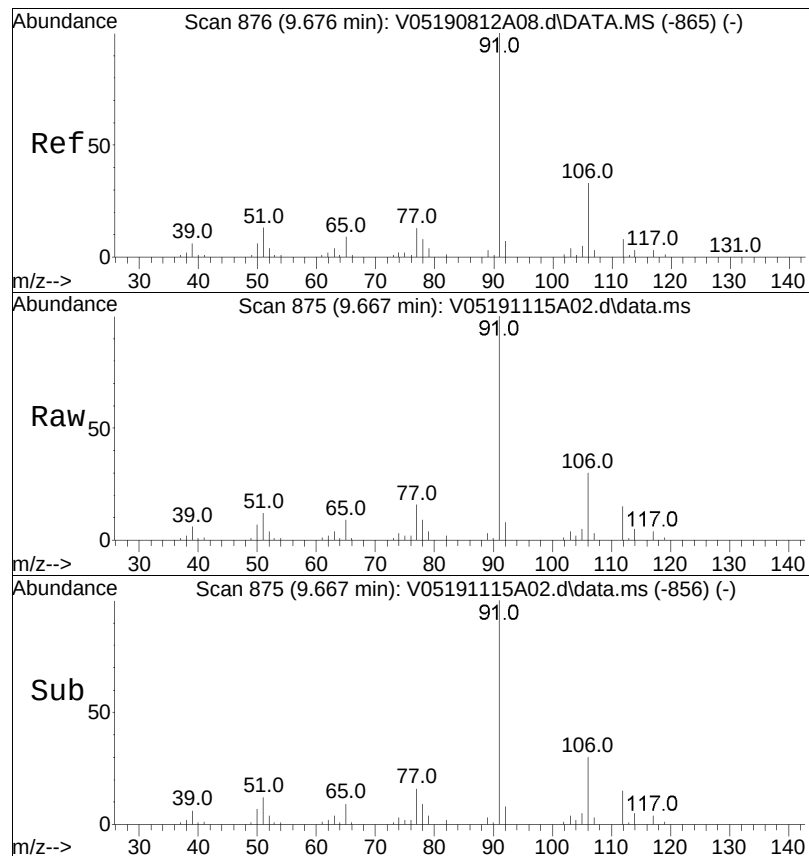




#73
 Chlorobenzene
 Concen: 9.03 ug/L
 RT: 9.637 min Scan# 872
 Delta R.T. -0.009 min
 Lab File: V05191115A02.d
 Acq: 15 Nov 2019 7:19 am

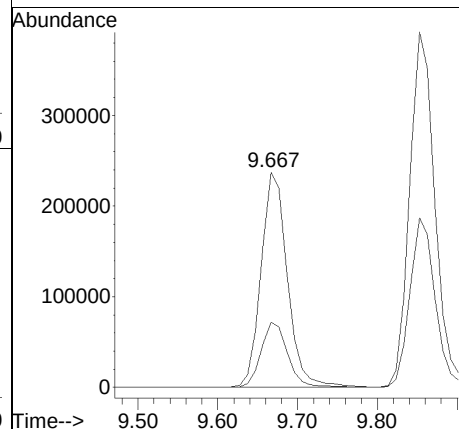
Tgt	Ion:112	Resp:	316493
Ion	Ratio	Lower	Upper
112	100		
77	69.5	66.1	99.1
114	32.4	25.4	38.0

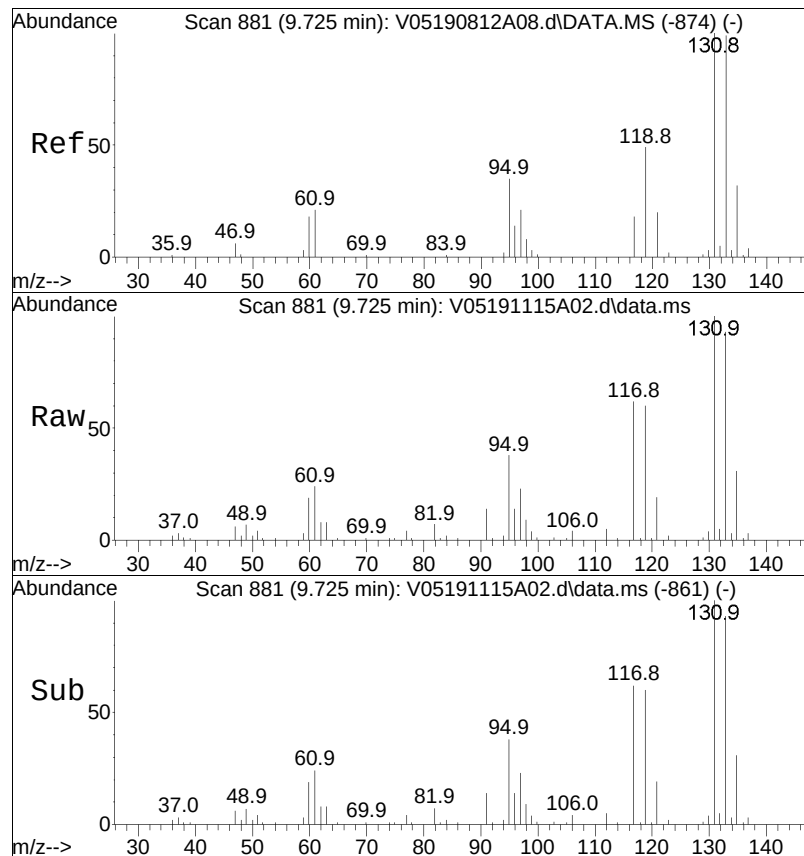




#74
 Ethylbenzene
 Concen: 8.63 ug/L
 RT: 9.667 min Scan# 875
 Delta R.T. -0.010 min
 Lab File: V05191115A02.d
 Acq: 15 Nov 2019 7:19 am

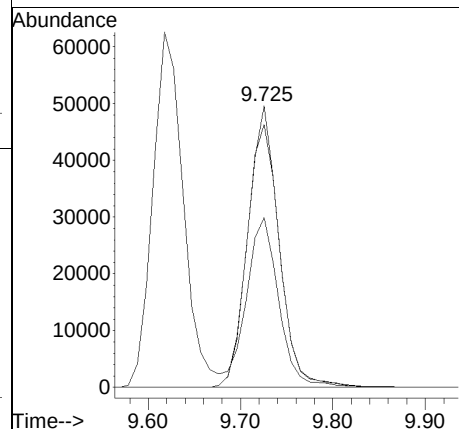
Tgt Ion	91	Resp	546594
Ion Ratio	Lower	Upper	
91	100		
106	30.6	22.9	34.3

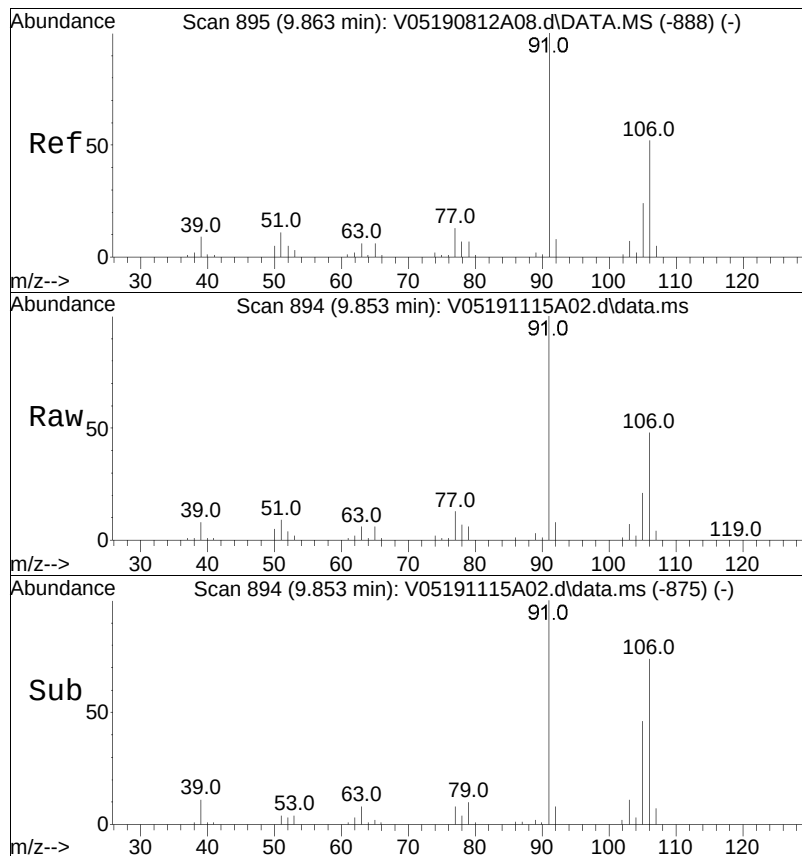




#75
 1,1,1,2-Tetrachloroethane
 Concen: 9.45 ug/L
 RT: 9.725 min Scan# 881
 Delta R.T. 0.000 min
 Lab File: V05191115A02.d
 Acq: 15 Nov 2019 7:19 am

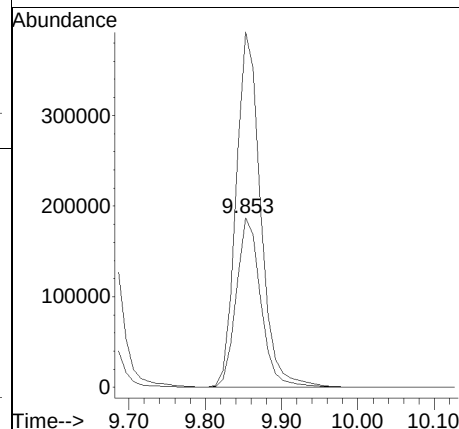
Tgt Ion	Ratio	Resp	Lower	Upper
131	100	116044		
133	98.9		75.8	115.8
119	63.4		41.2	81.2

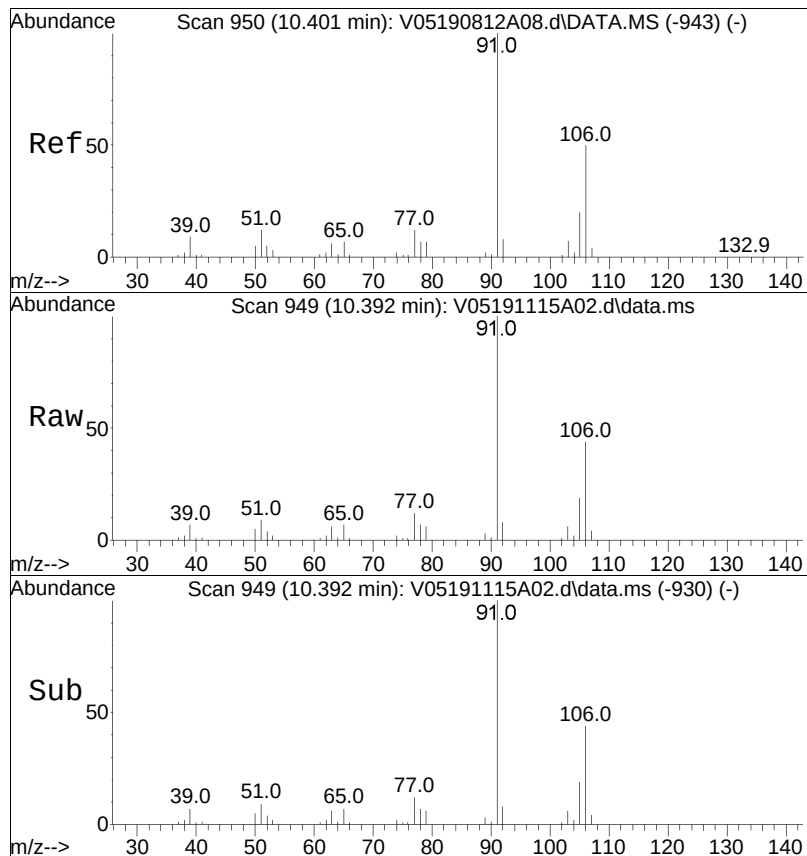




#76
 p/m Xylene
 Concen: 18.47 ug/L
 RT: 9.853 min Scan# 894
 Delta R.T. -0.010 min
 Lab File: V05191115A02.d
 Acq: 15 Nov 2019 7:19 am

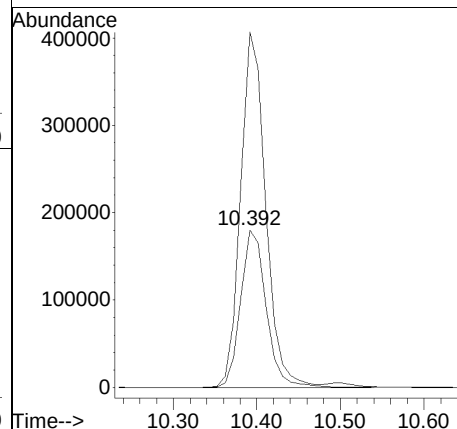
Tgt	Ion	Ratio	Lower	Upper
106	106	100		
91	208.6	177.2	265.8	

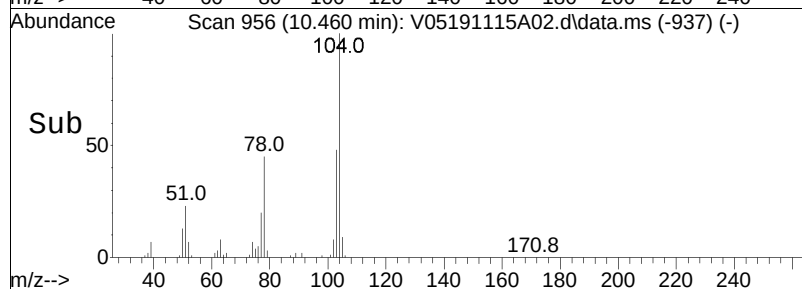
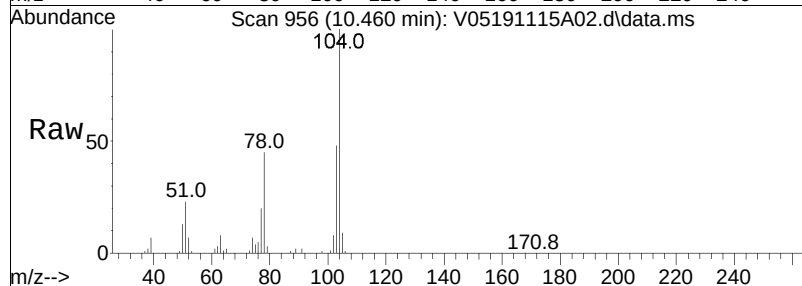
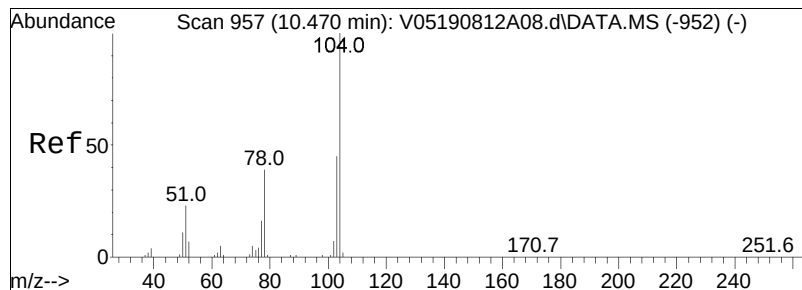




#77
 o Xylene
 Concen: 18.44 ug/L
 RT: 10.392 min Scan# 949
 Delta R.T. -0.010 min
 Lab File: V05191115A02.d
 Acq: 15 Nov 2019 7:19 am

Tgt Ion	106	91	Ratio	Lower	Upper	Resp
106	100					382324
91		221.2		187.0	280.6	





#78

Styrene

Concen: 19.45 ug/L

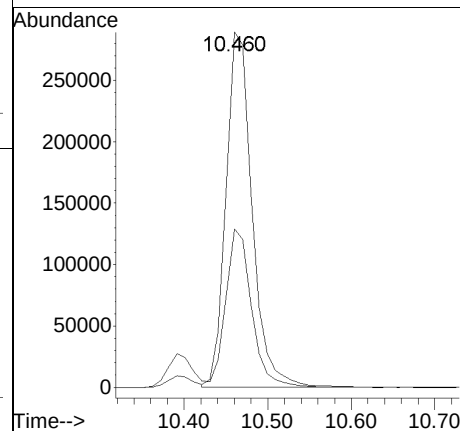
RT: 10.460 min Scan# 956

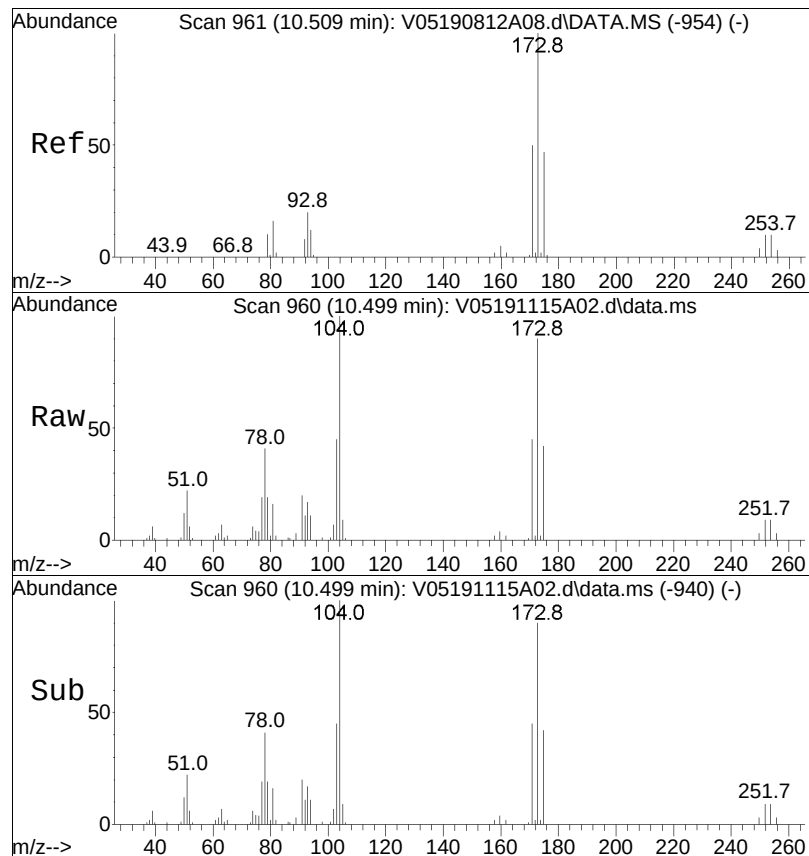
Delta R.T. -0.010 min

Lab File: V05191115A02.d

Acq: 15 Nov 2019 7:19 am

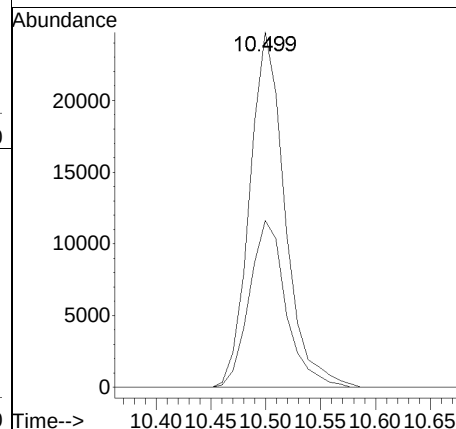
Tgt Ion	Ratio	Lower	Upper
104	100		
78	44.1	39.6	59.4

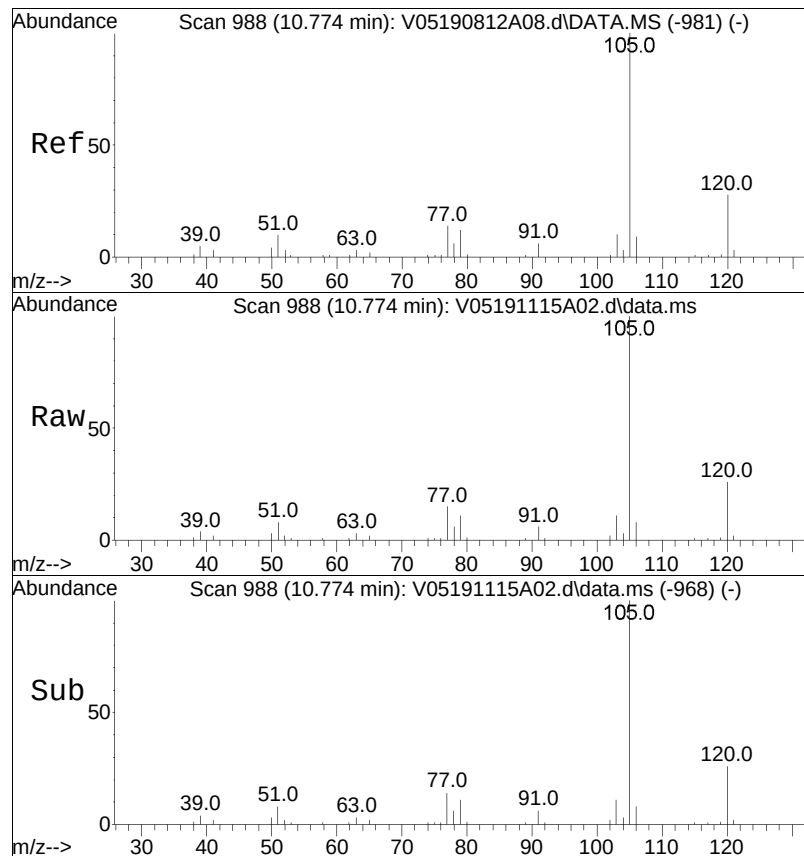




#80
 Bromoform
 Concen: 9.14 ug/L
 RT: 10.499 min Scan# 960
 Delta R.T. 0.000 min
 Lab File: V05191115A02.d
 Acq: 15 Nov 2019 7:19 am

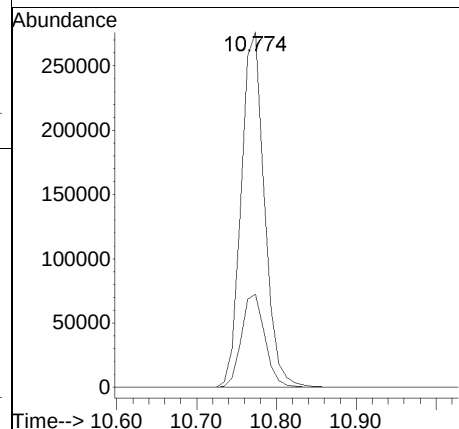
Tgt Ion:173 Resp: 55558
 Ion Ratio Lower Upper
 173 100
 175 48.9 26.6 66.6

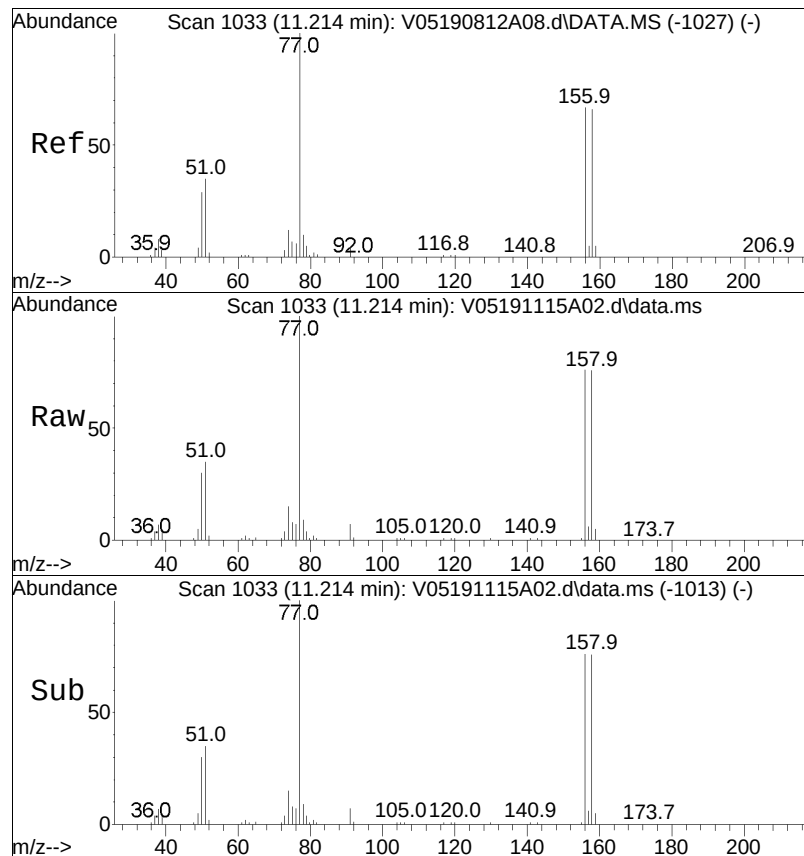




#82
 Isopropylbenzene
 Concen: 8.66 ug/L
 RT: 10.774 min Scan# 988
 Delta R.T. 0.000 min
 Lab File: V05191115A02.d
 Acq: 15 Nov 2019 7:19 am

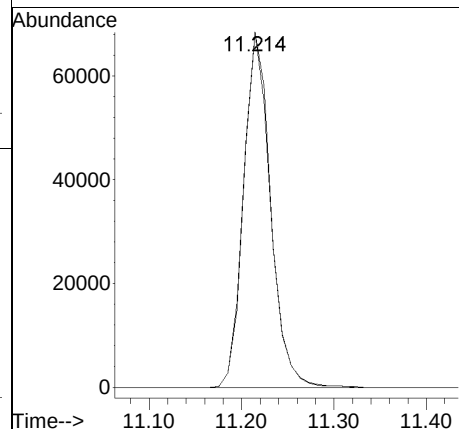
Tgt Ion	Ratio	Lower	Upper
105	100		
120	26.6	4.8	44.8

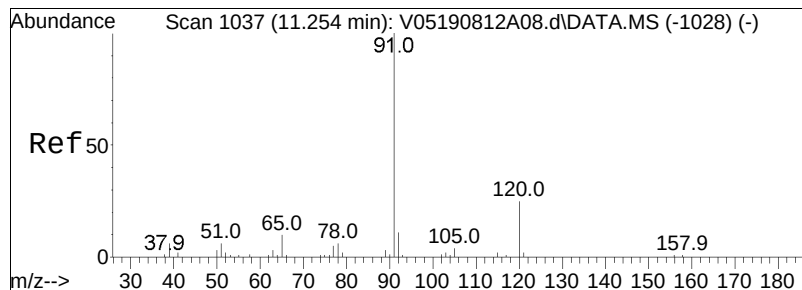




#84
 Bromobenzene
 Concen: 9.00 ug/L
 RT: 11.214 min Scan# 1033
 Delta R.T. 0.000 min
 Lab File: V05191115A02.d
 Acq: 15 Nov 2019 7:19 am

Tgt Ion	Ratio	Lower	Upper
156	100		
158	97.3	77.8	116.8





#85

n-Propylbenzene

Concen: 8.28 ug/L

RT: 11.244 min Scan# 1036

Delta R.T. -0.009 min

Lab File: V05191115A02.d

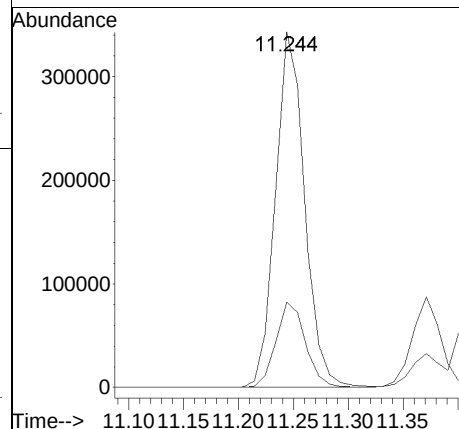
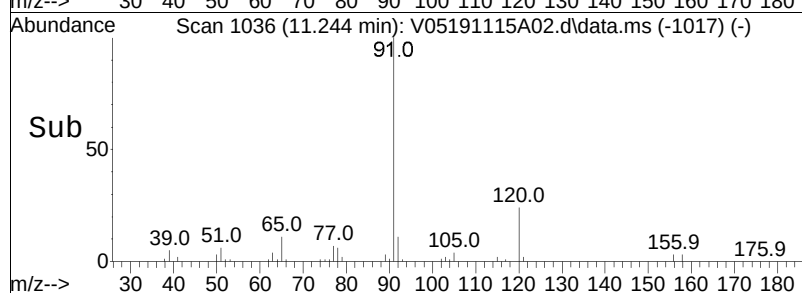
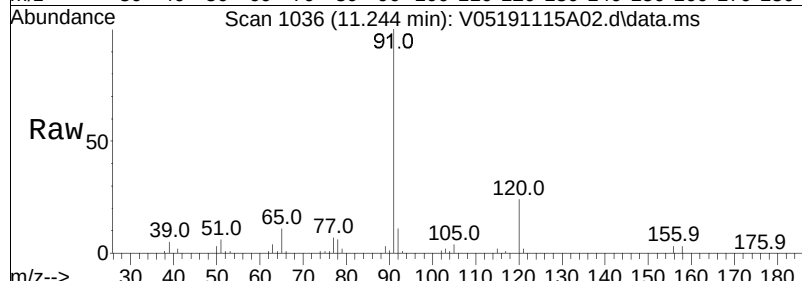
Acq: 15 Nov 2019 7:19 am

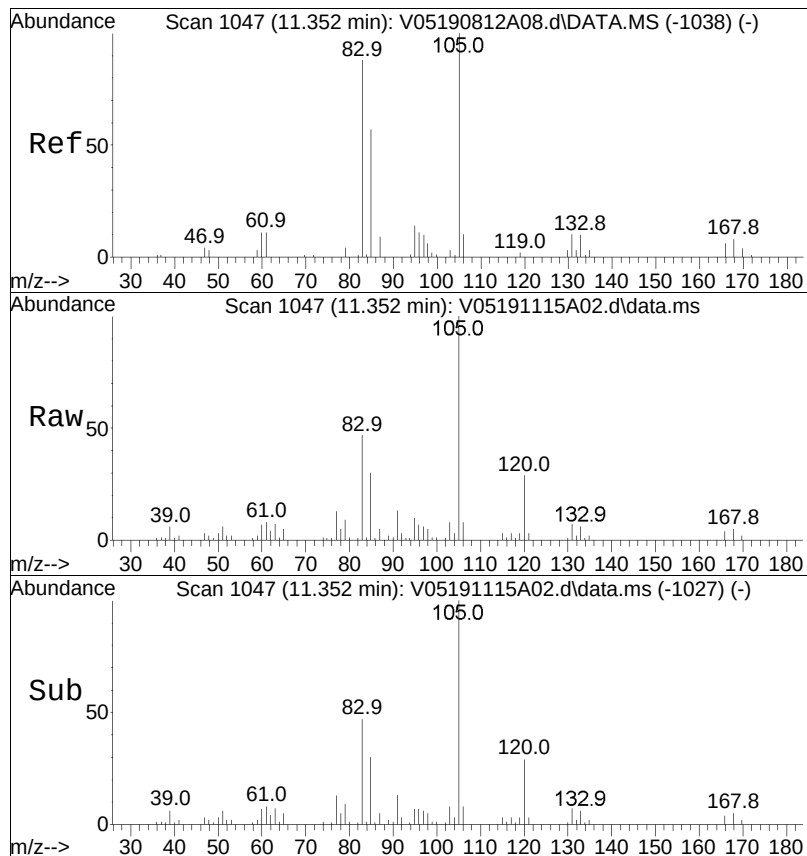
Tgt Ion: 91 Resp: 633965

Ion Ratio Lower Upper

91 100

120 24.3 17.3 25.9





#87

1,1,2,2-Tetrachloroethane

Concen: 7.99 ug/L

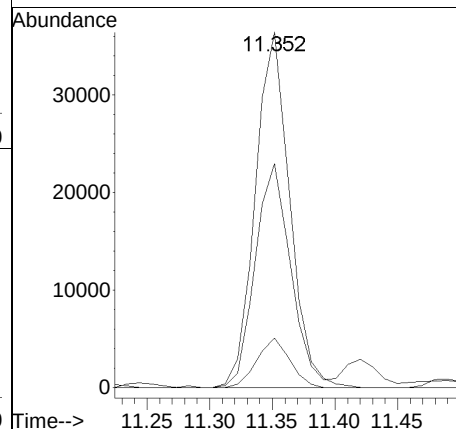
RT: 11.352 min Scan# 1047

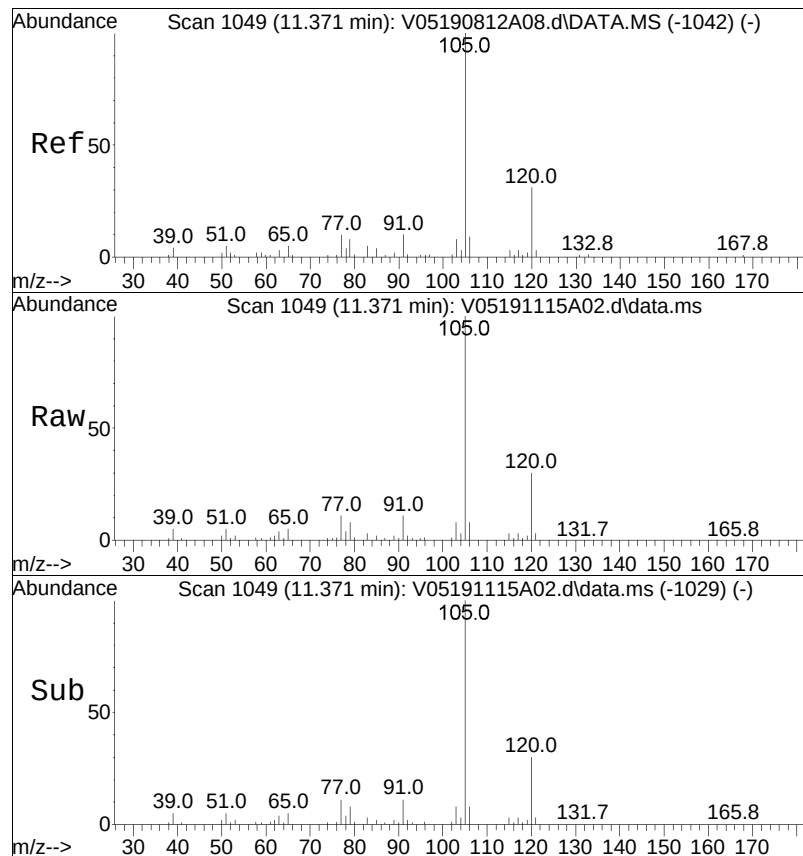
Delta R.T. 0.000 min

Lab File: V05191115A02.d

Acq: 15 Nov 2019 7:19 am

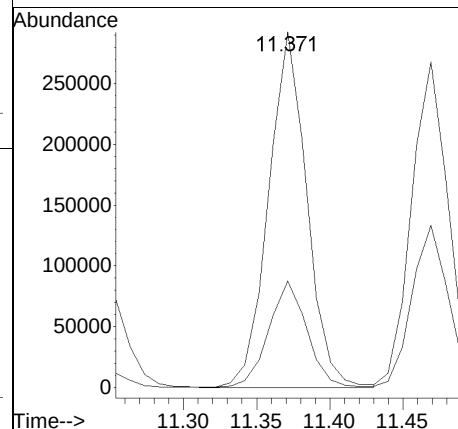
Tgt	Ion: 83	Resp:	69355
Ion	Ratio	Lower	Upper
83	100		
131	13.3	0.0	30.4
85	65.0	46.4	86.4

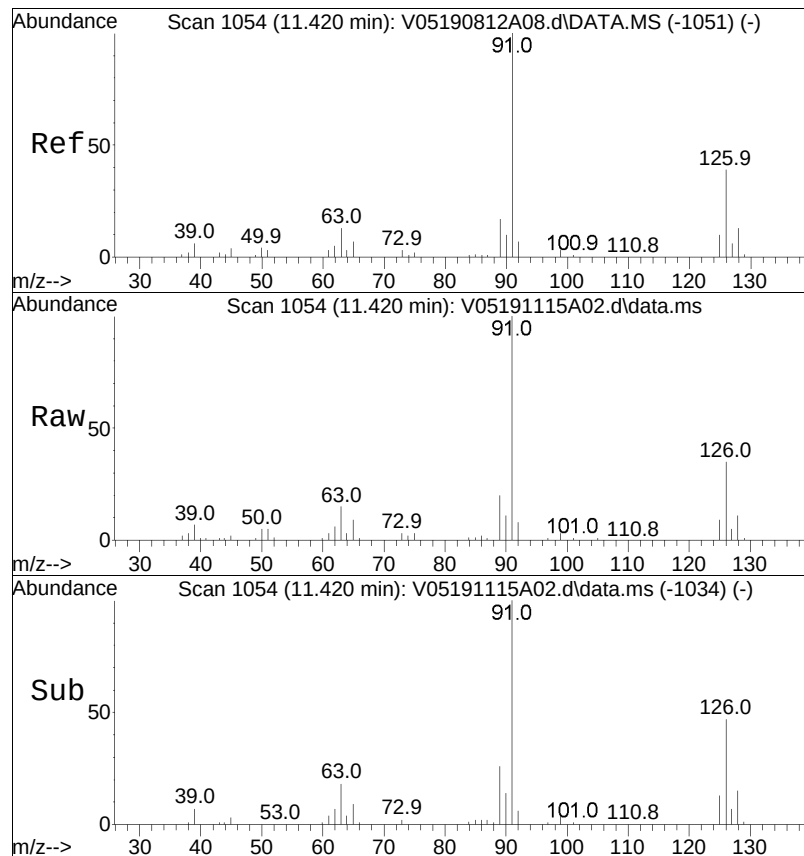




#88
 4-Ethyltoluene
 Concen: 8.76 ug/L
 RT: 11.371 min Scan# 1049
 Delta R.T. 0.000 min
 Lab File: V05191115A02.d
 Acq: 15 Nov 2019 7:19 am

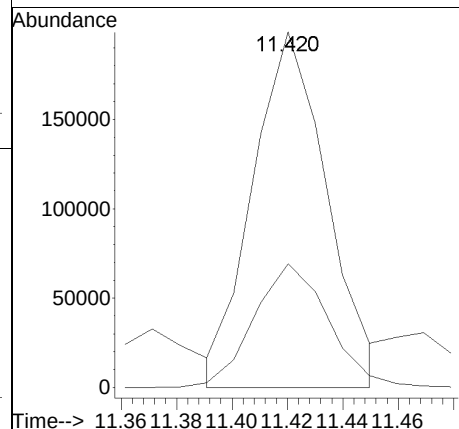
Tgt	Ion	Ratio	Lower	Upper
105	100			
120	29.6	18.5	38.3	

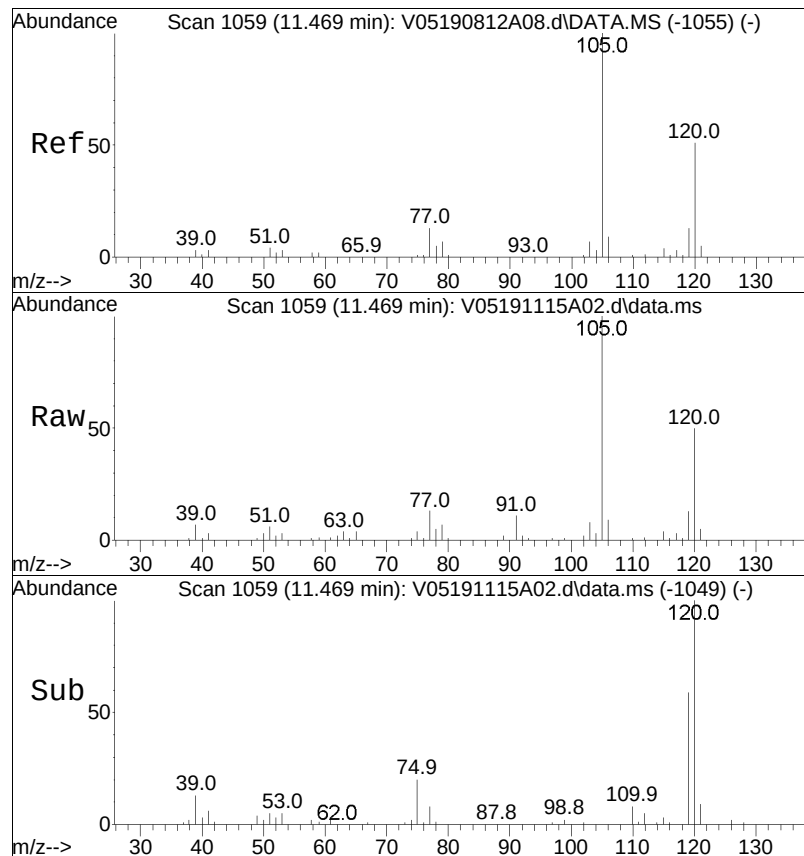




#89
 2-Chlorotoluene
 Concen: 7.63 ug/L M1
 RT: 11.420 min Scan# 1054
 Delta R.T. 0.000 min
 Lab File: V05191115A02.d
 Acq: 15 Nov 2019 7:19 am

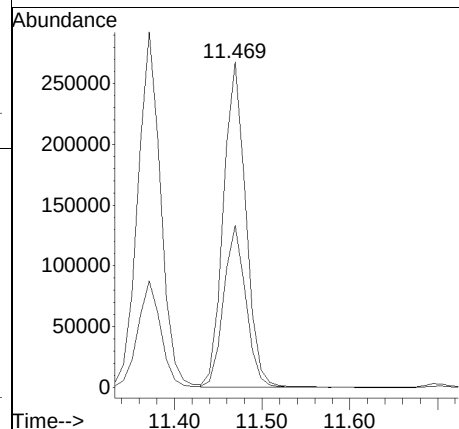
Tgt Ion: 91 Resp: 370080
 Ion Ratio Lower Upper
 91 100
 126 35.1 23.5 35.3

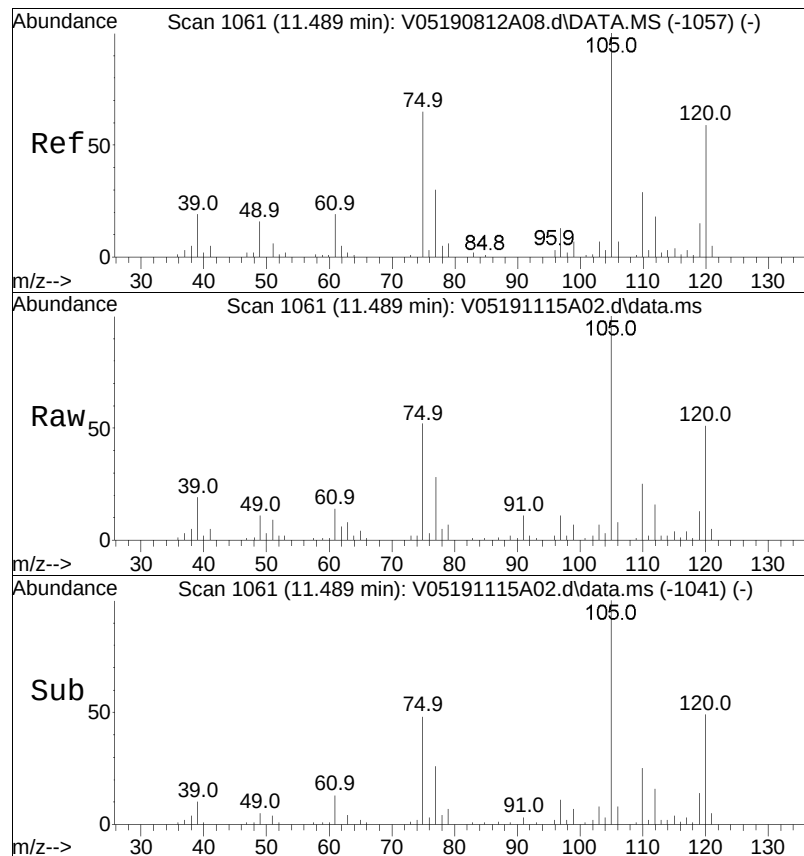




#90
 1,3,5-Trimethylbenzene
 Concen: 8.72 ug/L
 RT: 11.469 min Scan# 1059
 Delta R.T. 0.000 min
 Lab File: V05191115A02.d
 Acq: 15 Nov 2019 7:19 am

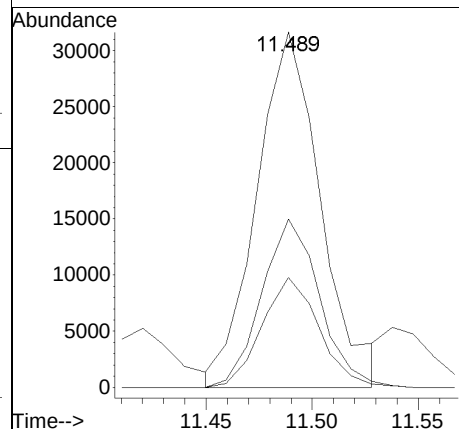
Tgt Ion	Ratio	Lower	Upper
105	100		
120	49.5	37.0	55.6

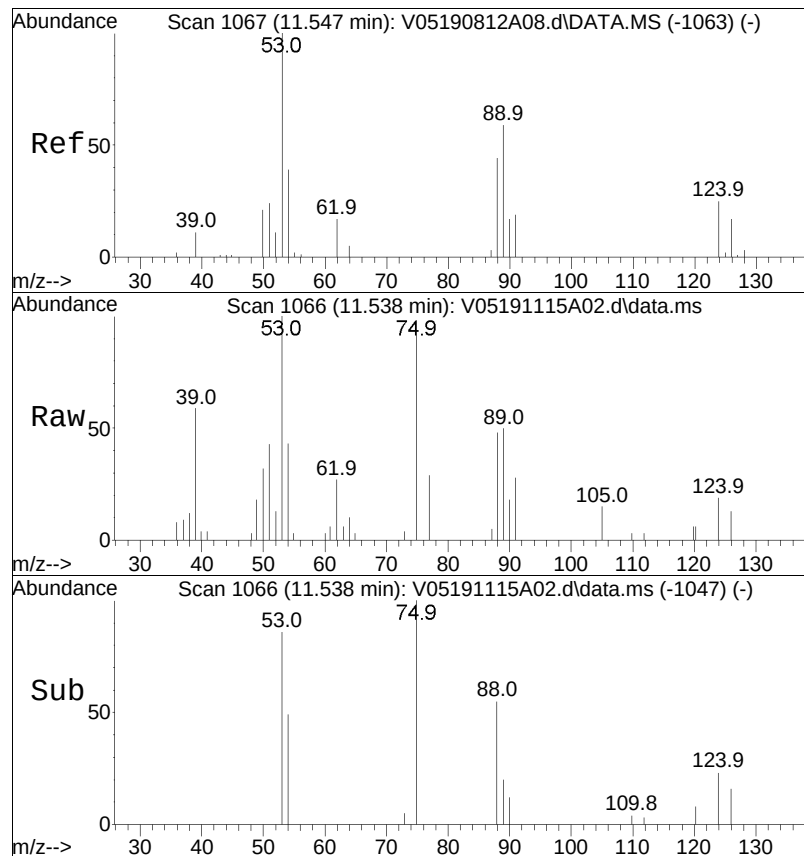




#91
 1,2,3-Trichloropropane
 Concen: 7.84 ug/L M1
 RT: 11.489 min Scan# 1061
 Delta R.T. 0.000 min
 Lab File: V05191115A02.d
 Acq: 15 Nov 2019 7:19 am

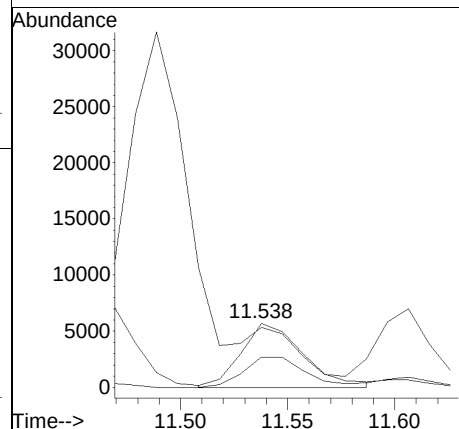
Tgt Ion	Ratio	Lower	Upper
75	100		
110	42.7	24.2	50.4
112	27.6	15.7	32.5

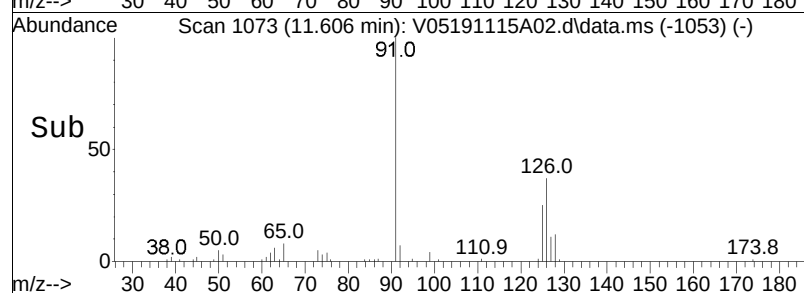
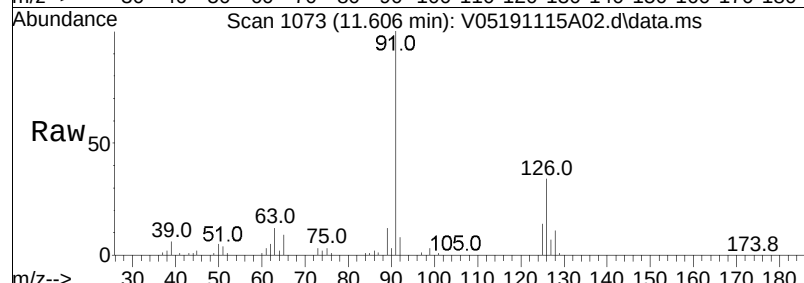
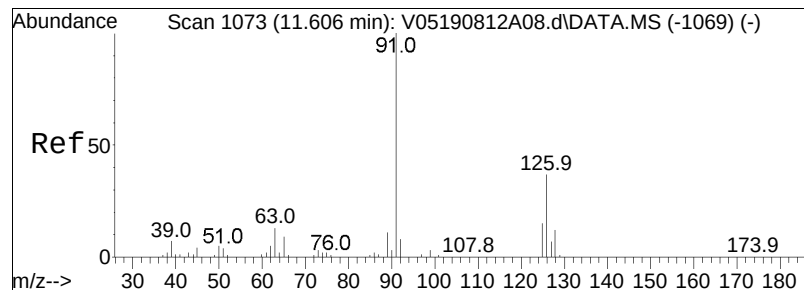




#92
trans-1,4-Dichloro-2-butene
Concen: 5.57 ug/L M1
RT: 11.538 min Scan# 1066
Delta R.T. -0.009 min
Lab File: V05191115A02.d
Acq: 15 Nov 2019 7:19 am

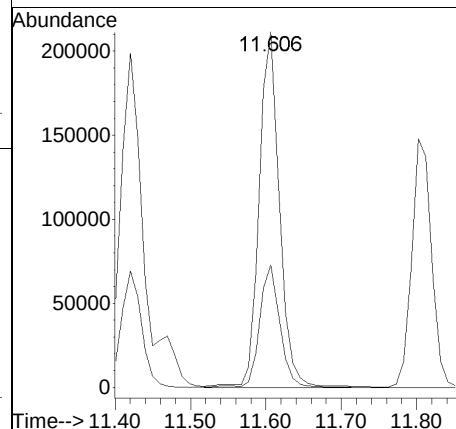
Tgt Ion:	53	Resp:	11519
Ion Ratio	Lower	Upper	
53	100		
88	47.0	39.1	58.7
75	0.0	58.6	88.0#

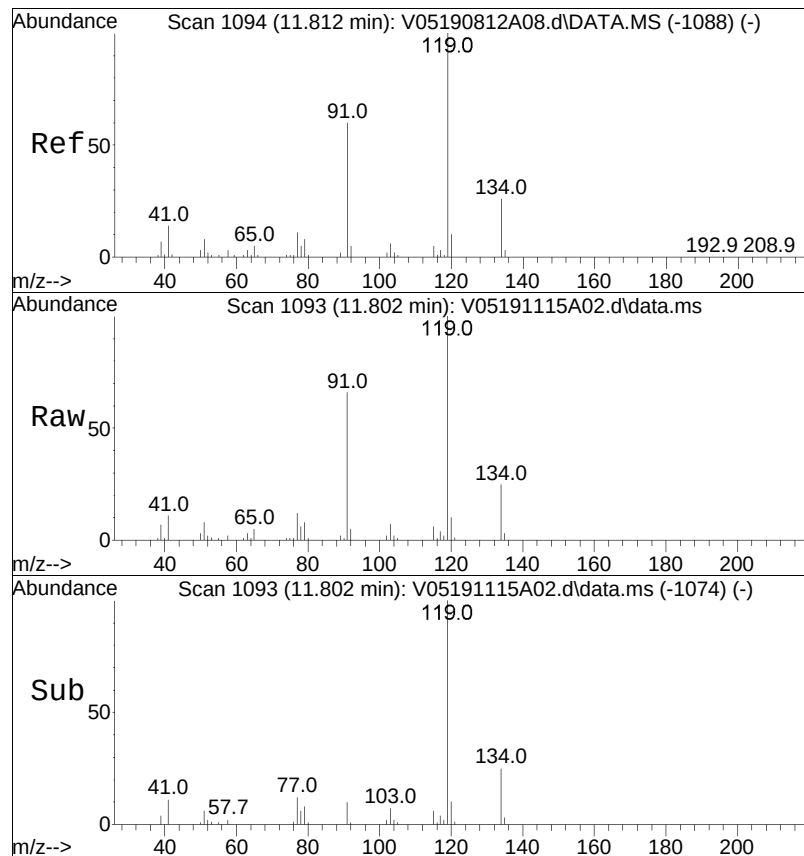




#93
 4-Chlorotoluene
 Concen: 7.98 ug/L M1
 RT: 11.606 min Scan# 1073
 Delta R.T. 0.000 min
 Lab File: V05191115A02.d
 Acq: 15 Nov 2019 7:19 am

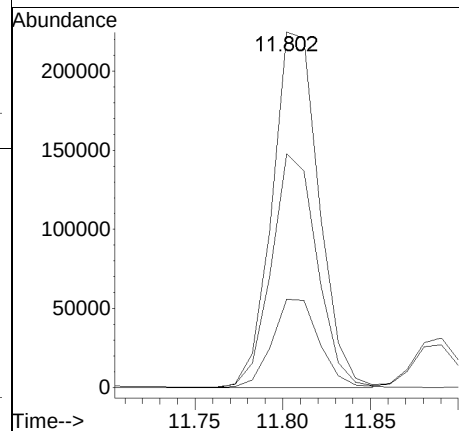
Tgt Ion:	91	Resp:	396830
Ion Ratio	100	Lower	Upper
126	34.2	24.6	36.8

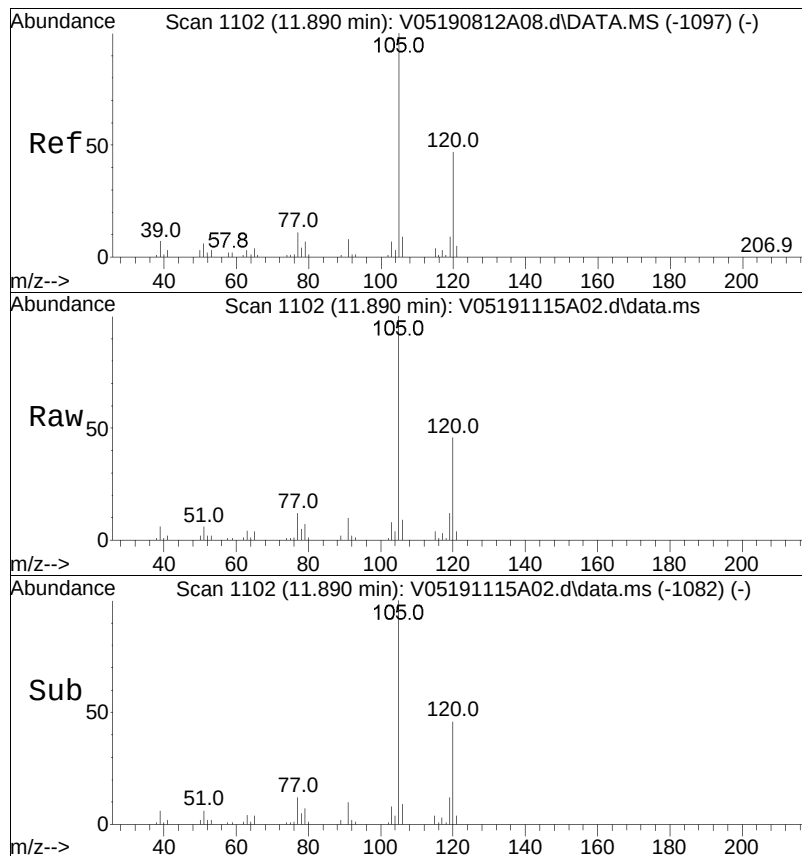




#94
 tert-Butylbenzene
 Concen: 8.89 ug/L
 RT: 11.802 min Scan# 1093
 Delta R.T. -0.009 min
 Lab File: V05191115A02.d
 Acq: 15 Nov 2019 7:19 am

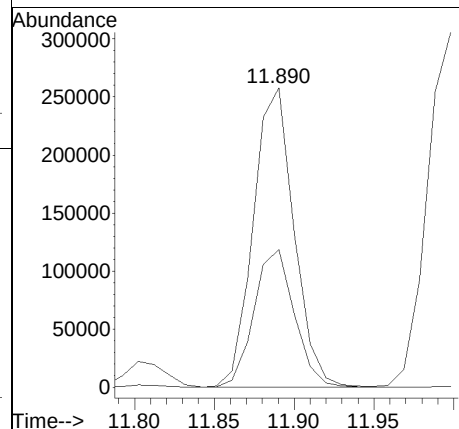
Tgt	Ion:119	Resp:	416834
Ion	Ratio	Lower	Upper
119	100		
91	63.9	49.2	73.8
134	25.0	18.3	27.5

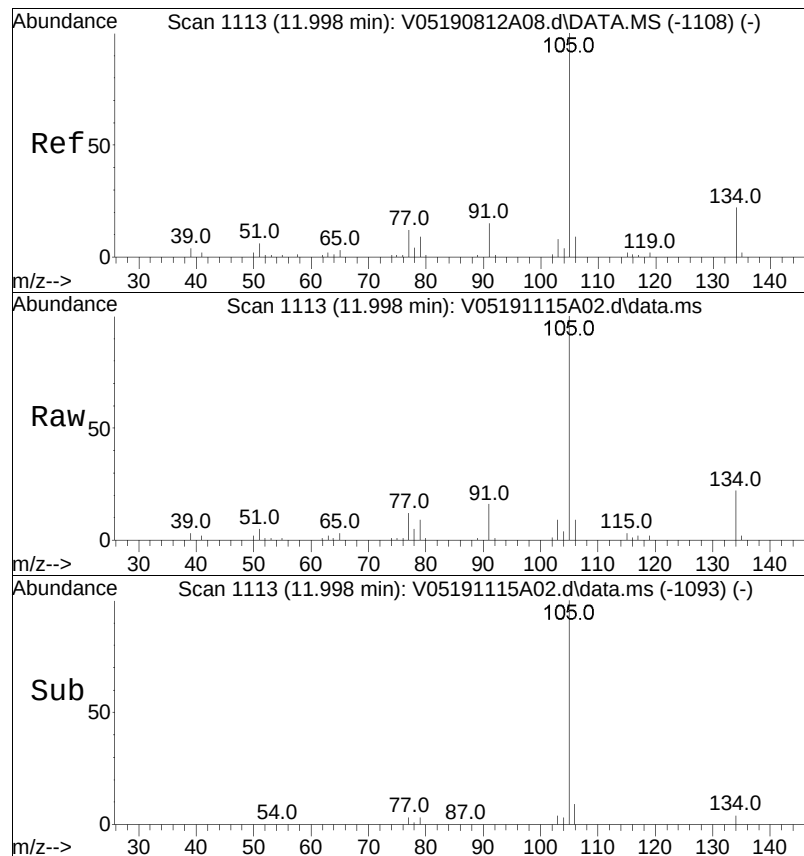




#97
 1,2,4-Trimethylbenzene
 Concen: 8.75 ug/L
 RT: 11.890 min Scan# 1102
 Delta R.T. 0.000 min
 Lab File: V05191115A02.d
 Acq: 15 Nov 2019 7:19 am

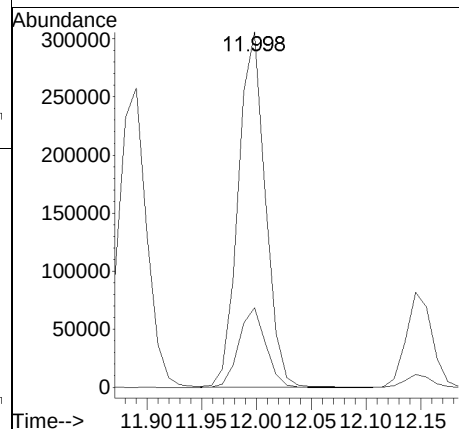
Tgt Ion	Ratio	Lower	Upper
105	100		
120	45.6	34.4	51.6

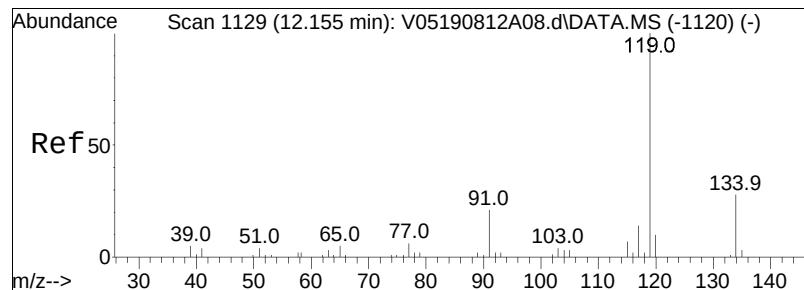




#98
 sec-Butylbenzene
 Concen: 8.67 ug/L
 RT: 11.998 min Scan# 1113
 Delta R.T. 0.000 min
 Lab File: V05191115A02.d
 Acq: 15 Nov 2019 7:19 am

Tgt Ion	Ratio	Lower	Upper
105	100		
134	22.2	12.9	26.9





#99

p-Isopropyltoluene

Concen: 9.16 ug/L

RT: 12.145 min Scan# 1128

Delta R.T. 0.000 min

Lab File: V05191115A02.d

Acq: 15 Nov 2019 7:19 am

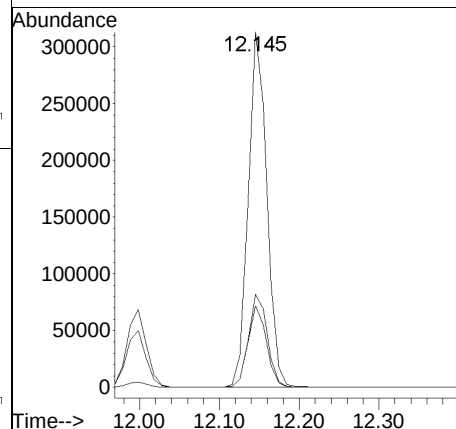
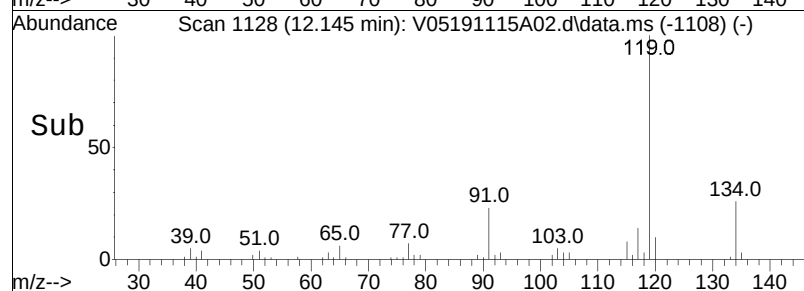
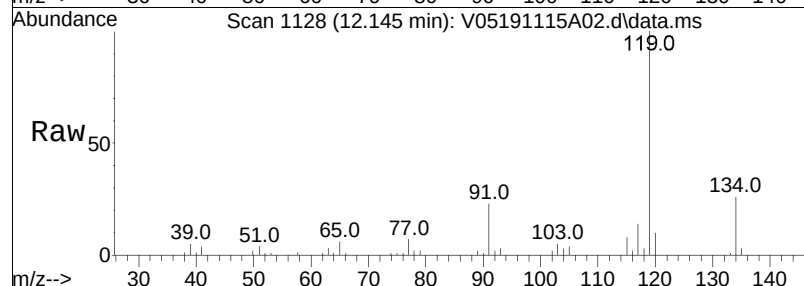
Tgt Ion:119 Resp: 507626

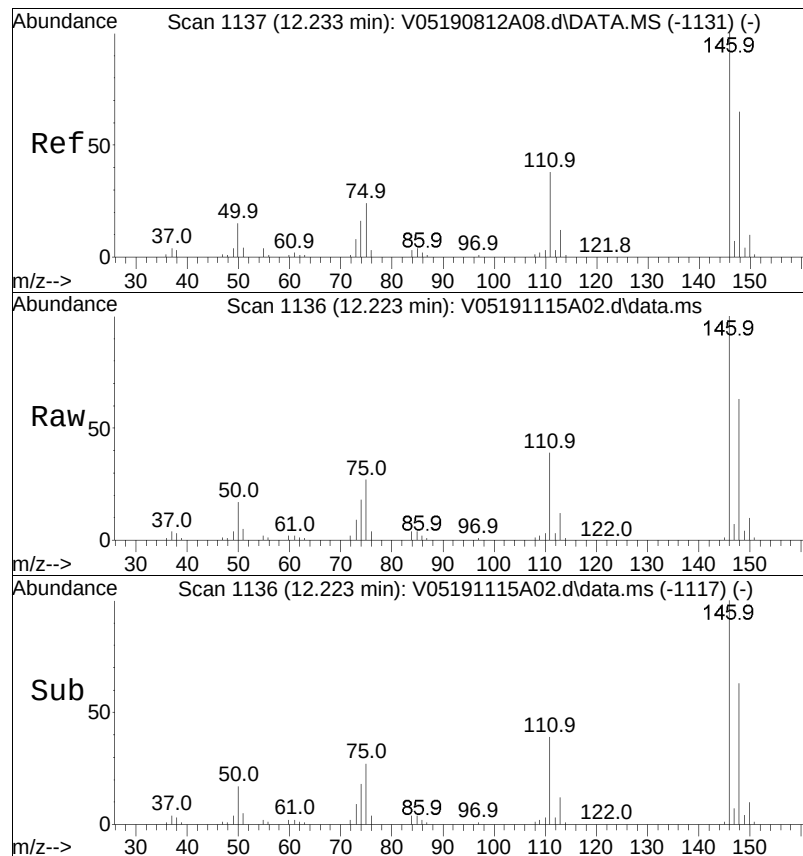
Ion Ratio Lower Upper

119 100

134 26.6 16.0 33.2

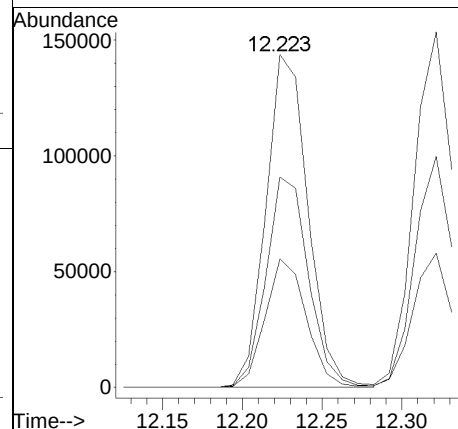
91 23.2 16.8 35.0

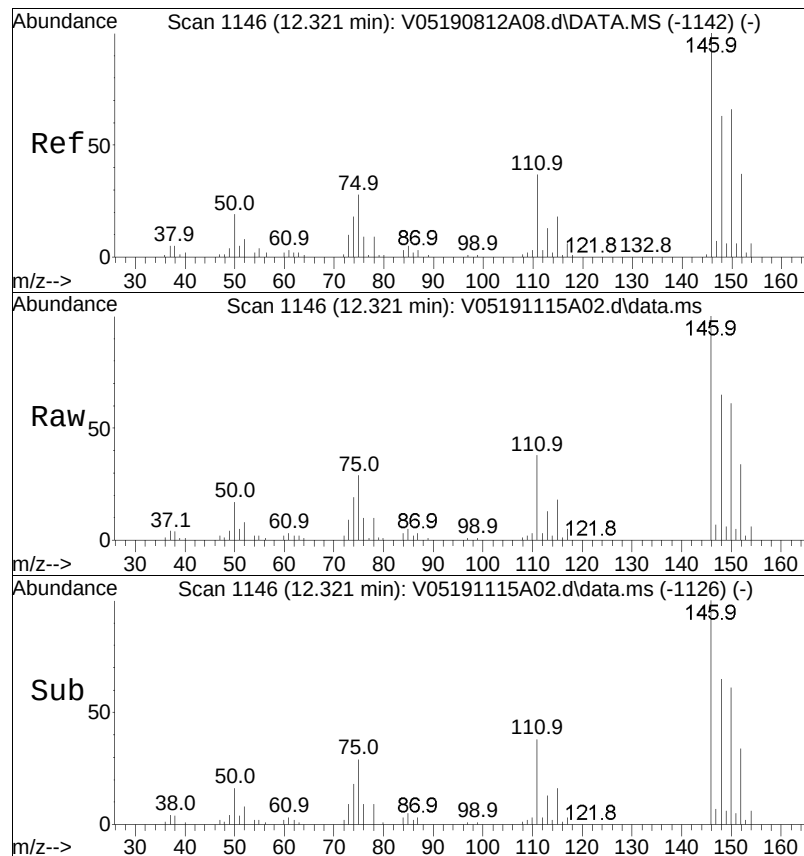




#100
 1,3-Dichlorobenzene
 Concen: 9.08 ug/L
 RT: 12.223 min Scan# 1136
 Delta R.T. -0.009 min
 Lab File: V05191115A02.d
 Acq: 15 Nov 2019 7:19 am

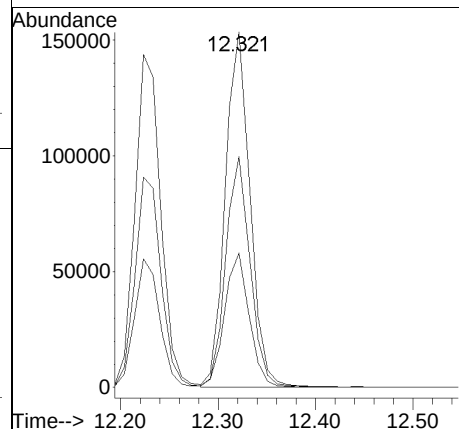
Tgt	Ion:146	Resp:	264153
Ion	Ratio	Lower	Upper
146	100		
111	37.8	28.0	58.1
148	63.6	41.6	86.4

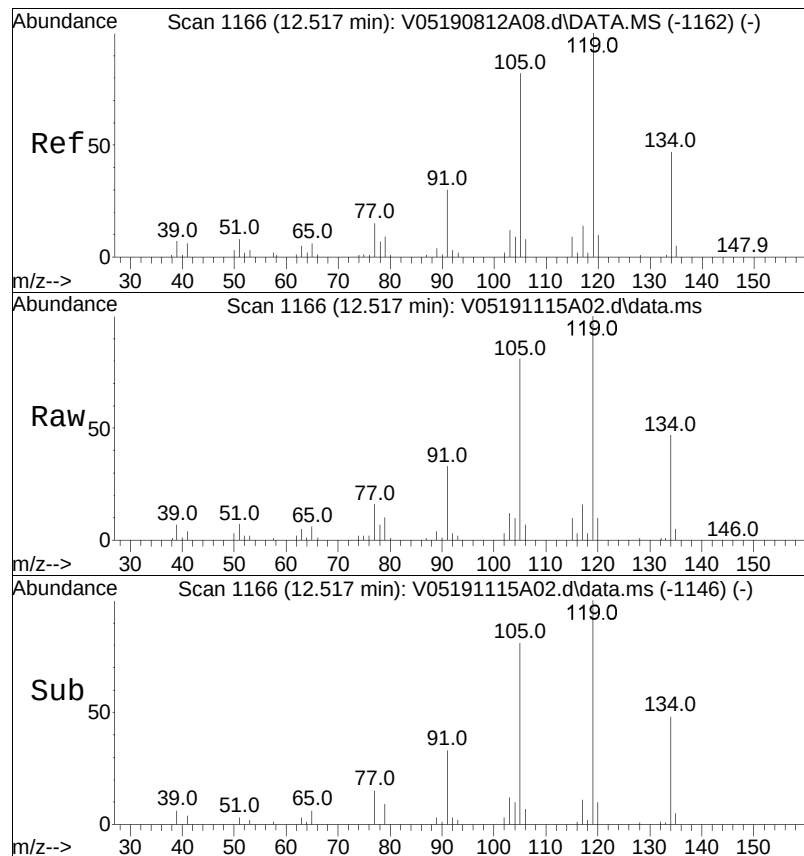




#101
 1,4-Dichlorobenzene
 Concen: 9.02 ug/L
 RT: 12.321 min Scan# 1146
 Delta R.T. 0.000 min
 Lab File: V05191115A02.d
 Acq: 15 Nov 2019 7:19 am

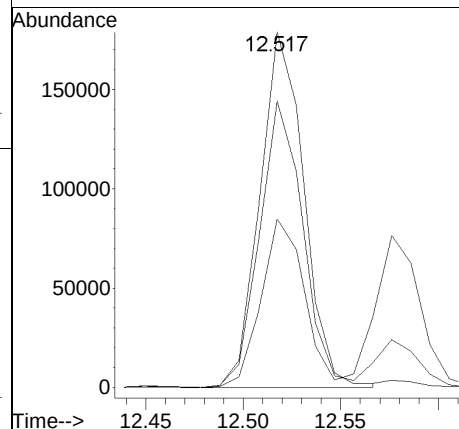
Tgt Ion	Ratio	Lower	Upper
146	100		
111	38.1	33.8	50.6
148	64.3	51.0	76.6

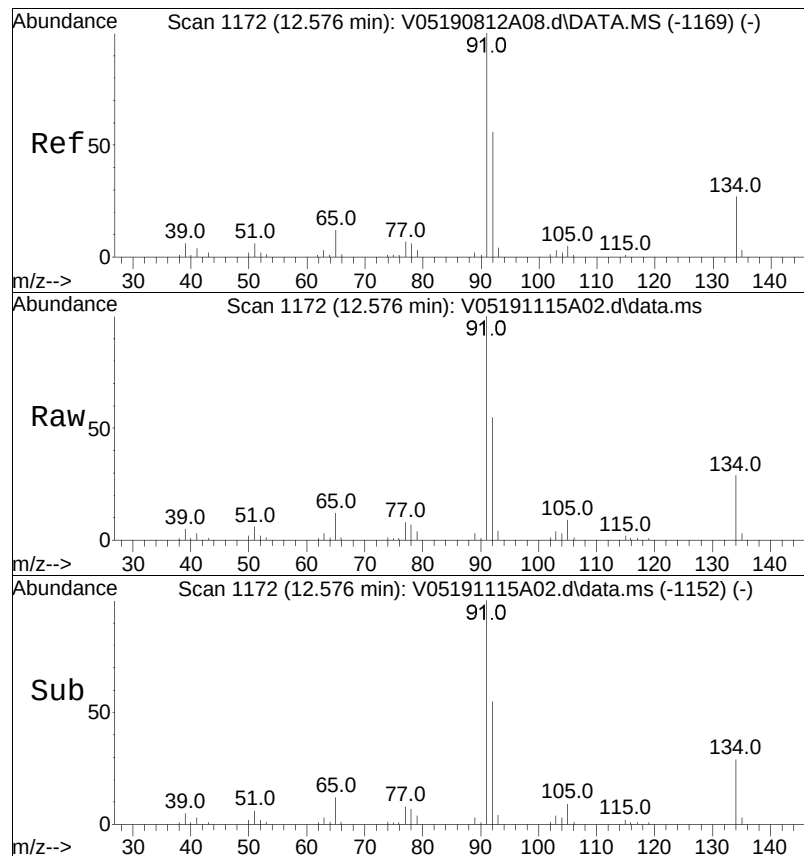




#102
 p-Diethylbenzene
 Concen: 8.93 ug/L
 RT: 12.517 min Scan# 1166
 Delta R.T. 0.000 min
 Lab File: V05191115A02.d
 Acq: 15 Nov 2019 7:19 am

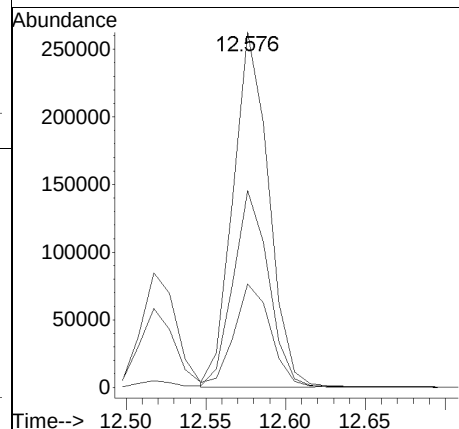
Tgt Ion	Ratio	Lower	Upper
119	100		
105	79.5	54.6	113.4
134	46.5	29.0	60.2

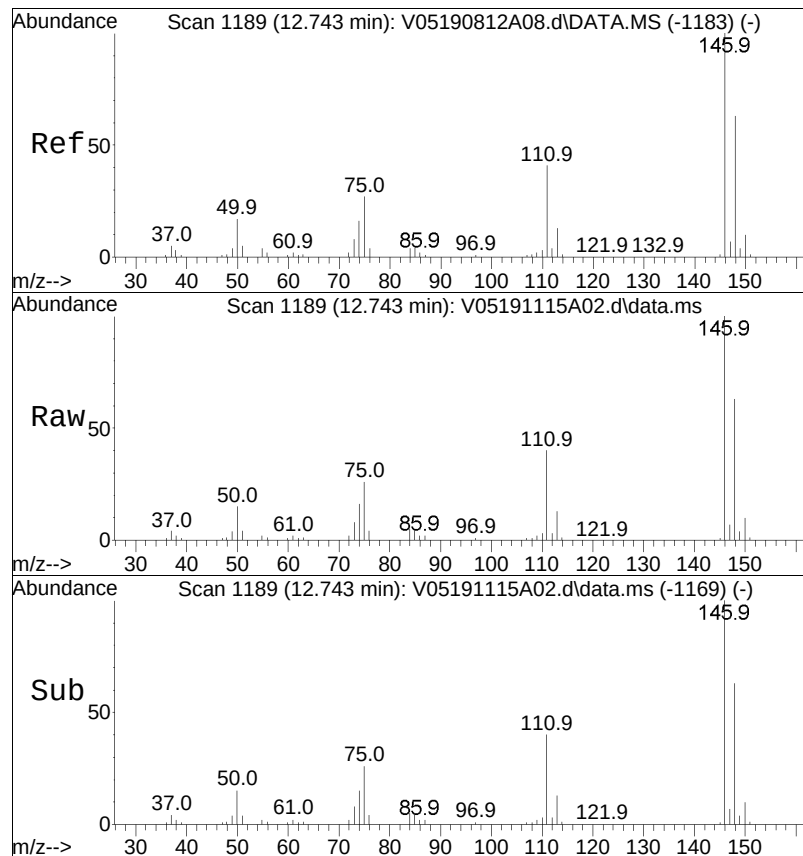




#103
 n-Butylbenzene
 Concen: 8.22 ug/L
 RT: 12.576 min Scan# 1172
 Delta R.T. 0.000 min
 Lab File: V05191115A02.d
 Acq: 15 Nov 2019 7:19 am

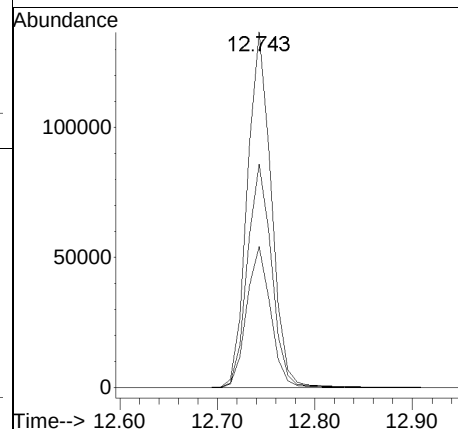
Tgt Ion	Ratio	Lower	Upper
91	100		
92	55.3	44.2	66.2
134	29.8	20.2	30.2

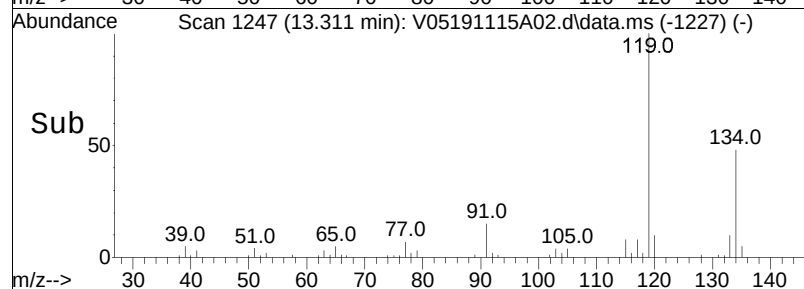
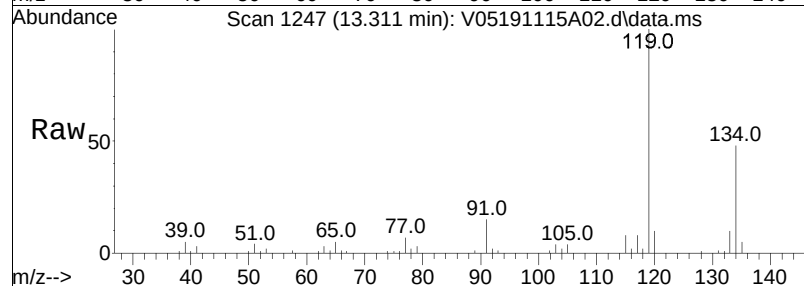
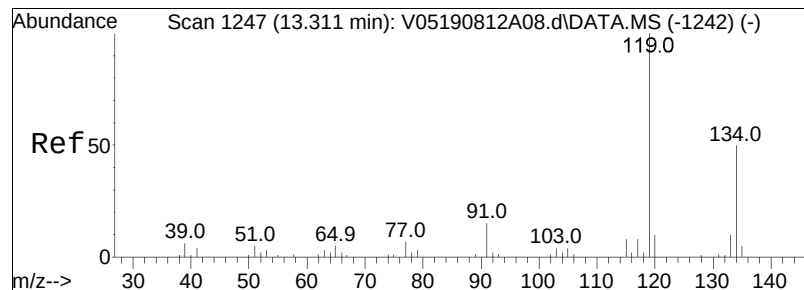




#104
 1,2-Dichlorobenzene
 Concen: 9.26 ug/L
 RT: 12.743 min Scan# 1189
 Delta R.T. 0.000 min
 Lab File: V05191115A02.d
 Acq: 15 Nov 2019 7:19 am

Tgt Ion	Ratio	Lower	Upper
146	100		
111	39.4	29.1	60.5
148	63.3	41.7	86.7





#105

1,2,4,5-Tetramethylbenzene

Concen: 9.29 ug/L

RT: 13.311 min Scan# 1247

Delta R.T. 0.000 min

Lab File: V05191115A02.d

Acq: 15 Nov 2019 7:19 am

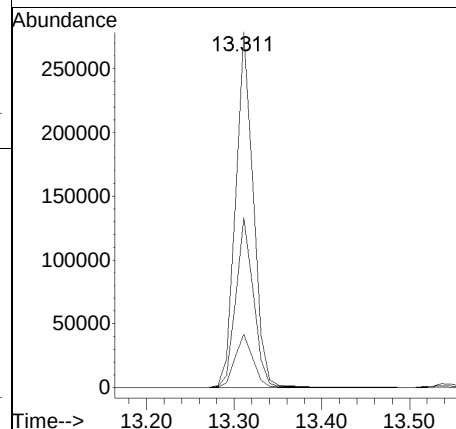
Tgt Ion:119 Resp: 390688

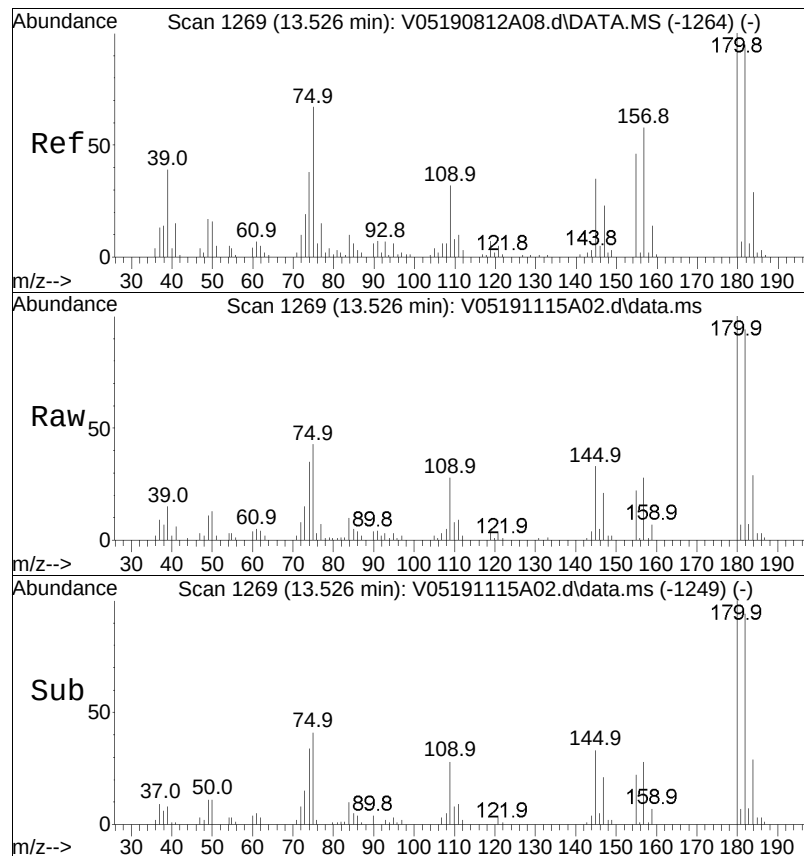
Ion Ratio Lower Upper

119 100

134 47.8 28.7 59.7

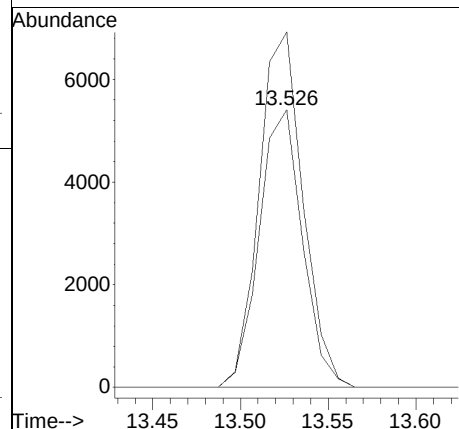
91 15.2 11.6 24.0

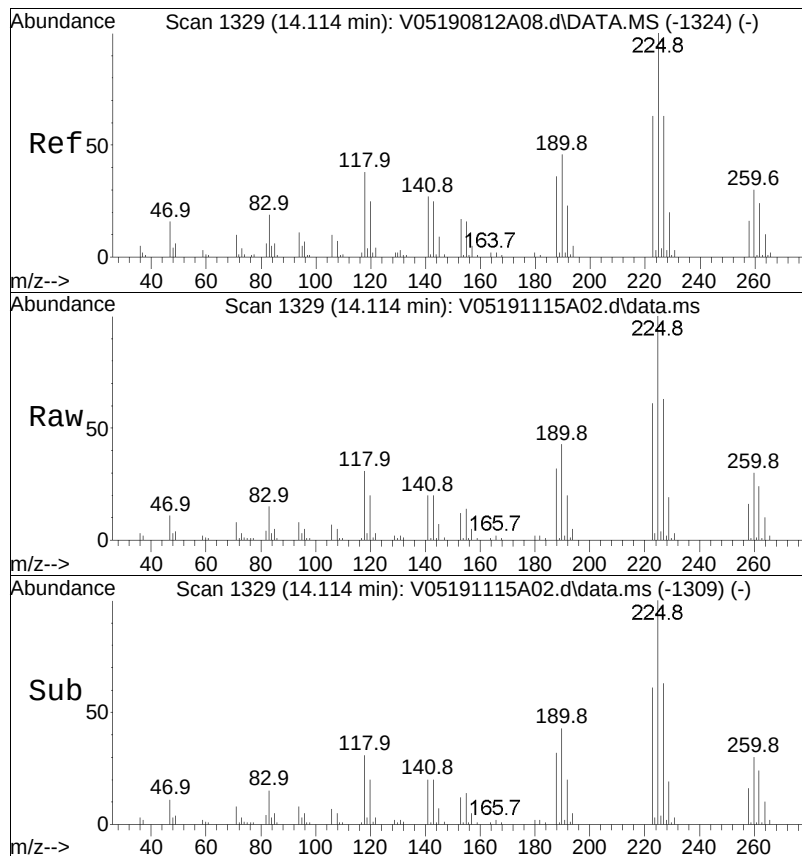




#106
 1,2-Dibromo-3-chloropropane
 Concen: 9.17 ug/L
 RT: 13.526 min Scan# 1269
 Delta R.T. 0.000 min
 Lab File: V05191115A02.d
 Acq: 15 Nov 2019 7:19 am

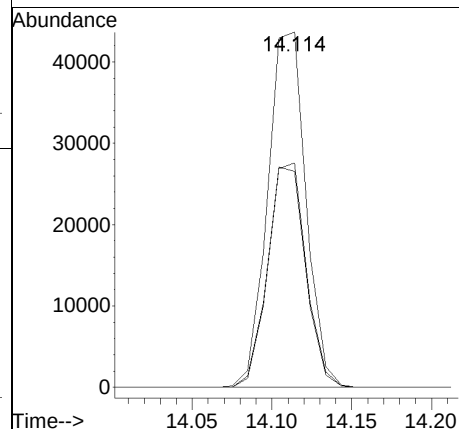
Tgt Ion	Ratio	Lower	Upper
155	100		
157	129.6	105.0	157.6

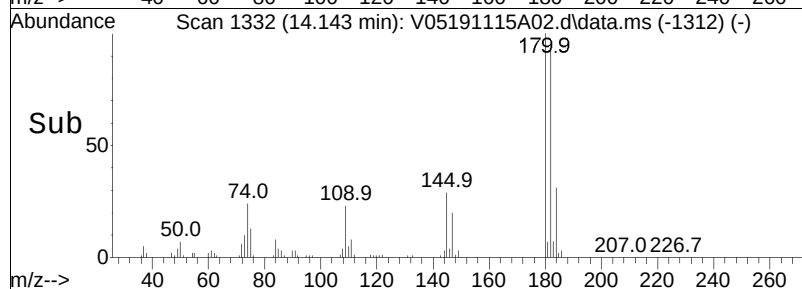
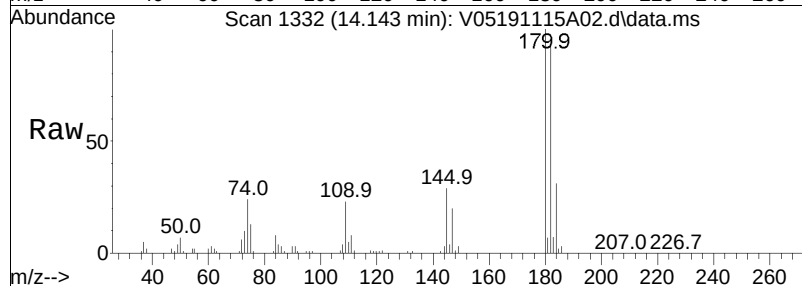
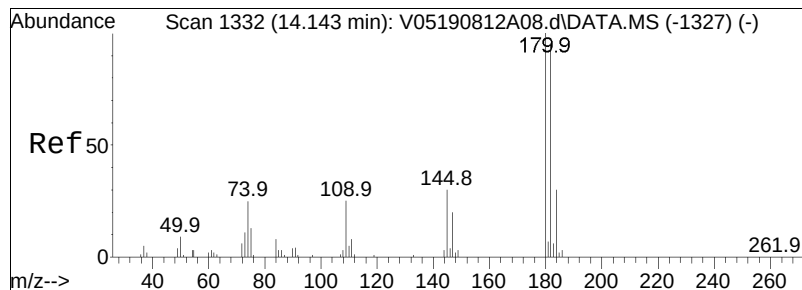




#108
 Hexachlorobutadiene
 Concen: 10.07 ug/L
 RT: 14.114 min Scan# 1329
 Delta R.T. 0.000 min
 Lab File: V05191115A02.d
 Acq: 15 Nov 2019 7:19 am

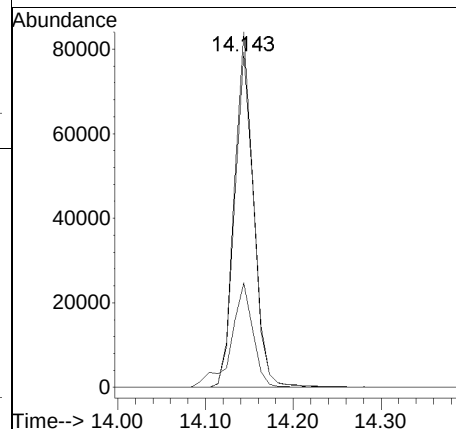
Tgt Ion	Ratio	Resp	Lower	Upper
225	100	73119		
223	61.9		49.9	74.9
227	62.8		51.0	76.4

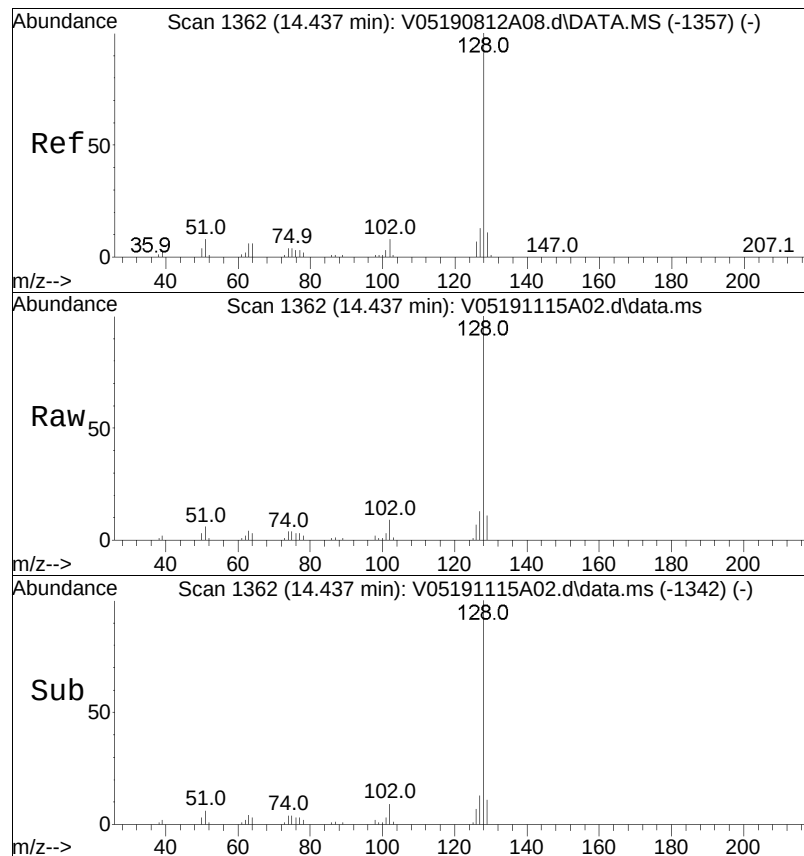




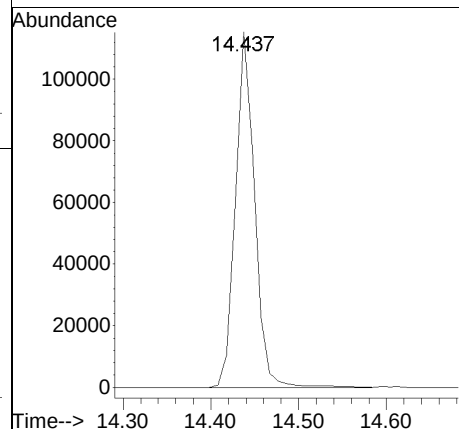
#109
 1,2,4-Trichlorobenzene
 Concen: 9.31 ug/L
 RT: 14.143 min Scan# 1332
 Delta R.T. 0.000 min
 Lab File: V05191115A02.d
 Acq: 15 Nov 2019 7:19 am

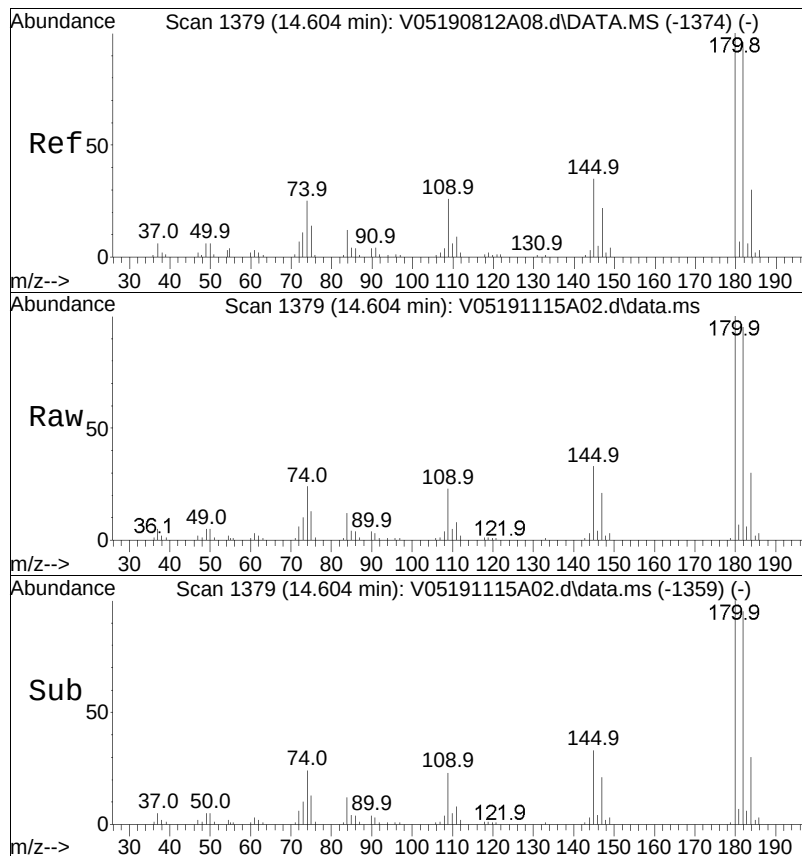
Tgt Ion	Ratio	Lower	Upper
180	100		
182	94.2	75.2	112.8
145	33.4	27.4	41.2





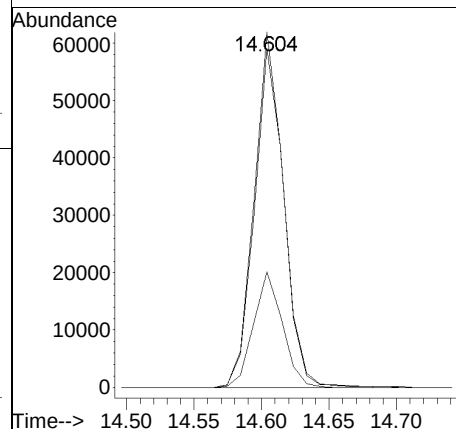
#110
 Naphthalene
 Concen: 9.23 ug/L
 RT: 14.437 min Scan# 1362
 Delta R.T. 0.000 min
 Lab File: V05191115A02.d
 Acq: 15 Nov 2019 7:19 am
 Tgt Ion:128 Resp: 174746





#111
 1,2,3-Trichlorobenzene
 Concen: 9.62 ug/L
 RT: 14.604 min Scan# 1379
 Delta R.T. 0.000 min
 Lab File: V05191115A02.d
 Acq: 15 Nov 2019 7:19 am

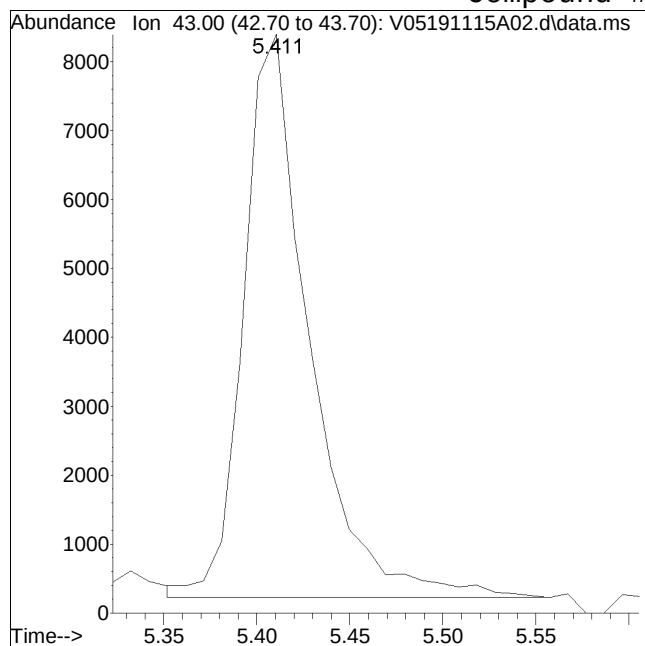
Tgt Ion	Ratio	Lower	Upper
180	100		
182	96.0	75.5	113.3
145	31.9	26.5	39.7



Manual Integration Report

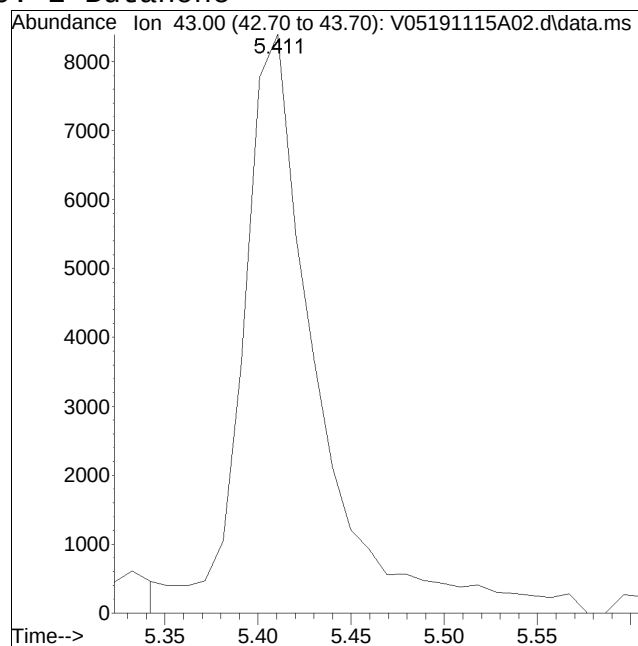
Data Path : I:\VOLATILES\VOA105\2019\10Method : V105_190921_8260.m
Data File : V05191115A02.d Operator : VOA105:PD
Date Inj'd : 11/15/2019 7:19 am Instrument : VOA 105
Sample : WG1309356-3,31,10,10 Quant Date : 11/15/2019 7:44 am

Compound #39: 2-Butanone



Original Peak Response = 20096

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

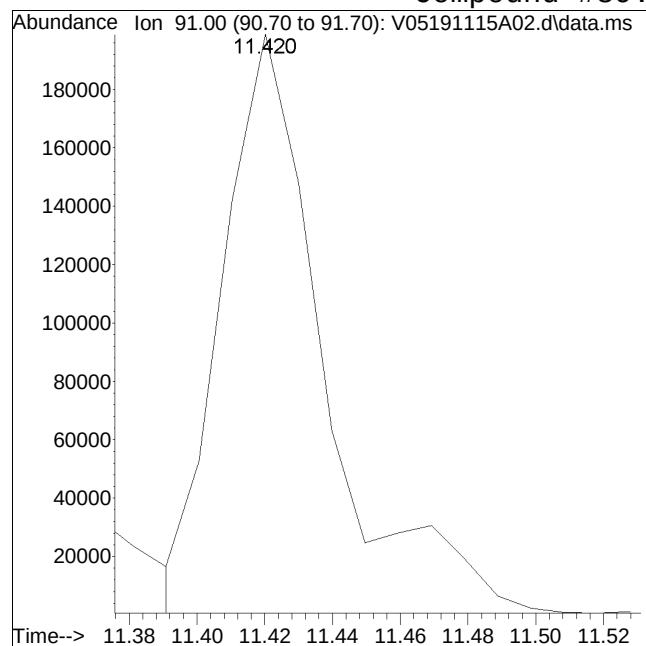


Manual Peak Response = 23279 M1

Manual Integration Report

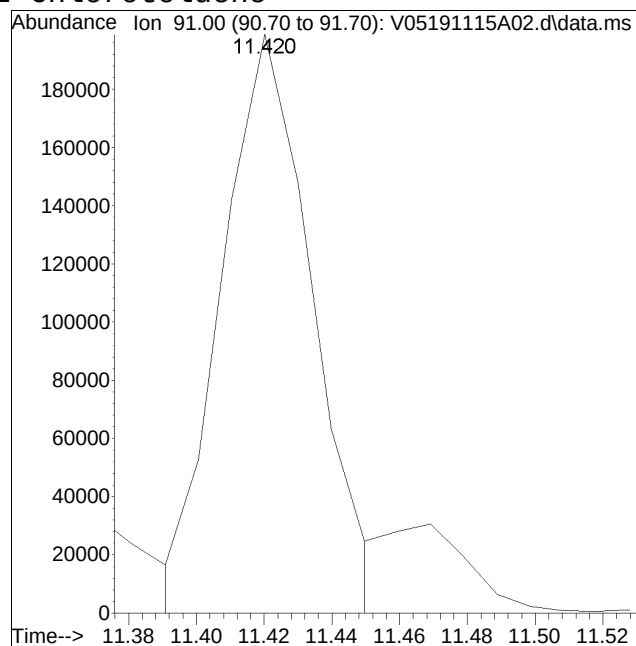
Data Path : I:\VOLATILES\VOA105\2019\10Method : V105_190921_8260.m
Data File : V05191115A02.d Operator : VOA105:PD
Date Inj'd : 11/15/2019 7:19 am Instrument : VOA 105
Sample : WG1309356-3,31,10,10 Quant Date : 11/15/2019 7:44 am

Compound #89: 2-Chlorotoluene



Original Peak Response = 417204

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

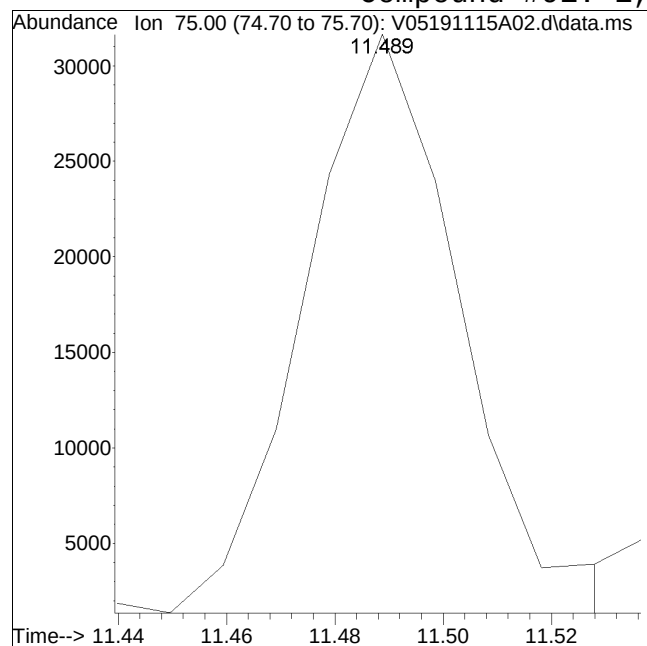


Manual Peak Response = 370080 M1

Manual Integration Report

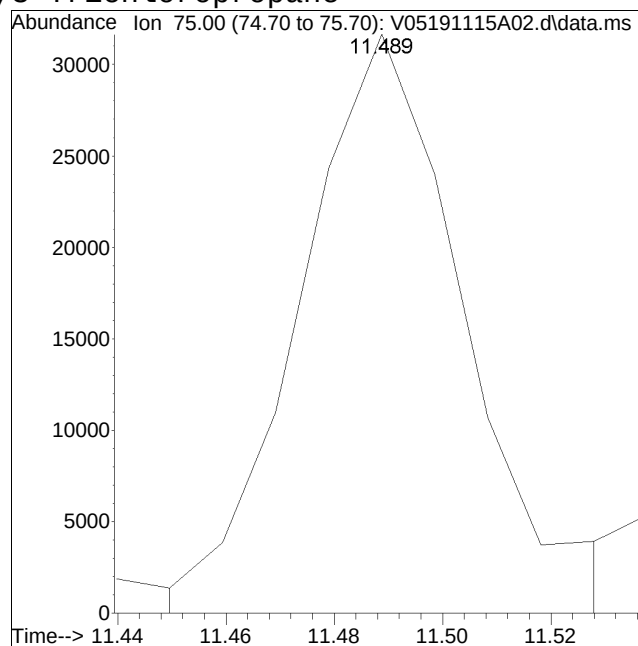
Data Path : I:\VOLATILES\VOA105\2019\10Method : V105_190921_8260.m
Data File : V05191115A02.d Operator : VOA105:PD
Date Inj'd : 11/15/2019 7:19 am Instrument : VOA 105
Sample : WG1309356-3,31,10,10 Quant Date : 11/15/2019 7:44 am

Compound #91: 1,2,3-Trichloropropane



Original Peak Response = 60071

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

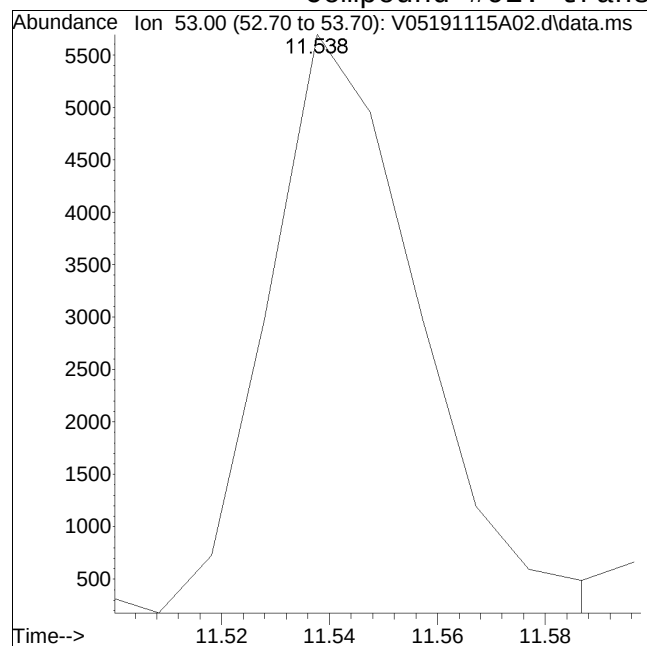


Manual Peak Response = 66515 M1

Manual Integration Report

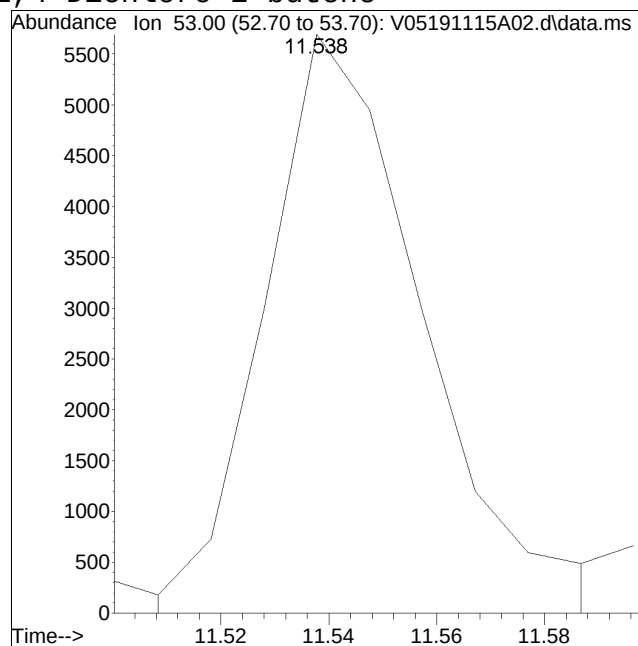
Data Path : I:\VOLATILES\VOA105\2019\10Method : V105_190921_8260.m
Data File : V05191115A02.d Operator : VOA105:PD
Date Inj'd : 11/15/2019 7:19 am Instrument : VOA 105
Sample : WG1309356-3,31,10,10 Quant Date : 11/15/2019 7:44 am

Compound #92: trans-1,4-Dichloro-2-butene



Original Peak Response = 10678

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

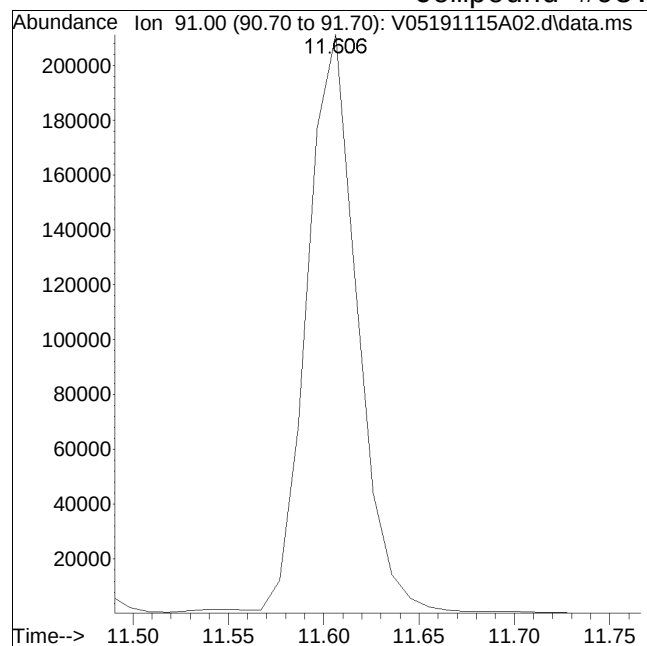


Manual Peak Response = 11519 M1

Manual Integration Report

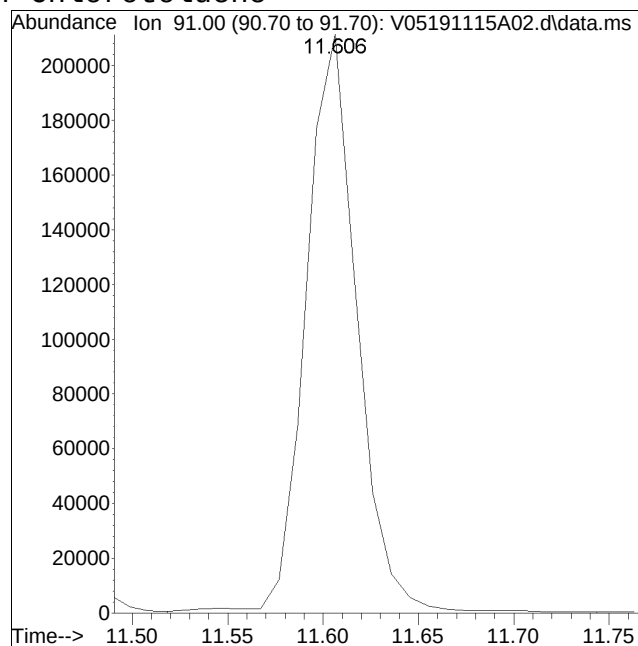
Data Path : I:\VOLATILES\VOA105\2019\1QMethod : V105_190921_8260.m
Data File : V05191115A02.d Operator : VOA105:PD
Date Inj'd : 11/15/2019 7:19 am Instrument : VOA 105
Sample : WG1309356-3,31,10,10 Quant Date : 11/15/2019 7:44 am

Compound #93: 4-Chlorotoluene



Original Peak Response = 392234

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.



Manual Peak Response = 396830 M1

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\VOA105\2019\191115A\
 Data File : V05191115A03.d
 Acq On : 15 Nov 2019 7:42 am
 Operator : VOA105:PD
 Sample : WG1309356-4,31,10,10 (Sig #1); 8260 CCAL (Sig #2)
 Misc : WG1309356,ICAL16159 (Sig #1); WG,ICAL16159 (Sig #2)
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: Nov 15 08:51:38 2019
 Quant Method : I:\VOLATILES\VOA105\2019\191115A\V105_190921_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Mon Sep 23 12:05:21 2019
 Response via : Initial Calibration

CCAL FILE(s) : 1 - I:\VOLATILES\VOA105\2019\191115A\V05191115A02.d
 Sub List : 8260-NYTCL - Megamix plus Diox

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

Internal Standards						
1) Fluorobenzene	6.085	96	562925	10.000	ug/L	0.00
Standard Area 1 = 547837			Recovery	=	102.75%	
59) Chlorobenzene-d5	9.617	117	461881	10.000	ug/L	0.00
Standard Area 1 = 453564			Recovery	=	101.83%	
79) 1,4-Dichlorobenzene-d4	12.302	152	267874	10.000	ug/L	0.00
Standard Area 1 = 259117			Recovery	=	103.38%	
System Monitoring Compounds						
36) Dibromofluoromethane	5.283	113	165731	10.849	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery	=	108.49%	
43) 1,2-Dichloroethane-d4	5.811	65	190533	9.797	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery	=	97.97%	
60) Toluene-d8	7.767	98	583373	9.673	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery	=	96.73%	
83) 4-Bromofluorobenzene	11.106	95	229905	8.730	ug/L	0.00
Spiked Amount 10.000	Range 70 - 130		Recovery	=	87.30%	
Target Compounds						
						Qvalue
2) Dichlorodifluoromethane	1.694	85	76137	5.527	ug/L	99
3) Chloromethane	1.889	50	74840	5.406	ug/L	97
4) Vinyl chloride	1.958	62	86660	7.134	ug/L	76
5) Bromomethane	2.280	94	33674	6.025	ug/L	100
6) Chloroethane	2.398	64	63251	8.463	ug/L	97
7) Trichlorofluoromethane	2.535	101	174623	8.560	ug/L	100
8) Ethyl ether	2.828	74	44959	10.517	ug/L	90
10) 1,1-Dichloroethene	3.024	96	96748	9.120	ug/L	95
11) Carbon disulfide	3.053	76	235594	7.877	ug/L	99
15) Methylene chloride	3.591	84	101105	8.647	ug/L	92
17) Acetone	3.640	43	15470	7.856	ug/L	96
18) trans-1,2-Dichloroethene	3.738	96	101870	8.702	ug/L	97
20) Methyl tert-butyl ether	3.836	73	209586	9.118	ug/L	97
23) 1,1-Dichloroethane	4.325	63	190732	8.218	ug/L	99
25) Acrylonitrile	4.383	53	17152	8.675	ug/L	92
27) Vinyl acetate	4.559	43	138941	6.445	ug/L	99
28) cis-1,2-Dichloroethene	4.843	96	128612	10.347	ug/L	96
29) 2,2-Dichloropropane	4.941	77	173268	9.330	ug/L	97
30) Bromochloromethane	5.039	128	57911	10.821	ug/L	93
32) Chloroform	5.107	83	205999	8.864	ug/L	97

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\VOA105\2019\191115A\
 Data File : V05191115A03.d
 Acq On : 15 Nov 2019 7:42 am
 Operator : VOA105:PD
 Sample : WG1309356-4,31,10,10 (Sig #1); 8260 CCAL (Sig #2)
 Misc : WG1309356,ICAL16159 (Sig #1); WG,ICAL16159 (Sig #2)
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: Nov 15 08:51:38 2019
 Quant Method : I:\VOLATILES\VOA105\2019\191115A\V105_190921_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Mon Sep 23 12:05:21 2019
 Response via : Initial Calibration

CCAL FILE(s) : 1 - I:\VOLATILES\VOA105\2019\191115A\V05191115A02.d
 Sub List : 8260-NYTCL - Megamix plus Diox

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
34) Carbon tetrachloride	5.234	117	169756	9.164	ug/L	99
37) 1,1,1-Trichloroethane	5.303	97	210452	9.310	ug/L	99
39) 2-Butanone	5.410	43	22523M1	8.234	ug/L	
40) 1,1-Dichloropropene	5.420	75	147297	8.564	ug/L	96
41) Benzene	5.674	78	396128	8.793	ug/L	97
44) 1,2-Dichloroethane	5.880	62	148506	8.581	ug/L	99
48) Trichloroethene	6.261	95	116468	8.484	ug/L	90
50) Dibromomethane	6.711	93	55680	9.398	ug/L	# 84
51) 1,2-Dichloropropane	6.809	63	87353	7.907	ug/L	98
54) Bromodichloromethane	6.887	83	138732	8.731	ug/L	98
57) 1,4-Dioxane	7.093	88	22313	389.152	ug/L	96
58) cis-1,3-Dichloropropene	7.572	75	143383	8.590	ug/L	96
61) Toluene	7.826	92	280809	8.564	ug/L	99
62) 4-Methyl-2-pentanone	8.276	58	16115	7.028	ug/L	96
63) Tetrachloroethene	8.276	166	152431	10.247	ug/L	89
65) trans-1,3-Dichloropropene	8.325	75	122293	7.139	ug/L	94
68) 1,1,2-Trichloroethane	8.511	83	60766	8.578	ug/L	96
69) Chlorodibromomethane	8.726	129	84045	8.704	ug/L	98
70) 1,3-Dichloropropane	8.834	76	125060	7.954	ug/L	98
71) 1,2-Dibromoethane	9.000	107	75554	9.419	ug/L	100
72) 2-Hexanone	9.284	43	25248	6.131	ug/L	98
73) Chlorobenzene	9.637	112	320445	8.979	ug/L	89
74) Ethylbenzene	9.666	91	552163	8.560	ug/L	95
75) 1,1,1,2-Tetrachloroethane	9.725	131	117648	9.410	ug/L	98
76) p/m Xylene	9.852	106	424790	18.430	ug/L	90
77) o Xylene	10.391	106	386083	18.291	ug/L	93
78) Styrene	10.460	104	638686	19.389	ug/L	92
80) Bromoform	10.499	173	55762	8.886	ug/L	99
82) Isopropylbenzene	10.773	105	562355	8.398	ug/L	96
84) Bromobenzene	11.214	156	141947	8.779	ug/L	99
85) n-Propylbenzene	11.244	91	624162	7.882	ug/L	93
87) 1,1,2,2-Tetrachloroethane	11.351	83	69666	7.760	ug/L	97
88) 4-Ethyltoluene	11.371	105	524284	8.360	ug/L	97
89) 2-Chlorotoluene	11.420	91	371603M1	7.409	ug/L	
90) 1,3,5-Trimethylbenzene	11.469	105	472894	8.402	ug/L	97
91) 1,2,3-Trichloropropane	11.488	75	64816M1	7.393	ug/L	
92) trans-1,4-Dichloro-2-b...	11.537	53	11073M1	5.275	ug/L	
93) 4-Chlorotoluene	11.606	91	399702M1	7.776	ug/L	
94) tert-Butylbenzene	11.812	119	410571	8.472	ug/L	96

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\VOA105\2019\191115A\
 Data File : V05191115A03.d
 Acq On : 15 Nov 2019 7:42 am
 Operator : VOA105:PD
 Sample : WG1309356-4,31,10,10 (Sig #1); 8260 CCAL (Sig #2)
 Misc : WG1309356,ICAL16159 (Sig #1); WG,ICAL16159 (Sig #2)
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: Nov 15 08:51:38 2019
 Quant Method : I:\VOLATILES\VOA105\2019\191115A\V105_190921_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Mon Sep 23 12:05:21 2019
 Response via : Initial Calibration

CCAL FILE(s) : 1 - I:\VOLATILES\VOA105\2019\191115A\V05191115A02.d
 Sub List : 8260-NYTCL - Megamix plus Diox

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
97)	1,2,4-Trimethylbenzene	11.890	105	459070	8.485	ug/L	95
98)	sec-Butylbenzene	11.998	105	516392	8.256	ug/L	95
99)	p-Isopropyltoluene	12.145	119	501832	8.763	ug/L	95
100)	1,3-Dichlorobenzene	12.223	146	268082	8.917	ug/L	96
101)	1,4-Dichlorobenzene	12.321	146	270873	8.727	ug/L	97
102)	p-Diethylbenzene	12.517	119	282900	8.701	ug/L	94
103)	n-Butylbenzene	12.576	91	404942	7.883	ug/L	96
104)	1,2-Dichlorobenzene	12.742	146	231080	8.846	ug/L	96
105)	1,2,4,5-Tetramethylben...	13.310	119	391697	9.009	ug/L	95
106)	1,2-Dibromo-3-chloropr...	13.526	155	9106	8.713	ug/L	95
108)	Hexachlorobutadiene	14.114	225	71562	9.535	ug/L	99
109)	1,2,4-Trichlorobenzene	14.143	180	127968	8.977	ug/L	99
110)	Naphthalene	14.437	128	169513	8.664	ug/L	100
111)	1,2,3-Trichlorobenzene	14.604	180	92128	9.138	ug/L	99

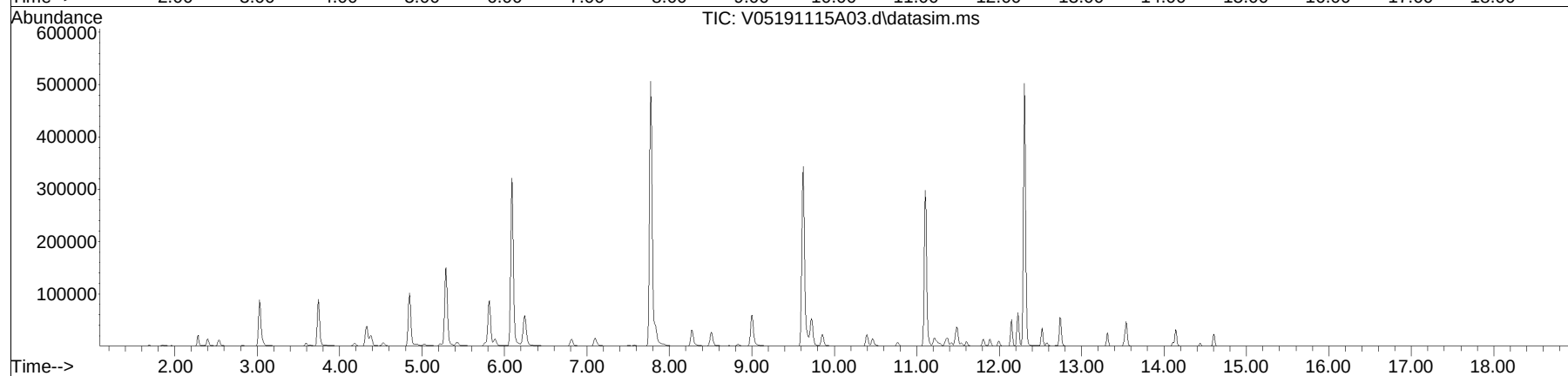
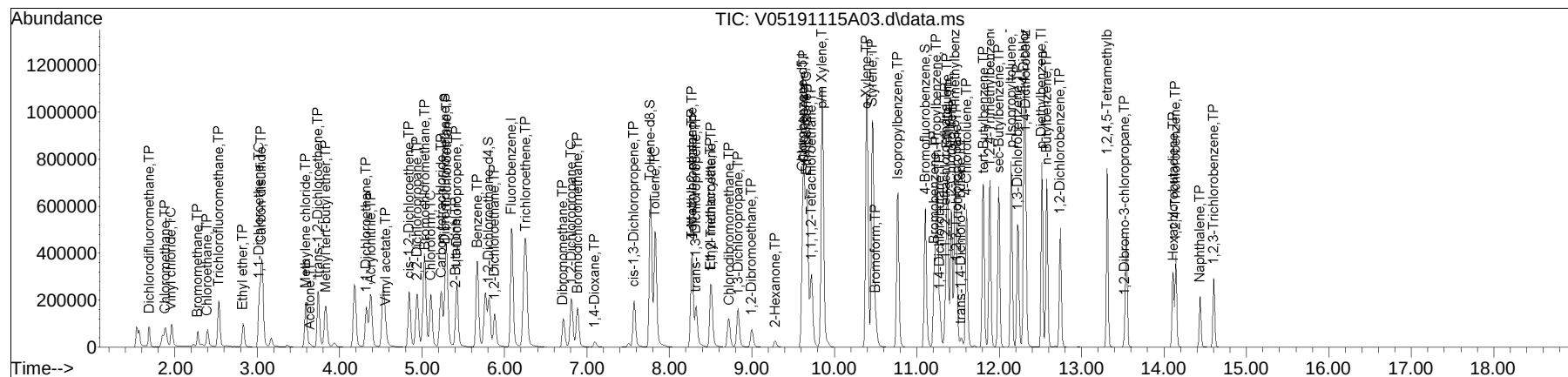
(#) = qualifier out of range (m) = manual integration (+) = signals summed

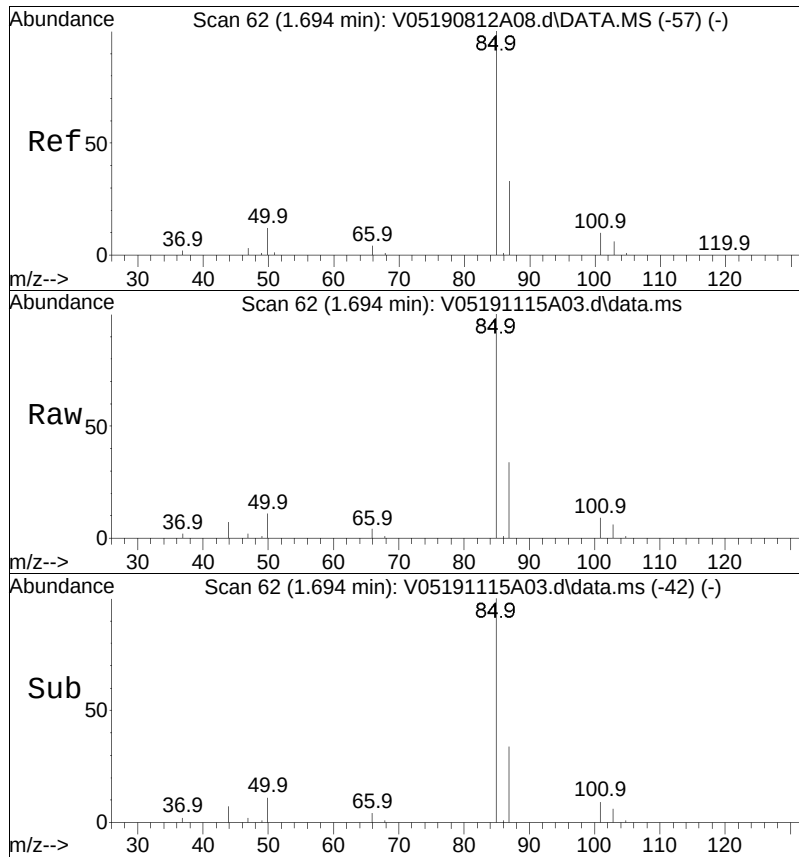
Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\VOA105\2019\191115A\
 Data File : V05191115A03.d
 Acq On : 15 Nov 2019 7:42 am
 Operator : VOA105:PD
 Sample : WG1309356-4,31,10,10 (Sig #1); 8260 CCAL (Sig #2)
 Misc : WG1309356,ICAL16159 (Sig #1); WG,ICAL16159 (Sig #2)
 ALS Vial : 3 Sample Multiplier: 1

Quant Time: Nov 15 08:51:38 2019
 Quant Method : I:\VOLATILES\VOA105\2019\191115A\V105_190921_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Mon Sep 23 12:05:21 2019
 Response via : Initial Calibration

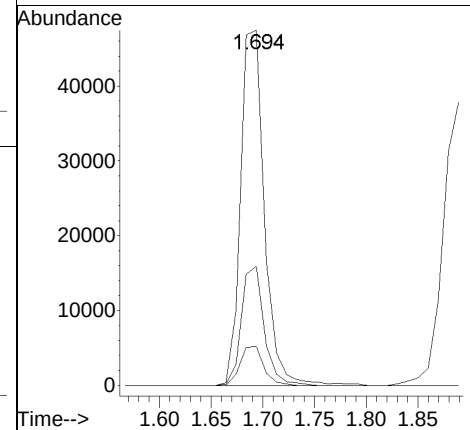
Sub List : 8260-NYTCL - Megamix plus Diox91115A\V05191115A02.d•

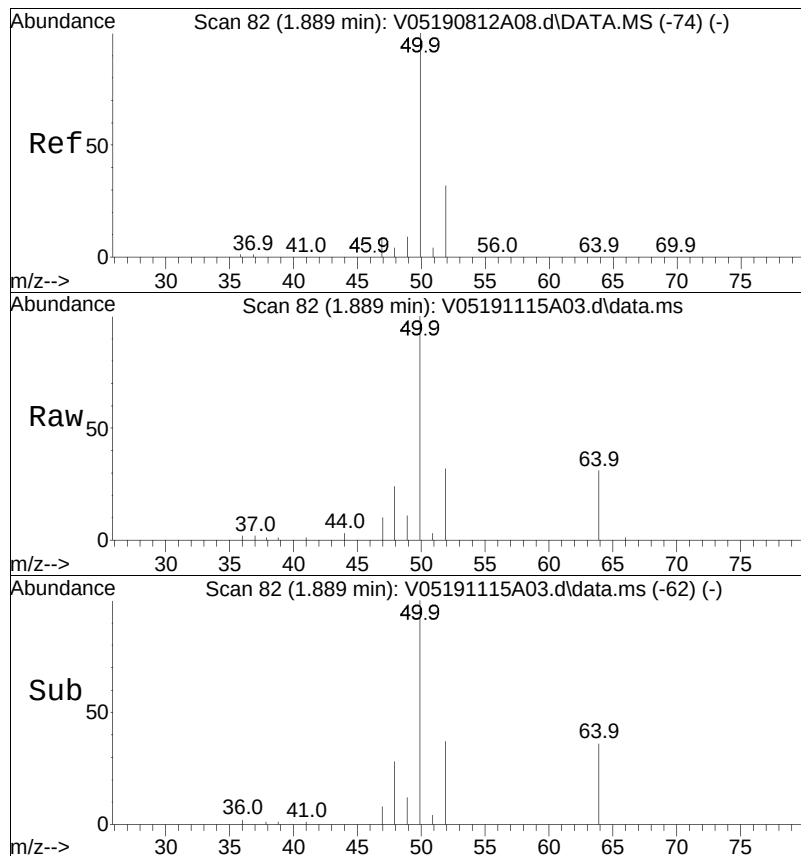




#2
 Dichlorodifluoromethane
 Concen: 5.53 ug/L
 RT: 1.694 min Scan# 62
 Delta R.T. -0.000 min
 Lab File: V05191115A03.d
 Acq: 15 Nov 2019 7:42 am

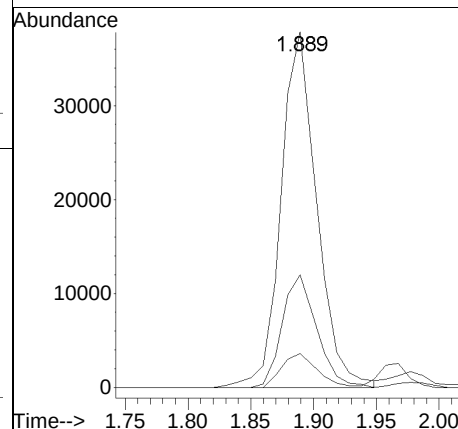
Tgt Ion	Ratio	Resp	Lower	Upper
85	100	76137		
87	32.0		20.9	43.5
50	10.9		6.8	14.0

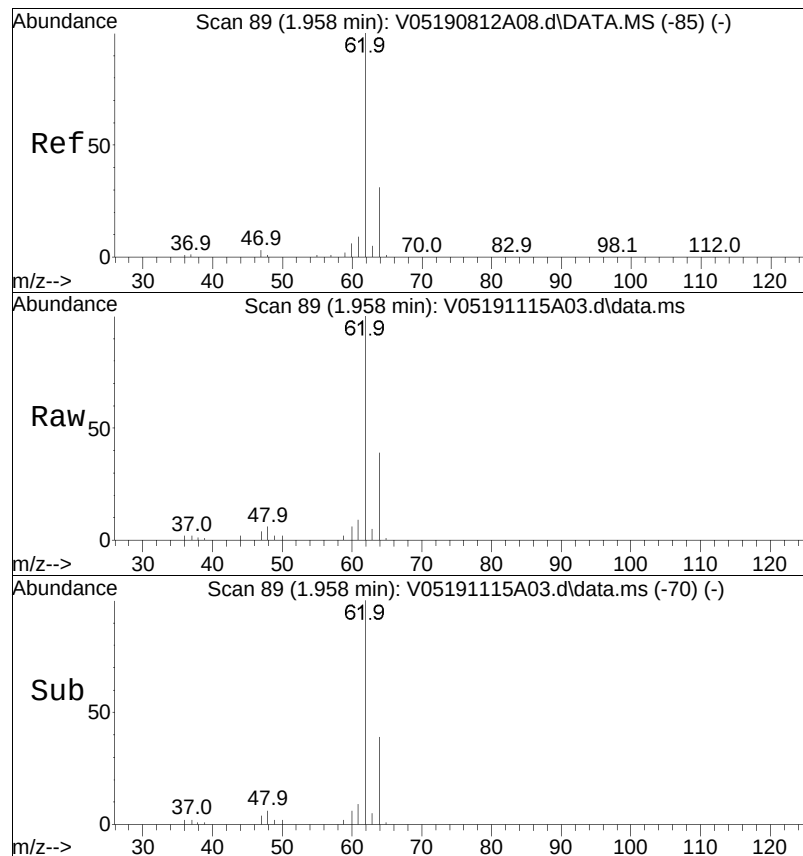




#3
 Chloromethane
 Concen: 5.41 ug/L
 RT: 1.889 min Scan# 82
 Delta R.T. -0.000 min
 Lab File: V05191115A03.d
 Acq: 15 Nov 2019 7:42 am

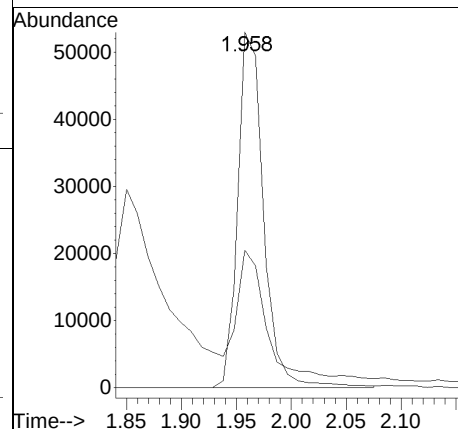
Tgt	Ion: 50	Resp:	74840
Ion	Ratio	Lower	Upper
50	100		
52	30.5	12.6	52.6
47	9.6	0.0	30.1

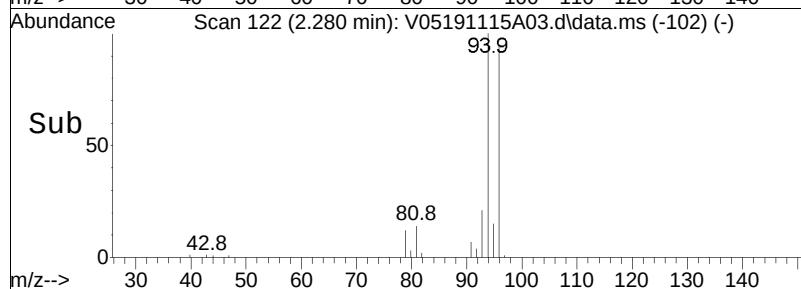
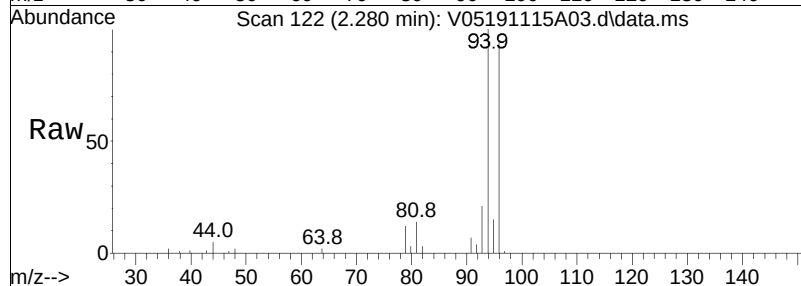
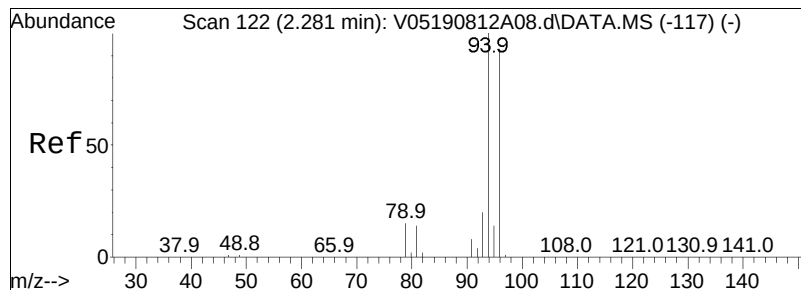




#4
 Vinyl chloride
 Concen: 7.13 ug/L
 RT: 1.958 min Scan# 89
 Delta R.T. -0.010 min
 Lab File: V05191115A03.d
 Acq: 15 Nov 2019 7:42 am

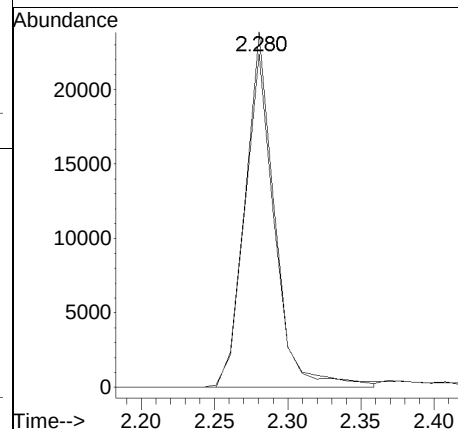
Tgt Ion	Ratio	Lower	Upper
62	100		
64	47.4	13.5	53.5

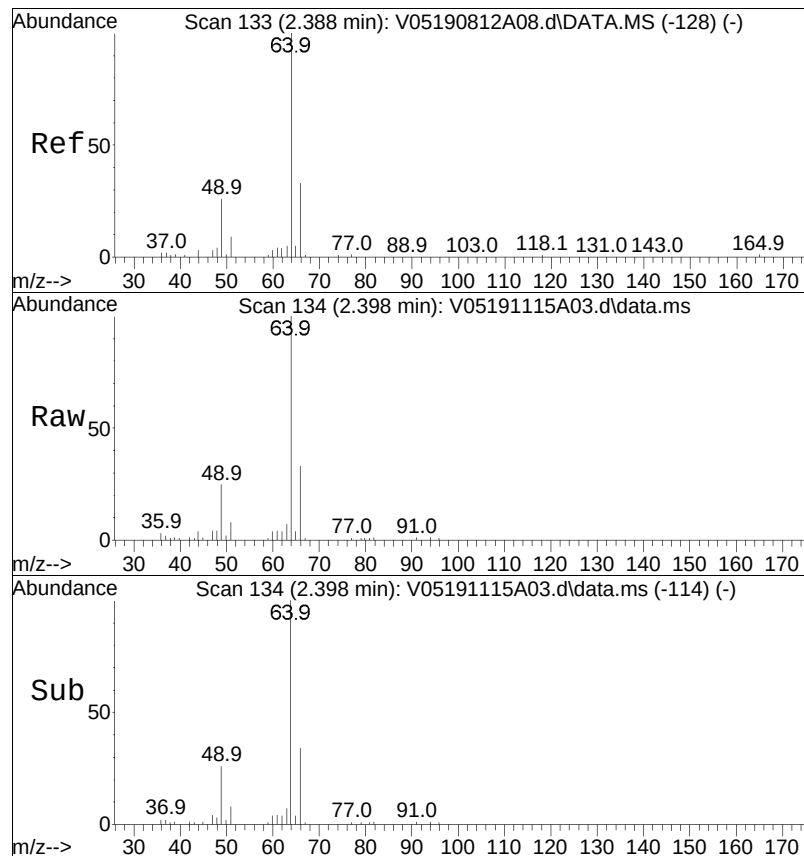




#5
 Bromomethane
 Concen: 6.03 ug/L
 RT: 2.280 min Scan# 122
 Delta R.T. -0.000 min
 Lab File: V05191115A03.d
 Acq: 15 Nov 2019 7:42 am

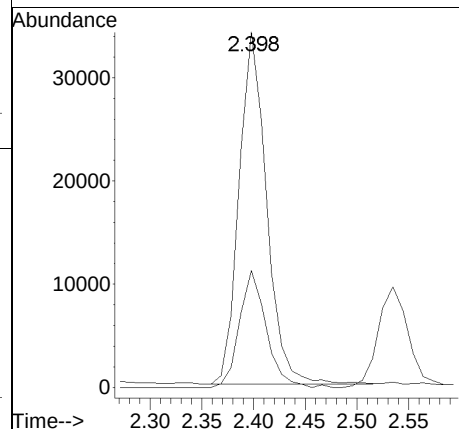
Tgt Ion	Ratio	Lower	Upper
94	100		
96	95.0	75.4	115.4

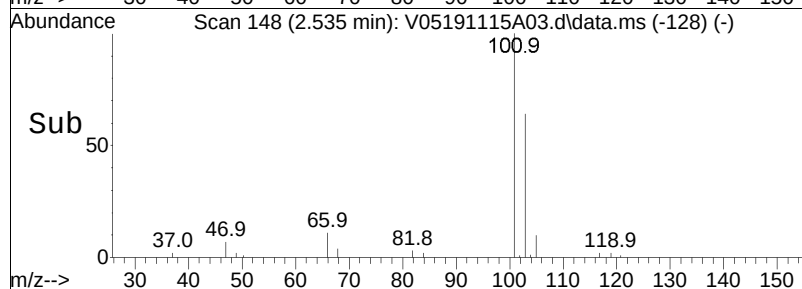
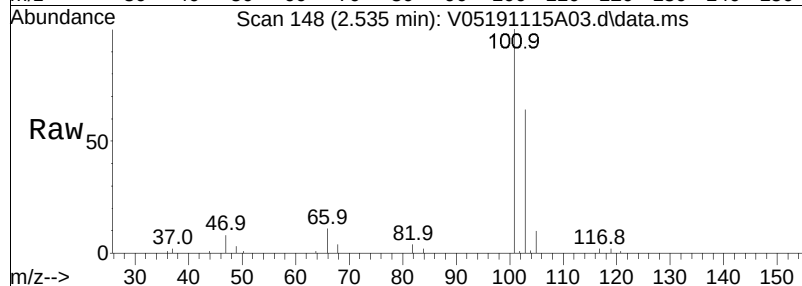
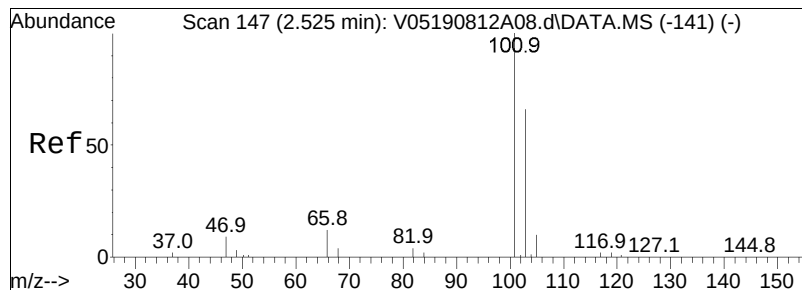




#6
 Chloroethane
 Concen: 8.46 ug/L
 RT: 2.398 min Scan# 134
 Delta R.T. -0.000 min
 Lab File: V05191115A03.d
 Acq: 15 Nov 2019 7:42 am

Tgt Ion	Ratio	Lower	Upper
64	100		
66	32.2	13.8	53.8





#7

Trichlorofluoromethane

Concen: 8.56 ug/L

RT: 2.535 min Scan# 148

Delta R.T. -0.000 min

Lab File: V05191115A03.d

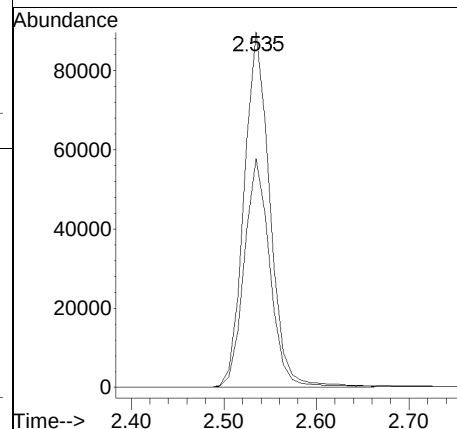
Acq: 15 Nov 2019 7:42 am

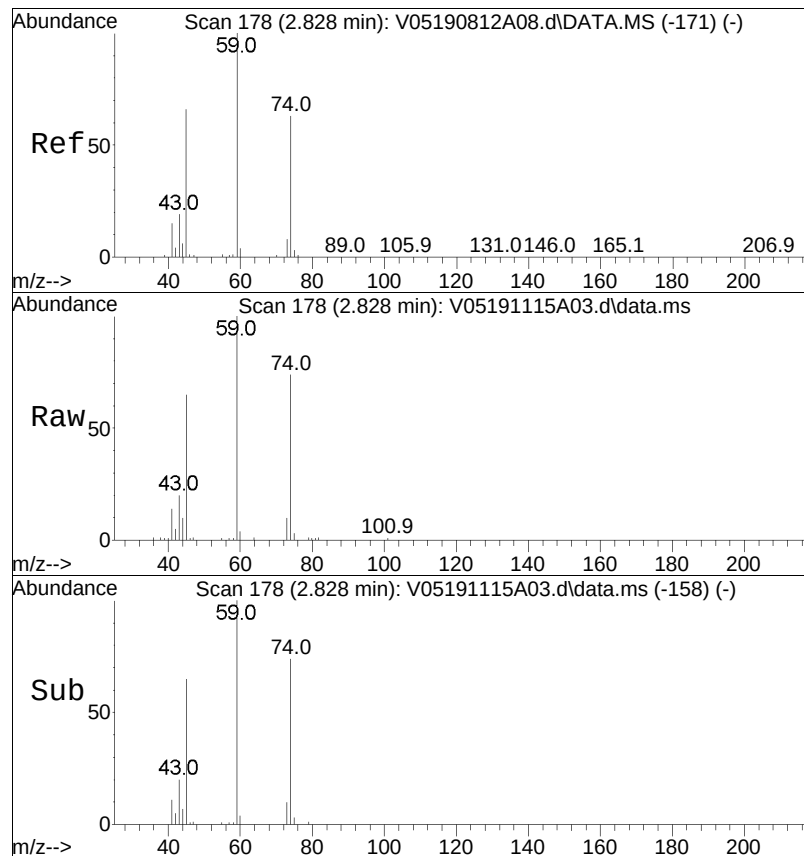
Tgt Ion:101 Resp: 174623

Ion Ratio Lower Upper

101 100

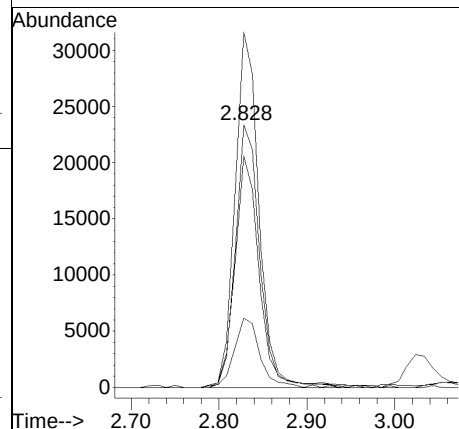
103 64.4 51.8 77.6

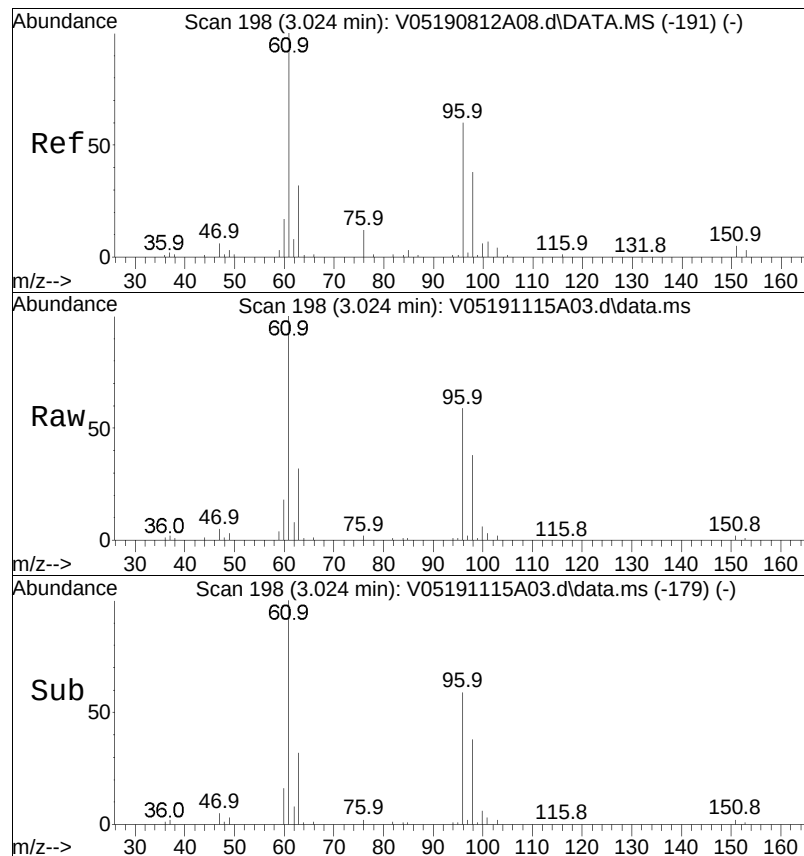




#8
Ethyl ether
Concen: 10.52 ug/L
RT: 2.828 min Scan# 178
Delta R.T. -0.000 min
Lab File: V05191115A03.d
Acq: 15 Nov 2019 7:42 am

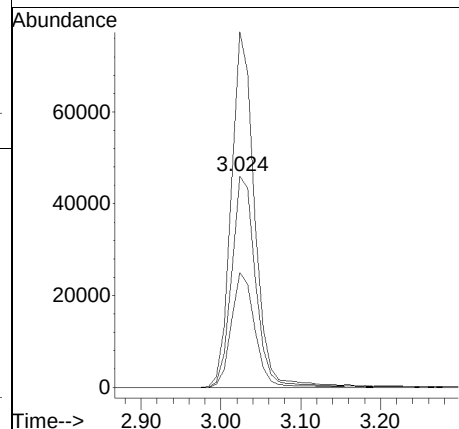
Tgt Ion:	74	Resp:	44959
Ion	Ratio	Lower	Upper
74	100		
59	132.0	78.6	163.2
45	87.9	49.8	103.4
43	27.8	18.0	37.4

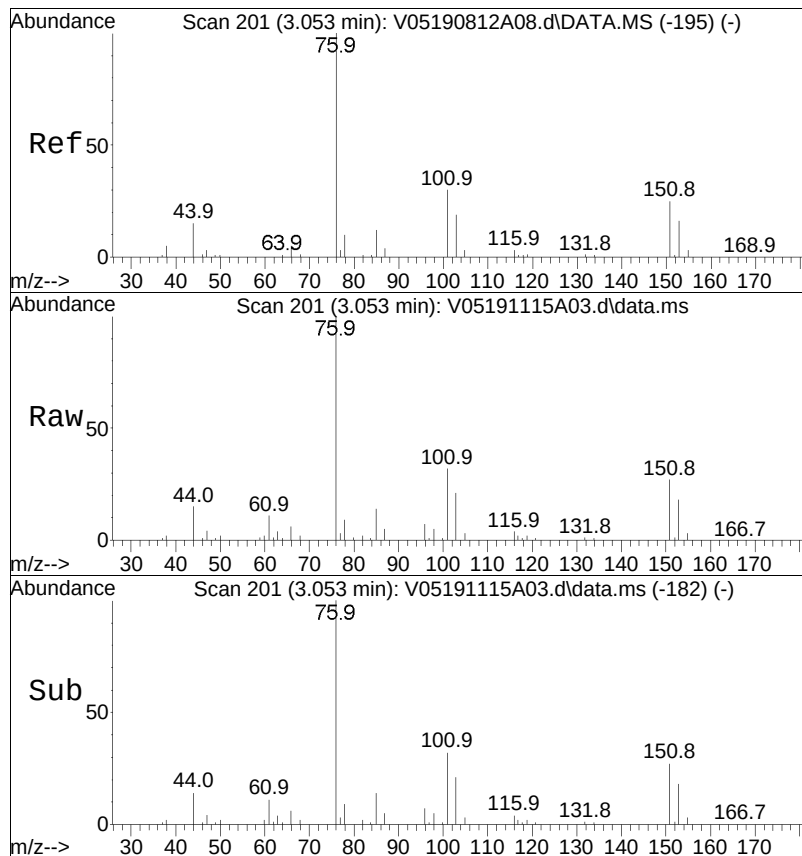




#10
 1,1-Dichloroethene
 Concen: 9.12 ug/L
 RT: 3.024 min Scan# 198
 Delta R.T. -0.010 min
 Lab File: V05191115A03.d
 Acq: 15 Nov 2019 7:42 am

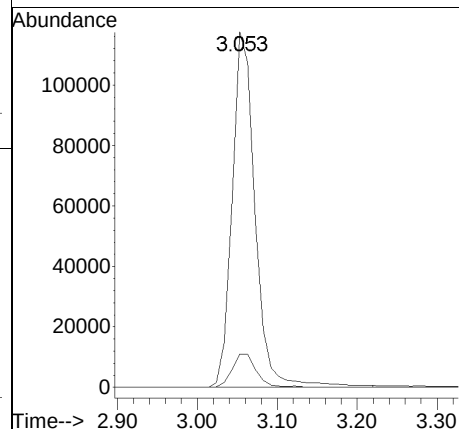
Tgt	Ion	Resp	Lower	Upper
96	100	96748		
61	163.5	136.7	205.1	
63	53.2	45.0	67.6	

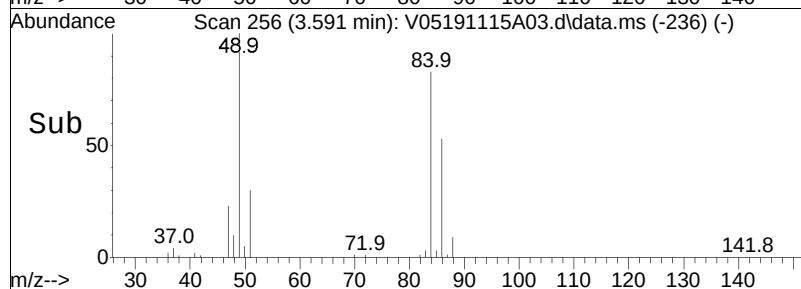
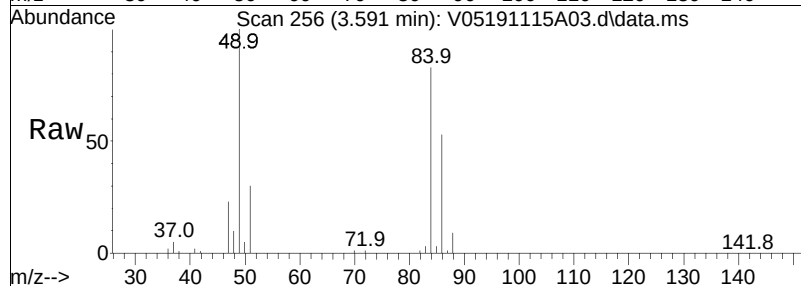
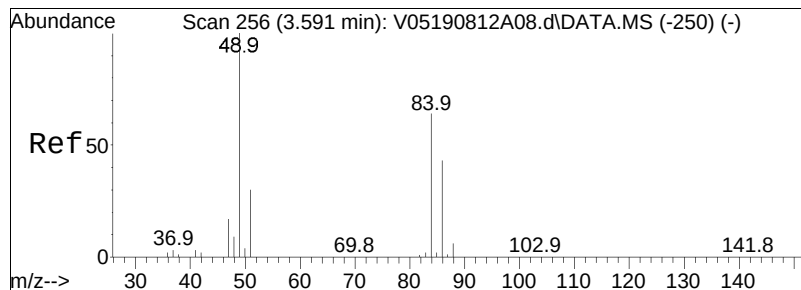




#11
Carbon disulfide
Concen: 7.88 ug/L
RT: 3.053 min Scan# 201
Delta R.T. -0.010 min
Lab File: V05191115A03.d
Acq: 15 Nov 2019 7:42 am

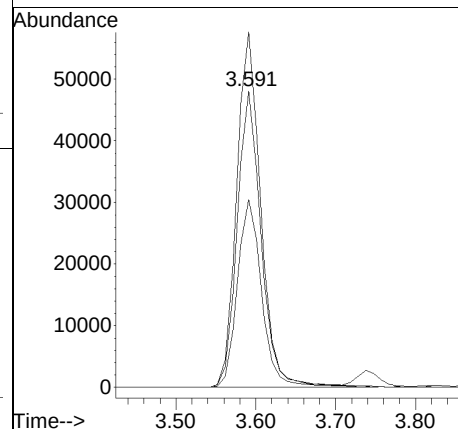
Tgt Ion: 76 Resp: 235594
Ion Ratio Lower Upper
76 100
78 10.0 6.7 13.9

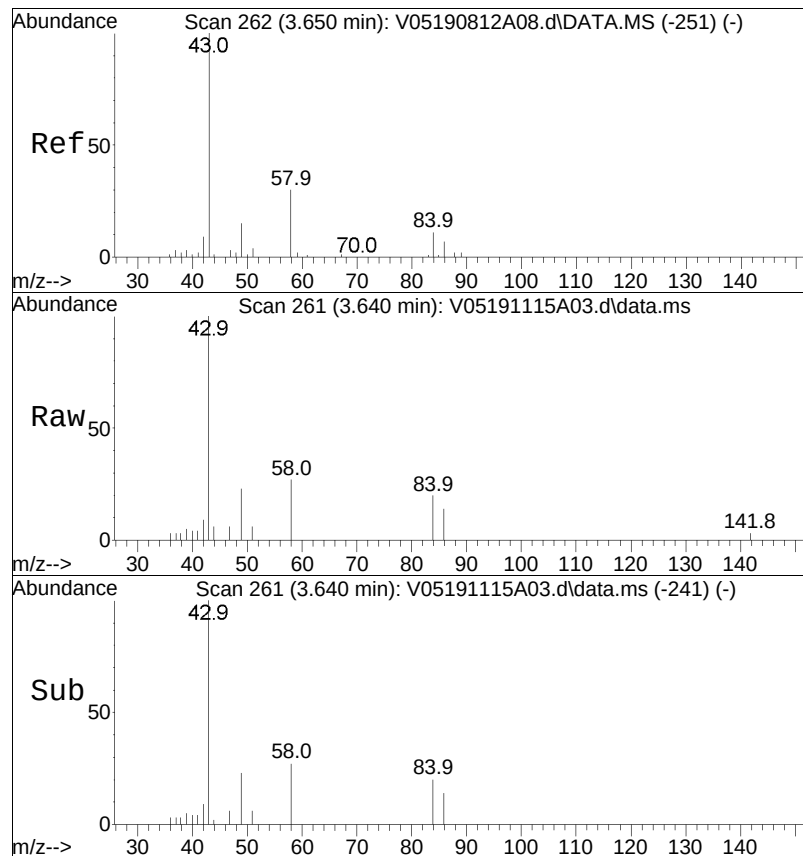




#15
Methylene chloride
Concen: 8.65 ug/L
RT: 3.591 min Scan# 256
Delta R.T. -0.000 min
Lab File: V05191115A03.d
Acq: 15 Nov 2019 7:42 am

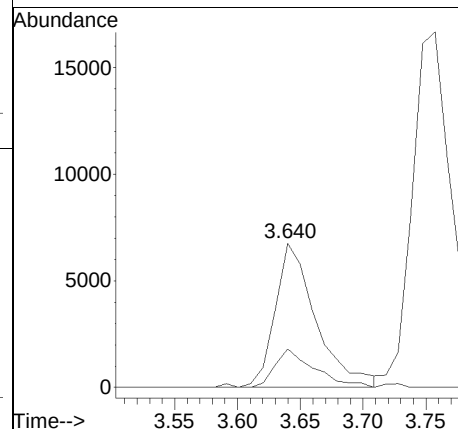
Tgt Ion:	84	Resp:	101105
Ion Ratio	Lower	Upper	
84	100		
86	64.2	42.1	87.5
49	119.5	69.3	143.9

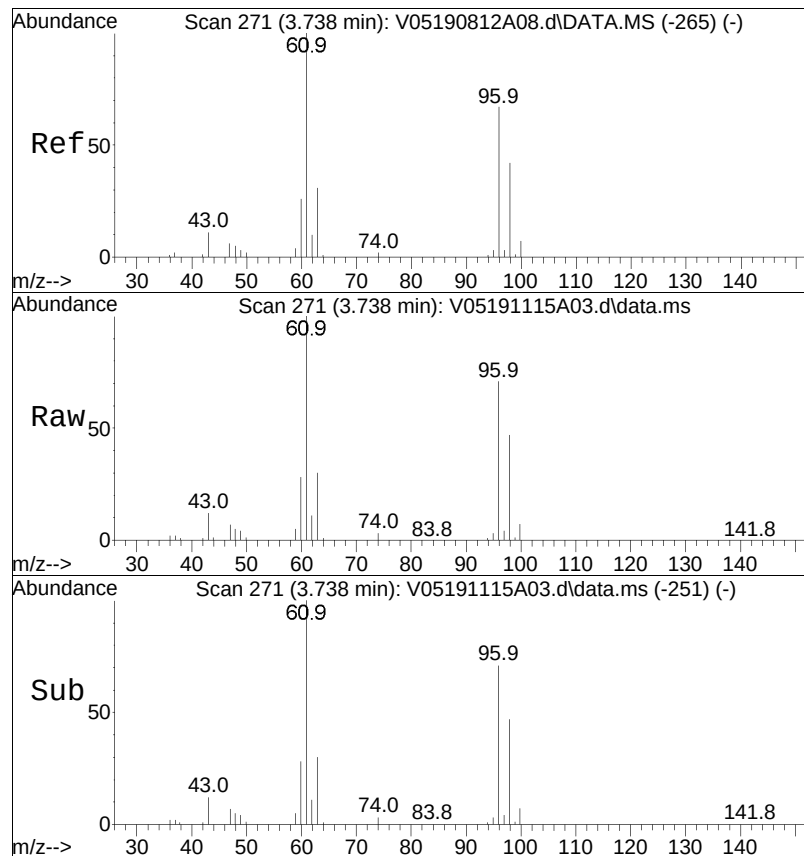




#17
 Acetone
 Concen: 7.86 ug/L
 RT: 3.640 min Scan# 261
 Delta R.T. -0.000 min
 Lab File: V05191115A03.d
 Acq: 15 Nov 2019 7:42 am

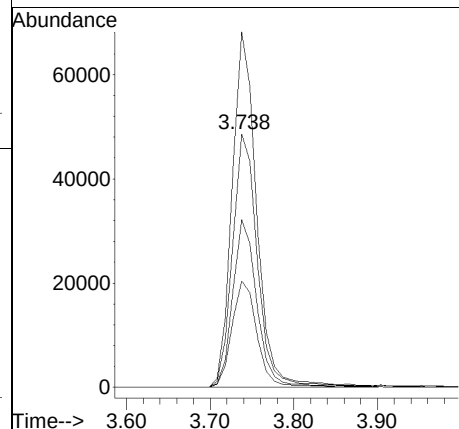
Tgt Ion	Ratio	Lower	Upper
43	100		
58	25.6	22.0	33.0

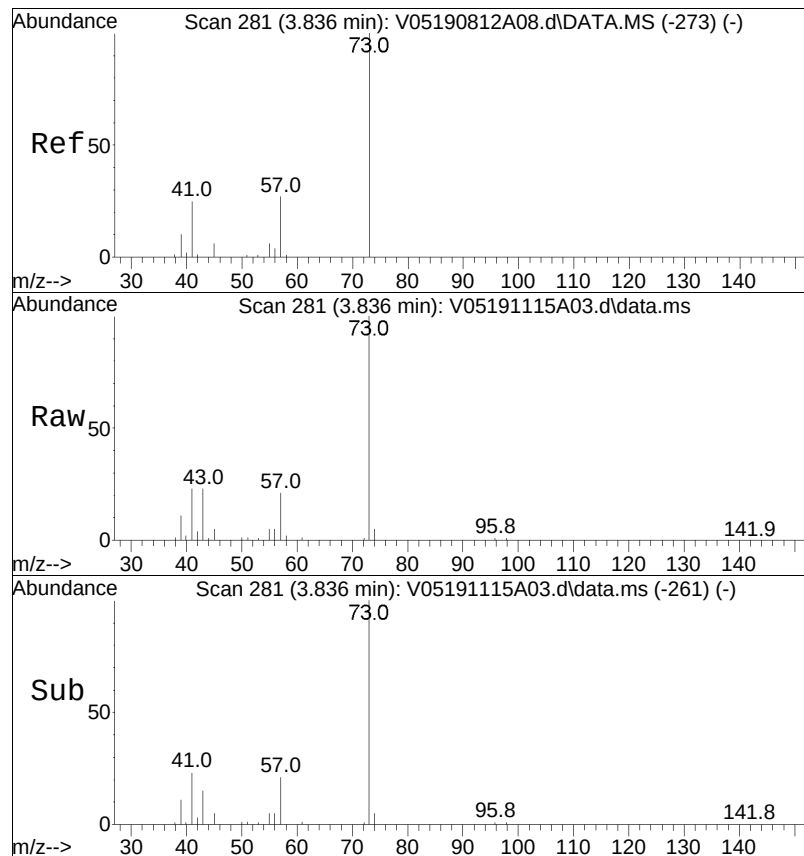




#18
 trans-1,2-Dichloroethene
 Concen: 8.70 ug/L
 RT: 3.738 min Scan# 271
 Delta R.T. -0.000 min
 Lab File: V05191115A03.d
 Acq: 15 Nov 2019 7:42 am

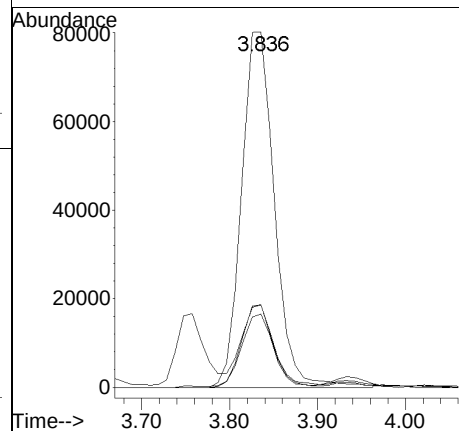
Tgt Ion:	96	Resp:	101870
Ion Ratio	Lower	Upper	
96	100		
61	137.6	91.7	190.5
98	64.5	41.1	85.5
63	42.0	29.4	61.0

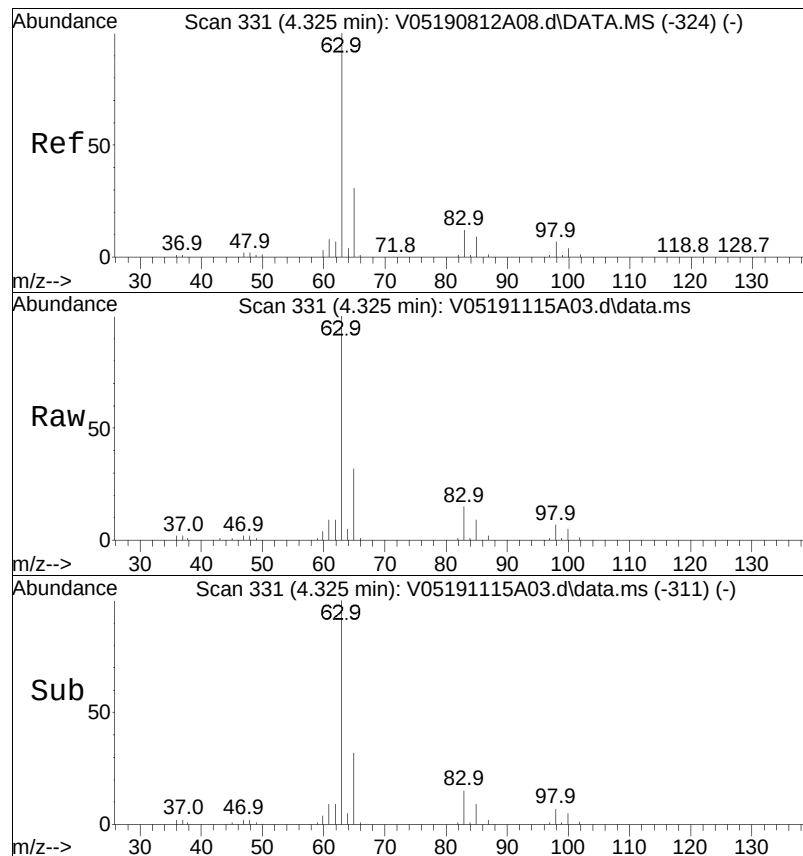




#20
Methyl tert-butyl ether
Concen: 9.12 ug/L
RT: 3.836 min Scan# 281
Delta R.T. -0.000 min
Lab File: V05191115A03.d
Acq: 15 Nov 2019 7:42 am

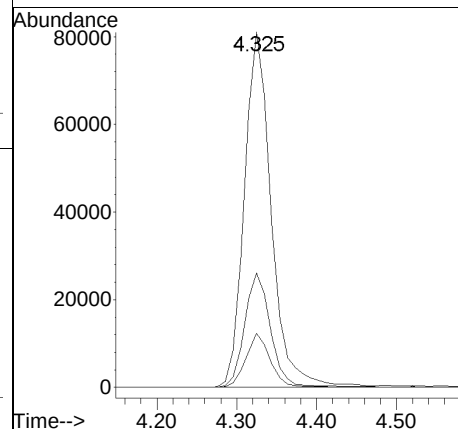
Tgt Ion:	73	Resp:	209586
Ion	Ratio	Lower	Upper
73	100		
57	20.0	11.8	24.6
43	22.2	13.5	27.9
41	21.6	13.3	27.5

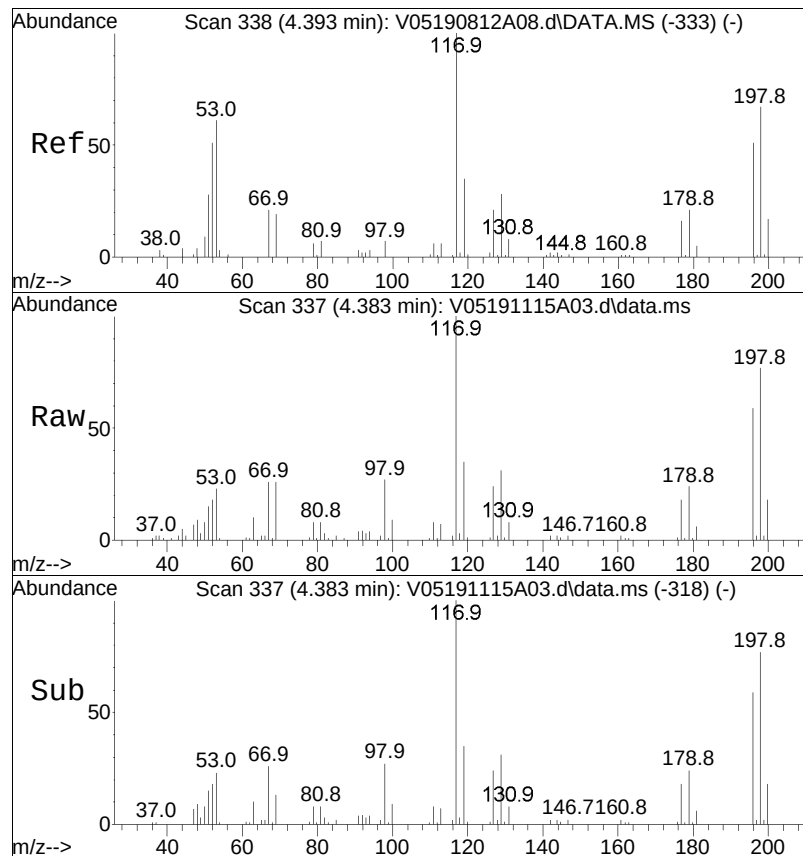




#23
 1,1-Dichloroethane
 Concen: 8.22 ug/L
 RT: 4.325 min Scan# 331
 Delta R.T. -0.000 min
 Lab File: V05191115A03.d
 Acq: 15 Nov 2019 7:42 am

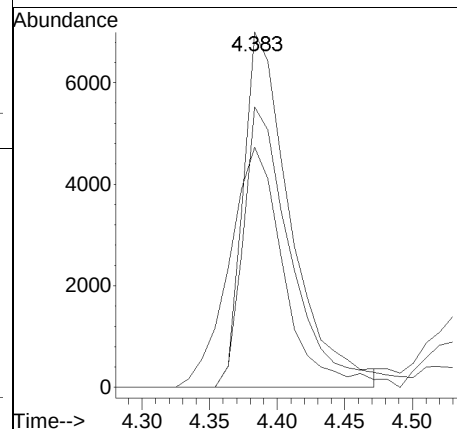
Tgt Ion:	63	Resp:	190732
Ion Ratio	Lower	Upper	
63	100		
65	31.1	11.9	51.9
83	13.8	0.0	34.2

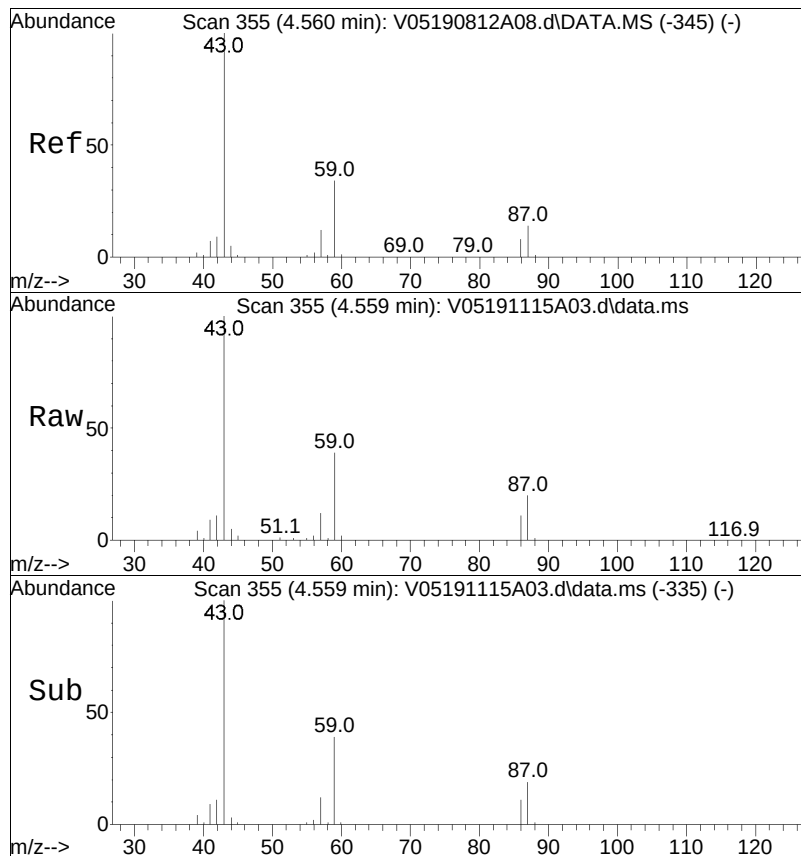




#25
 Acrylonitrile
 Concen: 8.68 ug/L
 RT: 4.383 min Scan# 337
 Delta R.T. -0.010 min
 Lab File: V05191115A03.d
 Acq: 15 Nov 2019 7:42 am

Tgt Ion	Ratio	Lower	Upper
53	100		
52	81.1	68.9	103.3
51	78.2	70.1	105.1





#27

Vinyl acetate

Concen: 6.45 ug/L

RT: 4.559 min Scan# 355

Delta R.T. -0.000 min

Lab File: V05191115A03.d

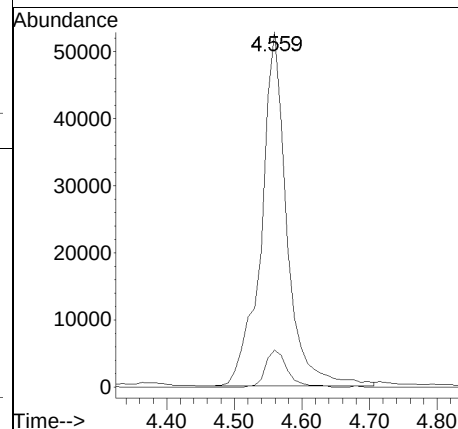
Acq: 15 Nov 2019 7:42 am

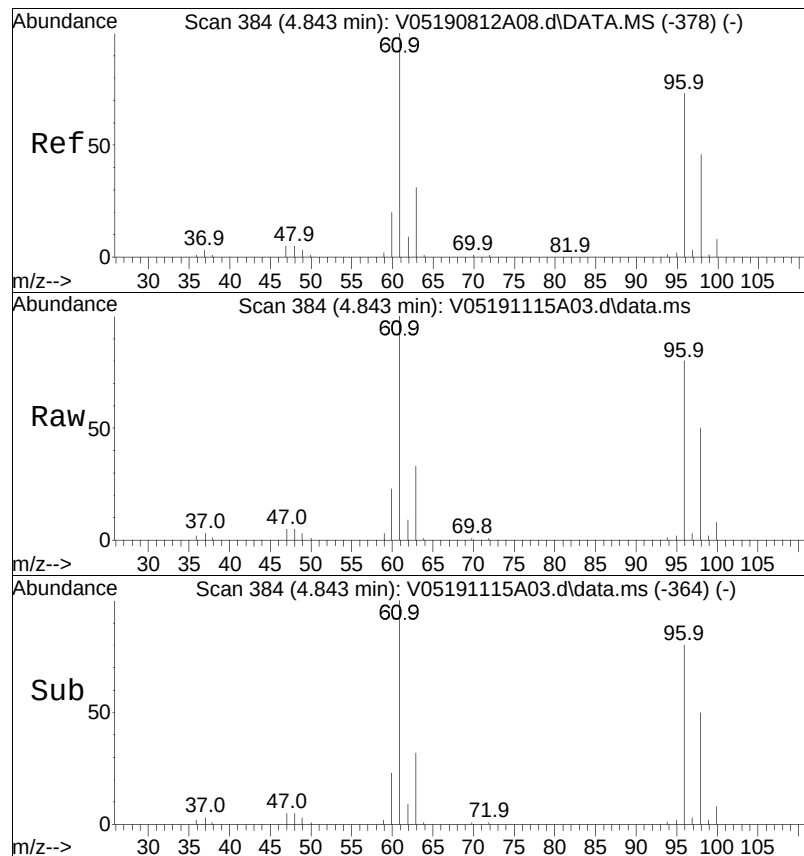
Tgt Ion: 43 Resp: 138941

Ion Ratio Lower Upper

43 100

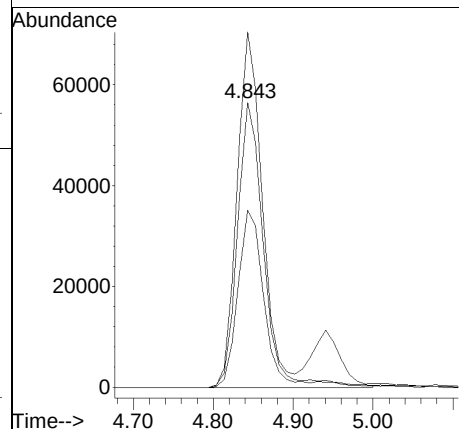
86 9.2 7.7 11.5

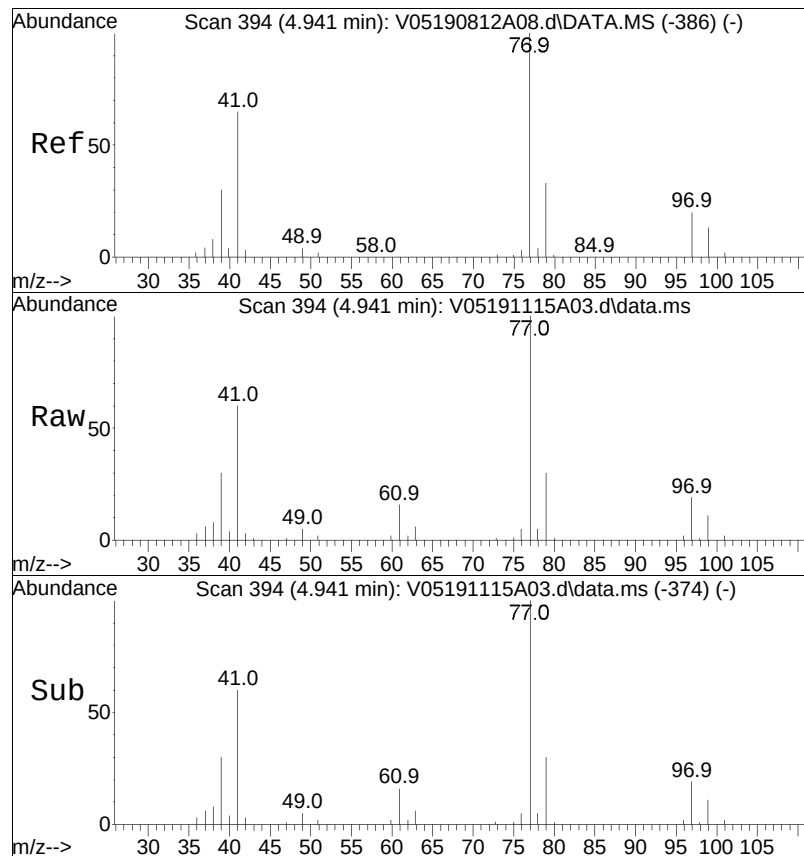




#28
 cis-1,2-Dichloroethene
 Concen: 10.35 ug/L
 RT: 4.843 min Scan# 384
 Delta R.T. -0.000 min
 Lab File: V05191115A03.d
 Acq: 15 Nov 2019 7:42 am

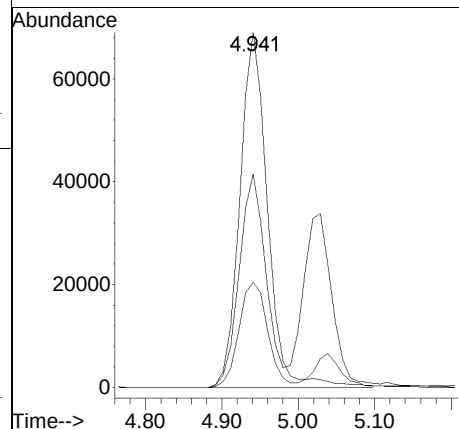
Tgt Ion:	96	Resp:	128612
Ion Ratio	Lower	Upper	
96	100		
61	120.1	100.5	150.7
98	61.3	49.8	74.8

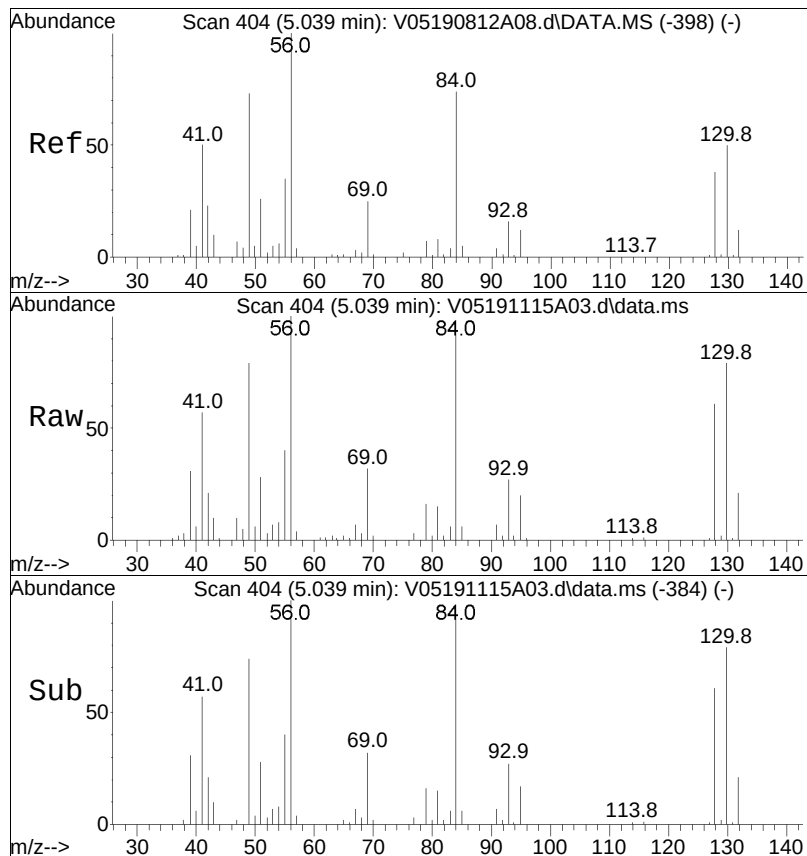




#29
 2,2-Dichloropropane
 Concen: 9.33 ug/L
 RT: 4.941 min Scan# 394
 Delta R.T. -0.000 min
 Lab File: V05191115A03.d
 Acq: 15 Nov 2019 7:42 am

Tgt Ion	Ratio	Lower	Upper
77	100		
41	57.9	35.7	74.1
79	30.7	20.6	42.8





#30

Bromochloromethane

Concen: 10.82 ug/L

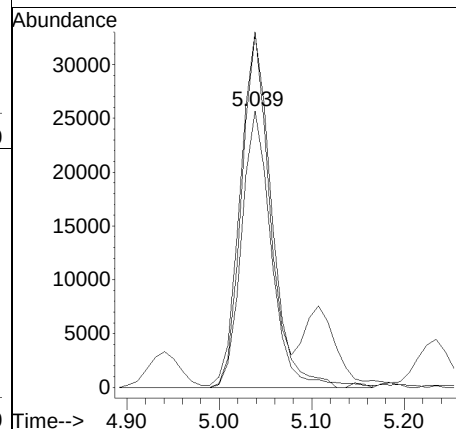
RT: 5.039 min Scan# 404

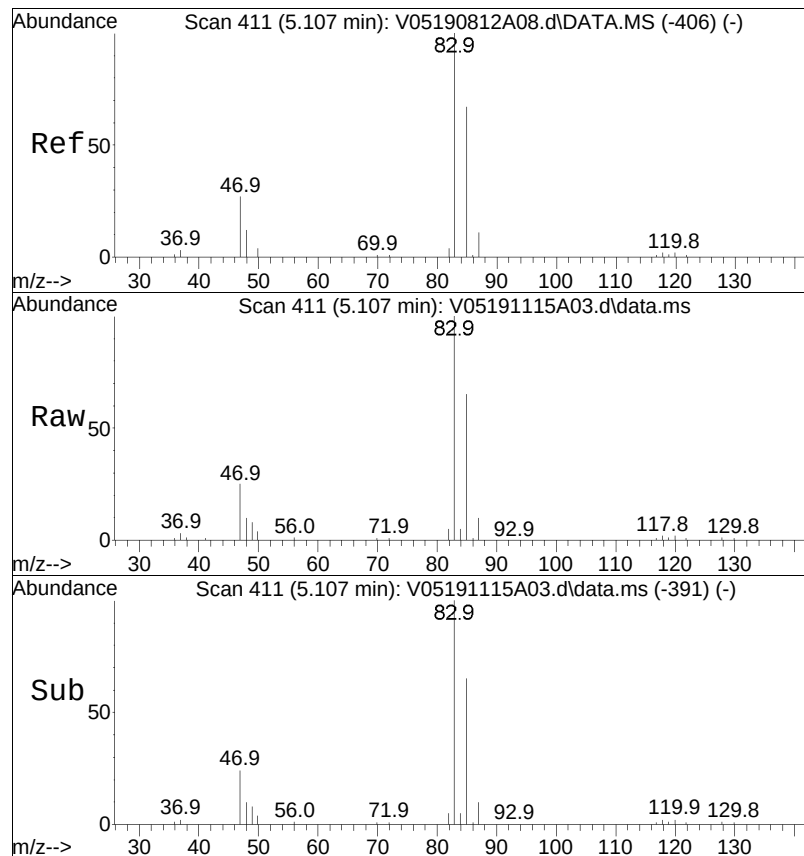
Delta R.T. -0.000 min

Lab File: V05191115A03.d

Acq: 15 Nov 2019 7:42 am

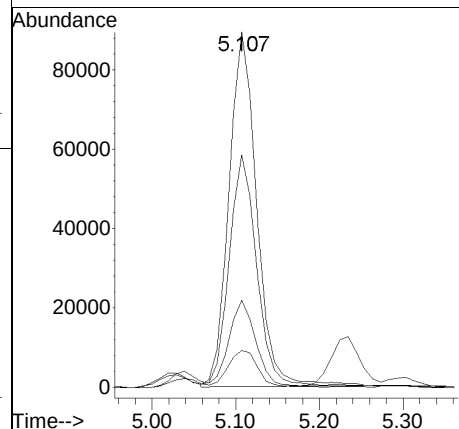
Tgt	Ion	Ratio	Lower	Upper
128	100			
49	123.4	109.0	163.4	
130	127.7	105.6	158.4	

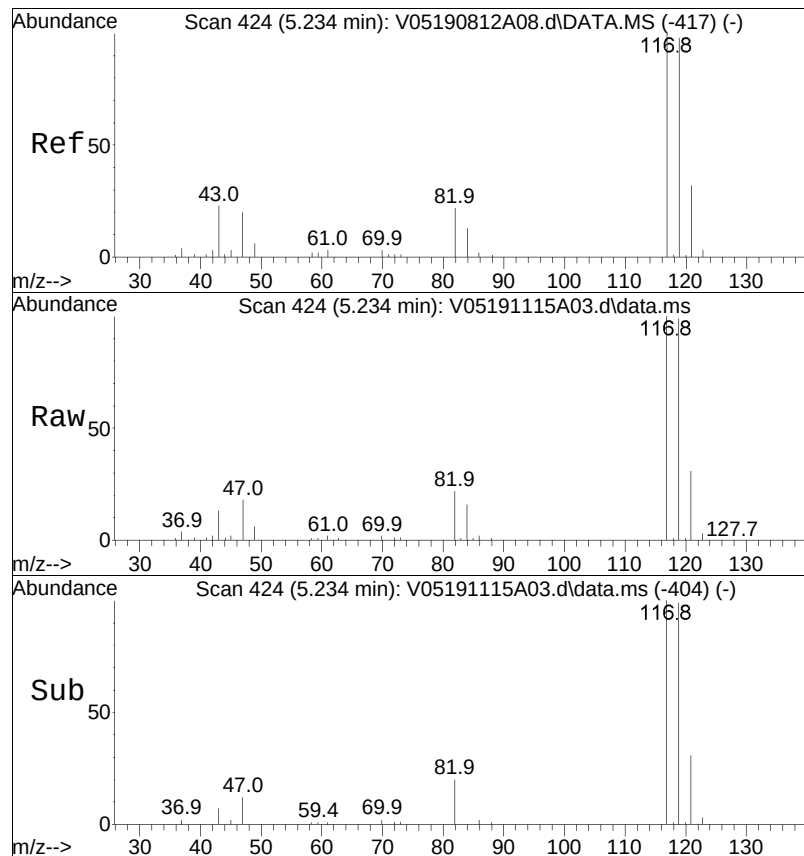




#32
 Chloroform
 Concen: 8.86 ug/L
 RT: 5.107 min Scan# 411
 Delta R.T. -0.000 min
 Lab File: V05191115A03.d
 Acq: 15 Nov 2019 7:42 am

Tgt	Ion: 83	Resp: 205999
Ion	Ratio	Lower Upper
83	100	
85	63.9	42.8 89.0
47	22.6	13.7 28.4
48	11.3	6.9 14.3





#34

Carbon tetrachloride

Concen: 9.16 ug/L

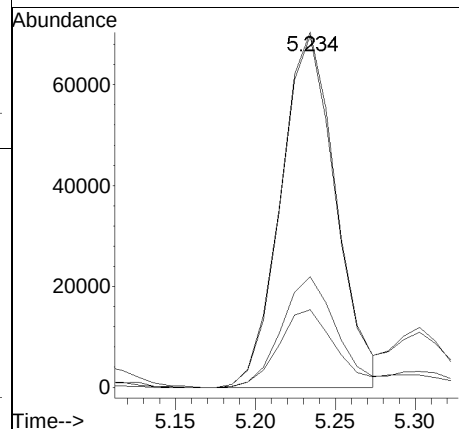
RT: 5.234 min Scan# 424

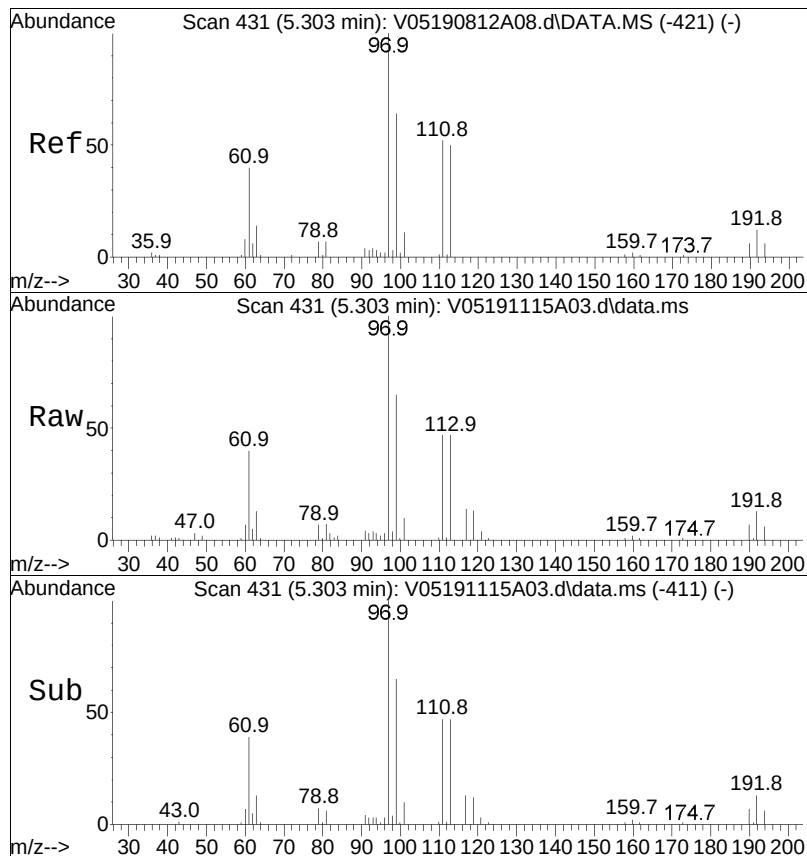
Delta R.T. -0.000 min

Lab File: V05191115A03.d

Acq: 15 Nov 2019 7:42 am

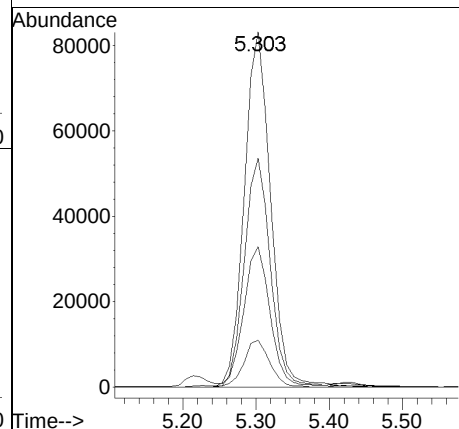
Tgt	Ion:117	Resp:	169756
Ion	Ratio	Lower	Upper
117	100		
119	97.6	63.6	132.2
121	31.6	19.8	41.0
82	22.6	15.9	32.9

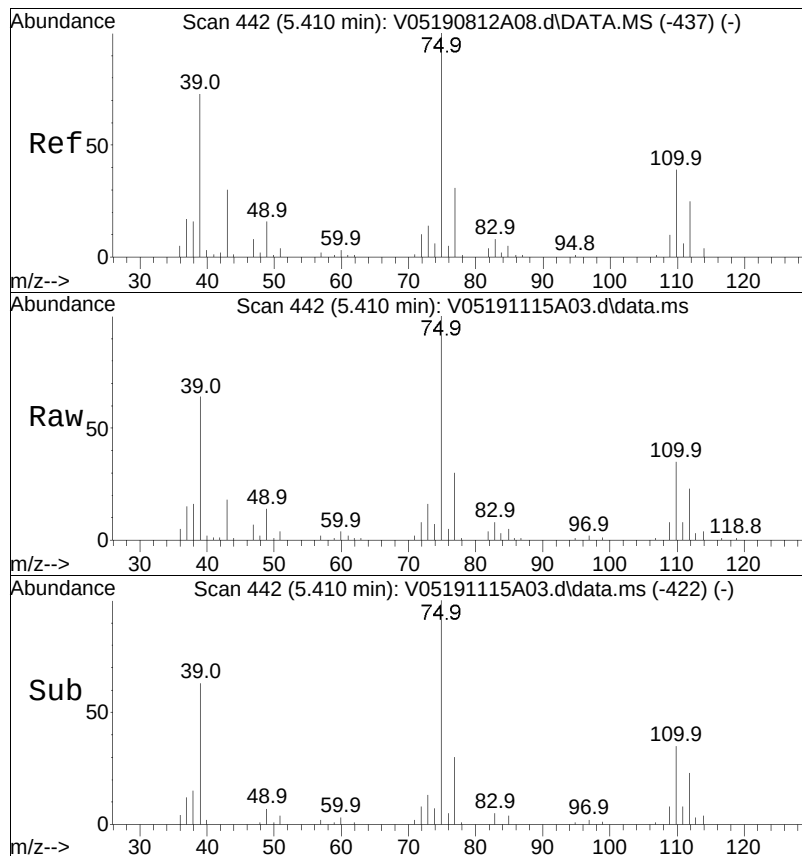




#37
 1,1,1-Trichloroethane
 Concen: 9.31 ug/L
 RT: 5.303 min Scan# 431
 Delta R.T. -0.000 min
 Lab File: V05191115A03.d
 Acq: 15 Nov 2019 7:42 am

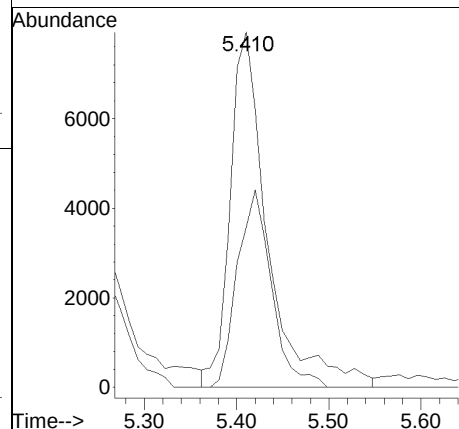
Tgt Ion:	97	Resp:	210452
Ion Ratio	Lower	Upper	
97	100		
99	64.0	41.7	86.5
61	38.8	26.1	54.3
63	13.1	8.5	17.6

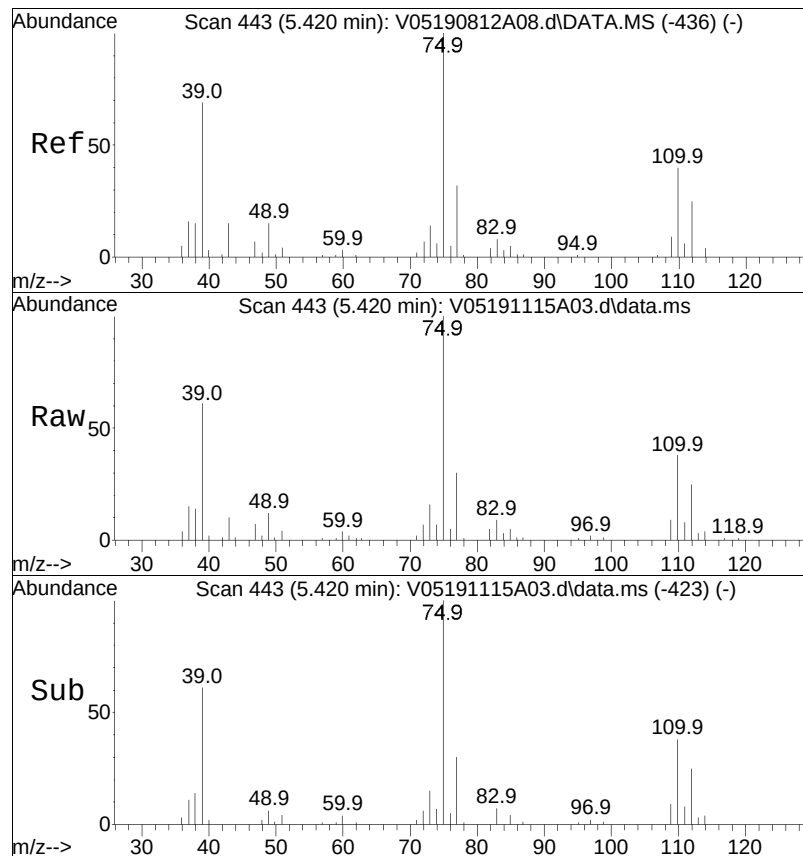




#39
 2-Butanone
 Concen: 8.23 ug/L M1
 RT: 5.410 min Scan# 442
 Delta R.T. -0.000 min
 Lab File: V05191115A03.d
 Acq: 15 Nov 2019 7:42 am

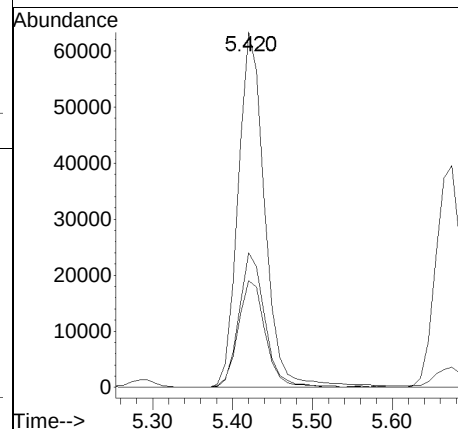
Tgt Ion: 43 Resp: 22523
 Ion Ratio Lower Upper
 43 100
 72 50.7 55.6 83.4#

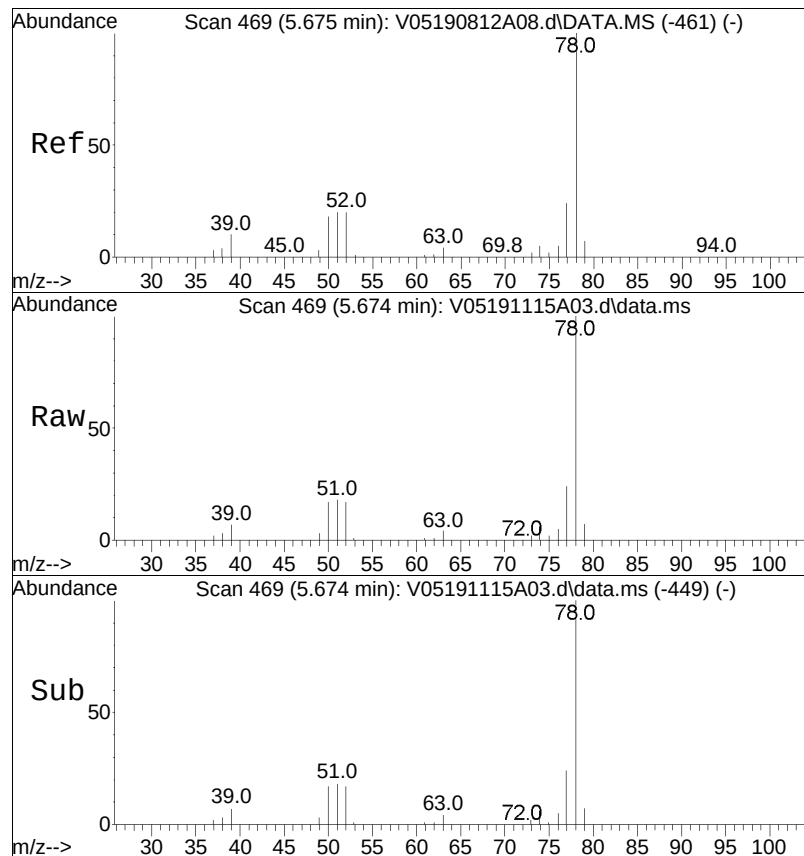




#40
 1,1-Dichloropropene
 Concen: 8.56 ug/L
 RT: 5.420 min Scan# 443
 Delta R.T. -0.000 min
 Lab File: V05191115A03.d
 Acq: 15 Nov 2019 7:42 am

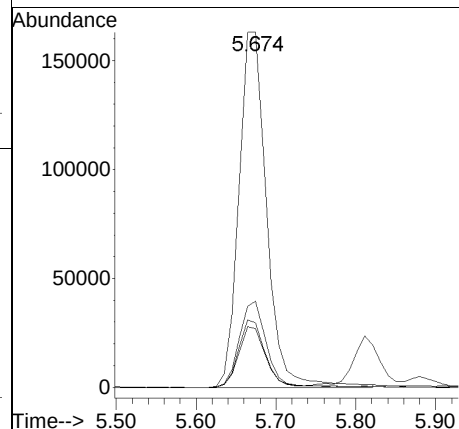
Tgt	Ion	Ratio	Lower	Upper
75	100			
110	36.8	21.1	43.7	
77	30.8	20.1	41.7	

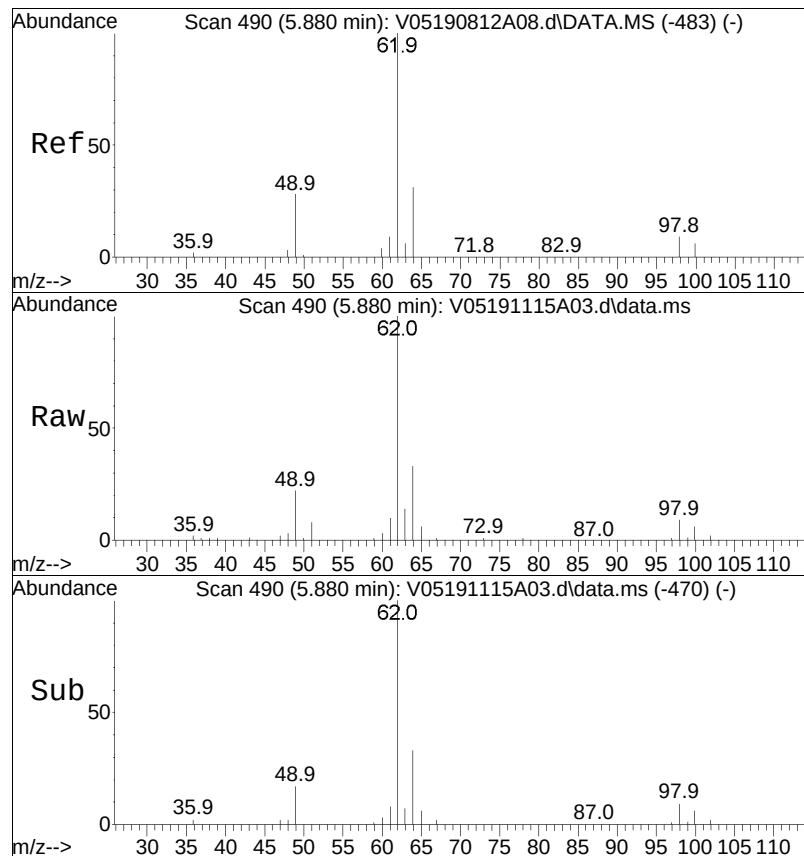




#41
Benzene
Concen: 8.79 ug/L
RT: 5.674 min Scan# 469
Delta R.T. -0.000 min
Lab File: V05191115A03.d
Acq: 15 Nov 2019 7:42 am

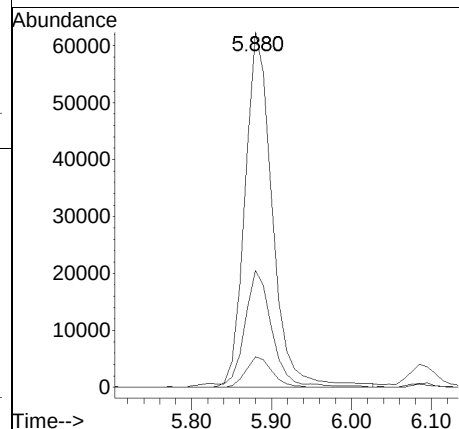
Tgt Ion: 78	Resp: 396128
Ion Ratio	Lower Upper
78 100	
77 23.9	15.2 31.6
51 18.1	10.5 21.7
52 16.6	9.5 19.7

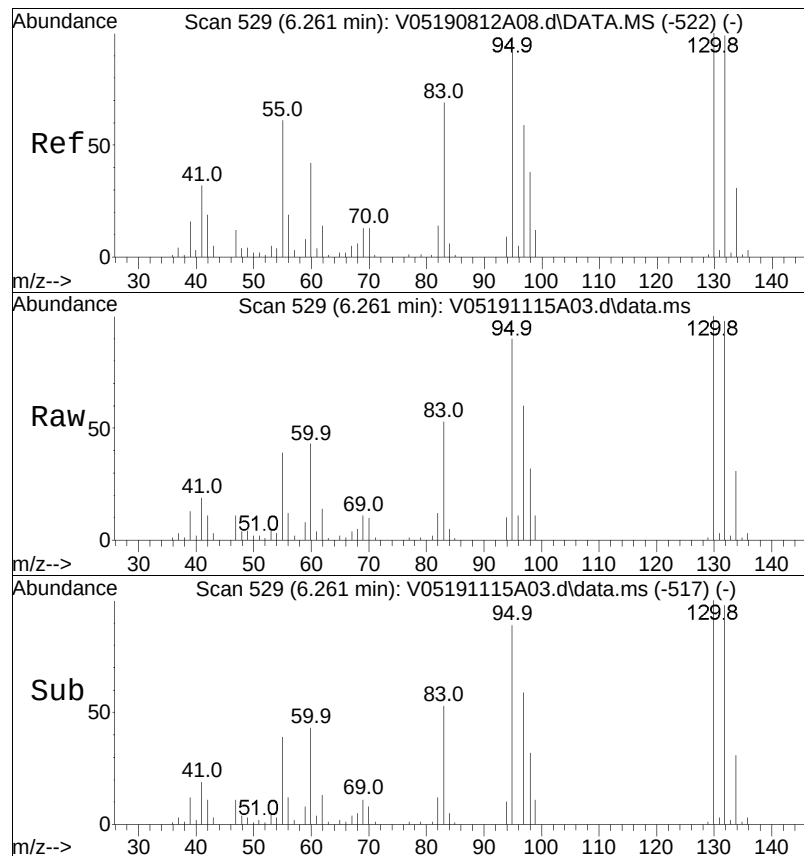




#44
 1,2-Dichloroethane
 Concen: 8.58 ug/L
 RT: 5.880 min Scan# 490
 Delta R.T. -0.000 min
 Lab File: V05191115A03.d
 Acq: 15 Nov 2019 7:42 am

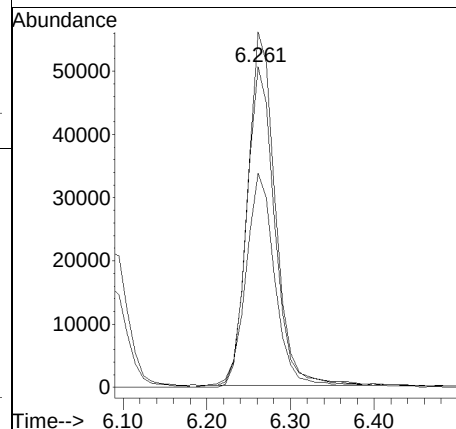
Tgt	Ion	Ratio	Lower	Upper
62	100			
64	33.7	13.2	53.2	
98	8.3	0.0	27.8	

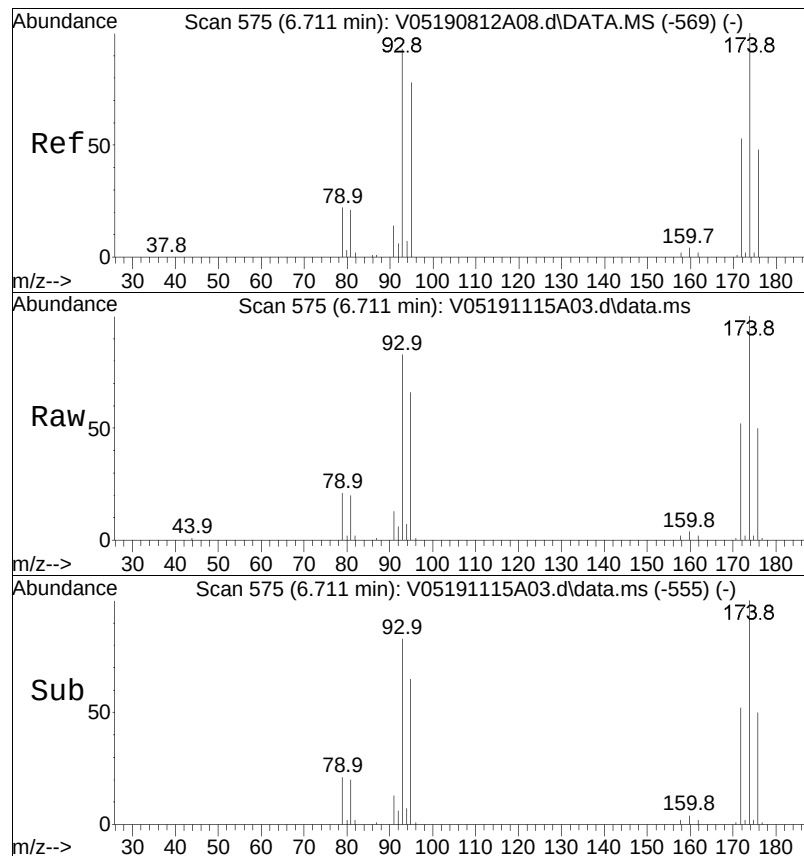




#48
 Trichloroethene
 Concen: 8.48 ug/L
 RT: 6.261 min Scan# 529
 Delta R.T. -0.000 min
 Lab File: V05191115A03.d
 Acq: 15 Nov 2019 7:42 am

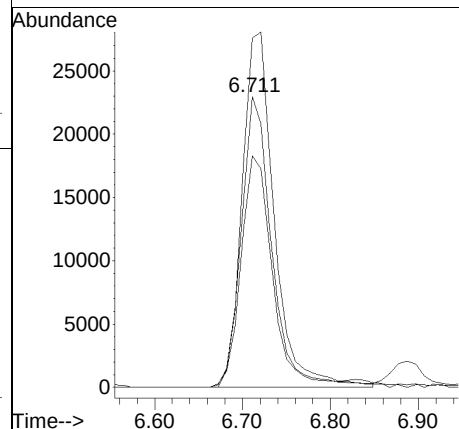
Tgt Ion:	95	Resp:	116468
Ion Ratio	Lower	Upper	
95	100		
97	71.8	56.1	84.1
130	113.2	77.7	116.5

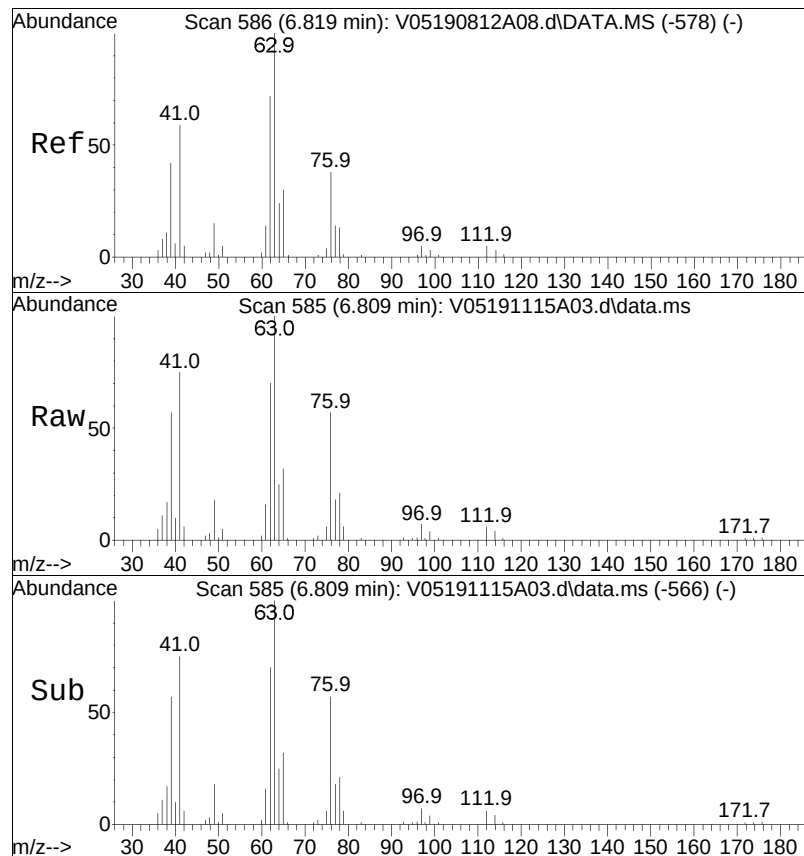




#50
 Dibromomethane
 Concen: 9.40 ug/L
 RT: 6.711 min Scan# 575
 Delta R.T. -0.000 min
 Lab File: V05191115A03.d
 Acq: 15 Nov 2019 7:42 am

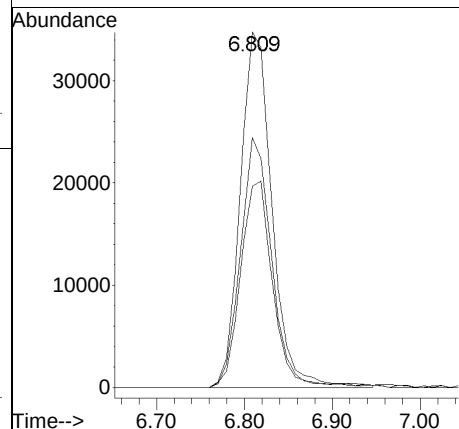
Tgt Ion:	93	Resp:	55680
Ion Ratio	Lower	Upper	
93	100		
95	83.4	64.3	96.5
174	127.1	80.9	121.3#

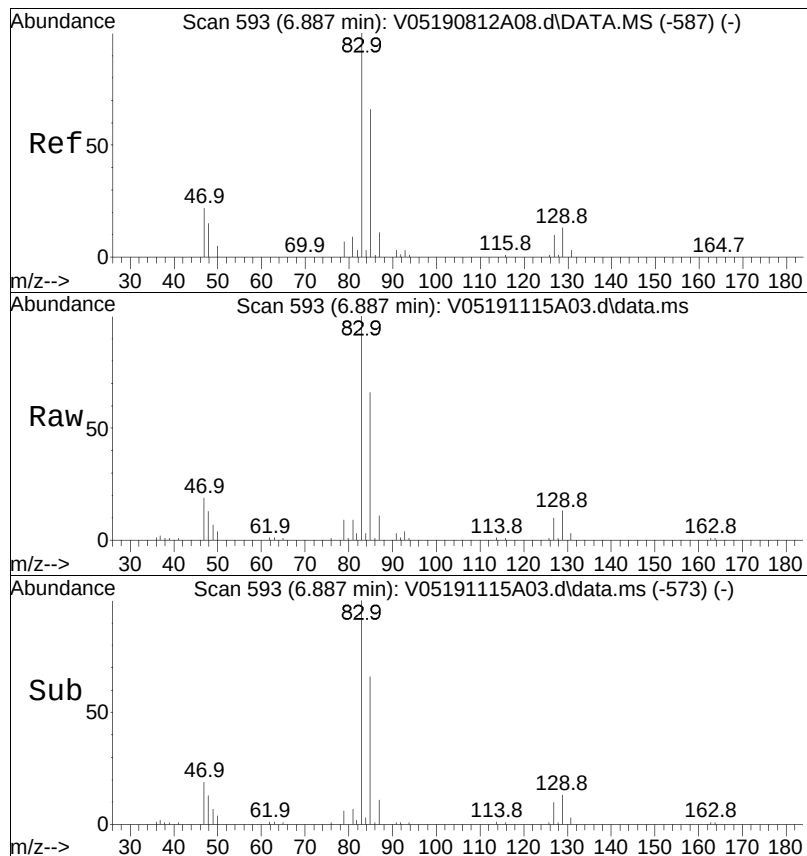




#51
 1,2-Dichloropropane
 Concen: 7.91 ug/L
 RT: 6.809 min Scan# 585
 Delta R.T. -0.010 min
 Lab File: V05191115A03.d
 Acq: 15 Nov 2019 7:42 am

Tgt	Ion	Resp	Lower	Upper
63	100			
62	69.4		57.0	85.4
76	59.0		48.4	72.6





#54

Bromodichloromethane

Concen: 8.73 ug/L

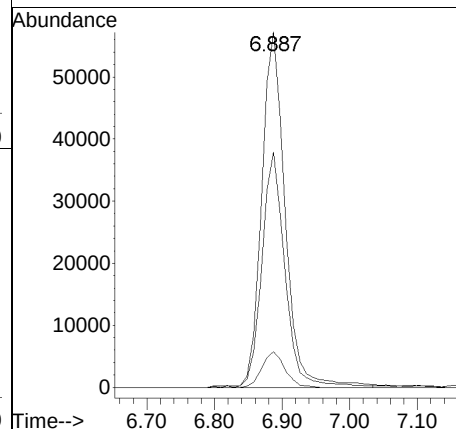
RT: 6.887 min Scan# 593

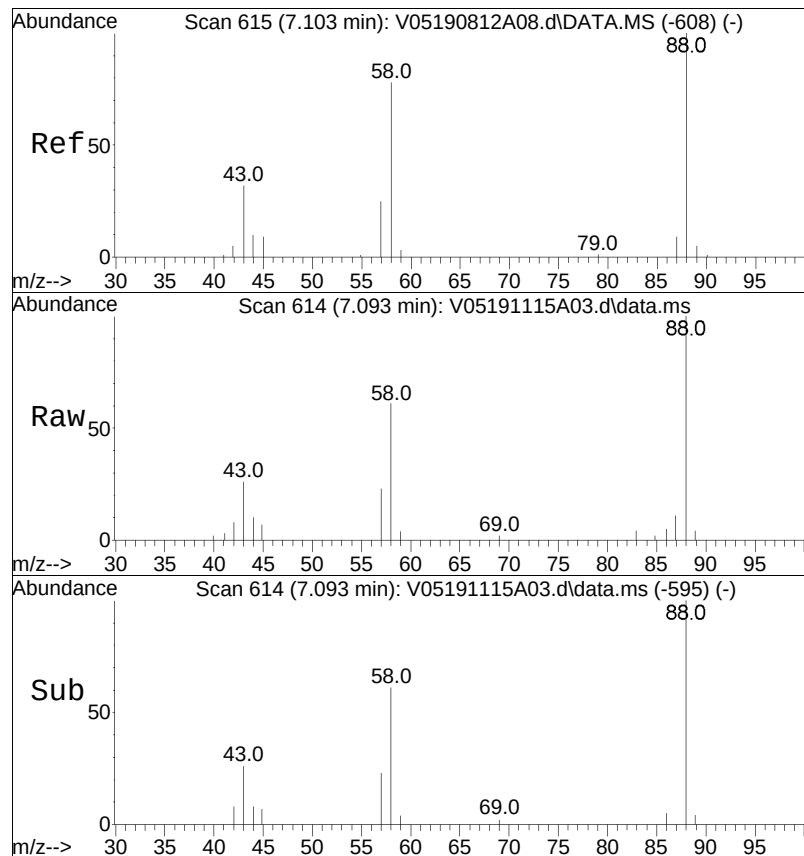
Delta R.T. -0.000 min

Lab File: V05191115A03.d

Acq: 15 Nov 2019 7:42 am

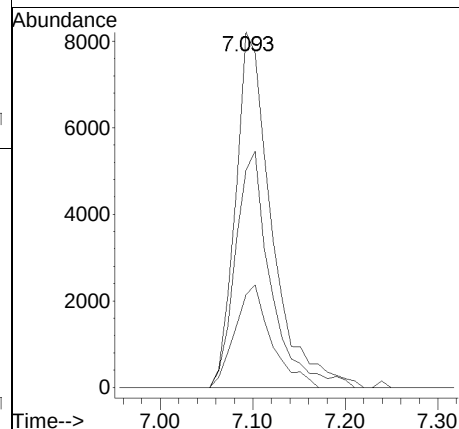
Tgt	Ion: 83	Resp:	138732
Ion	Ratio	Lower	Upper
83	100		
85	64.8	51.0	76.6
127	9.8	6.7	10.1

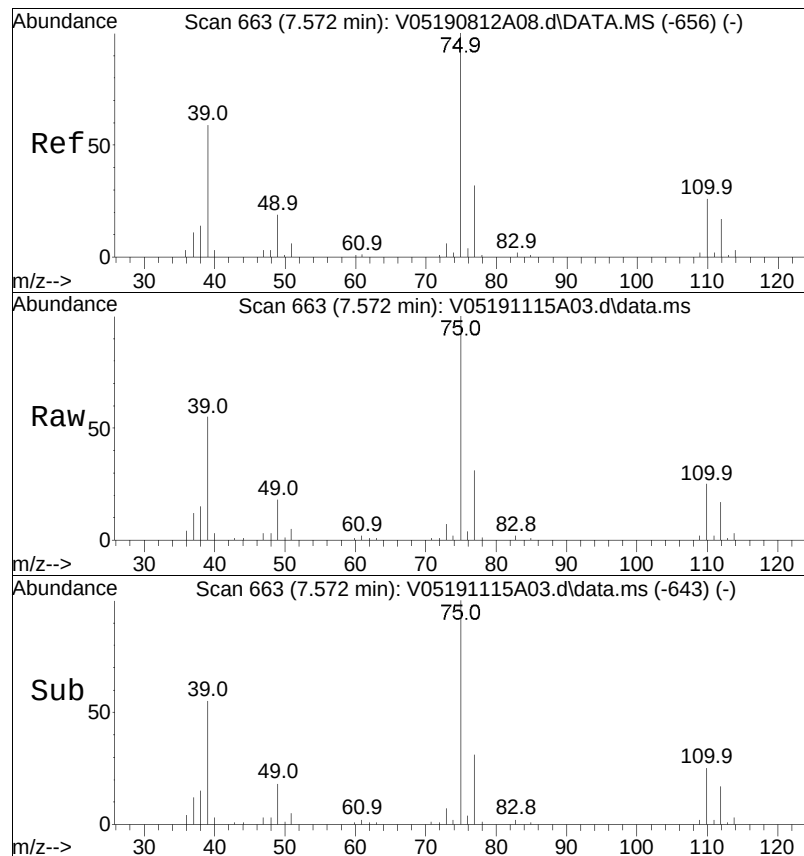




#57
 1,4-Dioxane
 Concen: 389.15 ug/L
 RT: 7.093 min Scan# 614
 Delta R.T. -0.010 min
 Lab File: V05191115A03.d
 Acq: 15 Nov 2019 7:42 am

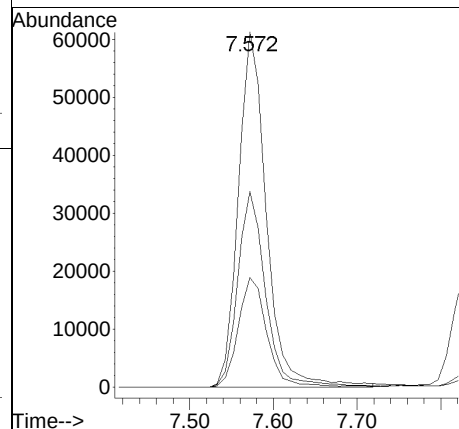
Tgt Ion:	88	Resp:	22313
Ion Ratio	Lower	Upper	
88	100		
58	65.0	50.6	75.8
43	29.0	20.5	30.7

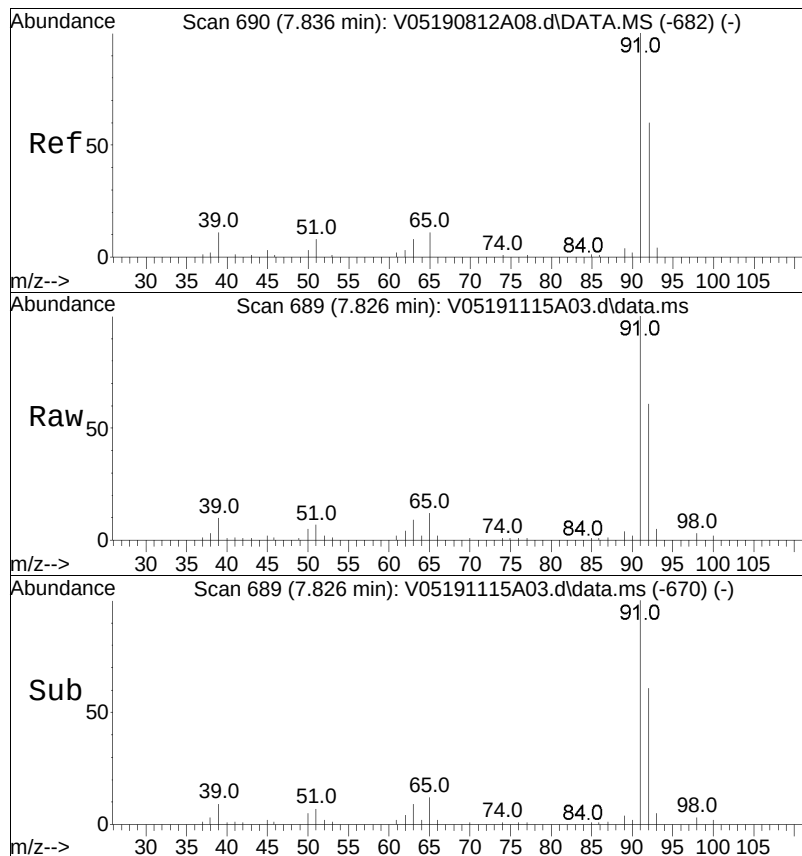




#58
 cis-1,3-Dichloropropene
 Concen: 8.59 ug/L
 RT: 7.572 min Scan# 663
 Delta R.T. -0.000 min
 Lab File: V05191115A03.d
 Acq: 15 Nov 2019 7:42 am

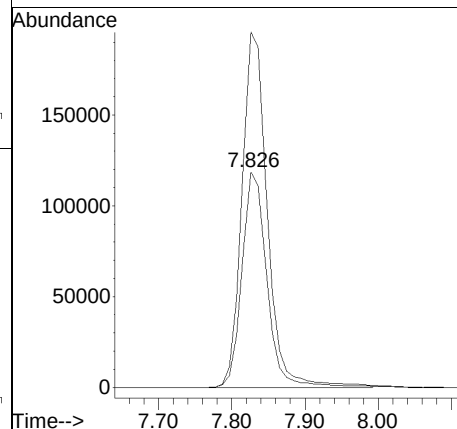
Tgt Ion:	75	Resp:	143383
Ion Ratio	Lower	Upper	
75	100		
77	31.6	25.5	38.3
39	55.0	40.4	60.6

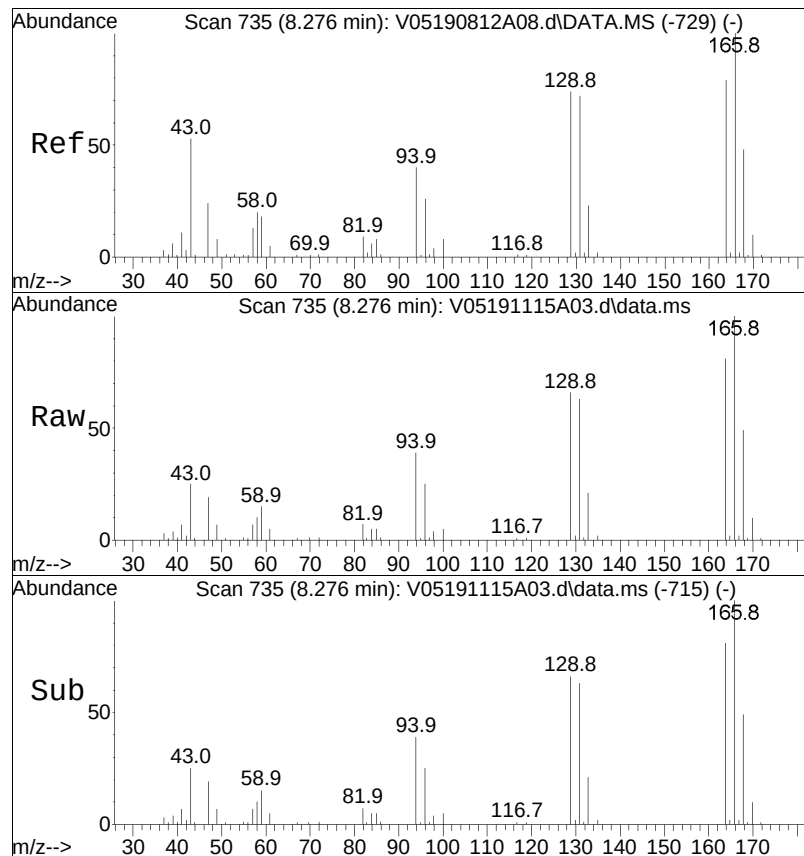




#61
 Toluene
 Concen: 8.56 ug/L
 RT: 7.826 min Scan# 689
 Delta R.T. -0.010 min
 Lab File: V05191115A03.d
 Acq: 15 Nov 2019 7:42 am

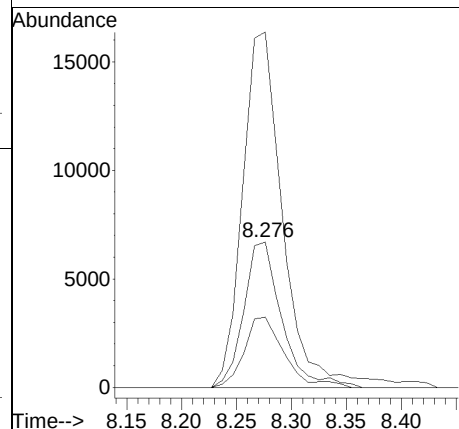
Tgt Ion	Ratio	Lower	Upper
92	100		
91	167.8	135.2	202.8

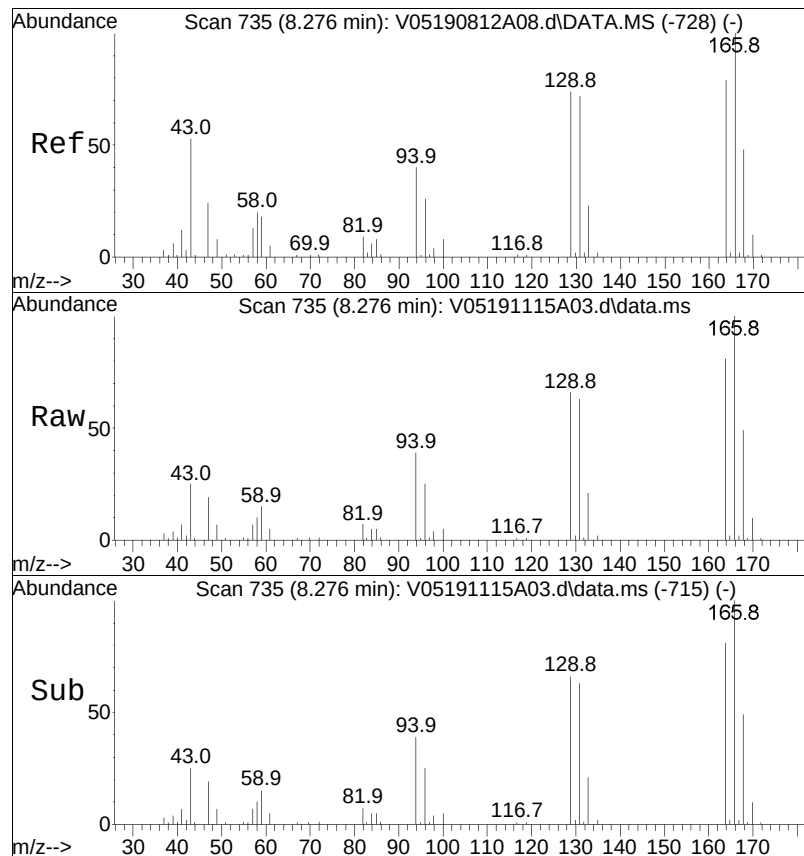




#62
 4-Methyl-2-pentanone
 Concen: 7.03 ug/L
 RT: 8.276 min Scan# 735
 Delta R.T. 0.000 min
 Lab File: V05191115A03.d
 Acq: 15 Nov 2019 7:42 am

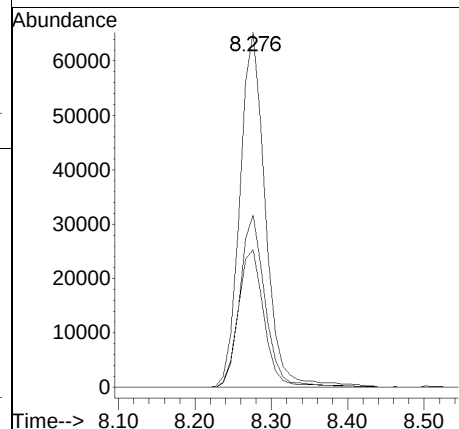
Tgt	Ion	Resp	Lower	Upper
58	100			
100	50.8	38.9	58.3	
43	262.1	204.2	306.2	

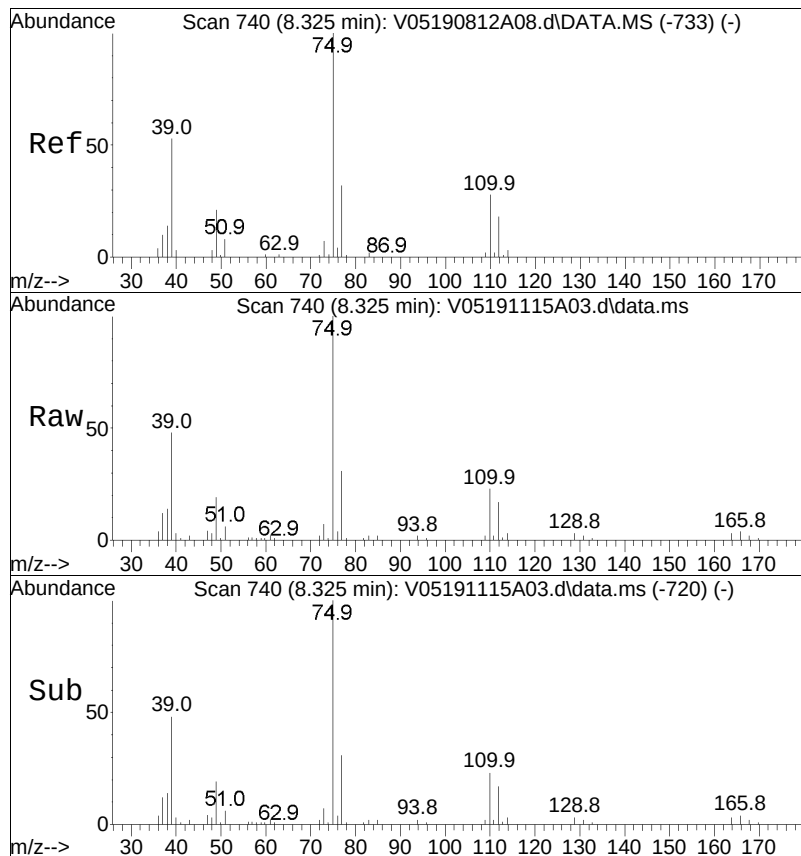




#63
 Tetrachloroethene
 Concen: 10.25 ug/L
 RT: 8.276 min Scan# 735
 Delta R.T. -0.000 min
 Lab File: V05191115A03.d
 Acq: 15 Nov 2019 7:42 am

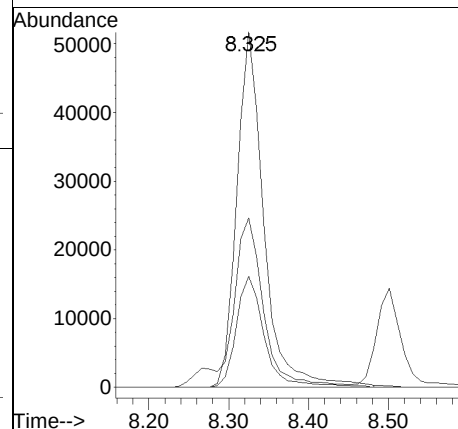
Tgt	Ion:166	Resp:	152431
Ion	Ratio	Lower	Upper
166	100		
168	48.0	30.2	70.2
94	39.8	32.5	72.5

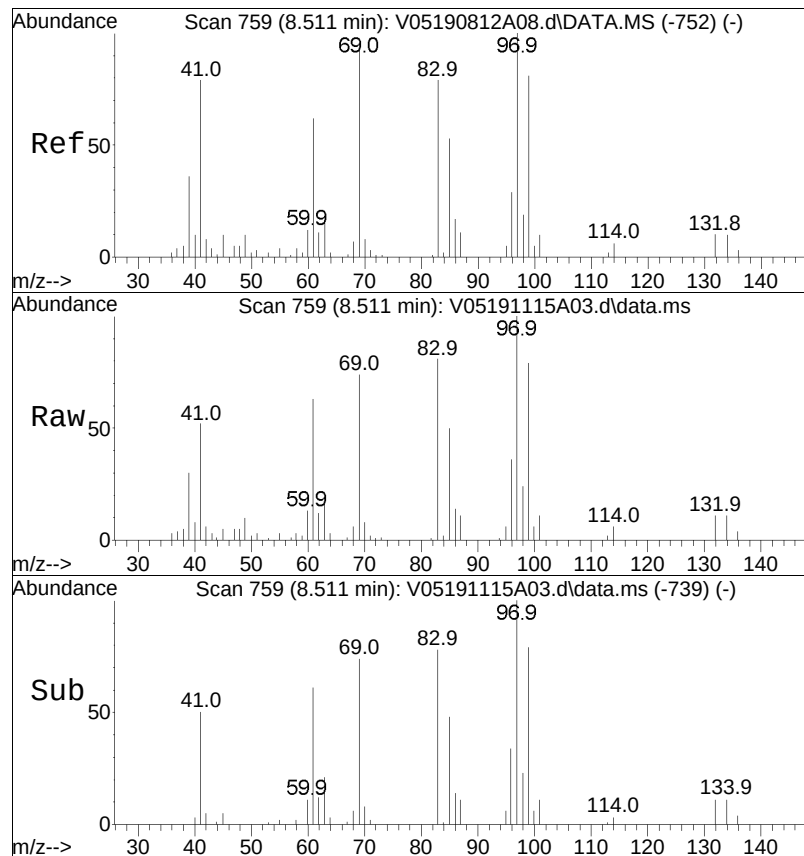




#65
 trans-1,3-Dichloropropene
 Concen: 7.14 ug/L
 RT: 8.325 min Scan# 740
 Delta R.T. -0.000 min
 Lab File: V05191115A03.d
 Acq: 15 Nov 2019 7:42 am

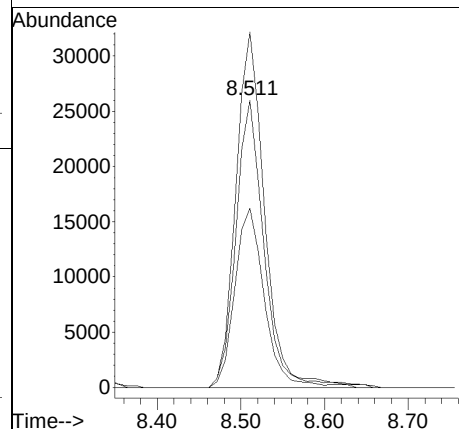
Tgt Ion	Ratio	Lower	Upper
75	100		
77	32.5	11.5	51.5
39	55.3	29.3	69.3

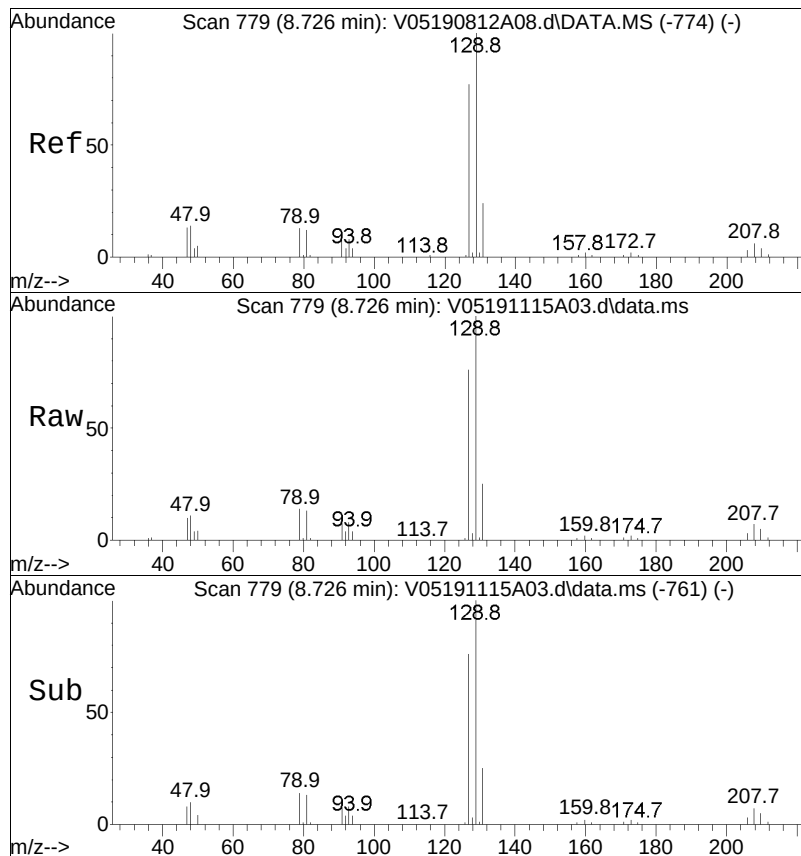




#68
 1,1,2-Trichloroethane
 Concen: 8.58 ug/L
 RT: 8.511 min Scan# 759
 Delta R.T. -0.000 min
 Lab File: V05191115A03.d
 Acq: 15 Nov 2019 7:42 am

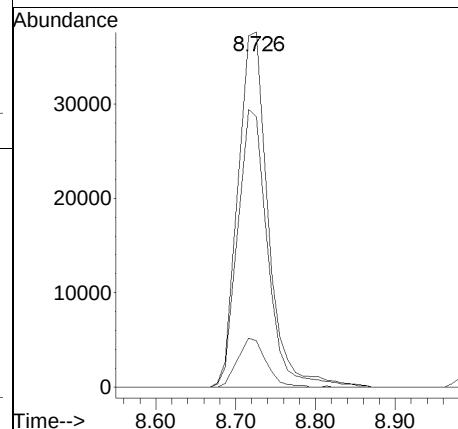
Tgt Ion	Ratio	Lower	Upper
83	100		
97	127.2	102.2	142.2
85	65.8	47.5	87.5

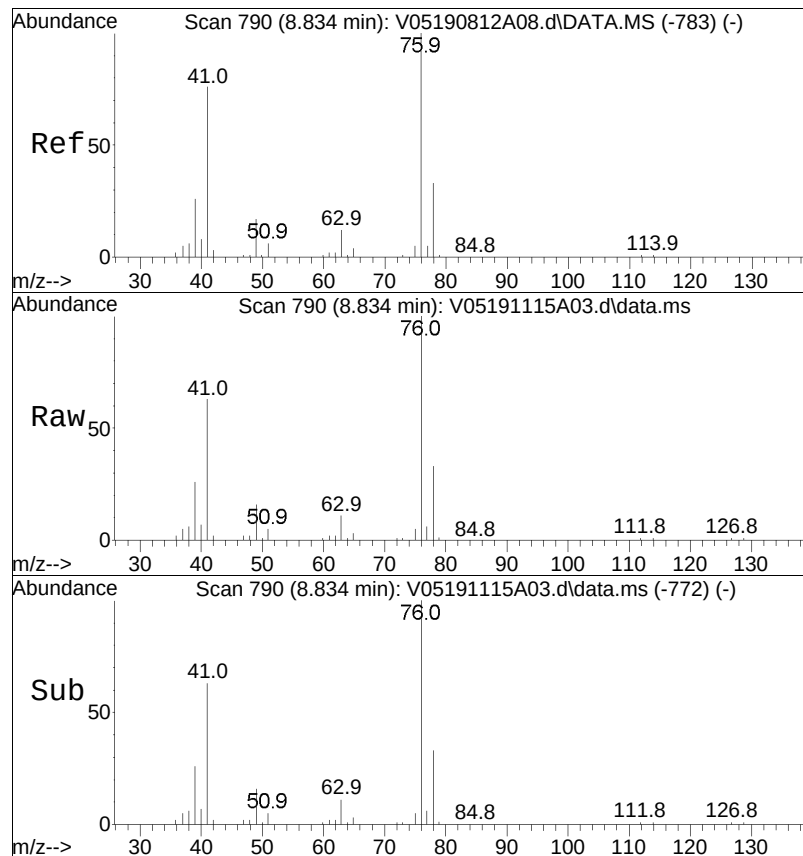




#69
 Chlorodibromomethane
 Concen: 8.70 ug/L
 RT: 8.726 min Scan# 779
 Delta R.T. -0.000 min
 Lab File: V05191115A03.d
 Acq: 15 Nov 2019 7:42 am

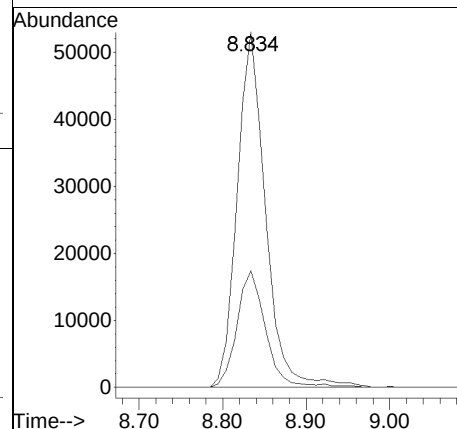
Tgt Ion	Ratio	Resp	Lower	Upper
129	100	84045		
81	13.6		0.0	37.0
127	77.3		58.3	98.3

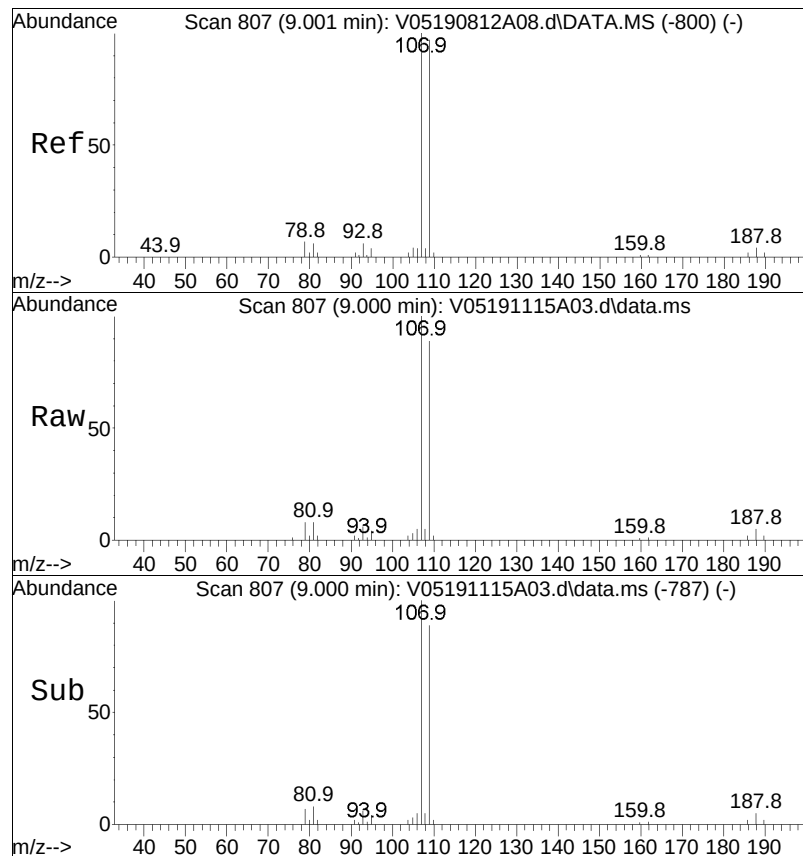




#70
 1,3-Dichloropropane
 Concen: 7.95 ug/L
 RT: 8.834 min Scan# 790
 Delta R.T. -0.000 min
 Lab File: V05191115A03.d
 Acq: 15 Nov 2019 7:42 am

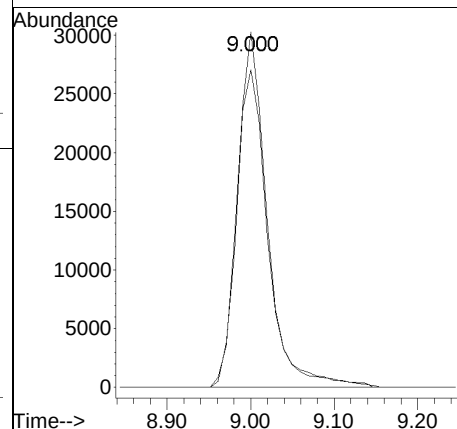
Tgt Ion:	76	Resp:	125060
Ion Ratio	Lower	Upper	
76	100		
78	33.3	25.5	38.3

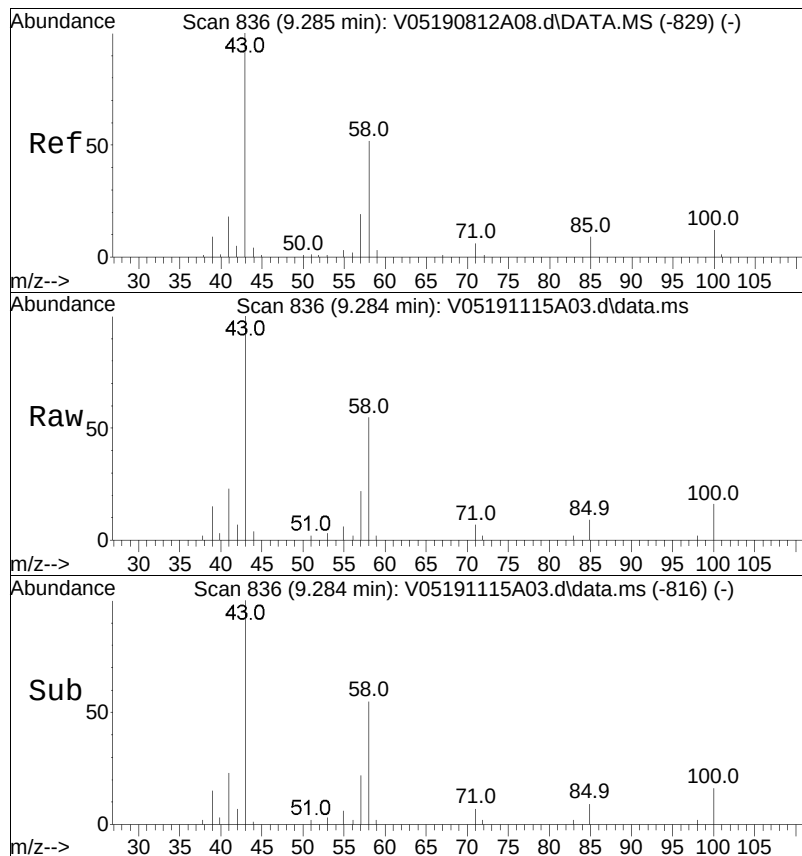




#71
 1,2-Dibromoethane
 Concen: 9.42 ug/L
 RT: 9.000 min Scan# 807
 Delta R.T. -0.000 min
 Lab File: V05191115A03.d
 Acq: 15 Nov 2019 7:42 am

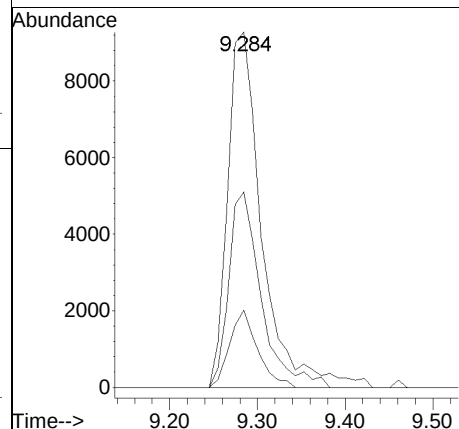
Tgt Ion	Ratio	Lower	Upper
107	100		
109	93.6	75.0	112.6

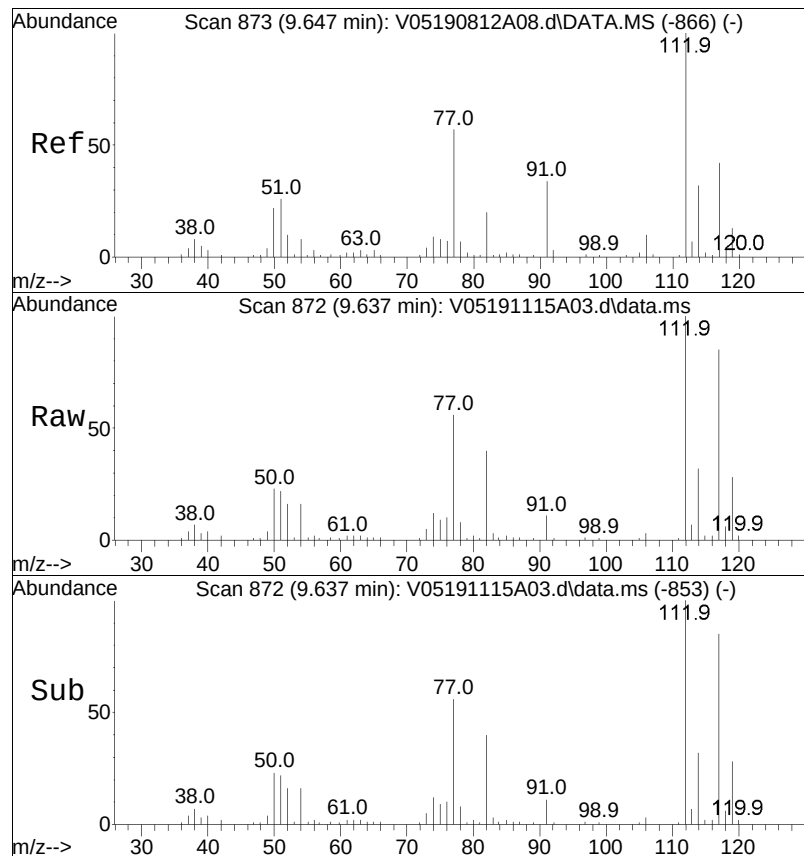




#72
 2-Hexanone
 Concen: 6.13 ug/L
 RT: 9.284 min Scan# 836
 Delta R.T. 0.000 min
 Lab File: V05191115A03.d
 Acq: 15 Nov 2019 7:42 am

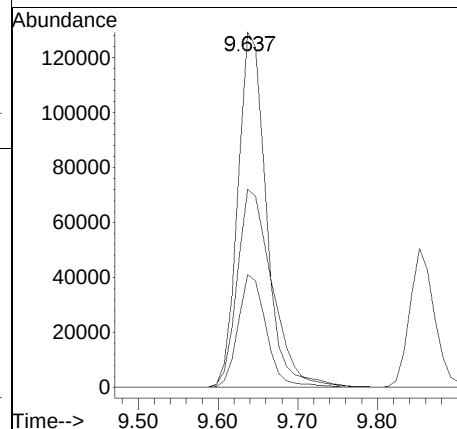
Tgt Ion:	43	Resp:	25248
Ion Ratio	100	Lower	Upper
58	51.8	42.3	63.5
57	17.7	15.6	23.4

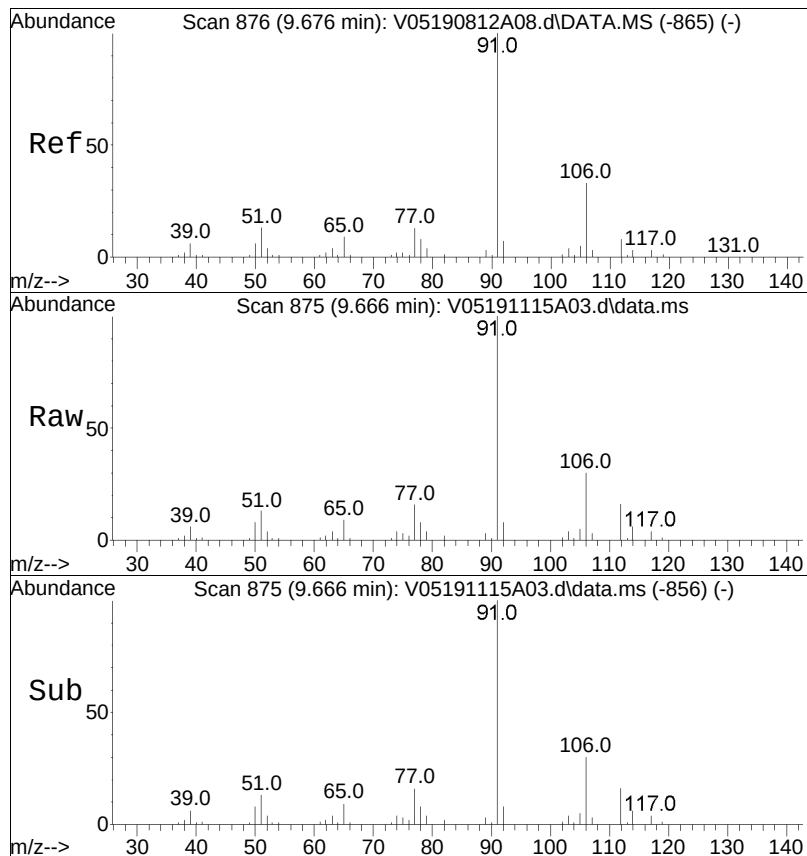




#73
 Chlorobenzene
 Concen: 8.98 ug/L
 RT: 9.637 min Scan# 872
 Delta R.T. -0.010 min
 Lab File: V05191115A03.d
 Acq: 15 Nov 2019 7:42 am

Tgt	Ion	Ratio	Resp	Lower	Upper
112	100		320445		
77	68.8	66.1		99.1	
114	31.7	25.4		38.0	





#74

Ethylbenzene

Concen: 8.56 ug/L

RT: 9.666 min Scan# 875

Delta R.T. -0.010 min

Lab File: V05191115A03.d

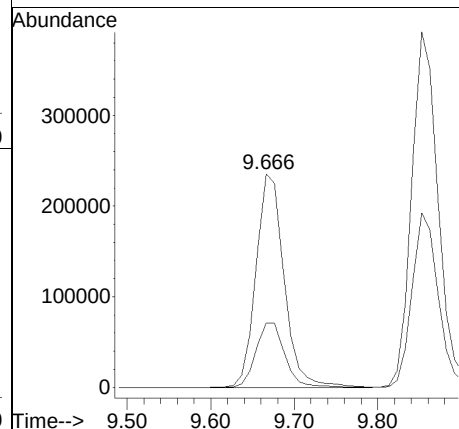
Acq: 15 Nov 2019 7:42 am

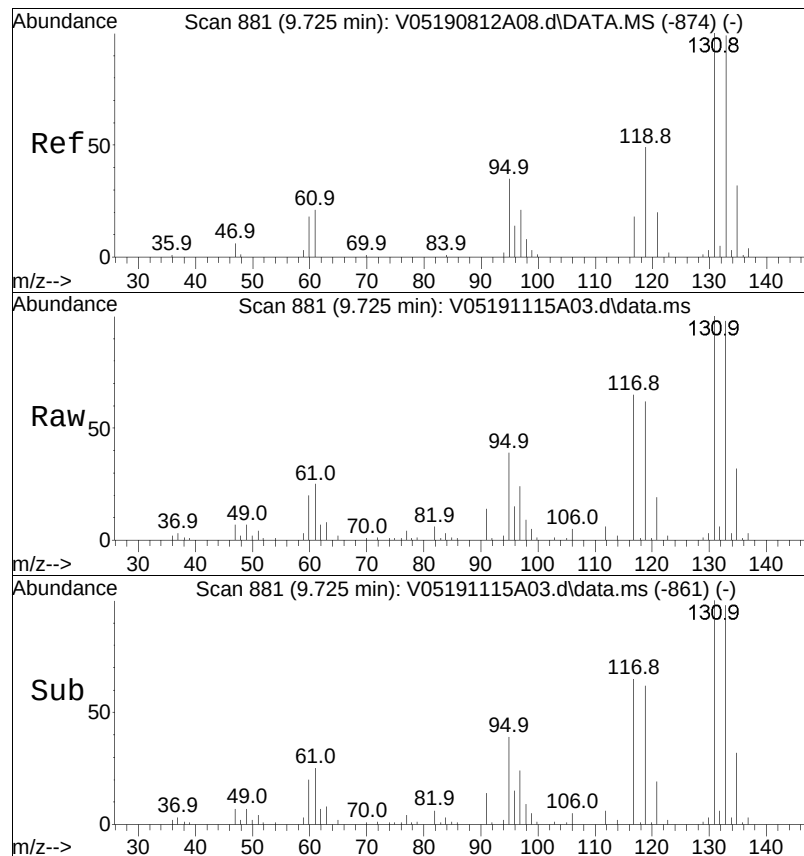
Tgt Ion: 91 Resp: 552163

Ion Ratio Lower Upper

91 100

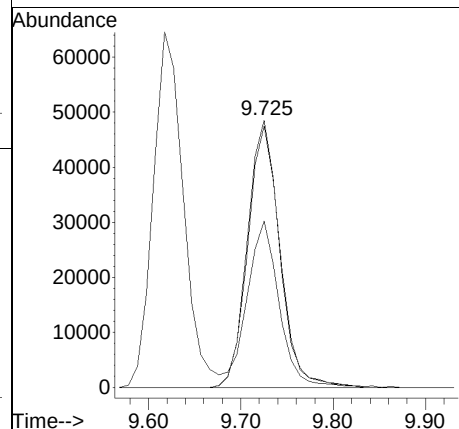
106 31.0 22.9 34.3

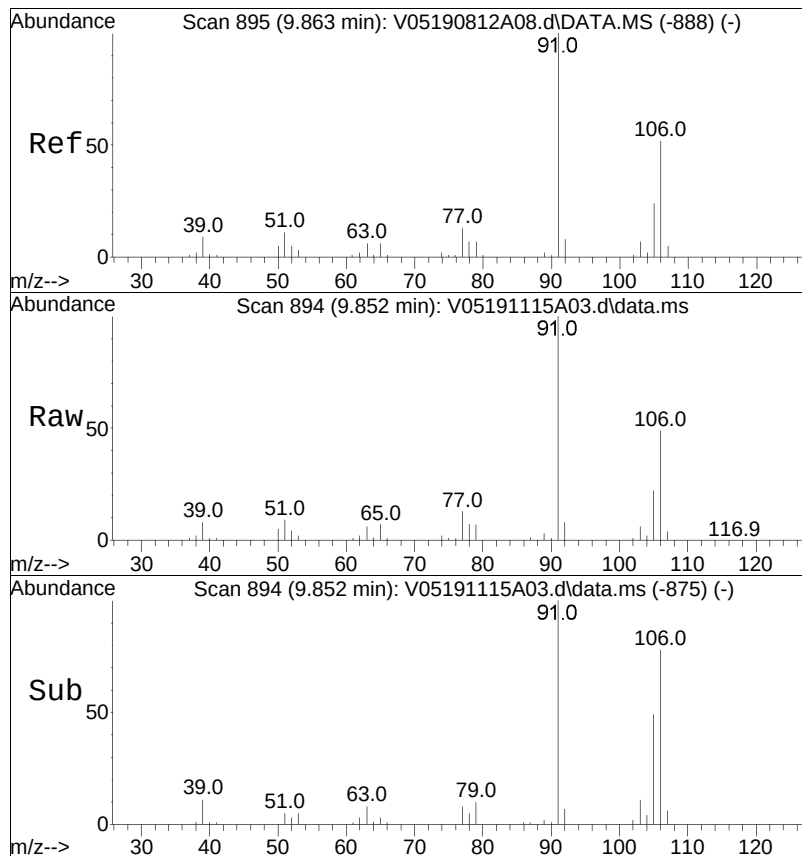




#75
 1,1,1,2-Tetrachloroethane
 Concen: 9.41 ug/L
 RT: 9.725 min Scan# 881
 Delta R.T. -0.000 min
 Lab File: V05191115A03.d
 Acq: 15 Nov 2019 7:42 am

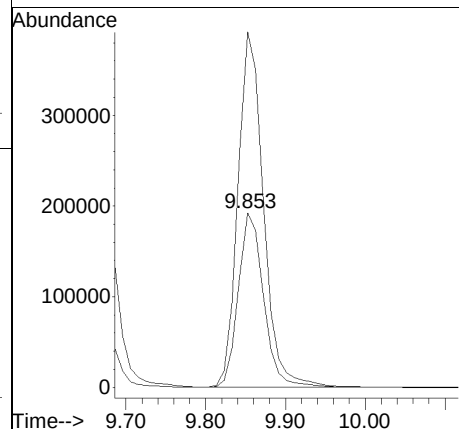
Tgt Ion	Ratio	Resp	Lower	Upper
131	100	117648		
133	98.3		75.8	115.8
119	62.3		41.2	81.2

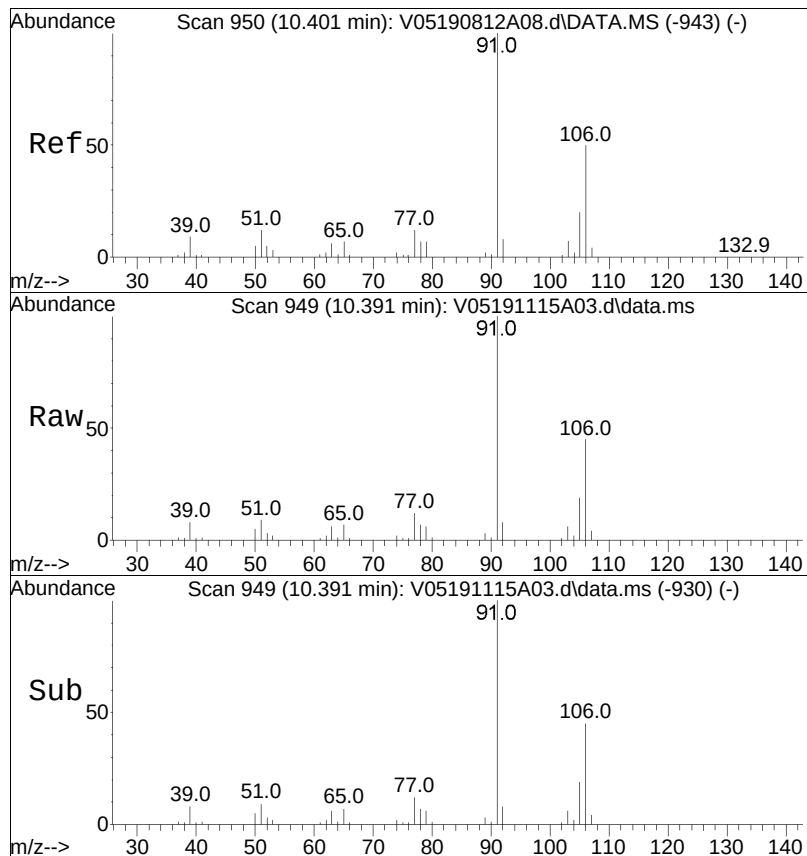




#76
 p/m Xylene
 Concen: 18.43 ug/L
 RT: 9.852 min Scan# 894
 Delta R.T. -0.010 min
 Lab File: V05191115A03.d
 Acq: 15 Nov 2019 7:42 am

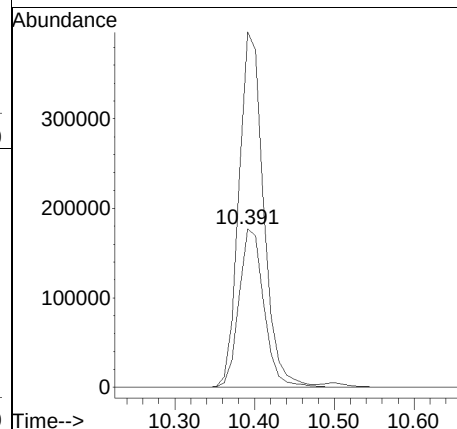
Tgt	Ion	Ratio	Lower	Upper
106	106	100		
91	205.0	177.2	265.8	

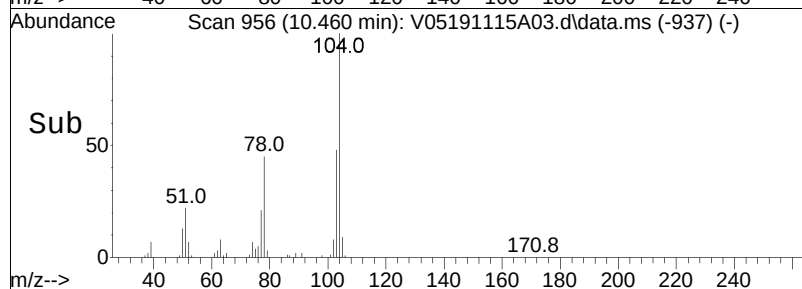
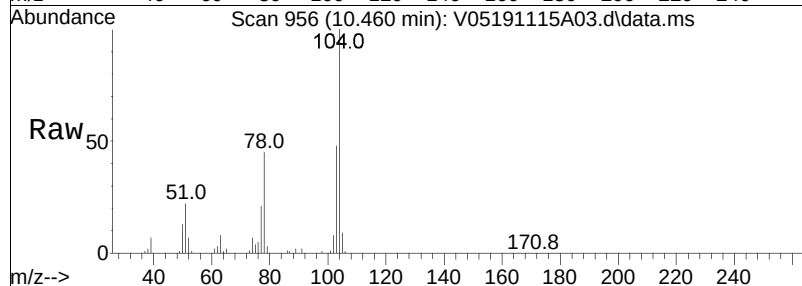
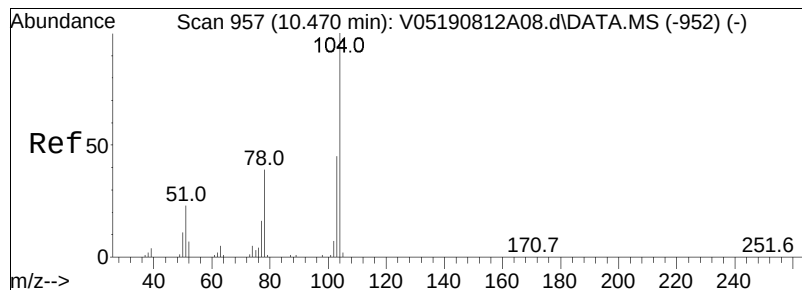




#77
 o Xylene
 Concen: 18.29 ug/L
 RT: 10.391 min Scan# 949
 Delta R.T. -0.010 min
 Lab File: V05191115A03.d
 Acq: 15 Nov 2019 7:42 am

Tgt Ion	Ratio	Lower	Upper
106	100		
91	221.6	187.0	280.6





#78

Styrene

Concen: 19.39 ug/L

RT: 10.460 min Scan# 956

Delta R.T. -0.010 min

Lab File: V05191115A03.d

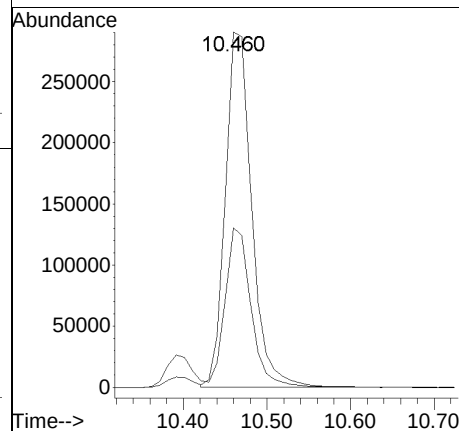
Acq: 15 Nov 2019 7:42 am

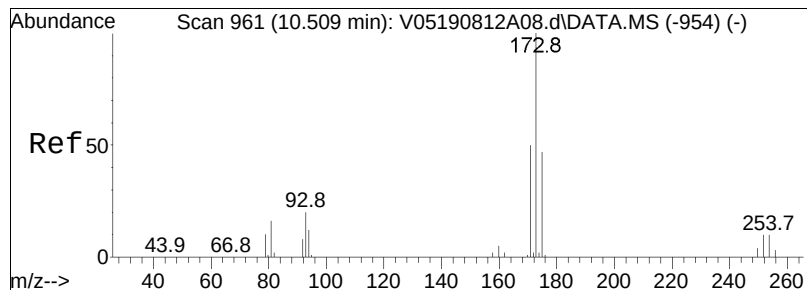
Tgt Ion:104 Resp: 638686

Ion Ratio Lower Upper

104 100

78 43.8 39.6 59.4





#80

Bromoform

Concen: 8.89 ug/L

RT: 10.499 min Scan# 960

Delta R.T. 0.000 min

Lab File: V05191115A03.d

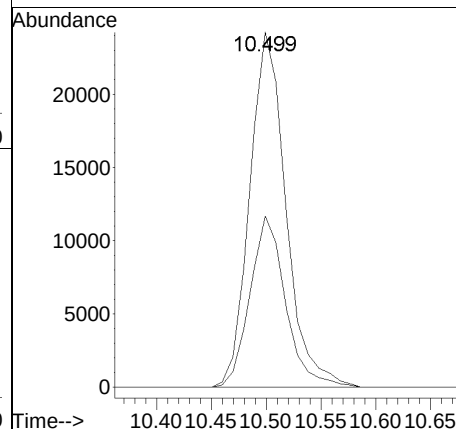
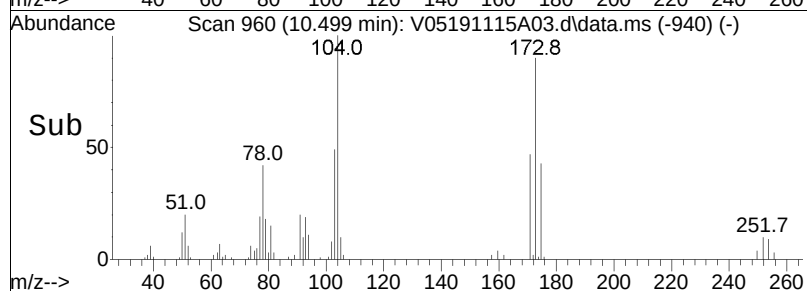
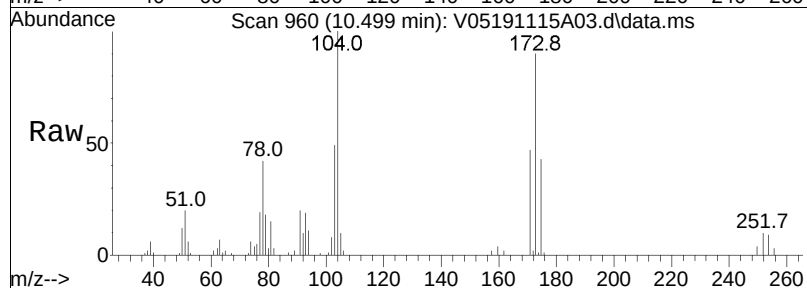
Acq: 15 Nov 2019 7:42 am

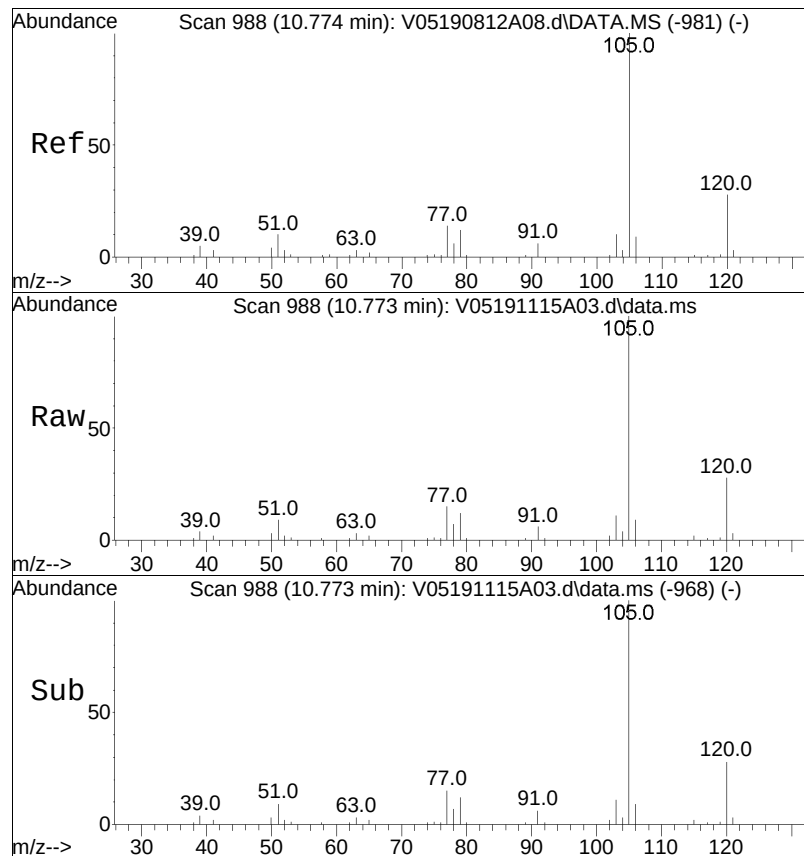
Tgt Ion:173 Resp: 55762

Ion Ratio Lower Upper

173 100

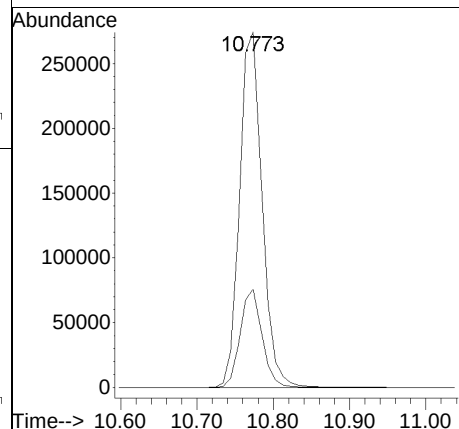
175 47.6 26.6 66.6

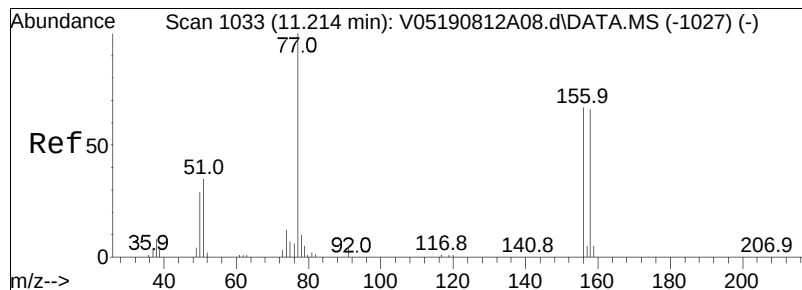




#82
 Isopropylbenzene
 Concen: 8.40 ug/L
 RT: 10.773 min Scan# 988
 Delta R.T. -0.000 min
 Lab File: V05191115A03.d
 Acq: 15 Nov 2019 7:42 am

Tgt Ion	Ratio	Lower	Upper
105	100		
120	26.8	4.8	44.8





#84

Bromobenzene

Concen: 8.78 ug/L

RT: 11.214 min Scan# 1033

Delta R.T. -0.000 min

Lab File: V05191115A03.d

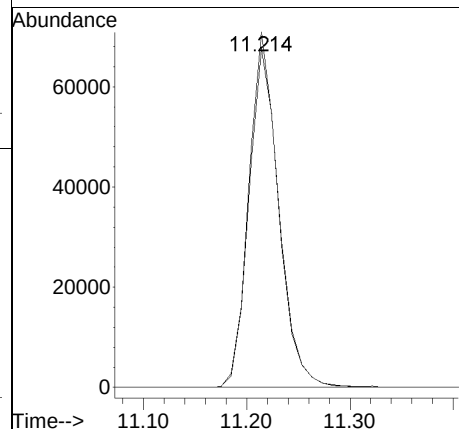
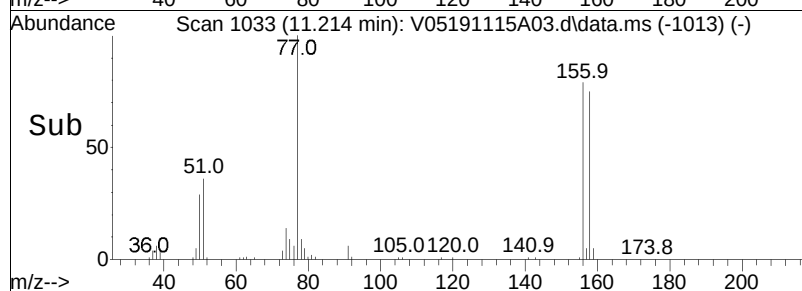
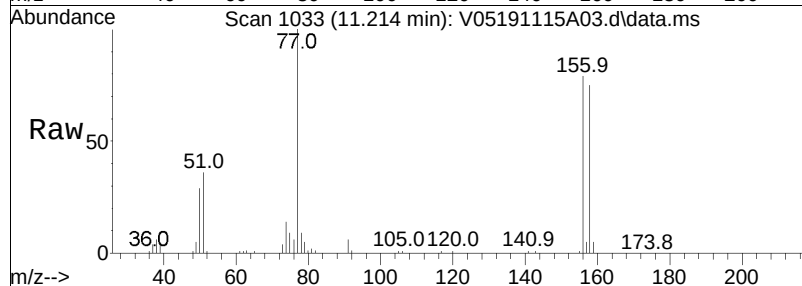
Acq: 15 Nov 2019 7:42 am

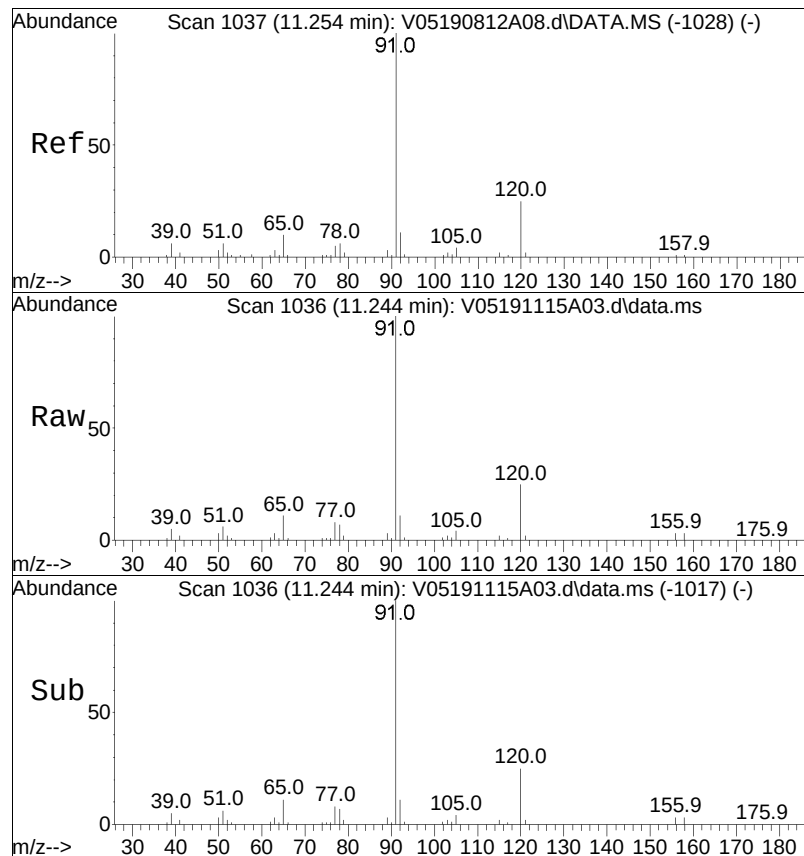
Tgt Ion:156 Resp: 141947

Ion Ratio Lower Upper

156 100

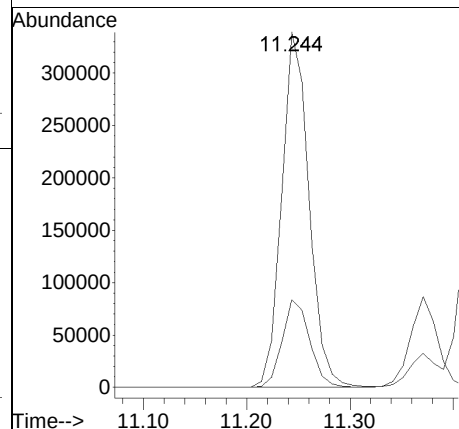
158 96.6 77.8 116.8

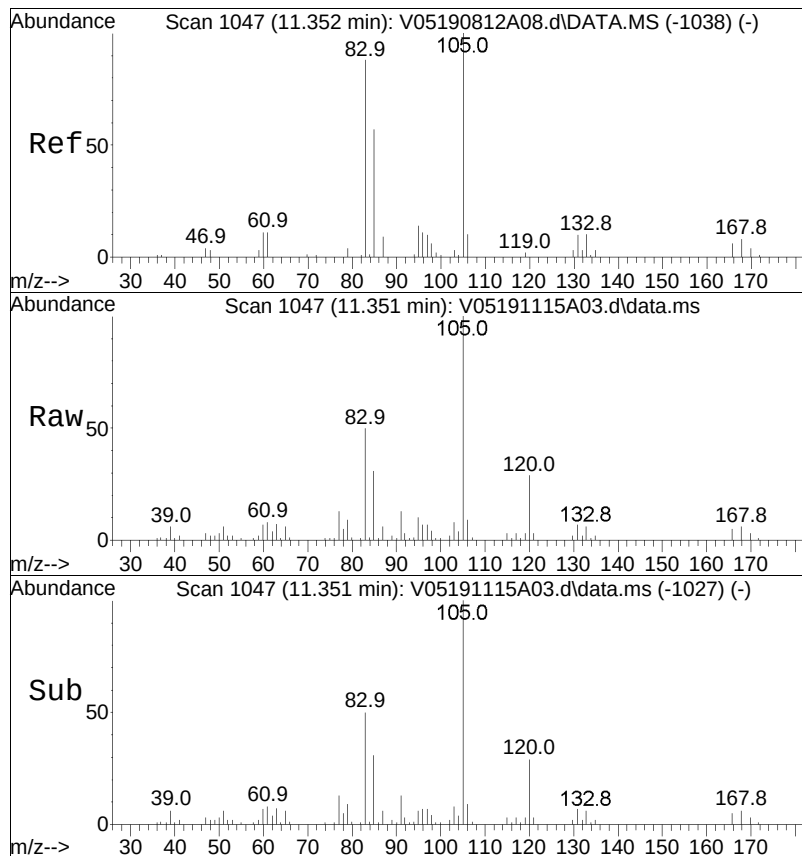




#85
 n-Propylbenzene
 Concen: 7.88 ug/L
 RT: 11.244 min Scan# 1036
 Delta R.T. -0.010 min
 Lab File: V05191115A03.d
 Acq: 15 Nov 2019 7:42 am

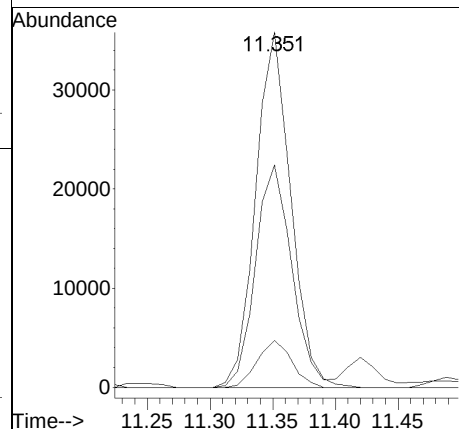
Tgt Ion	Ratio	Lower	Upper
91	100		
120	24.9	17.3	25.9

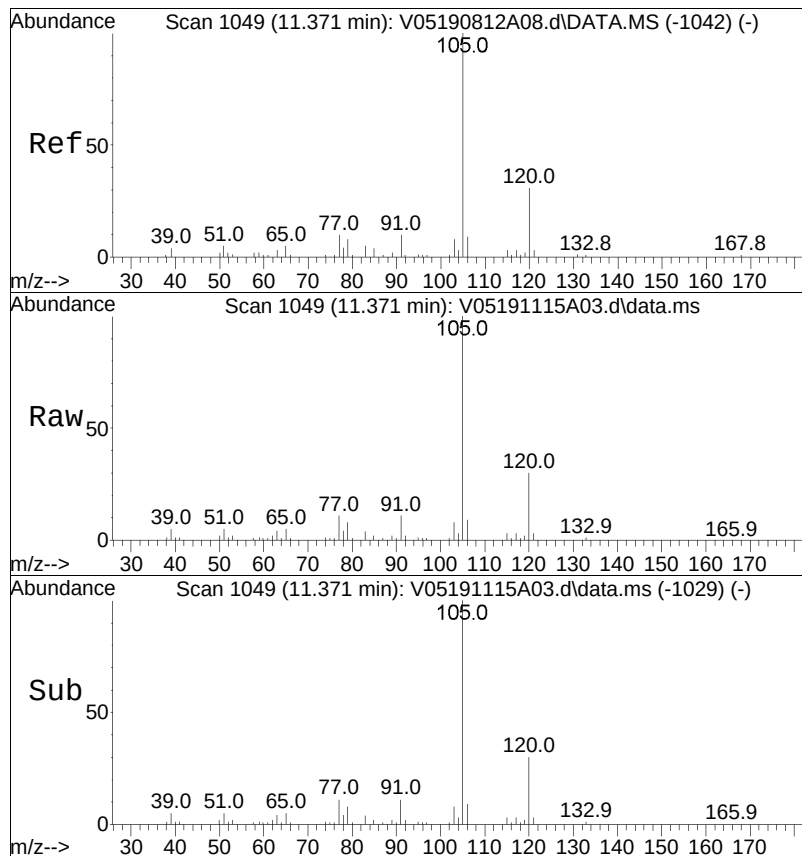




#87
 1,1,2,2-Tetrachloroethane
 Concen: 7.76 ug/L
 RT: 11.351 min Scan# 1047
 Delta R.T. -0.000 min
 Lab File: V05191115A03.d
 Acq: 15 Nov 2019 7:42 am

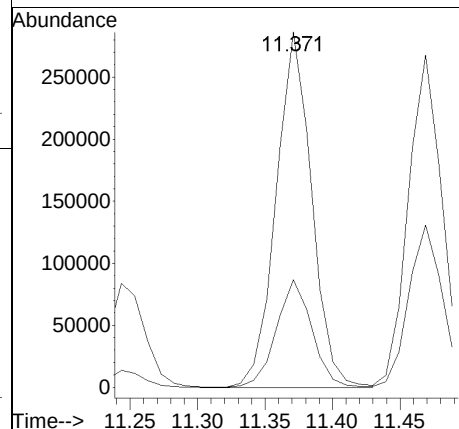
Tgt Ion	Ratio	Resp	Lower	Upper
83	100	69666		
131	13.0		0.0	30.4
85	64.6		46.4	86.4

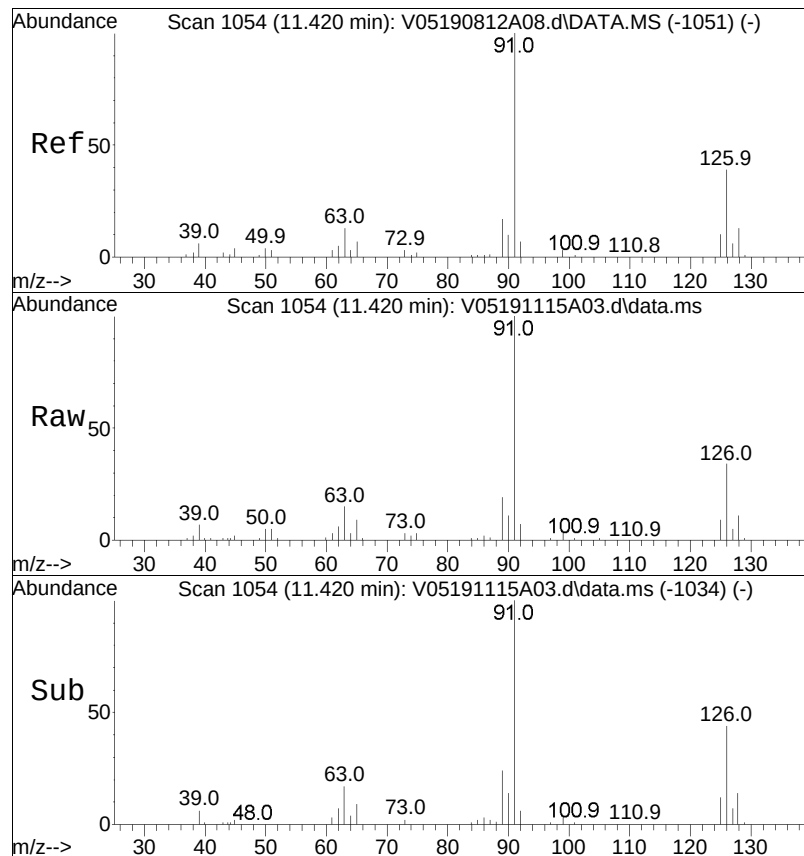




#88
 4-Ethyltoluene
 Concen: 8.36 ug/L
 RT: 11.371 min Scan# 1049
 Delta R.T. -0.000 min
 Lab File: V05191115A03.d
 Acq: 15 Nov 2019 7:42 am

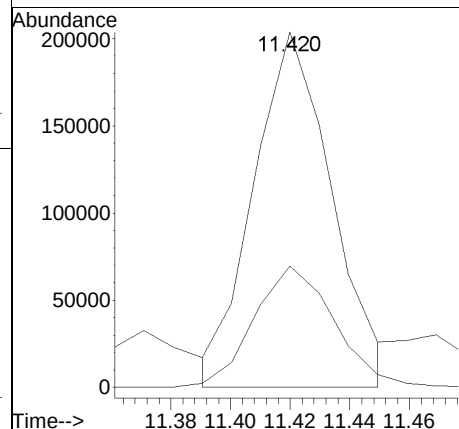
Tgt	Ion	Ratio	Lower	Upper
105	100			
120	30.1	18.5	38.3	

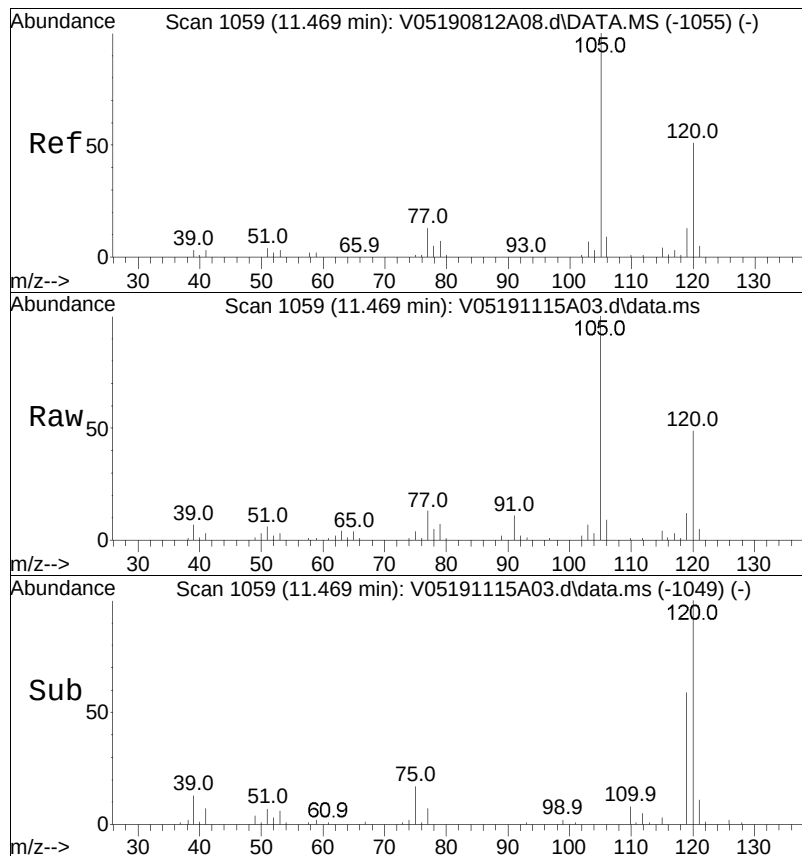




#89
 2-Chlorotoluene
 Concen: 7.41 ug/L M1
 RT: 11.420 min Scan# 1054
 Delta R.T. -0.000 min
 Lab File: V05191115A03.d
 Acq: 15 Nov 2019 7:42 am

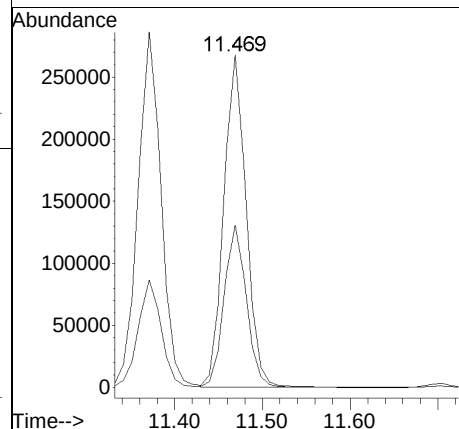
Tgt Ion: 91 Resp: 371603
 Ion Ratio Lower Upper
 91 100
 126 35.4 23.5 35.3#

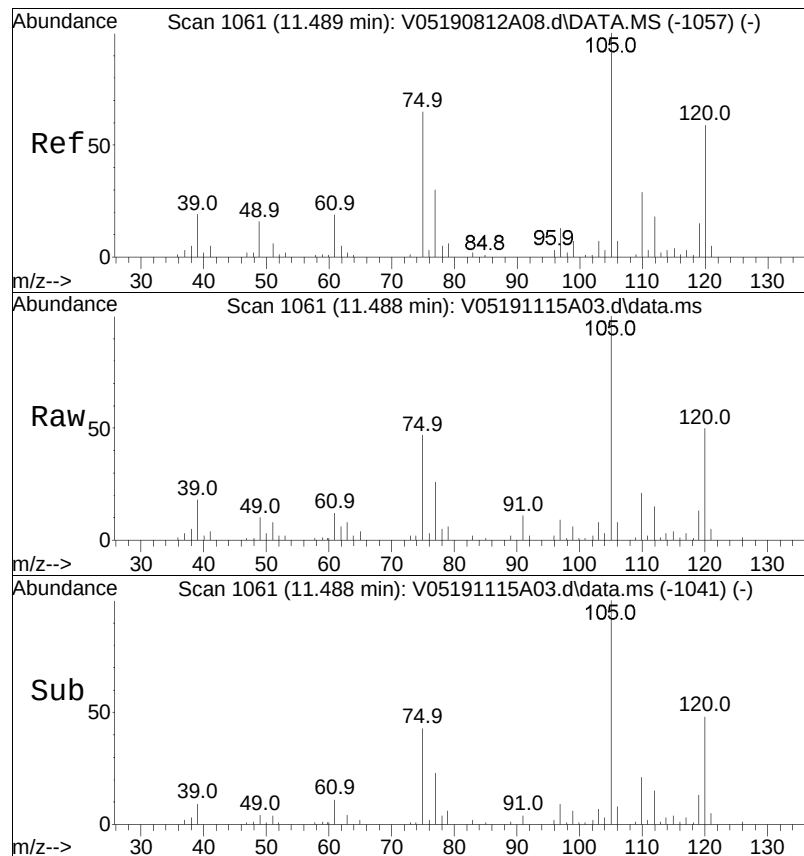




#90
 1,3,5-Trimethylbenzene
 Concen: 8.40 ug/L
 RT: 11.469 min Scan# 1059
 Delta R.T. -0.000 min
 Lab File: V05191115A03.d
 Acq: 15 Nov 2019 7:42 am

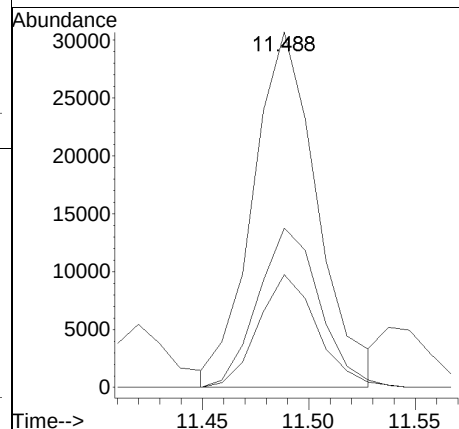
Tgt	Ion	Ratio	Lower	Upper
105	100			
120	48.4	37.0	55.6	

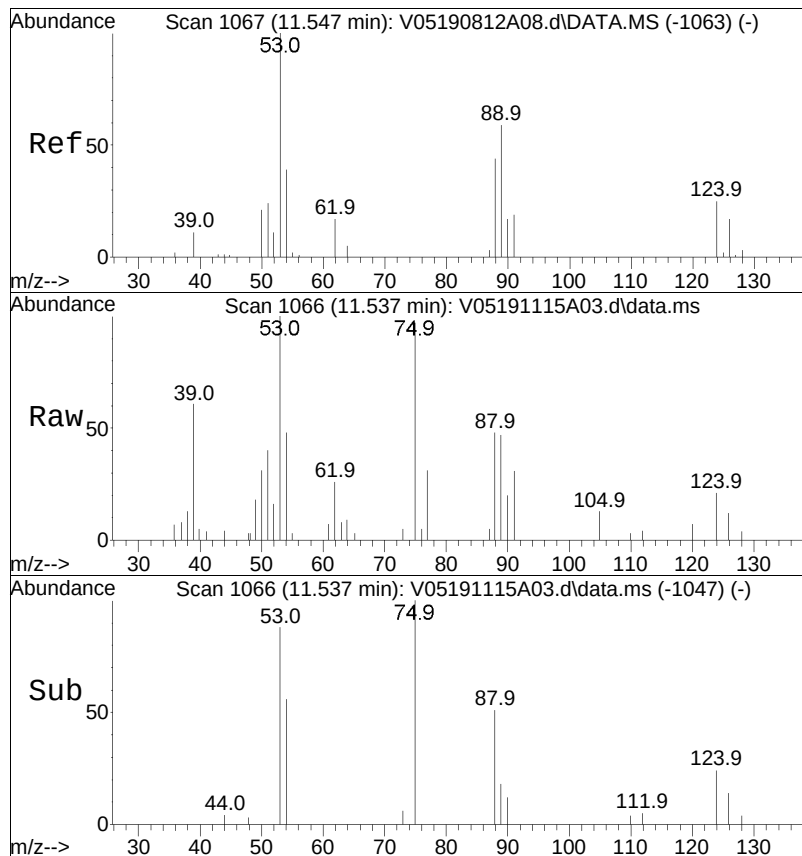




#91
 1,2,3-Trichloropropane
 Concen: 7.39 ug/L M1
 RT: 11.488 min Scan# 1061
 Delta R.T. -0.000 min
 Lab File: V05191115A03.d
 Acq: 15 Nov 2019 7:42 am

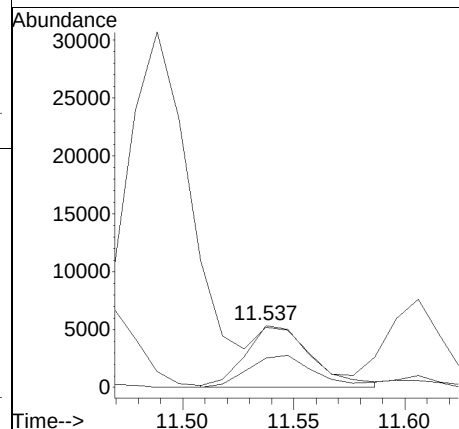
Tgt Ion:	75	Resp:	64816
Ion Ratio	Lower	Upper	
75	100		
110	42.9	24.2	50.4
112	29.0	15.7	32.5

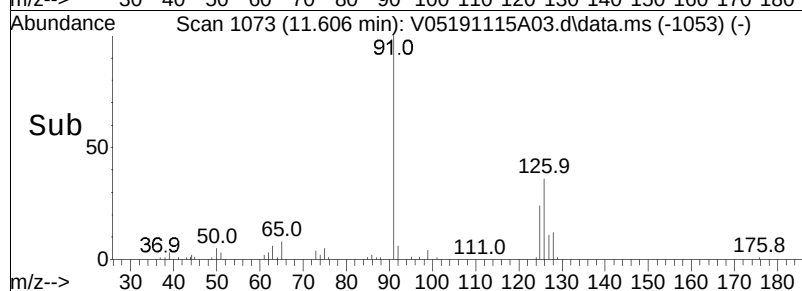
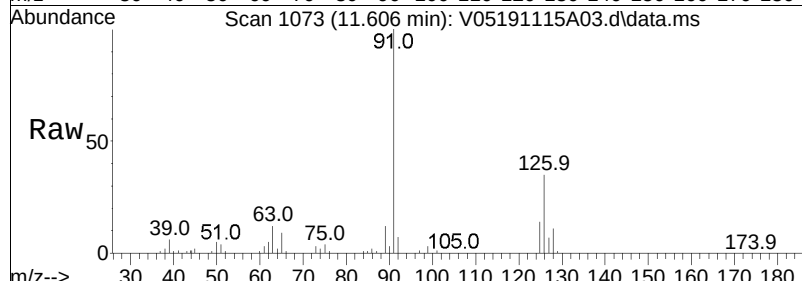
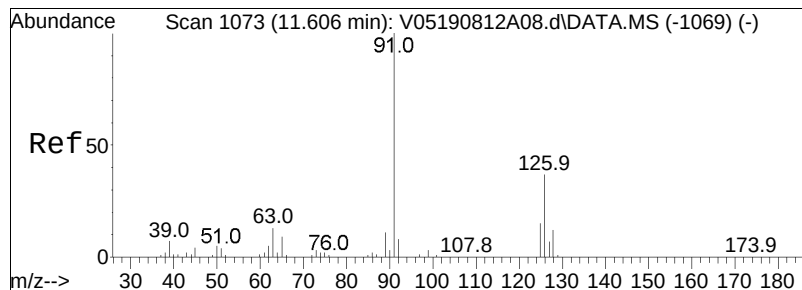




#92
trans-1,4-Dichloro-2-butene
Concen: 5.28 ug/L M1
RT: 11.537 min Scan# 1066
Delta R.T. -0.010 min
Lab File: V05191115A03.d
Acq: 15 Nov 2019 7:42 am

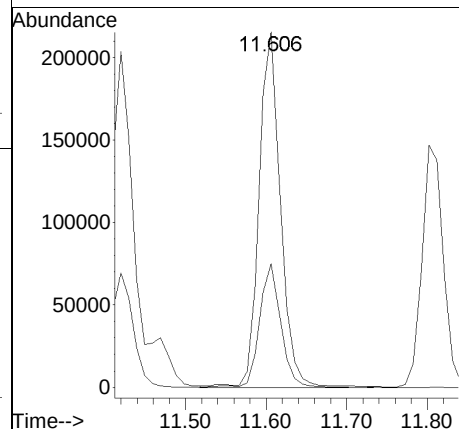
Tgt Ion:	53	Resp:	11073
Ion Ratio	Lower	Upper	
53	100		
88	51.1	39.1	58.7
75	0.0	58.6	88.0#

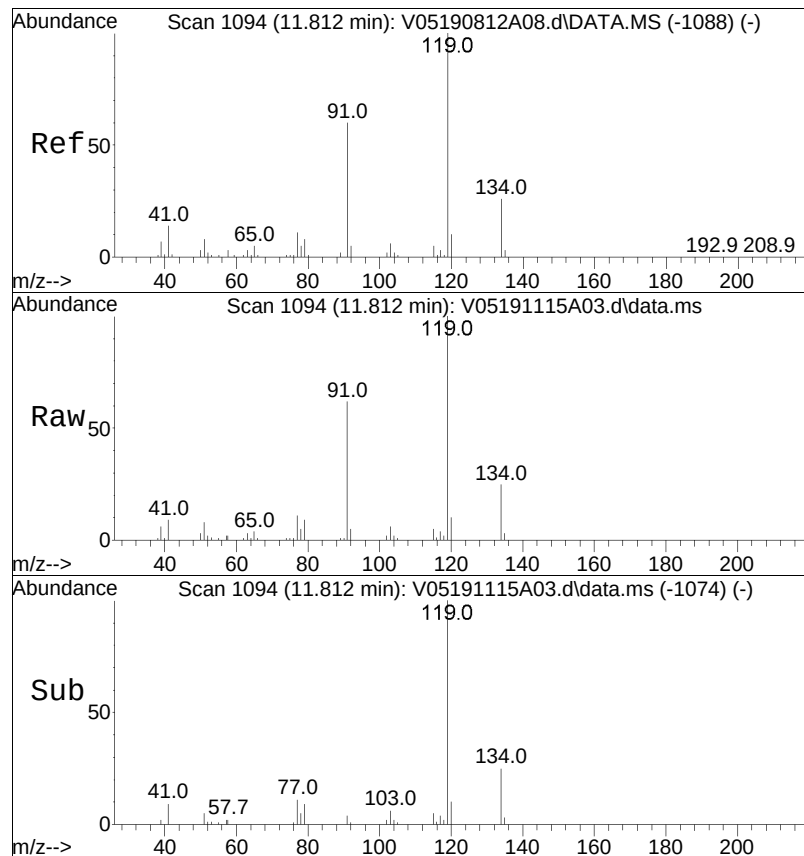




#93
 4-Chlorotoluene
 Concen: 7.78 ug/L M1
 RT: 11.606 min Scan# 1073
 Delta R.T. -0.000 min
 Lab File: V05191115A03.d
 Acq: 15 Nov 2019 7:42 am

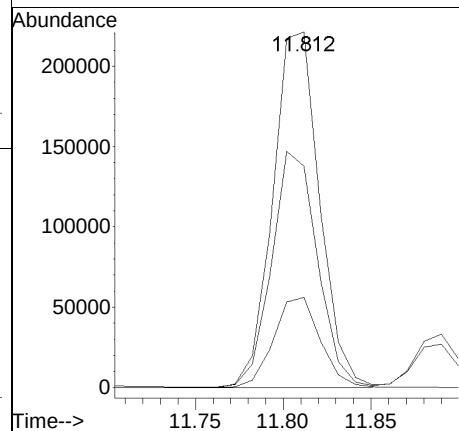
Tgt Ion:	91	Resp:	399702
Ion Ratio	100	Lower	Upper
126	34.3	24.6	36.8

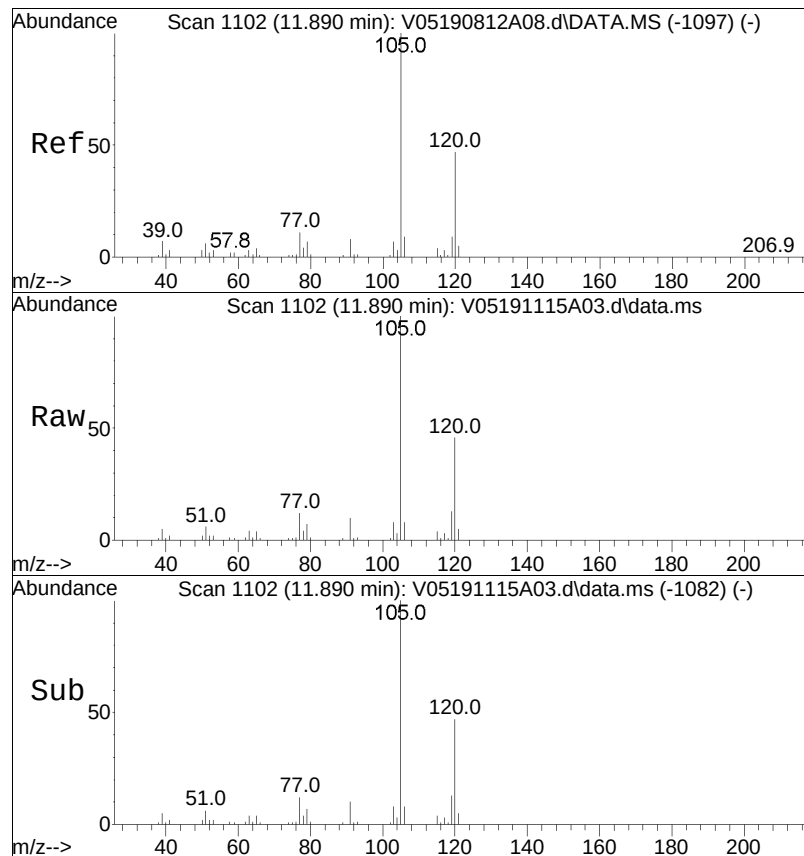




#94
 tert-Butylbenzene
 Concen: 8.47 ug/L
 RT: 11.812 min Scan# 1094
 Delta R.T. -0.000 min
 Lab File: V05191115A03.d
 Acq: 15 Nov 2019 7:42 am

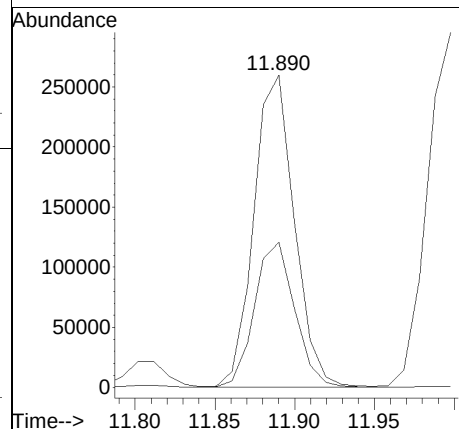
Tgt	Ion	Ratio	Resp	Lower	Upper
119	100		410571		
91	64.8	49.2	73.8		
134	25.2	18.3	27.5		

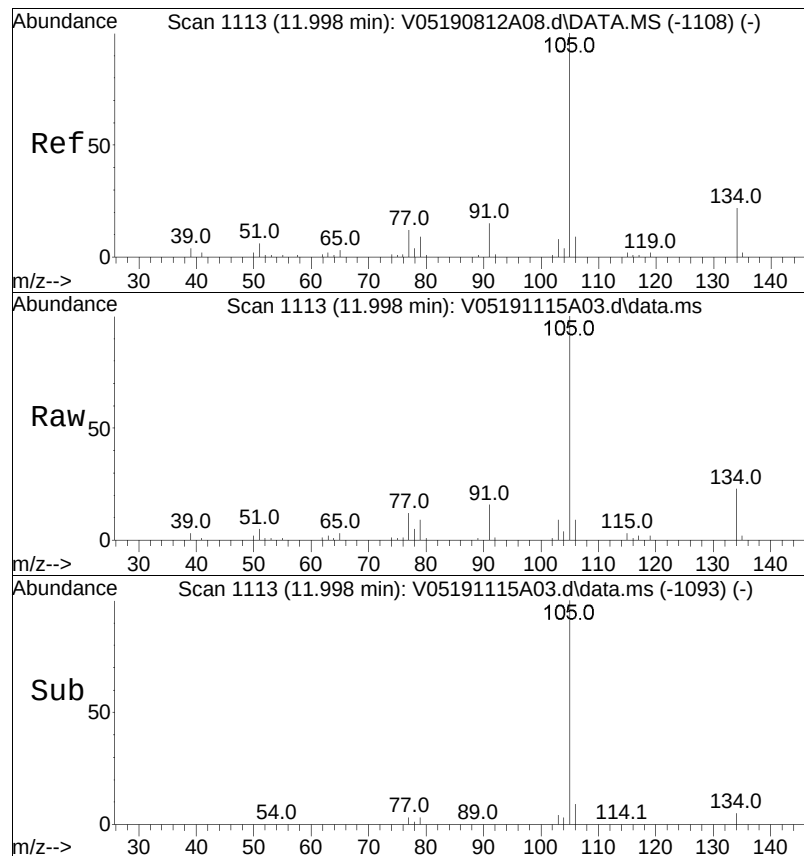




#97
 1,2,4-Trimethylbenzene
 Concen: 8.48 ug/L
 RT: 11.890 min Scan# 1102
 Delta R.T. -0.000 min
 Lab File: V05191115A03.d
 Acq: 15 Nov 2019 7:42 am

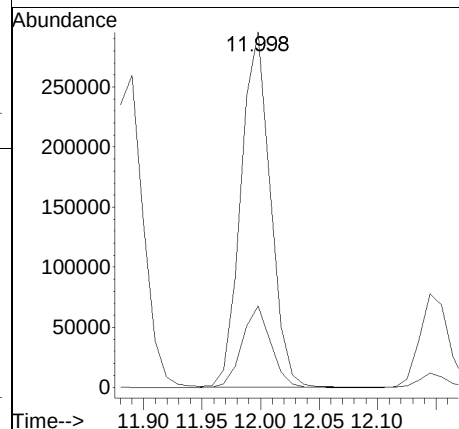
Tgt Ion	Ratio	Lower	Upper
105	100		
120	45.9	34.4	51.6

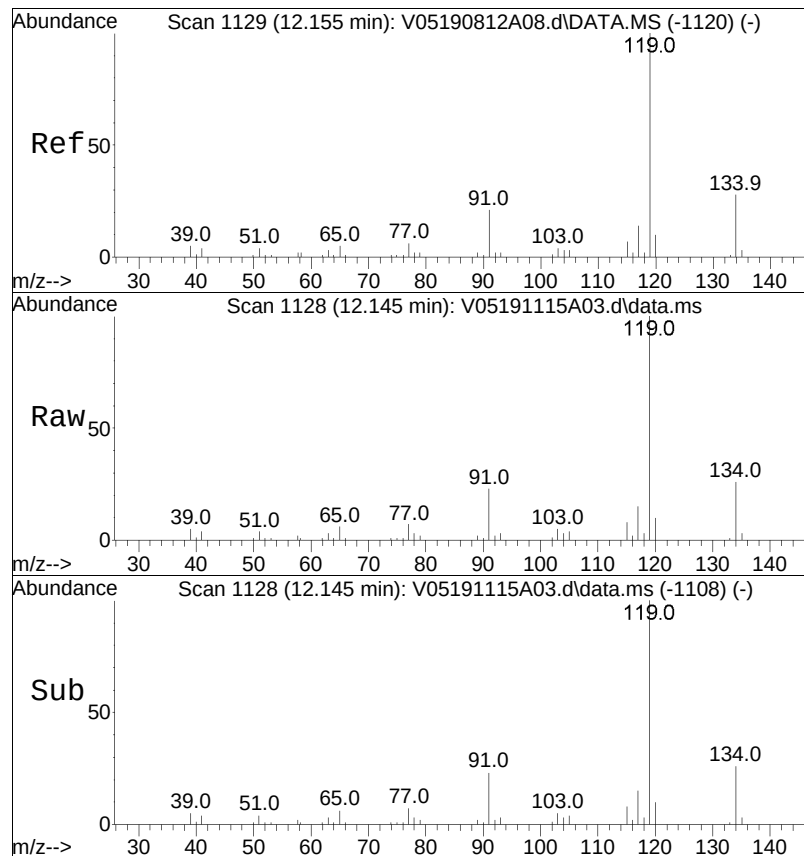




#98
 sec-Butylbenzene
 Concen: 8.26 ug/L
 RT: 11.998 min Scan# 1113
 Delta R.T. -0.000 min
 Lab File: V05191115A03.d
 Acq: 15 Nov 2019 7:42 am

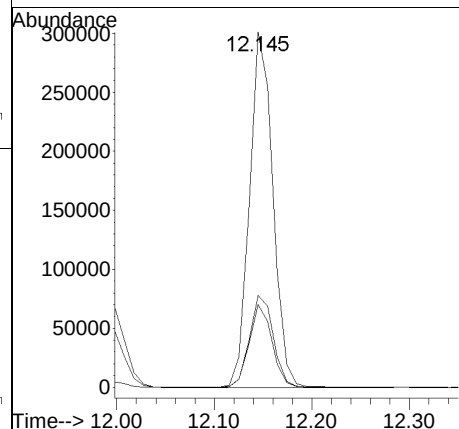
Tgt Ion:105 Resp: 516392
 Ion Ratio Lower Upper
 105 100
 134 22.3 12.9 26.9

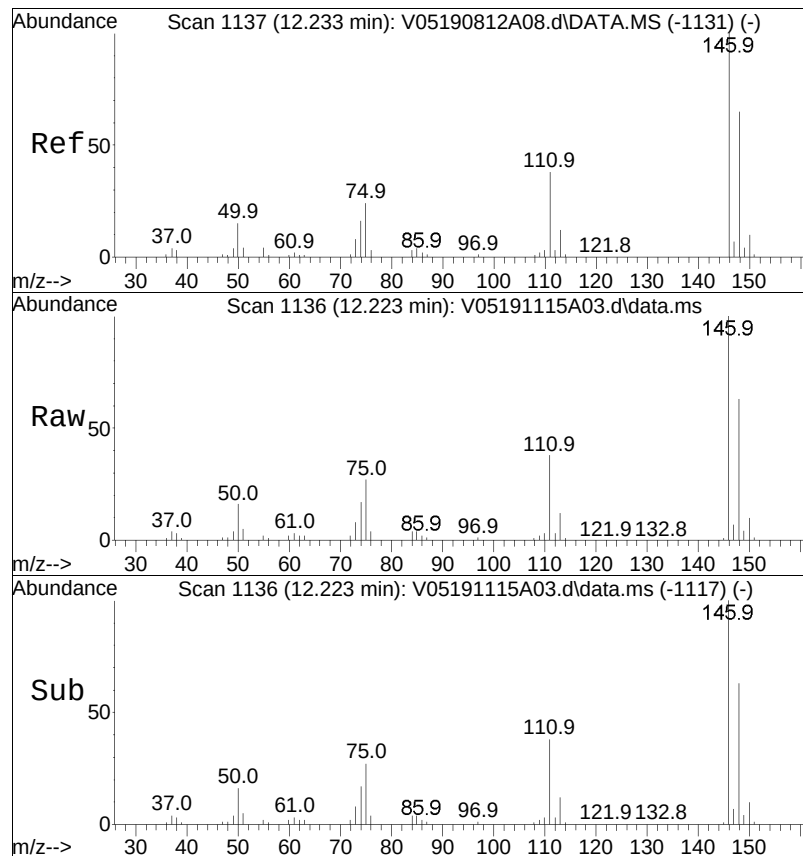




#99
 p-Isopropyltoluene
 Concen: 8.76 ug/L
 RT: 12.145 min Scan# 1128
 Delta R.T. -0.000 min
 Lab File: V05191115A03.d
 Acq: 15 Nov 2019 7:42 am

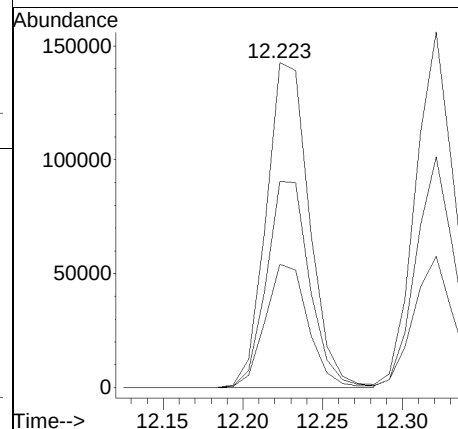
Tgt Ion:	119	Resp:	501832
Ion Ratio	Lower	Upper	
119	100		
134	26.4	16.0	33.2
91	23.0	16.8	35.0

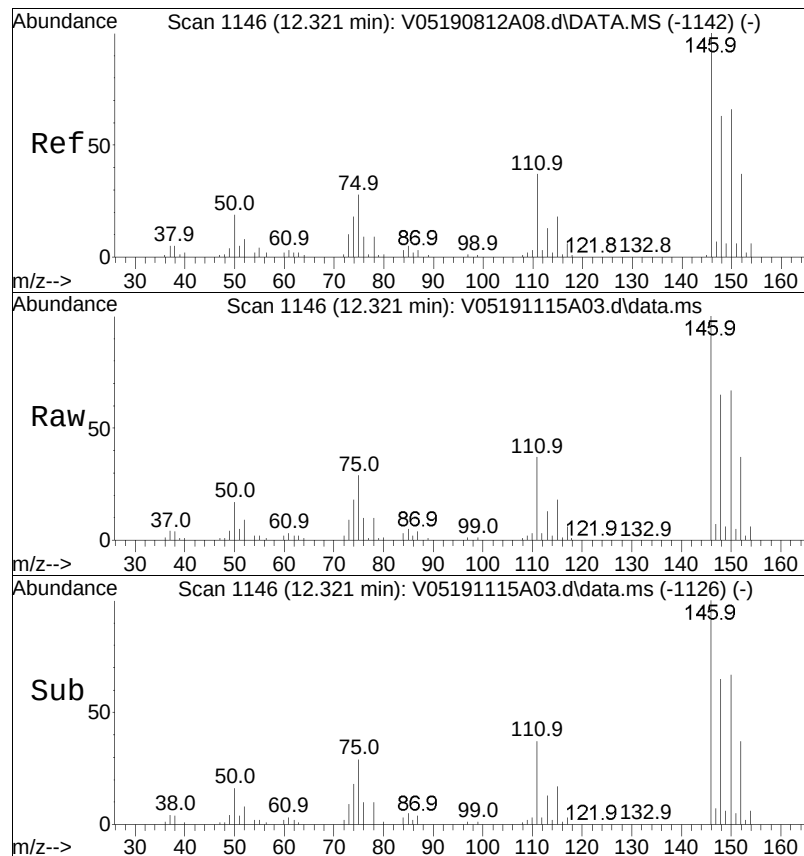




#100
 1,3-Dichlorobenzene
 Concen: 8.92 ug/L
 RT: 12.223 min Scan# 1136
 Delta R.T. -0.010 min
 Lab File: V05191115A03.d
 Acq: 15 Nov 2019 7:42 am

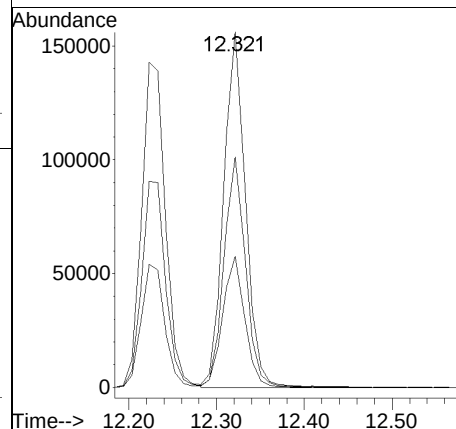
Tgt Ion	Ratio	Lower	Upper
146	100		
111	37.7	28.0	58.1
148	63.4	41.6	86.4

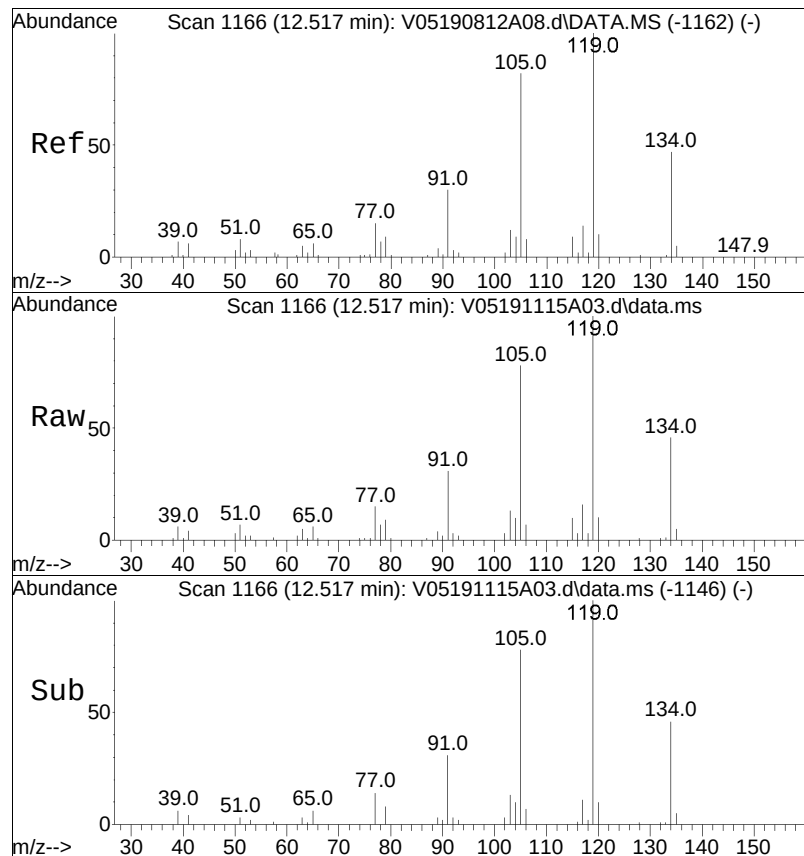




#101
 1,4-Dichlorobenzene
 Concen: 8.73 ug/L
 RT: 12.321 min Scan# 1146
 Delta R.T. -0.000 min
 Lab File: V05191115A03.d
 Acq: 15 Nov 2019 7:42 am

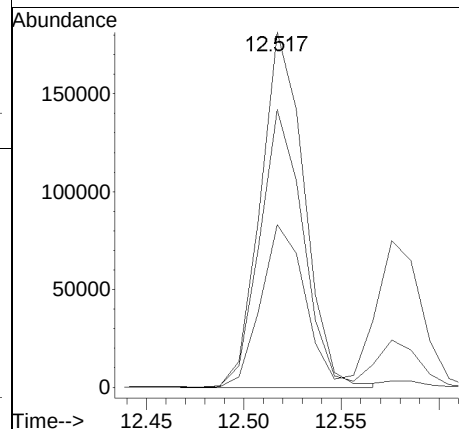
Tgt Ion	Ratio	Lower	Upper
146	100		
111	37.4	33.8	50.6
148	64.1	51.0	76.6

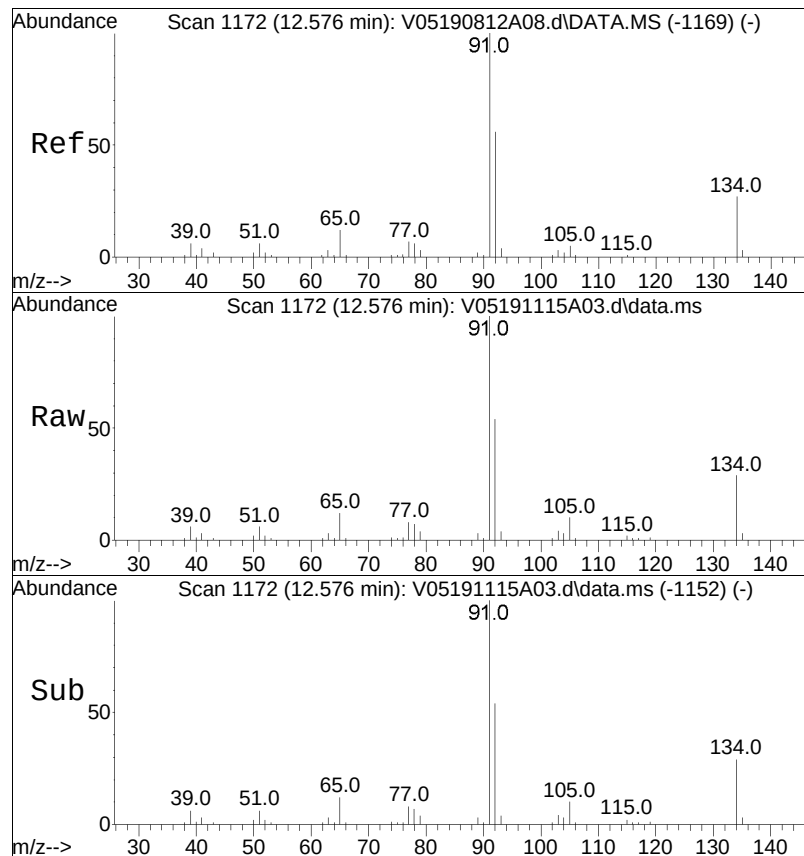




#102
 p-Diethylbenzene
 Concen: 8.70 ug/L
 RT: 12.517 min Scan# 1166
 Delta R.T. -0.000 min
 Lab File: V05191115A03.d
 Acq: 15 Nov 2019 7:42 am

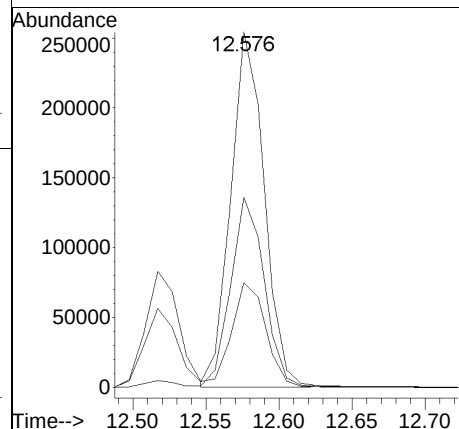
Tgt Ion	Ratio	Lower	Upper
119	100		
105	77.2	54.6	113.4
134	46.2	29.0	60.2

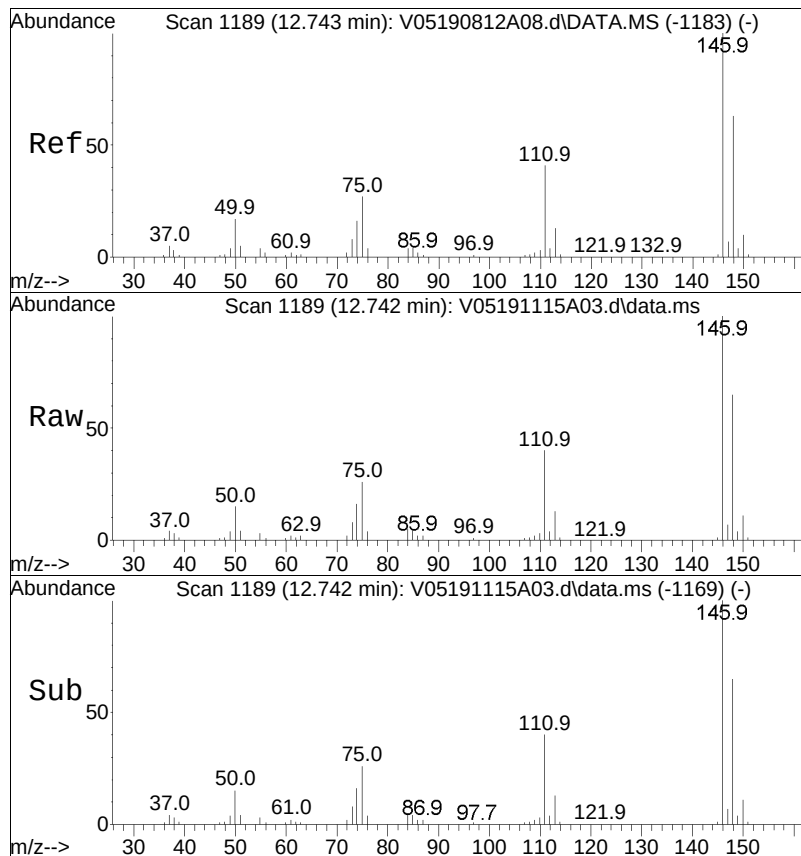




#103
 n-Butylbenzene
 Concen: 7.88 ug/L
 RT: 12.576 min Scan# 1172
 Delta R.T. -0.000 min
 Lab File: V05191115A03.d
 Acq: 15 Nov 2019 7:42 am

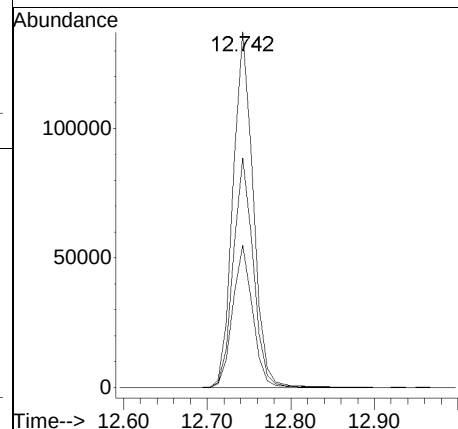
Tgt Ion:	91	Resp:	404942
Ion Ratio	Lower	Upper	
91	100		
92	54.1	44.2	66.2
134	30.1	20.2	30.2

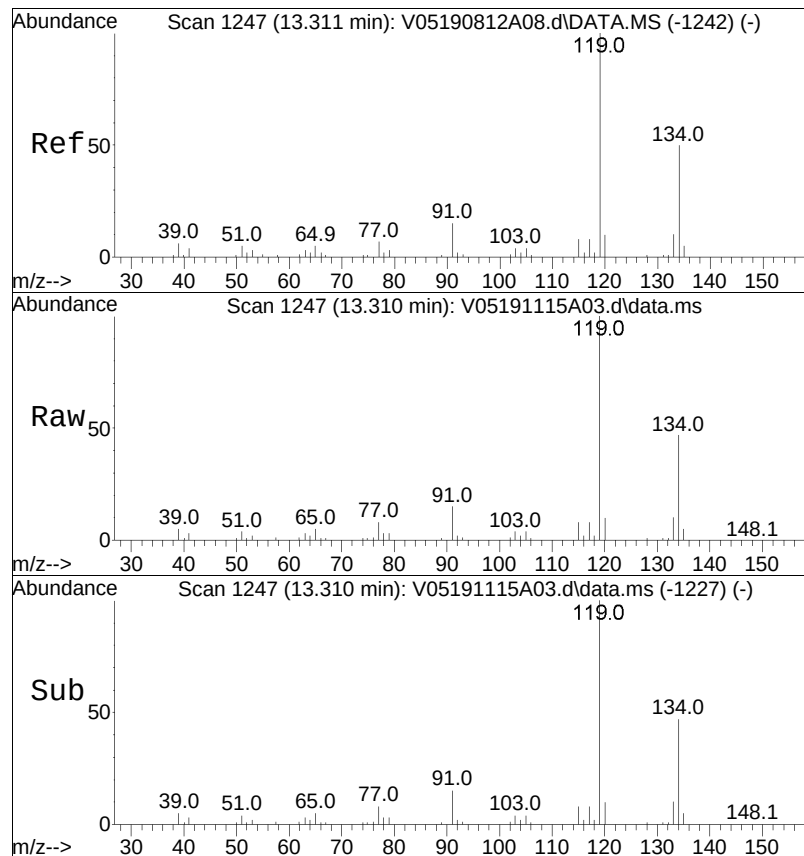




#104
 1,2-Dichlorobenzene
 Concen: 8.85 ug/L
 RT: 12.742 min Scan# 1189
 Delta R.T. -0.000 min
 Lab File: V05191115A03.d
 Acq: 15 Nov 2019 7:42 am

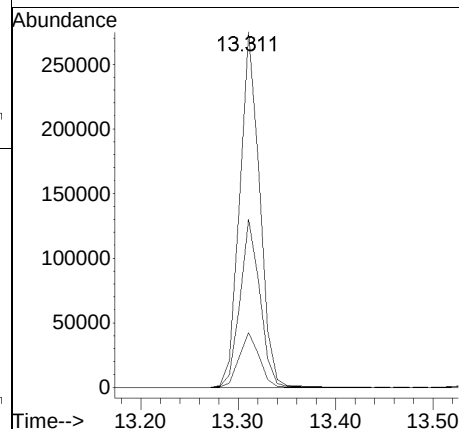
Tgt Ion	Ratio	Lower	Upper
146	100		
111	39.3	29.1	60.5
148	63.9	41.7	86.7

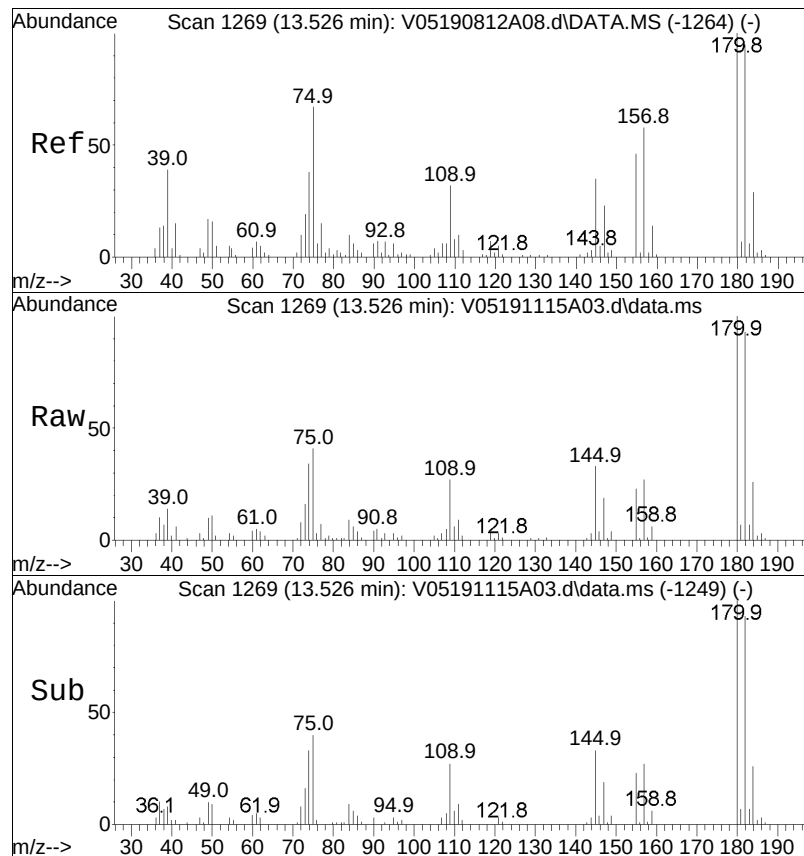




#105
 1,2,4,5-Tetramethylbenzene
 Concen: 9.01 ug/L
 RT: 13.310 min Scan# 1247
 Delta R.T. -0.000 min
 Lab File: V05191115A03.d
 Acq: 15 Nov 2019 7:42 am

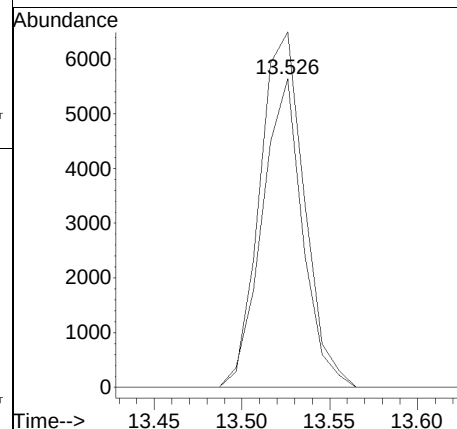
Tgt Ion	Ratio	Lower	Upper
119	100		
134	47.1	28.7	59.7
91	15.5	11.6	24.0

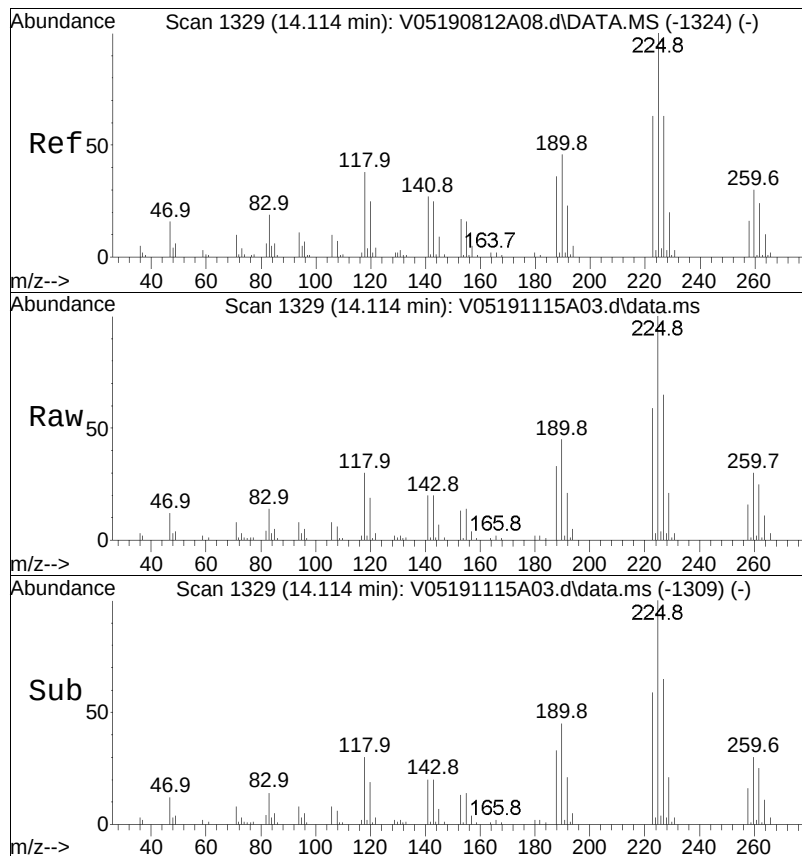




#106
 1,2-Dibromo-3-chloropropane
 Concen: 8.71 ug/L
 RT: 13.526 min Scan# 1269
 Delta R.T. 0.000 min
 Lab File: V05191115A03.d
 Acq: 15 Nov 2019 7:42 am

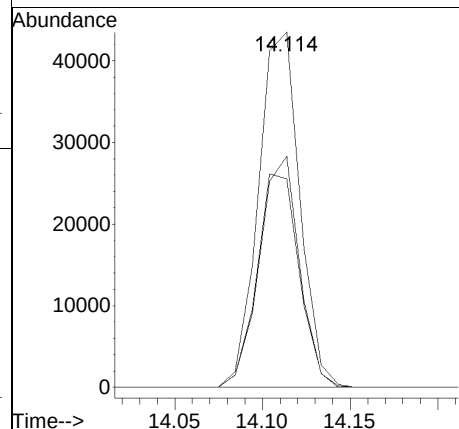
Tgt	Ion	Ratio	Lower	Upper
155	100			
157	125.7	105.0	157.6	

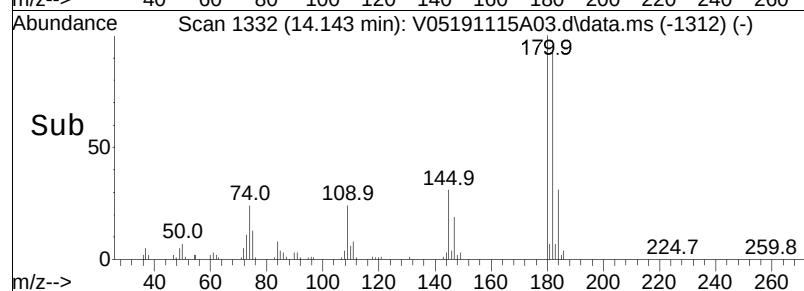
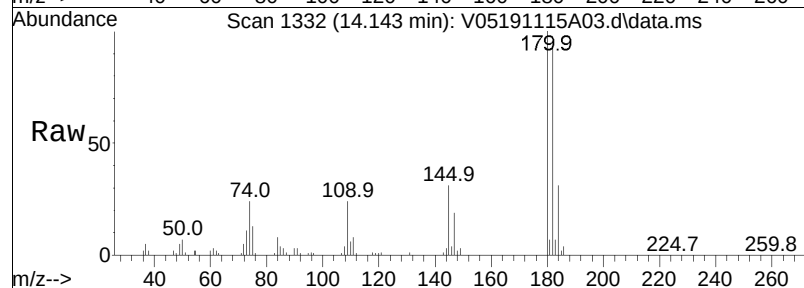
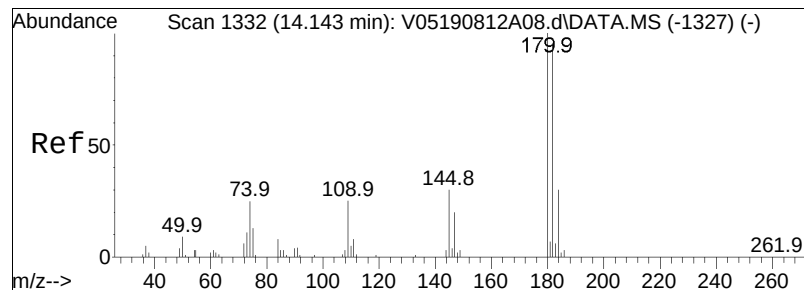




#108
 Hexachlorobutadiene
 Concen: 9.54 ug/L
 RT: 14.114 min Scan# 1329
 Delta R.T. -0.000 min
 Lab File: V05191115A03.d
 Acq: 15 Nov 2019 7:42 am

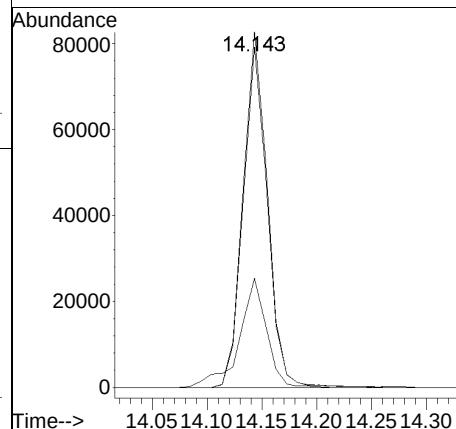
Tgt Ion	Ratio	Resp	Lower	Upper
225	100	71562		
223	61.2		49.9	74.9
227	62.9		51.0	76.4

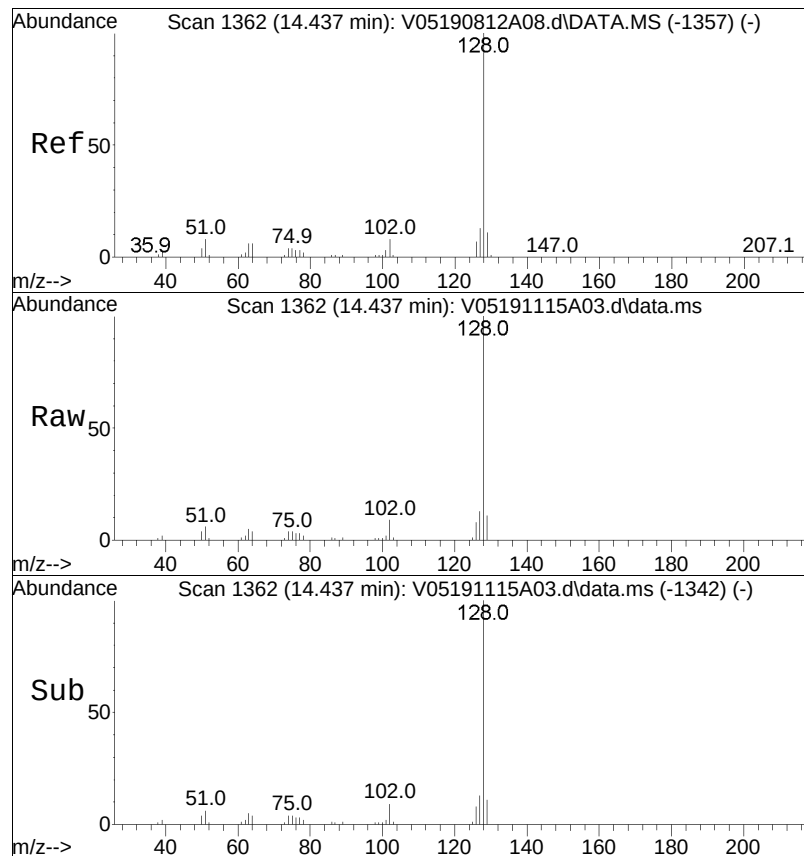




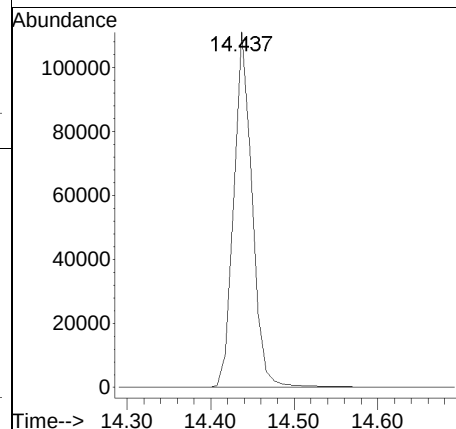
#109
 1,2,4-Trichlorobenzene
 Concen: 8.98 ug/L
 RT: 14.143 min Scan# 1332
 Delta R.T. -0.000 min
 Lab File: V05191115A03.d
 Acq: 15 Nov 2019 7:42 am

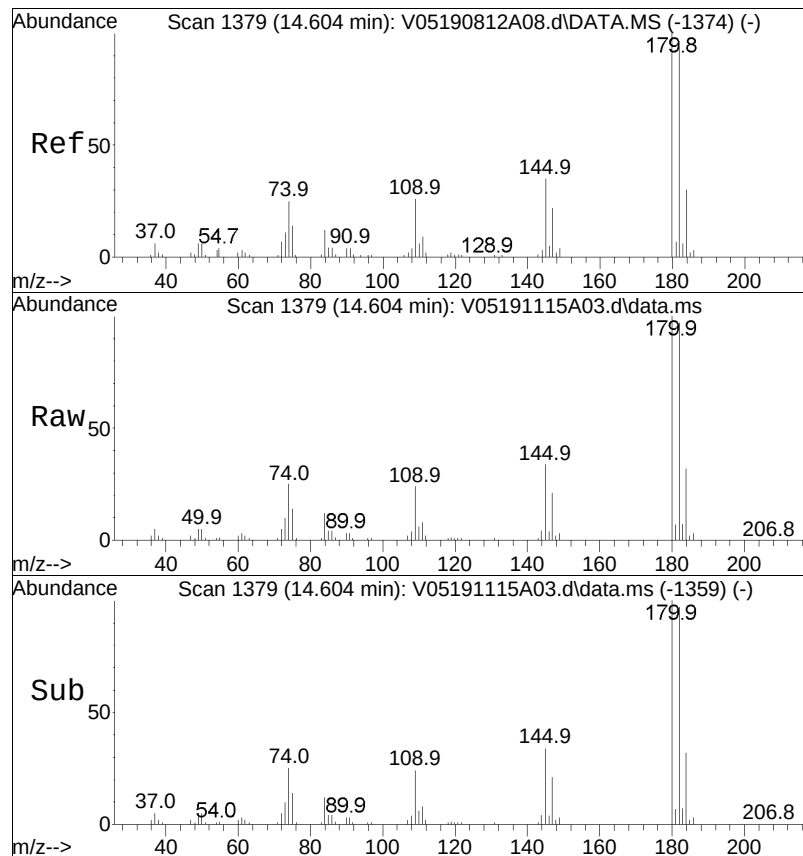
Tgt Ion	Ratio	Lower	Upper
180	100		
182	95.2	75.2	112.8
145	34.2	27.4	41.2





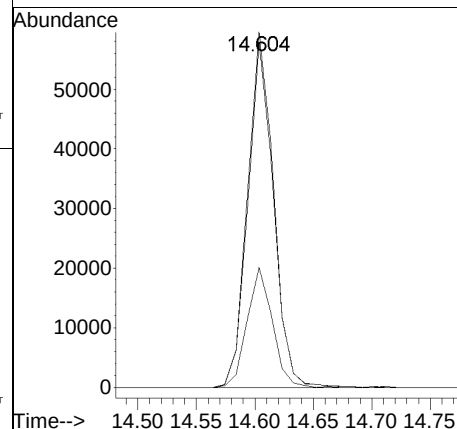
#110
 Naphthalene
 Concen: 8.66 ug/L
 RT: 14.437 min Scan# 1362
 Delta R.T. -0.000 min
 Lab File: V05191115A03.d
 Acq: 15 Nov 2019 7:42 am
 Tgt Ion:128 Resp: 169513





#111
 1,2,3-Trichlorobenzene
 Concen: 9.14 ug/L
 RT: 14.604 min Scan# 1379
 Delta R.T. -0.000 min
 Lab File: V05191115A03.d
 Acq: 15 Nov 2019 7:42 am

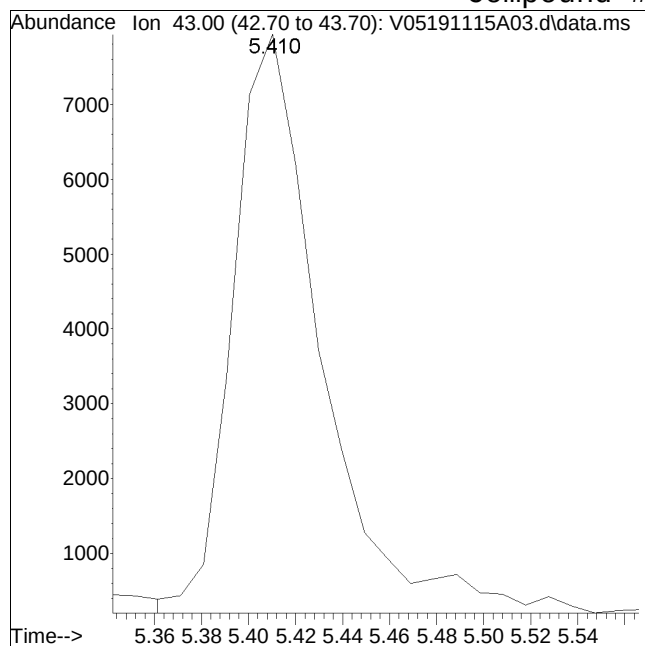
Tgt Ion	Ratio	Lower	Upper
180	100		
182	95.9	75.5	113.3
145	32.8	26.5	39.7



Manual Integration Report

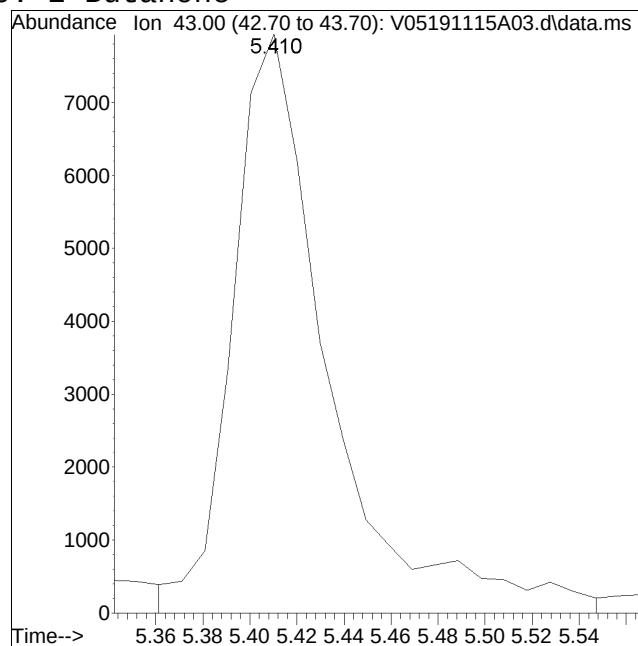
Data Path : I:\VOLATILES\VOA105\2019\10 Method : V105_190921_8260.m
Data File : V05191115A03.d Operator : VOA105:PD
Date Inj'd : 11/15/2019 7:42 am Instrument : VOA 105
Sample : WG1309356-4,31,10,10 Quant Date : 11/15/2019 8:11 am

Compound #39: 2-Butanone



Original Peak Response = 20226

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

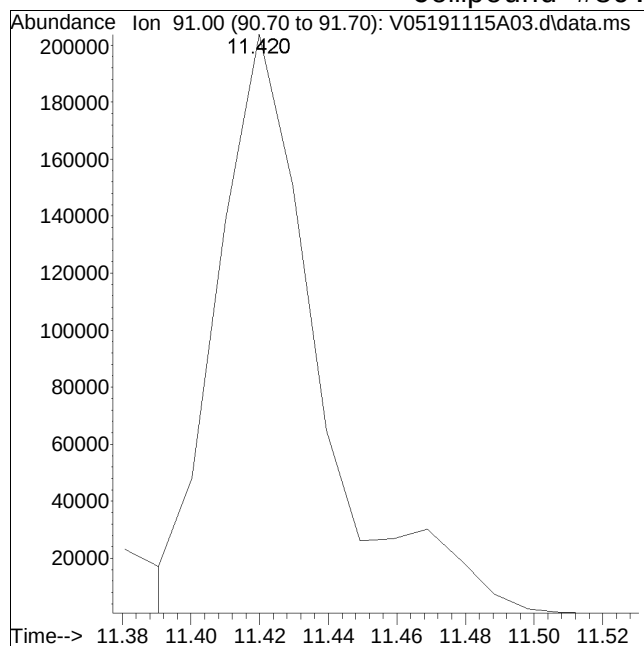


Manual Peak Response = 22523 M1

Manual Integration Report

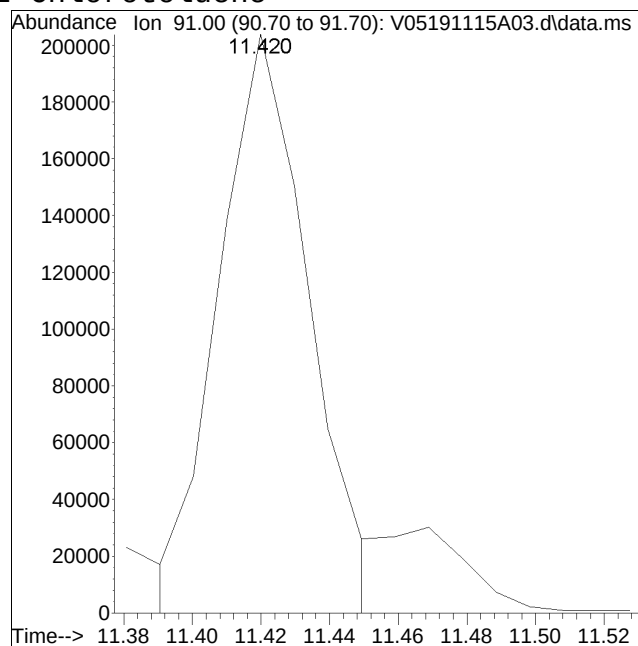
Data Path : I:\VOLATILES\VOA105\2019\10Method : V105_190921_8260.m
Data File : V05191115A03.d Operator : VOA105:PD
Date Inj'd : 11/15/2019 7:42 am Instrument : VOA 105
Sample : WG1309356-4,31,10,10 Quant Date : 11/15/2019 8:11 am

Compound #89: 2-Chlorotoluene



Original Peak Response = 417322

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

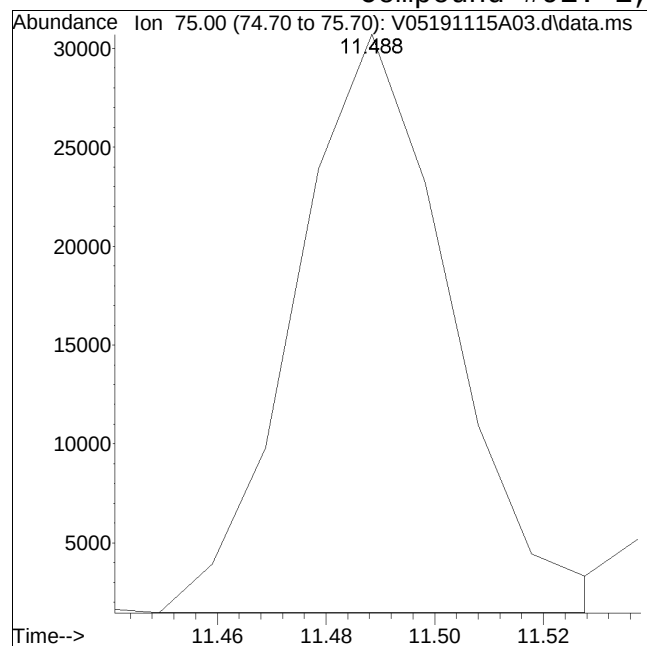


Manual Peak Response = 371603 M1

Manual Integration Report

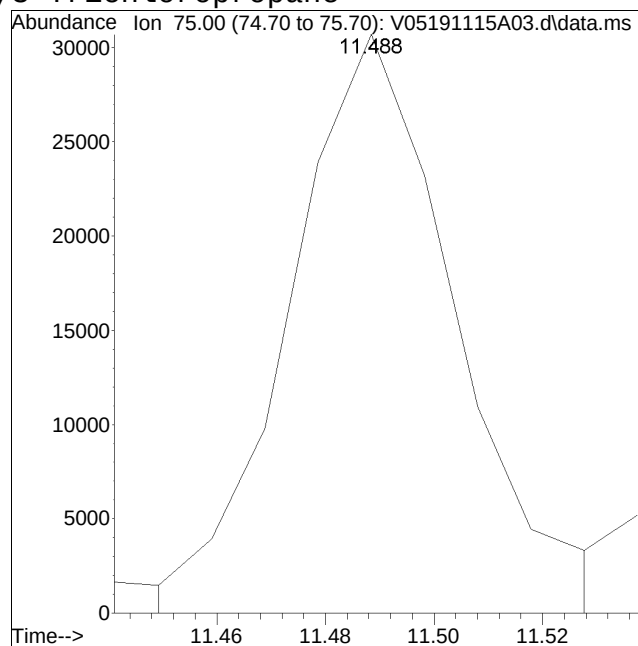
Data Path : I:\VOLATILES\VOA105\2019\10Method : V105_190921_8260.m
Data File : V05191115A03.d Operator : VOA105:PD
Date Inj'd : 11/15/2019 7:42 am Instrument : VOA 105
Sample : WG1309356-4,31,10,10 Quant Date : 11/15/2019 8:11 am

Compound #91: 1,2,3-Trichloropropane



Original Peak Response = 57904

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

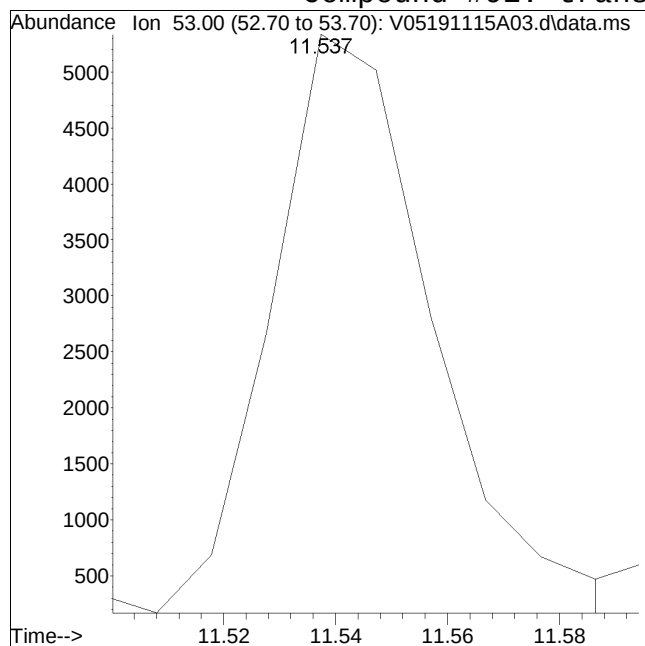


Manual Peak Response = 64816 M1

Manual Integration Report

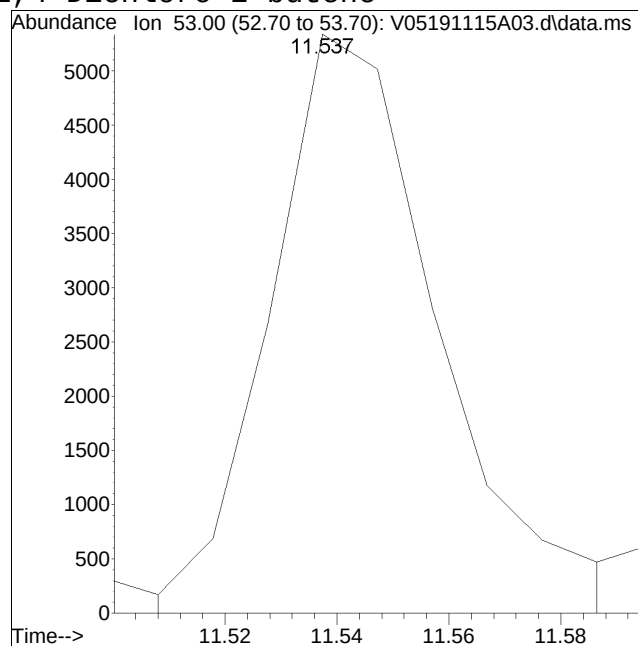
Data Path : I:\VOLATILES\VOA105\2019\10Method : V105_190921_8260.m
Data File : V05191115A03.d Operator : VOA105:PD
Date Inj'd : 11/15/2019 7:42 am Instrument : VOA 105
Sample : WG1309356-4,31,10,10 Quant Date : 11/15/2019 8:11 am

Compound #92: trans-1,4-Dichloro-2-butene



Original Peak Response = 10273

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.

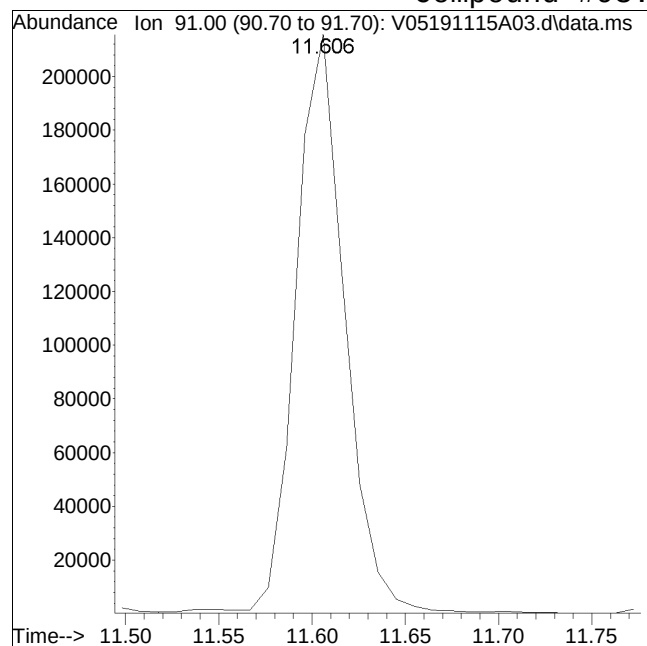


Manual Peak Response = 11073 M1

Manual Integration Report

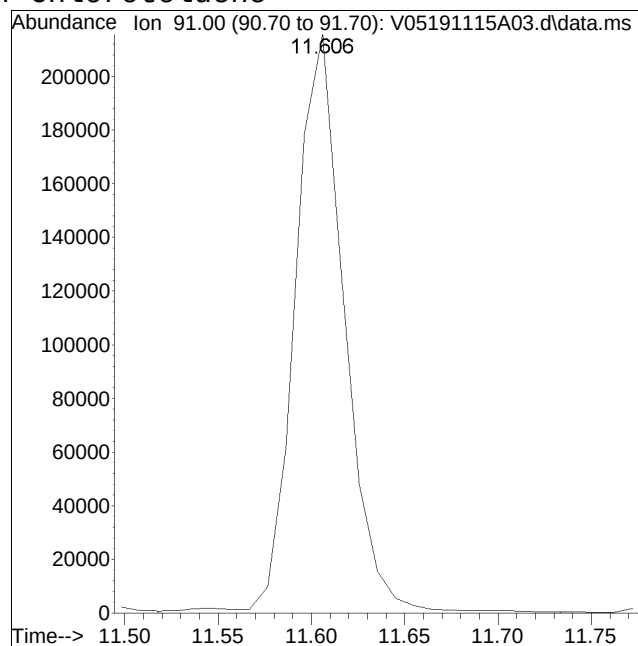
Data Path : I:\VOLATILES\VOA105\2019\10Method : V105_190921_8260.m
Data File : V05191115A03.d Operator : VOA105:PD
Date Inj'd : 11/15/2019 7:42 am Instrument : VOA 105
Sample : WG1309356-4,31,10,10 Quant Date : 11/15/2019 8:11 am

Compound #93: 4-Chlorotoluene



Original Peak Response = 395907

M1 = Split or tailing peak, auto integration stopped early resulting in false low area count.



Manual Peak Response = 399702 M1



Calculation of Volatile Organic Compounds

Aqueous Concentration Formula: $Amt * DF * Uf * (1/Vo)$

Where:

DF = Dilution Factor

Vo = Sample Volume Purged (mL)

Uf = ng Unit Correction Factor (mL)

Soil Concentration Formula: $Amt * DF * (1/Wt)$

Where:

DF = Dilution Factor

Wt = Weight of Sample (g)

ALPHA ANALYTICAL LABORATORIES, INC.

Alpha WORK GROUP REPORT (wk02)

Nov 15 2019, 01:10 pm

Work Group: WG1309356 for Department: 31 GC/MS - Volatiles

Created: 15-NOV-19 Due: Operator: PD

Sample	Client ID	C Product	Matrix	Stat	UA	HOLD	DUE	PR	Location
L1954584-01	MW03_111419	S NYTCL-8260	WATER	DONE	U	1128	1115	1A	Vial-B
L1954584-02	MW07_111419	S NYTCL-8260	WATER	DONE	U	1128	1115	1A	Vial-B
L1954584-03	GWTB_111419	S NYTCL-8260	WATER	DONE	U	1127	1115	1A	Vial-B
L1954584-04	MW06_111419	S NYTCL-8260	WATER	DONE	U	1128	1115	1A	Vial-B
WG1309356-1	MS BFB Tune Standard	S NYTCL-8260	WATER	DONE	U				
WG1309356-2	Continuing Calibrati	S NYTCL-8260	WATER	DONE	U				
WG1309356-3	Laboratory Control S	S NYTCL-8260	WATER	DONE	U				
WG1309356-4	LCS Duplicate	S NYTCL-8260	WATER	DONE	U				
WG1309356-5	Laboratory Method Bl	S NYTCL-8260	WATER	DONE	U				
Comments:									
WG1309356-4	WG1309356-3								

Inst: VOA105
Initials: TAB
Date: 09/21/19
Run: A

BFB: V7498
IS/SS: V7521
ICAL: V7538,V7506E
ICV: V7529,V7528,V7465,V7514,V7475,V7508

Method
GC: 8260
Autosampler: 8260water10ml
Concentrator: 8260



QC: _____ Seq: _____

Vial	Data File	Sample
1	V05190921A01	BFB TUNE
1	V05190921A02	BLANK
2	V05190921A03	BLANK
3	V05190921A04	I8260STD.L2PPB
4	V05190921A05	I8260STD.L5PPB
5	V05190921A06	I8260STD.L5PPB
6	V05190921A07	I8260STD.L2PPB
7	V05190921A08	I8260STD.L2PPB
8	V05190921A09	I8260STD.L10PPB
9	V05190921A10	I8260STD.L30PPB
10	V05190921A11	I8260STD.L80PPB
11	V05190921A12	I8260STD.L120PPB
12	V05190921A13	I8260STD.L200PPB
13	V05190921A14	BLANK
14	V05190921A15	BLANK
15	V05190921A16	BLANK
16	V05190921A17	BLANK
17	V05190921A18	BLANK
18	V05190921A19	C8260STD.L10PPB
19	V05190921A20	C8260STD.L10PPB
20	V05190921A21	BLANK

Method

GC: 8260



Inst: VOA105

BFB: V7601

Initials: AJK

IS/SS: V7616

Autosampler: 8260water10ml

Date: 11/15/19

ICAL: V7631,V7621B

Concentrator: 8260

Run: A

ICV: V7529,V7528,V7465,V7514,V7475,V7508

QC: _____ Seq: _____

Vial	Data File	Sample		
1	V05191115ABF1	BFB TUNE	06:42	
1	V05191115A01	8260 CCAL		
2	V05191115A02	8260 CCAL	LCS	
3	V05191115A03	8260 CCAL	LCSD	
4	V05191115A04	BLK		
5	V05191115A05	METHOD BLK		
6	V05191115A06	I1954584-03,31,10,10,,a	NYTCL	pH<2
7	V05191115A07	I1954584-01,31,10,10,,a	NYTCL	pH<2
8	V05191115A08	I1954584-02,31,10,10,,a	NYTCL	pH<2
9	V05191115A09	I1954584-04,31,10,10,,a	NYTCL	pH<2
10	V05191115A10	I1953544-20,31,10,10,,a	NJ/15	HT pH>2
11	V05191115A11	I1953544-21,31,10,10,,a	NJ/15	HT pH>2
12	V05191115A12	I1953304-01,31,10,10,,a	NJ/BTEX,MBTE,TBA	pH<2
13	V05191115A13	I1953305-04D2,31,1,10,,c	NJ/AC	pH<2
14	V05191115A14	I1953349-04,31,10,10,,a	NJ/15/TBA	pH<2
15	V05191115A15	I1953349-05,31,10,10,,a	NJ/15/TBA	pH<2
16	V05191115A16	I1953349-06,31,10,10,,a	NJ/15/TBA	pH<2
17	V05191115A17	I1953354-05,31,10,10,,a	NJ/15/TBA	A+C pH<2
18	V05191115A18	I1953354-06,31,10,10,,a	NJ/15/TBA	A+C pH<2
19	V05191115A19	I1953509-09,31,10,10,,a	NJ/15/NAPH	pH<2
20	V05191115A20	I1953509-10,31,10,10,,a	NJ/15/NAPH	pH<2
21	V05191115A21	I1953512-12,31,10,10,,a	NJ/15	pH<2
22	V05191115A22	I1953512-13,31,10,10,,a	NJ/15	pH<2
23	V05191115A23	I1953512-09,31,10,10,,a	NJ/15	pH<2
24	V05191115A24	I1953512-11D,31,0.010,10,,a	NJ/15	pH<2
25	V05191115A25	I1953512-10D,31,0.400,10,,a	NJ/15	pH<2
26	V05191115A26	I1953512-10DUP,31,0.400,10,,a	NJ/15	pH<2
27	V05191115A27	I1953512-10MS,31,0.400,10,,a	NJ/15	pH<2

ATTACHMENT C

LABORATORY ANALYTICAL REPORTS



ANALYTICAL REPORT

Lab Number:	L1954303
Client:	Langan Engineering & Environmental 21 Penn Plaza 360 W. 31st Street, 8th Floor New York, NY 10001-2727
ATTN:	Albert Tashji
Phone:	(212) 479-5400
Project Name:	432 RODNEY STREET
Project Number:	170357801
Report Date:	11/14/19

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: MA (M-MA086), NH NELAP (2064), CT (PH-0574), IL (200077), ME (MA00086), MD (348), NJ (MA935), NY (11148), NC (25700/666), PA (68-03671), RI (LAO00065), TX (T104704476), VT (VT-0935), VA (460195), USDA (Permit #P330-17-00196).

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com



Project Name: 432 RODNEY STREET
Project Number: 170357801

Lab Number: L1954303
Report Date: 11/14/19

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L1954303-01	MW04_111319	WATER	432 RODNEY STREET, BROOKLYN, NY	11/13/19 11:45	11/13/19
L1954303-02	MW02_111319	WATER	432 RODNEY STREET, BROOKLYN, NY	11/13/19 13:10	11/13/19
L1954303-03	MW01_111319	WATER	432 RODNEY STREET, BROOKLYN, NY	11/13/19 15:10	11/13/19
L1954303-04	MW05_111319	WATER	432 RODNEY STREET, BROOKLYN, NY	11/13/19 16:20	11/13/19
L1954303-05	GWFB_111319	WATER	432 RODNEY STREET, BROOKLYN, NY	11/13/19 12:30	11/13/19
L1954303-06	GWTB_111319	WATER	432 RODNEY STREET, BROOKLYN, NY	11/13/19 00:00	11/13/19
L1954303-07	GWDUP_111319	WATER	432 RODNEY STREET, BROOKLYN, NY	11/13/19 00:00	11/13/19

Project Name: 432 RODNEY STREET
Project Number: 170357801

Lab Number: L1954303
Report Date: 11/14/19

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively.

When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances, the specific failure is not narrated but noted in the associated QC Outlier Summary Report, located directly after the Case Narrative. QC information is also incorporated in the Data Usability Assessment table (Format 11) of our Data Merger tool, where it can be reviewed in conjunction with the sample result, associated regulatory criteria and any associated data usability implications.

Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

HOLD POLICY - For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Alpha Project Manager and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Project Management at 800-624-9220 with any questions.

Project Name: 432 RODNEY STREET
Project Number: 170357801

Lab Number: L1954303
Report Date: 11/14/19

Case Narrative (continued)

Report Submission

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature:



Cristin Walker

Title: Technical Director/Representative

Date: 11/14/19

ORGANICS

VOLATILES

Project Name: 432 RODNEY STREET**Lab Number:** L1954303**Project Number:** 170357801**Report Date:** 11/14/19**SAMPLE RESULTS****Lab ID:** L1954303-01**Date Collected:** 11/13/19 11:45**Client ID:** MW04_111319**Date Received:** 11/13/19**Sample Location:** 432 RODNEY STREET, BROOKLYN, NY**Field Prep:** Not Specified**Sample Depth:****Matrix:** Water**Analytical Method:** 1,8260C**Analytical Date:** 11/14/19 10:09**Analyst:** PD

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	0.70		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1-Dichloropropene	ND		ug/l	2.5	0.70	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1

Project Name: 432 RODNEY STREET

Lab Number: L1954303

Project Number: 170357801

Report Date: 11/14/19

SAMPLE RESULTS

Lab ID: L1954303-01

Date Collected: 11/13/19 11:45

Client ID: MW04_111319

Date Received: 11/13/19

Sample Location: 432 RODNEY STREET, BROOKLYN, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	0.45	J	ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
Xylenes, Total	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	3.2		ug/l	2.5	0.70	1
1,2-Dichloroethene, Total	3.2		ug/l	2.5	0.70	1
Dibromomethane	ND		ug/l	5.0	1.0	1
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70	1
Acrylonitrile	ND		ug/l	5.0	1.5	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	ND		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
Vinyl acetate	ND		ug/l	5.0	1.0	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
2,2-Dichloropropane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,3-Dichloropropane	ND		ug/l	2.5	0.70	1
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70	1
Bromobenzene	ND		ug/l	2.5	0.70	1
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
tert-Butylbenzene	ND		ug/l	2.5	0.70	1
o-Chlorotoluene	ND		ug/l	2.5	0.70	1
p-Chlorotoluene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Hexachlorobutadiene	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
Naphthalene	ND		ug/l	2.5	0.70	1

Project Name: 432 RODNEY STREET**Lab Number:** L1954303**Project Number:** 170357801**Report Date:** 11/14/19**SAMPLE RESULTS****Lab ID:** L1954303-01**Date Collected:** 11/13/19 11:45**Client ID:** MW04_111319**Date Received:** 11/13/19**Sample Location:** 432 RODNEY STREET, BROOKLYN, NY**Field Prep:** Not Specified**Sample Depth:**

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,4-Dioxane	ND		ug/l	250	61.	1
p-Diethylbenzene	ND		ug/l	2.0	0.70	1
p-Ethyltoluene	ND		ug/l	2.0	0.70	1
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54	1
Ethyl ether	ND		ug/l	2.5	0.70	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	106		70-130
Toluene-d8	108		70-130
4-Bromofluorobenzene	104		70-130
Dibromofluoromethane	98		70-130

Project Name: 432 RODNEY STREET**Lab Number:** L1954303**Project Number:** 170357801**Report Date:** 11/14/19**SAMPLE RESULTS**

Lab ID: L1954303-02
 Client ID: MW02_111319
 Sample Location: 432 RODNEY STREET, BROOKLYN, NY

Date Collected: 11/13/19 13:10
 Date Received: 11/13/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Water

Analytical Method: 1,8260C

Analytical Date: 11/14/19 10:32

Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	2.4		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1-Dichloropropene	ND		ug/l	2.5	0.70	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1

Project Name: 432 RODNEY STREET**Lab Number:** L1954303**Project Number:** 170357801**Report Date:** 11/14/19**SAMPLE RESULTS****Lab ID:** L1954303-02**Date Collected:** 11/13/19 13:10**Client ID:** MW02_111319**Date Received:** 11/13/19**Sample Location:** 432 RODNEY STREET, BROOKLYN, NY**Field Prep:** Not Specified**Sample Depth:**

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	0.75		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
Xylenes, Total	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	1.6	J	ug/l	2.5	0.70	1
1,2-Dichloroethene, Total	1.6	J	ug/l	2.5	0.70	1
Dibromomethane	ND		ug/l	5.0	1.0	1
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70	1
Acrylonitrile	ND		ug/l	5.0	1.5	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	ND		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
Vinyl acetate	ND		ug/l	5.0	1.0	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
2,2-Dichloropropane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,3-Dichloropropane	ND		ug/l	2.5	0.70	1
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70	1
Bromobenzene	ND		ug/l	2.5	0.70	1
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
tert-Butylbenzene	ND		ug/l	2.5	0.70	1
o-Chlorotoluene	ND		ug/l	2.5	0.70	1
p-Chlorotoluene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Hexachlorobutadiene	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
Naphthalene	ND		ug/l	2.5	0.70	1

Project Name: 432 RODNEY STREET**Lab Number:** L1954303**Project Number:** 170357801**Report Date:** 11/14/19**SAMPLE RESULTS****Lab ID:** L1954303-02**Date Collected:** 11/13/19 13:10**Client ID:** MW02_111319**Date Received:** 11/13/19**Sample Location:** 432 RODNEY STREET, BROOKLYN, NY**Field Prep:** Not Specified**Sample Depth:**

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,4-Dioxane	ND		ug/l	250	61.	1
p-Diethylbenzene	ND		ug/l	2.0	0.70	1
p-Ethyltoluene	ND		ug/l	2.0	0.70	1
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54	1
Ethyl ether	ND		ug/l	2.5	0.70	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	109		70-130
Toluene-d8	106		70-130
4-Bromofluorobenzene	104		70-130
Dibromofluoromethane	98		70-130

Project Name: 432 RODNEY STREET**Lab Number:** L1954303**Project Number:** 170357801**Report Date:** 11/14/19**SAMPLE RESULTS**

Lab ID: L1954303-03
 Client ID: MW01_111319
 Sample Location: 432 RODNEY STREET, BROOKLYN, NY

Date Collected: 11/13/19 15:10
 Date Received: 11/13/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Water

Analytical Method: 1,8260C

Analytical Date: 11/14/19 10:56

Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	4.6		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1-Dichloropropene	ND		ug/l	2.5	0.70	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1

Project Name: 432 RODNEY STREET**Lab Number:** L1954303**Project Number:** 170357801**Report Date:** 11/14/19**SAMPLE RESULTS****Lab ID:** L1954303-03**Date Collected:** 11/13/19 15:10**Client ID:** MW01_111319**Date Received:** 11/13/19**Sample Location:** 432 RODNEY STREET, BROOKLYN, NY**Field Prep:** Not Specified**Sample Depth:**

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	1.1		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
Xylenes, Total	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	1.4	J	ug/l	2.5	0.70	1
1,2-Dichloroethene, Total	1.4	J	ug/l	2.5	0.70	1
Dibromomethane	ND		ug/l	5.0	1.0	1
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70	1
Acrylonitrile	ND		ug/l	5.0	1.5	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	ND		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
Vinyl acetate	ND		ug/l	5.0	1.0	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
2,2-Dichloropropane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,3-Dichloropropane	ND		ug/l	2.5	0.70	1
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70	1
Bromobenzene	ND		ug/l	2.5	0.70	1
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
tert-Butylbenzene	ND		ug/l	2.5	0.70	1
o-Chlorotoluene	ND		ug/l	2.5	0.70	1
p-Chlorotoluene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Hexachlorobutadiene	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
Naphthalene	ND		ug/l	2.5	0.70	1

Project Name: 432 RODNEY STREET**Lab Number:** L1954303**Project Number:** 170357801**Report Date:** 11/14/19**SAMPLE RESULTS****Lab ID:** L1954303-03**Date Collected:** 11/13/19 15:10**Client ID:** MW01_111319**Date Received:** 11/13/19**Sample Location:** 432 RODNEY STREET, BROOKLYN, NY**Field Prep:** Not Specified**Sample Depth:**

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,4-Dioxane	ND		ug/l	250	61.	1
p-Diethylbenzene	ND		ug/l	2.0	0.70	1
p-Ethyltoluene	ND		ug/l	2.0	0.70	1
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54	1
Ethyl ether	ND		ug/l	2.5	0.70	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	105		70-130
Toluene-d8	107		70-130
4-Bromofluorobenzene	105		70-130
Dibromofluoromethane	96		70-130

Project Name: 432 RODNEY STREET**Lab Number:** L1954303**Project Number:** 170357801**Report Date:** 11/14/19**SAMPLE RESULTS**

Lab ID: L1954303-04
 Client ID: MW05_111319
 Sample Location: 432 RODNEY STREET, BROOKLYN, NY

Date Collected: 11/13/19 16:20
 Date Received: 11/13/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Water

Analytical Method: 1,8260C

Analytical Date: 11/14/19 11:20

Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	0.75		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1-Dichloropropene	ND		ug/l	2.5	0.70	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	2.2		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	4.2		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1

Project Name: 432 RODNEY STREET

Lab Number: L1954303

Project Number: 170357801

Report Date: 11/14/19

SAMPLE RESULTS

Lab ID: L1954303-04

Date Collected: 11/13/19 16:20

Client ID: MW05_111319

Date Received: 11/13/19

Sample Location: 432 RODNEY STREET, BROOKLYN, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	0.74		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
Xylenes, Total	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	5.9		ug/l	2.5	0.70	1
1,2-Dichloroethene, Total	5.9		ug/l	2.5	0.70	1
Dibromomethane	ND		ug/l	5.0	1.0	1
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70	1
Acrylonitrile	ND		ug/l	5.0	1.5	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	ND		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
Vinyl acetate	ND		ug/l	5.0	1.0	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
2,2-Dichloropropane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,3-Dichloropropane	ND		ug/l	2.5	0.70	1
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70	1
Bromobenzene	ND		ug/l	2.5	0.70	1
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
tert-Butylbenzene	ND		ug/l	2.5	0.70	1
o-Chlorotoluene	ND		ug/l	2.5	0.70	1
p-Chlorotoluene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Hexachlorobutadiene	ND		ug/l	2.5	0.70	1
Isopropylbenzene	0.93	J	ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
Naphthalene	ND		ug/l	2.5	0.70	1

Project Name: 432 RODNEY STREET**Lab Number:** L1954303**Project Number:** 170357801**Report Date:** 11/14/19**SAMPLE RESULTS****Lab ID:** L1954303-04**Date Collected:** 11/13/19 16:20**Client ID:** MW05_111319**Date Received:** 11/13/19**Sample Location:** 432 RODNEY STREET, BROOKLYN, NY**Field Prep:** Not Specified**Sample Depth:**

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	1.1	J	ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,4-Dioxane	ND		ug/l	250	61.	1
p-Diethylbenzene	ND		ug/l	2.0	0.70	1
p-Ethyltoluene	ND		ug/l	2.0	0.70	1
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54	1
Ethyl ether	ND		ug/l	2.5	0.70	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	107		70-130
Toluene-d8	106		70-130
4-Bromofluorobenzene	103		70-130
Dibromofluoromethane	97		70-130

Project Name: 432 RODNEY STREET**Lab Number:** L1954303**Project Number:** 170357801**Report Date:** 11/14/19**SAMPLE RESULTS**

Lab ID: L1954303-05
 Client ID: GWFB_111319
 Sample Location: 432 RODNEY STREET, BROOKLYN, NY

Date Collected: 11/13/19 12:30
 Date Received: 11/13/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Water

Analytical Method: 1,8260C

Analytical Date: 11/14/19 09:21

Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1-Dichloropropene	ND		ug/l	2.5	0.70	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1

Project Name: 432 RODNEY STREET

Lab Number: L1954303

Project Number: 170357801

Report Date: 11/14/19

SAMPLE RESULTS

Lab ID: L1954303-05

Date Collected: 11/13/19 12:30

Client ID: GWFB_111319

Date Received: 11/13/19

Sample Location: 432 RODNEY STREET, BROOKLYN, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
Xylenes, Total	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70	1
Dibromomethane	ND		ug/l	5.0	1.0	1
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70	1
Acrylonitrile	ND		ug/l	5.0	1.5	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	ND		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
Vinyl acetate	ND		ug/l	5.0	1.0	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
2,2-Dichloropropane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,3-Dichloropropane	ND		ug/l	2.5	0.70	1
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70	1
Bromobenzene	ND		ug/l	2.5	0.70	1
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
tert-Butylbenzene	ND		ug/l	2.5	0.70	1
o-Chlorotoluene	ND		ug/l	2.5	0.70	1
p-Chlorotoluene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Hexachlorobutadiene	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
Naphthalene	ND		ug/l	2.5	0.70	1

Project Name: 432 RODNEY STREET
Project Number: 170357801

Lab Number: L1954303
Report Date: 11/14/19

SAMPLE RESULTS

Lab ID: L1954303-05
Client ID: GWFB_111319
Sample Location: 432 RODNEY STREET, BROOKLYN, NY

Date Collected: 11/13/19 12:30
Date Received: 11/13/19
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,4-Dioxane	ND		ug/l	250	61.	1
p-Diethylbenzene	ND		ug/l	2.0	0.70	1
p-Ethyltoluene	ND		ug/l	2.0	0.70	1
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54	1
Ethyl ether	ND		ug/l	2.5	0.70	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	103		70-130
Toluene-d8	107		70-130
4-Bromofluorobenzene	104		70-130
Dibromofluoromethane	96		70-130

Project Name: 432 RODNEY STREET**Lab Number:** L1954303**Project Number:** 170357801**Report Date:** 11/14/19**SAMPLE RESULTS**

Lab ID: L1954303-06
 Client ID: GWTB_111319
 Sample Location: 432 RODNEY STREET, BROOKLYN, NY

Date Collected: 11/13/19 00:00
 Date Received: 11/13/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 1,8260C
 Analytical Date: 11/14/19 09:45
 Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1-Dichloropropene	ND		ug/l	2.5	0.70	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1

Project Name: 432 RODNEY STREET

Lab Number: L1954303

Project Number: 170357801

Report Date: 11/14/19

SAMPLE RESULTS

Lab ID: L1954303-06

Date Collected: 11/13/19 00:00

Client ID: GWTB_111319

Date Received: 11/13/19

Sample Location: 432 RODNEY STREET, BROOKLYN, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
Xylenes, Total	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70	1
Dibromomethane	ND		ug/l	5.0	1.0	1
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70	1
Acrylonitrile	ND		ug/l	5.0	1.5	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	ND		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
Vinyl acetate	ND		ug/l	5.0	1.0	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
2,2-Dichloropropane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,3-Dichloropropane	ND		ug/l	2.5	0.70	1
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70	1
Bromobenzene	ND		ug/l	2.5	0.70	1
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
tert-Butylbenzene	ND		ug/l	2.5	0.70	1
o-Chlorotoluene	ND		ug/l	2.5	0.70	1
p-Chlorotoluene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Hexachlorobutadiene	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
Naphthalene	ND		ug/l	2.5	0.70	1

Project Name: 432 RODNEY STREET**Lab Number:** L1954303**Project Number:** 170357801**Report Date:** 11/14/19**SAMPLE RESULTS****Lab ID:** L1954303-06**Date Collected:** 11/13/19 00:00**Client ID:** GWTB_111319**Date Received:** 11/13/19**Sample Location:** 432 RODNEY STREET, BROOKLYN, NY**Field Prep:** Not Specified**Sample Depth:**

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,4-Dioxane	ND		ug/l	250	61.	1
p-Diethylbenzene	ND		ug/l	2.0	0.70	1
p-Ethyltoluene	ND		ug/l	2.0	0.70	1
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54	1
Ethyl ether	ND		ug/l	2.5	0.70	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	105		70-130
Toluene-d8	107		70-130
4-Bromofluorobenzene	105		70-130
Dibromofluoromethane	97		70-130

Project Name: 432 RODNEY STREET**Lab Number:** L1954303**Project Number:** 170357801**Report Date:** 11/14/19**SAMPLE RESULTS**

Lab ID: L1954303-07

Date Collected: 11/13/19 00:00

Client ID: GWDUP_111319

Date Received: 11/13/19

Sample Location: 432 RODNEY STREET, BROOKLYN, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Water

Analytical Method: 1,8260C

Analytical Date: 11/14/19 11:43

Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	0.78		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1-Dichloropropene	ND		ug/l	2.5	0.70	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	2.2		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	4.2		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1

Project Name: 432 RODNEY STREET

Lab Number: L1954303

Project Number: 170357801

Report Date: 11/14/19

SAMPLE RESULTS

Lab ID: L1954303-07

Date Collected: 11/13/19 00:00

Client ID: GWDUP_111319

Date Received: 11/13/19

Sample Location: 432 RODNEY STREET, BROOKLYN, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	0.71		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
Xylenes, Total	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	6.0		ug/l	2.5	0.70	1
1,2-Dichloroethene, Total	6.0		ug/l	2.5	0.70	1
Dibromomethane	ND		ug/l	5.0	1.0	1
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70	1
Acrylonitrile	ND		ug/l	5.0	1.5	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	ND		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
Vinyl acetate	ND		ug/l	5.0	1.0	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
2,2-Dichloropropane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,3-Dichloropropane	ND		ug/l	2.5	0.70	1
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70	1
Bromobenzene	ND		ug/l	2.5	0.70	1
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
tert-Butylbenzene	ND		ug/l	2.5	0.70	1
o-Chlorotoluene	ND		ug/l	2.5	0.70	1
p-Chlorotoluene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Hexachlorobutadiene	ND		ug/l	2.5	0.70	1
Isopropylbenzene	0.94	J	ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
Naphthalene	ND		ug/l	2.5	0.70	1

Project Name: 432 RODNEY STREET
Project Number: 170357801

Lab Number: L1954303
Report Date: 11/14/19

SAMPLE RESULTS

Lab ID: L1954303-07
Client ID: GWDUP_111319
Sample Location: 432 RODNEY STREET, BROOKLYN, NY

Date Collected: 11/13/19 00:00
Date Received: 11/13/19
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	1.1	J	ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,4-Dioxane	ND		ug/l	250	61.	1
p-Diethylbenzene	ND		ug/l	2.0	0.70	1
p-Ethyltoluene	ND		ug/l	2.0	0.70	1
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54	1
Ethyl ether	ND		ug/l	2.5	0.70	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	107		70-130
Toluene-d8	106		70-130
4-Bromofluorobenzene	103		70-130
Dibromofluoromethane	97		70-130

Project Name: 432 RODNEY STREET
Project Number: 170357801

Lab Number: L1954303
Report Date: 11/14/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
 Analytical Date: 11/14/19 08:34
 Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-07 Batch: WG1308760-5					
Methylene chloride	ND		ug/l	2.5	0.70
1,1-Dichloroethane	ND		ug/l	2.5	0.70
Chloroform	ND		ug/l	2.5	0.70
Carbon tetrachloride	ND		ug/l	0.50	0.13
1,2-Dichloropropane	ND		ug/l	1.0	0.14
Dibromochloromethane	ND		ug/l	0.50	0.15
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50
Tetrachloroethene	ND		ug/l	0.50	0.18
Chlorobenzene	ND		ug/l	2.5	0.70
Trichlorofluoromethane	ND		ug/l	2.5	0.70
1,2-Dichloroethane	ND		ug/l	0.50	0.13
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70
Bromodichloromethane	ND		ug/l	0.50	0.19
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14
1,1-Dichloropropene	ND		ug/l	2.5	0.70
Bromoform	ND		ug/l	2.0	0.65
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17
Benzene	ND		ug/l	0.50	0.16
Toluene	ND		ug/l	2.5	0.70
Ethylbenzene	ND		ug/l	2.5	0.70
Chloromethane	ND		ug/l	2.5	0.70
Bromomethane	ND		ug/l	2.5	0.70
Vinyl chloride	ND		ug/l	1.0	0.07
Chloroethane	ND		ug/l	2.5	0.70
1,1-Dichloroethene	ND		ug/l	0.50	0.17
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70
Trichloroethene	ND		ug/l	0.50	0.18

Project Name: 432 RODNEY STREET
Project Number: 170357801

Lab Number: L1954303
Report Date: 11/14/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
 Analytical Date: 11/14/19 08:34
 Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-07 Batch: WG1308760-5					
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70
Methyl tert butyl ether	ND		ug/l	2.5	0.70
p/m-Xylene	ND		ug/l	2.5	0.70
o-Xylene	ND		ug/l	2.5	0.70
Xylenes, Total	ND		ug/l	2.5	0.70
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70
Dibromomethane	ND		ug/l	5.0	1.0
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70
Acrylonitrile	ND		ug/l	5.0	1.5
Styrene	ND		ug/l	2.5	0.70
Dichlorodifluoromethane	ND		ug/l	5.0	1.0
Acetone	ND		ug/l	5.0	1.5
Carbon disulfide	ND		ug/l	5.0	1.0
2-Butanone	ND		ug/l	5.0	1.9
Vinyl acetate	ND		ug/l	5.0	1.0
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0
2-Hexanone	ND		ug/l	5.0	1.0
Bromochloromethane	ND		ug/l	2.5	0.70
2,2-Dichloropropane	ND		ug/l	2.5	0.70
1,2-Dibromoethane	ND		ug/l	2.0	0.65
1,3-Dichloropropane	ND		ug/l	2.5	0.70
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70
Bromobenzene	ND		ug/l	2.5	0.70
n-Butylbenzene	ND		ug/l	2.5	0.70
sec-Butylbenzene	ND		ug/l	2.5	0.70
tert-Butylbenzene	ND		ug/l	2.5	0.70

Project Name: 432 RODNEY STREET
Project Number: 170357801

Lab Number: L1954303
Report Date: 11/14/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 11/14/19 08:34
Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-07 Batch: WG1308760-5					
o-Chlorotoluene	ND		ug/l	2.5	0.70
p-Chlorotoluene	ND		ug/l	2.5	0.70
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70
Hexachlorobutadiene	ND		ug/l	2.5	0.70
Isopropylbenzene	ND		ug/l	2.5	0.70
p-Isopropyltoluene	ND		ug/l	2.5	0.70
Naphthalene	ND		ug/l	2.5	0.70
n-Propylbenzene	ND		ug/l	2.5	0.70
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70
1,4-Dioxane	ND		ug/l	250	61.
p-Diethylbenzene	ND		ug/l	2.0	0.70
p-Ethyltoluene	ND		ug/l	2.0	0.70
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54
Ethyl ether	ND		ug/l	2.5	0.70
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	104		70-130
Toluene-d8	108		70-130
4-Bromofluorobenzene	104		70-130
Dibromofluoromethane	97		70-130

Lab Control Sample Analysis **Batch Quality Control**

Project Name: 432 RODNEY STREET

Project Number: 170357801

Lab Number: L1954303

Report Date: 11/14/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-07 Batch: WG1308760-3 WG1308760-4								
Methylene chloride	84		82		70-130	2		20
1,1-Dichloroethane	95		94		70-130	1		20
Chloroform	94		92		70-130	2		20
Carbon tetrachloride	100		100		63-132	0		20
1,2-Dichloropropane	89		88		70-130	1		20
Dibromochloromethane	92		92		63-130	0		20
1,1,2-Trichloroethane	89		87		70-130	2		20
Tetrachloroethene	100		100		70-130	0		20
Chlorobenzene	100		100		75-130	0		20
Trichlorofluoromethane	97		95		62-150	2		20
1,2-Dichloroethane	93		91		70-130	2		20
1,1,1-Trichloroethane	99		98		67-130	1		20
Bromodichloromethane	89		87		67-130	2		20
trans-1,3-Dichloropropene	93		92		70-130	1		20
cis-1,3-Dichloropropene	83		82		70-130	1		20
1,1-Dichloropropene	91		91		70-130	0		20
Bromoform	90		91		54-136	1		20
1,1,2,2-Tetrachloroethane	92		90		67-130	2		20
Benzene	88		86		70-130	2		20
Toluene	100		99		70-130	1		20
Ethylbenzene	100		100		70-130	0		20
Chloromethane	110		110		64-130	0		20
Bromomethane	270	Q	250	Q	39-139	8		20

Lab Control Sample Analysis **Batch Quality Control**

Project Name: 432 RODNEY STREET

Project Number: 170357801

Lab Number: L1954303

Report Date: 11/14/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-07 Batch: WG1308760-3 WG1308760-4								
Vinyl chloride	99		95		55-140	4		20
Chloroethane	100		98		55-138	2		20
1,1-Dichloroethene	92		90		61-145	2		20
trans-1,2-Dichloroethene	91		88		70-130	3		20
Trichloroethene	95		94		70-130	1		20
1,2-Dichlorobenzene	100		100		70-130	0		20
1,3-Dichlorobenzene	110		110		70-130	0		20
1,4-Dichlorobenzene	110		110		70-130	0		20
Methyl tert butyl ether	76		75		63-130	1		20
p/m-Xylene	100		100		70-130	0		20
o-Xylene	100		100		70-130	0		20
cis-1,2-Dichloroethene	91		89		70-130	2		20
Dibromomethane	78		77		70-130	1		20
1,2,3-Trichloropropane	94		93		64-130	1		20
Acrylonitrile	76		74		70-130	3		20
Styrene	100		95		70-130	5		20
Dichlorodifluoromethane	92		90		36-147	2		20
Acetone	68		65		58-148	5		20
Carbon disulfide	87		85		51-130	2		20
2-Butanone	70		69		63-138	1		20
Vinyl acetate	84		82		70-130	2		20
4-Methyl-2-pentanone	77		76		59-130	1		20
2-Hexanone	80		81		57-130	1		20

Lab Control Sample Analysis Batch Quality Control

Project Name: 432 RODNEY STREET

Project Number: 170357801

Lab Number: L1954303

Report Date: 11/14/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-07 Batch: WG1308760-3 WG1308760-4								
Bromochloromethane	90		89		70-130	1		20
2,2-Dichloropropane	100		98		63-133	2		20
1,2-Dibromoethane	88		88		70-130	0		20
1,3-Dichloropropane	88		88		70-130	0		20
1,1,1,2-Tetrachloroethane	100		100		64-130	0		20
Bromobenzene	110		110		70-130	0		20
n-Butylbenzene	110		110		53-136	0		20
sec-Butylbenzene	110		110		70-130	0		20
tert-Butylbenzene	110		110		70-130	0		20
o-Chlorotoluene	110		110		70-130	0		20
p-Chlorotoluene	110		110		70-130	0		20
1,2-Dibromo-3-chloropropane	80		83		41-144	4		20
Hexachlorobutadiene	120		120		63-130	0		20
Isopropylbenzene	120		110		70-130	9		20
p-Isopropyltoluene	110		110		70-130	0		20
Naphthalene	82		84		70-130	2		20
n-Propylbenzene	120		110		69-130	9		20
1,2,3-Trichlorobenzene	91		94		70-130	3		20
1,2,4-Trichlorobenzene	98		99		70-130	1		20
1,3,5-Trimethylbenzene	110		110		64-130	0		20
1,2,4-Trimethylbenzene	110		110		70-130	0		20
1,4-Dioxane	62		60		56-162	3		20
p-Diethylbenzene	110		110		70-130	0		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: 432 RODNEY STREET

Project Number: 170357801

Lab Number: L1954303

Report Date: 11/14/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-07 Batch: WG1308760-3 WG1308760-4								
p-Ethyltoluene	110		110		70-130	0		20
1,2,4,5-Tetramethylbenzene	110		110		70-130	0		20
Ethyl ether	76		75		59-134	1		20
trans-1,4-Dichloro-2-butene	90		84		70-130	7		20

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	108		102		70-130
Toluene-d8	107		108		70-130
4-Bromofluorobenzene	104		104		70-130
Dibromofluoromethane	97		95		70-130

Project Name: 432 RODNEY STREET**Lab Number:** L1954303**Project Number:** 170357801**Report Date:** 11/14/19**Sample Receipt and Container Information**

Were project specific reporting limits specified?

YES

Cooler Information

Cooler	Custody Seal
A	Absent

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L1954303-01A	Vial HCl preserved	A	NA		5.5	Y	Absent		NYTCL-8260(14)
L1954303-01B	Vial HCl preserved	A	NA		5.5	Y	Absent		NYTCL-8260(14)
L1954303-01C	Vial HCl preserved	A	NA		5.5	Y	Absent		NYTCL-8260(14)
L1954303-02A	Vial HCl preserved	A	NA		5.5	Y	Absent		NYTCL-8260(14)
L1954303-02B	Vial HCl preserved	A	NA		5.5	Y	Absent		NYTCL-8260(14)
L1954303-02C	Vial HCl preserved	A	NA		5.5	Y	Absent		NYTCL-8260(14)
L1954303-03A	Vial HCl preserved	A	NA		5.5	Y	Absent		NYTCL-8260(14)
L1954303-03B	Vial HCl preserved	A	NA		5.5	Y	Absent		NYTCL-8260(14)
L1954303-03C	Vial HCl preserved	A	NA		5.5	Y	Absent		NYTCL-8260(14)
L1954303-04A	Vial HCl preserved	A	NA		5.5	Y	Absent		NYTCL-8260(14)
L1954303-04B	Vial HCl preserved	A	NA		5.5	Y	Absent		NYTCL-8260(14)
L1954303-04C	Vial HCl preserved	A	NA		5.5	Y	Absent		NYTCL-8260(14)
L1954303-05A	Vial HCl preserved	A	NA		5.5	Y	Absent		NYTCL-8260(14)
L1954303-05B	Vial HCl preserved	A	NA		5.5	Y	Absent		NYTCL-8260(14)
L1954303-05C	Vial HCl preserved	A	NA		5.5	Y	Absent		NYTCL-8260(14)
L1954303-06A	Vial HCl preserved	A	NA		5.5	Y	Absent		NYTCL-8260(14)
L1954303-06B	Vial HCl preserved	A	NA		5.5	Y	Absent		NYTCL-8260(14)
L1954303-07A	Vial HCl preserved	A	NA		5.5	Y	Absent		NYTCL-8260(14)
L1954303-07B	Vial HCl preserved	A	NA		5.5	Y	Absent		NYTCL-8260(14)
L1954303-07C	Vial HCl preserved	A	NA		5.5	Y	Absent		NYTCL-8260(14)

Project Name: 432 RODNEY STREET
Project Number: 170357801

Lab Number: L1954303
Report Date: 11/14/19

GLOSSARY

Acronyms

DL	- Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EMPC	- Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCS D	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LOD	- Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
LOQ	- Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
	Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. For Method 332.0, the spike recovery is calculated using the native concentration, including estimated values.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NDPA/DPA	- N-Nitrosodiphenylamine/Diphenylamine.
NI	- Not Ignitable.
NP	- Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.
STLP	- Semi-dynamic Tank Leaching Procedure per EPA Method 1315.
TEF	- Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.
TEQ	- Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.
TIC	- Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Footnotes

Report Format: DU Report with 'J' Qualifiers



Project Name: 432 RODNEY STREET
Project Number: 170357801

Lab Number: L1954303
Report Date: 11/14/19

- 1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Difference: With respect to Total Oxidizable Precursor (TOP) Assay analysis, the difference is defined as the Post-Treatment value minus the Pre-Treatment value.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

PFAS Total: With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. If a 'Total' result is requested, the results of its individual components will also be reported.

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Data Qualifiers

- A** - Spectra identified as "Aldol Condensates" are byproducts of the extraction/concentration procedures when acetone is introduced in the process.
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).
- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E** - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- G** - The concentration may be biased high due to matrix interferences (i.e. co-elution) with non-target compound(s). The result should be considered estimated.
- H** - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- I** - The lower value for the two columns has been reported due to obvious interference.
- J** - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).
- M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
- ND** - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.
- NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.
- P** - The RPD between the results for the two columns exceeds the method-specified criteria.
- Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedances are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
- R** - Analytical results are from sample re-analysis.
- RE** - Analytical results are from sample re-extraction.
- S** - Analytical results are from modified screening analysis.

Report Format: DU Report with 'J' Qualifiers



Project Name: 432 RODNEY STREET
Project Number: 170357801

Lab Number: L1954303
Report Date: 11/14/19

REFERENCES

- 1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.



Alpha Analytical, Inc.

ID No.:17873

Facility: **Company-wide**

Revision 15

Department: **Quality Assurance**

Published Date: 8/15/2019 9:53:42 AM

Title: **Certificate/Approval Program Summary**

Page 1 of 1

Certification Information

The following analytes are not included in our Primary NELAP Scope of Accreditation:

Westborough Facility**EPA 624/624.1:** m/p-xylene, o-xylene**EPA 8260C:** NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.**EPA 8270D:** NPW: Dimethylnaphthalene, 1,4-Diphenylhydrazine; SCM: Dimethylnaphthalene, 1,4-Diphenylhydrazine.**SM4500:** NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO₂, NO₃.**Mansfield Facility****SM 2540D:** TSS**EPA 8082A:** NPW: PCB: 1, 5, 31, 87, 101, 110, 141, 151, 153, 180, 183, 187.**EPA TO-15:** Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene,

3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.

Biological Tissue Matrix: EPA 3050B

The following analytes are included in our Massachusetts DEP Scope of Accreditation

Westborough Facility:**Drinking Water****EPA 300.0:** Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2:** Nitrate-N, Nitrite-N; **SM4500NO3-F:** Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE,****EPA 180.1, SM2130B, SM4500Cl-D, SM2320B, SM2540C, SM4500H-B, SM4500NO2-B****EPA 332:** Perchlorate; **EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.**Microbiology:** **SM9215B; SM9223-P/A, SM9223B-Colilert-QT, SM9222D.****Non-Potable Water****SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH:** Ammonia-N and Kjeldahl-N, **EPA 350.1:**Ammonia-N, **LACHAT 10-107-06-1-B:** Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2:** Nitrate-N, **SM4500P-E, SM4500P-B, E, SM4500SO4-E,****SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300:** Chloride, Sulfate, Nitrate.**EPA 624.1:** Volatile Halocarbons & Aromatics,**EPA 608.3:** Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs**EPA 625.1:** SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045:** PCB-Oil.**Microbiology:** **SM9223B-Colilert-QT; Enterolert-QT, SM9221E, EPA 1600, EPA 1603.****Mansfield Facility:****Drinking Water****EPA 200.7:** Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1** Hg.**EPA 522.****Non-Potable Water****EPA 200.7:** Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.**EPA 200.8:** Al, Sb, As, Be, Cd, Cr, Cu, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.**EPA 245.1** Hg.**SM2340B**

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

 NEW YORK CHAIN OF CUSTODY Westborough, MA 01581 8 Walkup Dr. TEL: 508-898-9220 FAX: 508-898-9193		Service Centers Mahwah, NJ 07430: 35 Whitney Rd, Suite 5 Albany, NY 12205: 14 Walker Way Tonawanda, NY 14150: 275 Cooper Ave, Suite 105		Page <u>8</u> of <u>1</u>		Date Rec'd in Lab <u>11/13/19</u>		ALPHA Job # <u>L1954303</u>																																																																					
		Project Information Project Name: <u>432 Rodney Street</u> Project Location: <u>432 Rodney Street, Brooklyn, NY</u> Project # <u>170357801</u> (Use Project name as Project #) ☐		Deliverables ☐ ASP-A ☒ ASP-B ☐ EQuIS (1 File) ☐ EQuIS (4 File) ☐ Other		Billing Information ☐ Same as Client Info PO #																																																																							
Client Information Client: <u>Langan (Albert Tashji)</u> Address: <u>21 Penn Plaza, 360 W 39th Street, New York, NY 10001</u> Phone: <u>212-479-5508</u> Fax: <u>212-479-5444</u> Email: <u>atashji@langan.com</u>		Project Manager: <u>Albert Tashji</u> ALPHAQuote #: Turn-Around Time Standard ☐ Due Date: <u>11/14/19</u> Rush (only if pre approved) ☒ # of Days: <u>1</u>		Regulatory Requirement ☐ NY TOGS ☐ NY Part 375 ☐ AWQ Standards ☐ NY CP-51 ☐ NY Restricted Use ☐ Other ☐ NY Unrestricted Use ☐ NYC Sewer Discharge		Disposal Site Information Please identify below location of applicable disposal facilities. Disposal Facility: ☐ NJ ☒ NY ☐ Other:																																																																							
These samples have been previously analyzed by Alpha ☐ Other project specific requirements/comments:						ANALYSIS		Sample Filtration ☐ Done ☐ Lab to do Preservation ☐ Lab to do (Please Specify below) Sample Specific Comments																																																																					
Please specify Metals or TAL.						NYTCL-8260		Total Bottles																																																																					
<table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th rowspan="2">ALPHA Lab ID (Lab Use Only)</th> <th rowspan="2">Sample ID</th> <th colspan="2">Collection</th> <th rowspan="2">Sample Matrix</th> <th rowspan="2">Sampler's Initials</th> </tr> <tr> <th>Date</th> <th>Time</th> </tr> </thead> <tbody> <tr><td>54303-01</td><td>MW04-111319</td><td>11/13/19</td><td>1145</td><td></td><td>TZ</td></tr> <tr><td>-02</td><td>MW02-111319</td><td>11/13/19</td><td>1310</td><td></td><td>TZ</td></tr> <tr><td>-03</td><td>MW01-111319</td><td>11/13/19</td><td>1510</td><td></td><td>TZ</td></tr> <tr><td>-04</td><td>MW05-111319</td><td>11/13/19</td><td>1620</td><td></td><td>TZ</td></tr> <tr><td>-05</td><td>GWFB-111319</td><td>11/13/19</td><td>1230</td><td></td><td>TZ</td></tr> <tr><td>-06</td><td>GWTR-111319</td><td>11/13/19</td><td></td><td></td><td>X</td></tr> <tr><td>-07</td><td>GWDP-111319</td><td>11/13/19</td><td></td><td></td><td>TZ</td></tr> <tr><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td><td></td><td></td></tr> </tbody> </table>										ALPHA Lab ID (Lab Use Only)	Sample ID	Collection		Sample Matrix	Sampler's Initials	Date	Time	54303-01	MW04-111319	11/13/19	1145		TZ	-02	MW02-111319	11/13/19	1310		TZ	-03	MW01-111319	11/13/19	1510		TZ	-04	MW05-111319	11/13/19	1620		TZ	-05	GWFB-111319	11/13/19	1230		TZ	-06	GWTR-111319	11/13/19			X	-07	GWDP-111319	11/13/19			TZ																		
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-07	GWDP-111319	11/13/19			TZ																																																																								
Preservative Code: A = None B = HCl C = HNO ₃ D = H ₂ SO ₄ E = NaOH F = MeOH G = NaHSO ₄ H = Na ₂ S ₂ O ₃ K/E = Zn Ac/NaOH O = Other						Container Code: P = Plastic A = Amber Glass V = Vial G = Glass B = Bacteria Cup C = Cube O = Other E = Encore D = BOD Bottle		Westboro: Certification No: MA935 Mansfield: Certification No: MA015																																																																					
Container Type <u>G</u> Preservative <u>B</u>						Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS. (See reverse side.)																																																																							
Relinquished By: <u>[Signature]</u> Date/Time: <u>11/13/19 1640</u>						Received By: <u>[Signature]</u> Date/Time: <u>11/13/19 17:10</u>																																																																							
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ANALYTICAL REPORT

Lab Number:	L1954584
Client:	Langan Engineering & Environmental 21 Penn Plaza 360 W. 31st Street, 8th Floor New York, NY 10001-2727
ATTN:	Albert Tashji
Phone:	(212) 479-5400
Project Name:	432 RODNEY STREET
Project Number:	170357801
Report Date:	11/15/19

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: MA (M-MA086), NH NELAP (2064), CT (PH-0574), IL (200077), ME (MA00086), MD (348), NJ (MA935), NY (11148), NC (25700/666), PA (68-03671), RI (LAO00065), TX (T104704476), VT (VT-0935), VA (460195), USDA (Permit #P330-17-00196).

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com



Project Name: 432 RODNEY STREET
Project Number: 170357801

Lab Number: L1954584
Report Date: 11/15/19

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L1954584-01	MW03_111419	WATER	BROOKLYN, NY	11/14/19 10:30	11/14/19
L1954584-02	MW07_111419	WATER	BROOKLYN, NY	11/14/19 15:30	11/14/19
L1954584-03	GWTB_111419	WATER	BROOKLYN, NY	11/13/19 00:00	11/14/19
L1954584-04	MW06_111419	WATER	BROOKLYN, NY	11/14/19 16:30	11/14/19

Project Name: 432 RODNEY STREET
Project Number: 170357801

Lab Number: L1954584
Report Date: 11/15/19

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively.

When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances, the specific failure is not narrated but noted in the associated QC Outlier Summary Report, located directly after the Case Narrative. QC information is also incorporated in the Data Usability Assessment table (Format 11) of our Data Merger tool, where it can be reviewed in conjunction with the sample result, associated regulatory criteria and any associated data usability implications.

Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

HOLD POLICY - For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Alpha Project Manager and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Project Management at 800-624-9220 with any questions.

Project Name: 432 RODNEY STREET
Project Number: 170357801

Lab Number: L1954584
Report Date: 11/15/19

Case Narrative (continued)

Report Submission

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature:  Melissa Sturgis

Title: Technical Director/Representative

Date: 11/15/19

ORGANICS

VOLATILES

Project Name: 432 RODNEY STREET
Project Number: 170357801

Lab Number: L1954584
Report Date: 11/15/19

SAMPLE RESULTS

Lab ID: L1954584-01
Client ID: MW03_111419
Sample Location: BROOKLYN, NY

Date Collected: 11/14/19 10:30
Date Received: 11/14/19
Field Prep: Not Specified

Sample Depth:

Matrix: Water
Analytical Method: 1,8260C
Analytical Date: 11/15/19 09:15
Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	3.2		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1-Dichloropropene	ND		ug/l	2.5	0.70	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	2.7		ug/l	2.5	0.70	1
Vinyl chloride	2.2		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1

Project Name: 432 RODNEY STREET

Lab Number: L1954584

Project Number: 170357801

Report Date: 11/15/19

SAMPLE RESULTS

Lab ID: L1954584-01

Date Collected: 11/14/19 10:30

Client ID: MW03_111419

Date Received: 11/14/19

Sample Location: BROOKLYN, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	0.31	J	ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
Xylenes, Total	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	32		ug/l	2.5	0.70	1
1,2-Dichloroethene, Total	32		ug/l	2.5	0.70	1
Dibromomethane	ND		ug/l	5.0	1.0	1
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70	1
Acrylonitrile	ND		ug/l	5.0	1.5	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	ND		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
Vinyl acetate	ND		ug/l	5.0	1.0	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
2,2-Dichloropropane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,3-Dichloropropane	ND		ug/l	2.5	0.70	1
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70	1
Bromobenzene	ND		ug/l	2.5	0.70	1
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
tert-Butylbenzene	ND		ug/l	2.5	0.70	1
o-Chlorotoluene	ND		ug/l	2.5	0.70	1
p-Chlorotoluene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Hexachlorobutadiene	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
Naphthalene	ND		ug/l	2.5	0.70	1

Project Name: 432 RODNEY STREET
Project Number: 170357801

Lab Number: L1954584
Report Date: 11/15/19

SAMPLE RESULTS

Lab ID: L1954584-01
Client ID: MW03_111419
Sample Location: BROOKLYN, NY

Date Collected: 11/14/19 10:30
Date Received: 11/14/19
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,4-Dioxane	ND		ug/l	250	61.	1
p-Diethylbenzene	ND		ug/l	2.0	0.70	1
p-Ethyltoluene	ND		ug/l	2.0	0.70	1
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54	1
Ethyl ether	ND		ug/l	2.5	0.70	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	99		70-130
Toluene-d8	96		70-130
4-Bromofluorobenzene	87		70-130
Dibromofluoromethane	113		70-130

Project Name: 432 RODNEY STREET
Project Number: 170357801

Lab Number: L1954584
Report Date: 11/15/19

SAMPLE RESULTS

Lab ID: L1954584-02
Client ID: MW07_111419
Sample Location: BROOKLYN, NY

Date Collected: 11/14/19 15:30
Date Received: 11/14/19
Field Prep: Not Specified

Sample Depth:

Matrix: Water
Analytical Method: 1,8260C
Analytical Date: 11/15/19 09:38
Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	0.97	J	ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1-Dichloropropene	ND		ug/l	2.5	0.70	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1

Project Name: 432 RODNEY STREET**Lab Number:** L1954584**Project Number:** 170357801**Report Date:** 11/15/19**SAMPLE RESULTS****Lab ID:** L1954584-02**Date Collected:** 11/14/19 15:30**Client ID:** MW07_111419**Date Received:** 11/14/19**Sample Location:** BROOKLYN, NY**Field Prep:** Not Specified**Sample Depth:**

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
Xylenes, Total	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70	1
Dibromomethane	ND		ug/l	5.0	1.0	1
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70	1
Acrylonitrile	ND		ug/l	5.0	1.5	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	ND		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
Vinyl acetate	ND		ug/l	5.0	1.0	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
2,2-Dichloropropane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,3-Dichloropropane	ND		ug/l	2.5	0.70	1
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70	1
Bromobenzene	ND		ug/l	2.5	0.70	1
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
tert-Butylbenzene	ND		ug/l	2.5	0.70	1
o-Chlorotoluene	ND		ug/l	2.5	0.70	1
p-Chlorotoluene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Hexachlorobutadiene	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
Naphthalene	ND		ug/l	2.5	0.70	1

Project Name: 432 RODNEY STREET
Project Number: 170357801

Lab Number: L1954584
Report Date: 11/15/19

SAMPLE RESULTS

Lab ID: L1954584-02
Client ID: MW07_111419
Sample Location: BROOKLYN, NY

Date Collected: 11/14/19 15:30
Date Received: 11/14/19
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,4-Dioxane	ND		ug/l	250	61.	1
p-Diethylbenzene	ND		ug/l	2.0	0.70	1
p-Ethyltoluene	ND		ug/l	2.0	0.70	1
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54	1
Ethyl ether	ND		ug/l	2.5	0.70	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	101		70-130
Toluene-d8	97		70-130
4-Bromofluorobenzene	88		70-130
Dibromofluoromethane	109		70-130

Project Name: 432 RODNEY STREET
Project Number: 170357801

Lab Number: L1954584
Report Date: 11/15/19

SAMPLE RESULTS

Lab ID: L1954584-03
Client ID: GWTB_111419
Sample Location: BROOKLYN, NY

Date Collected: 11/13/19 00:00
Date Received: 11/14/19
Field Prep: Not Specified

Sample Depth:

Matrix: Water
Analytical Method: 1,8260C
Analytical Date: 11/15/19 08:52
Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1-Dichloropropene	ND		ug/l	2.5	0.70	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1

Project Name: 432 RODNEY STREET

Lab Number: L1954584

Project Number: 170357801

Report Date: 11/15/19

SAMPLE RESULTS

Lab ID: L1954584-03

Date Collected: 11/13/19 00:00

Client ID: GWTB_111419

Date Received: 11/14/19

Sample Location: BROOKLYN, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
Xylenes, Total	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70	1
Dibromomethane	ND		ug/l	5.0	1.0	1
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70	1
Acrylonitrile	ND		ug/l	5.0	1.5	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	ND		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
Vinyl acetate	ND		ug/l	5.0	1.0	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
2,2-Dichloropropane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,3-Dichloropropane	ND		ug/l	2.5	0.70	1
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70	1
Bromobenzene	ND		ug/l	2.5	0.70	1
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
tert-Butylbenzene	ND		ug/l	2.5	0.70	1
o-Chlorotoluene	ND		ug/l	2.5	0.70	1
p-Chlorotoluene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Hexachlorobutadiene	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
Naphthalene	ND		ug/l	2.5	0.70	1

Project Name: 432 RODNEY STREET
Project Number: 170357801

Lab Number: L1954584
Report Date: 11/15/19

SAMPLE RESULTS

Lab ID: L1954584-03
Client ID: GWTB_111419
Sample Location: BROOKLYN, NY

Date Collected: 11/13/19 00:00
Date Received: 11/14/19
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,4-Dioxane	ND		ug/l	250	61.	1
p-Diethylbenzene	ND		ug/l	2.0	0.70	1
p-Ethyltoluene	ND		ug/l	2.0	0.70	1
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54	1
Ethyl ether	ND		ug/l	2.5	0.70	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	95		70-130
Toluene-d8	95		70-130
4-Bromofluorobenzene	87		70-130
Dibromofluoromethane	107		70-130

Project Name: 432 RODNEY STREET
Project Number: 170357801

Lab Number: L1954584
Report Date: 11/15/19

SAMPLE RESULTS

Lab ID: L1954584-04
Client ID: MW06_111419
Sample Location: BROOKLYN, NY

Date Collected: 11/14/19 16:30
Date Received: 11/14/19
Field Prep: Not Specified

Sample Depth:

Matrix: Water
Analytical Method: 1,8260C
Analytical Date: 11/15/19 10:01
Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1-Dichloropropene	ND		ug/l	2.5	0.70	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	0.20	J	ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1

Project Name: 432 RODNEY STREET**Lab Number:** L1954584**Project Number:** 170357801**Report Date:** 11/15/19**SAMPLE RESULTS****Lab ID:** L1954584-04**Date Collected:** 11/14/19 16:30**Client ID:** MW06_111419**Date Received:** 11/14/19**Sample Location:** BROOKLYN, NY**Field Prep:** Not Specified**Sample Depth:**

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
Xylenes, Total	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70	1
Dibromomethane	ND		ug/l	5.0	1.0	1
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70	1
Acrylonitrile	ND		ug/l	5.0	1.5	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	ND		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
Vinyl acetate	ND		ug/l	5.0	1.0	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
2,2-Dichloropropane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,3-Dichloropropane	ND		ug/l	2.5	0.70	1
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70	1
Bromobenzene	ND		ug/l	2.5	0.70	1
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
tert-Butylbenzene	ND		ug/l	2.5	0.70	1
o-Chlorotoluene	ND		ug/l	2.5	0.70	1
p-Chlorotoluene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Hexachlorobutadiene	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
Naphthalene	ND		ug/l	2.5	0.70	1

Project Name: 432 RODNEY STREET
Project Number: 170357801

Lab Number: L1954584
Report Date: 11/15/19

SAMPLE RESULTS

Lab ID: L1954584-04
Client ID: MW06_111419
Sample Location: BROOKLYN, NY

Date Collected: 11/14/19 16:30
Date Received: 11/14/19
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,4-Dioxane	ND		ug/l	250	61.	1
p-Diethylbenzene	ND		ug/l	2.0	0.70	1
p-Ethyltoluene	ND		ug/l	2.0	0.70	1
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54	1
Ethyl ether	ND		ug/l	2.5	0.70	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	98		70-130
Toluene-d8	96		70-130
4-Bromofluorobenzene	89		70-130
Dibromofluoromethane	110		70-130

Project Name: 432 RODNEY STREET
Project Number: 170357801

Lab Number: L1954584
Report Date: 11/15/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
 Analytical Date: 11/15/19 08:29
 Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-04 Batch: WG1309356-5					
Methylene chloride	ND		ug/l	2.5	0.70
1,1-Dichloroethane	ND		ug/l	2.5	0.70
Chloroform	ND		ug/l	2.5	0.70
Carbon tetrachloride	ND		ug/l	0.50	0.13
1,2-Dichloropropane	ND		ug/l	1.0	0.14
Dibromochloromethane	ND		ug/l	0.50	0.15
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50
Tetrachloroethene	ND		ug/l	0.50	0.18
Chlorobenzene	ND		ug/l	2.5	0.70
Trichlorofluoromethane	ND		ug/l	2.5	0.70
1,2-Dichloroethane	ND		ug/l	0.50	0.13
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70
Bromodichloromethane	ND		ug/l	0.50	0.19
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14
1,1-Dichloropropene	ND		ug/l	2.5	0.70
Bromoform	ND		ug/l	2.0	0.65
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17
Benzene	ND		ug/l	0.50	0.16
Toluene	ND		ug/l	2.5	0.70
Ethylbenzene	ND		ug/l	2.5	0.70
Chloromethane	ND		ug/l	2.5	0.70
Bromomethane	ND		ug/l	2.5	0.70
Vinyl chloride	ND		ug/l	1.0	0.07
Chloroethane	ND		ug/l	2.5	0.70
1,1-Dichloroethene	ND		ug/l	0.50	0.17
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70
Trichloroethene	ND		ug/l	0.50	0.18

Project Name: 432 RODNEY STREET
Project Number: 170357801

Lab Number: L1954584
Report Date: 11/15/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
 Analytical Date: 11/15/19 08:29
 Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-04 Batch: WG1309356-5					
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70
Methyl tert butyl ether	ND		ug/l	2.5	0.70
p/m-Xylene	ND		ug/l	2.5	0.70
o-Xylene	ND		ug/l	2.5	0.70
Xylenes, Total	ND		ug/l	2.5	0.70
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70
Dibromomethane	ND		ug/l	5.0	1.0
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70
Acrylonitrile	ND		ug/l	5.0	1.5
Styrene	ND		ug/l	2.5	0.70
Dichlorodifluoromethane	ND		ug/l	5.0	1.0
Acetone	ND		ug/l	5.0	1.5
Carbon disulfide	ND		ug/l	5.0	1.0
2-Butanone	ND		ug/l	5.0	1.9
Vinyl acetate	ND		ug/l	5.0	1.0
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0
2-Hexanone	ND		ug/l	5.0	1.0
Bromochloromethane	ND		ug/l	2.5	0.70
2,2-Dichloropropane	ND		ug/l	2.5	0.70
1,2-Dibromoethane	ND		ug/l	2.0	0.65
1,3-Dichloropropane	ND		ug/l	2.5	0.70
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70
Bromobenzene	ND		ug/l	2.5	0.70
n-Butylbenzene	ND		ug/l	2.5	0.70
sec-Butylbenzene	ND		ug/l	2.5	0.70
tert-Butylbenzene	ND		ug/l	2.5	0.70

Project Name: 432 RODNEY STREET
Project Number: 170357801

Lab Number: L1954584
Report Date: 11/15/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 11/15/19 08:29
Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-04 Batch: WG1309356-5					
o-Chlorotoluene	ND		ug/l	2.5	0.70
p-Chlorotoluene	ND		ug/l	2.5	0.70
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70
Hexachlorobutadiene	ND		ug/l	2.5	0.70
Isopropylbenzene	ND		ug/l	2.5	0.70
p-Isopropyltoluene	ND		ug/l	2.5	0.70
Naphthalene	ND		ug/l	2.5	0.70
n-Propylbenzene	ND		ug/l	2.5	0.70
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70
1,4-Dioxane	ND		ug/l	250	61.
p-Diethylbenzene	ND		ug/l	2.0	0.70
p-Ethyltoluene	ND		ug/l	2.0	0.70
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54
Ethyl ether	ND		ug/l	2.5	0.70
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	98		70-130
Toluene-d8	96		70-130
4-Bromofluorobenzene	88		70-130
Dibromofluoromethane	109		70-130

Lab Control Sample Analysis **Batch Quality Control**

Project Name: 432 RODNEY STREET

Project Number: 170357801

Lab Number: L1954584

Report Date: 11/15/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-04 Batch: WG1309356-3 WG1309356-4								
Methylene chloride	88		86		70-130	2		20
1,1-Dichloroethane	83		82		70-130	1		20
Chloroform	90		89		70-130	1		20
Carbon tetrachloride	96		92		63-132	4		20
1,2-Dichloropropane	82		79		70-130	4		20
Dibromochloromethane	88		87		63-130	1		20
1,1,2-Trichloroethane	85		86		70-130	1		20
Tetrachloroethene	100		100		70-130	0		20
Chlorobenzene	90		90		75-130	0		20
Trichlorofluoromethane	91		86		62-150	6		20
1,2-Dichloroethane	88		86		70-130	2		20
1,1,1-Trichloroethane	94		93		67-130	1		20
Bromodichloromethane	91		87		67-130	4		20
trans-1,3-Dichloropropene	73		71		70-130	3		20
cis-1,3-Dichloropropene	87		86		70-130	1		20
1,1-Dichloropropene	88		86		70-130	2		20
Bromoform	91		89		54-136	2		20
1,1,2,2-Tetrachloroethane	80		78		67-130	3		20
Benzene	89		88		70-130	1		20
Toluene	86		86		70-130	0		20
Ethylbenzene	86		86		70-130	0		20
Chloromethane	55	Q	54	Q	64-130	2		20
Bromomethane	56		60		39-139	7		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: 432 RODNEY STREET

Project Number: 170357801

Lab Number: L1954584

Report Date: 11/15/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-04 Batch: WG1309356-3 WG1309356-4								
Vinyl chloride	72		71		55-140	1		20
Chloroethane	87		85		55-138	2		20
1,1-Dichloroethene	93		91		61-145	2		20
trans-1,2-Dichloroethene	89		87		70-130	2		20
Trichloroethene	87		85		70-130	2		20
1,2-Dichlorobenzene	92		88		70-130	4		20
1,3-Dichlorobenzene	91		89		70-130	2		20
1,4-Dichlorobenzene	90		87		70-130	3		20
Methyl tert butyl ether	94		91		63-130	3		20
p/m-Xylene	90		90		70-130	0		20
o-Xylene	90		90		70-130	0		20
cis-1,2-Dichloroethene	100		100		70-130	0		20
Dibromomethane	96		94		70-130	2		20
1,2,3-Trichloropropane	78		74		64-130	5		20
Acrylonitrile	89		87		70-130	2		20
Styrene	95		95		70-130	0		20
Dichlorodifluoromethane	58		55		36-147	5		20
Acetone	83		78		58-148	6		20
Carbon disulfide	80		79		51-130	1		20
2-Butanone	87		82		63-138	6		20
Vinyl acetate	68	Q	64	Q	70-130	6		20
4-Methyl-2-pentanone	71		70		59-130	1		20
2-Hexanone	64		61		57-130	5		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: 432 RODNEY STREET

Project Number: 170357801

Lab Number: L1954584

Report Date: 11/15/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-04 Batch: WG1309356-3 WG1309356-4								
Bromochloromethane	110		110		70-130	0		20
2,2-Dichloropropane	97		93		63-133	4		20
1,2-Dibromoethane	95		94		70-130	1		20
1,3-Dichloropropane	82		80		70-130	2		20
1,1,1,2-Tetrachloroethane	94		94		64-130	0		20
Bromobenzene	90		88		70-130	2		20
n-Butylbenzene	82		79		53-136	4		20
sec-Butylbenzene	87		82		70-130	6		20
tert-Butylbenzene	89		85		70-130	5		20
o-Chlorotoluene	76		74		70-130	3		20
p-Chlorotoluene	80		78		70-130	3		20
1,2-Dibromo-3-chloropropane	92		87		41-144	6		20
Hexachlorobutadiene	100		95		63-130	5		20
Isopropylbenzene	87		84		70-130	4		20
p-Isopropyltoluene	92		88		70-130	4		20
Naphthalene	92		87		70-130	6		20
n-Propylbenzene	83		79		69-130	5		20
1,2,3-Trichlorobenzene	96		91		70-130	5		20
1,2,4-Trichlorobenzene	93		90		70-130	3		20
1,3,5-Trimethylbenzene	87		84		64-130	4		20
1,2,4-Trimethylbenzene	87		85		70-130	2		20
1,4-Dioxane	78		78		56-162	0		20
p-Diethylbenzene	89		87		70-130	2		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: 432 RODNEY STREET

Project Number: 170357801

Lab Number: L1954584

Report Date: 11/15/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-04 Batch: WG1309356-3 WG1309356-4								
p-Ethyltoluene	88		84		70-130	5		20
1,2,4,5-Tetramethylbenzene	93		90		70-130	3		20
Ethyl ether	110		100		59-134	10		20
trans-1,4-Dichloro-2-butene	56	Q	53	Q	70-130	6		20

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	100		98		70-130
Toluene-d8	96		97		70-130
4-Bromofluorobenzene	88		87		70-130
Dibromofluoromethane	109		108		70-130

Project Name: 432 RODNEY STREET**Lab Number:** L1954584**Project Number:** 170357801**Report Date:** 11/15/19**Sample Receipt and Container Information**

Were project specific reporting limits specified?

YES

Cooler Information

Cooler	Custody Seal
A	Absent

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L1954584-01A	Vial HCl preserved	A	NA		3.4	Y	Absent		NYTCL-8260(14)
L1954584-01B	Vial HCl preserved	A	NA		3.4	Y	Absent		NYTCL-8260(14)
L1954584-01C	Vial HCl preserved	A	NA		3.4	Y	Absent		NYTCL-8260(14)
L1954584-02A	Vial HCl preserved	A	NA		3.4	Y	Absent		NYTCL-8260(14)
L1954584-02B	Vial HCl preserved	A	NA		3.4	Y	Absent		NYTCL-8260(14)
L1954584-02C	Vial HCl preserved	A	NA		3.4	Y	Absent		NYTCL-8260(14)
L1954584-03A	Vial HCl preserved	A	NA		3.4	Y	Absent		NYTCL-8260(14)
L1954584-03B	Vial HCl preserved	A	NA		3.4	Y	Absent		NYTCL-8260(14)
L1954584-04A	Vial HCl preserved	A	NA		3.4	Y	Absent		NYTCL-8260(14)
L1954584-04B	Vial HCl preserved	A	NA		3.4	Y	Absent		NYTCL-8260(14)
L1954584-04C	Vial HCl preserved	A	NA		3.4	Y	Absent		NYTCL-8260(14)

Project Name: 432 RODNEY STREET
Project Number: 170357801

Lab Number: L1954584
Report Date: 11/15/19

GLOSSARY

Acronyms

DL	- Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EMPC	- Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCS D	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LOD	- Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
LOQ	- Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.) Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. For Method 332.0, the spike recovery is calculated using the native concentration, including estimated values.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NDPA/DPA	- N-Nitrosodiphenylamine/Diphenylamine.
NI	- Not Ignitable.
NP	- Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.
STLP	- Semi-dynamic Tank Leaching Procedure per EPA Method 1315.
TEF	- Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.
TEQ	- Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.
TIC	- Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Footnotes

Report Format: DU Report with 'J' Qualifiers



Project Name: 432 RODNEY STREET
Project Number: 170357801

Lab Number: L1954584
Report Date: 11/15/19

- 1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Difference: With respect to Total Oxidizable Precursor (TOP) Assay analysis, the difference is defined as the Post-Treatment value minus the Pre-Treatment value.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

PFAS Total: With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. If a 'Total' result is requested, the results of its individual components will also be reported.

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Data Qualifiers

- A** - Spectra identified as "Aldol Condensates" are byproducts of the extraction/concentration procedures when acetone is introduced in the process.
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).
- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E** - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- G** - The concentration may be biased high due to matrix interferences (i.e. co-elution) with non-target compound(s). The result should be considered estimated.
- H** - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- I** - The lower value for the two columns has been reported due to obvious interference.
- J** - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).
- M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
- ND** - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.
- NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.
- P** - The RPD between the results for the two columns exceeds the method-specified criteria.
- Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
- R** - Analytical results are from sample re-analysis.
- RE** - Analytical results are from sample re-extraction.
- S** - Analytical results are from modified screening analysis.

Report Format: DU Report with 'J' Qualifiers



Project Name: 432 RODNEY STREET
Project Number: 170357801

Lab Number: L1954584
Report Date: 11/15/19

REFERENCES

- 1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.



Alpha Analytical, Inc.

ID No.:17873

Facility: **Company-wide**

Revision 15

Department: **Quality Assurance**

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Certification Information

The following analytes are not included in our Primary NELAP Scope of Accreditation:

Westborough Facility**EPA 624/624.1:** m/p-xylene, o-xylene**EPA 8260C:** NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.**EPA 8270D:** NPW: Dimethylnaphthalene, 1,4-Diphenylhydrazine; SCM: Dimethylnaphthalene, 1,4-Diphenylhydrazine.**SM4500:** NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO₂, NO₃.**Mansfield Facility****SM 2540D:** TSS**EPA 8082A:** NPW: PCB: 1, 5, 31, 87, 101, 110, 141, 151, 153, 180, 183, 187.**EPA TO-15:** Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene,

3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.

Biological Tissue Matrix: EPA 3050B

The following analytes are included in our Massachusetts DEP Scope of Accreditation

Westborough Facility:**Drinking Water****EPA 300.0:** Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2:** Nitrate-N, Nitrite-N; **SM4500NO3-F:** Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE,****EPA 180.1, SM2130B, SM4500Cl-D, SM2320B, SM2540C, SM4500H-B, SM4500NO2-B****EPA 332:** Perchlorate; **EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.**Microbiology:** **SM9215B, SM9223-P/A, SM9223B-Colilert-QT, SM9222D.****Non-Potable Water****SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH:** Ammonia-N and Kjeldahl-N, **EPA 350.1:**Ammonia-N, **LACHAT 10-107-06-1-B:** Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2:** Nitrate-N, **SM4500P-E, SM4500P-B, E, SM4500SO4-E,****SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300:** Chloride, Sulfate, Nitrate.**EPA 624.1:** Volatile Halocarbons & Aromatics,**EPA 608.3:** Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs**EPA 625.1:** SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045:** PCB-Oil.**Microbiology:** **SM9223B-Colilert-QT; Enterolert-QT, SM9221E, EPA 1600, EPA 1603.****Mansfield Facility:****Drinking Water****EPA 200.7:** Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1** Hg.**EPA 522.****Non-Potable Water****EPA 200.7:** Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.**EPA 200.8:** Al, Sb, As, Be, Cd, Cr, Cu, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.**EPA 245.1** Hg.**SM2340B**

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

